Vancouver Energy
Construction Transportation Management Plan

Plan No. C.09 | Revision 00

Approved by:

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Date: 30 April 2015

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Vancouver Energy
Construction Transportation Management Plan

EFSEC Application for Site Certification No. 2013-01
Docket No. EF131590
30 April 2015

Prepared for

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Revision Summary

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Vancouver Energy
Construction Transportation Management Plan

Table of Contents

Section

1. Introduction and Background 3
1.1 Purpose of Plan 3
1.2 Regulatory Requirements 5
1.3 Related Documents 5
1.4 Surrounding Businesses and Affected Agencies 5
1.5 Facility Access 6
1.5.1 State Route 501 6
1.5.2 NW Old Lower River Road 6
1.5.3 NW Old Alcoa Access Road 6
1.5.4 NW Gateway Avenue 6
1.5.5 NW Harborside Drive 7
1.5.6 Port Access Road to Glacier NW/Cal-Portland 7
1.5.7 Port Access Road to Farwest Steel/West Side of Parcel 1A 7
1.5.8 Port Access Road to East Side of Parcel 1A 7
1.6 Facility Construction Schedule and Phasing 7
1.7 Construction Traffic Impacts 7
1.7.1 Construction Trip Generation 7
1.7.2 Construction Trip Routing 8
1.7.3 Operational Impacts during Construction 8
1.7.4 Implemented Improvements from Transportation Study 8
2. CTMP Considerations 9
2.1 General Signage and Striping Needs 9
2.1.1 Posted Speed Limits for Private Port Access Roads 9
2.1.2 Street Name Signs for Private Port Access Roads 10
2.2 Temporary Lighting 10
2.3 Roadway Maintenance 10
2.4 Traffic Congestion Mitigation 10
2.5 Design Vehicle Considerations 10
2.5.1 Area 200 Design Vehicles 11
2.5.2 Area 300 Design Vehicles 11
2.5.3 Area 400 Design Vehicles 12
2.5.4 Area 500 Design Vehicles 12
2.5.5 Area 600 Design Vehicles 12
2.5.6 Oversized and Overweight Loads 12
2.6 Public Information and Outreach 13
2.6.1 Holidays and Special Events 13

2.7 Emergency Vehicle Routing 13
2.8 Incident Management Plan 13
3. CTMP Stages 14
3.1 Phase 1 Construction Routing 14
3.1.1 Area 200 Routing 14
3.1.2 Area 300 Routing 14
3.1.3 Area 400 Routing 14
3.1.4 Area 600 Routing 14
3.1.5 Emergency Response Vehicle Routing 14
3.1.6 Area 300 Routing 16
3.1.7 Area 600 Routing 16
3.1.8 Emergency Response Vehicle Routing 16
4. List of Acronyms and Abbreviations 18
5. References 18

List of Tables

Table 1. Summary of Facility Areas 5

List of Figures

Figure 1. Site Vicinity Map 4
Figure 2. Phase 1 Construction Routing Plan 15
Figure 3. Phase 2 Construction Routing Plan 17

List of Appendices

Appendix A. Stakeholder Contact Information
Appendix B. Truck Turn Simulations

1. Introduction and Background

Vancouver Energy (Facility) provides transloading services for pipeline quality crude oil from railcars to marine vessels. The Facility is located at 5501 NW Old Lower River Road, Vancouver, Washington; it is situated at the Port of Vancouver USA (Port) on the north bank of the Columbia River at approximately River Mile 103.5. A site vicinity map is presented in Figure 1, which shows the Facility area, surrounding roadway facilities, and neighboring businesses.

The Facility is approximately 47.4 acres in size and comprises elements within the following “area” groupings, which are also illustrated in Figure 1 and described in more detail in Table 1.

- Area 200 – Rail Unloading – located at Terminal 5 of the Port
- Area 300 – Storage – located at Parcel 1A of the Port
- Area 400 – Marine Terminal – located at berths 13 and 14 of the Port
- Area 500 –Transfer Pipelines – located in locations between areas 200, 300, and 400
- Area 600 – West Boiler – located at Terminal 5 of the Port
- Rail Infrastructure – located at Terminal 5 of the Port

The Facility receives an average of four unit trains per day and unloads an average of 360,000 barrels (bbl) of crude oil per day. Six nominal capacity 400,000 bbl tanks are used to store crude oil on site. A transfer pipeline system is used to convey crude oil from Area 200 to Area 300 for storage, and from Area 300 to Area 400 for vessel loading. The transfer pipeline system can also be operated to move crude oil from Area 200 directly to Area 400. The Terminal is operated 24 hours per day, 7 days per week.

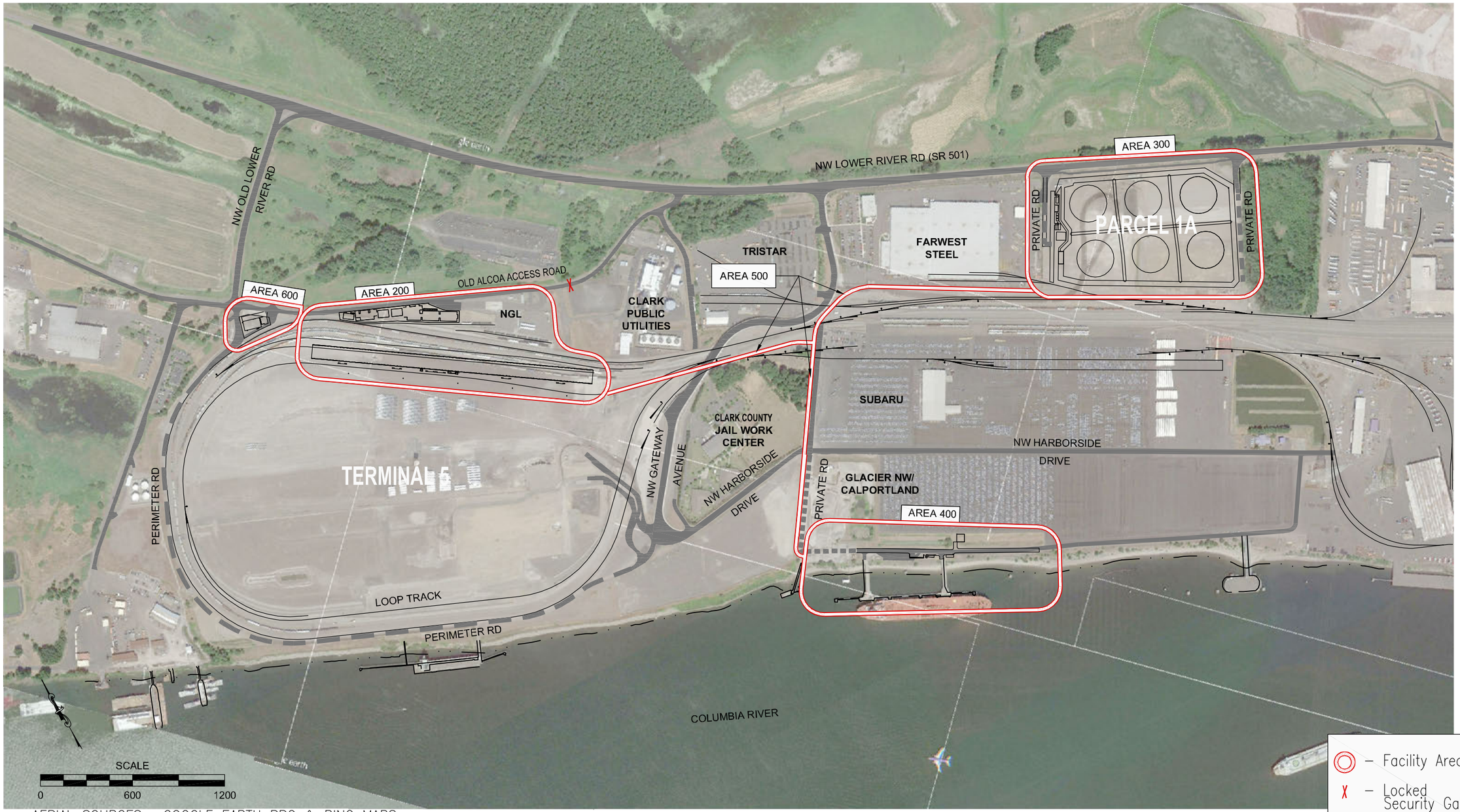
1.1 Purpose of Plan

This Construction Transportation Management Plan (CTMP) addresses mitigation measures for potential impacts to the transportation system during Facility construction in a timely and cost-effective manner while maintaining safety and mobility through the work area for the traveling public.

This CTMP has the following specific objectives:

- Describe the project area characteristics;
- Describe proposed improvements and proposed construction staging, routing, and circulation strategies;
- Determine if there will be any height, weight, or width restrictions during construction activities;
- Describe temporary traffic control approach and selection of traffic mitigation measures;
- Identify a plan to maintain mobility and public safety during construction while minimizing delays; and
- Identify project stakeholders and agency staff requiring coordination.

This CTMP is a working document used to memorialize key issues and strategies for the project and includes a list of project stakeholders and emergency contacts. This CTMP is being used by the Certificate Holder during construction to ensure ongoing access is provided to the Facility and all other adjacent properties and businesses in the immediate area.



AERIAL SOURCES: GOOGLE EARTH PRO & BING MAPS

NO.	DATE	REVISION	BY	CK'D	APP

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VANCOUVER ENERGY
Tesoro Savage Petroleum Terminal LLC

PROJECT: VANCOUVER ENERGY
CONSTRUCTION TRANSPORTATION MANAGEMENT PLAN

DESCRIPTION: SITE VICINITY MAP

DESIGN:	XX	START DATE:	3/16/2015	SCALE:	AS SHOWN
DRAWN:	BSC	PRINT DATE:	3/19/2015	PROJECT MANAGER:	SAVAGE_PM
CHECKED:	BJD	APPROVED:	XX	SIZE:	22X34

DRAWING NUMBER: FIGURE 1
SHEET
REV.

