

Notice of Final Supplemental Environmental Impact Statement (FSEIS) Availability - SEP2007-40000090529

Notice is hereby given as to the availability of the FSEIS for the Point Ruston Project. The purpose of the FSEIS is to identify and evaluate probable significant environmental impacts that could result from the proposed action and the alternative and to identify measures to mitigate those impacts. An analysis of the potential impacts of the proposed action on global climate change per State of Washington Executive Order No. 07-02 is also attached. This FSEIS is a disclosure document; it evaluates the direct, indirect and cumulative impacts of the Proposed Action, as well as construction-related impacts. The FSEIS does not authorize or recommend a specific action or alternative. Rather, it is one of the key documents that will be considered in the decision-making process for the Point Ruston Project.

The DSEIS was issued for a public comment period from January 16, 2008 through February 14, 2008. Comments that were received regarding the DSEIS are addressed in this FSEIS. Where applicable, amendments and clarifications regarding the DSEIS have been incorporated into this FSEIS.

The FSEIS provides additional site-specific information and analysis concerning the proposed Point Ruston development but does not substantially change the analysis of significant impacts and alternatives that are described in the Master Development Plan EIS. The 1997 Draft and Final EISs for the Master Development Plan are adopted for purposes of SEPA compliance, pursuant to WAC 197-11-630 and City of Tacoma Environmental Code Chapter 13.12.

Copies of this FSEIS are available for review at City of Tacoma, Public Works Department, Building and Land Use Services Division, Room 345, 747 Market Street, Tacoma, WA 98402, Tacoma Public Library Main Branch, 1102 Tacoma Avenue South, Tacoma, WA 98402, and Tacoma Public Library Wheeler Branch, 3722 North 26th Street, Tacoma, WA 98406. The FSEIS may also be reviewed in electronic form at <http://wspwit01.ci.tacoma.wa.us/govME/Permits/Inter/Landuse/Landuse.aspx>.

As of the Issue/Publication Date below, the project proponent has a building permit application pending before the City Building Official. Action on this permit application (or any other "underlying action" for which this FSEIS has been required) may not be taken by the City until after 15 days following the Issue/Publication Date. Appeals of this FSEIS must be filed in conjunction with an appeal of an underlying action. Therefore, if and when the permit is issued, you may file an appeal of this FSEIS in conjunction with an appeal of the underlying action on the permit. Appeals of this FSEIS may be filed with the Superior Court of Washington for Pierce County within 21 days after the City issues the permit. Appeals to Superior Court shall be taken in accordance with procedures and limitations set forth in RCW 43.21C.075, and RCW 36.70C. In addition, a copy of the appeal shall be filed with the Building and Land Use Services Division of the Department of Public Works and the City Attorney's Office, 747 Market Street, Tacoma, WA 98402.

The City of Tacoma does not discriminate on the basis of disability in any of its programs or services. Upon request, special accommodations will be provided within five (5) business days by contacting 591-5363 (VOICE) or 591-5070 (TTY).

Issue/Publication Date: March 27, 2008.



*Final Supplemental
Environmental Impact
Statement*

to the

ASARCO SMELTER SITE
Master Development Plan
Final EIS



*Final Supplemental
Environmental Impact Statement*

to the

ASARCO SMELTER SITE

**Master Development Plan
Final EIS**

prepared for

POINT RUSTON

Project File Number:
40057182/BLD2007

March 2008

City of Tacoma
Public Works Department

*Final Supplemental
Environmental Impact Statement*

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ASARCO SMELTER SITE

**Master Development Plan
Final EIS**

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POINT RUSTON

**Project File Number:
40057182/BLD2007**

**City of Tacoma
Public Works Department**

This Final Supplemental Environmental Impact Statement (FSEIS) has been prepared in compliance with the State Environmental Policy Act of 1971 (Chapter 43.21C, Revised Code of Washington); the SEPA Rules, effective April 4, 1984, as amended (Chapter 197-11, Washington Administrative Code); and Tacoma's Environmental Code (Chapter 13.12, City of Tacoma Municipal Code), which implement SEPA. Preparation of this FSEIS is the responsibility of the City of Tacoma, Public Works Department who has determined that this document has been prepared in a responsible manner using appropriate methodology and has directed the areas of research and analysis that were undertaken in preparation of this document. This FSEIS is not an authorization for an action, nor does it constitute a decision or recommendation for an action; as a Final SEIS – it will accompany the Proposed Action and will be considered in making final decisions concerning the proposal.

Date of Issuance of the FSEIS:.....March ____, 2008

Date of Issuance of the DSEIS:January 16, 2008

PREFACE

The purpose of this Final Supplemental Environmental Impact Statement (FSEIS) is to identify and evaluate probable significant environmental impacts that could result from the *Proposed Action* and the alternative and to identify measures to mitigate those impacts. As such, this FSEIS is a disclosure document. It evaluates the direct, indirect and cumulative impacts of the *Proposed Action*, as well as construction-related impacts. By its nature, this FSEIS does not authorize a specific action or alternative nor does it recommend for or against a particular course of action; but rather, the FSEIS is one of several key documents that will be considered in the decision-making process for this project. A list of expected licenses, permits and approvals is contained in the *Fact Sheet* to this FSEIS (page *iii*). This FSEIS will accompany applications specifically associated with those permit processes and will be considered as the final environmental (SEPA) document relative to those applications.

This document supplements the 1997 ASARCO Smelter Site Master Development Plan EIS.¹ The 1997 EIS is a non-project EIS that identifies and evaluates the probable impacts that could result from four possible alternatives – a No Action Alternative and three project development alternatives of high, middle, and low intensity. This *Point Ruston* document is a project-level EIS and is intended to supplement the 1997 EIS by analyzing new information to address changes in conditions since 1997 and changes in the *Proposed Action*. This FSEIS utilizes the middle intensity development alternative contained in the 1997 EIS as its *No Action Alternative* to focus on the changes.

The environmental elements that are analyzed in this FSEIS were determined as a result of the formal, public EIS scoping process, which occurred October 26, 2007 through November 16, 2007. Comments received during the EIS Scoping period were considered by the City of Tacoma, Department of Public Works in determining the issues and alternatives to be analyzed in the DSEIS and this FSEIS. Seven broad areas of environmental review are evaluated in this FSEIS; they include: *land use; aesthetics (viewshed); housing; environmental health; public parks, recreation and open space; public services and utilities; and transportation.*

The DSEIS was issued for a public comment period from January 16, 2008 through February 14, 2008. Comments that were received regarding the DSEIS are addressed in this FSEIS. Where applicable, amendments and clarifications regarding the DSEIS have been incorporated into this FSEIS. The Table of Contents for this FSEIS is contained on pg. *vii* of this *Fact Sheet*. In general, this FSEIS is organized into five major sections:

- **Fact Sheet** (immediately following this *Preface*) provides an overview of the *Proposed Action* and the *No Action Alternative*, identifies the SEPA responsible official and contact person, notes expected permits/approvals that will be required, provides information concerning the availability of this FSEIS, and it contains the Table of Contents for this document (page *vii*).
- **Section I** (beginning on pg. 1-1) is a comprehensive summary of the *Proposed Action* and the *No Action Alternative* (more so than provided in the *Fact Sheet*), together with a summary of significant environmental impacts, mitigation measures, and unavoidable adverse impacts.

¹ Town of Ruston, 1997a and Town of Ruston, 1997b; please refer to the *References* section of this DSEIS for the complete citation.

- **Section II** (beginning on pg. 2-1) provides a detailed description of the *Proposed Action* and the *No Action Alternative*.
- **Section III** (pg. 3-1) contains an analysis of probable significant environmental impacts that could result from implementation of the *Proposed Action* or the *No Action Alternative* – in terms of each of the seven environmental parameters noted above. This section also identifies possible mitigation measures and unavoidable adverse impacts.
- **Section IV** (pg. 4-1) includes all written comment letters regarding the DSEIS and responses to the substantive comments that are raised in the letters.

FACT SHEET

Name of Proposal	<i>Point Ruston</i>
Proponent	Point Ruston LLC
Location	The <i>Proposed Action</i> would be located on Commencement Bay within the City of Tacoma and the Town of Ruston. The project site is the former ASARCO property that is located along Ruston Way. The Tacoma address of the site is 5005 Ruston Way and the Ruston address is 5211 N. Bennett St. The site encompasses an area of approximately 82 ac., of which, approximately 16 ac. are submerged tidelands. This includes Pierce Co. Assessor parcel numbers 8950003310 (City of Tacoma portion) and 0221231000 and 0221231033 (Town of Ruston portion).
Proposed Action	<p>At full build-out, <i>Point Ruston</i> would involve development of a mixed-use community consisting of approximately 130,000 to 228,000 sq.ft. of retail and commercial space, a 150-room hotel, an estimated 800 to 1,000 dwelling units, approximately 50 acres of publicly accessible parks, recreation areas (including a waterfront promenade that would average 100-feet in width), open space, view corridors and public access with parking (predominantly structured although supplemented with on-street and surface parking lots) for an estimated 3,700 vehicles. In addition, a converted ferry would serve as the sales and leasing office for the project. It is anticipated that the total development may include 30-35 buildings on-site with an estimated total square footage of 1.0 million to 1.3 million sq.ft.</p> <p>With regard to infrastructure improvements, the <i>Proposed Action</i> would involve realignment of Ruston Way (both dedication and vacation), removal of the existing vehicle tunnel, and reconnection to Baltimore Street. In addition, utility improvements (and/or relocations or extensions) would occur in conjunction with the Ruston Way realignment and planned street improvements.</p> <p><i>Point Ruston</i> would be a phased development with implementation occurring over an estimated 8 to 10-year timeframe. The initial building -- which would commence in spring 2008 -- includes development of approximately 21,000 sq.ft. of professional office space over first floor retail in a three-story structure approximately 45 feet in height with parking for at least 73 vehicles.</p> <p>A comprehensive list of required and potentially required project approvals are noted below. Other than the proposed sales and leasing center that would occupy a portion of the <i>Point Ruston</i> ferry, which would be converted for that purpose, all planned development</p>

would occur landward of the Ordinary High Water Mark with no in-water construction.

As noted, the project site is the former ASARCO property, which is undergoing continuing environmental remediation, based on the Second Amendment to the ASARCO Consent Decree with EPA. All buildings and improvements that were formerly located on-site have been removed, consistent with terms of the ASARCO Consent Decree, and the site is being capped per the Second Amendment to the Consent Decree.

One alternative is evaluated in this FSEIS – the *No Action Alternative* which is presumed to involve redevelopment of the project site consistent with the Medium Intensity Alternative in the 1997 EIS which was the alternative used as the basis for the adoption of the ASARCO Smelter *Master Development Plan* by the Town of Ruston (Ord. 1002).

SEPA Lead Agency	City of Tacoma, Public Works Department
Responsible Official	Peter Katich , Land Use Administrator Building and Land Use Services Division Public Works Department City of Tacoma 747 Market St., Rm. 345 Tacoma, WA 98402-3769
Contact Person	Karie Hayashi , Land Use Planner Building and Land Use Services Division Public Works Department City of Tacoma 747 Market St., Rm. 300 Tacoma, WA 98402-3769 Telephone: 253.591.5387 Fax: 253.591.5433 E-Mail: khayashi@cityoftacoma.org
Final Action	Approval of a Building Permit and utility permits for that portion of <i>Point Ruston</i> that is located within the City of Tacoma. Development of subsequent buildings as part of the proposed <i>Point Ruston</i> project may require one or more permits noted below.

Final
Supplemental
EIS

This FSEIS provides additional site-specific information and analysis concerning the proposed *Point Ruston* development, but does not substantially change the analysis of significant impacts and alternatives that are described in the *Master Development Plan* EIS. The 1997 Draft and Final EISs for the *Master Development Plan* are adopted for purposes of SEPA compliance, pursuant to WAC 197-11-630 and City of Tacoma's Environmental Code (Chapter 13.12, Tacoma Municipal Code).

Permit File
Numbers

Information concerning the proposed *Point Ruston* project is contained in the City of Tacoma project file No. 40057182/BLD2007, & permit file No. MPD 2008 - 40000110671

Required
Approvals

The following permits and/or approvals could be required for various elements of the *Proposed Action*. Additional permits/approvals may be identified during the review process.

City of Tacoma

City Council

- Street Vacation (partial)
- Preliminary and Final Plat or Binding Site Plan

Public Works Department

Permits/approvals associated with the proposed project, including:

- Joint Aquatic Resource Permit (JARPA)
- Critical Area Review
- Building Permits
- Mechanical Permits
- Plumbing Permits
- Energy Permits
- Concurrency Authorization
- Certificates of Occupancy
- Grading, Excavation and Erosion Control Permits
- Sign Permits
- Street Improvements (*i.e.*, sidewalks, curbcuts, etc.)
- Street Vacation and Dedication of Right-of-Way (processing)
- Utility Extensions
- Street Use Permits (temporary – construction related)

Tacoma Public Utilities

Permits/approvals associated with the proposed project, including:

- Electrical Permits
- Utility Extensions

Town of Ruston

Permits/approvals associated with the proposed project, including:

- Road Vacation
- Shoreline Master Plan Amendment (possibly required)
- Shoreline Substantial Development Permit
- Land Use Regulation Amendments
- Joint Aquatic Resource Permit (JARPA)
- Preliminary and Final Plat, Short Plat or Binding Site Plan
- Building Permits
- Mechanical Permits
- Plumbing Permits
- Certificates of Occupancy
- Grading, Excavation and Erosion Control Permits
- Sign Permits
- Street Improvements (*i.e.*, sidewalks, curbcuts, etc.)
- Utility Extensions
- Street Use Permits (temporary – construction related)

Washington State Department of Ecology

- Joint Aquatic Resource Permit (JARPA) – jointly with the City of Tacoma/Town of Ruston
- NPDES Permit

U.S. Environmental Protection Agency

- Continued compliance with terms of the Consent Decree

U.S. Army Corps of Engineers – Seattle District

- Section 10 Permit (possibly required)
- Section 404 Permit (possibly required)

Authors and
Principal
Contributors to
this FSEIS

The *Point Ruston* FSEIS has been prepared under the direction of the City of Tacoma Public Works Department. Research and analysis were provided by the following consulting firms:

- **Blumen Consulting Group, Inc.** – lead environmental consultant; project management; document compilation; analysis relative to: aesthetics/viewshed, land use and public service impacts;
- **ESM Consulting Engineers, LLC** – viewshed analysis; utility analysis, surveying;
- **Transportation Solutions Inc.** – transportation, parking and circulation.

Location of
Background Data

City of Tacoma
Public Works Department
Building and Land Use Services Division
City of Tacoma, Public Works Department
747 Market St., Rm. 300
Tacoma, WA 98402-3769

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(425) 883-4134

Date of Issuance of
this FSEIS

March __, 2008

Date of Issuance of
the DSEIS

January 16, 2008

Date DSEIS
Comments are Due

February 14, 2008

Date of Issuance of
the Final EIS

*ASARCO Smelter Site Master Development Plan Final EIS –
October 10, 1997*

Date of Issuance of
the Draft EIS

*ASARCO Smelter Site Master Development Plan Final EIS –
May 16, 1997*

Availability of
this FSEIS

Copies of this FSEIS (hardcopy or compact disc) have been distributed to agencies, organizations and individuals noted on the Distribution List (*Appendix A* to this document).

Copies of this FSEIS are available for review at the following locations:

- **City of Tacoma Public Works Department**, Building and Land Use Services Division, which is located in Room 300 of Tacoma Municipal Building (745 Market St.); at the
- **Tacoma Public Library** – Main Branch (1102 Tacoma Avenue South); and at the
- **Tacoma Public Library** -- Wheelock Library (3722 North 26th Street).

In addition, a limited number of complimentary hardcopies of this FSEIS are available (while the supply lasts) from the City of Tacoma Public Works Department. Additional copies may be purchased at Public Works for the cost of reproduction. The Public Works Department is open 8 AM to 5 PM Monday through Friday. This FSEIS is also available on CD at no cost from the Public Works Department.

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SECTION I

SUMMARY

SECTION I

SUMMARY

1.1 BACKGROUND

An application has been submitted to the City of Tacoma requesting approval of a building permit for the initial building within the proposed *Point Ruston* development.

The *Point Ruston* property is privately-owned by Point Ruston LLC, who purchased the property out of bankruptcy from ASARCO LLC. The project area is currently being restored as part of the CERCLA-Superfund¹ remediation process. The majority of environmental remediation has occurred, with the remainder to be completed as the proposed development is built out. Because remediation activities are conducted under the oversight of the Environmental Protection Agency (EPA), these actions are not subject to the requirements of the State Environmental Policy Act (SEPA). The remediation was the subject of an extensive public involvement and planning process prior to this approved SEIS. This SEIS has been prepared to address development issues and related environmental issues that directly relate to redevelopment of this property following the bankruptcy of ASARCO and discharge of its obligations under the Definitive Agreement and related responsibilities.

Remediation of the property consists of the removal and disposal of soils containing hazardous substances located on the property. An On-site Containment Facility (OCF) has been constructed for excavated soils and slag materials that will remain on the property. The remaining soil material will be re-graded and the entire site will be capped with a protective layer of imported fill. This cap will then be covered with clean backfill to achieve the final surface configuration. Other remediation activities include demolition of remaining buildings and structures on the site, replacement of the surface water drainage system, shoreline armoring, monitoring of surface and groundwater, and development of a program of institutional controls to ensure that development activities do not interfere with the long-term effectiveness of site remediation measures.

The proponent indicates that the proposed *Point Ruston* development would result in the development and construction of an urban village neighborhood where people would live, work, shop and play. A focus of the development is to create a neighborhood that integrates a mix of land uses with public spaces. Within this neighborhood four defined “districts” are envisioned, each with a different concentration of land uses.

Point Ruston is proposed to include residences, shops, restaurants, offices, and a hotel, together with parks, trails and shoreline amenities along Commencement Bay. The completion of this project would also mark the successful remediation of the property to the residential occupancy standards set by the EPA and certification of the project under both the Master Builder Association’s BuiltGreen™ and EPA’s Energy Star programs.

¹ USC, Title 42 Chapter 103

It is anticipated that full build-out of *Point Ruston* could occur within an 8 – 10 year timeframe in phases by district.

Purpose of this FSEIS

The purpose of this Final Supplemental Environmental Impact Statement (FSEIS) is to fulfill applicable environmental requirements of SEPA relative to the analysis of possible environmental impacts associated with the proposed *Point Ruston* development. In essence, impact analysis that is contained in this FSEIS is compared with impacts described in the Draft Environmental Impact Statement (DEIS) for the *ASARCO Smelter Site Master Development Plan* in May 1997 and the Final Environmental Impact Statement (FEIS), published in October 1997, hereby referred to as the 1997 EIS. In addition, this FSEIS contains comment letters received regarding the *Point Ruston* DSEIS with responses to the comments (*Section IV*).

Impacts under this FSEIS are assessed in a comparative manner against those impacts anticipated under the 1997 EIS, particularly concentrating on the following seven areas of the environment that were identified during the SEIS Scoping process, including: *Land Use; Aesthetics/Viewshed; Housing; Environmental Health; Public Parks, Recreation and Open Space; Public Services and Utilities; and Transportation*. The intent of this FSEIS is to enable an area-wide assessment of these key factors, as well as recognize site-specific development constraints. Assumptions for *Point Ruston's* impacts are made under a maximum build-out of the development. If future project-specific actions fit within these maximum development assumptions, this FSEIS should be used to meet SEPA requirements under the *Proposed Action*.

Throughout this FSEIS, mitigation is proposed to impacts that are identified. Future development would be completed under this SEIS and conditioned with appropriate mitigation measures.

1.2 PROJECT DESCRIPTION and ALTERNATIVES

This FSEIS evaluates the environmental impacts of the *Proposed Action* and the *No Action Alternative*. The development baseline for environmental analysis is not an undeveloped site, but rather the development that was approved as the *ASARCO Smelter Site Master Development Plan* and is described as the *No Action Alternative*. It should be remembered that the site continues to undergo Superfund remediation from over 100 years of industrial uses that occurred at the site as the first step toward redevelopment.

Proposed Action

The *Proposed Action* consists of full build-out of the proposed *Point Ruston* development. At full build-out, the project would include the following:

- 800 to 1,000 multifamily units, for sale and for rent, with floor plans ranging from single story to townhome-style units. It is anticipated that full development of the residential component of the project may entail 1,300,000 sq.ft. in living/leasable space in buildings that would range from single story to eight stories in height (25 to 80 ft. above-grade);

- A 150-room hotel complex including at least one restaurant of 5,000 to 6,000 sq.ft, approximately 6,000 sq.ft. of conference/banquet facilities and hotel amenities (e.g., lobby area, exercise room, pool; the building complex would extend to a height of 60 ft.;
- Approximately 100,000 sq.ft. of retail shops, grocery, and food and beverage;
- A 70,000 sq.ft. wellness/fitness center and related retail and services;
- An estimated 60,000 of commercial office space;
- Use of a converted ferry boat as a sales and leasing office for the project;
- Approximately 50 acres of publicly-accessible open space consisting of view corridors, vehicular and pedestrian access, public art and recreational facilities (including a waterfront promenade averaging 100 feet in width); and
- Estimated 3,700 parking spaces (predominantly structured although supplemented with surface parking) for residents, shoppers, guests and the public.

No Action Alternative

The *No Action Alternative* is derived as a result of the previously adopted 1997 EIS for the *ASARCO Smelter Site Master Development Plan*. The 1997 EIS accompanied the *ASARCO Smelter Site Master Development Plan* through the review and approval process.

The 1997 EIS is a non-project EIS that identifies and evaluates the probable significant environmental impacts that could result from four possible alternatives – a *No Action Alternative* and three development alternatives. That EIS divided the site into seven sub-areas (ranging from approximately 3 ac. to 8 ac.) and applied different intensities of development to each sub-area, based on the alternatives. As an overview, the development alternatives included the following:²

- *High-Intensity Alternative* – approximately 1.9 million sq.ft. of development and parking for 6,650 vehicles;
- *Middle-Intensity Alternative* – approximately 991,500 sq.ft. of development and parking for 2,977 vehicles; and
- *Low-Intensity Alternative* -- approximately 241,200 sq.ft. of development with 724 parking spaces.

Subsequent to the completion of the 1997 EIS, the Town of Ruston passed Ordinance 1002 adopting a modified *Middle-Intensity Alternative* to the *ASARCO Smelter Site Master Development Plan* so as to “guide future land use and regulatory amendments and interlocal agreements”. The City of Tacoma adopted zoning code provisions to regulate that portion of the site that is within its jurisdiction.

² See discussion later in this section regarding specifics of each alternative.

The 1997 EIS notes that whereas office use was selected for purposes of the worst-case scenario (highest traffic generating use), “[I]n reality, a different mix of uses could occur.”³ The mix of land uses that were considered for each alternative included: retail, office, light industrial and office business park, as well as outdoor storage or display.

As a non-project document, the environmental analysis that is contained in the 1997 EIS is largely qualitative and based on the general types of environmental impacts that could occur -- with relatively little definitive site-specific impact analysis provided. This approach is appropriate for a non-project EIS where typically less detailed (project specific) information is available. The focus of a non-project EIS involves a comparative analysis of probable impacts between various alternatives -- with less detailed quantitative information provided for any one option. It has been determined that the probable, significant environmental impacts of the four possible future re-development alternatives identified in 1997 were adequately evaluated in the *Master Development Plan* EIS.⁴ That EIS forms the basis for this more detailed project level EIS.

³ Draft 1997 EIS, pg. 2-9

⁴ No challenge to the adequacy of the *Master Development Plan* EIS was raised.

1.3 SUMMARY: IMPACTS and MITIGATION MATRIX

Element of the Environment	Alternative	Impacts	Mitigation Measures	Unavoidable Significant Adverse Impacts (after mitigation)
Land Use	<i>No Action Alternative</i>	<ul style="list-style-type: none"> ▪ Significant environmental impacts of possible future re-development alternatives were adequately evaluated in the <i>Master Development Plan EIS</i>. 	<ul style="list-style-type: none"> ▪ Project specific design for the site should consider the compatibility of potential land uses. ▪ All build alternatives would be consistent with State and Local regulation of this property. 	<ul style="list-style-type: none"> ▪ With mitigation, no significant adverse impacts would occur to land uses.
	<i>Proposed Action</i>	<ul style="list-style-type: none"> ▪ The proposed land use impacts are comparable to those described in the 1997 FEIS and more compatible to surrounding land uses than the 100 years of industrial uses at the site . 	<ul style="list-style-type: none"> ▪ No land use impacts are anticipated and no additional mitigation is deemed necessary in either the City of Tacoma or Town of Ruston; ▪ All development under the Proposed Action shall be in compliance with applicable land use regulations at the time of application which will further ensure compatibility. 	<ul style="list-style-type: none"> ▪ No significant adverse impacts would occur to land uses.

Element of the Environment	Alternative	Impacts	Mitigation Measures	Unavoidable Significant Adverse Impacts (after mitigation)
Aesthetics – Viewshed	<i>No Action Alternative</i>	<ul style="list-style-type: none"> ▪ Potential view blockages could occur in adjacent areas as buildings are constructed. The visual character of the site could change depending on the character, mass, height, scale, and design of the proposed development. View blockage of the near shoreline is probable at points along Ruston Way and lower elevations. Minimal obstruction of existing views of far shoreline and skyline (Commencement Bay, the Puget Sound, Vashon Island, Maury Island, and the mountains beyond) could occur. 	<ul style="list-style-type: none"> ▪ Height limits or zoning criteria already adopted will help protect existing views. ▪ Terracing or stepping buildings away from the waterfront will protect some existing views. ▪ View corridors through the site will protect existing views. ▪ Public access to the near shoreline will provide views of the near shoreline and provide waterfront recreation that serves the public good. 	<p>All development would alter the existing visual character of the site. With mitigation, no significant adverse impacts will occur to aesthetics.</p>

Element of the Environment	Alternative	Impacts	Mitigation Measures	Unavoidable Significant Adverse Impacts (after mitigation)
	<i>Proposed Action</i>	<ul style="list-style-type: none"> ▪ View blockage will actually be reduced from historic impacts of industrial use. ▪ The proposed development would be consistent with the impacts described in the 1997 EIS. View blockage of the near shoreline is probable at points along Ruston Way and lower elevations. Minimal obstruction of existing views of far shoreline and skyline (Commencement Bay, the Puget Sound, Vashon Island, Maury Island, and the mountains beyond) could occur. 	<ul style="list-style-type: none"> ▪ Conformance with height limits or zoning criteria already adopted will help protect existing views. ▪ Terracing or stepping buildings away from the waterfront will protect existing views. ▪ View corridors through the site will protect existing views. ▪ Public access to the near shoreline for views and recreation opportunities. ▪ Landscaping and building design to reduce building dominance and provide a positive aesthetic to improve the visual quality of the area. ▪ Adoption of a Development Plan in Ruston, if required under the code. 	<ul style="list-style-type: none"> ▪ All development would alter the existing visual character of the site. With mitigation, no significant adverse impacts will occur to aesthetics. ▪ Assuming adoption of a Development Plan in the Town of Ruston, no significant impacts would occur.

Element of the Environment	Alternative	Impacts	Mitigation Measures	Unavoidable Significant Adverse Impacts (after mitigation)
Housing	<i>No Action Alternative</i>	<ul style="list-style-type: none"> ▪ Housing-related impacts were not evaluated in the in the 1997 EIS. 	<ul style="list-style-type: none"> ▪ None were proposed. 	<ul style="list-style-type: none"> ▪ None
	<i>Proposed Action</i>	<ul style="list-style-type: none"> ▪ No housing is being removed, new housing is being provided. ▪ 800-1000 market rate residential units would be provided, including approximately 150-200 market-rate apartments and senior rental housing. 	<ul style="list-style-type: none"> ▪ Make 10-15 percent of the for-rent units to be available and affordable to households earning 80 percent of the Annual Median Income. . ▪ Research programs and grants, as well as community partnerships to expand affordable housing opportunities , 	<ul style="list-style-type: none"> ▪ No significant adverse impacts would occur to housing.

Element of the Environment	Alternative	Impacts	Mitigation Measures	Unavoidable Significant Adverse Impacts (after mitigation)
Environmental Health	<i>No Action Alternative</i>	<ul style="list-style-type: none"> ▪ Implementation associated with the <i>No Action Alternative</i> (1997 EIS) would involve site remediation in accordance with the approved EPA Consent Decree. 	<ul style="list-style-type: none"> ▪ Remediation and installation of a site wide cap including placement of building foundations and utility corridors ▪ Superfund compliance with EPA oversight. 	<ul style="list-style-type: none"> ▪ No significant unavoidable adverse impacts are anticipated.
	<i>Proposed Action</i>	<ul style="list-style-type: none"> ▪ The <i>Proposed Action</i> would result in completing all remaining on-site remediation (and significant portions of off-site remediation) to meet the Second Amendment to the Asarco Consent Decree ▪ Remediation/ building phases would be completed and released for occupancy and use following requirements of the Second Amendment to the ASARCO Consent Decree. 	<ul style="list-style-type: none"> ▪ Per Paragraph 17J 30c of the Consent Decree, the proponent will submit design addenda for the remedial action to be performed in phases. ▪ Based on EPA review and under ongoing oversight, the proponent will complete phased remediation and development. ▪ BuiltGreen™ and Energy Star certification of eligible aspects of development and new building construction to reduce potential greenhouse gas emissions 	<ul style="list-style-type: none"> ▪ No significant unavoidable adverse impacts are anticipated.

Element of the Environment	Alternative	Impacts	Mitigation Measures	Unavoidable Significant Adverse Impacts (after mitigation)
Public Parks, Recreation and Open Space	<i>No Action Alternative</i>	<ul style="list-style-type: none"> ▪ The 1997 EIS indicated thirteen main park components occurring in areas both within the real property boundaries of the site and outside the property boundaries. Parks and recreational areas that were planned included: Viewpoint Park, which would be located on the southernmost portion of the property, a South Shore Promenade, various publicly accessible view corridors located throughout the property, a Crescent Park, an artistic Roundabout feature on Ruston Way, and the Bennett Street Promontory. Off-site park and recreational improvements included the Boat Basin View Corridor, Peninsula Park, Breakwater Marina and Promenade, and a Public Boat Ramp Improvement project. 	<ul style="list-style-type: none"> ▪ Conformance with the <i>No Action Alternative</i> would provide mitigation to impacts on Parks and Recreational opportunities. 	<ul style="list-style-type: none"> ▪ No significant adverse impacts to parks and recreational facilities would be anticipated to result from the proposed <i>No Action Alternative</i>.

Element of the Environment	Alternative	Impacts	Mitigation Measures	Unavoidable Significant Adverse Impacts (after mitigation)
	<p style="text-align: center;"><i>Proposed Action</i></p>	<ul style="list-style-type: none"> ▪ The <i>Proposed Action</i> would provide substantially increased recreational and open space opportunities on-site in the form of new public parks, trails, and waterfront access with approximately 50 acres of parks and open space proposed in 12 distinct park and recreation areas. The <i>Point Ruston</i> development would include public and private recreation opportunities, including public parks, private health clubs, over 9 acres of Promenade, as well as assorted other pocket parks. In total, 26 acres of open space, parks, view corridors and public accesses including major thoroughfares are planned within the City of Tacoma and 24 acres are planned within the Town of Ruston. 	<ul style="list-style-type: none"> ▪ Conformance with the <i>Proposed Action</i> would substantially exceed quantitative guidelines for Public Parks, Recreation, and Open Space, as required by Tacoma or Ruston code. 	<ul style="list-style-type: none"> ▪ With implementation of the mitigation measures, no significant adverse impacts to parks and recreational facilities would be anticipated from the proposed <i>Point Ruston</i> development.

Element of the Environment	Alternative	Impacts	Mitigation Measures	Unavoidable Significant Adverse Impacts (after mitigation)
Transportation	<i>No Action Alternative</i>	<ul style="list-style-type: none"> ▪ The <i>No Action</i> alternative would generate 1,304 PM peak hour trips. Mitigation is based on the impact of these project generated trips on the local road network. ▪ Short-term impacts associated with site development would include traffic generated by construction workers and the delivery of materials. 	<ul style="list-style-type: none"> ▪ Mitigation would be the same as the <i>Proposed Action</i>. (See below) 	<ul style="list-style-type: none"> ▪ With the recommended mitigation in place, development of the <i>No Action</i> alternative would not result in significant adverse impacts.

Element of the Environment	Alternative	Impacts	Mitigation Measures	Unavoidable Significant Adverse Impacts (after mitigation)
	<p><i>Proposed Action</i></p>	<ul style="list-style-type: none"> ▪ The <i>Proposed Action</i> would generate 1,376 PM Peak hour trips, similar in number to the <i>No Action</i> alternative but provide a more balanced distribution between inbound/outbound volumes. Mitigation is based on the impact of these project generated trips on the local road network. ▪ Short-term impacts associated with site development would include traffic generated by construction workers and the delivery of materials. 	<p>Ruston Way Mitigation</p> <ol style="list-style-type: none"> 1. Reconstruct Ruston Way to a two lane cross section with curb and gutter on both sides of the street and planting strip and sidewalk on the project side of the street. Provide a center turn lane at stop controlled access along the frontage. 2. Provide bicycle lanes on both sides of the street between the north terminus of the Ruston bicycle/pedestrian trail and the proposed intersection at Baltimore/ Ruston Way. Provide a marked pedestrian crossing on Ruston Way to provide a link between the southbound bicycle lane and the Ruston bicycle/pedestrian trail.et. 3. Decommission the existing tunnel on Ruston Way. 4. Provide a roundabout at the proposed intersection of N. Baltimore Street/ Ruston Way. The roundabout shall be designed to operate at level-of-service D or better at full project build out and year 2014. 5. Provide a roundabout at the proposed intersection southeast of N. Baltimore Street/ Ruston Way. The roundabout shall be designed to operate at level-of-service D or better at full project build out and year 2014. 	<ul style="list-style-type: none"> ▪ With the recommended mitigation in place, development of the <i>Proposed Action</i> would not result in significant adverse impacts.

Element of the Environment	Alternative	Impacts	Mitigation Measures	Unavoidable Significant Adverse Impacts (after mitigation)
	<i>Proposed Action</i>		<ol style="list-style-type: none"> <li>6. Provide a stop controlled access with separate outbound turn lanes at the secondary site access to the south of the primary access. <li>7. Extend the Ruston Way center turn lane starting from the center line of North Alder Street north for approximately 1630 feet to reduce delays for through traffic and to facilitate left turns to parking lots. Extend the Ruston Way center turn lane starting from the center line of North Alder Street south for approximately 930 feet to provide a refuge for northbound left turns into the existing parking lots. To protect existing parking facilities, the City reserves the right to reduce the length of the new center turn lanes required for mitigation. <li>8. Ruston Way & N Alder Street – Signalize the intersection of North Alder Street and Ruston Way to improve intersection operation from level-of-service F to level-of-service D or better for any movement. <li>9. Ruston Way & McCarver Street – Modify the vehicle signal head for the westbound (Ruston Way) left-turn onto McCarver Street from a permissive left-turn to a protected/permissive left-turn. <li>10. Ruston Way & N 49th Street – Signalize the intersection of Ruston Way and North 49th Street if an analysis indicates the delay for any movement exceeds level of service ‘D’ and/or meets accident warrants. The traffic signal will reduce delays experienced by left-turning vehicles and will increase pedestrian safety. <li>11. 	

Element of the Environment	Alternative	Impacts	Mitigation Measures	Unavoidable Significant Adverse Impacts (after mitigation)
	Proposed Action		<p><u>Baltimore Street Mitigation</u></p> <ol style="list-style-type: none"> 1. Provide a two-lane roadway with bike lanes to reconnect N. Baltimore Street with Ruston Way. 2. Provide curb and gutter on the west side of Baltimore Street north of N. 49th Street where needed. (Improvements to the east side of the street are provided as part of the Stack Hill development.) 3. Provide curb, gutter, and sidewalk between N. 49th Street and N. 46th Street where needed. 4. Upgrade existing or add new street lighting to meet current arterial street standards. 5. Develop a channelization plan for the segment of Baltimore between N. 49th Street and N. 46th Street that provides for a single travel lane in each direction, additional road width for bicycles, and accommodates parallel parking within the usable right of way. The plan should minimize impacts to existing land uses. Review and refine plan with City staff and construct improvements. 6. N. 46th Street & N. Baltimore Street - Provide eastbound and westbound left turn lanes and a southbound right turn lane. Reconstruct the sidewalks/curb ramps at the corners of the intersection to meet current road standards. Provide a marked pedestrian crossing on N. 46th Street with warning signs and beacons as per City street standards. 	

Element of the Environment	Alternative	Impacts	Mitigation Measures	Unavoidable Significant Adverse Impacts (after mitigation)
			<p><u>Non-Motorized Improvements</u></p> <ol style="list-style-type: none"> 1. Pedestrian and bicycle access to the waterfront for the general public will be improved with the proposed waterfront promenade that will connect the north terminus of the Ruston bicycle/pedestrian trail with the proposed Peninsula Park. 2. Bicycle lanes will be provided on Ruston Way between N. Baltimore Street and the north terminus of the Ruston bicycle/pedestrian path. 3. A bicycle route will be included with improvements to the segment of N. Baltimore Street between Ruston Way and N. 46th Street. 4. Provide secure bicycle parking facilities to accommodate a minimum of 75 bicycles. <p><u>Other Improvements</u></p> <ol style="list-style-type: none"> 1. Design the internal roadway to provide for a future access to Peninsula Park when it is developed. 2. In coordination with Pierce Transit, design the internal roadway to provide for future transit service. 	

Element of the Environment	Alternative	Impacts	Mitigation Measures	Unavoidable Significant Adverse Impacts (after mitigation)
			<p><u>Schedule for Making Improvements</u> The proponent will commit to providing the identified frontage improvements on Ruston Way and Baltimore Street by the time the project generates 450 PM peak hour trips (30% of the total trips forecasted). All other improvements will be in place by the time the project site generates 600 PM peak hour trips (40% of the total trips forecasted). This commitment will ensure that all of the mitigation is in place by the time 40% of the forecasted PM peak hour project generated trips materialize.</p>	

Element of the Environment	Alternative	Impacts	Mitigation Measures	Unavoidable Significant Adverse Impacts (after mitigation)
			<p>4. Provide secure bicycle parking facilities to accommodate a minimum of 75 bicycles.</p> <p><u>Other Improvements</u></p> <p>1. Design the internal roadway to provide for a future access to Peninsula Park when it is developed.</p> <p>2. In coordination with Pierce Transit, design the internal roadway to provide for future transit service.</p> <p><u>Schedule for Making Improvements</u></p> <p>The proponent will commit to providing the identified frontage improvements on Ruston Way and the connection to Baltimore Street by the time the project generates 450 PM peak hour trips (30% of the total trips forecasted). All other improvements will be in place by the time the project site generates 600 PM peak hour trips (40% of the total trips forecasted). This commitment will ensure that all of the mitigation is in place by the time 40% of the forecasted PM peak hour project generated trips materialize.</p>	

SECTION II

PROJECT DESCRIPTION and
ALTERNATIVE

SECTION II

PROJECT DESCRIPTION and ALTERNATIVE

2.1 PROPONENT/PROJECT LOCATION

2.1.1 Proponent

Point Ruston is sponsored by Point Ruston LLC, which is located at 5219 North Shirley St., Suite 100, Ruston, WA 98407

2.1.2 Project Location

The *Proposed Action* would be located along Commencement Bay with a portion of the site in the City of Tacoma and another portion in the Town of Ruston (see Figures 1 and 2). The project site is the former American Smelting and Refining Co. (ASARCO) property that is located on Ruston Way and is proximate to Ruston Way Park and the Tacoma Yacht Club. The site encompasses an area of approximately 82 acres – of which, 66 acres are landward of the Ordinary High Water Mark (OHWM) and 16 acres are submerged tidelands. The portion of the site that is located within the City of Tacoma is 44.4 acres and approximately 37.8 acres are located within the Town of Ruston. The project site includes a shoreline area with roughly 4,800 lineal feet of shoreline and along Commencement Bay; a segment of this shoreline is in the City of Tacoma and a segment is in the Town of Ruston. The upland area beyond is also divided between the two jurisdictions.

Other project identifiers include:

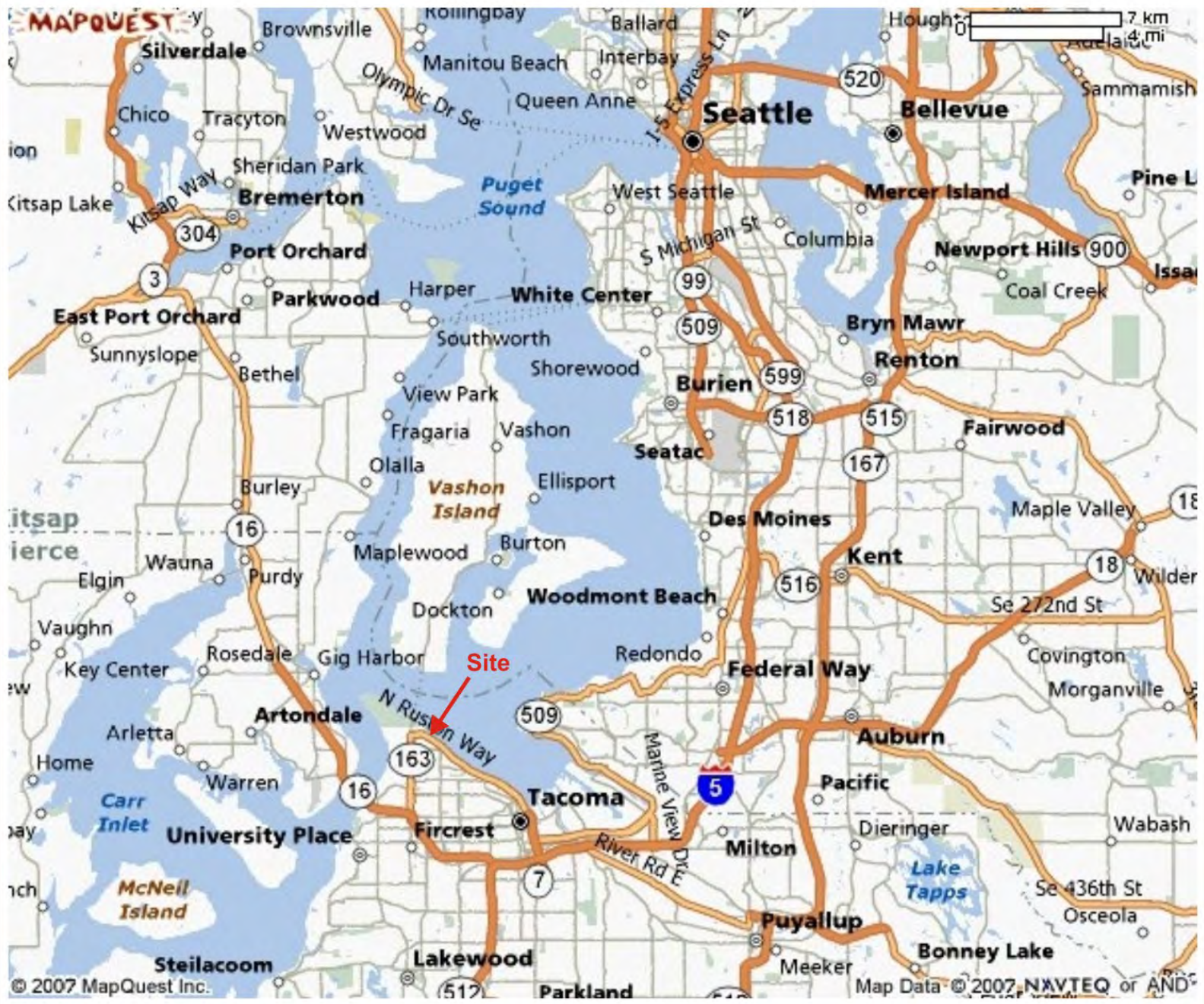
Address:

- City of Tacoma -- 5005 Ruston Way
- Town of Ruston -- 5211 N. Bennett St.

Pierce Co. Assessor Parcel Numbers:

- City of Tacoma Portion of the Site -- 8950003310
- Town of Ruston Portion of the Site -- 0221231000 and 0221231033

Legal Description: The complete legal description of the Point Ruston property is contained in Appendix F.



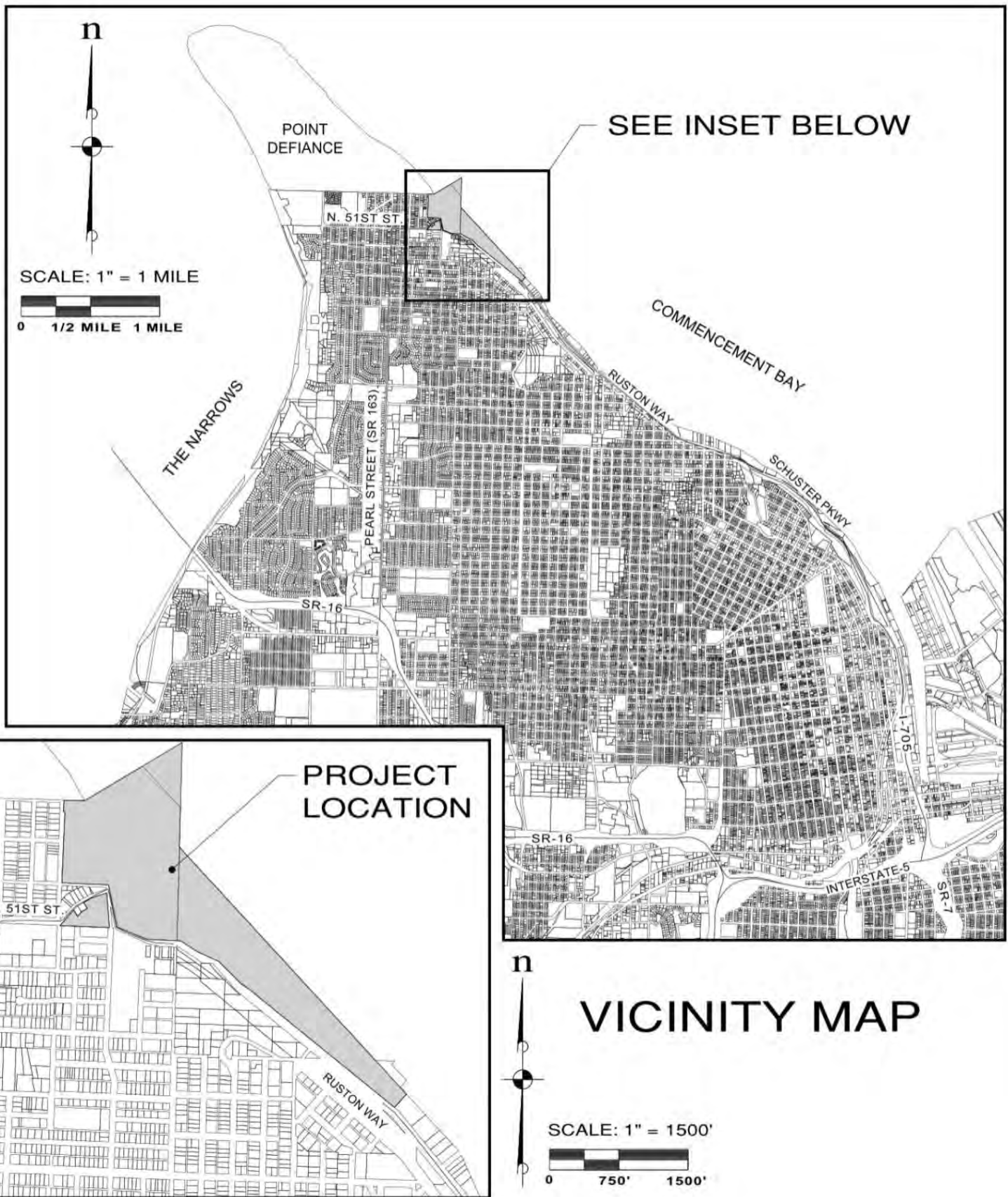
Source: Mapquest, 2007



Point Ruston Supplemental EIS

Figure 1

Regional Map



Source: ESM, 2007



Point Ruston Supplemental EIS

Figure 2

Vicinity Map

2.2 PROJECT OVERVIEW

Point Ruston LLC has formulated a master plan for long-term redevelopment of the project site. The *Proposed Action* would transform the former ASARCO Superfund site into a new mixed-use neighborhood where people would live, work, shop and play. A focus of the development is to create an urban village neighborhood that integrates a mix of uses with public spaces. Within this neighborhood four defined “districts” are envisioned each with a different concentration of land uses.

As outlined below, *Point Ruston* would include residences, shops, restaurants, offices, a hotel together with parks, trails and shoreline amenities along Commencement Bay. The completion of this project would also mark successful remediation of the property to the residential occupancy standards set by the EPA. In addition, the proponent endeavors to make *Point Ruston* a model of environmentally responsible development and has committed to seeking certification under both the Master Builder Association’s BuiltGreen™ and EPA’s Energy Star programs.

When implemented, the master plan would provide substantial new opportunities for public enjoyment and access to the waterfront that do not currently exist and have not existed for over the last 100 years.

At full build-out, the project would include the following:

- 800 to 1,000 multifamily units, for sale and for rent, with floor plans ranging from single floor to townhome-style units; it is anticipated that full development of the residential component of the project may entail 1,300,000 sq.ft. in living/leasable space in buildings that would range from single story to eight stories in height (25 to 80 ft. above-grade);
- 150-room hotel complex including at least one restaurant of 5,000 to 6,000 sq.ft, approximately 6,000 sq.ft. of conference/banquet facilities and hotel amenities (e.g., lobby area, exercise room, pool; the building complex would extend to a height of 60 ft.;
- approximately 100,000 sq.ft. of retail shops, grocery, and food and beverage;
- 70,000 +/- sq.ft. wellness/fitness center and related retail and services;
- an estimated 60,000 of commercial office space;
- use of a converted ferry boat as a sales and leasing office for the project;
- approximately 50 acres of publicly-accessible parks, open space, view corridors, vehicular and pedestrian thoroughfares, public art and recreational facilities, including a waterfront promenade (with an average width of 100-feet); and an
- estimated 3,700 parking spaces (predominantly structured, supplemented with on-street and surface parking lots) for residents, shoppers, guests and the public.

It is anticipated that full build-out of *Point Ruston* could occur within an 8 – 10 year timeframe in phases by district (described below). The first buildings would be located in the Viewpoint District within the City of Tacoma at the southeast end of the project site. Construction of the first building would commence in spring 2008 and would include approximately 21,000 sq.ft. of commercial space and parking for approximately 73 vehicles.

2.3 BACKGROUND INFORMATION

This portion of the SEIS provides an overview of factors that influence the *Proposed Action*, including: site history, the 1997 EIS, the ASARCO *Master Development Plan*, SEPA considerations, remediation status and existing site conditions.

2.3.1 Site History

ASARCO and its predecessors¹ operated a smelting and refinery operation at the site beginning in 1888.² That operation continued for nearly 100 years until 1985 when the plant was closed.

Ore that was processed at the plant included lead and copper. By-products of the smelting operation were further refined to produce other marketable products including: arsenic, liquid sulfur dioxide and slag. Ore was transported to the site and processed from mining operations that occurred throughout the U.S., as well as worldwide.

In 1983, the plant was included on a list of over 300 businesses and nearly 500 point and non-point sources within a 12 sq. mile area of Tacoma (Commencement Bay Nearshore/Tideflats Site – EPA ID# WAD980726368). The list, known as the National Priorities List,³ is for informational purposes and identifies

“facilities and sites or other releases that appear to warrant remedial action. Inclusion of a facility or site on the list does not in itself reflect a judgment of the activities of its owner or operator, it does not require those persons to undertake any action, nor does it assign liability to any person. Subsequent government actions in the form of remedial actions or enforcement actions will be necessary in order to do so, and these actions will be attended by all appropriate procedural safeguards.”⁴

In an Administrative Order of Consent signed by EPA in 1986, ASARCO agreed to perform immediate site stabilization activities and begin site investigation. In 1992, EPA and ASARCO signed a Consent Decree for demolition of site structures including the smelter stack. ASARCO completed the site investigation that was used to develop the final site remedy and demolished the stack in 1993. Additional structures were demolished in 1993/1994, with the final building being demolished in 2004.

Between 1993 and 1994, the key stakeholders⁵ achieved an agreement with ASARCO regarding the general approach to remediation and re-use of the former plant site. In 1995, the U.S. Environmental Protection Agency (EPA) issued a Record of Decision (ROD) that described the remediation necessary for “soil, slag and surface water, for on-site placement without

¹ Tacoma Milling and Smelting Co. (1888), Tacoma Smelting and Refining Co. (1890) and American Smelting and Refining Co. (1905)

² Prior to the smelter and refinery operation, a portion of the site was used as a sawmill.

³ National Priorities List of Contaminated Superfund Sites – part of the National Contingency Plan pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. 9601-9657 (“CERCLA”)

⁴ <http://www.epa.gov/superfund/sites/npl/f830908.htm>

⁵ ASARCO, City of Tacoma, Town of Ruston and the Metropolitan Park District

treatment of soils with elevated concentrations of arsenic and other metals, demolition debris, and residential soils associated with the Smelter Site.”⁶ Key aspects of the ROD included:

- excavation of approximately 160,000 cubic yards (cy) from the five most contaminated source areas on the Smelter Site;
- construction of the On-site Containment Facility (OCF) on the property and disposal of the excavated soils and slag, plus approx. 80,000 cy of demolition debris, in the OCF;
- capping of the Smelter Site;
- demolition of the remaining buildings and structures on the property;
- replacement of the surface water drainage system at the Smelter Site;
- shoreline armoring, to the extent required, following shoreline erosion evaluations;
- monitoring of Smelter Site groundwater and surface water; and
- development of a program of restrictions and guidelines to ensure that development activities do not interfere with the long-term effectiveness of the remedy.

These elements formed the basis of the Consent Decree that was negotiated between EPA and ASARCO which was entered in U.S. District Court on January 3, 1997. The Consent Decree outlines the work, plans, reports and other submittals and deliverables required by EPA for the upland remediation. A ROD for the sediments and groundwater cleanup was issued in 2000. The major elements of the plan called for dredging the contaminated sediments in the yacht basin and capping contaminated sediments in the nearshore/offshore area (approx. 18 ac.) adjacent to the upland portion of the site. In order to accommodate the in water capping the existing docks placed in the DNR tidelands will also be removed. Groundwater is addressed by reducing water contact with the site’s contaminated soils by capping the site as required in the 1997 Consent Decree for upland remediation. EPA issued a unilateral order to ASARCO in 2002 for the sediment work. ASARCO completed the remedial design for the sediments work under the order, but not the cleanup.

Upland site cleanup by ASARCO began in 1998, consistent with terms of the 1997 Consent Decree. Cleanup of the site, originally scheduled for completion in 2003, was delayed as a result of ASARCO’s limited funding availability. Sale of the Tacoma Smelter site was already in progress when ASARCO filed for bankruptcy in August 2005. As of 2005, the OCF had been constructed, all of the source area material had been placed in the OCF, and it had been capped. The last buildings on the site were demolished and much of the shoreline armoring was completed.

As part of the sale of ASARCO’s assets in bankruptcy, the site was sold through a nationwide auction in 2006 to MC Construction Consultants, Inc. MC Construction Consultants, Inc. assigned its interest to Point Ruston, LLC. As a condition of the sale agreement, Point Ruston, LLC is responsible for the remaining smelter cleanup work, as well as cleanup of some adjacent lands – capping the slag peninsula, capping offshore sediments, and excavating shallow sediments in the yacht basin. Residential soils from the ongoing Ruston/North Tacoma yard remediation project will continue to be accepted at the site for placement under the site-wide cap. EPA, the U.S. Department of Justice and Point Ruston LLC negotiated a settlement – the Second Amendment to the ASARCO Consent Decree (2006 Consent Decree) – for the remaining cleanup work. EPA held public meetings in August 2006 to discuss the sale and cleanup of the ASARCO Smelter site and invited public comments. Point Ruston, LLC began remediation in 2006 with acceptance and placement of residential soils, continued site monitoring, and placement of the offshore portion of the nearshore/offshore sediment cap.

⁶ Draft EIS, pg. 1-4

Point Ruston, LLC will complete remediation of the upland smelter, cap the slag peninsula, complete capping of the offshore sediments, and excavate the shallow sediments in the yacht basin, as specified in the 2006 Consent Decree and associated Scope of Work. As described in these documents, remediation and development will be completed concurrently with construction of hard surfaces on-site (e.g., building foundations, roadways, pathways and the promenade), serving as part of the site cap.

Remediation work is being conducted under provisions of the federal Superfund Program with EPA oversight and, as such, has undergone a lengthy and comprehensive public review and involvement process. As a federal action, remediation is not subject to the procedural requirements of SEPA.⁷ Oversight of initial remediation during the redevelopment process and the future operations and maintenance of the remedy remains under the authority of the EPA.

2.3.2 Master Development Plan EIS

A Draft Environmental Impact Statement (Draft EIS) was published for the *ASARCO Smelter Site Master Development Plan* in May 1997 and the Final Environmental Impact Statement (Final EIS) for that project was published in October 1997. These documents are collectively referred to as the “1997 EIS.”

The 1997 EIS is a non-project⁸ EIS that identifies and evaluates the probable significant environmental impacts that could result from four possible alternatives – a *No Action Alternative* and three development alternatives. The EIS, using prototypical development plans arranged in seven subareas of the site (ranging from approximately 3 ac. to 8 ac.) applied different intensities of development to the property based on the alternative. As an overview, the development alternatives included the following:⁹

- *High-Intensity Alternative* – approximately 1.88 million sq.ft. of development and parking for 6,650 vehicles;
- *Middle-Intensity Alternative* – approximately 991,500 sq.ft. of development and parking for 2,977 vehicles; and
- *Low-Intensity Alternative* -- approximately 241,200 sq.ft. of development with 724 parking spaces.

The *High-Intensity Alternative* is important from a SEPA standpoint in that it presents a possible worst-case analysis with regards to potential adverse environmental impacts.

The 1997 EIS notes that whereas office use was selected for purposes of the worst-case scenario (highest traffic generating use), “(i)n reality, a different mix of uses could occur.”¹⁰ The mix of land uses that were considered for each alternative included: retail, office, light industrial and office business park, as well as outdoor storage or display.

⁷ WAC 197-11-250

⁸ A non-project SEPA document is one that is broader than a single site-specific proposal and may include plans, development with multiple alternatives, etc. (see also WAC 197-11-774).

⁹ See discussion later in this section regarding specifics of each alternative.

¹⁰ Draft EIS, pg. 2-9



Source: GoogleEarth, 2007



Point Ruston Supplemental EIS

Figure 3

Existing Conditions

As a non-project document, the environmental analysis that is contained in the EIS is largely qualitative and based on the general types of environmental impacts that may occur with relatively little definitive site-specific impact analysis provided. This approach is appropriate for a non-project EIS where typically less detailed (project specific) information is available. The focus of a non-project EIS involves a comparative analysis of probable impacts between various alternatives -- with less detailed quantitative information provided for any one option. It has been determined that the probable, significant environmental impacts of possible future re-development alternatives were adequately evaluated in the 1997 EIS which then provides the basis for the more detailed project specific analysis of the Point Ruston proposal. Within this FSEIS.¹¹

The proposed *Point Ruston* development encompasses an area of approximately 82 acres – roughly 16 ac. of which are submerged tidelands. In addition to the area associated with *Point Ruston*, the *Master Development Plan* also included adjacent Metropolitan Park property (approx. 30+ ac.). While the park property will benefit from *Point Ruston* -- as a result of additional access points and utility extensions through *Point Ruston* -- development of the Metropolitan Park property is not part of the proposed *Point Ruston* development.

All components of the proposed project are either within the range of actions and impacts that were evaluated as part of the *Master Development Plan* EIS or are evaluated within this FSEIS. Residential uses which are a part of this proposal were contemplated by the Stakeholders and conditioned upon ASARCO's approval in the *Master Development Plan*.¹² Subsequently, the S-6 zoning adopted in Tacoma and Resolution 333 in Ruston support the inclusion of residential uses as a part of the project. ASARCO's approval has also been received by Point Ruston, LLC (see letter at *Appendix C* of this FSEIS).

Environmental parameters that were evaluated in conjunction with the 1997 EIS include the following:

■ Earth	■ Air Quality
■ Water	■ Plants and Animals
■ Wetlands	■ Energy and Natural Resources
■ Noise	■ Hazardous Materials
■ Aesthetics	■ Transportation
■ Land Use	■ Consistency with Land Use Plans and Policies
■ Population, Housing and Employment	■ Light, Glare and Shadows
■ Recreation	■ Historic and Cultural Resources
■ Public Services and Utilities	

¹¹ No challenge to the adequacy of the 1997 EIS was raised.

¹² See *Master Development Plan*, Section D.1.6.5

Each of the parameters listed above were evaluated in light of the following alternatives.

- **Alternative 1 -- No Action:** This alternative, which is required by SEPA, involved no new on-site development – other than completion of remediation activities and pre-development activities (e.g., roadways and the creation of building pads). The site area would be capped, consistent with terms of the Consent Decree, and the site prepared for development, including:
 - building pad sites would be created for future development;
 - finished roads would be provided to serve the building pad sites and include lighting and sidewalks;
 - a roundabout would be constructed to serve the site, as well as provide a viewing area to Commencement Bay, Mount Rainier, and both near and distant viewpoints;
 - Ruston Way would be realigned to intersect with the roundabout and the automobile tunnel would be abandoned and either removed or filled;
 - a Peninsula Park Road would be provided to link the project site to the Breakwater Peninsula Park and Yacht Club;
 - two view corridors would be provided in the south-half of the project site, a Viewpoint Park in the southernmost portion of the site, and a Boat Basin View Corridor in the north portion of the site;
 - modifications and improvements to nearby roadways would be provided; and
 - a 25-foot wide, concrete Pedestrian Promenade would be provided along the shoreline linking Ruston Way with the promenade at the shore of Point Defiance Park.

- **Alternative 2 – Low-Intensity Alternative:** This alternative would build on the site preparation work and improvements associated with the *No Action Alternative*. Specific elements of this alternative include:
 - the mix of land uses could include retail, office, light industrial, and office business park;
 - approximately 241,200 sq.ft. of development would be possible with this alternative;
 - overall site Floor Area Ratio (FAR):¹³ approximately 0.15;
 - an estimated 724 parking spaces could be provided;
 - all parking would be surface parking;
 - building height assumed a maximum height of four stories; and
 - no new off-site infrastructure improvements (e.g., roads, utilities, etc.) would be necessary.

¹³ This is the ratio of the amount of total square footage associated with on-site development compared with the total site area.

- **Alternative 3 – Medium - Intensity Alternative:** This alternative would also build on the site preparation work and improvements associated with the *No Action Alternative*. Specific elements of this alternative include:
 - same potential mix of land uses as outlined for Alternative 2 -- retail, office, light industrial, and office business park;
 - approximately 991,500 sq.ft. of development would be possible with this alternative;
 - Floor Area Ratio: approximately 0.75
 - an estimated 2,977 parking spaces could be provided;
 - assumed that a portion of the parking would be located on decks or beneath the buildings;
 - it was assumed that the maximum building height would be sixty feet;¹⁴ and
 - additional off-site infrastructure improvements (e.g., roads, utilities, etc.) would be necessary.

- **Alternative 4 – High-Intensity Alternative:** This alternative would also build on the site preparation work and improvements associated with the *No Action Alternative*. Specific elements of this alternative include:
 - same potential mix of land uses as outlined for Alternative 2 -- retail, office, light industrial, and office business park;
 - approximately 1,883,360 sq.ft. of development would be possible with this alternative;
 - overall site FAR: approximately 1.17;
 - an estimated 6,650 parking spaces could be provided;
 - most parking would be in parking structures, either free-standing or included as part of a building;
 - it was assumed that some buildings would be taller than four stories and that specialized foundations might be utilized (e.g., pilings or caissons); the EIS site plan that accompanied the description of this alternative (Fig. 2-4) depicted development at 3-9 stories; most, however, were shown at 6-7 stories; and
 - additional off-site infrastructure improvements (e.g., roads, utilities, etc.) would be necessary.

2.3.3 Master Development Plan

The ASARCO *Master Development Plan*, with modifications and additions (dated December 8, 1997), was adopted by the Town of Ruston as Ordinance No. 1002 to “*guide future land use and regulatory amendments and interlocal agreements*” (Ord. 1002). Ordinance 1002 contained Addendum A, which stated desired modifications and additional considerations in reference to the site plan, allowed uses, infrastructure, parks and open space, and on-site development.

The City of Tacoma did not adopt the ASARCO *Master Development Plan* -- instead relying on the comprehensive regulations embodied in the S-6 zoning, which applies to the project site.

¹⁴ The EIS site plan that accompanied the description of this alternative (Fig. 2-3) depicted development at 3-4 stories.

2.3.4 Development Strategy Team

The City of Tacoma, Town of Ruston, Metro Parks, and ASARCO formed a stakeholders group in 2000 called the Development Strategy Team (DST). The DST was supportive of speeding up the schedule for site remediation, removing barriers to redevelopment, and achieving economic development goals, such as job creation and tax revenues. The DST met on a frequent basis until 2005 and addressed numerous issues including the introduction of residential development as an appropriate land use and necessary changes to local zoning code and associated environmental analysis, grants and funding proposals to cover maintenance and operation of open spaces and shoreline promenade, and interlocal agreements for utilities, etc.

In May, 2001, the DST formed a subcommittee to review a series of redevelopment options such as an office campus, mixed-use neighborhood with housing, office, retail, etc. As a stakeholder, the City of Tacoma's Economic Development Department contracted with DeLoitte Touche/Fantus to assess the feasibility of an office or light-industrial campus to accommodate numerous employers or a single, large employer with office and light-industrial operations such as a Microsoft or Intel. The Fantus team toured competitive regional commercial/industrial properties and held interviews with stakeholders and utility providers over a two-day period. Their conclusion was that the ASARCO site, when measured against common site location parameters used by companies seeking to relocate or expand their operations, would have difficulty competing with properties that are located on an interstate highway, have existing infrastructure and significant utility capacity, are located within one permitting jurisdiction, are not subject to environmental requirements, are available for purchase -- rather than lease, and are less expensive to develop.

At the recommendation of the Development Strategy Team, each of the public stakeholders brought to their governing councils the issue of adding residential development to the project site as an appropriate land use and received unanimous support for the concept.

2.3.5 Current Project Status

As noted previously, in 2005 ASARCO filed for bankruptcy. As part of the sale of ASARCO's assets, a nationwide auction was held in spring 2006 and the purchase awarded to MC Construction Consultants, Inc., the high bidder, which assigned the contract to Point Ruston, LLC. Simultaneously with the purchase of the property, Point Ruston, LLC assumed liability for continuing the remediation of the site and some adjacent property under the Second Amendment to the ASARCO Consent Decree with the EPA. Master planning and design for the development was coordinated with remedial tasks and schedule required by the consent decree as development will require oversight and approval by the EPA.

Application

Applications (i.e., preliminary plat, shoreline substantial development permit, street vacation) for that portion of the proposed *Point Ruston* development that would be located within the City of Tacoma was submitted to the City on February 19, 2007. Included with that submittal were site plans, supporting information, and an environmental checklist that included supplemental analyses relative to traffic, cultural resources and viewshed impacts. Subsequently, a Building Permit application was submitted for the initial building within the proposed development and,

because of timing associated with development that triggered the need for the other permits (i.e., preliminary plat, shoreline substantial development permit, street vacation), those permit applications were withdrawn.

SEPA Compliance

Coordination between the City of Tacoma and the Town of Ruston ensued to confirm the role of each agency relative to SEPA Lead Agency responsibilities for the project. Since the initial application was submitted to the City and given that the greater area of the site is located in the City, it was concluded by the City of Tacoma that it would assume Lead Agency with the responsibility of complying with the procedural requirements of SEPA.

In April, the City transmitted the Environmental Checklist together with application materials associated with the preliminary plat and the shoreline substantial development permit to 24 public agencies and organizations, including various City departments, the Town of Ruston, Metro Parks, the Tacoma School District, the Puyallup Tribe of Indians, and key resource agencies. Written comments were received from 14 agencies and City and Town departments, one organization and two individuals.

The City of Tacoma considered the issues raised by commenting agencies, organizations and individuals and concluded that the *Proposed Action* “is likely to have a significant impact on the environment.” On October 26, 2007, as SEPA Lead Agency, the City of Tacoma Public Works Department issued a Determination of Significance (DS)/Scoping Notice. The City required that a Supplemental EIS (supplement to the 1997 EIS) be prepared to accompany the permit applications through the review processes.

The DS was also an adoption notice – adopting the 1997 EIS that was prepared for the *Master Development Plan*. The notice indicated that the environmental document that is to be prepared for the *Point Ruston* development is a Supplemental EIS. A Supplemental EIS adds information and analysis to supplement information contained in a previous EIS. In part, the Supplemental EIS relies on environmental analyses contained in another EIS. It may address new alternatives, new areas of possible significant adverse impact, or add additional analysis or better site specific information to supplementing analyses contained in the previous EIS. The Supplemental EIS follows the same requirements as an EIS -- in that a Supplemental Draft EIS is prepared and issued, there is a public comment period associated with the Supplemental Draft EIS, and a Supplemental Final EIS is prepared. Like the EIS process, agency decision-making is based on the Supplemental Final EIS.

Issuance of the DS initiated two actions:

- it established an appeal period concerning the Determination of Significance, which ended November 9, 2007; and it
- established a Scoping period¹⁵ associated with the Supplemental EIS, which ended November 16, 2007.

During the DSEIS Scoping period, 22 comment letters were received by the City of Tacoma from agencies, organizations and individuals. These comments are included in the project file

¹⁵ Scoping is an optional process for a Supplemental EIS.

(refer to the project number noted in the *Fact Sheet* of this FSEIS). Following the conclusion of the EIS Scoping period and review of the comments received, the City of Tacoma determined the alternatives that were to be evaluated in the DSEIS and the range of environmental parameters.

2.3.6 Existing Site Characteristics

The project site is depicted in Figure 3. As noted, the proposed *Point Ruston* development project would be located on the former site of ASARCO. The site has been cleared of all buildings and structures, all upland portions of the property continue to be fenced,¹⁶ and the site continues to undergo remediation in compliance with EPA Consent Decrees (see discussion in 2.3.1 above). On-going site activities include grading and capping, which consists of adding a 3-foot thick soil cap that includes a 1-foot thick impermeable layer and a 2-foot layer of clean soil, or its equivalent as determined by EPA. The site has been built up over previous years with soil imported from the remediation of surrounding residential properties. As the EPA continues to remediate residential yards, soil continues to be brought to the site for placement under the cap. Stock piles of soil from residential yards, as well as imported clean soils to accomplish the final capping are present on the site. Final grading to control drainage will result in a slope of 2 to 2.75 percent rising from the shoreline of Commencement Bay to Ruston Way.

¹⁶ A 6-foot high cyclone fence surrounds the upland portion of the site. This fence replaced the site fencing that occurred when the ASARCO plant was operational.

2.4 PROJECT OBJECTIVES

The following are the proponent's objectives for the proposed *Point Ruston* development project. The objectives for this project are based in large part on the proponent's accepted responsibility to meet obligations of the EPA Consent Decrees mandating the completion of remediation activities on the property,¹⁷ as well as additional off-site obligations and significant public amenities required as part of redevelopment of the project site. Specific objectives include:

- complete redevelopment of the former ASARCO Tacoma Smelter property in a feasible manner that enables remediation work to occur concurrent with phased redevelopment of the property, consistent with the Consent Decree and schedule agreed upon by EPA;
- provide for the redevelopment of the site from a major industrial contributor to greenhouse gas emissions to a mixed-use development that utilizes BuiltGreen® and Energy Star development and construction techniques;
- construct a viable mixed-use urban village neighborhood on the site of the former ASARCO smelter with districts accommodating a mix of residential units in a variety of sizes and floor plans, a hotel complex, and retail and commercial office space in addition to public amenities, access and parking, open space and green space (e.g. park/park-like areas);
- subdivide, condominiumize or otherwise segregate the project site into lots or units for potential, future individual resale and establish a Community Association to manage the long term operation and maintenance of the entire development;
- the impacts should be generally consistent with the level of impacts assessed in the earlier adopted EIS;
- relocate and modify that portion of Ruston Way proximate to the project site consistent with the alignment recommended by the Development Strategy Team along the southern edge of the property eliminating the vehicle tunnel, reconnecting Baltimore Street;
- provide vehicular, bicycle and pedestrian connections and utility stubs to the Metropolitan Park District's Yacht Basin property and Peninsula Park serving as a connection between the existing Ruston Way Parks and Point Defiance Park; and
- to achieve financial feasibility, the first buildings to be built should be within the View Point District at the southeast end in the upland portion of the project site where they may be permitted to commence and be occupied, utilizing existing infrastructure prior to completion of the realignment of Ruston Way and major infrastructure extensions into the balance of the site; and
- develop a project that meets the needs of the market and provides adequate financial return to pay for significant public amenities and for current and future investors.

¹⁷ The requirements of the EPA and the Consent Decree are not a subject of this proposal, but they are related in that commitments made by the proponent as a bona fide prospective purchaser were based on the expectation of the ability to redevelop the property in a manner generally consistent with the current codes and with impacts similar to those previously analyzed as part of the *Master Development Plan* process.

2.5 DESCRIPTION OF THE PROPOSED ACTION

2.5.1 Project Overview

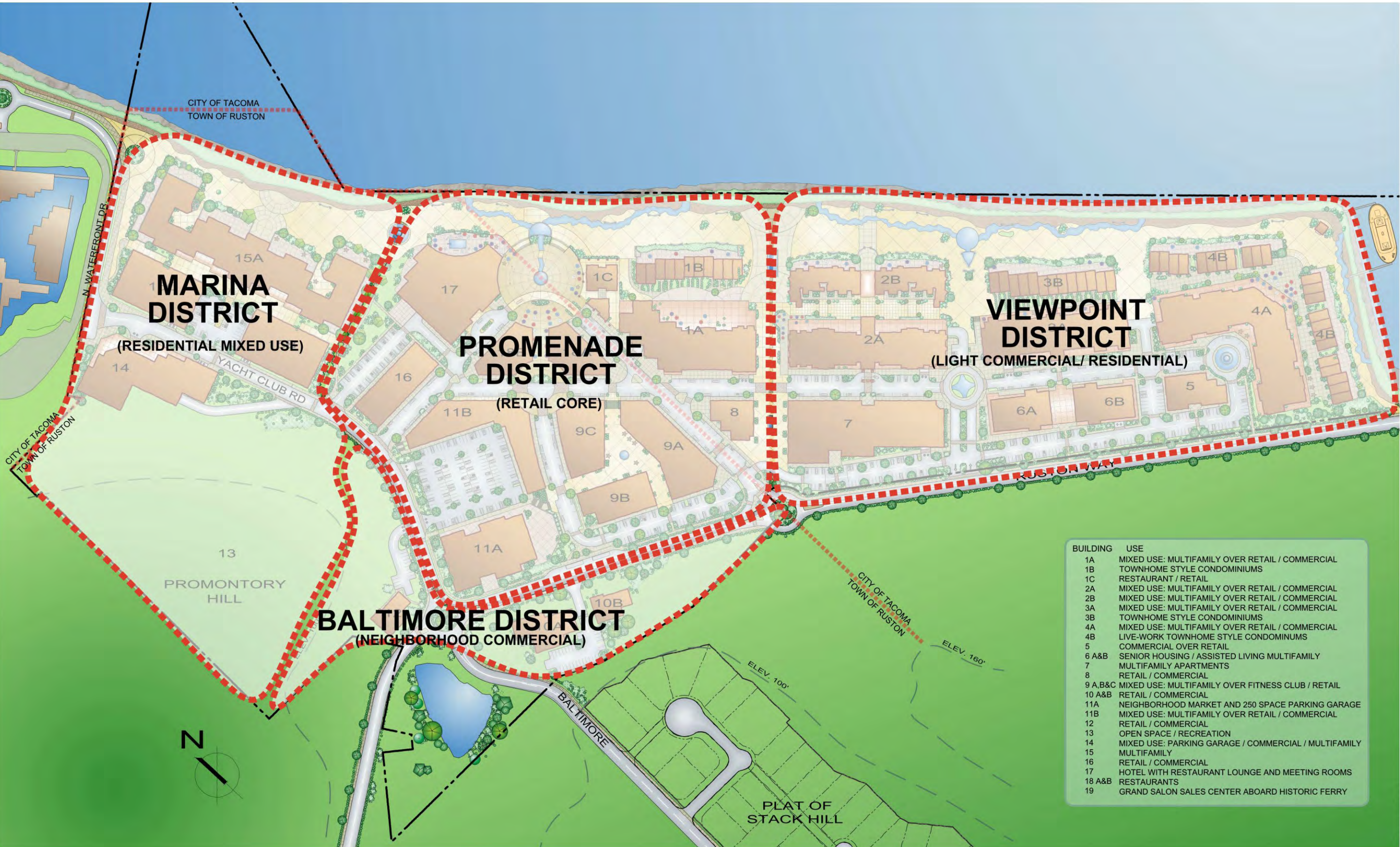
At full build-out, *Point Ruston* would involve development of an urban village neighborhood organized into four identifiable mixed use districts, including the following; each is depicted in Figure 4.

- **Viewpoint District** – This area would be located within the south one-third of the site;
- **Promenade District** – located centrally within the site;
- **Baltimore District** – This area would be located in the west-central portion of the site (near the intersection of Baltimore and Ruston Way); and
- **Marina District** – This area would be located in the north one-third of the site, adjacent to the Metropolitan Park’s Yacht Basin containing the Tacoma Yacht Club and Breakwater Marinas and Metro’s Peninsula Park property.

The proponent indicates that dividing the project site into distinguishable districts would provide diversity and uniqueness among areas of the site. In addition, dividing the site into districts would help organize project phasing including infrastructure improvements, park construction and other mitigation measures that would be required for the project. Throughout the development, a range of land uses would be provided including: residential dwellings, a hotel complex, retail space, restaurants, commercial office space, publicly-accessible parks and open space, recreational facilities, and parking.

Another central concept associated with the urban village neighborhood is that it would define private areas within the overall publicly-accessible property -- as opposed to designating public spaces within private property as is more typical of “conventional” residential developments. Public accessibility is critical to viability of the retail and commercial uses proposed along the streets and parks throughout the development. It is also in keeping with policies applicable to the shoreline area (Figure 5). This general public accessibility is illustrated in Figure 6, which depicts the various buildings and their courtyards as “islands” within the public open spaces. These public open spaces would accommodate vehicular and pedestrian access, view corridors, landscape recreational activities, amenities and art. The proponent indicates that it is intended that this approach would provide a much greater proportion of public spaces than would occur otherwise and that these guiding design concepts are aimed at creating interesting districts within the overall neighborhood where people can live, work, shop, gather and recreate.

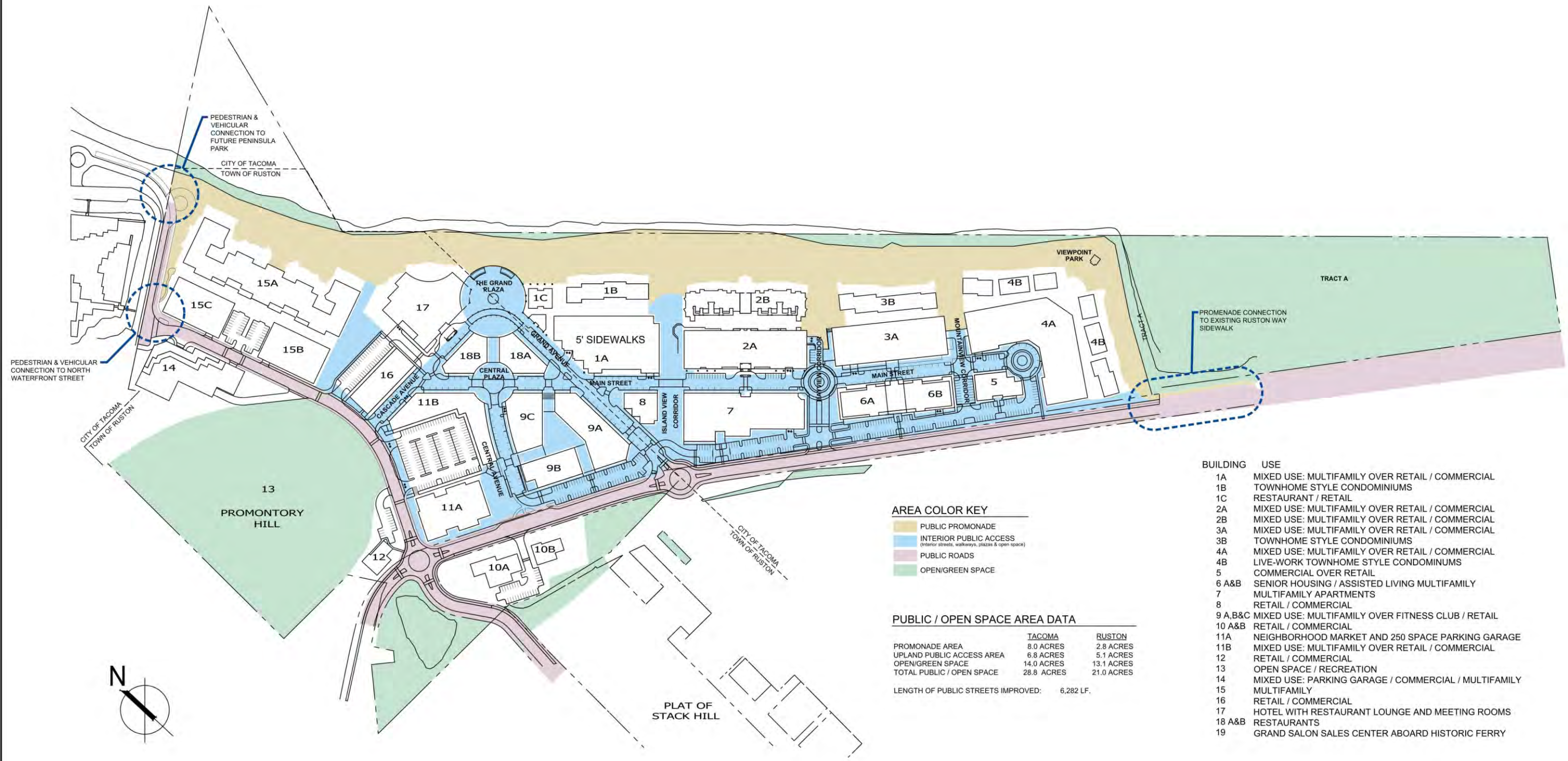
The following is an overview of the total development that is proposed, the districts and phasing of the project and with more-specific information regarding the initial buildings.



BUILDING	USE
1A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
1B	TOWNHOME STYLE CONDOMINIUMS
1C	RESTAURANT / RETAIL
2A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
2B	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
3A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
3B	TOWNHOME STYLE CONDOMINIUMS
4A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
4B	LIVE-WORK TOWNHOME STYLE CONDOMINIUMS
5	COMMERCIAL OVER RETAIL
6 A&B	SENIOR HOUSING / ASSISTED LIVING MULTIFAMILY
7	MULTIFAMILY APARTMENTS
8	RETAIL / COMMERCIAL
9 A,B&C	MIXED USE: MULTIFAMILY OVER FITNESS CLUB / RETAIL
10 A&B	RETAIL / COMMERCIAL
11A	NEIGHBORHOOD MARKET AND 250 SPACE PARKING GARAGE
11B	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
12	RETAIL / COMMERCIAL
13	OPEN SPACE / RECREATION
14	MIXED USE: PARKING GARAGE / COMMERCIAL / MULTIFAMILY
15	MULTIFAMILY
16	RETAIL / COMMERCIAL
17	HOTEL WITH RESTAURANT LOUNGE AND MEETING ROOMS
18 A&B	RESTAURANTS
19	GRAND SALON SALES CENTER ABOARD HISTORIC FERRY



BUILDING	USE
1A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
1B	TOWNHOME STYLE CONDOMINIUMS
1C	RESTAURANT / RETAIL
2A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
2B	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
3A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
3B	TOWNHOME STYLE CONDOMINIUMS
4A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
4B	LIVE-WORK TOWNHOME STYLE CONDOMINIUMS
5	COMMERCIAL OVER RETAIL
6 A&B	SENIOR HOUSING / ASSISTED LIVING MULTIFAMILY
7	MULTIFAMILY APARTMENTS
8	RETAIL / COMMERCIAL
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17	HOTEL WITH RESTAURANT LOUNGE AND MEETING ROOMS
18 A&B	RESTAURANTS
19	GRAND SALON SALES CENTER ABOARD HISTORIC FERRY



AREA COLOR KEY

- PUBLIC PROMONADE
- INTERIOR PUBLIC ACCESS
(interior streets, walkways, plazas & open space)
- PUBLIC ROADS
- OPEN/GREEN SPACE

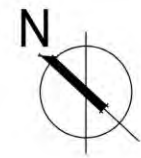
PUBLIC / OPEN SPACE AREA DATA

	TACOMA	RUSTON
PROMONADE AREA	8.0 ACRES	2.8 ACRES
UPLAND PUBLIC ACCESS AREA	6.8 ACRES	5.1 ACRES
OPEN/GREEN SPACE	14.0 ACRES	13.1 ACRES
TOTAL PUBLIC / OPEN SPACE	28.8 ACRES	21.0 ACRES

LENGTH OF PUBLIC STREETS IMPROVED: 6,282 LF.

BUILDING USE

BUILDING	USE
1A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
1B	TOWNHOME STYLE CONDOMINIUMS
1C	RESTAURANT / RETAIL
2A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
2B	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
3A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
3B	TOWNHOME STYLE CONDOMINIUMS
4A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
4B	LIVE-WORK TOWNHOME STYLE CONDOMINIUMS
5	COMMERCIAL OVER RETAIL
6 A&B	SENIOR HOUSING / ASSISTED LIVING MULTIFAMILY
7	MULTIFAMILY APARTMENTS
8	RETAIL / COMMERCIAL
9 A,B&C	MIXED USE: MULTIFAMILY OVER FITNESS CLUB / RETAIL
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15	MULTIFAMILY
16	RETAIL / COMMERCIAL
17	HOTEL WITH RESTAURANT LOUNGE AND MEETING ROOMS
18 A&B	RESTAURANTS
19	GRAND SALON SALES CENTER ABOARD HISTORIC FERRY



2.5.2 Point Ruston Districts and Phasing

As noted, *Point Ruston* would be a mixed-use development that is implemented over a period of 8 to 10 years. Figure 7 depicts the site plan for the entire *Point Ruston* development at full build-out and indicates the portion of the development that would be located within the City of Tacoma and the portion located in the Town of Ruston. As shown, the development would largely be located between Ruston Way and the shoreline, extending a distance of approximately 4,800 lineal feet along Commencement Bay. Other than the proposed use of a converted ferry boat as a residential sales office (described below), all development would be on land above the OHWM and the bulk of the development other than the shoreline promenade is outside of the shoreline area. The 13.2 acre portion of the site ("Tract A") located immediately south of the main development portion of the site includes approximately 1,200 of the 4,800 lineal feet of shoreline and would be maintained as open space and shoreline promenade connecting the site from existing facilities along Ruston Way.

An estimated 800 to 1,000 dwelling units are proposed as part of the *Point Ruston* development including a variety of floor plans and unit types, predominately located in mixed use buildings, and "townhome" style condominiums which may be live-work units as a 25-foot to 35-foot high façade on the shoreline side of larger structures. Residential units would be a mix of owner occupied condominiums, apartments, potentially including senior housing/assisted living. It is anticipated, based on present market conditions, that approximately 77 percent of the units would be condominiums, 3 percent townhomes, 10 percent apartments, and 10 percent senior housing. The majority of the residential units would be located over retail/commercial space and structured parking.

As noted above in the Project Overview, the phasing of this project is related to the four organizing districts described in more detail below. The levels of phasing are:

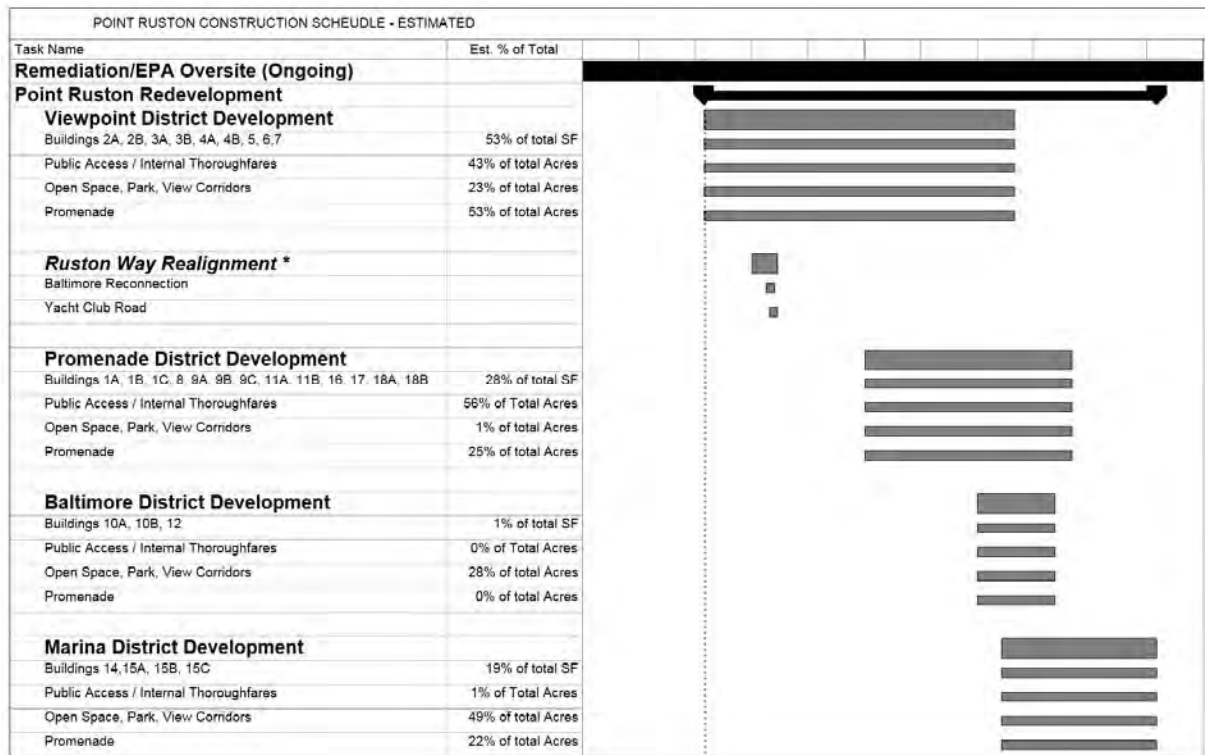
- Each building will be required to provide basic utilities (water, sewer, power, etc.) sufficient to meet the additional demand and will receive approval for occupancy by the local jurisdiction and EPA;
- Within each district, infrastructure will be accomplished in a "looped" fashion with utilities bought back to mains and roadways, the promenade and access connections to the promenade brought back to Ruston Way;
- Every district, upon its completion, will be generally "self-sufficient" in the sense that the roads, utilities and open space, parks, promenade, view corridors and major thoroughfares within each district are completed progressively as the buildings of that district are constructed to be 100% complete when the final building is occupied;
- Later districts build upon infrastructure extended during previous development of earlier districts.

One major component of the project which is not expected to be phased by building or by district is the proposed realignment of Ruston Way which would be done either at one time if coordination between the City of Tacoma and Town of Ruston on a developer's LID is approved; otherwise the portion in Tacoma would be completed prior to the first development within the Promenade District. Notwithstanding the foregoing, the entire realignment through Tacoma and Ruston and including the reconnection and improvement of Baltimore would be completed prior to occupancy of 50% of the residential development or 30% of the commercial development as indicated by the traffic analysis.

The first district to be developed, the Viewpoint District, is not dependent on the completion of the Ruston Way realignment for its initial development. Infrastructure is sufficient with the existing alignment to permit the construction to commence and even the first few buildings completed within that district while the major offsite road improvements are being planned and implemented.

The next district, the Promenade District would, however, require Ruston Way to be realigned at least to the Tacoma/Ruston municipal boundary for its development to begin and the entire realignment through Ruston and reconnection of Baltimore Street before the district could be complete. The Baltimore District would also depend on the Ruston Way realignment being complete prior to its development. The Marina District would require the Ruston Way realignment and Yacht Club Road to be complete, and would require utilities to be extended through the Promenade District – at least sanitary sewer, probably power and water as well. The effect of these phasing considerations is that the Districts are anticipated to be developed in the order shown on the schedule illustrated below. This schedule also indicates the approximate percentage of development square footage and the approximate areas of open space, park, view corridors, public accesses and water front promenade contained within each phase which would be constructed concurrently with its development.

Table 2.5.2-1
POINT RUSTON ESTIMATED CONSTRUCTION SCHEDULE



*Source: Point Ruston LLC

* Assumes approval of interlocal Developer's LID to allow realignment to be accomplished at once and as an earlier phase of the project. Later phase timing approximate and could be sooner

It should be recognized that this is an approximate sequencing schedule with the purpose of illustrating the anticipated progression of the project as opposed to specific dates which will finally be determined by market factors, availability of required permits and approvals and other factors. From the discussion of the considerations of phasing, it should be recognized that

some phases could occur earlier than indicated: for instance, the Baltimore District could be developed shortly after the Ruston Way Realignment is completed, if approvals were available and conditions permitted. Due to the phasing sequence, mitigation and improvements will be provided on a district by district basis commensurate with the additional and cumulative impacts. The timing of specific improvements and mitigation is discussed in the section for each element (traffic, public services, etc).

The following is a description of each of the four districts beginning with the first district where construction will begin.

2.5.2.1 Viewpoint District – Located in the southeast portion of the upland area of the project site, this district is intended to be the first developed over the next three to six years progressing building by building as market conditions warrant. Infrastructure is generally available along the frontage of Ruston Way sufficient to serve initial development in this portion of the property.

The Viewpoint District would be comprised of approximately ten buildings and a number of smaller “townhome” style condominiums located along the shoreline promenade. These smaller two-to-three story structures would utilize the parking garages in adjacent buildings for parking. It is anticipated that these units would be of a “live-work” variety incorporating the possibility of commercial/retail-related spaces on the ground floor facing the promenade with living areas for the proprietor above. The primary uses in this portion of the property would be residential with commercial and retail on the street levels. A relatively small amount of commercial/retail space would be included as part of this District in comparison to the retail core within the Promenade District.

The first two buildings within this district will be provided with utilities from the current Ruston Way alignment. Building 5 is anticipated to be the first project and would access Ruston Way via a temporary driveway approach. None of the private or public roadways would be constructed with this building project. Building 2A is anticipated to be the second project. This would also precede the construction and realignment of Ruston Way and the realignment of the utilities. The private roadway to access this building would be constructed as a part of the scope of this building. As previously mentioned, Ruston Way is considered a separate project with separate approval processes and these first projects are not dependent on its construction. These first two buildings would tie into the permanent improvements upon completion of such improvements. Mitigation discussed in Section 3 of this document would not be triggered by the construction of the first buildings. Mitigation would be phased in as discussed in Section 3.

Frontage improvements to Ruston Way would be deferred for individual buildings within this District as the realignment of Ruston Way is anticipated to be done in larger sections, preferably at once, to minimize temporary construction impacts and road closures. This District is not significantly affected by the proposed realignment of Ruston Way, as the road would remain in its approximate current alignment at the south end of the property and the traffic impacts of the first several buildings do not require the completion of this mitigation. Nonetheless, while not necessarily required to serve this District, it is anticipated that the Ruston Way realignment, frontage and infrastructure improvements for at least the Tacoma portion of the site would be completed prior to first residential occupancy. As discussed below, the creation of a single party developer LID has been proposed to accomplish this realignment as one of the first development activities of the Project. The proponent’s goal is to begin the realignment project in early 2009.

Building 2A has been designed to contain 99 dwelling units. It would be located in the upland zone of the property, outside the shoreline district. Parking for this building would be entirely within the building. Three parking levels would be provided -- one level below-grade, one at-grade, and one above-grade. The at-grade and above-grade levels of parking would be obscured from the street by the storefronts of the 17,500 sq.ft. retail/commercial space in the building and residential entry lobby. The building would be approximately 80 feet in height. It is anticipated that Building 2A would be the second building constructed and that construction may commence prior to completion of the Ruston Way realignment. This building may, therefore, utilize a temporary access and utility connections to the existing Ruston Way infrastructure in anticipation of permanent connections to be provided at the time of the realignment.

Building 2B would be located east of the larger 2A and would contain approximately 44 dwelling units. This building, which would be within the shoreline area, is planned to have a height of up to 50 feet. A single story bistro/retail establishment accessed from the promenade would span between the north and south components of this building complex. A private courtyard would be maintained between the structures comprising 2B and the upland building 2A. It is envisioned that small secured courtyards in the development, such as this between Buildings 2A and 2B, could serve as play areas for resident children, as well as garden areas.

The Building 3 complex would be setback at least 200 feet from the shoreline in the upland area and would range in height from 50 to 80 feet. This structure would contain approximately 120 multifamily units on the floors above street level with total living area of approximately 145,000 sq.ft. A total of approximately 18,500 sq. ft. of leasable ground floor retail and commercial space would be accommodated within the building facing the street. Two levels of parking, one below street grade and one behind the commercial space at street level, would accommodate approximately 320 parking spaces with another 10 to 20 spaces located on the street. Facing the promenade, a façade 8 to 13 of the townhome-style condominiums approximately 25 to 35 feet in height (indicated collectively as 3B) would be located approximately 150 feet back from the shoreline.

Building 4A would have a modulated roof line with distinct building sections, would range in height from 50 to 80 feet in height, and in the upland area maintain a setback from the shoreline of at least 200 feet. It is anticipated that this building would accommodate approximately 140 multifamily units with about 180,000 sq.ft. of living space and an estimated 13,000 sq.ft. of commercial or retail space at the street level. Two levels of structured parking are proposed within this building; one level would be below street grade and one at-grade located behind the storefronts of the commercial spaces and residential lobby. Parking in this complex would accommodate approximately 350 cars with another 20 spaces available on street. As many as 23 of the townhome-style live-work units (indicated collectively as 4B) would present a 25 to 35 foot tall façade to the promenade setback 100 to 150 feet back from the shoreline.

Building 5 is anticipated to be the first building constructed on the site and a building permit application has been submitted for a three story building approximately 45 feet in height with about 21,000 sq. ft. of total floor area. The first floor is designed as retail space and the second and third floor are designated as commercial/office space. Parking is provided at surface lots adjacent to the building. The location of this building and adequacy of existing utilities to serve a building of this size in advance of the completion of the Ruston Way realignment and major



Source: ESM, 2008



infrastructure relocation and extension into the site make this a financially practical first building to construct. The access on Ruston Way will be temporary in anticipation of the final access provided as a part of the Ruston Way realignment project. The utilities may also involve a temporary connection to those existing within the current Ruston Way alignment again in anticipation of a permanent connection following the Ruston Way realignment and associated relocation of utility mains.

Building 6A/6B is intended as an assisted living/senior housing facility, which would combine smaller multifamily units with supporting care facilities and associated administrative offices. This structure would have a height of approximately 80 feet with parking for approximately 150 vehicles provided below-grade and supplemented by on street and surface parking.

Building 7 is anticipated to be an apartment building with approximately 100 rental units in a range of floor plans and sizes with potentially a small amount of retail or commercial office space located at the ground level. Resident parking would be predominately in a garage located below grade and supplemented by surface guest parking; a total of approximately 120 to 200 parking spaces would be included with this structure.

This District would be accessed from Ruston Way via the southeastern-most of the three proposed access points, as well as internally connected to the Promenade District.

2.5.2.2 Promenade District – Located centrally in the widest portion of the site, this District would serve as the retail core of the urban village neighborhood and be split between Tacoma and Ruston. Access would primarily be via the Point Ruston Blvd., which would be located along the boundary between the two municipalities and extend from the main entrance of the development on Ruston Way to a 200-foot wide central gathering space referred to as the Grand Plaza. This District would contain the greatest concentration of retail and commercial uses within the *Point Ruston* development – developed predominately with retail shops at street level and residential or office space located above. It is anticipated that some smaller professional service offices may be included among the retail. This District would consist of 8 to 10 buildings ranging from 1 to 7 stories in height (25 to 80 feet).

Unlike the Viewpoint District, which would most likely develop building by building, it is anticipated that the retail core would be constructed in a coordinated fashion with potentially 75 percent of the buildings constructed simultaneously. The infrastructure, roads, plazas and promenade in this District would be completed at the same time. The utilities would likely connect to those extended into the site during development of the Viewpoint District to the southeast and utilize relocated and upgraded utilities constructed during the relocation of Ruston Way. It is anticipated that construction would begin within this District in two to three years subsequent to the infrastructure development in the Viewpoint District and the Ruston Way realignment. The Promenade District is anticipated to be open to the public and fully operational approximately two years after construction in the District begins.

This retail core would be anchored by a 150-room hotel proposed for the east-central portion of the project site (Building 17), within the Town of Ruston. The hotel would contain at least one restaurant, a lounge, conference/meeting rooms and typical fitness and spa facilities. It is anticipated that the hotel would be a maximum of 60 feet in height and set back from the shoreline at least 100 feet. Parking would be accommodated within and under the building with an off-street porte-cochere valet drop-off at the front entrance. Provisions for service vehicles and loading areas are to be made from the surface parking lot at the rear of building.

Also adjacent to the Grand Plaza would be at least two free standing restaurants (Buildings 18A & 18B). These structures would be 1 to 2 stories in height and contain an estimated 6,000 to 8,000 sq.ft. each, with outdoor seating on the water-side toward the plaza. Parking for these restaurants would be provided in a multiple-level parking garage located across Main Street under and behind the neighborhood market (Building 11A), which is intended as the main retail parking structure supplemented by on street parking throughout the District. The restaurants, hotel and spa/fitness facility may provide valet service utilizing portions of that garage.

Building 1C also adjoins the Grand Plaza. Another restaurant would be located within the end of the building, adjacent to the plaza. This structure would be 1 to 2 stories in height and set back 100 to 150 feet from the shoreline. It would also utilize its relationship to the Grand Plaza in permitting outdoor seating. Building 1A would be in the upland area at least 200 feet from the shoreline and range from 50 to 80 feet in height. It would contain approximately 127 multifamily units with about 150,000 sq. ft. of living space located above around 17,000 sq. ft. of street level retail. Parking for approximately 240 cars would be provided in two parking garage levels, one below-grade and one at ground level behind the retail storefront spaces. Approximately 11 townhome-style condominiums (1B), each two or three stories tall and up to approximately 35 feet in height, would be located in the shoreline area setback approximately 150 feet from the shoreline.

Building 8 would be a small “four corners” building that would be located between Grand Avenue, the main street into this Promenade District and the Island View Corridor, a 100-foot wide pedestrian-dedicated direct link between the Ruston Way, Main Street and the promenade. This is intended to be a small 1 or 2-story retail structure up to 35 feet in height that contains approximately 6,000 sq. ft. of leasable space. This structure would depend on street and surface parking located along adjacent streets to meet its required parking of approximately 30 spaces.

Building 9A/9B/9C would be a regional wellness center complex that includes a fitness facility and associated spa, health facility and recreational or athletic related retail. This building may consist of multiple structures with an interior courtyard, as shown. The storefronts located along the roadways may include -- in addition to the fitness center -- establishments such as a juice bar, day spa, physical therapy, boutique sporting goods retailers and/or outdoor outfitters. The parking for this complex would be provided below-grade, beneath the complex and the courtyard. The garage parking would be supplemented by surface parking located around the building. Potentially 10- 15 multifamily lofts or a similar amount of commercial space would be located in 1 or 2 floors above the facilities at street level – extending to a maximum height of up to 45 feet.

Building 11A, at the corner of Yacht Club Road and Ruston Way, is envisioned as a neighborhood grocery and produce market with an associated deli. It would be one or potentially two stories in height (maximum height of 45 feet) and built over a below grade parking garage of 1 or 2 sub-grade stories that would span beneath the market and the adjacent “surface” parking lot. In addition to meeting the parking requirements for the market and adjacent retail, this facility would serve as a general public parking lot for the retail core, supplementing what is provided by each establishment. It is anticipated that the hotel, restaurants and wellness center could use portions of this garage for valet parking, as well. Building 11B would have street level retail along Central Avenue and potentially retail above

facing the surface parking lot above the garage. It could also contain 8-10 multifamily units located above the retail to a height of approximately 45 feet above grade.

Building 16 is assumed to provide an additional 10,000 to 15,000 sq. ft. of retail space at street level with potentially up to 2 stories of multifamily units located above (maximum height of 45 feet).

2.5.2.3 *Baltimore District* – This area consists of two or more potential building sites in proximity to the intersection of Ruston Way and the Baltimore Street reconnection to the south and Yacht Club Road to the north. These sites would be located across the street from the retail core and have high visibility from Ruston Way and convenient access. The development of this District would necessarily depend on the prior relocation of Ruston Way and construction of Yacht Club Road from which access and utilities would be provided. It is anticipated that these sites would be developed concurrently with the development of the Promenade District or soon thereafter.

The Building 10 site would be created as a result of the relocation of Ruston Way onto the *Point Ruston* property. It consists of property remaining on the south-side of the new alignment combined with the existing right-of-way, which is proposed to be vacated at the time the new right of way is dedicated. Development of this building site would create a small commercial or retail space in the range of 4,000 to 8,000 sq.ft. (e.g., potential community bank branch). This structure would be 1 or 2-story structure up to 35 feet in height.

Building 12 would be located on the north-side of the Ruston Way and Yacht Club Road intersection, at the base of Promontory Hill. This building site would also be the result of property remnants following relocation of Ruston Way and vacated existing right-of-way that would no longer be utilized as part of the new alignment. This site could support one or more small, single-story commercial uses (e.g., office/credit union) 3,000 to 5,000 sq.ft. in size and up to 25 feet in height.

2.5.2.4 *Marina District* – The fourth District would be located at the northwest end of the property, at the base of Promontory Hill Park and adjacent to the Metropolitan Park District's Yacht Basin housing the Tacoma Yacht Club and Breakwater Marinas. Depending on infrastructure that would be extended through the Promenade District, it would most naturally develop following completion of the retail development in that District. This portion of the property is relatively narrow and somewhat isolated from the adjacent retail core accessed from Yacht Club Road.

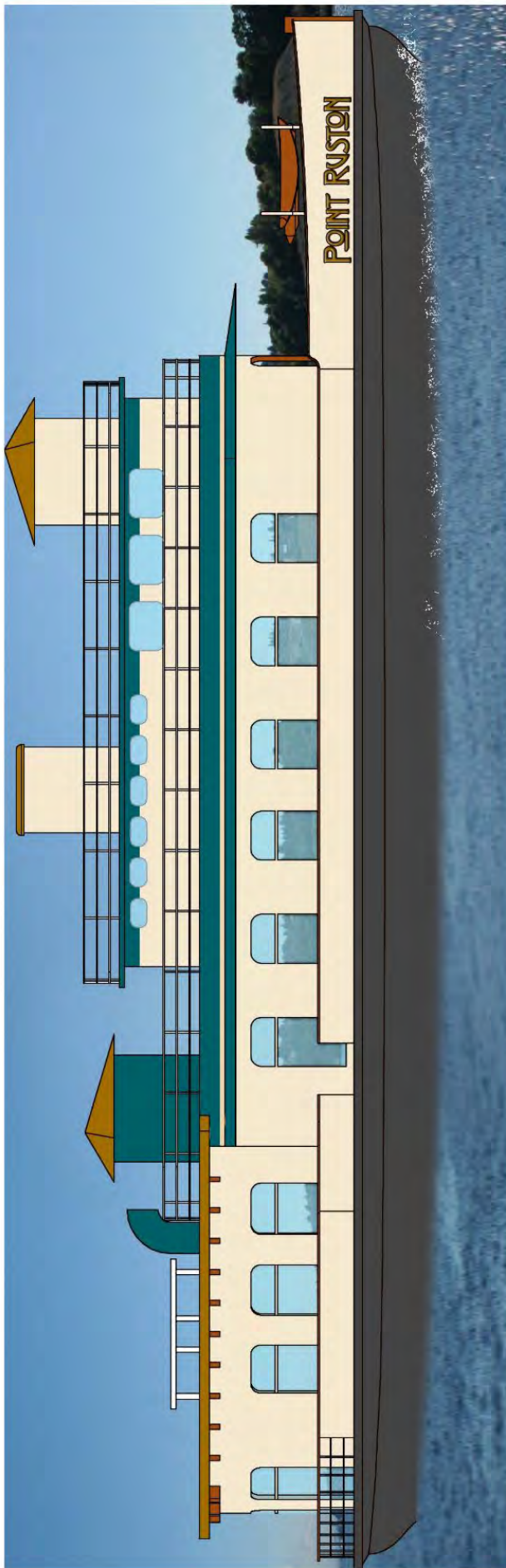
Building 14 is envisioned as additional structured parking and potentially could be developed with additional office/commercial space or multifamily units above. Also located at the base of the Promontory Hill Park, even at a maximum height of 60 feet, the building would not be taller than the grade at the top of the hill.

Building 15 is envisioned as a multifamily complex with potentially 200 – 240 units. The building would be about 60 feet in height and contain approximately 250,000 sq. ft. of living space. Parking would be provided within the structure, potentially as shown in two upland buildings located behind the waterfront structure, with supplemental street and surface parking for guests.

2.5.2.5 Sales and Leasing Office – Additional Retail

As depicted in Figure 8, it is proposed that a former ferry boat be converted for use as a temporary sales and leasing office or otherwise as office or retail space (such as a design center) associated with the development of the project. The boat would be moored in Tract A (Point Ruston LLC-owned in-water property), south of Building 4. No in-water dredging or filling would be necessary, however, a Shoreline Substantial Development permit would be required prior to moorage in this location and the intended usage.

The **Point Ruston** ferry, formerly the **Steilacoom**, is 150 ft. in length, has a 60-foot wide beam and a maximum draft of 8 ft. 6 inches. Making the vessel accessible for use as an office or retail space would involve placement of a gangway at the stern of the vessel for pedestrian access and utility connections (power, phone, cable). A crane placed upland of the Ordinary High Water Mark would be used to install the moorage and gangway system. Figure 9 depicts the proposed moorage and gangway system.



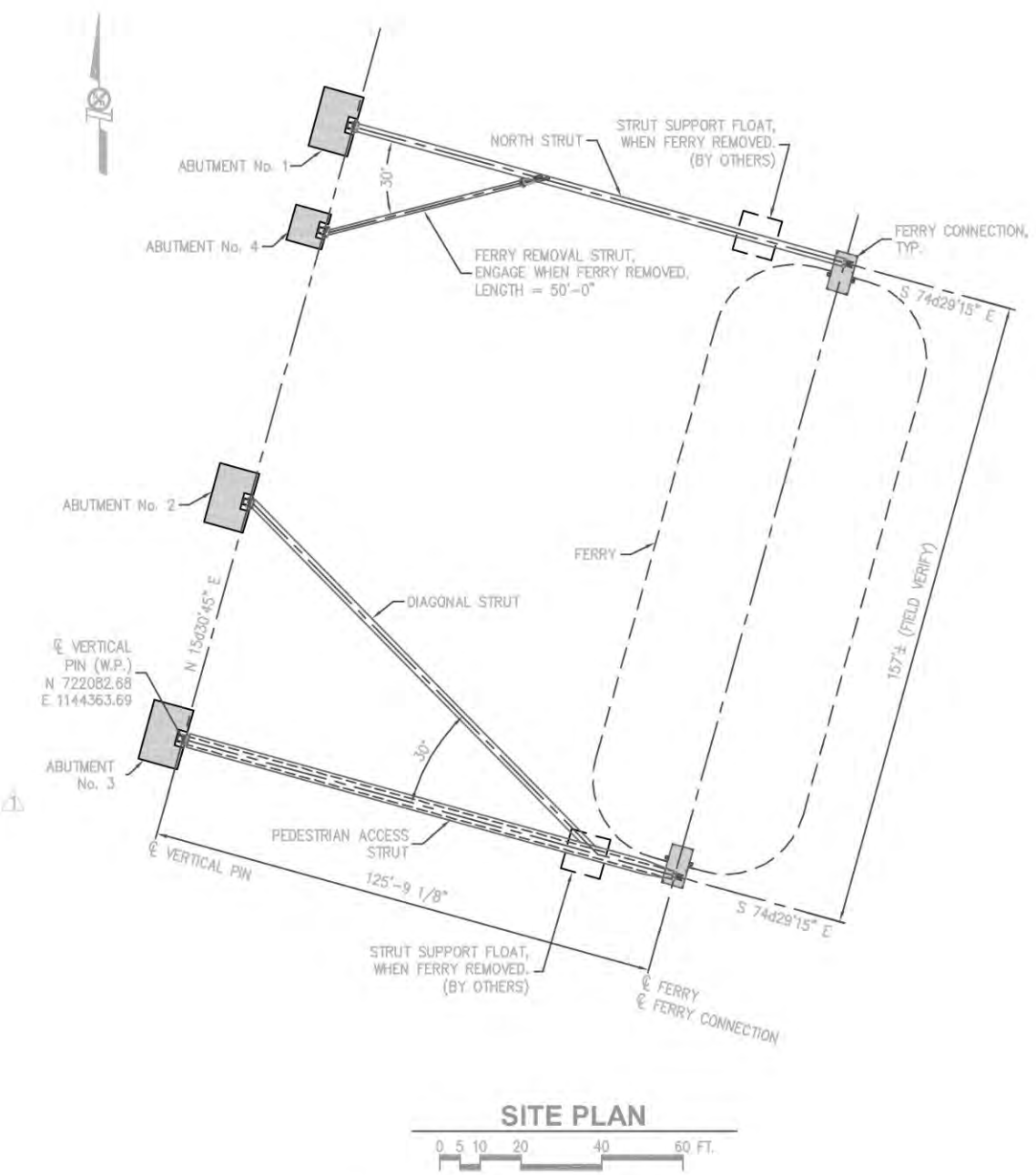
Source: Point Ruston, 2007



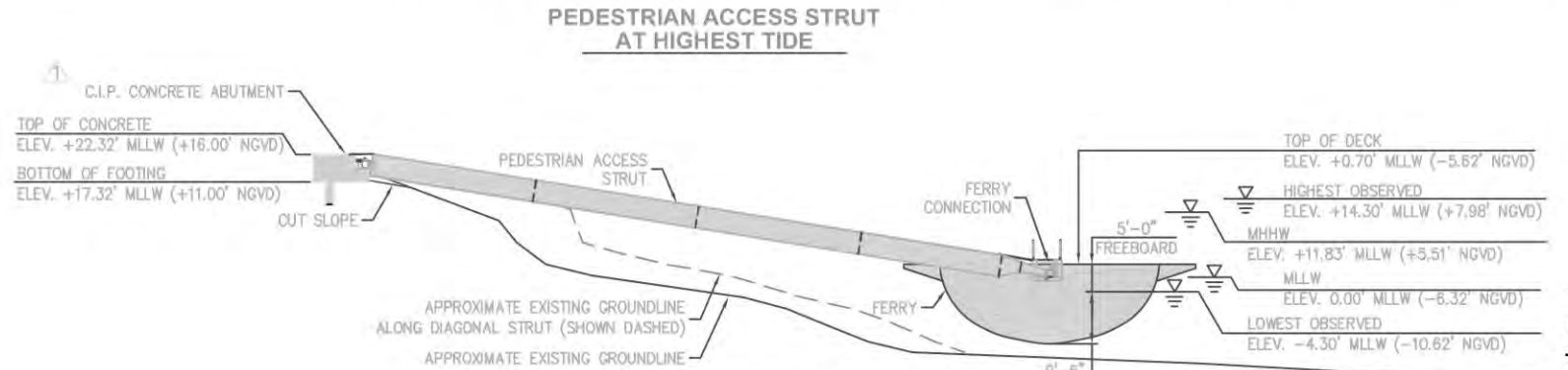
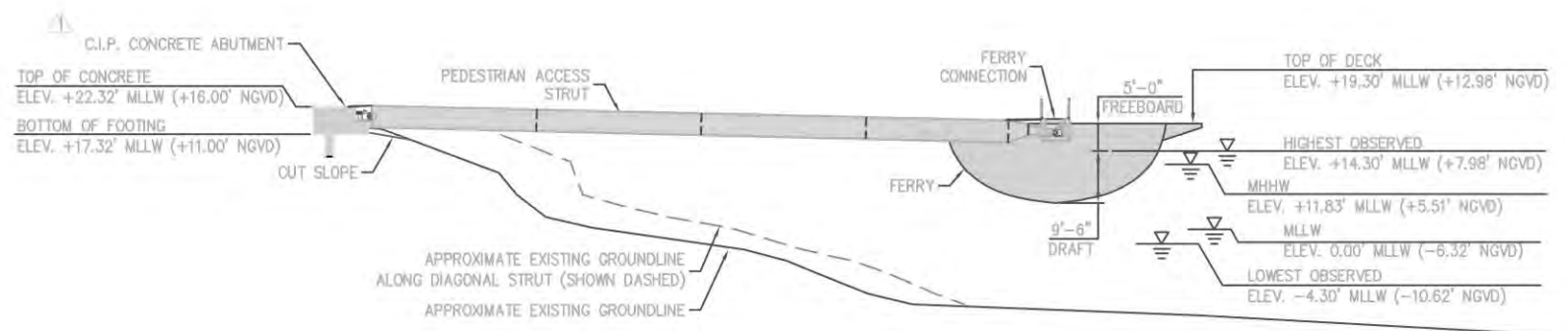
Point Ruston Supplemental EIS

Figure 8

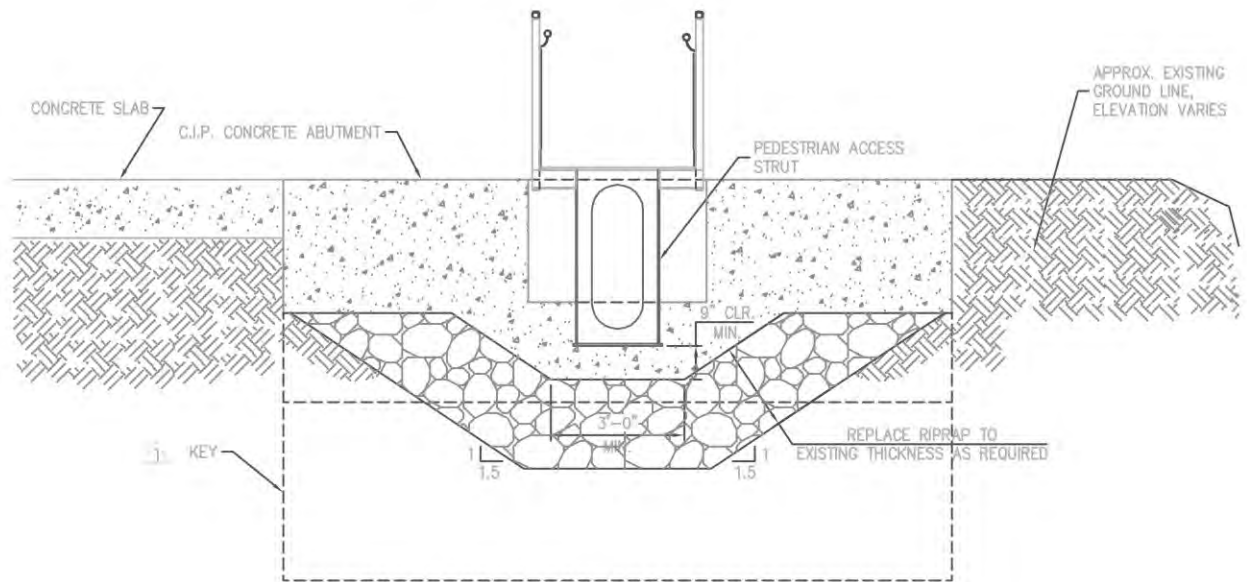
Conceptual Ferry Design



NOTE:
 1) DATUM FOR CONTOURS IS NGVD29.
 2) SIDEWALK TO ACCESS TOP OF ABUTMENT No. 3 BY OTHERS, NOT SHOWN.



ELEVATION
 NOTE: RAILS AND WALKWAY NOT SHOWN FOR CLARITY.



TYPICAL SECTION AT ABUTMENT

ENGINEERS, INC.
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 Seattle, Washington 98104
 Phone: 206-624-1387
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REV	DATE	DESCRIPTION
1	10/01/07	Revision 1
2	10/10/07	Revision 2

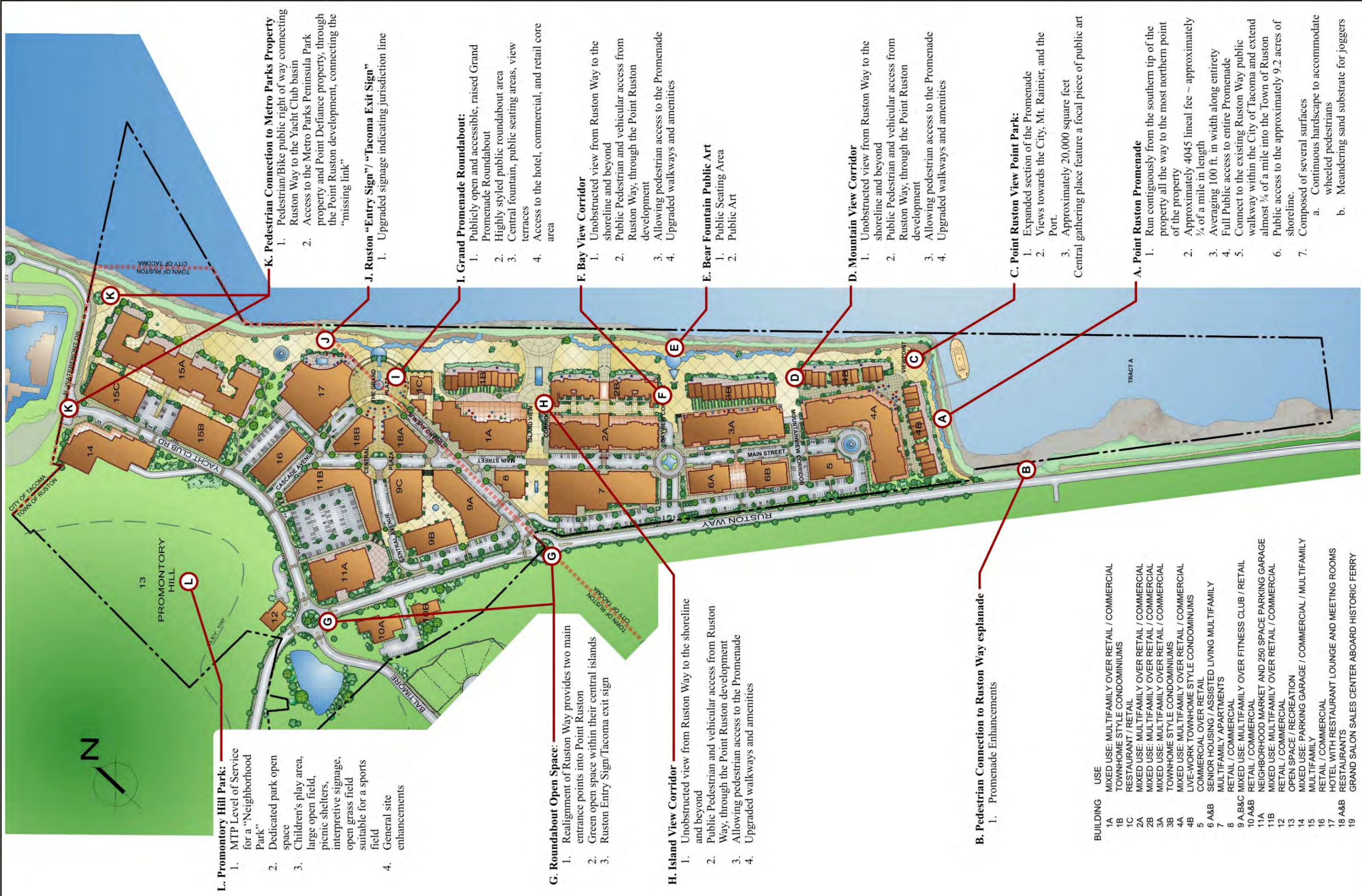
PROJECT: POINT RUSTON, LLC			
TITLE: POINT RUSTON - FERRY MOORAGE			
FOR CONSTRUCTION			
GENERAL ARRANGEMENT			
DESIGNED BY:	TWB	PROJECT NO:	074058.01
DRAWN BY:	TWB	DATE:	SEPTEMBER 12, 2007
CHECKED BY:		SCALE:	NOTED
			SHEET NO: 3 OF 10

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2.5.2.6 Open Space – Approximately 50 acres – or 61% of the total area of the *Point Ruston* project site – would be maintained as publicly accessible parks, recreation areas, open space, view corridors and public access including major thoroughfares. These areas, depicted in Figure 10, include the following; each is discussed in more detail in Section 3.4.

- A 100-foot (average width) promenade would be located adjacent to the shoreline beginning at the existing terminus of the sidewalk along Ruston Way and extending along the shoreline of the site to the Metropolitan Park District's Peninsula Park/Yacht Club property. The proposed promenade is to be designed to accommodate access for a broad range of potential users (e.g., runners, walkers, bicyclers, roller-blades, strollers, etc) with additional areas in "pocket parks" out of the traffic flow for other activities (e.g. viewing, picnics, etc.) as illustrated at Figure 10. The promenade would be a combination concrete/hardscape and sand along the shoreline armoring with landscaping along the shoreline and in islands and planters. Much of the hardscape would feature designs and colored surfaces accenting public art pieces, pocket parks and play areas constructed throughout the development.
- Additional open space would be provided within the interior of the development including retail plazas and corridors between and around buildings.
- Courtyards would be provided between buildings providing small more private areas for the residents with landscape, garden spots and play areas for younger children.
- Sidewalks would be provided along all internal roads within the development and pathways would be provided throughout the development linking open spaces and the promenade. Sidewalks along Main Street, Central Avenue and Grand Avenue (in particular) would be on average 10 feet wide and up to 20 feet wide, allowing abutting retail establishments to have a strong presence on the street.
- Tract 'A' (approx. 13.2 ac.) would be maintained as open space and a shoreline promenade with parking connecting existing facilities along Ruston Way to the development. As noted in section 2.5.2.1, a small portion of this area would serve as temporary moorage for the ferry/sales center.
- Green space tracts would be provided such as the hillsides across Ruston Way and on the sides of Promontory Hill Park, as well as the pond at the intersection of the Baltimore Street reconnection and Ruston Way.
- Active recreational areas would be provided such as the top of Promontory Hill and at the wellness center courtyard.



L. Promontory Hill Park:

1. MTP Level of Service for a "Neighborhood Park"
2. Dedicated park open space
3. Children's play area, large open field, picnic shelters, interpretive signage, open grass field suitable for a sports field
4. General site enhancements

K. Pedestrian Connection to Metro Parks Property

1. Pedestrian/Bike public right of way connecting Ruston Way to the Yacht Club basin
2. Access to the Metro Parks Peninsula Park property and Point Defiance property, through the Point Ruston development, connecting the "missing link"

J. Ruston "Entry Sign" / "Tacoma Exit Sign"

1. Upgraded signage indicating jurisdiction line

I. Grand Promenade Roundabout:

1. Publicly open and accessible, raised Grand Promenade Roundabout
2. Highly styled public roundabout area
3. Central fountain, public seating areas, view terraces
4. Access to the hotel, commercial, and retail core area

G. Roundabout Open Space:

1. Realignment of Ruston Way provides two main entrance points into Point Ruston
2. Green open space within their central islands
3. Ruston Entry Sign/Tacoma exit sign

H. Island View Corridor

1. Unobstructed view from Ruston Way to the shoreline and beyond
2. Public Pedestrian and vehicular access from Ruston Way, through the Point Ruston development
3. Allowing pedestrian access to the Promenade
4. Upgraded walkways and amenities

F. Bay View Corridor

1. Unobstructed view from Ruston Way to the shoreline and beyond
2. Public Pedestrian and vehicular access from Ruston Way, through the Point Ruston development
3. Allowing pedestrian access to the Promenade
4. Upgraded walkways and amenities

E. Bear Fountain Public Art

1. Public Seating Area
2. Public Art

D. Mountain View Corridor

1. Unobstructed view from Ruston Way to the shoreline and beyond
2. Public Pedestrian and vehicular access from Ruston Way, through the Point Ruston development
3. Allowing pedestrian access to the Promenade
4. Upgraded walkways and amenities

B. Pedestrian Connection to Ruston Way esplanade

1. Promenade Enhancements

C. Point Ruston View Point Park:

1. Expanded section of the Promenade
 2. Views towards the City, Mt. Rainier, and the Port.
 3. Approximately 20,000 square feet
- Central gathering place feature a focal piece of public art

A. Point Ruston Promenade

1. Run contiguously from the southern tip of the property all the way to the most northern point of the property
2. Approximately 4045 lineal feet ~ approximately ¾ of a mile in length
3. Averaging 100 ft. in width along entirety
4. Full Public access to entire Promenade
5. Connect to the existing Ruston Way public walkway within the City of Tacoma and extend almost ¼ of a mile into the Town of Ruston
6. Public access to the approximately 9.2 acres of shoreline.
7. Composed of several surfaces
 - a. Continuous hardscape to accommodate wheeled pedestrians
 - b. Meandering sand substrate for joggers

BUILDING	USE
1A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
1B	TOWNHOME STYLE CONDOMINIUMS
1C	RESTAURANT / RETAIL
2A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
2B	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
3A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
3B	TOWNHOME STYLE CONDOMINIUMS
4A	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
4B	LIVE-WORK TOWNHOME STYLE CONDOMINIUMS
5	COMMERCIAL OVER RETAIL
6 A&B	SENIOR HOUSING / ASSISTED LIVING MULTIFAMILY
7	MULTIFAMILY APARTMENTS
8	RETAIL / COMMERCIAL
9 A,B&C	MIXED USE: MULTIFAMILY OVER FITNESS CLUB / RETAIL
10 A&B	RETAIL / COMMERCIAL
11A	NEIGHBORHOOD MARKET AND 250 SPACE PARKING GARAGE
11B	MIXED USE: MULTIFAMILY OVER RETAIL / COMMERCIAL
12	RETAIL / COMMERCIAL
13	OPEN SPACE / RECREATION
14	MIXED USE: PARKING GARAGE / COMMERCIAL / MULTIFAMILY
15	MULTIFAMILY
16	RETAIL / COMMERCIAL
17	HOTEL WITH RESTAURANT LOUNGE AND MEETING ROOMS
18 A&B	RESTAURANTS
19	GRAND SALON SALES CENTER ABOARD HISTORIC FERRY

Source: ESM, 2008



Point Ruston Supplemental EIS

Figure 10

Park Enhancements

2.5.2.7 Roadways, Access and Parking – Several key improvements are proposed with regard to street access and parking, as outlined below. These are depicted in Figure 6 and Figure 11; the focus of Figure 11 involves connections -- including vehicle, non motorized and pedestrian -- to and through the project.

■ **Roadways**

- The principal arterials that would serve *Point Ruston* are Ruston Way and Pearl Street. Ruston Way provides connections to downtown, Tacoma and Ruston, I-705 and I-5 via Schuster Parkway and connections to Pearl Street (SR- 16) via Gallagher Way and N. 51st Street. Pearl Street is the principal north-south arterial separating Tacoma and Ruston.
- It is proposed that Ruston Way be realigned to within the boundaries of the *Point Ruston* development in order to straighten the existing curves (horizontal and vertical) and eliminate the existing vehicle tunnel. A portion of Point Ruston property would be dedicated and a corresponding portion of current right of way vacated for the purpose of re-aligning Ruston Way. The realignment would include two 11-foot wide travel lanes, two 7.5-foot wide bike lanes, a sidewalk along the north side of the roadway connecting to existing facilities at both ends, and roundabouts at the two northern access points associated with Point Ruston. The grade of Ruston Way would be raised to approach the grade of the Point Ruston property which is currently as much as 14 feet higher than the road. This will provide view opportunities to the shore through view corridors which would otherwise not exist because of the current grade difference.
- It is also proposed that the Baltimore St. connection be re-engineered and re-connected at the traffic circle at the Yacht Club Road intersection as a part of the realignment of Ruston Way.

■ **Vehicular Access** -- Three points of ingress and egress associated with *Point Ruston* are proposed from Ruston Way.

- The southernmost access point would be located within the City of Tacoma, approximately 2,225 feet northwest of the southeast boundary of the site (Viewpoint District).
- The second access point would be in conjunction with a roundabout that would be located on the boundary between Tacoma and Ruston; this access would serve the central portion of the site (Promenade District).
- The third access would be a traffic circle located near the north-end of the project site. In addition to serving Point Ruston, this access would also serve Peninsula Park and the Tacoma Yacht Club and Baltimore Street reconnection (Baltimore District).

An estimated 5,200 lineal feet of streets are projected as part of the proposed *Point Ruston* development. Paving width would be from 20 to 32 feet wide with 5 to 20-foot wide sidewalks. Narrower roads and wider sidewalks are specific design elements important to the urban village development concept as are traffic calming measures

giving primacy to pedestrians circulating through the development, particularly in the retail core within the Promenade District. Portions of roads would be without curb (to provide flexibility for special activities utilizing portions of closed roadway for events) with removable bollards to otherwise provide protection against vehicular intrusion.

A central street paralleling Ruston Way within the development would connect each of three access roads (described below) from Ruston Way. Internal streets within the development would be developed and maintained as private streets (e.g., not dedicated to the City or the Town) with the exception of the Yacht Club Road, which provides access to Metropolitan Park District's property.

- **Bicycle Access** – Provisions are made for “commuter” cyclists with bike lanes along Ruston Way, Baltimore Street from the reconnection to 46th Street and Yacht Club Road to the Metropolitan Park District property. A more scenic route is provided along the shoreline promenade.
- **Public Transportation Access** – Provisions are being made for a transit stop along Ruston Way (shown next to the neighborhood market, Building 11A) and within the retail core of the Promenade District in a manner and location to be coordinated with Pierce County Transit. Special programs such as flex cars and carpools are also being discussed.
- **Parking** -- An estimated 3,700 parking spaces would be provided as part of *Point Ruston*, as described in the District discussion. They include parking structures, surface lots and on-street parking along internal streets.

A majority of the buildings within the complex would include one or more levels of structured parking below grade beneath the residential or behind the retail/commercial uses with storefronts along the street. Except for entrances, the presence of the parking garages will be obscured from the street and walkways.

In addition to on-street parking, surface parking lots along Ruston Way, internal roads and adjacent to upland buildings provide convenient and identifiable public parking. As depicted by Figure 4, right-angle parking is proposed for the westernmost north-south street and the south one-third of the central north-south street – Main Street. Parallel parking is proposed for the central portion of the Main Street and within the retail core of the Promenade District.

The proponent indicates that all phases would provide -- at a minimum -- the amount of parking that is necessary to satisfy zoning code requirements associated with the development of each phase of *Point Ruston* including the appropriate proportion of spaces dedicated for public parking.

2.5.2.8 *Project Design and Architecture*

The proponent indicates that buildings should be largely “transparent” at street level with retail and commercial storefronts and lobbies facing broad sidewalks along the streets and/or plazas. More private uses like residential and corporate commercial offices would be vertically integrated into the buildings above street-level with parking garages below and/or behind the storefronts.

Internal streets within the development have been designed to be “pedestrian friendly.” Such includes narrower vehicular travel lanes, frequent and well defined crosswalks – even mid-block on longer blocks -- and traffic calming structures (e.g., traffic bulbs, traffic circles at intersections, etc.). It is intended that these overriding design precepts enforce the primacy of the pedestrian and slow vehicular speeds. Internal streets without curbs could accommodate the occasional closure of sections of the street for special gatherings or entertainment events in which the roadway becomes an active part of the venue. At other times, decorative but protective bollards would protect the sidewalk from adjacent traffic. Figure 12 is an illustration of a street scene at the Grand Plaza viewed across the Promenade.

The proponent indicates that *Point Ruston* would prepare and adopt design standards and architectural covenants that establish and maintain a consistent architectural theme for the entire complex. The proposed theme is characterized as Northwest Craftsman, a modern interpretation of the craftsman and prairie styles that is suited for the region. Prominent features of this style include the use of heavy timber, stone and masonry accents with shingles, as depicted in Figure 13. Coloration would depict muted natural or earth tones. “High Design” elements such as stained glass windows and custom iron grills and railings would be employed to provide interesting, artistic focal points against the more subdued background features of the building. Figures 14, 15 and 16 illustrate project details including a large stain glass window with a salmon motif that is being designed as such a focal point. These design features and motifs would also be incorporated into project amenities, such as picnic shelters, fire pits, water features, and public art. Figure 17 illustrates a conceptual design for a decorative iron gate to a parking garage; it features an Orca pod. Figure 18 is a preliminary design for a public fountain with bronze bears and salmon.

This style of architecture would feature “residential”-style rooflines with shingles or standing seam metal and low pitches, rather than commercial flat roofs with parapets. Viewed from above -- which is how the project will be seen by many¹⁸, it is intended that these roofs and hidden mechanical equipment will be more aesthetically pleasing and result in less glare than the more typical commercial roofs. “Green roofs” comprised of a thin layer of enriched soils and vegetation above the roof membrane are being explored as an alternative in locations where flat roofs are required with the additional benefit of stormwater management and credit toward environmental certifications being sought by the development.

¹⁸ The surrounding topography is approximately 100 to 200 feet higher than the site.



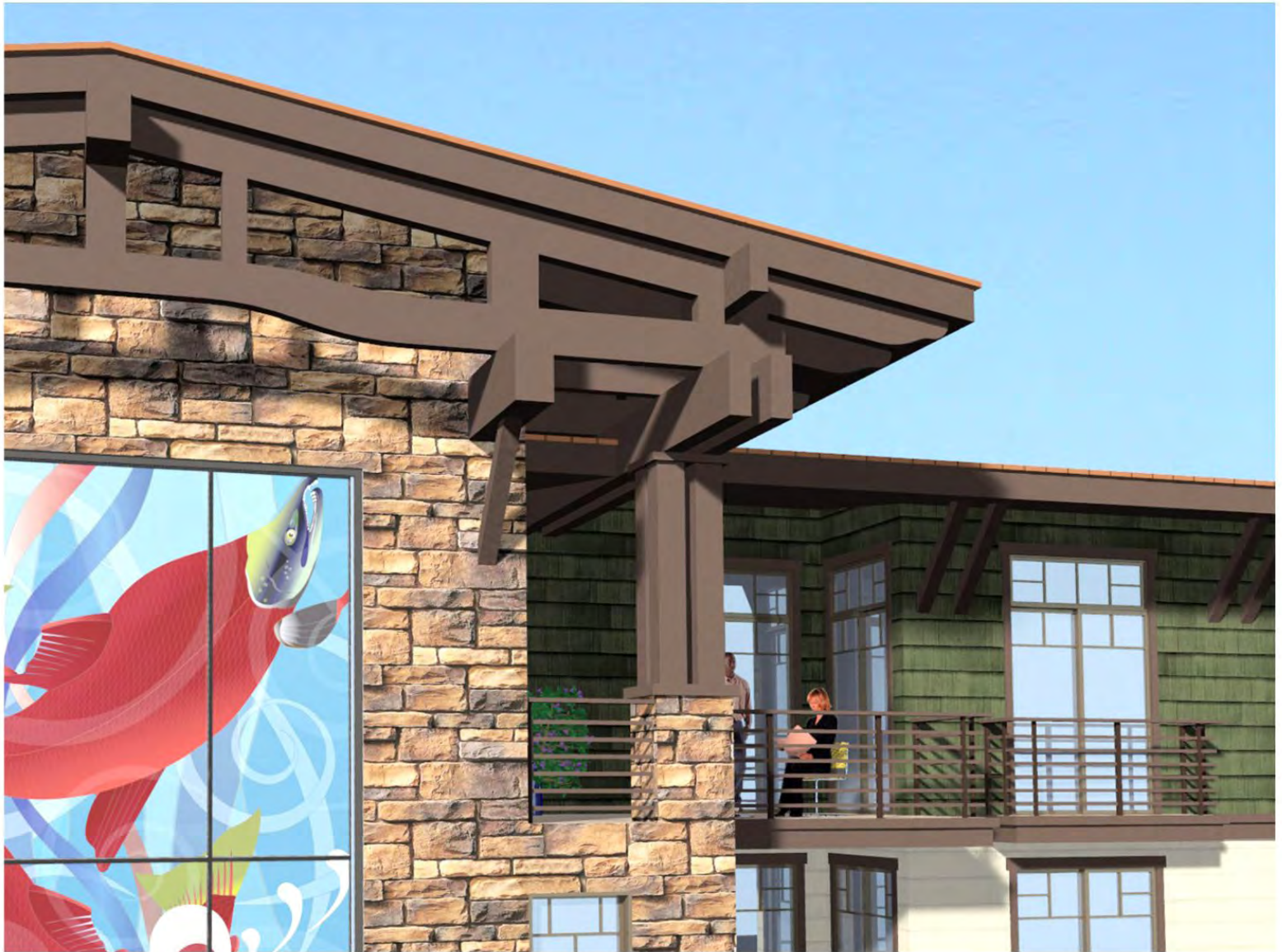
Source: Point Ruston, 2008



Point Ruston Supplemental EIS

Figure 12

Grand Plaza Street Scene



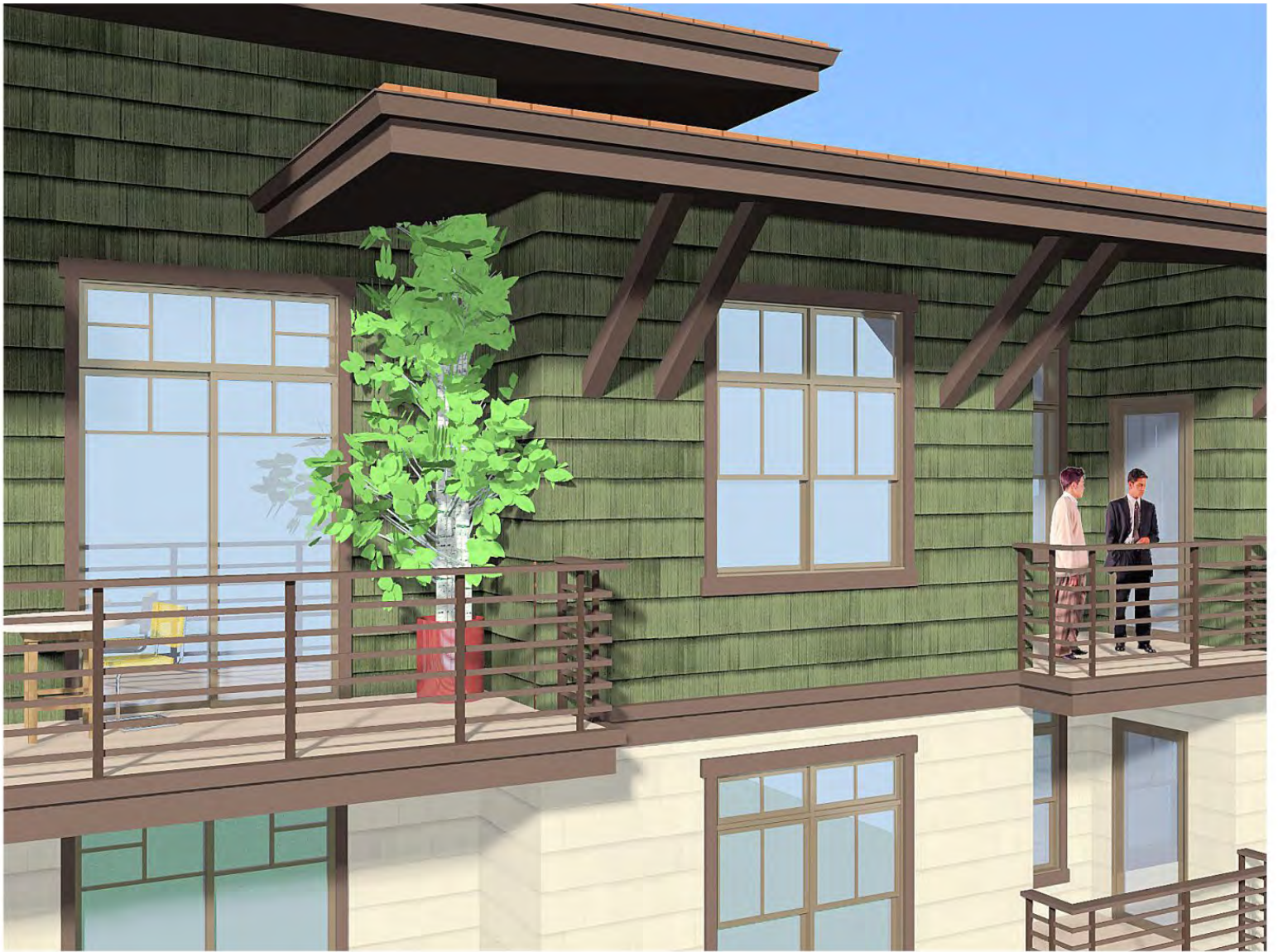
Source: Point Ruston, 2007



Point Ruston Supplemental EIS

Figure 13

Gable and Stained Glass



Source: Point Ruston, 2007



Point Ruston Supplemental EIS

Figure 14

Eves and Corbels



Source: Point Ruston, 2008



Point Ruston Supplemental EIS

Figure 15

Building 5 Elevation



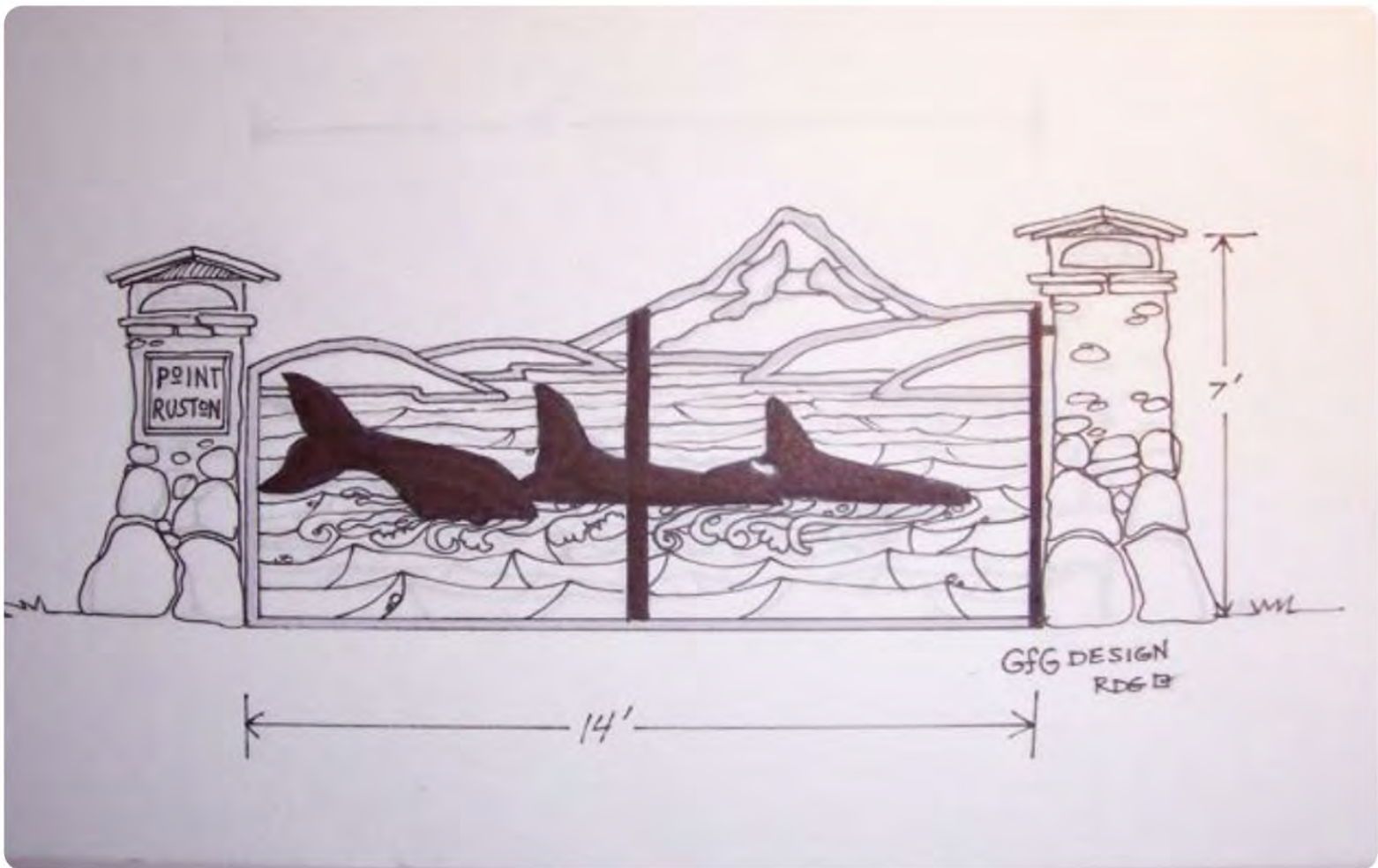
Source: Point Ruston, 2007



Point Ruston Supplemental EIS

Figure 16

Porte Cochere



Source: Point Ruston, 2007



Point Ruston Supplemental EIS

Figure 17

Conceptual Iron Parking
Garage Gate



Source: Point Ruston, 2007



Point Ruston Supplemental EIS

Figure 18

Fountain

Point Ruston LLC recently received notification from the Master Builder Association of Pierce County that Built Green™ certification has been awarded to *Point Ruston* in two categories: a “community” designation for the entire waterfront development as master planned and a “building” designation for the first building. The Built Green™ program certifies that communities and buildings are energy and resource-efficient, utilize durable materials, protect the environment and are cost-effective to own and operate. In addition to the community certification for *Point Ruston*, each individual building at *Point Ruston* would be certified as well.

