

PORT OF TACOMA

TERMINAL 3 / TERMINAL 4 SHORE POWER PROJECT NO. 201100.01 CONTRACT NO. 071357

PORT COMMISSIONERS:

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DON MEYER
JOHN McCARTHY
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DEANNA KELLER

PORT STAFF:

JOHN WOLFE
NWSA Chief Executive Officer

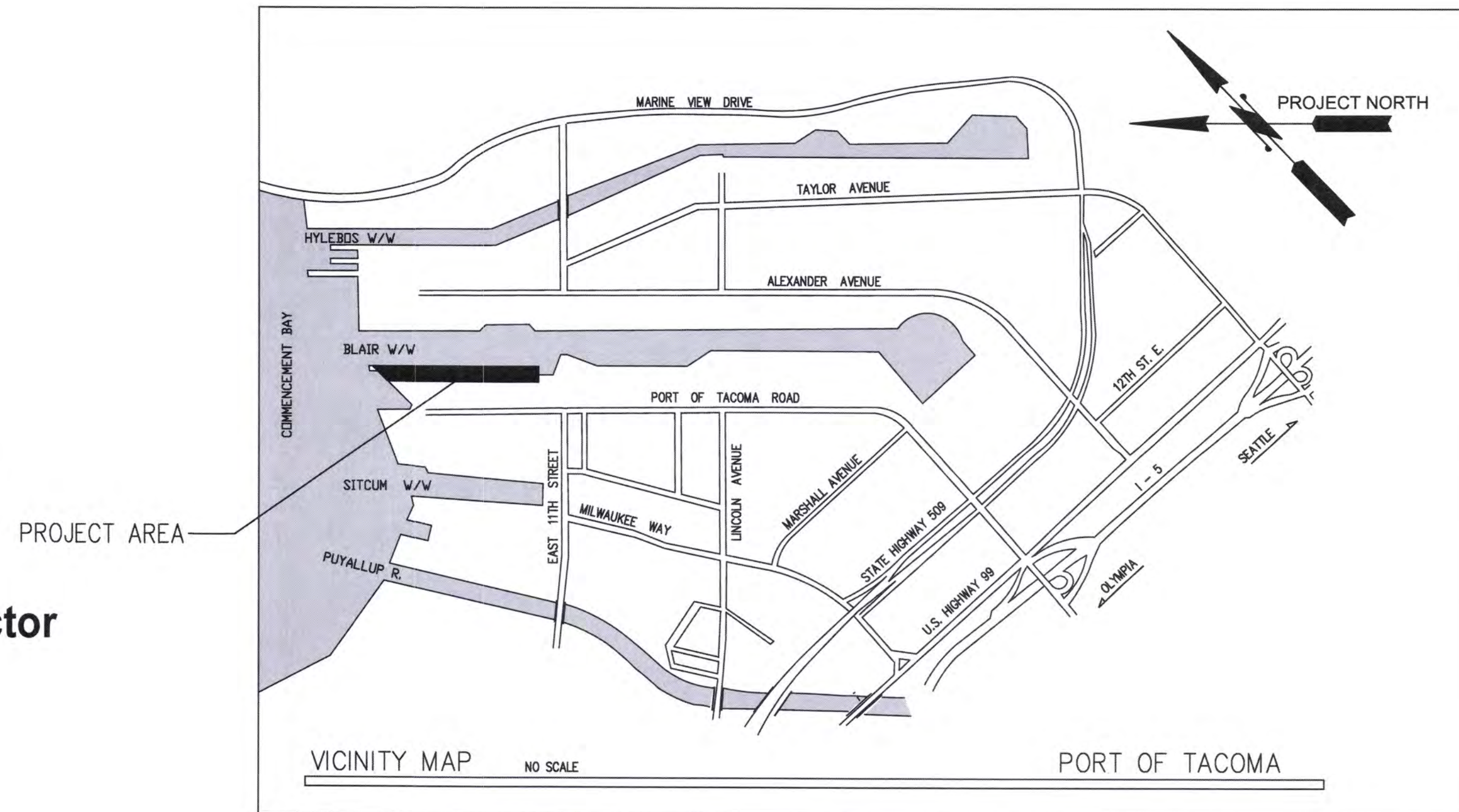
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Port of Tacoma Executive Director

THAIS HOWARD, P.E.
Director of Engineering

HUGHES WIKE, P.E.
Project Manager

CONSULTANT:

NATHAN WATSON, P.E.
KPFF Project Manager



6658 G1.0 01 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER TITLE SHEET				APPROVED: <i>Thais Howard</i> DIRECTOR ENG. DATE: 2/1/22		SJS CHECKED BY: [blank] DATE: 02/02/2022		2407 North 31st Street, Suite 100 Tacoma, Washington 98407 (253) 395-0120 FAX (253) 395-0162		kpff P.O. BOX 687 TACOMA, WA 98401 (253)395-6641	
	TOWNSHIP:	RANGE:	SECTION:	DATE: 02/02/2022	PROJ. ENGR DATE: 02/02/2022	BY:	APPR:	DATE:				
	DATE-HRZ:	VERT:	PRINTED BY: dya Feb 02, 2022	REVISION:	MARK:							
	PARCEL:	DRAWING SCALE: AS NOTED	PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98421									

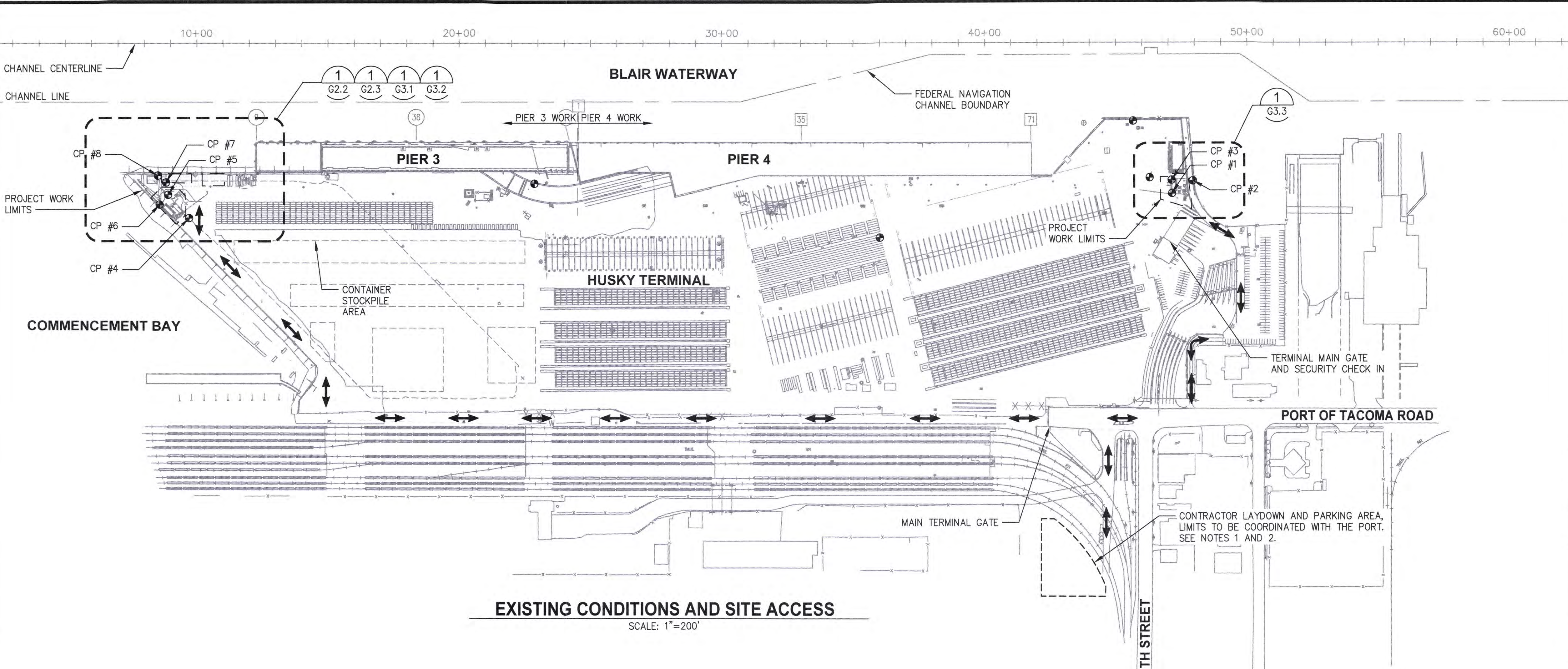
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	EXISTING STORM DRAIN
	EXISTING SANITARY SEWER
	EXISTING BELOW GROUND FIBER OPTIC
	EXISTING DOMESTIC WATER
	EXISTING FIRE WATER
	EXISTING BURIED POWER
	EXISTING TELEPHONE
	EXISTING EDGE OF PAVEMENT
	EXISTING WATER
	EXISTING TYPE B SHIP BUMPER
	EXISTING TYPE A SHIP BUMPER
	EXISTING CRANE STOP BAR
	EXISTING STOW PIN
	EXISTING SHIP TIE DOWN
	EXISTING ELECTRICAL VAULT
	EXISTING TELEPHONE VAULT
	EXISTING LIGHT STANDARD
	EXISTING PEDESTRIAN WALK SYMBOL
	EXISTING STORM DRAIN MANHOLE
	EXISTING SANITARY SEWER CLEANOUT
	EXISTING BOLLARD
	EXISTING CATCH BASIN
	EXISTING WATER VALVE
	EXISTING HANDICAP RAMP
	EXISTING SANITARY SEWER CLEANOUT
	EXISTING WHARF ACCESS MANHOLE
	EXISTING WATER MANHOLE
	EXISTING WATER METER
	EXISTING POWER VAULT

ACP	ASPHALTIC CONCRETE PAVEMENT
APPROX	APPROXIMATE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AVE	AVENUE
BP	BURIED POWER
BMP	BEST MANAGEMENT PRACTICE
CB	CATCH BASIN
CDF	CONTROL DENSITY FILL
CL	CENTER LINE
CONC	CONCRETE
CP	CONTROL POINT
CSBC	CRUSHED SURFACING BASE COURSE
CSTC	CRUSHED SURFACING TOP COURSE
CSWGP	CONSTRUCTION STORMWATER GENERAL PERMIT
DAT-HRZ	HORIZONTAL DATUM
DEMO	DEMOLITION
DIA/Ø	DIAMETER
DWG	DRAWING
E.	EAST
EL OR ELEV	ELEVATION
ENG.	ENGINEERING
ENGR	ENGINEER
EX OR EXIST	EXISTING
FF	FINISH FLOOR
FG	FINISH GRADE
GA	GAUGE
HMA	HOT MIX ASPHALT
ID	IDENTIFICATION
IE	INVERT ELEVATION
K	KIP(S) OR KILOPOUND(S)
L	LENGTH
LBS	POUNDS
MAX	MAXIMUM
ME	MATCH EXISTING
MIL	MILLIMETER
MIN	MINIMUM
MLLW	MEAN LOWER LOW WATER
NCD	NEARSHORE CONFINED DISPOSAL
NO.	NUMBER
NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
NTS	NOT TO SCALE
OC	ON CENTER
OPS	OPERATIONS
P	POUNDS
PE	PROFESSIONAL ENGINEER
PG	PERFORMANCE GRADE
POT	PORT OF TACOMA
PROJ	PROJECT
PROP	PROPOSED
PSI	POUNDS PER SQUARE INCH
PT	POINT
SCH	SCHEDULE
SDMH	STORM DRAIN MANHOLE
ST	STREET
SWPPP	STORMWATER POLLUTION PREVENTION PLAN
TA	TOP OF ASPHALT
TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
TPU	TACOMA PUBLIC UTILITY
TS	TOP OF SLAB
TYP	TYPICAL
T3	TERMINAL 3
T4	TERMINAL 4
US	UNITED STATES
VERT	VERTICAL
W	WATER, WEST, WIDTH
WA	WASHINGTON
W/W	WATERWAY

[illegible]

PORT OF TACOMA FILE: M:\2020\2000087 POT T3 T4 Shorepower\Drawings\Current\G2.1 - Ex Conditions & Site Access



EXISTING CONDITIONS AND SITE ACCESS
SCALE: 1"=200'

PIER 3 SURVEY CONTROL POINTS				
PT#	NORTHING	EASTING	ELEV.	DESCRIPTION
4	714545.02	1165012.80	16.70	MAG NAIL
5	714664.28	1165017.61	15.91	MAG NAIL
6	714660.41	1164968.33	17.02	MAG NAIL
7	714702.99	1165044.30	16.12	MAG NAIL
8	714742.98	1165039.49	16.63	MAG NAIL

PIER 4 SURVEY CONTROL POINTS				
PT#	NORTHING	EASTING	ELEV.	DESCRIPTION
1	712007.60	1167767.46	19.04	MAG NAIL
2	711986.25	1167857.05	19.67	MAG NAIL
3	712044.15	1167801.52	18.95	MAG NAIL

SURVEY AND DATUM INFORMATION:

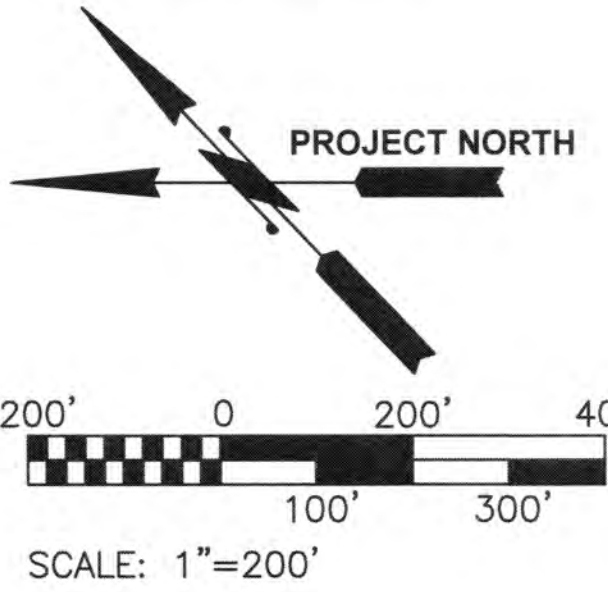
- UPLAND SURVEY WITHIN PROJECT WORK LIMITS COMPLETED BY KPFF CONSULTING ENGINEERS DATED NOVEMBER 2020.
- HORIZONTAL DATUM INFORMATION:
WASHINGTON STATE PLANE COORDINATE SYSTEM, SOUTH ZONE 4602, NAD83/09.
- VERTICAL DATUM INFORMATION:
MLLW DATUM, 1933 EPOCH - TIDE 22 BENCHMARK ELEVATION = 19.39'.

NOTES:

- PORT WILL PROVIDE A MINIMUM OF 15,000 SQUARE FEET FOR CONTRACTOR USE.
- ALL WORK AREAS AND OFFSITE CONTRACTOR LAYDOWN AREA ARE WITHIN SECURE TWC BOUNDARY. SEE SPECIFICATIONS SECTION 01 14 00-WORK RESTRICTIONS.

LEGEND

- CONTRACTOR ACCESS ROUTE
- CONTROL POINT



6658

G2.1

05 OF 83

CONT/CONS: 071357

M. ID: 201100.01

PHASE: BID SET

TERMINAL 3 / TERMINAL 4

SHORE POWER

EXISTING CONDITIONS AND SITE ACCESS

APPROVED:

DATE: 02/02/2022

CHECKED BY: RAD

DATE: 02/02/2022

PROJECT ENGINEER: djp

DATE: Feb 02, 2022

PRINTED BY: ONE SITCUM PLAZA

PORT ADDRESS: TACOMA, WA 98421

DRAWING SCALE: AS NOTED

DATE:

APPR:

BY:

REVISION:

MARK:

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LEGEND

PROJECT WORK LIMITS 1 4

GENERAL NOTES

- 1. CONTRACTOR SHALL BE AWARE OF FACILITY OPERATIONS REQUIREMENTS AND COORDINATE THEIR ACCESS AND OPERATION REQUIREMENTS WITH THE ENGINEER. TERMINAL OPERATIONS HAVE PRECEDENCE AND SHALL NOT BE INTERRUPTED WITHOUT PRIOR APPROVAL OF THE ENGINEER. MAINTAIN TENANT ACCESS AND DO NOT RESTRICT TENANT OPERATIONS.
- 2. SEE SPECIFICATION SECTION 00 14 00 - WORK RESTRICTIONS FOR PHASING, CONSTRAINTS AND WORK LIMITATIONS BASED ON MAINTAINING TERMINAL OPERATIONS.
- 3. CONTRACTOR SHALL COORDINATE ACCESS TO EXISTING MANHOLES FOR CABLE PULLING WITH THE ENGINEER AND PROTECT REQUIRED WORK AREAS WITH TEMPORARY FENCING SIMILAR TO TRENCHING ACTIVITIES. PROVIDE SIMILAR ONE WEEK NOTICE TO THE ENGINEER FOR ACCESS.
- 4. PIER 3 AREA SHOWN. THE NOTES SHOWN ON THIS SHEET ARE APPLICABLE TO SIMILAR WORK ON THE REST OF THE TERMINAL BEYOND THAT SHOWN HERE (INCLUDING TRENCHING, BULLRAIL VAULTS, TEMPORARY WORK AREAS REQUIRED FOR PULLING THROUGH EXISTING MANHOLES AND WORK AT THE PIER 4 SUBSTATION).

KEYED NOTES

- 1 SEE SPECIFICATIONS AND TESC DRAWINGS FOR WORK AREA LIMITS AND FENCING REQUIREMENTS.
- 2 CONTRACTOR SHALL COORDINATE WITH THE ENGINEER FOR ACCESS TO REQUIRED WORK OUTSIDE OF THE FENCED WORK AREAS SHOWN. CONTRACTOR SHALL PROVIDE ONE WEEK MINIMUM NOTIFICATION TO THE ENGINEER FOR ACCESS TO AREAS OR MANHOLES OUTSIDE THE DESIGNATED WORK AREAS, INCLUDING TRENCHING ACTIVITIES. THE ENGINEER WILL COORDINATE WITH THE TENANT AND NOTIFY THE CONTRACTOR WHEN THE REQUESTED AREA IS AVAILABLE.
- 3 CONTRACTOR SHALL PROVIDE TEMPORARY LIGHTED BARRELS AND FENCING TO PROTECT TEMPORARY WORK AREAS (OUTSIDE OF DESIGNATED PERMANENT WORK AREAS) FROM TENANT OPERATIONS. TEMPORARY FENCING SHALL BE IN PLACE WHILE TRENCH IS OPEN UNTIL PAVEMENT PATCHING IS COMPLETE. SEE SHEET G3.4.
- 4 THE CONTRACTOR SHALL STOCKPILE OR STAGE ALL EQUIPMENT, SUPPLIES AND MATERIALS (INCLUDING SOIL) WITHIN THE WORK LIMIT SHOWN UNLESS OTHERWISE COORDINATED AND APPROVED BY THE ENGINEER.
- 5 WORK AT THE NEW AND EXISTING BULLRAIL VAULTS INVOLVES THE REMOVAL OF ASPHALT PAVEMENT AND BALLAST TO ACCOMMODATE THE WORK. THIS WORK SHALL BE COORDINATED AROUND VESSEL SCHEDULES AND THE CONTRACTOR SHALL PLAN TO VACATE THE WORK AREA WHEN VESSELS ARE IN BERTH. CONTRACTOR SHALL PROTECT AND COVER OPEN AREAS AT THE WHARF BULLRAIL WITH PLYWOOD OR OTHER MEANS AT THE END OF EACH SHIFT, AND MARK THESE AREAS WITH CONES. PROVIDE TEMPORARY BARRIERS TO DENOTE BULLRAIL WORK AREAS AND REMOVE AT THE END OF EACH SHIFT.
- 6 THE CONTRACTOR SHALL ASSUME THAT THEY WILL ONLY BE ABLE TO WORK ON THE BULLRAIL VAULTS AT ONE BERTH AT A TIME (EITHER PIER 3 OR PIER 4). SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS.
- 7 CONTRACTOR SHALL COORDINATE OVERNIGHT OR WEEKEND ELECTRICAL POWER SHUTDOWN WITH THE ENGINEER FOR TPU CHANGEOVER WORK AND ANY OTHER REQUIRED ELECTRICAL OUTAGES. THE ENGINEER WILL COORDINATE WITH TENANT AND TPU. SEE ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR FURTHER REQUIREMENTS.
- 8 CONTRACTOR SHALL BREAK TRENCHING ACTIVITIES AT EXISTING DRIVE AISLES TO MAINTAIN TENANT TRAFFIC OVER A MINIMUM OF A 28 FT DRIVE AISLE AT ALL TIMES. CONTRACTOR SHALL NOT HAVE ACCESS TO THE REMAINDER OF THE DRIVE AISLE UNTIL PAVEMENT PATCHING AND STRIPING OVER THE FIRST PORTION IS COMPLETE.
- 9 PORTION OF NEW DUCTBANK TRENCHING IS WITHIN EXISTING CONTAINER STACKING. CONTRACTOR SHALL PROVIDE ONE WEEK MINIMUM NOTIFICATION TO THE ENGINEER TO COORDINATE ACCESS TO THE AREA AND GET CONTAINERS MOVED. CONTRACTOR SHALL COMPLETE TRENCHING IN TWO SEGMENTS, UTILIZING ONLY HALF OF THE CONTAINER STACK AREA (INCLUDING PAVEMENT AND STRIPE RESTORATION) BEFORE GAINING ACCESS TO THE OTHER HALF OF THE CONTAINER STACK.
- 10 CONTRACTOR SHALL COORDINATE ACCESS TO UNDER DOCK WORK WITH THE ENGINEER AND SHALL ASSUME WORK SKIFF MARINE ACCESS WILL BE REQUIRED. CONTRACTOR SHALL COORDINATE UNDER DOCK WORK WITH THE VESSEL SCHEDULE.
- 11 CONTRACTOR SHALL MAINTAIN VEHICULAR ACCESS TO THE TENANT GEARMAN AREA IN THE CORNER OF PIER 3.
- 12 CONTRACTOR SHALL MAINTAIN TENANT ACCESS TO MOORING BOLLARD FOR VESSEL BERTHING AT ALL TIMES. SEE G3.2.
- 13 SEE SPECIFICATIONS FOR SHORE POWER SYSTEM TESTING AND COMMISSIONING REQUIREMENTS.



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WASHINGTON
PROFESSIONAL ENGINEER
NO. 97014
EXPIRATION DATE 12/31/2024

SUS	02/02/2022	CHECKED BY	DATE
RAD	02/02/2022	PROJ. ENGR	DATE
DIRECTOR ENG. DATE		rdor Feb 02, 2022	
PRINTED BY:		ONE SITCOM PLAZA	
PORT ADDRESS:		TACOMA, WA 98421	

6658	06 OF 83
CONT/CONS:	07/1357
M. ID:	20T100.01
PHASE:	BID SET

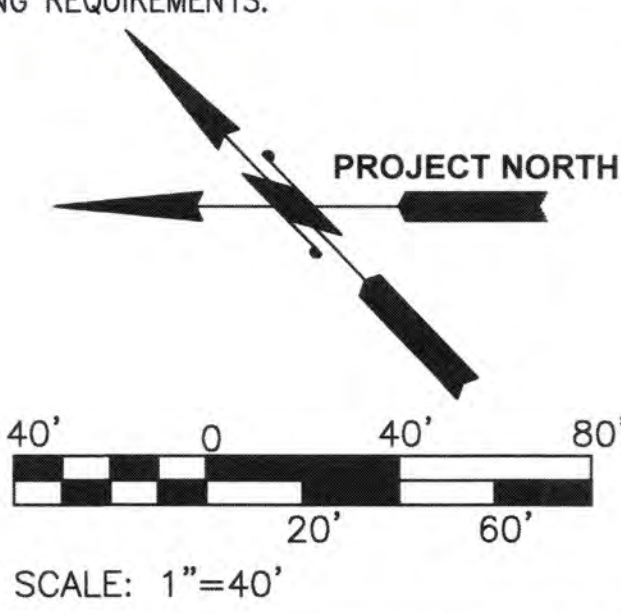
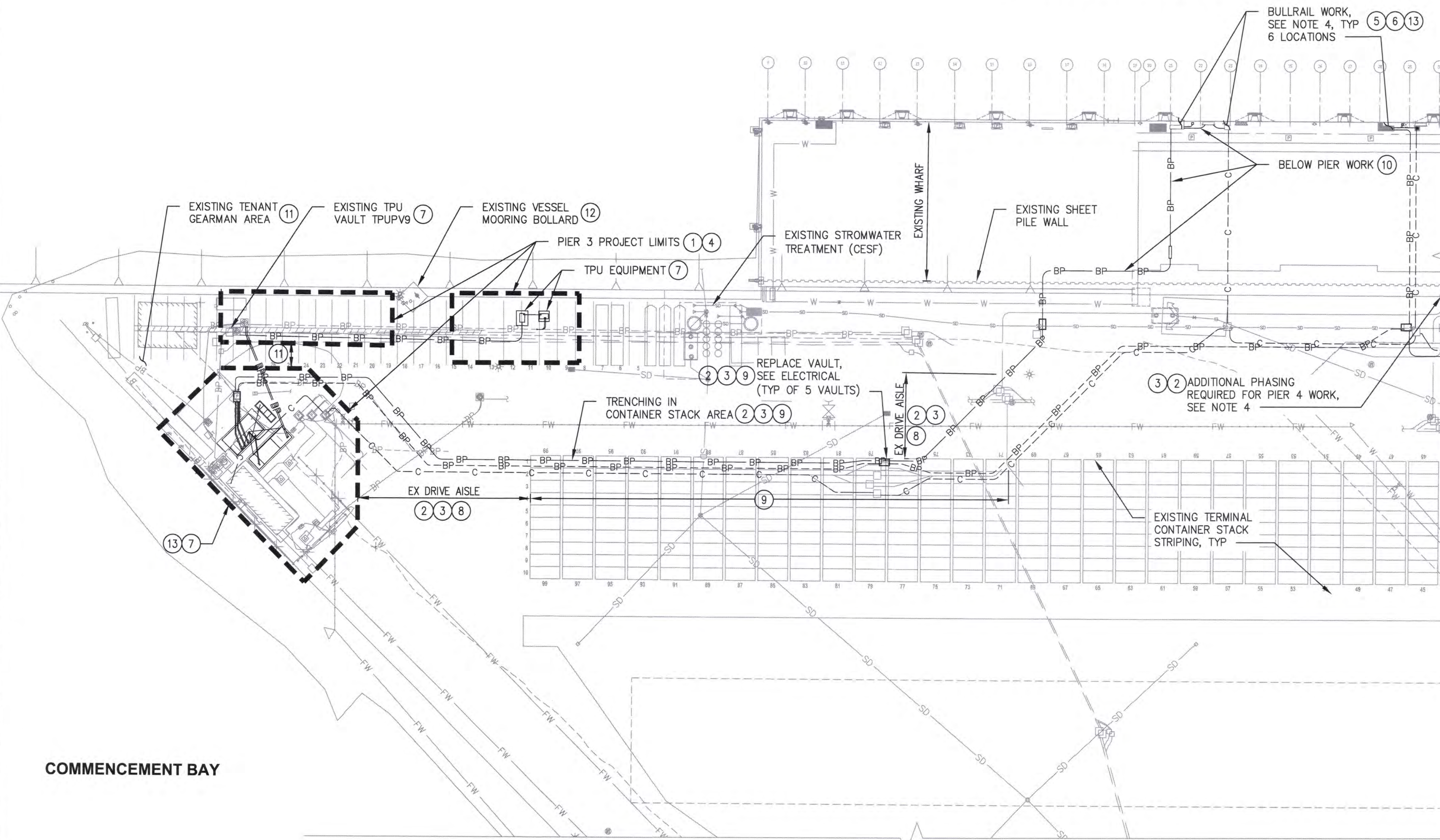
TERMINAL 3 / TERMINAL 4

SHORE POWER

PHASING AND CONSTRAINTS PLAN

RANGE:	SECTION:
VERT:	DRAWING SCALE:
AS NOTED	

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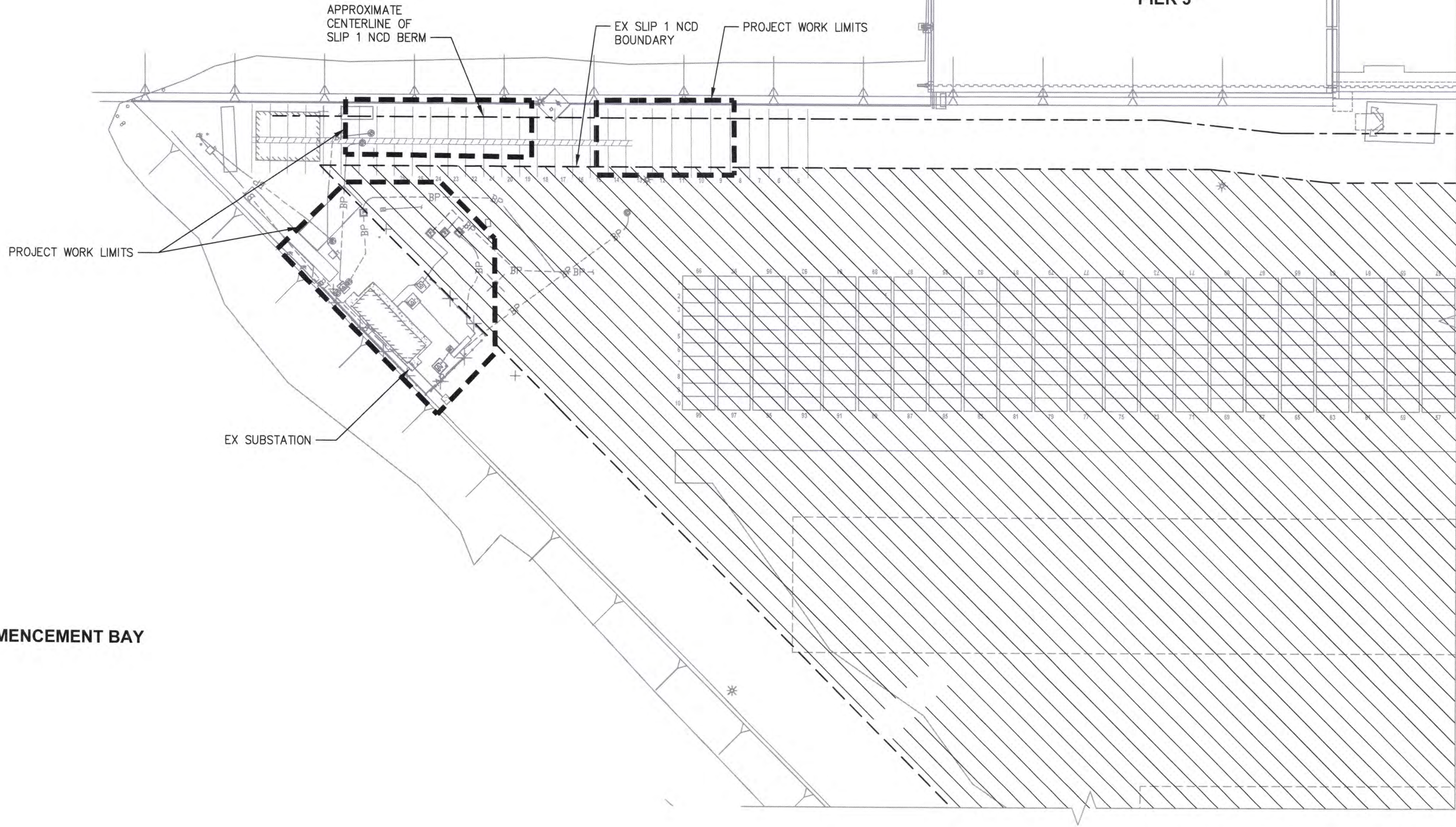
1 PHASING AND CONSTRAINTS PLAN
G2.1
SCALE: 1"=40'
PIER 3 SHOWN, PIER 4 SIMILAR (SEE NOTE 4 AND SHEET C1.1)



COMMENCEMENT BAY

BLAIR WATERWAY

PIER 3



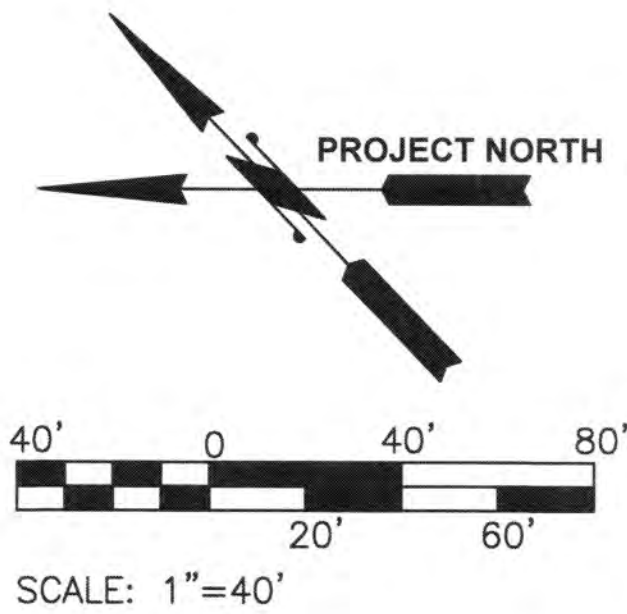
1 EXISTING ENVIRONMENTAL CONDITIONS
G2.1 SCALE: 1" = 40'

LEGEND

- EXISTING SLIP 1 NCD AREA (BOTTOM OF CAP AT EL 9'±)
- CENTERLINE OF EXISTING SLIP 1 BERM
- PROJECT WORK LIMITS

NOTES

- SEE SPECIFICATIONS FOR REFERENCE INFORMATION AND SOIL MANAGEMENT/DISPOSAL REQUIREMENTS.



6658 G2.3 07 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER		APPROVED: DIRECTOR ENG. DATE: 02/02/2022		SJS CHECKED BY: RAD DATE: 02/02/2022			 Port of Tacoma P.O. BOX 1837 TACOMA, WA 98401 (253) 862-5841
	EXISTING ENVIRONMENTAL CONDITIONS		PROJECTED BY: dyu Feb 02, 2022		BY: []			
	TOWNSHIP: []		DATE: 201000.01		REVISION: []			
	RANGE: []		VERT: []		MARK: []			
PARCEL: []		DRAWING SCALE: AS NOTED		PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98421		DATE: []		

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1
G2.1

ENLARGED TESC PLAN - PIER 3

SCALE: 1"=10'

COMMENCEMENT BAY

PROJECT WORK LIMITS

EX CRANE
POWER
SUBSTATION

EX BOLLARD, TYP

EX ELECTRICAL
VAULTS, TYP

INLET PROTECTION

EX BELOW GRADE HYDRANT

TENANT
GEARMAN
TRAILERS

CONTRACTOR TO PROVIDE CONTINUOUS ACCESS
TO GEARMAN AREA DURING CONSTRUCTION,
SEE G2.2. MIN 18' CLEARANCE

AVAILABLE CONTRACTOR
STOCKPILE/LAYDOWN, SEE NOTE 3

SEE NOTES 2 AND 4
FOR WORK OUTSIDE
PROJECT WORK LIMITS

SEE SHEET G3.2

NOTES

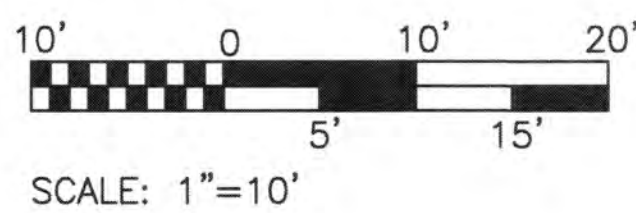
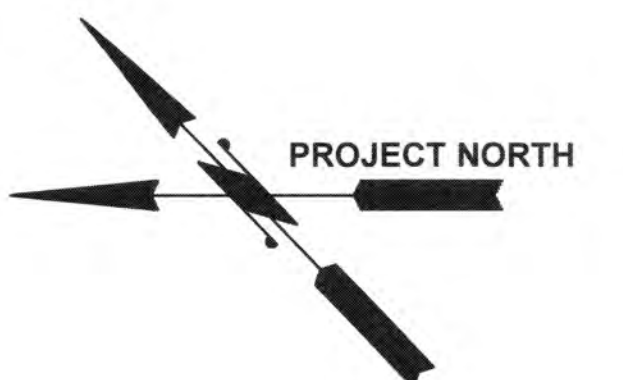
1. SEE SHEET G1.2 FOR TESC NOTES.
2. FOLLOW SIMILAR BMPs AND TESC PROVISIONS FOR NEW ELECTRICAL DUCTBANK TRENCH OUTSIDE OF MAIN WORK AREA.
3. CONTRACTOR TO LOCATE LAYDOWN AND STOCKPILE AREAS WITHIN PROJECT WORK AREA LIMITS AS NEEDED TO ACCOMPLISH WORK.
4. CONTRACTOR SHALL PLACE TEMP FENCING AND LIGHTED BARRELS ALONG ALL TRENCHING OUTSIDE WORK LIMITS.

LEGEND

- PROJECT WORK LIMITS
- X- TEMPORARY CONSTRUCTION FENCE AND CONCRETE BARRIER
- INLET PROTECTION
- TEMPORARY SEDIMENT BARRIER
- TEMPORARY CONSTRUCTION ACCESS GATE

HORIZONTAL CONTROL POINTS

POINT ID	NORTHING	EASTING
1	714702.11	1164960.74
2	714702.11	1165019.68
3	714661.79	1165061.65
4	714613.89	1165062.02
5	714563.30	1165013.48
6	714561.29	1164961.79
7	714714.82	1165031.17



6658

G3.1

08 OF 83

CONTRACTOR: 071357

TOWNSHIP: 20T100.01

DATE: 20100.01

PHASE: BID SET

TERMINAL 3 / TERMINAL 4

SHORE POWER

PIER 3 ENLARGED TESC PLAN

RANGE:

VERT:

SECTION:

DRAWING SCALE: AS NOTED

APPROVED:

CHECKED BY: RAD

DATE: 02/02/2022

PROJ. ENGR: DATE

PRINTED BY: dyl Feb 02, 2022

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98421

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MARK:

REVISION:

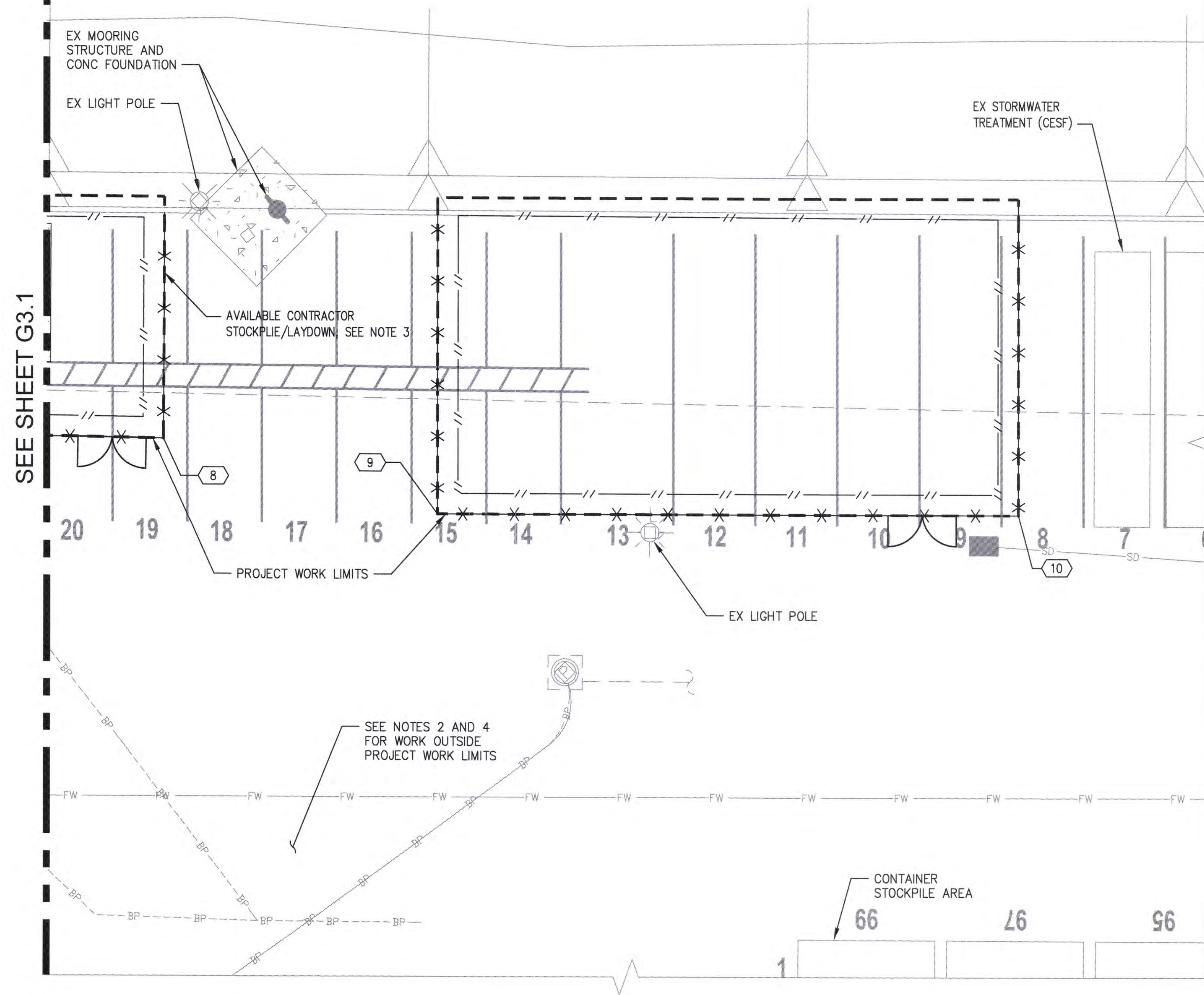
BY:

DATE:

APPR:

DATE:

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1 **ENLARGED TESC PLAN - PIER 3**
G2.1 SCALE: 1"=10'

SCALE: 1"=10'

LEGEND

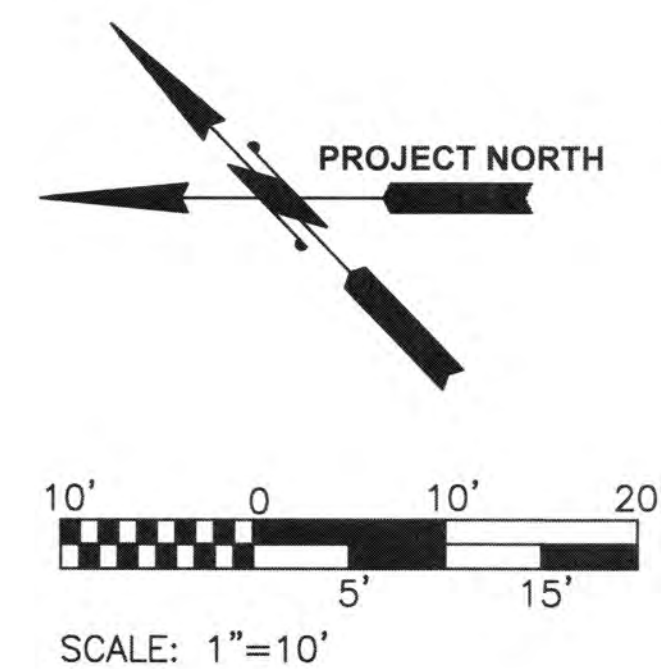
- | | |
|---|--|
|  | PROJECT WORK LIMITS |
|  | TEMPORARY CONSTRUCTION FENCE
AND CONCRETE BARRIER |
|  | INLET PROTECTION |
|  | TEMPORARY SEDIMENT BARRIER |
|  | TEMPORARY CONSTRUCTION ACCESS
GATE |

NOTES

1. SEE SHEET G1.2 FOR TESC NOTES.
2. FOLLOW SIMILAR BMPs AND TESC PROVISIONS FOR NEW ELECTRICAL DUCTBANK TRENCH OUTSIDE OF MAIN WORK AREA.
3. CONTRACTOR TO LOCATE LAYDOWN AND STOCKPILE AREAS WITHIN PROJECT WORK AREA LIMITS AS NEEDED TO ACCOMPLISH WORK.
4. CONTRACTOR SHALL PLACE TEMP FENCING AND LIGHTED BARRELS ALONG ALL TRENCHING OUTSIDE WORK LIMITS.

HORIZONTAL CONTROL POINTS

POINT ID	NORTHING	EASTING
8	714635.65	1165114.54
9	714598.36	1165134.23
10	714539.48	1165195.52



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SJS	02/02/2022
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**TERMINAL 3 / TERMINAL 4
SHORE POWER**

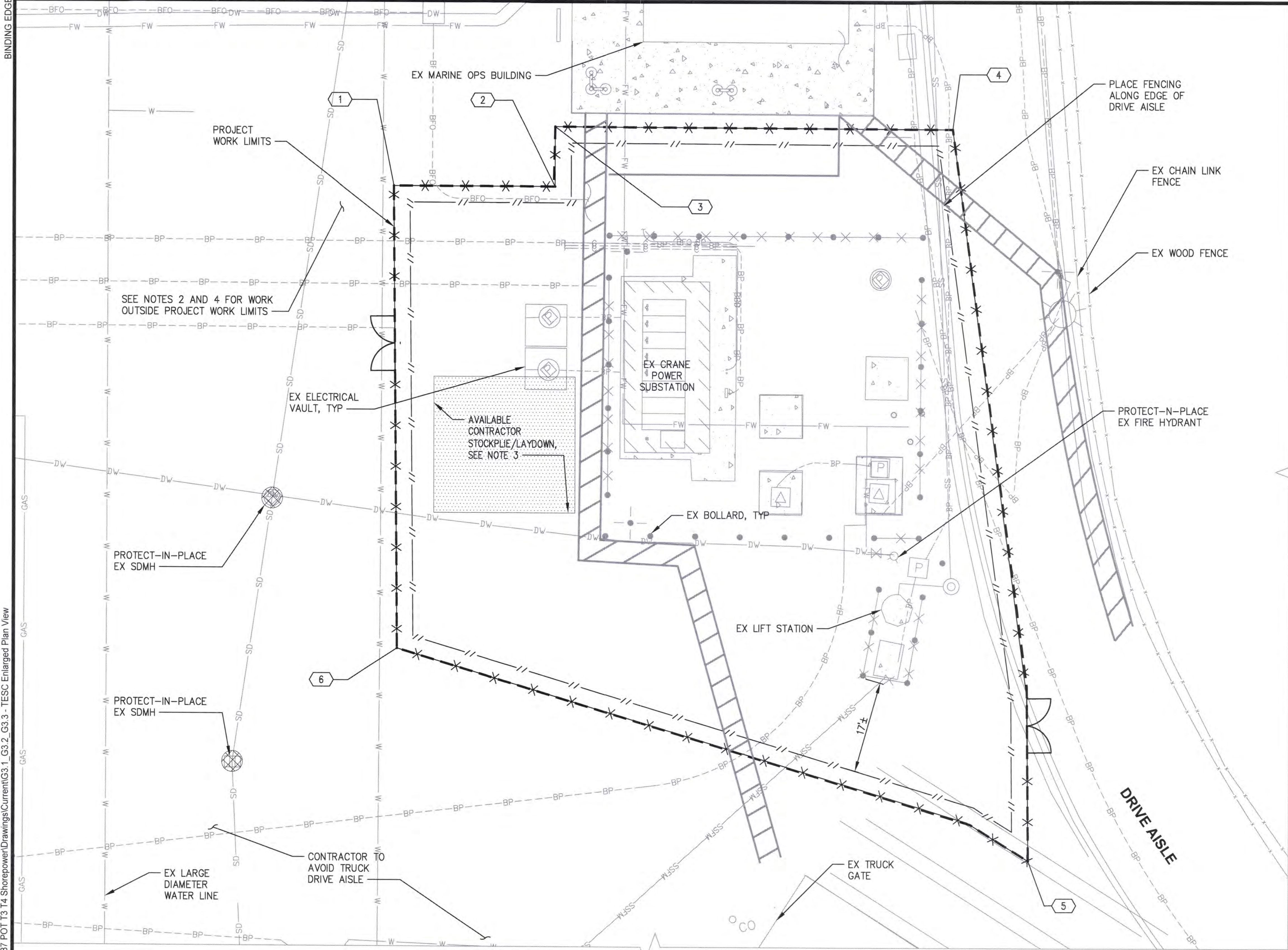
6658	G32
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CELL:	DRAWING SCALE:	AS NOTED	TACOMA, WA 90421
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BINDING EDGE

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1
G2.1

ENLARGED TESC PLAN - PIER 4

SCALE: 1"=10'

LEGEND

- PROJECT WORK LIMITS
- TEMPORARY CONSTRUCTION FENCE AND CONCRETE BARRIER (5 G3.4)
- INLET PROTECTION (1 G3.4)
- TEMPORARY SEDIMENT BARRIER (2 G3.4)
- TEMPORARY CONSTRUCTION ACCESS GATE

NOTES

- SEE SHEET G1.2 FOR TESC NOTES.
- FOLLOW SIMILAR BMPs AND TESC PROVISIONS FOR NEW ELECTRICAL DUCTBANK OR STORM DRAIN TRENCH OUTSIDE OF MAIN WORK AREA.
- CONTRACTOR TO LOCATE LAYDOWN AND STOCKPILE AREAS WITHIN PROJECT WORK AREA LIMITS AS NEEDED TO ACCOMPLISH WORK.
- CONTRACTOR SHALL PLACE TEMP FENCING AND LIGHTED BARRELS ALONG ALL TRENCHING OUTSIDE WORK LIMITS. (3 G3.4)

HORIZONTAL CONTROL POINTS

POINT ID	NORTHING	EASTING
1	712082.78	1167778.50
2	712062.03	1167800.11
3	712069.99	1167807.75
4	712018.60	1167860.95
5	711911.44	1167777.95
6	712020.81	1167720.08

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APPROVED: *[Signature]* **CHECKED BY:** *[Signature]* **DATE:** 02/02/2022

DIRECTOR: *[Signature]* **DATE:** 02/02/2022

PRINTED BY: *[Signature]* **DATE:** 02/02/2022

PORT ADDRESS: ONE SITCOM PLAZA
TACOMA, WA 98421

TERMINAL 3 / TERMINAL 4

SHORE POWER

PIER 4 ENLARGED TESC PLAN

RANGE: **SECTION:**

TOWNSHIP: **DATE-HRZ:** **PARCEL:**

DRAWING SCALE: **AS NOTED**

6658

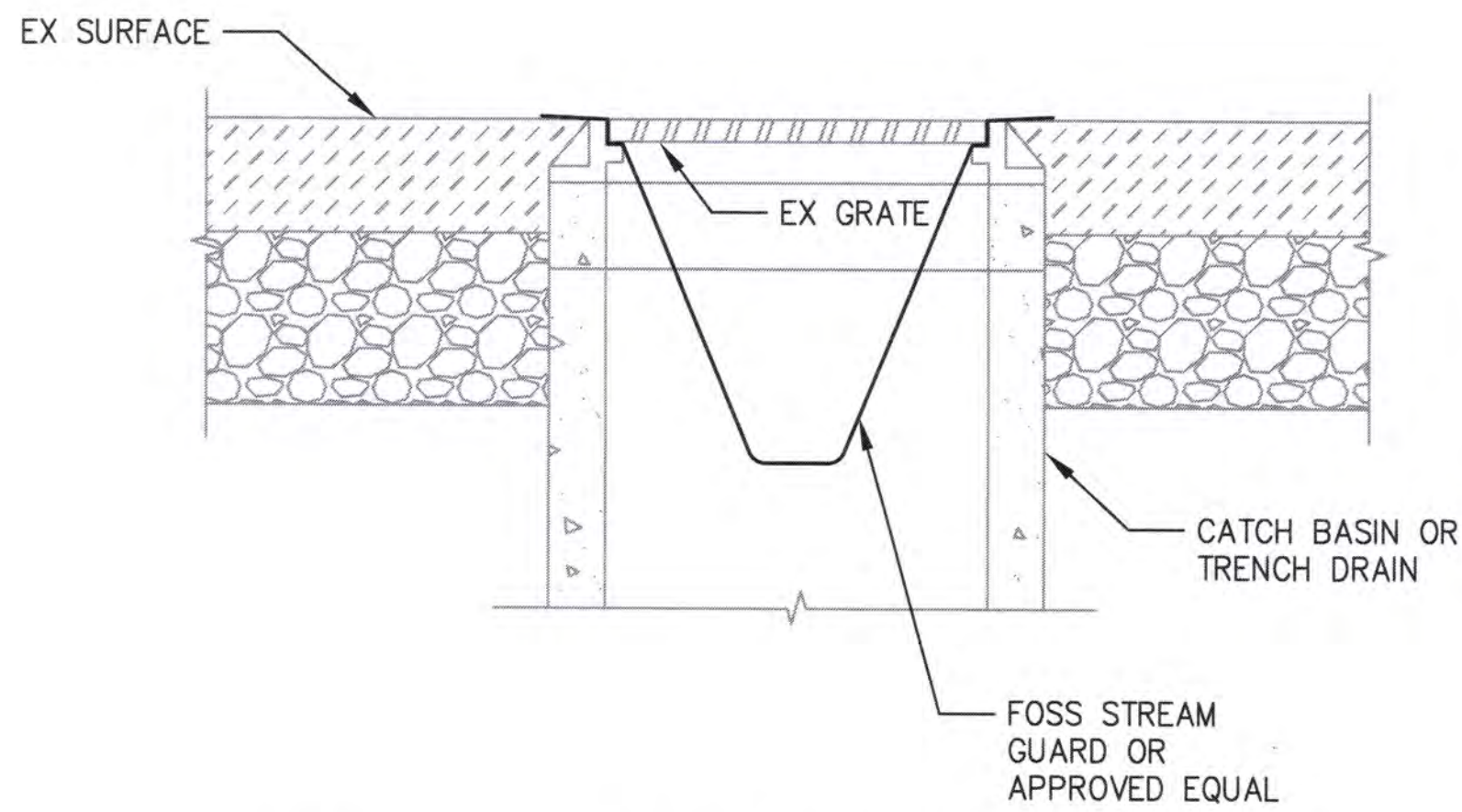
G3.3

10 OF 83

CONT/CONS: 071357 **DATE:** 20100.01 **PHASE:** BID SET

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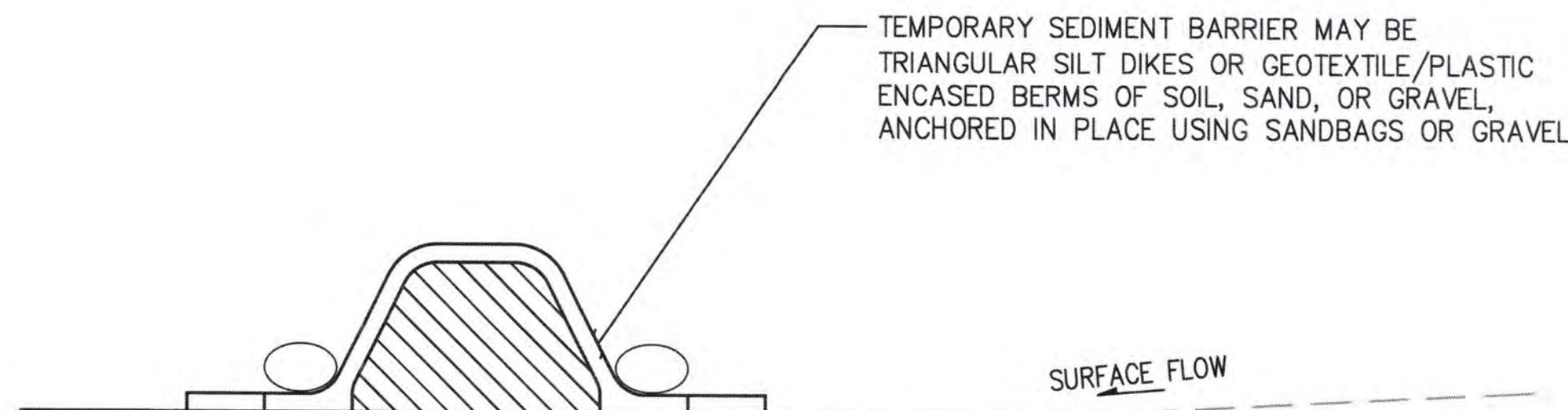


1 INLET PROTECTION
G3.1-G3.3 SCALE: NTS

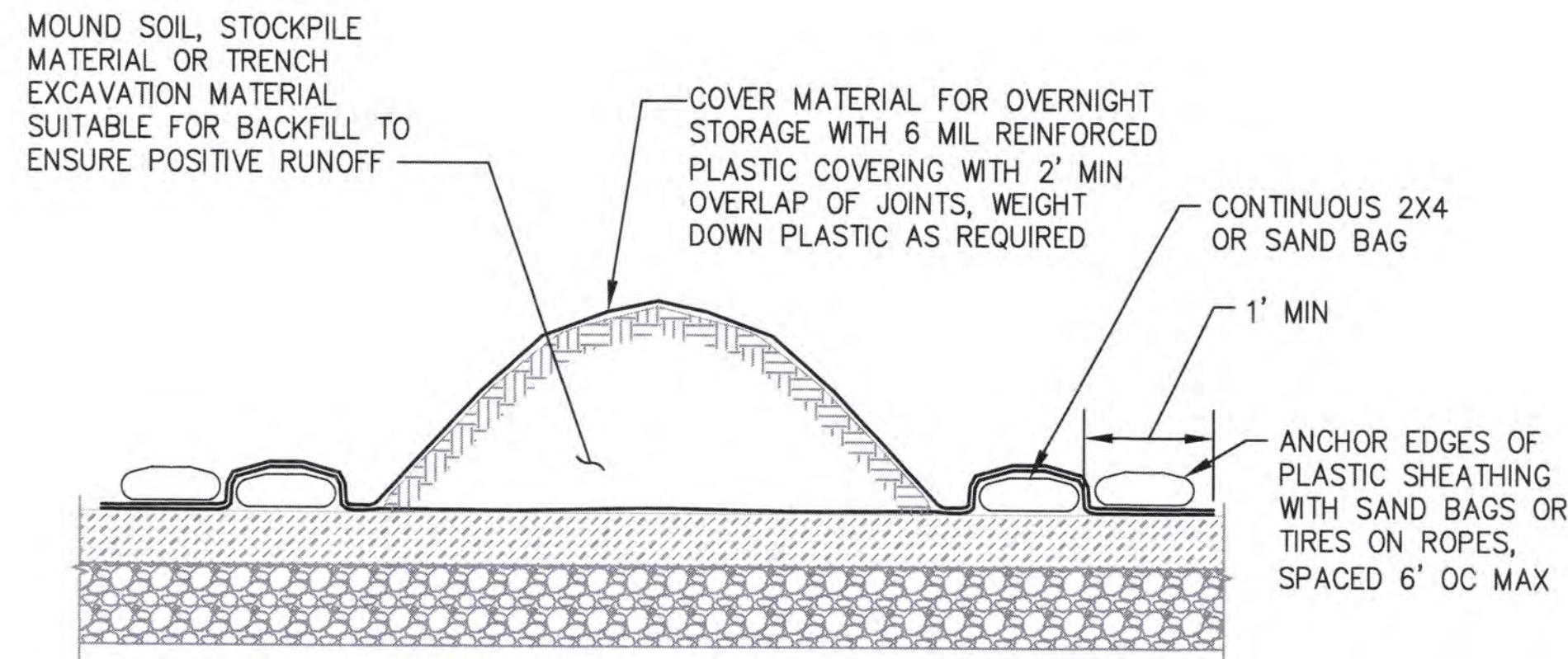
NOTES:

1. CLEAN OUT STORMWATER CATCH BASIN PRIOR TO INSTALLING INLET PROTECTION.
2. MAINTAIN INLET PROTECTION PER MANUFACTURERS RECOMMENDATIONS OR CLEAN OR REMOVE AND REPLACE WHEN SEDIMENT HAS FILLED ONE-THIRD OF THE AVAILABLE STORAGE. IMMEDIATELY REMOVE ANY ACCUMULATED SEDIMENT ON OR AROUND THE INLET.
3. DO NOT REMOVE SEDIMENT BY FLUSHING WITH WATER. DISPOSE OF ALL SEDIMENT OFF-SITE AT AN APPROVED FACILITY.

PLACE LIGHTED TRAFFIC BARRELS ON A MAXIMUM OF 15 FOOT CENTERS ALONG TRENCHED AREA, TYP



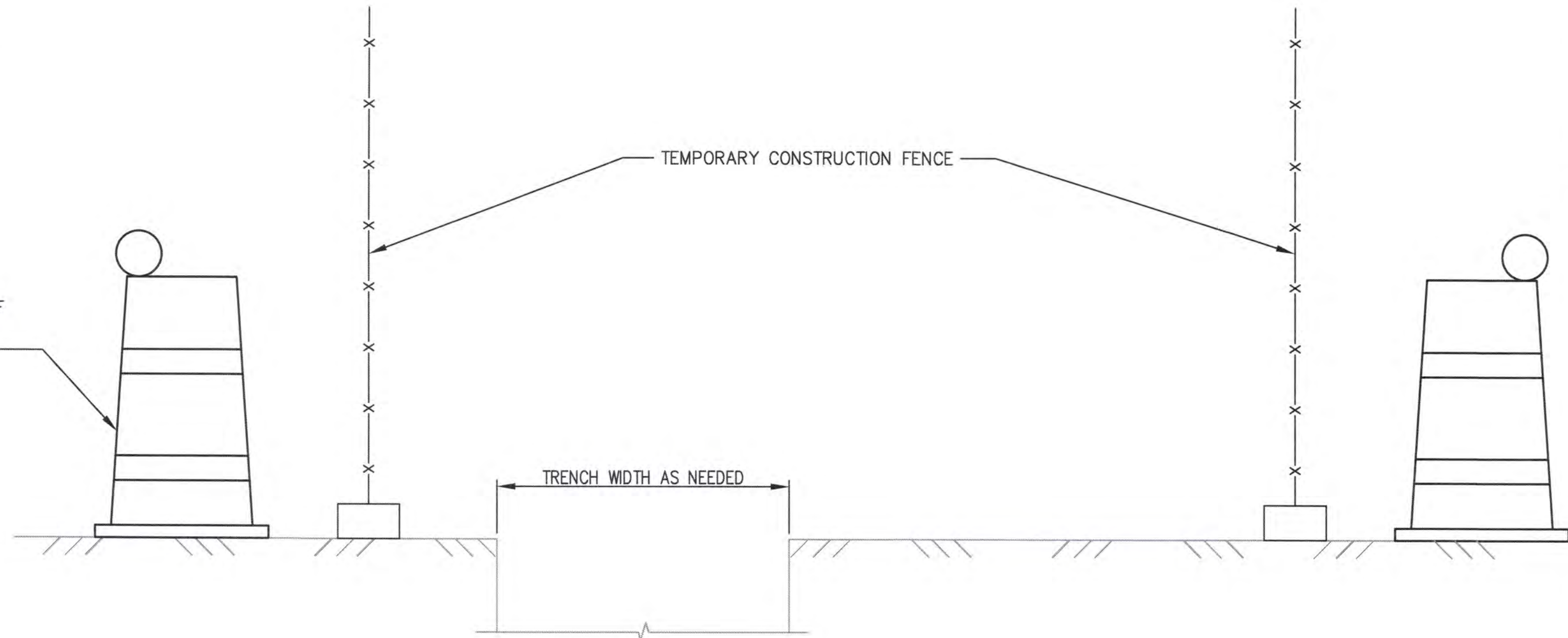
2 TEMPORARY SEDIMENT BARRIER
G3.1-G3.3 SCALE: NTS



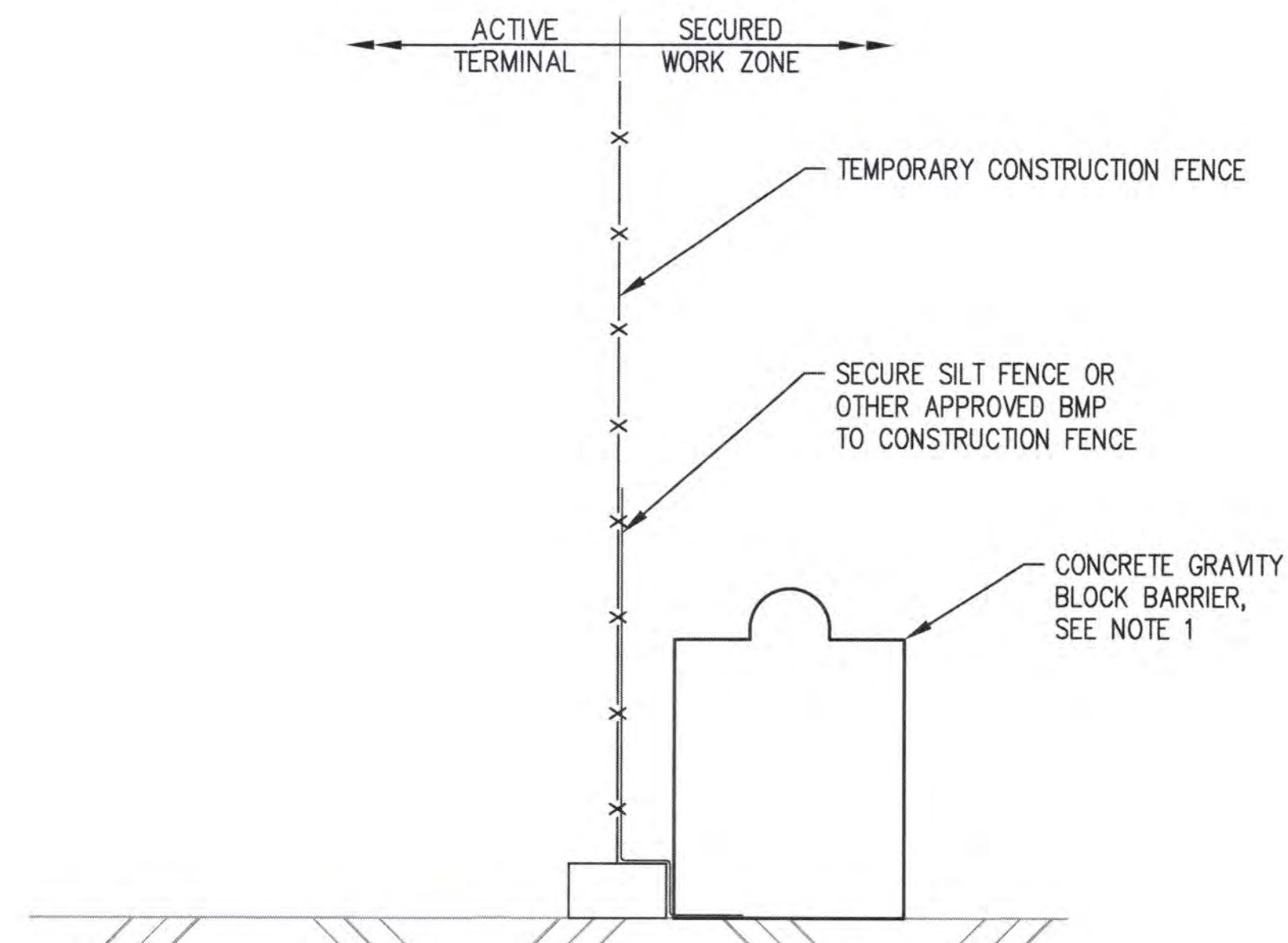
NOTES:

1. RIPS AND TEARS IN THE PLASTIC SHEETING SHALL BE REPAIRED IN A TIMELY MANNER.
2. SOIL, STOCKPILE MATERIAL, AND TRENCH EXCAVATION MATERIAL SUITABLE FOR BACKFILL SHALL BE STOCKPILED AT NO MORE THAN 1 TO 1 SLOPE AND THE TOE OF THE STOCKPILE SHALL BE NO CLOSER THAN 2' FROM THE EDGE OF EXCAVATION. STOCKPILES HEIGHT SHALL NOT EXCEED 10'.

4 TEMPORARY STOCKPILE DETAIL
SCALE: NTS



3 TRENCHING OUTSIDE OF WORK LIMITS
G3.1-G3.3 SCALE: NTS



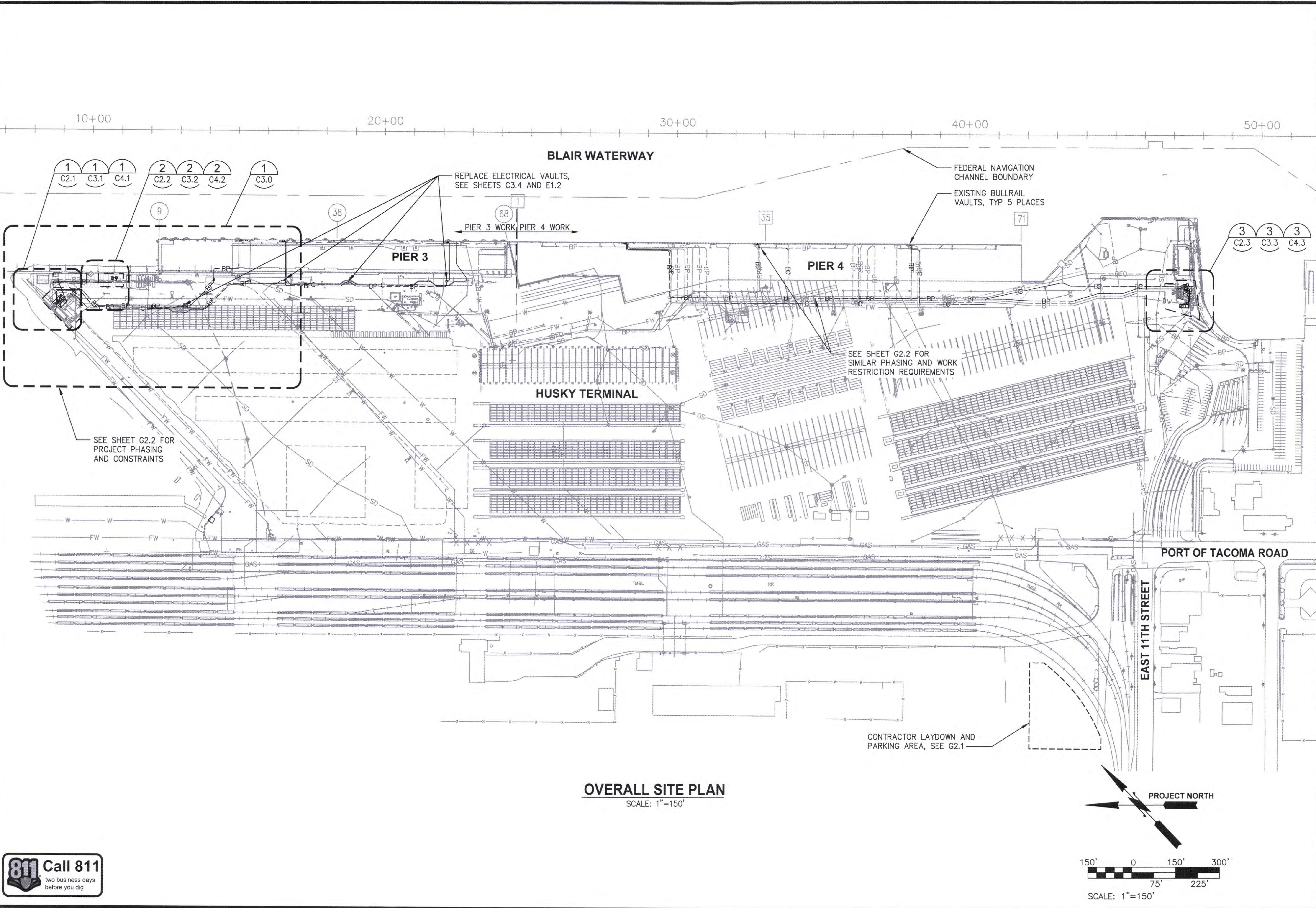
NOTES:

1. SECURE WORK ZONE WITH PRECAST CONCRETE BARRIER WHERE VEHICULAR TRAFFIC IS POSSIBLE. CLEAR SPACE BETWEEN BLOCK SHALL BE NO GREATER THAN 6 FEET.

5 PRECAST CONCRETE BARRIER AND CONSTRUCTION FENCE WORK LIMIT
G3.1-G3.3 SCALE: NTS

 2407 North 31st Street, Suite 100 Tacoma, Washington 98409 (253) 796-0151 Fax (253) 796-0152	 Kiewit Professional Firm 2222 2nd Ave, Suite 200 Tacoma, WA 98402		APPROVED: <i>[Signature]</i> DIRECTOR ENG. DATE: 2/1/22 PRINTED BY: dyu Feb 02, 2022 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98421
	CHECKED BY: RAD DATE: 02/02/2022 PROJ. ENGR: DATE: 02/02/2022	REVISION: BY: DATE: MARK:	TESC DETAILS RANGE: 071357 DAT-HRZ: 201100.01 PARCEL: BID SET
6658 G3.4 11 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER		DRAWING SCALE: AS NOTED

PORT OF TACOMA FILE: M:\2020\2000087 POT T4 Shorepower\Drawings\Current\C1.1 - Overall Site Plan



6658 C1.1 12 OF 83 CONT/CONS: 071357 M. ID: 20100.01 PHASE: BID SET	TERMINAL 3 / TERMINAL 4 SHORE POWER		APPROVED: <i>[Signature]</i> DIRECTOR ENG. DATE: 02/02/2022 PRINTED BY: dya Feb 02, 2022		SUS 02/02/2022 CHECKED BY DATE RAD 02/02/2022 PROJ. ENGR DATE dyu Feb 02, 2022		Port of Tacoma 2407 North 31st Street, Suite 100 Tacoma, WA 98407 (253) 396-0350 Fax (253) 396-0162 P.O. BOX 1837 TACOMA, WA 98401 (253)385-5641	
	OVERALL SITE PLAN		SECTION:		DATE:		DATE:	
	RANGE:		VERT:		REVISION:		BY:	
	DRAWING SCALE: AS NOTED		PARCEL:		MARK:		APPR:	
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SAWCUT HORIZONTAL CONTROL		
POINT ID	NORTHING	EASTING
15	714650.61	7164982.09
16	714659.91	7164964.04
17	714677.25	7164963.77
18	714677.60	7165001.66
19	714696.03	7165022.01
20	714684.15	7165034.30
21	NOT USED	NOT USED
22	714708.99	7165043.80
23	714713.17	7165047.65
24	714707.79	7165053.27
25	714705.65	7165051.22
26	714700.01	7165048.57
27	714678.61	7165040.02
28	714637.10	7165082.88

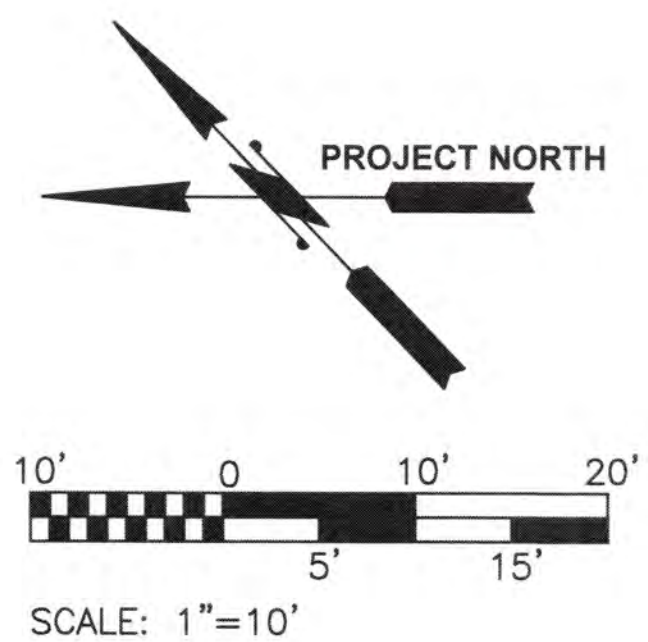


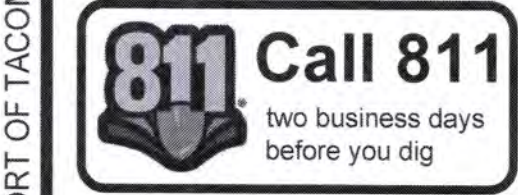
SCALE: 1"=10'



1. THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DRAWINGS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL POTHOLE OR OTHERWISE CONFIRM EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
2. SEE SHEET E3.1 FOR ELECTRICAL AND COMMUNICATION DEMOLITION REQUIREMENTS.
3. UTILITIES, STRUCTURES AND SITE FEATURES NOT INDICATED FOR DEMOLITION SHALL BE PROTECTED IN PLACE.
4. ALL ITEMS MARKED FOR DEMOLITION SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PER THE SPECIFICATIONS.
5. PRIOR TO DEMOLITION ACTIVITIES, CONTRACTOR SHALL LOCATE EXISTING WATER LINE FEEDING EXISTING HYDRANT AND EXISTING BELOW GRADE HYDRANT. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY CONFLICTS WITH EXISTING UTILITIES AND PROPOSED WORK.

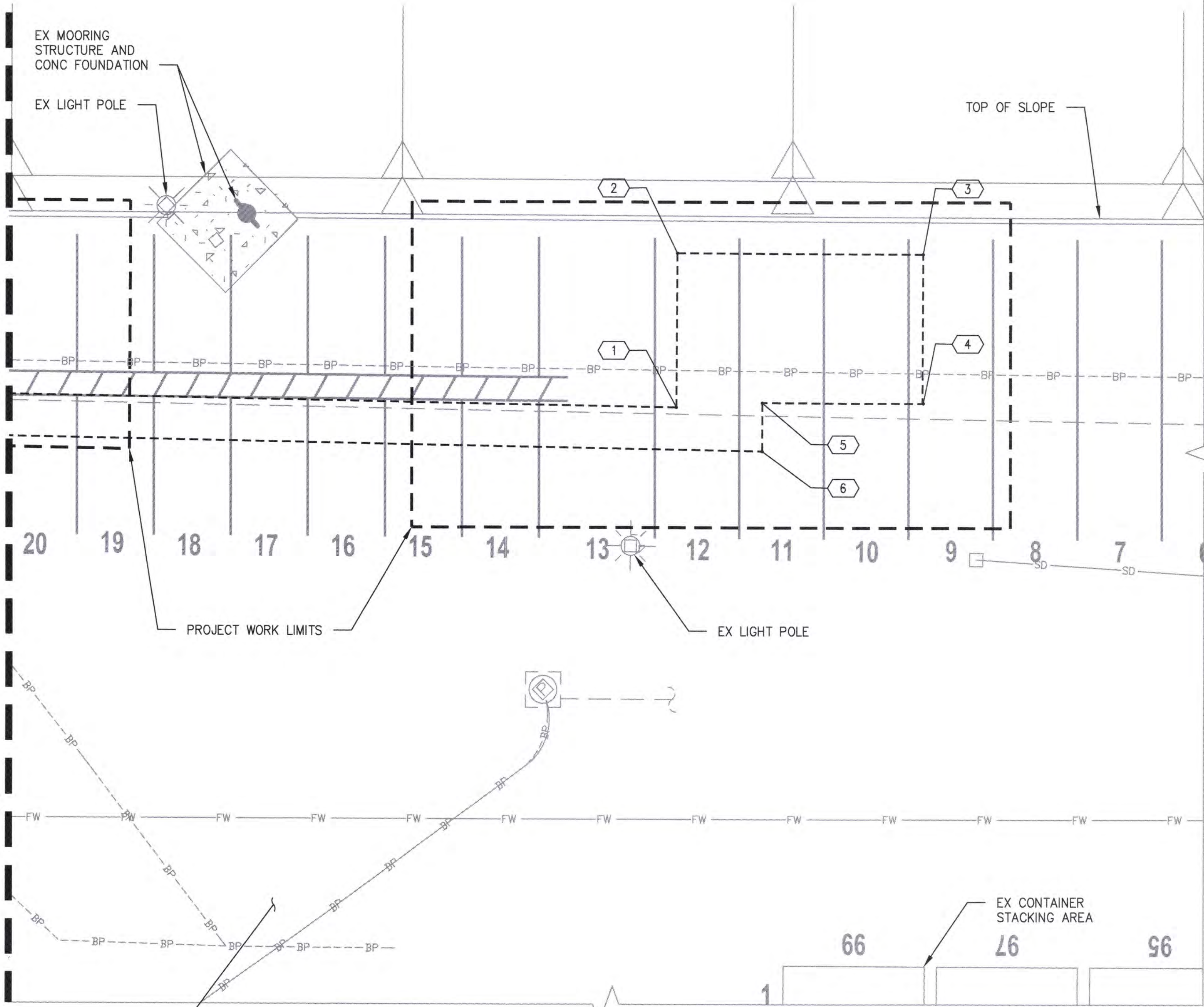
	PROJECT WORK LIMITS	
	SAW CUT BOUNDARY	
	DEMOLISH EXISTING BOLLARD AND BOLLARD RAIL	
	DEMOLISH EXISTING STRUCTURE	





TRENCH ALONG ALIGNMENT 2,
ROUTED ADJACENT TO EX
ELECTRICAL DUCTBANK NOT SHOWN.
SEE SHEET C3.0 FOR ROUTE

SEE SHEET C2.1



2
C1.1

ENLARGED DEMOLITION PLAN

SCALE: 1"=10'

NOTES

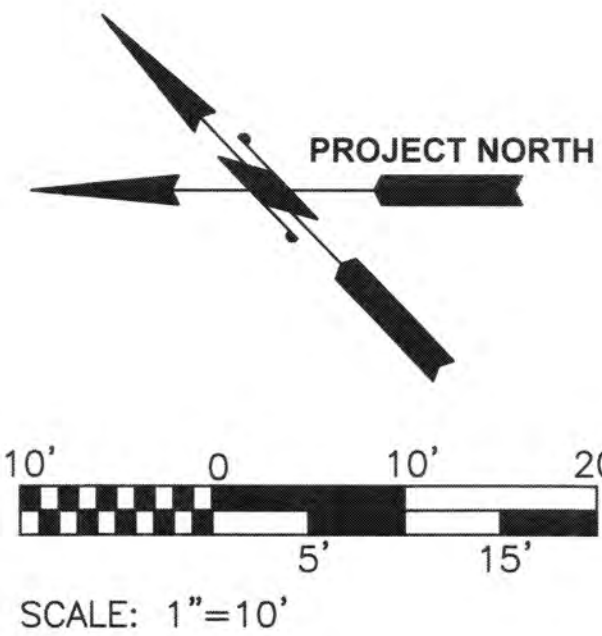
1. THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DRAWINGS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL POTHOLE OR OTHERWISE CONFIRM EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
2. SEE SHEET E3.1 FOR ELECTRICAL AND COMMUNICATION DEMOLITION REQUIREMENTS.
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4. ALL ITEMS MARKED FOR DEMOLITION SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PER THE SPECIFICATIONS.
5. PRIOR TO DEMOLITION ACTIVITIES, CONTRACTOR SHALL LOCATE EXISTING WATER LINE FEEDING EXISTING HYDRANT. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY CONFLICTS WITH EXISTING UTILITIES AND PROPOSED WORK.

LEGEND

- PROJECT WORK LIMITS
- - - SAW CUT BOUNDARY

SAWCUT HORIZONTAL CONTROL

POINT ID	NORTHING	EASTING
1	714584.57	1165173.06
2	714600.12	1165188.16
3	714575.87	1165213.25
4	714560.79	1165198.64
5	714576.56	1165182.32
6	714571.67	1165177.59



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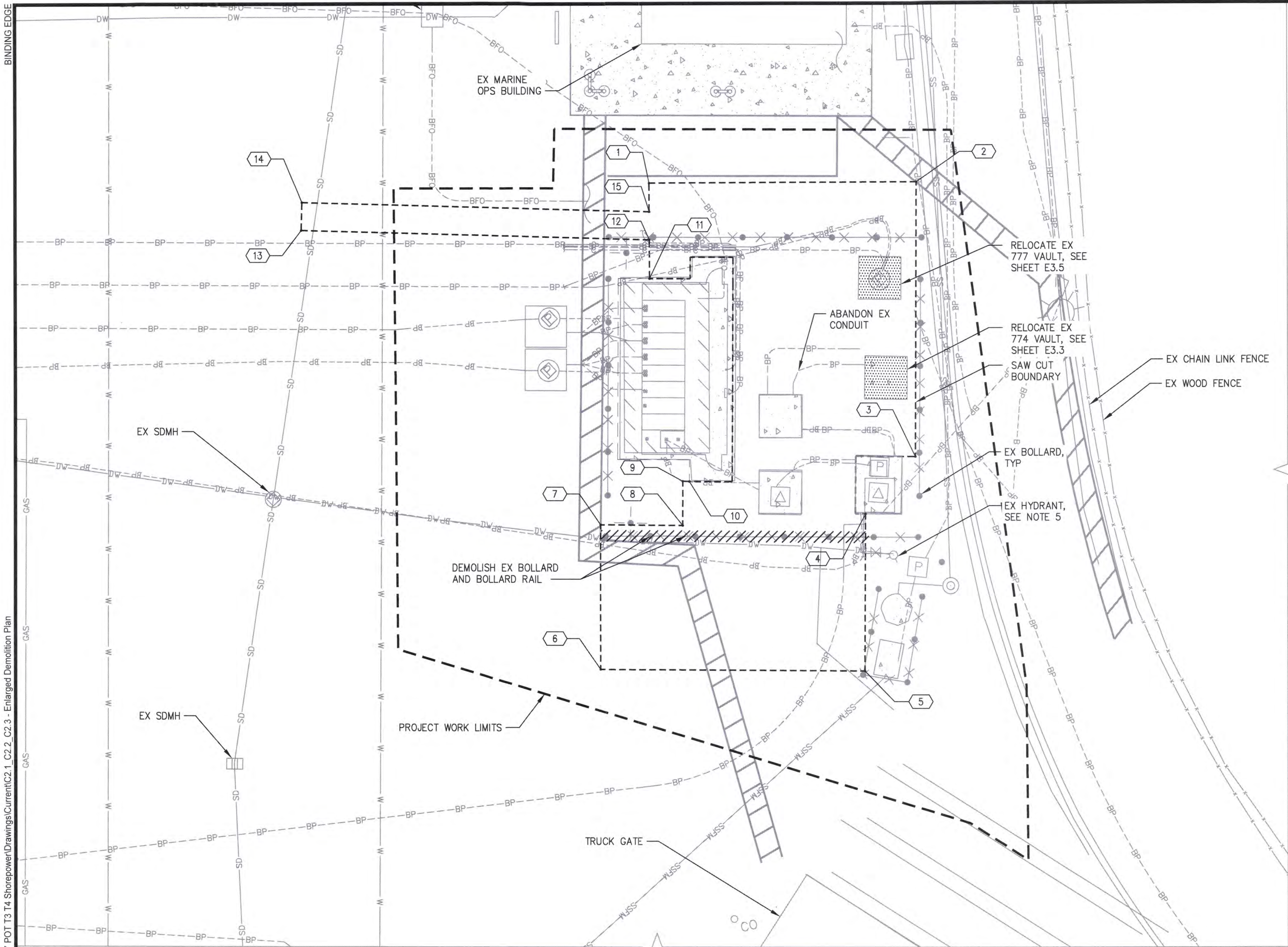
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RAD	02/02/2022	PROJ. ENGR	DATE
DIRECTOR	ENG. DATE	PRINTED BY:	dyw Feb 02, 2022
PORT ADDRESS:	ONE SITCUM PLAZA	TACOMA, WA 98421	

TERMINAL 3 / TERMINAL 4
SHORE POWER

6658
C2.2
14 OF 83

CONT/CONS:	071357	TOWNSHIP:	
M. ID:	20100.01	DAT-HRZ:	
PHASE:	BID SET	PARCEL:	

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3
C1.1

ENLARGED DEMOLITION PLAN

SCALE: 1"=10'



NOTES

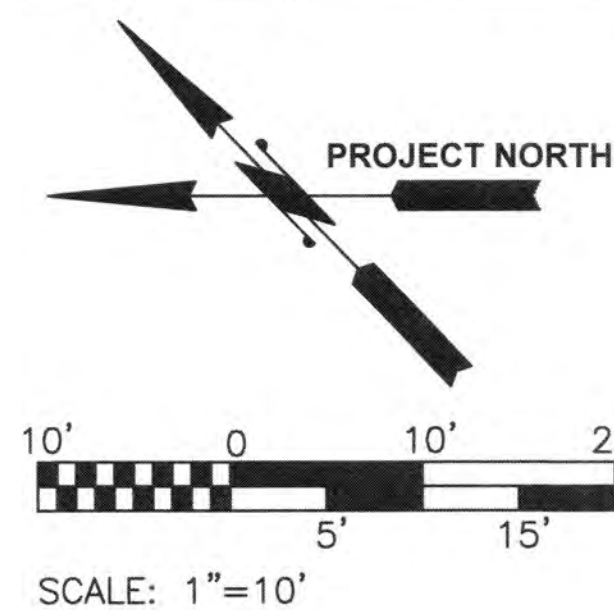
1. THE EXISTENCE, LOCATION AND CHARACTERISTICS OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DRAWINGS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL POTHOLE OR OTHERWISE CONFIRM EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
2. SEE SHEET E3.4 FOR ELECTRICAL AND COMMUNICATION DEMOLITION REQUIREMENTS.
3. UTILITIES, STRUCTURES AND SITE FEATURES NOT INDICATED FOR DEMOLITION SHALL BE PROTECTED IN PLACE.
4. ALL ITEMS MARKED FOR DEMOLITION SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PER THE SPECIFICATIONS.
5. PRIOR TO DEMOLITION ACTIVITIES, CONTRACTOR SHALL LOCATE EXISTING WATER LINE FEEDING EXISTING HYDRANT. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY CONFLICTS WITH EXISTING UTILITIES AND PROPOSED WORK.