EX-0001-006393-PCE

Table 1. Summary of Facility Areas

Facility Area	Project Elements	Acreage
200 – Unloading and Office	Rail Unloading Area Control Rooms/E-houses Fire Pump and Foam Building Admin/Support Buildings	7.8 Acres
300 – Storage	Crude Oil Storage Tanks Secondary Containment Berm Storage Building Pump Basin Control Room/E-house Fire Pump and Foam Building	20.8 Acres
400 – Marine Terminal	Marine Vessel Loading Hoses and Equipment Control Room/E-house Dock Safety Unit Marine Vapor Combustion Units Vapor Blower Skid Spill Prevention, Response and Containment Equipment Dock Improvements Piping from Vessel Loading to Marine Vapor Combustion Units	7.7 Acres
500 – Transfer Pipelines	Transfer Piping from Area 200 to Area 300 Transfer Piping from Area 300 to Area 400	4.9 Acres
600 – West Boiler	West Boiler Building Piping from West Boiler Building to Rail Unloading Area	0.8 Acre
Rail Improvements	Rail Transportation Corridor	5.4 Acres
Total		47.4 Acres

1.2 Regulatory Requirements

There are no specific regulatory requirements for implementation of this CTMP. CTMPs are a typical requirement of a Site Certification Agreement.

1.3 Related Documents

A Construction Emergency Response Plan has been prepared to implement additional protective measures and procedures in addition to those presented in this CTMP. The plan describes measures to be taken in the event of an event requiring emergency response at the Facility construction site.

1.4 Surrounding Businesses and Affected Agencies

Surrounding businesses that generally rely on the same transportation facilities in the Facility area include NGL Supply Terminal Company, Clark Public Utilities, Tristar, Farwest Steel, the Clark County Jail Work Center, Subaru, and Glacier Northwest/CalPortland. The locations of these businesses are shown in Figure 1, and a list of key contacts for each business is provided in Appendix A of this report. Also provided in the appendix is a primary contact list for other key agencies that own or maintain transportation facilities in the area, such as BNSF, the Port, the City of Vancouver, and Washington State Department of Transportation (WSDOT).

1.5 Facility Access

State Route 501 (SR 501) (NW Lower River Road) is the primary access route connecting the site Facility with Interstate 5 and the City of Vancouver to the east. Within the site vicinity, the following roadways will provide access to the individual Facility "areas."

- NW Old Lower River Road
- NW Old Alcoa Access Road
- NW Gateway Avenue
- NW Harborside Drive
- Private Port Access Road to Glacier NW/Cal-Portland
- Private Port Access Road to Farwest Steel/West Side of Parcel 1A
- Private Port Access Road to East Side of Parcel 1A

The characteristics of each of the roadways listed above are summarized in the following subsections.

1.5.1 State Route 501

SR 501 (NW Lower River Road) is under the jurisdiction of WSDOT but roadway conditions are maintained by the City of Vancouver. In the site vicinity, the highway has two travel lanes with exclusive left-turn lanes provided at major intersections with NW Old Lower River Road and NW Gateway Avenue. The highway has a posted speed of 50 mph in the area and generally has wide paved shoulders and fog line striping for bicycle travel. There is a multi-use path at intermittent locations along the south side of the road in front of Far West Steel and Parcel 1A (Area 300).

City maintains road and signals

1.5.2 NW Old Lower River Road

NW Old Lower River Road extends south from SR 501, west of Terminal 5. It is a local road under City of Vancouver jurisdiction. It is paved with two lanes of travel, has no sidewalks or bicycle lanes, and has no posted speed. The roadway provides access to local industrial businesses and provides access to a Port-owned gravel road that proceeds around the outside of the Terminal 5 loop track (Perimeter Road). Access to this road is limited by security fencing and locked gates.

1.5.3 NW Old Alcoa Access Road

The NW Old Alcoa Access Facility Road extends east from the southbound-to-westbound curve in NW Old Lower River Road. This Port-owned roadway is paved with two travel lanes, has a posted speed of 15 MPH and has no sidewalks. It leads east to a propane facility run by NGL Supply Terminal Company. Further to the east is a locked security gate that prevents any public travel beyond. This roadway provides direct access to the administration and office support buildings of Area 200 (Office) and the boiler building of Area 600 (West Boiler).

1.5.4 NW Gateway Avenue

NW Gateway Avenue serves as the main truck entrance to Terminal 5 at the Port. The roadway is under Port jurisdiction, and it has two travel lanes, a posted speed of 25 mph, and a continuous sidewalk on the east side of the road from SR 501 linking to NW Harborside Drive.

The Port recently completed a grade-separation project on NW Gateway Avenue that resulted in an elevated structure over the BNSF rail line that feeds into the loop track around Terminal 5. With this project complete, NW Gateway Avenue now operates independently from the Terminal 5 Loop Track operation and the BNSF rail line, except for a minor at-grade crossing that still exists just north of the overpass structure. This at-grade crossing leads to a railcar loading area for the Tristar business.

1.5.5 NW Harborside Drive

NW Harborside Drive extends east from the southern terminus of NW Gateway Avenue, providing access to local businesses such as the Clark County Jail Work Center, Subaru, and Glacier NW/Cal-Portland. This Port-owned private roadway has two travel lanes, a posted speed of 15 mph, and no sidewalks.

1.5.6 Port Access Road to Glacier NW/Cal-Portland

This private access road extends south from NW Harborside Drive, directly across from the dead-end remnant of NW Gateway Avenue. The road is owned by the Glacier NW/Cal-Portland operation. There is no posted speed, and although the roadway is generally paved, it has a loose layer of gravel on top due to the aggregate spillage from the operation. This access road is intended to serve as the primary access for Facility Area 400 (Marine Terminal).

1.5.7 Port Access Road to Farwest Steel/West Side of Parcel 1A

This private access road extends south from SR 501 between Farwest Steel and Parcel 1A. It is a paved roadway for approximately 200 feet leading up to the Farwest Steel truck access, then continues south as a gravel road on Parcel 1A. There is no posted speed. This access road serves large trucks entering Facility Area 300 (Storage) from SR 501, and smaller trucks that are capable of entering, turning around, and leaving by this same access road.

1.5.8 Port Access Road to East Side of Parcel 1A

This private road also extends south from SR 501 on the east side of Parcel 1A. It is a paved roadway for approximately 200 feet leading up to a temporary gate, then continues south as a gravel road on Parcel 1A. There is no posted speed. This access road serves trucks leaving Facility Area 300 (Storage) for SR 501, and for trucks entering and leaving the construction storm water retention area in the southeast corner of Area 300.

1.6 Facility Construction Schedule and Phasing

Facility construction occurs in two phases. Phase 1 commences upon issuance of the Site Certification and continues for approximately 13 months, at which time initial Facility operations will begin, and Area 300 Storage Tanks 1 to 4 become operational. Phase 2 construction begins upon completion of Phase 1 and continues for approximately 10 months, when the remaining Area 300 Storage Tanks 5 and 6 are brought online, as well as the Area 600 West Boiler Building.

1.7 Construction Traffic Impacts

The construction-related traffic impacts of the Facility were documented in the *Tesoro Savage Vancouver Energy Distribution Terminal Transportation Impact Analysis (Reference 1).* The document was prepared by Kittelson & Associates, Inc. in July 2014 and included as part of the Vancouver Energy application to the Energy Facility Site Evaluation Council (EFSEC). Key findings from the construction-related element of the transportation study are summarized in the following sub-sections.

1.7.1 Construction Trip Generation

Construction-related traffic impacts were assessed using conservative estimates of potential trips to and from the Facility, as documented in the Tesoro Savage Vancouver Energy Distribution Terminal EFSEC Application (Reference 2). These potential trips account for the delivery of earth fill and construction materials (e.g. asphalt, concrete, building, landscaping, and other materials), and construction employee travel during the expected construction staging period between 7 a.m. and 8 p.m. on weekdays.

Approximately 149 construction workers are expected to be on the site on a typical workday (i.e., half of the 298 estimated total workers) and 172 daily, roundtrip, truck deliveries are expected to be made during the peak construction period. Using these metrics and conservative assumptions for construction staging schedule, peak construction activities are estimated to result in 642 daily trips (321 in, 321 out), 181 weekday a.m. peak hour trips (165 in, 16 out), and 181 weekday p.m. peak hour trips (16 in, 165 out).

1.7.2 Construction Trip Routing

Almost all construction worker traffic is expected to use NW Old Lower River Road from SR 501 to travel to and from the administration and office support buildings in the northwest corner of Area 200. Truck deliveries to all Facility areas will occur from several intersecting roads along SR 501, including NW Old Lower River Road, NW Gateway Avenue, and the two private access roads fronting Parcel 1A.

1.7.3 Operational Impacts during Construction

The primary finding of the transportation study was that construction-related trips will not adversely impact the traffic operation conditions of any of the roadway facilities and intersections servicing the Facility area. Weekday a.m. and p.m. peak hour traffic conditions will meet the Level-of-Service standards of the agency having jurisdictional ownership.

It should also be emphasized that all construction-related truck deliveries are projected to originate from, or are destined to, Interstate 5 (I-5) to the east in Vancouver. The two designated truck routes intended to be used by drivers to get to and from I-5 are Mill Plain Boulevard and Fourth Plain Boulevard. On occasion, when traffic congestion occurs along I-5, truck drivers may use another designated truck route along Fruit Valley Road to the north and then either 39th Street or 78th Street to the east. However, the potential magnitude of trucks using this alternative route is anticipated to be small, given the low peak hour truck trip projections and presence of other, more direct truck route options. The Certificate Holder will make best efforts to require construction truck drivers to route their deliveries via Mill Plain Boulevard and Fourth Plain Boulevard.