The proponent indicates that *Point Ruston* is taking an additional step toward environmental stewardship by adhering to principles of an ENERGY STAR¹⁹ community. ENERGY STAR is a joint program of the U.S. Environmental Protection Agency (EPA) and the US Department of Energy. The program is meant to help consumers save money and protect the environment through the use of environmentally friendly products and building practices.

2.5.3 Point Ruston – Initial Building Development

As noted previously, *Point Ruston* would be a phased development with implementation occurring over an estimated 8 to 10-year timeframe. It is anticipated that construction would begin in the View Point District. Building 5 along Ruston Way has been selected as the first structure. As described in the previous Districts section, this building is designed as a dedicated commercial office building of three stories and about 45 feet in height with about 21,000 sq. ft. of office space and 70 parking stalls with a combination of below-grade parking garage and surface lots adjacent to the building. The location of this building and adequacy of existing utilities to serve a building of this size in advance of the completion of the Ruston Way realignment and major infrastructure relocation and extension into the site make this a practical first building to construct as it can be completed while the major infrastructure is still under construction.

It is anticipated that development associated with this initial building complex would commence in 2008. Site remediation in this portion of the project site, per terms of the Consent Decree, consists of final capping which will be completed concurrently with building construction and site development in this portion of the *Point Ruston* site. As with all phases of *Point Ruston*, EPA will monitor site construction and certify the phase for occupancy upon successful completion of the cap and other required measures for the protection of human health.

¹⁹ ENERGY STAR qualified homes can save homeowners as much as 30 percent on their energy bills. According to EPA, the ENERGY STAR program has shown amazing results nationally with an estimated \$14 billion saved on utility bills in 2006 and the avoidance of greenhouse gas emissions equivalent to that of 25 million cars.

2.6 ALTERNATIVES

SEPA requires analysis of “reasonable alternatives” as part of an EIS and defines reasonableness as “actions that could feasibly attain or approximate a proposal’s objectives, but at a lower environmental cost or decreased level of environmental degradation.”²⁰ Goals and objectives for this project have been identified by the proponent and are noted in *Section 2.4* of this FSEIS.

This document supplements the *1997 ASARCO Smelter Site Master Development Plan EIS*. The *1997 EIS* is a non-project EIS that identifies and evaluates the probable impacts that could result from four possible alternatives – a No Action Alternative and three project development alternatives of high, middle, and low intensity. This *Point Ruston* document is a project-level EIS. It is intended to supplement the *1997 EIS* by analyzing additional areas and new information to address changes in the *Proposed Action* since 1997. This FSEIS utilizes the middle intensity development alternative contained in the *1997 EIS* as its No Action Alternative. In order to focus on the changes since 1997, this FSEIS presumes that if, for some reason the *Proposed Action* is not implemented, the development that was authorized by the *Master Development Plan* could occur. The following describes that alternative; environmental impacts associated with this alternative is evaluated – along with the *Proposed Action* – in *Section III* of this FSEIS.

2.6.1 No-Action Alternative

Analysis of this alternative is required by SEPA.²¹

The *No Action Alternative* in this FSEIS, the same as the middle intensity alternative of the *1997 EIS*, would involve development as currently authorized by the *Master Development Plan*. Specifically elements of this alternative include the following:

- potential mix of land uses -- retail, office, light industrial, and office business park;
- approximately 991,500 sq.ft. of development is authorized as a result of this alternative;
- Floor Area Ratio: approximately 0.75;
- an estimated 2,977 parking spaces could be provided;
- it is assumed that a portion of the parking would be located on decks or beneath the buildings;
- building height would be 60 feet;²² and
- additional off-site infrastructure improvements (e.g., roads, utilities, etc.) would be necessary.

The *No Action Alternative* in this FSEIS is the same as the middle intensity alternative in the *1997 EIS*.

²⁰ WAC 197-11-440(5)

²¹ WAC 197-11-440(5bii)

²² The EIS site plan that accompanied the description of this alternative (Fig. 2-3) depicted development at 3-4 stories but listed 60 feet as the maximum height allowed.

2.6.2 Benefits and Disadvantages of Delaying Implementation

Another aspect of the *No-Action Alternative* involves the possibility of delaying implementation of the *Proposed Action* to some future time. As required by SEPA, the following outlines possible benefits and disadvantages of such delay.

Benefits of Deferral

- The advantage of deferral is that environmental impacts noted with regard to the *Proposed Action* and the *No Action Alternative* would not occur at this time, but would be delayed until project implementation.
- Future potential re-development options for the site would not be foreclosed.

Disadvantages of Deferral

- Deferral would not eliminate or lessen the severity of environmental impacts that have been identified, but merely postpone them. In some situations, this could result in greater cumulative impacts (e.g., traffic, noise, aesthetics, etc.) as a result of redevelopment, due to changes in background conditions.
- In all probability, deferral would add to the capital cost associated with individual development projects. Depending upon the amount of delay, deferral could result in a less operationally efficient complex or even abandonment of some development projects.

This course of action would not meet the proponent's objectives (refer also to discussion in *Section 2.4* of this FSEIS). Specifically, the proponent's commitments to EPA under the consent decree would be made more difficult, if not impossible to meet, if development of the site does not commence in 2008 as anticipated in the Consent Decree.

The completion of the remediation and planning for redevelopment of the property has been in process for more than fifteen years. The public has generally anticipated the redevelopment and there is a benefit to the community to return the property to the tax rolls, as well as the removal of this area from the Superfund list of the most contaminated properties in the country. Considerable public effort and investments have been made in the clean-up and redevelopment of the Thea Foss Waterway at the southern-end of this Commencement Bay shoreline. The completion of *Point Ruston* would be the "other book end" to that effort.

SECTION III

AFFECTED ENVIRONMENT,
SIGNIFICANT IMPACTS,
MITIGATION MEASURES, and
SIGNIFICANT UNAVOIDABLE
ADVERSE IMPACTS

SECTION III

AFFECTED ENVIRONMENT, SIGNIFICANT IMPACTS, MITIGATION MEASURES, and SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

This section of the FSEIS analyzes significant environmental impacts and mitigation measures associated with the *Proposed Action* and the *No Action Alternative*.

The environmental elements that are analyzed in this section of the FSEIS were determined by the City of Tacoma Public Works Department (SEPA Lead Agency) as a result of the formal, public EIS scoping process, which occurred from November 9 through November 16, 2007. Comments received during the EIS Scoping period were considered by the City of Tacoma in determining the issues and alternatives to be analyzed in this DSEIS. Seven broad areas of environmental review are evaluated; they include:

- **Land Use and Shoreline Use;**
- **Aesthetics – Viewshed;**
- **Housing;**
- **Environmental Health;**
- **Public Parks, Recreation and Open Space;**
- **Public Services and Utilities; and**
- **Transportation.**

3.1 Land Use and Shoreline Use

This section evaluates two major aspects of land use – land use patterns (Section 3.1.1) and the consistency of the *Proposed Action* and the *No Action Alternative* with adopted land use plans, policies and regulations (Section 3.1.2). Key documents that are summarized and evaluated as part of the consistency analysis include the State Growth Management Act, State Shoreline Management Act, the City of Tacoma and the Town of Ruston’s Comprehensive Plans, Shoreline Management Plans and zoning/land use regulations in the City of Tacoma and the Town of Ruston.

3.1.1 Land Use Patterns

3.1.1.1 Affected Environment

As noted previously in this FSEIS, the project site has been cleared of all buildings and structures, all upland portions of the property continue to be fenced,¹ and the site continues to undergo remediation, in compliance with EPA Consent Decrees (see discussion in Section 2.3.1). On-going site activities include grading and capping per the Scope of Work, under the terms of the Second Amendment to the ASARCO Consent Decree. Previously, soil has been imported to the *Point Ruston* property from the remediation of surrounding residential properties. As residential yard remediation continues as funded through the Environmental Trust established by Asarco and the EPA, soil will continue to be brought to the site for placement under the final site-wide cap. Stockpiles of this material, as well as imported clean soils to accomplish the final capping, are present on the site. Final grading will result in a slope of 2 to 2.75 percent from the shoreline of Commencement Bay to Ruston Way.

The pattern of land uses in the vicinity of the site include the Tacoma Yacht Club and Breakwater Marina and Metro Parks Peninsula Park property immediately north of the site, single family residential development generally west of the site, a steep hillside/greenbelt southwest of the site, open waters of Commencement Bay east of the site, as well as the Ruston Way commercial and restaurant corridor to the south of the site.

3.1.1.2 Significant Impacts of the Proposal

The *Proposed Action* assumes development of the entire *Point Ruston* site, with final build-out consisting of 800 - 1,000 new multi-family dwelling units and 130,000 - 228,000 sq. ft. of commercial/retail space. Full development is projected to occur over an 8 to 10-year timeframe. It is anticipated that the total development may include 30-35 buildings on-site with an estimated total combined square footage of 1.0 million to 1.3 million square feet. The project would also involve the proposed use of a converted ferryboat, a portion of which would serve as the sales and leasing office for the project. Other than the ferry to be moored over owned submerged land, all development would be located on the upland portion of the site. Parking would be predominantly structured, although supplemented with surface parking, to accommodate an estimated 3,700 vehicles.

¹ A 6-foot high cyclone fence surrounds the upland portion of the site. This fence replaced the site fencing that occurred when the ASARCO plant was operational.

Upon full build-out of the *Point Ruston* development, 12 distinct areas comprising approximately 50 acres will be developed including publicly accessible parks, recreation areas, open space, view corridors and public access including major thoroughfares.

Of the 800-1,000 multifamily units that are proposed, approximately 77 percent of the units would be condominiums, 3 percent would be town homes, 10 percent apartments, and 10 percent senior housing. Units would range from approximately 500 sq. ft. to 3,000 sq. ft. or more. The majority of the residential units would be located over retail/commercial space or structured parking in “mixed-use” buildings. Of the 130,000 – 228,000 sq. ft. of commercial/retail space, it is anticipated that approximately 20,000 sq. ft. would be developed for food and beverage use, 18,000 sq. ft. as grocery, 70,000 sq. ft. wellness/fitness; 60,000 sq. ft. as retail, and 60,000 sq. ft. for commercial/office space.

While the proposed land uses would differ from that which presently exists at the site, the site continues to undergo Superfund remediation from over 100 years of intense industrial uses that occurred at the site. The development baseline, therefore, is not an undeveloped site, but rather the development that was approved as the *ASARCO Smelter Site Master Development Plan* and described as the *No Action Alternative* in this FSEIS.

Districts and Upland & Shoreline Zone

As noted in **Section II** of this FSEIS, development of *Point Ruston* would occur across four distinct districts, as well within two distinct zones, as described in **Table 3.1.1** and displayed in **Figure 4 (Section II)**.

**Table 3.1.1
POINT RUSTON LAND USE BY DISTRICT AND ZONE**

DISTRICT	Jurisdiction, Zoning Code	Proposed General Use	Building # (see Figure 1)	Shoreline/Upland Zones	Building #
Viewpoint District	Tacoma, S-6	Light Commercial/ Residential	2A, 2B, 3A, 3B, 4A, 4B, 5, 6A, 6B, 7	Shoreline ²	2B, 3B, 4B
				Upland ³	2A, 3A, 4A, 5, 6A, 6B, 7
Promenade District	Tacoma/Ruston, S-6/MPD	Retail/Commercial Core	1A, 1B, 1C, 8, 9A, 9B, 9C, 11A, 11B, 16, 17, 18A, 18B	Shoreline	1B, 1C, 17
				Upland	1A, 8, 9, 11A, 11B, 16, 18
Marina District	Ruston, MPD	Residential Mixed Use	14, 15A, 15B, 15C	Shoreline	15
				Upland	14
Baltimore District	Ruston, MPD	Neighborhood Commercial	10A, 10B, 12	Shoreline	-----
				Upland	10,12

² Shoreline zone extends 200 feet landward from the Ordinary High Water Mark (OHWM).

³ The Upland zone includes all other property not within the project Shoreline zone.

The following is a discussion of the land use patterns that would comprise each of the four proposed districts within the project site.

Viewpoint District – The Viewpoint District would occupy the south portion of the site, completely within the jurisdiction of the City of Tacoma. This District is divided between the shoreline zone and upland zone of the project with structures planned for both the shoreline area and the upland area of the site. All structures built within the shoreline zone would be of a mixed-use nature. The promenade in this District would be built in conjunction with the construction of the structures in the shoreline zone.

The Viewpoint District would be comprised of approximately ten buildings and a number of smaller “town home” style condominiums creating located along the shoreline promenade as a façade to the larger buildings behind. These smaller two-to-three story structures would utilize the parking garages in the buildings immediately adjacent to them for parking. These units would be of a “live-above-work” nature, incorporating retail-related spaces on the ground floor facing the promenade with living areas above. The primary uses in this District would be mixed-use with residential, retail, and commercial. For a comparison of uses within each building and the jurisdictional locale of each building, refer to **Tables 3.1.2** and **3.1.3**.

This district would be accessed from Ruston Way via the southeastern-most of the three proposed access points and would be connected internally within the development to the retail core (Promenade District). It is anticipated that the first development will occur in this district, utilizing proximity to existing infrastructure, and will develop over the course of two or three years, building by building, as market conditions warrant.

Promenade District – Located centrally in the widest portion of the project site, this District is split between the jurisdictions of Tacoma and Ruston. This District is also divided between the shoreline zone and upland zone of the site. Access would primarily be via Point Ruston Blvd., located along the boundary between the two municipalities and extending from the main entrance of the development to the 200-foot wide Grand Plaza. This District would contain the greatest concentration of retail uses within the *Point Ruston* development – developed predominately with retail shops at street level and residential or office space located above. It is anticipated that some smaller professional service offices may be included among the retail. This District would consist of 8 to 10 buildings ranging from 1 to 7 stories in height (25 to 80 feet).

It is anticipated that the retail core would to be constructed in a coordinated fashion with potentially 75 percent of the buildings completed simultaneously. Infrastructure, roadways, plazas and the promenade in this District would be completed for the Grand Opening. The Grand Plaza, promenade, and other public amenities would likely be built in conjunction with construction of the proposed hotel (Building 17). It is anticipated that construction would begin within this District in two to three years and be operational approximately two years later.

Baltimore District – This District is within the jurisdiction of the Town of Ruston, and consists of two potential building sites proximate to the intersection of Ruston Way and the Baltimore Street reconnection to the south and Yacht Club Road to the north. These sites would be located across the street (Ruston Way) from the retail core but have high visibility from Ruston Way, as well as convenient access. Development of this District would be dependent on the prior relocation of Ruston Way and construction of Yacht Club Road from which access

and utilities would be provided. It is anticipated that these sites would be developed concurrently with the development of the Promenade District or soon thereafter.

Marina District – The Marina District would be located at the northwest-end, within the jurisdiction of Ruston, adjacent to the Tacoma Yacht Basin and at the base of Promontory Hill. Depending upon the infrastructure that would be extended through the Promenade District, it would most naturally develop following completion of the retail core of the Promenade District. This portion of the property is relatively narrow, is somewhat isolated from the adjacent retail core, and would be accessed from Yacht Club Road.

Residential Sales/Additional Retail - As depicted in Figure 8 (**Section II**), it is proposed that a former ferry boat be converted for use as a temporary residential sales office. The boat would be moored in Tract “A” (Point Ruston LLC-owned in-water property), south of Building 4. No in-water dredging or filling would be necessary.

**Table 3.1.2
POINT RUSTON SQUARE FOOTAGE PER USE**

DISTRICT	Residential Net Sq. Ft.	Jurisdiction/ Code	Commercial Net Sq. Ft.	Building # (see Figure 1)
Viewpoint District	611,200	Tacoma	71,500	2A, 2B, 3A, 3B, 4A, 4B, 5, 6A, 6B, 7
Promenade District	217,400	Tacoma/ Ruston	144,000	1A, 1B, 1C, 8, 9, 11A, 11B, 16, 17, 18
Marina District	242,000	Ruston	2500	14, 15
Baltimore District	-	Ruston	10,000	10, 12
	1,070,600		228,000	

Source: Point Ruston LLC

**Table 3.1.3
COMPARATIVE ANALYSIS OF PLANNED USE BY BUILDING**

POINT RUSTON PLANNED USE BY BUILDING		
DISTRICT/ BLDG. #	Description	JURISDICTION
VIEWPOINT 2A	MIXED USE - RESIDENTIAL OVER RETAIL/COMMERCIAL: Building 2A will contain approximately residential 99 units in five stories above the parking and commercial levels, and 17,500 sq. ft. retail/commercial. Parking would be located predominately within the garages accessed from either end of the structure. This building is setback more than 200' from the ordinary high water mark of the site. One level of parking would be below street level and two levels would be above street grade and hidden from the street by the retail/commercial space and residential entry lobby. In total, approximately 350 to 360 interior spaces would be provided plus 20 to 30 surface spaces adjacent to the building. The building would be approximately 80 feet in height.	Tacoma
VIEWPOINT 2B	MIXED USE - RESIDENTIAL OVER RETAIL/COMMERCIAL: Building 2B is a mixed-use building set back between 100 and 150 feet from the ordinary high water mark and will contain 44 total units. It will have a height of up to 50 feet with a single story bistro/retail area between the two sections, accessed from the Promenade. A private courtyard would be maintained between Buildings 2A and 2B.	Tacoma
VIEWPOINT 3A	MIXED USE - RESIDENTIAL OVER RETAIL/COMMERCIAL: Building 3A would be setback at least 200 feet back from the shoreline and would range in height from 50 to 80 feet. This structure would contain approximately 120 multifamily units on the floors above street level with total living area of approximately 145,000 sq. ft. A total of about 18,500 sq. ft of leasable retail and commercial space would be accommodated within the building. Two levels of parking, one below street grade and one behind the commercial space at street level, would accommodate approximately 320 parking spaces with another 10 to 20 spaces located on the street.	Tacoma
VIEWPOINT 3B	RESIDENTIAL: Between Building 3A and the Promenade, 8 to 13 of the town home-style condominiums, approximately 25 to 35 feet in height would be located 150 feet back from the shoreline utilizing the parking garage in Building 3A for parking.	Tacoma
VIEWPOINT 4A	MIXED USE - RESIDENTIAL OVER RETAIL/COMMERCIAL: Building 4A would range in height from 50 to 80 feet in height and would be setback at least 200 feet from the shoreline. It is anticipated that this building would accommodate approximately 140 multifamily units with about 180,000 sq. ft. of living space and an estimated 13,000 sq. ft. of commercial or retail space at the street level. Two levels of structured parking are proposed within this building; one level would be below street grade and one at-grade located behind the storefront commercial spaces. Parking in this complex would accommodate approximately 350 cars with another 20 spaces available on street.	Tacoma
VIEWPOINT 4B	MIXED USE - LIVE/WORK TOWNHOMES: As many as 23 of the town home style live-above-work units would be located between Building 4A and the Promenade with a setback of 100 to 150 feet from the shoreline.	Tacoma

POINT RUSTON PLANNED USE BY BUILDING		
DISTRICT/ BLDG. #	Description	JURISDICTION
VIEWPOINT 5	RETAIL/COMMERCIAL: Building 5 is proposed as a dedicated water dependent or water enjoyment retail/commercial building approximately 45 feet in height with three stories. Approximately 73 parking stalls as required by code would be provided adjacent to the building. This building is setback about 400' from the ordinary high water mark. The first floor retail is approximately 9,000 sq. ft., and the second and third floor commercial space is floor 8000 sq. ft., and 4000 sq. ft., respectively, for a total of about 21,000 sq. ft.	Tacoma
VIEWPOINT 6	RETAIL/COMMERCIAL: Building 6A/6B is intended as an assisted living facility, which would combine smaller multifamily units with supporting care facilities and administrative offices. This structure would have a height of approximately 80 feet with parking provided below grade and supplemented by surface parking; a total of approximately 150 parking spaces would be included with this structure.	Tacoma
VIEWPOINT 7	MIXED USE - RESIDENTIAL OVER RETAIL/COMMERCIAL: Building 7 is anticipated to be an apartment with approximately 100 rental units and a small amount of retail or commercial space located at the ground level. Resident parking would be predominately in a garage located below grade and supplemented by surface guest parking; a total of approximately 150 to 200 parking spaces would be included with this structure.	Tacoma
PROMENADE 1A	MIXED USE - RESIDENTIAL OVER RETAIL/COMMERCIAL: Building 1A would range from 50 to 80 feet in height and consist of approximately 127 multifamily units with about 150,000 sq. ft. of living space located above about 17,000 street level retail and parking for 240 cars. Building 1A adjoins the Grand Plaza.	Tacoma
PROMENADE 1B	RESIDENTIAL: Between Building 1A and the Promenade, approximately 11 town home-style condominiums, 25 to 35 feet in height would be located 150 feet back from the shoreline utilizing the parking garage in Building 1A for parking.	Tacoma
PROMENADE 1C	RETAIL: A restaurant or food and beverage establishment would be within Building 1C adjacent to the plaza. This structure would be 1 to 2 stories in height and set back 100 - 150 feet from the shoreline. It could utilize its relationship to the Grand Plaza to provide outdoor seating in summer months.	Tacoma
PROMENADE 8	COMMERCIAL/RETAIL: Building 8 would be a small, decorative "four corners" building that would be located between Grand Avenue, the main street into this Promenade District and the Island View Corridor, which would provide a 100-foot wide pedestrian link directly between the Promenade, Ruston Way and Main Street. This is intended to be a small 1 or 2-story retail structure up to 35 feet in height that contains approximately 6,000 sq.ft. This structure would depend on surface parking located along the fronting streets.	Tacoma

POINT RUSTON PLANNED USE BY BUILDING		
DISTRICT/ BLDG. #	Description	JURISDICTION
PROMENADE 9A, 9B & 9C	MIXED USE – RESIDENTIAL/COMMERCIAL OVER RETAIL. Building 9 would be a regional wellness center that includes a fitness facility and associated spa, health facility and recreational-oriented retail. This building may consist of multiple structures with an intervening courtyard, as shown. The storefronts located along the roadways may include -- in addition to the fitness center -- establishments such as a juice bar, day spa, physical therapy, boutiques, sporting goods and/or outdoor outfitters. The parking for this complex would be provided below-grade, beneath the complex and the courtyard. The garage parking would be supplemented by surface parking located around the building. Potentially 10 to 15 multifamily lofts or a similar amount of commercial space would be located in 1 or 2 floors above the facilities at street level – extending to a height of up to 45 feet.	Ruston
PROMENADE 11A	RETAIL: Building 11A, at the corner of Yacht Club Road and Ruston Way, is envisioned as a neighborhood grocery and produce market with an associated deli. It would be 1 or potentially 2 stories in height (maximum height of 45 feet) and built above a below grade parking garage of 1 or 2 sub-grade stories that would span beneath the market and the adjacent “surface” parking lot. This facility would serve as general public parking lot for the retail core, supplementing what is provided by each establishment. It is anticipated that the hotel and restaurants could use portions of this garage for valet parking, as well.	Ruston
PROMENADE 11B	MIXED USE- RESIDENTIAL ABOVE RETAIL. Building 11B would have street level retail along Central Avenue and potentially retail above facing the surface parking lot above the garage. It could also contain 8-10 multifamily units located above the retail to a height of approximately 45 feet above grade.	Ruston
PROMENADE 16	MIXED USE – RESIDENTIAL OVER RETAIL/COMMERCIAL: Building 16 is assumed to provide an additional 10,000 to 15,000 sq. ft. of retail/commercial space at street level might possibly have up to 2 stories of multifamily units located above (maximum height of 45 feet).	Ruston
PROMENADE 17	HOTEL: The Promenade District would be anchored by a 150-room hotel that is proposed in the east-central portion of the project site, within the Town of Ruston. The hotel would contain at least one restaurant, a lounge, conference/meeting rooms and typical fitness and spa facilities. It is anticipated that the hotel would be a maximum of 60 feet in height and set back from the shoreline at least 100 feet. Parking would be accommodated within and under the building with valet drop-off at the porte cochere built at the street entrance and service and loading from the surface parking lot at the rear of building.	Ruston
PROMENADE 18A 18B	RETAIL: Buildings 18A and B are proposed to be two distinct free standing restaurant sites for buildings approximately 30-45 ft. in height, sitting alongside the publicly accessible Grand Plaza and Promenade. It is envisioned that outdoor seating would be included along the streets or utilizing a portion of the Grand Plaza.	Ruston

POINT RUSTON PLANNED USE BY BUILDING		
DISTRICT/ BLDG. #	Description	JURISDICTION
MARINA 14	MIXED USE: Building 14 is envisioned as additional structured parking and potentially could be developed as additional commercial space or multifamily units above. Building 14 will be approximately 60 feet in height and is nestled at the base of the OCF on the northwestern side.	Ruston
MARINA 15	RESIDENTIAL: Building 15 is envisioned as a multifamily structure with potentially 200 – 240 units. The building would be about 60 feet in height and contain approximately 250,000 sq.ft. of living space. Parking would be provided within the structure, potentially in two sections of the building located behind the main portion of the structure, as illustrated in Figure 6, with supplemental surface parking for guests.	Ruston
BALTIMORE 10	COMMERCIAL/RETAIL: The Building 10 site would be created as a result of the relocation of Ruston Way onto the project property. It consists of property remaining on the on the south-side of the new alignment combined with the existing right-of-way, which is proposed to be vacated at the time the new right of way is dedicated. Development of this building site would create a small commercial or retail space in the range of 4,000 to 8,000 sq.ft. (e.g., potential community bank branch). This structure would be 1 or 2-story structure up to 35 feet in height.	Ruston
BALTIMORE 12	COMMERCIAL/RETAIL: Building 12 would be located on the north-side of the Ruston Way and Yacht Club Road intersection, at the base of Promontory Hill. This building site would also be the result of property remaining following relocation of Ruston Way and vacated existing right-of-way that would no longer be utilized as part of the new alignment. This site could be a small commercial use (e.g., office/credit union) and possibly a single story structure, 3,000 to 5,000 sq. ft. in size.	Ruston
Residential Sales – Additional Retail		
Ferry	As depicted on the site plans and Figures 8 and 9, it is proposed that a portion of a former ferry boat be converted for use as a temporary sales and leasing office. The boat would be moored above Point Ruston LLC-owned in-water property south of the Viewpoint District. No in water dredging or filling would be necessary.	Tacoma

Source: Point Ruston LLC

3.1.1.3 Significant Impacts of the No Action Alternative

A Draft EIS was published for the *ASARCO Smelter Site Master Development Plan* in May 1997 and the Final EIS for that project was published in October 1997. These documents are collectively referred to as the “*Master Development Plan (or MDP) EIS*” and they accompanied the *ASARCO Smelter Site Master Development Plan* through the review and approval process.

The 1997 *Master Development Plan EIS* is a non-project EIS that identifies and evaluates the probable significant environmental impacts that could result from four possible alternatives – a *No Action Alternative* and three development alternatives. The 1997 EIS divided the site into seven sub-areas (ranging from approximately 3 ac. to 8 ac.) and applied different intensities of development to each sub-area, based on the alternatives. As an overview, the development alternatives included the following:⁴

⁴ See discussion later in this section regarding specifics of each alternative

- *High-Intensity Alternative* – approximately 1.9 million sq.ft. of development and parking for 6,650 vehicles;
- *Middle-Intensity Alternative* – approximately 991,500 sq.ft. of development and parking for 2,977 vehicles; and
- *Low-Intensity Alternative* -- approximately 241,200 sq.ft. of development with 724 parking spaces.

Subsequent to the completion of the 1997 MDP EIS, the Town of Ruston adopted the *ASARCO Smelter Site Master Development Plan* as the controlling land use regulation for the property – with a focus on the *Middle-Intensity Alternative*. The City of Tacoma also adopted zoning code provisions to regulate that portion of the site that is within their jurisdiction.

The 1997 *Master Development Plan* EIS notes that whereas office use was selected for purposes of the worst-case scenario (highest traffic generating use), “(i)n reality, a different mix of uses could occur.”⁵ The mix of land uses that were considered for each alternative included: retail, office, light industrial and office business park, as well as outdoor storage or display.

As a non-project document, the environmental analysis that is contained in the 1997 EIS is largely qualitative and based on the general types of environmental impacts that could occur -- with relatively little definitive site-specific impact analysis provided. This approach is appropriate for a non-project EIS where typically less detailed (project specific) information is available. The focus of a non-project EIS involves a comparative analysis of probable impacts between various alternatives -- with less detailed quantitative information provided for any one option. It has been determined that the probable, significant environmental impacts of the four possible future re-development alternatives identified in 1997 were adequately evaluated in the *Master Development Plan* EIS.⁶

3.1.1.4 Mitigation Measures

- Within the City of Tacoma -- the *Point Ruston* development proposes construction of approximately 775 residential units, 94,500 sq. ft. of commercial/retail space, and development of an estimated 26 acres of public park, recreation areas, open space, view corridors, and public access including major thoroughfares. Conformance with all applicable land use regulations and allowed uses and development regulations within the City of Tacoma is required, and as such, no land use impacts are anticipated and no additional mitigation is deemed necessary.
- Within the Town of Ruston -- the *Point Ruston* development proposes construction of approximately 200 to 250 residential units, 133,500 sq.ft. of commercial/retail space, and the development of approximately 24 acres of public parks, recreation areas and open space. Conformance with all applicable land use regulations and allowed uses and development regulations within the Town of Ruston is required, and as such, no land use impacts are anticipated and no additional mitigation is deemed necessary.

⁵ Draft EIS, pg. 2-9

⁶ No challenge to the adequacy of the *Master Development Plan* EIS was raised.

3.1.1.5 Significant Unavoidable Adverse Impacts

Implementation of the *Point Ruston* development as proposed is not expected to result in any significant adverse environmental impacts nor cause any significant unavoidable adverse impacts.

3.1.2 Land Use – Consistency With Plans and Regulations

3.1.2 Background

Regulatory Control

The *Point Ruston* site consists of 82 acres with approximately 4,800 lineal feet of shoreline along Commencement Bay. An estimated 80 percent of the site (66 acres) are upland areas⁷ and the remaining 20 percent (16 acres) are submerged tidelands. As indicated above, approximately 54 percent of the site area is located within the City of Tacoma and 46 percent is within the Town of Ruston. Figure 7 (*Section II* of this FSEIS), depicts those portions of the project site within each jurisdiction. The property within each jurisdiction ranges in width from approximately 200 feet wide in the Town of Ruston to 800 feet in width in the City of Tacoma.

The City of Tacoma and the Town of Ruston are the two jurisdictions that have primary land use regulatory control over the *Point Ruston* project site. The City of Tacoma exercises authority over the south 44 acres of the site and the Town of Ruston exercises regulatory control over the north 38 acres. In addition, two other agencies also have some direct or indirect authority over land use considerations relative to the site -- the U.S. Environmental Protection Agency and the State of Washington (through the Department of Ecology).

- **EPA** -- Currently, the proposed *Point Ruston* development site is undergoing environmental remediation under the Second Amendment to the ASARCO Consent Decree with EPA, under CERCLA/Superfund.⁸ Ongoing remediation activities include grading and capping per the terms of the Consent Decree. These activities are explicitly exempt from SEPA analysis and local regulation exercises control relative to compliance with the Consent Decree and exercises indirect control over shoreline portions of the site.
- **State of Washington/Department of Ecology** -- The Shoreline Management Act jointly confers jurisdiction over the shoreline zone of the project site to the State and local jurisdictions (in this case Tacoma and Ruston) and development activities in this zone must conform to applicable State law under the Act.⁹ As described later in this section of the FSEIS, the City of Tacoma and the Town of Ruston have each developed Shoreline Management Plans for property within their jurisdictions. Those plans and any subsequent amendments must be approved by the Department of Ecology in their capacity under the Shoreline Management Act. In addition, the Department of Ecology reviews all approved shoreline substantial development permits.

⁷ Upland of the Ordinary High Water Mark (OHWM)

⁸ USC, Title 42 Chapter 103

⁹ RCW 90.58 Shoreline Management Act of 1971

3.1.3 Planning-Related Documents

3.1.3.1 State of Washington Plans and Policies

3.1.3.1.1 **Growth Management Act**

Summary: *The Growth Management Act (GMA) (RCW 36.70A), adopted in 1990 and subsequently amended, provides a comprehensive framework for managing growth and coordinating land use planning with the provision of infrastructure. The general goals of the GMA include, in part: directing growth to urban areas; reducing sprawl; encouraging economic development consistent with adopted comprehensive plans; protecting private property rights; providing efficient multi-modal transportation systems; encouraging a variety of housing types and densities affordable to all economic segments of the population; protecting the environment; and ensuring that public facilities and services necessary to support development meet locally established minimum standards at the time development is in place (RCW 36.70A.020).*

Jurisdictions subject to GMA must prepare and adopt: countywide planning policies; comprehensive plans containing policies with specific elements for land use, transportation, housing, capital facilities, utilities, rural lands, and economic development; and development regulations implementing those plans.

The Growth Management Act also requires that each city and county in Washington comprehensively review and revise its comprehensive plan and development regulations, as necessary every seven years to ensure that they comply with the GMA .

Discussion: *Consistent with the GMA, the City of Tacoma has adopted a Comprehensive Plan to guide future development and fulfill the City's responsibilities under GMA. The Proposed Action and the No Action Alternative, as identified in **Section II** of this FSEIS, would encourage economic development and provide a variety of housing types and densities within the Urban Growth Boundary, consistent with the GMA goals and policies outlined above. The relationship of the Proposed Action and the No Action Alternative to the City of Tacoma's Comprehensive Plan, as well as the Town of Ruston's Comprehensive Plan, is discussed below, under City of Tacoma and Town of Ruston Comprehensive Plans.*

3.1.3.1.2 **Shoreline Management Act**

Summary: *The Shoreline Management Act (SMA) of 1971 (RCW 90.58) is intended to protect the public interest associated with shorelines of the state while, at the same time, recognizing and protecting private property rights consistent with the public interest. The primary implementing tool of the SMA is the adoption by local jurisdictions of Shoreline Master Programs, which must also be approved by the Department of Ecology (Ecology). The SMA establishes two basic categories of shoreline: "Shoreline of State-wide Significance," which are identified in the SMA; and "shorelines," which includes all of the water areas of the state and their associated wetlands, together with the lands underlying them. The Commencement Bay shoreline is classified as a "Shoreline of State-wide Significance" under SMA (RCW 90.58.030).*

Discussion: *The SMA is implemented in the City of Tacoma through the City's Shoreline Master Program (SMP). Similarly, SMA is implemented in the Town of Ruston through its Shoreline Management Plan. The consistency of the Proposed Action and the No Action*

Alternative with the City of Tacoma's SMP and the Town of Ruston's SMP is discussed below under City of Tacoma and Town of Ruston Shoreline Management Plans.

3.1.3.2 City of Tacoma and Town of Ruston Comprehensive Plans

3.1.3.2.1 **City of Tacoma Generalized Land Use Plan**¹⁰

Summary: *The City's Generalized Land Use Plan is the land use element of the City's Comprehensive Plan, as required by the Growth Management Act. This Plan is a policy document and the policies guide future growth within the City. The Plan document also contains a generalized land use map, which depicts that area of the project site within the City as High Intensity Use. The following policies are applicable to the Point Ruston development.*

LU-RDHI-2 Maximize Marine View

Locate new high-rise, high-density residential development within and in areas adjacent to the downtown in order to take maximum advantage of the marine and territorial views.

Discussion: *Point Ruston is consistent with each of this policy in that the site is located on Commencement Bay and as shown by Figure 7 (**Section II**) proposed development is sited in order to maximize marine and territorial views.*

LU-RDHI-3 Locate Near Open Space

Locate high-rise, high-density residential development near public open spaces and parks within high intensity areas.

Discussion: *The Proposed Action is consistent with this policy. The Proposed Action site is designated High Intensity and located proximate to public open spaces including Peninsula Park, the Ruston Way corridor and Point Defiance. In addition, as noted previously in this FSEIS, approximately 50-acres of the project site (61 percent of the total site area) would be maintained as public parks, recreation areas, open space, view corridors, and public access including major thoroughfares. Key aspects include: publicly-accessible open space (e.g., view corridors, vehicular and pedestrian access, etc.), public art, and recreational facilities (Figures 5 and 6). Included with this would be a 100-foot wide (average width) Promenade located along the entire length of the shoreline portion of the project site, which would be connected to the trail system associated with Ruston Way, Peninsula Park, and Point Defiance Park.*

LU-RDHI-4 Housing for a Variety of Incomes

Encourage the construction of high, medium and low-income residential developments within high intensity areas.

Discussion: *As described in **Section II** of this FSEIS and with regard to *Housing* (Section 3.3) Point Ruston would include a range of housing types and plans to accommodate a range of incomes.*

LU-RDHI-5 Open Space and Building Use

Encourage the use of areas under and on top of buildings in high intensity residential areas for open space, recreation, parking and other related purposes.

¹⁰ Ord. No. 27295 of November 16, 2004

Discussion: As described in **Section II** of this FSEIS the *Proposed Action* would incorporate parking, as well as retail and commercial uses within the proposed mixed-use structures and, as shown by Figure 10, would integrate open space and recreational facilities within the proposed complex.

LU-RDHI-6 Mixed-use

Promote residential development for the upper floors of commercial buildings to achieve greater densities and support transit use.

Discussion: See comments above with regard to LU-RDHI-5.

LU-RDHI-7 Special Amenities

Encourage innovations in the development of high intensity residential areas to include such conveniences as grade-separated pedestrian crossings, public transit connections and mixed-use development within high-rise structures in order to meet the needs of residents in these areas.

Discussion: The *Proposed Action* would be consistent with this policy in that it would integrate a mixed-use development with open space and recreational facilities, as well as site access improvements associated with Ruston Way. Refer also to the discussion of Open Space (2.5.2.6) and Roadways, Access (2.4.2.7) in this FSEIS.

Neighborhood Element –West End Neighborhood: Area Vision

The overall vision is a community with attractive neighborhoods, flourishing business areas, excellent schools, safe and attractive streets with places to walk and ride bicycles, viable public areas; well maintained and constructed single-family homes and apartments; good building design as well as protected natural areas and attractive parks accessible by all residents... The potential redevelopment of the Titlow/Day Island area into a mix of commercial and residential should be considered, as well as facilitating the redevelopment of the former ASARCO property.

Discussion: The *Proposed Action* would be mostly consistent with this policy in that it would integrate a mixed-use development with commercial and retail opportunities, improved site access with the improvements associated with Ruston Way, ample parks, open space and recreational facilities, pedestrian friendly corridors, and apartment/multi-family style living, all while accomplishing the redevelopment of the former Asarco site. Refer also to the discussion of Project Overview (2.5.1), Open Space (2.5.2.6), Roadways, Access and Parking (2.4.2.7) and Project Design and Architecture (2.5.2.8), in this FSEIS.

WE-1 Residential

Maintain the area's mix of single-family and multifamily housing while preserving the unique features of the West End area. Multifamily residential uses range from small duplexes and triplexes to large apartment complexes. It is intended that medium density multifamily residential use continue and that future development be encouraged along major transportation corridors such as Pearl Street, 6th Avenue, and Mildred Street and within mixed-use centers.

Discussion: The project is consistent with this policy by proposing to provide 1000+/- residential units in a mixed-use project in multi family style buildings.

WE-1.3 Ruston/Jane Clark Park - Residential Infill

Support infill housing in the Ruston/Jane Clark Park area focusing on property adjacent to the former ASARCO site to encourage added investment and support population growth.

Discussion: The *Proposed Action* is consistent with this policy. In present dollars the potential total investment for the Proposed Action to be built out on the ASARCO site is over \$1billion, with 1000+/- housing units proposed. This will support the population growth that the Town anticipates, spurred on by this investment.

WE-2 Commercial

Maintain and enhance the economic viability and employment opportunities of the former ASARCO smelter site as it redevelops on land located within the City of Tacoma and the Town of Ruston.

Discussion: The *Proposed Action* is consistent with this policy, as approximately 100,000 sq. ft. of retail shops, grocery, and food and beverage, 70,000 +/- sq. ft. wellness/fitness center and related retail and services, and an estimated 60,000 of commercial office space is proposed, creating economic viability and stimulating employment opportunities in both the City of Tacoma and Town of Ruston

WE-3 Recreation & Open Space

*Maintain and enhance parks, open space and other recreational facilities located within walking distance of existing residents. **Policy Intent** – Recreational and open space opportunities continue as a priority for the West End Neighborhood Council given the diversity of its neighborhoods. While Point Defiance Park represents a large 700-acre recreational area, it is located at the far north end of the area and primarily serves a regional population. Existing neighborhood level recreational needs are generally served by public school playgrounds, Titlow Park, Baltimore Park, east end of the Tacoma Community College campus and a few natural areas such as China Lake.*

Discussion: The *Proposed Action* is consistent with this policy, as the *Proposed Action* calls for 50+/- acres of open space, park, and recreation facilities to be constructed, including 12 distinctive park areas, all fully accessible to the public, including interactive art and other public amenities. Further, the Promenade, which is approximately 10 acres in size, averages approximately 100 ft. in width and spans the entire length of the Point Ruston property.

WE-3.4 Ruston Way Pedestrian Promenade

Complete the pedestrian promenade along Ruston Way through the ASARCO redevelopment site to connect to Point Defiance Park.

Discussion: The *Proposed Action* is consistent with this policy, as the *Proposed Action* calls for the construction of a fully publicly accessible Promenade, with public art and other amenities, approximately 10 acres in size, and averaging approximately 100 ft. in width, spanning the entire length of the Point Ruston property, connecting at the south-east with the existing Ruston Way walkway and continuing onto the property border of the Metropolitan Parks' Department.

WE-4 Transportation

Maintain and/or improve street and street related circulation systems including sidewalks, trails, bicycle routes throughout the West End.

Discussion: The *Proposed Action* is consistent with this policy. The *Proposed Action* calls for a major developer's LID project to finance the realignment of Ruston Way around the existing tunnel, construction of bike lanes, and sidewalk improvements.

WE-4.1 Bicycle Route Improvements & WE-4.2 Ruston/Jane Clark Pedestrian Improvements

Support bicycle improvements (e.g., lanes, striping, signage) along routes designated for travel especially along arterial streets (e.g., 6th Avenue, Orchard Street, Pearl Street, Narrows Drive). Also support completion of the Scott Pierson Trail located along State Route 16; Develop sidewalks, bicycle lanes, curb cuts and other street-related improvements to enhance pedestrian safety and circulation in this older neighborhood especially along streets such as Orchard, Baltimore, Ferdinand and North 46th Streets.

Discussion: The *Proposed Action* is consistent with this policy. The *Proposed Action* calls for the construction and improvement of bike lanes and sidewalks along the road improvements associated with the project.

WE-5 Beautification and Safety

Improve the beauty, safety and security by supporting clean up activities, safety and other improvements that enhance both residential neighborhoods and commercial business districts.

Policy Intent – *The West End area reflects a relatively new commercial and residential district with a variety of needs related to public health, safety and aesthetics.*

Discussion: The *Proposed Action* is consistent with this policy. The *Proposed Action* calls for the construction and improvement of bike lanes and sidewalks along the road improvements associated with the project.

WE-5.1 Public Rights-Of-Way (ROW) Improvements

Encourage the use of native plants and trees in the landscaping of public rights-of-way and open space areas and by private property owners especially along more visual arterial streets such as the west side of Mildred Street from 6th Avenue to South 12th Street.

Discussion: The *Proposed Action* is consistent with this policy. The *Proposed Action* calls major planting of native species to occur within the roundabouts as well as along planter within the development.

WE-5.3 View Corridor Protection

Provide regulatory support to protect residential mountain and water views from blockage by unattractive utility lines, cell towers and other potential impediments.

Discussion: The *Proposed Action* is consistent with this policy. The *Proposed Action* calls for major planting of native species to occur within the roundabouts as well as along planter within the development.

WE-6 Utilities and Services

Develop and maintain a full complement of public and private utility services including electrical power, water service, natural gas, storm and sanitary sewers, refuse collection, street cleaning and telecommunications.

Discussion: The *Proposed Action* is consistent with this policy. The *Proposed Action* would include all above referenced utilities.

WE-6.1 Underground Utilities

Support LID and other financial tools to underground overhead utilities especially in areas targeted for development such as the mixed-use centers.

Discussion: The *Proposed Action* is consistent with this policy. All utilities within the *Proposed Action* site are proposed to be underground.

WE-7.3 Site Views/Minimize View Blockage

Development within potential view areas should utilize various building designs, site layouts, street arrangements and orientation to maximize and protect view potentials and minimize view blockage of adjacent sites.

Discussion: The *Proposed Action* is consistent with this policy. *Point Ruston* maintains a layout intended to promote views from on and off site. The streets are aligned to create view corridors extending from Ruston Way to Commencement Bay.

3.1.3.2.2 City of Tacoma Ruston Way Plan¹¹

Summary: *The Ruston Way Plan is an element of the City's long-range comprehensive Land Use Management Plan and the City's Master Plan for Shoreline Development. The Ruston Way Plan reaffirms the City's intent for "mixed public and private" development along this corridor and provides recommendations for improvements (e.g., access, appearance, regulatory changes, design, etc.) to this waterfront area.*

The upland portion of Point Ruston is located north of the extent that is addressed in the Ruston Way Plan. Tract 'A,' however, is designated as Area 3 -- "Other Public Areas" in the Plan. Recreational activities proposed in the Plan for this area include "beach enhancement and small boat access and viewing opportunities."

Discussion: *Point Ruston* would be consistent with major elements of this Plan. As noted with regard to the discussion of Open Space (2.5.2.6), Roadways, Access (2.4.2.7) and Project Design and Architecture (2.5.2.8) and as shown in Figure 10, the project proposes extensive pedestrian linkages between the Ruston Way esplanade and the project site. A key element is the proposed 100-foot wide (average width) promenade, which will provide public, on-site access to the water that presently does not exist. The applicant indicates that *Point Ruston* would prepare and adopt design guidelines and architectural covenants to establish and maintain a consistent architectural theme for the entire complex consistent with the *Ruston way Plan*.

3.1.3.2.3 Town of Ruston Comprehensive Plan

Summary: *In 1994, the Town of Ruston adopted a Comprehensive Plan consistent with the provisions of the Growth Management Act. That Plan identified the ASARCO site as a mixed-use, Master Planned Development.*

¹¹ Resolution 27024 of June 30, 1981

Discussion: The proposed mixed-use *Point Ruston* development is consistent with the intent and uses of the MPD zone as indicated in the Town's Comprehensive Plan.

3.1.3.3 City of Tacoma and Town of Ruston Shoreline Management Plans

3.1.3.3.1 **City of Tacoma Master Program for Shoreline Development**

Summary: *The City's Master Program for Shoreline Development is an element of the City's long range Land Use Management Plan. The Master Plan was adopted in 1975 and updated several times since then, most recently in 1996. The Master Plan includes goals, policies and development regulations for all shoreline areas within the City.*

In 2003, the Department of Ecology issued new guidelines regarding shoreline master programs. These outline procedural steps, as well as substantive requirements that must be met. The City of Tacoma is in the process of updating the Master Plan to be consistent with DOE's guidelines. This update involves evaluating all shoreline policies, designations and regulations and must be based upon scientific and technical information to assure no "net loss of shoreline ecological functions" while providing for appropriate uses within shoreline areas. It is anticipated that the City's Planning Commission will submit their recommendation to the City Council in Spring 2008.

The City's Master Plan regulates land and shoreline use in the shoreline planning areas through the current Shoreline Master Program, which is codified in Chapter 13.10 of the Tacoma Municipal Code. The City's shoreline areas are divided into Shoreline districts and these function similar to zoning designations. Each district has a specified intent or policy basis for desired uses in that area, as well as development standards and use regulations. Each district is assigned a shoreline environment designation, supporting the overall goal for the district. Finally, zoning designations (TMC, Chapter 13.06) are applied to the shoreline districts and adjacent upland areas.

The Point Ruston site is located within the City's S-6 Ruston Way Shoreline District, which has an Environmental Designation of "Urban." The Urban designation is intended to "ensure optimum utilization of shoreline within urbanized shoreline areas." The overall intent of this district is to encourage development of a coordinated plan of mixed public and private water-oriented use activities, including commercial, recreational, as well as residential uses. The Master Plan notes that preference should be given to "creating an activity center within the area 150 feet landward of the OHWM.

Within the S-6 Shoreline district, public access to the shoreline is required, with a minimum of 15-foot wide unobstructed pedestrian access. Commercial, water-related and water-enjoyment are allowed in the upland portion of sites within this District, as are residential uses, which are allowed beyond 150 feet from the OHWM. Also within this district, proposed buildings are limited to a height of 35 feet within 100 feet of Ordinary High Water Mark (OHWM), a height of 50 feet between 100 - 200 feet of the OHWM, and a height of 80 feet beyond 200 feet of OHWM.

Discussion: The proposed mixed-use *Point Ruston* development is consistent with the intent and uses for the S-6 Ruston Way Shoreline District, as well as the development standards. Specific details of the *Proposed Action* are outlined in **Section II** of this FSEIS.

3.1.3.3.2 Town of Ruston Shoreline Management Plan

Summary: *The Town of Ruston’s SMP was adopted in 1974 as Ord. 651. That portion of the project site is within Ruston’s shoreline district is designated as an Urban Environment. The town’s entire 440 lineal feet on Commencement Bay are located within the boundaries of the former ASARCO facility. The general goal of the SMP was “to cooperate with the American Smelting and Refining Company in the overall management and/or development of the shoreline.” It was contemplated within the MDP that the Town of Ruston Shoreline Management Plan would be updated to conform to future redevelopment of the ASARCO site.*

Discussion: To accommodate the Proposed Action the Town’s Shoreline Management Plan will need to be revised, or a conditional use permit may be required from the Town with approval by the Department of Ecology.

3.1.3.4 City of Tacoma and Town of Ruston Development Regulations

3.1.3.4.1 City of Tacoma Land Use Regulatory Code

Summary: *Title 13 of the Tacoma Municipal Code regulates Land Use within the City in terms of uses allowed within various zoning districts and the development standards that are applied to such uses. The Point Ruston site is within the area that is designated as the S-6 Ruston Way Shoreline district (discussed above). Development standards include:*

- **Minimum Lot Area:** *Multi-family – 6,000 sq. ft. Residential, – 5,000 sq. ft.*
- **Minimum Lot Width:** *50 ft.*
- **Building Setbacks:** *Front – 20 ft.; Side – 30% of the Shoreline Frontage (minimum 5 ft.); Rear – 20 ft.; Street Frontage – 25 ft.*
- **Maximum Building Height:** *35 ft. within 100 ft. of the OHWM; 50 ft. between 100 and 200 ft. of the OHWM; and 80 ft. beyond 200 ft. from the OHWM*

Discussion: The proposed Point Ruston development has been designed to comply with use and development standards as noted above.

3.1.3.4.2 Town of Ruston Zoning Code

Summary: *The Town of Ruston has designated the Point Ruston project site as part of the City’s Master Planned Development (MPD) zone. All development within this zone may be developed only in accordance with a development plan that is approved by the Town of Ruston. The plan notes that when residential uses are proposed the development plan shall contain approximate number of dwelling units, the bulk and scale of such structures, open space, landscaping, street and land improvements, etc. Similarly, when commercial uses are proposed, the development plan must include the approximate retail sales area, the bulk and scale of such structures, open space, landscaping, street and land improvements, parking, and nuisance controls.*

Discussion: The *Proposed Action* would be consistent with the Town’s Comprehensive Plan, and at the time of specific application each proposal would be consistent with the underlying land use regulations of the Town.

3.1.3.4.3 Town of Ruston – ASARCO Master Development Plan

Summary: *The Town of Ruston adopted the Master Development Plan (MDP), by Ordinance 1002, with modifications contained in an Addendum (A), in 1997.¹² The Town recognizes the MDP as a development regulation that provides detailed, long range planning direction for redevelopment of the former ASARCO site in terms of the site plan, infrastructure, parks and open space and development. The MDP was adopted to help “guide future land use and regulatory amendments and interlocal agreements” (Ord. 1002). It identifies encouraged, allowed and conditional uses for all areas of the site.¹³ These uses include: commercial (e.g., office and professional business, research and development, financial services, business services, personal services, food and beverage, hotel and hospitality, and health care). Residential uses were noted as conditional, upon approval by ASARCO in Section D 1.6.5 of the Master Development Plan¹⁴. Point Ruston LLC received approval from ASARCO for the residential uses that are proposed as part of Point Ruston.¹⁵ It should be noted that Table D-1 of Addendum A to Ordinance 1002 contains a chart summarizing these uses and Residential is listed there as “Allowed/Conditional with ASARCO Approval” in certain areas (U-2 and U-3) and “Not Appropriate” in other areas. The MDP further specifies height and bulk limitations for the development site. The height limit is 60 feet above the minimum floor elevation and the Floor Area Ratio (FAR)¹⁶ is 0.75¹⁷.*

Discussion:

In addition to other points of which this is representative, there is currently disagreement between the Town of Ruston and the proponent as to whether residential uses are currently allowed within the portion of the project within the Town. The Town indicates that Table D-1 in Addendum A to Ordinance 1002 supercedes the text of the *Master Development Plan* and that residential uses must therefore be considered “not appropriate” under existing code. The Proponent has noted that the specific modifications made to the *Master Development Plan* by Ordinance 1002 are set forth in the body of Addendum A and that the text of D.1.6.5 identifying residential uses as conditional on ASARCO’s approval was not modified. The proponent has also noted that Resolution 333 has since indicated the Town’s support of residential uses as appropriate for this property. The consistency of the use with the zoning code and comprehensive plan would need to be resolved.

This discussion is provided to acknowledge the issue, differing interpretations and to address several comments made by the Town of Ruston. However, it is neither the intent nor is it within the scope of this FSEIS to analyze and resolve this or similar matters of code interpretation. It

¹² Ordinance No. 1002 of December 8, 1997

¹³ MDP, at D-11

¹⁴ MDP, at D-13

¹⁵ See *Appendix B* of the MDP.

¹⁶ Floor Area Ratio (FAR) is a ratio of the total amount of development that is proposed on a given site to the amount of site area.

¹⁷ MDP, D-7 through D-8; FAR is the total usable floor (excluding parking structures) divided by the total site area.

is the objective of this SEPA document to analyze the impacts of the *proposed action* and alternatives.

Any development or construction would need to be consistent with all applicable land use regulations at the time a specific project application is submitted and would be reviewed for compliance at that time. It is envisioned that additional code and regulatory analysis will be performed by planning staff in making recommendations to decision makers on specific project applications. Where the proposal is determined to be inconsistent with applicable regulations, either the proposal or the regulations must be modified prior to approval of the application.

3.2. AESTHETICS -- VIEWSHED

3.2.1 Affected Environment

The site for the proposal is currently undergoing environmental remediation pursuant to a Consent Decree with the EPA and is now mostly vacant with demolition of the original industrial structures already completed. Views of the site's large open, excavated spaces currently exist to the surrounding land owners, passing vehicles, and pedestrians in the area. Views of the site are available to the residents on the southwest and west of the site because they exist at higher elevations. Views of the site to residents and pedestrians at lower elevations on the southeast and east of the site are impaired by tree/bush dominance.

The numerous industrial structures that existed upon the property in the past have been demolished and removed as a part of the remediation, and temporary mobile construction units and storage sheds are all that presently remain on the property. One small dock remains at the northern end of the site and two larger piers and unused docks exist near the center of the property which can be viewed by residents and passing motorists. Figure 3.2-0 shows the current site and surrounding conditions.

Figure 3.2-1 shows locations around the proposed *Point Ruston* site from where current photos were taken to show current views of the overall site. Views are not currently obstructed on the project site since no buildings presently exist. Temporary stockpiles of soil to be used in remediation/development operations currently exist on the site and block some views from Ruston. Thirteen (13) photos, Figures 3.2-2 through 3.2-14, were taken from around the site at existing and potential residential and open space locations and at various elevations. The photos are intended to provide example of existing conditions from various locations.

Figure 3.2-2 through Figure 3.2-5 shows the site from the west at the Tacoma Yacht Club looking south and eastward toward the City of Tacoma and the Commencement Bay. Figure 3.2-2 shows the site looking southeast from just west of the site at approximately the site's level. The site cannot be seen from this elevation and existing fencing from the Tacoma Yacht Club prevents view. Residences south and southeast of the site on higher elevations are visible from this location. Figure 3.2-3 shows the existing site near the intersection of 54th and Bennett Street at approximately 100 feet above sea level. Port of Tacoma docks, the City of Tacoma, and the Cascade mountain range including Mt. Rainier are evident. Docks and piers that currently appear on the site are evident since there are no structures on the site. Figure 3.2-4 shows the site looking eastward from a homesite located near the intersection of 51st and Bennett Street at approximately 96 feet above sea level. It shows much of the same views as Figure 3.2-3 but less of the onsite containment facility (OCF) where much of the contaminated soil from the ASARCO smelter site was placed. Mount Rainier is not in line of the proposed project from this point. Figure 3.2-5 is taken from Commercial Street at approximately 127 feet above sea level where newer residences exist and views eastward across the excavated area. The existing docks and piers are now seen on the site along with the land on the site.

Figure 3.2-6 through Figure 3.2-9 displays current views of *Point Ruston* viewed from areas south and southwest of the proposed project. Figure 3.2-6 is taken from an elevation approximately 118 feet above the sea level and facing northeast from the lowest elevation of the Point Ruston's residential project "Stack Hill" which is being completed. Open dirt spaces without landscaping, the three docks, water from Commencement Bay and the Sound and background islands are most apparent from these photographs. Figure 3.2-7 is taken from a central location southeast of the site, and it shows the project area from the end of Orchard

Street at approximately 165 feet above sea level in Tacoma. Some existing deciduous trees exist which presently impairs water and island views. Figures 3.2-8 and 3.2-9 are taken from sites for proposed residential developments at approximately 65 feet and 80 feet above sea level. Both show deciduous trees existing in the foreground slightly impairing the views of the Sound.

Figure 3.2-10 through Figure 3.2-12 show the current views of *Point Ruston* site east of the site. Figures 3.2-10 and 3.2-11 are shown from existing residences approximately 150 feet and 200 feet south and east of the site at approximately 50 to 55 feet above sea level. The southeast end of the site is visible from these points through existing trees, native shrubs, and electrical transmission wires at elevation of view. Figure 3.2-12 is taken approximately 700 feet southeast of the site along Ruston Way at the elevation of the site. From this perspective, the site's southeast bulkhead is most apparent and, like places viewed along Ruston Way, little of the actual site's surface can be seen.

Figure 3.2-13 and Figure 3.2-14 show the current views of the Point Ruston site from Ruston Way south from the site. Current views show stockpiled soils, excavation grading areas and placed subgrade completed as part of remediation activities that have occurred over past years. These points are chosen to show potential building sites where corridors will exist. Points that the photos are taken are slightly lower in height than the elevation planned. Presently, from areas along Ruston Way, the site appears as mounds of dirt, but when leveled and Ruston Way is realigned, the site would permit intermittent views of the Sound, Vashon Island and Maury Island along with the existing site's docks and piers.



**FIGURE 3.2-0
EXISTING CONDITIONS**



Figure 3.2-1: View study locations in relation to proposed "POINT RUSTON"

Views from North of Project



Figure 3.2-2: From Tacoma Yacht Club looking toward Mt. Rainier across proposed site.



Figure 3.2-3: From 54th and Bennett St. at street level looking southeast across project site.



Figure 3.2-4: From 51st and Bennett Str. Looking east across project site.



Figure 3.2-5: From Commercial St. near Baltimore looking east across project site

Views from Southwest of Project



Figure 3.2-6: From lower part of “Stack Hill” looking east across project site.



Figure 3.2-7: From undeveloped area on Orchard Street looking northeast across project site.



Figure 3.2-8: From southeast of “Stack Hill” at 80 feet elevation looking east to site.



Figure 3.2-9: From southeast of “Stack Hill” at 65 feet elevation looking east to site.

Views from Southeast of Project



Figure 3.2-10: From residence south of site looking north across project site.



Figure 3.2-11: From Residence at Ferdinand looking north across project site.



Figure 3.2-12: From Ruston Way east of site looking northward across proposed site.

Views from Southeast of Project Continued



Figure 3.2-13: From Ruston Way southeast of site looking across proposed site.



Figure 3.2-14: From Ruston Way south of site looking across proposed site.

3.2.2 Significant Impacts of Proposed Action – *Point Ruston* Proposal

Regulatory Requirements – Building Height

As noted previously in this Supplemental EIS with regard to *Land Use*, the portion of the project site that is located within the City of Tacoma is zoned S-6. The height limit in this zoning district is 35 feet within 100 feet of the ordinary high water mark (OHWM), a height of 50 feet between 100 feet and 200 feet of the OHWM, and a height of 80 feet beyond 200 feet from the OHWM. As seen from the proposed site plan, no buildings would be located within 100 feet of the OHWM, portions of structures would be located between 100 feet and 200 feet of the OHWM, and the balance of the proposed *Point Ruston* development would be beyond 200 feet from the OHWM. Portions of buildings that would be within 200 feet of the OHWM would be 50 feet or less in height and buildings beyond 200 feet from the OHWM would be 80 feet or less -- consistent with the designated height requirements of the City of Tacoma regulations.

That portion of the project site that is located within the Town of Ruston is within the area for which the ASARCO Master Plan was adopted. The adopted zone classification, Master Development Plan (MDP) zone specifies a height limit of 60 feet. Buildings of the proposal located within the Town of Ruston will be of varying heights within the designated height requirements. As individual buildings are proposed within the Town of Ruston, builders will have to proceed through the building permit process and any review regulations that exist within their Code insuring compliance.

Most homes with views of the water and surrounding land areas are located directly west of the project site along Commercial Street, Court Street, Bennett Street and Shirley Street. Some of the homes along Shirley Street have limited or no view of the water at the present time. All of the homes with views along these streets are higher than the 80 feet above the site grade as shown on Figure 3.2-15.

A majority of the remaining undeveloped lands at lower elevations are on steep slopes prohibiting development. Those lands that can be developed at lower elevations and that have not yet been developed are examined within this analysis.

Full Build-Out

To obtain an idea of the impact upon existing views that would occur from the proposed development, a comprehensive viewshed analysis was submitted to the City of Tacoma in February, 2007 in the expanded SEPA Environmental Checklist that accompanied the "*Point Ruston*" proposal (**Appendix B** in this document). The analysis within this section addresses the proposal's visual impact from a "full build-out" of *Point Ruston*.



Figure 3.2-15

Photosimulations of potential developments on *Point Ruston* are provided for each of the thirteen (13) viewpoints that were selected around the site. A photosimulation consists of a digital photograph from the viewpoint in the direction of the intended viewshed and with proposed development shapes superimposed onto the photo with the use of computer graphics. Each of the viewshed analyses depict views across the site as the site presently exists with the proposed building masses associated with *Point Ruston* superimposed. These simulations show building height, bulk and relative scale but little in the way of project details (e.g., fenestration (glazing/window location), horizontal or vertical modulation, coloration or landscaping). Each of these factors can be important in ultimately determining viewshed-related impacts, but are not considered within this analysis.

The following analysis provides an evaluation of the proposed *Point Ruston* project upon each of the views identified.

Views of Point Ruston Proposal from North of Project

■ **Figure 3.2-16**

- **Viewpoint Location:** Tacoma Yacht Club Parking Lot Looking South (Location 1 shown on Figure 3.2-1)
- **Elevation of the Viewpoint:** 15 ft.
- **Viewshed:** The southward view from this location is of a portion of the covered moorage and stockpiled soils on the breakwater peninsula in the foreground, the project site (undergoing remediation), the hillside in the near distance, and Mount Rainier in the far distance. Water cannot be seen over the site, but views of water will be improved to the east over the breakwater peninsula with new landscaping.
- **View Analysis and Impact:** This viewshed is a southerly view of the project site from an area north of *Point Ruston*. The view depicts buildings at the north-end of the site which would house both commercial and residential activities. The view from this location indicates that the proposed buildings would partially obstruct views of the hillside to the southeast of the site; the view of Mount Rainier or Commencement Bay would be unaffected.

Views in the immediate vicinity would most likely be improved with the landscaping of the site.

■ **Figure 3.2-17**

- **Viewpoint Location:** Bennett St. above the Onsite Containment Facility- OCF (Location 2 shown on Figure 3.2-1)
- **Elevation of the Viewpoint:** 108 ft.



Figure 3.2-16
Location 1: Tacoma Yacht Club Parking Lot
Elevation: 15'
Facing: Southeast

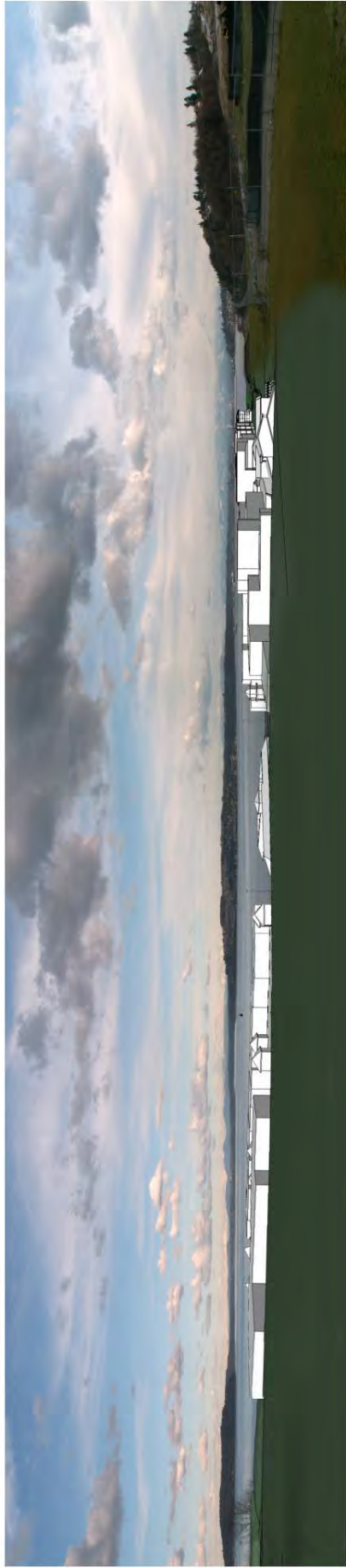


Figure 3.2-17
Location 2: Bennett Street above the OCF
Elevation: 108'
Facing: Southeast

- **Viewshed:** This is a broad view (approx. 120 degrees) across most of the site looking east and southeast. Commencement Bay is in near distance and Browns Point are closest the “*Point Ruston*” site, and the Cascade Mountains and Mount Rainier are seen in the background. The OCF is evident in the foreground from this location.
- **View Analysis and Impact:** This viewshed depicts the anticipated view from Bennett St. looking generally across most of the buildings proposed upon the site. Building rooftops are most evident at this elevation. Many of the buildings observed at this point will exist on Ruston Way and many of the buildings towards the water would not be noticed at this point of view. The structures proposed along Ruston Way include retail and mixed-use (residential, retail/commercial).

The full width of the viewshed impact is shown on figure 3.2-17 illustrating what an observer would experience from this viewpoint. View impacts resulting from the developments would include a preserved view corridor created by buildings with differing elevations.

When looking eastward over the proposed *Point Ruston* structures, buildings built to the maximum would block portions of the near-shoreline views of Commencement Bay and the existing docks and piers, but not affect the views of the Sound or the Islands visible in the distance.

When viewing southeast over the project toward Tacoma, the proposed structures would block a segment of the view of Commencement Bay and in the distance the lower hillside of the Brown’s Point area. Existing views of the mountain ranges and Mount Rainier would be unaffected.

■ **Figure 3.2-18**

- **Viewpoint Location:** Residence around 51st and Bennett Street (Location 3 shown on Figure 3.2-1)
- **Elevation of the Viewpoint:** Approximately 110 ft.
- **Viewshed:** The view from this viewpoint is similar to the previous view. The views of Commencement Bay and Brown’s Point are prominent as are the Port and the Cascades. Mt. Rainier is not in line with the *Point Ruston* site. Portions of Vashon Island and Maury Island are visible from this point.

View Analysis and Impact: This viewshed is a southerly view of the project site from an area northwest of *Point Ruston*. Again, buildings built to the maximum would block views of some of Commencement Bay to almost Brown’s Point and the near-shoreline existing docks and piers. The views of the mountain ranges and Mount Rainier where seen would be unaffected.



Figure 3.2-18
Location 3: Residence around 51st and Bennett Street
Elevation: Approximately 110'
Facing: Northeast

■ **Figure 3.2-19**

- **Viewpoint Location:** Residence on Commercial Street near Baltimore (Location 4 shown on Figure 3.2-1)
- **Elevation of the Viewpoint:** Approximately 135 feet
- **Viewshed:** The view from this viewpoint is of the Sound, Vashon Island, Maury Island, Commencement Bay and Brown's Point. Olympic Mountains peak over existing residences south of Pt. Defiance. Most of the views of the Sound are looking east and southeast.
- **View Analysis and Impact:** As with other sites in the residential area northwest of the proposed project, homes at this elevation would view the tops of buildings in the proposed project. The structures proposed include various types of uses including retail and mixed-use (residential, retail/commercial). As shown in Figure 3.2-19, the proposed structures would block a portion of the view of Commencement Bay near the shoreline, but will not affect views of Maury Island or the more distant views of Vashon Island and the Kitsap Peninsula. The proposed structures on the southeast of the project would not block the distant lower hillside associated with Browns Point because of this point's high elevation.

Views of Point Ruston Proposal from Southwest of Project

■ **Figure 3.2-20**

- **Viewpoint Location:** Stack Hill (Location 5 shown on Figure 3.2-1)
- **Elevation of the Viewpoint:** 118 ft.
- **Viewshed:** This viewshed presents the broadest view (approx. 135 degrees) across the central portion of the site looking northeast and across the entire project site. Commencement Bay, Vashon Island, Maury Island¹ is in near distance, and the Kitsap Peninsula, the Olympic Mountains and Browns Point are in the background. The picture of this viewshed is taken from a location estimated to be at the lowest elevation on "Stack Hill" development.
- **View Analysis and Impact:** This viewshed depicts the anticipated view from Stack Hill looking generally across a number of buildings within the proposed project at "full buildout." These structures include various types of uses including retail and mixed-use (residential, retail/commercial). The full width of the viewshed with the proposed buildings is shown in Figure 3.2-20. As shown, the proposed structures would block a portion of the view of Commencement Bay but not affect views of Vashon Island or of Maury Island, or of the more distant views of the Sound. The proposed structures on the southeast end of the project would block a segment of the view of Commencement Bay and in the distance the lower hillside associated with Browns Point.

¹ Maury Island is more to the center of this photograph and Vashon Island is to the left. The north-end of Maury Island is connected Vashon Island so Vashon appears closer in this photo.



Figure 3.2-19
Location 4: Residence on Commercial Street near Baltimore
Elevation: Approximately 135'
Facing: Northeast



Figure 3.2-20
Location 5: Stack Hill
Elevation: 118'
Facing: Northeast

■ **Figure 3.2-21**

- **Viewpoint Location:** Undeveloped Area East of Stack Hill at end of Orchard (Location 6 shown on Figure 3.2-1)
- **Elevations of the Viewpoint:** Approximately 160 ft.
- **Viewshed:** The view from the 160-foot elevation is a constrained view as a result of the existing trees. The photograph was taken during late autumn and the majority of the trees in the viewshed are deciduous, therefore, views from this viewpoint at this time of the year are possible. At other times of the year, however, the view would be significantly constrained. The view from this location is a broad view (approx. 120 degrees) across the south one-third of the site looking east. The views shows Commencement Bay in near distance and Vashon Island, Maury Island and Browns Point in the far distance.
- **View Analysis and Impact:** This viewshed depicts the anticipated view from an area east of Stack Hill looking generally across many of the buildings in the Tacoma area of *Point Ruston* at the south-end of the site. These structures include retail and mixed-use (residential, retail/commercial). The view, when it exists through the trees, depicts the full proposed project area and viewers would see the tops of buildings. It shows that much of the view of Commencement Bay, Maury Island, Vashon Island and the north portion of Browns Point from this location would not be obstructed by the proposed *Point Ruston* development at this elevation. Again, the only impact to the view without the trees would be to the shoreline of the project along Commencement Bay.

■ **Figures 3.2-22 and 3.2-23**

- **Viewpoint Location:** Undeveloped Area East of Stack Hill above Railroad near Ferdinand (Locations 7 and 8 shown on Figure 3.2-1)
- **Elevations of the Viewpoint:** 80 ft. and 65 ft.
- **Viewshed:** The views from these elevations are strongly obstructed by the existing trees. The photograph was taken during winter and the majority of the trees in the viewshed are deciduous, therefore, views from this viewpoint at this time of the year are possible. At other times of the year, however, the view would be significantly constrained. The view from this location is a broad view (approx. 120 degrees) across the south one-third of the site looking east. The views show Commencement Bay in near distance and Vashon Island, Maury Island and Browns Point in the far distance. Figures 3.2-22 and 3.2-23 were taken in the same general area, but at separate elevations.
- **View Analysis and Impact:** This viewshed depicts the anticipated view from an area east of Stack Hill looking generally across at the southeast end of the site. These structures include retail and mixed-use with a large



Figure 3.2-21
Location 6: Undeveloped Area at north end of Orchard Street
Elevation: Approximately 160'
Facing: Northeast



Figure 3.2-22

**Location 7: Undeveloped Area above Railroad near Ferdinand Street
Elevation: 80'
Facing: Northeast**



Figure 3.2-23

Location 8: Undeveloped Area above Railroad near Ferdinand Street

Elevation: 65'

Facing: Northeast

amount of residential activity. Figure 3.2-22 is the view from the higher elevation (from the 80-foot elevation) and depicts the full width of the viewshed. It shows that some of the view of Commencement Bay, Maury Island, Vashon Island and the north portion of Browns Point from this location would be obstructed by the proposed *Point Ruston* development. Figure 3.2-23 is the view from the 65-foot elevation and it shows that the view of Commencement Bay, Maury Island, Vashon Island and the north portion of Browns Point would be obstructed by the proposed *Point Ruston* development.

Views of Point Ruston Proposal from Southwest of Project

■ **Figures 3.2-24 and 3.2-25**

- **Viewpoint Location:** Existing Houses near Ferdinand and Ruston Way (Locations 9 and 10 shown on Figure 3.2-1)
- **Elevations of the Viewpoint:** Approximately 50 and 55 feet
- **Viewshed:** The view from the residences is less constrained than the views from locations 7 and 8 noted on Figure 3.2-1 to the west, because there are fewer trees between the residences and the site. However, the trees on the north side of the railroad prevent some views of the site as it exists. Views exist of Vashon Island, Muary Island and the Sound between deciduous trees. The photograph was taken during late autumn showing more view than exists during other parts of the year when leaves are on trees.
- **View Analysis and Impact:** This viewshed depicts the anticipated view looking across primarily residential buildings at the south-end of the site. Figure 3.2-24 is the view from the existing residence near developing property just above the existing railroad. Some of the views of Commencement Bay, all of Maury Island and Vashon Island from this location would be obstructed by the proposed “*Point Ruston*” development. Figure 3.2-25 is the view from another existing residence in the same vicinity but closer to Ferdinand Street. As at the other site, it shows that some of the views of Puget Sound, Maury Island, Vashon Island would be obstructed by the proposed “*Point Ruston*” development. Views of Commencement Bay would be unobstructed since most of the Bay is not in line with the proposed project.

■ **Figure 3.2-26**

- **Viewpoint Location:** Ruston Way South of Site Looking North (Location 11 shown on Figure 3.2-1)
- **Elevation of the Viewpoint:** 17 ft.



Figure 3.2-24
Location 9: First Existing House near Ferdinand and Ruston Way
Elevation: Approximately 50'
Facing: North



Figure 3.2-25
Location 10: Second Existing House near Ferdinand and Ruston Way
Elevation: Approximately 55'
Facing: North

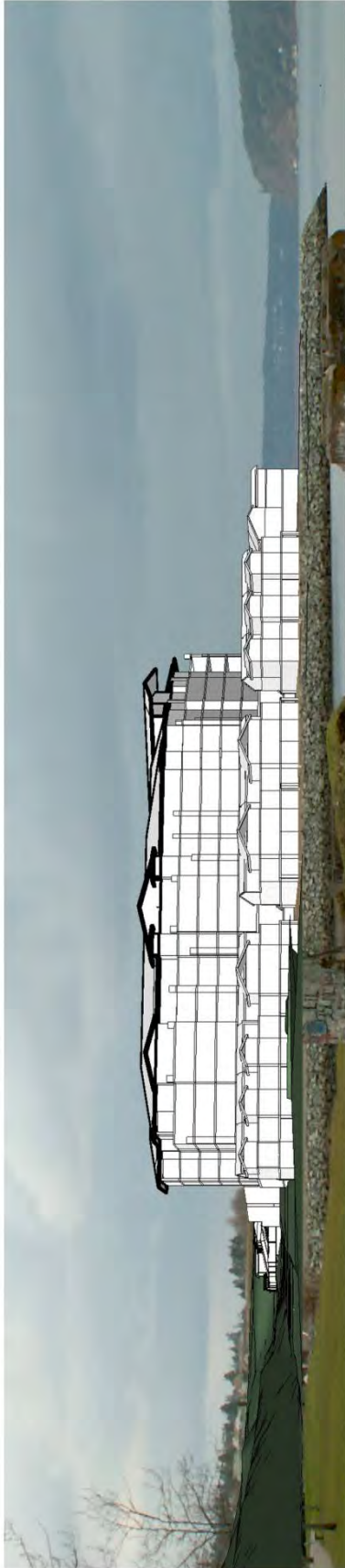


Figure 3.2-26
Location 11: Ruston Way South of Site Looking North
Elevation: 17'
Facing: Northwest

- **Viewshed:** The view from this viewpoint is of the south portion of the project site looking northwest. The view shows the hillside on the left (west), Commencement Bay in the foreground and on the right (east), Maury Island in near distance, and Vashon Island in the distance. Olympic Mountains can be seen on clear days in the distant
- **View Analysis and Impact:** Impacts from the proposed project upon this viewshed includes obstruction of mountains in the background. The view is looking at the south-end structures of primarily residential activities. Buildings with both commercial and residential uses mixed-uses would be visible at this point also. From this location the view of Puget Sound and most of Vashon Island seen to the north would be obstructed by the proposed *Point Ruston* development as would views of the Olympic Mountains on clear days until one is on the promenade on the eastern side of the site. Views of Commencement Bay and Maury Island, however, would be unobstructed.

Views of Point Ruston Proposal Site from Ruston Way

■ **Figures 3.2-27 and 3.2-28**

- **Viewpoint Location:** Two points on Ruston Way approximately midway through the project (Locations 12 and 13 shown on Figure 3.2-1)
- **Elevations of the Viewpoints:** Between 19 ft. and 28 ft.

Viewshed: Views from points along the proposed *Point Ruston* development looking northeast have been analyzed. Ruston Way is approximately 800 ft. southwest of the shoreline of Commencement Bay. Views from this area show segments of Commencement Bay with Maury Island and Vashon Island in the distance. Ruston Way presently averages 6 ft. below the existing grade of the project site.

View Analysis and Impact: Proposed re-alignment of Ruston Way would raise the Ruston Way Grade and provide improved views of the water through the proposed view corridors. The views analyzed from Ruston Way are depicting proposed buildings within approximately 50 feet east of where Ruston Way would exist. The structures proposed include retail and/or mixed-use (residential, retail/commercial) and would show a large amount of pedestrian activity next to the buildings. As shown by the figures, the proposed view corridors would provide views of Commencement Bay through the project site. At this proximity to the site much of water views would be secondary to the human activity around commercial and pedestrian spaces and around the close, proposed buildings.

Special Note: Following the publishing of the Draft Supplemental EIS the site plan was revised to flip buildings 2 A and B with buildings 3 A and B. Both buildings are visible in Location 12 Figure 3.2-27 without this change. This site plan revision has no impact on the width of the view corridor, but has shifted the corridor five degrees to the east. Further analysis has concluded that this is not a significant adverse impact and therefore no revision is necessary to the summary of impacts.



Figure 3.2-27
Location 12: Ruston Way Along Site Looking North
Elevation: 37'
Facing: North



Figure 3.2-28
Location 13: Ruston Way Along Site Looking North
Elevation: 39'
Facing: North

3.2.3 Significant Impacts of the No Action Alternative

The *Master Development Plan* Draft EIS identifies 12 points within the general vicinity of the ASARCO site at which views were analyzed. Neither the City of Tacoma nor the Town of Ruston has officially-designated viewpoints or scenic routes, therefore, none of the viewpoints that were selected, pertain to any officially-designated viewpoints or scenic route. The viewpoints that are noted in the *Master Development Plan* Draft EIS were selected based upon scenic quality and viewer sensitivity (MDP DEIS page 4-61).

At the time the photos were taken (1997) the ASARCO plant was closed, the site was in a deteriorated state, some of the buildings had been removed, and the site was fenced with a cyclone fence.

The impact analysis for the MDP noted that overall for the build alternatives, because of the phased nature of the project, construction cranes and large equipment could be visible from adjacent areas with direct or indirect views of the area, which “would be considered less obtrusive than those of the current conditions.”²

The DEIS noted that for Moderate alternative, Alternative 3:

“Minimal obstruction of views of Commencement Bay could occur at areas in the proximity of Ferdinand St. and Ruston Way, Ferdinand St. and North 49th St., area surrounding Commercial St. between Baltimore and Bennett Streets, North 51st St. and Highland St. and particularly along Bennett St. from the height and proximity of structures proposed on all development areas.”³

The MDP DEIS noted further that “overall, the impacts with the application of appropriate mitigation, as listed below, would be minimal.”

As a point of comparison of impacts upon viewsheds, graphics contained in this section of the SEIS illustrate how the approved conceptual layout for the ASARCO MDP site (the “Moderate, Alternative 3 layout) would impact views in this area. Figure 3.2-29 shows the approved conceptual layout of Alternative 3 as estimated from the MDP DEIS (Figure 2-3, page 2-16) and represents “no action” for this analysis. Figures 3.2-30 through 3.2-42 is a series of photosimulations over the photos taken from the locations designated on Figure 3.2-1. Each of the following viewshed analyses depict views across the site as the site would exist with the approved MDP Alternative 3 Conceptual Site Plan. This is done so impacts of development meeting the MDP on the viewshed can be directly compared to the visual impacts of the proposed “Point Ruston” project on the viewshed.

Views of MDP Alternative 3 from North of Project Site

■ **Figure 3.2-30**

- **Viewpoint Location:** Tacoma Yacht Club Parking Lot Looking South (Location 1 shown on Figure 3.2-1)

² DEIS, pg. 4-71

³ DEIS, pg. 4-72



Figure 3.2-29: Master Development Plan “ALTERNATIVE 3” conceptual layout approved by the Town of Ruston and addressed in 1997 DEIS



Figure 3.2-30
Location 1: Tacoma Yacht Club Parking Lot
Elevation: 15'
Facing: Southeast

- **View Analysis and Impact:** The view depicting buildings at the north-end of the site within the MDP Alternative 3 would house commercial activities at approximately 60 feet and would not have a significant impact upon the views of the residential areas, or Commencement Bay and the background mountains. Like the proposed *Point Ruston* project, viewing the MDP alternative from this location indicates that the proposed buildings would partially obstruct views of the hillside to the southeast of the site. Also, like the proposed project views in the immediate vicinity would most likely be improved with alternative because the site's landscaping would be improved. The current fencing and roadways would be replaced with lawns, public spaces and new streets taking advantage of the water environment. There is not a significant difference between this alternative and the proposed project from this location.

■ **Figure 3.2-31**

- **Viewpoint Location:** Bennett St. above the Onsite Containment Facility- OCF (Location 2 shown on Figure 3.2-1)
- **View Analysis and Impact:** As with the *Point Ruston* proposal building rooftops are most evident at this elevation from this perspective. Many of the buildings observed at this point will exist in the center of the property and towards the water. Many of the buildings viewed from this location will have commercial offices.

The impact upon the viewshed is seen on Figure 3.2-31. When looking eastward over the alternative MDP structures, buildings constructed to the maximum would block a portions of the near-shoreline views of Commencement Bay and the existing docks and piers, but not affect the views of the Sound or the Islands visible from this site, similar to the proposal. More open space is evident near Ruston Way within the MDP alternative than in the *Point Ruston* proposal.

When viewing southeast over the project toward Tacoma, the alternative MDP structures at less height than the proposal would still block a segment of the view of Commencement Bay and in the distance the lower hillside associated with Browns Point. Any views of the mountain ranges and Mount Rainier would be unaffected.

■ **Figure 3.2-32**

- **Viewpoint Location:** Residence around 51st and Bennett Street (Location 3 shown on Figure 3.2-1)

View Analysis and Impact: This viewshed is a southerly view of the project site from an area north of *Point Ruston*. Like with the *Point Ruston* project buildings built to the maximum in the MDP alternative would block views of Commencement Bay to almost Brown's Point and

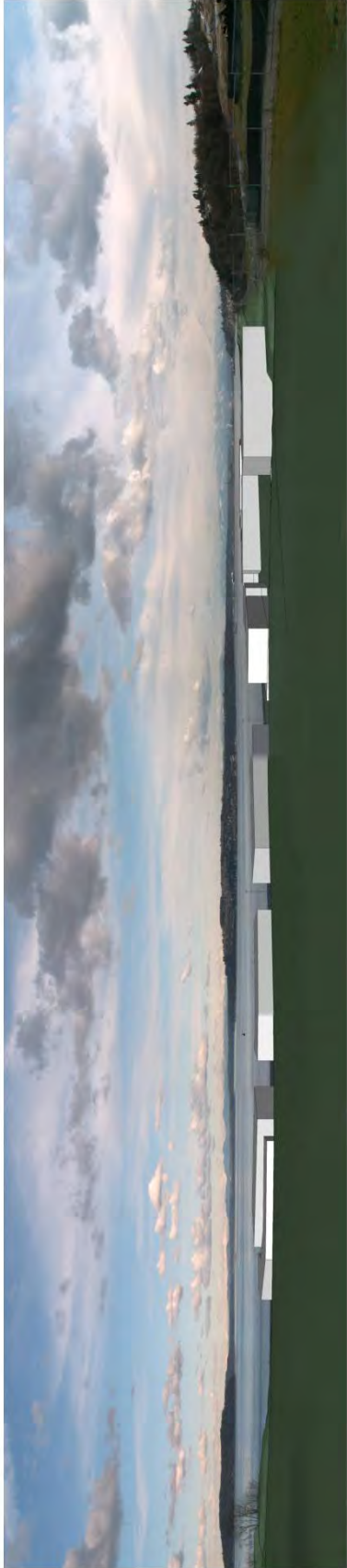


Figure 3.2-31
Location 2: Bennett Street above the OCF
Elevation: 108'
Facing: East



Figure 3.2-32
Location 3: Residence around 51st and Bennett Street
Elevation: Approximately 110'
Facing: East

the near-shoreline existing docks and piers. The views of the mountain ranges and Mount Rainier where seen would be unaffected.

■ **Figure 3.2-33**

- **Viewpoint Location:** Residence on Commercial Street near Baltimore (Location 4 shown on Figure 3.2-1)
- **View Analysis and Impact:** As with other sites in the residential area northwest of the Point Ruston site, homes at this elevation would view the tops of buildings outlined in the alternative MDP. The structures would be fewer and slightly lower in height in the alternative MDP. As shown in Figure 3.2-33, the proposed structures would block a portion of the view of Commencement Bay near the shoreline, but will not affect views of Maury Island or the more distant views of Vashon Island and the Kitsap Peninsula. More open spaces toward Ruston Way would be evident in the alternative MDP than in the proposed *Point Ruston* project. The alternative MDP structures on the southeast of the project would not block the distant lower hillside associated with Browns Point because of the elevation of this location and because the structures are planned at a less height.

Views of MDP Alternative 3 from Southwest of Project Site

■ **Figure 3.2-34**

- **Viewpoint Location:** Stack Hill (Location 5 shown on Figure 3.2-1)
- **View Analysis and Impact:** This viewshed depicts the anticipated view from the lower elevation of the Stack Hill project looking across all of the buildings that could be built in the *Point Ruston* project area under the MDP alternative. Structures proposed under the MDP alternative are spaced farther apart than in the proposal and would include primarily office uses. Like in the proposal and as shown in Figure 3.2-34, the proposed structures would block a portion of the view of Commencement Bay but not affect views of Maury Island or the more distant views of Vashon Island or the Sound. The alternative MDP structures at the southeast end of the project area would block a segment of the view of Commencement Bay but not impact views of Brown's Point. Lower areas would from Ruston Way would be more open in the alternative than in the proposal.

■ **Figure 3.2-35**

- **Viewpoint Location:** Undeveloped Area East of Stack Hill at end of Orchard (Location 6 shown on Figure 3.2-1)



Figure 3.2-33
Location 4: Residence on Commercial Street near Baltimore
Elevation: Approximately 135'
Facing: Northeast

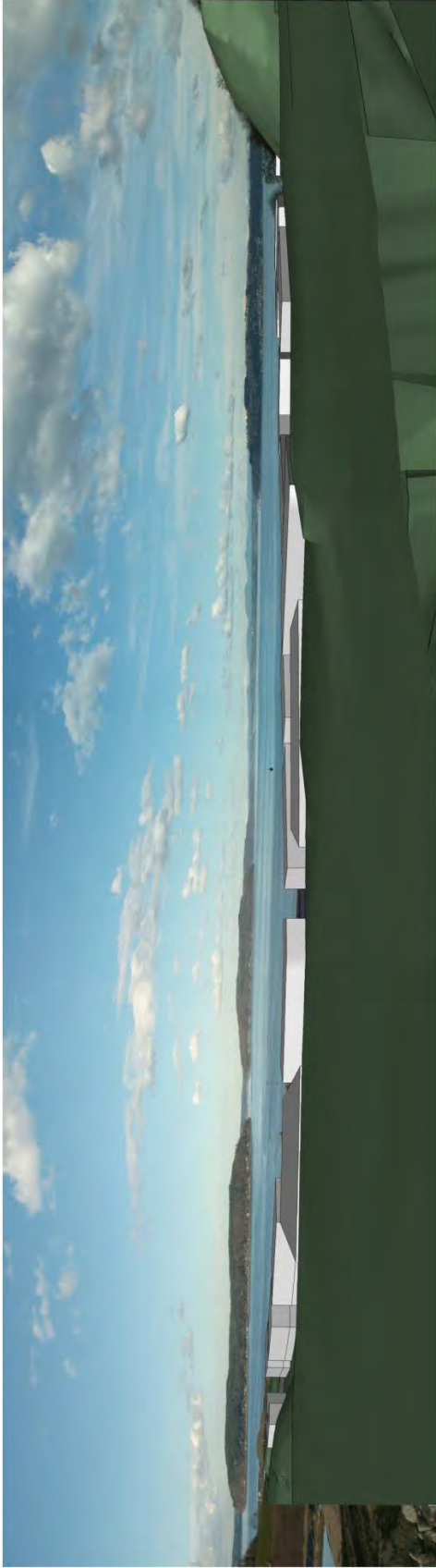


Figure 3.2-34
Location 5: Stack Hill
Elevation: 118'
Facing: Northeast



Figure 3.2-35
Location 6: Undeveloped Area at North end of Orchard Street
Elevation: Approximately 160'
Facing: Northeast

- **View Analysis and Impact:** Visual impacts upon this viewshed from the MDP alternative are similar to the visual impacts from the proposed project. From an area east of Stack Hill the view, when it exists through the trees, would display the tops of commercial buildings under the MDP alternative. It shows that much of the view of Commencement Bay, Maury Island, Vashon Island and the north portion of Browns Point from this location would not be obstructed by the MDP alternative structures. Again, the only impact to the view without the trees would be to the shoreline of the project along Commencement Bay.

■ **Figures 3.2-36 and 3.2-37**

- **Viewpoint Location:** Undeveloped Area East of Stack Hill above Railroad near Ferdinand (Locations 7 and 8 shown on Figure 3.2-1)
- **View Analysis and Impact:** Impacts upon this viewshed from buildings permitted in the MDP alternative is not significantly different than the impacts from buildings created by the Point Ruston proposal. From an area east of Stack Hill looking northward across to the project site towards Ruston to the southeast end, the commercial structures permitted would impact views of the Sound and the Islands in much the same way as the *Point Ruston* proposal. Even though there are fewer buildings in the MDP alternative and their height is less than buildings in the proposal, they are broad and cover much of the same area as the proposal. Figure 3.2-36 is the view from the 80-foot elevation and shows that the view of Commencement Bay, Maury Island, Vashon Island and the north portion of Browns Point from this location would be slightly obstructed by the MDP alternative development. Figure 3.2-37 is the view from the 65-foot elevation and it shows that the view of Commencement Bay, Maury Island, Vashon Island and the north portion of Browns Point would be obstructed by the MDP alternative in much the same way as the proposed *Point Ruston* project.

Views of MDP Alternative 3 from Southeast of Project Site

■ **Figures 3.2-38 and 3.2-39**

- **Viewpoint Location:** Existing Houses near Ferdinand and Ruston Way (Locations 9 and 10 shown on Figure 3.2-1)
- **View Analysis and Impact:** Impacts upon this viewshed from the MDP alternative at the existing house locations near Ferdinand are very similar to those of the proposal. Figure 3.2-38 shows the impact of the MDP buildings from an existing residential structure accessed by a driveway just above the existing railroad. Some of the views of Commencement Bay, all of Maury Island and Vashon Island from this location would be obstructed by the MDP alternative structures very similar to the proposed *Point Ruston* development. Figure 3.2-39 is the view from another existing residence at Ferdinand further south from the other residence.

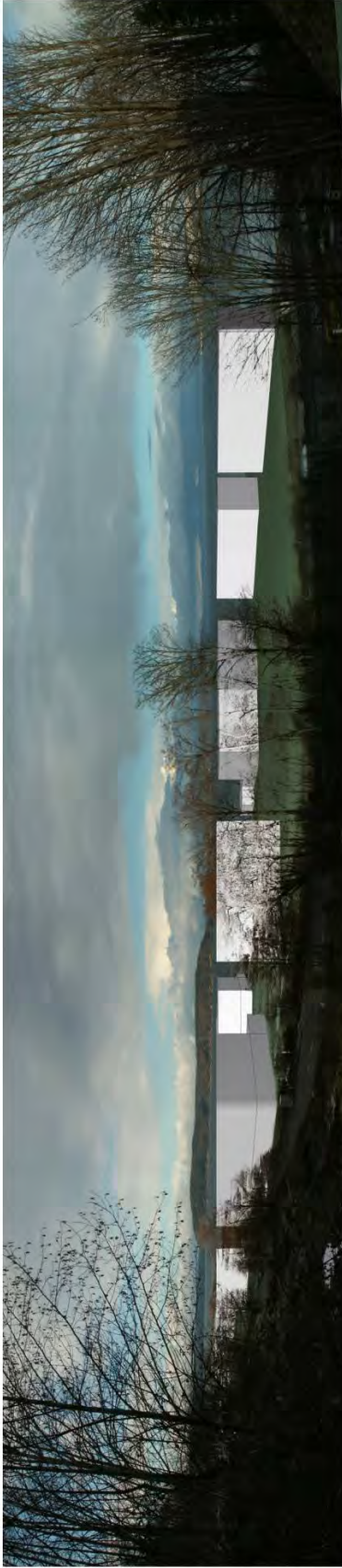


Figure 3.2-36
Location 7: Undeveloped Area above Railroad near Ferdinand Street
Elevation: 80'
Facing: Northeast



Figure 3.2-37
Location 8: Undeveloped Area above Railroad near Ferdinand Street
Elevation: 65'
Facing: Northeast



Figure 3.2-38
Location 9: First Existing House near Ferdinand and Ruston Way
Elevation: Approximately 50'
Facing: North



Figure 3.2-39
Location 10: Second Existing House near Ferdinand and Ruston Way
Elevation: Approximately 55'
Facing: North

Like other projections these figures show that some of the views of Puget Sound, Maury Island, Vashon Island would be obstructed by the potential MDP development. Views of Commencement Bay would be

■ **Figure 3.2-40**

- **Viewpoint Location:** Ruston Way South of Site Looking North (Location 11 shown on Figure 3.2-1)

View Analysis and Impact: Impacts upon this viewshed from the MDP alternative structures are again similar to those of the proposed project. Buildings in this alternative are longer and slightly lower than the proposed project, so similar views would be blocked if structures were built according to the MDP. From this location the view of Puget Sound and most of Vashon Island seen to the north would be obstructed by MDP structures if developed as would views of the Olympic Mountains on clear days. Views of Commencement Bay and Maury Island, however, would still be possible.

Views of MDP Alternative 3 from Ruston Way at the Site

■ **Figures 3.2-41 and 3.2-42**

- **Viewpoint Location:** View Corridors Along Ruston Way
- **View Analysis and Impact:** The views analyzed from Ruston Way, depict buildings that could be constructed under the MDP alternative. Buildings could be constructed between 50 feet and 100 feet east of the where Ruston Way would exist. The structures proposed include primarily retail and office uses, and the large turn-around creates a large vision of open space between structures and existing residences. The buildings depicted are 60 feet in height in the MPD alternative and have more open parking areas than the proposal and therefore, would not show a noticeable difference to the driver or pedestrian moving through Ruston Way when compared to the *Point Ruston* proposal. There are also view corridors between the buildings and through the site between the buildings, as indicated as view corridors under the *No Action Alternative*. As with the proposal being this close to the view, much of the water views would be secondary to the human activity around commercial and pedestrian areas, and would become primary only after one was on the site and near the water.

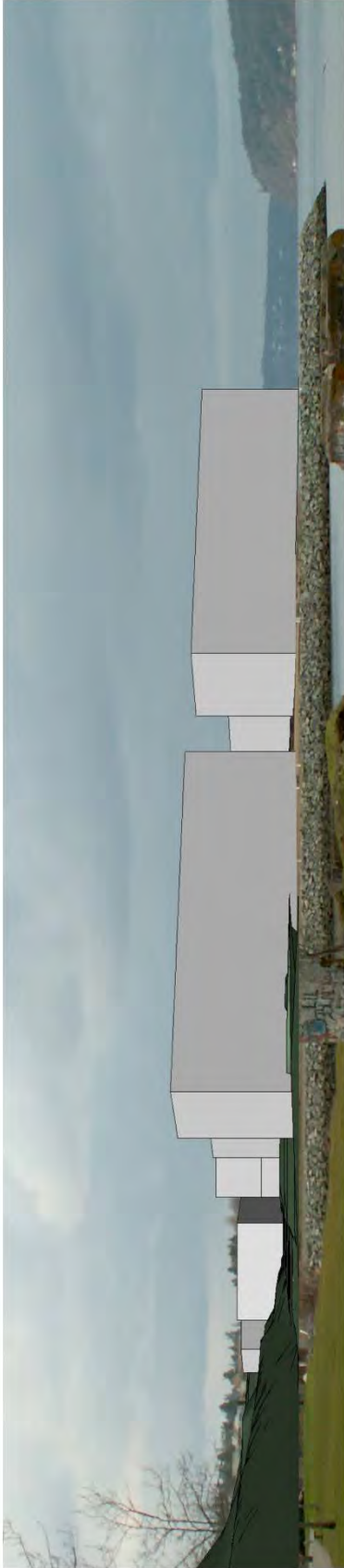


Figure 3.2-40
Location 11: Ruston Way South of Site Looking North
Elevation: 17'
Facing: Northwest



Figure 3.2-41
Location 12: Ruston Way Along Site Looking North
Elevation: 37'
Facing: North



Figure 3.2-42
Location 13: Ruston Way Along Site Looking North
Elevation: 39'
Facing: North



3.2.4 Mitigating Measures

No significant adverse impacts are anticipated from the proposed *Point Ruston* development. View impacts created by the development will be mitigated from extensive landscaping and extensive design of buildings. Terracing of some buildings and varying of building heights within height requirements will be considered at time of building permit activity. As well, the spacing between the buildings will create view corridors, allowing views through the developed site, and out to the Bay. Buildings will have to meet permit regulations through required reviews within respective jurisdictions at the time permits are sought for individual buildings.

Providing a 100-foot wide open space with a fully developed public promenade will provide a public benefit that has not existed before. The public accessed promenade will permit the public to see the shore at this location which has not been available to the public previously. The developed promenade and open space will provide the Town of Ruston a public accessible shoreline which it has never possessed. These public shorelines will enhance public views of the Sound, Commencement Bay, Vashon Island, Maury Island and the Olympic Mountains from these points.

3.2.5 Significant Unavoidable Adverse Impact

No significant unavoidable adverse aesthetic-related impacts are anticipated.

3.3 HOUSING

This section of the FSEIS analyzes housing-related issues associated with the *Proposed Action*.

3.3.1 Background and Analysis

Washington State University's Center for Real Estate Research publishes a supply/demand assessment quarterly. According to statistics reported by the Center,¹ the median selling price for a resale home in the State of Washington during the second quarter of 2007 increased 8.1 percent from the second quarter of 2006, to \$316,700. Pierce County's median single-family resale home price was \$283,500, a 5 percent increase over the previous year's median resale price.

By contrast, data on attached homes collected by research firm New Home Trends in March 2007 for the "west Tacoma" market (defined as downtown Tacoma, University Place, Fircrest & Gig Harbor) showed 268 attached units (condominiums/townhomes) for sale with an average listing price of \$416,943. Prices for the 268 attached units ranged from a low of \$157,950 for a 625 sq. ft. unit in an apartment-to-condo conversion to a high of \$949,120 for a 1,961 sq. ft. new construction, luxury condo with waterfront views. Sales prices are influenced by construction costs, building type, location and amenities. High-density multi-family buildings with structured parking garages and steel framing cost considerably more to build than those that utilize wood framing and surface parking lots but have the advantage of achieving urban densities to help local jurisdictions meet comprehensive plan and WA State Growth Management Act goals.

3.3.2 Affected Environment

Tacoma's most current *Consolidated Plan for Housing and Community Development, 2005-2010*² includes sections on housing and community development needs assessment, a five-year housing and community development strategic plan, and an annual action plan. The document was prepared in accordance with requirements published by the Department of Housing and Urban Development (HUD) for local jurisdictions requesting federal housing assistance through provisions of the National Affordable Housing Act of 1990, as amended.

Although federally-subsidized housing is neither anticipated nor required of *Point Ruston*, the proposed development would support a number of goals and objectives found in Tacoma's *Consolidated Plan*, as outlined below:

¹ See www.wcrer.wsu.edu

² Tacoma-Lakewood HOME Consortium, 2005 (See *References* section in this DSEIS for full citation.)

Land Use and Population Density/Planned Development

- Most of Tacoma residential areas consist of low-density single family or small multi-family housing. New residential development is expected to center around mixed-use areas and along transportation corridors.
- Mixed-use centers will contain neighborhood businesses as well as more dense residential development and offer better transportation and service options and other amenities that make living in these neighborhoods attractive.
- Like other developed cities, Tacoma has little vacant land for new development and is acquiring little new property through annexation.
- Most new construction in Tacoma now focuses on redevelopment consistent with the City's vision for planned growth to support industry, commerce, public facilities and services and residential needs.
- One of the key strategies for accommodating increased population is to encourage growth around mixed-use centers and along some transportation corridors. These areas will support multiple housing choices, increased density, retail and commercial outlets, more services, and access to transportation.
- The substantial capacity for new housing development in Tacoma is reflected in the 2002 Pierce County Buildable Lands Report. According to the analysis of residential capacity contained in that report based on current zoning and density limitations, the City could accommodate an additional 40,000 units. Given an average household size of 2.45 persons, this would translate into housing for an additional 90,000 people.
- Many remaining vacant parcels have added costs associated with slopes, drainage and other features (such as environmental remediation) not associated with the first and easier land picks.
- There is considerable new development in Tacoma, with a particular City focus on the downtown area and the other mixed use centers along transportation corridors and neighborhood centers.
- The development plan for the downtown area calls for 2,000-4000 new market rate housing units to be provided and absorbed during the first 10 years of the century. While on target with this plan, the rising cost of materials may challenge the expectation for completion of up to 4,000 units.
- The increase in market rate housing and investment in amenities in the downtown and other areas in Tacoma should improve overall housing conditions, increase housing choices and reduce concerns about crime and blight in some areas.

Table 3.3.1 is a comparison of year 2000 population demographics by age group within the City of Tacoma and the Town of Ruston, compared with Statewide and U.S. averages. As shown, Tacoma's statistics approximate those of Washington and the U.S., whereas Ruston has a greater percentage of the population in the age groups 25-44 and 45-64.

**Table 3.3.1
TACOMA/RUSTON POPULATION BY AGE, 2000**

Age	Tacoma		Ruston		WA	US
0-15 years	41,779	21.6%	122	16.5%	21.3%	21.4%
15-24	28,287	14.6%	90	12.2%	13.9%	13.9%
25-44	61,152	31.6%	247	33.5%	30.8%	30.2%
45-64	39,344	20.3%	200	27.1%	22.8%	22.0%
65+	<u>22,994</u>	11.9%	<u>79</u>	10.7%	11.2%	12.4%
Total	193,556		738			

Source: U.S. Census Bureau, 2000 Census

Table 3.3.2 provides a comparison of household income by age group for Tacoma and Ruston -- compared with Washington State and U.S. data. As shown, the median household income in Tacoma is below that of the State, the U.S. and Ruston for most age groups. Ruston's population within the demographic groups 35-44 and 45-54 meet or exceed the nationwide averages. The demographic group 65-74 is nearly double that of the averages for Tacoma, the State and the U.S.

**Table 3.3.2
TACOMA/RUSTON HOUSEHOLD INCOME BY AGE GROUP**

Age	Tacoma	Ruston	WA	US
Median H/H Income	\$37,879	\$48,393	\$45,776	\$41,994
Under 25	\$21,864	\$15,000	\$24,481	\$22,679
35-44	\$38,690	\$49,375	\$43,570	\$41,414
45-54	\$43,641	\$50,556	\$53,202	\$50,654
55-64	\$47,245	\$49,583	\$59,445	\$56,300
65-74	\$30,979	\$61,250	\$34,849	\$31,368
75 & Older	\$24,226	\$13,750	\$25,659	\$22,259

Source: U.S. Census Bureau, 2000 Census

Table 3.3.3 is a comparison of apartment rental activity for the North Tacoma area, the Downtown/Stadium District and Pierce County in general for 2005 and 2006. As shown, vacancy rates, average rental rates and average days vacant for units in North Tacoma decreased slightly between 2005 and 2006 whereas vacancy rates and rental rates increased between 2005 and 2006.

**Table 3.3.3
COMPARABLE APARTMENT RENTAL ACTIVITY**

	Vacancy Rate		Average Rent		% Offering Incentives		Average Days Vacant	
	9/05	9/06	9/05	9/06	9/05	9/06	9/05	9/06
North Tacoma	4.9%	4.4%	\$668	\$662	25.0%	16.7%	27	21
Downtown /Stadium District	3.3%	5.6%	\$825	\$813	23.8%	13.6%	23	20
Pierce County	4.9%	7.4%	\$704	\$736	43.8%	31.4%	19	19

Source: Dupre + Scott Apartment Vacancy Report, September 2006.

Table 3.3.4 is a breakdown of the households aggregated for the cities of Tacoma, University Place, Gig Harbor, Fircrest and Ruston by age group (between 25 and 74) and income using estimated 2005 household incomes. The table indicates that there are 80,346 households in the market area with a head of household between the ages of 25 and 74. For example, for households earning between \$50,000 and \$74,000, they can afford (with a 20 percent down payment and a 7 percent mortgage) homes within the range of \$180,000 to \$269,000. If renting, they can afford rental rates of \$1,042 to \$1,562. This demographic comprises approximately 22 percent of the total number of households within this group.

- 23 percent are in the 25-34 age group;
- 24 percent are in the 35-44 age group;
- 21 percent are in the 45-54 age group;
- 21 percent are in the 55-64 age group; and
- 17 percent are in the 65-74 age group.

**Table 3.3.4
NUMBER OF HOUSEHOLDERS IN MARKET AREA BY AGE AND INCOME:
CITIES OF TACOMA, UNIVERSITY PLACE, GIG HARBOR, FIRCREST AND RUSTON**

2005 Income Levels	Price of Home that can be Afforded Based on 20% Down & 7% Mortgage	Rental Rates that can be Afforded	Age Range					TOTAL
			25-34	35-44	45-54	55-64	65-74	
<i>Total # of Households by Age Range</i>			16,745	19,060	20,893	15,023	8,625	80,346
Under \$25,000	Under \$90,000	\$520 and below	3,612 22%	3,562 19%	3,427 16%	2,935 20%	2,628 30%	16,164 20%
\$25,000-\$49,999	\$90,000 - \$179,996	\$520 - \$1042	5,918 35%	5,074 27%	4,915 24%	3,647 24%	2,642 31%	22,196 28%
\$50,000-\$74,999	\$180,000 - \$269,996	\$1042 - \$1562	3,775 23%	4,647 24%	4,373 21%	3,201 21%	1,437 17%	17,433 22%
\$75,000-\$99,999	\$270,000 - \$359,996	\$1563 - \$2083	1,802 11%	2,733 14%	3,390 16%	2,053 14%	767 9%	10,745 13%
\$100,000-\$149,999	\$360,000 - \$539,996	\$2083 - \$3125	1,240 7%	2,065 11%	3,369 16%	2,202 15%	783 9%	9,659 12%
\$150,000-\$199,999	\$540,000 - \$719,996	\$3125 - \$4167	235 1%	471 2%	802 4%	468 3%	152 2%	2,128 3%
\$200,000 - \$249,999	\$720,000 - \$899,996	\$4167 - \$5208	88 1%	199 1%	242 1%	217 1%	124 1%	870 1%
\$250,000-\$499,999	\$900,000 - \$1,799,996	\$5208 - \$10,417	60 0%	276 1%	315 2%	258 2%	82 1%	991 1%
\$500,000 +	\$1,800,000 +	\$10,417 +	15 0%	33 0%	60 0%	42 0%	10 0%	160 0%

Source: Data from New Home Trends, March 2007

Defining Housing Affordability

The Department of Housing and Urban Development annually establishes a county-wide Area Median Income (AMI) and rental/for-sale maximum limits to meet affordable housing goals. Using 2007 HUD data, **Tables 3.3.5, 3.3.6 and 3.3.7** show income and housing costs that meet affordable housing guidelines for household incomes earning no greater than 80 percent of the median income or homebuyers with household incomes between 80 – 115 percent of the area median income. “For Rent” means a household spends no more than 30% of gross income for housing plus utilities. “For Sale” guidelines means that a household spends no more than 35-40% of income for principal, interest, taxes and insurance on housing.

**Table 3.3.5
2007 Rental Rates based on Pierce County Area Median Income (AMI)**

# of persons in Household	Annual Median Income - 2007	80% of Annual Median Income	Monthly Rent at 30%
Family of 1	\$43,500	\$34,800	\$870
Family of 2	\$49,700	\$39,760	\$994
Family of 3	\$55,900	\$44,700	\$1,118
Family of 4	\$62,100	\$49,700	\$1,243

Source: City of Tacoma, Housing Division, April 2007

**Table 3.3.6
2007 Estimated For-Sale Prices – 80% Median Income**

# of persons in Household	Annual Median Income - 2007	80% of Annual Median Income	Monthly Mortgage (PITI) 35%-40% of Annual Income
Family of 1	\$43,500	\$34,800	\$1,015-\$1,160
Family of 2	\$49,700	\$39,760	\$1,160 - \$1,325
Family of 3	\$55,900	\$44,700	\$1,304 - \$1,490
Family of 4	\$62,100	\$49,700	\$1,450 - \$1,657

Source: City of Tacoma, Housing Division, April 2007

**Table 3.3.7
2007 Estimated Sales Prices – 115% of Annual Median Income**

# of persons in Household	Annual Median Income - 2007	115% of Annual Median Income	Monthly Mortgage (PITI) 35%-40% of Annual Income
Family of 1	\$43,500	\$50,025	\$1,459 - \$1,668
Family of 2	\$49,700	\$57,155	\$1,667 - \$1,905
Family of 3	\$55,900	\$64,285	\$1,875 - \$2,143
Family of 4	\$62,100	\$71,415	\$2,083 - \$2,381

Source: City of Tacoma, Housing Division, July 2007

3.3.3 Impacts of the Proposed Action

Point Ruston would provide 800 to 1,000 new units of market-rate housing to accommodate families of varying income levels, with an anticipated range of prices between \$300,000 to over \$2,000,000 per unit for-sale as well as market rate rents. As such, it will further the City's goals relative to the provision of additional housing opportunities, consistent with GMA. Federally-subsidized housing, however, is neither anticipated nor required as a component of the proposed *Point Ruston* development.

Because of accelerating construction costs, rising interest rates on consumer mortgages, and site remediation costs that influence the base cost of a unit, for-sale units are not expected to be a viable affordable housing option at *Point Ruston*. However, *Point Ruston* plans include for-rent residential product with approximately 150-200 market-rate apartments and senior rental housing. Point Ruston LLC is researching programs and grants, as well as community partnerships, to enable 10-15 percent of the for-rent units to be available and affordable to households earning 80 percent of the Annual Median Income with rental rates established at the time the units are offered for rent.

3.3.4 Impacts of the No Action Alternative

Housing was not a component of the *Master Development Plan*. and, as such, it would not have contributed toward the City's housing goals under GMA.

3.3.5 Proposed Mitigation

No housing opportunities are being displaced by the proposal, new housing opportunities would be created. No significant adverse impacts are anticipated and no mitigation is necessary.

3.3.6 Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts to housing are anticipated as a result of the proposed *Point Ruston* development.

3.4 ENVIRONMENTAL HEALTH

Environmental Health has been identified by the City of Tacoma as one of the areas for discussion in the SEIS. Of specific concern to the City is the potential for exposure to unsafe levels of arsenic and lead during phased remediation, site development, building occupancy, and public use of amenities. It should be noted that as *Point Ruston* is a federal Superfund site, this issue falls under the jurisdiction and enforcement authority of the Environmental Protection Agency (EPA). EPA's selected remedy for the site meets the requirements of protection of human health and the environment and complies with all Applicable or Relevant and Appropriate Requirements (ARARs).

Point Ruston entered into the Second Amendment to the ASARCO Consent Decree (CD) for the site with EPA and the Department of Justice (DOJ) in August 2006 and agreed to complete the remediation of the property, cap sediments along the shoreline, and cap the Breakwater Peninsula owned by MetroParks. The Statement of Work (SOW), an attachment to the Consent Decree, outlines remediation and monitoring requirements established by EPA for the remaining remediation at the site and incorporates the phased approach by addressing release of property by phase, remediation and redevelopment by phase, and occupancy by phase. The SOW incorporates requirements for temporary capping of the site in undeveloped areas and addresses monitoring requirements both during remaining remediation/redevelopment and following final site completion.

Greenhouse gas emissions have been significantly reduced by the closure of the smelter and remediation of the site in anticipation of redevelopment.

3.4.1 Affected Environment

Master Development Plan EIS

The 1997 ASARCO MDP DEIS considered development of the site following remediation and installation of a site wide cap. A potential for placement of building foundations and utility corridors in the contaminated soils was noted. Appendix H to the 1997 EIS, "Toxic and Hazardous Waste Technical Document" notes that,

"Issues related to the Remedial Action (RA) of the site have already been addressed through the Superfund compliance process and will not be reconsidered. However to ensure an understanding of background information this Technical Appendix reviews certain aspects of RA regarding mitigation of impacts for toxic and hazardous wastes as they relate to redevelopment of the ASARCO Smelter site."

It goes on to state that the physical magnitude of the studies completed precluded them from being included in the Technical Appendix and they were incorporated by reference.

Considerable evaluation and planning for development has been completed since the 1997 EIS was published. Residential use was not originally considered for the site based primarily on ASARCO's preference. The 1997 EIS evaluated commercial and light industrial use and specifically excluded residential and heavy industrial use. In more recent years, however, the Development Strategy Team comprised of representatives from the City of Tacoma, Town of

Ruston, Metro Parks, ASARCO, and various experts agreed that residential use of the property is appropriate (see also discussion in *Section II* [2.3.4]). EPA has also agreed that residential use of the property is appropriate and that a phased approach where remediation and redevelopment is occurring simultaneously by phase is acceptable within certain constraints established to protect residents occupying completed phases of the project. EPA has expressed that their primary concern at the site is for public safety during the phased development and occupancy of the site. EPA submitted a letter dated November 13, 2007 to the City of Tacoma in response to the Determination of Significance addressing environmental health. A copy of that letter is included in **Appendix E** to this FSEIS.

3.4.2 Impacts of the Proposed Action

Point Ruston, LLC. is responsible for completing all remaining on-site remediation (and significant portions of off-site remediation) to meet the EPA remedy for the site as agreed to in the Second Amendment to the ASARCO Consent Decree. As each remediation/ building phase is completed, the phase will be released for residential occupancy and use. This phased approach is a critical component to the success of the development and was a primary subject addressed during negotiation of the Second Amendment to the ASARCO Consent Decree.

As described in the 1997 EIS, contaminants of concern at the site include heavy metals (primarily arsenic, lead, copper, and zinc). During 1998 – 2004, ASARCO completed excavation of soils from the most highly contaminated areas of the site defined as Source Areas in the Consent Decree and attached Statement of Work for the site. These soils, classified as federally hazardous waste, were placed in the On-Site Containment Facility (OCF), a containment cell constructed of multiple liners, a leachate collection system, and a leak detection system designed specifically to house these soils. The On-Site Containment Facility was designed and constructed in compliance with the Federal Code of Regulations specific to hazardous waste landfills (40 CFR Part 264) inclusive of the requirements for a leak detection, collection and removal system as required by the March 1995 EPA Record of Decision. Construction of the OCF began in 1999 and final placement of the OCF cover system was completed in autumn 2005. The OCF is continually monitored in accordance with EPA requirements.

Remaining site soils consist primarily of residential soils that have been placed on-site as sub-grade material to be capped as part of the final remediation. These soils contain much lower concentrations of metals, most directly comparable to those found in residential yards in the Ruston/North Tacoma Study Area. The phased approach to development and occupancy will necessitate work in the residential soils that have been placed on-site while one or more constructed buildings are occupied resulting in potential impacts related primarily to uncontrolled dust generation during construction.

3.4.3 Impacts of the No Action Alternative

Implementation associated with the *No Action Alternative* (Master Development Plan) would involve site remediation in accordance with the approved EPA Consent Decree.

3.4.4 Mitigation Measures

Mitigation of environmental impacts associated with site remediation will be addressed by EPA as their responsibility under Superfund law. Paragraph 13 of the Second Amendment to the ASARCO Consent Decree (CD) explains that *Point Ruston* plans to develop the property for residential mixed-use consisting of condominiums, commercial, retail and public use facilities. Paragraph 17 D (x) of the CD specifies that a temporary cap will be required as part of the remedial action prior to public access or occupancy on the site.

EPA will review *Point Ruston's* phased remediation, development and occupancy approach during the remedial design phase, during preparation of construction documents for remedial action, and during onsite remediation and development construction with oversight personnel. Paragraph 17J 30c of the CD provides that *Point Ruston* may submit design addenda for the remedial action to be performed in phases.

“Each design addendum shall include a description of the work to be performed including applicable Performance Standards, construction quality assurance standards, and plans and specifications. The addendum must include detailed information on how the Phase will be integrated with adjacent Phases. Approval of the addenda shall be within the discretion of EPA. In determining whether or not to approve the design addendum for a particular Phase EPA shall consider:

- Whether the addendum is consistent with the RODs (Record of Decisions), and the SOW (Statement of Work);
- Whether the addendum provides adequate protections regarding all other portions of the Site;
- Whether the proposed addendum is consistent with an orderly, integrated and efficient implementation of the Remedial Action as a whole;
- The number and nature of Phases already approved;
- *Point Ruston's* compliance with the terms of the Second Amendment and its prior performance of Work; and
- Any other factor related to the effective achievement of the Performance Standards or other goals of the Consent Decree as modified by this Second Amendment.”

Additionally, Paragraph 17K 31b of the Second Amendment to the Consent Decree requires that *Point Ruston* prepare a Construction Management Plan (CMP) for each phase of the remedial action unless phases are being construction concurrently in which case one CMP may cover more than one phase. Approval of the CMPs will be at the discretion of EPA and again EPA will consider whether the phase is consistent with the RODs and SOW and whether the phase as proposed provides adequate protections regarding all other portions of the site.

Point Ruston is currently working with EPA on overall remediation plans for the site. ASARCO's plans for the cap included a soil cap over most of the site. *Point Ruston* will be incorporating hard surfaces into the design for EPA approval as discussed in Section 2.2 of the Statement of Work (SOW), attachment F to the CD. Section 2.9.1 of the SOW includes a discussion of the plans and documents that are in addition to the design documents and describe how the remedial action will be conducted. These plans include Sampling and Analysis Plans, a Construction Health and Safety Plan that includes the Air Monitoring Plan for the site, Fire Protection Plans and Operations and Maintenance Plans. Section 2.9.2 discusses integrating remediation with land use plans and states “*Point Ruston* shall develop an enforceable program of private restrictions and guidelines to supplement the actual remediation activities. Section

2.9.2 addresses dust control requirements and measures. Section 2.11 Sequencing of Development and Occupancy requires, “Point Ruston shall submit a plan for EPA approval describing the sequence for completion of the elements of the remedial action and plans for Smelter Site development and occupancy. The purpose of this plan is to allow for the development of the property before the completion of Smelter Site capping, while ensuring that ongoing construction activities will not create a health hazard for future occupants of the property.”

Point Ruston is currently working with EPA on preparation of construction plans for the site to incorporate development construction and occupancy. Hard surfaces are proposed for much of the site cap including the public promenade and roadways. Design specifications for these surfaces would be reviewed and approved by EPA prior to construction. Many discussions have already taken place regarding phased development and ensuring that work on the site following occupancy of the first building is protective of residents and recreational users. Several options to be employed as protective measures during construction have been discussed and are being considered. Following completion of the first building, most of the site would remain fenced. During construction of subsequent buildings and public amenities, protective measures that have been discussed include: fencing, large wind screens, tents, dust suppression and control agents (including misters, sprays, and tacifiers); additional air monitoring and testing, and temporary capping. EPA oversight personnel would have access to the project at all times to assess construction compliance and implementation of mitigation measures.

As development progresses, areas of the site would only be opened for public use and enjoyment following EPA approval. The promenade would not be opened until required shoreline remediation is completed.

The utilization of BuiltGreen™ and Energy Star development and construction techniques and certification under these programs of eligible aspects of the development and new building construction will also mitigate the impacts of the project on environmental health including its contribution to green house gas emissions.

3.4.5 Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts are anticipated.

3.5 Public Parks, Recreation and Open Space

The following section describes the existing parks, recreation, and open space amenities within the vicinity of the *Point Ruston* project and evaluates the impacts of added demand from development under the *Proposed Action* and the *No Action Alternative*.

3.5.1 Affected Environment

Public parks, recreation and open spaces within the vicinity (within 2 miles) of the *Point Ruston* project are owned and/or operated by Metro Parks Tacoma (MPT), the Tacoma School District, City of Tacoma, or the Town of Ruston.

Existing public park and recreation include parks, trails, walkways, playgrounds, improved school sites, bikeways, gulches, steep slopes, waterfront esplanades/boardwalks, the Point Defiance Zoo & Aquarium, and other areas.

- The Metro Parks Tacoma currently owns and or operates approximately 75 parks, covering approximately 2,798 acres.
- The Tacoma School District operates more than fifty school sites throughout the city, offering recreational opportunities including playground equipment, athletic fields and gymnasiums. Some of these facilities are available for general public recreational use during non-school hours through the joint MPT/Tacoma School District Interlocal Agreement, wherein both entities have agreed to cooperatively make their respective buildings and grounds available for use to each other.¹
- The City of Tacoma owns public and open space areas throughout the City, including urban public gathering spots in the downtown area, waterfront parks, and nature areas.
- The Town of Ruston owns and operates one park within its jurisdiction, Rust Park, a grass playfield providing recreational opportunity.

Park, recreational and open space existing within two miles of the site, providing both active and passive recreational opportunities, are shown in **Table 3.5.1**.

City of Tacoma

Within the jurisdiction of the City of Tacoma, the MPT operates two major regional parks, which border the Point Ruston property. To the south of the *Point Ruston* site, the City of Tacoma owns, and in conjunction with the MPT, operates the Ruston Way public park system,² which consists of a public esplanade of approximately two miles in length that joins with the Point Ruston property, offering paved walkways, picnic tables and grills, grassy play areas, a fishing pier, boat dock, beach access, and a kayak/canoe ramp. Currently, the Ruston Way Park's paved walkway dead-ends at the southern border of the Point Ruston property. To the north of the *Point Ruston* site is Point Defiance Park, a 702-acre regional park that attracts upwards of two million visitors each year. Contiguous to the northern-end of the *Point Ruston* property is the MPT-owned Peninsula Park site, which has undergone a Preliminary Design Plan for

¹ *MPT/Tacoma School District Agreement*,
<http://www.metroparkstacoma.org/files/library/cc05f63ebb704367.pdf>

² The Ruston Way Park consists of seven smaller parks including Cummings Park, Marine Park, the Les Davis Pier, Dickman Mill Park, Hamilton Park, Old Town Dock, and Jack Hyde Park.

creating a public recreation use.³ However, in November 2007, the Peninsula Park project was cancelled. Activities on the site are currently limited to MPT monitoring of environmental remediation required under EPA Consent Decree. Currently, there is no direct pedestrian, bicycle, or vehicle connection to Peninsula Park or Point Defiance Park from Ruston Way.

**Table 3.5.1
EXISTING PARKS/RECREATIONAL FACILITIES
IN POINT RUSTON SITE VICINITY
IN THE CITY OF TACOMA**

Park & Rec. Facility	Size in acres/ Class	Type/Facilities/Use (Within 2 Miles of Site)
Point Defiance Park	702 Regional Park ⁴	Hiking, Walking, Running, Tennis, Grassy Open Fields, Public Rental Amenities, Gardens, Boathouse Marina, Fort Nisqually, Owen Beach, Go-Karts, Batting Cages, Restaurant, Logging Museum, Zoo & Aquarium, et al.
<ul style="list-style-type: none"> ▪ Fort Nisqually Living History Museum (inside Point Defiance Park) 	N/A	Restored Hudson's Bay Company Trading Post,
<ul style="list-style-type: none"> ▪ Point Defiance Zoo & Aquarium 	N/A	Zoo & Aquarium covering 29 acres, offering 792 animals , 98 different species
Ruston Way Waterfront parks*	45 Regional Park	Panoramic views of Commencement Bay, Vashon Island, the Olympic Mountains and Northeast Tacoma greet visitors to Ruston Way. The two-mile long scenic waterfront is a great place for walking, jogging or rollerblading. Fishing enthusiasts can find a place to drop their lines at the Les Davis pier. Public art projects add interest to a walk down Ruston Way, where you'll also find several restaurants.
<ul style="list-style-type: none"> ▪ Jack Hyde Park* 	-	Plaza and grassy area, view
<ul style="list-style-type: none"> ▪ Old Town Dock* 	-	Dock, Benches, covered, fishing
<ul style="list-style-type: none"> ▪ Dickman Mill Park* 	-	Beach Access, Boat Launch, Historical Structure, Parking Stalls, Restrooms, Trail - Multipurpose Asphalt Concrete or Other Surface, Open Space
<ul style="list-style-type: none"> ▪ Hamilton Park* 	-	Picnic tables, water fountains, access to Silver Cloud Inn public dock
<ul style="list-style-type: none"> ▪ Les Davis Pier* 	-	Beach Access, Fishing Pier/Dock/Platform, Food Picnic Tables, Restrooms, Trail, Concessions
<ul style="list-style-type: none"> ▪ Marine Park* 	-	Artwork, Beach Access, Beach Access, Fishing Pier/Dock/Platform, Parking Spaces, Picnic Tables, Restrooms, Trail
<ul style="list-style-type: none"> ▪ Cummings Park* 	-	Garden area (30 foot diameter flower bed/rock garden)

³ See <http://www.metroparkstacoma.org/page.php?id=757>

⁴ A Regional Park, as defined by MPT, provides "visitors with access to unique features and attractions that will attract visitors from the entire District and beyond. Regional parks often accommodate large group activities and have infrastructure to support special events and festivals. Promoting tourism and economic development, regional parks can enhance the economic vitality and identity of the entire region."
<http://www.metroparkstacoma.org/files/library/fcdb74685a2142be.pdf>

* Part of the Ruston Way Waterfront park system

Park & Rec. Facility	Size in acres/ Class	Type/Facilities/Use (Within 2 Miles of Site)
Jane Clark Park	6.43 Neighborhood ⁵	Baseball/Softball Field, Basketball, Parking, Playground, Wading Pools, Restrooms, Trail
Baltimore Park	2.68 Neighborhood	
Proctor Community Garden	.68 Community Garden ⁶	The Community Garden program provides gardening opportunities for the physical and social benefit of the people and neighborhoods of Tacoma.
Kandle Park	10.98 Community Park ⁷	Baseball/Softball Field, Basketball Court, Community Garden, Parking Spaces Picnic Tables, Playground, Wading Pools, Restrooms Soccer Field, Tennis Court, Trail, Wildlife Habitat/Open Space
Vassault Park	17.56 Community Park	Baseball/Softball Field, Basketball Court, Parking Spaces, Picnic Tables, Playground, Restrooms, Soccer Field, Tennis Court, Trail
Baltimore Park	2.68 Neighborhood Park	Baseball/Softball Field, Basketball Court, Grill, Gravel Path, Picnic Tables, Playground
Jefferson Park	14.92 Community Park	Baseball/Softball Field, Basketball Court, Playground, Restrooms, Soccer Field, Tennis Court, Trail
Old Town Park	1.38 Neighborhood Park	Art Work/Heritage Monument, Basketball Court, Picnic Shelters w/ Cooking, Picnic Tables, Playground, Trail
Puget Park	1.22 Neighborhood Park	Parking Spaces, Playground, Trail

Source: Metro Parks Tacoma, see <http://www.metroparkstacoma.org/page.php?id=19>.

In addition to municipally owned park and recreation facilities, a number of Tacoma School District schools in the vicinity of *Point Ruston* contain recreational facilities including sports fields, basketball courts, open space areas, gymnasiums, and other recreational amenities. Schools within the *Point Ruston* site vicinity include Point Defiance Elementary, Truman Middle School, Skyline Elementary, Downing Elementary, Jefferson Elementary, Lowell Elementary, Sherman Elementary, Washington-Hoyt Elementary, Mason Middle School, and Wilson High School.

⁵ A *Neighborhood Park*, as defined by MPT, provides “daily convenient access to basic recreation opportunities for nearby residents living within a ¼-mile radius (roughly a 10-15 minute walking distance) of the park. Generally small in size, neighborhood parks are designed primarily for spontaneous, non-organized recreation activities. Neighborhood parks should be designed to enhance neighborhood identity, preserve neighborhood open space, improve the quality of life of nearby residents and encourage users by foot or bicycle. Generally speaking, programmed activities are not encouraged to take place in neighborhood parks.” <http://www.metroparkstacoma.org/files/library/fcdb74685a2142be.pdf>

⁶ A *Community Garden* is a garden plot, mainly located within existing parks with the exception of Proctor Garden, that is intended to provide residents of the City who do not have lawn and garden space an area to plant seasonal flowers, fruits and vegetables. MPT staff tills the soil at the beginning of each session and provide water. A nominal fee is charged for each plot.

⁷ A *Community Park*, as defined by MPT, (*including signature community parks*) provides “a variety of major recreation facilities and support recreation programming and large group activities for residents living within a 1.5-mile radius of the park. Community parks are designed to enhance neighborhood and community identity, preserve open space and enhance the quality of life of community residents. Because of the wide range of amenities provided in community parks, many users visit the park by car and stay for a few hours. For this reason, they require support facilities such as parking and restrooms. Signature community parks have a wider community appeal and often contribute to the identity of each planning area.” foot or bicycle. Generally speaking, programmed activities are not encouraged to take place in neighborhood parks.” <http://www.metroparkstacoma.org/files/library/fcdb74685a2142be.pdf>

Town of Ruston

The Town of Ruston operates one park within its jurisdiction. Rust Park contains a grassy field, restroom facility, and baseball backstop.

**Table 3.5.2
EXISTING PARKS/RECREATIONAL FACILITIES
IN POINT RUSTON SITE VICINITY
IN THE TOWN OF RUSTON**

Park & Rec. Facility	Acres	Type/Facilities/Use	Within 2 Miles of Site
Rust Park	N/A	Grassy, open, playfield with baseball backstop	

Source: *Point Ruston, LLC*

No park and recreation facilities are presently located on the *Point Ruston* site. Currently the site is undergoing environmental remediation under the direction of a Consent Decree between Point Ruston, LLC., and the Environmental Protection Agency. The site was originally utilized for a copper smelter operation and has subsequently been under the jurisdiction of EPA and CERCLA/Superfund for environmental remediation; thus, no parks, open space, shoreline access or recreational opportunities currently exist or have existed on the property for over 100 years.

3.5.1.1 Parks Level of Service Guidelines

The three contiguous jurisdictions to the *Point Ruston* property (Town Of Ruston, City of Tacoma, and the MPT) each have unique Levels of Service (LOS) required to meet the basic recreational needs of the community.

City of Tacoma

In 2006, the City and MPT collaborated to update the Recreation and Open Space Facilities Element of the *Comprehensive Plan*. The *Comprehensive Plan* describes existing park and recreation facilities and services within the Tacoma area and analyzes the supply, demand and need for additional public and private park and recreation facilities, along with financial implications and conceptual development plan elements for park, recreation and open space land and activities. The Plan also identifies open space and recreational Level of Service (LOS) requirements. The adopted LOS for recreation and open space, in accordance to the Plan, are as follows:

- Regional Parks: 7 acres per 1,000 persons;
- Local Parks..... 3 acres per 1,000 persons; and
- Open Space 2 acres per 1,000 persons.⁸

⁸ Strategic Parks and Services Plan, Metropolitan Parks Tacoma, October 2003.
<http://www.metroparkstacoma.org/files/library/f2db297b990c4508.pdf>

The City of Tacoma LOS guidelines represent overall levels of facilities that the City and MPT seek to achieve on a citywide basis and are not intended to be implemented on a project-specific basis.

The *Point Ruston* site is within the City of Tacoma's West End Neighborhood. This Neighborhood has a population of 28,210 and approximately 155 acres of Neighborhood parks, for an LOS of 5.1.⁹

Metropolitan Parks of Tacoma

The 2006 *Metro Parks Tacoma Strategic Plan* adopts the use of service radius as the park LOS, rather than using a per capita LOS. The intent is to ensure that residents have equal and convenient access to all neighborhood and community parks. The service radii LOS for Neighborhood Parks is 0.75 miles and 1.5 miles for Community Parks.

The *Point Ruston* site is within the MPT's Northwest Planning Area. Forty-nine percent of MPT's total parks are located within this Planning Area, for a total of 33 parks including over 1,103 acres.

Town of Ruston

The Town of Ruston's *Comprehensive Plan* requires that development of the *Point Ruston* property within its jurisdiction occur under the guidance of a Town-approved Development Plan. A Development Plan must specify "the standards of ... open space" (Ruston Municipal Code 25.01.060). Further, the *Comprehensive Plan* states that "the final configuration of the access and related parks areas will be determined as part of the development plan for the area." Thus, upon submittal for a land use action in the Town of Ruston, *Point Ruston* shall provide a development plan articulating the specific open space, park, and recreational opportunities within the jurisdiction.

3.5.1.2 Parks Impact Mitigation Fees

Under the Growth Management Act (GMA), cities, towns and counties are authorized to impose impact fees on new development to help finance certain public facilities, including parks within their jurisdiction. Neither the City of Tacoma, the Town of Ruston nor the Metro Parks Department currently impose park impact mitigation fees.

3.5.2 Impacts of the Proposed Action

The *Point Ruston* project would include residential uses and would, therefore, increase demand for Tacoma and Ruston parks and recreation areas. The *Point Ruston* development assumes development of the entire site, with final build out comprised of 800 - 1,000 new multi-family dwelling units and 228,000 sq. ft. of commercial/retail space. Upon full build out of the *Point Ruston* development, 12 distinct park areas and over 50 acres would be publicly accessible park, recreation, or open space.

⁹ *Id.*

The *City of Tacoma Comprehensive Plan* assumes an average household ratio of 2.45 residents per dwelling unit (average across all housing types), which would translate to an on-site population of approximately 1,950 - 2,450 residents. The *Comprehensive Plan* does not provide a separate ratio for multi-family units versus single-family residents; typically, the number of residents per dwelling unit is fewer for multi-family units. A more accurate assumption for multi-family dwelling units would be 1.75 residents per unit, which would translate to an assumed *Point Ruston* development population range of 1,400 to 1,750 residents.

3.5.2.1 Construction

Since construction would be phased over time, parks and recreation facilities that are constructed on-site could experience temporary increases in dust, emissions and noise due to construction activities in the immediate area; these activities would not be anticipated to impact offsite park facilities. These impacts would be assumed to be temporary in nature and not significant.

3.5.2.2 Operations

The *Proposed Action* would feature approximately 1,298,600 square feet of total livable residential / net leasable commercial space, to be built over the 8 to 10-year construction period. This alternative would include 800 to 1,000 multifamily dwelling units with an associated onsite residential population of approximately 1,400 to 1,750 people.

Development of the proposed *Point Ruston* would create new capacity for a range of retail, commercial and residential uses along with associated employment and population. Increases in employment and population on the site over the 8 to 10-year build-out period would create related increases in demand for public recreational opportunities. These indirect impacts would not be assumed to be significant.

The *Proposed Action* would provide substantially increased recreational and open space opportunities on the site in the form of new public parks, trails, and waterfront access. Under the *Proposed Action*, approximately 50 acres of parks and open space is proposed, in 12 distinct park and recreation areas. It would be assumed that by 2018 the *Point Ruston* site would include a myriad of public and private recreation opportunities, including public parks, private health clubs, over 9 acres of Promenade, as well as assorted other pocket parks. In total, 26 acres of parks and recreational opportunities are assumed within that portion of the site located in the City of Tacoma and 24 acres are assumed in that portion of the site located within the Town of Ruston. **Table 3.5.3** provides a detailed breakdown of the proposed public parks, trails and habitat restoration areas assumed under the *Proposed Action*. For the location of proposed parks, recreation, and open space areas provided under the *Proposed Action*, please refer to **Figure 10**.

**Table 3.5.3
POINT RUSTON PROPOSED PARKS, RECREATION AND OPEN SPACE AREA**

Label on Figure 10	Jurisdiction (Tacoma or Ruston)	Park Feature	Description
A	Tacoma/Ruston	Point Ruston Promenade	<p>The promenade at Point Ruston is proposed to run from the southern tip of the property along the entirety of the shoreline to the most northern point of the property, covering approximately 4800 lineal feet. The Promenade would connect to the existing Ruston Way public walkway within the City of Tacoma and extend almost ¾ mile with an average 100' width. The promenade would be composed of several surfaces, including continuous hardscape and sand-type, and contain public art, fountains, kiosks, and other public attractions.</p> <p>At several locations along the promenade, the walkway would be widened beyond its average width into public gathering areas, which would include public art amenities, public seating, pedestrian lighting,</p>
B	Tacoma	Ruston Way Park Connection	<p>The existing Ruston way walkway terminates approximately 700' south of the View Point Park District within Tract A. The promenade would extend along Tract A to connect to the existing City owned walkway providing pedestrian access to the entirety of the <i>Point Ruston</i> shoreline.</p>
C	Tacoma	Point Ruston View Point Park	<p>The South East end of the Point Ruston development would feature an expanded section of the Promenade to accent the view towards the City, Mt. Rainier, and the Port. Measuring approximately 20,000 in total square feet, this area would act as a central gathering place for persons accessing the Promenade from the Tacoma end of the property, as well as feature a focal piece of public art.</p>
D, F, H	Tacoma	Island, Bay & Mountain View Corridors	<p>View corridors are assumed under the <i>Proposed Action</i> allowing unobstructed view from Ruston Way to the shoreline and beyond. These corridors would allow public access from Ruston Way, through the <i>Point Ruston</i> development, allowing pedestrian access to the Promenade. The view corridors average 75 ft. in width.</p>
E	Tacoma	Bear Fountain Public Art	<p>The Bear Fountain is proposed to be a highly stylized piece of art, combining marble, glass, copper, and water aspects. Figure 18 (<i>Section II</i> of this DSEIS)</p>
I	Tacoma/Ruston	Grand Promenade Plaza	<p>The <i>Proposed Action</i> assumes that the midpoint of the Promenade would open to the raised Grand Promenade Plaza, which would be a highly styled public gathering area, with central fountain, public seating areas, view terraces of the Promenade, near-shore/far-shore views of Commencement Bay, as well as access to the Promenade District hotel, commercial, restaurant, and retail core area.</p>
G	Tacoma/Ruston	Roundabout Open Spaces	<p>The <i>Proposed Actions</i> assume the realignment of Ruston Way to circumvent the existing Ruston Way/51st St. Tunnel so as to provide a more accessible and safer roadway. Ruston Way would be straightened, providing three entrance points into the <i>Point Ruston development</i>. Both entrances would have roundabouts to aid in the proper flow of traffic in and out of the development. The southern roundabout is</p>

Label on Figure 10	Jurisdiction (Tacoma or Ruston)	Park Feature	Description
			proposed to be centered on the Promenade District, providing adequate flow in and out of the retail/commercial core. The northerly roundabout would aid in the ingress/egress generated by the Yacht Club Rd/51 st St./Baltimore St. interchange. These roundabouts would provide more efficient flow for traffic generated by <i>Point Ruston</i> ¹⁰ . The roundabouts would also provide green open space rain garden areas within their central islands.
J	Tacoma/Ruston	Ruston/Tacoma Signage	Highly stylized signage indicating the jurisdictional boundary along the Promenade will be an integral public art amenity along the Promenade.
K	Ruston	Pedestrian Connection to Metro Parks Property	A public right of way is assumed which would connect Ruston Way to the Yacht Club basin, allowing for access to the MPT Peninsula Park and Point Defiance Park, through the Point Ruston development. Under the 2 nd Amendment to the Consent Decree, Point Ruston has agreed to environmentally remediate the Metro Park's Peninsula Park property. No park or open spaces features are assumed for this site at this time. Please refer to Figure 20 for a graphical illustration of the elevation of the grade interaction between N. Waterfront Road, Yacht Club Road, and the pedestrian connection to Metro Parks' Peninsulas Park property. The grade current grade difference is resolved by dropping the road before the T-intersection, thus using the building foundation as a retaining wall.
L	Ruston	Promontory Hill Park	The portion of this area that belongs to Point Ruston is envisioned as present open space and future recreational uses, to be consistent with the property's status as an On-Site Containment Facility (OCF), for which Maintenance and Operation will be a continuous and ongoing endeavor. Promontory Hill is envisioned as a future park on a level similar to MTP LOS for a "Neighborhood Park". Promontory Hill will be dedicated as park open space, allowing for a children's play area, large open field, picnic shelters, interpretive signage, open grass field suitable for a sports field, along with other general site enhancements.

Source: Point Ruston, LLC

Note: Park and trail names are for descriptive purposes and would likely be amended in the future.

As part of the definition of the *Proposed Action*, the general size and location of the various public park, recreation, and open space components have been identified. However, the specific features that would be provided, and the design, layout and configuration of the onsite public parks and trails have not been determined at this stage. For the purposes of this FSEIS, it is assumed that a variety of park and recreational opportunities would be afforded, including both active and passive opportunities, and will be designed in partnership with Metro Parks.

The provision of 50 acres of public park and recreational amenities within the *Point Ruston* development would create areas for the public to be able to enjoy a wide array of activities,

¹⁰ <http://www.wsdot.wa.gov/Projects/roundabouts/benefits.htm>. "Studies by Kansas State University <http://www.ksu.edu/roundabouts/> have measured traffic flow at intersections before and after conversion to roundabouts. In each case, installing a roundabout led to a 20 percent reduction in delays. The proportion of vehicles that had to stop – just long enough for a gap in traffic – was also reduced."

including: running, walking & jogging, roller-blading, biking, skate boarding and other wheeled activities, lounging in large open landscaped and garden areas, viewing public art amenities, picnic tables, benches, and other public resting amenities, picnicking, and Commencement Bay viewing. Parks and open spaces would provide recreational opportunities for the public at large as well as members of the *Point Ruston* neighborhood. Public open space would also provide new pedestrian, bike, and automotive connections between the existing Ruston Way waterfront to the south and the MPT Peninsula Park property and Point Defiance Park.

3.5.2.3 Point Ruston Promenade

The *Point Ruston* promenade is planned to be developed along the shoreline of the entire property. It is planned to span from the southern tip of the property and extend to the most northern point, spanning approximately 4,800 lineal feet and averaging a 100-foot width along the entirety of the shoreline frontage of the property, across the jurisdiction line between Tacoma and Ruston.

The promenade would connect to the existing Ruston Way public walkway within the City of Tacoma and extend almost 0.75 miles along the shore of Commencement Bay and the entire shoreline frontage of the *Point Ruston* property. The promenade would be composed of several surfaces, including continuous hardscape and a meandering sand-type substrate. The multiple surfaces of the promenade would provide active play and recreation areas along the entirety of the shoreline of the developed area of *Point Ruston* for runners, bikers, walkers, strollers, etc. The promenade would feature public art, fountains, and public seating amenities, kiosks, play areas, rest areas, as well as other public attractions. Other potential improvements could include landscape plantings, open play field areas, parking improvements, sidewalks, lighting, interpretive signs, park benches, fountains, outdoor fire pits and other public amenities.

At several locations along the promenade, it is envisioned that public gathering areas would be provided, which could include public art amenities, public seating, and pedestrian lighting (see Figure 18, *Section II* of this FSEIS). Pedestrian and bicycle connections from the existing Ruston Way promenade to the *Point Ruston* promenade would also be provided. The promenade is anticipated to seamlessly link with the existing Ruston Way walkway, providing a public park element that the users will find as an attractive place to recreate. In areas where public and private property boundaries meet, a distinct separation would be provided to ensure public access to the promenade while privacy and security is maintained for residents of Point Ruston. All buildings with frontage on the promenade would be of a mixed-use nature.

The promenade is proposed to also provide an automotive and pedestrian connection between the *Point Ruston* site, Point Defiance Park and future MPT projects at Peninsula Park. Public vehicular access along the proposed Yacht Club Road would also provide a connection through the *Point Ruston* site Metro Parks property including Peninsula Park and Point Defiance.

In addition, private parks/open spaces, courtyards, playgrounds, seating areas, indoor gyms/pools and recreational facilities for children living on-site could be developed in conjunction with the development of the residential and commercial buildings on-site. These private spaces and facilities may add to the park and recreation amenities on the site; however, specific details on these areas cannot be determined until future redevelopment occurs.

As a separate endeavor, Point Ruston, LLC, also plans to coordinate with the Department of Natural Resources to secure State funding to remove dilapidated structures along the shoreline,

such as existing piers and creosote piles. This future work would be subject to a separate environmental review and permitting process.

3.5.2.4 Park Construction – Phased Approach

Throughout the phased build out of *Point Ruston*, parks and open space would be constructed in coordination with the construction of the buildings, as well as in coordination with the capping and final environmental remediation. Pedestrian walkways, gardens, paths, and view corridors would all be constructed as frontage improvements to the individual buildings. The promenade would be built in coordination with the development of the shoreline zone, phased so as to start with construction on the south of the *Point Ruston* site, and ending with a final connection to the MPT's Peninsula Park at the north. Because the promenade is primarily hardscape, the completion of this aspect of the project would not only serve to meet zoning requirements for public shoreline access but also acts as conformance with the EPA Consent Decree for final environmental remediation of the site.

As noted in *Section II* of this FSEIS, the first building to be constructed on the *Point Ruston* site would be located within the City of Tacoma. It would be of a commercial nature, located within the upland zone of the site, with no residential uses. This building would produce no new residents so as to trigger any park/open space LOS requirements. Further construction of buildings throughout the *Point Ruston* development, however, would generate LOS requirements, and the proposed park, recreation, and open space opportunities that are proposed by the development would exceed City and MTP requirements for park LOS.

3.5.2.5 Demand on Existing Park Facilities

Increases in on-site population due to permanent residents, as well as on-site employees of the mixed-use development, would increase demands on local and regional parks and recreation facilities on an incremental basis throughout the occupancy of the *Point Ruston* development. Increases in resident and employee population on the site could result in additional demand for both passive and active recreational facilities. Passive recreational facilities most likely to receive increased demand would include facilities near the site, such as: Ruston Way waterfront and park and Point Defiance Park.

Given the variety and size of passive recreational facilities located within two-miles of the site, increases in use would likely be distributed among numerous nearby parks and trails, and would not be expected to be significant. Based on the new Promenade connections to/from the site, additional use of offsite trails, such as the Ruston Way walkway and trail system at Point Defiance, would likely result. The proposed onsite recreational facilities that would be constructed including public plazas, courtyards and outdoor seating areas located in conjunction with onsite buildings, and private parks/open space associated with these buildings, would also help to meet the demand for passive recreational space from redevelopment.

Demand for active recreational facilities, such as: baseball and soccer fields, tennis and basketball courts, wading pools, boat launches, and trails, would also increase under the Proposed Actions. The most likely facilities to experience added use would include facilities near the site, such as: Point Defiance tennis courts and jogging paths and the Ruston Way walkway. Given the variety of active recreational opportunities within one to two-miles of the site, increases in use would likely be distributed among the numerous nearby parks and would

not be expected to be significant. In addition, public parks, trails and recreational facilities proposed onsite by 2018 would also help to meet the increased demand for active recreational facilities from residents and employees onsite.

At full build-out it is anticipated that approximately 1,400 to 1,750 people will become permanent residents at *Point Ruston*. The proposal potentially creates 651 on-going on-site jobs as well. LOS quantitative guidelines are based on permanent residents in the vicinity.

That portion of the *Proposed Action* that would be located within City of Tacoma is anticipated to contain approximately 775 residential units, with 1,356 full time residents. In addition, approximately 333 on-site employees are anticipated.

