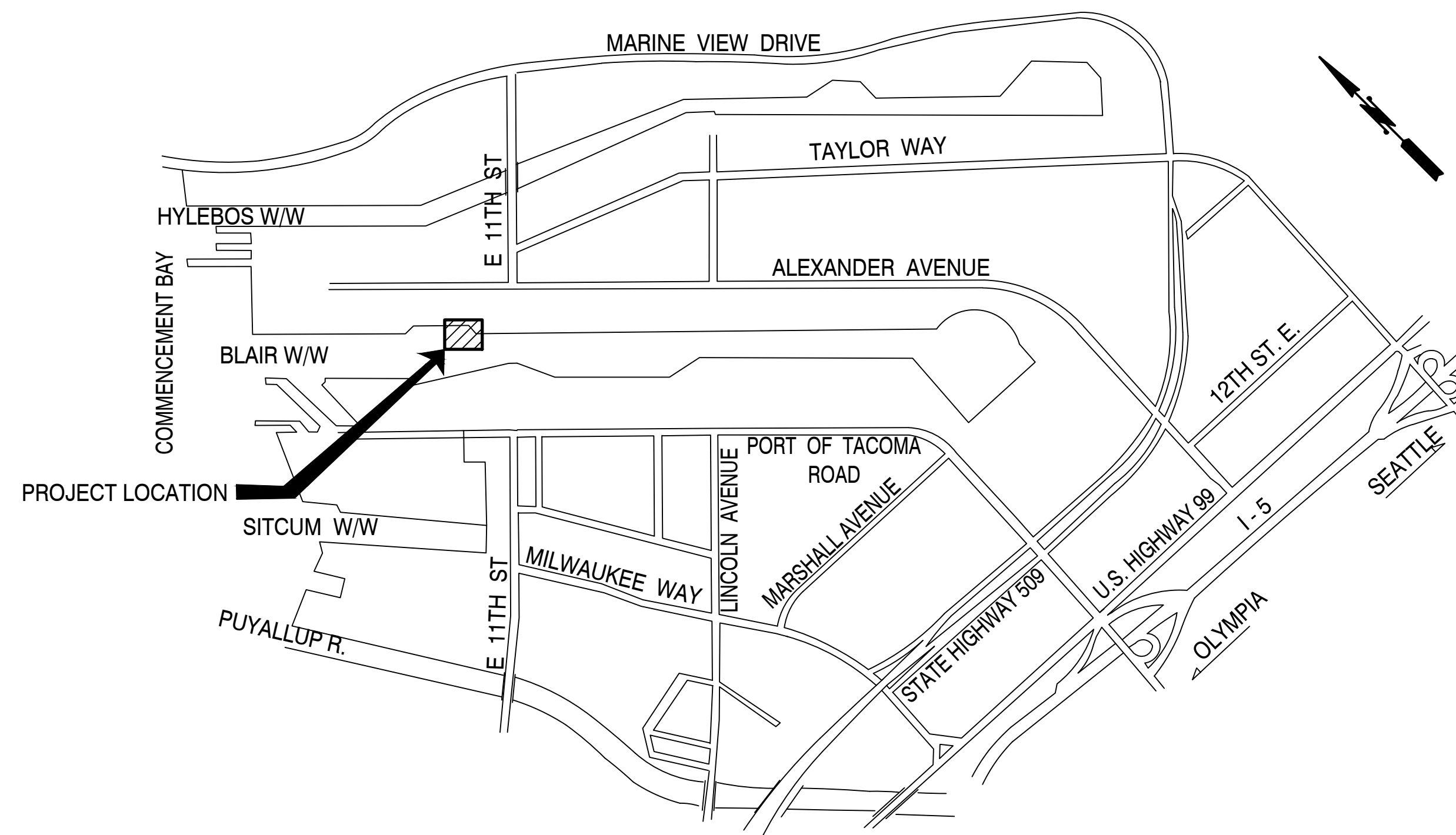


TACOMA LNG

PORT OF TACOMA, WA



LOCATION MAP

SCALE: NTS



VICINITY MAP
SCALE: NTS

SHEET INDEX		
INDEX #	SHEET #	SHEET TITLE
1	G-101	COVER SHEET, SHEET INDEX, AND LOCATION & VICINITY MAPS
2	G-102	GENERAL NOTES, DESIGN CRITERIA AND BMPS (SHEET 1 OF 2)
3	G-103	GENERAL NOTES, DESIGN CRITERIA AND BMPS (SHEET 2 OF 2)
4	G-104	ABBREVIATIONS & LEGEND
5	G-201	PROPOSED INFRASTRUCTURE PLAN
6	G-202	GENERAL ARRANGEMENT - PLAN
7	G-203	GENERAL ARRANGEMENT - STERN ELEVATION
8	C-101	CONSTRUCTION ACCESS & LAYDOWN AREA
9	C-102	EXISTING SITE CONDITIONS
10	C-103	DEMOLITION PLAN
11	C-104	OFFSITE DEMOLITION PLAN
12	C-105	LOADING PLATFORM GRADING PLAN
13	C-106	LOADING PLATFORM GRADING DETAILS
14	S-101	PILE PLAN
15	S-102	PILE SCHEDULE & NOTES
16	S-103	PILE CAP LAYOUT
17	S-104	LOADING PLATFORM DECK LAYOUT
18	S-105	LOADING PLATFORM TYPICAL SECTION
19	S-201	LOADING PLATFORM PILE CAP CONNECTION DETAILS
20	S-202	CATWALK ABUTMENT PILE CAP CONNECTION DETAILS
21	S-301	LOADING PLATFORM PILE CAP DETAILS (SHEET 1 OF 3)
22	S-302	LOADING PLATFORM PILE CAP DETAILS (SHEET 2 OF 3)
23	S-303	LOADING PLATFORM PILE CAP DETAILS (SHEET 3 OF 3)
24	S-304	LOADING PLATFORM DECK REINFORCING PLAN (SHEET 1 OF 3)
25	S-305	LOADING PLATFORM DECK REINFORCING PLAN (SHEET 2 OF 3)
26	S-306	LOADING PLATFORM DECK REINFORCING PLAN (SHEET 3 OF 3)
27	S-401	ABUTMENT PILE CAP CONNECTION
28	S-402	ABUTMENT PILE CAP DETAILS
29	S-403	TRANSITION PLATE DETAILS
30	S-501	CATWALK TYPICAL ELEVATIONS & SECTION
31	S-502	CATWALK DETAILS
32	S-503	CATWALK PILE CAP DETAILS
33	S-504	CATWALK DETAILS
34	S-505	CATWALK @ LOADING PLATFORM PLAN
35	S-506	CATWALK @ LOADING PLATFORM SECTIONS AND DETAILS
36	S-507	CATWALK ABUTMENT SECTIONS AND DETAILS
37	S-601	BREASTING DOLPHIN DETAILS (SHEET 1 OF 2)
38	S-602	BREASTING DOLPHIN DETAILS (SHEET 2 OF 2)
39	S-603	FENDER SUPPORT FRAME
40	S-701	FENDER PILE SYSTEM DETAILS (SHEET 1 OF 2)
41	S-702	FENDER PILE SYSTEM DETAILS (SHEET 2 OF 2)
42	S-801	MISCELLANEOUS DETAILS

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[illegible]

PUGET SOUND ENERGY TACOMA LNG **COVER SHEET, SHEET INDEX, AND LOCATION & VICINITY MAPS**

Designed by: OOOJA JAIN	Date: 6/28/2016	Rev. —
Ckd by: JG	M&N Project No. 7940	
Reviewed by: RUCRUC OSTRB	Drawing code:	
Submitted by: OOOJA JAIN	Drawing Scale: AS NOTED	
OFFATT & NICHOL	Plot scale: 1:1 (0 SHEET)	

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Sheet
reference
Number:

G-101

GENERAL NOTES:

1. THESE NOTES CONTAIN GENERAL INFORMATION AND ARE NOT COMPLETE FOR CONSTRUCTION PURPOSES. CONTRACTOR SHALL VERIFY INFORMATION GIVEN HERE WITH SPECIFICATIONS AND OTHER DOCUMENTS AND BRING ANY CONFLICTS TO THE ATTENTION OF THE OWNER BEFORE BEGINNING AFFECTED WORK. THE OWNER WILL RESOLVE ANY SUCH CONFLICT.
2. IN THE EVENT OF CONFLICTING REQUIREMENTS BETWEEN THE CONTRACT DRAWINGS, GENERAL NOTES AND SPECIFICATIONS, THE MORE STRINGENT SHALL CONTROL.
3. ALL FEDERAL, STATE AND LOCAL SAFETY REGULATIONS ARE TO BE STRICTLY FOLLOWED. METHODS OF DEMOLITION, CONSTRUCTION, AND ERECTION OF STRUCTURAL MATERIAL ARE THE CONTRACTOR'S RESPONSIBILITY.
4. THE CONTRACTOR SHALL ENSURE ALL PERMITS REQUIRED BY ANY FEDERAL, STATE, OR LOCAL DEPARTMENTS, UTILITY COMPANIES OR JURISDICTIONS AFFECTED BY THE WORK ARE OBTAINED.
5. THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL PROTECTION STANDARDS, PERMITS, LAWS, AND REGULATIONS.
6. THE CONTRACTOR SHALL PLACE CONSTRUCTION DEBRIS CONTROL DEVICES, BOOMS, TARPULINS, AND OTHER DEVICES AS NECESSARY TO PREVENT DEBRIS FROM ENTERING THE WATER, AND AIR BORNE MATERIALS FROM LEAVING THE IMMEDIATE VICINITY OF THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP OF ANY MATERIALS DEPOSITED OUTSIDE THE WORK AREA.
7. ALL HAZARDOUS/NON HAZARDOUS AND REGULATED OR NON REGULATED DEBRIS SHALL BE DISPOSED OF OFF THE PROJECT SITE IN A PERMITTED LANDFILL BY CONTRACTOR.
8. COORDINATE ACCESS TO THE SITE WITH THE OWNER.
9. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS FOR COMPATIBILITY BEFORE PROCEEDING. ANY DISCREPANCIES IN DIMENSIONS OR SITE CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING. THE CONTRACTOR SHALL NOT BEGIN CONSTRUCTION UNTIL THE DISCREPANCY HAS BEEN RESOLVED BY THE OWNER.
10. LOCATIONS OF EXISTING STRUCTURES AND UTILITIES ON THE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING STRUCTURES AND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING DISCREPANCIES WITH THE OWNER.
11. CONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE OWNER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTION STABILITY AND TEMPORARY SUPPORT AS NECESSARY. DETAILED CONSTRUCTION PLANS SHALL BE PREPARED BY THE CONTRACTOR AND APPROVED BY THE OWNER PRIOR TO MOBILIZATION.
13. CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT ALL EXISTING SURFACES OR STRUCTURES THAT WILL REMAIN.
14. FOR STRUCTURAL DRAWINGS OF THE EXISTING INFRASTRUCTURE, CONTACT THE OWNER.
15. THE CONTRACTOR SHALL TAKE NECESSARY MEASURES TO PREVENT INTERRUPTION OF OPERATIONS AND PROTECT ALL EXISTING STRUCTURES AT THE FACILITY DURING CONSTRUCTION. DETAILS SHALL BE PRESENTED ON THE CONSTRUCTION PLANS.

SURVEY DATA:

1. HORIZONTAL AND VERTICAL DATUM
 - A. HORIZONTAL DATUM: WASHINGTON STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, NAD 83/2007 BASED ON PORT OF TACOMA SURVEY CONTROL MAP BLAIR-HYBLEBOS PENINSULA DATED 01-07-2008.
HELD NORTH 45°53'32" WEST BETWEEN TWO FOUND MONUMENTS ALONG EAST 11TH STREET AT THE INTERSECTIONS OF ALEXANDER AVE. AND TAYLOR WAY.
 - B. VERTICAL DATUM: MLLW (MEAN LOWER LOW WATER)
TIDAL EPOCH 1983-2001, BASED ON NOAA TIDAL GAUGE 9446484
BENCHMARK: "TIDE 22 1933", ELEVATION = 19.18
SITE BENCHMARK: CONTROL POINT NO. 121
MONUMENT AT THE INTERSECTION OF EAST 11TH STREET AND ALEXANDER AVE.,
ELEVATION = 17.78
TO CONVERT TO NGVD29 DATUM, APPLY -5.96 TO ALL ELEVATION VALUES.
2. BASE FLOOD ELEVATION (FEMA A ZONE) = +15.33 FT MLLW.

SURVEY DATA (CONT'D):

3. TIDAL DATA
- ELEVATIONS OF TIDAL DATUMS REFERRED TO MEAN LOWER LOW WATER (MLLW), IN US FEET, AT COMMENCEMENT BAY, TACOMA, STATION 9446484 BASED ON TIDAL EPOCH 1983-2001:
- | | |
|--|-------|
| HIGHEST OBSERVED WATER LEVEL (01/04/1998)..... | 14.30 |
| MEAN HIGHER HIGH WATER LEVEL (MHHW)..... | 11.83 |
| MEAN HIGH WATER (MHW)..... | 10.94 |
| MEAN TIDE LEVEL (MTL)..... | 6.90 |
| MEAN SEA LEVEL (MSL)..... | 6.87 |
| MEAN LOW WATER (MLW)..... | 2.85 |
| NORTH AMERICAN VERTICAL DATUM (NAVD 1988)..... | 2.49 |
| MEAN LOWER LOW WATER (MLLW)..... | 0.00 |
| LOWEST OBSERVED WATER LEVEL (12/24/1999)..... | -4.29 |

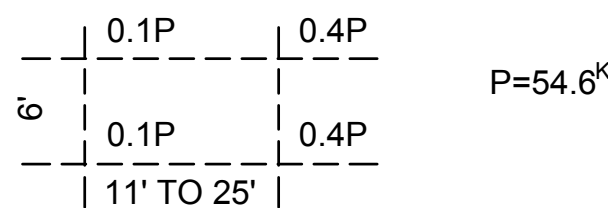
CODES & STANDARDS:

ALL WORK SHALL CONFORM TO THE MINIMUM REQUIREMENTS FOR THE FOLLOWING CODES AND STANDARDS:

1. INTERNATIONAL BUILDING CODE (IBC), 2012 EDITION, AS AMENDED AND ADOPTED BY THE CITY OF TACOMA.
2. AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE), ASCE 61-14 SEISMIC DESIGN OF PIERS & WHARVES.
3. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), STEEL CONSTRUCTION MANUAL, 14TH EDITION.
4. ANSI/AISC 360, SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS.
5. AMERICAN WELDING SOCIETY (AWS), STRUCTURAL WELDING CODE- STEEL, AWS. D1.1 & D1.8.
6. AMERICAN PETROLEUM INSTITUTE (API), API RP-2A WSD PLANNING, DESIGN AND CONSTRUCTING FIXED OFFSHORE PLATFORMS - WORKING STRESS DESIGN.
7. AMERICAN CONCRETE INSTITUTE (ACI) 318-11 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE & COMMENTARY.
8. WSDOT STANDARD PLANS
9. WSDOT SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, 2012 EDITION.

DESIGN CRITERIA:

1. DEAD LOAD: SELF WEIGHT OF STRUCTURE AND APPURTENANCES
2. UNIFORM LIVE LOAD
 - a. LOADING PLATFORM..... 100 PSF
 - b. CATWALKS..... 60 PSF
3. VEHICULAR LOADS
 - a. HS25 TRUCK
 - b. FIRE TRUCK - 2004 PIERCE KENWORTH PUMPER TANKER WITH CAFS



4. DESIGN VESSEL:
- a. FENDER PILE DESIGN:
- | | |
|-------------------------|---|
| DESCRIPTION..... | 3000 M3 BARGE |
| LENGTH OVERALL..... | 232'-1/4" |
| MOLDED BEAM..... | 48'-8" |
| MOLDED DEPTH..... | 15'-8" |
| FULL LOADED DRAFT..... | 11'-6" (ESTIMATED) |
| TOTAL CARGO VOLUME..... | 3000 M3 LIQUIFIED NATURAL GAS (APPROX.) |
- b. BREASTING DOLPHIN DESIGN:
- | | |
|---------------------|------------------------|
| DESCRIPTION..... | TOTE ORCA CLASS VESSEL |
| LENGTH OVERALL..... | 839' |
| BEAM..... | 118' |
| MOLDED DEPTH..... | 90' |
| DESIGN DRAFT..... | 29'-6" (ESTIMATED) |

DESIGN CRITERIAL (CONT'D):

5. BERTHING LOADS: IN ACCORDANCE WITH PIANC GUIDELINES FOR DESIGN OF FENDER SYSTEMS.
6. EARTHQUAKE LOADS
THE LOADING PLATFORM, ABUTMENT AND CATWALKS ARE DESIGNED FOR OPERATION LEVEL EARTHQUAKE (OBE) AND SAFE SHUTDOWN EARTHQUAKE (SSE) EVENTS. BREASTING DOLPHIN IS DESIGNED FOR OBE ONLY.
 - a. OBE GROUND MOTION: 10% PROBABILITY OF EXCEEDANCE IN 50 YEARS
 - b. SSE GROUND MOTION: 2% PROBABILITY OF EXCEEDANCE IN 50 YEARS
7. POST EARTHQUAKE LOADS: THE LOADING PLATFORM AND CATWALK ARE DESIGNED FOR KINEMATIC LOADING DUE TO FLOW FAILURE OF SLOPE.

SHOP DRAWINGS:

1. SHOP DRAWINGS SHALL BE SUBMITTED TO THE OWNER FOR REVIEW PRIOR TO FABRICATION. SHOP DRAWINGS SHALL BE REVIEWED AND STAMPED BY THE CONTRACTOR PRIOR TO REVIEW BY THE OWNER'S REPRESENTATIVE. REFER TO THE PROJECT SPECIFICATIONS FOR COORDINATION OF SHOP DRAWING SUBMITTALS.

CONCRETE:

1. ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACI 301, UNLESS OTHERWISE NOTED.
2. ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE (145 PCF), MIN.
3. ALL DETAILING, FABRICATION AND ERECTION OF REINFORCING STEEL SHALL CONFORM TO THE ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES: ACI 315 AND ACI 2P-66.
4. MATERIALS SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISE NOTED.
 - a. CONCRETE28 DAY STRENGTH
CAST-IN-PLACE CONCRETE5,000 PSI
 - b. REINFORCING STEEL
 - (i) #6 AND LARGERASTM A706
 - (ii) #5 AND SMALLERASTM A615, GRADE 60 OR A706
 - c. HEADED REINFORCING
 - (i) TYPICAL - HRC 555 OR LENTON D6, UON
 - (ii) AT PILE HEADS AND LOADING PLATFORM ABUTMENT - HRC 150 OR LENTON D14
5. THE MINIMUM COVER OVER REINFORCING BARS SHALL BE 3 INCHES UNLESS OTHERWISE SHOWN ON THE DRAWINGS.
6. ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED 1 INCH.
7. SEE SPECIFICATIONS FOR FINISHES ON ALL EXPOSED CONCRETE SURFACES.
8. ALL REINFORCING BAR SPLICES SHALL BE CLASS "B" TENSION LAP SPLICES PER ACI 318 UNLESS OTHERWISE NOTED. SPLICES SHALL OCCUR AT 1/3 POINTS OF THE SPAN PER ACI 318 CHAPTER 21 SPLICING OVER JOINTS IS NOT PERMITTED.

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Reference
Number:
G-102
Index 2 of

Q PUGET SOUND ENERGY TACOMA LNG		GENERAL NOTES, DESIGN CRITERIA AND BMPS (SHEET 1 OF 2)
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B	Designed by: POOJA JAIN		Date: 6/28/2016	Rev. -
	Dwn by: CG	Old by: TM	M&N Project No. 7940	
	Reviewed by: BRUCE OSTBO		Drawing code:	
	Submitted by: POOJA JAIN MORFATT & NICHOL		Drawing Scale: AS NOTED Plot scale: 1:1 (D SHEET)	

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(206) 622-0222

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GEOTECHNICAL DATA REPORT:

1. GEOTECHNICAL ENGINEERING SERVICES REV 3 - FINAL, TACOMA LNG PROJECT FOR PUGET SOUND ENERGY DATED MARCH 21, 2016.
 2. GEOTECHNICAL ENGINEERING SERVICES, PSE MARINE STRUCTURES AT TOTE TERMINAL, TACOMA LNG PROJECT FOR PUGET SOUND ENERGY DATED JUNE 23, 2016.
- PERMIT REQUIREMENTS AND BMPS:
- CONTRACTOR SHALL COMPLY WITH ALL PROJECT PERMIT CONDITIONS AND APPLICABLE BMPS LISTED BELOW AND IDENTIFIED IN THE SPECIFICATIONS, THE PROJECT STORMWATER POLLUTION PREVENTION PLAN, AND WATER QUALITY PROTECTION AND MONITORING PLAN.
1. DURING ANY IN-WATER AND EMBANKMENT WORK, CONTAINMENT BOOMS SHALL BE USED TO SURROUND THE WORK AREAS OR SEPARATE EMBANKMENT WORK FROM SURFACE WATER. THE BOOMS SHALL SERVE TO CONTAIN AND COLLECT ANY OILY MATERIAL RELEASED AS WELL AS FLOATING DEBRIS. OIL-ABSORBENT MATERIALS SHALL BE EMPLOYED IMMEDIATELY IF VISIBLE PRODUCT IS OBSERVED. ACCUMULATED DEBRIS SHALL BE COLLECTED DAILY AND DISPOSED OF AT A PERMITTED UPLAND SITE APPROVED BY THE OWNER.
 2. STEEL PILING SHALL BE INSTALLED WITH A VIBRATORY HAMMER WHEN POSSIBLE. IMPACT HAMMERING SHALL START WITH LIGHT TAPPING, THEN INCREASE TO FULL FORCE GRADUALLY.
 3. A BUBBLE CURTAIN AND ONE OR MORE OTHER NOISE ATTENUATION METHODS SHALL BE USED DURING IMPACT INSTALLATION OR PROOFING OF ALL STEEL PILING.
 4. HYDRAULIC WATER JETS WILL NOT BE USED TO INSTALL PILES.
 5. WORK BARGES, CONTAINMENT BOOMS, AND SILT CURTAINS SHALL NOT BE GROUNDED DURING CONSTRUCTION.
 6. EXCESS AND/OR WASTE MATERIALS GENERATED DURING CONSTRUCTION SHALL NOT BE DISPOSED OF OR ALLOWED TO ENTER STATE WATERS. EXCESS OR WASTE MATERIALS SHALL BE COLLECTED AND RECYCLED OR DISPOSED OF AT A PERMITTED UPLAND FACILITY APPROVED BY THE OWNER. DEMOLITION AND CONSTRUCTION MATERIALS SHALL NOT BE STORED WHERE WAVE ACTION OR UPLAND RUNOFF CAN CAUSE MATERIALS TO ENTER SURFACE WATERS.
 7. WATER QUALITY STANDARDS AND PROCEDURES THAT LIMIT THE IMPACT OF POLLUTANTS SHALL BE OBSERVED (WAC173-201A-210(1)(E)(I)).
 8. LAND-BASED STAGING AREAS FOR ACTIVITIES, SUCH AS STORAGE OF MACHINERY, EQUIPMENT, MATERIALS, AND STOCKPILED SOILS SHALL BE ESTABLISHED LANDWARD OF THE TOP OF BANK IN ACCORDANCE WITH REQUIREMENTS IN THE SPECIFICATIONS. A SILT FENCE SHALL BE INSTALLED AROUND THE PERIMETER OF THE UPLAND WORK AREAS AND LOCATIONS WHERE MACHINERY, MATERIALS, AND STOCKPILED SOILS ARE SITUATED. ANY TEMPORARY STOCKPILES SHALL BE COVERED AND BERMED WHEN NOT IN USE.