LEGEND

- PROJECT WORK LIMITS
- - - SAW CUT BOUNDARY
- ////// DEMOLISH EXISTING BOLLARD AND BOLLARD RAIL
- RELOCATE EXISTING STRUCTURE

SAWCUT HORIZONTAL CONTROL

POINT ID	NORTHING	EASTING
1	712050.53	1167813.52
2	712016.17	1167849.64
3	711979.68	1167814.33
4	711978.48	1167800.28
5	711957.69	1167780.15
6	711991.99	1167744.77
7	712011.23	1167763.22
8	712000.52	1167774.17
9	712006.41	1167779.85
10	712005.54	1167780.69
11	712037.73	1167801.36
12	712042.95	1167806.32
13	712089.14	1167760.68
14	712092.76	1167764.35
15	712046.69	1167809.88



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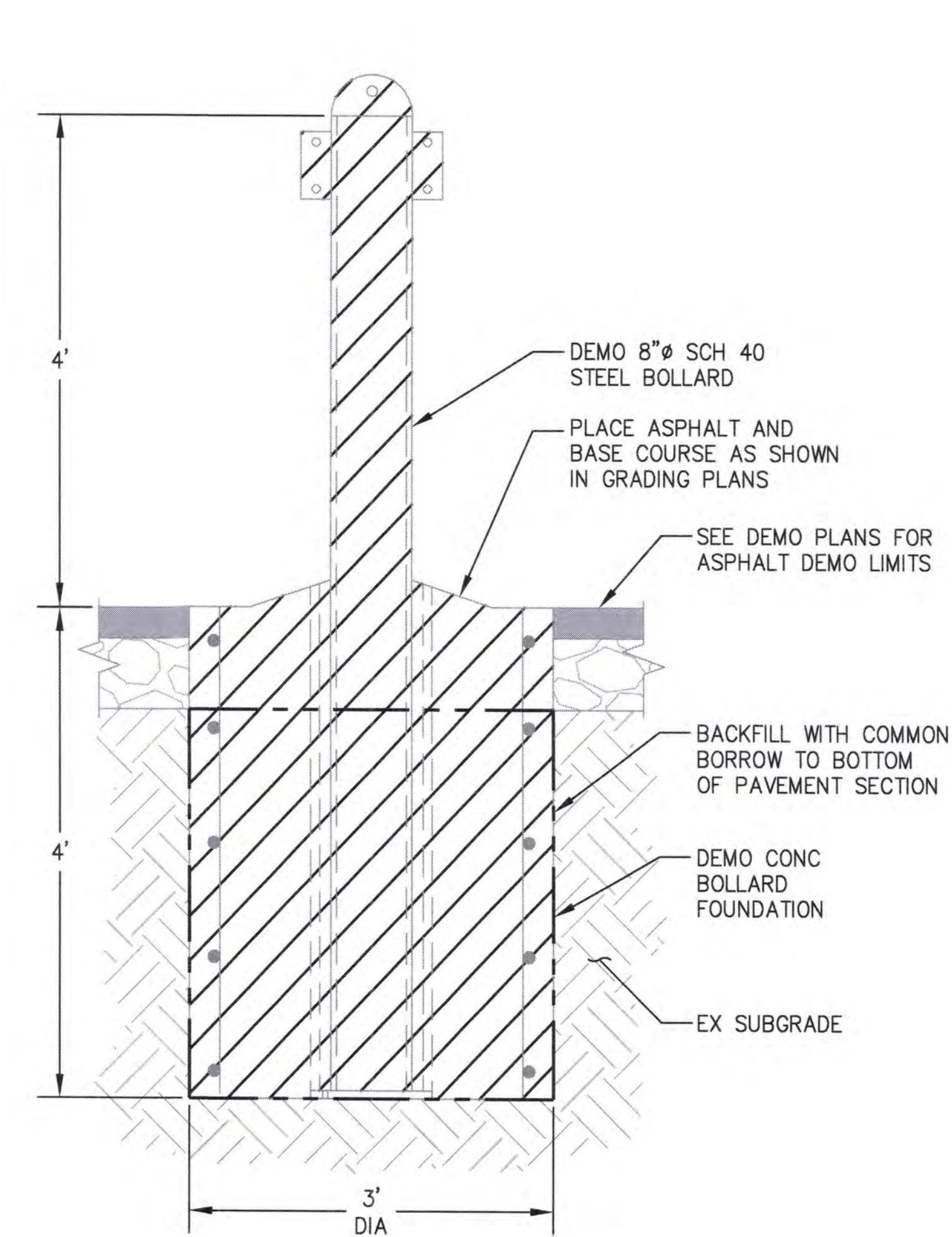
2022-23
A. W. HANSEN
SEATTLE
KING COUNTY
PORT OF TACOMA
2022-23

APPROVED: *[Signature]* SJS 02/02/2022
CHECKED BY: DATE
DIRECTOR: RAD 02/02/2022
PROJECT: PIER 4 ENLARGED DEMOLITION PLAN
PRINTED BY: dyl Feb 02, 2022
PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98421

TERMINAL 3 / TERMINAL 4
SHORE POWER

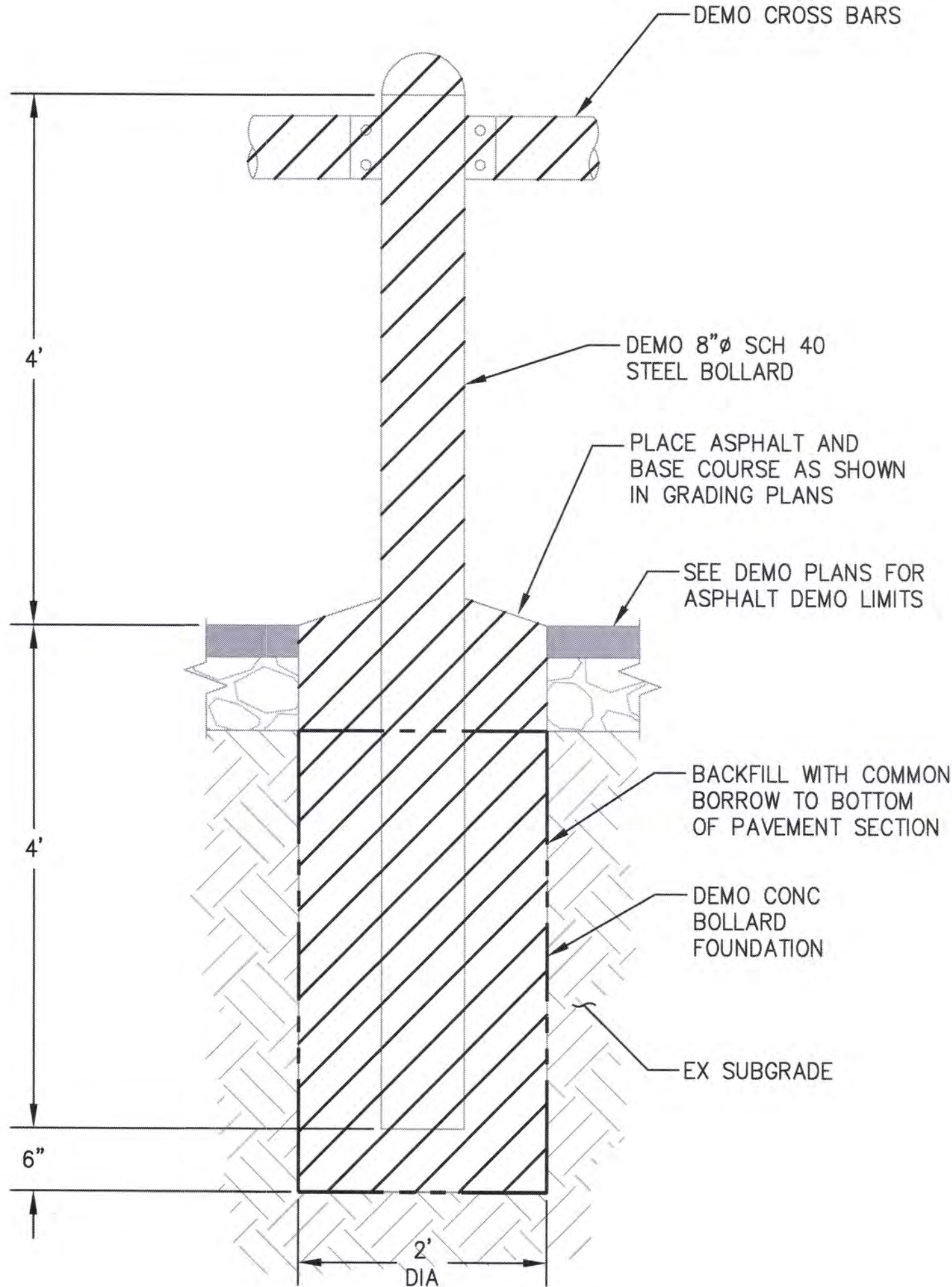
6658
C2.3
15 OF 83
CONT/CONS: 071357
M. ID: 201100.01
PHASE: BID SET

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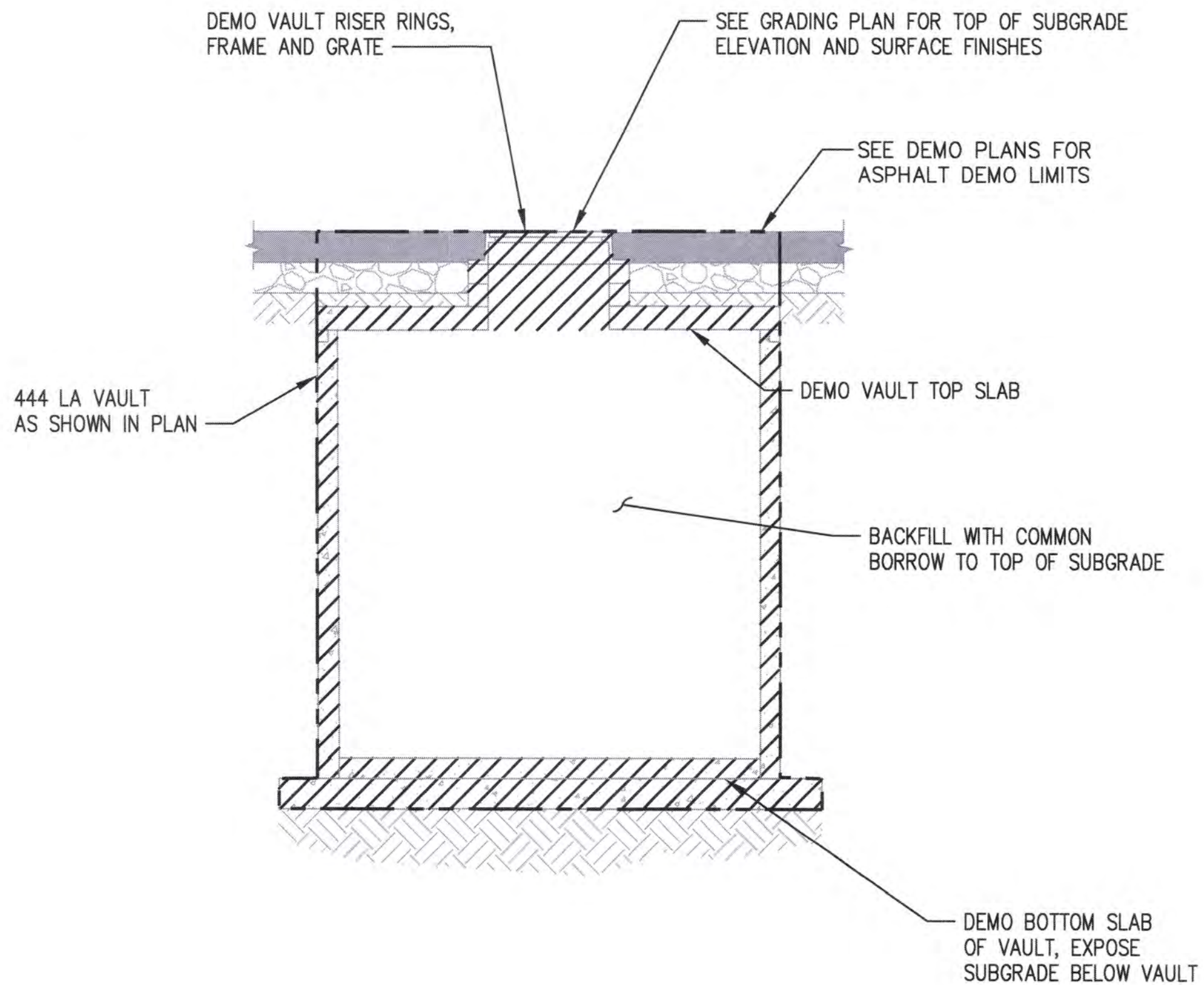
1 REMOVABLE TRAFFIC BOLLARD WITH BOLTED GUARD RAIL DEMOLITION

C2.1, C2.3 NTS



2 FIXED UTILITY PROTECTION BOLLARD WITH BOLTED GUARD RAIL DEMOLITION

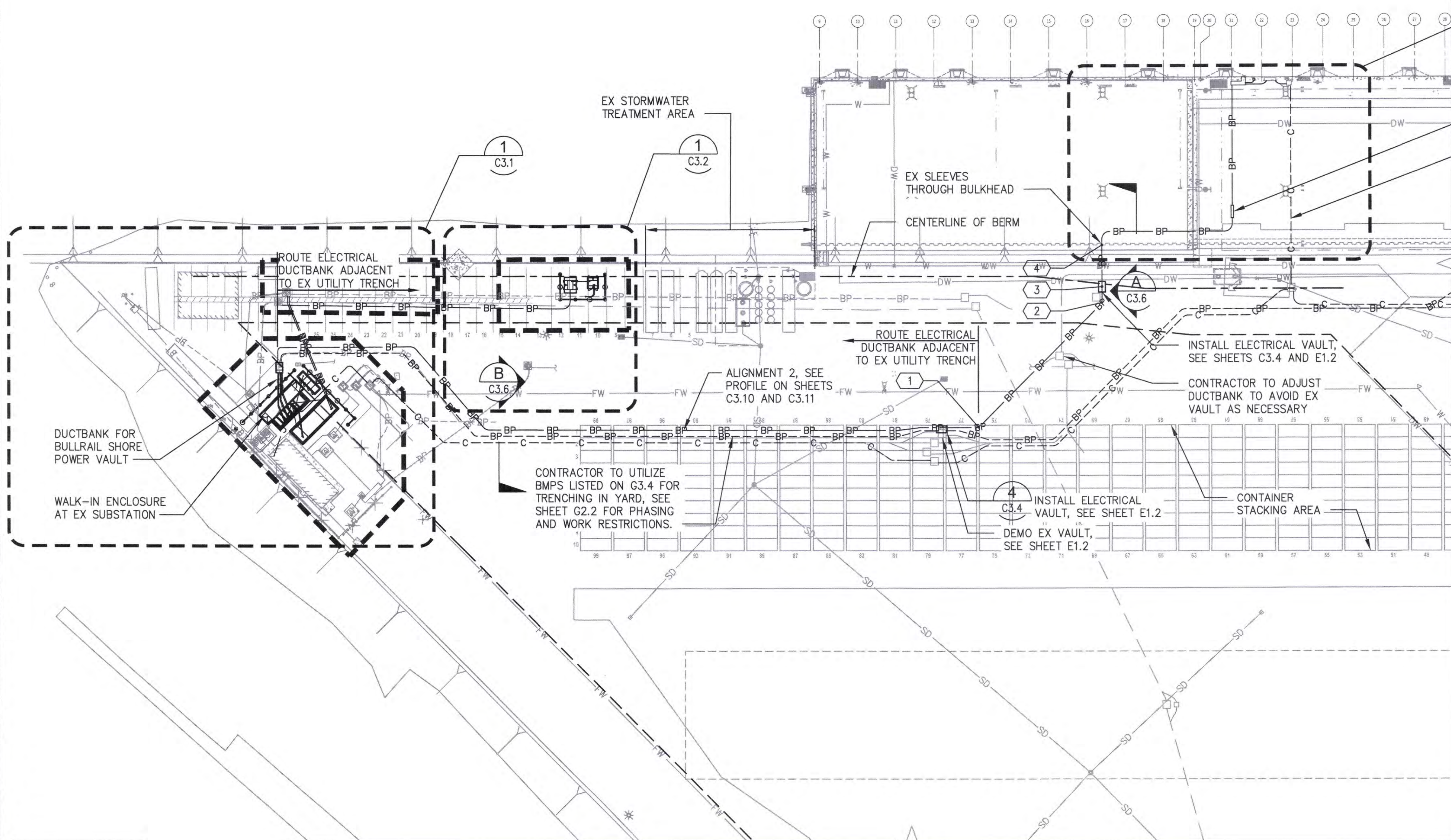
C2.1, C2.3 NTS



3 ELECTRICAL VAULT DEMOLITION

C2.1 NTS

6658 C2.4 16 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER	APPROVED: DIRECTOR ENG. DATE PRINTED BY: dyu Feb 02, 2022 PORT ADDRESS: ONE SITCOM PLAZA TACOMA, WA 98421	SUS CHECKED BY: DATE RAD 02/02/2022 PROJ. ENGR DATE	Port of Tacoma 2407 North 31st Street, Suite 100 Tacoma, Washington 98407 (253) 799-0350 FAX (253) 390-0152 P.O. BOX 1837 TACOMA, WA 98407 (253) 385-5841		
					REVISION: BY: DATE: APPR: DATE:	
						MARK:



NOTES

1. SEE SHEET E1.2 FOR ADDITIONAL DUCTBANK AND VAULT INFORMATION.

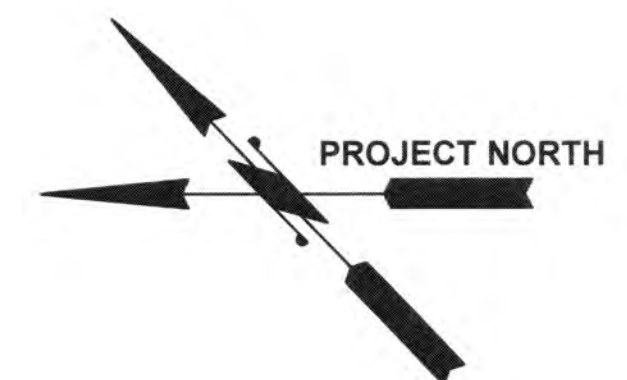
— SEE SHEET S2.1 FOR
STRUCTURAL AND UNDER PIER
CONDUIT ROUTING DETAILS

— BELOW PIER PULLBOX

— EX SPARE CONDUIT FOR
CONTROLS TO BULLRAIL

CENTER OF TRENCH HORIZONTAL CONTROL

POINT ID	NORTHING	EASTING
1	714335.15	1165316.05
2	714336.98	1165430.04
3	714344.02	1165437.39
4	714363.44	1165456.19



40' 0 40' 80'

20' 60'

SCALE: 1"=40'

CONDUIT ROUTING TO BULLRAIL VAULT

SCALE: 1" = 40'

1
C1.1

C1.1

811 Call 811
two business days
before you dig



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Tacoma, Washington 98407
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120ff



SJS 02/02/2022

CHECKED BY DATE

RAD	02/02/2022
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ROJ.	ENGR	DATE
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02, 2022

ITCUM PLAZA

A, WA 98421

APPROVED:

1

2. Chair

DIRECTOR EN

PRINTED BY:

PORT ADDRESS

**TERMINAL 3 / TERMINAL 4
SHORE POWER**

CONDUIT ROUTING TO BULLRAIL VAULT

	RANGE:	SECTION:
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VERT:	

DRAWING SCALE:

6658

C3.0

17 OF 83

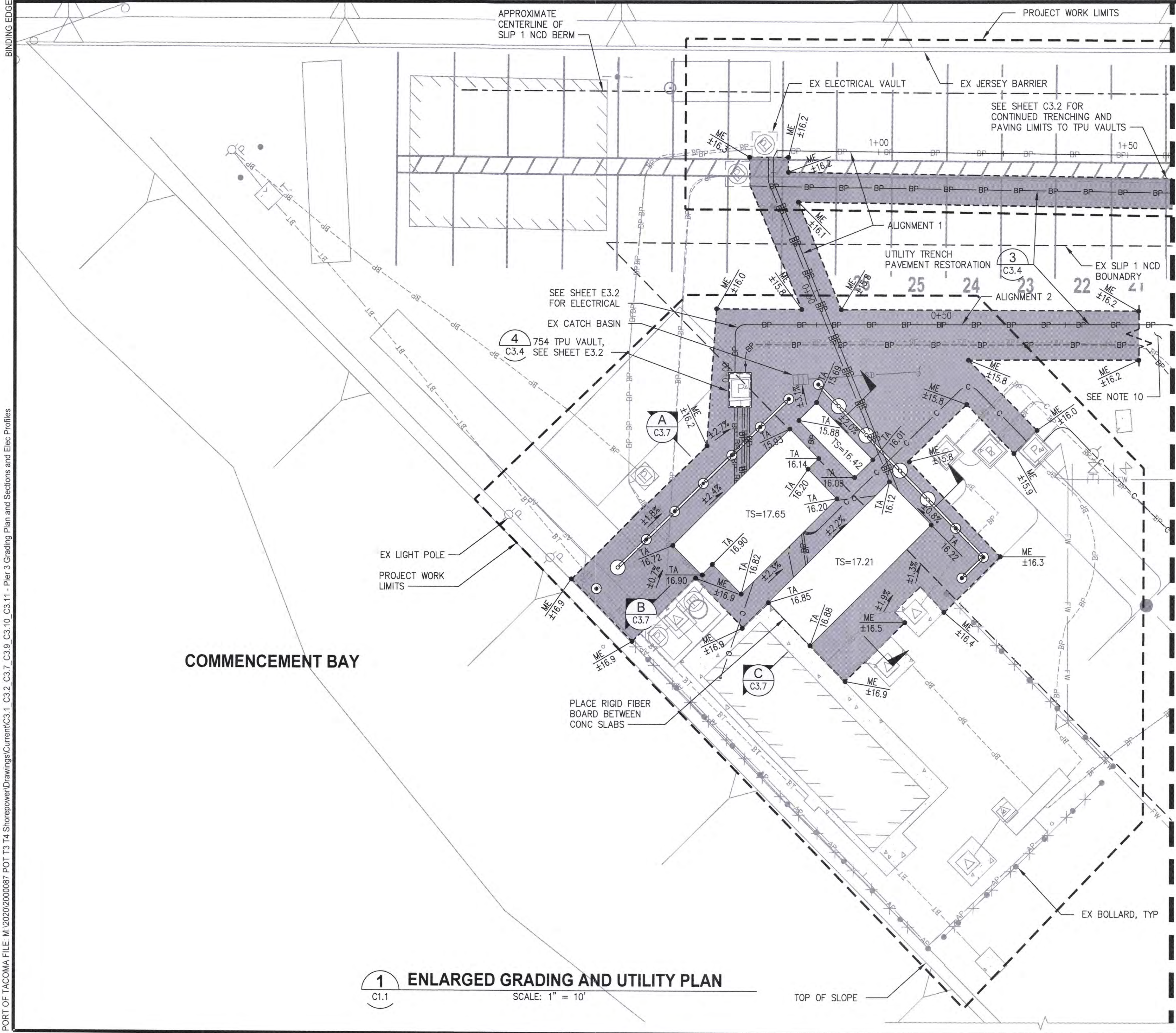
CONT/CONS: 071357

M. ID:	201100.01
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PORT OF TACOMA FILE: M:\2020\20000087 POT T3 T4 Shorepower\Drawings\Current\C3.1_C3.2_C3.7_C3.9_C3.10_C3.11 - Pier 3 Grading Plan and Sections and Elec Profiles

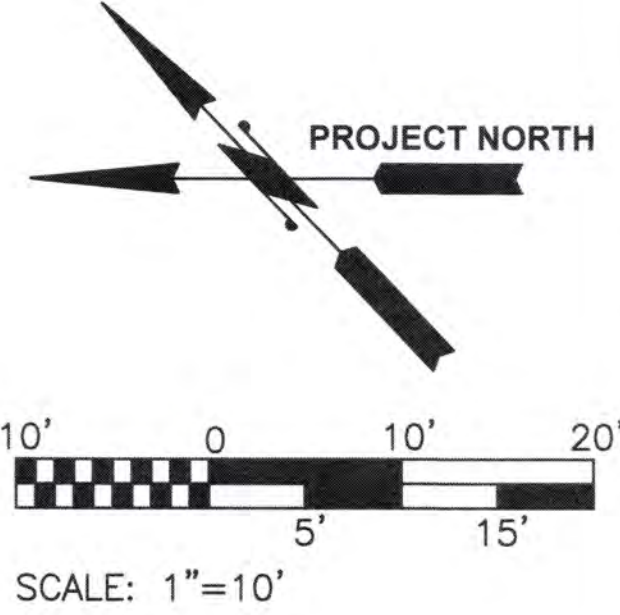


NOTES

1. ALL SPOT ELEVATIONS REPRESENT TOP OF PAVEMENT.
2. STRAIGHT GRADES SHALL BE MAINTAINED BETWEEN SPOT ELEVATIONS UNLESS OTHERWISE NOTED.
3. ALL AREAS DISTURBED OR OVER EXCAVATED DURING CONSTRUCTION SHALL BE COMPACTED PER SECTION 31 00 00 - EARTHWORK.
4. EXCAVATE TO SUBGRADE, PLACE AND COMPACT BASE COURSE AND PAVE WHERE ASPHALT PAVEMENT IS INDICATED.
5. SAWCUT AND APPLY TACK COAT AT ALL ASPHALT PAVEMENT JOINTS.
6. TOP OF FINISH GRADE OF PAVEMENT RESTORATION AREAS SHALL BE FLUSH WITH EXISTING PAVEMENT FOR A SMOOTH TRANSITION AT PAVEMENT EDGES.
7. CONTRACTOR SHALL STOCKPILE AND STAGE ALL EQUIPMENT, SUPPLIES AND MATERIALS WITHIN THE PROJECT WORK AREA LIMITS UNLESS OTHERWISE NOTED. WHEN CONTRACT WORK IS COMPLETE, CONTRACTOR SHALL CLEAR AND CLEAN THE WORK AREA AND REPAIR ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS.
8. ALL ELECTRICAL VAULTS SHALL BE SET SUCH THAT THERE IS POSITIVE DRAINAGE AWAY FROM VAULT LIDS. NO VAULTS SHALL BE SET PROUD OF THE ADJACENT PAVEMENT.
9. SEE SHEETS C3.9-C3.11 FOR TYPICAL ELECTRICAL DUCT BANK PROFILES. SEE ELECTRICAL PLANS FOR CABLE AND CONDUIT REQUIREMENTS. PROFILES PROVIDED FOR APPROXIMATE ROUTING AND MINIMUM REQUIREMENTS, CONTRACTOR SHALL POTHOLE AND VERIFY CROSSINGS TO DETERMINE FINAL ROUTING.
10. RESTORE PAVEMENT FOR TRENCHING OUTSIDE OF WORK AREA LIMITS, SEE SHEET C3.0 FOR ALIGNMENT.
11. FOR HORIZONTAL CONTROL OF SLABS AND BOLLARDS, SEE SHEET C4.1.

LEGEND

- PROJECT WORK LIMITS
- PAVING LIMITS
- EXISTING SLIP NCD BOUNDARY (BOTTOM OF CAP AT EL 9'±, SEE SHEET G2.3)
- CENTERLINE OF EXISTING SLIP 1 BERM
- ASPHALT PAVEMENT
- SPOT ELEVATION
- REMOVABLE BOLLARD
- BOLLARD



1 ENLARGED GRADING AND UTILITY PLAN
C1.1
SCALE: 1" = 10'

6658 C3.1 18 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER				APPROVED: <i>[Signature]</i> DIRECTOR DATE: 02/02/2022		SJS 02/02/2022 CHECKED BY: <i>[Signature]</i> DATE: 02/02/2022		Port of Tacoma 2407 North 31st Street, Suite 100 Tacoma, Washington 98407 (253) 396-0130 fax (253) 396-0162 P.O. BOX 887 TACOMA, WA 98401 (253) 396-8441		
	CONT/CONS: 071357	TOWNSHIP: DAT-HRZ:	RANGE: VERT:	SECTION:	PRINTED BY: dya Feb 02, 2022	DATE: 02/02/2022	PROJ. ENGR: RAD	DATE: 02/02/2022	MARK: REVISION:	BY: APPR: DATE:	
PHASE: BID SET		DRAWING SCALE: AS NOTED		PORT ADDRESS: ONE SITCOM PLAZA TACOMA, WA 98421							

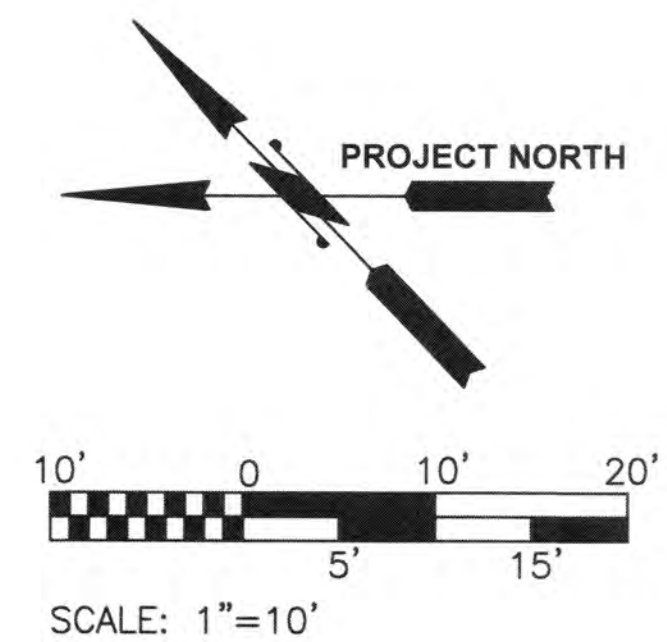
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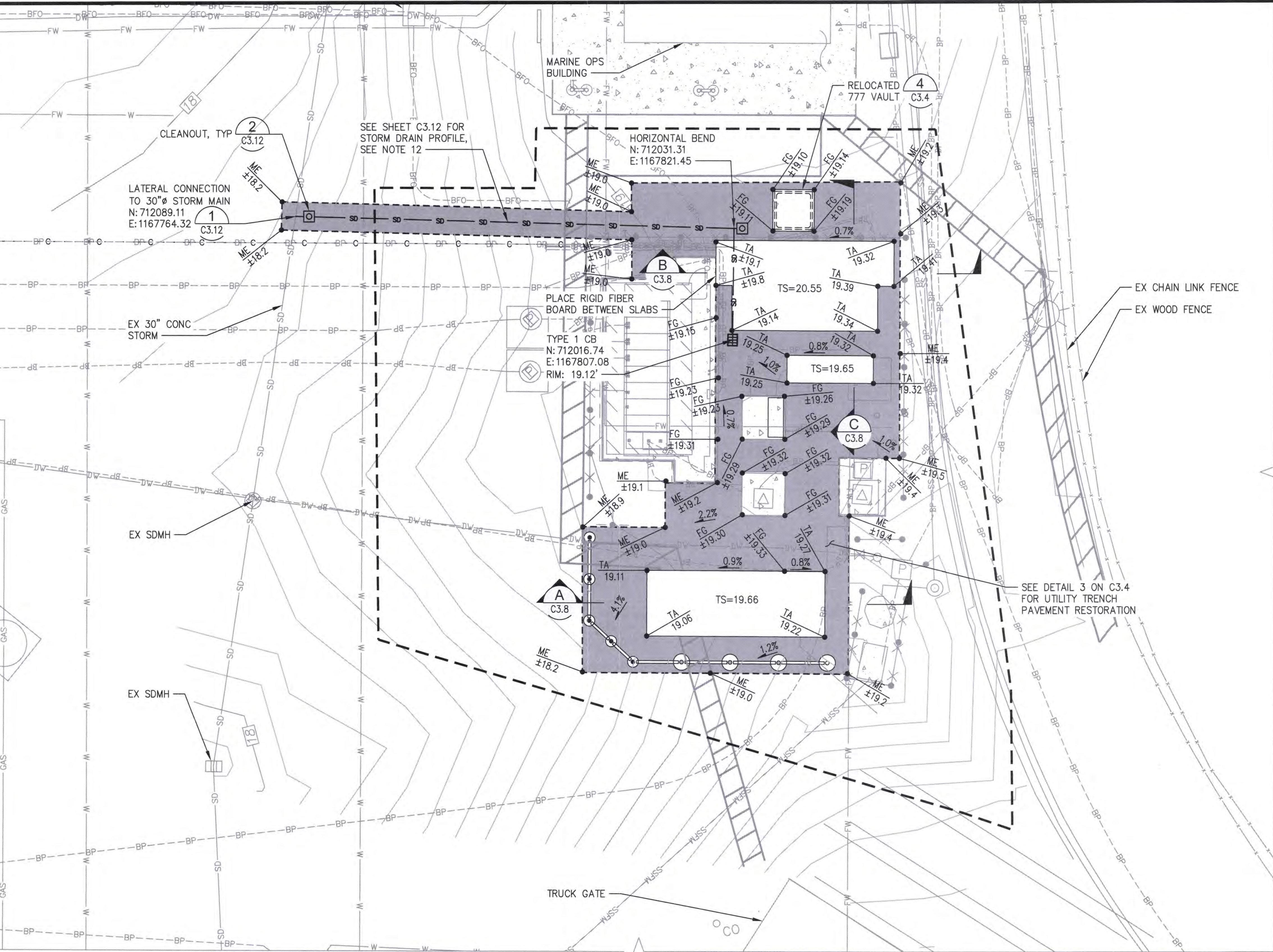
1. ALL SPOT ELEVATIONS REPRESENT TOP OF PAVEMENT.
2. STRAIGHT GRADES SHALL BE MAINTAINED BETWEEN SPOT ELEVATIONS UNLESS OTHERWISE NOTED.
3. ALL AREAS DISTURBED OR OVER EXCAVATED DURING CONSTRUCTION SHALL BE COMPACTED PER SECTION 31 00 00 - EARTHWORK.
4. EXCAVATE TO SUBGRADE, PLACE AND COMPACT BASE COURSE AND PAVE WHERE ASPHALT PAVEMENT IS INDICATED.
5. SAWCUT AND APPLY TACK COAT AT ALL ASPHALT PAVEMENT JOINTS.
6. TOP OF FINISH GRADE OF PAVEMENT RESTORATION AREAS SHALL BE FLUSH WITH EXISTING PAVEMENT FOR A SMOOTH TRANSITION AT PAVEMENT EDGES.
7. CONTRACTOR SHALL STOCKPILE AND STAGE ALL EQUIPMENT SUPPLIES AND MATERIALS WITHIN THE PROJECT WORK AREA LIMITS UNLESS OTHERWISE NOTED. WHEN CONTRACT WORK IS COMPLETE, CONTRACTOR SHALL CLEAR AND CLEAN THE WORK AREA AND REPAIR ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS.
8. ALL ELECTRICAL VAULTS SHALL BE SET SUCH THAT THERE IS POSITIVE DRAINAGE AWAY FROM VAULT LIDS. NO VAULTS SHALL BE SET PROUD OF THE ADJACENT PAVEMENT OUTSIDE THE BOLLARD AREAS.
9. SEE SHEETS C3.9-C3.11 FOR TYPICAL ELECTRICAL DUCT BANK PROFILES. SEE ELECTRICAL PLANS FOR CABLE AND CONDUIT REQUIREMENTS. PROFILES PROVIDED FOR APPROXIMATE ROUTING AND MINIMUM REQUIREMENTS, CONTRACTOR SHALL POTHOLE AND VERIFY CROSSINGS TO DETERMINE FINAL ROUTING.
10. RESTORE PAVEMENT FOR TRENCHING OUTSIDE OF WORK AREA LIMITS, SEE SHEET C3.0 FOR ALIGNMENT.
11. FOR HORIZONTAL CONTROL OF BOLLARDS, SEE SHEET C4.2.
12. SEE SHEET C3.4 FOR VAULT BEDDING.
NOTE: VAULTS WITHIN BOLLARDS DO NOT NEED TO BE TOP PICK RATED.

- - - - - PROJECT WORK LIMITS
 - - - - - PAVING LIMITS
 - - - - - EXISTING SLIP NCD BOUNDARY
 (BOTTOM OF CAP AT EL. 9'±), SEE SHEET G2.3
 - - - - - CENTERLINE OF EXISTING SLIP 1 BERM

- | | | |
|---|-------------------|---|
|  | ASPHALT PAVEMENT |  |
|  | SPOT ELEVATION |  |
|  | REMOVABLE BOLLARD |  |
|  | BOLLARD |  |



PORT OF TACOMA FILE: M:20202000087 POT T3 T4 ShorepowerDrawingsCurrentC3.3_C3.8 - Pier 4 Grading Plan and Sections

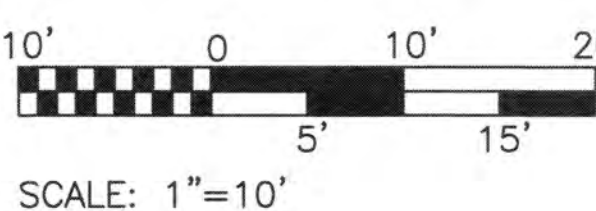
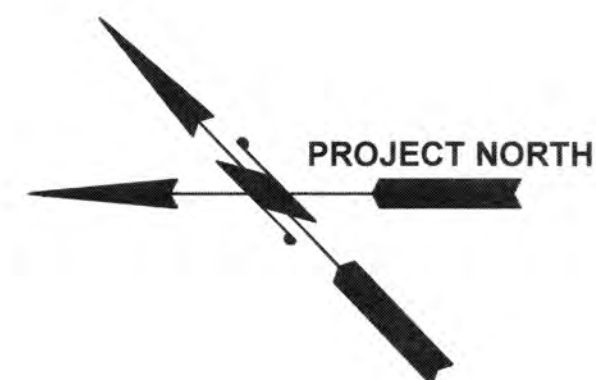


NOTES

1. ALL SPOT ELEVATIONS REPRESENT TOP OF PAVEMENT.
2. STRAIGHT GRADES SHALL BE MAINTAINED BETWEEN SPOT ELEVATIONS UNLESS OTHERWISE NOTED.
3. ALL AREAS DISTURBED OR OVER EXCAVATED DURING CONSTRUCTION SHALL BE COMPACTED PER SECTION 31 00 00 - EARTHWORK.
4. EXCAVATE TO SUBGRADE, PLACE AND COMPACT BASE COURSE AND PAVE WHERE ASPHALT PAVEMENT IS INDICATED.
5. SAWCUT AND APPLY TACK COAT AT ALL ASPHALT PAVEMENT JOINTS.
6. TOP OF FINISH GRADE OF PAVEMENT RESTORATION AREAS SHALL BE FLUSH WITH EXISTING PAVEMENT FOR A SMOOTH TRANSITION AT PAVEMENT EDGES.
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8. ALL ELECTRICAL VAULTS SHALL BE SET SUCH THAT THERE IS POSITIVE DRAINAGE AWAY FROM VAULT LIDS. NO VAULTS SHALL BE SET PROUD OF THE ADJACENT PAVEMENT OUTSIDE THE BOLLARD AREAS.
9. SEE SHEETS C3.9-C3.11 FOR TYPICAL ELECTRICAL DUCT BANK PROFILES. SEE ELECTRICAL PLANS FOR CABLE AND CONDUIT REQUIREMENTS. PROFILES PROVIDED FOR APPROXIMATE ROUTING AND MINIMUM REQUIREMENTS, CONTRACTOR SHALL POTHOLE AND VERIFY CROSSINGS TO DETERMINE FINAL ROUTING.
10. RESTORE PAVEMENT FOR TRENCHING OUTSIDE OF WORK AREA LIMITS, SEE SHEETS G3.4 AND C3.4.
11. FOR HORIZONTAL CONTROL OF BOLLARDS, SEE SHEET C4.3.
12. COORDINATE ROUTING OF STORM DRAIN LINE WITH NEW ELECTRICAL DUCTBANKS AND CONDUITS SHOWN ON SHEET E3.5.

LEGEND

	PROJECT WORK LIMITS
	PAVING LIMITS
	STORM DRAIN LINE
	ASPHALT PAVEMENT
	SPOT ELEVATION
	REMOVABLE BOLLARD
	BOLLARD



3 ENLARGED GRADING AND UTILITY PLAN

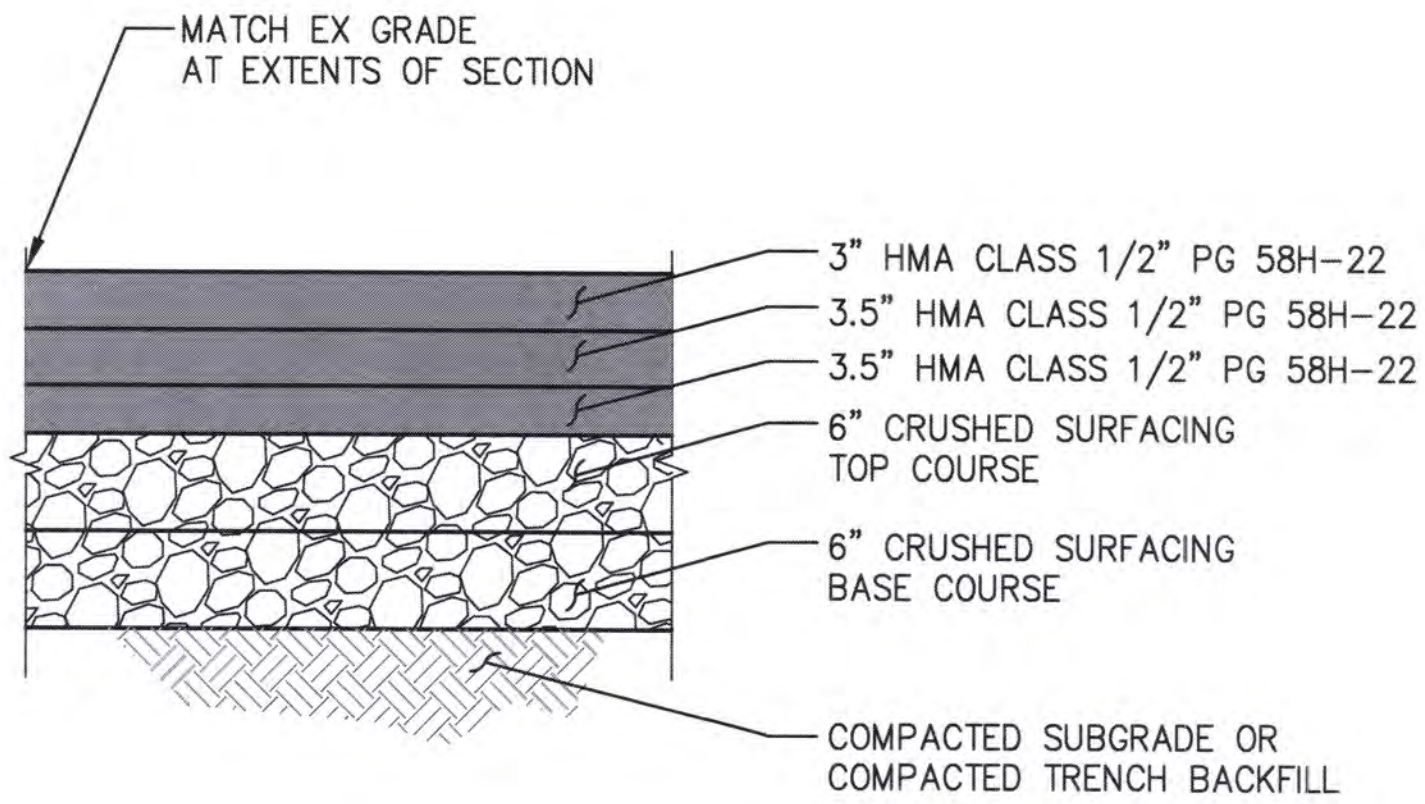
C1.1 SCALE: 1" = 10'



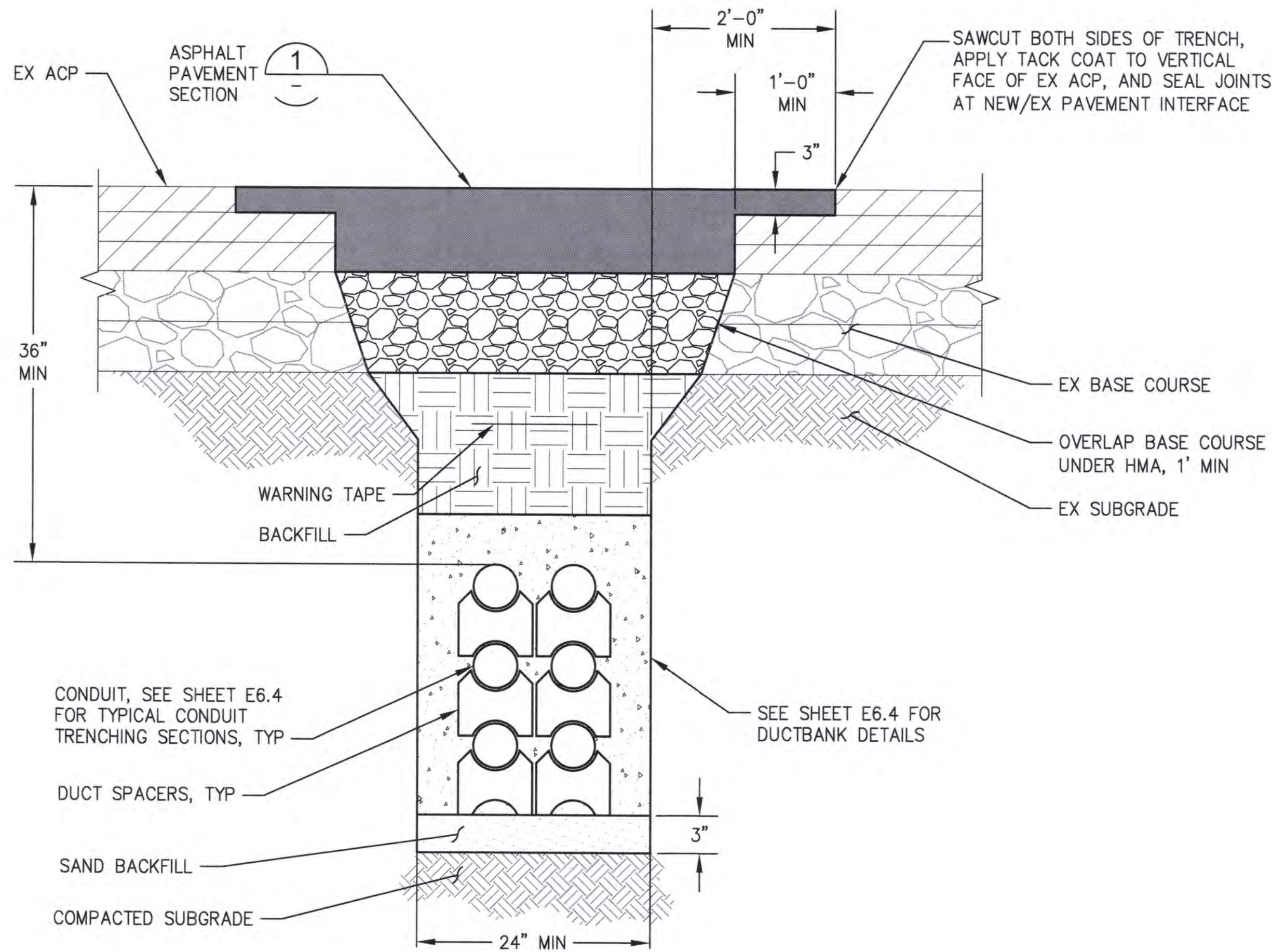
6658 C3.3 20 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER	APPROVED:	SJS	02/02/2022	CHECKED BY	DATE	
			RAD	02/02/2022	PROJ. ENGR	DATE	
PIER 4 ENLARGED GRADING AND UTILITY PLAN		DIRECTOR ENG. DATE		PRINTED BY: dju Feb 02, 2022		PORT ADDRESS: ONE SITCUM PLAZA	
TOWNSHIP: 201100.01		SECTION:		DATE-HRZ:		DRAWING SCALE: AS NOTED	
M. ID: 201100.01		VERT:		PARCEL:		TACOMA, WA 98421	
PHASE: BID SET		AS NOTED		TACOMA, WA 98421		TACOMA, WA 98421	

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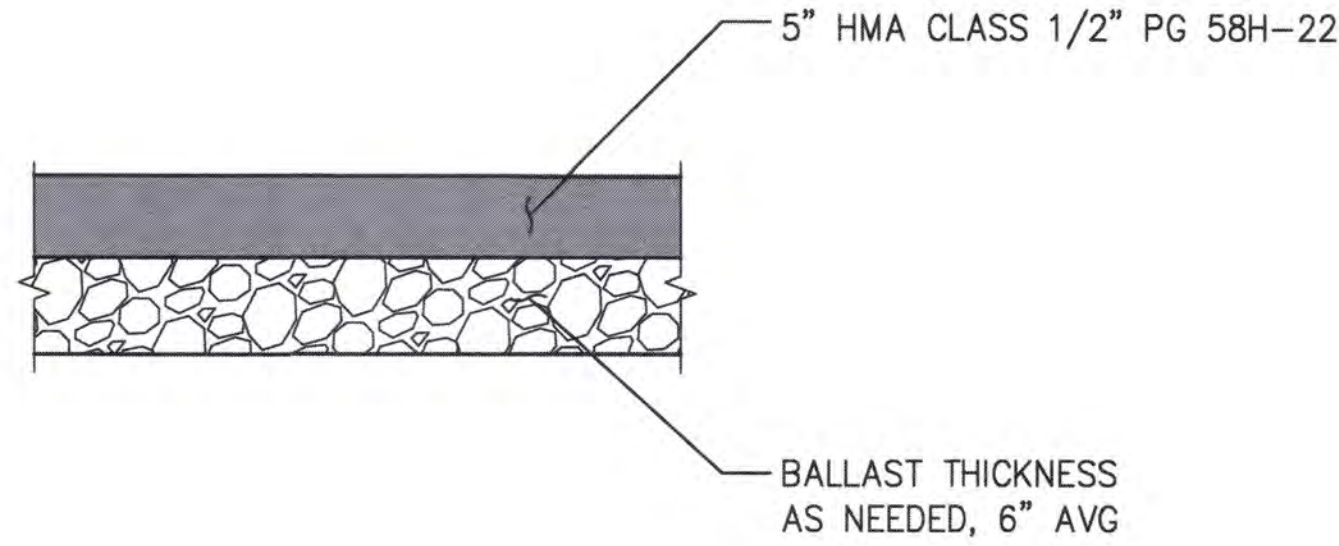
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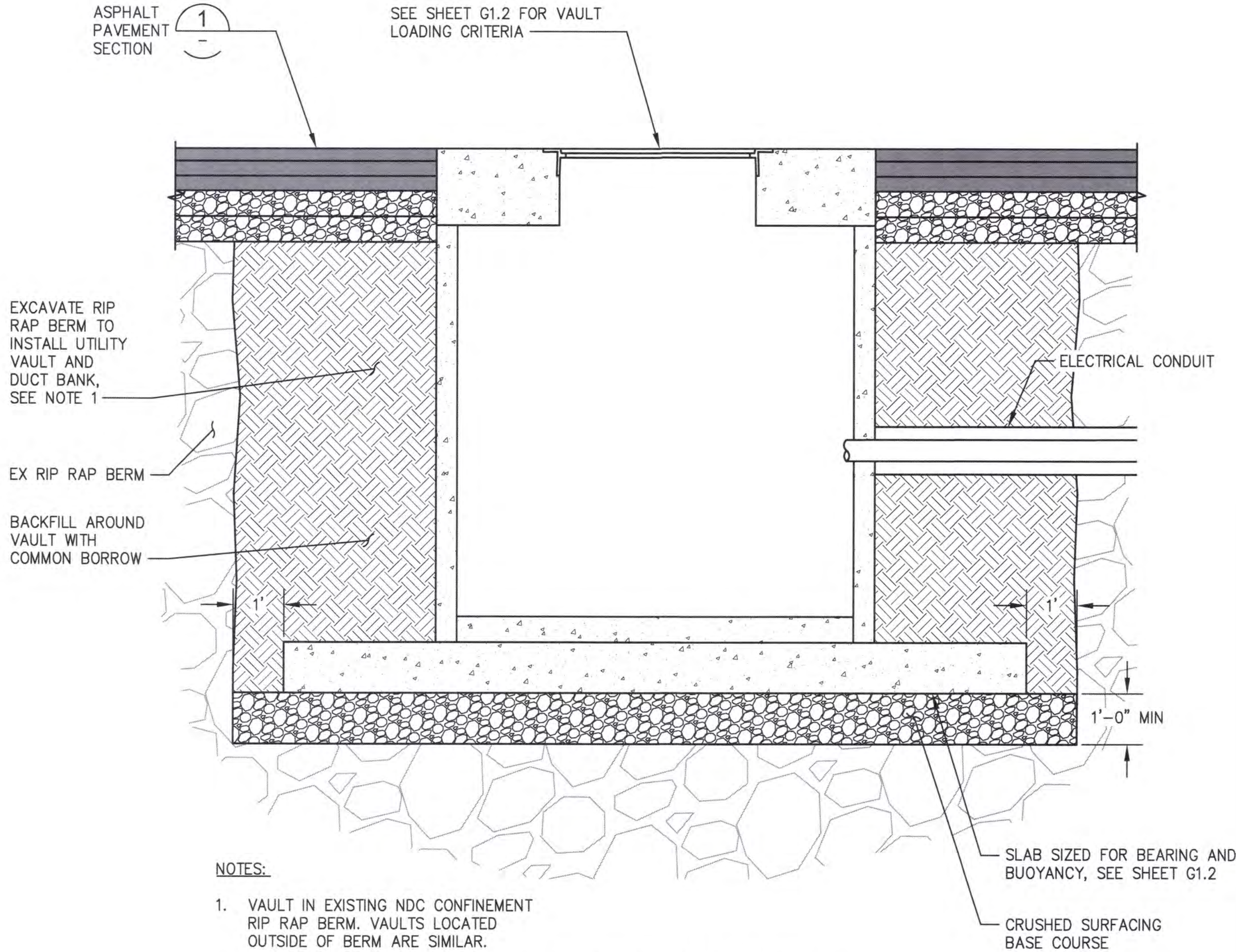
1 ASPHALT PAVEMENT SECTION
C3.1, C3.2, C3.3, C3.6 SCALE: 1" = 1'-0"



3 UTILITY TRENCH PAVEMENT RESTORATION
C3.1, C3.2 NTS



2 ASPHALT PAVEMENT SECTION ON PIER
S2.3, S2.4, S2.5, S7.2 1" = 1'-0"

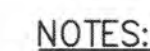


NOTES:

1. VAULT IN EXISTING NDC CONFINEMENT RIP RAP BERM. VAULTS LOCATED OUTSIDE OF BERM ARE SIMILAR.

4 UTILITY VAULT DETAIL
C3.0, C3.1, C3.2, C3.3 NTS

 2407 North 31st Street, Suite 100 Tacoma, Washington 98407 (253) 396-0150 Fax (253) 396-0152 P.O. BOX 1807 TACOMA, WA 98401 (253) 393-5641				
	APPROVED: <i>[Signature]</i> DIRECTOR	SUS 02/02/2022 CHECKED BY: RAD DATE: 02/02/2022	PROJECT: 02/02/2022 ENGR: DATE: 02/02/2022	PRINTED BY: dyu DATE: 02/02/2022
	TOWNSHIP: 071357 M. ID: 20100.01 PHASE: BID SET	RANGE: 20100.01 DAT-HRZ: 20100.01 PARCEL: BID SET	SECTION: 20100.01 VERT: 20100.01 DRAWING SCALE: AS NOTED	TACOMA, WA 98421
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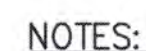


1. BOLLARDS AT PIER 3 EXTEND 3' ABOVE GRADE. BOLLARDS AT PIER 4 EXTEND 4' ABOVE GRADE.

REMOVABLE TRAFFIC BOLLARD WITH BOLTED GUARD RAIL

C3.1, C3.2, C3.3

NTS



1. BOLLARDS AT PIER 3 EXTEND 3' ABOVE GRADE. BOLLARDS AT PIER 4 EXTEND 4' ABOVE GRADE.

2 FIXED UTILITY PROTECTION BOLLARD WITH BOLTED GUARD RAIL

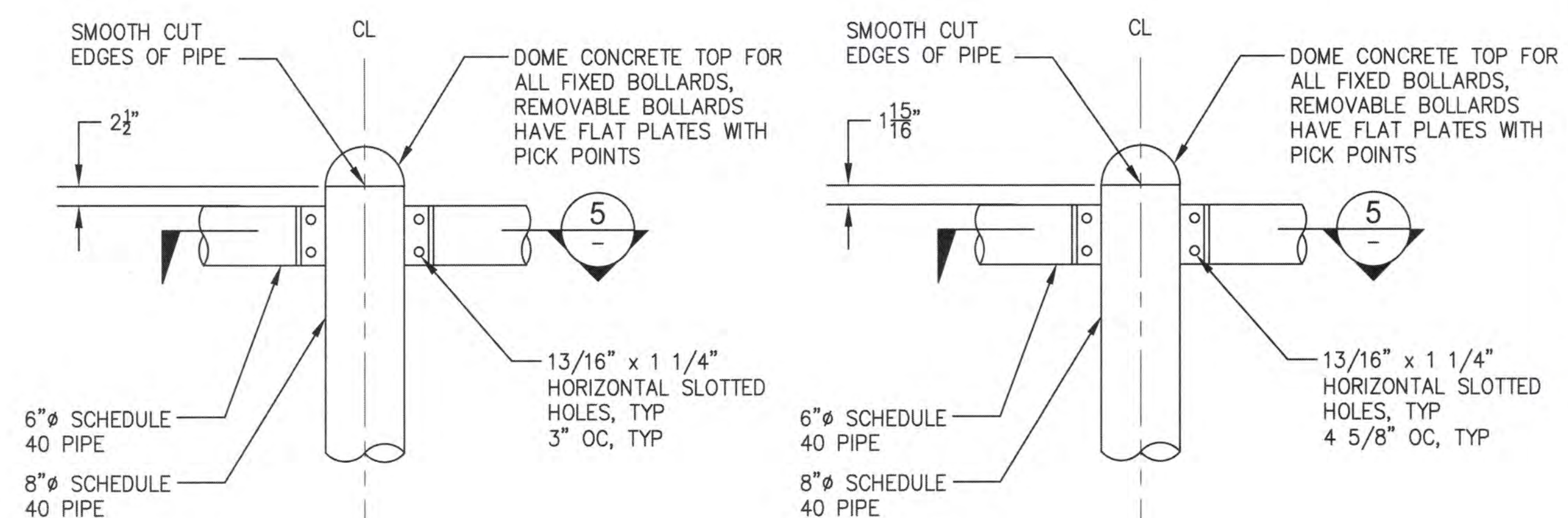
C3.1, C3.2, C3.3

NTS



3 REMOVABLE BOLLARD CAP

NTS

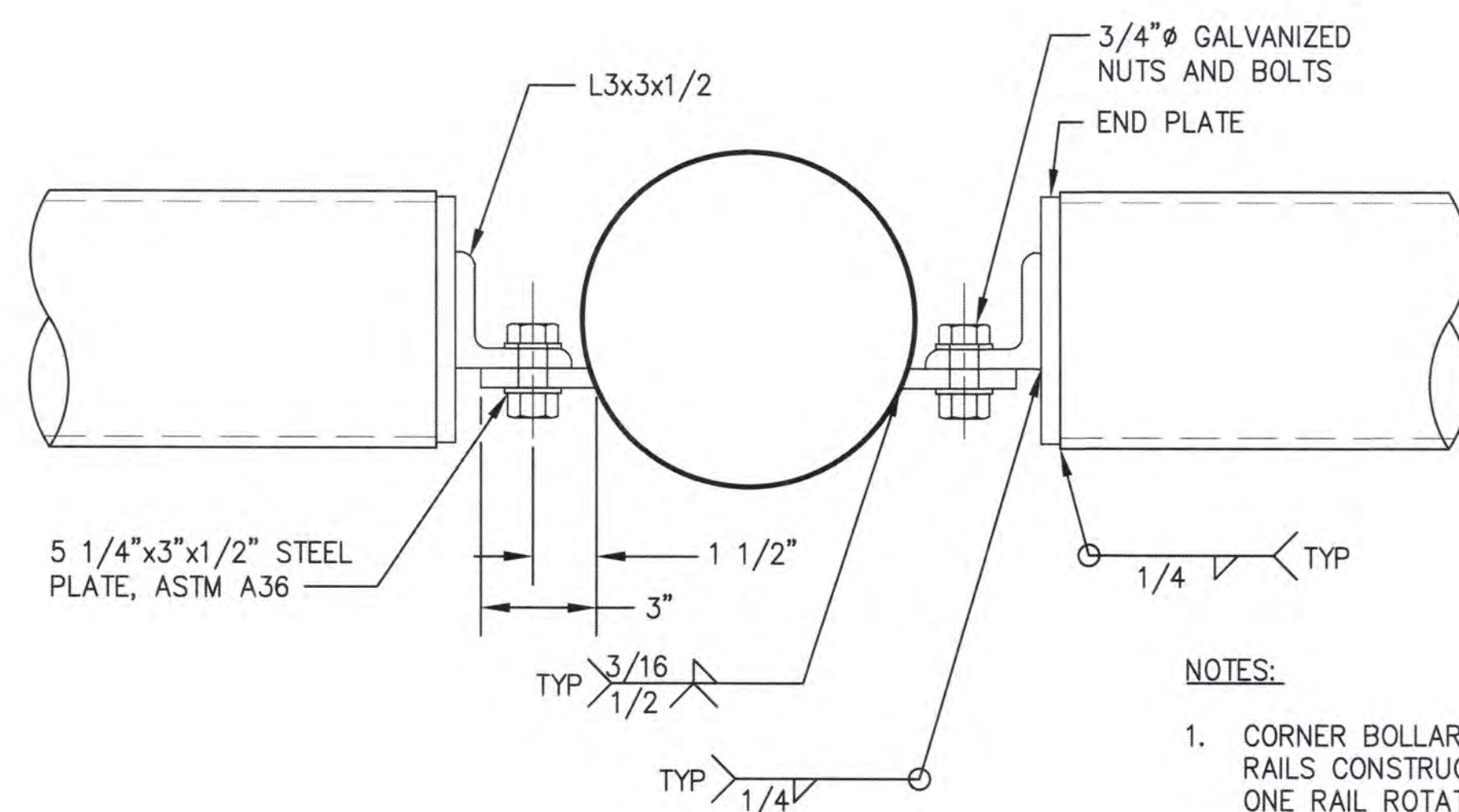


PIER 3

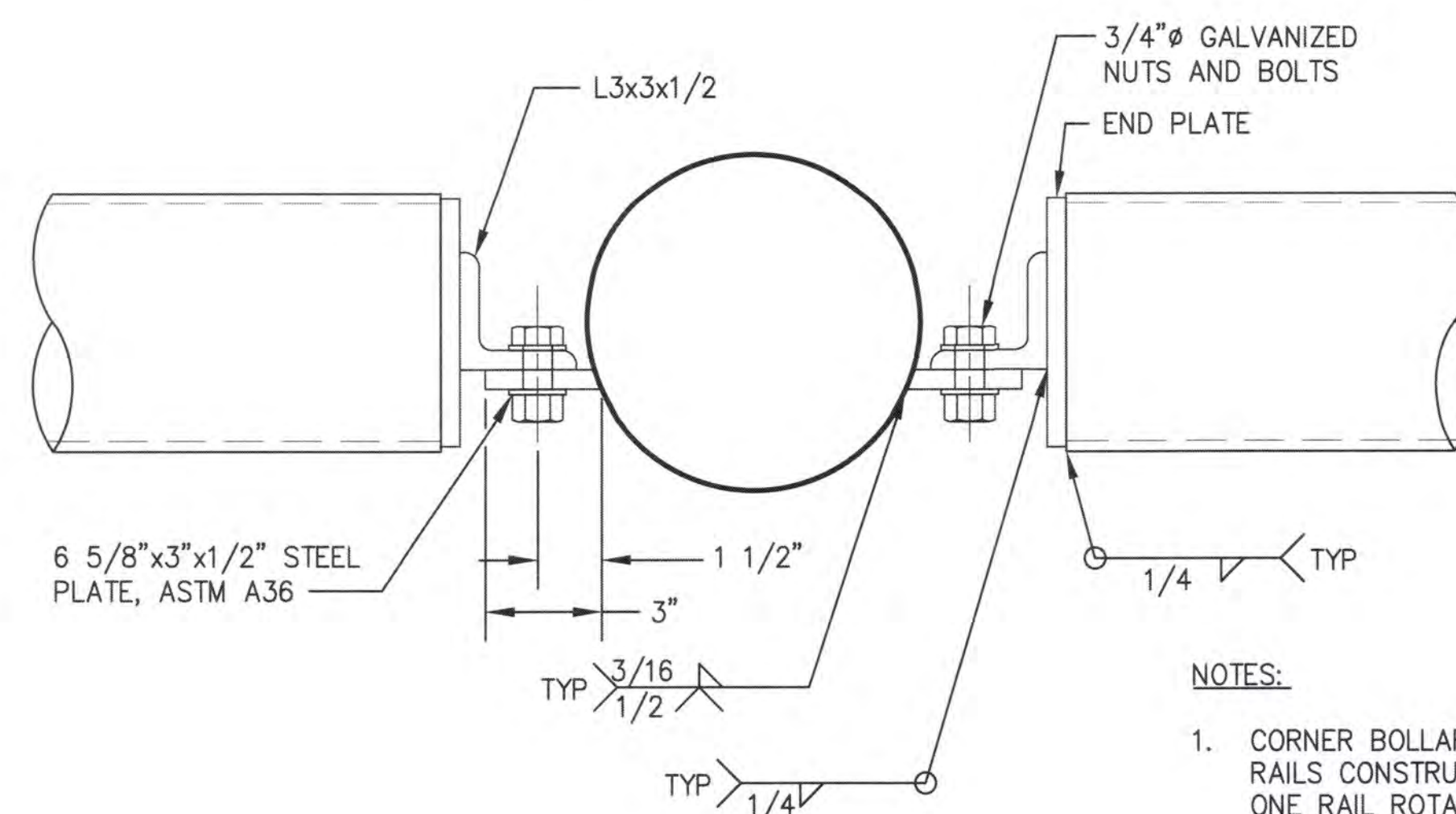
PIER 4

BOLTED GUARD RAIL

NTS



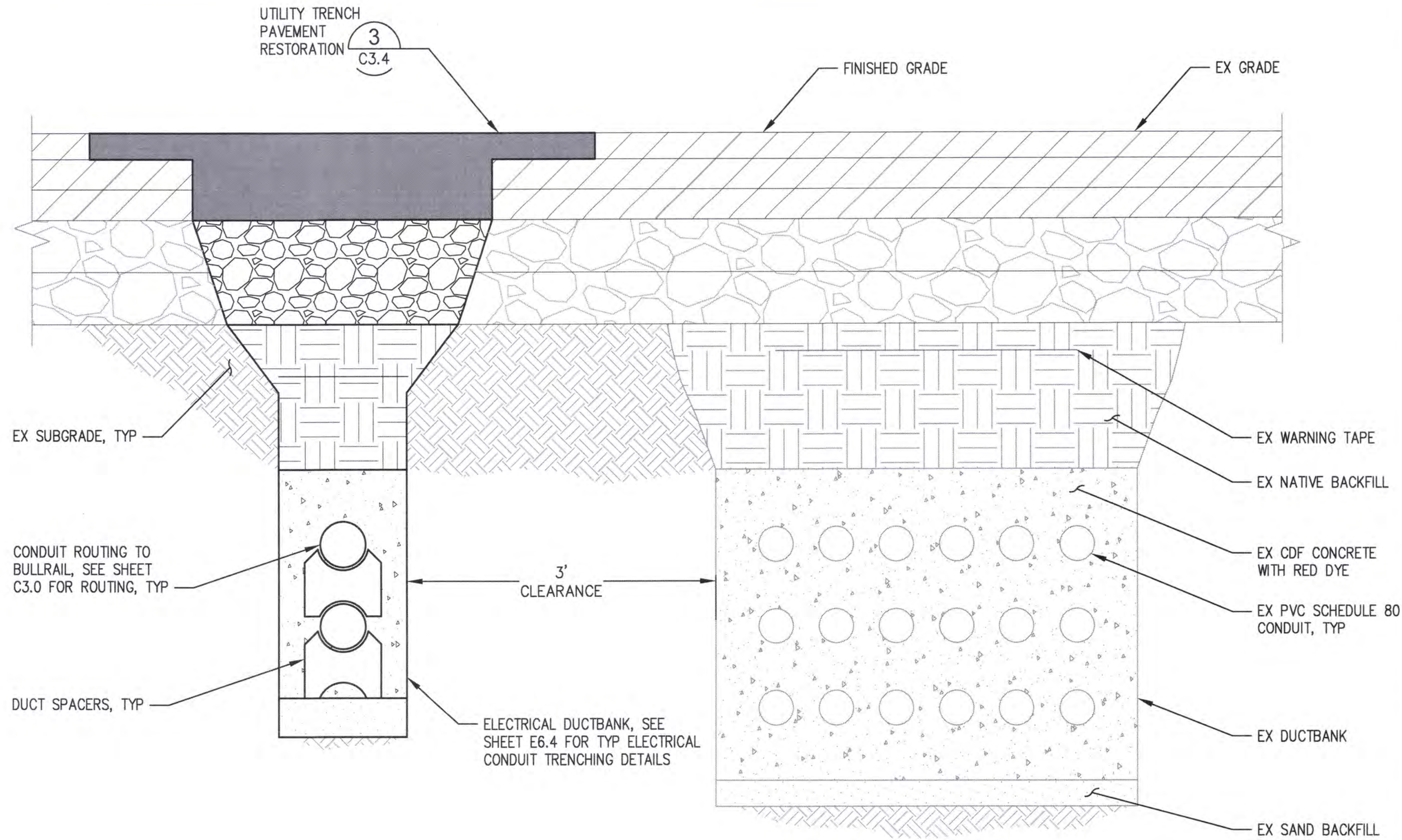
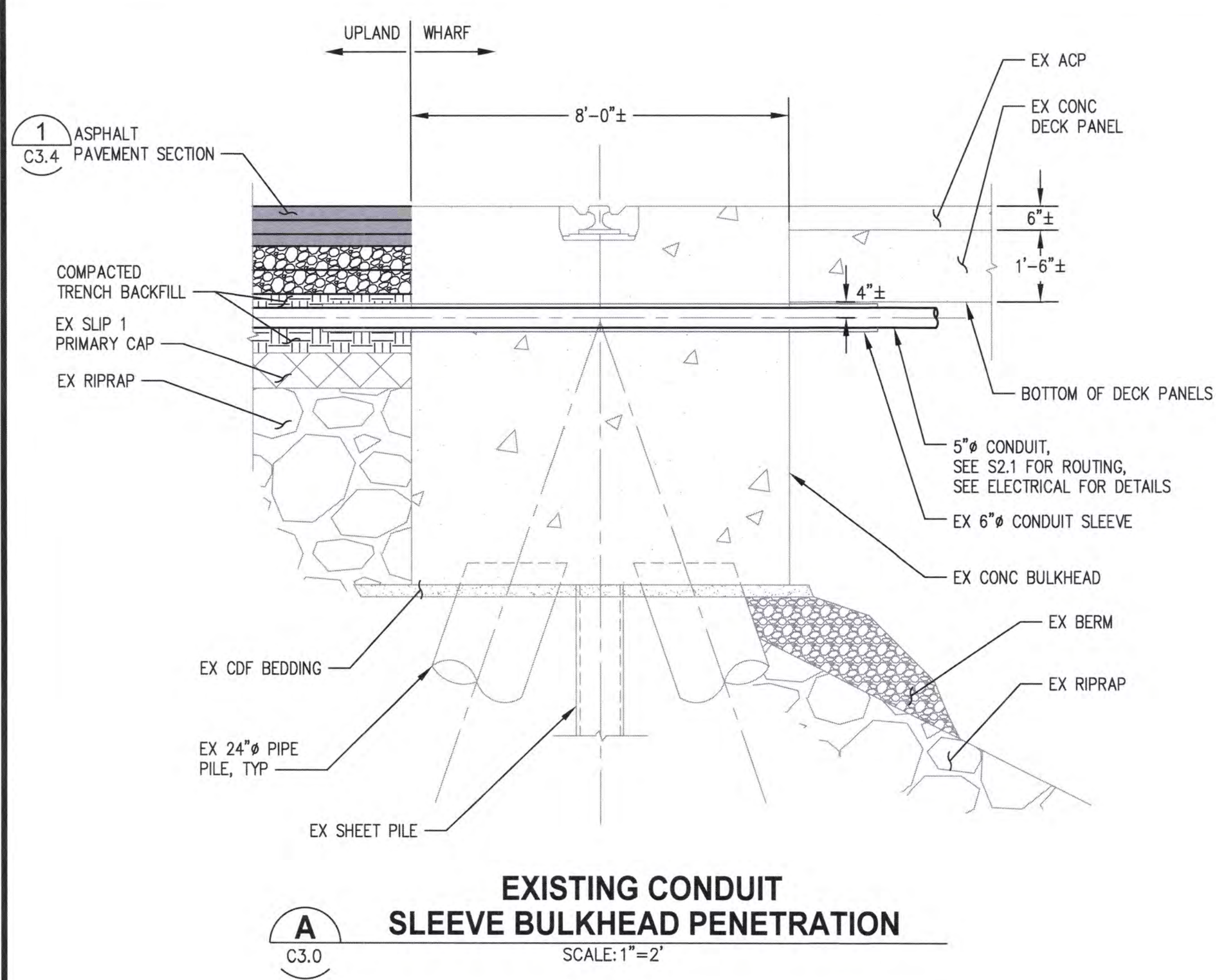
PIER 3



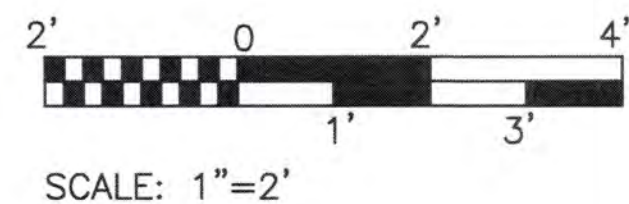
PIER 4

5 BOLTED GUARD RAIL SECTION

NTS



NOTE: SEE DETAIL 3 ON SHEET C3.4 FOR UTILITY TRENCH PAVEMENT RESTORATION AND TRENCH DETAILS. SEE SHEET E6.4 FOR TYPICAL CONDUIT TRENCHING SECTIONS.



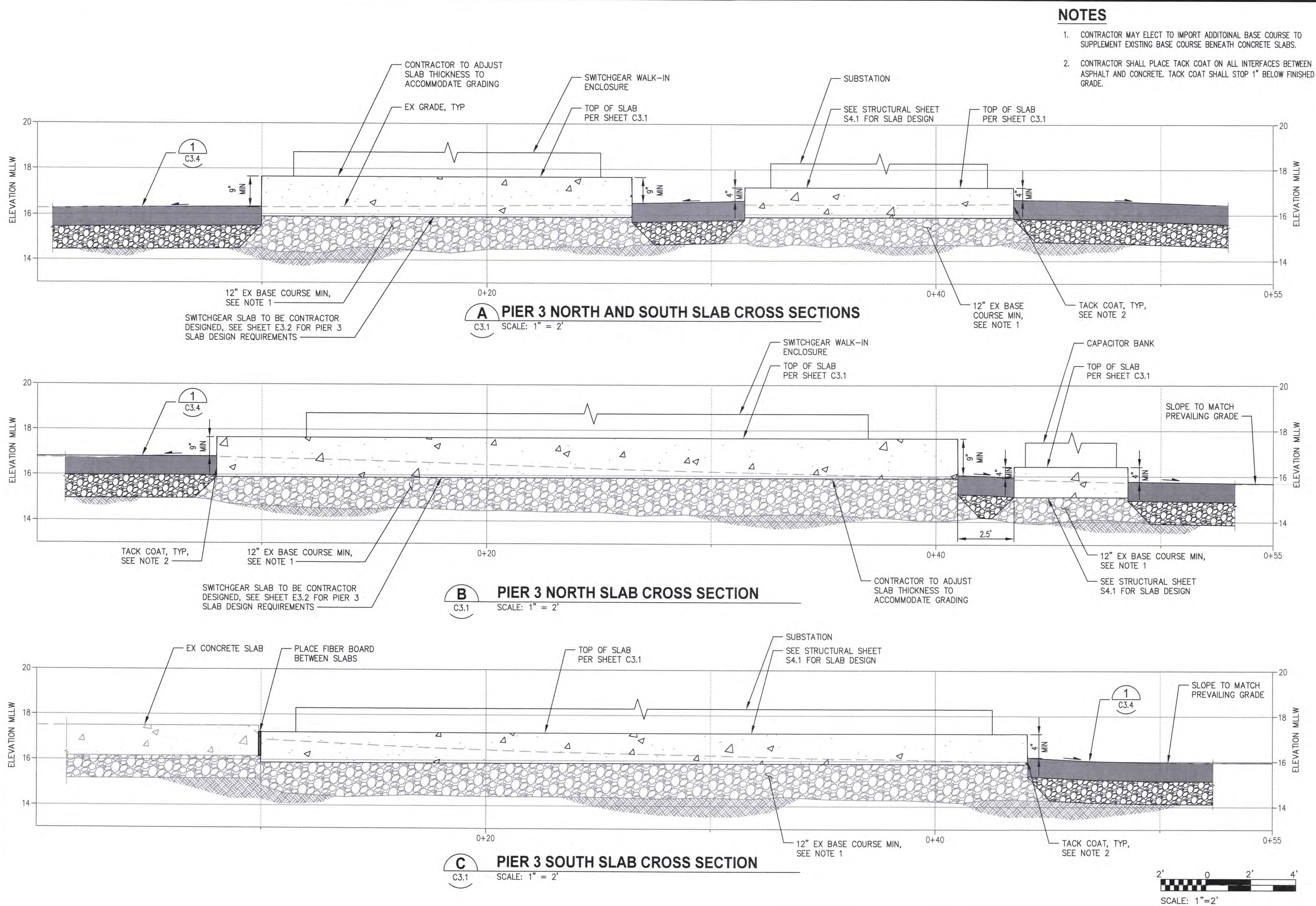
6658 C3.6 23 OF 83 CONT/CONS: 071357 M. ID: 201100.01 PHASE: BID SET	TERMINAL 3 / TERMINAL 4 SHORE POWER UTILITY DETAILS RANGE: SECTION: TOWNSHIP: DATE: PARCEL: DAT-HRZ: VERT: DRAWING SCALE: AS NOTED	APPROVED:	SJS	02/02/2022	CHECKED BY	DATE	
		DIRECTOR		02/02/2022	DATE	DATE	
		PRINTED BY: dyu Feb 02, 2022		PROJ. ENGR	DATE		
		PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98421					
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PORT OF TACOMA FILE: M:\2020\2000087 POT T3 T4 Shorepower\Drawings\Current\C3.1_C3.2_C3.7_C3.9_C3.10_C3.11 - Pier 3 Grading Plan and Sections and Elec Profiles

BINDING EDGE



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TACOMA, WA 98421			

6658

C3.7

24 OF 83

CONT/CONS:	071357	TOWNSHIP:		SECTION:	
M. ID:	201000.01	DAT-HRZ:		RANGE:	
PHASE:	BID SET	VERT:		VERT:	

TERMINAL 3 / TERMINAL 4

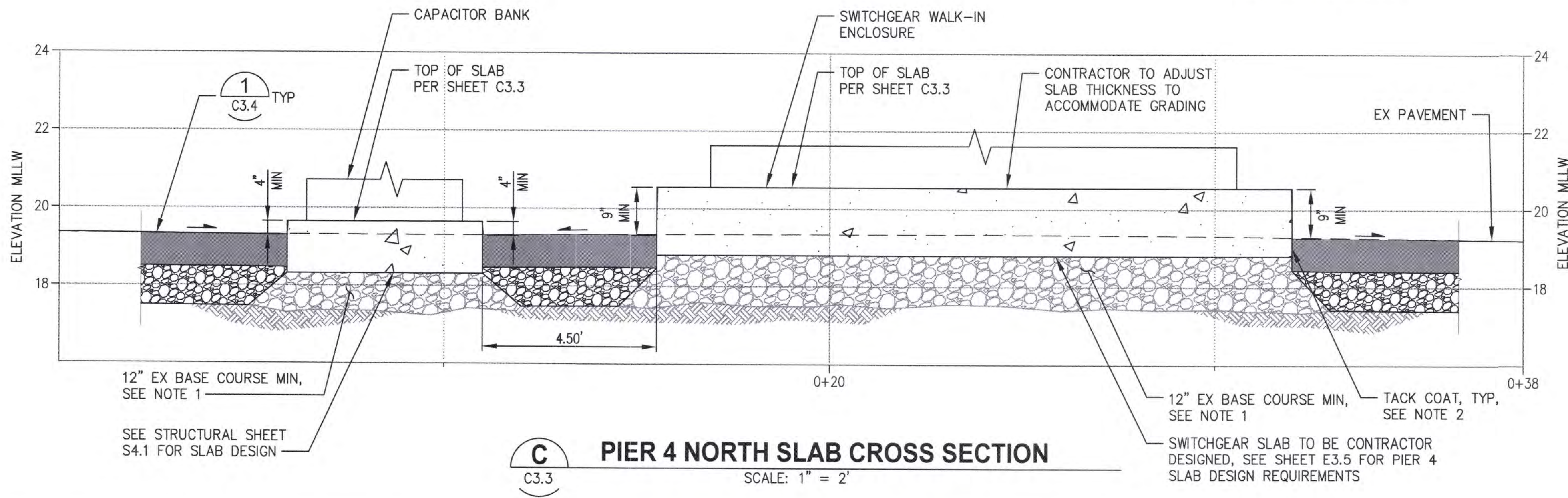
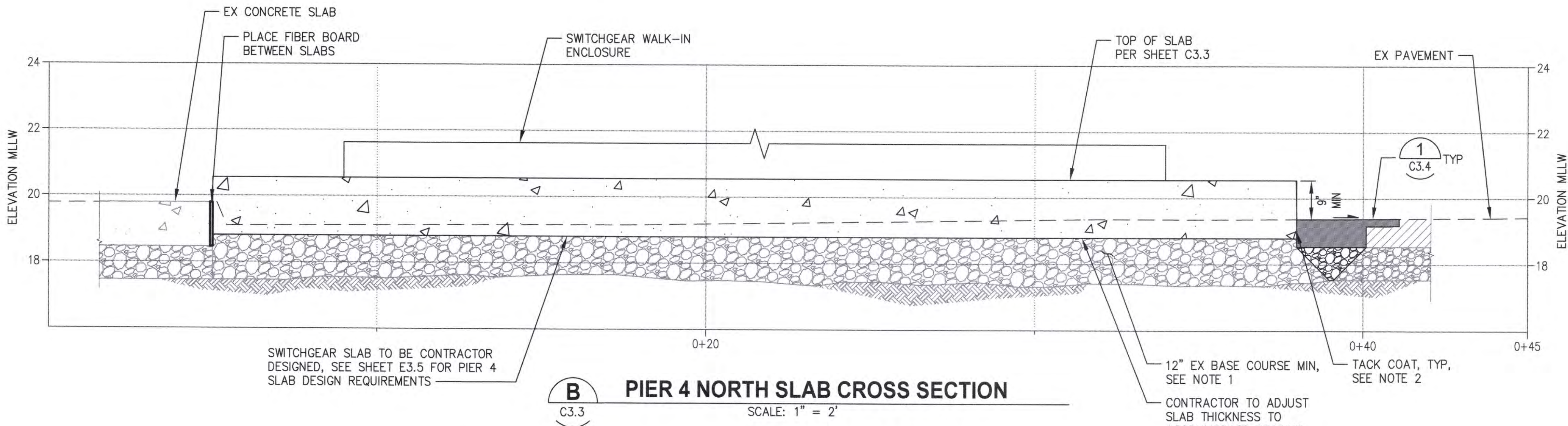
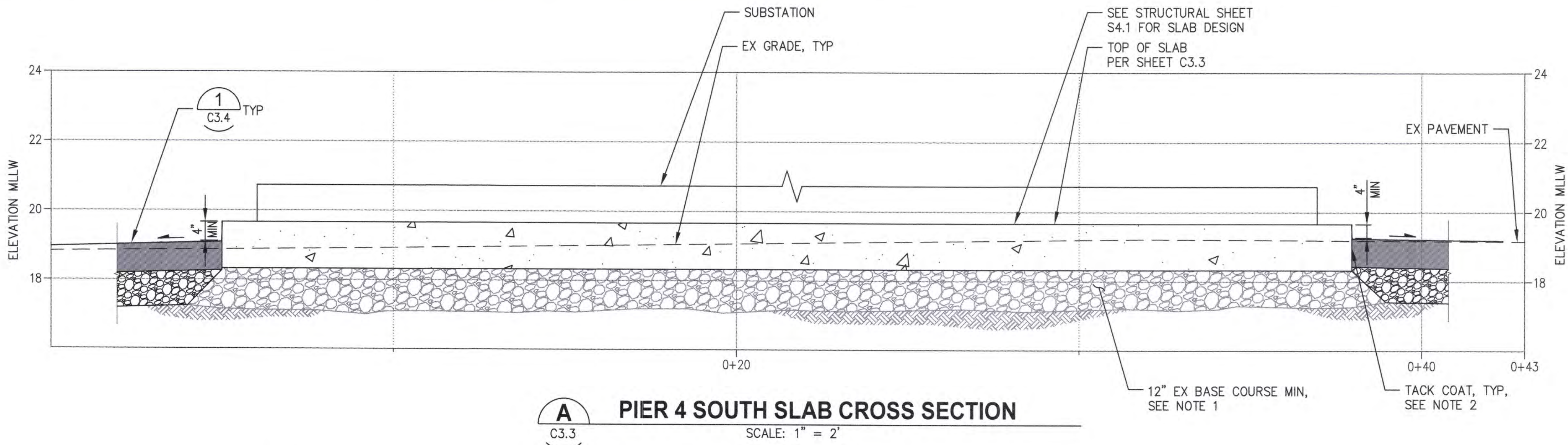
SHORE POWER

PIER 3 GRADING SECTIONS

DRAWING SCALE:

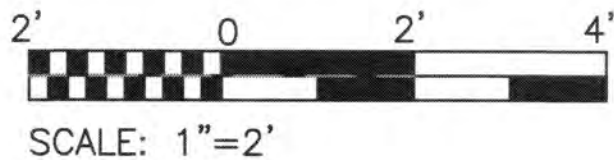
AS NOTED

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NOTES

- CONTRACTOR MAY ELECT TO IMPORT ADDITIONAL BASE COURSE TO SUPPLEMENT EXISTING BASE COURSE BENEATH CONCRETE SLABS.
- CONTRACTOR SHALL PLACE TACK COAT ON ALL INTERFACES BETWEEN ASPHALT AND CONCRETE. TACK COAT SHALL STOP 1" BELOW FINISHED GRADE.



