



# MILLENNIUM Bulk Terminals—Longview

**EIS** Environmental Impact Statement

## State Environmental Policy Act Final Environmental Impact Statement

Volume II: Appendices

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Appendix A  
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## Chapter 1. Introduction

No references.

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# Chapter 5. Operations: Existing Conditions, Project Impacts, and Proposed Mitigation Measures

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## Personal Communications

- Jordan, Captain Dan. President. Columbia River Bar Pilots. February 2, 2015—Email to Captain Tom Rodino (retired), Rodino, Inc., containing Bar Pilot data on vessel transits by vessel type for the years 2004 to 2014.

## Chapter 7. Public Involvement and Coordination

No references.

## **Chapter 8. Required Permits and Approvals**

Palazzi, David. Planning Program Manager. Washington State Department of Natural Resources.  
April 3, 2017—Email communication with Erin Pace, ICF.

Appendix B  
**Distribution List**

---

## **B.1 Applicant and Land Owner**

- Millennium Bulk Terminals—Longview, LLC
- Alcoa, Inc.
- Northwest Alloys, Inc.

## **B.2 Washington State Agencies and State-Elected Officials**

- Washington Department of Fish and Wildlife
- Washington Department of Natural Resources
- Washington Emergency Management Division
- Washington State Department of Agriculture
- Washington State Department of Archaeology and Historic Preservation
- Washington State Department of Commerce
- Washington State Department of Health
- Washington State Department of Transportation
- Washington State Department of Ecology SEPA Register
- Washington State U.S. Representatives
- Washington State U.S. Senators
- Washington State Legislature, Representatives and Senators from Districts 3, 4, 5, 6, 7, 8, 9, 14, 15, 17, 18, 19, 20, 22, 23, 24, 27, 28, 32, 33, 34, 35, 36, 37, 38, 40, 41, 43, 46, 49
- Washington Utilities and Transportation Commission

## **B.3 Local Agencies and Locally Elected Officials**

- Board of Cowlitz County Commissioners
- City of Camas, Washington
- City of Cheney, Washington
- City of Eugene, Oregon
- City of Everett, Washington
- City of Hood River, Oregon
- City of Kelso, Washington

- City of Kennewick, Washington
- City of Lacey, Washington
- City of Livingston, Montana
- City of Longview, Washington
- City of Milwaukie, Oregon
- City of Missoula, Montana
- City of Mosier, Oregon
- City of Olympia, Washington
- City of Rainier, Oregon
- City of Sandpoint, Idaho
- City of Spokane, Washington
- City of Sumner, Washington
- City of Tacoma, Washington
- City of The Dalles, Oregon
- City of Vancouver, Washington
- City of Washougal, Washington
- Clark County Board of County Councilors
- Cowlitz County Department of Health
- Cowlitz 2 Fire & Rescue
- Cowlitz-Wahkiakum Council of Governments
- Gallatin City-County Board of Health
- King County Executive
- Metropolitan King County Council
- Olympic Region Clean Air Agency
- Port of Camas-Washougal
- Port of Longview
- San Juan County Council
- Southwest Clean Air Agency
- Spokane Regional Clean Air Agency
- Thurston County Commissioner
- Tri-City Regional Chamber of Commerce

## **B.4 Tribes and Tribal Representation**

- Coeur d’Alene Tribe
- Columbia River Inter-Tribal Fish Commission
- Confederated Tribes and Bands of the Yakama Nation
- Confederated Tribes of Grand Ronde
- Confederated Tribes of the Chehalis Reservation
- Confederated Tribes of the Colville Reservation
- Confederated Tribes of the Umatilla Indian Reservation
- Confederated Tribes of Warm Springs
- Cowlitz Indian Tribe
- Hoh Indian Tribe
- Jamestown S’Klallam Tribe
- Kalispel Tribe of Indians
- Lower Elwha Tribal Community
- Lummi Nation
- Makah Tribe
- Muckleshoot Indian Tribe
- Nez Perce Tribe
- Nisqually Indian Tribe
- Nooksack Indian Tribe
- Port Gamble S’Klallam Tribe
- Puyallup Tribe of Indians
- Quileute Nation
- Quinault Indian Nation
- Samish Indian Nation
- Sauk-Suiattle Indian Tribe
- Shoalwater Bay Tribe
- Skokomish Indian Tribe
- Snoqualmie Tribe
- Spokane Tribe of Indians
- Squaxin Island Tribe
- Stillaguamish Tribe of Indians
- Suquamish Indian Tribe



- Swinomish Indian Tribal Community
- Tulalip Tribes
- Upper Skagit Indian Tribe

## **B.5 Federal and Regional Agencies**

- Bonneville Power Administration
- Columbia River Gorge Commission
- Federal Highway Administration
- Federal Railroad Administration
- National Marine Fisheries Service
- National Park Service
- U.S. Army Corps of Engineers
- U.S. Coast Guard
- U.S. Department of Agriculture
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service

## **B.6 Other Agencies and Organizations**

- Alliance for Northwest Jobs and Exports
- Association of Washington Businesses
- Association of Washington Cities
- Association of Washington Counties
- Attorneys General for the State of Montana and the State of North Dakota
- BNSF Railway Company
- Brotherhood of Locomotive Engineers and Trainmen
- Center for Salish Community Strategies
- Columbia River Economic Development Council
- Columbia River Pilots Association
- Columbia Riverkeeper
- Cottonwood Environmental Law Center
- Cowlitz County Fire Chiefs Association
- Cowlitz Economic Development Council
- Earth Ministry
- Earthjustice

- Eastside Audubon Society
- Federation of Western Outdoor Clubs
- Friends of Grays Harbor
- Friends of the Alaska National Wildlife Refuges
- Friends of the Columbia Gorge
- Friends of the San Juans
- Futurewise
- Gonzaga University Environmental Law Clinic
- Highlands Neighborhood Association
- Idaho Conservation League
- International Longshore and Warehouse Union, Local 21
- Kelso Longview Chamber of Commerce
- Landowners and Citizens for a Safe Community
- Leadership Alliance Against Coal
- League of Women Voters of Bellingham/Whatcom County
- League of Women Voters of Washington
- Lower Columbia Community Action Program
- Lower Columbia Estuary Partnership
- Mazamas
- Missions, Peace, and Justice Ministry and concerned members of the United Churches of Olympia
- National Association of Manufacturers
- National Mining Association
- Native Plant Society of Oregon
- Northern Pacific Resource Council
- Northern Plains Resource Council and Western Organization of Resource Councils
- Northwest Environmental Defense Center
- Northwest Mining Association
- Oregon Department of Environmental Quality
- Oregon Interfaith Power and Light, Ecumenical Ministries of Oregon
- Oregon Physicians for Social Responsibility
- Oregon Rural Action
- Our Children's Trust
- Pacific Northwest Conference of the United Church of Christ

- Pacific Northwest Waterways Association
- Pacific Rainforest Wildlife Guardians
- Power Past Coal/Climate Solutions
- Puget Soundkeeper Alliance
- Resources for Sustainable Communities
- Rosemere Neighborhood Association
- Salem Sierra Club Beyond Coal
- San Juans Alliance
- Shalom Church
- Sierra Club
- Spokane Riverkeeper
- The Lands Council
- U.S. Chamber of Commerce
- Union Pacific Railroad
- United Transportation Union/SMART
- Upper Columbia United Tribes
- Vancouver's Downtown Association
- Voters Taking Action on Climate Change
- Washington Environmental Council
- Washington Farm Bureau
- Washington Public Ports Association
- Washington State Audubon Conservation Committee
- Washington State Catholic Conference
- Waterkeeper Alliance
- Western Organization of Resource Councils
- Weyerhaeuser
- Whidbey Environmental Action Network

## **B.7 Libraries**

- Castle Rock Library
- Kalama Public Library
- Kelso Public Library
- Longview Public Library

- Mid-Columbia Libraries—Pasco Branch
- Rainier Public Library
- Spokane Public Library—Downtown
- Woodland Community Library

## **B.8 Cities and Counties along the Proposed Rail and Vessel Routes**

### **Cities**

- Algona, Washington
- Astoria, Oregon
- Auburn, Washington
- Benton, Washington
- Bingen, Washington
- Castle Rock, Washington
- Cathlamet, Washington
- Centralia, Washington
- Chehalis, Washington
- Cle Elum, Washington
- Connell, Washington
- Covington, Washington
- DuPont, Washington
- Ellensburg, Washington
- Ilwaco, Washington
- Kalama, Washington
- Kennewick, Washington
- Lakewood, Washington
- Liberty Lake, Washington
- Mabton, Washington
- Maple Valley, Washington
- Mesa, Washington
- Millwood, Washington
- Napavine, Washington

- North Bonneville, Washington
- Pacific, Washington
- Pasco, Washington
- Prosser, Washington
- Puyallup, Washington
- Ridgefield, Washington
- Ritzville, Washington
- Ruston, Washington
- Selah, Washington
- Spokane Valley, Washington
- Spokane, Washington
- Sprague, Washington
- Steilacoom, Washington
- Stevenson, Washington
- Sumner, Washington
- Tacoma, Washington
- Tenino, Washington
- Toppenish, Washington
- Union Gap, Washington
- University Place, Washington
- Vader, Washington
- Wapato, Washington
- White Salmon, Washington
- Winlock, Washington
- Woodland, Washington
- Yakima, Washington

### **Counties**

- Adams County, Washington
- Benton County, Washington
- Clark County, Washington
- Clatsop County, Oregon
- Columbia County, Oregon
- Cowlitz County, Washington

- Franklin County, Washington
- King County, Washington
- Kittitas County, Washington
- Klickitat County, Washington
- Lewis County, Washington
- Lincoln County, Washington
- Pacific County, Washington
- Pierce County, Washington
- Skamania County, Washington
- Spokane County, Washington
- Thurston County, Washington
- Wahkiakum County, Washington
- Yakima County, Washington

Appendix C

# **Coal Export Terminal Engineering Plan Sheets**

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## Appendix C

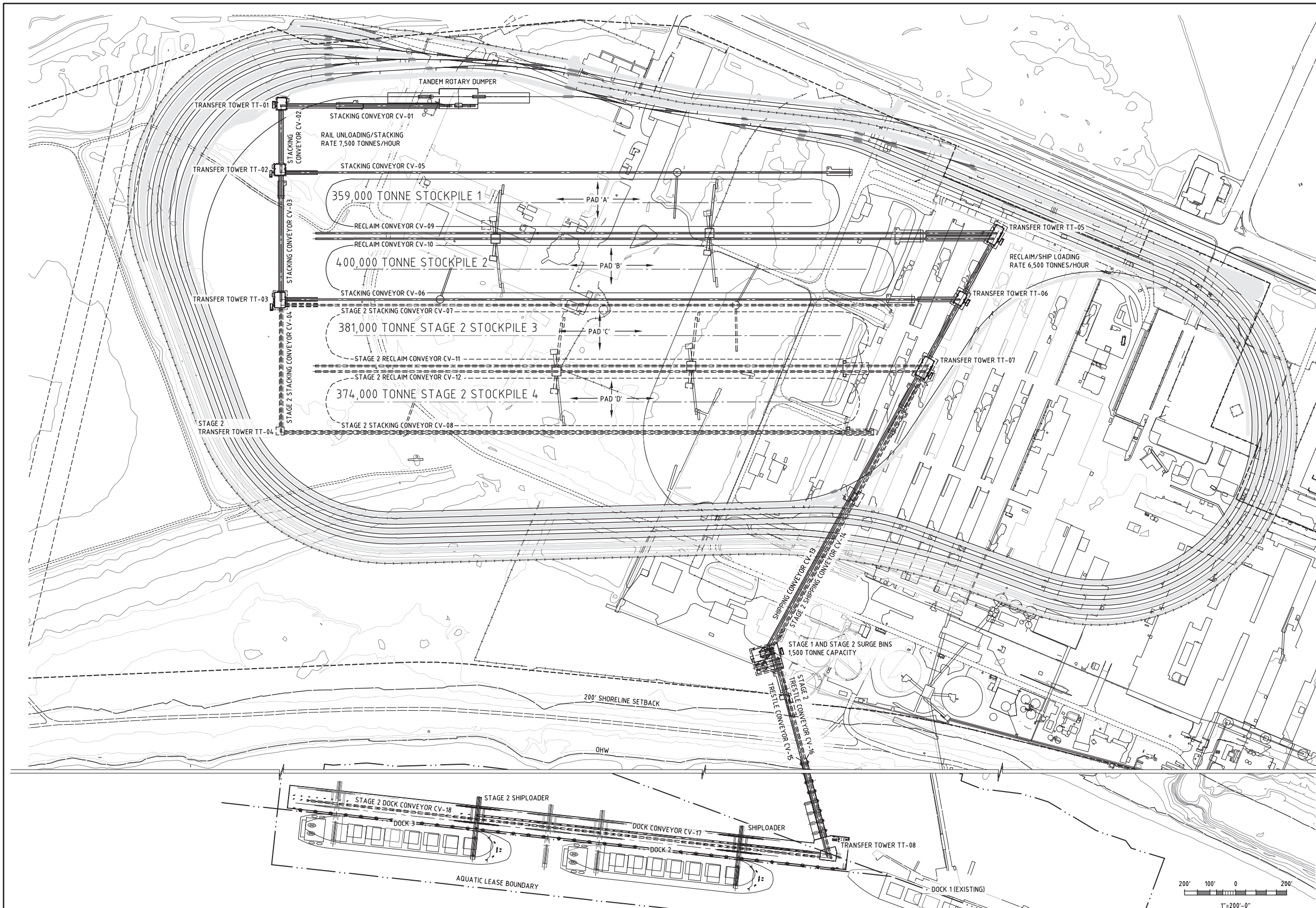
# Coal Export Terminal Engineering Plan Sheets

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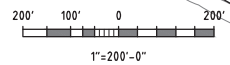
Sheet Number	Description
308106-00001-00-GE-DLP-0100	Plan view of Proposed Action at full build-out.
80563-00-DLP-0020	Plan view of Proposed Action during Stage 1. NOTE: Way Points (WP) are called out on this plan view and can be located on the following plan sheets to help orient the reviewer.
80563-00-GE-DLP-0105	Plan view of Proposed Action during Stage 1.
80563-00-GE-DSE-0106	Cross section view of stockpile areas with stackers (top view) and reclaimers (bottom view). (WP1)
80563-12-GE-DGA-0110	Plan view of tandem rotary dumper. Rotary dumper would rotate two rail cars at a time to dump the coal.
80653-12-GE-DGA-0112	Cross section view of rotary dumper
80563-13-GE-DGA-0116	Longitudinal plan view (top) and cross section view (bottom) of rotary dumper, showing the stacker and conveyor located beneath the rotary dumper. (WP1)
80563-13-GE-DGA-0117	Transfer tower and conveyor plan view (top) and longitudinal cross section (bottom). Coal would be conveyed from the rotary dumper up to the top floor of the tower and transferred to another conveyor. (WP2)
80563-13-GE-DGA-0121	Transfer tower and conveyor cross section. Coal would enter the transfer tower (right view) and be transferred to another conveyor toward the stockpile areas (left view). Rail line from the rotary dumper is depicted in the middle showing clearance for the conveyor. (WP2)
80563-13-GE-DGA-0122	Transfer towers and conveyors plan view (top) and cross section view (bottom), showing conveyor between the transfer towers WP2 and WP3.
80563-13-GE-DGA-0127	Transfer tower plan view (top) and cross section (bottom) showing conveyor from WP3 to WP4.
80563-13-GE-DGA-0128	Transfer tower plan view (top) and cross section (bottom) showing conveyor from WP3 transfer tower entering WP4 transfer tower, which would transfer coal to stockpile area 2.
08563-13-GE-DGA-0132	Transfer tower (WP3) and stacker conveyor and stacker for stockpile area 1. Towers and stackers would be the same for the remaining stockpile areas (2-4).
08563-13-GE-DGA-0133	Plan view (top) and cross section view (bottom) for the end of stacker conveyor for stockpile area 1. End of stacker conveyors would be the same for the remaining stockpile areas (2-4).
80563-13-GE-DGA-0135	Transfer tower (WP4) plan view (top) and cross section (bottom) showing conveyor to stacker for stockpile areas 2 and 3. Conveyor continues on to transfer tower (WP7), shown in sheet 80563-13-GE-DGA-0135, below.
80563-13-GE-DGA-0136	Plan view of conveyor from transfer tower (WP4 – not shown) to transfer tower (WP7 – shown).
80563-14-GE-DGA-0140	Plan view (top) and cross section (bottom) of end of reclaimer conveyor for stockpile area 1.
80563-14-GE-DGA-0141	Plan view (top) and cross section (bottom) of reclaimer conveyor for stockpile areas 1 (top conveyor), terminating at transfer tower (WP6).



80563-14-GE-DGA-0142	Plan view (top) and cross section (bottom) of end of reclaimer conveyor for stockpile area 2.
80563-14-GE-DGA-0143	Plan view (top) and cross section (bottom) of reclaimer conveyor for stockpile areas 2 (top conveyor), terminating at transfer tower (WP6).
80563-14-GE-DGA-0152	Plan view (top) and cross section (bottom) of transfer towers (WP6 and WP7) and conveyors that would convey coal toward Docks 2 and 3.
80563-14-GE-DGA-0153	Plan view (top) and cross section (bottom) of transfer tower (WP8) and conveyors leading to Docks 2 and 3.
80563-14-GE-DGA-0154	Plan view (top) and cross section (bottom) of conveyor leading to Docks 2 and 3.
80563-14-GE-DGA-0155	Plan view (top) and cross section (bottom) of conveyors leading to surge bin (WP9), showing surge bins for both Stage 1 and Stage 2.
80563-15-GE-DGA-0162	Cross sections of surge bin (WP9).
80563-20-GE-DGA-0165	Plan view (top) and cross section (bottom) of surge bin (WP9) and conveyor entering trestle toward Docks 2 and 3.
80563-20-GE-DGA-0166	Plan view (top) and cross section (bottom) of conveyors and trestle leading to Docks 2 and 3.
80563-20-GE-DGA-0167	Plan view (top) and cross section (bottom) of conveyor and trestle to transfer tower (WP11).
80563-21-GE-DGA-0171	Cross section of transfer tower (WP11) showing how coal would be loaded on to conveyors for Docks 2 and 3.
80563-21-GE-DGA-0175	Plan view (top) and cross section (bottom) of transfer tower (WP11) and conveyor to shiploader on Dock 2.
80563-21-GE-DGA-0176	Plan view (top) and cross section (bottom) of Dock 2 with shiploader and end of conveyor for shiploader. Shiploader could move along the length of the conveyor on rail system.
80563-21-GE-DGA-0180	Plan view of trestle and Docks 2 and 3 with Panamax size vessels shown at docks.
80563-21-GE-DGA-0181	Cross section (top) of Docks 2 and 3 with shiploaders. Cross section (left) of shiploader and cross section (right) of trestle showing enclosed conveyors and how conveyors would elevate as they enter the transfer tower (WP11).



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D SHEET SCALE SHOWN

**Oneway**

ENGINEERING AND PERMIT STAMPS (As Required)

WORLEYPARSONS PROJECT No  
308106-00001

CUSTOMER

**BULK TERMINALS**  
**millennium**  
LONGVIEW, LLC

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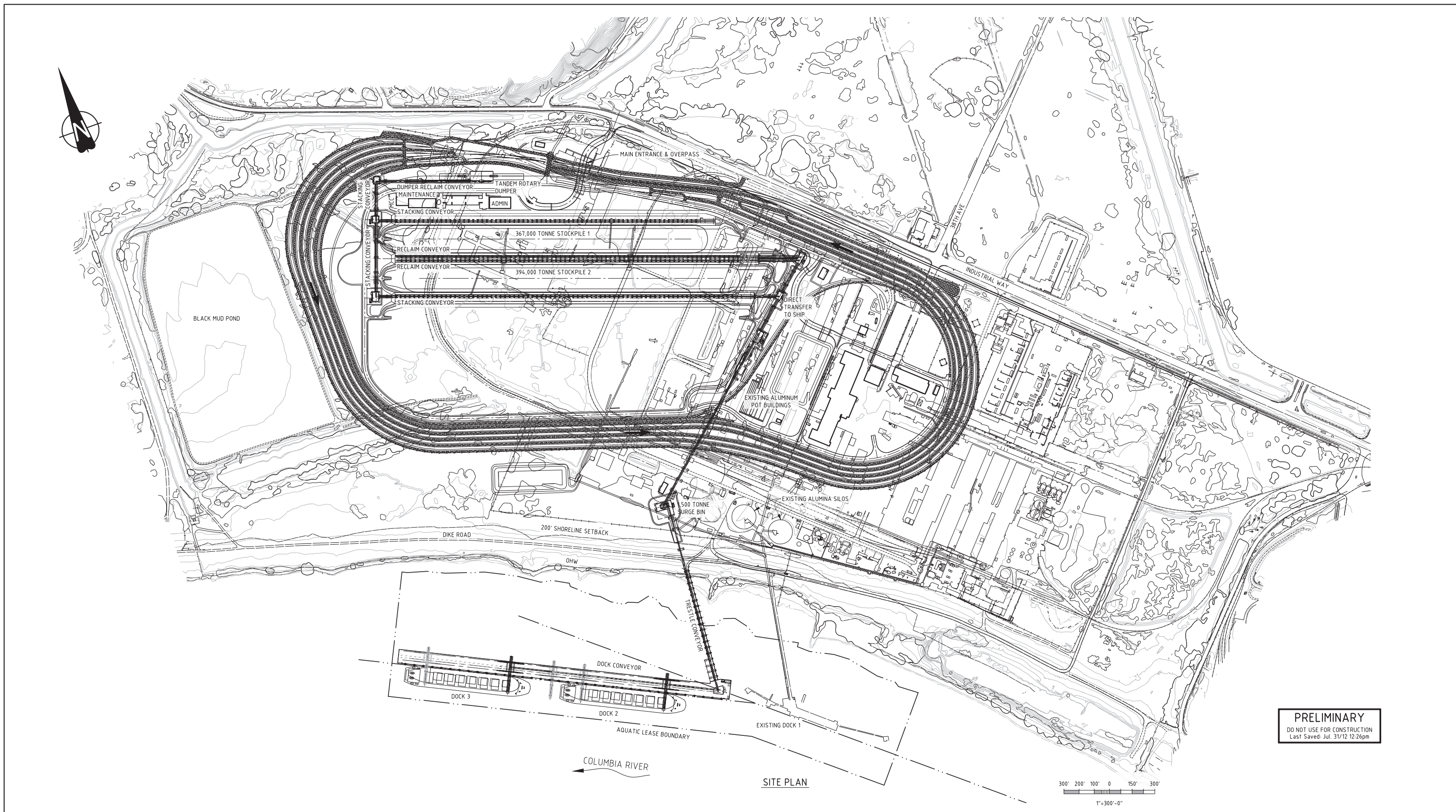
**WorleyParsons**  
resources & energy

MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
COAL HANDLING TERMINAL  
ALTERNATE 1 TERMINAL SITE PLAN

DRG No 308106-00001-00-GE-DLP-0100

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SITE PLAN

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D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)
	<b>Oneway</b>		
WORLEYPARSONS PROJECT No		80563	

CUSTOMER

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MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
COAL HANDLING TERMINAL  
OVERALL SITE PLAN - STAGE 1

DRG No: 80563-00-GE-DLP-0020

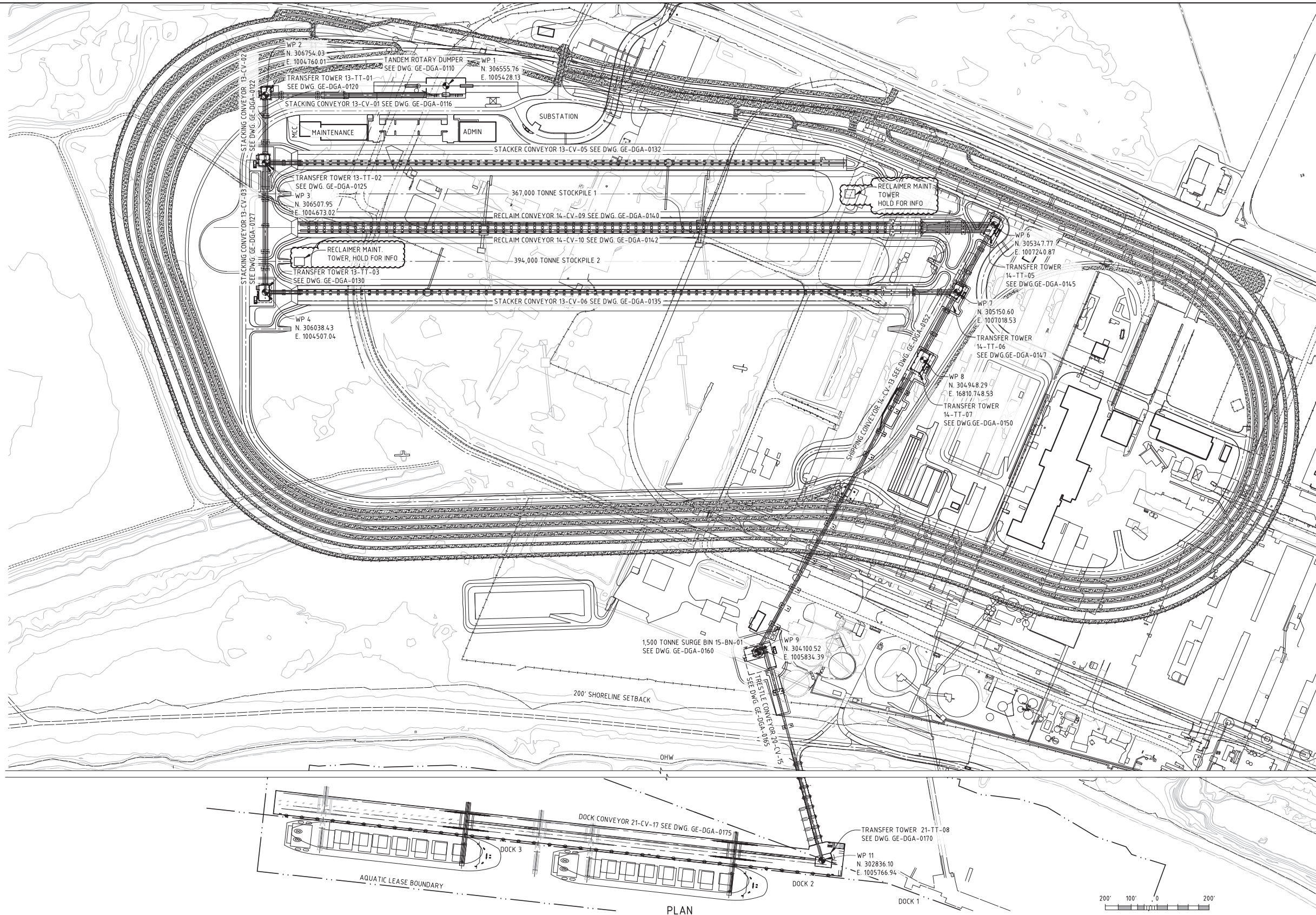
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**NOTES:**

1. ELEVATIONS ARE REFERENCED TO THE COLUMBIA RIVER DATUM.
2. HORIZONTAL COORDINATES ARE REFERENCED TO WASHINGTON STATE PLANE SOUTH UTM NAD83(91) US SURVEY FEET.
3. ALL EQUIPMENT SHALL BE LOCATED BASED ON WORK POINT (WP) COORDINATES.
4. WORKPOINT (WP) IS DEFINED AS THE INTERSECTION IN PLAN VIEW, OF TWO CONVEYOR CENTERLINES, THE CENTER OF RAIL AND RAIL DUMPING EQUIPMENT, AND CENTER OF BIN.



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WORLEYPARSONS PROJECT No <b>80563</b>			

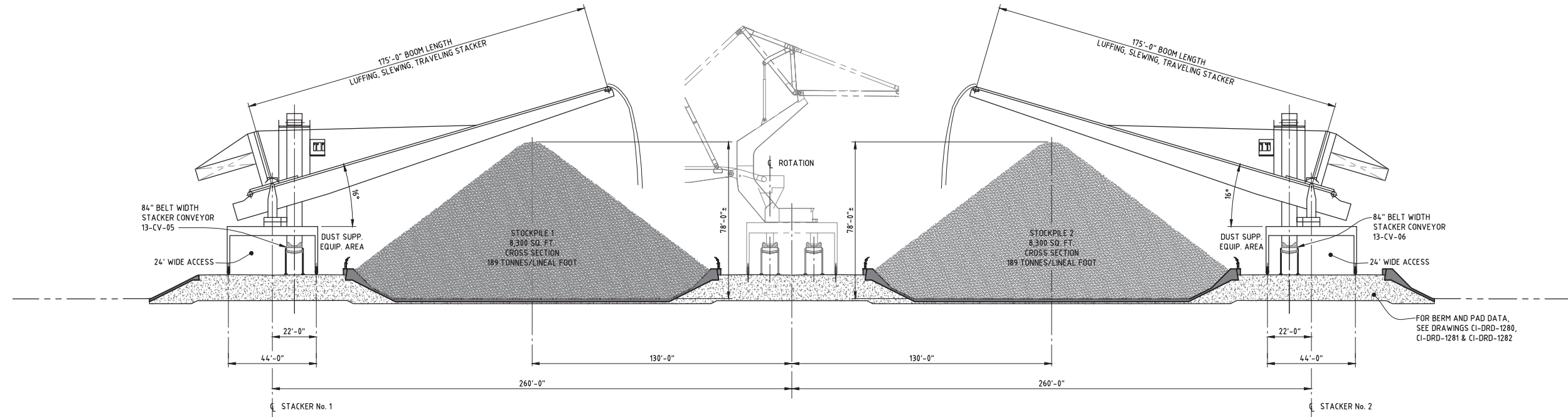
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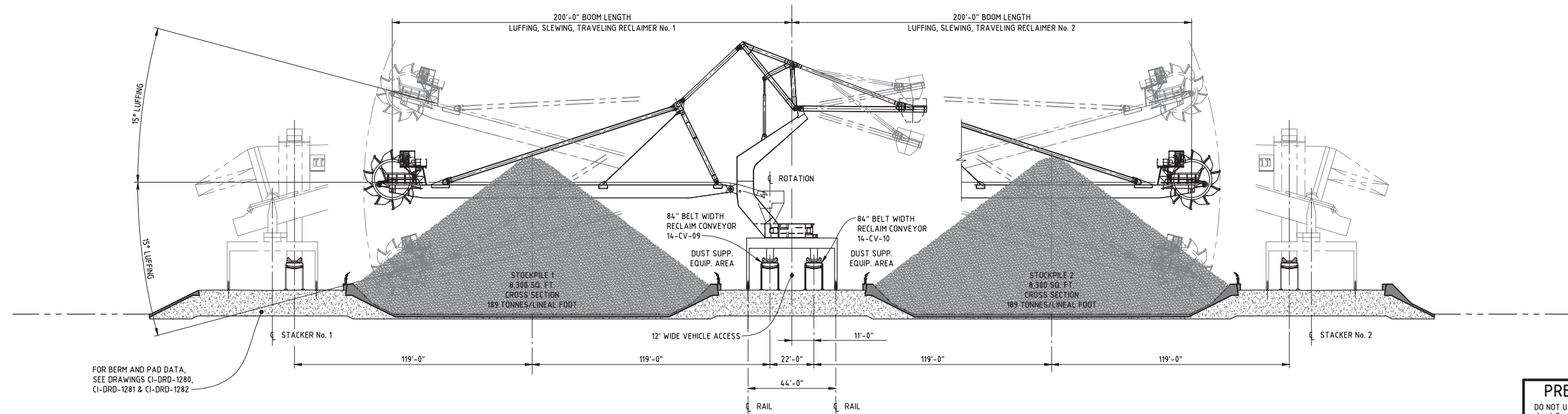
**MILLENNIUM BULK TERMINALS-LONGVIEW, WA**  
MATERIALS HANDLING FACILITY  
COAL HANDLING TERMINAL  
TERMINAL SITE PLAN - STAGE 1

DRG No	80563-00-GE-DLP-0105	REV	A
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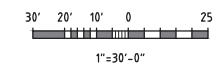
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STOCKPILE CROSS SECTION  
THRU STACKERS, (LOOKING EAST)  
1" = 30'-0"



STOCKPILE CROSS SECTION  
THRU RECLAIMERS, (LOOKING EAST)  
1" = 30'-0"



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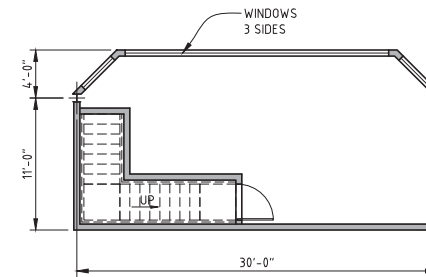
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WORLYPARSONS PROJECT No		
80563		

ENGINEERING AND PERMIT STAMPS (As Required)	
CUSTOMER	
<small>*This drawing is prepared for the use of the contractual customer of WorleyParsons Westmar Corporation and WorleyParsons Westmar Corporation assumes no liability to any other party for any representations contained in this drawing.*</small>	

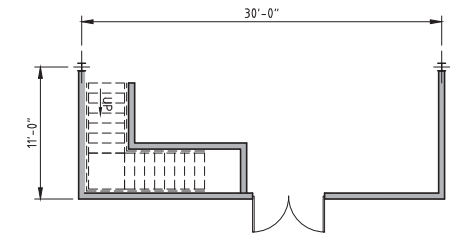
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MILLENIUM BULK TERMINALS-LONGVIEW, WA	
MATERIALS HANDLING FACILITY	
STOCKPILE CROSS SECTIONS	
AT RECLAIMERS AND STACKERS	

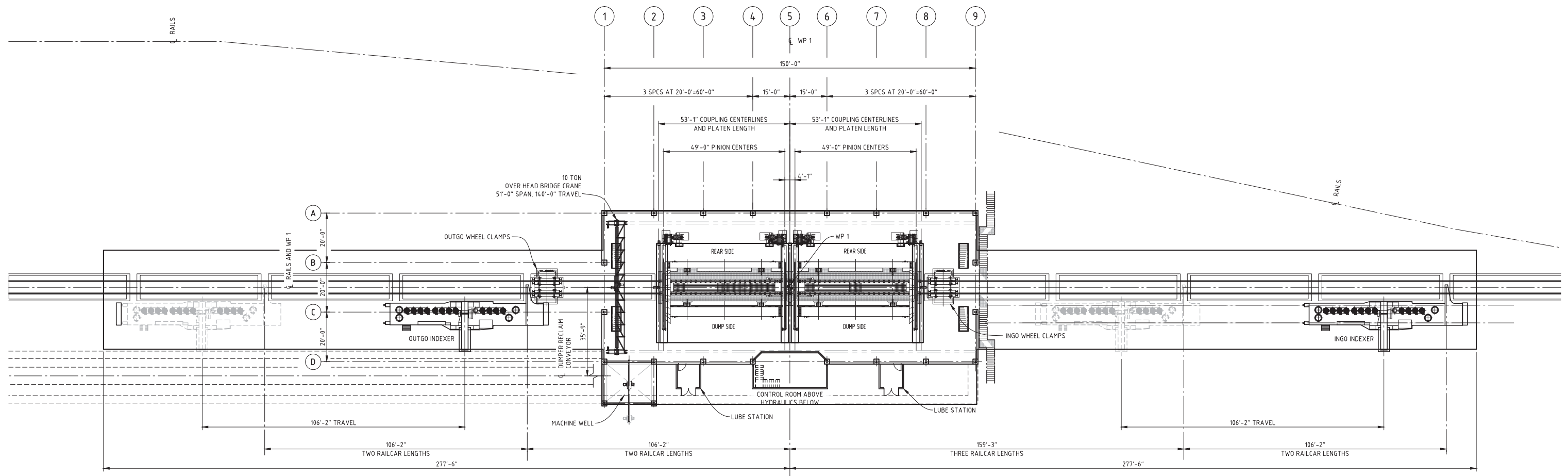
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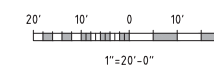
CONTROL ROOM  
PLAN AT EL. 20'-7"  
1/8"=1'-0"



HYDRAULICS ROOM  
PLAN AT EL. 9'-5"  
1/8"=1'-0"



PLAN - TANDEM ROTARY DUMPER  
1"=20'-0"



**PRELIMINARY**  
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									AR-DGA-2300	ROTARY RAILCAR DUMPER, ARCHITECTURAL ELEVATIONS
									ST-DCN-2030	ROTARY RAILCAR DUMPER, PLAN

D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)
WORLEYPARSONS PROJECT No			
80563			

CUSTOMER

**millennium**  
LONGVIEW, LLC

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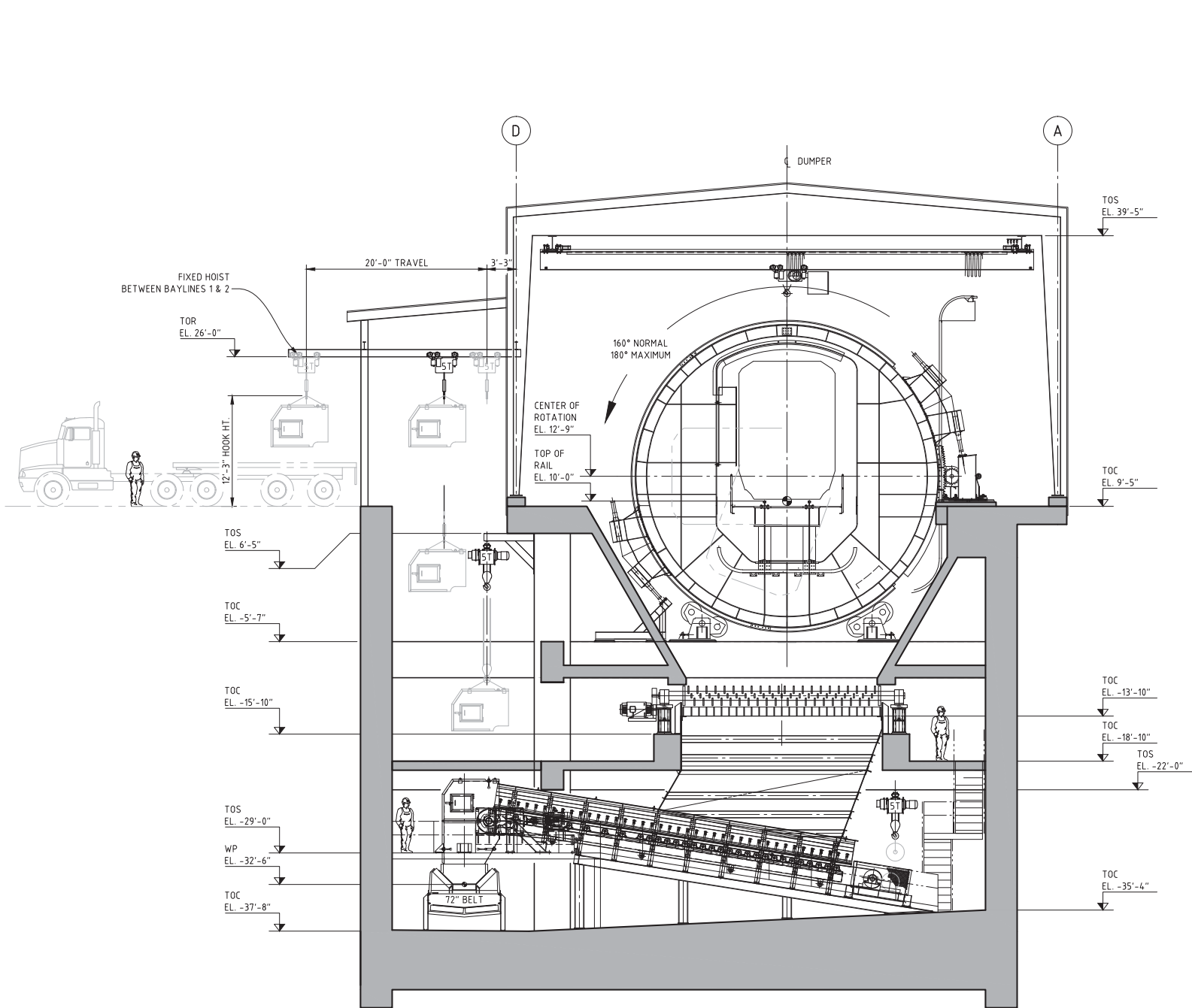
**WorleyParsons**  
RESOURCES & ENERGY

MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
TANDEM ROTARY RAILCAR DUMPER  
PLAN AT TOP OF RAIL

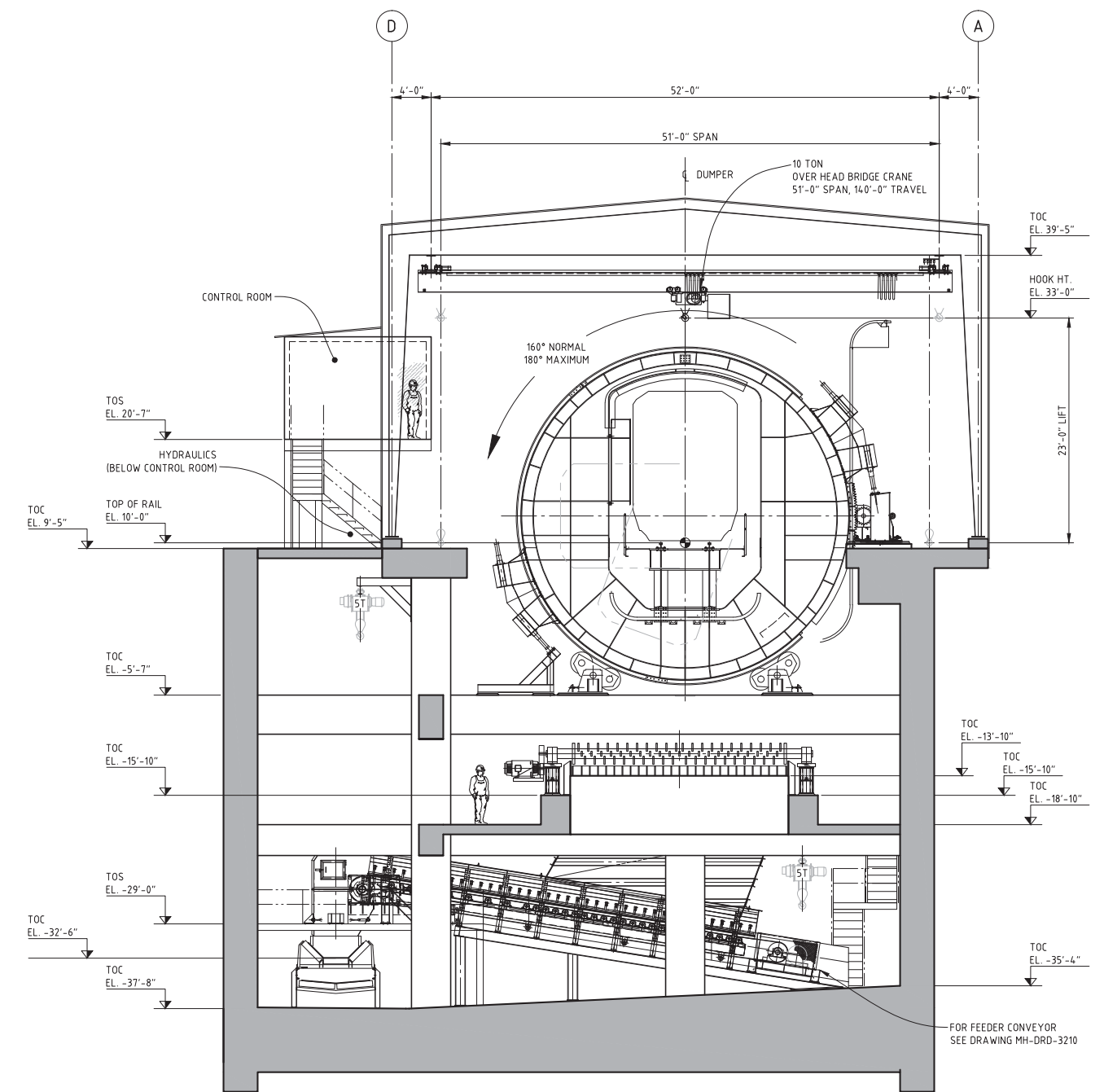
DRG No 80563-12-GE-DGA-0110

REV A

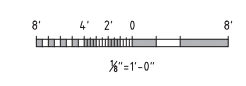
LOCATION: U:\WORK\2011\80563\_HBTL\_DET\_RAIL\_ENG\11\_DRAWINGS\05\_MECH\03\_MATL\_HANDLING\80563-12-GE-DGA-0110-0112-0113-0114-DWG  
 USER NAME: robert.r.munro  
 PLOT DATE & TIME: 26/09/2012 7:04:05 AM  
 SAVE DATE & TIME: 26/09/2012 7:03:15 AM



SECTION A  
1/8"=1'-0" GE-DGA-0111



SECTION B  
1/8"=1'-0" GE-DGA-0111



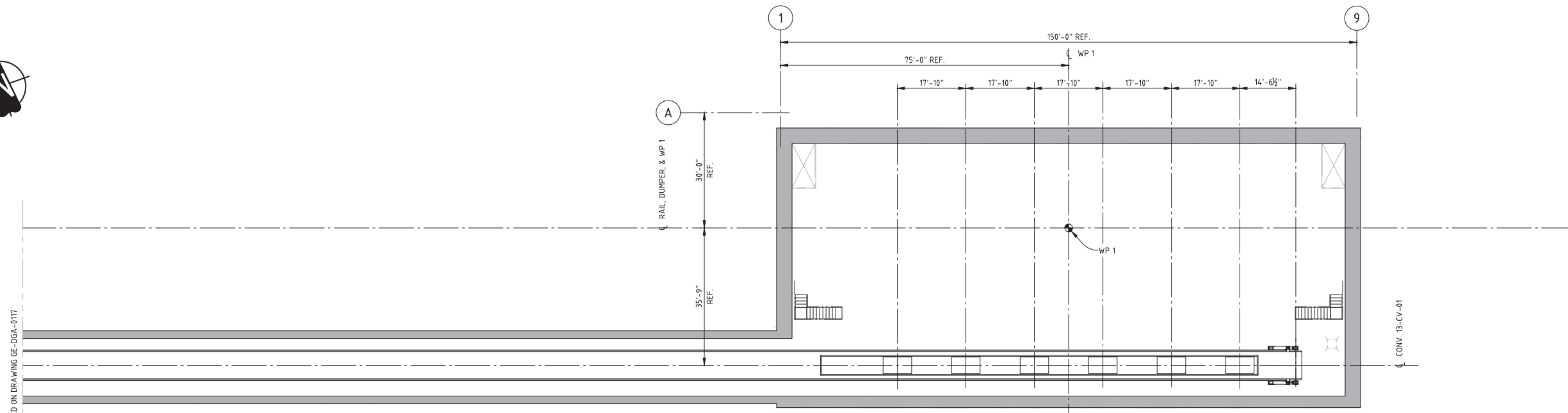
**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 26/12 7:03am

										D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)				CUSTOMER		 <b>WorleyParsons</b> <small>RESOURCES • ENERGY</small> MILLENNIUM BULK TERMINALS-LONGVIEW, WA MATERIALS HANDLING FACILITY TANDEM ROTARY RAILCAR DUMPER SECTIONS		DRG No		REV	
																 <b>millennium</b> <small>LONGVIEW, LLC</small>		80563-12-GE-DGA-0112			A			
										ST-DTE-2400		ROTARY RAILCAR DUMPER, STEEL FRAMING PLAN BELOW EL. -29'-0"		WORLEYPARSONS PROJECT No		<small>"This drawing is prepared solely for the use of the contractual customer of WorleyParsons Westmar Corporation and WorleyParsons Westmar Corporation assumes no liability to any other party for any representations contained in this drawing."</small>		80563						
										AR-DGA-2300		ROTARY RAILCAR DUMPER, ARCHITECTURAL ELEVATIONS		80563										
										ST-DCN-2030		ROTARY RAILCAR DUMPER, PLAN												
REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE														
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	RMW	-	-	-	-	-																

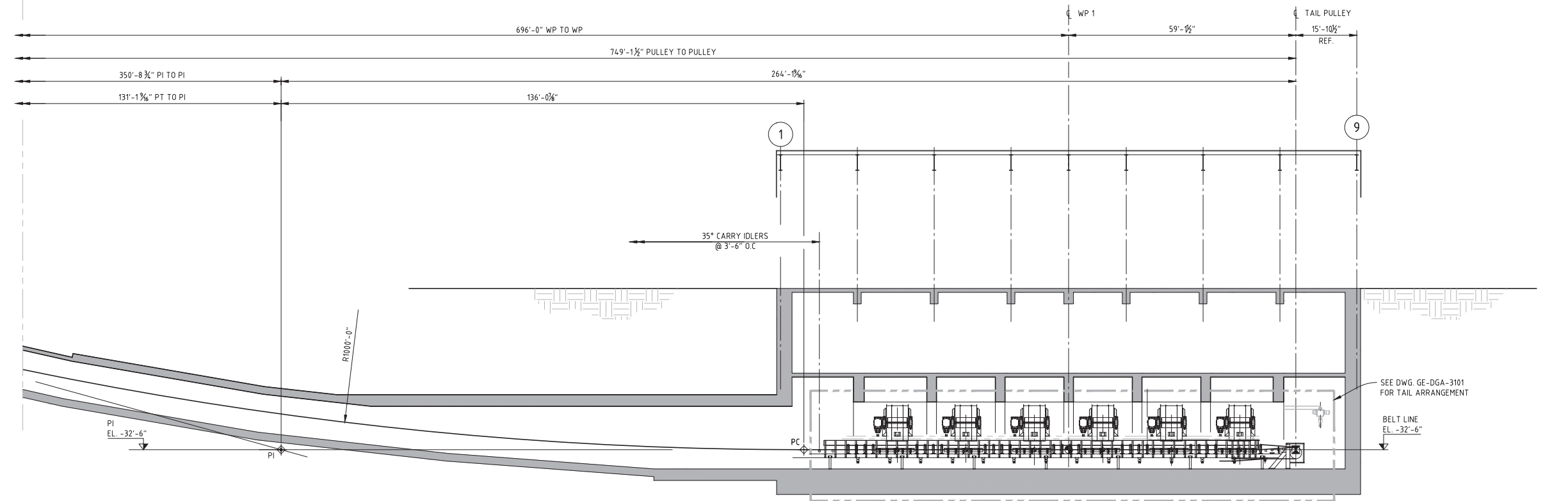
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 USER NAME: robert.r.munro  
 PLOT DATE & TIME: 26/9/2012 7:04:49 AM  
 SAVE DATE & TIME: 26/9/2012 7:03:15 AM



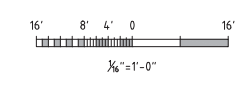
MATCH LINE, CONTINUED ON DRAWING GE-DGA-0117



**PLAN**  
1/16"=1'-0"



**ELEVATION**  
1/16"=1'-0"



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 1:49pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)
WORLEYPARSONS PROJECT No <b>80563</b>			

CUSTOMER

"This drawing is prepared solely for the use of the contractual customer of WorleyParsons Westmar Corporation and WorleyParsons Westmar Corporation assumes no liability to any other party for any representations contained in this drawing."

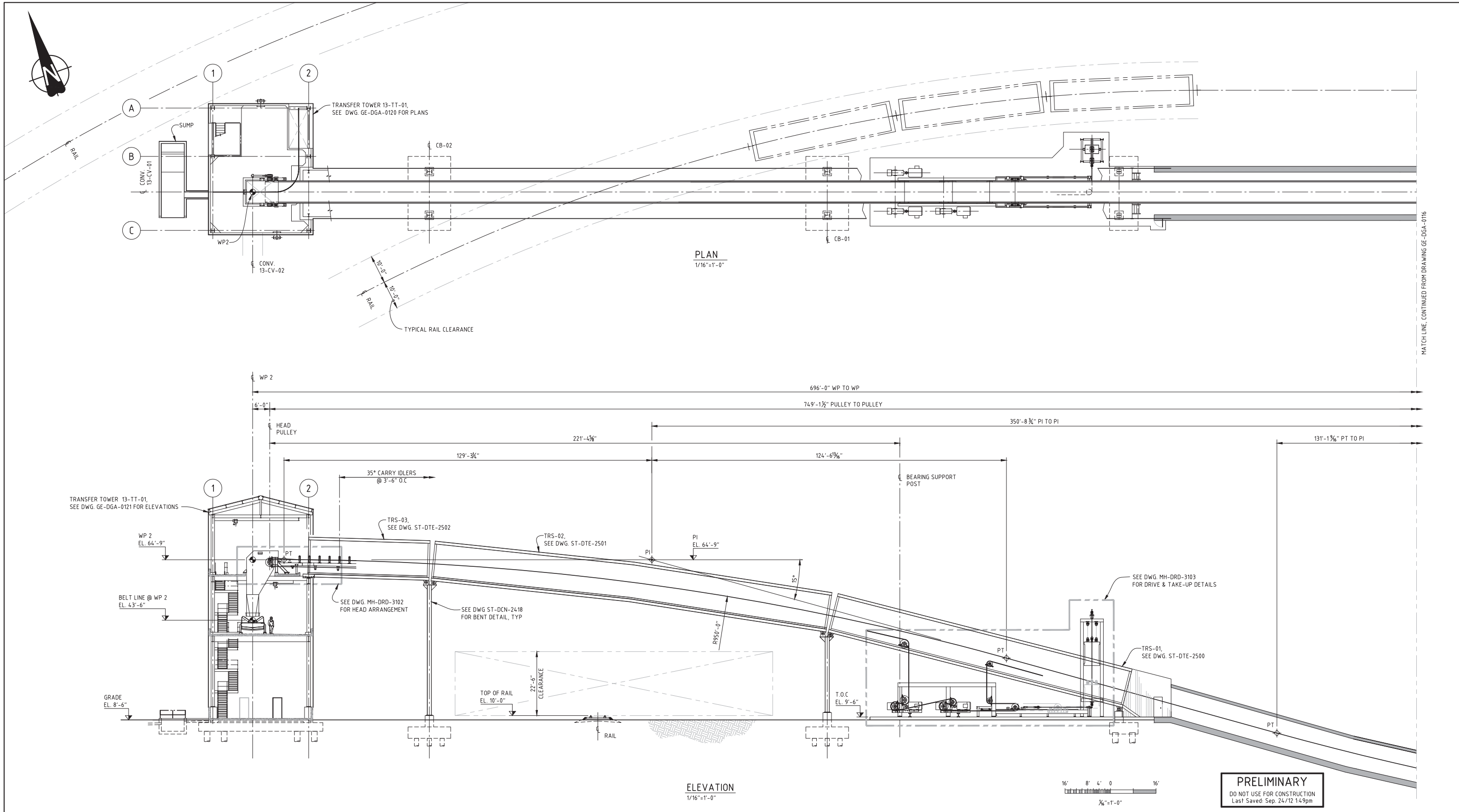
**WorleyParsons**  
resources in energy

MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
STACKING CONVEYOR 13-CV-01  
PLAN & ELEVATION SHEET - 1

DRG No **80563-13-GE-DGA-0116** REV **A**

LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2011\80563\_MBTL\_DETAIL\_ENG\11\_DRAWINGS\05\_MECH\03\_MATL\_HANDLING\80563-13-GE-DGA-0116-0117-0120-0121.DWG  
 USER NAME: Faras balyuk  
 PLOT DATE & TIME: 24/9/2012 3:23:52 PM  
 SAVE DATE & TIME: 24/9/2012 1:45:47 PM





MATCH LINE, CONTINUED FROM DRAWING GE-DGA-0116

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 1:49pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)
	<b>Oneway</b>		
WORLEYPARSONS PROJECT No			
80563			

CUSTOMER

**millennium**  
LONGVIEW, LLC

"This drawing is prepared solely for the use of the contractual customer of WorleyParsons Westmar Corporation and WorleyParsons Westmar Corporation assumes no liability to any other party for any representations contained in this drawing."

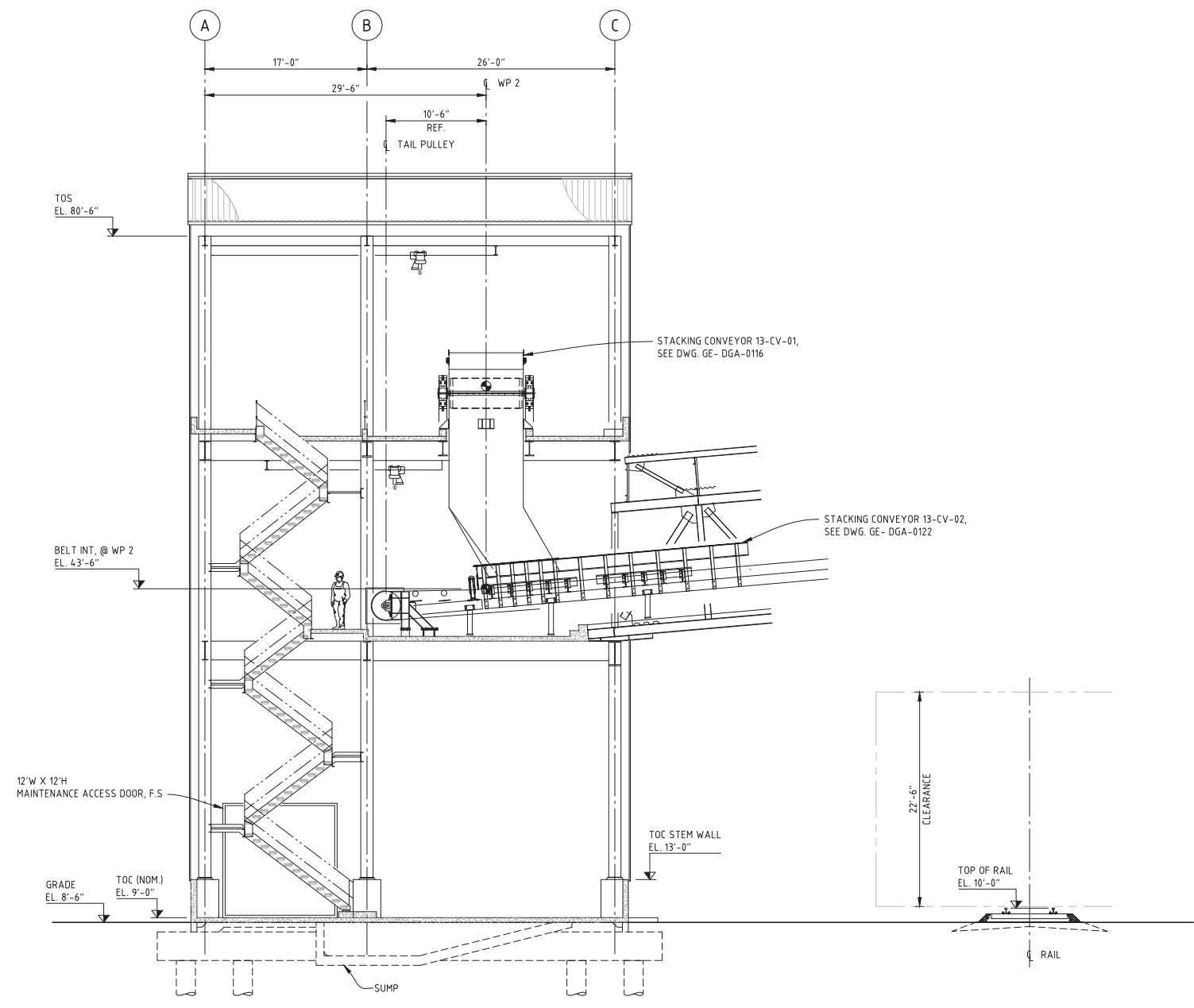
**WorleyParsons**  
resources in energy

MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
STACKING CONVEYOR 13-CV-01  
PLAN & ELEVATION SHEET - 2

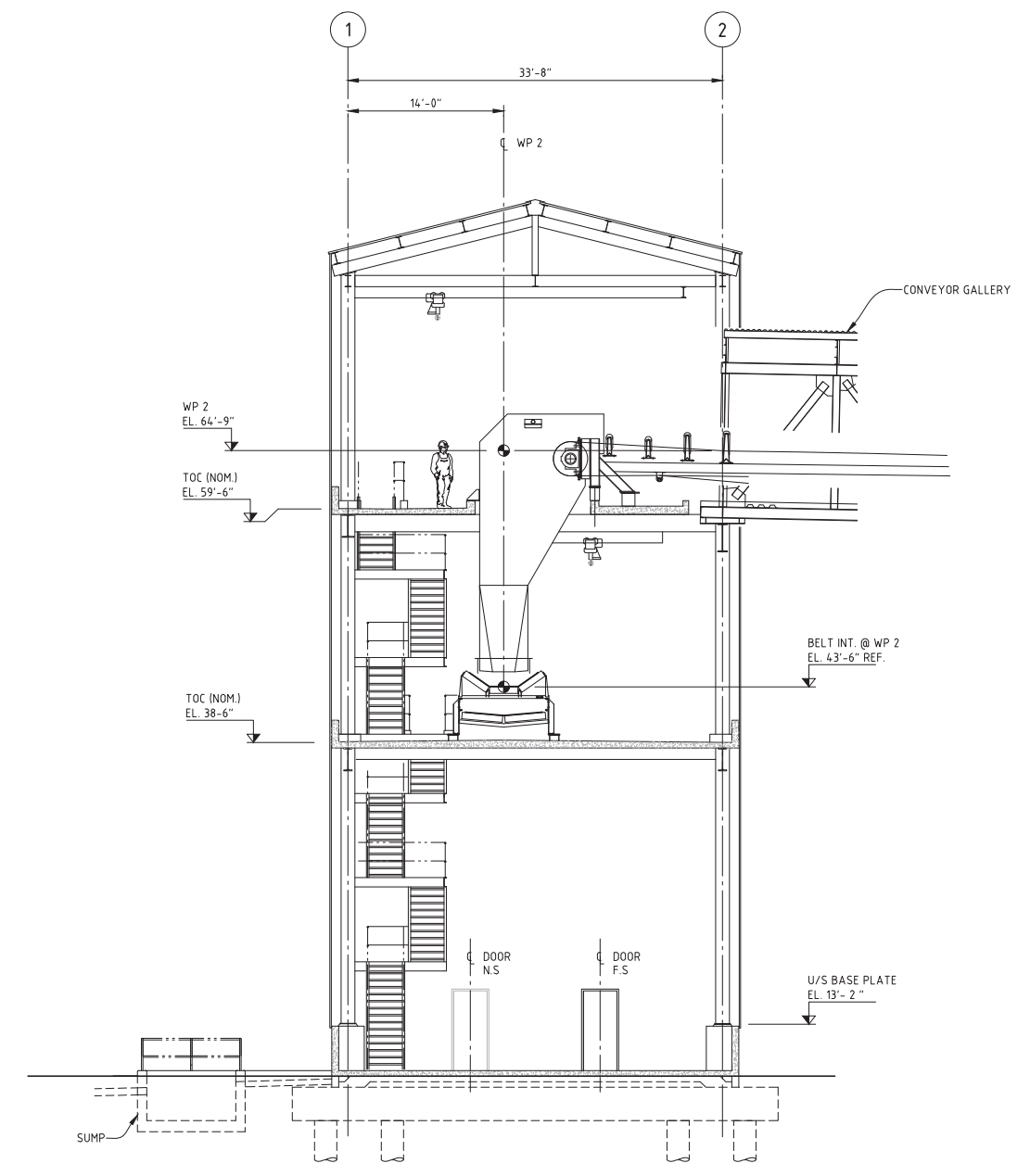
DRG No 80563-13-GE-DGA-0117

REV A

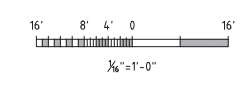
USER NAME: Faras balyuk  
 LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2011\80563\_MBT\_DETAIL\_ENG\1\_DRAWINGS\05\_MEEH\03\_MAT\_HANDLING\80563-13-GE-DGA-0116-0117-0120-0121.DWG  
 PLOT DATE & TIME: 24/9/2012 3:25:55 PM  
 SAVE DATE & TIME: 24/9/2012 1:49:47 PM



WEST ELEVATION  
1/8"=1'-0"



SOUTH ELEVATION  
1/8"=1'-0"



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 1:49pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN
ENGINEERING AND PERMIT STAMPS (As Required)		
CUSTOMER		
WORLEYPARSONS PROJECT No		
80563		

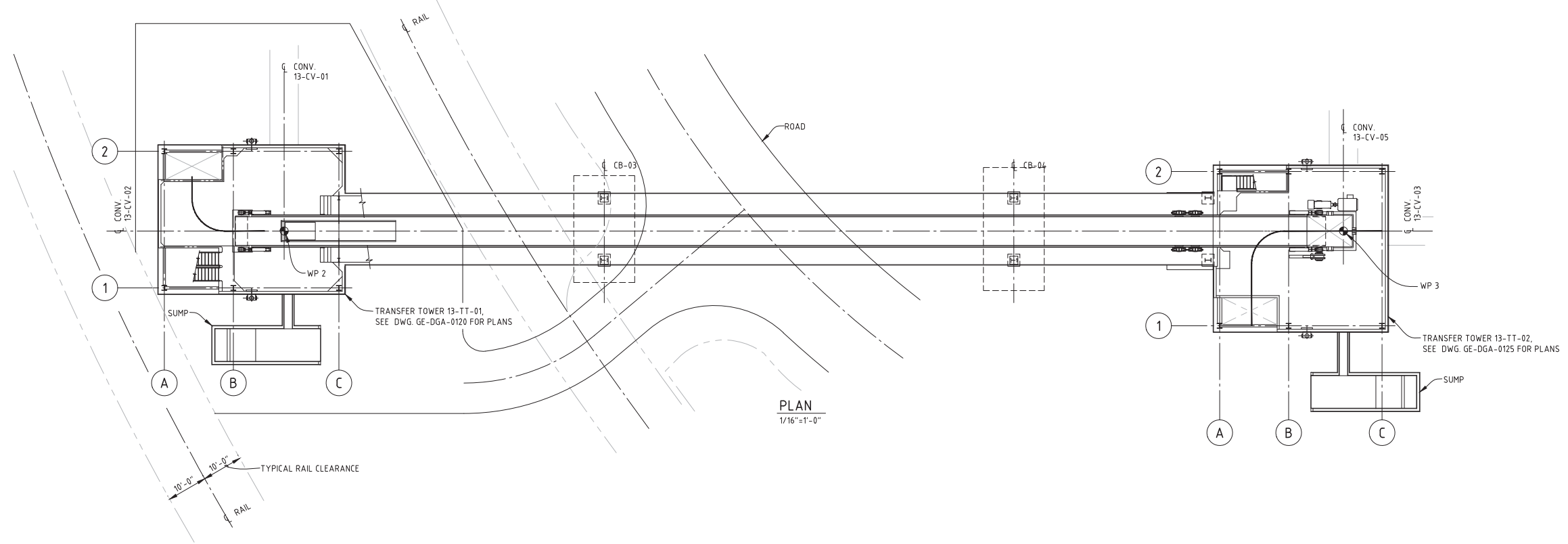
"This drawing is prepared solely for the use of the contractual customer of WorleyParsons Westmar Corporation and WorleyParsons Westmar Corporation assumes no liability to any other party for any representations contained in this drawing."

**WorleyParsons**  
resources in energy

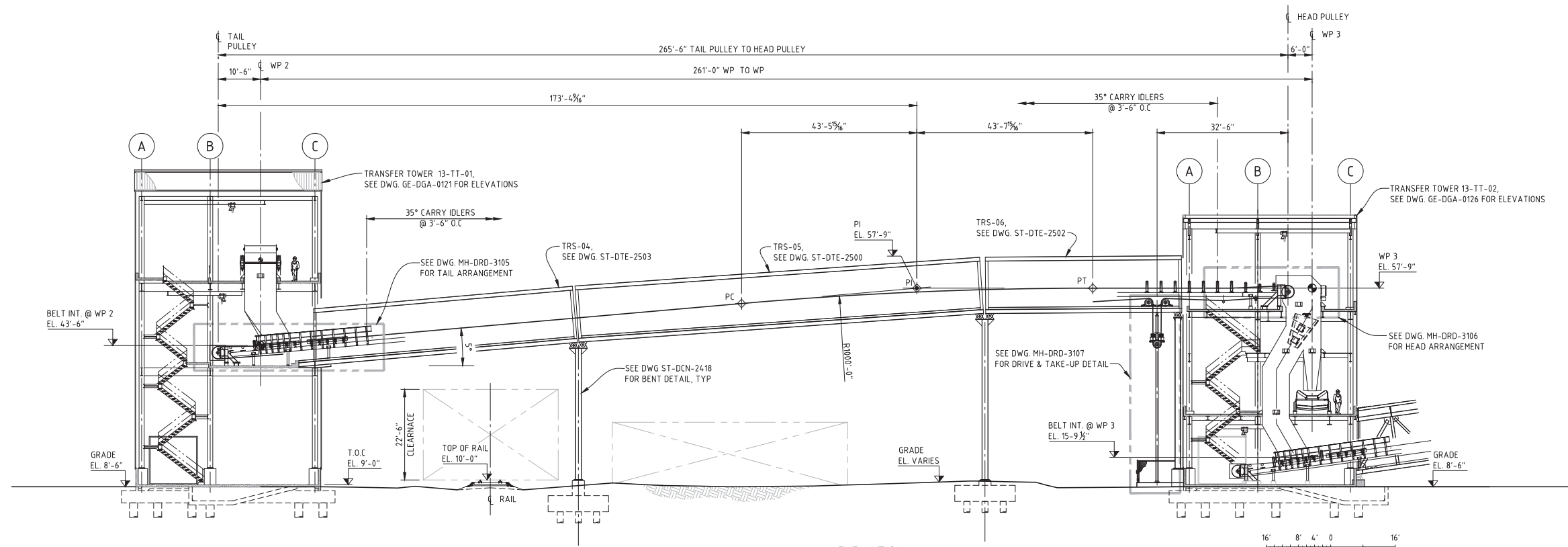
MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
TRANSFER TOWER 13-TT-01  
ELEVATIONS

DRG No 80563-13-GE-DGA-0121

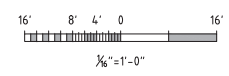
REV A



PLAN  
1/16"=1'-0"



ELEVATION  
1/16"=1'-0"



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 1:42pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET SCALE SHOWN

**Oneway**

ENGINEERING AND PERMIT STAMPS (As Required)

WORLEYPARSONS PROJECT No  
**80563**

CUSTOMER

**millennium**  
BULK TERMINALS  
LONGVIEW, LLC

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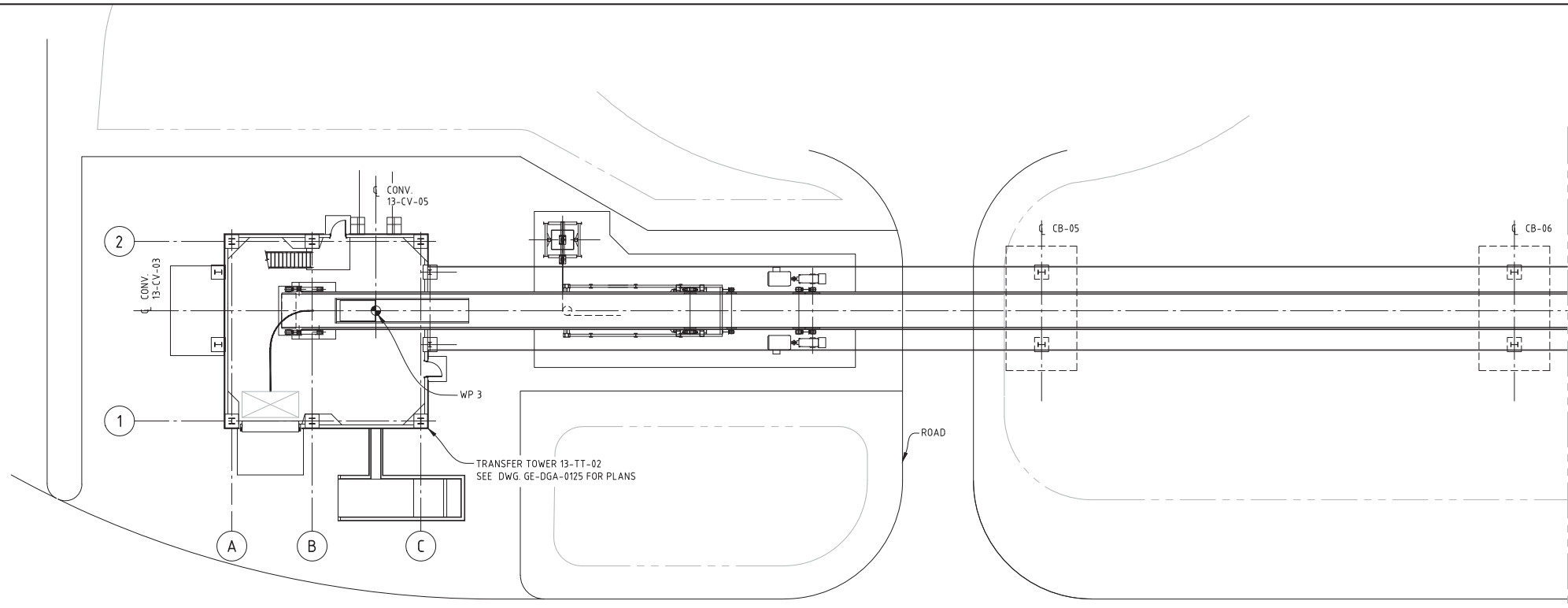
**WorleyParsons**  
resources & energy

MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
STACKING CONVEYOR 13-CV-02  
PLAN & ELEVATION

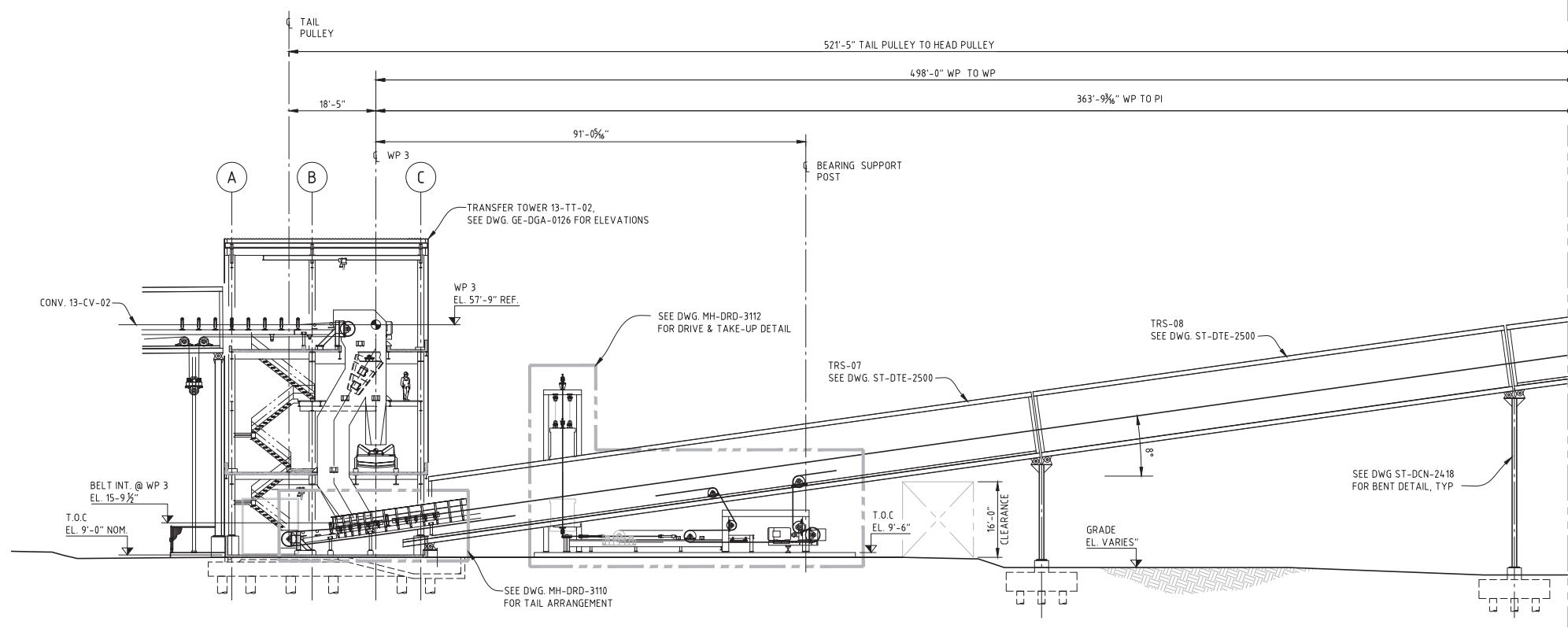
DRG No  
**80563-13-GE-DGA-0122**

REV  
**A**

LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2011\80563\_MBT\_DETAIL\_ENG\1\_DRAWINGS\05\_MEEH\03\_MAT\_HANDLING\80563-13-GE-DGA-0122.DWG  
 USER NAME: Faras baivuk  
 PLOT DATE & TIME: 24/9/2012 3:28:33 PM  
 SAVE DATE & TIME: 24/9/2012 1:42:24 PM



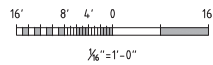
PLAN  
1/16"=1'-0"



ELEVATION  
1/16"=1'-0"

MATCH LINE CONTINUED ON DWG. 80563-GE-DGA-0128

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 1:52pm



REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)
WORLEYPARSONS PROJECT No			
80563			

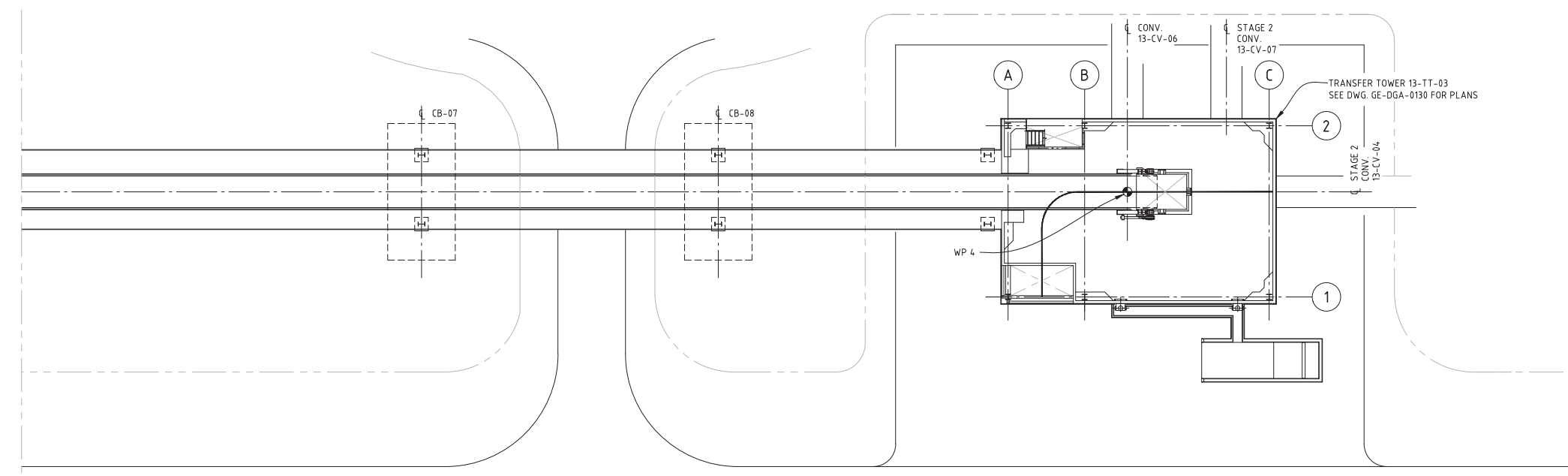
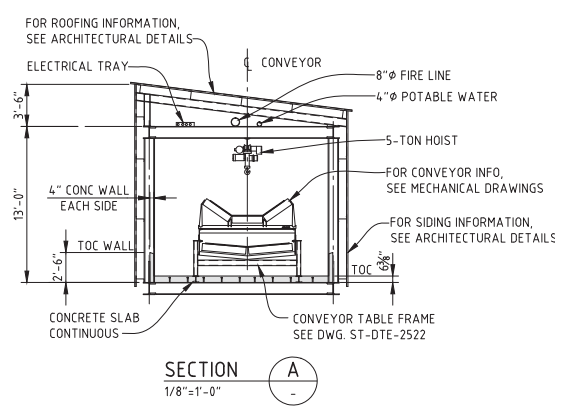
CUSTOMER

**millennium**  
LONGVIEW, LLC

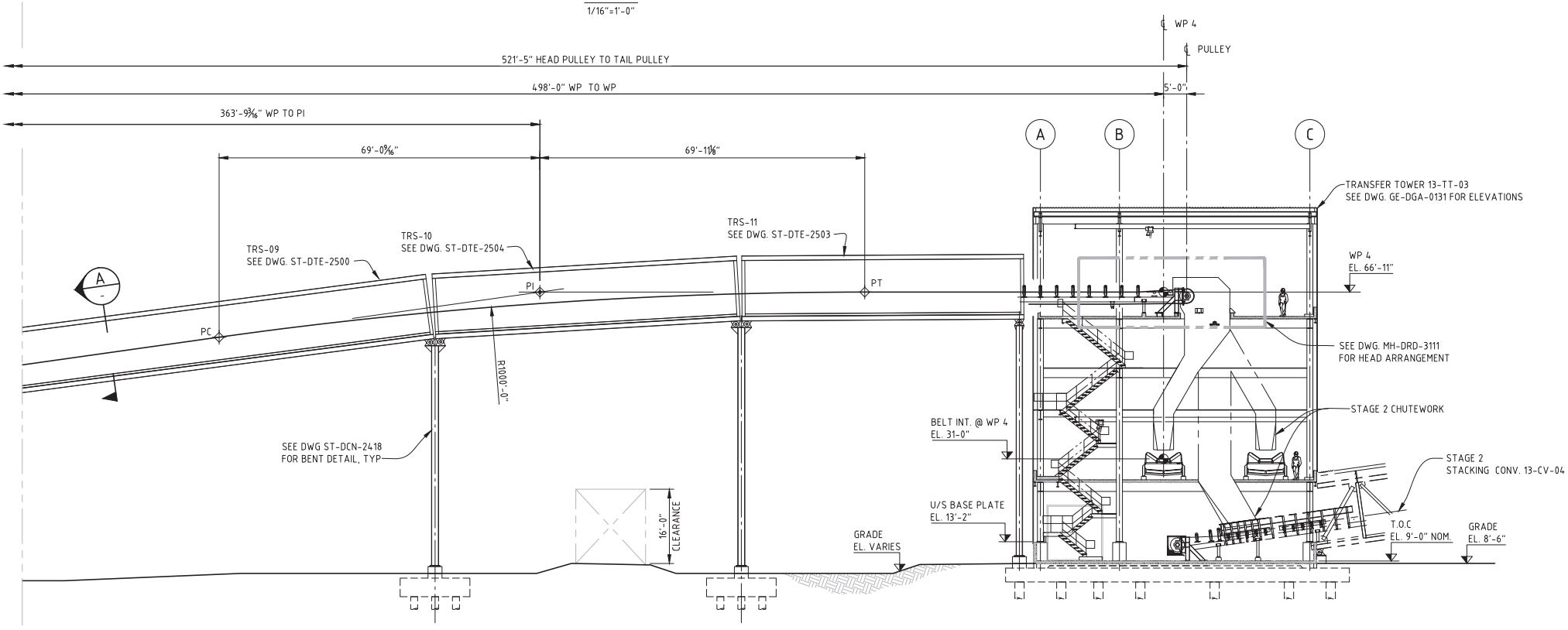
\*This drawing is prepared for the use of the contractual customer of WorleyParsons Westmar Corporation and WorleyParsons Westmar Corporation assumes no liability to any other party for any representations contained in this drawing.\*