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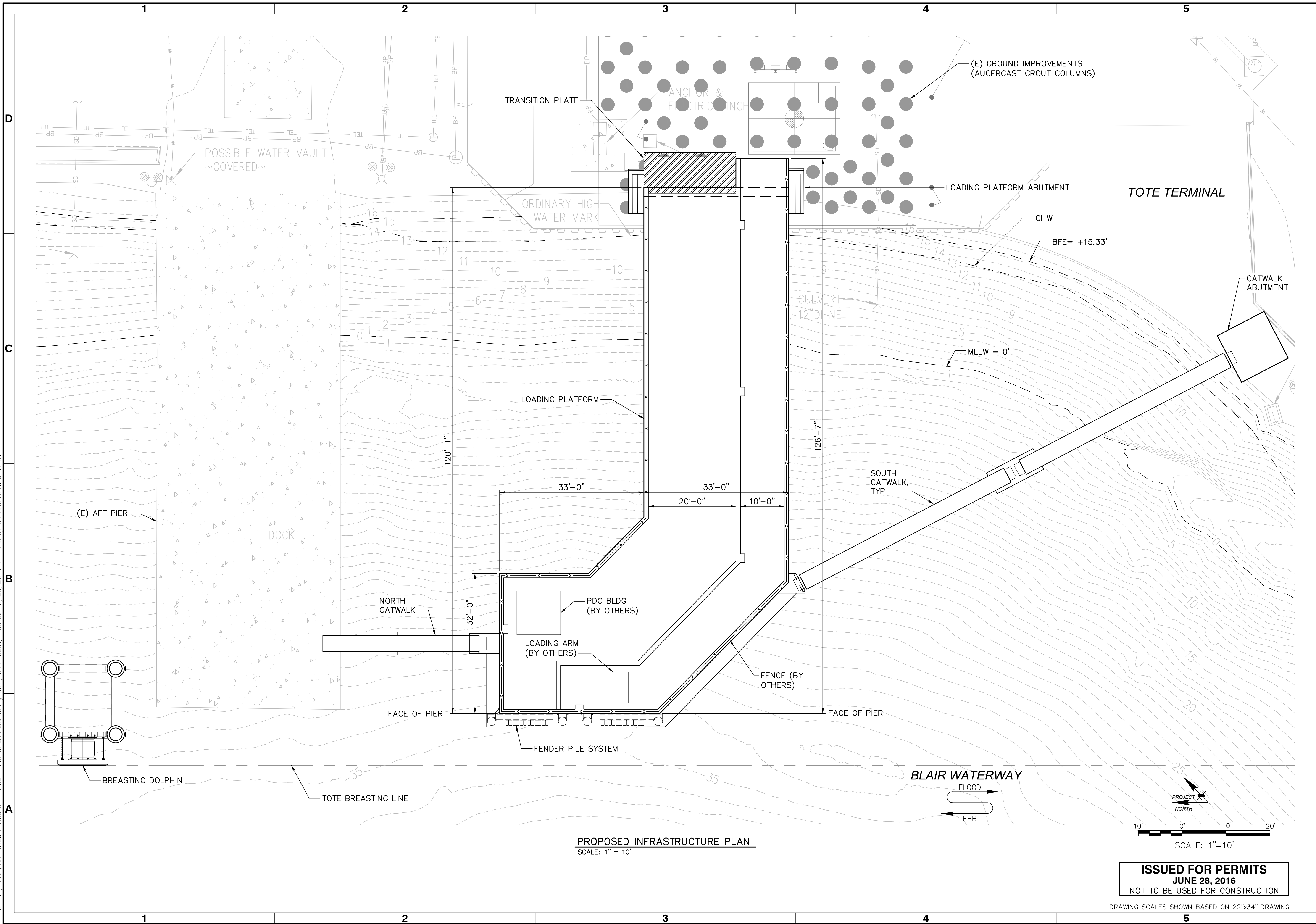
Diagram illustrating the components of a Containment Boom/Turbidity Curtain system:

- FLOTATION**: The upper cylindrical component.
- BALLAST POCKET**: The lower cylindrical component.
- IMPERVIOUS TURBIDITY CURTAIN**: The vertical barrier between the two components, with a height dimension of **10'**.
- SCALE: NTS** (Not To Scale).

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G-103
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PUGET SOUND ENERGY

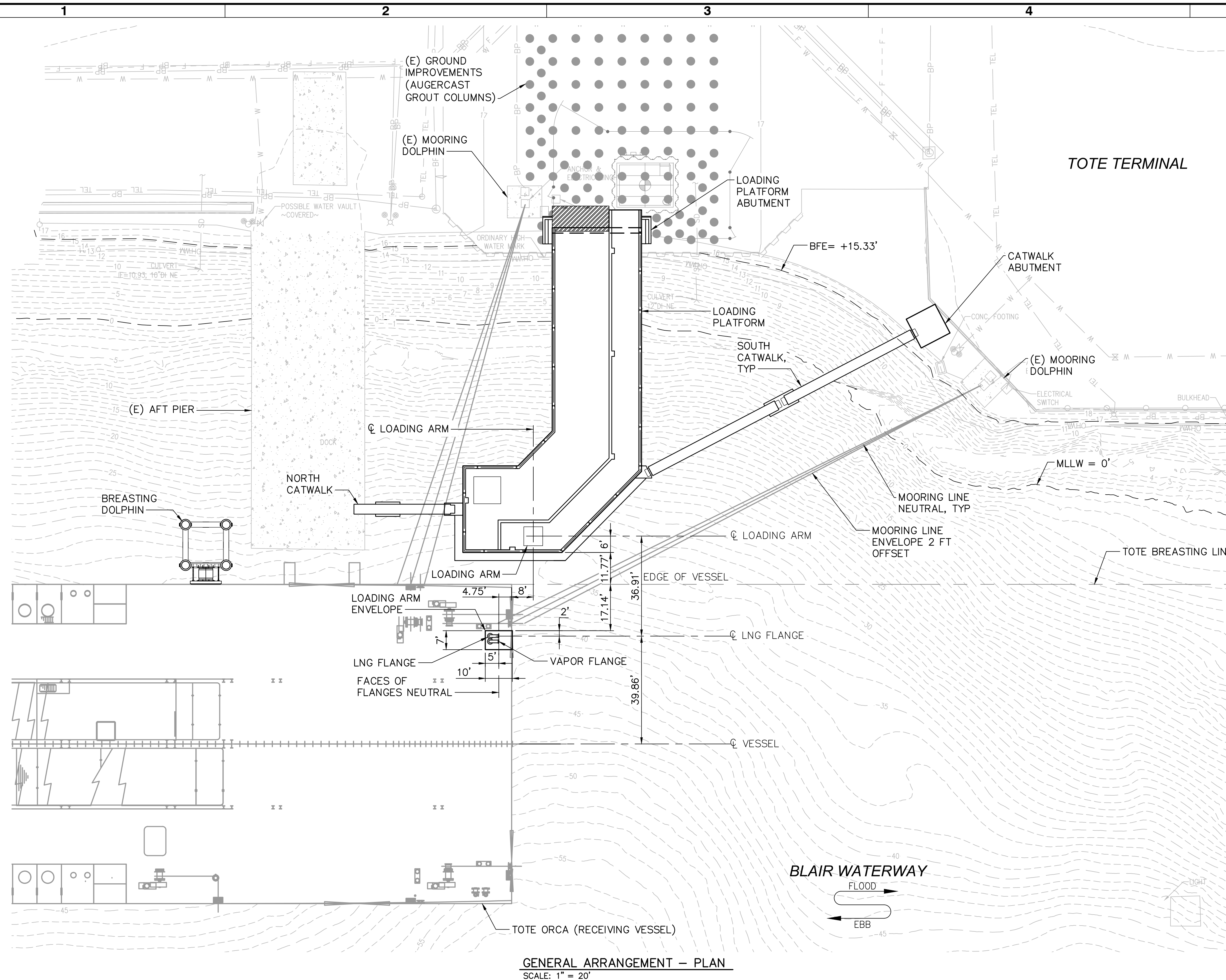
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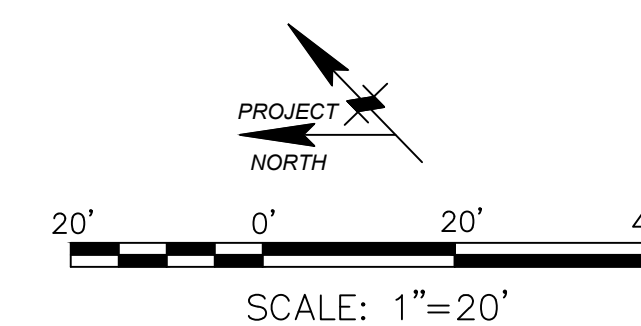
moffatt & nichol

BRUCE OSTBO
REGISTERED PROFESSIONAL ENGINEER
6/28/2016

Sheet Reference Number:
G-201
Index 5 of 42



GENERAL ARRANGEMENT – PLAN
SCALE: 1" = 20'



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PUGET SOUND ENERGY
TACOMA LNG

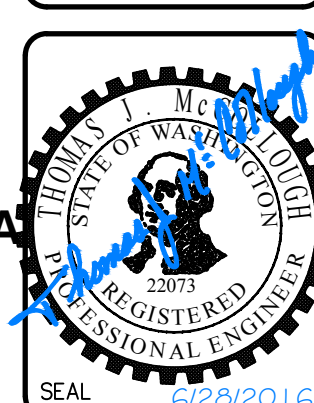
GENERAL ARRANGEMENT - PLAN

Designed by: POOJA JAIN	Date: 6/28/2016	Rev.:
Ckd by: CG TM	M&N Project No. 7940	—
Drawing code:		
Reviewed by: BRUCE OSTBO		
Submitted by: POOJA JAIN		
Drawing Scale: AS NOTED		
Plot scale: 1:1 (D SHEET)		
MOFFATT & NICHOL		

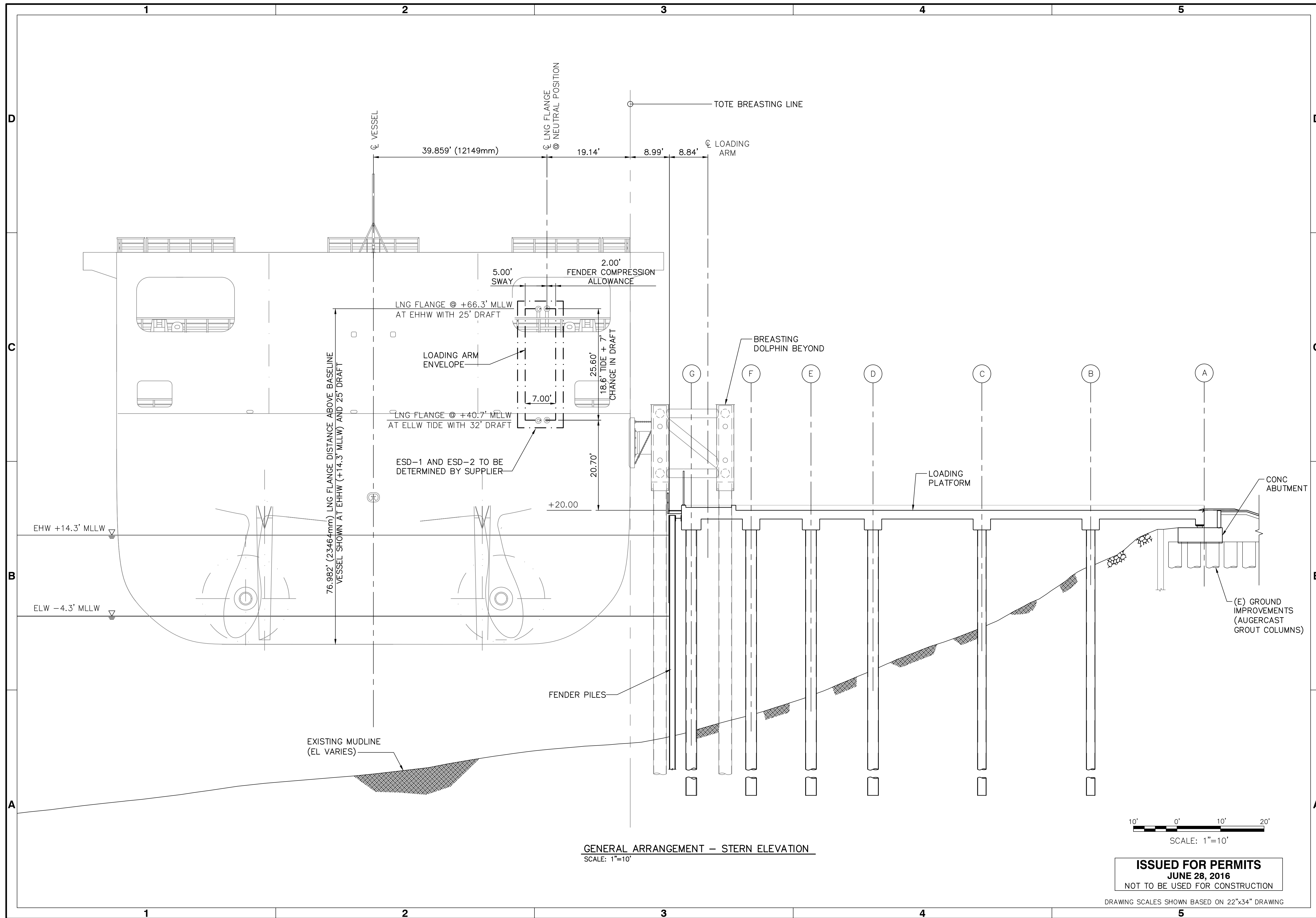


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G-202
Index 6 of 42

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**PUGET SOUND ENERGY
TACOMA LNG**

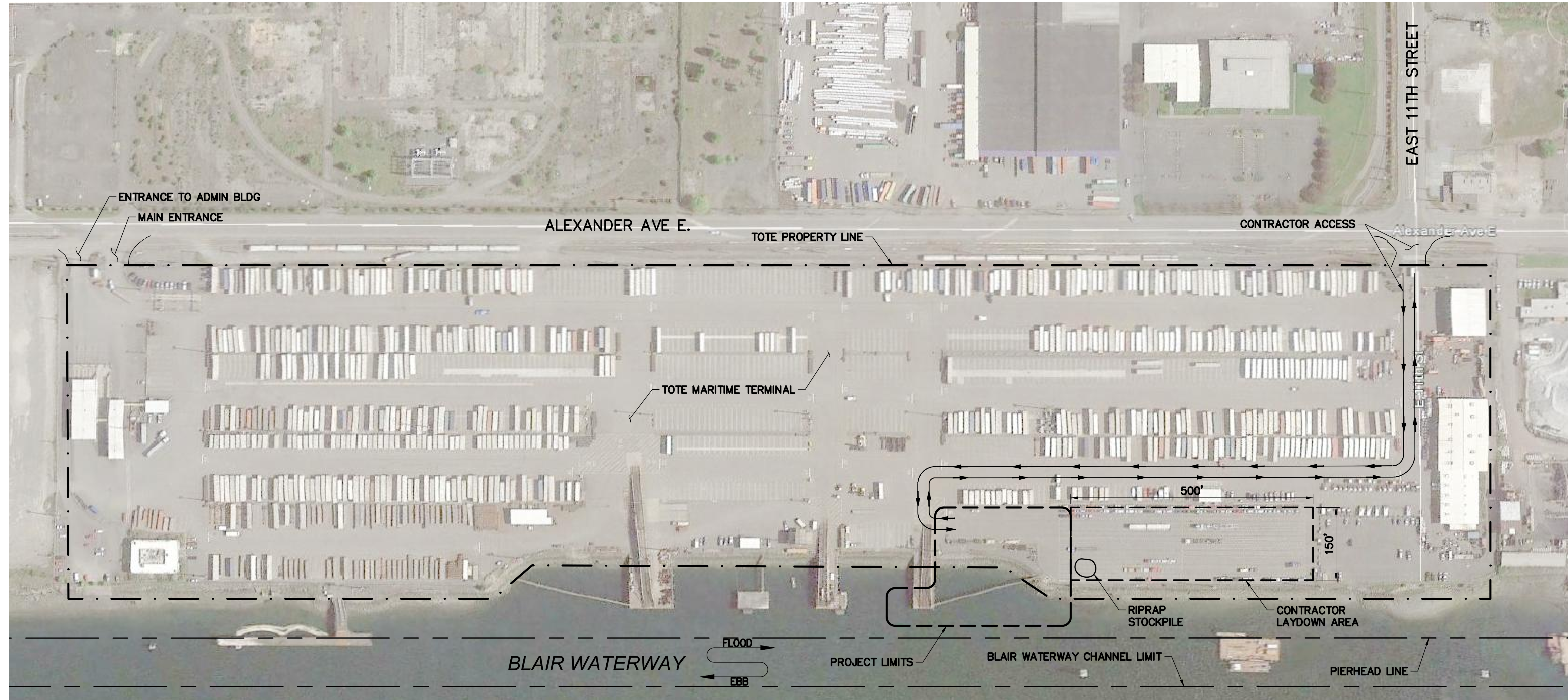
POOJA JAIN	6/28/2016	-
Ckd by: CG TM	M&N Project No. 7940	
Reviewed by: BRUCE OSTBO	Drawing code:	
Submitted by: POOJA JAIN	Drawing Scale: AS NOTED	
MOFFATT & NICHOL	Plot scale: 1:1 (D SHEET)	

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Index 7 of 42



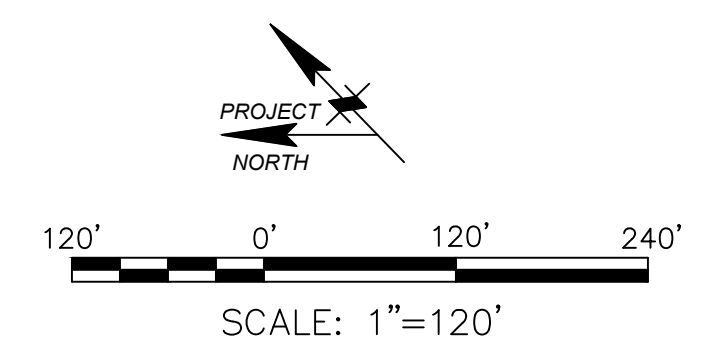
CONSTRUCTION ACCESS & LAYDOWN AREA
SCALE: 1" = 120'

NOTES

1. PROJECT LIMITS AND LAYDOWN AREA ARE ADJACENT TO AN OPERATING MARINE TERMINAL AND LANDSIDE ACCESS TO THE PROJECT LIMITS AND CONTRACTOR LAYDOWN AREA IS THROUGH THE ACTIVELY OPERATING TERMINAL.
2. LIMIT PARKING AND ON-SITE ACTIVITIES TO UPLAND PORTION OF PROJECT LIMITS AND CONTRACTOR LAYDOWN AREA.
3. CONTRACTOR RESPONSIBLE FOR FLAGGING OPERATIONS IN AND OUT OF PROJECT SITE.
4. CONTRACTOR TO COORDINATE ALL OPERATIONS WITH OWNER TO MINIMIZE IMPACT ON TERMINAL OPERATIONS.
5. LAYDOWN AREA SHALL BE SHARED WITH OTHER CONTRACTOR. COORDINATE WITH OWNER FOR EXACT AREA AVAILABLE FOR THIS PROJECT.

NOTES (CONT'D)

6. PORTIONS OF THE PROJECT ARE OVER WATER AND ADJACENT TO THE BLAIR WATERWAY, WHICH IS AN ACTIVE NAVIGATION CHANNEL.
7. KEEP ALL MARINE EQUIPMENT AND ANCHORS TO THE LANDWARD SIDE OF BLAIR WATERWAY CHANNEL LIMIT.
8. CONSTRUCTION OPERATIONS SHALL BE COORDINATED WITH SHIPPING ACTIVITIES SO THAT CONSTRUCTION DOES NOT INTERFERE WITH VESSEL OPERATIONS WHEN A VESSEL IS AT BERTH.



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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

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**PUGET SOUND ENERGY
TACOMA LNG**

LAYDOWN AREA

Designed by: POOJA JAIN	Date: 6/28/2016	Rev. —
Chn by: CG	M&N Project No. 7940	
Ckd by: TM	Drawing code:	
Reviewed by: BRUCE OSTBO	Drawing Scale: AS NOTED	
Submitted by: POOJA JAIN	Plot scale: 1:1 (0 SHEET)	
MOGFATT & NICHOL		

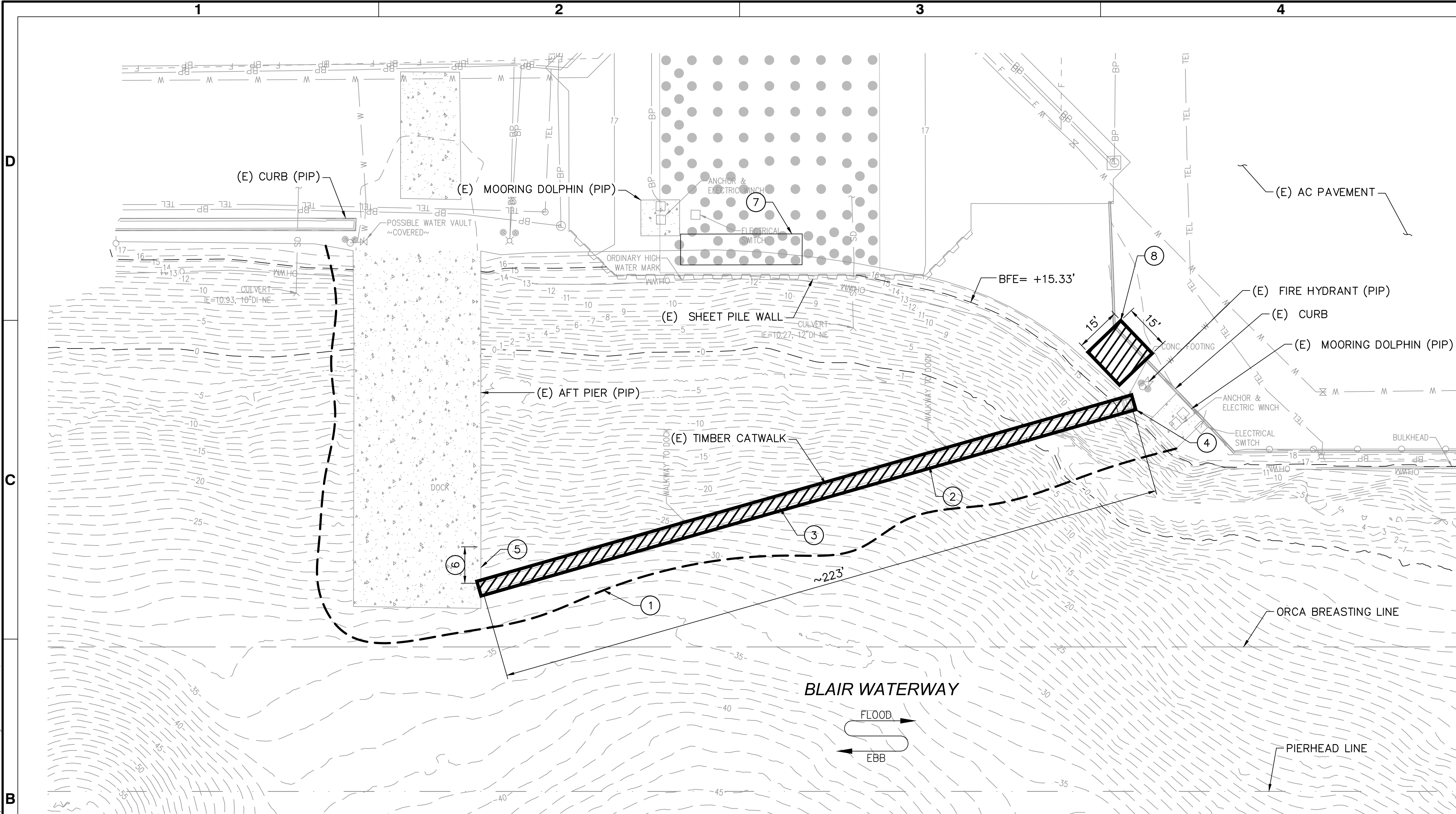
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Index 9 of 42

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DEMOLITION PLAN
SCALE: 1"=20'



P1 EXISTING CATWALK



P2 EXISTING PILING



P3 EXISTING LADDER

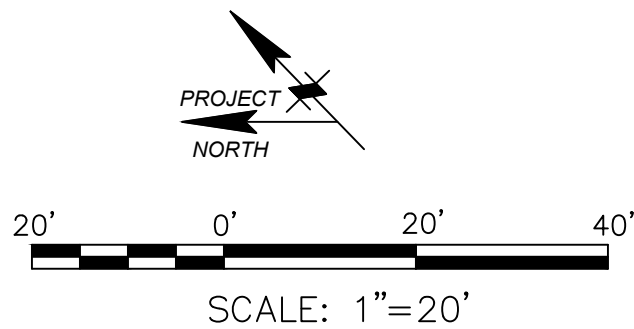
LEGEND

- W EXISTING WATER LINE
- BP EXISTING BURIED POWER LINE
- TEL EXISTING BURIED COMMUNICATION LINE
- SD EXISTING STORM DRAIN
- F EXISTING FIRE MAIN
- EXISTING FENCE

DEMOLITION LIMITS

DEMOLITION & BMP KEY NOTES:

1. INSTALL CONTAINMENT BOOM/TURBIDITY CURTAIN AROUND DEMOLITION AREA. SEE DETAIL 1/G-103.
2. REMOVE AND DISPOSE OF TIMBER CATWALK INCLUDING HANDRAILS, DECKING, STRINGERS & PILE CAPS. SEE PHOTO 1 (P1).
3. REMOVE AND DISPOSE (25) CREOSOTE-TREATED TIMBER PILES. SEE PHOTO 2 (P2).
4. CONCRETE FOOTING TO REMAIN.
5. REMOVE AND SALVAGE (E) LADDER. SEE PHOTO 3 (P3).
6. REMOVE AND SALVAGE (E) TIMBER BULL RAIL. SEE PHOTO 3 (P3).
7. EXCAVATE (E) GROUND WITHIN ABUTMENT FOOTPRINT AREA TO APPROX +13.00'. REMOVE REMNANT GROUT COLUMN SHELLS AND CUT OFF EXPOSED REBAR OTHER THAN CENTER #18 BARS.
8. SAWCUT AND REMOVE (E) CURB AND ASPHALT WITHIN CATWALK ABUTMENT FOOTPRINT.