1.7.4 Implemented Improvements from Transportation Study

The transportation study concluded that acceptable levels of traffic operations and safety can be maintained at intersections in the site vicinity with Facility build-out. The following actions will be implemented prior to onset of construction activities:

- The Certificate Holder will work with the Port and City of Vancouver to post a 25 mph speed limit on Old Lower River Road south of SR 501, where no posted speed sign exists.
- The Certificate Holder will work with the Port and WSDOT to post a YIELD sign to control the channelized northbound right-turn maneuver from Old Lower River Road onto SR 501.
- The Certificate Holder will work with the Port and City of Vancouver to reconfigure traffic control devices at the Old Lower River Road/Old Alcoa Facility Access Road intersection.
- The Certificate Holder will work with the Port to add texturing/coloring treatments to the striped crosswalk on the private access approach to Lower River Road (SR 501), between the Farwest Steel operation and the proposed Storage Tank area (Area 300).
- The Certificate Holder will properly locate and maintain any new landscaping, signage, and/or aboveground utilities installed along the site frontage and internal roadways to ensure that adequate sight distance continues to be available.

2. CTMP Considerations

This section provides an overview of key CTMP considerations.

2.1 General Signage and Striping Needs

All signing and pavement striping improvements associated with the CTMP are to be installed and maintained in conformance with the latest edition of the *Manual on Uniform Traffic Control Devices (MUTCD).* The following general signing and striping standards and actions will apply:

- Construction-related signs have black lettering on an orange background per the MUTCD and have a minimum of 6-inch font size for the lettering.
- “Stop” signs are deemed regulatory per the MUTCD and have white lettering on a red background.
- Advanced warning signs, including notice of “Trucks Ahead” and “Stop Ahead,” are posted in conformance with the MUTCD.
- The Certificate Holder coordinates with roadway operators in advance of installation of signs and pavement striping in the public right-of-way.
- Signs will be selected and placed in a manner that allows for ease of updates and are distinct to drivers who may otherwise become complacent after seeing the signs for an extended period.

2.1.1 Posted Speed Limits for Private Port Access Roads

If not already posted, W8-7 “Loose Gravel” warning signs with W13-1P “15 MPH” (mile per hour) advisory speed plaques, per the MUTCD, will be posted along key temporary or permanent gravel roads intended for use by construction-related vehicles. The 15 mph advisory speed plaque is based on the anticipated gravel surface, a two-lane road configuration, and engineering judgment. The “Loose Gravel” warning sign and advisory speed plaque are intended for use on an ongoing basis and thus will be black text on a yellow background as shown in Exhibit A (note: the speed will be 15 MPH in the field application).

For this Facility, the unpaved or loose gravel sections of the following roads qualify for this particular signage treatment.

- Private Port Access Road to Glacier NW/Cal-Portland
- Private Port Access Road to Farwest Steel/West Side of Parcel 1A
- Private Port Access Road to East Side of Parcel 1A

Exhibit A. Illustration of Typical W8-7 and W13-1P Signs

W8-7

W13-1P

If the referenced roads above become permanently paved in the future, the Port or private landowner may replace the black on yellow W8-7 “Loose Gravel” sign and speed advisory sign with a black on white regulatory 15, 20, or 25 MPH speed limit sign (future speed to be determined based on then-current conditions).

2.1.2 Street Name Signs for Private Port Access Roads

To avoid driver confusion, street name signs will be posted at the intersections between SR 501 and the two Port-owned access roads fronting the west and east sides of Parcel 1A. Street names will be unique for each road to make them distinct from each other and other accesses along SR 501. The signs will be designed per MUTCD standard D3-1 “Street Name” sign with white lettering on a green background, as shown in Exhibit B. Signs will be installed per WSDOT Design Manual procedures and Standard Plans.

Exhibit B. Illustration of Typical D3-1 Sign

D3-1

2.2 Temporary Lighting

Roadway illumination is not proposed for any of the construction entrances, exits, or parking areas within the Facility “areas.” Where existing lighting does not exist, construction lighting will be placed on site and pointed towards the work site, if needed. If it is facing an adjacent road, the construction lights will be raised up and aimed downward as to not affect drivers on the roadway.

2.3 Roadway Maintenance

All Facility access routes (including those having a graveled surface) shall be reasonably maintained so as not to interfere with operations of other port customers, are safe for vehicle traffic, and provide a suitable access for emergency vehicles.

2.4 Traffic Congestion Mitigation

The timing of commuter trip arrivals and departures within the study area may have a direct impact on congestion and delay at the access points and roadway network. Use of staggered commute times for businesses and contractors within the study area can reduce such an impact. The Certificate Holder will coordinate among the local employers and Vancouver Energy contractors within the study area to offset shift start and end times if congestion issues arise resulting from commuter trip arrivals.

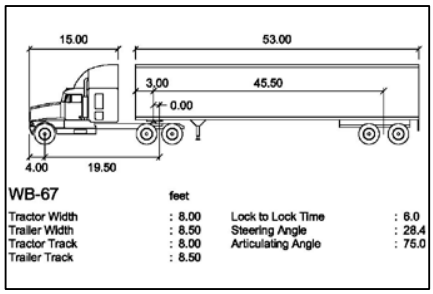
2.5 Design Vehicle Considerations

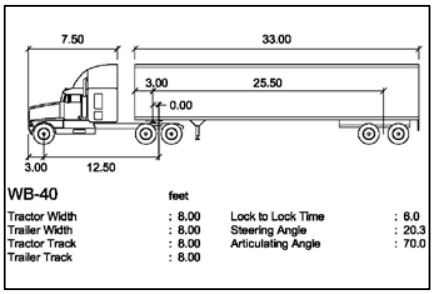
Truck turning movement simulations were performed at each of the Facility area access points to ensure that anticipated design vehicles can safely navigate each construction access and circulate properly. These simulations are shown in Exhibits 1 through 7 in Appendix B.

Two design vehicle types were selected for this simulation effort. One is an Interstate Semitrailer (WB-67), which can have an overall length of up to 73.5 feet. This design vehicle represents the largest delivery truck to be expected on a recurring basis. The other design vehicle is an Intermediate Semitrailer (WB-40), which can have an overall length of up to 45.5 feet. This vehicle was selected to demonstrate

that some Facility areas will be constrained such that trucks exceeding this size will not be able to achieve certain U-turn maneuvers to exit from the same location the vehicles entered.

Design dimensions and characteristics for the WB-67 and WB-40 trucks are shown below and were sourced from information contained in A Policy on Geometric Design of Highways and Streets (AASHTO, 2011).





2.5.1 Area 200 Design Vehicles

There are two separate construction accesses to Area 200 that are separated by the Terminal 5 loop track. One is in the northwest corner of Area 200 along NW Old Alcoa Access Road, where temporary administration and office support buildings will be placed. Although large trucks are not anticipated to make deliveries at this location once the buildings become operational, a WB-67 design vehicle is anticipated to physically handle the delivery of the support buildings. These deliveries will occur early in the construction process when Area 200 is graded with rock. Exhibit 1 (in Appendix B) illustrates how a WB-67 will exit from NW Old Alcoa Access Road and be able to turn around on-site in one forward motion. Once the support buildings are in place, smaller single-unit trucks, up to 40 feet in length, will be able to park at the construction entrance/exit apron shown in the figure.

The other construction access to Area 200 is located in the southeast corner, from an access drive coming off of the NW Harborside Drive/NW Gateway Avenue intersection. This will be the main construction delivery and staging area and where rail unloading will occur. Exhibit 2 (in Appendix B) illustrates how a WB-67 will access the construction entrance and exit, navigate around the wheel wash mechanism and lane divider, and be able to turn around within the staging area in one forward motion.

2.5.2 Area 300 Design Vehicles

There are two construction accesses to Area 300. The first is in the northwest corner from the private Port drive that also accesses Farwest Steel. The second is in the northeast corner along the private Port drive fronting the east side of Parcel 1A. Large WB-67 trucks are anticipated to make deliveries at Area 300 during construction of the storage holding tanks. Vehicles of this size will be directed to enter at the west construction access, follow an internal gravel road around the southern perimeter and then leave out of the east construction access, which has a wheel wash facility. Exhibit 3 (in Appendix B) illustrates how this circulation pattern will work for a WB-67 truck.

For smaller delivery trucks up to WB-40 in size, drivers will be able to use the west construction access and have sufficient space to perform a U-turn maneuver to exit back onto SR 501 from the same private road. This is demonstrated by the truck simulation shown in Exhibit 4 (in Appendix B). There is also a construction storm water retention area shown in the southeast corner of Area 400 that will need to be accessed occasionally by trucks. Exhibit 4 also shows how trucks as large as a WB-40 can access this area and have sufficient space to turn around.

Due to the close proximity of SR 501, the construction accesses to Area 300 will be very sensitive to the effects of vehicle queuing, particularly if multiple trucks arrive at the site at the same time in a platoon. Including the length of the construction access itself, there will be approximately 300 feet of physical queue storage distance from the construction access to the highway, which is enough space for four (4) WB 67 trucks to occupy. To eliminate the potential for queue spillback into the adjacent highway, inbound truck traffic will be managed such that multiple inbound trucks are routed immediately to the west access and into the inner perimeter roadway before cargo is unloaded.

2.5.3 Area 400 Design Vehicles

There are two construction accesses to Area 400. They are at the west and east ends of the construction road that parallel the river and docks of the Marine Terminal. The west access will be the primary construction access, and it leads to an existing connection with NW Harborside Drive to the north via a Port-owned access drive across the Glacier NW/CalPortland site operation. This connection will be maintained until such time that the Port constructs a planned roadway connection from the Harborside Drive/Clark County Jail Work Center intersection, south to the riverbank, and then east to Area 400.

Only trucks as large as a WB-40 design vehicle are anticipated in Area 400. Exhibit 5 (in Appendix B) illustrates how this type of design vehicle will enter the west primary construction access, use a hammer-head turn-around area, and then proceed back out of the west access.

