

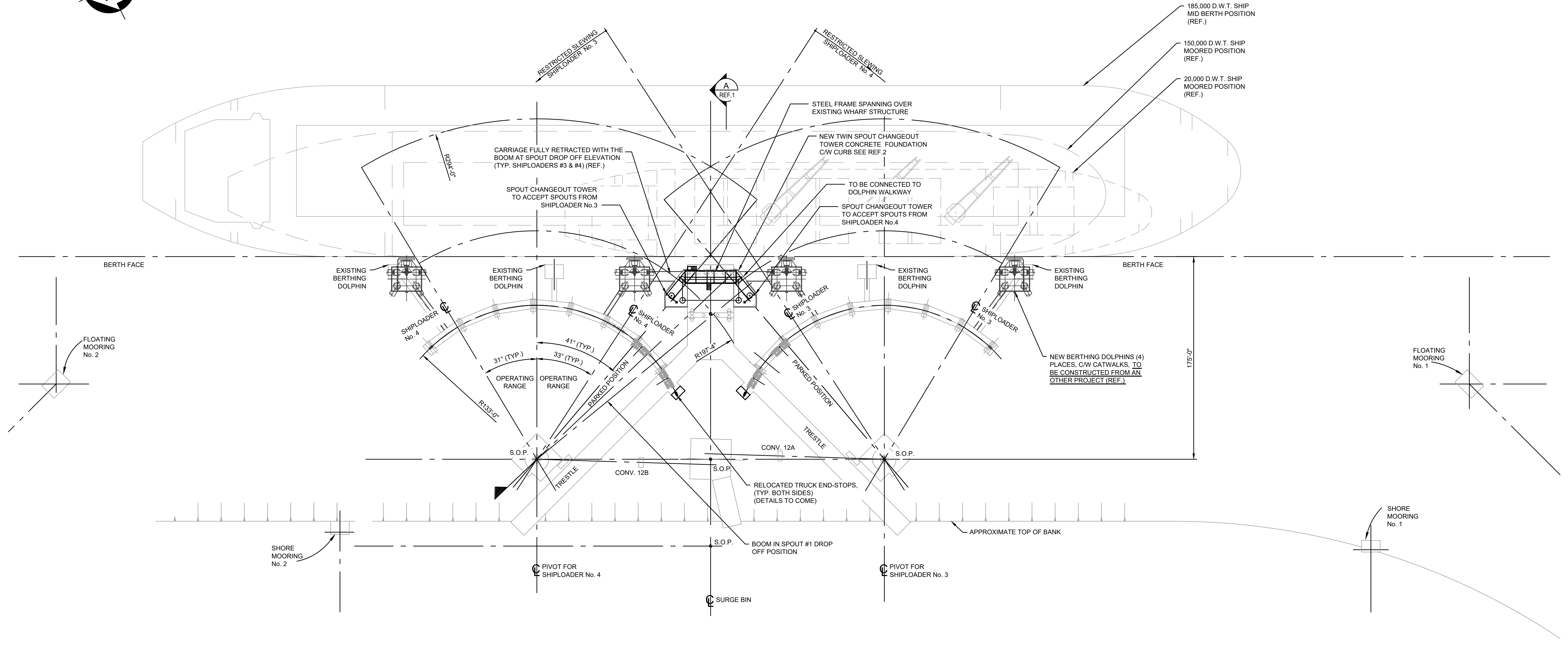
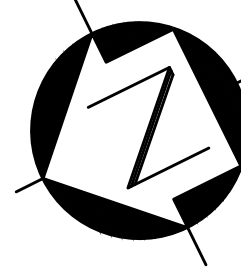
New Cargo Export Project

Drawing Package #2

VFPA PER Checklist Review - Drawing Requirements
New Cargo Export Project - Category C

Study/Plan	Requirements	Drawing Package #	Drawing Package Page
Section 3: Drawing Requirements			
Marine Structures	Site plan specific to proposed marine works only. Identify existing marine structures and those intended to be removed or relocated or will be impacted (e.g. storm water outfall impacted by rip rap placement).	Drawing Package #2	<u>Marine Structures</u> Shiploading Spout Changeout System - GA: 85690-D0300-0000, -0001; Page 4 and 5 Shiploading Spout Changeout System - Plan & Section: 85690-D0310-0120; Page 6 Berth 2 Seismic Upgrades: Full Retrofits - Plan: 19899-100-SK-1101; Page 7 Berth 2 Seismic Upgrades: Full Retrofits - Sections: 19899-100-SK-1102, -1103; Page 8 and 9 Berth 2 Ground Improvements Plan - GA: 19899-100-SK-1104; Page 10 Berth 2 Ground Improvements Plan -Section - GA: 19899-100-SK-1105; Page 11 Berth 2 Retrofits Surge Bin Concepts: 19899-100-SK-1106; Page 12 Berth 2 Retrofits Conveyor 12 A/B Concepts: 19899-100-SK-1107; Page 13 Berth 2 Retrofits Shiploader Pivot Concepts: 19899-100-SK-1108; Page 14 Berth 2 Retrofits Shiploader Quadrant Rail Concepts: 19899-100-SK-1109; Page 15 Berth 2 Retrofits Trestle and Wharfhead Concepts: 19899-100-SK-1110; Page 16
	Dimensions, and cross-sections of front, rear and two sides of proposed marine structures including dolphins, piles, docks, piers, gangways, floats, fenders, bollards, rip rap, navigational lighting, navigation aids, ranges, dredging		Shiploading Spout Changeout System - GA: 85690-D0300-0000, -0001; Page 4 and 5 Design vessels for potash are smaller than the existing maximum design vessel size for the berth.
Dimensions and characteristics of proposed materials.	Existing Utilities - Site Plan: 88200-D0007-1110; Page 19 Proposed Utilities - Site Plan & GA: 88200-D0007-1210 to -1216; Page 19 to Page 26		
Structures in relation to the tidal Higher High Water and Lower Low Water lines including water depth.	Paving and Grading Site Plan: 88305-D0006-0020; Page 18		
Plan of proposed modifications to existing dock facility, if applicable, to include location and SWL of mooring securing points.	Potash/Coal Treatment System GA: 86902-D0000-0010; Page 27 Potash Treatment System GA: 86903-D0000-0010; Page 28 Potash Collection System and Ocean Discharge: 86903-D0000-0100; Page 29		
Confirm the design vessel (maximum size that can be accommodated) at the berths on the plans.	All connections will be on site; no new connections to utilities required. For details of connections to onsite systems reference: Proposed Utilities - Site Plan & GA: 88200-D0007-1210 to -1216; Page 19 to Page 26		
Lot Grading and Utilities	Separate plans showing existing and proposed utilities.		Not Applicable
	Lot grading plan showing existing/proposed paving and drainage. Separate to two plans if required for clarity.		Acknowledged
	Note that oil/grit/water separators are required to be included as part of site storm water collection.		
	Proposed service connections to utilities or systems (water, sewer, storm water, power, gas), both above and below ground.		
Provide written confirmation of which other authorities or jurisdictions will need to provide consent or conduct works to establish connections to utilities, and confirmation that capacity exists within those 3rd party networks.			
The Applicant is responsible for location of all existing utilities. the port authority will provide known utility information, but location of buried utilities must be confirmed by the applicant.			
Lighting Plan	Lighting shown on the site plan for all proposed exterior lighting including the location, type of bulbs, orientation, and level of illuminance.	Lighting plan description provided in VFPA PER Application Report; Section 3.2.3.4. Detailed drawings to be provided with Building Permit Application	
	For further information, please review the Port Authority's Lighting Guideline, available at: https://www.portvancouver.com/permitting-and-reviews/per/project-and-environment-review-applicant/guidelines/	Acknowledged	
Parking & Access	Widths of proposed roadways and driveways.	Paving and Grading Site Plan: 88305-D0006-0020; Page 18	
	Dimensions of maneuvering areas including turning radii.	Westshore site parking and access is existing and does not require any changes to facilitate the Project operations. Existing design has accounted for access and use of industrial equipment of similar size as equipment that will be used for the Project construction and operation . Additional temporary contractor parking will be provided on site (refer to Drawing Package #1 - Figure 4: Project Construction Staging Areas and Contractor Parking; Page 7).	
	Typical cross sections and proposed grades of all streets, and details of curbs, gutters, sidewalks, and other improvements.	Not Applicable	
Rail	Existing and proposed rail tracks, switches, and other associated rail works.	New Spur Track: CT-002; Page 31 New Spur Track Plan & Profile: CT-101, -102, -103; Page 32, 33 and 34 There are no changes to offsite rail.	
	Description of the rail operations expected, and how rail cars are delivered to the site and managed while on the site.	VFPA PER Application Report	

Marine Structures



MODIFICATIONS TO EXISTING BERTH 2 & SHIPLOADERS No.3 & No.4 - PLAN
1"=40'-0"

FOR PERMIT

PRELIMINARY
NOT FOR CONSTRUCTION

REF.	DWG. NUMBER	DESCRIPTION	No.	YYYY-MM-DD	DESCRIPTION	DRAWN	DWG. CHECK	DESIGN	DESIGN CHECK	DISC. APPROVAL	PROJ. APPROVAL
					ISSUED FOR INFORMATION	JRM				PMD	AJK
					ISSUED FOR REVIEW	JRM				PMD	AJK
					UPDATED SPOUT TOWER FOUNDATION DESCRIPTION	SJM	JRM			PMD	AJK
					ISSUED FOR USE - STAGE 2 STUDY	JRM	JRM			PMD	AJK
					ISSUED FOR REVIEW	JRM	JRM			PMD	AJK
					ISSUED FOR REVIEW	JRM	JRM			PMD	AJK
					RE-ISSUED FOR STAGE 1 REVIEW	JRM	JRM			PMD	AJK
					ISSUED FOR STAGE 1 REVIEW	JRM	JRM			PMD	AJK
2	85690-D0310-0120	SHIPLOADER SPOUT TOWER FOUNDATION - PLAN & SECTION									
1	85690-D0300-0001	BERTH 2 SHIPLOADING SPOUT CHANGEOUT SYSTEM G.A. - SECTION									
REF.	DWG. NUMBER	DESCRIPTION	No.	YYYY-MM-DD	DESCRIPTION	DRAWN	DWG. CHECK	DESIGN	DESIGN CHECK	DISC. APPROVAL	PROJ. APPROVAL
REFERENCE DRAWINGS / DESIGN STANDARDS						ISSUES / REVISIONS					

CWA

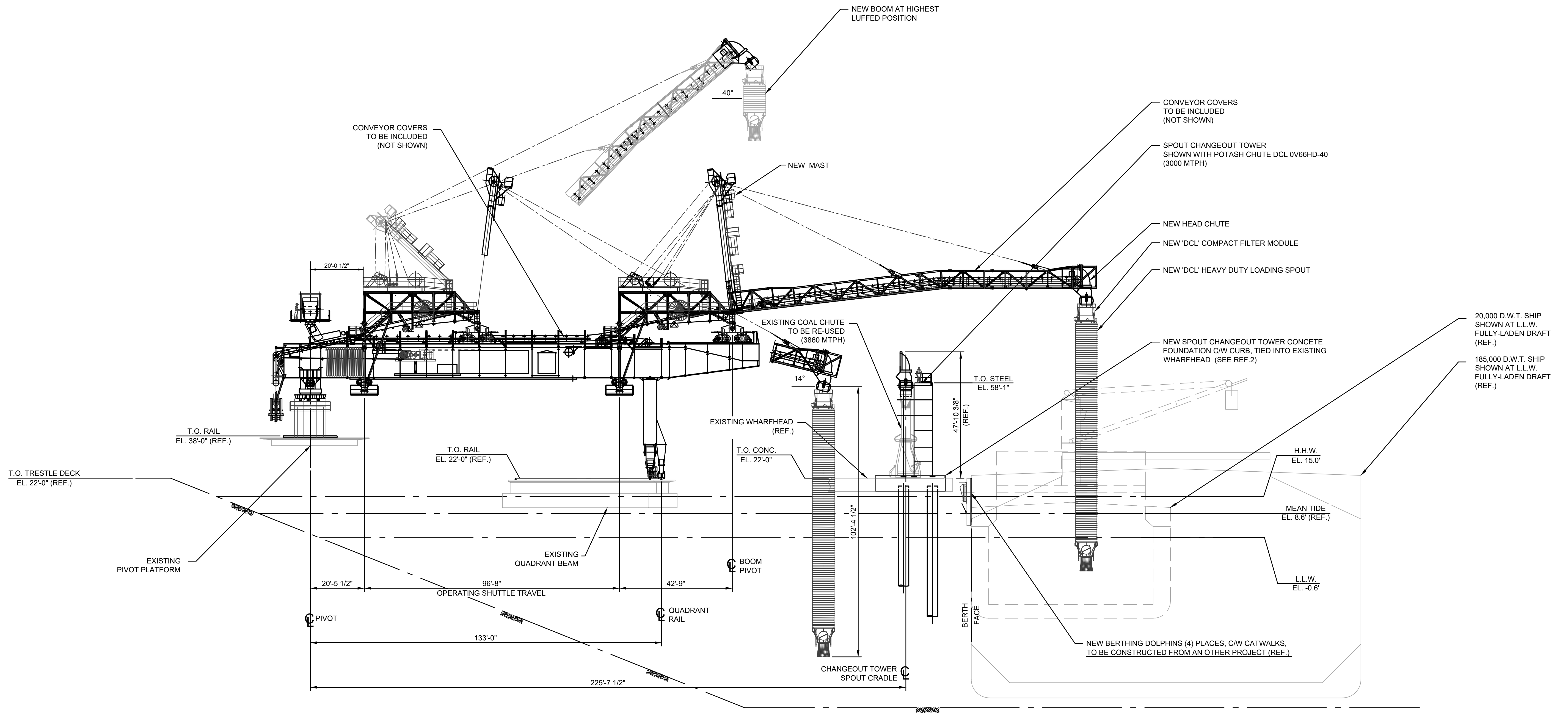
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WestshoreTerminals

CWA PROJECT NUMBER: 19899

NEW CARGO STUDY
BERTH 2 SHIPLOADING SPOUT CHANGEOUT SYSTEM G.A. - PLAN

85690-D0300-0000 **P8**



SHIPLOADER & SPOUT CHANGEOUT TOWER WITH CARRIAGE FULLY EXTENDED - SECTION A REF.1
SCALE 1"=20'-0"

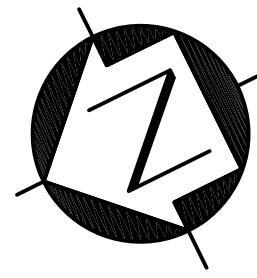
FOR PERMIT

PRELIMINARY
NOT FOR CONSTRUCTION

REF.	DWG. NUMBER	DESCRIPTION	No.	YYYY-MM-DD	DESCRIPTION	DRAWN	DWG. CHECK	DESIGN	DESIGN CHECK	DISC. APPROVAL	PROJ. APPROVAL
		REFERENCE DRAWINGS / DESIGN STANDARDS			ISSUES / REVISIONS						
			P6	2021-06-25	ISSUED FOR INFORMATION	SEC		JRM		PMD	AJK
			P5	2021-06-16	ISSUED FOR REVIEW	SEC		JRM		PMD	AJK
			P4	2020-12-15	ISSUED FOR USE - STAGE 2 STUDY	JRM		JRM		PMD	AJK
			P3	2020-11-27	ISSUED FOR REVIEW	JRM		JRM		PMD	AJK
2	85690-D0310-0120	SHIPLOADER SPOUT TOWER FOUNDATION - PLAN & SECTION	P2	2020-11-06	ISSUED FOR REVIEW	JRM		JRM		PMD	AJK
1	85690-D0300-0000	BERTH 2 SHIPLOADING SPOUT CHANGEOUT SYSTEM G.A. - PLAN	P1	2020-07-17	RE-ISSUED FOR STAGE 1 REVIEW	JRM		JRM		PMD	AJK

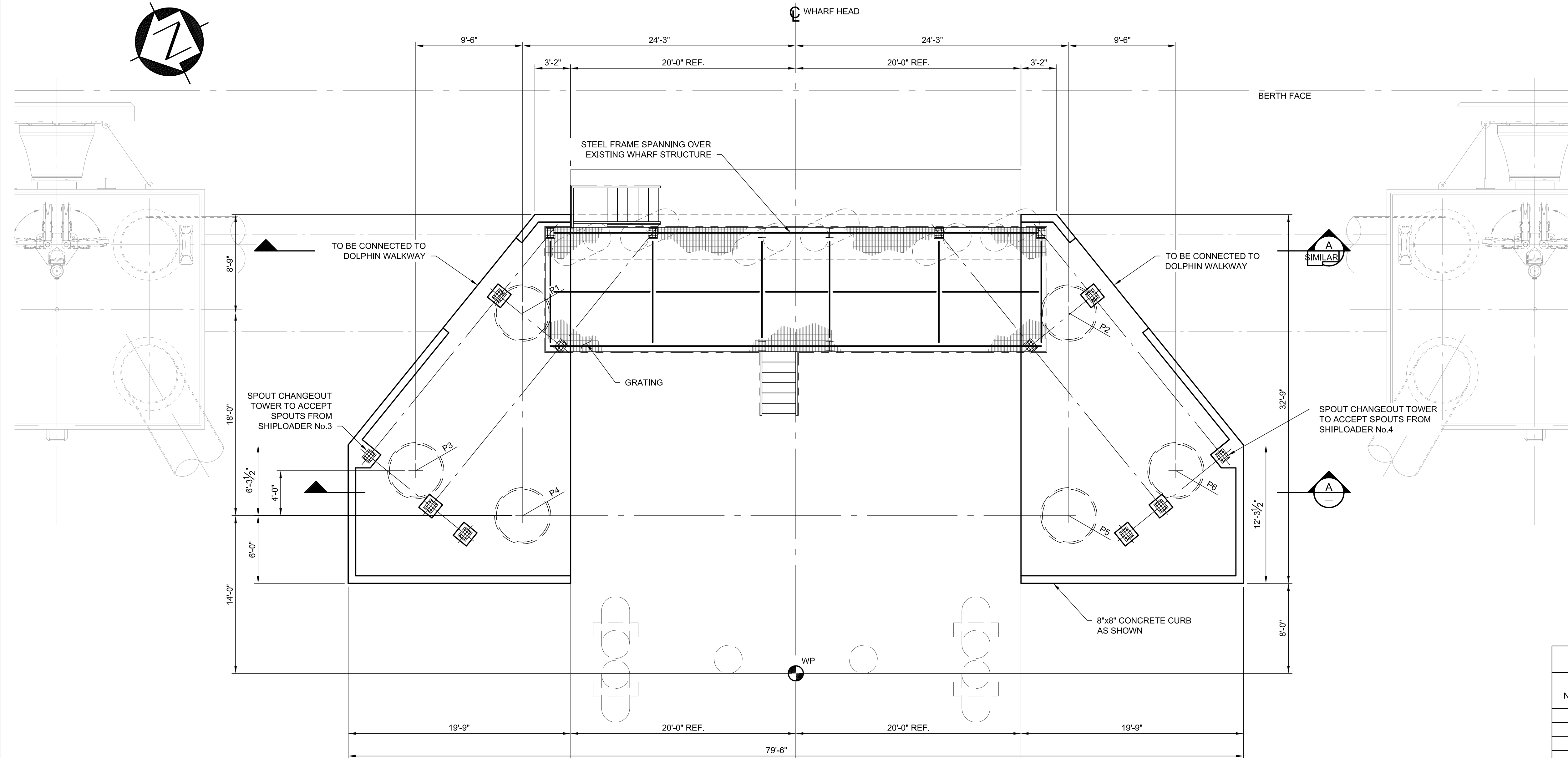
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CWA PROJECT NUMBER: 19899
NEW CARGO STUDY
BERTH 2 SHIPLOADING SPOUT CHANGEOUT SYSTEM G.A. - SECTION
85690-D0300-0001 P6



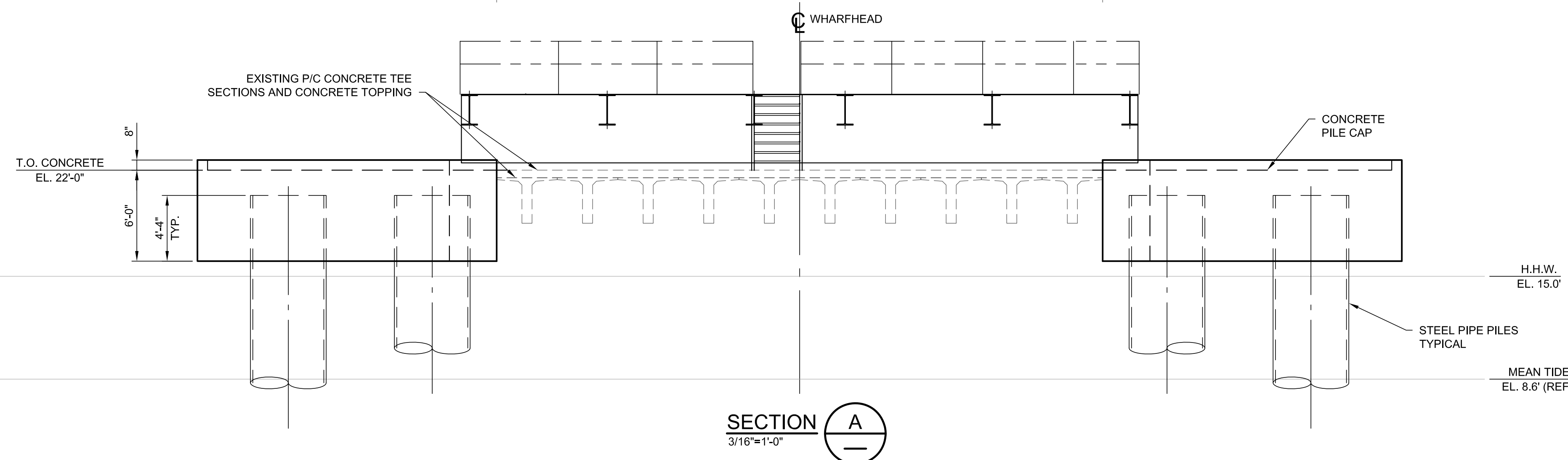
NOTES

- 1. ALL DIMENSIONS FOR THE EXISTING STRUCTURE SHOULD BE VERIFIED BY FIELD MEASUREMENT BEFORE CONSTRUCTION.
- 2. THE EXISTING WHARFHEAD STRUCTURE IS ASSUMED IN TACT, NOT DAMAGED, AND IN GOOD CONDITION, I.E. NO CAPACITY REDUCTION DUE TO THE CORROSION HAS BEEN CONSIDERED. TO BE CONFIRMED BY A CONDITION INSPECTION AT DETAILED DESIGN PHASE.
- 3. CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE MINIMUM 45MPa.