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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

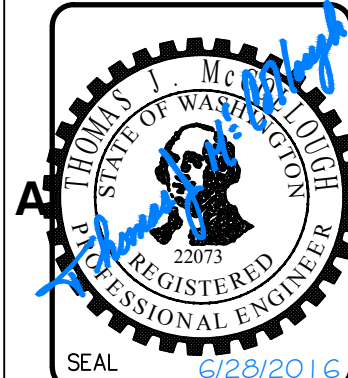


PUGET SOUND ENERGY
TACOMA LNG

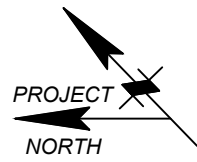
DEMOLITION PLAN

Designed by:	Date:	Rev.
POOJA JAIN	6/28/2016	-
Dwn by:	M&N Project No.	
CO	7940	
Reviewed by:	Drawing code:	
BRUCE OSTRO		
Submitted by:	Drawing Scale:	AS NOTED
POOJA JAIN	MOFFATT & NICHOL	Plot scale: 1:1 (D SHEET)

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SUITE # 610
SEATTLE, WA 98101
(206) 622-0222



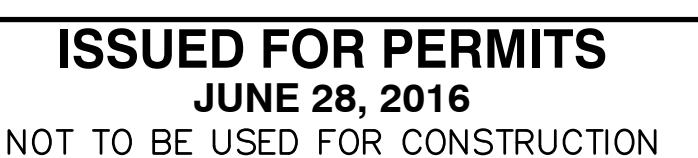
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Reference
Number:
C-103
Index 10 of 42



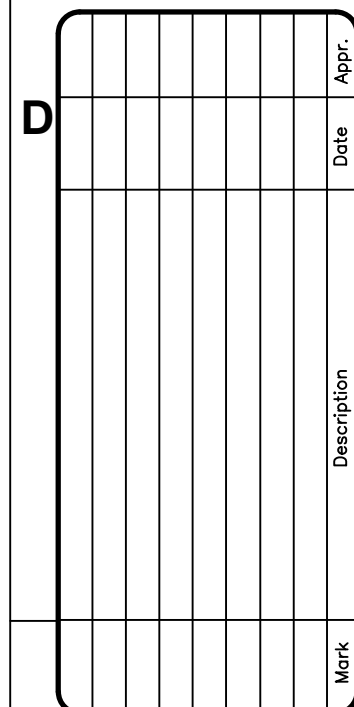
—PROJECT LIMITS

 DEMOLITION LIMITS

- ① INSTALL CONTAINMENT BOOM/TURBIDITY CURTAIN AROUND DEMOLITION AREA. SEE DETAIL 1/G-103. PROVIDE FLOATS OR OTHER MEASURES TO CATCH FALLING DEBRIS.
- ② REMOVE AND DISPOSE OF 5,000 SF ASPHALT DECK OVERLAY, CREOSOTE TIMBER DECKING AND BULLRAIL FROM EXISTING PIER. STRINGERS, PILE CAPS, UTILITIES, AND PILES ARE TO REMAIN. SEE PHOTO 1 (P1) AND PHOTO 2 (P2).
- ③ CONTRACTOR TO VERIFY DIMENSION.



DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



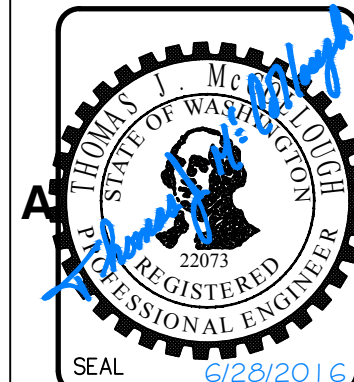
PUGET SOUND ENERGY TACOMA LNG	OFFSITE DEMOLITION PLAN

B	Designed by: POOJA JAIN		Date: 6/28/2018	Rev. —
	Own by: CG	Old by: TM	M&N Project No. 7940	
	Reviewed by: BRUCE OSTBO		Drawing code:	
	Submitted by: POOJA JAIN MOFFATT & NICHOL		Drawing Scale: AS NOTED Plot scale: 1:1 (D SHEET)	

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SUITE# 610
SEATTLE, WA 98101
(206) 622-0222



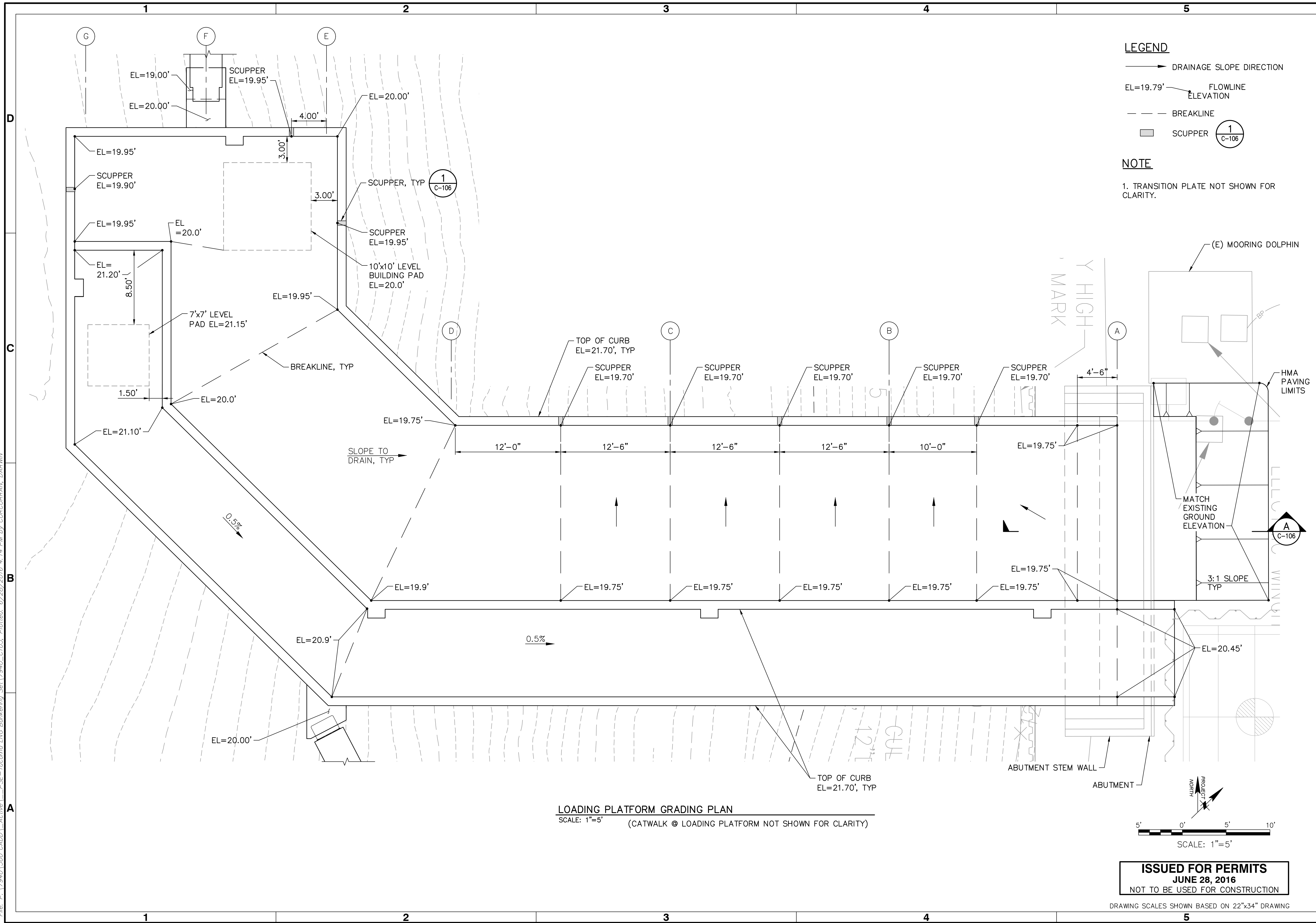
moffatt & nichol



Sheet
Reference
Number:

C-104

File: P:\7940\500_CADD_Active\PSE-Tacoma LNG Bunkering Set\7940_C105_Plot.dwg, Plotted: 6/28/2016 4:14 PM by CORCORAN, DARWIN



LEGEND

- DRAINAGE SLOPE DIRECTION
- EL=19.79' → FLOWLINE ELEVATION
- BREAKLINE
- SCUPPER

NOTE

1. TRANSITION PLATE NOT SHOWN FOR CLARITY.



Rev.	Date	Description	Mark
1	6/28/2016	Initial	

PUGET SOUND ENERGY TACOMA LNG	LOADING PLATFORM GRADING PLAN
----------------------------------	-------------------------------

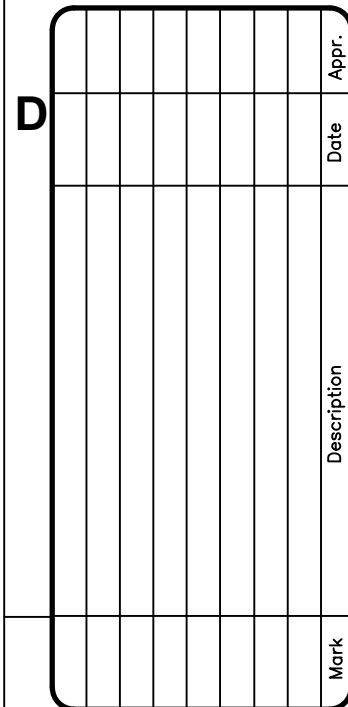
Designed by: POOJA JAIN	Date: 6/28/2016	Rev. -
Dwn by: CO	M&N Project No. 7940	
Reviewed by: BRUCE OSTRO	Drawing code: 7940	
Submitted by: POOJA JAIN	Drawing Scale: AS NOTED	
MOFFATT & NICHOL	Plot scale: 1:1 (D SHEET)	

600 UNIVERSITY STREET SUITE # 610 SEATTLE, WA 98101 (206) 622-0222	moftatt & nichol
---	------------------



Sheet Reference Number: C-105 Index 12 of 42

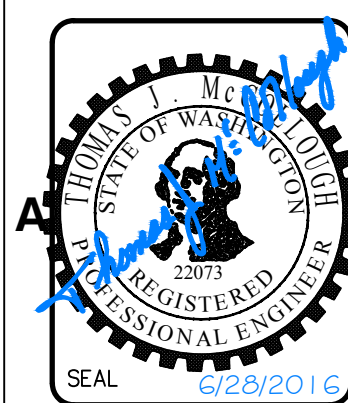
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



PUGET SOUND ENERGY TACOMA LNG	LOADING PLATFORM GRADING DETAILS
---	--

	Designed by: POOJA JAIN	Date: 6/28/2016	Rev.: —
	Drawn by: CG Old by: TM Reviewed by: BRUCE OSTBO	M&N Project No. 7940	Drawing code:
Submitted by: POOJA JAIN MOFFATT & NICHOL		Drawing Scale: AS NOTED Plot scale: 1:1 (D SHEET)	

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SUITE # 610
SEATTLE, WA 98101
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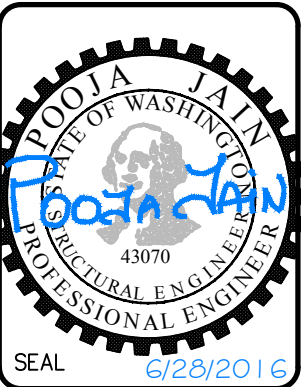
Sheet
Reference
Number:
C-106
Index 13 of 42

1. CONTRACTOR SHALL VERIFY THE PILE TIP ELEVATIONS BASED ON DESIGN LOAD. PILE TIP ELEVATIONS SHALL NOT BE HIGHER THAN THE MINIMUM TIP ELEVATION.
2. PILES SHALL BE SUPPLIED BY THE OWNER.
3. PILE SUPPLY LENGTHS INCLUDE 2 FOOT ALLOWANCE FOR HANDLING.

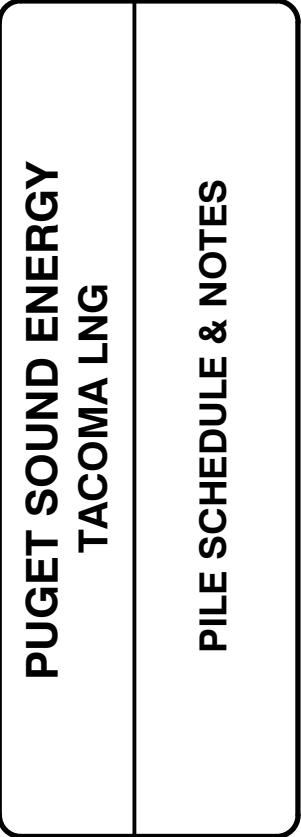
PILE SCHEDULE									
STRUCTURE	PILE #	PILE IDENTIFIER	OUTSIDE DIAMETER (IN)	WALL THICKNESS (IN)	SUPPLY LENGTH (FT)	CUTOFF ELEVATION (MLLW)	MINIMUM TIP ELEVATION (MLLW)	DESIGN WORKING LOADS (KIPS)	
								COMPRESSION	TENSION
LOADING PLATFORM	P1	LP-24	24	0.625	198	+15.03	-175.00	405	50
	P2		24	0.625	198	+15.03	-175.00		
	P3		24	0.625	198	+15.03	-175.00		
	P4		24	0.625	198	+15.03	-175.00		
	P5		24	0.625	198	+15.03	-175.00		
	P6		24	0.625	198	+15.03	-175.00		
	P7	LP-30A	30	1.00	198	+15.03	-175.00	495	
	P8		30	1.00	198	+15.03	-175.00		
	P9		30	1.00	198	+15.03	-175.00		
	P10		30	1.00	198	+15.03	-175.00		
	P11		30	1.00	198	+15.03	-175.00		
	P12		30	1.00	198	+15.03	-175.00		
	P13	LP-30B	30	1.00	198	+15.03	-175.00	495	
	P14		30	1.00	198	+15.03	-175.00		
	P15		30	1.00	208	+15.03	-185.00		
	P16		30	1.00	208	+15.03	-185.00		
	P17		30	1.00	208	+15.03	-185.00		
	P18		30	1.00	208	+15.03	-185.00		
	P19		30	1.00	208	+15.03	-185.00		
	P20		30	1.00	208	+15.03	-185.00		
	P21	30	1.00	208	+15.03	-185.00			
FENDER PILES	P22-P33	FENDER	HP 16x162		87	+19.0	-61.00	-	-
FENDER PILES	P44-P47	FENDER	24 0.75		105	+19.0	-79.0	-	-
BREASTING DOLPHIN	P34-P37	BD-36	36	1.00	237	+44.25	-185.00	540	325
CATWALK, (BATTER PILES)	P38	CW-30A	30	1.00	175	+16.53	-152.00		
	P39	CW-30B	30	1.00	168	+17.63	-145.00		
	P40-P43	CW-30A	30	1.00	175	+13.25	-152.00		

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JUNE 28, 2016
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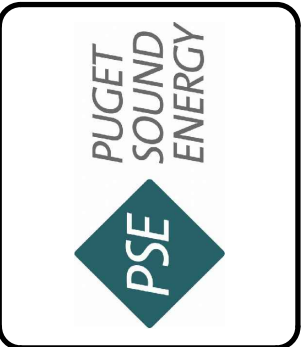
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



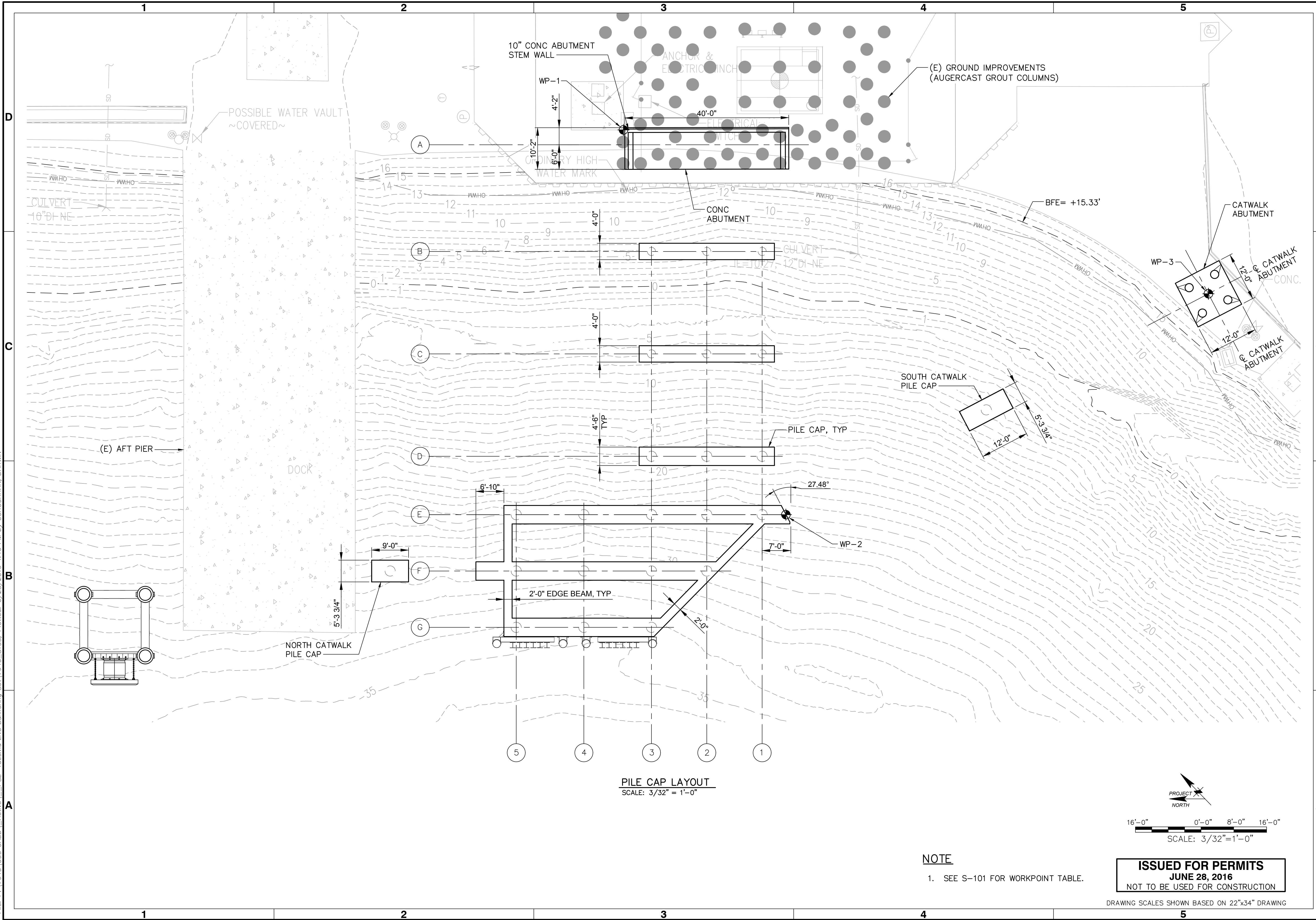
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Reference
Number:
S-102
Index 15 of 42



Date: 6/28/2016 Drawing Scale: AS NOTED Plot scale: 1:1 (10 SHEET)	Rev: — Project No. 7940 Drawing code:
Designed by: POOLJA JAIN Dwn by: CG Reviewed by: BRUCE OSTBO Submitted by: POOLJA JAIN MOFFATT & NICHOL	

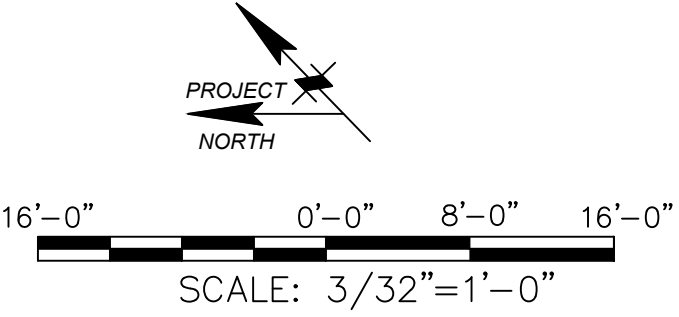
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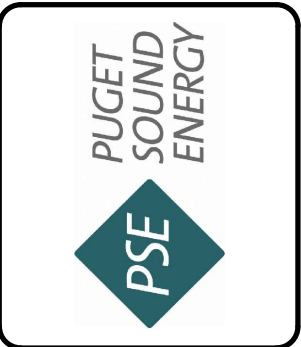
NOTE

1. SEE S-101 FOR WORKPOINT TABLE.



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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



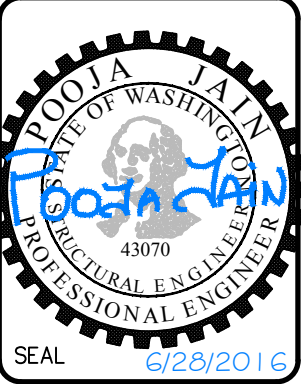
Rev.	Date	Description	Appr.