Although not expected, in the event an oversized truck such as a WB-67 requires access to Area 400, this type of vehicle will enter the west access and then be directed to leave out of the east access due to insufficient space to turn around. This pattern is demonstrated in Exhibit 6 (in Appendix B). It should be emphasized that the east construction access is accessible today and connects to a series of circuitous Port-owned roadways that lead to the Main Port Terminal via West 26th Avenue overpass, which connects with SR 501.

2.5.4 Area 500 Design Vehicles

Large truck deliveries are not anticipated to occur along the Transfer Pipeline alignments of Area 500. To support the construction of these pipelines, any large truck deliveries will be directed to Areas 200, 300, and 400. In the event small single-unit trucks need to access the transfer pipeline areas for construction and maintenance purposes, access points are available on NW Gateway Avenue (north of the overpass structure and along the dead-end remnant west of Subaru), and the private access drive on the Glacier NW/CalPortland property.

2.5.5 Area 600 Design Vehicles

Large truck deliveries are not expected at the construction access to the West Boiler Building in Area 600. Nevertheless, Exhibit 7 (in Appendix B) illustrates how a common sized WB-40 design vehicle can back in to the temporary construction access and proceed back out in a forward motion.

2.5.6 Oversized and Overweight Loads

Standard Department of Transportation trucks will be utilized on site to move excavation material and segregated material as needed. Delivery of materials will be permitted loads, and no single item will be over the weight or size limits. The only possible oversized or overweight loads will be for the delivery of the construction crane for the tanks in Area 300 (Storage). This could be a 200-ton crane and associated rigging.

2.6 Public Information and Outreach

The Port conducts weekly construction meetings with necessary tenants, and the meetings include communication about traffic impacts on port roadways. Also, on an as-needed basis, the Port can send information bulletins to inform all tenants.

In addition, the Port has an ongoing communication plan with the Clark County Jail Work Center and Subaru. These existing communication channels between the Certificate Holder and Port staff will be used as needed.

2.6.1 Holidays and Special Events

The Port can send information bulletins to inform all tenants of holiday and/or special event traffic on an as-needed basis.

2.7 Emergency Vehicle Routing

The Port coordinates emergency vehicle routing to Port facilities through the Clark Regional Emergency Services Agency (CRESA). CRESA operates the 911 dispatch center and is thus in a position to direct emergency vehicles to an appropriate route within the Port. The Port will coordinate with CRESA, port security, and Certificate Holder personnel and construction contractors to ensure the emergency vehicle routing paths are clearly defined and known to potential first responders during each phase of the CTMP for this Facility.

Because there are no planned, temporary street closures or detours, and there is limited potential for train blockages. Emergency response vehicles will be able to reach all areas of Terminal 5 at all times during Facility construction. If the primary emergency response route from SR 501 along NW Gateway Avenue becomes blocked for any unforeseen reason, two (2) optional routes from SR 501 will be available. One will be NW Old Lower River Road with access to the Loop Road around the Terminal 5 track. The other will be the Main Terminal Gate on SR 501, through Harborside Drive, into the Terminal 5 area. These three (3) paths will serve all “Areas” of the Facility site.

2.8 Incident Management Plan

An Emergency Response Plan is also implemented to deal with specific emergency events. The Certificate Holder and contractors maintain a list of updated emergency services contacts.

Should an incident occur within the Facility construction area, the Facility Senior Project Manager or his/her appropriate designee will immediately notify 911 emergency services and then Port of Vancouver Security at 360-992-1120. Non-emergency calls will all be routed to Port of Vancouver Security at 360-992-1120. The Port of Vancouver also maintains a list of current emergency contacts and coordinates regularly with CRESA.

Incident response will be reviewed periodically to ensure that effective measures are in place through the Port’s ongoing outreach with CRESA.

3. CTMP Stages

Construction of the Facility will occur in two (2) phases for CTMP purposes. Each construction phase is described in this section along with a routing plan for construction-related traffic and emergency response vehicles.

3.1 Phase 1 Construction Routing

Phase 1 construction commences upon issuance of the Site Certification and continues for approximately 13 months, at which time initial Facility operations will begin and Area 300 Storage Tanks 1 to 4 become operational. During this period, no temporary road closures, detours, or delays are anticipated, with continuous access expected to be maintained. If, however, a road closure is needed to accommodate construction activities, the agency managing that road (e.g., Port, city, state) and the Certificate Holder will coordinate the closure and associated traffic control activities in advance with the appropriate roadway manager(s).

The planned routing of all construction-related traffic and emergency response vehicles under Phase 1 is illustrated in Figure 2 and described further in the following sub-sections.

3.1.1 Area 200 Routing

Traffic routing from SR 501 to the northwest side of Area 200 will occur along NW Old Lower River Road and NW Old Alcoa Access Road. Traffic routing from SR 501 to the southeast side of Area 200 will occur along NW Gateway Avenue and a private access road that proceeds northwest from the NW Gateway Avenue/NW Harborside Drive intersection.

3.1.2 Area 300 Routing

Traffic routing from SR 501 to Area 300 will occur along the private Port access roads on the east side of Farwest Steel and the east side of Parcel 1A.

3.1.3 Area 400 Routing

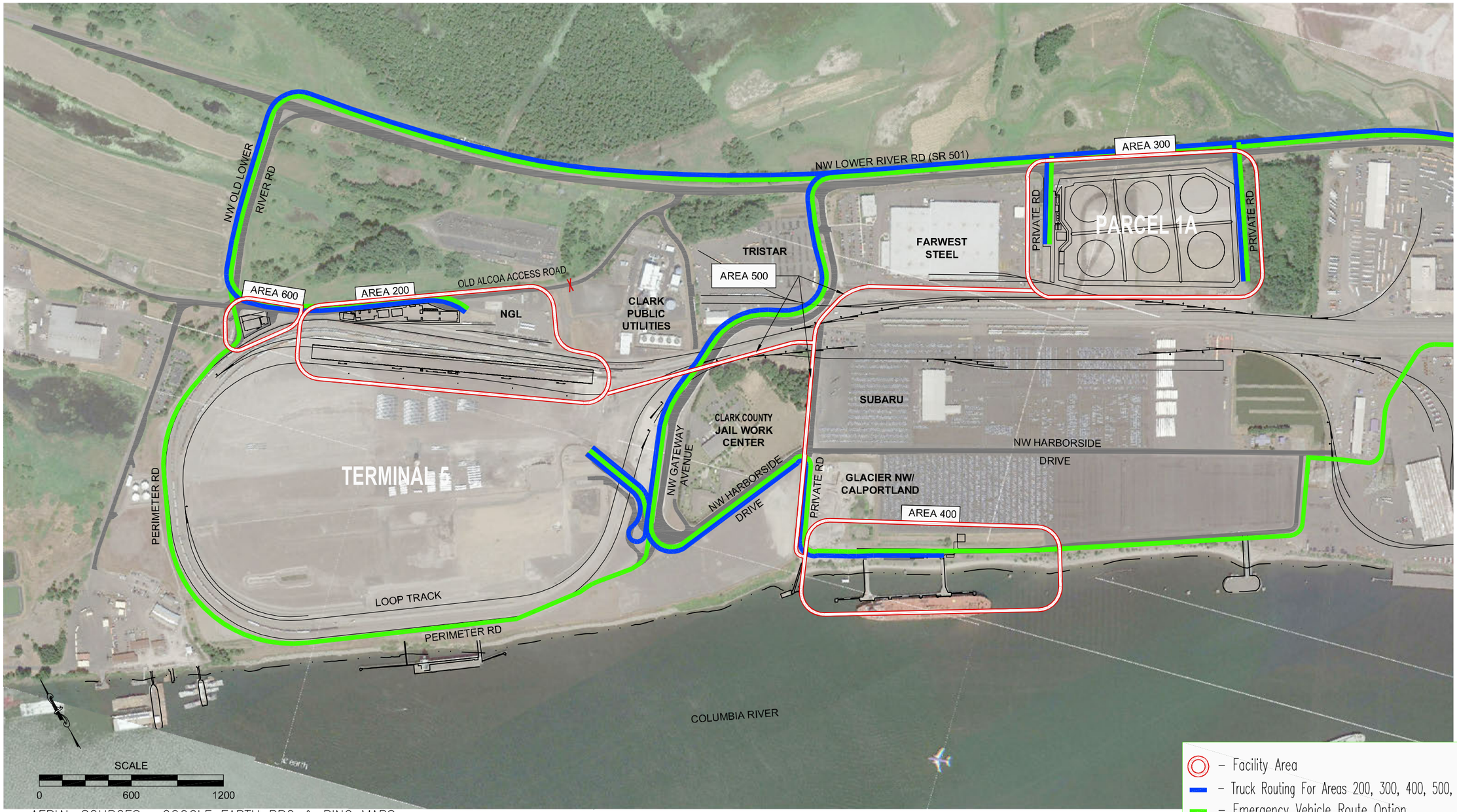
Traffic routing from SR 501 to Area 400 will occur along NW Gateway Avenue, NW Harborside Drive, and the private Port road on the Glacier NW/CalPortland property.

3.1.4 Area 600 Routing

Traffic routing from SR 501 to Area 600 will occur along NW Old Lower River Road and NW Old Alcoa Access Road.

3.1.5 Emergency Response Vehicle Routing

Figure 2 shows three (3) distinct routing possibilities for emergency response vehicles in the Terminal 5 area. The primary response route is along NW Gateway Avenue, which has very limited blocking potential now that the overpass structure is complete to NW Harborside Drive. However, there is a minor at-grade rail crossing leading to the Tristar business. If the primary emergency response route from SR 501 along NW Gateway Avenue becomes blocked for any unforeseen reason, two (2) optional routes from SR 501 will be available. One will be NW Old Lower River Road with access to the Loop Road around the Terminal 5 track. The other will be the Main Terminal Gate on SR 501, through Harborside Drive, into the Terminal 5 area. These three (3) paths will serve all “Areas” of the Facility site.