MILLENNIUM BULK TERMINALS-LONGVIEW, WA MATERIALS HANDLING FACILITY STACKING CONVEYOR 13-CV-03 PLAN AND ELEVATION SHEET - 1	
DRG No	80563-13-GE-DGA-0127
REV	A

LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2011\80563\_MBT\_DETAIL\_ENG\11\_DRAWINGS\05\_MEEF\03\_MATL\_HANDLING\80563-13-GE-DGA-0127-0128.DWG  
USER NAME: Faras baliyuk  
PLOT DATE & TIME: 24/9/2012 3:33:09 PM  
SAVE DATE & TIME: 24/9/2012 1:52:45 PM



MATCH LINE CONTINUED ON DWG. 80563-GE-DGA-0128



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 25/12 9:04am

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN
	<b>Oneway</b>	
WORLEYPARSONS PROJECT No		
80563		

ENGINEERING AND PERMIT STAMPS (As Required)

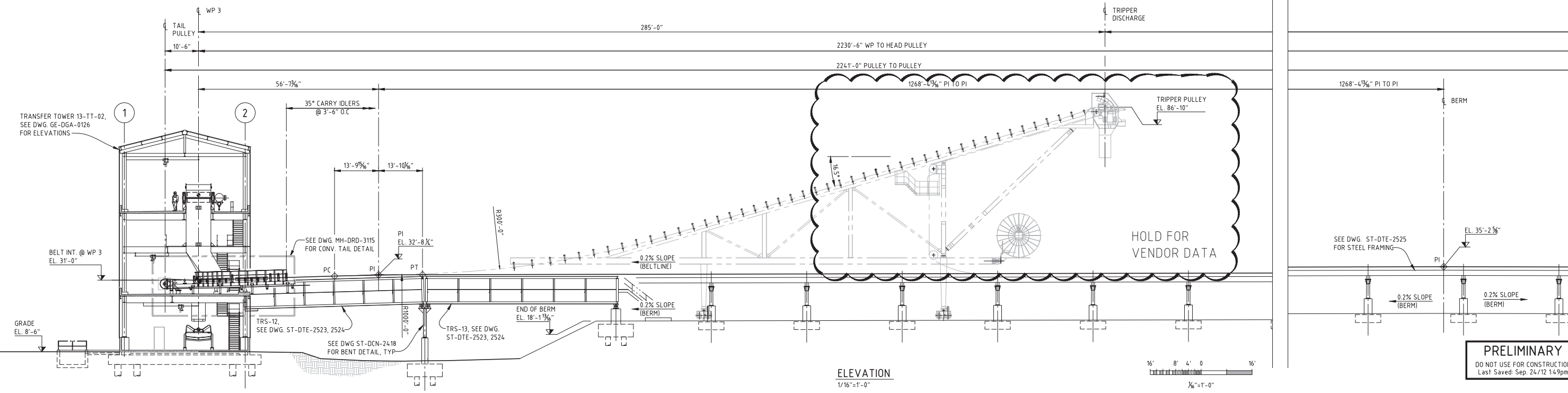
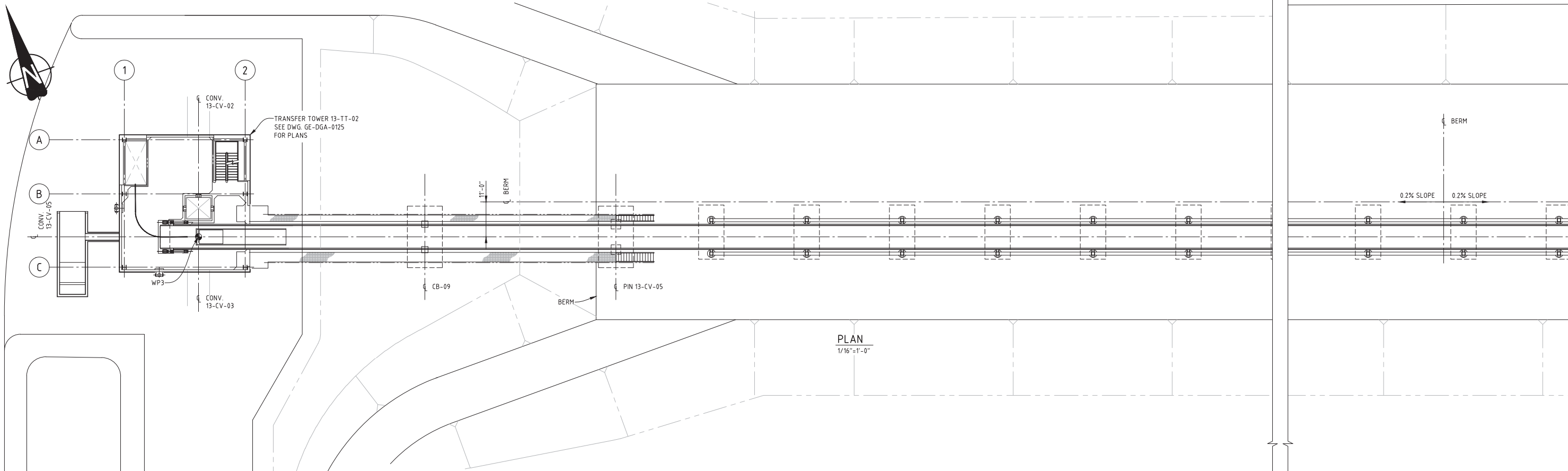
CUSTOMER

**millennium**  
LONGVIEW, LLC

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MILLENNIUM BULK TERMINALS-LONGVIEW, WA MATERIALS HANDLING FACILITY STACKING CONVEYOR 13-CV-03 PLAN AND ELEVATION SHEET - 1		
DRG No	80563-13-GE-DGA-0128	REV
		A

LOCATION: U:\WORK\2011\80563\_HBTL\_DETAIL\_ENG\11\_DRAWINGS\05\_MECH\03\_MATL\_HANDLING\80563-13-GE-DGA-0127-0128.DWG  
 USER NAME: robert.r.munro  
 PLOT DATE & TIME: 4/10/2012 10:22:43 AM  
 SAVE DATE & TIME: 25/9/2012 9:04:14 AM



REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-	-	-

D SHEET SCALE SHOWN ENGINEERING AND PERMIT STAMPS (As Required) CUSTOMER

**Oneway**

WORLEYPARSONS PROJECT No  
**80563**

**millennium**  
resources in energy  
LONGVIEW, LLC

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resources in energy

MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
STACKING CONVEYOR 13-CV-05  
PLAN AND ELEVATION SHEET - 1

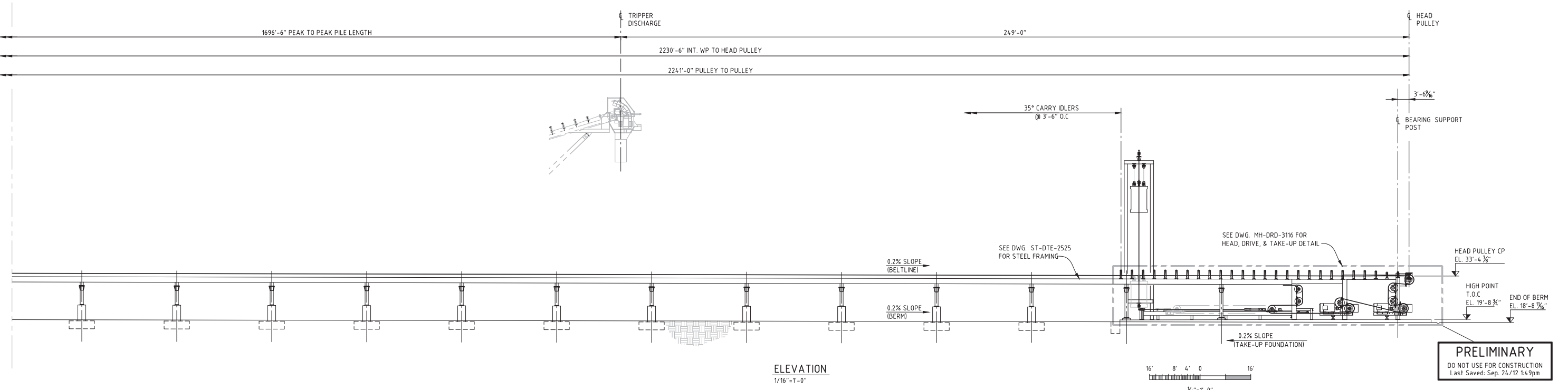
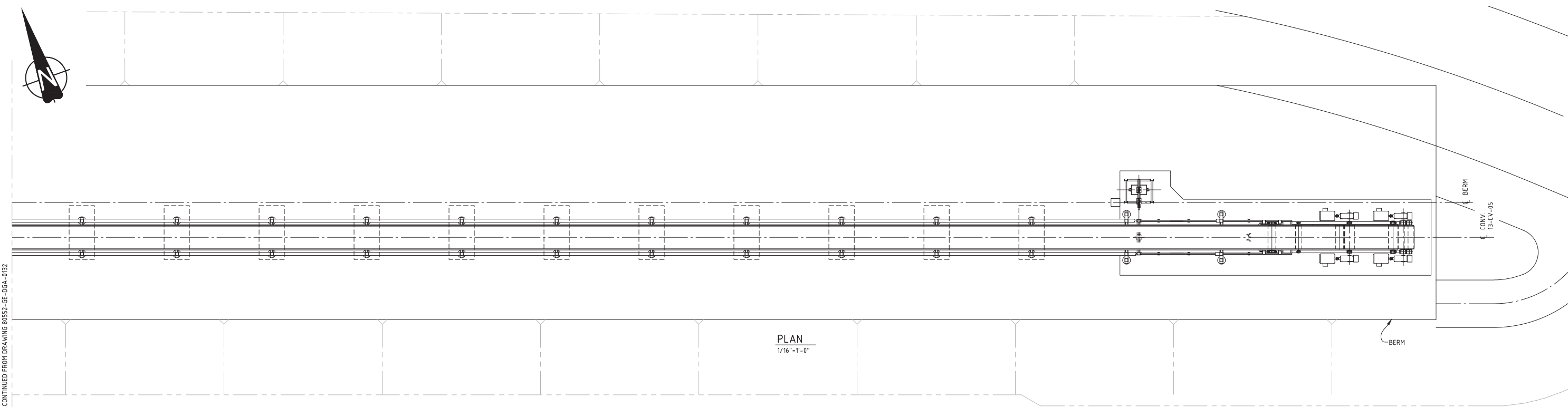
DRG No  
**80563-13-GE-DGA-0132**

REV  
**A**

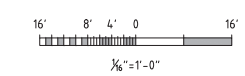
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USER NAME: Faras balyuk  
PLOT DATE & TIME: 24/9/2012 3:30:43 PM  
SAVE DATE & TIME: 24/9/2012 1:45:41 PM



MATCH LINE CONTINUED FROM DRAWING 80552-GE-DGA-0132



**ELEVATION**  
1/16"=1'-0"



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 1:49pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN
WORLEYPARSONS PROJECT No		
80563		

ENGINEERING AND PERMIT STAMPS (As Required)

CUSTOMER

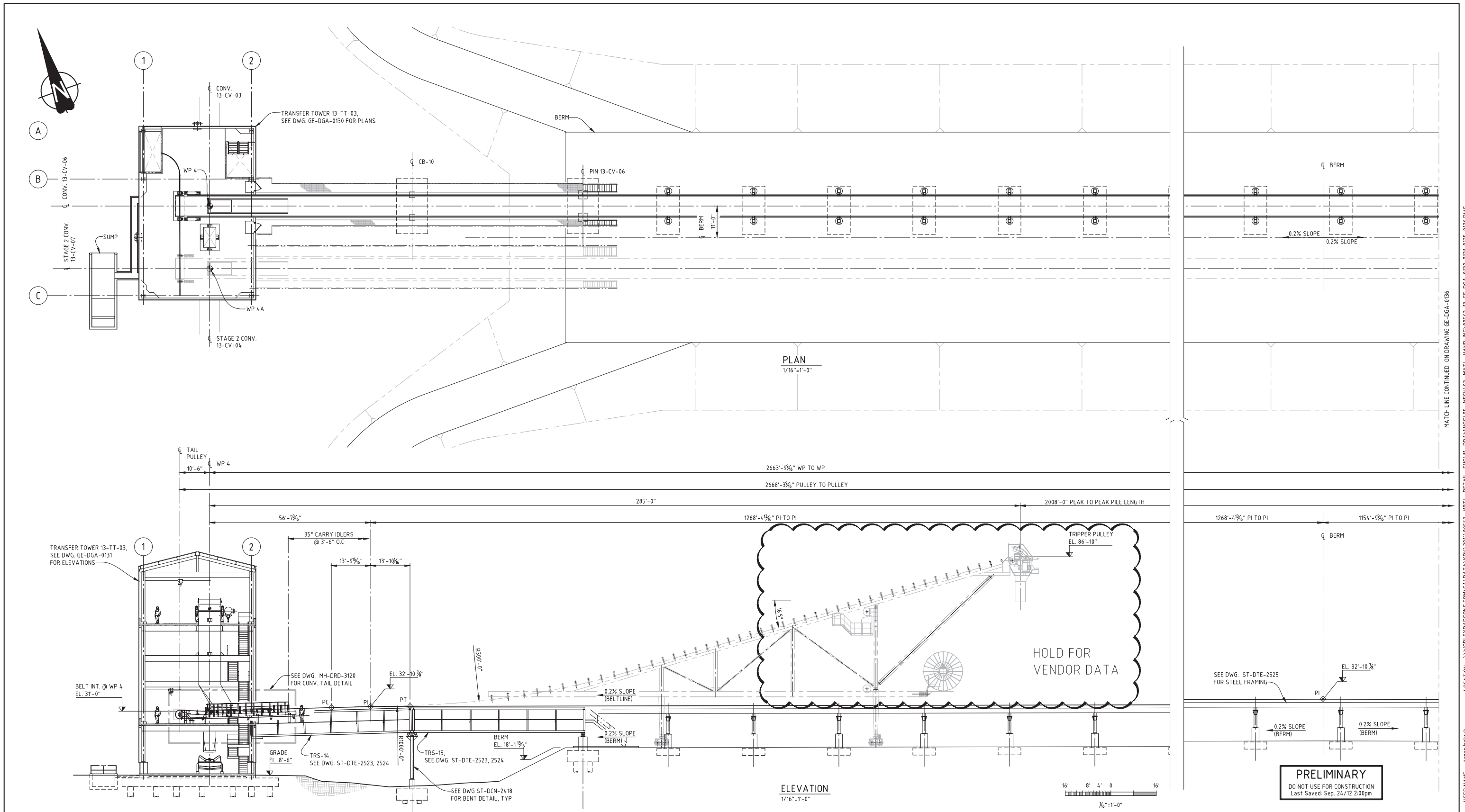
**WorleyParsons**  
resources & energy

MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
STACKING CONVEYOR 13-CV-05  
PLAN AND ELEVATION SHEET - 2

DRG No 80563-13-GE-DGA-0133

REV A

LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2011\80563\_MBT\_DETAIL\_ENG\1\_DRAWINGS\05\_MEEH\03\_MATL\_HANDLING\80563-13-GE-DGA-0132-0133.DWG  
USER NAME: Faras baliyuk  
PLOT DATE & TIME: 24/9/2012 3:31:06 PM  
SAVE DATE & TIME: 24/9/2012 1:49:41 PM



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 2:00pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-	-	-

D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)

CUSTOMER

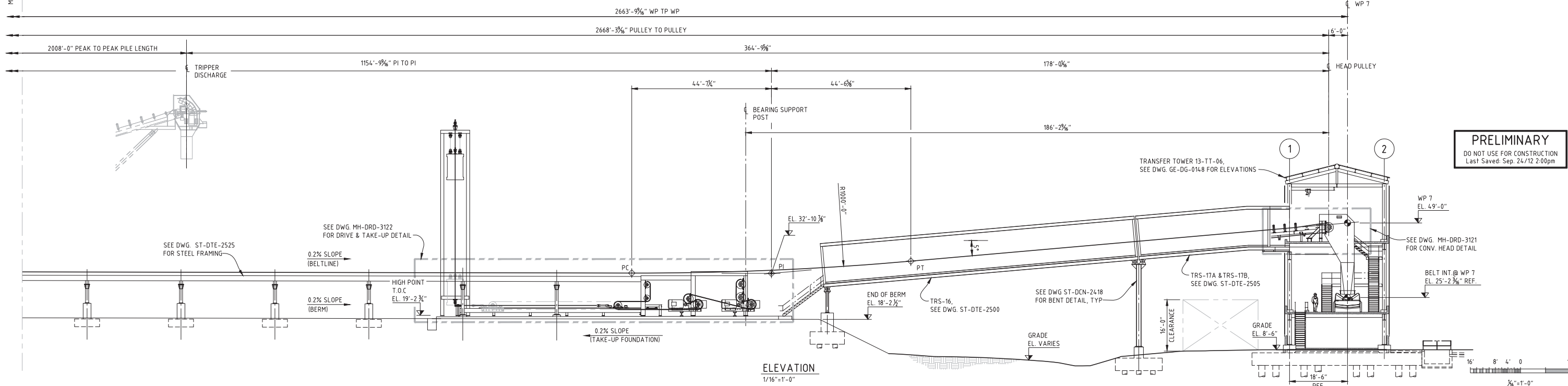
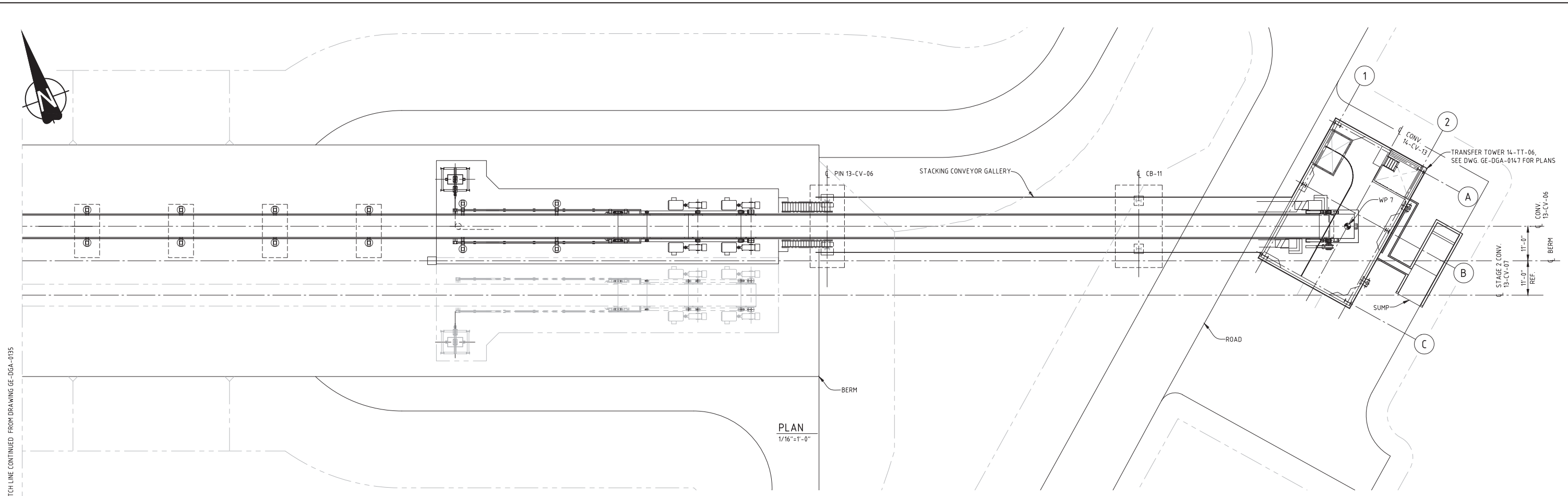
<b>MILLENNIUM BULK TERMINALS-LONGVIEW, WA</b> <b>MATERIALS HANDLING FACILITY</b> <b>STACKING CONVEYOR 13-CV-06</b> <b>PLAN &amp; ELEVATION SHEET - 1</b>	
DRG No	80563-13-GE-DGA-0135
REV	A

LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2011\80563\_MBT\_DETAIL\_ENG\11\_DRAWINGS\05\_HANDLING\80563-13-GE-DGA-0135-0135-0135-DWG

USER NAME: Faras balyuk

PLOT DATE & TIME: 24/09/2012 3:34:16 PM  
SAVE DATE & TIME: 24/09/2012 2:00:45 PM





**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 2:00pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN
WORLEYPARSONS PROJECT No		
80563		

ENGINEERING AND PERMIT STAMPS (As Required)

CUSTOMER

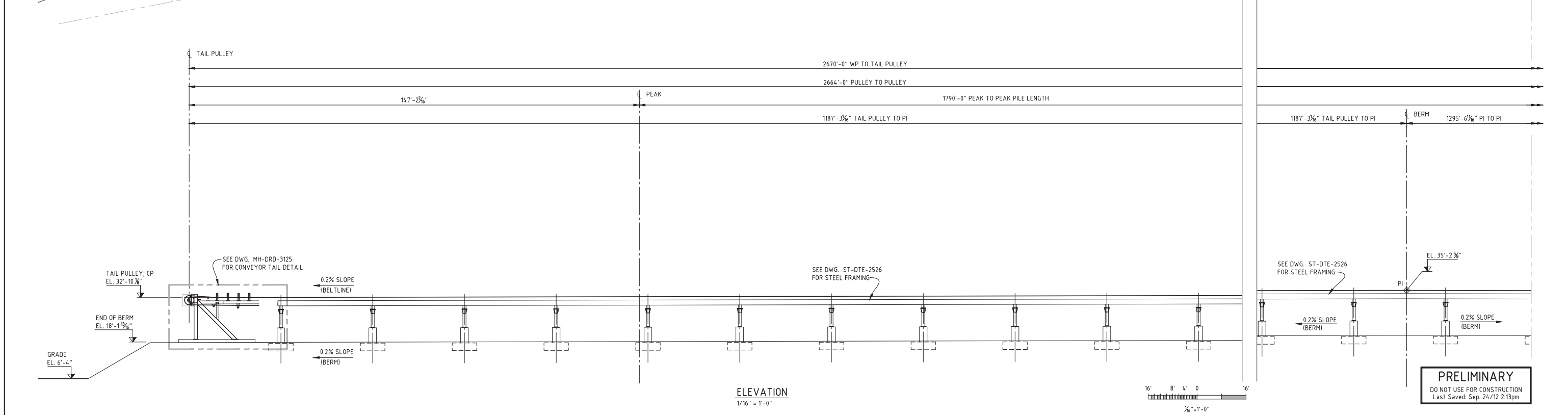
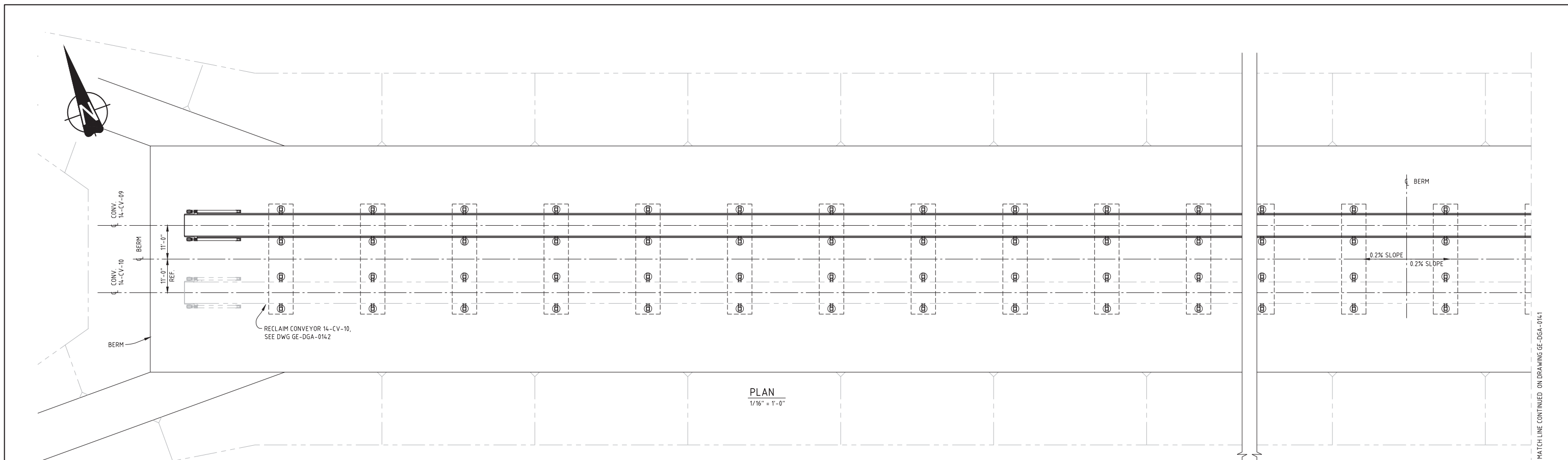
**WorleyParsons**  
resources in energy

MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
STACKING CONVEYOR 13-CV-06  
PLAN AND ELEVATION SHEET - 2

DRG No 80563-13-GE-DGA-0136

REV A

LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2011\80563\_MBT\_DETAIL\_ENG\11\_DRAWINGS\05\_MEEF\03\_MATL\_HANDLING\80563-13-GE-DGA-0136-0135-0135-0135-DWG  
 USER NAME: Faras balyuk  
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 SAVE DATE & TIME: 24/09/2012 2:00:45 PM

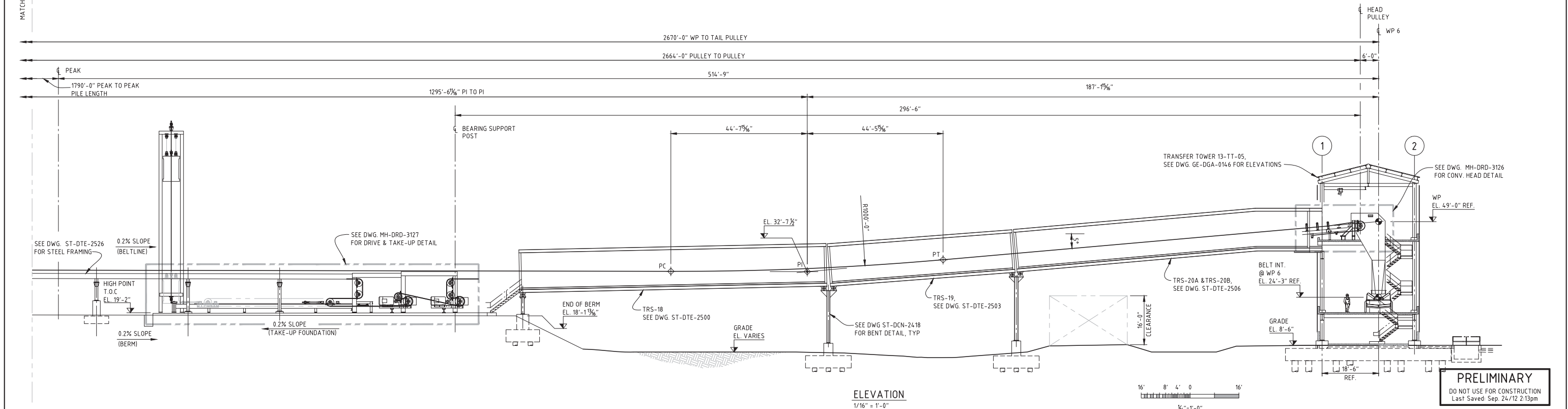
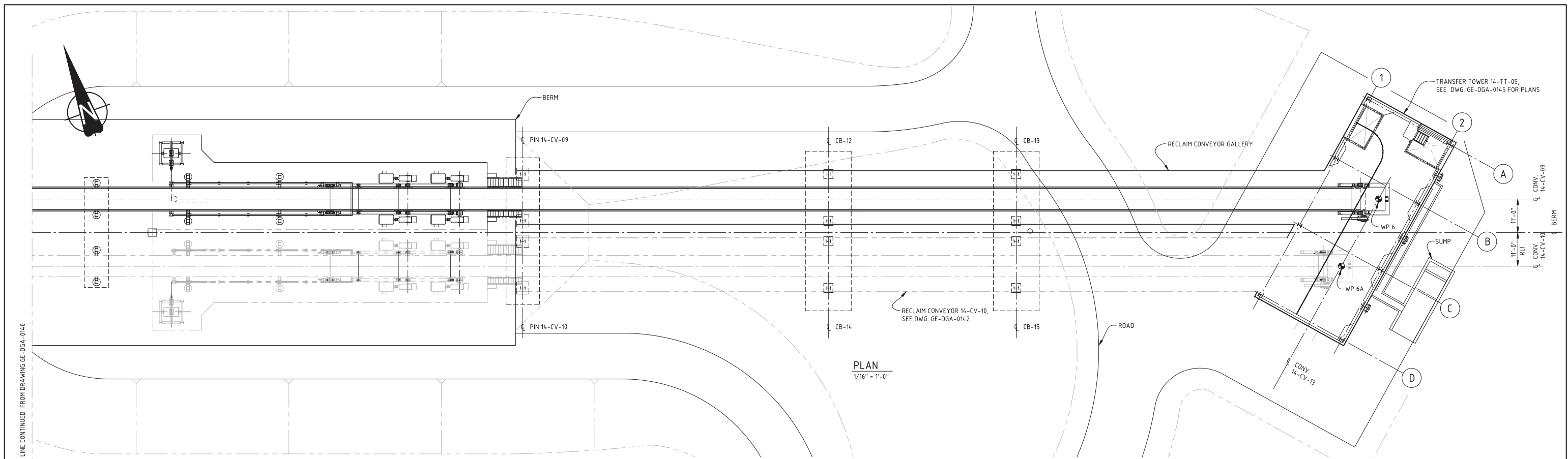


**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 2:13pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)	CUSTOMER
			<b>Oneway</b>	<b>millennium</b> BULK TERMINALS LONGVIEW, LLC
			WORLEYPARSONS PROJECT No <b>80563</b>	<b>WorleyParsons</b> resources & energy MILLENNIUM BULK TERMINALS-LONGVIEW, WA MATERIALS HANDLING FACILITY RECLAIM CONVEYOR 14-CV-09 PLAN & ELEVATION SHEET - 1
				DRG No <b>80563-14-GE-DGA-0140</b> REV <b>A</b>

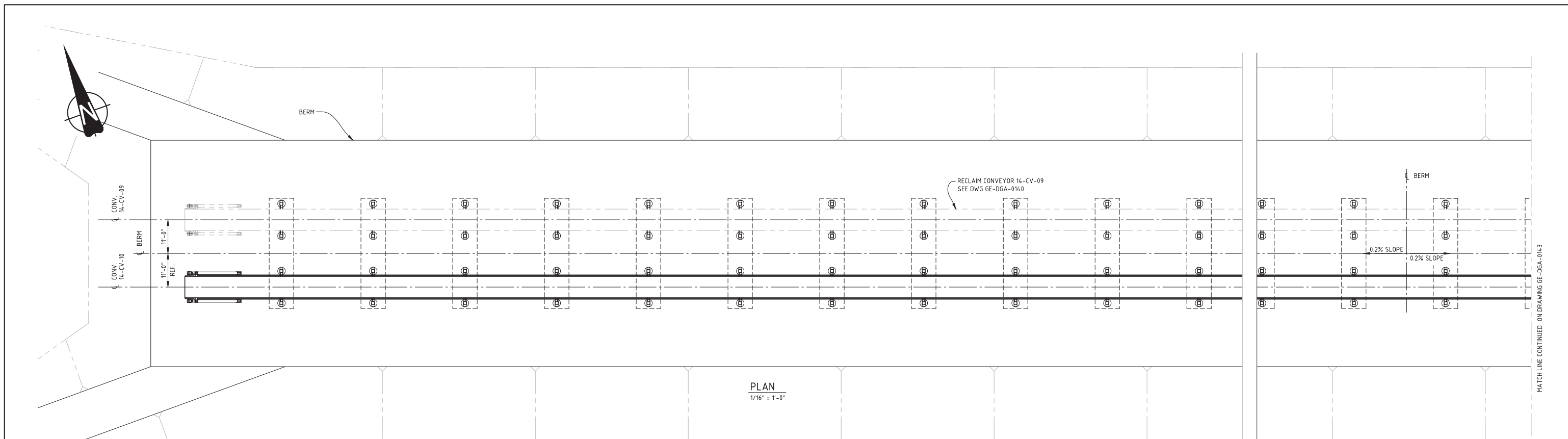
LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2011\80563\_MBTL\_DETAIL\_ENG\1\_DRAWINGS\05\_MEF\03\_MATL\_HANDLING\80563-14-GE-DGA-0140-14-0142-0143.DWG  
 USER NAME: Faras balyuk  
 PLOT DATE & TIME: 24/9/2012 3:38:36 PM  
 SAVE DATE & TIME: 24/9/2012 2:13:10 PM



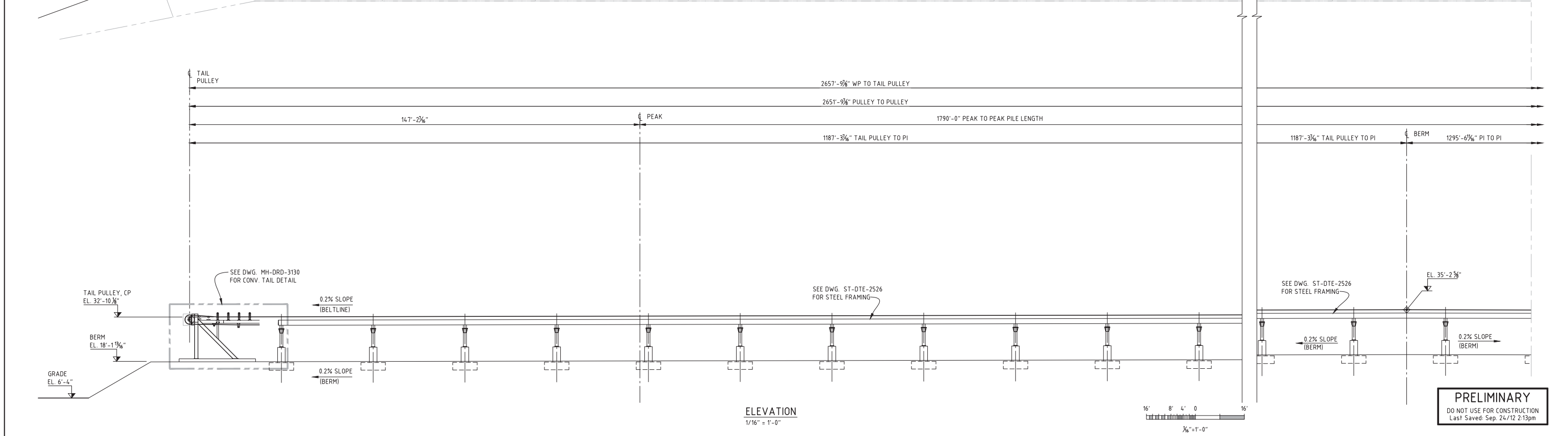
										D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)			CUSTOMER	
										WORLEYPARSONS PROJECT No							
										80563					MILLENNIUM BULK TERMINALS-LONGVIEW, WA MATERIALS HANDLING FACILITY RECLAIM CONVEYOR 14-CV-09 PLAN & ELEVATION SHEET - 2		
REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT	CHK	DESIGNED	ENG	CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE		DRG No	80563-14-GE-DGA-0141	REV	A
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-	-	-							

USER NAME: Faras baivuk  
 PLOT DATE & TIME: 24/09/2012 3:39:00 PM  
 SAVE DATE & TIME: 24/09/2012 2:13:10 PM  
 LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2011\80563-14-MBT\_DETAIL\_ENG\11\_DRAWINGS\05\_MEEF\03\_MATL\_HANDLING\80563-14-GE-DGA-0140-14-012-014.DWG

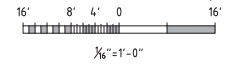
**PRELIMINARY**  
 DO NOT USE FOR CONSTRUCTION  
 Last Saved: Sep. 24/12 2:13pm



PLAN  
1/16" = 1'-0"



ELEVATION  
1/16" = 1'-0"



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 2:13pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

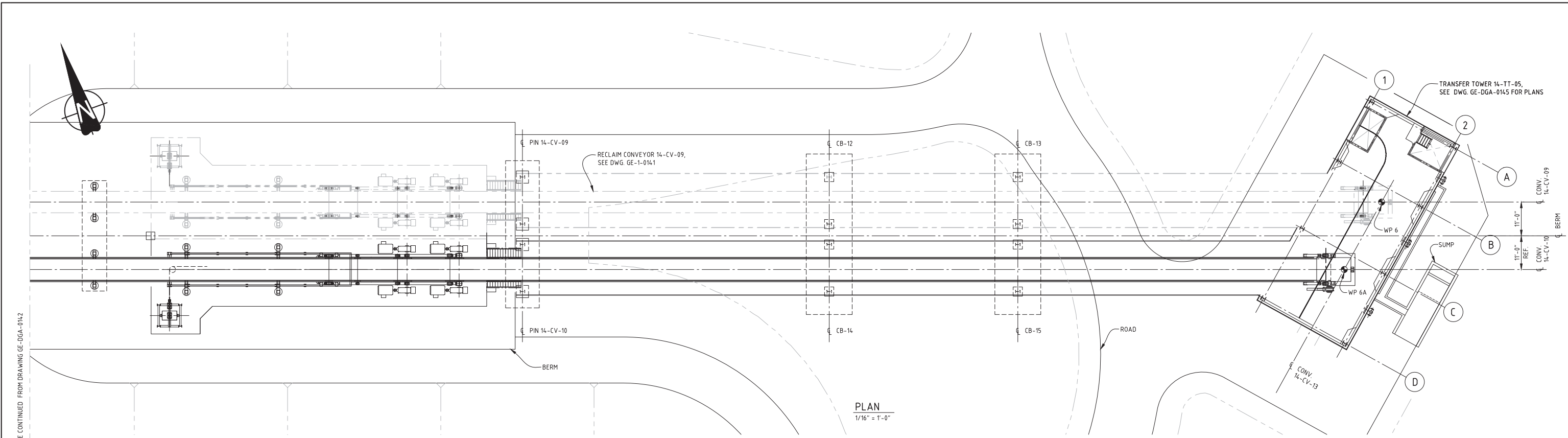
D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)
WORLEYPARSONS PROJECT No <b>80563</b>			

CUSTOMER

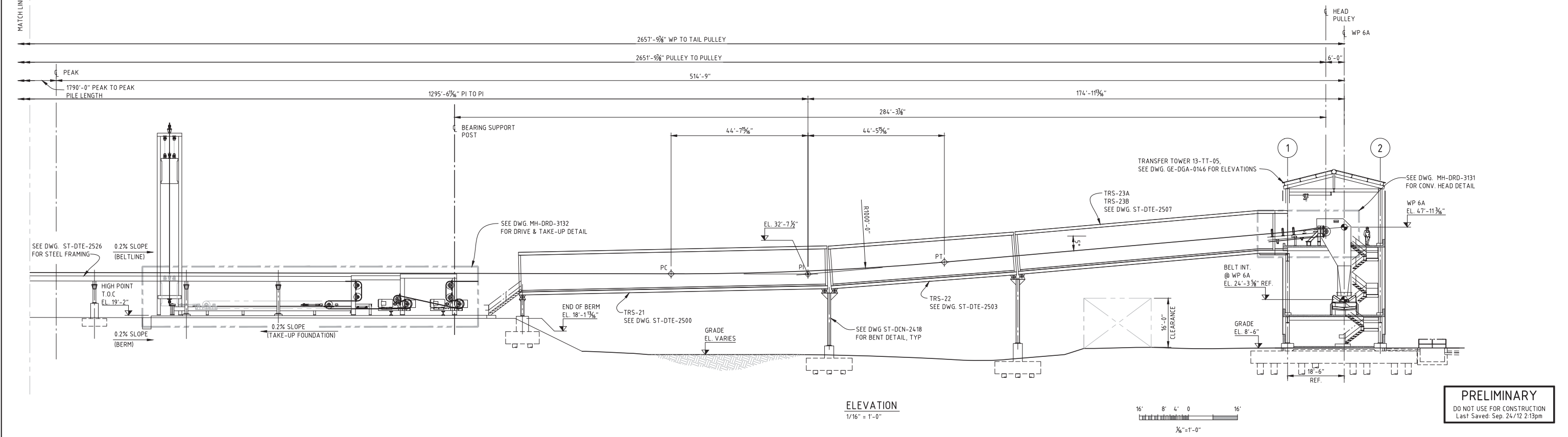
MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
 MATERIALS HANDLING FACILITY  
 RECLAIM CONVEYOR 14-CV-10  
 PLAN & ELEVATION SHEET - 1

DRG No: **80563-14-GE-DGA-0142**

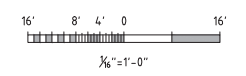
LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2011\80563\_MBT\DETAIL\_ENG\11\_DRAWINGS\05\_MEEF\03\_MATL\_HANDLING\80563-14-GE-DGA-0140-14-1-0142-0143.DWG  
 USER NAME: Faras ba/iyuk  
 PLOT DATE & TIME: 24/9/2012 3:39:18 PM  
 SAVE DATE & TIME: 24/9/2012 2:13:10 PM



PLAN  
1/16" = 1'-0"



ELEVATION  
1/16" = 1'-0"

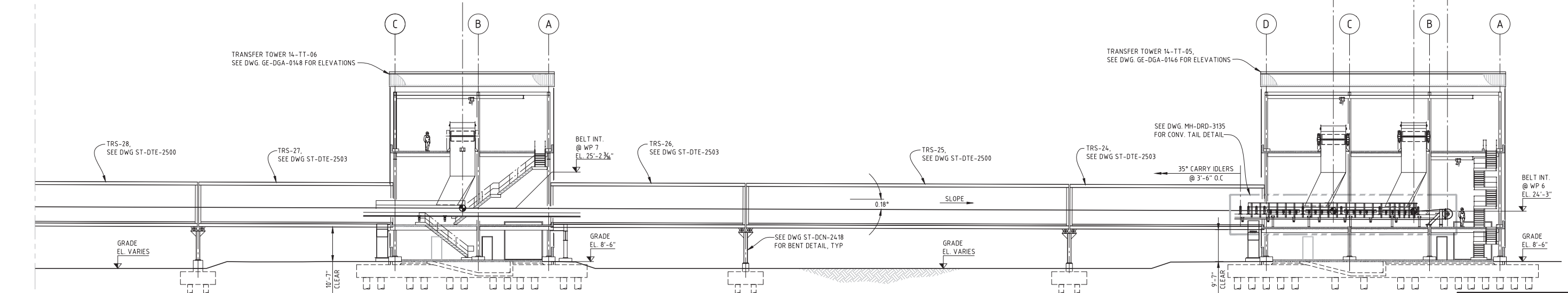
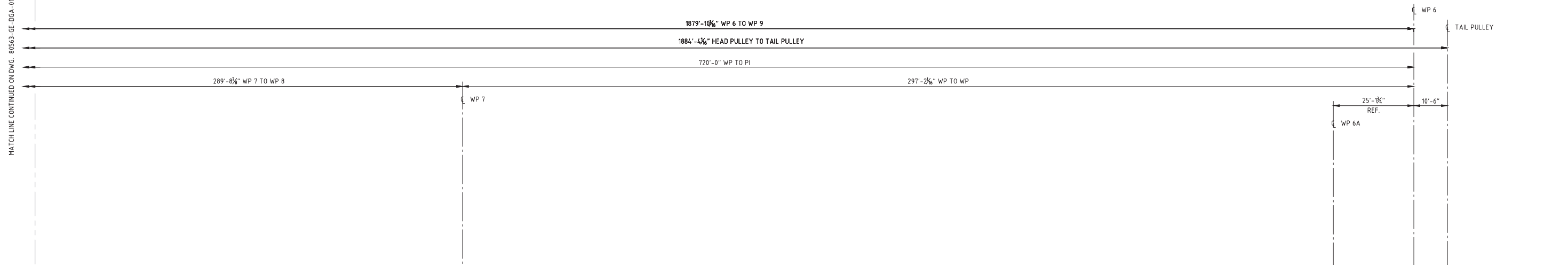
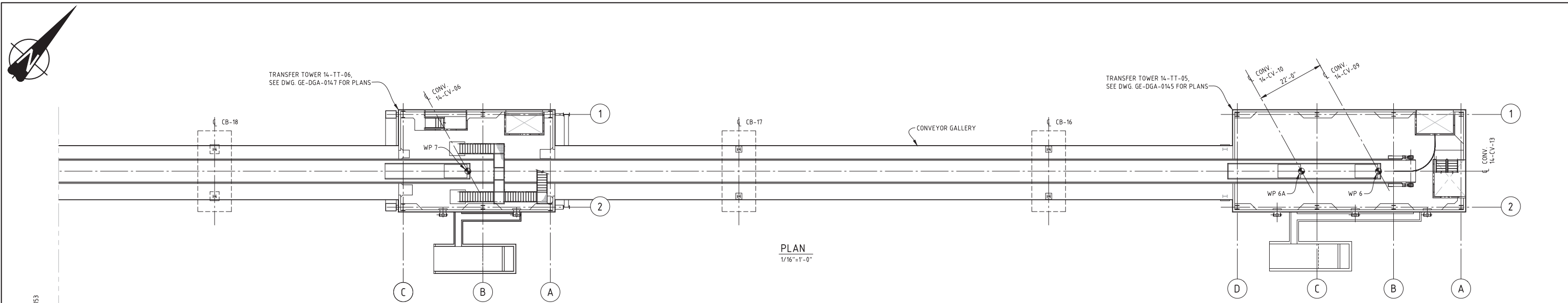


**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 2:13pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)	CUSTOMER
			<b>Oneway</b>	<b>millennium</b> BULK TERMINALS LONGVIEW, LLC
WORLEYPARSONS PROJECT No			MILLENNIUM BULK TERMINALS-LONGVIEW, WA MATERIALS HANDLING FACILITY RECLAIM CONVEYOR 14-CV-10 PLAN & ELEVATION SHEET - 2	
80563			DRG No	80563-14-GE-DGA-0143
			REV	A

LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2011\80563-14-GE-DGA-0143-GE-DGA-0143-14-0142-0143.DWG  
 USER NAME: Faras baivuk  
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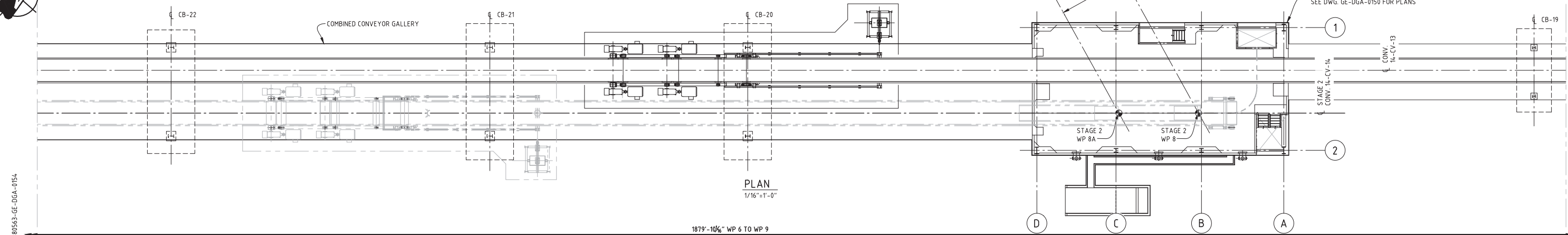


**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 2:30pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-	-	-

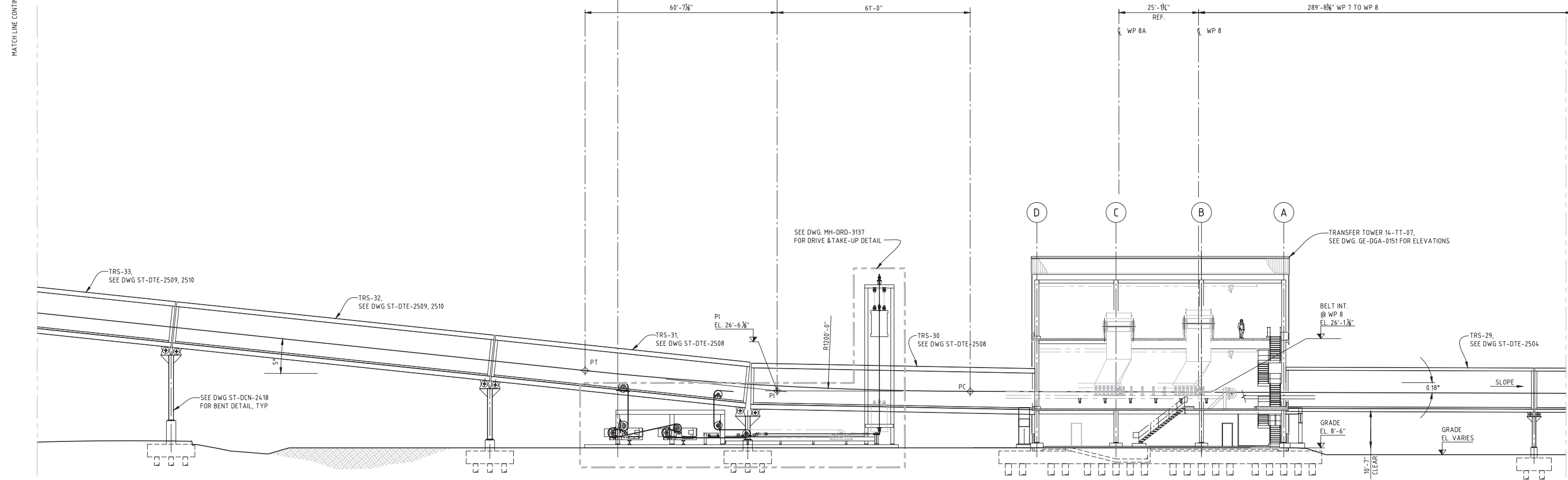
D SHEET SCALE SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)	CUSTOMER
<b>Oneway</b>		<b>BULK TERMINALS millennium LONGVIEW, LLC</b>
WORLEYPARSONS PROJECT No		<b>WorleyParsons resources in energy</b>
80563		MILLENNIUM BULK TERMINALS-LONGVIEW, WA MATERIALS HANDLING FACILITY SHIPPING CONVEYOR 14-CV-13 PLAN AND ELEVATION SHEET - 1
		DRG No 80563-14-GE-DGA-0152
		REV A

USER NAME: Faras balyuk  
 LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2011\80563\_MBT\DETAIL\_ENG\11\_DRAWINGS\05\_MEF\03\_MAT\_HANDLING\80563-14-GE-DGA-0152-0153-0154-0155.DWG  
 PLOT DATE & TIME: 24/9/2012 3:43:40 PM  
 SAVE DATE & TIME: 24/9/2012 2:30:48 PM



1879'-10 1/8" WP 6 TO WP 9  
1884'-4 1/8" HEAD PULLEY TO TAIL PULLEY

1103'-6" HEAD PULLEY TO BEARING SUPPORT POST  
720'-0" WP TO PI  
25'-0 1/4" REF.  
289'-8 3/8" WP 7 TO WP 8



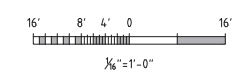
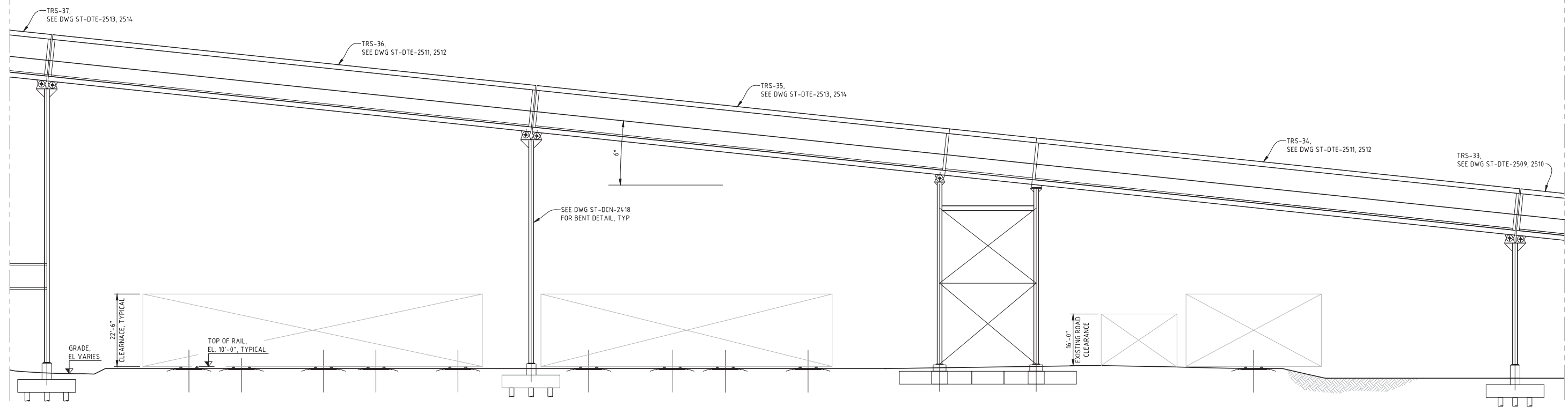
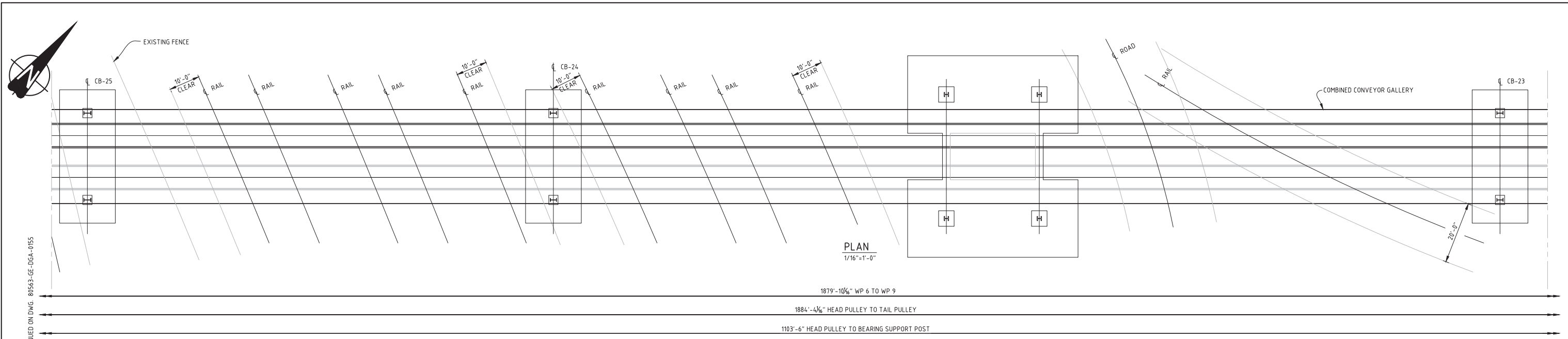
REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)	CUSTOMER
WORLEYPARSONS PROJECT No				
80563			MILLENNIUM BULK TERMINALS-LONGVIEW, WA MATERIALS HANDLING FACILITY SHIPPING CONVEYOR 14-CV-13 PLAN AND ELEVATION SHEET - 2	
DRG No			80563-14-GE-DGA-0153	
REV			A	

MATCH LINE CONTINUED ON DWG. 80563-GE-DGA-0154

MATCH LINE CONTINUED FROM DWG. 80563-GE-DGA-0152

LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2011\80563\_MBT\_DETAIL\_ENG\11\_DRAWINGS\05\_MEF\03\_MATL\_HANDLING\80563-14-GE-DGA-0152-0153-0154-0155.DWG  
USER NAME: Faras balyuk  
PLOT DATE & TIME: 24/9/2012 3:43:51 PM  
SAVE DATE & TIME: 24/9/2012 2:30:48 PM



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 2:30pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)
WORLEYPARSONS PROJECT No <b>80563</b>			

CUSTOMER

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**WorleyParsons**  
resources in energy

MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
SHIPPING CONVEYOR 14-CV-13  
PLAN AND ELEVATION SHEET - 3

DRG No  
**80563-14-GE-DGA-0154**

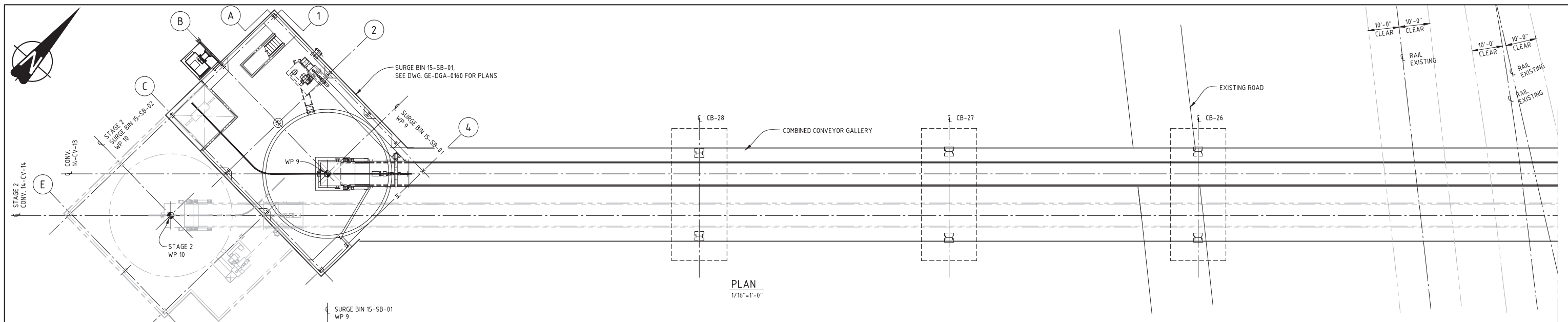
REV  
**A**

MATCH LINE CONTINUED ON DWG. 80563-GE-DGA-0155

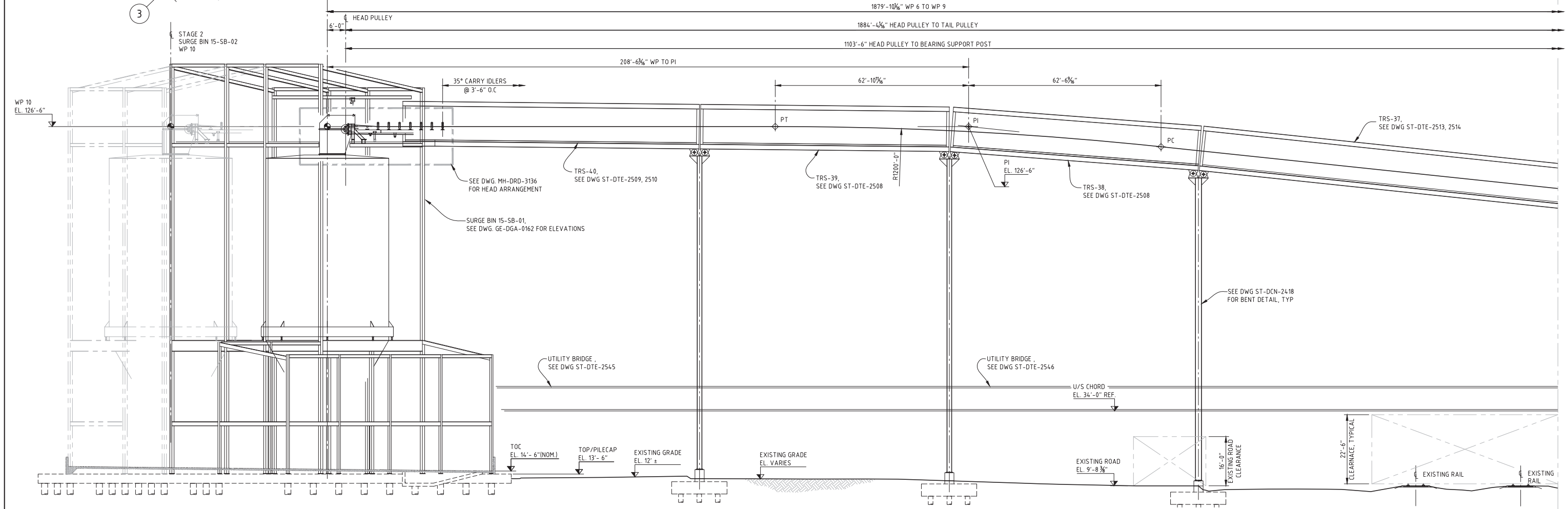
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LOCATION: \\WORLEYPARSONS.COM\CAD\DATA\VRK\2011\80563\_MBTL\_DETAIL\_ENG\11\_DRAWINGS\05\_MEEF\03\_MATL\_HANDLING\80563-14-GE-DGA-0152-0153-0154-0155.DWG  
USER NAME: Faras balyuk  
PLOT DATE & TIME: 24/9/2012 3:44:13 PM  
SAVE DATE & TIME: 24/9/2012 2:30:48 PM





PLAN  
1/16"=1'-0"



CONV. 14-CV-14 NOT SHOWN  
ELEVATION  
1/16"=1'-0"

**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 2:30pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)
WORLEYPARSONS PROJECT No <b>80563</b>			

CUSTOMER

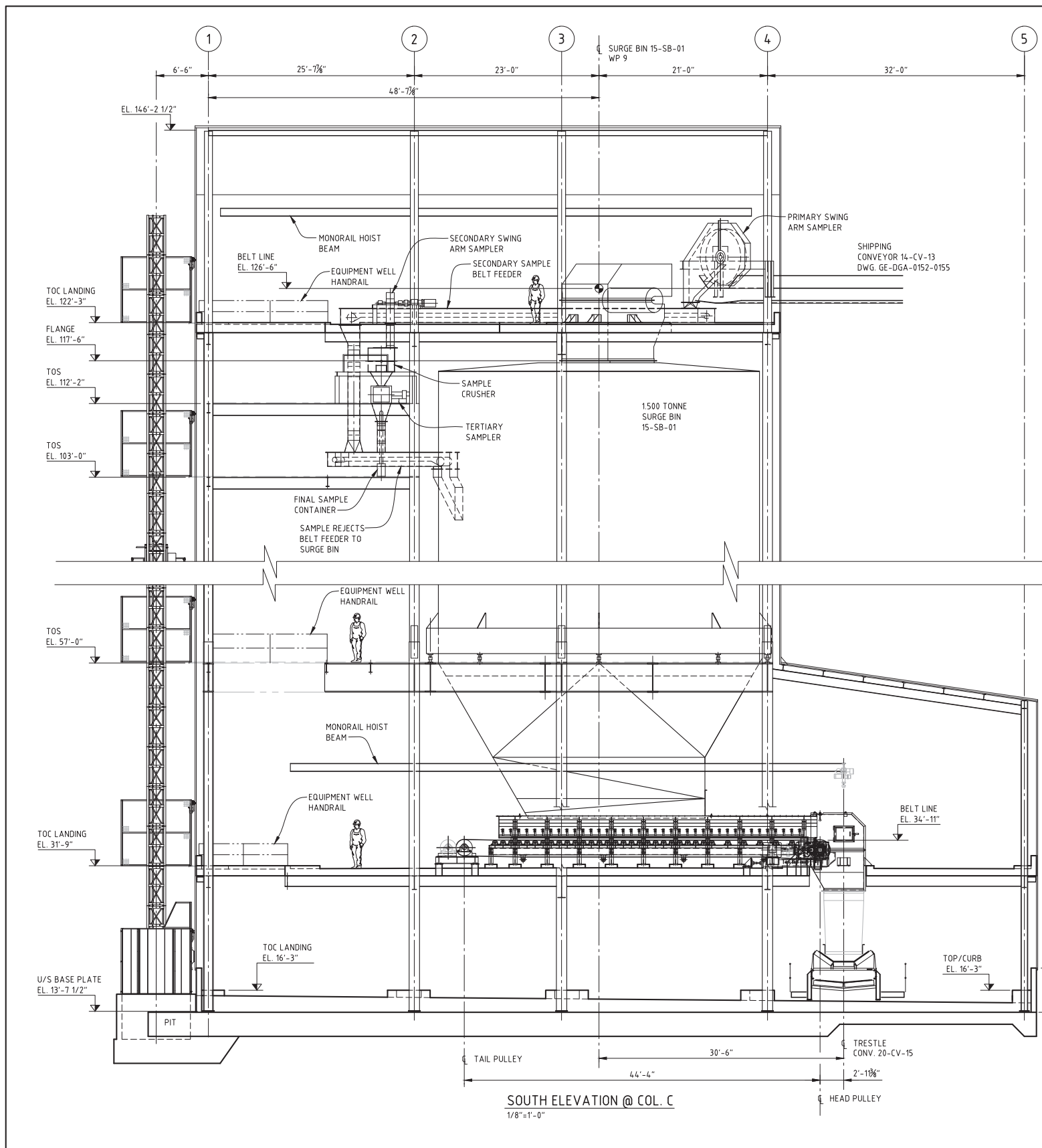
"This drawing is prepared for the use of the contractual customer of WorleyParsons Westman Corporation and WorleyParsons Westman Corporation assumes no liability to any other party for any representations contained in this drawing."

**WorleyParsons**  
resources in energy

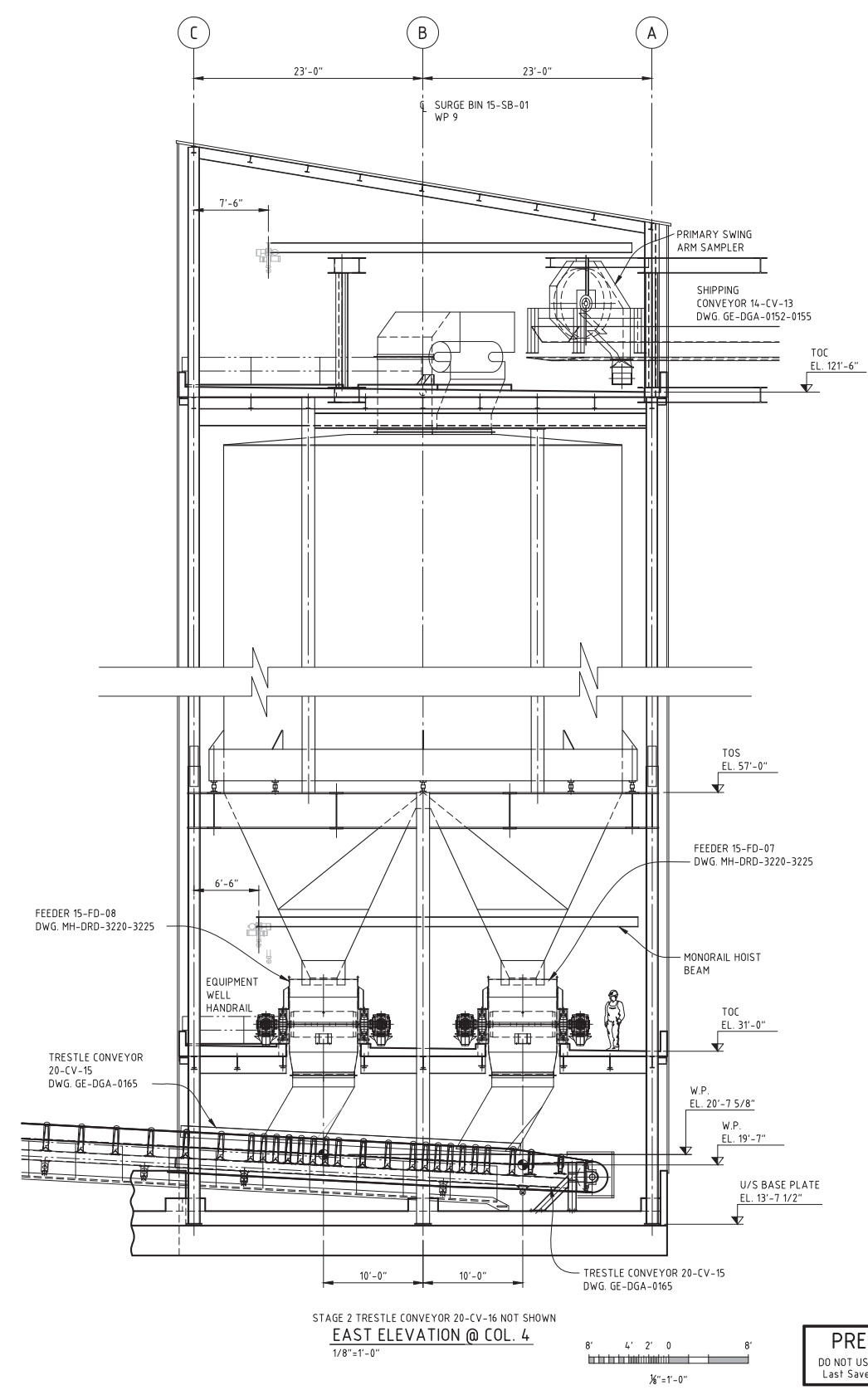
MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
SHIPPING CONVEYOR 14-CV-13  
PLAN AND ELEVATION SHEET - 4

DRG No **80563-14-GE-DGA-0155** REV **A**

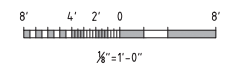
LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2011\80563\_MBTL\_DETAIL\_ENG\11\_DRAWINGS\05\_MEEF\03\_MATL\_HANDLING\80563-14-GE-DGA-0152-0153-0154-0155.DWG  
 USER NAME: Faras ba/yuk  
 PLOT DATE & TIME: 24/9/2012 3:44:29 PM  
 SAVE DATE & TIME: 24/9/2012 2:30:48 PM



SOUTH ELEVATION @ COL. C  
1/8"=1'-0"



STAGE 2 TRESTLE CONVEYOR 20-CV-16 NOT SHOWN  
EAST ELEVATION @ COL. 4  
1/8"=1'-0"



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 19/12 8:48am

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	MW	-	-	-	-	-		

D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)
WORLEYPARSONS PROJECT No			
80563			

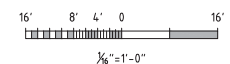
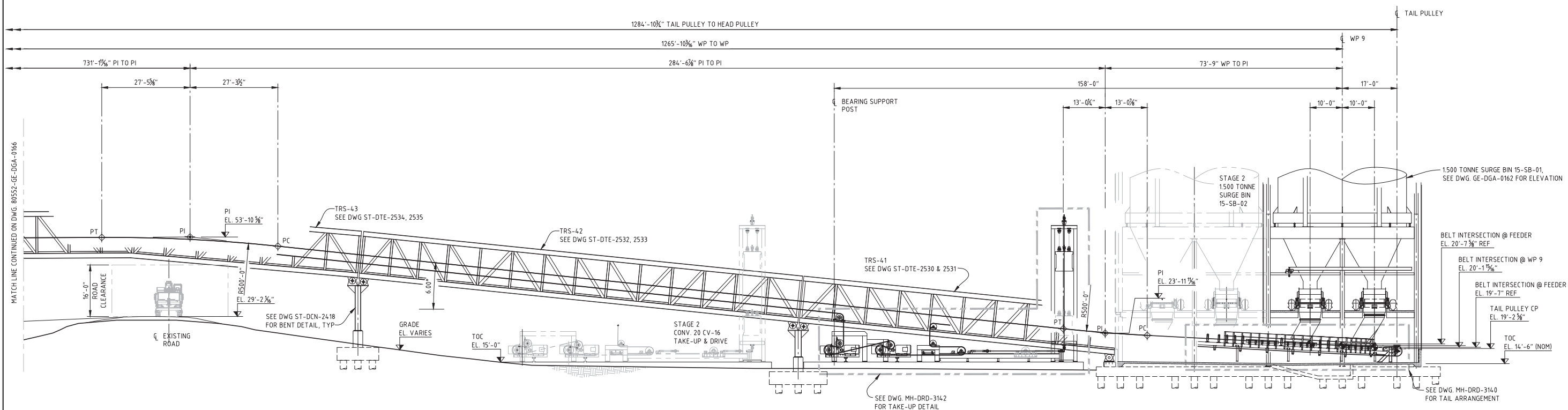
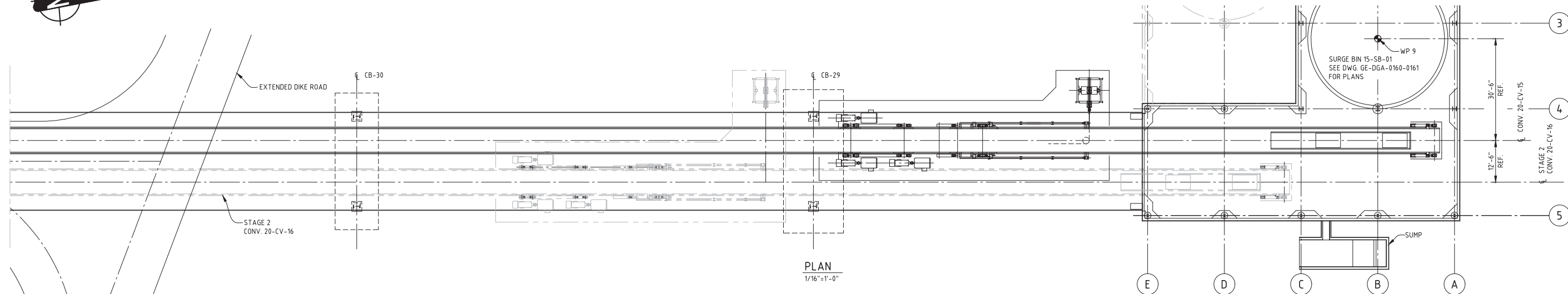
CUSTOMER

"This drawing is prepared solely for the use of the contractual customer of WorleyParsons Westmar Corporation and WorleyParsons Westmar Corporation assumes no liability to any other party for any representations contained in this drawing."

MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
SURGE BIN 15-SB-01  
SOUTH AND EAST ELEVATIONS

DRG No 80563-15-GE-DGA-0162 REV A

LOCATION: U:\WORK\2011\80563\_HBTL\_DETAL\_ENG11\_DRAWINGS\05\_MECH\03\_MATL\_HANDLING\80563-15-GE-DGA-0160-0161-0162.DWG  
 USER NAME: mark.witgen  
 PLOT DATE & TIME: 24/9/2012 8:31:22 AM  
 SAVE DATE & TIME: 19/9/2012 8:45:01 AM



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 3:13pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN
WORLEYPARSONS PROJECT No		
80563		

ENGINEERING AND PERMIT STAMPS (As Required)

CUSTOMER

**millennium**  
LONGVIEW, LLC

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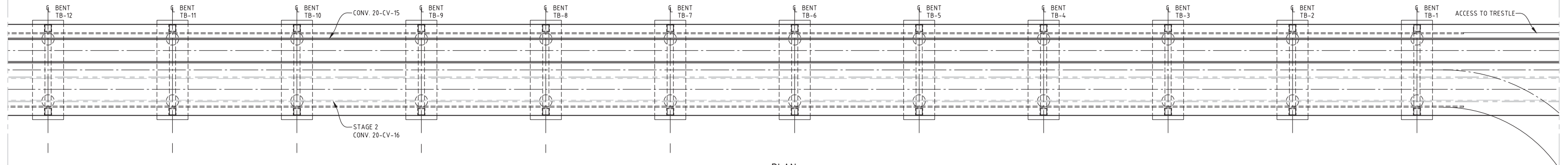
**WorleyParsons**  
resources in energy

MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
TRESTLE CONVEYOR 20-CV-15  
PLAN AND ELEVATION SHEET - 1

DRG No 80563-20-GE-DGA-0165

REV A

LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2011\80563\_MBT\DETAIL\_ENG\11\_DRAWINGS\05\_MEF\03\_MATL\_HANDLING\80563-20-GE-DGA-0165-0166-0167.DWG  
USER NAME: Faras balyuk  
PLOT DATE & TIME: 24/9/2012 3:45:28 PM  
SAVE DATE & TIME: 24/9/2012 3:13:51 PM

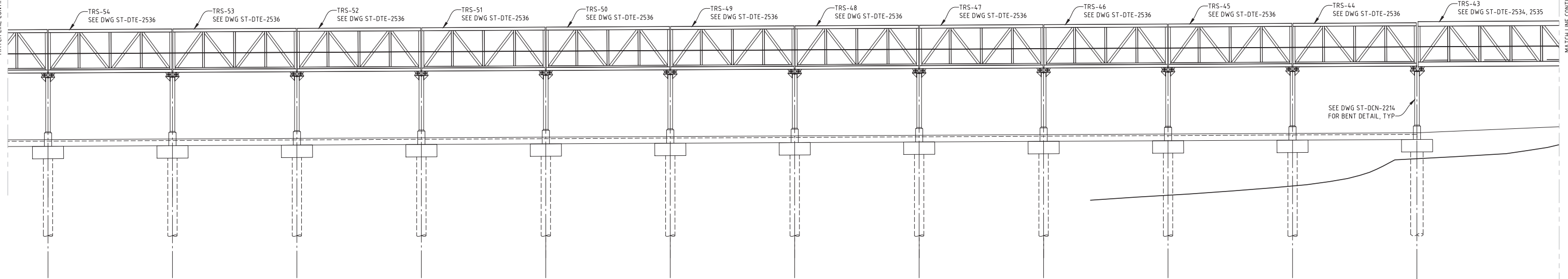


PLAN  
1/16"=1'-0"

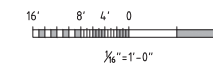
1284'-10 3/4" TAIL PULLEY TO HEAD PULLEY

1265'-10 3/4" WP TO WP

731'-1 1/4" PI TO PI



ELEVATION  
1/16"=1'-0"



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 3:13pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN
WORLEYPARSONS PROJECT No		
80563		

ENGINEERING AND PERMIT STAMPS (As Required)

CUSTOMER

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**WorleyParsons**  
resources & energy

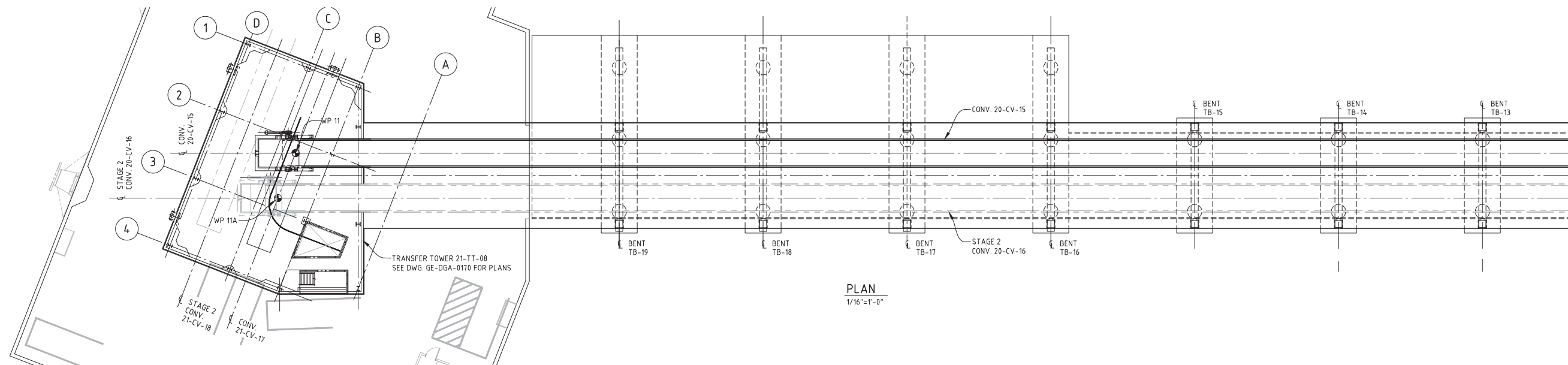
MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
TRESTLE CONVEYOR 20-CV-15  
PLAN AND ELEVATION SHEET - 2

DRG No 80563-20-GE-DGA-0166 REV A

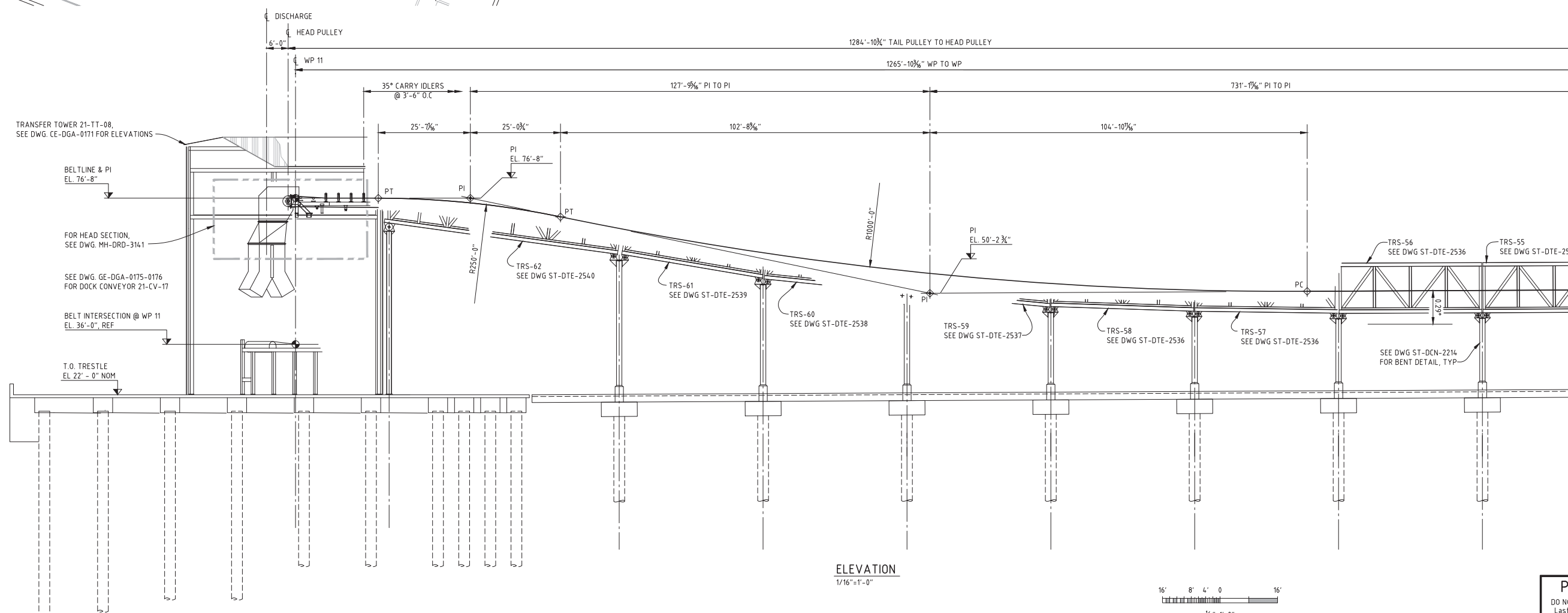
MATCH LINE CONTINUED ON DWG. 80552-GE-DGA-0167

MATCH LINE CONTINUED ON DWG. 80552-GE-DGA-0165

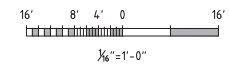
LOCATION: \\WORLEYPARSONS.COM\DATA\NRK\2010\80563\_MBT\_DETAIL\_ENG\11\_DRAWINGS\05\_MEEF\03\_MAT\_HANDLING\80563-20-GE-DGA-0165-0166-0167.DWG  
USER NAME: Faras balyuk  
PLOT DATE & TIME: 24/9/2012 3:46:02 PM  
SAVE DATE & TIME: 24/9/2012 3:13:51 PM



PLAN  
1/16"=1'-0"



ELEVATION  
1/16"=1'-0"



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 3:13pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN
WORLEYPARSONS PROJECT No		
80563		

ENGINEERING AND PERMIT STAMPS (As Required)

CUSTOMER

\*This drawing is prepared for the use of the contractual customer of WorleyParsons Westmar Corporation and WorleyParsons Westmar Corporation assumes no liability to any other party for any representations contained in this drawing.\*

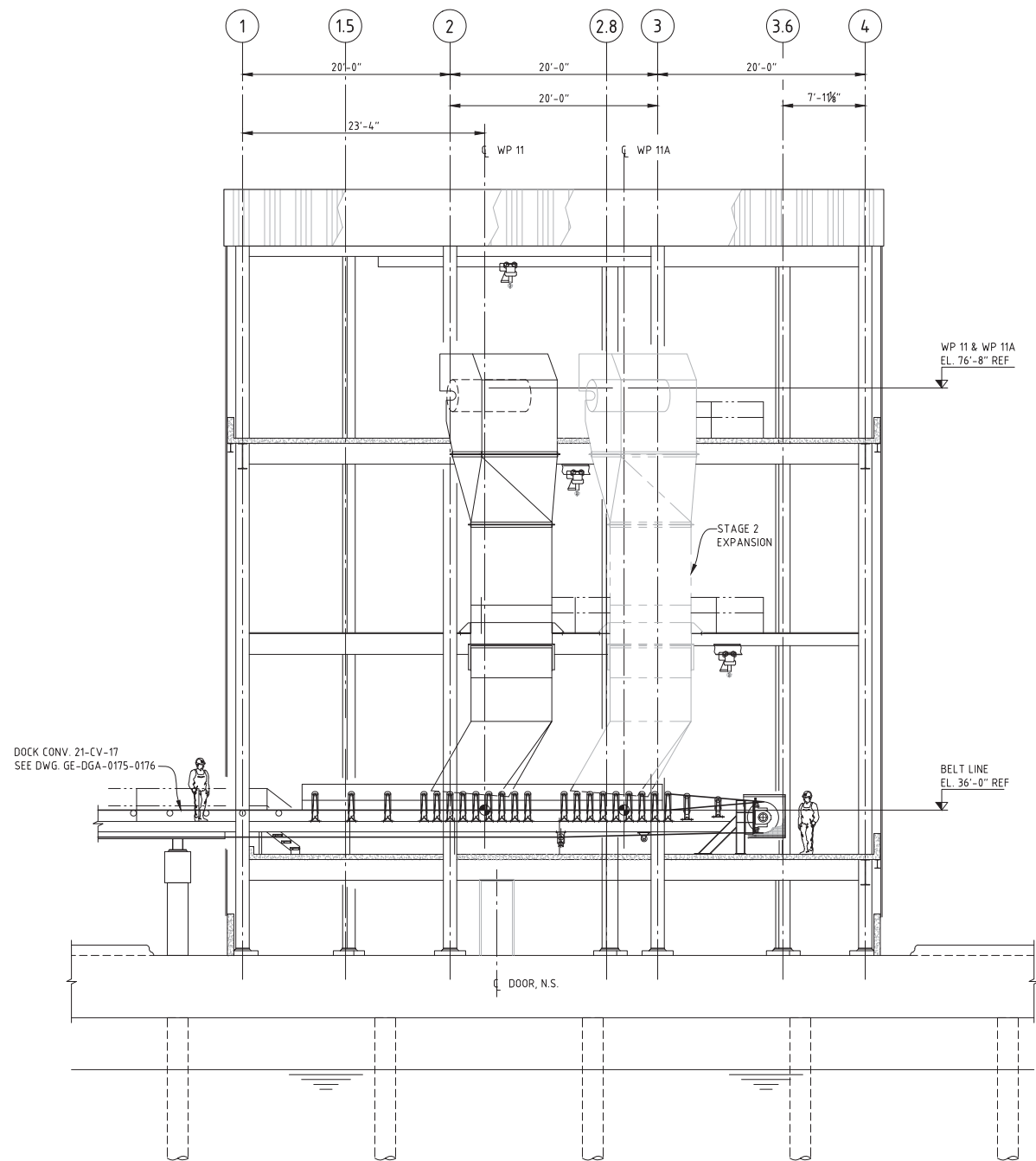
**WorleyParsons**  
resources in energy

MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
TRESTLE CONVEYOR 20-CV-15  
PLAN AND ELEVATION SHEET - 3

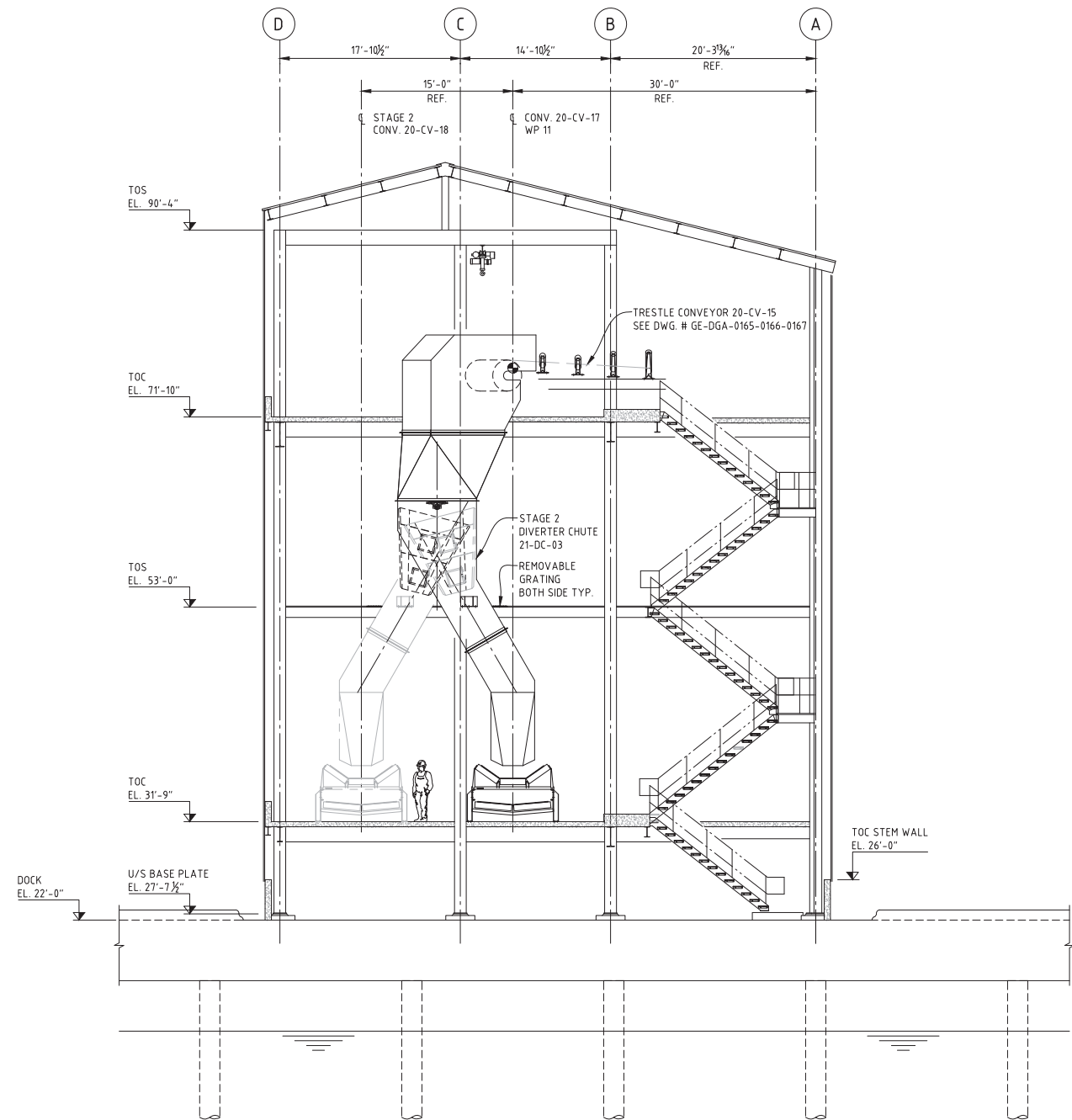
DRG No 80563-20-GE-DGA-0167

REV A

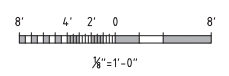
USER NAME: Faras balyuk  
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**SOUTH ELEVATION**  
1/8"=1'-0"



**EAST ELEVATION**  
1/8"=1'-0"



**PRELIMINARY**  
DO NOT USE FOR CONSTRUCTION  
Last Saved: Sep. 24/12 3:15pm

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
A	28-SEP-12	ISSUED FOR 60% DESIGN COMPLETION	TB	-	-	-	-	-		

D SHEET	SCALE	SHOWN
WORLEYPARSONS PROJECT No		
80563		

ENGINEERING AND PERMIT STAMPS (As Required)

CUSTOMER

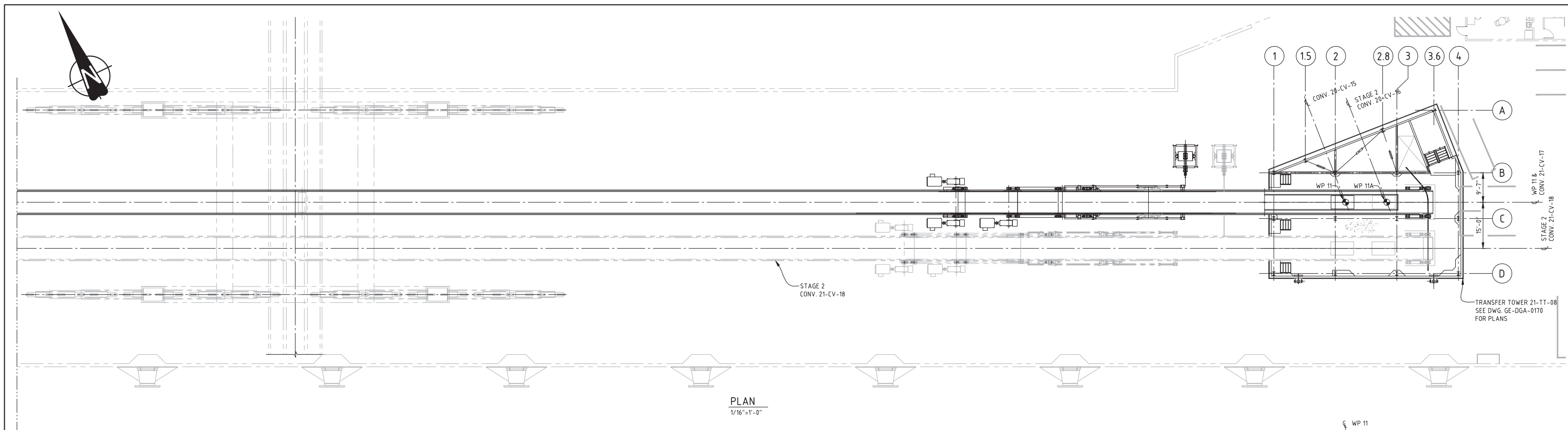
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MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
TRANSFER TOWER 21-TT-08  
ELEVATIONS

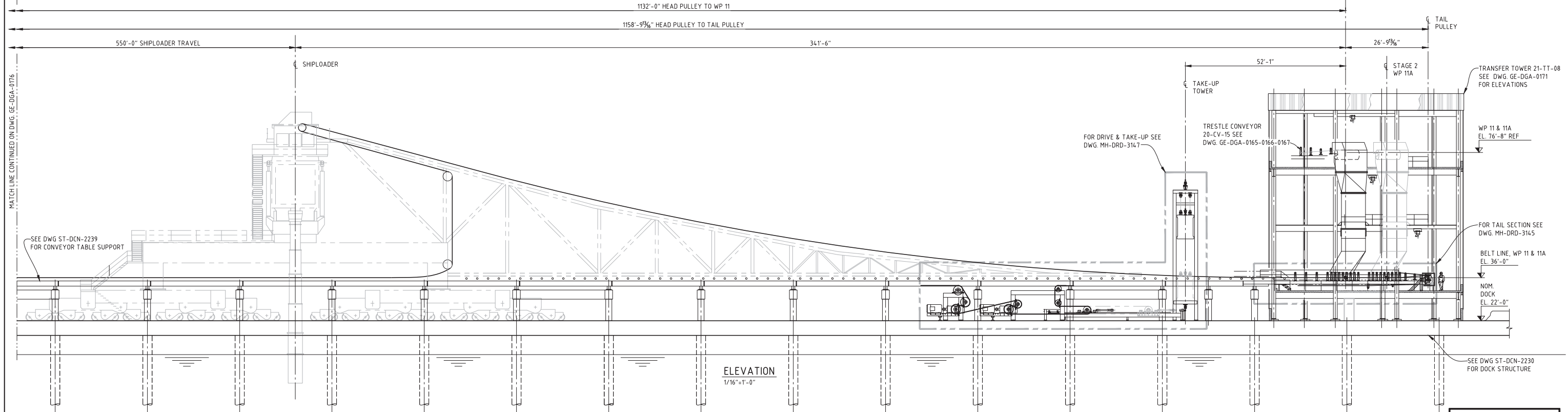
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PLAN  
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ELEVATION  
1/16"=1'-0"

**PRELIMINARY**  
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Last Saved: Sep. 25/12 11:12am

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D SHEET SCALE SHOWN

**Oneway**

ENGINEERING AND PERMIT STAMPS (As Required)

WORLEYPARSONS PROJECT No  
**80563**

CUSTOMER

**millennium**  
BULK TERMINALS  
LONGVIEW, LLC

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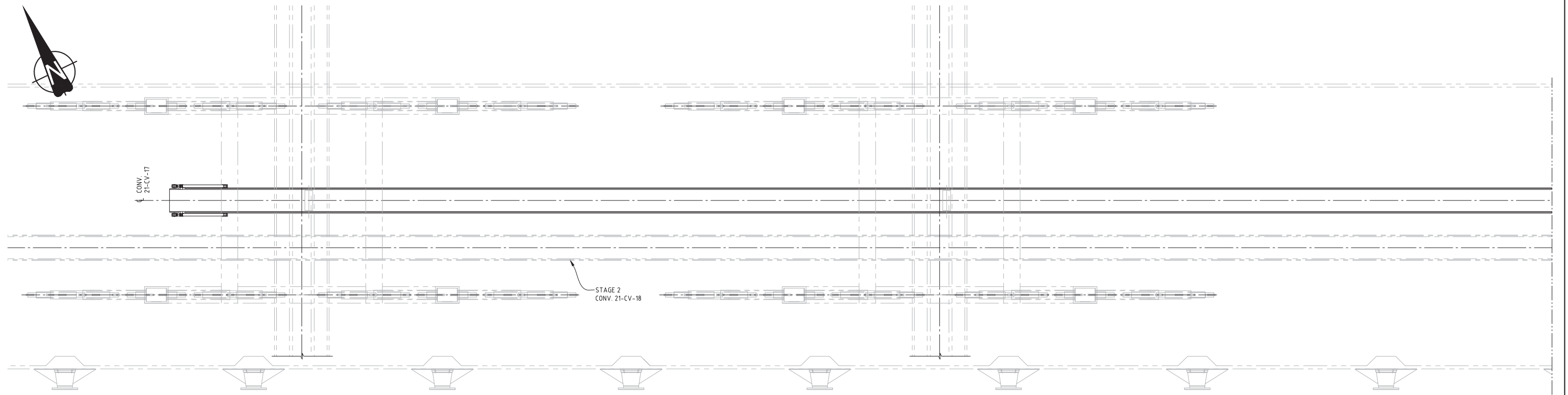
**WorleyParsons**  
resources in energy

MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
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PLAN AND ELEVATION SHEET - 1

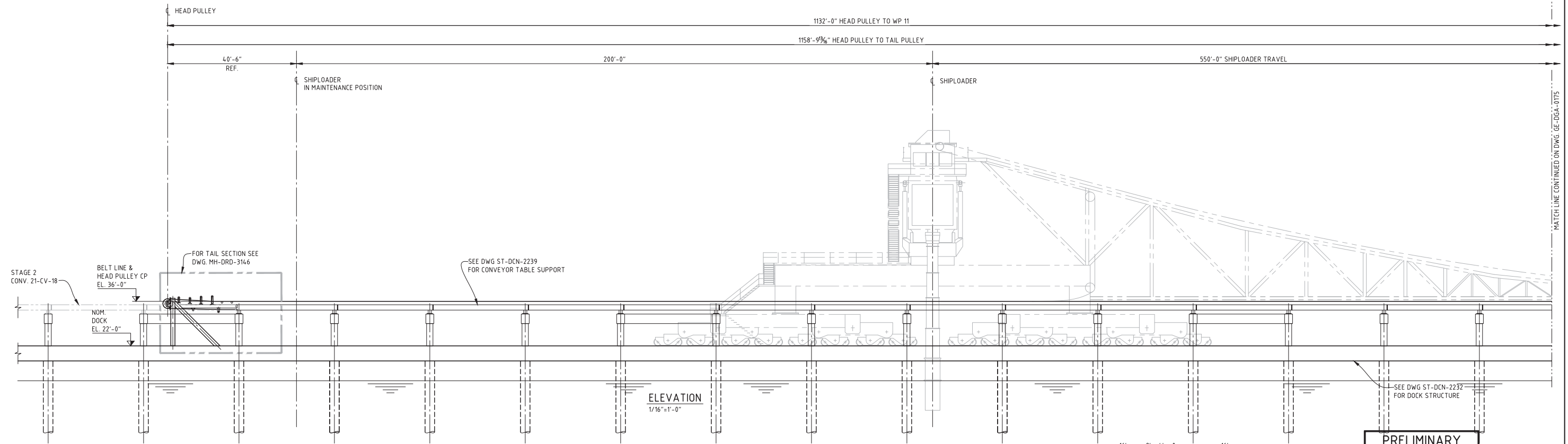
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PLAN  
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ELEVATION  
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**PRELIMINARY**  
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Last Saved: Sep. 25/12 11:12am

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D SHEET	SCALE	SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)
WORLEYPARSONS PROJECT No			
80563			

CUSTOMER

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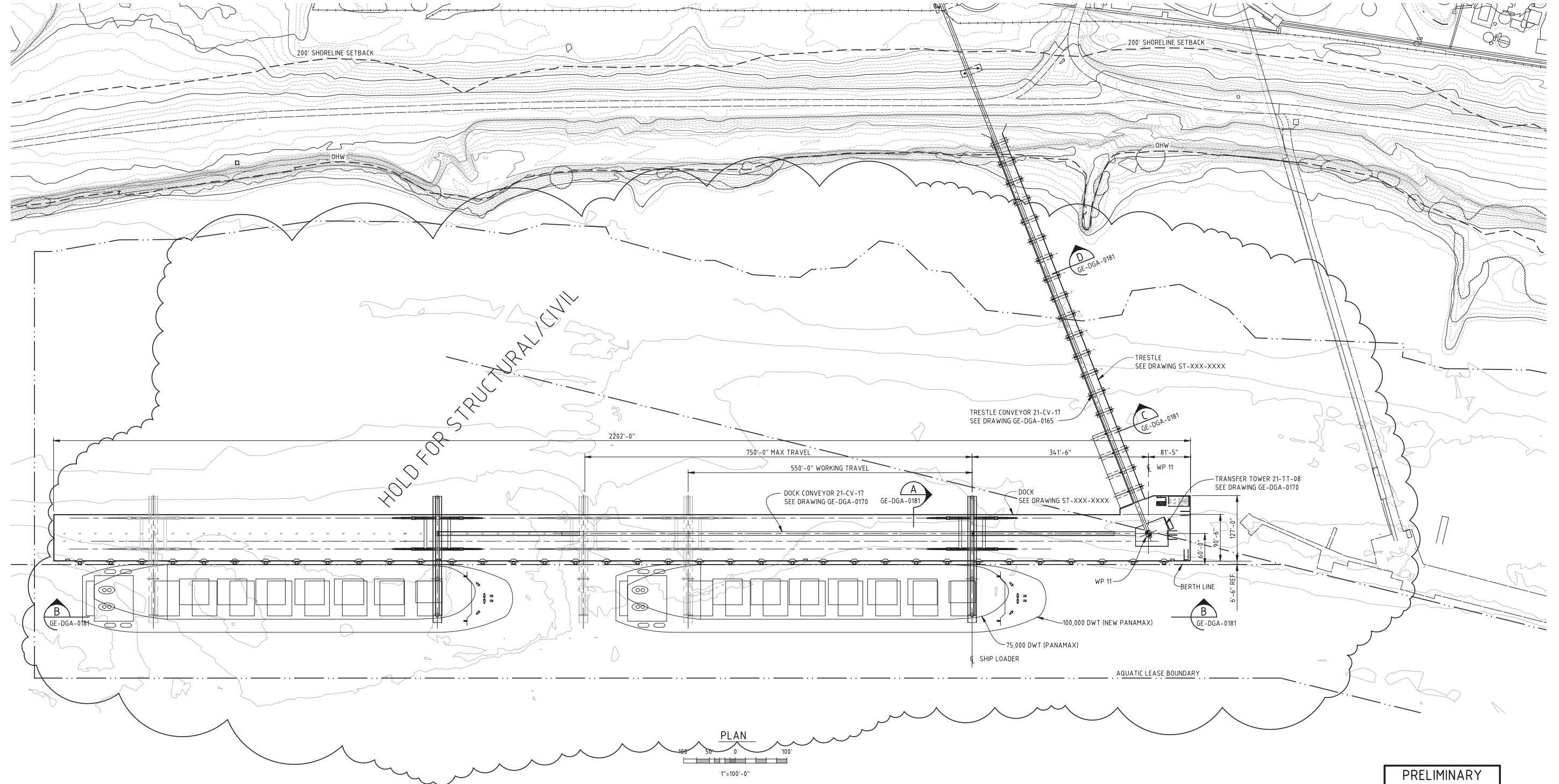
MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
DOCK CONVEYOR 21-CV-17  
PLAN AND ELEVATION SHEET - 2

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DRG No	80563-21-GE-DGA-0176	REV	A
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**PRELIMINARY**  
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WORLEYPARSONS PROJECT No <b>80563</b>		

ENGINEERING AND PERMIT STAMPS (As Required)

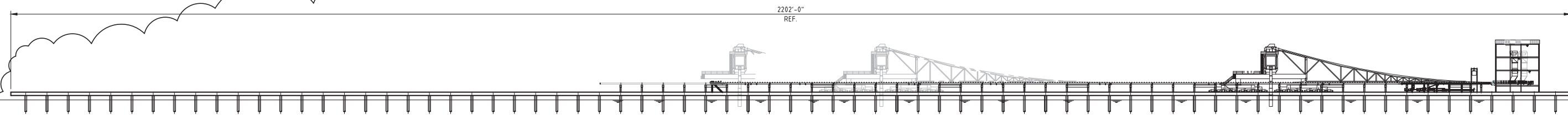
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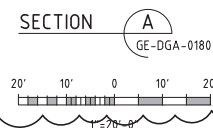
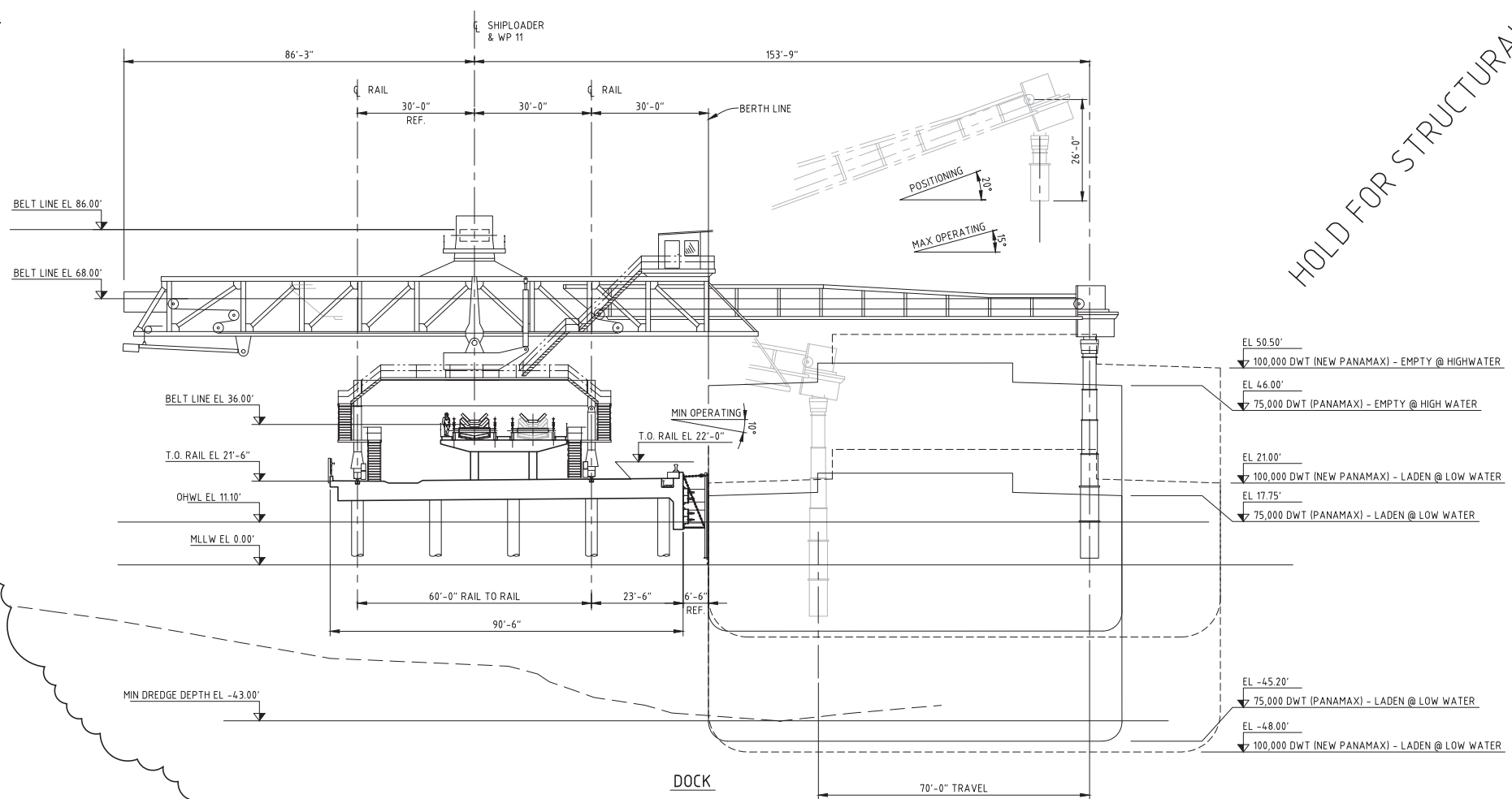
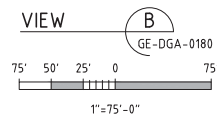
MILLENNIUM BULK TERMINALS-LONGVIEW, WA  
MATERIALS HANDLING FACILITY  
COAL HANDLING TERMINAL  
DOCK & TRESTLE GEN. ARRANGEMENT PLAN

DRG No **80563-21-GE-DGA-0180** REV **A**

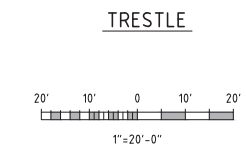
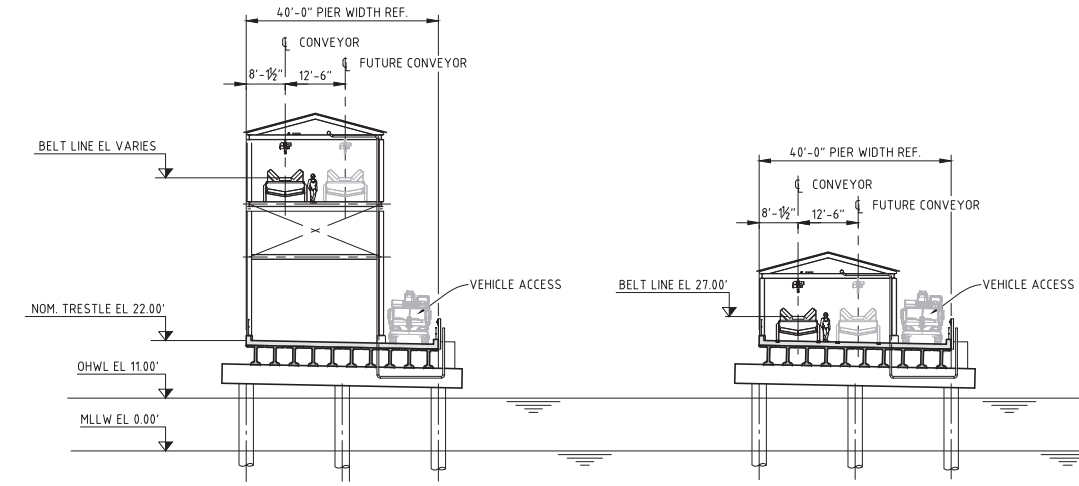
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 PLOT DATE & TIME: 26/9/2012 7:21:01 AM  
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DOCK ELEVATION



HOLD FOR STRUCTURAL/CIVIL



**PRELIMINARY**  
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Last Saved: Sep. 26/12 7:20am

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			<b>Oneway</b>	<b>millennium</b> BULK TERMINALS LONGVIEW, LLC
WORLEYPARSONS PROJECT No	80563			MILLENNIUM BULK TERMINALS-LONGVIEW, WA MATERIALS HANDLING FACILITY COAL HANDLING TERMINAL DOCK & TRESTLE GEN. ARRANGEMENT SECTIONS
DRG No	80563-21-GE-DGA-0181	REV	A	

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 USER NAME: robert.r.munro  
 PLOT DATE & TIME: 26/09/2012 7:21:26 AM  
 SAVE DATE & TIME: 26/09/2012 7:20:36 AM

Appendix D  
**Coal Export Terminal Stages  
of Construction and Operations**

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**Millennium Bulk Terminals—Longview  
Coal Export Terminal Stages of Construction and Operations**

**TABLE 1**

**Stage of Construction/Operations:** Stage 1a Construction

**Description:** Start of Stage 1 Construction

**Timing:** 0–1.5 years (18 months) from the start of construction

**Approximate Years:**<sup>1</sup> 2018–2020

**Throughput Capacity:** 0 MMTPY<sup>2</sup>

Stage 1a Construction	
Project Component	Activity
Number of Construction Workers	<ul style="list-style-type: none"> <li>• 1,350 construction workers (combined number of workers for all construction activities associated with Stage 1 and Stage 2)</li> </ul>
Construction Trips	<ul style="list-style-type: none"> <li>• Total construction trips are dependent on how material is imported during preloading activities (numbers below are combined for preloading activities during Stage 1 and Stage 2):               <ul style="list-style-type: none"> <li>○ If all material is imported by truck: approximately 88,000 loaded truck trips over an approximate 5-year period with the majority of the truck trips occurring during the first 1 to 2 years (Stage 1).</li> <li>○ If all material is imported by rail: approximately 35,000 loaded railcars over an approximate 5-year period with the majority of the railcars received during the first 1 to 2 years (Stage 1).</li> <li>○ If all material is imported by barge: approximately 1,130 barge trips over an approximate 5-year period with the majority of the barge trips occurring during the first 1 to 2 years (Stage 1)</li> </ul> </li> </ul>
Construction Staging	<ul style="list-style-type: none"> <li>• Demolish existing structures</li> <li>• Prepare site area and make ground improvements/grading</li> <li>• Stockpile area, including preloading for stockpile pads (2 out of 4 stockpile pads would be preloaded during Stage 1 construction).</li> <li>• Coal export terminal start-up facilities               <ul style="list-style-type: none"> <li>○ One shiploader and related conveyors on Dock 2</li> <li>○ Rail car unloading facilities (rapid unloader, bottom dumper)</li> <li>○ Associated facilities and infrastructure (i.e., conveyors, etc.)</li> </ul> </li> <li>• Construct rail loop               <ul style="list-style-type: none"> <li>○ Complete berm for rail tracks</li> <li>○ Install up to 8 rail storage tracks for train parking</li> <li>○ Install 1 operating track</li> </ul> </li> <li>• Conduct dredging in the Columbia River</li> <li>• Construct 2 docks (Docks 2 and 3) and trestle</li> </ul>
Demolition of Existing Structures	<ul style="list-style-type: none"> <li>• Demolish existing cable plant building (approximately 270,000 ft<sup>2</sup>)</li> <li>• Demolish existing potline buildings (approximately 600,000 ft<sup>2</sup>) and some smaller ancillary structures</li> <li>• Duration of approximately 6 months</li> </ul>
Site Preparation	<ul style="list-style-type: none"> <li>• Clearing of vegetation</li> </ul>

<sup>1</sup> Assumes that construction begins 2018

<sup>2</sup> MMTPY = million metric tons per year

**Millennium Bulk Terminals—Longview  
Coal Export Terminal Stages of Construction and Operations**

**TABLE 1**

**Stage of Construction/Operations:** Stage 1a Construction

**Description:** Start of Stage 1 Construction

**Timing:** 0–1.5 years (18 months) from the start of construction

**Approximate Years:**<sup>1</sup> 2018–2020

**Throughput Capacity:** 0 MMTPY<sup>2</sup>

Stage 1a Construction	
Project Component	Activity
	<ul style="list-style-type: none"> <li>• Grading</li> <li>• Earthmoving</li> <li>• Earthworks</li> <li>• Construction of erosion control facilities (including settlement ponds)</li> <li>• Duration of approximately 3 months</li> </ul>
Preloading	<ul style="list-style-type: none"> <li>• Initiation of rolling preload: up to 7 years total for entire stockpile areas (continues through construction of both Stage 1 and Stage 2)</li> <li>• Preloading would commence on 2 of the 4 stockpiling areas</li> <li>• Existing soil conditions would be strengthened to improve load-bearing capacity</li> <li>• Preload material would be imported and wick drains would be installed for ground improvement for the stockyard area</li> <li>• Preload material would be placed in a pile approximately 35 feet high covering the area of the berm and adjacent stockpile pad(s)</li> <li>• Process would be repeated at each berm and stockpile location until soil consolidation is achieved across the complete stockyard</li> <li>• Groundwater expelled through the wick drains would be collected, treated, and discharged to the Columbia River</li> <li>• Excess preload material would be used on site, stockpiled, or removed from the area</li> <li>• Approximately 2.1 million cubic yards of preload material would be imported (Stage 1 and Stage 2)</li> <li>• Approximately 2.5 million cubic yards of material would be moved around the project area (Stage 1 and Stage 2)</li> </ul>
Construction/Installation of Coal Export Terminal Equipment	<ul style="list-style-type: none"> <li>• Coal would not be stockpiled during any stage of construction</li> <li>• Installation of plant and equipment for start-up operations would include:               <ul style="list-style-type: none"> <li>○ One operating track</li> <li>○ Up to 8 rail storage tracks for train parking/staging</li> <li>○ One rapid discharge (bottom) tandem railcar unloader to unload coal for transfer by conveyor to the dock for shiploading; the rail car unloader would be capable of unloading 2 railcars at once.</li> <li>○ Conveyors, buffer bin, and transfer towers, including approximately 4,300 lineal feet of conveyors, of which approximately 1,000 lineal feet would be open conveyors and approximately 3,300 lineal feet would be enclosed</li> <li>○ Dock 2 and Dock 3</li> <li>○ One shiploader on Dock 2</li> <li>○ Support structures, electrical transformers, switchgear and equipment, process control systems, buildings, etc.</li> </ul> </li> </ul>
Rail Loop Construction	<ul style="list-style-type: none"> <li>• Importing and placing of approximately 130,000 cubic yards of ballast rock for the rail foundations</li> <li>• Placement of railroad ties</li> <li>• Laying of steel rail lines</li> </ul>

**Millennium Bulk Terminals—Longview  
Coal Export Terminal Stages of Construction and Operations**

**TABLE 1**

**Stage of Construction/Operations:** Stage 1a Construction

**Description:** Start of Stage 1 Construction

**Timing:** 0–1.5 years (18 months) from the start of construction

**Approximate Years:**<sup>1</sup> 2018–2020

**Throughput Capacity:** 0 MMTPY<sup>2</sup>

Stage 1a Construction	
Project Component	Activity
	<ul style="list-style-type: none"> <li>• Installation of signaling</li> <li>• Installation of switching equipment</li> <li>• Installation of track lighting</li> <li>• Installation of 1 rapid discharge (bottom) tandem railcar unloader</li> </ul>
Dredging, Trestle, and Dock Construction	<ul style="list-style-type: none"> <li>• Dredging would occur as part of the construction of Docks 2 and 3 (simultaneous with site prep and preload; may require 2 fish windows to complete)</li> <li>• Dredging would remove approximately 500,000 cubic yards of material over a 48-acre area and to a depth of -43 feet Columbia River Datum</li> <li>• Dredging would be required from the river side face of the dock out to the Columbia River navigation channel; the riverbed would be sloped from the dock to the riverbank with a 3H:1V slope</li> <li>• Dock and trestle construction would include pile driving of approximately 630 36-inch-diameter steel pipe piles, 610 of which would be installed in aquatic areas below ordinary high water</li> <li>• Piling would be installed from approximately 140 to 165 feet below the mudline</li> <li>• Dredge spoils will be disposed of adjacent to the navigation channel between approximately river mile 60 and 66</li> <li>• Approximately 225 linear feet (125 feet and 100 feet, respectively) of the existing west and east pile dikes would be removed</li> </ul>

**Millennium Bulk Terminals—Longview  
Coal Export Terminal Stages of Construction and Operations**

**TABLE 2**

**Stage of Construction/Operations:** Stage 1b Construction and Start-Up Operations

**Description:** Continuation of Stage 1 construction through completion of Stage 1 construction and start-up operations

**Timing:** 0–3 years from the start of construction

**Approximate Years<sup>1</sup>:** 2018–2021

**Throughput Capacity:** 5 to 10 MMTPY<sup>2</sup>

Stage 1b Construction		Start-Up Operations	
Project Component	Activity	Project Component	Activity
N/A	N/A	Number of Trains	Arrival of coal by rail: <ul style="list-style-type: none"> <li>Up to 10 MMTPY throughput capacity</li> <li>Up to 60 unit trains arriving and departing monthly</li> </ul>
N/A	N/A	Number of Vessels	Transfer of coal to ship: <ul style="list-style-type: none"> <li>Up to 10 MMTPY throughout capacity</li> <li>Up to 15 ships loaded monthly (80% Panamax, 20% Handymax)</li> </ul>
Number of Construction Workers	<ul style="list-style-type: none"> <li>1,350 construction workers (combined number of workers for all construction activities associated with Stage 1 and Stage 2)</li> </ul>	Number of Employees	<ul style="list-style-type: none"> <li>60 employees required</li> </ul>
Construction Trips	<ul style="list-style-type: none"> <li>Construction trips are dependent on how material is imported during preloading activities (numbers below are combined for preloading activities during Stage 1 and Stage 2): <ul style="list-style-type: none"> <li>If all material is imported by truck: approximately 88,000 loaded truck trips over an approximate 5-year period with the majority of the truck trips occurring during the first 1 to 2 years (Stage 1)</li> <li>If all material is imported by rail: approximately 35,000 loaded railcars over an approximate 5-year period with the majority of the railcars received during the first 1 to 2 years (Stage 1)</li> <li>If all material is imported by barge: approximately 1,130 barge trips over an approximate 5-year period with the majority of the barge trips occurring during the first 1 to 2 years (Stage 1)</li> </ul> </li> </ul>	N/A	—
Construction/Installation of Coal Export Terminal	Coal would not be stockpiled during any stage of construction. Would include the installation of additional facilities and	Rail Cars/Trains	<ul style="list-style-type: none"> <li>Inbound and outbound trains would be staged on site on up to eight available storage tracks</li> </ul>

<sup>1</sup> Assumes that construction begins 2018

<sup>2</sup> MMTPY = million metric tons per year

**Millennium Bulk Terminals—Longview  
Coal Export Terminal Stages of Construction and Operations**

**TABLE 2**

**Stage of Construction/Operations:** Stage 1b Construction and Start-Up Operations

**Description:** Continuation of Stage 1 construction through completion of Stage 1 construction and start-up operations

**Timing:** 0–3 years from the start of construction

**Approximate Years<sup>1</sup>:** 2018–2021

**Throughput Capacity:** 5 to 10 MMTPY<sup>2</sup>

Stage 1b Construction		Start-Up Operations	
Project Component	Activity	Project Component	Activity
Equipment	equipment not installed during the start of Stage 1a construction: <ul style="list-style-type: none"> <li>• Tandem rotary unloading facility (capable of unloading 2 rail cars)</li> <li>• Three berms (for stackers and reclaimers)</li> <li>• Water management facilities</li> <li>• Two stackers</li> <li>• Two reclaimers</li> <li>• Conveyors, buffer bin, and transfer towers, including approximately 16,100 lineal feet of conveyors, of which approximately 11,200 lineal feet would be open conveyors and approximately 4,900 lineal feet would be enclosed.</li> <li>• Support structures, electrical transformers, switchgear and equipment, process control systems, buildings, etc.</li> </ul> Completion of Stage 1 construction would result in a nominal throughput capacity of up to 25 MMTPY		<ul style="list-style-type: none"> <li>• Rail car unloading operations would use the operating track and the rapid discharge (bottom) unloaders</li> <li>• Up to 60 unit trains would arrive and depart monthly</li> </ul>
		Rail Car Unloading	<ul style="list-style-type: none"> <li>• No stockpiling of coal; coal would be delivered directly from the rail cars to the shiploader by way of a rapid discharge unloading facility and interconnecting conveyors</li> </ul>
		Water Management Facilities	<ul style="list-style-type: none"> <li>• Water collection, conveyance, treatment, reuse, or discharge</li> </ul>
—	—	Shiploading	<ul style="list-style-type: none"> <li>• Ship loading would be performed using a single electrical-powered traveling shiploader installed on Dock 2</li> <li>• The shiploader would have an average capacity of 6,500 metric tons per hour</li> </ul>
		Shipping	<ul style="list-style-type: none"> <li>• Up to 15 ships per month (80% Panamax, 20% Handymax) would be loaded</li> </ul>
		Ship Bunkering Crew Supplies	<ul style="list-style-type: none"> <li>• These activities would not be allowed or provided for at the dock</li> </ul>



**Millennium Bulk Terminals—Longview  
Coal Export Terminal Stages of Construction and Operations**

**TABLE 2**

**Stage of Construction/Operations:** Stage 1b Construction and Start-Up Operations

**Description:** Continuation of Stage 1 construction through completion of Stage 1 construction and start-up operations

**Timing:** 0–3 years from the start of construction

**Approximate Years<sup>1</sup>:** 2018–2021

**Throughput Capacity:** 5 to 10 MMTPY<sup>2</sup>

Stage 1b Construction		Start-Up Operations	
<u>Project Component</u>	<u>Activity</u>	<u>Project Component</u>	<u>Activity</u>
		Equipment	<ul style="list-style-type: none"> <li>• Equipment needed to maintain the terminal would include               <ul style="list-style-type: none"> <li>○ wheel loaders</li> <li>○ cranes</li> <li>○ forklifts</li> <li>○ trucks</li> <li>○ welders</li> <li>○ pumps and other similar equipment</li> </ul> </li> </ul>

## Millennium Bulk Terminals—Longview Coal Export Terminal Stages of Construction and Operations

<b>TABLE 3</b> <b>Stage of Construction/Operations:</b> Stage 2 Construction/Increased Operations <b>Description:</b> Stage 2 Construction and increased operations through completion of Stage 2 construction <b>Timing:</b> 4–6 years from the start of construction <b>Approximate Years<sup>1</sup>:</b> 2022–2024 <b>Throughput Capacity:</b> Up to 25 MMTPY <sup>2</sup>			
Stage 2 Construction		Increased Operations	
Project Component	Activity	Project Component	Activity
N/A	N/A	Number of Trains	Arrival of coal by rail: <ul style="list-style-type: none"> <li>Up to 25 MMTPY throughput capacity</li> <li>An average of 150 unit trains arriving and departing monthly</li> </ul>
N/A	N/A	Number of Vessels	Transfer of coal to ship: <ul style="list-style-type: none"> <li>Up to 25 MMTPY throughput capacity</li> <li>Total average of 40 ships loaded monthly (80% Panamax, 20% Handymax)</li> </ul>
Number of Construction Workers	<ul style="list-style-type: none"> <li>1,350 construction workers (combined number of workers for all construction activities associated with Stage 1 and Stage 2)</li> </ul>	Number of Employees	<ul style="list-style-type: none"> <li>115 employees required</li> </ul>
Construction Trips	<ul style="list-style-type: none"> <li>Construction trips are dependent on how material is imported during preloading activities (numbers below are combined for preloading activities during Stage 1 and Stage 2 Construction):               <ul style="list-style-type: none"> <li>If all material is imported by truck: approximately 88,000 loaded truck trips over an approximate 5-year period with the majority of the truck trips occurring during the first 1 to 2 years (Stage 1)</li> <li>If all material is imported by rail: approximately 35,000 loaded railcars over an approximate 5-year period with the majority of the railcars received during the first 1 to 2 years (Stage 1)</li> <li>If all material is imported by barge: approximately 1,130 barge trips over an approximate 5-year period with the majority of the barge trips occurring during the first 1 to 2 years (Stage 1)</li> </ul> </li> </ul>	N/A	—
Construction Staging	<ul style="list-style-type: none"> <li>Associated stockpile pads (preloading for remaining 2 of 4 berms/stockpile pads)</li> <li>Any of the remaining eight rail storage tracks for train parking that were not constructed as part of Stage 1</li> <li>Two additional stackers</li> <li>Two additional reclaimers</li> <li>Conveyors</li> </ul>	Rail Cars/Trains	<ul style="list-style-type: none"> <li>Inbound and outbound trains would be stored on site on up to eight available storage tracks</li> <li>Rail car unloading operations would use the operating track and rail cars would be unloaded using the tandem rotary unloader</li> <li>An average of 150 unit trains would arrive and depart monthly</li> </ul>

<sup>1</sup> Assumes that construction begins 2018

<sup>2</sup> MMTPY = million metric tons per year

**Millennium Bulk Terminals—Longview  
Coal Export Terminal Stages of Construction and Operations**

**TABLE 3**  
**Stage of Construction/Operations:** Stage 2 Construction/Increased Operations  
**Description:** Stage 2 Construction and increased operations through completion of Stage 2 construction  
**Timing:** 4–6 years from the start of construction  
**Approximate Years<sup>1</sup>:** 2022–2024  
**Throughput Capacity:** Up to 25 MMTPY<sup>2</sup>

Stage 2 Construction		Increased Operations	
<u>Project Component</u>	<u>Activity</u>	<u>Project Component</u>	<u>Activity</u>
	<ul style="list-style-type: none"> <li>• One additional shiploader on Dock 3</li> <li>• Equipment necessary to add 19 MMTPY and bring the nominal total throughput up to 44 MMTPY</li> </ul>		
Preloading	<ul style="list-style-type: none"> <li>• Remaining 2 of 4 berms/stockpile areas would be preloaded during Stage 2 construction</li> <li>• Existing soil conditions would be strengthened to improve load bearing capacity</li> <li>• Preload material would be imported and wick drains would be installed for ground improvement for the stockyard area</li> <li>• Preload material would be placed in a pile approximately 35 feet high covering the area of the berm and adjacent stockpile pad(s)</li> <li>• The preload process would be repeated at each berm and stockpile location until soil consolidation is achieved across the complete stockyard</li> <li>• Excess preload material would be used on site, stockpiled, or removed from the site</li> <li>• Approximately 2.1 million cubic yards of preload material would be imported (Stage 1 and 2)</li> <li>• Approximately 2.5 million cubic yards of material would be moved around the project area (Stage 1 and 2)</li> </ul>	Rail Car Unloading	<ul style="list-style-type: none"> <li>• Rail cars would be unloaded by an electrical-powered tandem rotary unloader</li> <li>• The terminal would include a mechanical positioner to index the unit into the rotary unloader</li> <li>• Coal would be transferred to the stackers via conveyors</li> </ul>

## Millennium Bulk Terminals—Longview Coal Export Terminal Stages of Construction and Operations

<b>TABLE 3</b> <b>Stage of Construction/Operations:</b> Stage 2 Construction/Increased Operations <b>Description:</b> Stage 2 Construction and increased operations through completion of Stage 2 construction <b>Timing:</b> 4–6 years from the start of construction <b>Approximate Years<sup>1</sup>:</b> 2022–2024 <b>Throughput Capacity:</b> Up to 25 MMTPY <sup>2</sup>			
Stage 2 Construction		Increased Operations	
Project Component	Activity	Project Component	Activity
Construction/ Installation of Coal Export Terminal Equipment	Coal would not be stockpiled during any stage of construction. Would include the installation of additional facilities and equipment not installed during Stage 1 construction: <ul style="list-style-type: none"> <li>• The remaining rail storage tracks (total of eight rail storage tracks)</li> <li>• The remaining 2 berms for stackers and reclaimers (total of 5 berms after Stages 1 and 2 construction is complete)</li> <li>• Two stackers (total of up to 4 stackers after Stages 1 and 2 of construction are complete)</li> <li>• Two reclaimers (total of up to 4 reclaimers after Stages 1 and 2 construction is complete)</li> <li>• Conveyors, buffer bin, and transfer towers, including approximately 26,200 lineal feet of conveyors, of which approximately 17,900 lineal feet would be open conveyors and approximately 8,300 lineal feet would be enclosed</li> <li>• One shiploader on Dock 3</li> <li>• Support structures, electrical transformers, switchgear and equipment, buildings, process control equipment, etc.</li> </ul>	Conveyor Systems	<ul style="list-style-type: none"> <li>• Conveyors would transport coal from rail unloading to the stockyard and from the stockyard to the shiploader</li> <li>• Conveyors would be enclosed except where required to feed onto or reclaim from stockpiles or onto the shiploaders</li> <li>• Rail car unloading and shiplading would at times occur both independently and simultaneously</li> <li>• Conveyors would operate for approximately 45% of the available time</li> <li>• Conveyor drives are electrically powered</li> </ul>
		Stockpiling	<ul style="list-style-type: none"> <li>• Two electrical-powered traveling stackers would stockpile coal at an average rate of 7,500 metric tons per hour onto 2 longitudinal stockpiles with an estimated total storage capacity of 750,000 metric tons</li> </ul>
		Reclaiming	<ul style="list-style-type: none"> <li>• Two electrical-powered traveling bucket wheel reclaimers, each with an average rate of 6,500 metric tons per hour, would transfer coal from the stockpile to the shiplading system</li> </ul>
		Shiplading	<ul style="list-style-type: none"> <li>• Would use the shiploader installed for startup operations on Dock 2 only</li> </ul>
		Shipping	<ul style="list-style-type: none"> <li>• Total average of 40 ships per month (80% Panamax, 20% Handymax) would be loaded</li> </ul>
		Mobile Equipment	<ul style="list-style-type: none"> <li>• Equipment needed to maintain the terminal would include:               <ul style="list-style-type: none"> <li>○ wheel loaders</li> </ul> </li> </ul>

**Millennium Bulk Terminals—Longview  
Coal Export Terminal Stages of Construction and Operations**

**TABLE 3**  
**Stage of Construction/Operations:** Stage 2 Construction/Increased Operations  
**Description:** Stage 2 Construction and increased operations through completion of Stage 2 construction  
**Timing:** 4–6 years from the start of construction  
**Approximate Years<sup>1</sup>:** 2022–2024  
**Throughput Capacity:** Up to 25 MMTPY<sup>2</sup>

Stage 2 Construction		Increased Operations	
<u>Project Component</u>	<u>Activity</u>	<u>Project Component</u>	<u>Activity</u>
			<ul style="list-style-type: none"> <li>○ dozers</li> <li>○ cranes</li> <li>○ forklifts</li> <li>○ trucks</li> <li>○ welders</li> <li>○ pumps and other similar equipment</li> </ul>

## Millennium Bulk Terminals—Longview Coal Export Terminal Stages of Construction and Operations

TABLE 4			
Stage of Construction/Operations: Full Build-Out Operations			
Description: Construction complete and full build-out operations			
Timing: 6+ years from the start of construction			
Approximate Years <sup>1</sup> : 2024+			
Throughput Capacity: Up to 44 MMTPY <sup>2</sup>			
		Full Build-Out Operations	
		Project Component	Activity
—	—	Number of Trains	Arrival of coal by rail: <ul style="list-style-type: none"> <li>• Up to 44 MMTPY throughput capacity</li> <li>• Average of 240 unit trains arriving and departing monthly</li> </ul>
—	—	Number of Vessels	Transfer of coal to ship: <ul style="list-style-type: none"> <li>• Up to 44 MMTPY throughput capacity</li> <li>• Total average of 70 ships loaded monthly (80% Panamax, 20% Handymax)</li> </ul>
—	—	Number of Employees	<ul style="list-style-type: none"> <li>• 135 employees</li> </ul>
—	—	Rail Loop	<ul style="list-style-type: none"> <li>• Arrival and departure tracks, with 1 operating turnaround track</li> <li>• Eight storage tracks would allow trains to travel directly onto the site from the Reynolds Lead</li> <li>• Two rail cars at unloading station inside an enclosed facility; both would be rotated at the same time for discharge of material</li> <li>• Hopper to feed coal onto conveyor 2 at a nominal rate of 7,500 metric tons per hour</li> </ul>
—	—	Stockyard	<ul style="list-style-type: none"> <li>• Four parallel stockpile pads (hold approximately 1,500,000 metric tons of coal) and 5 berms, located inside the rail loop</li> <li>• Stockyard would cover an area of approximately 75 acres</li> <li>• Served by up to 4 rail-mounted stackers and up to 4 bucket wheel reclaimers, each with associated conveyors</li> <li>• Pads would vary in length from 2,200 feet to 2,500 feet and hold from 360,000 metric tons to 400,000 metric tons each</li> <li>• Coal would be stacked up to a height of approximately 85 feet above the pads</li> </ul>

<sup>1</sup> Assumes that construction begins 2018

<sup>2</sup> MMTPY = million metric tons per year

**Millennium Bulk Terminals—Longview  
Coal Export Terminal Stages of Construction and Operations**

<b>TABLE 4</b> <b>Stage of Construction/Operations:</b> Full Build-Out Operations <b>Description:</b> Construction complete and full build-out operations <b>Timing:</b> 6+ years from the start of construction <b>Approximate Years<sup>1</sup>:</b> 2024+ <b>Throughput Capacity:</b> Up to 44 MMTPY <sup>2</sup>			
		<b>Full Build-Out Operations</b>	
		<u>Project Component</u>	<u>Activity</u>
—	—	Conveyors, Transfer Towers, and Buffer Bins	<ul style="list-style-type: none"> <li>• Stockyard would be graded to allow water to drain and be collected for treatment and reuse</li> <li>• Conveyors would transport coal from railcar unloading to the stockpile and stockpile to the shiploader</li> <li>• Conveyors would be enclosed except where required to feed to or receive from stacking, reclaiming, or shiploading equipment</li> <li>• Stockyard and ship loading conveyors would be open</li> <li>• Buffer bins would provide storage capacity during the shiploading process</li> <li>• Once unloaded, coal would be stockpiled or loaded directly onto ships</li> <li>• Stockpiled coal would be reclaimed for shiploading</li> </ul>
—	—	Dock 2	<ul style="list-style-type: none"> <li>• 1,400 feet long and varying in width from approximately 100 feet up to 130 feet</li> <li>• Dredging required to provide berthing access</li> </ul>
—	—	Dock 3	<ul style="list-style-type: none"> <li>• 900 feet long, with a width of approximately 100 feet</li> <li>• Dredging would be required to provide berthing access</li> </ul>
—	—	Trestle	<ul style="list-style-type: none"> <li>• Access to Docks 2 and 3 would be provided by a single trestle approximately 800 feet long and varying in width from approximately 35 feet on the northern end and up to 60 feet on the southern end</li> </ul>

**Millennium Bulk Terminals—Longview  
Coal Export Terminal Stages of Construction and Operations**

**TABLE 4**  
**Stage of Construction/Operations:** Full Build-Out Operations  
**Description:** Construction complete and full build-out operations  
**Timing:** 6+ years from the start of construction  
**Approximate Years<sup>1</sup>:** 2024+  
**Throughput Capacity:** Up to 44 MMTPY<sup>2</sup>

		<b>Full Build-Out Operations</b>	
		<u>Project Component</u>	<u>Activity</u>
—	—	Shiploaders	<ul style="list-style-type: none"> <li>Each dock would be served by its own shiploader to load ships at the 2 docks</li> </ul>
—	—	Rail Cars/Trains	<ul style="list-style-type: none"> <li>Total of 8 storage tracks and 1 operating track</li> <li>The 1 operating track installed as part of start-up operations would service full build-out operations</li> <li>90 additional unit trains per month, increasing the overall number of trains to an average of 240 unit trains arriving and departing monthly</li> </ul>
—	—	Rail Car Unloading	<ul style="list-style-type: none"> <li>The Stage 1 tandem rotary unloader would service full build-out operations</li> <li>No additional unloading equipment would be required</li> <li>The rapid discharge (bottom) tandem railcar unloader installed for Stage 1 Start-Up Operations would remain operable and be used during maintenance of the tandem rotary unloader</li> </ul>



**Millennium Bulk Terminals—Longview  
Coal Export Terminal Stages of Construction and Operations**

<b>TABLE 4</b> <b>Stage of Construction/Operations:</b> Full Build-Out Operations <b>Description:</b> Construction complete and full build-out operations <b>Timing:</b> 6+ years from the start of construction <b>Approximate Years<sup>1</sup>:</b> 2024+ <b>Throughput Capacity:</b> Up to 44 MMTPY <sup>2</sup>			
		<b>Full Build-Out Operations</b>	
		<u>Project Component</u>	<u>Activity</u>
—	—	Conveyor Systems	<ul style="list-style-type: none"> <li>• Conveyors would transport coal from railcar unloading area to the stockyard, and from the stockyard to the shiploader</li> <li>• Conveyors would be enclosed except where required to feed onto or reclaim from stockpiles or onto the shiploaders</li> <li>• When unloading rail cars, the conveyors from rail car unloading to the stockyard would operate</li> <li>• When loading ships, the conveyors from the stockyard to the shiploaders would operate</li> <li>• Rail car unloading and ship loading would at times occur both independently and simultaneously</li> <li>• Conveyors would operate approximately 80% of the time</li> </ul>
—	—	Stockpiling	<ul style="list-style-type: none"> <li>• Total of up to 4 stackers</li> <li>• Each stacker would stockpile coal at an average rate of 7,500 metric tons per hour onto 2 additional longitudinal stockpiles with a total storage capacity of up to 1.5 million metric tons</li> </ul>
—	—	Reclaiming	<ul style="list-style-type: none"> <li>• Total of up to 4 reclaimers</li> <li>• Each would reclaim coal from the stockpile to the shiploading system, with an average capacity of 6,500 metric tons per hour</li> </ul>
—	—	Shiploading (Docks 2 and 3)	<ul style="list-style-type: none"> <li>• Total of 2 traveling shiploaders, 1 on each dock</li> <li>• Each shiploader would have an average rated capacity of 6,500 metric tons per hour</li> </ul>

**Millennium Bulk Terminals—Longview  
Coal Export Terminal Stages of Construction and Operations**

**TABLE 4**  
**Stage of Construction/Operations:** Full Build-Out Operations  
**Description:** Construction complete and full build-out operations  
**Timing:** 6+ years from the start of construction  
**Approximate Years<sup>1</sup>:** 2024+  
**Throughput Capacity:** Up to 44 MMTPY<sup>2</sup>

		<b>Full Build-Out Operations</b>	
		<u>Project Component</u>	<u>Activity</u>
—	—	Shipping	<ul style="list-style-type: none"> <li>• Up to 30 additional ships, for a total average of 70 ships per month (80% Panamax, 20% Handymax) would be loaded</li> </ul>
—	—	Ship Bunkering and Crew Supplies	<ul style="list-style-type: none"> <li>• These activities would not be allowed or provided for at the dock</li> </ul>
—	—	Mobile Equipment	<ul style="list-style-type: none"> <li>• Equipment needed to maintain the terminal would include:               <ul style="list-style-type: none"> <li>○ wheel loaders</li> <li>○ dozers</li> <li>○ cranes</li> <li>○ forklifts</li> <li>○ trucks</li> <li>○ welders</li> <li>○ pumps and other similar equipment</li> </ul> </li> </ul>

Appendix E

## **Coal Export Terminal Design Features**

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## Appendix E

# Coal Export Terminal Design Features

Table E-1 provides a summary of detailed design features for the coal export terminal provided by the Applicant.

**Table E-1. Applicant-Provided Coal Export Terminal Design Features**

Topic or Environmental Element	Description	Project Design Features
<b>Design Life of Coal Export Terminal</b>	Reduce the need to replace major equipment, reducing additional construction impacts	<p>Design life for the various components is:</p> <ul style="list-style-type: none"> <li>• Major Equipment Structures (shiploader, stacker, reclaimer, rail car rotary dumper): 30 years</li> <li>• Mechanical Components (reducers, bearings, pumps. etc.): 80,000 hours</li> <li>• Structural (storage building, conveyors, marine): 50 years</li> <li>• Marine Fender Systems: 25 years</li> </ul> <p>Achieving the design service life for the above components requires regular maintenance and inspection to identify any deterioration, wear and tear, or damage, and the undertaking of repairs of identified items. In addition to regular inspection and maintenance, it is anticipated that all plant and equipment will require periodic major refurbishment to reinstate protective coating systems and upgrade control/electrical systems.</p>
<b>Applicable Codes, Standards, and Agencies</b>	Applicable codes, standards, and agency oversight are anticipated to reduce or eliminate many potential impacts that could otherwise occur	<p><b><u>Agencies</u></b></p> <p>Equipment shall comply with the present environmental requirements as specified by the following agencies:</p> <ul style="list-style-type: none"> <li>• Cowlitz County</li> <li>• City of Longview</li> <li>• Washington State Department of Ecology (Ecology)</li> <li>• U.S. Environmental Protection Agency, Region 10 (EPA)</li> <li>• Southwest Clean Air Agency</li> <li>• U.S. Army Corps of Engineers (Corps)</li> <li>• U.S. Fish and Wildlife Service (USFWS)</li> </ul>

Topic or Environmental Element	Description	Project Design Features
		<ul style="list-style-type: none"> <li>• National Oceanic and Atmospheric Administration (NOAA Fisheries)</li> <li>• Washington Department of Fish and Wildlife (WDFW)</li> <li>• Washington State Department of Transportation (WSDOT)</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• <b><u>Codes and Standards</u></b></li> <li>• ASTM: American Society for Testing and Materials</li> <li>• ASME: American Society of Mechanical Engineers</li> <li>• ANSI: American National Standards Institute</li> <li>• AGMA: American Gear Manufacturer’s Association</li> <li>• NFPA: National Fluid Power Association and National Fire Protection Association</li> <li>• JIC: Joint Industry Conference</li> <li>• SAE: Society of Automotive Engineers</li> <li>• AREMA: The American Railway Engineering and Maintenance-of-Way Association</li> <li>• AASHTO: American Association of State Highway and Transportation Officials</li> <li>• FUS: Fire Underwriters Survey, 1999 Edition</li> <li>• AISC: Steel Construction Manual, 13th Edition</li> <li>• AWS: American Welding Society</li> <li>• AWS A5.X: Arc Welding Electrodes and Fluxes (Various Standards)</li> <li>• ANSI / AISC 360-05: Specification for Structural Steel Buildings (Allowable Stress Design)</li> <li>• 80552-design criteria-rep-0901 (2).docx Page 4 80528 : Rev B : October 27, 2010</li> <li>• A6 / A6M-09: General Requirements for Rolled Structural Steel Bars, Plates, Shapes, and Sheet Piling</li> <li>• ASTM A529 / A529M: High-Strength Carbon-Manganese Steel of Structural Quality</li> <li>• ASTM A123 / A123M: Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products</li> <li>• AASHTO HB-17: Standard Specifications for Highway Bridges, 17th Edition</li> </ul>

Topic or Environmental Element	Description	Project Design Features
		<ul style="list-style-type: none"> <li>• ASCE 7-05: Minimum Design Loads for Buildings and Other Structures</li> <li>• AISC 360-05: Steel Construction Manual</li> <li>• ACI 318-08: Building Code Requirements for Structural Concrete</li> <li>• ASCE 8-02: Design of Cold-Formed Stainless Steel Members</li> <li>• ASTM A615 / A615M-09b: Deformed and Plain Billet-Steel Bars for Concrete Reinforcement</li> <li>• ASTM A1023 / A1023M: Stranded Carbon Steel Wire Ropes for General Purpose</li> <li>• ASME B20.1: Safety Standard for Conveyors and Related Equipment</li> <li>• CEMA: Conveyor Equipment Manufacturers Association; Belt Conveyors for Bulk Materials</li> <li>• ISO R773/4: International Standards Organization, Recommendations for Keys and Key Seats</li> <li>• MSHA: US Department of Labor, Mine Safety and Health Administration, C.F.R. 30, Part 18.65; Fire Resistance of Conveyor Belting</li> <li>• SSPC Standards: Steel Structures Painting Council – Painting Manual Volumes I and II</li> <li>• ASTM A53: Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless</li> <li>• ASTM A325: Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength</li> <li>• ASTM A307: Standard Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength</li> <li>• ASTM A504: Standard Specification for Wrought Carbon Steel Wheels</li> <li>• IBC: International Building Code and Washington State Amendments</li> <li>• MOTEMS: Marine Oil Terminal Engineering and Maintenance Standards</li> <li>• OSHA: Occupational Safety and Health Act</li> <li>• WISHA: Washington Industrial Safety and Health Act</li> </ul>

Topic or Environmental Element	Description	Project Design Features
<b>Aesthetics, Light, and Glare</b>	<b>Operation</b> – Prevent potential spillage of light off of project site	<ul style="list-style-type: none"> <li>• API 650: Welded Steel Tanks for Oil Storage</li> <li>• NEMA: National Electrical Manufacturers Association</li> <li>• MPTA: Mechanical Power Transmission Association</li> <li>• NFPA 70: National Electrical Code</li> <li>• NFPA 70E: Standard for Electrical Safety in the Workplace</li> <li>• ICEA: Insulated Cable Engineers Association</li> <li>• IES: Illumination Engineering Society</li> <li>• ISA: International Society of Automation</li> <li>• ISO: International Organization for Standardization</li> <li>• NEC: National Electrical Code</li> <li>• NESC: National Electrical Safety Code</li> <li>• UL: Underwriters Laboratories</li> <li>• CoV's (USA) Electrical Code</li> <li>• IEEE: Institute of Electrical and Electronic Engineers</li> <li>• FEM: Fédération Européenne de la Manutention, Section II, Document 2 131/2 132, Rules for the Design of Mobile Equipment for Continuous Handling of Bulk Materials</li> <li>• ISO / 5049-1: Mobile Equipment for Continuous Handling of Bulk Materials, Part 1 – Rules for the Design of Steel Structures</li> </ul> <hr/> <ul style="list-style-type: none"> <li>• Typical industrial lighting would be provided and installed in a manner so as to prevent light and glare from spilling off of the area</li> <li>• Night lighting would be restricted to the minimum required for operational and safety requirements and would be directed away from roads and sensitive viewpoints, where practicable</li> <li>• Light shields would be used to limit the spill of lighting where practicable</li> <li>• Project lighting would be directed downward to minimize off-site light spill</li> </ul>
<b>Air Quality</b>	<b>Construction</b> – Prevent creation of dust and wind-borne soil erosion	<ul style="list-style-type: none"> <li>• Demolition activities would be carried out in accordance with the best management practices listed in the Stormwater Manual for Western Washington. These practices include, but are not limited to:</li> </ul>

Topic or Environmental Element	Description	Project Design Features
		<ul style="list-style-type: none"> <li>• <b>BMP C105:</b> Stabilized Construction Entrance / Exit – stabilized entrance and exit would be installed and maintained through the duration of demolition, site preparation, preloading and construction</li> </ul>
	<b>Construction</b> – Reduce or eliminate the potential tracking of soils off site	<ul style="list-style-type: none"> <li>• <b>BMP C106:</b> Wheel Wash – would be used if the stabilized construction entrance/exit is not preventing sediment from being tracked off site</li> </ul>
	<b>Operation</b> – Reduce or eliminate the potential for dust and soil erosion from internal roadways	<ul style="list-style-type: none"> <li>• All regularly used roads accessing the buildings and facilities within the site will be sealed with asphalt pavement, other roads will be gravel</li> <li>• All sealed roads would be frequently and routinely swept to collect airborne dust</li> <li>• Vehicle access to unsealed areas would be controlled to limit airborne dust</li> </ul>
	<b>Operation</b> – Reduce or eliminate potential for coal dust during unloading and loading	<ul style="list-style-type: none"> <li>• The equipment design would incorporate features to minimize dust emissions to the air that could otherwise occur from the use of loaded rail cars, the use of transfer equipment to unload rail cars, the use of conveyors to transfer product, stockpiling of product and the use of equipment to load ships. The design of the terminal incorporates best available practices for control of dynamic and fugitive dust. The design of the terminal would allow for the safe operation and safe maintenance of the plant and equipment using current best available control technologies, and in compliance with the latest OSHA and NFPA requirements.</li> <li>• Industrial water would be used for process water and fire protection; process water uses include dust control, stockpile sprays, washdown and cleanup</li> </ul>
	<b>Operation</b> – Dust control measures included in design for rail car unloaders	<ul style="list-style-type: none"> <li>• At the unloading station, two rail cars at a time would be positioned inside the fully enclosed metal clad unloading building where they would be rotated to discharge the material from the cars into a large hopper</li> <li>• A water spray system and/or dry fog system would be used at the tandem rotary unloader to control dust</li> <li>• Unloaders within an enclosed building</li> </ul>



Topic or Environmental Element	Description	Project Design Features
		<ul style="list-style-type: none"> <li>• Dry fog system</li> <li>• Water spray system</li> </ul>
	<b>Operation</b> – Dust control measures included in design for conveyors	<ul style="list-style-type: none"> <li>• All belt conveyors would be fully enclosed, except for the stockyard and shiploading conveyors, which would be open due to their operational requirements</li> <li>• Water spray system would be used at the conveyor transfer points</li> <li>• Enclosed conveyors and transfer points (except for stockyard and shiploader conveyors)</li> <li>• Regular washdown and under-belt plating</li> <li>• Monitoring status of conveyors</li> <li>• Washdown collection and containment</li> <li>• Cleanup using high pressure water</li> <li>• Belt cleaners to control and collect any dust</li> </ul>
	<b>Operation</b> – Dust control measures included in design for transfer points	<ul style="list-style-type: none"> <li>• All transfer points would be fully enclosed, except for the stockyard and shiploader conveyors which would be open due to their operational requirements</li> <li>• Water spray system would be used at the conveyor transfer points</li> <li>• Skirting would be installed at transfer points to control coal flow and spillage</li> <li>• Transfer chutes enclosed in transfer towers</li> <li>• Soft flow transfer chutes</li> <li>• Inlet and outlet curtains and side skirts</li> <li>• Water spray systems</li> <li>• Regular washdown and under-belt plating</li> <li>• Washdown water collection and containment</li> <li>• Cleanup using high pressure water</li> <li>• Enclosed transfer towers</li> </ul>
	<b>Operation</b> – Dust-control measures included in design for stockpiles	<ul style="list-style-type: none"> <li>• A stockpile spray system would be installed to wet the coal surface to control fugitive dust</li> <li>• The stockpile spray system would be controlled by an on-site and remote weather monitoring system to ensure system is operating before wind may arrive at the site</li> </ul>

Topic or Environmental Element	Description	Project Design Features
	<p><b>Operation</b> – Dust control measures included in design for shiploading</p>	<ul style="list-style-type: none"> <li>• Control of drop height from stackers</li> <li>• Cleanup along conveyor berms and sealed roadways</li> <li>• Vehicle access would be limited in the stockpile areas</li> </ul>
	<p><b>Operation</b> – Diesel particulate matter from trains. Based on information contained in our Air Quality Resource Report, the emission of diesel particulate matter from trains at the site and on the short line were included in the air quality modeling. The estimate impact would be minimal (less than a 1% increase) over countywide 2011 concentrations, and countywide emissions would be expected to remain below the federal and state standards. Because there would be minor or minimal impacts which would not create an exceedance of any standards, no mitigation is required.</p>	<ul style="list-style-type: none"> <li>• Vertically adjustable loading boom to decrease drop height</li> <li>• Enclosed shiploader boom</li> <li>• Enclosed loading spout</li> <li>• Discharge below deck of vessel</li> <li>• Cleanup and washdown by high pressure water</li> <li>• Capture and containment of washdown water</li> </ul> <p>• Emissions from rail are mobile and would be spread along the short line, making it unlikely that a localized concentration would exceed 1-hour standards. There are no local or state regulations for diesel particulate emissions from mobile sources.</p>
<p><b>Aquatic Habitat, general</b></p>	<p>Shading design considerations for Docks 2 and 3 and the associated trestle</p>	<ul style="list-style-type: none"> <li>• Trestle has been designed to be long and narrow, and at a height above ordinary high water to minimize shading in shallow water areas. From shore, the trestle would measure 24 feet in width for 700 feet, and 51 feet in width for the final 150 feet. The top of the deck would be at +22 feet Columbia River Datum (CRD) and the bottom of the deck at +19.5 feet CRD. Therefore, the bottom of the deck would be more than 8 feet above ordinary high water.</li> </ul>
	<p>Structural design considerations for Docks 2 and 3 and the associated trestle</p>	<ul style="list-style-type: none"> <li>• Trestle has been designed to minimize overall impact in shallow water areas, including impacts on habitat connectivity along the shoreline</li> <li>• Docks 2 and 3 will be located entirely in deep water habitat to locate structure and terminal activities away from shallow water areas</li> </ul>

Topic or Environmental Element	Description	Project Design Features
	Dredging design considerations for Docks 2 and 3 and the associated trestle	<ul style="list-style-type: none"> <li>• The berthing area will be located at depths that are currently at least -20 feet CRD to avoid habitat conversion from shallow to deep during dredging</li> <li>• Location of the berthing area in deep water closer to the navigation channel will minimize the scope of future maintenance dredging</li> </ul>
	General habitat-related design considerations for Docks 2 and 3 and the associated trestle	<ul style="list-style-type: none"> <li>• Flow lane disposal (initial and maintenance dredging) will be used to keep dredged materials in aquatic areas, maintaining sediment transport processes and aquatic habitats in the lower Columbia River</li> <li>• Project lighting will be directed downward or at structures, and will incorporate shielding to avoid spillage of light into aquatic areas</li> <li>• The end of the shiploading boom will include a pinpoint light source that will be aimed straight down into the ship hold area, avoiding a broader beam that could cause light spillage</li> <li>• Pile caps will be used to minimize opportunities for piscivorous birds to perch</li> </ul>
<b>Aquatic Species</b>	<b>Construction – General</b>	<ul style="list-style-type: none"> <li>• The Applicant has developed a series of activity-specific work windows that are designed to minimize specific impact mechanisms as they affect individual species (or populations within those species) of concern</li> <li>• These proposed work windows are protective of the species of concern while providing feasible construction periods for the in-water portion of the Proposed Action over a 2-year schedule</li> </ul>
<b>Aquatic Species (includes federally-listed species)</b>	<b>Construction - General</b> (regulatory consideration)	<ul style="list-style-type: none"> <li>• Timing restrictions specifying that in-water construction must occur when species of concern (i.e., salmonids, eulachon, green sturgeon) are absent or present in very low numbers in the adjacent waterbody would be strictly observed. All timing restrictions that may be established by WDFW, the Corps, NOAA Fisheries, or USFWS would be strictly observed (Corps permit and Hydraulic Project Approval</li> </ul>
<b>Earth</b>	<b>Construction – Reduce the potential for soil erosion</b>	<ul style="list-style-type: none"> <li>• <b>BMP C107:</b> Construction Road/Parking Area Stabilization - roads, parking areas, and other onsite vehicle transportation</li> </ul>

Topic or Environmental Element	Description	Project Design Features
	<b>Construction</b> – Minimize impacts of disposal of dredge materials	<p>routes would be stabilized to reduce erosion caused by construction traffic or runoff</p> <ul style="list-style-type: none"> <li>• Dredging would use in-river flow lane disposal;</li> <li>• Dredged material that meets environmental standards may be used to construct habitat mitigation sites</li> <li>• Should relevant conditions allow, dredge materials may be disposed of upland for preloading the stockpile area</li> </ul>
	<b>Operation</b> – Reduce or eliminate the potential for dust and soil erosion from internal roadways	<ul style="list-style-type: none"> <li>• All regularly used roads accessing the buildings and facilities within the site will be sealed with asphalt pavement, other roads will be gravel</li> </ul>
<b>Noise</b>	<b>Operation</b> – General	<ul style="list-style-type: none"> <li>• Operational noise levels at all noise receivers are anticipated to be below both Class A EDNA and Class C EDNA receiver limits, with the exception of the ST5 location. Day and nighttime noise levels at ST5 are compliant with the Class C EDNA receiver limits.</li> </ul>
	<b>Operation</b> – Noise control measures to limit sound of rail car unloading	<ul style="list-style-type: none"> <li>• Rail car unloading would be within an enclosed building</li> <li>• Track lubricators would be installed to control rail and wheel noise</li> </ul>
	<b>Operation</b> – Noise control measures to limit sound from conveyors	<ul style="list-style-type: none"> <li>• Incorporation of “quiet conveyor technologies” (i.e., quiet drives, quiet idlers, and controlled idler harmonics)</li> <li>• Engineered startup and travel alarms</li> <li>• Cladding is proposed to enclose the transfer tower structures and several conveyors to reduce operational noise levels</li> </ul>
	<b>Operation</b> – Noise control measures to limit sound from stackers and reclaimers in stockyard	<ul style="list-style-type: none"> <li>• Incorporation of “quiet technology”</li> <li>• Engineered travel and startup alarms</li> </ul>
	<b>Operation</b> – Noise control measures to limit sound from shiploading	<ul style="list-style-type: none"> <li>• Incorporation of “quiet technology”</li> <li>• Engineered travel and startup alarms</li> </ul>
<b>Public Services and Utilities</b>	<b>Construction and Operation</b> – Maintain or provide for pedestrian, vehicular, and rail access to Bonneville Power Administration (BPA)-owned property	<ul style="list-style-type: none"> <li>• BPA will be granted access to the Proposed Action’s access road, which will be located around the outside of the rail loop. In addition, the Applicant will construct an access road between the access road for the Proposed Action and the BPA yard, and install a gate to the BPA yard at a location to be determined by BPA.</li> </ul>

Topic or Environmental Element	Description	Project Design Features
	<p><b>Operation</b> – Fire Protection – Provide adequate access for fire vehicles in the case of an emergency</p>	<ul style="list-style-type: none"> <li>Longitudinal grades of roads will not exceed 10% where fire access is anticipated</li> </ul>
	<p><b>Operation</b> – Fire Protection – Provide for adequate fire flow in case of an emergency</p>	<ul style="list-style-type: none"> <li>The firewater system will be fed from on-site wells, filling a 4-hour storage tank as recommended by the National Fire Protection Association 307 “Standard for the Construction of Fire Protection of Marine Terminals, Piers, and Wharves” Chapter 7</li> </ul>
<p><b>Sustainability, Public Utilities, Hazardous Materials</b></p>	<p><b>Construction</b> – Disposal of demolished structures in a manner to reduce or eliminate impacts</p>	<ul style="list-style-type: none"> <li>The materials from the demolition would be recycled (on site or off site) or disposed of at an appropriate waste facility</li> </ul>
<p><b>Traffic and Transportation</b></p>	<p><b>Construction</b> – Reduce or eliminate potential land use and transportation impacts from off-site construction parking</p>	<ul style="list-style-type: none"> <li>Parking would be provided for construction workers</li> </ul>
	<p><b>Operation</b> – Reduce impacts from on- and off-site transportation</p>	<ul style="list-style-type: none"> <li>Access to the site is from an existing arterial (Industrial Way). The main access includes an elevated bridge crossing the rail corridor. An additional elevated bridge would be provided to cross the railway and access the easterly yard area.</li> </ul>
	<p><b>Operation</b> – On-Site Roadways – Provide for safe vehicular movements on site</p>	<ul style="list-style-type: none"> <li>Access to the site would be from Industrial Way (SR 432) either using the existing entrance at the intersection with 38th Avenue or via a new entrance located west of the existing entrance</li> <li>Access to the site would be from a single entry point, with authorized vehicles being able to enter the train unloading and storage facilities, or the marine facilities</li> <li>The on-site roadways would cross above the rail tracks (grade-separated) to allow for safe and efficient access to the site</li> <li>Overpasses shall be constructed to WSDOT standards for roads and bridges and allow for maximum emergency vehicle loadings</li> <li>Access roads would be designed to allow two-way traffic for standard vehicles</li> <li>All regularly used roads accessing the buildings and facilities within the site would be sealed with asphalt pavement; other roads would be gravel</li> <li>Paved road cross sections will be sloped at 2% minimum</li> </ul>

Topic or Environmental Element	Description	Project Design Features
		<ul style="list-style-type: none"> <li>• Longitudinal grades of roads will not exceed 10% where fire access is anticipated</li> <li>• All roadways, parking areas, and paving shall be designed and constructed to WSDOT standards</li> <li>• Paving shall be designed to accommodate the appropriate mobile equipment loadings for the particular use of that portion of the site, and asphalt or concrete pavement shall have a design life of 20 years</li> <li>• Surfacing of unpaved areas shall be used in order to control soil erosion by wind and water, be able to support pedestrians and light vehicles, including 4-wheel drive vehicles and repress undesirable vegetation</li> <li>• Design includes a rail loop with arrival and departure tracks to include one operating track (turn around track) and eight rail storage tracks</li> </ul>
<b>Water Quality, Aquatic Habitat, Aquatic Species</b>	<b>Construction</b> – Pile Removal and Installation	<ul style="list-style-type: none"> <li>• A decision was made to use 36-inch rather than 48-inch piles to reduce impacts on aquatic habitat</li> <li>• Vibratory pile-driving/removal will be used to the extent possible to minimize potential injurious or disturbing noise levels on fish species</li> </ul>
<b>Water Quality, Aquatic Habitat, Aquatic Species</b>	<b>Construction</b> – Dredging and Flow Lane Disposal	<ul style="list-style-type: none"> <li>• Flow lane (i.e., in-water) disposal of dredged material is proposed as an avoidance/minimization measure. Flow lane disposal keeps the dredged material in aquatic areas and maintains sediment transport processes that build and maintain dynamic aquatic habitats. This is consistent with the Corps' requirements and practices in the Columbia River.</li> </ul>

Topic or Environmental Element	Description	Project Design Features
Water Quality	<b>Construction and Operation</b> – Reduce or eliminate potential impacts on water quality	<ul style="list-style-type: none"> <li>Stormwater, sediment, and erosion control best management practices would be installed in accordance with the Stormwater Management Manual for Western Washington and Cowlitz County. Water quality management would be performed in accordance with the requirements of the NPDES Industrial Stormwater Permit. The site’s NPDES Stormwater Pollution Prevention Plan will provide details of the site best management practices.</li> </ul>
	<b>Construction</b> – Reduce or eliminate the potential for sediment to enter surface or	<ul style="list-style-type: none"> <li>Stormwater, sediment, and erosion control best management practices would be installed in accordance with the Stormwater Management Manual for Western Washington and Cowlitz County</li> <li>Construction would be performed in accordance with the requirements of the NPDES Construction Stormwater Permit</li> <li>Drainage systems would be designed such that runoff within the construction site would be collected and treated as necessary before reuse or discharge</li> <li>The treatment facility could treat surface runoff and process/construction waters with capacity to store the water for reuse</li> <li>Treatment could be as required to meet reuse quality or Ecology requirements for off-site discharge</li> <li><b>BMP C200:</b> Interceptor Dike and Swale – A ridge of compacted soil, or a ridge with an upslope swale, would be provided at the top or base of a disturbed slope or along the perimeter of a disturbed construction area to convey stormwater. The dike and/or swale would be used to intercept the runoff from unprotected areas and direct it to areas where erosion can be controlled. This would be used to prevent storm runoff from entering the work area or sediment-laden runoff from leaving the construction site.</li> </ul>

Topic or Environmental Element	Description	Project Design Features
	<p><b>Construction</b> – Reduce or eliminate the potential for pollutants to reach surface or</p>	<ul style="list-style-type: none"> <li>● <b>BMP C153:</b> Material Delivery, Storage and Containment – Would be used to prevent, reduce, or eliminate the discharge of pollutants to the stormwater system or watercourses from material delivery and storage</li> <li>● Storage of hazardous materials on site would be minimized to the extent feasible</li> <li>● Materials would be stored in a designated area, and secondary containment would be installed where needed</li> <li>● Refueling would occur in designated areas with appropriate spill control measures</li> <li>● Typical construction best management practices for working over, in, and near water will be applied, including checking equipment for leaks and other problems that could result in discharge of petroleum-based products, hydraulic fluid, or other material to the Columbia River.</li> </ul>
	<p><b>Operation</b> – Control of surface drainage to prevent erosion and release of pollutants</p>	<ul style="list-style-type: none"> <li>● <b>BMP C154:</b> Concrete Washout Area – Concrete waste and washout waters would be either carried out off site or disposed of in a designated facility on site designed to contain the waste and washout water</li> <li>● Based on site grading and drainage areas, five water quality ponds (wetponds) will treat runoff based on Ecology requirements. In general, the ponds are sized for treatment of the volume and flow from the water quality design storm event (72% of the 2-year storm). Additional storage will be provided within the coal storage area so that the runoff is always treated within the stockyard area, even for larger storm events. The ponds are designed to provide settlement as the water passes through. Subsequently, water released from these ponds will be conveyed downstream to the existing pump station outfall 002A, which discharges into the Columbia River via an existing 30-inch steel pressure line. The ponds that treat runoff from the coal stockyard would harvest water for circulation around the site for multiple uses, including dust control measures.</li> <li>● The Ecology criteria will be used as the basis of design, which uses the Western Washington Hydrology Model (WWHM) computer simulation for sizing. Because of the flat nature of the</li> </ul>



Topic or Environmental Element	Description	Project Design Features
		<p>site, some surface ponding will occur in both the yard areas and open conveyance systems. The piped conveyance systems will be sloped at 0.50% minimum.</p> <ul style="list-style-type: none"> <li>• The surface drainage system and features will be designed and constructed in accordance with the Ecology Stormwater Management Manual for Western Washington</li> <li>• Based on site grading and drainage areas, water quality ponds (wetponds) will treat runoff based on Ecology requirements</li> <li>• The Ecology criteria will be used as the basis of the design, which uses the WWHM computer simulation for sizing</li> <li>• The pads and berms would be made of low permeability engineered material. The use of low permeability engineered materials for formation of the pads and berms would control water from entering subsurface soil or groundwater</li> <li>• The stockyard and berms would be graded to allow the water to drain and be collected for treatment and reuse</li> </ul>
	<p><b>Operation</b> – Drainage and treatment of water to prevent on- and off-site impacts on water quality</p>	<p>Drainage systems would be designed such that runoff within the terminal site would be collected for treatment before reuse or discharge. Best management practices that would be part of the terminal design to maximize the availability of water for reuse include:</p> <ul style="list-style-type: none"> <li>• Enclosed conveyor galleries</li> <li>• Enclosed rotary unloader building and transfer towers</li> <li>• Washdown collection sumps for settlement of sediment</li> <li>• Regular cleanout and maintenance of washdown collection sumps</li> <li>• Containment around refueling, fuel storage, chemicals and hazardous materials</li> <li>• Oil/water separators on drainage systems and vehicle washdown pad</li> <li>• Requirement that all employees and contractors receive training, appropriate to their work activities, in the site best management practices</li> </ul>

Topic or Environmental Element	Description	Project Design Features
		<ul style="list-style-type: none"> <li>• Design of docks to contain spillage, with rainfall runoff and washdown water contained and pumped to the upland water treatment facilities</li> <li>• Design of system to collect and treat all runoff and washdown water either to be reused on site (dust suppression, washdown water or fire system needs) or to be discharged off site</li> <li>• The wharf area would be sealed to capture the washdown water and stormwater runoff, preventing it from flowing to the Columbia River without treatment</li> <li>• The water treatment facility would be designed to treat all surface runoff and process water with capacity to store the water for reuse. Treatment would be as required to meet reuse quality or Ecology requirements for off-site discharge</li> <li>• Additional water storage would be provided within the coal storage area in the event of a larger storm event. Water volumes exceeding the demands for reuse would be discharged off site via the existing outfall 002A into the Columbia River. Water released off site would be treated and would meet the requirements of Ecology and required discharge permits</li> </ul>
<b>Water Supply</b>	Use of industrial water to limit impacts on public water supply	<p>The water system shall be designed and constructed in accordance with or consideration of the latest edition of the following standards, where applicable:</p> <ul style="list-style-type: none"> <li>• International Building Code</li> <li>• National Fire Protection Association</li> <li>• Washington State Department of Ecology Stormwater Design Manual</li> <li>• United States Department of Health – Occupational Safety and Health Standards</li> <li>• Washington State Department of Health</li> <li>• In the event of conflict between codes and technical specification, the requirements will be reviewed and a decision made on the action to be implemented with the agency of jurisdiction</li> </ul> <p>• Industrial water supply needed for process and fire protection would be supplied from treated water from the water treatment</p>

Topic or Environmental Element	Description	Project Design Features
		facility. During times of dry weather, water would be supplemented from on-site wells.
		• A storage reservoir would be included to provide water required for normal operations and water required to be on reserve for fire demand, should the need arise.
		• A separate pumping system would be provided for the fire system, where appropriate, to provide redundancy and to supply additional pressure where needed

**Rail and Vessel Corridor Information**

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## Appendix F

# Rail and Vessel Corridor Information

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Similar to the Proposed Action, the proposed Tesoro Savage Vancouver Energy Distribution Terminal Facility at the Port of Vancouver would be located on the Columbia River and is a transloading facility that would receive trains and vessels. The rail and vessel corridors in Washington State would be generally the same for both projects. The Washington State Department of Ecology (Ecology), as the co-lead agency with statewide interest, is including the following information from the *Tesoro Savage Vancouver Energy Distribution Terminal Facility Draft Environmental Impact Statement* (Washington State Energy Facility Site Evaluation Council 2015) to describe resource areas relevant to the Proposed Action beyond the study area analyzed for this EIS for the Proposed Action.