PLAN - SPOUT TOWER FOUNDATIONS
3/16"=1'-0"

PILE SCHEDULE							
PILE NUMBER	STEEL PIPE PILE	VERTICAL / BATTER ANGLE	CUT-OFF ELEVATION	ESTIMATED TIP ELEVATION	CUT-OFF ALLOWANCE	ESTIMATED TOTAL LENGTH	COATED LENGTH
P1	60"Ø x 1 7/8"	VERTICAL	21.00'	-258.00'	2.00'	280.00'	30.00'
P2							
P3							
P4							
P5							
P6	60"Ø x 1 7/8"	VERTICAL	21.00'	-258.00'	2.00'	280.00'	30.00'



SECTION A
3/16"=1'-0"

FOR PERMIT
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NOT FOR CONSTRUCTION

REF.	DWG. NUMBER	DESCRIPTION	No.	YYYY-MM-DD	DESCRIPTION	DRAWN	DWG. CHECK	DESIGN	DESIGN CHECK	DISC. APPROVAL	PROJ. APPROVAL



CWA PROJECT NUMBER: 19899

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NEW CARGO STUDY
SHIPLoader SPOUT TOWER
FOUNDATION PLAN & SECTION

85690-D0310-0120

P5

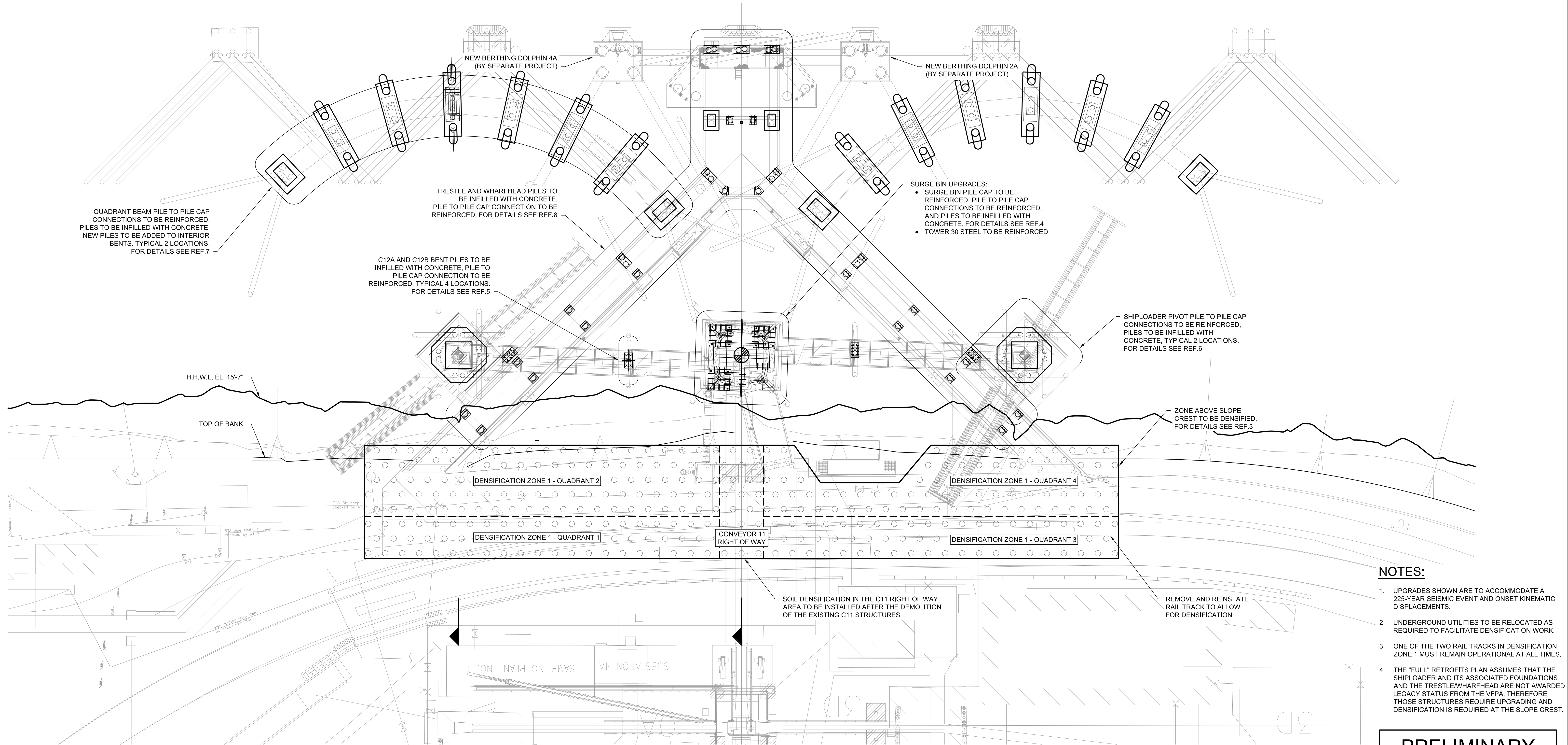
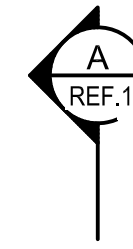
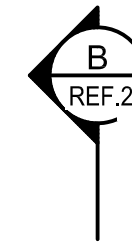
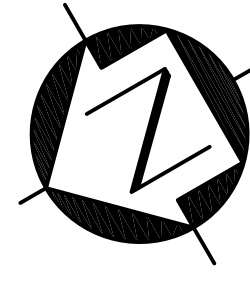
DRAWN BY: HRS

SCALE: NOTED

ACAD FILENAME: 85690-D0310-0120

REV.

* HAND INITIALS ON FILE



- NOTES:**
- UPGRADES SHOWN ARE TO ACCOMMODATE A 225-YEAR SEISMIC EVENT AND ONSET KINEMATIC DISPLACEMENTS.
 - UNDERGROUND UTILITIES TO BE RELOCATED AS REQUIRED TO FACILITATE DENSIFICATION WORK.
 - ONE OF THE TWO RAIL TRACKS IN DENSIFICATION ZONE 1 MUST REMAIN OPERATIONAL AT ALL TIMES.
 - THE "FULL" RETROFITS PLAN ASSUMES THAT THE SHIPLOADER AND ITS ASSOCIATED FOUNDATIONS AND THE TRESTLE/WHARFHEAD ARE NOT AWARDED LEGACY STATUS FROM THE VFPA. THEREFORE THOSE STRUCTURES REQUIRE UPGRADING AND DENSIFICATION IS REQUIRED AT THE SLOPE CREST.

PRELIMINARY
NOT FOR CONSTRUCTION

PLAN
1" = 25'-0"

FOR PERMIT

8	19899-100-SK-1110	BERTH 2 RETROFITS - TRESTLE AND WHARFHEAD CONCEPTS																					
7	19899-100-SK-1109	BERTH 2 RETROFITS - SHIPLOADER QUADRANT BEAM CONCEPTS																					
6	19899-100-SK-1108	BERTH 2 RETROFITS - SHIPLOADER PIVOT CONCEPTS																					
5	19899-100-SK-1107	BERTH 2 RETROFITS - CONVEYOR 12A/B CONCEPTS																					
4	19899-100-SK-1106	BERTH 2 RETROFITS - SURGE BIN CONCEPTS																					
3	19899-100-SK-1104	BERTH 2 GROUND IMPROVEMENTS - PLAN - GENERAL ARRANGEMENT																					
2	19899-100-SK-1103	BERTH 2 SEISMIC UPGRADES - FULL RETROFITS - SECTIONS - SHEET 2	P2	2021-08-31	ISSUED FOR INFORMATION					DJC													
1	19899-100-SK-1102	BERTH 2 SEISMIC UPGRADES - FULL RETROFITS - SECTIONS - SHEET 1	P1	2021-06-28	ISSUED FOR VFPA REVIEW					CPL													
REF.	DWG. NUMBER	DESCRIPTION	No.	YYYY-MM-DD	DESCRIPTION	ISSUES / REVISIONS				DRAWN	DWG. CHECK	DESIGN	DESIGN CHECK	DISC. APPROVAL	PROJ. APPROVAL								
REFERENCE DRAWINGS / DESIGN STANDARDS																							

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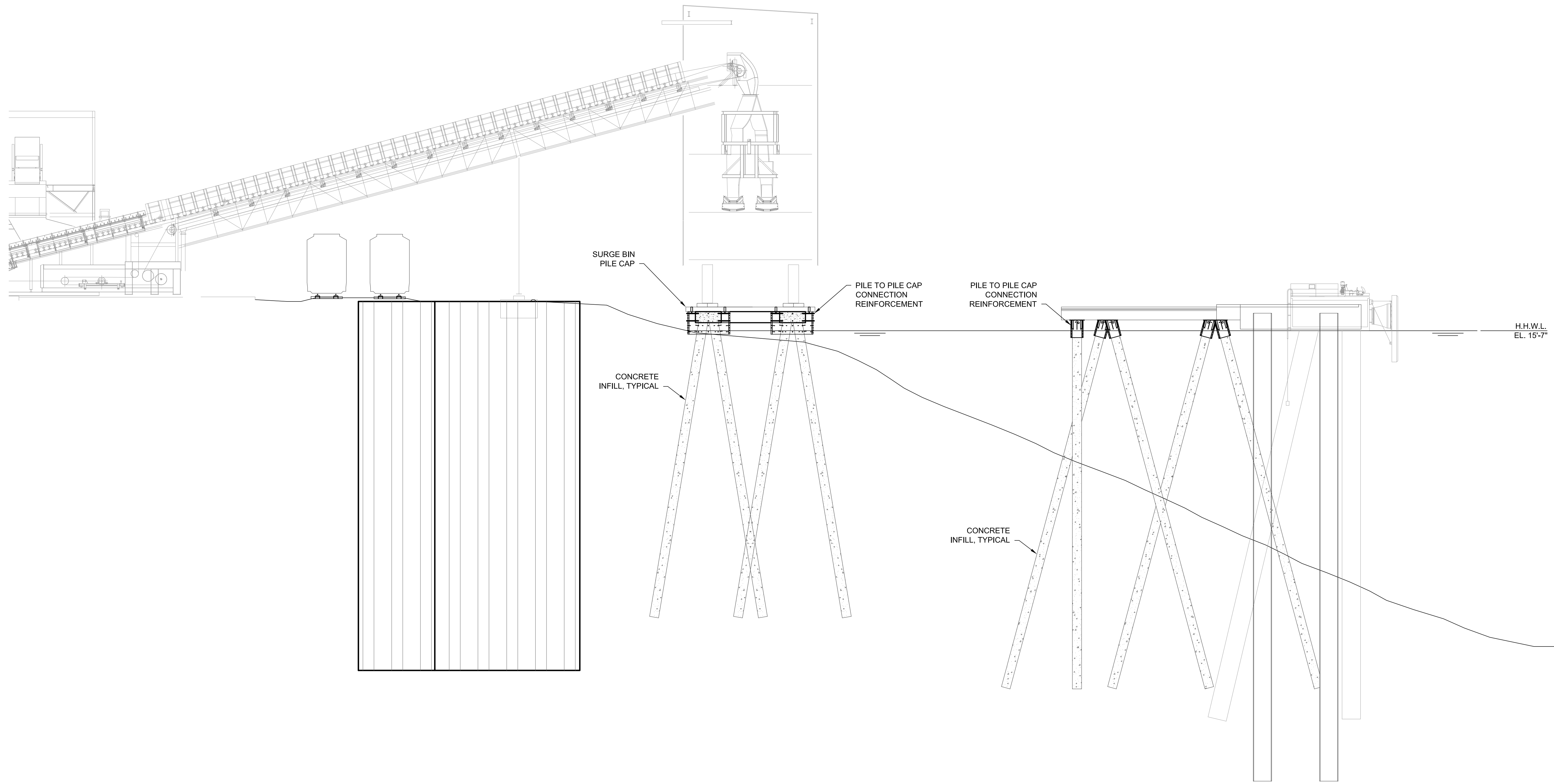
CWA PROJECT NUMBER: 19899

NEW CARGO STUDY
BERTH 2 SEISMIC UPGRADES
FULL RETROFITS - PLAN

19899-100-SK-1101 P2

ACAD FILENAME: 19899-100-SK-1101

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<p>DRAWN BY: DJC</p>	<p>SCALE: AS NOTED</p>	<p>REV.</p>



SECTION **A**
1" = 15'-0" REF. 1

PRELIMINARY
NOT FOR CONSTRUCTION

FOR PERMIT



CWA PROJECT NUMBER: 19899

NEW CARGO STUDY
BERTH 2 SEISMIC UPGRADES
FULL RETROFITS - SECTIONS - SHEET 1

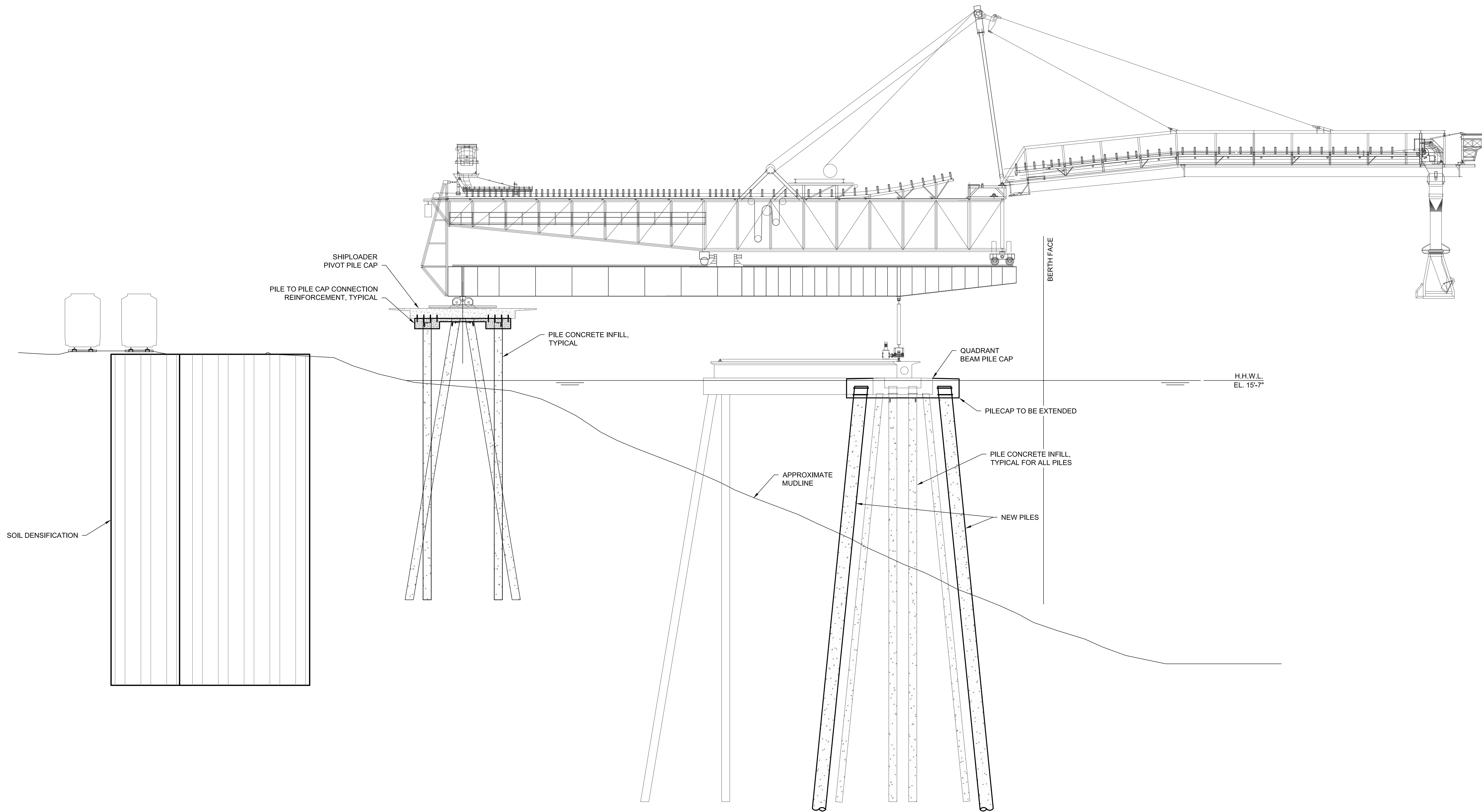
19899-100-SK-1102 P2

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REF.	DWG. NUMBER	DESCRIPTION	No.	YYYY-MM-DD	DESCRIPTION	ISSUES / REVISIONS	DRAWN	DWG. CHECK	DESIGN	DESIGN CHECK	DISC. APPROVAL	PROJ. APPROVAL
1	19899-100-SK-1101	BERTH 2 SEISMIC UPGRADES - FULL RETROFITS - PLAN	P2	2021-08-31	ISSUED FOR INFORMATION		DJC		DJC		AMG	AJK
			P1	2021-06-28	ISSUED FOR VFPA REVIEW		CPL		DJC		AMG	AJK

DRAWN BY: DJC SCALE: AS NOTED ACAD FILENAME: 19899-100-SK-1102

REV.



SECTION B REF.1
1" = 15'-0"

FOR PERMIT

PRELIMINARY
NOT FOR CONSTRUCTION

REF.	DWG. NUMBER	DESCRIPTION	No.	YYYY-MM-DD	DESCRIPTION	ISSUES / REVISIONS	DRAWN	DWG. CHECK	DESIGN	DESIGN CHECK	DISC. APPROVAL	PROJ. APPROVAL
1	19899-100-SK-1101	BERTH 2 SEISMIC UPGRADES - FULL RETROFITS - PLAN	P2	2021-08-31	ISSUED FOR INFORMATION		DJC		DJC		AMG	AJK
			P1	2021-06-28	ISSUED FOR VFPA REVIEW		CPL		DJC		AMG	AJK



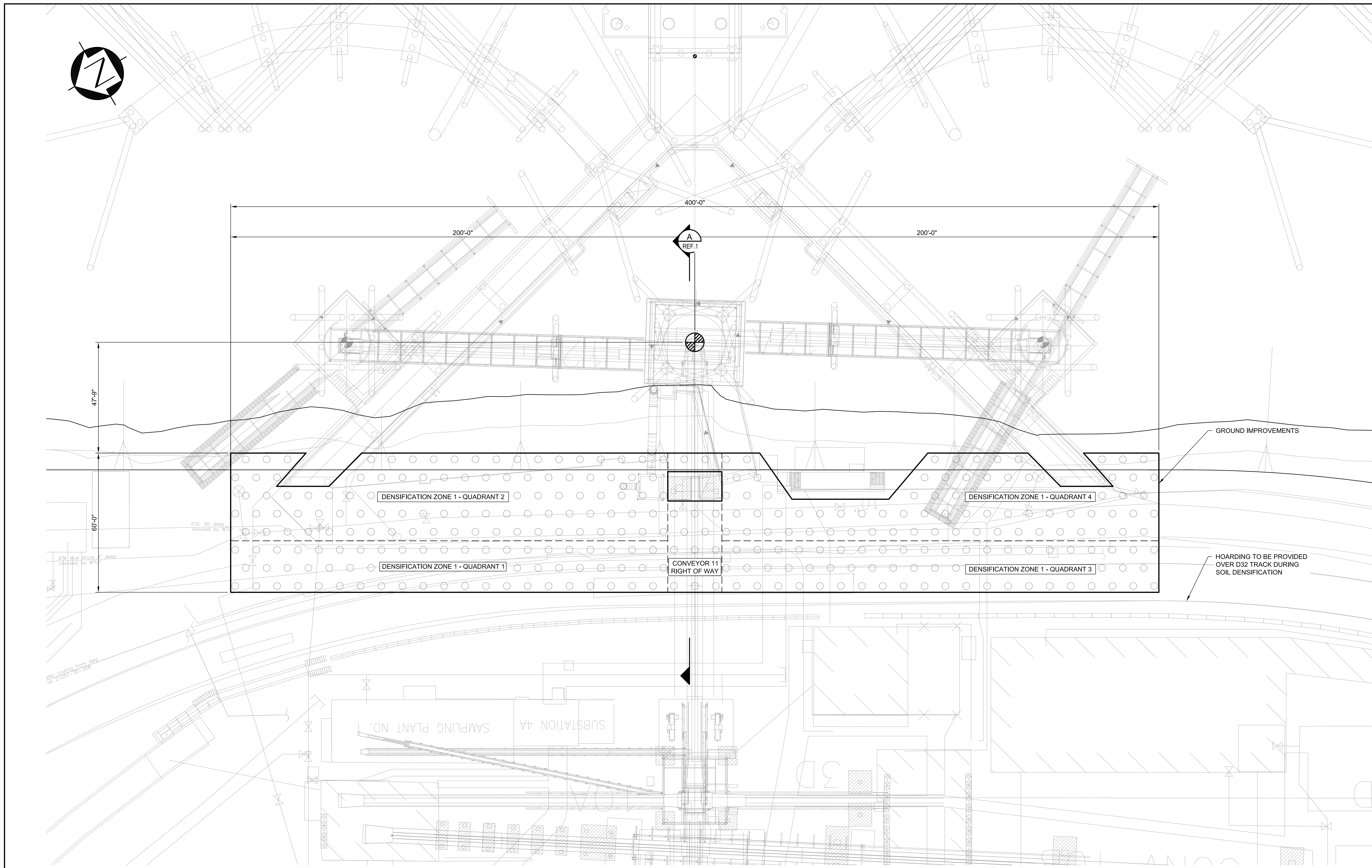
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CWA PROJECT NUMBER: 19899

**NEW CARGO STUDY
BERTH 2 SEISMIC UPGRADES
FULL RETROFITS - SECTIONS - SHEET 2**

19899-100-SK-1103 P2



PLAN
1" = 20'-0"

GROUND IMPROVEMENTS

HOARDING TO BE PROVIDED OVER D32 TRACK DURING SOIL DENSIFICATION

DENSIFICATION ZONE 1 - QUADRANT 2

DENSIFICATION ZONE 1 - QUADRANT 1

CONVEYOR 11
RIGHT OF WAY

DENSIFICATION ZONE 1 - QUADRANT 4

DENSIFICATION ZONE 1 - QUADRANT 3

- NOTES:**
1. DENSIFICATION ZONE 1 IS TO BE VIBRO STONE COLUMNS.
 2. DENSIFICATION ZONE 1 TO BE INSTALLED PER A PERFORMANCE-BASED SPECIFICATION (TBD); STONE COLUMN SPACING TO BE DETERMINED BY CONTRACTOR TO ACHIEVE DENSIFICATION TARGETS.