AERIAL SOURCES: GOOGLE EARTH PRO & BING MAPS

- Facility Area
- Truck Routing For Areas 200, 300, 400, 500, 600
- Emergency Vehicle Route Option

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KITTELSON & ASSOCIATES, INC.
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PORTLAND, OREGON 97205
(503)228-5230

VANCOUVER ENERGY
Tesoro Savage Petroleum Terminal LLC

PROJECT: VANCOUVER ENERGY
CONSTRUCTION TRANSPORTATION MANAGEMENT PLAN

DESCRIPTION: PHASE 1: CONSTRUCTION ROUTING PLAN

DESIGN:	XX	START DATE:	3/17/2015	SCALE:	AS SHOWN
DRAWN:	BSC	PRINT DATE:	3/19/2015	PROJECT MANAGER:	SAVAGE_PM
CHECKED:	BJD	APPROVED:	XX	SIZE:	22X34

DRAWING NUMBER: FIGURE 2
SHEET:
REV.

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Phase 2 Construction Routing

Phase 2 construction begins upon completion of Phase 1 and continues for approximately 10 months, when the remaining Area 300 Storage Tanks 5 and 6 are brought online, as well as the Area 600 West Boiler Building. During this period, no temporary road closures, detours, or delays are anticipated as a result of Facility construction activities. This means access is expected to be maintained continuously for all existing businesses in the site vicinity. If, however, a road closure is needed to accommodate construction activities, the agency managing that road (e.g., Port, city, state) and the Certificate Holder will coordinate the closure and associated traffic control activities in advance with the appropriate roadway manager(s).

The planned routing of all construction-related traffic and emergency response vehicles under Phase 2 is illustrated in Figure 3 and described further in the following sub-sections.

3.1.6 Area 300 Routing

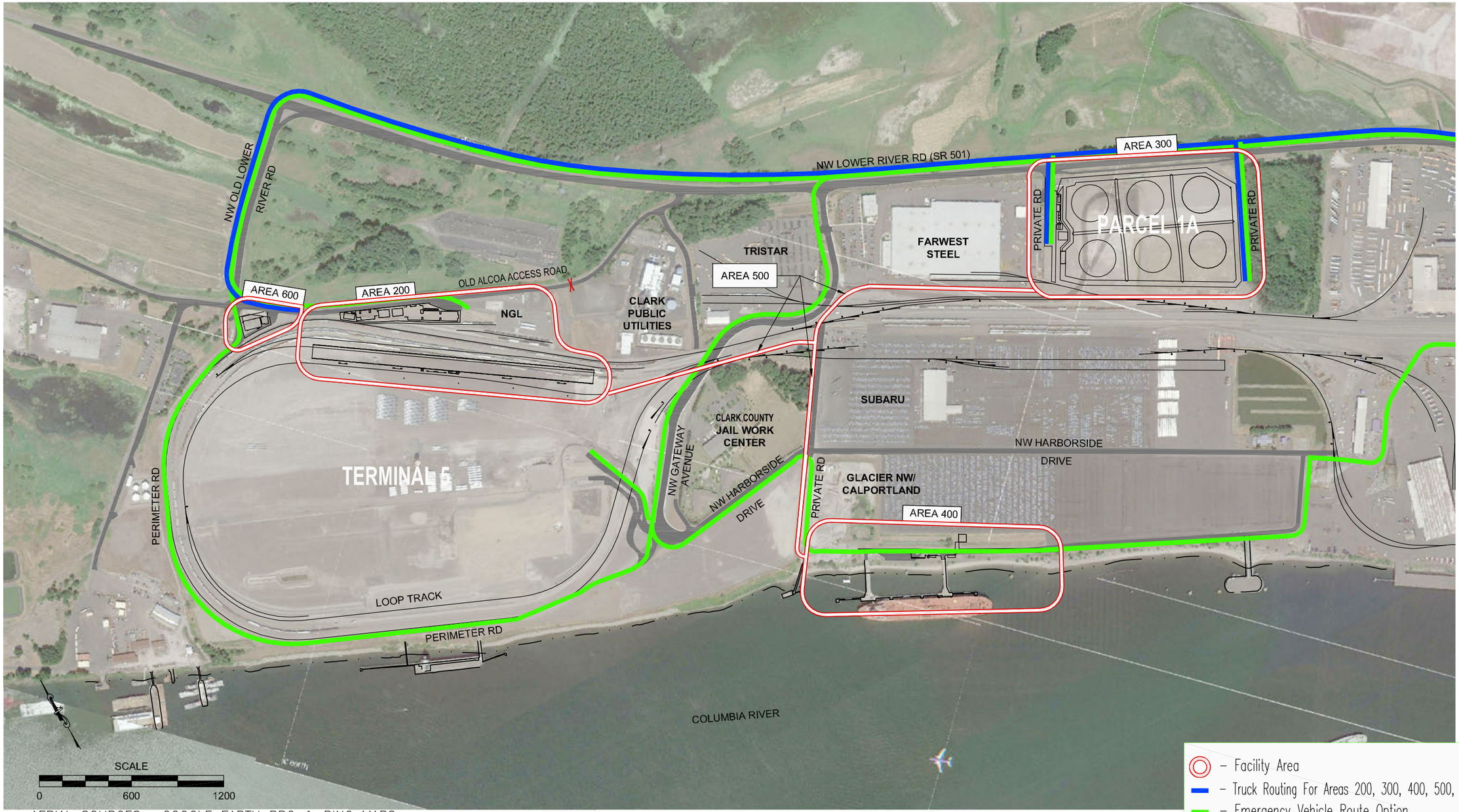
Traffic routing from SR 501 to Area 300 to complete the remaining Storage Tanks 5 and 6 will occur along the private Port access road fronting the east side of Parcel 1A only.

3.1.7 Area 600 Routing

Traffic routing from SR 501 to Area 600 will occur along NW Old Lower River Road and NW Old Alcoa Access Road.

3.1.8 Emergency Response Vehicle Routing

The same emergency response vehicle routes described in Section 3.1.5 will apply to all Phase 2 construction activities.



AERIAL SOURCES: GOOGLE EARTH PRO & BING MAPS

- Facility Area
- Truck Routing For Areas 200, 300, 400, 500, 600
- Emergency Vehicle Route Option

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PORTLAND, OREGON 97205
(503)228-5230

VANCOUVER ENERGY
Tesoro Savage Petroleum Terminal LLC

PROJECT: VANCOUVER ENERGY
CONSTRUCTION TRANSPORTATION MANAGEMENT PLAN

DESCRIPTION: PHASE 2: CONSTRUCTION ROUTING PLAN

DESIGN:	XX	START DATE:	3/19/2015	SCALE:	AS SHOWN
DRAWN:	BSC	PRINT DATE:	3/19/2015	PROJECT MANAGER:	SAVAGE_PM
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DRAWING NUMBER: FIGURE 3
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REV.

EX-0001-006409-PCE

4. List of Acronyms and Abbreviations

Certificate Holder: Tesoro Savage Petroleum Terminal LLC

bbl: oil barrel and barrels

BNSF: BNSF Railway

bpd: barrels per day

City: City of Vancouver

CRESA: Clark Regional Emergency Services Agency

CTMP: transportation management plan

EFSEC: Energy Facility Site Evaluation Council

Facility: Vancouver Energy

I-5: Interstate 5

Port: Port of Vancouver USA

SR 501: State Route 501

MUTCD: Manual on Uniform Traffic Control Devices

WSDOT: Washington State Department of Transportation

5. References

1. Kittelson & Associates, Inc. *Technical Report: Tesoro Savage Vancouver Energy Distribution Terminal Transportation Impact Analysis.* August 22, 2013 – Revised July 2014.
2. BergerABAM. 2014. Tesoro Savage Vancouver Energy Distribution Terminal EFSEC Application No. 2013-01 Supplement—UTC Docket No. EF 131590 Application Supplement. BergerABAM, Vancouver, WA. February 25, 2014.

Vancouver Energy
Construction Transportation Management Plan

EFSEC Application for Site Certification No. 2013-01
Docket No. EF131590

Appendix A
Stakeholder Contact Information

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Appendix A – Stakeholder Contact Information

Stakeholder	Contact Information	
BNSF Railway	1310 West 11th Street Vancouver, WA 98660 360-418-6233	Alternative Contact
BPA Substation	5500 NW Lower River Road Vancouver, WA 98660 360-570-4338	360-951-4464
City of Vancouver	415 West 6th Street Vancouver, WA 98660 360-487-8600	
Clark County Jail Work Center	5197 NW Lower River Road Vancouver, WA 98660 360-397-2138 sheriff@clark.wa.gov	
Clark County Sheriff's Boat House	707 West 13th Street Vancouver, WA 98660 360-397-2211 ccsomarine@clark.wa.gov	
Clark Public Utilities	1200 Fort Vancouver Way Vancouver, WA 98663 360-992-3000 mailbox@clarkpud.com	
Clark Regional Emergency Services Agency (CRESA)	710 West 13th Street Vancouver, WA 98660 360-737-1911 cresa@clark.wa.gov	
Farwest Steel	3703 NW Gateway Avenue Vancouver, WA 98660 360-735-8744	
Glacier NW/CalPortland	2327 West Mill Plain Blvd. Vancouver, WA 98660 360-892-5100	360-907-9607 360-694-9420, ext. 1
HME Construction	6801 NW Old Lower River Road Vancouver, WA 98660 360-695-4553	888-699-1053
Kelly Pipe	3702 NW Gateway Avenue Vancouver, WA 98660 360-737-1848	
NGL Supply Terminal Company	5701 NW Old Lower River Road Vancouver, WA 98660 360-694-2844	
Port of Vancouver USA	3103 NW Lower River Road Vancouver, WA 98660 360-693-3611	
Port of Vancouver Security	3103 NW Lower River Road Vancouver, WA 98660 360-992-1120	Renee Shanholtzer 3103 NW Lower River Road Vancouver, WA 98660 360-213-1255 rshanholtzer@portvanusa.com
Subaru of America	3309 NW Gateway Avenue Vancouver, WA 98660 360-737-7630	
Tidewater Terminal Company	6305 NW Old Lower River Road Vancouver, WA 98660 360-693-1491 info@tidewater.com	