## Land and Shoreline Use

### Existing Conditions

#### Rail Corridor

Most of the land crossed by the rail corridor is agricultural land, forested timber land, or open space. The next largest category is open water, which reflects the fact that the rail corridor runs parallel to the Columbia River at varying distances (from immediately adjacent to over a mile from). Major population centers located along the rail corridor in Washington include Spokane, Cheney, Tri-Cities (Pasco, Richland, and Kennewick), and Vancouver/Camas/Washougal. Notable land uses crossed by the rail corridor along the Columbia River include Umatilla, Pierce, Franz Lake, and Steigerwald national wildlife refuges (NWRs) and Columbia River Gorge National Scenic Area, which includes large portions of Gifford Pinchot National Forest.

#### Vessel Corridor

Land uses along the Columbia River are primarily rural with agriculture, forestry, and open space making up the largest area. The majority of the vessel route passes through nonurbanized areas of shrub- and grasslands, forest, and agriculture. Incorporated cities and towns along the Washington side of the Columbia River include Vancouver, Kalama, Longview, Cathlamet, and Ilwaco. Cities and towns on the Oregon side of the Columbia River include Portland, St. Helens, Rainier, Astoria, and Warrenton. Notable land uses along the vessel corridor include the Ridgefield, Julia Butler Hansen, and Lewis and Clark NWRs and Fort Columbia and Cape Disappointment State Parks.

## Impacts

#### Rail Corridor

Because the unit trains will operate along the existing BNSF rail lines along the Columbia River, no direct impact would occur to existing or proposed land uses within the rail corridor. No additional

land would be acquired along the rail corridor for new or expanded rail facilities directly related to the Proposed Action, therefore land use impacts would be negligible.

Land use plans in urban areas typically take into account the presence of existing rail infrastructure and encourage the development of compatible land uses in areas near major rail lines. For example, the comprehensive plans for the cities of Pasco and Kennewick, Washington, designate most areas along the proposed rail route within their jurisdictions as Industrial (City of Kennewick 2013, City of Pasco 2007). In some communities along the rail route existing land use within the rail corridor is not as compatible with rail operations as is industrial land use. In these areas, due to historical development patterns or restrictive topography, residential and commercial land uses are often located immediately adjacent to the railroad right-of-way. This pattern can be seen along the rail corridor in many of the small towns along the Columbia River. The trains for the Proposed Action would not change existing land uses along the rail corridor.

## **Vessel Corridor**

Normal vessel operations would require no improvements to the marine navigation channel or adjacent upland areas along the vessel route. The navigation channel and adjacent land uses are not expected to change as a result of the shipping traffic associated with the Proposed Action. The vessels for the Proposed Action would not change existing land uses along the rail corridor.

# **Geology and Soils**

## **Existing Conditions**

### **Rail Corridor**

The rail corridor within Washington would traverse the Columbia Plateau and the Cascade Mountain Range geologic provinces to reach the Portland Basin. These geologic provinces consist of volcanic and sedimentary rocks of varying composition and texture. Numerous soil types are found along the rail corridor within Washington. Soils vary with parent rock, with the diverse elevation along the route, as well as the varied climates along the proposed rail route.

### **Earthquake Hazards**

Seismic hazards along the rail corridor generally diminish from west to east from the Vancouver area toward the Washington-Idaho border. Seismic activity is well documented across all of Washington, with many historic earthquakes. Seismic hazards along the rail corridor in Washington include fault rupture, ground motion, and soil liquefaction. Large-scale earthquake induced tsunamis occur in marine environments and would, therefore, not be encountered along the rail corridor.

### **Landslide Hazards**

Potential exists for landslides along steep slopes within the rail corridor. According to WDNR mapping, the areas that are most prone to landslides are in the Columbia River Gorge in Skamania County and near Bingen in Klickitat County. Landslides are present along other areas of the rail corridor but mapped deposits occur less frequently. Zones of “High Landslide Incidence” and

“Moderate Landslide Incidence” occur along the central to western portion of the rail corridor paralleling the Columbia River in Washington. A 4-mile stretch, mostly on the northern side of the rail corridor, is classified as having a “Certain” landslide probability according to the WDNR. This location is where the very large ancient Bonneville Landslide occurred near the town of Cascade Locks, Oregon. The landslide originated from the Washington side and temporarily blocked the Columbia River (O’Connor and Burns 2009). WDNR also reported additional movement of landslide material in that vicinity in 2007 (Washington Division of Geology and Earth Resources 2007). The USGS has recently remapped landslides in the western portion of the Columbia River Gorge in Washington using Light Detection and Ranging ([LiDAR]) (Pierson et al. 2014). This mapping indicates that within the USGS study area, landslides are more numerous and complex than previously mapped and cover approximately 65 percent of the study area. Six currently active landslides were identified.

## **Volcanic Hazards**

In the event of a massive eruption from Mt. Hood, Mt. Adams, and Mt. St. Helens, ashfall from any nearby volcanoes could reach portions of the rail corridor. Lahars and/or debris flows from an eruption of either Mt. Hood or Mt. Adams could extend down to the rail corridor in the Hood River valley (Mt. Hood) or White Salmon River and Klickitat River valleys (Mt. Adams) (Scott et al. 1995, Burns et al. 2012).

## **Vessel Corridor**

Bedrock outcrops are varied along the lower reaches of the Columbia River. Most bedrock is buried beneath river sediments. Sediments along the Columbia River bottom include a diverse array of sands, silts, and clays. Shoreline soils are varied and generally support significant vegetation. Shoreline soils vary from sandy beaches to deep soils supporting mature forests.

Tsunamis generated by earthquakes from the CSZ are a potential hazard near the Lower Columbia River mouth and in nearshore environments along marine routes in the Pacific Ocean. Landslides could occur along the shorelines of the Lower Columbia River.

## **Impacts**

### **Rail Corridor**

#### **Earthquake Hazards**

There is potential for seismic activity to impact rail transportation, including potential derailments. BNSF policy requires that rail operations halt all traffic following a seismic event of magnitude 5.5 or higher in those areas where impacts could occur. For UP, all rail traffic within a 50-mile radius of the epicenter is directed to stop in the event of an earthquake of 5 to 7 on the Richter scale (Sirotek 2002). Operations would not commence until inspections of the impacted areas were completed. Ground motion/shaking associated with earthquake activity in the region could cause some minor damage to rail facilities. Soil liquefaction along the rail corridor could be associated with some minor landslides.

## Landslide Hazards

There is potential for impacts from landslides to rail transportation. The rail corridor would pass through various regions with steep slopes where potential exists for landslides to occur. The USGS and WDNR have identified areas of elevated landslide susceptibility and incidence along the rail corridor. A landslide could result in a train car derailment if the active slide were to strike the train, or if slide debris covered or damaged the tracks and a train was unable to stop prior to impacting the debris. BNSF identified locations where landslide susceptibility is high, and these sites are monitored by rail operators to reduce the potential for injuries and damage to rail equipment. BNSF has installed slide fences, catchment walls, and widened ditches to contain landslide debris and stabilize slopes. BNSF routinely inspects and maintains the slopes, ditches, retaining structures, and tracks to minimize impacts to railroad operations when landslides occur. Inspection and monitoring of the rail corridor in known slide locations is heightened during the rainy season. When a landslide occurs that blocks one or more tracks, BNSF imposes automatic moratoria on rail service through the impacted segment of the corridor until cleanup/repairs can be completed. In areas where landslides have resulted in service disruptions and other impacts, BNSF would initiate a program to mitigate issues.

## Volcanic Hazards

Depending on the size of an eruption, quantity of ash released, and the prevailing wind direction at the time of eruption, ashfall from these or other volcanoes could impact the rail corridor. Lahars and/or debris flows could travel down river valleys that extend to the railroad corridor along the Columbia River. The Cascades Volcano Observatory/USGS maintains an extensive seismic network on regional volcanoes. In the event of an impending eruption, widespread warning would be given throughout the region, initiating measures to protect personnel and equipment along the rail corridor.

## Vessel Corridor

Increased deep-draft vessel traffic has the potential to increase soil erosion caused by vessel wakes. The banks of the Columbia River generally consist of loose, unconsolidated soils and sedimentary deposits, and soil erosion would be limited to the lower approximately 33 miles of the river where shorelines with beaches close to the channel are not shielded from wave action and have beach slopes less than 10 percent. Wake effects would be the greatest as vessels pass through the Columbia River estuary and its associated habitats including tidal wetlands, shallow water, and tidal flats. The increase in deepdraft vessel traffic and associated increase in vessel wakes could have an impact to erosion, primarily in the Columbia River estuary.

## Earthquake Hazards

There is potential for impacts from seismic hazards along the vessel corridor. These hazards are associated with potential tsunamis generated from either the CSZ or other Pacific Ocean subduction zones. Earthquake-generated submarine landslides could also create tsunami waves that could impact vessels in nearshore environments. National Oceanic and Atmospheric Administration (NOAA) operates the Pacific Tsunami Warning System, which provides warnings for the United States. The warning system uses seismic data, tide gauges, and buoys to predict, detect, and issue warnings for seismic events. In the event of an earthquake capable of generating tsunamis, NOAA issues warnings to all potentially impacted vessels.



## Volcanic Hazards

There is potential for impacts from an eruption to vessels. Along the Columbia River, distances between the Mt. Rainier, Mt. Adams, Mt. St. Helens, and Mt. Hood and the vessel corridor are great, and any ashfall would likely disperse before depositing in high quantities on vessels. Additionally, the dominant wind direction in the area is to the east, so most volcanic ash would likely blow away from the vessel corridor, not toward it. If evidence monitored at the Cascades Volcano Observatory suggests an impending eruption could produce significant ashfall or lahars, widespread warning would be given throughout the region, allowing for implementation of measures to protect personnel and equipment along the vessel corridor.

# Surface Water and Floodplains

## Existing Conditions

### Rail Corridor

Key surface water resources along the rail corridor in Washington include numerous freshwater rivers and small tributaries to the Columbia River, as well as the Columbia River mainstem. The rail corridor parallels and crosses segments of the Spokane River (NWAC 2011). Four major dams and locks on the Columbia River are within the rail corridor: Bonneville, McNary, The Dalles, and John Day. These dams, as well as other upstream dams on tributaries and the main channel, flood control levees, and other water conveyance systems and watershed uses, have altered the river's hydrology and flow regime. The river between the dams is essentially made up of reservoir pools with deeply submerged riverbed features and shorelines ranging from bedrock headlands and wave-cut platforms to sand, gravel, and cobble beaches and marshes (NWAC 2015). There are known exceedances of permit limits on dam operations for temperature and total dissolved gases have occurred in the reservoirs created by the dams (Ecology 2015). Surface water features include intermittent and perennial streams, canals and ditches, artificial paths (reservoir impoundment of the Columbia River), and water connector/pipelines.

The vast majority of floodplains in the rail corridor occur along the Columbia River. Since the railroad bed is generally elevated above floodplains, the risk of flood hazard to the rail line is typically low, aside from crossing points where rail bridge abutments could be vulnerable to flooding, scour, or bank erosion.

### Vessel Corridor

The Columbia River Estuary generally includes the area from the river mouth upstream to approximately RM 34, near the upstream extent of saltwater influence, as well as nearshore marine waters and the Columbia River plume (Lower Columbia Fish Recovery Board 2004). Key tributaries entering the Columbia River along the vessel corridor (in downstream order) include the Lake, Lewis, Kalama, Cowlitz, Clatskanie, Elochoman, Grays, Deep, Youngs, Lewis & Clark, Chinook, and Wollacut rivers, along with other smaller creeks and streams.

As is common for the lower reaches of large rivers, the 100-year flood elevation decreases along the Lower Columbia River. The vessel corridor in the navigation channel, is by definition, within the

primary flood conveyance area of the main channel (i.e., the floodway) and surrounded by additional floodway and floodplain as controlled by natural topography and levees.

## Impacts

Impacts of rail transportation to water resources in the rail corridor study area could result from brakepad consumption, locomotive lubrication, and fuel drips due to increased rail operations in general (Puget Sound Regional Council 2010). Drips and leaks of very small quantities of crude oil and diesel would create a sheen on surface water immediately adjacent to the rail line, including potentially surface waters immediately adjacent to the rail line. There is potential for impacts to surface water from the increased rail transportation. Rail operations associated would not add any new flood hazard risks to rail bridges, and rail operations would not require construction within floodplains or the placement of permanent fill that could modify floodwater elevations or routing.

Wakes and wave action generated by deep-draft vessels could impact water quality of the Lower Columbia River by direct turbulence, erosion, sedimentation, and sediment resuspension. Such temporary increases in turbidity and local redistribution of sediment on the channel bed and/or to active channel bars and floodplain surfaces from vessel transits within the Lower Columbia River would not be considerably different from natural geomorphic processes, nor would it be expected to alter the river channel, its hydrology, or water quality relative of baseline conditions.

## Groundwater

### Existing Conditions

While outside the stated study area, for the rail corridor along the Columbia River to the Idaho border, two types of aquifers are common. The most prolific and widespread aquifers in the area are those in unconsolidated deposits that consist primarily of alluvial sand and gravel that fill basins. These aquifers are important sources of water for public supply and domestic, commercial, agricultural, and industrial needs because of their location in generally flat lowlands where human activities are concentrated. Permeability of the unconsolidated deposits is variable. The other important aquifers are within underlying volcanic rocks, usually Miocene basaltic rocks of the Columbia Plateau in northeastern Oregon and southeastern Washington. Water from these aquifers is used primarily for irrigation. Permeability of the Miocene basaltic-rock aquifers is extremely variable. The following EPA-designated sole source aquifers are crossed by the rail corridor: the Spokane Valley-Rathdrum Prairie Aquifer and the Troutdale Aquifer System.

### Impacts

Impacts of rail transportation to water resources in the rail corridor study area could result from brakepad consumption, locomotive lubrication, and fuel drips due to increased rail operations in general (Puget Sound Regional Council 2010). These would not be expected to affect groundwater.

# Water Quality

## Impacts

Impacts of rail transportation to water resources in the rail corridor along the Columbia River could result from brakepad consumption, locomotive lubrication, and fuel drips due to increased rail operations in general (Puget Sound Regional Council 2010). Drips and leaks of very small quantities could create a sheen on surface water immediately adjacent to the rail line, including potentially surface waters immediately adjacent to the rail line. There is potential for water quality impairment from increased rail transportation.

# Vegetation

## Existing Conditions

While outside of the stated study area, this section summarizes information on vegetation along railroad and vessel transportation corridors in Washington along the Columbia River associated with the Proposed Action.

## Rail Corridor

The rail corridor within Washington crosses or parallels freshwater rivers and streams and long stretches of the Columbia River and the predominant land cover along the rail corridor is open water as well as areas developed for human use and areas with agricultural vegetation. Native vegetation crossed by the rail corridor includes more than 60 different vegetation communities primarily within the semidesert, forests and woodlands, and shrubland and grassland vegetation types.

Semi-desert communities are predominately big sagebrush (*Artemisia tridentata*) steppe and shrubland communities. Forest and woodland vegetation communities are predominately ponderosa pine (*Pinus ponderosa* var. *ponderosa*) woodland and savanna, and maritime dry-mesic-wet Douglas fir (*Pseudotsuga menziesii*)-western hemlock (*Tsuga heterophylla*) forests. Shrublands and grasslands are predominately Columbia Basin dry grasslands with deeprooted bunchgrass such as bluebunch wheatgrass (*Pseudoroegneria spicata*) or Fendler threeawn (*Aristida purpurea* var. *longiseta*) (WDNR 2011a) and Northern Rocky Mountain grasslands with cool season bunchgrasses such as bluebunch wheatgrass, rough fescue (*Festuca campestris*), Idaho fescue (*Festuca idahoensis*), or prairie Junegrass (*Koeleria macrantha*) (WDNR 2011b).

## Vessel Corridor

Aquatic vegetation communities are distributed throughout the vessel corridor and range from freshwater riverine wetland communities to submerged aquatic marine vegetation. Shrublands and grasslands are the most abundant land cover followed by forests and woodlands, and then agricultural and developed. Within the shrublands and grasslands, the most common vegetation communities are intertidal freshwater wetlands, coastal sand dune and strand, and freshwater mudflats. Vegetation structure varies in the intertidal freshwater wetlands depending on substrate characteristics, elevation, and tidal flooding and includes tree, shrub, and herbaceous patches

(WDNR 2011e). Herbaceous plants are commonly sedges (Lyngbye's sedge [*Carex lyngbyei*], slough sedge [*Carex obnupta*]), western watermilfoil (*Myriophyllum hippuroides*), narrowleaf cattail (*Typha angustifolia*), and common ladyfern (*Athyrium filix-femina*)(WDNR 2011e).

## Impacts

### Rail Corridor

Vegetation communities within the rail corridor could be affected by leaks of small quantities of grease, oil, and fuel along the railways. Small spills and leaks would be expected to remain on the gravel railbed. Rail lines act as a corridor for migration of plants as seeds or vegetative propagules that are carried and deposited along the tracks (Wiłkomirski et al. 2012). Noxious weeds and invasive plants may displace special-status plants from the rail corridor and degrade vegetation communities where they become established. Increased rail traffic may facilitate the rate at which noxious weeds are dispersed along the rail line.

### Vessel Corridor

Vessels transiting the Columbia River would create vessel wakes, which have the potential to impact riparian vegetation directly through breakage, swamping, and erosion and indirectly through altered patterns of erosion and deposition and spread of noxious weeds. Vessel wakes are most likely to affect shoreline vegetation communities at or near water level. Wakes can redistribute fine sediment that can smother aquatic vegetation, but can also provide substrate for colonization of emergent wetland plants. Vessels traveling up and down the Columbia River could assist with dislodging (with wakes) and facilitating waterborne transport of wetland and riparian zone invasive exotic plants.

## Fish

### Existing Conditions

The rail corridor within Washington crosses over and is adjacent to more than 500 streams and waterbodies between the Washington-Idaho border and Vancouver, WA. The rail route crosses many freshwater rivers and smaller tributaries to the Columbia River and Pacific Ocean, including approximately 75 fish-bearing streams and 44 shoreline streams. East of the Cascades, freshwater lakes and tributaries within the rail corridor could provide potentially suitable habitat for inland special-status fish species, amphibians, reptiles, and invertebrates.

## Impacts

Impacts on aquatic habitats and species in Washington could occur in the event that waterbodies are impacted by hazardous materials that enter waterways. Increased rail operations could contribute to the accumulation and transportation of caked-on grease on tracks and creosote discharge from old railroad ties. However, it is unlikely that the volumes of these materials would disperse outside of the immediate rail tracks and unlikely that they would enter waterways in sufficient quantities to cause adverse impacts on surface water and associated impacts on fish, amphibians, reptiles, and invertebrates.

**Viewpoints for Aesthetics, Light, and Glare Analysis**

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## Viewpoints for Aesthetics, Light, and Glare Analysis

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This appendix provides viewpoint descriptions and associated figures for the key viewpoints identified in Chapter 3, Section 3.3, *Aesthetics, Light, and Glare*, in Volume I of this Final Environmental Impact Statement (Final EIS). It describes the viewer sensitivity and associated key viewpoints for urban and industrial views, rural and residential views, and natural views. Eleven key viewpoints from which views of the project area could be affected, were identified. Viewpoints are described individually and grouped by view type.

### Urban and Industrial Views

The typical viewers in this area are assumed to be industrial workers and commuters traveling on Industrial Way. Visual sensitivity in the industrial use area along the Columbia River is expected to be low because of the existing industrial character of the landscape. Existing industrial facilities appear large in scale and clearly dominate the landscape character. Major visual lines are defined by buildings and structures, and thus are vertical, horizontal, and diagonal. The colors of the existing structures vary but are primarily neutral, including brown, gray, and white surfaces. Movement is an integral part of views of this area, resulting from vehicular traffic, personnel, and industrial emissions (plumes). Artificial lighting is common throughout the industrial area and clearly defines the extent of the heavy industrial area at night. Although most facilities lack extensive windows or other highly reflective surfaces, glare from light-colored building surfaces can be common on bright days. The concentration of similar facilities and land uses can make changes in nighttime lighting difficult to discern.

### Key Urban and Industrial Viewpoints

- **Viewpoint 1, Industrial Way (1,620 feet southeast of the project area).** This viewpoint represents views of the project area from nearby industrial areas. Views are from approximately the same elevation and are dominated by the numerous large-scale industrial facilities, transmission lines, and substations that occupy most of the land in this area. Industrial Way parallels the project area, limiting views to those obtained on approach to the project area, or at an approximate 90-degree angle as the viewer passes the project area (Figure G-1).
- **Viewpoint 2, 38th Avenue (2,050 feet northeast of the project area).** From 38th Avenue, the project area is directly in front of the viewer on the approach to Industrial Way (Figure G-2). Industrial facilities, transmission lines, and substations—all in the immediate foreground (within 1 mile) of the view—dominate the existing views.
- **Viewpoint 3, Mint Farm Industrial Area (2,680 feet northeast of the project area).** This viewpoint provides another view of the project area from a nearby industrial area. Existing facilities on the project area and transmission lines are partially visible through vegetation. The visual sensitivity of viewers at this location is low. The industrial character of the area is consistent with the historical industrial use of the Port and this area of Longview (Figure G-3).

## Rural and Residential Views

The typical viewers in this area are presumed to be residents of the city neighborhoods or of surrounding low-density unincorporated residential properties, including areas south of the river in Oregon. Some travelers on local and state transportation corridors, such as U.S. Route 30 (US 30) from the rural south side of the Columbia River, also have views of the project area.

The general landscape of the rural and residential area consists of natural and human-made features and patterns, often the result of an altered landscape that now supports rural farming or forestry development. The more intensely developed large-scale industrial facilities, high-voltage electrical transmission lines, electrical substations, and plumes of industrial emissions may or may not be clearly discernible.

As with similar land uses, longer distances make individual sites and uses difficult to discern within the surrounding industrial landscape. For example, a viewer at the Hillside Residential viewpoint (Viewpoint 5) is located approximately 3 miles northeast of the project area, making it difficult to identify specific changes to the existing area. Industrial emission plumes and artificial lighting are common throughout the industrial area along the Columbia River. Moreover, the concentration of emissions and light sources at similar facilities and land uses in this industrial area reduces the visual distinction of any single site or facility.

### Key Rural and Residential Viewpoints

- **Viewpoint 4, Barlow Point Neighborhood (7,500 feet northwest of the project area).** This viewpoint represents the views of the project area from the Barlow Point neighborhood, located adjacent to the northwest terminus of the project area. The general character of the area is agricultural. Large tracts of flat farm and open space, with dispersed housing (including a row of houses on Barlow Point Road) are accessed by narrow rural roads approximately 20 to 30 feet in width. The view of the project area is obscured from most of the Barlow Point neighborhood by the approximately 75-foot-tall, 47-acre Mount Solo landfill (EMCON Northwest 1992), a broad row of trees, and the levee along the Columbia River. Residents would not have direct views of the project area (Figure G-4). Most foreground views feature open space but large utility transmission towers and emission plumes are visible in distant views. Although no direct sources of light from the project area or industrial facilities can be seen, ambient light originating from industrial uses, including the project area, is visible.
- **Viewpoint 5, Hillside Residential (14,875 feet northeast of the project area).** This residential area is situated in the hills north of the floodplain and has sweeping views of the floodplain and river, which may include the industrial area. Residents of dispersed locations on the eastern hillsides may have views of the project area. Although private lots could not be accessed, viewpoint photographs were available from an undeveloped lot on Alexia Court (Figure G-5). These areas are generally characterized by contiguous neighborhoods on winding hillside streets. Views from western residential areas are blocked partially or completely by Mount Solo (elevation 610 feet), which lies between the residential areas and the project area. Views of industrial areas are further obstructed by existing vegetation.

Views from this area vary depending on location, but residential viewers could have high sensitivity to changes to the project area. Nighttime views from residential areas include the residential and commercial lighting of Longview and beyond. Lighting associated with the

industrial facilities south of Industrial Way is also visible; however, no single facility dominates the existing views.

- **Viewpoints 6 and 7, US 30 Viewpoints (13,390 to 14,980 feet south of the project area).** The US 30 corridor on the south side of the Columbia River extends 2 miles west from the Lewis and Clark Bridge. The corridor includes two scenic pullouts, both with scenic views of Mount St. Helens, Mount Rainier, the Columbia River, and surrounding hillsides. The prominent natural features are the primary focal points but views include rural farmland on both sides of the Columbia River and the Longview/Kelso urban and industrial areas (1 to 5 miles away). Although individual facilities can be discerned from both viewpoints, these facilities are located in an industrial context. Furthermore, most viewers do not linger at road pullouts, and views are presumed to be short in duration (Figures G-6 and G-7).

Sources of light and glare at the viewpoints include moving vehicles. The ambient glow of the industrial use area along the Columbia River, including Port and Weyerhaeuser facilities, is also visible in the distance. Lighting from the individual facilities can be discerned; however, no facility or light source dominates views and light sources blend into the visual context of the industrial area's nighttime condition.

Viewer sensitivity to changes in the study area is assumed to be moderate from Viewpoints 6 and 7 due to the scenic nature of the views; however, views are transient and already include an existing industrial landscape along the Columbia River.

- **Viewpoint 8, Alston-Mayger Road (10,930 feet southwest of the project area).** The road is located on a high bluff south of the Columbia River in Oregon. Views of the project area from this area occur primarily from single-family residences situated on the northern edge of the bluff. Views of the project area are extremely limited from the roadway because of topography and vegetation. Access constraints precluded observation and evaluation from residential lots. Views were available only from the edge of the road along private property (Figure G-8). Views vary depending on their exact location, but residential viewers could have high sensitivity to changes to the project area. Scenic views of Mount St. Helens, Mount Rainier, the Columbia River, Lord Island, and Walker Island are the primary focal points, but views also include the Longview urban and industrial areas (approximately 2.5 to 5 miles away). Although individual industrial facilities can be discerned, the considerable distance to the project area reduces viewer sensitivity to individual developments within the larger industrial landscape.

Viewer sensitivity from this viewpoint is moderate to high due to the residential viewing location; however, elements of the project area and the larger agglomeration of industrial facilities blend into a relatively contiguous industrial landscape. The ambient glow of the industrial area along the Columbia River, including Port and Weyerhaeuser facilities, is visible but no single facility dominates views.

- **Viewpoint 9, West Longview Neighborhood (8,000 feet northwest of the project area).** This viewpoint is located along Willow Grove Connection Road (SR 432) just south of the residential neighborhood along Schneiter Drive. The general character of the area is single-family residential homes bordered by extensive wetlands associated with the Coal Creek Slough. The area between the neighborhood and the project area contains large tracts of agricultural land with dispersed single-family residences. The view of the project area is obscured by the approximately 75-foot-tall, 47-acre Mount Solo landfill (EMCON Northwest 1992) and a broad row of trees. Residents would not have direct views of the project area (Figure G-9). Although no



direct sources of lighting from the project area or industrial facilities can be seen, ambient light originating from industrial uses, including the project area, is visible.

## Natural Views

The typical viewers in natural areas are assumed to be recreationalists using the Columbia River or public parks. As noted above, the Columbia River offers a variety of recreational opportunities such as boating, fishing, and other forms of water recreation, and the Lower Columbia River Water Trail passes by the project area. Dibblee Beach Park offers public beach and water access, fishing, swimming, picnicking, sunbathing, and other passive recreation opportunities such as hiking and bird watching. The landscape character of natural areas is formed by distinctive and memorable natural features (e.g., landforms, rock, outcrops) and patterns (vegetation and open space) with few human-made features. Visual texture consists of rough natural surfaces and colors, including browns, yellows, and greens, and the smooth waters of the Columbia River. Views for a typical recreationalist are assumed to be infrequent and of short to moderate duration; however, viewer sensitivity tends to be high due to interest in natural areas and the inconsistency of natural and industrial lands.

In addition to use by recreationalists, the Columbia River is also navigable by commercial boat operators. Viewers from commercial boats are expected to have a low sensitivity to visual changes because of the infrequent and transitory nature of their views, making it unlikely that they would focus on changes to the project area.

## Key Natural Viewpoints

- **Viewpoint 10, Dibblee Point Beach (6,500 feet south of the project area).** This waterfront area extends along the Columbia River from the confluence of the Cowlitz and Columbia Rivers northwest to the project area. This section of the river is characterized as a wide channel of flat water, with Lord Island and Walker Island visible in the northwest portion. The viewshed includes the river channel and shoreline areas on both the Washington and Oregon sides. The Washington shoreline includes heavy industrial and shipping uses with no public access. Dibblee Point Beach offers public recreational access to the Oregon shoreline south/southeast of the project area (Figure G-10). Viewers from Dibblee Point Beach and on-water river recreationalists (e.g., anglers, water trail users, cruisers) are expected to have high viewer sensitivity to changes in the existing area. Light along the Columbia River mainly originates from industrial facilities along the river. Water surfaces also reflect light and glare during low light conditions.
- **Viewpoint 11, Willow Grove Park and Boat Launch (21,375 feet northwest of the project area).** The park offers 0.75 mile of public beach, picnic areas, pedestrian trails, and open spaces. The park shares paved parking lots and restroom facilities with the large paved boat launch, which is an important public access for boating and water activities on the Columbia River. The boat launch is located outside the study area, approximately 4.5 miles west of Longview, but was included as a viewpoint because it offers public access to the river and allows a viewer to travel upriver from the boat launch and into the study area. Views may then be affected as discussed in Viewpoint 10.

Views of the project area are obstructed by vegetation on Fisher Island and Hump Island (Figure G-11). Transmission lines and emission plumes adjacent to the project area are visible in background views (4 to 10 miles). Because of the existing vegetation, no individual lighting source is discernible from this location, but the ambient glow of the industrial area along the Columbia River and city lights from Longview and Kelso are detectable. Based on the screened views and distance from the project area, viewers would not be sensitive to changes in the project area.

Table G-1 summarizes the viewer sensitivity levels and the existing visual quality of each viewpoint as it relates to the Proposed Action.

**Table G-1. Viewpoints, Viewer Sensitivity, and Existing Visual Quality—Proposed Action**

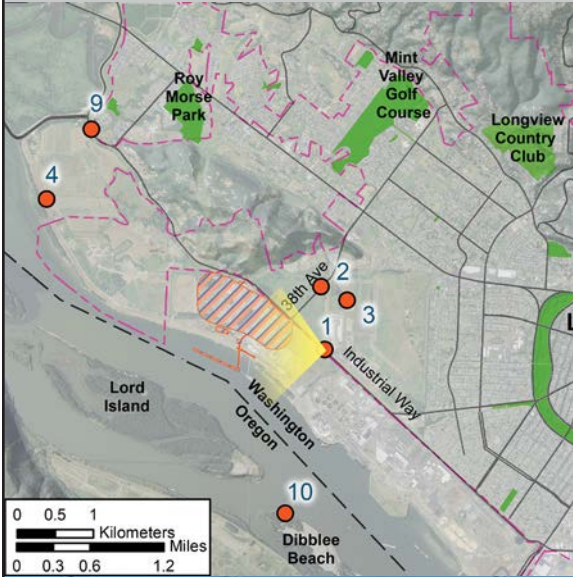
<b>View-point</b>	<b>View</b>	<b>Viewer Sensitivity</b>	<b>Viewer Description</b>	<b>Type</b>
1	Looking west on Industrial Way	Low	Industrial workers and commuters travelling on Industrial Way and other local roads. Would experience frequent views of the project area from nearby industrial areas.	Urban/ Industrial
2	Looking south along 38 <sup>th</sup> Avenue	Low	Industrial workers and commuters traveling on 38 <sup>th</sup> Avenue and other local roads. Would experience frequent views of the project area from nearby industrial areas.	Urban/ Industrial/ Rural
3	Looking southwest from Mint Farm Industrial Area (from Prudential Boulevard)	Low	Industrial workers and commuters traveling Prudential Boulevard and other local roads. Would likely experience frequent views of the project area from nearby industrial areas.	Urban/ Industrial/ Commercial
4	Looking east from Barlow Point Road	High	Residents and agricultural workers looking east toward the project area. Would likely experience frequent views of the project area from rural areas located within the City of Longview and unincorporated Cowlitz County. Views may be of long duration and viewers may have a high sensitivity to change.	Rural/ Residential
5	Looking southwest from Hillside Residential (from Alexia Court)	High	Residents and travelers of local roads. Viewers would experience frequent dispersed views of the project area at various times of day and for long durations.	Rural/ Residential
6,7	Looking north/northwest from US 30 viewpoints	Moderate	Highway travelers looking northwest from US 30 and scenic pullouts. Viewers would experience views of the project area for short durations. Frequency may range from infrequent for visitors to daily for commuters.	Rural

<b>View-point</b>	<b>View</b>	<b>Viewer Sensitivity</b>	<b>Viewer Description</b>	<b>Type</b>
8	Looking northeast from Alston-Mayger Road	Moderate/ High	Residents and travelers looking northeast from rural residential areas along this road and to experience frequent dispersed views of the project area at various times and for long durations.	Rural/ Residential
9	Looking southeast from West Longview Neighborhood	None	Residents looking southeast toward the project area. Views of the project area are obstructed by Mount Solo landfill and existing vegetation.	Rural/ Residential
10	Looking north from Dibblee Point Beach	High	Public beach and on-water recreationalists looking north toward the project area. Infrequent views of the project area of short duration but viewers may be highly aware of change. Few night viewers.	Natural
11	Looking east from Willow Grove Park and Boat Launch	None	Boaters and recreationalists looking east toward project area. Views would be obstructed by vegetation on Fisher and Hump Islands in Columbia River. Boaters traveling upriver may experience varying views of the project area.	Natural

## References

EMCON Northwest, Inc. 1992. *Mt. Solo Landfill Closure/Post-Closure Plan*. Longview, Washington. June.

Viewpoint Location Map



Existing Nighttime Conditions

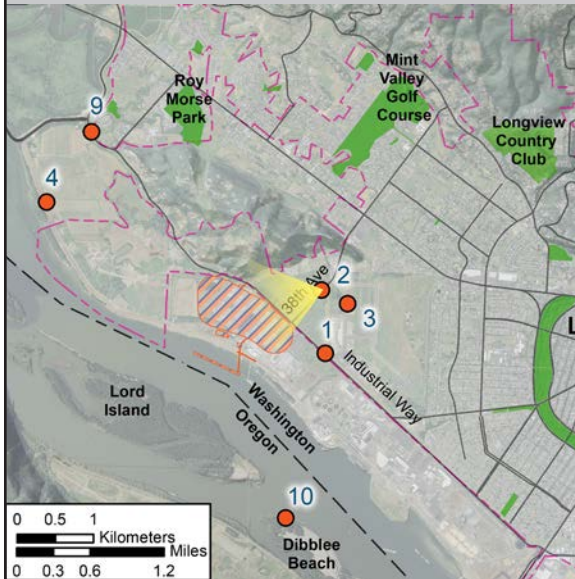


Existing Conditions Photograph - Viewpoint 1



**Figure G-1**  
Proposed Action Existing Conditions Photograph - Viewpoint 1  
(View from Industrial Way)  
Millennium Bulk Terminals—Longview

### Viewpoint Location Map



### Existing Nighttime Conditions



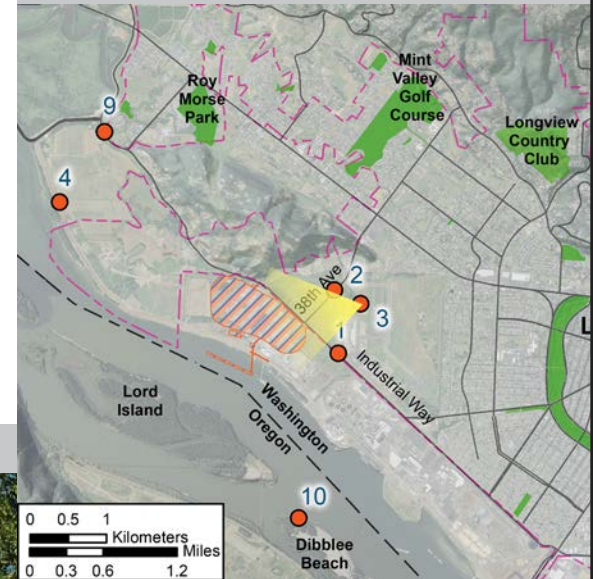
### Existing Conditions Photograph - Viewpoint 2



**Figure G-2**

Proposed Action Existing Conditions Photograph - Viewpoint 2  
(View from 38th Ave)  
Millennium Bulk Terminals—Longview

### Viewpoint Location Map

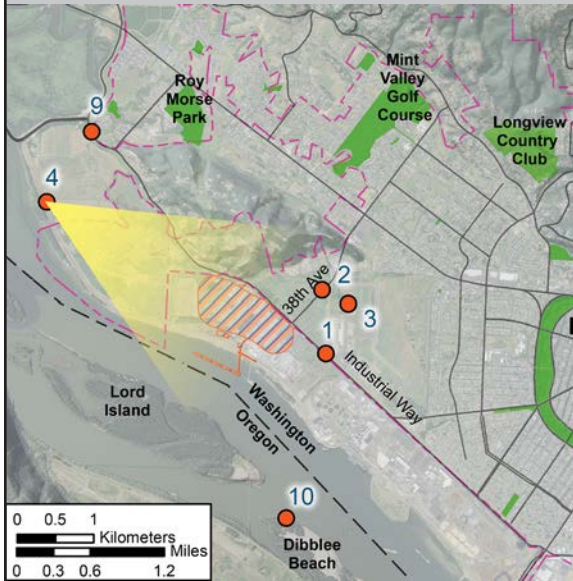


### Existing Conditions Photograph - Viewpoint 3



**Figure G-3**  
Proposed Action Existing Conditions Photograph - Viewpoint 3  
(View From Mint Farm Industrial Park)  
Millennium Bulk Terminals—Longview

### Viewpoint Location Map



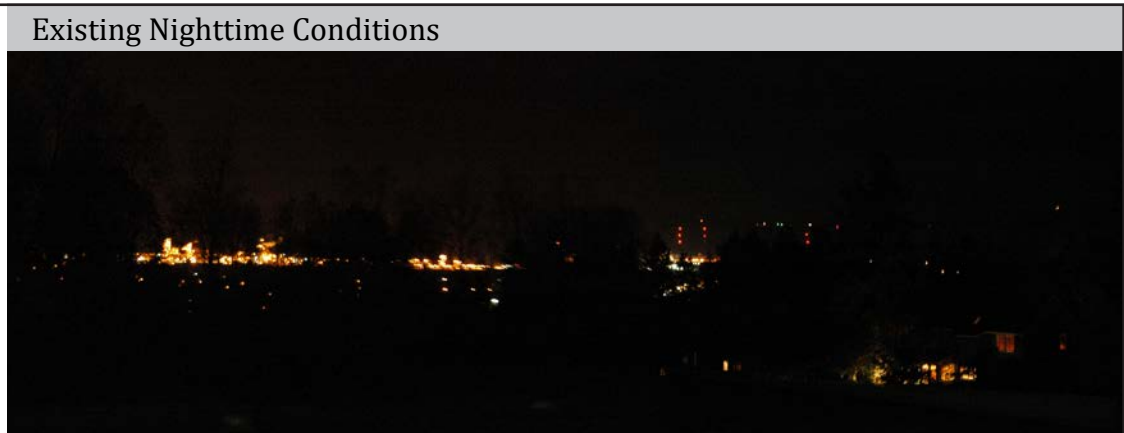
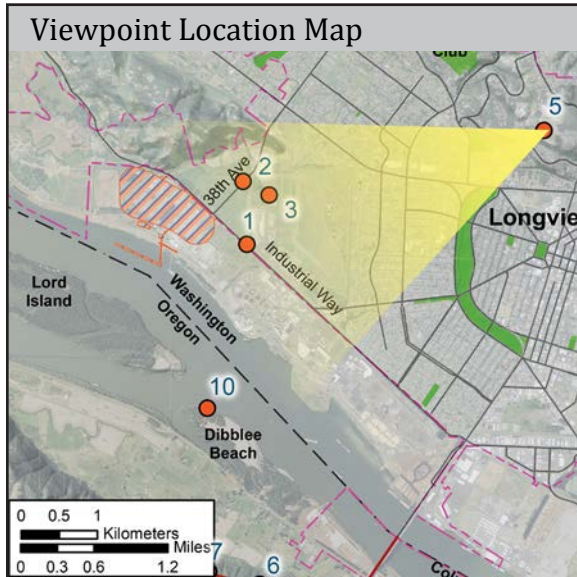
### Existing Nighttime Conditions



### Existing Conditions Photograph - Viewpoint 4



**Figure G-4**  
Proposed Action Existing Conditions Photograph - Viewpoint 4  
(View from Barlow Point Road)  
Millennium Bulk Terminals—Longview



Existing Conditions Photograph - Viewpoint 5



**Figure G-5**  
Proposed Action Existing Conditions Photograph - Viewpoint 5  
(View from Hillside Residences)  
Millennium Bulk Terminals—Longview



## Existing Nighttime Conditions

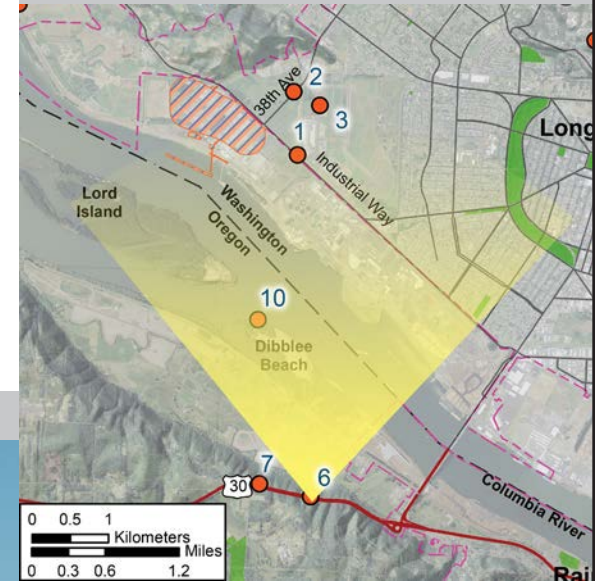


## Existing Conditions Photograph - Viewpoint 6

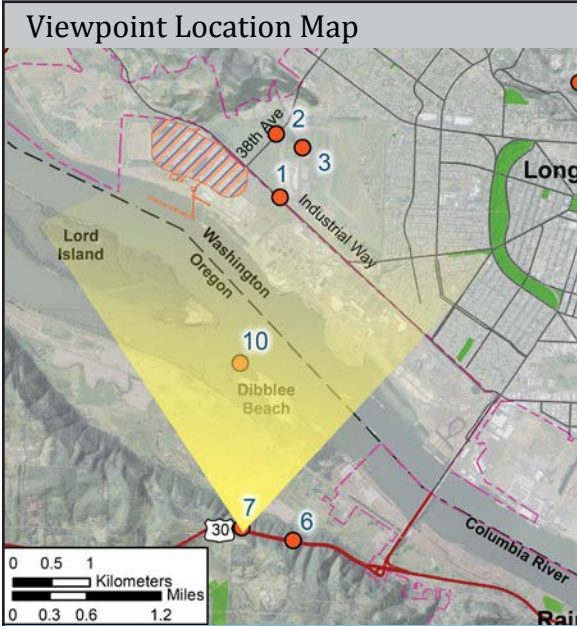
Approximate Location of project area for Proposed Action  
- Existing facilities can be seen in the distance.



## Viewpoint Location Map



**Figure G-6**  
Proposed Action Existing Conditions Photograph - Viewpoint 6  
(View from US Route 30, Upper Pull-off)  
Millennium Bulk Terminals—Longview

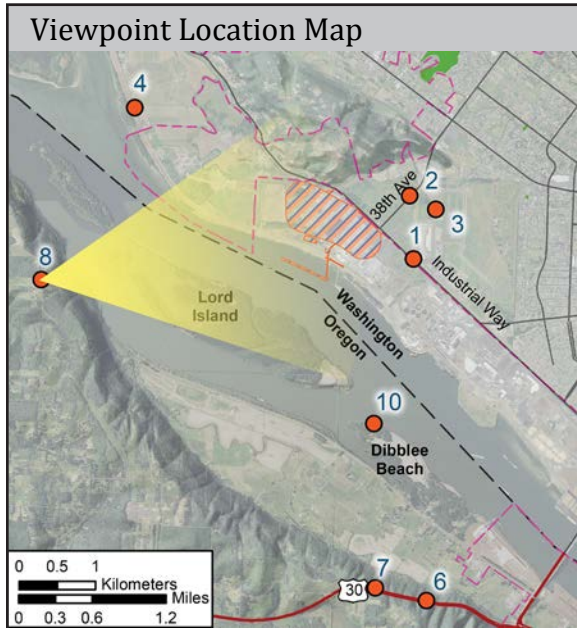


**Existing Conditions Photograph - Viewpoint 7**



Approximate Location of project area for Proposed Action - Existing facilities can be seen in the distance.

**Figure G-7**  
 Proposed Action Existing Conditions Photograph - Viewpoint 7  
 (View from US Route 30, Lower Pull-off)  
 Millennium Bulk Terminals—Longview



### Existing Nighttime Conditions

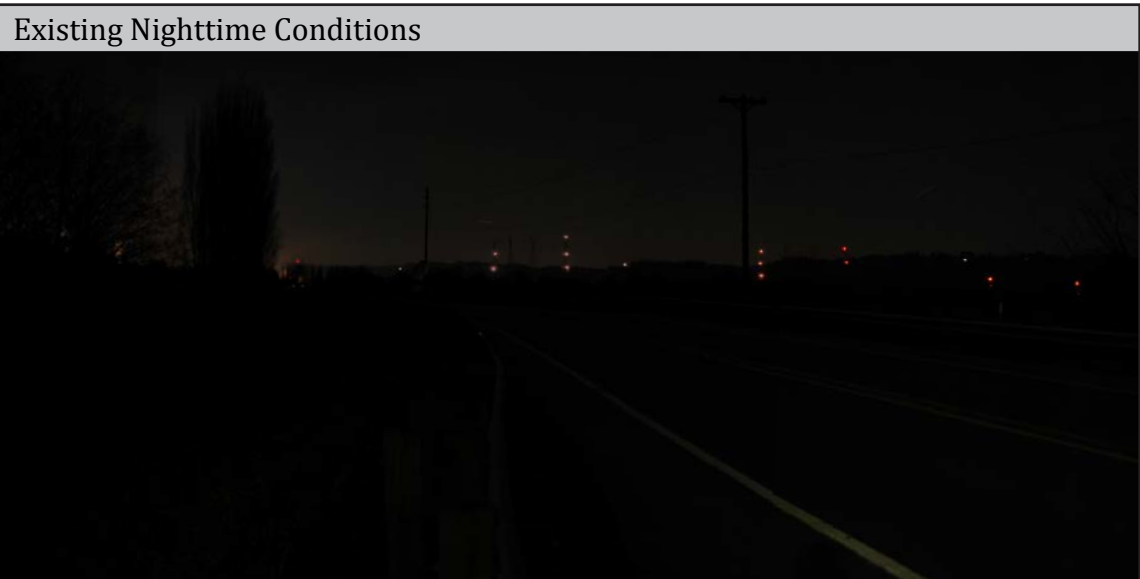
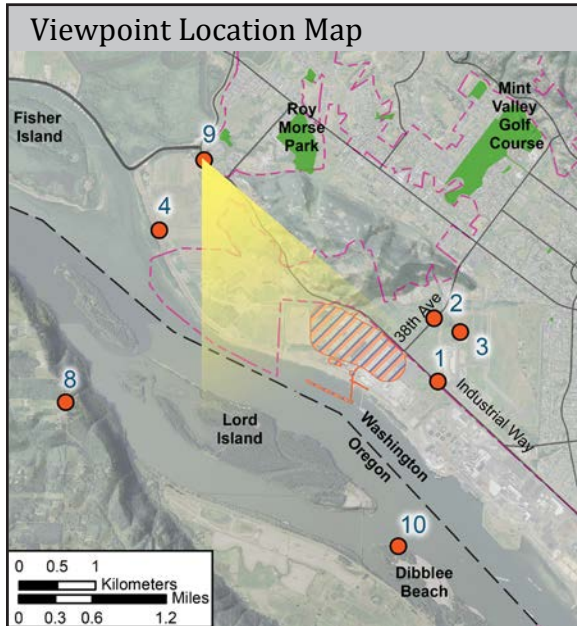


### Existing Conditions Photograph - Viewpoint 8

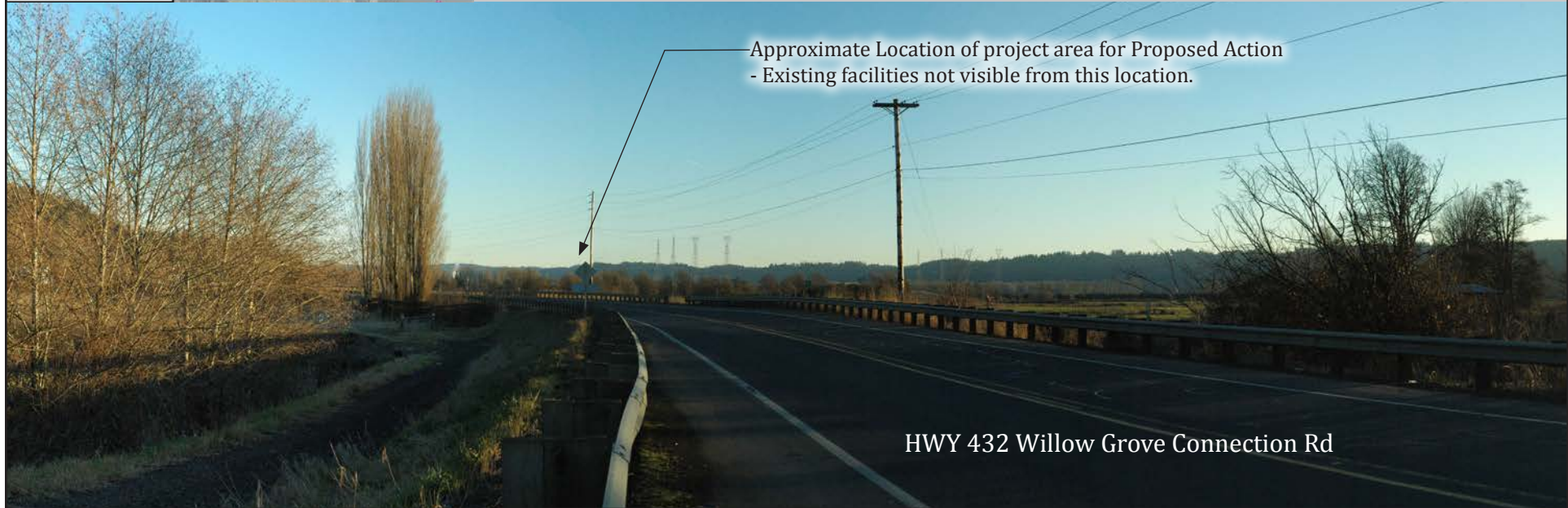


Approximate Location of project area for Proposed Action - Existing facilities can be seen in the distance.

**Figure G-8**  
Proposed Action Existing Conditions Photograph - Viewpoint 8  
(View from Alston-Mayger Road)  
Millennium Bulk Terminals—Longview



Existing Conditions Photograph - Viewpoint 9



**Figure G-9**  
Proposed Action Existing Conditions Photograph - Viewpoint 9  
(View from West Longview Neighborhood)  
Millennium Bulk Terminals—Longview

## Existing Nighttime Conditions

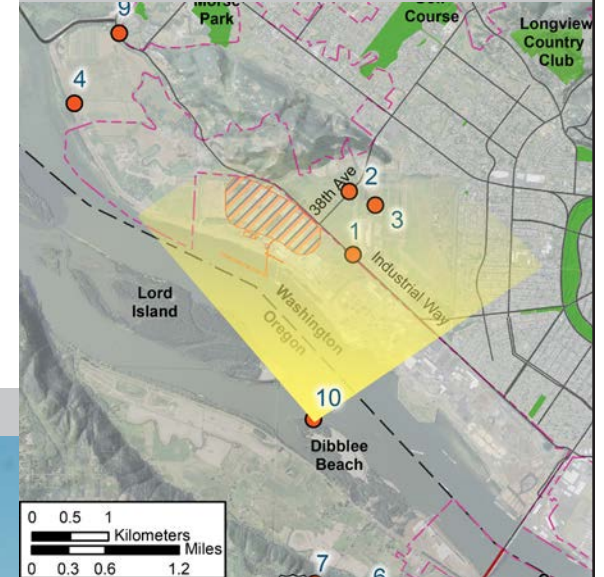


## Existing Conditions Photograph - Viewpoint 10

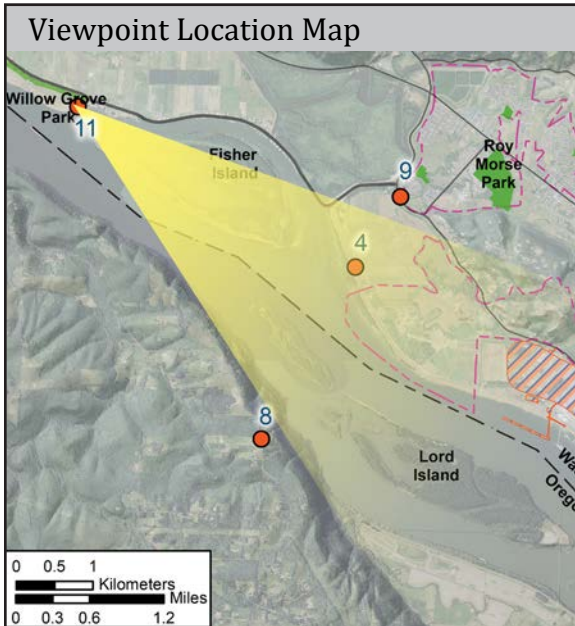
Approximate Location of project area for Proposed Action  
- Existing facilities can be seen in the distance.



## Viewpoint Location Map



**Figure G-10**  
Proposed Action Existing Conditions Photograph - Viewpoint 10  
(View from Dibblee Beach)  
Millennium Bulk Terminals—Longview

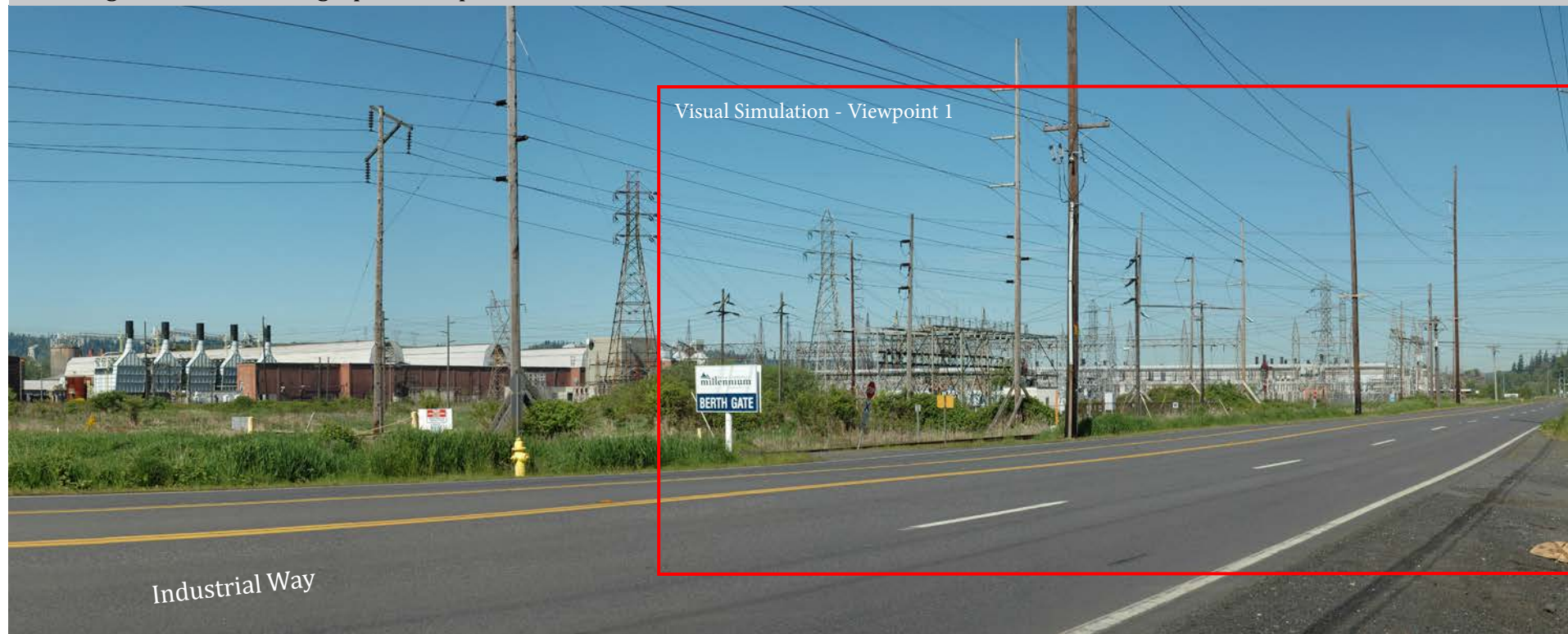


Existing Conditions Photograph - Viewpoint 11

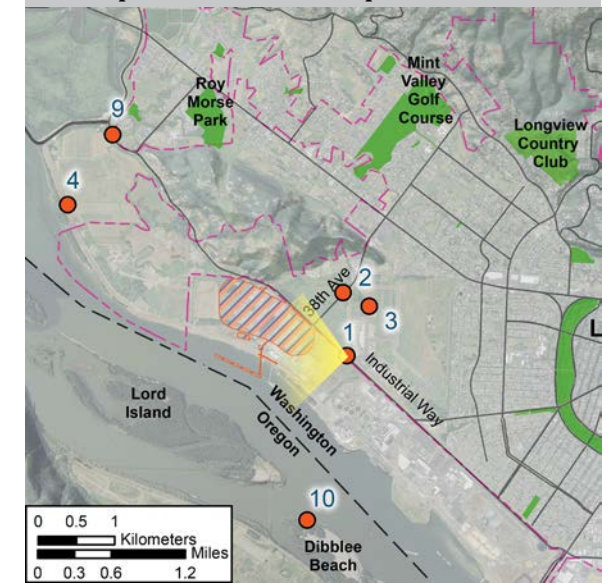


**Figure G-11**  
Proposed Action Existing Conditions Photograph - Viewpoint 11  
(View from Willow Grove Park and Boat Launch)  
Millennium Bulk Terminals—Longview

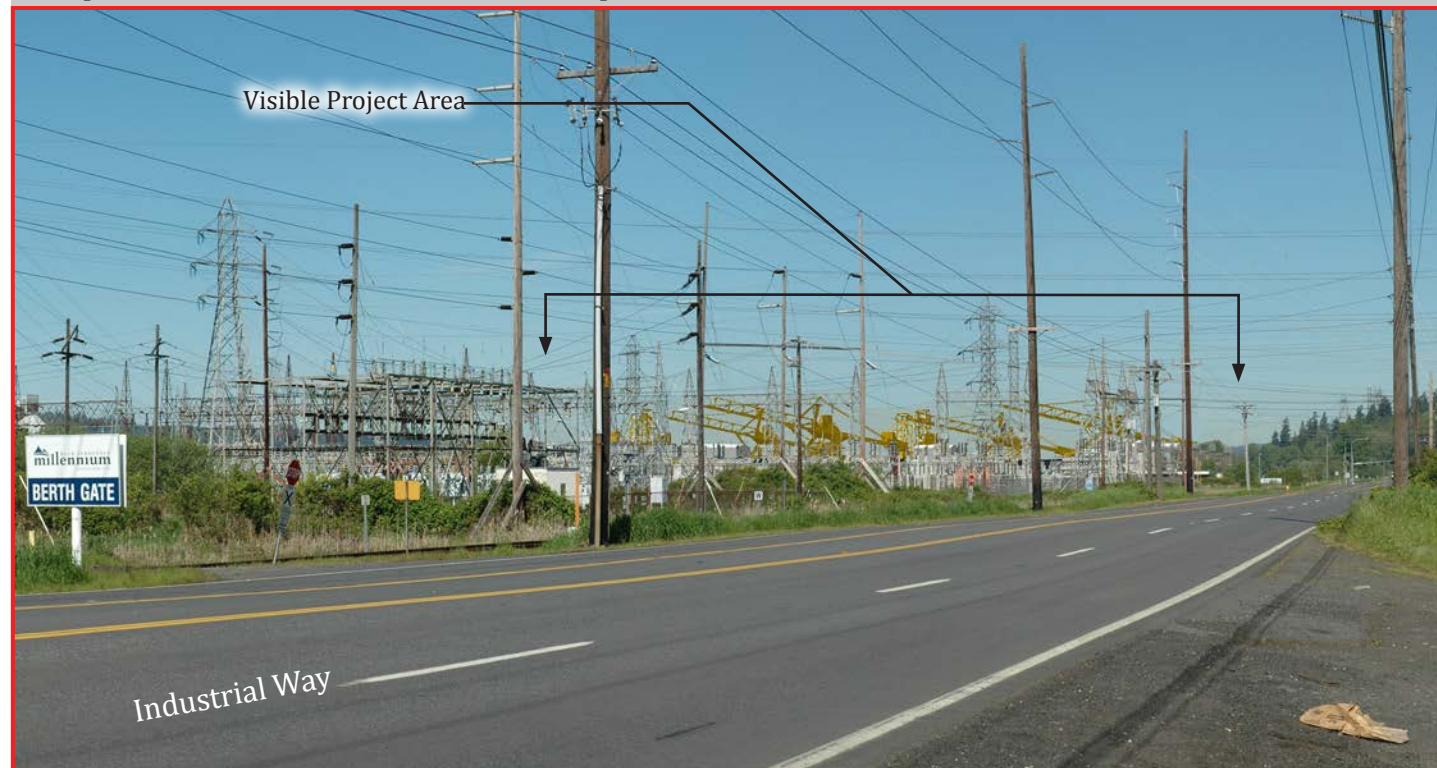
Existing Conditions Photograph - Viewpoint 1



Viewpoint Location Map



Proposed Action Visual Simulation - Viewpoint 1



Visual Simulation Viewpoint 1  
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 Image Width = 7.5 inches  
 Zoom = 50%  
 True View Distance = 17.7" inches

Notes:

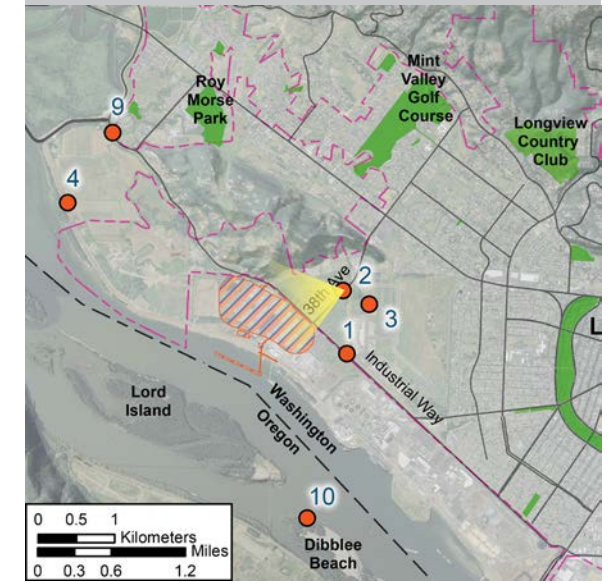
1. Existing Conditions photographs taken with Nikon D-70 (50mm lens) and panorama photomerged using Photoshop CSS.
2. Visual Simulation is based on 3D model and AutoCAD files provided by MBLT.
3. Visual Simulation created with AutoCAD, Sketchup Pro, Google Earth and Photoshop CSS.

**Figure G-12**  
 Proposed Action Visual Simulation - Viewpoint 1  
 (View from Industrial Way)  
 Millennium Bulk Terminals—Longview

Existing Conditions Photograph - Viewpoint 2



Viewpoint Location Map



Proposed Action Visual Simulation - Viewpoint 2



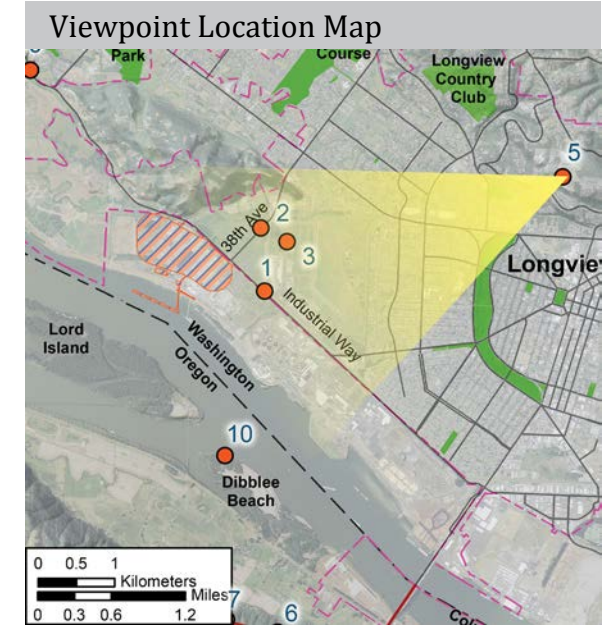
Visual Simulation Viewpoint 2  
 Field of View = 53 degrees  
 Image Width = 13.5 inches  
 Zoom = 50%  
 True View Distance = 27.2" inches

Notes:  
 1. Existing Conditions photographs taken with Nikon D-70 (50mm lens) and panorama photomerged using Photoshop CSS.  
 2. Visual Simulation is based on 3D model and AutoCAD files provided by MBLT.  
 3. Visual Simulation created with AutoCAD, Sketchup Pro, Google Earth and Photoshop CSS.

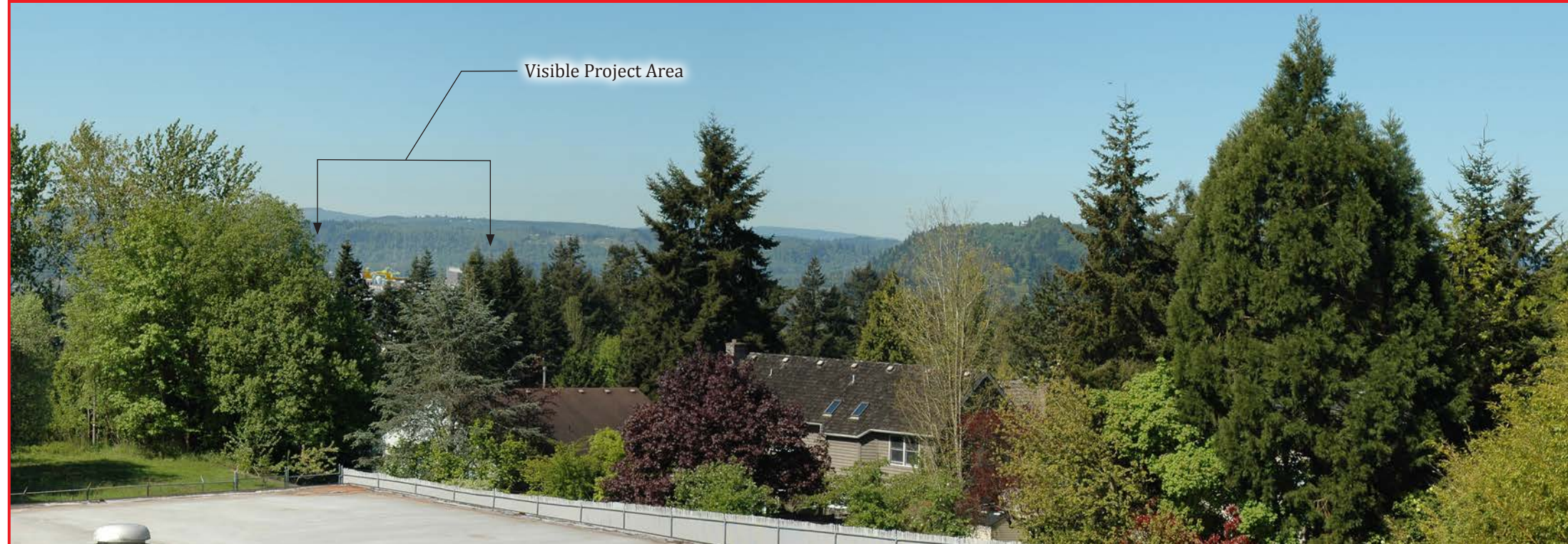
**Figure G-13**  
 Proposed Action Visual Simulation - Viewpoint 2  
 (View from 38th Ave)  
 Millennium Bulk Terminals—Longview



Existing Conditions Photograph - Viewpoint 5



Proposed Action Visual Simulation - Viewpoint 5



Visual Simulation Viewpoint 5  
 Field of View = 27 degrees  
 Image Width = 11.5 inches  
 Zoom = 50%  
 True View Distance = 48.5" inches

- Notes:
- Existing Conditions photographs taken with Nikon D-70 (50mm lens) and panorama photomerged using Photoshop CSS.
  - Visual Simulation is based on 3D model and AutoCAD files provided by MBLT.
  - Visual Simulation created with AutoCAD, Sketchup Pro, Google Earth and Photoshop CSS.

**Figure G-14**  
 Proposed Action Visual Simulation - Viewpoint 5  
 (View from Hillside Residences)  
 Millennium Bulk Terminals—Longview

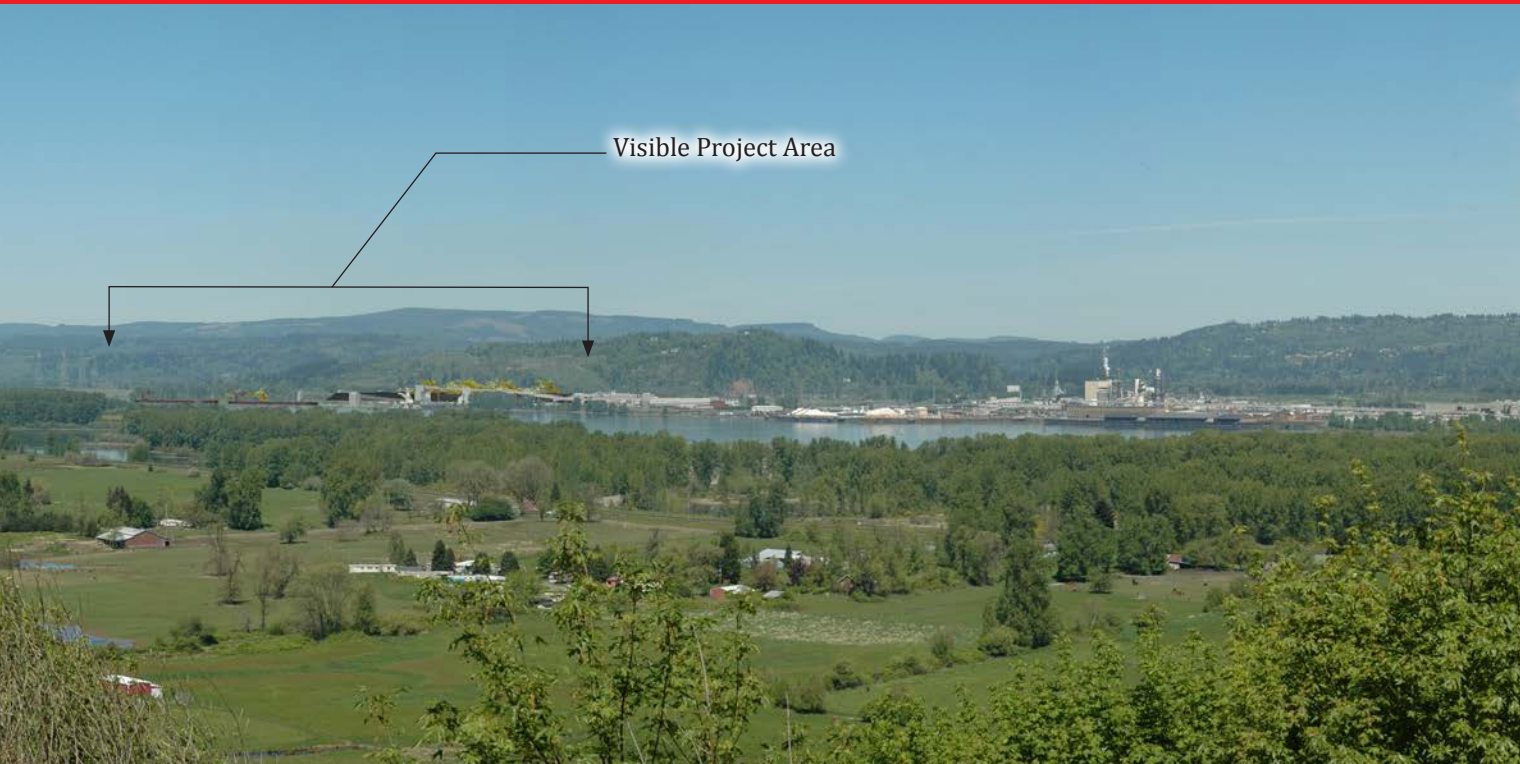
Existing Conditions Photograph - Viewpoint 6



Visual Simulation - Viewpoint 6

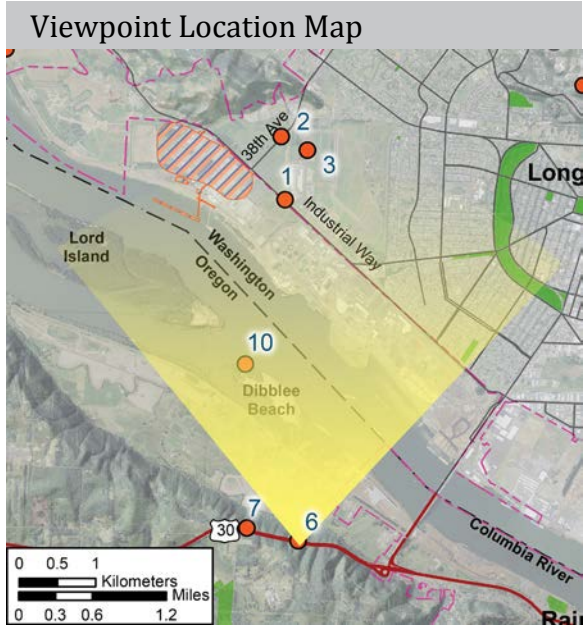


Proposed Action Visual Simulation - Viewpoint 6



Visual Simulation Viewpoint 6  
 Field of View = 32 degrees  
 Image Width = 8.0 inches  
 Zoom = 50%  
 True View Distance = 13.0" inches

- Notes:
1. Existing Conditions photographs taken with Nikon D-70 (50mm lens) and panorama photomerged using Photoshop CSS.
  2. Visual Simulation is based on 3D model and AutoCAD files provided by MBLT.
  3. Visual Simulation created with AutoCAD, Sketchup Pro, Google Earth and Photoshop CSS.