With a total of 12 park areas proposed throughout the entirety of the property, in addition to the two existing Regional Parks within the vicinity of the *Proposed Action* and the 10 community and neighborhood parks, both the MPT LOS guidelines and City of Tacoma LOS guidelines would be greatly exceeded. Under the City of Tacoma's *Comprehensive Plan* Park LOS guidelines, approximately 9.45 acres of regional parks, 4.05 acres of neighborhood parks, and 2.7 acres of open space would be recommended for the *Proposed Action* – for a total of 16.2 acres. As noted previously, the *Point Ruston* development would provide 26 acres of park, recreation and open space -- within the City of Tacoma jurisdiction, thereby exceeding the amount recommended by nearly 61 percent.

That portion of the *Proposed Action* that would be located within the Town of Ruston is anticipated to contain 225 residential units and generate approximately 393 permanent residents. An additional 318 on-site employees are anticipated, as well. The Town of Ruston zoning code requires an approved Development Plan include open space elements of the proposed project. The *Proposed Action* would meet this requirement.

3.5.3 Impacts of the No Action Alternative

The 1997 *Master Development Plan EIS (1997 EIS)* assumed no residential uses on the project site; therefore, no direct LOS impacts on existing area parks were assumed. It was also assumed that the increase in employment opportunities provided on-site would indirectly contribute to general population growth and increases in demand for recreational areas near the site and increase usage of nearby park and recreational areas. It was also noted that the additional development proposed in the 1997 EIS would increase air quality, noise and traffic impacts relative to existing park users. These impacts were determined to not be significant.

Park and open space improvements were supported through the ASARCO redevelopment planning process, as described and depicted in the 1997 EIS. The 1997 EIS was prepared based on the Plan Definition Report and the Definitive Agreement between ASARCO, the Town of Ruston, the City of Tacoma and the MPT. The 1997 EIS outlined the basic design program for the project and described the roles and responsibilities of the Stakeholders. Section A1.3 of the MDP explains that the 1997 EIS alternatives were based on the Plan Definition Report, Definitive Agreement and public input received during the Scoping process associated with that EIS.

The park, recreation and open space assumptions used as the baseline for the 1997 EIS were developed and approved in 1997 as a component of a Definitive Agreement between ASARCO, the Town of Ruston, the City of Tacoma and the Metropolitan Park District of Tacoma for

environmental remediation of historical contamination on the site. The Definitive Agreement described the quantity and arrangement of parks and recreation amenities provided on and offsite of the MDP. The Definitive Agreement also defined the responsibilities of each signatory in regards to provision of amenities, financing, maintenance, etc. The Definitive Agreement assumed a total of 53 acres (on- and off-site of the MDP) would be dedicated to park and recreation features.

Off-site improvements were to be completed on property owned by the MPT. Park development outside the boundaries of the project property was required under the terms of the Definitive Agreement, entered into by Asarco, MPT, Town of Ruston, and the City of Tacoma.

The 1997 EIS describes park and open space improvements as being funded in three distinct ways:

- Park and Open Space Improvements to be provided by ASARCO as Part of Remediation -- These basic park improvements completed as part of remediation are described in section C.2 of the MDP (e.g., capped vegetated areas, landscape plantings to control erosion, pathways and walks).
- Park and Open Space Improvements that may be Funded through Metropolitan Parks District of Tacoma Funds as a Result of the Definitive Agreement -- ASARCO paid the Metropolitan Park District of Tacoma \$2,500,000.00 as agreed to assist in funding of improvements in the project's Park Tracts as described in MDP section C1.2.
- Park and Open Space Improvements for Which Additional Funding is Required -- Section C4 of the MDP describes additional funding opportunities that should be pursued by the stakeholders including:
 - Funding from Private Developers. "To a limited extent, private parties may have an interest in participating in development on Park Tracts where it is complementary to their projects."
 - Interagency Committee for Outdoor Recreation (IAC). IAC administers publicly funded grant programs to help finance recreation and conservation projects throughout the state.
 - Municipal Financing Options

The 1997 EIS indicated that existing park facilities would not be directly affected by construction activities on the site but could be indirectly affected by construction-related activities and traffic congestion, road closures or road alterations. These impacts were determined to be temporary and not significant.

The 1997 EIS indicated that thirteen main park components would be employed under the *Master Development Plan*. Under the *MDP*, anticipated park development occurred in areas both within the real property boundaries of the Site, and outside said property boundaries. The parks and recreational areas planned to be developed on-site included the Viewpoint Park located at the far south-end of the project site, the South Shore Promenade, various publicly accessible view corridors located throughout the property, the Crescent Park, an artistic

Roundabout feature on Ruston Way, and the Bennett Street Promontory. Off-site park and recreational improvements included the Boat Basin View Corridor, Peninsula Park, Breakwater Marina and Promenade, and a Public Boat Ramp Improvement project.

Since the adoption of the EIS for the MDP in 1997, political, legal, and physical changes have occurred, requiring some changes to the off-site plans. In 2005, ASARCO filed for bankruptcy and they were unable to meet their full financial commitments detailed in the Definitive Agreement. In 2006, Point Ruston LLC purchased the property. As part of the purchase and sale agreement, the Definitive Agreement was nullified and ASARCO's legal commitments to provide the array of parks, recreation and open space analyzed in the 1997 EIS were released.

In particular, the sale of property and vacations of Bennett Street by the Town of Ruston to allow for the construction of the Commencement Condominium project has precluded expansion of Promontory Park across Bennett Street and into the lower lot of the former Ruston School as shown on page C-20 of the 1997 EIS. In addition, negotiations for the coordinated construction of the Peninsula Park project were underway until September of 2007, when the Metropolitan Parks Commission rejected a plan for partnership between Point Ruston, LLC and MPT for construction of an amphitheater and esplanade improvements.

Park features proposed in the original Definitive Agreement were analyzed in the MDP EIS; these impacts are the *No Action Alternative* that is described in this FSEIS. Park-related features associated with the MDP included a waterside promenade and an array of hardscape plazas along the length of the project shoreline, which would connect to the existing Ruston Way walkway. Large open spaces could include active play areas for children and adults were planned between buildings, which would maintain a park-like atmosphere within the development and provide multiple pedestrian and bike connections from roads to the promenade.

As described in the 1997 EIS, the promenade was planned to be 25 feet in width with a larger, wider section in the central waterfront of the proposed development. At the northeastern corner of the property, a connection would be provided to the Point Defiance and Peninsula Park. The promenade and multiple plazas provided adjacent to retail and commercial areas would remain public open space for recreational activities. **Table 3.5.4** provides a breakdown of the public parks, recreation and open space areas provided under the *No Action Alternative*; also refer to **Figure 19**.

**Table 3.5.4
NO ACTION ALTERNATIVE
ASARCO MASTER DEVELOPMENT PLAN PARK TRACTS**

Label on Figure 19	Jurisdiction (Tacoma or Ruston)	Park Feature	Description
A	Tacoma	Viewpoint Park	<ol style="list-style-type: none"> 1. Promenade Enhancements 2. View Terrace 3. Beach Access
B	Tacoma/Ruston	South Shore Promenade	<ol style="list-style-type: none"> 1. Promenade Enhancements 2. Beach Access 3. Development Related

Label on Figure 19	Jurisdiction (Tacoma or Ruston)	Park Feature	Description
			Promenade Improvements 4. Ore Dock Promenade Connections
C, D	Tacoma/Ruston	View Corridors	1. Walkway Enhancements 2. Pedestrians Connections
E	Tacoma/Ruston	Crescent Park	1. Promenade Enhancements 2. Shoreline Enhancements 3. Roundabout View Plaza 4. Restroom Building 5. Peninsula Park Entry Plaza 6. Promenade Dock Access (Ore and Copper Docks)
F		Roundabout	1. Ruston Way Monument 2. Ruston Entry Floral Display 3. Cooling Pond
G	Tacoma	Boat Basis View Corridor	1. Yacht Club Entry Gate 2. Yacht Club Screen Fence
H	Tacoma	Peninsula Park	1. Public Comfort Station 2. Promenade Enhancements 3. Events Facility 4. Special Features 5. Children's Play Area 6. Fishing Pier 7. Shoreline Enhancements
J	Tacoma	Breakwater Marina and Promenade	1. Point Defiance Park Connection 2. Sea Wall Replacement 3. Short term moorage expansion 4. Marina Parking Expansion 5. Relocate Fuel Dock and Marina Office 6. Replace and/or Repair Fuel Tanks and Fuel Delivery Access 7. Modify Existing Marina Office Building
M	Tacoma	Public Boat Ramp Area Improvement	1. Boat Ramp/Marina

Label on Figure 19	Jurisdiction (Tacoma or Ruston)	Park Feature	Description
			Breakwater 2. Ferry Night Moorage Slip 3. Log Boom or Guide Wall 4. Public Viewing Area Enhancements 5. Ramp, Parking, Restroom, Relocated Floats
N	Ruston	Cooling Pond Site	1. Entry Sign and Hillside
O	Ruston	Bennett Street Promontory	1. Public Garden 2. Children's Play Area 3. Pedestrian Entry to Ruston School House 4. Picnic Shelters 5. Public Restrooms 6. Sports Field 7. Park Related Parking 8. Amphitheater 9. General Site Enhancements 10. Pedestrian Connection to Tract P

Source Master Development Plan, DEIS figure 2-1 page 2-5

3.5.4 Mitigation Measures

- The *Point Ruston* development would provide 26 acres of parks and open space facilities within the City, which translates to approximately 160.5 percent more park, recreation and open space than the recommended amount (16.2 acres), based on the City of Tacoma's LOS standard. Under the City of Tacoma's *Comprehensive Plan* Park LOS guidelines, approximately 9.45 acres of regional parks, 4.05 acres of neighborhood parks, and 2.7 acres of open space would be recommended under the *Proposed Action*. *Point Ruston's* proposed 26 acres of park, recreation and open space within the City of Tacoma jurisdiction greatly exceeds these quantitative guidelines. Increases in the demand for parks and recreational facilities would be mitigated, in part, through the provision of a range of onsite public park and trail facilities. These on-site parks and facilities would include a mix of parks, trails, gathering places, view opportunities and public shoreline access. Other types of recreational facilities would likely be provided as part of the multifamily residential uses including play areas for children living at the site. It is anticipated through this provision of onsite recreational opportunities and the availability of a variety of park and recreational facilities in the nearby vicinity, significant impacts to park and recreational facilities would be adequately mitigated.
- The *Point Ruston* development would provide 24 acres of parks and open space facilities within the Town of Ruston. While Ruston does not have a quantifiable LOS requirement, however using MPT and City of Tacoma's LOS guidelines, this translates

to approximately 524 percent of the amount of acreage that conceivably could be recommended (4.58 acres) by the Town; again this estimate is based on the City of Tacoma's LOS guidelines. In light of that, based on the City of Tacoma's *Comprehensive Plan* Park LOS guidelines, approximately 2.7 acres of regional parks, 1.1 acres of neighborhood parks, and 0.78 acres of open space would be recommended under the *Proposed Action*. Thus, the *Proposed Action's* proposed 24 acres of park, recreation and open space within the Town of Ruston jurisdiction greatly exceeds these quantitative guidelines. Increases in the demand for parks and recreational facilities would be mitigated, in part, through the provision of a range of on-site public park and trail facilities. These on-site parks and facilities would include a mix of parks, trails, gathering places, view opportunities and public shoreline access. Other types of recreational facilities would likely be provided as part of the multifamily residential uses including play areas for children living at the site. It is anticipated through this provision of onsite recreational opportunities and the availability of a variety of park and recreational facilities in the nearby vicinity, significant impacts to park and recreational facilities would be adequately mitigated.

- Appropriate measures related to temporary construction impacts (including dust, emissions and noise) would be implemented during the redevelopment of the site to preclude significant impacts on new and existing parks and trails in the site area.

3.5.5 Significant Unavoidable Adverse Impacts

With implementation of the mitigation measures listed above, no significant adverse impacts to parks and recreational facilities would be anticipated to result from the proposed *Point Ruston* development.

M - Public Boat Ramp Area Improvements

- 1. Boat Ramp / Marina Breakwater
- 2. Ferry Night Moorage Slip
- 3. Log Boom or Guide Wall
- 4. Public Viewing Area Enhancements
- 5. Ramp, Parking, Restroom, Relocated Floats

I - Tacoma Yacht Club Facilities

J - Breakwater Marina and Promenade

- 1. Sea Wall Replacement
- 2. Short Term Moorage Expansion
- 3. Marina Parking Expansion
- 4. Relocate Fuel Dock and Marina Office
- 5. Replace and/or Repair Marina Fuel Tanks and Fuel Delivery Access
- 6. Modify Existing Marina Office Building

O - Bennett Street Promontory

- 1. Public Garden
- 2. Children's Play Area
- 3. Marina Parking Expansion
- 4. Picnic Shelters
- 5. Public Rest Rooms
- 6. Sports Field
- 7. Park Related Parking
- 8. Amphitheater
- 9. General Site Enhancements
- 10. Pedestrian Connection to Tract P

H - Peninsula Park

- 1. Public Comfort Station
- 2. Promenade Enhancements
- 3. Events Facility
- 4. Special Features
- 5. Children's Play Area
- 6. Fishing Pier
- 7. Shoreline Enhancements

G - Boat Basin View Corridor

- 1. Yacht Club Entry Gate
- 2. Yacht Club Screen Fence and Landscaping

N - Cooling Pond Site

- 1. Ruston Entry Sign

E - Crescent park

- 1. Promenade Enhancements
- 2. Shoreline Enhancements
- 3. Roundabout View Plaza
- 4. Restroom Building
- 5. Peninsula Key Entry Plaza
- 6. Promenade Dock Access - Ore Dock
- 7. Promenade Dock Access - Copper Dock

F - Roundabout

- 1. Ruston Monument
- 2. Ruston Entry Floral Display

D - View Corridors

- 1. Walkway Enhancements
- 2. Pedestrian Connections

B - South Shore Promenade

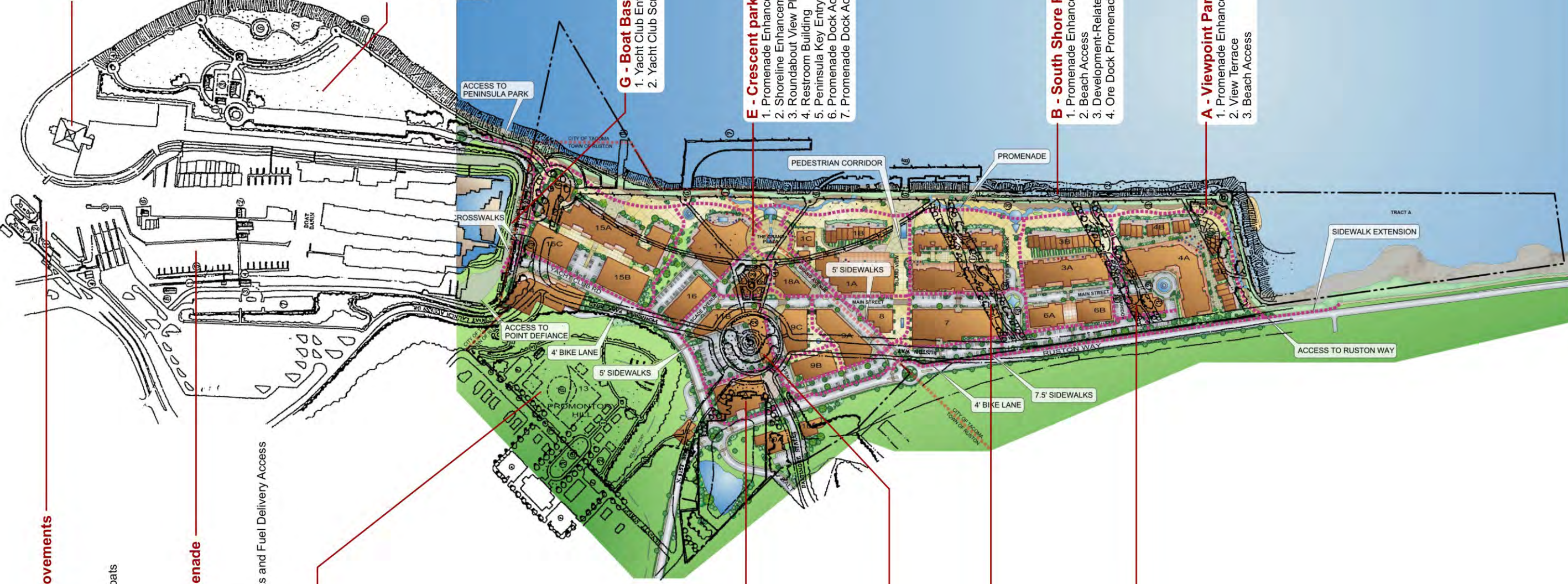
- 1. Promenade Enhancements
- 2. Beach Access
- 3. Development-Related Promenade Improvements
- 4. Ore Dock Promenade Connections

D - View Corridors

- 1. Walkway Enhancements
- 2. Pedestrian Connections

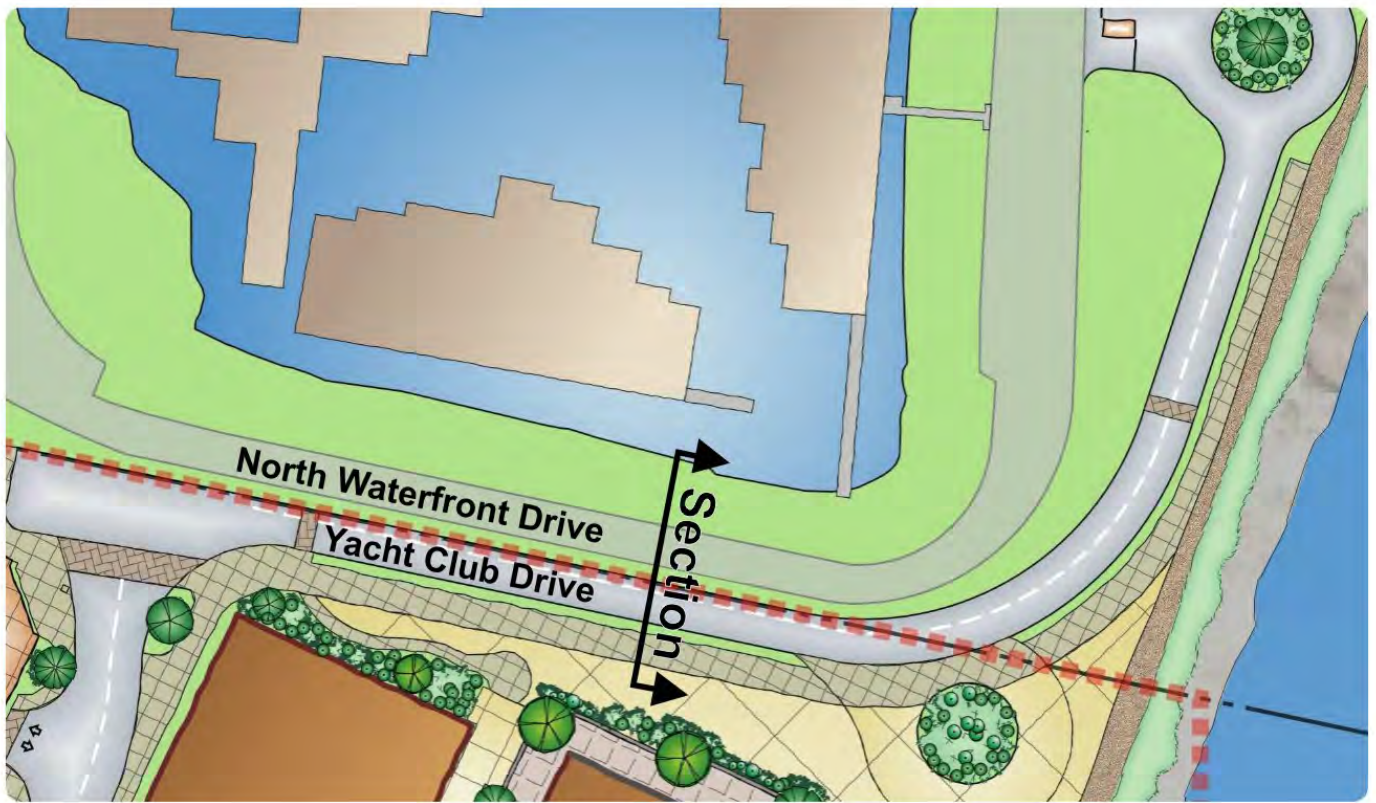
A - Viewpoint Park

- 1. Promenade Enhancements
- 2. View Terrace
- 3. Beach Access

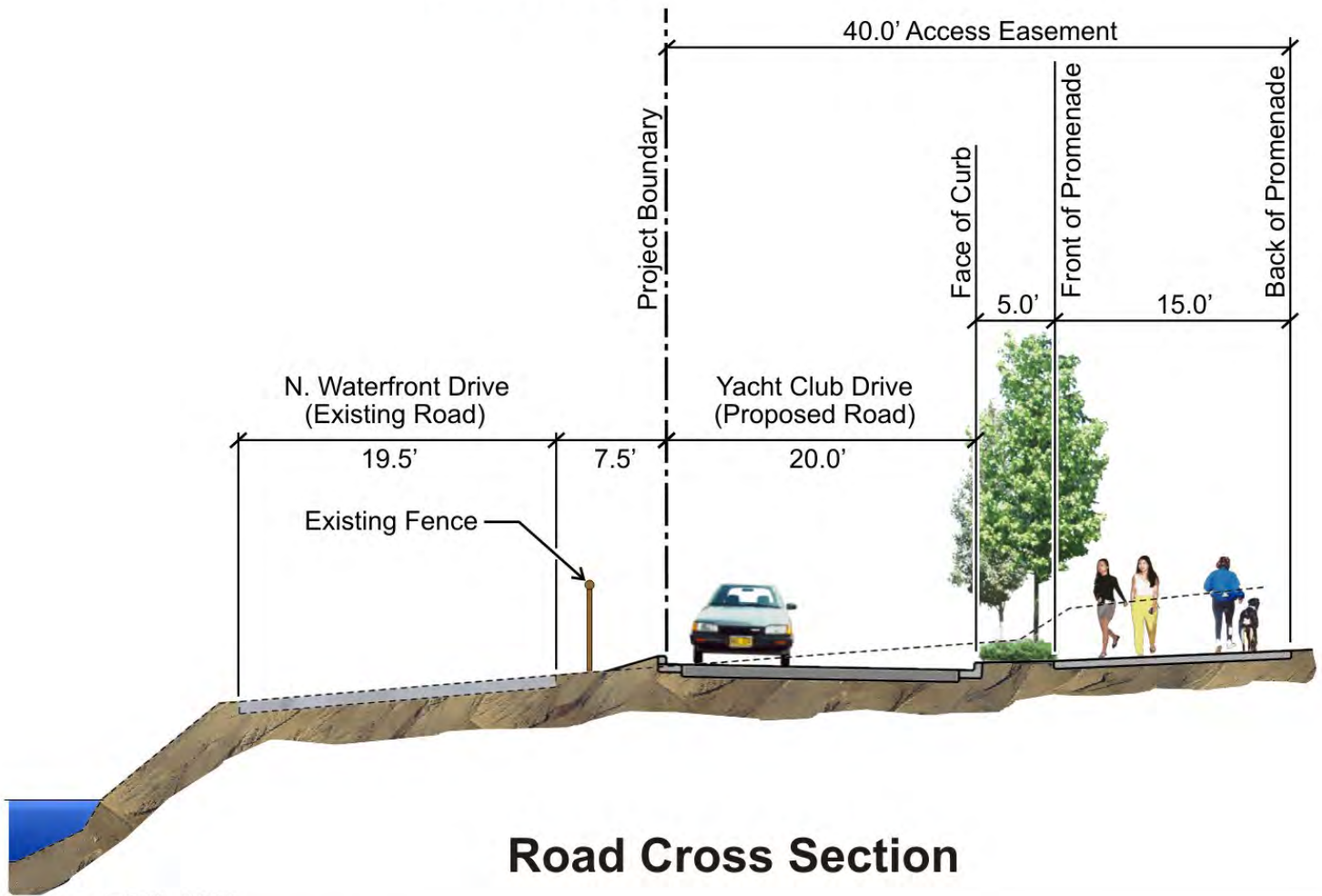


Source: ESM, 2008





Plan View



Road Cross Section

Source: ESM, 2008

3.6 PUBLIC SERVICES AND UTILITIES

The following section describes the existing status of City of Tacoma and Town of Ruston entities providing service to the *Point Ruston* site and evaluates the impacts of added demand on such services as a result of redevelopment of this site under the EIS alternatives that are evaluated. Municipal services and utilities considered in this section include fire and emergency services, police, schools and utilities (water, sewer, stormwater, power and solid waste).

3.6.1 Affected Environment

3.6.1.1 Public Services

Approximately 44 acres of the Point Ruston site lies within the City of Tacoma and 38 acres is located within the Town of Ruston (see **Table 3.6.1**). Fire/emergency services and police services are provided by the respective agencies for the portions of site within their jurisdictions. Fire/emergency services and police services for the portion of the site within the City of Tacoma are provided by the Tacoma Fire and Police Departments. Fire/emergency and police services for the portion of the site within the Town of Ruston are provided by the Ruston Fire and Police Departments. The jurisdictions have historically maintained a level of cooperation in emergency response under mutual aid agreements.

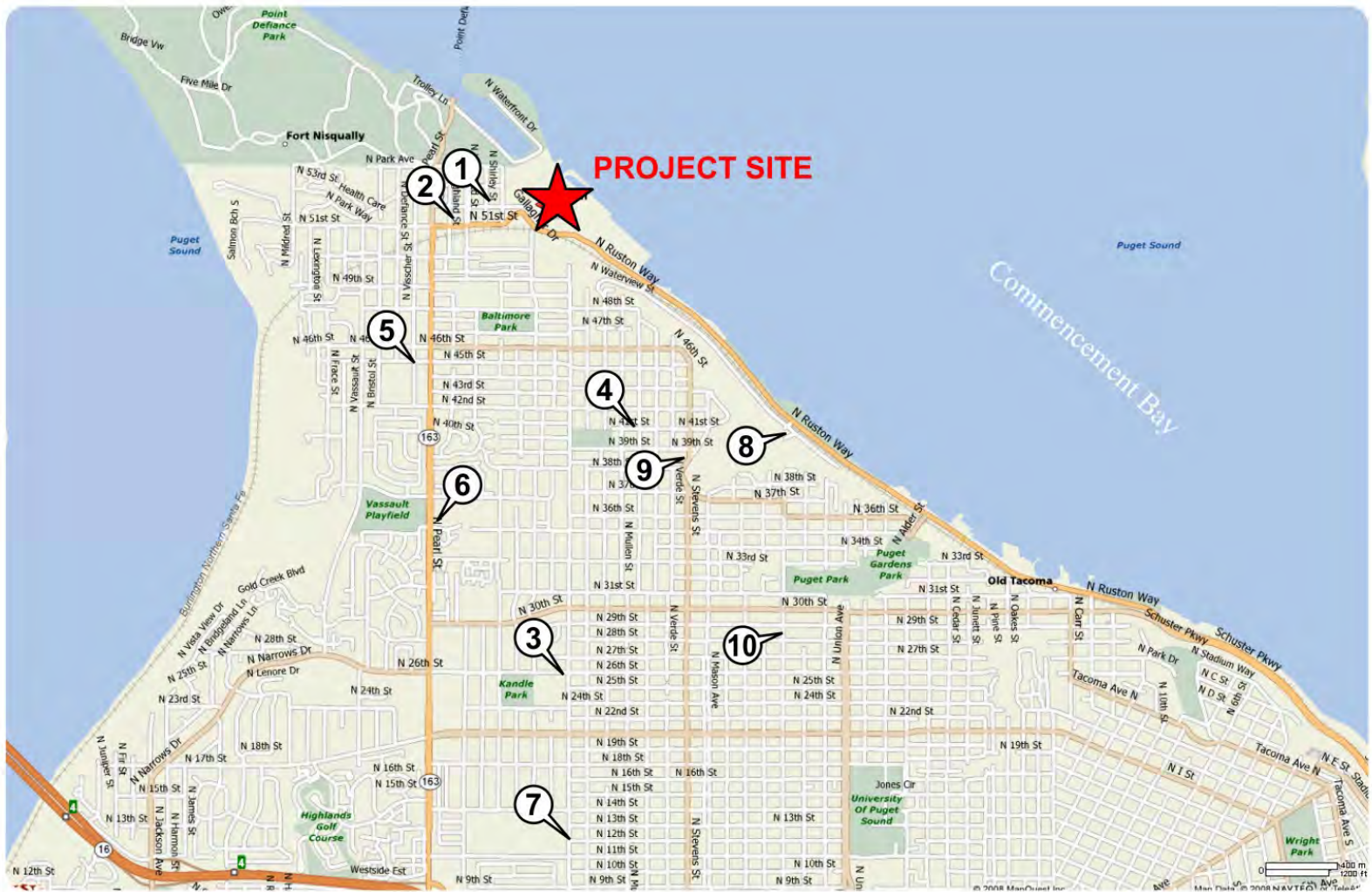
**Table 3.6.1
POINT RUSTON
ACREAGE BREAKDOWN BY JURISDICTION**

Jurisdiction	Acreage
City of Tacoma	44.43
Town of Ruston	37.81
TOTAL	82.24

Source: Point Ruston LLC

3.6.1.1.1 Fire and Emergency Services

Fire and emergency services for the portion of the site within the City of Tacoma are provided by the Tacoma Fire Department. Fire and emergency services for the portion of the site within the Town of Ruston are provided by the Ruston Fire Department. Historically, the jurisdictions have operated under an interlocal mutual aid agreement though the terms for continuance of that agreement are presently under discussion as is the alternative of contracting with the Tacoma Fire Department to provide primary fire and emergency services.



- 1 Ruston Police Department**
- 2 Ruston Fire Department**
- 3 Tacoma Police Department**
- 4 Tacoma Fire Department**
- 5 Point Defiance Elementary School**
- 6 Truman Middle School**
- 7 Wilson High School**
- 8 North End Wastewater Treatment Plant**
- 9 Sherman Elementary School**
- 10 Mason Middle School**

Source: Mapquest, Community Walk, 2007

City of Tacoma

The City of Tacoma Fire Department (TFD) provides fire protection, Basic Life Support (BLS) and Advanced Life Support (ALS)/emergency medical service (EMS) throughout the City, including the 44 acres of the *Point Ruston* site within the City, from sixteen fire stations. See **Figure 21** for the location of fire stations in the vicinity of the *Point Ruston* site.

Headquarters and the main office for the TFD are located at 901 Fawcett Ave. The Department also maintains a fireboat for response to marine incidents on Puget Sound. In addition to providing fire protection and emergency medical service within its boundaries, the TFD has entered into a county-wide Mutual Aid Agreement that allows county fire districts and the TFD to provide fire protection services to neighboring fire districts, as needed.

The TFD employs a total of 410 fire-fighting personnel and 35 civilian staff. All shift personnel are trained as both firefighters and Emergency Medical Technicians (EMTs) and trained to provide Basic Life Support (BLS). The Department also operates five full time medic units to provide Advance Life Support (ALS). Three engine companies are staffed with a firefighter/paramedic with ALS response capability.

The portion of the *Point Ruston* site that is located within the City of Tacoma is served primarily by Tacoma Fire Station 14, which is located at 4701 North 41st St. Station 14 has one engine company and does not house an ALS unit.

Town of Ruston

The Ruston Fire Department (RFD) provides fire protection, Basic Life Support (BLS) and emergency medical service (EMS) to the Town of Ruston, including the 38 acres of the *Point Ruston* site that is located within the Town. ALS response within the Town of Ruston is provided by Rural Metro from South 12th and Monroe St. in Tacoma. Service is provided from a single fire station located at 5117 N Winnifred Street.

The RFD employs a part-time Fire Chief and currently has a staff of 14 trained volunteers; the department is considering expansion to 20 personnel. The RFD responds to emergencies 24 hours a day, 7 days a week. All members are trained as both firefighters and Emergency Medical Technicians (EMTs) and are trained to provide Basic Life Support (BLS). The RFD Fire Station is equipped with two firetrucks and a fully equipped emergency aid van.

Table 3.6.2
RUSTON FIRE DEPARTMENT STATIONS SERVING THE POINT RUSTON SITE

Station	Location	Equipment	Response Time
Station 1	5117 N. Winnifred Street	2 fire trucks, 1 emergency van	Average time of 2:30 seconds

Source: Ruston Fire Department, 2007

As noted previously in this FSEIS, currently there are no on-site land uses. The current remediation and demolition activities on the site may require fire and emergency services but such has historically been rare.

Incident History

The TFD serves the entirety of the City of Tacoma with a population of approximately 218,000, as well as contracts to provide service to several surrounding jurisdictions. The TFD Communications Center handles approximately 40,000 calls for service annually. In 2006, the TFD responded to a total of 41,693 initially-dispatched incidents.

The RFD serves the entirety of the population of approximately 746 residents within the Town of Ruston. **Table 3.6.3** shows historical incident response data for the RFD station since 2002 including responses to calls for fire protection, emergency medical services, false alarms, mutual aid and other items (chemical spills, general public service and rescues). Between 2002 and 2006, the RFD has averaged approximately 60 total calls per year, with a range of 40 calls per year in 2005 and up to 78 in 2003. Fire and EMS service has remained constant for the RFD.

Table 3.6.3
RUSTON FIRE DEPARTMENT INCIDENT RESPONSES

Station	2002	2003	2004	2005	2006
Ruston F.D.	59	78	67	40	53

Source: Ruston Fire Department, 2007

Response Time and Level of Service

The response time goal of the Tacoma Fire Department in responding to an incident is 4 minutes 90 percent of the time. The City of Tacoma defines response time as “the amount of time that elapses from the time that a communications center receives an alarm until the responding unit is on the scene of the emergency and prepared to control the situation.” In 2006, TFD met this goal 64 percent of the time for fire calls and 71 percent of the time for EMS calls over the entire service area for first response.¹

The Town of Ruston Fire Department does not publish historical data for average response times nor has the RFD established a response time goal for arrival at the scene of a reported structure fire and/or critical medical emergency. The Town of Ruston, defines response time as “the amount of time that elapses from the time RFD receives notification (pager is answered and request is received) until RFD equipment arrives on the scene.” However, 2007 data (January through November) is available for the average response from the station and is listed in **Table 3.6.4**; this response time is considerably faster than the State average.

When residents of Tacoma or Ruston call 911 for fire or emergency medical response, the call is routed to the Law Enforcement Support Agency (LESA) communications center. A communications officer receives the call and gathers pertinent information about the type of emergency from the caller. A dispatcher then takes this information and dispatches the appropriate police or fire department initial response based on the type of emergency and the site's location (City of Tacoma or Town of Ruston in the case of the *Proposed Action*). Both Tacoma and Ruston are participants in a Pierce County mutual aid agreement. If an agency had insufficient resources to respond to a particular emergency on the *Point Ruston* site, aid would be dispatched from other nearby jurisdictions.

¹ Source: personal communication, Tacoma Fire Department (Dec. 20, 2007).

**Table 3.6.4
RUSTON FIRE DEPARTMENT INCIDENT RESPONSE TIMES**

Station	2007 (through November ²)
Ruston Fire Dept.	2:30 seconds

Source: Ruston Fire Department 2007

Fire Department Planning

The Tacoma Fire Department has 16 active fire stations distributed throughout the City, including the Port area. Each station has one engine. Four stations also have truck companies and five stations have Advanced Life Support (ALS) medic units. In addition, Station 18 is used for fireboat moorage and maintenance, and un-staffed Stations 5 and 12 are used for storage and other purposes. TFD staffing includes 410 uniformed personnel and approximately 35 civilians. The majority of the uniformed force is engaged in fire suppression and emergency medical service delivery. The TFD operates four shifts; minimum daily staffing is approximately 77 firefighters.

The Town of Ruston has one active station within the Town, with one main fire truck and one reserve fire truck as well as a ALS medical van. RFD has a part-time time fire chief and 14 volunteer members.

Level of Service

The City of Tacoma, in its *Comprehensive Plan*, maintains a Level of Service of .000016 units per capita for EMS service and .000109 apparatus per capita for fire service. The TFD’s draft *Strategic Plan* is currently under review.

The RPD has not adopted a formal standard of service.

Neither the City of Tacoma nor the Town of Ruston currently has a fire impact mitigation fee ordinance; therefore, no payment of fire impact mitigation fees associated with new development is required within the City at this time.

3.6.1.1.2 Police Services

Similar to fire and emergency response services, police services for the portion of the site within the City of Tacoma are provided by the Tacoma Police Department. Police services for the portion of the site within the Town of Ruston are provided by the Ruston Police Department. The Departments have bilateral Notice of Consent agreements, which give officers authority to operate in the other jurisdiction under limited circumstances including: responding to emergencies involving an immediate threat to human life or property, responding to requests for assistance pursuant to a mutual aid agreement, transporting a prisoner, executing an arrest or search warrant or when in “fresh pursuit”.

² 61 total responses for 2007, through November

City of Tacoma

The City of Tacoma Police Department (TPD) provides primary police protection services for the City of Tacoma. The TPD Headquarters is located at 3701 South Pine Street. The TPD operations are divided into three primary divisions: Operations Bureau, Investigative Bureau, Administrative Bureau, and as well as special units including: Canine (K-9) Unit, Traffic, SWAT, Marine Services, Special Operations, Animal Control and Compliance and other specialized police operations. The Operations Bureau is responsible for emergency 911 response, patrolling the City's streets, handling calls for service, conducting preliminary criminal investigations, responding to emergencies, enforcing traffic laws and investigating accidents. The Investigative Bureau is responsible for conducting follow-up investigations on information and reports generated by Operations Bureau personnel and investigating information provided by tips and informants. The Administrative Bureau is responsible for recruiting, hiring, training, internal affairs and other administrative duties.

TPD currently employs a total of 387 commissioned officers and 45 civilians to serve the City.

On average, approximately 25 Officers are patrolling Tacoma at any given time. Each Officer responds to an average of 18 dispatches per shift, and writes six reports. All reports are electronically generated by the officers using a mobile laptop computer in their vehicle. The high percentage (33%) of calls requiring formal written police reports reduces the total time officers provide proactive patrol during their shifts.

The *Point Ruston* site is located within TPD Sector 2, which extends from Ruston Way on the east to the Tacoma Narrows Airport on the west and from Point Defiance Park on the north to 19th Street on the south. TPD Sector 2 has the largest geographic coverage and population (approximately 73,000 people) of the four TPD sectors. In 2006, a new substation was constructed for Sector 2 operations at 5140 North 26th Street. See **Figure 21** for the location of the TPD Sector 2 station.

One lieutenant, six sergeants, thirty-four officers and three Community Liaison officers are assigned to Sector 2. Approximately three to four officers patrol Sector 2 during the day shift and five to six officers patrol the same district during the swing and graveyard shifts.

Currently, there are no on-site land uses. The remediation and demolition activities on-site may require police services, but such calls to the site are rare.

Town of Ruston

The Ruston Police Department (RPD) provides primary police protection services for the Town of Ruston. The RPD Headquarters is located at 5219 North Shirley Street.

RPD currently employs a total of four full time commissioned officers, four part time officers and two reserves to serve the Town and a fleet of 5 patrol cars and one motorcycle. There is typically one officer on patrol at any given time.

For special events such as the Fourth of July, Taste of Tacoma, Tall Ships Festival and marathon, Ruston has the capacity to have six officers on duty. To supplement this staffing, officers from surrounding communities such as Fircrest and DuPont have been employed. As

stated previously, the Departments have bilateral Notice of Consent agreements, which give officers authority to operate in the other jurisdiction under limited circumstances.

As noted, currently there are no land uses on-site. The remediation and demolition activities on the site may require police services; however, according to the RPD calls for service to the *Point Ruston* site are infrequent.

Call Volume and Workload

In 2006, the TPD received 181,144 total calls for service of which 46,070 originated from Sector 2. This represented a city-wide increase of 4.8 percent from the previous year and a 2.5 percent increase from the previous year in Sector 2.

On average, the RPD currently receives about 37 calls for service per month which has trended up moderately in recent years. In 2007, 452 criminal files were processed.

Level of Service

The City of Tacoma, in its *Comprehensive Plan*, maintains a Level of Service of 0.288580 of square feet of law enforcement facilities per capita.

The RPD has not adopted a formal standard of service.

Police Department Planning

There has previously been no public shoreline in the Town of Ruston. With the development of the proposed project and public access to the waterfront, the RPD may need waterfront access capability. Alternatively, an interlocal agreement with the City of Tacoma may be the most efficient form of agreement for the regulation of waterborne activities and water rescue.

3.6.1.1.3 Schools

The *Point Ruston* site is located within the Tacoma School District (School District). The School District currently operates 38 elementary schools, 11 middle schools and five high schools. Students attend schools based on neighborhood boundaries. The *Point Ruston* site lies within the boundaries of Point Defiance Elementary School, Sherman Elementary School, Mason Middle School, Truman Middle School and Wilson High School.

Existing Enrollment

As of 2007³, the Tacoma School District had an enrollment of 28,882 students in grades K-12. Enrollment has been in a steady state of decline since 1996 and this decline is anticipated to continue for the foreseeable future as discussed below. 2007 enrollment data for the schools nearest *Point Ruston* were as follows:

³ Data from Tacoma School District letter, February 14, 2008.

**Table 3.6.5
EXISTING (OCTOBER 2007) SCHOOL ENROLLMENT**

	Point Defiance Elementary	Sherman Elementary	Mason Middle School	Truman Middle School	Wilson High School
Existing Enrollment	355	326	778	659	1,189

Source: Tacoma Public Schools

There are currently no residences on-site, and, therefore, no students are generated by existing land uses at the *Point Ruston* site.

Projected Enrollment

The Tacoma School District has formulated enrollment projections for the next five years.⁴ District projections are based on actual enrollment for the previous three years and anticipated growth based on population forecasts from the Puget Sound Regional Council. The enrollment projections did not consider proposed new residential developments in the City of Tacoma. The study indicated that approximately 1,800 multi-family housing units are currently proposed for future construction and sale within the District’s boundaries and that “it is unlikely that these will have a positive effect on enrollment, and the potential negative effect has already been considered when creating the District level forecast.”

According to the *School Enrollment Projection* study, District-wide enrollment is anticipated to continue to decline for the next five years (see **Table 3.6.6**).

**Table 3.6.6
TACOMA SCHOOL DISTRICT PROJECTED ENROLLMENT**

Grades	2007	2008	2009	2010	2011
Elementary Grades K-5	13,511	13,415	13,322	13,136	12,940
Middle School Grades 6-8	6,337	6,128	6,066	6,045	6,136
High School Grades 9-12	<u>9,034</u>	<u>8,688</u>	<u>8,345</u>	<u>8,122</u>	<u>7,825</u>
TOTAL	28,882	28,231	27,733	27,303	26,901

Source: School Enrollment Projections 2007 – 2011 (2007)

In addition to District-wide enrollment projections, the Tacoma School District also projected enrollment for individual schools within the District for the next five years. Projected enrollment for schools closest to the *Point Ruston* site is shown in **Table 3.6.7**:

⁴ *School Enrollment Projections: 2007 – 2011*, William L. Kendrick, Tacoma School District, 2007.

**Table 3.6.7
TACOMA SCHOOL DISTRICT PROJECTED ENROLLMENT
FOR SCHOOLS SERVING POINT RUSTON SITE**

School	2007	2008	2009	2010	2011
Point Defiance Elementary	336	324	316	313	305
Sherman Elementary	320	317	310	307	308
Mason Middle School	747	726	720	728	740
Truman Middle School	642	608	596	614	623
Wilson High School	1187	1104	1062	1052	1015

Source: School Enrollment Projections 2007 – 2011 (2007)

Enrollment for Point Defiance Elementary, Sherman Elementary and Wilson High School are anticipated to continue the current trend of decline. Truman Middle School and Mason Middle School enrollment is anticipated to decline until 2010 when enrollment would begin to increase, but not to current enrollment levels.

Capacity

Of the schools closest to the *Point Ruston* site, the following reflects the current enrollment and available capacity of the schools nearest the Point Ruston site:

**Table 3.6.8
TACOMA SCHOOL DISTRICT PROJECTED ENROLLMENT AND CAPACITY
FOR SCHOOLS SERVING POINT RUSTON SITE**

	Point Defiance Elementary	Sherman Elementary	Mason Middle School	Truman Middle School	Wilson High School
Capacity	525	450	750	750	1,800
Current Enrollment (Oct 2007)	355	326	778	659	1,189
Available Capacity/Deficiency	170	124	(28)	91	611

Source: Tacoma School District, 2008

Point Defiance Elementary, Sherman Elementary, Truman Middle School and Wilson High School are operating under the current capacity. The current enrollment level at Mason Middle school is 28 students over the stated capacity.

School Impact Mitigation Fees

Under the Growth Management Act (GMA), cities, towns, and counties are authorized to impose impact fees on new development to help finance certain public facilities, including schools, within their jurisdiction. Neither the City of Tacoma nor the Town of Ruston currently impose school mitigation fees.

School District Planning

The Tacoma School District issued an updated *Facilities Master Plan* in August 2007. The plan states that the District's goal is to modernize, remodel or replace all District schools over the 30-year planning period (1986-2016). This master plan indicates that the schools serving the *Point Ruston* site have previously been improved as part of the current 30-year renewal and replacement cycle: Point Defiance Elementary School was remodeled and expanded, Truman and Mason Middle Schools were replaced with new facilities and Wilson High School was remodeled and expanded. No other remodels, expansions or replacements are currently planned for these schools; therefore no changes in capacity are assumed at this time.

Student Generation Rates

The Tacoma School District issued new Student Generation Rates in November of 2007⁵. The Student Generation Rates were formulated using Pierce County Assessor-Treasurer data on development activity for the years 2002 through 2006. The student generation rates are summarized in **Table 3.6.9**.

Table 3.6.9
TACOMA SCHOOL DISTRICT STUDENT GENERATION RATES

	Single Family Unit	SFU Percentage	Multi-Family Unit	MFU Percentage
Elementary	0.258	53%	0.130	23%
Middle School	0.123	19%	0.047	47%
High School	0.162	28%	0.069	30%
TOTAL	0.543	100%	0.246	100%

Source: Tacoma Public Schools 2007 Student Generation Rates, Mike McCormick, November 2007

As is reflected in the Tacoma School District's Student generation rates, rates are typically lower for multi-family residential developments than single-family residential developments. It is anticipated that the proposed *Point Ruston* development would have a considerably lower student generation rate than average multi-family units due to factors of density and price. Market rate, dense urban residential developments including condominiums and apartments with more than 20 units typically generate lower student ratios than average multi-family dwelling units.⁶ The results from an informal poll of Tacoma residential developments comparable to the proposed *Point Ruston* development corroborate this assumption and found an average student generation rate of 0.004, as shown in **Table 3.6.10**:

⁵ *Tacoma Public Schools 2007 Student Generation Rates, Mike McCormick, November 2007.*

⁶ *Mutli-Family Market Outlook, National Multi-Housing Council, July 2005.*

**Table 3.6.10
STUDENT ENROLLMENT AT TACOMA RESIDENTIAL DEVELOPMENTS
COMPARABLE TO POINT RUSTON**

Development	Income Level	Number of Dwellings	Number of School-Age Students (K-12)	Student Generation Rate
Gas Lamp Terrace	Market	21	0	.00
McCarver Village	Market	59	0	.00
Vintage Y	Market	19	0	.00
The Robertson	Market	47	0	.00
Marcato	Market	92	1	.01
Thea's Landing	Market	236	0	.00
Metropolitan Apts	Market	87	1	.01
Court 17 Apts	Market	128	0	.00
Hawthorne Hills	Market	44	1	.02
TOTAL/AVERAGE		733	3	.004

Source: Point Ruston LLC, 2007

As part of a recent economic study conducted by the City of Federal Way,⁷ two different student generation rates were assumed for multi-family units. They both used the average student generation factor (0.1783 students per unit), as well as a specific student generation factor for multi-family units in the City Center (0.052 students per unit), which would be comparable to the *Proposed Action*.

An “expected” multi-family student generation rate for the *Point Ruston* development is estimated to approximate 0.05 students per dwelling unit, which is much lower than the 0.246 multi-family student generation rate of the TSD (refer to **Table 3.6.11**). As stated previously, this “expected” multifamily student generation rate is based upon:

- the results of the survey of comparable market rate urban development in Tacoma demonstrating a student generation rate of 0.004;
- the City of Federal Way economic analysis, which developed an urban, multi-family unit (similar to the *Proposed Action*) student generation rate of 0.052; and
- analysis performed by the National Association of Home Builders in 2005,⁷ which indicated that market rate, dense urban residential developments including condominiums and apartments with more than 20 units typically generate lower student ratios than average multi-family dwelling units.

⁷ Tax Exemption Program for Multifamily in City Center, City of Federal Way, October 2002.

Table 3.6.11
“EXPECTED” POINT RUSTON MULTI-FAMILY
STUDENT GENERATION RATES

	Multi-Family Unit	MFU Percentage
Elementary	0.02	23%
Middle School	0.01	47%
High School	0.02	30%
TOTAL	0.05	100%

Source: Blumen Consulting Group, Inc.

3.6.1.2 Utilities

3.6.1.2.1 Water

Tacoma Water, a Division of City of Tacoma Public Utilities, provides approximately 94,000 connections supplying water service to an estimated population of 303,000 in the City of Tacoma (City). The average customer consumed 96,501 gallons of water per year. Tacoma Water supplies drinking water from the Green River, located on the east side of the City, to the service areas. Tacoma Water’s distribution system encompasses an area of approximately 150 square miles in the City of Tacoma and portions of Pierce and South King Counties. The distribution system contains nearly 1,200 miles of pipe. Tacoma Water has built a storage system consisting of the 210- million-gallon McMillin Reservoir plus 16 other reservoirs, standpipes and tanks that can store up to 78 million gallons of additional water. According to the 2007 *Tacoma Water Comprehensive Plan*, the Tacoma Water system as a whole has excess storage capacity. Tacoma Water’s Green River First Diversion water right can supply up to 73 million gallons of water each day and the Second Diversion water right can provide up to an additional 65 million gallons of water each day.

A *Water Availability Study* was conducted in March 2006 in support of the 2007 *Tacoma Water Comprehensive Plan* update. That study indicates that the City has adopted and will implement a long-term improvement program designed to adequately accommodate the service area’s projected population increase through the year 2020 considering both the Tacoma Water’s “expected” growth estimates and more conservative PSRC population growth estimates.

A 12-inch water main with approximately 104 pounds of static pressure runs in the existing Ruston Way alignment adjacent to the site and may be relocated by the project as a part of the Ruston Way realignment project (see discussion in Section II of this FSEIS). Service would be extended from the water main into the site as development occurs. All onsite water utilities have been or will be removed and replaced as part of redevelopment for the *Point Ruston* site.

3.6.1.2.2 Sanitary Sewer

The City of Tacoma Wastewater Management (Tacoma Public Works Environmental Services) provides sewer service to approximately 90,000 customers the City, the Town of Ruston and other areas within Pierce County. Wastewater is carried from homes and businesses by pipes and pump stations before it is treated at wastewater treatment plants and released into Commencement Bay. This sewer system includes 50 pump stations which then transport sanitary sewer to one of the City’s two wastewater treatment facilities: the Central

Wastewater Treatment Plant, located on the Tideflats along the Puyallup River, and the North End Wastewater Treatment Plant near Mason Gulch which would receive flows from the *Point Ruston* project.

An existing 24-inch trunk line is located within Ruston Way and currently provides service to the site. This trunk line would be replaced as a part of the Ruston Way realignment component of the *Point Ruston* project. The reconstruction of the trunk line would be designed and approved in accordance with the City of Tacoma's Design Manual. Existing mains connecting to the existing trunk line would be extended to the new line and the old 24-inch line would be removed. The new sanitary sewer line would be a minimum of 24-inch diameter with a full pipe capacity of 23 cfs.

As the *Point Ruston* site is currently vacant, no sanitary sewer utility services are currently provided on the site.

3.6.1.2.3 Electricity

Tacoma Power, a department within City of Tacoma Public Works, provides electrical service to 159,000 customers in a service area of over 180 square miles within the City, the Town of Ruston on a wholesale basis, and other portions of Pierce County. The average household consumed about 12,000 kilowatt hours per year. Tacoma Power provides electricity to its service area via 4 main stations, 3 switching stations, 46 distribution substations, 15 dedicated-load distribution substations, 23 Bonneville customer substations and 7 generation substations.

Minimal temporary electrical utility services are currently provided on the site to for remediation and monitoring equipment.

Electrical service is currently provided to the site from facilities within the existing Ruston Way alignment at the southeast end of the property and in 51st Street. These existing facilities could be removed and replaced as a part of the Ruston Way realignment component of the *Point Ruston* project and could also be extended as a part of the Baltimore Street reconnection to Ruston Way in order to serve the site.

3.6.1.2.4 Stormwater

Two outfalls remaining from the ASARCO smelter operations currently operate on the site and serve approximately 88 acres of offsite property in Ruston and Tacoma. The site outfalls will be abandoned as part of remediation under the Second Amendment to the Consent Decree as required by EPA. The existing City of Tacoma outfalls located adjacent to the site currently serve offsite stormwater collection systems that bypass the site. Design work to date has indicated that upgrades to the existing outfalls may be needed if offsite runoff that is currently running through the site outfalls is rerouted to them. The City of Tacoma Edwards Street Outfall is located in an easement across a section of Tract A and the City Outfall is located under North Waterfront Street adjacent to the property and the Metropolitan Park District's Peninsula Park.

3.6.1.2.5 Solid Waste

Solid Waste Management, part of the City of Tacoma Public Works Environmental Services Department, provides garbage, recycling and yard waste services for single-family residential homes, multi-family units and commercial businesses. Solid Waste Management provides

curbside garbage, recycling and yard waste collection for about 52,000 single-family residential homes and 4,400 multi-family units and commercial businesses. The utility also operates the Tacoma Landfill, a recycling center and a household hazardous waste facility as well as a residential bulk item collection service. All the garbage that comes to the Tacoma Landfill goes into a compactor, then it is hauled in semi-tractor trailers to a landfill in Graham, Washington.

As the *Point Ruston* site is currently vacant, no solid waste services are currently provided to the site.

3.6.1.2.6 Telecommunications

Telecommunications utilities for the *Point Ruston* site are provided by Qwest with existing facilities in Ruston Way, 51st Street and Baltimore Street, which could be extended into the site.

3.6.1.2.7 Cable Television/Broadband Internet

Cable television service and broadband internet for the *Point Ruston* site are provided by Comcast and Click! Network.

3.6.2 Impacts

This section focuses on probable significant impacts of the *Proposed Action* and the *No Action Alternative* at full-buildout of the site. Approval of the *Proposed Action* would create new capacity for a range of residential, retail and office uses, along with associated employment and population. Increases in employment and population on-site over the 8 to 10 year build-out period would create related increases in demand for public services. Redevelopment on the site would occur gradually over time with the initial building to be completed in 2008 and demands on public services would increase incrementally through 2018.

3.6.2.1 Proposed Action

The *Proposed Action* would result in the creation of approximately 1,300,000 million square feet of mixed-use development over the 8 to 10 year planning period. This project would include 800 to 1,000 multifamily dwelling units with an associated on-site residential population of approximately 1,400 – 1,750, as well as employment-generating uses -- including office, retail, hotel and restaurant uses -- at full build-out by approximately 2016.

For purposes of this FSEIS, portions of the impact analysis for fire and police services are based on established level of service standards and information provided by the TFD and RFD. Impacts to public schools were determined based on students per household rates from the Tacoma School District and other analyses. Impacts to utilities were determined based upon preliminary engineering conducted by Point Ruston LLC and information provided by the utility providers.

3.6.2.1.1 Construction

During construction, there could be an increase in demand for fire and police services and potential impacts to nearby schools. Fire Department service calls related to inspection of specific construction projects on-site and to respond to potential construction-related accidents

and injuries could increase as a result of construction. Site preparation and construction of new infrastructure and buildings could also increase the risk of a medical emergency or accidental fire. Police Department service calls could increase during construction due to construction site theft and vandalism. Fire and Police Department staffing and equipment needs include increased service levels needed to serve onsite construction activities (see below).

It is assumed that most of the site's existing utilities would be removed and replaced during redevelopment. No substantial interruption of water, electrical, or sewer service to current users would be anticipated during the ongoing construction phase. The existing utility distribution system would continue to serve the site until new systems are constructed and become operational. Existing infrastructure would be used to meet demands during initial construction activities.

Stormwater runoff during construction would be collected and routed to stormwater quality treatment facilities/ prior to discharge. Best management practices would be utilized to prevent impacts associated with erosion and sedimentation. During remediation and site-cap work completed under EPA's jurisdiction, a construction NPDES permit would not be required. Once the cap is in place on a phase or portion of the property, subsequent construction activities would be subject to coverage under Ecology's Construction National Pollution Discharge and Elimination System (NPDES) permit).

3.6.2.1.2 Operations

3.6.2.1.2.1 *Fire and Emergency Services*

Potential impacts on fire and emergency services from the *Point Ruston* project were assessed based on communications involving respective departments and upon the estimated on-site residential and employee population.

All new buildings in the *Point Ruston* redevelopment would be constructed in compliance with applicable codes -- including the International Fire Code and the International Building Code, as adopted by the City of Tacoma and Town of Ruston. Automatic fire extinguishing systems, stand pipes with fire department connections and fire alarm systems will be provided where required by these codes. Adequate fire flow to serve the proposed development would be provided as required. Specific requirements regarding emergency access to structures would be adhered to, as required by the respective Fire Code.

Development that has been assumed for the *Proposed Action* would occur incrementally over the 8 to 10 year build-out period and would add to the City's, Town's and Tacoma Metro Park's tax base; a portion of the tax revenues generated by redevelopment could help offset incremental increases in demand for public services. Construction sales tax, retail sales tax, business and occupation tax and property tax would all be sources of revenue for the taxing jurisdictions. The new development would also add to the tax base for the City's General Fund through fees, licenses and permits and utility taxes. It is assumed that long-term capital and operating needs of the Fire Department would be addressed on a broad basis through incremental capital facilities planning by the City over the entire 8 to 10 year build-out period.

City of Tacoma

Operation of the portion of the *Point Ruston* within the City of Tacoma, including approximately 600 to 775 dwelling units, 60,000 to 95,000 sq.ft. of commercial/retail uses and 26 acres of parks and open space assumed for the *Proposed Action* would result in added demand for TFD fire and emergency services.

Considering the TFD's work in outlying jurisdictions, as well as the close proximity of Station 14 to the *Point Ruston* site, it is anticipated that the TFD would have excess capacity to meet the added demand for fire and emergency service at *Point Ruston*.

In addition to demands created by residents and employees, visitors to the site associated with the park and trail network could also place added demands on City fire and emergency services. The added demand from such sources would not be expected to increase the estimated staff and equipment needs highlighted above, however.

Town of Ruston

Operation of the portion of the *Point Ruston* within the Town of Ruston including 200-240 dwelling units, 100,000 to 134,000 square feet of commercial/retail uses, and 24 acres of parks and open space assumed for *Proposed Action* would result in added demand for Ruston Fire Department fire and emergency services.

As the *Proposed Action* is built out within Ruston's jurisdiction, there may be an increased need for equipment and personnel to meet the Town of Ruston's fire service needs. The nature of the increases would be the subject of risk management decisions made by the Town considering factors such as Washington Survey and Ratings Bureau Fire Ratings. Such increased staffing and equipment may include the need for ladder trucks as well as the need for full time administrative staff. Other mitigation may include contracting with Tacoma Fire Department's ladder company.

As noted with regard to the City of Tacoma, in addition to demands created by residents and employees, visitors to the site associated with the park and trail network could place added demands on the Town's fire and emergency services. The added demand from such sources, however, is not be expected to increase the estimated staff and equipment needs noted above.

3.6.2.1.2.2 Police Services

Potential impacts on police services from the *Point Ruston* project were assessed based on established level of service standards and information provided by the TPD and RPD and relative to the estimated on-site residential and employee population.

Site design standards for the *Point Ruston* development would include features intended to help reduce potential criminal activity and calls for service on-site. Such features include: providing design elements that promote visibility; orienting buildings toward sidewalks, streets, and/or public spaces to enhance the safety of focal points for social gathering; providing convenient pedestrian connections between buildings; minimizing "blind" areas; and, providing adequate lighting. In addition, open spaces between buildings could be designed to be centrally located and provide extra visibility. The City of Tacoma sponsors a program promoting such measures, Crime Prevention Through Environmental Design (CPTED), which provides guidance for

design-related issues. The *Proposed Action* would be designed and developed in close coordination with the City and police department to optimize opportunities to incorporate CPTED design principles to improve crime prevention and reduce impacts to police services.

As discussed above for Fire Services, new development assumed under the *Proposed Action* would add to the City of Tacoma's tax base and a portion of the tax revenues would help offset the incremental increases in demand for public services associated with *Point Ruston*. It is assumed that long-term capital and operating needs for the Police Department would be addressed on a broad basis through incremental capital facilities planning by the City over the full 8 to 10 year buildout period.

City of Tacoma

The *Proposed Action* and visitors to the site in conjunction with the park and trail network would generate additional demand for police services. It is anticipated that the *Proposed Action* would generate additional public disturbance crimes (especially in parks and greenspace areas), additional vehicle related crimes (including traffic accidents, speeding, vandalism, vehicle prowling) and business-related crime (including burglary, theft, identity theft, forgery).

The TPD indicates it does not currently have excess capacity to meet this additional demand⁸. Should the Town of Ruston or City of Tacoma determine that a Police substation is required to meet additional demand, the proponent shall provide the opportunity to locate a facility on site. It is anticipated this could be space shared with private security or neighborhood management but the nature of the facility and terms of the arrangement would be coordinated with the departments at the time the need arises.

Town of Ruston

According to the RPD, the increased number of calls that would be generated by the *Proposed Action*, could be easily absorbed the RPD; though, the RPD may need to add a waterborne unit due to the added shoreline access that the *Point Ruston* development is providing.

As described under Fire and Emergency services, visitors to the site associated with the park and trail network could generate some additional demand for police services (calls for service related to theft, vandalism, etc.); however, these calls are not expected to increase the anticipated staff and equipment demands described above.

Based on existing staffing and service levels, RPD has excess capacity to absorb increased demands/impacts resulting from the proposed *Point Ruston* development. As stated previously, should the Town of Ruston or City of Tacoma determine that a Police substation is required to meet additional demand, the proponent shall provide opportunity to locate a substation at *Point Ruston*.

3.6.2.1.2.3 Schools

Development of the *Proposed Action* could directly and indirectly generate new student enrollment at District schools from residential and employments uses.

⁸ February 14, 2008 correspondence from City of Tacoma Police Department.

As noted in *Section II* of this FSEIS, *Point Ruston* would include an estimated 800 to 1,000 dwelling units including townhomes, apartments, condominiums, and possibly a senior housing/assisted living facility as shown in **Table 3.6.12**:

**Table 3.6.12
POINT RUSTON
TYPE AND NUMBER OF RESIDENTIAL UNITS**

Housing Type	Number of Units
Condominium	753
Townhomes	47
Apartments	100
Senior/Assisted Living	100
TOTAL	1,000

Source: Point Ruston LLC

For purposes of analysis in this FSEIS, the proposed 100 senior housing units were not included in student generation rate calculations.

It is assumed that 900 multifamily residential units associated with the proposed *Point Ruston* could generate additional student enrollment at schools serving the project site. A range for projected enrollment generated by *Point Ruston* has been developed based on the number of multifamily residential units and the application of both the Tacoma School District’s student generation rates, as well as an “expected” ratio of 0.05 students generated per multifamily housing unit (see Student Generation Rates section above). Under the *Proposed Action*, the 900 multi-family residential units (excluding senior housing units) would be developed generating approximately 46 to 222 students. Student generation amounts based on the Tacoma School District standard student generation rates are shown in **Table 3.6.13** and “expected” student generation rates are shown in **Table 3.6.14**. **Table 3.6.15** is a comparison of the TSD and the “expected” student generation rates.

**Table 3.6.13
POINT RUSTON
TACOMA SCHOOL DISTRICT
STUDENT GENERATION LEVELS BY 2018**

	Multi Family Unit Percentage	Multi Family Unit SGR	Point Ruston Student Generation Levels By School	Point Ruston Student Generation Levels By Age Group
Elementary School	53%	0.130		117
Point Defiance Elementary			0	
Sherman Elementary			117	
Middle School	19%			43
Truman Middle School		0.047	11	
Mason Middle School			32	
Wilson High School	28%	0.069	62	62
TOTAL	100%	0.246	222	222

Source: Tacoma Public Schools DSEIS Comment Letter, February 14, 2008

**Table 3.6.14
POINT RUSTON
TACOMA SCHOOL DISTRICT
STUDENT GENERATION LEVELS BY 2018**

	Multi Family Unit Percentage Breakdown	Multi Family Unit SGR	Point Ruston Student Generation Levels By School	Point Ruston Student Generation Levels By Age Group
Elementary School	53%	0.011		10
Point Defiance Elementary			0	
Sherman Elementary			10	
Middle School	19%	0.024		22
Truman Middle School			6	
Mason Middle School			16	
Wilson High School	28%	0.015	14	14
TOTAL	100%	0.050	46.0	46.0

Sources: Tacoma Public Schools DSEIS Comment Letter, February 14, 2008 and Point Ruston LLC

**Table 3.6.15
POINT RUSTON
COMPARISON OF TSD STUDENT GENERATION RATES AND
“EXPECTED” STUDENT GENERATION LEVELS BY 2018**

Grade Level	2018 Projected Enrollment - Tacoma School District Student Generation Rate (0.246 SGR)	2018 Project Enrollment – “Expected” Student Generation (.050 SGR)	2007 Excess TSD Capacity
Point Defiance Elementary	0	0	170
Sherman Elementary	117	10	124
Truman Middle School	11	6	91
Mason Middle School	32	16	(28)
Wilson High School	62	14	611
TOTAL	222	46	

Sources: Tacoma Public Schools DSEIS Letter February 14, 2008/Point Ruston LLC

By buildout in 2018, a range of approximately 46 - 222 total students would be expected to be generated from the *Point Ruston* residential units. As noted previously, there is currently excess capacity existing in the schools serving the *Point Ruston* site with the exception of Mason Middle School. In addition, enrollment in the District -- and these schools -- is anticipated to decline for the foreseeable future. As such, it is anticipated that the number of students generated from the *Point Ruston* development could be accommodated within the available capacity of the these schools and the Tacoma School District with the exception of Mason Middle School.

Point Ruston would also generate new employment and population associated with new capacity for a range of retail and commercial uses. The indirect contribution of the project to new student enrollment was not significant; therefore, the significantly reduced levels of employment proposed for *Point Ruston* would not be significant.

No projections are currently available for student capacity in the District beyond 2011. It is anticipated that future student enrollment would be addressed by the Tacoma School District through its capital facilities planning efforts and ongoing boundary review, such that capacity would be provided to meet future growth needs. Revenues from property taxes, along with school impact fees to be paid by future residential developers, would help offset increases in demand for school services from Point Ruston redevelopment.

3.6.2.1.2.4 Utilities

The *Proposed Action* would result in increased demands on all utility systems. Under the *Proposed Action*, existing on-site utilities (e.g., water, sanitary sewer, stormwater, and electrical) would be removed, replaced, or abandoned in place. It is assumed that the existing utilities would continue to serve the site until required to be removed for redevelopment activities. Underground utilities could be abandoned as part of site preparation and/or environmental

cleanup activities. Based on the soil remediation requirements for designated areas of the site, abandoned-in-place pipes may be required to be filled with clean material and capped.

Water

Under the *Proposed Action*, water distribution throughout the site would be comprised of a network of new water mains placed within the right-of-way (ROW) of the new roadway network with hydrants installed, per applicable regulations.

Estimated water demands reflect the total projected employment and permanent resident population associated with assumed *Point Ruston* land uses by full buildout in 2016. Total water demand for the *Proposed Action* is estimated as follows:

**Table 3.6.16
PROJECTED WATER DEMAND FOR
POINT RUSTON IN 2018**

Land Use Type	Average Daily Demand (mgd)*	Peak Hour Demand (gpm)**
1. Residential	255,500	784
2. Commercial	64,637	265
3. Irrigation of Parks and Open Space ***	8,876	243

Source: Point Ruston LLC

* Million gallons per day

** Gallons per minute

*** Irrigation to be minimized through use of native plants and water saving techniques

Based on the total water demand projections, the City of Tacoma would have adequate water system capacity to serve the site under all EIS Alternatives. No significant impacts to the City of Tacoma's Public Works Department Water System would be anticipated.

Sanitary Sewer

An existing 24-inch trunk line is located in Ruston Way and currently provides service to the site. This trunk line would be replaced as a part of the Ruston Way realignment component of the *Point Ruston* project. Reconstruction of the trunk line would be designed and approved in accordance with the City of Tacoma's *Design Manual*. Existing mains connecting to the existing trunk line would be extended to the new line and the old 24-inch line would be removed. The new sanitary sewer line would be a minimum of 24-inch diameter with a full pipe capacity of 23 cfs. With replacement of the existing 24-inch trunk line, adequate capacity would be available to serve the project. Service lines would be extended onto the site from the new 24-inch trunk line to serve development within the *Point Ruston* project.

Estimated sanitary sewer demands reflect the total projected employment, permanent resident capacity associated with assumed *Point Ruston* land uses at full buildout in 2016. Total sanitary sewer collection for the *Proposed Action* would be as estimated in **Table 3.6.17**.

**Table 3.6.17
PROJECTED SEWER DEMAND FOR
POINT RUSTON IN 2018**

Land Use Type	Average Daily Demand (mgd)	Peak Hour Demand (gpm)
Residential	255,500	784
Commercial and Retail	64,637	265

Source: Point Ruston LLC

The North End Treatment Plant would have adequate capacity to handle the sewer demands from *Point Ruston* redevelopment. With the mitigation of the replacement of the Ruston Way trunk line and engineering and construction of on site sewers to City of Tacoma standards, no significant impacts to the City of Tacoma Public Works Department sewer system would be anticipated.

Electricity

Electrical service is currently provided to the site via to utilities within the existing Ruston Way alignment at the southeast end of the property and in 51st Street. These existing facilities could be removed and replaced as a part of the Ruston Way realignment component of the *Point Ruston* project and could also be extended as a part of the Baltimore Street reconnection to Ruston Way in order to serve the site.

It is assumed that all of the site's existing, above-grade electrical lines would be removed or replaced during redevelopment. All new electrical lines would be located underground.

The required capacity of Tacoma Power's electrical utility system to serve the site is based on estimated power demands. Estimated electric power peak demand by land uses associated with Point Ruston redevelopment would be approximately 18.48 MW at full build-out.

Capacity exists to serve the project; however, as the Town of Ruston is its own Electrical Distribution Company -- redistributing power purchased wholesale from Tacoma Power -- the question of whether Ruston provides power to the portion of the property within the Town limits or Tacoma Power directly supplies the entire project is being discussed.

Stormwater

As noted, it is a requirement of the EPA and Second Amendment to the Consent Decree that all of the site's existing stormwater system would be removed and replaced during redevelopment. A permanent stormwater control system would be installed to serve long-term redevelopment. Initial calculations indicate approximately 45.6 cfs would be generated from the site during a 25-year storm event, which served as the basis for project design. The stormwater control system would be designed and constructed in accordance with standards set forth in the City of Tacoma 2003 Surface Water Management Manual, which is based on the Stormwater Management Manual for Western Washington (2001 Ecology Manual). While a specific stormwater system design for the Point Ruston site has not yet been established, a stormwater

control plan and certain assumptions have been formulated regarding the likely features and configuration of the stormwater system for purposes of analysis in this SEIS. The site specific stormwater system design and layout would be established as part of the future construction and redevelopment permit process.

The permanent stormwater conveyance system for the site is assumed to be based on a gravity flow system. A stormwater main would extend from each basin contributing to an outfall. Pump stations could be used to support temporary systems, but on a long-term basis pump stations would not likely be used, except potentially to collect runoff from small isolated areas. Final site topography will provide a gradient that enables a gravity flow system to discharge to existing City of Tacoma outfall locations adjacent to the Point Ruston site, on-site stormwater management facilities, or a combination of these discharge alternatives. Since stormwater runoff would be discharged to the bay, a salt water body, no detention for runoff is required by the Ecology Manual.

Stormwater originating on all pollution-generating surfaces (i.e. roads and parking areas) would be treated for water quality before discharge to the bay or waterway. Water quality treatment would be provided to meet Basic Treatment standards designed in accordance with the Surface Water Management Manual (2003), as adopted by the City of Tacoma. Basic treatment could be provided by any type of facility meeting Basic criteria under the Manual, but the most probable facility types would be wet vaults with filter cartridges, bioretention facilities (which also qualify as an Enhanced Treatment), biofiltration swales, and filter strips. Stormwater originating on roofs constructed with inert materials (i.e. materials that would not leach zinc or copper) would be conveyed directly to outfalls or rain gardens along the shoreline, because roofs of this type are not considered pollution-generating surfaces.

System design assumptions and options will be re-evaluated at the time of site development based on specific engineering designs and economic factors. However, it is assumed that any future modifications to system design assumptions would not result in significant environmental impacts. Stormwater treatment and conveyance systems will meet all applicable regulations and requirements.

Any upgrades of existing outfalls or installation of new outfalls would require additional Federal, State and local permits.

Solid Waste

Onsite refuse, recycling and yard waste collection services would be provided by Solid Waste Management. Individual businesses and building owners would contract directly with Solid Waste Management for service. Solid waste collection routes and operations would be expanded to serve future redevelopment at the Point Ruston site.

Telecommunications

Telecommunications utilities for the Point Ruston site are provided by Qwest, Comcast and Click! Network. Trunk lines would be extended throughout the development. Individual businesses and building owners would contract directly with the providers for service.

3.6.2.2 No Action Alternative

Under the *No Action Alternative*, it is assumed that approximately one million sq. ft. of new office and commercial development would occur consistent with the approved *Master Development Plan*.

Fire and Emergency Services

New commercial and retail development consistent with the *Master Development Plan* would add demands for fire services in the project area. An increase in the number of calls for service to the project area would result from new development. The TPD previously indicated that new development would most likely increase car prowls because more vehicles would be introduced to the area. Generally, the impacts would be similar to those under the *Proposed Action*.

Police Services

New commercial and retail development consistent with the *Master Development Plan* would add demands for police services in the project area. An increase in the number of calls for service to the project area would result from new development. The TPD previously indicated that new development would most likely increase car prowls because more vehicles would be introduced to the area. The proposed development could also increase underage drinking and gang-related activities along Ruston Way as more individuals would be coming into the area. In addition to building security, additional needs for service may arise as the area develops and beings to attract citizens to park and recreational areas.

Schools

Existing school facilities would not be directly affected by construction activities on the site but could be indirectly affected by construction-related traffic congestion, road closures or road alterations.

Consistent with the *Master Development Plan*, no new residential uses would be provided onsite; therefore, no direct operational or enrollment impacts on area schools. The increase in employment opportunities provided on-site by development associated with the *Master Development Plan* would indirectly contribute to general population growth and increases in school enrollment in the Tacoma area. The school enrollment increases associated with employment growth, however, would be assumed to be insignificant.

Utilities

Consistent with the *Proposed Action*, most of the existing utility infrastructure would be replaced and expanded to provide service to a development on the site consistent with the *Master Development Plan*.

Generally, it is anticipated that the utility demands of the *No Action Alternative* would be similar to those of the *Proposed Action*.

3.6.3 Mitigation Measures

Increases in population and employment over the 8 to 10-year build-out of the *Point Ruston* site would be incremental and would be accompanied by increases in demand for public services including: fire, police, schools and utilities under the *Proposed Action*. A portion of the tax revenues generated from redevelopment of the site - including construction sales tax, retail sales tax, business and occupation tax, property tax, utilities tax, and other fees, licenses and permits – would accrue to the City of Tacoma, Town of Ruston and the Tacoma School District to help offset demands for public services.

The following mitigation measures would be implemented under *Proposed Action*:

- Should the Town of Ruston or City of Tacoma determine that a Police substation is required, proponent shall provide opportunity to allow for a substation to be built.
- All new buildings would be constructed in compliance with the 2006 International Building Code and International Fire Code (and future code revisions), as adopted by the City of Tacoma and the Town of Ruston.
- Adequate fire flow would be provided for all new redevelopment in accordance with City of Tacoma and Town of Ruston code requirements.
- Design standards for *Point Ruston* redevelopment would implement suggested CPTED measures to reduce potential criminal activity, such as: orienting buildings toward sidewalks, streets and/or public spaces; providing convenient pedestrian connections between buildings; and, providing adequate lighting and visibility onsite.
- The proponent acknowledges over-capacity enrollment at Mason Middle School, and is prepared to work with Tacoma Public Schools to address its impacts, which the TPS expects to be an additional 32 students using its SGR. The proponent has indicated that it will enter into a voluntary mitigation agreement with the School District to mitigate its actual direct impacts with the following mitigation approaches employed by other school districts first given due consideration:
 - *Open Enrollment*. The Tacoma Public School District's open enrollment policy allows students to attend schools located outside of assigned boundaries for any given residence. It is not known what impact the district's open enrollment policy has on over-capacity enrollment at Mason Middle School. If the open enrollment policy has created over-capacity at Mason Middle School, the proponent and the district will consider this factor in determining mitigation.
 - *Reassignment*. According to Tacoma Public Schools data, Truman Middle School has sufficient capacity to serve in excess of the 32 unmitigated middle school students anticipated to be generated by the Proposed Action based on TPS's student generation rate. About a quarter of the middle school students anticipated to be generated at Point Ruston would be attending Truman Middle School based on current district boundaries that split the property. The proponent has indicated their willingness to allow TPS to assign middle school students to Truman Middle School.

- Point Ruston LLC would coordinate with the City of Tacoma Public Works Department regarding the redevelopment of the *Point Ruston* site and necessary water system infrastructure improvements to ensure consistency with the City's overall water system.
- The design and construction of all water distribution facilities would comply with applicable City of Tacoma water utility standards for extensions and improvements to the City's water system.
- Water mains would be located within the site's new roadway network, consistent with the City of Tacoma's water regulations and design standards.
- Point Ruston LLC would coordinate with the City of Tacoma Public Works Department regarding the redevelopment of the *Point Ruston* site and necessary sanitary sewer system infrastructure improvements to ensure consistency with the City's overall sewer system.
- The design of all sanitary sewer collection facilities would comply with applicable City of Tacoma sanitary sewer collection standards for extensions and improvements to the City's sewer system.
- Sanitary sewer collector pipes would be located within the site's new roadway network, consistent with the City of Tacoma's sanitary sewer regulations and design standards.
- Point Ruston LLC would coordinate with Tacoma Power and the Town of Ruston as applicable during the design and construction stage for new electrical lines onsite in order to ensure that all electrical facilities are adequately sized to meet long-term demand.
- All new buildings on the site would meet all applicable City of Tacoma, Town of Ruston and Washington State energy requirements, including the potential construction of temporary service lines to avoid any impacts to existing customers during construction.
- New on-site electrical and telecommunications lines would be installed underground to minimize disruption to the onsite and surrounding environment.
- Appropriate measures related to temporary construction impacts (including dust, emissions and noise) would be implemented during the redevelopment of the site to preclude significant impacts of utility construction on new and existing parks and trails in the site area.

3.6.4 Significant Unavoidable Adverse Impacts

With implementation of the mitigation measures noted above, no significant unavoidable adverse impacts to public services or utilities are anticipated to result from redevelopment under the *Proposed Action*.

3.7 TRANSPORTATION

The transportation section of the SEIS documents existing transportation conditions in the vicinity of the Town of Ruston and northwest area of the City of Tacoma and presents an analysis of future traffic conditions resulting from new development alternatives for the former ASARCO smelter site. This analysis serves as a supplement to the Master Development Plan EIS. Transportation related factors evaluated in this section include an assessment of the affected environment (existing conditions), project trip generation, trip distribution, and analyses of future traffic conditions under a *No Action* alternative and the current *Proposed Action*, the *Point Ruston* development. Identification of impacts and recommended improvements to mitigate those impacts is also provided.

This section is organized to first establish transportation conditions for the *Affected Environment*, followed by an evaluation of future conditions under the *Proposed Action* and *No Action* alternative. The proposed *Point Ruston* development would consist of approximately 1,000 dwelling units that would be a mix of single family homes, condominiums, and apartments, as well as approximately 230,000 SF of commercial development.

3.7.1 Affected Environment

Road Network

The project site is located on the west side of Commencement Bay in the City of Tacoma and Town of Ruston. There are two arterials that link the site with the regional transportation system. Ruston Way (a collector arterial) follows the west side of Commencement Bay and connects with the central business district of Tacoma and I-705 via Schuster Parkway to the south of the project site. Pearl Street. (SR-163) is a principal north south arterial to the west of the site that links the Vashon Island ferry terminal with SR-16 and I-5 to the south. In the vicinity of the project site, Ruston Way becomes Gallagher Drive, which continues to the west and north where it transitions into N 51st Street. N 51st Street completes the link between Ruston Way and N. Pearl Street. The existing road network is illustrated in **Figure 3.7-2**.

The surface condition of Ruston Way and Gallagher Drive adjacent to the site is poor due to age and the effects of heavy truck traffic generated by former industrial activity and site remediation work. In addition, road maintenance has been limited since redevelopment of the site would include roadway replacement. Most other roadways are in fair condition. Sidewalks are intermittent and much of the curbing in the vicinity of the site is absent or in poor repair. A major safety concern in the road network is the existing tunnel on Gallagher Drive, which is narrow and has restricted sight distance at the west portal.

The site is not currently served by transit. The nearest transit stops are on Pearl Street and on Cheyenne Street to the west of the project site. The Pierce Transit routes serving this area include Routes 10, 11, 51, and 220.

Bicycle facilities consist of the Ruston Way Path, which runs along Commencement Bay to the south of the site. The path terminates immediately south of the site.

Existing Traffic Volumes and Level of Service

The scope of this traffic study was established with the input of City of Tacoma Department of Public Works staff and field observations to identify the major intersections within Ruston. Traffic analysis includes an evaluation of average and peak summer traffic volumes on road segments, an analysis of arterial level of service for the Ruston Way corridor, and analysis of intersection operations during the average weekday PM peak hour. Selected intersections within the Town of Ruston and near the project site were also analyzed for peak summer weekday level of service.

Road Segment Analysis

The road segments (Table 3.7-1) identified for analysis by city staff reflect the primary arterial routes that serve the site. The purpose of including tube count data in the analysis is to ascertain hourly traffic volumes on a weekday and weekend basis to ensure that peak hour conditions are analyzed and any unusual fluctuations in traffic volumes are identified. The mechanical tube counters were in place for a nine day period beginning on Saturday September 9, 2006 through Sunday September 24, 2006.

**Table 3.7-1
ROAD SEGMENTS ANALYZED**

Loc.	Road Segment
1	Ruston Way just north of McCarver St.
2	Schuster Parkway just south of N 30 th St.
3	Ruston Way just east of Gallagher Tunnel
4	N 51 st St. just east of Pearl St.
5	Pearl St. just south of N 51 st St.
6	Pearl St. just north of N 37 th St.
7	N 46 th St. just east of Pearl St.
8	N 46 th St. just west of Orchard St.
9	N 51 st just east of Winnifred St.

Source: TSI

Comments on the Point Ruston Traffic Impact Analysis submitted as part of a project SEPA checklist in February 2007, raised issues regarding variations in traffic volumes in the vicinity of the Town of Ruston and the project site. Specifically, analysis of AM peak hour conditions was requested along with analysis of weekend peak hour traffic volumes. To establish a better understanding of traffic volumes within Ruston, TSI conducted additional traffic counts on Pearl Street just south of 51st Street, on 51st Street just east of Pearl Street, and on 51st Street just east of Winnifred Street during the first week of July.

The September 2006 and July 2007 data were collected using mechanical tube counters, which provide hourly traffic volumes for each direction. The counters were in place for two weekends and the intervening weekdays. The count data may be found in the appendices to the SEIS. The following charts summarize average directional traffic volumes for weekday and weekend conditions at count locations within the Town of Ruston. The July 4th holiday count data is excluded from the summary since the holiday represents an atypical condition where Ruston Way was closed for part of the day.

Table 3.7-2 summarizes existing traffic volume data along key road segments within the study area during early September 2006. Schuster Parkway south of N. 30th Street carries approximately 31,300 vehicles on a weekday and 3,330 during the weekday PM peak hour. Weekend daily and peak hour volumes are somewhat less. Just to the north of McCarver Street where Schuster Parkway becomes Ruston Way, volumes are considerably lower due to the volume of traffic traveling between Schuster Parkway and N 30th Street. Weekday volumes on this segment of Ruston Way reach approximately 12,600 vehicles with approximately 1,500 traveling during the PM peak hour. On weekends, the daily volumes are slightly higher while the PM peak hour volumes are slightly lower. Further north on Ruston Way near the east portal of the tunnel in the vicinity of the project site, traffic volumes drop to approximately 4,400 vehicles on a weekday with 460 vehicles traveling on this segment during the PM peak hour. On weekends, volumes are somewhat higher at approximately 5,500 vehicles per day and 515 vehicles during the PM peak hour. Directional volumes during the weekday peak hour are primarily northbound.

**Table 3.7-2
EXISTING (2006) WEEKDAY AND WEEKEND TRAFFIC VOLUMES**

Loc Road Segment				Weekday		Weekend	
				Daily	Pk. Hour	Daily	Pk. Hour
Ruston Way Corridor	2	Schuster Parkway south of N 30 th St.	NB	14,171	1,686	12,323	1,042
			SB	17,147	1,642	15,143	1,183
			<i>Total</i>	<i>31,318</i>	<i>3,328</i>	<i>27,466</i>	<i>2,225</i>
	1	Ruston Way north of McCarver St.	NB	6,868	958	7,483	697
			SB	5,714	579	5,928	498
			<i>Total</i>	<i>12,582</i>	<i>1,537</i>	<i>13,411</i>	<i>1,195</i>
3	Ruston Way south of project site	EB	2,053	184	2,423	247	
		WB	2,369	279	3,171	279	
		<i>Total</i>	<i>4,421</i>	<i>463</i>	<i>5,595</i>	<i>526</i>	
N 51 st St Corridor	9	N 51 st St east of Winnifred St.	EB	1,564	145	1,110	97
			WB	1,735	213	1,230	110
			<i>Total</i>	<i>3,299</i>	<i>358</i>	<i>2,340</i>	<i>207</i>
	4	N 51 st St. east of Pearl St.	EB	2,578	195	3,247	337
			WB	3,509	401	4,055	362
			<i>Total</i>	<i>6,086</i>	<i>596</i>	<i>7,301</i>	<i>698</i>
Pearl St Corridor	5	Pearl St. south of N 51 st St.	NB	2,621	254	4,297	434
			SB	2,714	281	5,063	667
			<i>Total</i>	<i>5,335</i>	<i>535</i>	<i>9,360</i>	<i>1,101</i>
	6	Pearl St. north of N 37 th St.	NB	5,275	449	6,065	553
			SB	5,472	474	6,434	596
			<i>Total</i>	<i>10,746</i>	<i>923</i>	<i>12,499</i>	<i>1,149</i>
N 46 th St Corridor	7	N 46 th St. east of Pearl St.	EB	2,236	172	2,010	157
			WB	2,456	253	2,311	177
			<i>Total</i>	<i>4,692</i>	<i>425</i>	<i>4,321</i>	<i>334</i>
	8	N 46 th St. west of Orchard St.	EB	2,358	230	2,041	160
			WB	2,578	287	2,251	178
			<i>Total</i>	<i>4,936</i>	<i>517</i>	<i>4,291</i>	<i>338</i>

Source: TSI

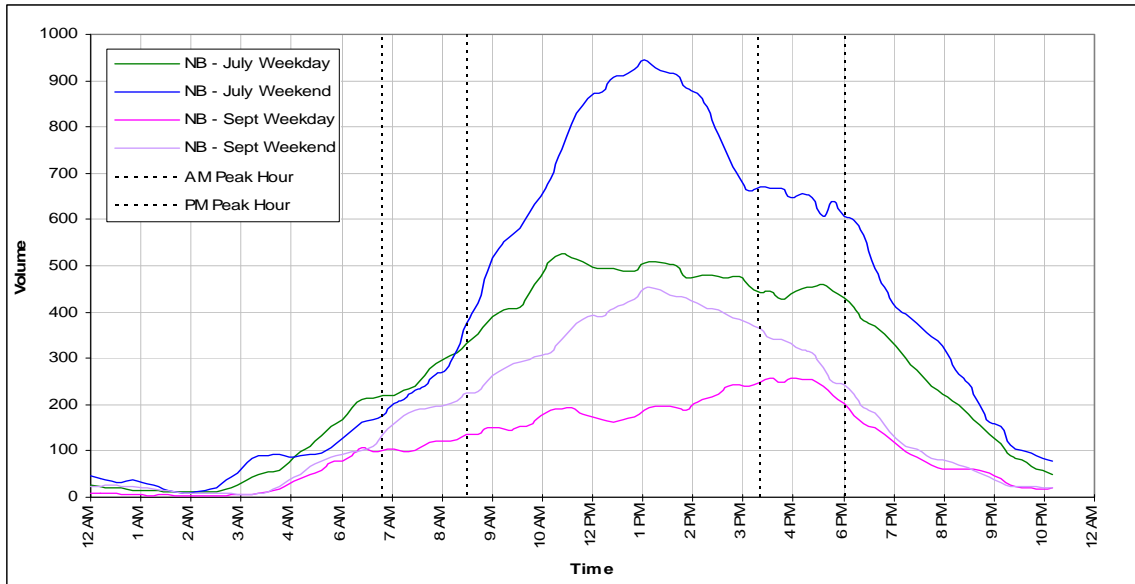
Traffic volumes on N. 51st Street between Gallagher Way and N. Winnifred Street reach approximately 3,300 vehicles on a weekday and approximately 360 vehicles during the PM peak hour. Weekend daily and peak hour volumes are significantly less than the weekday volumes on this segment of N. 51st Street. However, to the west near its intersection with N. Pearl Street weekday traffic volumes on N. 51st Street are significantly higher at approximately 6,100 vehicles per day and approximately 600 vehicles traveling this road segment during the PM peak hour. On weekends, volumes are even higher at approximately 7,300 vehicles per day and 700 vehicles during the PM peak hour. Directional traffic volumes are primarily westbound on weekdays and relatively balanced on weekends. This evaluation of traffic volumes on N. 51st Street shows that the east segment of 51st carries approximately 15% more traffic per day on a weekend, while weekend traffic volumes on the west segment are significantly less than weekday traffic volumes. In addition, both weekday and weekend traffic volumes on the east segment of N. 51st Street are significantly less than those on the west segment of N. 51st Street near Pearl Street.

Weekday and peak hour traffic volumes on Pearl Street just south of N. 51st Street are approximately half of the volumes further south at N. 37th Street. Weekend traffic volumes (both daily and peak hour) on Pearl just south of N. 51st Street are almost double weekday volumes. It is assumed that the attraction of Point Defiance Park is responsible for the increased weekend traffic volumes.

N. 46th Street provides an alternative travel route linking Ruston Way (via Alder Street and N. Stevens Street) with Pearl Street that also serves residential areas located between Pearl Street and Ruston Way. Weekday and PM peak hour traffic volumes on N 46th Street are slightly higher near Orchard Street than to the west at Pearl Street. Weekday PM peak hour traffic volumes are primarily westbound. Weekend traffic volumes along this corridor are slightly less than weekday traffic volumes.

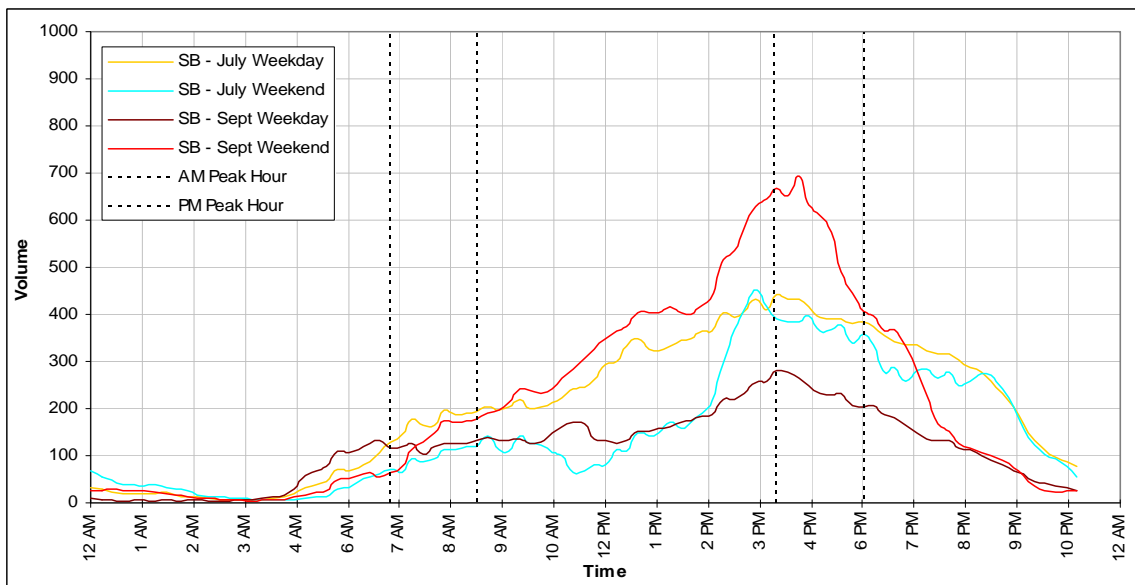
A more detailed examination summer traffic volumes on N. Pearl Street just south of its intersection with N. 51st Street (**Charts 3.7-1 and 3.7-2**) shows that the July weekend traffic volumes peak at midday at around 950 vehicles per hour. Southbound volumes peak around 4 PM at approximately 700 vehicles. These relatively high volumes reflect the draw of Point Defiance Park as a weekend destination and are the highest volumes experienced during the year. Summer weekday volumes are also slightly higher than the average volumes encountered during September. This count location also shows a relatively large seasonal fluctuation (250 to 650 vehicles during the PM peak hour) in traffic volumes.

**Chart 3.7-1
DAILY NORTHBOUND TRAFFIC VOLUMES ON N. PEARL STREET JUST SOUTH
OF N. 51ST STREET**



Source: TSI

**Chart 3.7-2
DAILY SOUTHBOUND TRAFFIC VOLUMES ON N. PEARL STREET JUST SOUTH
OF N. 51ST STREET**

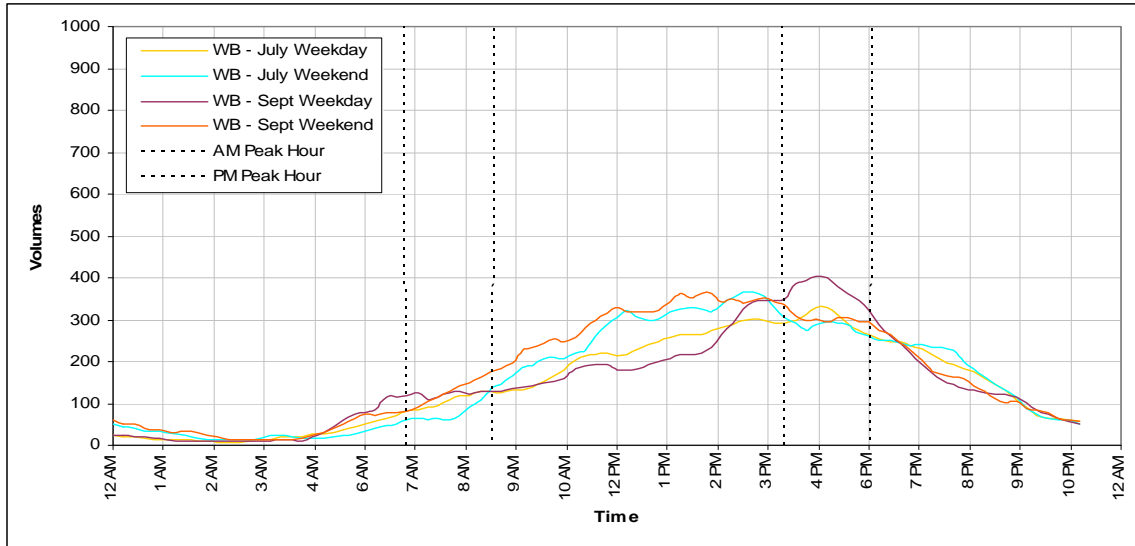


Source: TSI

Traffic volumes on N. 51st Street just east of Pearl Street (**Charts 3.7-3 and 3.7-4**) are approximately half of those on Pearl Street. Average weekday westbound volumes reach 400 vehicles per hour around 4 PM while eastbound volumes reach 350 vehicles per hour. The seasonal fluctuation in traffic volumes is also much lower along 51st Street with the PM peak

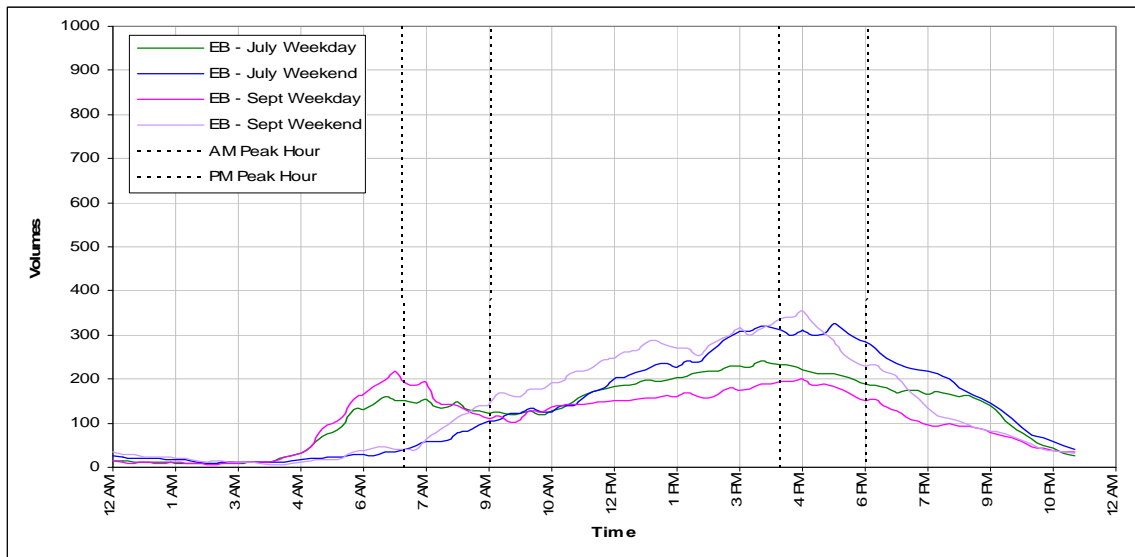
hour volumes ranging from 300 to 400 vehicles per hour westbound and 200 to 350 eastbound vehicles per hour.

Chart 3.7-3
DAILY WESTBOUND TRAFFIC VOLUMES ON N. 51ST STREET JUST EAST OF N. PEARL STREET



Source: TSI

Chart 3.7-4
DAILY EASTBOUND TRAFFIC VOLUMES ON N. 51ST STREET JUST EAST OF N. PEARL STREET

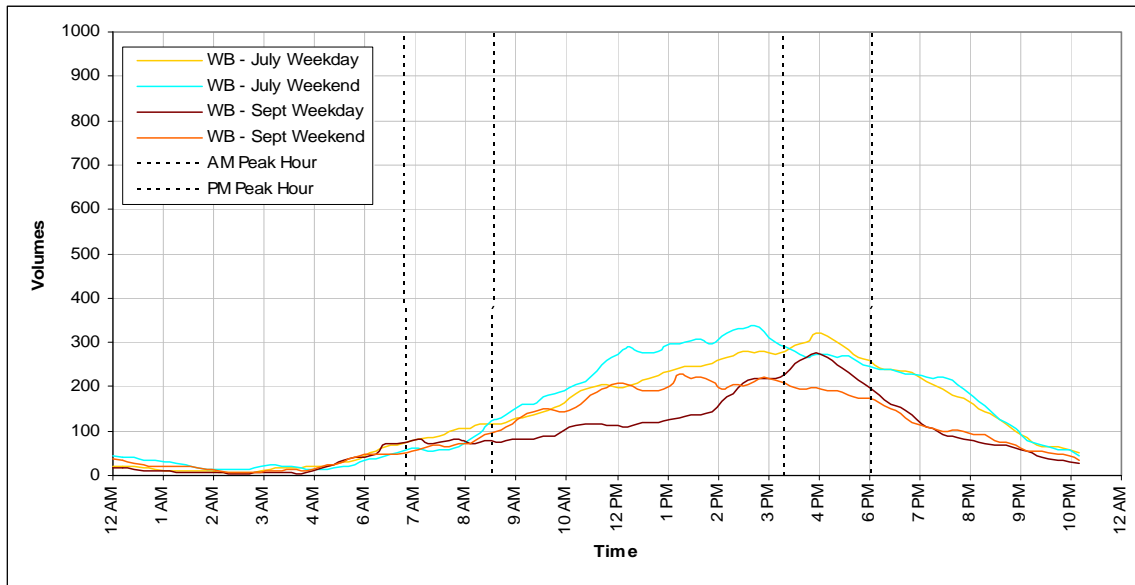


Source: TSI

Further east on N. 51st Street just east of N. Winnifred Street, peak hour traffic volumes are approximately the same or slightly lower than those just east of N. Pearl Street. The weekend volumes tend to peak in the early afternoon and the weekday volumes around 4 PM. Both of

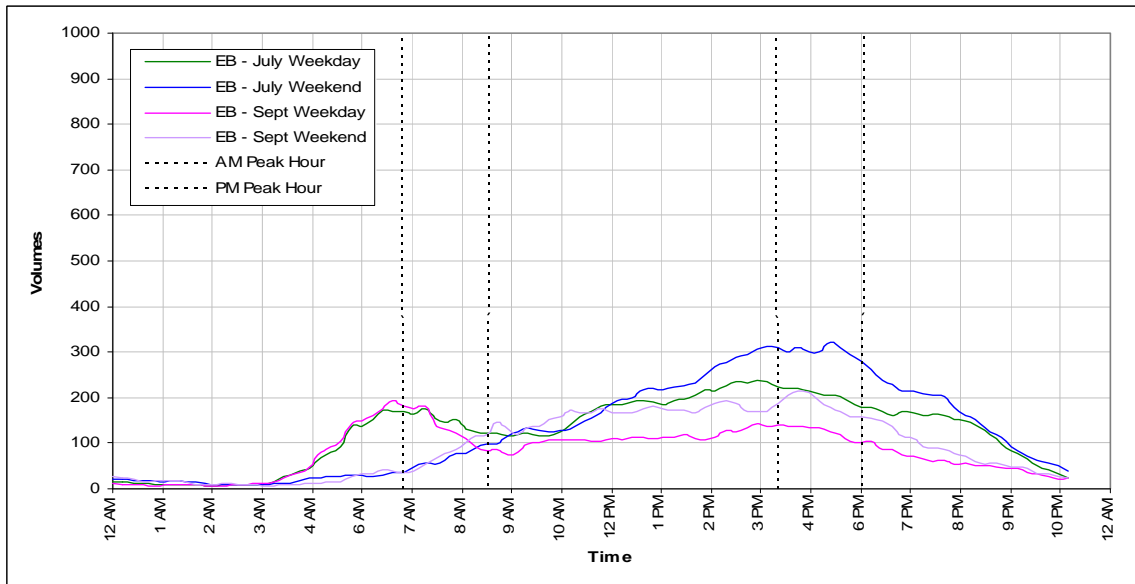
the locations on N 51st Street show an early afternoon peak in westbound traffic volumes and an eastbound peak that occurs later in the afternoon around 4 PM. This likely reflects the arrival and departure patterns of Point Defiance Park visitors (see **Chart 3.7-5** and **3.7-6**).

Chart 3.7-5
DAILY WESTBOUND TRAFFIC VOLUMES ON N. 51ST STREET JUST EAST OF N. WINNIFRED STREET



Source: TSI

Chart 3.7-5
DAILY EASTBOUND TRAFFIC VOLUMES ON N. 51ST STREET JUST EAST OF N. WINNIFRED STREET



Source: TSI

It should be noted that traffic impacts and mitigation to alleviate impacts are based on traffic volumes and conditions that a motorist would encounter on a frequent basis. July summer weekend conditions are atypical and should not be used as a basis for evaluating traffic impacts since the condition is relatively infrequent and of short duration. However, in order to show the range of traffic conditions that motorists would encounter in the area, it is appropriate to use the higher July volumes to illustrate traffic conditions at their worst. Later in this analysis, the July data will be used to adjust the September turning movement data so a level of service analysis can be made for affected intersections under peak summer weekday conditions. This additional analysis will illustrate the range of conditions that motorists would encounter along N. 51st Street and the north segment of N. Pearl Street.

During peak summer conditions, the Tacoma Police Department implements a Traffic Management Plan that involves limiting the northern segment of Ruston Way to one-way traffic northbound and routing traffic onto neighboring roadways that lead through residential neighborhoods.

Arterial Level of Service

The calculation of arterial level of service (LOS) in urban environments is based on methodologies outlined in Chapter 15 of the Highway Capacity Manual 2000 (HCM). Urban street LOS is based on average through-vehicle travel speed for the street segment or corridor being analyzed. The average travel speed is computed from the running time for each street segment and the control delay of through movements at signalized intersections. The LOS for urban streets is influenced both by the number of signals per mile and by the intersection control delay. Inappropriate signal timing, poor progression, and increasing traffic flow can degrade the LOS substantially. Streets with medium to high signal densities (i.e., more than two signals per mile) are more susceptible to these factors, and poor LOS might be observed even before significant problems occur. On the other hand, longer urban street segments comprising heavily loaded intersections can provide reasonable good LOS, although an individual signalized intersection might be operating at a lower level.

The LOS criteria are based on average travel speed and urban street class. For the purposes of this analysis, Ruston Way is identified as a Class III urban street. This classification is based on its function as a principal arterial, low signal density and a free flow speed (FFS) of 35 mph. Although the posted speed is 30 mph, the FFS is assumed to be somewhat higher because of the low signal density and fact that there are relatively few intersecting streets. The LOS categories for a Class III urban street with a range of free flow speeds of 30 to 35 mph are summarized in **Table 3.7-3**.

**Table 3.7-3
ARTERIAL LOS CATEGORIES FOR A CLASS III URBAN ARTERIAL**

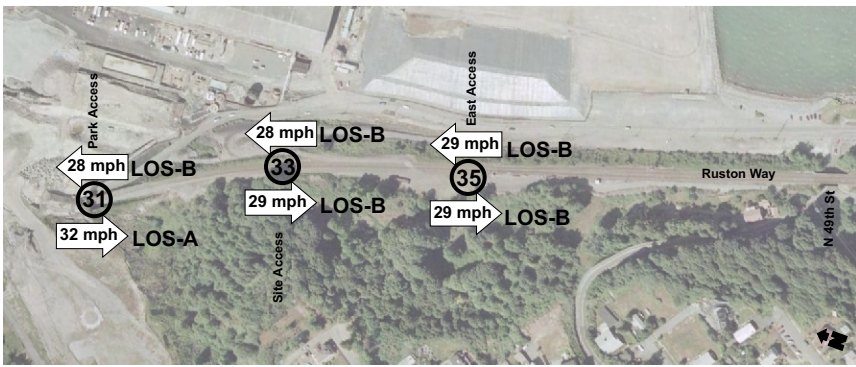
LOS	Average Travel Speed
A	>30 mph
B	>24 – 30 mph
C	>18 – 24 mph
D	>14 – 18 mph
E	>10 – 14 mph
F	≤10 mph

The model of the corridor was refined by inserting additional intersection nodes into the Synchro model at key access points. These points include accesses to significant commercial and park

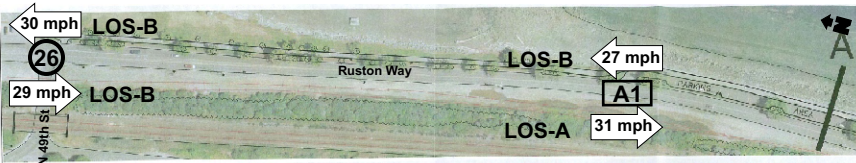
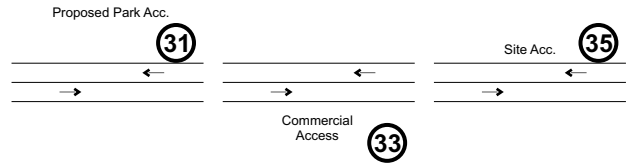
land uses along the corridor. These points are illustrated in **Figure 3.7-1**. The appropriate channelization and intersection controls were also codified into the Synchro model. At intersections where turning movement counts were not available, 5 vehicles were assigned to each turning movement as well as, when present, the through movement on the minor approach. The through movements on Ruston Way are based on volumes at adjacent intersections where count data was available.

The HCM arterial LOS methodology incorporated into the Synchro software computes arterial delay for signalized intersections within the corridor. The HCM methodology does not incorporate the effects of unsignalized intersections. In order to take into account the effects of the unsignalized intersections, this arterial LOS analysis uses SimTraffic to model the effects of unsignalized intersections. SimTraffic takes into account the effects of turning movements at unsignalized intersections. **Figure 3.7-1** illustrates the location of these intersections and the average travel speed and LOS for each node along the arterial for average conditions. **Figure 3.7-2** illustrates the same items for peak hour conditions on a summer weekday.

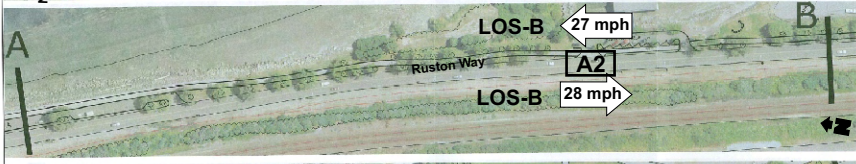
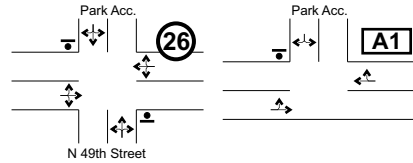
Under existing (2006) average conditions, the northbound PM peak hour arterial speed is 27 mph (LOS-B) and the southbound arterial speed is 29 mph (LOS-B). Under peak summer conditions, the northbound speed remains at an average of 27 mph but the southbound speed drops to 28 mph (LOS-B)



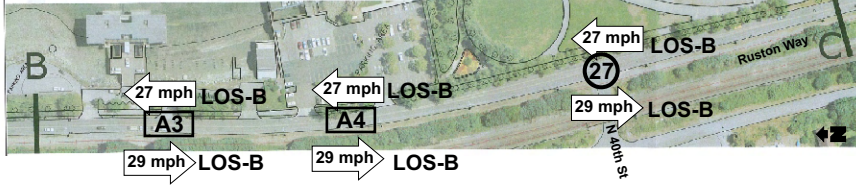
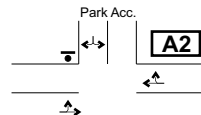
P to A3; Length: +/- 0.2 miles



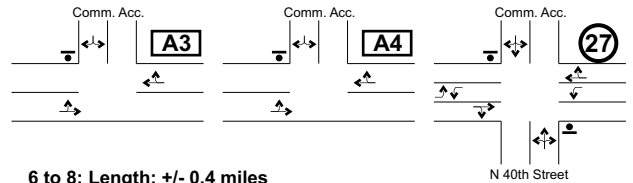
A3 to 2; Length: +/- 0.4 miles



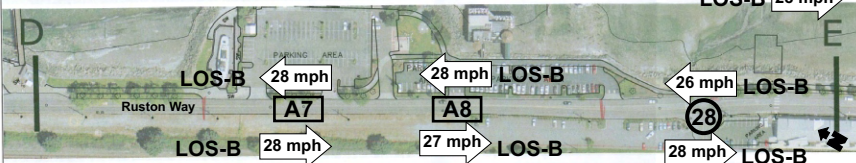
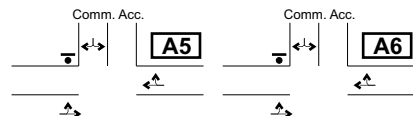
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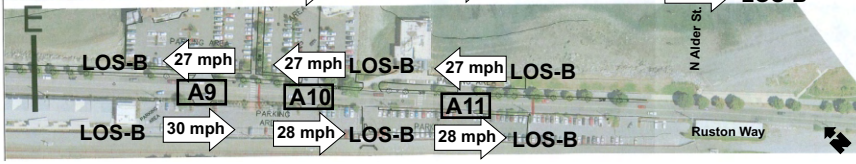
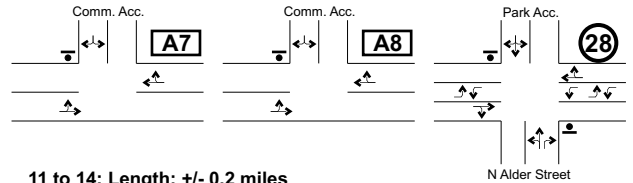
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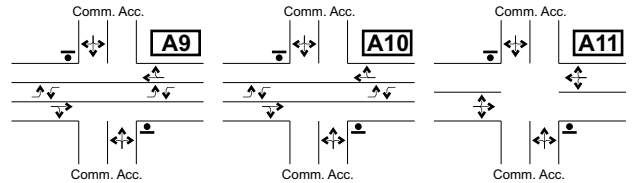
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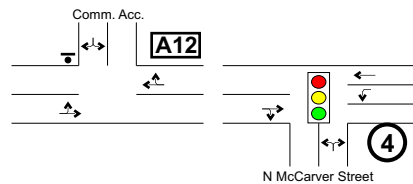
8 to 11; Length: +/- 0.2 miles



11 to 14; Length: +/- 0.2 miles



14 to 16; Length: +/- 0.4 miles

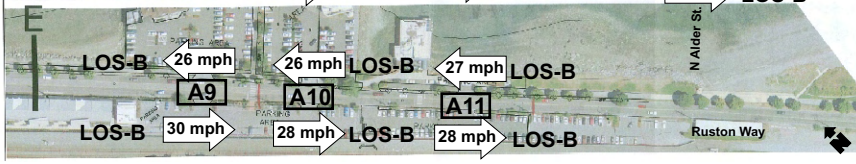
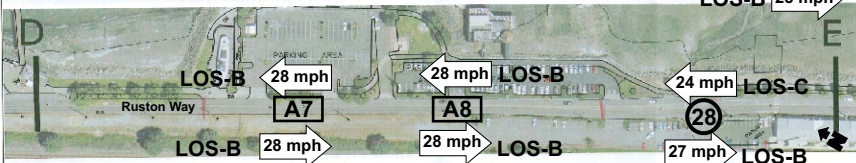
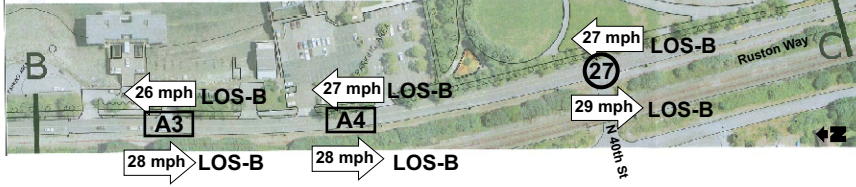
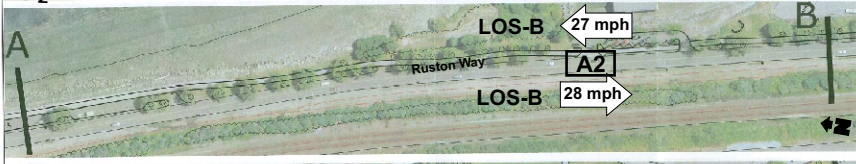
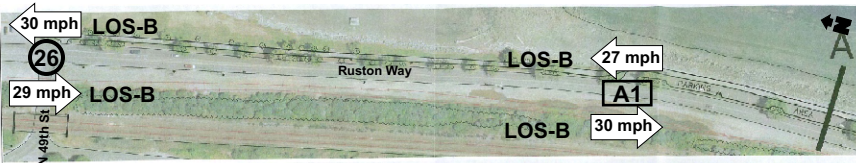
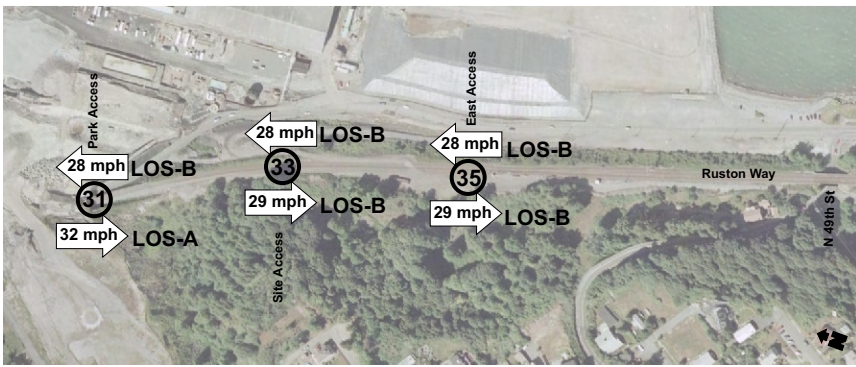


Overall NB/WB: 27mph (LOS-B)
Overall SB/EB: 29 mph (LOS-B)
 +/- 2 mile corridor

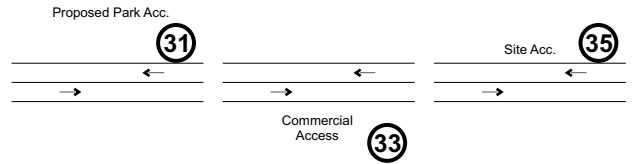
Source: TSI

FIGURE 3.7-1:
 AVERAGE WEEKDAY PM PEAK HOUR
 ARTERIAL LOS - EXISTING (2006)

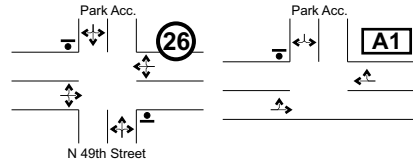
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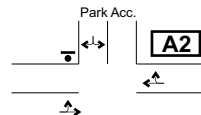
P to A3; Length: +/- 0.2 miles



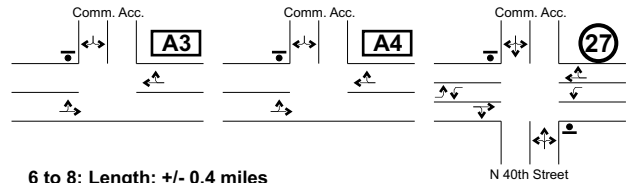
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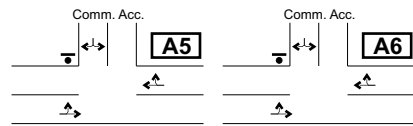
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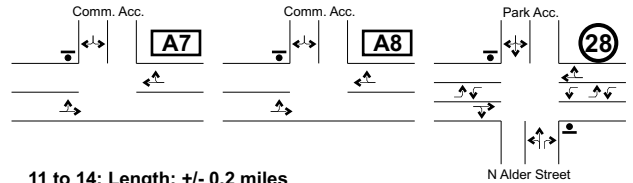
3 to 6; Length: +/- 0.2 miles



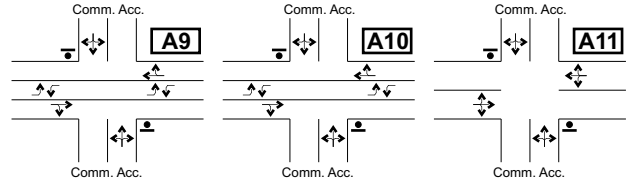
6 to 8; Length: +/- 0.4 miles



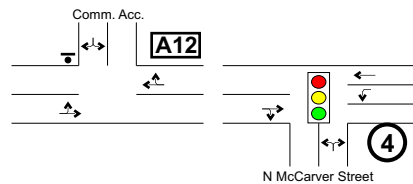
8 to 11; Length: +/- 0.2 miles



11 to 14; Length: +/- 0.2 miles



14 to 16; Length: +/- 0.4 miles



Overall NB/WB: 27mph (LOS-B)
Overall SB/EB: 28 mph (LOS-B)
 +/- 2 mile corridor

Source: TSI

FIGURE 3.7-2:
 SUMMER WEEKDAY PM PEAK HOUR
 ARTERIAL LOS - EXISTING (2006)

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Intersection LOS and Operations

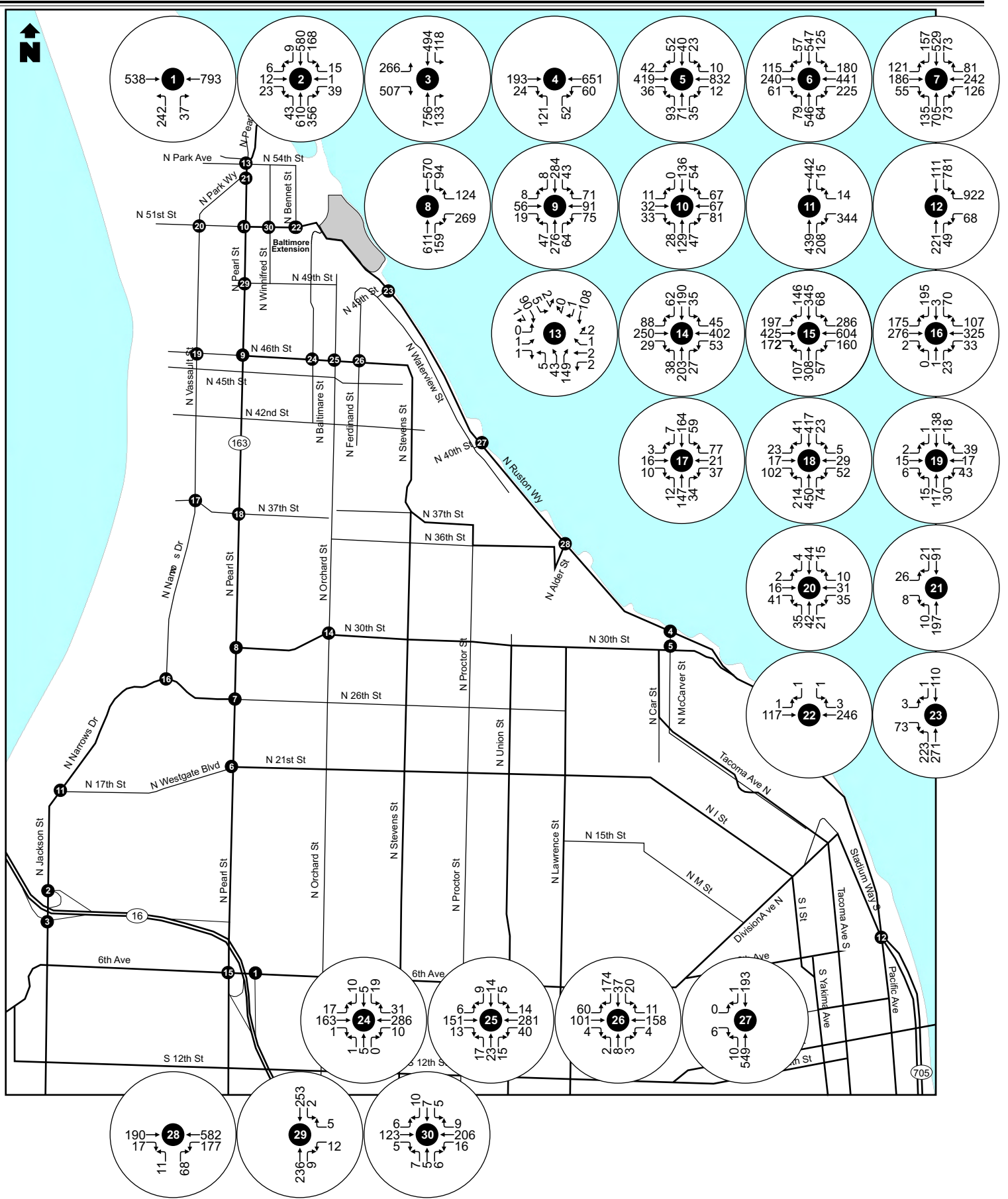
The intersections identified for analysis (**Table 3.7-3**), include those analyzed in the 1996 Master Development Plan EIS plus additional intersections identified by city staff and TSI. The intersection turning movement count data were collected between 4 PM and 6 PM on a weekday. **Table 3.7-3** also includes the existing traffic control for each intersection.

**Table 3.7-3
INTERSECTIONS ANALYZED**

Loc	Control*	Intersection
1	S	6 th Ave./ SR-16 WB Off-Ramp
2	S	N Jackson Ave./ SR-16 WB Ramp
3	S	N Jackson Ave./ SR-16 EB Ramp
4	S	N Ruston Way/ N McCarver St
5	S	N McCarver St/ N 30 th St
6	S	N Pearl St/ N 21 st St
7	S	N Pearl St/ N 26 th St
8	S	N Pearl St/ N 30 th St
9	S	N Pearl St/ N 46 th St
10	S	N Pearl St/ N 51 st St
11	S	N Narrows Bridge Dr/ N 17 th St
12	S	I-705 Off-Ramp/ Stadium Way S
13	AWS	N Pearl St/ N 54 th St - N Park Ave
14	AWS	N Orchard St/ N 30 th St
15	S	N Pearl St/ 6 th Ave
16	TWS	N Narrows Dr/ N 26 th St
17	TWS	N Vassault/ N 37 th St
18	TWS	N Pearl St/ N 37 th St
19	TWS	N Vassault/ N 46 th St
20	TWS	N Vassault/ N 51 st St
21	TWS	N Pearl St/ N Park Way
22	TWS	N Bennett St/ N 51 st St
23	TWS	Ruston Way/ N 49 th St
24	TWS	N Baltimore St/ N 46 th St
25	TWS	N Orchard St/ N 46 th St
26	TWS	N Ferdinand St/ N 46 th St
27	TWS	Ruston Way/ N 40 th St
28	TWS	Ruston Way/ N Alder St
30	TWS	N Pearl St/ N 49 th St
31	TWS	N Winnifred St/ N 51 st St

*S= signalized, AWS= All-way stop control, TWS=Two-way stop control

The location of the intersections analyzed in this study and existing (2006) PM peak hour turning movement volumes are depicted in **Figure 3.7-3**.



Source: TSI

FIGURE 3.7-3:
AVERAGE WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES
EXISTING (2006)

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Existing Intersection Level of Service

Existing weekday PM peak hour level of service (LOS) was calculated for the selected intersections using the 2000 Highway Capacity Manual (Transportation Research Board, Special Report 209) methodology. For signalized intersections, the LOS is defined by seconds of average vehicle delay at the intersection. The seconds of delay are divided into several categories or grade levels, ranging from LOS-A, which is very good, to LOS-F, which reflects a breakdown in traffic flow. Although these letter designations provide a simple basis for comparison, seconds of average vehicle delay should be used as the exact measure of comparison. For this analysis, the critical volume method was used to determine signal timings employed in the HCM calculations. This method optimizes traffic signal timings by proportioning out green time to each traffic movement, based on respective traffic volume.

For unsignalized two-way stop controlled intersections, the level of service is defined in terms of stopped time delay for the controlled movements, and also divided into LOS categories A through F. For all-way stop controlled intersections, LOS is defined as the average vehicle delay for each vehicle traveling through the intersection. In an urban environment, a peak hour level of service of LOS-C is considered very good and LOS-D is considered good.

The findings are summarized in **Table 3.7-4** below.

All signalized intersections and the controlled approaches to all two-way stop controlled intersections operate at LOS-D or better during PM peak hour conditions. All of the unsignalized all-way stop controlled intersections operate at LOS-A with the exception of the intersection of N. 30th Street & N. Orchard Street, which operates at LOS-F. The existing channelization of this intersection provides for a single lane for all turning movements on each approach with a curb lane for parking. Close to the intersection, the curb lane functions as a short right turn lane. When the intersection is analyzed with right turn lanes on all approaches, the level of service improves to LOS-E. The primary reason for the poor level of service during the PM peak hour is the high volume of through traffic on all approaches to the intersection.

**Table 3.7-4
EXISTING (2006) PM PEAK HOUR AVERAGE WEEKDAY LEVEL OF SERVICE**

	Intersection	Control ¹	Approach ²	Existing	
				LOS	Delay ³
1	6 th Ave. & SR-16 WB Off-Ramp	S	Avg.	A	9
2	N Jackson Ave. & SR-16 WB Ramp	S	Avg.	B	18
3	N Jackson Ave. & SR-16 EB Ramp	S	Avg.	C	22
4	N Ruston Way & N McCarver St.	S	Avg.	A	9
5	N 30 th St. & N McCarver St.	S	Avg.	B	13
6	N 21 st St. & N Pearl St.	S	Avg.	C	32
7	N 26 th St. & N Pearl St.	S	Avg.	C	23
8	N 30 th St.& N Pearl St.	S	Avg.	B	12
9	N 46 th St.& N Pearl St	S	Avg.	A	7
10	N 51 st St.& N Pearl St.	S	Avg.	B	18
11	N 17 th St. & N Narrows Bridge Dr.	S	Avg.	B	15
12	I-705 Off-Ramp & Stadium Way	S	Avg.	D	52
13	Pearl St & N 54 th St. & N Park St.	AWS	Avg.	A	9
14	N 30 th St.& N Orchard Street	AWS	Avg.	F	69
15	N 6 th Ave & N Peal St.	S	Avg.	D	36
16	N 26 th St.& N Narrows Drive	TWS	NB	B	10
			SB	B	16
17	N 37 th St.& N Vassault St.	TWS	NB	B	12
			SB	B	13
18	N 37 th St.& N Pearl St.	S	Avg.	B	11
19	N 46 th St.& N Vassault St.	TWS	EB	B	12
			WB	B	12
20	N 51 st St.& N Vassault St.	AWS	Avg.	A	8
21	N Pearl St & N Park Way	TWS	EB	B	11
22	N 51 st St.& N Bennett St.	TWS	SB	B	11
23	N 49 th St.& N Ruston Way	TWS	EB	B	10
24	N 46 th St.& N Baltimore St.	TWS	NB	B	15
			SB	B	14
25	N 46 th St.& N Orchard St.	TWS	NB	B	14
			SB	B	14
26	N 46 th St.& N Ferdinand St.	TWS	NB	B	13
			SB	B	13
27	N 40 th St.& N Ruston Way	TWS	EB	A	10
28	N Alder St.& N Ruston Way	TWS	EB	B	12
29	N 49 th St.& N Pearl St.	TWS	WB	B	13
30	N 51 st St.& N Winnifred St.	AWS	Avg.	A	9
			WB	A	9

Source: TSI

¹ S= signalized, AWS= All-way stop control, TWS=Two-way stop control

² Approach – designates the direction of travel for the controlled approach and LOS. (i.e. NB = northbound, Avg. = average of all approaches).

³ Delay = average seconds of vehicle delay for all vehicles entering intersection or those entering on controlled approaches.

3.7.2 Significant Impacts of the Proposed Action

Proposed Development

The proposed Point Ruston development would consist of a mix of residential and commercial uses that when complete would provide up to 1,000 dwelling units and 228,000 SF of commercial space. The development would be constructed in phases with the project complete and fully occupied in 8 to 10 years. For the purposes of determining the number of trips the project would generate, two phases are assumed. **Table 3.7-5** summarizes the proposed land uses and development for each phase. A conceptual site plan is illustrated in **Figure 3.7-4**.

**Table 3.7-5
PROPOSED DEVELOPMENT PLAN**

Land Use	Phase 1	Phase 2	Total
<i>Residential Units</i>			
Condominiums	143	687	830
Apartments	0	70	70
Senior Housing	0	100	100
Hotel (80% occupied)	0	150	150
<i>Commercial (1,000 SF)</i>			
Retail	0	60	60
Restaurant	1.5	18.5	20
Supermarket	0	18	18
Health Club	0	70	70
Office	17	43	60
Total Dwelling Units	143	1,007	1,150
Total Commercial (1,000 SF)	18.5	209.5	228

Source: Point Ruston

For the purposes of evaluating future traffic conditions, it is assumed that Ruston Way would be reconstructed to provide a two-lane cross section with roundabouts at the primary site access and the Peninsula Park access at Baltimore. Baltimore Street would be extended northward to connect with Ruston Way. There would be one secondary access located to the south of the primary access. The secondary access would be controlled by a stop sign on the minor approach and separate left and right turn lanes provided on the outbound leg of the intersection. It is understood that the channelization of the accesses may change as the site plan is finalized.



Source: TSI

FIGURE 3.7-4:
POINT RUSTON SITE PLAN

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Trip Generation

The number of daily, AM peak hour, and PM peak hour trips generated by the proposed development is calculated using the trip generation rates from the 7th edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. **Table 3.7-6** summarizes the gross number of AM peak hour, PM peak hour, and weekday trips generated by Phase 1 of the development. With the completion of Phase 1, the development would generate approximately 116 trips during the AM peak hour, 191 trips during the PM peak hour, and 1,120 trips on a weekday.

**Table 3.7-6
PEAK HOUR AND WEEKDAY GROSS TRIP GENERATION FORECAST PROPOSED
ACTION - (PHASE 1)**

Land Use	LUC*	Units/ SF	AM Peak Hour			PM Peak Hour			Weekday
			Enter	Exit	Total	Enter	Exit	Total	Total
<u>Residential</u>		(units)							
Condominiums	230	143	12	57	69	54	27	81	644
<u>Commercial</u>		(1,000 SF)							
Restaurant	931	1.5	1	1	2	8	4	12	135
Office	710	17	40	5	45	17	81	98	341
Total Gross Trips			53	63	116	79	112	191	1,120

*ITE Land Use Code (LUC)

Table 3.7-7 summarizes the gross number of AM peak hour, PM peak hour, and weekday trips generated by the development at the completion of Phase 2. The development is forecasted to generate approximately 775 AM peak hour, 1,760 PM peak hour, and 17,408 weekday trips. However, as discussed below these are gross numbers that do not take into account the effects that the mix of residential and commercial land uses has on reducing trips or the effect of pass-by trips.

**Table 3.7-7
PEAK HOUR AND WEEKDAY GROSS TRIP GENERATION FORECAST PROPOSED
ACTION - (PHASE 2)**

Land Use	LUC	Units/ SF	AM Peak Hour			PM Peak Hour			Weekday
			Enter	Exit	Total	Enter	Exit	Total	Total
<u>Residential</u>		(units)							
Condominiums	230	830	48	233	281	228	112	341	2,873
Apartments	221	70	7	26	33	32	17	49	461
Senior Housing	252	100	4	4	8	7	4	11	348
Hotel (80% occupied)	310	150	26	19	40	25	26	51	856
<u>Commercial</u>		(1,000 SF)							
Retail	820	60	70	45	115	197	250	447	4,872
Restaurant	931	20	8	8	16	100	49	150	1,799
Office	710	60	110	15	125	25	121	146	900
Health Club	492	70	36	49	85	145	139	284	2,305
Supermarket	850	18	20	13	33	123	118	241	2,597
Total Gross Trips			337	438	775	907	853	1,761	17,408

*ITE Land Use Code (LUC)

The gross number of trips generated for each time period were adjusted using ITE methodologies for establishing the internal capture rates for a site that shares trips between complimentary uses. **Table 3.7-8** summarizes the effects of these adjustments and shows the number of external PM peak hour trips generated by the site and separates those trips into pass-by and primary trips. Based on this methodology, 26% of the gross number of PM peak hour trips would be captured internally.

Pass-by trips to the site are defined as trips that are already traveling on Ruston Way that pass-by the site. They turn into the site to stop at a retail business before continuing on to their primary destination. Pass-by trips are incorporated into the turning movements at site accesses (i.e. what would normally be a through trip becomes a right turn into the site and right turn out) but do not represent new trips on the local road network. The gross number of PM peak hour trips for the retail, restaurant, and supermarket land uses were reduced by 20% to account for pass-by trips.

**Table 3.7-8
PM PEAK HOUR TRIP GENERATION ADJUSTED FOR PASS-BY TRIPS AND
INTERNAL CAPTURE**

Land Use	External Trips			Pass-by Trips		Primary Trips		
	<i>In</i>	<i>Out</i>	Total	<i>Reduction</i>	Trips	<i>In</i>	<i>Out</i>	Total
Retail	162	172	334	20%	67	130	137	267
Restaurant	58	43	101	20%	20	47	34	81
Supermarket	87	93	180	20%	36	70	74	144
Health Club	109	82	190	0%	0	109	82	190
Office	11	107	119	0%	0	11	107	119
Residential	247	127	374	0%	0	247	127	374
Total	674	624	1,298		123	614	561	1,175

The internal trip adjustment reflects the effects of a wide range of land uses on reducing trips. For example, some residents would be employed on the site and there would be reduced resident travel off the site to shop, go to a restaurant, or visit the health club. In addition, the availability of goods and services on-site to people working in the offices or other businesses on-site would reduce off-site trips.

Following an initial review of the trip generation forecast, Tacoma City staff agreed that the development would capture trips internally but expressed concern over the ITE internal trip capture methodology and the relatively high internal capture rate of 27%. To address this concern, the trip generation forecast was revised by reducing the internal capture rate for each land use by approximately 50%. This reduction represents a very conservative approach to estimating the internal trip capture rate. The ITE internal capture rates and the adjusted rates used for the revised trips generation forecast are summarized in **Table 3.7-9**.

**Table 3.7-9
ITE INTERNAL CAPTURE RATES AND ADJUSTED RATES**

Land Use	ITE Rate		Adjusted Rate	
	To	From	To	From
Retail / Retail	20%	20%	10%	10%
Retail / Residential	12%	9%	6%	5%
Retail / Office	3%	2%	1.5%	1%
Residential / Retail	53%	31%	26%	16%
Residential / Office	0%	2%	0%	1%
Office / Retail	22%	31%	10%	15%
Office / Residential	2%	0%	1%	0%

Table 3.7-10 summarizes the revised trip generation forecast used to analyze future conditions in 2014 with the project complete and occupied.

**Table 3.7-10
REVISED PM PEAK HOUR TRIP GENERATION FORECAST (PHASE 2)**

Land Use	External Trips			Pass-by Trips		Primary Trips		
	In	Out	Total	Reduction	Trips	In	Out	Total
Retail	186	205	391	20%	78	149	164	313
Restaurant	73	57	129	20%	26	58	45	103
Supermarket	100	110	210	20%	42	80	88	168
Health Club	129	101	230	0%	0	129	101	230
Office	17	112	129	0%	0	17	112	129
Residential	281	152	434	0%	0	281	152	434
Total	786	736	1,523		146	714	662	1,376

The effect of reducing the ITE capture rate for internal trips (**Table 3.7-9**) is to increase the number of external PM peak hour trips to 1,376 (an increase of 200 trips) and reduce the internal capture rate from 26% to 13%. Subsequent analysis of future PM peak hour conditions is based upon this forecast where the development will add 1,376 new trips to the local road network during the PM peak hour. The spreadsheets used to calculate trip generation and the capture of internal trip may be found in the appendices.

In addition to the trips generated by the *Proposed Action*, it is assumed that the proposed 14 acre park site adjacent to the yacht basin would be developed and an access to Ruston Way provided at the north end of the project site. ITE trip generation rates, when applied to a 14 acre park, result in less than one PM peak hour trip. Research into park trip generation rates revealed a more reasonable rate used by the City of San Diego. This rate of four PM peak hour trips per acre resulted in 56 trips (22 inbound, 34 outbound) generated by the proposed park. The trips generated by the Stack Hill residential development are also incorporated into the analysis of the *Proposed Action* alternative.

Trip Distribution and Assignment

The distribution of trips generated by the proposed development is based on the comparative relationship of existing traffic volumes on Pearl Street and Ruston Way as well as the proportion of trips generated by each land use that are identified as regional or local trips.

The general distribution of project traffic to the Ruston Way or Pearl Street corridors is based on the relative volumes carried by those corridors during the PM peak hour. The existing PM peak hour northbound and southbound traffic volumes on Ruston Way and Pearl Street at the points indicated in **Table 3.7-11** were used to determine the general distribution of project generated traffic. The existing volumes show that approximately 68% of the inbound (northbound) traffic to the north Tacoma area travels on Ruston Way and 32% travels on Pearl Street. Approximately 56% of the outbound (southbound) traffic uses Ruston Way with 44% using Pearl Street.

**Table 3.7-11
DISTRIBUTION OF EXISTING PM PEAK HOUR TRAFFIC VOLUMES ON RUSTON WAY AND PEARL STREET**

Street Segment	Traffic Volume			% Distribution	
	North bound	South bound	Total	North bound	South bound
Ruston Way E. of Orchard	552	433	985	68%	56%
Pearl Street S. of N 51 st .	260	340	600	32%	44%

Project trips were also assumed to have regional and local origins and destinations. For example, trips generated by office land uses would be more regional in nature while trips generated by retail uses would be more local in nature. Furthermore, residential inbound trips would be more regional work to home trips while residential outbound trips would be more local. Local trips are defined as having an origin or destination north of N. 30th Street or the Tacoma central business district (CBD) while regional trips had origins or destinations south of the CBD or N. 30th Street. The inbound/outbound and regional/local distribution splits for each land use are summarized in **Table 3.7-12**.

**Table 3.7-12
REGIONAL AND LOCAL DISTRIBUTION SPLITS FOR PROJECT LAND USES**

Land Use	Inbound Trips		Outbound Trips	
	regional	local	regional	local
Residential	85%	15%	15%	85%
Office	50%	50%	90%	10%
Other Commercial	25%	75%	25%	75%

The distribution pattern for project generated trips distributes trips to the Ruston Way or Pearl Street corridors as depicted in **Table 3.7-11** and uses the regional or local distribution pattern as depicted in **Table 3.7-12**. A spreadsheet in the appendices to this report details the distribution patterns for each land use and intersection. The compiled distribution pattern and assignment of project generated PM peak hour trips is illustrated in **Figure 3.7-5**. The local and regional

distribution patterns and trip assignment for each land use for the Point Ruston project may be found in the appendices.

To establish future traffic volumes, the project trip assignment is added to the adjusted existing traffic volumes. (The adjustment includes an increase in existing traffic volumes of 2% per year through 2014 to reflect a general growth in traffic volumes not related to Point Ruston as well as traffic volumes generated by other developments such as the Commencement condominium development. Trips generated by the Stack Hill single family development are incorporated in addition to the general 2% annual increase).

There are two other factors that need to be considered when compiling the future traffic volumes. The first is the effect of The Baltimore Street connection. This link will provide an alternative to N. 51st Street for motorists traveling between Ruston Way and N. Pearl Street. For the purposes of this analysis it is assumed that a portion of the existing traffic volumes will use this new route to avoid congestion at the intersection of N. 51st Street and N. Pearl Street. Two scenarios are considered. *Scenario 1* assumes that 10% of the existing traffic volume that is currently making a northbound to eastbound right turn at N. 51st Street and N. Pearl Street would make a northbound right turn at N 46th Street and then turn onto Baltimore to reach Ruston Way. Conversely, 10% of the existing traffic volumes that now make a westbound left turn at Pearl Street would now turn left at Baltimore and turn onto N. 46th Street to reach Pearl. *Scenario 2* assumes that 20% of the existing traffic volumes would adjust their route to utilize Baltimore Street.

The second factor is the effect of above average traffic volumes that occur in the summer. Average traffic volumes at the intersections within Ruston and adjacent to the project site were increased to reflect summer traffic volumes. This increase is based on mechanical tube count data collected in July 2007 as described in this section under the *Affected Environment*. PM peak hour traffic volumes on Ruston Way during the summer to the south of the site are roughly 9% greater than under average conditions. Summer weekday peak hour traffic volumes on N. Pearl Street are approximately 50% greater than under average conditions reflecting trips to and from Point Defiance Park. On N. 51st Street, weekday peak hour traffic volumes increase by approximately 25% over average traffic volumes.