Stakeholder	Contact Information	
TriStar Transload	3702 NW Gateway Avenue Vancouver, WA 98660 360-823-1000	503-807-2952 (24-hour)
United Harvest	1927 Elevator Way #A Vancouver, WA 98660 360-693-1521	
Washington Department of Transportation	11018 NE 51st Circle Vancouver, WA 98682 360-905-2000	
West Vancouver Materials Recovery Center	6601 NW Old River Road Vancouver, WA 98660 360-904-0667 solidwaste@clark.wa.gov	360-690-6842 (24-hr)

Vancouver Energy
Construction Transportation Management Plan

EFSEC Application for Site Certification No. 2013-01
Docket No. EF131590

Appendix B
Truck Turn Simulation Exhibits

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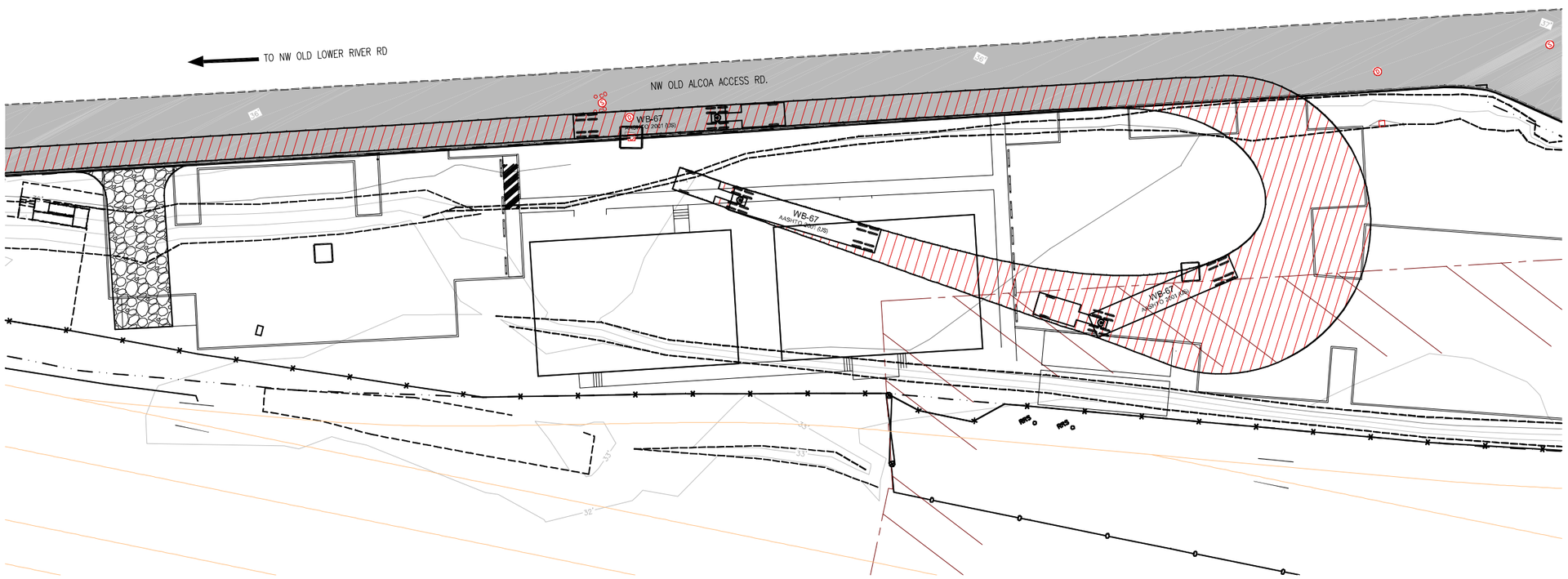

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PORTLAND, OREGON 97205
(503)228-5230

VANCOUVER ENERGY
Tesoro Savage Petroleum Terminal LLC

PROJECT: VANCOUVER ENERGY
CONSTRUCTION TRANSPORTATION MANAGEMENT PLAN

DESCRIPTION: AREA 200 NW – TRUCK SIMULATION (WB-67)

DESIGN:	XX	START DATE:	3/16/2015	SCALE:	AS SHOWN
DRAWN:	BSC	PRINT DATE:	3/19/2015	PROJECT MANAGER:	SAVAGE_PM
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DRAWING NUMBER				SHEET	REV.
EXHIBIT 1				1/7	

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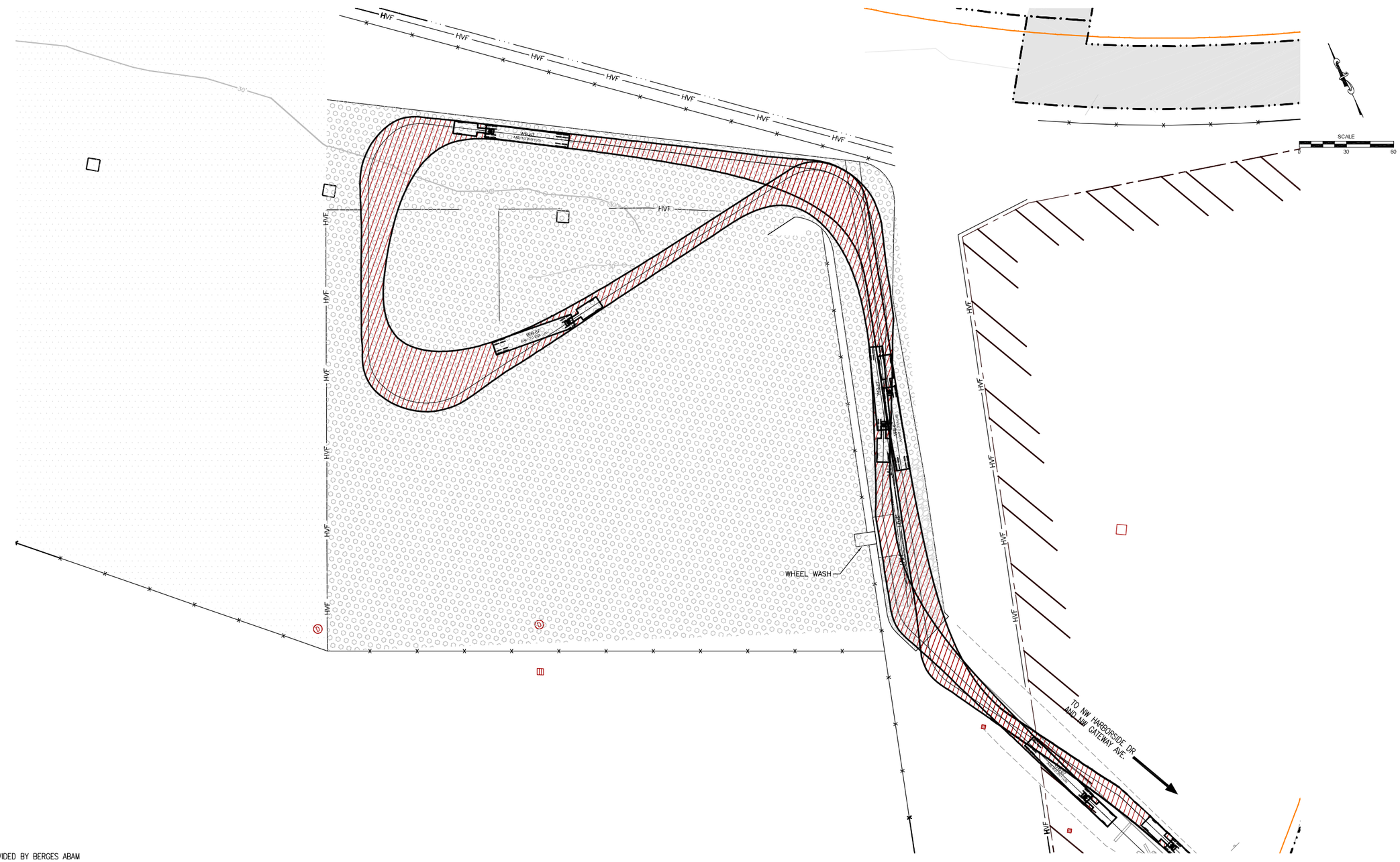

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VANCOUVER ENERGY
Tesoro Savage Petroleum Terminal LLC

PROJECT: VANCOUVER ENERGY
CONSTRUCTION TRANSPORTATION MANAGEMENT PLAN

DESCRIPTION: AREA 200 NW – TRUCK SIMULATION (WB-67)