PUGET SOUND ENERGY TACOMA LNG	PILE CAP LAYOUT
--	------------------------

Designed by: POOJA JAIN	Date: 6/28/2016	Rev. -
Dwn by: CO	Chk by: TM	M&N Project No. 7940
Reviewed by: BRUCE OSTRO	Drawing code:	
Submitted by: POOJA JAIN	Drawing Scale: AS NOTED	
MOFFATT & NICHOL	Plot scale: 1:1 (D SHEET)	

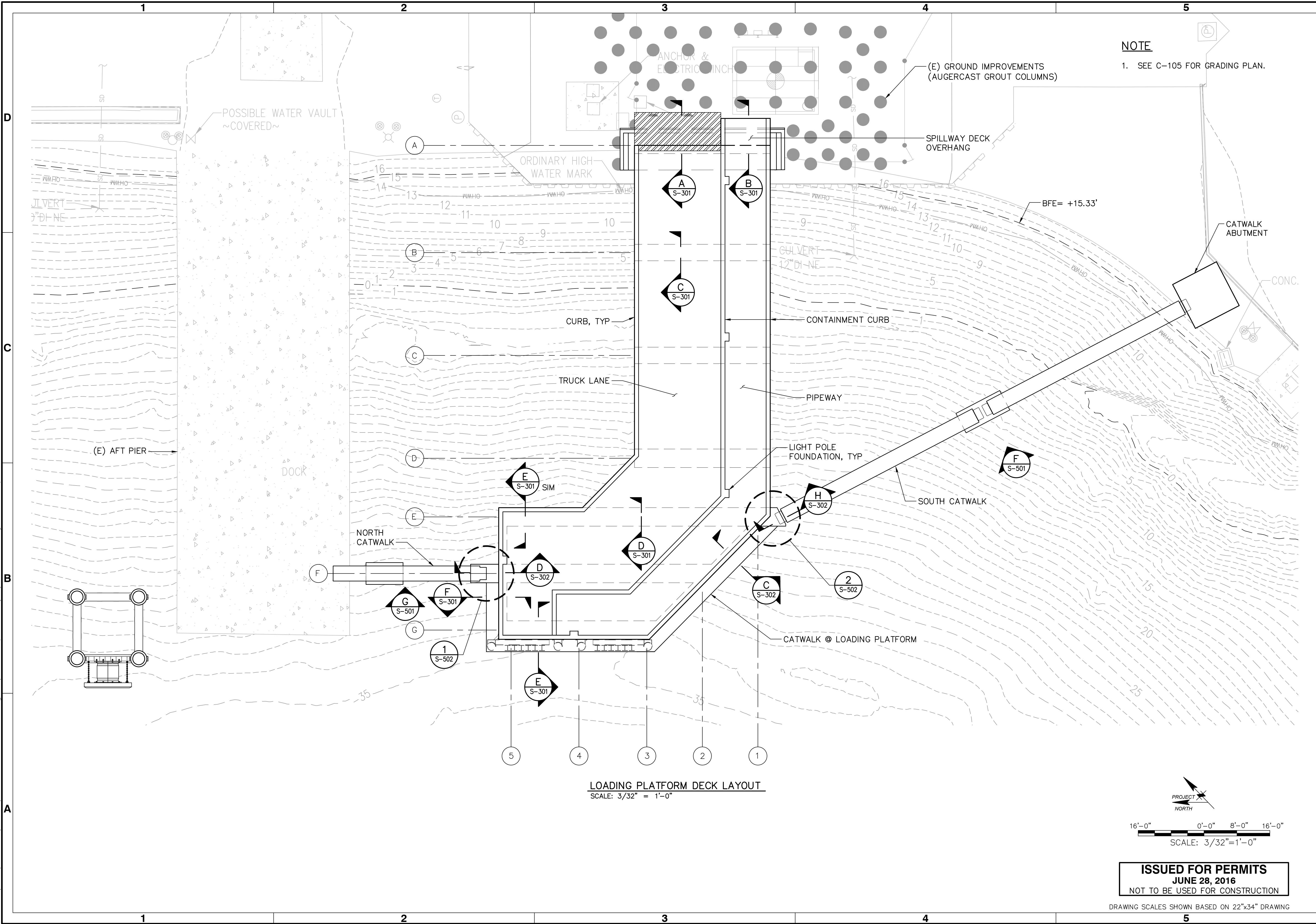
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Sheet Reference Number: S-103 Index 16 of 42

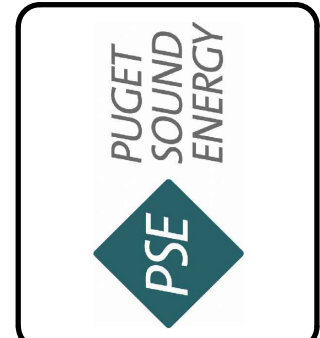
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LOADING PLATFORM DECK LAYOUT
SCALE: 3/32" = 1'-0"

NOTE

1. SEE C-105 FOR GRADING PLAN.



Rev.	Date	Description	Appr.

PUGET SOUND ENERGY
TACOMA LNG
LOADING PLATFORM DECK LAYOUT

Designed by: POOJA JAIN	Date: 6/28/2016	Rev. -
Dwn by: CO	MAN Project No. 7940	
Reviewed by: BRUCE OSTRO	Drawing code: 	
Submitted by: POOJA JAIN	Drawing Scale: AS NOTED	
MOFFATT & NICHOL	Plot scale: 1:1 (D SHEET)	

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SUITE # 610
SEATTLE, WA 98101
(206) 622-0222
moffatt & nichol

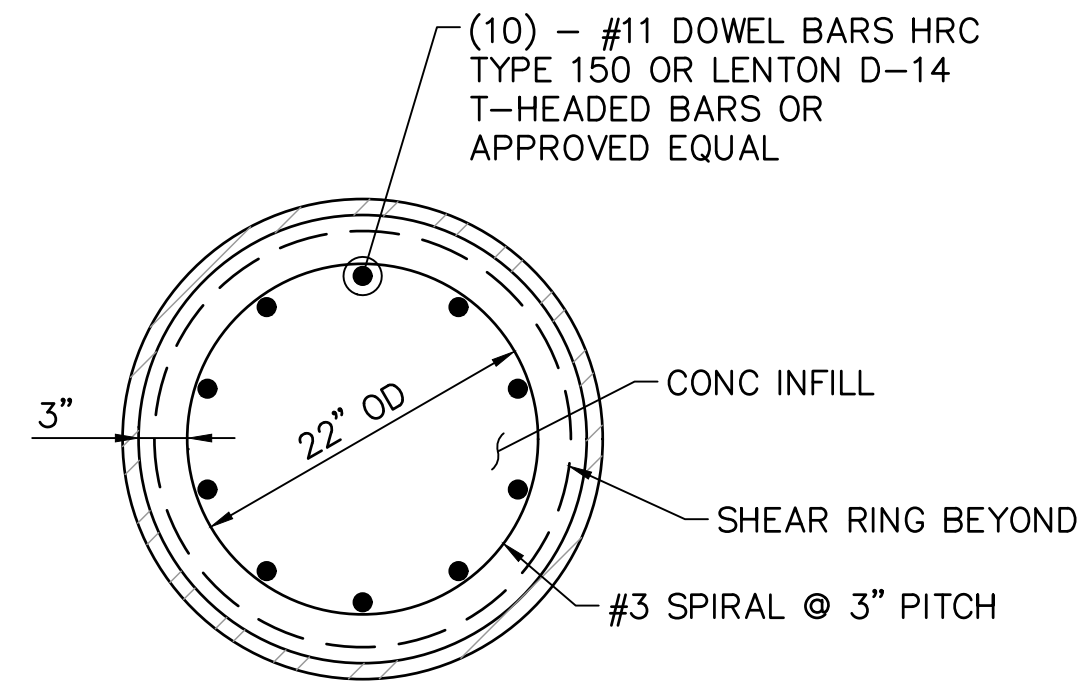
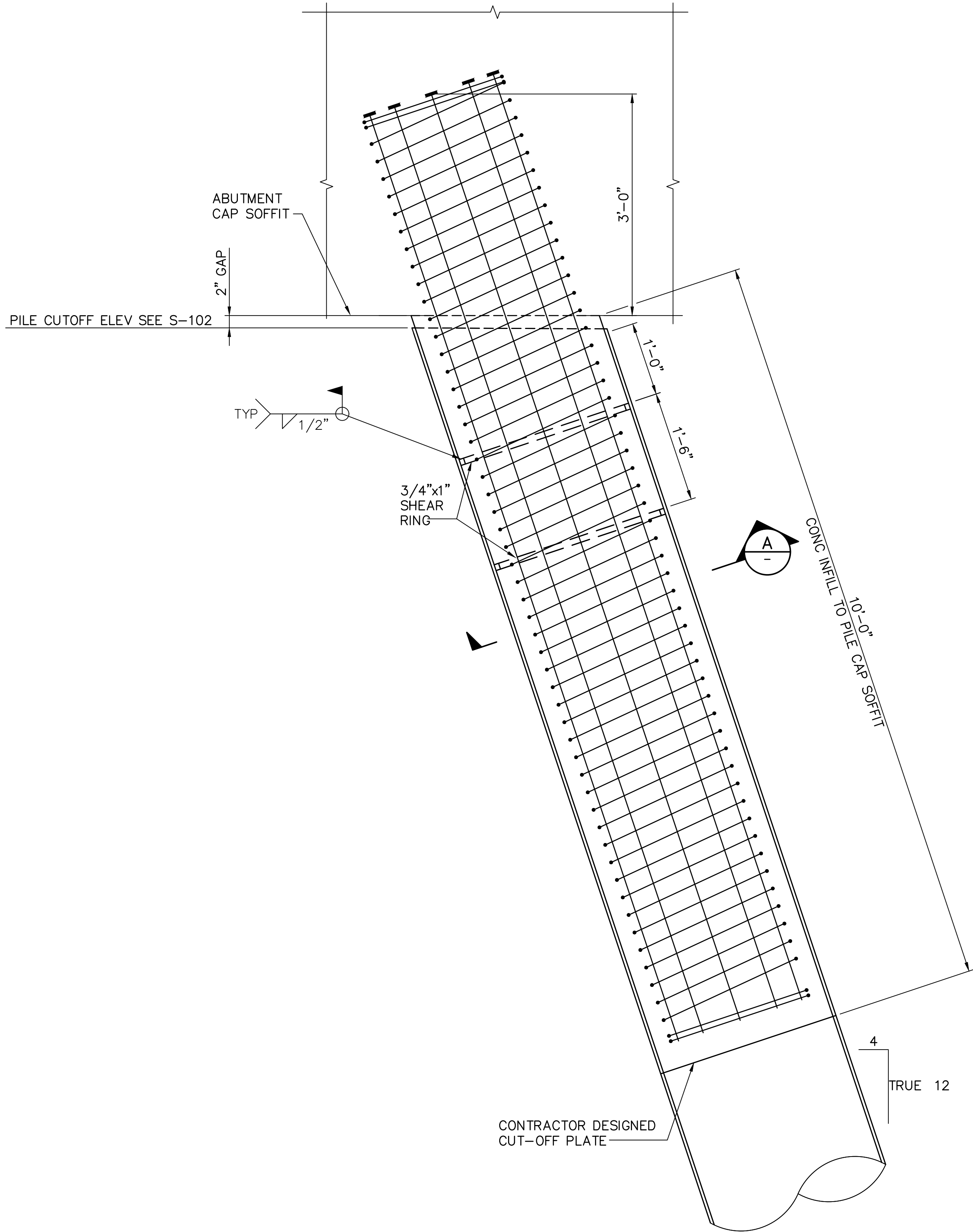


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Sheet
Reference
Number:
S-104
Index 17 of 42

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

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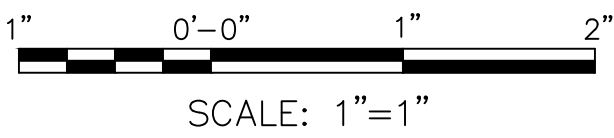


A SECTION - 30 INCH Ø PILE
SCALE: 1" = 1'-0"

1 BATTER PILE-TO-PILE CAP CONNECTION
S-201 SCALE: 1" = 1'-0"

NOTES

- SEE S-101 FOR PILE LOCATIONS.
- PROVIDE TWO EXTRA COMPLETE TURNS AT T & B OF SPIRAL REINFORCEMENT.
- PILE CAP & DECK REINF NOT SHOWN FOR CLARITY.



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JUNE 28, 2016
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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



Mark	Description	Date	Appr.

PUGET SOUND ENERGY
TACOMA LNG

CATWALK ABUTMENT PILE CAP
CONNECTION DETAILS

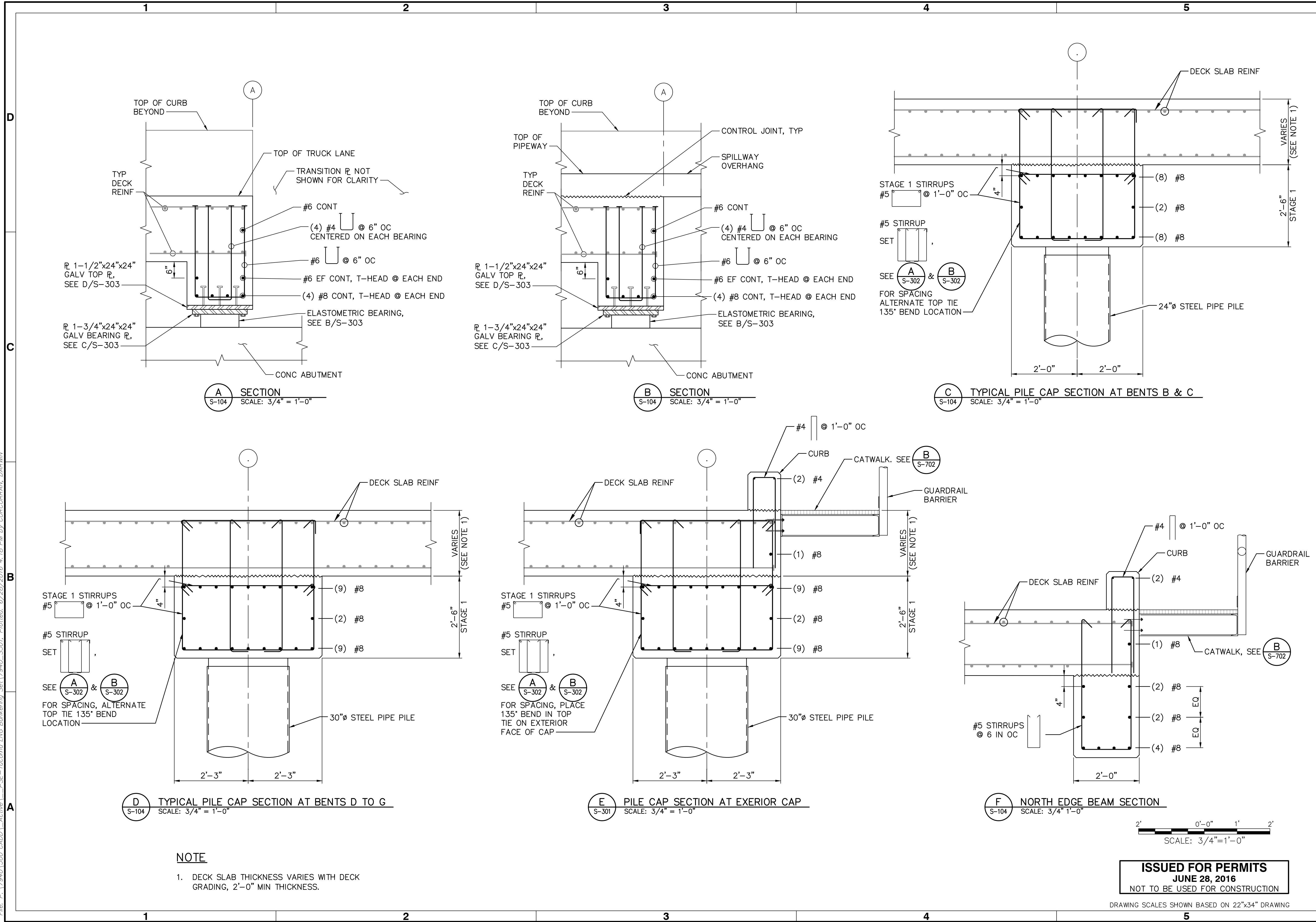
Designed by: POOJA JAIN	Date: 6/28/2016	Rev. -
Dwn by: CO	M&N Project No. 7940	
Reviewed by: BRUCE OSTBO	Drawing code: TM	
Submitted by: POOJA JAIN	Drawing Scale: AS NOTED	
MOFFATT & NICHOL	Plot scale: 1:1 (D SHEET)	

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SUITE # 610
SEATTLE, WA 98101
(206) 622-0222



Sheet
Reference
Number:
S-202
Index 20 of 42

File: P:\7940\500_CADD_Active\PSE-Tacoma LNG_Burking Set\7940_S301_Plot.dwg, Plotted: 6/28/2016 4:18 PM by CORCORAN, DARWIN



PUGET SOUND ENERGY

PSE

Rev.	Date	By	Check	Project No.	Drawing Code	Drawing Scale	Plot Scale
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SUITE # 610
SEATTLE, WA 98101
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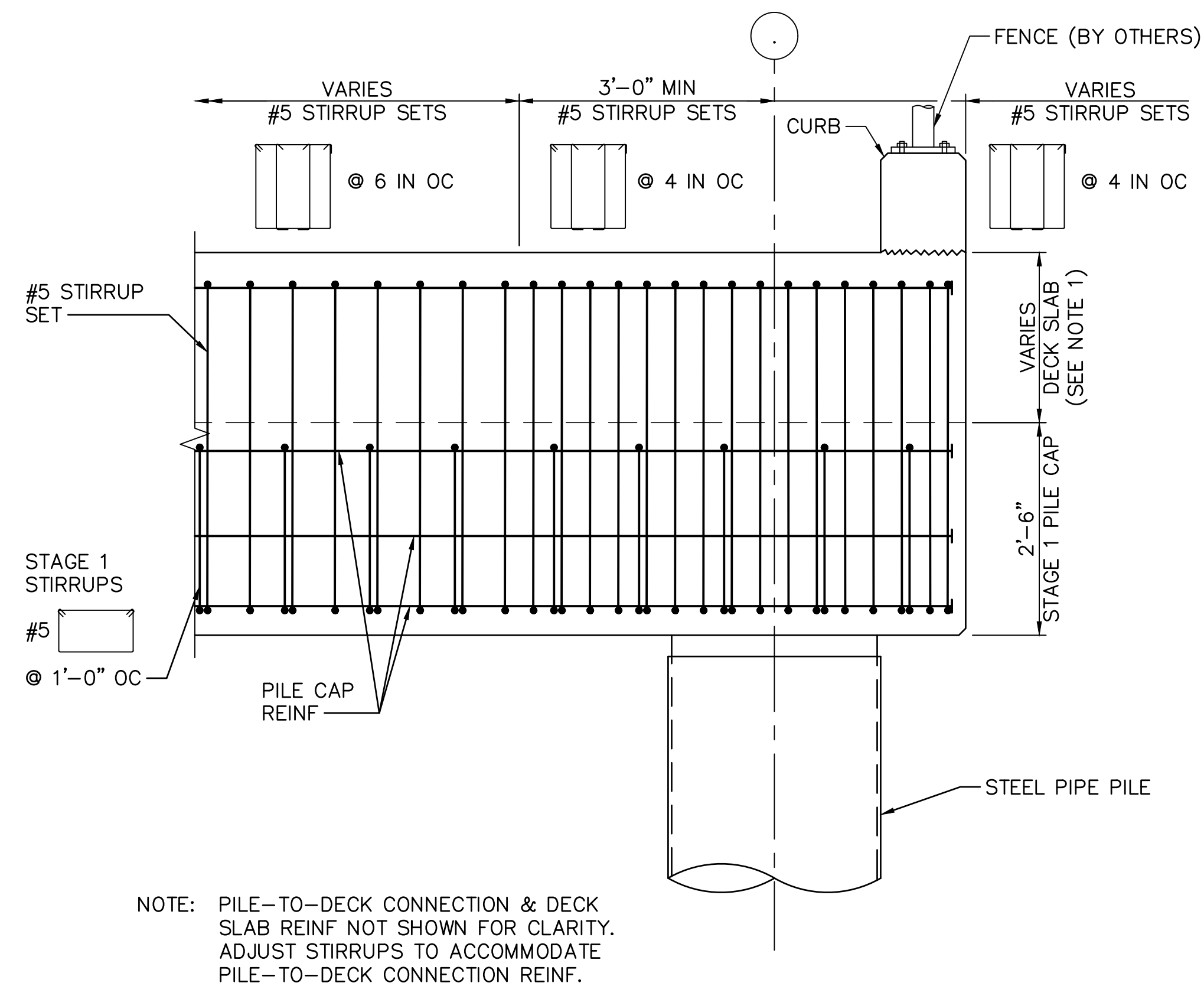
PUGET SOUND ENERGY
TACOMA LNG
LOADING PLATFORM PILE CAP
DETAILS (SHEET 1 OF 3)

PUGET SOUND ENERGY

PSE

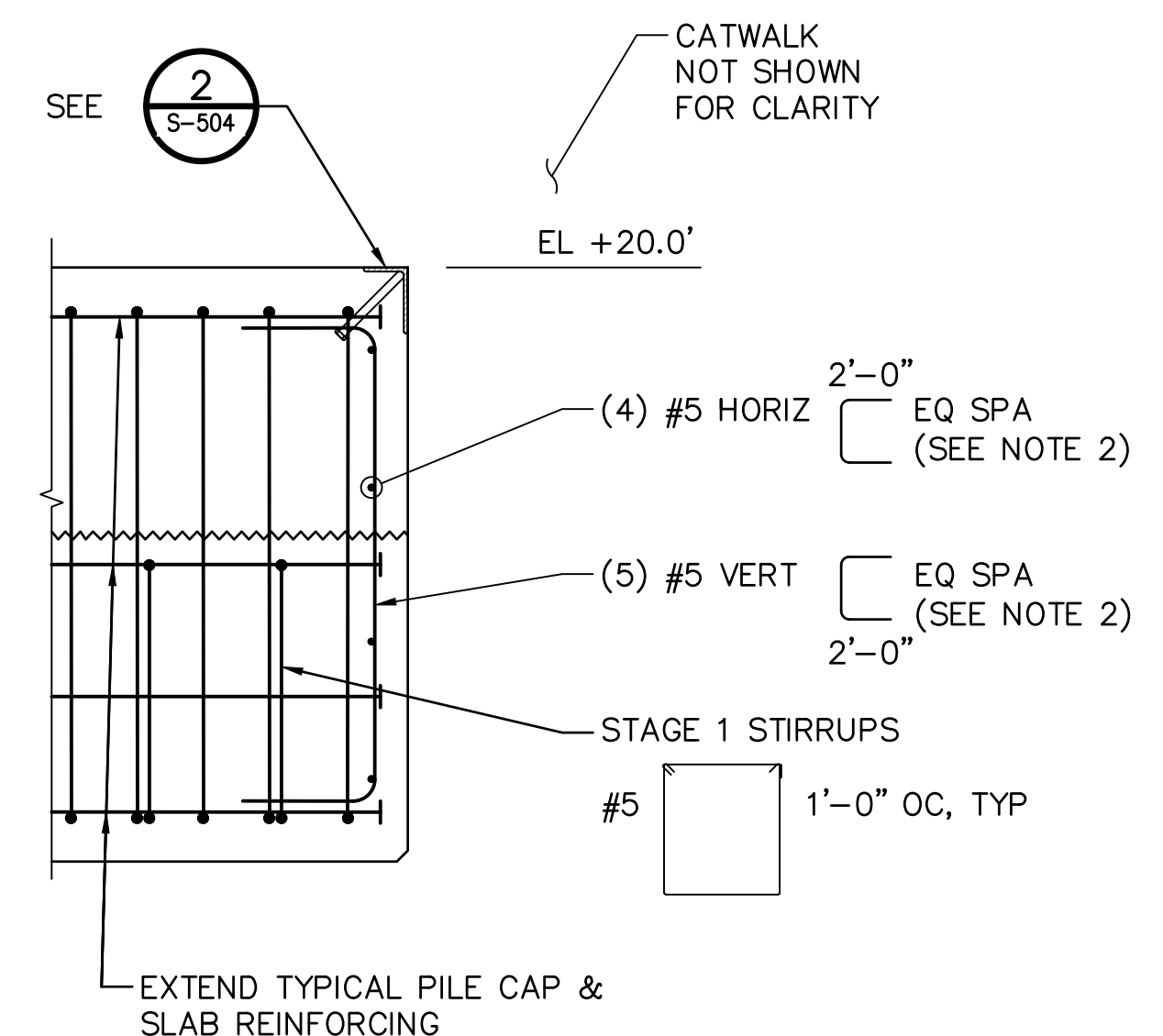
Sheet Reference Number:
S-301

Index 21 of 42

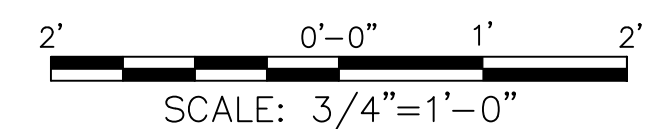


NOTE: PILE-TO-DECK CONNECTION & DECK
SLAB REINF NOT SHOWN FOR CLARITY.
ADJUST STIRRUPS TO ACCOMMODATE
PILE-TO-DECK CONNECTION REINF.