6658

C3.8

25 OF 83

CONT/CONS: 071357
M. ID: 20100.01
PHASE: BID SET

TERMINAL 3 / TERMINAL 4

SHORE POWER

PIER 4 GRADING SECTIONS

TOWNSHIP: 20100.01
DAT-HRZ: 20100.01
PARCEL: BID SET

RANGE: 20100.01
VERT: 20100.01

SECTION: 20100.01

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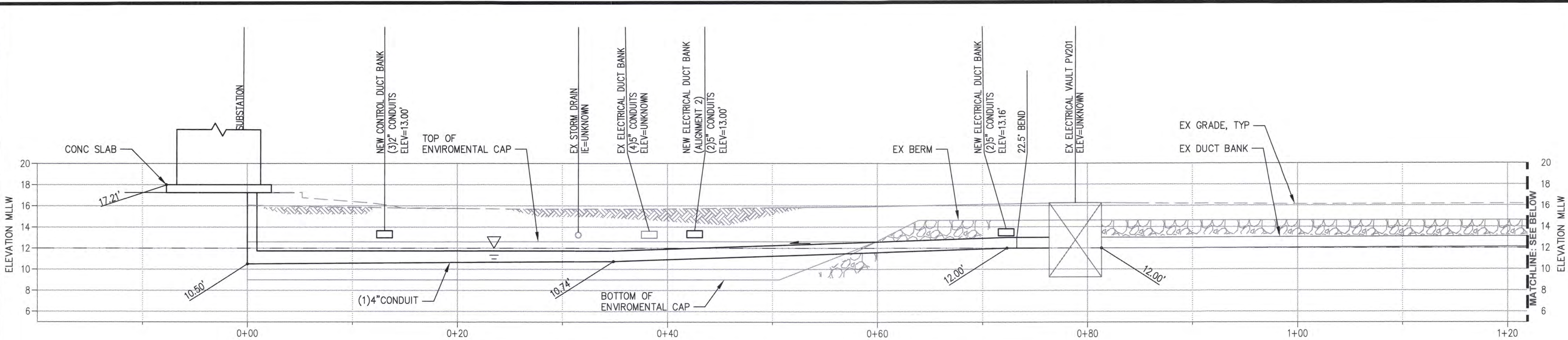
Port of Tacoma

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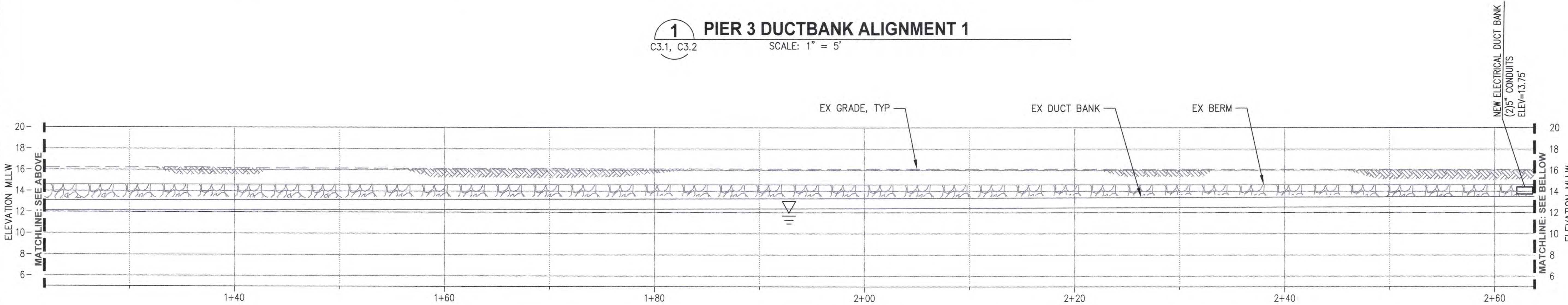
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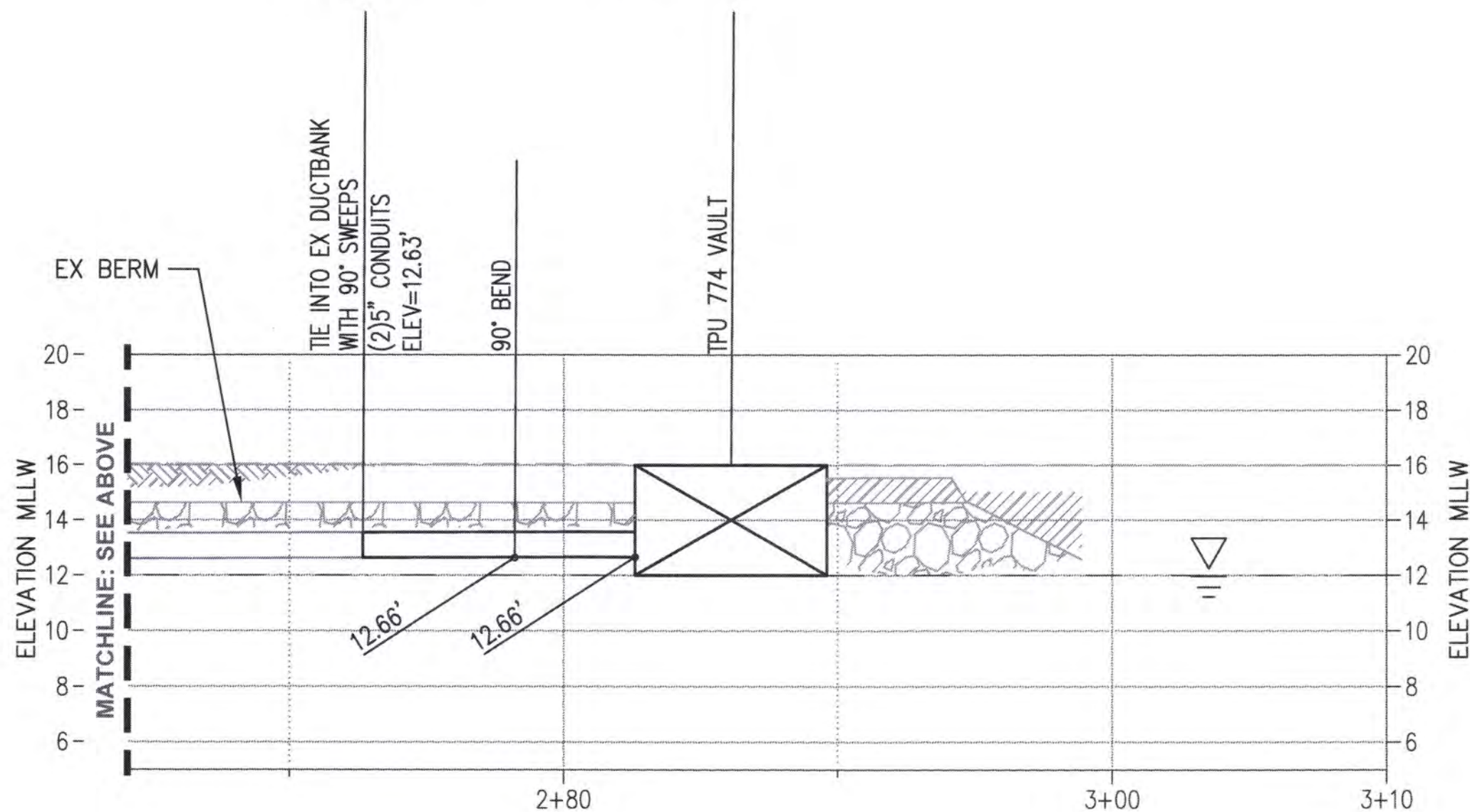
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1 PIER 3 DUCTBANK ALIGNMENT 1
C3.1, C3.2 SCALE: 1" = 5'



1 PIER 3 DUCTBANK ALIGNMENT 1 CONT'D
C3.1, C3.2 SCALE: 1" = 5'



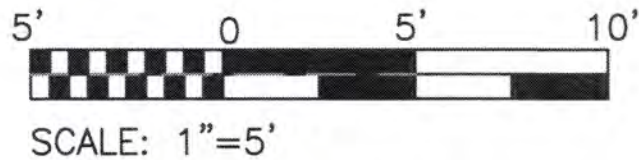
1 PIER 3 DUCTBANK ALIGNMENT 1 CONT'D
C3.1, C3.2 SCALE: 1" = 5'

NOTES

- PROFILES PROVIDED FOR APPROXIMATE ROUTING AND MINIMUM REQUIREMENTS, CONTRACTOR SHALL POTHOLE AND VERIFY CROSSINGS TO DETERMINE FINAL ROUTING.
- NCD 1 ENVIRONMENTAL CAP BOTTOM ELEVATION IS APPROXIMATELY +9 MLLW.

LEGEND

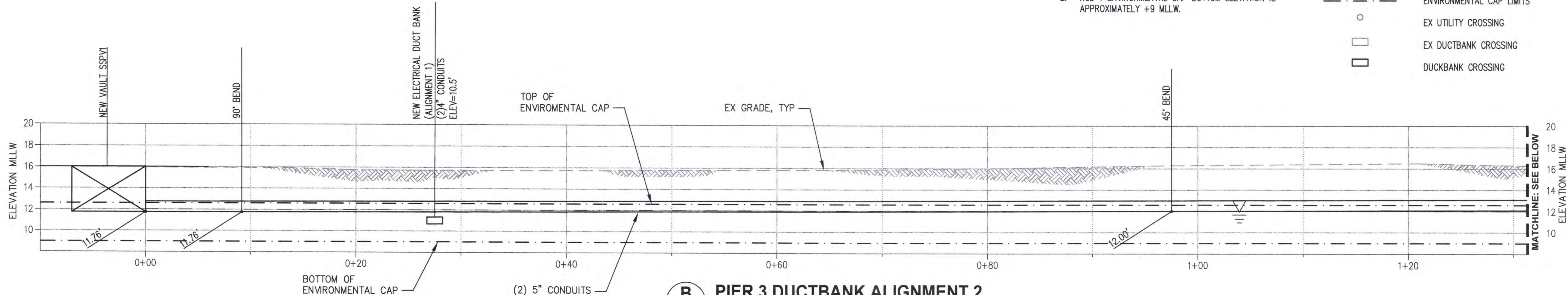
- GROUNDWATER (EL ±12.00')
- EX UTILITY CROSSING
- EX DUCTBANK CROSSING
- DUCTBANK CROSSING
- EX NDC BERM



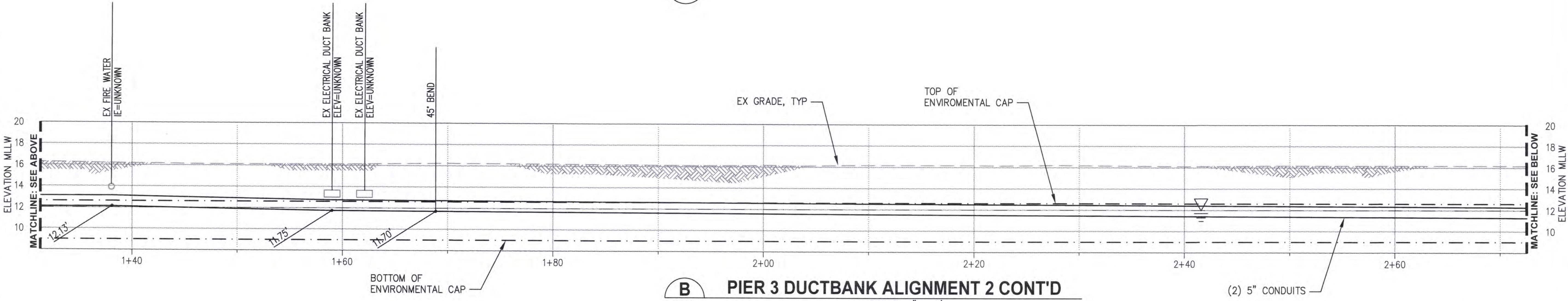
6658 C3.9 26 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER		APPROVED: <i>[Signature]</i> 02/02/2022		SJS 02/02/2022		
	ELECTRICAL PROFILES		DIRECTOR ENG. DATE 02/02/2022		RAD 02/02/2022		
	TOWNSHIP: 071357		PRINTED BY: dyl Feb 02, 2022		PROJ. ENGR DATE		
	M. ID: 201100.01		PORT ADDRESS: ONE SITUM PLAZA		DATE:		
PHASE: BID SET		DRAWING SCALE: AS NOTED		TACOMA, WA 98421		MARK: REVISION:	
						BY:	
						APPR:	
						DATE:	

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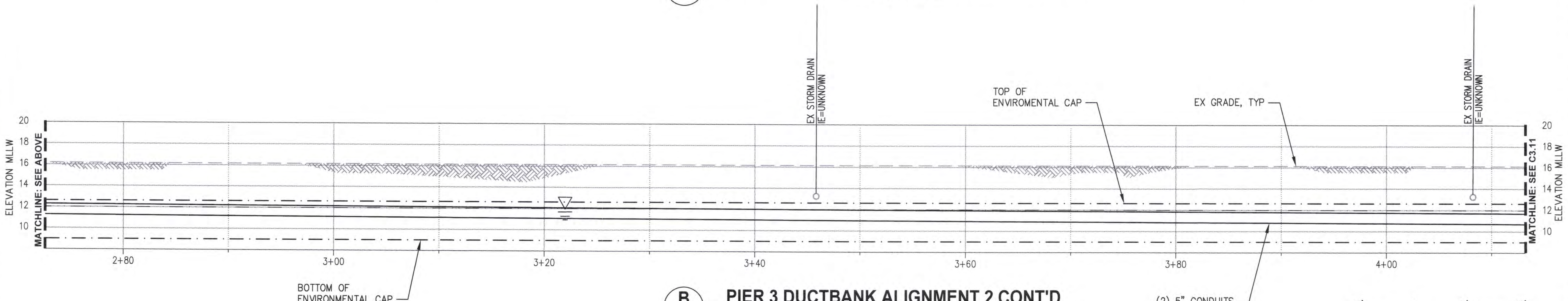
P.O. BOX 187 TACOMA, WA 98401 (253) 393-5441



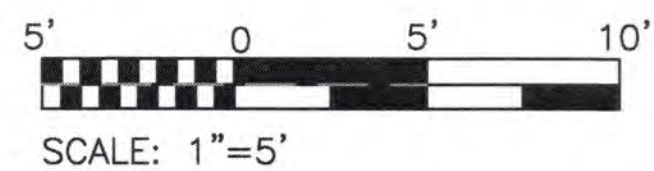
B PIER 3 DUCTBANK ALIGNMENT 2
C3.0 SCALE: 1" = 5'



B PIER 3 DUCTBANK ALIGNMENT 2 CONT'D
C3.0 SCALE: 1" = 5'



B PIER 3 DUCTBANK ALIGNMENT 2 CONT'D
C3.0 SCALE: 1" = 5'



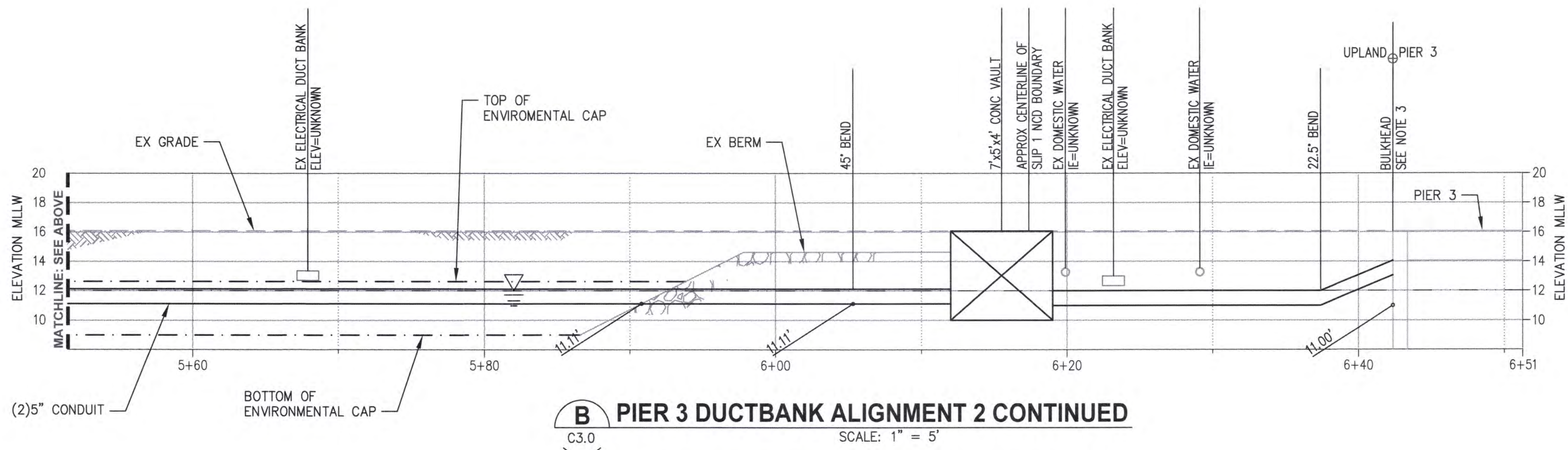
NOTES

1. PROFILES PROVIDED FOR APPROXIMATE ROUTING AND MINIMUM REQUIREMENTS. CONTRACTOR SHALL POT HOLE AND VERIFY CROSSINGS TO DETERMINE FINAL ROUTING.
2. NCD 1 ENVIRONMENTAL CAP BOTTOM ELEVATION IS APPROXIMATELY +9 MLLW.

LEGEND

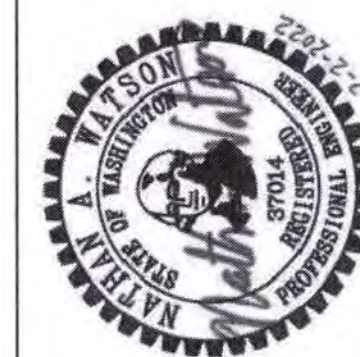
- EX GRADE
- GROUNDWATER (EL ±12.00')
- ENVIRONMENTAL CAP LIMITS
- EX UTILITY CROSSING
- EX DUCTBANK CROSSING
- DUCKBANK CROSSING

6658 C3.10 27 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER				Port of Tacoma 2407 North 31st Street, Suite 100 Tacoma, Washington 98409 (253) 256-0150 Fax (253) 256-0152 P.O. BOX 1807 TACOMA, WA 98401 (253) 853-8841	
	ELECTRICAL PROFILES		APPROVED: <i>[Signature]</i> SJS 02/02/2022		kpf	
	RANGE:	SECTION:	DIRECTOR ENG. DATE	PROJ. ENGR DATE	MARK:	REVISION:
	TOWNSHIP:	DAT-HRZ:	PRINTED BY: dyu Feb 02, 2022	PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98421	BY:	DATE:
CONTR/CONS: 071357	PHASE: BID SET	DRAWING SCALE: AS NOTED		THIS DRAWING IS THE PROPERTY OF THE PORT OF TACOMA AND SHALL NOT BE USED ON OTHER WORK, DISCLOSED, COPIED, IN WHOLE OR IN PART, WITHOUT WRITTEN PERMISSION		



1. PROFILES PROVIDED FOR APPROXIMATE ROUTING AND MINIMUM REQUIREMENTS, CONTRACTOR SHALL POTHOLE AND VERIFY CROSSINGS TO DETERMINE FINAL ROUTING.
2. NCD 1 ENVIRONMENTAL CAP BOTTOM ELEVATION IS APPROXIMATELY +9 MLLW.
3. SEE SHEETS C3.6 AND S5.2 FOR EXISTING CONDUIT SLEEVES.

	EX GRADE
	GROUNDWATER (EL. ±12.00')
	ENVIRONMENTAL CAP LIMITS
	EX UTILITY CROSSING
	EX DUCTBANK CROSSING
	DUCTBANK CROSSING



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	RAD	02/02/2022
DIRECTOR ENG. DATE	PROJ. ENGR	DATE
PRINTED BY:	dyu	Feb 02, 2022
PORT ADDRESS:	ONE SITCUM PLAZA	

**TERMINAL 3 / TERMINAL 4
SHORE POWER**

ELECTRICAL PROFILES

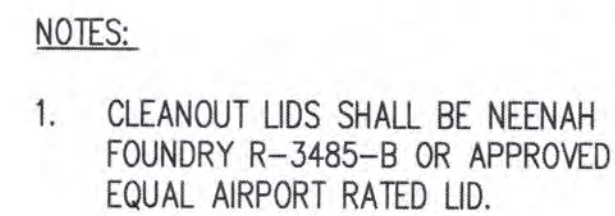
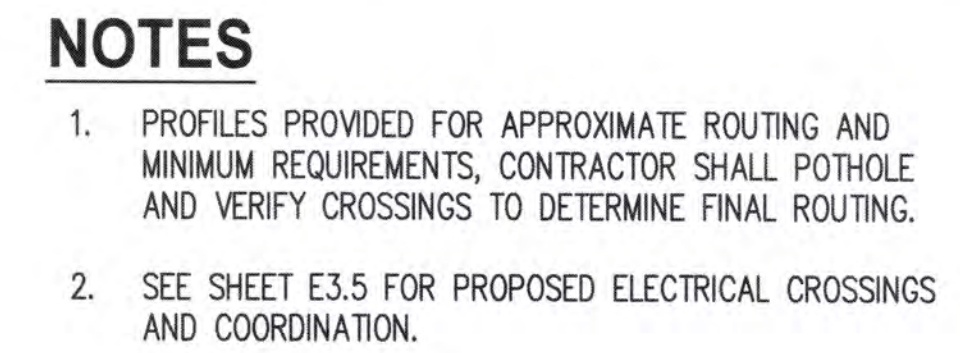
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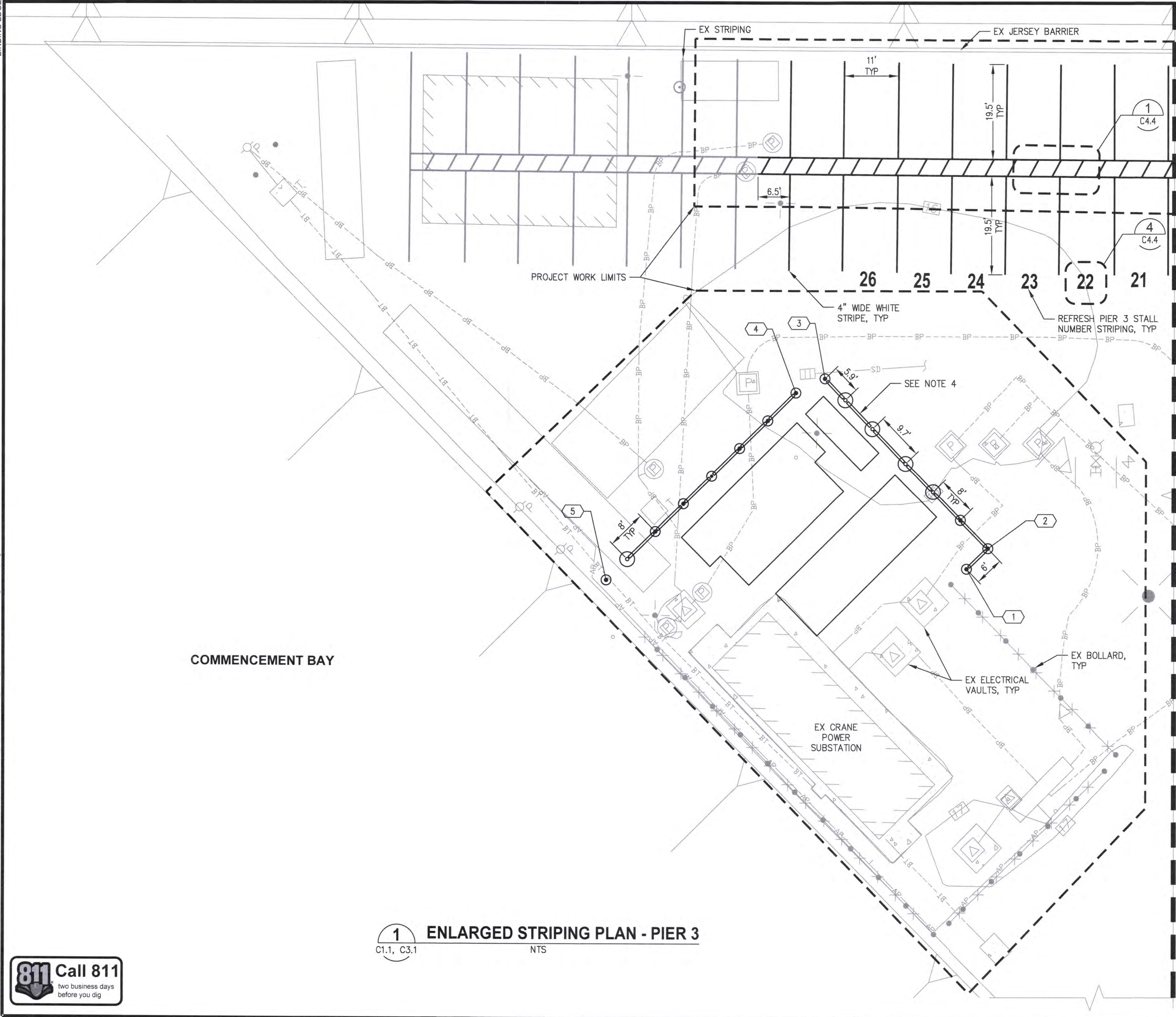
	DRAWING SCALE:
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6658
C3.11

28 OF 83
CONT/CONS: 071357
M. ID: 201100.01
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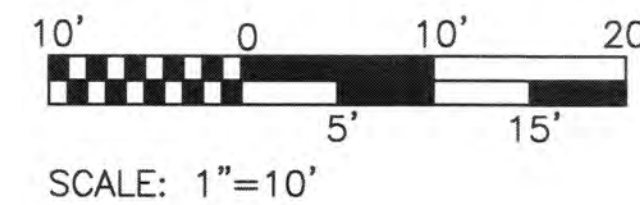
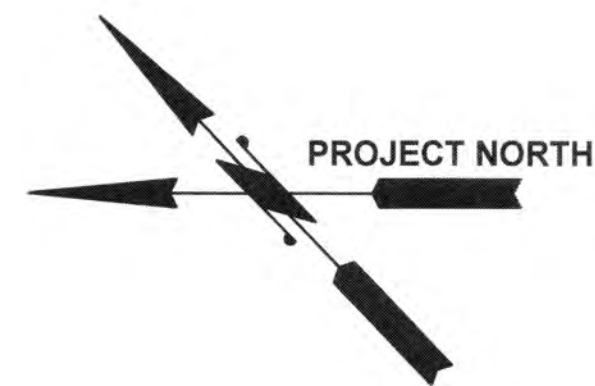


NOTES

1. CONTRACTOR SHALL COORDINATE WORK WITH PORT FOR ANY STRIPING OUTSIDE OF WORK LIMITS.
2. WHERE TRENCHING OR OTHER DEMOLITION ACTIVITIES IMPACT EXISTING STRIPING, THE ENTIRE STRIPE SHALL BE "REFRESHED".
3. ADDITIONAL STRIPING LOCATION ON PIERS NOT SHOWN. SEE STRUCTURAL DRAWINGS AND DETAIL 2 ON C4.4 FOR STRIPING ON PIER.
4. BOLLARD LAYOUT BASED ON ASSUMED EQUIPMENT SIZING. CONTRACTOR SHALL COORDINATE BOLLARD LAYOUT WITH ACTUAL EQUIPMENT SHOP DRAWINGS AND PROVIDE TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

BOLLARD HORIZONTAL CONTROL POINTS

POINT ID	NORTHING	EASTING
1	714623.38	1165020.61
2	714623.38	1165026.61
3	714671.05	1165026.37
4	714673.06	1165020.07
5	714672.45	1164966.09



1 ENLARGED STRIPING PLAN - PIER 3
C1.1, C3.1 NTS



6658
C4.1
30 OF 83
CONT/CONS: 071357
M. ID: 201100.01
PHASE: BID SET

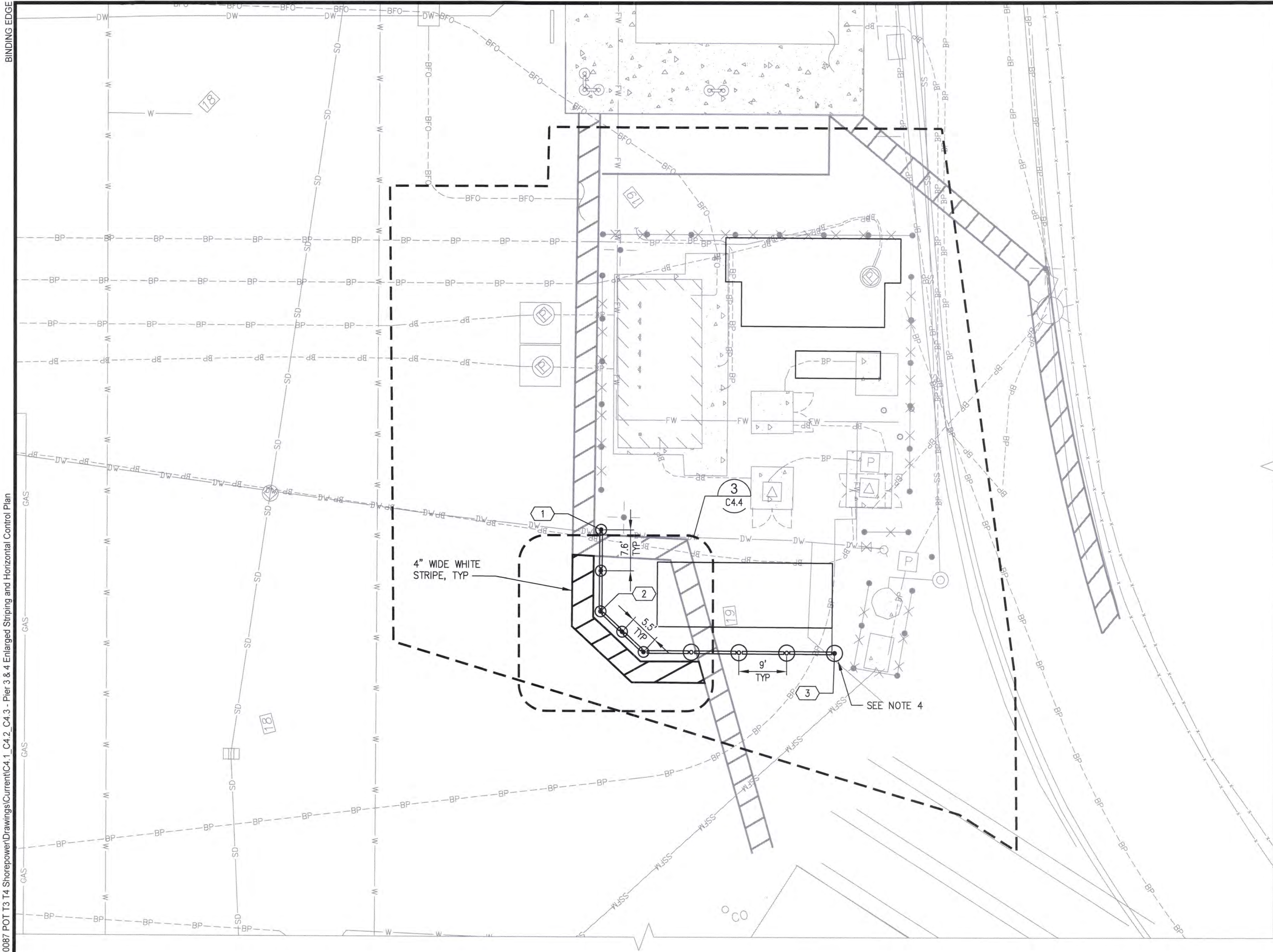
TERMINAL 3 / TERMINAL 4
SHORE POWER
PIER 3 ENLARGED STRIPING PLAN
RANGE: SECTION:
VERT: DRAWING SCALE: AS NOTED

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PRINTED BY: dvh Feb 02, 2022
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TACOMA, WA 98421

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P.O. BOX 187 TACOMA, WA 98401 (253) 396-5641
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DATE:
APPR: BY: MARK: REVISION:



3 ENLARGED STRIPING PLAN - PIER 4
C1.1, C3.3 NTS

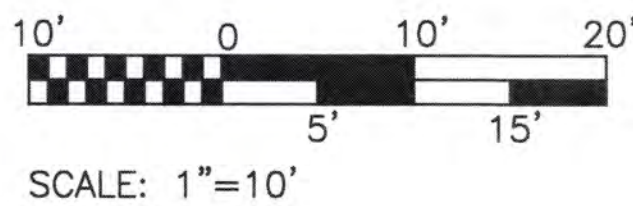
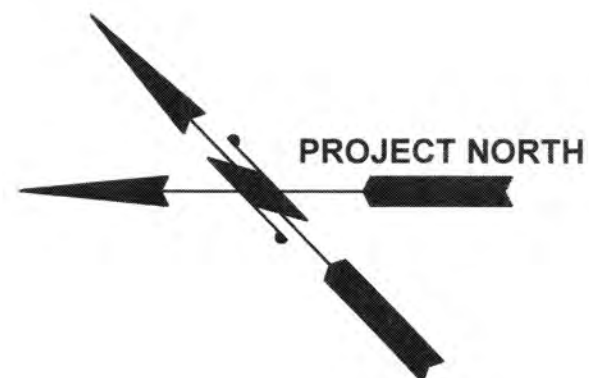


NOTES

1. CONTRACTOR SHALL COORDINATE WORK WITH PORT FOR ANY STRIPING OUTSIDE OF WORK LIMITS.
2. WHERE TRENCHING OR OTHER DEMOLITION ACTIVITIES IMPACT EXISTING STRIPING, THE ENTIRE STRIPE SHALL BE "REFRESHED".
3. ADDITIONAL STRIPING LOCATION ON PIERS NOT SHOWN. SEE STRUCTURAL DRAWINGS AND DETAIL 2 ON C4.4 FOR STRIPING ON PIER.
4. BOLLARD LAYOUT BASED ON ASSUMED EQUIPMENT SIZING. CONTRACTOR SHALL COORDINATE BOLLARD LAYOUT WITH ACTUAL EQUIPMENT SHOP DRAWINGS AND PROVIDE TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

BOLLARD HORIZONTAL CONTROL POINTS

POINT ID	NORTHING	EASTING
1	712008.86	1167762.77
2	711997.97	1167752.22
3	711961.89	1167778.74



6658
C4.3
32 OF 83

CONT/CONS: 071357
M. ID: 20100.01
PHASE: BID SET

TERMINAL 3 / TERMINAL 4
SHORE POWER

PIER 4 ENLARGED STRIPING PLAN

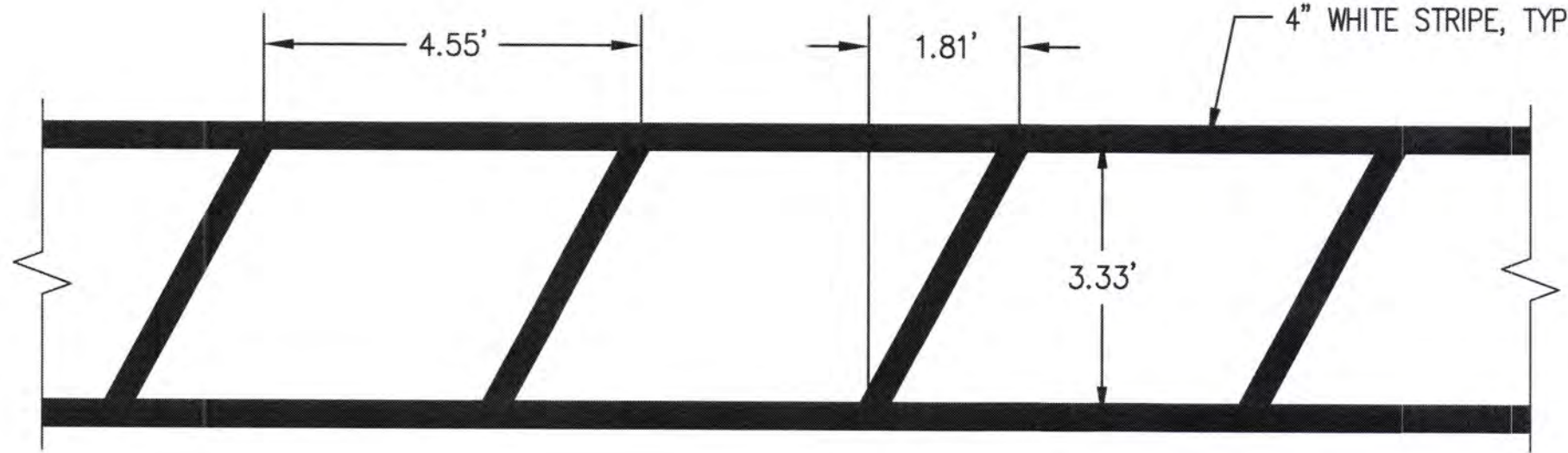
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VERT: SECTION: DRAWING SCALE: AS NOTED

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DIRECTOR ENG. DATE
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PORT ADDRESS: ONE SITCUM PLAZA
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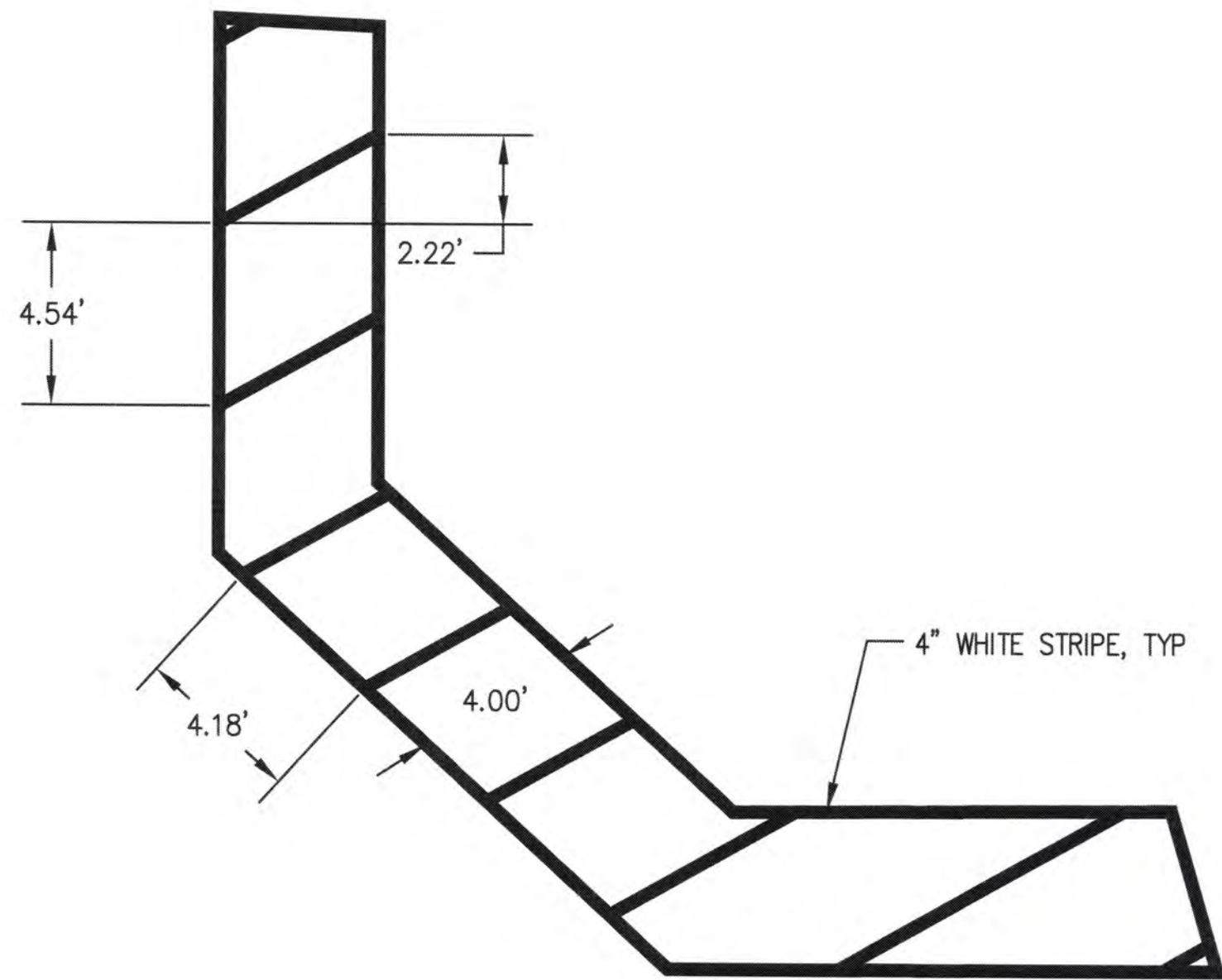
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Tacoma, Washington 98407
(253) 396-0330 FAX (253) 396-0132
P.O. BOX 1837 TACOMA, WA 98401 (253) 396-9841

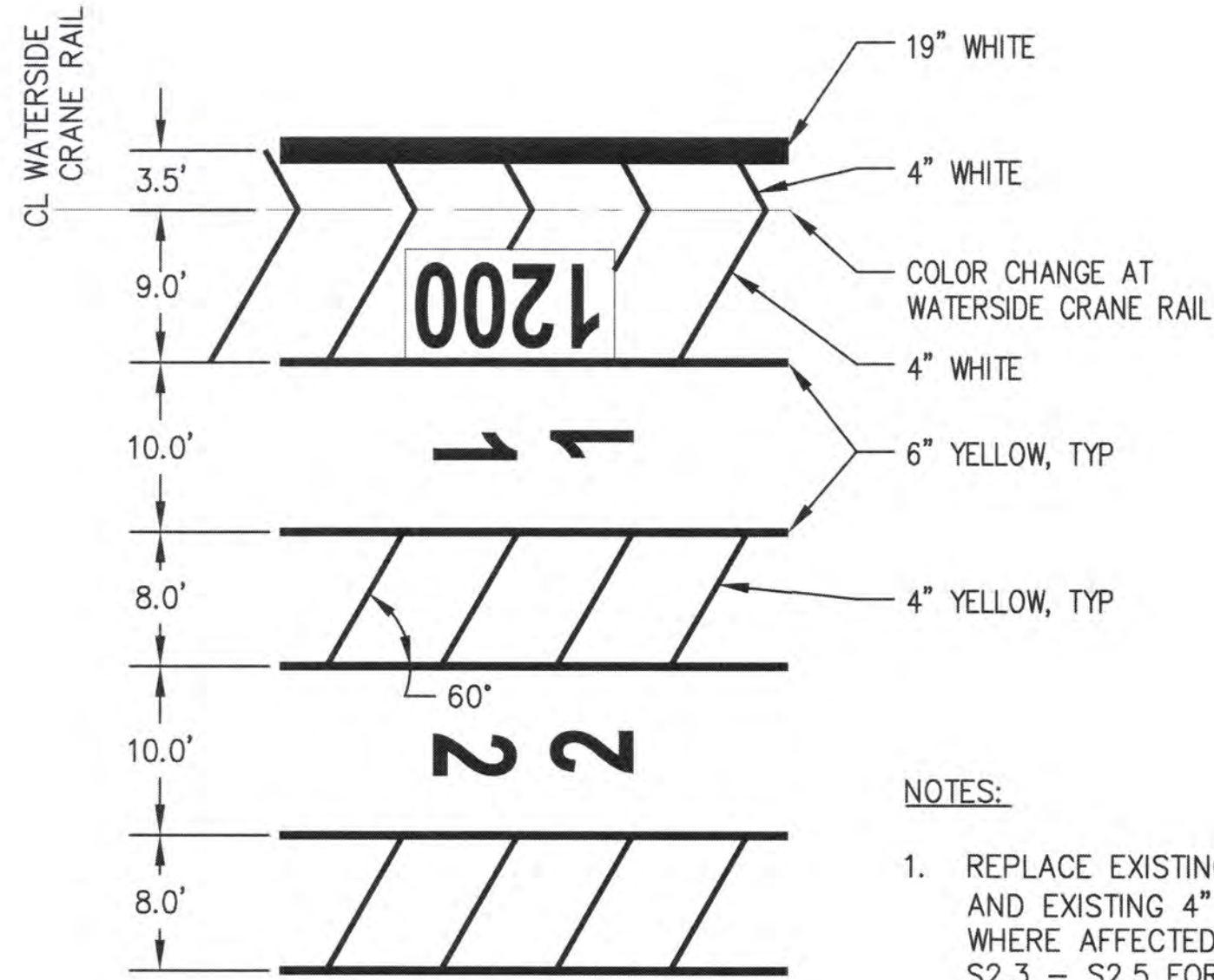
MARK: REVISION: BY: DATE: APPR:



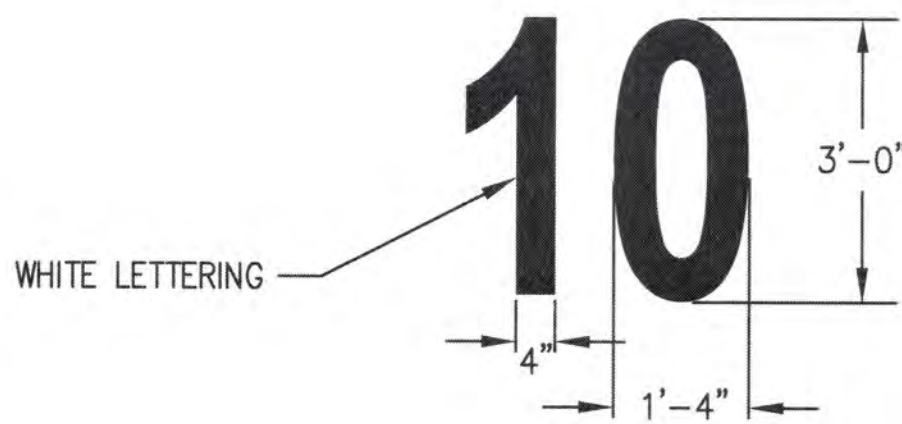
1 PIER 3 ACCESS AISLE STRIPING
C4.1 C4.2 NTS



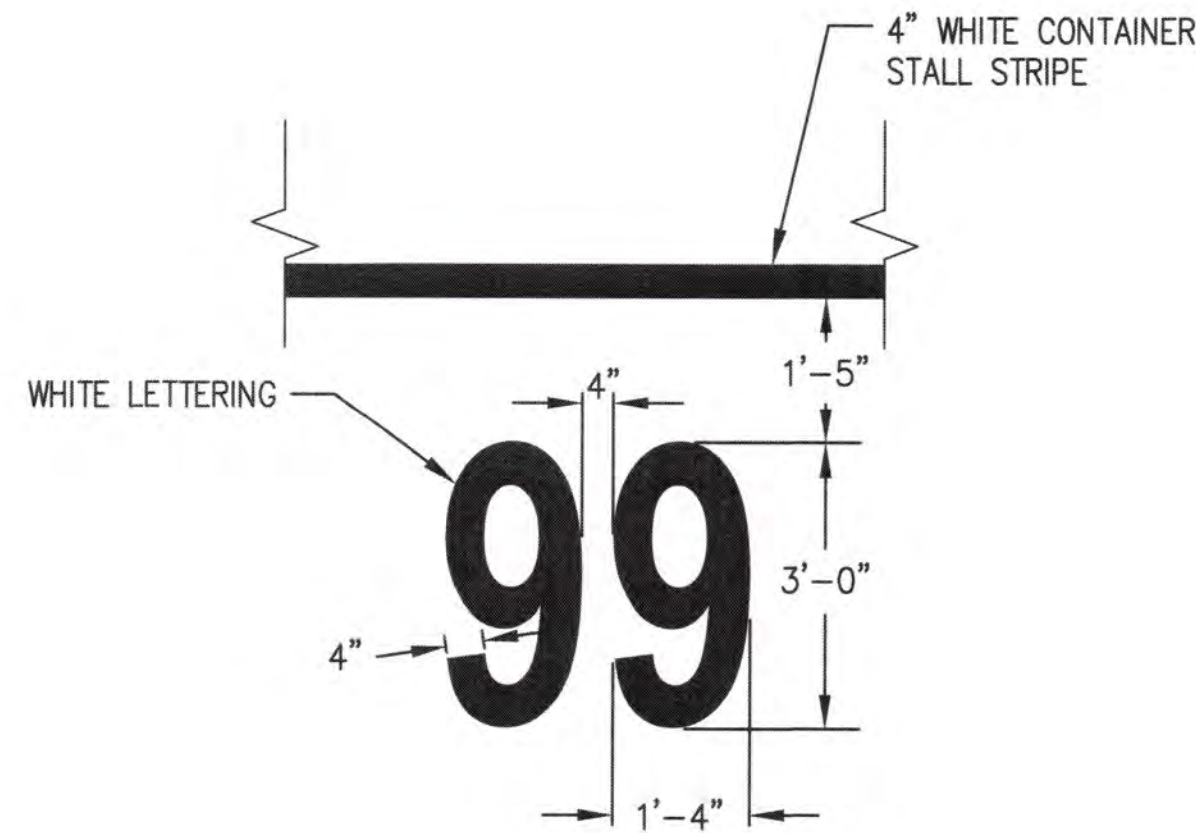
3 PIER 4 ACCESS AISLE STRIPING
C4.3 NTS



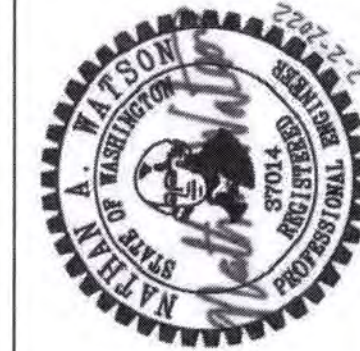
2 BULLRAIL STRIPING DETAIL
S2.3, S2.4, S2.5, S6.1 NTS



4 PIER 3 STALL NUMBER STRIPING
C4.1, C4.2 NTS



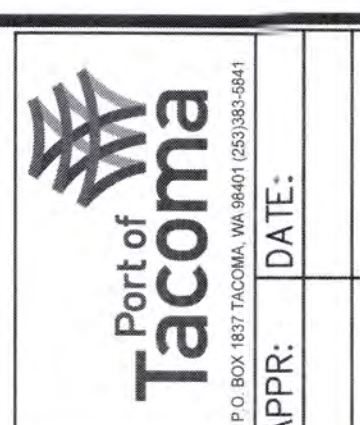
5 CONTAINER STALL NUMBER STRIPING
C3.0, C4.2 NTS



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TACOMA, WA 98421	

TERMINAL 3 / TERMINAL 4	SHORE POWER
STRIPING DETAILS	
RANGE:	SECTION:
VERT:	
DRAWING SCALE:	AS NOTED

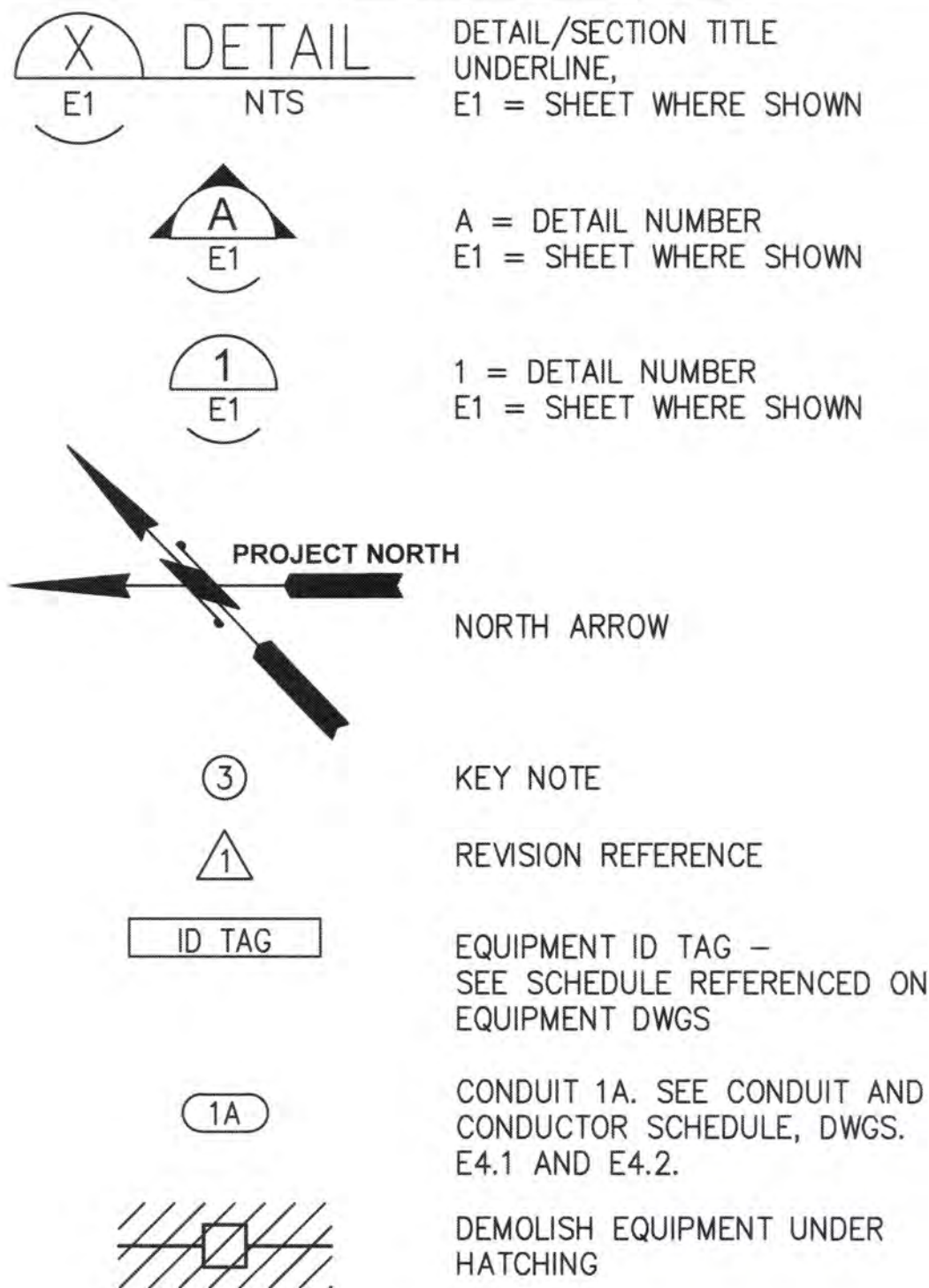
6658	C4.4
33 OF 83	
CONT/CONS: 071357	
M. ID: 20100.01	
PHASE: BID SET	



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DRAWING CONVENTIONS

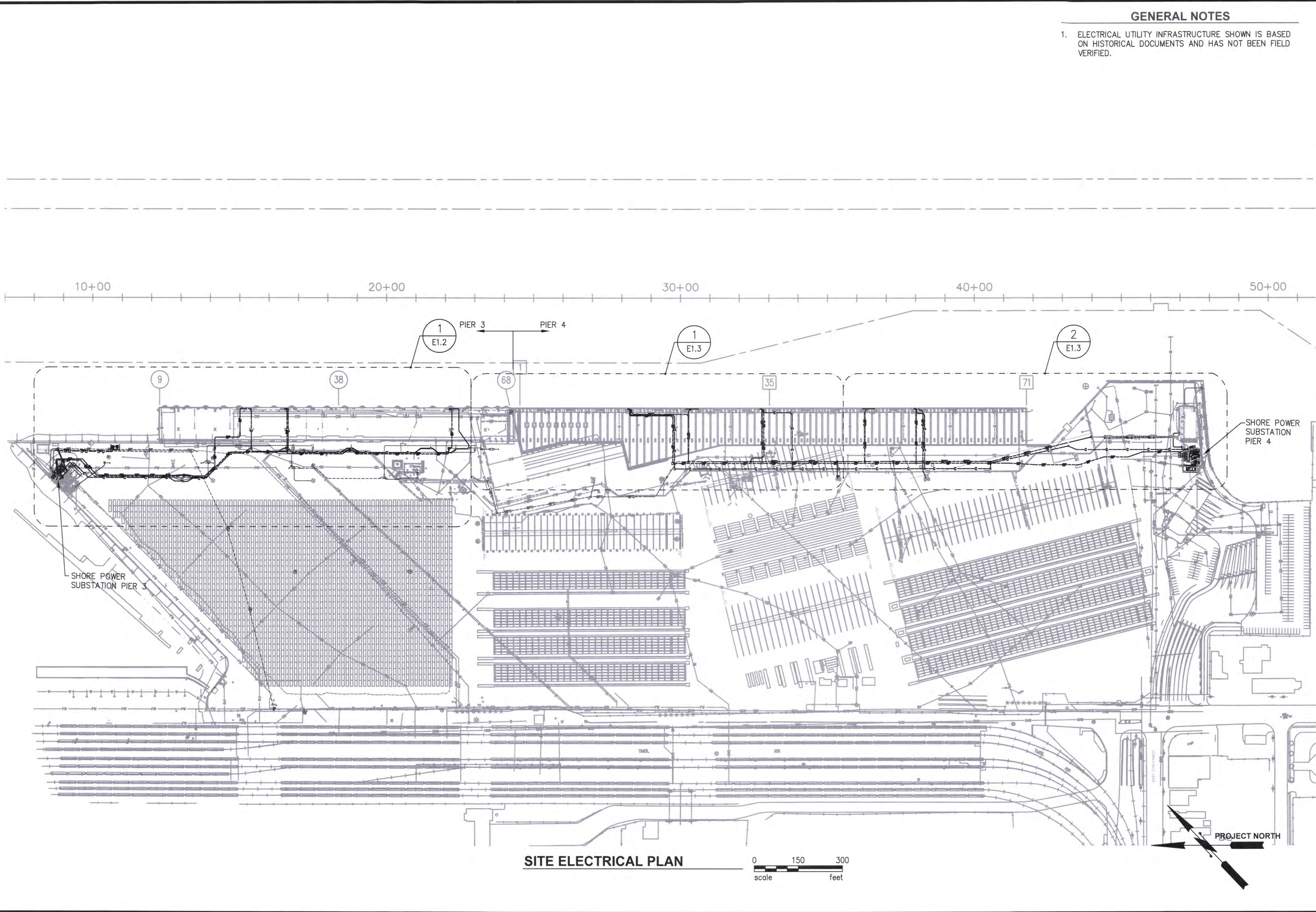


GENERAL NOTES

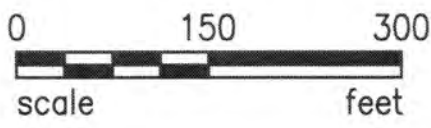
1. MEET ALL REQUIREMENTS OF THE NEC, UTILITY AND AHJ FOR INSTALLATION AND CONSTRUCTION.
2. ALL WIRING SHALL BE COPPER UNLESS NOTED OTHERWISE.
3. VERIFY LOCATIONS OF OTHER UTILITIES PRIOR TO COMMENCING WORK, PROVIDE REQUIRED CLEARANCES FROM OTHER UTILITIES, BUILDINGS, AND FREESTANDING STRUCTURES, DURING INSTALLATION OF CONDUITS, CABLES, ETC.
4. NOT ALL COMPONENTS OF THE ELECTRICAL SYSTEMS ARE SHOWN (FOR CLARITY). PROVIDE MATERIALS AND LABOR NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.
5. THE AIC OF THE EQUIPMENT SHOWN ARE TENTATIVE AND GIVEN FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL CALCULATE THE EQUIPMENT AIC BASED UPON FINAL CONDUIT ROUTING AND TRANSFORMERS AND FUSES SUBMITTED.
6. THE OPERATION OF THE FACILITY WILL TAKE PRECEDENCE OVER THE WORK OF THE CONTRACTOR. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE CONSTRUCTION WITH UTILITY'S AND OWNER'S PERSONNEL TO MINIMIZE DISRUPTION TO THE FACILITY.
7. OUTAGES ARE TO BE MINIMIZED. PROVIDE ADVANCED NOTIFICATION TO ENGINEER FOR REQUIRED POWER OUTAGES AND PROCEED WITH EACH OUTAGE ONLY AFTER APPROVAL FROM OWNER'S PERSONNEL IS GIVEN. SEE SPECIFICATIONS AND SHEET G2.2 FOR FURTHER REQUIREMENTS.
8. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL DIMENSIONS AND CONDITIONS, WHICH MAY AFFECT THE WORK REQUIRED FOR THIS PROJECT PRIOR TO THE BEGINNING WORK.
9. CONTRACTOR TO VERIFY THAT ALL WIRING IN VAULTS, PULLBOXES, ETC. WITHIN AREA OF DEMOLITION IS DE-ENERGIZED PRIOR TO PROCEEDING WITH ANY DEMOLITION WORK.
10. REFER TO CIVIL/STRUCTURAL DEMOLITION DRAWINGS, FOR DEMOLITION OF EXISTING EQUIPMENT AND UTILITIES.
11. SEE GENERAL NOTES ON SHEET G1.2.
12. ALL PRECAST VAULTS SUBJECT TO TERMINAL LOADS SHALL BE CONTRACTOR DESIGNED TO MEET THE UNDERGROUND STRUCTURE LOADING CRITERIA ON SHEET G1.2. SEE SPECIFICATIONS FOR FURTHER DETAILS.
13. LIGHT OR SCREENED LINES INDICATE EXISTING ELECTRICAL EQUIPMENT UNLESS NOTED OTHERWISE. HEAVY LINES INDICATE NEW OR REUSED EQUIPMENT AND MATERIALS UNLESS NOTED OTHERWISE.
14. SEE SPECIFICATIONS FOR REQUIREMENTS FOR ACCEPTANCE TESTING (USING LOAD BANKS) AND COMMISSIONING WITH VESSELS.
15. SEE SHEET C3.4 FOR VAULT INSTALLATION DETAILS.

PORT OF TACOMA FILE: R\5650-039.00\Drawings\201119.01-E11

BINDING EDGE



SITE ELECTRICAL PLAN

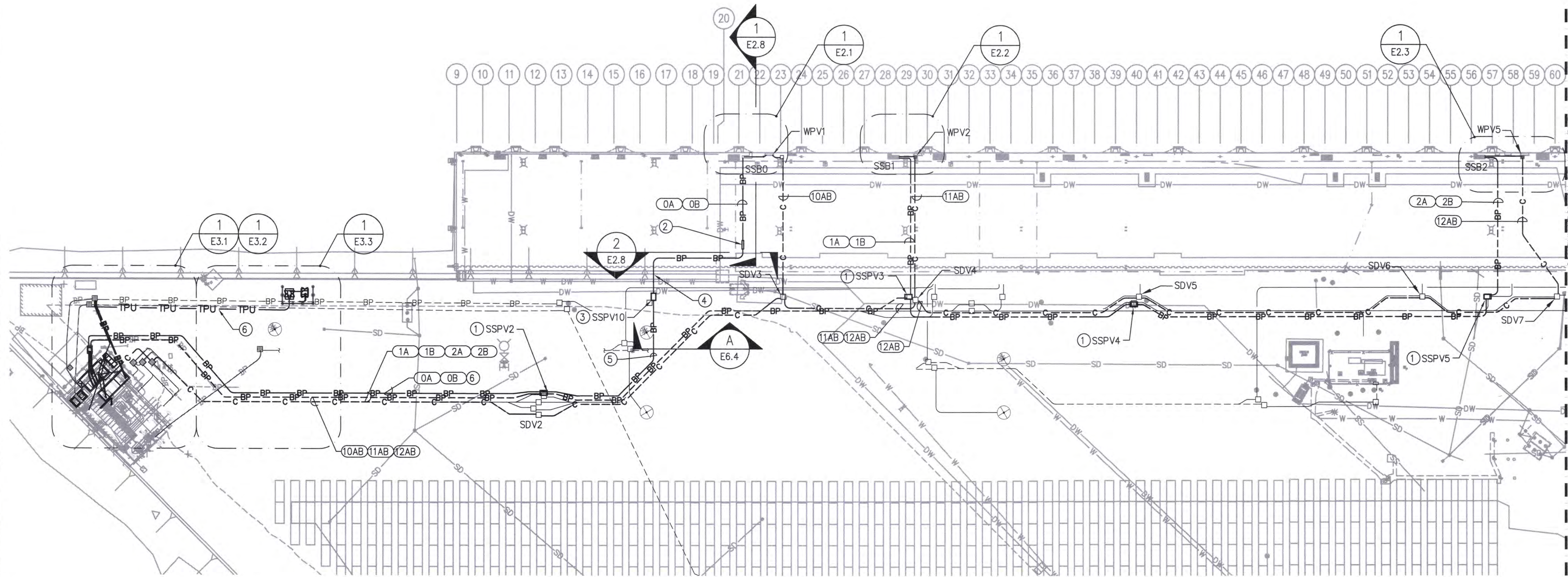


GENERAL NOTES

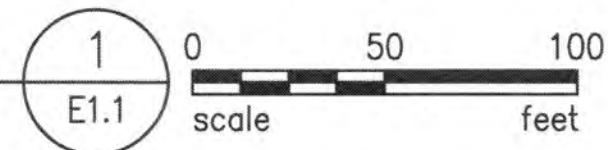
1. ELECTRICAL UTILITY INFRASTRUCTURE SHOWN IS BASED ON HISTORICAL DOCUMENTS AND HAS NOT BEEN FIELD VERIFIED.

6658 E1.1 35 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER T3/T4 OVERALL ELECTRICAL SITE PLAN		APPROVED: XXX DIRECTOR DATE: 2/2/22	CHECKED BY: [Signature] DATE: 2/2/22	DATE: 2/2/22
	CONTRACT/CONS: 071357 M. ID: 201100.01 PHASE: BID SET	TOWNSHIP: [blank] DAT-HRZ: [blank] PARCEL: [blank]	RANGE: [blank] VERT: [blank]	SECTION: [blank]	PRINTED BY: curtis Feb 02, 2022 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837
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SITE ELECTRICAL PLAN - PIER 3



KEY NOTES

- ① DEMOLISH 4'x4'x4' CONCRETE VAULT, PROVIDE 7'x5'x4' CONCRETE VAULT. SPLICE EXISTING 5" CONDUITS AND EXTEND INTO NEW VAULT. THESE CONDUITS ARE EMP
- ② PROVIDE PULLBOX PER SHEET E2.8.
- ③ PROVIDE 7'x5'x4' CONCRETE VAULT.
- ④ SEE SHEET C3.6 FOR EXISTING SLEEVE THROUGH BULKHEAD DETAIL.
- ⑤ SEE SHEET C3.0 FOR HORIZONTAL CONTROL AS DUCT BANK NO LONGER ADJACENT TO EXISTING.
- ⑥ MAINTAIN 3' MINIMUM CLEARANCE BETWEEN EXISTING AND NEW PARALLEL DUCT BANKS.

GENERAL NOTES

1. ELECTRICAL UTILITY INFRASTRUCTURE SHOWN IS BASED ON HISTORICAL DOCUMENTS AND HAS NOT BEEN FIELD VERIFIED.
2. SEE SHEETS C3.9-C3.11 FOR DUCT BANK PROFILES.



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DIRECTOR	ENG. DATE
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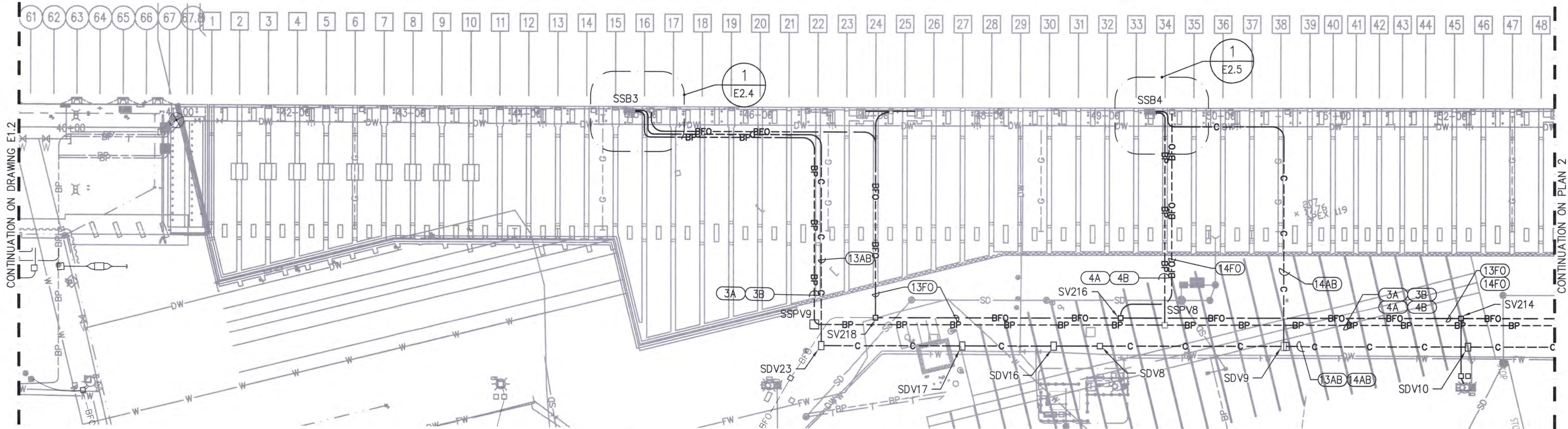
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RANGE:	SECTION
VERT:	
DRAWING SCALE	

TERM:	
SITE:	
TOWNSHIP:	
DAT-HRZ:	
PARCEL:	

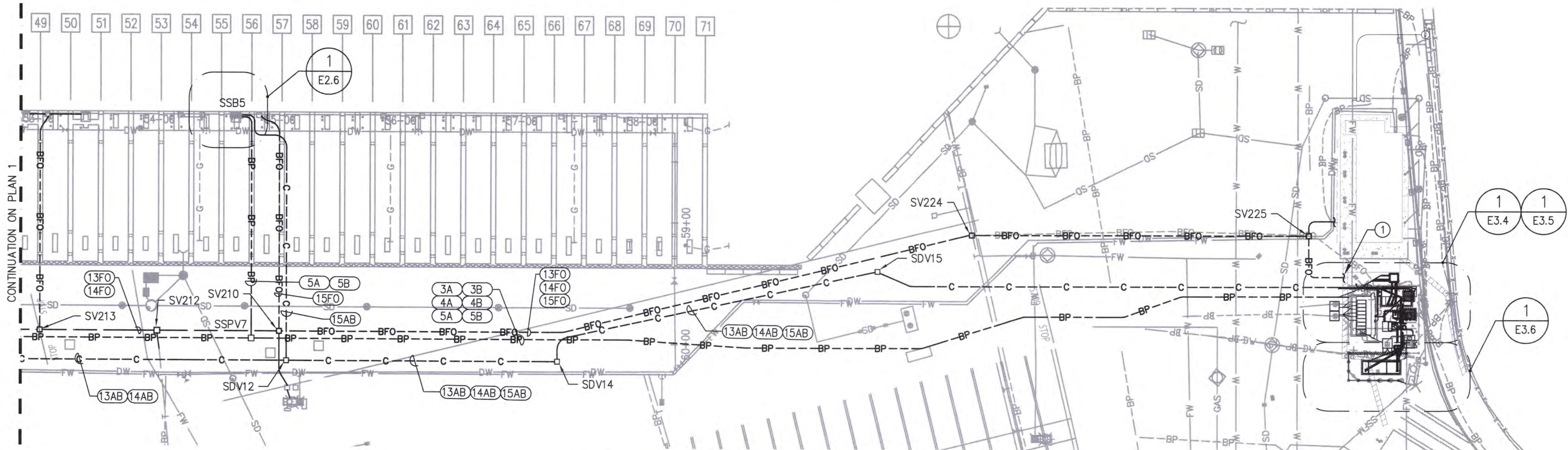
6658	E1.2	36 OF 83	CONT/CONS: 071357	T
			M. ID: 201100.01	[
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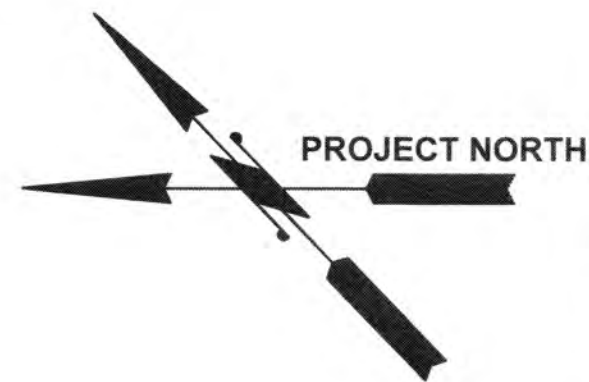
SITE ELECTRICAL PLAN 1 - PIER 4

1
E1.1
0 50 100
scale feet



SITE ELECTRICAL PLAN 2 - PIER 4

2
E1.1
0 50 100
scale feet



KEY NOTES

- 1 SEE SHEET E3.5 FOR CONTINUATION.

GENERAL NOTES

1. ELECTRICAL UTILITY INFRASTRUCTURE SHOWN IS BASED ON HISTORICAL DOCUMENTS AND HAS NOT BEEN FIELD VERIFIED.

6658 E1.3 37 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER SITE ELECTRICAL PLAN - PIER 4				APPROVED: XXX XXX DIRECTOR ENG. DATE PRINTED BY: curtis Feb 02, 2022 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 99401-1837		ELCON ASSOCIATES, INC. ENGINEERS - CONSULTANTS 16300 CHRISTENSEN ROAD, SUITE 330 SEATTLE, WASHINGTON 98188 TEL (206) 243-5022 www.elcon.com		Port of Tacoma P.O. BOX 1897 TACOMA, WA 98401 (253) 895-5841	
	CONTRACT/CONS: 071357	TOWNSHIP: 071357	RANGE: 071357	SECTION: 071357	MARK:	REVISION:	BY:	DATE:		
M. ID: 201100.01		DATE-HRZ: 201100.01		DRAWING SCALE: AS NOTED		PARCEL:				
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KEY NOTES

- 1

SEE SHEET S6.1 FOR WORK REQUIRED TO INSTALL NEW CONDUIT INTO NEW VAULT, INCLUDING CORE DRILL THROUGH EXSITING CONCRETE STRUCTURE.
- 2

NOT USED.
- 3

GROUND SHORE POWER BOX TO VAULT REBAR.
- 4

NEW SHORE POWER VAULT. SEE STRUCTURAL SHEET S6.1.
- 5

PROVIDE SHORE POWER RECEPTACLE BOX WITH (2) SHORE POWER RECEPTACLES (HVSC B0-A,B).
- 6

SHORE POWER CABLE AND PLUG BY OTHERS.
- 7

PROVIDE 5" SHORE POWER CONDUIT AND WIRE PER CONDUIT AND CONDUCTOR SCHEDULE. END OF CONDUIT SHALL BE THREADED FOR CONNECTION INTO RECEPTACLE BOX.
- 8

PROVIDE 2" CONTROLS/FIBER OPTIC CONDUIT AND WIRE PER CONDUIT AND CONDUCTOR SCHEDULE. END OF CONDUIT SHALL BE THREADED FOR CONNECTION INTO RECEPTACLE BOX.
- 9

SHORE POWER RECEPTACLE KIRK KEY, SEE TABLE.
- 10

NEW SHORE POWER VAULT LID. SEE STRUCTURAL
- 11

SEE DETAIL 1, SHEET E6.1 FOR LID LIMIT SWITCH CIRCUIT INTER-LOCK.
- 12

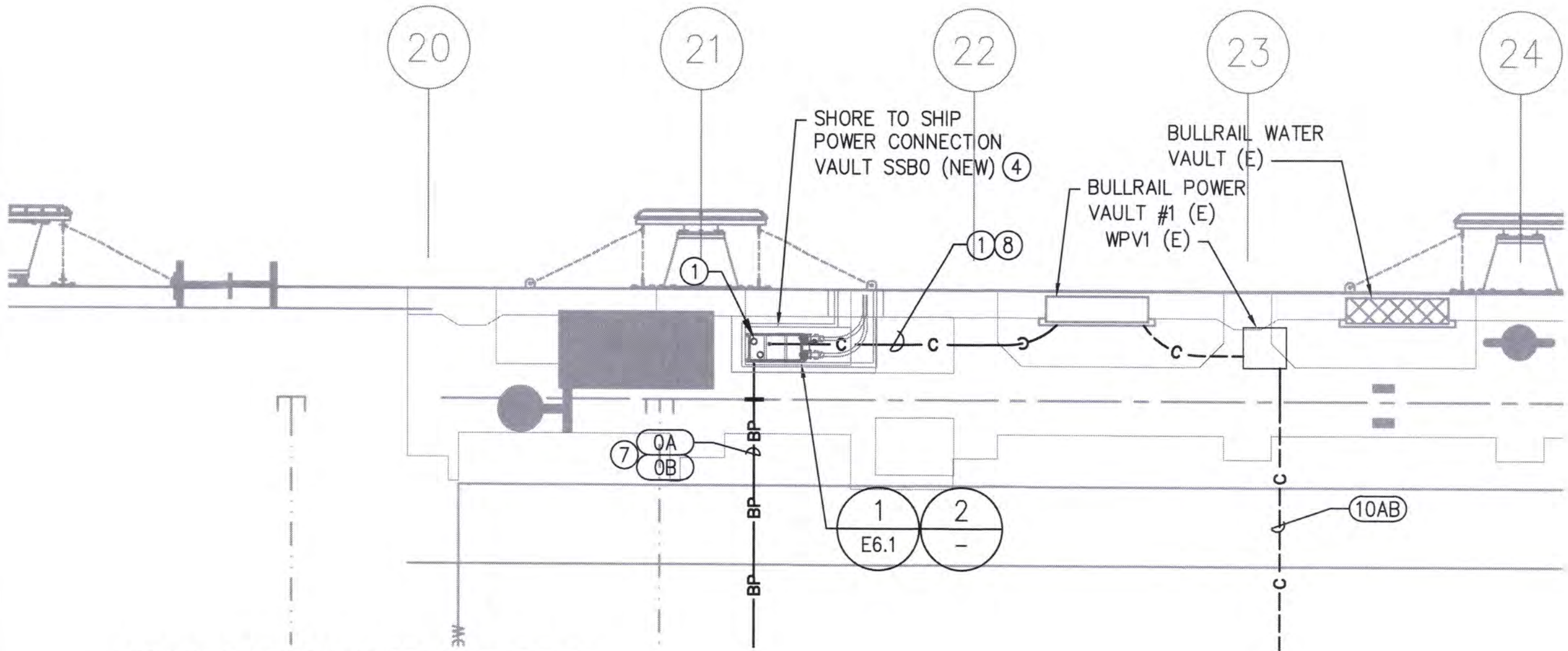
PROVIDE SEALING LOCK-NUTS INSIDE AND OUTSIDE TO PROVIDE WATERTIGHT CONDUIT ENTRY INTO SHORE POWER OUTLET ENCLOSURE.
- 13

PROVIDE WATERPROOF INTERIOR CONDUIT SEAL TO PREVENT ENTRY OF WATER THRU THE CONDUIT SYSTEM. PROVIDE ROXTEC CONDUIT SEAL, EMERSON(O-Z/GEDNEY) 'CSB', OR ENGINEER APPROVED EQUAL, SIZED FOR CONDUIT AND CABLES.
- 14

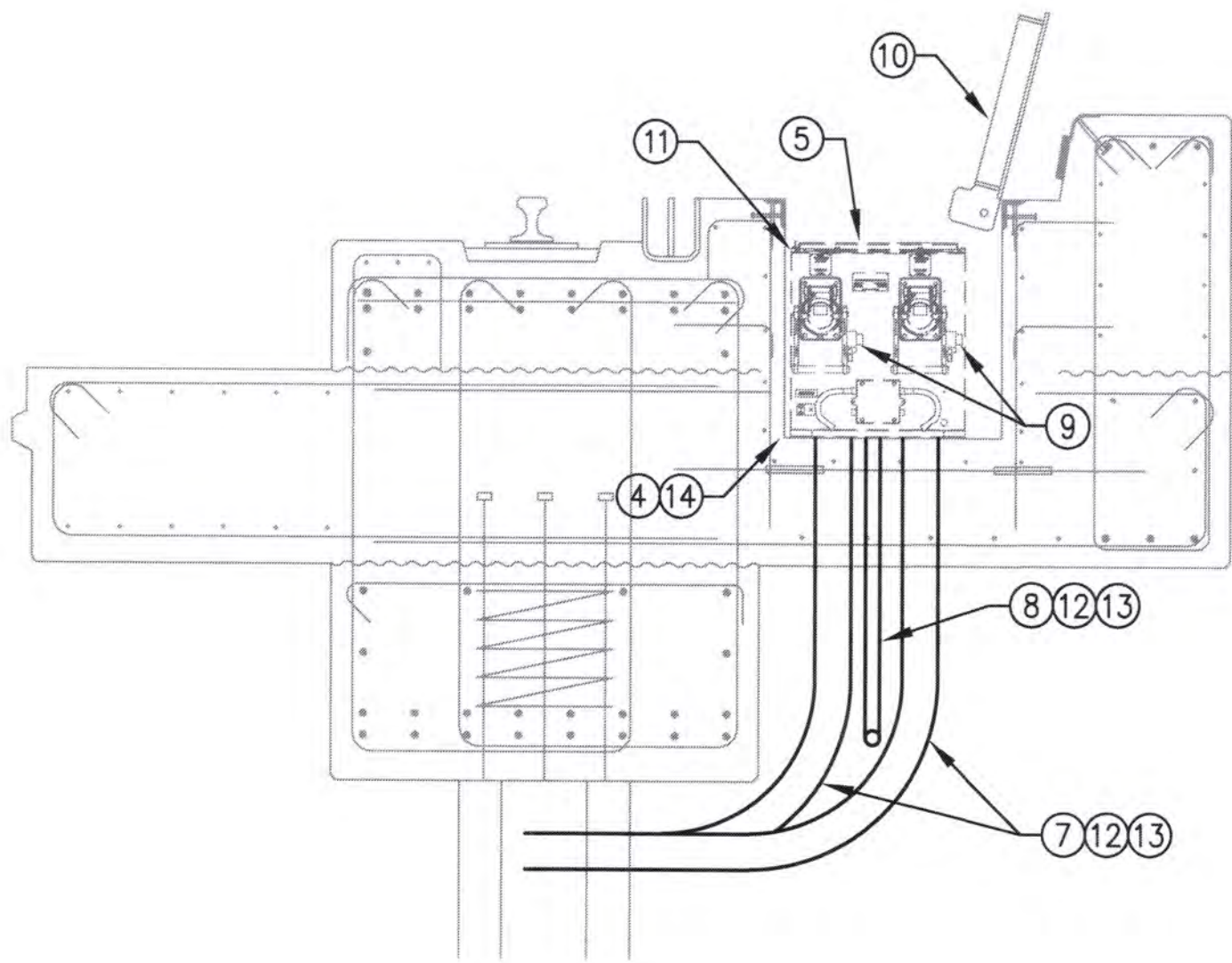
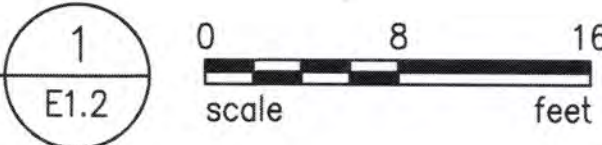
PROVIDE TWO-PART EPOXY GROUT AS A WATERPROOF SEALANT (VOID SEALANT) UNDER RECEPTACLE ENCLOSURE. PROVIDE STAINLESS STEEL EXPANSION ANCHORS TO SECURE ENCLOSURE TO VAULT FLOOR, SLOPE ENCLOSURE TO ENCLOSURE VENT/DRAIN.

GENERAL NOTES

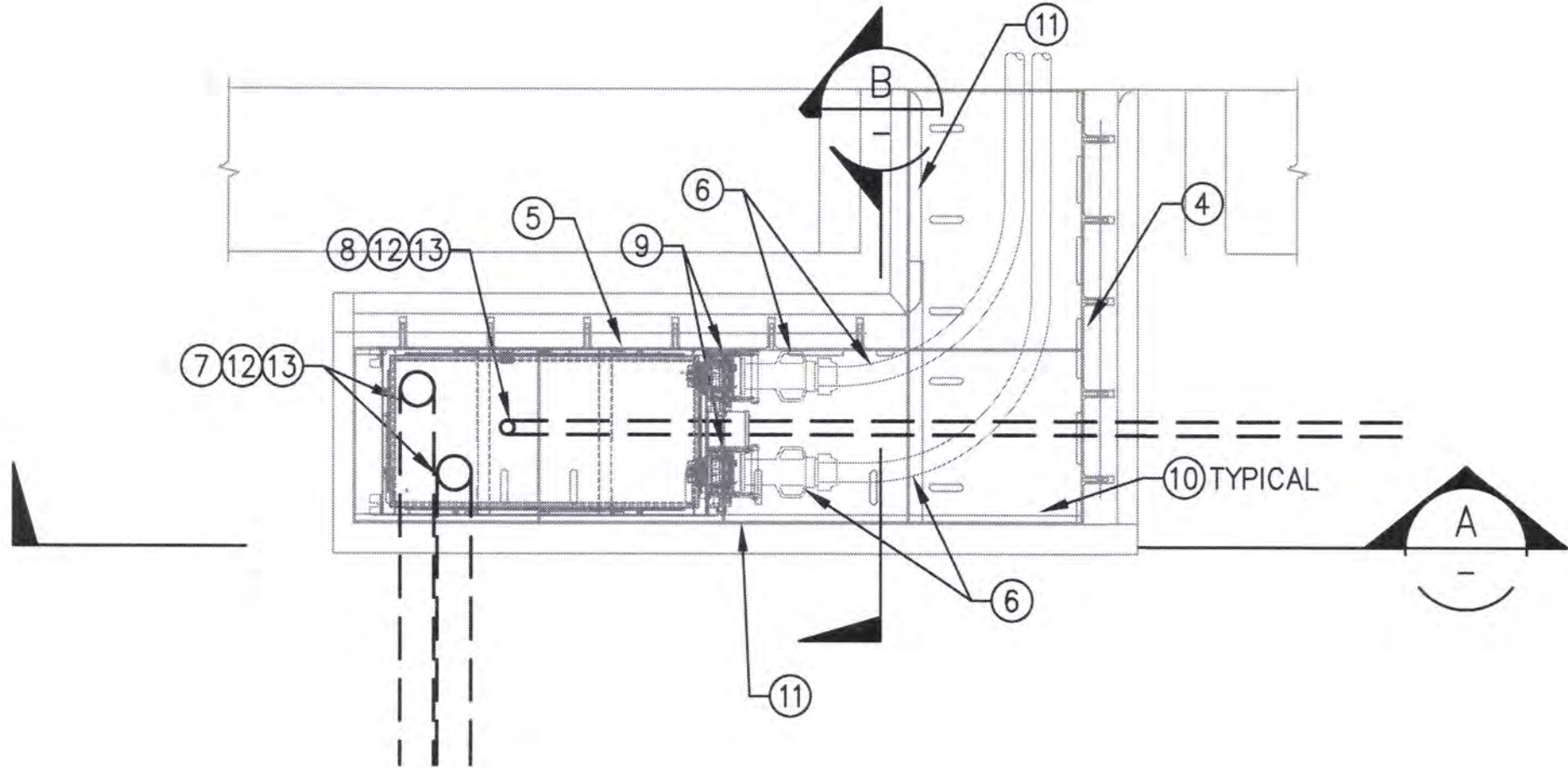
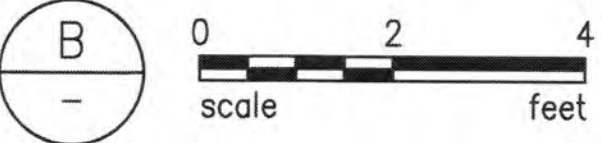
1. SCOPE OF WORK: PROVIDE RECEPTACLE BOX AND THREADED CONDUITS AS SHOWN, SEE KEYED NOTES FOR FURTHER DETAILS. RECEPTACLE BOX SIZING AND PLACEMENT SHALL NOT INTERFERE WITH VAULT LID.
2. ELECTRICAL UTILITY INFRASTRUCTURE SHOWN IS BASED ON HISTORICAL DOCUMENTS AND HAS NOT BEEN FIELD VERIFIED.