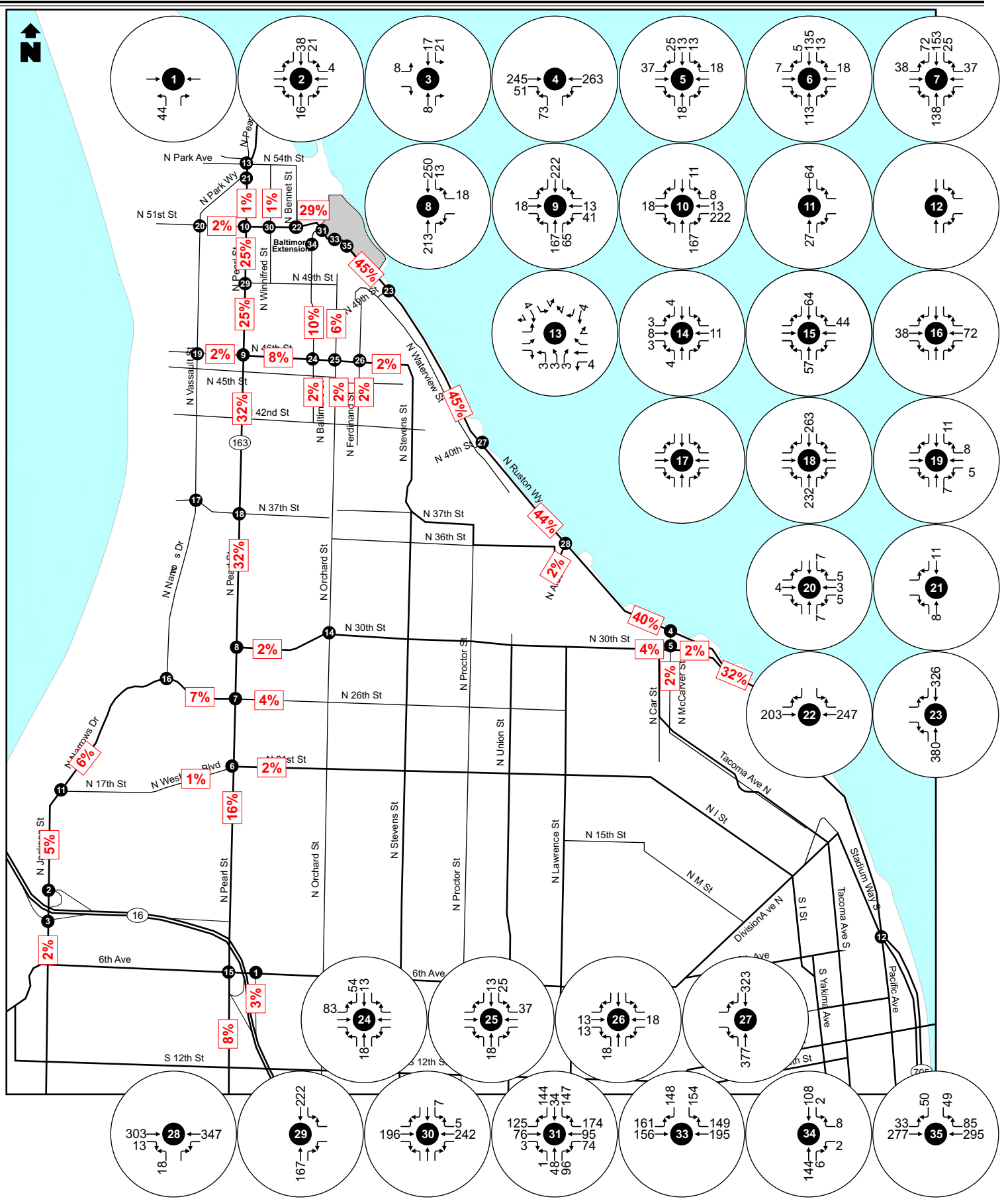
Future PM peak hour traffic volumes for the *Proposed Action* under average and summer conditions for both scenarios are illustrated in the following figures:

Fig 3.7-6: Average Weekday PM Peak Hour Traffic Volumes – Proposed Action (2014) – (Scenario 1)

Fig 3.7-7: Average Weekday PM Peak Hour Traffic Volumes – Proposed Action (2014) – (Scenario 2)

Fig 3.7-8: Summer Weekday PM Peak Hour Traffic Volumes – Proposed Action (2014) – (Scenario 1)

Fig 3.7-9: Summer Weekday PM Peak Hour Traffic Volumes – Proposed Action (2014) – (Scenario 2)



Source: TSI

FIGURE 3.7-5:
 AVERAGE WEEKDAY PM PEAK HOUR
 DISTRIBUTION AND ASSIGNMENT - PROPOSED ACTION (2014)

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Source: TSI

FIGURE 3.7-6:
 AVERAGE WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES -
 PROPOSED ACTION (2014) - (SCENARIO 1)

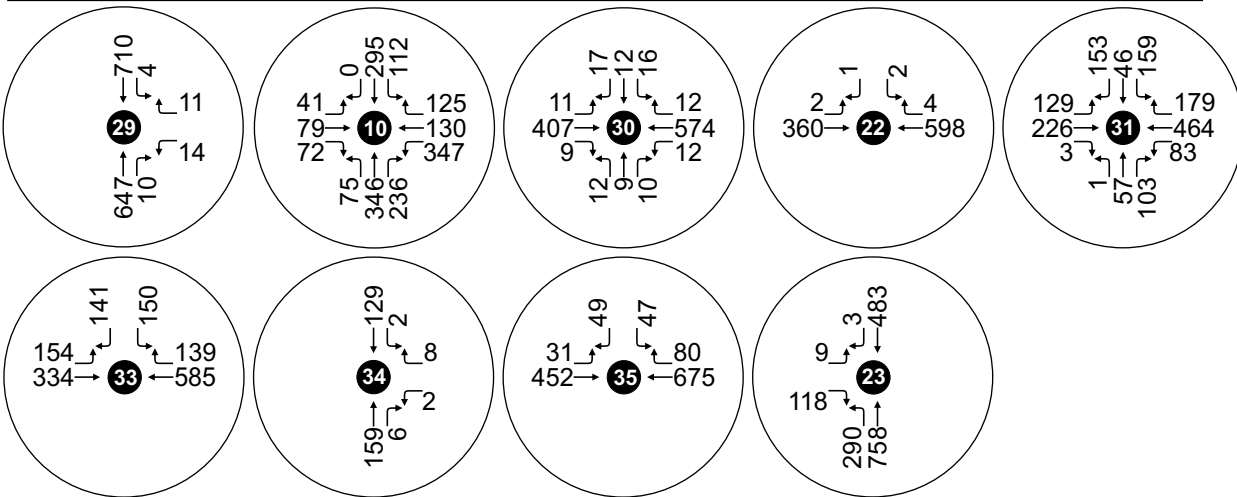
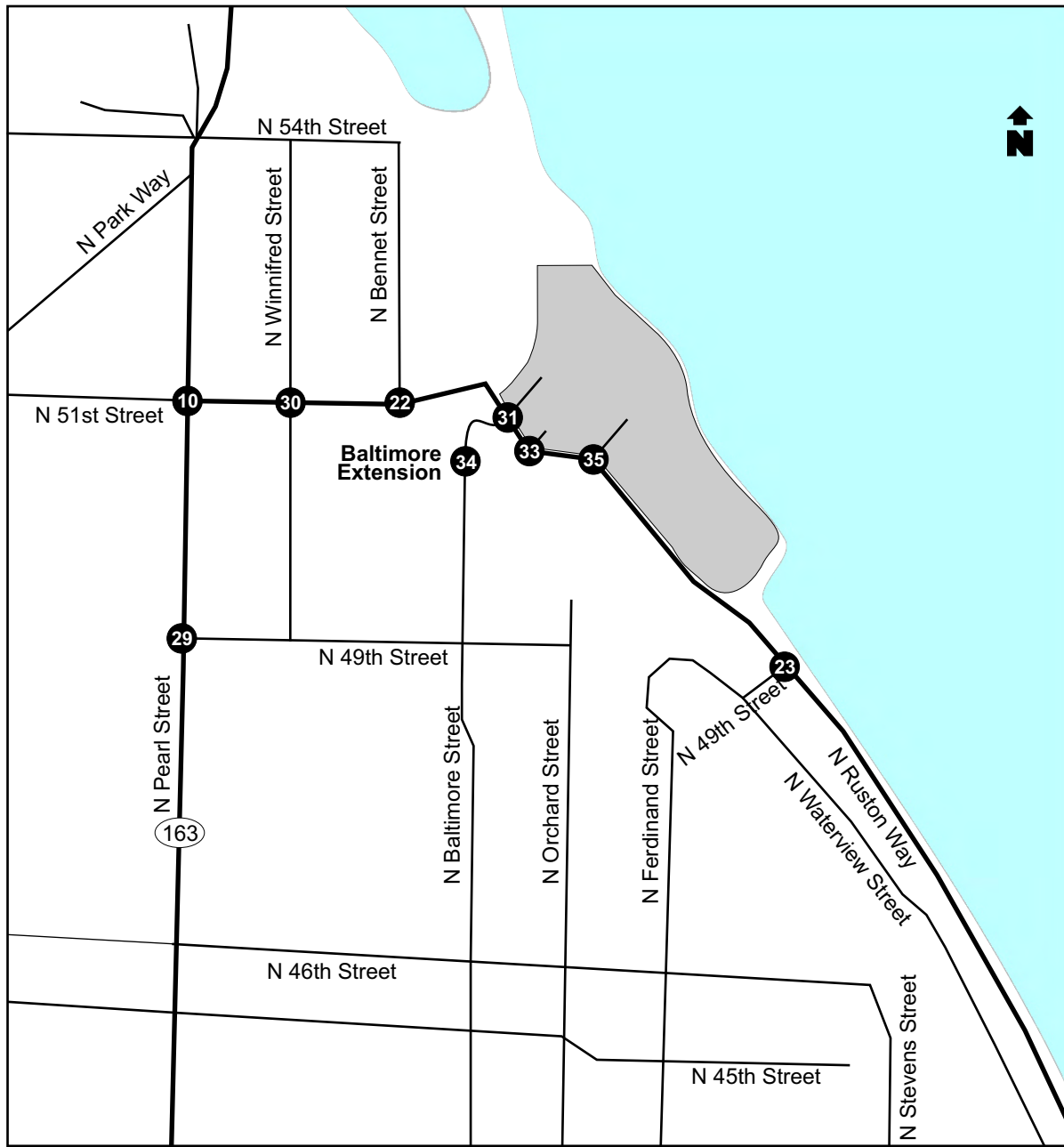
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Source: TSI

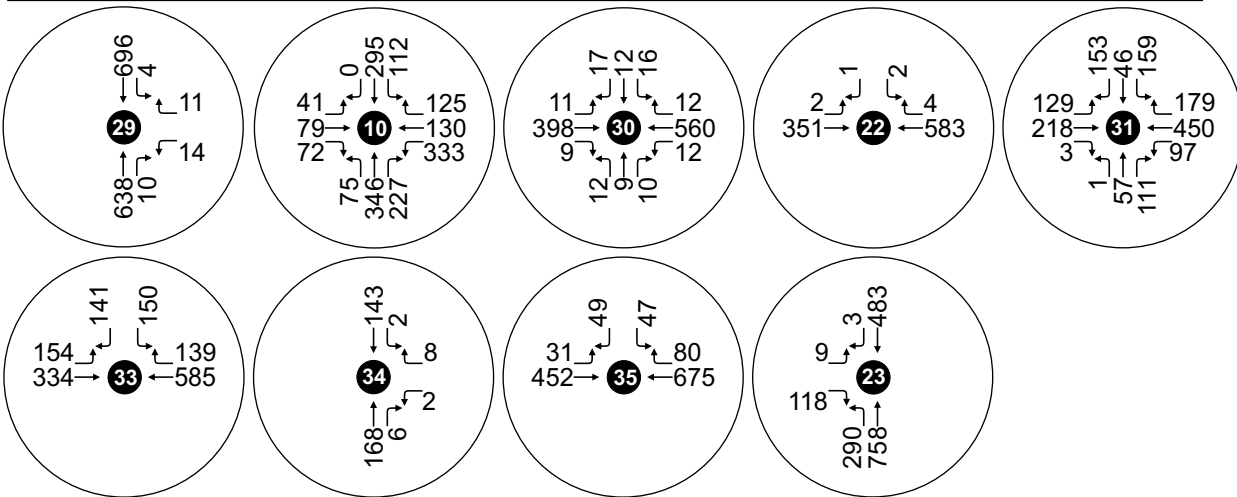
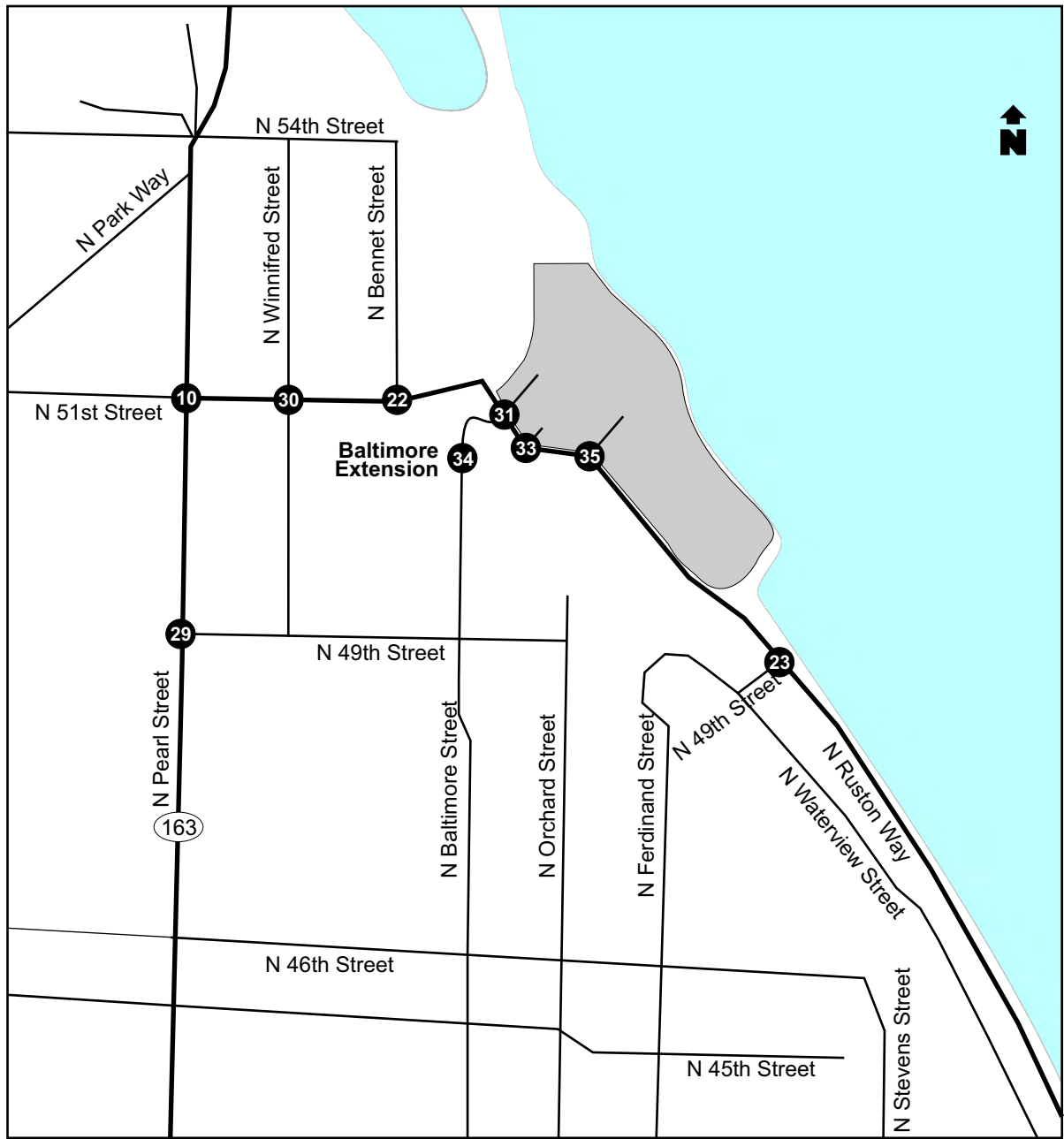
FIGURE 3.7-7:
AVERAGE WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES -
PROPOSED ACTION (2014) - (SCENARIO 2)

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Source: TSI

FIGURE 3.7-8:
SUMMER WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES -
PROPOSED ACTION (2014) - SCENARIO 1



Source: TSI

FIGURE 3.7-9:
SUMMER WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES -
PROPOSED ACTION (2014) - SCENARIO 2

Intersection Level of Service

A level of service analysis was performed to establish future 2014 conditions with the Point Ruston development complete and fully occupied for average weekday and summer weekday conditions. The summer weekday analysis is limited to intersections within the Town of Ruston and near the project site. In addition, the distribution patterns resulting from Scenarios 1 and 2 only affect the intersections within the Town of Ruston and those near the project site. The results of the analysis of average weekday conditions for Scenario 1 and 2 are summarized in **Table 3.7-13**. Results from the summer weekday condition scenarios are summarized in **Table 3.7-14**.

In 2014, with the project complete and fully occupied all signalized intersections would operate at LOS-D or better with one exception.

- The intersection at the I-705 off-ramp/ Stadium Way operates at LOS-F due to the forecasted increase in background traffic volumes. There are no project generated trips assigned to this intersection.

The controlled approaches to all two-way stop controlled intersections continue to operate at LOS-D or better during PM peak hour conditions with one exception.

- At the intersection of N Alder Street & N Ruston Way, the level of service on the controlled eastbound approach drops from LOS-B to LOS-E with an increase in delay of approximately 30 seconds. The project adds 681 trips to this intersection with most of those trips traveling on Ruston Way. This increase in through traffic volumes results in fewer and shorter gaps in the through traffic flow and reduces the opportunities for vehicles on N. Alder Street to turn onto Ruston Way.
- Under summer conditions the controlled eastbound approach to the intersection of N. 49th Street and Ruston Way drops to LOS-E for the same reasons as described for the intersection at Adler. This poor level of service affects 86 vehicles making a right turn and 4 vehicles making a left turn onto Ruston Way.
- Reestablishing the Baltimore connection will increase the number of vehicle trips at the south leg of the intersection of N. 46th Street & N. Baltimore Street from 50 to 272 during the PM peak hour. The controlled southbound approach to the intersection would drop from LOS-B under existing conditions to LOS-D under future conditions with the project complete and occupied. Segments of this roadway are deficient and would be impacted by the increase in traffic volumes.

All of the all-way stop controlled intersections operate at LOS-A with two exceptions:

- The intersection of N. 30th Street & N. Orchard Street continues to operate at LOS-F. Average vehicle delay is forecasted to increase an additional 100 seconds due to project generated traffic and forecasted increases in existing traffic volumes. The project would add 32 new trips to this intersection. As stated in the existing conditions section, the channelization of this intersection provides for a single lane for all turning movements on each approach with a curb lane for parking. Close to the intersection, the curb lane functions as a short right turn lane. When the intersection is analyzed with right turn lanes on all approaches, the level of service remains at LOS-F under future with project conditions but the average vehicle delay drops from 170 seconds to 95 seconds. The primary reason for the poor level of service during the PM peak hour is the high volume of through traffic on all approaches to the intersection.

- The intersection of N. 51st Street & N. Winnifred Street drops from an intersection average of LOS-A to LOS-C under average peak hour conditions. The westbound approach to the intersection also drops from LOS-A to LOS-C. The average vehicle delay is slightly less under Scenario 2 but the LOS remains at LOS-C. The project adds 450 PM peak hour trips to this intersection. The majority of these trips are through movements on the eastbound and westbound approaches to the intersection. Under summer weekday peak hour conditions, the intersection is forecasted to operate at LOS-E under both Scenario 1 and 2. The westbound approach to the intersection would operate at LOS-F due to the increase in traffic volumes. The average vehicle delay is reduced under Scenario 2 but the LOS does not change.

The intersection does not currently meet the warrant requirements based on traffic volumes for an all-way stop or signalization due to the relatively low volumes on Winnifred Street. From a technical perspective, it would be appropriate to remove the stop signs on N. 51st Street to reduce delays on N. 51st Street. This would increase delays for the small number of vehicles entering N. 51st Street from N. Winnifred Street.

While this modification would improve level of service, it would also remove the calming effect of the stop signs on N. 51st Street, which keeps vehicle speeds low between Winnifred and Pearl and increase the potential for vehicular/pedestrian conflicts. For these reasons, it is recommended that the all-way stop remain in its current configuration.

**Table 3.7-13
PM Peak Hour LOS – Proposed Action Average Weekday Conditions**

Intersection		Control ¹	Scenario 1 (10%)			Scenario 2 (20%)		
			Approach / Average ²	LOS	Delay (sec) ³	Approach / Average ²	LOS	Delay (sec) ³
1	6th Ave. & SR-16 WB Off-Ramp	S	Avg.	B	10.2	Avg.	B	10.2
2	N Jackson Ave. & SR-16 WB Ramp	S	Avg.	C	21.0	Avg.	C	21.0
3	N Jackson Ave. & SR-16 EB Ramp	S	Avg.	D	36.1	Avg.	D	36.1
4	N Ruston Way & N McCarver St.	S	Avg.	B	15.5	Avg.	B	15.5
5	N 30th St. & N McCarver St.	S	Avg.	C	26.9	Avg.	C	26.9
6	N 21st St. & N Pearl St.	S	Avg.	D	40.2	Avg.	D	40.2
7	N 26th St. & N Pearl St.	S	Avg.	C	28.4	Avg.	C	28.4
8	N 30th St. & N Pearl St.	S	Avg.	B	12.5	Avg.	B	12.5
9	N 46th St. & N Pearl St.	S	Avg.	A	7.5	Avg.	A	7.7
10	N 51st St. & N Pearl St.	S	Avg.	C	25.1	Avg.	C	24.7
11	N 17th St. & N Narrows Bridge Dr.	S	Avg.	C	21.4	Avg.	C	21.4
12	I-705 Off-Ramp & Stadium Way	S	Avg.	F	128.0	Avg.	F	128.0
13	Pearl St & N 54th St. & N Park St.	AWS	Avg.	A	9.0	Avg.	A	9.0
14	N 30th St. & N Orchard Street	AWS	Avg.	F	170.1	Avg.	F	170.1
15	N 6th Ave & N Peal St.	S	Avg.	D	44.0	Avg.	D	44.0
16	N 26th St. & N Narrows Drive	TWS	NB	B	11.4	NB	B	11.4
			SB	C	24.8	SB	C	24.8
17	N 37th St. & N Vassault St.	TWS	NB	B	13.5	NB	B	13.5
			SB	B	14.0	SB	B	14.0
18	N 37th St. & N Pearl St.	S	Avg.	B	13.1	Avg.	B	13.1
19	N 46th St. & N Vassault St.	TWS	EB	B	12.8	EB	B	12.8
			WB	B	14.8	WB	B	14.8
20	N 51st St. & N Vassault St.	AWS	Avg.	A	7.7	Avg.	A	7.7
21	N Pearl St & N Park Way	TWS	EB	B	11.7	EB	B	11.7
22	N 51st St. & N Bennett St.	TWS	SB	C	19.1	SB	C	18.7
23	N 49th St. & N Ruston Way	TWS	EB	C	21.0	EB	C	21.0
24	N 46th St. & N Baltimore St.	TWS	NB	D	25.6	NB	D	26.3
		TWS	SB	C	23.6	SB	C	24.4
25	N 46th St. & N Orchard St.	TWS	NB	C	18.8	NB	C	18.8
		TWS	SB	C	22.0	SB	C	22.0
26	N 46th St. & N Ferdinand St.	TWS	NB	D	25.1	NB	D	25.1
			SB	C	15.9	SB	C	15.9
27	N 40th St. & N Ruston Way	TWS	EB	B	14.0	EB	B	14.0
28	N Alder St. & N Ruston Way	TWS	EB	E	41.5	EB	E	41.5
29	N 49th St. & N Pearl St.	TWS	WB	C	22.2	WB	C	21.7
30	N 51st St. & N Winnifred St.	AWS	Avg.	C	18.7	Avg.	C	17.8
			WB	C	23.1	WB	C	21.8
31	N Ruston Way & N Baltimore St.	RAB	Avg.	B	18.5	Avg.	B	18.4
			NB	C	27.5	NB	C	27.0
			NBL	B	15.0	NBL	B	14.9
33	Site Access & N Ruston Way	RAB	SB	B	18.7	SB	B	18.7
			Avg.	D	39.7	Avg.	D	39.7
			EB	D	54.4	EB	D	54.4
34	N Baltimore St. & Commercial Access	TWS	EBT	A	9.5	EBT	A	9.5
35	East Access & N Ruston Way	TWS	SB	C	23.2	SB	C	23.2

Source: TSI

¹ Control: S= signalized, AWS= All-way stop control, TWS=Two-way stop control, RAB = Roundabout

² Approach – designates the direction of travel for the controlled approach and LOS. (i.e. NB = northbound, Avg. = average of all approaches).

³ Delay = average seconds of vehicle delay for all vehicles entering intersection or those entering on controlled approaches.

**Table 3.7-14
PM Peak Hour LOS – Proposed Action Summer Weekday Conditions**

Intersection		Control	Scenario 1 (10%)			Scenario 2 (20%)		
			Approach / Average	LOS	Delay (sec)	Approach / Average	LOS	Delay (sec)
9	N 46th St.& N Pearl St	S	Avg.	A	7.5	Avg.	A	7.6
10	N 51st St.& N Pearl St.	S	Avg.	E	57.0	Avg.	D	53.8
22	N 51st St.& N Bennett St.	TWS	SB	C	24.1	SB	C	23.2
23	N 49th St.& N Ruston Way	TWS	EB	E	39.1	EB	E	39.1
30	N 51 st St.& N Winnifred St.	AWS	Avg.	D	34.7	Avg.	C	31.2
			WB	E	48.4	WB	E	42.8
31	N Ruston Way & N Baltimore St.	RAB	Avg.	C	25.1	Avg.	C	24.9
			NB	C	25.4	NB	C	23.6
			NBL	B	14.2	NBL	B	14.1
33	Site Access & N Ruston Way	RAB	Avg.	C	26.3	Avg.	C	26.3
			EB	D	54.1	EB	D	54.1
			EBT	E	57.8	EBT	E	57.8
34	N Baltimore St. & Commercial Access	TWS	WB	A	9.5	WB	A	9.5
35	East Access & N Ruston Way	TWS	SB	D	25.1	SB	D	25.1

Source: TSI

¹ Control: S= signalized, AWS= All-way stop control, TWS=Two-way stop control, RAB = Roundabout

² Approach – designates the direction of travel for the controlled approach and LOS. (i.e. NB = northbound, Avg. = average of all approaches).

³ Delay = average seconds of vehicle delay for all vehicles entering intersection or those entering on controlled approaches.

As previously discussed, the extension of Baltimore to Ruston Way provides an alternative to N 51st Street when traveling between Ruston Way and N Pearl St. A closer examination of intersections affected by this new connection is warranted. Table 3.7-14A summarizes the LOS and vehicle queues for each lane of intersections along this travel route. Scenario 1 assumes that 10% of the existing traffic volumes making a southbound right turn or westbound left turn at N Pearl St/ N 51st St would shift their travel route to utilize the new Baltimore connection. Scenario 2 assumes a more aggressive shift of 20% of the traffic volumes making that turning movement. Under both scenarios the critical westbound left turn and through movement at N Pearl St/ N 51st St would operate at LOS-D with a maximum queue of 12 to 13 vehicles. The LOS for lanes and turning movements at the remaining intersections would operate at LOS-C or better with the exception of the northbound approach at the intersection of N 46th St/ N Baltimore St, which would operate at LOS-D. It should be noted that the current methodology for analyzing queues at all-way stop controlled intersections and roundabouts does not calculate vehicle queues. If a larger percentage of the existing traffic altered their route to use Baltimore and avoid N 51st St, delays would be reduced at intersections along N 51st St and slightly increased at intersections along N Baltimore St.

**Table 3.7-14A
Proposed Action - PM Peak Hour LOS & Queues for
Intersections Affected by Baltimore Connection**

Intersection	Dir.	Existing 2006			Scenario 1 (2014)			Scenario 2 (2014)		
		LOS	Delay	Max Vehicle Queue	LOS	Delay	Max Vehicle Queue	LOS	Delay	Max Vehicle Queue
46th/ Pearl	EBL	A	7	1	A	7	0	A	7	0
	EBTR	A	7	2	A	7	1	A	7	1
	WBL	A	7	3	A	9	3	A	9	3
	WBTR	A	7	2	A	7	1	A	7	1
	NBL	A	6	0	A	7	1	A	7	1
	NBTR	A	7	1	A	8	3	A	8	3
	SBL	A	6	0	A	7	1	A	7	1
	SBTR	A	6	0	A	7	3	A	8	3
	AVG	A	7		A	8		A	8	
46th/ Baltimore	EBT	A	1	0	A	4	0	A	4	0
	WBT	A	0	0	A	0	0	A	0	0
	NBT	B	15	0	D	26	1	D	26	1
	WBT	B	14	0	C	24	3	C	24	3
		AVG	A	2		B	7		B	7
51st/ Pearl	EBT	C	33	2	B	19	2	B	19	2
	WBLT	D	40	6	D	41	13	D	41	12
	WBR	C	31	1	B	18	2	B	18	2
	NBL	B	14	2	B	17	2	B	17	2
	NBTR	B	15	3	C	24	10	C	23	10
	SBL	A	4	2	C	20	2	B	19	2
	SBTR	A	4	3	B	13	4	B	13	4
		AVG	B	18		C	25		C	25
51st/ Winnifred	EBT	A	8	N/A	B	14	N/A	B	13	N/A
	WBT	A	9	N/A	C	23	N/A	C	22	N/A
	NBT	A	8	N/A	A	10	N/A	A	10	N/A
	SBT	A	8	N/A	A	10	N/A	A	10	N/A
		AVG	A	9	N/A	C	19	N/A	C	18
51st/ Bennett	EBT	A	0	0	A	0	0	A	0	0
	WBT	A	0	0	A	0	0	A	0	0
	SBLR	B	11	0	C	19	0	C	19	0
		AVG	A	0	0	A	0	0	A	0
Ruston/ Baltimore	All	N/A	N/A	B	19		B	19		

Arterial Level of Service

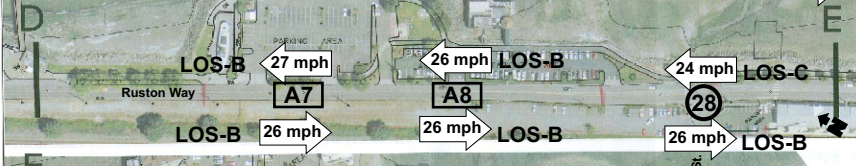
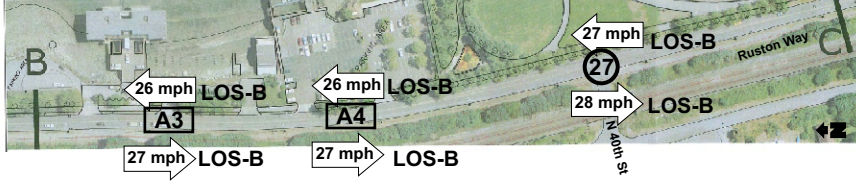
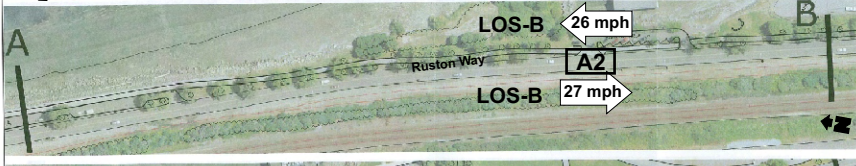
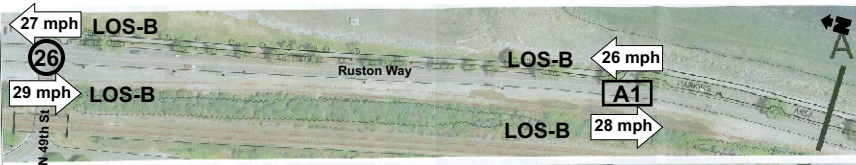
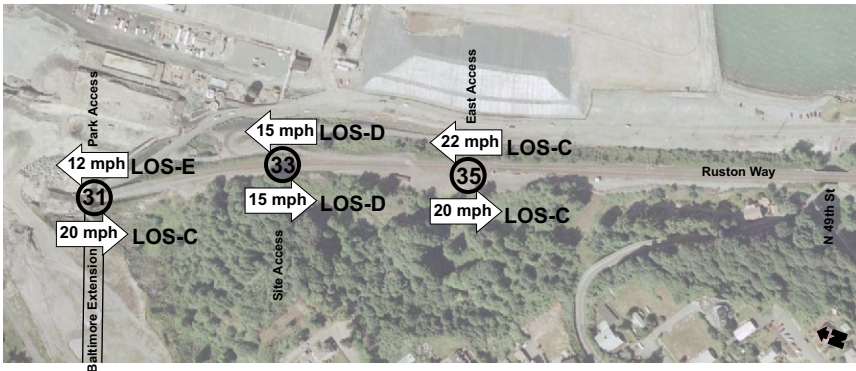
Arterial levels of service for the segments of Ruston Way between N. Baltimore Street and N. McCarver Street were also analyzed for future conditions using the methodology described in the Affected Environment section of this section of the DEIS.

The arterial level of service under future with project conditions along Ruston Way remains at LOS-B (25 mph) in the southbound direction but drops from LOS-B to LOS-C (24 mph) in the northbound direction due to the increase in traffic generated by the project and increases in

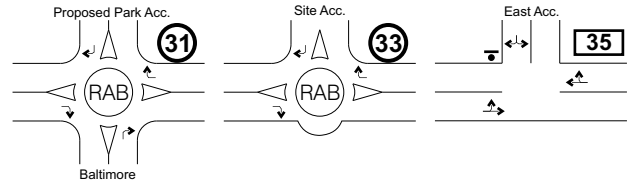
background traffic volumes. Figure 3.7-10 illustrates the LOS and travel speed for each segment of the corridor. The segment with the lowest travel speed includes the intersection of N McCarver Street. Under summer weekday conditions when traffic volumes are greater, the level of service remains the same but the travel speeds drop to 22 mph in the northbound direction but remain at 25 mph in the southbound direction. Figure 3.7-11 depicts the arterial level of service and travel speed for each segment of Ruston Way for summer conditions.

Transit Service

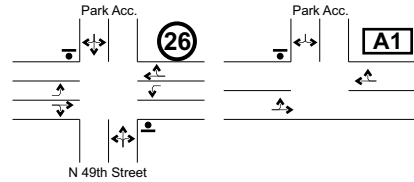
Pierce Transit does not currently have plans to provide transit service along Ruston Way. However, the project will increase the population density in the area and Pierce Transit will evaluate transit service needs once the timing of occupancy and density is known. Point Ruston will provide space for transit stops within the site and support additional stops along Ruston Way if recommended by Pierce Transit.



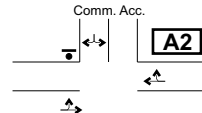
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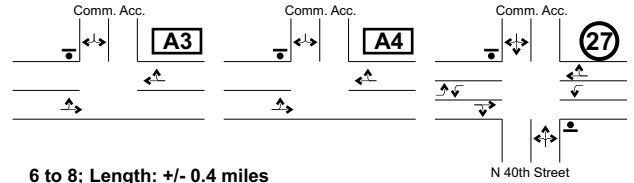
A3 to 2; Length: +/- 0.4 miles



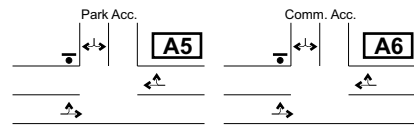
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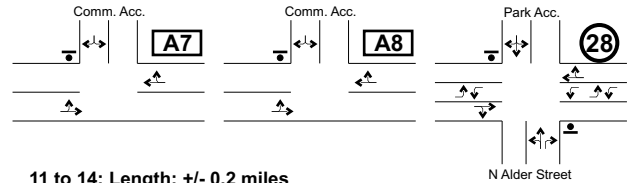
3 to 6; Length: +/- 0.2 miles



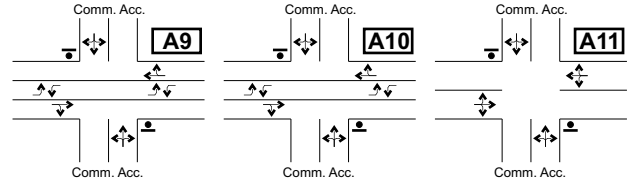
6 to 8; Length: +/- 0.4 miles



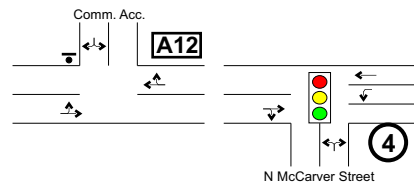
8 to 11; Length: +/- 0.2 miles



11 to 14; Length: +/- 0.2 miles



14 to 16; Length: +/- 0.4 miles

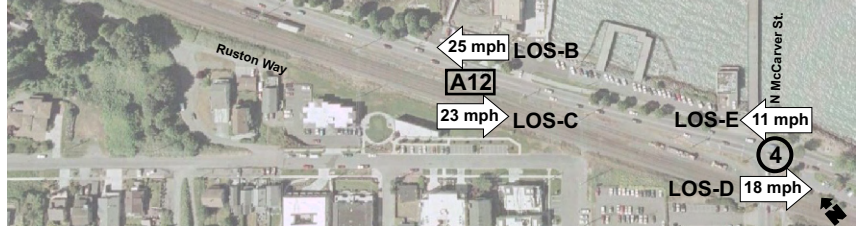
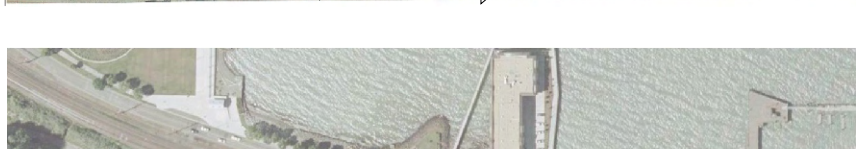
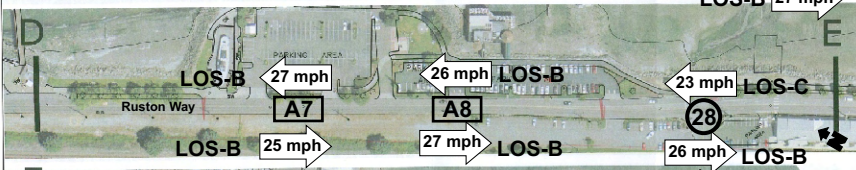
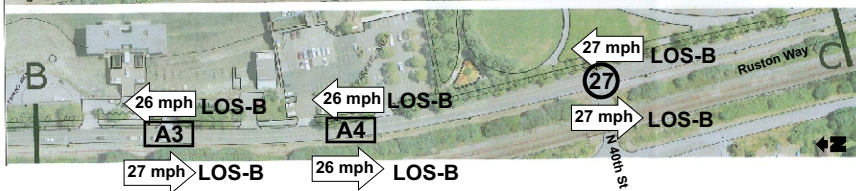
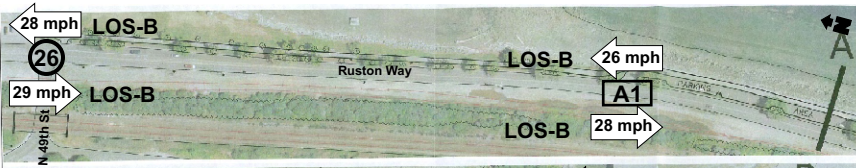
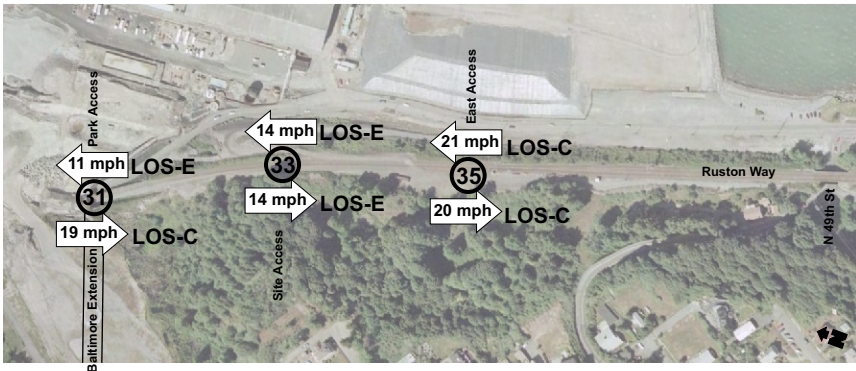


Overall NB/WB: 24 mph (LOS-C)
Overall SB/EB: 25 mph (LOS-B)
 +/- 2 mile corridor

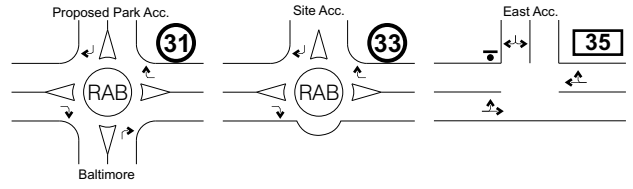
Source: TSI

FIGURE 3.7-10:
 AVERAGE WEEKDAY PM PEAK HOUR
 ARTERIAL LOS - PROPOSED ACTION (2014)

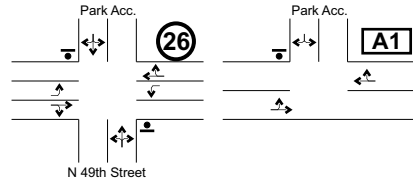
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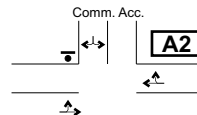
P to A3; Length: +/- 0.2 miles



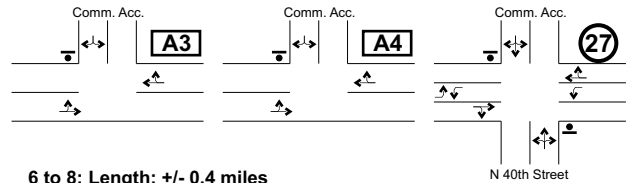
A3 to 2; Length: +/- 0.4 miles



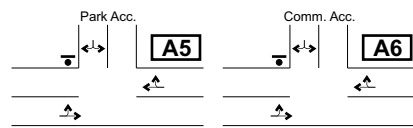
2 to 3; Length: +/- 0.1 miles



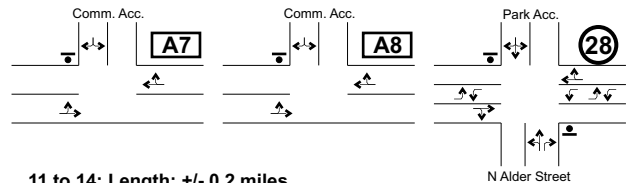
3 to 6; Length: +/- 0.2 miles



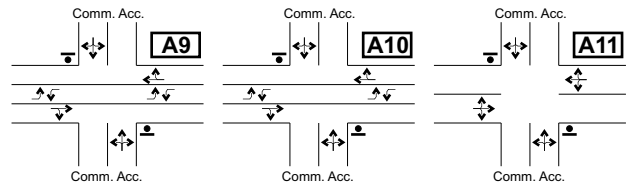
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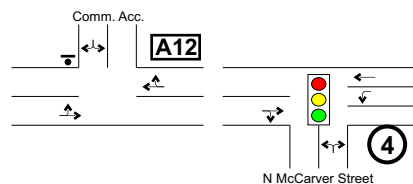
8 to 11; Length: +/- 0.2 miles



11 to 14; Length: +/- 0.2 miles



14 to 16; Length: +/- 0.4 miles



Overall NB/WB: 22 mph (LOS-C)
Overall SB/EB: 25 mph (LOS-B)
 +/- 2 mile corridor

Source: TSI

FIGURE 3.7-11:
 SUMMER WEEKDAY PM PEAK HOUR
 ARTERIAL LOS - PROPOSED ACTION (2014)

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Bicycle Facilities

As discussed under the Affected Environment section, a shared bicycle pedestrian path terminates at the south end of the project site. *Point Ruston* proposes to extend this route along the waterfront promenade on the project site and provide a connection to the proposed Peninsula Park. In addition, *Point Ruston* will provide bicycle lanes on both sides of the reconstructed segment of Ruston Way to provide a link between the existing path and N. Baltimore Street. At the intersection of Ruston Way & N. Baltimore Street, bicyclists will be able to turn into the Peninsula Park access or turn south onto the planned bicycle lanes on the planned reconnection of N. Baltimore Street as identified in the conditions for the Stack Hill development.

Short-Term Impacts

Short term impacts of the *Proposed Action* include temporary increases in the volume of heavy truck traffic associated with the delivery of materials to the site. Due to the site remediation requirements, no material will be removed from the site and there is approximately 100,000 cubic yards of clean fill material stockpiled on the site that will be used as part of the final site remediation. The import of additional materials is anticipated to be minimal and limited to soil amendments and construction materials.

There will be periodic disruptions to existing traffic on Ruston Way as the new roadway is constructed and the existing tunnel decommissioned. Temporary access connecting to Ruston Way may be required to provide access to portions of the site for workers and materials during construction phases.

3.7.3 Impacts of the Alternatives

If the proposed *Point Ruston* development does not occur, the alternative is to develop an office park as described in the *1997 Smelter Site FEIS*. The Town of Ruston approved Alternative 3 of the FEIS, a 990,000 square foot office park. For the purposes of analyzing the impacts of this *No Action* alternative, it is assumed that Ruston Way would be reconstructed as described under the *Proposed Action*, Baltimore Street would be reconnected to Ruston Way, and Peninsula Park would be developed.

Trip Generation

The number of PM peak hour trips generated by the office park is based on statistics compiled into *ITE Trip Generation, 7th Edition*. Based on the current trip generation rate for an office park (LUC 750), the *No Action* alternative would generate 1,304 PM peak hour trips (183 inbound, 1,121 outbound). In the *1997 Smelter Site FEIS*, the same office park was forecasted to generate 1,500 PM peak hour trips. The most current statistics show that office park land uses generate somewhat fewer trips per unit of floor area than in 1997. The number of PM peak hour trips generated by this alternative is slightly less than the 1,376 PM peak hour trips generated under the *Proposed Action*. However, the distribution of trips for the *No Action* alternative is largely outbound while the inbound/outbound distribution of trips under the *Proposed Action* is more balanced.

It is assumed that the proposed 14 acre park site adjacent to the yacht basin would be developed and an access to Ruston Way provided at the north end of the project site. ITE trip generation rates, when applied to a 14 acre park, result in less than one PM peak hour trip.

Research into park trip generation rates revealed a more reasonable rate used by the City of San Diego. This rate of four PM peak hour trips per acre resulted in 56 trips (22 inbound, 34 outbound) generated by the proposed park. The trips generated by the Stack Hill residential development are also incorporated into the analysis of the *No Action* alternative.

Trip Distribution and Assignment

As with the *Proposed Action*, the distribution of trips generated by the *No Action* alternative is based on the comparative relationship of existing traffic volumes on Pearl Street and Ruston Way as well as the proportion of trips that are identified as regional or local trips. It is assumed that 90% of the outbound trips are regional and 10% local. The inbound trips are assumed to be 50% local and 50% regional. Figure 3.7-12 illustrates the distribution and assignment of PM peak hour trips. As with the *Proposed Action*, future traffic conditions are analyzed for average and summer weekday conditions for Scenario 1 and Scenario 2. As described earlier, the Scenarios reflect a conservative 10% and moderate 20% redistribution of existing traffic volumes to make use of the Baltimore connection.

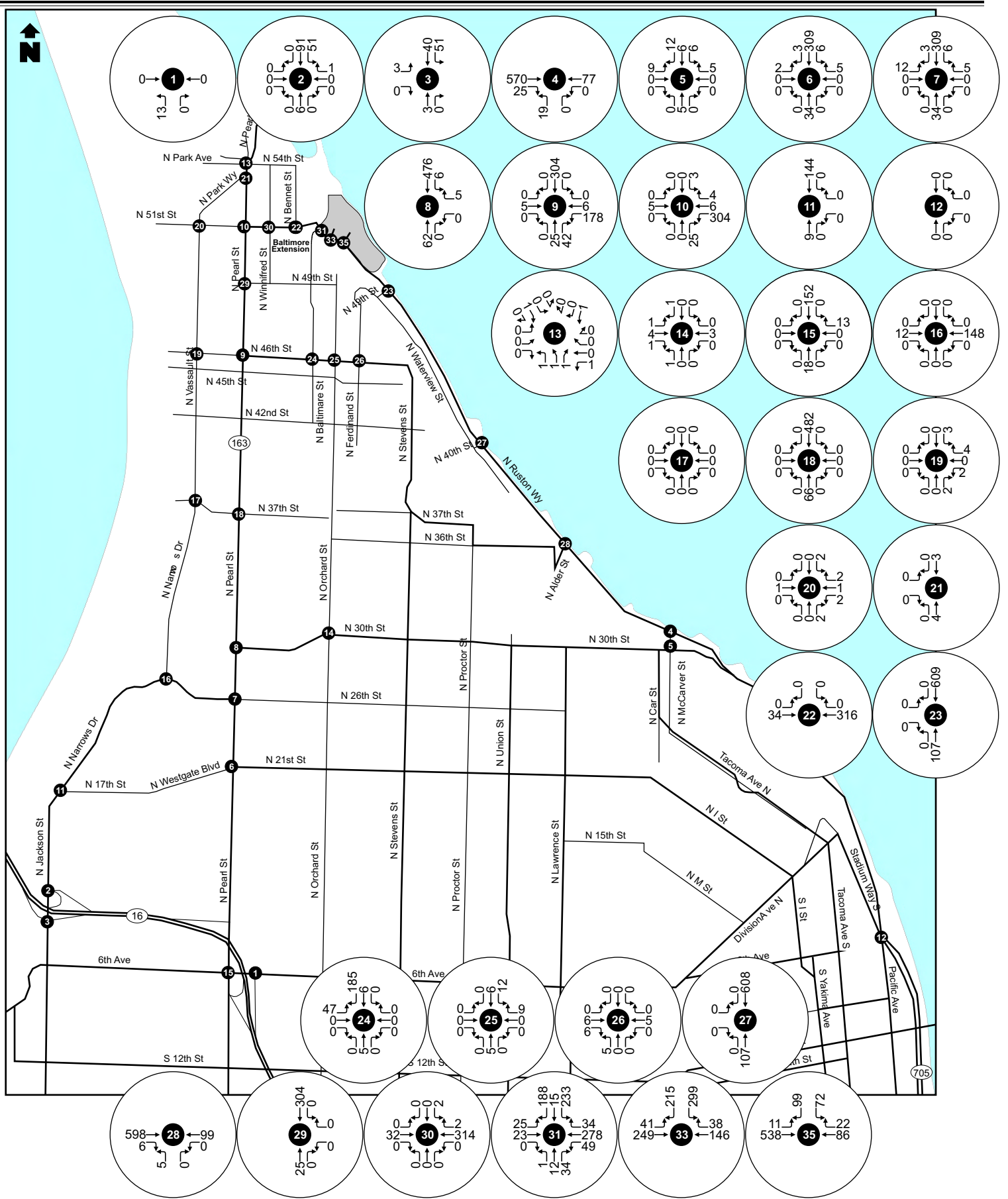
The following figures illustrate the traffic volumes resulting from the average and summer conditions and the redistribution scenarios:

Fig 3.7-13: Average Weekday PM Peak Hour Traffic Volumes – No Action (2014) – (Scenario 1)

Fig 3.7-14: Average Weekday PM Peak Hour Traffic Volumes – No Action (2014) – (Scenario 2)

Fig 3.7-15: Summer Weekday PM Peak Hour Traffic Volumes – No Action (2014) – (Scenario 1)

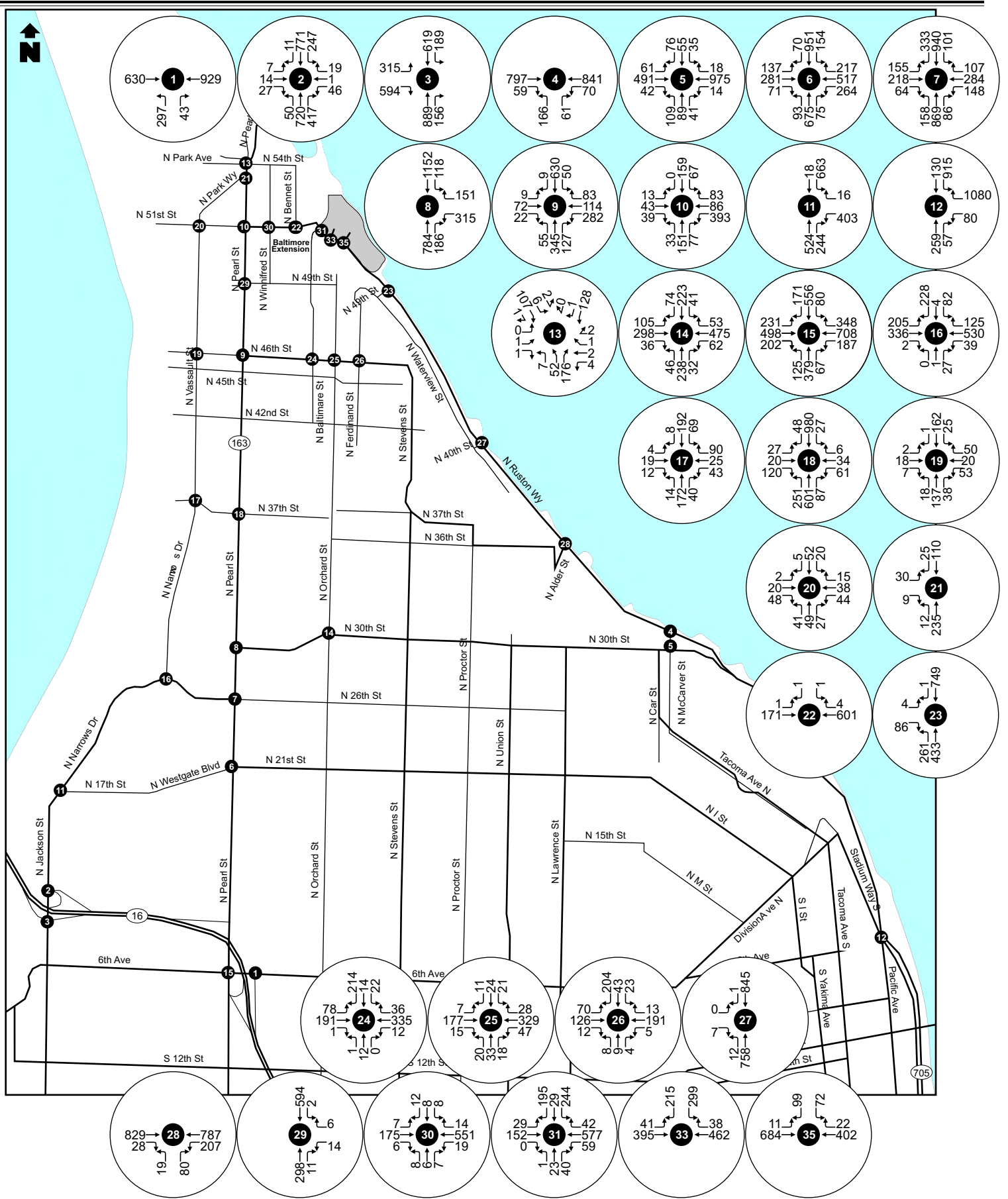
Fig 3.7-16: Summer Weekday PM Peak Hour Traffic Volumes – No Action (2014) – (Scenario 2)



Source: TSI

FIGURE 3.7-12:
AVERAGE WEEKDAY PM PEAK HOUR DISTRIBUTION AND ASSIGNMENT
NO ACTION (2014)

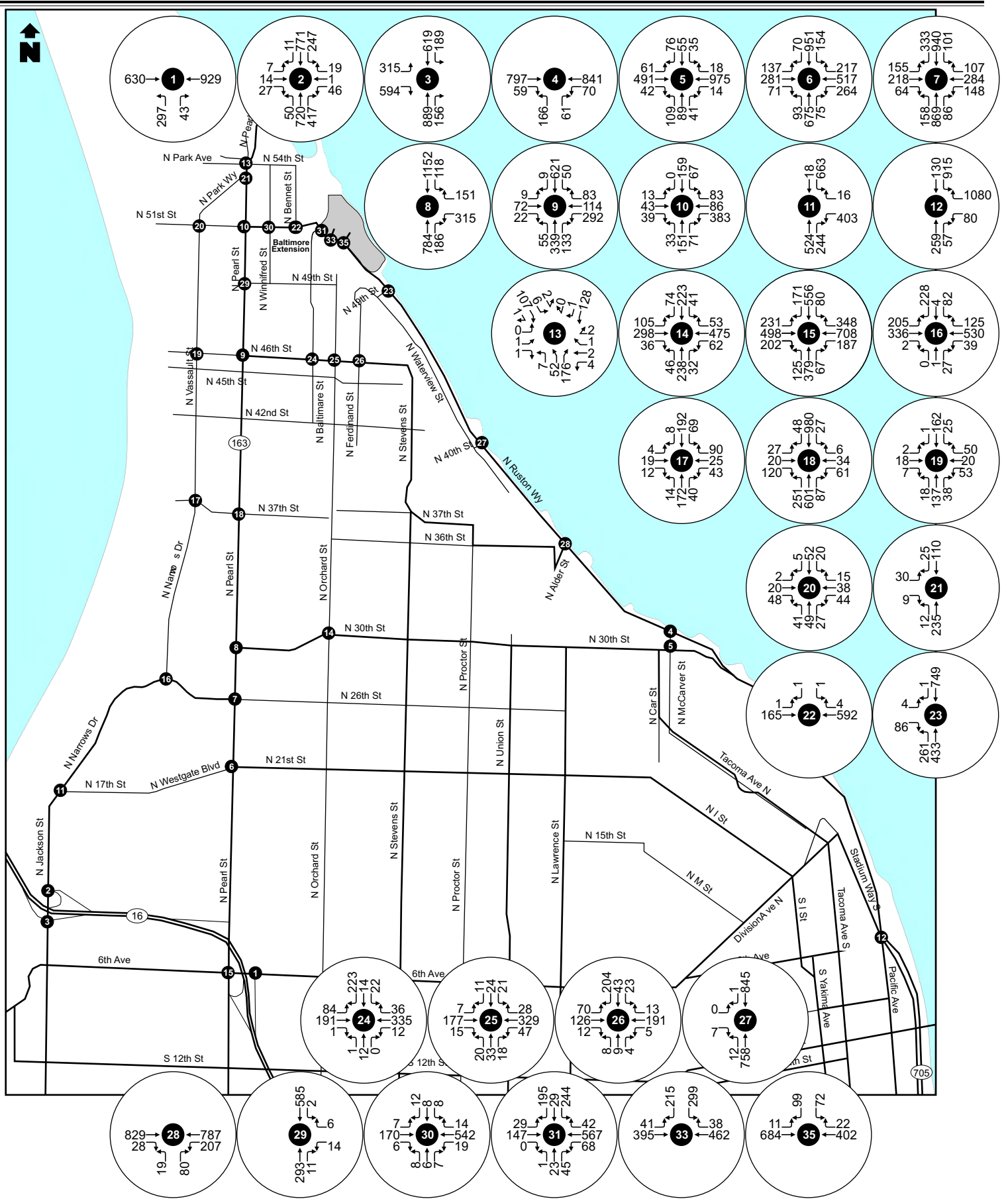
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Source: TSI

FIGURE 3.7-13:
 AVERAGE WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES
 NO ACTION (2014) -(SCENARIO 1)

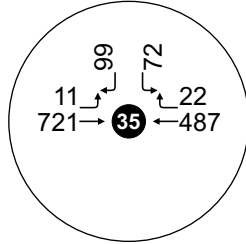
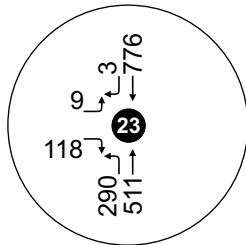
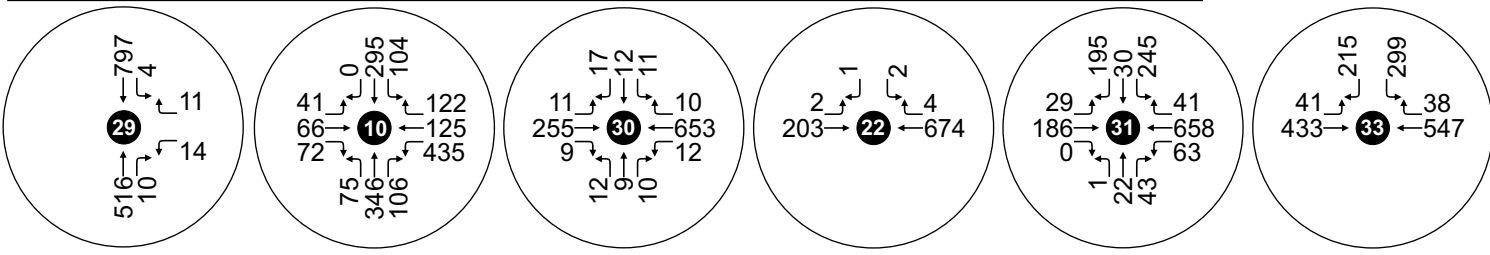
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Source: TSI

FIGURE 3.7-14:
 AVERAGE WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES
 NO ACTION (2014) -(SCENARIO 2)

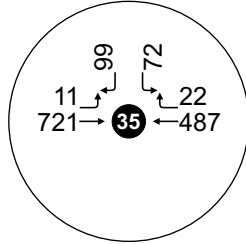
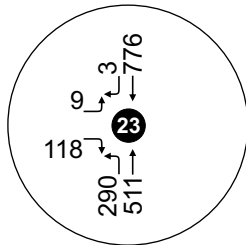
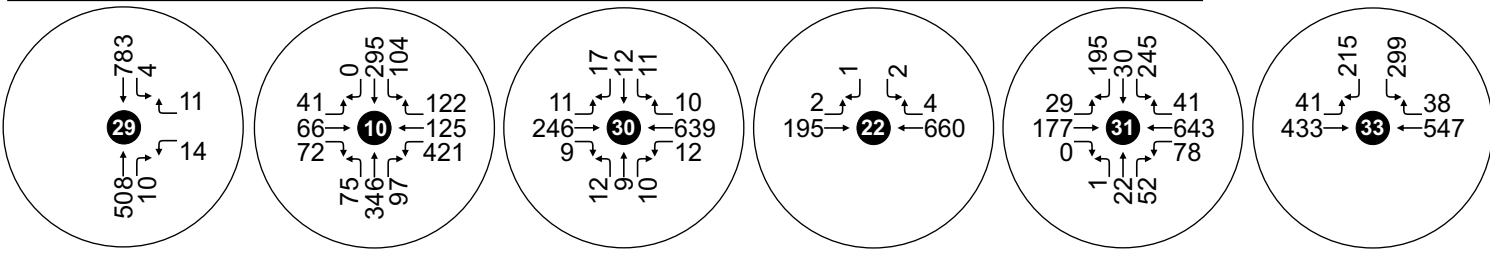
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Source: TSI

FIGURE 3.7-15:
SUMMER WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES
NO ACTION (2014) - (SCENARIO 1)

Point Ruston
Supplemental Draft EIS



Source: TSI

FIGURE 3.7-16:
SUMMER WEEKDAY PM PEAK HOUR TRAFFIC VOLUMES
NO ACTION (2014) - (SCENARIO 2)

Point Ruston
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Intersection Level of Service

A level of service analysis was performed to establish future 2014 conditions with the No Action alternative complete and fully occupied for average weekday and summer weekday conditions. The summer weekday analysis is limited to intersections within the Town of Ruston and near the project site. In addition, the distribution patterns resulting from Scenarios 1 and 2 only affect the intersections within the Town of Ruston and those near the project site. The results of the analysis of average weekday conditions for Scenario 1 and 2 are summarized in **Table 3.7-15**. Results from the summer weekday condition scenarios are summarized in **Table 3.7-16**.

In 2014, with the office park complete and fully occupied all signalized intersections would operate at LOS-D or better with one exception.

- The intersection at the I-705 off-ramp/ Stadium Way operates at LOS-F due to the forecasted increase in background traffic volumes. There are no project generated trips assigned to this intersection.
- The intersection of Ruston Way & McCarver Street is forecasted to operate at LOS-B. However, the westbound left turn movement drops to LOS-E.

The controlled approaches to all two-way stop controlled intersections continue to operate at LOS-D or better during PM peak hour conditions with one exception.

- At the intersection of N Alder Street & N Ruston Way, the level of service on the controlled eastbound approach drops from LOS-B to LOS-E with an increase in delay of approximately 30 seconds. The project adds approximately 664 trips to this intersection with most of those trips traveling on Ruston Way. This increase in through traffic volumes results in fewer and shorter gaps in the through traffic flow and reduces the opportunities for vehicles on N. Alder Street to turn onto Ruston Way.
- Under summer conditions the controlled eastbound approach to the intersection of N. 49th Street and Ruston Way drops to LOS-E for the same reasons as described for the intersection at Adler. This poor level of service affects 86 vehicles making a right turn and 4 vehicles making a left turn onto Ruston Way.
- Reestablishing the Baltimore connection will increase the number of vehicle trips at the south leg of the intersection of N. 46th Street & N. Baltimore Street from 50 to 414 during the PM peak hour. The controlled southbound approach to the intersection would drop from LOS-B under existing conditions to LOS-D under future conditions with the project complete and occupied. Segments of Baltimore between Ruston Way and N. 46th Street are deficient and would deteriorate at an increased rate with the additional traffic volumes.

All of the all-way stop controlled intersections operate at LOS-A with two exceptions:

- The intersection of N. 30th Street & N. Orchard Street continues to operate at LOS-F. Average vehicle delay is forecasted to increase an additional 90 seconds due to project generated traffic and forecasted increases in existing traffic volumes. The project would add 11 new trips to this intersection. As stated in the existing conditions section, the channelization of this intersection provides for a single lane for all turning movements on each approach with a curb lane for parking. Close to the intersection, the curb lane functions as a short right turn lane. When the intersection is analyzed with right turn lanes on all approaches, the level of service remains at LOS-F under future with project

conditions but the average vehicle delay drops from 161 seconds to 87 seconds. The primary reason for the poor level of service during the PM peak hour is the high volume of through traffic on all approaches to the intersection.

- The intersection of N. 51st Street & N. Winnifred Street drops from an intersection average of LOS-A to LOS-C under average peak hour conditions. The westbound approach to the intersection also drops from LOS-A to LOS-C. The average vehicle delay is slightly less under Scenario 2 but the LOS remains at LOS-C. The project adds 350 PM peak hour trips to this intersection. The majority of these trips are through movements on the eastbound and westbound approaches to the intersection. Under summer weekday peak hour conditions, the intersection is forecasted to operate at LOS-E under both Scenarios 1 and LOS 2. The westbound approach to the intersection would operate at LOS-F under both scenarios due to the increase in traffic volumes. The average vehicle delay is reduced under Scenario 2 but the LOS does not change.

The intersection does not currently meet the warrant requirements for an all-way stop or signalization due to the relatively low volumes on Winnifred Street. From a technical perspective, it would be appropriate to remove the stop signs on N. 51st Street to reduce delays on N. 51st Street. This would increase delays for the small number of vehicles entering N. 51st Street from N. Winnifred Street.

While this modification would improve level of service, it would also remove the calming effect of the stop signs on N. 51st Street, which keeps vehicle speeds low between Winnifred and Pearl and increase the potential for vehicular/pedestrian conflicts. For these reasons, it is recommended that the all-way stop remain in its current configuration.

**Table 3.7-15
PM Peak Hour LOS – No Action Average Weekday Conditions**

Intersection	Control ¹	Scenario 1 (10%)			Scenario 2 (20%)			
		Approach / Average ²	LOS	Delay (sec) ³	Approach / Average ²	LOS	Delay (sec) ³	
1	6th Ave. & SR-16 WB Off-Ramp	S	Avg.	A	9.5	Avg.	A	9.5
2	N Jackson Ave. & SR-16 WB Ramp	S	Avg.	C	21.6	Avg.	C	21.6
3	N Jackson Ave. & SR-16 EB Ramp	S	Avg.	D	38.5	Avg.	D	38.5
4	N Ruston Way & N McCarver St.	S	Avg.	B	10.5	Avg.	B	10.5
5	N 30th St. & N McCarver St.	S	Avg.	B	19.3	Avg.	B	19.3
6	N 21st St. & N Pearl St.	S	Avg.	D	41.6	Avg.	D	41.6
7	N 26th St. & N Pearl St.	S	Avg.	C	26.7	Avg.	C	26.7
8	N 30th St. & N Pearl St.	S	Avg.	B	12.1	Avg.	B	12.1
9	N 46th St. & N Pearl St.	S	Avg.	B	10.4	Avg.	B	10.9
10	N 51st St. & N Pearl St.	S	Avg.	C	23.7	Avg.	C	23.4
11	N 17th St. & N Narrows Bridge Dr.	S	Avg.	C	21.4	Avg.	C	21.4
12	I-705 Off-Ramp & Stadium Way	S	Avg.	F	128.0	Avg.	F	128.0
13	Pearl St & N 54th St. & N Park St.	AWS	Avg.	A	8.9	Avg.	A	8.9
14	N 30th St. & N Orchard Street	AWS	Avg.	F	161.3	Avg.	F	161.3
15	N 6th Ave & N Peal St.	S	Avg.	D	43.9	Avg.	D	43.9
16	N 26th St. & N Narrows Drive	TWS	NB	B	11.3	NB	B	11.3
			SB	D	27.4	SB	D	27.4
17	N 37th St. & N Vassault St.	TWS	NB	B	13.5	NB	B	13.5
			SB	B	14.0	SB	B	14.0
18	N 37th St. & N Pearl St.	S	Avg.	B	14.4	Avg.	B	14.4
19	N 46th St. & N Vassault St.	TWS	EB	B	12.5	EB	B	12.5
			WB	B	14.1	WB	B	14.1
20	N 51st St. & N Vassault St.	AWS	Avg.	A	7.8	Avg.	A	7.8
21	N Pearl St & N Park Way	TWS	EB	B	11.6	EB	B	11.6
22	N 51st St. & N Bennett St.	TWS	SB	C	17.1	SB	C	16.8
23	N 49th St. & N Ruston Way	TWS	EB	C	22.6	EB	C	22.6
24	N 46th St. & N Baltimore St.	TWS	NB	D	22.7	NB	C	23.5
		TWS	SB	D	24.7	SB	D	26.1
25	N 46th St. & N Orchard St.	TWS	NB	C	17.0	NB	C	17.0
		TWS	SB	C	17.7	SB	C	17.7
26	N 46th St. & N Ferdinand St.	TWS	NB	C	17.5	NB	C	17.5
			SB	C	15.2	SB	C	15.2
27	N 40th St. & N Ruston Way	TWS	EB	C	19.9	EB	C	19.9
28	N Alder St. & N Ruston Way	TWS	EB	E	35.6	EB	E	35.6
29	N 49th St. & N Pearl St.	TWS	WB	C	20.5	WB	C	20.0
30	N 51st St. & N Winnifred St.	AWS	Avg.	C	21.1	Avg.	C	20.0
			WB	D	25.9	WB	C	24.3
31	N Ruston Way & N Baltimore St.	RAB	Avg.	B	17.5	Avg.	B	17.4
			NB	C	20.5	NB	B	19.6
			NBL	B	13.7	NBL	B	13.7
33	Site Access & N Ruston Way	RAB	SB	C	24.3	SB	C	24.3
			Avg.	D	53.1	Avg.	D	53.1
			EB	E	57.2	EB	E	57.2
35	East Access & N Ruston Way	TWS	SB	C	21.4	SB	C	21.4

Source: TSI

¹ Control: S= signalized, AWS= All-way stop control, TWS=Two-way stop control, RAB = Roundabout

² Approach – designates the direction of travel for the controlled approach and LOS. (i.e. NB = northbound, Avg. = average of all approaches).

³ Delay = average seconds of vehicle delay for all vehicles entering intersection or those entering on controlled approaches.

**Table 3.7-16
PM Peak Hour LOS – No Action Summer Weekday Conditions**

Intersection		Control	Scenario 1 (10%)			Scenario 2 (20%)		
			Approach / Average	LOS	Delay (sec)	Approach / Average	LOS	Delay (sec)
9	N 46th St. & N Pearl St	S	Avg.	B	10.9	Avg.	B	11.8
10	N 51st St. & N Pearl St.	S	Avg.	D	52.6	Avg.	D	48.9
22	N 51st St. & N Bennett St.	TWS	SB	C	21.3	SB	C	20.6
23	N 49th St. & N Ruston Way	TWS	EB	E	44.7	EB	E	44.7
24	N 46 th St. & N Baltimore St.	TWS	NB	C	22.7	NB	C	24.0
			SB	D	26.3	SB	D	28.8
30	N 51 st St. & N Winnifred St.	AWS	Avg.	E	47.6	Avg.	E	42.6
			WB	F	66.1	WB	F	58.6
31	N Ruston Way & N Baltimore St.	RAB	Avg.	B	19.6	Avg.	B	19.5
			NB	C	27.5	NB	C	26.7
			NBL	B	15.2	NBL	B	15.1
33	Site Access & N Ruston Way	RAB	Avg.	B	19.5	Avg.	B	19.5
			EB	D	41.0	EB	D	41.0
			EBT	D	54.4	EBT	D	54.4
34	N Baltimore St. & Commercial Access	TWS	WB	A	9.5	WB	A	9.5
35	East Access & N Ruston Way	TWS	SB	D	38.7	SB	D	28.7

Source: TSI

¹ Control: S= signalized, AWS= All-way stop control, TWS=Two-way stop control, RAB = Roundabout

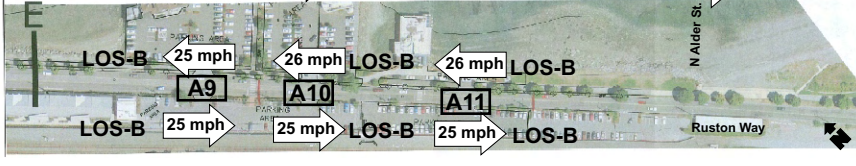
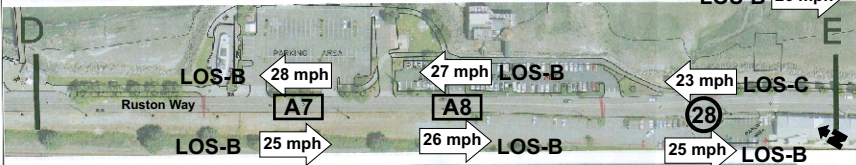
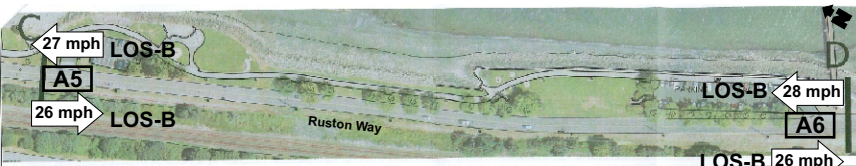
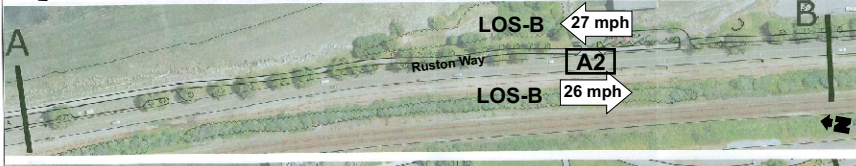
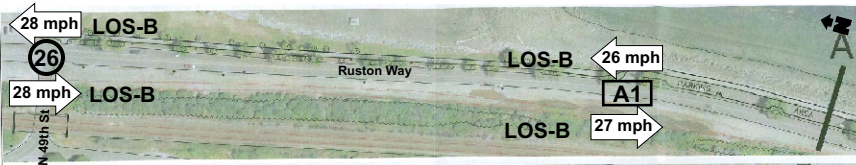
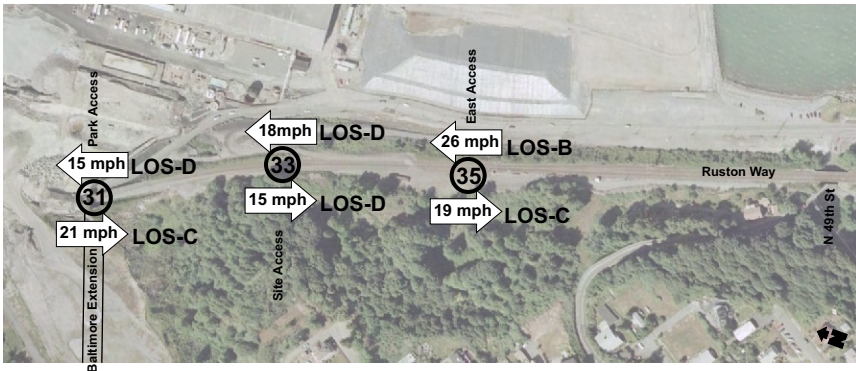
² Approach – designates the direction of travel for the controlled approach and LOS. (i.e. NB = northbound, Avg. = average of all approaches).

³ Delay = average seconds of vehicle delay for all vehicles entering intersection or those entering on controlled approaches.

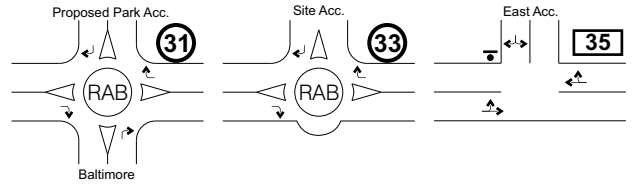
Arterial Level of Service

Arterial levels of service for the segments of Ruston Way between N. Baltimore Street and N. McCarver Street were also analyzed for the *No Action* condition using the methodology described in the *Affected Environment* part of this section of the DEIS.

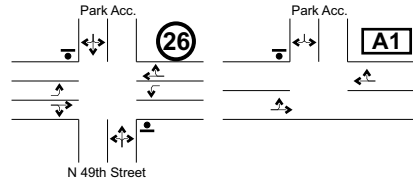
The arterial level of service along Ruston Way under the *No Action* alternative remains at LOS-B (25 mph) in both directions. Figure 3.7-17 illustrates the LOS and travel speed for each segment of the corridor for average PM peak hour conditions. The segment with the lowest travel speed includes the intersection of N McCarver Street. Under summer weekday conditions when traffic volumes are greater, the level of service remains at LOS-B (25 mph) in the southbound direction but drops to LOS-C (22 mph) in the northbound direction. Figure 3.7-18 depicts the arterial level of service and travel speed for each segment of Ruston Way for summer PM peak hour conditions.



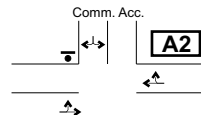
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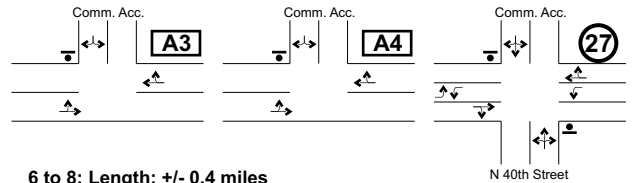
A3 to 2; Length: +/- 0.4 miles



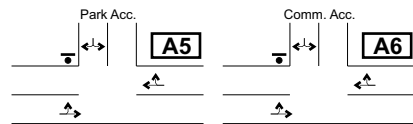
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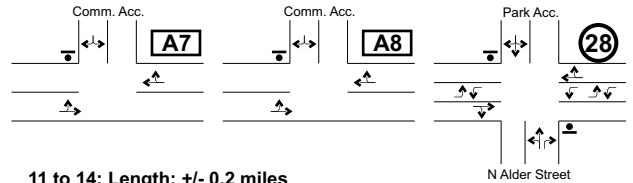
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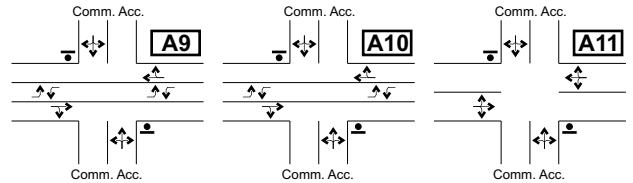
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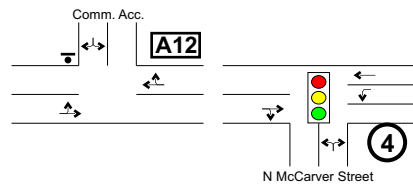
8 to 11; Length: +/- 0.2 miles



11 to 14; Length: +/- 0.2 miles



14 to 16; Length: +/- 0.4 miles

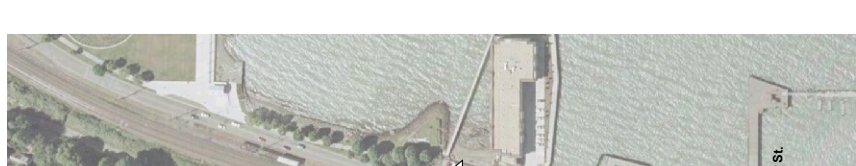
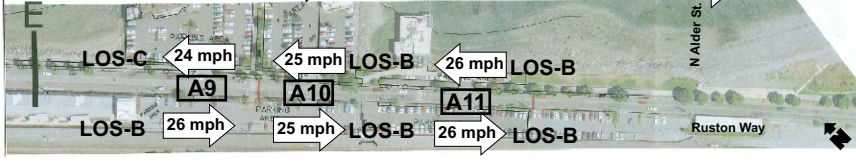
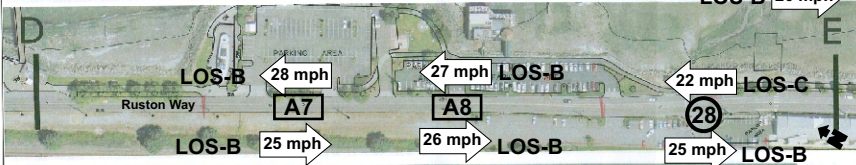
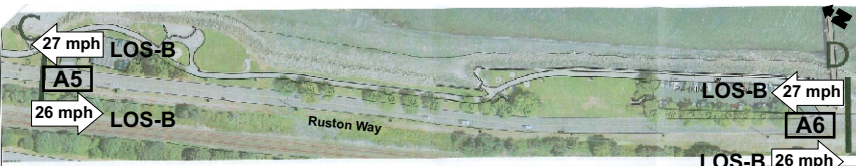
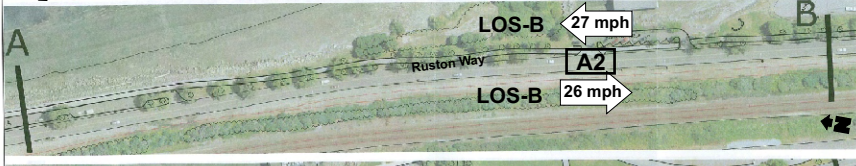
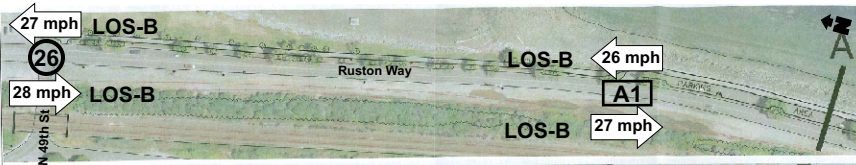
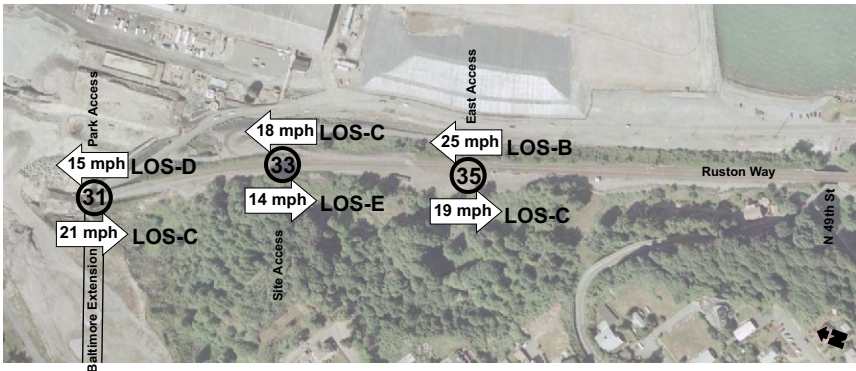


Overall NB/WB: 25 mph (LOS-B)
Overall SB/EB: 25 mph (LOS-B)
 +/- 2 mile corridor

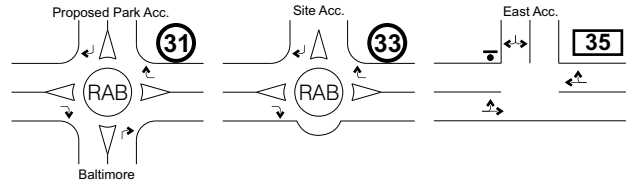
Source: TSI

FIGURE 3.7-17:
 AVERAGE WEEKDAY PM PEAK HOUR
 ARTERIAL LOS NO ACTION (2014)

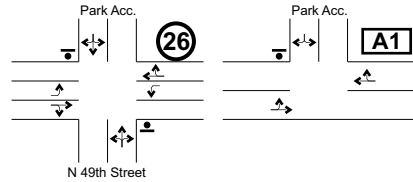
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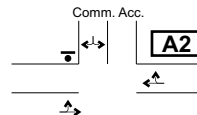
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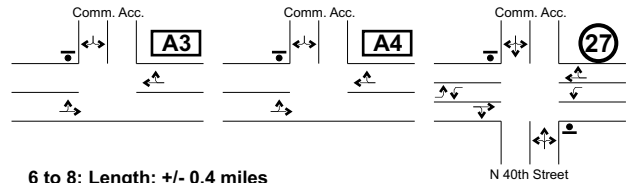
A3 to 2; Length: +/- 0.4 miles



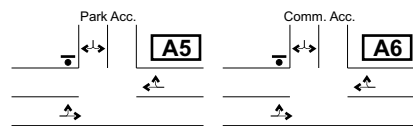
2 to 3; Length: +/- 0.1 miles



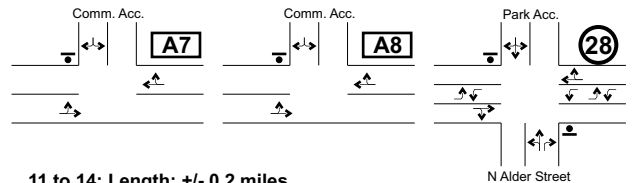
3 to 6; Length: +/- 0.2 miles



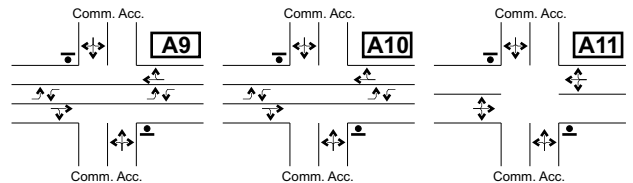
6 to 8; Length: +/- 0.4 miles



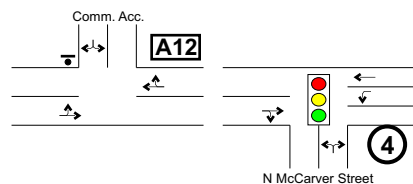
8 to 11; Length: +/- 0.2 miles



11 to 14; Length: +/- 0.2 miles



14 to 16; Length: +/- 0.4 miles



Overall NB/WB: 25 mph (LOS-B)
Overall SB/EB: 25 mph (LOS-B)
 +/- 2 mile corridor

Source: TSI

FIGURE 3.7-18:
 SUMMER WEEKDAY PM PEAK HOUR
 ARTERIAL LOS NO ACTION (2014)

3.7.4 Mitigation Measures

Concurrency

Mitigation measures encompass two areas: concurrency and SEPA mitigation. The City of Tacoma Comprehensive Plan identifies a level of service threshold of LOS-E for arterial corridors identified in Figure 4 of the *Comprehensive Plan* and LOS-D for other arterial corridors. The City of Tacoma LOS-E threshold applies to the Pearl Street arterial corridor while the LOS-D threshold applies to the Ruston Way corridor. The Town of Ruston has adopted an intersection level of service standard of LOS-D for the PM peak hour.

The City of Tacoma arterial level of service standard is met for both the *Proposed Action* and the *No Action* alternative. The Town of Ruston intersection level of service standard is met for the *Proposed Action* while level of service at the intersection of N 51st Street and N. Winnifred Street does not meet the standard under summer peak hour conditions for the *No Action* alternative.

SEPA Mitigation

SEPA mitigation is intended to mitigate impacts that are a direct result of the projects construction and occupancy. The following improvements are recommended to mitigate project impacts.

Proposed Action Mitigation Recommendations

Ruston Way

1. Reconstruct Ruston Way to a two lane cross section with curb and gutter on both sides of the street and planting strip and sidewalk on the project side of the street. Provide a center turn lane at stop controlled access along the frontage.
2. Provide bicycle lanes on both sides of the street between the north terminus of the Ruston bicycle/pedestrian trail and the proposed intersection at Baltimore/ Ruston Way. Provide a marked pedestrian crossing on Ruston Way to provide a link between the southbound bicycle lane and the Ruston bicycle/pedestrian trail.
3. Decommission the existing tunnel on Ruston Way.
4. Provide a roundabout at the proposed intersection of N. Baltimore Street/ Ruston Way. The roundabout shall be designed to operate at level-of-service D or better at full project build out and year 2014.
5. Provide a roundabout at the proposed intersection southeast of N. Baltimore Street/ Ruston Way. The roundabout shall be designed to operate at level-of-service D or better at full project build out and year 2014.
6. Provide a stop controlled access with separate outbound turn lanes at the secondary site access to the south of the primary access.
7. Extend the Ruston Way center turn lane starting from the center line of North Alder Street north for approximately 1,630 feet to reduce delays for through traffic and to

facilitate left turns to parking lots. Extend the Ruston Way center turn lane starting from the center line of North Alder Street south for approximately 930 feet to provide a refuge for northbound left turns into the existing parking lots. To protect existing parking facilities, the City reserves the right to reduce the length of the new center turn lanes required for mitigation.

8. Ruston Way & N Alder Street – Signalize the intersection of North Alder Street and Ruston Way to improve intersection operation from level-of-service F to level-of-service D or better for any movement.
9. Ruston Way & McCarver Street – Modify the vehicle signal head for the westbound (Ruston Way) left-turn onto McCarver Street from a permissive left-turn to a protected/permissive left-turn.
10. Ruston Way & N 49th Street – Signalize the intersection of Ruston Way and North 49th Street if an analysis indicates the delay for any movement exceeds level of service ‘D’ and/or meets accident warrants. The traffic signal will reduce delays experienced by left-turning vehicles and will increase pedestrian safety.

Baltimore Street

1. Provide a two-lane roadway with bike lanes to reconnect N. Baltimore Street with Ruston Way.
2. Provide curb and gutter on the west side of Baltimore Street north of N. 49th Street where needed. (Improvements to the east side of the street are provided as part of the Stack Hill development.)
3. Provide curb, gutter, and sidewalk between N. 49th Street and N. 46th Street where needed.
4. Upgrade existing or add new street lighting to meet current arterial street standards.
5. Develop a channelization plan for the segment of Baltimore between N. 49th Street and N. 46th Street that provides for a single travel lane in each direction, additional road width for bicycles, and accommodates parallel parking within the usable right of way. The plan should minimize impacts to existing land uses. Review and refine plan with City staff and construct improvements.
6. N. 46th Street & N. Baltimore Street - Provide eastbound and westbound left turn lanes and a southbound right turn lane. Reconstruct the sidewalks/curb ramps at the corners of the intersection to meet current road standards. Provide a marked pedestrian crossing on N. 46th Street with warning signs and beacons as per City street standards.

Non-Motorized Improvements

1. Pedestrian and bicycle access to the waterfront for the general public will be improved with the proposed waterfront promenade that will connect the north terminus of the Ruston bicycle/pedestrian trail with the proposed Peninsula Park.
2. Bicycle lanes will be provided on Ruston Way between N. Baltimore Street and the north terminus of the Ruston bicycle/pedestrian path.
3. A bicycle route will be included with improvements to the segment of N. Baltimore Street between Ruston Way and N. 46th Street.

4. Provide secure bicycle parking facilities to accommodate a minimum of 75 bicycles.

Other Improvements

1. Design the internal roadway to provide for a future access to Peninsula Park when it is developed.
2. In coordination with Pierce Transit, design the internal roadway to provide for future transit service.

Mitigation of Short-term Impacts

Short-term impacts associated with site development would include traffic generated by construction workers and the delivery of materials. Because there are extensive stockpiles of soil on the site, it is not anticipated that development of the site would necessitate the import of significant amounts of additional materials and the associated increase in heavy truck traffic. In addition, site remediation prohibits the removal of additional material from the site.

Contractors will need to develop a *Construction Traffic Management Plan* and/or *Traffic Mitigation Plans* to address traffic control during the reconstruction of Ruston Way and other construction activity that require use of the right of way or temporary accesses between the site and Ruston Way.

Schedule for Making Improvements

The secondary site access shall be completed prior to occupancy of the first residential or commercial building. The identified improvements to Ruston Way adjacent to the site (frontage improvements) and the Baltimore connection with Ruston Way, including all mitigation measures listed for Baltimore Street and North 46th Street, shall be constructed prior to the issuance of occupancy permits for any combination of commercial or residential projects that generate 450 PM peak hour trips generated by the site. This represents 30% of the total number of PM peak hour trips the development is forecasted to generate. It is the intent of the proponent to have these improvements in place by the time the 300th PM peak hour trip is generated. However, the process to set up the Local Improvement District (LID) and the duration of the construction indicates that the 450th PM peak hour trip threshold may be more realistic and provides desired flexibility. The remaining Ruston Way mitigation measures shall be completed prior to issuance of occupancy permits for any combination of commercial or residential projects that generate 600 PM peak hour trips by the site. This represents approximately 40% of the total number of PM peak hour trips the development is forecasted to generate. The proponent shall provide traffic monitoring and analysis at the request of the City Traffic Engineer if traffic volumes create congestion and safety concerns prior to the designated project trip thresholds.

An analysis of traffic operations at intersections near the site was conducted to identify any impacts resulting from 450 and 600 project generated trips and determine if mitigation is warranted at a lower threshold. This analysis incorporated the increases (at build out) in background traffic volumes. The 450 and 600 project generated trips were split 2/3rds residential and 1/3rd commercial and distributed as described in section 3.7.2. In general, the trips are distributed as follows:

Inbound:	43% from west (51 st St), 57% from south (Ruston Way)
Outbound:	57% to west (51 st St), 43% to south (Ruston Way)

For the purpose of this analysis it is assumed that all project trips at the 450 trip threshold would enter and leave the site at one intersection, a temporary secondary site access. All other intersections and roadways remain in their current configuration. The Baltimore connection would not be in place. Table 3.7-17 summarizes LOS for each turning movement at intersections near the project site. A comparison of existing conditions with conditions resulting from the 450th project generated trip does not show any significant impacts that would require mitigation to be in place before this time with the exception of impact to vehicles entering Ruston Way from a temporary secondary site access (LOS-E). This could be mitigated in the short term by providing separate turn lanes or a second temporary access while the improvements are made along Ruston Way. While the proponent plans to provide these improvements before 300 PM peak hour trips are generated, the analysis shows that existing facilities could easily accommodate trips generated by the initial phase of development.

The proponent will commit to providing the identified improvements on a schedule that is tied to the 450 and 600 trip thresholds. This commitment will ensure that all of the mitigation is in place by the time 40% of the forecasted PM peak hour project generated trips materialize.

**Table 3.7-17
PM Peak Hour LOS – Existing Conditions and With
450 and 600 Project Generated Trips**

Intersection	Dir.	Existing 2006			450 Project Trips			600 Project Trips		
		LOS	Delay	Max Vehicle Queue	LOS	Delay	Max Vehicle Queue	LOS	Delay	Max Vehicle Delay
51st/ Pearl	EBT	C	33	2	C	28	1	C	27	2
	WBLT	D	40	6	D	41	8	D	37	8
	WBR	C	31	1	C	27	2	C	26	2
	NBL	B	14	2	C	21	2	B	10	1
	NBTR	B	15	3	C	26	9	B	13	7
	SBL	A	4	2	A	9	1	A	9	1
	SBTR	A	4	3	A	7	2	A	8	3
AVG	B	18		C	24		B	19		
46 th /Pearl	EBL	A	7	1	A	6	0	A	7	0
	EBTR	A	7	2	A	7	1	A	7	1
	WBL	A	7	3	A	7	2	A	8	2
	WBTR	A	7	2	A	7	1	A	7	1
	NBL	A	6	0	A	7	1	A	7	1
	NBTR	A	7	1	A	7	2	A	7	2
	SBL	A	6	0	A	7	1	A	7	1
	SBTR	A	6	0	A	7	2	A	7	2
AVG	A	7		A	7		A	7		
46 th / Baltimore	EBT	A	1	0				A	2	0
	WBT	A	0	0				A	0	0
	NBT	B	15	0				C	19	0
	SBT	B	14	0				C	18	1
	AVG	A	2					A	4	
49 th /Ruston Way	EBL	B	10	0				B	14	1
	EBR	A	4	1				A	3	1
	NBL	A	0	0				A	0	0
	SBTR	A	0	0				A	0	0
	AVG	A	4					A	3	

**Table 3.7-17
PM Peak Hour LOS – Existing Conditions and With
450 and 600 Project Generated Trips (con't.)**

Ruston Way/Alder	SBTR	A	0	0				A	0	0
	NBL	A	0	0				A	2	1
	NBT	A	2	1				A	0	0
	EBLR	B	12	1				C	19	2
	AVG	A	3					B	3	
Ruston Way/ McCarver St	EBT	A	6					A	6	8
	EBR	A	5					A	5	1
	WBL	A	5					A	5	1
	WBT	A	9					B	15	25
	NBLR	B	13					C	35	9
	AVG	A	9					B	16	
Ruston Way/ Baltimore-Yacht Club Drive (Roundabout)	EB							D	43	2
	WB							A	5	4
	NB							C	34	1
	SB							A	10	1
	AVG							B	18	
Ruston Way/ Primary Site Access (Roundabout)	EB							D	43	2
	WB							A	4	4
	SB							B	10	1
	AVG							B	17	
Ruston Way/ Secondary Access	EBTL				A	4	1	A	1	0
	WBTR				A	0	0	A	0	0
	SBLR				E	38	5	B	15	0
	AVG				B	10		A	1	

No Action Mitigation Recommendations

Mitigation for impacts of the *No Action* alternative would be the same as for the *Proposed Action*.

3.7.5 Significant Unavoidable Adverse Impacts

With the recommended mitigation in place, development of the *Proposed Action* or *No Action* alternative would not result in significant adverse impacts.

SECTION IV

*WRITTEN COMMENTS
CONCERNING THE DSEIS AND
RESPONSES TO THE COMMENTS*

SECTION IV

WRITTEN COMMENTS CONCERNING THE DSEIS AND RESPONSES TO THE COMMENTS

This section of the Final SEIS contains written comments that were received concerning the DSEIS. The DSEIS was issued January 16, 2008 for a 30-day public comment period. During the DSEIS public comment period, written comments were received via letter and email from 18 agencies/divisions, 7 organizations and 18 individuals. Each comment letter is numbered and included in this section of the FSEIS. Comments within each comment letter are also numbered and responses are provided for each comment immediately following each comment letter. Comments were received from the following:

Agencies

FEDERAL

1. U.S. Army Corps of Engineers, Seattle District
2. Puyallup Tribe of Indians – Historic Preservation

STATE

3. Washington State Department of Ecology

LOCAL

City of Tacoma

4. Tacoma Finance Department – Halo Office
5. Tacoma / Pierce County Health Department
6. Tacoma Police Department
7. Tacoma Public Utilities – Tacoma Power
8. Tacoma Public Works Department – Building and Land Division
9. Tacoma Public Works – Environmental Services Engineering Division
10. Tacoma Public Works – Engineering
11. Tacoma Public Works – Engineering Division – Traffic Section
12. Tacoma Water

Metro Parks Department

13. Metro Parks Department

Pierce County

14. Pierce County Council – Councilmember Calvin Goings
15. Pierce Transit

Tacoma School District

16. Tacoma School District

Town of Ruston

17. Town of Ruston

18. Town of Ruston – Supplementary Comments

19. Town of Ruston – Councilmember Wayne Stebner

Organizations

20. Citizens for a Healthy Bay

21. Economic Development Board

22. Executive Council for a Greater Tacoma

23. Laborer’s International Union of North America – Local No. 252

24. Tacoma – Pierce County Chamber of Commerce

25. Tacoma Yacht Club

26. Washington State Jobs with Justice

27. Washington State Jobs with Justice, Addenda 1

28. Washington State Jobs with Justice, Addenda 2

Individuals

29. Robin Austin-Parsons

30. Kate Babbo

31. Douglas W. Blankenship

32. Ken Brown – Windermere/Commencements Assoc.

33. Creighton Carroll

34. Nicole Cochran

35. Sarah Everding

36. Chris Green

37. James and Beth Hall

38. Nancy and John Kennedy

39. Don Lloyd – Rushforth Construction Co.

40. Todd Miller

41. Karen Murphy

42. Stanley Jay Rumbaugh – Rumbaugh Rideout Barnett & Adkins

43. Dan Showalter

44. Warren Smith

45. Robert and Beth Thoms

46. Beth Torbet

The comment letters follow the sequence noted above. Comments within each letter are identified by number and responses to these individual comments follow each letter. Several responses identify revisions to the 1997 EIS; those revisions are reflected in applicable sections of this FSEIS.

Responses are provided for substantive comments. Expressions of opinions, subjective statements and positions for or against the *Proposed Action* are acknowledged without further comment.

WAC section **197-11-545** (2) provides that “Lack of comment by other agencies or members of the public on environmental documents, within the time periods specified by these rules, shall be construed as lack of objection to the environmental analysis, if the requirements of WAC 197-11-510 are met.”

-----Original Message-----

From: Hayashi, Kari [mailto:KHAYASHI@ci.tacoma.wa.us]
Sent: Wednesday, January 23, 2008 3:16 PM
To: Garypedersen123@cs.com; Steve Yester; Terry McCann
Subject: FW: Point Ruston Project/Comments from the Army Corps.

FYI

From: Ekendiz, Koko NWS [mailto:Koko.Ekendiz@usace.army.mil]
Sent: Wednesday, January 23, 2008 2:37 PM
To: khayashi@cityoftacoma.org
Subject: Point Ruston Project

Hi Kari,

The Corps would have jurisdiction over the installation of structures in/on/over/under 1
navigable (tidal) waters waterward of the MHW line. Additionally, the applicant would 2
need to also apply for a permit to permanently moor the vessel intended for use as office 3
space. The U.S. Coast Guard would also likely have interest in a permanently moored 4
vessel. If there are any outfalls proposed with the discharge of fill into waters, the Corps 5
would likely have jurisdiction over that as well. Furthermore, because the site is in the
Commencement Bay Nearshore Tideflats Superfund Site, the Corps would have to
conduct independent consultation with the EPA. We would advise that your proponent
start the process early with our agency and even schedule a preapplication meeting.

Thank you for the opportunity to comment on this project,

Koko

Ms. Koko Ekendiz
Biologist/Project Manager
Regulatory Branch
Seattle District Corps of Engineers

206-764-6878

RESPONSE TO COMMENTS FROM THE U.S. ARMY CORPS OF
ENGINEERS, SEATTLE DISTRICT
(Letter #1)

Comment 1

The comment is noted. The temporary moorage of the ferry will occur in navigable waters of the United States and, as such, will require an Army Corp Section 10 permit.

Comment 2

At such time as the location of the ferry is affirmed, necessary permit applications would be submitted to the applicable agencies.

Comment 3

At such time as the intended location of the ferry is affirmed, necessary permit applications would be submitted to the applicable agencies, such as PATON approval from the Coast Guard.

Comment 4

Comment acknowledged. At such time as the need for constructing outfalls with discharge into waters is affirmed, necessary permit applications would be submitted to the cognizant agencies.

Comment 5

Comment noted. Proponent contacted the Corps on February 20, 2008 to schedule the advised pre-application meeting, a coordination meeting with the EPA project manager and to discuss future applications and necessary coordination.



Historic Preservation



Puyallup Tribe of Indians

January 16, 2008

Letter 2

JAN 18 2008

City of Tacoma
Public Works Department
Building and Land Use Service
747 Market Street, Room 345
Tacoma, WA 98402
Attn: Karie Hayashi

1

RE: Asarco Tacoma Smelter Site
Location: 5005 Ruston Way, Tacoma, WA
8950003310, 0221231000

Dear Ms. Hayashi:

Thank you for your letter of January 16th. The subject property is located within the Usual and Accustomed area of our people. The term "Usual and Accustomed Areas" comes from the treaties that the tribes in this area signed with the federal government. Tribes reserved the right to hunt, fish and gather in our "usual and accustomed grounds and stations." These U&A areas have been adjudicated by the federal courts. As with all of these areas they are significant areas to our Tribe.

We recommend that you hire an archaeologist to oversee and evaluate the proposed location of your project and complete a cultural resource report. Any exposure of historical sites will need to be reported to my office immediately.

1

The comments contained within this letter apply to cultural and historic resources exclusively. The Tribe encourages your agency to contact the Tribe's Natural Resources, Land Use, or other applicable departments and solicit those departments' input on your project. Other Tribal departments may have objections, concerns or input into your proposal above and beyond comments contained within this letter.

2

Thank you for your prompt response in this matter.

Sincerely,

Amber Santiago
Historic Research Assistant

RESPONSE TO COMMENTS FROM THE PUYALLUP TRIBE OF INDIANS
(Letter #2)

Comment 1

At the time of the initial permit application for the *Point Ruston* project, an analysis was performed entitled “An Archaeological Assessment of the Potential for Intact Archaeological Deposits at the ASARCO Tacoma Plan.” That report, which was prepared by Richard D. Daugherty, PhD and Ruth Kirk, provides cultural background regarding the site as well as a chronological history of industrial-related activities that occurred on-site for over 100 years. The report was submitted as part of the application materials and remains a part of the City’s project file. The 1997 EIS also included a Historic and Cultural Resource section (4.16).

The 1997 EIS and recent assessment both conclude that it is unlikely the Proposed Action would expose archeological materials given prior disturbance of industrial activity and remediation, the geologic nature of the site and the earthwork proposed being generally confined to existing fill above massive slag. However, the proponent acknowledges and accepts the mitigation required by the 1997 EIS that “if any significant archeological materials are exposed or discovered during further construction related excavations or subsurface disturbance of any kind, operations would cease within 10 feet of the find. A qualified archeologist would be contacted for further recommendation and notification of a Puyallup Tribal official would occur.” (1997 EIS pg. 4-165)

The proponent has also committed to make available to the Tribe information in the property records that may be of interest and has expressed an interest in working with the Tribe to incorporate aspects of the history of the immediate area within public art and historical monuments to be installed as part of the proposed *Point Ruston* development.

Comment 2

On February 13, 2008 the proponent met with representatives of the Puyallup Tribe, representatives of the City of Tacoma, and the proponent’s EIS consultant to discuss the Tribe’s concerns and reiterate the proponent’s commitment to the archeological mitigation under the 1997 EIS. The proponent agrees to continue to coordinate with the Tribe as the project progresses.



Letter 3

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

February 14, 2008

14-20
Mr. William Pugh
City of Tacoma
Public Works Department
747 Market Street, Room 345
Tacoma, WA 98402

Dear Mr. Pugh:

Thank you for the opportunity to comment on the draft environmental impact statement for the Point Ruston Waterfront project (SEP2007-40000090529, SHR2007-40000090530 & PLT2007-0000090531) located at 5005 Ruston Way, as proposed by Point Ruston, LLC. The Department of Ecology (Ecology) reviewed the information provided and has the following comment(s):

AIR QUALITY: Bernard Brady (360) 407-6803

Best management practice for minimization of track out and windblown dust should be included in any applicable permitting. 1

SOLID WASTE & FINANCIAL ASSISTANCE: Al Salvi (360) 407-6287

Solid Waste & Financial Assistance Program comments submitted May 23, 2007 still apply to the project described (see enclosure). There are no new comments submitted at this time. 2

Ecology's comments are based upon information provided by the lead agency. As such, they do not constitute an exhaustive list of the various authorizations that must be obtained or legal requirements that must be fulfilled in order to carry out the proposed action.

If you have any questions or would like to respond to these comments please contact the appropriate reviewing staff listed above.

Department of Ecology
Southwest Regional Office(SM: 08-0357)
Enclosurecc: Bernard Brady, AQP
Al Salvi, SW&FAP
Point Ruston, LLC (Applicant)
Karie Hayashi, Building & Land Use Services Division, Tacoma Public Works Department (Contact)

RESPONSE TO COMMENTS FROM THE WASHINGTON STATE
DEPARTMENT OF ECOLOGY
(Letter #3)

Comment 1

Best management practices will be included as part of the City of Tacoma and the Town of Ruston's permitting process.

Comment 2

The comments are noted. The proponent has indicated a willingness to work with the Department of Ecology regarding the solid waste program.

From: Guzman, Peter

Sent: Thursday, February 14, 2008 3:57 PM

To: Hayashi, Karie

Subject: Asarco Smelter Site Master Development Plan Final EIS - Point Ruston -
Comments

Karie, I am submitting the following comments regarding the Point Ruston DSEIS:

"Point Ruston L.L.C has agreed to voluntarily participate in the City of Tacoma's Local Employment & Apprenticeship Training Program (LEAP) by making a good faith effort to ensure that 15% of the total labor hours worked on the project are performed by City of Tacoma residents and/or state approved residents from Pierce County. Mr. Mike Cohen has ensured the City of Tacoma that it plans to comply with the intent of the LEAP program on this construction project to the fullest extent possible".

1

Respectively submitted by,

Peter Guzman

Peter Guzman
LEAP Coordinator
HALO Office
747 Market Street, #132
Tacoma, WA 98402-3773
(253) 594-7933
Pguzman@cityoftacoma.org

RESPONSE TO COMMENTS FROM THE TACOMA FINANCE
DEPARTMENT – Halo Office (LEAP)
(Letter #4)

Comment 1

The comment is noted. The proponent has indicated a willingness to voluntarily participate in the City’s Local Employment & Apprenticeship Training Program (LEAP) with an aim of 15 percent of the total labor hours to be performed by City of Tacoma and/or State-approved apprentices from Pierce County. The proponent has also voluntarily agreed to participate in the City’s Historically Underutilized Business program (HUB) to procure goods and services from HUB-qualified firms.



FEB 06 2008

Governed by a local Board of Health

Letter 5

February 4, 2008

Karie Hayashi
Tacoma Public Works Department
747 Market Street, Room 345
Tacoma, WA 98402

RE: Asarco Smelter Site Master Development

Dear Ms. Hayashi

The Tacoma-Pierce County Health Department (TPCHD), Environmental Health Program, has reviewed the above checklist and has the following comment(s):

The project proponent is responsible for completing all remaining on-site remediation (and significant portions of off-site remediation) as stipulated in the second amendment to the Asarco Consent Decree with the Environmental Protection Agency (EPA). Each remediation/building phase must be approved by the EPA before being released for residential occupancy and use.

1

If you have further questions, please contact me at (253) 798-6462.

Sincerely,

Nedda S. Turner, RS
Environmental Health Liaison
ENVIRONMENTAL HEALTH PROGRAMS

NST/cif

cc: Point Ruston, LLC
5219 N Shirley ST, Ste. 100
Tacoma, WA 98407

RESPONSE TO COMMENTS FROM THE TACOMA / PIERCE COUNTY
HEALTH DEPARTMENT
(Letter #5)

Comment 1

The proponent of the proposed *Point Ruston* development concurs and will complete all remaining on-site remediation and the offsite remediation agreed to in the Second Amendment to the ASARCO Consent Decree and attached Statement of Work. Design documents, quality assurance plans, operations, maintenance and monitoring plans, quality assurance plans, and institutional controls will be reviewed and approved by EPA prior to implementation by *Point Ruston*. EPA will provide oversight and agency coordination during all phases of site remediation and final approval prior to residential occupancy of each phase.



Date: February 14, 2008

To: Karie Hayashi, Land Use Administration Planner
Building and Land use Services

Subject: Preliminary review of Pt. Ruston Development - Tacoma Police Department and CPTED concerns

The Point Ruston preliminary development site plans embody the vision of a vibrant mixed-use residential and commercial community. Situated at the north end of Ruston Way in both the City of Tacoma and the Town of Ruston, this site will command a stunning view of Commencement Bay, as well as being ideally situated near popular local restaurants, shops, waterfront parks, and Point Defiance. It is anticipated that this development will be a focal point and define the north end of the Tacoma waterfront in a positive manner; much like Carillon Point did for the City of Kirkland.

Below are the combined comments from the City of Tacoma Police Department 2-Sector Commander, Public Works Department Crime Prevention Program Specialist and the Human Rights and Services Department Crime Free Programs Coordinator on the Point Ruston Asarco Smelter Site Master Development Plan as presented in the January 2008, Draft Supplemental Environmental Impact Statement prepared for the City of Tacoma.

Comments are arranged with regard to the City of Tacoma Police Department's concerns in the area of public safety and in the area of *Crime Prevention Through Environmental Design* (CPTED) strategies as an approach to planning and designing developments which can reduce fear of crime, reduce opportunities for crime to occur, manage risk to property owner and assist in providing a sustainable space that adds to the quality of life to the users and the community.

Tacoma Police Public Safety Concerns

The Tacoma Police Department has the following concerns with specific sections:

1. 3.6.1.1.2 Police Services – While there are bilateral Notice of Consent agreements that give the City of Ruston Police Officers full authority within the City of Tacoma and City of Tacoma Police Officers full authority within the City of Ruston, the full authority is limited to the following:
 1. In response to an emergency involving an immediate threat to human life or property;
 2. In response to a request for assistance pursuant to a mutual law enforcement assistance agreement with the agency of primary territorial jurisdiction or in response to the request of a Peace Officer with enforcement authority;
 3. When the Officer is transporting a prisoner;
 4. When the Officer is executing an arrest warrant or search warrant; or
 5. When the Officer is in fresh pursuit, as defined in RCW 10.93.120.

The City of Tacoma Police Department does not enforce City of Ruston municipal ordinances and does not actively assist the City of Ruston Police Department with the vast majority of their calls for service except when requested pursuant to requests for mutual aid. Likewise, the City of Ruston does not actively assist the City of Tacoma Police Department with the vast majority of our calls for service expect when requested pursuant to requests for mutual aid. Cooperation between to the two cities respective Police Officers and Departments is common; it should not be construed as broadly stated within the Draft Supplement EIS.

2

2. 3.6.1.1.2 Police Services – Tacoma Police Department has an actual budgeted end strength of 387 commissioned officers and 45 civilians vice the 381 and 39 stated in the Draft Supplemental EIS. We are currently under strength in both categories of employees. As of 31 December, 2007, we have 379 commissioned officers, of which eight were Recruits, fourteen in the Police Academy, ten assigned to the Post Academy Training Program and nine who have not completed their one year probationary period. Of the 379 commissioned officers, one Lieutenant, six Sergeants, thirty-four Officers, and three Community Liaison Officers are assigned to the 2-Sector which has a population of nearly 73,000 people. While the Draft Supplement EIS states that approximately 25 Officers are patrolling Tacoma at any given time, the number is actually less. Depending on daily staffing levels, during day shift (0600 – 1600 hours) there are typically three or four Officers patrolling the 2-Sector Swing shift (1300 – 2300 hours) there are five or six Officers patrolling and during Graveyard shift (2000 – 0600 hours), there are the same five of six Officers. Of the 46,070 calls for service (25% of all calls for service in the City of Tacoma) in the 2-Sector, one third of all calls for service result in a formal police report being written, which takes time away from the Officers' ability to provide proactive patrol to the residents of the 2-Sector. The level of police services available for Point Ruston is overstated.

3

3. 3.6.2.1.2.2 Police Services – The Draft Supplemental EIS states “ Potential impacts on fire and emergency services form the *Point Ruston* project were assessed based on established level of service standards and information provided by the TPD and RPD and relative top the estimated on-site residential and employee population. Based on existing staffing and service levels, the TPD and RPD each have excess capacity to absorb increased demands/impacts resulting from the proposed *Point Ruston* development.” The addition of nearly 1000 new multi-family dwelling units with as many as 2000 – 3000 more residents, 228,000 square feet of commercial/retail space (approximately 20% the size of the Tacoma Mall), and associated vehicle and pedestrian traffic will put more demand on police services in the 2-Sector that are already struggling to meet the demands placed upon them.

4

While there is no doubt that there is a direct economic benefit of the development of the Point Ruston project to both the City of Tacoma and City of Ruston as well as the surrounding communities, there are areas of interest that can be addressed in cooperation between the developer and the City of Tacoma during the entire length of the project. It is the Tacoma Police Department's profound belief that a proactive and cooperative relationship must exist between the builder and the City of Tacoma and Tacoma Police Department in order to minimize potential for criminal activity and maximize the economic impact that the development can have on our community.

Of items that are of concern that were noted throughout the Draft Supplemental EIS, the following are significant to the Tacoma Police Department:

1. The noted use of Ruston Way as an arterial to be used for ingress/egress to Point Ruston development. Ruston Way is currently a two lane road that sees a fair amount of vehicle, bicycle, and pedestrian traffic, particularly during fair weather months. The vast majority of this traffic is focused primarily in the southern part of Ruston Way, the location of several businesses and parks. The Tacoma Police Department has for the last several years, instituted a specific Traffic Management Plan to address the increased flow of traffic during the summer time. It is anticipated

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that the Point Ruston Development will likely draw an increased amount of traffic flow onto Ruston Way during other months as well and that the Traffic Management Plan will likely become normal operating procedures. The Traffic Management Plan currently uses One Sergeant and eight Officers/Detectives on a given day for ten hours of overtime each. There is currently not enough assigned Officers in the 2-Sector to institute the Traffic Management Plan outside of overtime. A significant aspect of the Traffic Management Plan involves limiting Ruston Way to one-way (northbound) and routing traffic onto neighboring roadways that lead through residential neighborhoods. The various roads that lead to and away from Ruston Way, as well as the their surrounding residential communities may not be able to handle the increase demands placed upon them, regardless of whether the Traffic Management Plan is instituted.

5 cont.

2. With the developer planning on keeping Ruston Way a two lane road, there are significant issues related to the ability of emergency vehicles to use the road to respond to calls for service at Point Ruston. Fire Trucks and Fire Engines are large vehicles with limited ability to maneuver around the planned traffic circles and roundabouts. Pierce Transit buses will also have issues related to maneuvering around the same circles. With the likely increase in traffic flow as a result of the development, police vehicles will have a difficult time maneuvering around vehicles that have yielded the right of way when a two lane road limits the ability for vehicles to pull off to the right.
3. The additional residents and commercial/retail space along with parks and green space will draw a significant amount of vehicles into the area. It is anticipated that there will be significant increase in vehicle related crimes and vehicle related concerns. Those being:
 - a. Traffic Accidents
 - i. Fatalities
 - ii. Injuries
 - iii. Non-Injury
 - iv. Auto versus Pedestrian
 - b. Speeding
 - c. Cruising
 - d. Negligent Driving
 - e. Reckless Driving
 - f. Use of Parking Facility in Congested Public Parking Area
 - g. Impeding Traffic
 - h. Following Too Close
 - i. Obstruct Vehicle Traffic in Public Congested Parking Facility
 - j. Stolen Vehicle
 - k. Vehicle Prowl
 - l. Vandalism
 - m. Noise Disturbance
4. In addition to the vehicle related crimes, the increased access to parks and green space along with additional visitors and use will also see an increase public disturbance crimes such as:
 - a. Fighting in Public
 - b. Drinking in Public
 - c. Liquor in Park
 - d. Fireworks
 - e. Littering
 - f. Noise Disturbance
5. With the large amount of commercial/retail space, there will be significant number of calls related to the businesses located within the development to include the following:

6

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- a. Forgery
- b. Identity Theft
- c. Shoplifting
- d. Robbery
- e. Burglary
- f. Theft

7 cont.

While the above listed issues are of a concern to the City of Tacoma and the Tacoma Police Department, it is our expressed desire to work with the developer to mitigate these and other issues while maximizing safety and security of the potential residents, retailers, visitors, and shoppers. It is suggested that the developer consider the inclusion of a Business District and a Neighborhood Council during the development stage of the project. This would allow a proactive approach of dealing with the concerns of the businesses and residents while fostering and building positive relationships.

8

In addition to these suggestions, working in partnership with the Tacoma Police Department to include programs such as Store Front offices for public safety, Business Improvement Areas with funded Police Officer positions to provide proactive patrols in the development, and implement Crime Prevention Through Environmental Design (CPTED) strategies in conjunction with Tacoma Public Works Department, Building and Land Use Services Division, and Tacoma Police Department can significantly reduce demands on Police Department services.

9

It is neither the purpose nor the intent of the Tacoma Police Department to neither discourage nor prevent the development of Point Ruston. It is our expressed desire to work in partnership with the developer of Point Ruston to ensure the safety and security of the residents and visitors to the area. While the above listed areas of concern are by no means an inclusive list or a harbinger of the future, it is only by working as partners during the entire process can overcome the issues and prevent others from occurring.

Specific CPTED Site Concerns

Comments from HRHS Crime Free Programs Coordinator:

In order to encourage safe and proper use of the parks, businesses and residential areas of this development, it is desired that a cooperative effort be conducted in site plan review and project implementation. Review of the preliminary plans have shown some areas of potential safety concerns, that if addressed before the development is built, will help to provide a safer place for business merchants, area residents and visitors to the property.

These issues are listed below.

1. Concerns are foreseen due to the combination of public and private spaces adjoining one another throughout this development. For example, there are many townhome-style residences along the exterior of the property, located between large combination business/residential buildings and the waterfront area of Commencement Bay. These homes will most likely have the main living spaces facing the waterfront, in order to make best use of the views. Between these homes and the water is proposed to be a public access and public use park/waterway promenade type of location. It is anticipated that the near proximity of private homes and public walkways along the beach, may encourage problems such as: complaints from the residents re crimes like trespassing, residential burglary and vandalism; as well as nuisance complaints such as excessive noise, camp fires on the beach, public intoxication, juvenile activity, transients and illegal dumping of garbage. The private property of the homes will need to be clearly defined with architecture and landscaping, and steps should be taken to mitigate public use of the adjacent waterfront property after sunset. Recommend physical barriers between the private and public property, as well as clearly posted Park Rule signs that also close beach property to non-residents, hotel or other local restaurant guests during the hours of darkness.

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2. The waterfront area of the site plans will be an asset to the City of Tacoma and its residents, and will also serve to encourage visitors to the property to shop and eat at the many proposed restaurants. In order to facilitate the needs of the users of the beach and park areas, either public restrooms will need to be built, or the business owners will need to allow use of their facilities to the public. If public restrooms are to be considered, they should be placed in the business sector (preferably in the Grand Plaza), and in a well-lighted area that can be observed by the residents and patrons of the adjacent businesses. Public restrooms frequently invite such criminal behavior as vice and drug activity, and care should be taken to place restrooms in a safe environment – as well as preferably being locked during the hours of darkness. Due to the prevalence of cellular phones, public phone booths are not recommended. 11
3. Trash receptacles will need to be placed throughout the common areas of the property to discourage nuisance dumping, especially along the waterfront where it is feasible users will stroll, have picnics, etc. 12
4. The development of this site is foreseen to draw vehicular and pedestrian traffic north on Ruston Way from the businesses and parks located farther south. Analysis of the site plans shows that vehicular traffic will pass through the site in circular patterns. This will encourage pass-through of the property and enable the easy ability to loop through the property and head back south onto Ruston Way. In order to discourage cruising, speeding, traffic accidents and attendant problems, recommend traffic calming structures such as speed bumps or chicanes that will configure the streets to flow in a more serpentine pattern (forcing cars to slow down). 13
5. Recommend demand-lights on Ruston Way instead of the traffic circles. This will encourage an easier flow of vehicular and pedestrian traffic, and help to reduce difficulty for emergency response vehicles and buses. 14
6. It is anticipated that the senior assisted-living residential building (#6), will result in a higher demand for public services such as emergency health care. Current access into the property will make it difficult for a fire truck or ambulance to maneuver to this site. Recommend review of the access points for Pt. Ruston, and/or redesignation of a different building for seniors, in order to address this concern. It is also recommended that a green space or park area be located near the building to allow seniors easy access to it for recreational activities and also provide a place observation into the surrounding area. 15
7. The Grand Plaza and fountain will be a main architectural and artistic focal point of the development. Its prominent placement in the business sector, along with its alignment, proximity, views and access to the waterfront, will tend to draw pedestrian traffic to this main location. Water features can also be frequent draws to transients who wish to use the fountain for personal hygiene reasons, or for the possibility of gleaning coins from the bottom of the pool. Recommend automatic water shut-off during the hours of darkness to help discourage after-hours transient or nuisance types of behaviors. If coins are tossed into the pool, measures will need to be implemented to clean them out to keep the pipes free and undamaged, and a policy will need to be in place to determine where the cash will go. Recommend bright lighting around this plaza area, as well as a strong landscape plan that will eliminate hiding/sleeping places for transients. Decorative fencing to restrict access to the water feature should also be considered. 16
8. Many underground parking structures have been identified for this development. As plans become more detailed, review of each structure for safety and crime prevention techniques will need to be implemented. Recommend all underground parking for residents and business owners/employees have gated entry with access control and assigned spaces. Parking garages will need to be extremely well lighted, with convex mirrors in blind-spots to allow for better visibility. Emergency call-boxes are recommended in each structure that call 9-1-1 directly at the push of a button and use an intercom-type of system that doesn't require handsets (Group Health on 2nd/J 17

St. has a system like this in their parking garage. Calls go to their security control center).

9. The Point Ruston development is ideally designed for a police or private security bike patrol. Due to the nature of mutual aid agreements between the Town of Ruston and the City of Tacoma, as well as current staffing issues, it is recommended that planners implement a Business Improvement Area, Business Watch Program, Crime Free Housing and Home Owner's Association for this site. Dues can be assessed to the merchants, home owners and renters that can be applied to the maintenance of a store-front /sub-station facility, as well as providing employment for private security officers exclusively on this site. In addition, a store-front facility can be used by police officers responding to calls for service at Pt. Ruston, and it will provide them with a place to write reports or meet with the public. The addition of a store-front sub-station will reduce the potential for criminal activity simply by its presence, as will the sight of a police vehicle parked in a prominent location.

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10. The "attractive nuisance" element of building materials and construction vehicles on site during the construction phase should be addressed. Developers frequently leave tools and equipment in lock-boxes that are pretty easy to pry open, and then their tools get stolen. Mitigation plans to increase the safety of the site during construction, to help reduce theft of materials and vandalism should be considered. This should include temporary fencing around the property, with No Trespassing signs clearly posted, as well as temporary lighting during the hours of darkness, etc.

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Overall CPTED Design Considerations

Comments from PW CPTED Program Development Specialist:

The international success of CPTED strategies has shown that the proper design and effective use of the built environment can lead to a reduction in both the opportunity for crime and fear of crime. Below is a list of design elements to help guide in the safe development of the physical environment. It is not meant to be an exhaustive checklist however CPTED is part of a comprehensive approach to crime prevention and CPTED review should be incorporated into all design stages of a development process to identify potential problem areas. The categories below are not all inclusive but are mutual, overlap in application will occur.

1. Neighborhoods:

- Minimize the number of entry and exit points on a block.
- Design roadways to discourage through-traffic.
- Maximize residents' ability to view public spaces.
- Encourage residents' use of public spaces.
- Provide appropriate level of lighting for streets, paths, alleys, and parks.

2. Buildings:

- Clearly delineate private property (e.g., yard, entryway, courtyard,) from public space (i.e. street, sidewalk) through low shrubbery, alternate paving stone color, and changes in grade.
- Provide unobstructed views of surrounding area.
- Ensure entrances are visible and overlooked by windows.
- Avoid landscaping that may conceal offenders.
- Install bright security lights on motion sensors, photo cells or timers.
- Hallways are well lit, elevator banks and bathroom entry within view of people in the area.

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3. Multifamily

- Provide common spaces to encourage tenant interaction.
- Minimize the number of units sharing a common entrance.
- Equip entrances with an intercom system.
- Ensure hallways are well lit.

- Install deadbolt locks and 180 degree eye viewers on unit doors.
- Provide children's areas that can be easily observed.
- Provide windows that allow for surveillance in laundry rooms and community areas.
- Install visible address, unit numbers on all buildings and a Site directory to help direct visitors/patrons and emergency services.

4. Parking lots and garages:

- Avoid enclosed, underground, multi-story garages (maximum of 2 levels below ground).
- Install bright lights over driving lanes and parking spaces.
- Use light colored paint to increase interior light levels.
- Control access and egress with automatic doors and gates.
- Avoid pillars, low walls and recesses that may hide offenders.
- Avoid placing trees in front of light standards and luminaries that will block light when mature.

20 cont.

5. Public/Common spaces:

- Design for legitimate users, avoid low walls, planters, and water features that encourage use by transient populations.
- Use fencing, bollards, pavement textures and grade levels to enforce territoriality and control access.
- Avoid placing dark, and or hidden areas near activity nodes.
- Install appropriate lights that meet the needs of all intended users including pedestrian scale lighting along walkways.
- Restrict the use of covered or enclosed outdoor areas where loitering may be a problem.
- Limit use of street furniture; specify single seating furnishings and small tables to avoid opportunity of becoming sleeping areas.
- Use low growing shrubs and more transparent plant materials to reduce ambush points and shadows.

The four Basic CPTED Strategies

Although conceptually distinct, it is important to realize the strategies tend to overlap in practice.

1. Natural Surveillance -maximizing the ability to spot suspicious people and activities

Surveillance is a design concept directed primarily at keeping intruders under observation. Therefore, the primary thrust of a surveillance strategy is to facilitate observation although it may accomplish the effect of an increased perception of risk. Surveillance strategies are typically classified as organized (e.g., police patrol), mechanical (e.g., lighting) and natural (e.g., windows and landscaping).

Design considerations:

- Locate gathering areas to locations of natural surveillance and access control as opposed to locations away from the view of would-be offenders. For example, all tot lots should be located within the central common area of the building with as many units as possible able to watch children at play.
- Place activities in locations to create surveillance of these activities to increase the perception of safety for legitimate users and risk for offenders. For example, well used common areas (safe location) may overlook a parking area (unsafe location) to provide additional security to the parking area. Common bathrooms and laundry rooms should not be located in a remote area or at the end of a long hallway. Locate these facilities (from a unsafe location) adjacent to the entry or location where there is normally high foot traffic (to a safe location).

21

- Improve scheduling of space to allow for effective use and activities that support observation and interaction.
- Design space to increase the perception or reality of natural surveillance.
- Provide an opportunity for people engaged in normal everyday activity to observe the space around them. Place activities where individuals engaged in those activities will become part of the natural surveillance system without any interruption to their activity.
- Provide a good visual connection between residential and/or commercial units and public environments such as streets, common areas, parks, sidewalks, parking areas and alleys.
- Place actively used rooms such as kitchens, living/family room and lobbies to allow for good viewing of parking, streets and/or common areas. Managers, doormen, attendants and security personnel should have extensive views of these areas. Provide for the ability to see into a room or space prior to entering.
- Take advantage of mixed use if it exists and provide good visual connection between uses; this may enable natural surveillance during the day and evening (i.e., a commercial zone which becomes vacant in the evening or a residential zone which is uninhabited during the day).

Landscaping and Fencing

- Specify thorny landscape as a natural barrier to deter unwanted entry. Utilize the 2-6 rule in plant maintenance by trimming bushes down to 2 feet and liming up trees to 6 feet. This provides a window of visibility into the site.
- When designing landscape plans take into account mature plant size and when planting trees in lighted areas use species have a transparent canopy that will not block lighting when they mature.
- Specify vines or planted wall coverings to deter graffiti. Avoid blank spaces which may be an invitation to graffiti vandals.
- Provide landscape and fencing that do not create hiding places for criminals. Discourage crime by creating an inhospitable environment for criminals.
- Use transparent rather than opaque fencing (i.e. galvanized or powder coated chain link, tubular steel or wrought iron). Consider creative solutions to fencing schemes which work aesthetically as well as functionally (i.e. a combination of masonry with steel tubular or modified wood fence raised off the ground or with staggered spacing of fence boards) to allow for visibility.

21

Lighting

- Provide lighting systems which provide night-time vision for motorists to increase the visibility of pedestrians, other vehicles and objects (which should be seen and avoided).
- Provide illumination which provides night time vision for pedestrians, homeowners and business people to permit pedestrians to see one another at face to reduce risks involved in walking at night and to reduce the risk of trip-and-fall accidents.
- Provide lighting systems which will enhance police ability for surveillance, patrol and pursuit.
- Provide lighting systems that minimize glare, light pollution and light trespass. Where necessary, provide light transition zones.

2. Access Control -using physical barriers, security devices and tamper-resistant materials to restrict entrance

Access control strategies are typically classified as: Organized (e.g., guards), mechanical (e.g., locks) and natural (e.g., spatial definition). This guideline will concentrate on the third strategy of

natural access control. The primary thrust of an access control strategy is to deny access to a crime target and to create a perception of risk in offenders.

Design considerations:

- Provide clearly marked transitional zones which indicate movement from public to semi-public to private space. For example, the sidewalk represents *public space* and the main path into a residential development is *semi-private* and the path which branches to individual unit(s) becomes *semi-private* and the interior of the unit becomes private.
- Re-designate the use of space to provide natural barriers to conflicting activities (e.g., adolescent recreation area next to seniors' gather area).
- Locate common areas as centrally as possible or near major circulation paths within the project. Avoid remote locations for common areas.
- Consider containing common areas within a building layout.
- Group common areas together so that necessary tasks such as laundry may be done while watching children or using recreation areas.
- Provide clear well-lit paths from the street to the development through parking and landscape areas and within the development to building entries.
- Avoid ambiguous walkways and entries where occupants and guests may become "lost or disoriented" or must search for the correct entry or unit.
- Provide adequate lighting, width of path, definition of path and ability to see a destination.
- Provide obvious physical security techniques such as locks, lights, walls, gates, security cameras (where necessary) labeled "private security".
- Control unwanted entry through attic space; where ownership changes, provide a wall which extends from the suspended ceiling to the underside of the roof/floor assembly above.
- Identify whether surrounding properties constitute a negative or adverse impact on the development. Mitigate the adverse impact whenever possible with enhanced access control techniques.
- Ground floor units may require security above and beyond the other areas in the development. Walls, fencing, deterrent landscaping and lighting may be necessary.

22

3. Territorial Reinforcement -fostering residents' interaction, vigilance, and control over their community

The concept of territoriality suggests that physical design can contribute to a sense of territoriality. That is, physical design can create or extend a sphere of territorial influence and potential offenders perceive that territorial influence. For example: low walls, landscape and paving patterns to clearly define the space around a unit entry as belonging to (and the responsibility of) the residents of that unit.

Design considerations:

- Provide clear border definition of controlled space (e.g., fences, hedges, paving patterns and low walls).
- Re-designate the use of space to provide natural barriers to conflicting activities (e.g., adolescent recreation area next to seniors' gather area).
- Avoid space which is unassigned. As much as possible, all space should become clear responsibility of someone.
- People take more interest in something they own or which they feel intrinsically involved. Therefore, the environment should be designed to clearly delineate private spaces. Provide obvious defined entries, patios, balconies and terraces. Use low walls, landscape and paving patterns to delineate ownership and responsibility.

- Create a sense of ownership to foster behavior that challenges abuse or unwanted acts in that space. Owners have a vested interest and are more likely to challenge intruders or report them to the police.
- Provide real amenities in common areas so people will use them and have a stake in them. Avoid common areas which become a "no man's land".
- Provide clearly defined and secure storage areas (including bicycles, etc.).
- Consider crating "sub-developments" within a project where people share clustered parking, entries, amenities and common areas. Avoid long corridors which are shared by all and owned by none.
- Facilitate the successful Neighborhood Watch program. Cluster units in such a way to allow occupants to interact and see unit entries (and possibly sidewalks and streets) from within other units. Create an environment where strangers or intruders stand out and are more easily identified.
- In some developments it may be appropriate to give occupants some autonomy and control over their environment. This may include devoting landscape space to tenant use and upkeep, allowing occupants to determine color, landscape and other "finish" design materials.

22 cont.

4. Image/Maintenance - primary focus is that a well kept site promotes uses by legitimate users of the space

- Ensuring that a building or area is clean, well maintained, graffiti-free and that the right plant is in the right place (trees will not block lighting or views into area from upper floors).
- Plant materials are kept to the 2-6 rule (shrubs trimmed to no more than 2 feet high and trees limbed up to 6 feet) of natural surveillance on a regular schedule.

The concerns and design guidelines in this review are for the purpose of reducing the likelihood of criminal activity and increasing public safety and property protection. While there is no guarantee that crime will not occur, the concepts of CPTED have proven themselves in cities throughout the country and abroad. Where these techniques have been applied, crimes of opportunity are known to decrease significantly. We recognize the importance of this project and offer our assistance in CPTED review as the project moves forward in the design process.

Sincerely:

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2-Sector Commander
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CPTED Program Development Specialist
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RESPONSE TO COMMENTS FROM THE TACOMA POLICE DEPARTMENT
(Letter #6)

Comment 1

The text of this FSEIS regarding the limitations of the bilateral Notice of Consent agreements between the City of Tacoma and Town of Ruston Police Departments has been revised. See Section 3.6.1.1.2. of this FSEIS.

Comment 2

The text of this FSEIS regarding the mutual-aid agreements between the City of Tacoma and Town of Ruston Police Departments has been clarified to reflect the limitations of this agreement. See Section 3.6.1.1.2 of this FSEIS.

Comment 3

Information and data regarding current City police staffing levels have been revised per this comment. See Section 3.6.1.1.2 for revised language.

Comment 4

The text of this FSEIS has been revised. See Section 3.6.1.2.2 for revised language.

Comment 5

The existing Traffic Management Plan will need to be reviewed and possibly modified to adapt to changes in traffic volumes and circulation patterns. The removal of the vehicle tunnel and addition of roundabouts and the Baltimore connection to Ruston Way will change circulation patterns. Additional discussion has been provided to describe the Traffic Management Plan and related issues. (See section 3.7.2)

Comment 6

The roundabouts would be designed to accommodate a WB-67 truck type. The wheel base of this truck type is 67 feet between axles. The roundabouts would easily accommodate transit coaches and fire engines. The inside circle of the roundabout would be constructed with a mountable curb and 4 foot truck apron, which would accommodate vehicles with a larger turning radius. The segment of Ruston Way that is being constructed would also include 5-foot wide bike lanes on each side of the street. The street width from curb to curb would be approximately 34 feet and would provide adequate space for passing emergency vehicles.

Comment 7

Language has been revised to reflect potential new demands on police services resulting from the *Proposed Action*. See Section 3.6.2.1.2.3 of this FSEIS.

Comment 8

Comment noted. The proponent indicates contact has been made with North and West End Neighborhood Councils and several local businesses. The proponent will consider the inclusion of a Business District during the development stage of the project as a means taking a proactive approach to dealing with the concerns of the business and residents while fostering and building positive relationships..

Comment 9

The proponent indicates a commitment to work in partnership with the Tacoma Police Department to implement Crime Prevention Through Environmental Design (CPTED) strategies in conjunction with building design and configuration considerations of the Tacoma Public Works Department.

Comment 10

The proponent indicates that private areas would be delineated from the surrounding publicly-accessible spaces, as suggested, by utilizing combinations of landscaping, architectural elements, elevation changes and signage to make the distinction between public and private more obvious. The proponent concurs that this would be most important with the townhome style condominiums that face the promenade.

Comment 11

The proponent agrees that the design of public restroom facilities would need to be considered carefully and that these facilities should be either located within buildings that provide some measure of observation and safety or in well-lit, central public areas. No public phone booths are proposed.

Comment 12

The proponent agrees that convenience of trash receptacles throughout public areas is important in maintaining the cleanliness of the public spaces and would incorporate facilities into the landscaping and design.

Comment 13

The proponent concurs that, in order to slow speeds on the internal roads and thus protect the primacy of pedestrians and to discourage cruising, traffic calming devices (e.g., speed tables, traffic circles, narrower drive lanes, etc.) would be utilized.

Comment 14

Traffic signals were evaluated as a traffic control for the site accesses and Baltimore/ Ruston Way intersection. Roundabouts were selected as the preferred traffic control device over signalization because of their ability to accommodate fluctuations in traffic volumes, improved circulation that allow vehicles to reverse direction, and record of increased safety for both vehicles and pedestrians. The roundabouts will be designed to accommodate the turning radii of emergency vehicles and transit coaches.

Comment 15

The proponent agrees that easy emergency vehicle access to the proposed senior assisted living facility and convenience of that facility to green space are important considerations and will review the final location of the facility with these factors in mind.

Comment 16

The proponent agrees that safety and security at the Grand Plaza and fountains are important design concerns and appreciates the suggestion of automatic water shut-offs during nighttime hours.

Comment 17

The proponent agrees that designing for safety and security in and around parking garages is important. Other than proposed public garages that may be professionally-managed, the remaining proposed parking garages would be secured with gate access. Emergency phones or intercoms linked to security would be provided.

Comment 18

The proponent indicates an intent to form an Owner's Association, which will organize business, as well as residential owners and tenants around community interests including crime prevention. The proponent agrees that police presence could be provided with a store-front/sub-station and would be a benefit to the neighborhood. The proponent or Owner's Association may provide private security services as well, but in no manner as a replacement or substitute for public law enforcement. The proponent indicates the intent to coordinate with the Tacoma and Ruston Police departments during the design development phase of the project to best meet their needs and to facilitate a presence within the neighborhood.

Comment 19

The proponent indicates an awareness of the particular problems of construction site security and the importance of exercising theft prevention measures, which would include temporary fencing, secured collective tool management, material storage, and private security.

Comment 20

The text in Section 3.6.2.1.2.2 of this FSEIS has been revised to indicate the intention of the proponent to utilize these suggestions and coordinate further with the Tacoma and Ruston Police Department and Public Works Department to optimize opportunities to incorporate CPTED design principles to improve crime prevention and reduce impacts to police services.

Comment 21

See response to Comment 20.

Comment 22

See response to Comment 20.

RESPONSE TO COMMENTS FROM TACOMA PUBLIC UTILITIES –
TACOMA POWER
(Letter #7)

Comment 1

No comments were submitted and no response is necessary.

PREFACE

Change the 2nd paragraph to read:

"This document supplements the 1997 ASARCO Smelter Site Master Development Plan EIS. The 1997 EIS is a non-project EIS that identifies and evaluates the probable impacts that could result from four possible alternatives – a No Action Alternative and three project development alternatives of high, middle, and low intensity. This document is a project-level EIS and is intended to supplement the 1997 EIS a project-level EIS by analyzing additional areas and new information to address changes in the proposed action since 1997. In order to focus on the changes since 1997, this DSEIS utilizes the middle intensity development alternative contained in the 1997 EIS as its No Action Alternative."

1

Then consider referring to the 1997 EIS as the "1997 EIS" throughout the document.

2

3rd paragraph. last sentence, the areas should be separated by semi-colons to clarify what the **seven** areas are.

3

In first bullet, insert "No Action" before "alternative".

4

In 4th bullet, insert "seven" before "environmental parameters"

5

Page 1, under Proposed Action, 2nd paragraph: delete "Although this is a master plan- without detailed project design information at this time –". Combine remainder of paragraph with previous paragraph.

6

Page 1-4, last paragraph. last sentence: change to:

It has . . . of possible four future redevelopment alternatives identified in 1997 were adequately....."

7

Figures 1, 2, 14, 15, 16, 17: Note label reads "Point Ruston EIS Addendum". Figures throughout the document should all be checked to make sure they read "Point Ruston Supplemental EIS"	8
Page 2-5, first paragraph refers to "EIS Addendum" instead of "Supplemental EIS". The document should scanned for the word "Addendum".	9
Page 2-12, 1 st full paragraph, 2 nd sentence: change to "it was concluded by the City of Tacoma".	10
Pages 2-21 to 2-25: It would be helpful to include a timeline for each of these Districts.	11
Page 2-33: change "applicant" to "Proponent" as used elsewhere.	12
Page 2-42:	
Change 2nd paragraph under 2.6 to read:	
<u>This document supplements the 1997 ASARCO Smelter Site Master Development Plan EIS. The 1997 EIS is a non-project EIS that identifies and evaluates the probable impacts that could result from four possible alternatives – a No Action Alternative and three project development alternatives of high, middle, and low intensity. This document is a project-level EIS and is intended to supplement the 1997 EIS a project-level EIS by analyzing additional areas and new information to address changes in the proposed action since 1997. In order to focus on the changes since 1997, this DSEIS utilizes the middle intensity development alternative contained in the 1997 EIS as its No Action Alternative. This DSEIS presumes that if, for some reason, the Proposed Action.was not implemented, [delete "presumably"] the development ..."</u>	13
Insert into 2nd paragraph under 2.6.1, that the No Action Alternative in this DSEIS is the same as the middle intensity of the 1997 EIS.	14
Page 3-1: Entitle "Land Use and Shoreline Use."	15

Page 3.1.9, last paragraph of 3.1.1.3, last sentence: Change to:	
It has . . . of possible <u>four</u> future redevelopment alternatives <u>identified in 1997</u> were adequately.....”	16
Page 3-17, 4th paragraph:	
Page numbering switches here from 3.1.17 to 3-17.	17
Page 3-25: needs label on Figure	18
Page 3.5-6 to page 3.5.11: Link phasing of the project to the percentages of park, open space, promenade available.	19
Page 3.5-15: Show the 26 acres and 24 acres of park and open space, with type and phasing indicated.	20

RESPONSE TO COMMENTS FROM THE TACOMA PUBLIC WORKS
DEPARTMENT – Building and Land Use Division
(Letter #8)

Comment 1

The change requested to the *Preface* of this FSEIS has been made.

Comment 2

Wherever possible we have referred to the *ASARCO Smelter Site Master Development Plan* EIS as the 1997 EIS.

Comment 3

The revision has been made.

Comment 4

The revision has been made.

Comment 5

The revision has been made.

Comment 6

The revision has been made.

Comment 7

The revision has been made.

Comment 8

The revisions have been made.

Comment 9

The revision has been made.

Comment 10

The revision has been made.

Comment 11

The comment is noted. Information has been inserted into section 2.5.2 regarding the intended phases and sequencing of development.

Comment 12

The revision has been made.

Comment 13

The revision has been made.

Comment 14

The revision has been made.

Comment 15

The revision has been made.

Comment 16

The revision has been made.

Comment 17

The numbering has been corrected.

Comment 18

The figure has been labeled.

Comment 19

Discussion of the project phasing has been expanded in section 2.5.2 to describe the phasing of publicly accessible parks, recreation areas, open space, the promenade, view corridors and public access including major thoroughfares.

Comment 20

The approximate percentages of the promenade, open space and public accesses within each district are indicated in the graphic added to section 2.5.2 along with a discussion of phasing as it relates to the development of these areas.



City of Tacoma
Public Works
Department

Memorandum

TO: Karie Hayashi, Building and Land Use Services Division

FROM: Merita Trohimovich, P.E., Environmental Services Engineering Division

SUBJECT: Point Ruston DSEIS

DATE: February 13, 2008

MKT

A detailed plan for surface water and wastewater management has not been presented at this time. Based upon the information presented, ESSE has no objections to the proposal as presented and has the following comments:

- 1. The applicant shall obtain all appropriate permits and approvals prior to construction. 1

Wastewater

- 2. All wastewater facilities shall be designed and constructed in accordance with the requirements of the City of Tacoma. 2
- 3. Mitigation shall be provided as outlined in the attached letter to Mike Cohen of MC Construction Consultants Inc. from Karen Larkin of City of Tacoma and dated July 21, 2006. 3

Surface Water

- 4. All surface water shall be managed in accordance with the City of Tacoma Surface Water Management Manual including mitigation of downstream conditions if applicable. 4
- 5. All surface water facilities shall be designed and constructed in accordance with the requirements of the City of Tacoma. 5

The City of Tacoma Surface Water Management Manual is available as an online version at www.ci.tacoma.wa.us/waterServices/permits/manual.htm. The Surface Water Management Manual can be purchased by contacting the Public Works Department, Environmental Services Engineering Division at (253) 591-5588.

RESPONSE TO COMMENTS FROM THE TACOMA PUBLIC WORKS
DEPARTMENT – Environmental Services Engineering Division
(Letter #9)

Comment 1

The proponent would be required to obtain all appropriate permits and approvals necessary for construction to occur.

Comment 2

Wastewater facilities would be designed and constructed in accordance with City of Tacoma requirements.

Comment 3

Mitigation would be provided in accordance with the July 21, 2006 letter.

Comment 4

Surface water would be managed in accordance with City of Tacoma requirements, as well as terms of the Second Amendment to the Consent Decree and other applicable regulations.

Comment 5

Surface water facilities would be designed and constructed in accordance with City of Tacoma requirements.



City of Tacoma
Public Works Department

July 21, 2006

Mike Cohen
MC Construction Consultants Inc.
P.O. Box 8478
Lacey, Washington 98509

Subject: ASARCO Redevelopment (Point Ruston)
Wastewater Mitigation Requirements

Dear Mr. Cohen:

The purpose of this letter is to provide you with an update regarding City of Tacoma Mitigation Requirements for the proposed development at the ASARCO site. In 1997 the City established mitigation requirements for the redevelopment of the ASARCO site, based on the review of the "Master Development Plan Draft Environmental Impact Statement", (ASARCO 1997).

The mitigation requirements specific to the wastewater sewer, required the developer to reduce inflow & infiltration (I/I) in an amount equivalent to the projected new flow generated from the development. The I/I reduction was to be achieved by funding the reconstruction of existing sewer mains.

Based on comments from interested parties, the City has reviewed these mitigation requirements and found they are not consistent with the City's current policies. Therefore, the mitigation requirements established in 1997 for the wastewater sewer are replaced with the following requirements. We believe that you will find these requirements can be more readily addressed and more conducive to the proposed development plans as we understand them.

1

Relocation of Existing 24" Wastewater Trunk Line

The developer will be required to reconstruct the existing 24-inch trunk line in the proposed right-of-way corridor. It is anticipated that this corridor will extend from Ruston Way and Orchard Street to North 51st and Gallagher Way to North 51st and Bennett Street. See attached map.

The reconstruction of the trunk line shall include:

- Extension of any existing mains that currently connect to the existing 24-inch trunk line
- Abandon the existing trunk line. (Method of abandonment will be determined based on redevelopment plan.)
- Minimum pipe size of 24-inch diameter with a minimum full pipe capacity of 23 cfs.

2

The reconstruction of the trunk line shall be designed and approved in accordance with the City of Tacoma's Design Manual and Private Work Order process.

Mike Cohen
July 21, 2006
Page 2 of 2

The reconstruction of the trunk line, as well as, the construction of other public wastewater sewers specific to the site will result in the waiving of the in lieu of assessment fee.

2 cont.

It should be noted that the Town of Ruston may have additional wastewater mitigation requirements, such as capacity fees, associated with the redevelopment of the ASARCO site within the limits of the Town of Ruston.

3

If you have questions or need additional information please contact Jim Parvey, P.E. at (253) 502-2111.

Sincerely,



Karen J. Earkin, P.E.
Asst. P.W. Director/Environmental Services

cc: Eric Anderson, City Manager
William L. Pugh, Director of Public Works
Craig Sivley, Assistant Public Works Director/City Engineer
Jim Parvey, Science & Engineering, Division Manager
Martha Anderson, Assistant Director, CEDD

Attachment: Relocation Map



**ASARCO REDEVELOPMENT
WASTEWATER TRUNK LINE RELOCATION**

LEGEND

— APPROXIMATE
RELOCATION LIMITS



RESPONSE TO COMMENTS FROM THE TACOMA PUBLIC WORKS
DEPARTMENT – Engineering Division
(Letter #10)

Comment 1

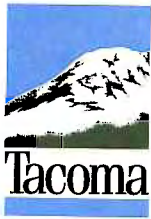
The comment is noted. The project has been designed to comply with mitigation requirements that are now in effect.

Comment 2

The existing 24-inch sanitary sewer truck line that is presently located in Ruston Way would be abandoned and replaced with a minimum pipe size of 24-inch diameter with a minimum full pipe capacity of 23 cubic feet per second (cfs). This work and the construction of public sewers that would serve the project would be designed and approved in accordance with the City of Tacoma’s Design Manual. With approval by the Public Works Department, the alignment may be different than that shown in the exhibit that was attached to the comment letter. This is due to a need to either follow the final Ruston Way alignment or the alignment of roads within the Point Ruston development. The proponent has indicated that some portion of this reconstruction or the construction of new sewers to serve the proposed project may be included in a “developer” Local Improvement District project associated with the realignment of Ruston Way.

Comment 3

The proponent indicates that they will work closely with the Town of Ruston with regard to wastewater mitigation requirements for that portion of the proposed *Point Ruston* development that is located within the Town of Ruston.



City of Tacoma
Public Works Department

Letter 11

DATE: February 14, 2008
TO: Karie Hayashi, Senior Land-Use Planner
Building and Land Use
FROM: Kurtis D. Kingsolver, P.E. *KDK*
Engineering Division Manager
SUBJECT: Traffic Engineering Comments for the Asarco Smelter Site Master Development Plan EIS for Point Ruston--Transportation.

The City of Tacoma Public Works Engineering Division has reviewed the Transportation Section of the Point Ruston Draft Supplemental EIS dated January 2008. Our comments herein focus on project traffic impacts as they relate to the City's transportation system, plans, level-of-service requirements, and public safety. Roadway design and code requirements will be reviewed and approved by City staff later during the plan submittal process. There are two mitigation project lists below. The first list shows the proposed mitigation identified by the applicant. The second list shows additional transportation mitigation identified by the City of Tacoma for the applicant. The completion of both lists will help to ensure this proposal meets the needs of existing and future residents and current and future area businesses.

The transportation study and review of this project was complex because of its size, its multi-jurisdictional location, proximity to waterfront activity and summertime use. As such, the City recognizes the traffic mitigation identified here could be implemented proportional to the development phases of the Point Ruston project. The use of threshold analysis for the completion of project mitigation may be appropriate for this project. The exact timing of these improvements will require additional dialog and agreements between the applicant, the City, and other partners or processes.

1

Applicant Identified Improvements and Mitigation:

Arterial Improvements:

Ruston Way

1. Reconstruct Ruston Way from a two to a three lane cross section with curb and gutter on both sides of the street and planting strip and sidewalk on the project side of the street. 2
2. Provide bicycle lanes on both sides of the street between the north terminus of the Ruston bicycle/pedestrian trail and the proposed intersection at Baltimore/ Ruston Way. Provide a marked pedestrian crossing on Ruston Way to provide a link between the southbound bicycle lane and the Ruston bicycle/pedestrian trail. 3

3. Decommission the existing tunnel on Ruston Way. 4
4. Provide a single lane roundabout at the proposed intersection of N. Baltimore Street/ Ruston Way. Include slip lanes in the roundabout if in the design process they are shown to reduce delay on the more heavily utilized approaches. 5
5. Provide a single lane roundabout at the primary access to the southeast of N. Baltimore Street/ Ruston Way. Include slip lanes in the roundabout if they are shown to reduce delay on the more heavily utilized approaches. 6
6. Provide a two-way stop controlled access with separate outbound turn lanes at the secondary site access to the south of the primary access. 7

Arterial Mitigation:

Ruston Way

1. Widen Ruston Way along the commercial frontage immediately north of N. Alder Street to provide for a center turn lane to reduce delays for through traffic. 8

Arterial and Road Mitigation and Improvements:

Baltimore Street

1. Provide a two-lane roadway with bike lanes to reconnect N. Baltimore Street with Ruston Way. 9
2. Provide curb and gutter on the west side of Baltimore Street north of N. 49th Street where needed. (Improvements to the east side of the street are provided as part of the Stack Hill development.) 10
3. Provide curb, gutter, and sidewalk between N. 49th Street and N. 46th Street where needed. 11
4. Develop a channelization plan for the segment of Baltimore between N. 49th Street and N. 46th Street that provides for a single travel lane in each direction, additional road width for bicycles, and accommodates parallel parking within the usable right of way. The plan should minimize impacts to existing land uses. Review and refine plan with City staff and construct improvements. 12

Improvements to Intersections

1. N Alder Street & N Ruston Way – The level of service on the controlled eastbound approach drops from LOS-A to LOS-F. Providing separate left and right turn lanes or a channelized right turn on the controlled approach would improve level of service on the controlled approach to LOS-D. 13
2. N 30th Street & N Orchard Street – This all-way stop controlled intersection operates at LOS-F under existing PM peak hour conditions and is forecasted to remain at LOS-F with increased delays under future conditions. This intersection is not identified as needing improvement in the Comprehensive Plan but is recommended for signalization. Given its distance from the project site, existing operation, relatively small number of 14

project trips entering the intersection, and absence of plans for improvement; mitigation should be limited to a proportionate share of any improvement that is planned prior to the approval of the Point Ruston development agreement. Signalization would improve level of service to LOS-B.