PRELIMINARY
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CWA PROJECT NUMBER: 19899

NEW CARGO STUDY
BERTH 2 GROUND IMPROVEMENTS
PLAN - GENERAL ARRANGEMENT

19899-100-SK-1104

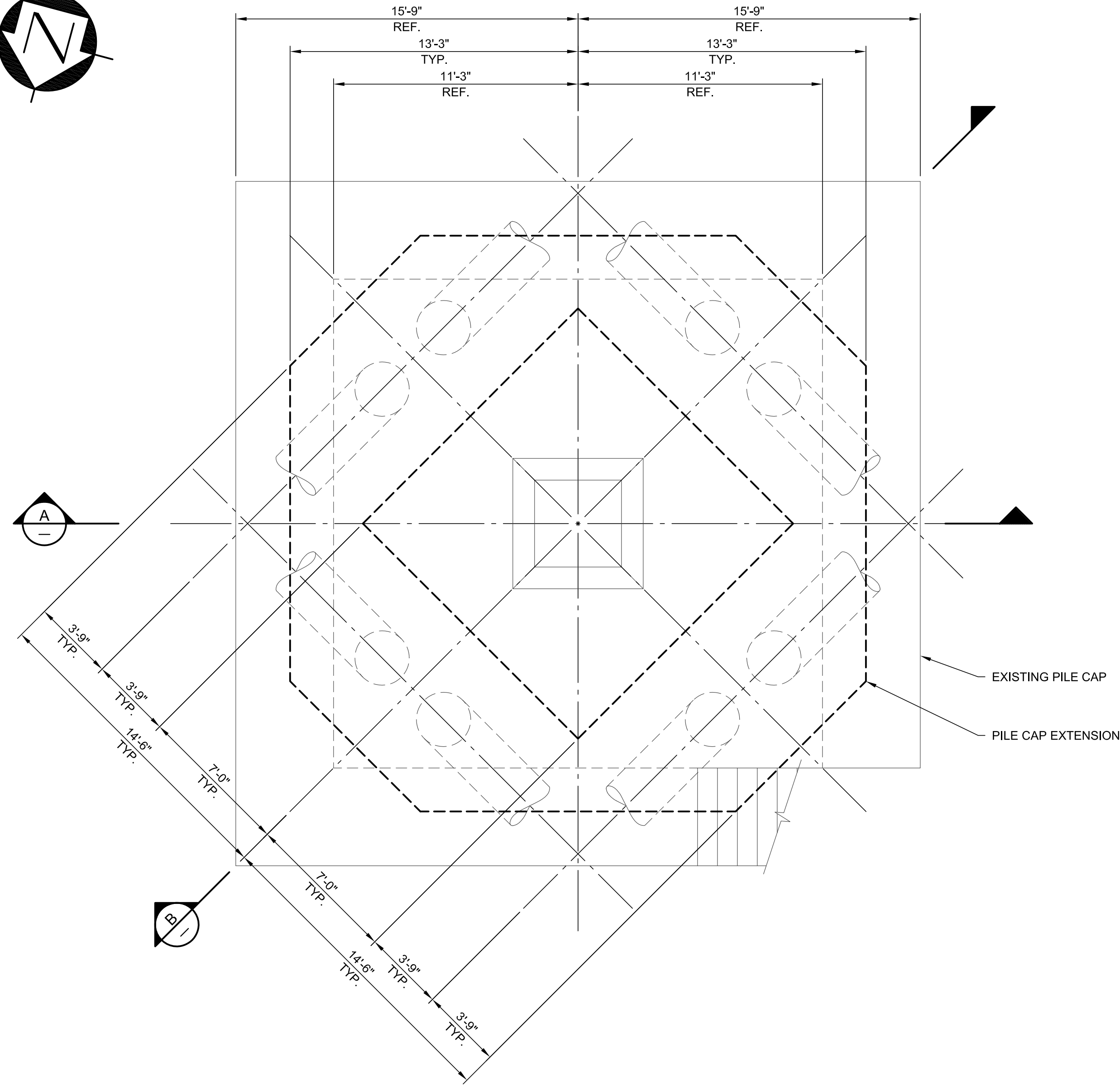
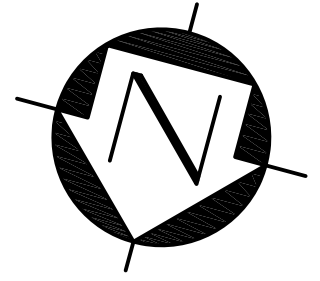
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							DJC		-		AMG	AJK
							CPL		-		AMG	AJK
1	19899-100-SK-1105	BERTH 2 GROUND IMPROVEMENTS - SECTION - GENERAL ARRANGEMENT	P2	2021-08-31	ISSUED FOR INFORMATION		DJC		-		AMG	AJK
			P1	2021-06-28	ISSUED FOR VFPA REVIEW		CPL		-		AMG	AJK

DRAWN BY: CPL

SCALE: AS NOTED

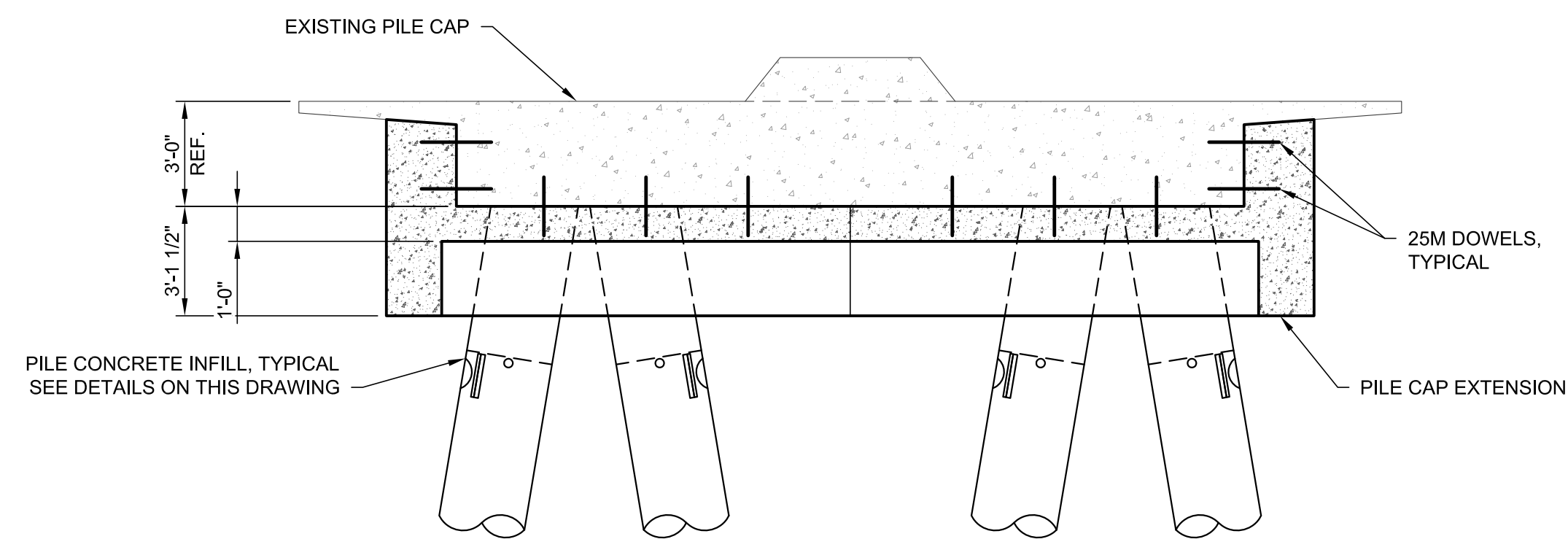
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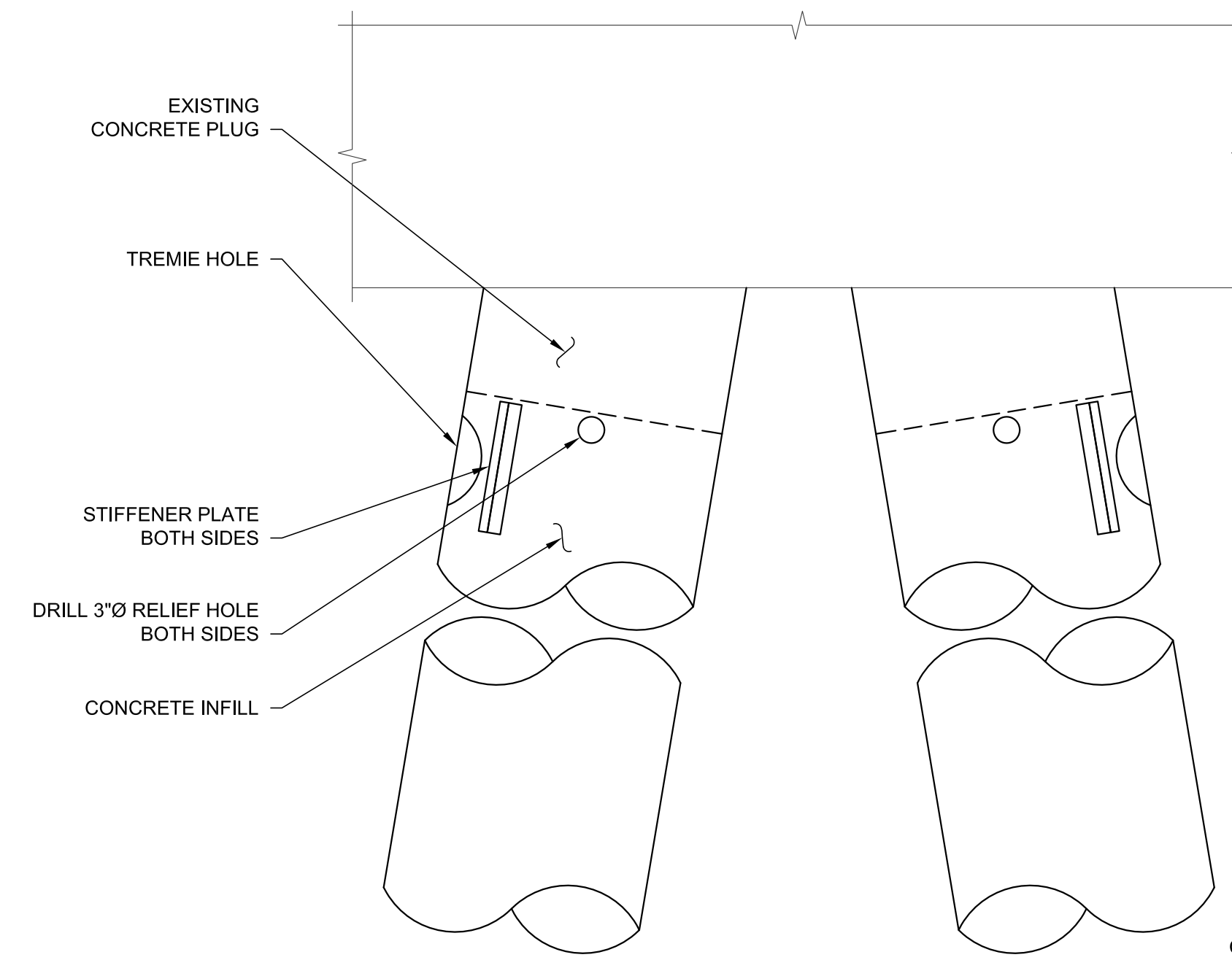


PLAN - SHIPLOADER PIVOT No.2 PILE CAP

1/4" = 1'-0"
(SHIPLOADER PIVOT No.1 PILE CAP IS MIRRORRED)

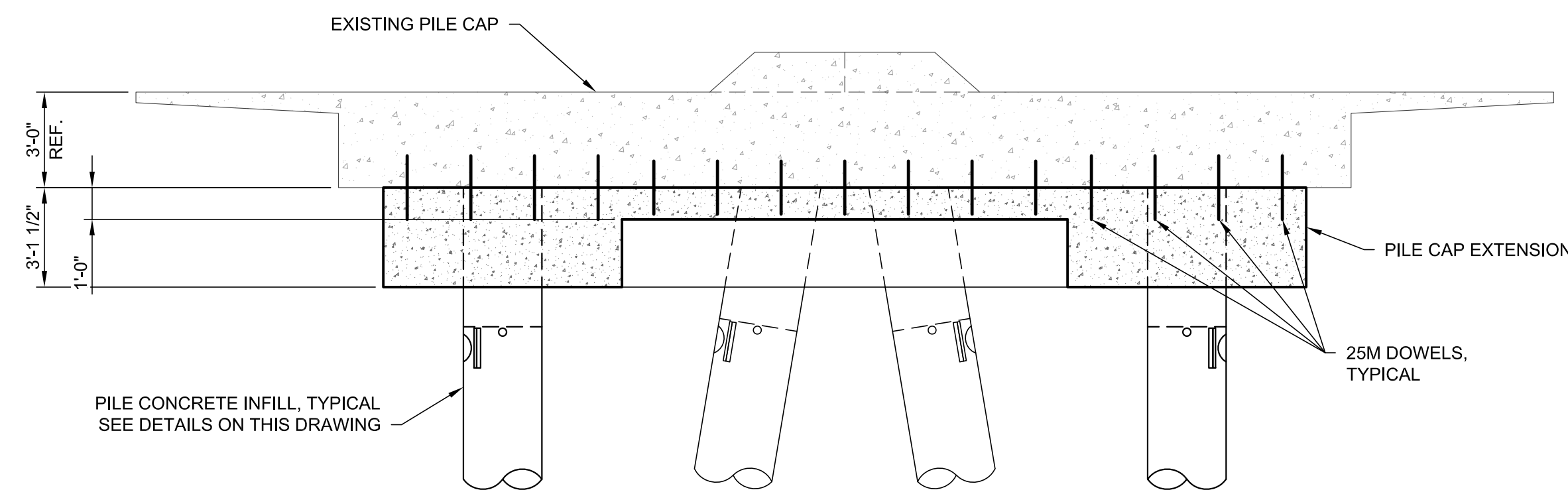


SECTION A
1/4" = 1'-0"



**ELEVATION
DETAIL 1 - PILE CONCRETE INFILL**
3/4" = 1'-0"

- CONSTRUCTION SEQUENCE:**
1. TAP/SCAN PILE TO DETERMINE EXTENT OF CONCRETE PLUG.
 2. ADD STIFFENERS TO PILE ADJACENT TO HOLE LOCATIONS.
 3. CUT 6"-8"Ø HOLE FOR TREMIE PUMP BELOW CONCRETE PLUG. DRILL 3"Ø RELIEF HOLES NEAR TOP OF PILE.
 4. PUMP CONCRETE INTO PILE UNTIL IT FLOWS FROM RELIEF HOLE.
 5. WELD SEAL PLATES OVER OPENINGS.



SECTION B
1/4" = 1'-0"

**PRELIMINARY
NOT FOR CONSTRUCTION**

FOR PERMIT



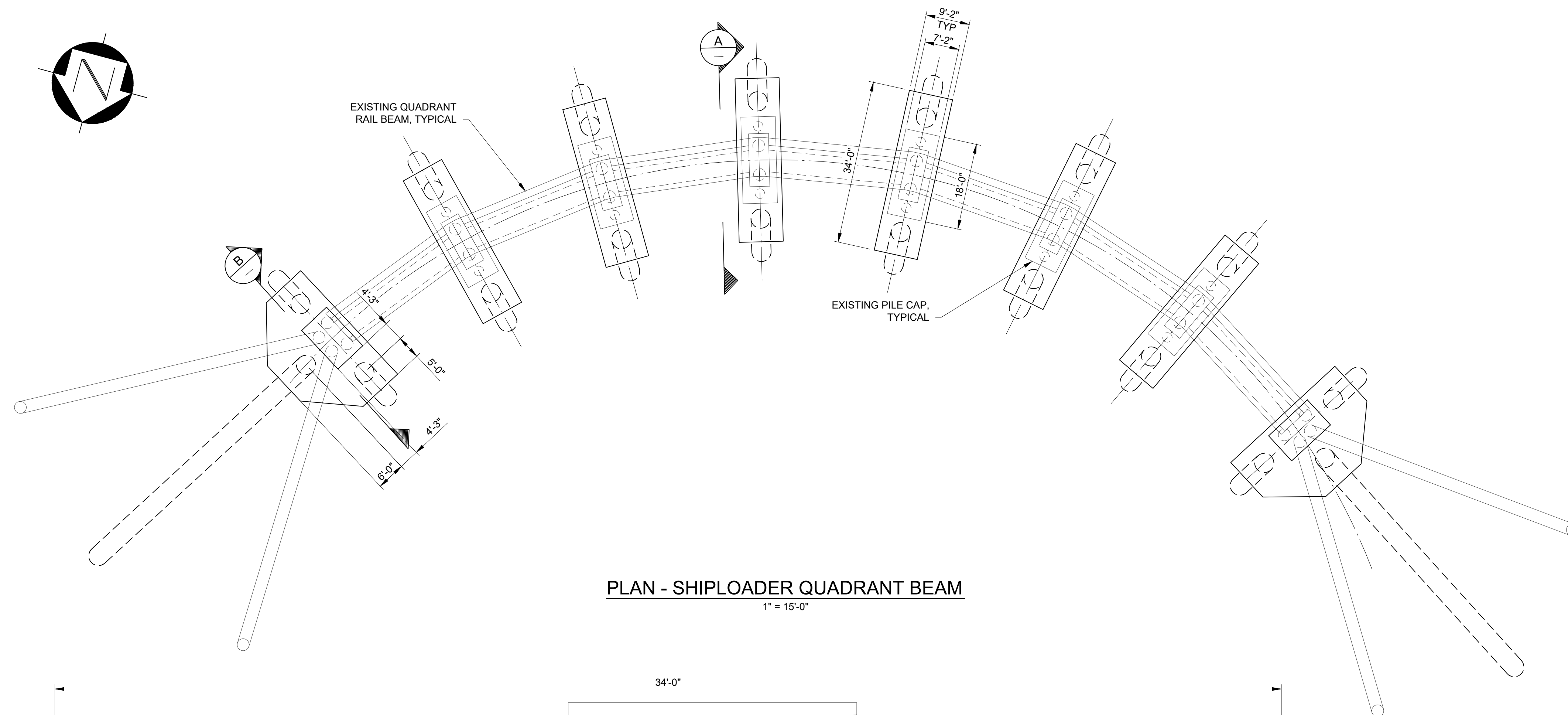
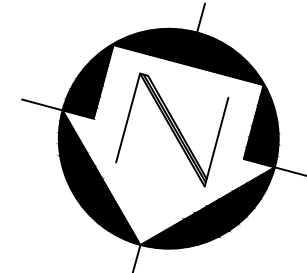
CWA PROJECT NUMBER: 19899

NEW CARGO STUDY
BERTH 2 RETROFITS
SHIPLOADER PIVOT CONCEPTS

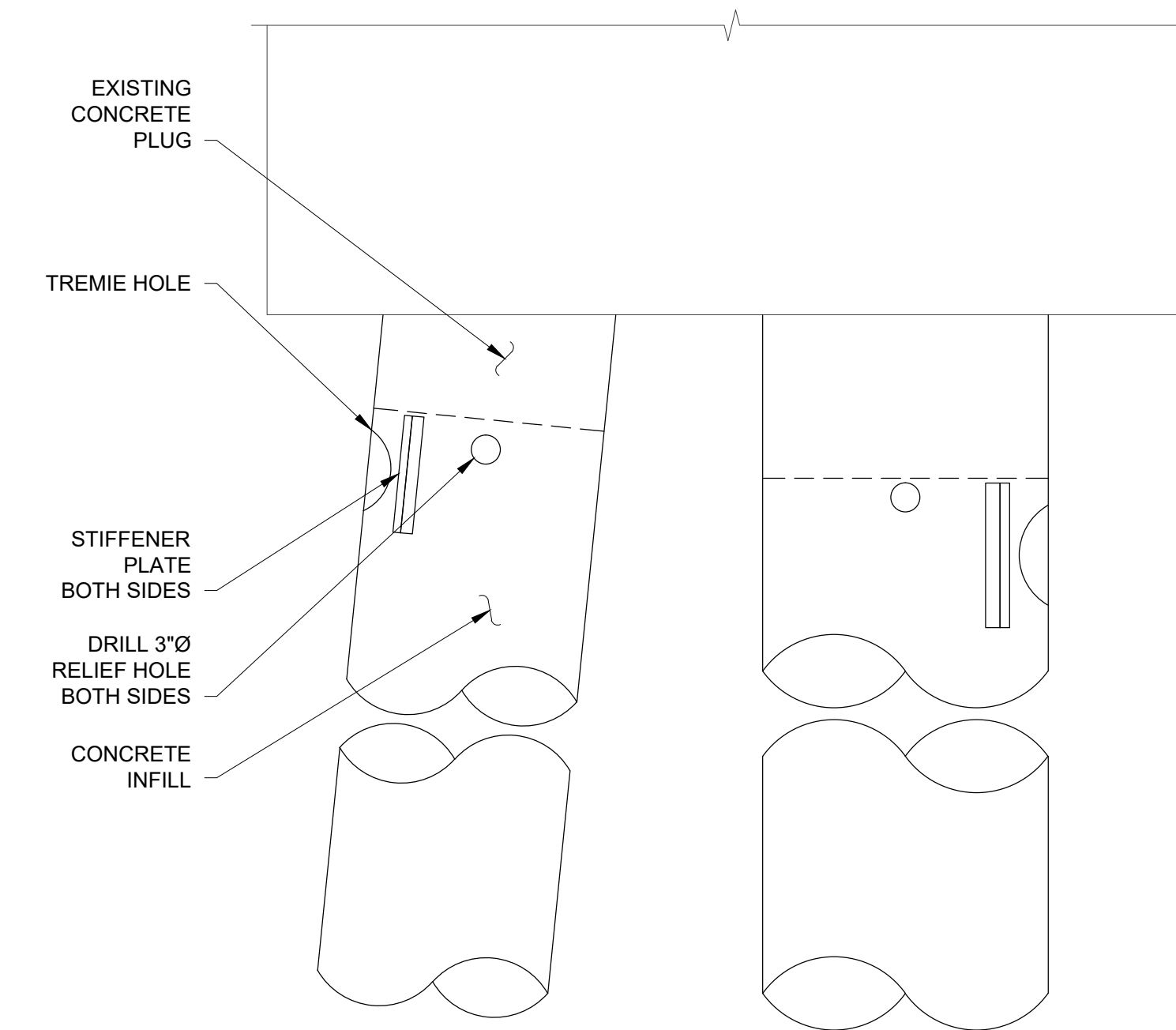
19899-100-SK-1108 P2

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REF.	DWG. NUMBER	DESCRIPTION	No.	YYYY-MM-DD	DESCRIPTION	ISSUES / REVISIONS	DRAWN	DWG. CHECK	DESIGN	DESIGN CHECK	DISC. APPROVAL	PROJ. APPROVAL		
		REFERENCE DRAWINGS / DESIGN STANDARDS					CPL		DJC		AMG	AJK		
			P2	2021-08-31	ISSUED FOR INFORMATION									
			P1	2021-06-28	ISSUED FOR VFPA REVIEW		CPL		DJC		AMG	AJK		
							* HAND INITIALS ON FILE			DRAWN BY: CPL			SCALE: AS NOTED	ACAD FILENAME: 19899-100-SK-1108