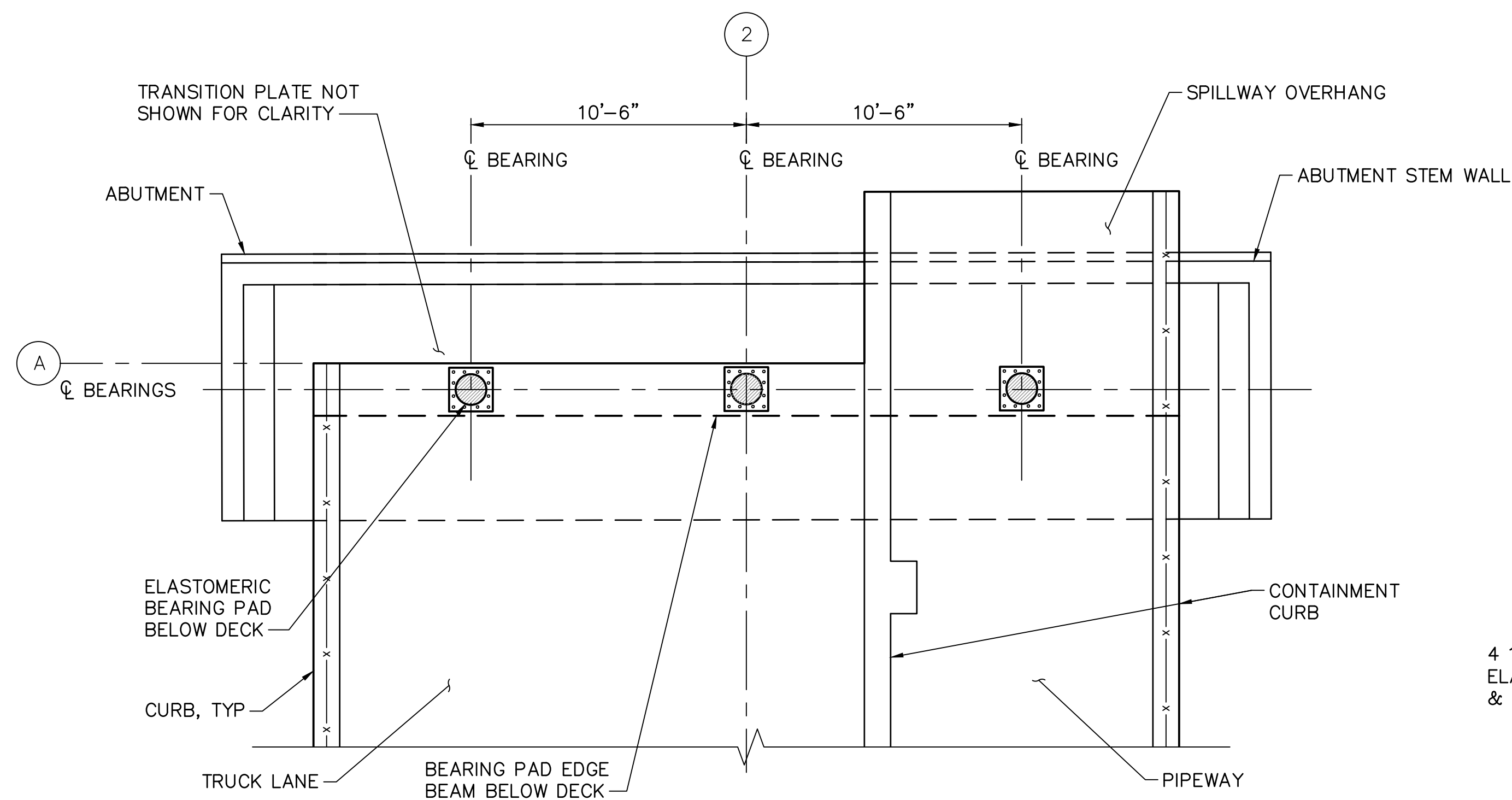
B PILE CAP TRANSVERSE REINFORCEMENT
S-301 SCALE: 3/4" = 1'-0"



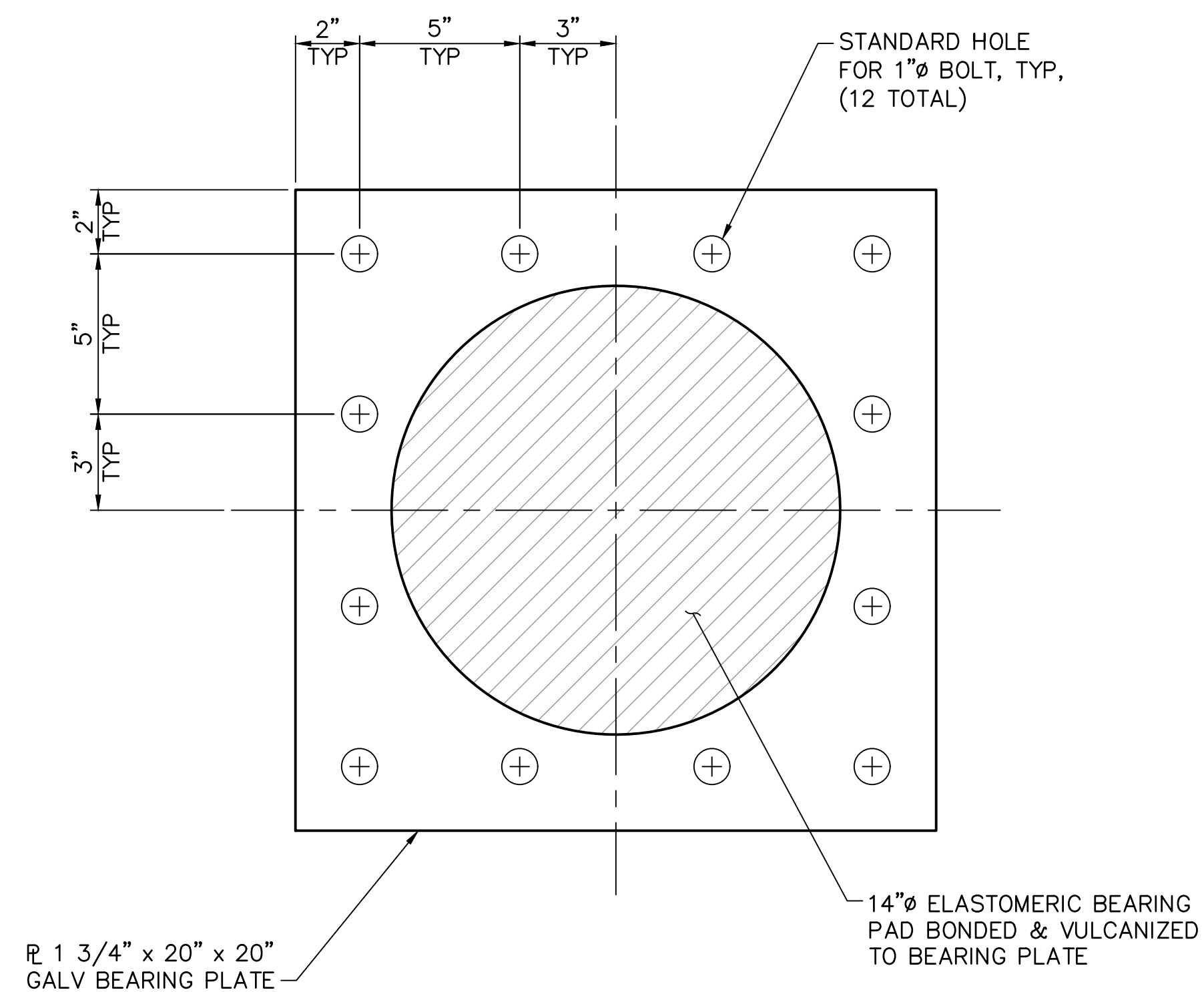

PILE CAP EXTENSION REINFORCEMENT AT BENT E
 SCALE: $\frac{3}{4}" = 1'-0"$



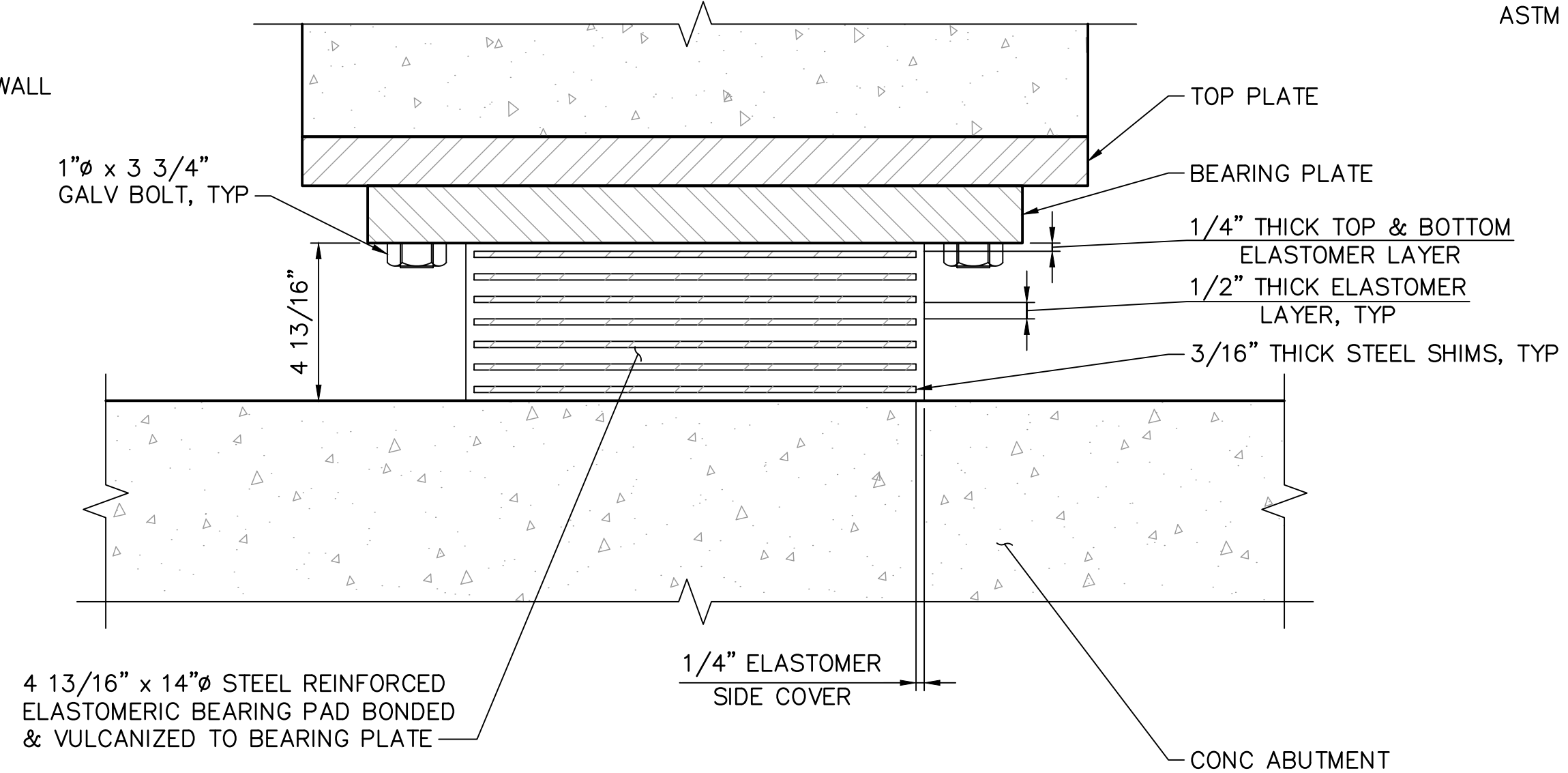
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



1 PLAN - BEARING PAD LOCATIONS
S-303 SCALE: 1/4" = 1'-0"

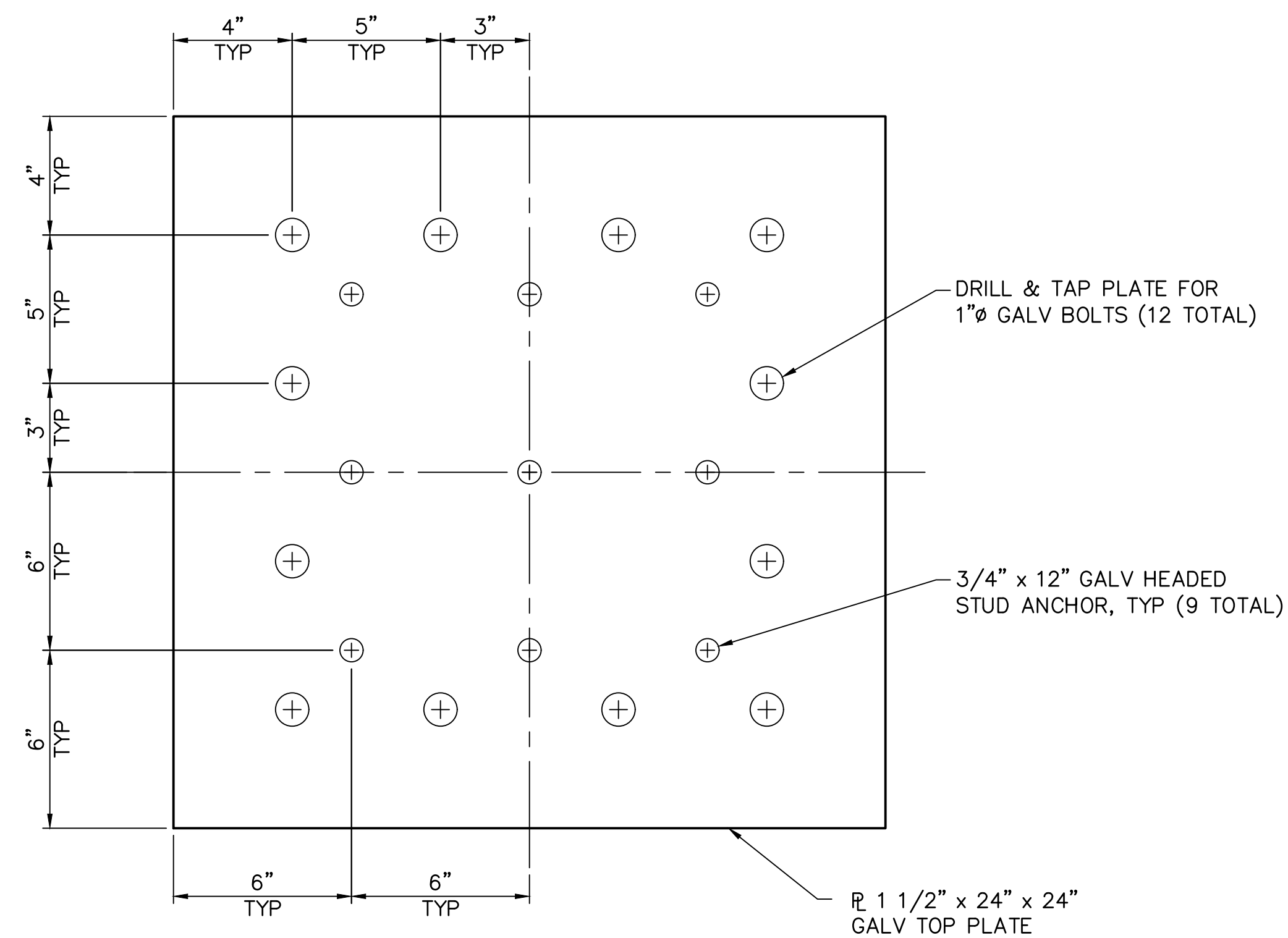


3 DETAIL — BEARING PLATE
S-301 SCALE: 3" = 1'-0"



2
S-301

DETAIL - BEARING PAD
SCALE: 3" = 1'-0"



4 DETAIL — TOP PLATE
S-301 SCALE: 3" = 1'-0"

NOTE

1. BEARING PLATE & TOP PLATE SHALL USE ASTM A572 GR 50 STEEL.

[illegible]

**PUGET SOUND ENERGY
TACOMA LNG**

**LOADING PLATFORM PILE CAP DETAILS
(SHEET 3 OF 3)**

Designed by: POOJA JAIN	Date: 6/28/2016	Rev. —
Chn by: CG	M&N Project No. 7940	
Ckd by: TM	Drawing code:	
Reviewed by: BRUCE OSTBO	Drawing Scale: AS NOTED	
Submitted by: POOJA JAIN	Plot scale: 1:1 (0 SHEET)	
MOFFATT & NICHOL		

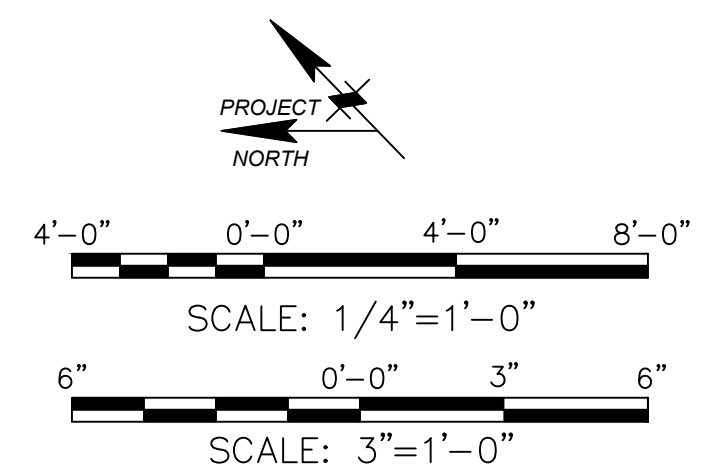
600 UNIVERSITY STREET
SUITE# 610
SEATTLE, WA 98101
(206) 622-0222



Sheet
Reference
Number:

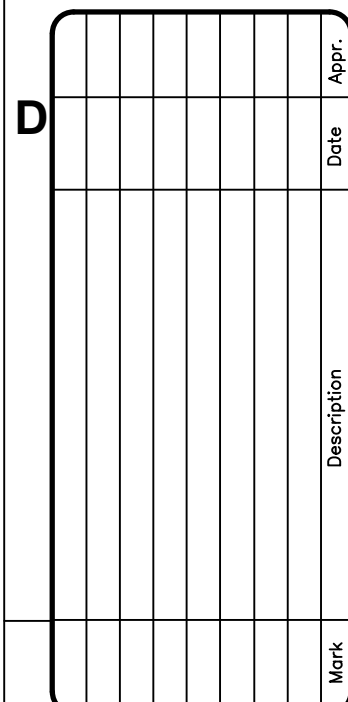
S-303

Index 23 of 42



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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



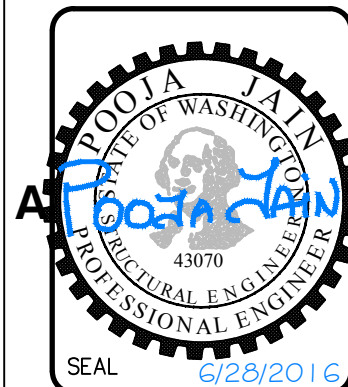
**PUGET SOUND ENERGY
TACOMA LNG**

**LOADING PLATFORM DECK
REINFORCING PLAN (SHEET 1 OF 3)**

B	Designed by: POOJA JAIN	Date: 6/28/2016	Rev.:
	Dwn by: CG Ckd by: TM	M&N Project No. 7940	—
	Reviewed by: BRUCE OSTBO	Drawing code:	
	Submitted by: POOJA JAIN MOFFATT & NICHOL	Drawing Scale: AS NOTED	Plot scale: 1:1 (D SHEET)

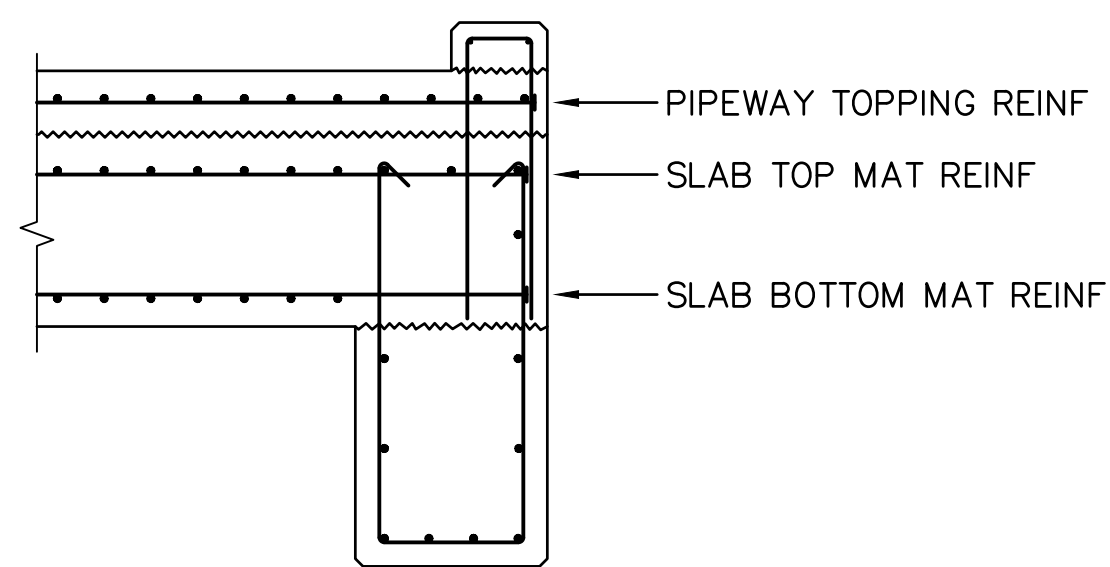
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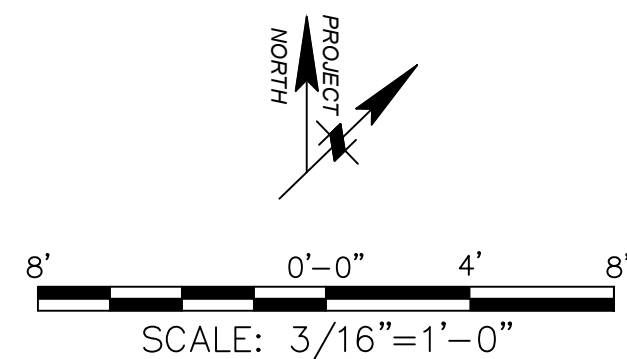