14 cont.

3. N 51st Street. & N Winnifred Street. – This all-way stop controlled intersection drops from an intersection average of LOS-A to LOS-C with the project complete and occupied. The intersection does not currently meet the warrant requirements for an all-way stop or signalization due to the relatively low volumes on Winnifred Street. From a technical perspective, it would be appropriate to remove the stop signs on N. 51st Street to reduce delays on N. 51st Street. This would increase delays for the small number of vehicles entering N. 51st Street from N. Winnifred Street.

15

While this modification would improve level of service, it would also remove the calming effect of the stop signs on N. 51st Street, which keeps vehicle speeds low between Winnifred and Pearl. A more appropriate tool to maintain low vehicle speeds on the westbound approach to Winnifred would be to narrow the travel lane by providing a curb bulb on the north side of N.51st Street.

4. N. 46th Street & N. Baltimore Street - Provide eastbound and westbound left turn lanes and a southbound right turn lane. Reconstruct the sidewalks/curb ramps at the corners of the intersection to meet current road standards. Provide a marked pedestrian crossing on N. 46th Street.

16

Nonmotorized Improvements

1. Pedestrian and bicycle access to the waterfront for the public will be improved with the proposed waterfront promenade that will connect the north terminus of the Ruston bicycle/pedestrian trail with the proposed Peninsula Park.
2. Bicycle lanes will be provided on Ruston Way between N. Baltimore Street and the north terminus of the Ruston bicycle/pedestrian path.
3. A bicycle route will be included with improvements to the segment of N. Baltimore Street between Ruston Way and N. 46th Street.
4. Provide secure bicycle parking facilities to accommodate a minimum of 75 bicycles.

17

18

19

20

Other Improvements

1. Design the internal roadway to provide for a future access to Peninsula Park when it is developed.
2. In coordination with Pierce Transit, design the internal roadway to provide for future transit service.

21

22

City of Tacoma Project Mitigation for Traffic Analysis Alternatives 1 & 2 without Park, Marina, and Summer Peak Trips:

Ruston Way

- Based on the submitted Synchro reports, the analysis shows that the slip ramps are warranted based on an operating Level of Service (LOS) E and F at the intersections of North Baltimore Street & Ruston Way and the primary access southeast of North Baltimore Street & Ruston Way. Also, Section 3.7 page 49 of the report states that the slip ramps may be needed. The round-a-bouts should be designed for LOS D functionality or at the approval of the City's Traffic Engineer. 23

- The intersection of North Alder Street and Ruston Way will require the installation of a traffic signal. The increased traffic volumes (+300 opposing trips) generated from the project on Ruston Way creates unacceptable delays and safety concerns for left-turning vehicles. Additionally, pedestrians attempting to cross Ruston Way to access area parking lots, restaurants, and neighborhoods will require a traffic signal to make it safer to cross the street. 24

- Extension/Installation of a left turn lane on Ruston Way. The increased traffic volumes generated from the project on Ruston Way creates unacceptable delays and safety concerns for vehicles that turn left to access restaurants and parking lots. The increased volumes also reduce the traffic gaps that permit safer pedestrian crossings. The City has conducted a field and GIS assessment of the location and it has produced the attached map which shows the likely location and length of the warranted left turn lane. The applicant shall work with the City to determine the design and length of the new left turn lane both north and south of the Alder Street intersection as shown. 25

- The intersection of Ruston Way and McCarver Street will require the installation of a protected/permissive left-turn phase to the existing traffic signal. The increased traffic volumes generated from the project on Ruston Way creates unacceptable delays and safety concerns for left-turning vehicles on Ruston Way. 26

- The intersection of North 49th Street and Ruston Way may require the installation of a traffic signal. The increased traffic volume generated from the project on Ruston Way creates unacceptable delays and safety concerns for left-turning vehicles. Pedestrian attempting to cross Ruston Way in this section may need a traffic signal to make it safer to cross. 27

North 51st Street

- The intersection of North 51st Street and Pearl Street in the Town of Ruston continues to be a major concern for the City of Tacoma. Specifically the left turn movement from westbound 51st to southbound Pearl Street has unacceptable (LOS F) delays. The failure to provide an appropriate level of mitigation at this intersection will effect how trips get to and leave the project site. Persons frustrated by the congested intersection will logically use Baltimore Street or Ruston Way as an alternative. The applicant provided an analysis showing Alt #1 (10%) and Alt #2 (20%) shifts in traffic from 51st Street to Baltimore Street however, the 20% 28

shift in traffic to Baltimore Street did not remedy the failed LOS at N. 51st Street. Additional shifts of traffic to these arterials may trigger additional traffic mitigation in Tacoma. The City strongly encourages a quick resolution to the type and installation of mitigation needed to provide a minimum LOS D at this intersection. 28 cont.

- The intersection of North 51st Street and Winnifred Street in the Town of Ruston should remain all-way stop controlled to provide a better measure of pedestrian safety. 29

North 30th Street

- The intersection of North 30th Street and Orchard Street is identified as needing project mitigation by the applicant. City engineering staff recommends the removal of the project from the mitigation list. 30

We appreciate the opportunity to work with Point Ruston and look forward to future communications to help with a successful implementation of the Point Ruston Development.

28'

899'

CITY LIMITS



RESPONSE TO COMMENTS FROM THE TACOMA PUBLIC WORKS
DEPARTMENT – Engineering Division, Traffic Section
(Letter #11)

Comment 1

Proponent agrees to construct identified improvements to Ruston Way adjacent to the site, the Baltimore connection with Ruston Way, and improvements to Baltimore Street between Ruston Way and N 46th St. prior to issuance of occupancy permits for any combination of commercial or residential projects that generate the 450th PM peak hour trip generated by the site. This represents 30% of the total number of PM peak hour trips that the development is forecasted to generate. Identified mitigation projects outside of the corridors identified above would be completed prior to issuance of occupancy permits for projects that generate the 600th PM peak hour trip generated by the site. The potential signalization of the intersection of Ruston Way/ N. 49th St would be provided when signal warrants are met.

Comment 2

Proponent agrees to provide this improvement.

Comment 3

Proponent agrees to provide this improvement as to the vehicle tunnel.

Comment 4

Proponent agrees to provide this improvement.

Comment 5

Proponent agrees to provide this improvement.

Comment 6

Proponent agrees to provide this improvement.

Comment 7

Proponent agrees to provide this improvement.

Comment 8

Proponent agrees to provide this improvement.

Comment 9

Proponent agrees to provide this improvement.

Comment 10

Proponent agrees to provide this improvement.

Comment 11

Proponent agrees to provide this improvement.

Comment 12

Proponent agrees to provide this improvement.

Comment 13

See response to comment #24.

Comment 14

See response to comment #24.

Comment 15

See response to comment #29.

Comment 16

Proponent agrees to provide this improvement.

Comment 17

Proponent agrees to provide this improvement.

Comment 18

Proponent agrees to provide this improvement.

Comment 19

Proponent agrees to provide this improvement.

Comment 20

Proponent agrees to provide this improvement over the course of development with facilities provided proportionally with each phase.

Comment 21

Proponent agrees to provide this improvement to the common property line with Metro Parks and has agreed to coordinate on the final design.

Comment 22

Proponent will coordinate internal roadway design with Pierce Transit. Per Pierce Transit's comments, its primary interest is developing facilities along Ruston Way which proponent agrees to provide.

Comment 23

Proponent agrees to coordinate the design of the roundabouts with City staff.

Comment 24

The FSEIS identifies that signalization of Ruston Way/ N Alder St. would improve level of service to LOS-B and identifies signalization as the recommended mitigation. (See 3.7.2 and 3.7.4)

Comment 25

Proponent agrees to work with the City to determine a feasible design to extend existing and provide new center turn lanes on Ruston Way to the north and south of Alder Street as indicated on the exhibit provided with this comment. The intent of the improvement is to provide a refuge for vehicles making left turn movements and reduce delays to through traffic.

Comment 26

Proponent agrees to provide this improvement.

Comment 27

Proponent agrees to provide this improvement when signal warrants are met.

Comment 28

See section 3.7.2 for additional discussion that relates to this comment.

Comment 29

Proponent agrees with the comment and agrees the retention of the all-way stop benefits pedestrian safety.

Comment 30

Proponent agrees with the City's comment and the change has been made.

-----Original Message-----

From: Hayashi, Karie [mailto:KHAYASHI@ci.tacoma.wa.us]
Sent: Wednesday, January 30, 2008 10:46 AM
To: Garypedersen123@cs.com; Steve Yester; Terry Mccann; Loren Cohen
Subject: FW: DSEIS- Asarco Smelter Site Master Development Plan Final EIS

FYI comments from Tacoma Water.

Karie Hayashi
Building and Land Use Services Division, Room 300
Public Works Department
City of Tacoma
747 Market Street
Tacoma WA 98402
253.591.5387/khayashi@cityoftacoma.org

From: Angel, Jesse
Sent: Wednesday, January 30, 2008 10:09 AM
To: Hayashi, Karie
Cc: Bowen, Heather; Johnson, Christopher
Subject: DSEIS- Asarco Smelter Site Master Development Plan Final EIS

DSEIS- Asarco Smelter Site Master Development Plan Final EIS

Tacoma Water has reviewed the DSEIS- Asarco Smelter Site Master Development Plan Final EIS, and has no additional comments other than what was stated in the response to SEP2007-40000090529, SHR2007-40000090530 and PLT40000090531 Point Ruston which I've attached below.

SEP2007-40000090529, SHR2007-40000090530 and PLT40000090531 Point Ruston, 5005 Ruston Way, Parcel No. 8950003310 and 0221231000

Tacoma Water has reviewed the proposed request and has the following comments:

1. *City ordinance 12.10.045 requires a separate water service and meter for each parcel.* 1
2. *The Customer is advised to obtain private utility easements for any property-side water pipes leading from the City meter to the building on any portion(s) existing on adjacent parcels.* 2
3. *The nearest water main capable of serving this property is located within Ruston Way. Calculated static pressure at the nearest City water main is approximately 100 psi. If fire sprinklering, contact the Tacoma Water Permit Counter at (253) 502-8247 for policies related to combination fire/domestic water service connections.* 3
4. *The Uniform Plumbing Code requires that a pressure-reducing valve (PRV) be installed on the customer's property side service line if pressure exceeds 80 PSI.* 4

- Since the supply elevation of 251' that serves this project will supply an approximate pressure 100 PSI, a PRV will be required for all services.* 4 cont.
5. *New water services will be installed by Tacoma Water after payment of the Service Construction Charge and the Water Main Charge. New meters will be installed by Tacoma Water after payment of the System Development Charge.* 5
 6. *If a new fire hydrant is required at a location with an existing water main, the hydrant will be installed by Tacoma Water after payment of an installation charge.* 6
 7. *Sanitary sewer mains and sidesewers shall maintain a minimum horizontal separation of ten feet from all water mains and water services. When extraordinary circumstances dictate the minimum horizontal separation is not achievable, the methods of protecting water facilities shall be in accordance with the most current State of Washington, Department of Ecology "Criteria For Sewage Works Design".* 7
 8. *Proposed change in zoning density could necessitate upgrading of the water system. This upgrading will be determined by Tacoma Water and paid for by private developers.* 8
 9. *Within Ruston Way, proposals indicate significant re-alignment and grade changes. If existing water facilities need to be relocated or adjusted due to street improvements for this proposal they will be relocated by Tacoma Water at the owners' expense.* 9
 10. *All new or relocation of water main will be installed at the expense of the developer using the Private Contract or L.I.D. process.* 10
 11. *For all water main facilities and appurtenances constructed within the ASARCO Clean-up area a corridor of clean soils shall be provided at the developer's expense and prior to installation of any services. Future ownership and maintenance by Tacoma Water requires clean fill.* 11
 12. *The developer may elect to form a Local Improvement District to finance relocation, extension, and construction of new water mains. A Local Improvement District is an area in which improvements are made and the properties involved are assessed. The improvements are financed by the City of Tacoma thru the sale of Bonds. After all construction is complete and the City Council certifies the final Assessment roll the property owners are billed for their portion of the improvement. The assessments may be paid in full at that time or the property owner may choose to make payments over the course of a set number of years. A lien is filed on the properties in the district for the estimated amount of assessment at the time the Local Improvement District is formed and that amount is changed when the final assessment roll is approved the City Council. The lien is removed when the assessment is paid in full. The developer will be required to provide a 20-foot wide easement over the entire length of the water main, fire hydrant, service laterals and meters. The developers* 12

Professional Land Surveyor shall prepare and submit the legal description of the easement to Tacoma Water for review and processing.

12 cont.

13. In addition to item 11 above, relocation, extension, and construction of a permanent water main may be constructed by private contract. The developer of the privately financed project will be responsible for all costs and expenses incurred by Tacoma Water for preparation of plans and specifications, construction inspection, testing, flushing, sampling of the mains, and other related work necessary to complete the new water main construction to Tacoma Water standards and specifications. The engineering charge for the preparation of plans and specifications will be estimated by Tacoma Water. The developer will be required to pay a deposit in the amount of the estimated cost. The actual costs for the work will be billed against the developer's deposit. The new mains will be installed by and at the expense of the developer. The developer will be required to provide a 20-foot wide easement over the entire length of the water main, fire hydrant, service laterals and meters. The developers Professional Land Surveyor shall prepare and submit the legal description of the easement to Tacoma Water for review and processing. Prior to construction, a second deposit in the estimated amount for construction inspection, testing, and sampling will be due to Tacoma Water. Upon completion of the project, the developer will either be refunded the unused amount of the deposit or billed the cost overrun. Approximate design time is ten weeks.

13

14. Whether electing to form Local Improvement District or construct the water main through the Private Contract process, the developer will be responsible for all costs and expenses incurred by Tacoma Water for preparation of plans and specifications, construction inspection, testing, flushing, sampling of the mains, and other related work necessary to complete the new water main construction to Tacoma Water standards and specifications.

14

Jesse Angel
Engineering Office Coordinator
Tacoma Water
253-502-8280
jangel@ci.tacoma.wa.us

RESPONSE TO COMMENTS FROM TACOMA WATER
(Letter #12)

Comment 1

Comment noted.

Comment 2

Comment noted.

Comment 3

Comment noted. Proponent has indicated the majority of proposed buildings will be fire sprinkled as a matter of compliance with applicable building and fire codes and that combination fire/domestic water service connections will be coordinated with Tacoma Water in the course of design and development

Comment 4

Comment noted. Proponent has acknowledged that it is likely all water services will require a pressure-reducing valve as it is anticipated that all services will exceed 100 PSI at the property side service line.

Comment 5

Comment noted.

Comment 6

Comment noted.

Comment 7

Comment noted.

Comment 8

Comment noted.

Comment 9

Comment noted.

Comment 10

Comment noted.

Comment 11

Comment noted. Proponent has indicated that all utilities within the project will be located in corridors of clean soil as required by the Second Amendment to the ASARCO Consent Decree with EPA.

Comment 12

Comment noted.

Comment 13

Comment noted.

Comment 14

Comment noted.



MEMORANDUM

TO: Karie Hayashi, Tacoma Public Works Department (591-5387)
FROM: Lois Stark, Metro Parks Tacoma (305-1077)
SUBJECT: Point Ruston Project – DSEIS
DATE: 2/14/08

Below are Metro Park Tacoma’s comments regarding the SDEIS to the Asarco Smelter Site Master Development Plan Final EIS for the Point Ruston Project. Please note that we will need to be provided additional opportunities to review and comment on the design for the street, park, open space, view corridors, parking and promenade features as these are developed during later stages of the project development process.

Overall Comments

Metro Parks is in support of the remediation and redevelopment of the former Asarco property if the overall goals relating to public access and open space/recreation opportunities of the Asarco Master Development Plan are met. This Plan was developed after extensive consultation with the public, and accepted by the Park Board, Town of Ruston, and City of Tacoma in 1997. 1

We again want to emphasize the need to ensure that the Point Ruston development is designed in a manner that supports and facilitates the safe movement of pedestrians, cyclists, parents with strollers, roller bladers, dog walkers and other waterfront users along the Ruston Way Promenade to and from Point Defiance Park and the future Peninsula Park site. Closing of this “missing link” in our regional waterfront trail system is a long awaited improvement and an expectation of the public. Vehicular access to and from the Tacoma Yacht Club property must also be maintained, and vehicular access to the future Peninsula Park site must be accommodated. 2

Specific Areas of Concerns

Public Promenade and Public Spaces: We are very supportive of the amount of public spaces that Point Ruston is proposing within this development. The project has the potential of making a significant contribution to the quality of life of not only Tacoma and Ruston residents and

visitors, but for the entire South Sound region. These public spaces are shown on Figure 6 of the DSEIS.

To ensure that these public spaces continue to be well maintained and operated in a safe manner, the ownership and maintenance/operational responsibilities for the public spaces, including the public promenades, interior public access ways, plazas, and other open spaces, along with the proposed features such as art work, sculptures, fountains, and furnishings such as benches and lighting must be clarified. Costs associated with ongoing m/o should be estimated and a strategy to ensure that these public spaces and features are well taken care of into the future needs to be developed and approved by all impacted parties.

3

In the SDEIS Section 3.5.2.3 (Point Ruston Promenade) we would recommend that the “automotive” use described for the Promenade relates only to emergency vehicle and m/o vehicles such as park or utility maintenance vehicles rather than cars/vehicles driven by members of the public or delivery vehicles to the proposed residential or commercial uses.

4

Pedestrian Links / View Corridors: The view impact analysis included in the DSEIS was very helpful and addressed the concerns that we raised in our earlier comment letters. The design of the corridors, called “Interior Public Access” on Figure 6 of the DSEIS, will need to be done in a manner that welcomes the public to walk through the development from the proposed parking areas adjacent to Ruston Way, to the Public Promenade.

5

Impacts on Existing Park Facilities: DSEIS Section 3.5.2.5 (Demand on Existing Park Facilities) describes the Point Ruston project as having no significant impact to the existing parks surrounding the development since the project is providing a large amount of public open space. The DSEIS also describes a very small number of anticipated children to reside in the development based on experience from other similar developments in our area.

6

The information provided in the DSEIS addresses many of our earlier comments, however, the impacts of these new residents on our nearby Vassault Park, a community park which provides active ball and playfields for league and organized sports, should be further explored to determine whether any mitigation measures are warranted.

Traffic and Transportation: SDEIS Section 3.7 (Transportation), the analysis of traffic must take into account vehicular trips both to and from the Tacoma Yacht Club and the proposed Peninsula Park.

SDEIS Section 3.7.4 (Transportation – Mitigation Measures – Other Improvements), the proposed internal roadway system must be designed to provide for future access to Peninsula Park and the Tacoma Yacht Club. The design needs to recognize that traffic to the future Peninsula Park site and to the Tacoma Yacht Club must accommodate commercial semi-trucks and trucks with trailers hauling boats and other equipment/supplies. Consideration must be given to the fact that the Tacoma Yacht Club uses a gate/guard to secure access to their facility.

7

The proposed Public Promenade must be wrapped from the waterfront up along the northern edge of the project to allow for Promenade users to access Peninsula Park and Point Defiance Park. Promenade users must also be provided safe places to cross any proposed vehicular access roads, and the promenade connection through the Tacoma Yacht Club lease area needs to take existing TYC buildings, parking areas, and the City of Tacoma's surface water outfall line into account.

8

The proposed roadway into Peninsula Park will function as a very long cul-de-sac from Ruston Way and deadending in Peninsula Park. An assessment of the public safety and traffic implications of this proposed cul-de-sac configuration should be included in the Final SEIS.

9

Thank you for the opportunity to provide comments on this project. We look forward to continuing to work with you to ensure that this project truly enhances the Ruston Way waterfront.

RESPONSE TO COMMENTS FROM METRO PARKS DEPARTMENT
(Letter #13)

Comment 1

The comment is noted.

Comment 2

The proponent has made a commitment to work with Metro Parks in partnership to design public access, open space and recreational opportunities in a manner that supports and facilitates the safe movement of pedestrians, cyclists, parents with strollers, roller bladders, dog walkers and other waterfront users along the Ruston Way Promenade to and from Point Defiance Park and the future Peninsula Park site. The use of crosswalks at stop-controlled intersections, speed tables where appropriate, change in surface materials or color, and well-designed signage for pedestrians and drivers are design elements that would be employed.

Comment 3

To ensure that public spaces within the development are well maintained and operated in a safe manner, the proponent has indicated their willingness to:

- dedicate public right-of-way for Yacht Club Road and Ruston Way improvements including sidewalks, bicycle lanes, etc.;
- grant a perpetual easement for public access and use of the promenade and view corridors; public access easements would be recorded and would run with the land;
- use landscaping, architectural elements, changes in elevation, street furniture, change of surface materials & color and signage to identify the transition and distinct separation of public and private spaces;
- provide space for store-front police substation on-site; and
- work with stakeholders to address ongoing maintenance and operation and implement a strategy to ensure that publicly accessible spaces and features are well taken care of into the future.

Comment 4

It is intended that vehicular access to the public promenade would be restricted to emergency vehicles and maintenance and operation vehicles, such as park or utility maintenance vehicles.

Comment 5

The view corridors, referred to as “Interior Public Access” on Figure 6, would be designed in a manner that welcomes the public to walk through the development from parking areas adjacent to Ruston Way to the promenade. A combination of landscaping, surface materials and color, and signage would be used to clearly delineate public spaces and move the public between Ruston Way and the shoreline promenade.

Comment 6

The proponent has agreed to work with Metro Parks regarding possible mitigation after completion of an assessment of potential impacts of new residents on nearby Vassault Park, a community park with active ball and playfields for league and organized sports. If mitigation is found to be necessary, it could take the form of on-site improvements such as active ball and playfields within the development or field improvements at Vassault.

Comment 7

The proponent agrees to construct a roadway to serve Peninsula Park and the Tacoma Yacht Club designed to accommodate commercial semi-trucks and trucks with trailers hauling boats and other equipment & supplies and to accommodate a gate/guard to secure access to the yacht club. "Yacht Club Road" is proposed to be built within a 60-foot wide public right-of way from Ruston Way to the shared property boundary with Metro Parks, and continue along the shared property line within a 40-foot wide easement or Right of Way until turning north onto Metro Parks property (see revised Figure 20).

The segment of Yacht Club Road between Ruston Way and the perpendicular intersection with Metro Parks property is proposed as a 60-foot wide right-of-way accommodating 32 feet of pavement with two 11-foot drive lanes, two five-foot bike lanes, and 7.5 foot sidewalks on both sides of the roadway. A speed table and crosswalk at the stop-controlled hammerhead T-intersection would be provided to safely move pedestrians through this area as they travel to and from Peninsula Park and Point Defiance.

As the proposed road continues along the shared property line, the proponent would build more than half of the eventual street configuration within a 40-foot easement that would accommodate two ten-foot wide drive lanes, 5-foot wide landscaping strip, and a 15-foot wide sidewalk as part of the promenade as it wraps around Building 15. Eventually, the property line could become the road centerline when Peninsula Park is constructed.

As shown in revised Figure 20, the proposed road contains two 45-foot radius cul-de-sacs that would be built to the same dimensions as City of Tacoma standard DR-06 to accommodate commercial semi-trucks and trucks with trailers hauling boats, equipment & supplies.

Comment 8

The proponent agrees to revise the design of the promenade to wrap around Building #15 along the north edge of the proposed development in order to facilitate the safe movement of pedestrians crossing vehicular access roads to access Peninsula Park and Point Defiance Park. The promenade connections to Metro Parks property would be designed in partnership with the park district and would take into account the location of existing Tacoma Yacht Club buildings, parking areas, and City of Tacoma's surface water outfall line.

Comment 9

The proposed cul-de-sac configuration, as shown in revised Figures 10 and 20, meets requirements for public safety & traffic requirements, including length of roadway and turning radii.

From: Calvin Goings [CGOING1@co.pierce.wa.us]
Sent: Thursday, February 14, 2008 4:41 PM
To: khayashi@cityoftacoma.org
Subject: Point Ruston SEIS

February 14, 2008

Karie Hayashi, Land Use Planner
Public Works Department
City of Tacoma
747 Market Street
Tacoma, WA 98402

Subject: Point Ruston SEIS

Dear Ms. Hayashi:

Thank you for requesting my comments regarding regional land use and park issues in Tacoma and Pierce County. As the Chair of the County Council's Community Development Committee which focuses on recreation and development issues, I always appreciate the opportunity to comment on such critical items.

As you are aware, the Growth Management Act requires a periodic report on development patterns and vacant/underdeveloped land capacity for Pierce County and its cities and towns. The recent Buildable Lands Report as submitted to the State of Washington, clearly shows that more must be done to accommodate quality, compact development in the urban core of Pierce County. To that end, mixed use proposals that complete needed environmental restoration in existing urban areas should receive our utmost attention.

1

As our community grows, the provision of open space and recreational amenities will also continue to be a challenge throughout Tacoma and Pierce County. Proposals for development that contain large amounts of community parks, as well as complete critical links in our regional trail network are vital.

Thank you again for the ability to comment. Please feel free to contact my office with any questions you may have.

Sincerely,

CALVIN GOINGS
Councilmember
Pierce County Council
(253) 798-6694 (voice)
(253) 798-7509 (fax)
cgoing1@co.pierce.wa.us
www.piercecountywa.org/council

RESPONSE TO COMMENTS FROM THE PIERCE COUNTY COUNCIL
Councilmember Calvin Goings
(Letter #14)

Comment 1

Comments Noted. The proponent indicates that it is intended that the proposed *Point Ruston* development be a mixed-use neighborhood that includes 800 to 1,000 multifamily units (for sale and for rent); as much as 228,000 sq.ft. of retail/commercial space; a 150-room hotel with restaurants and conference facilities; and parks, trails and shoreline amenities along Commencement Bay.

February 14, 2008

Karie Hayashi, Land Use Planner
Public Works Department
Building and Land Use Services Division
City of Tacoma Public Works Department
747 Market Street, Room 300
Tacoma WA 98402-3769

RE: POINT RUSTON PROJECT
ASARCO SMELTER SITE MASTER DEVELOPMENT PLAN FINAL EIS (FEIS)

Thank you for the opportunity to review and comment on the above referenced project. Pierce Transit staff enjoyed the opportunity to review the project information. We believe that this site is an appropriate location for intensive development. This is the type of project with good densities that provides opportunities ideal for transit to serve. Based on the information in the FEIS, transit would likely attract about 240 transit trips per day. While this is not enough to support a route in and of itself, it will significantly improve the market potential of Ruston Way and the ferry terminal at Point Defiance. Accordingly, we anticipate transit service to the site once constructed and if Pierce Transit's finances allow.

Pierce Transit is very supportive of the pedestrian friendly nature of the project's internal design. Given its narrower internal circulator streets, Pierce Transit will likely not operate off of Ruston Way and Yacht Club Drive. While the project proponent has been very supportive of transit requirements and willing to introduce transit service into these internal circulator streets, their design does not lend itself to transit vehicle operations. As a means of speeding travel to and from the ferry dock, we will be pursuing the future connection of Yacht Club Drive to the roadway segments to the north. In the near term, Yacht Club Drive should be constructed to accommodate transit vehicles which might need to access Peninsula Park during community and special events.

1

Additionally, we have the following comments:

1. Page 2-30, The Public Transportation Access section of the FEIS, identifies one transit stop located adjacent to Building 11A. We request three bus stops on each side the street. We will continue to coordinate with the project team as plans progress to identify the appropriate bus stop locations at approximately Ruston Way adjacent to Building 4B, Ruston Way at Building 11A, and Yacht Club Road at Building 14. Provisions should be made for all three pairs of transit stops including ADA boarding area at each bus stop and connections to sidewalks.

2

- The FEIS does not address the impact of pedestrian crossing movements along Ruston Way on the road's traffic capacity. As already occurs on Ruston Way, there will be pedestrians crossing on Ruston Way and their safe crossing should be considered. At the three locations identified for future bus stop improvements, provisions should be made for crossing both Ruston Way and Yacht Club Drive. Additionally, we request that Pierce Transit be involved in the design of traffic circles and roadway segments adjacent to the site. 3
2. Pg. 2-30, Public Transportation Access section also indicates that "Special programs such as flex cars and carpools are also being discussed." As an incentive to encourage the use of alternative transportation modes and given the 3,700 parking stalls included in this project, we request that dedicated Vanpool parking stalls be designated for residents. These would be reserved parking stalls located in high visibility locations for parking of the Vanpool vehicle. A convenient, centrally located carpool area could be utilized as a marketing tool for the high occupancy residences. These should be full size parking stalls as a Vanpool van is generally a 15 passenger vehicle. 4
 3. Pg. 2-30, Public Transportation Access section identifies Pierce Transit as Pierce "County" Transit. Please delete the reference to County from our title. 5
 4. Pg 1-13. Proposed Action Mitigation Measures, last bullet, the sentence is not complete and ends with "Provide curb and gutter on the..." 6
 5. Pg 1-11, No Action Alternative, Transportation Mitigation Measurement, indicates "Employers with 100 or more employees on-site could participate in a Commuter Trip Reduction Program." Similar to our earlier comment, we request placement of convenient, centrally located designated Vanpool parking stalls. 7
 6. Pg 1-17. Other Improvements, second bullet, "In coordination with Pierce Transit, design the internal roadway to provide for future transit service." We appreciate this consideration. We anticipate future transit service on Ruston Way and Yacht Club Road. We look forward to coordinating the placement of three pairs future transit bus stops 8
 7. Pg. 2-15, Project Objectives, sixth bullet, "provide vehicular, bicycle and pedestrian connections and utility stubs to the Metropolitan Park Districts Yacht Basin property and Peninsula Park serving as a connection between the existing Ruston Way Parks and Point Defiance Park". Pierce Transit supports this objective. 9
 8. Pg. 3.5-8, Item I, Roundabout Spaces, indicates that "these roundabouts would provide more efficient flow for traffic generated by Point Ruston." The roundabouts will need to meet design standards to accommodate turning radius of transit vehicles. Again, Pierce Transit requests that we be involved in the design of traffic circles and roadway segments adjacent to the site 10
 9. Pg. 3.7-32, Transportation Section, Transit Service section indicates the "Pierce Transit does not currently have plans to provide transit service along Ruston Way. However, the project will increase the population density in the area and Pierce Transit will evaluate transit service needs once the timing of occupancy and density is known. Point Ruston will provide space 11

for transit stops within the site and support additional stops along Ruston Way if recommended by Pierce Transit.”

Future service along Ruston Way is depicted in Pierce Transit’s Strategic Business Plan in the potential network of urban and suburban routes. We concur that the project will increase density in this area aiding the development of a viable transit market. As indicated earlier we anticipate transit service to the site once constructed and if Pierce Transit’s finances allow. We request accommodation for three pairs of transit stops within the project site.

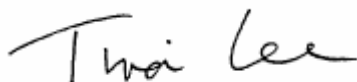
11 cont.

10. Page 3.7-51, Other Improvements, Item 2, indicates “In coordination with Pierce Transit, design the internal roadway to provide for future transit service.” Given the pedestrian orientation of the internal roadway, we do not anticipate transit service on the internal roadway except for Yacht Club Road which should be constructed to accommodate transit service and bus maneuvering movements. We anticipate occasional service along Yacht Club Road accessing Peninsula Park for community and special events.

12

Again, thank you for the opportunity to review and provide comments on this very important project. The project team has been very responsive to Pierce Transit and inclusive of public transportation needs. We look forward to further collaborative efforts as site develops. If you have questions or require additional information on Pierce Transit’s comments, do not hesitate to contact me directly at 253.589.6887 or tlee@piercettransit.org.

Sincerely,



Tina Lee, Senior Planner
Capital Development & Construction Projects

tl

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RESPONSE TO COMMENTS FROM PIERCE TRANSIT
(Letter #15)

Comment 1

Comment noted. The proponent will work with Pierce Transit to ensure that the segments of Yacht Club Drive controlled by the proponent will be designed to accommodate transit vehicles. The Proponent will construct Yacht Club Drive to the boundary of the Point Ruston property. Future connections to Peninsula Park, the Yacht Club, or N. Waterfront Drive are not part of the proposed project.

Comment 2

The Proponent will work with Pierce Transit to refine the location and design of transit stops.

Comment 3

Pedestrian crossings will be included in the roundabout designs at the primary site access on Ruston Way and at the intersection of Ruston Way/Baltimore-Yacht Club Drive. A third pedestrian crossing will be provided on Ruston Way at the south end of the site where the southbound bike lane terminates and crosses Ruston Way to connect with the Ruston Trail.

Pierce Transit will have the opportunity to review roundabout and roadway designs as part of the review process prior to permitting.

Comment 4

The proponent agrees dedicated HOV parking stalls will be provided in high visibility, central locations in support of Vanpool and other alternative transportation programs.

Comment 5

Comment noted.

Comment 6

Comment noted.

Comment 7

Comment noted.

Comment 8

Comment noted.

Comment 9

Comment noted.

Comment 10

Comment noted. The roundabouts will be designed to accommodate A WB-67 truck type which is significantly larger than a transit coach.

Comment 11

Comment noted.

Comment 12

Comment noted.

FEB 14 2008



General Support Services
Buildings & Grounds • Food Services
Planning & Construction • Risk Management
3223 South Union Avenue
Tacoma, WA 98409-3194
253.571.3300 • Fax 253.571.3320

February 14, 2008

Karie Hayashi
City of Tacoma
Public Works Department
747 Market Street, Room 345
Tacoma, Washington 98402

Letter 16

Re: Point Ruston Waterfront – Phase I
File Nos: 40000090530/SHR2007, 40000090531/PLT2007,
40000090529/SEP2007
Comments – Draft Supplemental Environmental Impact Statement

Dear Ms. Hayashi:

Tacoma Public Schools (the “District”) has reviewed the Draft Supplemental Environmental Impact Statement (the “DSEIS”) for the above-referenced project (the “Project”) and submits the following comments.

We understand that the Project includes the development of between 800 to 1,000 residential dwelling units over a period of 8 to 10 years. As the DSEIS notes, students generated from dwelling units in the Project will attend District schools. However, the DSEIS incorrectly states that students from the Project will only attend the following District schools: Point Defiance Elementary School, Truman Middle School, and Wilson High School. *See* page 3.6-7 of the DSEIS. Based upon the Project boundaries and the District’s existing service areas, the following schools will also serve the Project: Sherman Elementary School and Mason Middle School. Please update the language in the DSEIS to reflect this information.

1

Existing School Capacity Data:

Please note that the District’s Board of Directors recently directed the District to implement all-day kindergarten classes. As a result, school capacities have been adjusted accordingly to fit with the District’s adopted “Recommended Program Capacity” (or “RPC”). The RPC is driven by the physical size of the school, program placement and desire to limit enrollment to 550 (ES), 750 (MS) and 1800 (HS) regardless of the size of the facility.

Consistent with this information, the DSEIS should reflect the following school capacities and associated enrollments:

	Point Defiance Elementary	Sherman Elementary	Mason Middle School	Truman Middle School	Wilson High School
Capacity	525	450	750	750	1,800
Enrollment (October 2007)	355	326	778	659	1,189
Available Capacity/Deficiency	170	124	(28)	91	611

2

We understand from the developer of the Project that the residential units in the Project (900 total based upon the developer's figures) would primarily be served by Sherman Elementary School, Mason Middle School (except for 228 units that would be served by Truman Middle School), and Wilson High School.

3

Based upon the above capacity analysis, the District will likely have available capacity at the elementary and high school levels to serve the students generated by the Project, but will lack capacity at the middle school level. In fact, Mason Middle School, which will serve most of the dwelling units in the Project, is currently operating over capacity.

Student Generation Rates:

As the DSEIS notes, the District hired a consultant to establish the average number of students generated from new development within the District (known as the "Student Generation Rate" or "SGR"). The Student Generation Rate quantifies the average number of students generated from a new multi-family dwelling unit in the District.¹ Given that the District's SGR was developed using actual data from recent development within the District, the District disagrees with the conclusions and use of the "Expected Student Generation Rates" in the DSEIS. See pages 3.6-9 and 3.6-10 of the DSEIS.

4

Applying the District's SGR indicates that, if all 900 units are developed, the Project will

¹ The District assumes that all units in the Project are multi-family units as defined by the City of Tacoma Municipal Code. Please note that a different student generation rate is applied to single family units. Single family units tend to generate more students than multi-family units.

generate the following students per grade level:

	Elementary (900 units)	Mason Middle (672 units)	Truman Middle (228 units)	High (900 units)
Multi-Family SGR	.130	.047	.047	.069
Total Expected Students (900 MF units)	117	32	11	62

4 cont.

As noted above, Mason Middle School, which will serve 672 dwelling units in the Project, is currently operating over capacity. Any additional students, especially the estimated 32 students, generated from the Project will adversely impact the District's middle school facilities in this service area. As such, the Project, without mitigation, will adversely affect middle school capacity.

5

Furthermore, the District respectfully disagrees with the comment in the DSEIS that "[r]evenues from property taxes, along with school impact fees to be paid by future residential developers, would help offset increases in demand for school services from Point Ruston redevelopment." See page 3.6-18 of the DSEIS. The developers of the Project should be required, like other developers impacting schools, to provide appropriate school mitigation

6

We appreciate the opportunity to comment on this DSEIS for the Project. Please contact me at (253) 571-3300 if you have any questions. In addition, please provide me with a copy of all notices regarding this Project. Thank you.

Sincerely,



Sam Bell
Executive Director,
General Support Services

cc: Pete Wall, Director, Planning & Construction
Denise L. Stiffarm, K&L Gates, LLP

RESPONSE TO COMMENTS FROM TACOMA SCHOOL DISTRICT
(Letter #16)

Comment 1

Analysis in **Section 3.6** of this FSEIS has been revised to reflect that Sherman Elementary and Mason Middle School would also serve the *Proposed Action*.

Comment 2

Analysis in **Section 3.6** of this FSEIS has been revised to reflect provided capacity, enrollment and available capacity information for schools that would serve the *Proposed Action*

Comment 3

Analysis in **Section 3.6** of this FSEIS has been revised to reflect that Mason Middle school is operating over capacity and does not have excess capacity to serve the *Proposed Action*.

Comment 4

The comment is noted.

Comment 5

Analysis in **Section 3.6** of this FSEIS has been revised to note that additional students generated from the *Proposed Action* would likely adversely impact Mason Middle school without mitigation.

Comment 6

A commitment by the proponent to work with the School District on the mitigation of its direct actual impacts has been added to **Section 3.6.3**.



TOWN OF RUSTON

5117 N. WINNIFRED STREET

RUSTON, WASHINGTON 98407-6597

PHONE (253) 759-3544

FAX (253) 752-3754

Letter 17

February 13, 2008

City of Tacoma
ATTN: Karie Hayashi
747 Market Street, Room 345
Tacoma, WA 98402

RE: Town of Ruston Comment Letter - Draft Supplemental Environmental Impact Statement to the Asarco Master Development Plan Final EIS

Dear Ms. Hayashi:

On January 16, 2007, the Town of Ruston received the Draft Supplemental Environmental Impact Statement (hereafter DSEIS) to the Asarco Smelter Site Master Development Plan Final Environmental Impact Statement. The Town has completed its review of the DSEIS and is submitting the following comments relating to the potential impact of the proposal as it relates to the Town of Ruston.

General Comments:

The Town of Ruston has several specific comments on the DSEIS which will be discussed in more detail below. There is, however, one overarching concern that impacts several components of the DSEIS and which is extremely concerning to the Town of Ruston – this concern is the proposal’s inconsistency with the Town of Ruston’s Development regulations. While the Town is currently reviewing those regulations for possible revisions, the Town, like any other jurisdiction, can only amend its development regulations through the normal legislative and public process. As such, the Town cannot support a DSEIS that is inconsistent with those regulations.

1

The Asarco Master Development Plan (MDP), adopted by the Town of Ruston in 1997 by Ordinance 1002 and amended by Addendum A, is the primary development regulation controlling development on this site within the Town of Ruston. Both the MDP and Ordinance 1002 went through an extensive planning process, which involved multiple public meetings and in-depth environmental review.

As presented in this DSEIS, several revisions/amendments to Ordinance 1002 and the Town’s Shoreline Plan will be required before this proposal could move forward. This fact is not fully or consistently acknowledged in the DSEIS. Furthermore, the DSEIS includes many misleading and inaccurate statements about Town of Ruston Ordinance 1002 itself, and about the relationship of the proposal to Ordinance 1002. These statements must be corrected as will be noted further in this letter.

2

This issue was previously documented in the Town's May 23, 2007 Scoping Comment Letter. In that letter, the Town noted:

The Land Use and Shoreline use section (Plans and Policies) should include a discussion of all changes that will require an amendment to the Asarco Master Development Plan (Town Ordinance 1002) and the Town's Comprehensive Plan. For example, the applicant has proposed the elimination of the round-about located at the convergence of Ruston Way, Baltimore Street & N. 52nd Street and the elimination of a connection to the Ferry terminal, but these attributes are shown in Figure A-10 *Subdivision Plan* of the Asarco Master Development Plan and Figure 16 of the 1997 EIS Appendices.

3

It is the Town of Ruston's position that the DSEIS must specifically identify the areas where the proposal is different or inconsistent with the Town's adopted development regulations, and that the DSEIS must make clear that any inconsistencies with the Town's development regulations must be resolved. This analysis should include inconsistencies with the:

4

- Land uses allowed
- Open space standards
- Transportation network changes (pedestrian/bicycle/vehicle circulation)
- Subdivision Plan
- Physical layout of open spaces and view corridors,

Furthermore, the Asarco Master Development Plan as adopted by Ordinance 1002 has not been amended to allow residential uses on the entire site. Section II the Draft SEIS asserts that with Asarco's approval (letter in Appendix C) the proposals are consistent with the adopted MDP, this is not correct. While the Town and other stakeholders did agree on the concept of residential land use on the entire site; the agreement has never gone through the necessary process for amending the development regulations. The conceptual agreement was:

5

- In the form of a resolution. Resolution 333 adopted by the Town recognized Residential uses on the site. A Resolution is not an instrument that modifies the MDP or Ordinance 1002.
- The agreement was made subsequent to the Asarco Master Development Plan EIS and the adoption of Ordinance 1002, thus the impact of residential use has not been fully examined.

Unless and until Ordinance 1002 is amended, it is difficult to determine what the proposed project will ultimately consist of or whether it will be substantially similar to that which is proposed. Consequently, it is difficult to conclude whether the environmental review as contained in the DSEIS is adequate. Clearly further environmental review will be necessary if the analysis and changes recommended in this letter are not adequately addressed. It must therefore be noted in the DSEIS that the Town of Ruston may require additional environmental analysis at the time of application for permits in the Town of Ruston and/or when amendments to the MDP and Ordinance 1002 are considered.

6

Specific Comments:

In the following comments a reference to the Master Development Plan indicates a reference to the plan as adopted by the Town of Ruston in Ordinance 1002. The comments were formatted to follow the structure of the Draft Supplemental EIS. The general comments provided above should be read to apply to the following specific comments. The Town's Comments are as follows:

Table of Contents, List of Figures

pg x. List Figure 8 as being on page 2-27.

7

pg x. List Figure 9 as being on page 2-28.

Fact Sheet

pg iv.

- **Town of Ruston:** Needs to reflect that an amendment to the Town's Development Regulations will be required. 8
- **Washington State Department of Ecology:** will a Phase II NPDES permit be required for the Town of Ruston? The development will have an impact on the Town's population; the Town's population will increase to over 1,000 persons. A discussion on the NPDES requirement's applicability to the Town must be included in the FSEIS. 9

Summary

1.2 PROJECT DESCRIPTION and ALTERNATIVES

pg 1-2, the last two sentences state: *The development baseline, therefore is not an underdeveloped site, but rather the development that was approved as the Asarco Smelter Site Master Development Plan and is described in the No Action Alternative in the DSEIS. As such, no significant adverse land use impacts are anticipated.*

The proposal submitted to the City of Tacoma differs from the regulations set forth in the Asarco Master Development Plan as adopted by Ordinance 1002, thus there are impacts on the site within the Town of Ruston. It is the City of Tacoma and the Town of Ruston responsibility to make a determination on significant impacts, therefore the statement, *As such, no significant adverse land use impacts are anticipated*, must be removed. A similar comment applied to the summary table (Table 1.3 Summary: Impacts and Mitigation Matrix); the word "significant" should be removed from Table 1.3.

10

Section II Project Description

Figures 4 through 7, 10, and 11 all show the incorrect jurisdiction limits, this must be revised to reflect the accurate Town of Ruston and City of Tacoma jurisdiction limits. 11

Figures 4 through 7, 10, and 11 are not complete; the legend does not contain any information on Buildings 16, 17, 18A, and 18B. These need to be revised. 12

Figures 1, 2, 10, 14, 15, 16, 17, and 18 title blocks make reference to Point Ruston EIS Addendum; this reference needs to be changed to Supplemental EIS. 13

2.3 BACKGROUND INFORMATION

The first paragraph states that the Draft Environmental Impact Statement is an EIS Addendum. This is incorrect and needs to be corrected. 14

2.3.1 Site History

Specific requirements that impact a specific proposed district under the Conditions of Sale of the property to Point Ruston should be incorporated into this component of the SEIS. Areas of specific concern to the Town of Ruston are: (1) landscaping of steep slopes above Ruston Way and around the OCF, (2) treatment of the cooling pond site, (2) and provisions of the hard surface pathway on the edge of Promontory Park what was also designed to accommodate vehicles monitoring and maintaining the OCF. 15

2.3.2 Master Development Plan EIS

pg 2-8 states that: *Residential uses were contemplated and made conditional upon Asarco's approval (See Master Development Plan Section D.1.6.5), which was provided to Point Ruston LLC (Appendix B of this DSEIS).*

Modify this paragraph to accurately describe the MDP EIS. The EIS did not include the potential for residential uses except on the Stack Hill sites (development areas U-2 and U-3). Also, the reference to the letter in Appendix B is not correct, it is in Appendix C. The Asarco letter in Appendix C describes the subsequent actions where Ruston and other stakeholders accepted the concept of placing residential uses on the site, but this was not covered in the MDP EIS. 16

The Master Development Plan was adopted by the Town of Ruston with Ordinance 1002 and has not undergone the necessary process to change the Asarco Master Development Plan to allow residential uses on any site other than Stack Hill. A change in land uses will require an amendment to the Asarco Master Development Plan. The sentence must be revised to accurately reflect the status of residential uses in Ordinance 1002.

2.5 DESCRIPTION OF THE PROPOSED ACTION

A chart describing in greater detail the phasing of the various development districts with the related infrastructure must be provided to assure coordination among service providers. 17

2.5.1 Project Overview

The opening paragraph describes four proposed development districts. For purposes of comparison to the Asarco Master Development Plan development districts, a map showing the relationship of the four proposed development districts to the Asarco Master Development Plan districts must be provided. 18

The last paragraph on page 2-16 describes the open space concept and refers to Figure 6 (page 2-19); it is difficult to differentiate between public and private space in Figure 6. This figure must differentiate between public and private space. 19

Is the triangle of water area adjacent to the Marina District to the north included in the open space figures for the Town of Ruston; this issue must be clarified. 20

2.5.2 Point Ruston – Full Build Out

2.5.2.3 Baltimore District

pg 2-25. The site plan shows a footprint for building 12 in the Baltimore Street District. Ordinance 1002, Addendum A identifies the area where building 12 is proposed as a supplemental public parking area specifically planned to serve Promontory Park and for residents to have access to the Promenade. The SEIS must discuss how this need will be met in the current proposal. 21

2.5.2.4 Marina District

pg 2-25. It appears that Building 14 may conflict with Ordinance 1002, which identifies the need for a pedestrian path/stair connecting from the upper pathway around Promontory Park to the lower development area and pedestrian system. Discussion of an alternative for this connection must be provided. 22

2.5.2.6 Open Space

pg 2-26. The bulleted items do not reflect the Open Space provisions as outlined in the Asarco Master Development Plan. The Asarco MDP references a 12 foot pedestrian path and view point at the edge of the Promontory which would also be used for monitoring and upkeep of the OCF. 23

The Asarco Master Development Plan also makes provision for a path connection from the top of Promontory Park to the pedestrian system serving the lower portion of the site.

Discussion of the impact of the proposal on these items in Ordinance 1002 must be provided. 23 cont.

2.5.2.7 Roadways, Access, and Parking

A phasing chart must be provided in 2.5.2.7 showing the development schedule with related roadways, access, and parking improvements. 24

pg 2-31. Figure 10, Park Enhancements, must show at least the pedestrian path at the perimeter of Promontory Park and the path/stair connection to the lower development area and pedestrian system. 25

pg 2-32. Figure 11, Site Plan Connectivity, must show the pedestrian path at Promontory Park as well as the connection to the lower development areas and pedestrian system. 26

3.1 Land Use

3.1.3.2.3 Town of Ruston Comprehensive Plan

pg 3.1-15, **Summary** states: *In 1994, the Town of Ruston adopted a Comprehensive Plan consistent with the provisions of the Growth Management Act. That Plan identified the ASARCO site as a mixed use Planned Development.*

This statement is not accurate. The 1994 plan did not identify the ASARCO site as a mixed use Planned Development. The Comprehensive Plan was updated in 2003, at that time the Asarco site was given a land use designation of MPD, Master Planned Development (Mixed Use). The statement must be revised. 27

After the second sentence in this paragraph, all information pertains to the Asarco Master Development Plan, NOT the Comprehensive Plan. A new heading for "3.1.3.2.4 Town of Ruston, Asarco Master Development Plan" must be inserted. 28

pg 3.1-15 The third sentence of the **Summary** states, *The Master Development Plan (MDP) provides detailed long range planning direction for redevelopment of the former ASARCO site in terms of the site plan, infrastructure, parks, and open space and development.*

This sentence must be changed to state: As applied to the Town of Ruston, the Asarco Master Development Plan is a development regulation that provides detailed long range planning direction for redevelopment of the former ASARCO site in terms of the site plan, infrastructure, parks, and open space development. 29

pg 3.1-15 The fifth sentence of the **Summary** states: *Specifically, it identifies encouraged uses for all areas of the site. These uses include: commercial (e.g. office and professional business, research and development, financial services, business services, personal services, food and beverage, hotel and hospitality, and health care).* 30

This fifth sentence is not accurate. It is Table D-1 of Addendum A to the Asarco Master Development Plan that identifies the uses appropriate for development areas. This statement must be revised to reference Table D-1.

30 cont.

pg 3.1-15 The sixth sentence of the **Summary** that states: *Residential uses were noted as conditional, upon approval by ASARCO.*

The sixth sentence is not accurate. Addendum A to the Asarco Master Development Plan states that Residential uses are noted as a conditional use, upon approval by ASARCO **ONLY** in areas designated as U-2 and U-3 (Stack Hill area) of the Asarco Master Development Plan. Areas U-2 and U-3 are not included within the applicant's proposed action under review in this SEIS (Areas U-2 and U-3 are currently in the process of being platted as Stack Hill in the Town of Ruston). An amendment to the Asarco Master Development Plan will be required to accommodate residential uses within areas U-1, C-1, C-2 (these are the development areas, as defined by the Asarco Master Development Plan, associated with the applicant's proposed action).

31

This sentence must be revised to indicate that Residential Uses are not permitted on the Waterfront Site in Ordinance 1002.

pg 3.1-15, the **Summary** second paragraph states: *The MDP specifies height and bulk limitation for the development of the site. The height limit is 60 feet above minimum floor area for all areas within the Town and the Floor Area Ratio (FAR) is 0.75.*

The Asarco Master Development Plan Table D-2 Development Area Restrictions established a height limit of 60 feet above minimum floor elevation. Table D-2 indicates the Minimum recommended floor elevations. Data from Table D-2 of the Asarco Master Development Plan must be included in the second paragraph.

32

Discussion must be provided regarding the difference in the site area under which the FAR is calculated in the proposal and effect on building footprint, and square footages.

33

The proposal uses different development areas than those of Ordinance 1002. The impact of this change on building coverage of the total site must be discussed. The development areas established in the applicant's proposed action (Marina District, Promenade District, Viewpoint District, Baltimore District) are not consistent with the development areas established in the Asarco Master Development Plan (U-1, C-1, C-2). The Asarco Master Development Plan states that a maximum Floor Area Ratio of 0.75 is allowed in development areas U-1, C-1, C-2 of the Asarco Master Development Plan. The SEIS must acknowledge that the Floor Area Ratio proposed must be calculated in accordance with the site areas set forth in the Asarco Master Development Plan.

34

pg 3.1-15, **Discussion** states: *The proposed Point Ruston development would be consistent with the intent of the mixed-use nature of the adopted Master Development Plan. With the residential use approval provided by ASARCO, the Proposed Action is also consistent the use provisions of the Master Development Plan, as well as the development standards.*

The statements in the **Discussion** are not correct. The SEIS must acknowledge that the Proposed Action is not consistent with the use provisions of the Asarco Master Development Plan as currently adopted under Ordinance 1002. Residential Uses are not a conditionally allowed use in the area of the applicant's proposal. 35

3.1.3.3 City of Tacoma and Town of Ruston Shoreline Management Plans

3.1.3.3.2 Town of Ruston Shoreline Management Plan

Pg 3.1-17, **Summary**, second paragraph, fourth and fifth sentence states: *The Master Development Plan for re-use of the former ASARCO site was adopted by the Town in 1997 (Ord.1002). The plan in essence amended the City's Shoreline Management Plan by defining the uses and development standards authorized within the shoreline district portion of the project site.*

This statement must be removed. The Shoreline Management Plan was not amended by the adoption of the Asarco Master Development Plan, Ordinance 1002. 36

Pg 3.1-17 **Discussion** states: *Either a revision to the City's SMP may be necessary or adoption and approval of that portion of the Point Ruston development as a replacement to the existing Master Development Plan.*

Town's Shoreline Master Plan states that, "Commercial uses which are not dependent upon a shoreline location shall be prohibited." 37

The SEIS must be revised to state: "To accommodate the applicant's proposal, the Town's Shoreline Master Plan will need to be revised in a public process led by the Town of Ruston or a conditional use permit from the Town will be required; both actions will require approval from Washington State Department of Ecology." 38

3.1.3.4 City of Tacoma and Town of Ruston Development Regulations

A new sub-heading must be included in Section 3.1.3.4 to facilitate a discussion on the **Town of Ruston Asarco Master Development Plan**. This new section must include a detailed discussion on what amendments will be necessary to the Asarco Master Development Plan to facilitate the applicant's proposal. 39

3.1.3.4.2 Town of Ruston Zoning Code (pg 3.1-17)

Pg 3.1-17 **Discussion** states: *The proposed Point Ruston development would be consistent with the uses allowed by the MDP and the development standards.*

Residential Uses are not consistent with the Asarco Master Development Plan. Areas identified as Open Space (Areas E, F, and N) in the Asarco Master Development Plan are shown as developed multi-use development areas in the applicant's proposal. The SEIS must identify 40

amendments to the Asarco Master Development Plan that will be required to allow for the development of the applicant's proposal. 40 cont.

3.2 Aesthetics

Figure 3.2-18, Location 3: Residence around 51st and Bennett Street (pg 3-30) shows the view as it would be as proposed by the applicant. Figure 3.2-32, Location 3: Residence around 51st and Bennett Street (pg 3-50) shows the view if the site was developed in accordance with the Asarco Master Development Plan. The Asarco Master Development Plan created a view corridor for people as they traveled down 51st Street to the water front site. From the exhibits, it appears this corridor has been blocked by the applicant's proposed action's configuration of the structures on the site. 41

The SEIS document must discuss the impact on the view corridor from 51st Street as an unavoidable adverse impact of the proposal.

3.3 Housing

pg 3.3-2. Land Use and Population Density/Planned Development. The 6th bullet identifies a household size of 2.45 persons per multi-family unit, but in discussing park level of service and guidelines the applicant suggested that a household size of 1.75 person per unit be used. Justification for the suggestion must be provided. 42

3.4 Environmental Health

Section 3.4 needs to be expanded to include more detail provided from the Second Amendment to the Consent Decree regarding specific requirements that affect the development and the phasing of the project. 43

pg 3.4-2 The EPA letter dated November 13, 2007 to the City of Tacoma is referenced as being in Appendix C; this is incorrect, this letter is in Appendix E. 44

3.5 Public Parks, Recreation, Open Space

3.5.1.1 Parks Level of Service Guidelines, Town of Ruston

pg 3.5-5 The FEIS must discuss how the proposed project is in compliance with the Parks and Recreation Concepts & Goals and the Park Standards in Chapter 6.5 of the Town's Comprehensive Plan. 45

3.5.2 Impacts of the Proposed Action

Section 3.5.2 must include a discussion of the impact the proposed development will have on "Crescent Park" as shown in the Asarco Master Development Plan. The proposal would be a major change from the open space system adopted by the Town of Ruston with Town Ordinance 1002, the Asarco Master Development Plan. On page C-25 of the Asarco Master 46

Development Plan, it states that “The Crescent Park is likely to be the central focus of the site for pedestrians using the promenade, as well as occupants of buildings on Development Areas C-1 and C-2.” 46 cont.

pg 3.5-5 states that the household ratio of 2.45 residents per dwelling unit is too high for multi-family units. The Draft SEIS states that a 1.75 residents per dwelling units is more appropriate, this assumption results in a population range from 1400-1750 persons rather than 1,950 -2,450 residents as configured by the Tacoma Comprehensive Plan. There is no substantial discussion or data provided in the Draft SEIS on this matter. The rationale for the lower household size must be discussed in greater detail; and unless persuasive, the higher figure should be utilized. 47

3.5.2.2 Operations

This section may need to be revised in response to the comment on 3.5.2. 48

Table 3.5.3 Point Ruston Proposed Parks, Recreation, and Open Space Area

pg 3.5-8. Row L: The language in the *Description* implies that not all of Promontory Park is owned by Point Ruston; however, the site plan maps in Section II show the entire site to be included. Clarification must be provided. 49

The description and maps must reflect the viewpoint and pedestrian path at the edge of Promontory Park or the proposed path /stair connection from the top of the promontory to the lower development's recreation facilities shown in the Master Development Plan. Discussion of the supplemental parking proposed off Ruston Way as indicated in the Asarco Master Development Plan (Ordinance 1002) must be included. 50

This Table must include reference to the Green Hillside along Ruston Way and around Promontory Park shown in the Master Development Plan. These are listed in 2.5.2.6. These steep slopes must be discussed and given a high priority for landscaping in the phasing of the project. 51

3.5.2.4 Park Construction – Phased Approach

pg 3.5-10

It is noted in the document that the 12 foot pedestrian path at the perimeter of Promontory Park would be utilized as part of the monitoring and maintenance activity of the OCF. Is the requirement for the construction of this path such that it needs to be built prior to the related development in the Marina District? Please clarify. 52

The Green Hillside are environmentally sensitive and need to be landscaped in the first phase of the development process. Please clarify the phasing of this work. 53

3.5.2.5 Demand on Existing Park Facilities

pg 3.5-11. In the second paragraph on this page, the lower population range has again been utilized. This needs to have an expanded discussion and justification as previously indicated. 54

In the fourth paragraph the acreage in the City of Tacoma includes a significant amount of open space that is water in Tract A, the comparison to requirements of the Tacoma's Comprehensive Plan are therefore overstated. The acreage figures must be revised or clarified. 55

In the fifth paragraph in the discussion on the Town of Ruston, the demand must be restated to recognize that the park, recreation, and open space contained in the Asarco Master Development Plan was adopted with Ordinance 1002. 56

3.5.3 Impact of No Action Alternative

pg 3.5-13. In the third paragraph the SEIS notes that the sale of school property in Ruston has precluded the expansion of Promontory Park across Bennett Street. The SEIS must acknowledge that, this does not change the requirement to provide the pedestrian path, view point and some recreation development on that property. 57

Table 3.5.4 No Action Alternative Asarco Master Development Plan Park Tracts

Pg 3.5-13 through 3.5-15. The green hillsides and cooling pond must be included within the Table 3.5.4 58

3.5.4 Mitigation Measures

Pg 3.5-15 and 3.5-16 A significant amount of open space that is water in Tract A is included in the amount of parks and open space provided in the City of Tacoma, thus the amount of open space provided is overstated, the acreage figures must be clarified. 59

The second paragraph again refers to the Town of Ruston not having an adopted Level of Service Guideline for Parks and Open Spaces. This is incorrect. The SEIS must acknowledge that the adoption of the Asarco Master Development Plan with the park, recreation, and open space facilities anticipated in the plan and as adopted in the Town's Comprehensive Plan constitutes the Town's Level of Service. 60

Pg 3.5-17. Figure 19 MDP/Point Ruston Parks Comparison. The park related parking at the base of Promontory Park adjacent to Ruston Way must be shown. 61

3.6 Public Services and Utilities

3.6.1.1

Fire Department Planning

pg 3.6-5. second paragraph, states: *The RFD has acknowledged sufficient capacity for the anticipated build out of Point Ruston.* This statement is not true and should be removed. 62

3.6.2.1.2.4 Utilities

Electricity

pg 3.6-20 Fourth paragraph (under Electricity subheading) states that: *the question of whether Ruston provides power to the portion of the property within the Town limits or Tacoma Power directly supplies the entire project is being discussed.*

This statement should be removed; the Point Ruston site will be served by both the Town of Ruston Electric Utility Department and by Tacoma Power. The Town of Ruston Electric Utility Department will serve the 37.81 acres of the property that is within the Town of Ruston boundaries and Tacoma Power will serve the remaining 44.43 acres that is within the City limits of Tacoma. 63

The Ruston side of the project site can be served from the Town's existing electrical distribution system on North 52nd Street where the extension of Baltimore meets 52nd Street and/or from the extension of the Tacoma Power electrical distribution system on Ruston way through a second primary metering system 64

Currently the Town of Ruston is served out of Tacoma Power Defiance substation through a 12.5 KV primary metering system. Town of Ruston has submitted a written request to Tacoma Power to obtain source of power from Tacoma. With the addition of the second source of power, Town of Ruston would have ability to loop the power line through the site and be able to serve the site from either of the two sources when necessary.

Stormwater

The City of Tacoma's storm sewers operate under a Phase I Municipal Stormwater Permit. The Town of Ruston does not operate under a Phase I or Phase II NPDES permit as the population of the Town has not required that the Town's system obtain an NPDES permit from the Department of Ecology. 65

The Office of Financial Management Official April 2007 population estimate for the Town was 750. The proposed development could cause the population to increase to over 1,000. It is possible that an NPDES Phase II permit will be required to be obtained from the DOE by the Town. The impact of this project on its requirement for an NPDES permit must be discussed. 66

3.7 Transportation

General Transportation Comments:

The extension/connection of Ruston Way to the Ferry Terminal in Figure B01 of the Asarco Master Development Plan was eliminated in the applicant's proposal. The extension/connection of Ruston Way to the Ferry Terminal is an important mitigating measure that was included in the 1997 FEIS; this was noted in Comment 9 of the May 23, 2007 letter in response to the project application. This issue must be discussed in the Final SEIS. If alternative options are proposed from Ruston Way to the Ferry Terminal, these issues must be discussed as well. 67

The Asarco Master Development Plan requires Ruston Way have a setback of 19' from curb to sidewalk on the north side, this is not shown in the DSEIS. 68

Hammerhead turnarounds must comply with International Fire Code Requirements. 69

The impact of removing the Peninsula Park walkways must be examined in the Final SEIS. The removal of the Peninsula Park walkways is not consistent with the Asarco Master Development Plan. 70

Roadway profiles of proposed street connections were not provided. The Roadway profiles must be provided in the Final SEIS. The roadway profiles shall be consistent with the AASHTO Guidelines for Roadways and Streets. 71

No fencing of remediation facilities is shown. The Asarco Master Development Plan requires screen fencing remediation facilities, these are not shown in the DSEIS exhibits. The impacts of not having screen fencing will need to be examined. Not having screen fencing is not consistent with the Asarco Master Development Plan. 72

The Ruston Way improvements are shown to extend up to Pearl Street in the Asarco Master Development Plan, it is not clear where the Ruston Way improvements end from the information provided in the DSEIS. If the improvements are not shown to extend to Pearl Street, this impact must be examined in the Final SEIS. 73

The consistency of proposed street sections with the street sections adopted in Ordinance 1002 is not discussed. A table must be provided showing the Ordinance 1002 street section requirement and the current proposal. 74

Figure 11 of the DSEIS shows a 4 foot bike lane on the north side of Ruston Way, this is inconsistent with Table B-2 of the Asarco Master Development Plan which shows a 5 foot bike lane and 6 foot sidewalks on both sides. The impacts on pedestrian and bicycle circulation must be examined in the Final SEIS. 75

Figure 11 of the DSEIS shows Ruston Way to be a two lane road, the Asarco Master Development Plan shows Ruston Way to be a three lane road. 76

Figure 11 of the DSEIS, the Bike lanes are not shown on North 51st Street on both sides of the street; two 5' bike lanes are required on each side of North 51st Street. 77

pg 3.7-14, Figure 3.7-3. Average Weekday PM Peak Hour Traffic Volumes, Existing 2006. The data in Figure 3.7-3 does not correspond with the data in Chart 3.7-1, Chart 3.7-2, Chart 3.7-3, Chart 3.7-4, Chart 3.7-5, Chart 3.7-6 (pages 3.7-6 through 3.7-8) or the data in Appendix D. The discrepancies in the data in the two locations must be corrected to be consistent with each other in order to evaluate the project's impact. 78

pg 3.7-21 states that: *Table 3.7-11 summarizes the revised trip generation forecast used to analyze future condition in 2014 with the project complete and occupied.* However, the Draft SEIS indicates in the Summary on pg 1-2 that it is anticipated that full build out of Point Ruston could occur within an 8 to 10 year timeframe. The project complete and occupied date in the Transportation component of the Final SEIS must correspond with the projected full build out date of 2018 for project impact analysis. 79

A twenty year forecast must be utilized to illustrate traffic volumes resulting from the average and summer conditions and the redistribution scenarios, rather than a 6 year. 80

Page 3.7-49 discusses some transportation improvements. The widths and roadway sections of improvements must be shown (not currently). The proposed sections must be consistent with Ordinance 1002 within the Town of Ruston. If deviations from Ordinance 1002 are proposed, the SEIS must note and discuss the deviations. 81

The SEIS proposes to remove the stop signs at 51st Street and Winnifred to improve traffic flow on 51st, but this will make it harder to turn onto 51st from Winnifred. A bulbout is proposed to slow traffic and mitigate this impact. The increased difficulty of turning from Winnifred onto 51st should be specifically noted as an adverse impact that won't be fully mitigated. Options of mitigating this impact must be discussed in the Final SEIS. 82

Point Ruston must be required to submit sufficient design information to allow the Town the ability to determine if peak traffic during holidays and the summer are capable of being served. 83

General Cumulative Impacts

The cumulative impacts of surrounding projects must be considered and discussed as a component of the Final SEIS document. 84

Discussion must be provided on the pier removal, retention and or future use. 85

Conclusion:

The Town of Ruston looks forward to working with the City of Tacoma and the applicant towards resolving these issues. Please contact Carl Stixrood at 206.324.5500 if you have any questions.

Sincerely,



Carl Stixrood for

Not Available for Signature

Michael Transue
Mayor of the Town of Ruston

cc: Town Council
Jennifer Forbes, Town Attorney
Carl Stixrood, Town Planner
David Talcott, Consulting Engineer
Robert Burke, Consulting Planner

RESPONSE TO COMMENTS FROM THE TOWN OF RUSTON
(Letter #17)

Comment 1

The multiple comments relating to the inconsistency of the *Proposed Action* relative to underlying land use regulations of the Town of Ruston are acknowledged. As is indicated within the SEIS document and further acknowledged by the proponent, all future development within the City of Tacoma and the Town of Ruston must comply with applicable codes and regulations at the time a specific project application is submitted and would be reviewed for compliance at that time. A list of the specific permits/approvals potentially required for the *Proposed Action* is provided in the *Fact Sheet* to this FSEIS (page iii). The list includes the City of Tacoma, Town of Ruston and other agencies that may have jurisdiction. Where the proposal is determined to be inconsistent with applicable regulations, either the proposal or the regulations must be modified prior to approval of the application.

As noted in the *Preface* of the DSEIS and this FSEIS:

The purpose of this Draft Supplemental Environmental Impact Statement (DSEIS) is to identify and evaluate probable significant environmental impacts that could result from the Proposed Action and the alternative and to identify measures to mitigate those impacts. As such, this DSEIS is a disclosure document. It evaluates the direct, indirect and cumulative impacts of the Proposed Action, as well as construction-related impacts. By its nature, this DSEIS does not authorize a specific action or alternative nor does it recommend for or against a particular course of action; but rather, the DSEIS is one of several key documents that will be considered in the decision-making process for this project” (see Preface to the Draft Supplemental Environmental Impact Statement for the ASARCO Master Development Plan Final EIS).

This Supplemental EIS is analyzing the environmental impacts of those elements of the proposal that are different than those analyzed in the 1997 EIS and thus provides additional information to help consistency. It is envisioned that additional code and regulatory analysis will be performed by planning staff in making recommendations to decision makers on specific project applications.

Comment 2

Comment noted; please see response to Comment 1

Comment 3

Comment noted; please see response to Comment 1. It may be noted that two round-a-bouts are proposed as part of the *Proposed Action* as a mitigation of potential traffic impacts along Ruston Way, including one at the convergence of Ruston Way, Baltimore St., and the Yacht Club Rd. Yacht Club road is provided to the property line in common with Metro Parks, the extent controlled by the proponent, in a manner to facilitate future extension by Metro Parks or the Yacht Club as they determine.

Comment 4

Comment noted; please see response to Comment 1. SEPA regulations do not require that every regulation or every potential regulatory change be identified in an EIS. Final analysis of conformance with applicable regulations is determined at time of project applications.

Comment 5

The comment is noted; please see response to Comment 1. Reference to Resolution 333 was an acknowledgment of the Town's prior support for the inclusion of residential uses. Recognizing that the 1997 EIS did not sufficiently analyze the impact of residential uses on the site, this Supplemental EIS was completed to analyze impacts of residential use and other changes to the proposal.

Comment 6

The comment is noted. The analysis that is contained in this FSEIS addresses the probable environmental impacts of the *Proposed Action*. Please see response to Comment 1.

Comment 7

Comment noted and change implemented.

Comment 8

Comment noted and change implemented.

Comment 9

Change implemented: NPDES Permit has been added to the *Fact Sheet*. The proponent has indicated they intend to conform with all applicable regulations, and obtain all permits required of the proponent. The proponent is responsible for an NPDES permit for the project. A municipal permit such as a Phase II NPDES would be the responsibility of the municipality. The financial or regulatory implications of population growth are beyond the scope of the EIS.

For more information on Phase II NPDES permits, the following resources are available:

http://www.ecy.wa.gov/programs/wq/stormwater/municipal/phase_II_ww/ww_ph_ii-permit.html

http://cfpub1.epa.gov/npdes/regresult.cfm?program_id=6&view=all&type=1

<http://www.ecy.wa.gov/programs/wq/stormwater/municipal/ph2-introduction.html>

http://www.ecy.wa.gov/programs/wq/stormwater/phase_2/urban_maps/maps_06/tacoma_ua.pdf

http://www.ecy.wa.gov/programs/wq/stormwater/municipal/petition_criteria.pdf

Comment 10

Comment noted and change implemented.

Comment 11

Comment noted and change implemented.

Comment 12

Comment noted and change implemented.

Comment 13

Comment noted and change implemented.

Comment 14

Comment noted and change implemented.

Comment 15

The proponent indicates that conditions of the sale of the property from ASARCO to Point Ruston LLC did not include topics referred to in this comment. To the extent existing landscape or vegetation at steep slopes or around the cooling pond are disturbed in the course of development activities, BMP's would require stabilization and replanting. Specific elements of park and open space areas within Ruston will be decided as a part of the final design process and project permitting in the Town of Ruston.

Comment 16

Comment noted, please see response to Comment 1. The Appendix has been updated to note the Town's comment relating to ASARCO's letter regarding residential uses on the Project Site.

Comment 17

Section 2.5.2 of this FSEIS has been revised to include more information regarding phasing of the *Proposed Action*.

Comment 18

Comment noted. The Districts that are described in Section II relative to the *Proposed Action* refer to the organization, phasing, and build-out of infrastructure and the development as a whole. The lay out is different and the impacts are analyzed with respect to the proposed layout.

Comment 19

Comment noted. This figure is color-coded with five different hues representing Private Space (white), Public Promenade (yellow), Interior Public Access areas (blue), Public Roads (pink), & Open/Green Space (green).

Comment 20

Yes. The triangular in-water property is included. The property within this area is part of the *Proposed Action* and is property owned by the proponent which is potentially developable but not proposed for development and was therefore considered open space. To the extent the Town disagrees with this designation, comment noted.

Comment 21

Comment noted. The specific plans for parking and public access to the Promenade are discussed at Section 2.5.3 in the project description.

Comment 22

Comment noted; please see response to Comment 1. Though the Proposed Action maintains a different plan than proposed under the 1997 EIS, the *Proposed Action* achieves the same ends.

Comment 23

Comment noted; please see response to Comment 1. A path is not required for the monitoring and upkeep of the OCF. Specific elements to be constructed within this open space area located within the Town of Ruston are a matter of final design and project application approvals.

Comment 24

Comment noted; please see response to Comment 17.

Comment 25

Comment noted; please see response to Comment 1 and Comment 23.

Comment 26

Comment noted; please see response to Comment 1 and Comment 23.

Comment 27

Comment noted. The proponent notes, however, that Ordinance 1002, which the Town passed in December 8th, 1997, states “Whereas, The Town of Ruston adopted a Comprehensive Plan consistent with the provisions of the Growth Management Act in June 1994 which indicated the ASARCO site as a Master Planned Development (Mixed Use).” The 2003 Comprehensive Plan updates did not alter such designation.

Comment 28

Comment noted; Section 3.1.3.4.3 added.

Comment 29

Comment noted; change made to refer to the *Master Development Plan* as development regulation.

Comment 30

Comment noted; statement modified.

Comment 31

Comment noted; please see response to Comment 1 and Section 3.1.3.3.2 which acknowledges the differing interpretations and the role of this FSEIS.

Comment 32

Comment noted; correction made to the sentence to read minimum floor elevation. Analysis for the purposes of SEPA was based on maximum height above highest proposed grade.

Comment 33

Comment noted; please see response to Comment 1. Development pads are not part of this *Proposed Action*, and thus for purposes of SEPA's environmental impact analysis biggest possible building is analyzed, so as to serve the purpose of determining impact.

Comment 34

Comment noted; please see response to Comment 1 and Comment 33. Reference to the definition of FAR from the Master Development Plan has been added to Section 3.1.3.4.3 as a footnote.

Comment 35

Comment noted; please see response to Comment 1 Section 3.1.3.3.2 and the role of this FSEIS.

Comment 36

Comment noted; Section 3.1.3.3.2 of this FSEIS has been updated.

Comment 37

Comment noted; please see response to Comment 1.

Comment 38

Comment noted; please see response to Comment 1.

Comment 39

Comment noted; Section 3.1.3.4.3 has been added to acknowledge the Town's adoption of the *Master Development Plan*. The specific process of achieving consistency between the Towns land use regulations and the proposed action is not considered in this document and will be a matter of project permit approval processes.

Comment 40

Comment noted; please see response to Comment 1. Under the *Proposed Action* the open space and park areas are delineated on Figure 10 and discussed in Section 3.5 of this SEIS. It

is acknowledged that the configuration of the park and open space areas are different but does not create any probable environmental impacts.

Comment 41

Comment noted. View corridors that would be provided in the proposed action are reconfigured and the roundabouts are relocated from the *Master Development Plan*. The view corridors are adjacent to the two roundabouts anticipated in this proposal. Other view corridors have also been modified and the analysis of the impacts on views are discussed in the *Aesthetics* section of the FSEIS.

Comment 42

WA State Office of Financial Management (OFM) bases annual population estimates on unit characteristics including the following categories: single-family, duplex, tri- and four-plex and buildings with five units or more. OFM's 2006 report for Tacoma established population generation rates for residential buildings with 5 or more units at 1.75 persons per unit and 2.45 persons per unit for all residential types combined.

Comment 43

Comment acknowledged. It is to be noted that the Consent Decree is a separate document and process. The affect of the Consent Decree on the phasing of the proposed action is that the EPA maintains jurisdiction over remediation and must approve and will over see project phasing.

Comment 44

Comment noted. This change has been made to reflect that the EPA letter is at Appendix E.

Comment 45

Comment noted; please see response to Comment 1. Further, the *Proposed Action* is in accordance with the Town's Comprehensive Plan "Section 6.5 Parks and Recreation". Specifically, the "Goals" and "Parks and Recreation Concepts" sections seeks for the development of the ASARCO site to "provide a number of new [park] opportunities" and that such opportunities shall have a "final configuration of the access and related parks areas ... be determined as part of the development plan for the area." The *Proposed Action* adds parks and open space to a property that has been closed to the public for over 100 years; such specific park amenities will be created collaboratively with direct input from Metropolitan Parks District, City of Tacoma, and Town of Ruston as well as other interested stakeholders at the time of specific project permitting.

Comment 46

Comment noted; please see response to Comment 1 and Comment 45.

Comment 47

Comment noted; please see response to Comment 42.

Comment 48

Comment noted.

Comment 49

Comment noted. The property line of the area in question lies along the edge of right of way of Bennett Street, and along the property boundary shared with the Commencement Condominium which has been allowed in an area included with Promontory Park in the *Master Development Plan*.

Comment 50

Comment noted; please see response to Comment 1. The *Proposed Action* does not call for the development of such facilities at this time. Specific elements within this open space area are to be the subject of future project applications.

Comment 51

Comment noted; please see response to Comment 15..

Comment 52

This comment is unclear as to what document is being referenced regarding a 12' pedestrian path; thus, comment is noted. See also Comment 15.

Comment 53

Comment noted. The phasing of park and recreation construction is stated in section 3.5.2.4 of the DSEIS and this FSEIS. See also Comment 15 concerning the landscape steep slopes.

Comment 54

See Comment 42.

Comment 55

"Tract A" of the project site is "in-water" property that is privately-owned by the proponent. As privately-owned property, it is potentially developable but is not per the *proposed action*. It has therefore been calculated as open space. Further, it serves as a significant view corridor from Ruston Way and from properties across Ruston Way.

Comment 56

Comment noted; please see response to Comment 1. Analysis of the configuration presented with the proposed action is provided in Section 3.5.

Comment 57

Comment noted, please see response to Comment 1 and Comment 15.

Comment 58

Comment noted. The Cooling Pond tract was added to the Table under “F” as a result of this comment. The “green hill sides” were already accounted for under “O” as General Site Enhancement of the Bennett Street Promontory.

Comment 59

Comment noted; please see response to Comment 55.

Comment 60

Comment noted. A change to the verbiage has been implemented. A reference to the Master Development Plan is not necessarily a quantifiable, community-wide Level of Service standard and is therefore supplemented with a comparison to Tacoma’s.

Comment 61

Comment noted; please see response to Comment 1. In terms of the environmental impact, while the location may have changes, public parking is provided and discussed in Section 2.5.

Comment 62

Comment noted and change implemented. Proponent indicates this statement was based on conversations with the Town Fire Chief and appeared to be supported by information included in the 2007 report of the Fire Committee.

Comment 63

Comment noted and change implemented. Fundamental capacity to serve the *proposed action* is not at issue which is the concern of this FSEIS.

Comment 64

Comment noted. Please see response to Comment 63.

Comment 65

Comment noted; please see response to Comment 9.

Comment 66

Comment noted; please see response to Comment 9.

Comment 67

Comment noted. Though the 1997 EIS recognized the Ferry Terminal connection as a project listed in the City of Tacoma’s list of unfunded roadway improvements needed by 2017, the 1997

EIS traffic analysis did not allocate trips to this connection and it was therefore not an important mitigating measure. The project is no longer on the City of Tacoma's CIP list and it is not an element of this *Proposed Action* and, as such, does not need to be evaluated as part of the traffic impact studies associated with *Point Ruston*. The proponent is designing the internal road system to allow for a future connection to Ruston Way via Yacht Club Drive when the Yacht Club or City of Tacoma determine that they would like to modify their existing road systems to take advantage of the connection provided by the proponent.

Comment 68

Comment noted; please see response to Comment 1.

Comment 69

Comment noted.

Comment 70

Comment noted; please see response to Comment 1. Park impacts have been analyzed based on the proposed action. Park improvements, road and utility extensions that would be provided to the common property line with Metro Parks facilitate the future development of the Peninsula Park, including walkways.

Comment 71

The importance of the transportation analysis for *Point Ruston* is to determine the impacts of the *Proposed Action* on existing and planned future roadway systems – in terms of volumes, turning movements, etc. Roadway profiles and complete roadway plans will be provided as part of the review process for construction permit applications and expected to meet applicable requirements.

Comment 72

Comment noted; please see response to Comment 1. Screening is discussed in Section 3.4 and is noted to be the jurisdiction of EPA in overseeing remediation of the site.

Comment 73

Improvements to Ruston Way would terminate at a point just west of the new intersection at Ruston Way/ Baltimore-Yacht Club Drive. The west leg of the intersection would transition into N 51st Street in a manner consistent with local road standards. The traffic analysis recognizes this termination point.

The Transportation section of the ASARCO Master Development Plan EIS identifies planned improvements under Alternative 1: No Action (Smelter Site EIS page 4-99). These were improvements that were planned by either the City of Tacoma or the Town of Ruston and were independent of that proposed development. They include elimination of the tunnel on Gallagher Way and roadway realignment. Project-related improvements included construction of a roundabout at the intersection of Gallagher Way/Baltimore/N 51st Street. The current proposal includes this roundabout. Other mitigation for the N 51st Street corridor included elimination of

parking on the east leg of the intersection of Pearl St/ N 51st St to provide space for a left turn lane. No other improvements to N 51st St were identified as mitigation in the 1997 EIS.

Comment 74

Comment noted; please see response to Comment 1.

Comment 75

Comment noted; please see response to Comment 1. The provisions of the proposed action for bicycle and pedestrian circulation have been analyzed.

Comment 76

Comment noted; please see response to Comment 1. With the provision of roundabouts at major intersections eliminating left hand turning movements a center lane to provide for such movements is unnecessary.

Comment 77

Comment noted.

Comment 78

The data in Charts 3.7-1 through 3.7-6 are derived from mechanical tube counts made over 2 weekends and 5 weekdays and reflect average hourly traffic volumes on selected road segments. The data is contained in Appendix D (3.7-A) of this FSEIS (refer to the Table of Contents in the *Fact Sheet* of this FSEIS). The data illustrated in Figure 3.7-3 and based on turning movement counts made at intersections between 4 and 6 PM on a weekday. A review of the two types of counts shows only minor discrepancies that are attributable to the fact that the tube count data is an average of counts made over a number of days and the turning movement counts are made at one point in time.

Comment 79

The discrepancy between the build-out year used in the traffic analysis (2014) and the build-out year used in the Summary on page 1-2 (8 to 10 years) does not affect the number of trips generated by the proposed development. The 2- to 4-year discrepancy would have a minor effect on the calculated growth of background traffic not related to the project. The traffic analysis assumed that existing traffic volumes would grow at 2% per year through 2014. A comparison of the existing conditions section of the 1997 EIS and this FSEIS shows that level of service and average vehicle delay have not changed significantly over the intervening 11 years. The 2% growth rate is considered to be very conservative and the effects of applying that growth rate to an additional 2-to 4-years would not have a significant effect on intersection operations nor would it alter the recommended mitigation.

Comment 80

A 20 year forecast is typically used for long range plans such as a jurisdiction's Comprehensive Plan. SEPA requires analysis of impacts resulting from the proposed project. This project level

analysis is limited to the build-out of the proposed development. To analyze conditions beyond that time frame would not be consistent with SEPA requirements.

Comment 81

Comment noted; please see response to Comment 1.

Comment 82

While the existing all-way stop at N 51st St/ Winnifred is not warranted because of traffic volumes, it does provide a safer crossing for pedestrians and should be retained. The mitigation section of the FSEIS (See section 3.7.4) has been revised to reflect this change.

Comment 83

The traffic section of the draft SEIS and this FSEIS analyzes average weekday and summer weekday conditions. Recommended improvements are intended to mitigate identified traffic impacts for average and summer PM peak hour conditions. SEPA requires that mitigation have both a nexus to the impact, be proportional, and be reasonable. It is reasonable to provide improvements to mitigate impacts that would occur on a regular basis. It would not be reasonable to design improvements to accommodate traffic volumes that occur only a few times per year.

Comment 84

The only significant project in the vicinity of the site is the Commencement condominium development. The traffic analysis for that project did not include an assignment of project generated trips to the local road network. For the purposes of the DSEIS analysis associated with Point Ruston (and this FSEIS), the small number of trips generated by the Commencement project were included in the annual growth rate for background traffic. The trips generated by the Stack Hill development were also included in the analysis. Traffic analyses for other projects in the area were requested from the Town of Ruston and City of Tacoma. The Commencement condominium and Stack Hill projects were the only projects identified and, therefore, were included in the analysis to address cumulative impacts.

Comment 85

Comment noted; dock removal has been noted to Section 2-6 as an action related to accommodating the in water capping of the DNR tidelands property as required under the Second Amendment of the Consent Decree.

From: Stixrood, Carl [CarlS@Huitt-Zollars.com]

Sent: Thursday, February 14, 2008 4:55 PM

To: Hayashi, Karie

Cc: Talcott, David; Michael Transue; Robert Burke; Jennifer A. Forbes; McHendry, James

Subject: Traffic Comments on behalf of Town of Ruston, Point Ruston DSEIS

Hi Karrie

We would like to supplement our comments sent earlier with a concern that we identified after our letter was sent.

Left turn movements from 51st onto Pearl are a concern that does not appear to be adequately addressed in the DSEIS. The Town would like to have information on how far cars may que to the east of Pearl on 51st during peak traffic. 1

We would like discussion provided regarding the effect that delays at 51st and Pearl might have on traffic volumes on Baltimore Street and possible use of Winnifred and Highland and 49th as shortcuts to avoid the 51st street intersection. 2

Thank you for considering this additional comment from the Town of Ruston.

Carl Stixrood, LA AICP
Huitt-Zollars
206-324-5500 x10835
206-328-1880 (Fax)
206 550-2514 (Cell)

RESPONSE TO COMMENTS FROM THE TOWN OF RUSTON #2
(Letter #18)

Comment 1

Section 3.7.2 of this FSEIS discusses the impacts of the *Proposed Action*. Table 3.7-14 shows that the intersection of N 51st St and N Pearl St is forecasted to operate at LOS-C under the two distribution scenarios during average weekday PM peak hour conditions. On summer weekdays the intersection would operate at LOS-D under both scenarios. A closer look at intersection operations may be made by examining the Synchro reports contained in *Appendix D* (on-file with Tacoma PWD).

See response to Comment #2 below for discussion of the distribution scenarios analyzed. The westbound left turn movement at the intersection of N 51st St and N Pearl St is forecasted to operate at LOS-D with an average queue of 8 vehicles (210 feet) and a maximum queue of 13 vehicles (328 feet). Under Scenario 2, the westbound left turn movement would also operate at LOS-D with an average queue of 8 vehicles (207 feet) and a maximum queue of 12 vehicles (307 feet).

Comment 2

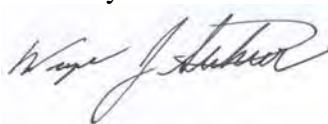
Section 3.7.2 of this FSEIS analyzes the effects of two distribution scenarios that reroute a portion of existing traffic volumes that currently make a northbound right turn or westbound left turn at Pearl/51st to the proposed Baltimore connection at Ruston Way. This analysis shifts 10% (Scenario 1) and 20% (Scenario 2) of the existing turning volumes to Baltimore to make use of the new route between Ruston Way and Pearl Street. Recommended mitigation includes improvements to Baltimore between Ruston Way and N 46th St and improvements to the intersection of Baltimore/ N 46th St to encourage the use of this alternative route and reduce the increase of traffic volumes on N 51st St.

Mrs. Karie Hayashi

I think that the redevelopment of the Asarco site is very much needed and is going to be a great benefit to both of our communities. I would like to commend Point Ruston in making this sizable investment in our communities. Reading over the Draft Supplement Environmental Impact Statement (DSEIS) brought up a few questions I have that I would like addressed.

- 1. DSEIS page 3.7-50 addresses the intersection of 51st & Winnifred St by removing the 4 way stop signs. This is unacceptable and needs to remain a 4 way stop or upgraded to a stop light. (Thank you for reconnecting Baltimore and Ruston Way) 1
- 2. DSEIS page 3.6-2 states that Ruston Fire Department (RFD) employs a full-time Fire Chief. This is misleading as the position is paid \$2,400 per year and is basically a volunteer position. 2
- 3. DSEIS page 3.6-2 states that RFD provides Advanced Life Support (ALS). Ruston RFD does not provide ALS. My understanding is the local ambulance services Rural Metro provides the ALS from South 12th and Monroe St. 3
- 4. The Washington Survey and Ratings Bureau (WSRB) grades fire departments in Washington State for two thirds of the insurance companies that provide fire insurance in Washington. WSRB has a grading scale 1-9 (with 1 begin the very best) with which they rate each Fire Department. The grade is called a protection code (PC). A Fire Department's PC is assigned to each zip code that the Fire Department protects. Ruston and north Tacoma both share the zip code 98407. WSRB has explained to me that one of the factors that it considers when it rates, is how many buildings are 35 feet or taller? If a fire department protects 5 or more structures 35 feet or taller and/or requires 4,000 gallons per minute, that department needs a ladder truck to protect these buildings in order to maintain the current PC level. To Ruston this means investing in a new fire house and new ladder truck. If Ruston chooses not to make this investment how will this affect north Tacoma's PC? 4
- 5. DSEIS page 3.6-2 refs to response times. A clear definition is required for this term to be at all meaningful. For example does the time start when the 911 call is *placed* or when RFD *receives* the call? When does the response time end? How many personnel and equipment are on scene? What level of protection can be provided when they *first* show up on scene for Basic Life Support, Advanced Life Support or Fire protection? 5
- 6. DSEIS statement of the building heights on the Ruston side does not agree with the MDP. This should be corrected. 6
- 7. Ruston Way should bypass the tunnel and Baltimore Street needs to be connected with Ruston Way before any permits for new building are granted. 7

Sincerely



Wayne Stebner
Town of Ruston Councilmember

RESPONSE TO COMMENTS FROM THE TOWN OF RUSTON
Councilmember Wayne Stebner
(Letter #19)

Comment 1

The traffic mitigation portion of section 3.7 has been changed to state that the all-way stop should be retained to ensure pedestrian safety.

Comment 2

Comment noted and changes made.

Comment 3

Comment noted and changes made to Section 3.6.1.1.1.

Comment 4

The Washington Survey and Ratings Board (WSRB) has indicated to the proponent that grades are given by fire district rather than by zip code to avoid potential issues such as the comment suggests might then occur. Buildings within Tacoma are reviewed in light of Tacoma's capabilities and those in Ruston are reviewed according to the Town's capabilities.

Comment 5

Comment noted and definitions and additional information included in Section 3.6.1.1.1.

Comment 6

Please see Letter 17, response to Comment #1. In order to present a worst-case analysis for SEPA compliance, the DSEIS (and this FSEIS) analyze development with a height of up to 60 feet within the Town of Ruston.

Comment 7

Opinion noted.



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Board of Directors
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February 14, 2008

Ms. Karie Hayashi
Building and Land Use Services Division
Tacoma Public Works Department
747 Market Street, Room 345
Tacoma, WA 98402

Re: Asarco Smelter Site Master Development Plan, Final EIS
SEPA File Number: SEP2007-40000090529

Dear Ms. Hayashi:

This letter conveys comments by Citizens for a Healthy Bay (CHB) in response to the above referenced document

BACKGROUND:

- The former site of the Asarco smelter facility is part of the Commencement Bay Nearshore/Tideflats Problem Area. On January 30, 1997 Asarco and EPA entered into a Consent Decree pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) for cleanup of the site.
- As part of the site cleanup process, a Master Development Plan (MDP) and Final Environmental Impact Statement (FEIS) was completed in autumn 1997. The MPD and FEIS focused on light industrial redevelopment of the site.
- In 2000 Asarco initiated discussions with US EPA (EPA) and Washington State Dept. of Ecology (Ecology) to change site redevelopment proposals from light industrial to residential based on regional market conditions.
- On August 9, 2005, Asarco LLC filed for bankruptcy protection under Chapter 11 of the Bankruptcy Code in the United States District Court for the Southern District of Texas.
- On December 8, 2005, Asarco LLC entered into an agreement with MC Construction to sell approximately 97 acres of its real property located in Tacoma and Ruston, Washington.
- On January 6, 2006 the Bankruptcy Court approved the sale of the Smelter Property to MC Construction conditional upon MC entering into and the approval of a cleanup agreement with EPA.
- MC Construction appointed its rights under the sale agreement to Point Ruston.
- In August 2006 The Second Amendment to the Asarco Tacoma Smelter Consent Decree, which added Point Ruston to the Consent Decree, was entered into court.
- The Point Ruston development is proposed to include residences, shops, restaurants, offices, a hotel, parks, trails and shoreline amenities.

GENERAL COMMENTS

- The proposed project will complete the Superfund cleanup action of the Asarco Smelter Site under EPA oversight. Cleanup of the site will favorably impact human health and environmental receptors.
- The proposed project is consistent with the terms and conditions of the 2nd Amendment to the Consent Decree and accompanying Scope of Work (submitted as attachments).
- The proposed project is consistent with the Washington State Growth Management Act (GMA), the City of Tacoma Shoreline Master Plan (SMP) and Comprehensive Plan.
- The proposed project is compatible with surrounding land use.
- The impacts and mitigations in the DSEIS are consistent to the levels of impacts as determined in the FEIS released in October 1997.
- The proposed project is consistent with the 2001 findings and recommendations of the Development Management Team (DMT) that residential developed be added as an appropriate site use.
- II.17.D.i.(m) of the Second Amendment to the Asarco Smelter Consent Decree states that “*Master Redevelopment Plan*” does not apply to Point Ruston. As such, agreements made with Asarco are not legally binding upon Point Ruston.
- The DSEIS traffic analysis finds that traffic impacts would increase slightly over those anticipated in the 1997 EIS, from 1,304 to 1,376 peak-hour trips, but that the impact of an office park on afternoon peak –hour traffic would be greater because 86% of the trips would be “outbound” during the peak hour creating traffic back-ups. The mix of land uses at Point Ruston could be expected to achieve a greater balance of inbound/outbound trips during the peak-hour.
- The Point Ruston project proposes improvements to accommodated increased traffic including reopening Baltimore Street, off-site intersection improvements, a transit stop on Ruston Way, and the addition of a turn lane and roundabouts as part of the Ruston Way realignment. The realignment of Ruston Way will eliminate the existing vehicle tunnel and allow a public transit stop to be installed as well as sidewalks and bicycle lanes.
- The DSEIS analysis finds that the buildings proposed in the Point Ruston project are consistent with those in the approved MDP posing the same level of significance in respect to views. While the proposed development will alter the nature of the site, adverse impacts to aesthetics will not occur.
- The proposed action increases recreational and open space opportunities in the form of 50 acres of parks and open space in 12 distinct areas.

1

DISCUSSION

Since the site of the former Asarco Smelter facility was added to the National Priorities List (NPL) in 1983, cleanup and redevelopment of the site has been an important priority for the North Tacoma and Ruston communities. As Asarco’s financial picture diminished, cleanup completion was moved back, first to 2003, then to 2008. When Asarco filed for bankruptcy protection, the still-contaminated former smelter site as well as the North Tacoma/Ruston communities faced a grimly uncertain and contaminated future.

2

With the purchase of the former smelter property, Point Ruston entered into an agreement with EPA to complete the remedial action abandoned by the bankruptcy process and to redevelopment the site. EPA will oversee the site remediation, which will be conducted in concert with phased-in redevelopment.

February 14, 2008
Ms. Karie Hayashi
Page Three

Point Ruston's redevelopment proposal of an Urban Village incorporating green building and Energy-Star standards are technologies and strategies the City of Tacoma, as an Urban Growth Center, needs to promote to protect the livability of our community as it continues to grow. 2 cont.

CONCLUSIONS

In general, CHB supports the proposed redevelopment in concert with the completion of the long overdue Superfund cleanup of the former smelter site. Our review and analysis of the DSEIS finds that the project and its associated outcomes are consistent and compatible with those considered in the 1997 FEIS and MDP.

The nature of Point Ruston as a Superfund problem area under the oversight of EPA as well as a development site poses a unique project coordination scenario requiring close and consistent communication between the City of Tacoma and EPA. Documents prepared by Point Ruston for site remedial activities will be submitted to EPA for review and EPA must approve of the remedial design or activity prior to Point Ruston going forward with the work that will result in construction. 3

CHB urges the City of Tacoma and EPA to develop a matrix of all site activities associated with the remedial action and redevelopment of Point Ruston that defines which actions are under the purview of the City and which actions are under the oversight of EPA.

CHB is a community based, non-profit environmental organization representing the community stakeholders in the Commencement Bay Nearshore/Tideflats Superfund problem area. Our membership includes citizens of the Ruston and North Tacoma communities directly impacted by contaminated soils as well as boaters and others restricted by sediments contaminated by the operation of the Asarco smelter facility.

We appreciate the commitment and cooperation of all parties and look forward to working collaboratively with all stakeholders in the clean up and redevelopment of the former smelter site property.

Sincerely:

Leslie Ann Rose

Leslie Ann Rose
Senior Policy Analyst

cc: Mr. Kevin Rochlin, US EPA Region 10
Ms. Sue O'Neill, Point Ruston

RESPONSE TO COMMENTS FROM THE CITIZENS FOR A HEALTHY BAY
(Letter #20)

Comment 1

The comments are noted. The points that you have raised will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development.

Comment 2

The comments are noted. Please refer also to *Section II*, subsection 2.3.1 of this FSEIS.

Comment 3

The proponent concurs that the project requires unique coordination between all parties including the City of Tacoma and EPA. CHB's suggestion for a matrix is appreciated. *Point Ruston* will develop a responsibility matrix as recommended and incorporate it into the Construction Management Plan that is required by EPA for each remediation/redevelopment phase. The matrix will also be provided to the City of Tacoma and others to aid in an understanding of project responsibilities.



ECONOMIC DEVELOPMENT BOARD
FOR TACOMA-PIERCE COUNTY

FEB 07 2008

February 6, 2008

Karie Hayashi, Land Use Planner
Public Works Department
Building and Land Use Services Division
City of Tacoma
747 Market Street, Room 300
Tacoma, WA 98402-3769

Dear Ms. Hayashi:

RE: Point Ruston

We are writing in support of the Point Ruston project as described in the Draft Supplemental Environmental Impact Statement (DSEIS) published by the City of Tacoma on January 16, 2008.

Point Ruston's commitment to complete environmental remediation and redevelop the former Asarco site as a mixed-use neighborhood will bring measurable benefits to the greater community, such as:

- Private investment that could top \$1 billion at build-out with \$28-\$32 million spent to complete environmental remediation of an EPA Superfund site.
- The creation of roughly 650 permanent full-time jobs as well as a significant number of construction jobs and the purchase of local materials and services over the 8-10 year build-out.
- Higher density development that meets the spirit and intent of the Growth Management Act including 800-1000 condos, apartments and townhomes, up to 228,000 sq. ft. of office and retail space, a 150-room upscale hotel to support the business community and tourism, and more than 60% of the site dedicated to public access, open space, and parks.
- A master plan that embraces public use and opens up almost a mile of shoreline for a waterfront promenade in an area that hasn't been open to the public in over 100 years.
- A responsible approach to traffic mitigation through the realignment of Ruston Way, adding a public transit stop, installing roundabouts, sidewalks and bicycle lanes, and eliminating the existing vehicle tunnel that is both a safety concern and prevents the free-flow movement of traffic in this area.

Thank you for the opportunity to comment on one of the most economically significant projects in our region.

Sincerely yours,

Bruce Kendall
President & CEO

RESPONSE TO COMMENTS FROM THE ECONOMIC DEVELOPMENT
BOARD
(Letter #21)

Comment 1

The comments with regard to consistency with GMA, the provision of public open space and shoreline access, and planned revisions for Ruston Way are noted. These points will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development. While the proposed *Point Ruston* development would generate employment opportunities during construction and long-term, direct and indirect economic factors associated with the proposed *Point Ruston* development are not environmental considerations that are analyzed in this FSEIS.

Executive Council for a Greater Tacoma
1119 Pacific Avenue, Suite 1103 Tacoma, WA 98407
(253) 380-7044

February 13, 2008
Karie Hayashi, Land Use Planner
Public Works Department
Building and Land Use Services Division
City of Tacoma
747 Market Street, Room 300
Tacoma, WA 98402-3769

Dear Ms. Hayashi:

RE: Point Ruston

The Executive Council of Greater Tacoma is writing in support of the Point Ruston project as described in the Draft Supplemental Environmental Impact Statement (DSEIS) published by the City of Tacoma on January 16, 2008.

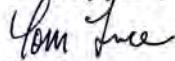
Point Ruston's commitment to complete environmental remediation and redevelop the former Asarco site as a mixed-use neighborhood will bring measurable environmental, economic and social benefits to the greater community, such as:

- Private investment that includes \$28-\$32 million in environmental remediation to complete the clean-up of a Superfund site that has been off the tax rolls for decades.
- Significant public amenities paid for by private investment rather than by taxpayers such as the rebuilding of Ruston Way and the extension of the Ruston Way Park to form a shoreline connection to Metro Parks property to the north.
- A proposed mixed-use neighborhood that sets aside a greater percentage for public access, parks, view corridors, and open space than it does for development.
- The creation of approximately 650 permanent full-time jobs.
- The use of structured parking that allows a slightly greater square footage of development to be built than allowed in the 1997 EIS Preferred Alternative, but without the impact of large surface parking lots and predictable peak-hour traffic imbalances.
- Traffic improvements that will eliminate the existing vehicle tunnel and the installation of a public transit stop, sidewalks and bicycle lanes as well as numerous off-site traffic improvements.

1

We are looking forward to the completion of remediation on the former Asarco site and the redevelopment of the property as proposed in the Point Ruston DSEIS.

Sincerely yours,



Tom Luce
Executive Council for a Greater Tacoma

RESPONSE TO COMMENTS FROM THE EXECUTIVE COUNCIL FOR
GREATER TACOMA
(Letter #22)

Comment 1

The comments with regard to the provision of public open space and shoreline access, the provisions of structured parking and planned revisions for Ruston Way are noted. These points will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development to be fully implemented. While the proposed *Point Ruston* development would generate employment opportunities during construction and long-term, direct and indirect economic factors associated with the proposed *Point Ruston* development are not environmental considerations that are analyzed in this FSEIS.

Laborers' International Union of North America – Local No. 252

(253) 383-1493
FAX (253) 597-4980



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Tacoma, Washington 98408-3506

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MPS
cc: PK/CHC
JR

February 9, 2008

Letter 23

Mr. William L. Pugh, P.E.
Assistant City Manager/Director, Public Works Department
Building and Land Use Services Division
747 Market Street
Room 345
Tacoma WA 98402

RE: Point Ruston LLC DSEIS Comments

Dear Mr. Pugh:

After careful review of the DSEIS we have serious concerns about the adequacies of the document. Considering the lengthy history of the site and the potential negative impacts to the existing neighborhood, waters and future residents we feel that this DSEIS does not sufficiently study the actual impacts. These comments will follow the DSEIS and address our concerns.

Scoping

1. The date of issuance is suspect. Appeals had been filed over the scoping of this document yet the comment date has been hand written in before the appeal timelines had run their course. This should be a very detailed document and we find it hard to believe that the applicant could have prepared it without knowing what the full scope would entail. 1
2. On page v of the fact sheet the date of January 2, 2008 and February 1, 2008 have been crossed out and now read January 16, 2008 and February 14, 2008. Both dates come before the appeals deadline. This gives the appearance of fore knowledge by the applicant that the City of Tacoma had pre-judged the appeals. 2

Section 1

1. Page 1.7: Housing: What is the exact number of affordable housing units will be available? 3
2. Page 1.8: Environmental health: We are very concerned with this area. There are no mitigation measures studied in detail. The applicant needs 4

to outline the plan for further clean up. Point Ruston LLC has already violated health and safety standards for the workers and community by not providing adequate worker protection equipment, lack of maintenance of the silt fences, and contaminated dust migration off site.	4 cont.
3. Page 1.11: We would like to have included in this DSEIS a definition of what appropriate measures would be implemented to control temporary construction impacts.	5
4. Page 1.11 and Page 1.12: The traffic numbers are far below the national average of 10 vehicle trip per day in a residential development.	6
5. Page 1.13: There is no impact mentioned concerning businesses, parking, rail traffic and recreation if Ruston Way is widened.	7
6. Page 1.15: There is no mention of who pays for the road improvements.	8

Section 2

1. Page 2.6: The developer is already moving contaminated soil without proper permits on site.	9
2. Page 2.29: The question of impact fees for roadways must be evaluated.	10

Section 3

1. Page 3.3-3: The data contained on this page comes from studies done in 2000. There have been substantial changes since then and more current information must be included.	11
2. Page 3.3-4: The majority of the proposed residents are of child rearing age... The impacts to schools are under estimated.	12
3. Page 3.3-7: In the previous section the DSEIS note that there will be affordable housing, yet on this page it states that the developer will research grants for this type of housing. Which is it?	13
4. Page 3.4-1 Why wasn't residential use concerned for the site based on Asarco's preference? This entire subject needs to be studied at greater length.	14
5. Page 3.4-2: No studies have been done to address the problem if a leak occurs.	15
6. Page 3.5-6: Impacts must be studied in greater detail since Metro Parks refused the offer of the developer.	16
7. Page 3.5-8: The whole section of parks is not adequate.	17
8. Page 3.6-1: There is no feasible plan for public services.	18
9. Page 3.6-6: Once again the question of who pays needs to be answered.	19
10. School impacts are grossly underestimated.	19
11. Page 3.6-14: Study of health impacts are not studied in enough detail.	20
12. Page 3.6-15: The actual run times and staff times are not adequate.	21
There will have to be impacts and this DSEIS does not address this issue.	22

Primary Areas of Concern

1. Physical environment: This DSEIS does not adequately evaluate the following areas: 23
 - a. Toxic waste: Existing poisons, landscaping run off, vehicle leaks, household chemicals, boating leaks
 - b. Traffic and parking: The traffic study under estimates the traffic from this development, does not address the parking needs on Ruston Way for existing businesses and recreation, impacts to rail setbacks, impacts from run off to the aquatic environment, the impact of additional impermeable surfaces, pedestrian impacts. 24
 - c. Neighboring community impacts: The view and traffic impacts will be forever altered to the detriment of the existing community. 25

2. Public Services: Public Services: This DSEIS would have us think that the residents will never need schools, Emergency medical services or fire suppression, police services, sewers, water or other utilities. This section is totally inadequate. 26

3. Parks and Recreation: While the plan for this development calls for internal parks and open space it does not adequately study the many impacts to Point Defiance Park and Zoo. 27

Considering the time issues it is our position that this DSEIS is totally inadequate and must address the many concerns of all affected members of the community. It is obvious that the concerned jurisdictions and the developer rushed into this review. Thank you for your time and consideration. I can be reached at 206-734-9104

Don McLeod Jr.

Don McLeod Jr.
Business Manager/Secretary Treasurer

RESPONSE TO COMMENTS FROM THE LABORER'S UNION – LOCAL 252
(Letter #23)

Comment 1

As SEPA Lead Agency, the City of Tacoma exercised control over the analysis and preparation of the DSEIS and this FSEIS. Copies of the DSEIS were printed by the consultant team on behalf of the City and delivered to the City for distribution. Whereas it was intended that the date was to be left blank – in order to be inserted later by the City – as the result of a printing error a date was inadvertently included, which necessitated the hand-written change that is noted in the document. The DSEIS was published on January 16, 2008 and copies of the DSEIS were distributed to agencies, organizations and individuals noted on the Distribution List (*Appendix A* of the DSEIS), including the Washington State Department of Ecology.

Comment 2

The comment is noted. Refer to response to Comment #1 above.

Comment 3

The proponent has indicated a willingness to provide 10-15% of all for-rent units be made available and affordable to households earning 80% of the county-wide Annual Median Income as established annually by the Department of Housing and Urban Development, with rental rates established at the time the units are offered for rent. Of the 150-200 apartments and senior rental units expected to be built this would equate to 15-30 units out of the total for-rent units. Subsidized housing is neither anticipated nor required as a component of the proposed development.

This is a voluntary commitment for a minimum percentage of units. An exact number is not known at this stage of conceptual development. It should be noted there are no requirements for affordable housing.

Comment 4

Remediation of the Point Ruston site is under EPA jurisdiction and described in the Second Amendment to the ASARCO Consent Decree and attached Statement of Work. Design documents, quality assurance plans, operations, maintenance and monitoring plans, and institutional controls are reviewed and approved by EPA prior to implementation by *Point Ruston*. EPA provides oversight and agency coordination during all phases of site remediation and redevelopment. *Point Ruston* has not violated health and safety standards for workers or the community. Training and personal protective equipment are provided consistent with regulatory requirements for the work being performed. Perimeter air monitoring of the site is conducted as required by EPA during construction operations. Outfall monitoring is conducted in compliance with the EPA approved remedial action monitoring plan.

Comment 5

Construction impacts and required mitigation would comply with the jurisdictional requirements applicable to the area where the work is performed.

Comment 6

See Section 3.7.2 for a complete discussion of the trip generation characteristics of the Proposed Action.

Comment 7

Comment noted. The *Proposed Action* does not call for a widening of Ruston Way that would have such an effect.

Comment 8

Comment noted. Proposed road improvements are recognized to be the proponent's responsibility.

Comment 9

All current work on site is under Second Amendment to the Consent Decree with EPA.

Comment 10

The City of Tacoma does not have an impact fee ordinance. *Transportation* impacts are analyzed in this FSEIS and mitigation measures proposed (see Section 3.7 of this FSEIS). Also, see response to Comment 8 above.

Comment 11

The 2000 census data is the most current available from the U.S. Census Bureau. The population and household income statistics provided on page 3.3-3 taken from the 2000 Census deemed to be an acceptable and reliable resource for providing this data.

Comment 12

Estimates based on the proponent's survey of the experience of other projects were provided as were the student generation rates provided by the School District. See comment: 16

Comment 13

The proponent has voluntarily agreed to provide 10%-15% of the for-rent units as affordable to households earning 80% of Area Median Income. Because of accelerating construction costs, rising interest rates, and the significant cost of environmental remediation associated with a Superfund site, the cost to develop a unit that is offered at below-market rates may require the use of grants or funding other than commercial financing used by the proponent to build out the project.

Comment 14

Residential use was not originally considered for the site based primarily on ASARCO's preference. It was ASARCO's intent to remediate the site to a lesser clean up standard for continued use as an industrial site, which is logical given they were not in the business of developing residential projects. Point Ruston LLC, after taking possession of the property, agreed to take responsibility for meeting the EPA's requirements for residential standards and received ASARCO's consent to include residential as a land use within the redevelopment plans. The impacts of residential uses are considered throughout this FEIS.

Comment 15

The incomplete statement in the DSEIS has been revised to include the following text, which is included in this FSEIS. "The On-site Containment Facility was designed and constructed in compliance with the Federal Code of Regulations specific to hazardous waste landfills (40 CFR Part 264) inclusive of the requirements for a leak detection, collection and removal system as required by the March 1995 EPA Record of Decision. "

Comment 16

Metro Parks has not determined a schedule for the construction of Peninsula Park on this publicly-owned land. However, Peninsula Park is independent of the *Proposed Action* and thus is not a factor in the FSEIS for *Point Ruston*.

Comment 17

This comment is an expression of opinion and not substantive in nature. As noted in the introduction to *Section IV*, no response is necessary.

Comment 18

Please refer to the discussion in *Section II* of this FSEIS relative to anticipated development phasing and information also in *Section II* concerning the project design and infrastructure. *Section III* of this FSEIS analyzes the impacts of the proposed *Point Ruston* development in light of fire and emergency services, police, and school. See also comment letters presented previously in this FSEIS from service providers and responses to the comments raised.

Comment 19

Section 3.6.3 discusses mitigation measures for which the Proponent is responsible.

Comment 20

Opinion noted.

Comment 21

Please refer to Section 3.4 for information concerning health impacts. The human health risk assessment for the ASARCO Tacoma Plant (Kleinfelder 1993) was completed in 1993 by ASARCO with EPA oversight. The Record of Decision (ROD) for the site was written by EPA

and published in March 1995. The EPA ROD provides an overall summary of the risk assessment document and work completed to assess the potential human health risks from contamination. The human health risk assessment was completed according to national and regional EPA risk assessment guidelines.

Comment 22

It is unclear what “run times and staff times” noted in this comment refers to. The page that is referenced (3.6-15) addresses Fire and Emergency services relative to the City of Tacoma and the Town of Ruston, as well as providing an introduction into the discussion of Police Services for the City and the Town.

Comment 23

Existing site contaminants and remediation are under the jurisdiction of EPA (Please see response to Comment 4). Upon development, household hazardous wastes, vehicle leaks, boating leaks, and landscaping runoff will be regulated by the applicable jurisdiction or regulatory authority. Any breach or potential breach of the site cap will be addressed by the long-term operations, maintenance and monitoring plan that will be implemented under EPA’s jurisdiction and oversight.

Comment 24

The trip generation forecasts for the *Proposed Action* are based on the current edition of ITE Trip Generation Manual, which is the most current source of trip generation statistics. Parking for existing recreation is provided in Parks Department parking lots. The proponent would provide adequate on-site parking for the land uses that are proposed, in accordance with applicable development standards. Existing businesses along Ruston Way are responsible for providing their own parking. The *Proposed Action* would not impact the rail corridor. The *Proposed Action* provides new pedestrian link through and around the site to effectively connect the existing Ruston Way Trail with the proposed Peninsula Park and other points to the north and west of the site. Surface water management would meet current code requirements.

Comment 25

This comment is an expression of opinion and not substantive in nature. As noted in the introduction to *Section IV*, no response is necessary.

Comment 26

The comment is noted. Public Services and Utilities are evaluated in *Section III* (3.6) of this FSEIS. Refer also to comment letters presented previously in this FSEIS from service providers and responses to the comments raised.

Comment 27

Point Defiance is defined by Metropolitan Parks as a regional park that will attract visitors from the entire District and beyond. The proponent has been working closely with Metropolitan Parks to address issues related to park properties and related impacts.



February 13, 2008

Letter 24

Karie Hayashi, Land Use Planner
Public Works Department
Building and Land Use Services Division
City of Tacoma
747 Market Street, Room 300
Tacoma, WA 98402-3769

FEB 14 2008

Dear Ms. Hayashi:

RE: Point Ruston

The Tacoma-Pierce County Chamber is writing in support of the Point Ruston project as described in the Draft Supplemental Environmental Impact Statement (DSEIS) published by the City of Tacoma on January 16, 2008.

The long-awaited remediation and environmental remediation of the former Asarco site as a mixed-use neighborhood will bring measurable environmental, economic and social benefits to the greater community, such as:

- Private investment that includes an estimated \$28-\$32 million in environmental remediation to complete the clean-up of a Superfund site, returning the property to the tax rolls.
- Public amenities that are paid for by private investment rather than by taxpayers such as the rebuilding of Ruston Way and the extension of the Ruston Way Park to form a shoreline connection to Metro Parks property to the north.
- A proposed mixed-use neighborhood that sets aside a greater percentage for public access, parks, view corridors, and open space than it does for development.
- Creation of an estimated 650 permanent full-time jobs.
- Structured parking that allows a slightly greater square footage of development to be built than allowed in the 1997 EIS Preferred Alternative, but without the impact of large surface parking lots and predictable peak-hour traffic imbalances.
- Traffic improvements that will eliminate the existing vehicle tunnel and the installation of a public transit stop, sidewalks and bicycle lanes as well as numerous off-site traffic improvements.

1

This project has significant potential as a model for the nation as well as for regional economic development. We look forward to the completion of the remediation on the former Asarco site and the redevelopment of the property as proposed in the Point Ruston DSEIS.

Sincerely yours,

David W. Graybill
President & CEO

cc: J.J. McCament

RESPONSE TO COMMENTS FROM THE TACOMA – PIERCE COUNTY
CHAMBER OF COMMERCE
(Letter #24)

Comment 1

The comments with regard to the provision of public open space and shoreline access, the provisions of structured parking and planned revisions for Ruston Way are noted. These points will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development to be fully implemented. While the proposed *Point Ruston* development would generate employment opportunities during construction and long-term, direct and indirect economic factors associated with the proposed *Point Ruston* development are not environmental considerations that are analyzed in this FSEIS.



JAN 31 2008

Ms. Karie Hayashi
 Urban Planner 111/Special Assistant
 City of Tacoma
 Building and Land Use Services
 Public Works Department
 Point Ruston SEPA and DSEIS

January 25, 2008

This is the Tacoma Yacht Club's response to your notices of December 18, 2007 and January 16, 2008 in respect to Point Ruston LLC's proposed development of the Asarco Smelter Site.

Our general input to these documents is that there isn't enough detail to determine whether the Tacoma Yacht Club's interests are protected.

1

Point Ruston has yet to make a clear commitment that it will remediate all of Metro Park's land, including the Tacoma Yacht Club lease area, in a way that allows for development and improvement of that area pursuant to Metro Parks 1997 Comprehensive Plan. Please remember that Metro Parks plan calls for tying the promenade along Ruston Way through Point Ruston to Point Defiance Park, and development of Peninsula Park. This requires the relocation of the Yacht Clubs access road, gate house, security gate and utilities on what Point Ruston calls Yacht Club Road. Thus it creates the absolute need that Point Ruston and EPA guarantee we are able to efficiently work in the area after remediation is complete.

2

The second area of concern is the design and capacity of the access road and the utilities that are brought to the Metro Park property boundary. Point Ruston should be required to supply enough design information to show that peak traffic and utility requirements during holidays and the summer season are capable of serving the Peninsula Park, the Yacht Club and the residents of the Marine Division of their development. Given the present gridlock on Ruston Way in the summer, we doubt the conclusions of the traffic survey. We want assurance that the designs are capable of serving those joint needs, including turning radiuses for trucks and emergency vehicles, and the relocation of our gate house and security gate.

3

4

The Yacht Club does not believe the information that has been made available is sufficient to properly assess Point Ruston's impacts on Yacht Club operations. Further, we believe that unless the remediation issue is properly handled, Metro Park's plans may never be realized and the public's interest's permanently damaged. We request that Tacoma withhold further processing of the DSEIS and associated development permits until it is clear that adverse impacts to the Yacht Club, as an affected party, are properly mitigated.

5
6
7

Thank you for soliciting and considering our input.



Bob Witter, Vice Chairman BOT

Tacoma Yacht Club

Cc: Metro Parks Department, attn. Lois Stark
Environmental Protection Agency, attn. Kevin Rochlin
Town of Ruston, attn. Mayor Michael Transue

RESPONSE TO COMMENTS FROM THE TACOMA YACHT CLUB
(Letter #25)

Comment 1

This comment is an expression of opinion and not substantive in nature. As noted in the introduction to *Section IV*, no response is necessary.

Comment 2

Point Ruston's remedial responsibilities are contained in the Second Amendment to the ASARCO Consent Decree, The Second Amendment to the Consent Decree as agreed to between the EPA and Point Ruston LLC specifies the remediation requirements that the Proponent is under an obligation to perform. As a Bonafide Prospective Purchaser under CERCLA section 107(r) the Proponent's environmental liabilities are limited to the scope of the aforementioned Consent Decree. Should the EPA wish to further study any Potentially Responsible Parties (PRPs) for the environmental remediation of the Peninsula Park, the Agency would likely look towards the landowner and its subordinate tenants.

The *Proposed Action* would provide connections to the property line in common with the Metro Park's property including the southeast end of the Tacoma Yacht Club lease area. These connections include the Yacht Club Road as the primary vehicular and utility connection and the waterfront promenade, which provides non-motorized connectivity. From discussions with Metro Parks, the turning radii of emergency vehicles and a 19-foot truck and 20-foot recreational trailer were considered in the Yacht Club Road design. The alignment of Yacht Club Road was updated from the DSEIS based on this additional analysis to allow for greater turning radii. Please see the response to Letter 13 Comment 7 for a discussion of the changes and Figure 20 for an illustration. *Point Ruston* has also proposed to stub an 8-inch water main and 4-inch pressure line from the closest sewer manhole to the property line for connection by the Yacht Club and/or Metropolitan Park District.

Comment 3

Please see Letter 13, Comment 7 as well as Figure 20 of the DSEIS. The traffic impacts have been studied in-depth, and their analysis and conclusions have been incorporated throughout this FSEIS, as well as in Appendix D, the detailed traffic study. Specific engineering and design of the roadways is not applicable to this level of environmental impact analysis, however, the proponent has made a commitment to work in a coordinated effort with the Metropolitan Parks Department during the design and construction phase of this project, to ensure such concerns are met.

See above response concerning turning radii. To perhaps clarify, the *Proposed Action* does not require or propose the relocation of the Yacht Club's gate or gate house but would provide an access alternative from Yacht Club Road which the Yacht Club or Metro Parks may choose to utilize.

Comment 4

Evaluation of remediation requirements and associated impacts is not the intent of this document. The *Proposed Action* does not include work on the lease area or relocation of the Yacht Club facilities. The extension of infrastructure through the project site has taken into account the potential future extension of and use by the Tacoma Yacht Club. These extensions are a potential benefit to the Yacht Club.

Comment 5

Opinion is noted.

Comment 6

Comment noted.

Comment 7

Comment noted.

WASHINGTON STATE
JOBS WITH JUSTICE

Letter 26

www.wsjwj.org

RIGHT TO A JOB · RIGHT TO ORGANIZE · HEALTH CARE FOR ALL · CIVIL RIGHTS · FUND COMMUNITY NEEDS

SEPA Public Information Center
Tacoma Municipal Building, 3rd Flr
City of Tacoma Public Works Department
747 Market Street, Room 332
Tacoma, WA 98402-3769
By hand delivery to: Karie Hayashi

02-14-08P01:58 RCVD

February 14, 2008

Karie
To: Karie Hayashi SEPA Officer and William L Pugh, Assistant City Manager/Director Public Works

Re: Project File #s 40000090530/SHR2007, 40000090531/PLT2007, xxxxxxxxxxxx/BLD2007, 40000090529/SEP2007, SEPA File # SEP2007-40000090529; Comments on Draft Supplemental Environmental Impact Statement to the Asarco Smelter Site Master Development Plan Final EIS

Washington State Jobs with Justice is a local organization composed of individuals with JwJ voting rights who live and work in the impacted area of Tacoma and Ruston and is also composed of member organizations with JwJ voting rights that also have individual members who and work and live in Tacoma and Ruston. Jobs with Justice asserts standing, procedural, and subject matter jurisdiction to participate in this process. In the Draft Supplemental Environmental Impact Statement (DSEIS) dated January 16, 2008, the City of Tacoma invites us to comment on the scope of the Supplemental Environmental Impact Statement (SEIS) outlined in the DS. We make the following comments to the DSEIS:

After careful review of the DSEIS, we believe it to be grossly inadequate. Considering the track record of the developer, the size of the project, the history of the site and its previous owner, and the potential negative impacts to the existing neighborhood, waters, surrounding region, and future residents we feel that this DSEIS does not sufficiently study the actual impacts.

Housing

Mike Cohen Construction (acting as Point Ruston, Limited Liability Corporation)'s proposed phased remediation of very toxic materials while conducting phased construction simultaneous to significant residential and commercial activity impacts his housing plans. As per Mr. Cohen's inadequately addressed impacts and track record discussed in "Environmental Health" of these comments, residents living next to the site and on the site will need to don Tybek suits and respirators. Occupied housing structures may need to be encapsulated in plastic. By the EPA's account, "additional ideas such as wind fences, tents, and chemical tacifiers of excavation areas are being considered." This DSEIS lacks an adequate study of the impacts on housing this project will have for the next 10 years, or longer "depending on market conditions."

1

Page 1 of 9

Seattle Office

P.O. Box 9662 · Seattle, WA 98109
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wsjwj@igc.org

Tacoma Office

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Whatcom County

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Mr. Cohen refers to "affordable housing" but this DSEIS lacks clarity in the terms used "apartments" and "for rent units." Mr. Cohen's DSEIS seems to apportion 15 to 30 units or 1.5 to 3.7% of the 800 to 1000 units he is constructing to "affordable housing" ("10 to 15% for rent" of the "150-200 apartments"). This non-binding 1.5% of units will be affordable to 80% of an undetermined Annual Median Income (AMI). If the AMI is of the County, the units will be affordable to those earning about \$40,000 per year. Income of \$40,000 is far higher than many if not most of the workers earn constructing Mr. Cohen's developments or destined to be the workforce (retail clerks, janitors, and Silver Cloud hotel staff) at Point Ruston under his current scheme.

2

Mr. Cohen also inadequately addresses the timeline and process to secure the "research program and grants as well as community partnerships" he will pursue to subsidize his generous allotment of 1% affordable housing. He thus inadequately addresses the impact of these timelines and processes on the timeline and development of the overall project.

3

Mr. Cohen alleviates his moral responsibility to build a reasonable portion of affordable housing by stating in the DSEIS, "because of accelerating construction costs, rising interest rates on consumer mortgages, and site remediation costs that influence the base cost of a unit, for-sale units are not expected to be a viable affordable housing option at *Point Ruston*." Mr. Cohen neglects to include the factor of the profit he wants to reap on this project due to far lower development costs than Downtown Tacoma while he charges prices (\$2M to \$300K per condo, page 3.3.3) that approximate Downtown Tacoma markets. Mr. Cohen can afford a Bear Fountain (Table 3.5.3) but can't afford to house many of the workers that build his Pt Ruston.

4

Mr. Cohen's DSEIS does not adequately address the impacts on housing if hundreds of Point Ruston residents have to be evacuated and be absorbed into the community due to a leak of the massive poisons on the Point Ruston property and residing under the homes. Contaminants of concern at the site include heavy metals (primarily arsenic, lead, copper, and zinc). During 1998 - 2004, ASARCO completed excavation of soils from the most highly contaminated areas of the site. These soils, classified as federally hazardous waste, were placed in the **On-Site** Containment Facility (OCF). Mr. Cohen plans to build a park on top of the OCF "allowing for a children's play area, large open field, picnic shelters" and other public activities (Table 3.5.3). Other poisoned soils from the property and surrounding properties still reside on significant portions of Point Ruston either exposed during ongoing construction or under a relatively thin cap of supposedly uncontaminated soil. Mr. Cohen's DSEIS pays no attention to how gases given off and liquids leaching from the OCF and other site poisons would impact housing stock and residents. Examples of impacts are including but not limited to air residents breathe, aquifers that may supply housing resident water and underground streams and drainage that may surface around homes.

5

Government and Public Services/Schools/Parks

Mike Cohen Construction (acting as Point Ruston, Limited Liability Corporation)'s proposed phased remediation of very toxic materials while conducting phased construction simultaneous to significant residential and commercial activity impacts schools, public services provided to children and adults, and open space.

6

As per Mr. Cohen's inadequately addressed impacts and track record discussed in "Environmental Health" of these comments, schools and locations with high populations of children most susceptible to lead and arsenic poisoning will need to endure toxic exposure testing again. Mr. Cohen's DSEIS demographic chart 3.3.4 reveals that the age-range in the local market that could afford Mr. Cohen's units are in the child-raising years. Yet, Mr. Cohen does not adequately address the project's impact on public school services by citing his own company's "informal poll" (methodology undisclosed), a smaller

7

town (Federal Way) study in 2002, and a national study done in 2005. Mr. Cohen mysteriously projects the students living at Point Ruston to be as high as 221 students but then proceeds to use his lowest figure of 45 for his analysis. He refers to "market data from comparable developments" but does not share the data or the methodology of collecting and analyzing the data.

7 cont.

Mr. Cohen's DSEIS provides inadequate analysis and data for his "assumption for multi-family dwelling units would be 1.75 residents per unit" or how many workers, recreators, and consumers the site would attract. This needs to be adequately studied in the DSEIS to evaluate the real impacts on government services and open space when considering thousands of new residents, workers, recreators, and consumers will be drawn to the commercial facilities, waterfront, and workplaces.

8

Mr. Cohen's DSEIS does not adequately address the impacts on surrounding parks and recreational facilities. Mr. Cohen admits to his project's "increased demands" but then provides no data or studies to assert that these demands "would likely be distributed among" other nearby parks and facilities. Since Mr. Cohen's DSEIS is guessing at the increase in population, it cannot adequately evaluate whether this proposed project meets the MPT LOS guidelines. Mr. Cohen's park and open space improvements fall short of the Definitive Agreement standard of 53 acres that formed the basis of the 1997 EIS MDP. Mr. Cohen claims that the Definitive Agreement was "nullified" when he purchased the property from Mr. Cohen but provides no authority for that assertion or how this assertion impacts the 1997 EIS MDP.

9

Mr. Cohen also asserts no significant impacts on parks and recreation facilities caused by construction, and dismisses construction impacts as "temporary" in 3.5.2.1. Mr. Cohen's construction will span 10 years or longer "progressing building by building (and assuming mini-park to mini-park as market conditions warrant." Delayed park access impacting other park use spanning an entire childhood is significant. This needs to be adequately studied in the DSEIS to evaluate the impacts on other parks.

10

In the few sections (Parks & Services) where Mr. Cohen's DSEIS does evaluate the impact of the 1997 EIS alternative, his evaluation on the impact on Parks is nevertheless inadequate. Mr. Cohen states, "the MDP EIS indicated that existing park facilities and Schools... could be indirectly affected by construction-related activities and traffic congestion, road closures or road alterations. These impacts were determined to be temporary." This evaluation is inadequate when it comes to a phased 10 year project "progressing building by building as market conditions warrant."

11

Given that Point Ruston is one of the largest, if not largest, for-profit developments proposed in Greater Tacoma in recent history and will impose significant impacts on the delivery of government services, this DSEIS does not adequately explore whether the City should implement service impact mitigation fees on for-profit developments of a certain size during 10 plus years of construction (when tax collection is low) and during operation. Mr. Cohen's DSEIS does not with data and analysis adequately address how the government service costs to support Point Ruston will be funded during construction and operation. Undocumented taxes collected "to help offset demands for public services" is not a substitute for data and analysis that informs budgetary planning at the foundation of providing services. Apparently based on mysterious conversations of which we don't know the substance, Mr. Cohen's DSEIS claims that certain government services "would have excess capacity" to meet the "added demand."

12

The DSEIS should not only study the impact to the surrounding community in regard to such necessities as schools, parks, sewer, water, power, stormwater, solid waste, telecommunications, police, fire, water rescue, and emergency medical services, but also access to food and healthcare, and all other human needs. Mr. Cohen does not address the impact of climate change on these service needs. Tacoma and Pierce County population has expanded rapidly and is projected to increase exponentially. The area

13

surrounding Mr. Cohen's site is already a major destination for this expanding population which is taxing this infrastructure.

13 cont.

Transportation

Mike Cohen Construction (acting as Point Ruston, Limited Liability Corporation)'s proposed phased remediation of very toxic materials while conducting phased construction and simultaneous to significant residential and commercial activity impacts transportation. As per Mr. Cohen's inadequately addressed impacts and track record discussed in "Environmental Health" of these comments, roads used by contaminated construction vehicles will need to be regularly monitored and/or blocked off to reduce poisons exposure. Construction vehicles will need to be thoroughly cleaned on public streets if found contaminated after leaving the site before navigating additional residential streets. Mr. Cohen refers to "stockpiles of soils" on site as the reason for not needing to import "significant amounts of additional materials associated with heavy truck traffic." It is difficult to imagine the mud huts for which potential residents will pay \$2,000,000. The public should not have to assume that the reputedly sufficient "soil stockpiles" are uncontaminated until Mr. Cohen can give an accounting whether and how much uncontaminated soil needs to be trucked in. Mr. Cohen's DSEIS is inadequate in quantifying heavy truck traffic and route choices required by the project.

14

As Mr. Cohen has identified his project as targeting a high income population (see Housing section of these Comments), this DSEIS inadequately analyzes the impacts on transportation of higher consumption and commuting patterns of high income people. Additionally, Mr. Cohen's DSEIS inadequately analyzes the impact of reverse commuting patterns of the low-wage workers performing the jobs at the Point Ruston site but unable to afford to live at or near Point Ruston. Due to the dearth of high-wage jobs in the area, Mr. Cohen should explore this impact on surrounding roads, freeways, and mass transit.

15

Mr. Cohen's DSEIS does not adequately address the impacts on transportation and roads by underestimating the true numbers, times, and patterns of vehicles, trips, mass transit usage, biking, and foot traffic. Mr. Cohen's DSEIS provides inadequate analysis and data for how many trips would be generated. Thus the traffic study is based on faulty data assumptions and needs to be redone. The traffic study also is inadequate in methodology. For example, Mr. Cohen asserts that "roundabouts would provide more efficient flow for traffic" but does not cite any Northwest-specific studies. Small and busy roundabouts are not familiar traffic diversions in the Northwest and especially visiting drivers could find navigating them confusing thus creating more congestion. Since Pt Defiance park attracts about 2 million mostly one-time visitors annually, area drivers likely will face major congestion at the roundabout of Ruston Way and Baltimore and 51st and Yacht Club Road. This congestion will also impact the 54th Street Point Defiance Park entrance and the Ruston Way arterial link to the Vashon Island ferry. Given the bottlenecked access to the future Peninsula Park and The Marina District, there will be an additional impact on these park entrances. Access to the surrounding areas is already severely limited. Specific street changes during a lengthy construction phase and a permanent population explosion by residents and visitors should be analyzed more carefully.

16

Mr. Cohen's DSEIS does not adequately address how proposed transportation changes and maintenance costs will be funded during construction and operation. A proposed "Construction Traffic Management Plan... to manage traffic flow during the reconstruction of Ruston Way and other construction activity" impacting transportation also needs to be part of this DSEIS to be adequately discussed under SEPA. Mr. Cohen's DSEIS also unacceptably increases traffic delays such as entering N. 51 St from N. Winnifred Street. Even by Mr. Cohen's DSEIS counting, 17408 extra weekday trips is a significant adverse impact on the area. The study does not appear to have a weekend trip projection. While the traffic study was conducted during peak recreating season and thus evaluates recreational traffic, another study needs to

17

be conducted during a peak work season to properly evaluate work commuting traffic. The Transportation section should also adequately examine the impacts of Mr. Cohen's requested Street Vacation.

17 cont.

Project Impacts Relating to 1997 Ruston EIS

Applicant Mike Cohen Construction (acting as Point Ruston, Limited Liability Corporation) has not adequately addressed the proposed project's impact on Environmental Health, Land Use and Shoreline Use, Recreation, Housing, Transportation, Aesthetics, Public Services/Schools, Infrastructure for Expanding Population, and any other category of scrutiny as it relates to the City of Tacoma's adopted Existing Environmental Document "1997 EIS" within this DSEIS. Mr. Cohen dismisses his responsibility to study and evaluate his project despite the limits, assumptions, and premises of the "1997 EIS." City of Tacoma's adopting the 1997 EIS does not relieve Mr. Cohen of his responsibility to study and evaluate his project's impacts on conditions that were addressed in the 1997 EIS Asarco MDP, which he now calls the "baseline" or the "No Action Alternative." (See page 3 "Note" of the Adoption of Existing Environmental Document (SEPA File # SEP2007-40000090529) and decision of Hearing Examiner (HEXAPL2007-00011, page 4 #3). Mr. Cohen claims that "no challenge to the adequacy of the MDP EIS (1997) was raised" but, in fact, challenges were raised and the City of Tacoma Hearing Examiner has determined that challenges are "premature" at this point and Mr. Cohen did not appeal that decision.

18

The 1997 EIS documents (1997 EIS) are not appropriate and relevant to the current EIS process and should not be utilized in this EIS process. The 1997 EIS is not adequate as part of this final environmental impact statement, even if it is adopted only "in part" by the decision titled "Adoption of Existing Environmental Document" dated October 26, 2007. The 1997 EIS is premised on a significant unfulfilled assumption as well as greatly outdated data. In addition, the 1997 EIS prejudices a current EIS process that should start with a clean slate.

19

The 1997 EIS states "The remediation is *assumed* to be complete before the development analyzed in the EIS occurs... The EIS has been prepared to address development issues and related environmental issues that directly relate to redevelopment of this area *following* remediation." Mike Cohen Construction (acting as Point Ruston, Limited Liability Corporation) is not completing the remediation before development. On its face, the 1997 EIS does not "directly relate" to Mr. Cohen's proposed phased development plan. Mr. Cohen will be remediating very toxic materials at the same time as significant building activity and potentially at the same time as significant residential and commercial activity. Every significant aspect of the 1997 EIS needs to be completely reevaluated to consider serious environmental factors never before analyzed. Given the track record of Mr. Cohen's remediation behavior toward workers, residents, and the general public around his development sites, the DSEIS should adequately address these impacts.

20

Since 1997, growth of activity and density around the proposed development site has quantitatively changed every significant aspect examined by the 1997 EIS. Tacoma and Pierce County population has expanded rapidly and is projected to increase exponentially. As a whole, these quantitative changes also generate significant qualitative changes not examined by the 1997 EIS such as good weather weekend access. Also lacking is an analysis of how these qualitative changes will then impact future quantitative changes. The data in and structure of the 1997 EIS has little value to this DSEIS process after years of rapid expansion and the potential for much more rapid expansion. The DSEIS should adequately address the project's impacts as it relates to the new data and a qualitative analysis.

21

Even if the City deems 1997 EIS incorporated into this DSEIS appropriately, Mr. Cohen's DSEIS has a responsibility to evaluate changes to the data and analysis of the 1997 EIS. He has not done this adequately.

21 cont.

Environmental Health

Mike Cohen Construction (acting as Point Ruston, Limited Liability Corporation)'s proposed phased remediation of very toxic materials while conducting phased construction and simultaneous to significant residential and commercial activity impacts Environmental Health. Mr. Cohen has not adequately addressed this in the DSEIS. In 2.5.2.1 of the DSEIS, Mr. Cohen proposes that construction will be "progressing building by building as market conditions warrant."

22

Based on Mr. Cohen's remediation track record and behavior toward workers, residents, and the general public around his development sites, every significant aspect of surrounding community life will be impacted by serious environmental factors. By email to Ms. Hayashi, we have attached 11 photos that help demonstrate Mr. Cohen's "remediation" practices at the Asarco site including dust clouds, lack of appropriate worker safety equipment and water-trucks, and fallen silt fences. During Mr. Cohen's remediation efforts, we have received reports of a lack of rain runoff protection, broken or inoperable monitoring devices and systems, workers without proper training and safety practices, and vehicles contaminated with Asarco site dust moving through surrounding communities. For the DSEIS record, further documentation of Mr. Cohen's toxic exposure to the surrounding community can be found in the complaints of nearby residents to the EPA which should be a matter of public record. This information helps illustrate that unless Mr. Cohen's practices are significantly changed or mitigated, residents, recreators, students, teachers, commuters, workers, and City planners will need to make and endure much more severe adjustments to limit toxic exposure beyond individual health precautions. Workers next to the site and on the site will need to don Tybek suits and respirators.

23

This exposure is especially of concern as Mr. Cohen has scheduled to provide areas for outdoor child play and gardening in his first phase of construction.

24

The EPA's offer to oversee phased remediation during phased construction does not preempt the SEPA process and the applicant's and City's responsibility to evaluate the environmental impacts of phased remediation and phased construction. The EPA's letter dated November 13, 2007, assuring the City of Tacoma that the EPA will be developing a plan some time in the future of Mr. Cohen's staged remediation/development does not substitute for evaluating this plan's impacts in this DSEIS and SEIS process. In fact, the 1997 EIS (Asarco MDP) which specifically excluded residential use at the site nevertheless reviewed "certain aspects of RA [remedial action] regarding mitigation of impacts for toxic and hazardous wastes as they relate to redevelopment of the Asarco Smelter site."

25

While a Development Strategy Team made up of local government officials has deemed "a phased approach where remediation and redevelopment is occurring simultaneously by phase is acceptable within certain constraints established to protect residents occupying completed phases of the project," Mr. Cohen's DSEIS inadequately addresses these constraints and their impacts. Mr. Cohen cites no authority to enable the Development Strategy Team to preempt SEPA and the DSEIS responsibilities.

26

Mr. Cohen's assertion that residents and workers should rely on the Bush Administrations' pro-arsenic EPA oversight (administered in this region by a former Dow Chemical executive) is not comforting. "Many discussions have already taken place" with EPA and "several options... are being considered" does not substitute for disclosing determined plans and a public discussion that is provided under the SEPA process. It appears Mr. Cohen's DSEIS is premature. Should political changes in 2008 produce an EPA

27

and a state Ecology Department in 2009 that defends the environmental rights of our local community, we will also most likely see much stronger measures imposed on this project to protect against toxic exposure. These measures will also have impacts far beyond health issues that impact the below additional categories.

27 cont.

The DSEIS is inadequate in addressing the impacts of the Ferry Boat sales center use (page 3.1-4). Since a Shoreline Substantial Development permit would be obtained prior to moorage, the DSEIS analysis should evaluate impacts to aquatic life, contaminated sediments, and the the shoreline environment. The DSEIS claims that "Other than the ferry to be moored over owned submerged land, all development would be located on the upland portion of the site." Yet the DSEIS refers to a development alternative on page 1-9 and in Table 3.5.4 that would embrace "Tacoma Public Boat Ramp Area Improvement : 1. Boat Ramp/Marina Breakwater, 2. Ferry Night Moorage Slip, 3. Log Boom or Guide Wall, 4. Public Viewing Area, Enhancements, 5. Ramp, Parking, Restroom, Relocated Floats." If Mr. Cohen considers this improvement a "baseline," the DSEIS inadequately addresses many impacts from these developments.

28

Mr. Cohen's DSEIS does not adequately address how grading to control drainage that results in a slope of 2 to 2.75 percent extending from the shoreline of Commencement Bay to Ruston Way and the discharge of runoff in the Bay from scores of acres of hardscape will impact residents, aquatic life, and Bay poisoning when the project is completed even if filtration systems are used. Contaminants of concern at the site include heavy metals (primarily arsenic, lead, copper, and zinc). During 1998 - 2004, ASARCO completed excavation of soils from the most highly contaminated areas of the site. These soils, classified as federally hazardous waste, were placed in the **On-Site** Containment Facility (OCF). Other poisoned soils from the property and surrounding properties still reside on significant portions of Point Ruston either exposed during ongoing construction or under a relatively thin cap of supposedly uncontaminated soil. Mr. Cohen's DSEIS pays no attention to gases given off and liquids leaching from the OCF and other site poisons and impacting housing stock and residents. Examples of impacts are including but not limited to on air residents breathe, aquifers that may supply housing resident water,

29

Mr. Cohen's DSEIS does not adequately address the impact of litter and other sanitation issues on the shoreline and Bay given that "All buildings with frontage on the promenade would be of a mixed-use nature." ~~All buildings with frontage on the promenade would be of a mixed-use nature.~~ Since the promenade is hardscape and it is unclear whether it touches the OHWM, rain run off of contaminants left on the hardscape might also impact the Bay life and shoreline.

30

Mr. Cohen's DSEIS does not adequately address the safety issues in regard to navigating the train tracks caused by widening Ruston Way and taking away parking slots.

31

Land Use and Shoreline Use

Mike Cohen Construction (acting as Point Ruston, Limited Liability Corporation)'s proposed phased remediation of very toxic materials while conducting phased construction and simultaneous to significant residential and commercial activity impacts land use and shoreline use. As per Mr. Cohen's inadequately addressed impacts and track record discussed in "Environmental Health" of these comments, large swaths of shoreline and waterfront promenade may need to be encapsulated in plastic. This DSEIS lacks an adequate study of the impacts on surrounding land, shoreline, and aquatic use this project will have for the next 10 years, or longer "depending on market conditions."

32

Mr. Cohen's DSEIS inadequately analyzes how the project impacts embrace the mandates of the Shoreline Management Act especially in light of view and public access protection. Figure 5 demonstrates that a

33

substantial number of private residences and commercial structures will occupy the State Shoreline Management Zone. Mr. Cohen's DSEIS also fails to address the impacts of this project on the shoreline as climate change causes seas to rise and approach private buildings merely 100 feet from the OHWM. 33 cont.

This DSEIS inadequately analyzes how the project will define and impact "public accessible property" in the future. It appears to leave that issue to the "urban village neighborhood" which will be governed by a private "Community Association." References such as "probably" and "cannot be determined now" do not resolve the issue and Mr. Cohen does not appear to be leaving land trusts to MPT or the City of Tacoma. 34

Mr. Cohen's DSEIS Comparative Analysis table 3.1.3 is incomplete and inadequate in addressing land use of the Marina and Baltimore Districts as well as building heights for the other districts. 35

Recreation

Mike Cohen Construction (acting as Point Ruston, Limited Liability Corporation)'s proposed phased remediation of very toxic materials while conducting phased construction and simultaneous to significant residential and commercial activity impacts recreation. As per Mr. Cohen's inadequately addressed impacts and track record discussed in "Environmental Health" of these comments, certain recreation areas and access roads will need to be closed. This DSEIS lacks an adequate study of the impacts on recreation this project will have for the next 10 years, or longer "depending on market conditions." 36

Aesthetics

Mike Cohen Construction (acting as Point Ruston, Limited Liability Corporation)'s proposed phased remediation of very toxic materials while conducting phased construction and simultaneous to significant residential and commercial activity impacts aesthetics. As per Mr. Cohen's inadequately addressed impacts and track record discussed in "Environmental Health" of these comments, large swaths of viewsheds may need to be encapsulated in plastic. By the EPA's account, "additional ideas such as wind fences, tents, and chemical tacifiers of excavation areas are being considered." This DSEIS lacks an adequate study of the impacts on aesthetics this project will have for the next 10 years, or longer "depending on market conditions." 37

This DSEIS should embrace the federal Consent Decree in light of public park commitments. Mr. Cohen's hostile comments to neighboring rights of views, waterfront access, and designated public park land have raised concerns in the local community. We wish to preserve water, mountains, and territorial views and object to multi-story structures up to 80 feet and possible higher that will alter or destroy these views. 38

This DSEIS inadequately addresses the impact of Mr. Cohen's plans to build above the Asarco MDP height limits. Mr. Cohen's DSEIS does not adequately address whether the Asarco tunnel on Ruston Way should be preserved as a historic monument. 39

Economic Impacts on Existing Businesses and Community

Mike Cohen Construction (acting as Point Ruston, Limited Liability Corporation)'s DSEIS inadequately studies and evaluates the impact on existing businesses. Mr. Cohen's DSEIS does not adequately address the impacts on surrounding businesses by widening Ruston Way and taking away parking slots. 40

Mr Cohen also does not disclose or address data leading to his conclusions regarding the economic and business benefits and disadvantages of delaying implementation. He would have the community and the City subvert a public democratic process based on so far baseless threats that delay would make "more difficult, if not impossible to meet" his commitments to EPA under the consent decree "if development of the site does not commence in 2008 as anticipated in the Consent Decree." As he raises this issue in the 41

DSEIS, Mr. Cohen opens the door to an adequate study of his financing and economics of this project and the impact of various alternatives on surrounding businesses and community as well as each section of this comment. This DSEIS inadequately studies the "Alternatives."
In 2.6.2,

41 cont.

Town of Ruston Comprehensive Plan

Mike Cohen Construction (acting as Point Ruston, Limited Liability Corporation)'s DSEIS inadequately studies and evaluates the impact on the Town of Ruston Comprehensive Plan. This failure includes but is not limited to Mr. Cohen's DSEIS not performing a comparative study of the building requirements in the Town of Ruston Comprehensive Plan for those structures proposed to be build on Ruston land. There is at least 1 violation of building height limits. It also includes not adequately evaluating the open space requirements especially given Mr. Cohen's DSEIS reduces the park acreage from the 1997 EIS. Mr. Cohen's DSEIS does not adequately address the density of population in the TRCP.

42

SEPA-EIS Procedures

The date of the DSEIS issuance raises issues of an inadequate procedure and suspiciously lacks good faith. For example, an appeal was filed over the scoping of this document yet the issuance and comment dating in the DSEIS reveal that this document was prepared prior to resolving the scoping issues. Issuance and comment dating in the DSEIS have been hand written on one page and hand written over inappropriately typed dates on another page. This should be a very detailed document and it is clear that the applicant did not prepare it knowing what the full scope would entail.

43

On page v of the fact sheet, the date of January 2, 2008 and February 1, 2008 have been crossed out and now read January 16, 2008 and February 14, 2008. Both dates come before the appeals deadline. This gives the appearance of fore knowledge by the applicant that the City of Tacoma had pre-judged the appeals.