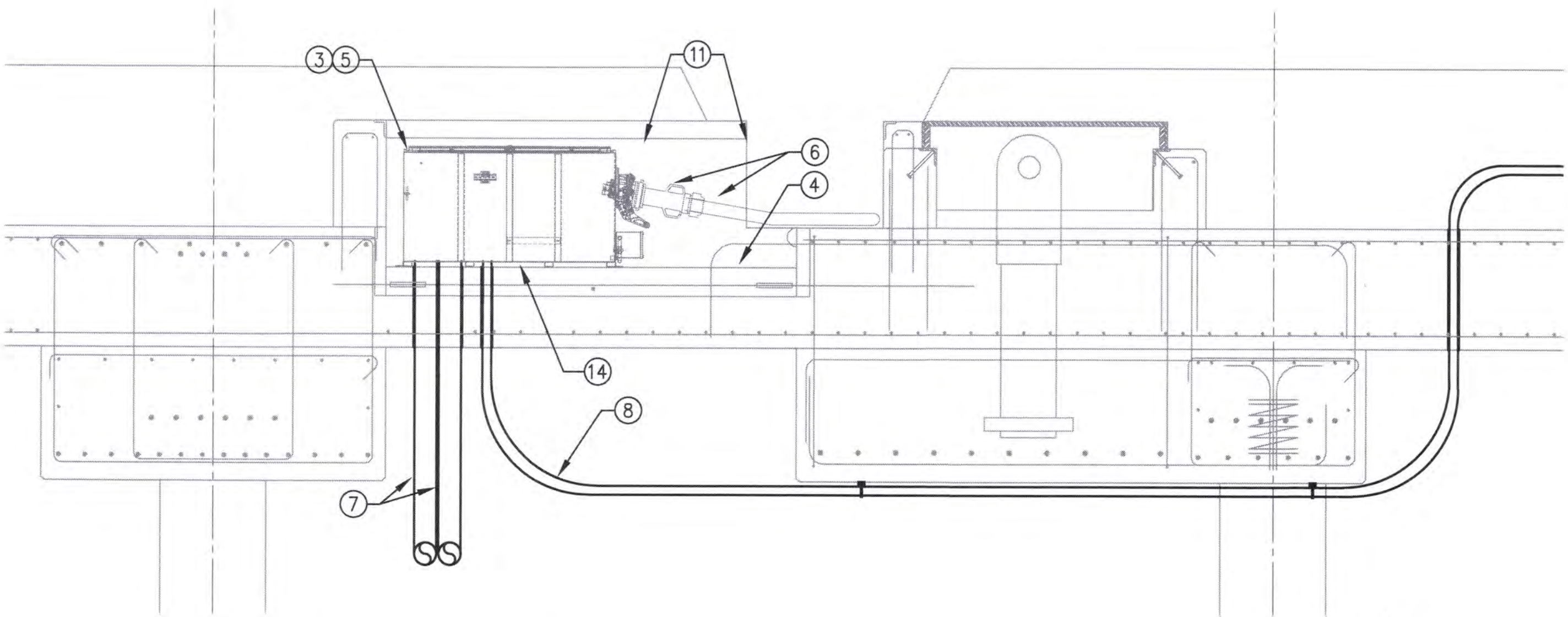
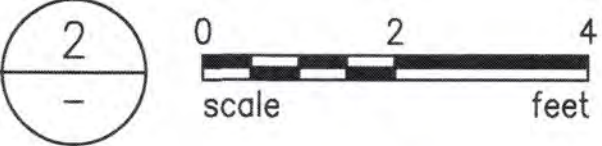
SHORE POWER VAULT SSB0
ENLARGED PLAN



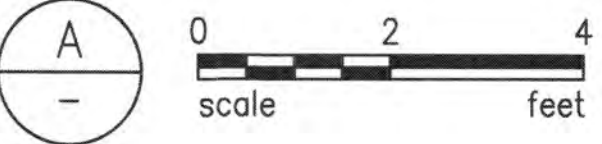
SHORE POWER OUTLET SSB0
ASSEMBLY SECTION



SHORE POWER OUTLET SSB0
ASSEMBLY PLAN

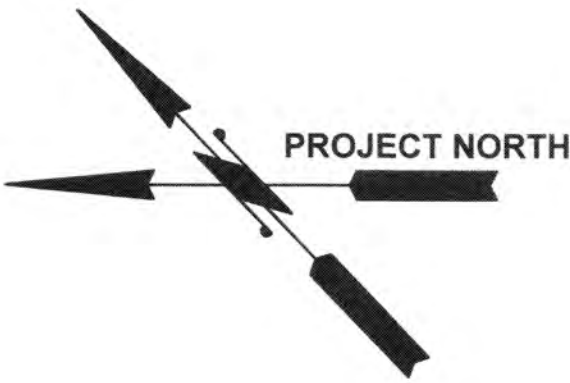


SHORE POWER OUTLET SSB0
ASSEMBLY SECTION



RECEPTACLE KEY-INTER-LOCK	
VAULT ID	LOCATION
SSB0	RIGHT
SSB1	RIGHT
SSB2	LEFT
SSB3	LEFT
SSB4	LEFT
SSB5	LEFT

KEY ACCESS IS THE SAME FOR RED AND BLUE RECEPTACLES. ACCESS IS DETERMINED WHILE FACING RECEPTACLE



6658

E2.1

38 OF 83

CONTRACT/CONS: 071357

M. ID: 201100.01

PHASE: BID SET

TERMINAL 3 / TERMINAL 4

SHORE POWER

ENLARGED SHORE POWER VAULT SSB0

APPROVED: XXX

DIRECTOR ENG. DATE: 2/12/22

PRINTED BY: curtis Feb 02, 2022

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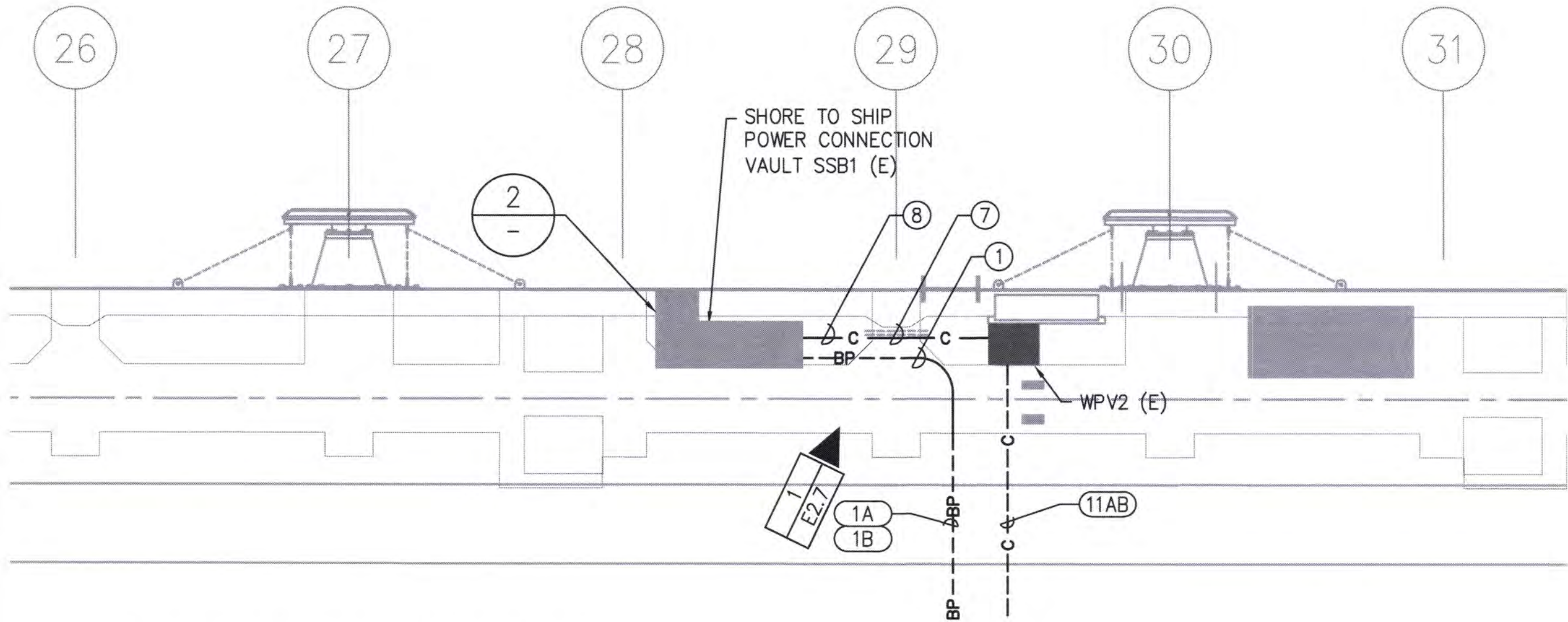
KEY NOTES

- 1 ADJUST RECEPTACLE BOX'S HEIGHT AND/OR DEPTH TO MATCH EXISTING 5" SHORE POWER CONDUIT, PROVIDE THREADED CONDUIT END FOR CONNECTION INTO RECEPTACLE BOX. IF RECEPTACLE BOX CANNOT BE ADJUSTED TO MEET EXISTING CONDUIT, DEMOLISH SUFFICIENT PORTION OF CONDUIT TO ALLOW FOR ALIGNMENT OF CONDUIT TO MATCH RECEPTACLE BOX CONDUIT ENTRY POINT.
- 2 RELOCATE EXISTING GROUND BAR, EXTEND GROUND WIRE AS REQUIRED.
- 3 EXISTING 3/4" CONDUIT WITH GROUND WIRE TO REMAIN. RELOCATE GROUND WIRE AND/OR GROUND BUS WITHIN VAULT SHOULD SUBMITTED SIZE OF RECEPTACLE BOX INTERFERE WITH GROUND BUS ACCESS.
- 4 EXISTING SHORE POWER VAULT.
- 5 PROVIDE SHORE POWER RECEPTACLE BOX WITH (2) SHORE POWER RECEPTACLES (HVSC B1-A,B).
- 6 SHORE POWER CABLE AND PLUG BY OTHERS.
- 7 SEE SHEET S2.3 FOR WORK REQUIRED TO INSTALL NEW CONDUIT ALONG BULLRAIL BETWEEN EXISTING VAULTS, INCLUDING CORE DRILL THROUGH CONCRETE CAP STRUCTURE AT BENT 29.
- 8 PROVIDE 2" CONTROLS/FIBER OPTIC CONDUIT AND WIRE PER CONDUIT AND CONDUCTOR SCHEDULE. END OF CONDUIT SHALL BE THREADED FOR CONNECTION INTO RECEPTACLE BOX.

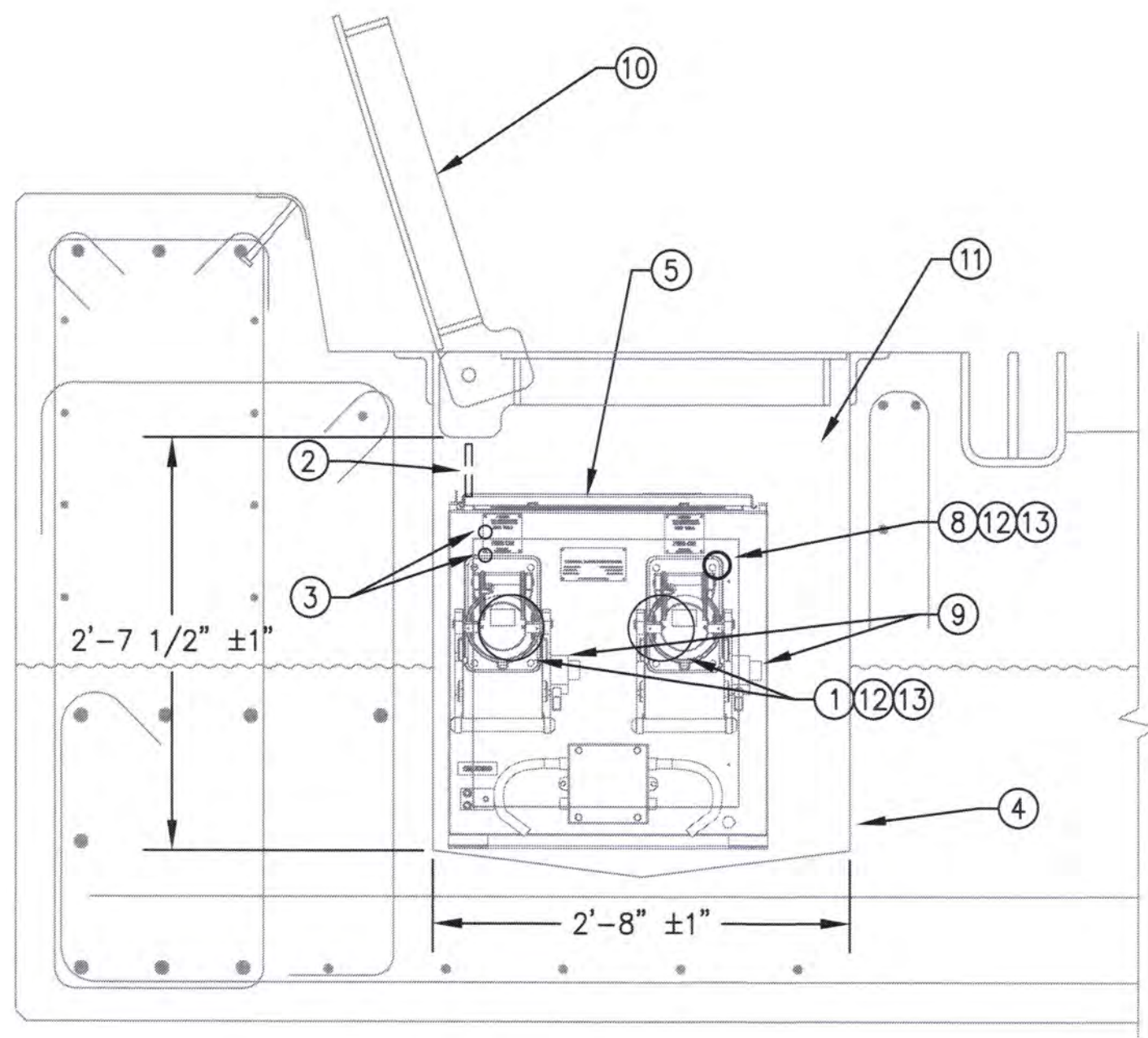
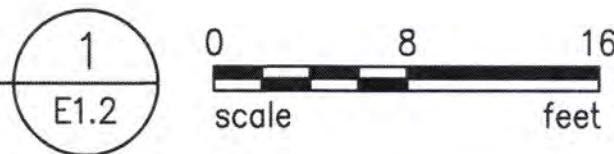
- 9 SHORE POWER RECEPTACLE KIRK KEY, SEE TABLE.
- 10 EXISTING SHORE POWER VAULT LID.
- 11 SEE DETAIL 1, SHEET E6.1 FOR LID LIMIT SWITCH CIRCUIT INTER-LOCK.
- 12 PROVIDE SEALING LOCK-NUTS INSIDE AND OUTSIDE TO PROVIDE WATERTIGHT CONDUIT ENTRY INTO SHORE POWER OUTLET ENCLOSURE.
- 13 PROVIDE WATERPROOF INTERIOR CONDUIT SEAL TO PREVENT ENTRY OF WATER THRU THE CONDUIT SYSTEM. PROVIDE ROXTEC CONDUIT SEAL, EMERSON(O-Z/GEDNEY) 'CSB', OR ENGINEER APPROVED EQUAL, SIZED FOR CONDUIT AND CABLES.
- 14 PROVIDE STAINLESS STEEL EXPANSION ANCHORS TO SECURE ENCLOSURE TO VAULT FLOOR, SLOPE ENCLOSURE TO ENCLOSURE VENT/DRAIN.

GENERAL NOTES

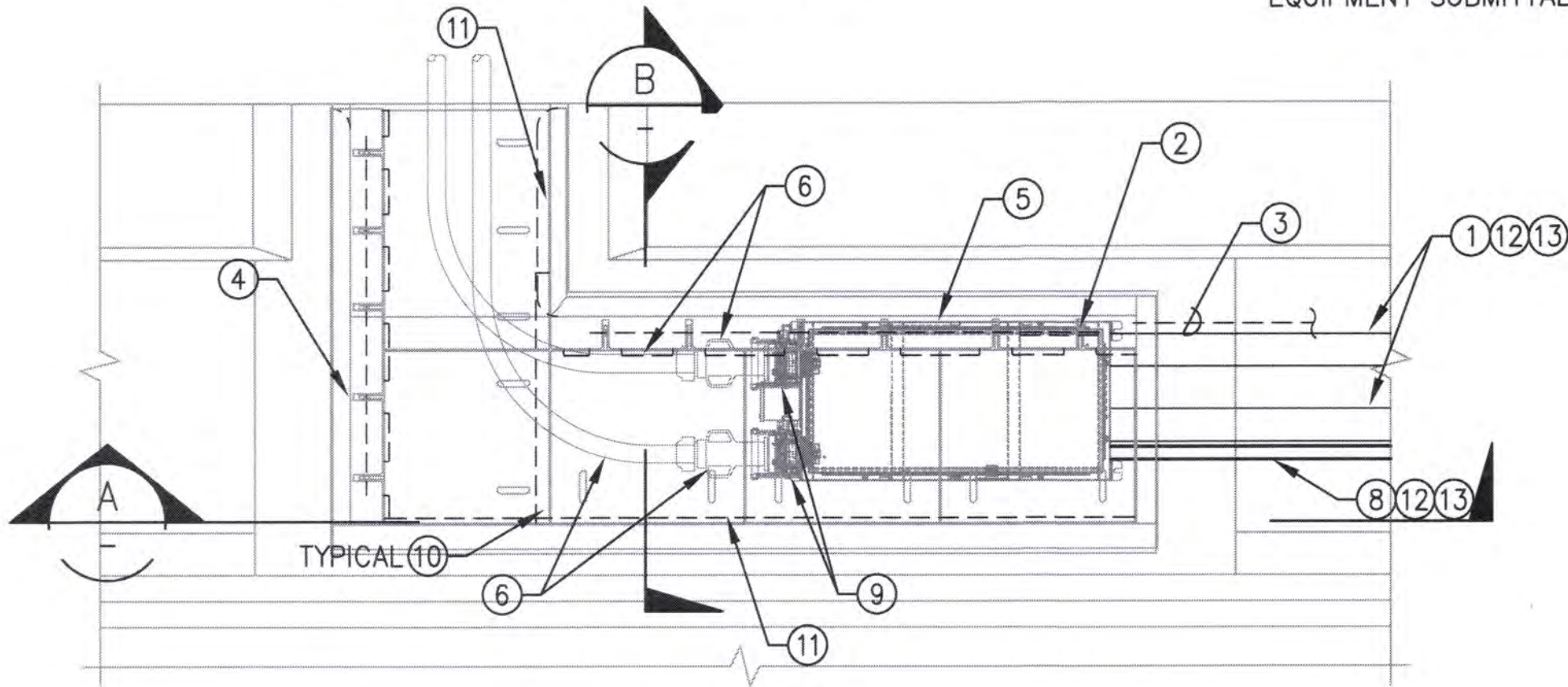
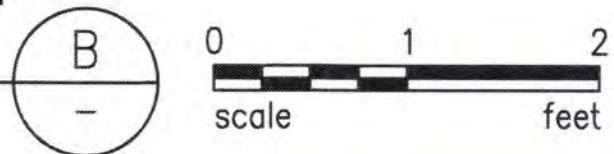
1. SCOPE OF WORK: PROVIDE RECEPTACLE BOX AND THREADED CONDUIT CONNECTIONS, SPlice THREADED CONDUITS TO EXISTING CONDUITS AS SHOWN. POSITIONING OF RECEPTACLE BOX WITHIN VAULT MAY WARRANT DEMOLITION OF EXISTING CONDUITS AND/OR POSITIONING KIRK KEY ACCESS TO AVOID CONFLICTS WITH VAULT LID HINGES OR OTHER EXISTING CONSTRAINTS, SEE KEYED NOTES FOR FURTHER DETAILS. RECEPTACLE BOX SIZING AND PLACEMENT SHALL NOT INTERFERE WITH VAULT LID.
2. ELECTRICAL UTILITY INFRASTRUCTURE SHOWN IS BASED ON HISTORICAL DOCUMENTS AND HAS NOT BEEN FIELD VERIFIED.
3. VAULT PLANS AND SECTIONS ARE BASED ON HISTORICAL DOCUMENTS, DIMMENSIONS HAVE BEEN SPOT CHECKED IN THE FIELD TO BE ACCURATE WITHIN ±1". CONTRACTOR SHALL FIELD CHECK ALL DIMENSIONS THAT MAY AFFECT RECEPTACLE BOX PLACEMENT/INSTALLATION PRIOR TO EQUIPMENT SUBMITTALS.



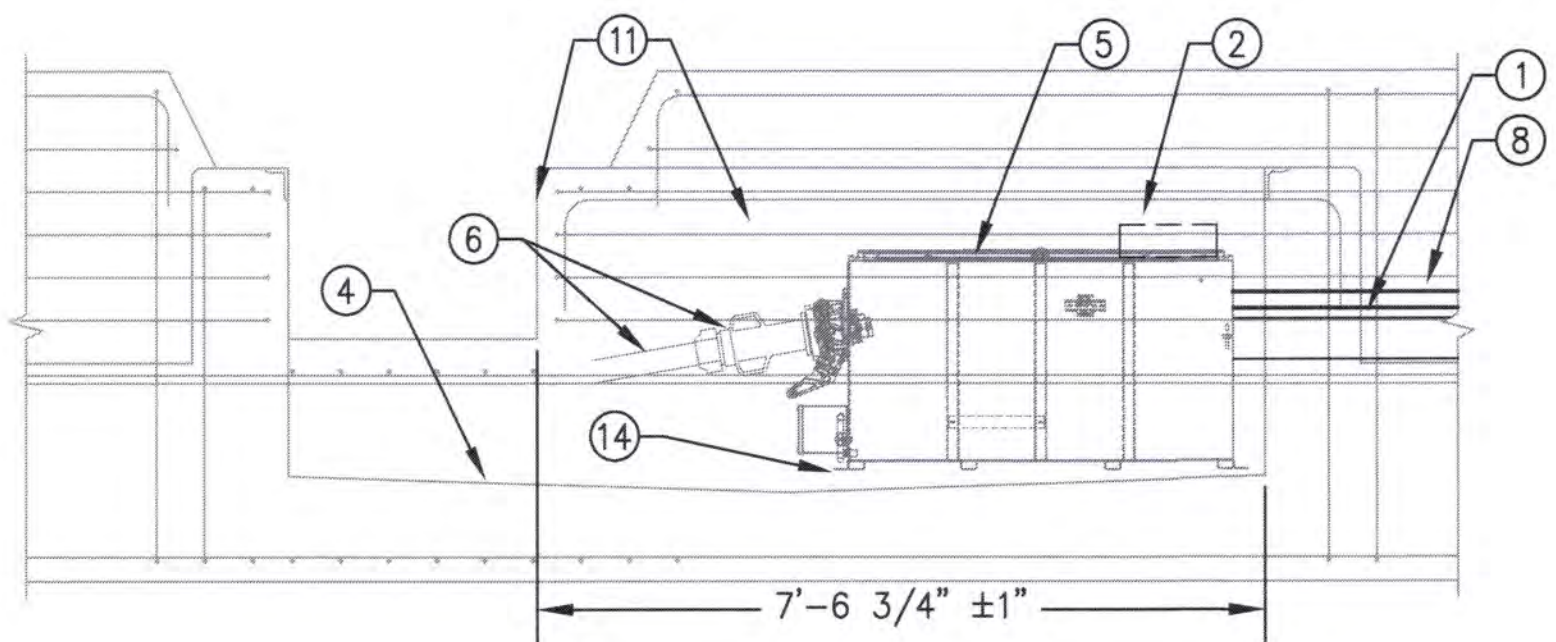
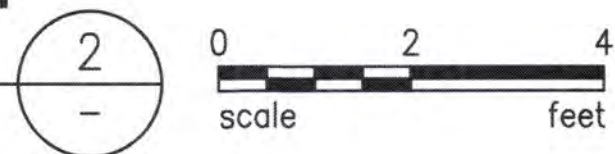
SHORE POWER VAULT SSB1
ENLARGED PLAN



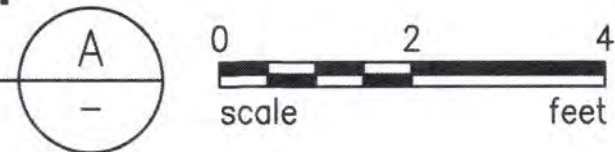
SHORE POWER OUTLET SSB1
ASSEMBLY SECTION



SHORE POWER OUTLET SSB1
ASSEMBLY PLAN

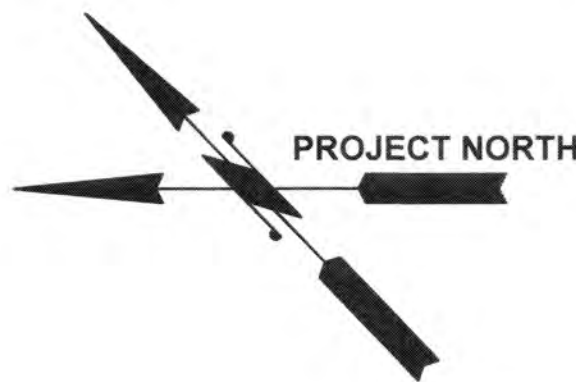


SHORE POWER OUTLET SSB1
ASSEMBLY SECTION



RECEPTACLE KEY-INTER-LOCK	
VAULT ID	LOCATION
SSB0	RIGHT
SSB1	RIGHT
SSB2	LEFT
SSB3	LEFT
SSB4	LEFT
SSB5	LEFT

KEY ACCESS IS THE SAME FOR RED AND BLUE RECEPTACLES, ACCESS IS DETERMINED WHILE FACING RECEPTACLE



6658
E2.2
39 OF 83

CONTRACT/CONS: 071357
M. ID: 201100.01
PHASE: BID SET

TERMINAL 3 / TERMINAL 4
SHORE POWER
ENLARGED SHORE POWER VAULT SSB1

RANGE: SECTION:
VERT: DRAWING SCALE: AS NOTED

APPROVED: XXX
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PRINTED BY: Curtis Feb. 02, 2022

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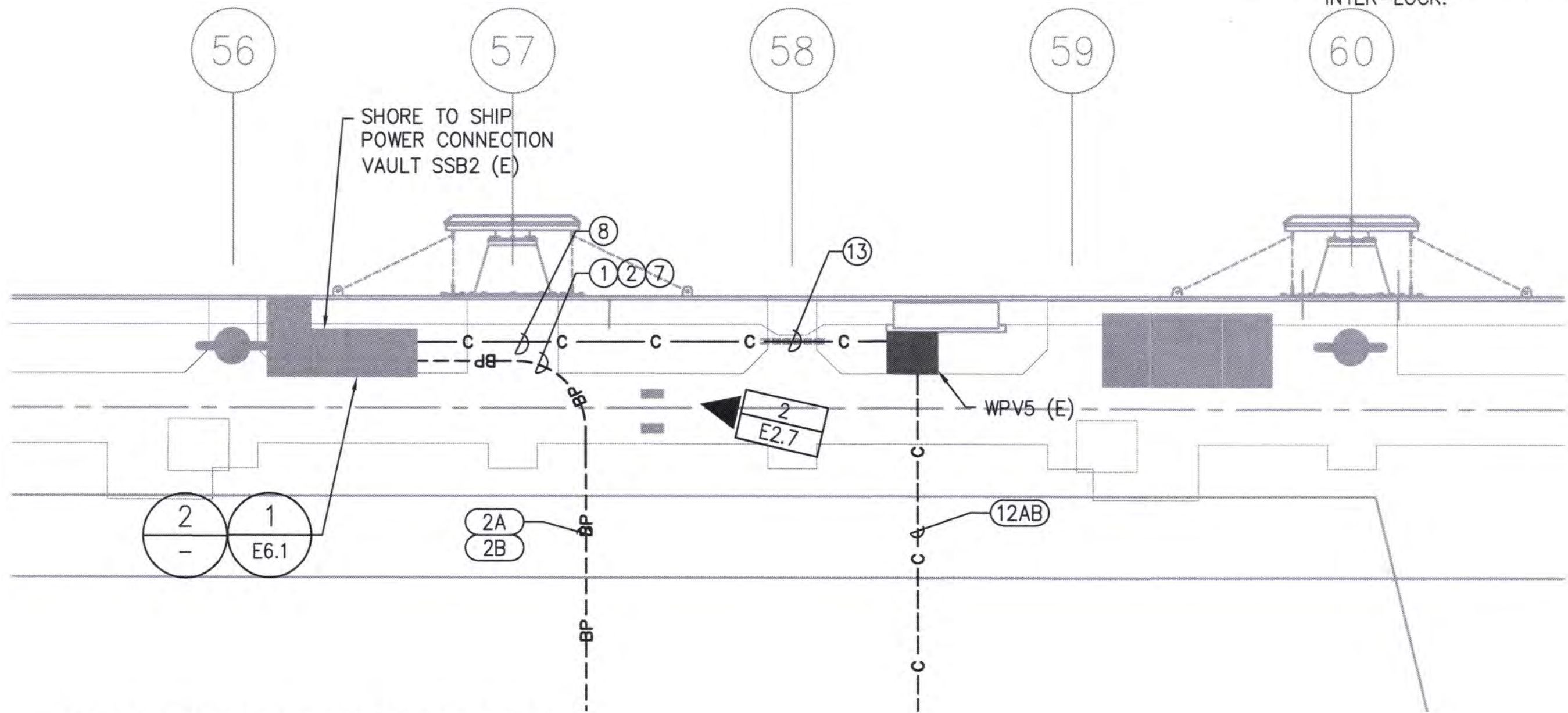
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DATE: BY: REVISION: MARK: 2/2/22

- 1 ADJUST RECEPTACLE BOX'S HEIGHT AND/OR DEPTH TO MATCH EXISTING 5" SHORE POWER CONDUIT, PROVIDE THREADED CONDUIT END FOR CONNECTION INTO RECEPTACLE BOX. IF RECEPTACLE BOX CANNOT BE ADJUSTED TO MEET EXISTING CONDUIT, DEMOLISH SUFFICIENT PORTION OF CONDUIT TO ALLOW FOR ALIGNMENT OF CONDUIT TO MATCH RECEPTACLE BOX CONDUIT ENTRY POINT.
- 2 DEMOLISH PORTION OF EXISTING 5" SHORE POWER CONDUIT, BACK TO AND POSSIBLY INCLUDING 90° SWEEP IF NECESSARY, FOR INSTALLATION OF CONDUIT INTO RECEPTACLE NEW ENTRY POINT WITHIN VAULT.
- 3 EXISTING 3/4" CONDUIT WITH GROUND WIRE TO REMAIN. RELOCATE GROUND WIRE AND/OR GROUND BUS WITHIN VAULT SHOULD SUBMITTED SIZE OF RECEPTACLE BOX INTERFERE WITH GROUND BUS ACCESS.
- 4 EXISTING SHORE POWER VAULT.
- 5 PROVIDE SHORE POWER RECEPTACLE BOX WITH (2) SHORE POWER RECEPTACLES (HVSC B2-A,B).
- 6 SHORE POWER CABLE AND PLUG BY OTHERS.
- 7 PROVIDE 5" SHORE POWER CONDUIT AND WIRE PER CONDUIT AND CONDUCTOR SCHEDULE. END OF CONDUIT SHALL BE THREADED FOR CONNECTION INTO RECEPTACLE BOX AND MATCH RECEPTACLE'S CONDUIT ENTRY.
- 8 PROVIDE 2" CONTROLS/FIBER OPTIC CONDUIT AND WIRE PER CONDUIT AND CONDUCTOR SCHEDULE. END OF CONDUIT SHALL BE THREADED FOR CONNECTION INTO RECEPTACLE BOX.
- 9 SHORE POWER RECEPTACLE KIRK KEY, SEE TABLE.
- 10 EXISTING SHORE POWER VAULT LID.
- 11 SEE DETAIL 1, SHEET E6.1 FOR LID LIMIT SWITCH CIRCUIT INTER-LOCK.

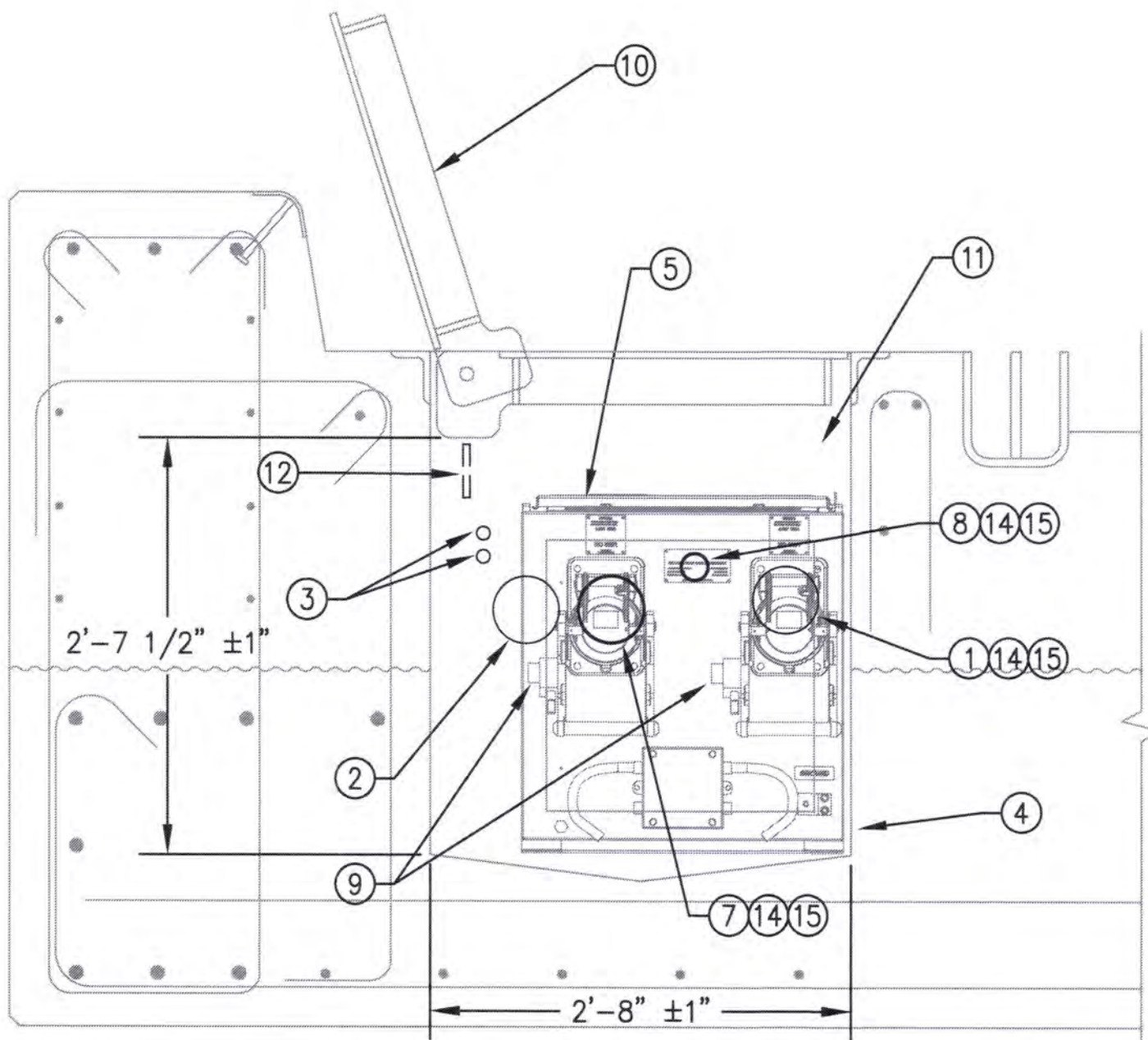
- 12 EXISTING GROUND BAR TO REMAIN.
- 13 SEE SHEET S2.4 FOR WORK REQUIRED TO INSTALL NEW CONDUIT ALONG BULLRAIL BETWEEN EXISTING VAULTS, INCLUDING CORE DRILL THROUGH CONCRETE CAP STRUCTURE AT BENT 58.
- 14 PROVIDE SEALING LOCK-NUTS INSIDE AND OUTSIDE TO PROVIDE WATERTIGHT CONDUIT ENTRY INTO SHORE POWER OUTLET ENCLOSURE.
- 15 PROVIDE WATERPROOF INTERIOR CONDUIT SEAL TO PREVENT ENTRY OF WATER THRU THE CONDUIT SYSTEM. PROVIDE ROXTEC CONDUIT SEAL, EMERSON(O-Z/GEDNEY) 'CSB', OR ENGINEER APPROVED EQUAL, SIZED FOR CONDUIT AND CABLES.
- 16 PROVIDE STAINLESS STEEL EXPANSION ANCHORS TO SECURE ENCLOSURE TO VAULT FLOOR, SLOPE ENCLOSURE TO ENCLOSURE VENT/DRAIN.

1. SCOPE OF WORK: PROVIDE RECEPTACLE BOX AND THREADED CONDUIT CONNECTIONS, SPLICE THREADED CONDUITS TO EXISTING CONDUITS AS SHOWN. POSITIONING OF RECEPTACLE BOX WITHIN VAULT MAY WARRANT DEMOLITION OF EXISTING CONDUITS AND/OR POSITIONING KIRK KEY ACCESS TO AVOID CONFLICTS WITH VAULT LID HINGES OR OTHER EXISTING CONSTRAINTS, SEE KEYED NOTES FOR FURTHER DETAILS. RECEPTACLE BOX SIZING AND PLACEMENT SHALL NOT INTERFERE WITH VAULT LID.
2. ELECTRICAL UTILITY INFRASTRUCTURE SHOWN IS BASED ON HISTORICAL DOCUMENTS AND HAS NOT BEEN FIELD VERIFIED.
3. VAULT PLANS AND SECTIONS ARE BASED ON HISTORICAL DOCUMENTS, DIMMENSIONS HAVE BEEN SPOT CHECKED IN THE FIELD TO BE ACCURATE WITHIN ±1". CONTRACTOR SHALL FIELD CHECK ALL DIMENSIONS THAT MAY AFFECT RECEPTACLE BOX PLACEMENT/INSTALLATION PRIOR TO EQUIPMENT SUBMITTALS.



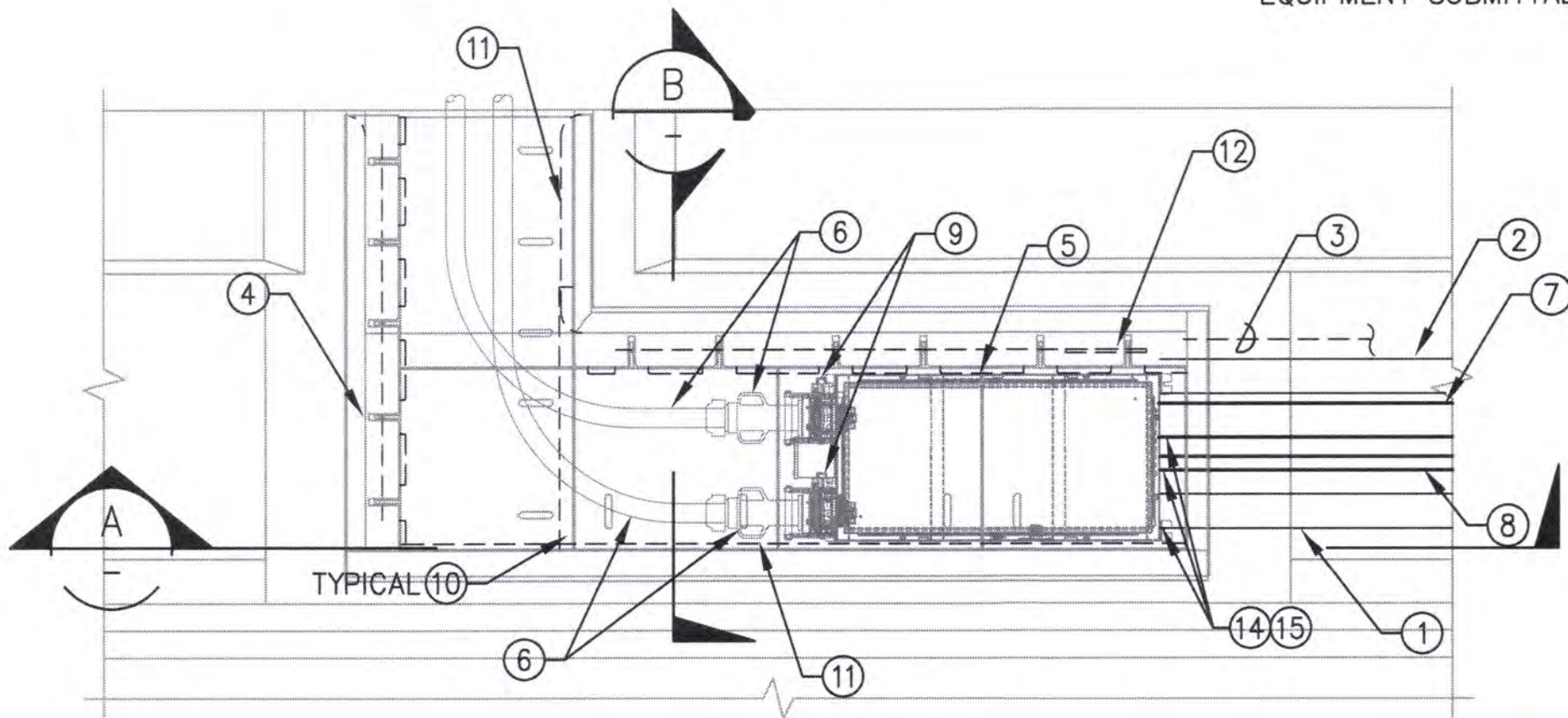
SHORE POWER VAULT SSB2
ENLARGED PLAN

1
E1.2
0 8 16
scale feet



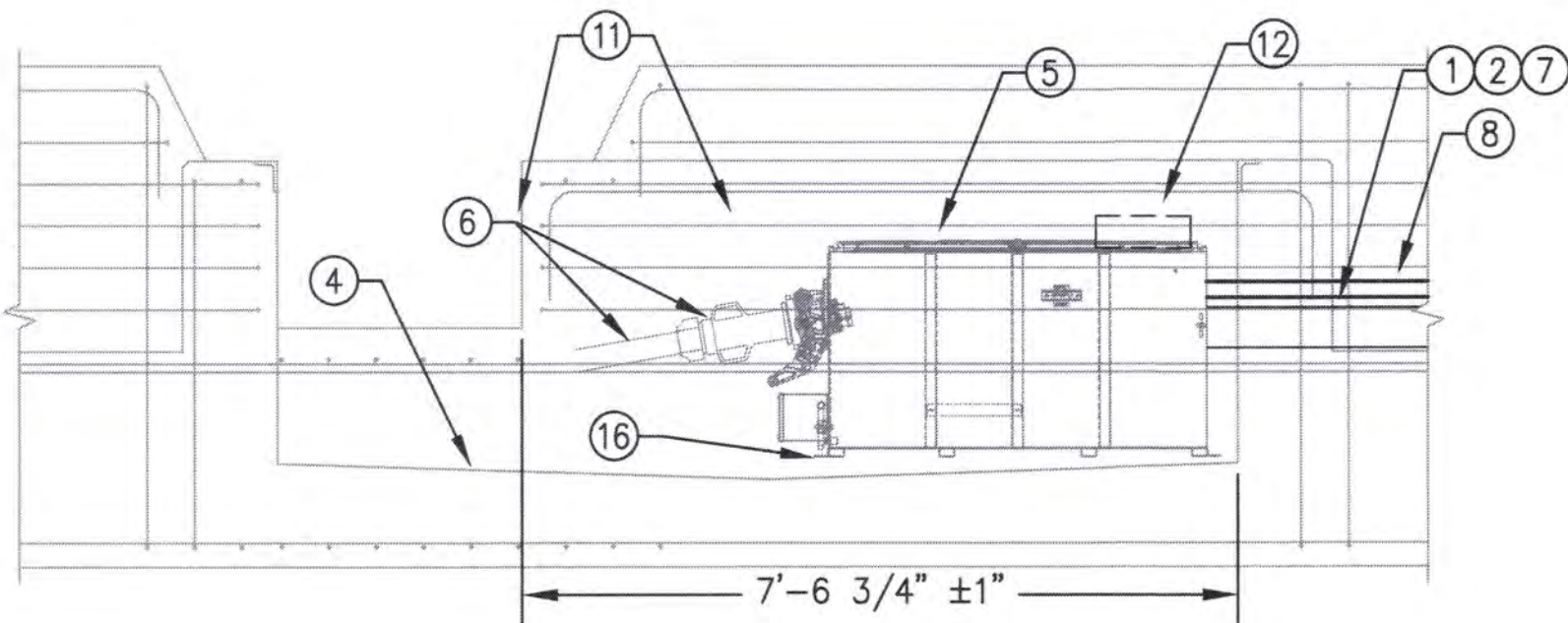
SHORE POWER OUTLET SSB2
ASSEMBLY SECTION

B
0 1 2
scale feet



SHORE POWER OUTLET SSB2
ASSEMBLY PLAN

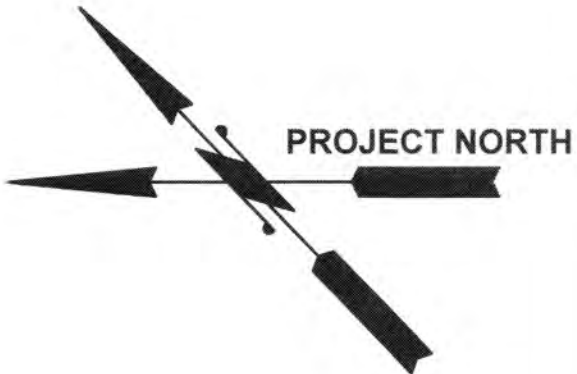
2
0 2 4
scale feet



SHORE POWER OUTLET SSB2
ASSEMBLY SECTION

A
0 2 4
scale feet

RECEPTACLE KEY-INTER-LOCK	
VAULT ID	LOCATION
SSB0	RIGHT
SSB1	RIGHT
SSB2	LEFT
SSB3	LEFT
SSB4	LEFT
SSB5	LEFT
KEY ACCESS IS THE SAME FOR RED AND BLUE RECEPTACLES, ACCESS IS DETERMINED WHILE FACING RECEPTACLE	



6658
E2.3
40 OF 83

CONTRACT/CONS: 071357
M. ID: 201100.01
PHASE: BID SET

TERMINAL 3 / TERMINAL 4
SHORE POWER
ENLARGED SHORE POWER VAULT SSB2

TOWNSHIP: RANGE: SECTION:
DATE-HRZ: VERT:
PARCEL:

APPROVED: XXX
DIRECTOR
PRINTED BY: curtis
PORT ADDRESS: ONE SITCOM PLAZA
TACOMA, WA 98401-1837

2/2/22

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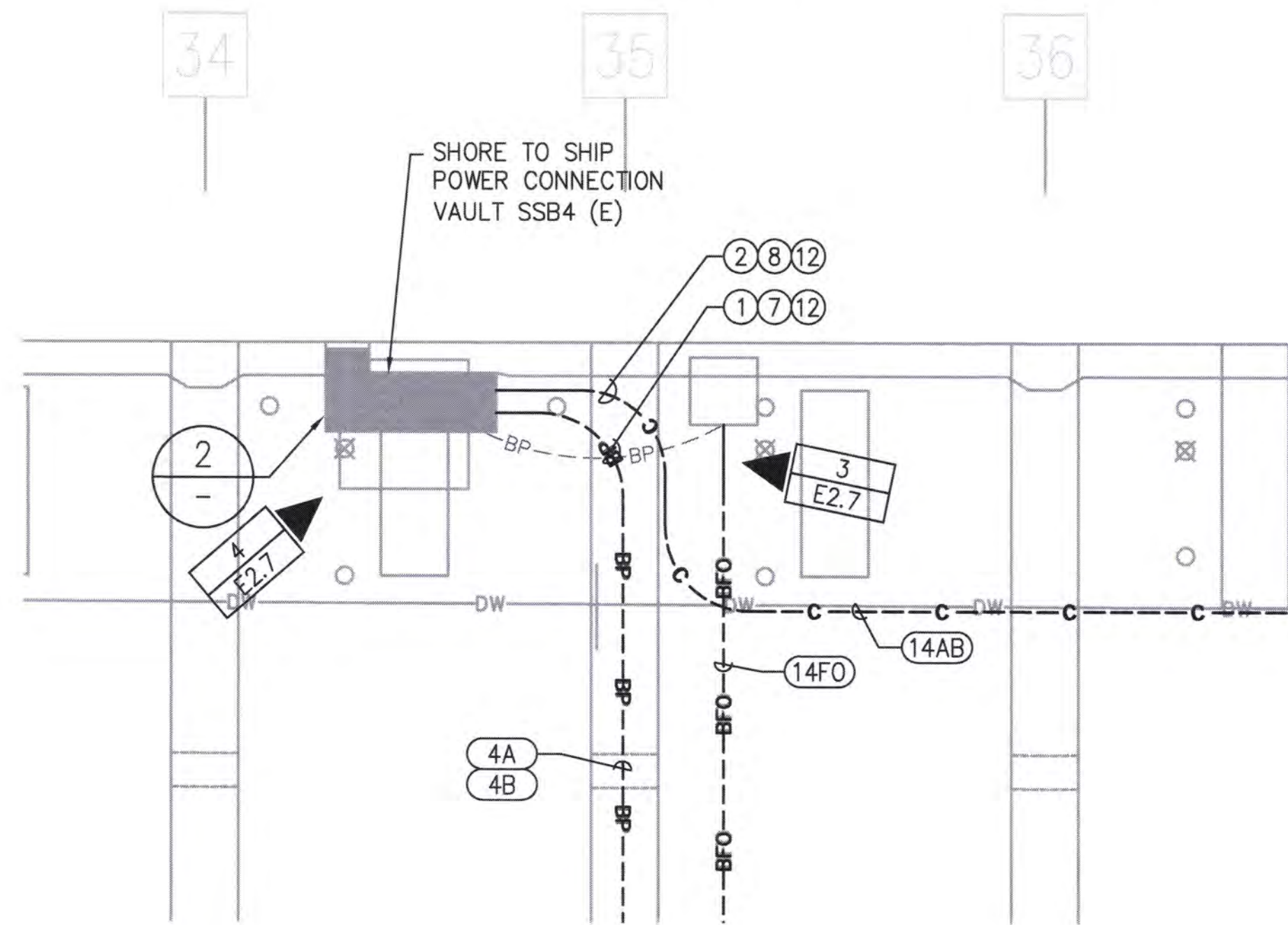
Port of Tacoma
P.O. BOX 187 TACOMA, WA 98401 (253) 835-1841

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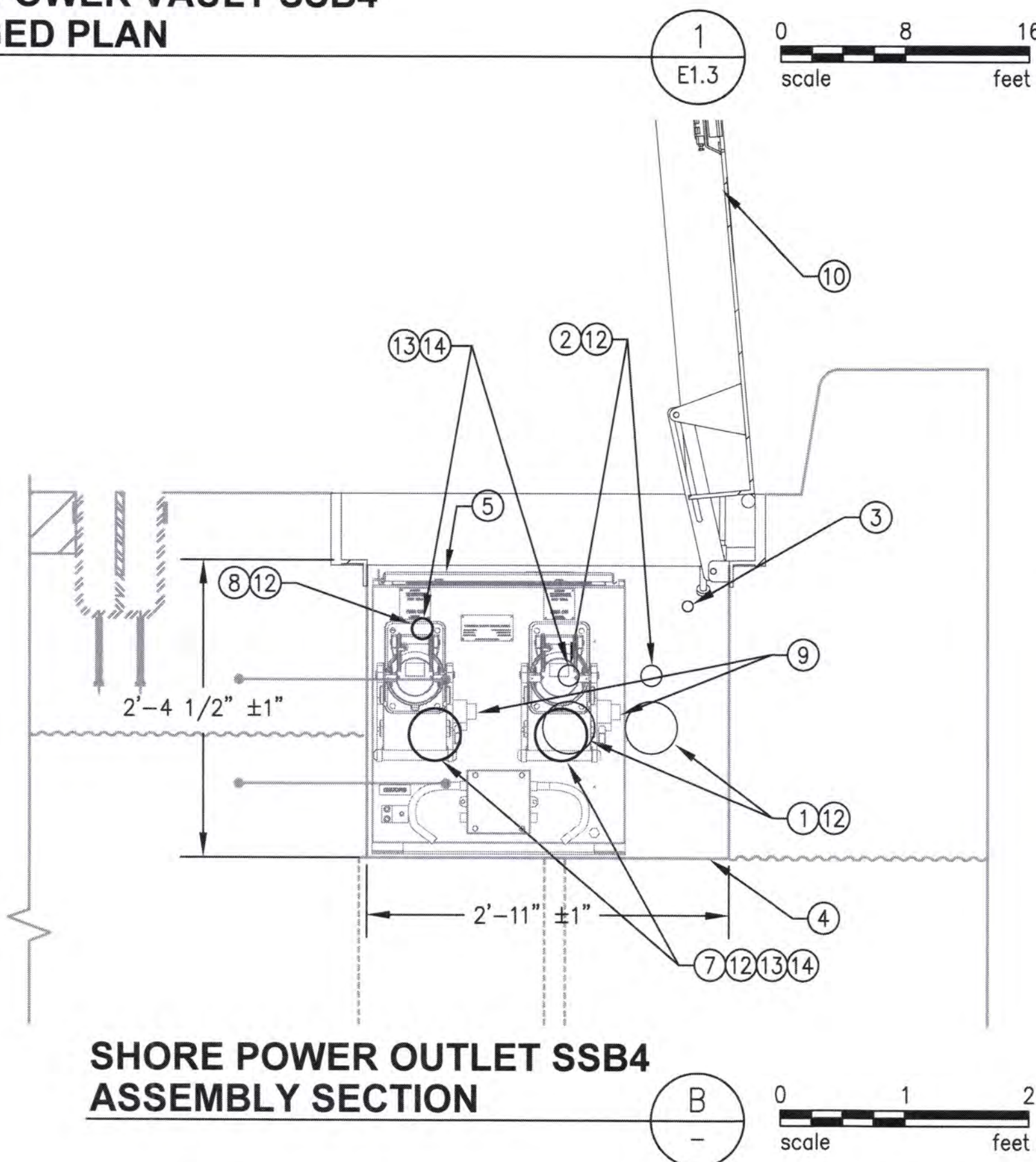
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KEY NOTES

- | | | |
|---|--|---|
| <p>① DEMOLISH PORTION OF EXISTING 5" SHORE POWER CONDUIT, BACK TO AND POSSIBLY INCLUDING 90° SWEEP IF NECESSARY, FOR INSTALLATION OF CONDUIT INTO NEW ENTRY POINT WITHIN VAULT.</p> <p>② DEMOLISH PORTION OF EXISTING 2" CONTROLS/FIBER OPTIC CONDUIT FOR INSTALLATION OF CONDUIT INTO RECEPTACLE NEW ENTRY POINT WITHIN VAULT.</p> | <p>③ EXISTING 3/4" CONDUIT WITH GROUND WIRE TO REMAIN. RELOCATE GROUND WIRE AND/OR GROUND BUS WITHIN VAULT SHOULD SUBMITTED SIZE OF RECEPTACLE BOX INTERFERE WITH GROUND BUS ACCESS.</p> <p>④ EXISTING SHORE POWER VAULT.</p> <p>⑤ PROVIDE SHORE POWER RECEPTACLE BOX WITH (2) SHORE POWER RECEPTACLES (HVSC B4-A,B).</p> <p>⑥ SHORE POWER CABLE AND PLUG BY OTHERS.</p> | <p>⑦ PROVIDE 5" SHORE POWER CONDUIT AND WIRE PER CONDUIT AND CONDUCTOR SCHEDULE. END OF CONDUIT SHALL BE THREADED FOR CONNECTION INTO RECEPTACLE BOX AND MATCH RECEPTACLE'S CONDUIT ENTRY.</p> <p>⑧ PROVIDE 2" CONTROLS/FIBER OPTIC CONDUIT AND WIRE PER CONDUIT AND CONDUCTOR SCHEDULE. END OF CONDUIT SHALL BE THREADED FOR CONNECTION INTO RECEPTACLE BOX.</p> <p>⑨ SHORE POWER RECEPTACLE KIRK KEY, SEE TABLE.</p> <p>⑩ EXISTING SHORE POWER VAULT LID.</p> |
|---|--|---|



SHORE POWER VAULT SSB4 ENLARGED PLAN



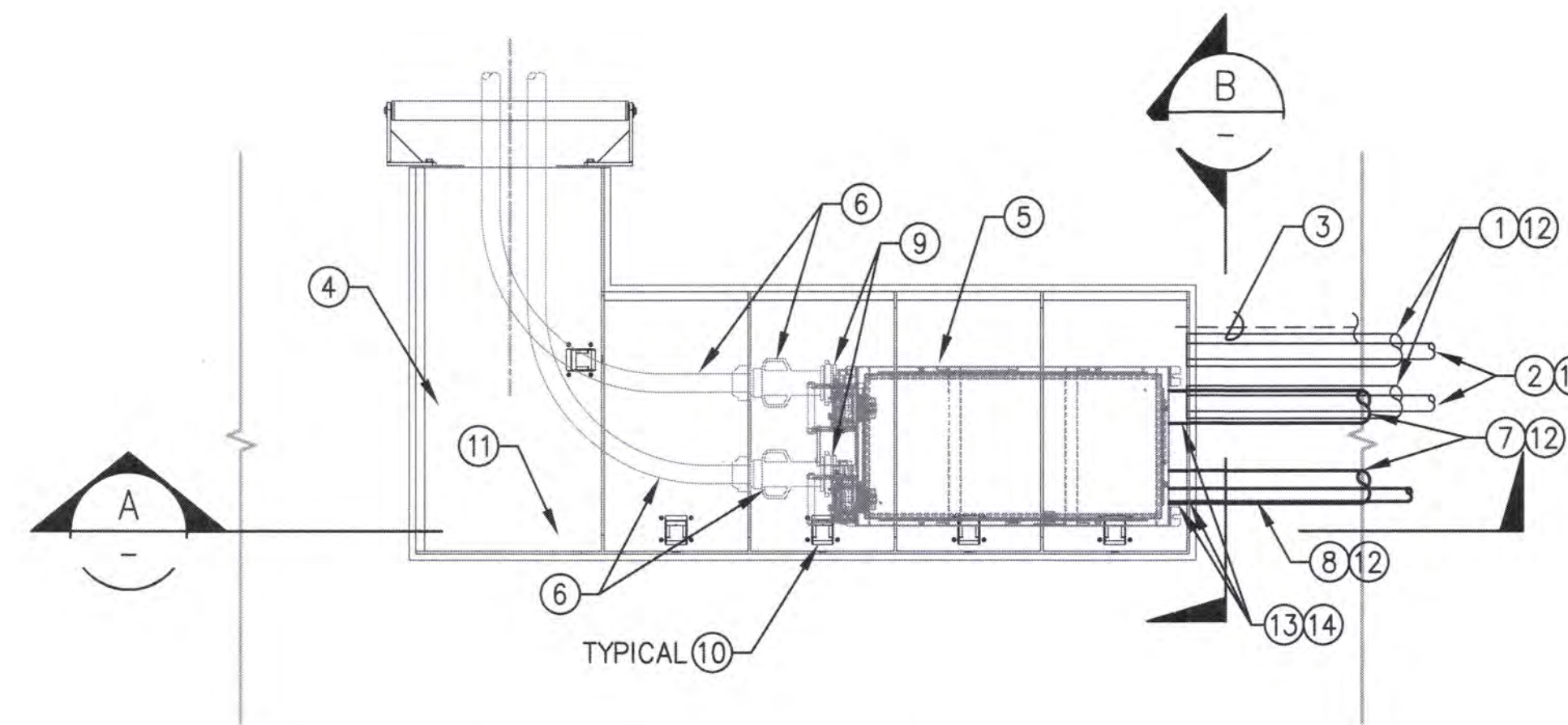
SHORE POWER OUTLET SSB4 ASSEMBLY SECTION

GENERAL NOTES

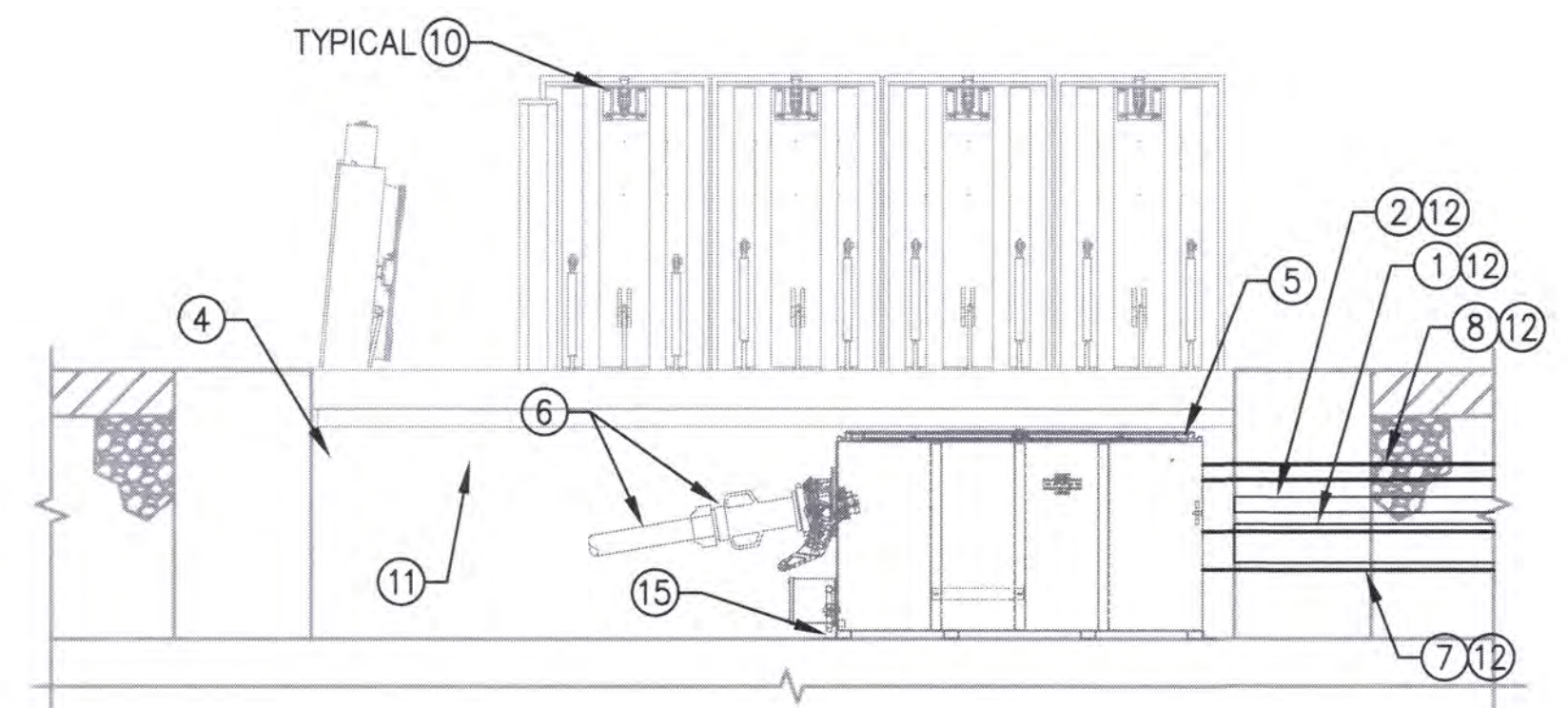
1. SCOPE OF WORK: PROVIDE RECEPTACLE BOX AND THREADED CONDUIT CONNECTIONS, SPLICE THREADED CONDUITS TO EXISTING CONDUITS AS SHOWN. POSITIONING OF RECEPTACLE BOX WITHIN VAULT MAY WARRANT DEMOLITION OF EXISTING CONDUITS AND/OR POSITIONING KIRK KEY ACCESS TO AVOID CONFLICTS WITH VAULT LID HINGES OR OTHER EXISTING CONSTRAINTS, SEE KEYED NOTES FOR FURTHER DETAILS. RECEPTACLE BOX SIZING AND PLACEMENT SHALL NOT INTERFERE WITH VAULT LID.
2. ELECTRICAL UTILITY INFRASTRUCTURE SHOWN IS BASED ON HISTORICAL DOCUMENTS AND HAS NOT BEEN FIELD VERIFIED.
3. VAULT PLANS AND SECTIONS ARE BASED ON HISTORICAL DOCUMENTS, DIMENSIONS HAVE BEEN SPOT CHECKED IN THE FIELD TO BE ACCURATE WITHIN $\pm 1"$. CONTRACTOR SHALL FIELD CHECK ALL DIMENSIONS THAT MAY AFFECT RECEPTACLE BOX PLACEMENT/INSTALLATION PRIOR TO EQUIPMENT SUBMITTALS.

RECEPTACLE KEY-INTER-LOCK	
VAULT ID	LOCATION
SSB0	RIGHT
SSB1	RIGHT
SSB2	LEFT
SSB3	LEFT
SSB4	LEFT
SSB5	LEFT

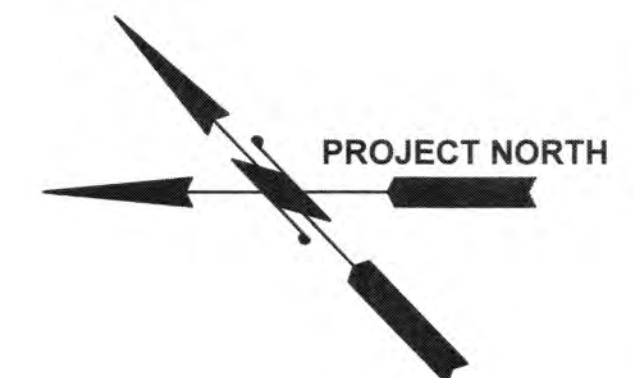
KEY ACCESS IS THE SAME FOR RED AND BLUE RECEPTACLES, ACCESS IS DETERMINED WHILE FACING RECEPTACLE

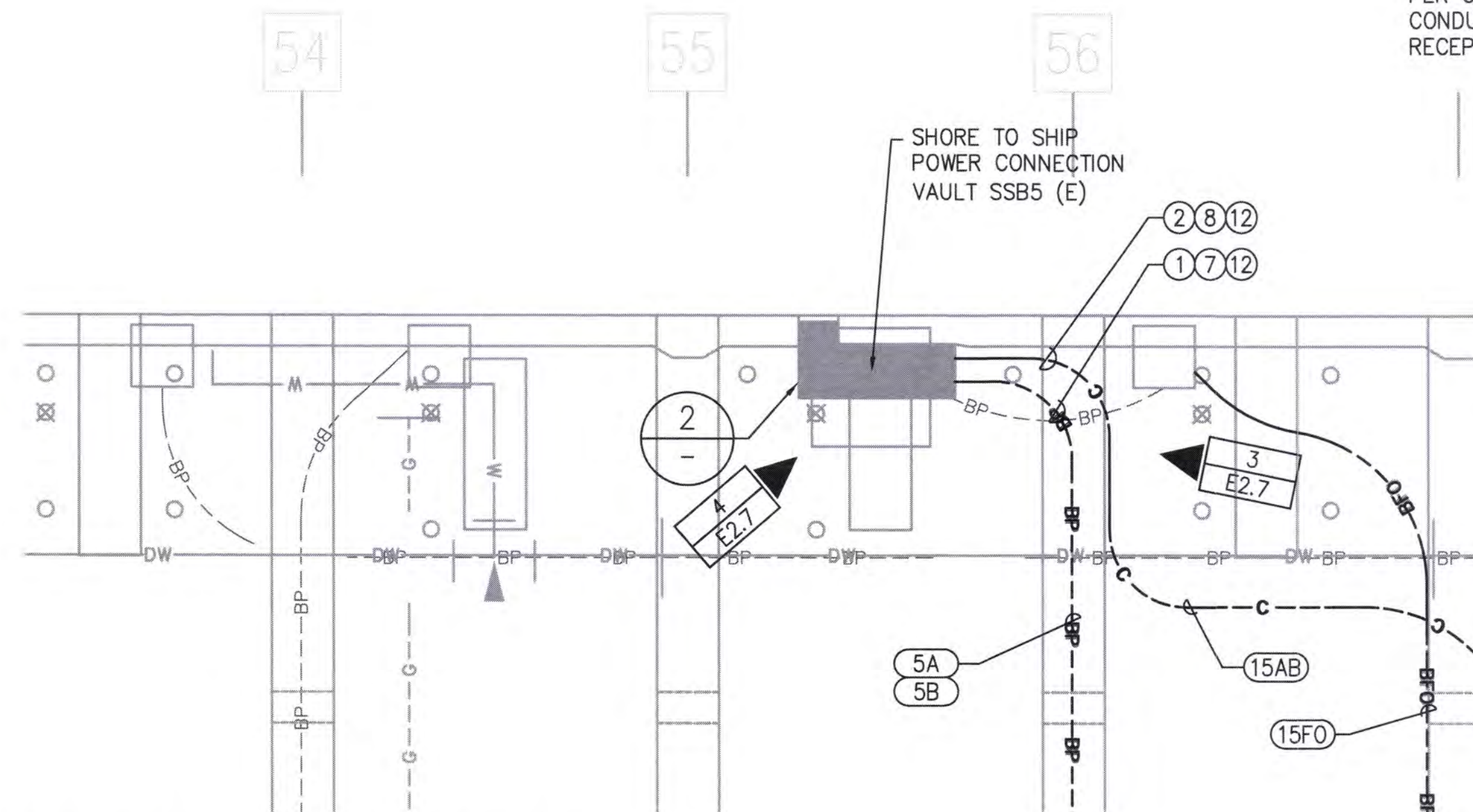


SHORE POWER OUTLET SSB4 ASSEMBLY PLAN

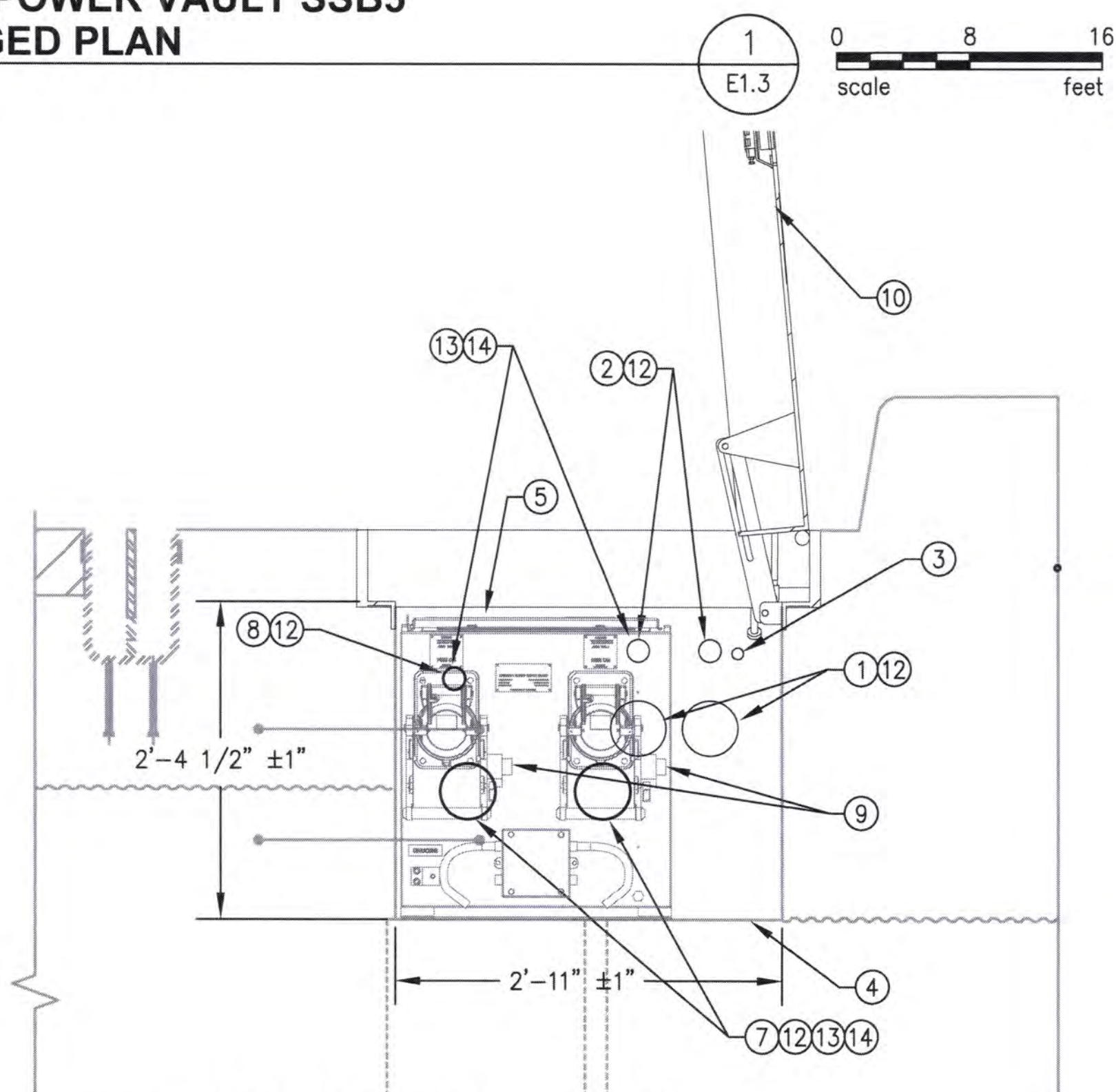


SHORE POWER OUTLET SSB4 ASSEMBLY SECTION



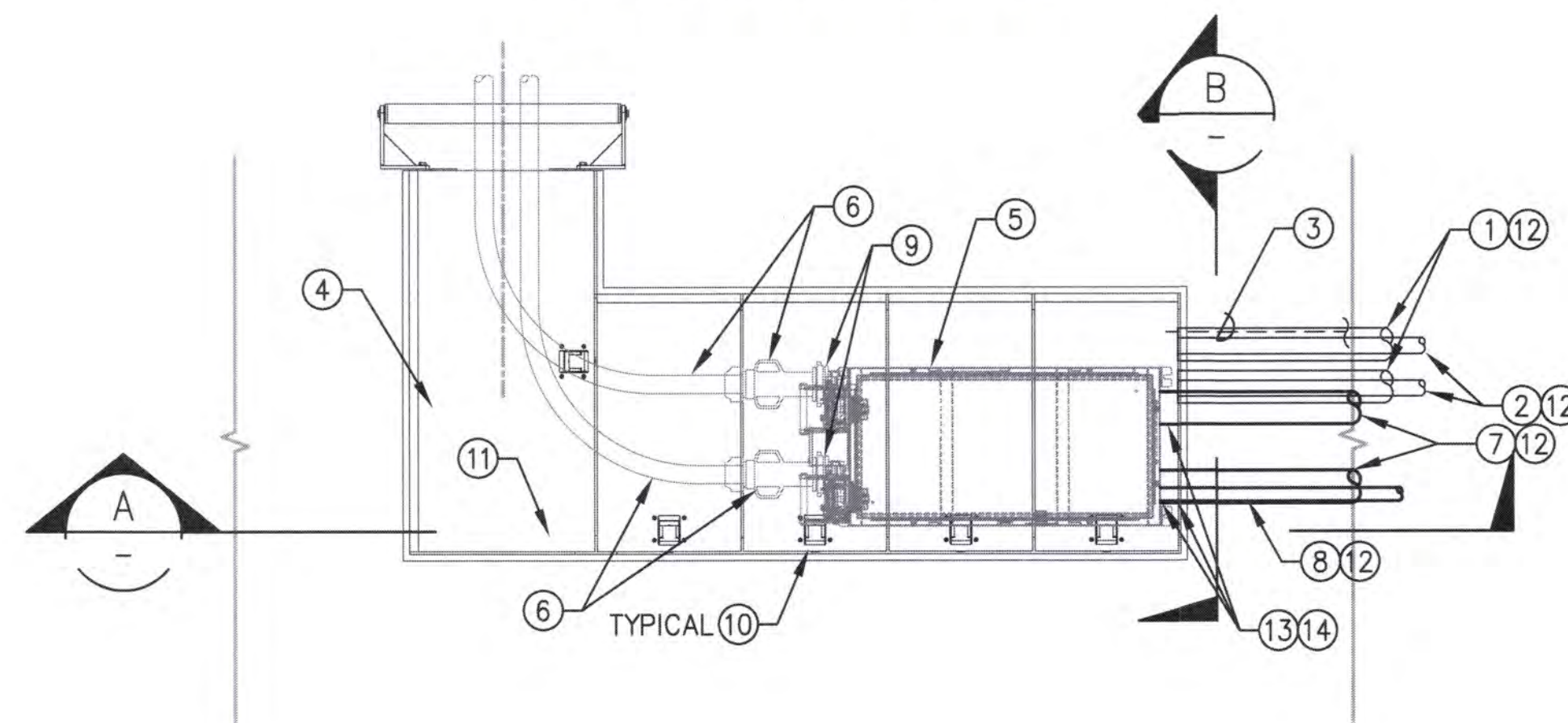


SHORE POWER VAULT SSB5 ENLARGED PLAN

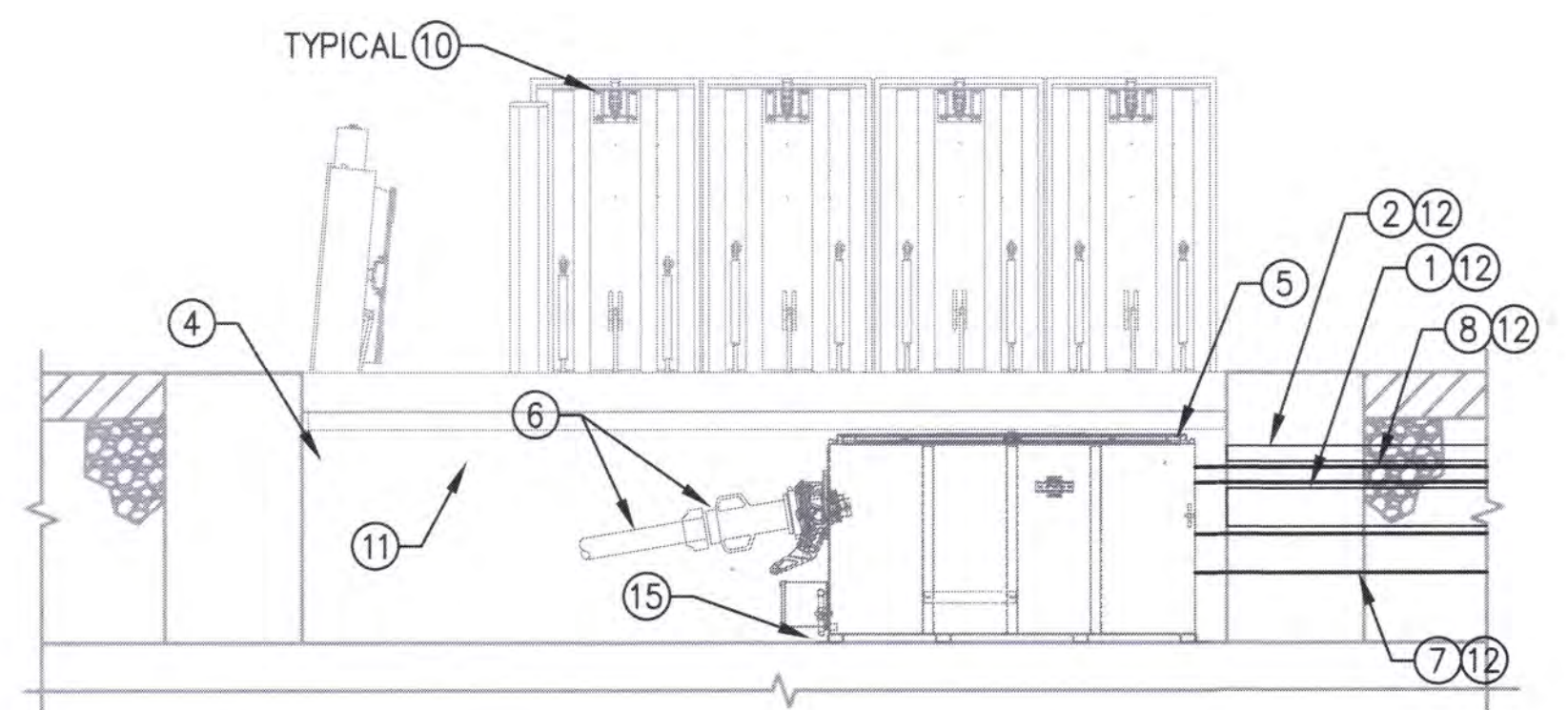


SHORE POWER OUTLET SSB5 ASSEMBLY SECTION

- ① DEMOLISH PORTION OF EXISTING 5" SHORE POWER CONDUIT, BACK TO AND POSSIBLY INCLUDING 90° SWEEP IF NECESSARY, FOR INSTALLATION OF CONDUIT INTO NEW ENTRY POINT WITHIN VAULT.
 - ② DEMOLISH PORTION OF EXISTING 2" CONTROLS/FIBER OPTIC CONDUIT FOR INSTALLATION OF CONDUIT INTO RECEPTACLE NEW ENTRY POINT WITHIN VAULT.
 - ③ EXISTING 3/4" CONDUIT WITH GROUND WIRE TO REMAIN. RELOCATE GROUND WIRE AND/OR GROUND BUS WITHIN VAULT SHOULD SUBMITTED SIZE OF RECEPTACLE BOX INTERFERE WITH GROUND BUS ACCESS.
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 - ⑨ SHORE POWER RECEPTACLE KIRK KEY, SEE TABLE.
 - ⑩ EXISTING SHORE POWER VAULT LID.
 - ⑪ SEE DETAIL 1, SHEET E6.1 FOR LID LIMIT SWITCH CIRCUIT INTER-LOCK.
 - ⑫ SEE SHEET S2.5 FOR WORK REQUIRED TO CORE DRILL EXISTING WALL FOR RELOCATED CONDUIT PENETRATIONS.
 - ⑬ PROVIDE SEALING LOCK-NUTS INSIDE AND OUTSIDE TO PROVIDE WATERTIGHT CONDUIT ENTRY INTO SHORE POWER OUTLET ENCLOSURE.
 - ⑭ PROVIDE WATERPROOF INTERIOR CONDUIT SEAL TO PREVENT ENTRY OF WATER THRU THE CONDUIT SYSTEM. PROVIDE ROXTEC CONDUIT SEAL, EMERSON(O-Z/GEDNEY) 'CSB', OR ENGINEER APPROVED EQUAL, SIZED FOR CONDUIT AND CABLES.
 - ⑮ PROVIDE STAINLESS STEEL EXPANSION ANCHORS TO SECURE ENCLOSURE TO VAULT FLOOR, SLOPE ENCLOSURE TO ENCLOSURE VENT/DRAIN.



SHORE POWER OUTLET SSB5 ASSEMBLY PLAN

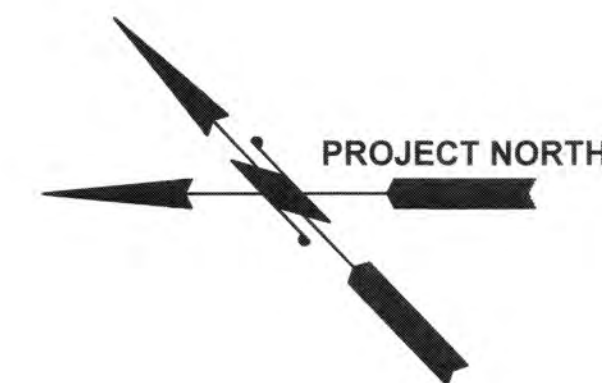


SHORE POWER OUTLET SSB5 ASSEMBLY SECTION

1. SCOPE OF WORK: PROVIDE RECEPTACLE BOX AND THREADED CONDUIT CONNECTIONS, SPLICE THREADED CONDUITS TO EXISTING CONDUITS AS SHOWN. POSITIONING OF RECEPTACLE BOX WITHIN VAULT MAY WARRANT DEMOLITION OF EXISTING CONDUITS AND/OR POSITIONING KIRK KEY ACCESS TO AVOID CONFLICTS WITH VAULT LID HINGES OR OTHER EXISTING CONSTRAINTS, SEE KEYED NOTES FOR FURTHER DETAILS. RECEPTACLE BOX SIZING AND PLACEMENT SHALL NOT INTERFERE WITH VAULT LID.
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RECEPTACLE KEY-INTER-LOCK	
VAULT ID	LOCATION
SSB0	RIGHT
SSB1	RIGHT
SSB2	LEFT
SSB3	LEFT
SSB4	LEFT
SSB5	LEFT

KEY ACCESS IS THE SAME FOR RED AND BLUE RECEPTACLES, ACCESS IS DETERMINED WHILE FACING RECEPTACLE



- KEY NOTES
- 1 DEMOLISH PORTION OF EXISTING 5" SHORE POWER CONDUIT, BACK TO AND POSSIBLY INCLUDING 90° SWEEP IF NECESSARY, FOR INSTALLATION OF CONDUIT INTO NEW ENTRY POINT WITHIN VAULT.

2 DEMOLISH PORTION OF EXISTING 2" CONTROLS/FIBER OPTIC CONDUIT FOR INSTALLATION OF CONDUIT INTO NEW ENTRY POINT WITHIN VAULT.

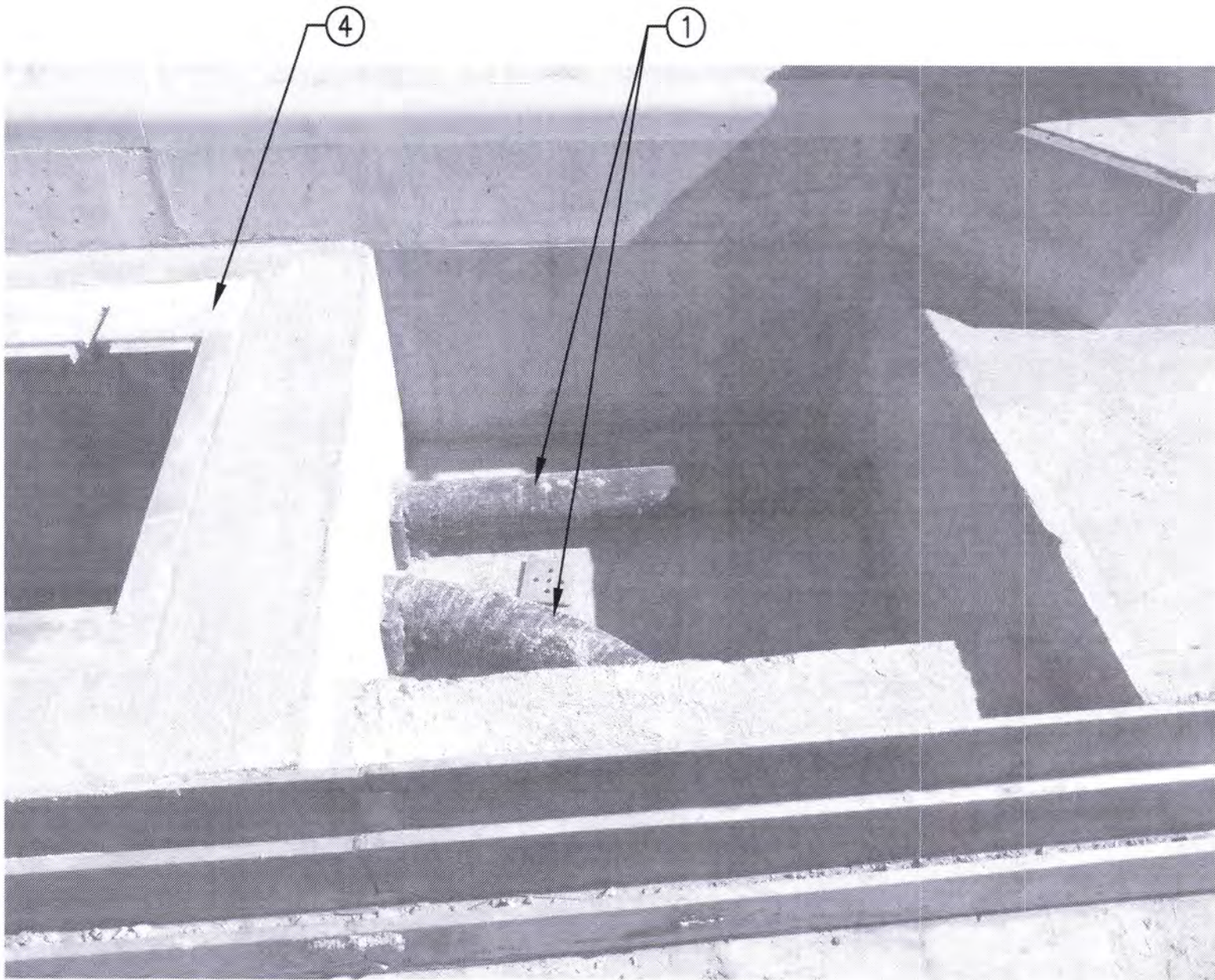
3 EXISTING 3/4" CONDUIT WITH GROUND WIRE TO REMAIN.

4 EXISTING SHORE POWER VAULT.

5 EXISTING SHORE POWER VAULT LID.

6 SIMILAR FOR EXISTING SHORE POWER VAULTS AT PIER 4. SEE SHEETS E2.4, E2.5 AND E2.6.

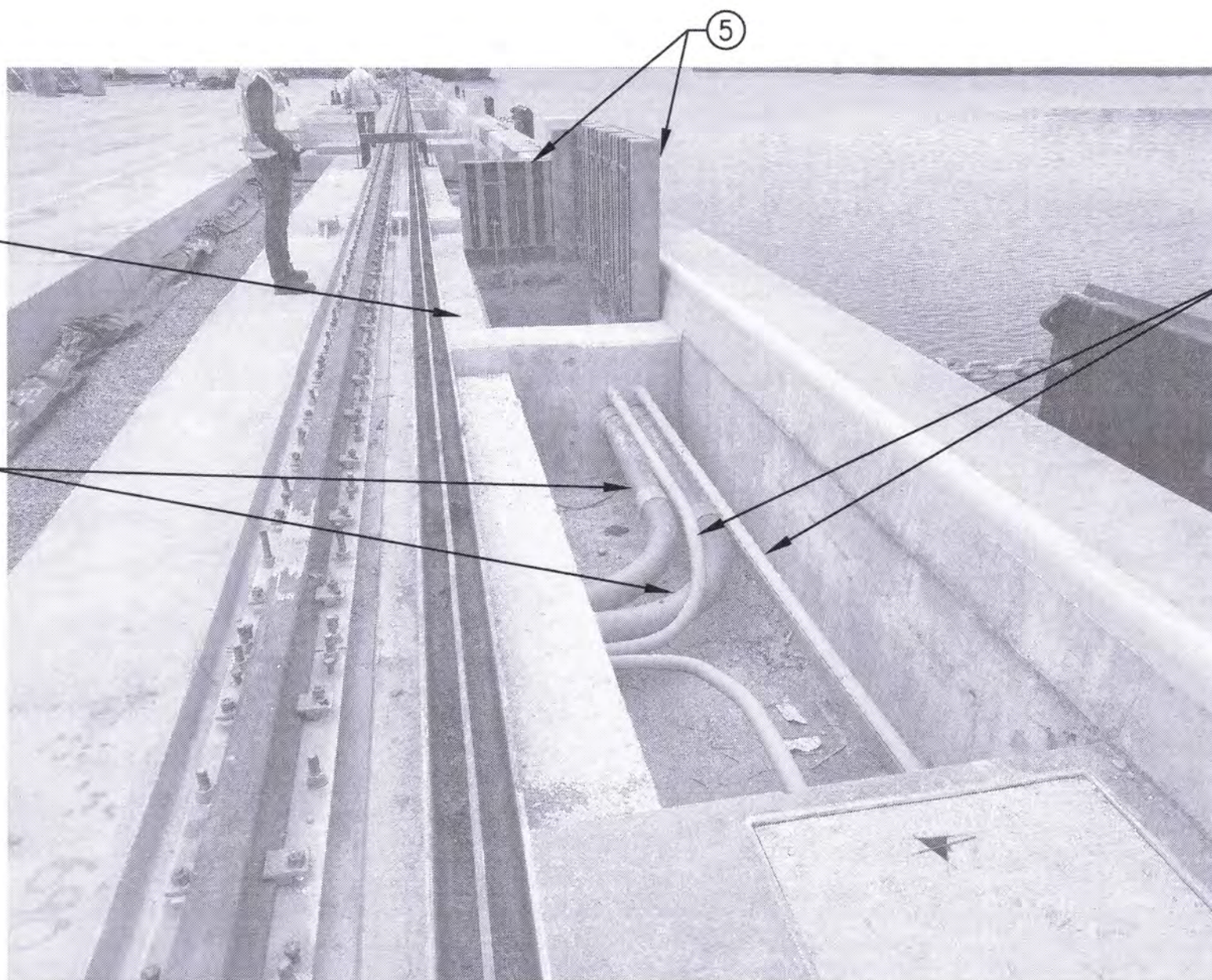
- GENERAL NOTES
1. PHOTOS SHOWN ARE IN-PROGRESS CONSTRUCTION PHOTOS DURING ORIGINAL VAULT CONSTRUCTION AND DO NOT REPRESENT THE FINAL CONDITIONS OF EACH VAULT.