Sheet
Reference
Number:
S-304
Index 24 of 42

SLAB BOTTOM MAT REINFORCING PLAN
SCALE: 3/16" = 1'-0"

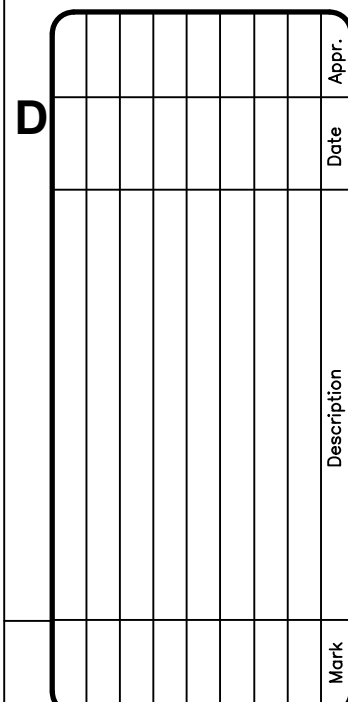


SLAB REINF KEY
SCALE: NTS



ISSUED FOR PERMITS
JUNE 28, 2016
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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



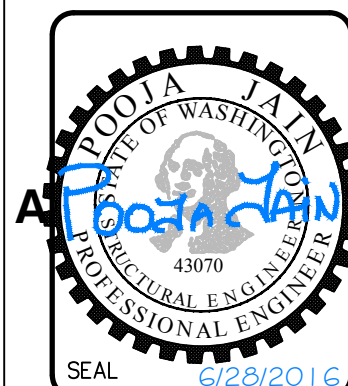
**PUGET SOUND ENERGY
TACOMA LNG**

**LOADING PLATFORM DECK
REINFORCING PLAN (SHEET 2 OF 3)**

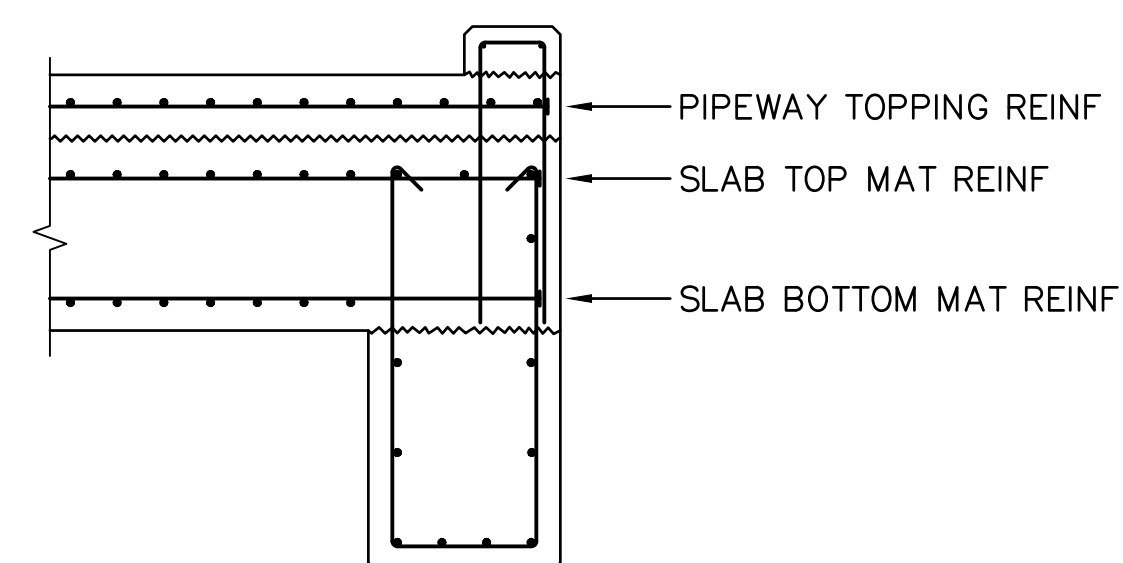
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	Drawn by:	CG	TM	Chk by:	M&N Project No.	7940	
	Reviewed by:	BRUCE OSTBO		Drawing code:			
	Submitted by:	POOJA JAIN		Drawing Scale: AS NOTED			
	Checked by:	MOFFATT & NICHOL		Plot scale: 1:1 (0 SHEET)			

 **moffatt & nichol**

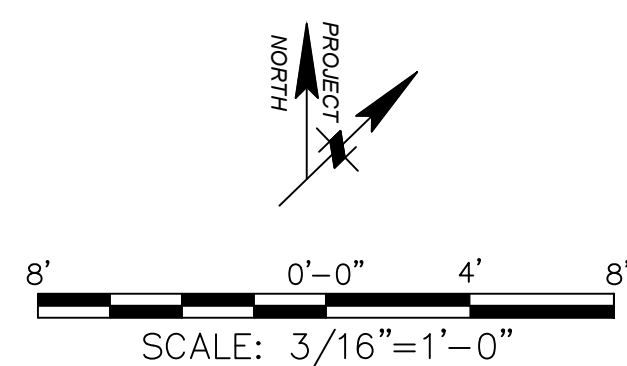
600 UNIVERSITY STREET
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SEATTLE, WA 98101
(206) 622-0222



Sheet
Reference
Number:
S-305
Index 25 of 42

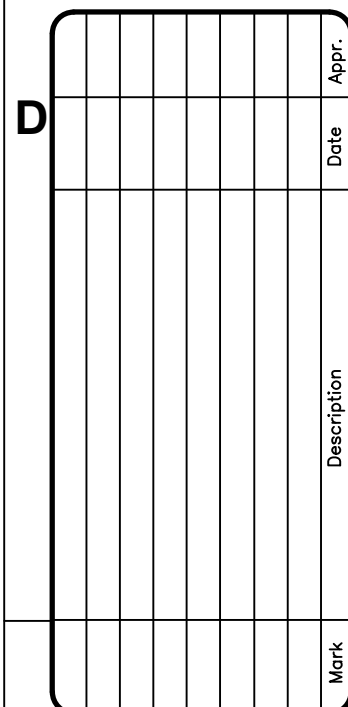


SLAB REINF KEY
SCALE: NTS



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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

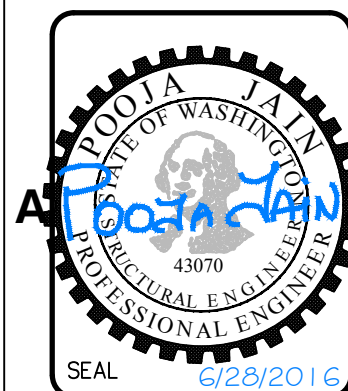


**PUGET SOUND ENERGY
TACOMA LNG**

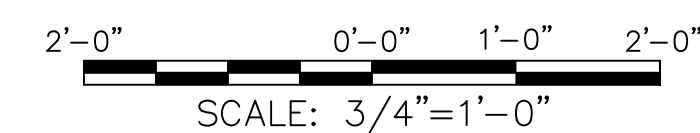
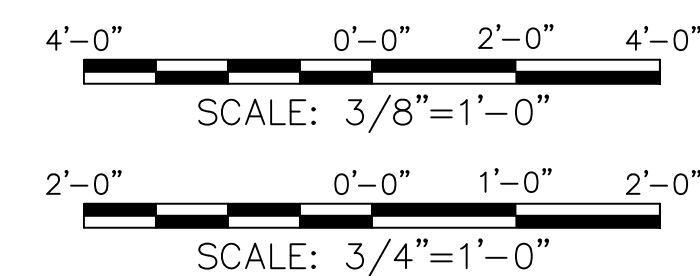
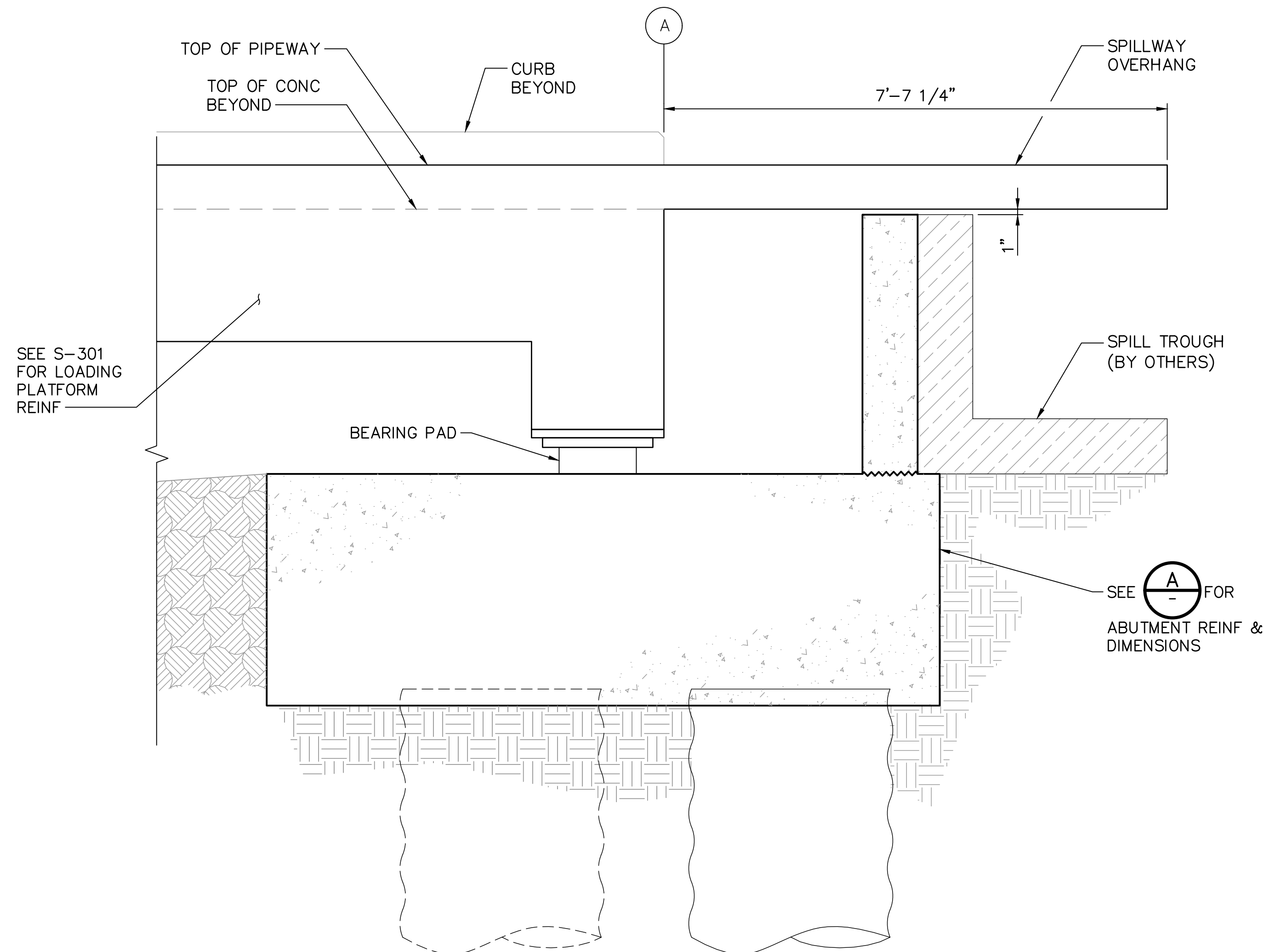
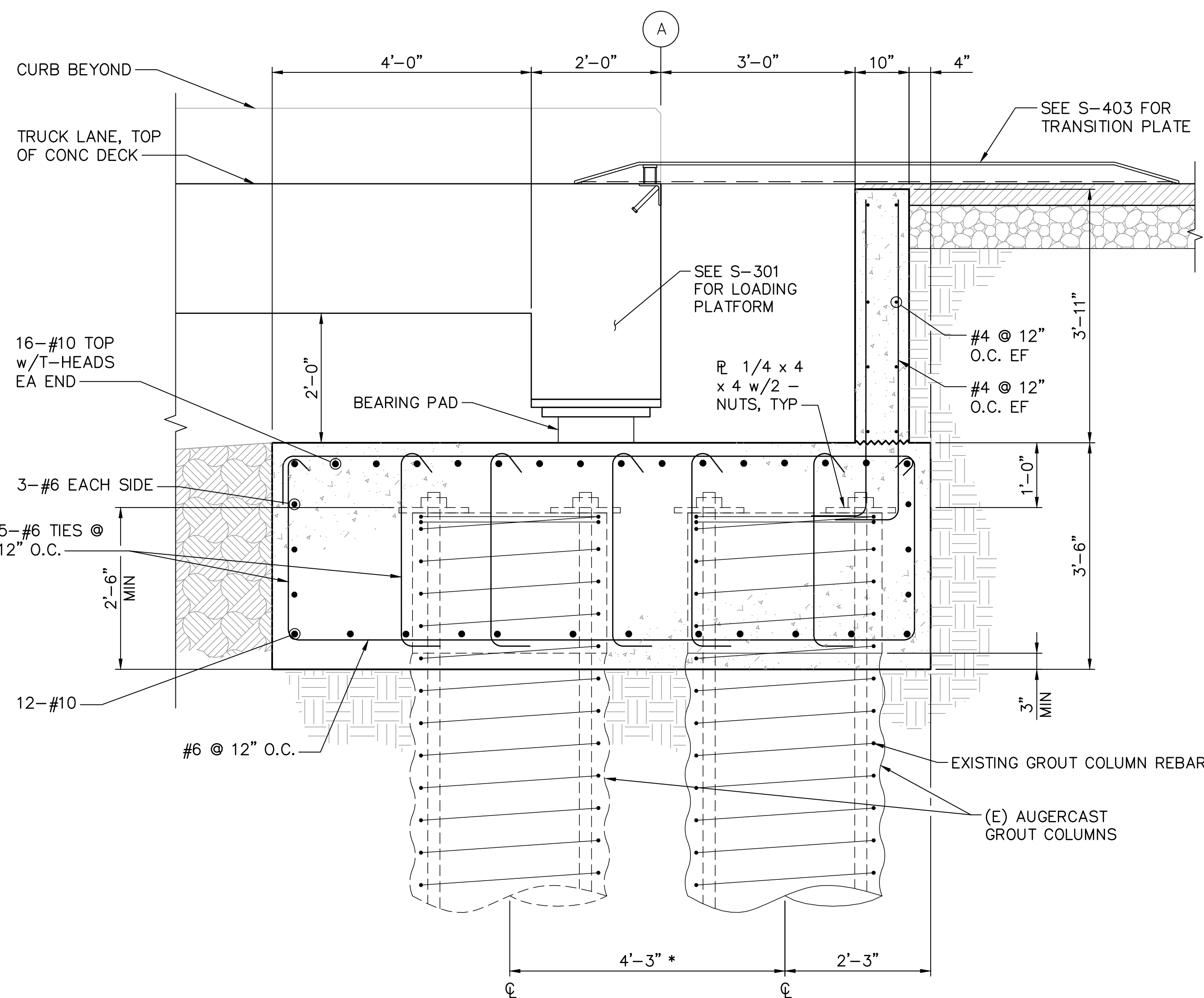
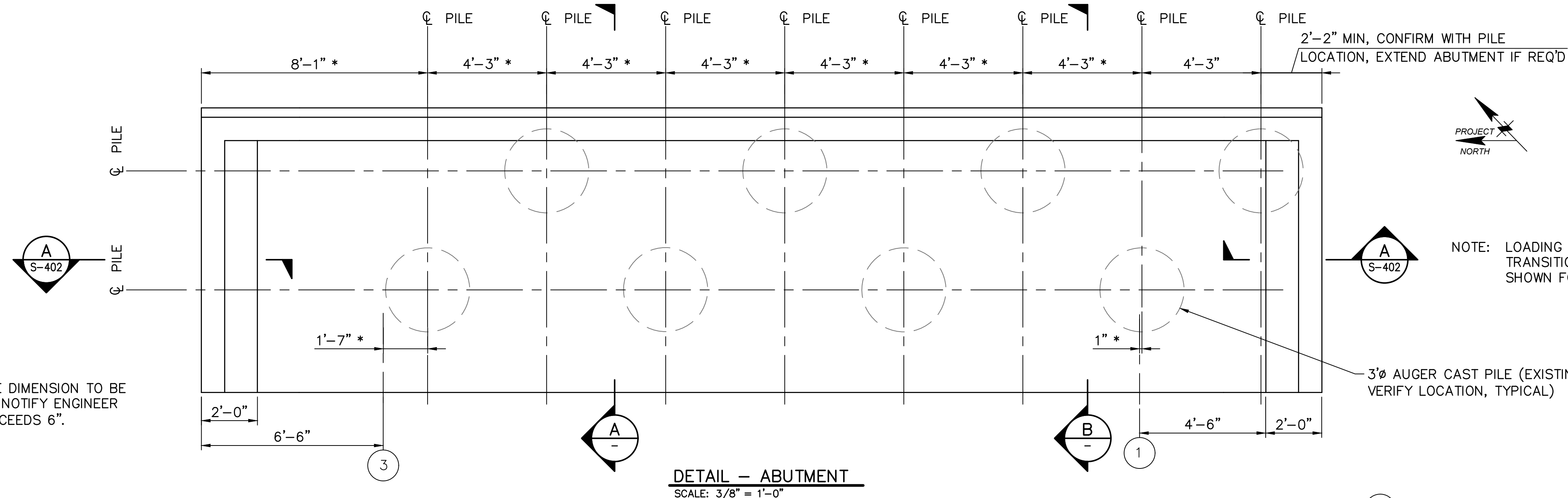
B	Designed by: POOJA JAIN		Date: 6/28/2016	Rev.: —
	Own by: CG	Ckd by: TM	M&N Project No. 7940	
	Reviewed by: BRUCE OSTBO		Drawing code:	
	Submitted by: POOJA JAIN MOFFATT & NICHOL		Drawing Scale: AS NOTED Plot scale: 1:1 (D SHEET)	

 **moffatt & nichol**

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Sheet
Reference
Number:
S-306
Index 26 of 42



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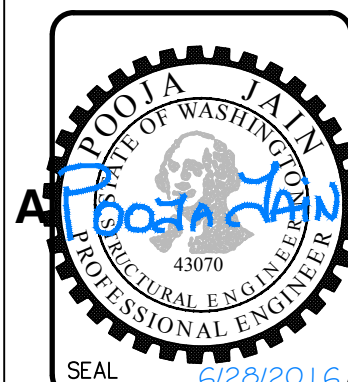
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

[illegible]

C
PUGET SOUND ENERGY
TACOMA LNG
ABUTMENT PILE CAP CONNECTION

B	Assigned by: POOJA JAIN	Ckd by: TM	Drawn by: OSBIO	Drawing code:	Date: 6/28/2016	Rev. —
					M&N Project No. 7940	
Submitted by: POOJA JAIN				Drawing Scale: AS NOTED		
Checked by: OFFATT & NICHOL				Plot scale: 1:1 (D SHEET)		

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Sheet
Reference
Number:
S-401
Index 27 of 42



2' 0'-0" 1' 2'

SCALE: $\frac{3}{4}" = 1'-0"$

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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

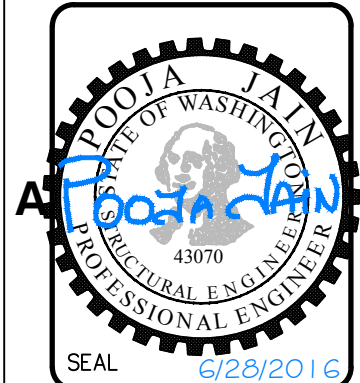
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**PUGET SOUND ENERGY
TACOMA LNG**

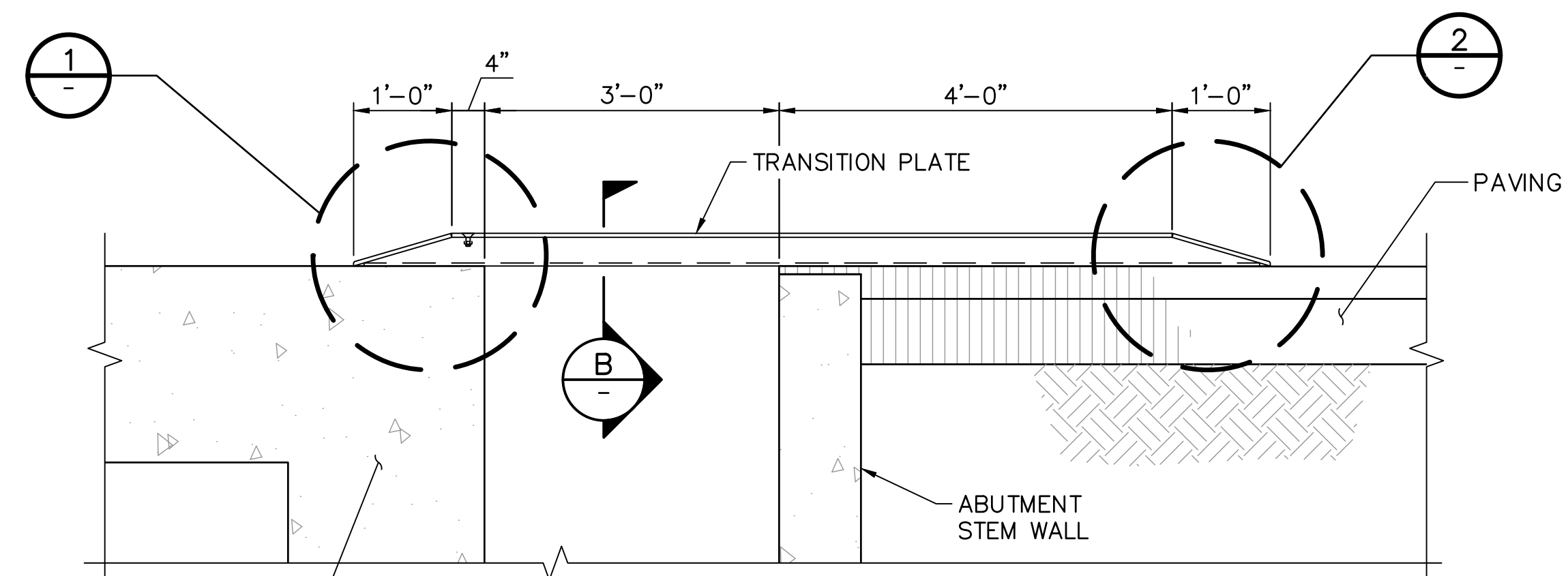
ABOUT MY FILE CAP DETAILS

 D	Designed by: POOJA JAIN	Date: 6/28/2016	Rev. —
	Dwn by: CG	Ckd by: TM	M&N Project No. 7940
Reviewed by: BRUCE OSTRO	Drawing code:		
Submitted by: POOJA JAIN	Drawing Scale: AS NOTED		
MOFFATT & NICHOL	Plot scale: 1:1 (0 SHEET)		