44

Sincerely,



Wendy Hall, JwJ Pierce County Organizing Committee Co-Chair, Nora Leider, Chair to the Socially Responsible Development project JwJ Steering Committee workgroup, and Jacob Carton, South Sound staff organizer, on behalf of:

Washington State Jobs with Justice
3049 S. 36 St. #201
Tacoma, WA 98409-5801
(253) 459-5107

RESPONSE TO COMMENTS FROM WASHINGTON STATE JOBS WITH
JUSTICE
(Letter #26)

The majority of the comments made by this organization imply that this document is “Mr. Cohen’s EIS...” While Point Ruston LLC is the proponent The City of Tacoma Public Works Department, Building and Land Division is the SEPA Lead Agency for this project and this FSEIS is the City’s document. The City has exercised operational control over preparation of the DSEIS and this FSEIS believes them to be consistent with SEPA, and represent an objective analysis of the environmental impacts that may result from the *Proposed Action*.

Comment 1

Point Ruston LLC is the proponent of this *Proposed Action* and the owner and developer of the proposed *Point Ruston* development. As the EPA maintains ultimate jurisdiction over the remediation of this property, they will implement all applicable controls under an approved and adopted institutional controls plan, which will limit the amount of interaction between potentially harmful contaminants and the public.

Comment 2

The proponent has agreed to voluntarily provide 10-15% of all for-rent units be made available and affordable to households earning 80% of the county-wide Annual Median Income (AMI) as established annually by the Department of Housing and Urban Development. HUD does not establish AMI figures for individual communities but rather on a county-wide basis.

Of the 150-200 apartments and senior rental units expected to be built, this would equate to 15-30 units out of the total for-rent units. Subsidized housing is neither anticipated nor required as a component of the proposed development.

Comment 3

Construction will follow environmental remediation of the site, generally moving from the Viewpoint District in the southeast portion of the property to the Marina District in the northeast portion of the site. Buildings #6 (Assisted Living/Senior Housing Facility) and #7 (Apartments) are located in the Viewpoint District.

Comment 4

Project Objectives outlined in Section 2.4, page 2-15, include in part, the completion of the environmental remediation by a private party rather than taxpayers, and to provide an adequate financial return to pay for significant public amenities that go beyond code requirements.

Section 3.4 analyzes Environmental Health Impact. Site remediation and release of completed phases for residential occupancy is under the jurisdiction of EPA. The site will be capped with concrete, asphalt, or a soil cap that includes an impermeable layer to prevent human contact with contaminated soils. The site cap will be monitored and maintained on an established schedule and in accordance with an EPA approved plan to ensure that the integrity of the cap is maintained into perpetuity. Site water will come from the City of Tacoma municipal water system

only, groundwater use is prohibited at the site. The OCF is a triple lined facility designed and constructed per federal requirements and was constructed with a leak detection and collection system (please see response to Laborer's Union comment 15). Organics and liquids were not allowed in the OCF. The cell contains soil, concrete and bricks that do not generate gases. Completed landfill covers are commonly used as recreational spaces such as playfields and parks with EPA approval.

Comment 5

Site remediation and release of completed phases for residential occupancy is under the jurisdiction of EPA. The site will be capped with concrete, asphalt, or a soil cap that includes an impermeable layer to prevent human contact with contaminated soils. The site cap will be monitored and maintained on an established schedule and in accordance with an EPA approved plan to ensure that the integrity of the cap is maintained into perpetuity. Site water will come from the City of Tacoma municipal water system only, groundwater use is prohibited at the site. The OCF is a triple-lined facility designed and constructed per federal requirements and was constructed with a leak detection and collection system (please see response to Laborer's Union comment 15). Organics and liquids were not allowed to be placed in the OCF. The cell contains soil, concrete, and bricks that do not generate gases. Completed landfill covers, such as this Asarco constructed OCF, are commonly used as recreational spaces for playfields and parks with EPA approval.

Comment 6

The Draft SEIS addressed the comprehensive remediation and redevelopment project at *Point Ruston*. Phased remediation and construction will be completed in compliance with EPA approved plans under EPA oversight. Remediation and associated mitigation will comply with the Second Amendment to the ASARCO Consent Decree and attached Statement of Work to meet the site remedy under EPA's jurisdiction. Development, associated construction impacts and required mitigation will comply with the jurisdictional requirements applicable to the area where the work is performed.

Comment 7

The EPA-approved site cap will provide a physical barrier preventing human contact with site soils. Exposure testing will not be necessary for children or adults residing at Point Ruston. Student generation rates provided by Tacoma School District are also provided and analyzed.

Comment 8

The DSEIS takes into account impacts from residents as well as potential employees, consumers, and visitors to the site. Mitigation that is noted in this FSEIS addresses impacts from such groups.

Comment 9

Opinion noted. Because distribution of park activity cannot be determined based on quantifiably verified statistics, it is presumed that the local parks would share in the park-related impacts

associated with the *Proposed Action*. Further, park and recreational facilities associated with the *Proposed Action* exceed any quantified LOS. Comments related to the obligations under the Definitive Agreement (continuation of the promenade to Point Defiance Park, and development of Peninsula Park) are not applicable to this SEIS as these liabilities were rejected on November 2, 2006 under an Order from the Federal Bankruptcy Court (Order dated November 27, 2006 by the Honorable Judge Richard S. Schmidt).

The proponent has indicated a willingness to work with Metro Parks to assess and mitigate, if required, possible impacts from the development on existing park facilities. See Letter 13, Comments 2 and 6.

Comment 10

Additional information has been added to Section 3.5.2 concerning the proportionality between development phasing with park and open space creation and public access. Access to existing parks are to be maintained.

Comment 11

A Construction Traffic Management Plan is typically prepared when a construction plan and schedule is in place, haul routes are identified, and specific plans for roadway construction are in place. Such a plan is required by the City of Tacoma prior to issuance of permits to work within the right of way.

Comment 12

Direct and indirect economic factors associated with the proposed *Point Ruston* development are not environmental considerations that are analyzed in this FSEIS

Comment 13

The scope of the DSEIS and this FSEIS were determined by the City as part of the EIS Scoping process that occurred for this project, which occurred October 26, 2007 through November 16, 2007. Comments received during the EIS Scoping period were considered by the City of Tacoma, Department of Public Works in determining the range of environmental issues and alternatives to be analyzed in the DSEIS, as well as this FSEIS. As a result of EIS Scoping, seven broad areas of environmental review are evaluated in this FSEIS; they include: *land use; aesthetics (viewshed); housing; environmental health; public parks, recreation and open space; public services and utilities; and transportation*. This FSEIS addresses those key public services and utilities that conceivably could experience a significant adverse impact.

Comment 14

Comment noted. Haul trucks are required to use the site truck wash prior to leaving the site or when traveling from an area undergoing remediation to a clean area. Equipment is decontaminated prior to demobilization from the site or prior to use in a clean area following use in an area undergoing remediation. The proponent will be responsible for ensuring that roadways adjacent to the site or used by project haul trucks are cleaned as necessary. Separation of clean areas at the site will be accomplished using clean roads and a temporary cap per EPA approval. Remediation and development will be completed by phase under EPA

oversight. EPA approval and release of a remediated phase will be necessary prior to residential occupancy of a phase as required by the Second Amendment to the Asarco Consent Decree and attached Statement of Work.

Comment 15

See section 3.7.2 for a discussion of the trip generation characteristics of the Proposed Action. The trip generation statistics used in this analysis are based on numerous traffic counts made for specific land uses. The trip generation characteristics for each land use reflect all trips generated by that land use, including the separation of inbound and outbound trips – without regard to economic status.

Comment 16

Opinion noted.

Comment 17

A Construction Traffic Management Plan is typically prepared when a construction plan and schedule is in place, haul routes are identified, and specific plans for roadway construction are in place. Such a plan is required by the City of Tacoma prior to issuance of permits to work within the right of way.

The Final SEIS does not recommend modifying the intersection of N. 51st St and N Winnifred St.

Mitigation is proposed to offset the trips generated by the Proposed Action.

See Section 3.7.1 and 3.7.2 for a complete discussion of seasonal changes in traffic volumes. Traffic conditions are analyzed for the PM peak hour, which is the time period when the potential for congestion is at its greatest.

Comment 18

Comment noted.

Comment 19

Opinion noted.

Comment 20

Comment noted. See responses to Comment 4 and 6.

Comment 21

All analysis in the SEIS is based on current data. Data for the transportation section is based on numerous mechanical tube counts and PM peak hour turning movement counts made in 2006 and 2007 which included weekends and good weather to account for use patterns and conditions.

Comment 22

Please see response to Comment #5.

Comment 23

Please see response to Laborer Union Comment #4.

Comment 24

Please see response to Comment #7.

Comment 25

Please see response to Comment #5. The 1997 EIS was completed prior to remediation design and construction at the ASARCO site. EPA's review and approval of design documents and construction oversight during ongoing remediation activities since 1997 has included mitigation requirements. Mitigation of impacts from remediation, including phased remediation, development and residential occupancy, will continue to be addressed at the site by EPA under their oversight authority.

Comment 26

Comment noted. Additional information on project phasing has been added to Section 2.5.2.

Comment 27

Responses are provided for substantive comments. This comment is an expression of opinion and not substantive in nature. As noted in the introduction to *Section IV*, no response is necessary. Information relative to *Environmental Health* and the remediation process is presented in *Section III* (3.4) of this FSEIS.

Comment 28

Comment noted. The temporary ferry moorage site is proposed at the southeast end of the former ASARCO site and within the boundaries of Point Ruston LLC's property. Moorage would not occur over the sediment cap that was placed in 2007. As a Supplement to an existing and Finalized EIS (1997 EIS) the "baseline" has already been analyzed, and thus the Tacoma Public Boat Ramp Area Improvement, as an aspect of the Alternative Action, was studied under the 1997 EIS.

Comment 29

Comment noted, please see response to Comment 1. Further, opinion is noted.

Comment 30

The proponent agrees that convenience of trash receptacles throughout public areas is important in maintaining the cleanliness of the public spaces and would incorporate them into the landscaping and design. Analysis relative to stormwater runoff is described in *Section* (3.6)

of this FSEIS. Compliance with all applicable water quality standards will be a requirement of all development including the promenade.

Comment 31

The Proposed Action will not impact the existing rail corridor. Ruston Way will be relocated to bypass the tunnel and provide a new roadway that will be two lanes wide along most of its length and meets current design standards. The new roadway will eliminate existing deficiencies, improve safety, and not remove any legal parking supplies.

Comment 32

Responses are provided for substantive comments. This comment is an expression of opinion and not substantive in nature. As noted in the introduction to *Section IV*, no response is necessary. Information relative to *Environmental Health* and the remediation process is presented in *Section III* (3.4) of this FSEIS.

Comment 33

Analysis of project consistency with provisions of the City and the Town's Shoreline Master Programs is analyzed in *Section III* (3.1 -- *Land and Shoreline Use*) of this FSEIS. A comprehensive analysis of aesthetic impacts with a focus on viewshed considerations is analyzed in *Section III* (3.1 -- *Aesthetics*) of this FSEIS.

Comment 34

Proponent has committed that public access will be a matter of recorded easement or other agreement between the proponent, City of Tacoma, Town of Ruston and Metro Parks.

Comment 35

The comment is noted. This comment lacks sufficient specificity in order to respond.

Comment 36

Comment noted, please see response to Comment 1. Further, the construction impacts occurring during the build out of the *Proposed Action* such as impact to recreation and access will be mitigated as conditions of the building permits.

Comment 37

Responses are provided for substantive comments. This comment is an expression of opinion and not substantive in nature. As noted in the introduction to *Section IV*, no response is necessary. Information relative to *Environmental Health* and the remediation process is presented in *Section III* (3.4) of this FSEIS and analysis relative to *Aesthetics* is presented in *Section III* (3.2) of this FSEIS.

Comment 38

The comment is noted.

Comment 39

Information relative to building heights is presented in *Section III (3.1 – Land and Shoreline Use)* of this FSEIS and viewshed analysis is provided in *Section III (3.2 – Aesthetics)*. The vehicle tunnel is to be abandoned and filled as a requirement of the Consent Decree.

Comment 40

Direct and indirect economic factors associated with the proposed *Point Ruston* development are not environmental considerations that are analyzed in this FSEIS

Comment 41

See response to Comment #40.

Comment 42

Please also refer to Letter 17, response to Comment 1.

Comment 43

As SEPA Lead Agency, the City of Tacoma exercised control over the analysis and preparation of the DSEIS and this FSEIS. Copies of the DSEIS were printed by the consultant team on behalf of the City and delivered to the City for distribution. Whereas it was intended that the date was to be left blank – in order to be inserted later by the City – as the result of a printing error a date was inadvertently included, which necessitated the hand-written change that is noted in the document. The DSEIS was published on January 16, 2008 and copies of the DSEIS were distributed to agencies, organizations and individuals noted on the Distribution List (*Appendix A* of the DSEIS), including the Washington State Department of Ecology.

Comment 44

See response to Comment #43.

From: WA State Jobs with Justice [wsjwj@igc.org] on behalf of southsound@wsjwj.org
Sent: Thursday, February 14, 2008 4:24 PM
To: Khayashi@cityoftacoma.org
Subject: Addenda #2 to Comments from Jobs with Justice on DSEIS Project File #s 40000090530/SHR2007,90531/PLT2007, /BLD2007, 90529/SEP2007, SEPA File # SEP2007-40000090529

SEPA Public Information Center
Tacoma Municipal Building, 3rd Flr
City of Tacoma Public Works Department
747 Market Street, Room 332
Tacoma, WA 98402-3769
By hand delivery to: Karie Hayashi

February 14, 2008

To: Karie Hayashi SEPA Officer and William L Pugh, Assistant City Manager/Director Public Works

Re: Project File #s 40000090530/SHR2007, 40000090531/PLT2007, xxxxxxxxxxxx/BLD2007, 40000090529/SEP2007, SEPA File # SEP2007-40000090529; Addenda #2, Comments on Draft Supplemental Environmental Impact Statement to the Asarco Smelter Site Master Development Plan Final EIS

Washington State Jobs with Justice is submitting the below addenda to accompany our Comments in the public record for the above-referenced DSEIS submitted on February 14, 2008. Please contact us at the below info if you have any questions or concerns if the documents did not come across completely or you've had any problems accessing or opening the information in the files. Please send us confirmation that you received this email. Thank you

Washington State Jobs with Justice is a local organization composed of individuals with JwJ voting rights who live and work in the impacted area of Tacoma and Ruston and is also composed of member organizations with JwJ voting rights that also have individual members who and work and live in Tacoma and Ruston. Jobs with Justice asserts standing, procedural, and subject matter jurisdiction to participate in this process. In the Draft Supplemental Environmental Impact Statement (DSEIS) dated January 16, 2008, the City of Tacoma invites us to comment on the scope of the Supplemental Environmental Impact Statement (SEIS) outlined in the DS. We make the following comments to the DSEIS:

Environmental Health

Mike Cohen Construction (acting as Point Ruston, Limited Liability Corporation)'s DSEIS does not adequately address the impact of the Point Ruston project on environmental health issues caused by poverty. The link between environmental health and poverty is well established. From human health issues such as infant mortality, child development, and asthma to the spread of fatal epidemics, poverty is a significant factor. See http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B7GVY-4PK8MW5-1&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=006eefa8f8672ed4f8c87ebdea641134 and http://www-wds.worldbank.org/servlet/WDSContentServer/IW3P/IB/2006/07/25/000104615_20060726100222/Rendered/INDEX/Project0Inform1cument1Concept0Stage.txt. Mr Cohen's DSEIS should collect more data and provide more analysis on how the Point Ruston project might generate more poverty and thus impact the environmental health of the surrounding community.

1

Examples of impacts include but are not limited to the thousands of poverty-wage jobs that might be generated by the Point Ruston project. Given Mr. Cohen's property development track record of projects paying poverty wages and denying affordable family healthcare, the Point Ruston project construction could propel thousands of workers and family members into poverty. Given the retail and property service sector is well-known for generating poverty-wage jobs without adequate healthcare, Mr. Cohen's projection of 651 on-site operation workers would add to these ongoing poverty levels. Mr. Cohen has publicly declared the Silver Cloud hotel chain will open a franchise at Point Ruston. The Silver Cloud chain is infamous for generating poverty-wage jobs. Mr. Cohen should disclose the other retail and service companies he is contemplating and is negotiating with to occupy and employ workers at Point Ruston.

Sincerely,

Jacob Carton, South Sound staff organizer, on behalf of:
Washington State Jobs with Justice
3049 S. 36 St, #201
Tacoma, WA 98409-5801
(253) 459-5107

RESPONSE TO COMMENTS FROM WASHINGTON STATE JOBS WITH
JUSTICE – Addenda #1
(Letter #27)

Comment 1

Please refer to the discussion of *Environmental Health* and site remediation that is contained in *Section III* (3.4) of this FSEIS. Economic Status is not an issue that is subject to SEPA review and analysis.

From: WA State Jobs with Justice [wsjwj@igc.org] on behalf of southsound@wsjwj.org

Sent: Thursday, February 14, 2008 3:19 PM

To: Khayashi@cityoftacoma.org

Subject: Addenda to Comments from Jobs with Justice on DSEIS Project File #s
40000090530/SHR2007,90531/PLT2007, /BLD2007, 90529/SEP2007, SEPA File # SEP2007-
40000090529

Attachments: Dust clouds from shovel1-MCC Asarco site.JPG; Dust clouds from shovel2-MCC Asarco site.JPG; Dust from Trucks passing - Stack Hill Sept 19a-MCC Asarco site.jpg; Dust clouds from shovel3-MCC Asarco site.JPG; Shovel near home2-MCC Asarco site.JPG; collapsed silt fence1-MCC Asarco site.jpg; collapsed silt fence2-MCC Asarco site.jpg; collapsed silt fence3-MCC Asarco site.jpg; collapsed silt fence4-MCC Asarco site.jpg; dig&distant reloading water truck1a-MCC Asarco site.jpg; dig&distant reloading water truck2a-MCC Asarco site.jpg

SEPA Public Information Center
Tacoma Municipal Building, 3rd Flr
City of Tacoma Public Works Department
747 Market Street, Room 332
Tacoma, WA 98402-3769

Addenda By Email to: Karie Hayashi: Khayashi@cityoftacoma.org and hand delivery

February 14, 2008

To: Karie Hayashi SEPA Officer and William L Pugh, Assistant City Manager/Director Public Works

Re: Project File #s 40000090530/SHR2007, 40000090531/PLT2007, xxxxxxxxxxxx/BLD2007, 40000090529/SEP2007, SEPA File # SEP2007-40000090529; Comments on Draft Supplemental Environmental Impact Statement to the Asarco Smelter Site Master Development Plan Final EIS

Washington State Jobs with Justice is submitting the attached 11 photos to accompany our Comments in the public record for the above-referenced DSEIS submitted on February 14, 2008. Please contact us at the below info if you have any questions or concerns if the documents did not come across completely or you've had any problems accessing or opening the information in the files.

1

Please send us confirmation that you received this email. Thank you

Sincerely,

Wendy Hall, JwJ Pierce County Organizing Committee Co-Chair; Nora Leider, Chair to the Socially Responsible Development project JwJ Steering Committee workgroup; and Jacob Carton, South Sound staff organizer, on behalf of:

Washington State Jobs with Justice
3049 S. 36 St, #201
Tacoma, WA 98409-5801
(253) 459-5107

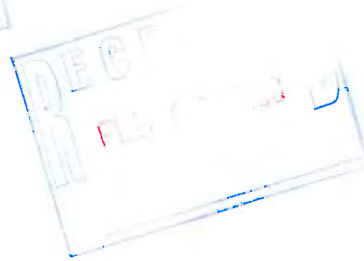
RESPONSE TO COMMENTS FROM WASHINGTON STATE JOBS WITH
JUSTICE – Addenda #2
(Letter #28)

Comment 1

The comment is noted. The photos that were included as an attachment to this comment letter are contained in *Appendix G* of this FSEIS.

February 6, 2008

Karie Hayashi, Land Use Planner
Public Works Department
Building and Land Use Services Division
City of Tacoma
747 Market Street, Room 300
Tacoma, WA 98402-3769



Dear Ms. Hayashi:

RE: Point Ruston SEIS

Point Ruston has come to my attention over the last several years through a variety of sources -- friends who live in Ruston, newspaper articles, attending Ruston Town Council meetings and through my work as a Realtor. The more I learn, the more excited I am.

The Point Ruston master plan that will build a mixed-use neighborhood with homes, jobs, restaurants, a beautiful hotel and a waterfront promenade is like hitting a home run at the ball park!

1

Although I'm not an expert, the issues of increased traffic, building Ruston Way anew with views to the water, and extending the Ruston Way public park from where it ends now to Metro Parks property on the peninsula appear to be adequately addressed in the environmental review.

I look forward to seeing this urban neighborhood develop over the coming years and the public benefits it will bring to the area.

Sincerely yours,

A handwritten signature in blue ink that reads "Robin Austin-Parsons".

Robin Austin-Parsons
5620 112th St. E #125
Puyallup, WA 98373

RESPONSE TO COMMENTS FROM ROBIN AUSTIN-PARSONS
(Letter #29)

Comment 1

The points raised will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development.

February 11, 2008

FEB 13 2008

Karie Hayashi, Land Use Planner
Public Works Department
Building and Land Use Services Division
City of Tacoma
747 Market Street, Room 300
Tacoma, WA 98402-3769

Dear Ms. Hayashi:

I am writing in support of the Point Ruston project as described in the Draft Supplemental Impact Statement (DSEIS) published by the City of Tacoma.

Our community is fortunate to have the Asarco, a superfund site, being remediated and have this truly special part of our community come back into use and I thank MC Construction for their hard work and investment in our community.

The Pt. Ruston project represents a positive step toward the complete cleanup and future interface with the community and the Bay and waterfront. I will continue to pay attention to MC Construction's efforts, but I and my neighbors will do so in a way that is positive and seeks to see an expeditious cleanup and utilization of this site.

1

Lastly, I understand the process will be dynamic and have multiple uses, but I think having many facets will ensure there is a timely cleanup and revitalization in my opinion. MC Construction's commitment to complete environmental remediation and redevelop of this superfund site is impressive and I look forward to their success.

Thank you for the opportunity to comment on one of the most significant projects in the history of Tacoma.

Sincerely yours,



Kate Babbo
3824 N 9 St
Tacoma, WA 98406

RESPONSE TO COMMENTS FROM KATE BABBO
(Letter #30)

Comment 1

The points raised will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development.

13202 S.E. 342nd Street
Auburn, WA 98092

Letter 31

February 8, 2008

Karie Hayashi
Building and Land Use Services Division, Room 300
Public Works Department
City of Tacoma
747 Market Street
Tacoma WA 98402

Dear Karie:

I am responding to request for comments on the Environmental Impact Statement (EIS) for the proposed Point Ruston development. I read the entire document, have asked related questions of Mike Cohen and his staff, and have the following comments:

In terms of general impression, this is a tremendous set of plans for developing the ASARCO site. It will be a huge asset to both Tacoma and Ruston if it gets completed as designed. Mike Cohen and his organization deserve a lot of credit for the overall planning and design of the project. So I am hoping the project goes forward.

The overall design of the project will enhance the waterfront in a big way. It provides a new waterfront living, shopping, and restaurant experience that should be the envy of every major Northwest City located on salt water. It also will do wonders for removing the eyesore associated with the ASARCO site and turning it into very useful attractive property.

I have a degree in Forestry and 32 years of experience in Weyerhaeuser, so I looked at the environmental side of the draft carefully. It looks like it handles the soil removal and capping required by the EPA, and the stormwater drainage requirements. It also provides enough grade to alleviate concerns about being so close to the water level during storms or other high water. It appears to have a well-designed traffic plan and street layout. It should meet all the major environmental concerns that I see.

1

I would encourage the City of Tacoma to do all it can to assist Mike Cohen and his developers in completing this project as quickly as possible. Whatever the city of Tacoma and Ruston can do to provide support, whether it's with utilities, traffic management, or relocating Ruston Way and decommissioning the automobile tunnel will get this project moving and enhance the economic base. The project has a lot economic potential for both cities, so I encourage you to move quickly.

This is a very forward-looking plan and an exciting project that I hope gets green-lighted without delay so it can move on and begin improving the Ruston area.

Sincerely,

Douglas W. Blankenship
206-910-2183
oldforester@comcast.net

RESPONSE TO COMMENTS FROM DOUGLAS BLANKENSHIP
(Letter #31)

Comment 1

The points raised will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development.

From: J.J. McCament [JJ@pointruston.com]
Sent: Friday, February 08, 2008 11:46 AM
To: Hayashi, Karie
Subject: SEIS Comment

Karie: Mr. Brown asked me to forward his comments to you. If you need it from him directly, his phone number is given below. Thank you.

Thank you to MC Construction.

My wife I have lived in Ruston since 1995 and have patiently waited for the old Asarco site to be reclaimed. The count down to 2003 has come and gone. We are so encouraged by MC Construction's commitment to develop and transform this site into a wonderful water front community. 1

Listening to residents, traffic seems to be the biggest concern. People may not remember that the site once employed over 2000 workers running 24 hours a day. The reopening of Baltimore Street and new traffic flow plan may mitigate the issues within Ruston. The waterfront has always been congested on summer days. This can only insure the success of the business's that locate at Point Ruston. Instead of cruising, the development of the site will provide destinations to shop, enjoy the parks or restaurants. 2

One suggestion to the traffic issue is to work with the Transit Authority to have double decker Hop on Hop off buses(like in London) or trolley style buses running from South 9th Street(end of Link light rail line) along the water front with frequent stops for parks, Old Town, Restaurant Row, Ruston and Pt Defiance Park. 3

We are very excited about Point Ruston. We encourage the Town of Ruston and City of Tacoma to expedite the process to support and complete this exciting development. 4

Ken and Kathy Brown
Residents of Ruston

Ken Brown
Windermere/Commencements Associates
Tacoma Central
253-988-4253

RESPONSE TO COMMENTS FROM KEN BROWN
(Letter #32)

Comment 1

Comments noted. The points raised will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development.

FEB 11 2008

February 6, 2008

Karie Hayashi, Land Use Planner
Public Works Department
Building and Land Use Services Division
City of Tacoma
747 Market Street, Room 300
Tacoma, WA 98402-3769

Letter 33

Dear Ms. Hayashi:

I am writing in support of the Point Ruston project as described in the Draft Supplemental Impact Statement (DSEIS).

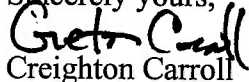
Point Ruston's commitment to complete environmental remediation and redevelop the former Asarco site as a mixed-use neighborhood will bring measurable benefits to the greater community, such as:

- Private investment that could top \$1 billion at build-out with and the creation of roughly 650 permanent full-time jobs as well as a significant number of construction jobs and the purchase of local materials and services over the 8-10 year build-out.
- A master plan that embraces public use and opens up almost a mile of shoreline for a waterfront promenade in an area that hasn't been open to the public in over a 100 years.
- A responsible approach to traffic mitigation through the realignment of Ruston Way, adding a public transit stop, installing roundabouts, sidewalks and bicycle lanes, and eliminating the existing vehicle tunnel that is both a safety concern and prevents the free-flow movement of traffic in this area.

1

Thank you for the opportunity to comment on one of the most economically significant projects in our region.

Sincerely yours,


Creighton Carroll

711 N. Junett Street
Tacoma, WA 98406

RESPONSE TO COMMENTS FROM CREIGHTON CARROLL
(Letter #33)

Comment 1

Comments noted. The points raised will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development.

JAN 08 2008

Nicole Cochran

4905 N. 29th, Tacoma WA 98407 ~
(253) 459-0051 ~ lionhearted4ever@netzero.com

Letter 34

January 11, 2008

Ms. Karie Hayashi
Building and Land Use Services Division, Room 300
Public Works Department: City of Tacoma
747 Market Street
Tacoma WA 98402

POINT RUSTON: BIKE TRAFFIC CONCERNS

Dear Ms. Hayashi,

In engaging in our senior cumulative government project required of Bellarmine Preparatory School, myself and my partners (Kayla Evans and Joey Mullan) have become interested in the construction project underway at Point Ruston. Our specific interest has brought our concerns to bike access and bike safety with the addition of a new road, around the present tunnel, and new traffic designs. In an effort to ensure cyclists' safety, our intent deals with the bike lane on the road, essentially allowing a bicycle connection between the equally popular Point Defiance Park and the Ruston Way Waterfront. At this point, their designs include two roundabout intersections making it difficult for cyclists. Our attention lies here.

After interviewing the construction company overseeing the project, M.C. Construction, we are now making strides toward public input dealing with the bicycle plans. We have distributed questionnaires to Old Town Bicycle so that local cyclists can have the opportunity to give individual feedback to the plans affecting them. Our goal is to bring that information back to the construction company and hopefully implement a solution but we are still open to other suggestions and input in order to accomplish our original goal of connecting the Town of Ruston and Ruston Way through safe access for cyclists. If you have any further suggestions or resources to aid in our project, we would much appreciate your guidance.

Thank you for your time and attention.

Sincerely,

Nicole Cochran

RESPONSE TO COMMENTS FROM NICOLE COCHRAN
(Letter #34)

This letter was received by the City of Tacoma prior to issuance of the DSEIS.

Comment 1

The proponent for *Point Ruston* notes that access for pedestrians and bicyclists -- as well as vehicles -- is a key design consideration for the overall development. Please refer to the discussion in this FSEIS in Section II describing aspects of the proposed project and project design, as well as analysis that is contained in the Transportation section of this FSEIS, *Section III (3.7)*.

From: Sarah Everding [sarah.everding@gmail.com]

Sent: Thursday, February 14, 2008 8:13 PM

To: Hayashi, Karie

Subject: DSEIS Response- Pt Ruston

Karie Hayashi:

The Draft Supplement Environmental Impact Statement (DSEIS) brought up a few questions I hope will be addressed.

- Page 3.7-50, intersection of 51st & Winnifred St: removing the stop signs. Removing the stop signs not a solution. It would create many traffic problems at this busy and awkward intersection. A light? A roundabout? 1
- Page 3.6-2, states that Ruston Fire Department (RFD) employs a full-time Fire Chief. The Fire Chief is an appointed position with a stipend of \$300 per month. This is a volunteer position, not a full-time Fire Chief. 2
- Page 3.6-2 states that RFD provides Advanced Life Support. Ruston RFD does not provide ALS. Ruston first response requests ALS from Tacoma. 3
- Page 3.6-2, response times. A clear definition is not provided. How is the response time calculated? How many personnel and what equipment must be on scene? What level of protection can be provided when they *first* respond? 4
- DSEIS statement of the building heights on the Ruston side does not agree with the MDP. The Ruston MDP specifies a 45 foot height maximum, not 60. A table that is associated with the MDP states 60 feet, but it was never formally adopted by the Town. 5

Thank you for your thorough DSEIS. I appreciate the thorough and open process.

Sincerely,

Sarah Everding
5034 N Highland
Ruston, WA 98407

RESPONSE TO COMMENTS FROM SARAH EVERDING
(Letter #35)

Comment 1

Comment noted. The Final SEIS will recommend that the all-way stop at intersection of N 51st St and N Winnifred remain in its present configuration.

Comment 2

Comment noted. *Section III* of this FSEIS (3.6.1.1.1) has been revised to reflect this change.

Comment 3

Comment noted. *Section III* of this FSEIS (3.6.1.1.1) has been revised to reflect this change.

Comment 4

The text of this FSEIS (3.6.1.1.1) has been revised to include this definition and additional information on RFD equipment and capabilities.

Comment 5

Please see Letter 17, response to Comment #1. In order to present a worst-case analysis for SEPA compliance, the DSEIS (and this FSEIS) analyze development with a height of up to 60 feet within the Town of Ruston.

FEB 13 2008

February 6, 2008

Letter 36

Karie Hayashi, Land Use Planner
Public Works Department
Building and Land Use Services Division
City of Tacoma
747 Market Street, Room 300
Tacoma, WA 98402-3769

Dear Ms. Hayashi:

I am writing in support of the Point Ruston project as described in the Draft Supplemental Impact Statement (DSEIS) published by the City of Tacoma on January 16, 2008.

Our community is fortunate to have the Asarco property, a superfund site, being remediated and have this truly special part of our community come back into use, I for one thank MC Construction for their vision and hard work.

It was just two short years ago when our community appeared to be held hostage again regarding the cleanup of the former copper smelter site when Asarco was liquidating its ability to pay using our own US bankruptcy laws. This company was set on not having to pay for future cleanup responsibilities and our environmental watchdog, the EPA, was helpless to capture funding from Asarco to take care of future cleanup cost.

EPA, along with many other of our federal elected officials worked hard to find a way to continue the cleanup, despite Asarco filing for bankruptcy and the superfund not being funded by polluters taxes for over more than a decade. Along came MC Construction, a small and local developer who thought they might be able to turn around this diamond in the rough parcel. MC Construction decided it would take on the cleanup liability and partner with the EPA to continue the remediate this site, a daunting task even for much larger contractors. I applaud MC Construction for taking on this project and I and the entire community should hope that he and the project is wildly successful.

This project will take many years and will be in several phases and will change to be sure. The basic point I am hoping to articulate is that the need to reclaim the land at this site is vitally important to our community.

The Pt. Ruston project represents a positive step toward the complete cleanup and future interface with the community and the Bay and waterfront. I will continue to pay attention to MC Construction's efforts, but I and my neighbors will do so in a way that is positive and seeks to see an expeditious cleanup and utilization of this site.

Lastly, I understand the process will be dynamic and have multiple uses, but I think having many facets will ensure there is a timely cleanup and revitalization in my opinion.

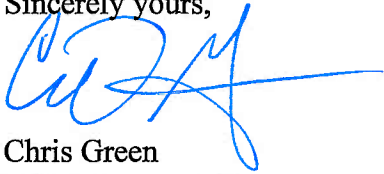
FEB 13 2008

MC Construction's commitment to complete environmental remediation and redevelopment of this superfund site is impressive and I look forward to their success.

1 cont.

Thank you for the opportunity to comment on one of the most economically significant projects in our region.

Sincerely yours,



Chris Green
3005 N Bennett St
Tacoma, WA 98407

RESPONSE TO COMMENTS FROM CHRIS GREEN
(Letter #36)

Comment 1

Your concerns and the issues raised regarding site remediation are noted. As described in *Section II* of this FSEIS, a condition of the sale agreement indicates that Point Ruston, LLC is responsible for the remaining smelter cleanup work, as well as cleanup of some adjacent lands – capping the slag peninsula, capping offshore sediments, and excavating shallow sediments in the yacht basin. EPA, the U.S. Department of Justice and Point Ruston LLC negotiated a settlement – the Second Amendment to the ASARCO Consent Decree (2006 Consent Decree) – for the remaining cleanup work. EPA held public meetings in August 2006 to discuss the sale and cleanup of the ASARCO Smelter site and invited public comments. Point Ruston, LLC began remediation in 2006 with acceptance and placement of residential soils, continued site monitoring, and placement of the offshore portion of the nearshore/offshore sediment cap. Point Ruston LLC will complete remediation of the upland smelter, cap the slag peninsula, complete capping of the offshore sediments, and excavate the shallow sediments in the yacht basin, as specified in the 2006 Consent Decree and associated Scope of Work. As described in these documents, remediation and development will be completed concurrently with construction of hard surfaces on-site (e.g., building foundations, roadways, pathways and the promenade), serving as part of the site cap.

FEB 07 2008

Karie Hayashi
Land Use Planner/Building & Land Use Services
City of Tacoma
Public Works Dept.
747 Market St., Room 300
Tacoma, WA 98402-3769

Letter 37

Ms Hayashi:

Having reviewed the information of the planned community of Point Ruston as proposed by MC Construction, we feel great excitement that a part of the beautiful waterfront of Commencement Bay with its fantastic views of surrounding vistas will be available to the public as well as to the residents of the proposed housing, hotel and businesses that will be a part of this gigantic enterprise.

That such a sordid, spoiled area of Tacoma could become such a very beautiful addition to the city by the foresight and dedication of a very successful and respected company and its officials----- this is almost a miracle happening before our very eyes! So much of the water front of the Pacific Northwest has been usurped by private interests leaving many without ready access to the pleasures of the waterfront, whether to stroll, entertain or be entertained near that which makes the Northwest unique in its appeal to residents as well as visitors---the beautiful waters and beaches of the Pacific Northwest.

It is with avid anticipation we anticipate the final approval and go-ahead movement by the powers that be which will permit this gigantic and beautiful plan go come to fruition.

Most sincerely,

James A. Hall

Beth A. Hall

Mr. & Mrs. James A. Hall
2820 Colonial Drive
Centrailia, WA 98531
360-736-8206

RESPONSE TO COMMENTS FROM JAMES AND BETH HALL
(Letter #37)

Comment 1

The comments are noted. The points that you raise will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development.

From: kennedyandcompany007@msn.com
Sent: Wednesday, February 13, 2008 3:44 PM
To: khayashi@cityoftacoma.org
Subject: Development of Tacoma Smelter Site
Karie Hayaski, Land Use Planner
Land Use Planner Building and Land Use Services
City of Tacoma
Public Works Department
747 Market Street, Room 300
Tacoma, WA 98402-3769

Dear Ms. Hayaski,

As long-time residents of Pierce County and the City of Tacoma, we have been keenly interested in the handling, cleanup, development and ultimate outcome of the land formerly known as the old Tacoma Smelter Site. As many others in the community, we have recognized the beauty, views and value of this waterfront property to the citizens of Tacoma and Ruston.

We were pleased as we watched the environmental reconstitution of the Arsarco Smelter Site and then applauded the energy, courage and foresight of Mr. Mike Cohen and MCCConstruction when they purchased this 67 acres two years ago.

After reviewing Point Ruston's completed Draft Supplemental Environmental Impact Statement (DSEIS) to the 1997 Asarco Site Master Development Plan Final EIS, we are responding in the affirmative to this well conceived, developed and engineered project.

We would like to make the following comments:

1. The overall development plan as outlined by Point Ruston, LLC, is extremely sensitive to the needs of the citizens of Pierce County, to those closeby neighborhoods and those who would want to live in/and enjoy this village close up. The land use mixture is good with plenty of open space, parks and walking areas, plans for single-family homes, townhomes, condominiums and a hotel and suitable commercial enterprise. It will be another **magnate** drawing people to the City of Tacoma and making Tacoma's citizenery proud.
2. The current plan fits beautifully with a space linking Ruston Way with it's Esplanade and Parks to Point Defiance Park with all of its magnificance. To be able to walk the promenade from Old Town to Point Defiance and to enjoy the fresh air, the scenic beauty of Commencement Bay, Browns Point and Dash Point, Vashon and Maury Islands, etc. is something that few communities could emulate and many will envy.
3. The structures to be built appear to be of a variety of sizes, heights and shapes, consistent with code and yet making the mixed- use community aesthetically pleasing to the eye and a draw to anyone who knows of it.
4. The walk ways will allow a maximum of foot traffic to enjoy the amenities of this community.
5. It does not appear that motor traffic will be impaired; in fact, the closing of the narrow tunnel and the construction of surface roads will be a major improvement for motor vehicles. Yet, surface parking does not appear to be excessive or unsightly.
6. There is no question this planned community will contribute to the vibrancy and vitality of Tacoma's beautiful waterfront. It will complement Ruston Way and will add to Tacoma's stature as a scenic boating/sailing community with it's link to the Tacoma Yacht Club and Point Defiance Boathouse.
7. The adjacent Peninsula Park will add to the enjoyment of everyone and along with the pathways and prominade encourage the type of physical activity we all benefit from.
8. In our opinion this Development Plan utilizes this waterfront property in a way that will compliment and benefit all in the nearby areas---a user-friendly waterfront, beautiful yet

From: Don Lloyd [dlloyd@rushforth.com]

Sent: Friday, February 08, 2008 3:39 PM

To: khayashi@cityoftacoma.org

Subject: Point Ruston

I think we are way overdue to put in place a development that will clean up a blighted piece of property that has given the greater Tacoma area a lot of negative press. I am glad that Mike Cohen and his crew are opening the waterfront for public use, for creating a mixed use of building types and adding so much appeal to the area with great designs, and bringing life back to what we all remember as being a Dead Zone, filled with all kinds of Toxic garbage. I also appreciate Mike going above and beyond with what the code will be requiring and making it more of a pedestrian user friendly area with larger walkways and creating safer streetscapes. I applaud Mike Cohen for his determination to stick with it and look at the big picture, to be a person that has the patience and the expertise to take one of the very best view scapes in our State and develop it with excellence.

1

Don Lloyd

RUSHFORTH CONSTRUCTION CO. INC.

6021 12th Street East #100

Tacoma, WA 98424-1399

D: 253.284.8511

P: 253.922.1884

C: 253.353.6565

F: 253.922.2089

E: dlloyd@rushforth.com

W: www.rushforth.com

RESPONSE TO COMMENTS FROM NANCY AND JOHN KENNEDY
(Letter #38)

Comment 1

The comments are noted. The proponent indicates that it is their intent that the proposed *Point Ruston* development would transform the former ASARCO Superfund site into a new mixed-use neighborhood where people live, work, shop and play and that a focus of the project is to create an urban village neighborhood that integrates a mix of uses with public spaces.

The points that you raise will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development. Comments concerning actions by the Metro Park Board need to be addressed to that entity. The development that is mentioned in your comment is not a specific component of this *Proposed Action*.

From: Don Lloyd [dlloyd@rushforth.com]

Sent: Friday, February 08, 2008 3:39 PM

To: khayashi@cityoftacoma.org

Subject: Point Ruston

I think we are way overdue to put in place a development that will clean up a blighted piece of property that has given the greater Tacoma area a lot of negative press. I am glad that Mike Cohen and his crew are opening the waterfront for public use, for creating a mixed use of building types and adding so much appeal to the area with great designs, and bringing life back to what we all remember as being a Dead Zone, filled with all kinds of Toxic garbage. I also appreciate Mike going above and beyond with what the code will be requiring and making it more of a pedestrian user friendly area with larger walkways and creating safer streetscapes. I applaud Mike Cohen for his determination to stick with it and look at the big picture, to be a person that has the patience and the expertise to take one of the very best view scapes in our State and develop it with excellence.

1

Don Lloyd

RUSHFORTH CONSTRUCTION CO. INC.

6021 12th Street East #100

Tacoma, WA 98424-1399

D: 253.284.8511

P: 253.922.1884

C: 253.353.6565

F: 253.922.2089

E: dlloyd@rushforth.com

W: www.rushforth.com

RESPONSE TO COMMENTS FROM DON LLOYD
(Letter #39)

Comment 1

The comments are noted. The points that you have raised will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development.

-----Original Message-----

From: Hayashi, Karie [mailto:KHAYASHI@ci.tacoma.wa.us]

Sent: Tuesday, February 12, 2008 8:14 AM

To: Garypedersen123@cs.com; Steve Yester; Terry McCann; Loren Cohen

Subject: FW: Point Ruston Comment

FYI

From: Todd Miller [mailto:carcrunch@aol.com]

Sent: Monday, February 11, 2008 5:28 PM

To: khayashi@cityoftacoma.org

Subject: Point Ruston

Karie Hayashi,

I thought I'd drop a note to you regarding the development of Point Ruston.

I am very excited to see the development happen and look forward its immediate progress. I am considering the purchase of a condo at this development and hope it can get started as soon as possible.

1

I look forward to this semi-self contained community. It is what appears to be one of the few affordable waterfront communities in the Puget Sound area.

Thank you for your consideration.

Todd Miller

425-922-5477

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RESPONSE TO COMMENTS FROM TODD MILLER
(Letter #40)

Comment 1

The comments are noted. Please refer to the intended development schedule that is described in *Section II* of this FSEIS.

-----Original Message-----

From: Hayashi, Karie [mailto:KHAYASHI@ci.tacoma.wa.us]
Sent: Tuesday, February 05, 2008 1:05 PM
To: Garypedersen123@cs.com; Steve Yester; Terry McCann; Loren Cohen
Subject: FW: Point Ruston Comments

FYI

From: Karen Murphy [mailto:Klnmurphy@charter.net]
Sent: Tuesday, February 05, 2008 12:56 PM
To: khayashi@cityoftacoma.org
Subject: Point Ruston

Dear Ms. Kayashi,

It is with great pleasure that I write to tell you my experiences with the Point Ruston project.

My husband and I are looking to settling in the Tacoma area following retirement, as two of our children already reside in near proximity. We are focusing our efforts on Point Ruston. It offers for us all the amenities of a developed community within Tacoma, a city we love.

What attracted us to Point Ruston is the well thought out use of the land, accounting for spectacular views, accessibility, pedestrian avenues and a continuation of waterfront spaces. In addition, the levels of housing will offer families such as us, a lifetime of opportunities to stay within this community. By choosing a single family home now, we certainly can move into a townhome or condominium as our lifestyle changes and still continue to value how close we are to the natural beauty of the area supported by Point Ruston.

1

Having this new community developed in the ashes of such a wasteland is an remarkable feat for MC Construction. They bring foresight, quality, ability to focus on the natural surroundings and enhancement to the waterway and neighborhoods nearby. As residents and supporters of Tacoma, it is treasure to have them at the helm of such a monumental undertaking to bring positive changes to this part of Tacoma. They have captured the essence of what will bring family and friends to this new neighborhood along the shore.

We look forward to being a part of Point Ruston's future!

Sincerely,

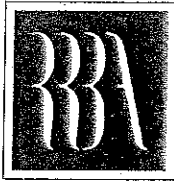
Karen Murphy

RESPONSE TO COMMENTS FROM KAREN MURPHY
(Letter #41)

Comment 1

The comments are noted. The points that you raise will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development.

FEB 19 2008



Stanley J. Rumbaugh
Teri L. Rideout
Terry J. Barnett
Thomas M. Adkins

RUMBAUGH RIDEOUT
BARNETT & ADKINS
ATTORNEYS AT LAW

820 A Street, Suite 220
P.O. Box 1156
Tacoma, Washington 98401
Tacoma 253.756.0333
Seattle 253.838.0309
Fax 253.756.0355

February 14, 2008

Letter 42

Karie Hayashi, Land Use Planner
Public Works Department
Building and Land Use Services Division
City of Tacoma
747 Market Street, Room 300
Tacoma, WA 98402-3769

Dear Ms. Hayashi:

Please allow me to express my support of the Point Ruston project as described in the Draft Supplemental Impact Statement (DSEIS).

It is my impression that many in the community would like to see the Pt. Ruston project come to fruition as soon as possible. Certainly, after over 30 years of living in Tacoma myself, I am anxious to see positive development on the site. Significantly, the preservation of a contiguous walkway completely through the development into Point Defiance will benefit all in the community, not just the developer. This project will act as a natural book end for the waterfront walkway, with the Thea Foss being the other end. This development will allow citizens to access the entire Commencement Bay waterfront.

Our community is fortunate to have Asarco, a superfund site, being remediated and have this truly special part of our community come back into use. After over 100 years of inappropriate industrial usage in Tacoma's residential district, MC Construction should be admired for their vision and hard work in reshaping the uses on the site.

It is useful to recall that only two years ago when our community appeared to be held hostage as Asarco was liquidating its ability to pay to clean up its mess, using our own US bankruptcy laws. Through this legal artifice, the company was trying to weasel out of its environmental remediation obligations after extracting the economic value out of this unsafe and contaminated copper smelter site. This company was set on not having to be economically responsible for its future cleanup responsibilities. Our environmental watchdog, the EPA, seemed helpless to capture funding from Asarco to take care of future cleanup cost.

Ms. Karie Hayashi
February 14, 2008
Page 2

EPA, along with many other of our federal elected officials worked hard to find a way to continue the cleanup. This despite Asarco filing for bankruptcy and the superfund not being funded, as required, by polluter's taxes (including those of Asarco). MC Construction, a small and local developer, undertook the risk of development of this contaminated parcel because that envisioned all it could become, in spite of the obvious and well documented problems with what the site contained. MC Construction decided it would take on the cleanup liability and partner with the EPA to continue the remediate this site, a daunting task even for much larger contractors. The entire community should hope that MC Construction will be successful in implementing its vision for this forward looking project.

This project will take many years and will be in several phases. As with many large scale projects, the final result may change in small detail, but be true to its original purpose. The basic point I am hoping to articulate is that the need to reclaim the land at this site is vitally important to our community, and now is the time to go forward.

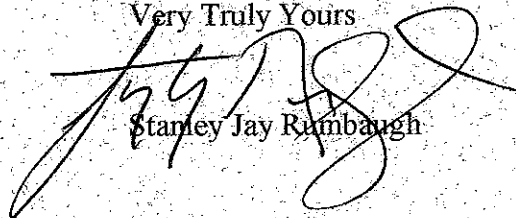
1 cont.

The Pt. Ruston project represents a major step toward the complete cleanup and future interface with the community and the Bay and waterfront. I will continue to pay attention to MC Construction's efforts, but I and my neighbors will do so in a way that is positive and seeks to see an expeditious cleanup and utilization of this site.

This development process will be obviously be dynamic, and is characterized by inclusion of multiple uses. MC Construction's commitment to complete environmental remediation and redevelopment of this superfund site is impressive. I look forward to their success.

Thank you for the opportunity to comment on one of the most economically significant projects in our region.

Very Truly Yours



Stanley Jay Rumbaugh

RESPONSE TO COMMENTS FROM STANLEY RUMBAUGH
(Letter #42)

Comment 1

Your concerns and the issues raised regarding site remediation are noted. As described in *Section II* of this FSEIS, a condition of the sale agreement indicates that Point Ruston, LLC is responsible for the remaining smelter cleanup work, as well as cleanup of some adjacent lands – capping the slag peninsula, capping offshore sediments, and excavating shallow sediments in the yacht basin. EPA, the U.S. Department of Justice and Point Ruston LLC negotiated a settlement – the Second Amendment to the ASARCO Consent Decree (2006 Consent Decree) – for the remaining cleanup work. EPA held public meetings in August 2006 to discuss the sale and cleanup of the ASARCO Smelter site and invited public comments. Point Ruston, LLC began remediation in 2006 with acceptance and placement of residential soils, continued site monitoring, and placement of the offshore portion of the nearshore/offshore sediment cap. Point Ruston LLC will complete remediation of the upland smelter, cap the slag peninsula, complete capping of the offshore sediments, and excavate the shallow sediments in the yacht basin, as specified in the 2006 Consent Decree and associated Scope of Work. As described in these documents, remediation and development will be completed concurrently with construction of hard surfaces on-site (e.g., building foundations, roadways, pathways and the promenade), serving as part of the site cap.

The proponent indicates that it is their intent that the proposed *Point Ruston* development would transform the former ASARCO Superfund site into a new mixed-use neighborhood where people live, work, shop and play and that a focus of the project is to create an urban village neighborhood that integrates a mix of uses with public spaces.

The points that you raise will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development.

-----Original Message-----

From: Hayashi, Karie [mailto:KHAYASHI@ci.tacoma.wa.us]

Sent: Monday, January 28, 2008 11:20 AM

To: Dan Showalter

Cc: Garypedersen123@cs.com; Steve Yester; Terry Mccann; Loren Cohen

Subject: RE: Point Ruston

Thank you for your comments below. For my records, could you please respond with your mailing address?

Thank you much,

Karie Hayashi

Building and Land Use Services Division, Room 300

Public Works Department

City of Tacoma

747 Market Street

Tacoma WA 98402

253.591.5387/khayashi@cityoftacoma.org

From: Dan Showalter [mailto:teamshow@johnlscott.com]

Sent: Saturday, January 26, 2008 12:15 PM

To: khayashi@cityoftacoma.org

Subject: Point Ruston

Hello Karie, my name is Daniel Showalter I am writing to express my excitement about the Point Ruston project. I have lived in Ruston at 5314 N Highland St. for four years, and have driven by the Point Ruston site for years hoping someone would purchase it who had great vision. The site layout, mixed use facilities, and openness of the property is going to make Ruston and Tacoma a more exciting place to live. I personally think that the majority of people who speak up about Point Ruston are the ones who are always pessimistic about any change, and who have lived here for 60 years and who really never even leave their homes. I am 29 years old, expecting my first child in a month, and am excited to come home from work and be able to leave the front door and walk to a fun destination with my family. I speak for a large number of young families who live in Ruston and many who live on the outskirts of the Point Ruston site, whose voices you should know are excited for change. Thank you for your time, sincerely Dan Showalter and the Showalter family.

-----Original Message-----

From: Hayashi, Karie [mailto:KHAYASHI@ci.tacoma.wa.us]
Sent: Monday, January 28, 2008 4:03 PM
To: Garypedersen123@cs.com; Steve Yester; Terry McCann; Loren Cohen
Subject: FW: Point Ruston Comment

For your records. Karie

From: Dan Showalter [mailto:teamshow@johnscott.com]
Sent: Monday, January 28, 2008 1:17 PM
To: Hayashi, Karie
Subject: RE: Point Ruston

My mailing address is 5314 N Highland St. Ruston Wa 98407. Thanks and have a great day.

From: Hayashi, Karie [mailto:KHAYASHI@ci.tacoma.wa.us]
Sent: Mon 1/28/2008 11:19 AM
To: Dan Showalter
Cc: Garypedersen123@cs.com; Steve Yester; Terry McCann; Loren Cohen
Subject: RE: Point Ruston

Thank you for your comments below. For my records, could you please respond with your mailing address?

Thank you much,

Karie Hayashi

Building and Land Use Services Division, Room 300
Public Works Department
City of Tacoma
747 Market Street
Tacoma WA 98402
[253.591.5387](tel:253.591.5387)/khayashi@cityoftacoma.org

RESPONSE TO COMMENTS FROM DAN SHOWALTER
(Letter #43)

Comment 1

The proponent indicates that it is their intent that the proposed *Point Ruston* development would transform the former ASARCO Superfund site into a new mixed-use neighborhood where people live, work, shop and play and that a focus of the project is to create an urban village neighborhood that integrates a mix of uses with public spaces.

The points that you raise will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development.

-----Original Message-----

From: Hayashi, Karie [mailto:KHAYASHI@ci.tacoma.wa.us]
Sent: Tuesday, February 05, 2008 12:53 PM
To: Garypedersen123@cs.com; Steve Yester; Terry McCann; Loren Cohen
Subject: FW: Draft Suplimental Environmental Impact Statement to the ASARCO Smelter Site Comment

For your records.

Karie Hayashi
Building and Land Use Services Division, Room 300
Public Works Department
City of Tacoma
747 Market Street
Tacoma WA 98402
253.591.5387/khayashi@cityoftacoma.org

From: Warren Smith [mailto:warrensmith@johnlscott.com]
Sent: Tuesday, February 05, 2008 12:42 PM
To: khayashi@cityoftacoma.org
Subject: Draft Suplimental Environmental Impact Statement to the ASARCO Smelter Site

Karie A. Hayashi
Urban Planner III/Special Assistant
City of Tacoma
Public Works Department
747 Market St., Room 345
Tacoma, WA 98402

Dear Ms. Hayashi,

I have been a resident of Tacoma for over 40 years. I live and work in north Tacoma. I have reviewed the Draft Supplemental Environmental Impact Statement. My support is for the Proposed Action. I do not support the No Action Alternative.

The old ASARCO site has the best views in the State and has the potential to be the best development. The 100' promenade will provide public access to the waterfront that they haven't had in one hundred years. The proposed project will be a great improvement to the environment with an added benefit of providing economic health to the community.

It is important to allow a development to be profitable so it can proceed as planned and on time.

A development of this size and complexity needs government cooperation which should allow flexibility and/or changes to the plan. An example might be to modify the plans to fit what The Russell Investment Group will require to stay in Tacoma.

I support the Proposed Action and encourage a speedy permit process.

Sincerely,

Warren Smith
7917 No. 10th St.
Tacoma, WA 98406
Telephone: 253-677-8810

RESPONSE TO COMMENTS FROM WARREN SMITH
(Letter #44)

Comment 1

Comments are noted. The points raised will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development.

FEB 11 2008

February 6, 2008

Letter 45

Karie Hayashi, Land Use Planner
Public Works Department
Building and Land Use Services Division
City of Tacoma
747 Market Street, Room 300
Tacoma, WA 98402-3769

Dear Ms. Hayashi:

We are writing in support of the Point Ruston project as described in the Draft Supplemental Impact Statement (DSEIS).

We would like to see the Pt. Ruston project come to fruition as soon as possible so our community can reclaim our interface with the water. This project first and foremost will cleanup a former superfund site and ensure we are safe from future contamination concerns. Secondly, this project will act as a natural book end for the waterfront, with the Thea Foss being the other.

This development will allow citizens to drive the entire water front and Our community is fortunate to have the Asarco, a superfund site, being remediated and have this truly special part of our community come back into use, we thank MC Construction for their vision and hard work.

It was just two short years ago when our community appeared to be held hostage again regarding the cleanup of the former copper smelter site when Asarco was liquidating its ability to pay using our own US bankruptcy laws. This company was set on not having to pay for future cleanup responsibilities and our environmental watchdog, the EPA, was helpless to capture funding from Asarco to take care of future cleanup cost.

EPA, along with many other of our federal elected officials worked hard to find a way to continue the cleanup, despite Asarco filing for bankruptcy and the superfund not being funded by polluters taxes for over more than a decade. Along came MC Construction, a small and local developer who thought they might be able to turn around this diamond in the rough parcel. MC Construction decided it would take on the cleanup liability and partner with the EPA to continue the remediate this site, a daunting task even for much larger contractors. We applaud MC Construction for taking on this project and we and the entire community should hope that he and the project is wildly successful.

This project will take many years and will be in several phases and will change to be sure. The basic point we are hoping to articulate is that the need to reclaim the land at this site is vitally important to our community.

The Pt. Ruston project represents a positive step toward the complete cleanup and future interface with the community and the Bay and waterfront. We will continue to pay attention to MC Construction's efforts, but we and our neighbors will do so in a way that is positive and seeks to see an expeditious cleanup and utilization of this site.

1 cont.

Lastly, we understand the process will be dynamic and have multiple uses, but we think having many facets will ensure there is a timely cleanup and revitalization in my opinion. MC Construction's commitment to complete environmental remediation and redevelopment of this superfund site is impressive and we look forward to their success.

Thank you for the opportunity to comment on one of the most economically significant projects in our region.

Sincerely yours,



Robert & Beth Thoms
2501 N. Junett Street
Tacoma, WA 98406
253-759-0573

RESPONSE TO COMMENTS FROM ROBERT AND BETH THOMS
(Letter #45)

Comment 1

Comments noted. The points that raised will be considered by the Tacoma Public Works Department, Building and Land Use Section with regard to the initial Building Permit that this FSEIS accompanies, as well as the department's recommendations to the City's Hearing Examiner relative to other subsequent City approvals that would be necessary in order for the *Point Ruston* development.

From: beth torbet [bethtorbet@hotmail.com]

Sent: Thursday, February 07, 2008 3:01 PM

To: khayashi@cityoftacoma.org

Subject: Point Ruston Comment

Karie, My two concerns on the project are traffic related.

1. Please do not remove the four way stop at N. 51st and Winnifred Street. It is very important for our community to be able to cross 51st during high traffic times, driving or walking. In the summer months traffic on 51st backs up and drivers do not leave the intersection open when the light is red on Pearl Street. I do not believe the volume will decrease, in fact the Winnifred Street traffic will most likely also increase with the new developements, The Commencement Condos and Point Ruston. There is a bump out on the N.W. corner of that intersection already, so no need to spend money on that study either. 1

2. I believe public transit will be a welcome addition to the community once the tunnel is not an obstacle any longer. It would be nice to have a transit stop somewhere centrally located in Ruston. Either midway on 51st or possibly have a route continue from Orchard St. to 49th and turn North on Winnifred to 51st Street, which would serve the Stack Hill project too. 2

Thank you for the oportunity to comment. Best wishes to all embroiled in this process!

Sincerely,

Beth Torbet

Don's Ruston Market & Deli

RESPONSE TO COMMENTS FROM BETH TORBET
(Letter #46)

Comment 1

Comment noted. The Final SEIS will recommend that the all-way stop at intersection of N 51st St and N Winnifred remain in its present configuration.

Comment 2

The proponent indicates the intent to coordinate with Pierce Transit to facilitate transit service to serve the proposed *Point Ruston* development and this area of the City of Tacoma and Town of Ruston. The proponent has agreed to coordinate with Pierce Transit on the location of transit stops. See Response #2 to Comment 15.

REFERENCES

REFERENCES

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- Washington, state of. 1971, as amended. *State Environmental Policy Act*. (Chapter 43.21C RCW).
- Washington, state of. 1971, as amended. *Shoreline Management Act*. (Chapter 90.58 RCW).

APPENDICES

APPENDIX A

DISTRIBUTION LIST

Distribution List

Copies of this DSEIS have been distributed to the following agencies, organizations and individuals for review and comment.

Agencies

AT&T Broadband

Burlington Northern Santa Fe Railway Co.

City of Tacoma:

Mayor/Council's Office

West End Neighborhood Council

City Manager's Office

Community & Economic Development Department

Fire Department

Legal Department

Public Works Department:

Administration Office of Public Works

Building & Land Use Services

Construction

Engineering

Environmental Services & Engineering

Real Property Services

Solid Waste Utility

Streets & Grounds

Tacoma Cares

Tacoma Police Department

Tacoma Power

Tacoma Water

Metropolitan Park District

Pierce County Assessor

Pierce County Council Office

Pierce Transit

Port of Tacoma

Puget Sound Clean Air Agency

Puget Sound Energy

Qwest

State of Washington:

Archaeology & Historic Preservation

Ecology

Ferries

Fish & Wildlife

Natural Resources
Transportation
Tacoma Pierce County Health Department
Tacoma Public Library – Main Branch, Wheeler Branch
Tacoma Public School District
Town of Ruston
U.S. Army Corps of Engineers
U.S. Coast Guard
U.S. Environmental Protection Agency
U.S. Fish and Wildlife
U.S. Postal Service

Tribal Nations:

Puyallup Tribe of Indians

Organizations:

Asarco Consulting
Blumen Consulting Group
Citizens for a Healthy Bay
Economic Development Board for Tacopma-Pierce County
Executive Council for a Greater Tacoma
ESM Consulting Engineers
GordonDerr LLP
Huitt Zollars, Inc.
Laborer’s International Union – Local No. 252
Law Offices of GTHMP & Daheim
Law Offices of Rumbaugh, Rideout, Barnett & Adkins
Marine Advisory Council
Point Ruston LLC
Puget Creek Restoration Society
Tacoma-Pierce County Chamber
Tacoma Yacht Club
Tahoma Audubon Society
Washington State Jobs with Justice

Individuals:

Jon Anderson
Katie Babbo
David Baumgardenr
Douglas Blankenship
Ken Brown
Creighton Carroll
Nicole Cochran

J.M. Delano, Jr.
Sarah Everding
Chris Green
James Hall
John Kennedy
Jane Krock Hunt
Don Lloyd
Cheryl Miller
Todd Miller
Karen Murphy
Robin Austin-Parsons
Melissa Paz
Dan Schowalter
John Schroeder
Warren Smith
Robert Thoms
Beth Torbet

APPENDIX B

VISUAL IMPACT ANALYSIS
METHODOLOGY

Point Ruston Visual Impact Analysis

1.0 Introduction

This report analyzes the potential visual impacts of the Point Ruston development proposal. Past view analyses acceptable to the City were used as models to complete a visual impact study for this proposal. The location, natural topography and existing development in the vicinity provide various opportunities for expansive views of Puget Sound, Commencement Bay, Vashon Island, Maury Island and beyond. The analysis considers views from the project site and surrounding locations that may be affected by the redevelopment of the former ASARCO Tacoma Smelter site.

The area proposed for Point Ruston development is the former Asarco Smelter site located in Tacoma and Ruston. A photograph of the former smelter site is included in Figure 1. As shown, the site was covered with many large industrial buildings and structures. Final demolition of the last large building, the Fine Ore Bins building, was completed in 2004. The Fine Ore Bins building measured approximately 800 feet long, 400 feet wide and 100 feet tall at its highest point. The smelter and its 572 foot tall smoke stack were well-known by the local community and served as a visual point of reference to residents and visitors. Remediation of the site has been ongoing under EPA's authority for more than ten years to prepare the site for development. The City of Tacoma, Town of Ruston, and MetroParks have been actively involved in planning and preparing for redevelopment of the site since the mid 1990s.

Point Ruston's project design will meet applicable City of Tacoma and Town of Ruston building requirements. In Tacoma, the shoreline codes for the "S-6" Ruston Way Shoreline District provide regulations relating to the height, set-back, view corridors, public access, parking and landscaping. The "S-6" zone limits building height to 80 feet. The Ruston Way Design Manual discusses the intended character of the public walkways, public plazas and amenities along the shoreline edge for the length of the project site which will provide new opportunities for views and recreation along this stretch of shoreline not previously accessible during the property's active industrial life or remediation. The Ruston Master Development Plan (MDP) zone limits building height to 60 feet.



Looking north across operating Asarco site at “fine ore bins”.



Looking east across operating Asarco site toward Mount Rainier.

FIGURE 1

2.0 Visual Impact Criteria

The assessment of views and aesthetic impacts of any development within a community are subjective. Criteria for view impact evaluation are needed to determine what potential impacts proposed development will have upon existing views and view opportunities. In examining the Point Ruston project's visual impacts, considerations were taken of:

- 1) Views from residential neighborhoods overlooking the project;
- 2) Views from Ruston Way;
- 3) Views from the Tacoma Yacht Club;
- 4) Views from the undeveloped area east of Stack Hill; and
- 5) Views from the project area.

Approximate locations from where visual impacts of the "Point Ruston" project are evaluated are shown on Figure 2 and were chosen based upon public comment and staff recommendation as "worst-case" locations. This analysis uses several criteria to describe and evaluate the visual impact from the proposed buildings including "dominance," and "overall blockage."

"Dominance" describes the vertical prominence of the proposal by measuring the number of visual "planes" or backgrounds that are broken by the proposal. There are three backgrounds along Ruston Way that appear "dominant": water, land and sky. The relative importance of these backgrounds depends upon the viewing location and direction. A project that "breaks" all backgrounds is most dominant. A project that would traverse only one of the backgrounds would be least dominant.

"Overall blockage" represents the amount of horizontal and vertical view blocked by the project at certain points. Again, the amount of overall blockage is dependent upon the point at which it is measured taking into account both dominance and the width of blockage. Blockage at points close to buildings can be much more significant than blockage at points on hillsides above the project or at points located at a distance from the project.

"Overall Blockage" and "dominance" from the proposed development will have some visual impact upon a broad area since the former ASARCO site is relatively large, and not from just one building. Visual impact analysis at other sites is often conducted considering only one building's impact upon existing views. Such impact can be evaluated from one point looking at the point of the building to be constructed and determine what "percentage" of the area is going to be blocked by that building.

With the "Point Ruston" project, the overall visual impact is difficult to measure when looking at individual buildings since there are a relatively high number of different buildings to the proposal. Because there are a large number of buildings proposed and they will be built over a large area, the proposed development's visual impact is evaluated in relation to its overall blockage or dominance over this broad view of the site. The various sites where visual impacts were measured as shown on Figure 2 are at different elevations and have views of "near shoreline," "far shoreline" and/or "far skyline."



Figure 2: View study locations in relation to proposed "POINT RUSTON"

The “near shoreline” from the points where the potential development of “Point Ruston” is evaluated is the shore along Ruston Way and where there is an existing view of the water at that shoreline. The “far shoreline” encompasses all of the water views up to lands in the distance including Brown’s Point, Vashon Island, and Maury Island shorelines. If water is estimated to be seen from the evaluation points, then the development will have no impact upon the “far shoreline.” The “far skyline” includes skylines at distant land areas. Such skylines include Tacoma skylines, skylines of Brown’s Point Vashon Island, Maury Island and background mountain ranges. If lands are estimated to be seen above the projected building heights, then the development will have no impact upon the “far skyline.” It is the “far shoreline” and “far skyline” views that are considered more important by members of the community than those of the “near shoreline.”

3.0 Method of View Analysis

Visual impact analysis should be measured along coordinated pathways and not just at one point when appropriate. Urban designer Kevin Lynch has indicated that the "visual sequence" is as significant to the visual impact of a project as any particular point. As explained in his book, Site Planning Lynch states, "...the landscape is usually experienced by a moving observer...the single view is not as important as the cumulative effect of a sequence of views" (Page 162). Roads and paths lead the eye more often than does an object at one particular site. Therefore, it is necessary to examine the project in terms of the paths and corridors which exist or will be developed in order to determine the overall significance of a project's visual impact on the existing environment.

An initial assessment of potential view impacts was made by walking through the neighborhoods and taking pictures of the site from different points and directions. This visual assessment provided an indication of existing views. A view analysis to measure "dominance" and "overall blockage" was completed using these photographs. In making the analysis models of the project are superimposed upon the photographs from the points to measure "Point Ruston" project's visual impacts. From these photographs and simulations of buildings, the impact upon views of the "near shoreline," "far shoreline," and "far skyline" are determined. If any of the original views are blocked by the modeled project, those areas are noted on site photographs, and the amount of the view that is blocked is measured and noted on each photograph.

It should be noted that these models in many cases represent maximum building potentials (largest allowable building envelopes and tallest allowable building heights) providing a "worst-case" scenario appropriate for SEPA analysis. Final site configuration and building massing will significantly reduce visual impacts with varying building sizes, heights, upper story setbacks and modulated roof lines. The models were intended specifically to represent mass, not actual building aesthetics such as colors or architectural details.

The angle of view noted on each figure is related to the location of the picture taken within the figure and how much of the "Point Ruston" site is within the figure. Therefore, the angle of view varies significantly within each of the pictures provided. The amount of dominance or overall blockage is determined only within that angle of view evaluated. As the location of evaluation moves toward either end of the project site, the angle of view reduces considerably. For example the picture of the site from the bottom of Stack Hill shows an angle of view of 129 degrees to the far shoreline because the location is near the center of the "Point Ruston" site. The angle of view at Ruston Way southeast of the site is only 47 degrees. Therefore, blockage at the Ruston Way point of observation appears larger than that at Stack Hill even though the view of the Sound and Commencement Bay is not obstructed at all by the project at Ruston Way south of the project site.

Criteria similar to previous view impact analysis studies conducted in Tacoma are used in this analysis. If overall blockage and dominance is 0% to 24%, the visual impact is considered "low." If the overall blockage is between 25% and 50%, the visual impact is considered "moderate," and if the overall blockage and dominance is over 50%, the visual impact is considered "high."

4.0 View Analysis

Dominance and overall blockage are addressed separately for each of the views analyzed. Currently, from all of the points evaluated, there is view of the “near shoreline.” RCW 90.58.320 stipulates that no permit shall be given to any structure more than 35 feet in height above average grade that “obstructs” the view of a substantial number of adjoining residents except when “overriding considerations of the public interest will be served.” Visual impact will occur upon view of “near shoreline” from just about any development and certainly from development upon the “Point Ruston” property 35 feet in height. Except from two different spots evaluated, the visual impact from any development upon the site will impact “near shoreline” views to a great extent. But again, because all development on this site at any height will have impact upon views of “near shoreline,” the visual impact upon “near shoreline” from “Point Ruston” will be not any more significant than any other development permitted upon the site. It will definitely not be more significant than the building activity approved by the Mater Development Plan adopted by the Town of Ruston for the former ASARCO site.

Visual impacts upon “far shoreline” are also easily determined by looking at the photographs with the building simulations inserted. Where water is still visible, the project is not expected to have impact upon the “far shoreline” and the angle where the “far shoreline” is impacted can be measured. Except at several locations near the project and near Ruston Way, the proposed buildings from the “Point Ruston” project do not block or dominate a large amount of the “far shoreline” views.

Visual impacts upon the “far skyline” are easily determined when looking at the photograph views with inserted building simulation. Once buildings impede views of the background land areas, the simulated building is surrounded with sky and represents a “blockage” of the “far skyline.” The amount of “far skyline” that is blocked is measured in relation to the overall angle of view that is analyzed from the photograph, not the entire angle that can be seen by someone from the point evaluated.

4.1 Dominance and Overall Blockage

Topography and relative grades are important factors when analyzing dominance and overall blockage of the project from specific viewpoints. The project is bordered by hillsides ranging in elevations from 100 to almost 200 feet above sea level and it is at these elevations where existing residences view the site.

4.1.1 From Hillside Residences Overlooking the Project

Residences located northwest of the project are characterized by primary views to the north across the OCF towards Commencement Bay, Vashon Island, and Seattle. Figures 3 through 6 show the blockage anticipated by development by “Point Ruston” from residential places west and southwest of the site. Figure 3 and 4 show potential view impacts from residences along Bennett Street. Buildings proposed at the northwest end of “Point Ruston” will be located at the foot of the On-site Containment Facility (OCF) hill with a maximum allowable height of 60 feet, although most of the buildings planned will not be of this height. The grade difference between the project site elevation and the top of the landscaped OCF is more than 80 feet. From above and behind the OCF on Bennett Street where residences are located, the project buildings are not dominant as only portions of the highest roof structures are visible over the edge of the OCF "horizon".

Wide secondary views to the east are available from much of this area. Browns Point, the Tacoma Port Industrial Area, Mt. Rainier and distant views of the City of Tacoma skyline are visible from most locations evaluated. Fanning north to east, these views progress across more of the length of the project and increase its potential dominance and overall blockage. The grade separation still minimizes dominance with the tallest buildings on the southeast side of the project obscuring only portions of one background, the near water of Commencement Bay. View corridors provided through the site are generally at angles perpendicular to these views but the 100 foot wide promenade and building setback from the shoreline as well as the central internal road will be discernable. The backgrounds of land, including Browns Point, the Port of Tacoma, and the backdrops of the Cascades and Mt Rainier remain visible over the project.

Figure 3 shows a photograph taken from the north end of Bennett Street and illustrates that the buildings created by the project will block up to 81% of the “near shoreline” views. Near shorelines southeast of the site and through a corridor of the project will still be visible after construction upon the site. Some of the taller buildings created on the southeast of the site will block approximately 5% of the “far shoreline” of Tacoma that is now visible. Analysis indicates that the project will impact none of the far skyline views, and therefore, the project will have a “low” impact upon the current vision. Figure 4 provides a photograph taken near 51st Street on Bennett and indicates that all of the “near shoreline” adjacent the site will be blocked by the proposed project. However, none of the “far shoreline” or “far skyline” that is now visible will be blocked by the proposed project. Therefore, proposed “Point Ruston” impact upon views is considered “low” by criteria.

The views and impacts described from Bennett are also generally representative of views from the top of the OCF, an open space area of approximately 6 acres in size which may be developed in the future as a park. Nearer to the edge of the open space area more of the buildings will be visible in the foreground looking down the side slopes to the project. Buildings may also increase in dominance from the nearer vantage point and slightly reduced elevation (the 2% drainage grade of the top represents a 10 foot drop from high to low). Views to the north and northwest will be more expansive nearer to the edge of the OCF than from Bennett Street where trees on the hillside above the yacht basin currently limit views in these directions.

Figures 5 and 6 are taken from residential locations southwest of the proposed “Point Ruston” project site. Figure 5 is a photograph representing the view impact to residents near Baltimore on Commercial Street. While 93% of the “near shoreline” that can now be seen will be blocked by the proposed development, some of the “near shoreline” will be visible as a result of corridors that are planned in the project. None of the “far shoreline” or “far skyline” views to these residents will be blocked by the project, so it also has a “low” impact upon views.

Figure 6 shows view impact from the bottom of the developing “Stack Hill.” Because this location is near the center of the proposed project its overall evaluated angle of view is a wide 129 degrees. The “near shoreline” will have 95% of its current view blocked by the proposed project. A small percentage of the “near shoreline” will be visible through one of the corridors planned for the project. From this point 19% of the “far shoreline” of Brown’s Point will be blocked by the taller buildings on the south east corner of the project. None of the “far skyline” views from this location will be blocked by the project. The overall view impact from “Stack Hill” is also “low.”



Figure 3

- Location 2: Bennett Street above the OCF
- Elevation: Approximately 108'
- Facing: Southeast
- Near Shoreline View Blockage: 81%
- Far Shoreline View Blockage: 5%
- Far Skyline View Blockage: 0%



Location #2 View Blockage Analysis



Figure 4

- Location 3: Residence around 51st and Bennett Street
- Elevation: Approximately 110'
- Facing: Northeast
- Near Shoreline View Blockage: 100%
- Far Shoreline View Blockage: 5%
- Far Skyline View Blockage: 0%



Location #3 View Blockage Analysis



Location #4 View Blockage Analysis

Figure 5

- Location 4: Residence on Commercial Street near Baltimore
- Elevation: Approximately 135'
- Facing: Northeast
- Near Shoreline View Blockage: 93%
- Far Shoreline View Blockage: 0%
- Far Skyline View Blockage: 0%



Location #5 View Blockage Analysis

Figure 6

- Location 5: Stack Hill
- Elevation: 118'
- Facing: Northeast
- Near Shoreline View Blockage: 95%
- Far Shoreline View Blockage: 19%
- Far Skyline View Blockage: 0%

4.1.2 Area East of Stack Hill

Views from south of the project include areas on the north end of Orchard Street, areas where residences are planned and areas where existing residences near Ferdinand along the railroad. These views are from elevations higher than the project site, and are characterized by northern views of Commencement Bay, Vashon Island and the Puget Sound toward Seattle. Hillsides of equal or higher elevations border this area to the northwest and southeast confining the width of available northward views. Browns Point is visible to the northeast and from a few locations evaluated the Olympics can be seen looking west.

Dominance varies to future residences located at the various locations evaluated. At the higher elevations of this particular area, the buildings from the project would have minimal dominance obscuring primarily the project shoreline or “near shoreline” water.

The existing residences east of Stack Hill are generally above the hillside at elevations approximately 200 feet above sea level. View impacts to these residences will be none to minimal because of their relatively far distance from the project. There is also some undeveloped area at the top of the hillside at the end of Orchard Street. The view orientations in this area are varied. Some properties on Orchard are oriented east toward the Port Industrial Area and City of Tacoma. These views are generally focused to the southeast of the site and will be only minimally impacted. Views in this area that are oriented north and northeast over the project are most impacted by the project. Existing vegetation on the hillside obscures some territorial views and views down to the project. Figure 7 illustrates the view blockage that the project will create from the north end of Orchard Street. As seen from the photograph and evaluation angle, only 48% of the “near shoreline” will be blocked by the project. This results from the high elevation of the location in relation to the project and from the lower buildings of the northwest end of the project. From this perspective it is estimated that the existing piers can still be seen. No “far shoreline” or “far skyline” will be blocked by the project from this perspective resulting in a “low” overall visual impact at this location.

On the hillside below the existing residences in this area, there is an undeveloped “bench” beginning southeast of the property where access is available from Ferdinand Street and running parallel with the project property to approximately its mid point. This area is across and above Ruston Way and the BNSF railroad lines. The developable areas of the bench include grades ranging from approximately 50 feet to approximately 90 feet in elevation. The comprehensive plan designation for this property was amended in 2005 to allow medium intensity development and the ability to seek approvals for buildings of up to 60 feet in height. It was noted that this property could provide a transition between the high intensity designation of the project property and the low intensity of the residential areas above. The staff report for the amendment also noted that development of the bench with buildings up to 60 feet in height, even from the highest elevations, would fall below the grade of the hilltop residences with no significant impact to existing views. The hillside above the bench and existing vegetation which partially obscures views from the top is to be protected as a condition of the amendment. Figures 8, 9, 10 and 11 are a projection of the model on photographs taken at approximate elevations between 80 and 50 feet.

From the southeast end on the undeveloped bench, views oriented north would be across the width of the project property. The tallest project structures, up to 80 feet in height in this area, would be dominant in this direction obscuring portions of the Bay, Browns Point, and Vashon Island. Horizontal separation of approximately 200 feet across the railroad, Ruston Way, and landscaped parking areas of the project provides room for view perspective during winter and spring months when deciduous trees foliage is not obstructing views.



Figure 7

- Location 6: Undeveloped Area at North end of Orchard Street
- Elevation: Approximately 160'
- Facing: Northeast
- Near Shoreline View Blockage: 48%
- Far Shoreline View Blockage: 0%
- Far Skyline View Blockage: 0%



Location #6 View Blockage Analysis

Figures 8 and 9 measure visual impacts from southeast of the project should residences be created on undeveloped property at elevations of 80 feet and 65 feet respectively. Figure 8 where property elevation is approximately 80 feet, shows that 83% “near shoreline” would be obstructed by the project. Seventeen percent (17%) of the “near shoreline” view to the southeast of the project is unobstructed by the project. Only 26% of the “far shoreline” is blocked by the project and none of the “far skyline” is blocked by the project from this perspective permitting conclusion that the project will have only a “low” impact.

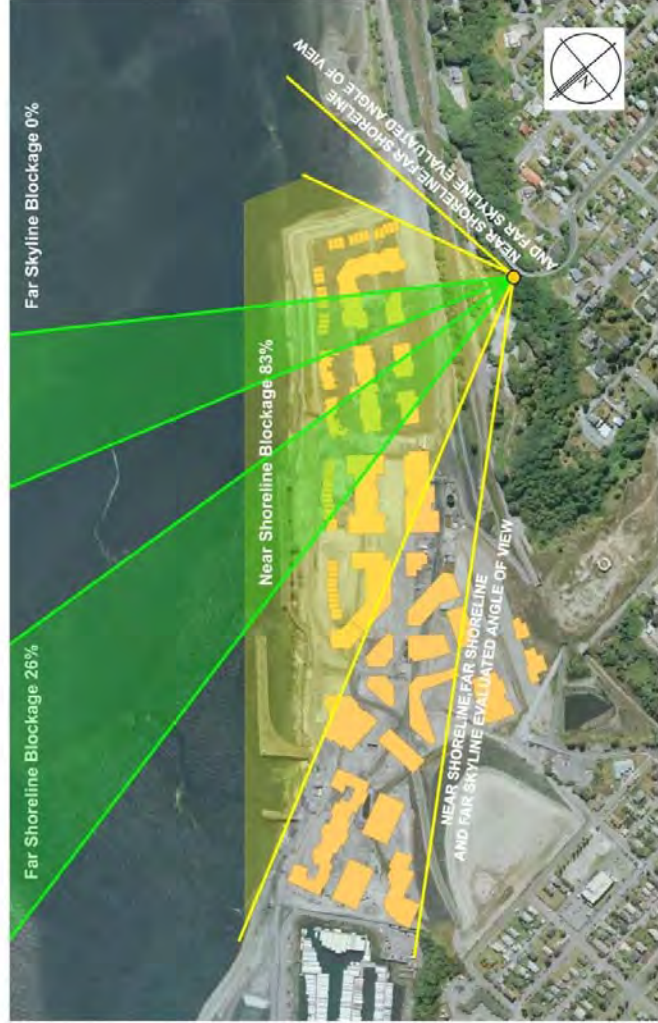
Figure 9 shows a greater visual impact if a residence were built at this elevation (60 feet) and at this point. “Near shoreline” blockage is only 77 %, but “far shoreline” blockage increases to 64% and “far skyline” blockage is 49% making the visual impact from the project “medium to high” by the criteria established at this location. This impact would be reduced if a residence were constructed approximately 200 feet to the west since a 100 feet corridor is planned to the water through the project at this location.

Figures 10 and 11 show views from existing residences further east of the other two sites and just west of Ferdinand and at elevations approximately 50 and 55 feet. Figure 10 was taken from a residence approximately 200 feet west of Ferdinand and at 50 feet elevation. The “near shoreline” angle of view that was evaluated was 97 degrees taking into account the view of Tacoma Yacht Club. It is estimated from models placed upon the photograph taken from this location that 80 % of the “near shoreline” would be blocked by the project with corridors permitting the view of some of the existing “near shoreline.” The “far shoreline” and “far skyline” angle of view is 123 degrees taking in Brown’s Point. “Far shoreline” blockage is estimated to be 55% and “far skyline” blockage is estimated to be 47% by the project, providing a moderate to high impact from this location.

Figure 11 shows the view impact to an existing residence approximately 150 feet east of the residence shown in Figure 10 and approximately 55 feet in elevation. Because this site of evaluation is further east from the residence examined in Figure 10, the angle of the view of the project is narrower. “Near shoreline” blockage is estimated at only 59% and “far shoreline” and “far skyline” blockage is estimated at 49% which makes the impact of the project to views at this residence “moderate” by criteria used.

4.1.3 From Ruston Way

Pedestrians and vehicles approaching the project from Tacoma will first view the project's narrower southeastern end across Tract A and the preceding parks along Ruston Way. From a distance, the project structures will be moderately dominant obscuring portions of the background (one side of OCF, hillside above Tacoma Yacht Club basin, and Vashon Island). Overall blockage is minimal at a distance of approximately 1500 feet from the site. The dominance and overall blockage increases moving closer to the project as shown in Figure 12, taken approximately 500 feet from the site. When passing the project on Ruston Way, the buildings will be dominant and overall blockage will be high. Photographs were taken at points along the new Ruston Way road alignment from lower than final elevations to provide a model of expected views. The model shows the view corridors will provide intermittent views through the project to the shoreline and Commencement Bay and beyond (see Figures 13 and 14). Current views of the water along Ruston Way are very limited as the existing grade of Ruston Way is lower than the current site elevation and then dips into the tunnel. The current Ruston Way alignment averages 6 feet or more below the planned site grade. The proposed realignment of Ruston Way will provide improved views of the water through the view corridors and at higher road elevations traveling northwest and connecting with the current 51st Street.



Location #7 View Blockage Analysis

Figure 8

- Location 7: Undeveloped Area above Railroad near Ferdinand Street
- Elevation: 80'
- Facing: Northeast
- Near Shoreline View Blockage: 83%
- Far Shoreline View Blockage: 26%
- Far Skyline View Blockage: 0%



Location #8 View Blockage Analysis

Figure 9

- Location 8: Undeveloped Area above Railroad near Ferdinand Street
- Elevation: 65'
- Facing: Northeast
- Near Shoreline View Blockage: 77%
- Far Shoreline View Blockage: 64%
- Far Skyline View Blockage: 49%



Figure 10

- Location 9: First Existing House near Ferdinand Street and Ruston Way
- Elevation: Approximately 50'
- Facing: North
- Near Shoreline View Blockage: 80%
- Far Shoreline View Blockage: 55%
- Far Skyline View Blockage: 47%



Location #9 View Blockage Analysis



Figure 11

- Location 10: Second Existing House near Ferdinand Street and Ruston Way
- Elevation: Approximately 55'
- Facing: North
- Near Shoreline View Blockage: 59%
- Far Shoreline View Blockage: 49%
- Far Skyline View Blockage: 49%



Location #10 View Blockage Analysis

Figure 12 has a narrow angle of view that is evaluated related to the other Figures since the project is being viewed from the south end. Total angle of view evaluated for the “near shoreline” impact at this location is only 38 degrees and none of it will be impacted by the project. The “far shoreline” and “far skyline” overall angle of view analyzed is 47 degrees. Of that 46% of the “far shoreline” and 57% of the “far skyline” will be impacted. Again, this considers only the relatively small angle evaluated and does not consider the impact upon the overall views available from this location. Most water views and “far shoreline” and “far skyline” views that are available to pedestrians and drivers along Ruston Way will not be impacted by the development from this location and, thus, were not evaluated.

Figures 13 and 14 show view impacts from Ruston Way at two corridors planned on the site. The “near shoreline,” “far shoreline,” and “far skyline” blockage will be the same at each of these sites because locations are so close to the project. Figure 13, at the middle corridor planned on the Tacoma side of the project, evaluates an angle view of 50 degrees. It is estimated that 80% of the “near shoreline,” “far shoreline,” and “far skyline” will be blocked at this location by the project. Figure 14 is derived from a photograph taken at the corridor existing approximately where the Town of Ruston and City of Tacoma boundaries meet at Ruston Way. An angle of view evaluated here is 84 degrees and it is estimated that the project would block 85% of the “near shoreline,” “far shoreline,” and “far skyline” views. Based upon the criteria established for impact determination upon views, it is concluded that the project will have a “high” impact upon existing views. Again, it is important to emphasize that because these locations are close to the proposed project site, any building at heights of 35 feet would have the same “high” impact upon these Ruston Way points of evaluation.

Special Note: Following the publishing of the Draft Supplemental EIS the site plan was revised to flip buildings 2 A and B with buildings 3 A and B. Both buildings are visible in Location 12 Figure 13 without this change. This site plan revision has no impact on the width of the view corridor or percentage of blockage, but has shifted the corridor five degrees to the east. Further analysis has concluded that this is not a significant adverse impact and therefore no revision is necessary to the summary of impacts.

4.1.4 From Tacoma Yacht Club located on Peninsula Park

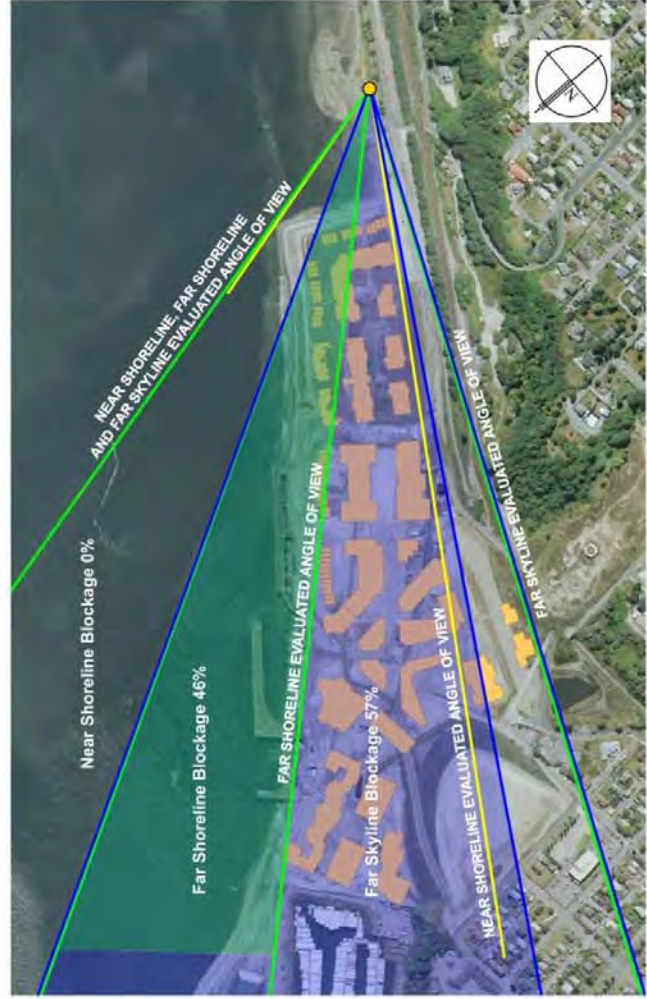
The Tacoma Yacht Club was built on the Metro Park's Breakwater Peninsula which was formed from ASARCO slag pours to serve as a breakwater for the yacht basin marina. The peninsula is at approximately the same elevation as the northwestern end of the proposed project. Views toward the project vary depending on the point of observation. Driving around the yacht basin to the Tacoma Yacht Club views to the project are blocked by a large wall, storage structure and fence at the property line. Photos for analyses were taken in the Tacoma Yacht Club parking lot about 1800 feet from the northwestern edge of the project (see Figure 15). It should be noted that significant views from the club house itself located at the end of the peninsula would be unaffected by the project. The windows and decks of the club house are oriented away from the project and toward the panoramic views of Commencement Bay, Vashon Island, Browns Point, Mt. Rainier and background mountain ranges. As there are no impacts from the project from these vantage points, they were not photographed.

Photographs were taken from the end of the parking lot near the yacht basin looking east and southeast toward the project. Dominance of the proposed structures from this location will be minor against the backdrop of the North Tacoma hillsides. Views of Mount Rainier and the Tacoma skyline will not be impacted. The overall blockage of the project is minimal since the angle of coverage is relatively small considering the overall view looking east/southeast. The angle of building dominance is very narrow compared to the overall angle of sight and is not in the direction of primary views.



Figure 12

- Location 11: Ruston Way South of Site
Looking North
- Elevation: 17'
- Facing: Northwest
- Near Shoreline View Blockage: 0%
- Far Shoreline View Blockage: 46%
- Far Skyline View Blockage: 57%



Location #11 View Blockage Analysis



Figure 13

- Location 12: Ruston Way Along Site
- Looking North
- Elevation: 37'
- Facing: North
- Near Shoreline View Blockage: 80%
- Far Shoreline View Blockage: 80%
- Far Skyline View Blockage: 80%



Location #12 View Blockage Analysis



Figure 14

- Location 13: Ruston Way Along Site
- Looking North
- Elevation: 39'
- Facing: North
- Near Shoreline View Blockage: 85%
- Far Shoreline View Blockage: 85%
- Far Skyline View Blockage: 85%



Location #13 View Blockage Analysis



Figure 15

- Location 1: Tacoma Yacht Club Parking Lot
- Elevation: 15'
- Facing: Southeast
- Near Shoreline View Blockage: N/A
- Far Shoreline View Blockage: N/A
- Far Skyline View Blockage: 22%



Location #1 View Blockage Analysis

Figure 15 shows that an angle of view of only 45 degrees is evaluated. From this point there is no “near shoreline” or “far shoreline” seen presently so the project will have no impact upon these unless the existing view obstructions are removed. In that case the views of the “near shoreline” and “far shoreline” will be improved. Figure 15 estimates that approximately 22% of the angle of view evaluated will be impacted by the project, which is a “low” impact by criteria established.

4.3.5 From the Project Area

From the project area, views available to the public from the promenade and shoreline parks will be created where none previously existed in the industrial life of the property. Within the interior of the project, the view corridors maintain visual connection with the water. Tiered building heights will provide some views from buildings behind those on the waterfront. Dominance will vary by location within the project as will overall blockage. Both will be mitigated by the expansive promenade area and view corridors through the property.

5.0 Conclusions and Mitigation Measures

When looking at the proposed buildings from different angles and points surrounding the site, it is concluded that the development overall has little to moderate visual impact even considering development to the maximum footprints and heights permitted as the models portrayed. It should be noted that the build-out depicts the "worst-case" model to estimate view blockage and is conservative as it would actually be less significant than shown.

As discussed in the introduction, demolition and site remediation has eliminated the many large buildings and structures used in the smelting operation and prepared the property for redevelopment and beneficial reuse. The resulting project will be pleasant in visual contrast compared to former smelting operations and recent remediation activities.

One significant factor in considering the visual impacts of the proposed "Point Ruston" development is the existence of Master Development Plan for the ASARCO site approved by the Town of Ruston and reviewed by the City of Tacoma. The plan proposed creation of buildings approximately 60 feet in height as close to the water as is being proposed in the "Point Ruston" proposal. All of the buildings now proposed within the Town of Ruston are 60 feet in height or less and all of the buildings proposed within Tacoma are 80 feet in height or less.

Contrasts from new buildings and the project are not expected to be significant since the materials on the proposed structures will generally draw from earth-tone palettes and utilize natural materials. The overall coordination of the project with surrounding environment is high as it is designed to emphasize the water and outdoor recreational opportunities in a similar fashion to existing uses and development in the vicinity. The campus-like design and layout will provide coordination throughout the entire project and to other paths and pedestrian areas along Ruston Way. The planned waterfront promenade combined with the proposed open view corridors will be evident from the residential hillsides displaying the project's internal relationships between buildings on the site and highlighting the interface between the proposed project and its surroundings.

"Overall blockage" (horizontal and vertical coverage) and "dominance" (vertical height) across the site varies from "low" to "high", again depending upon the specific location of the viewer. The terracing of buildings (lower structures at the water and higher structures away from the water) will complement the steep slopes of the hills south of the site when viewed from the water and will also be discernable when viewing the project at wider angles from the south or northwest. Overall blockage to existing residents is measured as "low" since project buildings and grades will be significantly lower than existing elevations of residences to the northwest and south of the site. Blockage will be relatively narrow when viewing the project from the southeast or northwest at the levels of the proposed project. Blockage at potential residential areas on the bench in the undeveloped area to the east of Stack Hill will be "moderate" to "high" since the potential buildings on the site will cover the water view and background land views at lowest elevations. At the higher elevations, the blockage is "low." Views at lower elevations will be "moderate to high" mitigated by wide corridors through the project site that will provide views of the shoreline and Commencement Bay. Additionally, the 1500 foot long Tract A corridor at the southeastern end of the site will provide uninterrupted views of the Bay and Browns Point in an east/southeasterly direction.

The visual impact will be least significant from the existing residences above the surrounding hillsides. These areas comprise the vast majority of existing developed views. The waters of Commencement Bay and Puget Sound will remain visible. The proposed buildings will not

interfere with views of background mountain ranges even from the lowest elevations of the Stack Hill development. Current views of Mount Rainier will not be blocked by any new structures when viewed from existing residences or the top of the OCF. Mount Rainier also remains unobstructed from the yacht club parking lot which is at approximately the same elevation as the northwestern end of the project.

Overall blockage and dominance will be greatest for travelers moving westward along Ruston Way past the project where buildings are located in near proximity between potential drivers and the water. View corridors will provide water views as travelers move along Ruston Way. Pedestrians and cyclists will have opportunity to use planned view corridors, commercial areas, park areas, public plazas, and the expansive waterfront promenade. Dominance will be slight to travelers coming from Ruston moving eastward toward Ruston Way where water and background land sights will remain dominant from this perspective. Overall blockage will be “low” when viewing the project from the southeast across Tract A where open views of the Commencement Bay and Browns Point will be unobstructed. When compared with the approved Master Development Plan (MDP) overall blockage and dominance of buildings meeting the MDP for the ASARCO site would be as significant as buildings for the proposed “Point Ruston” project. While view corridors may be different at various points between buildings in the MDP and buildings in the proposed project, such differences between the two would be insignificant. Extension of the promenade from its current end point just southeast of the site will provide a consistent, publicly accessible waterfront area along the extent of Ruston Way and the project waterfront which has not been available to the site before. This public waterfront access and new waterfront parks are improvements that serve the public good referenced in RCW 90.58.320 and therefore permits building heights to be over 35 feet in the shorelines of the state.

APPENDIX E

**EPA COMMENT LETTER – HUMAN
HEALTH**

APPENDIX C

**ASARCO LETTER ALLOWING
CONDITIONAL RESIDENTIAL USES
PER THE MDP**



December 13, 2006

Town of Ruston
5117 N. Winifred Street
Tacoma, WA 98407-3544
Attn: Mayor Transue

RE: Residential Development at Former Asarco Tacoma Smelter Site

Dear Mayor Transue:

Huitt-Zollars, as the Town of Ruston's representative, has requested a letter indicating Asarco's approval of residential development on the Stack Hill property as Ruston Zoning code allows for residential development on Stack Hill with Asarco's approval. As you know, Asarco has been in support of residential/mixed use development at the property since 2001. Prior to the sale of the property to Point Ruston, Asarco and the Development Strategy Team including representatives from the City of Tacoma, Metro Parks of Tacoma and the Town of Ruston, were proceeding with revisions to the Master Development Plan to allow residential use on the entire former Tacoma Smelter site including Stack Hill and the lower site.

The Town's Resolution No. 333, July 2001, provided for the addition of residential uses to the range of uses appropriate for post-remediation development of the site. The resolution was a result of Asarco, Metro Parks, Tacoma and Ruston proposing residential use as an appropriate additional element of post-remediation site development.

I would also note that the property was marketed and sold by Asarco as appropriate for residential/mixed use development and as such the bankruptcy court approved the sale in January 2006. This letter serves as Asarco's final support for residential use of the site.

Asarco has enjoyed working with the Town of Ruston on site development issues over the years and very much appreciated the Town's support. Point Ruston, as the new owner of the site, should be the point of contact for development issues from this point forward including appropriate use. Please call me with any questions at 602-977-6556.

Sincerely,

Thomas L. Aldrich
V.P. Environmental Affairs

Cc: Sue O'Neal
Karen Pickett

APPENDIX D

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Appendix 3.7-A: Traffic Volumes on Selected Road

Summary of MPR Tube Count Data

LOCATION	Weekday				Weekend			
	Average	Peak	App.	PK HR	Average	Peak	App.	PK HR
LOC# 01 RUSTON WAY N/O MC CARVER ST	6,868	958	NB	5:00 PM	7,483	697	NB	4:00 PM
	5,714	579	SB		5,928	498	SB	
Total	12,582	1,537			13,411	1,195		
LOC# 02 RUSTON WAY (SCHUSTER PKWY) S/O N 30TH ST	14,171	1,686	NB	5:00 PM	12,323	1,042	NB	5:00 PM
	17,147	1,642	SB		15,143	1,183	SB	
Total	31,318	3,328			27,466	2,225		
LOC# 03 RUSTON WAY E/O ORCHARD ST	2,053	184	EB	5:00 PM	2,423	247	EB	4:00 PM
	2,369	279	WB		3,171	279	WB	
Total	4,421	463			5,595	526		
LOC# 04 N 51ST ST E/O PEARL ST	2,578	195	EB	5:00 PM	3,247	337	EB	4:00 PM
	3,509	401	WB		4,055	362	WB	
Total	6,086	596			7,301	698		
LOC# 05 PEARL ST S/O N 51ST ST	2,621	254	NB	4:00 PM	4,297	434	NB	4:00 PM
	2,714	281	SB		5,063	667	SB	
Total	5,335	535			9,360	1,101		
LOC# 06 PEARL ST N/O N 37TH ST	5,275	449	NB	5:00 PM	6,065	553	NB	1:00 PM
	5,472	474	SB		6,434	596	SB	
Total	10,746	923			12,499	1,149		
LOC# 07 N 46TH ST E/O PEARL ST	2,236	172	EB	5:00 PM	2,010	157	EB	12:00 PM
	2,456	253	WB		2,311	177	WB	
Total	4,692	425			4,321	334		
LOC# 08 N 46TH ST W/O ORCHARD ST	2,358	230	EB	5:00 PM	2,041	160	EB	4:00 PM
	2,578	287	WB		2,251	178	WB	
Total	4,936	517			4,291	338		
LOC# 09 N 51ST ST E/O WINIFRED ST	1,564	145	-	5:00 PM	1,110	97	-	4:00 PM
	1,735	213	-		1,230	110	-	
Total	3,299	358			2,340	207		

TACOMA, WASHINGTON
 RUSTON WAY N/O MC CARVER ST
 LOC# 01

Peak **1,256** Average Weekday
 Hour **1,157** Peak Weekend

Begin	Saturday 16-Sep		Sunday 17-Sep		Monday 18-Sep		Tuesday 19-Sep		Wednesday 20-Sep		Thursday 21-Sep		Friday 22-Sep		Saturday 23-Sep		Sunday 24-Sep	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12 PM	101	123	119	125	47	48	40	50	39	39	54	27	45	56	129	109	137	126
1 AM	64	64	58	55	31	30	28	21	26	23	25	26	41	28	60	52	75	72
2 AM	44	50	46	37	18	24	27	21	15	20	19	31	17	14	58	37	48	52
3 AM	24	28	20	24	12	18	15	20	17	21	16	17	18	24	30	36	28	23
4 AM	23	26	29	34	21	73	20	73	25	86	28	91	26	70	21	35	22	18
5 AM	34	43	36	25	36	206	42	208	41	219	46	219	41	199	40	48	38	39
6 AM	86	86	71	67	100	398	126	404	123	399	124	403	116	387	90	108	60	65
7 AM	149	143	91	82	186	537	207	621	215	589	209	584	196	563	123	132	85	89
8 AM	160	238	138	161	261	374	242	376	297	392	226	365	239	361	230	231	153	164
9 AM	253	318	214	249	187	230	217	242	191	243	201	236	236	229	253	280	259	236
10 AM	340	312	309	300	234	245	233	220	205	206	202	204	252	244	373	321	416	301
11 AM	436	340	411	329	327	244	421	236	427	233	463	235	465	278	475	301	600	311
12 PM	545	379	469	347	406	280	393	321	357	306	371	324	464	372	618	374	709	381
1 PM	591	427	502	390	323	369	315	378	292	343	314	369	438	436	633	446	685	431
2 PM	601	444	508	395	388	324	364	365	351	320	351	337	576	379	750	452	633	452
3 PM	647	465	456	392	606	318	549	296	546	337	560	344	644	369	829	488	646	474
4 PM	647	524	517	340	746	272	867	284	790	285	810	330	882	346	776	577	694	551
5 PM	660	459	590	353	823	307	1010	265	914	250	899	297	1143	374	720	506	819	462
6 PM	635	401	465	348	534	239	633	259	625	280	698	253	863	364	745	431	720	490
7 PM	494	402	297	344	332	224	350	279	342	229	410	268	632	337	544	467	410	394
8 PM	340	331	233	232	184	202	216	267	222	214	270	240	308	381	372	338	221	277
9 PM	309	342	161	173	162	178	176	210	204	196	191	201	309	337	291	361	129	176
10 PM	263	259	145	114	124	89	98	143	116	101	151	135	219	279	222	268	128	106
11 PM	183	159	72	85	82	78	76	76	65	63	86	96	164	177	172	194	77	65
TOTALS	7629	6363	5957	5001	6170	5307	6665	5635	6445	5394	6724	5632	8334	6604	8554	6592	7792	5755
Combined	13992		10958		11477		12300		11839		12356		14938		15146		13547	

Avg. Wkday M-F				Avg. Peak Wkend Sat-Su		
NB	SB	Total		NB	SB	Total
45	44	89	FALSE	122	121	242
30	26	56	FALSE	64	61	125
19	22	41	FALSE	49	44	93
16	20	36	FALSE	26	28	53
24	79	103	FALSE	24	28	52
41	210	251	FALSE	37	39	76
118	398	516	FALSE	77	82	158
203	579	781	FALSE	112	112	224
253	374	627	FALSE	170	199	369
206	236	442	FALSE	245	271	516
225	224	449	FALSE	360	309	668
421	245	666	FALSE	481	320	801
398	321	719	FALSE	585	370	956
336	379	715	FALSE	603	424	1026
406	345	751	FALSE	623	436	1059
581	333	914	FALSE	645	455	1099
819	303	1122	FALSE	659	498	1157
958	299	1256	5:00 PM	697	445	1142
671	279	950	FALSE	641	418	1059
413	267	681	FALSE	436	402	838
240	261	501	FALSE	292	295	586
208	224	433	FALSE	223	263	486
142	149	291	FALSE	190	187	376
95	98	193	FALSE	126	126	252
6868	5714			7483	5928	
12582		ADT		13411		ADT

TACOMA, WASHINGTON
 RUSTON WAY (SCHUSTER PKWY) S/O N 30TH ST
 LOC# 02

Peak Hour **2,973** Average Weekday
2,178 Peak Weekend

Begin	Saturday 16-Sep		Sunday 17-Sep		Monday 18-Sep		Tuesday 19-Sep		Wednesday 20-Sep		Thursday 21-Sep		Friday 22-Sep		Saturday 23-Sep		Sunday 24-Sep	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12 PM	242	250	241	255	124	107	106	101	110	86	140	74	146	113	291	248	302	282
1 AM	156	172	144	126	57	58	56	48	63	55	53	57	82	83	151	141	162	153
2 AM	113	115	115	110	35	52	54	54	45	53	51	61	50	58	130	127	117	115
3 AM	55	65	50	63	35	65	40	64	37	63	34	62	55	74	64	80	65	81
4 AM	60	88	63	83	54	191	64	189	68	202	67	206	79	194	47	94	43	60
5 AM	90	176	69	99	133	584	141	577	141	585	145	576	157	532	76	171	73	115
6 AM	154	307	120	216	310	1190	337	1252	373	1270	351	1266	380	1180	162	330	107	186
7 AM	323	523	167	262	572	1546	679	1717	675	1691	615	1640	697	1615	281	456	169	289
8 AM	438	713	289	463	655	1192	664	1196	722	1291	629	1246	719	1194	429	740	274	465
9 AM	643	983	450	689	482	798	500	826	487	884	501	881	573	882	490	829	433	748
10 AM	725	1040	569	903	511	718	485	667	452	662	465	703	541	798	606	902	489	864
11 AM	760	1093	692	941	576	784	605	807	670	791	670	794	727	898	723	1008	663	1005
12 PM	783	1212	752	1002	637	879	671	870	665	893	708	885	838	1046	864	1089	802	957
1 PM	842	1119	793	1036	639	877	644	860	673	871	656	881	784	1005	816	1104	869	1028
2 PM	938	1163	750	966	845	916	846	886	811	864	833	898	1054	1087	1001	1200	876	1032
3 PM	1002	1195	781	960	1160	1067	1123	1069	1177	1084	1190	1068	1313	1256	1148	1256	864	1057
4 PM	1031	1253	861	986	1446	1168	1597	1202	1558	1200	1472	1146	1611	1346	1034	1306	996	1188
5 PM	1051	1169	956	963	1576	1171	1736	1296	1681	1252	1692	1315	1744	1402	1063	1302	1096	1113
6 PM	1068	1050	795	793	1085	817	1221	963	1274	959	1286	1023	1405	1264	1005	1074	1093	1039
7 PM	853	851	660	745	673	629	693	654	778	612	856	740	922	880	785	898	771	849
8 PM	684	736	482	521	449	437	572	542	530	447	599	581	631	743	669	710	540	595
9 PM	635	665	357	358	390	415	429	433	466	446	503	463	592	671	628	670	340	375
10 PM	562	576	315	278	319	241	307	274	310	264	393	330	510	521	535	572	295	266
11 PM	368	351	203	169	175	156	216	160	176	144	248	196	420	368	422	381	182	170
TOTALS	13576	16865	10674	12987	12938	16058	13786	16707	13942	16669	14157	17092	16030	19210	13420	16688	11621	14032
Combined		30441		23661		28996		30493		30611		31249		35240		30108		25653

Avg. Wkday M-F				Avg. Peak Wkend Sat-Su		
NB	SB	Total		NB	SB	Total
125	96	221	FALSE	269	259	528
62	60	122	FALSE	153	148	301
47	56	103	FALSE	119	117	236
40	66	106	FALSE	59	72	131
66	196	263	FALSE	53	81	135
143	571	714	FALSE	77	140	217
350	1232	1582	FALSE	136	260	396
648	1642	2289	FALSE	235	383	618
678	1224	1902	FALSE	358	595	953
509	854	1363	FALSE	504	812	1316
491	710	1200	FALSE	597	927	1525
650	815	1464	FALSE	710	1012	1721
704	915	1618	FALSE	800	1065	1865
679	899	1578	FALSE	830	1072	1902
878	930	1808	FALSE	891	1090	1982
1193	1109	2301	FALSE	949	1117	2066
1537	1212	2749	FALSE	981	1183	2164
1686	1287	2973	5:00 PM	1042	1137	2178
1254	1005	2259	FALSE	990	989	1979
784	703	1487	FALSE	767	836	1603
556	550	1106	FALSE	594	641	1234
476	486	962	FALSE	490	517	1007
368	326	694	FALSE	427	423	850
247	205	452	FALSE	294	268	562
14171	17147			12323	15143	
	31318	ADT			27466	ADT

TACOMA, WASHINGTON
 RUSTON WAY E/O ORCHARD ST
 LOC# 03

Peak **420** Average Weekday
 Hour **522** Peak Weekend

Begin	Saturday 16-Sep		Sunday 17-Sep		Monday 18-Sep		Tuesday 19-Sep		Wednesday 20-Sep		Thursday 21-Sep		Friday 22-Sep		Saturday 23-Sep		Sunday 24-Sep	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12 PM	16	45	31	47	6	22	13	19	10	13	5	14	7	14	31	31	25	58
1 AM	15	19	21	33	4	18	8	9	8	9	8	5	7	14	8	22	19	35
2 AM	18	27	3	18	8	11	8	10	5	8	11	7	2	4	13	22	17	26
3 AM	9	9	8	7	7	5	10	5	9	4	9	4	12	8	8	8	13	15
4 AM	10	10	5	14	16	11	23	8	26	13	20	11	22	9	7	6	5	10
5 AM	16	24	12	20	88	38	85	19	78	23	90	18	73	22	18	21	13	22
6 AM	32	56	23	47	142	63	138	48	146	64	150	61	118	82	43	51	31	35
7 AM	51	81	24	32	177	87	193	77	193	84	187	62	170	60	51	69	27	27
8 AM	103	104	56	63	132	94	122	69	143	108	140	77	137	73	99	132	73	71
9 AM	138	141	107	113	89	68	91	97	91	79	73	68	103	104	117	125	99	126
10 AM	121	195	152	141	99	100	101	105	100	80	114	83	98	91	137	178	129	163
11 AM	185	192	158	174	97	101	103	113	104	102	99	136	114	128	161	196	156	218
12 PM	196	230	138	235	116	122	126	111	92	114	112	126	137	122	172	232	185	271
1 PM	188	232	166	214	106	131	101	126	97	124	129	120	128	195	228	248	223	281
2 PM	163	273	163	231	107	147	136	141	89	126	120	157	148	191	188	310	189	285
3 PM	216	254	170	223	149	219	109	201	131	220	122	221	145	229	265	324	246	314
4 PM	234	300	152	212	134	235	131	260	137	233	165	230	180	298	320	276	283	311
5 PM	219	247	176	230	149	254	134	264	104	274	155	294	164	307	256	288	242	332
6 PM	174	235	145	207	76	179	118	204	102	203	107	202	135	265	192	238	198	301
7 PM	129	164	110	141	69	124	80	124	70	134	72	155	113	198	161	182	139	224
8 PM	109	154	59	99	54	85	41	95	70	82	73	102	128	115	94	141	83	122
9 PM	77	129	29	60	41	52	77	105	42	72	57	67	122	131	86	123	52	69
10 PM	51	91	31	54	30	46	42	44	29	34	29	56	60	79	57	87	23	45
11 PM	31	63	15	27	22	32	22	20	21	22	26	33	40	53	40	61	16	36
TOTALS	2501	3275	1954	2642	1918	2244	2012	2274	1897	2225	2073	2309	2363	2792	2752	3371	2486	3397
Combined	5776		4596		4162		4286		4122		4382		5155		6123		5883	

Avg. Wkday M-F				Avg. Peak Wkend Sat-Su		
EB	WB	Total		EB	WB	Total
8	16	25	FALSE	26	45	71
7	11	18	FALSE	16	27	43
7	8	15	FALSE	13	23	36
9	5	15	FALSE	10	10	19
21	10	32	FALSE	7	10	17
83	24	107	FALSE	15	22	37
139	64	202	FALSE	32	47	80
184	74	258	FALSE	38	52	91
135	84	219	FALSE	83	93	175
89	83	173	FALSE	115	126	242
102	92	194	FALSE	135	169	304
103	116	219	FALSE	165	195	360
117	119	236	FALSE	173	242	415
112	139	251	FALSE	201	244	445
120	152	272	FALSE	176	275	451
131	218	349	FALSE	224	279	503
149	251	401	FALSE	247	275	522
141	279	420	5:00 PM	223	274	498
108	211	318	FALSE	177	245	423
81	147	228	FALSE	135	178	313
73	96	169	FALSE	86	129	215
68	85	153	FALSE	61	95	156
38	52	90	FALSE	41	69	110
26	32	58	FALSE	26	47	72
2053	2369			2423	3171	
	4421	ADT		5595	ADT	

TACOMA, WASHINGTON
 N 51ST ST E/O PEARL ST
 LOC# 04

Peak Hour **590** Average Weekday
673 Peak Weekend

Begin	Saturday 16-Sep		Sunday 17-Sep		Monday 18-Sep		Tuesday 19-Sep		Wednesday 20-Sep		Thursday 21-Sep		Friday 22-Sep		Saturday 23-Sep		Sunday 24-Sep	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12 PM	26	39	41	68	6	23	22	33	18	26	9	23	12	13	45	59	31	83
1 AM	22	32	32	28	4	21	8	15	8	13	11	16	10	24	13	37	22	49
2 AM	17	30	5	28	9	15	7	12	6	5	14	13	4	5	18	31	19	31
3 AM	10	13	12	6	7	3	8	7	9	11	9	8	13	18	12	13	11	23
4 AM	13	12	3	17	15	12	21	17	24	14	14	14	19	12	8	8	5	12
5 AM	16	45	16	20	98	32	87	29	82	31	97	31	74	34	20	28	14	27
6 AM	39	80	32	78	152	62	173	78	174	78	166	87	162	87	50	79	34	55
7 AM	48	131	30	58	204	119	182	117	204	127	190	115	182	114	54	97	31	39
8 AM	113	161	72	75	131	135	132	104	148	146	153	124	146	124	124	170	76	111
9 AM	180	188	131	134	90	97	108	144	116	144	97	104	135	154	142	201	116	183
10 AM	181	298	163	179	120	137	124	159	121	129	146	125	129	159	186	245	184	218
11 AM	245	249	208	220	142	185	147	166	129	162	143	208	150	191	203	286	203	272
12 PM	267	295	194	317	161	179	170	159	117	169	129	203	186	194	270	353	259	356
1 PM	254	320	247	257	137	177	138	181	145	200	189	193	176	244	327	351	324	358
2 PM	247	381	225	293	161	202	185	202	103	201	145	217	202	282	272	419	263	353
3 PM	308	354	241	270	184	328	147	302	176	351	156	326	212	327	379	396	334	334
4 PM	313	341	209	263	158	341	181	345	163	333	220	314	253	414	425	373	399	370
5 PM	278	309	222	252	185	393	204	378	132	415	190	386	232	435	362	298	359	324
6 PM	236	257	196	258	106	259	161	327	136	307	141	279	219	444	248	319	239	341
7 PM	159	230	141	167	104	206	107	187	104	205	110	218	144	278	224	260	192	245
8 PM	137	187	85	137	72	124	73	154	84	124	91	141	170	191	111	206	110	121
9 PM	98	140	46	82	61	72	75	168	51	101	55	115	156	154	105	148	73	76
10 PM	65	112	39	66	37	60	54	71	31	67	38	83	78	145	64	97	36	59
11 PM	39	77	19	34	22	57	32	41	32	37	36	50	50	77	51	79	20	37
TOTALS Combined	3311	4281	2609	3307	2366	3239	2546	3396	2313	3396	2549	3393	3114	4120	3713	4553	3354	4077
		7592		5916		5605		5942		5709		5942		7234		8266		7431

Avg. Wkday M-F				Avg. Peak Wkend Sat-Su		
EB	WB	Total		EB	WB	Total
13	24	37	FALSE	36	62	98
8	18	26	FALSE	22	37	59
8	10	18	FALSE	15	30	45
9	9	19	FALSE	11	14	25
19	14	32	FALSE	7	12	20
88	31	119	FALSE	17	30	47
165	78	244	FALSE	39	73	112
192	118	311	FALSE	41	81	122
142	127	269	FALSE	96	129	226
109	129	238	FALSE	142	177	319
128	142	270	FALSE	179	235	414
142	182	325	FALSE	215	257	472
153	181	333	FALSE	248	330	578
157	199	356	FALSE	288	322	610
159	221	380	FALSE	252	362	613
175	327	502	FALSE	316	339	654
195	349	544	FALSE	337	337	673
189	401	590	5:00 PM	305	296	601
153	323	476	FALSE	230	294	524
114	219	333	FALSE	179	226	405
98	147	245	FALSE	111	163	274
80	122	202	FALSE	81	112	192
48	85	133	FALSE	51	84	135
34	52	87	FALSE	32	57	89
2578	3509			3247	4055	
	6086	ADT			7301	ADT

TACOMA, WASHINGTON
PEARL ST S/O N 51ST ST
LOC# 05

Peak **530** Average Weekday
Hour **1,032** Peak Weekend

Begin	Saturday 16-Sep		Sunday 17-Sep		Monday 18-Sep		Tuesday 19-Sep		Wednesday 20-Sep		Thursday 21-Sep		Friday 22-Sep		Saturday 23-Sep		Sunday 24-Sep	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12 PM	23	22	20	27	9	6	9	15	10	6	11	15	8	6	25	26	29	30
1 AM	29	18	17	29	7	5	10	12	8	1	7	12	2	1	21	28	29	31
2 AM	13	21	11	17	5	7	5	1	1	5	0	1	5	5	11	13	8	18
3 AM	7	9	8	7	1	3	1	5	2	3	1	5	3	3	5	9	10	7
4 AM	12	2	11	6	8	5	8	12	9	10	11	12	13	10	9	6	2	6
5 AM	58	16	43	15	46	69	41	78	40	35	37	77	37	37	59	20	36	16
6 AM	104	44	76	44	80	120	72	123	83	82	69	120	91	87	114	74	76	47
7 AM	233	57	70	52	114	130	98	121	110	102	81	118	108	109	153	88	91	57
8 AM	250	86	120	114	99	154	110	114	134	105	111	110	115	112	286	264	110	124
9 AM	216	82	206	173	144	170	152	110	133	133	112	106	145	142	271	268	211	188
10 AM	295	105	238	248	138	142	144	72	123	188	123	70	198	200	298	348	301	269
11 AM	329	166	270	283	176	141	168	117	136	208	220	113	233	222	300	296	347	307
12 PM	354	250	350	356	162	161	181	87	143	156	152	84	222	166	372	403	495	386
1 PM	344	298	436	416	162	135	170	123	167	182	178	119	189	194	431	452	495	453
2 PM	388	386	411	359	210	190	185	149	160	136	172	145	234	256	469	472	467	389
3 PM	358	497	364	507	211	183	219	201	204	210	202	195	282	303	485	584	413	551
4 PM	334	611	318	642	214	186	263	339	199	191	260	329	311	360	447	718	361	697
5 PM	289	598	298	545	225	199	246	231	236	156	212	224	351	356	340	703	339	592
6 PM	200	385	224	375	151	167	190	164	200	225	171	159	306	296	296	453	255	408
7 PM	155	312	138	311	143	150	109	117	128	186	123	113	180	263	169	367	157	339
8 PM	105	159	69	124	69	138	87	74	67	153	70	72	85	231	100	187	79	135
9 PM	83	125	42	63	58	83	62	46	50	68	47	46	91	207	77	147	47	67
10 PM	36	46	16	19	19	61	23	25	22	44	24	25	38	75	19	55	18	20
11 PM	26	33	13	17	24	46	17	16	15	30	14	16	25	25	33	37	13	18
TOTALS	4241	4328	3769	4749	2475	2651	2570	2352	2380	2615	2408	2286	3272	3666	4790	6018	4389	5155
Combined	8569		8518		5126		4922		4995		4694		6938		10808		9544	

Avg. Wkday M-F				Avg. Peak Wkend Sat-Su		
NB	SB	Total		NB	SB	Total
9	10	19	FALSE	24	26	51
7	6	13	FALSE	24	27	51
3	4	7	FALSE	11	17	28
2	4	5	FALSE	8	8	16
10	10	20	FALSE	9	5	14
40	59	99	FALSE	49	17	66
79	106	185	FALSE	93	52	145
102	116	218	FALSE	137	64	200
114	119	233	FALSE	192	147	339
137	132	269	FALSE	226	178	404
145	134	280	FALSE	283	243	526
187	160	347	FALSE	312	263	575
172	131	303	FALSE	393	349	742
173	151	324	FALSE	427	405	831
192	175	367	FALSE	434	402	835
224	218	442	FALSE	405	535	940
249	281	530	4:00 PM	365	667	1032
254	233	487	FALSE	317	610	926
204	202	406	FALSE	244	405	649
137	166	302	FALSE	155	332	487
76	134	209	FALSE	88	151	240
62	90	152	FALSE	62	101	163
25	46	71	FALSE	22	35	57
19	27	46	FALSE	21	26	48
2621	2714			4297	5063	
5335		ADT		9360		ADT

TACOMA, WASHINGTON
PEARL ST N/O N 37TH ST
LOC# 06

Peak **904** Average Weekday
Hour **1,038** Peak Weekend

Begin	Saturday 16-Sep		Sunday 17-Sep		Monday 18-Sep		Tuesday 19-Sep		Wednesday 20-Sep		Thursday 21-Sep		Friday 22-Sep		Saturday 23-Sep		Sunday 24-Sep	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12 PM	91	91	70	93	34	40	45	38	50	33	33	34	27	33	96	65	72	85
1 AM	58	52	51	65	15	23	41	27	25	23	21	26	26	29	50	76	68	80
2 AM	40	56	36	30	13	16	19	15	11	15	19	18	22	15	44	48	41	55
3 AM	19	24	28	19	11	9	11	12	16	13	8	12	12	22	25	41	21	28
4 AM	37	20	16	26	23	24	23	31	24	25	25	24	27	24	16	20	12	22
5 AM	51	35	46	19	69	96	58	89	60	92	65	84	68	93	61	31	42	21
6 AM	89	65	58	53	130	169	128	161	141	167	131	158	148	156	106	67	65	48
7 AM	207	145	70	79	207	273	202	269	209	292	204	289	213	278	138	133	76	73
8 AM	283	312	181	158	253	282	239	271	245	268	241	254	280	269	285	295	149	195
9 AM	303	345	249	294	231	292	272	311	228	275	228	283	265	330	353	349	287	304
10 AM	428	454	339	318	255	308	277	307	229	279	247	282	287	289	422	424	389	339
11 AM	491	521	353	347	298	316	319	319	285	310	361	305	369	365	483	479	448	387
12 PM	490	545	455	447	328	344	312	403	317	349	316	370	374	383	526	537	619	528
1 PM	476	469	484	414	344	314	350	344	307	335	353	363	335	369	617	521	636	534
2 PM	519	433	408	388	422	342	384	331	387	344	382	378	411	429	558	558	504	489
3 PM	461	503	382	458	371	470	335	473	386	454	340	455	466	518	577	624	481	565
4 PM	415	566	318	481	383	426	445	418	379	415	424	386	442	473	521	676	399	660
5 PM	438	550	371	490	425	400	482	478	405	428	419	478	516	489	509	654	461	598
6 PM	361	417	353	346	350	332	399	376	357	341	377	339	472	437	400	507	389	510
7 PM	313	343	288	331	316	281	324	290	332	275	338	285	410	405	390	441	328	423
8 PM	253	266	224	208	218	193	273	212	226	202	259	175	282	286	254	288	232	246
9 PM	226	210	139	131	168	108	198	153	182	140	191	130	228	256	209	193	169	113
10 PM	123	147	90	78	91	66	103	109	115	93	97	105	149	139	144	149	84	85
11 PM	133	116	31	40	67	60	45	44	62	50	62	65	119	91	112	112	47	63
TOTALS	6305	6685	5040	5313	5022	5184	5284	5481	4978	5218	5141	5298	5948	6178	6896	7288	6019	6451
Combined	12990		10353		10206		10765		10196		10439		12126		14184		12470	

Avg. Wkday M-F				Avg. Peak Wkend Sat-Su		
NB	SB	Total		NB	SB	Total
38	36	73	FALSE	82	84	166
26	26	51	FALSE	57	68	125
17	16	33	FALSE	40	47	88
12	14	25	FALSE	23	28	51
24	26	50	FALSE	20	22	42
64	91	155	FALSE	50	27	77
136	162	298	FALSE	80	58	138
207	280	487	FALSE	123	108	230
252	269	520	FALSE	225	240	465
245	298	543	FALSE	298	323	621
259	293	552	FALSE	395	384	778
326	323	649	FALSE	444	434	877
329	370	699	FALSE	523	514	1037
338	345	683	FALSE	553	485	1038
397	365	762	FALSE	497	467	964
380	474	854	FALSE	475	538	1013
415	424	838	FALSE	413	596	1009
449	455	904	5:00 PM	445	573	1018
391	365	756	FALSE	376	445	821
344	307	651	FALSE	330	385	714
252	214	465	FALSE	241	252	493
193	157	351	FALSE	186	162	348
111	102	213	FALSE	110	115	225
71	62	133	FALSE	81	83	164
5275	5472			6065	6434	
	10746	ADT			12499	ADT

TACOMA, WASHINGTON
 N 46TH ST E/O PEARL ST
 LOC# 07

Peak **417** Average Weekday
 Hour **328** Peak Weekend

Begin	Saturday 16-Sep		Sunday 17-Sep		Monday 18-Sep		Tuesday 19-Sep		Wednesday 20-Sep		Thursday 21-Sep		Friday 22-Sep		Saturday 23-Sep		Sunday 24-Sep	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12 PM	30	43	28	56	11	18	18	20	12	14	23	19	4	14	26	48	28	50
1 AM	29	40	20	29	10	10	11	15	15	12	6	15	6	15	19	34	43	48
2 AM	14	22	9	17	3	10	6	4	1	9	2	4	9	7	18	24	13	29
3 AM	7	7	6	7	6	7	9	3	7	12	4	6	9	5	9	14	7	16
4 AM	7	6	4	5	24	13	24	11	21	16	18	13	15	8	5	7	8	3
5 AM	15	19	7	16	51	26	67	33	45	29	51	24	45	26	10	16	14	14
6 AM	25	26	26	18	108	57	103	58	106	60	125	61	103	61	32	26	18	18
7 AM	57	53	55	41	164	102	185	117	170	109	169	101	170	103	57	66	40	42
8 AM	97	98	72	61	162	118	151	112	145	134	152	112	146	121	98	116	70	80
9 AM	132	118	123	130	130	106	101	104	121	104	97	106	131	127	136	127	120	117
10 AM	149	128	142	128	111	114	113	118	113	124	106	111	116	123	155	165	130	157
11 AM	134	152	127	122	124	146	161	159	114	140	131	117	116	144	173	179	142	172
12 PM	169	176	130	166	126	121	132	138	98	113	129	132	122	127	168	170	162	172
1 PM	132	186	122	144	113	133	122	148	111	125	114	162	139	136	172	191	155	169
2 PM	147	183	120	140	135	177	139	185	154	151	141	162	184	185	153	189	129	192
3 PM	152	175	110	123	157	204	147	214	166	208	175	188	179	245	177	212	132	168
4 PM	148	148	142	165	139	221	175	221	131	219	160	227	179	277	146	208	157	176
5 PM	125	163	141	168	178	256	161	248	129	241	179	259	173	261	161	168	166	207
6 PM	134	149	117	144	139	156	150	207	145	206	152	191	151	236	147	176	137	208
7 PM	121	121	85	114	80	136	104	120	108	130	138	130	133	138	142	131	111	148
8 PM	73	95	84	93	59	74	75	95	82	84	75	104	82	99	69	72	79	90
9 PM	58	70	58	51	45	73	51	64	56	92	49	65	77	102	91	87	27	44
10 PM	48	77	37	36	36	37	37	38	31	36	37	46	73	66	62	75	34	47
11 PM	37	50	24	25	23	24	30	26	33	32	28	38	39	62	41	56	21	17
TOTALS	2040	2305	1789	1999	2134	2339	2272	2458	2114	2400	2261	2393	2401	2688	2267	2557	1943	2384
Combined	4345		3788		4473		4730		4514		4654		5089		4824		4327	

Avg. Wkday M-F				Avg. Peak Wkend Sat-Su		
EB	WB	Total		EB	WB	Total
14	17	31	FALSE	28	49	77
10	13	23	FALSE	28	38	66
4	7	11	FALSE	14	23	37
7	7	14	FALSE	7	11	18
20	12	33	FALSE	6	5	11
52	28	79	FALSE	12	16	28
109	59	168	FALSE	25	22	47
172	106	278	FALSE	52	51	103
151	119	271	FALSE	84	89	173
116	109	225	FALSE	128	123	251
112	118	230	FALSE	144	145	289
129	141	270	FALSE	144	156	300
121	126	248	FALSE	157	171	328
120	141	261	FALSE	145	173	318
151	172	323	FALSE	137	176	313
165	212	377	FALSE	143	170	312
157	233	390	FALSE	148	174	323
164	253	417	5:00 PM	148	177	325
147	199	347	FALSE	134	169	303
113	131	243	FALSE	115	129	243
75	91	166	FALSE	76	88	164
56	79	135	FALSE	59	63	122
43	45	87	FALSE	45	59	104
31	36	67	FALSE	31	37	68
2236	2456			2010	2311	
	4692	ADT			4321	ADT

TACOMA, WASHINGTON
 N 46TH ST W/O ORCHARD ST
 LOC# 08

Peak **448** Average Weekday
 Hour **329** Peak Weekend

Begin	Saturday 16-Sep		Sunday 17-Sep		Monday 18-Sep		Tuesday 19-Sep		Wednesday 20-Sep		Thursday 21-Sep		Friday 22-Sep		Saturday 23-Sep		Sunday 24-Sep	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12 PM	43	56	32	63	10	19	14	24	13	20	19	24	13	20	42	66	36	69
1 AM	29	28	29	24	11	11	12	13	13	12	7	13	13	12	17	30	30	34
2 AM	9	25	12	17	2	9	6	11	8	7	2	11	8	7	22	26	17	26
3 AM	6	11	2	9	5	10	10	5	6	12	5	5	6	12	9	13	8	21
4 AM	10	5	4	5	29	12	28	13	26	16	23	13	26	16	5	7	6	4
5 AM	16	17	6	16	59	18	72	20	53	19	56	20	57	19	13	16	12	14
6 AM	34	20	25	16	134	39	135	39	135	38	148	43	141	40	28	23	18	15
7 AM	63	57	49	39	213	79	247	112	225	99	231	130	236	104	56	50	39	39
8 AM	100	74	73	66	184	106	160	94	174	124	171	169	183	131	115	86	69	69
9 AM	139	102	135	102	140	115	127	117	137	101	118	123	144	106	152	99	121	93
10 AM	167	123	150	110	108	112	133	116	112	96	101	106	117	100	167	138	143	149
11 AM	155	166	139	112	118	140	150	144	130	125	125	130	137	130	177	151	151	143
12 PM	154	179	123	157	117	127	125	118	109	111	109	121	114	116	170	154	155	160
1 PM	142	188	128	140	134	119	116	126	119	129	138	145	136	147	185	166	149	169
2 PM	145	186	114	150	150	178	153	181	187	180	159	176	178	171	157	192	120	183
3 PM	166	175	113	133	141	235	142	238	175	382	169	195	167	266	163	210	149	159
4 PM	156	161	144	143	142	261	147	248	127	376	159	155	154	273	160	197	180	176
5 PM	130	156	131	172	148	292	163	291	158	254	171	306	167	291	170	169	157	203
6 PM	145	161	111	124	139	176	155	232	142	181	162	243	145	232	145	156	133	192
7 PM	113	139	88	122	79	138	109	130	90	142	114	137	130	154	125	128	104	151
8 PM	63	93	71	88	58	80	66	107	68	83	70	112	79	123	57	80	76	92
9 PM	62	90	49	56	40	71	47	81	50	74	50	85	66	98	75	93	32	48
10 PM	44	92	37	42	35	43	36	40	30	43	37	42	59	86	54	99	25	51
11 PM	27	70	20	30	22	30	21	36	31	30	21	36	40	85	44	61	22	22
TOTALS	2118	2374	1785	1936	2218	2420	2374	2536	2318	2654	2365	2540	2516	2739	2308	2410	1952	2282
Combined		4492		3721		4638		4910		4972		4905		5255		4718		4234

Avg. Wkday M-F				Avg. Peak Wkend Sat-Su		
EB	WB	Total		EB	WB	Total
14	21	35	FALSE	38	64	102
11	12	23	FALSE	26	29	55
5	9	14	FALSE	15	24	39
6	9	15	FALSE	6	14	20
26	14	40	FALSE	6	5	12
59	19	79	FALSE	12	16	28
139	40	178	FALSE	26	19	45
230	105	335	FALSE	52	46	98
174	125	299	FALSE	89	74	163
133	112	246	FALSE	137	99	236
114	106	220	FALSE	157	130	287
132	134	266	FALSE	156	143	299
115	119	233	FALSE	151	163	313
129	133	262	FALSE	151	166	317
165	177	343	FALSE	134	178	312
159	263	422	FALSE	148	169	317
146	263	408	FALSE	160	169	329
161	287	448	5:00 PM	147	175	322
149	213	361	FALSE	134	158	292
104	140	245	FALSE	108	135	243
68	101	169	FALSE	67	88	155
51	82	132	FALSE	55	72	126
39	51	90	FALSE	40	71	111
27	43	70	FALSE	28	46	74
2358	2578			2041	2251	
	4936	ADT			4291	ADT

TACOMA, WASHINGTON
 N 51ST ST E/O WINIFRED ST
 LOC# 09

Peak **321** Average Weekday
 Hour **198** Peak Weekend

Begin	Saturday 16-Sep		Sunday 17-Sep		Monday 18-Sep		Tuesday 19-Sep		Wednesday 20-Sep		Thursday 21-Sep		Friday 22-Sep		Saturday 23-Sep		Sunday 24-Sep	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	0	0	0	0	0	0
12 PM	19	34	32	41	7	20	16	22	13	13	8	17	0	0	0	0	0	0
1 AM	15	21	21	23	4	16	8	7	7	8	9	5	0	0	0	0	0	0
2 AM	16	18	4	15	7	8	8	9	5	6	10	7	0	0	0	0	0	0
3 AM	10	9	8	4	7	2	9	6	9	4	9	4	0	0	0	0	0	0
4 AM	11	8	5	13	15	7	20	7	22	9	17	11	0	0	0	0	0	0
5 AM	14	23	12	16	83	18	78	17	77	18	84	16	0	0	0	0	0	0
6 AM	37	49	26	44	144	44	148	40	148	39	154	47	0	0	0	0	0	0
7 AM	47	72	26	32	175	84	179	76	181	78	188	63	0	0	0	0	0	0
8 AM	96	81	57	50	131	82	117	66	139	90	138	80	0	0	0	0	0	0
9 AM	134	106	107	86	78	67	84	96	95	83	77	63	0	0	0	0	0	0
10 AM	124	177	141	110	93	86	97	98	97	70	103	77	0	0	0	0	0	0
11 AM	187	167	158	143	99	106	114	106	108	102	107	132	0	0	0	0	0	0
12 PM	191	208	142	209	120	117	121	111	93	101	102	118	0	0	0	0	0	0
1 PM	188	208	174	171	98	116	101	124	112	118	134	117	0	0	0	0	0	0
2 PM	164	243	167	198	109	137	142	133	80	121	110	152	0	0	0	0	0	0
3 PM	209	232	168	174	141	213	103	206	130	209	128	210	0	0	0	0	0	0
4 PM	228	237	149	178	131	220	131	247	140	230	154	222	0	0	0	0	0	0
5 PM	211	207	175	177	148	258	142	261	101	258	146	289	0	0	0	0	0	0
6 PM	173	183	144	164	77	169	116	203	99	209	107	204	0	0	0	0	0	0
7 PM	124	132	111	110	71	128	85	135	70	131	74	156	0	0	0	0	0	0
8 PM	113	121	60	85	56	87	44	96	77	85	70	85	0	0	0	0	0	0
9 PM	78	104	30	54	43	48	69	90	42	64	49	76	0	0	0	0	0	0
10 PM	55	71	34	40	32	43	41	43	29	42	35	49	0	0	0	0	0	0
11 PM	33	52	12	19	21	36	23	20	24	22	24	32	0	0	0	0	0	0
TOTALS	2477	2763	1963	2156	1890	2112	1996	2219	1898	2110	2037	2232	0	0	0	0	0	0
Combined	5240		4119		4002		4215		4008		4269		0	0	0	0	0	0

Avg. Wkday M-F				Avg. Peak Wkend Sat-Su		
0	0	Total		0	0	Total
9	14	23	FALSE	13	19	32
6	7	13	FALSE	9	11	20
6	6	12	FALSE	5	8	13
7	3	10	FALSE	5	3	8
15	7	22	FALSE	4	5	9
64	14	78	FALSE	7	10	16
119	34	153	FALSE	16	23	39
145	60	205	FALSE	18	26	44
105	64	169	FALSE	38	33	71
67	62	129	FALSE	60	48	108
78	66	144	FALSE	66	72	138
86	89	175	FALSE	86	78	164
87	89	177	FALSE	83	104	188
89	95	184	FALSE	91	95	185
88	109	197	FALSE	83	110	193
100	168	268	FALSE	94	102	196
111	184	295	FALSE	94	104	198
107	213	321	5:00 PM	97	96	193
80	157	237	FALSE	79	87	166
60	110	170	FALSE	59	61	119
49	71	120	FALSE	43	52	95
41	56	96	FALSE	27	40	67
27	35	63	FALSE	22	28	50
18	22	40	FALSE	11	18	29
1564	1735			1110	1230	
3299		ADT		2340		ADT

TACOMA, WASHINGTON
 N 51ST ST E/O PEARL ST
 LOC# 04

Peak Hour **526** Average Weekday
675 Peak Weekend

Begin	Monday 2-Jul		Tuesday 3-Jul		Wednesday 4-Jul		Thursday 5-Jul		Friday 6-Jul		Saturday 7-Jul		Sunday 8-Jul		Monday 9-Jul		Tuesday 10-Jul	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12 PM	14	23	9	29	24	42	35	35	17	23	31	45	19	54	9	14	31	83
1 AM	12	10	7	17	19	27	11	13	15	18	24	39	18	31	10	18	22	49
2 AM	12	8	10	18	10	14	5	10	6	8	14	13	12	20	13	9	19	31
3 AM	11	5	11	8	6	9	8	7	9	6	10	16	11	12	10	9	11	23
4 AM	26	17	13	22	15	23	12	17	21	19	13	26	13	19	28	17	5	12
5 AM	65	30	70	26	12	25	51	30	66	28	22	19	19	12	78	20	14	27
6 AM	138	42	133	58	35	25	108	42	126	62	29	44	28	27	137	48	34	55
7 AM	167	79	146	87	34	26	132	76	142	75	49	71	33	52	154	87	31	39
8 AM	115	113	139	115	43	23	148	94	124	106	73	75	50	50	132	94	76	111
9 AM	129	113	124	138	77	47	115	126	122	127	100	137	108	135	98	111	116	183
10 AM	131	122	125	135	98	29	132	140	140	153	145	200	121	178	105	132	184	218
11 AM	129	191	154	210	87	37	150	194	147	236	145	204	135	236	163	185	203	272
12 PM	183	214	176	190	146	55	182	234	183	234	217	309	186	299	186	212	259	356
1 PM	196	242	170	260	171	74	214	266	220	284	264	317	202	286	173	215	324	358
2 PM	192	248	223	274	178	55	214	252	248	292	232	338	242	314	218	282	263	353
3 PM	214	277	244	310	154	68	226	296	259	335	329	357	287	376	201	264	334	334
4 PM	238	307	218	273	170	60	249	303	241	337	321	336	304	273	246	269	399	370
5 PM	197	337	211	338	161	48	249	317	220	328	299	311	303	279	211	326	359	324
6 PM	197	287	171	268	149	75	213	291	219	243	258	266	310	259	167	240	239	341
7 PM	178	210	187	268	192	72	200	234	143	294	209	232	247	240	164	200	192	245
8 PM	173	176	169	217	203	77	175	184	176	233	198	234	203	218	142	162	110	121
9 PM	140	127	142	176	38	203	123	141	180	156	157	163	135	130	119	138	73	76
10 PM	56	68	76	87	146	141	74	58	70	82	87	91	59	58	50	61	36	59
11 PM	24	45	27	82	51	109	22	51	31	53	64	66	19	33	23	45	20	37
TOTALS	2937	3291	2955	3606	2219	1364	3048	3411	3125	3732	3290	3909	3064	3591	2837	3158	3354	4077
Combined	6228		6561		3583		6459		6857		7199		6655		5995		7431	

Avg. Wkday				Avg. Peak Wkend		
EB	WB	Total		EB	WB	Total
20	36	55	FALSE	25	50	75
14	22	35	FALSE	21	35	56
11	14	25	FALSE	13	17	30
9	10	19	FALSE	11	14	25
17	18	35	FALSE	13	23	36
51	27	77	FALSE	21	16	36
102	47	149	FALSE	29	36	64
115	67	182	FALSE	41	62	103
111	94	205	FALSE	62	63	124
112	121	232	FALSE	104	136	240
131	133	263	FALSE	133	189	322
148	189	337	FALSE	140	220	360
188	214	401	FALSE	202	304	506
210	243	452	FALSE	233	302	535
219	251	470	FALSE	237	326	563
233	269	502	FALSE	308	367	675
252	274	526	4:00 PM	313	305	617
230	288	518	FALSE	301	295	596
194	249	443	FALSE	284	263	547
179	218	397	FALSE	228	236	464
164	167	331	FALSE	201	226	427
116	145	262	FALSE	146	147	293
73	79	152	FALSE	73	75	148
28	60	89	FALSE	42	50	91
2949	3201		ADT	3021	3533	
	6151				6554	ADT

RUSTON, WASHINGTON
 N PEARL ST (SR-163) S/ON 51ST ST
 LOC# 05

Peak Hour **213** Average Weekday
139 Peak Weekend

Begin	Monday 2-Jul		Tuesday 3-Jul		Wednesday 4-Jul		Thursday 5-Jul		Friday 6-Jul		Saturday 7-Jul		Sunday 8-Jul		Monday 9-Jul		Tuesday 10-Jul	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12 PM	21	33	23	32	38	51	61	72	31	51	44	57	47	78	33	14	18	38
1 AM	19	26	18	30	36	45	56	60	26	42	35	52	47	58	30	6	14	29
2 AM	14	19	17	26	35	41	42	41	25	29	30	48	41	47	28	5	15	24
3 AM	12	20	16	19	35	27	36	27	21	24	30	44	33	35	22	7	17	22
4 AM	10	25	13	21	33	31	27	18	15	21	35	45	38	33	17	8	17	23
5 AM	15	28	14	21	28	34	17	16	12	18	36	40	27	30	17	9	16	20
6 AM	15	27	12	21	23	28	20	11	9	19	31	36	20	40	13	13	15	17
7 AM	13	22	11	23	20	28	15	10	10	20	22	34	14	32	15	13	11	15
8 AM	12	17	14	20	15	17	15	6	12	18	15	25	6	32	13	12	8	10
9 AM	7	11	11	18	13	16	17	4	11	20	13	23	4	26	15	11	8	9
10 AM	8	10	14	16	14	14	11	4	9	18	15	18	7	13	12	7	7	7
11 AM	7	9	14	15	12	17	9	4	8	11	18	11	11	17	13	4	6	5
12 PM	18	8	11	12	18	20	12	3	9	11	21	14	17	10	19	3	9	4
1 PM	19	7	14	10	25	14	15	4	19	10	33	8	40	9	20	3	14	4
2 PM	26	8	20	8	36	16	23	4	34	8	43	9	60	8	38	1	23	2
3 PM	39	8	30	8	56	12	34	3	44	11	58	13	90	0	47	0	40	2
4 PM	45	12	42	8	75	9	46	3	57	12	73	12	109	0	55	2	50	5
5 PM	52	14	48	14	89	11	50	2	61	13	73	16	104	0	69	2	56	8
6 PM	50	22	46	18	94	10	56	6	63	19	80	15	104	1	64	2	64	12
7 PM	64	34	70	25	99	12	76	13	76	22	76	14	98	2	96	2	74	18
8 PM	74	52	85	43	103	16	92	34	91	38	74	16	107	2	121	11	95	36
9 PM	88	56	98	43	117	22	110	34	95	46	76	18	110	6	136	15	105	41
10 PM	110	60	125	49	134	29	126	40	110	50	74	20	117	5	166	26	121	53
11 PM	126	84	127	74	137	44	148	61	145	83	99	43	117	18	188	41	146	85
TOTALS	864	612	893	574	1285	564	1114	480	993	614	1104	631	1368	502	1247	217	949	489
Combined		1476		1467		1849		1594		1607		1735		1870		1464		1438

Avg. Wkday				Avg. Peak Wkend		
EB	WB	Total		EB	WB	Total
32	42	74	FALSE	46	68	113
28	34	62	FALSE	41	55	96
25	26	52	FALSE	36	48	83
23	21	44	FALSE	32	40	71
19	21	40	FALSE	37	39	76
17	21	38	FALSE	32	35	67
15	19	35	FALSE	26	38	64
14	19	32	FALSE	18	33	51
13	14	27	FALSE	11	29	39
12	13	24	FALSE	9	25	33
11	11	22	FALSE	11	16	27
10	9	19	FALSE	15	14	29
14	9	22	FALSE	19	12	31
18	7	25	FALSE	37	9	45
29	7	35	FALSE	52	9	60
41	6	48	FALSE	74	7	81
53	7	60	FALSE	91	6	97
61	9	70	FALSE	89	8	97
62	13	75	FALSE	92	8	100
79	18	97	FALSE	87	8	95
94	33	127	FALSE	91	9	100
107	37	144	FALSE	93	12	105
127	44	171	FALSE	96	13	108
145	67	213	11:00 PM	108	31	139
1173	558			988	473	
	1731	ADT		1461		ADT

RUSTON, WASHINGTON
 N 51ST ST E/O WINNIFRED ST
 LOC# 09

Peak Hour **209** Average Weekday
75 Peak Weekend

Begin	Monday 2-Jul		Tuesday 3-Jul		Wednesday 4-Jul		Thursday 5-Jul		Friday 6-Jul		Saturday 7-Jul		Sunday 8-Jul		Monday 9-Jul		Tuesday 10-Jul	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12 PM	15	21	11	24	25	44	35	25	15	24	22	37	20	50	8	15	12	20
1 AM	12	10	7	17	19	24	8	12	14	16	18	39	15	30	9	14	8	11
2 AM	15	10	5	17	14	17	9	10	13	14	16	29	12	31	12	8	9	6
3 AM	11	8	6	11	13	15	7	8	10	10	17	20	16	32	10	10	10	10
4 AM	10	8	6	11	9	17	5	7	6	11	15	20	16	26	10	7	11	13
5 AM	11	7	7	12	8	12	5	7	5	9	15	12	14	20	10	8	8	11
6 AM	7	6	8	10	9	13	4	7	5	8	14	15	9	11	6	8	6	13
7 AM	11	6	10	6	6	13	4	7	4	7	12	16	7	9	6	3	4	10
8 AM	11	4	11	8	5	9	6	9	5	3	11	14	8	10	11	4	3	6
9 AM	12	4	8	7	8	8	7	6	6	5	8	15	8	11	11	5	3	11
10 AM	13	5	9	5	8	7	10	6	7	9	8	15	11	13	12	3	8	15
11 AM	9	8	6	11	8	10	11	8	10	12	8	18	11	21	17	9	12	15
12 PM	13	9	6	12	8	16	13	10	13	16	8	23	10	22	18	12	16	20
1 PM	25	15	17	20	9	20	18	13	21	17	10	24	12	20	30	16	25	19
2 PM	33	17	23	22	9	19	21	18	26	17	10	20	13	18	43	19	30	14
3 PM	37	13	34	19	17	19	26	19	36	18	17	18	18	13	48	16	46	17
4 PM	45	20	46	23	19	22	31	22	41	19	25	19	22	11	55	17	51	19
5 PM	70	22	68	19	14	23	51	25	65	20	28	17	21	10	80	17	81	21
6 PM	81	22	82	23	16	27	63	21	79	26	31	23	24	13	81	19	97	24
7 PM	95	32	91	32	13	23	80	22	94	33	27	28	25	16	91	27	100	26
8 PM	139	34	138	38	18	20	117	28	133	39	30	28	29	17	143	39	156	35
9 PM	140	34	142	47	20	19	118	30	132	57	29	40	32	25	143	47	153	42
10 PM	153	48	156	59	23	20	139	39	151	62	29	46	27	32	160	57	162	53
11 PM	180	53	178	68	21	31	150	55	155	64	37	52	25	36	182	71	183	69
TOTALS	1148	416	1075	521	319	448	938	414	1046	516	445	588	405	497	1196	451	1194	500
Combined		1564		1596		767		1352		1562		1033		902		1647		1694