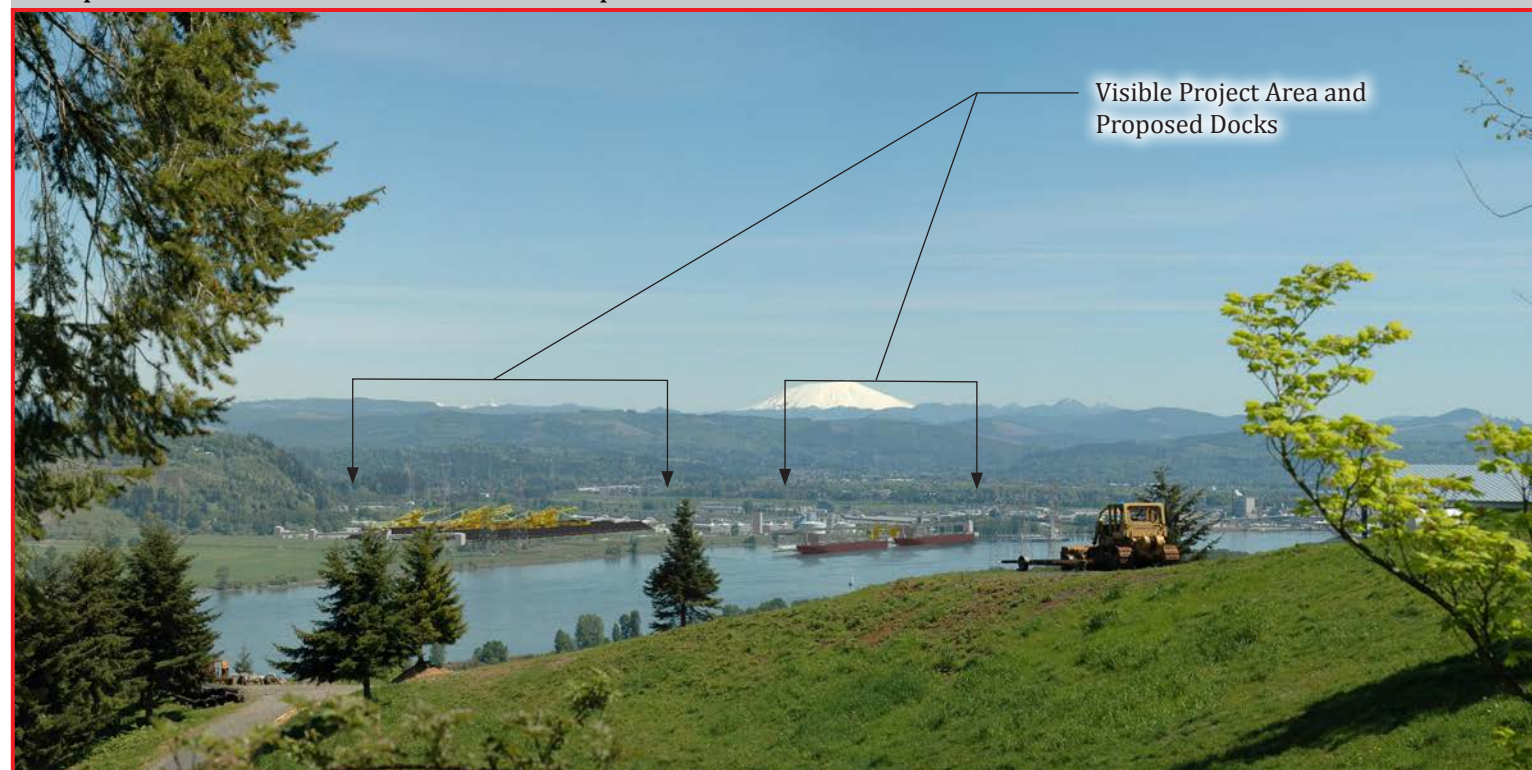
**Figure G-15**  
 Proposed Action Visual Simulation - Viewpoint 6  
 (View from US Route 30, Lower Pull-off)  
 Millennium Bulk Terminals—Longview

Existing Conditions Photograph - Viewpoint 8



Visual Simulation - Viewpoint 8

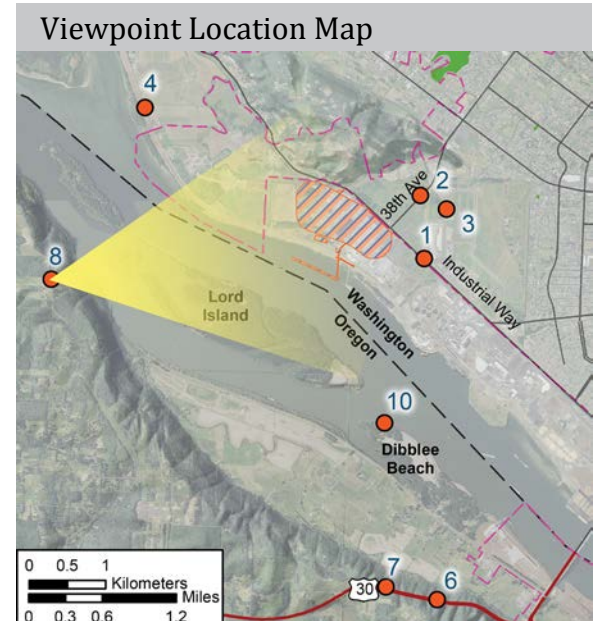
Proposed Action Visual Simulation - Viewpoint 8



Visible Project Area and Proposed Docks

Visual Simulation Viewpoint 8  
 Field of View = 34 degrees  
 Image Width = 8.0 inches  
 Zoom = 50%  
 True View Distance = 13.0" inches

- Notes:
1. Existing Conditions photographs taken with Nikon D-70 (50mm lens) and panorama photomerged using Photoshop CSS.
  2. Visual Simulation is based on 3D model and AutoCAD files provided by MBLT.
  3. Visual Simulation created with AutoCAD, Sketchup Pro, Google Earth and Photoshop CSS.

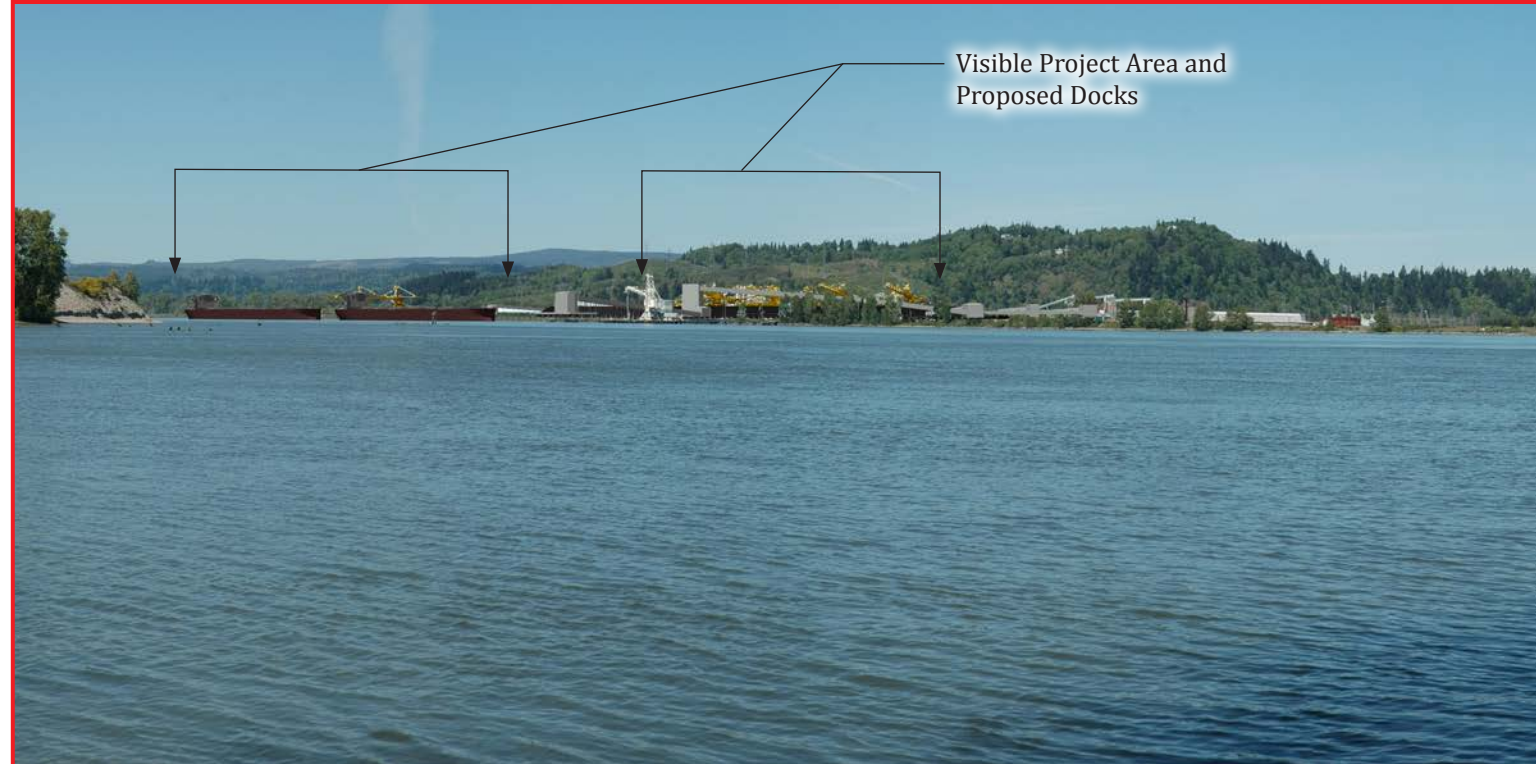


**Figure G-16**  
 Proposed Action Visual Simulation - Viewpoint 8  
 (View from Alston-Mayger Road)  
 Millennium Bulk Terminals—Longview

Existing Conditions Photograph - Viewpoint 10

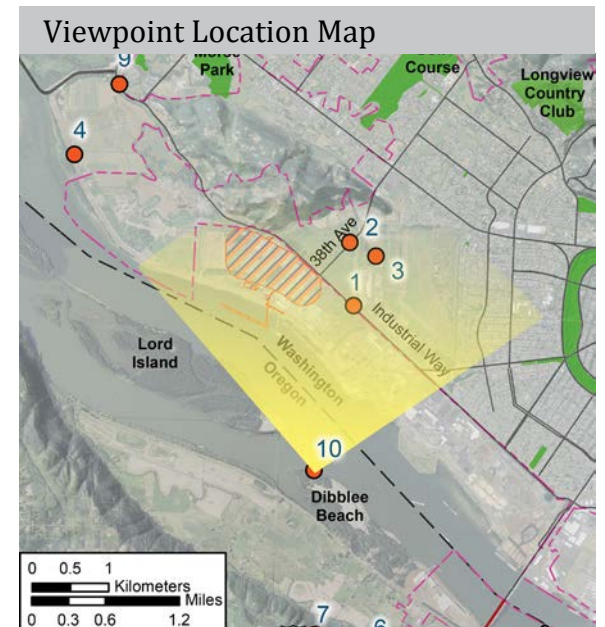


Proposed Action Visual Simulation - Viewpoint 10



Visual Simulation Viewpoint 10  
 Field of View = 54 degrees  
 Image Width = 8 inches  
 Zoom = 50%  
 True View Distance = 15.8" inches

- Notes:
1. Existing Conditions photographs taken with Nikon D-70 (50mm lens) and panorama photomerged using Photoshop CSS.
  2. Visual Simulation is based on 3D model and AutoCAD files provided by MBLT.
  3. Visual Simulation created with AutoCAD, Sketchup Pro, Google Earth and Photoshop CSS.



**Figure G-17**  
 Proposed Action Visual Simulation - Viewpoint 10  
 (View from Dibblee Beach)  
 Millennium Bulk Terminals—Longview

Appendix H

## **Hazardous Materials Remediation History**

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## Appendix H

# Hazardous Materials Remediation History

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Remediation history for the project area and Applicant's leased area are described below. The sections that follow describe the remedial action process, screening levels by media, remediation activities prior to the Remedial Investigation/Feasibility Study (RI/FS), remediation of the project area, remediation of the Applicant's leased area (outside of the project area), chemicals of concern, and final cleanup actions.

## Remedial Action Process

In June 2014, an RI/FS (Anchor QEA 2015) was performed for the former Reynolds Metals Company facility (Reynolds facility), including the project area, per the requirements of the Model Toxics Control Act (MTCA), which is administered by the Washington State Department of Ecology (Ecology). Under the MTCA, the RI/FS includes two parts.

- Completion of the investigation of potential contaminants at the former Reynolds facility.
- Evaluation of the potential options for cleanup. The selection of a final cleanup action will be done in consultation with Ecology and will occur in a separate step and will be documented in the Cleanup Action Plan.<sup>1</sup>

Prior to preparation of the RI/FS, an initial site assessment was performed by Ecology, which reviewed available data and established the agency's priority ranking for the site investigation and cleanup. During this phase, Ecology ranked the former Reynolds facility as a 5, the lowest priority on Ecology's five-point scale.

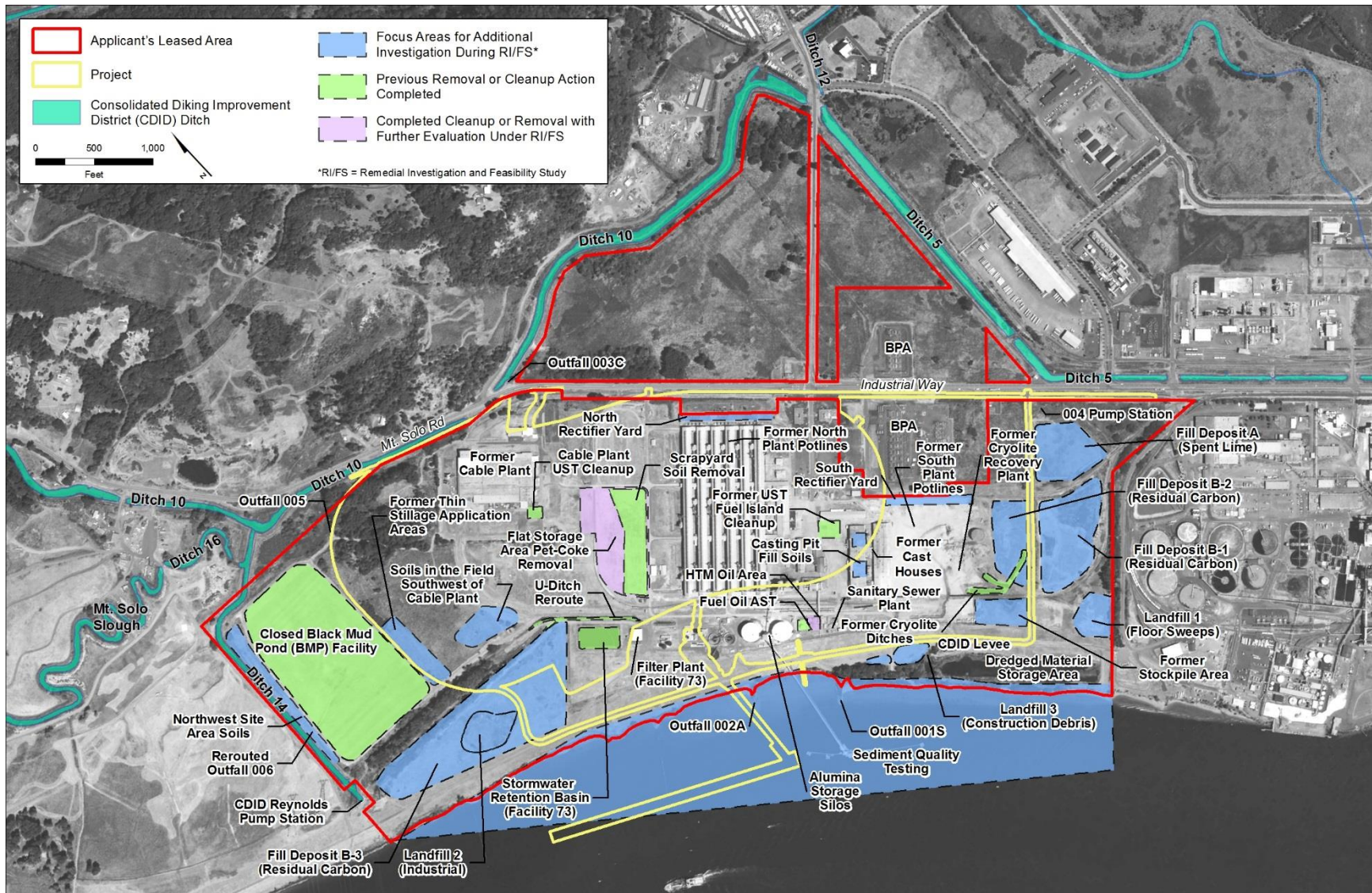
Since completion of the initial site assessment and site ranking, a number of investigations and cleanup actions have been completed in coordination with Ecology. The previously completed cleanup actions prior to preparation of the RI/FS have resolved cleanup at a number of areas in the Applicant's leased area and on the project area. Areas where previous removal or cleanup actions have been completed are shown in Figure H-1.

In addition to site cleanup activities, extensive quantities of materials (mostly building materials and equipment) have been appropriately reused, recycled, or disposed of at approved off site facilities. These actions have improved site safety and helped to return the property to productive reuse (Anchor QEA 2015; Appendices A, B, and C). After Ecology reviewed information from the previous investigation, cleanup, and closure activities, it defined focus areas for further evaluation and defined specific data gaps and testing requirements to be addressed in the RI/FS. The RI/FS included multiple phases of investigation activity, the scopes of which were developed and approved by Ecology. Focus areas identified for additional investigation during the RI/FS are shown in Figure H-1.

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<sup>1</sup> A draft Cleanup Action Plan and draft Consent Decree were released in 2016 for a 60-day public comment period (Washington State Department of Ecology 2016). The comment period ended March 18, 2016. A responsiveness summary will be prepared to address public comments and then the reports will be finalized.

Figure H-1. Previous Cleanup and Focus Areas in the Applicant's Leased Area and the Project Area



Final cleanup decisions are to be specified in the MTCA Cleanup Action Plan. The Cleanup Action Plan is a separate document from the RI/FS, and design and implementation of the cleanup action will be performed after finalization of the plan and court approval of the Consent Decree. Long-term management to monitor and clean up persistent hazardous materials will be addressed in the Cleanup Action Plan.

## Screening Levels by Media

The findings of the RI/FS testing program were evaluated against a set of screening levels appropriate to different media. The purpose of the screening process was to identify those constituents that could be present at concentrations that require further evaluation under MTCA. The screening levels were based on the MTCA regulations and other applicable or relevant state or federal regulations. The screening levels used for the RI/FS do not necessarily represent final cleanup levels applicable to the final Cleanup Action Plan. Screening levels for soils, landfills, and fill deposits, as well as groundwater, are described in the following sections.

### Soils, Landfills and Fill Deposits

Screening levels for soils, landfills, and fill deposits in the RI/FS considered MTCA cleanup levels protective of industrial site uses and groundwater. Where available, MTCA Method A and Method C soil cleanup levels for industrial land uses were used as initial screening criteria. MTCA Method A industrial soil cleanup levels are based on industrial land uses. These cleanup levels consider values protective of adult industrial workers. MTCA Method A levels also include conservative assumptions regarding the chemical concentrations that would be protective of groundwater quality (Washington Administrative Code [WAC] 173-340-745). When Method A cleanup levels were not available, Method C values were applied. MTCA Method C levels are based on a direct-contact exposure scenario. These cleanup levels are also protective of industrial workers (WAC 173-340-745).

### Groundwater

Although the groundwater contained in the fill soil and shallow silt and clay soils of the upper alluvium in the Applicant's leased area is not used as a drinking water source, the data screening process for groundwater considered regulatory requirements applicable to groundwater that is used as a drinking water source. MTCA Method A groundwater cleanup levels were used as these levels consider risks associated with ingestion of drinking water (WAC 173-340-720). State drinking water maximum contaminant levels were also used because these levels assume drinking water as the highest beneficial use of groundwater and are typically more stringent than the national drinking water standards (WAC 246-290-310).

## Remediation Prior to the Remedial Investigation/ Feasibility Study

Decommissioning and demolition activities have been conducted at the Reynolds facility since the plant ceased operations in 2001. From 2004 through January 2011, Chinook Ventures, Inc. (CVI) conducted plant-wide demolition and cleanup activities, including soil cleanup work. Approximately 29,270 tons of hazardous waste were disposed of off site.



In January 2011, CVI sold its onsite assets to the Applicant. At that time the Applicant took ownership of the facility and continued cleanup efforts through December 2012. Removal of the remaining aluminum smelting equipment, materials, and waste from the property, as well as materials that remained from CVI operations, occurred from 2011 to 2012, and included the following materials: cleanup debris, wood waste, scrap metal, pitch-contaminated debris, underflow solids, thin stillage, stormwater runoff from the flat storage area, alkaline ore, carbon, and fly ash. Between June 2011 and December 2012, abatement, removal, and facility repair activities occurred on the machine shop floor in the maintenance building. This area contained asbestos, polychlorinated biphenyl (PCB), and lead, all of which are considered hazardous waste. These materials required removal and disposal under a Toxic Substances Control Act permit. Figure H-1 shows the locations of removal and cleanup actions on the former Reynolds facility, including areas where previous removal or cleanup actions have been completed, areas where previous cleanup or removal actions need further evaluation under the RI/FS, and focus areas for additional investigation during the RI/FS.

## Project Area Remediation

The status of remedial actions in the project area is summarized in Table H-1. A more detailed description of remedial actions at each of these facilities can be found in the *SEPA Hazardous Materials Technical Report* (ICF 2017).

**Table H-1. Project Area Remediation**

<b>Facility</b>	<b>Status of Remediation</b>
Flat Storage Area	Ecology approved the Applicant’s plan to remove remaining petroleum coke and cement during decommissioning. This area has been identified for long-term management and will be included in the final Cleanup Action Plan.
Stormwater Retention Basin	Pond solids were removed from the stormwater retention basin and disposed of in an approved and permitted facility off site. Remedial actions have been completed for this area, and no further cleanup activities have been identified.
Scrap Yard Soil	Polycyclic aromatic hydrocarbon (PAH)-affected soil in the scrap yard was removed. Soil samples collected after the cleanup confirmed that residual soil PAH concentrations were less than the MTCA industrial land use cleanup levels; however, Ecology requested that expanded soil sampling be conducted throughout the adjacent flat storage area as part of the final Cleanup Action Plan to determine if contaminants associated with petroleum coke leached into surrounding soils.
Cable Plant Underground Storage Tank	An underground storage tank adjacent to the cable plant was removed and localized gasoline-affected soil and groundwater were cleaned up under Ecology’s oversight via a voluntary cleanup program. In 2003, Ecology provided a “no further action” determination for this area.
Former Underground Storage Tank and Fuel Island	Cleanup action addressed a localized area of diesel-affected soil associated with a former underground storage tank fuel island. Remedial actions have been completed for these areas, and no further cleanup activities have been identified.
Drum Soil (near North Plant)	Affected soils were removed and trichlorobenzene and PCB concentrations were cleaned up to acceptable levels. Remedial actions have been completed for this area, and no further cleanup activities have been identified.

## Applicant’s Leased Area Remediation

The status of remedial actions conducted outside the project area but within the Applicant’s leased area is summarized in Table H-2. A more detailed description of remedial actions at each of these facilities can be found in the *SEPA Hazardous Materials Technical Report (ICF 2017)*.

**Table H-2. Applicant’s Leased Area Remediation (Outside the Project Area)**

<b>Facility</b>	<b>Status of Remediation</b>
Cryolite Recovery Plant	The cryolite recovery plant was demolished in 2004. No further remedial activities related to the cryolite recovery plant are required in the final Cleanup Action Plan.
Cryolite Area Ditches	Cleanup of soils containing elevated PAH concentrations was completed in 2008; however, further remedial activities will be performed in the cryolite area ditches as part of the final Cleanup Action Plan.
Diesel Aboveground Storage Tank	Diesel-affected soils adjacent to the 200,000-gallon diesel aboveground storage tank were treated on site using bioremediation. Cleanup of the tank area included recording institutional controls for a localized area of affected soils that remained below the tank foundation. No further remedial activities related to the tank are required in the final Cleanup Action Plan.
Heat-Transfer Media Oil Area	Soil affected by a release of heat-transfer media oil was removed; however, further remedial activities will be performed in the oil and pitch storage areas as part of the final Cleanup Action Plan.
Closed Black Mud Pond (BMP) Facility	The 33-acre black mud pond impoundment was formally closed in 1992 and has been subject to an ongoing maintenance and monitoring program overseen by Ecology. No further remedial activities are required in the final Cleanup Action Plan.
Fill Deposit A (Spent Lime)	Elevated fluoride and PAH concentrations were recorded for Fill Deposit A and will be further remediated as part of the final Cleanup Action Plan.
Fill Deposit B-1 (Residual Carbon)	Elevated fluoride and PAH concentrations were recorded for Fill Deposit B-1 and will be further remediated as part of the final Cleanup Action Plan.
Former Spent Potliner Stockpile Area	In 2002, soil and groundwater testing was conducted in the area of the former spent potliner stockpile. No spent potliner was observed in the area; however, further remedial activities will be performed in the stockpile area as part of the final Cleanup Action Plan.
Cryolite Recovery Plant and Fill Deposit B-2 (Residual Carbon)	Testing of the soils in the footprint and in the vicinity of the former cryolite recovery plant revealed elevated fluoride in areas east of the former plant where residual carbon was managed. Further remedial activities will be performed as part of the final Cleanup Action Plan.
Landfill 1 (Floor Sweeps)	Elevated fluoride and PAH concentrations were recorded for Landfill 1 and will be further remediated as part of the final Cleanup Action Plan.
Landfill 2 (Industrial) and Fill Deposit B-3 (Residual Carbon)	Elevated fluoride and PAH concentrations were recorded for Landfill 2 and Fill Deposit B-3, and will be further remediated as part of the final Cleanup Action Plan.

## Chemicals of Concern

The primary chemicals of concern identified in the RI/FS are cyanide, fluoride, PAHs, PCBs, metals, total petroleum hydrocarbons, volatile organic compounds (VOCs), pesticides, and nutrients

(Anchor QEA 2015). The status of cleanup actions for these chemicals of concern are summarized in Table H-3.

**Table H-3. Status of Cleanup Actions for Chemical of Concern**

<b>Chemical</b>	<b>Status of Cleanup Actions</b>
Cyanide	Soil testing found that total cyanide levels in soils, landfills, and fill deposit materials throughout the project area were very low. None of the samples tested exceeded the Ecology-approved RI/FS soil screening levels, and all were below both the MTCA soil cleanup levels applicable to industrial sites and the more stringent criteria for residential sites. Therefore, cyanide in soils will not be further evaluated in the Cleanup Action Plan.
Fluoride	Elevated fluoride concentrations were found to be present in the immediate vicinity of Fill Deposit B-3 in the project area and in the immediate vicinity of the landfills and fill deposit areas in the Applicant’s leased area that are outside the boundary of the project area. Cleanup of soils with elevated fluoride concentrations will be performed under the final Cleanup Action Plan once the preferred remedial alternative identified in the RI/FS has been approved.
Polycyclic Aromatic Hydrocarbons	Areas in the project area with elevated levels of PAH compounds include Fill Deposit B-3 and the former flat storage area. Areas outside the project area but within the Applicant’s leased area that have elevated levels of PAH compounds include all three landfills, Fill Deposits B-1 and B-2, soils near the cryolite ditches, and soil in and near the former stockpile area. Elevated levels of PAH compounds will be addressed under the final Cleanup Action Plan once the preferred remedial alternative identified in the RI/FS has been approved.
Polychlorinated Biphenyls	Results of soil testing for PCBs found none of the measured soil concentrations exceeded screening levels and PCBs have not been detected in any groundwater samples. However, because the Toxic Substances Control Act has more restrictive cleanup levels for PCBs than those evaluated in the RI/FS, PCBs will be further evaluated in the final Cleanup Action Plan.
Metals	The RI/FS testing program results confirm that concentrations of heavy metals are very low in the Applicant’s leased area, including the project area. With the exception of localized metals exceedances in the landfill deposits outside of the project area but in the Applicant’s leased area, concentrations of heavy metals were below screening levels applicable to industrial sites. Additionally, Ecology requested that landfill and fill deposit materials be evaluated for toxicity characteristics leaching procedure <sup>2</sup> metals. No exceedances of test criteria were noted in any of the samples, and metals will not be further evaluated in the Cleanup Action Plan.
Total Petroleum Hydrocarbons	Soil testing identified an area (SU13) where petroleum hydrocarbon-affected soil exceeded applicable screening levels. Total petroleum hydrocarbons and heat-transfer media oil will be further evaluated in the Cleanup Action Plan to verify the results of previous investigations.
Volatile Organic Compounds	No chlorinated solvents or other VOCs were identified in excess of applicable screening levels. These results are consistent with findings from groundwater studies, which do not indicate VOC impacts in groundwater beneath the project area. VOCs will not be further evaluated in the final Cleanup Action Plan.

<sup>2</sup> Toxicity characteristic leaching procedure, or TCLP, is a soil sample extraction method for chemical analysis employed as an analytical method to simulate leaching through a landfill. The testing methodology is used to determine if a waste is characteristically hazardous (D-List).

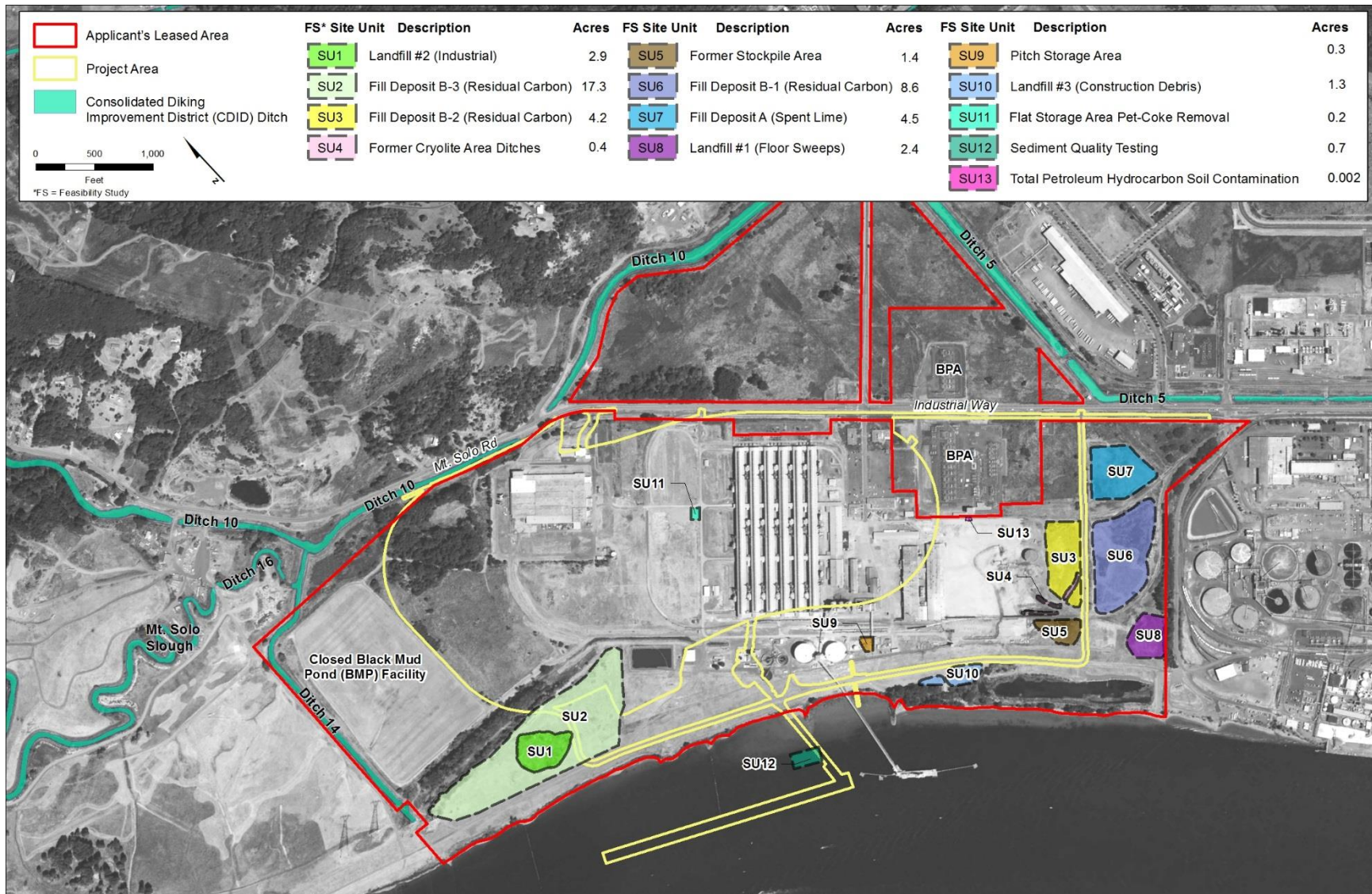
<b>Chemical</b>	<b>Status of Cleanup Actions</b>
Pesticides	Pesticides were not detected in samples tested under the RI/FS program; therefore, pesticides will not be further evaluated in the final Cleanup Action Plan.
Nutrients	Thin stillage (an agricultural byproduct from ethanol manufacturing that is sometimes used as cattle feed) was applied to a portion of a field located on the project area. Soil testing analyzed samples from the thin stillage application areas and from clean reference areas where no thin stillage was applied. The range of nutrient concentrations in the test samples was not significantly different from the reference samples; therefore, nutrients will not be further evaluated in the final Cleanup Action Plan.

## Final Cleanup Actions

Soil cleanup levels were developed in the RI/FS for fluoride, PAHs, total petroleum hydrocarbons, and PCBs; however, the principal site chemicals of concern in soils are fluoride and PAH compounds that are localized to the landfill and fill deposit areas. Based on the results of the remedial investigation in the RI/FS, 13 distinct feasibility study site units (SUs) and two areas of affected groundwater have been identified for further evaluation, as shown in Figure H-2. SU11 and a portion of SU2 are located on the project area and include the eastern corner of the flat storage area and the northeastern portion of Fill Deposit B-3. The other 11 SUs are not located on the project area, but are in the Applicant's leased area.

Ecology will select cleanup standards and points of compliance in the final Cleanup Action Plan. A Cleanup Action Plan is typically prepared after the RI/FS has been finalized and a preferred remedial alternative has been selected. The plan is based on information and technical analyses generated during the RI/FS and consideration of public comments and community concerns. A draft Cleanup Action Plan and draft Consent Decree were released in 2016 for a 60-day public comment period (Washington State Department of Ecology 2016). The comment period ended March 18, 2016. A responsiveness summary will be prepared to address public comments and then the reports will be finalized. Likely remedial technologies will include a combination of, but not necessarily all of, the following: removal, consolidation, capping, groundwater treatment, and monitored natural attenuation treatments. Property owner Northwest Alloys, Inc. (a subsidiary of Alcoa, Inc.) and the Applicant are legally responsible for the cleanup, including paying for and performing the work.

Figure H-2. Feasibility Study Site Units in the Applicant's Leased Area and the Project Area



## References

- Anchor QEA. 2015. *Former Reynolds Metals Reduction Plant—Longview, Final Remedial Investigation and Feasibility Study*. Submitted by Anchor QEA on behalf of Northwest Alloys, Inc., and Millennium Bulk Terminals—Longview, LLC. January.
- ICF. 2017. *Millennium Bulk Terminals—Longview, SEPA Environmental Impact Statement, SEPA Hazardous Materials Technical Report*. April. (ICF 00264.13.) Seattle, WA. Prepared for Cowlitz County, Kelso, WA, in cooperation with Washington State Department of Ecology, Southwest Region.
- Washington State Department of Ecology. 2016. *Reynolds Metals Aluminum Smelter, What's Happening Now*. Available: <https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=11796>. Accessed: April 4, 2016.

Appendix I  
**Sulfur Dioxide and Mercury Emissions**

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# Appendix I

## Sulfur Dioxide and Mercury Emissions

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This appendix assesses sulfur dioxide and mercury emissions that could potentially affect Washington State as a result of the Proposed Action. These pollutants are chemically transformed, deposited, and, in some cases, reemitted into the atmosphere.

The objective of the analysis was to determine the amount of sulfur dioxide and mercury emissions in Washington State specifically attributable to the sulfur and mercury emitted from coal combustion in Asia from coal that passed through the proposed coal export terminal. This analysis reviews the combustion of coal in Asia and addresses how much of the sulfur dioxide or mercury emitted following coal burning can return to Washington State. These sulfur compounds were monitored at White Pass, Washington, and mercury compounds at Mount Bachelor, Oregon. A full description of methods, analyses, and findings of the sulfur dioxide and mercury emissions analysis is provided in the *SEPA Coal Technical Report* (ICF 2017a). A description of coal market scenarios that were used in this analysis is provided in the *SEPA Coal Market Assessment* (ICF 2017b).

## Methods

This section describes the sources of information and methods used to evaluate the potential impacts related to sulfur dioxide and mercury associated with the construction and operation of the Proposed Action.

## Information Sources

The following sources of information were used to inform the sulfur dioxide and mercury emissions analysis.

- Various journal articles, including the following.
  - *Journal of Geophysical Research* (Heald et al. 2006; Huebert et al. 2001; Maxwell-Meier et al. 2004; Park et al. 2004; Price et al. 2003; Prospero et al. 1985; Strode et al. 2008; Weiss-Penzias et al. 2006)
  - *Atmospheric Chemistry and Physics* (McKendry et al. 2008; Ohara et al. 2007; Pirrone et al. 2010)
  - *Atmospheric Environment* (Jaffe et al. 2003; Jaffe et al. 2005; Pacyna et al. 2003; Park et al. 2006; Wilson et al. 2006)
  - *Environmental Science and Technology* (Seigneur et al. 2004; Zhang et al. 2015)
  - *Journal of Atmospheric Chemistry* (Andrea et al. 1988)
  - *Environmental Chemistry* (Jaffe and Strode 2008)
  - *Environmental Pollution* (Wuebbles et al. 2007)
- Atmospheric Chemistry Modeling Group (GEOS-Chem Model: <http://acmg.seas.harvard.edu/geos/index.html>)



- *Technical Background Report for the Global Mercury Assessment* (United Nations Environment Programme 2013a)
- *The Scientific Basis, Chapter 5 Aerosols, their Direct and Indirect Effects, Contribution of Working Group I to the Third Assessment Report* (Intergovernmental Panel on Climate Change 2001)
- *Toxicological Effects of Methylmercury* (National Research Council 2000)

## Impact Analysis

The following methods were used to evaluate the potential impacts of the Proposed Action related to sulfur dioxide and mercury emissions in the study area. Details of the analyses can be found in the *SEPA Coal Technical Report*.

1. A literature review was conducted on the current state of the science for the air monitoring and modeling of sulfur dioxide and mercury emissions in the Pacific Northwest.
2. The best understanding of the source-to-receptor relationship from the global chemical transport model (GCTM) that has been done to date was used. Those findings were applied to answer the objective of this analysis. A global chemical transport model is the standard type of computer model used to predict air pollutant concentrations when complex atmospheric chemistry is important.
3. To apply the GCTM source contribution results, the emission inventory for sulfur dioxide and mercury emissions used in the GTCM for each country where the coal would be burned was identified. The projected sulfur dioxide and mercury emissions in Asia (China, Japan, South Korea, Hong Kong, and Taiwan) for four scenarios evaluated in the *SEPA Coal Market Assessment* were used to estimate the mercury or sulfur emissions attributable to the Asian emissions. Finally, the impacts from a long-range transport episode and on an annual basis were identified based on the GTCM modeling results for the Proposed Action.
4. Based on the literature review, emission inventory uncertainties, and GCTM modeling, an upper bound on the sulfur dioxide and mercury emissions attributable to coal that would pass through the coal export terminal was estimated.

The *SEPA Coal Market Assessment* analyzes scenarios to determine sulfur dioxide and mercury emissions resulting from coal, exported from the proposed coal export terminal, being combusted in Asia. Both the Proposed Action and a No-Action Alternative were examined under each scenario to determine the effect of the Proposed Action on the U.S. and Pacific Basin coal markets. The scenarios analyzed in this report are as follows.

- **2015 U.S. and International Energy Policy Scenario.** The 2015 U.S. and International Energy Policy scenario includes U.S. and international climate policies as the defining feature of this scenario. The U.S. climate policy is modeled using a representation of the Clean Power Plan. The international climate policy is modeled by using the international coal demand in the International Energy Agency's 2015 World Energy Outlook New Policies scenario. The final Clean Power Plan was released in August 2015.
- **No Clean Power Plan Scenario.** The No Clean Power Plan scenario represents the state of the energy markets as of 2016. It does not include implementation of the Clean Power Plan. The No Clean Power Plan scenario uses the base set of assumptions and assumes that no additional national or international climate policies will be enacted beyond those implemented by mid-2015.

- **Lower Bound Scenario.** The Lower Bound scenario represents a plausible low estimate of global CO<sub>2</sub> emissions from coal combustion. This scenario is designed to be a plausible and reasonable lower bound of global CO<sub>2</sub> emissions and does not attempt to model an absolute lowest bound of CO<sub>2</sub> emissions. The energy markets under the Lower Bound scenario could reflect a large component of renewable energy resulting in reduced demand for coal combustion.
- **Upper Bound Scenario.** The Upper Bound scenario represents an upper bound estimate of global CO<sub>2</sub> emissions from coal combustion and uses assumptions that could maximize the amount of induced demand from the Proposed Action. International coal plant construction and thus coal demand is assumed to be higher in this scenario than in all the other scenarios. This higher demand causes both international coal consumption and prices to increase. This scenario does not attempt to model an absolute upper bound of global CO<sub>2</sub> emissions or CO<sub>2</sub> emissions that would result from the Proposed Action.

## Existing Conditions

This section describes existing sulfur dioxide and mercury emissions findings for Washington State, their source, and projected changes in the future.

### Sulfur Dioxide

Natural sources of sulfur dioxide make up about 25% to 33% of the sulfur dioxide in the earth's atmosphere. The primary sources are volcanoes and the atmospheric oxidation of oceanic dimethyl sulfide,<sup>1</sup> with a small fraction coming from wildfires (Intergovernmental Panel on Climate Change 2001). Anthropogenic<sup>2</sup> sulfur dioxide emissions originate mainly from fossil fuel combustion, with coal combustion being the largest source, representing about 53% of all anthropogenic sources of sulfur dioxide globally. Other important anthropogenic sources of sulfur dioxide include the burning of petroleum products for both transportation and industrial process (26%) and the smelting of metals (9%). In China, the country with the highest sulfur dioxide emission rates, coal combustion is responsible for about 84% of sulfur dioxide emissions (Ohara et al. 2007).

Most emissions of sulfur dioxide are deposited locally or regionally, with the remainder of sulfur dioxide being converted to sulfate aerosol, remaining in the atmosphere and transported longer distances. Sulfur dioxide is removed in the lower layer of the atmosphere via four processes: absorbed in rain, trapped in clouds and then washed-out, interaction with sea salts in the air, and removed via direct contact with the ocean surface. Nearly all sulfur is deposited within the first 1,000 kilometers from its point of origin; therefore, sulfur deposition over Washington State resulting from Asian emissions cannot be determined. However, in the absence of the four removal processes, sulfur dioxide is capable of being transported long distances. These conditions occur most frequently during the spring (Maxwell-Meier et al. 2004).

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<sup>1</sup> Blooms of algae floating near the ocean's surface, which includes microscopic animals, krill, and other crustaceans, emit a gas known as dimethyl sulfide.

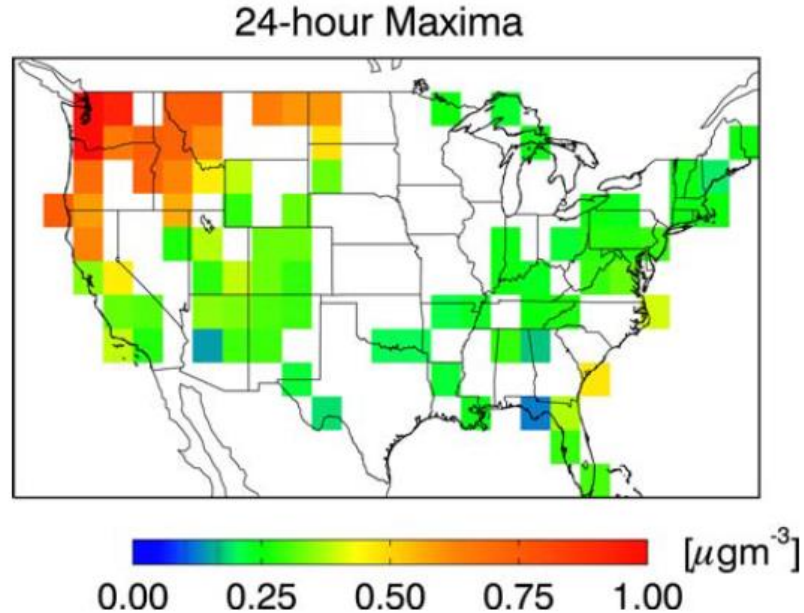
<sup>2</sup> Anthropogenic actions are caused by human activity.

## Studies and Findings

This analysis involved reviewing over two dozen peer-review publications. The studies spanned 15 years and included sulfur dioxide emission inventories, emission projections, and coal consumption in Asia. Also included were air monitoring studies in the Pacific Northwest and across the United States that addressed impacts associated with the long-range transport of Asian sulfur dioxide emissions, and GTCM studies that focused on assessing the fate and transport of coal combustion in Asia to North America.

Long-range transport of Asian anthropogenic sulfate emissions across the Pacific Ocean was first documented in the 1980s from observations at island sites (Prospero et al. 1985; Huebert et al. 2001). Aircraft observations of transpacific Asian gaseous plumes over the northeast Pacific provided subsequent evidence of sulfate aerosol transport in the lower free troposphere (the lowest portion of the earth's atmosphere) (Andreae et al. 1988; Price et al. 2003). Similarly, ground- and aircraft-based observations in the Pacific Northwest have identified episodes of trans-Pacific transport of sulfate aerosols (Jaffe et al. 2003; McKendry et al. 2008). Using satellite imagery, GTCM results, and surface air monitoring data for the western United States (Heald et al. 2006) demonstrated the high sulfate aerosol concentration due to trans-Pacific pollutant transport. They found that the springtime Asian sulfate aerosol concentrations were greatest in Washington State (White Pass) and southern British Columbia, Canada, with maximum 24-hour concentrations reaching approximately 1.5 micrograms per cubic meter ( $\mu\text{g}\text{m}^3$ ) (Figure I-1).

**Figure I-1. Asian Anthropogenic Enhancements of Sulfate Concentrations in Surface Air during Spring 2001 as Simulated by the GTCM**



Source: Heald et al. 2006.

Park et al. (2004) used the GCTM model for two full-year simulations, which showed that 30% of the annual average background sulfate in both the western and eastern United States was due to trans-Pacific Asian transport. In Park et al. (2006), GCTM modeling with improved sulfate air chemistry showed that the annual average sulfate concentration in the western United States due to trans-Pacific Asian transport was 0.10  $\mu\text{g}/\text{m}^3$ .

## Mercury

The following discusses the nature of the emissions of mercury, how those pollutants behave and change in the atmosphere, and the form of those pollutants once they reach Washington State. This discussion is followed by a description of the studies most relevant to this analysis, emphasizing the key findings from those papers, which were used to develop the impact assessment for combustion of coal that was exported from the proposed coal export terminal to Asia.

### Overview

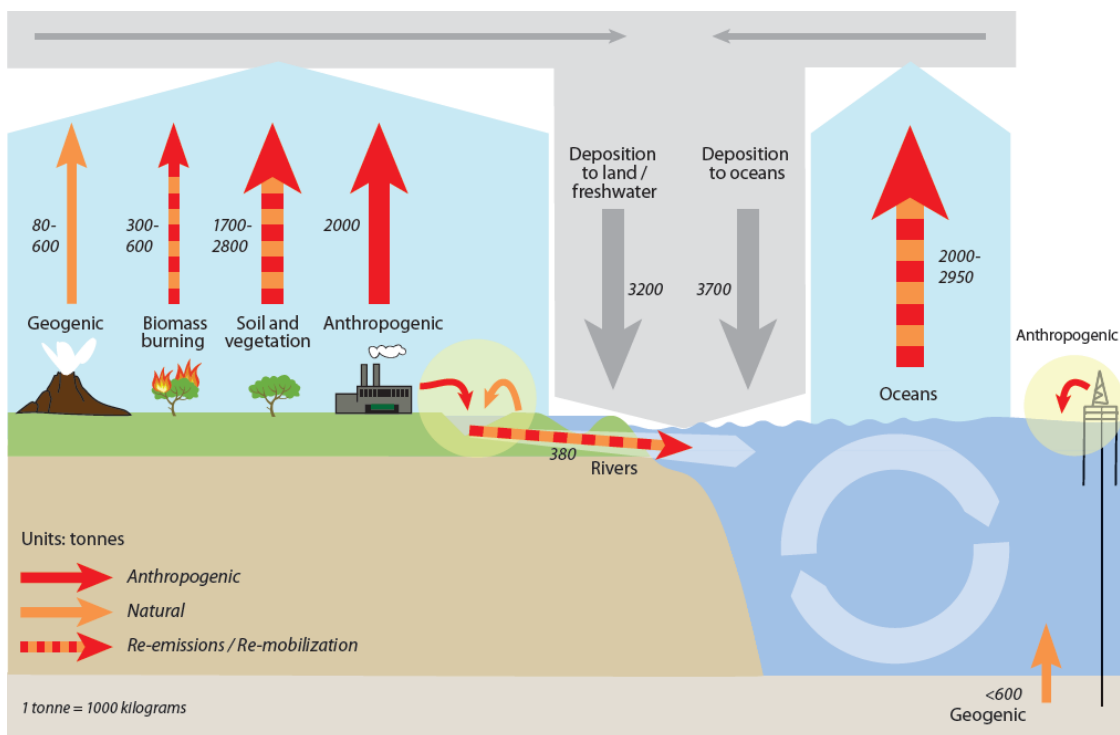
Mercury is a naturally occurring element found throughout the world. There are many natural sources that emit mercury into the atmosphere, including the weathering of mercury-containing rocks, volcanoes when they erupt, and geothermal activity. Most recent models of the flow of mercury through the environment find that natural sources account for about 10% of the annual mercury emission (United Nations Environment Programme 2013a).

Anthropogenic sources of mercury emissions account for about 30% of the total amount of mercury entering the atmosphere each year. Globally, the largest source of emissions in this category is from small-scale gold mining (estimated at 37%), followed by coal combustion (24%). The next largest sources are from the primary production of nonferrous metals (aluminum, copper, lead, and zinc) and cement production. Together, these sources account for about 80% of the annual anthropogenic emission of mercury.

The third category of mercury emissions is reemissions, which account for about 60% of the mercury emitted to the air annually. Mercury previously deposited from air onto soils, surface waters, and vegetation from past emissions can be emitted back to the air. Reemission is a result of the conversion of inorganic and organic forms of mercury to elemental mercury, which is volatile and, therefore, readily returns to the air. Mercury may be deposited and reemitted many times as it cycles through the environment.

Reemitted mercury should not be considered a natural source—originally, it may have been either natural or anthropogenic, but by the time it is reemitted, its specific origin cannot be identified other than from atmospheric modeling. Estimating reemission rates is done using global modeling approaches based on data of atmospheric levels of mercury and an understanding of chemical transformations and other processes that affect how mercury moves between air, land, and water. The models act to balance the amount of mercury in circulation at any given time consistent with observational data. This analysis conservatively assumes that the reemitted mercury is all anthropogenic. Figure I-2 shows the current global mercury emission cycle.

**Figure I-2. Global Mercury Cycle (metric tons/year)**



Source: United Nations Environment Programme 2013a.

Mercury is mostly released in its elemental form, which has a lifetime in the atmosphere of 6 to 24 months; therefore, it can be transported globally. The chemical speciation of mercury has been further studied by Pacyna et al. (2006). Across industries, about 53% of mercury in gases is in elemental form ( $Hg^0$ ), 37% is gas-phased oxidized mercury ( $Hg^{II}$ ) and 10% is particle-bound mercury. This is important because the latter two phases of mercury have much shorter lifetimes—as in, days or weeks—which means they are deposited close to the source of emission.

Mercury deposited in its elemental form is an inorganic compound. Inorganic mercury can be converted to organic methylmercury (MeHg), which is of concern because of known toxicological effects to highly exposed or sensitive populations. Although mercury is a globally dispersed contaminant, it is normally a problem only where the rate of natural formation of organic methylmercury from inorganic mercury is greater than the reverse reaction (U.S. Geological Survey 2000).

After conversion to this methylated form, mercury can bioaccumulate throughout the food web beginning with microorganisms that are consumed by fish, which may be consumed by larger fish. Organic methylmercury is the only form of mercury that accumulates appreciably in fish (U.S. Geological Survey 2000). Such bioaccumulation can result in high levels of mercury in some fish, which is one of the primary sources of human exposure to organic methylmercury. However, because human exposure to organic methylmercury occurs almost exclusively through fish consumption and varies by type and amount of fish consumed, variations in human exposure to organic methylmercury are based on individual fish consumption patterns (National Research Council 2000). Organic methylmercury can also be released back to the atmosphere by volatilization (U.S. Geological Survey 2000).

Environments that are known to favor the production of organic methylmercury include certain types of wetlands, dilute low-pH lakes in the northeast and north-central United States, parts of the Florida Everglades, newly flooded reservoirs, and coastal wetlands, particularly along the Gulf of Mexico, Atlantic Ocean, and San Francisco Bay (U.S. Geological Survey 2000).

## Studies and Findings

Various studies have examined the long-range transport of Asian mercury emissions to North America (Jaffe et al. 2003, 2005; Weiss-Penzias et al. 2006). Weiss-Penzias et al. (2006) found that total mercury (elemental + reactive and particle) from March 28 to May 19, 2004, at Mount Bachelor, Oregon, had periods where the air mass originated from East Asia, with an average increase in total mercury during these periods of 0.16 nanograms per cubic meter ( $\text{ng}/\text{m}^3$ ) attributable to emissions from northern China, Korea, and Japan.<sup>3</sup> Two pollution events in this time period were examined in detail and showed that travel time from East Asia to the Pacific Northwest was about 10 days. Back-trajectories for the April 25, 2004 episode at several elevations above and below the Mount Bachelor site elevation, along with back-trajectories for the same date on the corners of a 1 degree of latitude by 1 degree longitude box around the Mount Bachelor location and at multiple elevations, all showed similar flow from East Asia.

Because of the large amount of coal consumed in East Asia, which is projected to increase, and because studies show long-range transport from East Asia to North America is a frequent occurrence, several global modeling studies have been conducted to explore the impact of mercury emissions from East Asia on North America. The first such assessment was presented by Seigneur et al. (2004), who reported that Asian mercury emissions were estimated to contribute between 5 and 36% of the total mercury deposition in the United States. The most extensive modeling study of East Asian mercury emission impacts on the Pacific Northwest was conducted by Strode et al. (2008). That study included both global modeling of mercury and an observational analysis and comparison of the models' findings using the Mount Bachelor-monitored mercury data.

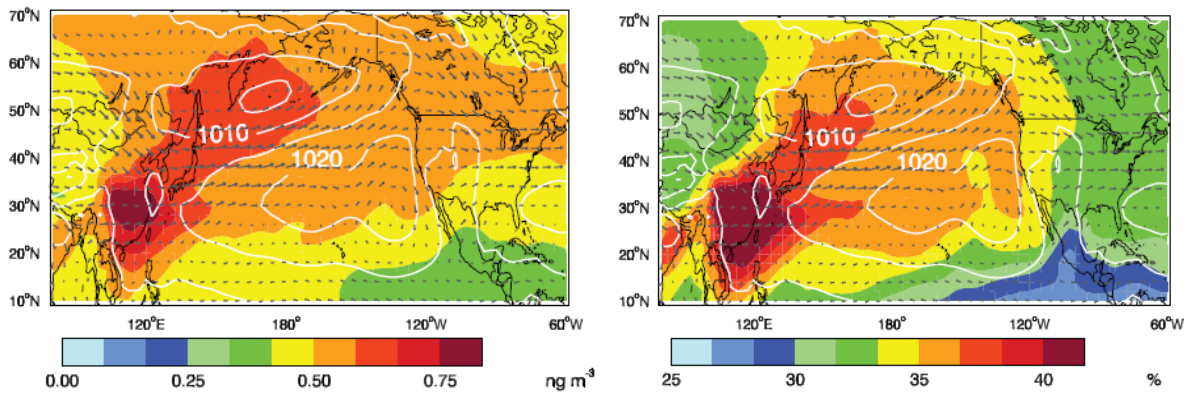
The model results showed that the Asian anthropogenic percent contribution to  $\text{Hg}^0$  at Mount Bachelor shows little variability between seasons, with an Asian anthropogenic contribution of 18% in spring (0.29  $\text{ng}/\text{m}^3$  for  $\text{Hg}^0$  and 0.015  $\text{ng}/\text{m}^3$  for  $\text{Hg}^{\text{II}}$ ) and in the annual average. Additionally, the modeling study showed that the regional contribution of  $\text{Hg}^{\text{II}}$  deposition (wet and dry) at Mount Bachelor was 14% (approximately 2,900 milligrams per square kilometer per year ( $\text{mg}/\text{km}^2\text{-year}$ ) from Asian anthropogenic emissions. Finally, the model shows that mercury reaches the Mount Bachelor location only in the form of  $\text{Hg}^0$  and  $\text{Hg}^{\text{II}}$ .

The general trans-Pacific transport of mercury from Asia to North America is shown in Figure I-3. The different mechanisms by which Asian  $\text{Hg}^0$  reaches North America affect the latitudinal distribution of their contributions.  $\text{Hg}^0$  is transported to the northeast from Asia with the prevailing winds. Consequently, the Asian influence is largest over Alaska, western Canada, and the northwestern United States. The relative contribution of Asian emissions to the total  $\text{Hg}^0$  concentration in the United States is no more than 36%.

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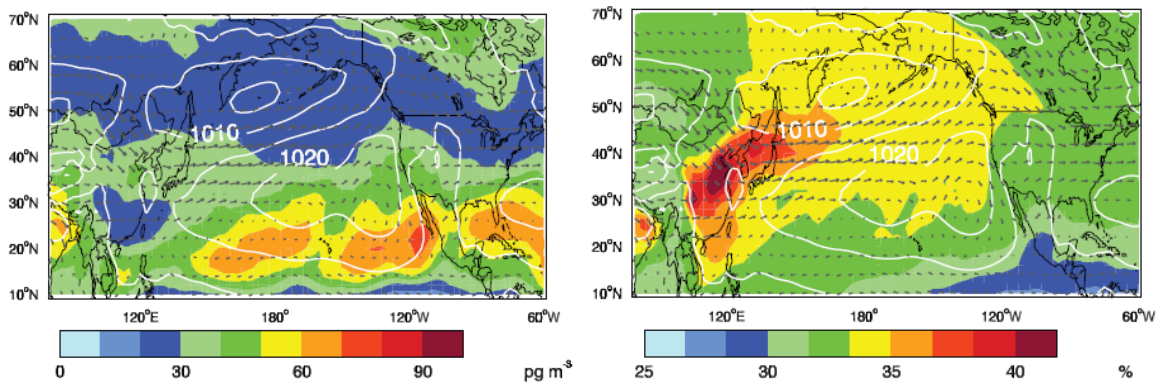
<sup>3</sup> This was based on the analysis of thousands of back trajectories using the National Oceanic and Atmospheric Administration's HYSPLIT trajectory model and mercury-to-carbon monoxide measurement ratios.

**Figure I-3. Maps of March–May 2004 Concentrations and Relative Percentage of Asian  $Hg^0$**



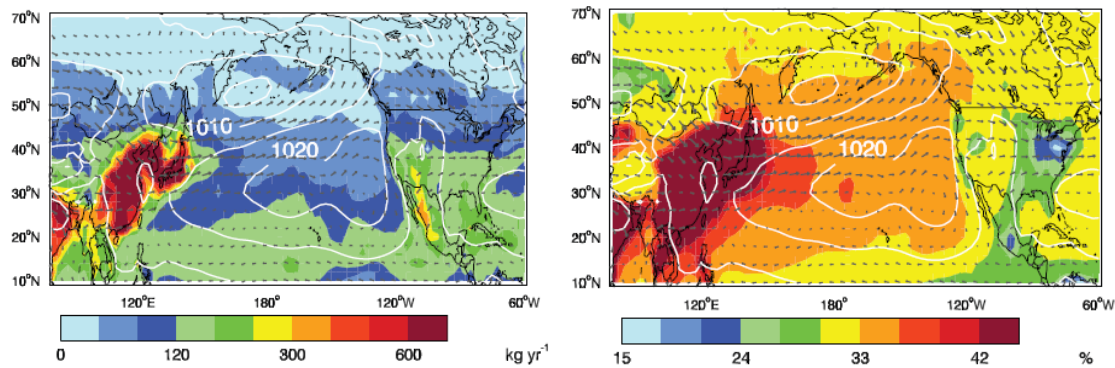
In contrast, Asian emissions influence North American  $Hg^{II}$  concentrations from oxidation of the global Asian  $Hg^0$  pool within the atmosphere, rather than by direct transport of  $Hg^{II}$  from the emission source. The Asian  $Hg^{II}$  contribution is largest at low latitudes where high oxidant concentrations and descending dry air lead to higher concentration levels of  $Hg^{II}$  (Figure I-4).

**Figure I-4. Maps of March–May 2004 Concentrations and Relative Percentage of Asian  $Hg^{II}$**



Asian  $Hg^{II}$  deposition follows a similar pattern to Asian  $Hg^{II}$  concentration because both wet and dry deposition depend on  $Hg^{II}$  concentrations (Figure I-5).

**Figure I-5. Maps of March–May 2004 Concentrations and Relative Percentage of Asian Total Hg Deposition**



## Impacts

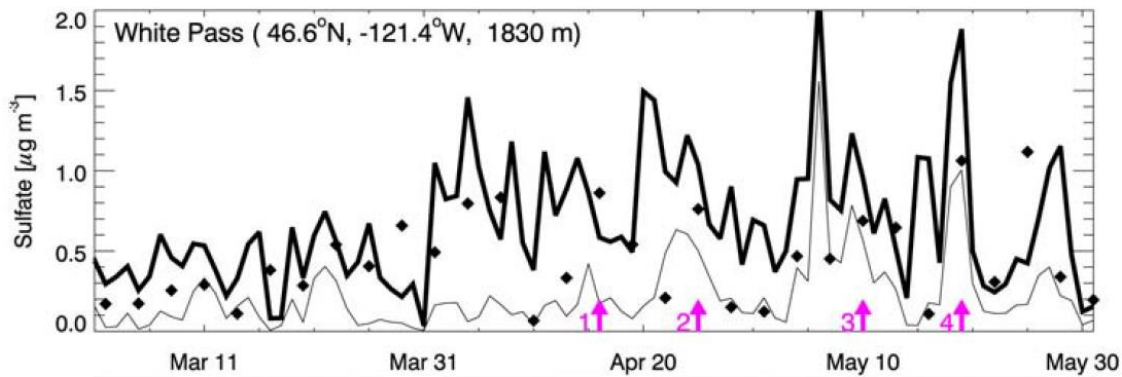
This section describes the potential for sulfur dioxide and mercury emissions to affect Washington State as a result of construction and operation of the Proposed Action. The findings below are based on the scenarios presented in the *SEPA Coal Market Assessment*, as well as findings from studies reviewed for this analysis and listed in *Information Sources*.

## Sulfur Dioxide

Asian anthropogenic sulfur dioxide emissions total approximately 42,800 metric tons/year (MT/year). A more conservative emission total was used for this analysis. Only the countries that would potentially consume the coal exported from the proposed coal export terminal were used: Japan, Korea, China (includes Hong Kong), and Taiwan. The total sulfur dioxide emissions (as found in Ohara et al. 2007) for these countries was 29,800 MT/year. These were adjusted downward to reflect the sulfur dioxide emission source strength used in the GCTM by Park et al. (2006). This conservatively assumes that only Asian emissions from these countries contribute to the portion of Asian sulfate concentration in Washington State. The GCTM modeled concentrations are based on the concentrations reported for the western United States, because the annual average sulfur dioxide concentration is more uniformly dispersed. To estimate the episodic concentration, the 24-hour maximum modeled sulfate concentration of 1.5  $\mu\text{g}/\text{m}^3$  (Heald et al. 2006) was used as modeled at White Pass, Washington (Figure I-6).



**Figure I-6. Time Series of Sulfate Concentration in Surface Air at White Pass, Washington**



Note: The diamonds are observations, the thin gray line is the Asian anthropogenic contribution in the GCTM, and the thick black line the total GCTM values. The pink arrows are the start of the transpacific event as observed midway in the Pacific Ocean.

Table I-1 shows the annual and episodic sulfate concentrations from coal exported to Asia from the proposed coal export terminal for the Proposed Action minus the No Action by year starting in 2025. Overall the Lower Bound and 2015 U.S. and International Energy Policy scenarios are very similar in magnitude for the first 5 years. The Upper Bound and No Clean Power Plan scenarios are similar but more than double the concentrations from the Lower Bound and 2015 U.S. and International Energy Policy scenarios. By 2040, all scenarios have similar concentrations, although the No Clean Power Plan scenario has the lowest concentrations amongst the four scenarios. Park et al. (2006) found the annual average Asian sulfate concentration for Washington State at  $0.10 \mu\text{g}/\text{m}^3$  or  $100 \text{ ng}/\text{m}^3$  in 2000. Assuming that overall growth in coal combustion is balanced with reductions in sulfur dioxide emissions due to application of additional control technology, the maximum Proposed Action coal source contribution would represent less than 0.2% of the Asian sulfate concentration in Washington State in 2040.

**Table I-1. Annual Sulfate Concentration in Washington State from Coal Exported to Asia from the Proposed Coal Export Terminal ( $\text{ng}/\text{m}^3$ ) by Scenario**

	2025	2030	2040
<b>2015 U.S. and International Energy Policy Scenario</b>			
Annual	0.14	0.16	0.15
Episodic	2.12	2.38	2.21
<b>Lower Bound Scenario</b>			
Annual	0.13	0.13	0.16
Episodic	1.91	1.92	2.35
<b>Upper Bound Scenario</b>			
Annual	0.42	0.14	0.17
Episodic	6.30	2.07	2.52
<b>No Clean Power Plan Scenario</b>			
Annual	0.31	0.29	0.12
Episodic	4.63	4.33	1.81
Notes: $\text{ng}/\text{cm}^3 = \text{nanogram per cubic meter}$			

Episodic maximum shows substantially higher concentrations over the annual average. Still, the maximum increase in sulfate concentration of 6.30 ng/m<sup>3</sup> in 2025 from Proposed Action coal would represent 0.42% of the episodic maximum Asian source sulfate concentration determined at White Pass, Washington, of 1,500 ng/m<sup>3</sup> (Heald et al. 2006).

## Mercury

Similar to the approach for determining sulfur dioxide, this study used a more conservative emission total for just the countries that would potentially consume the coal from the coal export terminal (Japan, Korea, China, which includes Hong Kong, and Taiwan). Total mercury emissions (as found in Pacyna et al. 2006) for these countries was 408 MT/year for Hg<sup>0</sup> and 285 MT/year for Hg<sup>II</sup>. This conservatively assumes that only Asian emissions from these countries contribute to the portion of Asian mercury in Washington State. The GCTM modeled concentration and deposition results are based on the modeled concentrations as reported for Mount Bachelor.

## Results from Scenario Comparison

To estimate the episodic concentration, it was conservatively assumed that the mercury impact in Washington State from Asia occurs in all Asian countries where coal from the coal export terminal would be exported. This greatly increases the scaling ratio and conservatively estimates the episodic mercury impact.

Table I-2 shows annual and episodic concentrations from Proposed Action source coal (Proposed Action minus the No Action) in 2025, 2030, and 2040 for Hg<sup>0</sup>, Hg<sup>II</sup>, and total Hg. Overall, the differences between the scenarios relative to the No Clean Power Plan scenario are relatively small, with the maximum total mercury emissions ranging from 0.42 to 0.57 picograms per cubic meter (pg/m<sup>3</sup>) in 2040 and the maximum episodic ranging from 0.53 to 0.71 pg/m<sup>3</sup>. In general the mercury concentration remains about the same as in 2025. Also in all cases, Hg<sup>0</sup> is the dominant form of mercury. Strode et al. (2008) found the annual average Asian-originated Hg<sup>0</sup> for Mount Bachelor was 0.29 ng/m<sup>3</sup> or 290 pg/m<sup>3</sup> in 2000. Assuming that overall growth in coal burning is balanced with reductions in mercury emissions due to application of control technology implemented under the 2013 Minamata Convention on Mercury,<sup>4</sup> the fraction of Hg<sup>0</sup> exposure in Washington State in 2040 attributed to the Proposed Action would be less than 0.2%. Similarly, the Hg<sup>II</sup> annual average for Mount Bachelor is 150 pg/m<sup>3</sup> and the maximum Proposed Action concentration would be 0.039 pg/m<sup>3</sup> or less than 0.1%.

The episodic maximum for Hg<sup>0</sup> shows slightly higher concentrations over the annual average. Still, the maximum Hg<sup>0</sup> contribution of 0.82 pg/m<sup>3</sup> in 2025 or 0.65 pg/m<sup>3</sup> in 2040 from the coal exported from the proposed coal export terminal relative to the episodic Hg<sup>0</sup> at Mount Bachelor of 1,180 pg/m<sup>3</sup> is a contribution of less than 0.1%.

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<sup>4</sup> The Minamata Convention on Mercury is a global treaty established to protect human health and the environment from the adverse effects of mercury. Controlling the anthropogenic releases of mercury throughout its lifecycle has been a key factor in shaping the obligations under the convention (United Nations Environment Programme 2013b).

**Table I-2. Annual and Episodic Net Mercury Concentration in Washington State as Elemental (Hg<sup>0</sup>), Oxidized Mercury (Hg<sup>II</sup>), and Total Mercury (pg/m<sup>3</sup>) by Scenario**

Hg <sup>0</sup>	2025	2030	2040	Hg <sup>II</sup>	2025	2030	2040	Hg <sup>Tot</sup>	2025	2030	2040
<b>2015 U.S. and International Energy Policy Scenario</b>											
Annual	0.48	0.43	0.47	Annual	0.035	0.032	0.035	Annual	0.51	0.46	0.50
Episodic	0.58	0.53	0.57	Episodic	0.06	0.05	0.05	Episodic	0.64	0.58	0.62
<b>Lower Bound Scenario</b>											
Annual	0.51	0.51	0.53	Annual	0.038	0.038	0.039	Annual	0.55	0.55	0.57
Episodic	0.62	0.62	0.65	Episodic	0.06	0.06	0.06	Episodic	0.68	0.68	0.71
<b>Upper Bound Scenario</b>											
Annual	0.51	0.44	0.48	Annual	0.038	0.033	0.035	Annual	0.55	0.47	0.51
Episodic	0.62	0.54	0.58	Episodic	0.06	0.05	0.06	Episodic	0.68	0.59	0.64
<b>No Clean Power Plan Scenario</b>											
Annual	0.47	0.46	0.40	Annual	0.035	0.034	0.029	Annual	0.50	0.49	0.42
Episodic	0.82	0.80	0.48	Episodic	0.09	0.09	0.05	Episodic	0.91	0.89	0.53
Notes: pg/m <sup>3</sup> = picograms per cubic meter											

Table I-3 shows the annual mercury deposition amounts associated with coal (exported from the proposed coal export terminal) over Washington State for the Proposed Action minus the No Action by year, starting in 2025. In the first 5 years, the deposition amounts are approximately the same for the Lower and Upper Bound scenarios, while the deposition amounts for the Energy Policy and No Clean Power Plan scenarios are slightly lower. By 2040, the No Clean Power Plan shows the lowest mercury deposition, with a maximum deposition amount of 5.7 milligrams per year per square kilometer (mg/yr-km<sup>2</sup>). The maximum mercury deposition is found for the Lower Bound scenario in 2040. This amount represents less than 0.3% of the total Asian-sourced mercury deposition over Washington State as estimated by Strode et al. (2008) at 2,900 mg/yr-km<sup>2</sup>.

**Table I-3. Annual Hg<sup>II</sup> Net Deposition Amounts in Washington State (mg/yr-km<sup>2</sup>) by Scenario**

	2025	2030	2040
<b>2015 U.S. and International Energy Policy Scenario</b>	6.8	6.2	6.7
<b>Lower Bound Scenario</b>	7.3	7.3	7.6
<b>Upper Bound Scenario</b>	7.3	6.3	6.8
<b>No Clean Power Plan Scenario</b>	6.7	6.6	5.7

Notes:  
mg/yr-km<sup>2</sup> = milligrams per year per square kilometer

## Uncertainty—Sulfur Dioxide

As with any estimate of impacts, a level of uncertainty is inherent in this analysis. The largest source of uncertainty is associated with the Asian sulfur dioxide emissions. One approach to estimating the level of uncertainty in the inventories is to compare the estimated sulfur dioxide emissions developed by different researchers using different methods for development. Ohara et al. (2007) reports on inventory projects for sulfur dioxide emissions in East Asia, presenting ranges from a low of 22.6 million MT/year to 42.9 million MT/year, with an average of 31.5 million MT/year, suggesting an uncertainty of approximately ±35%. Historically, Asian emissions have been most uncertain from China, in terms of total sulfur dioxide emissions, due to uncertainties in activity levels, rapid changes in the type and amount of coal combusted, and level of controls. Sulfur content of Chinese coals varies from 0.6 to 2.1%. In recent years, refinements in the understanding of the sulfur content in the coal and improved understanding of coal plants control technology efficiencies and their use have led to a better understanding of the sulfur dioxide emission rates.

Another approach to estimating uncertainty is to compare modeled versus observed sulfate for the Pacific Northwest sulfate monitoring sites. This allows the TCTM to use a range to better estimate Asian sulfate pollution influence. This approach was used by Heald et al. (2006), who estimated a ±50% uncertainty in the model results for Asian sulfate enhancements over the northwest United States.

Given these uncertainties, the sulfur dioxide impacts in Washington State would be within ±50% of the estimate presented earlier and could be further reduced if GCTM modeling were specifically

performed to assess the impacts for the countries expected to import the coal from the proposed coal export terminal and by using the most recent Asian sulfur dioxide inventories.

## Uncertainty—Mercury

As with any estimate of impacts a level of uncertainty is inherent in the analysis. The largest source of uncertainties comes from the global estimates of mercury emissions to the air. These stem from various sources, including the availability of information on activity levels, but mainly from the lack of information concerning the mercury content of some raw materials and the validity of the assumptions regarding processes and technologies used to reduce mercury emission releases. However, recent methods used to produce the global inventory for 2010 (United Nations Environment Programme 2013a) were compared with a number of national inventories and emissions reported under other systems covering the same period, and in general the level of agreement was found to be good. Other studies have also reported the average uncertainty associated with anthropogenic industrial emission of mercury at  $\pm 30\%$  (Pirrone et al. 2010). In the Pacyna et al. (2006) study, the accuracy of the emission inventory was estimated by source categories as: fuel combustion  $\pm 25\%$ , various industrial process  $\pm 30\%$ , and waste disposal a factor of 2 to 5. Note that the dominant emissions are from fuel combustion and industrial processes.

Historically, Asian emissions have been most uncertain from China given the uncertainties in activity levels due partly to the rapid changes, type, and amount of coal combusted and level of controls. However, the recent work of Zhang et al. (2015) using a probabilistic process-based approach based on information of the mercury content in fuel and raw materials, the production process, and mercury removal efficiencies obtained from field tests yielded more accurate emission estimates and lowered uncertainties. They estimate total mercury emissions from China at 356 MT/year or about 40% lower than the number used in the GCTM modeling. The study also included was better understanding of the spatial allocation of those emissions.

Another source of uncertainty is the chemistry in the atmospheric transport model. The largest uncertainty in the atmospheric mercury models is the chemical mechanism used to determine how mercury changes forms in the air. Improved experimental data will help improve model performance by making sure that the correct reactions are simulated. The processes that lead from deposition to reemission also need to be better understood. Advances in this area are showing improvement, with model results becoming closer to estimates based on experimental data (United Nations Environment Programme 2013a). However these chemical transformation uncertainties are, in general, less than the emission inventory uncertainties.

Given these uncertainties, the mercury impacts in Washington State would be within  $\pm 50\%$  of the estimates presented earlier and could be further reduced if GCTM modeling were specifically performed to assess the impacts for the countries expected to import the coal from the proposed coal export terminal, by using the most recent Asian mercury inventories and applying the advances in understanding atmospheric mercury chemistry.

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Appendix J  
**Scoping Summary Report**

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# MILLENNIUM Bulk Terminals - Longview

**EIS** Environmental Impact Statements

## Scoping Summary Report Millennium Bulk Terminals-Longview SEPA Environmental Impact Statement

February 2014



# SCOPING SUMMARY REPORT

## MILLENNIUM BULK TERMINALS—LONGVIEW SEPA ENVIRONMENTAL IMPACT STATEMENT

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**February 2014**

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## Acronyms and Abbreviations

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APE	area of potential effects
Applicant	Millennium, LLC
BNSF	BNSF Railway Company
BPA	Bonneville Power Administration
Co-Lead Agencies	U.S. Army Corps of Engineers, Washington State Department of Ecology, Cowlitz County
Corps	U.S. Army Corps of Engineers
DNR	Washington State Department of Natural Resources
DPM	diesel particulate matter
DS	Determination of Significance
Ecology	Washington State Department of Ecology
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
ESA	U.S. Endangered Species Act
GHG	greenhouse gas
GPT	Gateway Pacific Terminal
MBTL	Millennium Bulk Terminals—Longview
MCTA	Washington State Model Toxic Control Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NGO	Non-governmental Organization
NOI	Notice of Intent
PIP	Public Involvement Plan
PM10	particulate matter 10
Proposed Action	Millennium Bulk Terminals—Longview Proposal
SEPA	Washington State Environmental Policy Act
SR	State Route
WAC	Washington Administrative Code



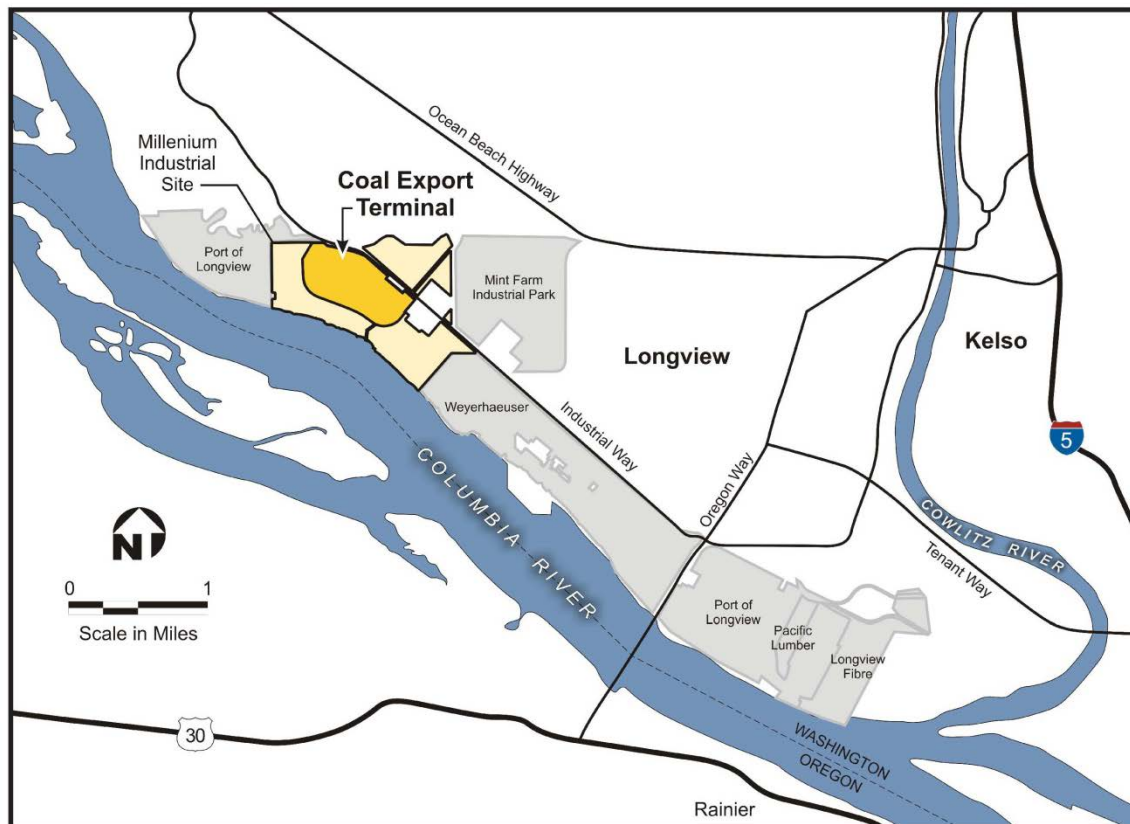
## 1.1 Proposal Overview and Context

Millennium Bulk Terminals—Longview, LLC (Applicant) proposes to construct a marine terminal to export coal at the site of the former Reynolds aluminum plant adjacent to the Columbia River near Longview. The property is approximately 540 acres with frontage on the Columbia River. The proposed Millennium Bulk Terminals—Longview proposal (Proposed Action) would cover approximately 190 acres of the site.

As proposed, the facility would be capable of receiving, stockpiling, blending, and loading coal by conveyor onto ships for export. The Applicant proposes bringing coal in by rail to the site, storing coal at the facility, and exporting coal on ships.

The proposal includes two stages. Under Stage 1 plans, up to 25 million metric tons of coal would be handled. Under Stage 2, the maximum volume would increase to 44 million metric tons of coal. The complete proposed facility would require construction of eight rail lines and one operating line on the site; two new docks on the Columbia River, two ship loaders; coal stockpile pads; and associated facilities, conveyors, and equipment.

**Figure 1.1. General Location: Millennium Bulk Terminals—Longview**



## 1.2 Co-Lead Agencies

Constructing and operating this proposed facility would require federal, state, and local permits and other permissions. Before applications for these permits and permissions can be considered, an environmental review must be completed. Three agencies—the U.S. Army Corps of Engineers (Corps), the Washington State Department of Ecology (Ecology), and Cowlitz County, collectively referred to as the Co-Lead Agencies, are responsible for issuing these permits and permissions.

Prior to issuing permits, Ecology and Cowlitz County must comply with the State Environmental Policy Act (SEPA), and the Corps must comply with the National Environmental Policy Act (NEPA), and. Both NEPA and SEPA require an objective and unbiased environmental review before making decisions on any permit. The Co-Lead Agencies are responsible for providing this objective review of the proposed project and opportunities for the public to participate in the environmental review process.

Ecology and Cowlitz County are preparing a SEPA environmental impact statement (EIS) and the Corps is preparing a NEPA EIS to document the effects of the Proposed Action. Although separate EIS documents will be prepared, they will be produced in a coordinated process, and the Co-Lead Agencies remain committed to collaboration and information sharing to efficiently perform decision-making processes.

## 1.3 EIS Process

The EIS process includes several phases. The first phase, scoping, allows for a public comment period to assist the Co-Lead Agencies to determine the scope of study for the EIS. The next phase focuses on the development of the EIS. This includes gathering data, conducting studies, and analyzing information. This information and analyses will be provided in a Draft EIS that will be subject to an additional public comment period. Comments on the Draft EIS are evaluated, responses are prepared, and changes are made for inclusion in a Final EIS. Only after the Final EIS is completed will permits be considered by the appropriate local, state, or federal agency and each through their own regulatory processes.

The EIS will describe the proposal, the purpose and need of the proposal, existing conditions, issues evaluated, and the range of reasonable alternatives under consideration. Alternatives are considered to avoid or minimize impacts identified in the EIS and will include a No Action Alternative. The No Action Alternative will provide a reference for comparison of proposed project alternatives. The EIS will analyze potential impacts that might result from each alternative, including the No Action Alternative. If significant adverse environmental impacts are identified, the EIS will discuss possible mitigation measures to those impacts.

Throughout the EIS process, additional information or changes to the proposal will be considered by the Co-Lead Agencies and included as appropriate. Figure 1.2 presents an overview of the SEPA EIS process.

**Figure 1.2. Overview of SEPA EIS Process**

## 1.4 Scoping Process Purpose

Scoping is an initial step in the SEPA and NEPA environmental review process. The Co-Lead Agencies used an Expanded Scoping Process that provided for a 95-day comment period from August 16, 2013 to November 18, 2013. During this time, the public, agencies, communities, and tribes were able to learn about the Proposed Action and the SEPA and NEPA EIS process and to provide scoping comments. Five public scoping meetings were held around the state.