SHORE POWER VAULT SSB1

CONSTRUCTION PHOTO

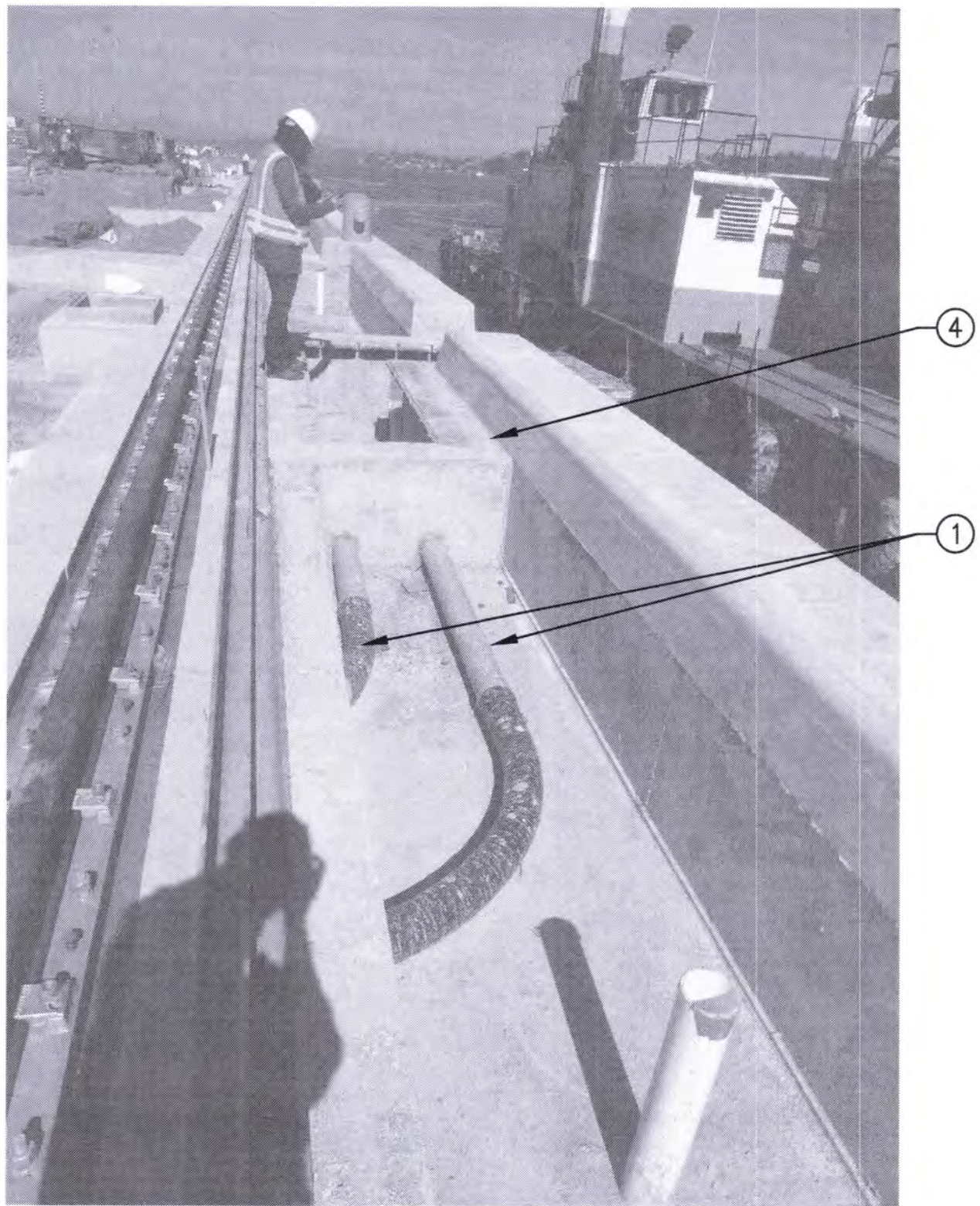
1E2.2



SHORE POWER VAULT PIER 4

CONSTRUCTION PHOTO, EXACT VAULT UNKNOWN

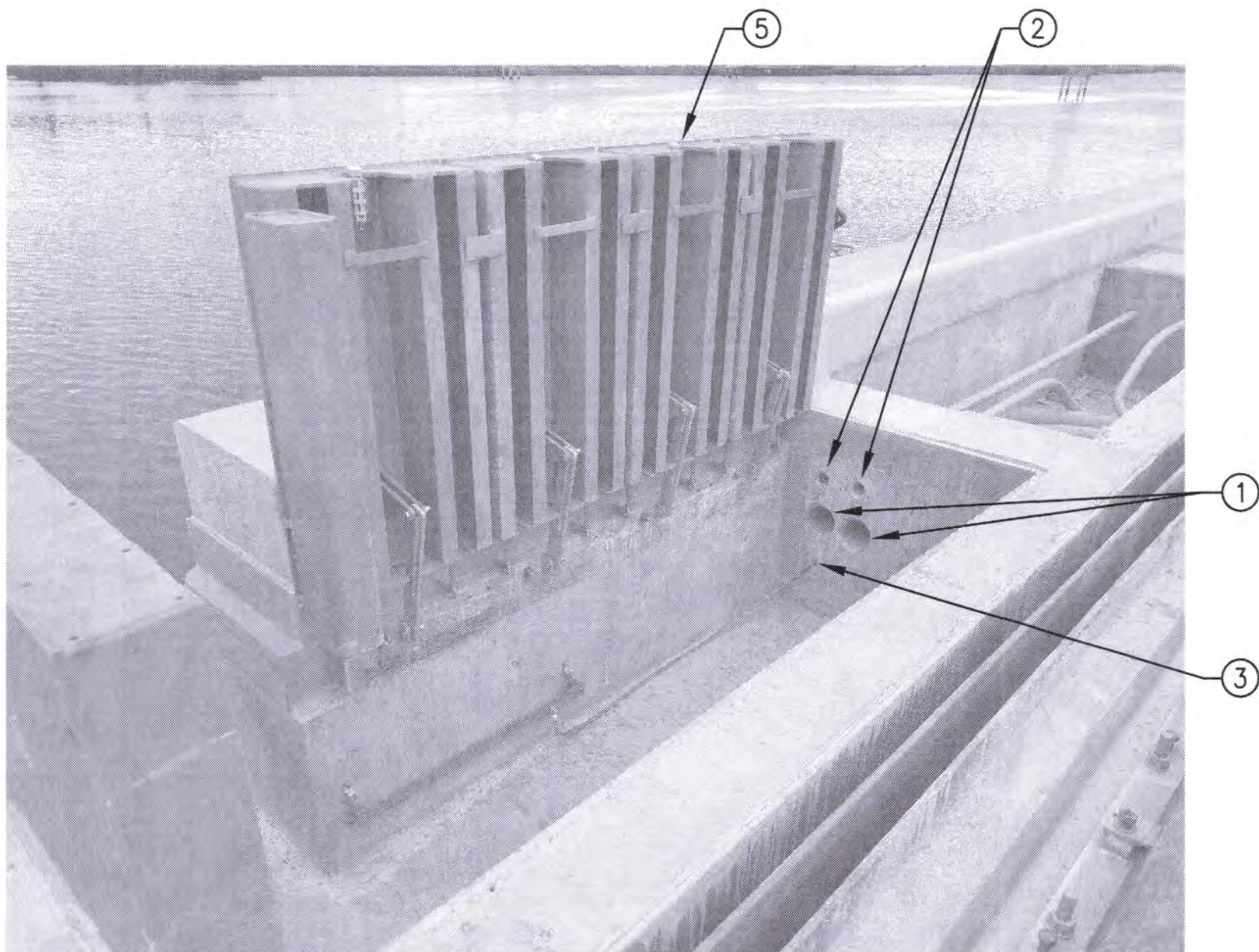
36



SHORE POWER VAULT SSB2

CONSTRUCTION PHOTO

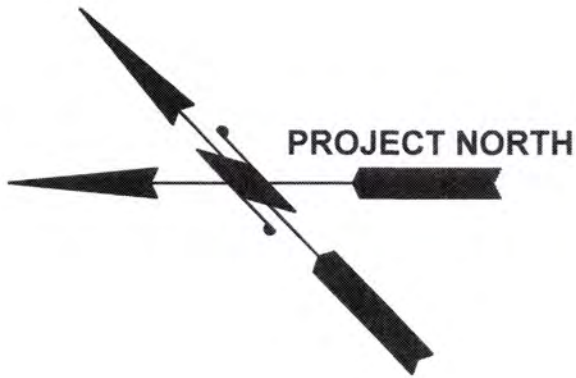
2E2.3



SHORE POWER VAULT PIER 4

CONSTRUCTION PHOTO, EXACT VAULT UNKNOWN

46



6658

E2.7

44 OF 83

CONT/CONS: 07/357

M. ID: 201100.01

PHASE: BID SET

TERMINAL 3 / TERMINAL 4

SHORE POWER

SHORE POWER VAULT PHOTOS

APPROVED:

XXX

DIRECTOR ENG. DATE

PRINTED BY: curtis Feb. 02, 2022

PORT ADDRESS: ONE SITCUM PLAZA

TACOMA, WA 98401-1837

CHECKED BY

DATE

PROJ. ENGR

DATE

2/2/22

REVISION:

BY:

DATE:

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BY:

DATE:

ELCON ASSOCIATES, INC.

ENGINEERS - CONSULTANTS

16900 CHRISTENSEN ROAD, SUITE 330

SEATTLE, WASHINGTON 98188

TEL (206) 246-5022

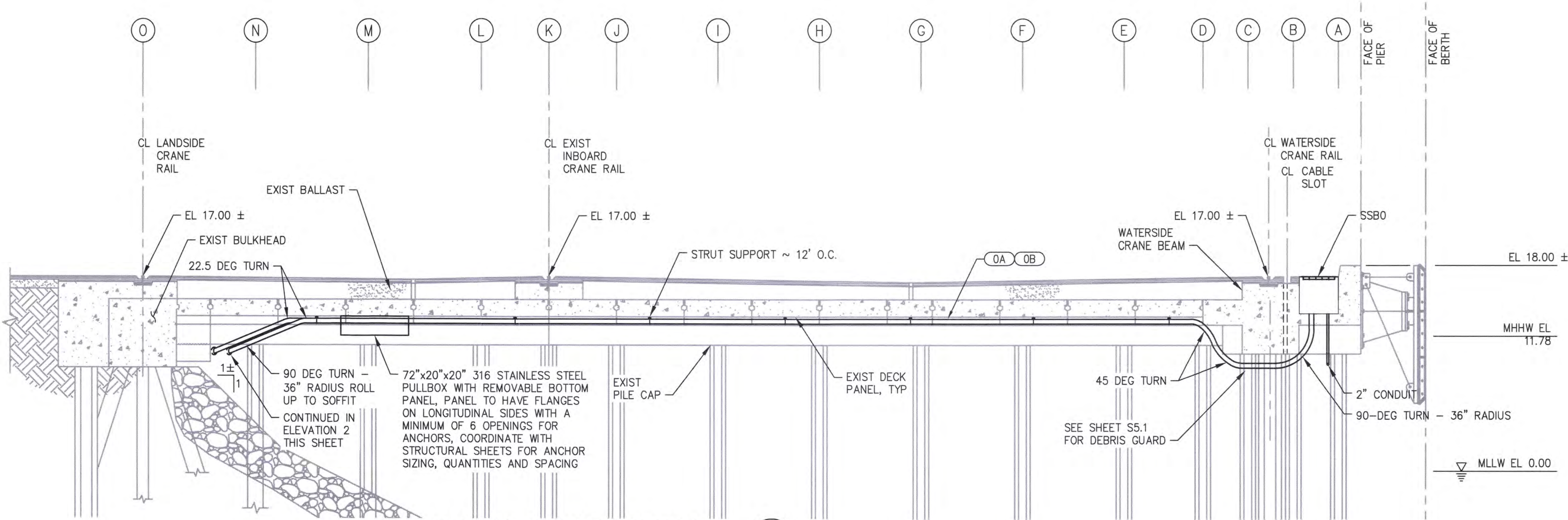
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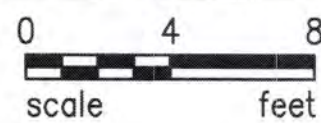
P.O. BOX 1837 TACOMA, WA 98401 (206)383-5841

GENERAL NOTES

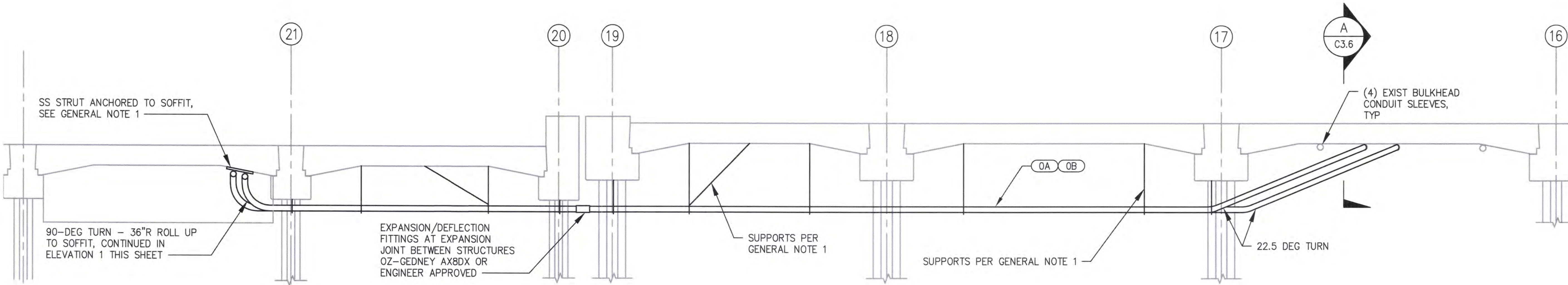
- SEE SHEETS S5.1 AND S5.2 FOR ADDITIONAL CONDUIT SUPPORT DETAILS.



CONDUIT SUPPORT ELEVATION



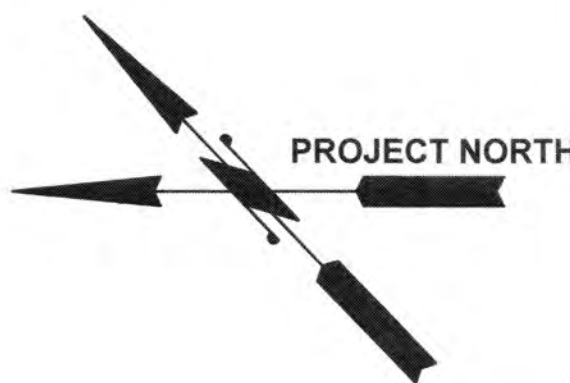
1
E1.2



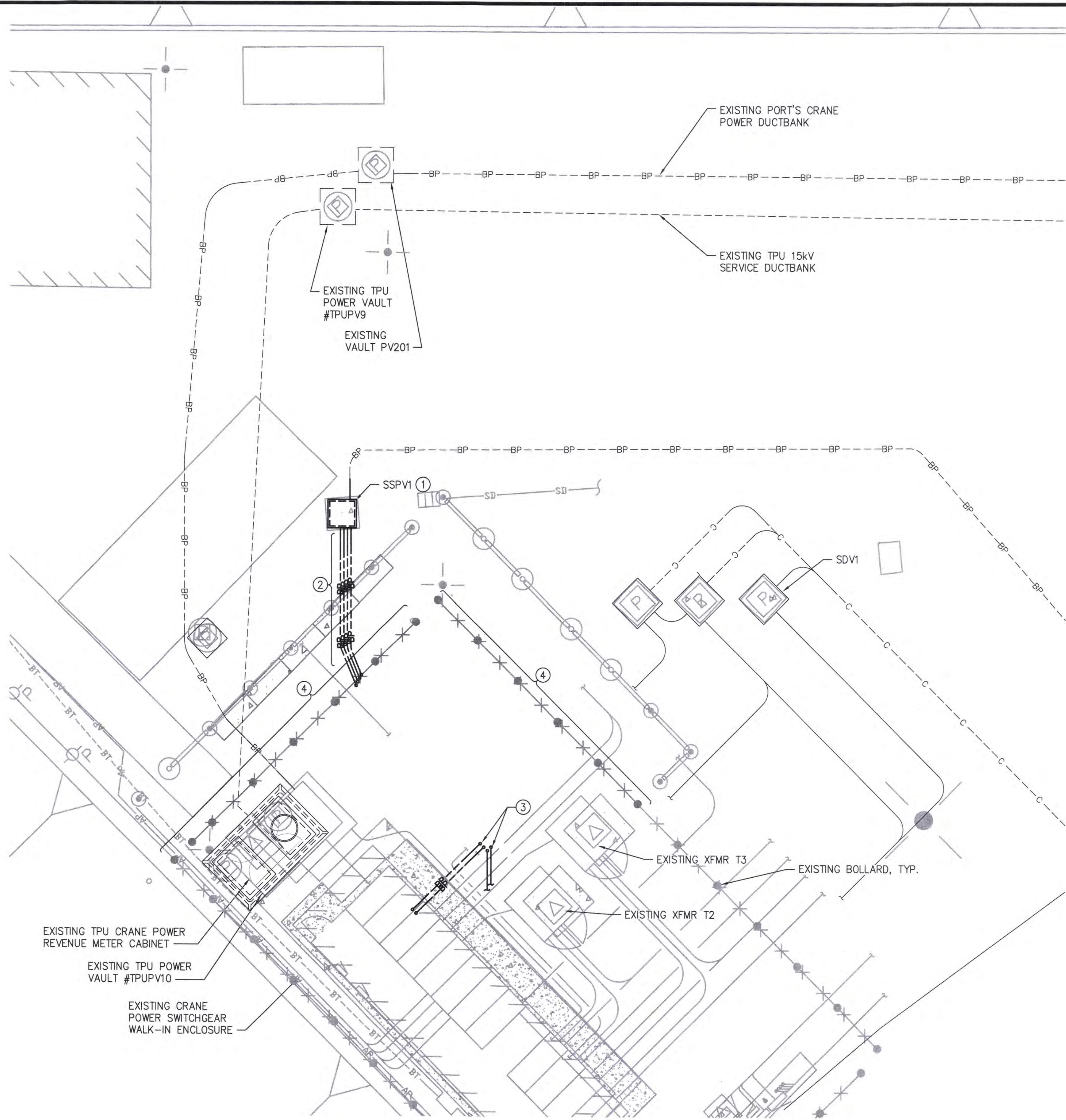
CONDUIT SUPPORT ELEVATION



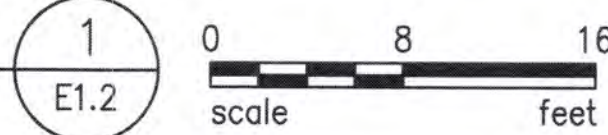
2
E1.2



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DEMOLITION PLAN - PIER 3

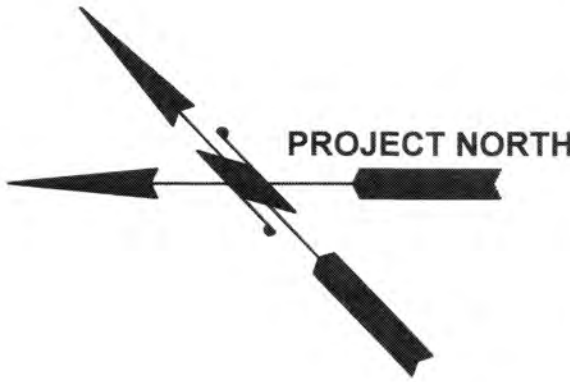


GENERAL NOTES

1. ELECTRICAL UTILITY INFRASTRUCTURE SHOWN IS BASED ON HISTORICAL DOCUMENTS AND HAS NOT BEEN FIELD VERIFIED.
2. EXISTING #2/0 GROUND GRID IS APPROXIMATELY 18" BELOW GRADE WITHIN BOLLARD ENCLOSURE, SPACED 4' APART. RESTORE ANY DAMAGED SECTIONS TO ORIGINAL CONDITION.
3. ALL EXISTING EQUIPMENT ON THIS DRAWING TO REMAIN IN PLACE UNLESS NOTED OTHERWISE.

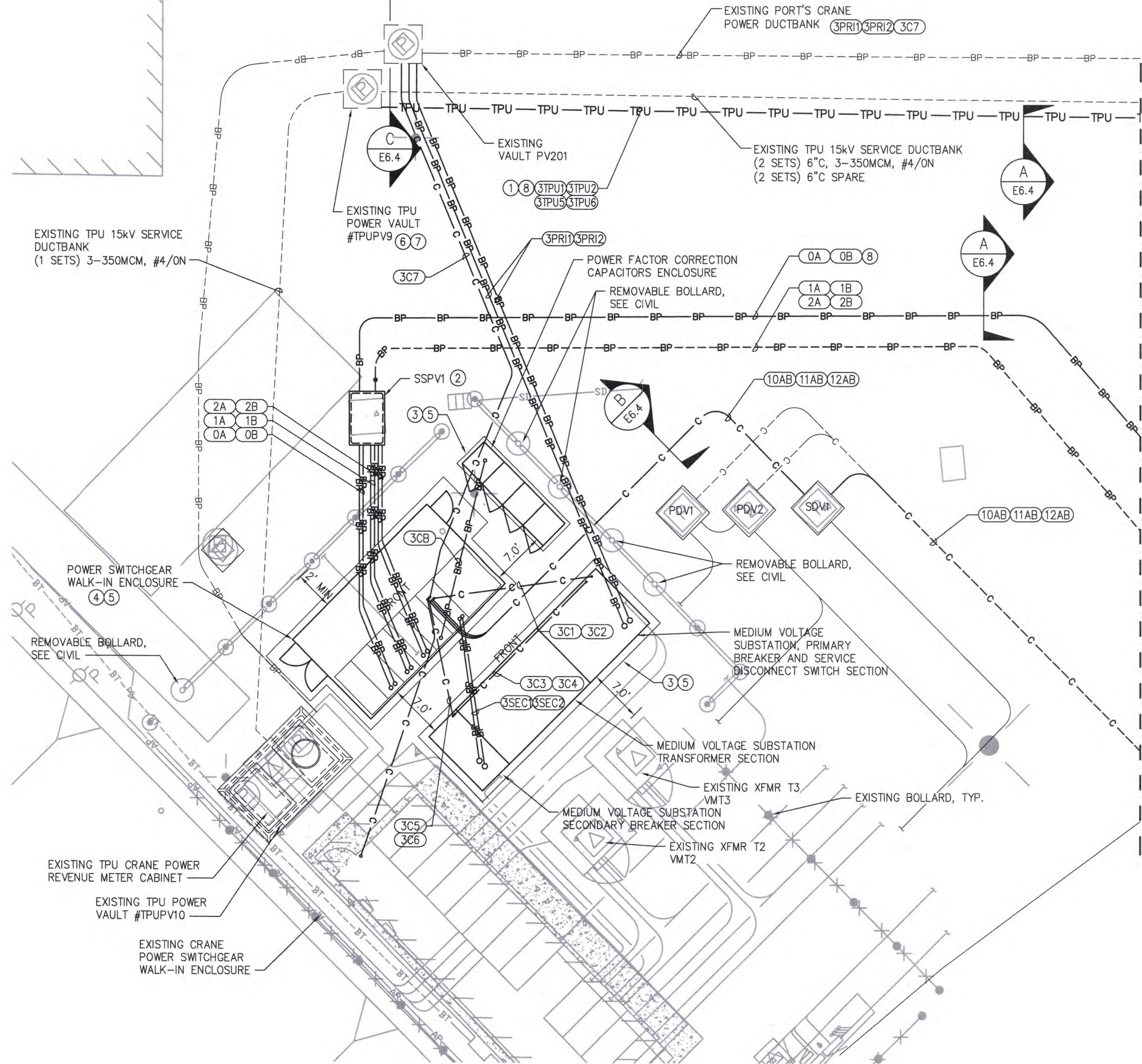
KEY NOTES

- ① DEMOLISH 4'x4'x4' CONCRETE VAULT.
- ② DEMOLISH CONDUITS WEST OF CONCRETE VAULT. SEE CIVIL FOR ASPHALT RESTORATION REQUIREMENTS.
- ③ DEMOLISH ABOVE GRADE PORTION OF EMPTY CONDUITS AND CAP.
- ④ SEE CIVIL FOR EXISTING BOLLARDS TO BE DEMOLISHED. FOR EACH BOLLARD TO BE REMOVED, DEMOLISH #2/0 GROUND WIRE BETWEEN BOLLARD AND EXISTING GROUND GRID.

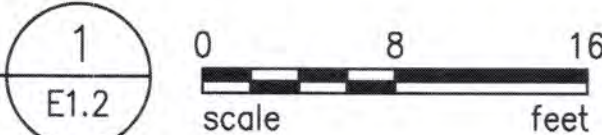


6658 E3.1 46 OF 83 CONT/CONS: 071357 M. ID: 201100.01 PHASE: BID SET	TERMINAL 3 / TERMINAL 4 SHORE POWER ENLARGED ELECTRICAL DEMOLITION PLAN SUBSTATION - PIER 3		APPROVED: XXX XXX <i>[Signature]</i> 2/1/22 DIRECTOR ENG. DATE PRINTED BY: curtis Feb 02, 2022 PORT ADDRESS: ONE SITUUM PLAZA TACOMA, WA 98401-1837	CHECKED BY DATE PROJ. ENGR DATE FEB 02, 2022	ELCON ASSOCIATES, INC. ENGINEERS - CONSULTANTS 16300 CHRISTENSEN ROAD, SUITE 330 SEATTLE, WASHINGTON 98188 TEL (206) 243-5022 www.elcon.com		Port of Tacoma P.O. BOX 1837 TACOMA, WA 98401 (206) 388-5841
	DRAWING SCALE: AS NOTED		MARK:	REVISION:	BY:	DATE:	

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SUBSTATION PLAN - PIER 3



GENERAL NOTES

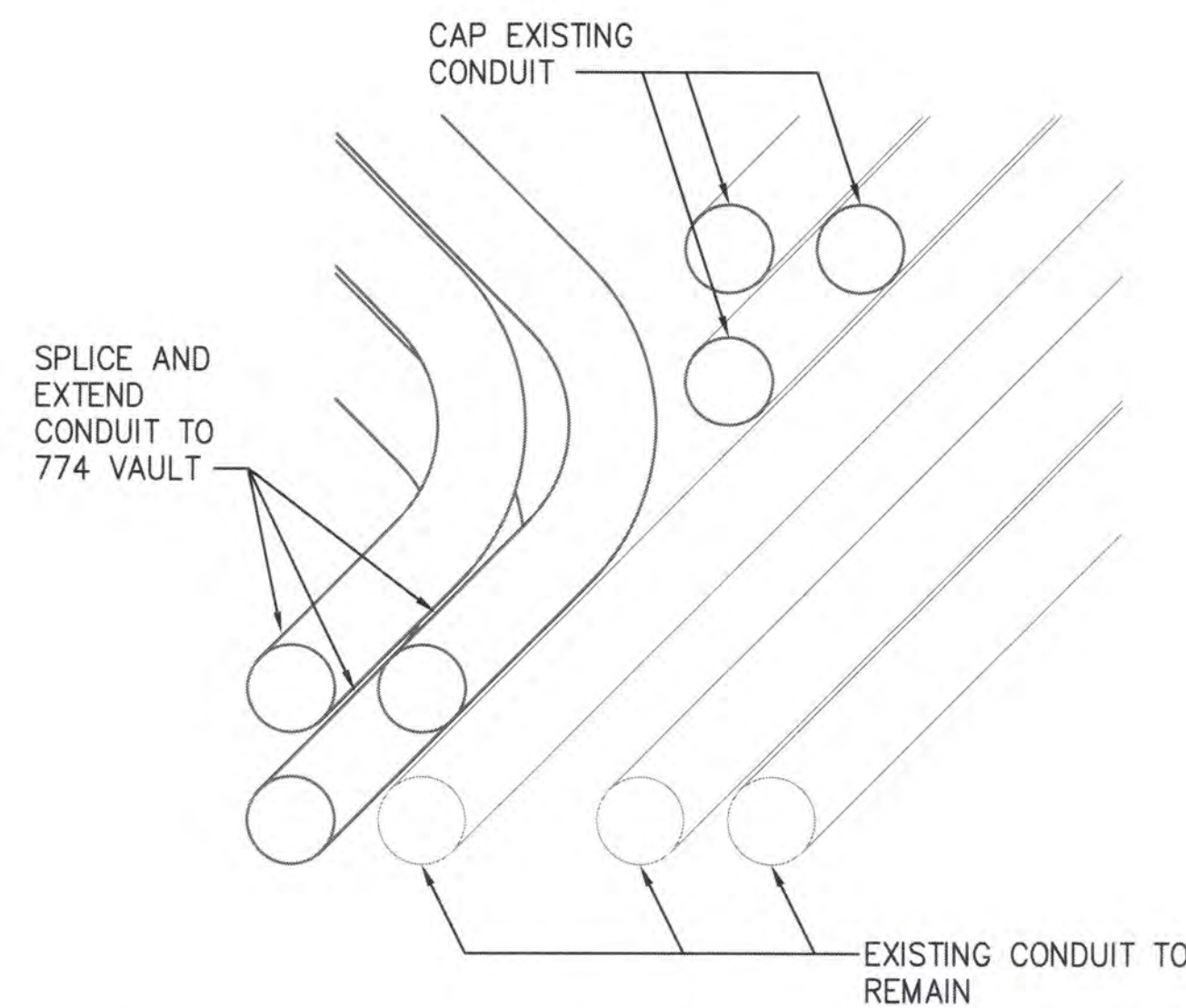
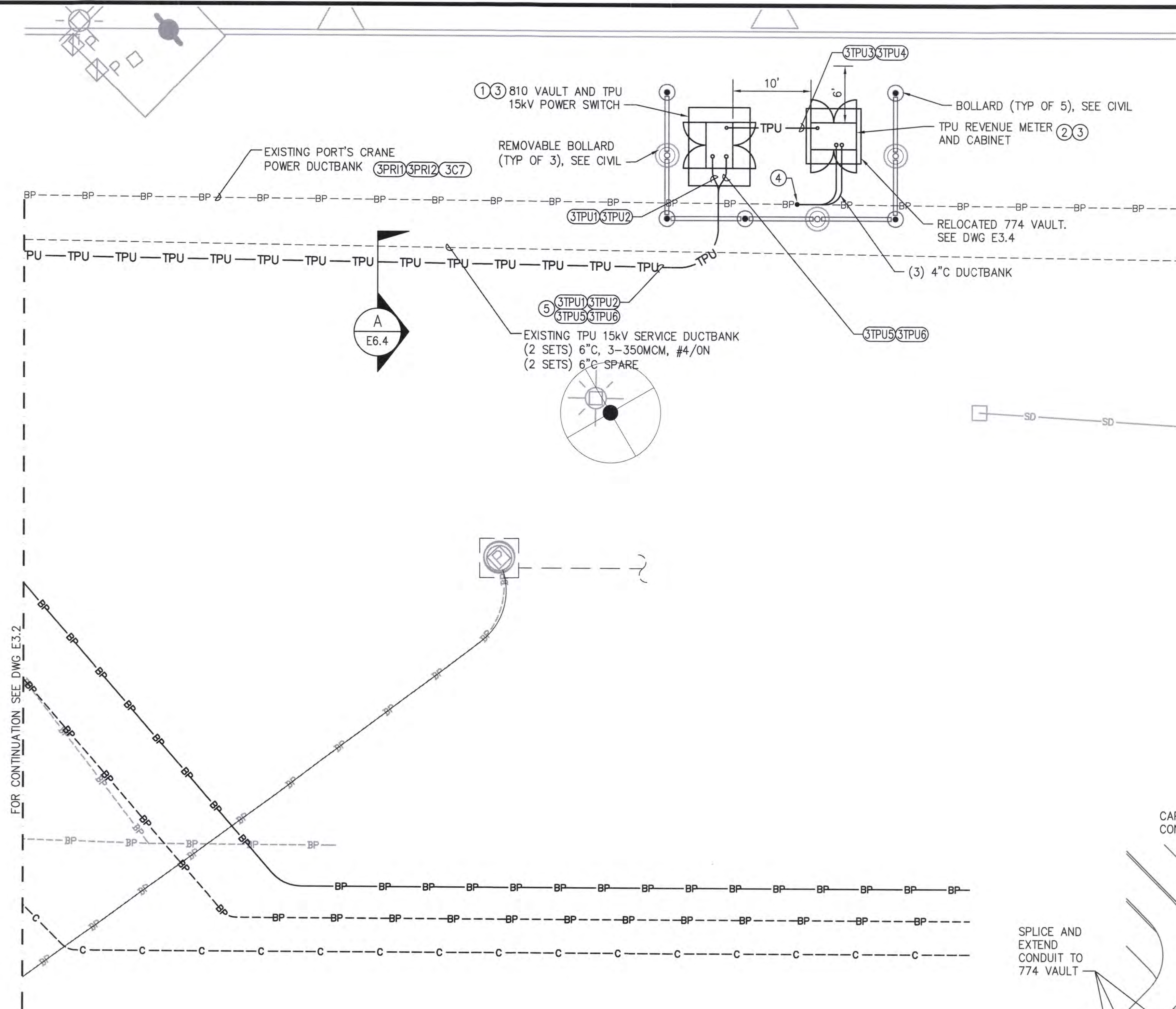
1. ELECTRICAL UTILITY INFRASTRUCTURE SHOWN IS BASED ON HISTORICAL DOCUMENTS AND HAS NOT BEEN FIELD VERIFIED.
2. BOLLARD LAYOUTS PER CIVIL AND ARE BASED ON ANTICIPATED EQUIPMENT SIZES. CONTRACTOR SHALL CONFIRM MINIMUM CLEARANCES SHOWN BASED ON ACTUAL EQUIPMENT PROVIDED.
3. ONLY ELECTRICAL SUBCONTRACTORS THAT ARE ON TPU'S PRE-QUALIFIED LIST SHALL WORK ON TPU'S DUCT BANKS AND VAULTS.
4. SEE SHEET E7.1 FOR GROUNDING PLAN.

KEY NOTES

- ① COORDINATE WITH TACOMA POWER FOR SHORE POWER ELECTRICAL SERVICE CONNECTION INCLUDING INSTALLATION OF 15kV SWITCH BY UTILITY.
- ② PROVIDE 7'x5'x4' CONCRETE VAULT. SPLICE EXISTING 5" CONDUITS AND EXTEND INTO NEW VAULT.
- ③ CONCRETE PAD, SEE STRUCTURAL SHEET S4.1 FOR DETAILS.
- ④ PROVIDE MINIMUM 9" ABOVE FINISHED GRADE, RE-BAR REINFORCED, CONCRETE PAD BELOW WALK-IN SWITCHGEAR ENCLOSURE. SEE SPECIFICATION 33 77 00, PARAGRAPH 2.04, FOR WALK-IN ENCLOSURE REQUIREMENTS. PROVIDE BLOCK-OUTS IN CONCRETE PAD BELOW SWITCHGEAR FOR CONDUIT ACCESS. CONTRACTOR AS PART OF THE SHOP DRAWINGS SHALL PROVIDE CONCRETE PAD SUBMITTAL THAT HAS BEEN DESIGNED AND STAMPED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF WASHINGTON. SEE SPECIFICATIONS 03 30 00 FOR CONCRETE SLAB AND REINFORCING CONSTRUCTION REQUIREMENTS.
- ⑤ SEE CIVIL FOR EARTHWORK DETAILS BELOW SLAB.
- ⑥ TPU WILL INTERCEPT EXISTING 15kV CABLES IN VAULT AND PROVIDE NEW 15kV CABLES TO 15kV POWER SWITCH AND SHORE POWER SUBSTATION. TPU WILL ALSO PROVIDE NEW 15kV CABLES TO RESTORE 15kV SERVICE TO EXISTING CRANE POWER SWITCHGEAR. SEE ONE-LINE DIAGRAM ON DWG E5.1.
- ⑦ COORDINATE WITH TPU FOR DUCT BANK CONNECTION TO VAULT.
- ⑧ MAINTAIN 3' MINIMUM CLEARANCE BETWEEN EXISTING AND NEW PARALLEL DUCT BANKS.

6658 E3.2 47 OF 83 CONT/CONS: 071357 M. ID: 201100.01 PHASE: BID SET	TERMINAL 3 / TERMINAL 4 SHORE POWER ENLARGED ELECTRICAL CONSTRUCTION PLAN SUBSTATION - PIER 3	APPROVED: XXX DIRECTOR ENG. DATE: <i>2/2/22</i>	CHECKED BY: DATE: <i>2/2/22</i>	PROJ. ENGR: DATE: <i>2/2/22</i>	PRINTED BY: DATE: <i>2/2/22</i>	PORT ADDRESS: ONE SITCOM PLAZA TACOMA, WA 98401-1837	DRAWING SCALE: AS NOTED
		ELCON ASSOCIATES, INC. ENGINEERS - CONSULTANTS 16300 CHRISTENSEN ROAD, SUITE 330 SEATTLE, WASHINGTON 98188 TEL (206) 243-5022 www.elcon.com	MARK: REVISION: BY: DATE: APPR: DATE:				

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EXISTING DUCT BANK MODIFICATIONS

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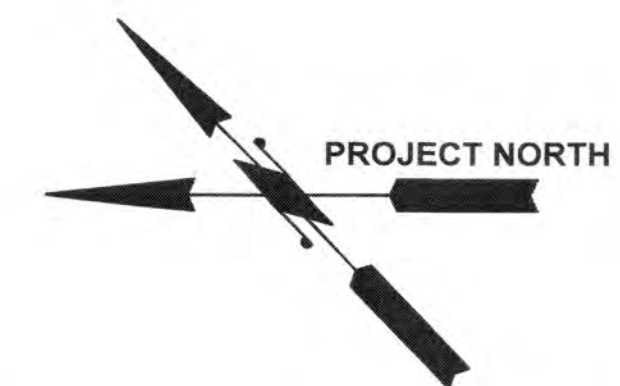
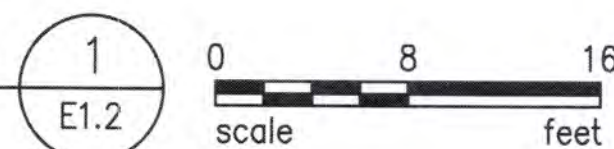
GENERAL NOTES

1. ELECTRICAL UTILITY INFRASTRUCTURE SHOWN IS BASED ON HISTORICAL DOCUMENTS AND HAS NOT BEEN FIELD VERIFIED.
2. ONLY ELECTRICAL SUBCONTRACTORS THAT ARE ON TPU'S PRE-QUALIFIED LIST SHALL WORK ON TPU'S DUCT BANKS AND VAULTS.
3. SEE SHEET E7.1 FOR GROUNDING PLAN.

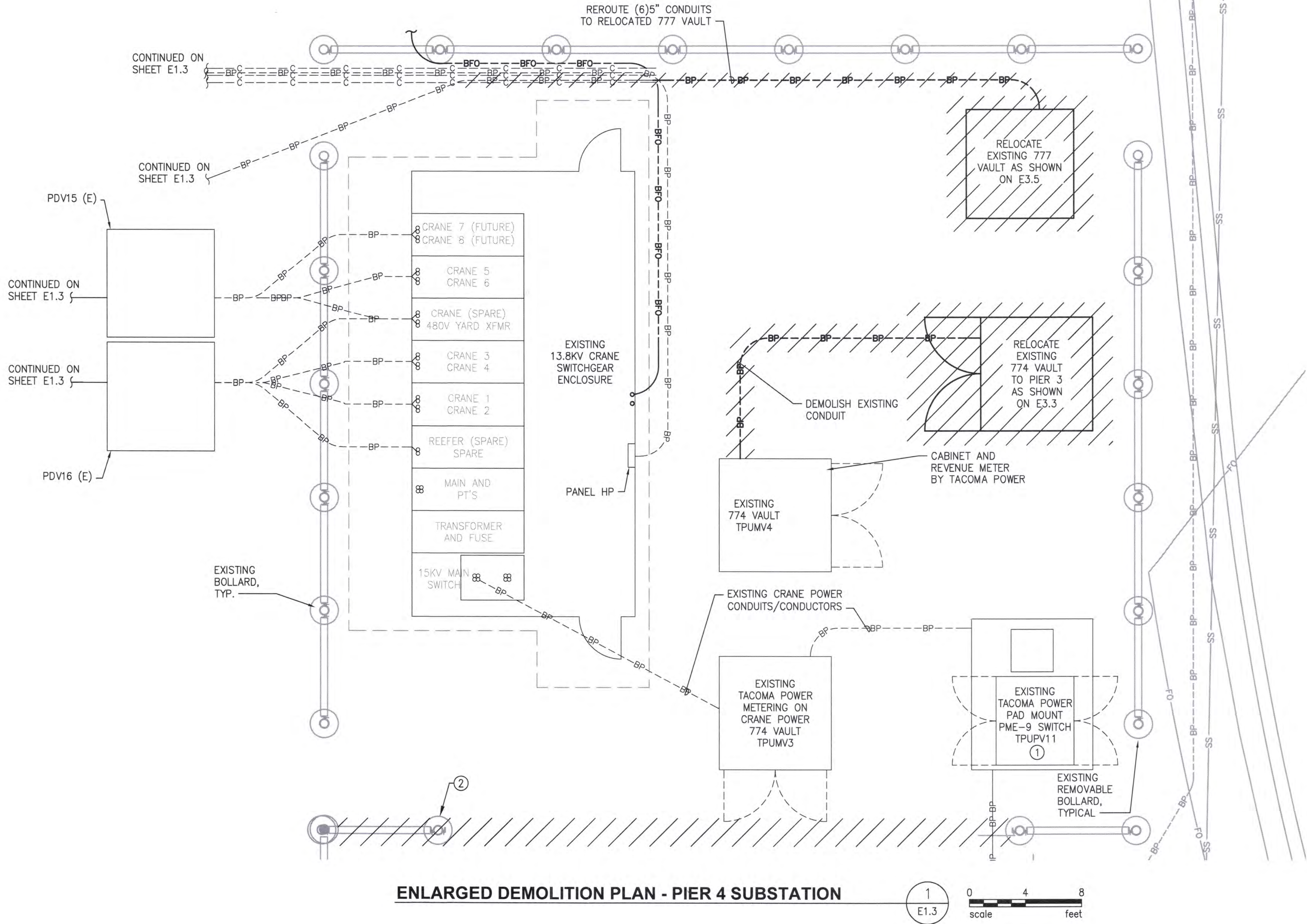
KEY NOTES

1. COORDINATE WITH TACOMA POWER FOR SHORE POWER ELECTRICAL SERVICE CONNECTION INCLUDING INSTALLATION OF 15kv SWITCH BY UTILITY. PROVIDE 810 VAULT PER TACOMA POWER PRECAST CONCRETE VAULT STANDARDS.
2. COORDINATE WITH TACOMA POWER FOR INSTALLATION OF NEW CABINET AND REVENUE METER BY UTILITY.
3. VAULT INSTALLED BY CONTRACTOR.
4. PARTIALLY DEMOLISH EXISTING DUCTBANK, SPLICE AND EXTEND (3) EXISTING 4\"/>

TPU SERVICE EQUIPMENT PLAN - PIER 3



6658 E3.3 48 OF 83 CONT/CONS: 071357 M. ID: 201100.01 PHASE: BID SET	TERMINAL 3 / TERMINAL 4 SHORE POWER ENLARGED ELECTRICAL CONSTRUCTION PLAN PIER 3 TPU SERVICE EQUIPMENT		APPROVED: XXX DIRECTOR ENG. DATE: <i>[Signature]</i> Feb 02, 2022 PRINTED BY: curtis Feb 02, 2022 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	CHECKED BY: <i>[Signature]</i> DATE: <i>[Signature]</i>	ELCON ASSOCIATES, INC. ENGINEERS - CONSULTANTS 16300 CHRISTENSEN ROAD, SUITE 330 SEATTLE, WASHINGTON 98188 TEL (206) 243-5022 www.elcon.com	Port of Tacoma P.O. BOX 187 TACOMA, WA 98401 (253) 883-5841
	TOWNSHIP: DAT-HRZ: PARCEL:	RANGE: VERT: DRAWING SCALE: AS NOTED	REVISION: BY: DATE:	MARK:		



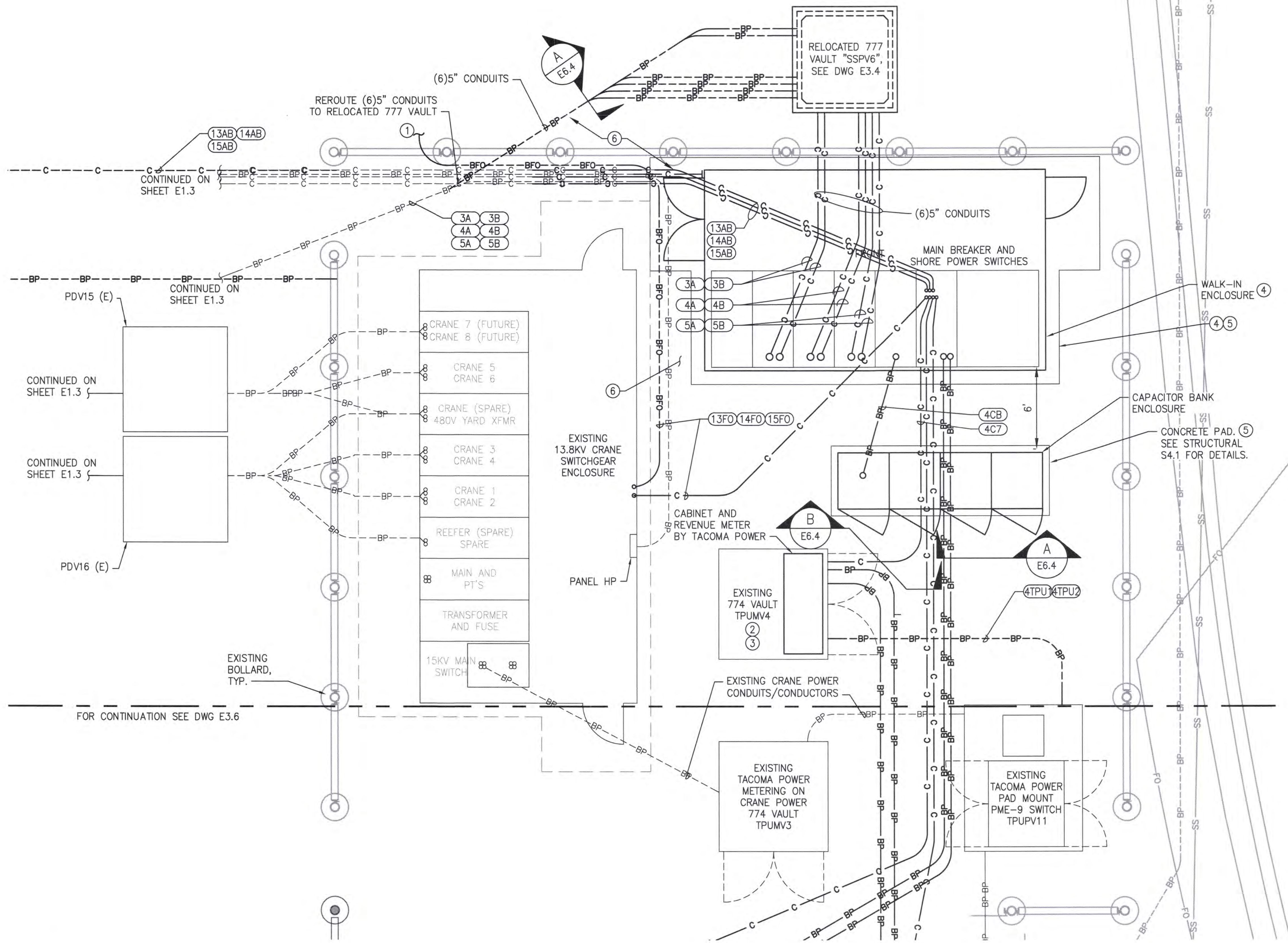
- ### GENERAL NOTES

 - EXISTING #2/0 GROUND GRID IS APPROXIMATELY 18" BELOW GRADE WITHIN BOLLARD ENCLOSURE, SPACED 4' APART. RESTORE ANY DAMAGED SECTIONS TO ORIGINAL CONDITION.
 - ALL EXISTING EQUIPMENT ON THIS DRAWING TO REMAIN IN PLACE UNLESS NOTED OTHERWISE.
 - ONLY ELECTRICAL SUBCONTRACTORS THAT ARE ON TPU'S PRE-QUALIFIED LIST SHALL WORK ON TPU'S DUCT BANKS AND VAULTS.
- ### KEY NOTES

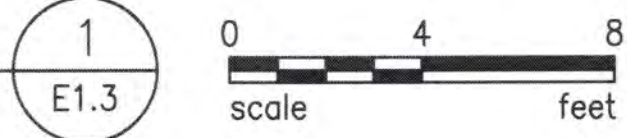
 - COORDINATE WITH TACOMA POWER FOR SHORE POWER ELECTRICAL SERVICE CONNECTION.
 - SEE CIVIL DRAWINGS FOR EXISTING BOLLARDS TO BE DEMOLISHED. FOR EACH BOLLARD TO BE REMOVED, DEMOLISH EXISTING #2/0 GROUND WIRE BETWEEN BOLLARD AND EXISTING GRID.

6658 E3.4 49 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER ENLARGED ELECTRICAL DEMOLITION PLAN SUBSTATION-PIER 4				APPROVED: XXX DIRECTOR ENG. DATE PRINTED BY: curtis Feb 02, 2022		CHECKED BY: DATE PROJ. ENGR DATE		ELCON ASSOCIATES, INC. ENGINEERS - CONSULTANTS 16300 CHRISTENSEN ROAD, SUITE 330 SEATTLE, WASHINGTON 98188 TEL (206) 243-4022 www.elcon.com		Port of Tacoma P.O. BOX 1837 TACOMA, WA 98401 (206)585-5841	
	CONT/CONS: 071357		TOWNSHIP:		RANGE:		SECTION:		MARK: REVISION:		BY:	
	M. ID: 201100.01		DAT-HRZ:		VERT:		DRAWING SCALE: AS NOTED		DATE:		APPR:	
	PHASE: BID SET		PARCEL:		TACOMA, WA 98401-1837		2/2/22					

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ENLARGED ELECTRICAL PLAN - PIER 4 SUBSTATION

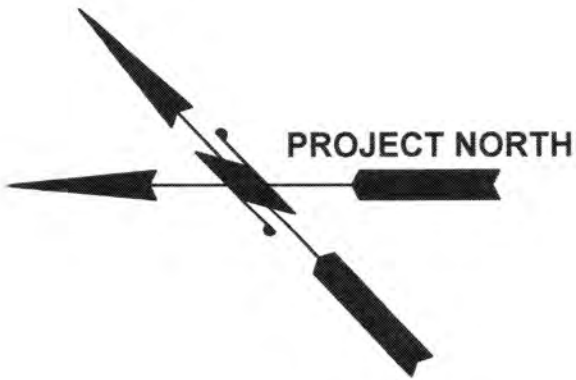


GENERAL NOTES

1. LIGHT OR SCREEN LINES INDICATE EXISTING ELECTRICAL EQUIPMENT; HEAVY LINE INDICATE NEW OR RELOCATED EQUIPMENT AND MATERIALS.
2. ONLY ELECTRICAL SUBCONTRACTORS THAT ARE ON TPU'S PRE-QUALIFIED LIST SHALL WORK ON TPU'S DUCT BANKS AND VAULTS.
3. BOLLARD LAYOUTS PER CIVIL AND ARE BASED ON ANTICIPATED EQUIPMENT SIZES. CONTRACTOR SHALL CONFIRM MINIMUM CLEARANCES SHOWN BASED ON ACTUAL EQUIPMENT PROVIDED.
4. SEE SHEET E7.2 FOR GFOUNDING PLAN.

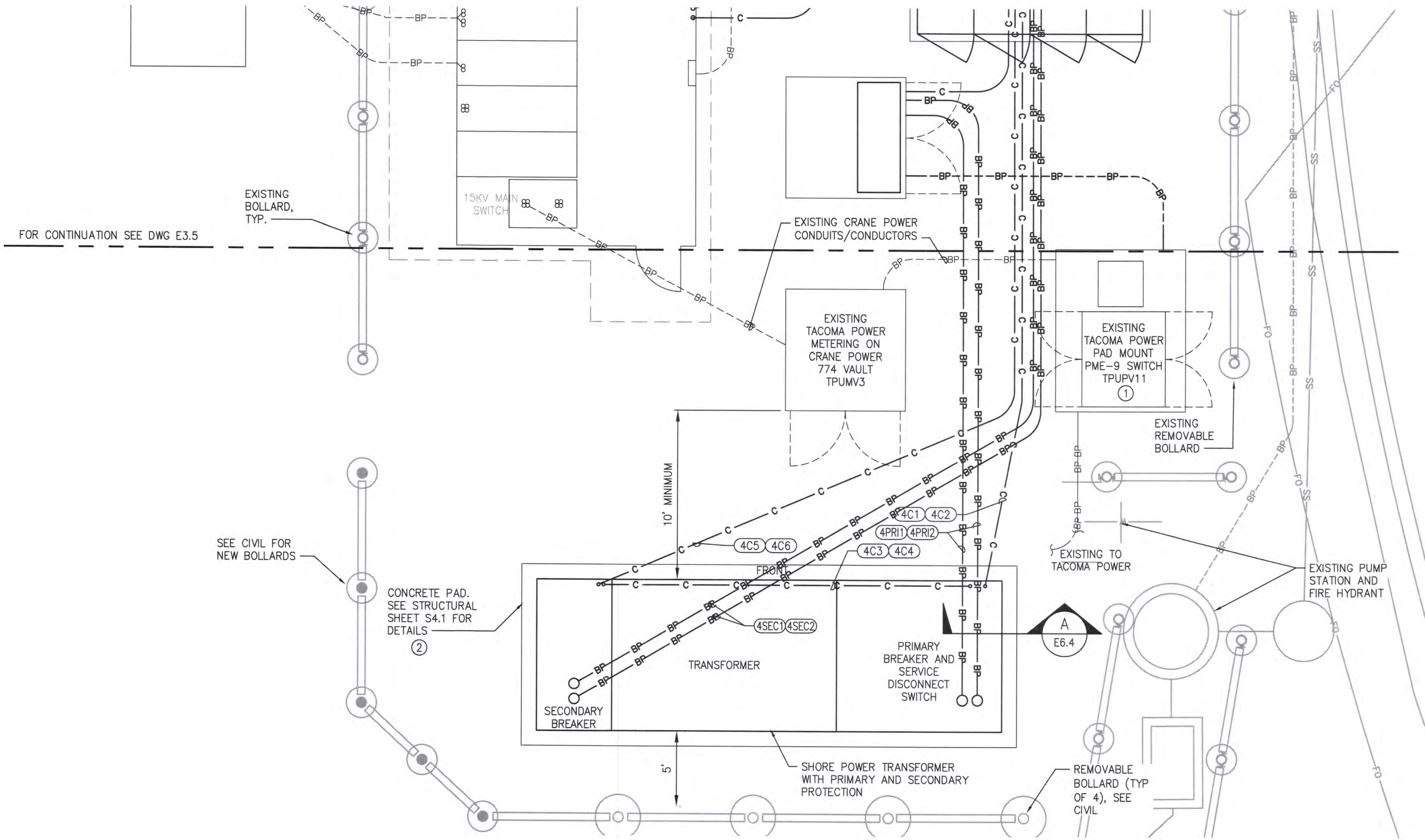
KEY NOTES

- ① TO SV225, CONTINUED ON SHEET E1.3.
- ② COORDINATE WITH TACOMA POWER FOR INSTALLATION OF NEW CABINET AND REVENUE METER BY UTILITY.
- ③ PROVIDE 6" CONCRETE RISER TO RAISE EXISTING 774 VAULT 6" FROM EXISTING ELEVATION. SEE CIVIL GRADING PLAN.
- ④ PROVIDE MINIMUM 9" ABOVE FINISHED GRADE, RE-BAR REINFORCED, CONCRETE PAD BELOW WALK-IN SWITCHGEAR ENCLOSURE. SEE SPECIFICATION 33 77 00, PARAGRAPH 2.04, FOR WALK-IN ENCLOSURE REQUIREMENTS. PROVIDE BLOCK-OUTS IN CONCRETE PAD BELOW SWITCHGEAR FOR CONDUIT ACCESS. CONTRACTOR AS PART OF THE SHOP DRAWINGS SHALL PROVIDE CONCRETE PAD SUBMITTAL THAT HAS BEEN DESIGNED AND STAMPED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF WASHINGTON. SEE SPECIFICATIONS 03 30 00 FOR CONCRETE SLAB AND REINFORCING CONSTRUCTION REQUIREMENTS.
- ⑤ SEE CIVIL FOR EARTHWORK DETAILS BELOW SLAB.
- ⑥ SEE SHEETS C3.3 AND C3.12 FOR NEW CATCH BASIN AND STORM DRAIN PIPING. COORDINATE CONDUIT ROUTING WITH NEW GRAVITY PIPING.

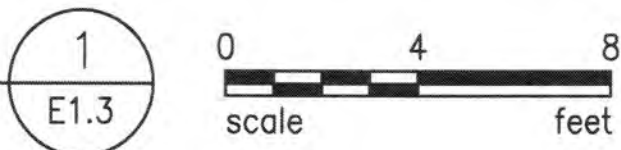


6658 E3.5 50 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER ENLARGED ELECTRICAL CONSTRUCTION PLAN SUBSTATION-PIER 4				APPROVED: XXX XXX <i>Phil J. [Signature]</i> DIRECTOR PRINTED BY: curtis Feb 02, 2022 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837	
	CONTRACT/CONS: 071357 M. ID: 201100.01 PHASE: BID SET	TOWNSHIP: DATE-HRZ: PARCEL:	RANGE: VERT:	SECTION: DRAWING SCALE: AS NOTED	CHECKED BY: DATE PROJ. ENGR. DATE ONE SITCUM PLAZA TACOMA, WA 98401-1837	DATE 2/2/22
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ENLARGED ELECTRICAL PLAN - PIER 4 SUBSTATION

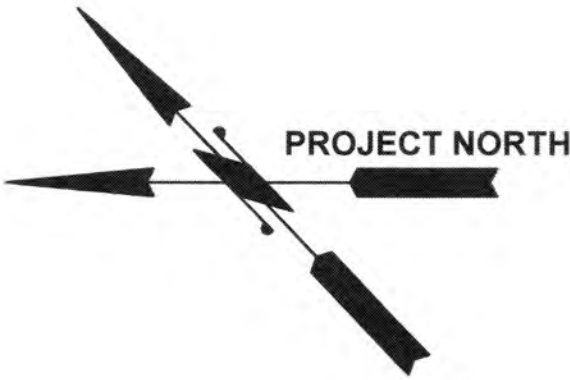


GENERAL NOTES

1. LIGHT OR SCREEN LINES INDICATE EXISTING ELECTRICAL EQUIPMENT. HEAVY LINE INDICATE NEW EQUIPMENT AND MATERIALS.
2. ONLY ELECTRICAL SUBCONTRACTORS THAT ARE ON TPU'S PRE-QUALIFIED LIST SHALL WORK ON TPU'S DUCT BANKS AND VAULTS.
3. BOLLARD LAYOUTS PER CIVIL AND ARE BASED ON ANTICIPATED EQUIPMENT SIZES. CONTRACTOR SHALL CONFIRM MINIMUM CLEARANCES SHOWN BASED ON ACTUAL EQUIPMENT PROVIDED.

KEY NOTES

- ① COORDINATE WITH TACOMA POWER FOR SHORE POWER ELECTRICAL SERVICE CONNECTION.
- ② SEE CIVIL FOR EARTHWORK DETAILS BELOW SLAB.



6658 E3.6 51 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER ENLARGED ELECTRICAL CONSTRUCTION PLAN SUBSTATION-PIER 4				APPROVED: XXX DIRECTOR ENG. DATE 2/2/22	CHECKED BY DATE 2/2/22	DATE 2/2/22	
	CONTR/CONS: 071357	TOWNSHIP: 201100.01	RANGE: 201100.01	SECTION: 201100.01	PRINTED BY: curtis Feb 02, 2022	PROJECT ENG. DATE 2/2/22	DATE 2/2/22	
PHASE: BID SET	PARCEL:	DRAWING SCALE: AS NOTED	PORT ADDRESS: ONE SITCOM PLAZA TACOMA, WA 98401-1837	TACOMA, WA 98401-1837				

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(*) = REFER TO NOTES COLUMN

PIER 3 CONDUIT AND CONDUCTOR SCHEDULE									
CONDUIT			CONDUCTORS		FROM	TO	VIA VAULTS	NOTES (*)	
ID	SIZE	N/E	SIZE	GROUND					
3TPU1	6"	NEW	BY TPU	BY TPU	TPUPV9	TPU 810 VAULT		ONE RUN OF 3#350 CU 15kV CABLE WITH #4/0 CU NEUTRAL BY TPU	
3TPU2	6"	NEW	NONE	NONE	TPUPV9	TPU 810 VAULT		SPARE CONDUIT	
3TPU3	6"	NEW	BY TPU	BY TPU	TPU 810 VAULT	774 VAULT		ONE RUN OF 3#350 CU 15kV CABLE WITH #4/0 CU NEUTRAL BY TPU	
3TPU4	6"	NEW	NONE	NONE	TPU 810 VAULT	774 VAULT		SPARE CONDUIT	
3TPU5	6"	NEW	BY TPU	BY TPU	TPUPV9	TPU 810 VAULT		ONE RUN OF 3#350 CU 15kV CABLE WITH #4/0 CU NEUTRAL BY TPU	
3TPU6	6"	NEW	BY TPU	BY TPU	TPUPV9	TPU 810 VAULT		SPARE CONDUIT	
3PRI1	4"	NEW (*)	3#350kcmil, 15kV	1#4/0	774 VAULT	PRI BREAKER		PORTION OF CIRCUIT REUSES EXISTING DUCT BANK	
3PRI2	4"	NEW (*)	NONE	NONE				PORTION OF CIRCUIT REUSES EXISTING DUCT BANK, SPARE CONDUIT	
3SEC1	4"	NEW	3#350kcmil, 15kV	1#4/0	SEC BREAKER	WALK-IN ENCLOSURE			
3SEC2	4"	NEW	3#350kcmil, 15kV	1#4/0	SEC BREAKER	WALK-IN ENCLOSURE			
0A	5"	NEW	3#350kcmil, 15kV	1#1/0	SWITCH-0A	HVSC B0-A	SSPV1, SSPV2, SSPV10		
0B	5"	NEW	3#350kcmil, 15kV	1#1/0	SWITCH-0B	HVSC B0-B	SSPV1, SSPV2, SSPV10		
1A	5"	EXIST (*)	3#350kcmil, 15kV	1#1/0	SWITCH-1A	HVSC B1-A	SSPV1, SSPV2, SSPV3	ADJUST CONDUIT ROUTING TO SWITCH 1 - ADD CONDUIT AS REQ'D	
1B	5"	EXIST (*)	3#350kcmil, 15kV	1#1/0	SWITCH-1B	HVSC B1-B	SSPV1, SSPV2, SSPV3	ADJUST CONDUIT ROUTING TO SWITCH 1 - ADD CONDUIT AS REQ'D	
2A	5"	EXIST (*)	3#350kcmil, 15kV	1#1/0	SWITCH-2A	HVSC B2-A	SSPV1, SSPV2, SSPV3, SSPV4, SSPV5	ADJUST CONDUIT ROUTING TO SWITCH 2 - ADD CONDUIT AS REQ'D	
2B	5"	EXIST (*)	3#350kcmil, 15kV	1#1/0	SWITCH-2B	HVSC B2-B	SSPV1, SSPV2, SSPV3, SSPV4, SSPV5	ADJUST CONDUIT ROUTING TO SWITCH 2 - ADD CONDUIT AS REQ'D	
10AB	2"	NEW	7/C #10 AWG, 600V 5/C #10 AWG, 600V 1 FIBER OPTIC (*)	1#10 1#10	WALK-IN ENCL	HVSC B0-AB	SDV1, SDV2, SDV3, WPV1	3-PAIR FIBER OPTIC CABLE	
11AB	4", 2"	EXIST (*)	7/C #10 AWG, 600V 5/C #10 AWG, 600V 1 FIBER OPTIC (*)	1#10 1#10	WALK-IN ENCL	HVSC B1-AB	SDV1, SDV2, SDV3, SDV4, WPV2	NEW 2" C FROM SDV1 TO WALK-IN ENCL & FROM WPV2 TO HVSC B1-AB	
12AB	4", 2"	EXIST (*)	7/C #10 AWG, 600V 5/C #10 AWG, 600V 1 FIBER OPTIC (*)	1#10 1#10	WALK-IN ENCL	HVSC B2-AB	SDV1, SDV2, SDV3, SDV4, SDV5, SDV6, SDV7, WPV5	3-PAIR FIBER OPTIC CABLE NEW 2" C FROM SDV1 TO WALK-IN ENCL & FROM WPV5 TO HVSC B2-AB	
3CB	4"	NEW	1#1/0 AWG, 15kV	1#2	CAP BANK	CAP BANK BREAKER		3-PAIR FIBER OPTIC CABLE	
3C1	2"	NEW	#10 AWG, 600V (*)	1#10	PRI BREAKER	WALK-IN ENCLOSURE		NUMBER OF CONTROLS CONDUCTORS PER VENDOR	
3C2	2"	NEW	INSTR CABLE (*)		PRI BREAKER	WALK-IN ENCLOSURE	PROVIDE GRS CONDUIT	NUMBER OF INSTRUMENTATION CABLES PER VENDOR	
3C3	2"	NEW	#10 AWG, 600V (*)	1#10	PRI BREAKER	SEC BREAKER		NUMBER OF CONTROLS CONDUCTORS PER VENDOR	
3C4	2"	NEW	INSTR CABLE (*)		PRI BREAKER	SEC BREAKER	PROVIDE GRS CONDUIT	NUMBER OF INSTRUMENTATION CABLES PER VENDOR	
3C5	2"	NEW	#10 AWG, 600V (*)	1#10	SEC BREAKER	WALK-IN ENCLOSURE		NUMBER OF CONTROLS CONDUCTORS PER VENDOR	
3C6	2"	NEW	INSTR CABLE (*)		SEC BREAKER	WALK-IN ENCLOSURE	PROVIDE GRS CONDUIT	NUMBER OF INSTRUMENTATION CABLES PER VENDOR	
3C7	4"	NEW	INSTR CABLE (*)		REVENUE METER	WALK-IN ENCLOSURE		CABLES FOR DEMAND METERING	

6658

E4.1

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CONT/CONS: 071357

M. ID: 201100.01

PHASE: BID SET

TERMINAL 3 / TERMINAL 4

SHORE POWER

PIER 3 CONDUIT AND CONDUCTOR SCHEDULE

TOWNSHIP: RANGE: SECTION: VERT: DRAWING SCALE: NONE

DAT-HRZ: PARCEL:

APPROVED: XXX

DIRECTOR ENG. DATE: 1/21/22

PRINTED BY: Curtis Feb 02, 2022

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THIN TEXT = EXISTING CONDITIONS
(*) = REFER TO NOTES COLUMN

PIER 4 CONDUIT AND CONDUCTOR SCHEDULE

CONDUIT			CONDUCTORS		FROM	TO	VIA VAULTS	NOTES (*)
ID	SIZE	N/E	SIZE	GROUND				
4TPU1	5"	EXIST (*)	BY TPU	BY TPU	TPUPV11	TPUMV4 VAULT		EXISTING CONDUIT
4TPU2	5"	EXIST (*)	NONE	NONE	TPUPV11	TPUMV4 VAULT		EXISTING SPARE CONDUIT
4PRI1	4"	NEW	3#350kcmil, 15kV	1#4/0	TPUMV4 VAULT	PRI BREAKER		
4PRI2	4"	NEW	NONE	NONE	TPUMV4 VAULT	PRI BREAKER		SPARE CONDUIT
4SEC1	4"	NEW	3#350kcmil, 15kV	1#4/0	SEC BREAKER	WALK-IN ENCLOSURE		
4SEC2	4"	NEW	3#350kcmil, 15kV	1#4/0	SEC BREAKER	WALK-IN ENCLOSURE		
3A	5"	EXIST (*)	3#350kcmil, 15kV	1#1/0	SWITCH-3A	HVSC B3-A	SSPV6, SSPV7, SSPV8, SSPV9	NEW CONDUIT ONLY TO SSPV6 VAULT AND TO WALK-IN ENCLOSURE - SEE DWG E3.5
3B	5"	EXIST (*)	3#350kcmil, 15kV	1#1/0	SWITCH-3B	HVSC B3-B	SSPV6, SSPV7, SSPV8, SSPV9	NEW CONDUIT ONLY TO SSPV6 VAULT AND TO WALK-IN ENCLOSURE - SEE DWG E3.5
4A	5"	EXIST (*)	3#350kcmil, 15kV	1#1/0	SWITCH-4A	HVSC B4-A	SSPV6, SSPV7, SSPV8	NEW CONDUIT ONLY TO SSPV6 VAULT AND TO WALK-IN ENCLOSURE - SEE DWG E3.5
4B	5"	EXIST (*)	3#350kcmil, 15kV	1#1/0	SWITCH-4B	HVSC B4-B	SSPV6, SSPV7, SSPV8	NEW CONDUIT ONLY TO SSPV6 VAULT AND TO WALK-IN ENCLOSURE - SEE DWG E3.5
5A	5"	EXIST (*)	3#350kcmil, 15kV	1#1/0	SWITCH-5A	HVSC B5-A	SSPV6, SSPV7	NEW CONDUIT ONLY TO SSPV6 VAULT AND TO WALK-IN ENCLOSURE - SEE DWG E3.5
5B	5"	EXIST (*)	3#350kcmil, 15kV	1#1/0	SWITCH-5B	HVSC B5-B	SSPV6, SSPV7	NEW CONDUIT ONLY TO SSPV6 VAULT AND TO WALK-IN ENCLOSURE - SEE DWG E3.5
13AB	2"	EXIST (*)	7/C #10 AWG, 600V 5/C #10 AWG, 600V	1#10 1#10	WALK-IN ENCL	HVSC B3-AB	SDV15, SDV14, SDV12, SDV10, SDV9, SDV8, SDV16, SDV17, SDV23	NEW 2" C FROM 233 LA VAULT TO WALK-IN ENLOSURE - SEE DWG E3.5
14AB	2"	EXIST (*)	7/C #10 AWG, 600V 5/C #10 AWG, 600V	1#10 1#10	WALK-IN ENCL	HVSC B4-AB	SDV15, SDV14, SDV12, SDV10, SDV9	NEW 2" C FROM 233 LA VAULT TO WALK-IN ENLOSURE - SEE DWG E3.5
15AB	2"	EXIST (*)	7/C #10 AWG, 600V 5/C #10 AWG, 600V	1#10 1#10	WALK-IN ENCL	HVSC B5-AB	SDV15, SDV14, SDV12	NEW 2" C FROM 233 LA VAULT TO WALK-IN ENLOSURE - SEE DWG E3.5
13FO	2"	EXIST (*)	1 3-PR FIBER OPTIC		WALK-IN ENCL	HVSC B3-AB	SV225, SV224, SV210, SV212, SV213, SV214, SV216, SV218	3-PAIR FIBER OPTIC CABLE
14FO	2"	EXIST (*)	1 3-PR FIBER OPTIC		WALK-IN ENCL	HVSC B4-AB	SV225, SV224, SV210, SV212, SV213, SV214, SV216	3-PAIR FIBER OPTIC CABLE
15FO	2"	EXIST (*)	1 3-PR FIBER OPTIC		WALK-IN ENCL	HVSC B5-AB	SV225, SV224, SV210	3-PAIR FIBER OPTIC CABLE
4CB	4"	NEW	1#1/0 AWG, 15kV	1#2	CAP BANK	CAP BANK BREAKER		
4C1	2"	NEW	#10 AWG, 600V (*)	1#10	PRI BREAKER	WALK-IN ENCLOSURE		NUMBER OF CONTROLS CONDUCTORS PER VENDOR
4C2	2"	NEW	INSTR CABLE (*)		PRI BREAKER	WALK-IN ENCLOSURE	PROVIDE GRS CONDUIT	NUMBER OF INSTRUMENTATION CABLES PER VENDOR
4C3	2"	NEW	#10 AWG, 600V (*)	1#10	PRI BREAKER	SEC BREAKER		NUMBER OF CONTROLS CONDUCTORS PER VENDOR
4C4	2"	NEW	INSTR CABLE (*)		PRI BREAKER	SEC BREAKER	PROVIDE GRS CONDUIT	NUMBER OF INSTRUMENTATION CABLES PER VENDOR
4C5	2"	NEW	#10 AWG, 600V (*)	1#10	SEC BREAKER	WALK-IN ENCLOSURE		NUMBER OF CONTROLS CONDUCTORS PER VENDOR
4C6	2"	NEW	INSTR CABLE (*)		SEC BREAKER	WALK-IN ENCLOSURE	PROVIDE GRS CONDUIT	NUMBER OF INSTRUMENTATION CABLES PER VENDOR
4C7	2"	NEW	INSTR CABLE (*)		REVENUE METER	WALK-IN ENCLOSURE		CABLES FOR DEMAND METERING

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E4.2

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CONT /CONS: 07/357
IM. ID: 201100.01
PHASE: BID SET

TERMINAL 3 / TERMINAL 4

SHORE POWER

PIER 4 CONDUIT AND CONDUCTOR SCHEDULE

TOWNSHIP: RANGE: SECTION: DATE-HRZ: PARCEL:

DRAWING SCALE: NONE

APPROVED: XXX

XXX *[Signature]*
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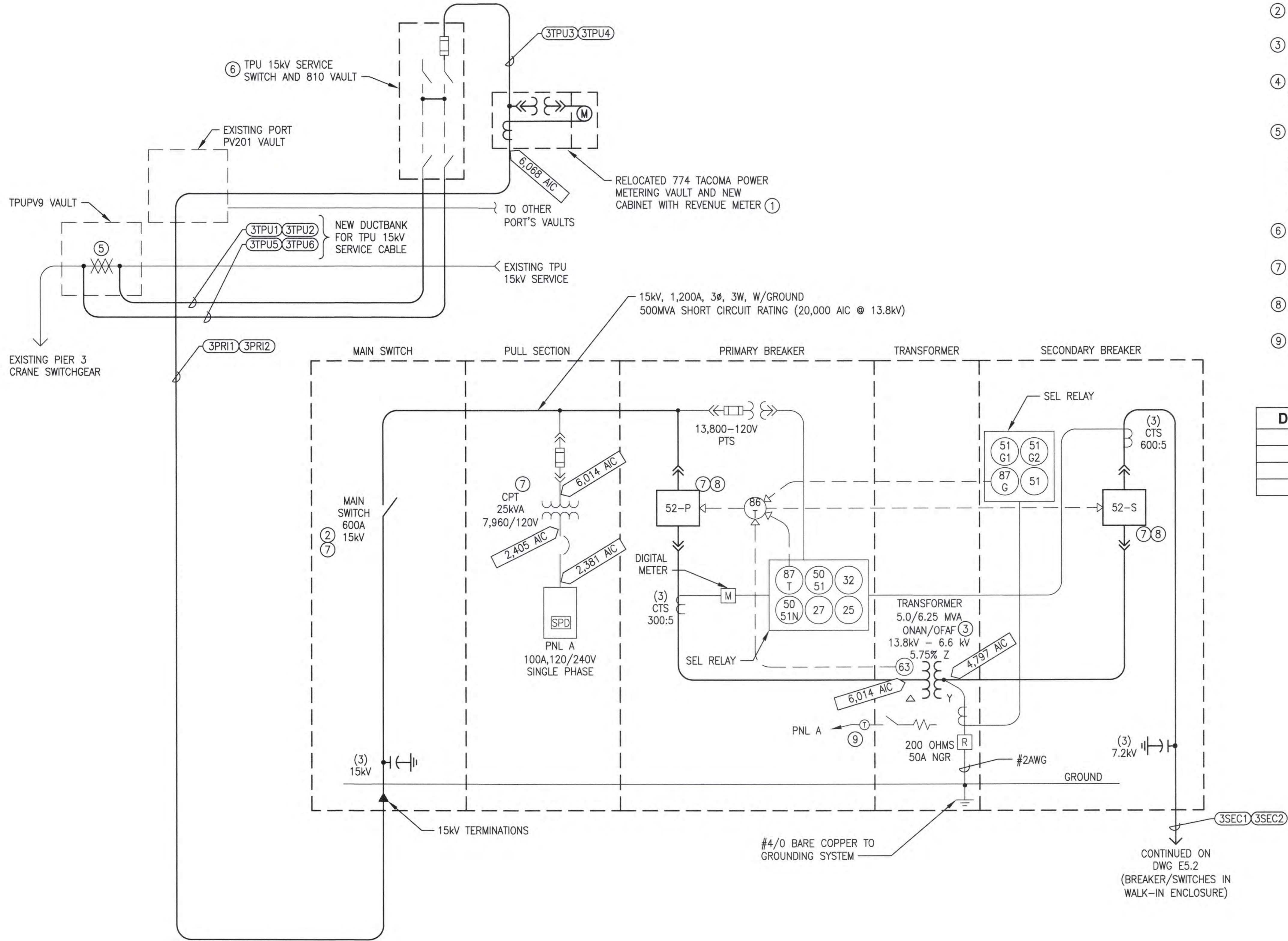
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PIER 3 SHORE POWER ONE-LINE DIAGRAM - SHEET 1
NO SCALE

KEY NOTES

- 1 VULT RELOCATION BY ELECTRICAL CONTRACTOR, CABINET AND REVENUE METER BY TACOMA POWER.
- 2 MAIN SERVICE SWITCH SHALL HAVE VISIBLE BLADES TO CONFIRM SWITCH IS IN THE OFF POSITION.
- 3 INCLUDE PROVISIONS FOR FUTURE FANS ON THE TRANSFORMER, SEE SPECIFICATIONS.
- 4 VESSEL MAXIMUM DEMAND WAS OBTAINED FROM PORT OF LOS ANGELES ACTUAL DEMAND READINGS OF 74 VESSELS (APRIL 2019).
- 5 TPU WILL HAVE AN OUTAGE TO INTERCEPT EXISTING 15KV SERVICE AND INSTALL NEW 15KV POWER SWITCH AND REVENUE CABINET/METER. WORK BY CONTRACTOR AND TPU BEFORE OUTAGE SHALL BE PRIORITIZED TO MINIMIZE OUTAGE DURATION. CONTRACTOR SHALL COORDINATE WITH TPU TO ACCOMPLISH THIS WORK.
- 6 VULT BY ELECTRICAL CONTRACTOR, 15KV SERVICE SWITCH BY TPU.
- 7 PROVIDE 15KV IR WINDOWS (MINIMUM 4"Ø) AT EACH 15KV CUBICLE OF THE MEDIUM VOLTAGE SUBSTATION.
- 8 PROVIDE SIEMENS WINPM POWER MONITORING SYSTEM.
- 9 PROVIDE SPACE HEATER, THERMOSTAT AND DISCONNECT.

DESIGN BASIS LOAD CALCULATIONS 4

VESSEL MAXIMUM DEMAND		
2.59 MW @	0.8 PF	3.24 MVA
CONTINUOUS DEMAND +	125%	4.05 MVA
AMPERAGE @	6.6 kV	354.01 A

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E5.1
54 OF 83

CONT/CONS: 071357
M. ID: 201100.01
PHASE: BID SET

TERMINAL 3 / TERMINAL 4
SHORE POWER
PIER 3 SHORE POWER
ONE-LINE DIAGRAM - SHEET 1

TOWNSHIP:
DAT-HRZ:
PARCEL:

RANGE:
VERT:

SECTION:
DRAWING SCALE: AS NOTED

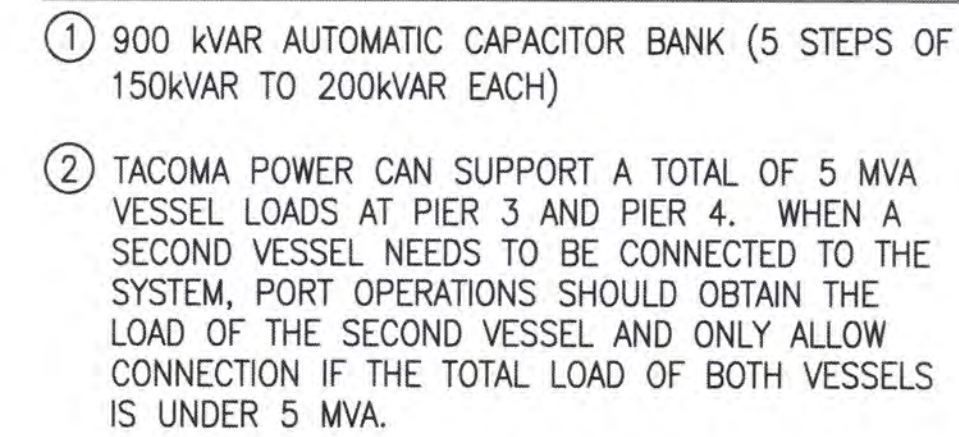
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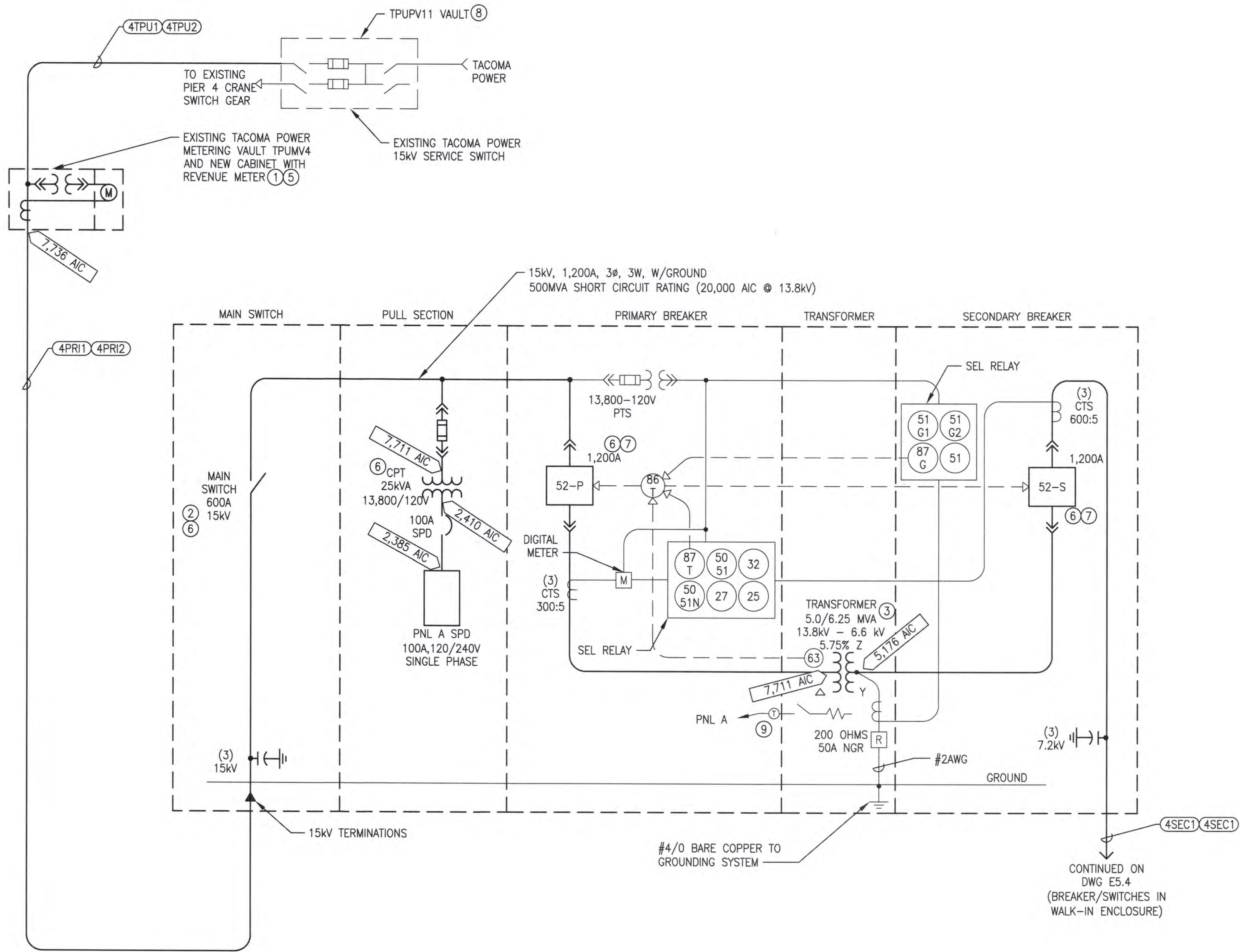
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- ③ PROVIDE 15KV IR WINDOWS (MINIMUM 4"Ø) AT EACH 15KV CUBICLE OF THE MEDIUM VOLTAGE SUBSTATION.
- ④ PROVIDE SIEMENS WINPM POWER MONITORING SYSTEM.
- ⑤ KEY INTERLOCK SHALL BE OUTDOOR WEATHERPROOF RATED.

1. THERE IS A VESSEL AT BERTH
 - a. INTERLOCK KEYS ARE INSIDE EACH OF THE TWO SHORE POWER RECEPTACLES
 - b. SHORE POWER SWITCH INSIDE WALK-IN ENCLOSURE IS OPEN
 - c. SHORE POWER SWITCH INSIDE WALK-IN ENCLOSURE IS GROUNDED
 - d. MAIN CIRCUIT BREAKER INSIDE WALK-IN ENCLOSURE IS OPEN
2. THERE IS A VESSEL AT BERTH
 - a. VERIFY SHORE POWER SWITCH IS OFF AND GROUNDED INSIDE WALK-IN ENCLOSURE
 - b. VERIFY SHORE POWER MAIN CIRCUIT BREAKER IS OFF INSIDE WALK-IN ENCLOSURE
 - c. VERIFY VESSEL PLUG CONDITION IS SAFE (OFF)
 - d. INSERT VESSEL LOWERS CABLES AND PLUGS IN SHORE POWER RECEPTACLES
 - e. REMOVE INTERLOCK KEYS A(X), B(X) FROM SHORE POWER RECEPTACLES
 - f. GO INSIDE THE WALK-IN ENCLOSURE AND INSERT BOTH KEYS A(X), B(X) TO SHORE POWER SWITCH
 - g. CLOSE SHORE POWER SWITCH
 - h. REMOVE INTERLOCK KEY M1 FROM SHORE POWER SWITCH
 - i. INSERT INTERLOCK KEY M1 TO MAIN CIRCUIT BREAKER 52-M AND CLOSE MAIN CIRCUIT BREAKER 52-M BY REMOTE CLOSE SWITCH
 - j. VERIFY POWER IS "ON" AT SHORE POWER SWITCH
 - k. ADVISE VESSEL PERSONNEL THAT POWER IS "ON"
 - l. VESSEL TRANSFERS FROM SHIP-BOARD POWER TO SHORE-POWER SOURCE
3. VESSEL LEAVING BERTH
 - a. ADVISE VESSEL PERSONNEL THAT POWER WILL BE TURNED "OFF"
 - b. VERIFY THAT VESSEL HAS TRANSFERRED TO SHIP-BOARD POWER
 - c. OPEN MAIN CIRCUIT BREAKER 52-M BY REMOTE TRIP SWITCH
 - d. VERIFY SHORE POWER SWITCH LIVE LINE INDICATOR IS "OFF"
 - e. REMOVE INTERLOCK KEY M1 FROM MAIN CIRCUIT BREAKER 52-M
 - f. INSERT INTERLOCK KEY M1 TO SHORE POWER SWITCH
 - g. OPEN SHORE POWER SWITCH AND GROUND (GROUNDING CONDUCTORS TO SHORE-POWER RECEPTACLES)
 - h. REMOVE INTERLOCK KEYS A(X), B(X) FROM SHORE POWER SWITCH
 - i. GO TO SHORE POWER VAULT AT THE BULLRAIL AND INSERT INTERLOCK KEYS A(X), B(X) INTO RECEPTACLES A AND B
 - j. REMOVE VESSEL PLUGS
 - k. VESSEL RETRIEVES SHORE-POWER CABLES FOR DEPARTURE

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E5.2



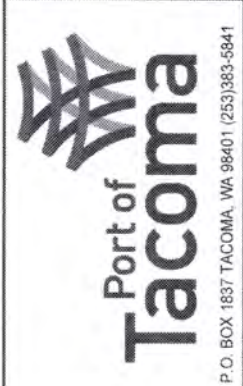
PIER 4 SHORE POWER ONE-LINE DIAGRAM - SHEET 1
NO SCALE

KEY NOTES

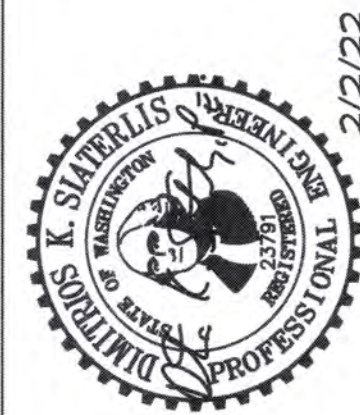
- CABINET AND REVENUE METER BY TACOMA POWER.
- MAIN SERVICE SWITCH SHALL HAVE VISIBLE BLADES TO CONFIRM SWITCH IS IN THE OFF POSITION.
- INCLUDE PROVISIONS FOR FUTURE FANS ON THE TRANSFORMER, SEE SPECIFICATIONS.
- VESSEL MAXIMUM DEMAND WAS OBTAINED FROM PORT OF LOS ANGELES ACTUAL DEMAND READINGS OF 74 VESSELS (APRIL 2019).
- COORDINATE WITH TPU AND PROVIDE ALL MATERIALS AND LABOR PER TPU STANDARDS AND REQUIREMENTS.
- PROVIDE 15kV IR WINDOWS (MINIMUM 4"Ø) AT EACH 15kV CUBICLE OF THE MEDIUM VOLTAGE SUBSTATION.
- PROVIDE SIEMENS WINPM POWER MONITORING SYSTEM.
- TPU WILL HAVE AN OUTAGE TO PROVIDE CONNECTION TO EXISTING 15kV SERVICE SWITCH.
- PROVIDE SPACE HEATER, THERMOSTAT AND DISCONNECT.