DESIGN:	XX	START DATE:	3/16/2015	SCALE:	AS SHOWN
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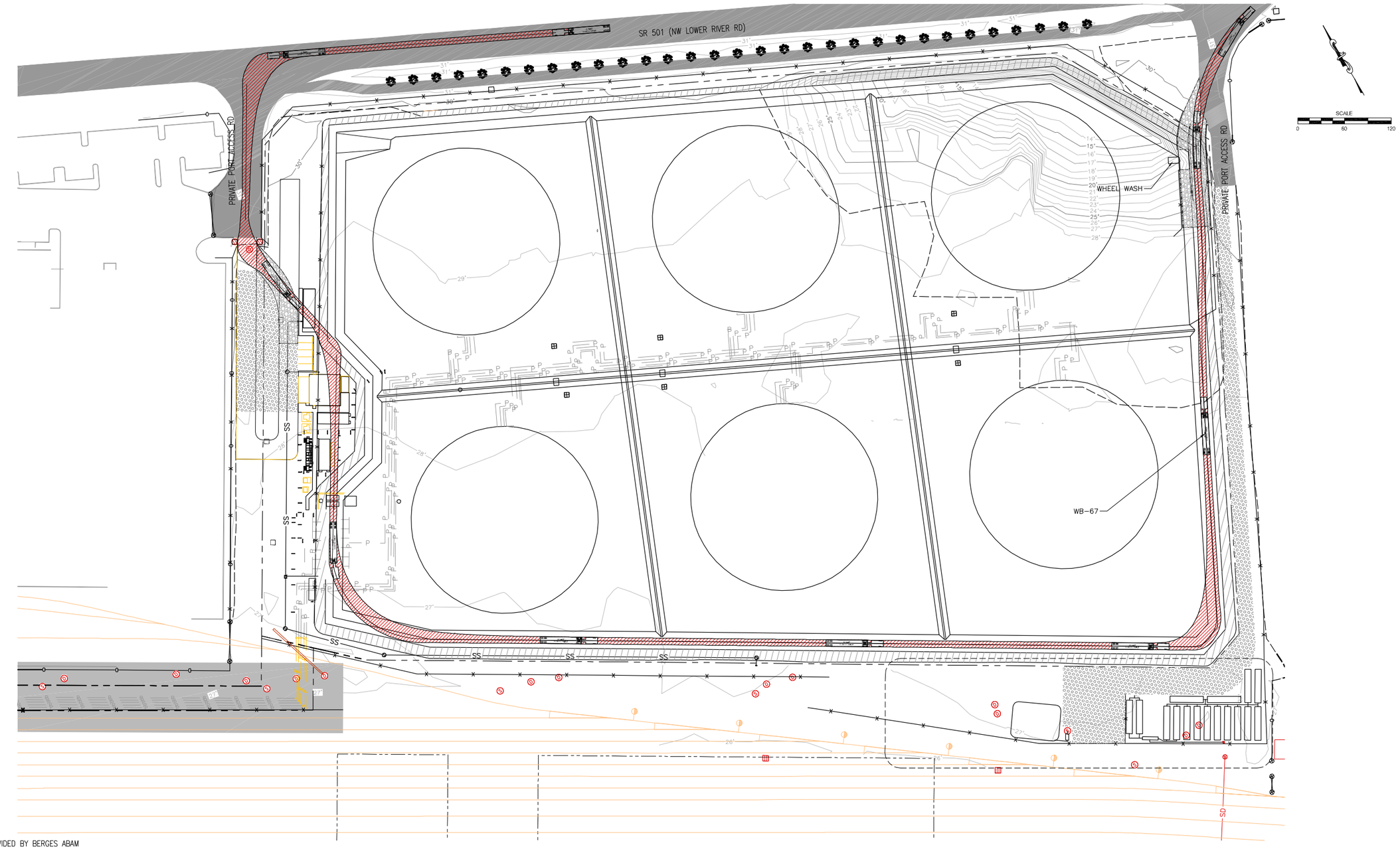

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(503)228-5230

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Tesoro Savage Petroleum Terminal LLC

PROJECT: VANCOUVER ENERGY
CONSTRUCTION TRANSPORTATION MANAGEMENT PLAN

DESCRIPTION: AREA 300 – TRUCK SIMULATION (WB-67)

DESIGN:	XX	START DATE:	3/16/2015	SCALE:	AS SHOWN
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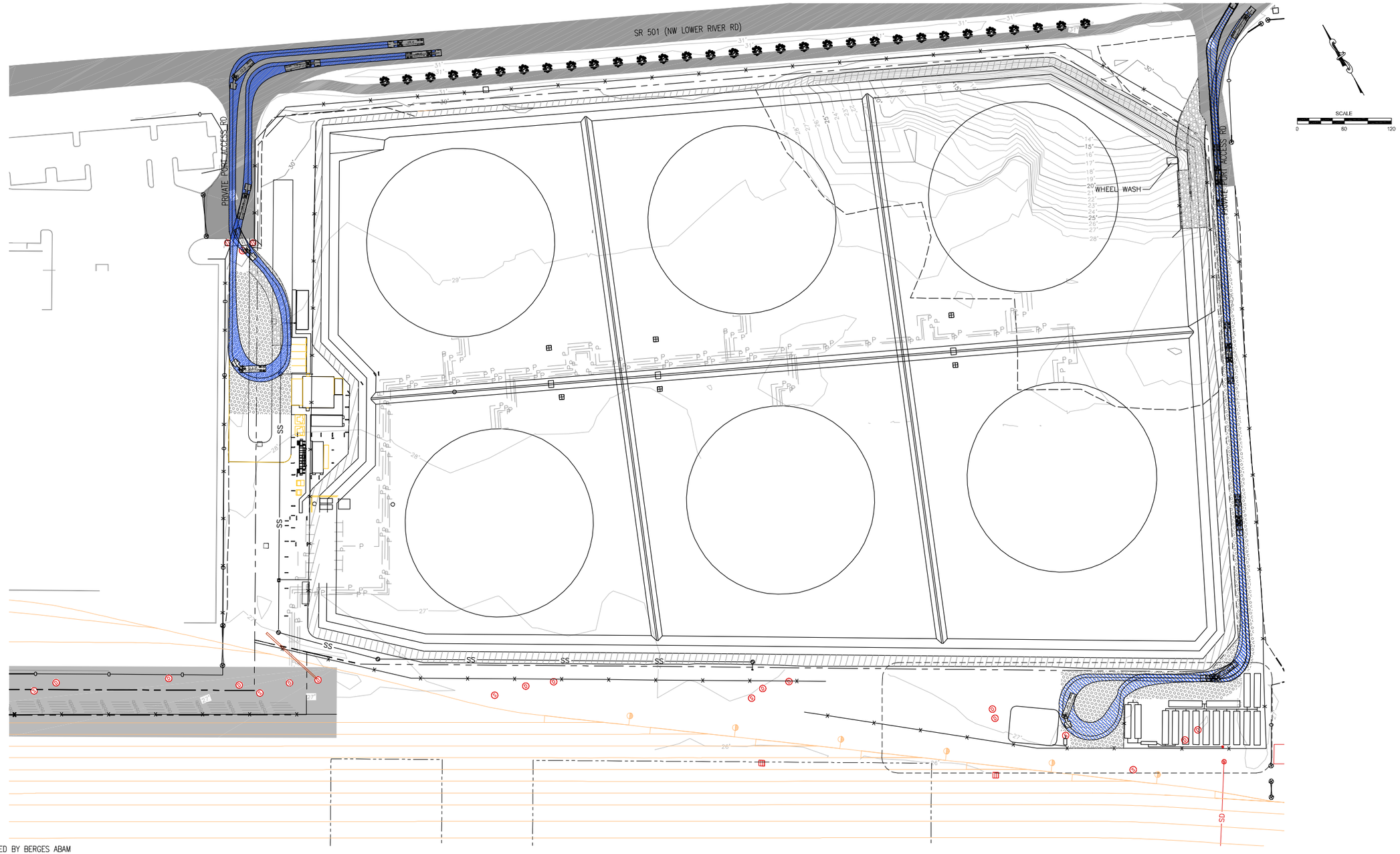

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VANCOUVER ENERGY
Tesoro Savage Petroleum Terminal LLC

PROJECT: VANCOUVER ENERGY
CONSTRUCTION TRANSPORTATION MANAGEMENT PLAN

DESCRIPTION: AREA 300 – TRUCK SIMULATION (WB-40)

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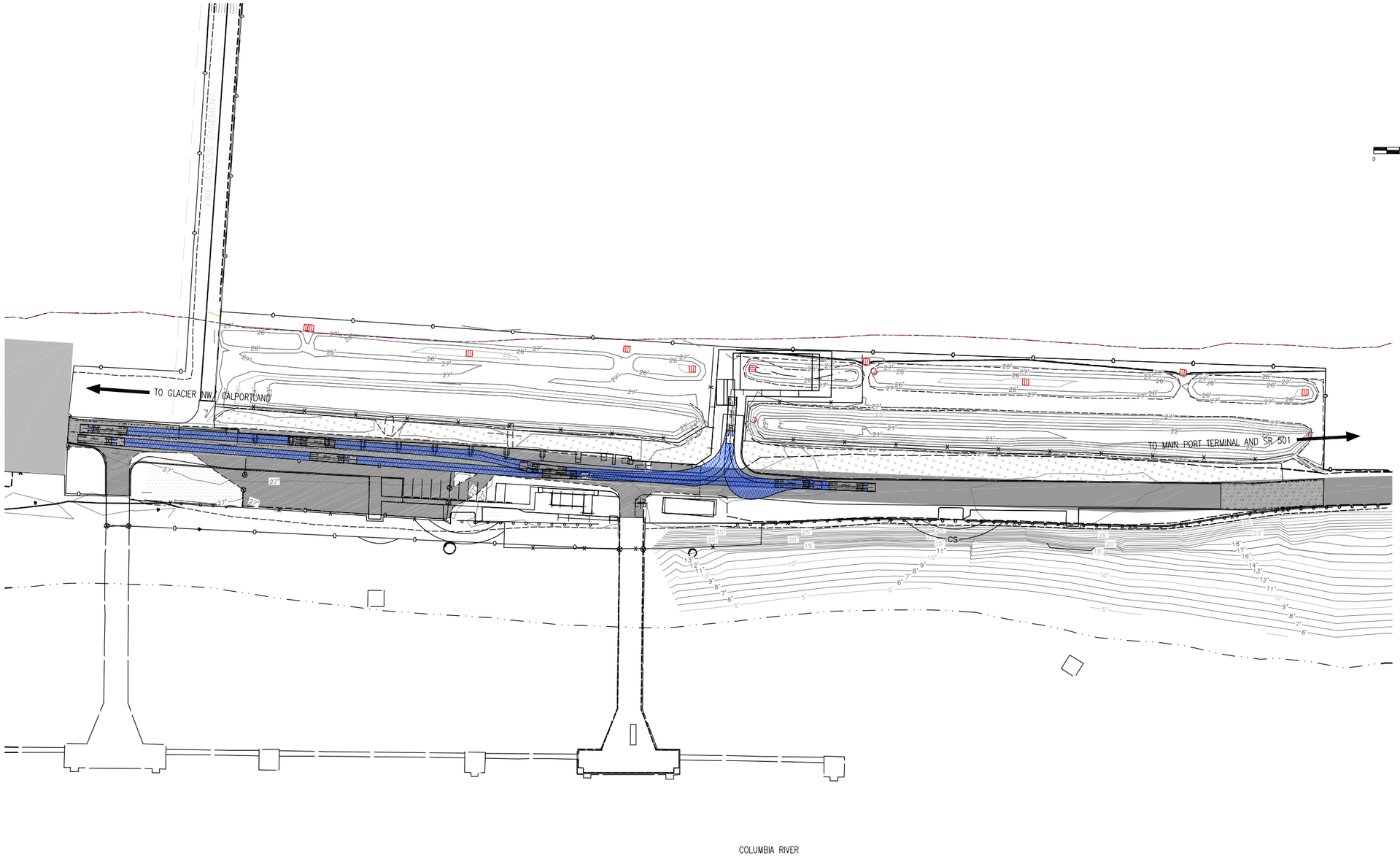