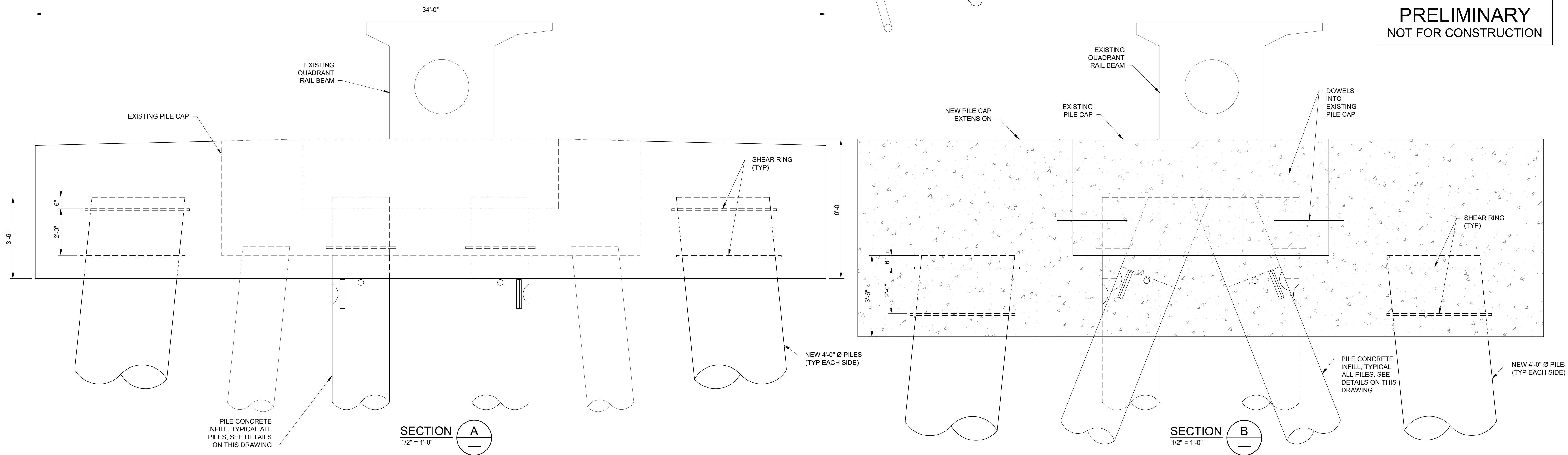


PLAN - SHIPLOADER QUADRANT BEAM
1" = 15'-0"



ELEVATION PILE CONCRETE INFILL DETAIL
3/4" = 1'-0"

- CONSTRUCTION SEQUENCE:
1. TAP/SCAN PILE TO DETERMINE EXTENT OF CONCRETE PLUG.
 2. ADD STIFFENERS TO PILE ADJACENT TO HOLE LOCATIONS.
 3. CUT 6"-8" Ø HOLE FOR TREMIE PUMP BELOW CONCRETE PLUG. DRILL 3" Ø RELIEF HOLES NEAR TOP OF PILE.
 4. PUMP CONCRETE INTO PILE UNTIL IT FLOWS FROM RELIEF HOLE.
 5. WELD SEAL PLATES OVER OPENINGS.



SECTION A
1/2" = 1'-0"

SECTION B
1/2" = 1'-0"

**PRELIMINARY
NOT FOR CONSTRUCTION**

FOR PERMIT

REF.	DWG. NUMBER	DESCRIPTION	P1	2021-06-28	ISSUED FOR VFPA REVIEW	CPL	DJC	AMG	AJK		
			No.	YYYY-MM-DD	DESCRIPTION	DRAWN	DWG. CHECK	DESIGN	DESIGN CHECK	DISC. APPROVAL	PROJ. APPROVAL
		REFERENCE DRAWINGS / DESIGN STANDARDS			ISSUES / REVISIONS			* HAND INITIALS ON FILE			



CWA PROJECT NUMBER: 19899

**NEW CARGO STUDY
BERTH 2 RETROFITS
SHIPLOADER QUADRANT RAIL CONCEPTS**

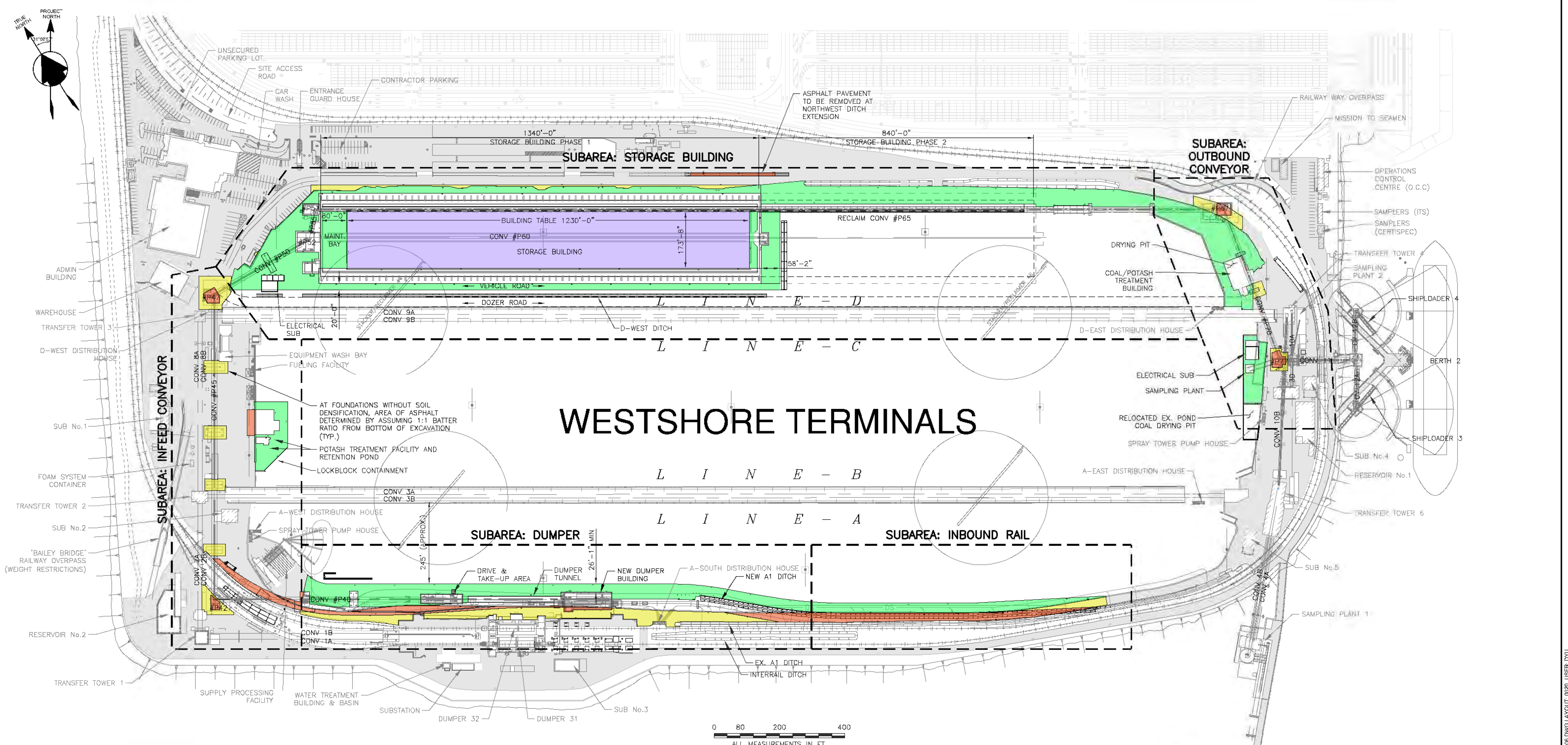
19899-100-SK-1109 P1

This drawing has been prepared by CWA Engineers Inc. as an instrument of service and is the exclusive property of CWA. This drawing shall be used solely for the purpose of this project. The client agrees that this drawing shall not be used for purposes other than those intended, and shall hold the engineer harmless for any other such use.

DRAWN BY: CPL SCALE: AS NOTED ACAD FILENAME: 19899-100-SK-1109

REV.

Lot Grading and Utilities



WESTSHORE TERMINALS

0 80 200 400
ALL MEASUREMENTS IN FT

SITE PLAN
SCALE: 1"=150'

HMAC PAVEMENT AREAS – PHASE 1				
SUBAREAS	REMOVED (SQ.FT)	REMOVED/REPLACED (SQ.FT)	GENERAL/ROADS (SQ.FT)	STORAGE BUILDING TABLE (SQ.FT)
INBOUND RAIL	19,400	3,700	23,700	-
DUMPER	16,700	35,700	65,400	-
INFEED CONVEYOR	11,100	21,000	11,700	-
STORAGE BUILDING	2,600	8,800	184,100	213,700
OUTBOUND CONVEYOR	3,100	7,500	46,400	-
TOTAL	52,900	76,700	331,300	213,700

EXISTING

NOTES:

- HMAC PAVEMENT AREAS SHOWN INTENDED TO SHOW FINAL PAVEMENT ONLY. TEMPORARY HMAC PAVEMENT (DURING CONSTRUCTION), GRAVEL, AND CONCRETE PAVEMENT SURFACES ARE NOT INCLUDED IN TABULATED VALUES (U.M.O.). HMAC RESTORATION FOR REMOVED/RELOCATED UTILITIES ARE NOT INCLUDED IN TABULATED VALUES.
- REFER TO B8305-D0006-0050 FOR TYPICAL PAVEMENT DETAILS. STORAGE BUILDING TABLE TO USE "TYPICAL PAVEMENT FOR STORAGE BUILDING TABLE". ALL OTHER NEW AND REMOVED/REPLACED PAVEMENT TO USE "TYPICAL PAVEMENT FOR HEAVY TRAFFIC". PAVEMENT EDGES WITH DOZER TRAFFIC TO USE "TYPICAL CONCRETE TRANSITION"
- CWA LAYOUT AS PER 2020/11/18.

FOR PERMIT

No	By	Date	Revision
P5	DY	21/01/14	ISSUED FOR USE – STAGE 2 STUDY
P4	MS	20/12/15	ISSUED FOR REVIEW
P3	MS	20/12/11	ISSUED FOR REVIEW
P2	DY	20/07/22	ISSUED FOR REVIEW
P1	DY	20/07/17	ISSUED FOR REVIEW

STAMP	

Client **Westshore Terminals LP**

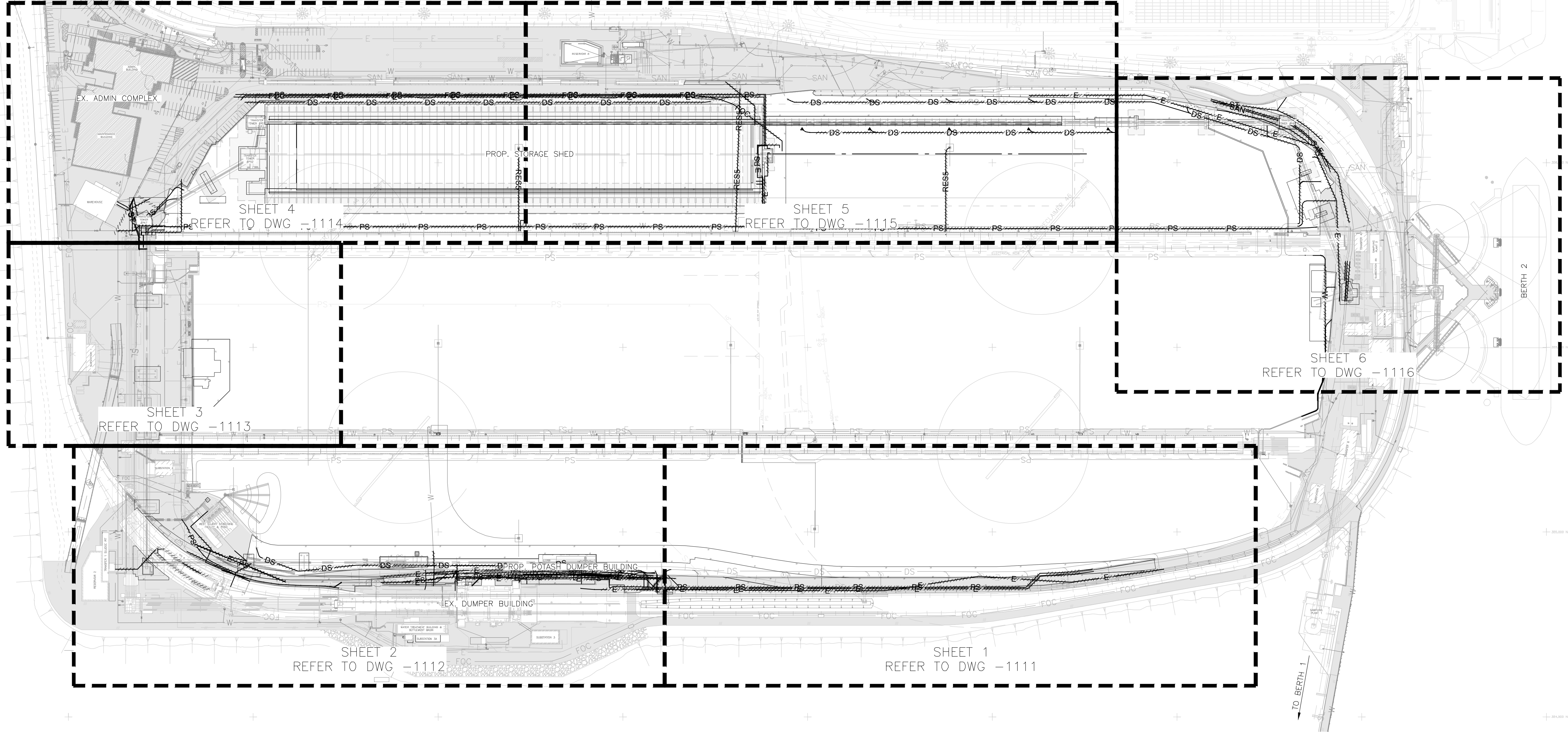
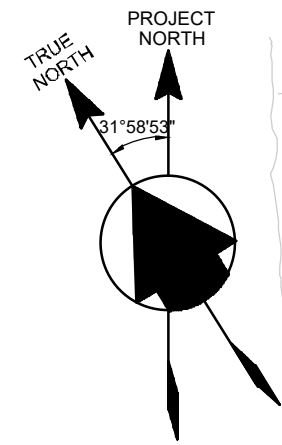
Consultant **BINNIE**
The people behind your infrastructure.

R.F. BINNIE & ASSOCIATES LTD.
300 - 4940 Canada Way,
Burnaby BC V5G 4K6
TEL 604 420 1721
BINNIE.com

Project Title: NEW CARGO STUDY			
Title: PAVING & GRADING SITE PLAN PHASE 1			
Design MS	Drawn MS	Checked CV	Plot Scale AS NOTED
Date 21/01/14	Date 21/01/14	Date 21/01/14	AS NOTED
Drawing Number: 88305-D0006-0020			Revision Number: P5

PRELIMINARY

FILE: P:\2018\18-002500 - CAD\FE1\F8305\BINA\B8305-D0006.DWG | LAYOUT: 0020_USFR.DWG



LEGEND

	EX. YARD SPRAY CANNON		EX. YARD SPRAY CANNON TO BE REMOVED
	EX. SPRAY TOWER		EX. SPRAY TOWER TO BE REMOVED
	EX. HIGHMAST SPRAY		EX. HIGHMAST SPRAY TO BE REMOVED
	EX. FIRE HYDRANT		EX. FIRE HYDRANT TO BE REMOVED
	EX. WATER PIPING		EX. WATER PIPING TO BE REMOVED
	EX. PILE SPRAY PIPING		EX. PILE SPRAY PIPING TO BE REMOVED
	EX. RES 5 PILE SPRAY PIPING		EX. RES 5 PILE SPRAY PIPING TO BE REMOVED
	EX. DUST SUPPRESSION PIPING		EX. DUST SUPPRESSION PIPING TO BE REMOVED
	EX. STORM PIPING		EX. STORM PIPING TO BE REMOVED
	EX. SLURRY PIPING		EX. SLURRY PIPING TO BE REMOVED
	EX. SANITARY PIPING		EX. SANITARY PIPING TO BE REMOVED
	EX. FIBRE OPTIC CABLE		EX. FIBRE OPTIC CABLE TO BE REMOVED
	EX. ELECTRICAL LINE		EX. ELECTRICAL LINE TO BE REMOVED
	EX. TELUS LINE		EX. TELUS LINE TO BE REMOVED
	EX. ELECTRICAL R.O.W.		

NOTES:

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5. COORDINATES SHOWN ARE BASED ON A PROJECT GROUND COORDINATE SYSTEM.
6. FOR CIVIL GENERAL NOTES, REFER TO DRAWINGS 40101-D0007-0050 AND 40101-D0007-0051.
7. FOR PROPOSED WORKS, REFER TO GENERAL ARRANGEMENTS 88200-D0007-1210 TO 88200-D0007-1216.
8. FOR GROUND DENSIFICATION AND STRUCTURAL FOUNDATION EXTENTS AND DETAILS, REFER TO CWA DRAWINGS.

SITE PLAN

SCALE: 1"=150'

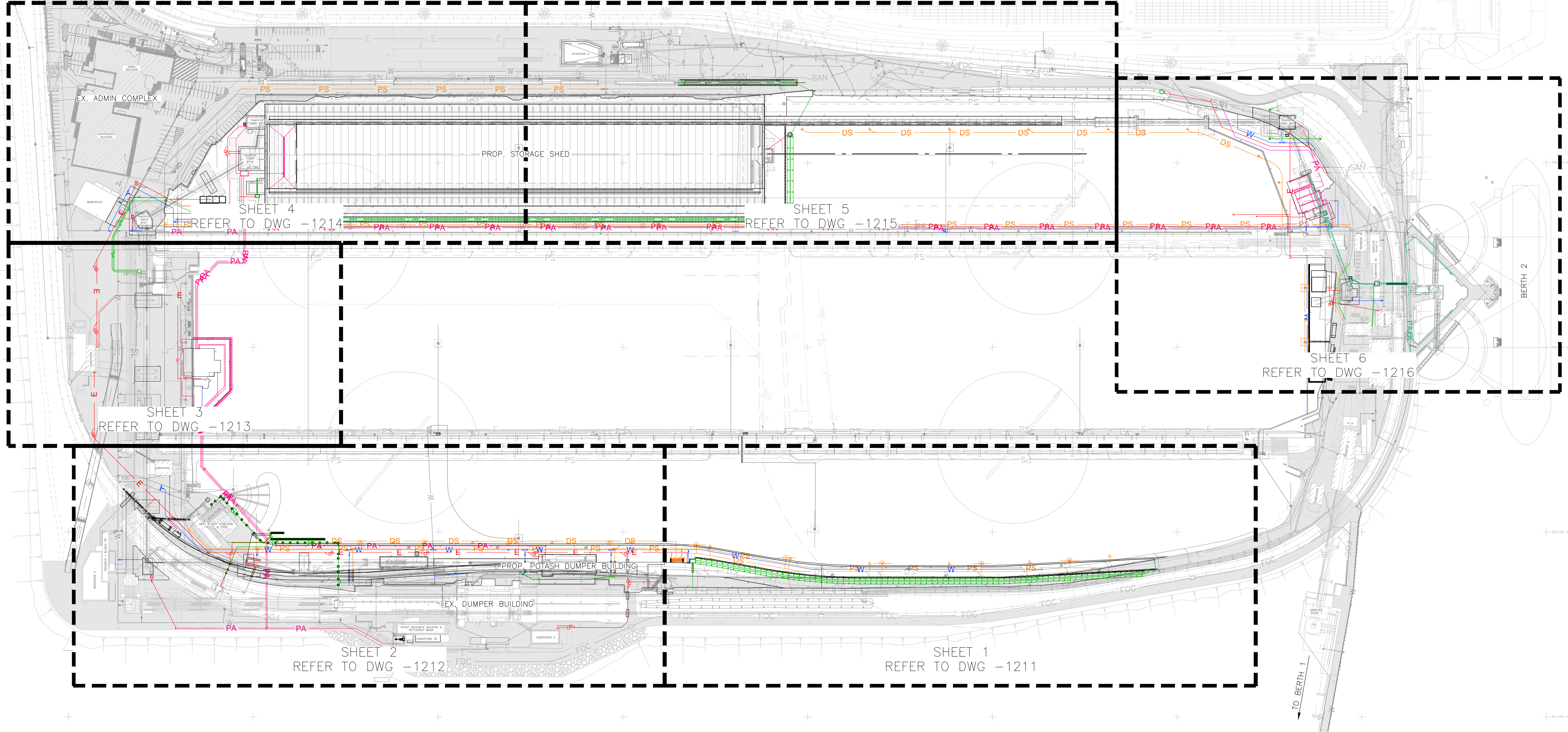
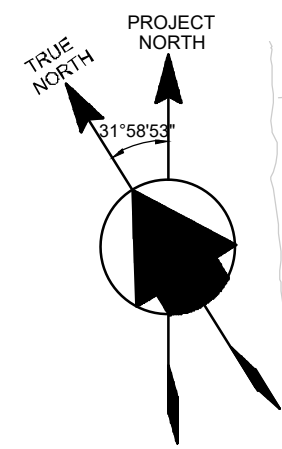
No	By	Date	Revision
P3	DY	21/01/14	ISSUED FOR USE - STAGE 2 STUDY
P2	MS	20/12/16	ISSUED FOR REVIEW
P1	DR	20/12/03	ISSUED FOR REVIEW

STAMP	

FOR PERMIT

PRELIMINARY

Client 	Project Title NEW CARGO STUDY		
Consultant The people behind your infrastructure. R.F. BOWNE & ASSOCIATES LTD. 300 - 4940 Canada Way, Burnaby, BC V5G 4K6 TEL: 604-420-3325 BOWNE.CO.VM	Title SITE SERVICES EXISTING UTILITIES SITE PLAN		
Design CV Date 21/01/14	Drawn DR Date 21/01/14	Checked CV Date 21/01/14	Plot Scale AS NOTED
Drawing Number 88200-D0007-1110	Revision Number P3		



LEGEND

	EX. YARD SPRAY CANNON		PROP. YARD SPRAY CANNON
	EX. SPRAY TOWER		PROP. SPRAY TOWER
	EX. HIGHMAST SPRAY		PROP. HIGHMAST SPRAY
	EX. FIRE HYDRANT		PROP. FIRE HYDRANT
	EX. WATER PIPING		PROP. WATER PIPING
	EX. PILE SPRAY PIPING		PROP. PILE SPRAY PIPING
	EX. RES 5 PILE SPRAY PIPING		PROP. RES 5 PILE SPRAY PIPING
	EX. DUST SUPPRESSION PIPING		PROP. DUST SUPPRESSION PIPING
	EX. STORM PIPING		PROP. STORM PIPING
	EX. SLURRY PIPING		PROP. SLURRY PIPING
	EX. SANITARY PIPING		PROP. POTASH SLURRY PIPING
	EX. FIBRE OPTIC CABLE		PROP. COMMON COAL/POTASH PIPING
	EX. ELECTRICAL LINE		PROP. SANITARY PIPING
	EX. TELUS LINE		PROP. FIBRE OPTIC CABLE
	EX. ELECTRICAL R.O.W.		PROP. ELECTRICAL LINE
			PROP. TELUS LINE
			PROP. ROADWAY
			PROP. DITCH

NOTES:

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7. ALL PROPOSED WORKS ARE SHOWN IN COLOUR AND SCHEMATICALLY. REFER TO DETAILED DRAWINGS FOR FURTHER DETAILS.
8. FOR EXTENT OF CIVIL REMOVALS, REFER TO GENERAL ARRANGEMENT DRAWINGS 88200-D0007-1110 TO 88200-D0007-1116.
9. FOR GROUND DENSIFICATION AND STRUCTURAL FOUNDATION EXTENTS AND DETAILS, REFER TO CWA DRAWINGS.