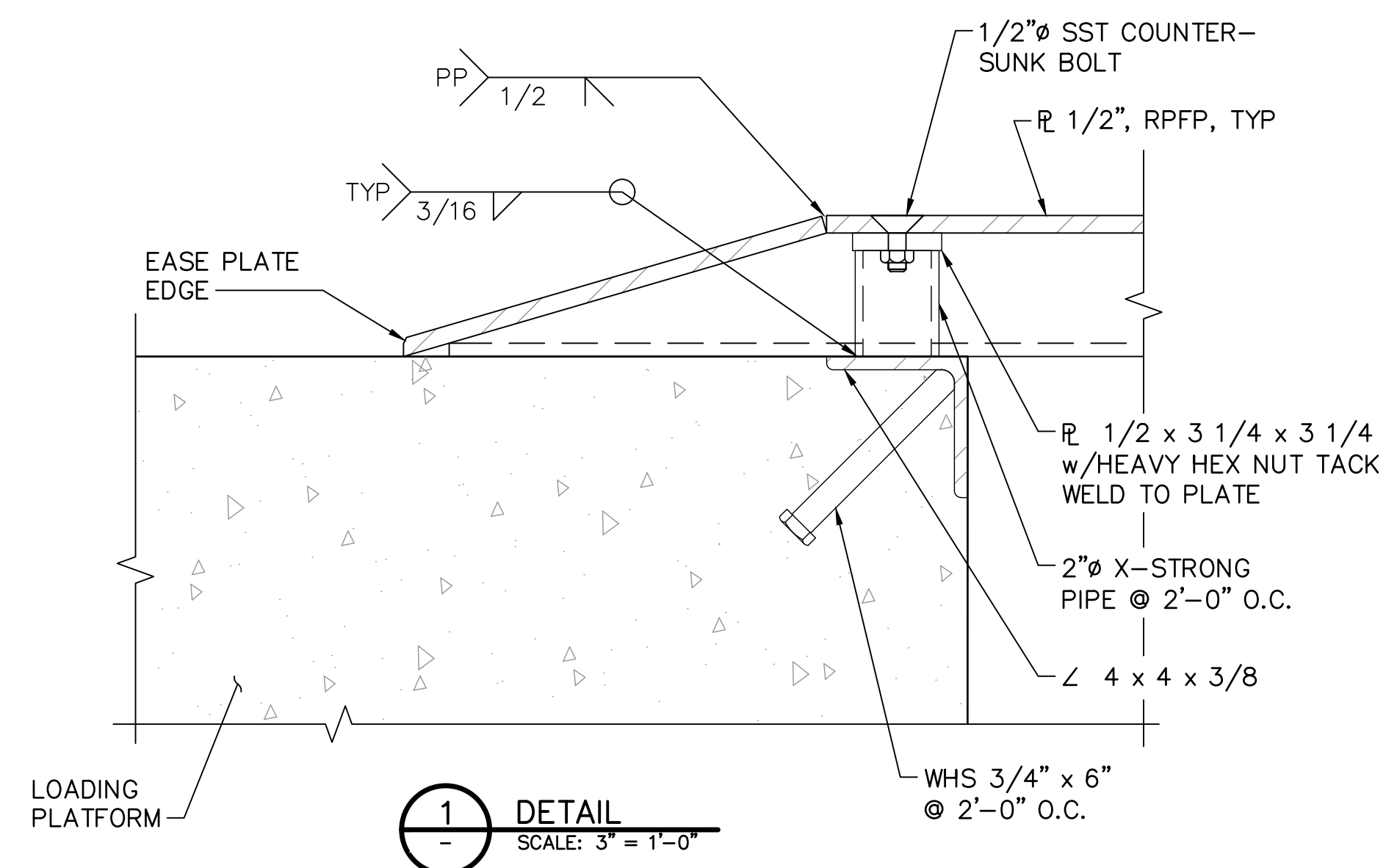
600 UNIVERSITY STREET
SUITE# 610
SEATTLE, WA 98101
(206) 622-0222



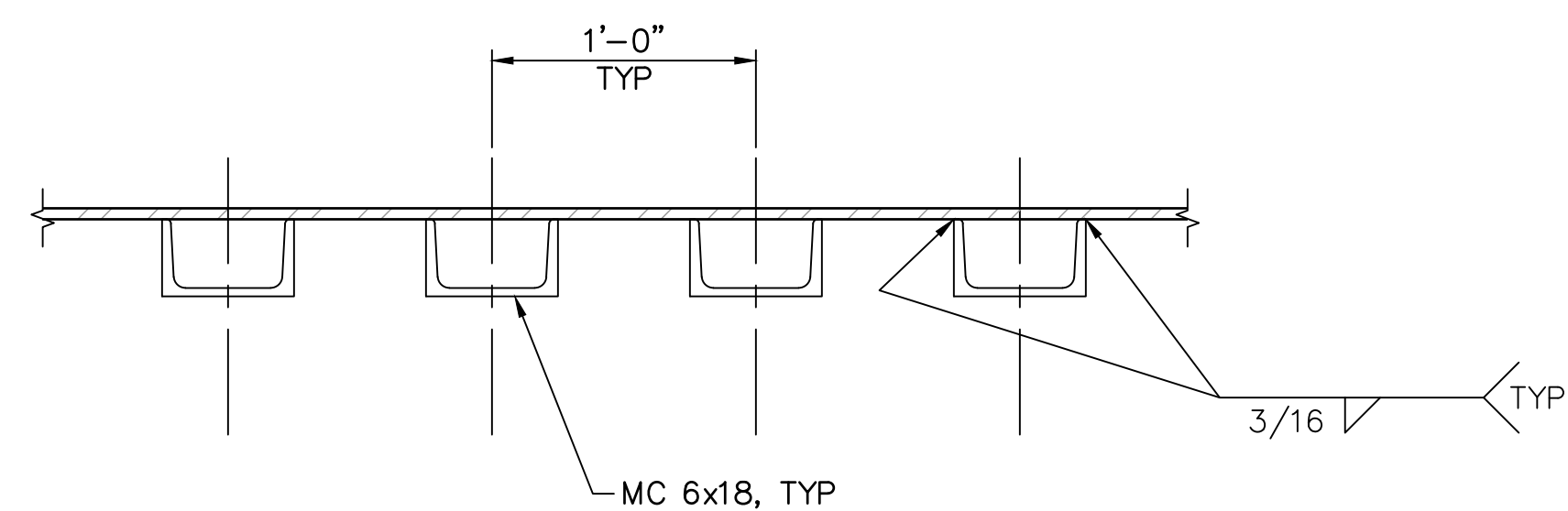
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Reference
Number:
S-402



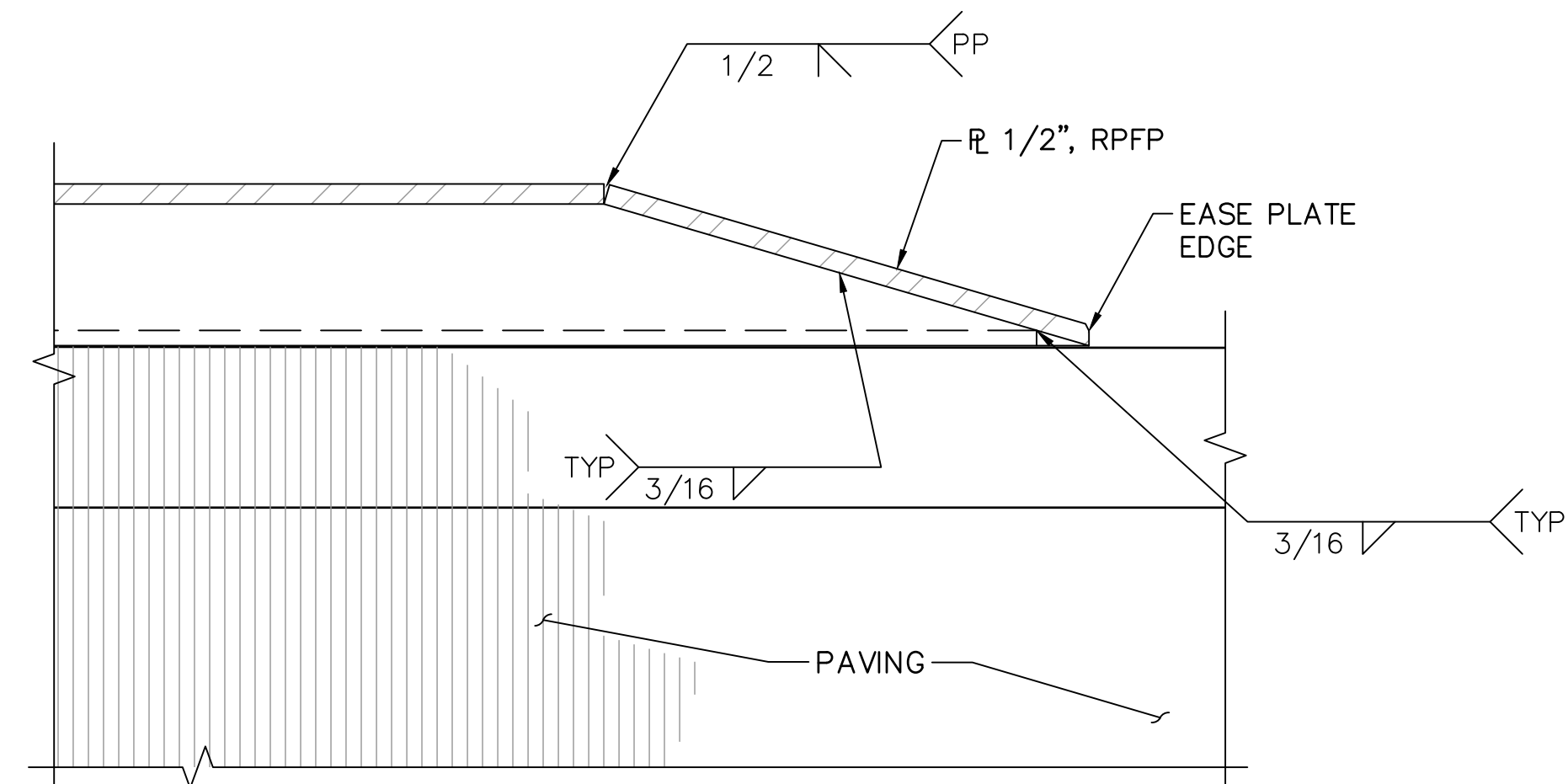
A SECTION - TRANSITION PLATE
S-104 SCALE: 3/4" = 1'-0"



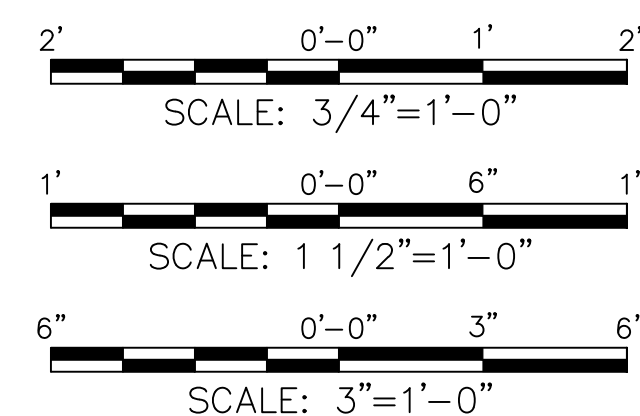
1
-
DETAIL
SCALE: 3" = 1'-0"



B TYPICAL SECTION AT TRANSITION PLATE
- SCALE: 1 1/2" = 1'-0"



2
-
DETAIL
SCALE: 3" = 1'-0"



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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

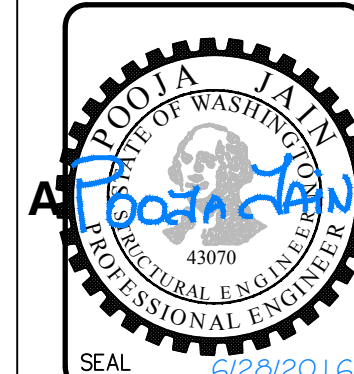
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Q
PUGET SOUND ENERGY
TACOMA LNG

TRANSITION PLATE DETAILS

B	Designed by: POOJA JAIN	Date: 6/28/2016	Rev.
	Own by: CG	Ckd by: TM	M&N Project No. 7940
Reviewed by: BRUCE OSTBO		Drawing code:	
Submitted by: POOJA JAIN		Drawing Scale: AS NOTED	
Checked by: MOFFATT & NICHOL		Plot scale: 1:1 (D SHEET)	

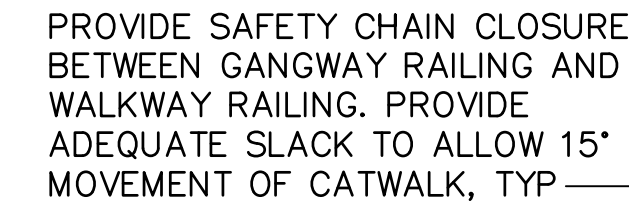
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Sheet
Reference
Number:

S-403

Index 29 of 42



Sheet
Reference
Number:
S-502



SHORE MOUNT LUG PROVIDED BY CATWALK SUPPLIER

3/16

TOP OF CONC

5/16

CATWALK DECK

BOTTOM CHORD

3"

#4 x 4'-0", SEE NOTE BELOW

(4) - #4 x 2'-0" EQ SPACED, COORDINATE W/ MANTLE

(3) - WHS 3/4x8 EQ SPACE BETWEEN REBAR

∠ 6 x 4 x 1/2 SHORE MOUNT ANGLE CAST FLUSH W/ TOP OF PIER

GUSSET

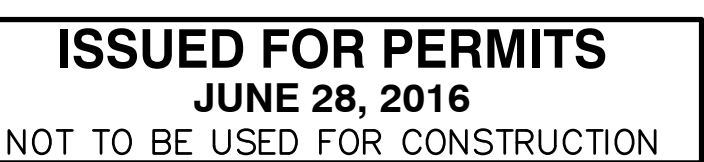
WALKWAY LUG

7/8"Ø GALV SAFETY-PIN ANCHOR SHACKLE W/NUT & COTTER PIN, TYP, BY CATWALK MANUFACTURER

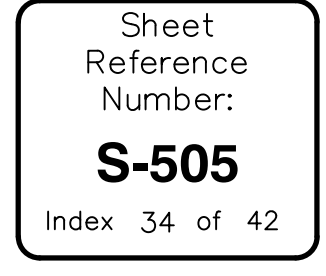
3 1/2"

3"Ø x 1/8" UHMW-PE ISOLATION WASHER EACH SIDE OF LUG, TYP, BY CATWALK MANUFACTURER

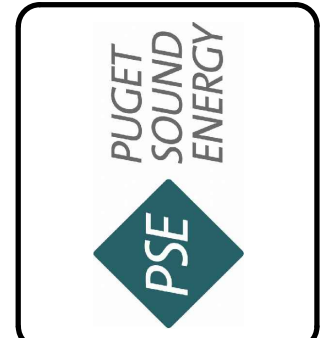
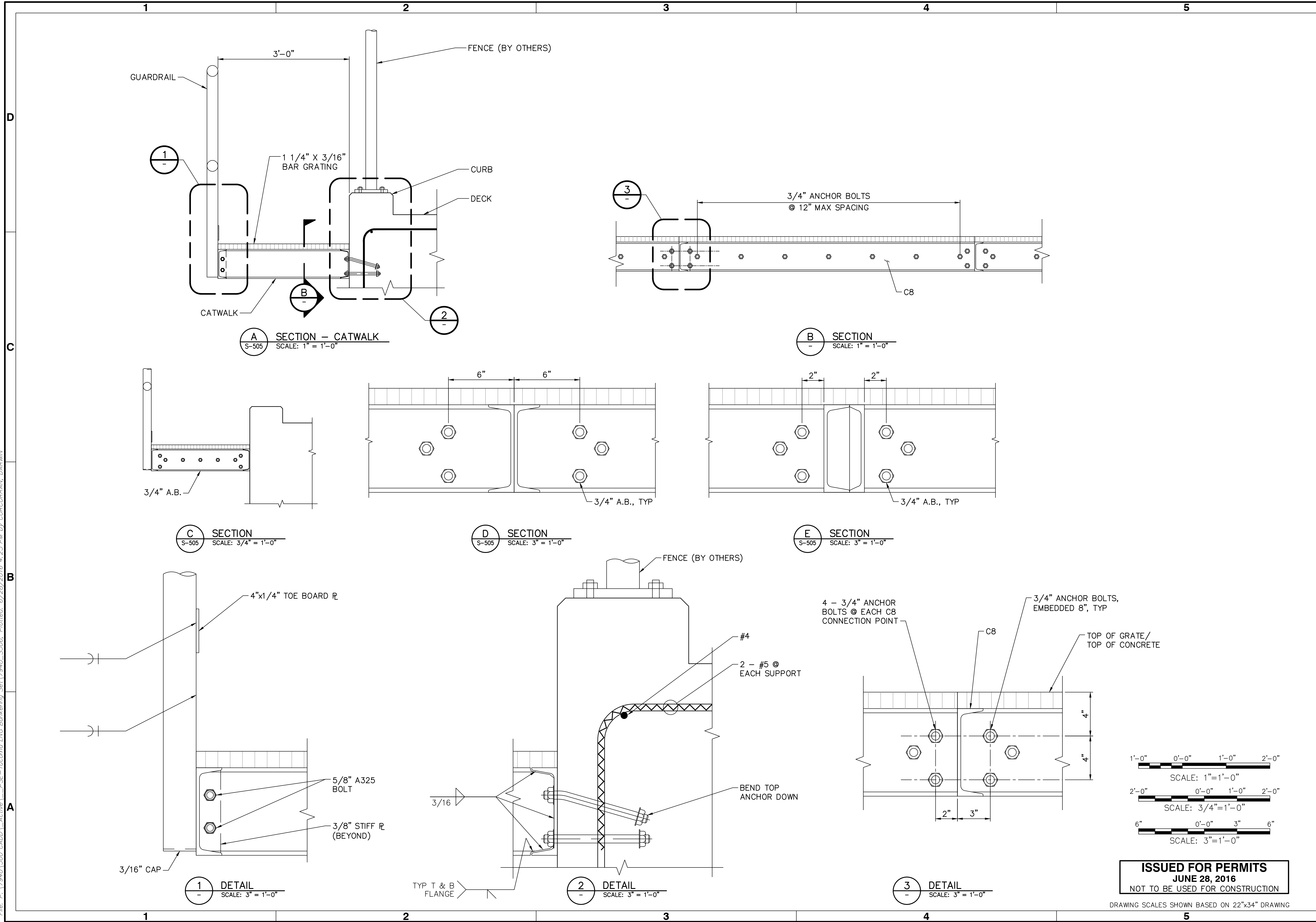
E ELEVATION
S-503 SCALE: 3/4" = 1'-0"



DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



File: P:\7940\500 CADD\Active_-PSE-Tacoma LNG Bunkering Set\7940_S506.dwg; Plotted: 6/28/2016 4:23 PM by CORCORAN, DARWIN



Rev.	Date	Description	Mark
1	6/28/2016	ISSUED FOR PERMITS	

PUGET SOUND ENERGY
TACOMA LNG
CATWALK @ LOADING PLATFORM
SECTIONS AND DETAILS

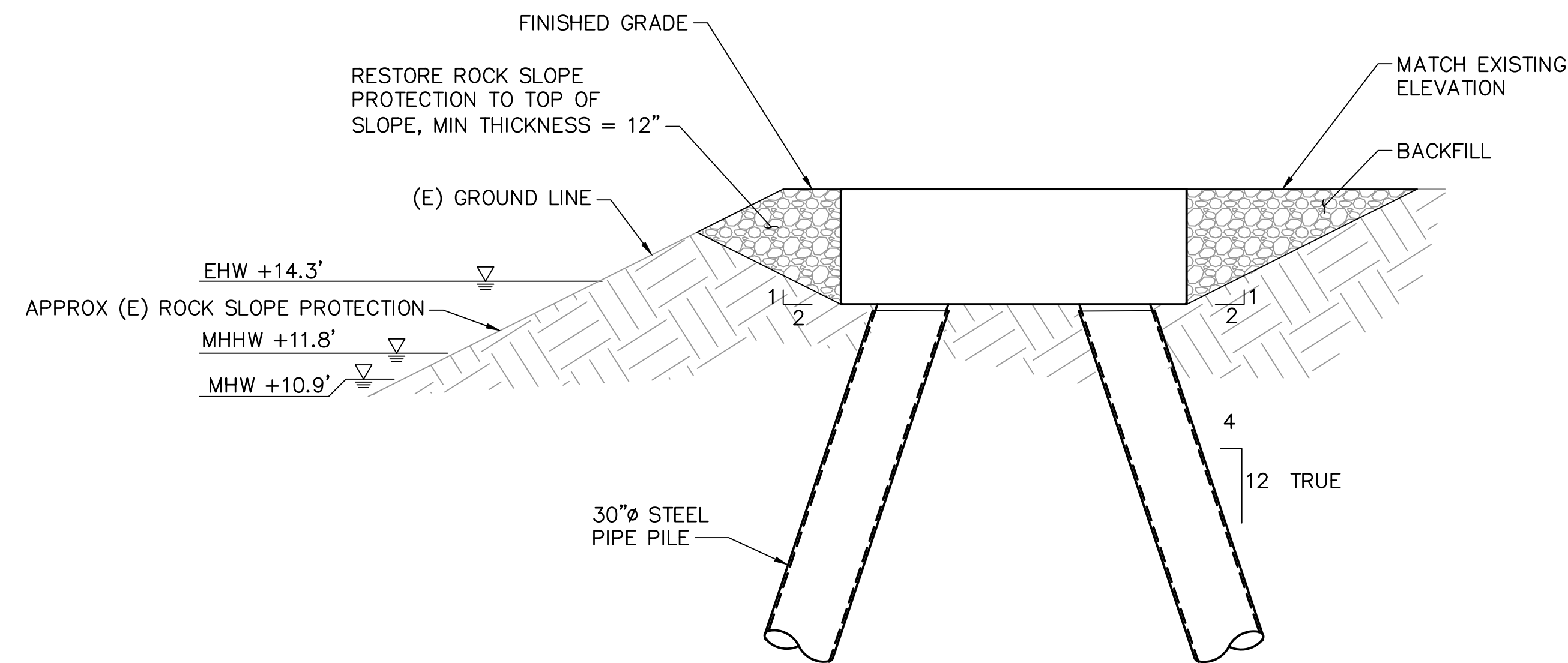
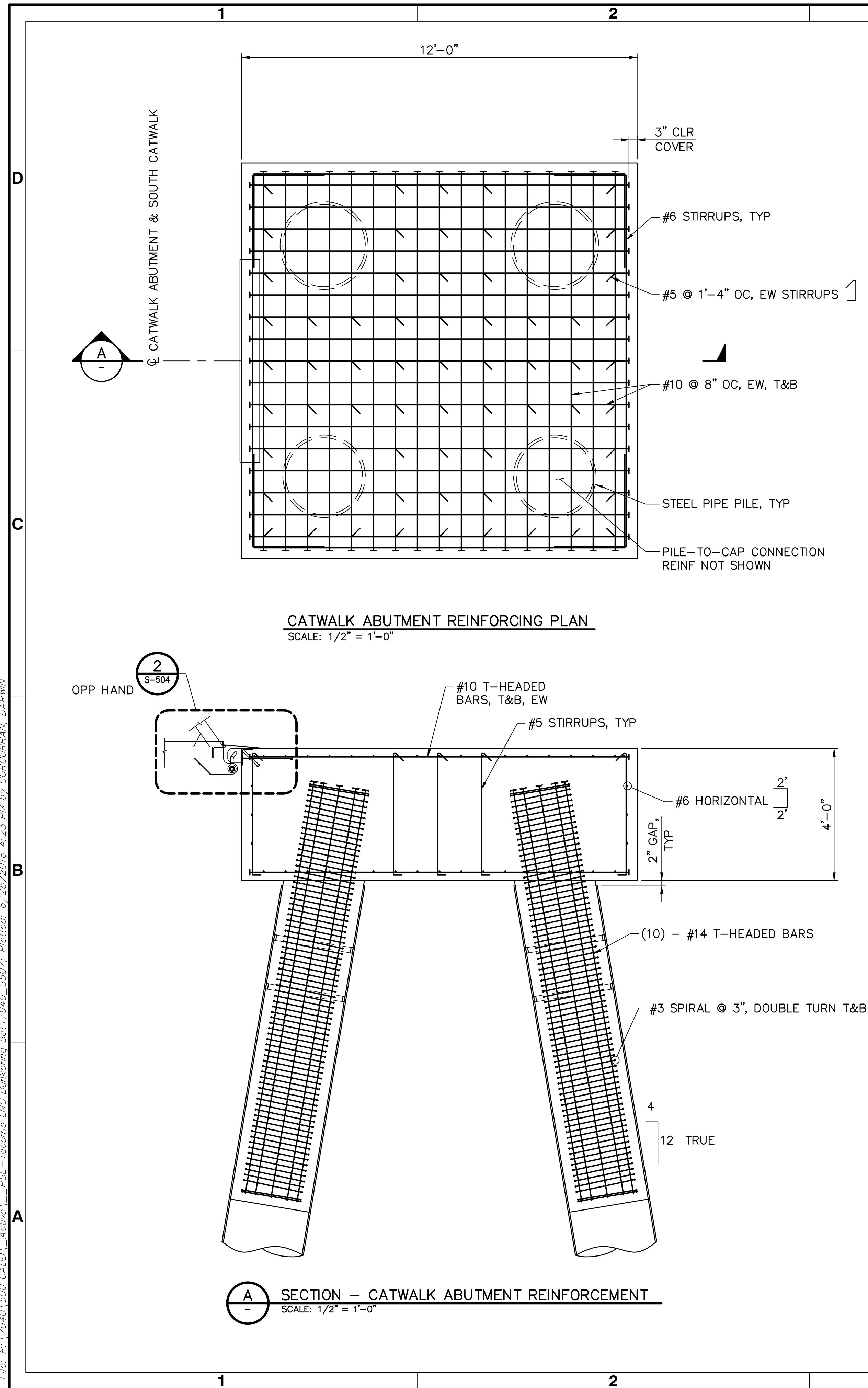
Designed by:	POOJA JAIN	Date:	6/28/2016	Rev.	-
Dwn by:	TM	M&N Project No.	7940		
Reviewed by:	BRUCE OSTRO	Drawing code:			
Submitted by:	POOJA JAIN	Drawing Scale:	AS NOTED		
	MOFFATT & NICHOL	Plot scale:	1:1 (D SHEET)		