DESIGN BASIS LOAD CALCULATIONS ④

VESSEL MAXIMUM DEMAND		
2.59 MW @	0.8 PF	3.24 MVA
CONTINUOUS DEMAND +	125%	4.05 MVA
AMPERAGE @	6.6 kV	354.01 A



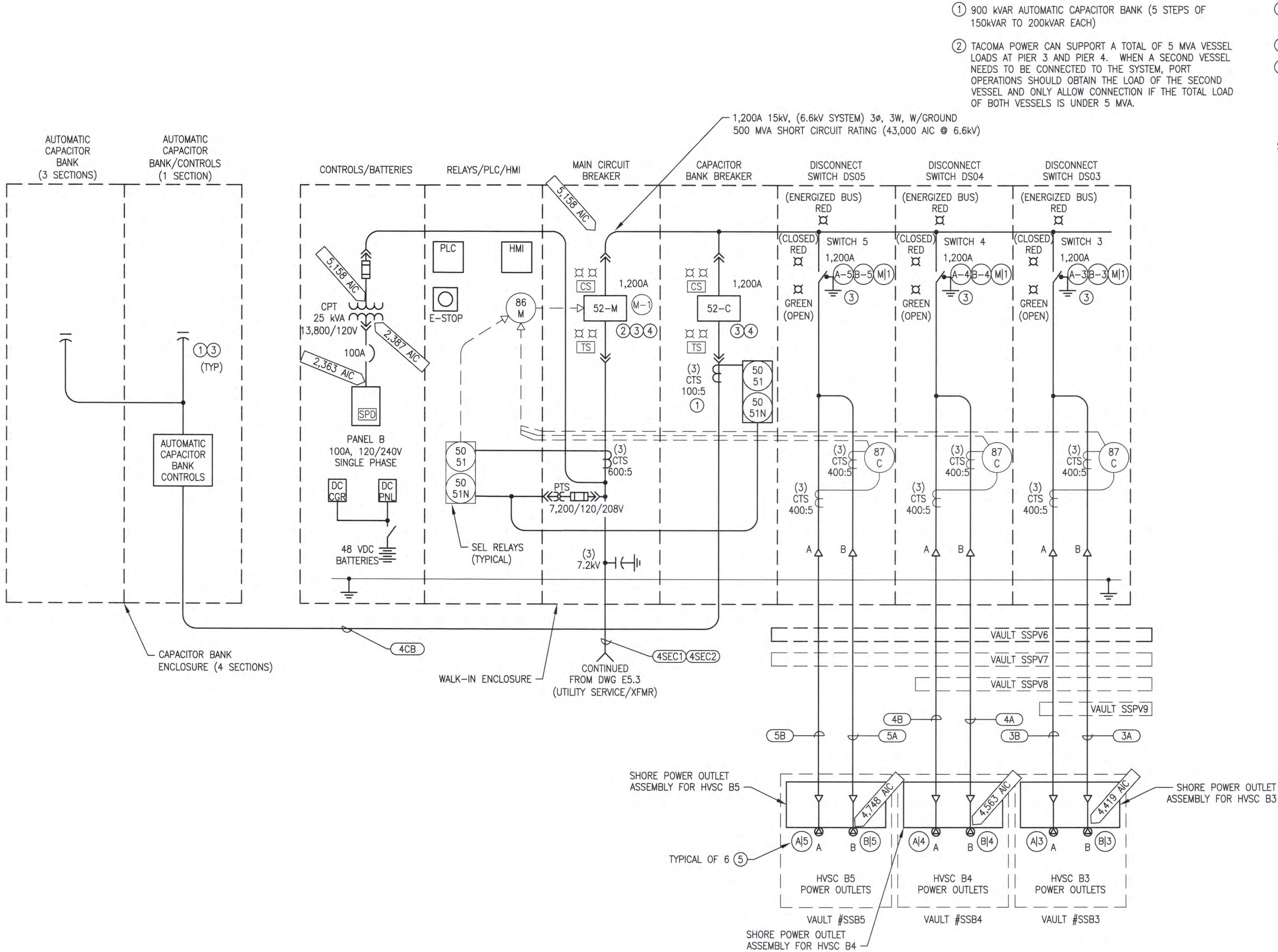
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TERMINAL 3 / TERMINAL 4
SHORE POWER
PIER 4 SHORE POWER
ONE-LINE DIAGRAM - SHEET 1

6658
E5.3
56 OF 83
CONT/CONS: 071357
M. ID: 201100.01
PHASE: BID SET



PIER 4 SHORE POWER ONE-LINE DIAGRAM - SHEET 2
NO SCALE

KEY NOTES

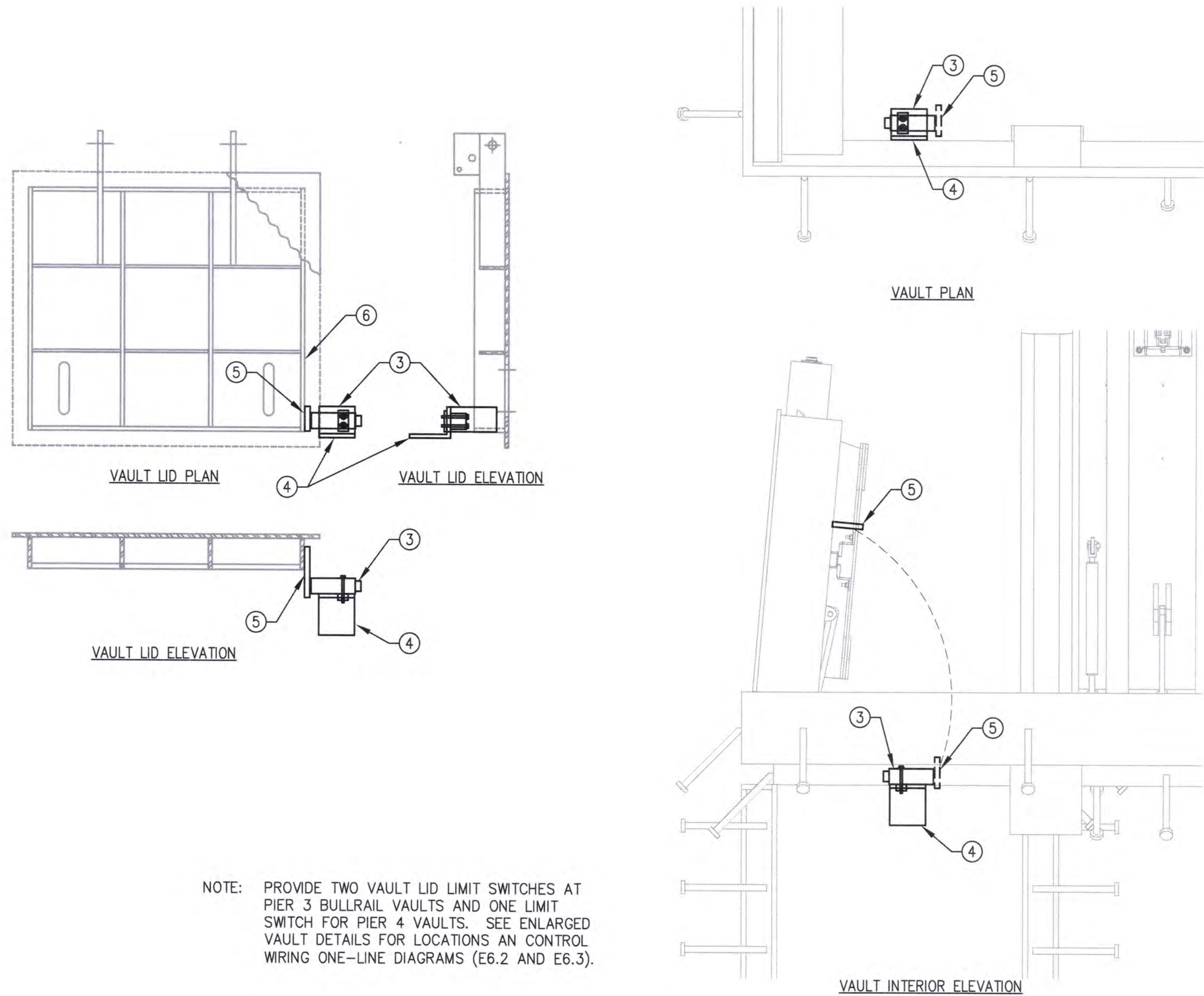
- 900 kVAR AUTOMATIC CAPACITOR BANK (5 STEPS OF 150kVAR TO 200kVAR EACH)
- TACOMA POWER CAN SUPPORT A TOTAL OF 5 MVA VESSEL LOADS AT PIER 3 AND PIER 4. WHEN A SECOND VESSEL NEEDS TO BE CONNECTED TO THE SYSTEM, PORT OPERATIONS SHOULD OBTAIN THE LOAD OF THE SECOND VESSEL AND ONLY ALLOW CONNECTION IF THE TOTAL LOAD OF BOTH VESSELS IS UNDER 5 MVA.

- PROVIDE 15kV IR WINDOWS (MINIMUM 4"Ø) AT EACH 15kV CUBICLE OF THE MEDIUM VOLTAGE SUBSTATION.
- PROVIDE SIEMENS WINPM POWER MONITORING SYSTEM.
- KEY INTERLOCK SHALL BE OUTDOOR WEATHERPROOF RATED.

SHORE POWER SEQUENCE OF OPERATION OF KEY INTERLOCKS

- THERE IS NO VESSEL AT BERTH:**
 - INTERLOCK KEYS ARE INSIDE EACH OF THE TWO SHORE POWER RECEPTACLES
 - SHORE POWER SWITCH INSIDE WALK-IN ENCLOSURE IS OPEN
 - SHORE POWER SWITCH INSIDE WALK-IN ENCLOSURE IS GROUNDED
 - MAIN CIRCUIT BREAKER INSIDE WALK-IN ENCLOSURE IS OPEN
- THERE IS A VESSEL AT BERTH**
 - VERIFY SHORE POWER SWITCH IS OFF AND GROUNDED INSIDE WALK-IN ENCLOSURE
 - VERIFY SHORE POWER MAIN CIRCUIT BREAKER IS OFF INSIDE WALK-IN ENCLOSURE
 - VERIFY VESSEL PLUG CONDITION IS SAFE (OFF)
 - INSERT VESSEL lowers cables and PLUGS IN SHORE POWER RECEPTACLES
 - REMOVE INTERLOCK KEYS A(X), B(X) FROM SHORE POWER RECEPTACLES
 - GO INSIDE THE WALK-IN ENCLOSURE AND INSERT BOTH KEYS A(X), B(X) TO SHORE POWER SWITCH
 - CLOSE SHORE POWER SWITCH
 - REMOVE INTERLOCK KEY M1 FROM SHORE POWER SWITCH
 - INSERT INTERLOCK KEY M1 TO MAIN CIRCUIT BREAKER 52-M AND CLOSE MAIN CIRCUIT BREAKER 52-M BY REMOTE CLOSE SWITCH
 - VERIFY POWER IS "ON" AT SHORE POWER SWITCH
 - ADVISE VESSEL PERSONNEL THAT POWER IS "ON"
 - VESSEL TRANSFERS FROM SHIP-BOARD POWER TO SHORE-POWER SOURCE
- VESSEL LEAVING BERTH**
 - ADVISE VESSEL PERSONNEL THAT POWER WILL BE TURNED "OFF"
 - VERIFY THAT VESSEL HAS TRANSFERRED TO SHIP-BOARD POWER
 - OPEN MAIN CIRCUIT BREAKER 52-M BY REMOTE TRIP SWITCH
 - VERIFY SHORE POWER SWITCH LIVE LINE INDICATOR IS "OFF"
 - REMOVE INTERLOCK KEY M1 FROM MAIN CIRCUIT BREAKER 52-M
 - INSERT INTERLOCK KEY M1 TO SHORE POWER SWITCH
 - OPEN SHORE POWER SWITCH AND GROUND (GROUNDING CONDUCTORS TO SHORE-POWER RECEPTACLES)
 - REMOVE INTERLOCK KEYS A(X), B(X) FROM SHORE POWER SWITCH
 - GO TO SHORE POWER VAULT AT THE BULLRAIL AND INSERT INTERLOCK KEYS A(X), B(X) INTO RECEPTACLES A AND B
 - REMOVE VESSEL PLUGS
 - VESSEL RETRIEVES SHORE-POWER CABLES FOR DEPARTURE

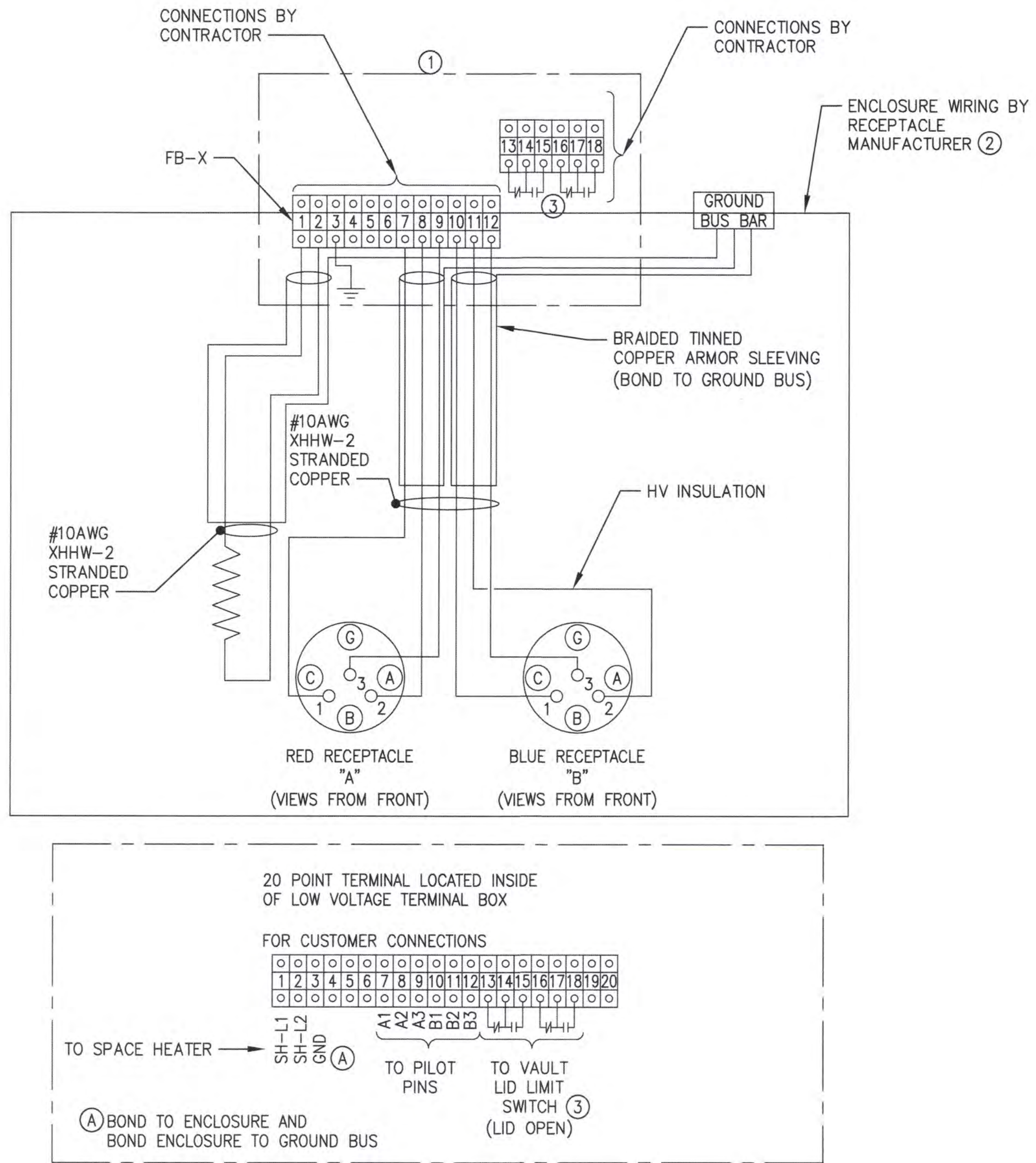
6658 E5.4 57 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER PIER 4 SHORE POWER ONE-LINE DIAGRAM - SHEET 2				APPROVED: XXX DIRECTOR ENG. DATE: 1/2/2022 PRINTED BY: curtis Feb 02, 2022 PORT ADDRESS: ONE SITCOM PLAZA TACOMA, WA 99401-1837		CHECKED BY: DATE: 1/2/2022 PROJ. ENGR: DATE: 1/2/2022		ELCON ASSOCIATES, INC. ENGINEERS - CONSULTANTS 16900 CHRISTENSEN ROAD, SUITE 330 SEATTLE, WASHINGTON 98188 TEL (206) 243-5022 www.elcon.com		Port of Tacoma P.O. BOX 1837 TACOMA, WA 98401 (206)383-9841	
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NOTE: PROVIDE TWO VAULT LID LIMIT SWITCHES AT PIER 3 BULLRAIL VAULTS AND ONE LIMIT SWITCH FOR PIER 4 VAULTS. SEE ENLARGED VAULT DETAILS FOR LOCATIONS AND CONTROL WIRING ONE-LINE DIAGRAMS (E6.2 AND E6.3).

TYPICAL SHORE POWER VAULT LIMIT SWITCH
NO SCALE

1
-



TYPICAL SHORE POWER RECEPTACLE
NO SCALE

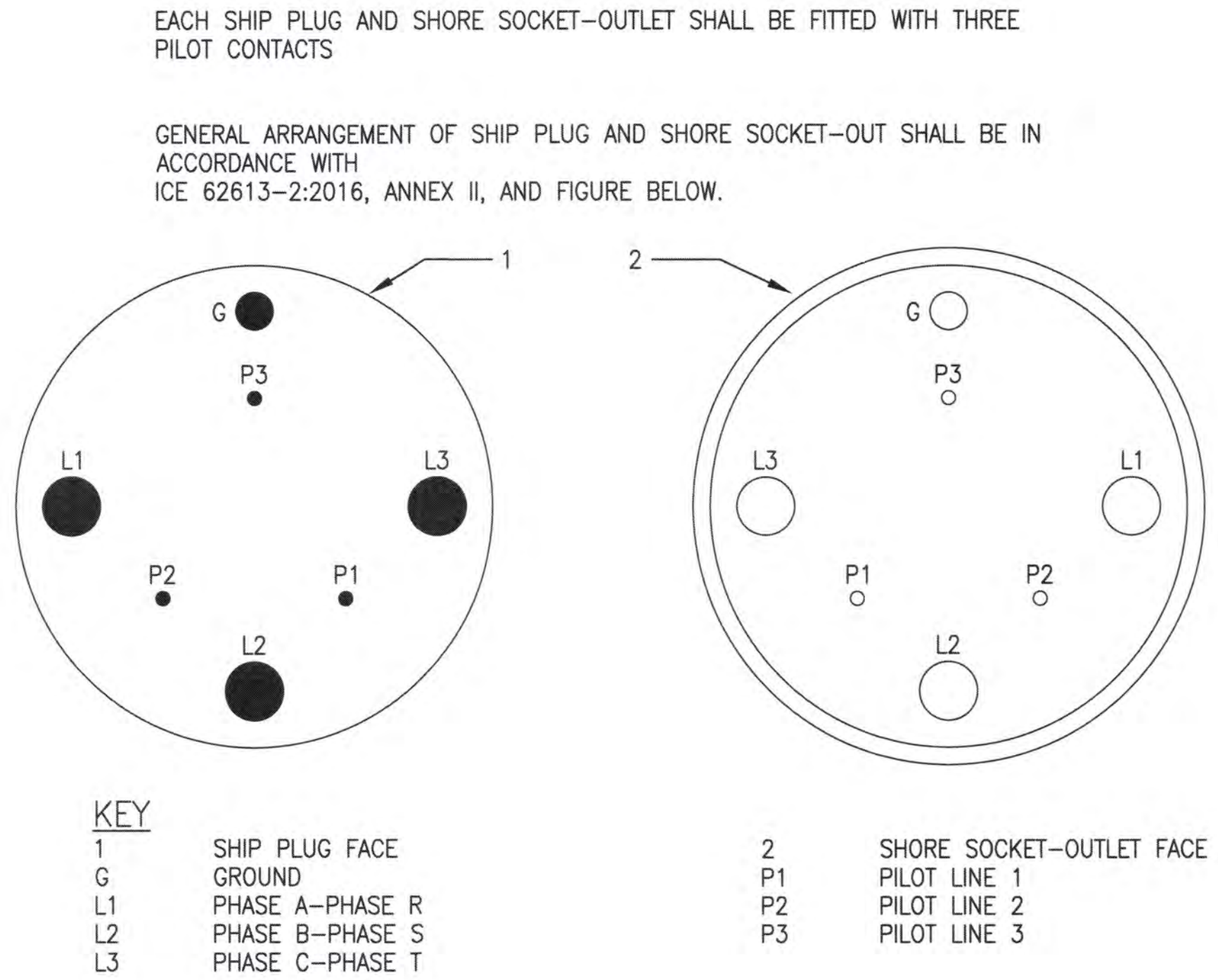
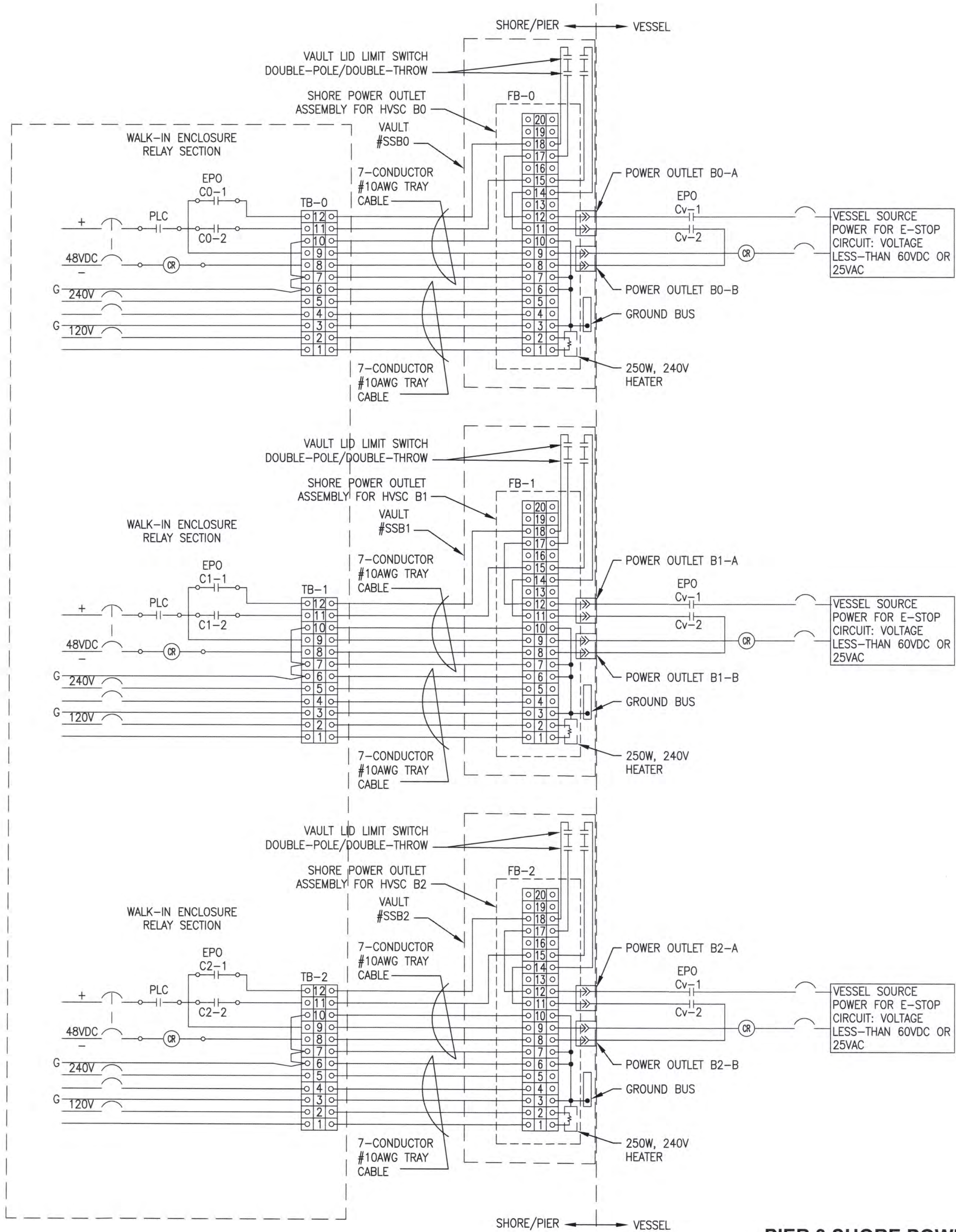
2
-

KEY NOTES

- 1 PROVIDE 2" CONDUIT FOR SHORE POWER CONTROL CABLES. SEE E2.x DWG SERIES FOR ROUTING OF CONDUIT.
- 2 PROVIDE TWO (2) SHORE POWER RECEPTACLES IN A SHORE POWER OUTLET ASSEMBLY.
- 3 PROVIDE VAULT LID LIMIT SWITCH, DOUBLE-POLE/DOUBLE-THROW AND FERROUS TARGET MOUNTED TO PRIMARY (OPEN FIRST) LID, 'EMERSON/TOPWORX GO-SWITCH, MODEL 81' STAINLESS STEEL OR APPROVED EQUAL
- 4 PROVIDE ALL NECESSARY HARDWARE FOR MOUNTING LIMIT SWITCH IN ORIENTATION AS SHOWN. ANCHOR TO CONCRETE USING POST-INSTALLED ANCHORS PER SHEET S1.1
- 5 PROVIDE SUFFICIENT FERROUS MATERIAL ATTACHED TO VAULT LID TO TRIGGER LIMIT SWITCH WHEN LID IS CLOSED. ATTACH FERROUS MATERIAL TO VAULT LID USING TYPE 316 STAINLESS STEEL BOLTS, NUTS AND WASHERS SIMILAR TO SECTION A ON SHEET S2.3. WELDING TO EXISTING LIDS IS NOT PERMITTED.
- 6 SEE SHEET S2.3 FOR DETAILS REQUIRED TO PROVIDE INTERLOCKING COVERS AT EXISTING SHORE POWER VAULTS SSB1 AND SSB2.

6658 E6.1 58 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER ELECTRICAL DETAILS				APPROVED: XXX DIRECTOR ENG. DATE PRINTED BY: curtis Feb 02, 2022 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98401-1837		CHECKED BY DATE DATE DATE DATE		ELCON ASSOCIATES, INC. ENGINEERS - CONSULTANTS 16300 CHRISTENSEN ROAD, SUITE 330 SEATTLE, WASHINGTON 98188 TEL (206) 243-5022 www.elcon.com		Port of Tacoma P.O. BOX 187 TACOMA, WA 98401 (253) 883-5841	
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PIER 3 SHORE POWER CONTROL WIRING
NO SCALE

6658

E6.2

59 OF 83

CONTR/CONS: 071357

M. ID: 201100.01

PHASE: BID SET

TERMINAL 3 / TERMINAL 4

SHORE POWER

PIER 3 SHORE POWER CONTROL WIRING

APPROVED: XXX

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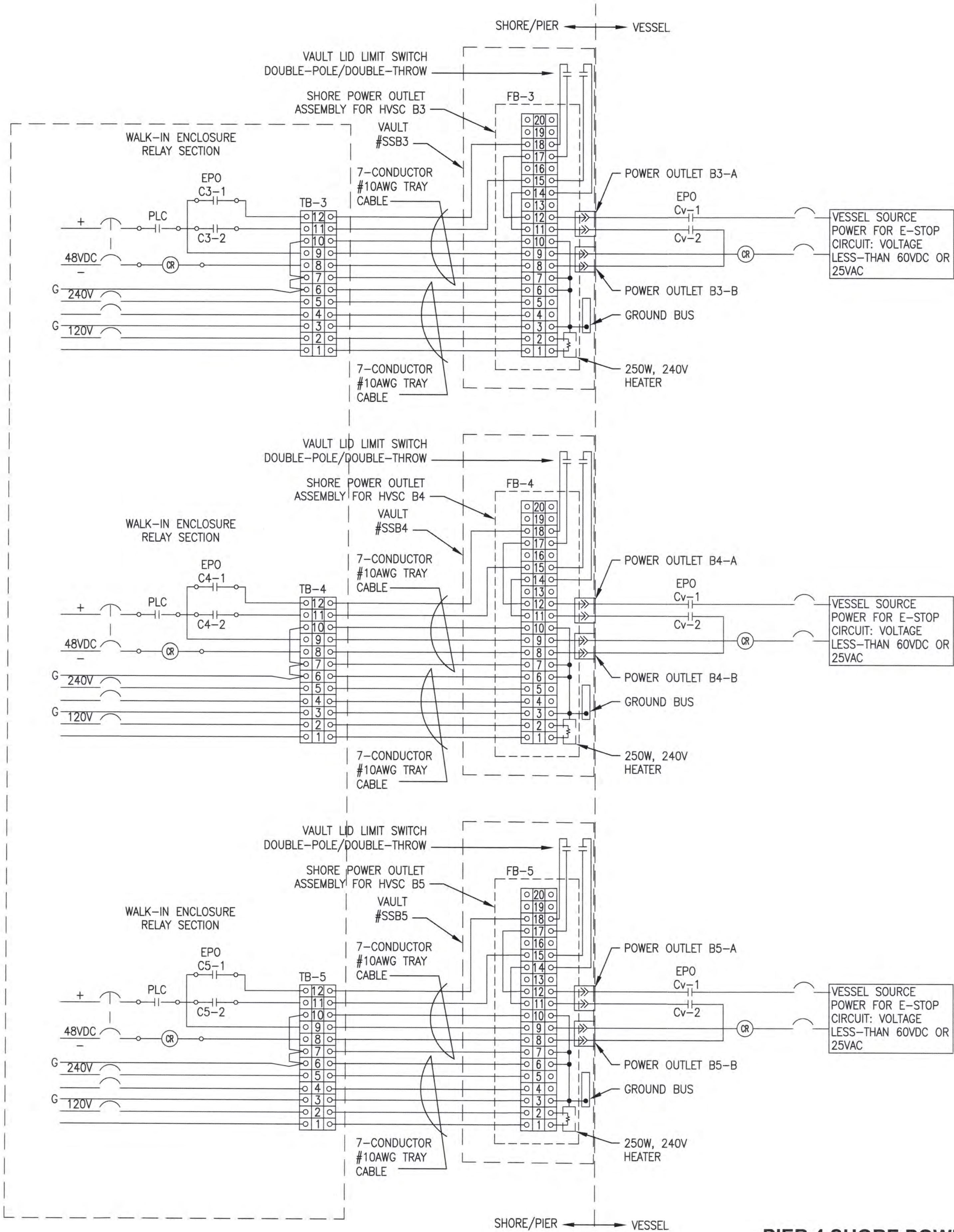
2/2/22

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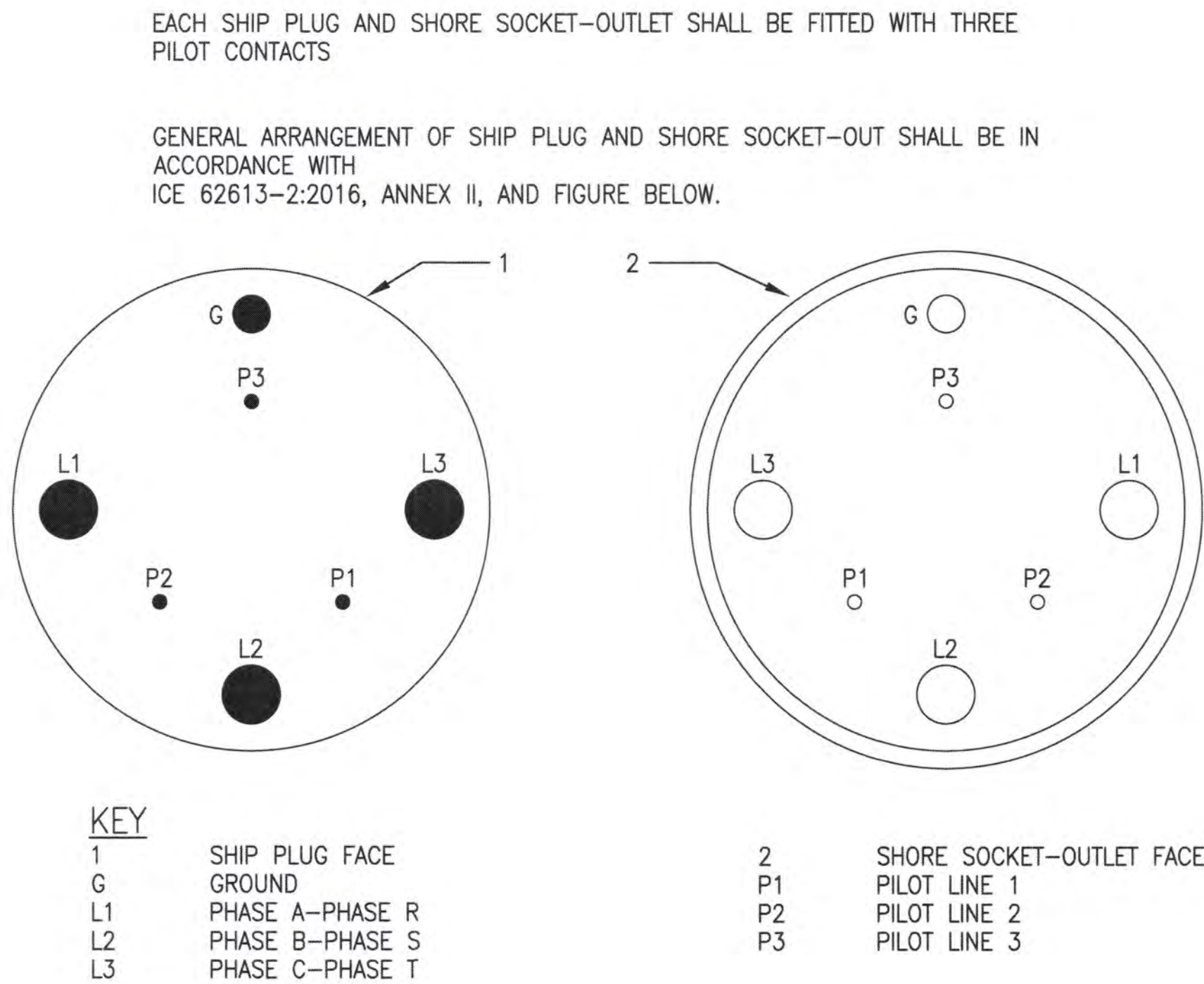
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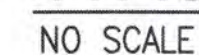
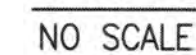
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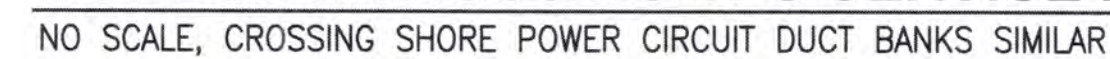
PIER 4 SHORE POWER CONTROL WIRING
NO SCALE



6658 E6.3 60 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER PIER 4 SHORE POWER CONTROL WIRING				APPROVED: XXX XXX DIRECTOR ENGR. DATE: 2/14/22		CHECKED BY: XXX DATE: 2/14/22		ELCON ASSOCIATES, INC. ENGINEERS - CONSULTANTS 16500 CHRISTENSEN ROAD, SUITE 330 SEATTLE, WASHINGTON 98188 TEL (206) 243-5022 www.elcon.com	Port of Tacoma P.O. BOX 1837 TACOMA, WA 98401 (253)383-5841	
	CONT/CONS: 071357	TOWNSHIP:	SECTION:	RANGE:	DATE-HRZ:	DATE:	BY:				APPR:
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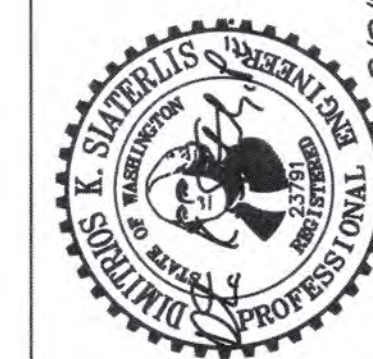


B
E3.2



C
E3.2

1. SEE ELECTRICAL PLANS FOR NEW DUCT BANK LOCATIONS.



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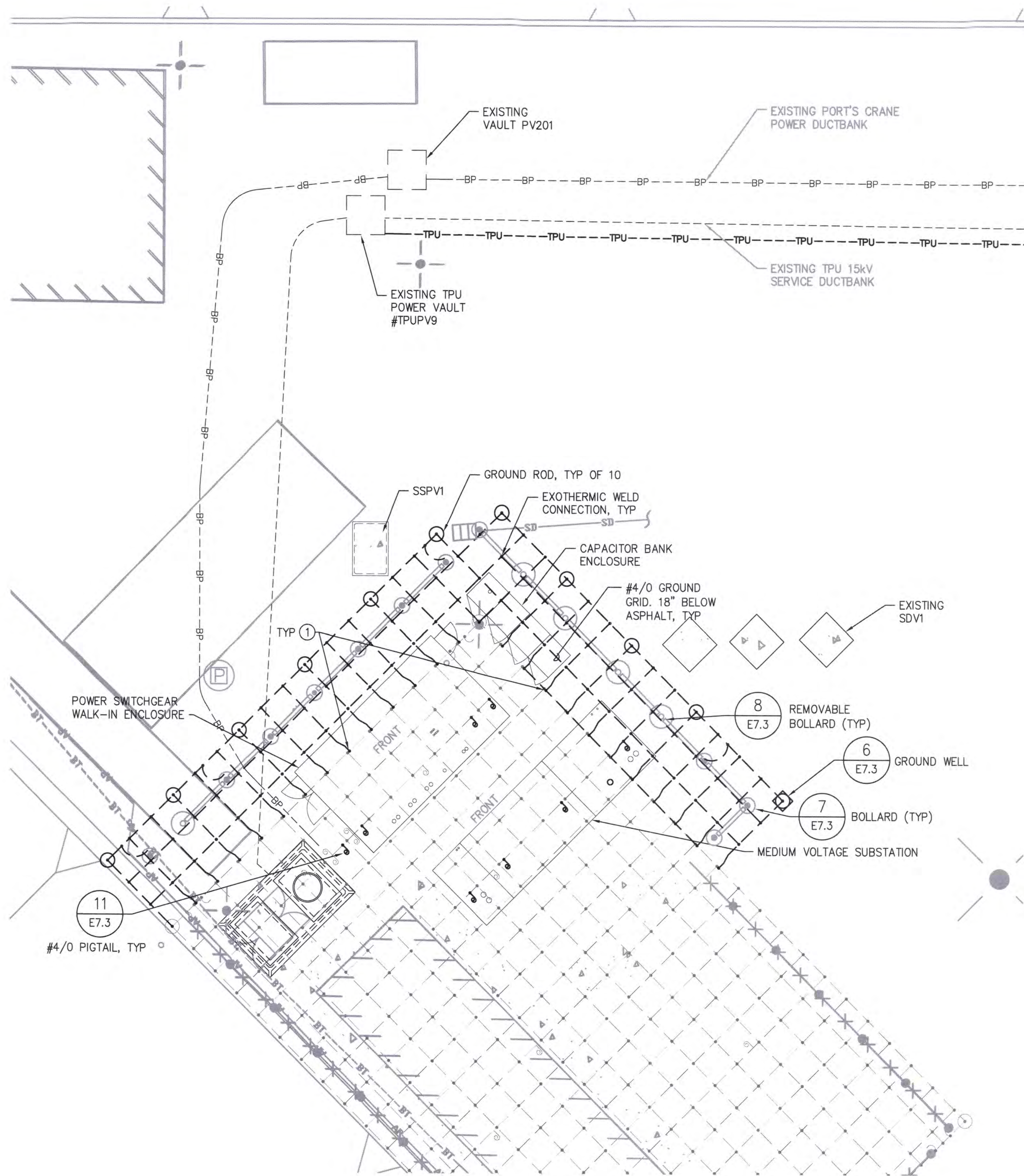
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TERMINAL 3 / TERMINAL 4 SHORE POWER DUCTBANK SECTIONS	
RANGE:	SECTION:
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6658	E6.4	61 OF 83
CONT/CONS: 071357		
M. ID:	201100.01	

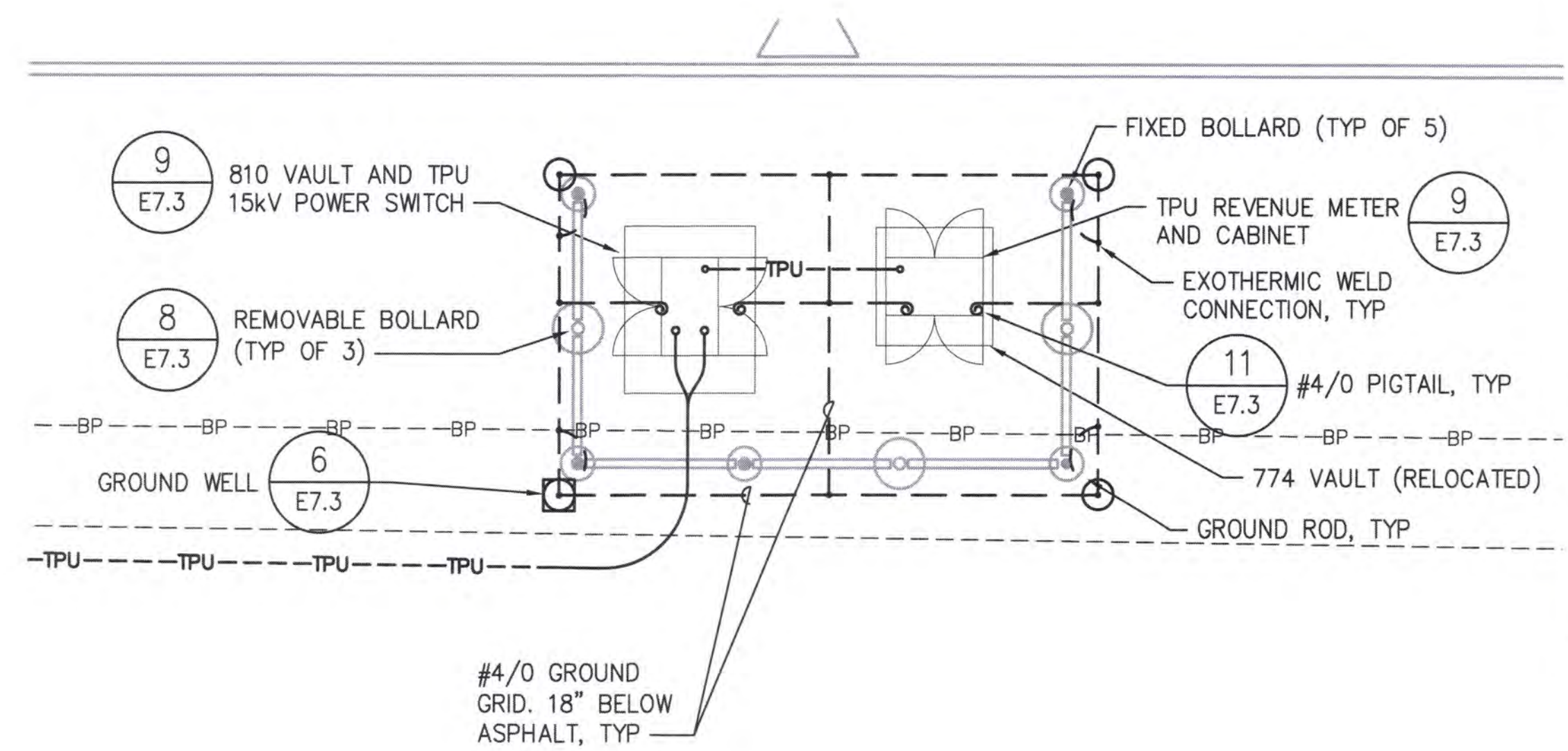
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SUBSTATION GROUNDING PLAN - PIER 3

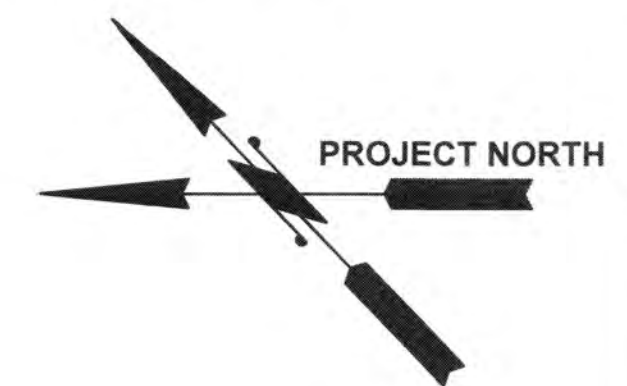
1
E3.2



SERVICE GROUNDING PLAN - PIER 3

2
E3.3

0 8 16
scale feet



GENERAL NOTES

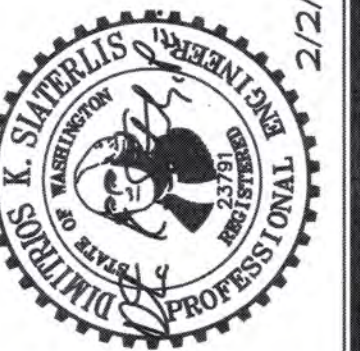
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2. EXPOSE EXISTING GROUND GRID UNDER SUBSTATION AND WALK-IN ENCLOSURE AND PROVIDE PIGTAILS FOR GROUND CONNECTIONS TO NEW EQUIPMENT.
3. SEE DWG E7.3 FOR GROUNDING INSTALLATION DETAILS.

KEY NOTES

- ① EXPOSE EXISTING GROUND GRID UNDER SUBSTATION AND CONNECT NEW GROUND GRID ALONG THESE LINES.



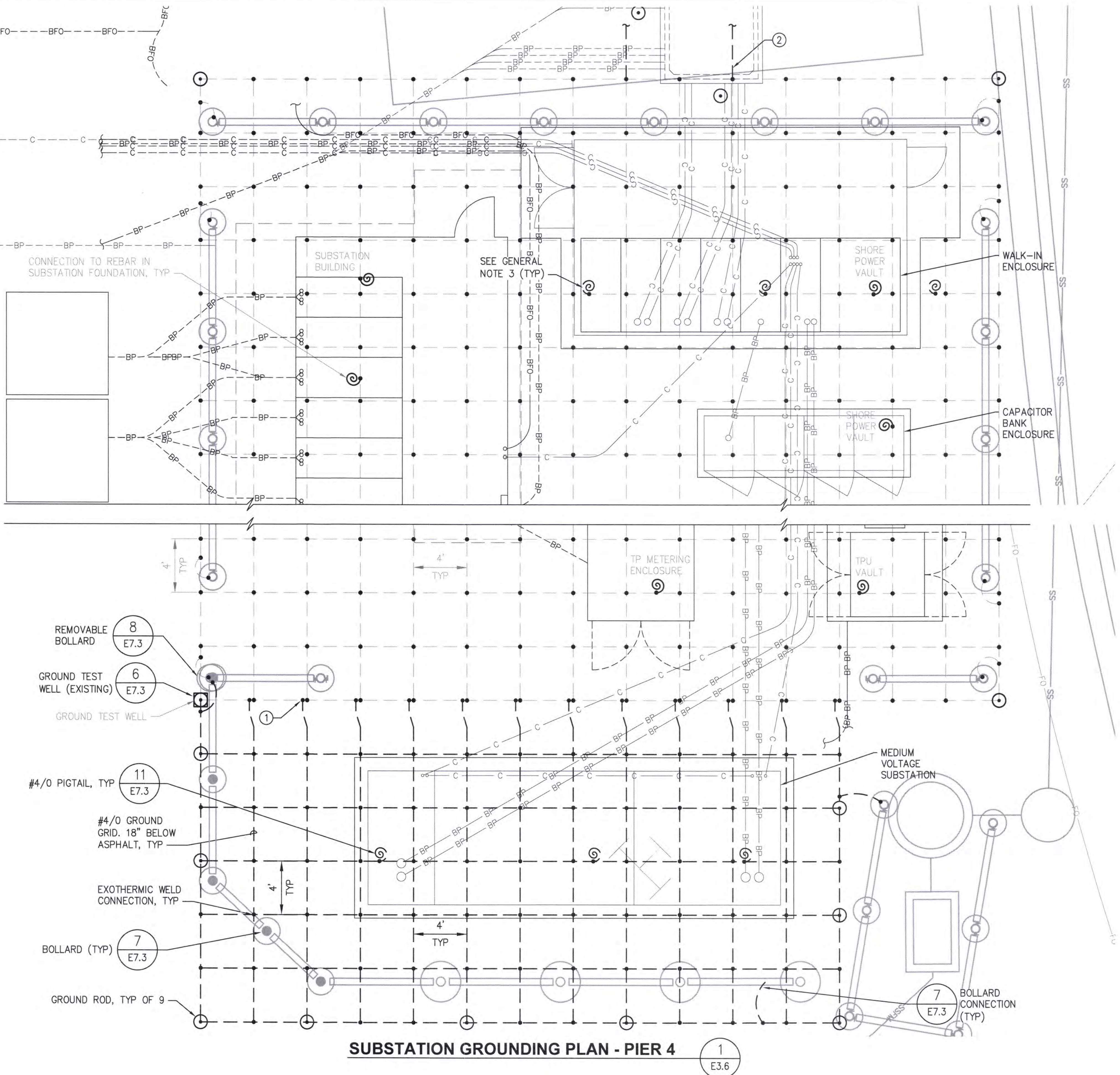
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TERMINAL 3 / TERMINAL 4
SHORE POWER
ENLARGED ELECTRICAL PLAN
SUBSTATION - PIER 3 GROUNDING

6658
E7.1
62 OF 83
CONT/CONS: 071357
M. ID: 201100.01
PHASE: BID SET



SUBSTATION GROUNDING PLAN - PIER 4

1

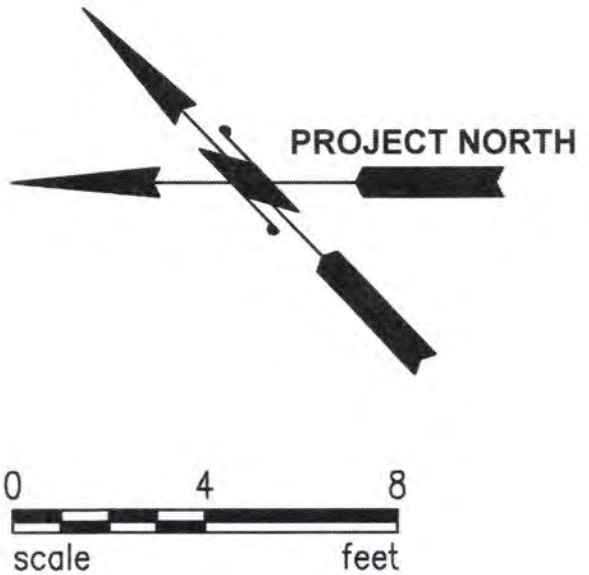
E3.6

GENERAL NOTES

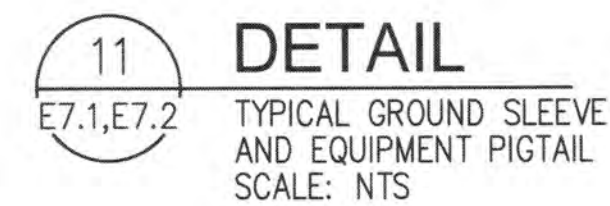
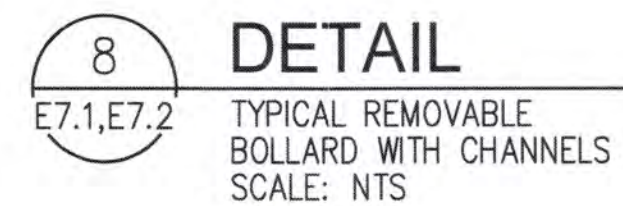
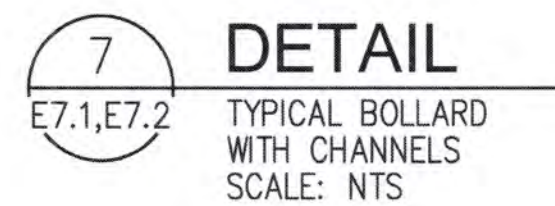
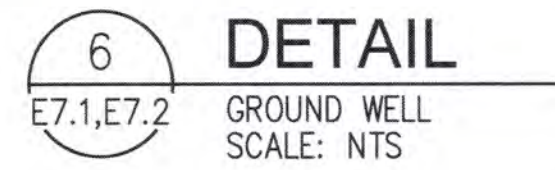
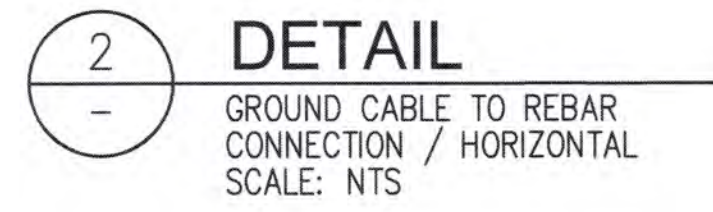
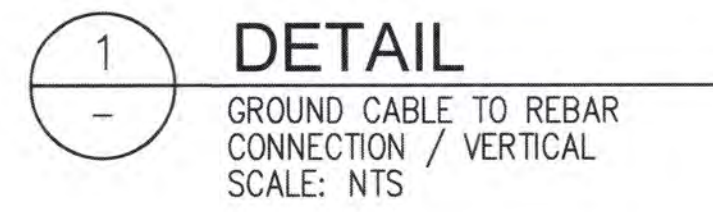
1. ELECTRICAL UTILITY INFRASTRUCTURE SHOWN IS BASED ON HISTORICAL DOCUMENTS AND HAS NOT BEEN FIELD VERIFIED.
2. EXPOSE EXISTING GROUND GRID UNDER SUBSTATION AND WALK-IN ENCLOSURE AND PROVIDE PIGTAILS FOR GROUND CONNECTIONS TO NEW EQUIPMENT.
3. SEE DWG E7.3 FOR GROUNDING INSTALLATION DETAILS.

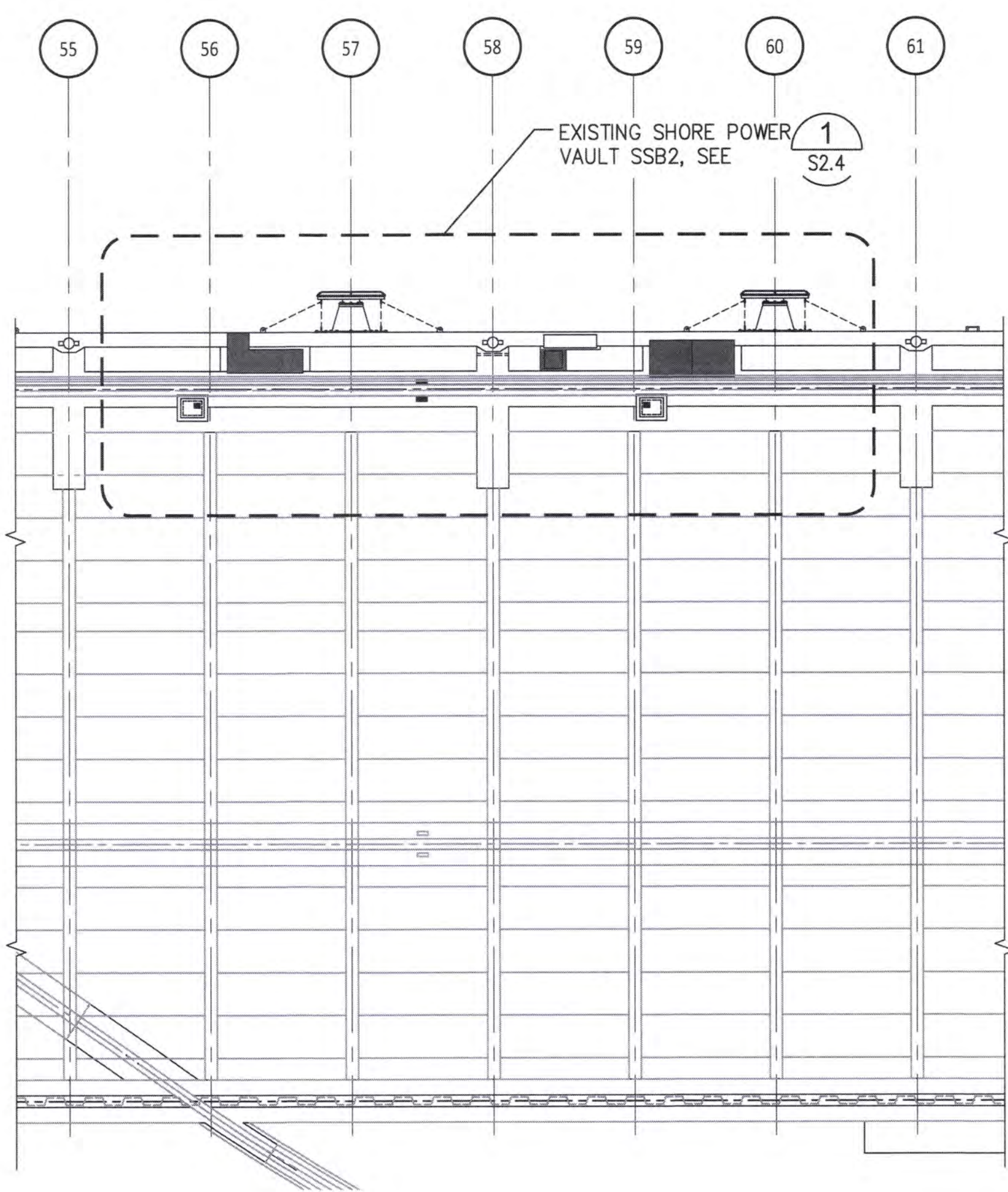
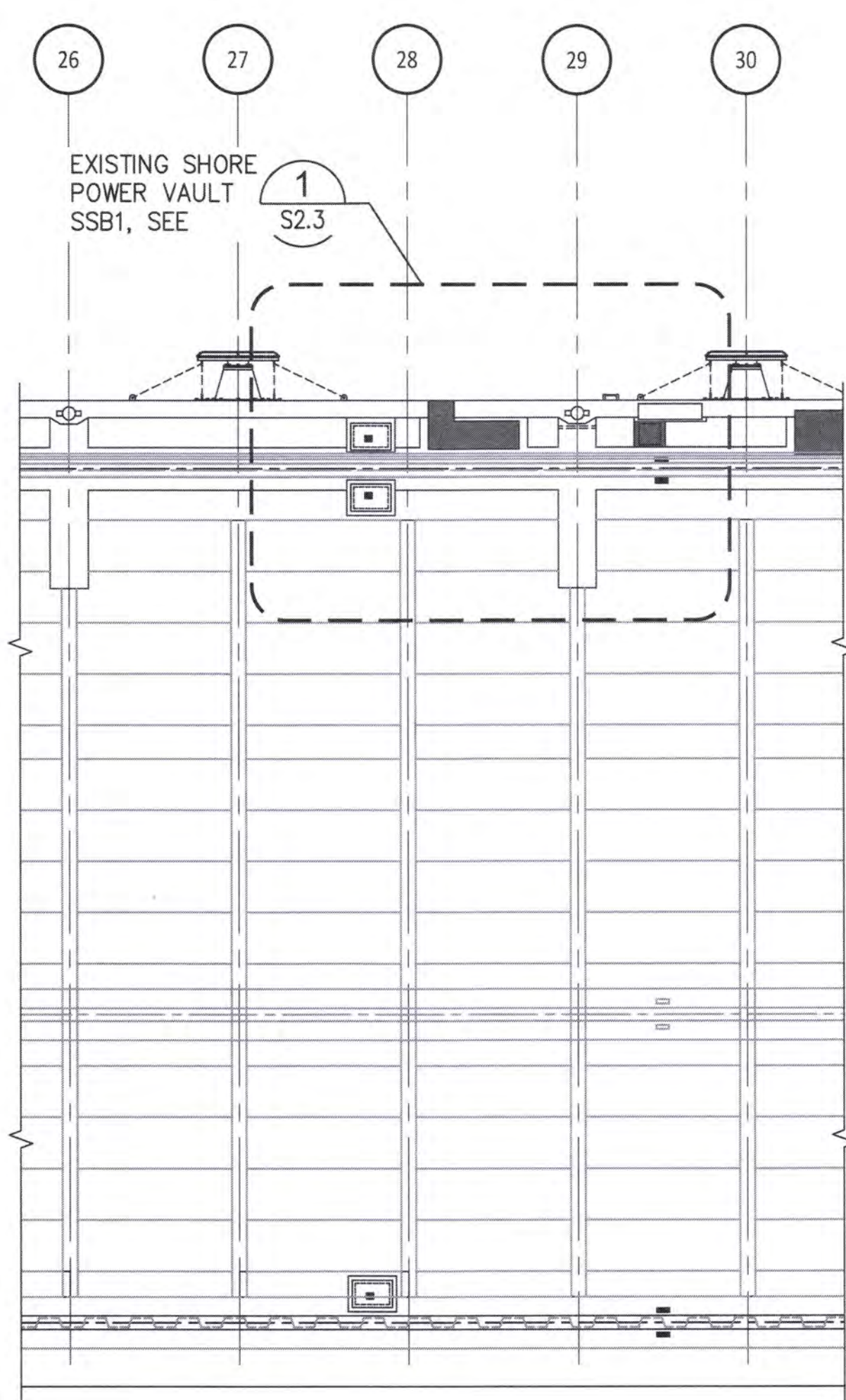
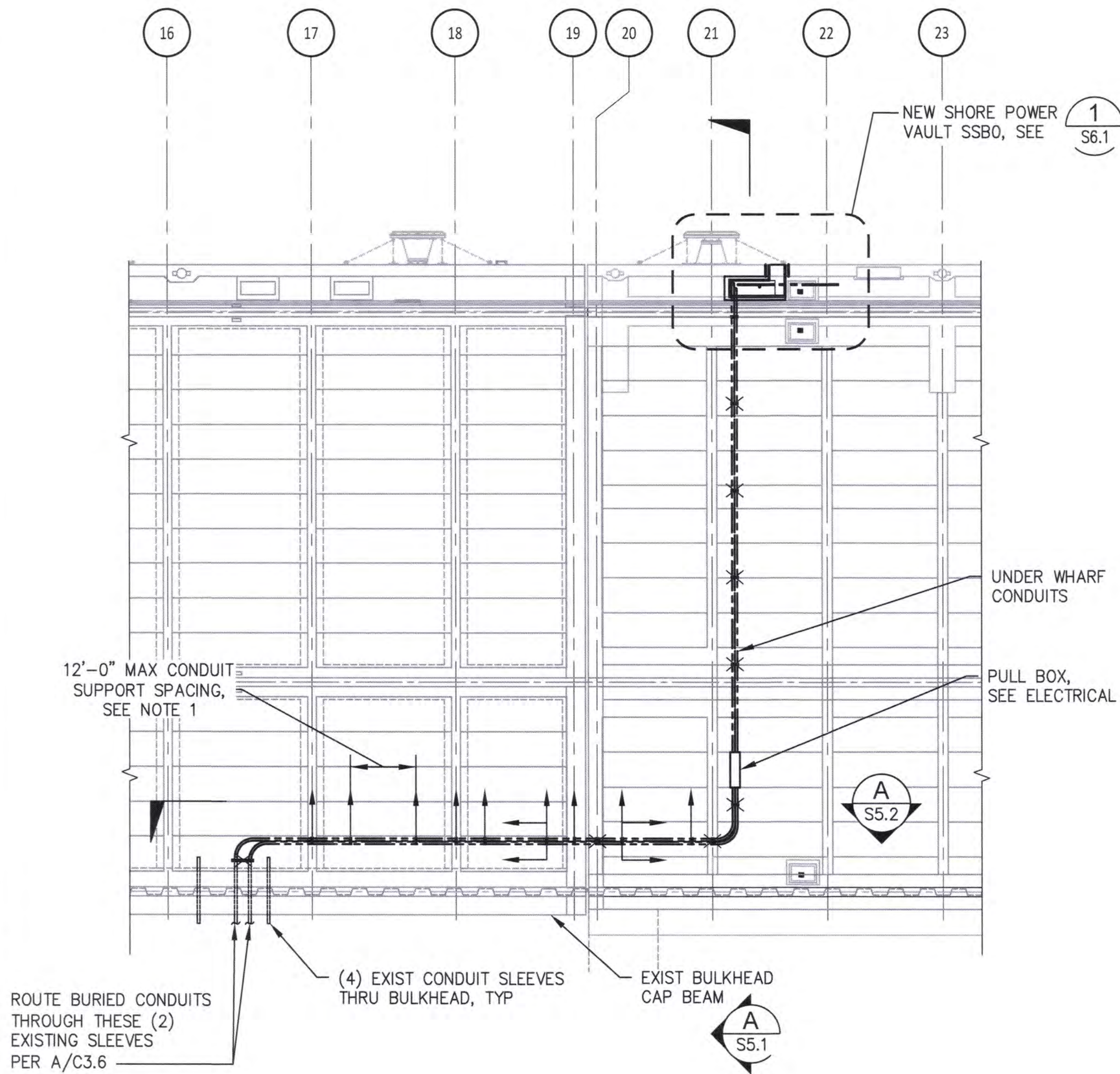
KEY NOTES

- ① EXPOSE EXISTING GROUND GRID AND CONNECT NEW GROUND GRID ALONG THIS LINE.
- ② EXTEND GROUND GRID TO RELOCATED VAULT.



6658 E7.2 63 OF 83 CONT/CONS: 071357 M. ID: 201100.01 PHASE: BID SET	TERMINAL 3 / TERMINAL 4	APPROVED: XXX	CHECKED BY: [Signature]	DATE: 12/14/22
	SHORE POWER	DIRECTOR ENG. DATE	PROJ. ENGR DATE	
	ENLARGED ELECTRICAL PLAN	PRINTED BY: curtis	Feb 02, 2022	
	SUBSTATION - PIER 4 GROUNDING	PORT ADDRESS: ONE SITCUM PLAZA	TACOMA, WA 98401-1837	
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PLAN - SHORE POWER VAULTS SSB0, SSB1 AND SSB2 ON PIER 3
SCALE: 1/16" = 1'-0"

NOTE

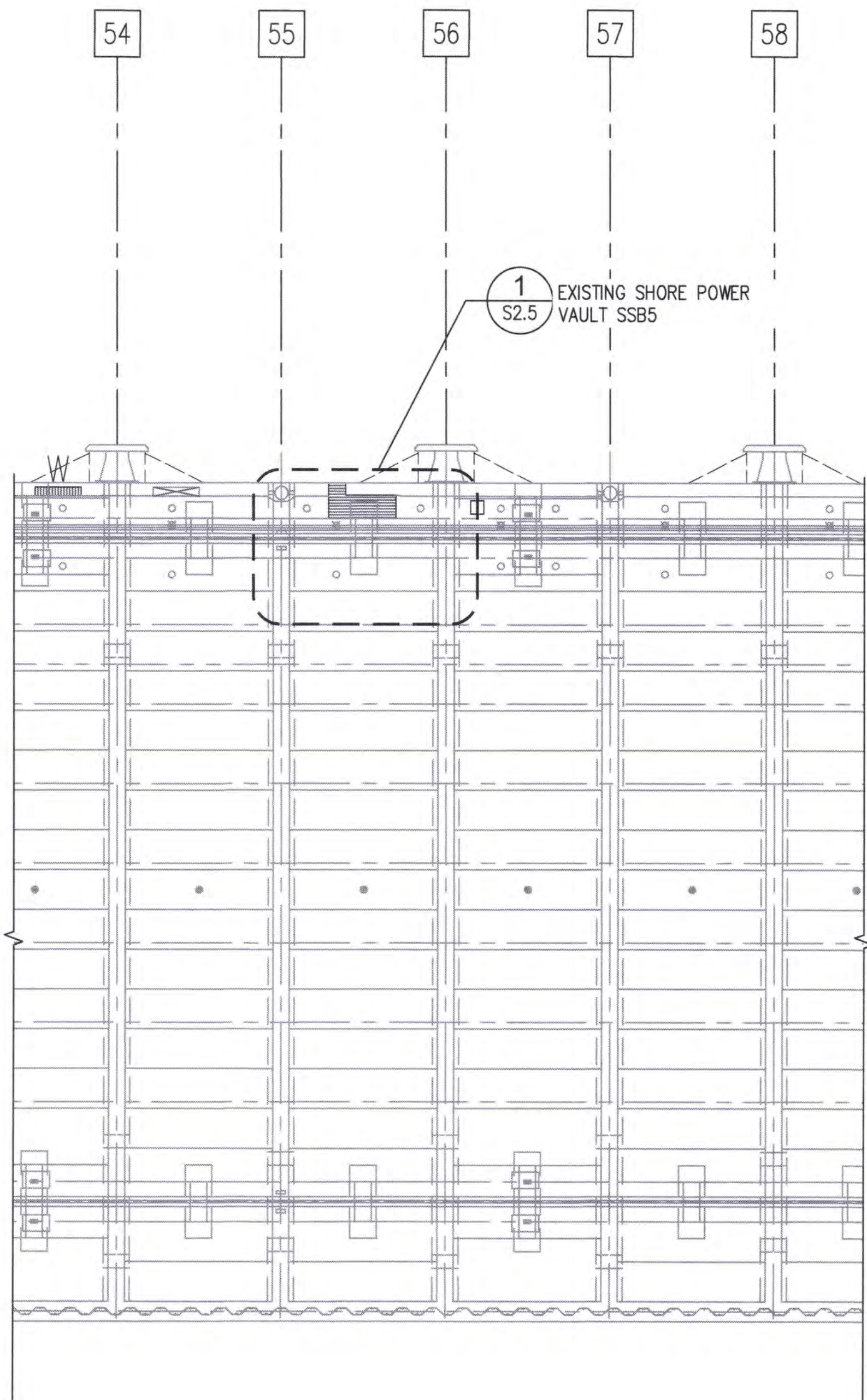
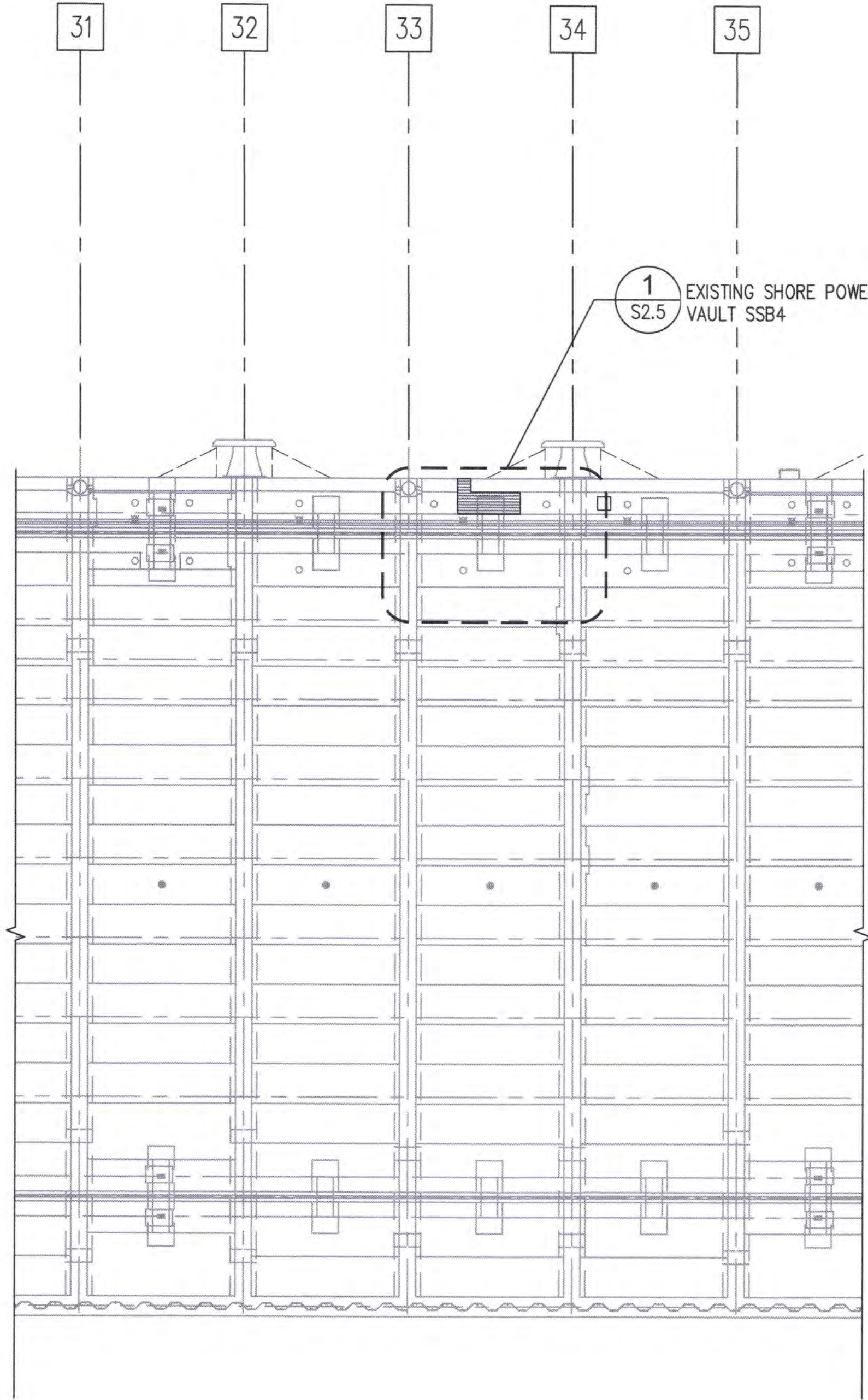
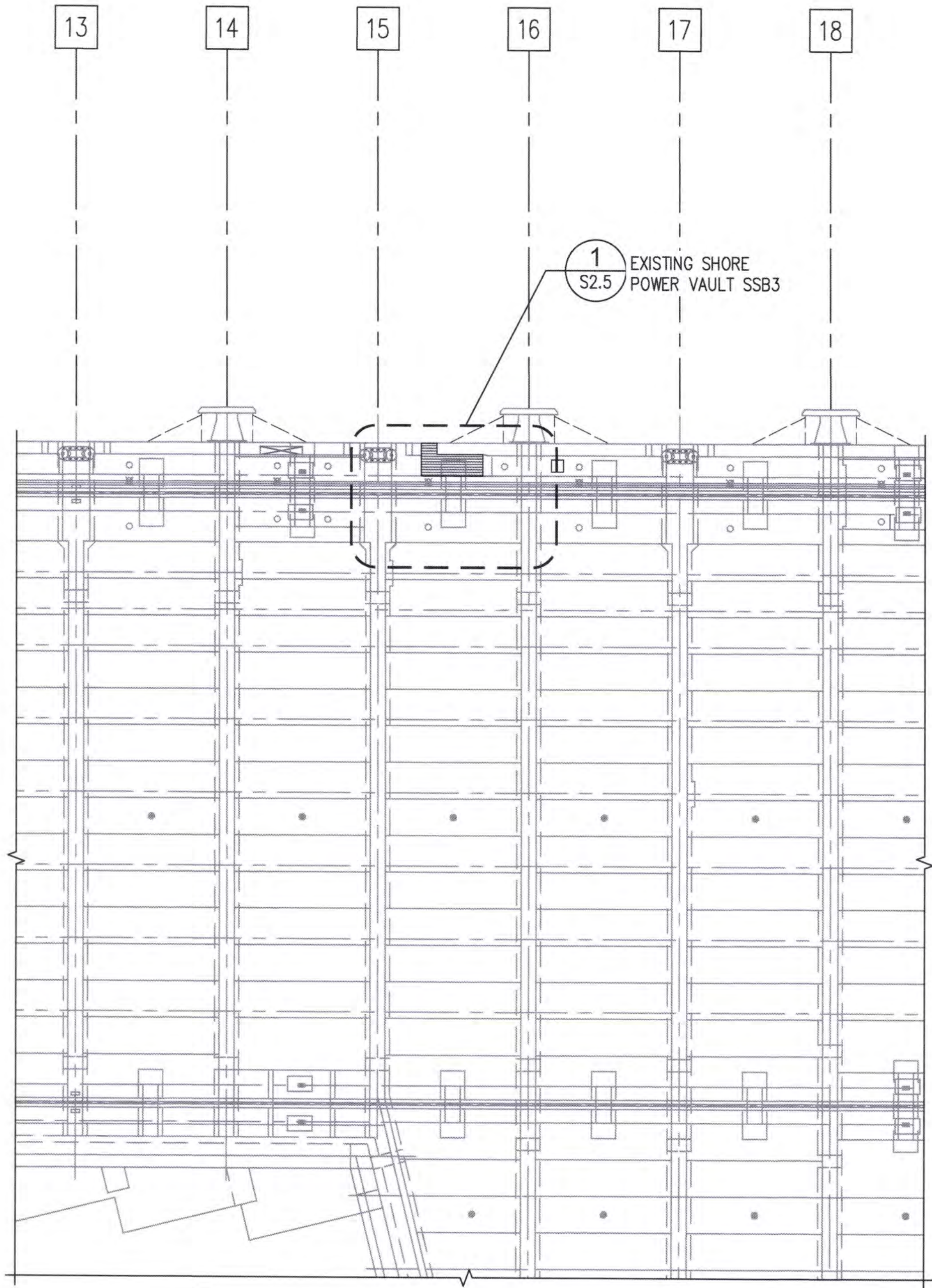
- CONDUIT SUPPORT BRACES SHALL BE PROVIDED AT APPROXIMATE LOCATIONS SHOWN. CONTRACTOR SHALL DETERMINE FINAL LOCATION OF EACH ELEMENT TO AVOID CONFLICTS BETWEEN ANCHOR BOLTS AND EXISTING REINFORCING, AND TO MAINTAIN MAXIMUM SPACING.
- SEE E2.1, E2.8 AND E4.1 FOR CONDUIT SIZE QUANTITY AND INSTALLATION DETAILS.

LEGEND

- UNISTRUT SUPPORT PER B/S5.1
- INDICATES TRANSVERSE BRACE
- INDICATES LONGITUDINAL BRACE
- EXIST BOLLARD
- EXIST CRANE TIE DOWN VAULT
- EXIST FENDER
- EXIST BULKHEAD WALL
- EXIST LADDER

6658 S2.1 66 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER PLAN - SHORE POWER VAULTS SSB0, SSB1, AND SSB2 ON PIER 3	APPROVED: <i>[Signature]</i> DIRECTOR DATE: 02/02/2022	TAH CHECKED BY: PEY DATE: 02/02/2022	02/02/2022 DATE			Port of Tacoma 2407 North 31st Street, Suite 100 Tacoma, Washington 98404 (253) 399-4101 Fax (253) 399-0762 P.O. BOX 1837 TACOMA, WA 98401 (253) 399-5841
	SECTION: TOWNSHIP: 201100.01 RANGE: DAT-HRZ: PARCEL: BID SET	PRINTED BY: dya DATE: Feb 02, 2022 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98421	REVISION: BY: DATE: APPR: BY: DATE:				

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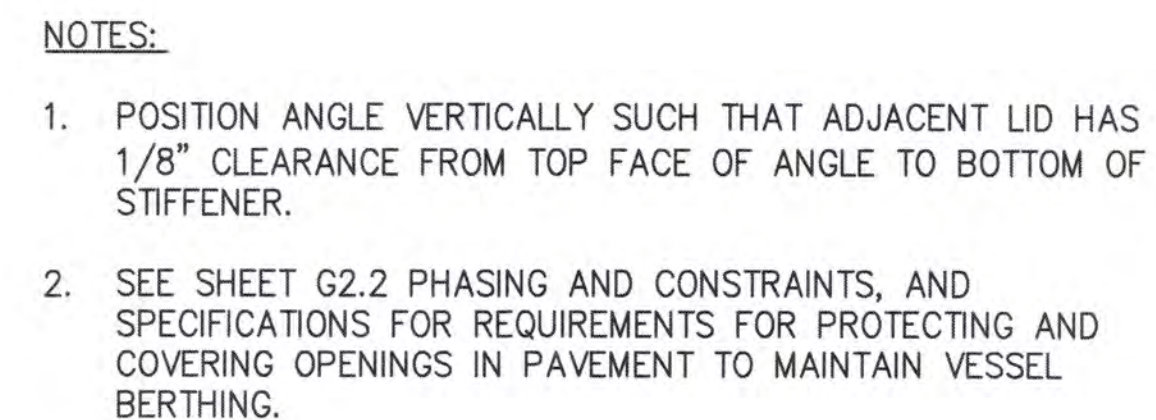
PLAN - SHORE POWER VAULTS SSB3, SSB4, AND SSB5 ON PIER 4
SCALE: 1/16" = 1'-0"

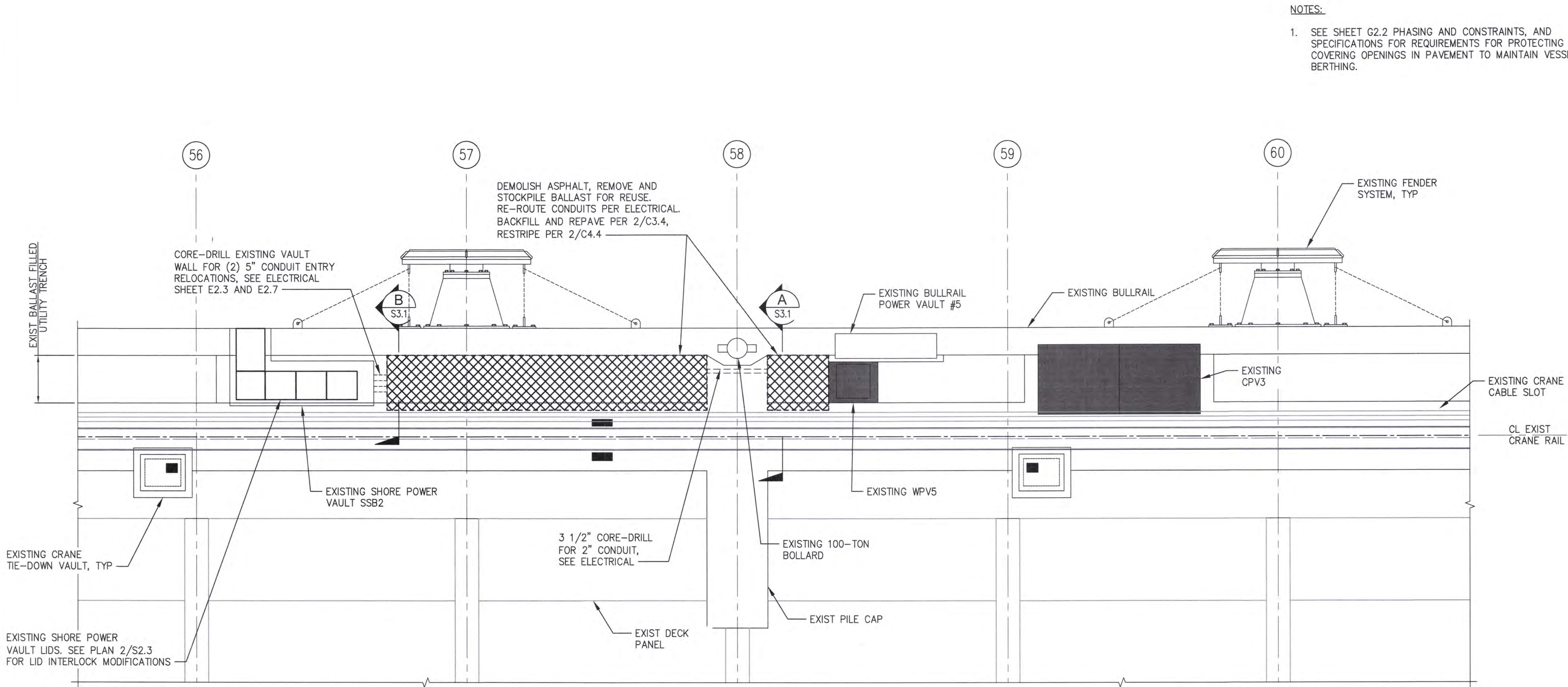
LEGEND

- EXIST 200 TON BOLLARD
- EXIST 100 TON BOLLARD
- EXIST CRANE TIE DOWN VAULT
- EXIST FENDER
- EXIST BULKHEAD WALL

6658 S2.2 67 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER PLAN - SHORE POWER VAULTS SSB3, SSB4 AND SSB5 ON PIER 4				APPROVED: DIRECTOR DATE: 02/02/2022	TAH CHECKED BY: PEY DATE: 02/02/2022	 PORT OF TACOMA 2022	 2407 North 31st Street, Suite 100 Tacoma, Washington 98407 (253) 396-0130 FAX (253) 396-0132 P.O. BOX 1807 TACOMA, WA 98401 (253) 395-9641			
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	M. ID: 201100.01	DAT-HRZ: []	PRINTED BY: dya Feb 02, 2022	PROJ. ENGR DATE	MARK: []	REVISION: []				APPR: []	DATE: []
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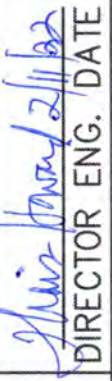
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- NOTES:
- SEE SHEET G2.2 PHASING AND CONSTRAINTS, AND SPECIFICATIONS FOR REQUIREMENTS FOR PROTECTING AND COVERING OPENINGS IN PAVEMENT TO MAINTAIN VESSEL BERTHING.