SITE PLAN
SCALE: 1"=150'

No	By	Date	Revision
P5	DY	21/01/14	ISSUED FOR USE – STAGE 2 STUDY
P4	MS	20/12/16	ISSUED FOR REVIEW
P3	DR	20/12/03	ISSUED FOR REVIEW
P2	DR	20/07/17	ISSUED FOR REVIEW
P1	DR	20/07/14	ISSUED FOR REVIEW

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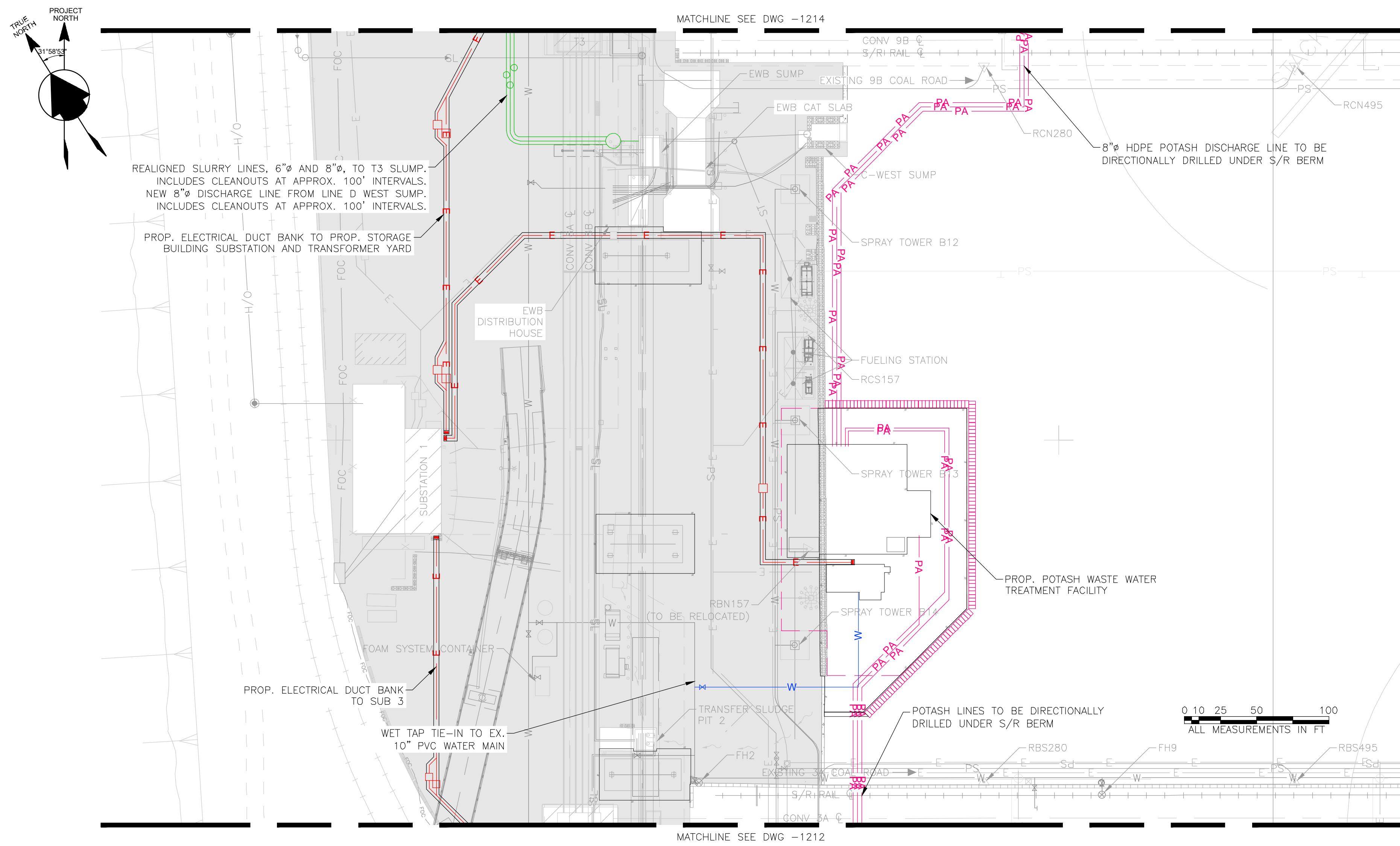
FOR PERMIT

Client **Westshore Terminals LP**

Consultant **BINNIE**
The people behind your infrastructure.
R.F. BOWNE & ASSOCIATES LTD.
300 - 4940 Canada Way,
Burnaby, BC V5C 4K6
TEL: 604-420-3325
BOWNE.COM

PRELIMINARY

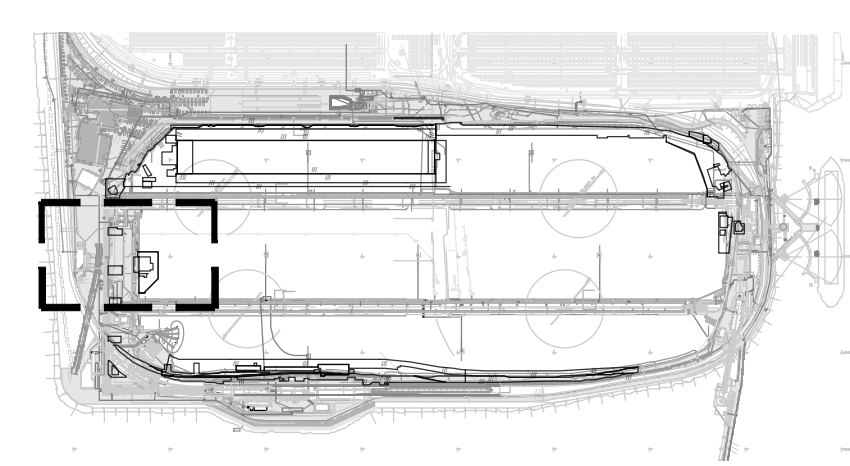
Project Title NEW CARGO STUDY	
Title SITE SERVICES PROPOSED UTILITIES SITE PLAN	
Design CV	Drawn DR
Date 21/01/14	Date 21/01/14
Checked CV	Plot Scale
Date 21/01/14	AS NOTED
Drawing Number 88200-D0007-1210	Revision Number P5



LEGEND

	EX. YARD SPRAY CANNON
	EX. SPRAY TOWER
	EX. HIGHMAST SPRAY
	EX. FIRE HYDRANT
	EX. WATER PIPING
	EX. PILE SPRAY PIPING
	EX. RES 5 PILE SPRAY PIPING
	EX. DUST SUPPRESSION PIPING
	EX. STORM PIPING
	EX. SLURRY PIPING
	EX. SANITARY PIPING
	EX. FIBRE OPTIC CABLE
	EX. ELECTRICAL LINE
	EX. TELUS LINE
	EX. ELECTRICAL R.O.W.
	PROP. YARD SPRAY CANNON
	PROP. SPRAY TOWER
	PROP. HIGHMAST SPRAY
	PROP. FIRE HYDRANT
	PROP. WATER PIPING
	PROP. PILE SPRAY PIPING
	PROP. RES 5 PILE SPRAY PIPING
	PROP. DUST SUPPRESSION PIPING
	PROP. STORM PIPING
	PROP. SLURRY PIPING
	PROP. POTASH SLURRY PIPING
	PROP. COMMON COAL/POTASH PIPING
	PROP. SANITARY PIPING
	PROP. FIBRE OPTIC CABLE
	PROP. ELECTRICAL LINE
	PROP. TELUS LINE
	PROP. ROADWAY
	PROP. DITCH

PLAN -- PROPOSED
SCALE: 1"=50'



KEY PLAN
SCALE: 1"=1000'

- NOTES:**
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 8. FOR EXTENT OF CIVIL REMOVALS, REFER TO GENERAL ARRANGEMENT DRAWINGS 88200-D0007-1110 TO 88200-D0007-1116.
 9. FOR GROUND DENSIFICATION AND STRUCTURAL FOUNDATION EXTENTS AND DETAILS, REFER TO CWA DRAWINGS.

No	By	Date	Revision
P5	DY	21/01/14	ISSUED FOR USE -- STAGE 2 STUDY
P4	MS	20/12/16	ISSUED FOR REVIEW
P3	DR	20/12/03	ISSUED FOR REVIEW
P2	DR	20/07/17	ISSUED FOR REVIEW
P1	DR	20/07/14	ISSUED FOR REVIEW

STAMP			

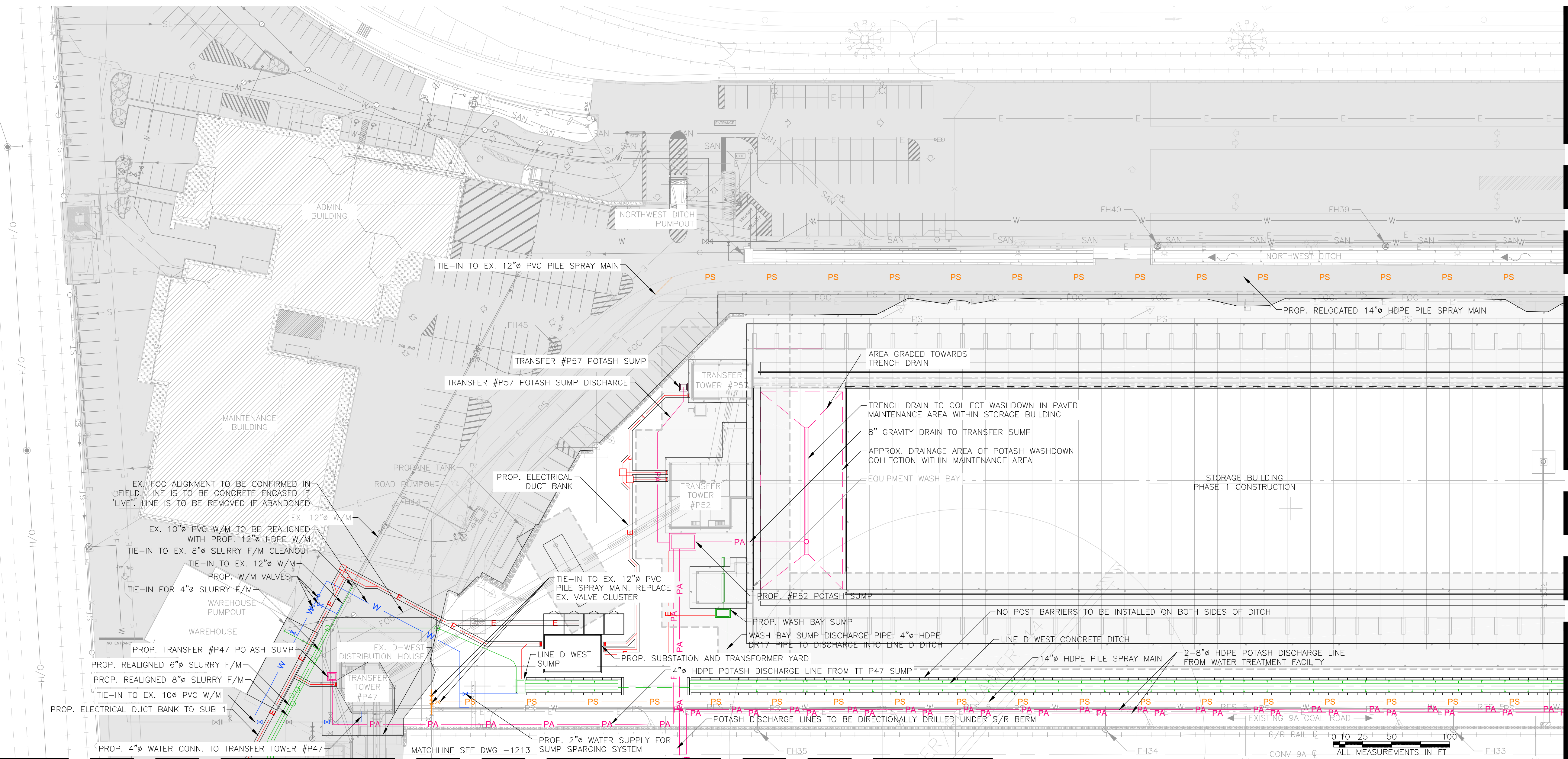
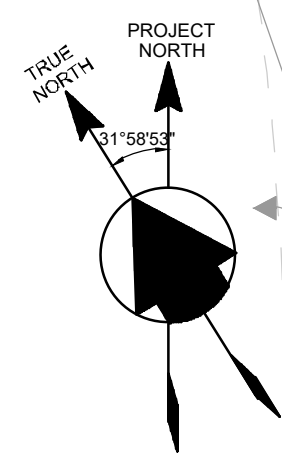
FOR PERMIT

Client **Westshore Terminals LP**

Consultant **BINNIE**
The people behind your infrastructure.
R.F. BOWNE & ASSOCIATES LTD.
300 - 4940 Canada Way,
Burnaby, BC V5G 4K6
TEL: 604-420-3325
BOWNE.COM

Project Title NEW CARGO STUDY			
Title SITE SERVICES PROPOSED UTILITIES GENERAL ARRANGEMENT SHEET 3			
Design CV	Drawn DR	Checked CV	Plot Scale
Date 21/01/14	Date 21/01/14	Date 21/01/14	AS NOTED
Drawing Number	88200-D0007-1213	Revision Number	P5

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MATCHLINE SEE DWG -1215

EX. FOC ALIGNMENT TO BE CONFIRMED IN FIELD. LINE IS TO BE CONCRETE ENCASED IF "LIVE". LINE IS TO BE REMOVED IF ABANDONED.

EX. 10" PVC W/M TO BE REALIGNED WITH PROP. 12" HDPE W/M

TIE-IN TO EX. 8" SLURRY F/M CLEANOUT

TIE-IN TO EX. 12" W/M

PROP. W/M VALVES

TIE-IN FOR 4" SLURRY F/M

PROP. TRANSFER #P47 POTASH SUMP

PROP. REALIGNED 6" SLURRY F/M

PROP. REALIGNED 8" SLURRY F/M

TIE-IN TO EX. 10" PVC W/M

PROP. ELECTRICAL DUCT BANK TO SUB 1

PROP. TRANSFER TOWER #P47

EX. D-WEST DISTRIBUTION HOUSE

PROP. TRANSFER TOWER #P47

PROP. 4" WATER CONN. TO TRANSFER TOWER #P47

TIE-IN TO EX. 12" PVC PILE SPRAY MAIN

TRANSFER #P57 POTASH SUMP

TRANSFER #P57 POTASH SUMP DISCHARGE

PROP. ELECTRICAL DUCT BANK

TRANSFER TOWER #P52

TIE-IN TO EX. 12" PVC PILE SPRAY MAIN. REPLACE EX. VALVE CLUSTER

PROP. TRANSFER TOWER #P52

PROP. WASH BAY SUMP

WASH BAY SUMP DISCHARGE PIPE. 4" HDPE DR17 PIPE TO DISCHARGE INTO LINE D DITCH

PROP. SUBSTATION AND TRANSFORMER YARD

4" HDPE POTASH DISCHARGE LINE FROM TT P47 SUMP

PROP. 2" WATER SUPPLY FOR SUMP SPARGING SYSTEM

AREA GRADED TOWARDS TRENCH DRAIN

TRENCH DRAIN TO COLLECT WASHDOWN IN PAVED MAINTENANCE AREA WITHIN STORAGE BUILDING

8" GRAVITY DRAIN TO TRANSFER SUMP

APPROX. DRAINAGE AREA OF POTASH WASHDOWN COLLECTION WITHIN MAINTENANCE AREA

EQUIPMENT WASH BAY

PROP. #P52 POTASH SUMP

NO POST BARRIERS TO BE INSTALLED ON BOTH SIDES OF DITCH

LINE D WEST CONCRETE DITCH

2-8" HDPE POTASH DISCHARGE LINE FROM WATER TREATMENT FACILITY

14" HDPE PILE SPRAY MAIN

POTASH DISCHARGE LINES TO BE DIRECTIONALLY DRILLED UNDER S/R BERM

EXISTING 9A COAL ROAD

6/R RAIL

CONV-9A

FH35

FH34

FH33

ALL MEASUREMENTS IN FT

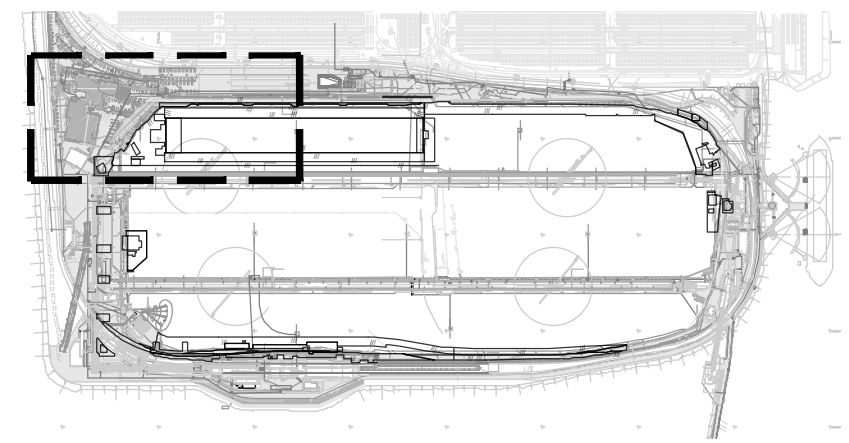
LEGEND

	EX. YARD SPRAY CANNON		PROP. YARD SPRAY CANNON
	EX. SPRAY TOWER		PROP. SPRAY TOWER
	EX. HIGHMAST SPRAY		PROP. HIGHMAST SPRAY
	EX. FIRE HYDRANT		PROP. FIRE HYDRANT
	EX. WATER PIPING		PROP. WATER PIPING
	EX. PILE SPRAY PIPING		PROP. PILE SPRAY PIPING
	EX. RES 5 PILE SPRAY PIPING		PROP. RES 5 PILE SPRAY PIPING
	EX. DUST SUPPRESSION PIPING		PROP. DUST SUPPRESSION PIPING
	EX. STORM PIPING		PROP. STORM PIPING
	EX. SLURRY PIPING		PROP. SLURRY PIPING
	EX. SANITARY PIPING		PROP. POTASH SLURRY PIPING
	EX. FIBRE OPTIC CABLE		PROP. COMMON COAL/POTASH PIPING
	EX. ELECTRICAL LINE		PROP. SANITARY PIPING
	EX. TELUS LINE		PROP. FIBRE OPTIC CABLE
	EX. ELECTRICAL R.O.W.		PROP. ELECTRICAL LINE
			PROP. TELUS LINE
			PROP. ROADWAY
			PROP. DITCH

PLAN - PROPOSED
SCALE: 1"=50'

NOTES:

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9. FOR GROUND DENSIFICATION AND STRUCTURAL FOUNDATION EXTENTS AND DETAILS, REFER TO CWA DRAWINGS.