Avg. Wkday M-F				Avg. Peak Wkend Sat-Su		
EB	WB	Total		EB	WB	Total
17	25	42	FALSE	21	44	65
11	15	26	FALSE	17	35	51
11	12	23	FALSE	14	30	44
10	10	20	FALSE	17	26	43
8	11	19	FALSE	16	23	39
8	9	17	FALSE	15	16	31
6	9	16	FALSE	12	13	25
6	7	14	FALSE	10	13	22
7	6	14	FALSE	10	12	22
8	7	14	FALSE	8	13	21
10	7	17	FALSE	10	14	24
10	10	21	FALSE	10	20	29
12	14	26	FALSE	9	23	32
21	17	38	FALSE	11	22	33
26	18	44	FALSE	12	19	31
35	17	52	FALSE	18	16	33
41	20	61	FALSE	24	15	39
61	21	82	FALSE	25	14	38
71	23	94	FALSE	28	18	46
81	28	108	FALSE	26	22	48
121	33	154	FALSE	30	23	52
121	39	161	FALSE	31	33	63
135	48	183	FALSE	28	39	67
150	59	209	11:00 PM	31	44	75
631	493			1153	472	
	1123	ADT			1625	ADT

Appendix 3.7-B: Existing Arterial Level of Service Reports

Arterial Level of Service: NB N Ruston Way

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
N McCarver Street	16	7.6	26.9	0.2	23
Commercial 10	15	2.0	16.5	0.1	26
	82	1.1	14.8	0.1	27
Commercial 09	14	1.5	16.8	0.1	27
Commercial 08	13	0.7	6.5	0.0	27
Commercial 07	12	0.7	6.6	0.0	27
Adler Street	11	1.6	10.6	0.1	26
Commercial 06	10	0.7	9.2	0.1	28
Commercial 05	9	0.3	5.3	0.0	28
Commercial 04	8	0.6	7.9	0.1	28
Park 02	7	1.6	22.1	0.2	27
N 40th Street	6	1.2	15.9	0.1	27
Commercial 03	5	1.7	18.4	0.1	27
Commercial 02	4	0.8	7.6	0.1	27
Commercial 01	3	1.2	13.7	0.1	27
Park Access 01	2	1.2	12.3	0.1	27
N 49th Street	1	3.4	33.6	0.3	30
	34	0.9	21.7	0.2	28
	35	0.3	6.3	0.1	29
	33	0.3	6.0	0.0	28
	31	0.4	7.1	0.1	28
Total		29.7	285.7	2.1	27

Arterial Level of Service: SB N Ruston Way

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	31	0.2	7.4	0.1	32
	33	0.0	6.8	0.1	29
	35	0.0	5.8	0.0	29
	34	0.0	6.1	0.1	29
N 49th Street	1	0.4	21.2	0.2	29
Park Access 01	2	0.7	32.3	0.3	31
Commercial 01	3	0.3	11.6	0.1	28
Commercial 02	4	0.3	13.0	0.1	29
Commercial 03	5	0.2	7.1	0.1	29
N 40th Street	6	0.4	17.2	0.1	29
Park 02	7	0.6	15.2	0.1	28
Commercial 04	8	0.9	21.7	0.2	28
Commercial 05	9	0.4	7.9	0.1	28
Commercial 06	10	0.6	5.5	0.0	27
Adler Street	11	0.6	9.2	0.1	28
Commercial 07	12	0.5	9.1	0.1	30
Commercial 08	13	0.2	6.2	0.0	28
Commercial 09	14	0.3	6.1	0.0	28
	82	0.4	15.9	0.1	29
Commercial 10	15	0.5	14.1	0.1	29
N McCarver Street	16	3.6	17.8	0.1	24
Total		11.3	257.0	2.0	29

Arterial Level of Service: NB N Ruston Way

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
N McCarver Street	16	11.5	30.8	0.2	20
Commercial 10	15	2.4	16.9	0.1	26
	82	1.3	15.0	0.1	27
Commercial 09	14	1.9	17.3	0.1	27
Commercial 08	13	0.9	6.6	0.0	26
Commercial 07	12	0.9	6.8	0.0	26
Adler Street	11	2.2	11.3	0.1	24
Commercial 06	10	0.9	9.3	0.1	28
Commercial 05	9	0.4	5.3	0.0	28
Commercial 04	8	0.6	7.9	0.1	28
Park 02	7	1.7	22.0	0.2	28
N 40th Street	6	1.3	15.9	0.1	27
Commercial 03	5	2.0	18.7	0.1	27
Commercial 02	4	0.8	7.6	0.1	26
Commercial 01	3	1.4	13.9	0.1	27
Park Access 01	2	1.2	12.4	0.1	27
N 49th Street	1	3.4	33.1	0.3	30
	34	1.0	22.0	0.2	28
	35	0.4	6.4	0.1	28
	33	0.4	6.1	0.0	28
	31	0.5	7.2	0.1	28
Total		37.1	292.4	2.1	27

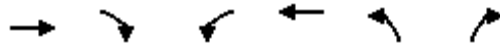
Arterial Level of Service: SB N Ruston Way

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
	31	0.2	7.4	0.1	32
	33	0.1	6.8	0.1	29
	35	0.1	5.8	0.0	29
	34	0.1	6.2	0.1	29
N 49th Street	1	0.7	21.4	0.2	29
Park Access 01	2	1.3	33.5	0.3	30
Commercial 01	3	0.6	11.8	0.1	28
Commercial 02	4	0.7	13.3	0.1	28
Commercial 03	5	0.5	7.3	0.1	28
N 40th Street	6	0.8	17.3	0.1	29
Park 02	7	0.9	15.2	0.1	28
Commercial 04	8	1.5	21.9	0.2	28
Commercial 05	9	0.6	7.9	0.1	28
Commercial 06	10	0.6	5.4	0.0	28
Adler Street	11	0.9	9.4	0.1	27
Commercial 07	12	0.7	9.3	0.1	30
Commercial 08	13	0.3	6.3	0.0	28
Commercial 09	14	0.4	6.2	0.0	28
	82	0.6	16.2	0.1	28
Commercial 10	15	0.8	14.5	0.1	28
N McCarver Street	16	5.0	19.4	0.1	22
Total		17.1	262.4	2.0	28

Appendix 3.7-C: Existing Intersection Level of Service Reports

HCM Signalized Intersection Capacity Analysis
1: 6th Avenue & SR-16 WB Off Ramp

2006 Existing
12/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑↑	
Volume (vph)	538	0	0	793	242	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	0.95			0.95	0.97	
Frt	1.00			1.00	0.98	
Flt Protected	1.00			1.00	0.96	
Satd. Flow (prot)	3505			3539	3394	
Flt Permitted	1.00			1.00	0.96	
Satd. Flow (perm)	3505			3539	3394	
Peak-hour factor, PHF	0.89	0.89	0.96	0.96	0.85	0.85
Adj. Flow (vph)	604	0	0	826	285	44
RTOR Reduction (vph)	0	0	0	0	20	0
Lane Group Flow (vph)	604	0	0	826	309	0
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%
Turn Type						
Protected Phases	4			8	6	
Permitted Phases						
Actuated Green, G (s)	66.7			66.7	13.3	
Effective Green, g (s)	67.7			67.7	14.3	
Actuated g/C Ratio	0.75			0.75	0.16	
Clearance Time (s)	5.0			5.0	5.0	
Vehicle Extension (s)	2.5			2.5	2.5	
Lane Grp Cap (vph)	2637			2662	539	
v/s Ratio Prot	0.17			c0.23	c0.09	
v/s Ratio Perm						
v/c Ratio	0.23			0.31	0.57	
Uniform Delay, d1	3.3			3.6	35.0	
Progression Factor	0.23			1.00	1.00	
Incremental Delay, d2	0.2			0.3	1.2	
Delay (s)	1.0			3.9	36.2	
Level of Service	A			A	D	
Approach Delay (s)	1.0			3.9	36.2	
Approach LOS	A			A	D	

Intersection Summary

HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	36.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

2: 10th Street & N Jackson Avenue

2006 Existing
12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕↔		↕	↕↔	
Volume (vph)	6	12	23	39	1	15	43	610	356	168	580	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			0%			0%				0%
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95		1.00	0.95	
Frt		0.92			1.00	0.85	1.00	0.94		1.00	1.00	
Flt Protected		0.99			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1726			1811	1615	1805	3410		1805	3602	
Flt Permitted		0.99			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1726			1811	1615	1805	3410		1805	3602	
Peak-hour factor, PHF	0.85	0.85	0.85	0.76	0.76	0.76	0.94	0.94	0.94	0.94	0.95	0.95
Adj. Flow (vph)	7	14	27	51	1	20	46	649	379	179	611	9
RTOR Reduction (vph)	0	26	0	0	0	17	0	59	0	0	0	0
Lane Group Flow (vph)	0	22	0	0	52	3	46	969	0	179	620	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Split			Split		custom	Prot			Prot		
Protected Phases	7	7		8	8	8	5	2		1	6	
Permitted Phases						5						
Actuated Green, G (s)		2.5			6.1	10.4	4.3	30.0		16.8	42.5	
Effective Green, g (s)		3.5			7.1	12.4	5.3	31.0		17.8	43.5	
Actuated g/C Ratio		0.05			0.09	0.16	0.07	0.41		0.24	0.58	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)		2.5			2.5	2.5	2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)		80			171	351	127	1402		426	2078	
v/s Ratio Prot		c0.01			c0.03	0.00	0.03	c0.28		c0.10	0.17	
v/s Ratio Perm						0.00						
v/c Ratio		0.28			0.30	0.01	0.36	0.69		0.42	0.30	
Uniform Delay, d1		34.7			31.8	26.4	33.4	18.3		24.4	8.2	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.4			0.7	0.0	1.3	1.4		0.5	0.1	
Delay (s)		36.1			32.6	26.4	34.7	19.6		24.9	8.2	
Level of Service		D			C	C	C	B		C	A	
Approach Delay (s)		36.1			30.9			20.3			12.0	
Approach LOS		D			C			C			B	

Intersection Summary

HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	75.4	Sum of lost time (s)	16.0
Intersection Capacity Utilization	56.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
 3: SR-16 EB Ramp & N Jackson Avenue

2006 Existing
 12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	266	0	507	0	0	0	0	756	133	118	494	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		4%			0%			-5%				0%
Total Lost time (s)	4.0	4.0						4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00						0.95		1.00	0.95	
Frt	1.00	0.85						0.98		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (prot)	1769	1583						3617		1805	3610	
Flt Permitted	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (perm)	1769	1583						3617		1805	3610	
Peak-hour factor, PHF	0.87	0.87	0.87	0.25	0.25	0.25	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	306	0	583	0	0	0	0	840	148	130	543	0
RTOR Reduction (vph)	0	208	0	0	0	0	0	10	0	0	0	0
Lane Group Flow (vph)	306	375	0	0	0	0	0	978	0	130	543	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm						Prot					
Protected Phases		4						6		5	2	
Permitted Phases	4											
Actuated Green, G (s)	28.4	28.4						29.5		11.4	45.9	
Effective Green, g (s)	29.4	29.4						30.5		12.4	46.9	
Actuated g/C Ratio	0.35	0.35						0.36		0.15	0.56	
Clearance Time (s)	5.0	5.0						5.0		5.0	5.0	
Vehicle Extension (s)	1.5	1.5						1.5		1.5	1.5	
Lane Grp Cap (vph)	617	552						1309		266	2008	
v/s Ratio Prot		c0.24						c0.27		c0.07	0.15	
v/s Ratio Perm	0.17											
v/c Ratio	0.50	0.68						0.75		0.49	0.27	
Uniform Delay, d1	21.6	23.4						23.5		33.0	9.8	
Progression Factor	1.00	1.00						1.00		1.00	1.00	
Incremental Delay, d2	0.2	2.6						2.1		0.5	0.0	
Delay (s)	21.8	26.1						25.6		33.6	9.8	
Level of Service	C	C						C		C	A	
Approach Delay (s)		24.6			0.0			25.6			14.4	
Approach LOS		C			A			C			B	

Intersection Summary

HCM Average Control Delay	22.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	84.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

4: N Ruston Way & N McCarver Street

2006 Existing
12/17/2007



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Volume (vph)	193	24	60	651	121	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%			0%	-3%	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.96	
Flt Protected	1.00	1.00	0.95	1.00	0.97	
Satd. Flow (prot)	1900	1615	1805	1900	1770	
Flt Permitted	1.00	1.00	0.63	1.00	0.97	
Satd. Flow (perm)	1900	1615	1190	1900	1770	
Peak-hour factor, PHF	0.92	0.92	0.95	0.95	0.90	0.90
Adj. Flow (vph)	210	26	63	685	134	58
RTOR Reduction (vph)	0	12	0	0	17	0
Lane Group Flow (vph)	210	14	63	685	175	0
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Turn Type		Perm	Perm			
Protected Phases	2			6	4	
Permitted Phases		2	6			
Actuated Green, G (s)	22.6	22.6	22.6	22.6	12.2	
Effective Green, g (s)	23.6	23.6	23.6	23.6	13.2	
Actuated g/C Ratio	0.53	0.53	0.53	0.53	0.29	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	2.5	2.5	2.5	2.5	2.5	
Lane Grp Cap (vph)	1001	851	627	1001	522	
v/s Ratio Prot	0.11			c0.36	c0.10	
v/s Ratio Perm		0.01	0.05			
v/c Ratio	0.21	0.02	0.10	0.68	0.34	
Uniform Delay, d1	5.6	5.1	5.3	7.8	12.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.1	0.0	0.1	1.8	0.3	
Delay (s)	5.7	5.1	5.3	9.6	12.6	
Level of Service	A	A	A	A	B	
Approach Delay (s)	5.6			9.3	12.6	
Approach LOS	A			A	B	

Intersection Summary

HCM Average Control Delay	9.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	44.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
5: N 30th Street & N McCarver Street

2006 Existing
12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	419	36	12	832	10	93	71	35	23	40	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			3%				-2%
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.98			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1770	1840		1787	1878			1751			1807	
Flt Permitted	0.20	1.00		0.43	1.00			0.71			0.89	
Satd. Flow (perm)	371	1840		810	1878			1275			1620	
Peak-hour factor, PHF	0.91	0.91	0.91	0.93	0.93	0.93	0.96	0.96	0.96	0.59	0.59	0.92
Adj. Flow (vph)	46	460	40	13	895	11	97	74	36	39	68	57
RTOR Reduction (vph)	0	2	0	0	0	0	0	9	0	0	24	0
Lane Group Flow (vph)	46	498	0	13	906	0	0	198	0	0	140	0
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	0%	0%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			6			2	
Permitted Phases	4			4			6		2			
Actuated Green, G (s)	52.9	52.9		52.9	52.9			15.9			15.9	
Effective Green, g (s)	53.9	53.9		53.9	53.9			16.9			16.9	
Actuated g/C Ratio	0.68	0.68		0.68	0.68			0.21			0.21	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5			2.5			2.5	
Lane Grp Cap (vph)	254	1259		554	1285			273			347	
v/s Ratio Prot		0.27			c0.48							
v/s Ratio Perm	0.12			0.02				c0.15			0.09	
v/c Ratio	0.18	0.40		0.02	0.70			0.72			0.40	
Uniform Delay, d1	4.5	5.4		4.0	7.6			28.8			26.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	0.3	0.1		0.0	1.7			8.6			0.6	
Delay (s)	4.7	5.5		4.0	9.2			37.4			27.2	
Level of Service	A	A		A	A			D			C	
Approach Delay (s)		5.5			9.2			37.4			27.2	
Approach LOS		A			A			D			C	

Intersection Summary

HCM Average Control Delay	12.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	78.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
6: N Westgate Boulevard & N Pearl Street

2006 Existing
12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↗	↕		↖	↕		↗	↕		↖	↕	
Volume (vph)	115	240	61	225	441	180	79	546	64	125	547	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.96		1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3501		1805	3453		1805	3553		1805	3559	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1805	3501		1805	3453		1805	3553		1805	3559	
Peak-hour factor, PHF	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95	0.89	0.89	0.89
Adj. Flow (vph)	121	253	64	239	469	191	83	575	67	140	615	64
RTOR Reduction (vph)	0	26	0	0	53	0	0	9	0	0	8	0
Lane Group Flow (vph)	121	291	0	239	607	0	83	633	0	140	671	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	10.0	15.6		15.0	20.6		6.7	29.1		10.3	32.7	
Effective Green, g (s)	11.0	16.6		16.0	21.6		7.7	30.1		11.3	33.7	
Actuated g/C Ratio	0.12	0.18		0.18	0.24		0.09	0.33		0.13	0.37	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)	221	646		321	829		154	1188		227	1333	
v/s Ratio Prot	0.07	c0.08		0.13	c0.18		0.05	0.18		c0.08	c0.19	
v/s Ratio Perm												
v/c Ratio	0.55	0.45		0.74	0.73		0.54	0.53		0.62	0.50	
Uniform Delay, d1	37.2	32.6		35.1	31.5		39.4	24.3		37.3	21.7	
Progression Factor	1.00	1.00		1.00	1.00		0.92	0.98		0.99	1.27	
Incremental Delay, d2	2.2	0.4		8.6	3.2		2.2	1.4		4.0	1.3	
Delay (s)	39.3	33.0		43.6	34.7		38.7	25.2		41.0	28.8	
Level of Service	D	C		D	C		D	C		D	C	
Approach Delay (s)		34.8			37.1			26.7			30.8	
Approach LOS		C			D			C			C	

Intersection Summary

HCM Average Control Delay	32.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
7: N 26th Street & N Pearl Street

2006 Existing
12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	121	186	55	126	242	81	135	705	73	73	529	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.96		1.00	0.99		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3487		1805	3475		1805	3559		1805	3486	
Flt Permitted	0.44	1.00		0.52	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	840	3487		984	3475		1805	3559		1805	3486	
Peak-hour factor, PHF	0.88	0.88	0.88	0.96	0.96	0.96	0.96	0.96	0.96	0.92	0.92	0.92
Adj. Flow (vph)	138	211	62	131	252	84	141	734	76	79	575	171
RTOR Reduction (vph)	0	34	0	0	41	0	0	6	0	0	24	0
Lane Group Flow (vph)	138	239	0	131	295	0	141	804	0	79	722	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8								
Actuated Green, G (s)	18.1	18.1		18.1	18.1		11.7	48.0		8.9	45.2	
Effective Green, g (s)	19.1	19.1		19.1	19.1		12.7	49.0		9.9	46.2	
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.14	0.54		0.11	0.51	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)	178	740		209	737		255	1938		199	1789	
v/s Ratio Prot		0.07			0.08		c0.08	c0.23		0.04	0.21	
v/s Ratio Perm	c0.16			0.13								
v/c Ratio	0.78	0.32		0.63	0.40		0.55	0.41		0.40	0.40	
Uniform Delay, d1	33.4	30.0		32.2	30.5		36.0	12.1		37.3	13.4	
Progression Factor	1.00	1.00		1.00	1.00		0.94	1.38		1.18	0.64	
Incremental Delay, d2	18.1	0.2		5.0	0.3		1.8	0.6		0.9	0.7	
Delay (s)	51.5	30.2		37.2	30.8		35.5	17.2		44.8	9.3	
Level of Service	D	C		D	C		D	B		D	A	
Approach Delay (s)		37.3			32.6			19.9			12.7	
Approach LOS		D			C			B			B	

Intersection Summary

HCM Average Control Delay	22.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
8: N 30th Street & N Pearl Street

2006 Existing
12/17/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	269	124	611	159	94	570
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	4%		0%			0%
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1734	1552	3464		1770	3539
Flt Permitted	0.95	1.00	1.00		0.32	1.00
Satd. Flow (perm)	1734	1552	3464		593	3539
Peak-hour factor, PHF	0.96	0.96	0.95	0.95	0.93	0.93
Adj. Flow (vph)	280	129	643	167	101	613
RTOR Reduction (vph)	0	99	17	0	0	0
Lane Group Flow (vph)	280	30	793	0	101	613
Heavy Vehicles (%)	2%	2%	1%	1%	2%	2%
Turn Type		Perm			Perm	
Protected Phases	4		2			2
Permitted Phases		4			2	
Actuated Green, G (s)	19.6	19.6	60.4		60.4	60.4
Effective Green, g (s)	20.6	20.6	61.4		61.4	61.4
Actuated g/C Ratio	0.23	0.23	0.68		0.68	0.68
Clearance Time (s)	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	397	355	2363		405	2414
v/s Ratio Prot	c0.16		c0.23			0.17
v/s Ratio Perm		0.02			0.17	
v/c Ratio	0.71	0.08	0.34		0.25	0.25
Uniform Delay, d1	31.9	27.3	5.9		5.5	5.5
Progression Factor	1.00	1.00	1.10		0.89	0.93
Incremental Delay, d2	5.2	0.1	0.4		1.5	0.3
Delay (s)	37.1	27.4	6.9		6.4	5.4
Level of Service	D	C	A		A	A
Approach Delay (s)	34.0		6.9			5.5
Approach LOS	C		A			A

Intersection Summary

HCM Average Control Delay	12.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
 9: N 46th Street & N Pearl Street

2006 Existing
 12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Volume (vph)	8	56	19	75	91	71	47	276	64	43	284	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	11	10	12	12	10	12	12	10	12	12
Grade (%)		2%			0%			0%				1%
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.96		1.00	0.93		1.00	0.97		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1635	3257		1652	3306		1636	3406		1643	3506	
Flt Permitted	0.63	1.00		0.69	1.00		0.56	1.00		0.54	1.00	
Satd. Flow (perm)	1091	3257		1205	3306		966	3406		927	3506	
Peak-hour factor, PHF	0.80	0.80	0.80	0.87	0.87	0.87	0.94	0.94	0.94	0.93	0.93	0.93
Adj. Flow (vph)	10	70	24	86	105	82	50	294	68	46	305	9
RTOR Reduction (vph)	0	16	0	0	53	0	0	36	0	0	4	0
Lane Group Flow (vph)	10	78	0	86	134	0	50	326	0	46	310	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			6			2	
Permitted Phases	4			4			6			2		
Actuated Green, G (s)	10.1	10.1		10.1	10.1		11.5	11.5		11.5	11.5	
Effective Green, g (s)	11.1	11.1		11.1	11.1		12.5	12.5		12.5	12.5	
Actuated g/C Ratio	0.35	0.35		0.35	0.35		0.40	0.40		0.40	0.40	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)	383	1144		423	1161		382	1347		367	1387	
v/s Ratio Prot		0.02			0.04			c0.10			0.09	
v/s Ratio Perm	0.01			c0.07			0.05			0.05		
v/c Ratio	0.03	0.07		0.20	0.12		0.13	0.24		0.13	0.22	
Uniform Delay, d1	6.7	6.8		7.2	6.9		6.1	6.4		6.1	6.3	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.0		0.2	0.0		0.1	0.1		0.1	0.1	
Delay (s)	6.7	6.8		7.3	7.0		6.2	6.5		6.2	6.4	
Level of Service	A	A		A	A		A	A		A	A	
Approach Delay (s)		6.8			7.1			6.4			6.4	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	6.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.22		
Actuated Cycle Length (s)	31.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	38.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 10: N 51st Street & N Pearl Street

2006 Existing
 12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Volume (vph)	11	32	33	81	67	67	28	129	47	54	136	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-2%			3%			-2%				2%
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.94			1.00	0.85	1.00	0.96		1.00	1.00	
Flt Protected		0.99			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1794			1822	1591	1668	1686		1635	1721	
Flt Permitted		0.95			0.75	1.00	0.60	1.00		0.60	1.00	
Satd. Flow (perm)		1710			1401	1591	1049	1686		1040	1721	
Peak-hour factor, PHF	0.76	0.76	0.76	0.96	0.96	0.96	0.88	0.88	0.88	0.52	0.52	0.52
Adj. Flow (vph)	14	42	43	84	70	70	32	147	53	104	262	0
RTOR Reduction (vph)	0	36	0	0	0	58	0	11	0	0	0	0
Lane Group Flow (vph)	0	63	0	0	154	12	32	189	0	104	262	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Turn Type	Perm			Perm		Perm	Perm			pm+pt		
Protected Phases		4			4			6		5	2	
Permitted Phases	4			4		4	6			2		
Actuated Green, G (s)		14.3			14.3	14.3	40.7	40.7		65.7	65.7	
Effective Green, g (s)		15.3			15.3	15.3	41.7	41.7		66.7	66.7	
Actuated g/C Ratio		0.17			0.17	0.17	0.46	0.46		0.74	0.74	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)		2.5			2.5	2.5	2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)		291			238	270	486	781		910	1275	
v/s Ratio Prot								c0.11		0.03	c0.15	
v/s Ratio Perm		0.04			c0.11	0.01	0.03			0.06		
v/c Ratio		0.22			0.65	0.04	0.07	0.24		0.11	0.21	
Uniform Delay, d1		32.2			34.8	31.2	13.4	14.6		3.9	3.6	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.3			5.3	0.0	0.3	0.7		0.0	0.4	
Delay (s)		32.5			40.1	31.3	13.6	15.3		4.0	3.9	
Level of Service		C			D	C	B	B		A	A	
Approach Delay (s)		32.5			37.3			15.1			3.9	
Approach LOS		C			D			B			A	

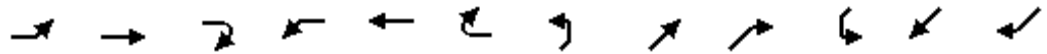
Intersection Summary

HCM Average Control Delay	17.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	41.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 11: N 17th Street & N Narrows Drive

2006 Existing
 12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕		↕	↕			↕		↕	↕	
Volume (vph)	0	0	0	344	0	14	0	439	208	15	442	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor				1.00	1.00			1.00		1.00	1.00	
Frt				1.00	0.85			0.96		1.00	1.00	
Flt Protected				0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)				1787	1599			1818		1805	1900	
Flt Permitted				0.95	1.00			1.00		0.19	1.00	
Satd. Flow (perm)				1787	1599			1818		365	1900	
Peak-hour factor, PHF	0.25	0.25	0.25	0.87	0.87	0.87	0.95	0.95	0.95	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	395	0	16	0	462	219	17	497	0
RTOR Reduction (vph)	0	0	0	0	10	0	0	17	0	0	0	0
Lane Group Flow (vph)	0	0	0	395	6	0	0	664	0	17	497	0
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Turn Type	Perm			Perm						Perm		
Protected Phases		7			8			6			2	
Permitted Phases	7			8						2		
Actuated Green, G (s)				23.6	23.6			29.1		29.1	29.1	
Effective Green, g (s)				24.6	24.6			30.1		30.1	30.1	
Actuated g/C Ratio				0.39	0.39			0.48		0.48	0.48	
Clearance Time (s)				5.0	5.0			5.0		5.0	5.0	
Vehicle Extension (s)				2.5	2.5			2.5		2.5	2.5	
Lane Grp Cap (vph)				701	627			873		175	912	
v/s Ratio Prot					0.00			c0.37			0.26	
v/s Ratio Perm				c0.22						0.05		
v/c Ratio				0.56	0.01			0.76		0.10	0.54	
Uniform Delay, d1				14.9	11.6			13.3		8.9	11.5	
Progression Factor				1.00	1.00			1.00		1.00	1.00	
Incremental Delay, d2				0.8	0.0			3.8		0.2	0.5	
Delay (s)				15.7	11.6			17.1		9.1	12.0	
Level of Service				B	B			B		A	B	
Approach Delay (s)		0.0			15.5			17.1			11.9	
Approach LOS		A			B			B			B	

Intersection Summary

HCM Average Control Delay	15.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	62.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 12: I-705 Off-Ramp & Stadium Way

2006 Existing
 12/17/2007



















Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	68	922	221	49	781	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	2%		2%			-4%
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1567	1764		1841	1938
Flt Permitted	0.95	1.00	1.00		0.57	1.00
Satd. Flow (perm)	1752	1567	1764		1100	1938
Peak-hour factor, PHF	0.95	0.95	0.85	0.85	0.91	0.91
Adj. Flow (vph)	72	971	260	58	858	122
RTOR Reduction (vph)	0	399	9	0	0	0
Lane Group Flow (vph)	72	572	309	0	858	122
Heavy Vehicles (%)	2%	2%	4%	4%	0%	0%
Turn Type		pm+ov			custom	
Protected Phases	3	5	6		5	2
Permitted Phases		3			4	
Actuated Green, G (s)	4.6	28.9	16.9		34.4	46.2
Effective Green, g (s)	5.6	30.9	17.9		36.4	47.2
Actuated g/C Ratio	0.07	0.41	0.24		0.48	0.62
Clearance Time (s)	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	129	638	416		775	1205
v/s Ratio Prot	0.04	c0.30	c0.18		c0.37	0.06
v/s Ratio Perm		0.07			c0.16	
v/c Ratio	0.56	0.90	0.74		1.11	0.10
Uniform Delay, d1	34.0	21.0	26.9		18.0	5.8
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	4.1	15.2	6.7		65.8	0.0
Delay (s)	38.1	36.2	33.5		83.8	5.8
Level of Service	D	D	C		F	A
Approach Delay (s)	36.3		33.5			74.1
Approach LOS	D		C			E

Intersection Summary			
HCM Average Control Delay		51.7	HCM Level of Service D
HCM Volume to Capacity ratio		0.98	
Actuated Cycle Length (s)		75.9	Sum of lost time (s) 16.0
Intersection Capacity Utilization		78.4%	ICU Level of Service D
Analysis Period (min)		15	
c Critical Lane Group			

HCM Unsignalized Intersection Capacity Analysis
 14: N 30th Street & N Orchard Street

2006 Existing
 12/17/2007

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	88	250	29	53	402	45	38	203	27	35	190	62
Peak Hour Factor	0.93	0.93	0.93	0.97	0.97	0.97	0.87	0.87	0.87	0.94	0.94	0.94
Hourly flow rate (vph)	95	269	31	55	414	46	44	233	31	37	202	66
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	395	515	308	305								
Volume Left (vph)	95	55	44	37								
Volume Right (vph)	31	46	31	66								
Hadj (s)	0.02	-0.02	-0.02	-0.09								
Departure Headway (s)	8.2	8.2	8.6	8.6								
Degree Utilization, x	0.90	1.17	0.74	0.73								
Capacity (veh/h)	395	436	390	397								
Control Delay (s)	51.5	125.4	32.4	31.4								
Approach Delay (s)	51.5	125.4	32.4	31.4								
Approach LOS	F	F	D	D								
Intersection Summary												
Delay			68.6									
HCM Level of Service			F									
Intersection Capacity Utilization			63.6%		ICU Level of Service	B						
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis
15: 6th Avenue & N Pearl Street

2006 Existing
12/17/2007






















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗		↕	↗	↘	↑↑	↗
Volume (vph)	197	425	172	160	604	286	107	308	57	68	345	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			0%				0%
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.99	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1796	3592	1607	1770	3539	1583		3494	1583	1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00		0.99	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1796	3592	1607	1770	3539	1583		3494	1583	1752	3505	1568
Peak-hour factor, PHF	0.98	0.98	0.98	0.88	0.88	0.88	0.89	0.89	0.89	0.80	0.80	0.80
Adj. Flow (vph)	201	434	176	182	686	325	120	346	64	85	431	182
RTOR Reduction (vph)	0	0	125	0	0	222	0	0	52	0	0	147
Lane Group Flow (vph)	201	434	51	182	686	103	0	466	12	85	431	35
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	3%	3%
Turn Type	Prot		Perm	Prot		Perm	Split		Perm	Split		Perm
Protected Phases	7	4		3	8		1	1		2	2	
Permitted Phases			4			8			1			2
Actuated Green, G (s)	10.0	24.9	24.9	12.5	27.4	27.4		16.5	16.5	16.1	16.1	16.1
Effective Green, g (s)	11.0	25.9	25.9	13.5	28.4	28.4		17.5	17.5	17.1	17.1	17.1
Actuated g/C Ratio	0.12	0.29	0.29	0.15	0.32	0.32		0.19	0.19	0.19	0.19	0.19
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5	2.5	2.5
Lane Grp Cap (vph)	220	1034	462	266	1117	500		679	308	333	666	298
v/s Ratio Prot	c0.11	0.12		c0.10	c0.19			c0.13		0.05	c0.12	
v/s Ratio Perm			0.03			0.06			0.01			0.02
v/c Ratio	0.91	0.42	0.11	0.68	0.61	0.21		0.69	0.04	0.26	0.65	0.12
Uniform Delay, d1	39.0	26.0	23.6	36.2	26.1	22.5		33.7	29.4	31.0	33.7	30.2
Progression Factor	1.00	1.00	1.00	1.12	1.09	2.02		1.00	1.00	0.66	0.71	1.29
Incremental Delay, d2	37.6	1.3	0.5	6.4	2.5	0.9		2.6	0.0	0.3	1.7	0.1
Delay (s)	76.7	27.2	24.0	46.8	31.0	46.4		36.3	29.5	20.7	25.6	38.9
Level of Service	E	C	C	D	C	D		D	C	C	C	D
Approach Delay (s)		38.8			37.6			35.5			28.5	
Approach LOS		D			D			D			C	

Intersection Summary

HCM Average Control Delay	35.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	62.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			






















HCM Unsignalized Intersection Capacity Analysis
 16: N Narrows Drive & N 26th Street

2006 Existing
 12/17/2007

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	175	276	2	33	325	107	0	1	23	70	3	195
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.89	0.89	0.89	0.75	0.75	0.75	0.89	0.89	0.89
Hourly flow rate (vph)	186	294	2	37	365	120	0	1	31	79	3	219
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												12
Median type		None			TWLTL							
Median storage (veh)					2							
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	485			296			1218	1227	295	1197	1168	425
vC1, stage 1 conf vol							667	667		499	499	
vC2, stage 2 conf vol							551	560		697	668	
vCu, unblocked vol	485			296			1218	1227	295	1197	1168	425
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	83			97			100	100	96	72	99	65
cM capacity (veh/h)	1088			1277			137	268	749	278	307	629
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	186	296	37	485	32	301						
Volume Left	186	0	37	0	0	79						
Volume Right	0	2	0	120	31	219						
cSH	1088	1700	1277	1700	697	864						
Volume to Capacity	0.17	0.17	0.03	0.29	0.05	0.35						
Queue Length 95th (ft)	15	0	2	0	4	39						
Control Delay (s)	9.0	0.0	7.9	0.0	10.4	16.3						
Lane LOS	A		A		B	C						
Approach Delay (s)	3.5		0.6		10.4	16.3						
Approach LOS					B	C						
Intersection Summary												
Average Delay			5.4									
Intersection Capacity Utilization			54.0%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 17: N 37th Street & N Narrows Drive

2006 Existing
 12/17/2007

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	16	10	37	21	77	12	147	34	59	164	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.84	0.84	0.84	0.88	0.88	0.88	0.85	0.85	0.85
Hourly flow rate (vph)	3	18	11	44	25	92	14	167	39	69	193	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					1111							
pX, platoon unblocked												
vC, conflicting volume	117			29			247	234	23	305	194	71
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	117			29			247	234	23	305	194	71
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			97			97	74	96	86	72	99
cM capacity (veh/h)	1484			1598			537	648	1057	490	682	994
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	3	29	44	117	14	206	69	201				
Volume Left	3	0	44	0	14	0	69	0				
Volume Right	0	11	0	92	0	39	0	8				
cSH	1484	1700	1598	1700	537	699	490	691				
Volume to Capacity	0.00	0.02	0.03	0.07	0.03	0.29	0.14	0.29				
Queue Length 95th (ft)	0	0	2	0	2	31	12	30				
Control Delay (s)	7.4	0.0	7.3	0.0	11.9	12.3	13.6	12.3				
Lane LOS	A		A		B	B	B	B				
Approach Delay (s)	0.8		2.0		12.3		12.6					
Approach LOS					B		B					
Intersection Summary												
Average Delay			9.5									
Intersection Capacity Utilization			31.9%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis
 18: N 37th Street & N Pearl Street

2006 Existing
 12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	17	102	52	29	5	214	450	74	23	417	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.87		1.00	0.98		1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	1639		1787	1839		1787	3498		1787	3526	
Flt Permitted	0.72	1.00		0.53	1.00		0.43	1.00		0.46	1.00	
Satd. Flow (perm)	1359	1639		1002	1839		813	3498		856	3526	
Peak-hour factor, PHF	0.89	0.89	0.89	0.65	0.65	0.65	0.99	0.99	0.99	0.93	0.93	0.93
Adj. Flow (vph)	26	19	115	80	45	8	216	455	75	25	448	44
RTOR Reduction (vph)	0	101	0	0	7	0	0	8	0	0	4	0
Lane Group Flow (vph)	26	33	0	80	46	0	216	522	0	25	488	0
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm		Perm		pm+pt		Perm					
Protected Phases	4		8		5		2		6			
Permitted Phases	4		8		2		6					
Actuated Green, G (s)	11.3	11.3		11.3	11.3		70.7	70.7		58.3	58.3	
Effective Green, g (s)	11.3	11.3		11.3	11.3		70.7	70.7		58.3	58.3	
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.79	0.79		0.65	0.65	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	171	206		126	231		730	2748		554	2284	
v/s Ratio Prot		0.02			0.03		c0.03	0.15			0.14	
v/s Ratio Perm	0.02			c0.08			c0.21			0.03		
v/c Ratio	0.15	0.16		0.63	0.20		0.30	0.19		0.05	0.21	
Uniform Delay, d1	35.1	35.1		37.4	35.3		2.6	2.4		5.8	6.5	
Progression Factor	1.00	1.00		1.00	1.00		1.51	1.42		1.00	1.00	
Incremental Delay, d2	0.4	0.4		10.0	0.4		0.2	0.1		0.2	0.2	
Delay (s)	35.5	35.5		47.4	35.7		4.1	3.6		5.9	6.7	
Level of Service	D	D		D	D		A	A		A	A	
Approach Delay (s)		35.5			42.8			3.7			6.7	
Approach LOS		D			D			A			A	

Intersection Summary

HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.34		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 19: N 46th Street & N Vassault Street

2006 Existing
 12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	2	15	6	43	17	39	15	117	30	18	138	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.72	0.72	0.72	0.73	0.73	0.73	0.86	0.86	0.86	0.85	0.85	0.85
Hourly flow rate (vph)	3	21	8	59	23	53	17	136	35	21	162	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	459	411	163	412	394	153	164			171		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	459	411	163	412	394	153	164			171		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	96	99	89	96	94	99			98		
cM capacity (veh/h)	459	519	887	516	526	890	1427			1400		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	32	136	188	185
Volume Left	3	59	17	21
Volume Right	8	53	35	1
cSH	575	621	1427	1400
Volume to Capacity	0.06	0.22	0.01	0.02
Queue Length 95th (ft)	4	21	1	1
Control Delay (s)	11.6	12.4	0.8	1.0
Lane LOS	B	B	A	A
Approach Delay (s)	11.6	12.4	0.8	1.0
Approach LOS	B	B		

Intersection Summary			
Average Delay		4.4	
Intersection Capacity Utilization	30.7%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 20: N 51st Street & N Park Way

2006 Existing
 12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘		↗	↘	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	16	41	35	31	10	35	42	21	15	44	4
Peak Hour Factor	0.87	0.87	0.87	0.91	0.91	0.91	0.82	0.82	0.82	0.69	0.69	0.69
Hourly flow rate (vph)	2	18	47	38	34	11	43	51	26	22	64	6

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total (vph)	68	84	43	77	22	70
Volume Left (vph)	2	38	43	0	22	0
Volume Right (vph)	47	11	0	26	0	6
Hadj (s)	-0.41	0.01	0.53	-0.20	0.64	0.08
Departure Headway (s)	4.1	4.5	5.5	4.7	5.6	5.0
Degree Utilization, x	0.08	0.10	0.06	0.10	0.03	0.10
Capacity (veh/h)	831	754	634	730	615	686
Control Delay (s)	7.4	8.0	7.7	7.1	7.6	7.4
Approach Delay (s)	7.4	8.0	7.3		7.4	
Approach LOS	A	A	A		A	

Intersection Summary		
Delay		7.5
HCM Level of Service		A
Intersection Capacity Utilization	26.1%	ICU Level of Service A
Analysis Period (min)		15

HCM Unsignalized Intersection Capacity Analysis
 21: N Pearl Street & N Park Way

2006 Existing
 12/17/2007



Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (veh/h)	10	197	91	21	26	8
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.50	0.50	0.88	0.88	0.71	0.71
Hourly flow rate (vph)	20	394	103	24	37	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (ft)		854				
pX, platoon unblocked						
vC, conflicting volume	127				352	64
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	127				352	64
tC, single (s)	4.1				6.9	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.4
p0 queue free %	99				94	99
cM capacity (veh/h)	1457				600	975

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1
Volume Total	151	263	69	58	48
Volume Left	20	0	0	0	37
Volume Right	0	0	0	24	11
cSH	1457	1700	1700	1700	660
Volume to Capacity	0.01	0.15	0.04	0.03	0.07
Queue Length 95th (ft)	1	0	0	0	6
Control Delay (s)	1.1	0.0	0.0	0.0	10.9
Lane LOS	A				B
Approach Delay (s)	0.4		0.0		10.9
Approach LOS					B

Intersection Summary					
Average Delay			1.2		
Intersection Capacity Utilization			19.1%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis
 22: N 51st Street & N Bennett Street

2006 Existing
 12/17/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↶		↶	
Volume (veh/h)	1	117	246	3	1	1
Sign Control		Free	Free		Stop	
Grade		0%	6%		0%	
Peak Hour Factor	0.59	0.59	0.76	0.76	0.50	0.50
Hourly flow rate (vph)	2	198	324	4	2	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	328				527	326
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	328				527	326
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1243				514	720

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	200	328	4
Volume Left	2	0	2
Volume Right	0	4	2
cSH	1243	1700	600
Volume to Capacity	0.00	0.19	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.1	0.0	11.0
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	11.0
Approach LOS			B

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		23.1%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis
 23: N 49th Street & N Ruston Way

2006 Existing
 12/17/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	73	223	271	110	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.93	0.93	0.57	0.57
Hourly flow rate (vph)	3	85	240	291	193	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	965	194	195			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	965	194	195			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	90	83			
cM capacity (veh/h)	236	853	1390			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	88	240	291	195
Volume Left	3	240	0	0
Volume Right	85	0	0	2
cSH	773	1390	1700	1700
Volume to Capacity	0.11	0.17	0.17	0.11
Queue Length 95th (ft)	10	16	0	0
Control Delay (s)	10.3	8.1	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	10.3	3.7		0.0
Approach LOS	B			

Intersection Summary			
Average Delay		3.5	
Intersection Capacity Utilization		30.4%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 24: N 46th Street & N Baltimore Street

2006 Existing
 12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	17	163	1	10	286	31	1	5	0	19	5	10
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			-3%			1%	
Peak Hour Factor	0.92	0.92	0.92	0.81	0.81	0.81	0.50	0.50	0.50	0.71	0.71	0.71
Hourly flow rate (vph)	18	177	1	12	353	38	2	10	0	27	7	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	391			178			629	631	178	617	612	372
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	391			178			629	631	178	617	612	372
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			99	97	100	93	98	98
cM capacity (veh/h)	1173			1404			377	391	871	384	395	669

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	197	404	12	48
Volume Left	18	12	2	27
Volume Right	1	38	0	14
cSH	1173	1404	389	441
Volume to Capacity	0.02	0.01	0.03	0.11
Queue Length 95th (ft)	1	1	2	9
Control Delay (s)	0.9	0.3	14.5	14.1
Lane LOS	A	A	B	B
Approach Delay (s)	0.9	0.3	14.5	14.1
Approach LOS			B	B

Intersection Summary			
Average Delay		1.7	
Intersection Capacity Utilization	30.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 25: N 46th Street & N Orchard Street

2006 Existing
 12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	6	151	13	40	281	14	17	23	15	5	14	9
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			-3%			1%	
Peak Hour Factor	0.83	0.83	0.83	0.94	0.94	0.94	0.86	0.86	0.86	0.70	0.70	0.70
Hourly flow rate (vph)	7	182	16	43	299	15	20	27	17	7	20	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	314			198			619	603	190	627	604	306
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	314			198			619	603	190	627	604	306
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			97			95	93	98	98	95	98
cM capacity (veh/h)	1258			1387			369	398	852	361	400	738

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	205	356	64	40
Volume Left	7	43	20	7
Volume Right	16	15	17	13
cSH	1258	1387	453	459
Volume to Capacity	0.01	0.03	0.14	0.09
Queue Length 95th (ft)	0	2	12	7
Control Delay (s)	0.3	1.2	14.2	13.6
Lane LOS	A	A	B	B
Approach Delay (s)	0.3	1.2	14.2	13.6
Approach LOS			B	B

Intersection Summary			
Average Delay		2.9	
Intersection Capacity Utilization	42.1%		ICU Level of Service A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 26: N 46th Street & N Ferdinand Street

2006 Existing
 12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	60	101	4	4	158	11	2	8	3	20	37	174
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			-3%			1%	
Peak Hour Factor	0.92	0.92	0.92	0.83	0.83	0.83	0.65	0.65	0.65	0.88	0.88	0.88
Hourly flow rate (vph)	65	110	4	5	190	13	3	12	5	23	42	198
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	204			114			668	456	112	460	451	197
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	204			114			668	456	112	460	451	197
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	95			100			99	97	100	95	91	77
cM capacity (veh/h)	1380			1488			258	479	947	483	481	849

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	179	208	20	262
Volume Left	65	5	3	23
Volume Right	4	13	5	198
cSH	1380	1488	471	715
Volume to Capacity	0.05	0.00	0.04	0.37
Queue Length 95th (ft)	4	0	3	42
Control Delay (s)	3.1	0.2	13.0	12.9
Lane LOS	A	A	B	B
Approach Delay (s)	3.1	0.2	13.0	12.9
Approach LOS			B	B

Intersection Summary			
Average Delay		6.3	
Intersection Capacity Utilization	44.2%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 27: N 40th Street & N Ruston Way

2006 Existing
 12/17/2007



Movement	EBL	EBR	NBL2	NBL	SER	SER2
Lane Configurations						
Volume (veh/h)	0	6	10	549	193	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.75	0.75	0.94	0.94	0.74	0.74
Hourly flow rate (vph)	0	8	11	584	261	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				Raised	None	
Median storage veh				1		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	867	261	262			
vC1, stage 1 conf vol	261					
vC2, stage 2 conf vol	605					
vCu, unblocked vol	867	261	262			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)	5.4					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	99			
cM capacity (veh/h)	432	782	1314			

Direction, Lane #	EB 1	NB 1	NB 2	SE 1
Volume Total	8	11	584	262
Volume Left	0	11	0	0
Volume Right	8	0	0	1
cSH	782	1314	1700	1700
Volume to Capacity	0.01	0.01	0.34	0.15
Queue Length 95th (ft)	1	1	0	0
Control Delay (s)	9.7	7.8	0.0	0.0
Lane LOS	A	A		
Approach Delay (s)	9.7	0.1		0.0
Approach LOS	A			

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		40.4%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 28: N Ruston Way & N Adler Street

2006 Existing
 12/17/2007



Movement	WBL	WBR	SEL	SER	NEL	NER
Lane Configurations						
Volume (veh/h)	177	582	190	17	11	68
Sign Control	Free		Free		Stop	
Grade	0%		0%		0%	
Peak Hour Factor	0.86	0.86	0.90	0.90	0.66	0.66
Hourly flow rate (vph)	206	677	211	19	17	103
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL		Raised			
Median storage veh	2		1			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	230				1309	221
vC1, stage 1 conf vol					221	
vC2, stage 2 conf vol					1088	
vCu, unblocked vol	230				1309	221
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	85				94	87
cM capacity (veh/h)	1350				265	822

Direction, Lane #	WB 1	WB 2	SE 1	NE 1
Volume Total	206	677	230	120
Volume Left	206	0	0	17
Volume Right	0	0	19	103
cSH	1350	1700	1700	636
Volume to Capacity	0.15	0.40	0.14	0.19
Queue Length 95th (ft)	13	0	0	17
Control Delay (s)	8.1	0.0	0.0	12.0
Lane LOS	A			B
Approach Delay (s)	1.9		0.0	12.0
Approach LOS				B

Intersection Summary			
Average Delay		2.5	
Intersection Capacity Utilization		39.4%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 29: N 49th Street & N Pearl Street

2006 Existing
 12/17/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	12	5	236	9	2	253
Sign Control	Stop		Free			Free
Grade	0%		-2%			1%
Peak Hour Factor	0.71	0.71	0.84	0.84	0.73	0.73
Hourly flow rate (vph)	17	7	281	11	3	347
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			1174			951
pX, platoon unblocked						
vC, conflicting volume	638	286			292	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	638	286			292	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	99			100	
cM capacity (veh/h)	443	758			1270	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	24	292	349
Volume Left	17	0	3
Volume Right	7	11	0
cSH	504	1700	1270
Volume to Capacity	0.05	0.17	0.00
Queue Length 95th (ft)	4	0	0
Control Delay (s)	12.5	0.0	0.1
Lane LOS	B		A
Approach Delay (s)	12.5	0.0	0.1
Approach LOS	B		

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization	24.9%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 30: N 51st Street & N Winnifred Street

2006 Existing
 12/17/2007



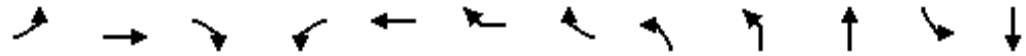
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	6	123	5	16	206	9	7	5	6	5	7	10
Peak Hour Factor	0.86	0.86	0.86	0.83	0.83	0.83	0.56	0.56	0.56	0.92	0.92	0.92
Hourly flow rate (vph)	7	143	6	19	248	11	12	9	11	5	8	11

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	156	278	32	24
Volume Left (vph)	7	19	13	5
Volume Right (vph)	6	11	11	11
Hadj (s)	-0.01	-0.01	-0.12	-0.23
Departure Headway (s)	4.3	4.2	4.8	4.7
Degree Utilization, x	0.19	0.32	0.04	0.03
Capacity (veh/h)	813	834	687	693
Control Delay (s)	8.3	9.2	8.0	7.8
Approach Delay (s)	8.3	9.2	8.0	7.8
Approach LOS	A	A	A	A

Intersection Summary			
Delay		8.8	
HCM Level of Service		A	
Intersection Capacity Utilization	27.3%		ICU Level of Service A
Analysis Period (min)		15	

Lanes, Volumes, Timings
13: N Park St. & N Narrows Dr.

2006 Existing
12/17/2007



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	SBL	SBT
Lane Configurations												
Volume (vph)	1	0	1	2	2	1	2	5	43	149	2	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	25		0	0		25			25		0	
Storage Lanes	1		0	0		1			1		0	
Taper Length (ft)	25		25	25		25			25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850				0.850						
Flt Protected	0.950				0.976				0.950			0.986
Satd. Flow (prot)	1770	1583	0	0	1818	1583	0	0	1770	1863	0	1837
Flt Permitted	0.950				0.976				0.950			0.986
Satd. Flow (perm)	1770	1583	0	0	1818	1583	0	0	1770	1863	0	1837
Link Speed (mph)		30			30				30			30
Link Distance (ft)		1212			1636				910			821
Travel Time (s)		27.5			37.2				20.7			18.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	0	1	2	2	1	2	5	47	162	2	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	1	0	0	4	3	0	0	52	162	0	7
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Right	Left	Left	Left	Left	Left
Median Width(ft)		12			12				12			12
Link Offset(ft)		0			0				0			0
Crosswalk Width(ft)		16			16				16			16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	9	15	15		15	
Sign Control		Stop			Stop					Stop		Stop

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	33.5%
Analysis Period (min)	15
	ICU Level of Service A

Lanes, Volumes, Timings
 13: N Park St. & N Narrows Dr.

2006 Existing
 12/17/2007



Lane Group	SBR	SBR2	SEL	SER
Lane Configurations				
Volume (vph)	90	1	108	1
Ideal Flow (vphpl)	1900	1900	1900	1900
Storage Length (ft)	25		25	0
Storage Lanes	1		1	0
Taper Length (ft)	25		25	25
Lane Util. Factor	1.00	1.00	1.00	1.00
Flt	0.850			0.850
Flt Protected			0.950	
Satd. Flow (prot)	1583	0	1770	1583
Flt Permitted			0.950	
Satd. Flow (perm)	1583	0	1770	1583
Link Speed (mph)			30	
Link Distance (ft)			825	
Travel Time (s)			18.8	
Peak Hour Factor	0.92	0.92	0.92	0.92
Adj. Flow (vph)	98	1	117	1
Shared Lane Traffic (%)				
Lane Group Flow (vph)	99	0	117	1
Enter Blocked Intersection	No	No	No	No
Lane Alignment	Right	Right	Left	Right
Median Width(ft)			12	
Link Offset(ft)			0	
Crosswalk Width(ft)			16	
Two way Left Turn Lane				
Headway Factor	1.00	1.00	1.00	1.00
Turning Speed (mph)	9	9	15	9
Sign Control			Stop	
Intersection Summary				

HCM Signalized Intersection Capacity Analysis
 1: N 51st Street & N Pearl Street

2006 Existing
 12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Volume (vph)	36	52	62	123	102	102	65	301	76	88	257	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-2%			3%			-2%			2%	
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.94			1.00	0.85	1.00	0.97		1.00	1.00	
Flt Protected		0.99			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1790			1822	1591	1668	1703		1635	1721	
Flt Permitted		0.79			0.64	1.00	0.41	1.00		0.43	1.00	
Satd. Flow (perm)		1433			1191	1591	720	1703		732	1721	
Peak-hour factor, PHF	0.76	0.76	0.76	0.96	0.96	0.96	0.88	0.88	0.88	0.52	0.52	0.52
Adj. Flow (vph)	47	68	82	128	106	106	74	342	86	169	494	0
RTOR Reduction (vph)	0	33	0	0	0	63	0	8	0	0	0	0
Lane Group Flow (vph)	0	164	0	0	234	43	74	420	0	169	494	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Turn Type	Perm			Perm		Perm	Perm			pm+pt		
Protected Phases		4			4			6		5	2	
Permitted Phases	4			4		4	6			2		
Actuated Green, G (s)		20.8			20.8	20.8	47.4	47.4		59.2	59.2	
Effective Green, g (s)		21.8			21.8	21.8	48.4	48.4		60.2	60.2	
Actuated g/C Ratio		0.24			0.24	0.24	0.54	0.54		0.67	0.67	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)		2.5			2.5	2.5	2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)		347			288	385	387	916		568	1151	
v/s Ratio Prot								c0.25		0.03	c0.29	
v/s Ratio Perm		0.11			c0.20	0.03	0.10			0.17		
v/c Ratio		0.47			0.81	0.11	0.19	0.46		0.30	0.43	
Uniform Delay, d1		29.2			32.2	26.6	10.7	12.8		10.3	6.9	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.7			15.5	0.1	1.1	1.7		0.2	1.2	
Delay (s)		29.9			47.7	26.7	11.8	14.4		10.5	8.1	
Level of Service		C			D	C	B	B		B	A	
Approach Delay (s)		29.9			41.1			14.0			8.7	
Approach LOS		C			D			B			A	

Intersection Summary

HCM Average Control Delay	19.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 2: N 51st Street & N Winnifred Street

2006 Existing
 12/17/2007



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	198	8	11	302	60	10	8	9	8	11	15
Peak Hour Factor	0.86	0.86	0.86	0.83	0.83	0.83	0.56	0.56	0.56	0.92	0.92	0.92
Hourly flow rate (vph)	12	230	9	13	364	72	18	14	16	9	12	16

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	251	449	48	37
Volume Left (vph)	12	13	18	9
Volume Right (vph)	9	72	16	16
Hadj (s)	-0.01	-0.09	-0.13	-0.22
Departure Headway (s)	4.6	4.3	5.4	5.3
Degree Utilization, x	0.32	0.54	0.07	0.05
Capacity (veh/h)	756	809	575	583
Control Delay (s)	9.8	12.3	8.8	8.6
Approach Delay (s)	9.8	12.3	8.8	8.6
Approach LOS	A	B	A	A

Intersection Summary			
Delay		11.1	
HCM Level of Service		B	
Intersection Capacity Utilization	33.4%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

3: N 51st Street & N Bennett Street

2006 Existing
12/17/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	2	151	318	4	2	1
Sign Control		Free	Free		Stop	
Grade		0%	6%		0%	
Peak Hour Factor	0.59	0.59	0.76	0.76	0.50	0.50
Hourly flow rate (vph)	3	256	418	5	4	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	424				684	421
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	424				684	421
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1146				416	637

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	259	424	6
Volume Left	3	0	4
Volume Right	0	5	2
cSH	1146	1700	471
Volume to Capacity	0.00	0.25	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.1	0.0	12.7
Lane LOS	A		B
Approach Delay (s)	0.1	0.0	12.7
Approach LOS			B

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		27.0%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis

5: N Ruston Way & Park Access

2006 Existing
12/17/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (veh/h)	0	150	343	0	0	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	163	373	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	373				536	373
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	373				536	373
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1186				506	673
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	163	373	0			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1186	1700	1700			
Volume to Capacity	0.00	0.22	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS			A			
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			21.4%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 8: N 49th Street & N Ruston Way

2006 Existing
 12/17/2007



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	8	102	252	350	142	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.93	0.93	0.57	0.57
Hourly flow rate (vph)	9	119	271	376	249	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1170	252	254			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1170	252	254			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	85	80			
cM capacity (veh/h)	171	792	1322			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	128	271	376	254
Volume Left	9	271	0	0
Volume Right	119	0	0	5
cSH	626	1322	1700	1700
Volume to Capacity	0.20	0.20	0.22	0.15
Queue Length 95th (ft)	19	19	0	0
Control Delay (s)	12.2	8.4	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	12.2	3.5		0.0
Approach LOS	B			

Intersection Summary			
Average Delay		3.7	
Intersection Capacity Utilization		38.4%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 13: N 49th Street & N Pearl Street

2006 Existing
 12/17/2007



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	12	9	434	9	3	439
Sign Control	Stop		Free			Free
Grade	0%		-2%			1%
Peak Hour Factor	0.71	0.71	0.84	0.84	0.73	0.73
Hourly flow rate (vph)	17	13	517	11	4	601
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						951
pX, platoon unblocked	0.95					
vC, conflicting volume	1132	522			527	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1112	522			527	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	98			100	
cM capacity (veh/h)	220	559			1040	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	30	527	605
Volume Left	17	0	4
Volume Right	13	11	0
cSH	298	1700	1040
Volume to Capacity	0.10	0.31	0.00
Queue Length 95th (ft)	8	0	0
Control Delay (s)	18.4	0.0	0.1
Lane LOS	C		A
Approach Delay (s)	18.4	0.0	0.1
Approach LOS	C		

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		35.5%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis
 14: N 49th Street & N Winnifred Street

2006 Existing
 12/17/2007



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Volume (veh/h)	5	214	12	17	71	5
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.63	0.75	0.75	0.61	0.83	0.63
Hourly flow rate (vph)	8	285	16	28	86	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	44				331	30
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	44				331	30
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				87	99
cM capacity (veh/h)	1578				664	1050

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	293	44	93
Volume Left	8	0	86
Volume Right	0	28	8
cSH	1578	1700	686
Volume to Capacity	0.01	0.03	0.14
Queue Length 95th (ft)	0	0	12
Control Delay (s)	0.2	0.0	11.1
Lane LOS	A		B
Approach Delay (s)	0.2	0.0	11.1
Approach LOS			B

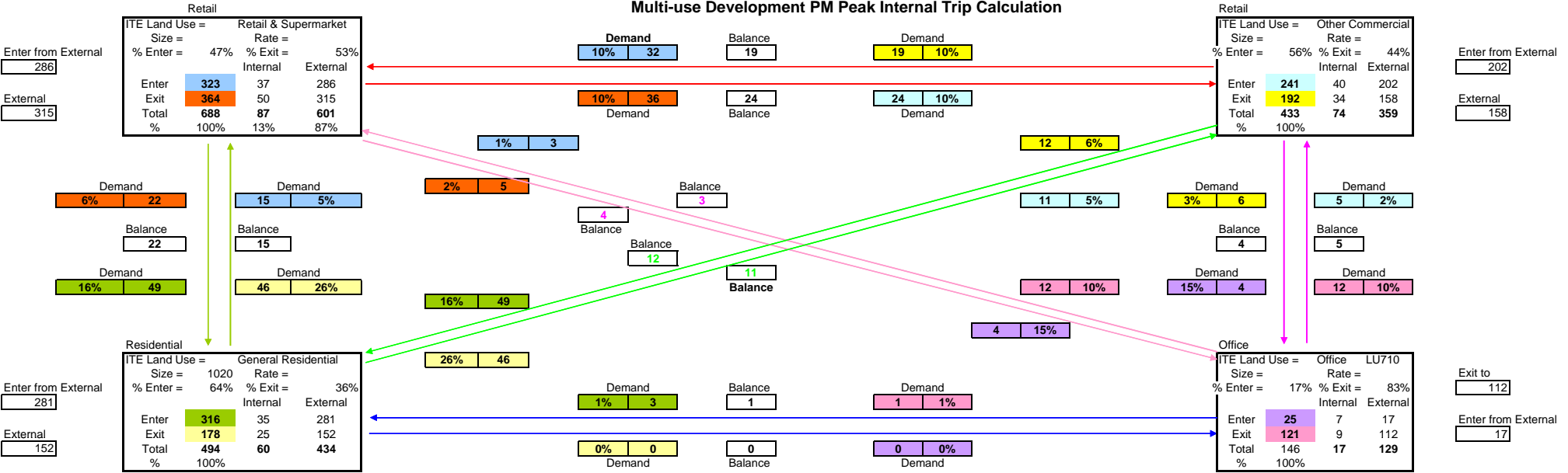
Intersection Summary			
Average Delay		2.6	
Intersection Capacity Utilization	26.2%		ICU Level of Service A
Analysis Period (min)		15	

Appendix 3.7-D: Proposed Action Trip Generation

Trip Gen-Internal 071129

12/17/2007 1:30 PM

Multi-use Development PM Peak Internal Trip Calculation



External Trips

	Retail & Supermarket	General Residential	Other Commer	Office	Sub-Total
External Enter	286	281	202	17	786
External Exit	315	152	158	112	736
Total External Trips	601	434	359	129	1523
Internal Trips	87	60	74	17	238
Gross Trips	688	494	433	146	1761
Overall Average Internal Capture Rate					13%

Source: 2001 ITE Trip Generation Handbook Methodology
Data Source: 7th Edition Trip Generation Report

	35%	64%
super		health
enter	100	129
exit	110	101
total	210	230
	65%	36%
retail		rest
enter	186	73
exit	205	57
total	391	129

Appendix 3.7- E: Proposed Action Trip Distribution and Assignment

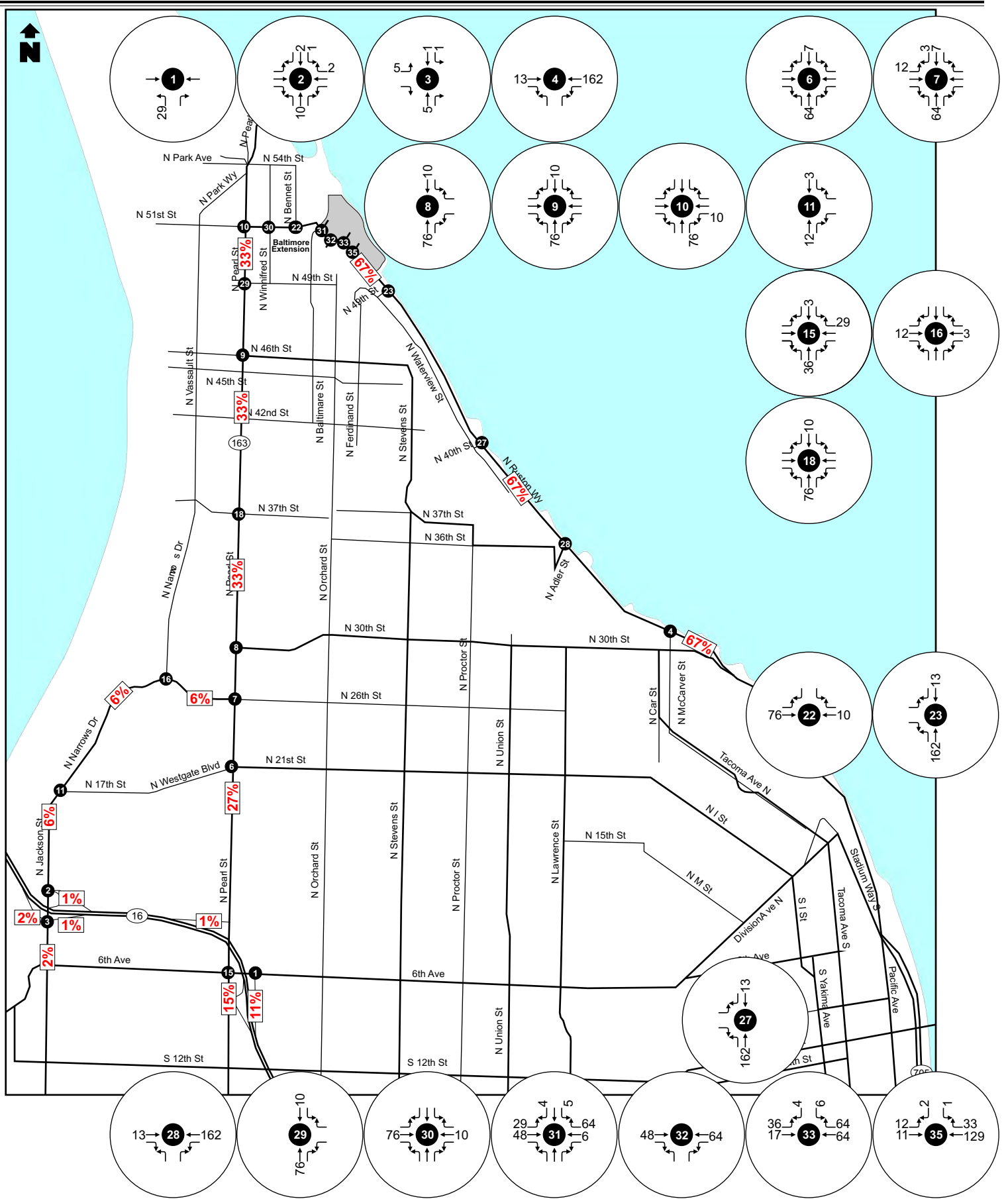


FIGURE 3.7-E1:
WEEKDAY PM PEAK HOUR REGIONAL MULTI-FAMILY
TRIP DISTRIBUTION AND TRAVEL ASSIGNMENT

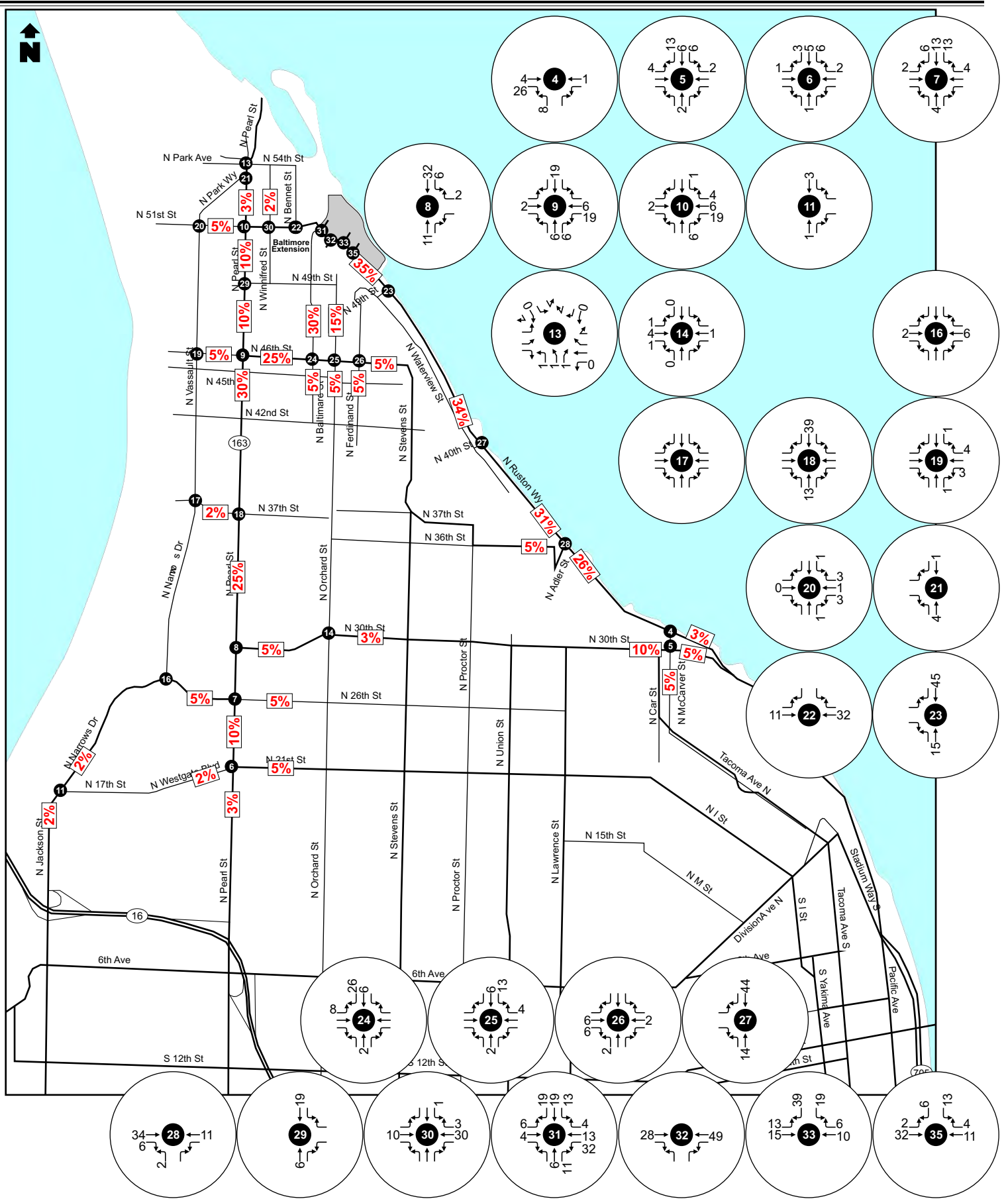


FIGURE 3.7-E2:
WEEKDAY PM PEAK HOUR LOCAL MULTI-FAMILY
TRIP DISTRIBUTION AND TRAVEL ASSIGNMENT

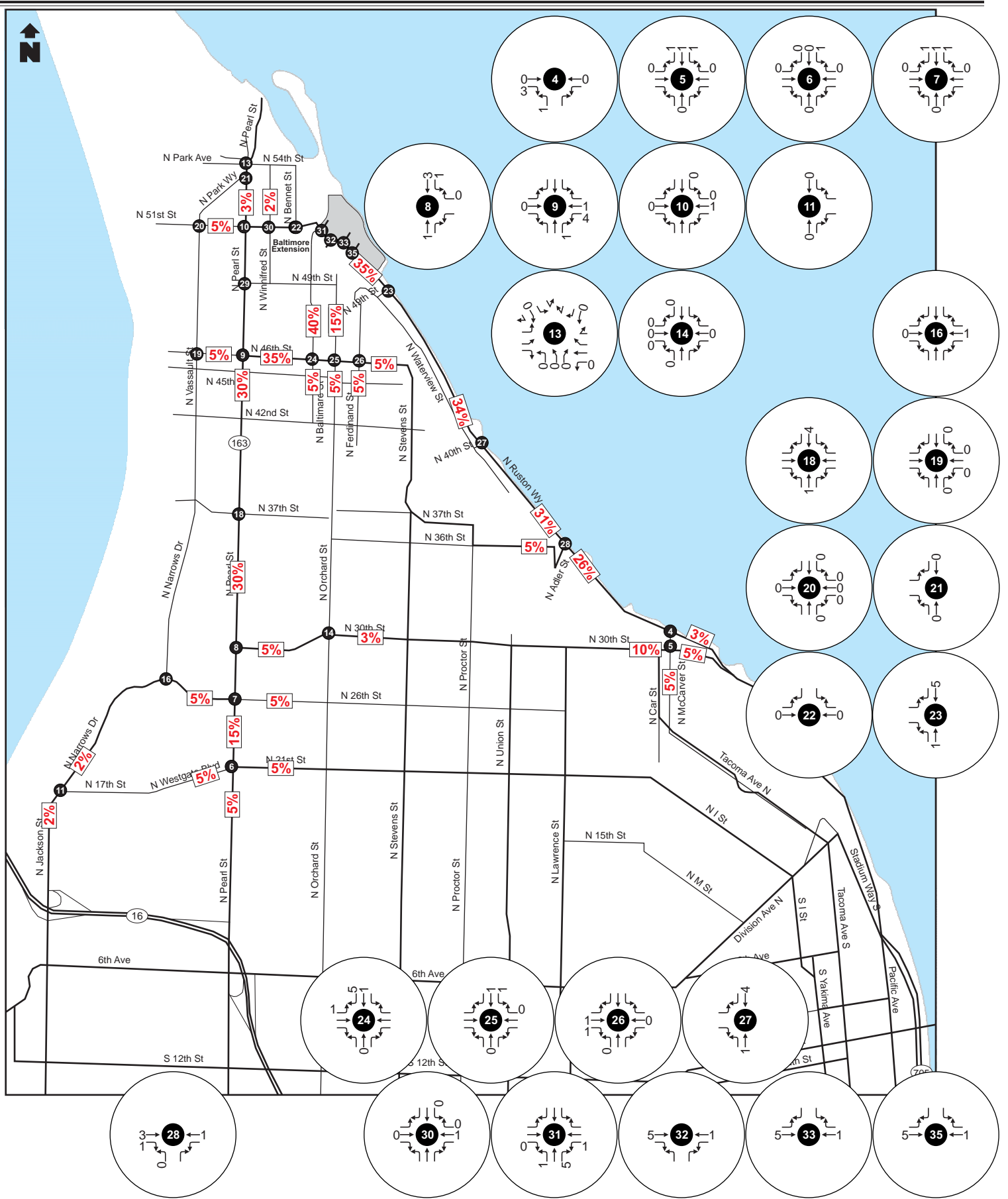


FIGURE 3.7-E4:
WEEKDAY PM PEAK HOUR LOCAL SINGLE-FAMILY
TRIP DISTRIBUTION AND TRAVEL ASSIGNMENT

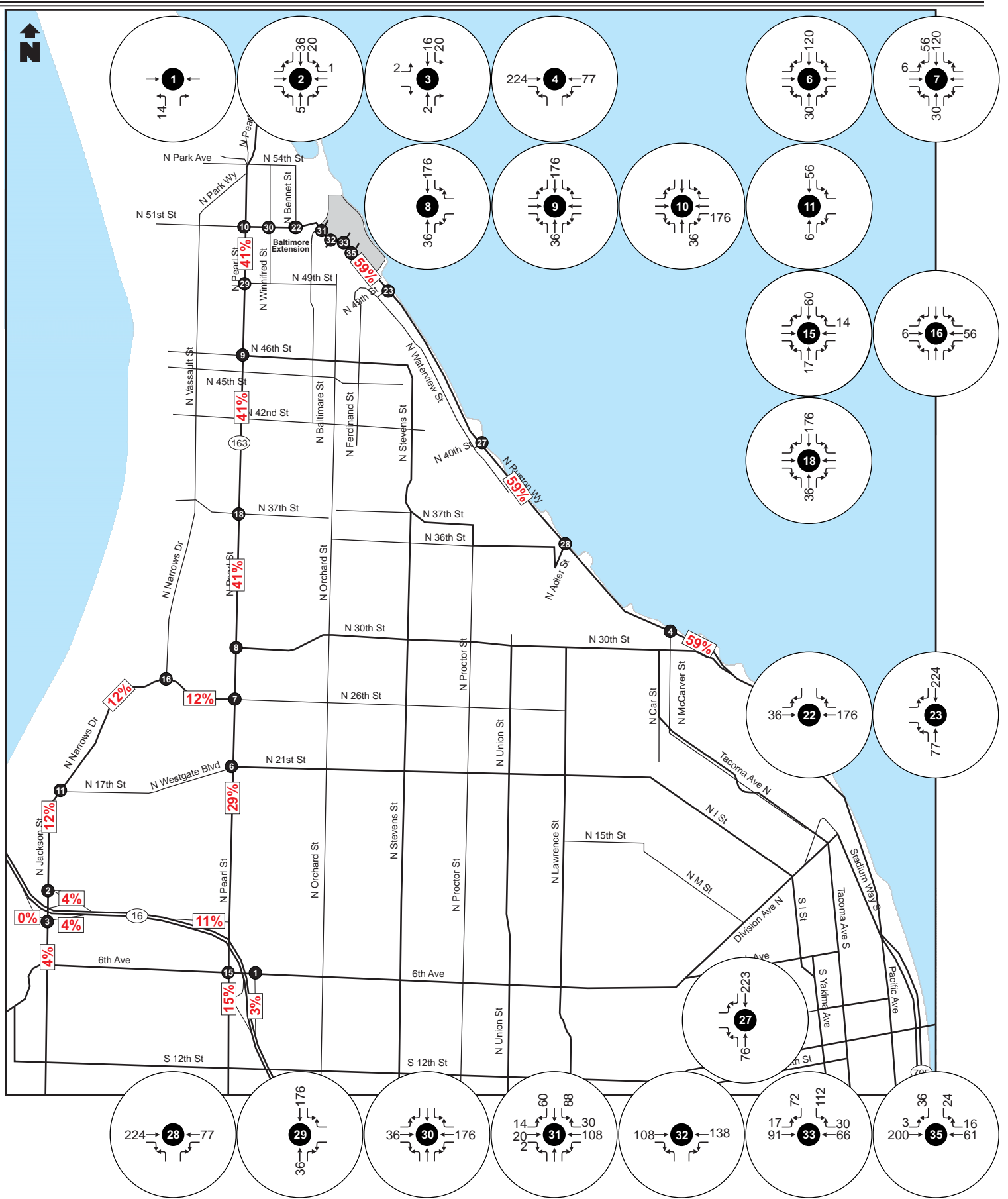


FIGURE 3.7-E5:
WEEKDAY PM PEAK HOUR REGIONAL COMMERCIAL
TRIP DISTRIBUTION AND TRAVEL ASSIGNMENT

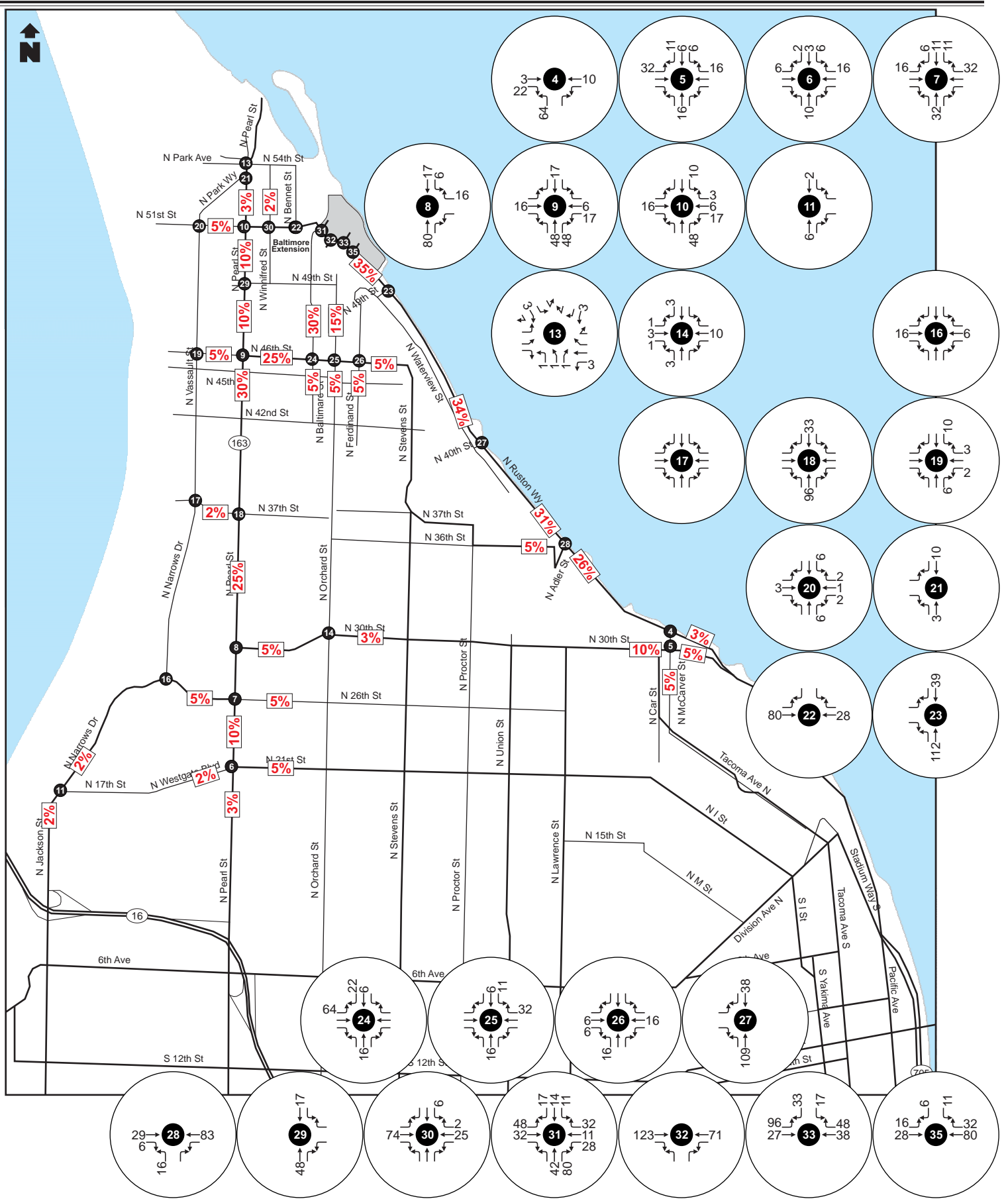


FIGURE 3.7-E6:
WEEKDAY PM PEAK HOUR LOCAL COMMERCIAL
TRIP DISTRIBUTION AND TRAVEL ASSIGNMENT

Appendix 3.7-F: Proposed Action Intersection Level of Service Reports

HCM Signalized Intersection Capacity Analysis
1: 6th Avenue & SR-16 WB Off Ramp

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Volume (vph)	630	0	0	929	328	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	0.95			0.95	0.97	
Frt	1.00			1.00	0.98	
Flt Protected	1.00			1.00	0.96	
Satd. Flow (prot)	3505			3539	3400	
Flt Permitted	1.00			1.00	0.96	
Satd. Flow (perm)	3505			3539	3400	
Peak-hour factor, PHF	0.89	0.89	0.96	0.96	0.85	0.85
Adj. Flow (vph)	708	0	0	968	386	51
RTOR Reduction (vph)	0	0	0	0	16	0
Lane Group Flow (vph)	708	0	0	968	421	0
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%
Turn Type						
Protected Phases	4			8	6	
Permitted Phases						
Actuated Green, G (s)	63.8			63.8	16.2	
Effective Green, g (s)	64.8			64.8	17.2	
Actuated g/C Ratio	0.72			0.72	0.19	
Clearance Time (s)	5.0			5.0	5.0	
Vehicle Extension (s)	2.5			2.5	2.5	
Lane Grp Cap (vph)	2524			2548	650	
v/s Ratio Prot	0.20			c0.27	c0.12	
v/s Ratio Perm						
v/c Ratio	0.28			0.38	0.65	
Uniform Delay, d1	4.4			4.9	33.6	
Progression Factor	0.23			1.00	1.00	
Incremental Delay, d2	0.2			0.4	2.0	
Delay (s)	1.3			5.3	35.6	
Level of Service	A			A	D	
Approach Delay (s)	1.3			5.3	35.6	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
2: 10th Street & N Jackson Avenue

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	7	14	27	46	1	21	50	731	417	218	718	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			0%			0%				0%
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95		1.00	0.95	
Frt		0.92			1.00	0.85	1.00	0.95		1.00	1.00	
Flt Protected		0.99			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1724			1811	1615	1805	3413		1805	3602	
Flt Permitted		0.99			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1724			1811	1615	1805	3413		1805	3602	
Peak-hour factor, PHF	0.85	0.85	0.85	0.76	0.76	0.76	0.94	0.94	0.94	0.94	0.95	0.95
Adj. Flow (vph)	8	16	32	61	1	28	53	778	444	232	756	12
RTOR Reduction (vph)	0	30	0	0	0	23	0	54	0	0	0	0
Lane Group Flow (vph)	0	26	0	0	62	5	53	1168	0	232	768	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Split			Split	custom		Prot			Prot		
Protected Phases	7	7		8	8	8	5	2		1	6	
Permitted Phases							5					
Actuated Green, G (s)		3.6			6.6	12.8	6.2	37.4		20.4	51.6	
Effective Green, g (s)		4.6			7.6	14.8	7.2	38.4		21.4	52.6	
Actuated g/C Ratio		0.05			0.09	0.17	0.08	0.44		0.24	0.60	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)		2.5			2.5	2.5	2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)		90			156	345	148	1489		439	2153	
v/s Ratio Prot		c0.01			c0.03	0.00	0.03	c0.34		c0.13	0.21	
v/s Ratio Perm						0.00						
v/c Ratio		0.29			0.40	0.01	0.36	0.78		0.53	0.36	
Uniform Delay, d1		40.1			38.0	30.5	38.2	21.3		28.9	9.0	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.3			1.2	0.0	1.1	2.7		0.9	0.1	
Delay (s)		41.4			39.2	30.5	39.3	23.9		29.8	9.1	
Level of Service		D			D	C	D	C		C	A	
Approach Delay (s)		41.4			36.5		24.6				13.9	
Approach LOS		D			D		C				B	

Intersection Summary			
HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	88.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
3: SR-16 EB Ramp & N Jackson Avenue

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔						↕		↕	↕	
Volume (vph)	320	0	594	0	0	0	0	894	156	159	596	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		4%				0%		-5%			0%	
Total Lost time (s)	4.0	4.0						4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00						0.95		1.00	0.95	
Frt	1.00	0.85						0.98		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (prot)	1769	1583						3618		1805	3610	
Flt Permitted	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (perm)	1769	1583						3618		1805	3610	
Peak-hour factor, PHF	0.87	0.87	0.87	0.25	0.25	0.25	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	368	0	683	0	0	0	0	993	173	175	655	0
RTOR Reduction (vph)	0	152	0	0	0	0	0	9	0	0	0	0
Lane Group Flow (vph)	368	531	0	0	0	0	0	1157	0	175	655	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm						Prot					
Protected Phases	4						6					
Permitted Phases	4						5					
Actuated Green, G (s)	45.3	45.3						44.2		16.6	65.8	
Effective Green, g (s)	46.3	46.3						45.2		17.6	66.8	
Actuated g/C Ratio	0.38	0.38						0.37		0.15	0.55	
Clearance Time (s)	5.0	5.0						5.0		5.0	5.0	
Vehicle Extension (s)	1.5	1.5						1.5		1.5	1.5	
Lane Grp Cap (vph)	676	605						1350		262	1991	
v/s Ratio Prot	c0.34						c0.32					
v/s Ratio Perm	0.21											
v/c Ratio	0.54	0.88						0.86		0.67	0.33	
Uniform Delay, d1	29.2	34.8						35.0		49.0	14.9	
Progression Factor	1.00	1.00						1.00		1.00	1.00	
Incremental Delay, d2	0.5	13.2						5.4		4.9	0.0	
Delay (s)	29.7	48.0						40.3		53.9	14.9	
Level of Service	C		D				D		D		B	
Approach Delay (s)	41.6				0.0		40.3				23.1	
Approach LOS	D				A		D				C	

Intersection Summary			
HCM Average Control Delay	36.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	121.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	85.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
4: N Ruston Way & N McCarver Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↔			↔	↔
Volume (vph)	472	86	70	1026	219	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%			0%		-3%
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.97	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	1900	1615	1805	1900	1783	
Flt Permitted	1.00	1.00	0.42	1.00	0.96	
Satd. Flow (perm)	1900	1615	789	1900	1783	
Peak-hour factor, PHF	0.92	0.92	0.95	0.95	0.90	0.90
Adj. Flow (vph)	513	93	74	1080	243	68
RTOR Reduction (vph)	0	23	0	0	12	0
Lane Group Flow (vph)	513	70	74	1080	299	0
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Turn Type	Perm		Perm			
Protected Phases	2		6		4	
Permitted Phases	2		6			
Actuated Green, G (s)	55.2	55.2	55.2	55.2	18.6	
Effective Green, g (s)	56.2	56.2	56.2	56.2	19.6	
Actuated g/C Ratio	0.67	0.67	0.67	0.67	0.23	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	2.5	2.5	2.5	2.5	2.5	
Lane Grp Cap (vph)	1274	1083	529	1274	417	
v/s Ratio Prot	0.27		c0.57		c0.17	
v/s Ratio Perm	0.04		0.09			
v/c Ratio	0.40	0.06	0.14	0.85	0.72	
Uniform Delay, d1	6.2	4.7	5.0	10.5	29.5	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.2	0.0	0.1	5.3	5.4	
Delay (s)	6.4	4.8	5.1	15.9	34.9	
Level of Service	A	A	A	B	C	
Approach Delay (s)	6.1		15.2		34.9	
Approach LOS	A		B		C	

Intersection Summary			
HCM Average Control Delay	15.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	83.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
5: N 30th Street & N McCarver Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔		↔	↔			↔			↔	↔
Volume (vph)	88	491	42	14	975	31	109	103	41	41	61	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			3%			-2%	
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.98			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1770	1841		1787	1873			1757			1802	
Flt Permitted	0.08	1.00		0.36	1.00			0.63			0.83	
Satd. Flow (perm)	140	1841		679	1873			1136			1514	
Peak-hour factor, PHF	0.91	0.91	0.91	0.93	0.93	0.93	0.96	0.96	0.59	0.59	0.92	0.92
Adj. Flow (vph)	97	540	46	15	1048	33	114	107	43	69	103	98
RTOR Reduction (vph)	0	2	0	0	1	0	0	8	0	0	24	0
Lane Group Flow (vph)	97	584	0	15	1080	0	0	256	0	0	246	0
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	0%	0%	0%
Turn Type	Perm		Perm		Perm		Perm		Perm		Perm	
Protected Phases		4			4			6			2	
Permitted Phases	4			4			6		2			
Actuated Green, G (s)	55.3	55.3		55.3	55.3			21.0			21.0	
Effective Green, g (s)	56.3	56.3		56.3	56.3			22.0			22.0	
Actuated g/C Ratio	0.65	0.65		0.65	0.65			0.25			0.25	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5			2.5			2.5	
Lane Grp Cap (vph)	91	1201		443	1222			290			386	
v/s Ratio Prot		0.32			0.58							
v/s Ratio Perm	c0.69			0.02				c0.23			0.16	
v/c Ratio	1.07	0.49		0.03	0.88			0.88			0.64	
Uniform Delay, d1	15.0	7.6		5.3	12.3			30.9			28.6	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	113.4	0.2		0.0	7.8			25.3			3.0	
Delay (s)	128.4	7.9		5.4	20.2			56.2			31.6	
Level of Service	F	A		A	C			E			C	
Approach Delay (s)		25.0			20.0			56.2			31.6	
Approach LOS		C			B			E			C	
Intersection Summary												
HCM Average Control Delay		26.9										C
HCM Volume to Capacity ratio		1.01										
Actuated Cycle Length (s)		86.3			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		97.6%			ICU Level of Service			F				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
6: N Westgate Boulevard & N Pearl Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔		↔	↔			↔			↔	↔
Volume (vph)	143	281	71	264	517	230	93	753	75	161	777	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95			1.00	0.95		1.00	0.95
Frt	1.00	0.97		1.00	0.95			1.00	0.99		1.00	0.99
Flt Protected	0.95	1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (prot)	1805	3501		1805	3443			1805	3561		1805	3564
Flt Permitted	0.95	1.00		0.95	1.00			0.95	1.00		0.95	1.00
Satd. Flow (perm)	1805	3501		1805	3443			1805	3561		1805	3564
Peak-hour factor, PHF	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95	0.89	0.89	0.89
Adj. Flow (vph)	151	296	75	281	550	245	98	793	79	181	873	82
RTOR Reduction (vph)	0	26	0	0	59	0	0	8	0	0	7	0
Lane Group Flow (vph)	151	345	0	281	736	0	98	864	0	181	948	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Prot		Prot		Prot		Prot		Prot		Prot	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	10.5	17.7		16.1	23.3		6.5	25.3		10.9	29.7	
Effective Green, g (s)	11.5	18.7		17.1	24.3		7.5	26.3		11.9	30.7	
Actuated g/C Ratio	0.13	0.21		0.19	0.27		0.08	0.29		0.13	0.34	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)	231	727		343	930		150	1041		239	1216	
v/s Ratio Prot	c0.08	0.10		0.16	c0.21		0.05	0.24		c0.10	c0.27	
v/s Ratio Perm												
v/c Ratio	0.65	0.47		0.82	0.79		0.65	0.83		0.76	0.78	
Uniform Delay, d1	37.4	31.3		35.0	30.5		40.0	29.8		37.7	26.6	
Progression Factor	1.00	1.00		1.00	1.00		0.90	1.15		0.96	1.53	
Incremental Delay, d2	5.8	0.4		13.8	4.5		5.7	5.0		9.6	3.8	
Delay (s)	43.2	31.7		48.8	35.0		41.6	39.3		45.5	44.4	
Level of Service	D	C		D	D		D	D		D	D	
Approach Delay (s)		35.0			38.6			39.5			44.6	
Approach LOS		D			D			D			D	
Intersection Summary												
HCM Average Control Delay		40.2						HCM Level of Service			D	
HCM Volume to Capacity ratio		0.75										
Actuated Cycle Length (s)		90.0			Sum of lost time (s)			12.0				
Intersection Capacity Utilization		75.0%			ICU Level of Service			D				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
7: N 26th Street & N Pearl Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	181	218	64	148	284	134	158	967	86	114	776	258
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.95		1.00	0.99		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3487		1805	3436		1805	3566		1805	3475	
Flt Permitted	0.40	1.00		0.50	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	751	3487		951	3436		1805	3566		1805	3475	
Peak-hour factor, PHF	0.88	0.88	0.88	0.96	0.96	0.96	0.96	0.96	0.96	0.92	0.92	0.92
Adj. Flow (vph)	206	248	73	154	296	140	165	1007	90	124	843	280
RTOR Reduction (vph)	0	31	0	0	64	0	0	6	0	0	33	0
Lane Group Flow (vph)	206	290	0	154	372	0	165	1091	0	124	1090	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm		Perm		Prot		Prot		Prot		Prot	
Protected Phases	4		8		8		5		2		1	
Permitted Phases	4		8		8		5		2		1	
Actuated Green, G (s)	24.9	24.9	24.9	24.9	24.9	24.9	12.6	39.1		11.0	37.5	
Effective Green, g (s)	25.9	25.9	25.9	25.9	25.9	25.9	13.6	40.1		12.0	38.5	
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.29	0.29	0.15	0.45		0.13	0.43	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)	216	1003		274	989		273	1589		241	1487	
v/s Ratio Prot		0.08		0.11			c0.09	0.31		0.07	c0.31	
v/s Ratio Perm	c0.27		0.16		0.16		0.60		0.69		0.51	
v/c Ratio	0.95	0.29		0.56	0.38		0.60	0.69		0.51	0.73	
Uniform Delay, d1	31.5	24.9		27.2	25.6		35.7	19.9		36.3	21.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.40		1.13	0.65	
Incremental Delay, d2	47.9	0.1		2.1	0.2		2.1	1.6		1.3	2.9	
Delay (s)	79.3	25.0		29.4	25.8		37.9	29.5		42.4	16.8	
Level of Service	E	C		C	C		D	C		D	B	
Approach Delay (s)	46.3		26.7		30.6		19.4		33.2		7.9	
Approach LOS	D		C		C		B		C		A	

Intersection Summary			
HCM Average Control Delay	28.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
8: N 30th Street & N Pearl Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔	↔	↕	↔	↔	↕
Volume (vph)	315	165	935	186	124	927
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	4%		0%		4%	
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1734	1552	3485		1770	3539
Flt Permitted	0.95	1.00	1.00		0.19	1.00
Satd. Flow (perm)	1734	1552	3485		352	3539
Peak-hour factor, PHF	0.96	0.96	0.95	0.95	0.93	0.93
Adj. Flow (vph)	328	172	984	196	133	997
RTOR Reduction (vph)	0	70	14	0	0	0
Lane Group Flow (vph)	328	102	1166	0	133	997
Heavy Vehicles (%)	2%	2%	1%	1%	2%	2%
Turn Type	Perm		Perm		Perm	
Protected Phases	4		2		2	
Permitted Phases	4		2		2	
Actuated Green, G (s)	22.1	22.1	57.9		57.9	57.9
Effective Green, g (s)	23.1	23.1	58.9		58.9	58.9
Actuated g/C Ratio	0.26	0.26	0.65		0.65	0.65
Clearance Time (s)	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	445	398	2281		230	2316
v/s Ratio Prot	c0.19		0.33		0.28	
v/s Ratio Perm	0.07				c0.38	
v/c Ratio	0.74	0.26	0.51		0.58	0.43
Uniform Delay, d1	30.7	26.6	8.1		8.6	7.5
Progression Factor	1.00	1.00	0.95		0.87	0.81
Incremental Delay, d2	5.9	0.2	0.6		9.7	0.6
Delay (s)	36.6	26.9	8.2		17.2	6.6
Level of Service	D	C	A		B	A
Approach Delay (s)	33.2		8.2		7.9	
Approach LOS	C		A		A	

Intersection Summary			
HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
9: N 46th Street & N Pearl Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	9	85	22	145	121	83	55	487	150	50	548	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	11	10	12	12	10	12	12	10	12	12
Grade (%)	2%			0%			0%			1%		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Frt	1.00	0.97	1.00	0.94	1.00	0.96	1.00	0.96	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1635	3281	1652	3324	1636	3381	1643	3513				
Flt Permitted	0.61	1.00	0.67	1.00	0.42	1.00	0.36	1.00				
Satd. Flow (perm)	1043	3281	1160	3324	716	3381	631	3513				
Peak-hour factor, PHF	0.80	0.80	0.80	0.87	0.87	0.87	0.94	0.94	0.94	0.93	0.93	0.93
Adj. Flow (vph)	11	106	28	167	139	95	59	518	160	54	589	10
RTOR Reduction (vph)	0	18	0	0	61	0	0	51	0	0	2	0
Lane Group Flow (vph)	11	116	0	167	173	0	59	627	0	54	597	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Turn Type	Perm		Perm		Perm		Perm		Perm			
Protected Phases	4		4		6		6		2			
Permitted Phases	4		4		6		6		2			
Actuated Green, G (s)	11.3	11.3	11.3	11.3	12.9	12.9	12.9	12.9	12.9	12.9	12.9	12.9
Effective Green, g (s)	12.3	12.3	12.3	12.3	13.9	13.9	13.9	13.9	13.9	13.9	13.9	13.9
Actuated g/C Ratio	0.36	0.36	0.36	0.36	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lane Grp Cap (vph)	375	1180	417	1195	291	1374	256	1428				
v/s Ratio Prot	0.04		c0.14		0.05		c0.19		0.17			
v/s Ratio Perm	0.01		0.40	0.14	0.20	0.46	0.21	0.42				
v/c Ratio	0.03	0.10	0.82	7.4	6.6	7.4	6.6	7.3				
Uniform Delay, d1	7.1	7.3	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.0	0.0	0.5	0.0	0.3	0.2	0.3	0.1				
Delay (s)	7.1	7.3	8.7	7.4	6.8	7.6	6.9	7.4				
Level of Service	A	A	A	A	A	A	A	A				
Approach Delay (s)	7.3		7.9		7.5		7.4					
Approach LOS	A		A		A		A					
Intersection Summary												
HCM Average Control Delay	7.5		HCM Level of Service		A							
HCM Volume to Capacity ratio	0.43											
Actuated Cycle Length (s)	34.2		Sum of lost time (s)		8.0							
Intersection Capacity Utilization	51.3%		ICU Level of Service		A							
Analysis Period (min)	15											

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
10: N 51st Street & N Pearl Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	13	57	39	311	93	87	33	151	219	75	159	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)	-2%			3%			-2%			2%		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.95	1.00	1.00	0.85	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.99	1.00	0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1816	1802	1591	1668	1600	1635	1721					
Flt Permitted	0.94	0.68	1.00	0.50	1.00	0.36	1.00					
Satd. Flow (perm)	1713	1266	1591	879	1600	620	1721					
Peak-hour factor, PHF	0.76	0.76	0.76	0.96	0.96	0.96	0.88	0.88	0.88	0.52	0.52	0.52
Adj. Flow (vph)	17	75	51	324	97	91	38	172	249	144	306	0
RTOR Reduction (vph)	0	25	0	0	0	29	0	52	0	0	0	0
Lane Group Flow (vph)	0	118	0	0	421	62	38	369	0	144	306	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Turn Type	Perm		Perm		Perm		Perm		pm+pt			
Protected Phases	4		4		6		6		5		2	
Permitted Phases	4		4		6		6		5		2	
Actuated Green, G (s)	33.4		33.4		33.4	35.6	35.6	46.6	46.6			
Effective Green, g (s)	34.4		34.4		34.4	36.6	36.6	47.6	47.6			
Actuated g/C Ratio	0.38		0.38		0.38	0.41	0.41	0.53	0.53			
Clearance Time (s)	5.0		5.0		5.0	5.0	5.0	5.0	5.0			
Vehicle Extension (s)	2.5		2.5		2.5	2.5	2.5	2.5	2.5			
Lane Grp Cap (vph)	655		484		608	357	651	407	910			
v/s Ratio Prot					c0.23		0.03		c0.18			
v/s Ratio Perm	0.07		c0.33		0.04	0.04	0.16					
v/c Ratio	0.18		0.87		0.10	0.11	0.57	0.35	0.34			
Uniform Delay, d1	18.4		25.7		17.9	16.6	20.6	19.8	12.1			
Progression Factor	1.00		1.00		1.00	1.00	1.00	1.00	1.00			
Incremental Delay, d2	0.1		15.2		0.1	0.6	3.5	0.4	1.0			
Delay (s)	18.5		40.9		17.9	17.2	24.1	20.2	13.1			
Level of Service	B		D		B	B	C	C	B			
Approach Delay (s)	18.5		36.8		23.6		15.4					
Approach LOS	B		D		C		B					
Intersection Summary												
HCM Average Control Delay	25.1		HCM Level of Service		C							
HCM Volume to Capacity ratio	0.66											
Actuated Cycle Length (s)	90.0		Sum of lost time (s)		8.0							
Intersection Capacity Utilization	65.2%		ICU Level of Service		C							
Analysis Period (min)	15											

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
11: N 17th Street & N Narrows Drive

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↔		↔	↔			↔		↔	↔	
Volume (vph)	0	0	0	403	0	16	0	542	244	18	583	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor				1.00	1.00			1.00		1.00	1.00	
Flt				1.00	0.85			0.96		1.00	1.00	
Flt Protected				0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)				1787	1599			1820		1805	1900	
Flt Permitted				0.95	1.00			1.00		0.11	1.00	
Satd. Flow (perm)				1787	1599			1820		200	1900	
Peak-hour factor, PHF	0.25	0.25	0.25	0.87	0.87	0.87	0.95	0.95	0.95	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	463	0	18	0	571	257	20	655	0
RTOR Reduction (vph)	0	0	0	0	11	0	0	15	0	0	0	0
Lane Group Flow (vph)	0	0	0	463	7	0	0	813	0	20	655	0
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases	7			8			6			2		
Permitted Phases	7			8						2		
Actuated Green, G (s)				28.0	28.0		37.0			37.0	37.0	
Effective Green, g (s)				29.0	29.0		38.0			38.0	38.0	
Actuated g/C Ratio				0.39	0.39		0.51			0.51	0.51	
Clearance Time (s)				5.0	5.0		5.0			5.0	5.0	
Vehicle Extension (s)				2.5	2.5		2.5			2.5	2.5	
Lane Grp Cap (vph)				691	618		922			101	963	
v/s Ratio Prot					0.00		c0.45				0.34	
v/s Ratio Perm				c0.26						0.10		
v/c Ratio				0.67	0.01		0.88			0.20	0.68	
Uniform Delay, d1				19.0	14.2		16.5			10.1	13.9	
Progression Factor				1.00	1.00		1.00			1.00	1.00	
Incremental Delay, d2				2.3	0.0		9.9			0.7	1.8	
Delay (s)				21.4	14.2		26.3			10.8	15.7	
Level of Service				C		B		C			B	
Approach Delay (s)	0.0			21.1			26.3			15.6		
Approach LOS	A			C			C			B		

Intersection Summary			
HCM Average Control Delay	21.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
12: I-705 Off-Ramp & Stadium Way

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔	↔	↔	↔	↔	↔
Volume (vph)	80	1080	259	57	915	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	2%		2%			-4%
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Flt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1567	1765		1841	1938
Flt Permitted	0.95	1.00	1.00		0.54	1.00
Satd. Flow (perm)	1752	1567	1765		1047	1938
Peak-hour factor, PHF	0.95	0.95	0.85	0.85	0.91	0.91
Adj. Flow (vph)	84	1137	305	67	1005	143
RTOR Reduction (vph)	0	389	8	0	0	0
Lane Group Flow (vph)	84	748	364	0	1005	143
Heavy Vehicles (%)	2%	2%	4%	4%	0%	0%
Turn Type	pm+ov			custom		
Protected Phases	3	5	6		5	2
Permitted Phases	3			4		
Actuated Green, G (s)	4.6	28.8	18.8		34.3	48.0
Effective Green, g (s)	5.6	30.8	19.8		36.3	49.0
Actuated g/C Ratio	0.07	0.40	0.25		0.47	0.63
Clearance Time (s)	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	126	621	450		747	1222
v/s Ratio Prot	0.05	c0.39	c0.21		c0.44	0.07
v/s Ratio Perm	0.09			c0.19		
v/c Ratio	0.67	1.20	0.81		1.35	0.12
Uniform Delay, d1	35.1	23.5	27.2		18.8	5.7
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	11.4	106.9	10.0		164.3	0.0
Delay (s)	46.5	130.4	37.2		183.1	5.8
Level of Service	D	F	D		F	A
Approach Delay (s)	124.6		37.2			161.0
Approach LOS	F		D			F

Intersection Summary			
HCM Average Control Delay	128.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	77.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	90.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
14: N 30th Street & N Orchard Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Sign Control	Stop			Stop			Stop			Stop		
Volume (vph)	106	302	37	62	483	53	48	238	32	41	223	77
Peak Hour Factor	0.93	0.93	0.93	0.97	0.97	0.97	0.87	0.87	0.87	0.94	0.94	0.94
Hourly flow rate (vph)	114	325	40	64	498	55	55	274	37	44	237	82
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	478	616	366	363								
Volume Left (vph)	114	64	55	44								
Volume Right (vph)	40	55	37	82								
Hadj (s)	0.01	-0.02	-0.01	-0.09								
Departure Headway (s)	9.4	9.3	9.4	9.4								
Degree Utilization, x	1.24	1.60	0.95	0.94								
Capacity (veh/h)	390	390	379	377								
Control Delay (s)	157.8	303.8	66.5	63.7								
Approach Delay (s)	157.8	303.8	66.5	63.7								
Approach LOS	F	F	F	F								
Intersection Summary												
Delay	170.1											
HCM Level of Service	F											
Intersection Capacity Utilization	76.1%		ICU Level of Service		D							
Analysis Period (min)	15											

HCM Signalized Intersection Capacity Analysis
15: 6th Avenue & N Pearl Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	231	498	202	187	708	379	125	418	67	80	468	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)	-3%											
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.99	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1796	3592	1607	1770	3539	1583	3499	1583	1752	1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.99	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1796	3592	1607	1770	3539	1583	3499	1583	1752	1752	3505	1568
Peak-hour factor, PHF	0.98	0.98	0.98	0.88	0.88	0.88	0.89	0.89	0.89	0.80	0.80	0.80
Adj. Flow (vph)	236	508	206	212	805	431	140	470	75	100	585	214
RTOR Reduction (vph)	0	0	155	0	0	318	0	0	59	0	0	167
Lane Group Flow (vph)	236	508	51	212	805	113	0	610	16	100	585	47
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	3%	3%
Turn Type	Prot	Perm	Prot	Perm	Split	Perm	Split	Perm	Split	Perm	Split	Perm
Protected Phases	7	4	3	8	1	1	2	2	2	2	2	2
Permitted Phases	4			8			1		2			
Actuated Green, G (s)	10.0	21.1	21.1	11.6	22.7	22.7	18.7	18.7	18.6	18.6	18.6	18.6
Effective Green, g (s)	11.0	22.1	22.1	12.6	23.7	23.7	19.7	19.7	19.6	19.6	19.6	19.6
Actuated g/C Ratio	0.12	0.25	0.25	0.14	0.26	0.26	0.22	0.22	0.22	0.22	0.22	0.22
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lane Grp Cap (vph)	220	882	395	248	932	417	766	347	382	763	341	
v/s Ratio Prot	c0.13	0.14		0.12	c0.23		c0.17		0.06	c0.17		
v/s Ratio Perm			0.03			0.07		0.01			0.03	
v/c Ratio	1.07	0.58	0.13	0.85	0.86	0.27	0.80	0.05	0.26	0.77	0.14	
Uniform Delay, d1	39.5	29.8	26.4	37.8	31.6	26.3	33.3	27.7	29.2	33.1	28.4	
Progression Factor	1.00	1.00	1.00	1.12	1.11	2.21	1.00	1.00	0.56	0.62	1.24	
Incremental Delay, d2	81.3	2.7	0.7	22.8	10.1	1.5	5.6	0.0	0.2	2.9	0.1	
Delay (s)	120.8	32.6	27.1	65.2	45.3	59.7	38.8	27.8	16.4	23.3	35.2	
Level of Service	F	C	C	E	D	E	D	C	B	C	D	
Approach Delay (s)	53.3				52.5		37.6				25.3	
Approach LOS	D				D		D				C	
Intersection Summary												
HCM Average Control Delay	44.0				HCM Level of Service				D			
HCM Volume to Capacity ratio	0.85											
Actuated Cycle Length (s)	90.0				Sum of lost time (s)				16.0			
Intersection Capacity Utilization	73.8%		ICU Level of Service		D							
Analysis Period (min)	15											
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis
16: N Narrows Drive & N 26th Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔	↔		↔	↔			↔		↔	↔	↔	
Volume (veh/h)	205	363	2	39	455	125	0	1	27	82	4	228	
Sign Control	Free			Free			Stop			Stop			
Grade	0%			0%			0%			0%			
Peak Hour Factor	0.94	0.94	0.94	0.89	0.89	0.89	0.75	0.75	0.75	0.89	0.89	0.89	
Hourly flow rate (vph)	218	386	2	44	511	140	0	1	36	92	4	256	
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type	None			TWLTL									
Median storage (veh)	2												
Upstream signal (ft)													
pX, platoon unblocked													
vC, conflicting volume	652	388			1553	1563	387	1528	1494	581			
vC1, stage 1 conf vol							823	823	669	669			
vC2, stage 2 conf vol							729	739	859	824			
vCu, unblocked vol	652	388			1553	1563	387	1528	1494	581			
tC, single (s)	4.1	4.1			7.1	6.5	6.2	7.1	6.5	6.2			
tC, 2 stage (s)							6.1	5.5	6.1	5.5			
tF (s)	2.2	2.2			3.5	4.0	3.3	3.5	4.0	3.3			
p0 queue free %	77	96			100	99	95	52	98	50			
cM capacity (veh/h)	944	1181			37	173	665	192	227	513			
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1							
Volume Total	218	388	44	652	37	353							
Volume Left	218	0	44	0	0	92							
Volume Right	0	2	0	140	36	256							
cSH	944	1700	1181	1700	604	707							
Volume to Capacity	0.23	0.23	0.04	0.38	0.06	0.50							
Queue Length 95th (ft)	22	0	3	0	5	70							
Control Delay (s)	10.0	0.0	8.2	0.0	11.4	24.8							
Lane LOS	A	A		B		C							
Approach Delay (s)	3.6	0.5		11.4		24.8							
Approach LOS			B		C								
Intersection Summary													
Average Delay	6.9												
Intersection Capacity Utilization	64.3%			ICU Level of Service									C
Analysis Period (min)	15												

HCM Unsignalized Intersection Capacity Analysis
17: N 37th Street & N Narrows Drive

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↔	↔		↔	↔			↔		↔	↔	↔	
Volume (veh/h)	4	19	12	43	25	90	14	172	40	69	192	8	
Sign Control	Free			Free			Stop			Stop			
Grade	0%			0%			0%			0%			
Peak Hour Factor	0.91	0.91	0.91	0.84	0.84	0.84	0.88	0.88	0.88	0.85	0.85	0.85	
Hourly flow rate (vph)	4	21	13	51	30	107	16	195	45	81	226	9	
Pedestrians													
Lane Width (ft)													
Walking Speed (ft/s)													
Percent Blockage													
Right turn flare (veh)													
Median type	None			None									
Median storage (veh)													
Upstream signal (ft)	1111												
pX, platoon unblocked													
vC, conflicting volume	137	34			291	276	27	359	229	83			
vC1, stage 1 conf vol							291	276	27	359	229	83	
vC2, stage 2 conf vol							291	276	27	359	229	83	
vCu, unblocked vol	137	34			291	276	27	359	229	83			
tC, single (s)	4.1	4.1			7.1	6.5	6.2	7.1	6.5	6.2			
tC, 2 stage (s)							3.5	4.0	3.3	3.5	4.0	3.3	
tF (s)	2.2	2.2			3.5	4.0	3.3	3.5	4.0	3.3			
p0 queue free %	100	97			97	68	96	81	65	99			
cM capacity (veh/h)	1460	1591			468	611	1051	420	649	979			
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2					
Volume Total	4	34	51	137	16	241	81	235					
Volume Left	4	0	51	0	16	0	81	0					
Volume Right	0	13	0	107	0	45	0	9					
cSH	1460	1700	1591	1700	468	664	420	658					
Volume to Capacity	0.00	0.02	0.03	0.08	0.03	0.36	0.19	0.36					
Queue Length 95th (ft)	0	0	2	0	3	41	18	41					
Control Delay (s)	7.5	0.0	7.3	0.0	13.0	13.5	15.6	13.5					
Lane LOS	A	A		B		B	C	B					
Approach Delay (s)	0.9	2.0		13.5		14.0							
Approach LOS			B		B								
Intersection Summary													
Average Delay	10.4												
Intersection Capacity Utilization	34.4%			ICU Level of Service									A
Analysis Period (min)	15												

HCM Signalized Intersection Capacity Analysis
18: N 37th Street & N Pearl Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔		↔	↔		↔	↔		↔	↔	
Volume (vph)	27	20	120	61	34	6	251	766	87	27	762	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.87		1.00	0.98		1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	1639		1787	1840		1787	3520		1787	3542	
Flt Permitted	0.72	1.00		0.48	1.00		0.26	1.00		0.33	1.00	
Satd. Flow (perm)	1349	1639		910	1840		485	3520		618	3542	
Peak-hour factor, PHF	0.89	0.89	0.89	0.65	0.65	0.65	0.99	0.99	0.99	0.93	0.93	0.93
Adj. Flow (vph)	30	22	135	94	52	9	254	774	88	29	819	52
RTOR Reduction (vph)	0	116	0	0	8	0	0	6	0	0	3	0
Lane Group Flow (vph)	30	41	0	94	53	0	254	856	0	29	868	0
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	12.8	12.8		12.8	12.8		69.2	69.2		54.4	54.4	
Effective Green, g (s)	12.8	12.8		12.8	12.8		69.2	69.2		54.4	54.4	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.77	0.77		0.60	0.60	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	192	233		129	262		529	2706		374	2141	
v/s Ratio Prot		0.03			0.03		c0.06	0.24			0.25	
v/s Ratio Perm	0.02			c0.10			c0.31			0.05		
v/c Ratio	0.16	0.18		0.73	0.20		0.48	0.32		0.08	0.41	
Uniform Delay, d1	33.9	34.0		36.9	34.1		4.2	3.2		7.4	9.3	
Progression Factor	1.00	1.00		1.00	1.00		2.33	1.97		1.00	1.00	
Incremental Delay, d2	0.4	0.4		18.5	0.4		0.6	0.3		0.4	0.6	
Delay (s)	34.2	34.3		55.4	34.5		10.4	6.5		7.8	9.9	
Level of Service	C	C		E	C		B	A		A	A	
Approach Delay (s)		34.3			47.2			7.4			9.8	
Approach LOS		C			D			A			A	

Intersection Summary			
HCM Average Control Delay	13.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
19: N 46th Street & N Vassault Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Volume (veh/h)	2	18	7	56	20	54	18	137	43	33	162	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.72	0.72	0.72	0.73	0.73	0.73	0.86	0.86	0.86	0.85	0.85	0.85
Hourly flow rate (vph)	3	25	10	77	27	74	21	159	50	39	191	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None				None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	583	520	191	517	496	184	192			209		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	583	520	191	517	496	184	192			209		
IC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
IC, 2 stage (s)												
IF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	94	99	82	94	91	98			97		
cM capacity (veh/h)	360	443	856	427	453	855	1394			1356		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	38	178	230	231
Volume Left	3	77	21	39
Volume Right	10	74	50	1
cSH	497	546	1394	1356
Volume to Capacity	0.08	0.33	0.02	0.03
Queue Length 95th (ft)	6	35	1	2
Control Delay (s)	12.8	14.8	0.8	1.5
Lane LOS	B	B	A	A
Approach Delay (s)	12.8	14.8	0.8	1.5
Approach LOS	B	B		

Intersection Summary			
Average Delay	5.4		
Intersection Capacity Utilization	37.9%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
20: N 51st Street & N Park Way

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	20	42	41	34	16	36	43	29	23	45	4
Peak Hour Factor	0.87	0.87	0.87	0.91	0.91	0.91	0.82	0.82	0.82	0.69	0.69	0.69
Hourly flow rate (vph)	2	23	48	45	37	18	44	52	35	33	65	6
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	74	100	44	88	33	71						
Volume Left (vph)	2	45	44	0	33	0						
Volume Right (vph)	48	18	0	35	0	6						
Hadj (s)	-0.39	-0.02	0.53	-0.25	0.64	0.08						
Departure Headway (s)	4.2	4.5	5.5	4.8	5.7	5.1						
Degree Utilization, x	0.09	0.13	0.07	0.12	0.05	0.10						
Capacity (veh/h)	806	745	623	723	606	673						
Control Delay (s)	7.6	8.2	7.8	7.2	7.8	7.5						
Approach Delay (s)	7.6	8.2	7.4	7.6								
Approach LOS	A	A	A	A								

Intersection Summary						
Delay			7.7			
HCM Level of Service			A			
Intersection Capacity Utilization	27.0%		ICU Level of Service	A		
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis
21: N Pearl Street & N Park Way

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

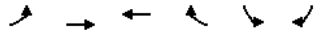
Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations		↕	↕		↕	↕
Volume (veh/h)	12	239	118	25	30	9
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.50	0.50	0.88	0.88	0.71	0.71
Hourly flow rate (vph)	24	478	134	28	42	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None	None				
Median storage (veh)						
Upstream signal (ft)	854					
pX, platoon unblocked						
vC, conflicting volume	162				435	81
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	162				435	81
tC, single (s)	4.1				6.9	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.4
p0 queue free %	98				92	99
cM capacity (veh/h)	1414				530	950

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1
Volume Total	183	319	89	73	55
Volume Left	24	0	0	0	42
Volume Right	0	0	0	28	13
cSH	1414	1700	1700	1700	590
Volume to Capacity	0.02	0.19	0.05	0.04	0.09
Queue Length 95th (ft)	1	0	0	0	8
Control Delay (s)	1.1	0.0	0.0	0.0	11.7
Lane LOS	A				B
Approach Delay (s)	0.4		0.0		11.7
Approach LOS					B

Intersection Summary					
Average Delay			1.2		
Intersection Capacity Utilization	24.3%		ICU Level of Service	A	
Analysis Period (min)	15				

HCM Unsignalized Intersection Capacity Analysis
22: N 51st Street & N Bennett Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Volume (veh/h)	1	339	533	4	1	1
Sign Control		Free	Free		Stop	
Grade		0%	6%		0%	
Peak Hour Factor	0.59	0.59	0.76	0.76	0.50	0.50
Hourly flow rate (vph)	2	575	701	5	2	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	707			1282	704	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	707			1282	704	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	100			99	100	
cM capacity (veh/h)	901			184	440	

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	576	707	4
Volume Left	2	0	2
Volume Right	0	5	2
cSH	901	1700	259
Volume to Capacity	0.00	0.42	0.02
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.1	0.0	19.1
Lane LOS	A		C
Approach Delay (s)	0.1	0.0	19.1
Approach LOS			C

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		38.3%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
23: N 49th Street & N Ruston Way

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday



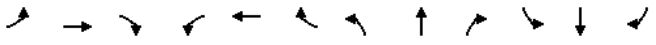
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑		↑	↑	↑	
Volume (veh/h)	4	86	261	705	467	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.93	0.93	0.92	0.92
Hourly flow rate (vph)	5	100	281	758	508	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1928	608	609			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1928	608	609			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	90	78	69			
cM capacity (veh/h)	47	458	898			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	105	281	758	509
Volume Left	5	281	0	0
Volume Right	100	0	0	1
cSH	329	898	1700	1700
Volume to Capacity	0.32	0.31	0.45	0.30
Queue Length 95th (ft)	33	34	0	0
Control Delay (s)	21.0	10.8	0.0	0.0
Lane LOS	C	B		
Approach Delay (s)	21.0	2.9		0.0
Approach LOS	C			

Intersection Summary			
Average Delay		3.2	
Intersection Capacity Utilization		54.6%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
24: N 46th Street & N Baltimore Street


2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		+			+			+			+			
Volume (veh/h)	114	191	1	12	335	36	1	25	0	22	20	84		
Sign Control	Free			Free			Stop			Stop				
Grade	-1%			1%			-3%			1%				
Peak Hour Factor	0.92	0.92	0.92	0.81	0.81	0.81	0.50	0.50	0.50	0.71	0.71	0.71		
Hourly flow rate (vph)	124	208	1	15	414	44	2	50	0	31	28	118		
Pedestrians														
Lane Width (ft)														
Walking Speed (ft/s)														
Percent Blockage														
Right turn flare (veh)														
Median type	None			None										
Median storage (veh)														
Upstream signal (ft)														
pX, platoon unblocked														
vC, conflicting volume	458				209				1054	944	208	946	922	436
vC1, stage 1 conf vol														
vC2, stage 2 conf vol														
vCu, unblocked vol	458				209				1054	944	208	946	922	436
tC, single (s)	4.1				4.1				7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)														
tF (s)	2.2				2.2				3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	89				99				99	79	100	83	88	81
cM capacity (veh/h)	1108				1368				137	233	837	182	235	616
Direction, Lane #	EB 1	WB 1	NB 1	SB 1										
Volume Total	333	473	52	177										
Volume Left	124	15	2	31										
Volume Right	1	44	0	118										
cSH	1108	1368	227	368										
Volume to Capacity	0.11	0.01	0.23	0.48										
Queue Length 95th (ft)	9	1	21	63										
Control Delay (s)	3.9	0.3	25.6	23.6										
Lane LOS	A	A	D	C										
Approach Delay (s)	3.9	0.3	25.6	23.6										
Approach LOS			D	C										
Intersection Summary														
Average Delay				6.7										
Intersection Capacity Utilization				61.0%	ICU Level of Service	B								
Analysis Period (min)				15										

HCM Unsignalized Intersection Capacity Analysis
25: N 46th Street & N Orchard Street

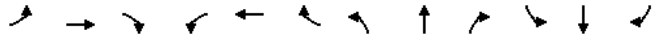
2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations		+			+			+			+			
Volume (veh/h)	7	177	15	47	329	55	20	46	18	35	31	11		
Sign Control	Free			Free			Stop			Stop				
Grade	-1%			1%			-3%			1%				
Peak Hour Factor	0.83	0.83	0.83	0.94	0.94	0.94	0.86	0.86	0.86	0.70	0.70	0.70		
Hourly flow rate (vph)	8	213	18	50	350	59	23	53	21	50	44	16		
Pedestrians														
Lane Width (ft)														
Walking Speed (ft/s)														
Percent Blockage														
Right turn flare (veh)														
Median type	None			None										
Median storage (veh)														
Upstream signal (ft)														
pX, platoon unblocked														
vC, conflicting volume	409				231				756	748	222	766	727	379
vC1, stage 1 conf vol														
vC2, stage 2 conf vol														
vCu, unblocked vol	409				231				756	748	222	766	727	379
tC, single (s)	4.1				4.1				7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)														
tF (s)	2.2				2.2				3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99				96				92	84	97	81	87	98
cM capacity (veh/h)	1161				1348				276	326	817	265	337	672
Direction, Lane #	EB 1	WB 1	NB 1	SB 1										
Volume Total	240	459	98	110										
Volume Left	8	50	23	50										
Volume Right	18	59	21	16										
cSH	1161	1348	357	320										
Volume to Capacity	0.01	0.04	0.27	0.34										
Queue Length 95th (ft)	1	3	27	37										
Control Delay (s)	0.4	1.2	18.8	22.0										
Lane LOS	A	A	C	C										
Approach Delay (s)	0.4	1.2	18.8	22.0										
Approach LOS			C	C										
Intersection Summary														
Average Delay				5.4										
Intersection Capacity Utilization				51.6%	ICU Level of Service	A								
Analysis Period (min)				15										

HCM Unsignalized Intersection Capacity Analysis
26: N 46th Street & N Ferdinand Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Volume (veh/h)	70	133	19	5	205	13	22	9	4	23	43	204
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			-3%			1%	
Peak Hour Factor	0.92	0.92	0.92	0.83	0.83	0.83	0.65	0.65	0.65	0.88	0.88	0.88
Hourly flow rate (vph)	76	145	21	6	247	16	34	14	6	26	49	232
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	263			165			830	582	155	587	584	255
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	263			165			830	582	155	587	584	255
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			100			81	97	99	93	88	71
cM capacity (veh/h)	1313			1425			178	401	896	391	400	789

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	241	269	54	307
Volume Left	76	6	34	26
Volume Right	21	16	6	232
cSH	1313	1425	233	635
Volume to Capacity	0.06	0.00	0.23	0.48
Queue Length 95th (ft)	5	0	22	66
Control Delay (s)	2.8	0.2	25.1	15.9
Lane LOS	A	A	D	C
Approach Delay (s)	2.8	0.2	25.1	15.9
Approach LOS			D	C

Intersection Summary			
Average Delay		8.0	
Intersection Capacity Utilization	49.8%		ICU Level of Service A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
27: N Ruston Way & N 40th Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔	↔	↔	↔
Volume (veh/h)	561	1	12	1027	0	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.74	0.74	0.94	0.94	0.75	0.75
Hourly flow rate (vph)	758	1	13	1093	0	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWTL		
Median storage (veh)				2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			759		1877	759
vC1, stage 1 conf vol					759	
vC2, stage 2 conf vol					1118	
vCu, unblocked vol				759	1877	759
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	98
cM capacity (veh/h)			861		262	410

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	759	13	1093	9
Volume Left	0	13	0	0
Volume Right	1	0	0	9
cSH	1700	861	1700	410
Volume to Capacity	0.45	0.01	0.64	0.02
Queue Length 95th (ft)	0	1	0	2
Control Delay (s)	0.0	9.2	0.0	14.0
Lane LOS		A		B
Approach Delay (s)	0.0	0.1		14.0
Approach LOS				B

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization	64.1%		ICU Level of Service C
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
28: N Ruston Way & N Adler Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (veh/h)	535	34	207	1035	32	80
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.86	0.86	0.66	0.66
Hourly flow rate (vph)	594	38	241	1203	48	121
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage (veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			632	2298	613	
vC1, stage 1 conf vol				613		
vC2, stage 2 conf vol				1685		
vCu, unblocked vol			632	2298	613	
tC, single (s)			4.1	6.4	6.2	
tC, 2 stage (s)				5.4		
tF (s)			2.2	3.5	3.3	
p0 queue free %			75	59	75	
cM capacity (veh/h)			960	119	494	
Direction, Lane #	SE 1	NW 1	NW 2	NE 1		
Volume Total	632	241	1203	170		
Volume Left	0	241	0	48		
Volume Right	38	0	0	121		
cSH	1700	960	1700	260		
Volume to Capacity	0.37	0.25	0.71	0.65		
Queue Length 95th (ft)	0	25	0	103		
Control Delay (s)	0.0	10.0	0.0	41.5		
Lane LOS		A		E		
Approach Delay (s)	0.0	1.7		41.5		
Approach LOS				E		
Intersection Summary						
Average Delay			4.2			
Intersection Capacity Utilization			67.8%		ICU Level of Service	C
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
29: N 49th Street & N Pearl Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	14	6	440	11	2	512
Sign Control	Stop		Free			Free
Grade	0%		-2%			1%
Peak Hour Factor	0.71	0.71	0.84	0.84	0.73	0.73
Hourly flow rate (vph)	20	8	524	13	3	701
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			1174			951
pX, platoon unblocked	0.96					
vC, conflicting volume	1237	530			537	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1226	530			537	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	98			100	
cM capacity (veh/h)	190	553			1031	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	28	537	704			
Volume Left	20	0	3			
Volume Right	8	13	0			
cSH	237	1700	1031			
Volume to Capacity	0.12	0.32	0.00			
Queue Length 95th (ft)	10	0	0			
Control Delay (s)	22.2	0.0	0.1			
Lane LOS	C		A			
Approach Delay (s)	22.2	0.0	0.1			
Approach LOS	C					
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			38.5%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
30: N 51st Street & N Winnfred Street

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	339	6	19	480	16	8	6	7	14	8	12
Peak Hour Factor	0.86	0.86	0.86	0.83	0.83	0.83	0.56	0.56	0.56	0.92	0.92	0.92
Hourly flow rate (vph)	8	394	7	23	578	19	14	11	12	15	9	13
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	409	620	38	37								
Volume Left (vph)	8	23	14	15								
Volume Right (vph)	7	19	13	13								
Hadj (s)	-0.01	-0.01	-0.12	-0.13								
Departure Headway (s)	4.8	4.6	6.2	6.2								
Degree Utilization, x	0.55	0.80	0.06	0.06								
Capacity (veh/h)	717	769	522	517								
Control Delay (s)	13.6	23.1	9.6	9.6								
Approach Delay (s)	13.6	23.1	9.6	9.6								
Approach LOS	B	C	A	A								
Intersection Summary												
Delay				18.7								
HCM Level of Service				C								
Intersection Capacity Utilization				46.1%	ICU Level of Service	A						
Analysis Period (min)				15								

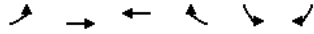
HCM Unsignalized Intersection Capacity Analysis
31: N Ruston Way & Park Access

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Right Turn Channelized												
Volume (veh/h)	130	205	3	84	394	182	1	58	102	159	49	151
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	141	223	3	91	428	198	1	63	111	173	53	164
Approach Volume (veh/h)	367			717				175		390		
Crossing Volume (veh/h)	317			205				537		521		
High Capacity (veh/h)	1079			1179				906		918		
High v/c (veh/h)	0.34			0.61				0.19		0.43		
Low Capacity (veh/h)	885			975				730		741		
Low v/c (veh/h)	0.42			0.74				0.24		0.53		
Intersection Summary												
Maximum v/c High				0.61								
Maximum v/c Low				0.74								
Intersection Capacity Utilization				81.9%				ICU Level of Service		D		

HCM Unsignalized Intersection Capacity Analysis
33: N Ruston Way & Site Access

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Right Turn Channelized						
Volume (veh/h)	161	303	511	149	154	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	175	329	555	162	167	161
Approach Volume (veh/h)		504	717		328	
Crossing Volume (veh/h)		167	175		555	
High Capacity (veh/h)		1215	1208		893	
High v/c (veh/h)		0.42	0.59		0.37	
Low Capacity (veh/h)		1007	1000		719	
Low v/c (veh/h)		0.50	0.72		0.46	
Intersection Summary						
Maximum v/c High		0.59				
Maximum v/c Low		0.72				
Intersection Capacity Utilization		88.4%		ICU Level of Service	E	

HCM Unsignalized Intersection Capacity Analysis
34: Commercial Access & N Baltimore Street

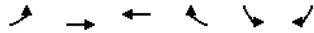
2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	2	8	160	6	2	133
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	9	174	7	2	145
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	326	177			180	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	326	177			180	
IC, single (s)	6.4	6.2			4.1	
IC, 2 stage (s)						
IF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			100	
cM capacity (veh/h)	667	866			1395	
Direction, Lane #	WB 1	NB 1	SB 1	SB 2		
Volume Total	11	180	2	145		
Volume Left	2	0	2	0		
Volume Right	9	7	0	0		
cSH	817	1700	1395	1700		
Volume to Capacity	0.01	0.11	0.00	0.09		
Queue Length 95th (ft)	1	0	0	0		
Control Delay (s)	9.5	0.0	7.6	0.0		
Lane LOS	A		A			
Approach Delay (s)	9.5	0.0	0.1			
Approach LOS	A					
Intersection Summary						
Average Delay		0.4				
Intersection Capacity Utilization		18.8%		ICU Level of Service	A	
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis
35: N Ruston Way & East Access

2014 Proposed Action - Scenario 1
12/4/2007 - Average Weekday



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	↕
Volume (veh/h)	33	423	611	85	49	50
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	36	460	664	92	53	54
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						1
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	757			1242	710	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	757			1242	710	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	96			71	87	
cM capacity (veh/h)	854			185	433	

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	496	757	108
Volume Left	36	0	53
Volume Right	0	92	54
cSH	854	1700	373
Volume to Capacity	0.04	0.45	0.29
Queue Length 95th (ft)	3	0	29
Control Delay (s)	1.2	0.0	23.2
Lane LOS	A		C
Approach Delay (s)	1.2	0.0	23.2
Approach LOS			C

Intersection Summary			
Average Delay		2.3	
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		

1: N Park Street & N Narrows Drive Performance by movement

Movement	EBL	EBR	WBL	WBT	WBR	WBR2	NBL2	NBL	NBT	SBL	SBT	SBR
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.0	0.0	0.2
Delay / Veh (s)	5.3	2.7	6.3	7.7	8.3	5.2	10.4	10.9	8.2	7.3	7.4	8.2
Total Stops	1	1	6	1	1	2	8	52	176	2	5	107
Travel Dist (mi)	0.2	0.3	1.9	0.3	0.4	0.8	1.3	8.7	29.1	0.2	0.8	15.7
Travel Time (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.5	1.4	0.0	0.0	0.9
Avg Speed (mph)	24	23	24	26	24	26	22	21	21	20	22	21
Fuel Used (gal)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.8	0.0	0.0	0.5
HC Emissions (g)	0	0	0	0	0	0	0	2	11	0	0	4
CO Emissions (g)	0	0	4	0	1	1	9	69	272	1	4	105
NOx Emissions (g)	0	0	1	0	0	0	1	6	30	0	0	12
Vehicles Entered	1	1	6	1	1	3	7	52	175	2	5	107
Vehicles Exited	1	1	6	1	1	2	8	52	176	2	5	107
Hourly Exit Rate	1	1	6	1	1	2	8	52	176	2	5	107
Input Volume	1	1	6	2	1	2	9	53	177	2	6	109
% of Volume	100	100	100	50	100	100	89	98	99	100	83	98
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0

1: N Park Street & N Narrows Drive Performance by movement

Movement	SBR2	SEL	SER	All
Total Delay (hr)	0.0	0.4	0.0	1.2
Delay / Veh (s)	7.8	10.5	5.5	9.0
Total Stops	1	132	2	497
Travel Dist (mi)	0.2	18.9	0.3	78.8
Travel Time (hr)	0.0	1.1	0.0	4.1
Avg Speed (mph)	25	21	21	21
Fuel Used (gal)	0.0	0.6	0.0	2.3
HC Emissions (g)	0	5	0	22
CO Emissions (g)	0	139	1	607
NOx Emissions (g)	0	13	0	64
Vehicles Entered	1	131	2	495
Vehicles Exited	1	132	2	497
Hourly Exit Rate	1	132	2	497
Input Volume	1	130	1	501
% of Volume	100	102	200	99
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

Total Network Performance

Total Delay (hr)	1.4
Delay / Veh (s)	10.4
Total Stops	497
Travel Dist (mi)	188.8
Travel Time (hr)	8.4
Avg Speed (mph)	24
Fuel Used (gal)	6.9
HC Emissions (g)	78
CO Emissions (g)	2427
NOx Emissions (g)	244
Vehicles Entered	495
Vehicles Exited	497
Hourly Exit Rate	497
Input Volume	1002
% of Volume	50
Denied Entry Before	0
Denied Entry After	0



Movement Summary

Ruston Point EIS Supplement

Average Weekday Park Access Scenario 1 (31)

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
N Baltimore Street (northbound)										
3L	L	1	50.0	0.286	15.0	LOS B	51	0.70	0.91	25.5
8T	T	63	1.6	0.274	57.7	LOS E	51	0.70	0.93	17.3
8R	R	111	1.8	0.274	10.6	LOS B	51	0.70	0.73	27.3
Approach		176	2.3	0.274	27.5	LOS C	51	0.70	0.80	22.8
N Ruston Way (westbound)										
1L	L	91	2.2	0.734	14.0	LOS B	244	0.72	0.78	26.0
6T	T	428	2.1	0.732	7.2	LOS A	244	0.72	0.69	28.6
6R	R	198	2.0	0.731	8.3	LOS A	244	0.72	0.67	28.2
Approach		718	2.1	0.732	8.3	LOS A	244	0.72	0.69	28.2
Park Access (southbound)										
7L	L	173	1.7	0.604	17.3	LOS B	154	0.82	1.02	24.5
4T	T	53	1.9	0.602	10.5	LOS B	154	0.82	0.96	27.4
4R	R	164	1.8	0.605	11.5	LOS B	154	0.82	0.89	26.8
Approach		389	1.8	0.605	13.9	LOS B	154	0.82	0.96	25.7
N Ruston Way (eastbound)										
5L	L	141	2.1	0.461	13.0	LOS B	89	0.61	0.79	26.3
2T	T	223	1.8	0.461	55.7	LOS E	89	0.61	0.90	17.8
2R	R	3	25.0	0.444	7.2	LOS A	89	0.61	0.68	28.6
Approach		367	2.2	0.461	38.8	LOS D	89	0.61	0.85	20.7
All Vehicles		1650	2.1	0.734	18.5	LOS B	244	0.72	0.80	25.1

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue



Movement Summary

Ruston Point EIS Supplement

Average Weekday Site Access (33)

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
N Ruston Way (westbound)										
6T	T	555	2.0	0.704	6.0	LOS A	215	0.66	0.61	28.9
6R	R	162	1.9	0.704	7.1	LOS A	215	0.66	0.64	28.5
Approach		717	2.0	0.705	6.3	LOS A	215	0.66	0.61	28.8
Site Access (southbound)										
7L	L	167	1.8	0.524	16.5	LOS B	118	0.78	0.98	24.9
4R	R	161	1.9	0.524	10.7	LOS B	118	0.78	0.93	27.2
Approach		328	1.8	0.524	13.7	LOS B	118	0.78	0.95	25.9
N Ruston Way (eastbound)										
5L	L	175	1.7	0.512	11.8	LOS B	116	0.52	0.68	26.6
2T	T	329	2.1	0.512	54.4	LOS D	116	0.52	0.83	16.8
Approach		505	2.0	0.512	39.7	LOS D	116	0.52	0.78	19.6
All Vehicles		1550	1.9	0.704	18.7	LOS B	215	0.64	0.74	24.5

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement



Site: Proposed Site Access

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HCM Signalized Intersection Capacity Analysis
 9: N 46th Street & N Pearl Street

2014 Proposed Action - Scenario 2
 2/26/2008 - Average Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	9	85	22	155	121	83	55	481	155	50	539	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	11	10	12	12	10	12	12	10	12	12
Grade (%)		2%			0%			0%				1%
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.94		1.00	0.96		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1635	3281		1652	3324		1636	3377		1643	3513	
Flt Permitted	0.61	1.00		0.67	1.00		0.42	1.00		0.36	1.00	
Satd. Flow (perm)	1043	3281		1160	3324		723	3377		628	3513	
Peak-hour factor, PHF	0.80	0.80	0.80	0.87	0.87	0.87	0.94	0.94	0.94	0.93	0.93	0.93
Adj. Flow (vph)	11	106	28	178	139	95	59	512	165	54	580	10
RTOR Reduction (vph)	0	18	0	0	60	0	0	54	0	0	2	0
Lane Group Flow (vph)	11	116	0	178	174	0	59	623	0	54	588	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			6			2	
Permitted Phases	4			4			6			2		
Actuated Green, G (s)	11.7	11.7		11.7	11.7		13.1	13.1		13.1	13.1	
Effective Green, g (s)	12.7	12.7		12.7	12.7		14.1	14.1		14.1	14.1	
Actuated g/C Ratio	0.36	0.36		0.36	0.36		0.41	0.41		0.41	0.41	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)	381	1197		423	1213		293	1368		254	1423	
v/s Ratio Prot		0.04			0.05			c0.18			0.17	
v/s Ratio Perm	0.01			c0.15			0.08			0.09		
v/c Ratio	0.03	0.10		0.42	0.14		0.20	0.46		0.21	0.41	
Uniform Delay, d1	7.1	7.3		8.3	7.4		6.7	7.5		6.7	7.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.0		0.5	0.0		0.2	0.2		0.3	0.1	
Delay (s)	7.1	7.3		8.8	7.4		7.0	7.7		7.0	7.5	
Level of Service	A	A		A	A		A	A		A	A	
Approach Delay (s)		7.3			8.0			7.7			7.5	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	34.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 10: N 51st Street & N Pearl Street

2014 Proposed Action - Scenario 2

2/26/2008 - Average Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕	↕	↕	↕		↕	↕	
Volume (vph)	13	57	39	301	93	87	33	151	213	75	159	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-2%			3%			-2%			2%	
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.95			1.00	0.85	1.00	0.91		1.00	1.00	
Flt Protected		0.99			0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1816			1803	1591	1668	1602		1635	1721	
Flt Permitted		0.94			0.68	1.00	0.50	1.00		0.37	1.00	
Satd. Flow (perm)		1714			1266	1591	884	1602		639	1721	
Peak-hour factor, PHF	0.76	0.76	0.76	0.96	0.96	0.96	0.88	0.88	0.88	0.52	0.52	0.52
Adj. Flow (vph)	17	75	51	314	97	91	38	172	242	144	306	0
RTOR Reduction (vph)	0	25	0	0	0	30	0	50	0	0	0	0
Lane Group Flow (vph)	0	118	0	0	411	61	38	364	0	144	306	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Turn Type	Perm			Perm		Perm	Perm			pm+pt		
Protected Phases		4			4			6		5	2	
Permitted Phases	4			4		4	6			2		
Actuated Green, G (s)		32.8			32.8	32.8	36.2	36.2		47.2	47.2	
Effective Green, g (s)		33.8			33.8	33.8	37.2	37.2		48.2	48.2	
Actuated g/C Ratio		0.38			0.38	0.38	0.41	0.41		0.54	0.54	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)		2.5			2.5	2.5	2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)		644			475	598	365	662		420	922	
v/s Ratio Prot								c0.23		0.03	c0.18	
v/s Ratio Perm		0.07			c0.32	0.04	0.04			0.16		
v/c Ratio		0.18			0.87	0.10	0.10	0.55		0.34	0.33	
Uniform Delay, d1		18.8			26.0	18.2	16.2	20.0		19.0	11.8	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			15.0	0.1	0.6	3.3		0.4	1.0	
Delay (s)		18.9			41.0	18.3	16.8	23.3		19.4	12.8	
Level of Service		B			D	B	B	C		B	B	
Approach Delay (s)		18.9			36.9			22.7			14.9	
Approach LOS		B			D			C			B	

Intersection Summary

HCM Average Control Delay	24.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 22: N 51st Street & N Bennett Street

2014 Proposed Action - Scenario 2
 2/26/2008 - Average Weekday



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Volume (veh/h)	1	334	523	4	1	1
Sign Control		Free	Free		Stop	
Grade		0%	6%		0%	
Peak Hour Factor	0.59	0.59	0.76	0.76	0.50	0.50
Hourly flow rate (vph)	2	566	688	5	2	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	693				1260	691
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	693				1260	691
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	911				190	448
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	568	693	4			
Volume Left	2	0	2			
Volume Right	0	5	2			
cSH	911	1700	266			
Volume to Capacity	0.00	0.41	0.02			
Queue Length 95th (ft)	0	0	1			
Control Delay (s)	0.1	0.0	18.7			
Lane LOS	A		C			
Approach Delay (s)	0.1	0.0	18.7			
Approach LOS			C			
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			37.8%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 24: N 46th Street & N Baltimore Street

2014 Proposed Action - Scenario 2
 2/26/2008 - Average Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	120	191	1	12	335	36	1	25	0	22	20	93
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			-3%			1%	
Peak Hour Factor	0.92	0.92	0.92	0.81	0.81	0.81	0.50	0.50	0.50	0.71	0.71	0.71
Hourly flow rate (vph)	130	208	1	15	414	44	2	50	0	31	28	131
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	458			209			1080	957	208	959	935	436
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	458			209			1080	957	208	959	935	436
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	88			99			98	78	100	82	88	79
cM capacity (veh/h)	1108			1368			128	227	837	176	230	616

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	339	473	52	190
Volume Left	130	15	2	31
Volume Right	1	44	0	131
cSH	1108	1368	220	372
Volume to Capacity	0.12	0.01	0.24	0.51
Queue Length 95th (ft)	10	1	22	70
Control Delay (s)	4.1	0.3	26.3	24.4
Lane LOS	A	A	D	C
Approach Delay (s)	4.1	0.3	26.3	24.4
Approach LOS			D	C

Intersection Summary			
Average Delay		7.2	
Intersection Capacity Utilization	61.9%		ICU Level of Service B
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 29: N 49th Street & N Pearl Street

2014 Proposed Action - Scenario 2

2/26/2008 - Average Weekday



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	14	6	435	11	2	503
Sign Control	Stop		Free			Free
Grade	0%		-2%			1%
Peak Hour Factor	0.71	0.71	0.84	0.84	0.73	0.73
Hourly flow rate (vph)	20	8	518	13	3	689
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			1174			951
pX, platoon unblocked	0.96					
vC, conflicting volume	1219	524			531	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1207	524			531	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	98			100	
cM capacity (veh/h)	196	557			1036	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	28	531	692
Volume Left	20	0	3
Volume Right	8	13	0
cSH	243	1700	1036
Volume to Capacity	0.12	0.31	0.00
Queue Length 95th (ft)	10	0	0
Control Delay (s)	21.7	0.0	0.1
Lane LOS	C		A
Approach Delay (s)	21.7	0.0	0.1
Approach LOS	C		

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		38.1%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 30: N 51st Street & N Winnifred Street

2014 Proposed Action - Scenario 2
 2/26/2008 - Average Weekday













Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	333	6	19	470	16	8	6	7	14	8	12
Peak Hour Factor	0.86	0.86	0.86	0.83	0.83	0.83	0.56	0.56	0.56	0.92	0.92	0.92
Hourly flow rate (vph)	8	387	7	23	566	19	14	11	12	15	9	13

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	402	608	38	37
Volume Left (vph)	8	23	14	15
Volume Right (vph)	7	19	13	13
Hadj (s)	-0.01	-0.01	-0.12	-0.13
Departure Headway (s)	4.8	4.6	6.2	6.2
Degree Utilization, x	0.54	0.78	0.06	0.06
Capacity (veh/h)	719	771	524	518
Control Delay (s)	13.3	21.8	9.6	9.6
Approach Delay (s)	13.3	21.8	9.6	9.6
Approach LOS	B	C	A	A

Intersection Summary			
Delay		17.8	
HCM Level of Service		C	
Intersection Capacity Utilization	45.5%		ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 34: Commercial Access & N Baltimore Street

2014 Proposed Action - Scenario 2
 2/26/2008 - Average Weekday

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	2	8	165	6	2	142
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	9	179	7	2	154
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	341	183			186	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	341	183			186	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			100	
cM capacity (veh/h)	654	860			1389	
Direction, Lane #	WB 1	NB 1	SB 1	SB 2		
Volume Total	11	186	2	154		
Volume Left	2	0	2	0		
Volume Right	9	7	0	0		
cSH	809	1700	1389	1700		
Volume to Capacity	0.01	0.11	0.00	0.09		
Queue Length 95th (ft)	1	0	0	0		
Control Delay (s)	9.5	0.0	7.6	0.0		
Lane LOS	A		A			
Approach Delay (s)	9.5	0.0	0.1			
Approach LOS	A					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			19.0%		ICU Level of Service	A
Analysis Period (min)			15			

**SIDRA
INTERSECTION**

Movement Summary

Ruston Point EIS Supplement

Average Weekday Park Access Scenario 2 (31)