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moffatt & nichol



Sheet
Reference
Number:
S-506
Index 35 of 42



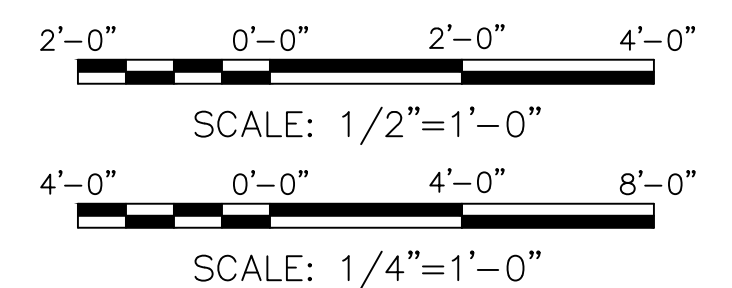
TYPICAL CATWALK ABUTMENT SECTION
SCALE: 1/4" = 1'-0"

NOTE

1. SEE S-102 FOR PILE TIP ELEVATIONS.

LEGEND

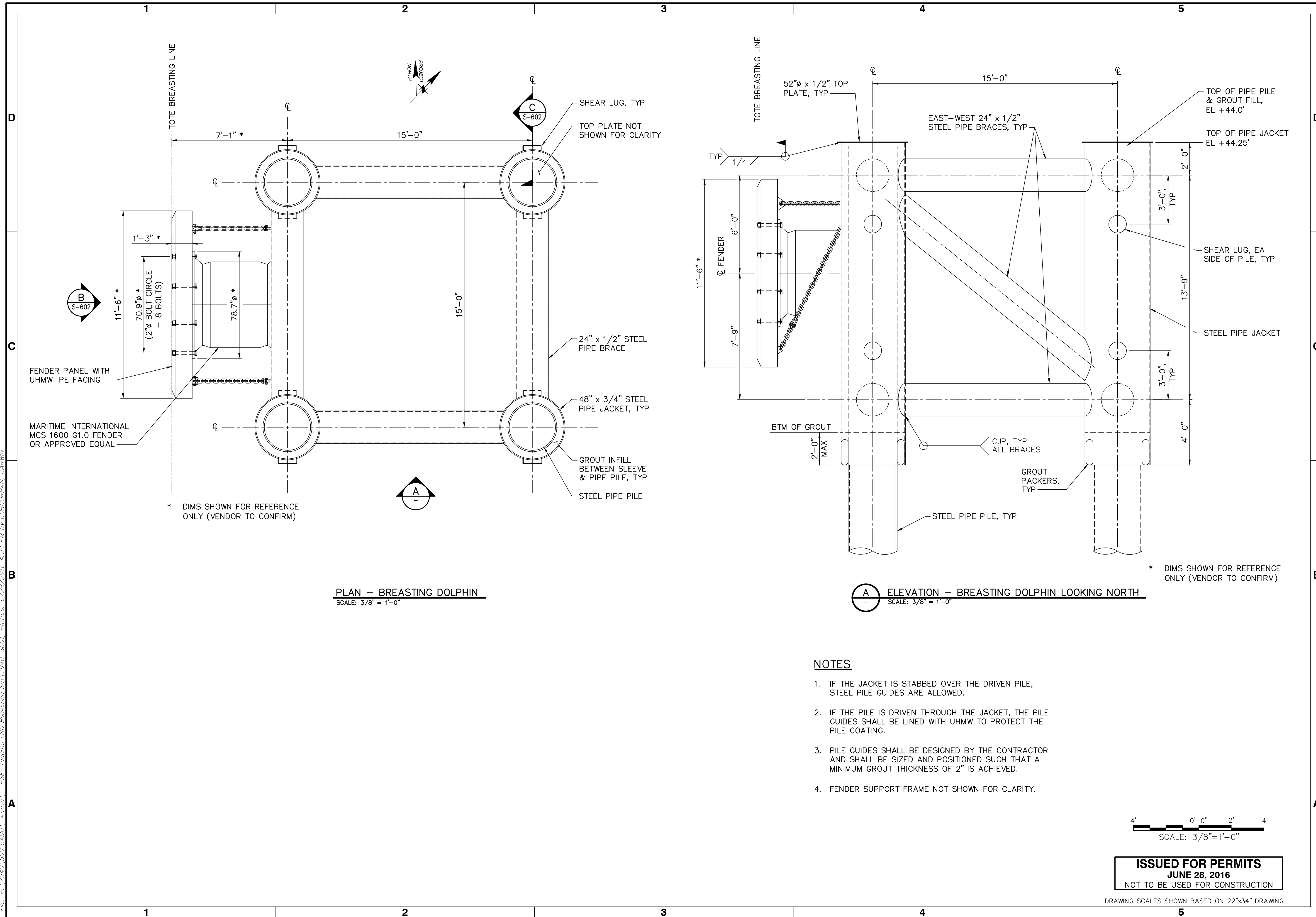
- PLUMB PILES
● BATTER PILES



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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

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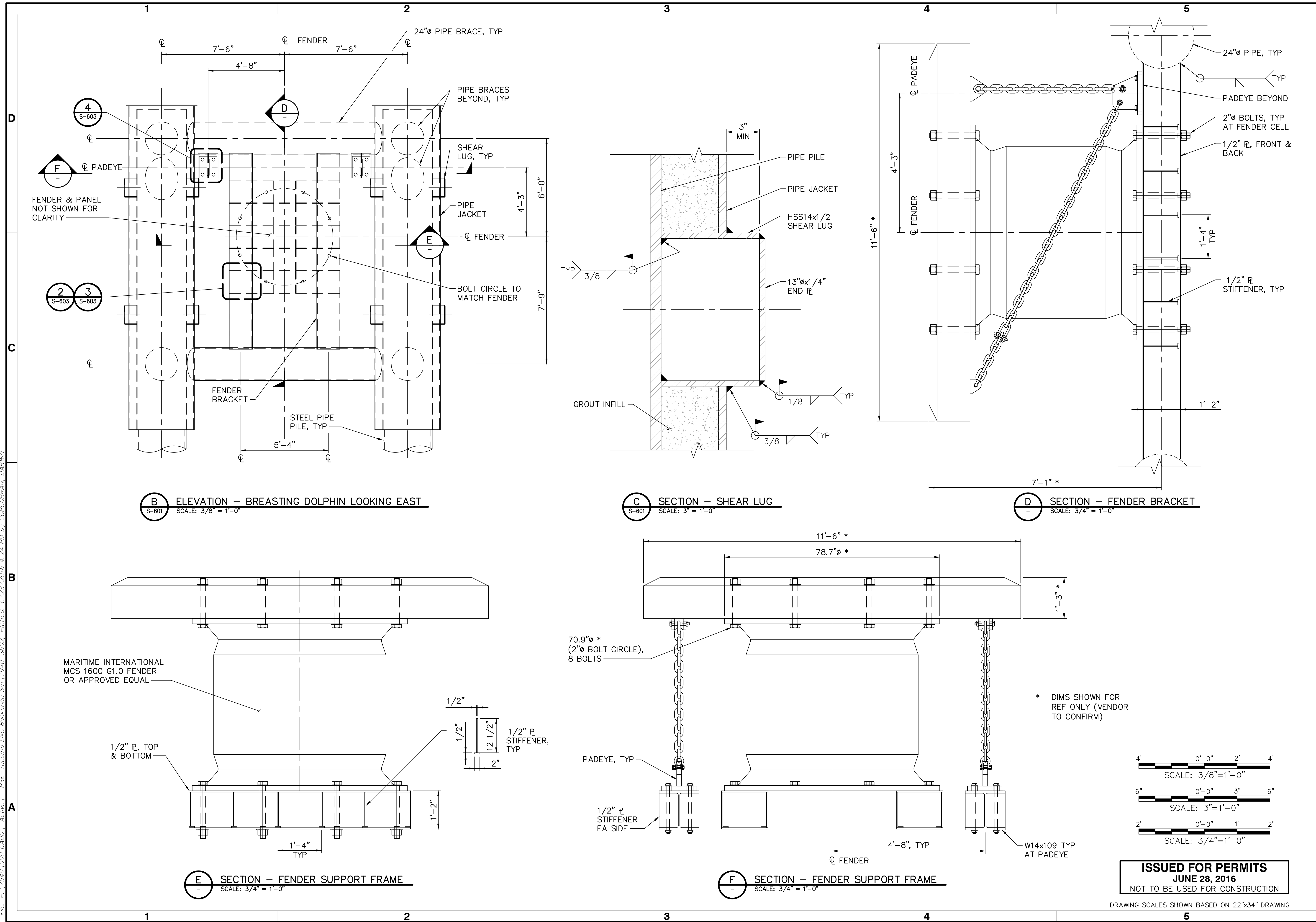


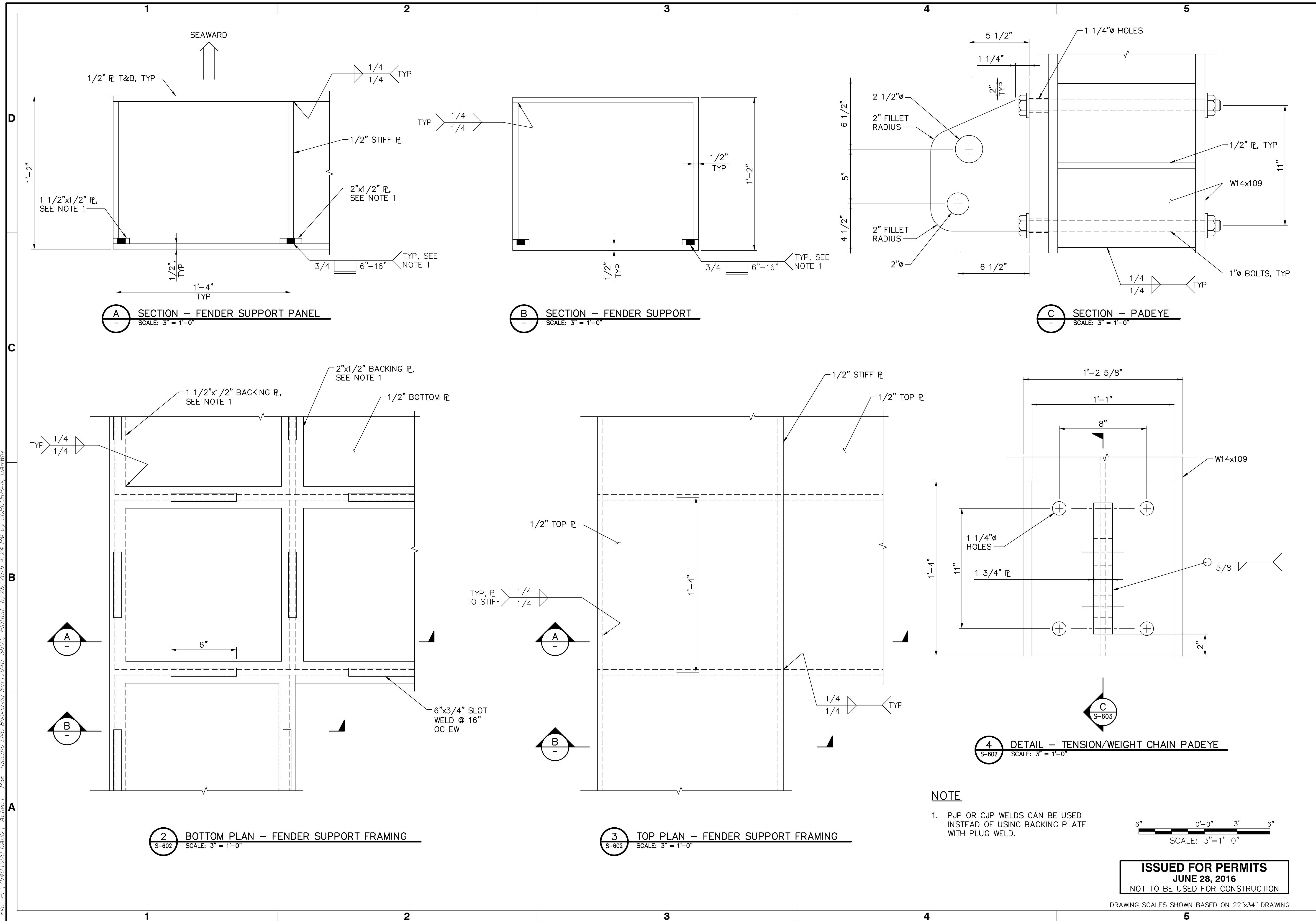
 moffatt & nichol	Designed by: POOJA JAIN	Date: 6/28/2016	Rev. —
	Drawn by: CG	Ctd by: TM	M&N Project No. 7940
600 UNIVERSITY STREET SUITE # 610 SEATTLE, WA 98101 (206) 622-0222	Reviewed by: BRUCE OSTRO	Drawing code:	
	Submitted by: POOJA JAIN	Drawing Scale: AS NOTED	
	MOFFATT & NICHOL	Plot scale: 1:1 (0 SHEET)	



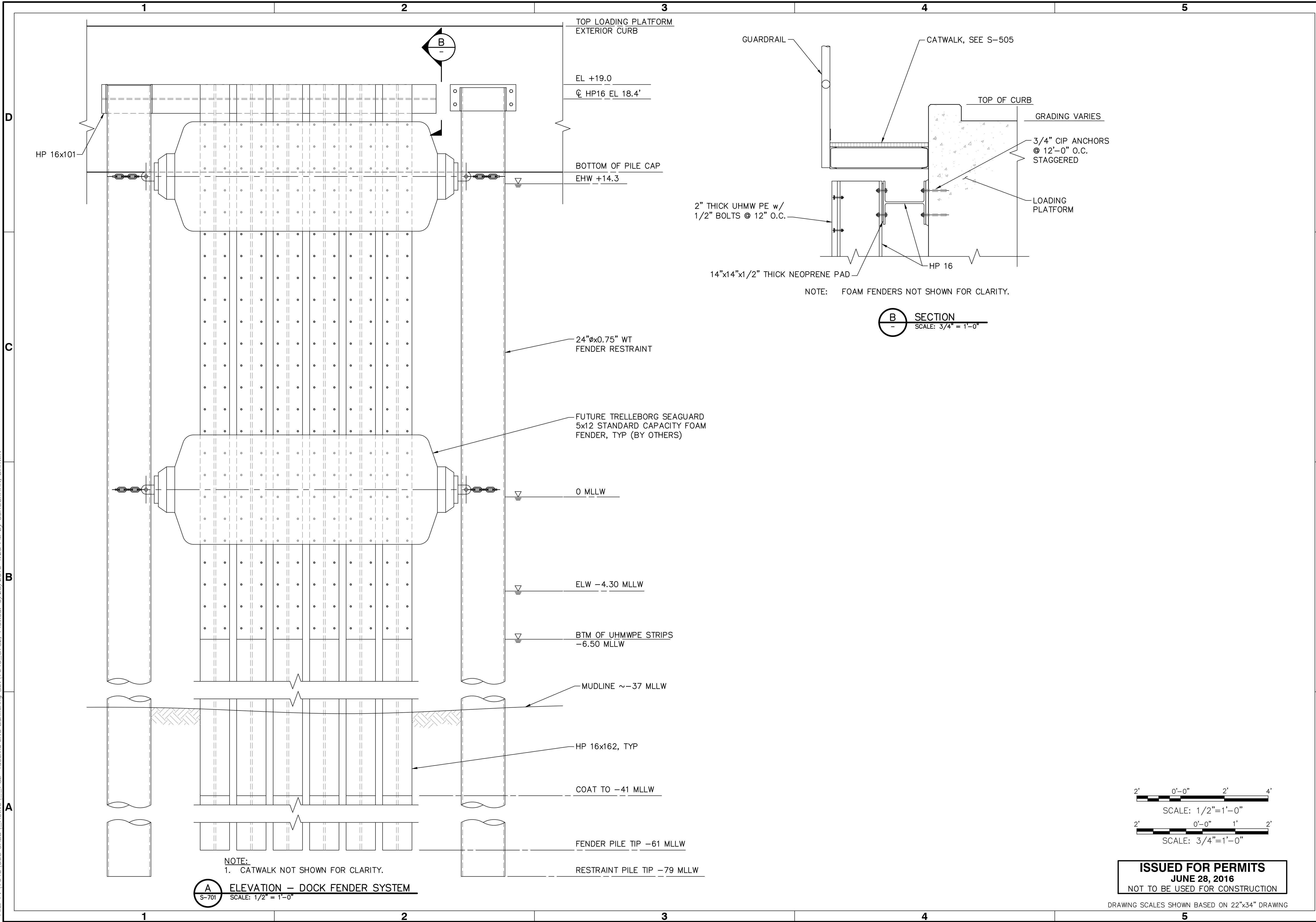
Sheet
 Reference
 Number:
S-601
 Index 37 of 42

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File: P:\7940\500_CADD_Active\...PSE-Tacoma LNG Bunkering Set\7940_S702; Plotted: 6/28/2016 4:25 PM by CORCORAN, DARWIN



PUGET SOUND ENERGY

PSE

Rev.	Date	Designed by:	Dwn by:	Chk by:	Reviewed by:	Submitted by:	Drawing Scale:	Plot Scale:
-	6/28/2016	POOJA JAIN	CO	TM	BRUCE OSTRO	POOJA JAIN	AS NOTED	1:1 (D SHEET)
						MOFFATT & NICHOL		

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SEATTLE, WA 98101
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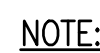
moffatt & nichol

POOJA JAIN
43070
PROFESSIONAL ENGINEER
SEAL 6/28/2016

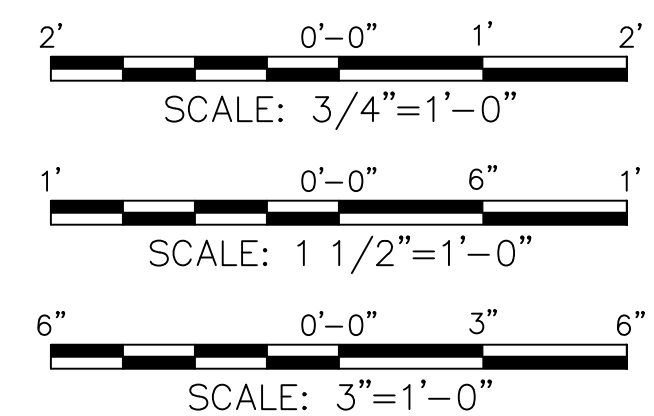
Sheet
Reference
Number:
S-702
Index 41 of 42

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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

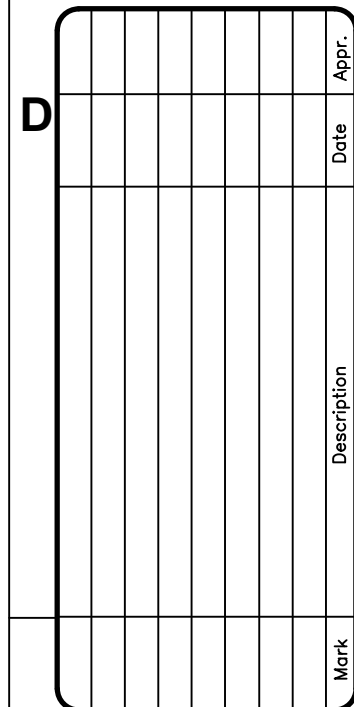


LOCATE EXIST REBAR USING NON-DESTRUCTIVE TESTING BEFORE DRILLING FOR ANCHORS. ADJUST LOCATIONS TO MISS EXIST REBARS.



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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

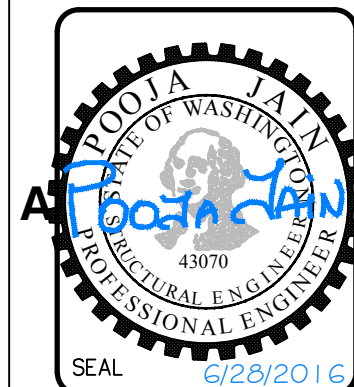


**PUGET SOUND ENERGY
TACOMA LNG**

MISCELLANEOUS DETAILS

Designed by: POOJA JAIN	Date: 6/28/2016	Rev. -
Ok'd by: TM	M&N Project No. 7940	
CG	Drawing code:	
Reviewed by: BRUCE OSTRO	Submitted by: POOJA JAIN MOFFATT & NICHOL	Drawing Scale: AS NOTED Plot scale: 1:1 (D SHEET)

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Sheet
Reference
Number:
S-801

Index 42 of 42