KEY PLAN
SCALE: 1"=1000'

FOR PERMIT

PRELIMINARY

No	By	Date	Revision
P5	DY	21/01/14	ISSUED FOR USE - STAGE 2 STUDY
P4	MS	20/12/16	ISSUED FOR REVIEW
P3	DR	20/12/03	ISSUED FOR REVIEW
P2	DR	20/07/17	ISSUED FOR REVIEW
P1	DR	20/07/14	ISSUED FOR REVIEW

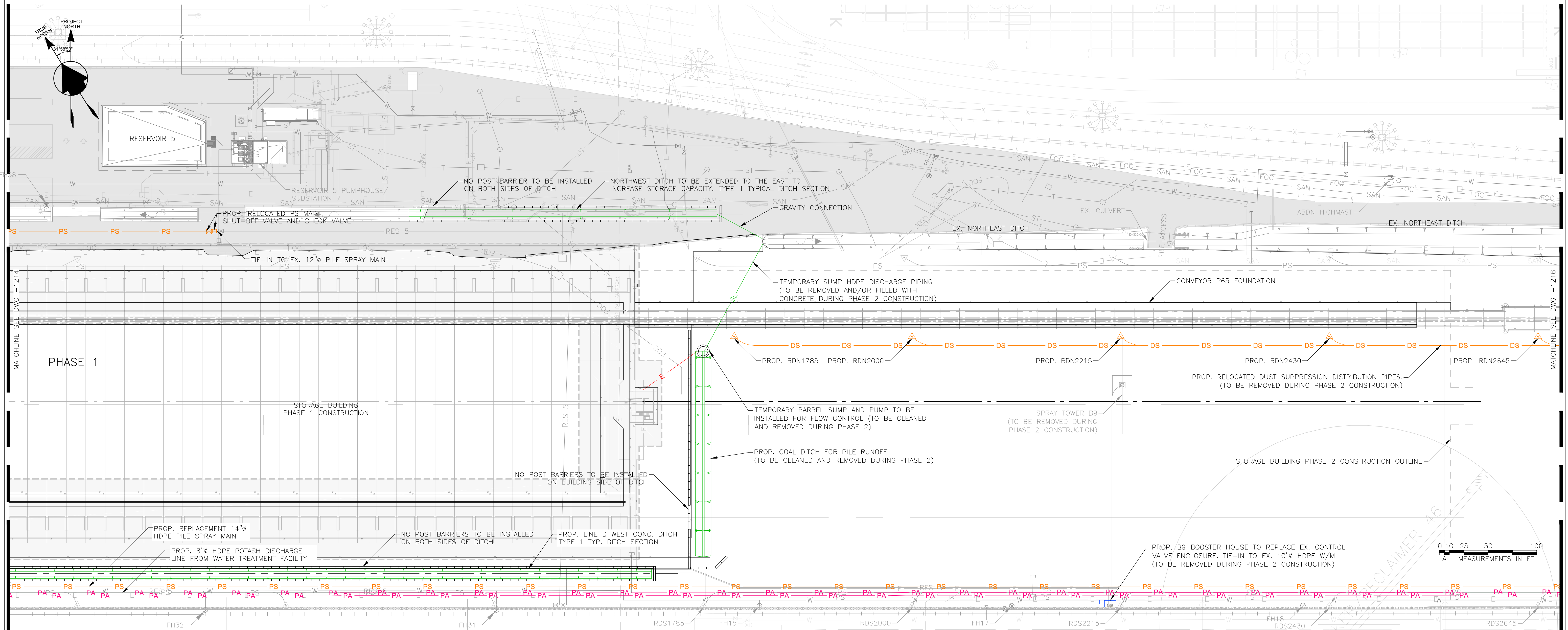
STAMP	

Client **Westshore Terminals LP**

Consultant **BINNIE**
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300 - 4940 Canada Way,
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BINNIE.COM

Project Title NEW CARGO STUDY	
Title SITE SERVICES PROPOSED UTILITIES GENERAL ARRANGEMENT SHEET 4	
Design CV	Drawn DR
Date 21/01/14	Date 21/01/14
Checked CV	Plot Scale
Date 21/01/14	AS NOTED
Drawing Number 88200-0007-1214	Revision Number P5

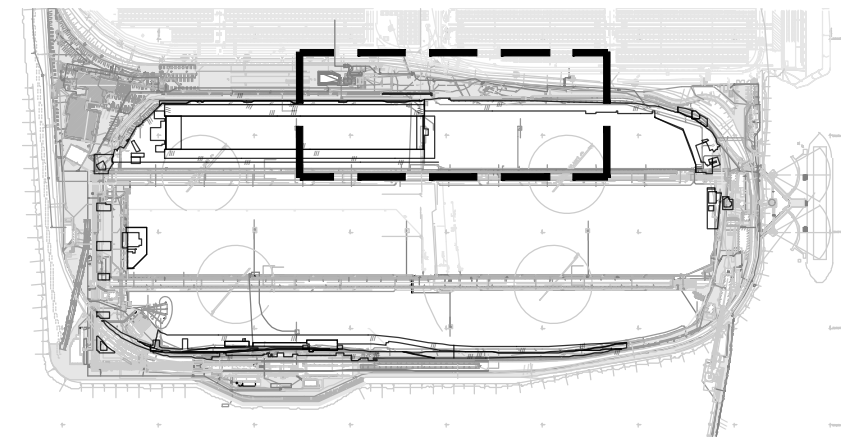
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PLAN -- PROPOSED
SCALE: 1"=50'

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KEY PLAN
SCALE: 1"=1000'

LEGEND

	EX. YARD SPRAY CANNON		PROP. YARD SPRAY CANNON
	EX. SPRAY TOWER		PROP. SPRAY TOWER
	EX. HIGHMAST SPRAY		PROP. HIGHMAST SPRAY
	EX. FIRE HYDRANT		PROP. FIRE HYDRANT
	EX. WATER PIPING		PROP. WATER PIPING
	EX. PILE SPRAY PIPING		PROP. PILE SPRAY PIPING
	EX. RES 5 PILE SPRAY PIPING		PROP. RES 5 PILE SPRAY PIPING
	EX. DUST SUPPRESSION PIPING		PROP. DUST SUPPRESSION PIPING
	EX. STORM PIPING		PROP. STORM PIPING
	EX. SLURRY PIPING		PROP. SLURRY PIPING
	EX. SANITARY PIPING		PROP. POTASH SLURRY PIPING
	EX. FIBRE OPTIC CABLE		PROP. COMMON COAL/POTASH PIPING
	EX. ELECTRICAL LINE		PROP. SANITARY PIPING
	EX. TELUS LINE		PROP. FIBRE OPTIC CABLE
	EX. ELECTRICAL R.O.W.		PROP. ELECTRICAL LINE
			PROP. TELUS LINE
			PROP. ROADWAY
			PROP. DITCH

FOR PERMIT

PRELIMINARY

No	By	Date	Revision
P5	DY	21/01/14	ISSUED FOR USE -- STAGE 2 STUDY
P4	MS	20/12/16	ISSUED FOR REVIEW
P3	DR	20/12/03	ISSUED FOR REVIEW
P2	DR	20/07/17	ISSUED FOR REVIEW
P1	DR	20/07/14	ISSUED FOR REVIEW

STAMP	

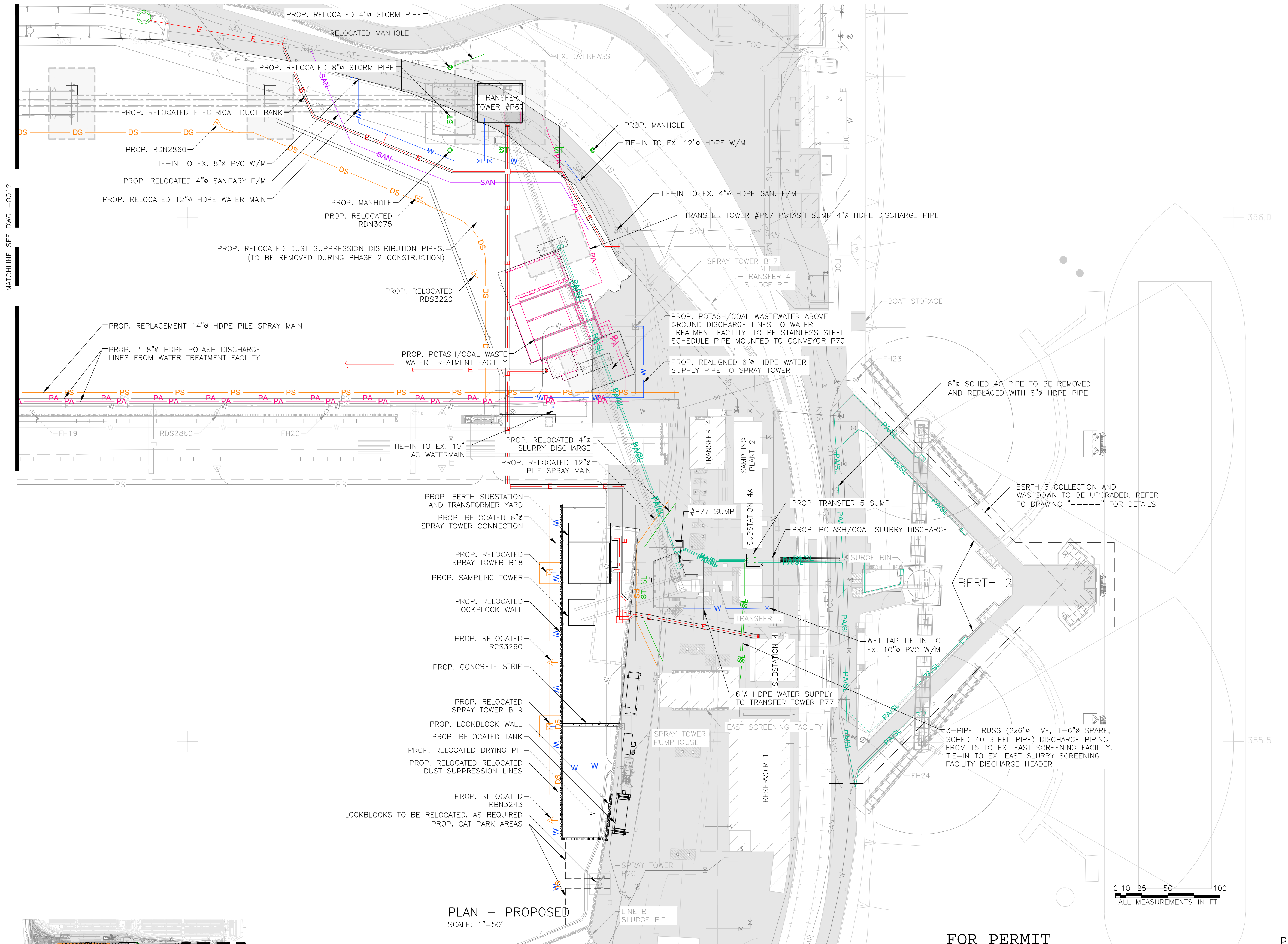
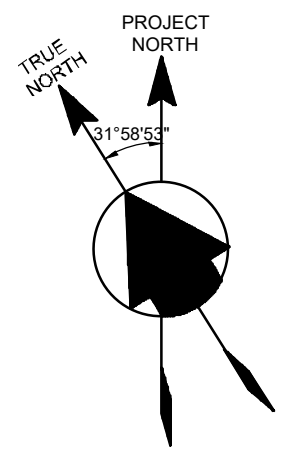
Client

Consultant

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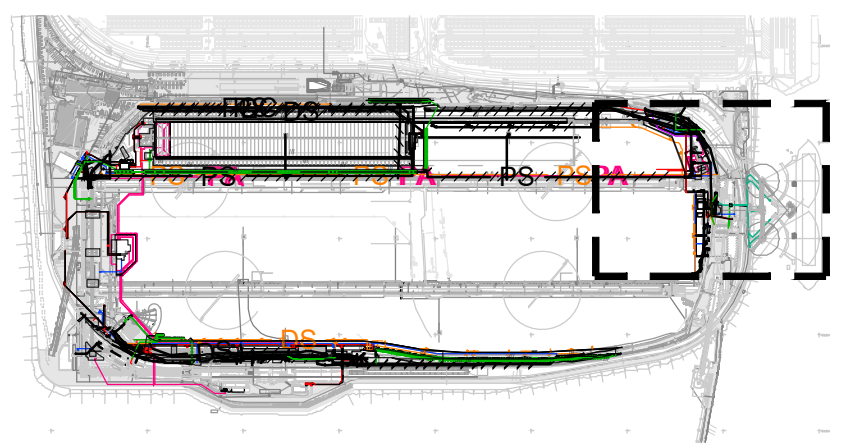
Project Title NEW CARGO STUDY	
Title SITE SERVICES PROPOSED UTILITIES GENERAL ARRANGEMENT SHEET 5	
Design CV	Drawn DR
Date 21/01/14	Date 21/01/14
Checked CV	Plot Scale
Date 21/01/14	AS NOTED
Drawing Number 88200-D0007-1215	Revision Number P5



LEGEND

	EX. YARD SPRAY CANNON
	EX. SPRAY TOWER
	EX. HIGHMAST SPRAY
	EX. FIRE HYDRANT
	EX. WATER PIPING
	EX. PILE SPRAY PIPING
	EX. RES 5 PILE SPRAY PIPING
	EX. DUST SUPPRESSION PIPING
	EX. STORM PIPING
	EX. SLURRY PIPING
	EX. SANITARY PIPING
	EX. FIBRE OPTIC CABLE
	EX. ELECTRICAL LINE
	EX. TELUS LINE
	EX. ELECTRICAL R.O.W.
	PROP. YARD SPRAY CANNON
	PROP. SPRAY TOWER
	PROP. HIGHMAST SPRAY
	PROP. FIRE HYDRANT
	PROP. WATER PIPING
	PROP. PILE SPRAY PIPING
	PROP. RES 5 PILE SPRAY PIPING
	PROP. DUST SUPPRESSION PIPING
	PROP. STORM PIPING
	PROP. SLURRY PIPING
	PROP. POTASH SLURRY PIPING
	PROP. COMMON COAL/POTASH PIPING
	PROP. SANITARY PIPING
	PROP. FIBRE OPTIC CABLE
	PROP. ELECTRICAL LINE
	PROP. TELUS LINE
	PROP. ROADWAY
	PROP. DITCH

- NOTES:**
1. ALL EXISTING INFORMATION ON STRUCTURES, MONUMENTS, BURIED/UNDERGROUND SERVICES AND UTILITIES ARE BASED ON AVAILABLE RECORDS AND SHALL NOT BE CONSTRUED AS COMPLETE OR ACCURATE.
 2. ALL EXISTING UTILITIES ARE SHOWN SCHEMATICALLY WITH ALIGNMENTS AND LOCATIONS OF UTILITY STRUCTURE POTENTIALLY SHIFTED FOR CLARITY.
 3. ALL DIMENSIONS ARE IN IMPERIAL UNITS UNLESS NOTED OTHERWISE.
 4. ALL ELEVATIONS ARE IN CANADIAN HYDROGRAPHIC (CHS) DATUM AND REFERENCES TO THE DEEP BENCHMARK.
 5. COORDINATES SHOWN ARE BASED ON A PROJECT GROUND COORDINATE SYSTEM.
 6. FOR CIVIL GENERAL NOTES, REFER TO DRAWINGS 40101-D0007-0050 AND 40101-D0007-0051.
 7. ALL PROPOSED WORKS ARE SHOWN IN COLOUR AND SCHEMATICALLY. REFER TO DETAILED DRAWINGS FOR FURTHER DETAILS.
 8. FOR EXTENT OF CIVIL REMOVALS, REFER TO GENERAL ARRANGEMENT DRAWINGS 88200-D0007-1110 TO 88200-D0007-1116.
 9. FOR GROUND DENSIFICATION AND STRUCTURAL FOUNDATION EXTENTS AND DETAILS, REFER TO CWA DRAWINGS.



KEY PLAN
SCALE: 1"=1000'

PLAN - PROPOSED
SCALE: 1"=50'

No	By	Date	Revision
P5	DY	21/01/14	ISSUED FOR USE - STAGE 2 STUDY
P4	MS	20/12/16	ISSUED FOR REVIEW
P3	DR	20/12/03	ISSUED FOR REVIEW
P2	DR	20/07/17	ISSUED FOR REVIEW
P1	DR	20/07/14	ISSUED FOR REVIEW

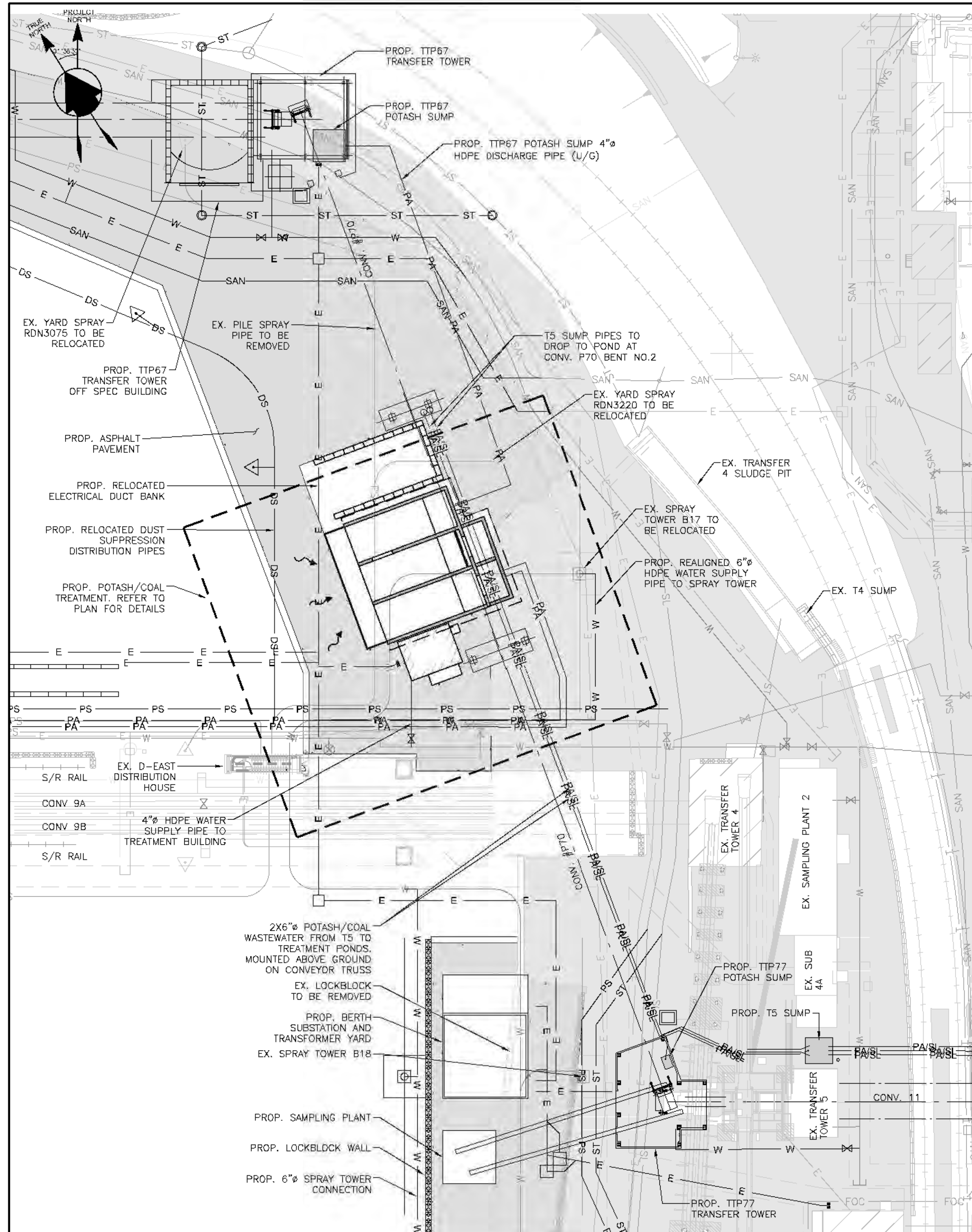
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Client **Westshore Terminals LP**

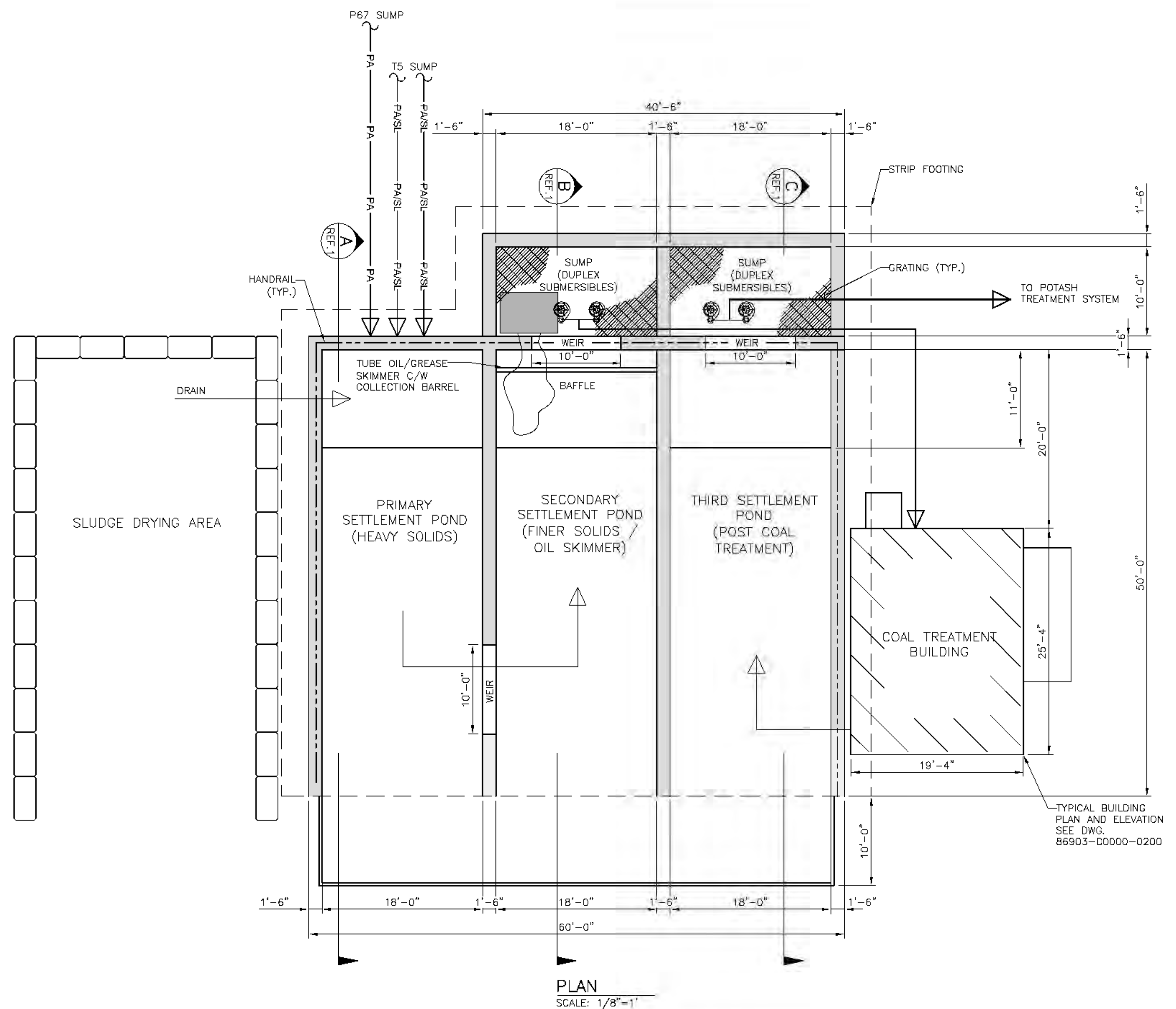
Consultant **BINNIE**
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R.F. BINNIE & ASSOCIATES LTD.
300 - 4940 Canada Way,
Burnaby, BC V5C 4K6
TEL 604-420-3325
BINNIE.COM

Project Title NEW CARGO STUDY	
Title SITE SERVICES PROPOSED UTILITIES GENERAL ARRANGEMENT SHEET 6	
Design CV	Drawn DR
Date 21/01/14	Date 21/01/14
Checked CV	Plot Scale
Date 21/01/14	AS NOTED
Drawing Number 88200-D0007-1216	Revision Number P5

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GENERAL ARRANGEMENT
SCALE: 1/32"=1'



PLAN
SCALE: 1/8"=1'

NOTES:

1. ALL EXISTING INFORMATION ON STRUCTURES, MONUMENTS, BURIED / UNDERGROUND SERVICES AND UTILITIES ARE BASED ON AVAILABLE RECORDS AND SHALL NOT BE CONSTRUED AS COMPLETE OR ACCURATE.
2. ALL EXISTING UTILITIES ARE SHOWN SCHEMATICALLY WITH ALIGNMENTS AND LOCATIONS OF UTILITY STRUCTURE POTENTIALLY SHIFTED FOR CLARITY.
3. ALL DIMENSIONS ARE IN IMPERIAL UNITS UNLESS NOTED OTHERWISE.
4. ALL ELEVATIONS ARE IN CANADIAN HYDROGRAPHIC (CHS) DATUM AND REFERENCED TO THE DEEP BENCHMARK.
5. COORDINATES SHOWN ARE BASED ON A PROJECT GROUND COORDINATE SYSTEM.
6. FOR CIVIL GENERAL NOTES, REFER TO DRAWINGS 40101-D0007-0050 AND 40101-D0007-0051.
7. FOR EXTENT OF CIVIL REMOVALS, REFER TO GENERAL ARRANGEMENT DRAWINGS 88200-D0007-1110 TO 88200-D0007-1116.
8. FOR GROUND DENSIFICATION AND STRUCTURAL FOUNDATION EXTENTS AND DETAILS, REFER TO CWA DRAWINGS.
9. FOR SITE PROCESS FLOW DIAGRAM, REFER TO DRAWING 86000-D0150-1005.
10. FOR POTASH COLLECTION SYSTEM AND TREATMENT SITE PLAN REFER TO DRAWING 86900-D0150-0010.