1 PLAN - SHORE POWER VAULT SSB2 ON PIER 3
S2.1 SCALE: 1/4" = 1'-0"

6658 S2.4 69 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER				APPROVED:	TAH CHECKED BY	02/02/2022 DATE
	PLAN - SHORE POWER VAULT SSB2 ON PIER 3				 DIRECTOR	PEY	02/02/2022 DATE
	TOWNSHIP:	RANGE:	SECTION:	PROJ. ENGR		DATE	
	M. ID:	DAT-HRZ:	VERT:	PRINTED BY:		DATE	
CON/CONS: 071357	201100.01			PORT ADDRESS: ONE SITCUM PLAZA	TACOMA, WA 98421		
PHASE: BID SET				DRAWING SCALE: AS NOTED			



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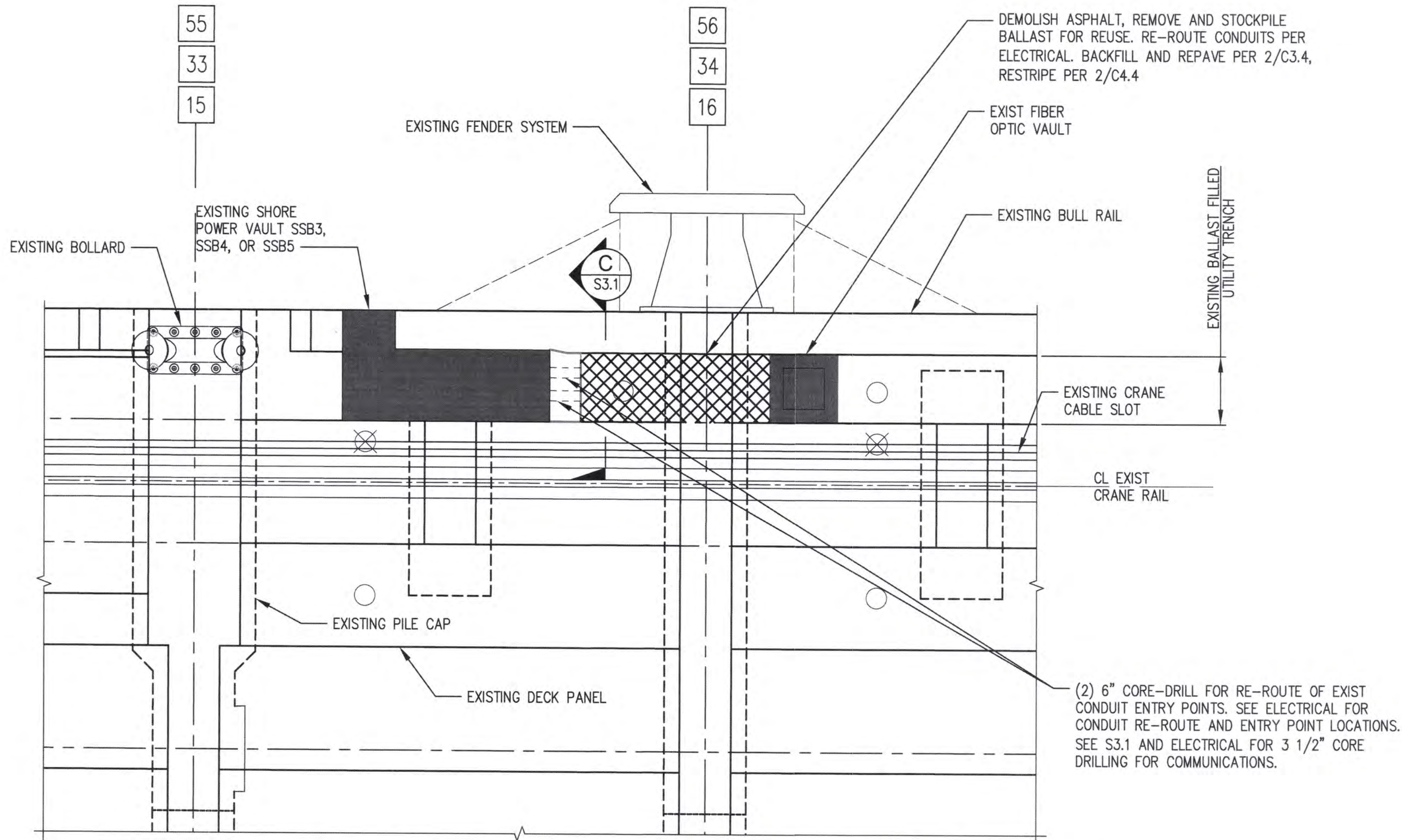


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22-22
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EXPIRATION DATE 12/31/2024

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1 PLAN - TYPICAL SHORE POWER VAULT ON PIER 4
S2.2 SCALE: 1/4" = 1'-0"

NOTE:
SSB3 SHOWN.
SSB4 AND SSB5 SIM.

NOTES:

- SEE SHEET G2.2 PHASING AND CONSTRAINTS, AND SPECIFICATIONS FOR REQUIREMENTS FOR PROTECTING AND COVERING OPENINGS IN PAVEMENT TO MAINTAIN VESSEL BERTHING.

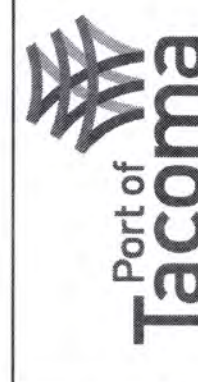


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TACOMA, WA 98421
DIRECTOR ENG. DATE: 02/02/2022
PRINTED BY: dyu Feb 02, 2022
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TACOMA, WA 98421

6658		TERMINAL 3 / TERMINAL 4 SHORE POWER			
S2.5		PLAN - TYPICAL SHORE POWER VAULT ON PIER 4			
70 OF 83		TOWNSHIP:		RANGE:	
CONT/CONS: 071357		DAT-HRZ:		VERT:	
M. ID: 20100.01		PARCEL:		DRAWING SCALE: AS NOTED	
PHASE: BID SET					

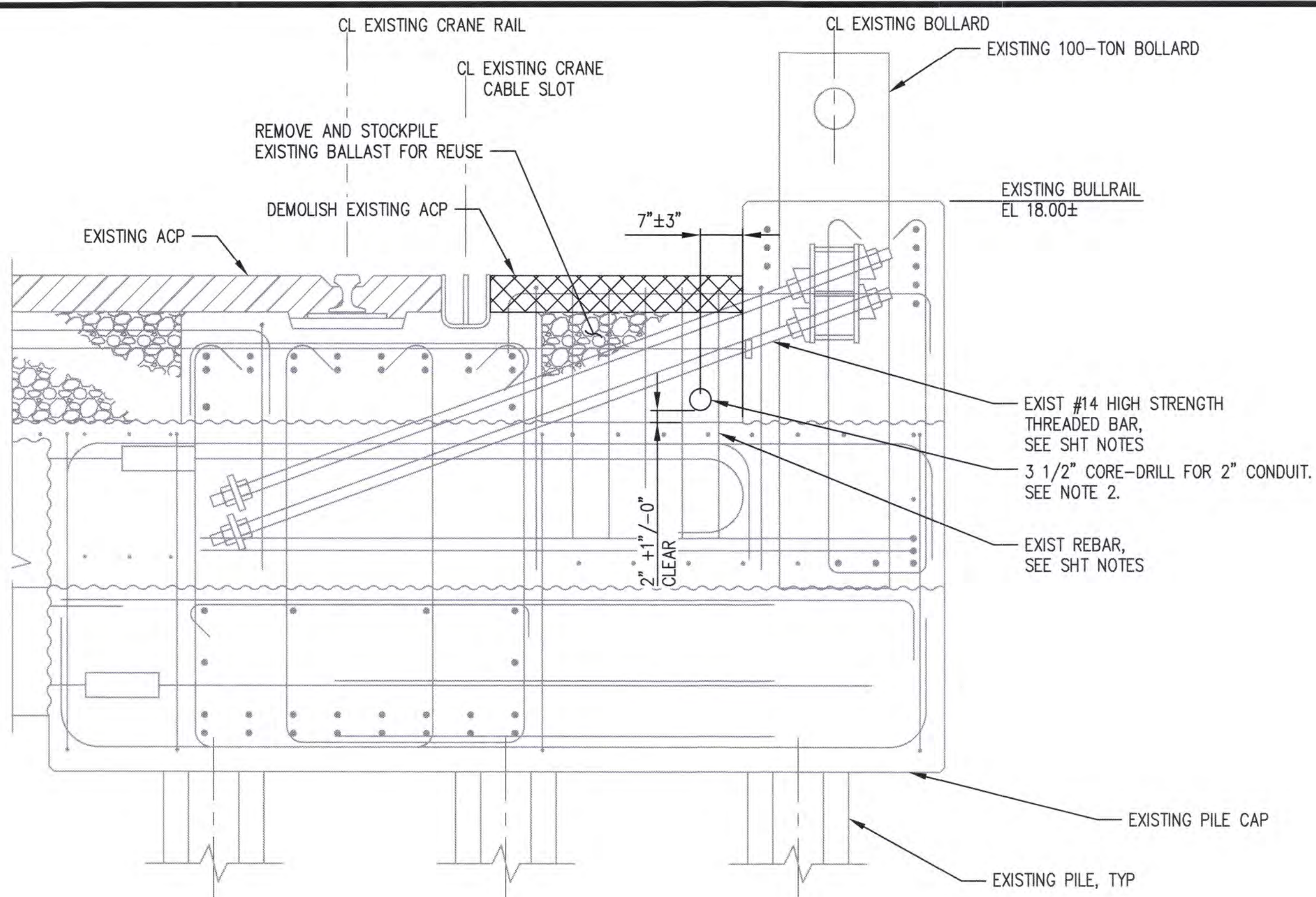


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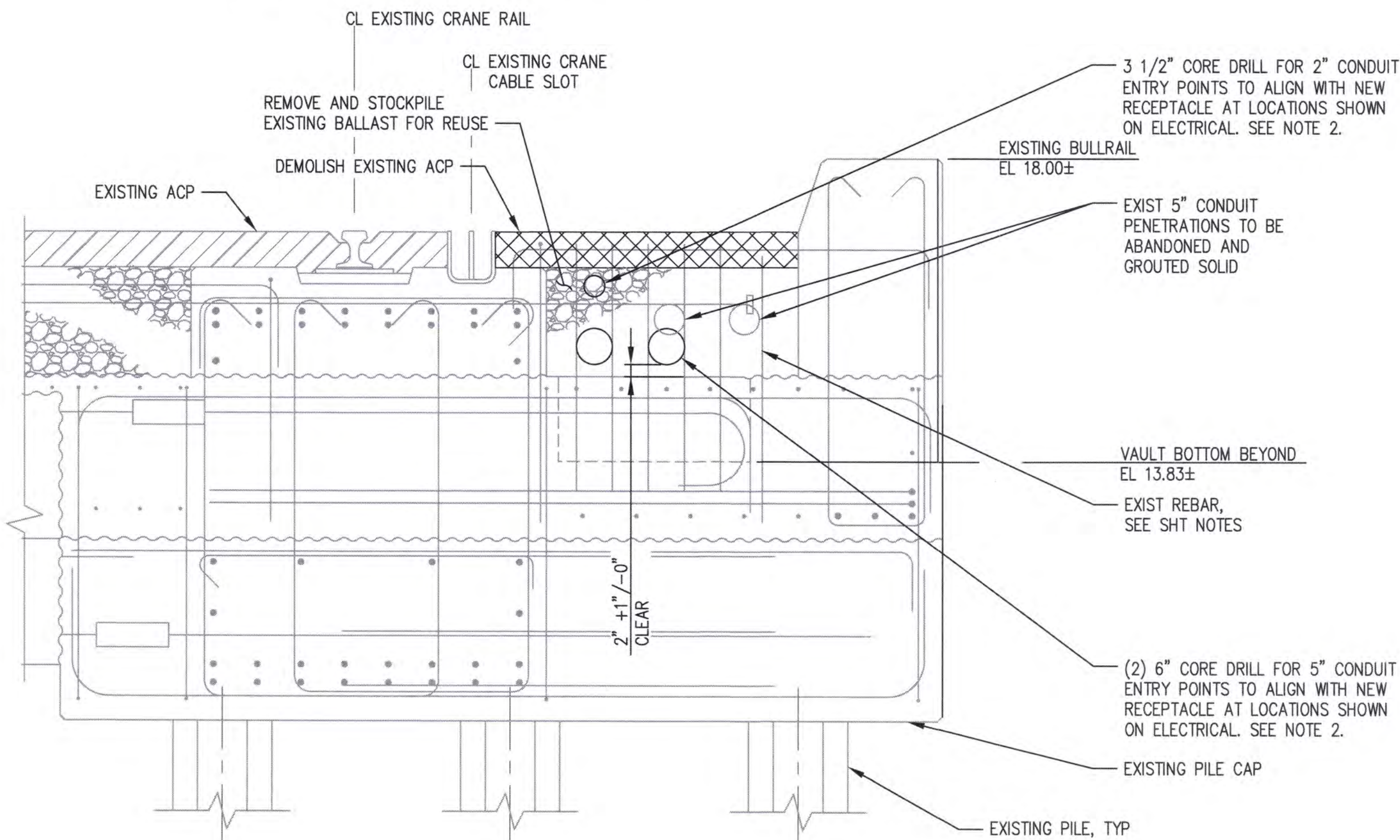


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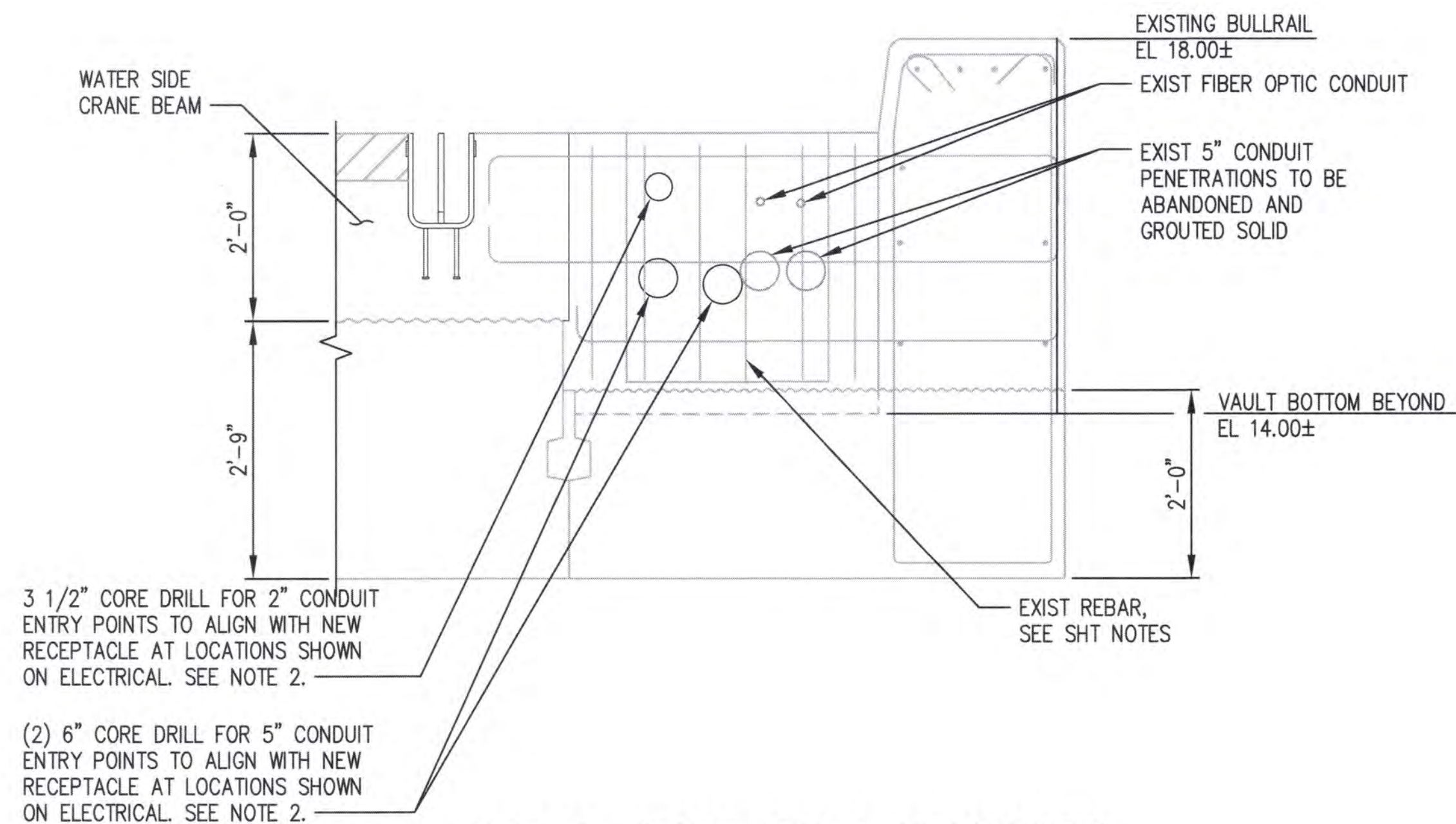
DETAIL - CORE-DRILL AT BENTS 29 AND 58 ON PIER 3
S2.3, S2.4 SCALE: 3/4" = 1'-0"



DETAIL - CORE-DRILL AT VAULTS SSB1 AND SSB2 ON PIER 3
S2.3, S2.4 SCALE: 3/4" = 1'-0"

NOTES

1. REINFORCING BARS AND HIGH-STRENGTH ALL THREAD RODS SHOWN AS EXISTING ARE PER PORT RECORD DRAWINGS. ACTUAL CONDITIONS MAY VARY. CORE-DRILL LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS SHALL BE DETERMINED BY CONTRACTOR.
2. THE CONTRACTOR SHALL FIELD VERIFY EXISTING REINFORCING BAR AND HIGH-STRENGTH ALL THREAD ROD LOCATIONS PRIOR TO CORE-DRILLING UTILIZING GROUND-PENETRATING RADAR (GPR) METHODS. CORE DRILLS SHALL BE LOCATED SUCH THAT EXISTING REINFORCING BARS AND HIGH-STRENGTH ALL THREAD RODS ARE NOT CUT.
3. CONTRACTOR SHALL SUBMIT CERTIFICATION THAT GPR LOCATING PERSONNEL HAVE EXPERIENCE-BASED TRAINING THAT MEETS OR EXCEEDS THE GUIDELINES DETAILED IN AMERICAN SOCIETY OF NONDESTRUCTIVE TESTING (ASNT) DOCUMENT 'RECOMMENDED PRACTICE SNT-TC-1A, PERSONNEL QUALIFICATION AND CERTIFICATION IN NONDESTRUCTIVE TESTING LEVEL 1'.
4. HIGH-STRENGTH ALL THREAD RODS ARE CRITICAL ITEMS AND IF DAMAGED DURING CORE DRILLING SHALL BE REPAIRED BY CONTRACTOR AT NO ADDITIONAL COST TO THE PORT.
5. EXISTING AND PROPOSED CONDUIT LOCATIONS ARE SHOWN FOR ILLUSTRATION PURPOSES ONLY. REFER TO ELECTRICAL SHEETS FOR ACTUAL EXISTING AND PROPOSED CONDUIT LOCATIONS.



DETAIL - CORE-DRILL AT VAULTS SSB3, SSB4, AND SSB5 ON PIER 4
S2.5 SCALE: 3/4" = 1'-0"

6658 S3.1 71 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER				APPROVED: <i>[Signature]</i> DIRECTOR		TAH CHECKED BY PEY PROJ. ENGR PRINTED BY PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98421	02/02/2022 DATE 02/02/2022 DATE Feb 02, 2022 DATE
	CORE-DRILL DETAILS				RANGE: VERT:		SECTION: DATE-HRZ:	
	TOWNSHIP: M. ID:				DATE-HRZ: PARCEL:		DRAWING SCALE: AS NOTED	
	PHASE: BID SET							

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kpf

SEAL OF THE PORT OF TACOMA
J. R. RUTHERFORD
SUPERVISOR
PORT OF TACOMA
WASHINGTON
2022

DATE: _____
APPR: _____
BY: _____
REVISION: _____

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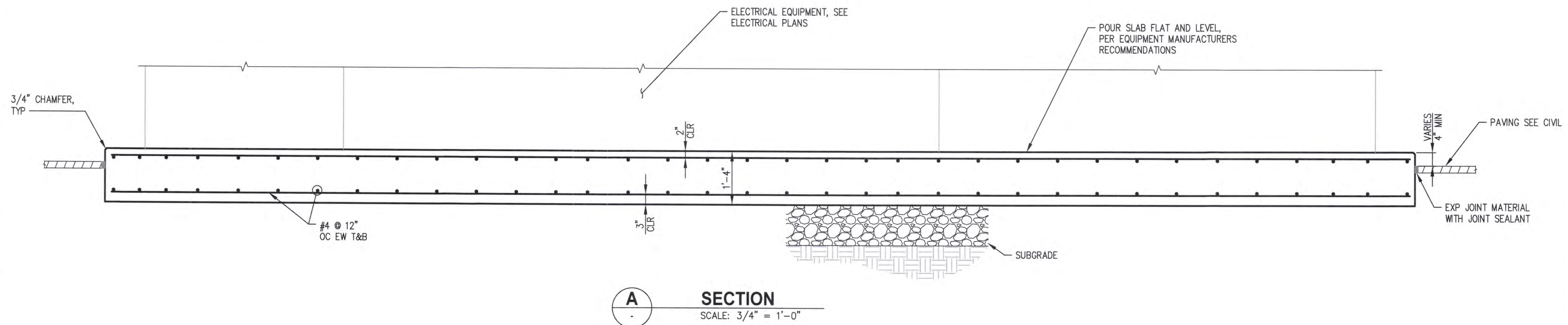


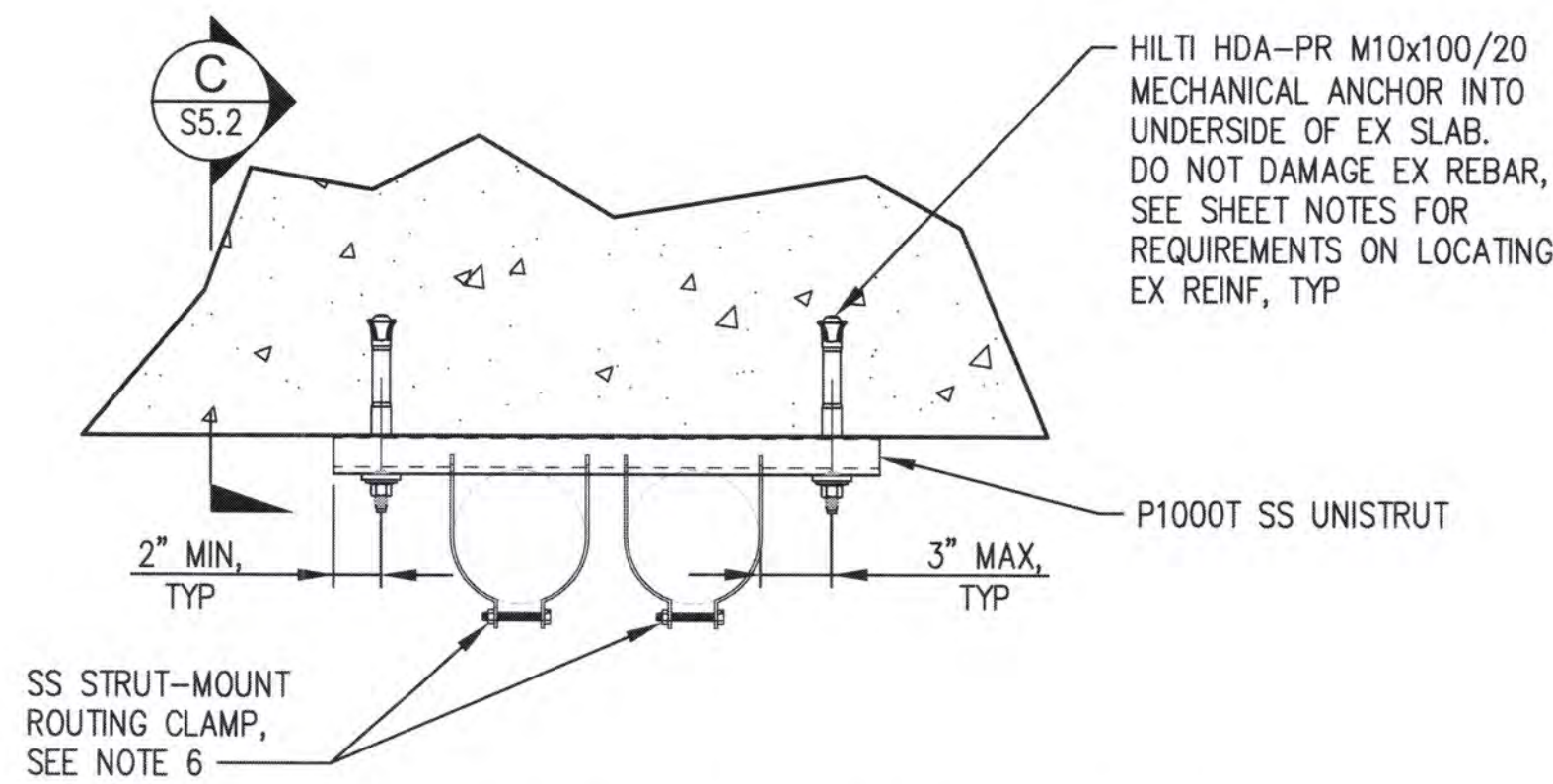
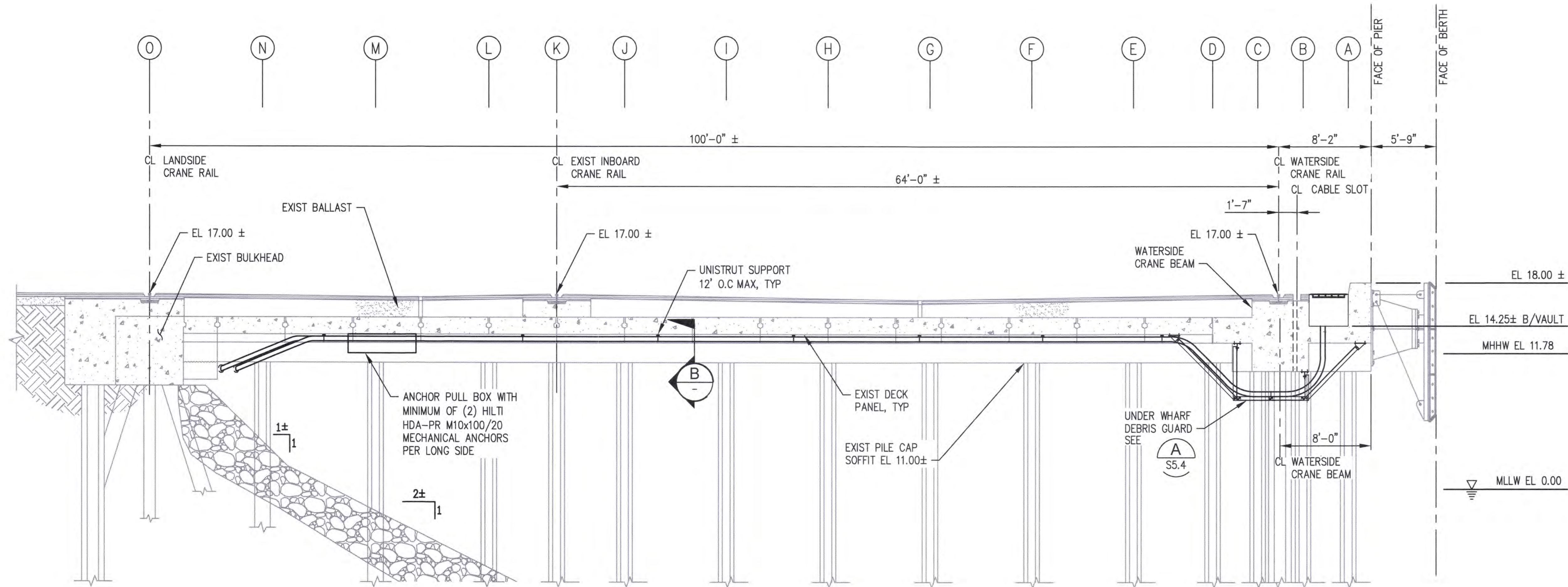
1. CONCRETE FOUNDATION IS SIZED BASED ON ANTICIPATED EQUIPMENT SIZES. SUBMITTED EQUIPMENT MAY VARY FROM DIMENSIONS SHOWN. CONTRACTOR SHALL COORDINATE EQUIPMENT SHOP DRAWINGS WITH PAD DIMENSIONS AND ALERT ENGINEER TO ANY DISCREPANCY PRIOR TO CONSTRUCTING PAD.
2. THE CONTRACTOR SHALL COORDINATE REINFORCING SPACING WITH EQUIPMENT CONDUIT PENETRATION LOCATIONS WITHIN STUB-UP ZONE. REINFORCING BARS SHALL NOT BE INTERRUPTED.
3. THE CONTRACTOR SHALL FURNISH AND INSTALL EQUIPMENT ANCHORS PER MANUFACTURERS RECOMMENDATIONS. DO NOT CUT REINFORCING BARS WHEN INSTALLING EQUIPMENT ANCHORS.
4. CONTRACTOR SHALL COORDINATE CONDUIT PENETRATIONS WITH ELECTRICAL AND EQUIPMENT SUBMITTALS. SUBMIT A PAD PLAN TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.
5. ELECTRICAL EQUIPMENT SHALL BE SITED TO MAINTAIN THE MINIMUM CLEARANCES BETWEEN ELECTRICAL EQUIPMENT, EXISTING BOLLARDS, AND EXISTING ADJACENT ELECTRICAL EQUIPMENT.
6. SEE C3.1 AND C3.3 FOR LOCATION OF SLABS AND TOP OF SLAB ELEVATIONS.
7. SEE E3.2, E3.5 AND E3.6 FOR SLAB IDENTIFICATION.

	TRANSFORMER PAD	CAPACITOR BANK PAD
A	15'-0"	5'-1"
B	33'-0"	16'-0"

SEE NOTE 1

1 PLAN - ELECTRICAL EQUIPMENT PAD
E3.2, E3.5, E3.6 SCALE: 1/2" = 1'-0"





B UNISTRUT SUPPORT DETAIL
S5.2 SCALE: 1 1/2" = 1'-0"

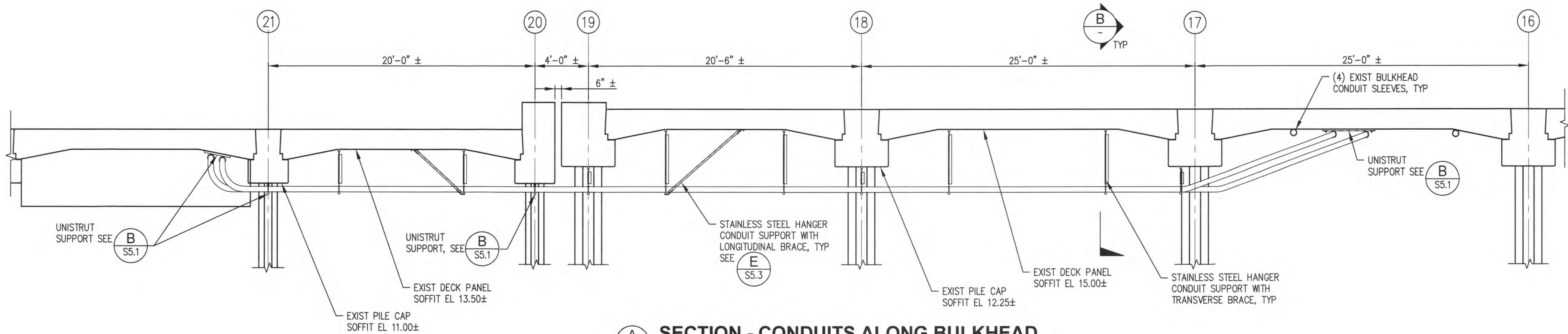
A SECTION - CONDUITS ALONG BENT 21
S2.1 SCALE: 3/16" = 1'-0"

NOTES

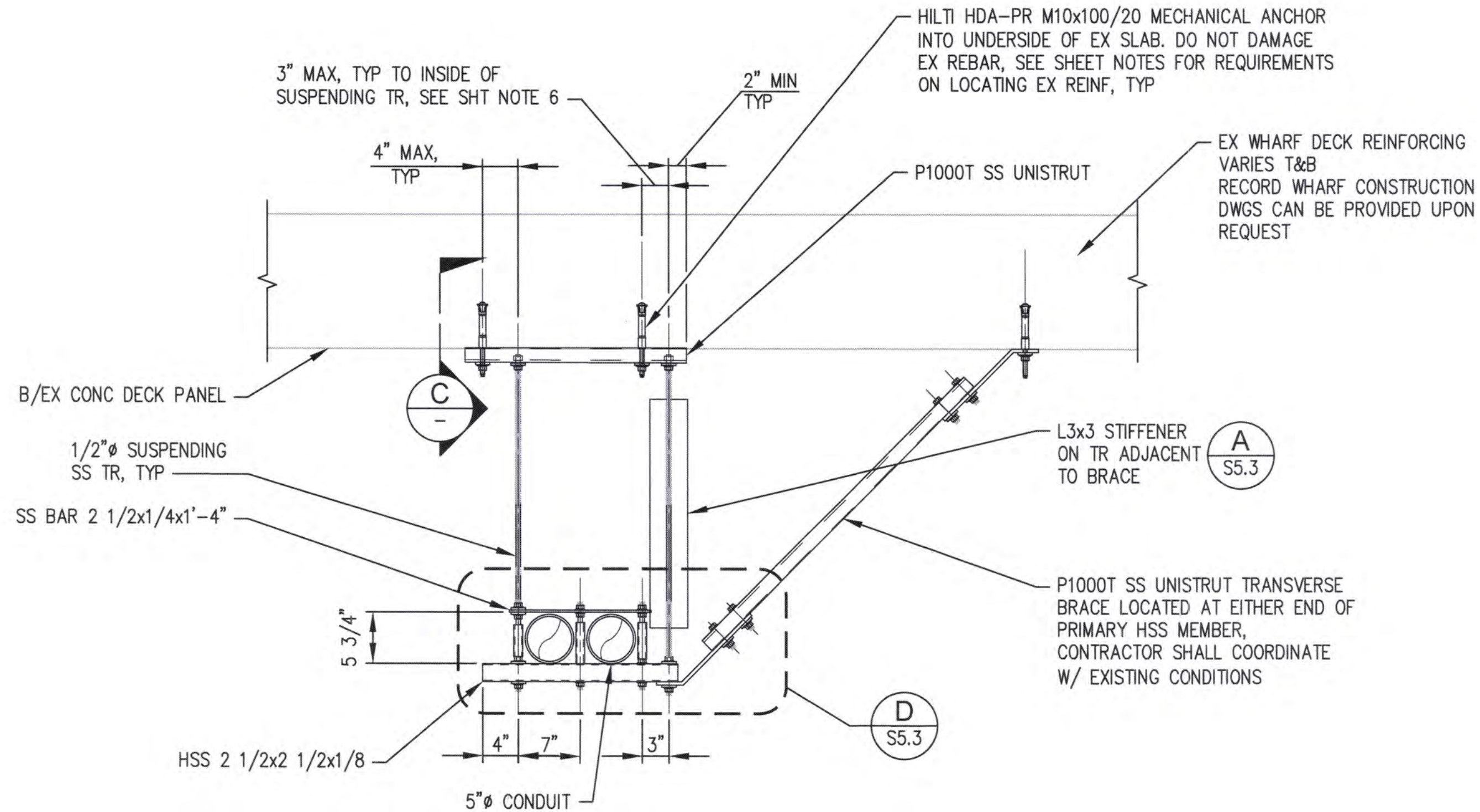
1. EXISTING CONCRETE REINFORCEMENT SHALL NOT BE CUT DURING INSTALLATION OF CONCRETE ANCHORS. CONTRACTOR SHALL LOCATE AND MAP EXISTING REINFORCEMENT TO THE MAXIMUM DEPTH TO BE DRILLED USING A NON-DESTRUCTIVE METHOD PRIOR TO START OF DRILLING. DRILLING SHALL BE DONE WITH BITS THAT WILL NOT DAMAGE EXISTING REBAR. CORE DRILLING WILL NOT BE ALLOWED FOR INSTALLATION OF CONCRETE ANCHORS.
2. CONTRACTOR SHALL COORDINATE EXISTING REBAR LOCATIONS WITH CONDUIT SUPPORT ANCHORAGE PRIOR TO FABRICATION.
3. ALL METALS BELOW THE WHARF SHALL BE STAINLESS STEEL.
4. DRILLED HOLES THAT ARE ABANDONED SHALL BE PATCHED WITH EPOXY ADHESIVE. ANCHORS SHALL BE INSTALLED A MINIMUM DISTANCE OF 2 ANCHOR DIAMETERS FROM ANY ABANDONED HOLE.
5. ALL HDA-PR ANCHORS SHALL BE INSTALLED INTO THE BOTTOM OF THE DECK PANELS OR BOTTOM OF THE CONCRETE SOFFIT AS SHOWN.
6. CONDUIT ROUTING CLAMP SHALL BE RATED FOR THE FOLLOWING LOAD CAPACITIES

VERTICAL LOAD = 2090 LBS
TRANSVERSE LOAD = 360 LBS
LONGITUDINAL LOAD = 525 LBS

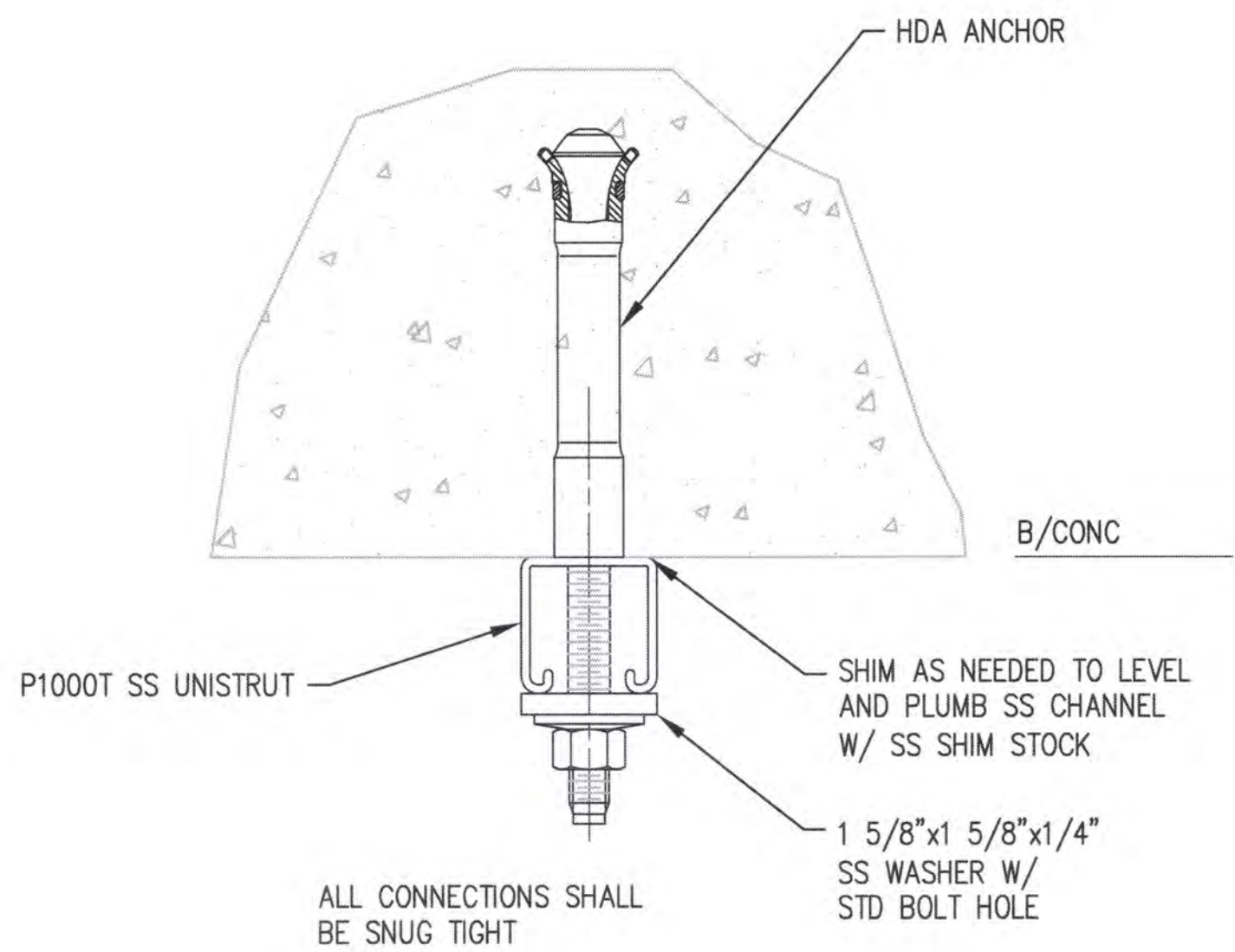
6658 S5.1 73 OF 83 CONT/CONS: 071357 M. ID: 201100.01 PHASE: BID SET	TERMINAL 3 / TERMINAL 4 SHORE POWER UNDER WHARF CONDUIT SUPPORT DETAILS - SHEET 1 TOWNSHIP: RANGE: VERT: DAT-HRZ: PARCEL:	APPROVED: <i>[Signature]</i>	TAH: 02/02/2022	CHECKED BY: DATE	PEY: 02/02/2022	PROJ. ENGR: DATE	dyu Feb 02, 2022	PRINTED BY:	PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98421
		MARK: REVISION:		BY:	APPR:	DATE:			
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SECTION - CONDUITS ALONG BULKHEAD
SCALE: 1/4" = 1'-0"



SECTION - CONDUIT SUPPORT SYSTEM
SCALE: 1" = 1'-0"



SECTION - UNISTRUT ANCHORAGE
SCALE: 1" = 1'-0"

NOTES

1. EXISTING CONCRETE REINFORCEMENT SHALL NOT BE CUT DURING INSTALLATION OF CONCRETE ANCHORS. CONTRACTOR SHALL LOCATE AND MAP EXISTING REINFORCEMENT TO THE MAXIMUM DEPTH TO BE DRILLED USING A NON-DESTRUCTIVE METHOD PRIOR TO START OF DRILLING. DRILLING SHALL BE DONE WITH BITS THAT WILL NOT DAMAGE EXISTING REBAR. CORE DRILLING WILL NOT BE ALLOWED FOR INSTALLATION OF CONCRETE ANCHORS.
2. CONTRACTOR SHALL COORDINATE EXISTING REBAR LOCATIONS WITH CONDUIT SUPPORT ANCHORAGE PRIOR TO FABRICATION.
3. ALL METALS BELOW THE WHARF SHALL BE STAINLESS STEEL.
4. DRILLED HOLES THAT ARE ABANDONED SHALL BE PATCHED WITH EPOXY ADHESIVE. ANCHORS SHALL BE INSTALLED A MINIMUM DISTANCE OF 2 ANCHOR DIAMETERS FROM ANY ABANDONED HOLE.
5. ALL HDA-PR ANCHORS SHALL BE INSTALLED INTO THE BOTTOM OF THE DECK PANELS OR BOTTOM OF THE CONC SOFFIT AS SHOWN.
6. IF END HDA-PR ANCHORS ARE INSTALLED TO THE INSIDE OF THE OUTERMOST SUSPENDING TR, MAX SPACING IS 3' AS SHOWN.

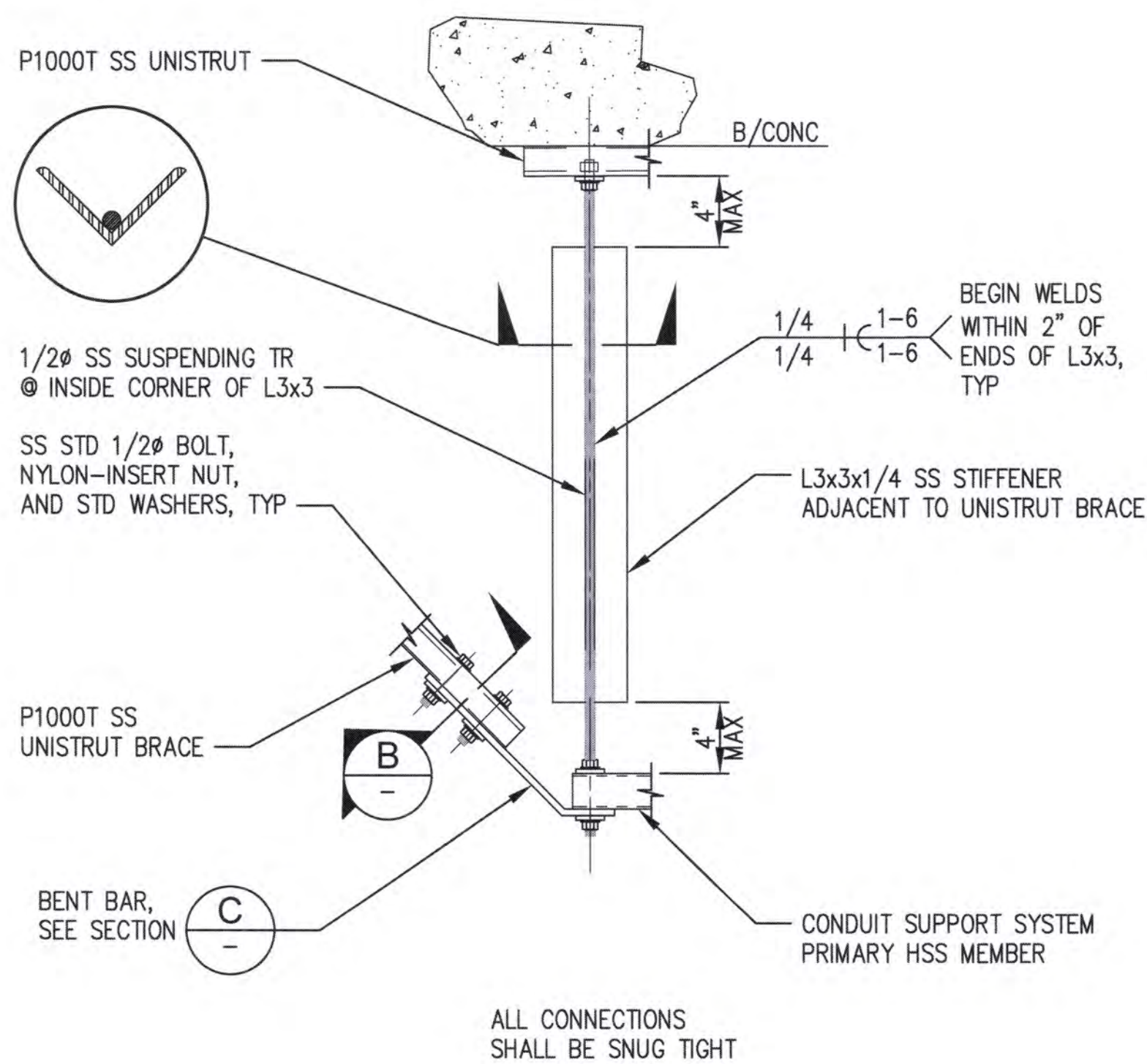
6658 S5.2 74 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER		APPROVED: <i>[Signature]</i> DIRECTOR DATE: 02/02/2022	CHECKED BY: <i>[Signature]</i> PEY DATE: 02/02/2022	TAD 02/02/2022	
	UNDER WHARF CONDUIT SUPPORT DETAILS - SHEET 2		PRINTED BY: dya Feb 02, 2022 PORT ADDRESS: ONE SITCUM PLAZA TACOMA, WA 98421	PROJECT ENGR: <i>[Signature]</i> DATE: 02/02/2022	BY: <i>[Signature]</i> DATE:	
	TOWNSHIP:	RANGE:	SECTION:	REVISION:	MARK:	APPR:
	DAT-HRZ:	VERT:	AS NOTED	REVISION:	MARK:	APPR:

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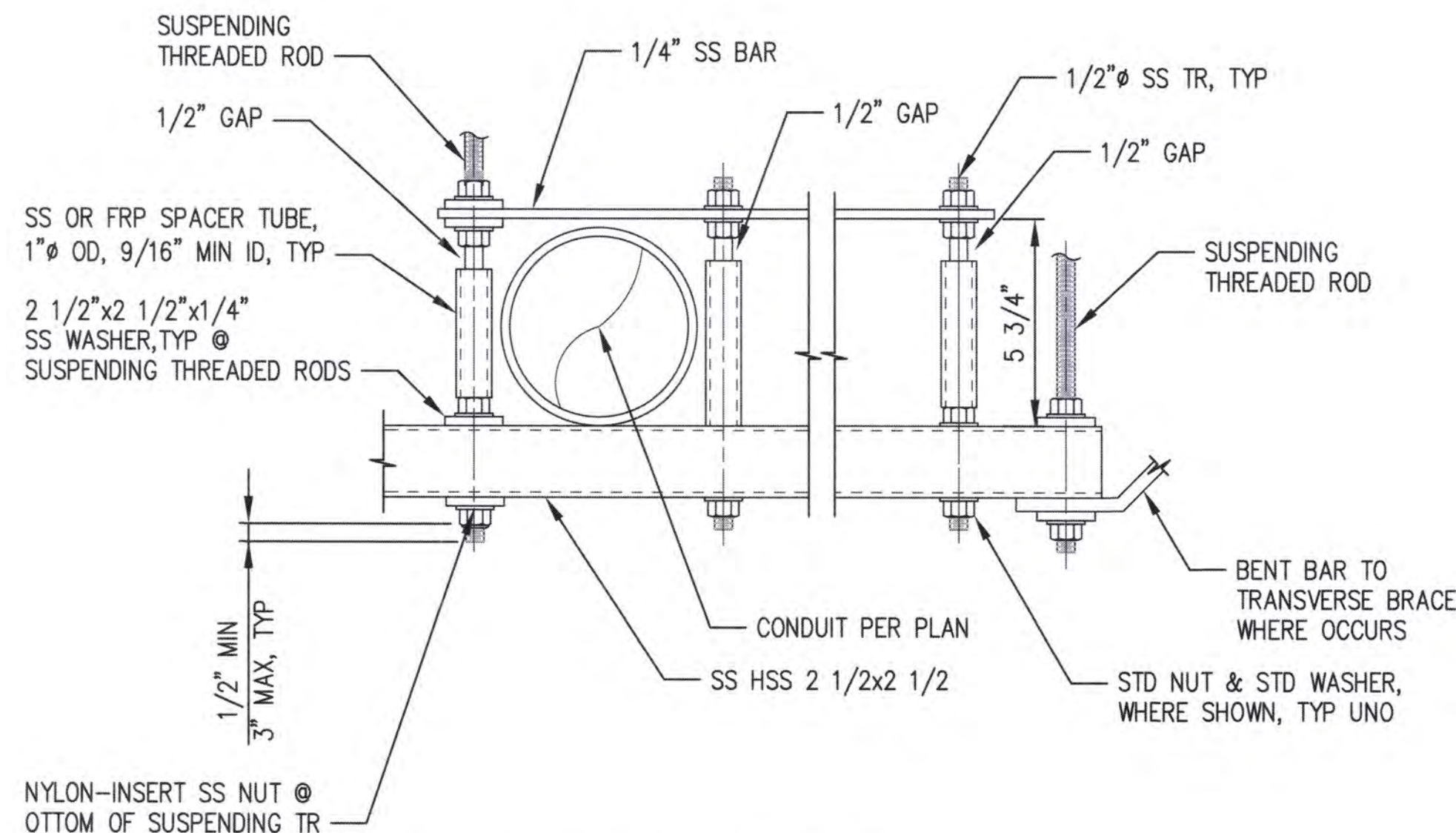
22-23



DETAIL - THREADED ROD STIFFENER

A
S5.2

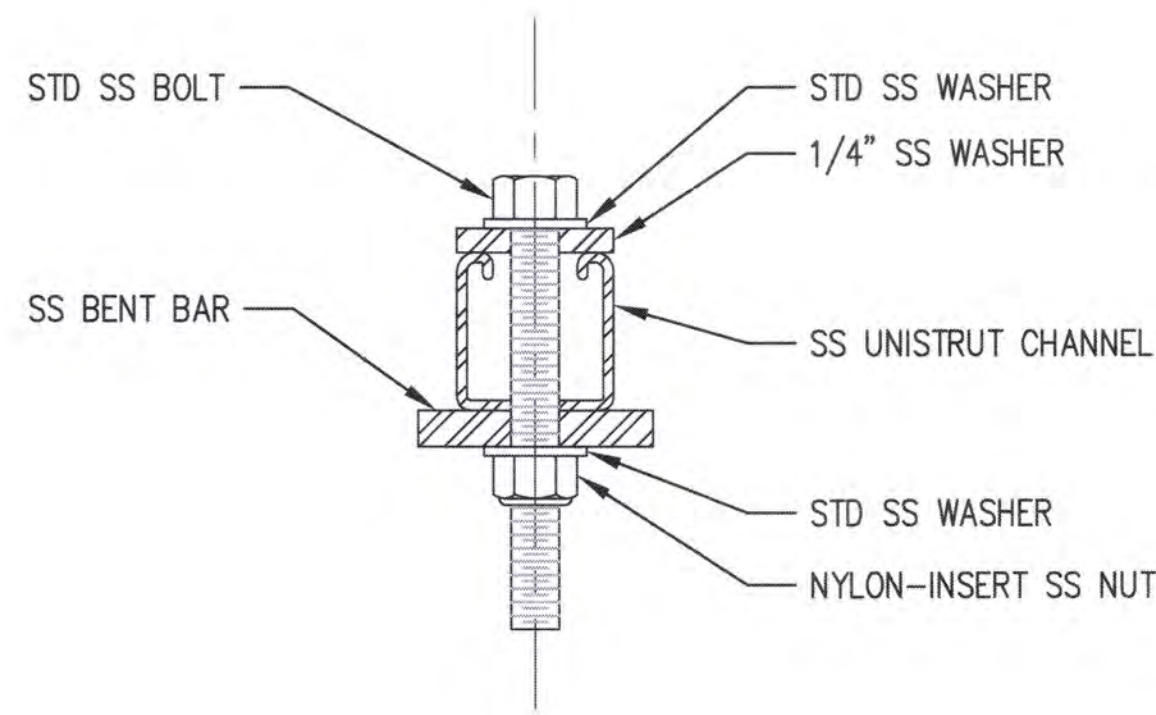
SCALE: 1 1/2" = 1'-0"



DETAIL - TYPICAL CONDUIT GRID ASSEMBLY

D
S5.2

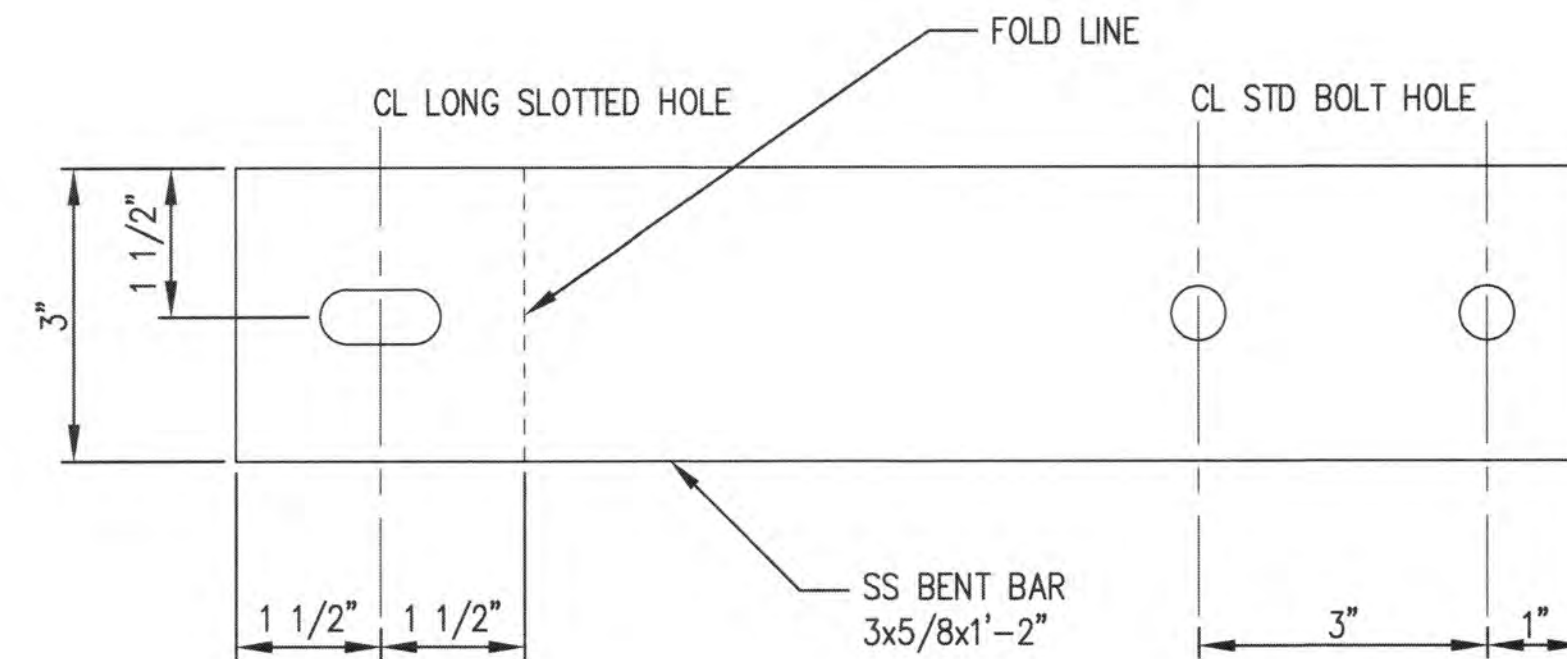
SCALE: 6" = 1'-0"



SECTION - BRACE/BENT PLATE

B
-

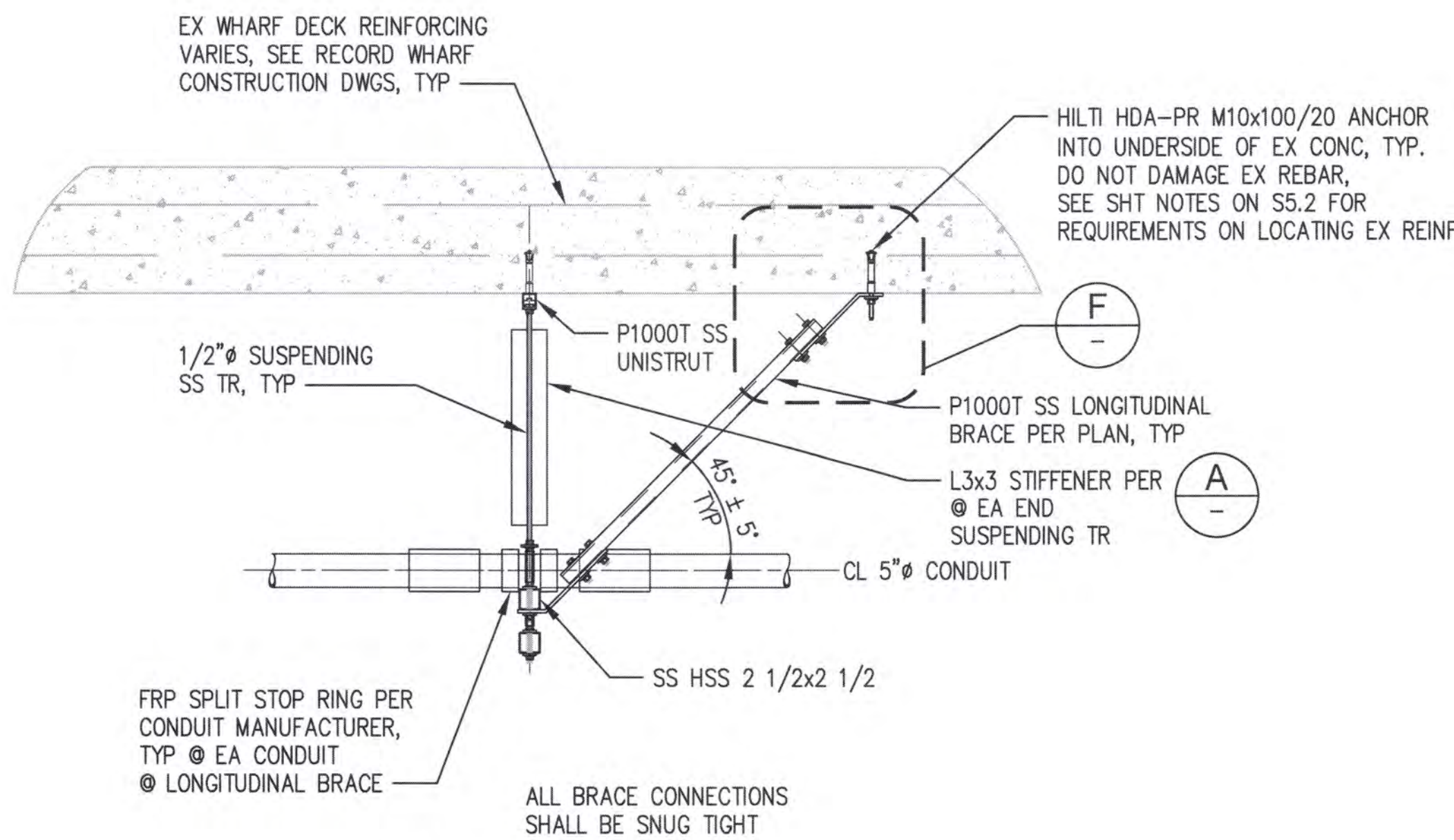
SCALE: 6" = 1'-0"



DETAIL - BRACE CONNECTION PLATE

C
-

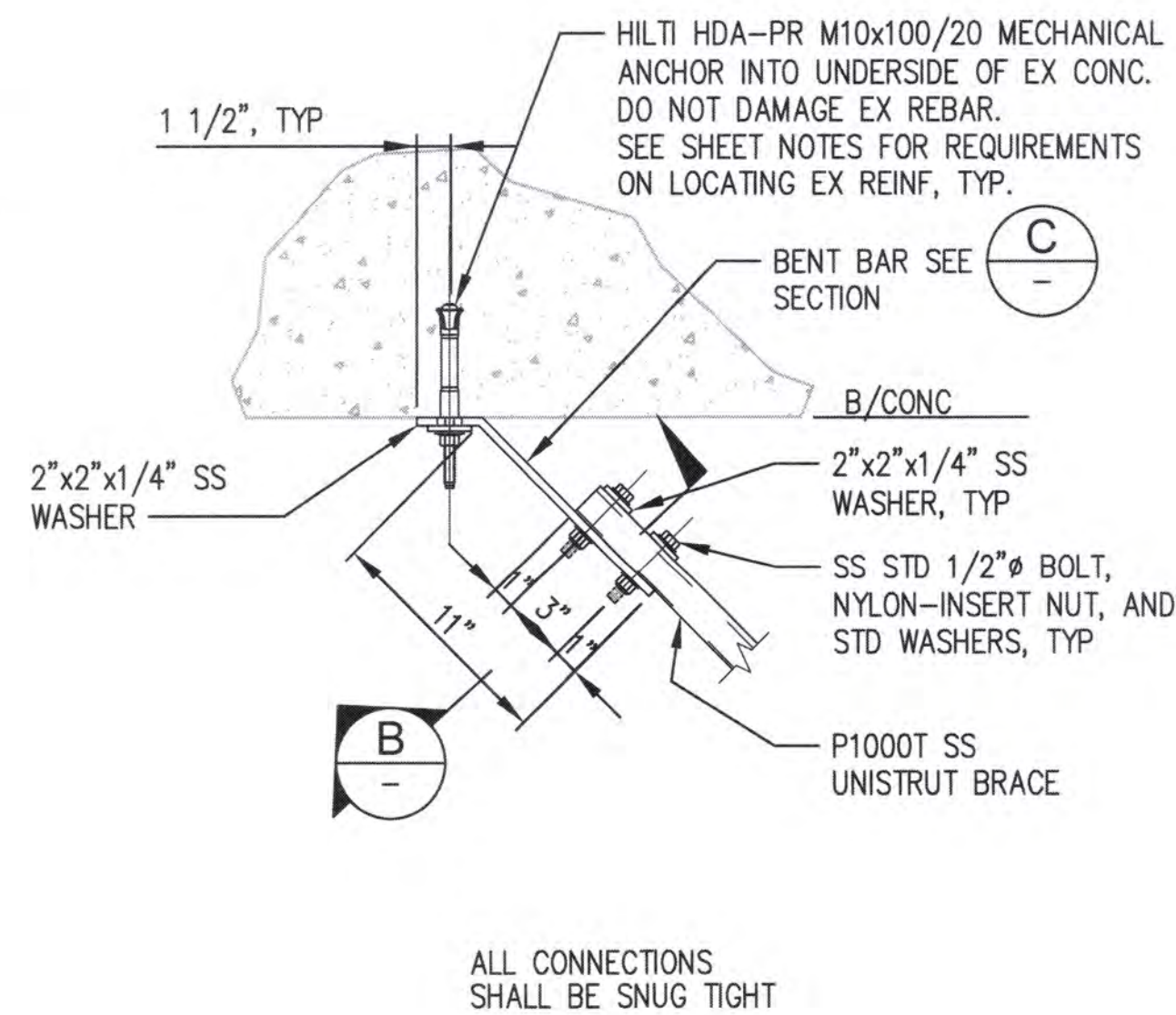
SCALE: XX" = 1'-0"



SECTION - LONGITUDINAL BRACE

E
S5.2

SCALE: 3/4" = 1'-0"

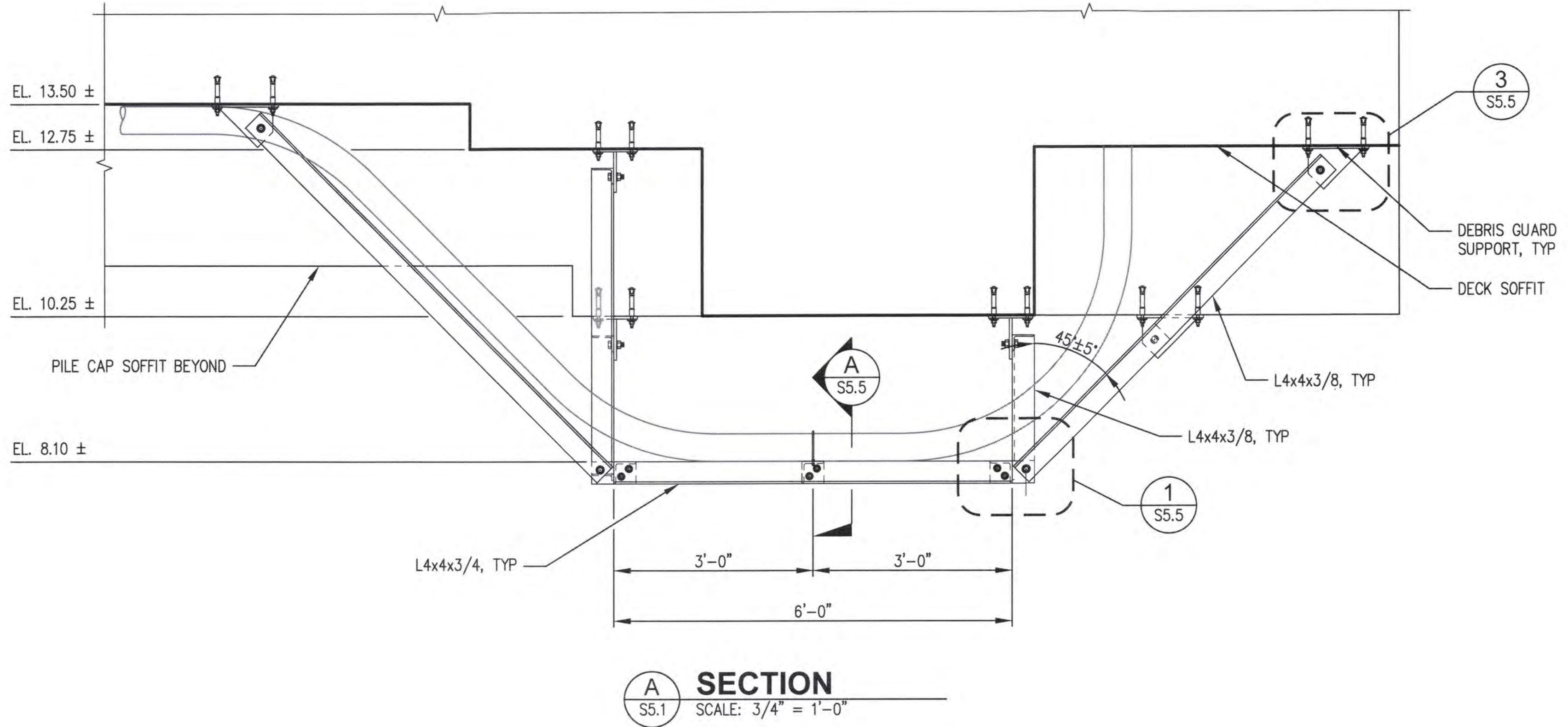
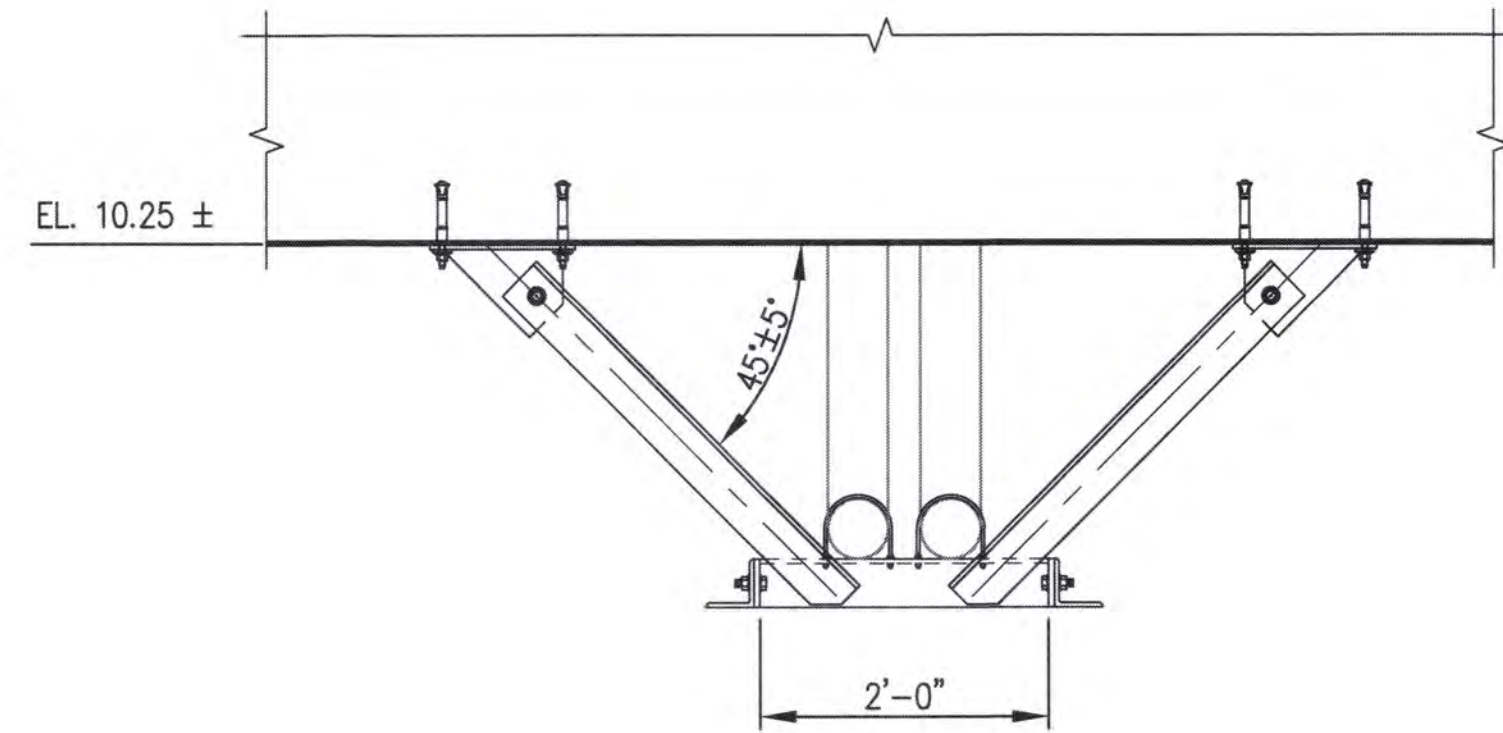
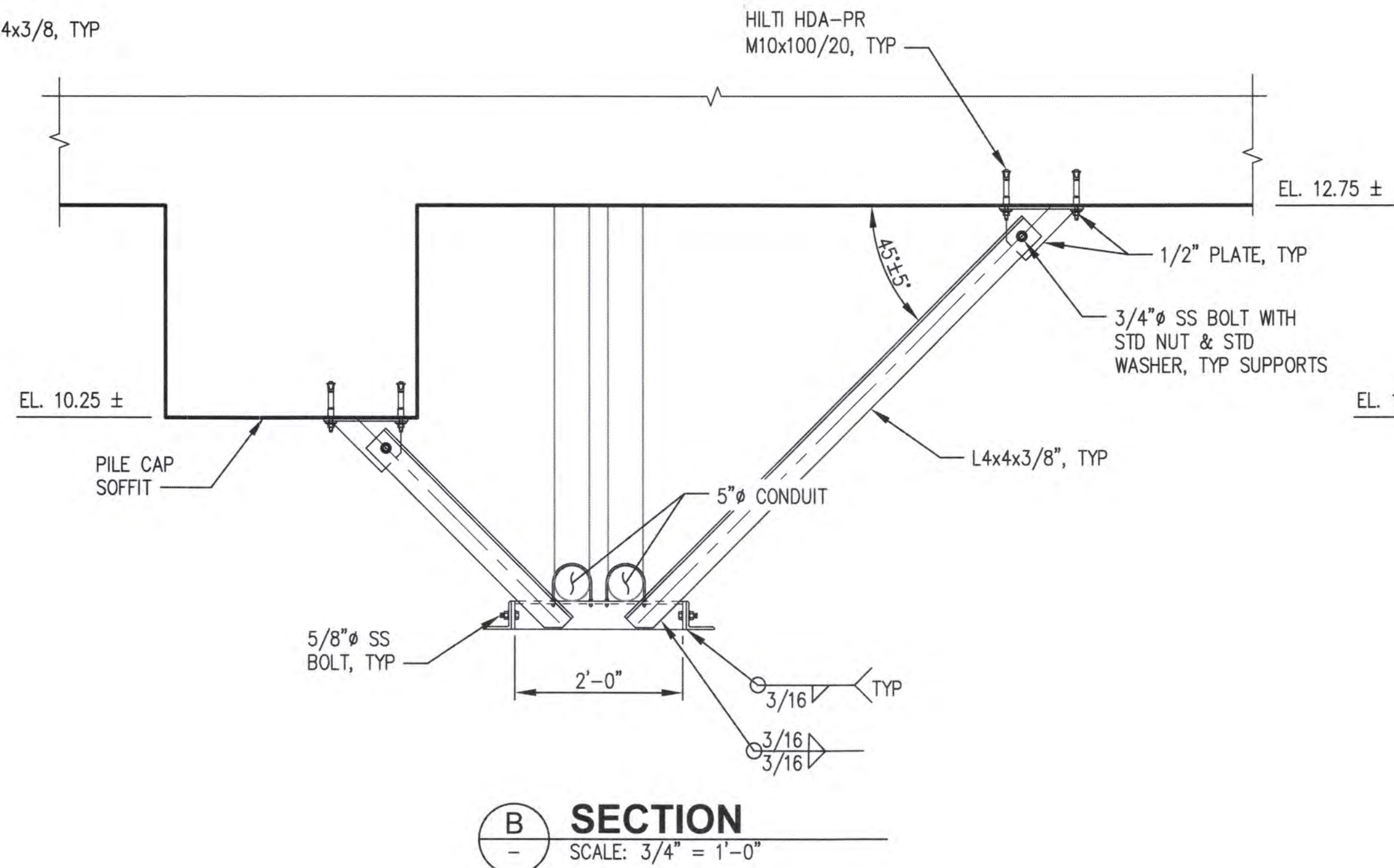
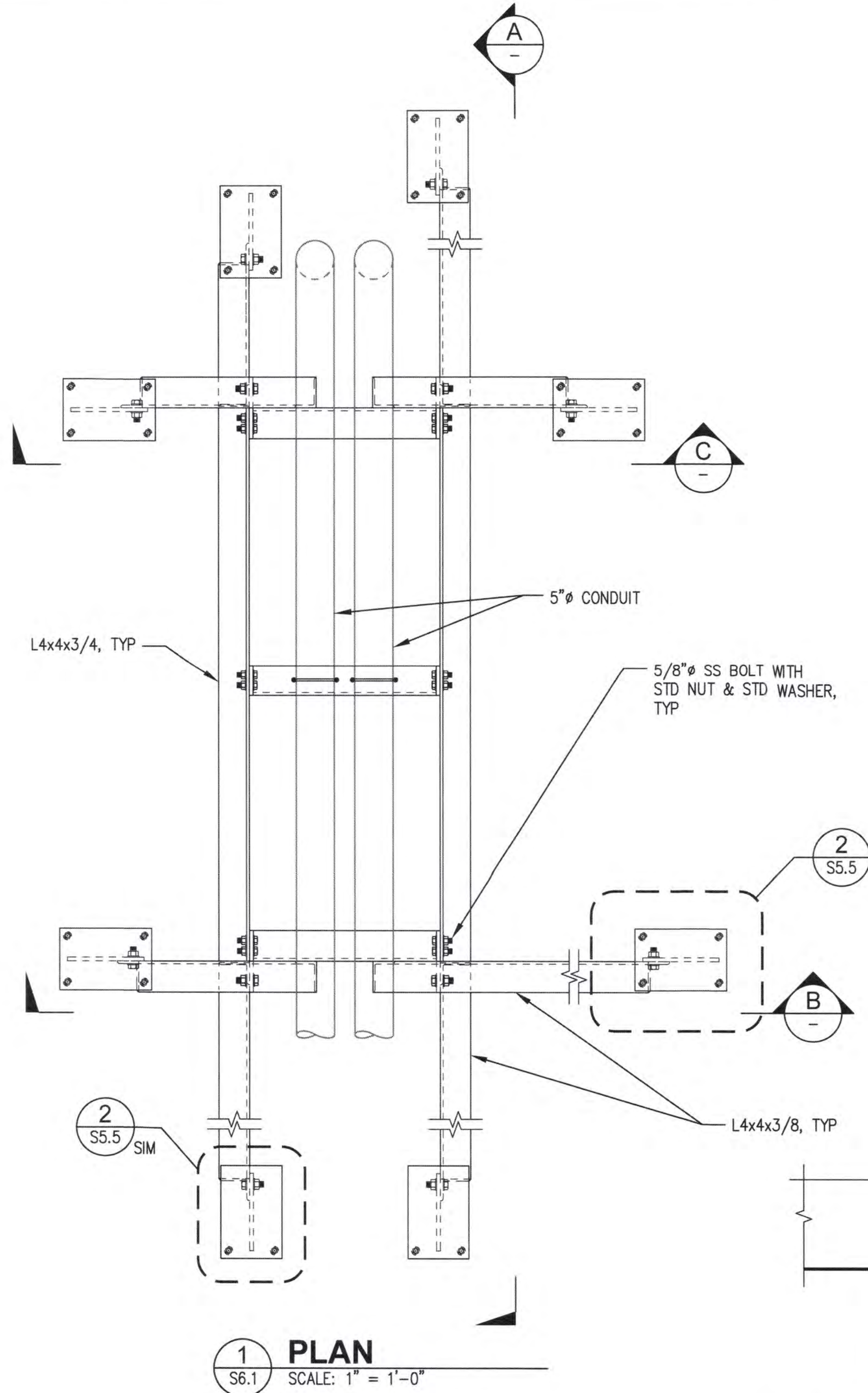


SECTION - ANGLE BRACE CONNECTION

F
-

SCALE: 3/4" = 1'-0"

6658	S5.3	TERMINAL 3 / TERMINAL 4		SHORE POWER		UNDER WHARF CONDUIT SUPPORT DETAILS - SHEET 3		SECTION:		DRAWING SCALE: AS NOTED		TACOMA, WA 98421		DATE: 02/02/2022		BY: PEY		APPR: DATE:	
		75 OF 83		CONTR/CONS: 071357		TOWNSHIP: DAT-HRZ:		RANGE: VERT:		PARCEL:		201100.01		201100.01		201100.01		201100.01	
		PHASE: BID SET		TACOMA, WA 98421		TACOMA, WA 98421		TACOMA, WA 98421		TACOMA, WA 98421		TACOMA, WA 98421		TACOMA, WA 98421		TACOMA, WA 98421		TACOMA, WA 98421	
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NOTES

1. MINIMUM DISTANCE FROM EDGE OF BOLT HOLE TO EDGE OF ELEMENT SHALL BE 1".
2. DEBRIS GUARD GEOMETRY IS BASED ON PIER 3 RECORD DRAWINGS PROVIDED BY THE PORT OF TACOMA AND ON ANTICIPATED CONDUIT LOCATION. CONTRACTOR TO FIELD VERIFY REQUIRED GEOMETRY AND CONDUIT POSITIONING PRIOR TO DEBRIS GUARD FABRICATION.