The purpose of scoping is to determine the "scope" or content of an EIS. The scope identifies the potential environmental impacts and alternatives that need to be evaluated. The scoping process provides an opportunity for the public, communities, tribes, and agencies to recommend impacts and alternatives to evaluate in the EIS and help identify issues and concerns. Public comments on the scope of each EIS will help the Co-lead Agencies determine what should be addressed in each document.

Comments may address the following issues.

- A reasonable range of alternatives (identification of an alternative site for a terminal, or identification of an alternative approach to bulk material handling that achieves the proposal's objective).
- Potentially affected resources and extent of analyses (identification of natural, cultural, or community resources that will be potentially affected and the extent of study and analyses that is needed to understand the potential impacts).
- Significant unavoidable adverse impacts.
- Measures to avoid, minimize, and mitigate (offset) effects of the proposal.

Although two EIS documents are being prepared, the Co-Lead Agencies used a synchronized scoping process, including selected meetings, media releases, and comment submittal methods. Opportunity

was also available for commenters to identify if they were commenting on the NEPA EIS, the SEPA EIS, or both. For the SEPA EIS, all comments submitted were considered, even if marked NEPA only.

This Scoping Report summarizes over 215,000 comments collected at in-person scoping meetings, online, and in writing, and it provides an overview of public outreach activities. After considering the comments, the Co-Lead Agencies will decide what should be studied in the EIS. This Scoping Report is for the purpose of describing the scoping process and the comments received.

## 2.1 Scoping Purpose

Scoping is the first step in the Millennium Bulk Terminals—Longview (MBTL) EIS process and is used to identify potential issues to be studied in an EIS. The purpose of scoping is to assist Ecology and Cowlitz County in identifying pertinent issues, public concerns, and alternatives, and the depth of the evaluation of these issues and concerns. Direct, indirect, and cumulative effects of proposed project activities will be analyzed in the SEPA EIS.

Agencies, local governments, tribes, and the public were invited to participate in the scoping process by providing comments, attending a public scoping meeting, or participating in the online scoping meeting continuously hosted on the Co-Lead Agencies joint MBTL EIS website.

Interested parties were invited to comment on issues or concerns of importance to them. Table 2-1 provides a list of SEPA topics identified by Ecology and Cowlitz County for scoping comments.

**Table 2-1. Typical SEPA Study Areas**

Alphabetical Listing of SEPA Resource Areas		
Aesthetics	Historic and Cultural Preservation	Public Services
Air	Housing	Recreation
Animals	Land and Shoreline Use	Transportation
Earth	Light and Glare	Utilities
Energy and Natural Resources	Noise	Water Surface, Ground, and Runoff
Environmental Health	Plants	Wetlands

## 2.2 Providing Comments

During the scoping process, the Co-Lead Agencies provided multiple opportunities for interested members of the public to learn about the Proposed Action and the EIS process and to provide scoping comments.

The Co-Lead Agencies invited members of the public, government agencies, tribes, and other organizations to provide scoping comments through the following methods.

- Sending a comment by mail to the Co-Lead Agencies in care of ICF International, 710 Second Avenue, Suite 550, Seattle, WA 98104.
- Submitting a written comment form, made available at the scoping meetings, which were submitted at a drop box at the meeting or mailed in.
- Using the online comment form on the joint MBTL EIS website: [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov).
- Submitting a comment by email to [comments@millenniumbulkeiswa.gov](mailto:comments@millenniumbulkeiswa.gov)

- Making a public verbal comment at a scoping meeting.
- Providing an individual verbal comment at a scoping meeting in a quiet room.

Emails and letters were also provided directly to the agencies.

All comments received were posted on the website so users could review others' or their own comments. For mass mailings or email petitions, the comments were reviewed individually, but only one representative document was uploaded on the website. Similarly, some organizations collected a large number of comments from individuals and then submitted them in one package; a representative document was uploaded to the website in the same format which they were submitted. All comments will be retained as part of the scoping period record, regardless of if they are posted to the website or not.

## 2.3 Public Involvement Plan

The Co-Lead Agencies developed a Public Involvement Plan (PIP) to guide actions to inform and involve the public in the scoping process. The PIP outlines the objectives, methods, strategies, outreach activities, and information on the public scoping meetings. Public involvement is a key component of the EIS process.

The Co-Lead Agencies developed the following objectives to guide the public involvement process:

- Conduct a thorough, impartial, and transparent public review process that informs the development of the Draft and Final Environmental Impact Statements.
- Provide clear milestones for public participation.
- Effectively and efficiently share with and obtain information from the public and stakeholders during the coordinated NEPA and SEPA EIS development process.
- Meet or exceed federal, state, and local requirements for public involvement, as defined by the NEPA and SEPA processes.

The Plan identifies multiple pathways to learn about the project: project website, scoping meetings/open houses, printed informational materials.

Also contained in the PIP is a discussion of the targeted environmental justice outreach provided to neighborhoods nearest to the MBTL facility in Cowlitz County and the City of Longview with non-English speaking and low-income populations.

The PIP is available for review on the EIS website, [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov).

## 2.4 Notification of Scoping

### 2.4.1 SEPA and NEPA Notifications

On August 9, 2013, Cowlitz County issued a Determination of Significance (DS), thus triggering the requirement to prepare a SEPA EIS. Concurrently, the Corps issued its Notice of Intent (NOI), initiating the start of the NEPA EIS process. The NOI appeared in the August 14, 2013 Federal

Register. In addition to the state and federal register, a press release announcing the start of public scoping was also issued by the Co-Lead Agencies. The initial DS and NOI identified a combined NEPA/SEPA process. Once it was determined that two EISs would be prepared, a revised NOI was issued September 6, 2013 in the Federal Register and a revised DS was issued on September 9, 2013.

The DS included a description of the proposal, the proponent, the location, and the lead agencies. The NOI included the proposed action, a description of the proposal, the scope of analysis, and the scoping process. Both notices also provided information on the scoping meetings and how to submit comments.

Scoping notices can be found in Appendix A of this document.

## **2.4.2 Public and Media Notifications**

A broad-based, multi-media approach was used to notify the public about the Proposed Action and of the purpose, time, and location of the scoping meetings.

### **2.4.2.1 Website**

Agency and the joint EIS websites were used throughout public scoping for announcements and as a repository for scoping materials and information. The Co-Lead Agencies emphasized the availability of the joint EIS website:

- The EIS website address ([www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov)) was included in all news releases and informational materials and identified as the project information hub and portal for submitting comments during the scoping period.
- The website address was provided to each scoping meeting venue for incorporation into venue websites.

### **2.4.2.2 Media Releases**

Standard press releases, as well as social media (Twitter), were used to inform the public of the scoping process, scoping meetings, and comment opportunities:

- Media releases from the Co-Lead Agencies were distributed before each meeting, with designated contacts listed for reporter follow-ups.
- Care was taken to ensure that notices of meetings reached minority or low-income residents. Approximately 6,000 flyers (in English and Spanish) were mailed to identified minority or low-income neighborhoods. Flyers were also placed at public locations near the target neighborhoods and posted to the project website. An example of this flyer is included in Appendix B.
- Social media such as Twitter was used as appropriate by the Co-Lead Agencies.

### **2.4.2.3 Public Notices**

- Display ads were placed in local newspapers where scoping meetings were held, including The Spokane Spokesman-Review, The Tri-City Herald (Pasco), The Columbian (Vancouver/Clark County), The Longview Daily News, and The Tacoma News-Tribune.

- People interested in getting updates on the project were added to the project LISTSERV before and during the scoping period. Announcements were sent to the MBTL EIS LISTSERV group throughout the scoping period. ([listserv.wa.gov/cgi-bin/wa?A0=WA-MILLENNIUM-EIS](http://listserv.wa.gov/cgi-bin/wa?A0=WA-MILLENNIUM-EIS)).
- An informational English and Spanish flyer was mailed to 6,000 residents in neighborhoods near the Proposed Action site, including the Highlands neighborhood.
- The scoping meeting dates and locations were included on Ecology's public calendar and posted on the County's homepage

Appendix B contains display ads and the informational flyer.

### 2.4.3 Agency Notifications

The scoping notice was entered into the statewide SEPA Register to provide notification to agencies. Federal agencies were notified by the Corps as the NEPA lead agency and via the Federal Register.

On October 23, 2013 a state agency scoping meeting was held at Ecology's offices in Lacey. Appendix C contains a list of attendees.

### 2.4.4 Tribal Notifications

On August 19, 2013, a letter informing the tribes of the scoping process and requesting input was sent to all tribes in Washington State, as well as tribes in Oregon and Idaho that expressed interest in the proposal. Appendix D contains a list of these tribes as well as an example of the letter.

## 2.5 Scoping Meetings

Cowlitz County and Ecology held five meetings to receive SEPA EIS comments. The Corps conducted two scoping meetings for NEPA EIS comments. The two Corps sponsored meetings preceded the two meetings sponsored by the County and Ecology in Longview and Clark County.

**Table 2-2. SEPA Open House Scoping Meetings**

City	Meeting Date and Time	Venue
Longview	Tuesday, September 17, 2013 4 p.m. to 8 p.m.	Cowlitz County Expo Center
Spokane	Wednesday, September 25, 2013 4 p.m. to 8 p.m.	Spokane Convention Center
Pasco	Tuesday, October 1, 2013 4 p.m. to 8 p.m.	The Trac Center
Clark County	Wednesday, October 9, 2013 4 p.m. to 8 p.m.	Clark County Fairgrounds
Tacoma	Thursday, October 17, 2013 4 p.m. to 8 p.m.	Tacoma Convention Center

**Table 2-3. NEPA Open House Scoping Meetings**

City	Meeting Date and Time	Venue
Longview	Tuesday, September 17, 2013 Noon to 4 p.m.	Cowlitz County Expo Center
Clark County	Wednesday, October 9, 2013 Noon to 4 p.m.	Clark County Fairgrounds

All meetings used an open house format to provide EIS process information and details about the proposed project, and to receive scoping comments. The period for public oral comments began one



hour after the open house began. The same exhibits and informational materials were used in all of the meetings for consistency and were available on the website.

Each meeting venue included:

- Welcome and check in table
- Open house exhibits
- Public oral comment area to Co-Lead Agencies and court reporter
- Semi-private oral comment area with court reporter
- Quiet area with tables and comment forms to make written comments.

## 2.5.1 Open House Exhibits

The open house exhibits provided information about:

- Information on the MBTL proposal from the Applicant
- Scoping overview
- Process steps for developing Draft and Final SEPA and NEPA EIS documents
- Guidance on providing comments during the scoping period

Staff was available in the exhibit area to answer questions and to provide information. Appendix E provides copies of the scoping meeting exhibits.

## 2.5.2 Receiving Scoping Comments at Scoping Meetings

As noted above, attendees at the scoping meeting could comment orally or in writing.

At each scoping meeting, comment forms were available to attendees at designated comment tables. The comment forms included the website and email address as alternative, convenient ways to submit comments. A staff person was stationed near each comment table to provide assistance and ensure adequate supplies of forms and pens.

Oral comments could be made in a semi-private “quiet room” area adjacent to the meeting exhibits, or before the larger audience in the main auditorium. Court reporters transcribed the comments in both locations. Because of the many people wishing to make comments before the auditorium audience, speakers were chosen by lottery and allowed two minutes for their comments.

People wishing to speak before the entire audience were given a lottery ticket. Each ticket was distributed by tearing off half to give to the speaker, and the other half went into a box. When the meeting started, meeting managers drew 10 tickets and called out the numbers; the numbers were also projected onto a screen at the front of the auditorium. As needed, five additional numbers were called to replenish the speaker queue. Designated speakers were allowed to swap tickets.

During the scoping meeting comment period, the first 10 minutes of each hour were allotted to local elected officials and tribal representatives on a first-come, first-served basis.

A facilitator managed the public comment period at the meetings, explained the ground rules, called speakers forward, and maintained order.

### **2.5.3 Online Scoping Meeting**

In addition to the in-person public scoping meetings, the joint EIS website hosted an online scoping meeting with the same information provided at the scoping meetings. After viewing scoping meeting exhibits and other information about the Proposed Action and the SEPA EIS process, participants could submit comments through an online comment form. People could also comment by U.S. mail or via email. The online meeting ran for the duration of the 95-day scoping period.

In total, 215,486 comments were received during the 95-day scoping comment period. Of the 215,486 submissions received, approximately 212,564 were from mass mail form letter or email campaigns. Of the roughly 3,000 unique submissions, approximately 2,000 were found to contain substantive text. As mentioned in the previous chapter, scoping comments were received in a variety of ways including via electronic, written, and at scoping meetings. Electronic comments include those that were submitted online through the EIS website or via email to a designated email address or to the Co-Lead Agencies. Written comments included unique letters, form letters, or comment cards that were received through U.S. Mail or at the public scoping meetings. Written comments also included pre-printed cards from the Co-Leads (MBTL EIS Comment Cards) and form letters or postcards from non-governmental organizations (NGO Comment Cards). Verbal commenting was offered at the public scoping meetings, where people chose to submit their comments by presenting them before the audience, or to a court reporter in a semi-private setting room. The discussion below presents an overview of all public scoping comments received.

## **3.1 Scoping Meetings**

The five scoping meetings yielded nearly 4,000 attendees and 1,334 scoping comments. Comments were submitted verbally, either before an audience or in a semi-private setting room with a court reporter, or written via comment cards or unique letters. Representatives from the Co-Lead Agencies listened to public verbal comments. Additional agency staff and contractor staff provided information and addressed questions at the open house.

Comment cards included those provided by the Co-Lead Agencies at each meeting (referred to hereafter as MBTL EIS Comment Cards) and others were provided at several of the meetings by non-governmental organizations (hereafter referred to as NGO Comment Cards). The following subsections summarize meeting attendance and comment totals provided at each meeting.

### **3.1.1 Longview**

The public scoping meeting held in Longview had an approximate attendance of 1,300. Comments submitted at this public scoping meeting totaled 436. Of these, 174 were submitted as comment cards, including 149 MBTL EIS Comment Cards and 25 NGO Comment Cards. Unique letters were also submitted at this meeting as comments, totaling 50. Lastly, 212 comments were submitted verbally comprising 145 comments presented on the main stage, and 67 recorded in a semi-private setting room. Comment totals are shown in Table 3-1.

**Table 3-1. Longview Scoping Meeting Comment Statistics**

<b>Type of Comment Submitted</b>	<b>Number of Comments Submitted</b>
MBTL EIS Comment Cards	149
NGO Comment Cards	25
Unique Letters	50
Transcribed Verbal Comments	212
<i>Presented from Main Stage</i>	145
<i>Recorded in Private Room</i>	67
Total	436

### 3.1.2 Spokane

Approximately 500 people attended the public scoping meeting held in Spokane and 157 comments were received. Of these, 61 were submitted as comment cards, comprising 55 MBTL EIS Comment Cards and six NGO Comment Cards. Comments were also submitted through 10 unique letters collected at this meeting. Lastly, 86 verbal comments were submitted, including 67 comments presented on the main stage, and 19 recorded in a semi-private room. These comment totals are shown in Table 3-2.

**Table 3-2. Spokane Scoping Meeting Comment Statistics**

<b>Type of Comment Submitted</b>	<b>Number of Comments Submitted</b>
MBTL EIS Comment Cards	55
NGO Comment Cards	6
Unique Letters	10
Transcribed Verbal Comments	86
<i>Presented from Main Stage</i>	67
<i>Recorded in Private Room</i>	19
Total	157

### 3.1.3 Pasco

The Pasco scoping meeting had approximately 260 attendees. A total of 140 comments were submitted at this meeting, including 39 received via MBTL EIS Comment Cards. Comments were also submitted through six unique letters. Lastly, 95 comments were submitted verbally, including 78 that were presented on the main stage and 17 were recorded in a semi-private room. These comment totals are shown in Table 3-3.

**Table 3-3. Pasco Scoping Meeting Comment Statistics**

<b>Type of Comment Submitted</b>	<b>Number of Comments Submitted</b>
MBTL EIS Comment Cards	39
Unique Letters	6
Transcribed Verbal Comments	95
<i>Presented from Main Stage</i>	78
<i>Recorded in Private Room</i>	17
Total	140

### 3.1.4 Clark County

The public scoping meeting held in Clark County yielded approximately 1,000 attendees. Comments received from this public scoping meeting totaled 382. Comment submissions included 152 comment cards, including 120 MBTL EIS Comment Cards, and 32 NGO Comment Cards. Comment submissions also included 33 unique letters. Lastly, 197 verbal comments were submitted, including 150 comments presented on the main stage, and 47 recorded in a semi-private room by a court reporter. Comment totals for this meeting are exhibited in Table 3-4.

**Table 3-4. Clark County Scoping Meeting Comment Statistics**

<b>Type of Comment Submitted</b>	<b>Number of Comments Submitted</b>
MBTL EIS Comment Cards	120
NGO Comment Cards	32
Unique Letters	33
Transcribed Verbal Comments	197
<i>Presented from Main Stage</i>	150
<i>Recorded in Private Room</i>	47
Total	382

### 3.1.5 Tacoma

Approximately 900 people attended the public scoping meeting held in Tacoma. A total of 219 comments were received, of which 109 were submitted as comment cards and 13 were submitted as unique letters. Comment cards included 97 MBTL EIS Comment Cards and 12 NGO Comment Cards. Lastly, 97 comments were given verbally at this meeting, including 66 comments presented on the main stage, and 31 recorded in a semi-private room. These comment totals are shown in Table 3-5.

**Table 3-5. Tacoma Scoping Meeting Comment Statistics**

<b>Type of Comment Submitted</b>	<b>Number of Comments Submitted</b>
MBTL EIS Comment Cards	97
NGO Comment Cards	12
Unique Letters	13
Transcribed Verbal Comments	97
<i>Presented from Main Stage</i>	66
<i>Recorded in Private Room</i>	31
Total	219

## 3.2 Online Web Form, Email, and Postal Mail Comments

In addition to those comments obtained at public scoping meetings, over 214,000 comments were submitted by individuals, agencies, and organizations via email, U.S. Mail, and an online web form offered through the EIS website. Table 3-6 provides the totals of each of these comment submission types.

**Table 3-6. Web Form, Email, and U.S. Mail Comment Statistics**

Type of Comment Submitted	Number of Comments Submitted
U.S Mail	18,769
Email	194,807
Web Form	576
Total	214,152

A majority of these submissions (over 210,000) contained mass mailing or form letter comments from various interest groups. A breakdown of these comments is provided in Section 3.3, Mass Mailing. The remaining submissions contained 947 unique comment letters; 820 from individuals, and 127 from agencies and organizations. These comments, along with a representative copy of each form letter, have been posted on the EIS website. The list of agencies and organizations that provided comments is included in Chapter 4, Agencies, Tribal, and Elected Official Comments.

## 3.3 Mass Mailing Comments

Over 210,000 comments received were submitted through 63 organized mass mailing or form letter campaigns. These campaigns were submitted as either individual letters or signed petitions via U.S. Mail, the EIS web form, or most commonly through email. Table 3-7 provides the mass mailing comment totals, and a breakdown of these totals are provided in Table 3-8.

**Table 3-7. Mass Mailing Comment Statistics**

Type of Comment Submitted	Number of Comments Submitted
U.S. Mail-Form Letters	18,700
Emails/Web Forms-Form Letters	194,471
Total	213,171

**Table 3-8. Mass Mailing Letters**

Mass Mail Comment Submitted	Number of Comments Submitted
Mass Mail Campaign A	91
Mass Mail Campaign B	111,570
Mass Mail Campaign B2	14,101
Mass Mail Campaign B3	85
Mass Mail Campaign B4	630
Mass Mail Campaign B5	123

<b>Mass Mail Comment Submitted</b>	<b>Number of Comments Submitted</b>
Mass Mail Campaign B6	805
Mass Mail Campaign B7	915
Mass Mail Campaign C	878
Mass Mail Campaign D	282
Mass Mail Campaign E	17,141
Mass Mail Campaign F	10
Mass Mail Campaign G	11,150
Mass Mail Campaign H	23,449
Mass Mail Campaign I	161
Mass Mail Campaign J	19
Mass Mail Campaign K	2,434
Mass Mail Campaign L	3,342
Mass Mail Campaign M	58
Mass Mail Campaign N	85
Mass Mail Campaign O	36
Mass Mail Campaign P	84
Mass Mail Campaign Q	54
Mass Mail Campaign R	49
Mass Mail Campaign S	50
Mass Mail Campaign T	45
Mass Mail Campaign U	45
Mass Mail Campaign V	55
Mass Mail Campaign W	23
Mass Mail Campaign X	61
Mass Mail Campaign Y	51
Mass Mail Campaign Z	34
Mass Mail Campaign ZA	30
Mass Mail Campaign ZB	28
Mass Mail Campaign ZC	20
Mass Mail Campaign ZD	32
Mass Mail Campaign ZE	38
Mass Mail Campaign ZF	27
Mass Mail Campaign ZG	29
Mass Mail Campaign ZH	24
Mass Mail Campaign ZI	28
Mass Mail Campaign ZJ	36
Mass Mail Campaign ZK	36
Mass Mail Campaign ZL	29
Mass Mail Campaign ZM	33
Mass Mail Campaign ZN	34
Mass Mail Campaign ZO	20
Mass Mail Campaign ZP	27

<b>Mass Mail Comment Submitted</b>	<b>Number of Comments Submitted</b>
Mass Mail Campaign ZQ	148
Mass Mail Campaign ZR	5
Mass Mail Campaign ZS	194
Mass Mail Campaign ZT	381
Mass Mail Campaign ZU	661
Mass Mail Campaign ZV	2,077
Mass Mail Campaign ZW	172
Mass Mail Campaign ZX	0
Mass Mail Campaign ZY	178
Mass Mail Campaign ZZ	210
Mass Mail Campaign ZZ1	6,567
Mass Mail Campaign ZZ2	464
Mass Mail CREDO	12,346
Mass Mail Earth Ministry	243
Mass Mail ForceChange	348
Mass Mail Waterkeeper Alliance Petition	790
<b>Total</b>	<b>213,171</b>



## Agency, Tribal, and Elected Official Comments

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Of the 215,486 comment letters received during the 95-day scoping comment period, 127 letters were received from federal and state agencies, state and locally elected officials, local agencies/organizations, and tribes. This chapter provides a list of these commenters.

### 4.1 Federal and Regional Agency Comments

Eight comment letters were received from federal agencies.

- Bonneville Power Administration
- Columbia River Gorge Commission (submitted two letters)
- National Marine Fisheries Service
- National Park Service
- U.S. Chamber of Commerce
- U.S. Department of Agriculture Forest Service
- U.S. Environmental Protection Agency

### 4.2 Tribal Comments

Ten comment letters were submitted by the following Native American tribes.

- Coeur D'Alene Tribe
- Columbia River Inter-Tribal Fish Commission
- Confederated Tribes of the Umatilla Indian Reservation
- Confederated Tribes of the Warm Springs Reservation of Oregon (submitted two letters)
- Cowlitz Indian Tribe
- Nez Perce Tribe
- Nisqually Indian Tribe
- Upper Columbia United Tribes
- Yakama Nation

## 4.3 Washington State Agency and State-Elected Official Comments

A total of 11 comment letters were received from the following state agencies and state-elected officials.

- Washington State Department of Archaeology and Historic Preservation
- Washington State Department of Health
- Washington State Department of Natural Resources
- Washington State Department of Transportation
- Washington State Legislature, Representatives Larry Haler and Brad Klippert, 8th District
- Washington State Legislature, Representative Joe Schmick, 9th District
- Washington State Legislature, Representative Paul Harris, 17th District
- Washington State Representative, Representative Liz Pike, 18th District
- Washington State Senate, Senator Tom Sheldon, 35th District
- Washington State Legislature, Representatives and Senators from Districts 23, 24, 27, 32, 33, 34, 36, 37, 38, 40, 43, 46
- Washington Utilities and Transportation Commission

## 4.4 Local Agency and Locally Elected Official Comments

A total of 28 comment letters were received from the following local agencies and locally elected officials.

- City of Camas, Washington
- City of Cheney, Washington
- City of Eugene, Oregon
- City of Everett, Washington
- City of Lacey, Washington
- City of Livingston, Montana
- City of Longview, Washington (submitted two letters)
- City of Missoula, Montana
- City of Mosier, Oregon
- City of Olympia, Washington
- City of Sandpoint, Idaho
- City of the Dalles, Oregon

- City of Vancouver, Washington
- City of Washougal, Washington
- Cowlitz 2 Fire & Rescue
- Cowlitz-Wahkiakum Council of Governments
- Gallatin City-County Board of Health
- Hood River City Council
- King County Executive
- Metropolitan King County Council
- Olympic Region Clean Air Agency
- Port of Longview
- San Juan County Council
- Spokane Regional Clean Air Agency
- Thurston County Commissioner
- Tri-City Regional Chamber of Commerce (submitted two letters)

## 4.5 Other Agency and Organization Comments

Other comment letters were submitted by other agency/organizations not listed above. These agencies/organizations are listed below.

- Association of Washington Business (submitted two letters)
- Attorneys General for the State of Montana and the State of North Dakota
- Brotherhood of Locomotive Engineers and Trainmen (submitted two letters)
- Center for Salish Community Strategies
- Columbia River Pilots
- Columbia Riverkeeper
- Cottonwood Environmental Law Center
- Earth Ministry (submitted two letters)
- Earthjustice
- Eastside Audubon Society
- Federation of Western Outdoor Clubs
- Friends of Grays Harbor
- Friends of Grays Harbor, Friends of the San Juans, and Friends of the Alaska National Wildlife Refuges
- Friends of the Columbia Gorge

- Friends of the San Juans (submitted six letters)
- Futurewise
- Gonzaga University Environmental Law Clinic
- Idaho Conservation League
- Leadership Alliance Against Coal
- League of Women Voters of Bellingham/Whatcom County (submitted three letters)
- League of Women Voters of Washington
- Mazamas
- Missions, Peace, and Justice Ministry and concerned members of the United Churches of Olympia
- National Association of Manufacturers
- National Mining Association
- Native Plant Society of Oregon
- Northern Pacific Resource Council (submitted two letters)
- Northern Plains Resource Council and Western Organization of Resource Councils
- Northwest Environmental Defense Center
- Northwest Mining Association (submitted two letters)
- Oregon Interfaith Power and Light, Ecumenical Ministries of Oregon
- Oregon Physicians for Social Responsibility (submitted three letters)
- Oregon Rural Action (submitted two letters)
- Our Children's Trust
- Pacific Northwest Conference of the United Church of Christ
- Pacific Northwest Waterways Association
- Pacific Rainforest Wildlife Guardians
- Puget Soundkeeper Alliance
- Salem Sierra Club Beyond Coal
- San Juans Alliance (submitted two letters)
- Shalom Church
- Sierra Club
- Spokane Riverkeeper
- The Lands Council
- United Transportation Union/SMART
- Vancouver's Downtown Association
- Voters Taking Action on Climate Change

- Washington Farm Bureau
- Washington Public Ports Association
- Washington State Audubon Conservation Committee
- Washington State Catholic Conference
- Waterkeeper Alliance
- Western Organization of Resource Councils
- Whidbey Environmental Action Network

## **5.1 Introduction**

Between August 16, 2013 and November 18, 2013, the Co-Lead Agencies received over 215,400 scoping comments for the Proposed Action. Due to the large number of comments received and large percentage of mass mailings (form letters, electronic petitions, postcards), the Co-Lead Agencies and their contractor, ICF International (ICF), developed an approach to ensure every comment was considered efficiently and effectively. The Co-Lead Agencies listened to public verbal comment at scoping meetings and reviewed many individual comments submitted electronically or written. The contractor was responsible for reviewing every comment submitted to identify substantive comments on the proposal and provided an analysis to the Co-Lead Agencies. This Scoping Report is a summary of substantive comments received that were considered as part of the environmental review process.

The Co-Lead Agencies' SEPA and NEPA contractor, ICF, was responsible for collecting and summarizing all scoping comments for the Co-Lead Agencies review and for this Scoping Report. As a first step, ICF collected the comments from the Co-Lead Agencies, the joint website email address, joint website form, public comment transcripts, scoping meeting comment forms, and paper mail submissions. All comments were then imported into a comment database for analysis. The Co-Lead Agencies and ICF staff developed a coding structure to include key issues identified for the EIS scoping summary report by the Co-Lead Agencies. ICF staff then analyzed the comments received and distilled the content from the verbatim excerpt quotes into the detailed comment summaries that are included in this document. The comment summaries that follow are organized by issue topic areas, as indicated in the table of contents.

This summary report is not intended to be a recitation of all unique comments received. Rather, it attempts to capture substantive comments and common themes discussed by commenters. Some comments did not specifically address the standard SEPA elements of the environment or comments overlapped several of the elements. These comments were summarized by the general theme.

## **5.2 General Comments**

Many comments received during public scoping contained sentiments of support or opposition for a specific issue of concern. The EIS is an impartial, factual document for use by the public and decision-makers. These comments were reviewed and are acknowledged, but support or opposition are not considered factors in determining the scope of the EIS. The information is included here only to provide the complete picture of comments received during scoping. Substantive comments on issues to be considered will be included in the following sections of this chapter.

Approximately 170,800 comments expressed general support or opposition without providing specific statements related to issues of concern. Nearly all general comments stemmed from 20 form letter campaigns. The following summary includes a synopsis of the commenters' general opinions of the Proposed Action, and also provides accounts of general feedback.

## 5.2.1 General Support

Approximately 600 commenters expressed general support for the Proposed Action, most of which derived from seven form letter campaigns, of which four expressed support due to the jobs and boost to the local economy that the Proposed Action may provide. Two form letter campaigns expressed general support of the Proposed Action, but did not provide additional information on specific issues to consider in scoping.

In addition to the form letter campaigns, numerous commenters expressed general support for the Proposed Action but did not provide additional information on specific issues to consider in scoping. A majority of these comments requested that the Proposed Action not be delayed and asked that the scope of review not exceed previous reviews.

## 5.2.2 General Opposition

Approximately 170,100 commenters expressed general opposition to the Proposed Action. Nearly all of these comments stemmed from 13 form letters, nine of which expressed project disapproval but did not provide additional information on specific issues to consider in scoping. Two form letters stated disapproval of the Proposed Action expressing “coal is toxic”, and another letter expressed disapproval because of impacts on endangered species and the local and global human environment.

In addition to the form letter campaigns, numerous commenters stated their opposition of the Proposed Action and/or all proposed Pacific Northwest coal export terminals but did not provide additional information on specific issues to consider in scoping. Many of these commenters added statements against the mining, transport, and/or use of coal.

## 5.3 Comments Regarding the Purpose and Need Statement

Approximately 900 commenters discussed the Applicant’s purpose and need statement for the Proposed Action. Nearly all comments on this issue stemmed from a form letter campaign stating that the Proposed Action should be broadened to look at economic development and environmental needs for the region and global climate.

In addition to the form letter submissions, other commenters requested that the purpose and need statement be modified to include a public interest component. A commenter cited court cases to express concern that the purpose and need of the Proposed Action was limited in scope and, therefore, the Proposed Action would not be able to identify a reasonable range of alternatives. One commenter stated that the Applicant’s purpose and need statement is only a description of the Proposed Action and does not describe a purpose for the Proposed Action beyond use of the existing facility site. The commenter went on to state that the Applicant failed to discuss why the Proposed Action would solve any issues or problems.

Some commenters expressed concern over the long-term viability of coal, sustainability of the facility, its economic viability and existing port capacity. For example, one commenter stated that other coal export facilities that have been built in California and Oregon were never fully used due to shifting coal demands.

Some commenters expressed general concern over the future demand for coal; others expressed their opposition to promoting the use of coal, while suggesting the emergence of alternative energy sources. Some commenters stated that globally, the use of coal is declining and the terminal would not be used as frequently as anticipated. In particular, a few commenters stated that China is currently investing in infrastructure that would increase the availability of natural gas, which would likely displace demand for coal. A commenter stated that the demand for coal in the United States has fallen due to increasing environmental control costs associated with coal combustion and that coal does not provide an appealing return on investment. The commenter continued by requesting the EIS analyze the extent to which coal market trends are being followed in the proposed export markets, including trends to replace coal with natural gas or renewable energy. A commenter stated that adequately assessing how markets would react to United States coal exports would be difficult and any attempt to do so would be speculative. One commenter stated that the sale of coal and other natural resources would attract investment to areas of the country that produces coal, like Montana and North Dakota.

## 5.4 Comments Regarding Project Alternatives

### 5.4.1 No Action Alternative

Approximately 230 commenters discussed the No Action Alternative. Nearly all of the comments on the No Action Alternative stemmed from four form letter campaigns, one of which requested that the No Action Alternative consider potential negative impacts of the site remaining undeveloped. Another form letter requested that operation of the rail system for all forms of cargo with and without coal exports be included in the No Action Alternative. Another form letter requested the No Action Alternative include impacts from transporting coal whether or not the terminal is built. One form letter stated that the construction and operation of the terminal is not a proximate cause of the combustion of coal and if a close causal relationship cannot be established then the coal combustion should be considered under the No Action Alternative.

In addition to the form letter submissions, a few commenters also requested that the No Action Alternative evaluate potential adverse impacts associated with the proposed site remaining unused in its current condition. Numerous commenters requested that the No Action Alternative include historic changes in levels of rail traffic in the region in creating a baseline traffic projection. A few commenters stated their expectations as to how the EIS should address the No Action Alternative, including conducting a thorough examination of the No Action Alternative without prejudgment of the outcome of the analysis. One commenter stated that unless “every impact identified, singly and in combination,” would not be fully mitigated, then they recommend the No Action Alternative.

One commenter stated that the No Action Alternative should recognize that existing coal exports occur from other facilities on the west coast of Canada and that there is the potential to expand these facilities. This commenter further remarked that existing Canadian terminal facilities use the same Washington State rail infrastructure that would be used for the Proposed Action, and therefore, the No Action Alternative would likely include, and should analyze, an increase in rail traffic along the same corridors as the Proposed Action, but bound for Canadian ports, and without a corresponding economic benefit to Washington State. A few commenters stated that the same level of Asian coal imports would occur regardless of whether the Proposed Action is approved and,



therefore, any impact associated with the transportation of coal should be analyzed under the No Action Alternative.

A few commenters stated that if direct and cumulative impacts associated with the Proposed Action could not be adequately mitigated that the Co-Lead Agencies approve the No Action Alternative.

## 5.4.2 Identification of an Alternative Site for a Terminal

Approximately 40 commenters discussed alternative sites for the proposed terminal. Over half of the comments stemmed from one form letter campaign suggesting that there are no feasible alternative sites for a coal export terminal in the area.

In addition to the form letter submissions, a few commenters provided general feedback on the identification of an alternative site for a terminal. One of these commenters requested that the EIS consider an alternative site location for the MBTL facility that is not along the lower Columbia River. The commenter requested that the alternative site not “require significant alteration of aquatic habitat that may be harmful to treaty-protected resources”.

Another commenter offered that an action that would meet the proposed purpose and need would consider making improvements to ports in Washington so ships with similar capacity could be used, instead of choosing a site that would require destruction of wetlands, filling of wetlands, or affecting vessel traffic. This commenter expanded on their argument by stating that although a waterfront site is needed for this project, it is not necessary for the site to be one that requires filling wetlands. This commenter stated that the proposed terminal facility site encompasses as much as 30 acres of wetlands, and concluded that the Corps should require mitigation from MBTL for unavoidable impacts, while also considering the opportunity to maintain wetlands by researching a reasonable alternative. Another commenter requested that the EIS consider sites that do not require any wetlands fill, even if the result would mean a project that is smaller in capacity or is more costly to build.

A few commenters stated that there are no other alternative sites on existing brownfields, with no adjacent residential neighborhoods, and that have adequate port and rail access. One commenter continued by stating that of the alternative sites that were examined in Washington, Oregon, and California, the site in Longview was the only reasonable site that fulfilled the Applicant’s purpose and need. The commenter continued by stating that NEPA and SEPA do not require an alternative to be carried forward for analysis that would fail to meet the Applicant’s purpose and need.

## 5.4.3 Other Proposed Alternatives

Approximately 900 commenters provided feedback on other proposed alternatives. Nearly all of the comments stemmed from one form letter campaign in which commenters requested that the range of alternatives considered include those that better address the economic and environmental needs of the region. Additional details of the comments are provided in the summary below.

In addition to the form letter submissions, a couple of commenters provided feedback related to the material handling of coal. One commenter requested that pollution prevention technology (i.e., the fully enclosed storage and handling of coal) proposed for the Morrow coal terminal project, be considered as an alternative method for material handling of coal at the proposed MBTL terminal project site. Another commenter stated streamlining the terminal from “train to boat” so the long-term storage of coal in open containers would not be needed.

One commenter did not suggest a new or unique alternative, but instead urged the Co-Lead Agencies to evaluate alternative designs for overwater structures, docks, and ship-loading equipment. The commenter requested that an overwater alternative be evaluated to identify the opportunity to minimize impacts. The commenter stated that the overwater design could consider "...minimizing the number of pilings required, minimizing the coverage area of new overwater structures, using alternative decking materials, and minimizing artificial lighting." This commenter also requested that an alternate dock configuration be evaluated as an alternative so as to identify potential options to minimize dredging requirements. This commenter further requested that the EIS consider evaluating alternative ship loading equipment designs that would identify alternatives that would minimize the risk of coal and coal dust entering the Columbia River.

One commenter stated that they expect several "reasonable alternatives" to be developed that are in line with the purpose and need for the Proposed Action. The same commenter added that the alternatives should take into account the geographic scale of any impacts that need to be researched and/or mitigated. Another commenter stated that they expect the agencies involved to evaluate any reasonable alternatives, including alternatives that may not fall into the current scope. One of these commenters did not suggest a specific alternative to the Proposed Action, but instead requested that the EIS instead consider how these sites could be best used to generate the most jobs and have the most beneficial economic impact on the state and Cowlitz County.

## 5.5 Earth (Geology and Soils)

Approximately 60 commenters discussed concerns related to soils and geologic hazards. Several commenters expressed concern for potential soil contamination due to coal dust deposition during coal extraction, transport and/or storage. One commenter recommended that the analysis to evaluate potential geologic hazards follow the Washington State Department of Natural Resources (DNR) methodology outlined in the comment, especially if expansion of rail lines over state-managed lands was to occur and to collaborate with DNR when evaluating short-term impacts, long-term impacts, and mitigation measures related to soil, soil contamination, and cumulative hazardous material buildup. One commenter stated that the Proposed Action site was on a federal list for necessary clean-up and asked if the proposed coal terminal would add to the existing onsite pollution. One commenter requested for the EIS to include the effects of wind events to determine the potential range of contamination and include the potential of mercury contamination from coal dust. Several commenters stated that coal should not be considered toxic, and referred to soil sample studies conducted for previous coal terminals that determined existing natural soil contained more toxins than coal.

Other concerns raised by commenters related to suggestions that the EIS consider impacts associated with ground disturbance due to vibration of trains and its effects on buildings disrupting households and businesses; risks of slope instability and landslides during the mining of coal; dredging spoils and how contaminants, if found, would be properly disposed; erosion from overpasses and underpasses that could be implemented to mitigate train traffic; and contamination risks associated with coal bulk carriers and the proposed terminal in an event of an earthquake or tsunami; and potential of liquefaction at the proposed site. Another commenter asked how much grading and filling the Proposed Action would involve, and if land would be filled to a higher level of surrounding land.

## 5.6 Air (Air Quality, Greenhouse Gas Emissions, Air Deposition)

### 5.6.1 Air Quality

Approximately 179,400 commenters provided comments relating to air quality. Nearly all comments derived from 23 form letter campaigns, 14 of which expressed general concern for air quality without providing additional information to explain their concern. Another four form letters expressed concern about air impacts resulting from the Proposed Action's diesel emissions. Three form letter campaigns expressed specific concerns about air quality impacts on the Columbia River Gorge (due to rail traffic emissions) and San Juan Islands (due to vessel emissions). One of these form letter campaigns stated that communities in Montana should not have to bear financial costs associated with adverse impacts on Montana's air quality. One form letter stated that coal mining has significant impacts on air, and another stated that high air pollution standards are needed for pollution caused by coal. One form letter proclaimed that due to the conservative nature of emissions rates and ability to manage dust-generating activities, impacts on local air quality as a result of the Proposed Action are likely to be insignificant. Another form letter stated the Proposed Action would result in a beneficial impact on air quality due to workers traveling less distance with implementation of the proposed facility.

In addition to the form letter campaigns, a number of commenters discussed concerns related to the geographic scope of the analysis of air quality impacts. Numerous commenters requested that the EIS consider air quality analysis areas beyond the proposed terminal site, including areas where potential effects could occur as a result from mining activities, rail transportation, handling at the export facility, and shipping traffic. A few commenters stated that coal export through the Pacific Northwest could potentially affect air quality in areas with Class I air designations. One commenter requested that the EIS include all National Park Service units within 50 kilometers of the rail lines and shipping channels and all units within 100 kilometers of the terminals. One commenter requested specifically that impacts of train traffic be considered within 0.5 mile of the train. One commenter requested that impacts of train traffic be analyzed within 7 miles of railroad tracks.

A few commenters expressed concern for the air quality in certain geographic locations. A number of commenters requested that the EIS consider impacts on air quality from increased train traffic in communities in Washington or along the full length of the rail line that the trains would traverse, the Columbia River Gorge, and in national wildlife refuges in Alaska and Washington State. Many commenters requested that the EIS consider the air quality impacts from additional trains through Spokane County. A commenter questioned what the air quality impacts would be at the Bozeman rail yard, which they stated would experience increased activity as trains are attached to helper engines for transit over the Bozeman pass. Another commenter requested evaluation of impacts that additional train activity would have at the BNSF Railway Company's (BNSF) rail yard in Spokane County. Another commenter stated that the scope of the EIS should be broadened, in part, because of the potential impacts from long-range transportation of air pollutants. A commenter stated that the Proposed Action would result in impacts on visibility in the region and in particular, the Columbia River Gorge.

Comments were provided linking the geographic scope to a consideration of National Ambient Air Quality Standards (NAAQS). One commenter stated that there are numerous areas designated for nonattainment and maintenance for criteria pollutants that trains would emit along the rail lines.

Another commenter remarked that Spokane County is designated as a maintenance area for particulate matter 10 (PM10) and carbon monoxide and requested that the EIS include a conformity evaluation to determine if the Proposed Action would comply with the General Conformity Regulations.

Some comments were received regarding emissions from train traffic and locomotives. Numerous commenters stated that coal trains would require the combustion of diesel fuel resulting in emissions of air pollutants and carcinogens. Some of these commenters requested that the EIS include an analysis of impacts from increased diesel emissions and air pollution from locomotives. A commenter remarked that coal trains may require twice the number of engines than a typical freight train and stated that the EIS needs to quantify the amount of diesel emissions from the total number of engines. Some commenters requested that the EIS include measures to mitigate the impacts of diesel exhaust. A commenter recommended that all locomotives associated with the Proposed Action be required to meet the U.S. Environmental Protection Agency's (EPA's) Tier 3 or 4 emissions standards. Another commenter stated that the use of diesel-fueled locomotives would contribute to criteria and hazardous air pollutant emissions into the Longview airshed, consuming the capacity of air pollution in the airshed. This commenter requested that the EIS assess options to reduce air pollutants from coal transportation including diesel engines and diesel fuel. One commenter advocated using natural gas as a cleaner fuel for the trains to reduce harmful emissions.

A number of commenters stated that the exhaust from increased vehicle idle time at blocked railroad crossings would result in air quality impacts. Some of these commenters requested that increased idling times be analyzed in the EIS. Two of these commenters stated that the EIS should include measures to mitigate the air quality impacts from increased idle time.

A few commenters requested that the EIS consider emissions resulting from shipping vessels. A couple of commenters requested that the EIS include measures to minimize air impacts from shipping activities and one commenter stated that binding mechanisms are necessary to ensure the use of the best available control technology to minimize emissions ships in transit and at berth. Another commenter requested that the EIS include an evaluation of the diesel emissions associated with marine vessels as well as the towboats and other support vessels within the North American Emissions Control Area. The commenter stated that the Co-Lead Agencies should evaluate ozone in the air quality impact analysis, including the combustion of the exported coal and the ozone precursors emitted by ships such as nitrogen oxides and requested that the analysis consider the type of fuels being used and the efficiency of the vehicles.

A number of comments identified concerns about other emissions sources. One commenter requested that the EIS include a list of potential export commodities that contains hazardous materials and the air quality impacts resulting from fugitive emissions from each commodity be evaluated. A commenter stated that fugitive coal dust fallout from transport and storage of coal at the proposed terminal site has the potential to contaminate raw materials and products used in papermaking operations. One commenter stated that there is a risk of fires or spontaneous combustion associated with coal handling, shipment, and storage and asked that the risk of fires and associated impacts on air quality be considered in the EIS. One commenter stated that wildfires caused by increased train traffic would lead to air pollution. Another commenter requested that the EIS analyze impacts on visibility from the fugitive emissions of the proposed uncovered storage site.

Several comments pertained to one or more specific pollutants. One commenter asked that the air quality analysis include impacts and pollution from nitrogen dioxide, particulate matter, sulfur

dioxide, sulfuric acid mist, heavy metals, and coal dust. A number of commenters called out the pollutant diesel particulate matter (DPM) specifically and requested that it be analyzed in the EIS.

A number of comments concerned the methods to be used in the air quality analysis. One commenter requested a cost-benefit analysis to analyze train traffic impacts on air quality. Another commenter requested that air modelling tools, such as AERMOD be used, but stated that comparing modeled impacts on NAAQS is not appropriate for a NEPA or SEPA analysis. The commenter stated that the NAAQS is not a level of pollution below which people are not harmed, but rather it is a policy tool to implement the Clean Air Act. The commenter requested that air modelling be conducted and use “realistic” assumptions and inputs, a number of which were provided as examples. Another commenter requested that dispersion modeling be used in the EIS to assess impacts from DPM on receptors in Spokane County. A couple of commenters remarked that the EIS should analyze the Proposed Action’s consistency with the Columbia River Gorge Air Study and Strategy (Oregon Department of Environmental Quality 2011), which the commenters stated identifies as a goal for continued improvement of visibility in the Gorge. A commenter requested the EIS model visibility impacts on the Gorge and the cumulative impacts on visibility from other coal facilities in the region. A couple of commenters specifically requested that the EIS analyze the cumulative impacts on air quality resulting from the Proposed Action, as well as other coal export terminals.

Additional unique comments on the issues of greenhouse gases (GHGs) and air depositions are highlighted in the summary sections below.

## 5.6.2 Greenhouse Gas Emissions

Approximately 900 commenters discussed issues related to GHGs. A majority of these comments stemmed from six form letter campaigns, three of which expressed general concern for an increase in GHGs as a result of the Proposed Action, while another inquired about the economic cost to the shellfish industry in Washington State due to global climate impacts as a result in increased GHGs. Conversely, three form letters stated GHG emissions from the Proposed Action would not affect the atmosphere, whereas one letter stated that the degree of emissions required to cause a global impact is vastly greater than the emissions that could be attributed to the Proposed Action. Two form letters stated that the proposed terminal would not increase the use of coal globally and, therefore, the net gain in GHG emissions would be insignificant.

In addition to the form letter campaigns, one commenter stated that coal export projects are inconsistent with the Copenhagen Climate Accord, to which the United States is a signatory. Another commenter stated that the scoping decision for the Gateway Pacific Bulk Terminal (GPT) Project should not be considered. A commenter stated that the conclusions of the GPT scoping decisions are flawed because there is no evidence that the export of coal across the MBTL project docks would create new or additional GHG emissions or that any additional GHG emissions would adversely affect the environment. The commenter also stated that the scoping decisions for GPT could violate “the presumption against extraterritoriality,” which the commenter stated, “prohibits agencies from applying a statute to regulate conduct beyond Borders”.

Sources of GHG emissions to be considered were identified in the comments. One commenter cited a recent study that spontaneous combustion of coal stocks constitute substantial sources of GHGs. Some commenters requested that the EIS include an evaluation of GHGs associated with idling motor vehicles waiting for coal trains at at-grade crossings in Washington State. A few commenters

stated that the vessels trips would result in the release of GHGs both while vessels are docked and underway. One of these commenters requested that the EIS include measures to reduce the Proposed Action's carbon footprint. The commenter also stated that the EIS should include an analysis of fossil fuels used by trains travelling over state-managed lands.

A couple of commenters stated that the scope of the analysis would be unnecessarily and inappropriately broad if it includes the carbon footprint of the coal from its point of origin to combustion at its destination. Another commenter stated that because there are too many variables that affect the calculation of GHGs, an analysis of GHGs associated with the transportation and use of a product outside the state of Washington would be speculative and costly.

One commenter stated that a 2012 Executive Order of the Washington Governor directs the Office of the Governor and cabinet agencies to advocate for GHG reductions at a global, national, and regional level.

### 5.6.3 Air Deposition

Approximately 30,400 commenters provided comments related to the issue of air deposition. Most comments came from 10 form letter campaigns, four of which expressed general concern for impacts on air, water, soil, human health, and/or property values due to the exposure to coal dust. Two form letters stated concern regarding uncovered trains and resulting impacts of coal dust in the Columbia River Gorge and Columbia River. Other form letters discussed the need to study the toxicity of coal dust, the need for high standards for coal pollution, and concerns that the Proposed Action would directly affect communities in Montana, Wyoming, and the West Coast. Another form letter inquired about the impacts on Chinook salmon as a result of fugitive dust from coal processing, transport, runoff from dust-control water that is applied to coal piles, removal of Columbia River water to control fugitive dust, and use of dust suppressants. Another form letter requested that previous environmental studies on suppressing coal dust during transport be incorporated into the EIS.

In addition to form letter comments, multiple commenters described their overall concern regarding coal dust impacts on water quality, aquatic life, and human health. A couple of commenters stated that coal dust has significant effects on plant function. Several comments were received that pertained to the scope of resources and geographic area that could be affected by coal dust. Commenters concluded that the following would be negatively affected by coal dust: farmlands, forests, lakes, streams, and rivers in Thurston County, Washington; regional visibility; equipment, businesses, and/or economic activity; nearby soils; and agricultural production. One commenter requested that coal dust impacts be analyzed in the context of the local airshed in Longview. The commenter also stated that that coal dust could be washed into Longview's stormwater system and concluded that this could affect the ability of the city to meet state and federal stormwater standards. A few commenters expressed concern that coal dust from the Proposed Action would have impacts on specific areas such as The Dalles, Gallatin County in Montana, Washington State, and the Columbia River Gorge. Another commenter stated that it has been documented that coal dust is already being deposited in the lands and waters of the Yakama Nation. Another commenter requested that the EIS consider the potential effects the coal dust may have on the BPA electrical substation near the export facility. A commenter requested that the impacts of coal dust be considered in National Forest System lands through which the trains would travel. A commenter singled out McAlister Springs Nisqually Basin and stated that coal dust impacts of these resources

should be studied. Other commenters stated that increases in coal dust along all proposed rail routes should be analyzed as a reasonably foreseeable impact.

Human health effects from coal dust were one of the issues about which most commenters expressed concern. A number of commenters called for a detailed study of health impacts from coal dust. One commenter specifically requested that an exposure risk assessment include evaluation of exposure through inhalation of coal dust particles near the rail lines and export terminal, as well as ingestion and consumption of food from contaminated areas. Another commenter specifically called for a Health Impact Assessment and provided specific questions that could be addressed. One commenter requested that the EIS include a full description of the chemical composition of the coal that would be transported.

Several comments were submitted that pertained to other potential risks presented or exacerbated by coal dust deposition. A number of commenters stated that or questioned if accumulations of coal dust carry a risk of spontaneous combustion and fire. One commenter expressed concern that coal dust from the terminal may affect equipment and services provided by the nearby electrical substation. Several commenters stated that accumulations on train tracks can cause derailments. One commenter stated that the Surface Transportation Board has conducted studies that identified coal dust as a “pernicious ballast foulant”. A commenter requested that the EIS study the increased costs of rail infrastructure maintenance required because of increased coal dust.

Numerous comments referred to a study conducted by BNSF that quantified the amount of coal dust a car may lose in transit. A couple of commenters included another study from 1993 that they stated showed a loss of up to 1 pound of coal dust per car, per mile. One commenter stated that, based on these studies, the Proposed Action would result in over 32 million pounds of coal in the Columbia River Gorge each year. One commenter stated that the Proposed Action would result in 132 to 144 tons of annual dust releases.

Some comments described a number of purported methods by which coal dust could be transported. For example, one commenter stated that coal dust would accumulate in the cloud bank in the Columbia Basin and would later be transported as snow or rain around the region. Another commenter concluded that coal dust is capable of spreading over large areas of land and water through wind and stormwater runoff. A commenter recommended that the uniquely high winds in the Columbia Gorge should be considered in the analysis. One commenter requested that the EIS include modeling of fugitive emissions based on regional weather patterns.

Although the majority of the comments on air depositions pertained to coal dust emitted by rail cars during transit, a number of comments were received regarding other sources of coal dust. Several commenters stated that coal dust could spread during loading/unloading activities or from the uncovered coal piles at the terminal. One commenter stated that coal dust would be generated during ship transport. Another commenter requested that the EIS evaluate the impacts from coal dust originating at the mine sites. One commenter stated that the EIS must consider the impacts of all three pending coal export terminals.

In addition to coal dust, a number of comments were submitted that pertained to the deposition of other materials. Several commenters stated that air pollutants, including particulate and mercury emissions, could be transported from the combustion site back to North America or requested that the EIS include an analysis of air pollution in North America that could result from combustion in Asia and blow back of pollution such as mercury. A couple of commenters questioned what kind of air regulations and standards would be in effect where the coal is combusted. One commenter

remarked that mercury deposition should be specifically examined. Another commenter recommended that the EIS consider the deposition of nitrogen and sulfur compound deposition from diesel exhaust.

The issue of surfactants was raised by commenters in a few different contexts. Several commenters questioned the efficacy of surfactants in controlling coal dust and/or requested that it be discussed in the EIS. A couple of commenters stated that there are no binding regulations requiring shippers to use surfactants and that many coal companies are not using surfactants. One commenter stated that BNSF has stated its intent to construct a surfactant re-topping station on the route between the Powder River Basin and the Port of Metro Vancouver (Canada). A couple of commenters concluded that the EIS should also disclose and compare the consequences of not using surfactants. A number of commenters claimed that the surfactants contain chemicals (both known and unknown) whose effects on the environment are not well understood or otherwise requested that the EIS include an analysis of impacts of surfactants on the environment.

Several commenters requested or suggested mitigation measures for the EIS. One commenter recommended that the EIS include mitigation measures specific to coal dust inhalation and ingestion while others requested that more general (or unspecified) measures be included to mitigate coal dust impacts. Some commenters stated that the Proposed Action should be required to pay for all mitigation measures of coal dust. A commenter requested that stormwater management and dust suppression methods be included in the EIS. Several commenters stated that the EIS should consider or evaluate the requirement that coal cars are covered or other control technologies be used.

A commenter asked that the EIS include a comparison of coal dust releases between the proposed terminal and the Coyote Island terminal, which they stated would include, covered or closed storage and loading. A commenter requested that the EIS process include air monitoring at locations near the proposed facility to determine baseline levels that can be used to determine the impacts of coal dust after export operations begin.

## **5.7 Water (Groundwater, Drinking Water, Surface Water, Floodplains, Wetlands)**

Approximately 145,500 commenters addressed concerns regarding the Proposed Action's impacts on water quality. Nearly all comments stemmed from 21 form letter campaigns, 12 of which expressed general concern for water quality with no additional information to explain their concern. Three form letters expressed general concern for water impacts resulting from the Proposed Action's coal dust and/or other pollution leaching into waterways. One form letter focused on water quality concerns regarding rail construction in the Columbia River Gorge, and another stated that communities in Montana should not bear financial costs associated with adverse effects on Montana's water quality. Another form letter stated that high standards need to be set for water pollution by coal. One form letter discussed how coal is not toxic in water, and pollution is only released through burning. This form letter added that the EIS would not need to study water quality impacts related to coal due to previous coal operations at the site.

In addition to the form letter campaigns, some commenters listed water quality among a list of other issues of concern (e.g., air quality, public health, fish and wildlife) without providing additional information to explain their concern. Some commenters requested that the EIS consider several



aspects of water quality impacts (e.g., increased sediment loads, possible spills, coal dust impacts, mercury deposition, and groundwater impact). According to one commenter, BNSF is currently a defendant in a Clean Water Act citizen suit regarding coal dust discharge. Another commenter requested that the Proposed Action's permit application be denied for not meeting the Section 404(b)(1) Guidelines under the Clean Water Act. Other general comments specific to water quality concerns include coal dust, construction impacts, and other topics of concern.

- **Coal dust.** Several commenters stated concerns regarding waterways being exposed to coal dust lost from uncovered trains during transportation. One commenter stated coal dust could also end up in a cloud bank and return to rivers and streams in rain or snow. The same commenter stated concern for toxic contaminants released at coal ash disposal sites, and further commented that coal dust could spread not just from transportation, but from uncovered coal piles sitting at the terminal. A few commenters stated that errant coal dust could potentially be washed into the local stormwater systems. One commenter stated that the provisions in the construction and industrial stormwater general permit are not adequate for controlling toxic runoff from the proposed facility into sensitive and impaired water bodies.
- **Construction impacts.** One commenter requested water quality impacts resulting from construction of the Proposed Action, including in-water, above-water, and on-land construction be examined. The commenter stated it would be important to examine increased turbidity, resuspension of contaminants, and discharge of pollutants from the Proposed Action's construction activities and stormwater runoff.
- **Other topics of concern.** Other topics of concern related to water quality included rainwater leaching, impacts on local wildlife refuges, acid deposition, runoff, and impacts from active and abandoned mine sites. Another commenter requested that the EIS scope include an impact assessment on the water environment in Alaska's National Wildlife Refuges and National Wildlife Refuges in Washington. One commenter requested the EIS analysis consider acid deposition into waterways (locally and globally) from train and vessel engines. This commenter mentioned the analysis for the Port of Morrow Proposed Action, which they stated showed nitrogen deposition in to the Columbia River much higher than the ecological screening level. One commenter listed a potential impact as "polluting the waters with slurry runoff." One commenter stated that contact with water in active and abandoned mines could release mercury into the environment. Additional unique comments on the issues of ground water, surface water, floodplains, and wetlands are highlighted in the summary sections below.

## 5.7.1 Groundwater

Approximately 60 commenters addressed concerns related to groundwater impacts of the Proposed Action. Of these comments, approximately 20 comments stemmed from a form letter campaign that stated that high standards need to be set for coal pollution on aquifers. Of the unique comments submitted, several commenters stated their concerns of pollutants associated with the Proposed Action seeping or leaching into groundwater. A couple of commenters requested for the EIS to analyze potential groundwater contamination from coal dust or other "toxic" materials from project facilities and the rail line. Several commenters expressed concern regarding the increased frequency of refueling due to more rail traffic by the Proposed Action contaminating the Spokane Valley and Rathdrum prairie aquifers. Other commenters expressed concern for groundwater contamination in the event of a train derailment and stormwater runoff. The scope of groundwater analysis was requested by another commenter to encompass 7 miles of the railroad tracks. One commenter

expressed concern about the effect on local water tables from water being drawn to irrigate coal piles (to prevent combustion), and another asked for the EIS to investigate any wells and the water table on or near the proposed site, and how they would be protected from contamination.

## 5.7.2 Drinking Water

A few commenters addressed the issue of potential impacts on local drinking water supplies. A commenter requested the EIS analyze the impacts of rainwater runoff from the proposed coal piles to Longview's potable well water. One commenter stated that the City of Olympia has long been concerned about the potential of a hazardous spill along the BNSF rail line and the spill's effects on the city's primary drinking water source, McAllister Springs. Another commenter stated the Proposed Action's rail lines would be located directly above the Rathdrum Prairie Aquifer, Spokane Valley's sole source of drinking water, and requested the maximum protection for this aquifer. Another commenter expressed concern for mercury deposition in Lake Whatcom, a potable water source for Whatcom County, as a result of pollution drifting back to the United States from coal combustion in Asia.

## 5.7.3 Surface Water

Approximately 41,600 commenters addressed concerns regarding the Proposed Action's potential impacts on surface water (e.g., rivers, streams, lakes). Most of these comments derived from five form letter campaigns, one of which expressed general concern for surface water impacts without providing additional information to explain their concern. Other form letter campaigns relayed concerns about the Proposed Action's uncovered trains introducing pollutants into the Columbia River, surface water quality concerns in the Columbia River Gorge, and water pollution in the San Juan Islands from increased shipping traffic. One form letter requested the EIS consider the pollution of waterways from mining, transporting, and shipping of coal.

In addition to the form letter submissions, one commenter requested that the EIS analyze "how much right-of-way onto state-owned aquatic lands is estimated to be required to accommodate the increase in trains". Some commenters listed impacts on surface water among a list of other issues of concern (e.g., air quality, public health, fish and wildlife) without providing additional information to explain their concern. Most commenters addressed specific surface water quality concerns, the most common related to potential impacts from coal dust, train and vessel transportation, and potential spills. These and other specific surface water concerns are summarized below.

- **Coal dust.** Many commenters expressed concern regarding waterways being exposed to coal dust lost from uncovered trains during transportation via rail and/or shipping. Specific waterways mentioned include the Columbia River, Spokane River, Lake Pend Oreille, and other multiple water bodies along the route from the Powder River Basin. One commenter also asked for the potential water quality hazards of surfactant to be studied in the EIS, and another requested for the acidity of the Columbia River to be studied due to exposure of engine exhaust and cargo dust. Another concern of commenters involved polluted stormwater runoff entering natural water systems, and several added that this issue could be exacerbated due to the high amount of rain received in the region. One commenter stated that errant coal dust could potentially be washed into the local stormwater systems, affecting the ability to meet state and federal stormwater standards. A few commenters discussed how coal is not toxic in water, and added that the EIS should not be required to study surface water quality impacts related to coal.

- **Train and vessel routes.** Several commenters requested that the EIS examine potential surface water impacts along the Proposed Action's train and vessel routes. A common concern included the impacts related to the increase in train and vessel traffic by the Proposed Action resulting in a greater risk of contaminants entering surrounding water bodies.
- **Potential spills.** Several commenters expressed concern about potential train derailments and the subsequent release of hazardous material spills into waterways along the rail line. This included potential spills along the rail line, at the proposed facility, and along proposed vessel routes. Most of these commenters specifically remarked on the potential impact on public drinking water supplies due to a spill. Specifically, the drinking water supplies at McAllister Springs, the Nisqually Basin, and the community of Longview were discussed.
- **Other topics of concern.** Other topics of concern related to surface water included comments on construction, the water used to spray coal piles, impacts on wildlife refuges and national parks, impacts from coal mining, and the scope of analysis. One commenter stated that construction of the Proposed Action would alter water quality conditions, and another commenter asked the EIS to study the adverse impacts on surface water cause by the runoff from spraying down coal trains and coal piles. Another commenter requested the scope of surface water analysis to encompass seven miles of the railroad tracks. One commenter asked for the potential of overwater structures to affect water flow or other natural hydrological functions to be examined. Another commenter stated that additional coal mining is harmful to water resources.

#### 5.7.4 Floodplains

Two commenters provided comments on floodplains. One commenter stated that impacts of the Proposed Action would include loss of floodplain lands in the Columbia River Estuary. Another commenter asked how the Proposed Action would affect and mitigate for the increased loss of the Columbia River Estuary floodplain lands.

#### 5.7.5 Wetlands

Approximately 900 commenters addressed concerns related to the Proposed Action's potential impacts on wetlands. A majority of these comments stemmed from a form letter campaign that expressed concern about the Proposed Action's rail lines crossing many tributaries and wetlands, and the potential impacts on these water resources during construction of new tracks. Many other commenters discussed potential direct impacts and/or permanent loss of wetlands from implementation and operation of the Proposed Action. This included impacts on coastal wetlands and wetlands at the project site, in the immediate project vicinity, and along the coal train routes. Some commenters also expressed concern about coal being introduced to wetland areas by wind-blown dust and possible leaching of stationary piles. One commenter added that coal contains multiple toxins capable of changing biological activity, which would be harmful to wetlands. Another commenter expressed concern that the Proposed Action could negate the wetland restoration efforts on the lower Columbia River. Polluted stormwater runoff infiltrating wetland areas was another topic of concern for a few commenters, and it was also requested the EIS analyze how state resources, including wetlands within and outside directly affected areas would be protected".

## 5.8 Terrestrial Resources (Wildlife, Vegetation)

Approximately 31,400 commenters expressed general concerns for the terrestrial environment and degradation of habitat as it related to the Proposed Action. Nearly all comments stemmed from six form letter campaigns, four of which expressed general concern regarding the potential impact the Proposed Action would have on Columbia River Gorge ecosystems while another form letter campaign called for more stringent coal pollution standards to better protect terrestrial habitats. Another form letter campaign called for the protection of the Columbia River Gorge and its terrestrial resources. Similarly, a few commenters stated their concern for the affect that coal and coal dust would have on terrestrial ecosystems. Another commenter expressed a need for the EIS to assess the direct, indirect and cumulative impacts on the Washington State National Wildlife Refuge, the Alaska Maritime National Wildlife Refuge, and other Alaskan National Wildlife Refuges. One commenter requested that the EIS analyze sensitive ecosystems and potential impacts on DNR Natural Resource Conservation Areas and Natural Area Preserves along the potential rail corridors. Additional comments on the issues of terrestrial wildlife and vegetation are highlighted in the summary sections below.

### 5.8.1 Terrestrial Wildlife

Approximately 17,200 commenters discussed concerns related to terrestrial wildlife. Nearly all comments were from two form letter campaigns that expressed general concern over the potential toxins added to the atmosphere by coal transport (e.g., mercury, carbon dioxide, and heavy metals) explaining that these toxins could be harmful to wildlife.

In addition to the form letter submissions, a commenter expressed concern for impacts on wildlife that may occur from particulate and mercury emissions that are “transported back” to North America. A couple of commenters stated that local wildlife is currently exhibiting elevated levels of mercury in their blood.

Some commenters requested that evaluations and/or assessments related to terrestrial wildlife and their habitat be included in the scope of the EIS. Many of these commenters requested assessments including evaluation of potential impacts of the proposed coal trains on various wildlife habitats, evaluation of Glacier National Park, Alaska National Wildlife Refuges, Washington National Wildlife Refuges, and on wildlife life stages and migration patterns. One commenter concluded that the EIS scope should be extended to include the Powder River Basin.

Some commenters expressed concern about potential impacts on terrestrial threatened and endangered species, including waterfowl and migratory birds. One commenter noted that to thoroughly assess impacts on threatened species and critical habitat (including migration routes and spawning areas), the EIS analysis would need to expand its scope to include areas proposed for the transport of coal, including along rail lines and shipping routes. A few commenters urged agency consultation and coordination pursuant to the ESA regarding impacts of the Proposed Action on federally listed terrestrial species and their habitat.

A few commenters expressed concern about the general effects of the Proposed Action, coal mining, coal dust, coal spillage, and train operations on wildlife and their habitat. One commenter stated that increased vessel traffic would result in the increased introduction of nonnative terrestrial species, such as rodents, to the Alaska Maritime Refuge, threatening the native sea bird colonies.

## 5.8.2 Terrestrial Vegetation

Approximately 20 commenters, including a form letter campaign, asked for evaluations and/or assessments related to terrestrial vegetation to be included in the scope of the EIS. One commenter requested vegetation communities, specifically in the Columbia River Gorge, be considered, and that the impact of potential train-related fires on local vegetation and rare plants growing along the train routes be assessed. One commenter requested that plant communities listed as threatened or endangered on state-managed lands along the entire potential rail corridor be evaluated. One commenter was concerned with the potential for new introductions and increased spread of invasive species as a result of the proposed rail operations, and requested that the EIS identify potential mitigation measures that may be used to minimize impacts from invasive species that might occur in the Columbia River Gorge National Scenic Area. One commenter requested the EIS analyze potential impacts on urban forests along the rail corridors. This would include permanent removal of urban forests and fragmented forests. The commenter also expressed concern regarding the potential for fine particulates to coat the surface areas of leaves leading to a reduction in plant photosynthesis and respiration.

One commenter was concerned about potential impacts on vegetation from the breakdown of surfactants sprayed on coal to minimize dust, and requested that the EIS provide a determination of the chemical components of the surfactant and their potential impacts on vegetation. Another commenter stated that coal dust can alter floral and lichen communities.

## 5.9 Aquatic Resources (Wildlife, Vegetation)

Approximately 178,100 commenters expressed general concern for the aquatic environment and degradation of habitat as it relates to the Proposed Action. Nearly all general comments were from 15 form letter campaigns, 12 of which expressed general concern for the damage of aquatic ecosystems and/or fishing areas on the Columbia River caused by the Proposed Action. Two form letter campaigns stated that the Proposed Action would cause damage to aquatic ecosystems because it would expand strip-mining in Wyoming and Montana.

In addition to the form letter submissions, other commenters expressed concern related to the effect of in-water construction and railroad operation on certain water bodies. A couple of these commenters requested that an analysis of impacts during construction occur, including the impacts of sea-floor disturbance and increased turbidity related to in-water construction. A few commenters concerned with the construction and operation of the terminal stated that the construction and existence of the wharf and trestle would have shading impacts, which would affect estuary ecology. A couple of commenters expressed their concern about the effects of increased marine traffic on marine habitats, including the introduction of invasive species. A few commenters stated that studies have shown that large ships can cause significant disturbances in the system, such as causing wake stranding of outmigrating smolts, bank erosion, and disturbance of nearshore habitats. Other comments specific to marine and/or vessel traffic are addressed in detail in Section 5.15.2. Vessel Traffic.

Some commenters expressed their concern for coal dust and coal spillage related impacts on the aquatic environment and requested that the EIS analyze this topic. One commenter asked that the EIS determine the chemical properties of Powder River Basin coal and its chemical effects on fresh

water and saltwater resources and habitat. One commenter stated that spills and the burning of coal could result in increased levels of mercury damaging aquatic resources and lead to habitat loss.

One commenter expressed a need for the EIS to assess the direct, indirect, and cumulative impacts on the Washington State National Wildlife Refuge, the Alaska Maritime National Wildlife Refuge, and other Alaskan National Wildlife Refuges.

One commenter stated that the BNSF railroad runs adjacent to Bear Creek and the Middle Fork Flathead River, and crosses several streams in Glacier National Park, and that they are concerned about impacts on aquatic life from coal dust, diesel emissions, and potential oil spills and train derailments. This same commenter requested that the EIS analyze the effects of the export terminals and increased ship traffic on aquatic habitats and wildlife in Puget Sound and the Columbia River.

Other commenters asked that the EIS include certain analyses in the scope of the document to determine potential impacts on aquatic resources and river ecosystems. One commenter requested that the EIS include an analysis of impacts on marine and aquatic resources beginning in the area of coal mining, extending along the rail corridor to the terminal, at the terminal, extending along the vessel corridor to Asia, and ending with the burning of coal in Asia. One commenter stated that the EIS should evaluate and present all mitigation measures necessary to ensure minimization of impacts on fish and wildlife species and habitats. This same commenter requested the evaluation of impacts on the aquatic environment from coal dust emissions from uncovered rail cars, and the inclusion of associated identified mitigation measures. Other commenters expressed the need for the EIS to address impacts on aquatic species along the transportation route, and to analyze whether rail corridors may need to expand onto aquatic lands to accommodate the Proposed Action.

One commenter asked that the EIS include a study of estuarine habitat, determine a baseline bathymetry value, and conduct a hydrodynamic modeling study of the effects of the Proposed Action on the estuary, including effects on water flow, velocity, and sediment transport. This commenter further stated that the study should include various water quality parameters, such as temperature. One commenter was concerned how riverine vegetation and habitat for freshwater invertebrates would be affected by changes in wave energy, sediment transport, or substrate.

A few commenters expressed concern for the economic loss to the seafood industry, as a result of the loss of marine species due to ocean acidification from GHGs that are produced from increased coal transport and burning.

Additional comments on the issues of aquatic wildlife and vegetation are highlighted in the summary sections below.

## 5.9.1 Aquatic Wildlife

Approximately 29,300 commenters expressed general concern for impacts on aquatic wildlife resulting from the Proposed Action. Nearly all of these comments stemmed from three form letter campaigns, two of which expressed general concern over mercury added to the atmosphere by coal transport and the impact on seafood, endangered salmon runs and orcas. A few commenters urged agency consultation and coordination regarding marine mammals and threatened and endangered species during the EIS process. One form letter campaign expressed general concern for the impact that increased rail construction would have on aquatic wildlife.

In addition to the form letter submissions, some commenters expressed concern regarding adverse impacts on aquatic wildlife that would be caused by increased vessel traffic. The commenters stated that the wakes and waves caused by increased vessel traffic could potentially lead to shoreline erosion and adverse impacts on aquatic wildlife. One commenter stated that the transportation of products from the proposed terminal site was an interrelated action and would require analysis under Section 7 of the ESA. The commenter requested that information on shipping corridors include routes to the edge of the Exclusive Economic Zone. The commenter also remarked that the EIS should take into account increased vessel collisions with marine mammals and sea turtles. One commenter requested that the EIS consider seasonal restrictions of vessel traffic and tug operations to minimize impacts on spawning and migration behavior of fish.

A few commenters stated concern for marine mammals such as sea lions and seals in the Columbia River, and requested an analysis of the impacts on them from the coal export facility and increased vessel traffic. A few commenters conveyed concerns regarding the Southern Resident Killer Whale or orca. Some of these commenters called for the EIS to assess a variety of potential impacts on the Columbia River itself and on the forage fish, Chinook salmon, and orcas, including project construction, coal dust, oil and coal spills, ocean acidification, and increased mercury pollution. One commenter expressed concern for potential harmful effects on orcas from loss of forage fish habitat at the proposed terminal site. One commenter expressed concern for the potential impacts on ducks and geese that forage for vegetation along the Columbia River that may be contaminated by coal dust.

One commenter requested a study of the direct, indirect, and cumulative impacts on marine mammals from noise emanating from vessels along the routes to and from Asia, and another commenter requested a study of the impact of noise and vibration during construction on the native aquatic species of the Columbia River. One commenter called for toxicity studies that assessed the level of discharged heavy metals and polycyclic hydrocarbons on freshwater and marine life at all stages of life. A couple of commenters requested that baseline conditions be established and monitoring of relevant conditions to determine if mitigation measures are working effectively. One commenter voiced concern for the potential impact of sea level rise on marine mammal haul out, nesting, and foraging sites.

One commenter requested the EIS identify, quantify, and evaluate potential impacts on fish and commercial, sport, and subsistence fisheries from vessel operations. This same commenter requested a study to analyze the direct, indirect, and cumulative climate change, ocean acidification, and mercury emissions impacts on fish and to commercial, sport, and subsistence fisheries.

Numerous commenters expressed general concern for impacts on, and resulting loss of, fish and shellfish populations, both wild and farmed, resulting from the Proposed Action. A few commenters expressed concern about effects on regional fishing, including tribal fishing and Native American treaty rights. A few commenters made general comments related to the Proposed Action negatively affecting fish and shellfish populations.

A few commenters expressed concern regarding construction and operational impacts resulting from the Proposed Action, including dredging and lighting during normally dark hours and shading during normally light hours. Others expressed concern for the general effects resulting from operation of the Proposed Action including coal mining, coal dust, coal spillage, and train operations on fish and shellfish and their associated habitat.

Several commenters requested evaluations or assessments related to fish and shellfish species to be included in the EIS. One of the commenters requested that the habitat evaluation extend from the terminal location upstream to, and along, the Columbia River and Cowlitz River. A couple of commenters requested an analysis of potential impacts on protected sensitive species including resident and anadromous fish species such as salmon, steelhead, lamprey, eulachon, and trout.

Several commenters expressed concern for toxic contaminants in fish and shellfish, such as mercury and selenium, and requested that the EIS address this issue. One commenter requested the evaluation of potential impacts on fish from nitrogen pollutants emitted by diesel engines, and acids formed by other diesel pollutants. Additionally, a couple commenters were concerned about potential impacts on fish and shellfish from the breakdown of surfactants sprayed on coal to minimize dust, and requested that the EIS identify potential impacts of surfactants on fish and shellfish, including freshwater mussels at the terminal and along the rail route. A few commenters requested that the EIS investigate the potential magnitude of wake-stranding mortality.

One commenter discussed a food chain connection between birds and forage fish and requested that the EIS document the global effects of the Proposed Action on birds, fish, and other aquatic and marine life. A couple commenters noted a food-chain connection between Chinook salmon and orca whales, and requested that the EIS evaluate a large number of potential impacts on Chinook salmon. These same commenters requested consideration of the following mitigation measures related to Chinook salmon to cease operations during the migration of Chinook salmon smolts, when juvenile Chinook salmon are present, and when adult Chinook salmon are migrating.

One commenter expressed concern that construction and operation of the Proposed Action could affect portions of the Columbia River and its tributaries where listed threatened and endangered fish live, and requested that the EIS include information on the train routes and the anticipated number of water body crossings per day.

Numerous commenters stated that the potential for the introduction of invasive species through ballast water exchanges and hull fouling be evaluated in the EIS and mitigation measures are identified. One commenter requested that management of ballast water exchanges be consistent with Washington State Ballast Water Management Act and interstate agreements on Columbia River ballast water management protocols. A couple of commenters were concerned about the potential impacts on fishing, crabbing and shellfish harvesting from invasive species introduced by vessels releasing ballast water.

One commenter expressed concern for noise impacts on fish and shellfish from additional large vessel traffic. Another commenter requested a study of the impact of noise, vibration, sedimentation, and turbidity during construction and operation of the Proposed Action on the native fish and shellfish species of the Columbia River.

One commenter expressed a need for the EIS to assess the direct, indirect and cumulative impacts on the Washington State National Wildlife Refuge, the Alaska Maritime National Wildlife Refuge, and other Alaskan National Wildlife Refuges.

## 5.9.2 Aquatic Vegetation

Approximately 900 commenters provided comments specific to aquatic vegetation. Nearly all comments were from a form letter campaign that expressed concern over the expansion of rail



capacity in the Columbia River Gorge to accommodate the Proposed Action, and the adverse impacts this construction would have on aquatic vegetation.

In addition to the form letter submissions, one commenter expressed concern for the amount of shading resulting from the overwater structure and moorage of vessels, and requested the identification of potential impacts of shading on riverine resources, including littoral vegetation, benthic habitats and riverine vegetation. This same commenter expressed concern for potential impacts on riverine vegetation as a result of dock construction, operations, and maintenance, and vessel operations, and urged agency coordination regarding methods for mapping aquatic vegetation resources.

A few commenters expressed the need for the EIS to identify, quantify, and evaluate all potential impacts of the Proposed Action on phytoplankton, zooplankton, aquatic plants and the marine food web, among other resources. One commenter provided background information on, and a description of aquatic vegetation found in, the Alaska Maritime National Wildlife Refuge. A couple of commenters expressed concern for eel grass beds near Cherry Point and Columbia River and related effects from coal export.

Increased vessel traffic was stated by some commenters to potentially cause environmental impacts due to vessel wakes and waves, which commenters stated could lead to adverse impacts on vegetation.

## 5.10 Energy and Natural Resources

Approximately 140 commenters discussed energy resources. Several commenters advised against the Proposed Action and requested considering alternate, cleaner energy sources. One commenter stated that because Washington is a leader in clean energy, it should not be approving the storage of a fossil fuel. Other commenters stated that the Proposed Action promotes dependence on fossil fuels and that it would “undermine the leadership of Oregon and the Northwest”. Another commenter expressed the need for the EIS to analyze potential impacts (direct and indirect) along the rail corridor including impacts on the Washougal Oaks Natural Area and recommended the use of the forest biomass initiative as a reference to study the impacts on renewable energy. A few commenters supported the use of coal and the Proposed Action, suggesting that coal supports the domestic economy.

## 5.11 Environmental Health (Human Health)

Approximately 141,400 commenters discussed various public health topics as they relate to the Proposed Action. Nearly all of these comments stemmed from 12 form letter campaigns. Five of the form letters mentioned human health impacts without providing additional details. Two of the form letters expressed concern for human health impacts from the Proposed Action’s coal dust from uncovered trains and diesel emissions. One form letter stated that the amount of GHGs that would result from the Proposed Action would lead to risks to human health, and another stated that communities in Montana should not have to bear financial costs associated with adverse human health impacts associated with diesel fumes, coal dust, and coal fumes. Another form letter stated that studies show a reduction in the human lifespan in China due to the burning of coal and urged for coal dust to be intensively studied. One form letter requested the EIS to include a Health Impact

Assessment with a public scoping process, and another requested the impacts on human health from the life cycle of coal facilitated by the Proposed Action to be analyzed. Another form letter campaign inquired about health impacts due to mercury from the burning of coal overseas sent back to the Pacific Northwest by prevailing winds.

In addition to form letter submissions, several commenters expressed general concern for public health concerns such as development of heart, lung, and kidney diseases; respiratory disease; asthma; cancer; and chronic obstructive pulmonary disorder from exposure to coal dust, water contamination, and other environmental exposures related to the Proposed Action. Several commenters expressed concern for coal workers, residents, children, the elderly, and pregnant women who may become exposed to particulates in the air that are released by coal mining and transport. The particulates of concern mentioned by commenters include exhaust fumes (diesel particulate matter), coal dust, nitrogen dioxide, sulfur dioxide, and acid mist. One commenter requested that the EIS analyze the health benefits from increased economic development and employment as a result of the Proposed Action as well as the mental health and social well-being impacts of the Proposed Action. Several commenters requested that a Health Impact Assessment be conducted.

The commenters also expressed health-related concerns with global emissions impacts related to the Proposed Action, cumulative impacts of diesel emissions from idling vehicles, surfactant use, and contamination of farmlands, livestock, forests, and water bodies from coal dust. One commenter raised concerns about the adequacy of fire department resources in responding to cases of a coal fire and the possibility of health hazards related to the combustion of coal in the Powder River Basin.

Some commenters raised concerns over the well-being of coal workers, life expectancy of coal workers, and fatalities due to lung diseases caused by working closely with coal dust. Commenters stated that it is the responsibility of the public officials to provide better work environments and jobs through the community college system. One commenter added that a lack of consultation with the U.S Fish and Wildlife Service or National Oceanic and Atmospheric Administration resulted in poisoning of food and migratory birds and endangered salmon with mercury and cadmium.

One commenter recommended that in the event of a hazardous spill from a train car that could contaminate the drinking water resources that are close to the rail lines, the risks of increased train traffic, coal dust and toxic residuals in the Nisqually Valley be evaluated as part of the EIS.

A few commenters expressed concern regarding the Proposed Action's impact on the health of tribal members, specifically tribal fishers that may be exposed to diminishing air quality and water quality as coal is being transported by rail from the Powder River Basin and exported by vessel through the lower Columbia River.

One commenter expressed concern that the increased pollution from coal dust and diesel pollution from trains could affect taxpayers when the health-related costs affect medical systems.

One commenter expressed the need to hold scoping meetings for the Health Impact Assessment in affected communities including the Columbia River Gorge. The commenter requested these scoping meetings provide a place for concerns and general information to be shared.

## 5.12 Noise and Vibration

Approximately 126,100 commenters discussed noise and vibration as it relates to the Proposed Action. Nearly all comments were from 15 form letter campaigns that opposed the Proposed Action because of general concern about increased noise and related disturbance to communities that could be caused by the Proposed Action.