REFERENCE DRAWING		
REF #	DWG. NUMBER	DESCRIPTION
1	86902-D0000-0025	POTASH/COAL TREATMENT SYSTEM SECTIONS AND DETAILS
2	86903-D0000-0025	POTASH TREATMENT SYSTEM SECTIONS AND DETAILS

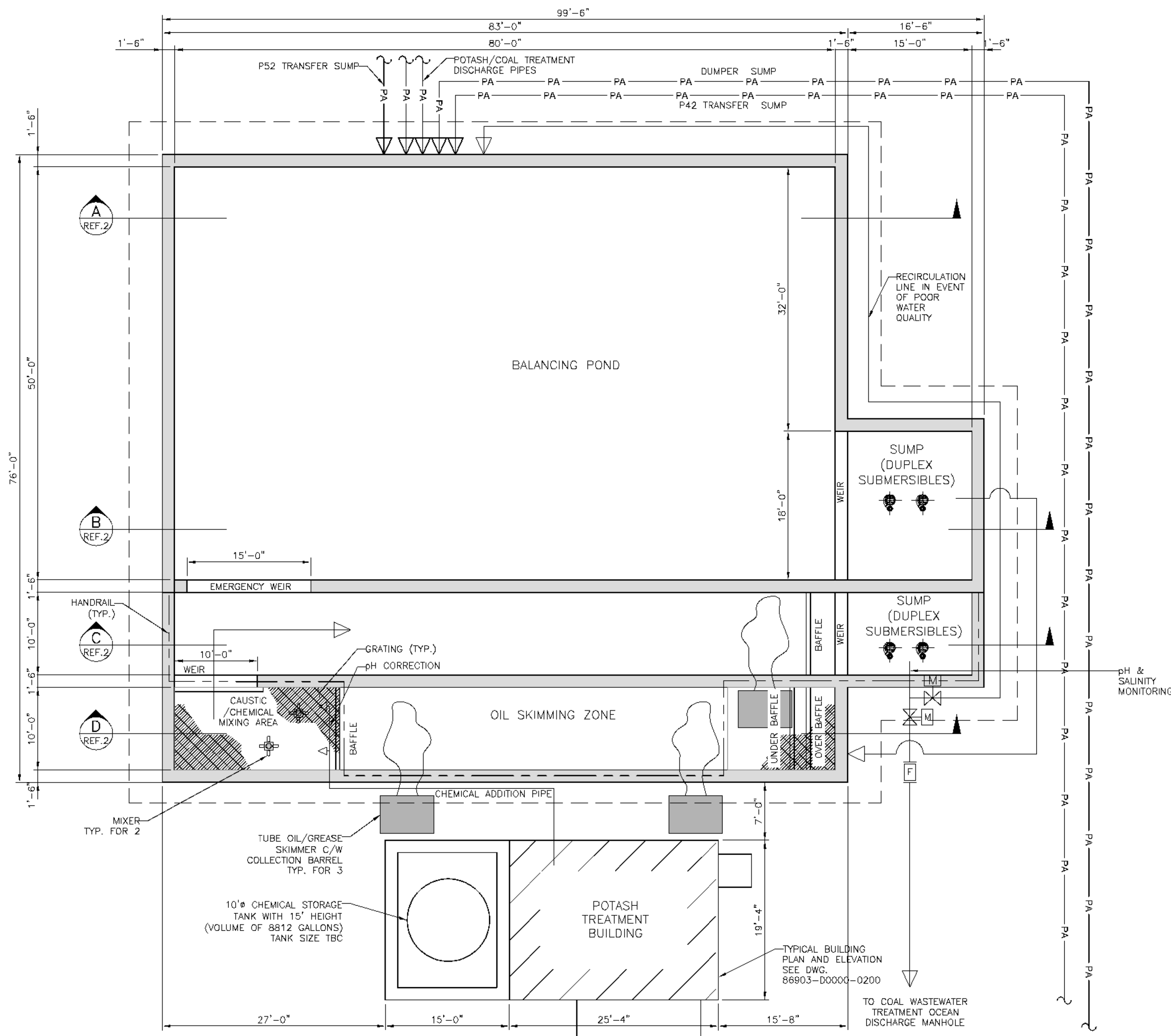
FOR PERMIT

PRELIMINARY

No	By	Date	Revision
P2	DY	21/01/15	ISSUED FOR USE - STAGE 2 STUDY
P1	DY	20/12/23	ISSUED FOR REVIEW

STAMP	
Client	Westshore Terminals LP
Consultant	BINNIE The people behind your infrastructure.
B.F. BINNIE & ASSOCIATES LTD. 500-4840 Canada Way, Burnaby BC V5G 4K6 TEL 604 430 1721 BINNIE.com	

Project Title	NEW CARGO STUDY		
Title	POTASH WASTEWATER COLLECTION SYSTEM POTASH/COAL TREATMENT SYSTEM GENERAL ARRANGEMENT		
Design CV	Drawn DY	Checked CV	Plot Scale AS NOTED
Date 21/01/15	Date 21/01/15	Date 21/01/15	
Drawing Number	86902-D0000-0010		Revision Number P2

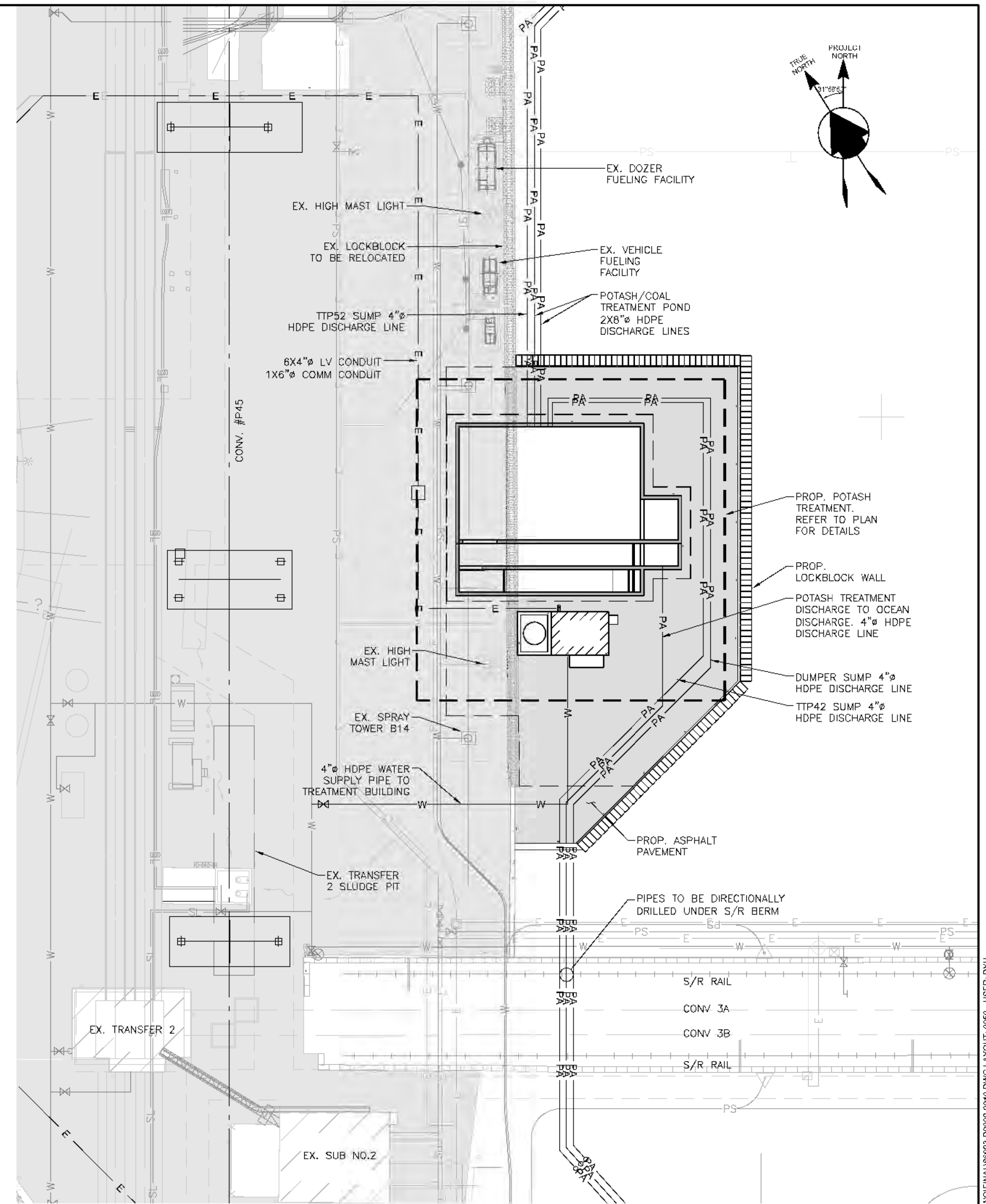


PLAN
SCALE: 1/8"=1'

NOTES:

1. ALL EXISTING INFORMATION ON STRUCTURES, MONUMENTS, BURIED / UNDERGROUND SERVICES AND UTILITIES ARE BASED ON AVAILABLE RECORDS AND SHALL NOT BE CONSTRUED AS COMPLETE OR ACCURATE.
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5. COORDINATES SHOWN ARE BASED ON A PROJECT GROUND COORDINATE SYSTEM.
6. FOR CIVIL GENERAL NOTES, REFER TO DRAWINGS 40101-D0007-0050 AND 40101-D0007-0051.
7. FOR EXTENT OF CIVIL REMOVALS, REFER TO GENERAL ARRANGEMENT DRAWINGS 88200-D0007-1110 TO 88200-D0007-1116.
8. FOR GROUND DENSIFICATION AND STRUCTURAL FOUNDATION EXTENTS AND DETAILS, REFER TO CWA DRAWINGS.
9. FOR SITE PROCESS FLOW DIAGRAM, REFER TO DRAWING 86000-D0150-1005.
10. FOR POTASH COLLECTION SYSTEM AND TREATMENT SITE PLAN REFER TO DRAWING 86900-D0150-0010.

REFERENCE DRAWING		
REF #	DWG. NUMBER	DESCRIPTION
1	88902-D0000-0025	POTASH/COAL TREATMENT SYSTEM SECTIONS AND DETAILS
2	88903-D0000-0025	POTASH TREATMENT SYSTEM SECTIONS AND DETAILS



GENERAL ARRANGEMENT
SCALE: 1/32"=1'

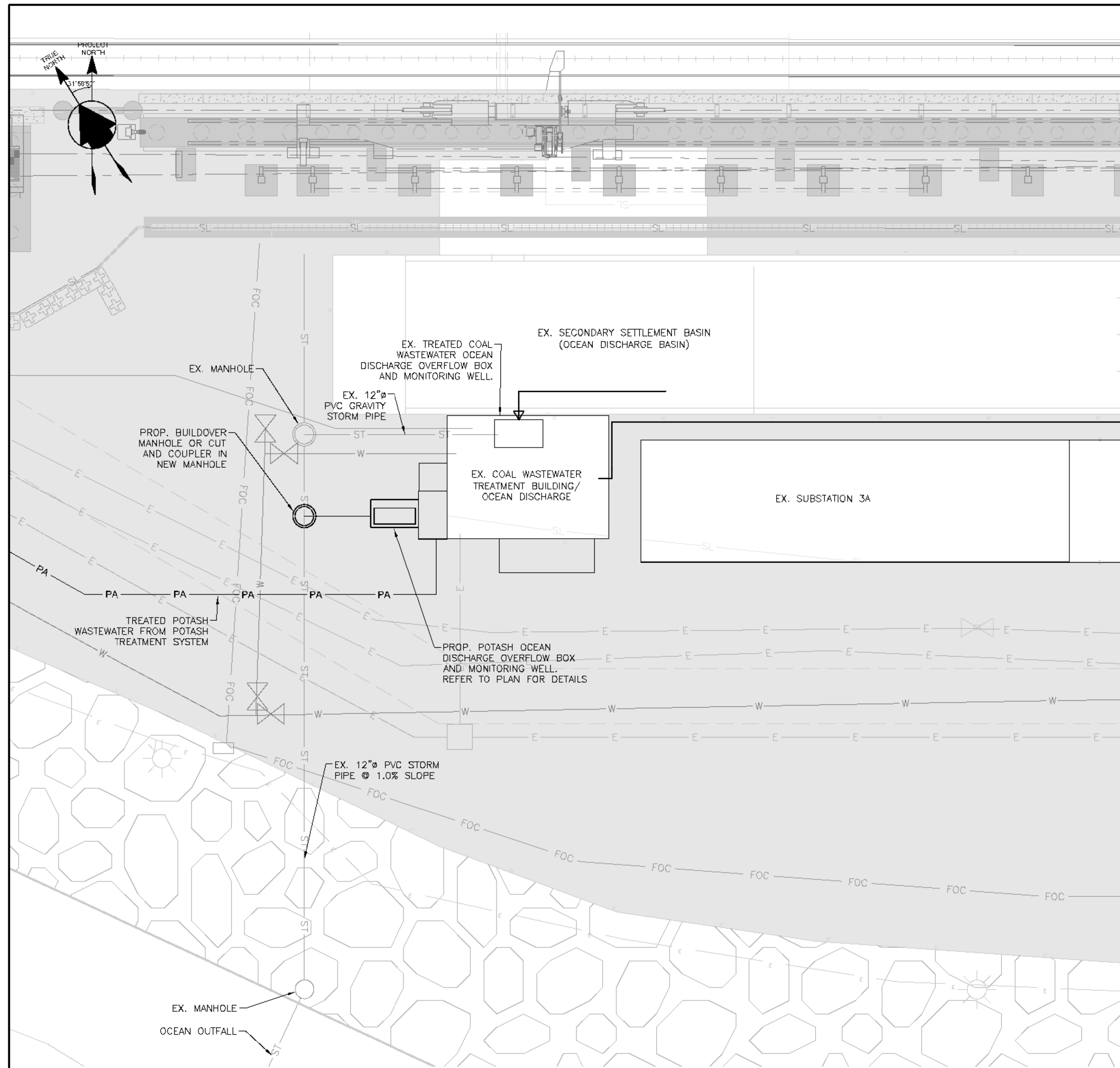
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PRELIMINARY

No	By	Date	Revision
P2	DY	21/01/15	ISSUED FOR USE - STAGE 2 STUDY
P1	DY	20/12/23	ISSUED FOR REVIEW

STAMP	
Client	Westshore Terminals LP
Consultant	BINNIE The people behind your infrastructure.
R.F. BINNIE & ASSOCIATES LTD. 300 - 4940 Canada Way, Burnaby BC V5G 4K6 TEL 604 420 1721 BINNIE.com	

Project Title	NEW CARGO STUDY		
Title	POTASH WASTEWATER COLLECTION SYSTEM POTASH TREATMENT SYSTEM GENERAL ARRANGEMENT		
Design CV	Drawn DY	Checked CV	Plot Scale AS NOTED
Date 21/01/15	Date 21/01/15	Date 21/01/15	
Drawing Number	86903-D0000-0010		Revision Number P2

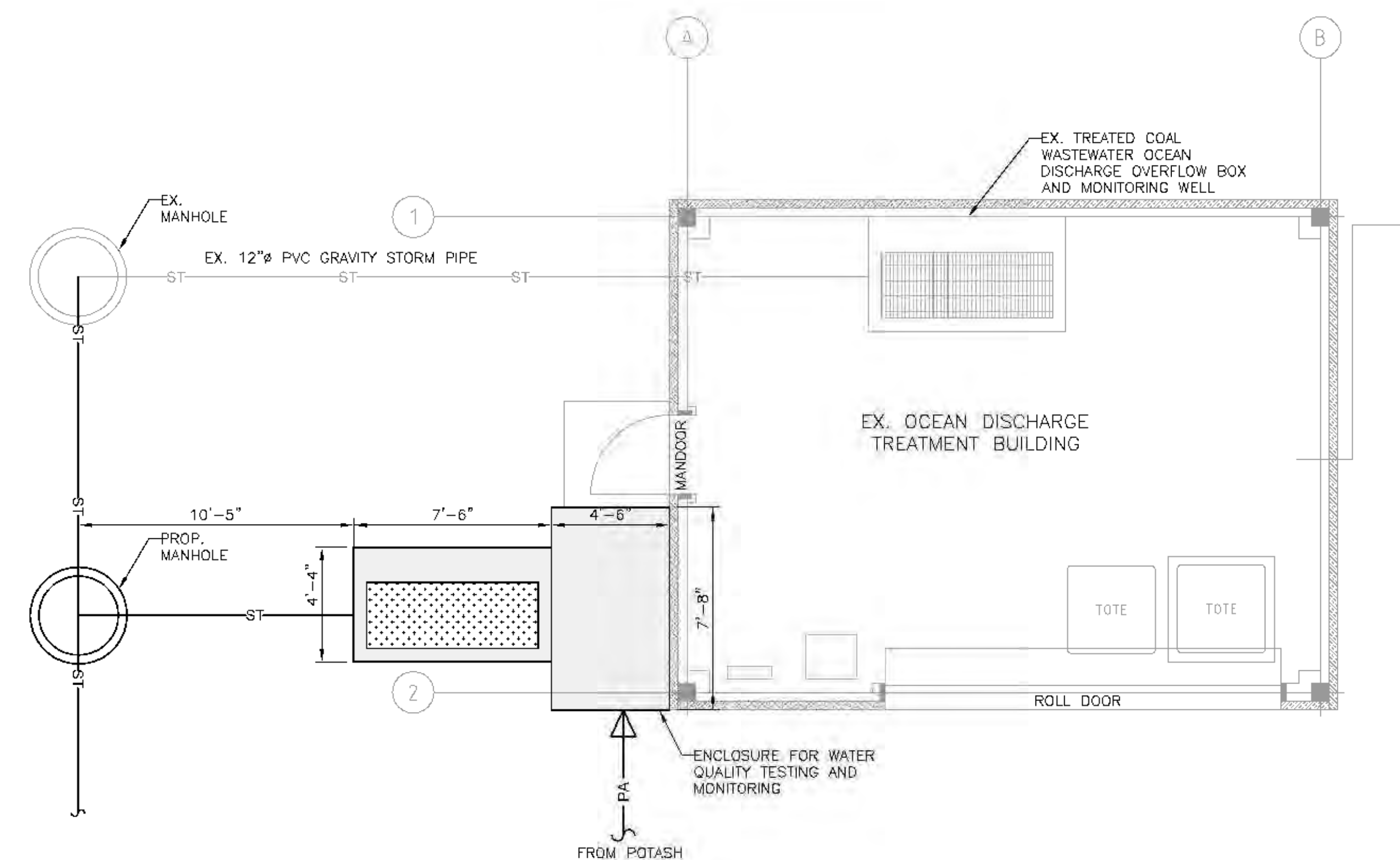


GENERAL ARRANGEMENT
SCALE: 3/32"=1'