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VANCOUVER ENERGY
Tesoro Savage Petroleum Terminal LLC

PROJECT: VANCOUVER ENERGY
CONSTRUCTION TRANSPORTATION MANAGEMENT PLAN

DESCRIPTION: AREA 400 – TRUCK SIMULATION (WB-40)

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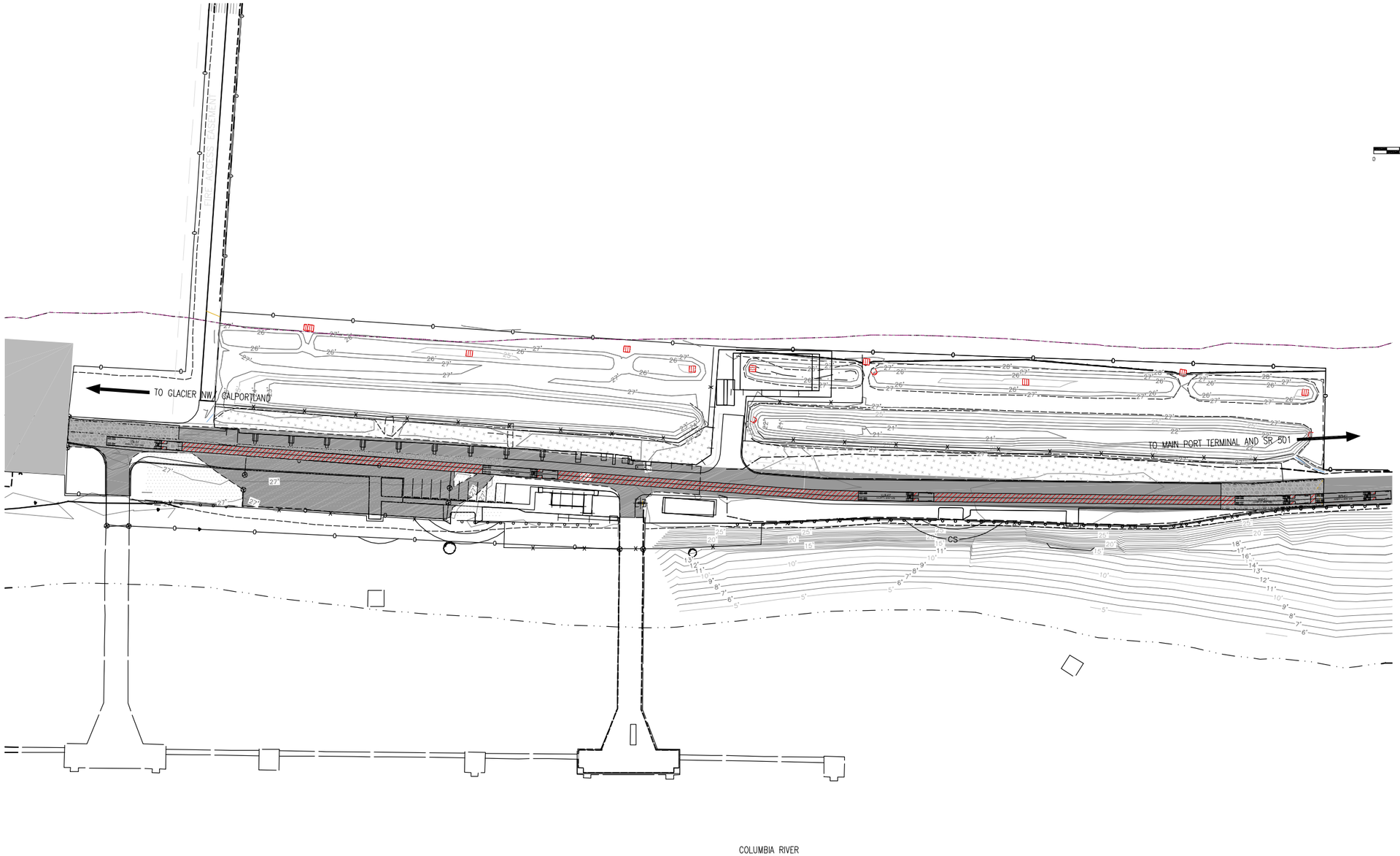

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VANCOUVER ENERGY
Tesoro Savage Petroleum Terminal LLC

PROJECT: VANCOUVER ENERGY
CONSTRUCTION TRANSPORTATION MANAGEMENT PLAN

DESCRIPTION: AREA 400 – TRUCK SIMULATION (WB-67)

DESIGN:	XX	START DATE:	3/16/2015	SCALE:	AS SHOWN
DRAWN:	BSC	PRINT DATE:	3/19/2015	PROJECT MANAGER:	SAVAGE_PM
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EXHIBIT 6	6/7	

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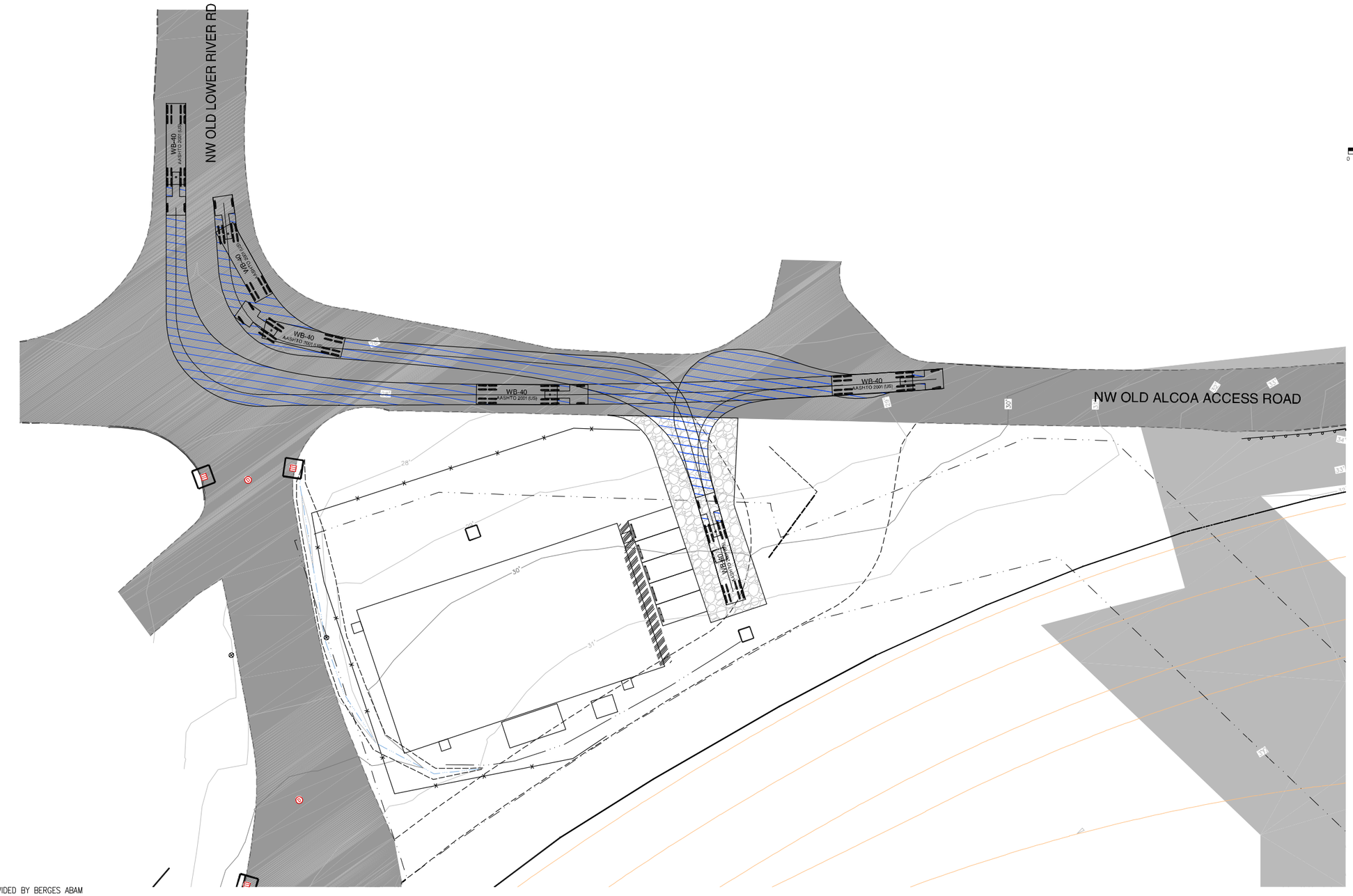

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(503)228-5230

VANCOUVER ENERGY
Tesoro Savage Petroleum Terminal LLC

PROJECT: VANCOUVER ENERGY
CONSTRUCTION TRANSPORTATION MANAGEMENT PLAN

DESCRIPTION: AREA 600 – TRUCK SIMULATION (WB-40)

DESIGN:	XX	START DATE:	3/16/2015	SCALE:	AS SHOWN
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EXHIBIT 7	7/7	

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