In addition to the form letter submissions, other commenters expressed concern about the potential increased noise and vibration from rail traffic, rail operations, blowing of horns, and building damage from ground settling due to vibrations. Some commenters were concerned about surface and subsurface noise, including vessel noise. Other concerns related to noise included the increase in the number of coupling and decoupling trains in the rail yard resulting in noise pollution; negative impacts on communities due to noise; noise impacts of additional large vessels on threatened and endangered communities in the Columbia River; and construction, operation, and cumulative noise impacts caused by large vessels on marine mammal species including Chinook salmon, bird species, and the National Wildlife Refuges. Some commenters requested that the increase in train trips and impacts from train horn noise should be studied in the EIS and adequate mitigation should be provided.

A few commenters stated that adverse effects resulting from chronic noise include impaired sleep, lower cognitive function, cardiovascular effects, and general adverse effects on quality of life. Some commenters requested a study be conducted on noise impacts on sleep and related health concerns such as depression, high blood pressure, and cognitive impairment in children. A commenter proposed a Health Impact Assessment be conducted, as well as a study to assess the potential impacts of coal train noise and hearing loss and related costs. Other commenters requested that a study be conducted on existing noise levels and the cumulative noise impacts given the housing pattern, location of schools, and other community facilities. Another commenter requested that a study be conducted on the health, economic, and social impacts on the Highlands community in Longview, Washington, which the commenter stated is alongside a corridor where 16 coal trains are scheduled to pass by.

Some commenters were in favor of establishing a Quiet Zone but raised concern about the costs involved in establishing a Quiet Zone within the community. One commenter stated that the increase in rail traffic noise may negatively affect recreational experiences and requested an evaluation and identification of mitigation measures to reduce such noise impacts.

Some commenters stated that their property has been damaged by vibrations occurring from an increased number of trains that pass by. Others expressed concern for marine life and the negative effect that train vibrations may have on animals and their habitat.

## 5.13 Land and Shoreline Use

Approximately 20 commenters provided comments of general concern for issues involving land use, shoreline, visual resources, and recreation. Additional comments on these specific topics are highlighted in the summary sections below.

### 5.13.1 Land Use

Approximately 60 commenters expressed concern regarding impacts on land use. A few commenters discussed the importance of the identification and inclusion of mitigation measures in the EIS for any potential impacts on land use. Other commenters expressed concern that the Proposed Action would encourage increased coal mining and affect land use after coal removal. Several commenters expressed concern and requested an analysis of rail lines, particulate emissions and coal dust impacts on residential and agricultural land use including vineyards, farmland, and ranches. One commenter stated that the Proposed Action is a reclamation project used to clean up the existing site and several commenters stated that the existing site is already located in a heavy industrial area. Other commenters requested that the EIS analyze impacts of coal dust, emissions, and increased noise from rail lines on residential land use in proximity of the rail lines. A few commenters were concerned about the use of eminent domain to procure privately owned ranches for rail development.

Many commenters expressed concern that construction of the terminal, coal dust, corridor expansion, and rail lines associated with the Proposed Action would have impacts on nearby federal and state land use, natural resource conservation areas, national forests and parks, natural area preserves, and sensitive, threatened and endangered areas. Several commenters expressed concern that rail lines would pass through national forests and result in the bifurcation of federal, state, and publicly managed lands and requested an analysis on such areas. One commenter requested that a survey of sensitive environmental lands be performed. One commenter stated that a rail loop connected to the Proposed Action would overlap a BPA transmission tower and associated BPA properties. Some commenters discussed the effects of coal dust, vessel traffic and rail lines on the Columbia Gorge National Scenic Area including its geographic and historical features. A couple of commenters stated the importance of federal compliance with the Columbia Gorge National Scenic Area Management Plan and the National Scenic Area Act and encouraged the proponent to utilize the Columbia Gorge National Scenic Area Management Plan to identify potential impacts on consider in the EIS.

### 5.13.2 Shoreline Use

Approximately 20 commenters expressed concern regarding shorelines adjacent to existing railroad lines and systems. Some commenters were concerned about cumulative impacts of sea level rise and effects on coastal areas and shorelines; others were concerned about potential effects on coastal areas due to potential shipping accidents from marine vessels. One commenter stated that an analysis of direct, indirect, and cumulative impacts on Alaska's National Wildlife Refuges and shorelines due to climate change, ocean acidification, and mercury emissions be provided.

## 5.14 Housing

No specific comments were received on housing for the proposed facility site. Concerns on impacts to housing not on the proposed site are included in the sections 5.15 Aesthetics and 5.20 Socioeconomics.

## 5.15 Aesthetics (Visual Resources, Light, Glare)

Approximately 900 comments discussed potential impacts on visual resources and aesthetics. Nearly all comments stemmed from a form letter campaign which expressed general concern regarding the potential impact the Proposed Action would have on the aesthetics of the Columbia River Gorge as a federally designated National Scenic Area.

In addition to the form letter submissions, other commenters expressed concern about coal stockpiles, rail lines, and the impact of coal dust on the scenery, pristine areas, and visual resources. Several commenters stated that the Proposed Action would result in lighting impacts that could affect the view shed of the area near the facility, particularly regarding artificial and nighttime lighting. One commenter was concerned about the influence of darkness to maintain plant and animal life cycles and how this would be affected by nighttime lighting. Another commenter suggested the use of personal motion and Radio Frequency Identification detectors to activate lighting only as needed as opposed to constant nighttime lighting. A couple of commenters expressed concern that haze and an increase in fugitive emissions due to train traffic may affect visibility in the Columbia River Gorge scenic areas.

## 5.16 Recreation

Approximately 900 commenters expressed general concern regarding impacts on recreation and recreational areas. Nearly all comments stemmed from a form letter campaign, which expressed general concern regarding the potential impact the Proposed Action would have on tourism and recreational resources of the Columbia River Gorge.

In addition to the form letter campaign, some commenters stated that coal dust, rail lines, rail traffic and vessel traffic may affect recreational activities and tourism at recreational and scenic areas, including but not limited to locations along the Columbia River and the Columbia River Gorge. A few commenters expressed concern for the safety and health of visitors to national parks and recreational areas if there was a likelihood of an increase in rail traffic in the vicinity. A few commenters stated that there was no adverse effect on the recreational area and activities of Tongue River Reservoir Park, despite the park's close proximity to the Decker Montana Coal Mine.

## 5.17 Historic and Cultural Resources

Approximately 900 commenters, most from a form letter campaign, addressed the issues of cultural, historic, and archeological resources. A number of these commenters requested that the EIS consider the specific impacts of air pollution from the Proposed Action on cultural and historic resources.

In addition to the form letter submissions, one comments requested that potential historic properties along the rail route be analyzed in the EIS. One commenter listed a historic site (Coffin Hills Site 45CW3) that they stated should be clearly identified and addressed in the EIS. A commenter stated that there are over 10,000 historic properties documented along the route with more yet to be identified, and another commenter stated that the EIS must include all communities that may have locally designated historic properties bisected or traversed by the rail routes in

Washington. One commenter asked that the EIS evaluate impacts of the coal terminal on people who use the cultural resources.

One of these commenters stated that coal dust can cause soiling and darkening of historic properties and that acid deposition from diesel combustion and blasting from mining activities can damage historic properties. A number of commenters stated that the EIS should consider cultural impacts along the rail routes between the mines and the export terminal and a few commenters requested that the EIS consider the cultural impacts at the terminal site. One commenter stated that the Crow Indian Tribe has not had any complaints about adverse effects on the Crow Indian Reservation as a result of coal trains. A number of commenters requested that the EIS consider impacts on Traditional Cultural Properties including ancestral lands and tribal burial grounds. One commenter stated that the Pacific Lamprey has special cultural significance to Native American tribes and requested that impacts from the terminal site be evaluated in the EIS.

A number of comments were submitted regarding the cultural properties of the Columbia River Gorge. One commenter stated that the Management Plan for the Columbia River National Scenic Area would be helpful for identifying potential impacts to consider in the EIS. Other commenters identified a number of state- and federally designated historic areas within the Columbia River Gorge National Scenic Area. Commenters stated that there are cultural resources sites throughout the Gorge. Commenters also recommended that the review pay greatest attention to the areas in the Lewis and Clark National Historic Trail and Fort Vancouver Historical Site, where the historic vistas and natural resources are intact.

A number of comments regarding consultation were received. A few commenters stated the Corps must conduct Section 106 consultation with all affected tribes, which one commenter stated includes the Nisqually Tribe. One commenter remarked that the National Historic Preservation Act (NHPA) requires that the lead agency determine and document the appropriate area of potential effects (APE) as part of Section 106 consultation. The commenter stated that the APE must include the transport of coal by rail from its origin to the facility as well as through the lower Columbia River to Asia. Another commenter stated that they expect the APE would also include the proposed Morrow and Cherry Point terminals.

One commenter requested that the EIS identify all mitigation measures necessary to address impacts on cultural resources and require the terminal proponents to pay for and implement the mitigation.

## 5.18 Transportation (Rail, Vessel, Vehicle)

Approximately 960 commenters, mainly from two form letter campaigns, expressed general concern regarding the potential environmental impacts associated with the transportation of coal. Some commenters requested that the transportation of coal be evaluated from the mine location to the point of consumption. Some commenters requested that the EIS evaluate the effects that the Proposed Action and other similar projects would have on the state's transportation system. Other comments provided on rail transportation and vessel transportation are summarized in the following sections.

## 5.18.1 Rail Transportation

Approximately 143,660 commenters stated concern about issues relating to rail transportation. Nearly all of these comments stemmed from 27 form letter campaigns, of which 17 form letter campaigns, and numerous unique submissions included comments expressing general concern regarding impacts related to a potential increase in rail traffic from the Powder River Basin to proposed bulk export terminals in the Pacific Northwest, including the Proposed Action.

Additional details of comments are provided below.

- **Scope.** Many commenters remarked on the scope regarding rail transportation. One of the form letter campaigns requested that the scope of train traffic analysis be consistent with that of other commodity export terminal projects. Another form letter campaign requested that the scope of the analysis include historic rates of rail traffic. One commenter requested the rail analysis be limited to the effects experienced locally in the Longview community. Some commenters requested a Programmatic EIS that would cover the expected increase in rail transportation of coal from the Powder River Basin to all proposed export terminals. Some commenters requested that the EIS evaluate all potentially affected communities along the proposed rail route. Other commenters requested that the EIS include direct, indirect, and cumulative impacts on freight mobility, rail capacity, and traffic throughout the Pacific Northwest. A few commenters requested that the EIS identify alternatives that would minimize local and regional impacts associated with increased rail traffic. Other commenters requested that the EIS not include impacts on or resulting from the rail transportation system.
- **Delay at grade crossing.** Numerous commenters expressed concern regarding restricted vehicle and pedestrian mobility and access resulting from longer wait times at rail crossings and requested that impacts on mobility and access be analyzed in the EIS. One commenter stated that increased rail traffic could result in interference with the interstate commerce clause of the Constitution of the United States by reducing access to Interstate 5 (I-5), Ocean Beach Highway, Highway 30, and Highway 101 due to delays that would be expected on the Lewis and Clark Bridge. A couple of commenters stated that the convergence of major BNSF and Union Pacific/Spokane International rail lines is currently creating a bottleneck for freight shipment through Spokane and affecting regional freight rail mobility. A few commenters remarked that increased rail traffic would affect residents of the Rattlesnake Valley in Missoula, Montana, which the commenters stated can only be accessed through one of two rail crossings. One commenter stressed the importance that access to the BPA transmission station adjacent to the proposed terminal site not be blocked by trains waiting to enter or leave the site.

Numerous commenters requested that traffic and wait times at rail crossings due to increased rail traffic be included in the scope of the EIS. Other commenters specifically requested an analysis of traffic delays for highways and other major thoroughfares. Some of these commenters requested a safety impact analysis. Another commenter stated that long coal trains could simultaneously close all three at-grade crossings in Bozeman, Montana, and all four at-grade crossings in Belgrade, Montana. The commenter requested that impacts on residents' quality of life in these communities resulting from increased rail crossing closures be evaluated. One commenter urged evaluation of the time it takes for an average coal train to pass through a rail crossing, the times of the day these closures are likely to occur, and potential impacts on surrounding traffic patterns.

One commenter stated that many of these locations between Spokane, Washington and Longview, Washington already experience delays and may not be able to accommodate more rail traffic without mitigation measures. The commenter requested that the EIS analyze how the Washington State highways would be affected by the projected increase in rail traffic and identify any other rail routes being considered. A few commenters requested that the EIS identify alternatives that would minimize local and regional impacts associated with increased rail traffic.

- **Vehicle and pedestrian safety.** Numerous commenters expressed concern that an increase in rail traffic would lead to increased frequency of train and vehicle and/or train and pedestrian accidents. One commenter requested the EIS include impacts on safety resulting from increases in rail traffic along the entire rail transportation corridor. One commenter requested to review proposals from the railroads to modify train speeds in cities and towns. Another commenter requested that the EIS identify all unprotected rail crossings along the rail transportation routes and what entity is likely to pay for the construction of potential barriers. One commenter stated the only way to adequately mitigate rail crossing closures would be to build overpasses, which the commenter stated should be costs borne by the project proponents and not individual municipalities or states.
- **Infrastructure improvement.** Numerous commenters remarked on potential infrastructure improvements that would be necessary to accommodate an increase in rail traffic. One commenter requested the EIS analyze the investment necessary to maintain transportation infrastructure with increased rail traffic and identify potential sources of funding necessary for such improvements. One commenter expressed concern that state and local governments would bear the burden of infrastructure improvements resulting from increased rail traffic. Another commenter expressed concern regarding the ability of bridges to support the weight of heavy coal trains.

Numerous commenters requested that the EIS evaluate impacts on infrastructure projects such as the State Route (SR) 432 Rail Realignment and Highway Improvement project (SR 432 Project). One commenter stated that since the SR 432 Project would facilitate the increased unit train capacity for the Proposed Action, impacts of the SR 432 Project as part of the EIS should be evaluated.

One commenter requested that the EIS analyze the location and design of bridges or culverts that would be replaced for any stream crossing and requested that all structures meet the fish passage and hydraulic code requirements of Washington Department of Fish and Wildlife. The commenter continued by stating that the existing rail system is located adjacent to the Columbia River shoreline and other state-managed rivers and requested the EIS analyze how much of the right-of-way onto state-owned lands is estimated to be acquired to accommodate an increase in rail capacity.

- **Rail capacity.** A couple of commenters expressed concern regarding impacts associated with expanded rail capacity through the Columbia River Gorge. Some commenters stated that the current regional rail infrastructure does not have the capacity to accommodate an increase in rail traffic. Many commenters expressed concern regarding worsening bottlenecks and choke points along the rail routes. One commenter requested an evaluation of future capacity constraints and rail system accessibility in Washington. The commenter recommended the EIS include detail about the rail operations and capital needs assessment by the BNSF railroad to address future bottlenecks and capacity constraints when the proposed terminal is operating at both State 1 and Stage 2 levels of operation. A commenter stated that rail operations in the



region are currently operating below capacity. One commenter requested including increases of oil train traffic in the EIS.

- **Local planning.** One commenter stated that local planning efforts in Spokane County would be uniquely affected by additional rail traffic. The commenter cited four local plans and studies that were written prior to consideration of significant rail traffic increases and suggested that both NEPA and SEPA required consideration of potential impacts on regional planning initiatives. One form letter campaign stated that an increase in rail traffic would require the construction of additional overpasses and underpasses and the creation of Quiet Zones along all rail transportation routes. One commenter stated that to establish Quiet Zones to lower rail-related noise impacts, communities must pay for additional infrastructure upgrades. The commenter requested these types of costs to communities along the rail route in Montana be included as part of the scope of the EIS.
- **Operational issues.** Numerous commenters requested that the EIS evaluate rail operations. One commenter requested that the EIS specify the average number of trains that would enter the proposed terminal site each day, the average length of each train, and the rail transportation routes used in Washington. One commenter stated that rail transportation of coal is an interrelated action and requires analysis under Section 7 of the ESA. A commenter requested that the EIS contain information on train routes and the anticipated number of crossings per day. One commenter requested a binding mechanism to ensure that the lowest-emitting locomotives are used for new coal trains and ensure that the best operational practices are used to minimize locomotive idling. The commenter requested that locomotives meet EPA Tier 4 emissions standards. A few commenters requested that the EIS analyze the efficacy of surfactants as a means to control coal dust as well as the potential impacts associated with the use of surfactants.
- **Rail displacement issues.** Numerous commenters expressed concern that an increase in coal trains would lead to a displacement of other rail services including agricultural products and passenger rail. One commenter requested the EIS include how the additional coal train traffic would affect Washington's plans to implement additional passenger rail service. A commenter requested that project proponents ensure that accessibility to the rail system to allow for future growth in other commodity shipments. Another commenter requested that impacts on Amtrak's ability to provide reliable service between Vancouver, British Columbia, Seattle, Washington, and Portland, Oregon be evaluated and mitigation measures identified. One commenter requested that the EIS analyze impacts from increases in long-haul or intermodal trains on Washington's agriculture industries.
- **Derailments.** Numerous commenters requested the EIS analyze the risk and potential impacts of train derailments on the environment and communities along the rail transportation corridor. Several commenters expressed concern regarding potential cargo spills, including coal and hazardous materials, resulting from train derailments. Some commenters requested that an emergency environmental clean-up plan be developed in the event of a derailment. Other commenters specifically requested the analysis evaluate the risk of train derailment and cargo spills into the Columbia River. One commenter cited the Rail Safety Improvement Act of 2008, which the commenter stated, mandates the requirement of Positive Train Control technology for high volume of trains carrying hazardous materials. The commenter stated that any needed infrastructure along the rail lines should be included in the EIS.

Numerous commenters were specifically concerned about the potential for derailments being exacerbated by the presence of coal dust deposition on the rail bed. One commenter expressed concern that train derailments would kill livestock and people along the rail transportation corridor. One commenter stated that freight rail is a safe, clean, and reliable means of transportation.

- **Wildfires.** Several commenters requested that risks associated with rail-induced wildfire be included in the EIS. One commenter requested that all fire-prevention laws and rules of the state be adhered to during the facility construction. The commenter went on to request that all reasonable measures to prevent and minimize the start and spread of fires on forested areas be taken. The commenter also requested that the EIS analyze the potential increased risk of explosion and resulting wildfire from the additional train traffic through or adjacent to forest lands. One commenter stated forest fires are particularly severe in the Columbia River Gorge due to heavy and persistent winds and suggested the coal companies be held liable for costs associated with rail-related wildfires. According to another commenter there have been 61 fires reported over the past ten years in the Columbia River Gorge National Scenic Area that had started on or near the railroad tracks.
- **Noxious weeds.** One commenter stated that additional rail traffic would increase the spread of noxious weeds to the Columbia River Gorge.

## 5.18.2 Vessel Traffic

Approximately 177,600 commenters discussed impacts resulting from increased vessel traffic. Nearly all of these comments stemmed from 17 form letter campaigns, of which expressed general concerns regarding increased vessel traffic and the potential for increased accidents and spills. One form letter campaign requested the analysis include potential beneficial impacts from increased vessel traffic.

In addition to the form letter submissions, numerous commenters stated general concerns regarding increases in maritime vessel transportation. Commenters requested the EIS analyze the cumulative impacts associated with all new proposed traffic in the Columbia River and along vessel transportation corridors. Some commenters voiced concern regarding the increase in vessel traffic in the Columbia River and questioned the river's capacity to accommodate such levels of traffic. Other commenters stated that due to the Columbia River Channel Improvement Project, the Columbia River has the capacity to accommodate increased vessel traffic. One commenter requested that the EIS evaluate increases in vessel traffic for those directly associated with the Proposed Action and only from the mouth of the Columbia River to the terminal itself. The commenter also stated that increases in vessel traffic on the Columbia River are likely to occur whether the Proposed Action is licensed or not and, therefore, stated that increases in vessel traffic should be analyzed as part of the No Action Alternative.

- **Spills.** Many commenters expressed concern and asked that the EIS include the risk of fuel and/or cargo spills into the Columbia River. One commenter requested a risk assessment be conducted to cover potential collisions and groundings. A couple of commenters requested that an adequate oil spill response plan be put in place. The commenters requested that the EIS include steps that would be required to implement such a plan, what the associated costs would be, and what entity would be responsible to pay for any necessary infrastructure upgrades. Other commenters expressed particular concern regarding potential accidents and spills that could affect Alaska's National Wildlife Refuge as ships sailed along the North Pacific route to Asia.

- **Shipping operations and safety.** Numerous commenters requested the EIS analyze the risk of vessel collisions with other ships. A couple of commenters requested that risks associated with potential accidents during refueling be considered. One commenter expressed concern regarding potential vessel accidents around the Aleutian Islands and requested that the EIS specify the entire route or routes the vessels would take to and from Asia during all times of the year. Commenters expressed concern regarding the size of the vessels that would access the terminal, the amount of fuel the vessels carry, and the amount of room the vessels need to maneuver safely.

A few commenters requested that the EIS identify the type and number of vessels that would travel from the proposed terminal during the initial operation and full operation stages. Commenters expressed concern if foreign ships traversing through the Columbia River to access the proposed terminal would comply with the same standard of maintenance and operations as U.S. vessels. A few commenters requested that the EIS identify applicable laws and regulations governing safety in international waters, the entities that would be responsible for ensuring compliance, and the parties that would be held liable for noncompliance. The commenters also requested that the owners of the vessels servicing the proposed terminal be identified including which vessels would be sailing under the right of “innocent passage.” They also requested that the EIS identify and evaluate emergency protocols in the event of an accident.

One commenter requested that the EIS analyze how sewage and gray water would be handled at the proposed terminal. The commenter also requested that the EIS analyze the potential for vessel transportation to interfere with adjacent industrial operations and impacts on other vessels transiting through the lower Columbia River if vessels needed to moor temporarily at the proposed terminal site.

- **Traffic and navigation.** Numerous commenters expressed concern about increased vessel traffic congestion. One commenter requested that the EIS analyze multiple alternatives for reducing vessel congestion. One commenter stated that an increase in vessel traffic on the Columbia River would impede on tribal fishing rights. Another commenter stated that increased traffic would cause adverse impacts on navigation along the Columbia River resulting from ships that are forced to drop anchor in the river, while waiting to dock at the proposed terminal.

One commenter requested that the EIS include a detailed vessel traffic analysis and assessment of potential traffic management needs. Numerous commenters stated that an increase in vessel traffic would pose safety and navigational risks to shippers due to what the commenters describe as difficult conditions that exist at the Columbia River bar. One commenter remarked that the vessels servicing the port are expected to be Panamax bulk carriers. The commenter stated that vessels of this type routinely sail through river systems and would pose no additional risk to navigational safety. A few commenters expressed concern that the Proposed Action would affect other commodity vessels using the Columbia River.

Commenters also requested that the EIS include cumulative impacts from increased ship traffic. One commenter stated that the EIS should evaluate the cumulative risk of shipping to the North Pacific Great Circle Route, waters near Alaska’s Wildlife Refuges, Alaska’s Maritime Refuge, Washington’s National Wildlife Refuges, and the lower Columbia River.

### 5.18.3 Vehicle Transportation

Approximately 560 commenters stated transportation-related concerns on vehicle transportation. Nearly all comments stemmed from five form letter campaigns, which provided general comments on the Proposed Action's potential impacts on road transportation.

In addition to the form letter submissions, one commenter stated that review of the SR 432 Project under the purview of the EIS would be inappropriate and not serve public interest, primarily because the Proposed Action is not intended to support a single business or property along the SR 432 corridor and instead is intended to service the region. Another commenter requested the EIS include a traffic impact analysis to disclose the Proposed Action's transportation construction impacts on the state highways systems. One commenter requested that the EIS evaluate possible mitigation for the relocation of the coal transportation routes away from western Washington. A commenter requested that the EIS analyze the Proposed Action and the impact that other similar projects would have on transportation resources in the region. One commenter requested that shipping-related increases in water turbidity also be examined in the EIS. One commenter remarked that the EIS should address the impacts from increased rail traffic to the efficient movement of goods by trucks.

## 5.19 Public Services and Utilities

Approximately 128,000 commenters remarked on the potential for public services and utilities impacts. Nearly all comments stemmed from 17 form letter campaigns. Seventeen of the form letter campaigns stated that the Proposed Action would increase congestion at grade crossings resulting in delays to emergency vehicle response times. One form letter campaign inquired about local oil spill response resources and capabilities in the event of vessel traffic malfunctions or collisions.

In addition to the form letter submissions, a majority of the unique submissions expressed general concern that increased rail traffic would result in decreased access and increased delays at rail crossings affecting emergency service response times. A few of these commenters remarked that the EIS should address the impacts from increased rail traffic to local and interstate traffic congestion, and local and interstate emergency response times. The commenters stated the delayed response times would increase accidents, injury and death. A few commenters requested that the EIS analyze the capabilities of communities along the rail transportation route to respond to rail-related accidents including derailments, spills of hazardous materials, and collisions.

One commenter requested that the EIS address issues related to rail crossings along the entire rail corridor (e.g., number of rail crossings, safety measures to be implemented at rail crossings, calculation of frequency and duration of rail crossing closures). The commenter expressed concern for the medical personnel that could be delayed at the rail crossing.

Several commenters expressed concern regarding the need to construct alternative means of access, such as bridges and overpasses over railroads, and for the financial impacts on municipalities that would be required to fund those capital improvements. Similarly, one commenter requested that the EIS examine mitigation options including deployment process and costs. One commenter stated concern that certain areas would be entirely cut off from emergency responders and that emergency responders may have no alternative but to access such areas by boat and, therefore, recommended that the EIS consider direct and cumulative impacts and funding the operation of the City's fire boat

and staff. One commenter remarked that an underpass in Livingston, Montana is prone to flooding, which cuts off all access while a train is passing, and that the EIS include this town in the assessment.

Multiple commenters requested that the EIS include evaluations and assessments to address public service and utility issues. Some commenters requested that the EIS identify and evaluate impacts on their city, including Billings, Montana; Miles City, Montana; Ferndale, Washington; Yakama, Washington; and Spokane, Washington. One commenter also requested that the EIS identify impacts on a neighboring city (City of Washougal, Washington) to which it provides emergency medical services. One commenter stated the EIS should evaluate the impacts of the Proposed Action on existing infrastructure. One commenter requested the EIS address the impacts of an increasing rate of climate change to San Juan County's ability to replace public infrastructure, as well as consider the costs associated with an increase in storms with tides affecting public roads and infrastructure. One commenter expressed concern for coal dust to coat exposed substation equipment for utilities and requested the EIS address the potential for fugitive dust from transfer operations to affect substation equipment and maintenance.

A few commenters requested that the analysis include impacts on local fire departments that would be responding to potential coal-related fires at the terminal site and along the rail routes. One commenter, remarking on the risk of coal-related fires at the terminal, requested that the appropriate fire department be provided with detailed information. Another commenter expressed the need for the EIS to conduct an emergency service analysis of the terminal facility and evaluate its ability to address coal fires.

## 5.20 Socioeconomics

Approximately 133,500 commenters stated concern regarding potential socioeconomic impacts associated with the Proposed Action. Nearly all comments stemmed from 28 form letter campaigns. Eight stated the Proposed Action would have beneficial impacts on the local economy. Five stated that benefits of the Proposed Action include job creation and increased tax revenue. Seventeen form letter campaigns stated the Proposed Action would have overall negative impacts on the economy. Nine of these form letter campaigns stated that increased rail traffic would harm existing businesses and slow regional commerce. Three form letter campaigns specifically addressed the potential for the Proposed Action to have negative impacts on property values. Another form letter campaign inquired about potential impacts on grain producers from rail displacement resulting from increased rail traffic. One form letter campaign expressed concern that the Proposed Action would encourage investments in coal-fired power plants in Asia, which would crowd out potential clean energy investments in the region. Another form letter campaign stated that the financial burdens of the Proposed Action would fall upon the public.

In addition to the form letter submissions, numerous commenters expressed general concern that the Proposed Action would generate negative socioeconomic impacts. Several other commenters stated that the Proposed Action would generate positive socioeconomic impacts.

Many commenters expressed concern for potential negative impacts on local businesses and residents from delays at train crossings, including lost work time, lost productivity, less visitors to the area, and social isolation. A few commenters asked that the EIS evaluate mitigating the delay to a level of nonsignificance and to include the ongoing funding of emergency responder alternative

means for access to emergency situations. Additional commenters expressed concern for impacts on businesses resulting from the increase in noise from added train horns sounding. One commenter stated that vibrations from additional trains could cause “ground settling and potentially building damage”, and thereby “disrupt households and businesses”. Several commenters stated that local communities would bear the expense of the costs of rail crossing improvements and installations, and that this issue should be addressed in the economics analysis.

Numerous commenters stated that local and national economies would benefit from the economic boost if the Proposed Action were to move forward. Several commenters stated that the Proposed Action would create many job opportunities, including “family-wage” jobs in construction, waterfront, maritime, and railroad trades, and apprenticeship positions. Some of these commenters stated that the Proposed Action would encourage the development of other natural resources in the United States, which would assist in bringing the country out of economic depression. A few commenters stated how the new infrastructure would assist in competing in a global economy. Another commenter stated that an increase in U.S. coal exports would draw in revenue and investments from abroad.

A few commenters expressed a concern that the increase in project-related jobs (construction, railroad, and export terminal jobs) would not offset the jobs at risk from the Proposed Action (tourism, small business, farming, and fishing).

Multiple commenters requested that the EIS assess and evaluate a wide variety of components of the local, regional, national, and global economies. A few commenters requested a thorough economic analysis. A few commenters requested an economics analysis to evaluate the impacts on air quality and the health system. One commenter requested that the EIS evaluate the health benefits from increased economic development and employment.

A few commenters stated that coal companies are receiving subsidies at the expense of their economy, and that the Proposed Action includes spending public tax money for a private project. A couple of commenters asked that the EIS include an economics analysis to determine what entity would be responsible for the cost of mitigation, and what government resources could be used to lessen the impacts of the Proposed Action

A few commenters voiced concern for impacts on natural resources that would affect businesses related to recreation and tourism, including the Alaskan and Washington National Wildlife Refuges. Several commenters were concerned that the Proposed Action would negatively affect the availability of fish for those who rely on fishing for “sustenance, employment, recreation, or cultural heritage.” Commenters expressed concern regarding what impact a potential depletion of the regional fisheries would have on the recreational fishing tourism industry

One commenter remarked that a 2010 Columbia River Channel Improvement Project was conducted to make the Columbia River navigation channel deeper and, therefore, more marketable and accessible to move more tonnage and produce new business and jobs. A commenter stated that using the BNSF rail system is more costly than Chinese and Eurasian rail networks, and expressed concern that the expense would hinder the U.S. coal industry’s ability to compete in the global market place.

Several commenters expressed concern that existing freight commodities and passenger rail service would be pushed out by the increase in coal trains. One commenter stated that the EIS should analyze impacts on passenger rail use if freight traffic were to increase. One commenter expressed

that the proposed additional train volume exceeds “the capacity of the current system,” and another commenter requested the EIS review available regional planning efforts, while evaluating system capacity.

A few commenters expressed general concern that the Proposed Action would adversely affect property values locally and statewide, and requested that the EIS address this issue. A few commenters stated that property values decrease near coal terminals and railroads, and owners would no longer be able to sell their homes due to increased air pollution, noise, and traffic barriers. One commenter requested the EIS conduct an analysis on whether a “coal town reputation” could adversely affect businesses, property values, recruiting employees, and attracting tourism.

One commenter stated that the Proposed Action would increase diesel prices, and, therefore, increases the price of food. Another commenter requested that the EIS address the potential effect that coal export would have on domestic energy pricing and security.

## 5.21 Environmental Justice

Approximately 40 commenters stated concern pertaining to environmental justice. A few commenters expressed general concern regarding environmental justice issues and how to protect tribes and other minority groups from being disproportionately affected by the Proposed Action.

Numerous submissions expressed concern that the Proposed Action would result in adverse health outcomes for low-income neighborhoods close to the proposed terminal site. A few commenters specifically requested that the EIS analysis include performing health impact assessments that examine how the mining, transportation, and combustion of coal from the Proposed Action could increase the disproportionate “environmental burdens and health inequities” experienced in at-risk communities. A few commenters requested that the EIS focus on at-risk populations such as children and the elderly and to consider “cumulative and disproportionate impacts” on communities that are already exposed to high levels of air and water pollution.

Several commenters expressed concern for specific residential communities. A few commenters remarked that the Highlands neighborhood in the City of Longview is “a low income neighborhood with relatively high residential density” and “a disproportionately high share of the environmental impacts, including health, economic, and social effects will have the potential to affect this neighborhood”. This commenter requested that the EIS include a comprehensive Health Impact Assessment for the Highland neighborhood. One commenter also expressed concern for the health of the low-income neighborhoods of the Highlands and Mint Farm. One commenter stated that communities adversely affected, like Mosier, Oregon, be compensated for the health, environmental, and economic impacts resulting from coal exports and rail traffic. One commenter remarked that because some of the lowest income communities in Missoula, Montana exist along the railroad track, the EIS should consider and plan mitigation for those communities along the full course of the route.

One commenter requested that the EIS examine the environmental justice impacts of the Proposed Action, stating that a disproportionate number of low-income and minority communities would be affected by the coal export terminal and the rail transportation of coal from the Powder River Basin and relating mining. This commenter remarked that Columbia River tribes and other tribes near and along the rail route would be affected by the Proposed Action. This commenter further requested that the EIS include “demographic information for all communities at the terminal site and along the rail lines that would ship coal to the port, as well as at the mine sites” and provided a list of potential

communities to evaluate, including “Spokane, Spokane Valley, Millwood, Cheney, Washington, and Lame Deer, Ashland, Birney, Muddy Cluster, Hardin, Crow Agency, Billings South Side neighborhood, and Busby, Montana, among others”.

A few commenters requested that environmental justice concerns for tribes potentially affected by the Proposed Action be considered. One commenter stated that the Nez Perce Tribal members consume a greater amount of fish than non-tribal communities and that the volume of harvest is significantly lower than previous harvest levels. This same commenter also remarked that the Tribe’s source of food such as salmon runs, has diminished and that Tribal members face high poverty and unemployment rates, and stated that the EIS should include an environmental justice review of the disproportionate impacts the Proposed Action could have on the Tribe.

## 5.22 Tribes, including Indian Fishing and Fishing Treaty Rights

Approximately 80 commenters addressed the issues of tribes, including Indian fishing and fishing treaty rights.

Some commenters, including a form letter campaign, expressed general concern about the effects of the Proposed Action on tribal treaty rights and resources including the ancestral use of land and burial grounds. Several commenters stated that the treaty “usual and accustomed” fishing areas and protected hunting areas would be affected by the Proposed Action. Another commenter remarked that the increased rail traffic associated with the Proposed Action would occur near or would otherwise affect traditional hunting and gathering areas. One commenter stated that the Proposed Action would be built in treaty-reserved-protected fishing areas of the Yakama, Warm Springs, Umatilla, and Nez Perce tribes. A few commenters expressed concern about the effects of the Proposed Action on fishing areas and farmland of the Nisqually and coastal Salish tribes. One commenter questioned how tribal religious freedoms would be affected by the Proposed Action.

Comments were submitted that listed project components or activities that were perceived to cause an impact on tribal resources. One commenter stated that direct and adverse impacts would be caused by the loading facility, dock, increased train traffic, and Panamax ships. That commenter stated that tribal members are exposed to train collisions when crossing rail tracks to access fishing sites and stated that the Proposed Action would increase the rate of fatalities to tribal members. The commenter recommended that the effects of fugitive coal dust on treaty rights be considered in the EIS. One commenter claimed that 17 Treaty Fishing Access Sites accessible through at-grade crossings located between the Bonneville and McNary dams would be affected. The commenter also stated that there are “In-Lieu” fishing sites (pursuant to P.L. 79-14) that already experience noticeable coal dust emissions. A number of commenters stated that chemicals in coal and coal dust are harmful to the fish in tribal fisheries, and one commenter concluded that mercury from coal combustion in Asia would end up in the fish that tribal members consume.

A few commenters requested that the EIS include an analysis of impacts on tribal fisheries and treaty resources. Commenters identified a number of species that they stated carry religious and cultural significance to one or more tribes including salmon, sturgeon, steelhead, and Pacific lamprey. One commenter stated that acid deposition from diesel combustion may damage tribal fisheries. Another commenter stated that fish species that rear, hold, and migrate through the



project area are subject to the Nez Perce Tribe's tribal treaty rights. A commenter also stated that tribal First Foods (not limited to fish) need to be considered.

A number of comments pertaining to the tribal consultation process were submitted. One commenter stated that they would not negotiate or agree to mitigation for any actions diminishing their treaty-reserved rights. A few commenters stated that several tribes had expressed interest in the Proposed Action and requested that government-to-government consultations take place. Another commenter stated that intergovernmental consultation is required from the Co-Lead Agencies. The commenter identified the 1989 Centennial Accord and concluded that it requires government-to-government consultation between the state of Washington and federally recognized tribes. A commenter requested that the EIS address how the federal government would be fulfilling its responsibility to tribes if the Proposed Action was authorized.

One commenter stated that the Proposed Action would have significant and irreparable impacts on the Yakama people and their treaty-reserved rights and requested that the each of the Co-Lead Agencies deny Millennium's application. Another commenter stated that the Proposed Action—which would run through the tribe's territory—would be a “violation of the public trust and constitute the unwise stewardship of common resources.”

## 5.22.1 Climate Change

Approximately 193,900 comments were received on climate change. Nearly all comments stemmed from 24 form letter campaigns, of which 15 listed climate change among other issues of concern the commenters felt should be included in the EIS. Seven form letters further discussed climate change impacts as a result of combustion of fossil fuels from the use of coal at overseas power plants and/or GHG emissions from the mining and transportation of coal. One form letter focused on climate change concerns specifically relating to the San Juan Islands and requested the EIS include impacts associated with replacing San Juan's public infrastructure and damage costs from the effects of climate change. Another form letter requested that climate change impacts be analyzed from the coal life cycle facilitated by the Proposed Action. Two form letters stated the Proposed Action would not result in an impact on climate change. One of these letters stated that the degree of GHG emissions required to cause a global impact is vastly greater than the emissions that could be attributed to the Proposed Action. Another form letter discussed that the Proposed Action would result in a beneficial impact by providing high-quality coal, and that other coal suppliers would fill demand without the Proposed Action; so coal used globally would not increase and the net gain in GHG emissions by the Proposed Action would be insignificant.

In addition to the form letter submissions, other commenters listed climate change and the combustion of fossil fuels among other issues of concern without providing additional information to specific areas. A majority of commenters provided more detailed concerns on climate change associated with the increase of GHG emissions in Earth's atmosphere and requested the EIS evaluate the Proposed Action's impact on climate change. Most of these comments referred to the combustion of coal at coal plants in Asia or other potential foreign coal markets. Several commenters also requested that the EIS consider GHG emissions from locomotives transporting coal from the coal mines to the proposed terminal, operations at the proposed ship terminal, and vessels transporting coal overseas. Additionally, other commenters requested that the EIS evaluate the effects of GHG emissions from mining the coal.

Some commenters provided details on numerous climate change effects, including a variety of suggestions regarding the scope and method to examine project GHG emissions, as summarized below.

- **Climate change effects.** A majority of the commenters included specific issues of concern that were viewed as susceptible to climate change. The natural environment effects of concern included increasing temperatures (resulting in glacier melting, rising sea levels, declining springtime snowpack, declining river/stream flows, wildfires, etc.), changes to ecosystem health (changes to fish and wildlife, habitats, insect/pest infestation, vegetation/forests, treaty-reserved resources, etc.), causing extreme weather conditions (increased frequency or duration of typhoons, droughts, flooding, etc.), and changing regional albedo (ability to reflect radiation). Also, a few commenters expressed concern for climate change effects specifically associated with the Pacific Northwest's National Parks/Refuges, the Columbia River Gorge, and the San Juan Islands. One commenter noted that Washington State is believed to be particularly vulnerable to a warming climate because of its reliance on snow-fed water supplies, and impacts from sea-level rise on its many shoreline communities. Climate change effects associated with public health and safety; the forest, agriculture, fishing/shellfish industries; coastal structures, and public infrastructure (e.g., roads, utilities) were also noted.

Several commenters expressed general concern for the cumulative impact of ocean acidification. One of the commenters questioned what declines in salmon population due to acidification would mean for the Native American tribes of the region. A couple of commenters stated that Executive Order 12-07 recommended a reduction of carbon dioxide to decrease the impacts of ocean acidification and the commenters stated that the Proposed Action contradicts that order.

- **Scope of analysis.** Some commenters provided input on analyses for evaluating the level of climate change/GHG emissions for the EIS. One commenter stated that the methods for conducting GHG emissions analysis are available and well developed, and further stated that the life cycle of GHG emissions associated with the Proposed Action would also be appropriate to consider. Another commenter declared that the scope of analysis should include "the lifetime of the project (i.e., until coal reserves are exhausted)." Another commenter requested climatic impacts of the Proposed Action be evaluated based on comparing life cycle emissions of GHGs. Several commenters also requested that when determining the Proposed Action's climate change impacts, other Pacific Northwest coal export proposals should be considered as well. Commenters stated that the Proposed Action itself would not extend the planet past the "tipping point of climate change disaster," but when combined with the emissions by other proposed coal export projects, climate change impacts could be significant.

Some commenters requested limiting the EIS analysis to exclude the study of GHG emissions associated with end-use coal combustion. One commenter stated this is due to the "difficulty in demonstrating the GHG emissions can be tied to specific climatic impacts," and provided an alternative approach that the commenter stated, is used in recent EISs by the Bureau of Land Use Management when analyzing climate impacts. Some commenters stated that the cumulative effects analysis should not include GHG emissions from coal combustion due to the lack of causation between the Proposed Action and increased consumption of coal and because it would be difficult to determine the local impacts that may be connected to increased GHG concentrations.

Some commenters requested additional analysis when studying climate change impacts of the Proposed Action. One commenter requested that the Proposed Action conduct a cost benefit

analysis. Another commenter requested federal agencies and departments prepare a National Climate Recovery Plan to help reduce carbon dioxide emissions.

- **Regulatory actions and public interest.** Several commenters noted that implementation of the Proposed Action would conflict with or contradict public interest and/or government regulatory actions aimed to reduce GHG emissions. Several commenters stated that while their governments are making strides to reduce GHG emissions, the Proposed Action would increase emissions. The regulatory actions mentioned included federal GHG regulations under the Clean Air Act for reducing emissions from both mobile and stationary sources, EPA's New Source Performance Standards for coal-fired plants to meet low carbon dioxide emissions, Washington State Governor's Executive Orders to curb GHG emissions, and Washington State GHG reduction standards to increase use of renewable energy and energy efficient sources. One commenter stated that the United States is a signatory of the Copenhagen Climate Accord, and stated the Proposed Action would be inconsistent with the accord's intent to reduce worldwide GHG emissions.

## 5.23 Cumulative Effects

Approximately 19,300 comments were received regarding the Proposed Action's cumulative effects. Nearly all comments stemmed from six form letter campaigns that commonly referred to the scope of cumulative analysis, and provided a variety of suggestions on the range of cumulative effects the EIS should analyze. These suggestions and other cumulative analysis concerns submitted by form letter campaigns and unique commenters are summarized below.

- **Other coal export proposals.** Numerous commenters requested that the EIS consider other Pacific Northwest coal export proposals in the Proposed Action's cumulative analysis or in a Programmatic EIS. Many of these commenters stated the combined impacts from all proposed facilities could harm the region with collective effects from, for example, pollution, traffic/rail congestion, and increase in GHGs. One commenter noted that of the five coal export facilities that have been mentioned by other commenters, only three are known by them to be "in any stage of preliminary or submitted application," and recommended the EIS limit the cumulative analysis to known proposals. One commenter stated that while there are other coal export terminals proposed for Washington, the cumulative effects analysis should only cover impacts where projects share environmental resource within a defined geographic area.
- **Scope.** Many commenters requested that the EIS conduct a project-level review that provides a localized scope with focus on the environmental effects that are directly impacted by implementation of the Proposed Action itself. Some commenters added that extending the scope outside of immediate or localized environmental impacts is "unprecedented" and would go far beyond the intent of EIS regulations. One commenter stated that a project-level review was adequate since the Proposed Action "does not cause or create, directly or indirectly, the impacts related to the extraction of any natural resources, or the use of such resources." Commenters also stated that an extended EIS scope (beyond the terminal project) could set a "dangerous precedent" and negatively impact future development projects and economic prosperity. One commenter stated that although there is no precedent for NEPA to analyze main line traffic for commodities in transit, if there was a need an analysis of all commodity transport (by rail, road, or waterway) would be needed. The commenter added that an analysis of full rail network for every project utilizing the system would also result in duplicative impacts.

Many commenters were concerned that the scope of the EIS is unprecedented and would only serve to delay the Proposed Action, which the commenters stated would harm the local and regional economy. Several other commenters stated that an EIS of this scope is “a change in regulations” and are concerned that an EIS of this scope would set a precedent for environmental reviews of other export commodities, which would harm the ability of the commodity to compete in a global market place and harm the ability of the export industry to sustain and grow.

Numerous comments were received requesting the EIS include a broad geographic scope when analyzing the Proposed Action’s cumulative effects. These commenters suggested the analysis include impacts on western communities (Washington, Idaho, Montana, Wyoming) located near mines and along transportation routes (from the Powder River Basin to the proposed terminal). Commenters requested the EIS analyze mining, rail transportation, vessel transportation, community, environmental, and GHG impacts.

- **Other topics of concern.** Other topics of concern from comments regarding cumulative effects included considering all resource impacts of the Proposed Action combined, analyzing impacts “over the entire life of the potential project impact and not just the life of the project,” and impacts on mining regarding the potential for new mines that otherwise would not be considered without the Proposed Action.

### 5.23.1 Other Cumulative Effects

Approximately 166,500 commenters addressed other cumulative effects as they relate to the Proposed Action. Nearly all comments stemmed from 11 form letter campaigns, four of which expressed general concern regarding the potential for new mines that otherwise would not be considered without the Proposed Action. Other form letters requested several cumulative impacts be covered in the EIS including, ocean acidification, mercury pollution, train traffic, cumulative impacts related to Chinook salmon, and additional vessel traffic. One form letter requested that an ocean acidification cumulative study include the potential biological, environmental, social, and economic consequences of the Pacific Northwest from the combustion of the coal shipped from the proposed terminal facility. Another form letter stated that the EIS should incorporate existing environmental documents while determining cumulative effects in lieu of conducting new reports and examination to prevent accumulating data that already exists in other previously approved NEPA documents.

Several commenters stated that an evaluation of the impacts of the Proposed Action beyond the site would overstep the bounds of a reasonable review.

Several commenters expressed concern for the cumulative impact on air and water quality. A commenter stated that the EIS must assess the cumulative effects to water resources from reasonably foreseeable coal mines in the Powder River Basin including those mines that the Proposed Action would induce. One commenter stated that the EIS must include in the cumulative evaluation of all stormwater and wastewater discharges into the Columbia River.

Regarding cumulative health impacts, one commenter requested that a Health Impact Assessment be prepared that evaluates the impacts of all coal ports in the Pacific Northwest. Another commenter requested to see a study of worldwide health effects from the combustion of coal.

Numerous commenters remarked on the potential cumulative economic impacts the Proposed Action and other similar proposed export terminals would have on non-coal-related industries. Some comments stated the Proposed Action would have a positive effect. Other commenters stated it would have a negative effect.

A number of commenters made statements or included questions about cumulative impacts on salmon, Chinook in particular.

Some commenters also requested the EIS include the cumulative effects from invasive species spread by increased shipping. Some commenters stated that the EIS must assess the cumulative effects of other dredging activities in the lower Columbia River.

## 5.24 Other Issues

Approximately 1,300 commenters discussed other issues that have not been mentioned in the sections above. A number of comments stemmed from five form letter campaigns, two of which expressed concern for risk of fires from coal trains. Three of the form letter campaigns stated potential improvements to the Port of Longview.

In addition to the form letters, several commenters expressed other concerns. For example, one commenter suggested working closely with the Federal Highway Administration, the Cowlitz-Wahkiakum Council of Governments and the City of Longview to ensure that the environmental and public health impacts of SR 432 Project are addressed in the EIS. One commenter was concerned about the effects on taxpayers to subsidize repairs to damages of rail and roads due to increased train traffic.

One commenter recommended mitigation be identified and suggested the terminal proponents pay for and implement the mitigation because of the inability of the state and county to require mitigation from the railroads. Some commenters requested the EIS consider effects due to pollution as a result of the heavy duty machines used during the coal mining process. Some commenters requested that the EIS require the project proponent to develop a funding plan for the cleanup and decommissioning of the proposed terminal.

### 5.24.1 Other Comments

Approximately 50 commenters addressed other concerns about the Proposed Action. Some commenters addressed concerns regarding cleanup and mitigation of the proposed facility site under Washington State's Model Toxics Control Act (MCTA). Some commenters expressed concern that the nature of contamination and method of cleanup at the existing site be fully resolved prior to completion of the EIS and that conditions of the site after cleanup are disclosed in the environmental document. One commenter discussed concerns related to the grain that is stored at the current Longview shipping facility including the potential for grains to be contaminated with coal residing at the facility. The commenter asked that the EIS address the risk of contamination and hazards placed on the shipping facility by the Proposed Action. Some commenters discussed the Reynolds (Aluminum) site and requested this site be cleaned up.

- **Comments specific to the SEPA process.** Several comments pertain to the SEPA process and timeline. One commenter stated the scoping process has come at the expense of a timely EIS process. Other commenters expressed disappointment that Ecology pursued a broader scope

than the Corps in the GPT project. A commenter requested that the Co-Lead Agencies include a discussion of reasonable and feasible mitigation measures that could offset potentially significant environmental impacts. A couple of commenters stated that such inconsistently applied regulations could hinder the commodity industry.

- **Other topics of concern.** One commenter stated that the NEPA/SEPA process was not the appropriate venue to resolve policy issues regarding “the role of coal in domestic energy export policies” and requested that the EIS be treated no differently than any other commodity export terminal.

## Chapter 6

# Next Steps

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The next step in the environmental review process is to begin work on the draft EIS. This will include gathering data, conducting gap analyses, conducting studies, and analyzing information. The SEPA Co-Lead Agencies will determine the initial scope of study for the SEPA EIS which may be adjusted through the process as information is collected and evaluated.

A few elements are common to all SEPA EIS documents, and will be included in the overall scope. These elements include a:

- Description of the Proposed Action, and the purpose and goals of the proposal;
- Range of reasonable on-site alternative designs, as well as a no action alternative; and
- Discussion of the existing environmental conditions and analyses of the potential impacts that might result from each of the alternatives.

If significant impacts are anticipated, then the EIS must explore possible mitigation measures to those impacts.

Once a draft EIS is published, the public will be invited to review and comment on the document and participate in public hearings.

**SEPA Determination of Significance and  
NEPA Notice of Intent**





## DEPARTMENT OF BUILDING AND PLANNING

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### **Cowlitz County SEPA Determination of Significance & Request for Comments on Scope of EIS for Millennium Bulk Terminals Longview LLC Coal Export Terminal**

**Description of Proposal:** Millennium Bulk Terminals Longview LLC (MBTL) proposes to build a terminal for the transfer of coal between rail and ocean-going vessels for export on a portion of an existing industrial site which includes an existing operating dock (Dock 1) in Cowlitz County, Washington ("Coal Export Terminal"). The proposed Coal Export Terminal would be located near Longview, WA, adjacent to the Columbia River on an existing brownfield site zoned for heavy industrial use. The proposed Coal Export Terminal would cover approximately 190 acres of the approximately 536-acre site and would consist of rail unloading, storage, reclaiming and loading ships with coal. The proposed Coal Export Terminal would be capable of receiving, stockpiling, blending, and loading coal by conveyor onto ships for export.

MBTL proposes to develop the Coal Export Terminal in two separate phases. MBTL would construct two docks (Docks 2 and 3), one shiploader and related conveyors, a stockpile area including stockpile pads, a rail car unloading facilities, an operating rail turn around loop, up to eight rail lines, site area ground improvements, associated facilities, stockpiles, and infrastructure and conduct necessary dredging in the first stage (Stage 1). Stage 1 would be capable of a nominal throughput capacity of up to 25 million metric tonnes per year (MMTPA). Stage 2 facilities would consist of one additional shiploader on Dock 3 and associated stockpiles, conveyors and equipment necessary to bring the nominal throughput up to 44 MMTPA. The completed Coal Export Terminal would consist of two new docks, shiploading systems stockpiles and pads, rail car unloading facilities, an operating rail turnaround loop, rail lines to park 8 trains, associated facilities, conveyors, stockpiles and equipment, and necessary dredging. The planned total throughput capacity of the full build out facility would be a nominal 44 MMTPA of coal.

Dredging is required to provide berthing access from the navigation channel and to provide an adequate turning basin in the vicinity of Docks 2 and 3.

Stages 1 and 2 will be permitted under a single US Army Corps of Engineers authorization. Shiploading facilities for Stage 1 and 2 will be permitted under separate shoreline substantial development permits. Stage 2 ship loading facilities are not included in the current shoreline substantial development permit application to Cowlitz County.

**Proponent:** Millennium Bulk Terminals Longview LLC.

**Location of Proposal:** The proposed Coal Export Terminal site is located at 4029 Industrial Way Longview, WA 98632. The area is located within NW, NE Section 36, Township 8 North; Range 03 West, SW, SE Section 25, Township 8 North, Range 3 West, Parcel number 61953, and WDNR Aquatic Lands Lease No. 20-B09222.

**Lead Agency:** Cowlitz County Department of Building and Planning, the Washington State Department of Ecology (Ecology) and the U.S. Army Corps of Engineers (Corps) are co-lead agencies for consolidated environmental review under the State Environmental Policy Act (SEPA) and National Environmental Policy

Act (NEPA) pursuant to a Memorandum of Understanding (MOU) between the Cowlitz County, Ecology and the Corps. Pursuant to the MOU, Cowlitz County and Ecology are co-lead agencies under SEPA with Cowlitz County designated the nominal lead agency under SEPA. The Corps is the lead agency under NEPA for the project proposal.

**EIS Required:** Cowlitz County has determined that the proposal is likely to result in significant adverse impacts to the environment and, pursuant to RCW 43.21C.080, an environmental impact statement (EIS) is required. The co-lead agencies intend to prepare a combined NEPA/SEPA EIS. A separate Notice of Intent will be published in the Federal Register by the Corps to initiate the NEPA process.

**Alternatives:** Alternatives to the Coal Export Terminal proposal will be determined through the scoping process according to WAC 197-11-440(5)(b). Reasonable alternatives will include actions that could feasibly attain or approximate the proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation. The No Action Alternative will also be evaluated.

**Scoping:** Agencies, affected tribes, and members of the public are invited to comment on the scope of the EIS within a 95-day expanded scoping comment period beginning on August 16, 2013 and closing November 18, 2013. You may comment on alternatives, probable significant adverse impacts, mitigation measures, and licenses or other approvals that may be required.

Public scoping meetings will be held within Washington State from 4:00 p.m. to 8:00 p.m. in the following cities in order of occurrence:

Longview: Tuesday September 17, 2013, Cowlitz Expo Center, 1900 7<sup>th</sup> Ave. Longview, WA; 98632

Spokane: Wednesday September 25, 2013 Spokane Convention Center, 334 West Spokane Falls Blvd Spokane, WA 98201;

Pasco: Tuesday October 1, 2013, The Trac Center, 6600 Burden Blvd, Pasco, WA 98301;

Vancouver: Wednesday October 9, 2013, Clark County Fairgrounds, 17402 NE Delfel Rd Ridgefield, WA 98642

Tacoma: Thursday October 17, 2013, Tacoma Convention Center, 1600 Broadway Tacoma, WA 98402.

**Written Comments:** Comments on EIS scoping will be accepted through November 18, 2013. Written comments may be submitted via U.S. Mail, e-mail or on through the EIS project web site.

U.S. Mail Address: MBTL Coal Export Terminal EIS  
c/o ICF International  
710 Second Ave., Suite 550  
Seattle, WA 98104

E-mail Address: [comments@millenniumbulkeiswa.gov](mailto:comments@millenniumbulkeiswa.gov)

EIS Project Website: [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov)

Notifications about the Draft EIS publication and public meetings and hearings will be made in accordance with adopted County, State, and Federal procedures. Interested parties who sign up on mailing lists or contact the agencies with a request to receive notices will also receive notices.

**Documents Available:** Environmental background documents and other materials indicating likely environmental impacts can be reviewed at the EIS project website at <http://www.millenniumbulkeis.com> and at our offices and on our website at <http://www.co.cowlitz.wa.us/index.aspx?nid=1559>

**Responsible Official:** Elaine Placido

**Position/Title:** Director, Department of Building and Planning

**Address:** 207 4<sup>th</sup> Avenue North  
Kelso, WA 98626

**Email:** [placidoe@co.cowlitz.wa.us](mailto:placidoe@co.cowlitz.wa.us)

**Telephone:** (360) 577-3052

**Date:** August 9, 2013

**Signature:**

A handwritten signature in black ink, appearing to read 'Elaine Placido', written over a horizontal line.

4815-3649-2308, v. 1



## DEPARTMENT OF BUILDING AND PLANNING

207 Fourth Avenue North  
Kelso, WA 98626  
TEL (360) 577-3052  
FAX (360) 414-5550

[www.co.cowlitz.wa.us/buildplan](http://www.co.cowlitz.wa.us/buildplan)

**Board of County Commissioners**  
Michael A. Karnofski District 1  
Dennis P. Weber District 2  
James R. Misner District 3

### Cowlitz County Revised SEPA Determination of Significance & Request for Comments on Scope of EIS for Millennium Bulk Terminals Longview LLC Coal Export Terminal REVISED

**Description of Proposal:** Millennium Bulk Terminals Longview LLC (MBTL) proposes to build a terminal for the transfer of coal between rail and ocean-going vessels for export on a portion of an existing industrial site which includes an existing operating dock (Dock 1) in Cowlitz County, Washington ("Coal Export Terminal"). The proposed Coal Export Terminal would be located near Longview, WA, adjacent to the Columbia River on an existing brownfield site zoned for heavy industrial use. The proposed Coal Export Terminal would cover approximately 190 acres of the approximately 536-acre site and would consist of rail unloading, storage, reclaiming and loading ships with coal. The proposed Coal Export Terminal would be capable of receiving, stockpiling, blending, and loading coal by conveyor onto ships for export.

MBTL proposes to develop the Coal Export Terminal in two separate phases. MBTL would construct two docks (Docks 2 and 3), one shiploader and related conveyors, a stockpile area including stockpile pads, a rail car unloading facilities, an operating rail turn around loop, up to eight rail lines, site area ground improvements, associated facilities, stockpiles, and infrastructure and conduct necessary dredging in the first stage (Stage 1). Stage 1 would be capable of a nominal throughput capacity of up to 25 million metric tonnes per year (MMTPA). Stage 2 facilities would consist of one additional shiploader on Dock 3 and associated stockpiles, conveyors and equipment necessary to bring the nominal throughput up to 44 MMTPA. The completed Coal Export Terminal would consist of two new docks, shiploading systems stockpiles and pads, rail car unloading facilities, an operating rail turnaround loop, rail lines to park 8 trains, associated facilities, conveyors, stockpiles and equipment, and necessary dredging. The planned total throughput capacity of the full build out facility would be a nominal 44 MMTPA of coal.

Dredging is required to provide berthing access from the navigation channel and to provide an adequate turning basin in the vicinity of Docks 2 and 3.

Stages 1 and 2 will be permitted under a single US Army Corps of Engineers authorization. Shiploading facilities for Stage 1 and 2 will be permitted under separate shoreline substantial development permits. Stage 2 ship loading facilities are not included in the current shoreline substantial development permit application to Cowlitz County.

**Proponent:** Millennium Bulk Terminals Longview LLC.

**Location of Proposal:** The proposed Coal Export Terminal site is located at 4029 Industrial Way Longview, WA 98632. The area is located within NW, NE Section 36, Township 8 North; Range 03 West, SW, SE Section 25, Township 8 North, Range 03 West, Parcel number 61953, and WDNR Aquatic Lands Lease No. 20-B09222.

**Lead Agency:** Cowlitz County Department of Building and Planning and the Washington State Department of Ecology (Ecology) are co-lead agencies with Cowlitz County designated the nominal lead agency for environmental review under the State Environmental Policy Act (SEPA). ) The U.S. Army Corps of

Engineers (Corps) is the lead agency under the National Environmental Policy Act (NEPA) for the project proposal. Pursuant to a Memorandum of Understanding (MOU) between the Cowlitz County, Ecology and the Corps, the agencies intend to synchronize the separate SEPA and NEPA environmental reviews..

**EIS Required:** Cowlitz County has determined that the proposal is likely to result in significant adverse impacts to the environment and, pursuant to RCW 43.21C.080, that an environmental impact statement (EIS) is required. Cowlitz County and Ecology intend to prepare a joint SEPA EIS. The Corps intends to prepare a separate NEPA EIS. A separate Notice of Intent will be published in the Federal Register by the Corps to initiate the NEPA process.

**Alternatives:** Alternatives to the Coal Export Terminal proposal will be determined through the scoping process according to WAC 197-11-440(5)(b). Reasonable alternatives will include actions that could feasibly attain or approximate the proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation. The No Action Alternative will also be evaluated.

**Scoping:** Agencies, affected tribes, and members of the public are invited to comment on the scope of the EIS within a 95-day expanded scoping comment period beginning on August 16, 2013 and closing November 18, 2013. You may comment on alternatives, probable significant adverse impacts, mitigation measures, and licenses or other approvals that may be required.

Public scoping meetings will be held within Washington State in the following cities in order of occurrence:

Longview: Tuesday September 17, 2013, Cowlitz Expo Center, 1900 7<sup>th</sup> Ave. Longview, WA; 98632. The meeting will be conducted as an open house from 12:00 p.m. to 8:00 p.m. Comments on the SEPA scope of review may be made between 5:00 p.m. and 8:00 p.m.

Spokane: Wednesday September 25, 2013 Spokane Convention Center, 334 West Spokane Falls Blvd Spokane, WA 98201. The meeting will be conducted as an open house from 4:00 p.m. to 8:00 p.m. Comments on the SEPA scope of review may be made between 5:00 p.m. and 8:00 p.m.

Pasco: Tuesday October 1, 2013, The Trac Center, 6600 Burden Blvd, Pasco, WA 98301. The meeting will be conducted as an open house from 4:00 p.m. to 8:00 p.m. Comments on the SEPA scope of review may be made between 5:00 p.m. and 8:00 p.m.

Ridgefield: Wednesday October 9, 2013, Clark County Fairgrounds, 17402 NE Delfel Rd Ridgefield, WA 98642. The meeting will be conducted as an open house from 12:00 p.m. to 8:00 p.m. Comments on the SEPA scope of review may be made between 5:00 p.m. and 8:00 p.m.

Tacoma: Thursday October 17, 2013, Tacoma Convention Center, 1600 Broadway Tacoma, WA 98402. The meeting will be conducted as an open house from 4:00 p.m. to 8:00 p.m. Comments on the SEPA scope of review may be made between 5:00 p.m. and 8:00 p.m.

**Written Comments:** Comments on EIS scoping will be accepted through November 18, 2013. Written comments may be submitted via U.S. Mail, e-mail or on through the EIS project web site.

U.S. Mail Address: MBTL Coal Export Terminal EIS  
C/o ICF International  
710 Second Ave., Suite 550  
Seattle, WA 98104

E-mail Address: [comments@millenniumbulkeiswa.gov](mailto:comments@millenniumbulkeiswa.gov)

EIS Project Website: [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov)

Notifications about the Draft EIS publication and public meetings and hearings will be made in accordance with adopted County, State, and Federal procedures. Interested parties who sign up on mailing lists or contact the agencies with a request to receive notices will also receive notices.

**Documents Available:** Environmental background documents and other materials indicating likely environmental impacts can be reviewed at the EIS project website at <http://www.millenniumbulkeis.com> and at our offices and on our website at <http://www.co.cowlitz.wa.us/index.aspx?nid=1559>

**Responsible Official:** Elaine Placido

**Position/Title:** Director, Department of Building and Planning

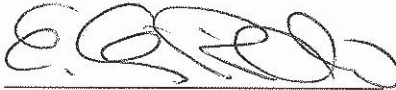
**Address:** 207 4<sup>th</sup> Avenue North  
Kelso, WA 98626

**Email:** [placidoe@co.cowlitz.wa.us](mailto:placidoe@co.cowlitz.wa.us)

**Telephone:** (360) 577-3052

**Date:** September 9, 2013

**Signature:** \_\_\_\_\_

A handwritten signature in black ink, appearing to read 'Elaine Placido', written over a horizontal line.

**POLICY JUSTIFICATION***India—M777 155mm Light-Weight Towed Howitzers*

The Government of India has requested a possible sale of 145 M777 155mm Light-Weight Towed Howitzers with Laser Inertial Artillery Pointing Systems (LINAPS), warranty, spare and repair parts, support and test equipment, publications and technical documentation, maintenance, personnel training and training equipment, U.S. Government and contractor representatives' technical assistance, engineering and logistics support services, and other related elements of logistics support. The estimated cost is \$885 million.

This proposed sale will contribute to the foreign policy and national security of the United States by helping to strengthen the U.S.-India strategic relationship and to improve the security of an important partner which continues to be a for political stability, peace, and economic progress in South Asia.

India intends to use the howitzers to modernize its armed forces and enhance its ability to operate in hazardous conditions. India will have no difficulty absorbing these weapons into its armed forces.

The proposed sale of this equipment and support will not alter the basic military balance in the region.

The principal contractors will be BAE of Hattiesburg, Mississippi; Watervliet Arsenal of Watervliet, New York; Seiler Instrument Company of St Louis, Missouri; Triumph Actuation Systems of Bloomfield, Connecticut; Taylor Devices of North Tonawanda, New York; Hutchinson Industries of Trenton, New Jersey; and Selex, Edinburgh, United Kingdom. In accordance with the Indian Defense Procurement Procedure (DPP), it is anticipated that the vendor will be required to negotiate an offset contract with the government of India.

Implementation of this proposed sale will require annual trips to India involving up to eight (8) U.S. Government and contractor representatives for technical reviews/support, training, and in-country trials for a period of approximately two years.

There will be no adverse impact on U.S. defense readiness as a result of this proposed sale.

This congressional notification transmittal number 13-BJ will supersede previously notified transmittal 09-DB.

[FR Doc. 2013-19717 Filed 8-13-13; 8:45 am]

**BILLING CODE 5001-06-P**

**DEPARTMENT OF DEFENSE****Department of Air Force****Exchange of Air Force Real Property for Non-Air Force Real Property**

**SUMMARY:** Notice identifies excess Federal real property under administrative jurisdiction of the United States Air Force it intends to exchange for real property not currently owned by the Federal government that will be placed under the administrative jurisdiction of the Air Force.

**FOR FURTHER INFORMATION CONTACT:** Mr. Arthur Calix, Air Force Civil Engineer Center Installations Center of Excellence (AFCEC/CIT) , 2261 Hughes Avenue, Suite 155, Joint Base San Antonio (JBSA) Lackland, TX 78236-9853; telephone (210) 395-9481, (telephone number is not toll-free).

**SUPPLEMENTARY INFORMATION:** In accordance with 10 U.S.C. Section 2869 (d)(1), the Air Force is publishing this Notice to identify Federal real property that it intends to exchange for property that is needed by the Air Force to limit encroachment and other constraints on military operations at Hanscom Air Force Base, Massachusetts. Description of the Air Force Property: Approximately 36 acres of railway corridor of irregular width, located in the North Falmouth section of the Town of Falmouth, located on the southern portion of Cape Cod, Massachusetts. The rail corridor extends from an area just west of Route 28A and north of Route 151 on Cape Cod and extends to the southern portion of the Joint Base Cape Cod formally known as (Massachusetts Military Reservation), Otis Air National Guard Base, Massachusetts. The property consists of 23 tracts of land providing a rail corridor of about thirteen thousand linear feet in length.

**Property Number**

*Status:* Excess.

*Comments:* The Air Force railway land described above was determined to be excess to military mission needs on April 29, 2013. The property proposed to be acquired by the Air Force in the property exchange is about 18 acres of land, owned by the Commonwealth of Massachusetts, located adjacent to the Hanscom Air Force Base current main entry gate (Vandenberg Gate). If the transaction is approved, the Air Force intends to re-route the road into Vandenberg Gate and construct a new main gate facility to enhance the installation's main entry control point. Before the exchange agreement is approved by the Air Force, the Air Force

will notify the appropriate Congressional committees of the terms and conditions of the proposed exchange pursuant to section 2869(d)(2) of title 10, United States Code.

**Authority:** Title 10, United States Code, Section 2869(d)(1).

**Bao-Anh Trinh,**

*Air Force Federal Register Liaison Officer.*

[FR Doc. 2013-19756 Filed 8-13-13; 8:45 am]

**BILLING CODE 5001-05-P**

**DEPARTMENT OF DEFENSE****Department of the Army; Corps of Engineers****Notice of Intent To Prepare a Joint Environmental Impact Statement (EIS) for the Millennium Bulk Terminals—Longview Shipping Facility Project**

**AGENCY:** U. S. Army Corps of Engineers (Corps), DoD.

**ACTION:** Notice of Intent.

**SUMMARY:** Millennium Bulk Terminals—Longview, LLC (MBTL) is proposing to construct and operate a shipping facility near Longview, Washington. MBTL currently intends to ship coal from the facility. Department of the Army (DA) authorization is required pursuant to Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. The Corps has determined the proposed project may have significant individual and/or cumulative impacts on the human environment. The Corps has entered into an agreement with the Cowlitz County Building and Planning Department (County) and the Washington State Department of Ecology (WDOE), (together, the co-lead agencies) to prepare a joint Environmental Impact Statement (EIS) in accordance with both the National Environmental Policy Act (NEPA) of 1969, as amended, and the Washington State Environmental Policy Act (SEPA). The Corps will serve as the lead federal agency for purposes of NEPA, and the County and WDOE will serve as lead agencies under SEPA.

**DATES:** The scoping period for this EIS will begin August 16, 2013. Written comments regarding the scope of the EIS, including the environmental analysis, range of alternatives, and potential mitigation actions should be submitted to the address below or by email to [comments@millenniumbulkeis.gov](mailto:comments@millenniumbulkeis.gov) by the closing date of the EIS scoping period, November 18, 2013.

**ADDRESSES:** Written comments regarding issues to be addressed in the EIS and requests to be included on the EIS notification mailing list should be submitted to Ms. Danette L. Guy, U.S. Army Corps of Engineers, Seattle District in care of MBTL EIS Co-Lead Agencies, 710 Second Avenue, Suite 550, Seattle, Washington 98104.

**FOR FURTHER INFORMATION CONTACT:** Ms. Danette L. Guy by email at [danette.l.guy@usace.army.mil](mailto:danette.l.guy@usace.army.mil), by regular mail at (see **ADDRESSES**), or by telephone at (206) 316-3048.

**SUPPLEMENTARY INFORMATION:**

Preparation of an EIS will support the Corps' eventual decision to either issue, issue with conditions, or deny a DA permit for the proposed action. As part of the NEPA process, the Corps will gather and analyze information to compare the potential environmental effects of possible project alternatives and a "no action" alternative in the EIS. A single, joint EIS will be prepared to assess the potential social, economic, and environmental impacts of the project, and will be sufficient in scope to address Federal, State, and local regulatory requirements and pertinent environmental and socio-economic issues. The EIS will disclose the extent to which information in the joint document is for NEPA analysis and/or SEPA analysis only. It is up to each co-lead agency to determine the relevance and weight the information in the EIS will be given by each co-lead agency when making its own agency determinations, based on each agency's respective statutes, responsibilities, and legal requirements.

The federal EIS process begins with publication of this Notice of Intent. The EIS will be prepared in accordance with the Corps' procedures for implementing NEPA (33 CFR Part 325, Appendix B) and consistent with the Corps' policy to facilitate public understanding and review of agency proposals.

1. *Proposed Action.* The decision to issue, issue with conditions, or to deny a permit for various activities within the Corps' jurisdiction associated with the proposed construction and operation of a shipping facility by Millennium Bulk Terminals—Longview (MBTL). Currently, MBTL intends to ship coal from the facility.

2. *Project Description.* The project site is located in Cowlitz County, Washington, in an industrial area along the Columbia River just west of the city of Longview. MBTL proposes to construct the project on approximately 190 acres of a 536-acre site. The project includes construction of two piers in the Columbia River connected by a

conveyor and access ramp. One pier would be up to 1,400 feet long and range from approximately 90 to 130 feet wide. The second pier would be approximately 900 feet long and 100 feet wide. Both would be connected to dry land by an access trestle approximately 800 feet long and range in width from up to 35 feet on the north end to up to 60 feet on the south end. The piers and trestle would support two ship loaders. MBTL proposes to dredge approximately 500,000 cubic yards of substrate from a 48-acre berthing area along the riverward side of the proposed piers. The dredged material would be disposed in the flow lane of the Columbia River. Periodic future maintenance dredging of the berthing area is also proposed. The shipping facility would include an open-air storage area approximately 75 acres in size serviced by an on-site balloon track system with parking capacity for eight trains. A system of rail-mounted reclaimers would convey coal from the storage area to the loading facility. The terminal would also include rail car unloading facilities, roadways, service buildings, storm water treatment facilities, and utility infrastructure. Constructing the portion of the terminal adjacent to the Columbia River would impact approximately 38 acres of waters of the U.S., including wetlands and drainage ditches. Any compensatory mitigation for impacts to waters of the U.S. would comply with the 2008 *Compensatory Mitigation Rule for Losses of Aquatic Resources*, 33 CFR parts 325 and 332; 73 FR 19594 (April 10, 2008).

3. *Alternatives.* The EIS will address an array of alternatives for a facility to receive material by rail and load ships for ocean transport. Alternatives may include, but will not be limited to, no action, alternative sites, alternative methods for on-site handling, and alternative facility designs. Mitigation measures could include, but would not be limited to, avoidance of sensitive areas, creation or enhancement of riverine nearshore habitats, and creation, restoration, or enhancement of wetlands.

4. *Scope of Analysis.* The scope of analysis identifies the federal action area under NEPA and, along with public input through the scoping process, informs the impacts (direct, indirect, and cumulative) analyzed in the EIS. In determining the scope of analysis for this EIS, the Corps must identify the scope of the activities under consideration and decide, for the purposes of NEPA, whether the agency has "control and responsibility" for activities outside of waters of the U.S.

such that issuance of a permit would amount to approval of those activities (33 CFR Part 325 Appendix B, Par. 7(b)(1)). As a general rule, the Corps extends its scope of analysis beyond waters of the U.S. where the environmental consequences of upland elements of the project may be considered products of either the Corps permit action or the permit action in conjunction with other federal involvement (33 CFR Part 325 Appendix B, Para. 7(b)(2)).

For this EIS, the Corps' scope of analysis will include the entire MBTL project area and any offsite area that might be used for compensatory mitigation. The project area consists of the approximately 190-acre shipping terminal project site, the area to be dredged, the dredged material disposal site(s), and any other area in or adjacent to the Columbia River that would be affected by, and integral to, the proposed project.

5. *Scoping Process.* The scoping period will begin August 16, 2013 and continue for 95 days until November 18, 2013. The Corps invites Federal agencies, state and local governments, Native American Tribes, and the public to participate in the scoping process by providing written comments and/or attending the public scoping meetings scheduled for the dates and locations listed below. Written comments will be considered during preparation of the Draft EIS. Comments postmarked or emailed after the closing date of the scoping period will be considered to the extent feasible.

The purpose of scoping is to assist the Corps in identifying pertinent issues, public concerns, and alternatives, and the depth to which they should be evaluated in the EIS, consistent with the Corps' scope of analysis for this project, as stated above. The Corps has prepared project information documents to familiarize agencies, tribes, interested organizations, and the public with the proposed project and potential environmental impacts. Copies of these documents will be available at the public meetings and on the Internet Web site developed for this EIS, [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov), or may be requested from Corps project manager, Ms. Danette L. Guy (see contact information above). Corps representatives will also answer scoping-related questions and accept comments at public scoping meetings.

a. Public scoping meetings will be held to present an overview of the MBTL project and afford participants an opportunity to provide comments on the range of actions, alternatives, and



potential impacts. The following public scoping meetings have been scheduled:

Cowlitz Expo Center, 1900 7th Avenue, Longview, Washington 98632 on Tuesday, September 17, 2013, from 5:00 p.m. to 8:00 p.m.

Spokane Convention Center, 334 West Spokane Falls Boulevard, Spokane, Washington 99201 on Wednesday, September 25, 2013, from 5:00 p.m. to 8:00 p.m.

The Trac Center, 6600 Burden Boulevard, Pasco, Washington 99301 on Tuesday, October 1, 2013, from 5:00 p.m. to 8:00 p.m.

Clark County Fairgrounds, 17402 Northeast Delfel Road, Ridgefield, Washington 98642 on Wednesday, October 9, 2013, from 5:00 p.m. to 8:00 p.m.

Tacoma Convention Center, 1500 Broadway, Tacoma, Washington 98402 on Thursday, October 17, 2013, from 5:00 p.m. to 8:00 p.m.

In addition, an "online scoping meeting" will be continuously hosted on the EIS Internet Web site at [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov) for the duration of the scoping period.

b. Potentially significant issues to be analyzed in the EIS include, but are not limited to direct, indirect, and cumulative effects of the project-specific activities proposed within the NEPA scope of analysis as described above on navigation (e.g., vessel traffic and navigational safety); aquatic habitats; aquatic species, including Endangered Species Act-listed species and Washington State species of concern; Tribal treaty rights; wetland and riparian habitat; wildlife; vehicle traffic; cultural, historic, and archeological resources; air and water quality; noise; recreation; land use; and aesthetics.

c. The Corps will consult with the Washington State Historic Preservation Officer and applicable Tribes to comply with the National Historic Preservation Act; the U.S. Fish and Wildlife Service and National Marine Fisheries Service to comply with the Endangered Species Act; the National Marine Fisheries Service to comply with the Essential Fish Habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act; and applicable Tribes to comply with reserved treaty fishing rights.

d. Development of the draft EIS will begin after the close of the scoping period. The draft EIS is currently scheduled to be available for public review and comment by June 2015.

e. A 90-day public review period will be provided for interested parties to review and comment on the draft EIS. Interested parties are encouraged to

contact the Corps if they wish to be notified when the draft EIS is issued.

f. All comments received will become part of the administrative record for this project and subject to public release to third-parties, including any personally identifiable information such as name, phone number, and address, included in the comment.

Dated: July 29, 2013.

**Bruce A. Estok,**

*Colonel, Corps of Engineers, District Engineer.*

[FR Doc. 2013-19738 Filed 8-13-13; 8:45 am]

**BILLING CODE 3720-58-P**

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## DEPARTMENT OF EDUCATION

[Docket No. ED-2013-ICCD-0056]

### Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Comment Request; IEPS International Resource Information System (IRIS)

**AGENCY:** Office of Postsecondary Education (OPE), Department of Education (ED).

**ACTION:** Notice.

**SUMMARY:** In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 3501 *et seq.*), ED is proposing a revision of an existing information collection.

**DATES:** Interested persons are invited to submit comments on or before September 13, 2013.

**ADDRESSES:** Comments submitted in response to this notice should be submitted electronically through the Federal eRulemaking Portal at <http://www.regulations.gov> by selecting Docket ID number ED-2013-ICCD-0056 or via postal mail, commercial delivery, or hand delivery. *Please note that comments submitted by fax or email and those submitted after the comment period will not be accepted.* Written requests for information or comments submitted by postal mail or delivery should be addressed to the Director of the Information Collection Clearance Division, U.S. Department of Education, 400 Maryland Avenue SW., LBJ, Room 2E103, Washington, DC 20202-4537.

**FOR FURTHER INFORMATION CONTACT:**

Electronically mail [ICDocketMgr@ed.gov](mailto:ICDocketMgr@ed.gov). Please do not send comments here.

**SUPPLEMENTARY INFORMATION:** The Department of Education (ED), in accordance with the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3506(c)(2)(A)), provides the general public and Federal agencies with an

opportunity to comment on proposed, revised, and continuing collections of information. This helps the Department assess the impact of its information collection requirements and minimize the public's reporting burden. It also helps the public understand the Department's information collection requirements and provide the requested data in the desired format. ED is soliciting comments on the proposed information collection request (ICR) that is described below. The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology. Please note that written comments received in response to this notice will be considered public records.

*Title of Collection:* IEPS International Resource Information System (IRIS).

*OMB Control Number:* 1840-0759.

*Type of Review:* Revision of an existing collection of information.

*Respondents/Affected Public:* Private Sector, Federal Government, Individuals or households.

*Total Estimated Number of Annual Responses:* 6,754.

*Total Estimated Number of Annual Burden Hours:* 13,439.

*Abstract:* This is a re-clearance of the on-line reporting system, International Resource Information System (IRIS) that IFLE uses to collect annual performance reports from Title VI and Fulbright-Hays grantees. The system is also used by IFLE to disseminate program information to the public.

**Kate Mullan,**

*Acting Director, Information Collection Clearance Division, Privacy, Information and Records Management Services, Office of Management.*

[FR Doc. 2013-19622 Filed 8-13-13; 8:45 am]

**BILLING CODE 4000-01-P**

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## DEPARTMENT OF EDUCATION

### Notice Inviting Guaranty Agencies To Submit Requests To Participate in a Voluntary Flexible Agreement

**AGENCY:** Office of Postsecondary Education, Department of Education.

**ACTION:** Notice.

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## COMMITTEE FOR PURCHASE FROM PEOPLE WHO ARE BLIND OR SEVERELY DISABLED

### Procurement List; Proposed Additions and Deletion

**AGENCY:** Committee for Purchase From People Who Are Blind or Severely Disabled.

**ACTION:** Proposed additions to and deletions from the Procurement List.

**SUMMARY:** The Committee is proposing to add products to the Procurement List that will be furnished by nonprofit agencies employing persons who are blind or have other severe disabilities.

Comments Must Be Received on or Before: 10/7/2013.

**ADDRESSES:** Committee for Purchase From People Who Are Blind or Severely Disabled, 1401 S Clark Street, Suite 10800, Arlington, Virginia 22202-4149.

**FOR FURTHER INFORMATION OR TO SUBMIT COMMENTS CONTACT:** Barry S. Lineback, Telephone: (703) 603-7740, Fax: (703) 603-0655, or email [CMTEFedReg@AbilityOne.gov](mailto:CMTEFedReg@AbilityOne.gov).

**SUPPLEMENTARY INFORMATION:** This notice is published pursuant to 41 U.S.C. 8503(a)(2) and 41 CFR 51-2.3. Its purpose is to provide interested persons an opportunity to submit comments on the proposed actions.

### Additions

If the Committee approves the proposed additions, the entities of the Federal Government identified in this notice will be required to procure the products listed below from nonprofit agencies employing persons who are blind or have other severe disabilities.

The following products are proposed for addition to the Procurement List for production by the nonprofit agencies listed:

#### Products

Safety Data Sheet Organizer Binder

NSN: 7520-00-NIB-0357—Kit, Mounting Board, GHS, SDS Information Center

NSN: 7520-00-NIB-0360—Binder, GHS, Safety Data Sheets

Coverage: A-List for the Total Government Requirement as aggregated by the General Services Administration

NSN: 7520-00-NIB-0358—Kit, Mounting Board, GHS Information Center

NSN: 7520-00-NIB-0359—Binder with Wire Rack Holder, GHS, Safety Data Sheets

Coverage: B-List for the Broad Government requirement as aggregated by the General Services Administration

NPA: Association for the Blind and Visually Impaired—Goodwill Industries of Greater Rochester, Rochester, NY

Contracting Activity: GENERAL SERVICES ADMINISTRATION, NEW YORK, NY

Holiday Themed Bags, Containers and Baking Cup-Picks Set

NSN: MR 376—Resealable Bags, Holiday, 6.5" x 5.875"

NSN: MR 379—Storage Containers, Holiday, 12 oz. or 16 oz., 6PK

NSN: MR 380—Set, Baking Cups and Picks, Holiday, 24PC

NPA: Winston-Salem Industries for the Blind, Inc., Winston-Salem, NC

Contracting Activity: DEFENSE COMMISSARY AGENCY, FORT LEE, VA

COVERAGE: C-List for the requirements of military commissaries and exchanges as aggregated by the Defense Commissary Agency.