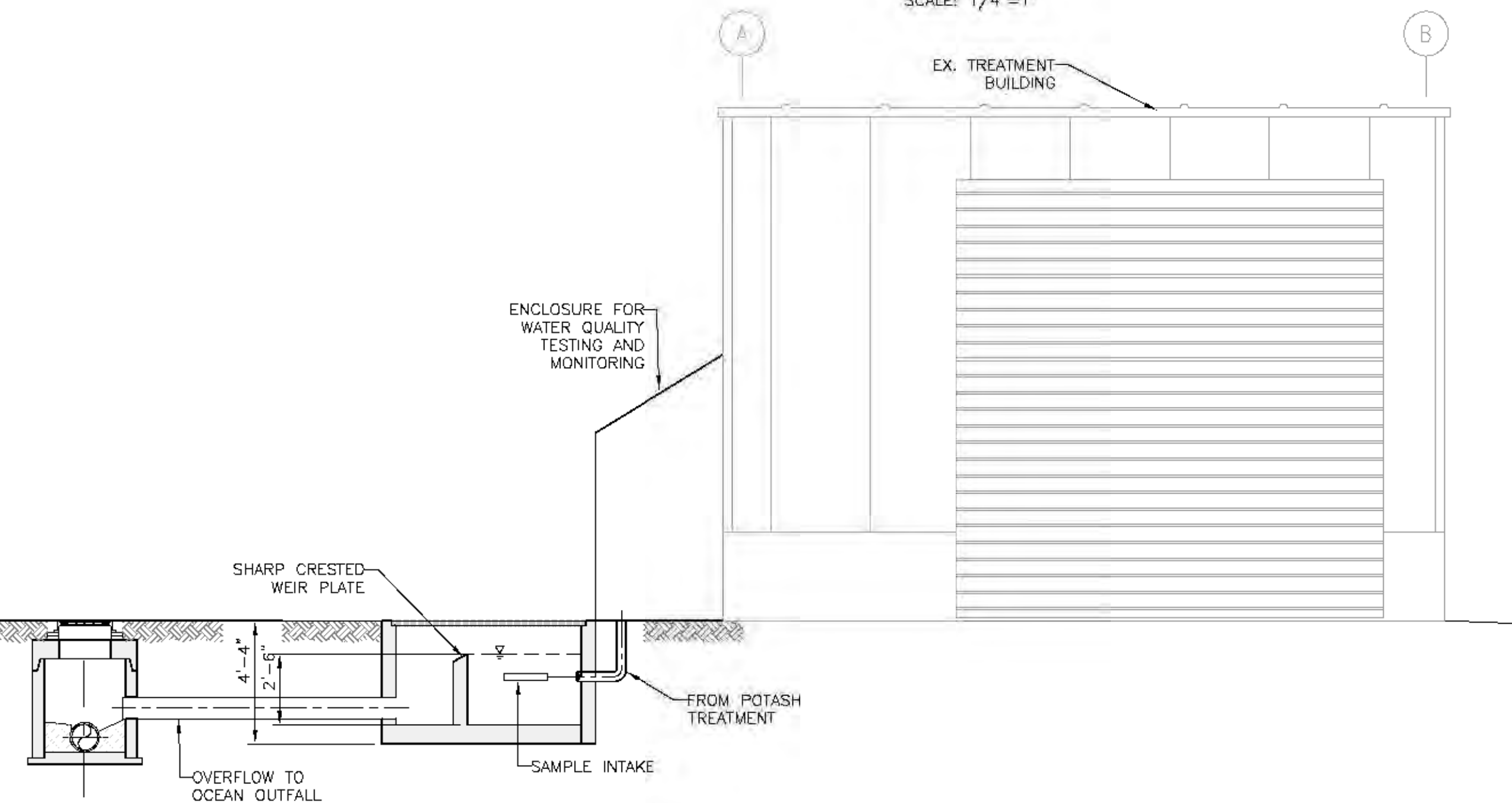
NOTES:

1. ALL EXISTING INFORMATION ON STRUCTURES, MONUMENTS, BURIED / UNDERGROUND SERVICES AND UTILITIES ARE BASED ON AVAILABLE RECORDS AND SHALL NOT BE CONSTRUED AS COMPLETE OR ACCURATE.
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7. FOR EXTENT OF CIVIL REMOVALS, REFER TO GENERAL ARRANGEMENT DRAWINGS 88200-D0007-1110 TO 88200-D0007-1116.
8. FOR GROUND DENSIFICATION AND STRUCTURAL FOUNDATION EXTENTS AND DETAILS, REFER TO CWA DRAWINGS.
9. FOR SITE PROCESS FLOW DIAGRAM, REFER TO DRAWING 86000-D0150-1005.
10. FOR POTASH COLLECTION SYSTEM AND TREATMENT SITE PLAN REFER TO DRAWING 86900-D0150-0010.

REFERENCE DRAWING		
REF #	DWG. NUMBER	DESCRIPTION
1	86902-D0000-0025	POTASH/COAL TREATMENT SYSTEM SECTIONS AND DETAILS
2	86903-D0000-0025	POTASH TREATMENT SYSTEM SECTIONS AND DETAILS



PLAN
SCALE: 1/4"=1'



ELEVATION
SCALE: 1/4"=1'

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No	By	Date	Revision
P2	DY	21/01/15	ISSUED FOR USE - STAGE 2 STUDY
P1	DY	20/12/23	ISSUED FOR REVIEW

STAMP

Client: **Westshore Terminals LP**

Consultant: **BINNIE**
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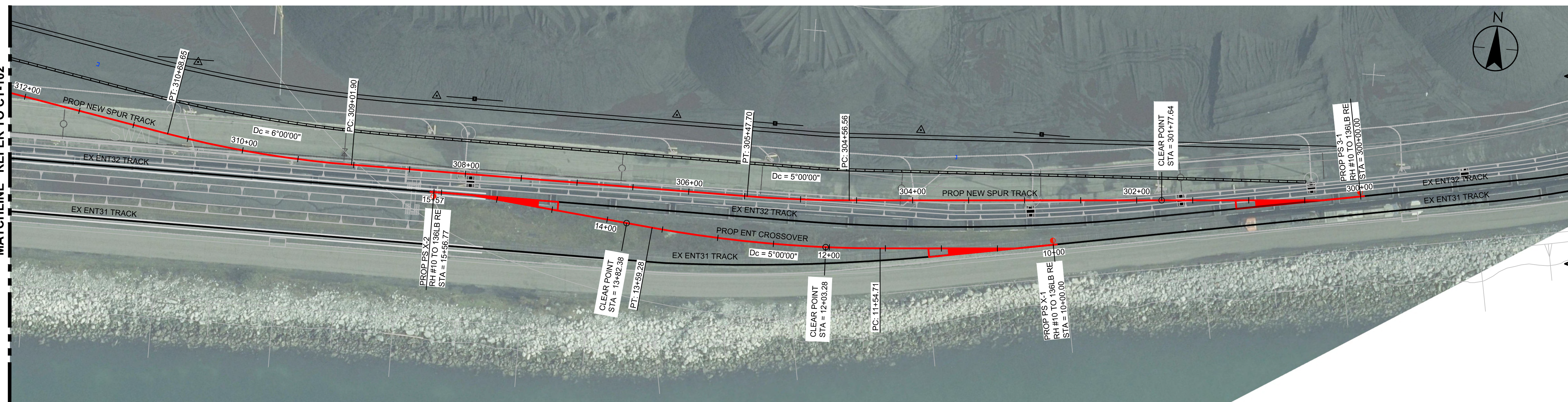
B.F. BINNIE & ASSOCIATES LTD.
300 - 4940 Canada Way,
Burnaby BC V5G 4K6
TEL: 604 420 1721
BINNIE.com

Project Title		NEW CARGO STUDY	
Title		POTASH WASTEWATER COLLECTION SYSTEM OCEAN DISCHARGE MONITORING SUMP PLAN, SECTIONS AND DETAILS	
Design CV	Drawn DY	Checked CV	Plot Scale AS NOTED
Date 21/01/15	Date 21/01/15	Date 21/01/15	
Drawing Number	86903-D0000-0100	Revision Number	P2

Rail

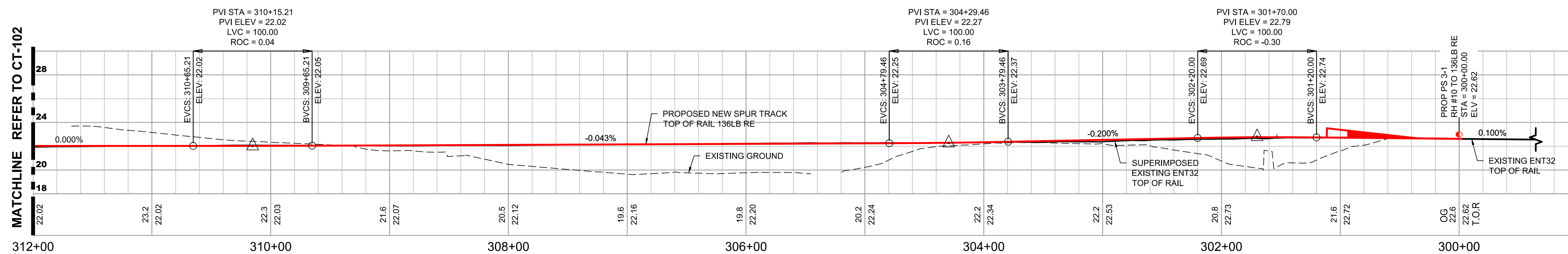
LOADING DIRECTION

MATCHLINE REFER TO CT-102



PROPOSED NEW SPUR TRACK - PLAN STA 300+00 TO STA 312+00
H 1" : 50'

MATCHLINE REFER TO CT-102



PROPOSED NEW SPUR TRACK - PROFILE STA 300+00 TO STA 312+00
H 1" : 50'
V 1" : 5'



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2023/04/04 12:25 PM By: [Name Redacted]



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ISSUED	Dwn.	Chkd.	Dsgn.	Appd.	YY-MM-DD
B ISSUED FOR USE - NEW CARGO STUDY	D.K.	S.T.	D.K.	B.E.	21.06.04
A ISSUED FOR 30% DESIGN	D.K.	S.T.	D.K.	B.E.	21.04.23

CLIENT



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#380 - 2925 Virtual Way Vancouver BC
V5M 4X5
cwaengineers.com

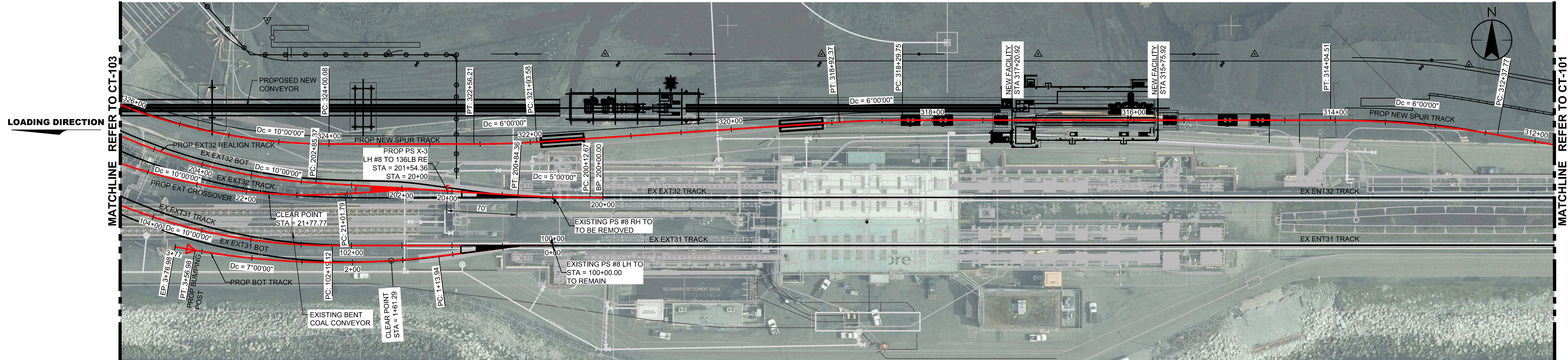


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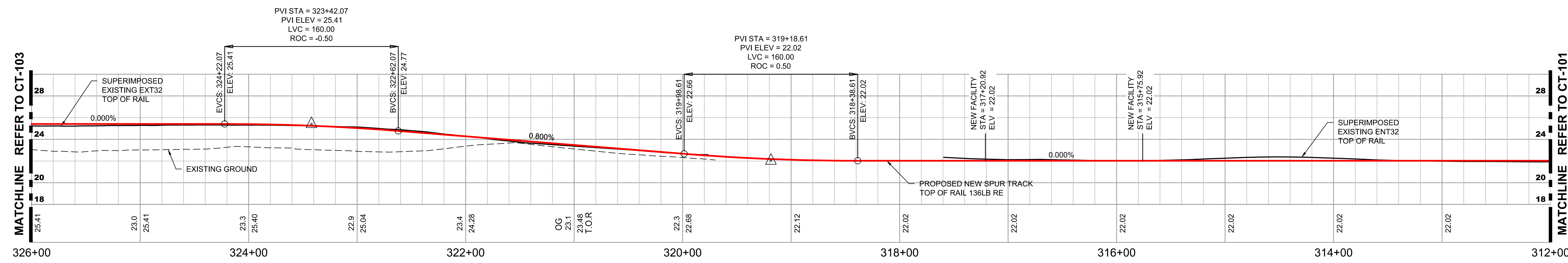
ROBERTS BANK, DELTA, BC

**WESTSHORE TERMINALS
NEW SPUR TRACK**
PROPOSED TRACKS - PLAN & PROFILE
NEW SPUR TRACK - STA 300+00 TO STA 312+00

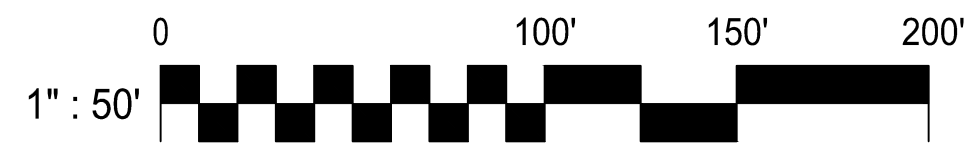
Dwg. By: D.KONG	Chk. By: S.TEHRANI	Office File: CT100-PLAN_PROFILE.DWG
Engineer: D.KONG	Date: 2021-04-23	Scale: AS NOTED
Drawing No. CT-101	Sheet No. 5 of 10	Rev. B



PROPOSED NEW SPUR TRACK - PLAN STA 312+00 TO STA 326+00
H 1" : 50'



PROPOSED NEW SPUR TRACK - PROFILE STA 312+00 TO STA 326+00
H 1" : 50'
V 1" : 5'



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Rev.	Description	By	Chk.	Appd.	Date
B	ISSUED FOR USE - NEW CARGO STUDY	D.K.	S.T.	D.K.	21.06.04
A	ISSUED FOR 30% DESIGN	D.K.	S.T.	D.K.	21.04.23
	ISSUED	Dwn.	Chkd.	Dsgn.	Appd.

CLIENT

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#380 - 2925 Virtual Way Vancouver BC
V5M 4X5
cwaengineers.com

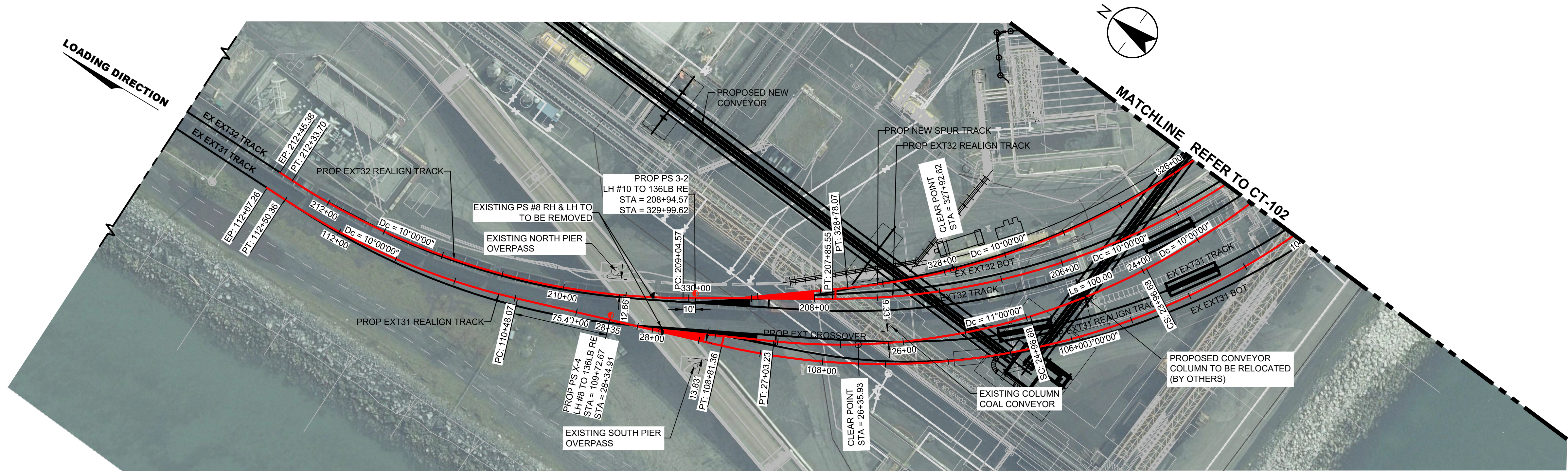
1 Roberts Bank
Delta, BC, Canada V4M 4G5
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ROBERTS BANK, DELTA, BC

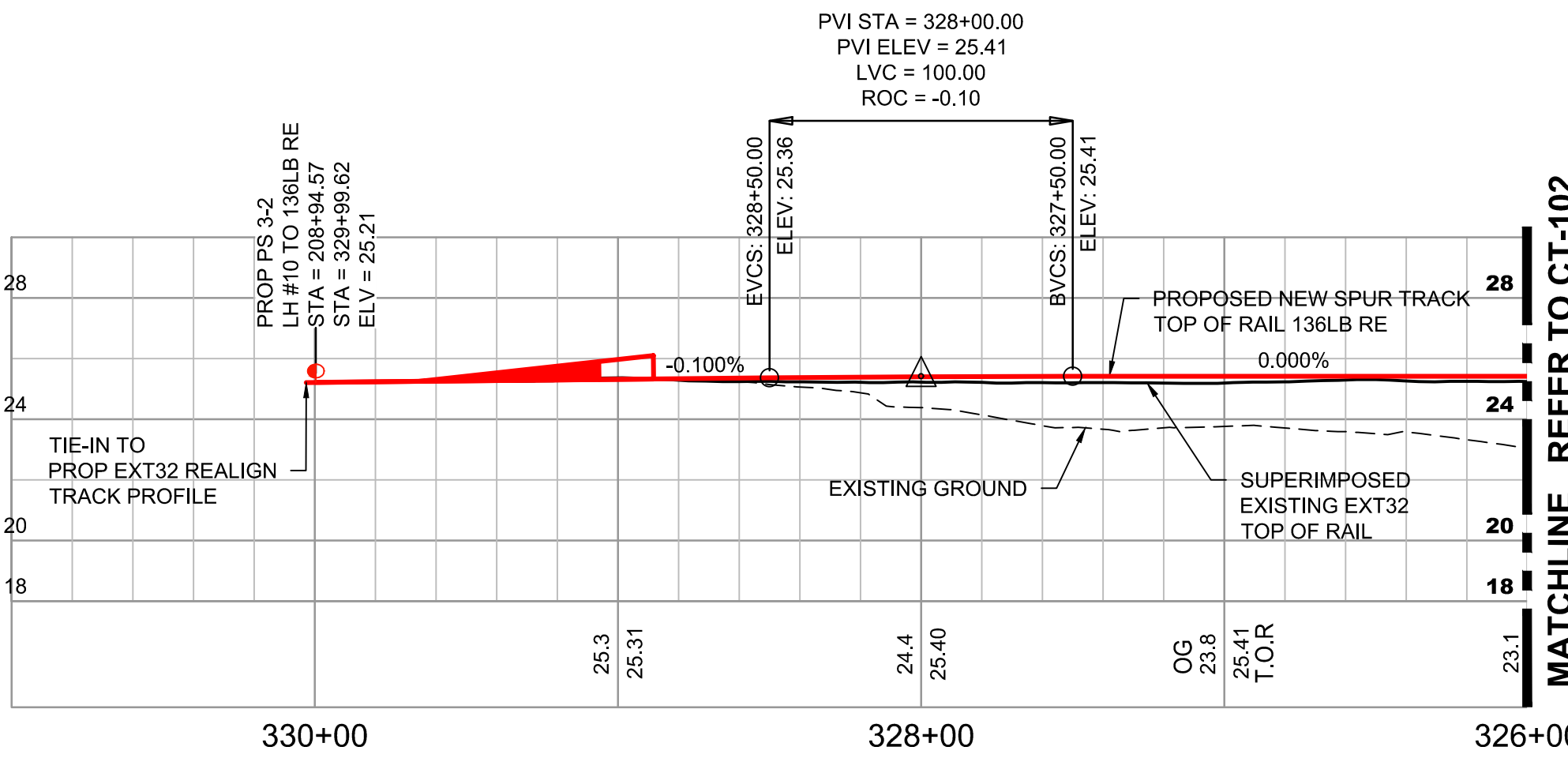
**WESTSHORE TERMINALS
NEW SPUR TRACK**

PROPOSED TRACKS - PLAN & PROFILE
NEW SPUR TRACK - STA 312+00 TO STA 326+00

Dwg. By: D.KONG	Chk. By: S.TEHRANI	Office File: CT100-PLAN_PROFILE.DWG
Engineer: D.KONG	Date: 2021-04-23	Scale: AS NOTED
Drawing No: CT-102	Sheet No: 6 of 10	Rev: B



PROPOSED NEW SPUR TRACK - PLAN STA 326+00 TO STA 330+00
H 1" : 50'



PROPOSED NEW SPUR TRACK - PROFILE STA 326+00 TO STA 330+00
H 1" : 50'
V 1" : 5'



\\c:\proj\09_24\01\01\115821026\06_drawing\02_sheets\CT100-Plan_Profile.dwg 2023/04/23 2:32:34 PM By: [Name] Dwg



Permit-Seal

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FOR PERMIT

Issue	Drawn	Checked	Designed	App'd	Date
B	D.K.	S.T.	D.K.	B.E.	21.06.04
A	D.K.	S.T.	D.K.	B.E.	21.04.23
Issued					YY-MM-DD

		<p>ROBERTS BANK, DELTA, BC</p> <p>WESTSHORE TERMINALS</p> <p>NEW SPUR TRACK</p> <p>PROPOSED TRACKS - PLAN & PROFILE</p> <p>NEW SPUR TRACK - STA 326+00 TO STA 330+00</p>
Dwg. By: D.KONG	Chk By: S.TEHRANI	Office File: CT100-PLAN_PROFILE.DWG
Engineer: D.KONG	Scale: AS NOTED	
Drawing No. CT-103	Sheet No. 7 of 10	Date: 2021-04-23
		Rev. B

CLIENT: CWA Engineers Inc. #380 - 2925 Virtual Way Vancouver BC V5M 4X5 cwaengineers.com

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ORIGINAL SHEET - ANSI D 22" x 34" (558.8mm x 863.6mm)