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
N Baltimore Street (northbound)										
3L	L	1	50.0	0.286	14.9	LOS B	52	0.70	0.91	25.5
8T	T	63	1.6	0.280	57.6	LOS E	52	0.70	0.93	17.3
8R	R	116	1.7	0.280	10.5	LOS B	52	0.70	0.73	27.3
Approach		181	2.2	0.280	27.0	LOS C	52	0.70	0.80	22.9
N Ruston Way (westbound)										
1L	L	101	2.0	0.732	14.0	LOS B	242	0.72	0.78	26.1
6T	T	417	1.9	0.730	7.1	LOS A	242	0.72	0.68	28.7
6R	R	198	2.0	0.731	8.2	LOS A	242	0.72	0.67	28.3
Approach		716	2.0	0.730	8.4	LOS A	242	0.72	0.69	28.1
Park Access (southbound)										
7L	L	173	1.7	0.604	17.3	LOS B	154	0.82	1.02	24.5
4T	T	53	1.9	0.602	10.4	LOS B	154	0.82	0.96	27.4
4R	R	164	1.8	0.603	11.5	LOS B	154	0.82	0.89	26.8
Approach		389	1.8	0.604	13.9	LOS B	154	0.82	0.95	25.7
N Ruston Way (eastbound)										
5L	L	141	2.1	0.458	13.1	LOS B	88	0.62	0.79	26.3
2T	T	216	1.9	0.458	55.8	LOS E	88	0.62	0.90	17.8
2R	R	3	25.0	0.444	7.3	LOS A	88	0.62	0.68	28.6
Approach		361	2.2	0.458	38.6	LOS D	88	0.62	0.86	20.8
All Vehicles		1647	2.0	0.732	18.4	LOS B	242	0.72	0.80	25.1

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

HCM Signalized Intersection Capacity Analysis
9: N 46th Street & N Pearl Street

2014 Proposed Action - Scenario 1
12/4/2007 - Summer Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	9	83	22	145	118	82	54	465	150	49	532	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	11	10	12	12	10	12	12	10	12	12
Grade (%)	2%			0%			0%			1%		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Frt	1.00	0.97	1.00	0.94	1.00	0.96	1.00	0.96	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1635	3279	1652	3322	1636	3376	1643	3512				
Flt Permitted	0.61	1.00	0.67	1.00	0.43	1.00	0.38	1.00				
Satd. Flow (perm)	1047	3279	1162	3322	736	3376	656	3512				
Peak-hour factor, PHF	0.80	0.80	0.80	0.87	0.87	0.87	0.94	0.94	0.94	0.93	0.93	0.93
Adj. Flow (vph)	11	104	28	167	136	94	57	495	160	53	572	10
RTOR Reduction (vph)	0	18	0	0	60	0	0	55	0	0	2	0
Lane Group Flow (vph)	11	114	0	167	170	0	57	600	0	53	580	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Turn Type	Perm		Perm		Perm		Perm		Perm			
Protected Phases	4		4		6		6		2			
Permitted Phases	4		4		6		6		2			
Actuated Green, G (s)	11.3	11.3	11.3	11.3	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7
Effective Green, g (s)	12.3	12.3	12.3	12.3	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7
Actuated g/C Ratio	0.36	0.36	0.36	0.36	0.40	0.40	0.40	0.40	0.40	0.40	0.40	0.40
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Lane Grp Cap (vph)	379	1186	420	1202	297	1360	264	1415				
v/s Ratio Prot	0.03		c0.14		0.05		c0.18		0.17			
v/s Ratio Perm	0.01		0.40	0.14	0.19	0.44	0.20	0.41				
v/c Ratio	0.03	0.10	0.40	0.14	0.19	0.44	0.20	0.41				
Uniform Delay, d1	7.0	7.2	8.1	7.3	6.6	7.4	6.6	7.3				
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Incremental Delay, d2	0.0	0.0	0.5	0.0	0.2	0.2	0.3	0.1				
Delay (s)	7.0	7.2	8.5	7.3	6.8	7.5	6.9	7.4				
Level of Service	A	A	A	A	A	A	A	A				
Approach Delay (s)	7.2		7.8		7.5		7.4					
Approach LOS	A		A		A		A					
Intersection Summary												
HCM Average Control Delay	7.5		HCM Level of Service		A							
HCM Volume to Capacity ratio	0.42											
Actuated Cycle Length (s)	34.0		Sum of lost time (s)		8.0							
Intersection Capacity Utilization	50.7%		ICU Level of Service		A							
Analysis Period (min)	15											

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
10: N 51st Street & N Pearl Street

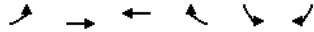
2014 Proposed Action - Scenario 1
12/4/2007 - Summer Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	41	79	72	347	130	125	75	346	236	112	295	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)	-2%			3%			-2%			2%		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.95		1.00	0.85	1.00	0.94	1.00	0.94	1.00	1.00	1.00	1.00
Flt Protected	0.99		0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1802		1806	1591	1668	1649	1635	1721				
Flt Permitted	0.70		0.60	1.00	0.38	1.00	0.11	1.00				
Satd. Flow (perm)	1271		1118	1591	665	1649	191	1721				
Peak-hour factor, PHF	0.76	0.76	0.76	0.96	0.96	0.96	0.88	0.88	0.88	0.52	0.52	0.52
Adj. Flow (vph)	54	104	95	361	135	130	85	393	268	215	567	0
RTOR Reduction (vph)	0	24	0	0	0	31	0	27	0	0	0	0
Lane Group Flow (vph)	0	229	0	0	496	99	85	634	0	215	567	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Turn Type	Perm		Perm		Perm		Perm		pm+pt			
Protected Phases	4		4		4		6		5 2			
Permitted Phases	4		4		6		6		2			
Actuated Green, G (s)	37.0		37.0		37.0		31.0		31.0		43.0 43.0	
Effective Green, g (s)	38.0		38.0		38.0		32.0		32.0		44.0 44.0	
Actuated g/C Ratio	0.42		0.42		0.42		0.36		0.36		0.49 0.49	
Clearance Time (s)	5.0		5.0		5.0		5.0		5.0		5.0 5.0	
Vehicle Extension (s)	2.5		2.5		2.5		2.5		2.5		2.5 2.5	
Lane Grp Cap (vph)	537		472		672		236		586		222 841	
v/s Ratio Prot					c0.38		c0.09		0.33			
v/s Ratio Perm	0.18		c0.44		0.06		0.13		0.39			
v/c Ratio	0.43		1.05		0.15		0.36		1.08		0.97 0.67	
Uniform Delay, d1	18.3		26.0		16.0		21.4		29.0		22.4 17.5	
Progression Factor	1.00		1.00		1.00		1.00		1.00		1.00 1.00	
Incremental Delay, d2	0.4		55.4		0.1		4.2		61.2		50.9 4.3	
Delay (s)	18.7		81.4		16.1		25.7		90.2		73.2 21.8	
Level of Service	B		F		B		C		F		E C	
Approach Delay (s)	18.7		67.9				82.9				36.0	
Approach LOS	B		E				F				D	
Intersection Summary												
HCM Average Control Delay	57.0		HCM Level of Service		E							
HCM Volume to Capacity ratio	1.06											
Actuated Cycle Length (s)	90.0		Sum of lost time (s)		12.0							
Intersection Capacity Utilization	89.0%		ICU Level of Service		E							
Analysis Period (min)	15											

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
22: N 51st Street & N Bennett Street

2014 Proposed Action - Scenario 1
12/4/2007 - Summer Weekday



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Volume (veh/h)	1	360	598	4	2	1
Sign Control		Free	Free		Stop	
Grade		0%	6%		0%	
Peak Hour Factor	0.59	0.59	0.76	0.76	0.50	0.50
Hourly flow rate (vph)	2	610	787	5	4	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	792			1403	789	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	792			1403	789	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	100			97	99	
cM capacity (veh/h)	837			155	394	

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	612	792	6
Volume Left	2	0	4
Volume Right	0	5	2
cSH	837	1700	195
Volume to Capacity	0.00	0.47	0.03
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.1	0.0	24.1
Lane LOS	A		C
Approach Delay (s)	0.1	0.0	24.1
Approach LOS			C

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization	41.7%		ICU Level of Service A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
23: N 49th Street & N Ruston Way

2014 Proposed Action - Scenario 1
12/4/2007 - Summer Weekday



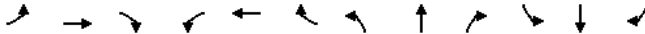
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑		↑	↑	↑	↑
Volume (veh/h)	9	118	290	758	483	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.93	0.93	0.92	0.92
Hourly flow rate (vph)	10	137	312	815	525	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2065	627	628			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2065	627	628			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	71	69	65			
cM capacity (veh/h)	36	447	883			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	148	312	815	528
Volume Left	10	312	0	0
Volume Right	137	0	0	3
cSH	247	883	1700	1700
Volume to Capacity	0.60	0.35	0.48	0.31
Queue Length 95th (ft)	87	40	0	0
Control Delay (s)	39.1	11.3	0.0	0.0
Lane LOS	E	B		
Approach Delay (s)	39.1	3.1		0.0
Approach LOS	E			

Intersection Summary			
Average Delay		5.2	
Intersection Capacity Utilization	59.5%		ICU Level of Service B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
24: N 46th Street & N Baltimore Street


2014 Proposed Action - Scenario 1
12/4/2007 - Summer Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Volume (veh/h)	115	187	1	11	329	36	1	25	0	22	19	83
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			-3%			1%	
Peak Hour Factor	0.92	0.92	0.92	0.81	0.81	0.81	0.50	0.50	0.50	0.71	0.71	0.71
Hourly flow rate (vph)	125	203	1	14	406	44	2	50	0	31	27	117
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None				None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	451			204			1040	932	204	934	910	428
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	451			204			1040	932	204	934	910	428
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	89			99			99	79	100	83	89	81
cM capacity (veh/h)	1115			1373			142	237	842	186	239	622
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	329	464	52	175								
Volume Left	125	14	2	31								
Volume Right	1	44	0	117								
cSH	1115	1373	231	374								
Volume to Capacity	0.11	0.01	0.23	0.47								
Queue Length 95th (ft)	9	1	21	60								
Control Delay (s)	4.0	0.3	25.1	22.7								
Lane LOS	A	A	D	C								
Approach Delay (s)	4.0	0.3	25.1	22.7								
Approach LOS			D	C								
Intersection Summary												
Average Delay	6.6											
Intersection Capacity Utilization	60.4%			ICU Level of Service	B							
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis
25: N 46th Street & N Orchard Street

2014 Proposed Action - Scenario 1
12/4/2007 - Summer Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Volume (veh/h)	7	173	15	46	323	54	20	45	17	32	29	10
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			-3%			1%	
Peak Hour Factor	0.83	0.83	0.83	0.94	0.94	0.94	0.86	0.86	0.86	0.70	0.70	0.70
Hourly flow rate (vph)	8	208	18	49	344	57	23	52	20	46	41	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None				None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	401			227			740	733	217	750	714	372
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	401			227			740	733	217	750	714	372
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			96			92	84	98	83	88	98
cM capacity (veh/h)	1169			1354			287	333	822	274	344	678
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	235	450	95	101								
Volume Left	8	49	23	46								
Volume Right	18	57	20	14								
cSH	1169	1354	364	329								
Volume to Capacity	0.01	0.04	0.26	0.31								
Queue Length 95th (ft)	1	3	26	32								
Control Delay (s)	0.4	1.2	18.4	20.8								
Lane LOS	A	A	C	C								
Approach Delay (s)	0.4	1.2	18.4	20.8								
Approach LOS			C	C								
Intersection Summary												
Average Delay	5.1											
Intersection Capacity Utilization	50.2%			ICU Level of Service	A							
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis
26: N 46th Street & N Ferdinand Street

2014 Proposed Action - Scenario 1
12/4/2007 - Summer Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Volume (veh/h)	69	129	18	5	201	13	21	9	3	23	43	200
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			-3%			1%	
Peak Hour Factor	0.92	0.92	0.92	0.83	0.83	0.83	0.65	0.65	0.65	0.88	0.88	0.88
Hourly flow rate (vph)	75	140	20	6	242	16	32	14	5	26	49	227
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	258			160			814	570	150	574	572	250
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	258			160			814	570	150	574	572	250
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			100			83	97	99	93	88	71
cM capacity (veh/h)	1319			1432			185	408	902	400	407	794
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	235	264	51	302								
Volume Left	75	6	32	26								
Volume Right	20	16	5	227								
cSH	1319	1432	238	641								
Volume to Capacity	0.06	0.00	0.21	0.47								
Queue Length 95th (ft)	5	0	20	63								
Control Delay (s)	2.9	0.2	24.2	15.5								
Lane LOS	A	A	C	C								
Approach Delay (s)	2.9	0.2	24.2	15.5								
Approach LOS			C	C								
Intersection Summary												
Average Delay				7.8								
Intersection Capacity Utilization				49.0%	ICU Level of Service	A						
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis
29: N 49th Street & N Pearl Street

2014 Proposed Action - Scenario 1
12/4/2007 - Summer Weekday

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Volume (veh/h)	5	11	647	10	4	710
Sign Control	Stop		Free			Free
Grade	0%		-2%			1%
Peak Hour Factor	0.71	0.71	0.84	0.84	0.73	0.73
Hourly flow rate (vph)	7	15	770	12	5	973
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			1174			951
pX, platoon unblocked	0.76					
vC, conflicting volume	1760	776			782	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1841	776			782	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	89	96			99	
cM capacity (veh/h)	64	401			836	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	23	782	978			
Volume Left	7	0	5			
Volume Right	15	12	0			
cSH	151	1700	836			
Volume to Capacity	0.15	0.46	0.01			
Queue Length 95th (ft)	13	0	0			
Control Delay (s)	33.0	0.0	0.2			
Lane LOS	D		A			
Approach Delay (s)	33.0	0.0	0.2			
Approach LOS	D					
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			50.5%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
30: N 51st Street & N Winnfred Street

2014 Proposed Action - Scenario 1
12/4/2007 - Summer Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	11	407	9	12	574	12	12	9	10	16	12	7
Peak Hour Factor	0.86	0.86	0.86	0.83	0.83	0.83	0.56	0.56	0.56	0.92	0.92	0.92
Hourly flow rate (vph)	13	473	10	14	692	14	21	16	18	17	13	8
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	497	720	55	38								
Volume Left (vph)	13	14	21	17								
Volume Right (vph)	10	14	18	8								
Hadj (s)	-0.01	-0.01	-0.12	-0.03								
Departure Headway (s)	5.1	4.9	6.7	6.9								
Degree Utilization, x	0.70	0.97	0.10	0.07								
Capacity (veh/h)	497	730	503	484								
Control Delay (s)	19.3	48.4	10.5	10.4								
Approach Delay (s)	19.3	48.4	10.5	10.4								
Approach LOS	C	E	B	B								
Intersection Summary												
Delay				34.7								
HCM Level of Service				D								
Intersection Capacity Utilization				46.4%	ICU Level of Service	A						
Analysis Period (min)				15								

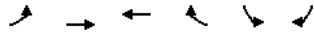
HCM Unsignalized Intersection Capacity Analysis
31: N Ruston Way & Park Access

2014 Proposed Action - Scenario 1
12/4/2007 - Summer Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Right Turn Channelized												
Volume (veh/h)	129	226	3	83	464	179	1	57	103	159	46	153
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	140	246	3	90	504	195	1	62	112	173	50	166
Approach Volume (veh/h)	389			789				175		389		
Crossing Volume (veh/h)	313				203		559			596		
High Capacity (veh/h)	1083				1181		891			865		
High v/c (veh/h)	0.36				0.67		0.20			0.45		
Low Capacity (veh/h)	888				976		716			693		
Low v/c (veh/h)	0.44				0.81		0.24			0.56		
Intersection Summary												
Maximum v/c High				0.67								
Maximum v/c Low				0.81								
Intersection Capacity Utilization				84.7%	ICU Level of Service	E						

HCM Unsignalized Intersection Capacity Analysis
33: N Ruston Way & Site Access

2014 Proposed Action - Scenario 1
12/4/2007 - Summer Weekday



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Right Turn Channelized						
Volume (veh/h)	154	334	585	139	150	141
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	167	363	636	151	163	153
Approach Volume (veh/h)		530	787		316	
Crossing Volume (veh/h)		163	167		636	
High Capacity (veh/h)		1219	1215		837	
High v/c (veh/h)		0.44	0.65		0.38	
Low Capacity (veh/h)		1011	1007		669	
Low v/c (veh/h)		0.52	0.78		0.47	
Intersection Summary						
Maximum v/c High		0.65				
Maximum v/c Low		0.78				
Intersection Capacity Utilization		92.3%		ICU Level of Service	F	

HCM Unsignalized Intersection Capacity Analysis
34: Commercial Access & N Baltimore Street

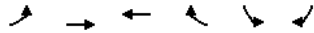
2014 Proposed Action - Scenario 1
12/4/2007 - Summer Weekday



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	2	8	159	6	2	129
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	9	173	7	2	140
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	321	176			179	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	321	176			179	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			100	
cM capacity (veh/h)	672	867			1396	
Direction, Lane #	WB 1	NB 1	SB 1	SB 2		
Volume Total	11	179	2	140		
Volume Left	2	0	2	0		
Volume Right	9	7	0	0		
cSH	819	1700	1396	1700		
Volume to Capacity	0.01	0.11	0.00	0.08		
Queue Length 95th (ft)	1	0	0	0		
Control Delay (s)	9.5	0.0	7.6	0.0		
Lane LOS	A		A			
Approach Delay (s)	9.5	0.0	0.1			
Approach LOS	A					
Intersection Summary						
Average Delay		0.4				
Intersection Capacity Utilization		18.7%		ICU Level of Service	A	
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis
35: N Ruston Way & East Access

2014 Proposed Action - Scenario 1
12/4/2007 - Summer Weekday



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	↕
Volume (veh/h)	31	452	675	80	47	49
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	34	491	734	87	51	53
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)					1	
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	821			1336	777	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	821			1336	777	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	96			68	87	
cM capacity (veh/h)	808			162	397	
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	525	821	104			
Volume Left	34	0	51			
Volume Right	0	87	53			
cSH	808	1700	282			
Volume to Capacity	0.04	0.48	0.37			
Queue Length 95th (ft)	3	0	41			
Control Delay (s)	1.1	0.0	25.1			
Lane LOS	A		D			
Approach Delay (s)	1.1	0.0	25.1			
Approach LOS			D			
Intersection Summary						
Average Delay		2.2				
Intersection Capacity Utilization		59.2%		ICU Level of Service		B
Analysis Period (min)		15				



Movement Summary

Ruston Point EIS Supplement

Summer Weekday Park Access Scenario 1 (31)

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
N Baltimore Street (northbound)										
3L	L	1	50.0	0.286	15.2	LOS B	52	0.71	0.91	25.4
8T	T	62	1.6	0.281	57.9	LOS E	52	0.71	0.94	17.2
8R	R	112	1.8	0.281	10.8	LOS B	52	0.71	0.74	27.1
Approach		176	2.3	0.281	27.5	LOS C	52	0.71	0.81	22.8
N Ruston Way (westbound)										
1L	L	90	2.2	0.796	15.2	LOS B	319	0.81	0.81	25.5
6T	T	504	2.0	0.796	8.3	LOS A	319	0.81	0.75	28.3
6R	R	195	2.1	0.796	9.4	LOS A	319	0.81	0.73	27.9
Approach		789	2.0	0.796	9.4	LOS A	319	0.81	0.75	27.8
Park Access (southbound)										
7L	L	173	1.7	0.667	19.7	LOS B	186	0.89	1.09	23.5
4T	T	50	2.0	0.667	12.9	LOS B	186	0.89	1.05	26.1
4R	R	166	1.8	0.667	14.0	LOS B	186	0.89	0.99	25.5
Approach		388	1.8	0.666	16.4	LOS B	186	0.89	1.04	24.6
N Ruston Way (eastbound)										
5L	L	140	2.1	0.488	13.2	LOS B	100	0.63	0.80	26.3
2T	T	246	2.0	0.488	55.9	LOS E	100	0.63	0.90	17.7
2R	R	3	25.0	0.500	7.4	LOS A	100	0.63	0.69	28.6
Approach		390	2.3	0.488	40.0	LOS D	100	0.63	0.86	20.5
All Vehicles		1743	2.1	0.796	19.6	LOS B	319	0.78	0.85	24.6

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue



Movement Summary

Ruston Point EIS Supplement

Summer Weekday Site Access (33)

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
N Ruston Way (westbound)										
6T	T	636	2.0	0.759	6.5	LOS A	271	0.73	0.64	28.6
6R	R	151	2.0	0.759	7.6	LOS A	271	0.73	0.66	28.2
Approach		787	2.0	0.759	6.8	LOS A	271	0.73	0.64	28.5
Site Access (southbound)										
7L	L	163	1.8	0.558	18.1	LOS B	133	0.84	1.03	24.2
4R	R	153	2.0	0.558	12.4	LOS B	133	0.84	0.99	26.3
Approach		316	1.9	0.559	15.4	LOS B	133	0.84	1.01	25.1
N Ruston Way (eastbound)										
5L	L	167	1.8	0.534	11.8	LOS B	125	0.53	0.68	26.5
2T	T	363	1.9	0.533	54.4	LOS D	125	0.53	0.82	16.8
Approach		530	1.9	0.533	41.0	LOS D	125	0.53	0.78	19.3
All Vehicles		1633	2.0	0.759	19.5	LOS B	271	0.68	0.76	24.2

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement



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Site: Summer Proposed Site Access

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HCM Signalized Intersection Capacity Analysis
 9: N 46th Street & N Pearl Street

2014 Proposed Action - Scenario 2
 2/26/2008 - Summer Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	
Volume (vph)	9	83	22	159	118	82	54	457	159	49	518	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	11	10	12	12	10	12	12	10	12	12
Grade (%)		2%			0%			0%				1%
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.94		1.00	0.96		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1635	3279		1652	3322		1636	3369		1643	3512	
Flt Permitted	0.61	1.00		0.67	1.00		0.44	1.00		0.38	1.00	
Satd. Flow (perm)	1047	3279		1162	3322		750	3369		651	3512	
Peak-hour factor, PHF	0.80	0.80	0.80	0.87	0.87	0.87	0.94	0.94	0.94	0.93	0.93	0.93
Adj. Flow (vph)	11	104	28	183	136	94	57	486	169	53	557	10
RTOR Reduction (vph)	0	18	0	0	59	0	0	61	0	0	2	0
Lane Group Flow (vph)	11	114	0	183	171	0	57	594	0	53	565	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			6			2	
Permitted Phases	4			4			6			2		
Actuated Green, G (s)	11.7	11.7		11.7	11.7		12.8	12.8		12.8	12.8	
Effective Green, g (s)	12.7	12.7		12.7	12.7		13.8	13.8		13.8	13.8	
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.40	0.40		0.40	0.40	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)	385	1207		428	1223		300	1348		260	1405	
v/s Ratio Prot		0.03			0.05			c0.18			0.16	
v/s Ratio Perm	0.01			c0.16			0.08			0.08		
v/c Ratio	0.03	0.09		0.43	0.14		0.19	0.44		0.20	0.40	
Uniform Delay, d1	7.0	7.1		8.2	7.3		6.7	7.5		6.8	7.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.0		0.5	0.0		0.2	0.2		0.3	0.1	
Delay (s)	7.0	7.2		8.7	7.3		6.9	7.7		7.0	7.5	
Level of Service	A	A		A	A		A	A		A	A	
Approach Delay (s)		7.1			7.9			7.6			7.5	
Approach LOS		A			A			A			A	

Intersection Summary

HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	34.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 10: N 51st Street & N Pearl Street

2014 Proposed Action - Scenario 2
 2/26/2008 - Summer Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Volume (vph)	41	79	72	333	130	125	75	346	227	112	295	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-2%			3%			-2%			2%	
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.95			1.00	0.85	1.00	0.94		1.00	1.00	
Flt Protected		0.99			0.97	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1802			1806	1591	1668	1652		1635	1721	
Flt Permitted		0.70			0.60	1.00	0.22	1.00		0.11	1.00	
Satd. Flow (perm)		1269			1116	1591	392	1652		186	1721	
Peak-hour factor, PHF	0.76	0.76	0.76	0.96	0.96	0.96	0.88	0.88	0.88	0.52	0.52	0.52
Adj. Flow (vph)	54	104	95	347	135	130	85	393	258	215	567	0
RTOR Reduction (vph)	0	24	0	0	0	32	0	26	0	0	0	0
Lane Group Flow (vph)	0	229	0	0	482	98	85	625	0	215	567	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Turn Type	Perm			Perm		Perm	Perm			pm+pt		
Protected Phases		4			4			6		5	2	
Permitted Phases	4			4		4	6			2		
Actuated Green, G (s)		36.0			36.0	36.0	32.0	32.0		44.0	44.0	
Effective Green, g (s)		37.0			37.0	37.0	33.0	33.0		45.0	45.0	
Actuated g/C Ratio		0.41			0.41	0.41	0.37	0.37		0.50	0.50	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)		2.5			2.5	2.5	2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)		522			459	654	144	606		222	861	
v/s Ratio Prot								c0.38		c0.09	0.33	
v/s Ratio Perm		0.18			c0.43	0.06	0.22			0.40		
v/c Ratio		0.44			1.05	0.15	0.59	1.03		0.97	0.66	
Uniform Delay, d1		19.0			26.5	16.6	23.0	28.5		35.5	16.8	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.4			55.8	0.1	16.5	44.9		50.9	3.9	
Delay (s)		19.5			82.3	16.7	39.6	73.4		86.4	20.7	
Level of Service		B			F	B	D	E		F	C	
Approach Delay (s)		19.5			68.3			69.5			38.8	
Approach LOS		B			E			E			D	

Intersection Summary

HCM Average Control Delay	53.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 22: N 51st Street & N Bennett Street

2014 Proposed Action - Scenario 2
 2/26/2008 - Summer Weekday



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Volume (veh/h)	1	351	583	4	2	1
Sign Control		Free	Free		Stop	
Grade		0%	6%		0%	
Peak Hour Factor	0.59	0.59	0.76	0.76	0.50	0.50
Hourly flow rate (vph)	2	595	767	5	4	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	772				1368	770
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	772				1368	770
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				98	100
cM capacity (veh/h)	852				163	404

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	597	772	6
Volume Left	2	0	4
Volume Right	0	5	2
cSH	852	1700	204
Volume to Capacity	0.00	0.45	0.03
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.1	0.0	23.2
Lane LOS	A		C
Approach Delay (s)	0.1	0.0	23.2
Approach LOS			C

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		40.9%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis
 24: N 46th Street & N Baltimore Street

2014 Proposed Action - Scenario 2
 2/26/2008 - Summer Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	124	187	1	11	329	36	1	25	0	22	19	98
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			-3%			1%	
Peak Hour Factor	0.92	0.92	0.92	0.81	0.81	0.81	0.50	0.50	0.50	0.71	0.71	0.71
Hourly flow rate (vph)	135	203	1	14	406	44	2	50	0	31	27	138
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	451			204			1080	951	204	954	929	428
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	451			204			1080	951	204	954	929	428
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	88			99			98	78	100	83	88	78
cM capacity (veh/h)	1115			1373			127	228	842	178	231	622

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	339	464	52	196
Volume Left	135	14	2	31
Volume Right	1	44	0	138
cSH	1115	1373	221	382
Volume to Capacity	0.12	0.01	0.23	0.51
Queue Length 95th (ft)	10	1	22	70
Control Delay (s)	4.2	0.3	26.2	23.9
Lane LOS	A	A	D	C
Approach Delay (s)	4.2	0.3	26.2	23.9
Approach LOS			D	C

Intersection Summary			
Average Delay		7.2	
Intersection Capacity Utilization	61.8%		ICU Level of Service B
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis
 29: N 49th Street & N Pearl Street

2014 Proposed Action - Scenario 2
 2/26/2008 - Summer Weekday



















Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	11	638	10	4	696
Sign Control	Stop		Free			Free
Grade	0%		-2%			1%
Peak Hour Factor	0.71	0.71	0.84	0.84	0.73	0.73
Hourly flow rate (vph)	7	15	760	12	5	953
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			1174			951
pX, platoon unblocked	0.77					
vC, conflicting volume	1730	765			771	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1798	765			771	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	96			99	
cM capacity (veh/h)	68	406			843	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	23	771	959
Volume Left	7	0	5
Volume Right	15	12	0
cSH	159	1700	843
Volume to Capacity	0.14	0.45	0.01
Queue Length 95th (ft)	12	0	0
Control Delay (s)	31.3	0.0	0.2
Lane LOS	D		A
Approach Delay (s)	31.3	0.0	0.2
Approach LOS	D		

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		49.8%	ICU Level of Service
Analysis Period (min)		15	A











HCM Unsignalized Intersection Capacity Analysis
 30: N 51st Street & N Winnifred Street

2014 Proposed Action - Scenario 2
 2/26/2008 - Summer Weekday

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	11	398	9	12	560	12	12	9	10	16	12	7
Peak Hour Factor	0.86	0.86	0.86	0.83	0.83	0.83	0.56	0.56	0.56	0.92	0.92	0.92
Hourly flow rate (vph)	13	463	10	14	675	14	21	16	18	17	13	8
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	486	704	55	38								
Volume Left (vph)	13	14	21	17								
Volume Right (vph)	10	14	18	8								
Hadj (s)	-0.01	-0.01	-0.12	-0.03								
Departure Headway (s)	5.1	4.8	6.7	6.8								
Degree Utilization, x	0.69	0.95	0.10	0.07								
Capacity (veh/h)	486	732	505	486								
Control Delay (s)	18.4	42.8	10.4	10.3								
Approach Delay (s)	18.4	42.8	10.4	10.3								
Approach LOS	C	E	B	B								
Intersection Summary												
Delay			31.2									
HCM Level of Service			D									
Intersection Capacity Utilization			45.7%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 34: Commercial Access & N Baltimore Street

2014 Proposed Action - Scenario 2
 2/26/2008 - Summer Weekday

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	2	8	168	6	2	143
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	9	183	7	2	155
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	346	186			189	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	346	186			189	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	99			100	
cM capacity (veh/h)	650	856			1385	
Direction, Lane #	WB 1	NB 1	SB 1	SB 2		
Volume Total	11	189	2	155		
Volume Left	2	0	2	0		
Volume Right	9	7	0	0		
cSH	805	1700	1385	1700		
Volume to Capacity	0.01	0.11	0.00	0.09		
Queue Length 95th (ft)	1	0	0	0		
Control Delay (s)	9.5	0.0	7.6	0.0		
Lane LOS	A		A			
Approach Delay (s)	9.5	0.0	0.1			
Approach LOS	A					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			19.2%		ICU Level of Service	A
Analysis Period (min)			15			

SIDRA
INTERSECTION

Movement Summary

Ruston Point EIS Supplement

Summer Weekday Park Access Scenario 2 (31)

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
N Baltimore Street (northbound)										
3L	L	1	50.0	0.286	15.1	LOS B	54	0.71	0.91	25.4
8T	T	62	1.6	0.291	57.9	LOS E	54	0.71	0.94	17.2
8R	R	121	1.7	0.291	10.8	LOS B	54	0.71	0.74	27.2
Approach		184	2.2	0.291	26.7	LOS C	54	0.71	0.81	23.0
N Ruston Way (westbound)										
1L	L	105	1.9	0.795	15.2	LOS B	320	0.81	0.81	25.5
6T	T	489	2.0	0.796	8.3	LOS A	320	0.81	0.75	28.3
6R	R	195	2.1	0.796	9.4	LOS A	320	0.81	0.73	27.9
Approach		789	2.0	0.796	9.5	LOS A	320	0.81	0.75	27.8
Park Access (southbound)										
7L	L	173	1.7	0.667	19.7	LOS B	186	0.89	1.09	23.5
4T	T	50	2.0	0.667	12.9	LOS B	186	0.89	1.05	26.1
4R	R	166	1.8	0.667	14.0	LOS B	186	0.89	0.99	25.5
Approach		388	1.8	0.667	16.4	LOS B	186	0.89	1.04	24.6
N Ruston Way (eastbound)										
5L	L	140	2.1	0.484	13.4	LOS B	98	0.63	0.81	26.3
2T	T	237	2.1	0.484	56.0	LOS E	98	0.63	0.91	17.7
2R	R	3	25.0	0.500	7.6	LOS A	98	0.63	0.70	28.6
Approach		381	2.4	0.484	39.8	LOS D	98	0.63	0.87	20.5
All Vehicles		1742	2.1	0.796	19.5	LOS B	320	0.78	0.85	24.7

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

Appendix 3.7-G: Proposed Action Arterial Level of Service Reports

Arterial Level of Service: NB N Ruston Way

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
N McCarver Street	16	20.9	40.3	0.2	16
Commercial 10	15	3.3	17.7	0.1	25
	82	1.5	15.2	0.1	27
Commercial 09	14	2.3	17.7	0.1	26
Commercial 08	13	1.1	6.9	0.0	25
Commercial 07	12	1.1	7.0	0.0	25
Adler Street	11	2.7	11.7	0.1	24
Commercial 06	10	1.4	9.9	0.1	26
Commercial 05	9	0.5	5.5	0.0	27
Commercial 04	8	0.7	8.1	0.1	27
Park 02	7	2.1	22.4	0.2	27
N 40th Street	6	1.5	16.1	0.1	27
Commercial 03	5	2.3	18.9	0.1	26
Commercial 02	4	0.9	7.7	0.1	26
Commercial 01	3	1.6	14.1	0.1	26
Park Access 01	2	1.5	12.6	0.1	26
N 49th Street	1	4.5	36.7	0.3	27
	34	1.9	22.7	0.2	27
East Access	35	2.4	8.3	0.1	22
Site Access	33	6.5	11.7	0.0	15
Park Access	31	7.4	16.6	0.1	12
Total		68.2	327.9	2.1	24

Arterial Level of Service: SB N Ruston Way

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Baltimore Ext.	31	4.3	11.8	0.1	20
Site Access	33	3.9	13.5	0.1	15
East Access	35	0.4	8.7	0.0	20
	34	0.1	6.7	0.1	27
N 49th Street	1	0.8	21.2	0.2	29
Park Access 01	2	2.0	35.3	0.3	28
Commercial 01	3	0.9	12.1	0.1	27
Commercial 02	4	1.4	13.9	0.1	27
Commercial 03	5	0.7	7.5	0.1	27
N 40th Street	6	1.4	18.0	0.1	28
Park 02	7	1.7	16.2	0.1	27
Commercial 04	8	2.2	22.5	0.2	27
Commercial 05	9	1.2	8.5	0.1	26
Commercial 06	10	1.0	5.8	0.0	26
Adler Street	11	1.4	10.0	0.1	26
Commercial 07	12	1.3	10.4	0.1	26
Commercial 08	13	0.7	6.6	0.0	26
Commercial 09	14	0.9	6.7	0.0	26
	82	1.3	16.8	0.1	27
Commercial 10	15	1.8	15.5	0.1	26
N McCarver Street	16	8.2	21.9	0.1	20
Total		37.4	289.6	2.0	25

Arterial Level of Service: NB N Ruston Way

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
N McCarver Street	16	59.7	79.1	0.2	11
Commercial 10	15	3.3	17.7	0.1	25
	82	1.5	15.3	0.1	26
Commercial 09	14	2.7	18.0	0.1	26
Commercial 08	13	1.2	7.0	0.0	25
Commercial 07	12	1.2	7.1	0.0	25
Adler Street	11	3.0	12.1	0.1	23
Commercial 06	10	1.4	9.8	0.1	26
Commercial 05	9	0.6	5.5	0.0	27
Commercial 04	8	0.7	8.1	0.1	27
Park 02	7	2.2	22.6	0.2	27
N 40th Street	6	1.6	16.2	0.1	27
Commercial 03	5	2.4	19.0	0.1	26
Commercial 02	4	0.9	7.7	0.1	26
Commercial 01	3	1.7	14.1	0.1	26
Park Access 01	2	1.6	12.7	0.1	26
N 49th Street	1	4.5	36.5	0.3	28
	34	1.9	22.7	0.2	27
East Access	35	2.6	8.6	0.1	21
Site Access	33	7.1	12.2	0.0	14
Park Access	31	8.6	17.8	0.1	11
Total		110.4	369.6	2.1	22

Arterial Level of Service: SB N Ruston Way

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Baltimore Ext.	31	4.7	12.2	0.1	19
Site Access	33	4.4	14.0	0.1	14
East Access	35	0.4	8.7	0.0	20
	34	0.1	6.7	0.1	27
N 49th Street	1	1.0	21.3	0.2	29
Park Access 01	2	2.7	35.9	0.3	28
Commercial 01	3	1.1	12.3	0.1	27
Commercial 02	4	1.3	13.8	0.1	27
Commercial 03	5	0.9	7.7	0.1	26
N 40th Street	6	1.5	18.1	0.1	27
Park 02	7	1.8	16.2	0.1	27
Commercial 04	8	2.4	22.8	0.2	27
Commercial 05	9	1.3	8.6	0.1	25
Commercial 06	10	0.8	5.6	0.0	27
Adler Street	11	1.5	10.0	0.1	26
Commercial 07	12	1.5	10.5	0.1	26
Commercial 08	13	0.7	6.6	0.0	26
Commercial 09	14	0.8	6.6	0.0	26
	82	1.5	16.9	0.1	27
Commercial 10	15	3.7	17.3	0.1	23
N McCarver Street	16	9.8	23.5	0.1	18
Total		43.6	295.4	2.0	25

Appendix 3.7-H: No Action Trip Distribution and Assignment

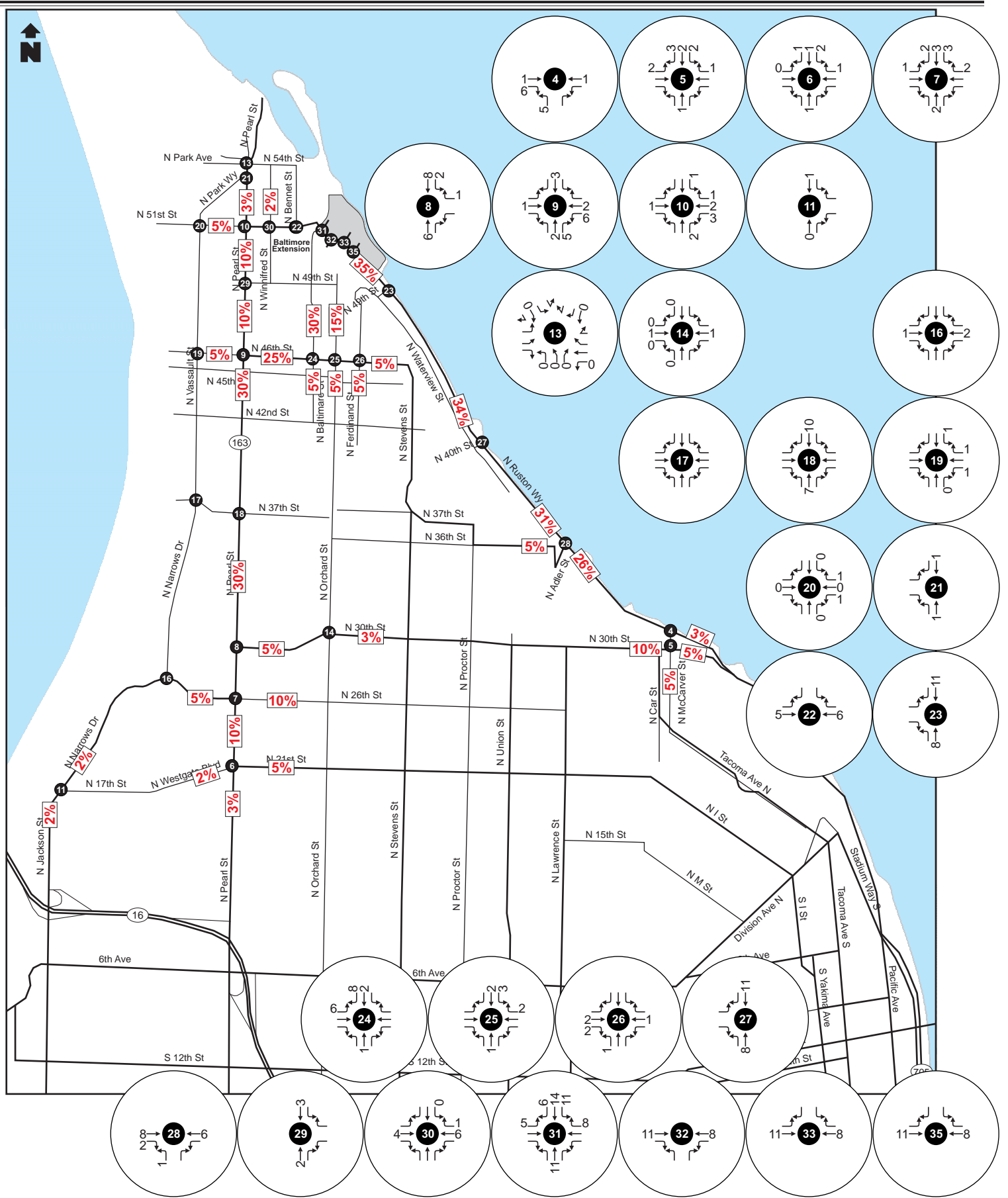


FIGURE 3.7-H1:
WEEKDAY PM PEAK HOUR PENINSULA PARK
TRIP DISTRIBUTION AND TRAVEL ASSIGNMENT - NO ACTION

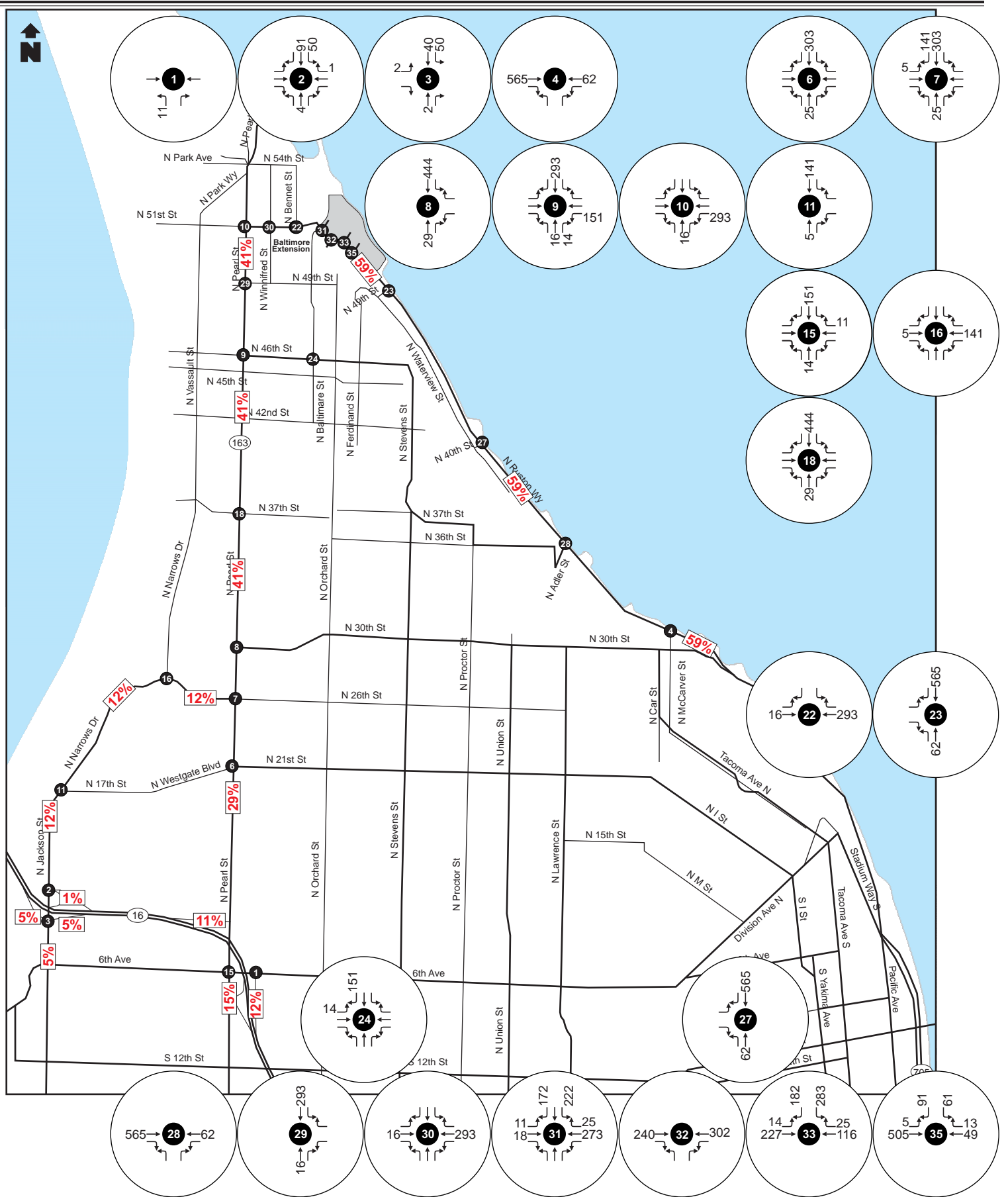


FIGURE 3.7-H2:
WEEKDAY PM PEAK HOUR REGIONAL OFFICE PARK
TRIP DISTRIBUTION AND TRAVEL ASSIGNMENT - NO ACTION

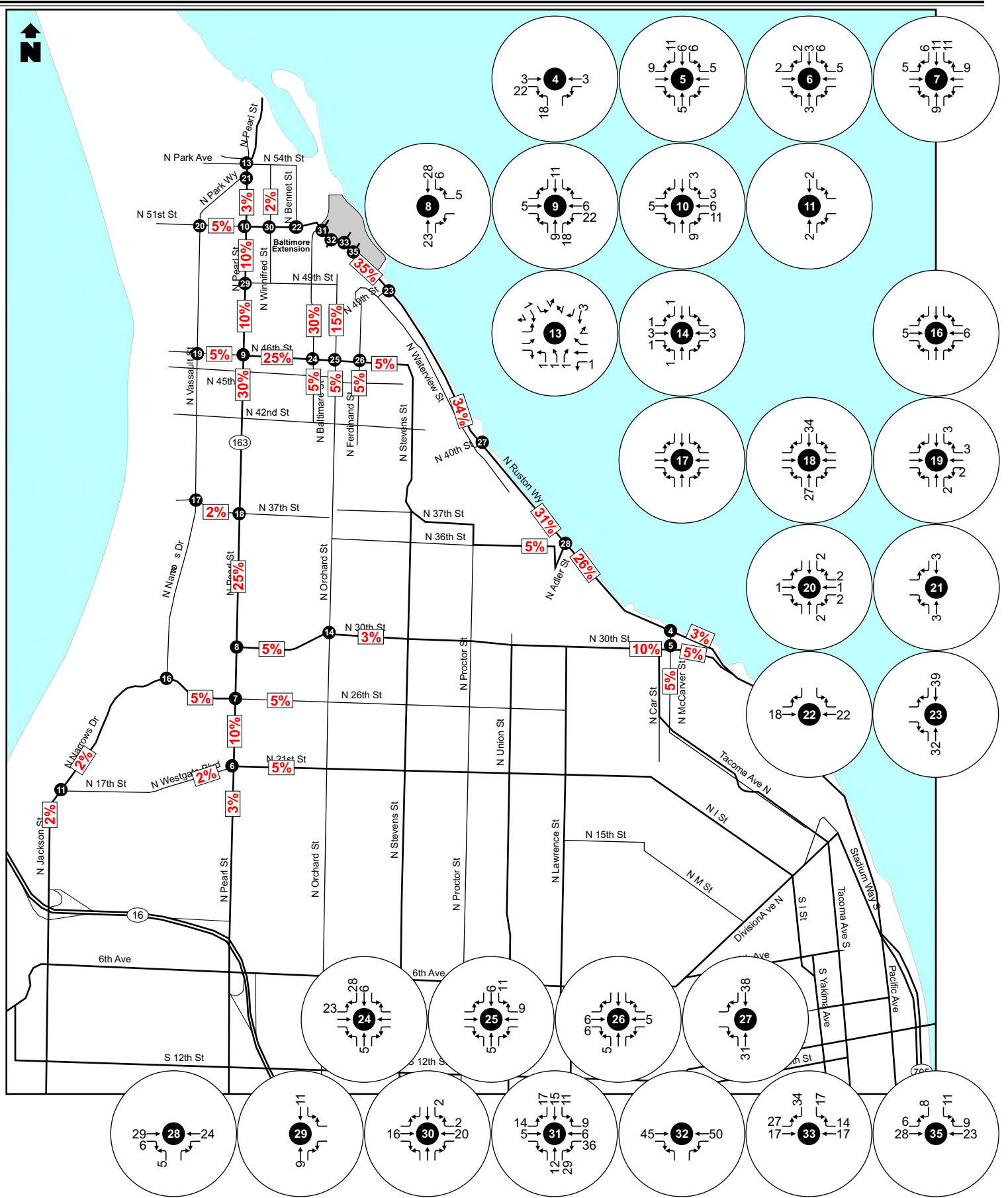


FIGURE 3.7-H3:
WEEKDAY PM PEAK HOUR LOCAL OFFICE PARK
TRIP DISTRIBUTION AND TRAVEL ASSIGNMENT - NO ACTION

Appendix 3.7-I: No Action Intersection Level of Service Reports

HCM Signalized Intersection Capacity Analysis
 1: 6th Avenue & SR-16 WB Off Ramp

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑↑	
Volume (vph)	630	0	0	929	297	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	0.95			0.95	0.97	
Frt	1.00			1.00	0.98	
Flt Protected	1.00			1.00	0.96	
Satd. Flow (prot)	3505			3539	3396	
Flt Permitted	1.00			1.00	0.96	
Satd. Flow (perm)	3505			3539	3396	
Peak-hour factor, PHF	0.89	0.89	0.96	0.96	0.85	0.85
Adj. Flow (vph)	708	0	0	968	349	51
RTOR Reduction (vph)	0	0	0	0	19	0
Lane Group Flow (vph)	708	0	0	968	381	0
Heavy Vehicles (%)	3%	3%	2%	2%	2%	2%
Turn Type						
Protected Phases	4			8	6	
Permitted Phases						
Actuated Green, G (s)	64.9			64.9	15.1	
Effective Green, g (s)	65.9			65.9	16.1	
Actuated g/C Ratio	0.73			0.73	0.18	
Clearance Time (s)	5.0			5.0	5.0	
Vehicle Extension (s)	2.5			2.5	2.5	
Lane Grp Cap (vph)	2566			2591	608	
v/s Ratio Prot	0.20			c0.27	c0.11	
v/s Ratio Perm						
v/c Ratio	0.28			0.37	0.63	
Uniform Delay, d1	4.0			4.4	34.2	
Progression Factor	0.19			1.00	1.00	
Incremental Delay, d2	0.2			0.4	1.8	
Delay (s)	1.0			4.9	35.9	
Level of Service	A			A	D	
Approach Delay (s)	1.0			4.9	35.9	
Approach LOS	A			A	D	

Intersection Summary

HCM Average Control Delay	9.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
2: 10th Street & N Jackson Avenue

2014 No Action - Scenario 1
12/18/2007 - Average Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↕↔		↔	↕↔	
Volume (vph)	7	14	27	46	1	19	50	720	417	247	771	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			0%			0%				0%
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	0.95		1.00	0.95	
Frt		0.92			1.00	0.85	1.00	0.94		1.00	1.00	
Flt Protected		0.99			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1724			1811	1615	1805	3411		1805	3602	
Flt Permitted		0.99			0.95	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1724			1811	1615	1805	3411		1805	3602	
Peak-hour factor, PHF	0.85	0.85	0.85	0.76	0.76	0.76	0.94	0.94	0.94	0.94	0.95	0.95
Adj. Flow (vph)	8	16	32	61	1	25	53	766	444	263	812	12
RTOR Reduction (vph)	0	30	0	0	0	21	0	57	0	0	0	0
Lane Group Flow (vph)	0	26	0	0	62	4	53	1153	0	263	824	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Split			Split		custom	Prot			Prot		
Protected Phases	7	7		8	8	8	5	2		1	6	
Permitted Phases						5						
Actuated Green, G (s)		3.6			6.6	12.8	6.2	37.3		22.3	53.4	
Effective Green, g (s)		4.6			7.6	14.8	7.2	38.3		23.3	54.4	
Actuated g/C Ratio		0.05			0.08	0.16	0.08	0.43		0.26	0.61	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)		2.5			2.5	2.5	2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)		88			153	338	145	1455		468	2182	
v/s Ratio Prot		c0.01			c0.03	0.00	0.03	c0.34		c0.15	0.23	
v/s Ratio Perm						0.00						
v/c Ratio		0.29			0.41	0.01	0.37	0.79		0.56	0.38	
Uniform Delay, d1		41.0			39.0	31.4	39.1	22.3		28.8	9.0	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.3			1.3	0.0	1.1	3.0		1.3	0.1	
Delay (s)		42.4			40.2	31.4	40.3	25.3		30.1	9.1	
Level of Service		D			D	C	D	C		C	A	
Approach Delay (s)		42.4			37.7			25.9			14.2	
Approach LOS		D			D			C			B	

Intersection Summary

HCM Average Control Delay	21.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	89.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	66.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
 3: SR-16 EB Ramp & N Jackson Avenue

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	315	0	594	0	0	0	0	889	156	189	619	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		4%			0%			-5%			0%	
Total Lost time (s)	4.0	4.0						4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00						0.95		1.00	0.95	
Frt	1.00	0.85						0.98		1.00	1.00	
Flt Protected	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (prot)	1769	1583						3618		1805	3610	
Flt Permitted	0.95	1.00						1.00		0.95	1.00	
Satd. Flow (perm)	1769	1583						3618		1805	3610	
Peak-hour factor, PHF	0.87	0.87	0.87	0.25	0.25	0.25	0.90	0.90	0.90	0.91	0.91	0.91
Adj. Flow (vph)	362	0	683	0	0	0	0	988	173	208	680	0
RTOR Reduction (vph)	0	144	0	0	0	0	0	9	0	0	0	0
Lane Group Flow (vph)	362	539	0	0	0	0	0	1152	0	208	680	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm						Prot					
Protected Phases		4						6		5	2	
Permitted Phases	4											
Actuated Green, G (s)	46.9	46.9						45.2		18.6	68.8	
Effective Green, g (s)	47.9	47.9						46.2		19.6	69.8	
Actuated g/C Ratio	0.38	0.38						0.37		0.16	0.56	
Clearance Time (s)	5.0	5.0						5.0		5.0	5.0	
Vehicle Extension (s)	1.5	1.5						1.5		1.5	1.5	
Lane Grp Cap (vph)	674	603						1330		281	2005	
v/s Ratio Prot		c0.34						c0.32		c0.12	0.19	
v/s Ratio Perm	0.20											
v/c Ratio	0.54	0.89						0.87		0.74	0.34	
Uniform Delay, d1	30.3	36.5						36.9		50.6	15.3	
Progression Factor	1.00	1.00						1.00		1.00	1.00	
Incremental Delay, d2	0.4	15.3						5.9		8.8	0.0	
Delay (s)	30.7	51.9						42.8		59.4	15.4	
Level of Service	C	D						D		E	B	
Approach Delay (s)		44.5			0.0			42.8			25.7	
Approach LOS		D			A			D			C	

Intersection Summary		
HCM Average Control Delay	38.5	HCM Level of Service D
HCM Volume to Capacity ratio	0.86	
Actuated Cycle Length (s)	125.7	Sum of lost time (s) 12.0
Intersection Capacity Utilization	86.8%	ICU Level of Service E
Analysis Period (min)	15	
c Critical Lane Group		

HCM Signalized Intersection Capacity Analysis
 4: N Ruston Way & N McCarver Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Volume (vph)	797	59	70	841	166	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	0%			0%	-3%	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.96	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	1900	1615	1805	1900	1775	
Flt Permitted	1.00	1.00	0.23	1.00	0.96	
Satd. Flow (perm)	1900	1615	436	1900	1775	
Peak-hour factor, PHF	0.92	0.92	0.95	0.95	0.90	0.90
Adj. Flow (vph)	866	64	74	885	184	68
RTOR Reduction (vph)	0	9	0	0	17	0
Lane Group Flow (vph)	866	55	74	885	235	0
Heavy Vehicles (%)	0%	0%	0%	0%	1%	1%
Turn Type		Perm	Perm			
Protected Phases	2			6	4	
Permitted Phases		2	6			
Actuated Green, G (s)	55.4	55.4	55.4	55.4	15.3	
Effective Green, g (s)	56.4	56.4	56.4	56.4	16.3	
Actuated g/C Ratio	0.70	0.70	0.70	0.70	0.20	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	2.5	2.5	2.5	2.5	2.5	
Lane Grp Cap (vph)	1328	1129	305	1328	359	
v/s Ratio Prot	0.46			c0.47	c0.13	
v/s Ratio Perm		0.03	0.17			
v/c Ratio	0.65	0.05	0.24	0.67	0.66	
Uniform Delay, d1	6.7	3.8	4.4	6.8	29.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.0	0.0	0.3	1.2	3.8	
Delay (s)	7.8	3.8	4.7	8.0	33.4	
Level of Service	A	A	A	A	C	
Approach Delay (s)	7.5			7.7	33.4	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	10.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	80.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
5: N 30th Street & N McCarver Street

2014 No Action - Scenario 1
12/18/2007 - Average Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	491	42	14	975	18	109	89	41	35	55	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		0%			0%			3%				-2%
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	1.00			0.98			0.95	
Flt Protected	0.95	1.00		0.95	1.00			0.98			0.99	
Satd. Flow (prot)	1770	1841		1787	1876			1752			1805	
Flt Permitted	0.09	1.00		0.37	1.00			0.64			0.85	
Satd. Flow (perm)	174	1841		689	1876			1150			1547	
Peak-hour factor, PHF	0.91	0.91	0.91	0.93	0.93	0.93	0.96	0.96	0.96	0.59	0.59	0.92
Adj. Flow (vph)	67	540	46	15	1048	19	114	93	43	59	93	83
RTOR Reduction (vph)	0	2	0	0	0	0	0	9	0	0	23	0
Lane Group Flow (vph)	67	584	0	15	1067	0	0	241	0	0	212	0
Heavy Vehicles (%)	2%	2%	2%	1%	1%	1%	2%	2%	2%	0%	0%	0%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			6			2	
Permitted Phases	4			4			6			2		
Actuated Green, G (s)	55.2	55.2		55.2	55.2			19.6			19.6	
Effective Green, g (s)	56.2	56.2		56.2	56.2			20.6			20.6	
Actuated g/C Ratio	0.66	0.66		0.66	0.66			0.24			0.24	
Clearance Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5			2.5			2.5	
Lane Grp Cap (vph)	115	1220		457	1243			279			376	
v/s Ratio Prot		0.32			c0.57							
v/s Ratio Perm	0.39			0.02				c0.21			0.14	
v/c Ratio	0.58	0.48		0.03	0.86			0.86			0.56	
Uniform Delay, d1	7.9	7.1		4.9	11.2			30.8			28.1	
Progression Factor	1.00	1.00		1.00	1.00			1.00			1.00	
Incremental Delay, d2	6.1	0.2		0.0	6.0			22.8			1.6	
Delay (s)	14.0	7.3		5.0	17.2			53.6			29.7	
Level of Service	B	A		A	B			D			C	
Approach Delay (s)		8.0			17.0			53.6			29.7	
Approach LOS		A			B			D			C	

Intersection Summary

HCM Average Control Delay	19.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	84.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
6: N Westgate Boulevard & N Pearl Street

2014 No Action - Scenario 1
12/18/2007 - Average Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	137	281	71	264	517	217	93	675	75	154	951	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.96		1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3501		1805	3450		1805	3556		1805	3573	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1805	3501		1805	3450		1805	3556		1805	3573	
Peak-hour factor, PHF	0.95	0.95	0.95	0.94	0.94	0.94	0.95	0.95	0.95	0.89	0.89	0.89
Adj. Flow (vph)	144	296	75	281	550	231	98	711	79	173	1069	79
RTOR Reduction (vph)	0	26	0	0	54	0	0	9	0	0	5	0
Lane Group Flow (vph)	144	345	0	281	727	0	98	781	0	173	1143	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	10.3	17.2		16.1	23.0		6.6	25.9		10.8	30.1	
Effective Green, g (s)	11.3	18.2		17.1	24.0		7.6	26.9		11.8	31.1	
Actuated g/C Ratio	0.13	0.20		0.19	0.27		0.08	0.30		0.13	0.35	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)	227	708		343	920		152	1063		237	1235	
v/s Ratio Prot	c0.08	0.10		0.16	c0.21		0.05	0.22		c0.10	c0.32	
v/s Ratio Perm												
v/c Ratio	0.63	0.49		0.82	0.79		0.64	0.73		0.73	0.93	
Uniform Delay, d1	37.4	31.8		35.0	30.7		39.9	28.3		37.6	28.3	
Progression Factor	1.00	1.00		1.00	1.00		0.89	1.20		0.95	1.47	
Incremental Delay, d2	5.0	0.4		13.8	4.5		5.4	3.0		6.7	9.2	
Delay (s)	42.4	32.2		48.8	35.2		41.1	36.9		42.3	50.8	
Level of Service	D	C		D	D		D	D		D	D	
Approach Delay (s)		35.0			38.8			37.4			49.7	
Approach LOS		D			D			D			D	





















Intersection Summary

HCM Average Control Delay	41.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
7: N 26th Street & N Pearl Street

2014 No Action - Scenario 1
12/18/2007 - Average Weekday

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	155	218	64	148	284	107	158	869	86	101	940	333
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.96		1.00	0.99		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3487		1805	3462		1805	3561		1805	3468	
Flt Permitted	0.40	1.00		0.49	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	765	3487		927	3462		1805	3561		1805	3468	
Peak-hour factor, PHF	0.88	0.88	0.88	0.96	0.96	0.96	0.96	0.96	0.96	0.92	0.92	0.92
Adj. Flow (vph)	176	248	73	154	296	111	165	905	90	110	1022	362
RTOR Reduction (vph)	0	32	0	0	46	0	0	7	0	0	35	0
Lane Group Flow (vph)	176	289	0	154	361	0	165	988	0	110	1349	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type	Perm			Perm			Prot			Prot		
Protected Phases	4			8			5			2		
Permitted Phases	4			8						1		
Actuated Green, G (s)	22.3	22.3		22.3	22.3		12.6	42.4		10.3	40.1	
Effective Green, g (s)	23.3	23.3		23.3	23.3		13.6	43.4		11.3	41.1	
Actuated g/C Ratio	0.26	0.26		0.26	0.26		0.15	0.48		0.13	0.46	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)	198	903		240	896		273	1717		227	1584	
v/s Ratio Prot		0.08			0.10		c0.09	0.28		0.06	c0.39	
v/s Ratio Perm	c0.23			0.17								
v/c Ratio	0.89	0.32		0.64	0.40		0.60	0.58		0.48	0.85	
Uniform Delay, d1	32.1	27.0		29.6	27.6		35.7	16.7		36.6	21.7	
Progression Factor	1.00	1.00		1.00	1.00		0.99	1.38		1.12	0.68	
Incremental Delay, d2	34.6	0.2		5.1	0.2		2.3	1.0		1.0	5.2	
Delay (s)	66.7	27.1		34.7	27.8		37.6	24.2		41.9	20.1	
Level of Service	E	C		C	C		D	C		D	C	
Approach Delay (s)		41.1			29.7			26.1			21.7	
Approach LOS		D			C			C			C	

Intersection Summary

HCM Average Control Delay	26.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
8: N 30th Street & N Pearl Street

2014 No Action - Scenario 1
12/18/2007 - Average Weekday



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	315	151	784	186	118	1152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	4%		0%			0%
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	0.95
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1734	1552	3471		1770	3539
Flt Permitted	0.95	1.00	1.00		0.24	1.00
Satd. Flow (perm)	1734	1552	3471		441	3539
Peak-hour factor, PHF	0.96	0.96	0.95	0.95	0.93	0.93
Adj. Flow (vph)	328	157	825	196	127	1239
RTOR Reduction (vph)	0	106	17	0	0	0
Lane Group Flow (vph)	328	51	1004	0	127	1239
Heavy Vehicles (%)	2%	2%	1%	1%	2%	2%
Turn Type		Perm			Perm	
Protected Phases	4		2			2
Permitted Phases		4			2	
Actuated Green, G (s)	22.1	22.1	57.9		57.9	57.9
Effective Green, g (s)	23.1	23.1	58.9		58.9	58.9
Actuated g/C Ratio	0.26	0.26	0.65		0.65	0.65
Clearance Time (s)	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	445	398	2272		289	2316
v/s Ratio Prot	c0.19		0.29			c0.35
v/s Ratio Perm		0.03			0.29	
v/c Ratio	0.74	0.13	0.44		0.44	0.53
Uniform Delay, d1	30.7	25.7	7.6		7.5	8.3
Progression Factor	1.00	1.00	0.98		0.73	0.82
Incremental Delay, d2	5.9	0.1	0.5		4.4	0.8
Delay (s)	36.6	25.8	7.9		9.9	7.6
Level of Service	D	C	A		A	A
Approach Delay (s)	33.1		7.9			7.8
Approach LOS	C		A			A

Intersection Summary

HCM Average Control Delay		12.1	HCM Level of Service	B
HCM Volume to Capacity ratio		0.59		
Actuated Cycle Length (s)		90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization		63.4%	ICU Level of Service	B
Analysis Period (min)		15		
c Critical Lane Group				

HCM Signalized Intersection Capacity Analysis
 9: N 46th Street & N Pearl Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕		↔	↕		↔	↕		↔	↕	
Volume (vph)	9	72	22	282	114	83	55	345	127	50	630	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	11	10	12	12	10	12	12	10	12	12
Grade (%)		2%			0%			0%			1%	
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.96		1.00	0.94		1.00	0.96		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1635	3266		1652	3316		1636	3363		1643	3514	
Flt Permitted	0.61	1.00		0.68	1.00		0.30	1.00		0.43	1.00	
Satd. Flow (perm)	1051	3266		1178	3316		518	3363		747	3514	
Peak-hour factor, PHF	0.80	0.80	0.80	0.87	0.87	0.87	0.94	0.94	0.94	0.93	0.93	0.93
Adj. Flow (vph)	11	90	28	324	131	95	59	367	135	54	677	10
RTOR Reduction (vph)	0	14	0	0	49	0	0	73	0	0	2	0
Lane Group Flow (vph)	11	104	0	324	177	0	59	429	0	54	685	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			4			6			2	
Permitted Phases	4			4			6			2		
Actuated Green, G (s)	21.3	21.3		21.3	21.3		14.8	14.8		14.8	14.8	
Effective Green, g (s)	22.3	22.3		22.3	22.3		15.8	15.8		15.8	15.8	
Actuated g/C Ratio	0.48	0.48		0.48	0.48		0.34	0.34		0.34	0.34	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)	508	1580		570	1604		178	1153		256	1204	
v/s Ratio Prot		0.03			0.05			0.13			c0.19	
v/s Ratio Perm	0.01			c0.28			0.11			0.07		
v/c Ratio	0.02	0.07		0.57	0.11		0.33	0.37		0.21	0.57	
Uniform Delay, d1	6.2	6.3		8.5	6.5		11.2	11.4		10.7	12.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	0.0		1.1	0.0		0.8	0.1		0.3	0.5	
Delay (s)	6.2	6.4		9.5	6.5		12.0	11.6		11.0	12.9	
Level of Service	A	A		A	A		B	B		B	B	
Approach Delay (s)		6.3			8.3			11.6			12.7	
Approach LOS		A			A			B			B	

Intersection Summary

HCM Average Control Delay	10.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	46.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 10: N 51st Street & N Pearl Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Volume (vph)	13	43	39	393	86	83	33	151	77	67	159	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)		-2%			3%			-2%			2%	
Total Lost time (s)		4.0			4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Frt		0.94			1.00	0.85	1.00	0.95		1.00	1.00	
Flt Protected		0.99			0.96	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1801			1798	1591	1668	1667		1635	1721	
Flt Permitted		0.92			0.69	1.00	0.46	1.00		0.49	1.00	
Satd. Flow (perm)		1675			1300	1591	806	1667		845	1721	
Peak-hour factor, PHF	0.76	0.76	0.76	0.96	0.96	0.96	0.88	0.88	0.88	0.52	0.52	0.52
Adj. Flow (vph)	17	57	51	409	90	86	38	172	88	129	306	0
RTOR Reduction (vph)	0	28	0	0	0	24	0	18	0	0	0	0
Lane Group Flow (vph)	0	97	0	0	499	62	38	242	0	129	306	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Turn Type	Perm			Perm		Perm	Perm			pm+pt		
Protected Phases		4			4			6		5	2	
Permitted Phases	4			4		4	6			2		
Actuated Green, G (s)		39.9			39.9	39.9	29.1	29.1		40.1	40.1	
Effective Green, g (s)		40.9			40.9	40.9	30.1	30.1		41.1	41.1	
Actuated g/C Ratio		0.45			0.45	0.45	0.33	0.33		0.46	0.46	
Clearance Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)		2.5			2.5	2.5	2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)		761			591	723	270	558		447	786	
v/s Ratio Prot								c0.15		0.02	c0.18	
v/s Ratio Perm		0.06			c0.38	0.04	0.05			0.11		
v/c Ratio		0.13			0.84	0.09	0.14	0.43		0.29	0.39	
Uniform Delay, d1		14.2			21.7	13.9	20.9	23.3		19.2	16.2	
Progression Factor		1.00			1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			10.5	0.0	1.1	2.4		0.3	1.5	
Delay (s)		14.3			32.2	14.0	22.0	25.8		19.5	17.6	
Level of Service		B			C	B	C	C		B	B	
Approach Delay (s)		14.3			29.6			25.3			18.2	
Approach LOS		B			C			C			B	

Intersection Summary

HCM Average Control Delay	23.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 11: N 17th Street & N Narrows Drive

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↕		↕	↕			↕		↕	↕	
Volume (vph)	0	0	0	403	0	16	0	524	244	18	663	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0			4.0		4.0	4.0	
Lane Util. Factor				1.00	1.00			1.00		1.00	1.00	
Fr _t				1.00	0.85			0.96		1.00	1.00	
Fl _t Protected				0.95	1.00			1.00		0.95	1.00	
Satd. Flow (prot)				1787	1599			1819		1805	1900	
Fl _t Permitted				0.95	1.00			1.00		0.11	1.00	
Satd. Flow (perm)				1787	1599			1819		213	1900	
Peak-hour factor, PHF	0.25	0.25	0.25	0.87	0.87	0.87	0.95	0.95	0.95	0.89	0.89	0.89
Adj. Flow (vph)	0	0	0	463	0	18	0	552	257	20	745	0
RTOR Reduction (vph)	0	0	0	0	11	0	0	16	0	0	0	0
Lane Group Flow (vph)	0	0	0	463	7	0	0	793	0	20	745	0
Heavy Vehicles (%)	0%	0%	0%	1%	1%	1%	0%	0%	0%	0%	0%	0%
Turn Type	Perm			Perm						Perm		
Protected Phases		7			8			6			2	
Permitted Phases	7			8						2		
Actuated Green, G (s)				28.0	28.0			37.0		37.0	37.0	
Effective Green, g (s)				29.0	29.0			38.0		38.0	38.0	
Actuated g/C Ratio				0.39	0.39			0.51		0.51	0.51	
Clearance Time (s)				5.0	5.0			5.0		5.0	5.0	
Vehicle Extension (s)				2.5	2.5			2.5		2.5	2.5	
Lane Grp Cap (vph)				691	618			922		108	963	
v/s Ratio Prot					0.00			c0.44			0.39	
v/s Ratio Perm				c0.26						0.09		
v/c Ratio				0.67	0.01			0.86		0.19	0.77	
Uniform Delay, d1				19.0	14.2			16.2		10.1	15.0	
Progression Factor				1.00	1.00			1.00		1.00	1.00	
Incremental Delay, d2				2.3	0.0			8.2		0.6	3.8	
Delay (s)				21.4	14.2			24.4		10.7	18.8	
Level of Service				C	B			C		B	B	
Approach Delay (s)		0.0			21.1			24.4			18.6	
Approach LOS		A			C			C			B	

Intersection Summary

HCM Average Control Delay	21.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
 12: I-705 Off-Ramp & Stadium Way

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



















Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	80	1080	259	57	915	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	2%		2%			-4%
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.98		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1752	1567	1765		1841	1938
Flt Permitted	0.95	1.00	1.00		0.54	1.00
Satd. Flow (perm)	1752	1567	1765		1047	1938
Peak-hour factor, PHF	0.95	0.95	0.85	0.85	0.91	0.91
Adj. Flow (vph)	84	1137	305	67	1005	143
RTOR Reduction (vph)	0	389	8	0	0	0
Lane Group Flow (vph)	84	748	364	0	1005	143
Heavy Vehicles (%)	2%	2%	4%	4%	0%	0%
Turn Type		pm+ov			custom	
Protected Phases	3	5	6		5	2
Permitted Phases		3			4	
Actuated Green, G (s)	4.6	28.8	18.8		34.3	48.0
Effective Green, g (s)	5.6	30.8	19.8		36.3	49.0
Actuated g/C Ratio	0.07	0.40	0.25		0.47	0.63
Clearance Time (s)	5.0	5.0	5.0		5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5		2.5	2.5
Lane Grp Cap (vph)	126	621	450		747	1222
v/s Ratio Prot	0.05	c0.39	c0.21		c0.44	0.07
v/s Ratio Perm		0.09			c0.19	
v/c Ratio	0.67	1.20	0.81		1.35	0.12
Uniform Delay, d1	35.1	23.5	27.2		18.8	5.7
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	11.4	106.9	10.0		164.3	0.0
Delay (s)	46.5	130.4	37.2		183.1	5.8
Level of Service	D	F	D		F	A
Approach Delay (s)	124.6		37.2			161.0
Approach LOS	F		D			F

Intersection Summary			
HCM Average Control Delay		128.0	HCM Level of Service F
HCM Volume to Capacity ratio		1.16	
Actuated Cycle Length (s)		77.7	Sum of lost time (s) 16.0
Intersection Capacity Utilization		90.6%	ICU Level of Service E
Analysis Period (min)		15	
c Critical Lane Group			




























HCM Unsignalized Intersection Capacity Analysis
 14: N 30th Street & N Orchard Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	105	298	36	62	475	53	46	238	32	41	223	74
Peak Hour Factor	0.93	0.93	0.93	0.97	0.97	0.97	0.87	0.87	0.87	0.94	0.94	0.94
Hourly flow rate (vph)	113	320	39	64	490	55	53	274	37	44	237	79
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	472	608	363	360								
Volume Left (vph)	113	64	53	44								
Volume Right (vph)	39	55	37	79								
Hadj (s)	0.02	-0.02	-0.01	-0.09								
Departure Headway (s)	9.3	9.3	9.4	9.3								
Degree Utilization, x	1.22	1.57	0.95	0.93								
Capacity (veh/h)	391	392	379	376								
Control Delay (s)	148.8	290.8	64.5	61.5								
Approach Delay (s)	148.8	290.8	64.5	61.5								
Approach LOS	F	F	F	F								
Intersection Summary												
Delay			162.3									
HCM Level of Service			F									
Intersection Capacity Utilization			74.8%	ICU Level of Service	D							
Analysis Period (min)			15									




















HCM Signalized Intersection Capacity Analysis
 15: 6th Avenue & N Pearl Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Volume (vph)	231	498	202	187	708	348	125	379	67	80	556	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-3%			0%			0%			0%	
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85		1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00		0.99	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1796	3592	1607	1770	3539	1583		3496	1583	1752	3505	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00		0.99	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1796	3592	1607	1770	3539	1583		3496	1583	1752	3505	1568
Peak-hour factor, PHF	0.98	0.98	0.98	0.88	0.88	0.88	0.89	0.89	0.89	0.80	0.80	0.80
Adj. Flow (vph)	236	508	206	212	805	395	140	426	75	100	695	214
RTOR Reduction (vph)	0	0	155	0	0	292	0	0	59	0	0	165
Lane Group Flow (vph)	236	508	51	212	805	103	0	566	16	100	695	49
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	3%	3%	3%
Turn Type	Prot		Perm	Prot		Perm	Split		Perm	Split		Perm
Protected Phases	7	4		3	8		1	1		2		2
Permitted Phases			4			8			1			2
Actuated Green, G (s)	10.0	21.1	21.1	11.3	22.4	22.4		18.1	18.1	19.5	19.5	19.5
Effective Green, g (s)	11.0	22.1	22.1	12.3	23.4	23.4		19.1	19.1	20.5	20.5	20.5
Actuated g/C Ratio	0.12	0.25	0.25	0.14	0.26	0.26		0.21	0.21	0.23	0.23	0.23
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	2.5	2.5	2.5	2.5	2.5	2.5		2.5	2.5	2.5	2.5	2.5
Lane Grp Cap (vph)	220	882	395	242	920	412		742	336	399	798	357
v/s Ratio Prot	c0.13	0.14		0.12	c0.23			c0.16		0.06	c0.20	
v/s Ratio Perm			0.03			0.06			0.01			0.03
v/c Ratio	1.07	0.58	0.13	0.88	0.88	0.25		0.76	0.05	0.25	0.87	0.14
Uniform Delay, d1	39.5	29.8	26.4	38.1	31.9	26.3		33.3	28.2	28.5	33.5	27.7
Progression Factor	1.00	1.00	1.00	1.11	1.09	2.15		1.00	1.00	0.54	0.63	1.30
Incremental Delay, d2	81.3	2.7	0.7	26.8	11.0	1.4		4.5	0.0	0.1	5.5	0.1
Delay (s)	120.8	32.6	27.1	69.2	45.9	58.0		37.8	28.3	15.4	26.4	36.2
Level of Service	F	C	C	E	D	E		D	C	B	C	D
Approach Delay (s)		53.3			52.8			36.7			27.4	
Approach LOS		D			D			D			C	
Intersection Summary												
HCM Average Control Delay			43.9				HCM Level of Service			D		
HCM Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			90.0				Sum of lost time (s)		16.0			
Intersection Capacity Utilization			75.2%				ICU Level of Service		D			
Analysis Period (min)			15									
c Critical Lane Group												





















HCM Unsignalized Intersection Capacity Analysis
 16: N Narrows Drive & N 26th Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	205	336	2	39	530	125	0	1	27	82	4	228
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.89	0.89	0.89	0.75	0.75	0.75	0.89	0.89	0.89
Hourly flow rate (vph)	218	357	2	44	596	140	0	1	36	92	4	256
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												12
Median type		None			TWLTL							
Median storage (veh)					2							
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	736			360			1608	1618	359	1584	1549	666
vC1, stage 1 conf vol							795	795		753	753	
vC2, stage 2 conf vol							813	824		830	796	
vCu, unblocked vol	736			360			1608	1618	359	1584	1549	666
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)							6.1	5.5		6.1	5.5	
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	75			96			100	99	95	52	98	44
cM capacity (veh/h)	879			1210			29	147	690	191	223	460
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	218	360	44	736	37	353						
Volume Left	218	0	44	0	0	92						
Volume Right	0	2	0	140	36	256						
cSH	879	1700	1210	1700	610	633						
Volume to Capacity	0.25	0.21	0.04	0.43	0.06	0.56						
Queue Length 95th (ft)	24	0	3	0	5	86						
Control Delay (s)	10.4	0.0	8.1	0.0	11.3	27.5						
Lane LOS	B		A		B	D						
Approach Delay (s)	3.9		0.5		11.3	27.5						
Approach LOS					B	D						
Intersection Summary												
Average Delay			7.3									
Intersection Capacity Utilization			68.3%		ICU Level of Service				C			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 17: N 37th Street & N Narrows Drive

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	19	12	43	25	90	14	172	40	69	192	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.84	0.84	0.84	0.88	0.88	0.88	0.85	0.85	0.85
Hourly flow rate (vph)	4	21	13	51	30	107	16	195	45	81	226	9
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					1111							
pX, platoon unblocked												
vC, conflicting volume	137			34			291	276	27	359	229	83
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	137			34			291	276	27	359	229	83
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			97			97	68	96	81	65	99
cM capacity (veh/h)	1460			1591			468	611	1051	420	649	979
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	4	34	51	137	16	241	81	235				
Volume Left	4	0	51	0	16	0	81	0				
Volume Right	0	13	0	107	0	45	0	9				
cSH	1460	1700	1591	1700	468	664	420	658				
Volume to Capacity	0.00	0.02	0.03	0.08	0.03	0.36	0.19	0.36				
Queue Length 95th (ft)	0	0	2	0	3	41	18	41				
Control Delay (s)	7.5	0.0	7.3	0.0	13.0	13.5	15.6	13.5				
Lane LOS	A		A		B	B	C	B				
Approach Delay (s)	0.9		2.0		13.5		14.0					
Approach LOS					B		B					
Intersection Summary												
Average Delay			10.4									
Intersection Capacity Utilization			34.4%		ICU Level of Service			A				
Analysis Period (min)			15									

HCM Signalized Intersection Capacity Analysis
 18: N 37th Street & N Pearl Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	20	120	61	34	6	251	601	87	27	980	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.87		1.00	0.98		1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1787	1639		1787	1840		1787	3506		1787	3549	
Flt Permitted	0.72	1.00		0.48	1.00		0.18	1.00		0.39	1.00	
Satd. Flow (perm)	1349	1639		910	1840		344	3506		729	3549	
Peak-hour factor, PHF	0.89	0.89	0.89	0.65	0.65	0.65	0.99	0.99	0.99	0.93	0.93	0.93
Adj. Flow (vph)	30	22	135	94	52	9	254	607	88	29	1054	52
RTOR Reduction (vph)	0	116	0	0	8	0	0	8	0	0	2	0
Lane Group Flow (vph)	30	41	0	94	53	0	254	687	0	29	1104	0
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Perm		Perm		pm+pt		Perm		Perm		Perm	
Protected Phases	4		8		5		2		6		6	
Permitted Phases	4		8		2		6		6		6	
Actuated Green, G (s)	12.8	12.8		12.8	12.8		69.2	69.2		54.4	54.4	
Effective Green, g (s)	12.8	12.8		12.8	12.8		69.2	69.2		54.4	54.4	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.77	0.77		0.60	0.60	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	192	233		129	262		438	2696		441	2145	
v/s Ratio Prot		0.03			0.03		c0.07	0.20			0.31	
v/s Ratio Perm	0.02			c0.10			c0.38			0.04		
v/c Ratio	0.16	0.18		0.73	0.20		0.58	0.25		0.07	0.51	
Uniform Delay, d1	33.9	34.0		36.9	34.1		6.2	3.0		7.3	10.2	
Progression Factor	1.00	1.00		1.00	1.00		2.67	1.88		1.00	1.00	
Incremental Delay, d2	0.4	0.4		18.5	0.4		1.7	0.2		0.3	0.9	
Delay (s)	34.2	34.3		55.4	34.5		18.2	5.8		7.6	11.1	
Level of Service	C	C		E	C		B	A		A	B	
Approach Delay (s)		34.3			47.2			9.2			11.0	
Approach LOS		C			D			A			B	

















Intersection Summary

HCM Average Control Delay	14.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



















HCM Unsignalized Intersection Capacity Analysis
 19: N 46th Street & N Vassault Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	18	7	53	20	50	18	137	38	25	162	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.72	0.72	0.72	0.73	0.73	0.73	0.86	0.86	0.86	0.85	0.85	0.85
Hourly flow rate (vph)	3	25	10	73	27	68	21	159	44	29	191	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	555	495	191	495	474	181	192			203		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	555	495	191	495	474	181	192			203		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	95	99	84	94	92	98			98		
cM capacity (veh/h)	381	461	856	445	470	859	1394			1362		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	38	168	224	221								
Volume Left	3	73	21	29								
Volume Right	10	68	44	1								
cSH	515	559	1394	1362								
Volume to Capacity	0.07	0.30	0.02	0.02								
Queue Length 95th (ft)	6	32	1	2								
Control Delay (s)	12.5	14.2	0.8	1.2								
Lane LOS	B	B	A	A								
Approach Delay (s)	12.5	14.2	0.8	1.2								
Approach LOS	B	B										
Intersection Summary												
Average Delay			5.1									
Intersection Capacity Utilization			35.1%		ICU Level of Service					A		
Analysis Period (min)			15									

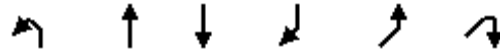
HCM Unsignalized Intersection Capacity Analysis
 20: N 51st Street & N Park Way

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	2	20	48	44	38	15	41	49	27	20	52	5
Peak Hour Factor	0.87	0.87	0.87	0.91	0.91	0.91	0.82	0.82	0.82	0.69	0.69	0.69
Hourly flow rate (vph)	2	23	55	48	42	16	50	60	33	29	75	7
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	80	107	50	93	29	83						
Volume Left (vph)	2	48	50	0	29	0						
Volume Right (vph)	55	16	0	33	0	7						
Hadj (s)	-0.41	0.00	0.53	-0.21	0.64	0.07						
Departure Headway (s)	4.3	4.6	5.6	4.8	5.7	5.2						
Degree Utilization, x	0.09	0.14	0.08	0.12	0.05	0.12						
Capacity (veh/h)	796	732	617	710	599	666						
Control Delay (s)	7.7	8.3	7.9	7.3	7.8	7.7						
Approach Delay (s)	7.7	8.3	7.5		7.7							
Approach LOS	A	A	A		A							
Intersection Summary												
Delay			7.8									
HCM Level of Service			A									
Intersection Capacity Utilization			27.6%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 21: N Pearl Street & N Park Way

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



Movement	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations		↑↑	↑↑		↑↑	
Volume (veh/h)	12	235	110	25	30	9
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.50	0.50	0.88	0.88	0.71	0.71
Hourly flow rate (vph)	24	470	125	28	42	13
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)		854				
pX, platoon unblocked						
vC, conflicting volume	153				422	77
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	153				422	77
tC, single (s)	4.1				6.9	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.6	3.4
p0 queue free %	98				92	99
cM capacity (veh/h)	1425				540	956

Direction, Lane #	NB 1	NB 2	SB 1	SB 2	NE 1
Volume Total	181	313	83	70	55
Volume Left	24	0	0	0	42
Volume Right	0	0	0	28	13
cSH	1425	1700	1700	1700	600
Volume to Capacity	0.02	0.18	0.05	0.04	0.09
Queue Length 95th (ft)	1	0	0	0	8
Control Delay (s)	1.1	0.0	0.0	0.0	11.6
Lane LOS	A				B
Approach Delay (s)	0.4		0.0		11.6
Approach LOS					B

Intersection Summary					
Average Delay			1.2		
Intersection Capacity Utilization			24.0%	ICU Level of Service	A
Analysis Period (min)			15		

HCM Unsignalized Intersection Capacity Analysis
 22: N 51st Street & N Bennett Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Volume (veh/h)	1	171	601	4	1	1
Sign Control		Free	Free		Stop	
Grade		0%	6%		0%	
Peak Hour Factor	0.59	0.59	0.76	0.76	0.50	0.50
Hourly flow rate (vph)	2	290	791	5	2	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	796				1087	793
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	796				1087	793
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	99
cM capacity (veh/h)	835				241	392

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	292	796	4
Volume Left	2	0	2
Volume Right	0	5	2
cSH	835	1700	298
Volume to Capacity	0.00	0.47	0.01
Queue Length 95th (ft)	0	0	1
Control Delay (s)	0.1	0.0	17.2
Lane LOS	A		C
Approach Delay (s)	0.1	0.0	17.2
Approach LOS			C

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		41.9%	ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis
 23: N 49th Street & N Ruston Way

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	4	86	261	433	749	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.93	0.93	0.92	0.92
Hourly flow rate (vph)	5	100	281	466	814	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1842	815	815			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1842	815	815			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	92	74	66			
cM capacity (veh/h)	55	381	821			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	105	281	466	815		
Volume Left	5	281	0	0		
Volume Right	100	0	0	1		
cSH	301	821	1700	1700		
Volume to Capacity	0.35	0.34	0.27	0.48		
Queue Length 95th (ft)	38	38	0	0		
Control Delay (s)	23.2	11.6	0.0	0.0		
Lane LOS	C	B				
Approach Delay (s)	23.2	4.4		0.0		
Approach LOS	C					
Intersection Summary						
Average Delay			3.4			
Intersection Capacity Utilization			69.5%		ICU Level of Service	C
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 24: N 46th Street & N Baltimore Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	78	191	1	12	335	36	1	11	0	22	12	214
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			-3%			1%	
Peak Hour Factor	0.92	0.92	0.92	0.81	0.81	0.81	0.50	0.50	0.50	0.71	0.71	0.71
Hourly flow rate (vph)	85	208	1	15	414	44	2	22	0	31	17	301
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	458			209			1153	865	208	854	844	436
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	458			209			1153	865	208	854	844	436
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			99			98	92	100	87	94	51
cM capacity (veh/h)	1108			1368			80	269	837	242	272	616

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	293	473	24	349
Volume Left	85	15	2	31
Volume Right	1	44	0	301
cSH	1108	1368	225	514
Volume to Capacity	0.08	0.01	0.11	0.68
Queue Length 95th (ft)	6	1	9	127
Control Delay (s)	3.0	0.3	22.9	25.6
Lane LOS	A	A	C	D
Approach Delay (s)	3.0	0.3	22.9	25.6
Approach LOS			C	D

Intersection Summary			
Average Delay		9.2	
Intersection Capacity Utilization	65.0%		ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 25: N 46th Street & N Orchard Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	7	177	15	47	329	28	20	33	18	21	24	11
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			-3%			1%	
Peak Hour Factor	0.83	0.83	0.83	0.94	0.94	0.94	0.86	0.86	0.86	0.70	0.70	0.70
Hourly flow rate (vph)	8	213	18	50	350	30	23	38	21	30	34	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	380			231			737	719	222	744	713	365
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	380			231			737	719	222	744	713	365
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			96			92	89	97	90	90	98
cM capacity (veh/h)	1190			1348			292	339	817	287	344	685

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	240	430	83	80
Volume Left	8	50	23	30
Volume Right	18	30	21	16
cSH	1190	1348	378	352
Volume to Capacity	0.01	0.04	0.22	0.23
Queue Length 95th (ft)	1	3	20	22
Control Delay (s)	0.3	1.2	17.2	18.2
Lane LOS	A	A	C	C
Approach Delay (s)	0.3	1.2	17.2	18.2
Approach LOS			C	C

Intersection Summary			
Average Delay		4.2	
Intersection Capacity Utilization	46.9%		ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis
 26: N 46th Street & N Ferdinand Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



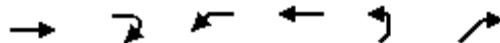
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (veh/h)	70	126	12	5	191	13	8	9	4	23	43	204
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			-3%			1%	
Peak Hour Factor	0.92	0.92	0.92	0.83	0.83	0.83	0.65	0.65	0.65	0.88	0.88	0.88
Hourly flow rate (vph)	76	137	13	6	230	16	12	14	6	26	49	232
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	246			150			802	553	143	559	552	238
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	246			150			802	553	143	559	552	238
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			100			93	97	99	94	88	71
cM capacity (veh/h)	1332			1444			189	417	909	409	417	806

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	226	252	32	307
Volume Left	76	6	12	26
Volume Right	13	16	6	232
cSH	1332	1444	307	655
Volume to Capacity	0.06	0.00	0.11	0.47
Queue Length 95th (ft)	5	0	9	63
Control Delay (s)	3.0	0.2	18.1	15.3
Lane LOS	A	A	C	C
Approach Delay (s)	3.0	0.2	18.1	15.3
Approach LOS			C	C

Intersection Summary			
Average Delay		7.3	
Intersection Capacity Utilization	48.9%		ICU Level of Service
Analysis Period (min)		15	A

HCM Unsignalized Intersection Capacity Analysis
 27: N Ruston Way & N 40th Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



Movement	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	↻		↻	↻	↻	
Volume (veh/h)	845	1	12	758	0	7
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.74	0.74	0.94	0.94	0.75	0.75
Hourly flow rate (vph)	1142	1	13	806	0	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			TWLTL		
Median storage veh				2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			1143		1974	1143
vC1, stage 1 conf vol					1143	
vC2, stage 2 conf vol					832	
vCu, unblocked vol			1143		1974	1143
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			98		100	96
cM capacity (veh/h)			618		250	246

Direction, Lane #	EB 1	WB 1	WB 2	NE 1
Volume Total	1143	13	806	9
Volume Left	0	13	0	0
Volume Right	1	0	0	9
cSH	1700	618	1700	246
Volume to Capacity	0.67	0.02	0.47	0.04
Queue Length 95th (ft)	0	2	0	3
Control Delay (s)	0.0	10.9	0.0	20.2
Lane LOS		B		C
Approach Delay (s)	0.0	0.2		20.2
Approach LOS				C

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		54.5%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 28: N Ruston Way & N Adler Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



Movement	SET	SER	NWL	NWT	NEL	NER
Lane Configurations	↑		↵	↑	↵	
Volume (veh/h)	829	28	207	787	19	80
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.90	0.90	0.86	0.86	0.66	0.66
Hourly flow rate (vph)	921	31	241	915	29	121
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			952		2333	937
vC1, stage 1 conf vol					937	
vC2, stage 2 conf vol					1397	
vCu, unblocked vol			952		2333	937
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			67		79	62
cM capacity (veh/h)			730		140	322

Direction, Lane #	SE 1	NW 1	NW 2	NE 1
Volume Total	952	241	915	150
Volume Left	0	241	0	29
Volume Right	31	0	0	121
cSH	1700	730	1700	258
Volume to Capacity	0.56	0.33	0.54	0.58
Queue Length 95th (ft)	0	36	0	84
Control Delay (s)	0.0	12.3	0.0	36.7
Lane LOS		B		E
Approach Delay (s)	0.0	2.6		36.7
Approach LOS				E

Intersection Summary			
Average Delay		3.8	
Intersection Capacity Utilization		72.8%	ICU Level of Service C
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
 29: N 49th Street & N Pearl Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



















Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	14	6	298	11	2	594
Sign Control	Stop		Free			Free
Grade	0%		-2%			1%
Peak Hour Factor	0.71	0.71	0.84	0.84	0.73	0.73
Hourly flow rate (vph)	20	8	355	13	3	814
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			1174			951
pX, platoon unblocked	0.93					
vC, conflicting volume	1180	361			368	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1158	361			368	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	99			100	
cM capacity (veh/h)	204	688			1191	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	28	368	816
Volume Left	20	0	3
Volume Right	8	13	0
cSH	258	1700	1191
Volume to Capacity	0.11	0.22	0.00
Queue Length 95th (ft)	9	0	0
Control Delay (s)	20.6	0.0	0.1
Lane LOS	C		A
Approach Delay (s)	20.6	0.0	0.1
Approach LOS	C		

Intersection Summary			
Average Delay		0.5	
Intersection Capacity Utilization		42.9%	ICU Level of Service A
Analysis Period (min)		15	













HCM Unsignalized Intersection Capacity Analysis
 30: N 51st Street & N Winnifred Street

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	175	6	19	551	14	8	6	7	8	8	12
Peak Hour Factor	0.86	0.86	0.86	0.83	0.83	0.83	0.56	0.56	0.56	0.92	0.92	0.92
Hourly flow rate (vph)	8	203	7	23	664	17	14	11	12	9	9	13
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	219	704	38	30								
Volume Left (vph)	8	23	14	9								
Volume Right (vph)	7	17	13	13								
Hadj (s)	-0.01	-0.01	-0.12	-0.20								
Departure Headway (s)	4.8	4.4	5.9	5.8								
Degree Utilization, x	0.29	0.85	0.06	0.05								
Capacity (veh/h)	716	704	567	565								
Control Delay (s)	9.8	26.7	9.3	9.1								
Approach Delay (s)	9.8	26.7	9.3	9.1								
Approach LOS	A	D	A	A								
Intersection Summary												
Delay			21.8									
HCM Level of Service			C									
Intersection Capacity Utilization			47.3%	ICU Level of Service	A							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 31: N Ruston Way & Park Access

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Right Turn Channelized												
Volume (veh/h)	29	152	0	59	577	42	1	23	40	244	29	195
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	32	165	0	64	627	46	1	25	43	265	32	212
Approach Volume (veh/h)		197			737			70				509
Crossing Volume (veh/h)		361			58			462				692
High Capacity (veh/h)		1043			1324			962				800
High v/c (veh/h)		0.19			0.56			0.07				0.64
Low Capacity (veh/h)		852			1106			780				636
Low v/c (veh/h)		0.23			0.67			0.09				0.80
Intersection Summary												
Maximum v/c High												0.64
Maximum v/c Low												0.80
Intersection Capacity Utilization			82.4%		ICU Level of Service							E

HCM Unsignalized Intersection Capacity Analysis
 33: N Ruston Way & Site Access

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Right Turn Channelized						
Volume (veh/h)	41	395	462	38	299	215
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	429	502	41	325	234
Approach Volume (veh/h)		474	543		559	
Crossing Volume (veh/h)		325	45		502	
High Capacity (veh/h)		1073	1337		932	
High v/c (veh/h)		0.44	0.41		0.60	
Low Capacity (veh/h)		879	1118		753	
Low v/c (veh/h)		0.54	0.49		0.74	
Intersection Summary						
Maximum v/c High			0.60			
Maximum v/c Low			0.74			
Intersection Capacity Utilization			89.4%		ICU Level of Service	E

HCM Unsignalized Intersection Capacity Analysis
 35: N Ruston Way & East Access

2014 No Action - Scenario 1
 12/18/2007 - Average Weekday



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	↔
Volume (veh/h)	11	684	402	22	72	99
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	743	437	24	78	108
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						1
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	461				1216	449
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	461				1216	449
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				60	82
cM capacity (veh/h)	1100				198	610

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	755	461	186
Volume Left	12	0	78
Volume Right	0	24	108
cSH	1100	1700	397
Volume to Capacity	0.01	0.27	0.47
Queue Length 95th (ft)	1	0	60
Control Delay (s)	0.3	0.0	21.8
Lane LOS	A		C
Approach Delay (s)	0.3	0.0	21.8
Approach LOS			C

Intersection Summary			
Average Delay		3.0	
Intersection Capacity Utilization		55.5%	ICU Level of Service
Analysis Period (min)		15	B

1: N Park Street & N Narrows Drive Performance by approach

Approach	EB	WB	NB	SB	SE	All
Total Delay (hr)	0.0	0.0	0.6	0.3	0.4	1.2
Delay / Veh (s)	3.4	5.2	8.7	8.0	10.5	8.9
Stop Delay (hr)	0.0	0.0	0.3	0.3	0.3	0.9
St Del/Veh (s)	3.7	4.5	5.1	8.1	8.4	6.7
Total Stops	2	10	227	113	133	485
Stop/Veh	1.00	1.00	1.00	1.00	1.00	1.00
Travel Dist (mi)	0.4	2.7	37.7	16.3	19.2	76.3
Travel Time (hr)	0.0	0.1	1.9	0.9	1.1	4.0
Vehicles Entered	2	10	227	112	133	484
Vehicles Exited	2	10	227	113	133	485
Hourly Exit Rate	2	10	227	113	133	485
Input Volume	2	9	235	116	129	491
% of Volume	100	111	97	97	103	99

Total Network Performance

Total Delay (hr)	1.4
Delay / Veh (s)	10.4
Stop Delay (hr)	1.0
St Del/Veh (s)	7.1
Total Stops	485
Stop/Veh	1.01
Travel Dist (mi)	183.0
Travel Time (hr)	8.1
Vehicles Entered	484
Vehicles Exited	481
Hourly Exit Rate	481
Input Volume	982
% of Volume	49



Movement Summary

Ruston Point EIS Supplement

Average Weekday No Action Park Access Scenario 1 (31)

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
N Baltimore Street (northbound)										
3L	L	1	50.0	0.105	13.8	LOS B	19	0.62	0.82	26.0
8T	T	25	3.8	0.107	56.5	LOS E	19	0.62	0.87	17.6
8R	R	43	2.3	0.107	9.4	LOS A	19	0.62	0.65	27.9
Approach		72	4.2	0.107	26.6	LOS C	19	0.62	0.73	23.3
N Ruston Way (westbound)										
1L	L	64	1.6	0.587	10.9	LOS B	149	0.31	0.61	27.1
6T	T	627	2.1	0.587	4.1	LOS A	149	0.31	0.38	30.5
6R	R	46	2.2	0.590	5.1	LOS A	149	0.31	0.43	29.9
Approach		738	2.0	0.587	4.7	LOS A	149	0.31	0.40	30.1
Park Access (southbound)										
7L	L	265	1.9	0.869	32.0	LOS C	367	1.00	1.39	19.5
4T	T	32	3.1	0.865	25.1	LOS C	367	1.00	1.39	21.0
4R	R	212	1.9	0.869	26.2	LOS C	367	1.00	1.36	20.6
Approach		509	2.0	0.869	29.1	LOS C	367	1.00	1.38	20.0
N Ruston Way (eastbound)										
5L	L	32	3.1	0.267	12.8	LOS B	46	0.57	0.77	26.4
2T	T	165	1.8	0.268	55.5	LOS E	46	0.57	0.90	17.8
2R	R	1	50.0	0.286	7.1	LOS A	46	0.57	0.67	28.8
Approach		199	2.5	0.268	48.2	LOS D	46	0.57	0.87	19.1
All Vehicles		1518	2.2	0.869	19.6	LOS B	367	0.59	0.81	23.9

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue



Movement Summary

Ruston Point EIS Supplement

Average Weekday No Action Site Access (33)

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
N Ruston Way (westbound)										
6T	T	502	2.0	0.431	3.8	LOS A	97	0.23	0.36	30.8
6R	R	41	2.4	0.432	4.9	LOS A	97	0.23	0.43	30.2
Approach		543	2.0	0.431	3.9	LOS A	97	0.23	0.36	30.8
Site Access (southbound)										
7L	L	325	1.8	0.795	22.2	LOS C	288	0.91	1.19	22.6
4R	R	234	2.1	0.793	16.5	LOS B	288	0.91	1.16	24.3
Approach		559	2.0	0.794	19.8	LOS B	288	0.91	1.18	23.3
N Ruston Way (eastbound)										
5L	L	45	2.2	0.608	14.5	LOS B	159	0.74	0.87	25.8
2T	T	429	2.1	0.605	57.2	LOS E	159	0.74	0.94	16.2
Approach		475	2.1	0.605	53.1	LOS D	159	0.74	0.94	16.9
All Vehicles		1577	2.0	0.795	24.4	LOS C	288	0.63	0.82	22.8

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement



Site: Office Site Access

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HCM Signalized Intersection Capacity Analysis
9: N 46th Street & N Pearl Street

2014 No Action - Scenario 1
12/4/2007 - Summer Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	9	70	22	285	112	82	54	335	129	49	619	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	11	11	10	12	12	10	12	12	10	12	12
Grade (%)	2%			0%			0%			1%		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Frt	1.00	0.96	1.00	0.94	1.00	0.96	1.00	0.96	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1635	3264	1652	3315	1636	3359	1643	3514				
Flt Permitted	0.61	1.00	0.68	1.00	0.30	1.00	0.44	1.00				
Satd. Flow (perm)	1054	3264	1180	3315	523	3359	754	3514				
Peak-hour factor, PHF	0.80	0.80	0.80	0.87	0.87	0.87	0.94	0.94	0.94	0.93	0.93	0.93
Adj. Flow (vph)	11	88	28	328	129	94	57	356	137	53	666	10
RTOR Reduction (vph)	0	14	0	0	48	0	0	79	0	0	2	0
Lane Group Flow (vph)	11	102	0	328	175	0	57	414	0	53	674	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	3%	3%	3%	2%	2%	2%
Turn Type	Perm		Perm		Perm		Perm		Perm			
Protected Phases	4		4		4		6		2			
Permitted Phases	4		4		6		2		2			
Actuated Green, G (s)	21.8	21.8	21.8	21.8	14.6	14.6	14.6	14.6				
Effective Green, g (s)	22.8	22.8	22.8	22.8	15.6	15.6	15.6	15.6				
Actuated g/C Ratio	0.49	0.49	0.49	0.49	0.34	0.34	0.34	0.34				
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0				
Vehicle Extension (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5				
Lane Grp Cap (vph)	518	1604	580	1629	176	1129	254	1181				
v/s Ratio Prot	0.03		0.05		0.12		0.19					
v/s Ratio Perm	0.01		c0.28		0.11		0.07					
v/c Ratio	0.02	0.06	0.57	0.11	0.32	0.37	0.21	0.57				
Uniform Delay, d1	6.1	6.2	8.3	6.3	11.5	11.7	11.0	12.6				
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00				
Incremental Delay, d2	0.0	0.0	1.0	0.0	0.8	0.1	0.3	0.5				
Delay (s)	6.1	6.2	9.3	6.4	12.3	11.8	11.3	13.2				
Level of Service	A	A	A	A	B	B	B	B				
Approach Delay (s)	6.2		8.1		11.9			13.1				
Approach LOS	A		A		B			B				
Intersection Summary												
HCM Average Control Delay	10.9		HCM Level of Service			B						
HCM Volume to Capacity ratio	0.57											
Actuated Cycle Length (s)	46.4		Sum of lost time (s)			8.0						
Intersection Capacity Utilization	58.2%		ICU Level of Service			B						
Analysis Period (min)	15											

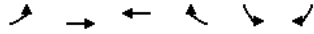
HCM Signalized Intersection Capacity Analysis
10: N 51st Street & N Pearl Street

2014 No Action - Scenario 1
12/4/2007 - Summer Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↕	↔	↔	↕	↔	↔	↕	↔	↔	↕	↔
Volume (vph)	41	66	72	435	125	122	75	346	106	104	295	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	12	12	12	12	12	10	10	10	10	10	10
Grade (%)	-2%			3%			-2%			2%		
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.95		1.00	0.85	1.00	0.96	1.00	0.96	1.00	1.00	1.00	1.00
Flt Protected	0.99		0.96	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1794		1802	1591	1668	1694	1635	1721				
Flt Permitted	0.66		0.61	1.00	0.16	1.00	0.18	1.00				
Satd. Flow (perm)	1195		1141	1591	273	1694	314	1721				
Peak-hour factor, PHF	0.76	0.76	0.76	0.96	0.96	0.96	0.88	0.88	0.88	0.52	0.52	0.52
Adj. Flow (vph)	54	87	95	453	130	127	85	393	120	200	567	0
RTOR Reduction (vph)	0	27	0	0	0	26	0	12	0	0	0	0
Lane Group Flow (vph)	0	209	0	0	583	101	85	501	0	200	567	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	2%	2%	2%	2%	2%	2%
Turn Type	Perm		Perm		Perm		Perm		pm+pt			
Protected Phases	4		4		4		6		5			
Permitted Phases	4		4		6		2		2			
Actuated Green, G (s)	41.0		41.0		28.0		28.0		39.0			
Effective Green, g (s)	42.0		42.0		29.0		29.0		40.0			
Actuated g/C Ratio	0.47		0.47		0.32		0.32		0.44			
Clearance Time (s)	5.0		5.0		5.0		5.0		5.0			
Vehicle Extension (s)	2.5		2.5		2.5		2.5		2.5			
Lane Grp Cap (vph)	558		532		742		88		546			
v/s Ratio Prot	0.17		c0.51		0.06		c0.31		0.30			
v/s Ratio Perm	0.37		1.10		0.14		0.97		0.83			
Uniform Delay, d1	15.5		24.0		13.7		30.0		29.3			
Progression Factor	1.00		1.00		1.00		1.00		1.00			
Incremental Delay, d2	0.3		67.8		0.1		86.9		22.7			
Delay (s)	15.8		91.8		13.7		116.9		52.0			
Level of Service	B		F		B		F		D			
Approach Delay (s)	15.8		77.8		61.3		33.8					
Approach LOS	B		E		E			C				
Intersection Summary												
HCM Average Control Delay	52.6		HCM Level of Service			D						
HCM Volume to Capacity ratio	0.99											
Actuated Cycle Length (s)	90.0		Sum of lost time (s)			8.0						
Intersection Capacity Utilization	84.6%		ICU Level of Service			E						
Analysis Period (min)	15											

HCM Unsignalized Intersection Capacity Analysis
22: N 51st Street & N Bennett Street

2014 No Action - Scenario 1
12/4/2007 - Summer Weekday



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Volume (veh/h)	2	203	674	4	2	1
Sign Control		Free	Free		Stop	
Grade		0%	6%		0%	
Peak Hour Factor	0.59	0.59	0.76	0.76	0.50	0.50
Hourly flow rate (vph)	3	344	887	5	4	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	892			1240	889	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	892			1240	889	
tC, single (s)	4.1			6.4	6.2	
tC, 2 stage (s)						
tF (s)	2.2			3.5	3.3	
p0 queue free %	100			98	99	
cM capacity (veh/h)	769			194	345	

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	347	892	6
Volume Left	3	0	4
Volume Right	0	5	2
cSH	769	1700	227
Volume to Capacity	0.00	0.52	0.03
Queue Length 95th (ft)	0	0	2
Control Delay (s)	0.1	0.0	21.3
Lane LOS	A		C
Approach Delay (s)	0.1	0.0	21.3
Approach LOS			C

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		45.7%	ICU Level of Service A
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
23: N 49th Street & N Ruston Way

2014 No Action - Scenario 1
12/4/2007 - Summer Weekday



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑		↑	↑	↑	
Volume (veh/h)	9	118	290	511	776	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.86	0.86	0.93	0.93	0.92	0.92
Hourly flow rate (vph)	10	137	312	549	843	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2018	845	847			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2018	845	847			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	74	62	61			
cM capacity (veh/h)	40	366	799			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	148	312	549	847
Volume Left	10	312	0	0
Volume Right	137	0	0	3
cSH	231	799	1700	1700
Volume to Capacity	0.64	0.39	0.32	0.50
Queue Length 95th (ft)	97	47	0	0
Control Delay (s)	44.7	12.4	0.0	0.0
Lane LOS	E	B		
Approach Delay (s)	44.7	4.5		0.0
Approach LOS	E			

Intersection Summary			
Average Delay		5.6	
Intersection Capacity Utilization		74.9%	ICU Level of Service D
Analysis Period (min)		15	

HCM Unsignalized Intersection Capacity Analysis
24: N 46th Street & N Baltimore Street

2014 No Action - Scenario 1
12/4/2007 - Summer Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Volume (veh/h)	80	187	1	11	329	36	1	12	0	22	14	219
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			-3%			1%	
Peak Hour Factor	0.92	0.92	0.92	0.81	0.81	0.81	0.50	0.50	0.50	0.71	0.71	0.71
Hourly flow rate (vph)	87	203	1	14	406	44	2	24	0	31	20	308
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	451			204			1152	855	204	845	834	428
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	451			204			1152	855	204	845	834	428
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			99			97	91	100	87	93	50
cM capacity (veh/h)	1115			1373			79	272	842	244	275	622
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	291	464	26	359								
Volume Left	87	14	2	31								
Volume Right	1	44	0	308								
cSH	1115	1373	229	517								
Volume to Capacity	0.08	0.01	0.11	0.69								
Queue Length 95th (ft)	6	1	9	134								
Control Delay (s)	3.1	0.3	22.7	26.3								
Lane LOS	A	A	C	D								
Approach Delay (s)	3.1	0.3	22.7	26.3								
Approach LOS			C	D								
Intersection Summary												
Average Delay				9.7								
Intersection Capacity Utilization				65.3%	ICU Level of Service	C						
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis
25: N 46th Street & N Orchard Street

2014 No Action - Scenario 1
12/4/2007 - Summer Weekday



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		+			+			+			+	
Volume (veh/h)	7	173	15	46	323	28	20	32	17	21	24	10
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			-3%			1%	
Peak Hour Factor	0.83	0.83	0.83	0.94	0.94	0.94	0.86	0.86	0.86	0.70	0.70	0.70
Hourly flow rate (vph)	8	208	18	49	344	30	23	37	20	30	34	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	373			227			722	706	217	729	700	359
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	373			227			722	706	217	729	700	359
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			96			92	89	98	90	90	98
cM capacity (veh/h)	1196			1354			300	346	822	295	350	690
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	235	422	80	79								
Volume Left	8	49	23	30								
Volume Right	18	30	20	14								
cSH	1196	1354	384	357								
Volume to Capacity	0.01	0.04	0.21	0.22								
Queue Length 95th (ft)	1	3	19	21								
Control Delay (s)	0.4	1.2	16.9	17.9								
Lane LOS	A	A	C	C								
Approach Delay (s)	0.4	1.2	16.9	17.9								
Approach LOS			C	C								
Intersection Summary												
Average Delay				4.1								
Intersection Capacity Utilization				46.2%	ICU Level of Service	A						
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis
26: N 46th Street & N Ferdinand Street

2014 No Action - Scenario 1
12/4/2007 - Summer Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Volume (veh/h)	69	124	12	5	187	13	8	9	3	23	43	200
Sign Control		Free			Free			Stop			Stop	
Grade		-1%			1%			-3%			1%	
Peak Hour Factor	0.92	0.92	0.92	0.83	0.83	0.83	0.65	0.65	0.65	0.88	0.88	0.88
Hourly flow rate (vph)	75	135	13	6	225	16	12	14	5	26	49	227
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	241			148			788	544	141	548	543	233
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	241			148			788	544	141	548	543	233
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			100			94	97	99	94	88	72
cM capacity (veh/h)	1337			1446			195	422	912	417	423	811
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	223	247	31	302								
Volume Left	75	6	12	26								
Volume Right	13	16	5	227								
cSH	1337	1446	305	659								
Volume to Capacity	0.06	0.00	0.10	0.46								
Queue Length 95th (ft)	4	0	8	60								
Control Delay (s)	3.0	0.2	18.1	15.0								
Lane LOS	A	A	C	C								
Approach Delay (s)	3.0	0.2	18.1	15.0								
Approach LOS			C	C								
Intersection Summary												
Average Delay				7.2								
Intersection Capacity Utilization				48.2%	ICU Level of Service	A						
Analysis Period (min)				15								

HCM Unsignalized Intersection Capacity Analysis
29: N 49th Street & N Pearl Street

2014 No Action - Scenario 1
12/4/2007 - Summer Weekday

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↔			↔
Volume (veh/h)	5	11	516	10	4	797
Sign Control	Stop		Free			Free
Grade	0%		-2%			1%
Peak Hour Factor	0.71	0.71	0.84	0.84	0.73	0.73
Hourly flow rate (vph)	7	15	614	12	5	1092
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			1174			951
pX, platoon unblocked	0.73	1.00			1.00	
vC, conflicting volume	1723	620			626	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1805	620			626	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	89	97			99	
cM capacity (veh/h)	64	491			955	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	23	626	1097			
Volume Left	7	0	5			
Volume Right	15	12	0			
cSH	159	1700	955			
Volume to Capacity	0.14	0.37	0.01			
Queue Length 95th (ft)	12	0	0			
Control Delay (s)	31.3	0.0	0.2			
Lane LOS	D		A			
Approach Delay (s)	31.3	0.0	0.2			
Approach LOS	D					
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			55.1%	ICU Level of Service	B	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
30: N 51st Street & N Winnfred Street

2014 No Action - Scenario 1
12/4/2007 - Summer Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	11	255	9	12	653	10	12	9	10	11	12	17
Peak Hour Factor	0.86	0.86	0.86	0.83	0.83	0.83	0.56	0.56	0.56	0.92	0.92	0.92
Hourly flow rate (vph)	13	297	10	14	787	12	21	16	18	12	13	18
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	320	813	55	43								
Volume Left (vph)	13	14	21	12								
Volume Right (vph)	10	12	18	18								
Hadj (s)	-0.01	-0.01	-0.12	-0.20								
Departure Headway (s)	5.1	4.6	6.3	6.3								
Degree Utilization, x	0.45	1.05	0.10	0.08								
Capacity (veh/h)	699	764	537	534								
Control Delay (s)	12.2	66.1	10.0	9.8								
Approach Delay (s)	12.2	66.1	10.0	9.8								
Approach LOS	B	F	B	A								
Intersection Summary												
Delay				47.6								
HCM Level of Service				E								
Intersection Capacity Utilization				49.4%	ICU Level of Service			A				
Analysis Period (min)				15								

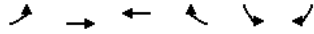
HCM Unsignalized Intersection Capacity Analysis
31: N Ruston Way & Park Access

2014 No Action - Scenario 1
12/4/2007 - Summer Weekday

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Right Turn Channelized												
Volume (veh/h)	29	186	0	63	658	41	1	22	43	245	30	195
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	32	202	0	68	715	45	1	24	47	266	33	212
Approach Volume (veh/h)	234			828				72		511		
Crossing Volume (veh/h)	367				57				500			
High Capacity (veh/h)	1037				1325				933			
High v/c (veh/h)	0.23				0.63				0.08			
Low Capacity (veh/h)	847				1107				754			
Low v/c (veh/h)	0.28				0.75				0.10			
Intersection Summary												
Maximum v/c High				0.69								
Maximum v/c Low				0.87								
Intersection Capacity Utilization				88.7%			ICU Level of Service			E		

HCM Unsignalized Intersection Capacity Analysis
33: N Ruston Way & Site Access

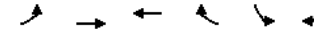
2014 No Action - Scenario 1
12/4/2007 - Summer Weekday



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Right Turn Channelized						
Volume (veh/h)	41	433	547	38	299	215
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	471	595	41	325	234
Approach Volume (veh/h)		515	636		559	
Crossing Volume (veh/h)		325	45		595	
High Capacity (veh/h)		1073	1337		865	
High v/c (veh/h)		0.48	0.48		0.65	
Low Capacity (veh/h)		879	1118		694	
Low v/c (veh/h)		0.59	0.57		0.80	
Intersection Summary						
Maximum v/c High		0.65				
Maximum v/c Low		0.80				
Intersection Capacity Utilization		93.2%		ICU Level of Service	F	

HCM Unsignalized Intersection Capacity Analysis
35: N Ruston Way & East Access

2014 No Action - Scenario 1
12/4/2007 - Summer Weekday



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	↕
Volume (veh/h)	11	721	487	22	72	99
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	784	529	24	78	108
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						1
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	553				1349	541
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	553				1349	541
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				52	80
cM capacity (veh/h)	1017				164	541
Direction, Lane #	EB 1	WB 1	SB 1			
Volume Total	796	553	186			
Volume Left	12	0	78			
Volume Right	0	24	108			
cSH	1017	1700	333			
Volume to Capacity	0.01	0.33	0.56			
Queue Length 95th (ft)	1	0	81			
Control Delay (s)	0.3	0.0	28.7			
Lane LOS	A		D			
Approach Delay (s)	0.3	0.0	28.7			
Approach LOS			D			
Intersection Summary						
Average Delay		3.6				
Intersection Capacity Utilization		57.4%		ICU Level of Service	B	
Analysis Period (min)		15				



Movement Summary

Ruston Point EIS Supplement

Summer Weekday No Action Park Access Scenario 1 (31)

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
N Baltimore Street (northbound)										
3L	L	1	50.0	0.111	14.2	LOS B	20	0.64	0.84	25.9
8T	T	24	4.2	0.113	56.9	LOS E	20	0.64	0.88	17.5
8R	R	47	2.1	0.113	9.8	LOS A	20	0.64	0.66	27.7
Approach		73	4.1	0.113	25.4	LOS C	20	0.64	0.74	23.5
N Ruston Way (westbound)										
1L	L	68	1.5	0.648	10.9	LOS B	187	0.34	0.60	27.0
6T	T	715	2.0	0.650	4.1	LOS A	187	0.34	0.38	30.3
6R	R	45	2.2	0.652	5.2	LOS A	187	0.34	0.43	29.7
Approach		828	1.9	0.650	4.7	LOS A	187	0.34	0.40	29.9
Park Access (southbound)										
7L	L	266	1.9	0.964	49.6	LOS D	536	1.00	1.70	15.6
4T	T	33	3.0	0.971	42.8	LOS D	536	1.00	1.70	16.3
4R	R	212	1.9	0.964	43.9	LOS D	536	1.00	1.69	16.1
Approach		511	2.0	0.965	46.8	LOS D	536	1.00	1.69	15.9
N Ruston Way (eastbound)										
5L	L	32	3.1	0.320	13.0	LOS B	57	0.60	0.79	26.3
2T	T	202	2.0	0.319	55.7	LOS E	57	0.60	0.90	17.8
2R	R	1	50.0	0.333	7.2	LOS A	57	0.60	0.68	28.7
Approach		236	2.5	0.319	49.5	LOS D	57	0.60	0.89	18.8
All Vehicles		1648	2.1	0.971	25.1	LOS C	536	0.60	0.89	21.8

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue



Movement Summary

Ruston Point EIS Supplement

Summer Weekday No Action Site Access (33)

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
N Ruston Way (westbound)										
6T	T	595	2.0	0.498	3.9	LOS A	125	0.26	0.36	30.7
6R	R	41	2.4	0.500	5.0	LOS A	125	0.26	0.43	30.0
Approach		636	2.0	0.498	3.9	LOS A	125	0.26	0.37	30.7
Site Access (southbound)										
7L	L	325	1.8	0.864	28.5	LOS C	369	0.99	1.35	20.6
4R	R	234	2.1	0.863	22.8	LOS C	369	0.99	1.34	21.7
Approach		559	2.0	0.864	26.1	LOS C	369	0.99	1.35	21.0
N Ruston Way (eastbound)										
5L	L	45	2.2	0.652	15.2	LOS B	190	0.79	0.90	25.5
2T	T	471	1.9	0.656	57.8	LOS E	190	0.79	0.96	16.0
Approach		515	1.9	0.655	54.1	LOS D	190	0.79	0.95	16.7
All Vehicles		1710	2.0	0.864	26.3	LOS C	369	0.66	0.86	22.0

Symbols which may appear in this table:

Following Degree of Saturation

x = 1.00 for Short Lane with resulting Excess Flow

* x = 1.00 due to minimum capacity

Following LOS

- Based on density for continuous movements

Following Queue

- Density for continuous movement



SIDRA SOLUTIONS

Site: Summer Office Site Access

\\Tsiserver\company\Project\2006\206055 Point Ruston\SEIS\Technical\Average Weekday.aap

Processed Dec 17, 2007 02:40:43PM

A1053, TSI, Medium Office

Produced by SIDRA Intersection 3.1.061208.34

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www.sidrasolutions.com

Appendix 3.7-J: No Action Arterial Level of Service Reports

Arterial Level of Service: NB N Ruston Way

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
N McCarver Street	16	11.1	30.4	0.2	21
Commercial 10	15	2.4	16.7	0.1	26
	82	1.2	14.9	0.1	27
Commercial 09	14	2.2	17.6	0.1	26
Commercial 08	13	0.9	6.7	0.0	26
Commercial 07	12	1.1	6.9	0.0	25
Adler Street	11	3.0	12.0	0.1	23
Commercial 06	10	1.2	9.6	0.1	27
Commercial 05	9	0.5	5.4	0.0	28
Commercial 04	8	0.6	7.9	0.1	28
Park 02	7	1.8	22.1	0.2	27
N 40th Street	6	1.3	15.9	0.1	27
Commercial 03	5	1.9	18.6	0.1	27
Commercial 02	4	0.8	7.6	0.1	27
Commercial 01	3	1.4	13.8	0.1	27
Park Access 01	2	1.3	12.4	0.1	26
N 49th Street	1	4.0	35.4	0.3	28
	34	1.3	22.2	0.2	28
East Access	35	1.1	7.0	0.1	26
Site Access	33	4.3	9.4	0.0	18
Park Access	31	4.3	13.5	0.1	15
Total		47.9	306.0	2.1	25

Arterial Level of Service: SB N Ruston Way

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Baltimore Ext.	31	3.4	10.9	0.1	21
Site Access	33	4.5	13.7	0.1	15
East Access	35	0.6	8.9	0.0	19
	34	0.2	6.7	0.1	27
N 49th Street	1	1.3	21.6	0.2	28
Park Access 01	2	3.1	36.6	0.3	27
Commercial 01	3	1.2	12.4	0.1	26
Commercial 02	4	1.4	13.9	0.1	27
Commercial 03	5	0.8	7.6	0.1	27
N 40th Street	6	1.8	18.4	0.1	27
Park 02	7	2.0	16.4	0.1	26
Commercial 04	8	2.5	22.9	0.2	26
Commercial 05	9	1.2	8.6	0.1	25
Commercial 06	10	0.9	5.7	0.0	26
Adler Street	11	1.8	10.2	0.1	25
Commercial 07	12	2.1	11.0	0.1	25
Commercial 08	13	1.0	7.0	0.0	25
Commercial 09	14	1.2	6.9	0.0	25
	82	1.7	17.2	0.1	27
Commercial 10	15	2.0	15.6	0.1	26
N McCarver Street	16	9.2	23.1	0.1	19
Total		44.1	295.4	2.0	25

Arterial Level of Service: NB N Ruston Way

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
N McCarver Street	16	13.9	33.2	0.2	19
Commercial 10	15	2.5	16.9	0.1	26
	82	1.3	15.0	0.1	27
Commercial 09	14	2.3	17.6	0.1	26
Commercial 08	13	1.2	6.9	0.0	25
Commercial 07	12	1.5	7.3	0.0	24
Adler Street	11	3.7	12.7	0.1	22
Commercial 06	10	1.3	9.7	0.1	27
Commercial 05	9	0.4	5.4	0.0	28
Commercial 04	8	0.7	8.0	0.1	27
Park 02	7	1.9	22.2	0.2	27
N 40th Street	6	1.4	15.9	0.1	27
Commercial 03	5	2.0	18.7	0.1	27
Commercial 02	4	0.8	7.6	0.1	27
Commercial 01	3	1.5	13.9	0.1	27
Park Access 01	2	1.4	12.5	0.1	26
N 49th Street	1	5.0	37.7	0.3	27
	34	1.4	22.2	0.2	28
East Access	35	1.2	7.1	0.1	25
Site Access	33	4.4	9.6	0.0	18
Park Access	31	4.5	13.8	0.1	15
Total		54.1	313.9	2.1	25

Arterial Level of Service: SB N Ruston Way

Cross Street	Node	Delay (s/veh)	Travel time (s)	Dist (mi)	Arterial Speed
Baltimore Ext.	31	3.6	11.2	0.1	21
Site Access	33	4.7	14.3	0.1	14
East Access	35	0.6	9.0	0.0	19
	34	0.2	6.7	0.1	27
N 49th Street	1	1.4	21.8	0.2	28
Park Access 01	2	3.6	36.8	0.3	27
Commercial 01	3	1.4	12.6	0.1	26
Commercial 02	4	1.5	14.0	0.1	26
Commercial 03	5	1.0	7.7	0.1	26
N 40th Street	6	1.9	18.5	0.1	27
Park 02	7	2.2	16.6	0.1	26
Commercial 04	8	2.9	23.3	0.2	26
Commercial 05	9	1.3	8.7	0.1	25
Commercial 06	10	1.0	5.8	0.0	26
Adler Street	11	1.9	10.3	0.1	25
Commercial 07	12	2.0	11.0	0.1	26
Commercial 08	13	0.9	6.9	0.0	25
Commercial 09	14	1.0	6.7	0.0	26
	82	1.8	17.2	0.1	27
Commercial 10	15	2.3	16.0	0.1	25
N McCarver Street	16	12.0	25.9	0.1	17
Total		49.3	300.9	2.0	25

Hayashi, Karie

From: Kevin and Lynne [kevlynne@msn.com]
Sent: Tuesday, November 13, 2007 9:14 AM
To: Sue@mconstruction.com; rochlin.kevin@epa.gov; khayashi@cityoftacoma.org
Subject: Letter on Human Health concerns.
Attachments: image001.wmz

Karie,
I am sending this from home prior to leaving on travel. I look forward to talking to you.

Kevin Rochlin



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, WA 98101

Nov
13,
2007

Reply to
Attn. of ECL-111

Karie A. Hayashi
Urban Planner III/Special Assistant
City of Tacoma
Public Works Department
747 Market Street, Room 345
Tacoma, WA 98402-3769

Dear Ms. Hayashi,

The purpose of this letter is to provide information to you regarding the Determination of Significance for the Point Ruston development. One of the required areas for providing comment was for environmental health (page 3 last bulleted paragraph).

EPA has been overseeing the remediation of the smelter site for more than a decade. All of the remediation work at the site has been performed under Consent Decrees with EPA first with Asarco, and now with Point Ruston. Our oversight includes impacts to human health and the environment, and compliance with the requirements of environmental laws.

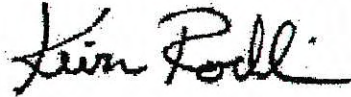
Point Ruston purchased the Asarco Smelter and associated environmental liability following Asarco's bankruptcy. Their plan is to stage the remediation and development. While ideally, site remediation would have been completed prior to development, EPA has agreed to work with Point Ruston on their phased approach. EPA's primary consideration is the protection of site residents and recreational users of the site. Point Ruston and EPA have been developing means for ensuring that any work on the site after occupancy is surgically staged and protective with no perceived or real risk. They will have to have an EPA approved construction plan as well as a plan for monitoring and institutional controls. Temporary capping of the site is required. Additional ideas such as wind fences, tents, and chemical

11/13/2007

facifiers of excavation areas are being considered. I would welcome the opportunity to discuss these with you if you so desire.

Please call me with any questions you may have at 206-553-2106.

Sincerely,

A handwritten signature in black ink that reads "Kevin Rochlin". The signature is written in a cursive, slightly slanted style.

Kevin Rochlin
Project Manager

cc: Sue O'Neill, Point Ruston
Mike Cohen, Point Ruston

APPENDIX F

POINT RUSTON PROPERTY
LEGAL DESCRIPTION

EXHIBIT "A"

ALL OF BLOCKS 3, 5, 8, 11, 16, 19 AND 24, AND LOTS 3 AND 4, BLOCK 4, AND LOTS 1 THROUGH 4, INCLUSIVE, BLOCK 9, AND LOTS 1, THROUGH 3, INCLUSIVE, BLOCK 17, AND LOTS 1 THROUGH 6, INCLUSIVE, BLOCK 18, AND LOTS 1 THROUGH 6, INCLUSIVE, BLOCK 25, ALL IN THE PLAT OF BAY VIEW ADDITION, AS RECORDED IN VOLUME 2 OF PLATS, PAGE 21, RECORDS OF PIERCE COUNTY AUDITOR;

TOGETHER WITH THOSE PORTIONS OF VACATED 2ND STREET, COMMERCIAL STREET, COURT STREET, DOCK STREET, VILLARD STREET, THE NORTH 20.5 FEET OF 49TH STREET (PALACE AVENUE) AND ALLEYS ADJOINING, WHICH, UPON VACATION, ATTACHED TO SAID PROPERTY BY OPERATION OF LAW;

EXCEPT ANY PORTION LYING NORTHERLY OF THE SOUTHWESTERLY MARGIN OF THAT TUNNEL CONVEYED TO THE TOWN OF RUSTON BY INSTRUMENT RECORDED AUGUST 10, 1916 UNDER RECORDING NO. 446869, RECORDS OF PIERCE COUNTY AUDITOR, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE INTERSECTION OF BALTIMORE STREET AND NORTH 49TH STREET, BEING A BRASS MONUMENT SET IN A CASE;
THENCE ALONG THE MONUMENTED CENTERLINE OF BALTIMORE STREET, NORTH 02°23'48" EAST, 29.50 FEET TO THE WESTERLY EXTENSION OF THE SOUTHERLY LINE OF THE VACATED NORTHERLY 20.5 FEET OF NORTH 49TH STREET IN SAID BLOCK 24;
THENCE ALONG SAID SOUTHERLY LINE, SOUTH 87°34'17" EAST, 30.00 FEET TO THE EASTERLY MARGIN OF SAID BALTIMORE STREET AND THE TRUE POINT OF BEGINNING;
THENCE ALONG SAID EASTERLY MARGIN THE FOLLOWING COURSES;
NORTH 02°23'48" EAST, 310.61 FEET;
NORTH 02°24'36" EAST, 329.81 FEET;
NORTH 02°21'58" EAST, 479.85 FEET TO THE NORTHWEST CORNER OF SAID BLOCK 3;
THENCE ALONG THE NORTHERLY LINE OF SAID BLOCK 3, SOUTH 87°35'00" EAST, 16.17 FEET TO THE SOUTHWESTERLY LINE OF THAT TUNNEL CONVEYED TO THE TOWN OF RUSTON BY INSTRUMENT RECORDED AUGUST 10, 1916 UNDER RECORDING NO. 446869, AND A POINT OF CURVATURE;
THENCE ALONG SAID SOUTHWESTERLY LINE THE FOLLOWING COURSES;
SOUTHEASTERLY, 48.44 FEET ALONG THE ARC OF A NON-TANGENT CURVE TO THE LEFT, HAVING A RADIUS OF 70.00 FEET, THE RADIUS POINT OF WHICH BEARS NORTH 81°01'46" EAST, THROUGH A CENTRAL ANGLE OF 39°38'50";
SOUTH 56°54'35"EAST, 9.09 FEET;
SOUTH 60°56'16" EAST, 11.61 FEET;
SOUTH 72°53'00" EAST, 234.38 FEET;
SOUTH 87°35'05" EAST, 14.94 FEET;
SOUTH 02°26'35" WEST, 6.83 FEET TO A POINT OF CURVATURE;
SOUTHEASTERLY, 92.33 FEET ALONG THE ARC OF A NON-TANGENT CURVE TO THE RIGHT, HAVING A RADIUS OF 2662.79 FEET, THE RADIUS POINT OF WHICH BEARS SOUTH 19°11'20" WEST, THROUGH A CENTRAL ANGLE OF 01°59'12", TO THE CENTERLINE OF VACATED DOCK STREET;
THENCE ALONG SAID CENTERLINE, NORTH 87°35'05" WEST, 57.93 FEET TO THE CENTERLINE OF VACATED VILLARD STREET;
THENCE ALONG SAID CENTERLINE, SOUTH 02°26'35" WEST, 164.93 FEET, TO THE WESTERLY EXTENSION OF THE CENTERLINE OF THE VACATED ALLEY BETWEEN SAID BLOCK 4 AND BLOCK 9;
THENCE ALONG SAID CENTERLINE, SOUTH 87°35'17" EAST, 80.03 FEET TO THE SOUTHERLY

EXHIBIT "A" - Continued

EXTENSION OF THE WESTERLY LINE OF SAID LOT 3, BLOCK 4;
THENCE ALONG SAID WESTERLY LINE, NORTH 02°30'24" EAST, 157.26 FEET TO THE
SOUTHWESTERLY LINE OF SAID TUNNEL AND A POINT OF CURVATURE;
THENCE ALONG SAID SOUTHWESTERLY LINE, SOUTHEASTERLY, 53.32 FEET ALONG THE ARC OF A
NON-TANGENT CURVE TO THE RIGHT, HAVING A RADIUS OF 2662.79 FEET, THE RADIUS POINT
OF WHICH BEARS SOUTH 21°40'57" WEST, THROUGH A CENTRAL ANGLE OF 01°08'50", TO THE
NORTHERLY EXTENSION OF THE EASTERLY LINE OF SAID LOT 4, BLOCK 4;
THENCE SOUTH 02°34'14" WEST, 309.09 FEET, SAID LINE BEING COINCIDENT WITH THE
EASTERLY LINE OF SAID LOT 4, BLOCK 4 AND LOT 4, BLOCK 9, TO THE CENTERLINE OF VACATED
COMMERCIAL STREET;
THENCE ALONG SAID CENTERLINE, NORTH 87°35'29" WEST, 129.68 FEET TO THE CENTERLINE OF
SAID VILLARD STREET;
THENCE ALONG SAID CENTERLINE, SOUTH 02°26'35" WEST, 169.91 FEET TO THE WESTERLY
EXTENSION OF THE CENTERLINE OF THE ALLEY BETWEEN SAID BLOCK 10 AND BLOCK 17;
THENCE ALONG SAID CENTERLINE, SOUTH 87°35'26" EAST, 104.95 FEET TO THE NORTHERLY
EXTENSION OF THE EASTERLY LINE OF SAID LOT 3, BLOCK 17;

THENCE ALONG SAID EASTERLY LINE, SOUTH 02°31'57" WEST, 159.91 FEET TO THE CENTERLINE
OF VACATED COURT STREET;
THENCE ALONG SAID CENTERLINE, SOUTH 87°35'23" EAST, 75.37 FEET TO THE NORTHERLY
EXTENSION OF THE EASTERLY LINE OF LOT 6, BLOCK 18;
THENCE SOUTH 02°38'00" WEST, 310.73 FEET, SAID LINE BEING COINCIDENT WITH THE
EASTERLY LINE OF SAID LOT 6, BLOCK 18 AND LOT 6, BLOCK 25, TO THE SAID SOUTHERLY LINE
OF THE VACATED NORTHERLY 20.5 FEET OF NORTH 49TH STREET;
THENCE ALONG SAID SOUTHERLY LINE THE FOLLOWING COURSES;
NORTH 87°35'13" WEST, 149.03 FEET;
NORTH 87°34'45" WEST, 60.00 FEET;
NORTH 87°34'17" WEST, 299.60 FEET TO THE TRUE POINT OF BEGINNING;

SITUATE IN THE CITY OF RUSTON, COUNTY OF PIERCE, STATE OF WASHINGTON.

APPENDIX G

**JOBS WITH JUSTICE
ATTACHMENTS**

From: WA State Jobs with Justice [wsjwj@igc.org] on behalf of southsound@wsjwj.org
Sent: Thursday, February 14, 2008 3:19 PM
To: Khayashi@cityoftacoma.org
Subject: Addenda to Comments from Jobs with Justice on DSEIS Project File #s
40000090530/SHR2007,90531/PLT2007, /BLD2007, 90529/SEP2007, SEPA File # SEP2007-40000090529

Attachments: Dust clouds from shovel1-MCC Asarco site.JPG; Dust clouds from shovel2-MCC Asarco site.JPG; Dust from Trucks passing - Stack Hill Sept 19a-MCC Asarco site.jpg; Dust clouds from shovel3-MCC Asarco site.JPG; Shovel near home2-MCC Asarco site.JPG; collapsed silt fence1-MCC Asarco site.jpg; collapsed silt fence2-MCC Asarco site.jpg; collapsed silt fence3-MCC Asarco site.jpg; collapsed silt fence4-MCC Asarco site.jpg; dig&distant reloading water truck1a-MCC Asarco site.jpg; dig&distant reloading water truck2a-MCC Asarco site.jpg



SEPA Public Information Center
Tacoma Municipal Building, 3rd Flr
City of Tacoma Public Works Department
747 Market Street, Room 332
Tacoma, WA 98402-3769
Addenda By Email to: Karie Hayashi: Khayashi@cityoftacoma.org and hand delivery

February 14, 2008

To: Karie Hayashi SEPA Officer and William L Pugh, Assistant City Manager/Director Public Works

Re: Project File #s 40000090530/SHR2007, 40000090531/PLT2007, xxxxxxxxxxxx/BLD2007, 40000090529/SEP2007, SEPA File # SEP2007-40000090529; Comments on Draft Supplemental Environmental Impact Statement to the Asarco Smelter Site Master Development Plan Final EIS

Washington State Jobs with Justice is submitting the attached 11 photos to accompany our Comments in the public record for the above-referenced DSEIS submitted on February 14, 2008. Please contact us at the below info if you have any questions or concerns if the documents did not come across completely or you've had any problems accessing or opening the information in the files.

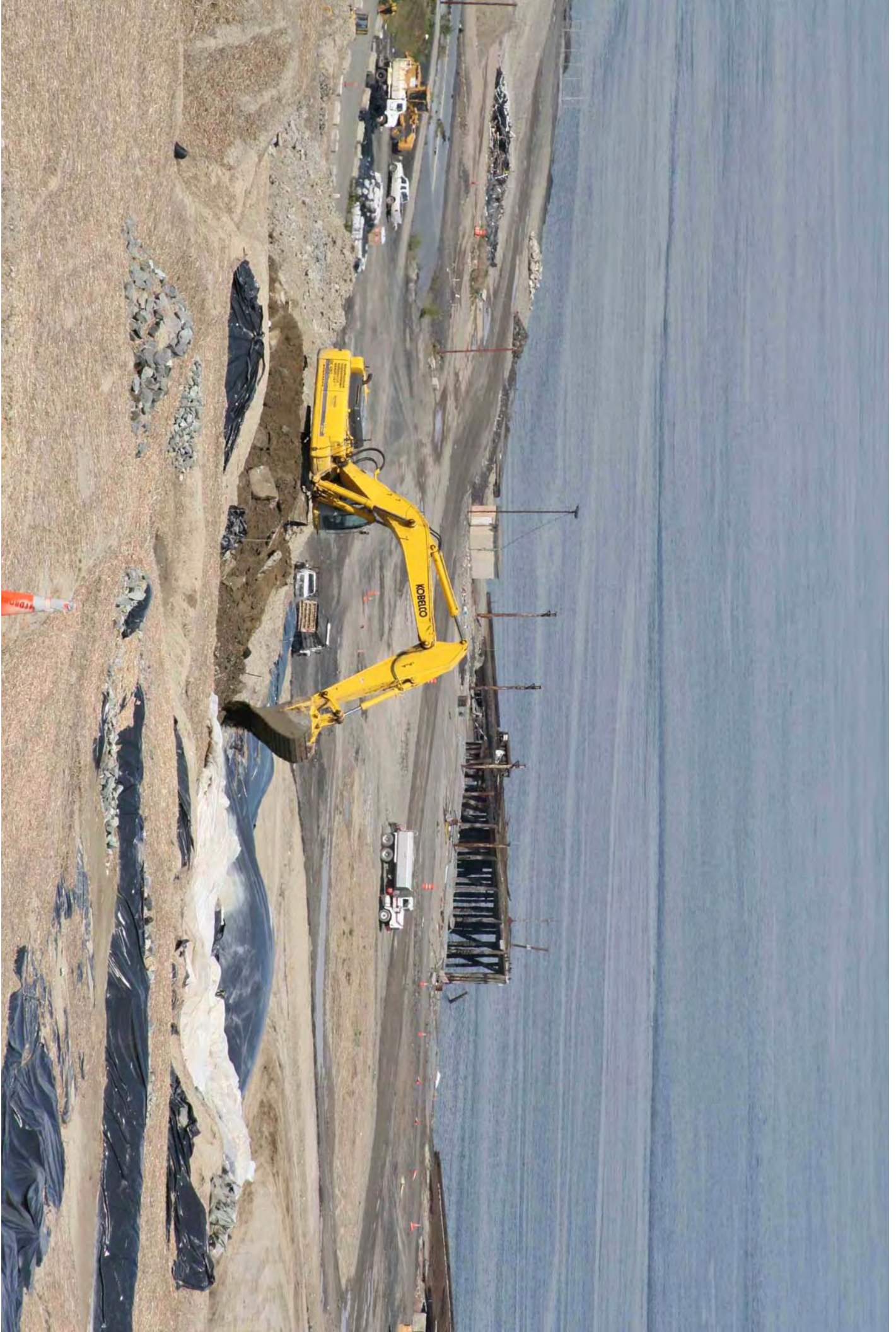
Please send us confirmation that you received this email. Thank you

Sincerely,

Wendy Hall, JwJ Pierce County Organizing Committee Co-Chair; Nora Leider, Chair to the Socially Responsible Development project JwJ Steering Committee workgroup; and Jacob Carton, South Sound staff organizer, on behalf of:
Washington State Jobs with Justice
3049 S. 36 St, #201
Tacoma, WA 98409-5801
(253) 459-5107

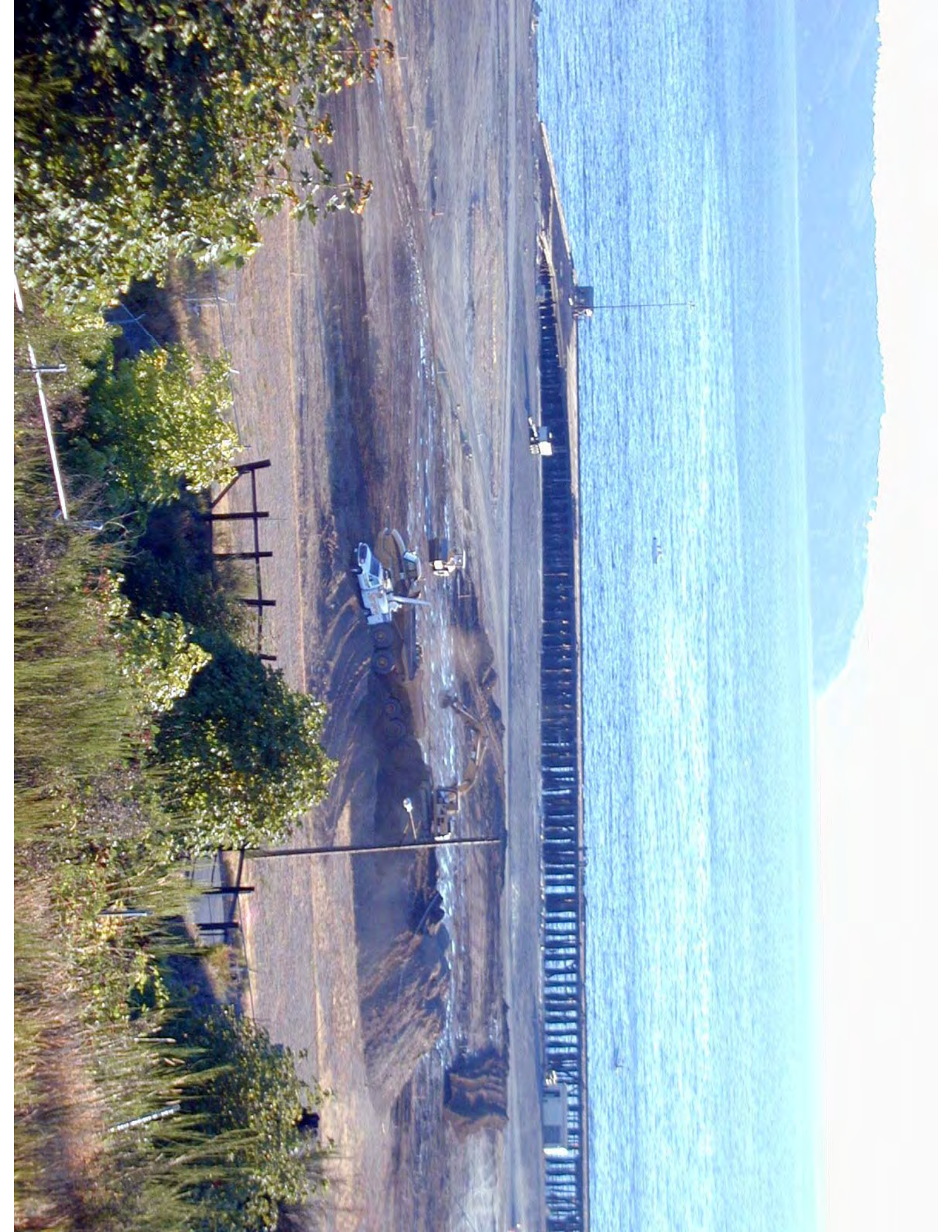


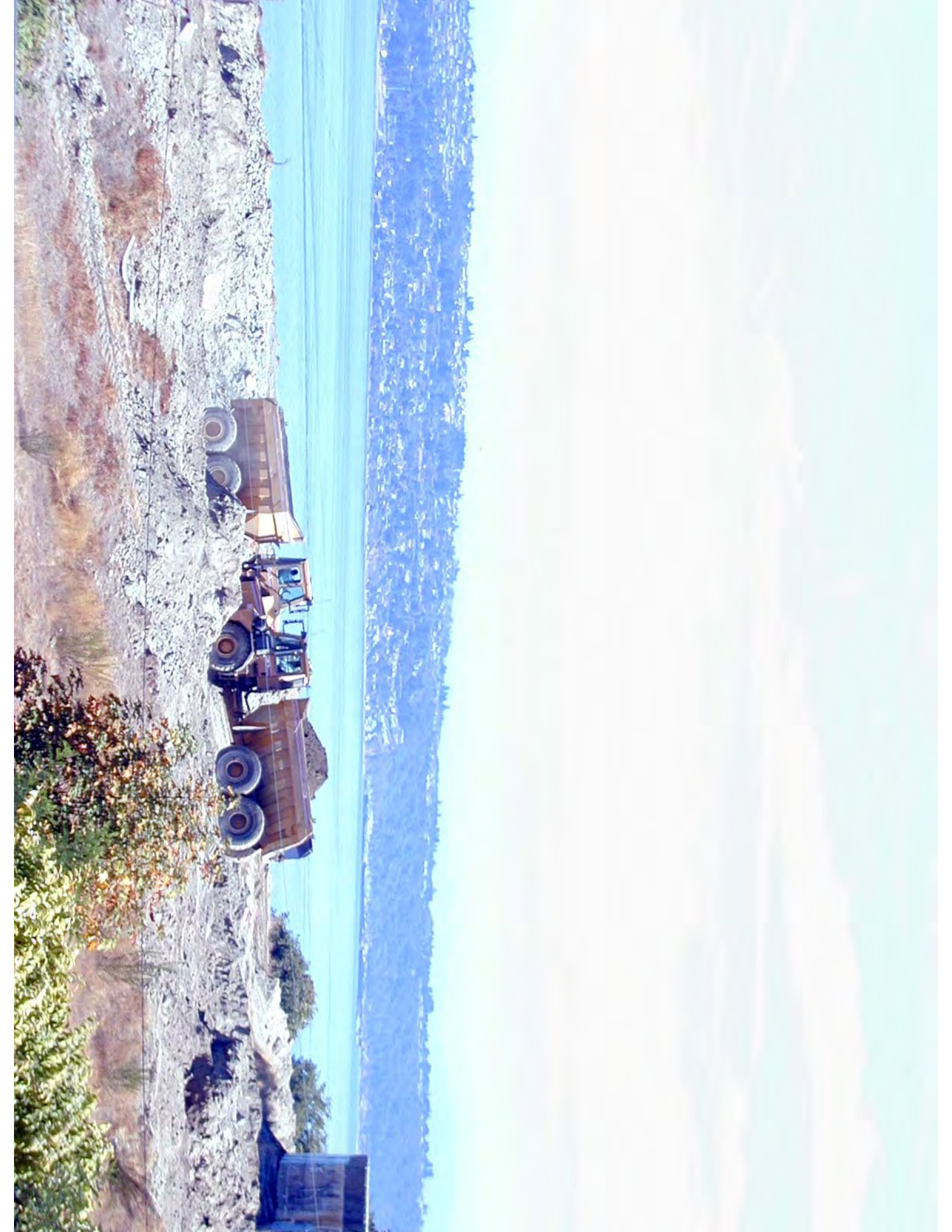


















POINT RUSTON
IS HERE!

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