Holiday and Patriotic Themed Serving Bowls

NSN: MR 358—Serving Bowl, Patriotic, Plastic 7Qt

NSN: MR 370—Serving Bowl, Holiday, Plastic 7Qt

NSN: MR 373—Chip and Dip Bowl, Holiday, Plastic

NPA: Industries for the Blind, Inc., West Allis, WI

Contracting Activity: DEFENSE COMMISSARY AGENCY, FORT LEE, VA

COVERAGE: C-List for the requirements of military commissaries and exchanges as aggregated by the Defense Commissary Agency.

### Deletion

The following product is proposed for deletion from the Procurement List:

#### Product

Bandage, Gauze, Elastic

NSN: 6510-00-913-7906

NPA: Elwyn, Inc., Aston, PA

Contracting Activity: DEFENSE LOGISTICS AGENCY TROOP SUPPORT, PHILADELPHIA, PA

**Barry S. Lineback**

*Director, Business Operations.*

[FR Doc. 2013-21748 Filed 9-5-13; 8:45 am]

**BILLING CODE 6353-01-P**

## DEPARTMENT OF DEFENSE

### Department of the Army; Corps of Engineers

#### Notice of Amendment to the Notice of Intent To Prepare an Environmental Impact Statement (EIS) for the Millennium Bulk Terminals—Longview Shipping Facility Project

**AGENCY:** U.S. Army Corps of Engineers (Corps), DoD.

**ACTION:** Notice of Intent.

**SUMMARY:** Millennium Bulk Terminals—Longview, LLC (MBTL) is proposing to construct and operate a shipping facility near Longview, Washington. Department of the Army (DA) authorization is required pursuant to

Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act. The Corps has determined the proposed project may have significant individual and/or cumulative impacts on the human environment. The Corps is working in collaboration with the Cowlitz County Building and Planning Department (County) and the Washington State Department of Ecology (WDOE), to prepare separate federal and state Environmental Impact Statements (EISs) in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, and the Washington State Environmental Policy Act (SEPA). The Corps will serve as the lead federal agency for purposes of preparing a NEPA EIS, while the County and WDOE will serve as lead agencies for purposes of preparing a SEPA EIS. This Notice of Intent amends the notice published in the **Federal Register** on August 14, 2013 (78 FR 49484) by providing additional and updated information on a separate but synchronized environmental review and public scoping process.

**DATES:** The scoping period for the EIS began August 16, 2013. Written comments regarding the scope of the EIS, including the environmental analysis, range of alternatives, and potential mitigation actions should be submitted to the address below or by email to

[comments@millenniumbulkeiswa.gov](mailto:comments@millenniumbulkeiswa.gov) by the closing date of the EIS scoping period, November 18, 2013.

**ADDRESSES:** Written comments regarding issues to be addressed in the NEPA EIS and requests to be included on the EIS notification mailing list should be submitted to Ms. Danette L. Guy, U.S. Army Corps of Engineers, Seattle District in care of MBTL EIS, 710 Second Avenue, Suite 550, Seattle, Washington, 98104.

**FOR FURTHER INFORMATION CONTACT:** Ms. Danette L. Guy by email at [danette.l.guy@usace.army.mil](mailto:danette.l.guy@usace.army.mil), by regular mail at (see **ADDRESSES**), or by telephone at (206) 316-3048.

#### SUPPLEMENTARY INFORMATION:

Preparation of an EIS will support the Corps' eventual decision to either issue, issue with conditions, or deny a DA permit for the proposed action. As part of the NEPA process, the Corps will gather and analyze information to compare the potential environmental effects of possible project alternatives and a "no action" alternative in the EIS. An EIS will be prepared to assess the potential social, economic and environmental impacts of the project, and will be sufficient in scope to address Federal regulatory requirements

and pertinent environmental and socio-economic issues.

The federal EIS process began with publication of a Notice of Intent on August 14, 2013. The EIS will be prepared in accordance with the Corps' procedures for implementing NEPA (33 CFR Part 325, Appendix B) and consistent with the Corps' policy to facilitate public understanding and review of agency proposals.

1. *Proposed Action.* The decision to issue, issue with conditions, or to deny a permit for various activities within the Corps' jurisdiction associated with the proposed construction and operation of a shipping facility by Millennium Bulk Terminals-Longview (MBTL). Currently, MBTL intends to ship coal from the facility.

2. *Project Description.* The project site is located in Cowlitz County, Washington, in an industrial area along the Columbia River just west of the city of Longview. MBTL proposes to construct the project on approximately 190 acres of a 536-acre site. The project includes construction of two piers in the Columbia River connected by a conveyor and access ramp. One pier would be up to 1,400 feet long and range from approximately 90 to 130 feet wide. The second pier would be approximately 900 feet long and 100 feet wide. Both would be connected to dry land by an access trestle approximately 800 feet long and range in width from up to 35 feet on the north end to up to 60 feet on the south end. The piers and trestle would support two ship loaders. MBTL proposes to dredge approximately 500,000 cubic yards of substrate from a 48-acre berthing area along the riverward side of the proposed piers. The dredged material would be disposed in the flow lane of the Columbia River. Periodic future maintenance dredging of the berthing area is also proposed. The shipping facility would include an open-air storage area approximately 75 acres in size serviced by an on-site balloon track system with parking capacity for eight trains. A system of rail-mounted reclaimers would convey coal from the storage area to the loading facility. The terminal would also include rail car unloading facilities, roadways, service buildings, storm water treatment facilities, and utility infrastructure. Constructing the portion of the terminal adjacent to the Columbia River would impact approximately 38 acres of waters of the U.S., including wetlands and drainage ditches. Any compensatory mitigation for impacts to waters of the U.S. would comply with the 2008 *Compensatory Mitigation Rule for Losses of Aquatic Resources*, 33 CFR

parts 325 and 332; 73 FR 19594 (April 10, 2008).

3. *Alternatives.* The EIS will address an array of alternatives for a facility to receive material by rail and load ships for ocean transport. Alternatives may include, but will not be limited to, no action, alternative sites, alternative methods for on-site handling, and alternative facility designs. Mitigation measures could include, but would not be limited to, avoidance of sensitive areas, creation or enhancement of riverine nearshore habitats, and creation, restoration, or enhancement of wetlands.

4. *Scope of Analysis.* The scope of analysis identifies the federal action area under NEPA and, along with public input through the scoping process, informs the impacts (direct, indirect, and cumulative) analyzed in the EIS. In determining the scope of analysis for this EIS, the Corps must identify the scope of the activities under consideration and decide, for the purposes of NEPA, whether the agency has "control and responsibility" for activities outside of waters of the U.S. such that issuance of a permit would amount to approval of those activities (33 CFR Part 325 Appendix B, Par. 7(b)(1)). As a general rule, the Corps extends its scope of analysis beyond waters of the U.S. where the environmental consequences of upland elements of the project may be considered products of either the Corps permit action or the permit action in conjunction with other federal involvement (33 CFR Part 325 Appendix B, Para. 7(b)(2)).

For this EIS, the Corps' scope of analysis will include the entire MBTL project area and any offsite area that might be used for compensatory mitigation. The project area consists of the approximately 190-acre shipping terminal project site, the area to be dredged, the dredged material disposal site(s), and any other area in or adjacent to the Columbia River that would be affected by, and integral to, the proposed project.

5. *Scoping Process.* The scoping period began August 16, 2013, and will continue for 95 days until November 18, 2013. The Corps invites Federal agencies, state and local governments, Native American Tribes, and the public to participate in the scoping process by providing written comments and/or attending the public scoping meetings scheduled for the dates and locations listed below. Written comments will be considered during preparation of the Draft EIS. Comments postmarked or emailed after the closing date of the

scoping period will be considered to the extent feasible.

The purpose of scoping is to assist the Corps in identifying pertinent issues, public concerns, and alternatives, and the depth to which they should be evaluated in the EIS, consistent with the Corps' scope of analysis for this project, as stated above. The Corps has prepared project information documents to familiarize agencies, tribes, interested organizations, and the public with the proposed project and potential environmental impacts. Copies of these documents will be available at the public meetings and on the Internet Web site developed for this EIS, [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov), or may be requested from Corps project manager, Ms. Danette L. Guy (see contact information above). Corps representatives will also answer scoping-related questions and accept comments at public scoping meetings.

a. Public scoping meetings will be held to present an overview of the MBTL project and afford participants an opportunity to provide comments on the range of actions, alternatives, and potential impacts. Two of the scoping meetings announced in the August 14, 2013, Notice of Intent have been revised to reflect the Corps' public scoping meetings schedule. The Corps official public scoping meetings are as follows:

Cowlitz Expo Center, 1900 7th Avenue, Longview, Washington 98632 on Tuesday, September 17, 2013, from 1:00 p.m. to 4:00 p.m.

Clark County Fairgrounds, 17402 Northeast Delfel Road, Ridgefield, Washington 98642 on Wednesday, October 9, 2013, from 1:00 p.m. to 4:00 p.m.

In addition, public scoping meetings previously announced by the County and WDOE will be held as scheduled. The Corps will attend these meetings as well, and will accept and review all comments received. These meetings will be held as follows:

Cowlitz Expo Center, 1900 7th Avenue, Longview, Washington 98632 on Tuesday, September 17, 2013, from 5:00 p.m. to 8:00 p.m.

Spokane Convention Center, 334 West Spokane Falls Boulevard, Spokane, Washington 99201 on Wednesday, September 25, 2013, from 5:00 p.m. to 8:00 p.m.

The Trac Center, 6600 Burden Boulevard, Pasco, Washington 99301 on Tuesday, October 1, 2013, from 5:00 p.m. to 8:00 p.m.

Clark County Fairgrounds, 17402 Northeast Delfel Road, Ridgefield, Washington 98642 on Wednesday, October 9, 2013, from 5:00 p.m. to 8:00 p.m.

Tacoma Convention Center, 1500 Broadway, Tacoma, Washington 98402 on Thursday, October 17, 2013, from 5:00 p.m. to 8:00 p.m.

In addition, an "online scoping meeting" will be continuously hosted on the EIS Internet Web site at [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov) for the duration of the scoping period.

b. Potentially significant issues to be analyzed in the EIS include, but are not limited to direct, indirect, and cumulative effects of the project-specific activities proposed within the NEPA scope of analysis as described above on navigation (e.g., vessel traffic and navigational safety); aquatic habitats; aquatic species, including Endangered Species Act-listed species and Washington State species of concern; Tribal treaty rights; wetland and riparian habitat; wildlife; vehicle traffic; cultural, historic, and archeological resources; air and water quality; noise; recreation; land use; and aesthetics.

c. The Corps will consult with the Washington State Historic Preservation Officer and applicable Tribes to comply with the National Historic Preservation Act; the U.S. Fish and Wildlife Service and National Marine Fisheries Service to comply with the Endangered Species Act; the National Marine Fisheries Service to comply with the Essential Fish Habitat provisions of the Magnuson-Stevens Fishery Conservation and Management Act; and applicable Tribes to comply with reserved treaty fishing rights.

d. Preparation of the draft EIS will begin after the close of the scoping period. The draft EIS is currently scheduled to be available for public review and comment by June 2015.

e. A 90-day public review period will be provided for interested parties to review and comment on the draft EIS. Interested parties are encouraged to contact the Corps if they wish to be notified when the draft EIS is issued.

f. All comments received will become part of the administrative record for this project and subject to public release to third-parties, including any personally identifiable information such as name, phone number, and address, included in the comment.

Dated: August 29, 2013.

**Bruce A. Estok,**

*Colonel, Corps of Engineers, District Engineer.*

[FR Doc. 2013-21780 Filed 9-5-13; 8:45 am]

**BILLING CODE 3720-58-P**

## DEPARTMENT OF DEFENSE

### Department of the Navy

#### Notice of Intent To Prepare an Environmental Impact Statement for Multiple Projects in Support of the Marine Barracks Washington, District of Columbia

**AGENCY:** Department of the Navy, DoD.

**ACTION:** Notice.

**SUMMARY:** Pursuant to Section (102)(2)(c) of the National Environmental Policy Act (NEPA) of 1969, and regulations implemented by the Council on Environmental Quality (40 Code of Federal Regulations [CFR] Parts 1500-1508), Department of the Navy (DoN) NEPA regulations (32 CFR Part 775), and United States Marine Corps (USMC) NEPA directives (Marine Corps Order P5090.2A, changes 1 and 2), the DoN intends to prepare an Environmental Impact Statement (EIS) for several proposed construction, repair, and renovation projects in support of the Marine Barracks Washington (MBW), District of Columbia (DC).

**Dates and Addresses:** The DoN, USMC, is initiating a 30-day public scoping process to identify community interests and local concerns to be addressed in the EIS, which starts with the publication of this Notice of Intent and ends on October 7, 2013. A public scoping meeting, using an informal open house format, will be held from 5:30 p.m. to 8:30 p.m. on September 24, 2013 at Tyler Elementary School, 1001 G St SE., Washington, DC 20390.

The public is invited to attend this meeting to view project-related displays, speak with USMC representatives, and submit verbal or written comments. All comments regarding the scope of issues that the USMC should consider during EIS preparation must be received prior to October 7, 2013 to be fully considered. Additional information concerning the meeting and the proposed alternatives is available on the EIS Web site at [www.mbweis.com](http://www.mbweis.com) and will be announced in local and regional newspapers. Please submit requests for special assistance, sign language interpretation for the hearing impaired, or other auxiliary aids needed at the scoping meeting to the MBW Public Affairs Officer, Captain Jack Norton, at 202-433-6682 by September 13, 2013.

Concurrent with the NEPA process, the USMC is initiating National Historic Preservation Act Section 106 Consultation to determine the potential effects of the proposed action on historic properties. During the scoping

meeting, one designated area of the room will focus on the Section 106 process and solicit public input on the identification of historic properties and potential effects of the proposed action on historic properties.

**Submitting Comments:** Federal, state, and local agencies and members of the public are encouraged to provide oral and written comments regarding the scope of the EIS, reasonable alternatives, and specific issues or topics of interest. There are three ways comments can be submitted: (1) In person at the public scoping open house meeting, (2) using the project's public Web site comment form at [www.mbweis.com](http://www.mbweis.com), or (3) providing written comments through U.S. mail. All comments on the scope of the EIS or any specific concerns regarding potential impacts to the environment should be submitted or postmarked no later than October 1, 2013. Comments submitted by mail should be sent to: Mr. William Sadlon, MBW CIMP EIS Project Manager, 1314 Harwood St. SE., Bldg. 212, Washington Navy Yard, DC 20374-5018.

The USMC will consider all comments received during the scoping period. A mailing list has been assembled to facilitate preparation of the EIS. This list includes DC and federal agencies with jurisdiction or other interests in the alternatives. In addition, the mailing list includes adjacent property owners and other interested parties, such as historic preservation groups. Those on this list will receive notices and documents related to EIS preparation. Anyone wishing to be added to the mailing list may request to be added at the project Web site [www.mbweis.com](http://www.mbweis.com) or by contacting the EIS project manager at the address provided below.

**FOR FURTHER INFORMATION CONTACT:** Mr. William Sadlon, MBW EIS Project Manager, 1314 Harwood St. SE., Bldg. 212, Washington Navy Yard, DC 20374-5018.

**SUPPLEMENTARY INFORMATION:** The USMC is preparing an EIS to analyze the potential effects resulting from implementation of several construction, repair, and renovation projects at or proximate to the Marine Barracks Washington scheduled for completion within the next 5 years. The principal project to be analyzed is a land acquisition and construction project to replace a Bachelor Enlisted Quarters (BEQ) Complex (including supporting facilities and parking) currently housed in Building 20. Renovation and improvement projects include interior renovations to Buildings 7 and 8 at the Main Post; improvements to the MBW

**Scoping Display Ads and Informational Flyer**

**WONDERWORD** By DAVID OUELLET

HOW TO PLAY: All the words listed below appear in the words — horizontal only, vertically, diagonally, even backward. Find them and **CIRCLE THEIR LETTERS ONLY. DO NOT CIRCLE THE WORD.** The letter letters spell the Wonderword.

**NOT DOGS:** P D S K B P R E C O O K E D S L E T S  
O R R E M R C H S I L E R C N  
P O E A M U O A N G U S E S O  
Y F E S T A U W L I O R B L I  
P T O T E S G N A E R W L N  
S R E O T A R C U L T A E I I O  
E L T G T C V M L H E L R T  
E S E L E A N A I L E G A  
D S E B U A O I T H B L N G M  
D E R E L O E N C I L A E R O  
A A K U H T P N G I V S R L T  
B S E O O C U I F R E D I O  
U O L R M L M I N C E D S C F  
N N P A K S F N E K C I H C U  
S N I K A S A U E R K R A U T S

Solutions: 7 letters

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Angus, Balmaines, Barbecue, Bread, Broil, Brown, Buns, Cereal, Chicken, Chili, Filler, Flour, Foot Long, Fried, Garlic, Grill, Heros, Lettuce, Lunch, Mince, Mustard, Oatmeal, Onion, Pork, Popsi Seed, Pork, Poultry, Pricedown, Preservatives, Protein, Relish, Salsa, Salt, Sauerkraut, Sausage, Season, Skin, Smoked, Steam, The, Tofu, Tomato

**Yesterday's Answer: Squat**

To purchase WONDERWORD books, visit [wonderword.universalklick.com](http://wonderword.universalklick.com) or call 1-800-842-8480

**JUMBLE** THAT SCRAMBLED WORD GAME by David L. Hoyt and Jeff Knouff

Unscramble these four Jumbles, one letter to each square, to form four ordinary words.

**NILFT**  
□ □ □ □ □ □ □ □

**TRUBS**  
□ □ □ □ □ □ □ □

**SLEIYA**  
□ □ □ □ □ □ □ □

**PEOOSP**  
□ □ □ □ □ □ □ □

Now arrange the circled letters to form the surprise answer, as suggested by the above cartoon.

Print your answer here: "□ □ □ □ □ □ □ □"

Answers tomorrow

Yesterday's Jumbles: YUCKY ABIDE HUNGRY SCROLL  
Answer: The shrubs needed trimming because they were too — BUSHY

**Five-Day Forecast For Longview / Kelso**

TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
89° / 59°	91° / 59°	85° / 58°	83° / 57°	79° / 58°
Wind: N 5 to 15	Wind: NW 0 to 10	Wind: NW 5 to 15		

**Today's Regional Forecast**

**Kids Weather**

**Regional Cities**

City	Hi	Lo	Prec	Hi	Lo	W
Astoria	70	60	0.00"	83	60	su
Bellingham	73	56	0.00"	77	60	su
Bend	82	50	n/a"	85	52	su
Corvallis	90	55	0.00"	91	58	su
Eugene	89	54	0.00"	90	57	su
Long Beach	n/a	n/a	0.08"	81	61	su
Long Beach	n/a	n/a	0.08"	81	61	su
Olympia	78	58	0.00"	83	60	su
Portland	83	67	0.00"	87	55	su
Portland	83	67	0.00"	87	55	su
Salem	83	67	0.00"	87	55	su
Seattle	79	57	0.00"	78	60	su
Spokane	82	56	0.00"	88	57	su
Tacoma	74	56	0.00"	81	60	su
The Dalles	91	59	0.00"	91	63	su
Vancouver	83	61	0.00"	90	59	su
Walla Walla	89	62	0.00"	89	63	su
Yakima	89	51	0.00"	89	58	su

**National Outlook**

City	Hi	Lo	W	City	Hi	Lo	W
Albuquerque	78	60	th	Minneapolis	81	47	th
Anchorage	51	47	th	Missoula	82	52	su
Atlanta	89	68	pc	Missouri	82	52	su
Bilings	85	55	su	Nashville	93	71	th
Boise	82	55	su	New Orleans	91	75	th
Boston	80	70	su	New York	84	73	pc
Chicago	84	74	pc	Oklahoma City	84	71	pc
Cincinnati	82	73	th	Omaha	90	65	th
Cleveland	86	75	pc	Orlando	91	72	pc
Dallas	97	75	pc	Palm Springs	94	77	pc
Denver	71	55	th	Philadelphia	91	78	th
Fairbanks	63	40	pc	Phoenix	89	55	su
Fargo	80	55	pc	Reno	87	55	su
Honolulu	86	73	th	St. Louis	89	55	su
Houston	93	75	th	Sacramento	96	61	th
Indianapolis	84	48	th	San Diego	86	64	th
Las Vegas	89	73	th	San Francisco	69	59	pc
Las Vegas	89	73	th	San Jose	88	70	th
Los Angeles	80	64	pc	Washington D.C.	90	73	pc
Memphis	85	75	th	Yuma	96	75	th
Miami	86	78	th				

**Almanac**  
Longview as of 5 pm yesterday

**Temperatures**  
Yesterday high / low: 83° / 60°  
Normal high / low: 75° / 50°  
Record high / low: 91° in 1959 / 38° in 1936

**Precipitation**  
24 hrs ending 4 pm yesterday: Trace"  
Month to date / Normal m-t-d: 0.32" / 0.54"  
Year to date / Normal y-t-d: 7.70" / 27.68"

**Days of rain in month**: 6  
**Normal days of rain in month**: 9

**Sun and Moon**

Today	Sunrise 6:44 AM	Sunset 7:32 PM
Wednesday	6:45 AM	7:30 PM
Thursday	6:46 AM	7:28 PM
Friday	6:47 AM	7:26 PM
Saturday	6:48 AM	7:24 PM

**Long Beach Tides**  
Today: 4:04 AM First Low, 9:29 AM Second High, 10:17 PM Third Low  
Height: 6.66, 1.05, 8.01, -0.27

**Cowlitz River**  
Yesterday's level: 32.47  
Flood stage: 48.00  
Longview: 11.40, 21.50

**Lewis River**  
Yesterday's level: 8.19  
Flood stage: 24.00

**National Extremes**  
High: 107 at Red Bluff, N.Y.  
Low: 29 at Saranac Lake, N.Y.

Maps and Forecast Produced by DayWeather, Inc. [dayweather.com](http://dayweather.com) Cheyenne, Wyo.

**Market watch** Sept. 9, 2013

Dow Jones Industrials	+140.62
Nasdaq composite	+46.17
Standard & Poor's 500	+16.54
Russell 2000	+16.53

**NYSE diary**  
Advanced: 2,463  
Declined: 617  
Unchanged: 81  
Volume: 3.0 b

**Nasdaq diary**  
Advanced: 1,925  
Declined: 618  
Unchanged: 77  
Volume: 1.6 b AP

**NORTHWEST STOCKS**

Symbol	Last price	Change
ALX	\$58.53	\$1.15
AMZN	\$299.71	\$3.85
BA	\$307.10	\$11.2
BAM	\$35.58	\$0.40
COLM	\$59.84	\$0.01
CWTR	\$2.41	\$0.01
DNDN	\$3.07	\$0.19
EXPD	\$43.62	\$0.72
EXPE	\$50.64	\$0.96
FCO	\$40.0	\$0.0
IP	\$49.15	\$1.29
JWN	\$55.58	\$0.66
KS	\$43.18	\$0.92
LEE	\$2.95	\$0.03
MET	\$22.66	\$0.29
MSFT	\$31.66	\$0.50
NFI	\$51.6	\$0.4
NKE	\$65.40	\$0.42
NWN	\$40.36	\$0.11
PCAR	\$55.13	\$0.89
PCH	\$38.90	\$0.42
PCL	\$45.75	\$1.09
POR	\$28.07	\$0.05
PUL	\$74.44	\$0.63
SBUX	\$26.59	\$1.01
SCHN	\$8.00	\$0.07
TONT	\$17.11	\$0.82
UMQP	\$26.27	\$1.21
USG	\$40.34	\$0.42
WY	\$28.95	\$0.44

**GOLD & SILVER**

	Price (tr. oz.)	Pts Day
Gold	\$1,386.80	\$1,396.10
Silver	\$23.668	\$23.463

**BUSINESS**

**AFL-CIO leader blasts high court, corporations**

LOS ANGELES — In a fiery speech Monday, the leader of the nation's largest labor federation took aim at top American corporations and the U.S. Supreme Court, which he accused of waging a "war on democracy."

Speaking to thousands of union members at the AFL-CIO convention in Los Angeles, President Richard Trumka denounced the "powerful forces in America today who want our country to be run by and for the rich."

He singled out Walmart and McDonald's, saying "their whole business model is about keeping the people who work for them poor," as well as Wisconsin Gov. Scott Walker, whom he called an "apex of greed" for his efforts to limit collective bargaining by public employee unions.

Trumka's scorching remarks came on the second day of a convention that he has sought to portray as a crucial turning point for a shrinking labor movement that has seen membership fall to just 11 percent of American workers, down from 35 percent in the 1950s.

Insisting that the union "has got to change" and broaden its base, Trumka has pushed new rules that would extend membership to workers who are not covered by a collective bargaining agreement, and to allow the union to form alliances with progressive groups including the NAACP and the Sierra Club. Those changes were approved Monday.

**Toyota again recalling 880,584 RAV4, Lexus sedans**

DETROIT — Toyota is recalling 880,584 RAV4 SUVs and Lexus HS 250h sedans in the U.S. and Canada because a repair announced last year may not have solved a safety problem.

RAV4s from the 2006 through 2011 model years and the Lexus HS250h from the 2010 model year are involved in the recall. Toyota says if rear suspension nuts aren't tightened properly after a wheel alignment, the rear lower suspension arm can rust and separate from the vehicle, increasing the risk of a crash.

At least nine crashes and three injuries related to the problem have been reported.

**Stocks climb on Chinese exports, iPhone anticipation**

NEW YORK — U.S. stocks climbed on Monday, with the S&P 500 extending its longest win streak since July, after Chinese exports beat projections and as investors anticipated the unveiling of Apple Inc.'s new iPhone models.

**Consumer borrowing rises \$10.4 billion in July**

WASHINGTON — Americans cut back on using their credit cards in July for the second straight month, while taking on more debt to buy cars and attend school. The decline in credit card use suggests consumers remain cautious, a trend that could hold back economic growth.

— The Associated Press

**HOROSCOPES**

**TODAY'S BIRTHDAY** (Sept. 10). What's better than doing work you enjoy with people you love? You'll find out in the span of four weeks. October brings a change in the friendship circle. November sees you entrusted with a responsibility, as well as with the key to someone's heart. Cancer and Leo people adore you. Your lucky numbers are: 30, 14, 2, 35 and 47.

**ARIES** (March 21-April 19). Roll with the punches. Don't let yourself get attached to an interaction going any certain way. This isn't a movie, and your happy ending does not hinge on a single interaction playing out in one particular way.

**TAURUS** (April 20-May 20). You want to be seen in a certain light, and you're being a bit careful about how you present yourself. Just know that you will have to reveal a bit about yourself if you want others to let down their guard and do the same.

**GEMINI** (May 21-June 21). You'll be making a pitch of some kind. Don't forget to ask for what you want. Once you state your intention, people will either support you or opt out. Either way, your time will not be wasted.

**CANCER** (June 22-July 22). Class is not money, and money is not class. Ideally, you'll learn and grow and have plenty of both. For now, determine which you have more of and then work on the lacking area for a while.

**LEO** (July 23-Aug. 22). Beware of the tendency to spend unnecessarily now. Take a second look at the choices you've made. It's a good time to cut something out for the sake of living within your means.

**VIRGO** (Aug. 23-Sept. 22). The question will arise: Are you being too hard on yourself? How far should you push yourself for optimal strength, health and happiness? Your tendency is to go too far, and today you'll benefit from pulling back.

**LIBRA** (Sept. 23-Oct. 23). Marcel Proust said that the only paradise is paradise lost. He underestimated your ability to know a good thing when it's happening. You will revel in today's slice of heaven.

**SCORPIO** (Oct. 24-Nov. 21). In order to fully accept yourself,

you must first consciously realize what it is you're rejecting. Certain notions you have about yourself are so ingrained that you won't notice them until someone points them out to you.

**SAGITTARIUS** (Nov. 22-Dec. 21). Use good judgment in deciding when to try to influence others and when to stay out of it. People indulging their prejudices don't want to be confused with facts.

**CAPRICORN** (Dec. 22-Jan. 19). Your smile is your best accessory, and you'll wear it from day into night. When your mood dips, the flexing of a few facial muscles will improve things immensely.

**AQUARIUS** (Jan. 20-Feb. 18). Other people's belief systems may not match yours, but that doesn't make them wrong. The only steadfast rule is that there are no steadfast rules. Being flexible will serve you well.

**PISCES** (Feb. 19-March 20). Cats and terriers can smell the rats they can't see, and you have something in common with these perceptive beasts today. State your suspicion; it will be confirmed.

— Holiday Mathis

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## Agencies Seek Public Comment on Proposed Shipping Terminal to Export Coal

**Millennium Bulk Terminals — Longview, LLC** has proposed to build and operate a shipping terminal to export coal at the site of the former Reynolds Aluminum smelter at 4029 Industrial Way, Longview, Washington.

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**Longview Public Scoping Meeting September 17**  
Open House — Noon to 8 p.m.

Oral Scoping comments for the U.S. Army Corps of Engineers: 1 p.m. to 4 p.m.  
Oral Scoping comments for Cowlitz County and the Washington State Department of Ecology: 5 p.m. to 8 p.m.

Cowlitz County Regional Conference Center  
1900 7th Avenue, Longview

Multiple ways to provide scoping comments:

- Mail to: Millennium Bulk Terminals EIS, c/o ICF International, 710 Second Avenue, Suite 550, Seattle, WA 98104
- Email to: [comments@millenniumbulkeiswa.gov](mailto:comments@millenniumbulkeiswa.gov)
- Submit comments online at: [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov)
- Attend a scoping meeting

In addition to this scoping meeting, there will be four other scoping meetings in the state in Spokane, Pasco, Clark County and Tacoma.

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FROM THE FRONT PAGE

**SHOOTING**

Continued from A1

shotgun and a handgun that he took from a police officer at the scene, according to two federal law enforcement officials who spoke on condition of anonymity.

For much of the day, authorities said they were looking for a possible second attacker who may have been disguised in an olive-drab military-style uniform.

But by late Monday night, they said they were convinced the shooting was the work of a lone gunman, and the lockdown around the area was eased.

"We do now feel comfortable that we have the single and sole person responsible for the loss of life inside the base today," Washington police Chief Cathy Lanier said.

President Barack Obama lamented yet another mass shooting in the U.S. that he said took the lives of American "patriots." He promised to make sure "whoever carried out this cowardly act is held responsible."

The FBI took charge of the investigation. The attack put all of Washington on edge and raised the specter of another well-coordinated terrorist strike — or another attack from within, like Fort Hood.

It came four years after Army psychiatrist Maj. Nidal Hasan killed 13 people at Fort Hood in what he said was an effort to save the lives of Muslims overseas. He was convicted last month and sentenced to death.

In addition to those killed at the Navy Yard, eight people were hurt, including three who were shot and wounded, according to the mayor. Those three were a police officer and two female civilians, authorities said. They were all expected to survive.

The dead ranged in age from 46 to 73, according to the mayor. A number of the victims were civilian employees and contractors, rather than active-duty military personnel, the police chief said.

At the time of the rampage, Alexis was an employee with The Experts, a company that was a Defense Department subcontractor on a Navy-Marine Corps computer project, authorities said.

Valerie Parlave, head of the FBI's field office in Washington, said Alexis had access to the Navy Yard as a defense contractor and used a valid pass.

Alexis had been a full-time Navy reservist from 2007 to early 2011, leaving as a petty officer third class, the Navy said. It did not say why he left. He had been an aviation electrician's mate with a unit in Fort Worth.

A convert to Buddhism who grew up in New York City, Alexis had had run-ins with the law over shooting incidents in 2004 and 2009 in Fort Worth and Seattle and was portrayed in police reports as seething with anger.

The Washington Navy Yard is a sprawling 11-acre labyrinth of buildings and streets protected by armed guards and metal detectors, and employees have to show their IDs at doors and gates. More than 18,000 people work there.

The rampage took place at Building 197, the headquarters for Naval Sea Systems Command, which buys builds and maintains ships and submarines. About 3,000 people work at headquarters, many of them civilians.

Witnesses on Monday described a gunman opening fire from a fourth-floor overlook, aiming down on people on the main floor, which includes a glass-walled cafeteria. Others said a gunman fired at them in a third-floor hallway.

Patricia Ward, a logistics-management specialist, said she was in the cafeteria getting breakfast.

"It was three gunshots straight in a row — pop, pop, pop. Three seconds later, it was pop, pop, pop, pop, pop, so it was almost about a total of seven gunshots, and we just started running," Ward said.

Todd Brundidge, an executive assistant with Navy Sea Systems Command, said he and co-workers encountered a gunman in a long hallway on the third floor. The gunman was wearing all blue, he said.



Family and friends wait to greet staff of the Naval Sea Systems Command headquarters as they are bused from the Washington Navy Yard to Nationals Park in Washington, D.C., on Monday.

**Gunman had Seattle ties**

While some neighbors and acquaintances described the gunman in Monday's shooting as "nice," Aaron Alexis' father once told detectives in Seattle that his son had anger management problems related to post-traumatic stress brought on by the terror attacks of Sept. 11, 2001. He also complained about the Navy and being a victim of discrimination.

Alexis lived in Seattle in 2004 and 2005, according to public documents. In 2004, Seattle police said, Alexis was arrested for shooting out the tires of another man's vehicle in what he later described to detectives as an anger-fueled "blackout." According to an account on the department's website, two construction workers had parked their Honda Accord in the driveway of their worksite, next to a home where Alexis was staying. The workers reported seeing a man, later identified by police as Alexis, walk out of the home next to their worksite, pull a gun from his waistband and fire three shots into the rear tires of their Honda before he walked slowly back to his home.

Police eventually arrested Alexis, searched his home, found a gun and ammunition in his room, and booked him into the King County Jail for malicious mischief.

According to the police account, Alexis told detectives he perceived he had been "mocked" by construction workers the morning of the incident. Alexis also claimed he had an anger-fueled "blackout," and could not remember firing his gun at the Honda until an hour after the incident.

Terrie Durham, an executive assistant with the same agency, said the gunman fired toward her and Brundidge.

"He aimed high and missed," she said. "He said nothing. As soon as I realized he was shooting, we just said, 'Get out of the building!'"

As emergency vehicles and law enforcement officers flooded the streets, a helicopter hovered, nearby schools were locked down and airplanes at Reagan National Airport were grounded so they would not interfere with law-enforcement choppers.

Security was tightened at other federal buildings. Senate officials shut down their side of the Capitol. The House remained open.

In the confusion, police said around midday that they were searching for two accomplices who may have taken part in the attack — one carrying a handgun and wearing a tan Navy-style uniform and a beret, the other armed with a long gun and wearing an olive-green uniform. Police said it was unclear if the men were members of the military.

But as the day wore on, police dropped one person and then the other as suspects. As tensions eased, Navy Yard employees were gradually released from the complex, and children were let out of their locked-down schools.

releases that said it was working with the WSP on a criminal investigation and that it would conduct an internal investigation.

Sublie was booked into Spokane County Jail early Sunday.

He appeared in U.S. District Court on Monday afternoon on federal misdemeanor charges of interfering with a government employee and creating unreasonable noise.

U.S. Magistrate Judge John T. Rodgers, starting his third week on the bench replacing Judge Cynthia Imbrogno, ordered Sublie released without bond.

Sublie's father, Orville Sublie, sat in the courtroom Monday afternoon with supporters. He said his son and Hartinger were unarmed at the time of the shooting and the Park Service rangers' actions make no sense.

"What reason did a park ranger have to fire a round?" Sublie asked.

Hartinger pleaded guilty to a felony domestic violence assault charge in Ferry County in 2011, records show.

**AUCTION**

Continued from A1

the spot the "Priest Lake Cafe."

Now, the family's modest cabin is one of four set for auction next month.

The family has sued the state of Idaho with another cabin owner in hopes of stopping the auctions.

If someone else submits the highest bid to take over the state lease on the land, the losing cabin owner will be paid the appraised value of the improvements — the buildings, docks and anything else besides the land.

The lawsuit argues the state is allowing other cabin owners at Priest Lake a shot at a new appraisal for their cabin sites after the latest ones were challenged as inaccurate. Only those facing so-called conflict auctions were not allowed to object nor were they allowed to join land exchanges to try to secure ownership of the land before the auction.

Perhaps the most eye-catching item in the lawsuit, filed late last week in Bonner County, is the human remains. The cabin site is the final resting place not only for Olsson's grandmother, but also for her great-grandfather, and two cousins, including a little girl who was stillborn in 1929. Permanent memorials to all five are located on the site.

"The whole family is very upset about it," said Olsson, now an attorney in Seattle. Her aunt, Jan Nunamaker, holds the lease now.

Nunamaker is the granddaughter of John Morton Starlin, a Spokane resident who built the cabin in 1935 with salvaged materials. "It was during the Depression, they didn't have much money," Olsson explained.

He worked in a fruit-packing plant and dismantled pallets, and spent the

winter hammering nails straight. ... It was truly a labor of love."

Glass for the cabin's windows came from old Olympia beer signs. Olsson's grandmother recalled helping her dad scrape paint off the glass with razor blades during winters, preparing the windows for the cabin. Starlin began camping on the site in 1910; he spent 10 years stockpiling the salvaged materials for the cabin, which he transported 10 miles by row-boat to the lakefront site.

The extended family also owns the cabin next door, on which there's a small '60s-era A-frame cabin; there are no other neighbors nearby. No conflict bid was submitted on the adjoining property.

"It just holds such a special place for all the family members," Olsson said. "It's where weddings have been held. ... Whenever anything really special is going to happen, there's where it is for the family."

State Lands Department Deputy Director Kathy Opp said Monday that she knew nothing about the human remains and hadn't seen the lawsuit.

Spokane attorney J. Scott Miller, who filed the lawsuit on behalf of Nunamaker and another Priest Lake cabin owner, Marc Groskreutz, said it's "an interesting question" whether the presence of human remains carries any legal weight in the dispute. "I haven't found any case law that definitively answers that question," he said. "This is one

of the appraisals that the state has acknowledged was not done properly. I can tell you that I would expect graves to be mentioned in an appraisal."

In May, Idaho's state Land Board, which consists of the state's top elected officials, voted unanimously to allow any of the 354 cabin owners on leased lots at Priest Lake to request new appraisals, after complaints about inaccuracies and other problems in appraisals that showed values skyrocketing 80 percent. About 300 reappraisals now are underway.

The conflict bid on the Nunamaker cabin site came from a Colorado attorney, who declined to comment Monday.

Both Nunamaker and Groskreutz had signed up for land exchanges, seeking to get full ownership of their cabin sites, and paid fees to real estate companies organizing exchanges designed to close before the end of 2013. The lawsuit notes that Idaho Department of Lands Director Tom Schultz told lessees at a Spokane Valley meeting that she knew nothing about the human remains and hadn't seen the lawsuit.

Miller, the Spokane attorney, said, "They did an about-face — they simply changed their mind."

Idaho has been encouraging exchanges, auctions and other moves as it seeks to get out of the business of renting lake cabin sites to people who build their family cabins on them, after years of disputes and lawsuits over what constitutes fair rent.

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**Agencies seek public comment on proposed shipping terminal to export coal.**



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**Spokane Public Scoping Meeting September 25**  
Open House — 4 p.m. to 8 p.m.  
Oral Scoping Comments: 5 p.m. to 8 p.m.  
Spokane Convention Center, 334 W. Spokane Falls Blvd.

- Multiple ways to provide scoping comments:
- Mail to: Millennium Bulk Terminals EIS, c/o ICF International, 710 Second Avenue, Suite 550, Seattle, WA 98104
  - Email to: comments@millenniumbulkeiswa.gov
  - Submit comments online at: www.millenniumbulkeiswa.gov
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**CAMPGROUND**

Continued from A1

the houseboat to the shore. Hartinger and Sublie both live in Kettle Falls and are friends. Family members of both men said Monday that neither of the men was armed at the time.

Court documents include allegations that Sublie was uncooperative when rangers approached him. He refused to turn down the music blaring from his boat at about 10:30 p.m. — some 30 minutes after quiet hours had begun. And he refused to identify himself or remove his hands from his pockets as a ranger requested. Sublie was described by rangers as having "a heavy odor of alcoholic beverage" on his breath and at one point yelled obscenities at the rangers as he demanded they leave his boat.

A ranger tried several times to detain Sublie, but each time Sublie is accused of violently raising his arms to resist.

After several failed attempts to detain Sublie, the ranger was pushed backward off the gangplank, ac-

ording to records. Court filings do not mention when shots were fired or by whom. The two rangers who responded to the call were identified only by their initials.

Bob Hartinger, the father of the man who was shot, said he'd received word in a phone call from his 12-year-old granddaughter who was on the boat with her 9-year-old brother that Casey Hartinger had been wounded.

The 9-year-old stood next to his dad when the shots were fired, Bob Hartinger said.

"If the bullet hadn't hit my son, it would have hit (my grandson) in the head," he said.

The Washington State Patrol has been investigating the shooting and confirmed Hartinger and Sublie were the two involved. WSP spokesman Jeff Sevigny said witnesses are being interviewed. Detectives have not spoken with the rangers, though Sevigny said those interviews would happen soon.

BRIEFS

Little movement seen for gun control laws

WASHINGTON — A week after the shooting at the Navy Yard in Washington, despite calls from gun control advocates, lawmakers and Obama seem disinclined to launch another significant push.

The death of 12 at the Navy Yard has evoked some sympathy for revisiting the gun control debate on Capitol Hill, but it's unlikely to go very far. And it's unclear how much effort Obama will expend after failing to move Congress even after putting the force of his White House behind gun control efforts.

The White House has noted that it enacted the executive actions that were part of the Obama's push for gun control, and Obama told the Congressional Black Caucus Saturday night that although he "came up short" on gun control, "that means we've got to get back up and go back at it."

\$400 million Powerball winner to stay private

COLUMBIA, S.C. — The winner of a \$400 million Powerball jackpot cashed in his ticket Monday in South Carolina, but he told lottery officials that he wants to remain anonymous.

The lottery released a few details about last week's winner, who lives in Columbia.

He stopped to get gas at a Murphy Express gas station in Columbia the day of the drawing last Wednesday, and his wife told him to buy some hot dog buns. The store didn't sell buns, but after seeing the \$400 million prize advertised, the winner bought \$20 in lottery tickets instead, lottery officials said.

It was only his second time playing the lottery, he told officials.

IRS official at heart of tea party scandal retires

WASHINGTON — Facing a possible firing, the Internal Revenue Service official at the center of the agency's tea party scandal retired Monday, ending one chapter in a scandal that has engulfed the tax-collection agency since spring.

Lois Lerner headed the IRS division that handles applications for tax-exempt status when she was placed on paid leave in May. While she was in charge, the agency acknowledged that agents improperly targeted tea party groups for extra scrutiny when they applied for tax-exempt status during the 2010 and 2012 elections.

Lerner first disclosed the targeting at a law conference in May, when she was asked a planted question about IRS treatment of political groups. Less than two weeks later, she refused to answer questions at a congressional hearing, citing her constitutional right not to incriminate herself.

U.S., Iran edge closer to high-level discussions

NEW YORK — The Obama administration edged close to direct, high-level talks with Iran's new government on Monday, with Secretary of State John Kerry slated to meet his Iranian counterpart this week and the White House weighing the risks and rewards of an encounter between President Obama and Iran's president, Hasan Rouhani.

An Obama-Rouhani exchange on the sidelines of the U.N. General Assembly would mark the first meeting at that high level for the two nations in more than 30 years. Such talks could signal a turning point in U.S.-Iranian relations — but also could be seen as a premature endorsement for a new Iranian government that has yet to answer key questions about the future of its disputed nuclear program.

Obama advisers said no meeting was scheduled.

— Herald news services

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# McConnell won't back Cruz on Senate test vote

Democrats plan to restore funds for health care law

ASSOCIATED PRESS

WASHINGTON — In a break with tea party-aligned Senate conservatives, Republican leader Mitch McConnell announced Monday that he will not vote to block legislation aimed at preventing a partial government shutdown, even though Democrats intend to rewrite it to restore funds needed to keep the nation's three-year-old health care law in existence.

Referring to a bill the House passed last week, McConnell's spokesman said the Kentucky lawmaker supports the measure "and will not vote to block it, since it defends Obamacare and funds the government without increasing spending by a penny."

The spokesman, Don Stewart, added

that McConnell will vote against any Democratic attempt to restore funding for the health care law.

The announcement came shortly after Sen. Ted Cruz, R-Texas, said that anyone who votes to let the bill advance toward final passage will be choosing to allow the Democrats to restore the health care money by majority vote, one they will almost certainly win. "I think that vote disrespects our constituents," he said.

With his announcement, McConnell put himself firmly in the camp of Republicans who are adamantly opposed to any partial government shutdown, no matter the other stakes involved.

A short time later, Sen. John Cornyn, like Cruz a Texan, and second ranking in the leadership, also announced he would not seek to block the legislation. Sen. John McCain, R-Ariz., took the same position in comments to reporters. "How can I vote against a

bill that I support?" he said rhetorically.

Democrats control 54 Senate votes, meaning they need six crossover Republicans to assure the spending bill does not fall victim to a filibuster that would doom its prospects. The announcements by McConnell and McCain likely indicate they will have no difficulty in gaining the support they need.

Cruz said last week he was prepared to filibuster any legislation that restores money for the health care law, even if it meant a shutdown. In remarks on the Senate floor during the day, though, he appeared to soften his tone.

"We should not have a government shutdown and we should never, ever, ever, even discuss a default on the debt," he said. The House is expected to approve legislation this week that permits the Treasury to borrow freely for a year — preventing a first-ever default — while delaying the health care law for a year.

Earlier in the day, Cruz' battle to deny funding for the nation's three-year-old health care law got off to a shaky start when he first blocked action on unrelated items on the agenda, then quickly backed off.

"There will be time" later in the week to debate the health care issue, he told reporters.

At the same time, Senate Majority Leader Harry Reid, D-Nev., arranged for an initial test vote Wednesday on House passed-legislation that would avoid a partial government shutdown Oct. 1 while simultaneously canceling funding for the health care law.

A second key vote is set for later in the week as Democrats seek to keep the health care law intact and Cruz and other Republicans resist.

Reid said he has the votes to prevail on the health care issue.

"Any bill that defends Obama and his health care law is dead on arrival in the Senate," he said.

# Woman found dead in Colorado flooding

Vice president tries to alleviate concerns about relief efforts

ASSOCIATED PRESS

DENVER — A 79-year-old woman whose house was swept away by the Big Thompson River was found dead on the river bank, authorities said Monday, bringing to eight the death toll from the massive flooding in Colorado.

As the number of people unaccounted for dwindled to six, Vice President Joe Biden viewed the devastation from a helicopter before meeting with disaster workers.

"I promise you, I promise you, there will be help," Biden said, trying to mute concerns that a possible federal government shutdown could derail relief efforts.

The latest victim was identified as Evelyn M. Starner. Larimer County authorities said she drowned and suf-

fered blunt force trauma. Starner was previously listed as missing and presumed dead. Authorities initially said she was 80.

Starner was found Saturday. One other person was still missing and presumed dead — a 60-year-old woman from Larimer County. A man was taken off the list after walking into the sheriff's office.

The number of unaccounted for people shrank as improving communications and road access allowed authorities to contact 54 people over the weekend who had not been heard from.

The floods caused damage across 17 counties and nearly 2,000 square miles. Almost 2,000 homes were damaged or destroyed along with more than 200 miles of state highways and 50 state bridges.

The floods also are blamed for spills of about 27,000 gallons of oil in northern Colorado, including two mishaps found over the weekend, the Colorado Oil and Gas Conservation Commission said.



A Blackhawk helicopter with Vice President Biden aboard inspects flood damage Monday near Estes Park, Colo. Biden took a helicopter tour of flood damage and to survey recovery efforts.

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## Pasco Public Scoping Meeting October 1 Open House - 4 p.m. to 8 p.m.

Oral Scoping Comments: 5 p.m. to 8 p.m.

The Trac Center, 6600 Burden Boulevard, Pasco, WA

### Multiple ways to provide scoping comments:

- Mail to: Millennium Bulk Terminals EIS, c/o ICF International, 710 Second Avenue, Suite 550, Seattle, WA 98104
- Email to: [comments@millenniumbulkeisw.gov](mailto:comments@millenniumbulkeisw.gov)
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To learn more about PAD, visit [www.legsforlife.org](http://www.legsforlife.org).

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## Experts: Syria can make Nov. 1 deadline

Nerve agent parts, machines easy to destroy, they say

By MATTHEW SCHOFIELD  
*McClatchy-Tribune*

BERLIN — Syria's ability to wage war with nerve agents could be eliminated within a month, even if the total destruction of its chemical weapons program takes much longer, chemical weapons experts say.

Officials familiar with the international agreement to destroy Syria's chemical weapons have described the plan's mid-2014 deadline as "very ambitious," noting that similar efforts in nations including the U.S. and Russia took years.

But experts say ending President Bashar Assad's ability to use chemical weapons, especially the sarin nerve agent that U.N. investigators say was deployed Aug. 21 in Damascus suburbs, is not complicated and could be completed by a Nov. 1 deadline set by the Organization for the Prohibition of Chemical Weapons.

The Syrian military is thought likely to keep the chemicals to make sarin and VX, two-thirds of Syria's arsenal, separate until shortly before they are to be destroyed. Once combined, the mixture is unstable and dangerous to handle. Before they are mixed, the chemicals are far less dangerous. And the procedure is easy to destroy, said Ralf Trapp, a chemical threat consultant who was among the founders of the OPCW.

"You can drill holes, cut pipes and flanges, remove wiring, crush computer boards, fill tanks with concrete," he noted.

Disposal of the separated chemicals also is easy, he said. One, an alcohol, "can simply be poured out onto the desert to evaporate without any risk," he said.

OPCW inspectors are expected to arrive today in Syria to begin verifying a lengthy Syrian declaration of its chemical weapons program that includes the kinds of weapons it has, the quantities of those weapons and the locations where they are stored.

The OPCW said that within 30 days it intended to have inspected all of the chemical weapons facilities that Syria included in its declaration.

But the most important deadline that the organization gave the Syrian government this past week is "no later than 1 November 2013" for "the destruction of chemical weapons production and mixing/filling equipment," a goal that it met would make it next to impossible for Syria to make use of precursor chemicals to create chemical weapons.

# Popes to be canonized together in April

2 living pontiffs may attend ceremony for John, John Paul

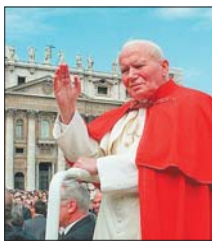
By HENRY CHU  
*Los Angeles Times*

LONDON — The pope who tried to modernize the Roman Catholic Church and the one who directed its moral force against godless communism will be officially declared saints next April, the Vatican announced Monday.

John XXIII and John Paul II are to be canonized together in an unusual double bill that could see not just one but two of their successors attend the April 27 ceremony. It would be an unprecedented event, uniting a pair of living ones, the reigning Pope Francis and the retired Pope Emeritus Benedict XVI.

Francis decided in July that the names of John XXIII and John Paul II would be "inscribed in the book of saints" at the same time, a clear signal of his personal admiration for and identification with their pontificates.

John XXIII convened the historic Second Vatican Council in the 1960s, which



Popes John XXIII, left, and John Paul II will be declared saints on April 27, Pope Francis said Monday.

instituted such reforms as Masses in the vernacular, instead of Latin, to bring the church and the gospel closer to contemporary believers. Many of those changes remain controversial, but in a lengthy, recently published interview, Francis lauded Vatican II for reviving the faith and described its modernizing work as "absolutely irreversible."

The Polish John Paul II, the first non-Italian to lead the church in more than 400 years, was beloved by Catholics the world over for his warm, personal style and his unbending opposition to Soviet communism. Many see a similarity between his populist touch and that of Francis, who wades into crowds and embraces followers with equal enthusiasm.

The December date originally set for the double canonization was pushed back to April in part to make it easier for Poles to travel to the Vatican for the ceremony after the spring thaw. When John Paul was beatified in April 2011, a milestone on the road to sainthood, more than a million pilgrims descended on Rome to celebrate.

died in 1963, Francis ditched the usual requirement that a second miracle be attributed to his posthumous intervention.

As a mark of his respect, Francis prayed at both men's tombs on the anniversary this year of John Paul II's death. Also, next April's ceremony falls on Divine Mercy Sunday, a feast day that was created by John Paul and that resonates with Francis' emphasis on communicating God's mercy and compassion.

Whether Benedict XVI, who stepped down from the papacy in February, will attend is not yet clear. He harbors deep affection for John Paul II, whom he served in important positions at the Vatican for many years. But he also declared his intention upon retiring to retreat to a life of contemplation and prayer, an attempt to defuse any tension over the presence of two living popes.

Unusual circumstances surround the canonization of both men. It has been centuries since anyone was declared a saint after death as quickly as John Paul II. When he died in 2005, mourners in St. Peter's Square chanted, "Sainthood now!"

As for John XXIII, who

## Mall shopkeepers suspect Kenyan troops in thefts

By JASON STRAZIUSO and RUKMINI CALLIMACHI  
*Associated Press*

NAIROBI, Kenya — Jewelry cases smashed. Mobile phones ripped from displays. Cash registers emptied. Alcohol stocks plundered.

Soon after the attack began on Sept. 21, Kenyan officials put a cordon around the mall, allowing only security forces and a few government personnel to pass through.

Since then, alcohol stocks from the restaurants have been depleted. One business owner at the mall said money and mobile phones were taken from bags and purses left behind in the mayhem. The owner insisted on anonymity to avoid retribution from Kenya's government.

Employees of a book shop on the mall's second floor returned to find registers yanked open and cash gone. The store's lap-

tops were also stolen. All the shop's books remained in place, said owner Paku Tsavani.

Perhaps reluctant to blame Kenyan security forces, Tsavani said he doesn't know who took his goods.

"Obviously the terrorists wouldn't steal those things, so we just don't know," Tsavani said.

Sandeep Vidyarthi went into the mall Sunday to help a relative retrieve equipment from his dental

practice. Inside, he said he passed shop after shop that had been looted, including the Rado store that sells high-end Swiss watches.

As he was leaving the mall, Vidyarthi passed a jewelry shop near the front entrance. The owner, he said, was presenting security officials with a long list of missing precious stones and high-end necklaces.

It is ironic, said the management team of one Westgate business, that store

owners must now make reports of stolen goods to the same security forces suspected of looting the thriving.

Interior Minister Joseph Ole Lenku confirmed the reports of theft Sunday in a news conference. The majority of the responders to the terrorist attack came from Kenya's military. A military spokesman did not answer repeated calls for comment.

Those responsible for looting will be prosecuted, Lenku said.

## Agencies seek public comment on proposed shipping terminal to export coal



Millennium Bulk Terminals - Longview, LLC has proposed to build and operate a shipping terminal to export coal at the site of the former Reynolds Aluminum smelter at 4029 Industrial Way, Longview, Washington.

The U.S. Army Corps of Engineers, the Washington State Department of Ecology, and Cowlitz County have determined that the proposed shipping terminal may have potentially adverse environmental impacts and will require a formal study of those potential impacts through separate but synchronized state and federal Environmental Impact Statement (EIS) processes.

The first step in conducting an EIS process is to seek public comment during a scoping period to help identify issues and concerns that should be considered in developing the state and federal EIS documents. The scoping period opened for public comment on August 16, 2013 and will close on November 18, 2013. People who wish to participate in the scoping period have multiple ways to provide comments, including online, by mail, and at public meetings where both oral and written comments can be accepted. All comments will be valued equally regardless of how they are submitted. All comments provided during this meeting will be considered by all three agencies.

**Clark County Public Scoping Meeting October 9**  
Open House - Noon to 8 p.m.  
Oral Scoping comments for the U.S. Army Corps of Engineers: 1 p.m. to 4 p.m.  
Oral Scoping comments for Cowlitz County and the Washington State Department of Ecology: 5 p.m. to 8 p.m.

**Clark County Fairgrounds**  
17402 N.E. Delfel Road, Ridgefield  
**Multiple ways to provide scoping comments:**

- Mail to: Millennium Bulk Terminals EIS, c/o ICF International, 710 Second Avenue, Suite 550, Seattle, WA 98104
- Email to: comments@millenniumbulksuiswa.gov
- Submit comments online at: www.millenniumbulksuiswa.gov
- Attend a scoping meeting

In addition to this scoping meeting, the agencies have held scoping meetings in Longview, Spokane, and Pasco, and will hold a final scoping meeting in Tacoma on October 17. Visit www.millenniumbulksuiswa.gov to learn more.

To ensure equal access, the collaborating agencies will provide auxiliary aids/services to persons with disabilities. If you need special accommodation or require documents in alternative format, please contact us at 360-993-6210. Persons with hearing or speech impairments may contact 711.

Si usted requiere este documento en un formato alternativo, favor de comunicarse a la siguiente línea directa: 360-993-6210 o TTY 711 para las personas con discapacidad de habla o pérdida de audición. (Solo servicios en inglés).

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thorized to discuss the  
quiry and spoke to The  
sociated Press on the  
ndition of anonymity.  
The arrest added to the  
mplexities of the Sept. 29

leave him paralyzed.  
Lien's wife has said he  
feared for their lives and the  
safety of their 2-year-old  
daughter and had no choice  
but to flee; Lien hasn't been

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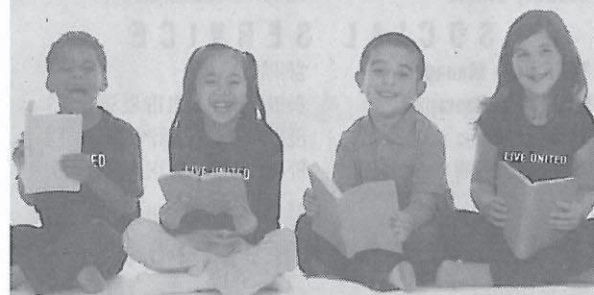
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if they can't read by  
the end of third grade.

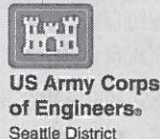


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# Agencies seek public comment on proposed shipping terminal to export coal.



Millennium Bulk Terminals – Longview, LLC has proposed to build and operate a shipping terminal to export coal at the site of the former Reynolds Aluminum smelter at 4029 Industrial Way, Longview, Washington.

The Washington State Department of Ecology, Cowlitz County, and the U.S. Army Corps of Engineers have determined that the proposed shipping terminal may have potentially adverse environmental impacts and will require a formal study of those potential impacts through separate but coordinated state and federal Environmental Impact Statement (EIS) processes.

The first step in conducting an EIS process is to seek public comment during a scoping period to help identify issues and concerns that should be considered in developing the state and federal EIS documents. The scoping period opened for public comment on August 16, 2013 and will close on November 18, 2013. People who wish to participate in the scoping period have multiple ways to provide comments, including online, by mail, and at public meetings where both oral and written comments can be accepted. All comments will be valued equally regardless of how they are submitted. All comments provided during this meeting will be considered by all three Agencies.

### Tacoma Public Scoping Meeting October 17

Open House – 4 p.m. to 8 p.m.

Oral Scoping Comments: 5 p.m. to 8 p.m.

Tacoma Convention Center, 1500 Broadway, Tacoma

Multiple ways to provide scoping comments:

- Mail to: Millennium Bulk Terminals EIS, c/o ICF International, 710 Second Avenue, Suite 550, Seattle, WA 98104
- Email to: [comments@millenniumbulkeiswa.gov](mailto:comments@millenniumbulkeiswa.gov)
- Submit comments online at: [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov)
- Attend a scoping meeting

This is the last of five scoping meetings held around the state. Previous meetings have been held in Longview, Spokane, Pasco, and Clark County. Visit [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov) to learn more.

To ensure equal access, the Agencies will provide auxiliary aids/ services to persons with disabilities. If you need special accommodation or require documents in alternative format, please contact us at 360-993-6210. Persons with hearing or speech impairments may contact 711.

Si usted requiere este documento en un formato alternativo, favor de comunicarse a la siguiente línea directa: 360-993-6210 o TTY 711 para las personas con discapacidad de habla o pérdida de audición. (Solo servicios en inglés).

# MILLENNIUM Bulk Terminals - Longview

## EIS

Environmental Impact Statement



## Agencies seek public comments about scope of environmental studies for a proposed Longview coal export terminal project

Scoping period August 16 to November 18, 2013

Local, state, and federal agencies are seeking public comments on the environmental review for a proposal by Millennium Bulk Terminals – Longview, LLC to construct and operate a coal export terminal at the site of the former Reynolds Aluminum smelter at 4029 Industrial Way, Longview, Washington.

Cowlitz County, the Washington State Department of Ecology, and the U. S. Army Corps of Engineers (Corps) have determined that the proposed coal terminal could have a significant adverse environmental impact, and will require a formal study of those potential impacts through an Environmental Impact Statement (EIS) process. The county and state will evaluate the proposal as required under the State Environmental Policy Act (SEPA). The Corps, representing the federal government, will conduct a separate, but synchronized review guided by the National Environmental Policy Act (NEPA).

Both EIS documents will provide a comprehensive and objective evaluation of potential environment impacts, reasonable alternatives, and mitigation measures that would avoid or minimize impacts. This analysis is necessary before any agency can act on any permit.



**A public scoping meeting will be held on Tuesday, September 17 at the Cowlitz County Expo Center, 1900 7th Avenue in Longview.**

The purpose of the scoping meeting is to seek public comment regarding the environmental issues that should be studied. The first scoping session for the NEPA process, hosted by the Corps, will take comments between 1 p.m. and 4 p.m. Doors open at noon. A second session for the SEPA process, hosted by Cowlitz County and Ecology, will run from 5 p.m. to 8 p.m. People who attend will be able to submit written or verbal comments to be considered by the agencies. However, people do not need to attend these meetings to submit comments during the scoping period.

**There are multiple ways to submit comments. All comments will be treated equally.**



**Email:** [comments@millenniumbulkeiswa.gov](mailto:comments@millenniumbulkeiswa.gov)  
**Online:** [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov)  
**US Postal Service:** Millennium Bulk Terminal EIS  
c/o ICF International  
710 Second Avenue, Suite 550  
Seattle, WA 98104

All of the information provided at the September 17 meeting will also be available for viewing online at [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov). The scoping comment period is open from August 16 to November 18, 2013.



**Longview Scoping Meeting, Tuesday, September 17, 2013**  
**Open House:** Noon to 8 p.m.  
**Oral Comments:** 1 p.m. to 4 p.m. and 5 p.m. to 8 p.m.  
**Location:** Cowlitz County Expo Center, 1900 7th Avenue, Longview, WA 98632



### Public Input

*An EIS involves opportunities for public input during the scoping process where the public, agencies, tribes, and organizations are asked to help identify what the Draft EIS should analyze.*

If you require this document in an alternative format or need accommodation at the scoping meeting please call (360) 993-6210 or TTY 711 for persons with speech impairments or loss of hearing.

# MILLENNIUM Bulk Terminals - Longview

# EIS

Environmental Impact Statement



Las agencias buscan comentarios públicos sobre el proyecto propuesto de terminal para exportaciones de carbón.

Período de alcance 16 agosto-18 noviembre, 2013

Agencias locales, estatales y federales buscan comentarios públicos a propósito de una propuesta de Millennium Bulk Terminals – Longview, LLC de construir y operar una terminal para exportaciones de carbón en el sitio de la antigua fundidora Reynolds Aluminum, en 4029 Industrial Way, Longview, Washington.

El Condado de Cowlitz, el Departamento de Ecología de Washington y el Cuerpo de Ingenieros de E.U. han determinado que el terminal propuesto de carbón puede tener un impacto ambiental significativamente adverso, y requerirá un estudio formal de los impactos potenciales por medio de un proceso de EIS (siglas en inglés de declaración de impacto medioambiental). El condado y el estado evaluarán la propuesta tal y como lo requiere la Ley Estatal de Política Medioambiental (State Environmental Policy Act: SEPA). El Cuerpo de Ingenieros, en representación del gobierno federal, llevará a cabo un estudio independiente de EIS, guiado por la Ley Federal de Política Medioambiental Nacional (National Environmental Policy Act: NEPA).

Ambos documentos de EIS proporcionarán una evaluación exhaustiva y objetiva de los impactos potenciales en el medioambiente, alternativas razonables y medidas de atenuación que evitarían o minimizarían los impactos. El análisis es necesario antes que cualquiera de las agencias pueda aprobar el proyecto como lo propone Millennium, aprobar con ciertas condiciones para mitigar los impactos medioambientales, o denegar la solicitud para expandir las instalaciones de Millennium Bulk Terminals de modo que pueda almacenar y exportar carbón.



**Una reunión de exploración se llevará a cabo el martes 17 de septiembre en el Centro de Exposiciones del Condado de Cowlitz, 1900 7th Avenue en Longview.**

El propósito de la reunión de exploración es buscar el comentario público con respecto a los recursos del medioambiente que deben ser estudiados, así como las posibles alternativas. La primera reunión de exploración, auspiciada por el Cuerpo de Ingenieros de E.U., recibirá comentarios entre la 1 p.m. y las 4 p.m. Las puertas abrirán al mediodía. Una segunda sesión, auspiciada por el Condado de Cowlitz y por el Departamento de Ecología de Washington, se llevará a cabo de 5 p.m. a 8 p.m. Las personas que asistan podrán presentar comentarios verbales o escritos, que serán considerados por las agencias. No obstante, no es requisito que las personas asistan a estas reuniones para presentar sus comentarios durante el periodo de reuniones de exploración.



**Hay muchas maneras de enviar comentarios, y todos los comentarios serán tratados de la misma forma.**

Por correo electrónico: [comments@millenniumbulkeiswa.gov](mailto:comments@millenniumbulkeiswa.gov)

En línea en: [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov)

O enviados por servicio postal: Millennium Bulk Terminal EIS

c/o ICF International

710 Second Avenue, Suite 550

Seattle, WA 98104



## Unput Pública

*Una EIS implica oportunidades de participación pública en el proceso de determinación del alcance, donde el público, las agencias, las tribus y las organizaciones se les pide para ayudar a identificar cuáles son los proyectos de EIS deben analizar.*

Si usted requiere este documento en un formato alternativo, favor de comunicarse a la siguiente línea directa: 360-993-6210 o TTY 711 para las personas con discapacidad de habla o pérdida de audición. (Solo servicios en inglés).

Toda la información compartida en la reunión del 17 de septiembre también estará disponible para su consulta en línea en [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov). El periodo de comentarios está abierto del 16 de agosto al 18 de noviembre de 2013. Los comentarios que se reciban fuera de este periodo de tiempo no serán considerados en EIS.



**Reunión de exploración Longview, Martes 17 de septiembre de 2013**

**Jornada de puertas abiertas: Noon to 8 p.m.**

**Comentarios públicos: 1 p.m. to 4 p.m. and 5 p.m. to 8 p.m.**

Cowlitz County Expo Center, 1900 7th Avenue, Longview, WA 98632

**Agency Scoping Meeting Attendees**

**Millennium Bulk Terminals–Longview EIS  
State Agency Scoping Meeting**

**Sponsored by the WA Department of Ecology**

<b>Location:</b>	Department of Ecology 300 Desmond Drive SE Lacey, WA 98503
<b>Date:</b>	October 23, 2013
<b>Time:</b>	1:00pm

**Meeting Attendees:**

<b>WA Department of Ecology:</b> <ul style="list-style-type: none"> <li>• Paula Ehlers</li> <li>• Diane Butorac</li> <li>• Josh Baldi</li> <li>• Alice Kelly</li> <li>• Iloba Odum</li> </ul>	<b>WA Department of Natural Resources:</b> <ul style="list-style-type: none"> <li>• Karen Arnold</li> <li>• Cyrilla Cook</li> <li>• Megan Duffy</li> <li>• Matt Niles</li> <li>• Kristin Swenddal</li> </ul>
<b>ICF International:</b> <ul style="list-style-type: none"> <li>• Linda Amato</li> <li>• Chris Soncarty</li> </ul>	<b>WA Department of Transportation:</b> <ul style="list-style-type: none"> <li>• Chris Herman</li> <li>• Ahmer Nizam</li> </ul>
<b>WA Department of Archaeology and Historic Preservation:</b> <ul style="list-style-type: none"> <li>• Rob Whitlam</li> </ul>	<b>WA Utilities and Transportation Commission:</b> <ul style="list-style-type: none"> <li>• Kathy Hunter</li> </ul>
<b>WA Department of Commerce:</b> <ul style="list-style-type: none"> <li>• Anthony Boscolo</li> </ul>	<b>WA Department of Health:</b> <ul style="list-style-type: none"> <li>• Mark Soltman</li> </ul>
<b>WA Department of Fish &amp; Wildlife:</b> <ul style="list-style-type: none"> <li>• Justin Allegro</li> <li>• Steve West</li> </ul>	<b>Southwest Clean Air Agency:</b> <ul style="list-style-type: none"> <li>• Wes Safford</li> </ul>

**Tribal Scoping Letter and List of Recipients**

Tribes of Washington / (Out of State)

Tribes	Chair First Name	Chair Last Name	Street/Box	City/State/Zip
Chehalis Confederated Tribes	David	Burnett	420 Howanut Road	Oakville, WA 98568
Colville Confederated Tribes	Michael	Finley	P.O. Box 150	Nespelem, WA 99155
Cowlitz Indian Tribe	William	Iyall	1055 9th Avenue Suite B	Longview, WA 98632
Hoh Tribe	Maria	Lopez	P.O. Box 2196	Forks, WA 98331
Jamestown S'Klallam Tribe	Ron	Allen	1033 Old Blyn Highway	Sequim, WA 98382
Kalispel Tribe	Glen	Nenema	P.O. Box 39	Usk, WA 99180
Lower Elwha Klallam Tribe	Frances	Charles	2851 Lower Elwha Road	Port Angeles, WA 98363
Lummi Nation	Timothy	Ballew II	2665 Kwina Road	Bellingham, WA 98226
Makah Tribe	Timothy J.	Greene, Sr.	P.O. Box 115	Neah Bay, WA 98357
Muckleshoot Tribe	Virginia	Cross	39015 172nd Avenue SE	Auburn, WA 98092
Nisqually Tribe	Cynthia	Iyall	4820 She-Nah-Num Drive SE	Olympia, WA 98513
Nooksack Tribe	Bob	Kelly	4979 Mount Baker Hwy, Suite F	Deming, WA 98244
Port Gamble S'Klallam Tribe	Jeromy	Sullivan	31912 Little Boston Road NE	Kingston, WA 98346
Puyallup Tribe	Herman	Dillon	3009 East Portland Avenue	Tacoma, WA 98404
Quileute Nation	Tony	Foster	P.O. Box 279	La Push, WA 98350
Quinault Nation	Fawn	Sharp	P.O. Box 189	Taholah, WA 98587
Samish Nation	Tom	Wooten	P.O. Box 217	Anacortes, WA 98221
Sauk-Suiattle Tribe	Norma	Joseph	5318 Chief Brown Lane	Darrington, WA 98241
Shoalwater Bay Tribe	Charlene	Nelson	P.O. Box 130	Tokeland, WA 98590
Skokomish Tribe	Charles "Guy"	Miller	North 80 Tribal Center Road	Skokomish Nation, WA 98584
Snoqualmie Tribe	Carolyn	Lubenau	P.O. Box 969	Snoqualmie, WA 98065
Spokane Tribe	Rudy	Peone	P.O. Box 100	Wellpinit, WA 99040
Squaxin Island Tribe	Dave	Lopeman	10 SE Squaxin Lane	Shelton, WA 98584
Stllaguamish Tribe	Shawn	Yanity	P.O. Box 277	Arlington, WA 98223-0277
Suquamish Tribe	Leonard	Forsman	P.O. Box 498	Suquamish, WA 98392-0498
Swinomish Tribe	Brian	Cladoosby	11404 Moorage Way	La Conner, WA 98257
Tulalip Tribes	Melvin	Sheldon, Jr.	6406 Marine Drive	Tulalip, WA 98271
Upper Skagit Tribe	Jennifer	Washington	25944 Community Plaza	Sedro-Woolley, WA 98284
Yakama Nation	Harry	Smiskin	P.O. Box 151	Toppenish, WA 98948

**OUT OF STATE TRIBES**

Coeur d'Alene Tribe	Chief J.	Allan	850 A Street; P.O. Box 408	Plummer, ID 83851
Grand Ronde Confederated Tribes	Reynold L.	Leno	9615 Grand Ronde Road	Grand Ronde, OR 97347
Nez Perce Tribe	Silas C.	Whitman	P.O. Box 305	Lapwai, ID 83540
Umatilla Confederated Tribes	Les	Minthorn	46411 Timine Way	Pendleton, OR 97801
Warm Springs Confederated Tribes	Stanley	Smith	1233 Veterans Street	Warm Springs, OR 97761





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August 19, 2013

The Honorable William Iyall  
Cowlitz Indian Tribe  
1055 9<sup>th</sup> Avenue – Suite B  
Longview, WA 98632

Dear Chairperson Iyall:

The Washington State Department of Ecology (Ecology), Cowlitz County, and the U.S. Army Corps of Engineers are Co-Lead Agencies conducting an environmental impact statement (EIS) process for a coal export terminal proposed by Millennium Bulk Terminals-Longview, LLC (Millennium) in Cowlitz County. This is a similar process to the analysis of the Gateway Pacific Terminal project at Cherry Point near Bellingham which began almost a year ago but is a separate proposal and EIS process.

We are just beginning the scoping phase of the Millennium EIS and invite you to provide comments on what the EIS for the Millennium Bulk Terminals-Longview project should analyze. The scoping period begins August 16, 2013, and ends November 18, 2013. In addition to the opportunities for providing comments as described below, direct government-to-government consultation can be arranged if requested.

Millennium proposes to build a coal export terminal at the site of the former Reynolds Aluminum smelter near Longview in Cowlitz County. The proposed coal terminal would cover approximately 190 acres and be capable of receiving coal by rail, stockpiling and blending coal on site, and loading coal by conveyor onto ships for export. The proposed terminal would handle the export of up to 44 million metric tons of coal per year.

The Co-Lead Agencies will consider all comments regarding the scope of the EIS, and determine what should be included in the scope. The Co-Lead Agencies have the responsibility to ensure that these proposals receive objective and thorough review in the EIS process, consistent with the requirements of the State Environmental Policy Act (SEPA) and its related regulations, as well as the requirements associated with the National Environmental Policy Act (NEPA).

Scoping is an important step. It is during the scoping process that tribal governments, other agencies and organizations, and the public are invited to comment on what should be covered in the EIS document and in what detail, to include: reasonable range of alternatives; potentially affected resources (e.g., stormwater, wetlands, air emissions, noise, traffic) and the extent of analysis for those resources; significant unavoidable adverse impacts; and measures to avoid, minimize and/or mitigate effects of the proposals.

As mentioned earlier, the 95-day scoping period begins August 16, 2013, and ends on November 18, 2013. Scoping comments can be submitted by any of the methods listed below.

- Send an email to: [comments@millenniumbulkeiswa.gov](mailto:comments@millenniumbulkeiswa.gov)
- Submit comments online at [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov)
- US Mail to: ICF International, 710 Second Ave, Suite 550, Seattle, WA 98104
- Attend a scoping meeting at one of five locations statewide. Meetings will be held from 5:00 p.m. to 8:00 p.m. at:
  - September 17, Cowlitz Expo Center, Longview
  - September 25, Spokane Convention Center, Spokane
  - October 1, The Trac Center, Pasco
  - October 9, Clark County Fairgrounds, Clark County
  - October 17, Tacoma Convention Center, Tacoma

The Co-Lead Agencies have developed a website that includes current information about the proposed projects, the environmental review process, and how to participate during the comment periods. The website can be accessed at [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov). Information is also available on Ecology's website at <http://www.ecy.wa.gov/geographic/millennium/index.html>.

Following scoping, a draft EIS will be prepared by a contractor under the direction of the Co-Lead Agencies, according to the results of the scoping process. The purpose of an EIS is to provide the public and agency decision makers with information on likely adverse effects of the proposed project, as well as reasonable alternatives and measures to reduce those effects.

A draft EIS will take many months to prepare. When available, it will be broadly announced and circulated so that tribes, other agencies, and the public have an opportunity to comment on its content, analysis, and accuracy. Public hearings will also occur during the public review of the draft EIS. The Co-Lead Agencies will consider and respond to public comments in the final EIS.

If you have any questions or would like to arrange government-to-government consultation, please contact Sally Toteff, Ecology Southwest Regional Director, at (360) 407-6307 or [sally.toteff@ecy.wa.gov](mailto:sally.toteff@ecy.wa.gov).

Sincerely,



Maia D. Bellon  
Director

cc: Cowlitz Indian Tribe Natural Resources Director  
Sally Toteff, Ecology  
Tom Laurie, Executive Advisor for Tribal & Environmental Affairs

**Scoping Meeting Display Boards**

# Millennium Bulk Terminals-Longview Scoping Meeting

**Open House: 12:00 pm – 8:00 pm**

**NEPA Public Comment Session: 1:00 pm – 4:00 pm**

**SEPA Public Comment Session: 5:00 pm – 8:00 pm**

At this meeting, you can:

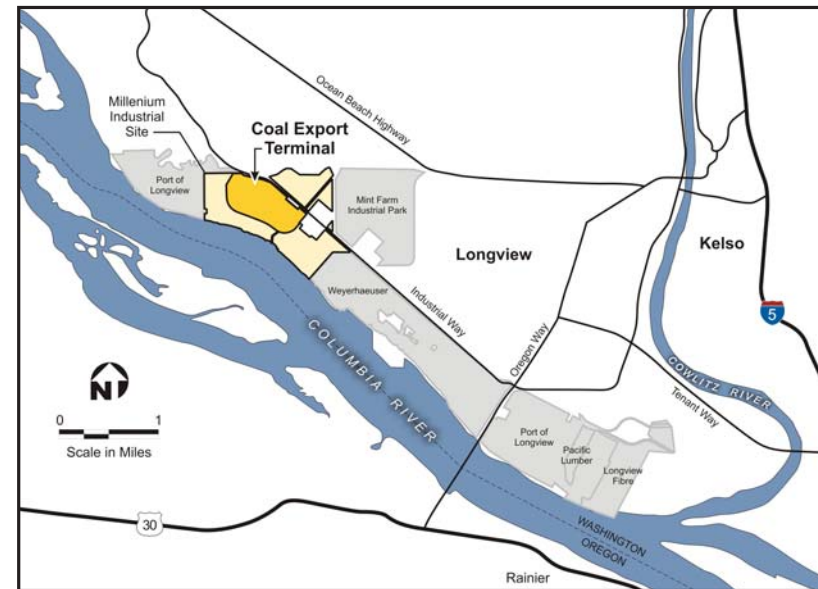
- Review displays about the proposal and the EIS process
- Talk to team members
- Provide written and/or verbal comments

## Scoping Overview

- Public input is a key part of developing an EIS
- Scoping is the first step in the EIS process; it's used to identify potential issues to be studied in the EIS
- Public input is solicited to identify potentially impacted environmental resources, alternatives, and measures to offset impacts
- Lead Agencies will consider the scoping comments and decide the "scope" of what each EIS will evaluate

## Applicant's Stated Purpose

1. Make use of existing rail infrastructure (freight corridors) and an efficient, direct shipping route to Asia
2. Reuse and redevelop an existing industrial terminal into an American Pacific Coast export terminal in Cowlitz County capable of exporting up to 44 million metric tons of coal annually to meet international and domestic demand



*The Millennium Bulk Terminals – Longview site was formerly an aluminum smelter (operated between the 1940s and 2000).*

## Applicant's Proposal: Layout and Operations

- Project will cover approximately 190 acres of a 540 acre site
- Final build-out capacity: 44 million metric tons of coal a year
- Includes coal handling and storage area, 2 new docks, rail loop
- 730 ships a year
- Rail routes to and from the facility have not been identified



*Millennium Bulk Terminals-Longview, LLC proposes to construct and operate an export shipping terminal for receiving, stockpiling, and transferring coal to cargo ships.*

# Possible Rail Routes in Washington State

*Rail routes for the proposal have not been identified*





## Why an Environmental Impact Statement?

- Millennium Bulk Terminals – Longview, LLC proposes to construct and operate a shipping terminal to export coal in Cowlitz County
- Under National Environmental Policy Act (NEPA) regulations, an environmental impact statement (EIS) is necessary if a proposal is likely to significantly affect the quality of the human environment
- Under the State Environmental Policy Act (SEPA), an EIS is necessary if a proposal may result in significant adverse environmental impacts under state regulations
- Cowlitz County, the Washington Department of Ecology (Ecology), and the U.S. Army Corps of Engineers (Corps) will be using a synchronized process to complete environmental reviews that meet federal and state requirements

# SEPA EIS Process General Overview



The Final EIS is used to inform the Lead Agencies

**Department of Ecology and Other State Agencies' Decisions**

*Ecology's Water Quality Certification, Department of Natural Resources' state-owned aquatic lands lease, and others.*

**Cowlitz County Decisions**

*Decisions on development permits and other county-level permits related to site development.*

## Typical SEPA study areas include:

Aesthetics

Air

Animals

Earth

Energy and Natural  
Resources

Environmental Health

Historic and Cultural  
Preservation

Housing

Land and Shoreline Use

Light and Glare

Plants

Public Services

Recreation

Transportation

Utilities

Water: Surface,  
Ground, and Run Off  
(Stormwater)

Wetlands

# Regulatory Authority

## U.S. Army Corps of Engineers

### Regulatory Authority and Associated Approval/Permits

#### Section 404 of the Clean Water Act

Discharge of dredged or fill material into waters of the U.S.

#### Section 10 of the Rivers and Harbors Act

Work or structures in or over navigable waters

### Following Completion of NEPA Review

#### The Corps issues a Record of Decision (ROD) on:

- Environmental Impacts
- Alternatives
- Mitigation Measures
- Permit Decisions

# NEPA EIS Process General Overview



## Typical NEPA study areas include:

Air Quality

Archaeological,  
Cultural, and Historic  
Resources

Energy

Environmental Justice

Fisheries

Floodplains

Hazardous Materials

Land Use

Noise and Vibration

Parks and Recreation

Socioeconomics

Soils and Geology

Transportation

Utilities

Vegetation

Visual Resources

Water Resources

Wetlands

Wildlife, including  
Threatened and  
Endangered Species

## **We Want Your Input On:**

- Potentially affected resources and the extent of study and analysis needed to understand each potential impact
- Measures to avoid, minimize, and mitigate (offset) effects of the proposal
- A reasonable range of alternatives, including alternative sites and project designs

# How to Provide Comments

**Public Scoping Comment Period:  
August 16, 2013 through November 18, 2013**

**Online comment form via the website:** [www.millenniumbulkeiswa.gov](http://www.millenniumbulkeiswa.gov)

**Email:** [comments@millenniumbulkeiswa.gov](mailto:comments@millenniumbulkeiswa.gov)

**Postal Service:**

Millennium Bulk Terminals Longview EIS  
c/o ICF International  
710 Second Avenue, Suite 550  
Seattle, WA 98104

**Five Scoping Meetings:** Longview, Spokane, Pasco, Clark County, and Tacoma