6658
S5.4
76 OF 83

TERMINAL 3 / TERMINAL 4 SHORE POWER

CONT/CONS: 071357
M. ID: 201100.01
PHASE: BID SET

UNDER WHARF CONDUIT SUPPORT DETAILS - SHEET 4
TOWNSHIP: RANGE: SECTION:
DAT-HRZ: VERT:
PARCEL: DRAWING SCALE: AS NOTED

APPROVED: *[Signature]*
DIRECTOR ENG. DATE: 02/02/2022
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PORT ADDRESS: ONE SITCUM PLAZA
TACOMA, WA 98421

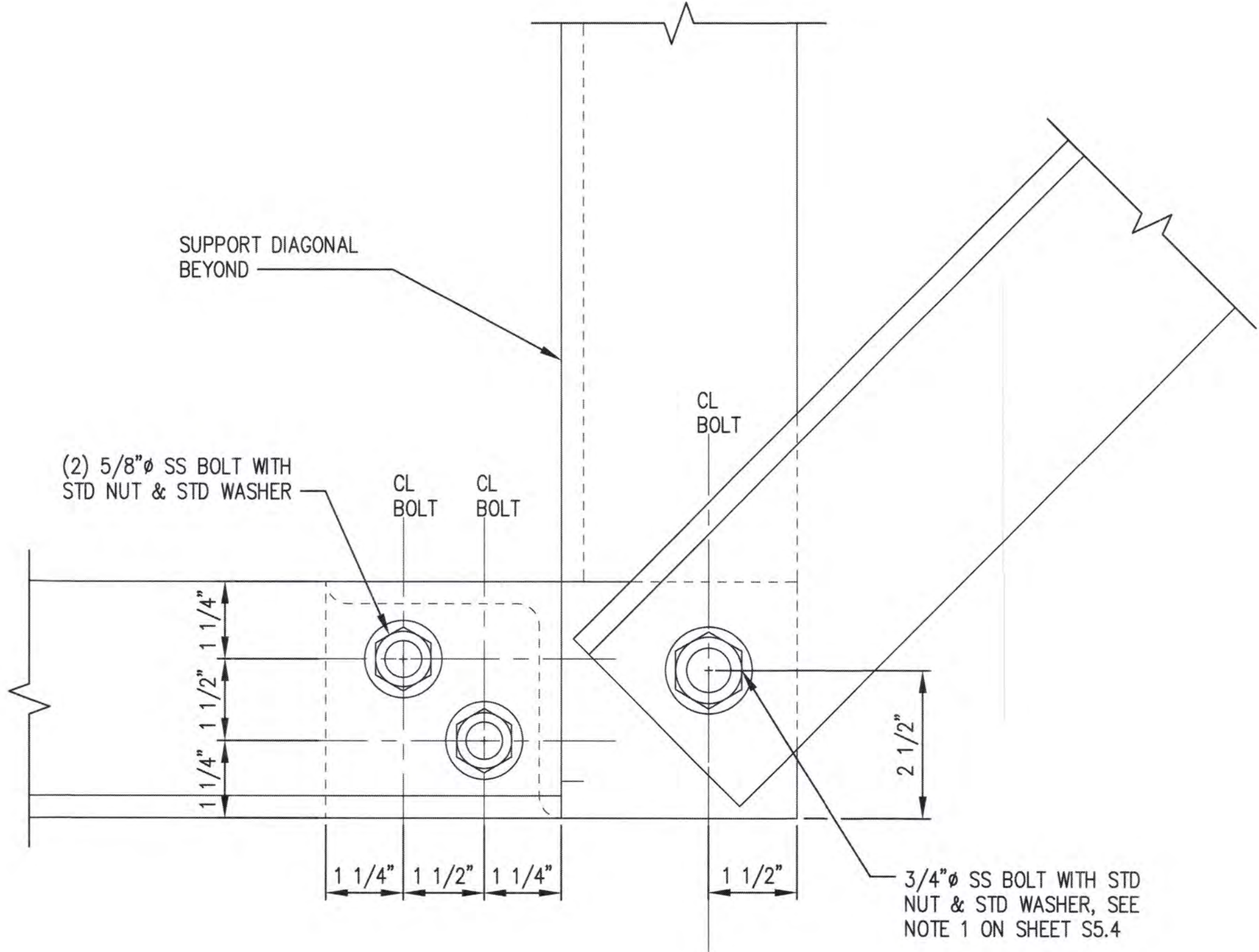


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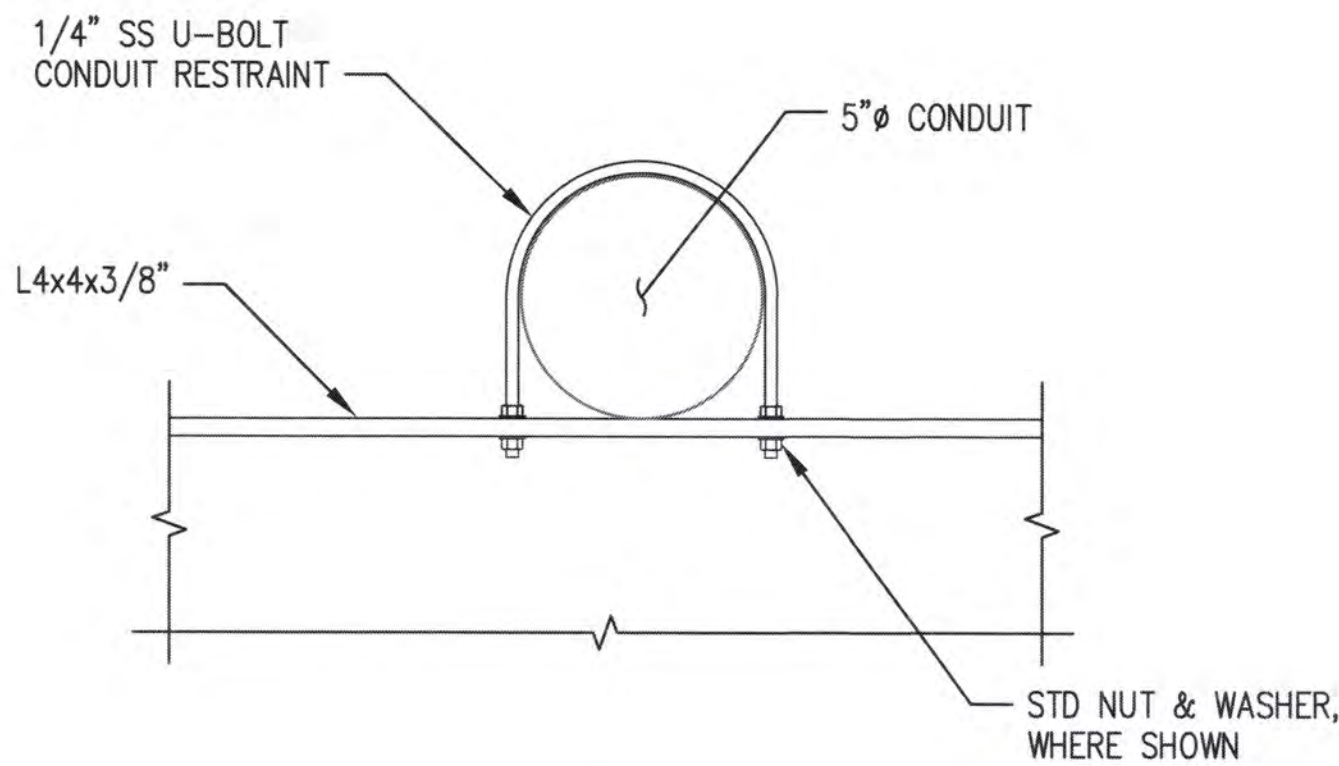
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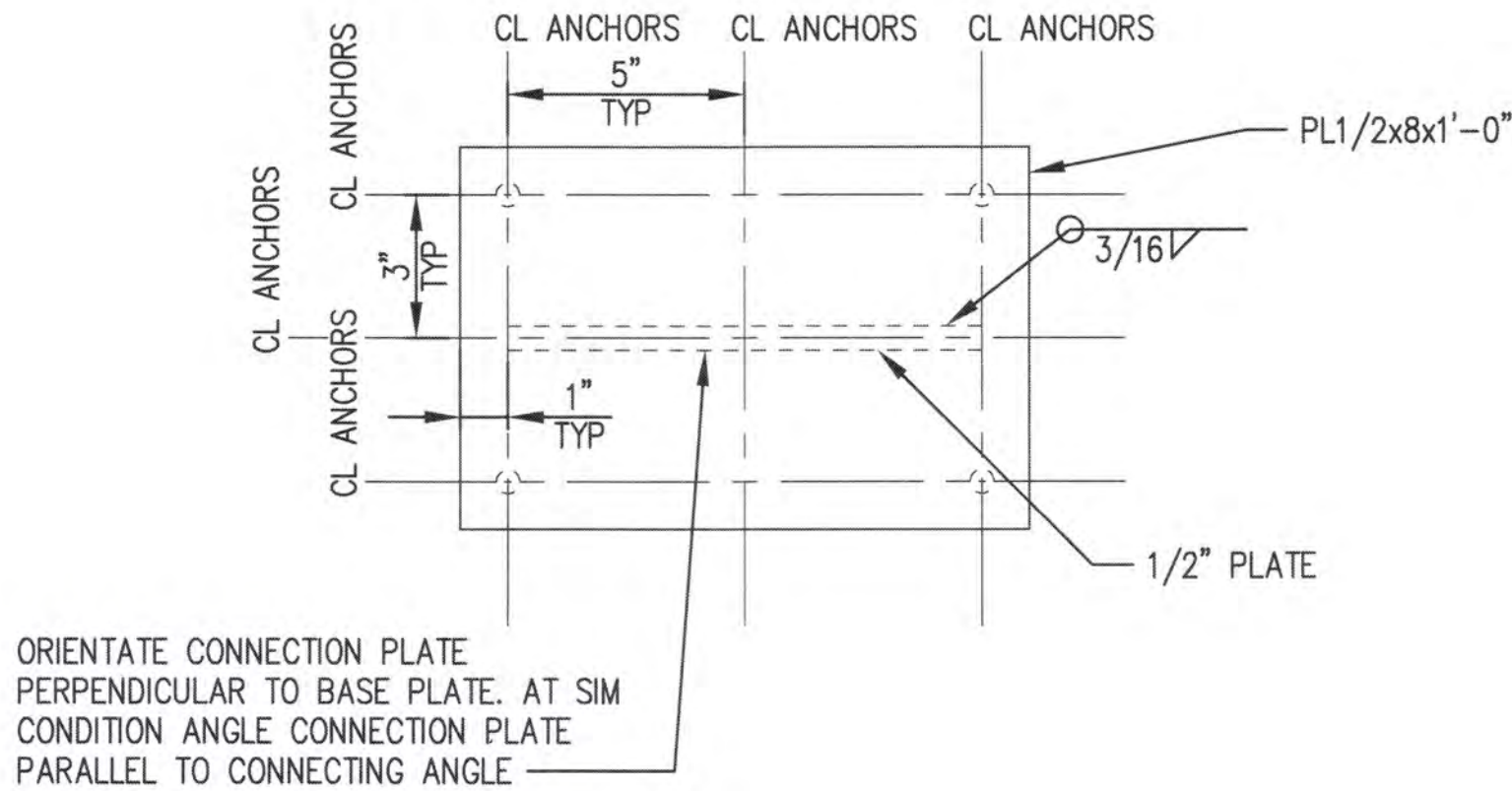
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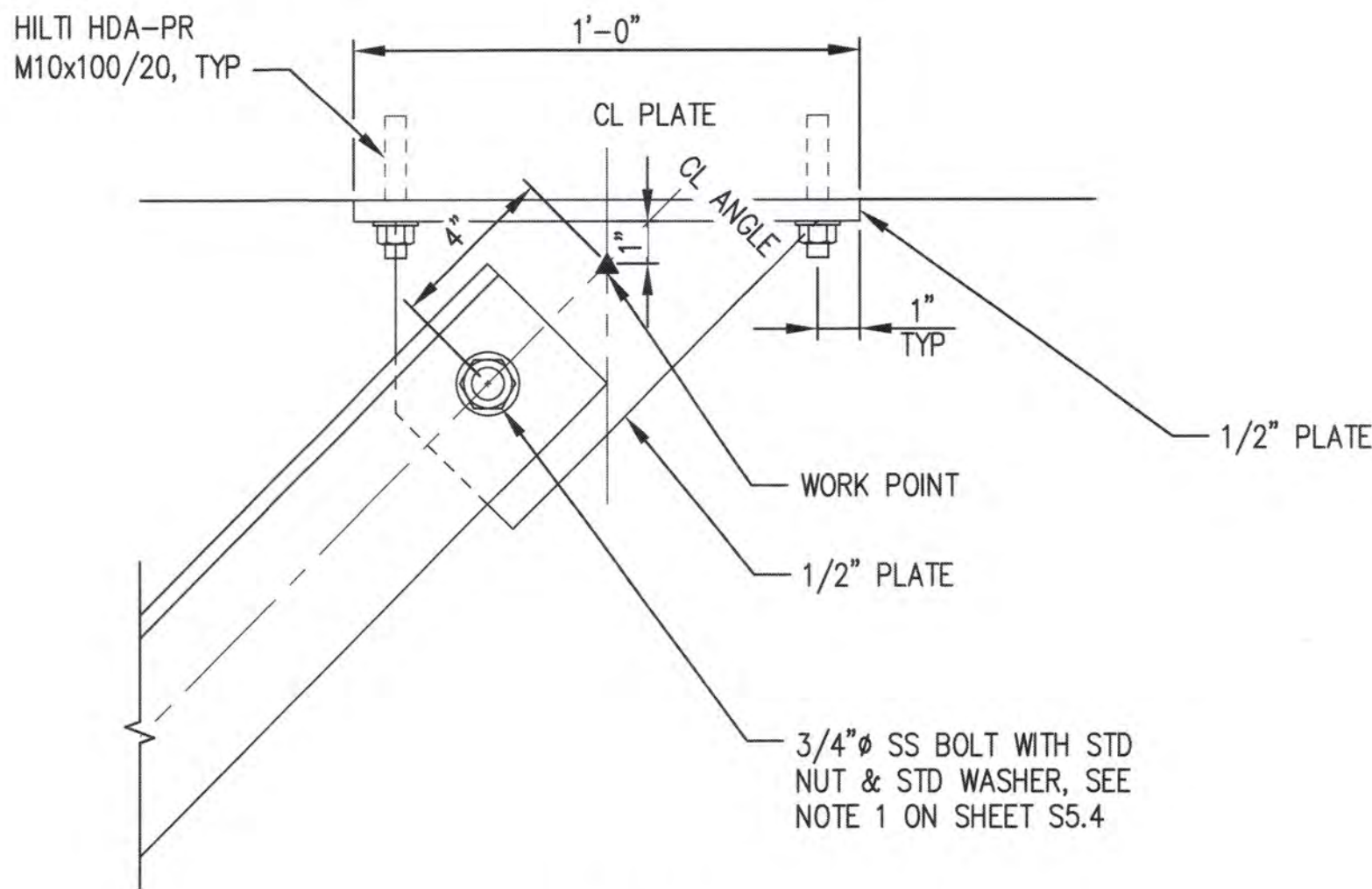
1
S5.4
DETAIL
SCALE: 6" = 1'-0"



A
S5.4
SECTION
SCALE: 3" = 1'-0"



2
S5.4
DETAIL
SCALE: 3" = 1'-0"



3
S5.4
DETAIL
SCALE: 3" = 1'-0"

6658

S5.5

77 OF 83

CONT / CONS: 071357

M. ID: 201100.01

PHASE: BID SET

TERMINAL 3 / TERMINAL 4

SHORE POWER

UNDER WHARF CONDUIT SUPPORT DETAILS - SHEET 5

TOWNSHIP: RANGE: SECTION:

DATE-HRZ: VERT: PARCEL:

DRAWING SCALE: AS NOTED

APPROVED:

TAH

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PEY

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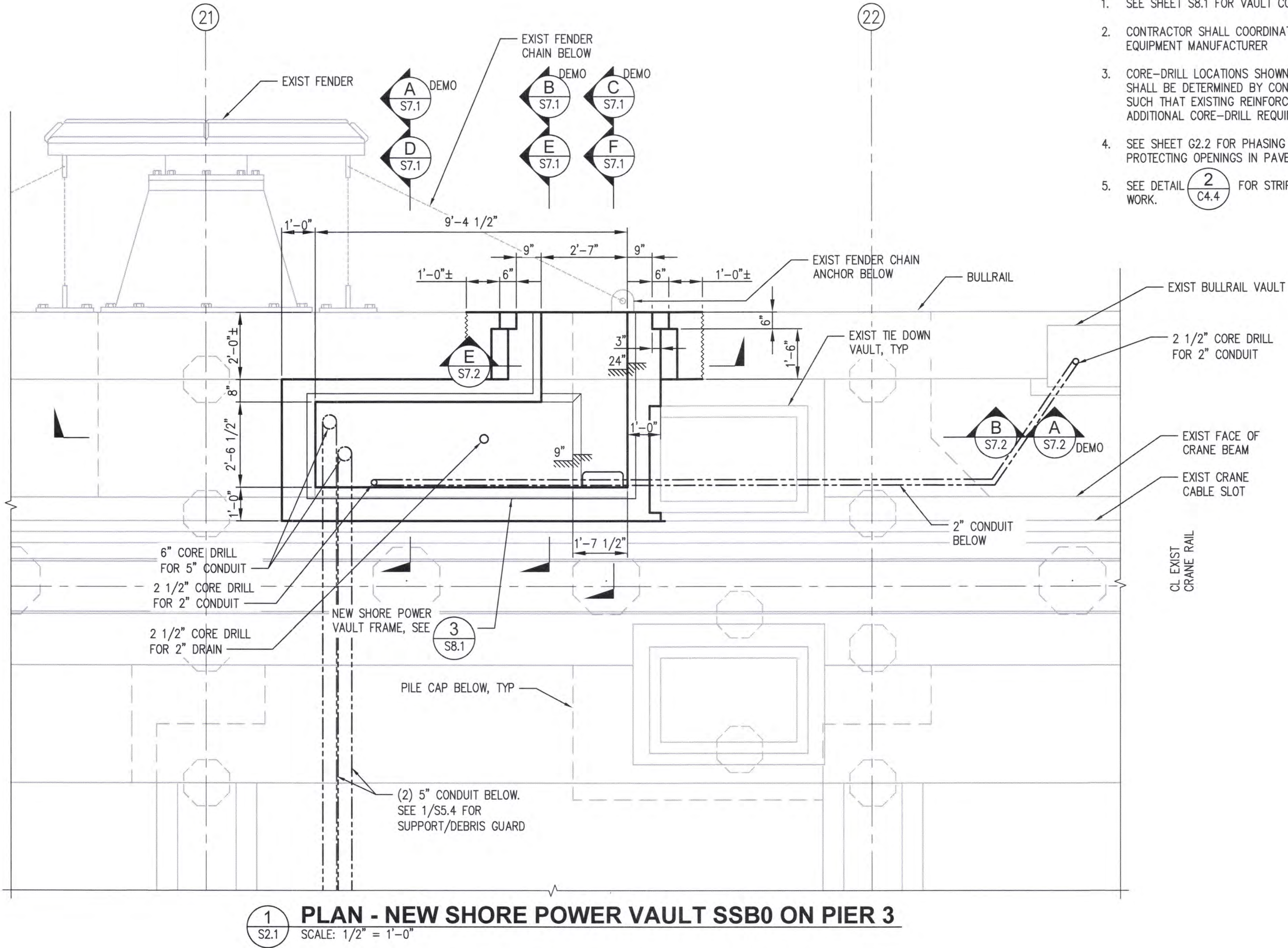
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- NOTES
1. SEE SHEET S8.1 FOR VAULT COVER DETAILS

2. CONTRACTOR SHALL COORDINATE CORE DRILL LOCATIONS WITH ELECTRICAL EQUIPMENT MANUFACTURER

3. CORE-DRILL LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS SHALL BE DETERMINED BY CONTRACTOR. CORE-DRILL SHALL BE LOCATED SUCH THAT EXISTING REINFORCING IS NOT CUT. SEE SHEET S3.1 FOR ADDITIONAL CORE-DRILL REQUIREMENTS.

4. SEE SHEET G2.2 FOR PHASING AND CONSTRAINTS, AND REQUIREMENTS FOR PROTECTING OPENINGS IN PAVEMENT.

5. SEE DETAIL

2C4.4

 FOR STRIPPING RESTORATION AFTER COMPLETION OF WORK.

6658

S6.1

78 OF 83

CONT/CONS: 071357

M. ID: 201100.01

PHASE: BID SET

TERMINAL 3 / TERMINAL 4

SHORE POWER

PLAN - NEW SHORE POWER VAULT ON PIER 3

RANGE: SECTION:

DATE-HRZ: VERT:

PARCEL:

DRAWING SCALE: AS NOTED

APPROVED:

02/02/2022

CHECKED BY: DATE

PEY 02/02/2022

PROJ. ENGR DATE

dyu Feb 02, 2022

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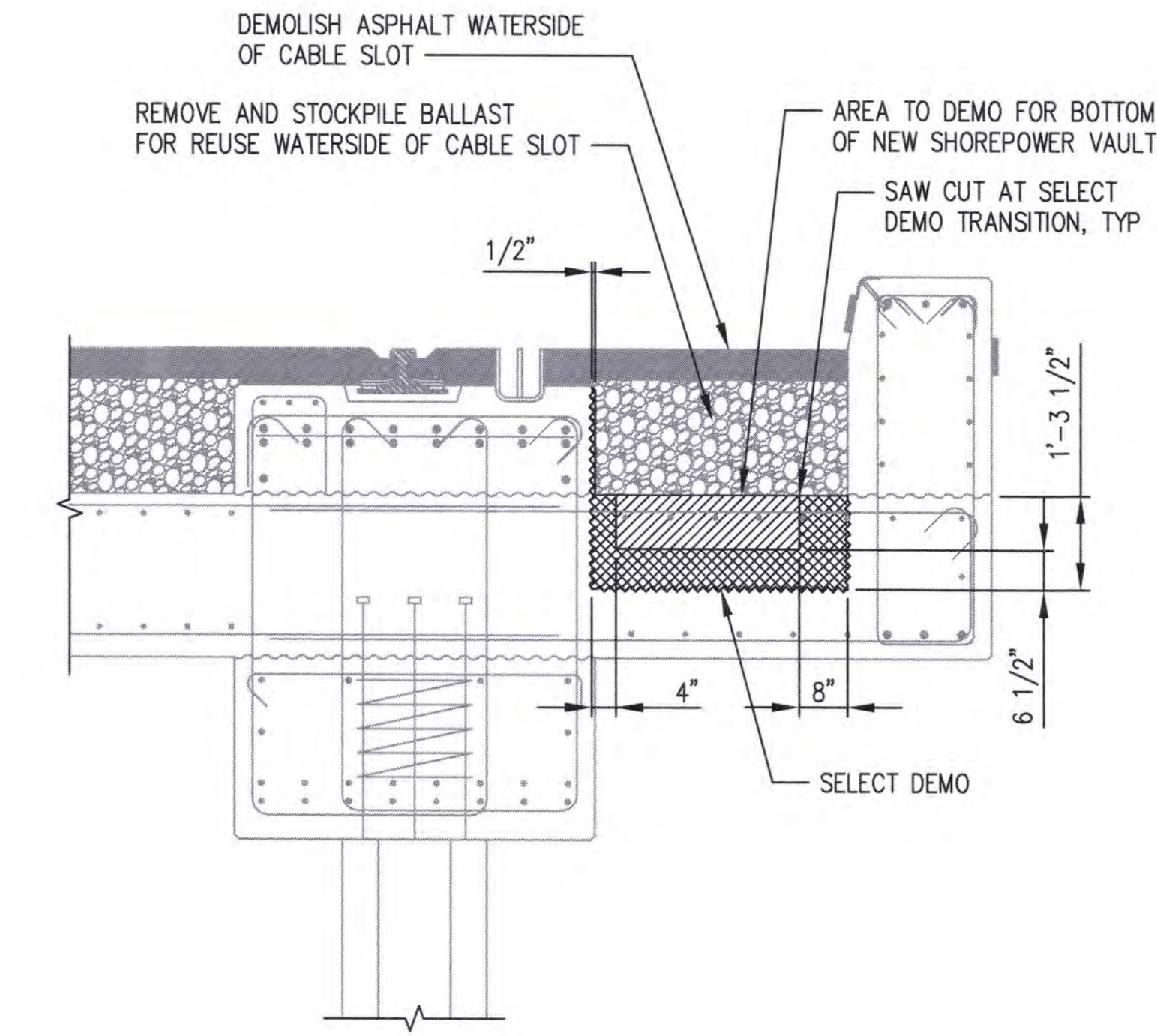
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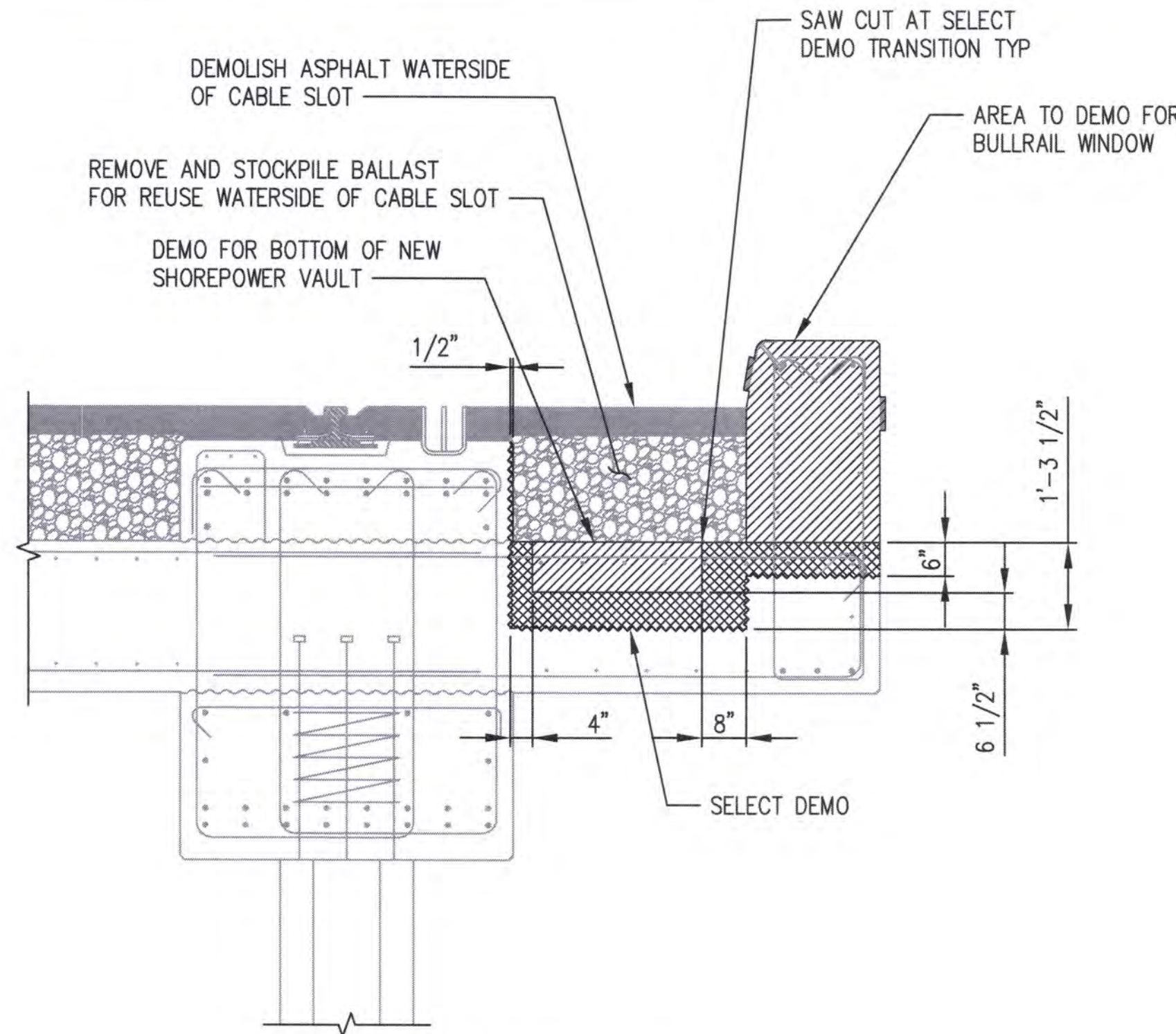
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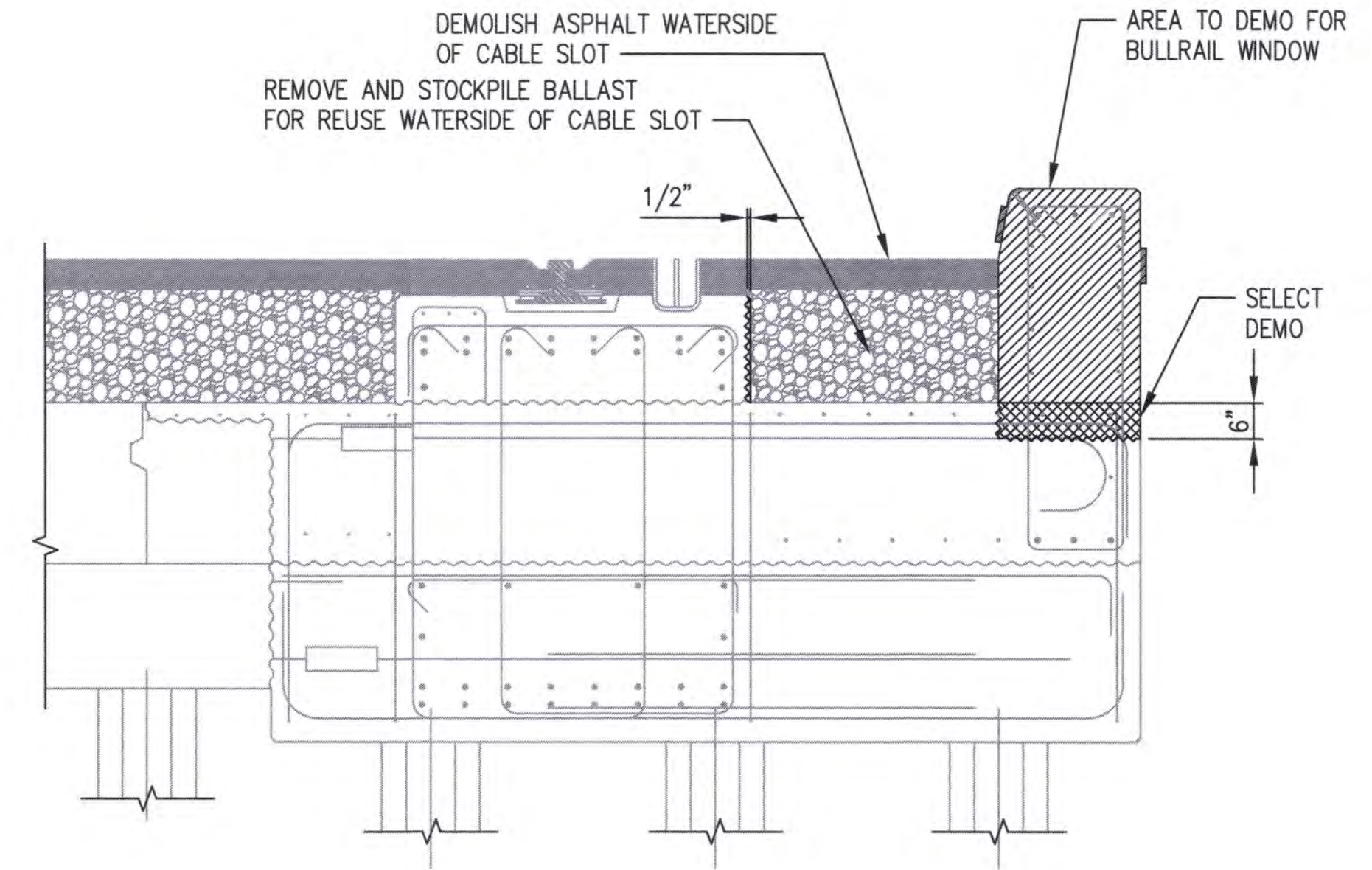
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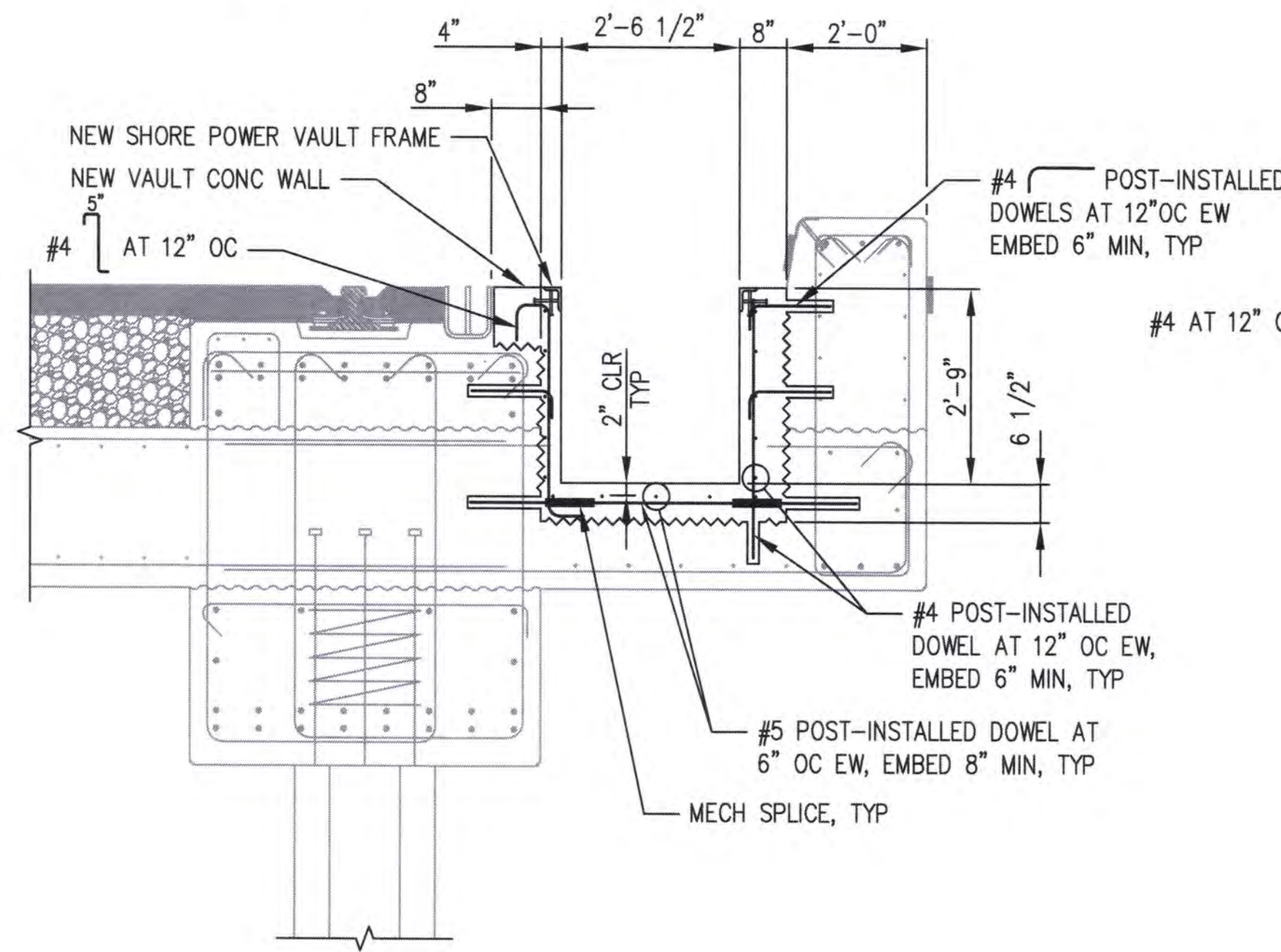
A DEMO SECTION
S6.1, S7.2 SCALE: 1/2" = 1'-0"



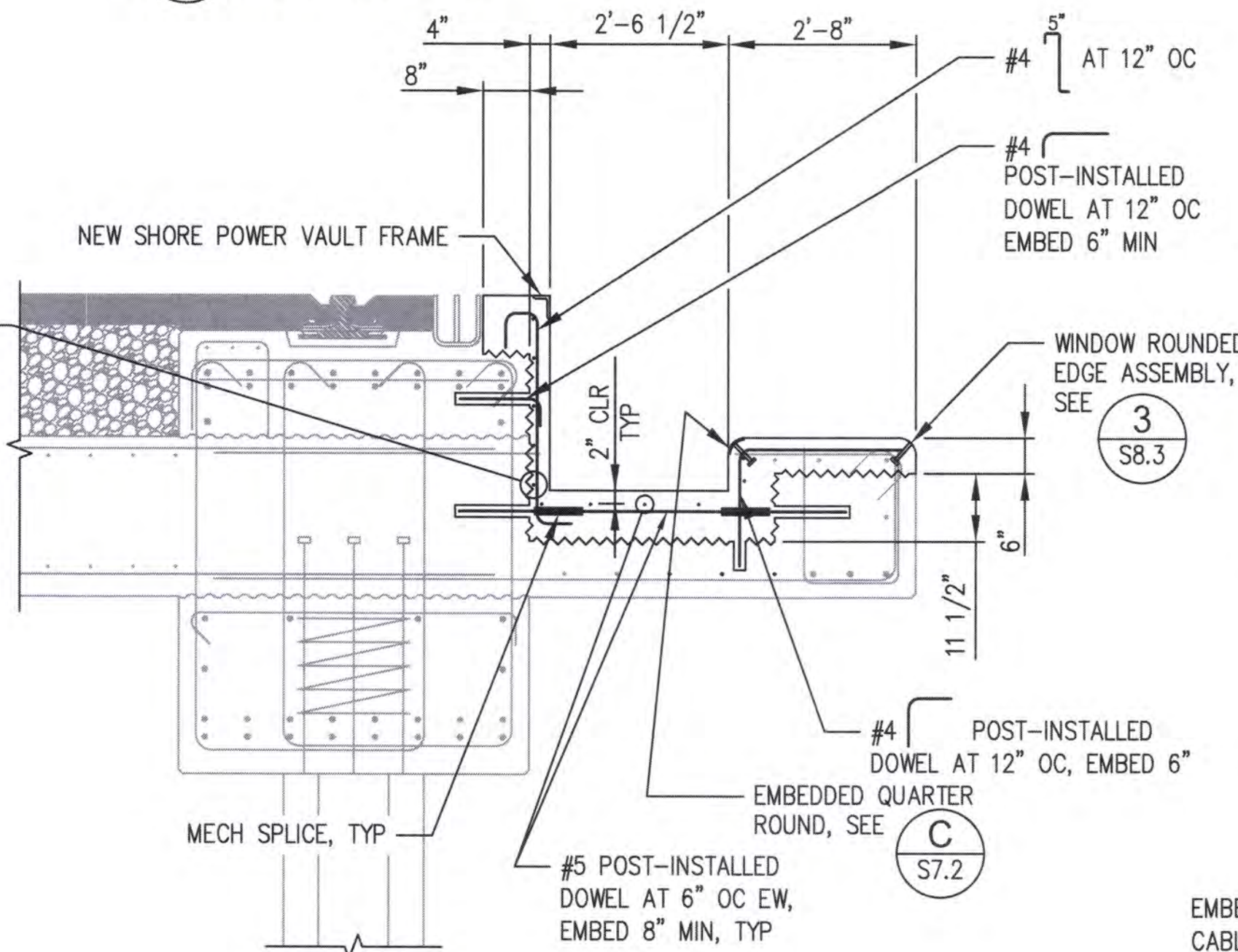
B DEMO SECTION AT BULLRAIL WINDOW
S6.1, S7.2 SCALE: 1/2" = 1'-0"



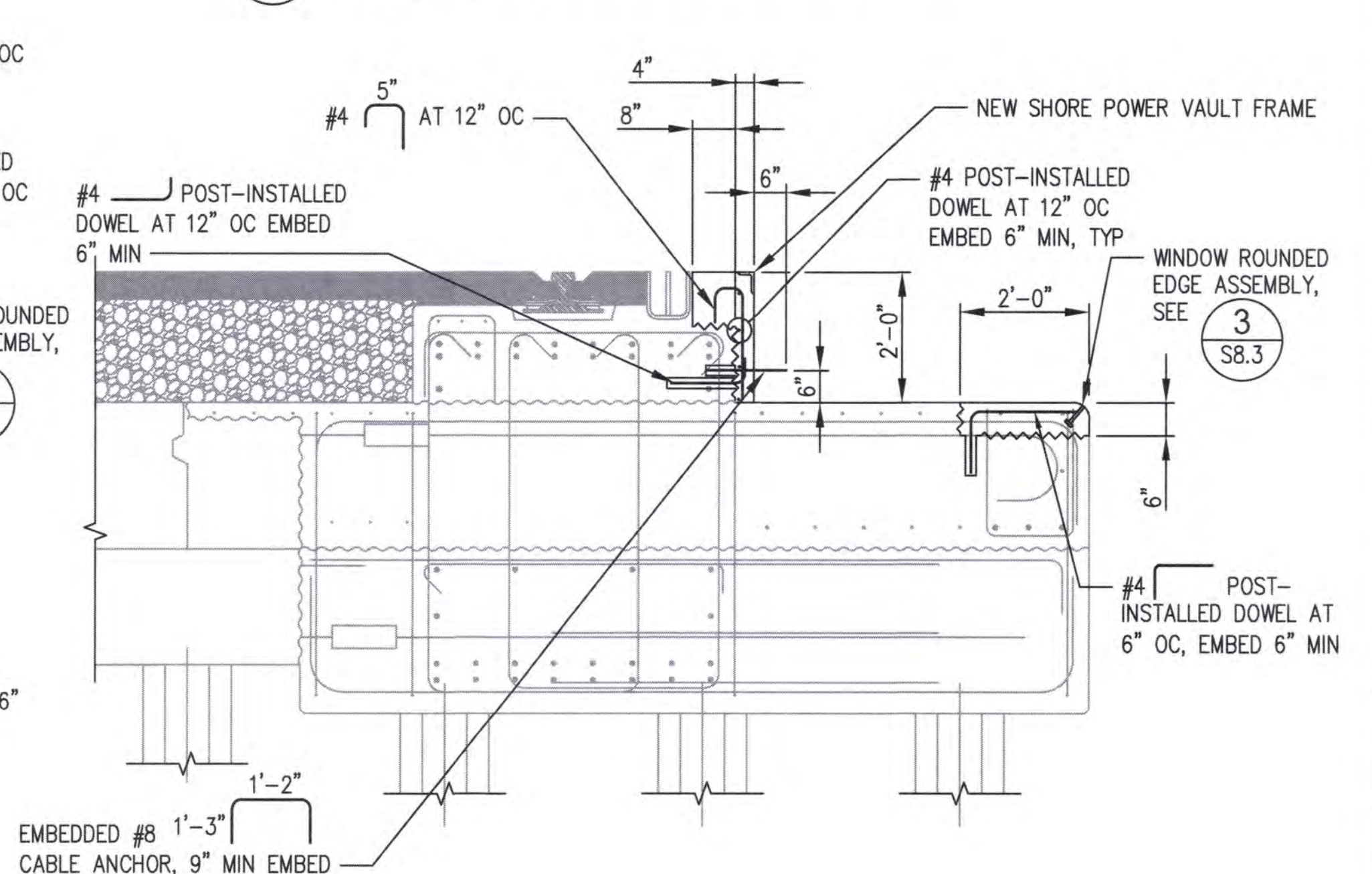
C DEMO SECTION AT BULLRAIL WINDOW AND PILE CAP
S6.1, S7.2 SCALE: 1/2" = 1'-0"



D SECTION WITH BULLRAIL
S6.1, S7.2 SCALE: 1/2" = 1'-0"



E SECTION AT BULLRAIL WINDOW
S6.1, S7.2 SCALE: 1/2" = 1'-0"



F SECTION AT BULLRAIL WINDOW AND PILE CAP
S6.1, S7.2 SCALE: 1/2" = 1'-0"

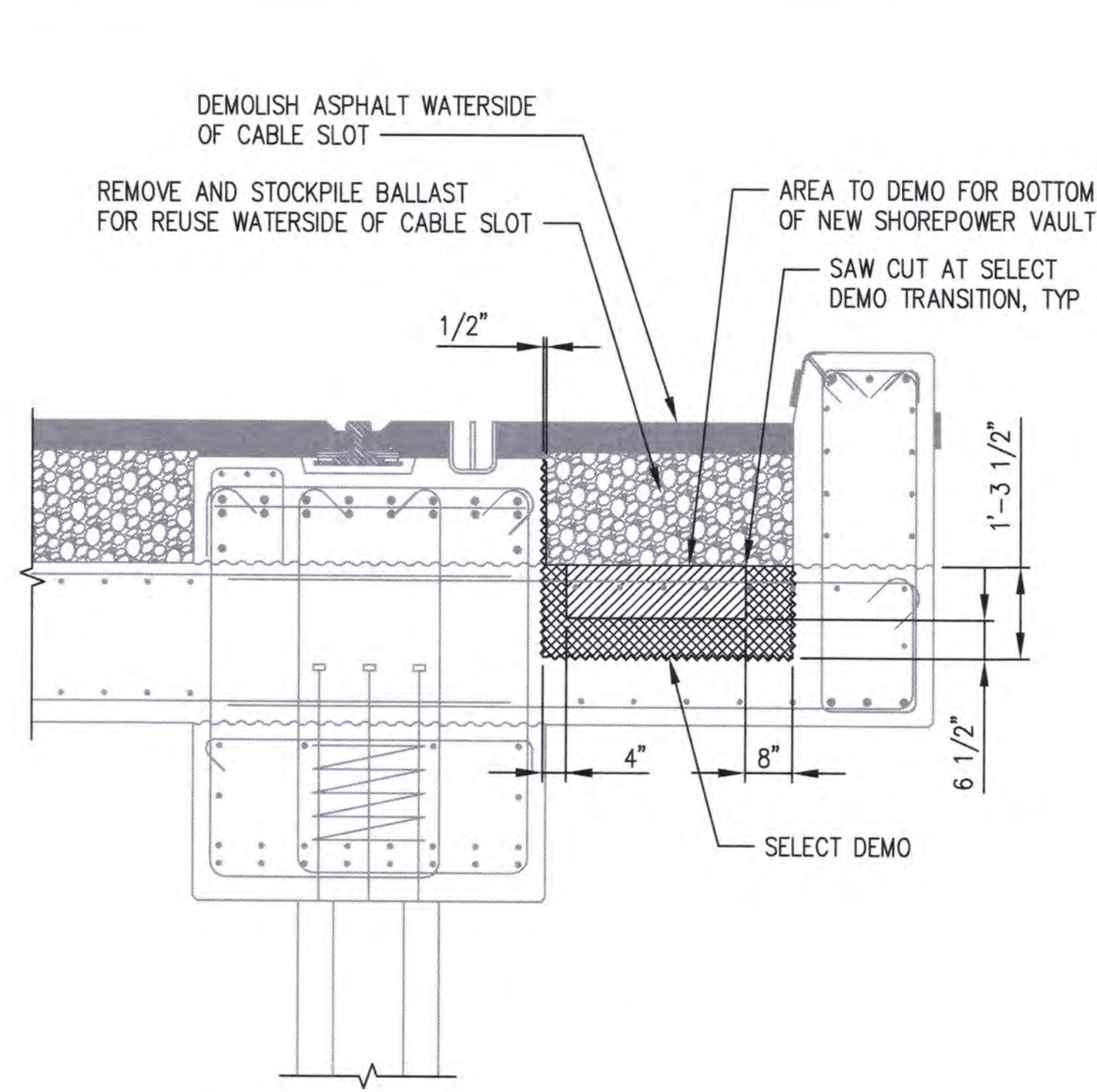
LEGEND

- DEMO
- SELECT DEMO
- ROUGHEN EXIST EXPOSED CONC PER SPECS

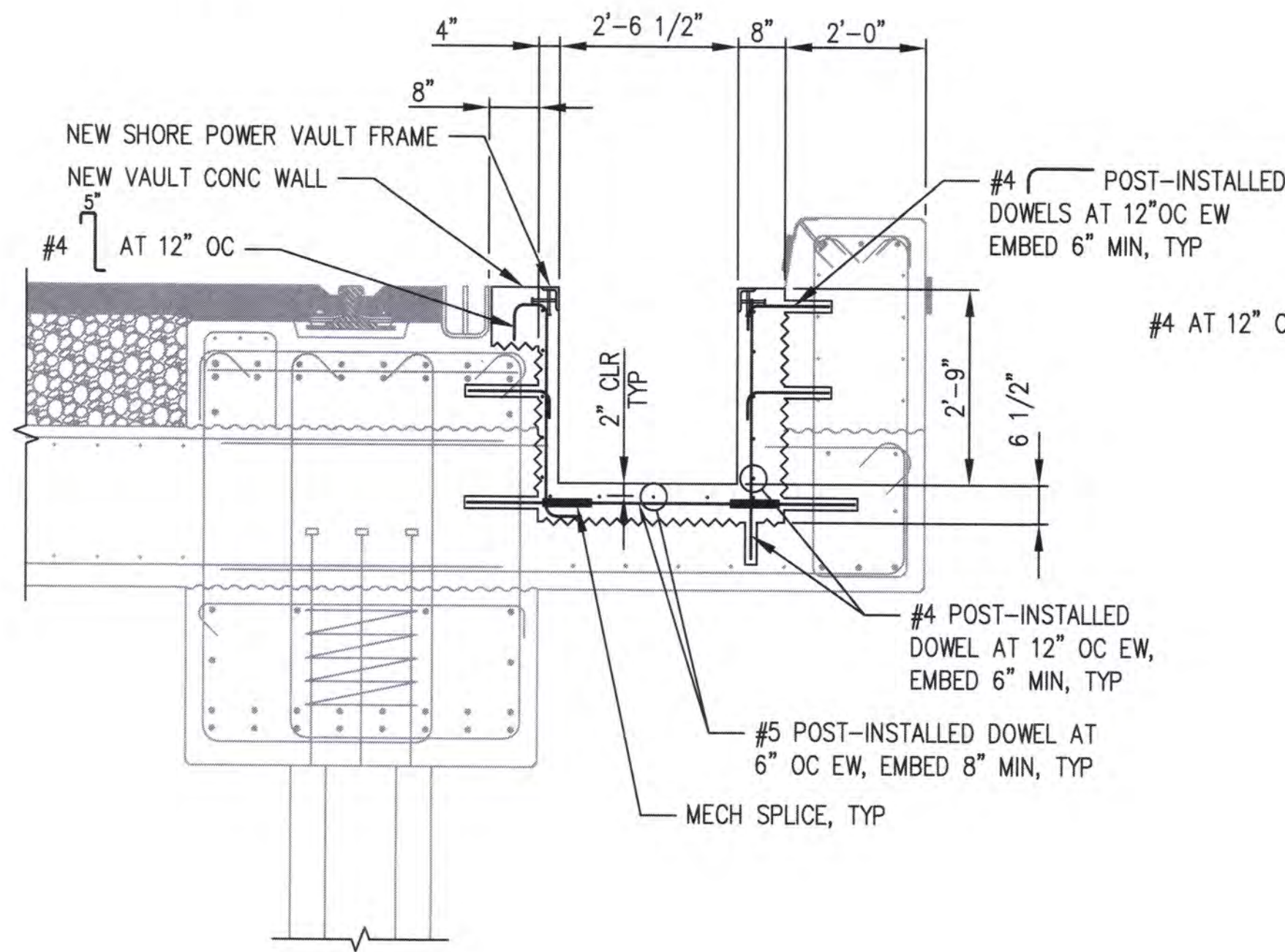
TAH	02/02/2022	CHECKED BY	DATE
PEY	02/02/2022	PROJ. ENGR	DATE
DIRECTOR	ENG. DATE	PRINTED BY	dw Feb 02, 2022
PORT ADDRESS:	ONE SITUM PLAZA	TACOMA, WA 98421	

TERMINAL 3 / TERMINAL 4
SHORE POWER
NEW SHORE POWER VAULT SECTIONS
SHEET 1

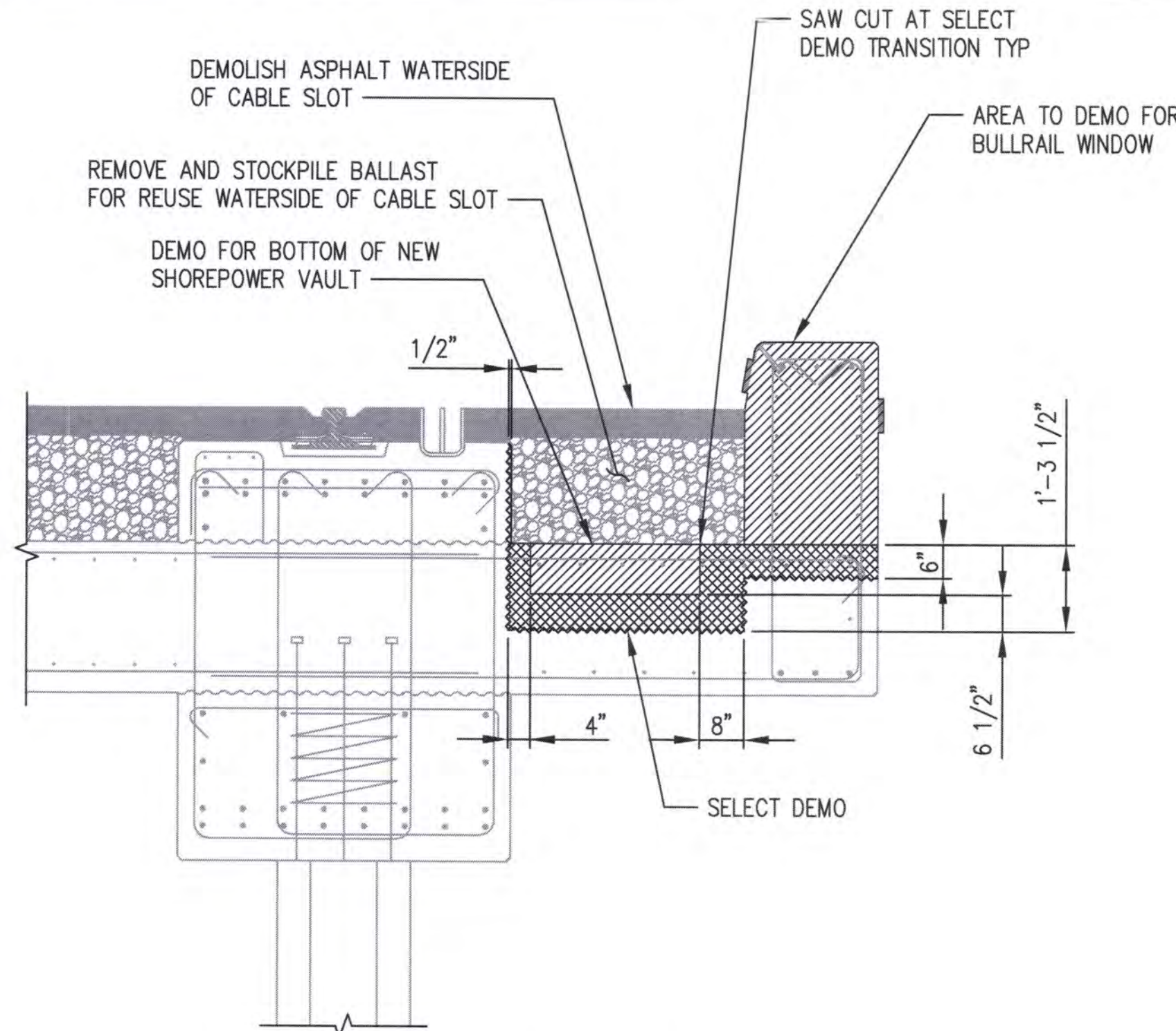
RANGE:	SECTION:	DRAWING SCALE:	AS NOTED
TOWNSHIP:	DAT-HRZ:	VERT:	PARCEL:
CONTRACT/CONS:	071357	20100.01	BID SET



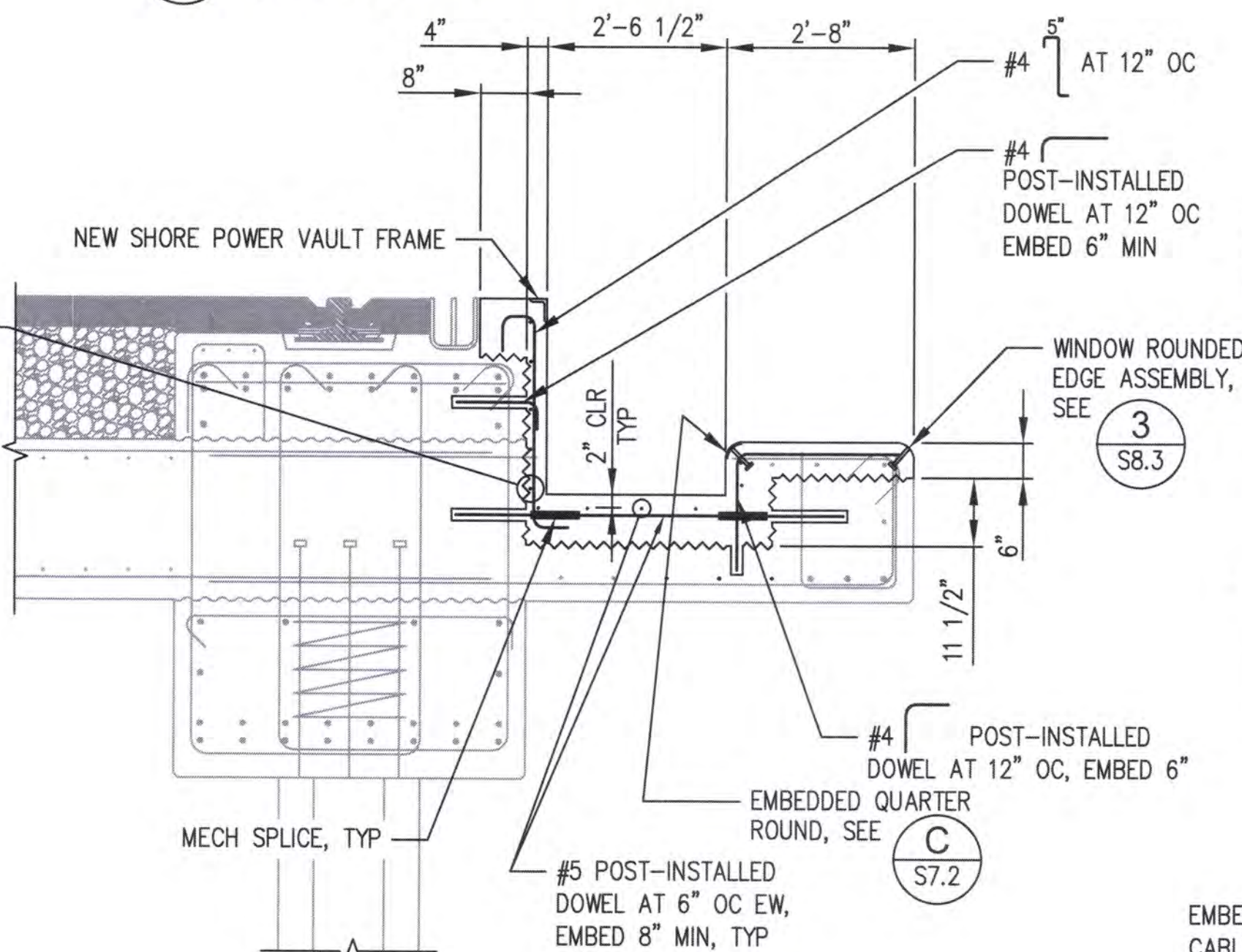
A DEMO SECTION
S6.1, S7.2 SCALE: 1/2" = 1'-0"



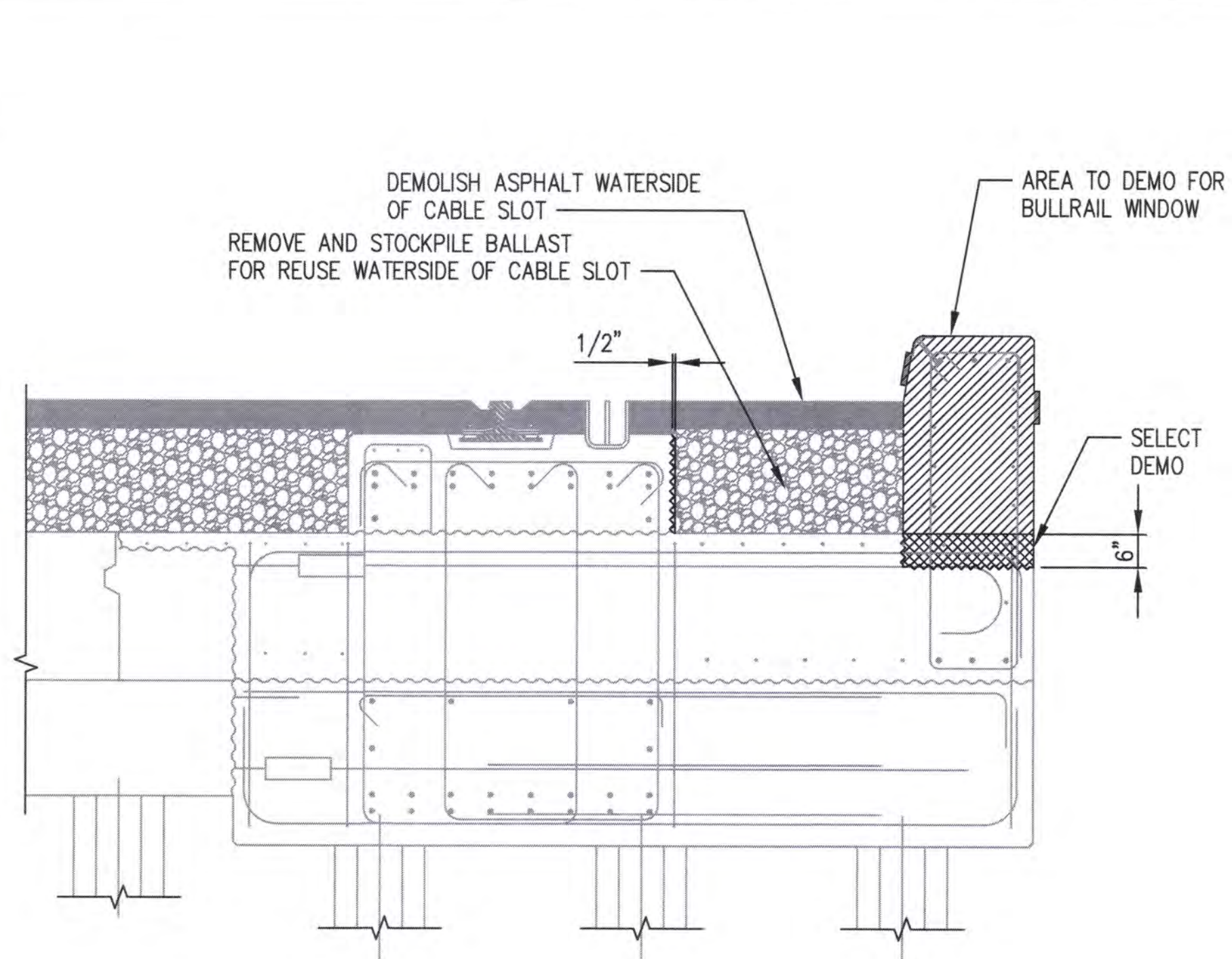
D SECTION WITH BULLRAIL
S6.1, S7.2 SCALE: 1/2" = 1'-0"



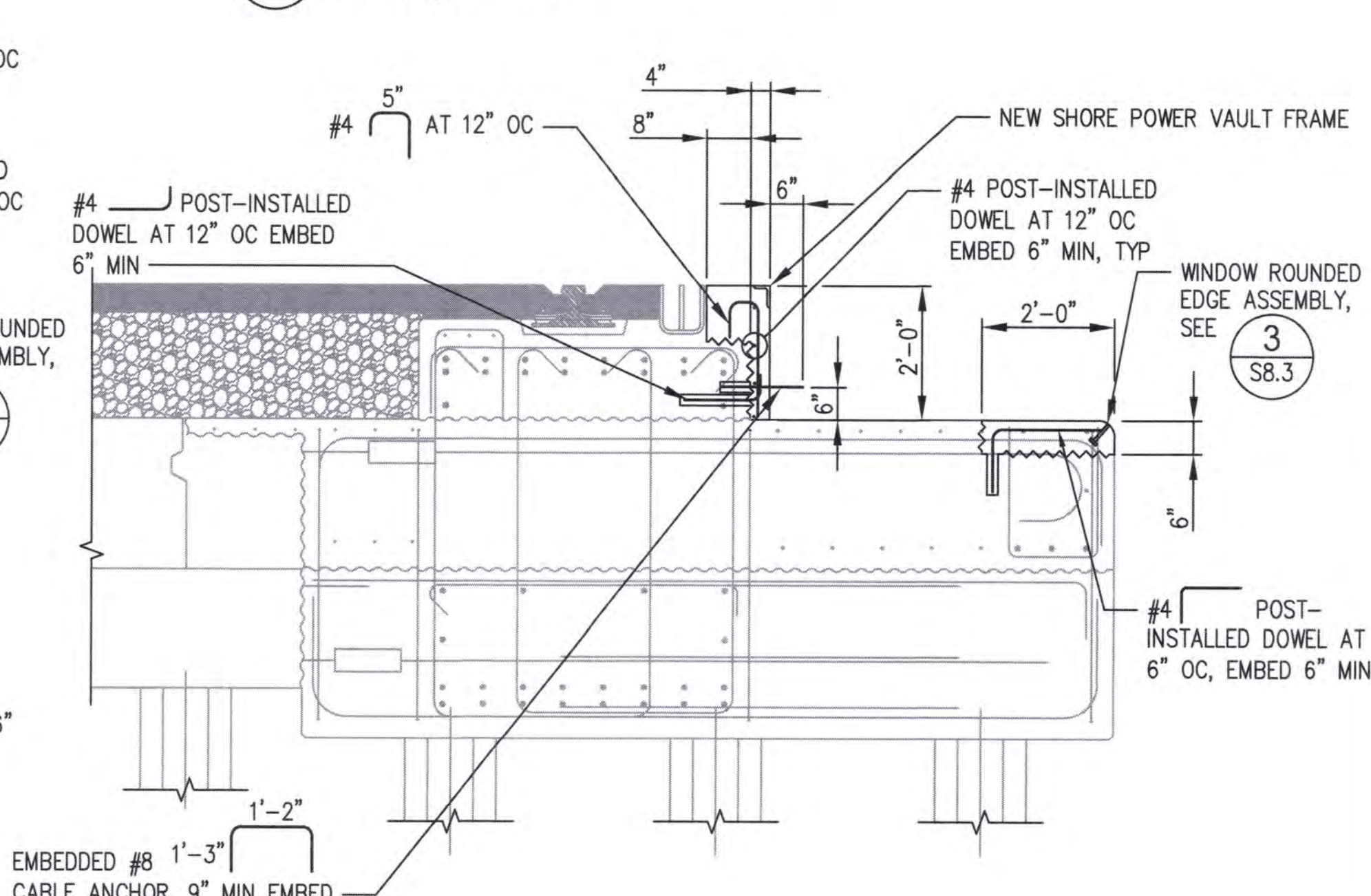
B DEMO SECTION AT BULLRAIL WINDOW
S6.1, S7.2 SCALE: 1/2" = 1'-0"



E SECTION AT BULLRAIL WINDOW
S6.1, S7.2 SCALE: 1/2" = 1'-0"



C DEMO SECTION AT BULLRAIL WINDOW AND PILE CAP
S6.1, S7.2 SCALE: 1/2" = 1'-0"

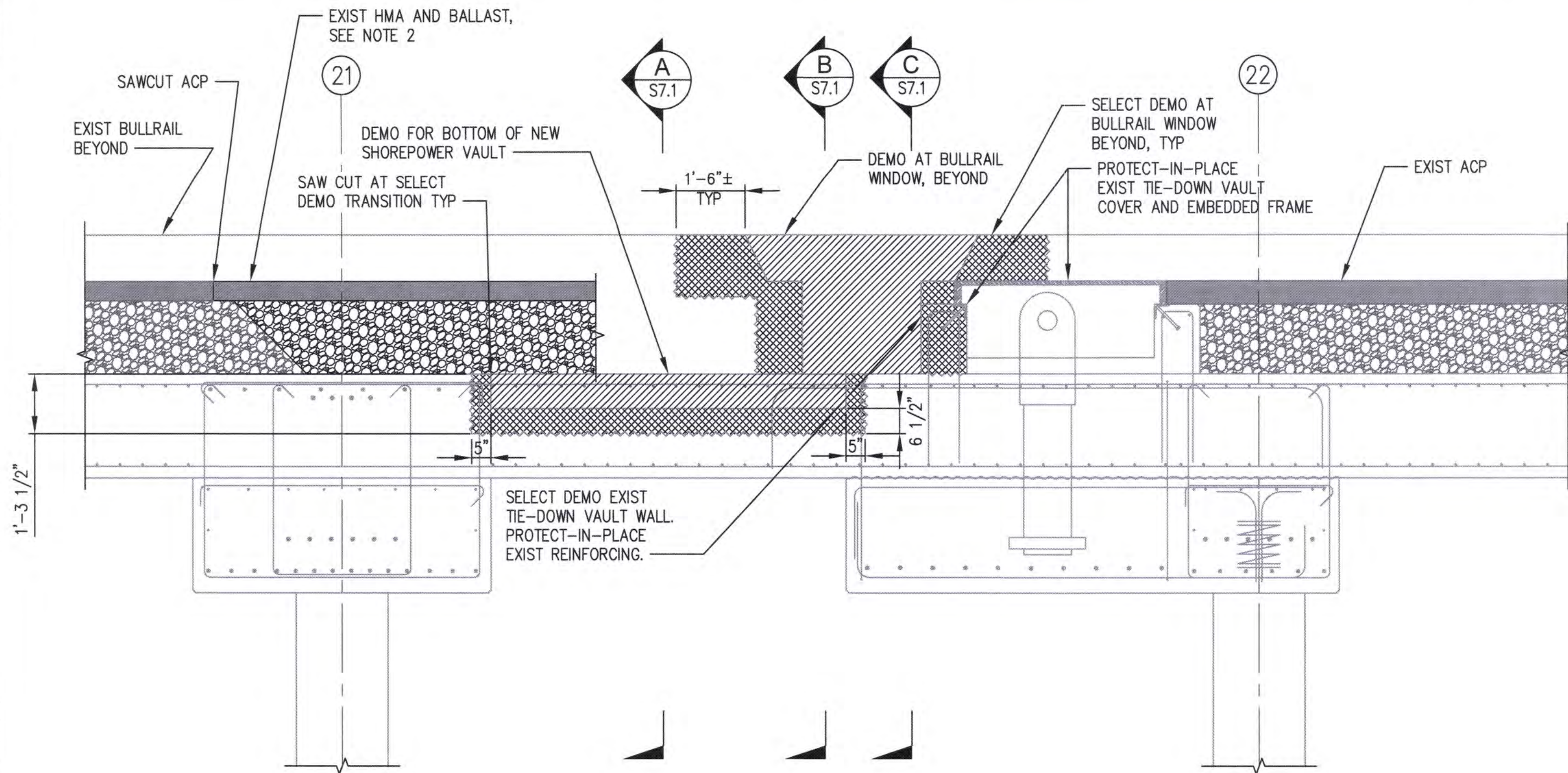


F SECTION AT BULLRAIL WINDOW AND PILE CAP
S6.1, S7.2 SCALE: 1/2" = 1'-0"

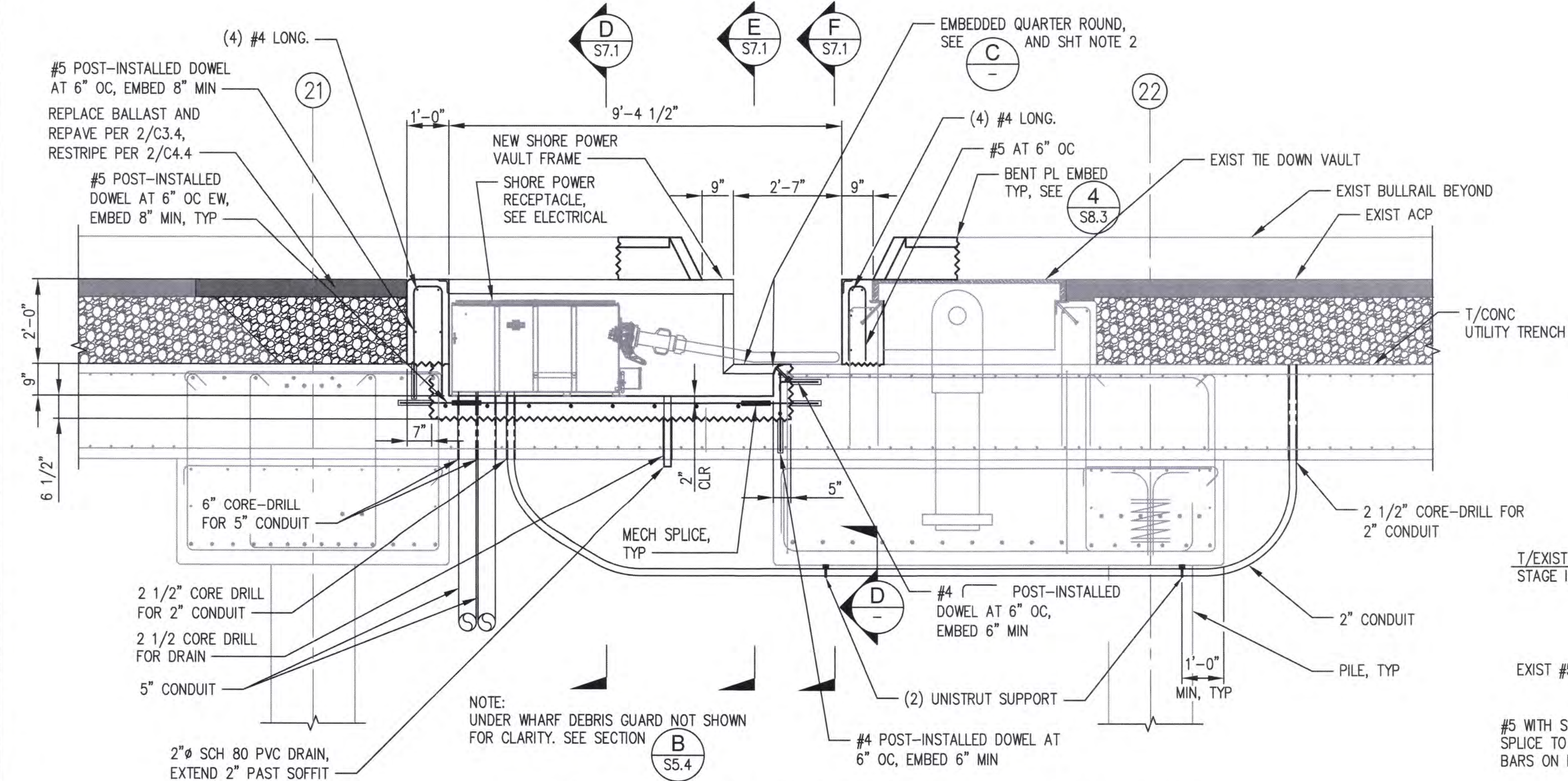
LEGEND

- DEMO
- SELECT DEMO
- ROUGHEN EXIST EXPOSED CONC PER SPECS

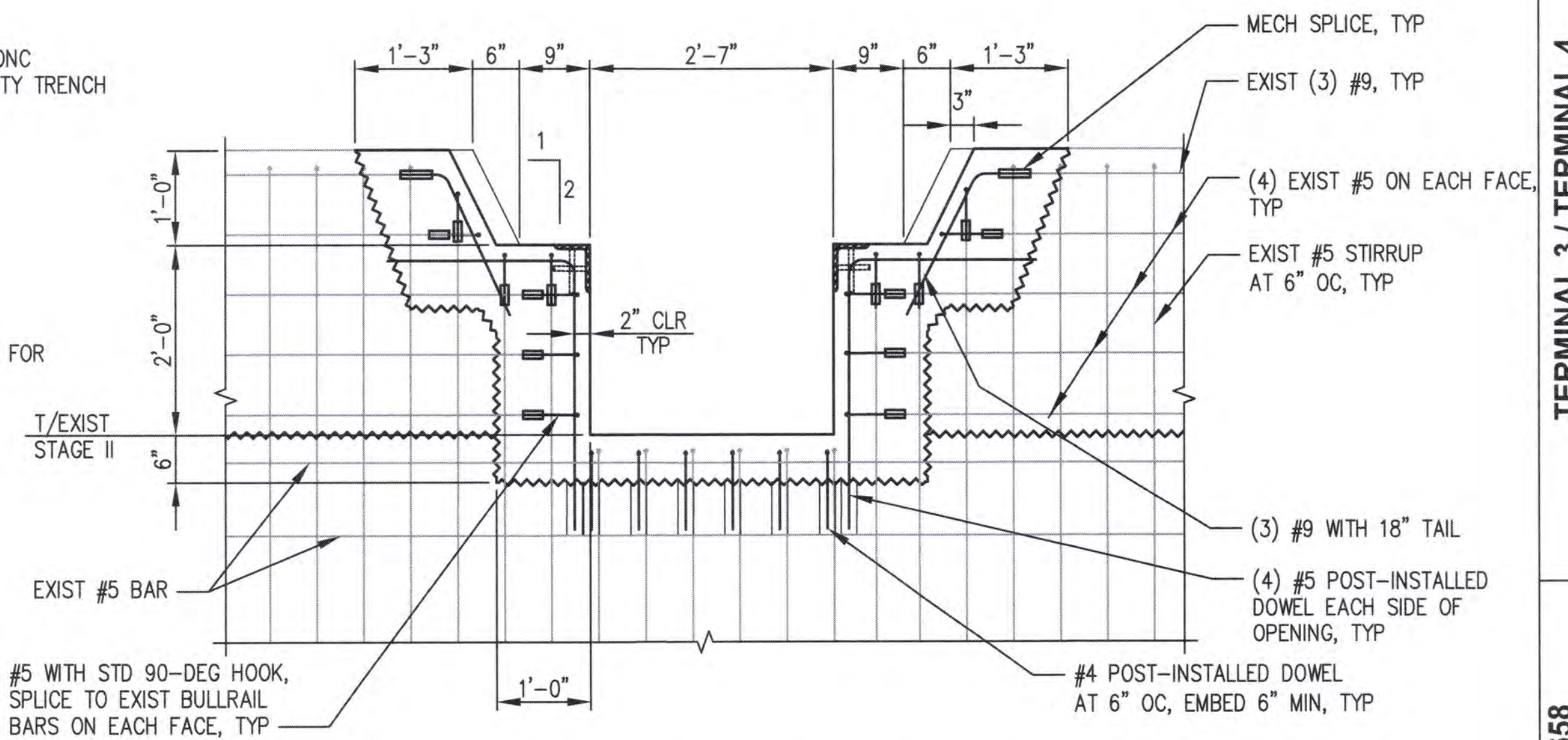
 Port of Tacoma 2407 North 31st Street, Suite 100 Tacoma, Washington 98407 (253) 396-0350 Fax (253) 396-0162	 P.O. BOX 180 TACOMA, WA 98401 (253) 383-5441			
	6658 S7.1 79 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER NEW SHORE POWER VAULT SECTIONS SHEET 1		APPROVED: DIRECTOR
	DATE: 02/02/2022 CHECKED BY: PEY DATE: 02/02/2022 PROJECT ENGR: dyu DATE: Feb 02, 2022 PRINTED BY: ONE SITCUM PLAZA PORT ADDRESS: TACOMA, WA 98421	DRAWING SCALE: AS NOTED SECTION: RANGE: TOWNSHIP: 071357 DAT-HRZ: 201100.01 PARCEL: BID SET		MARK: REVISION: BY: DATE:
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A DEMOLITION SECTION
S6.1 SCALE: 1/2" = 1'-0"



B SECTION AT NEW SHORE POWER VAULT
S6.1 SCALE: 1/2" = 1'-0"

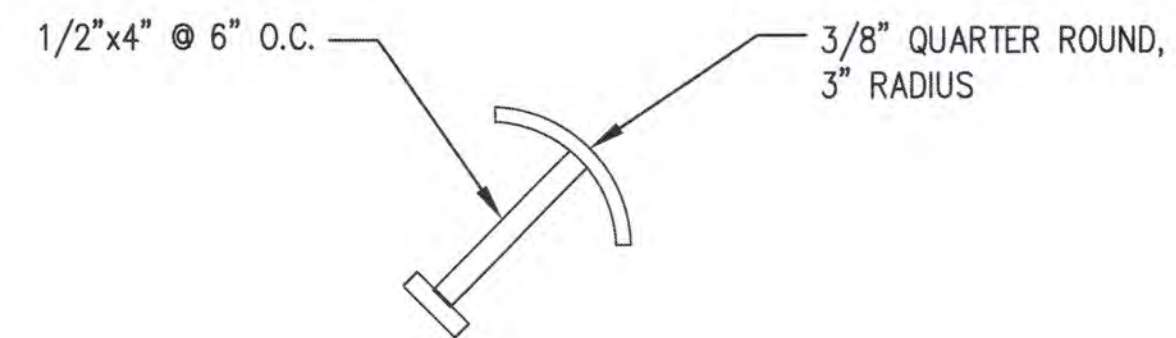
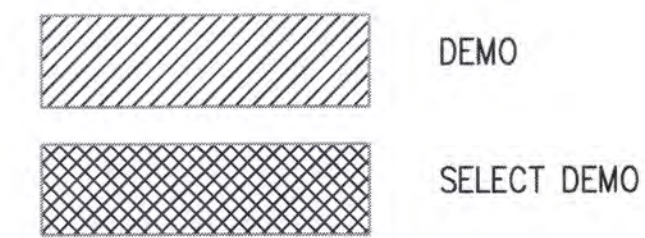


E SECTION - BULLRAIL BUILD BACK
S6.1 SCALE: 3/4" = 1'-0"

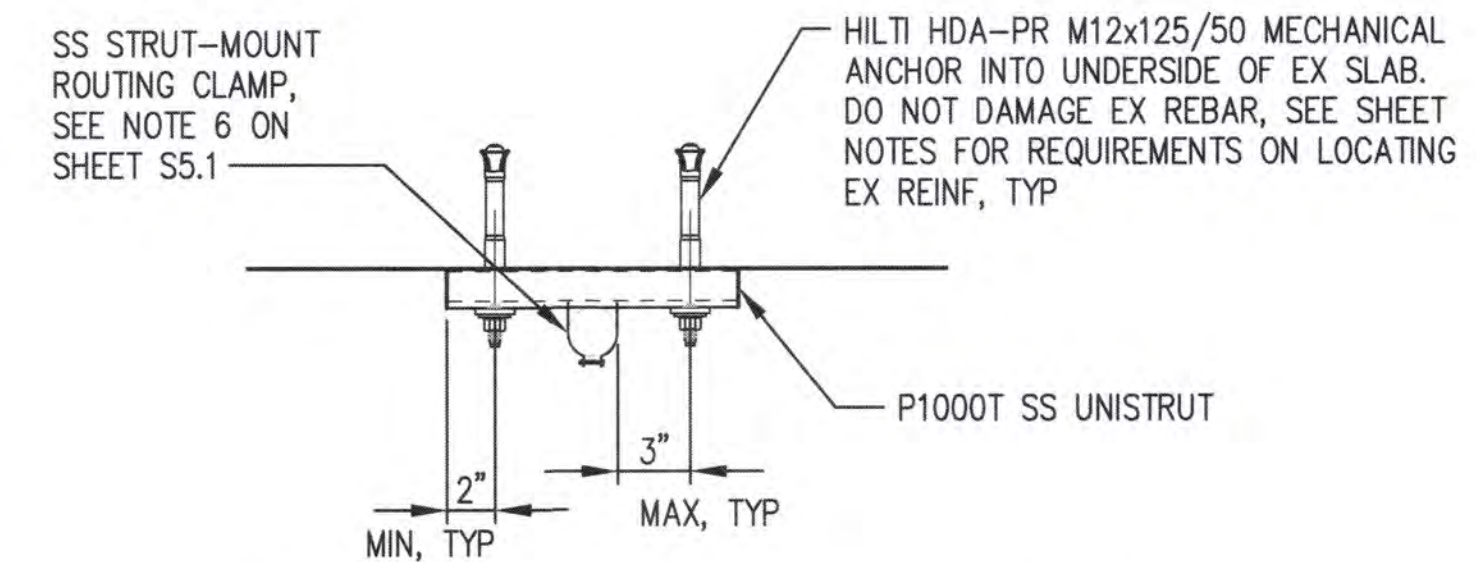
NOTES

- MITER CONNECTION AT CORNERS.
- EXIST HMA AND BALLAST EXTENDS TO EXIST TIE DOWN VAULT, HATCH NOT SHOWN FOR CLARITY. DEMO EXTENTS OF HMA AND BALLAST SHALL BE 3' FROM THE NORTH FACE OF THE NEW SHORE POWER VAULT WALL TO THE TOE OF THE BALLAST AND 6" FROM THE TOP OF THE BALLAST TO THE EDGE OF THE HMA SAWCUT. REPAVE PER DETAIL 2 C3.4

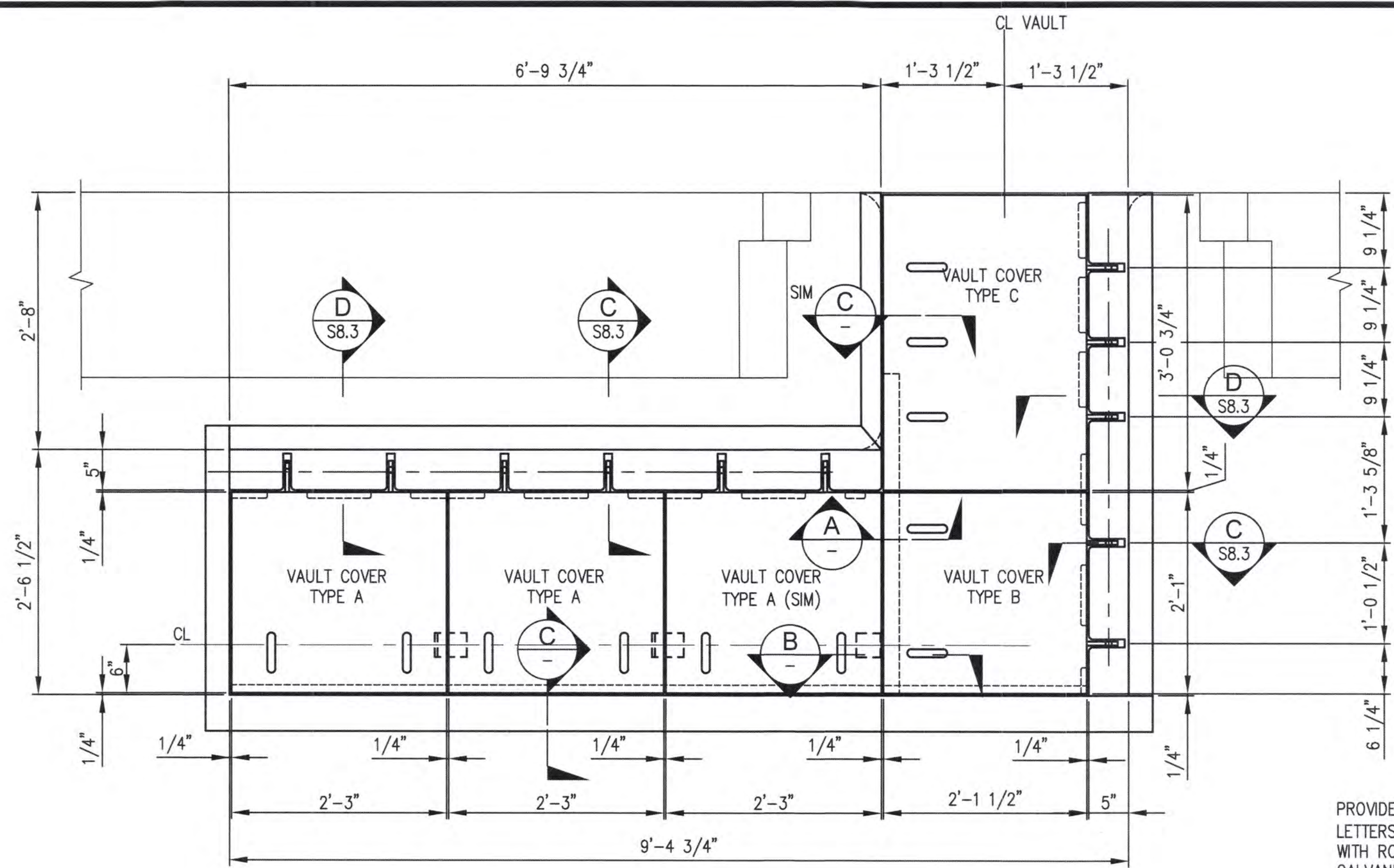
LEGEND



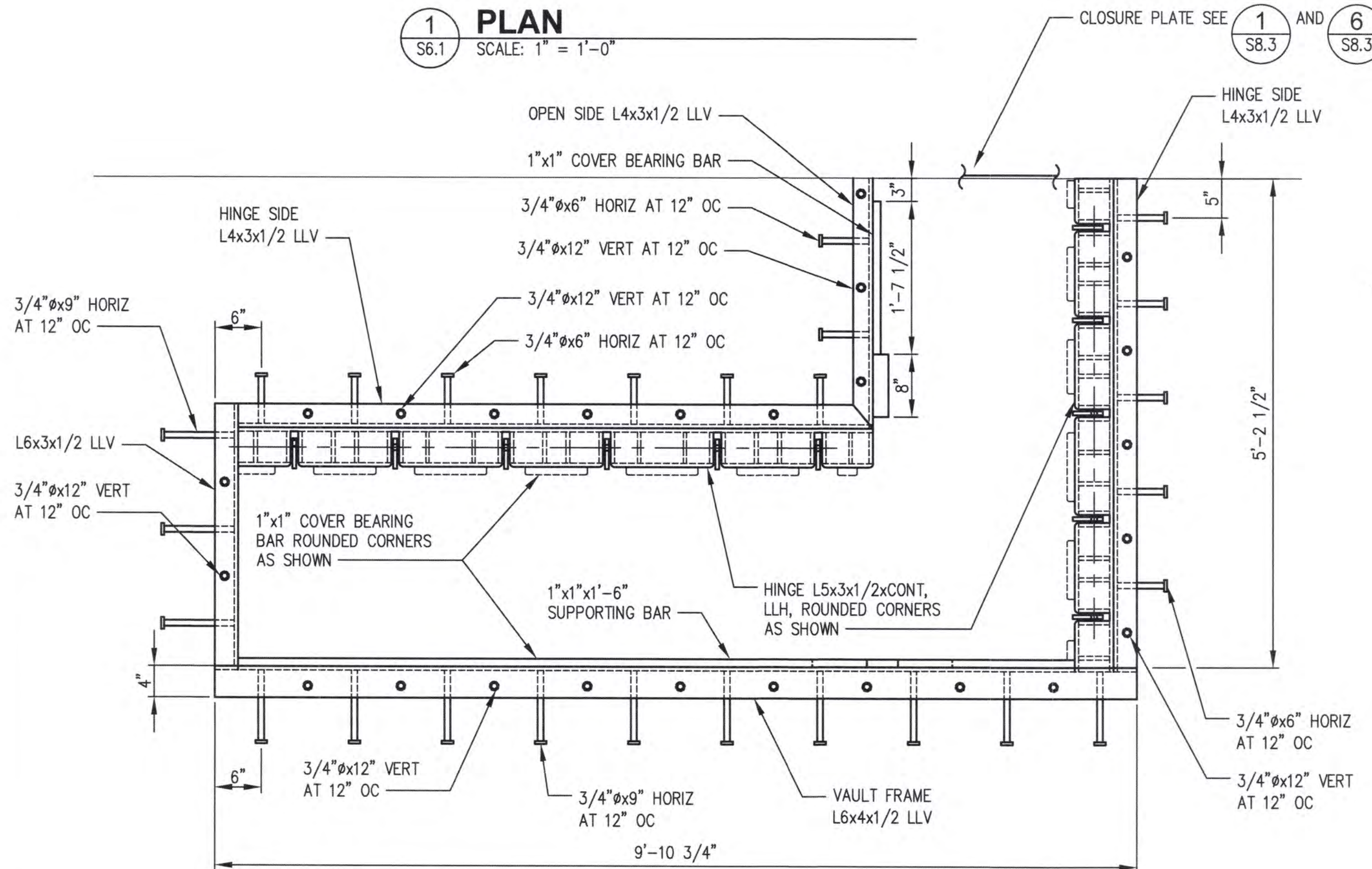
C DETAIL - QUARTER ROUND EMBED
SCALE: 3" = 1'-0"



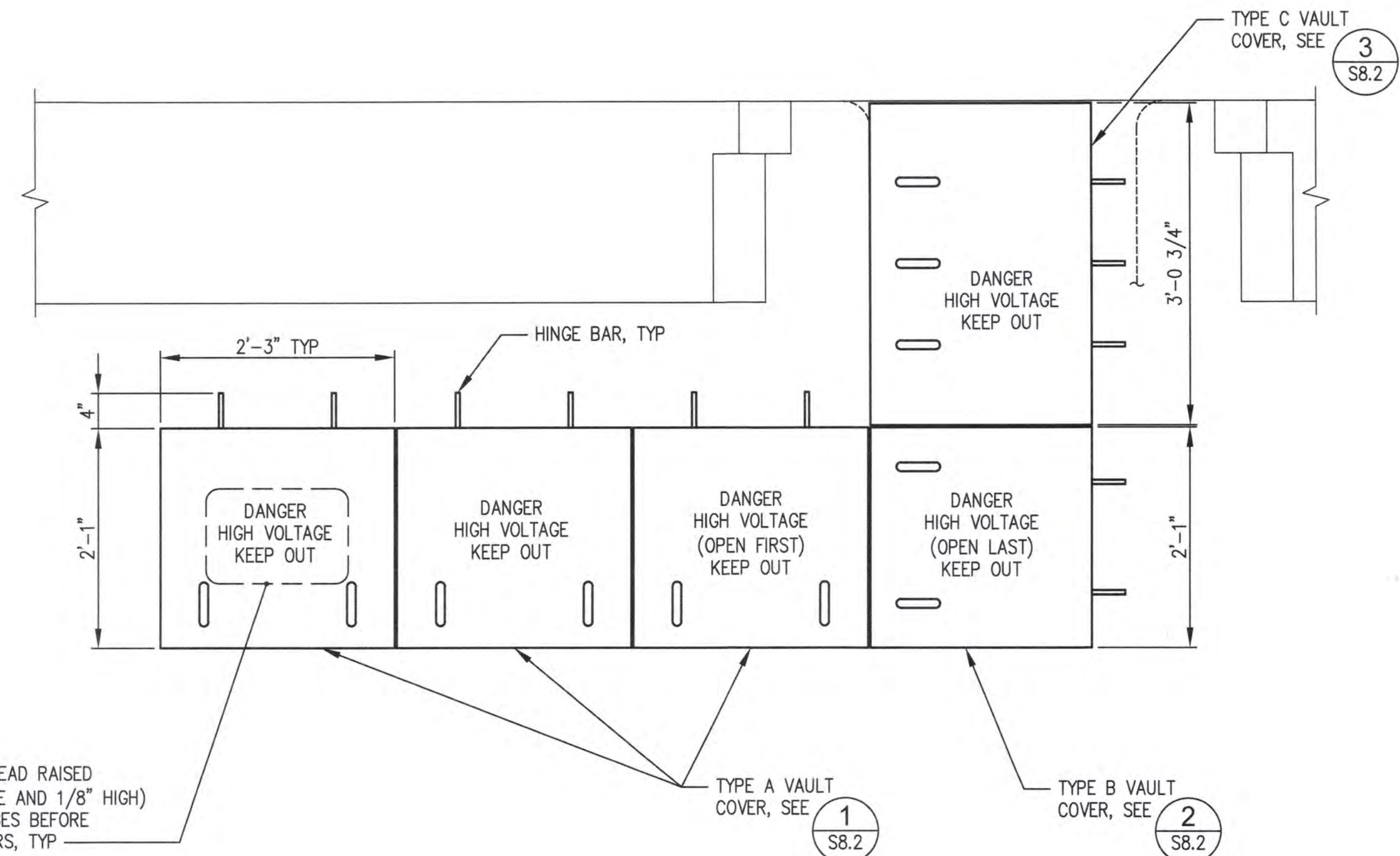
D UNISTRUT SUPPORT DETAIL
SCALE: 1 1/2" = 1'-0"



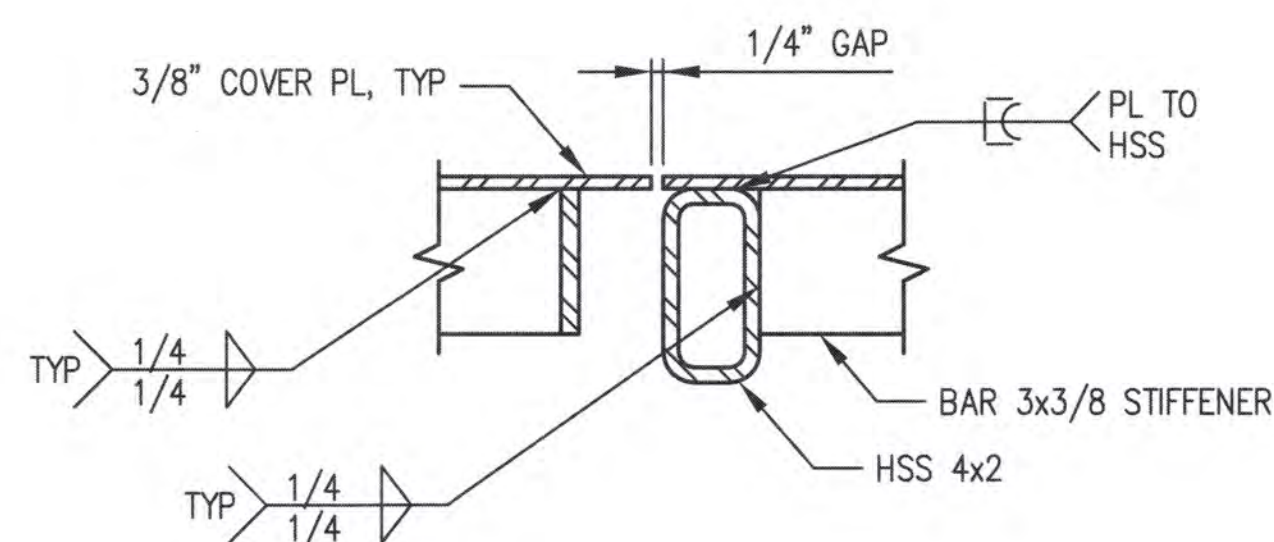
1 PLAN
S6.1 SCALE: 1" = 1'-0"



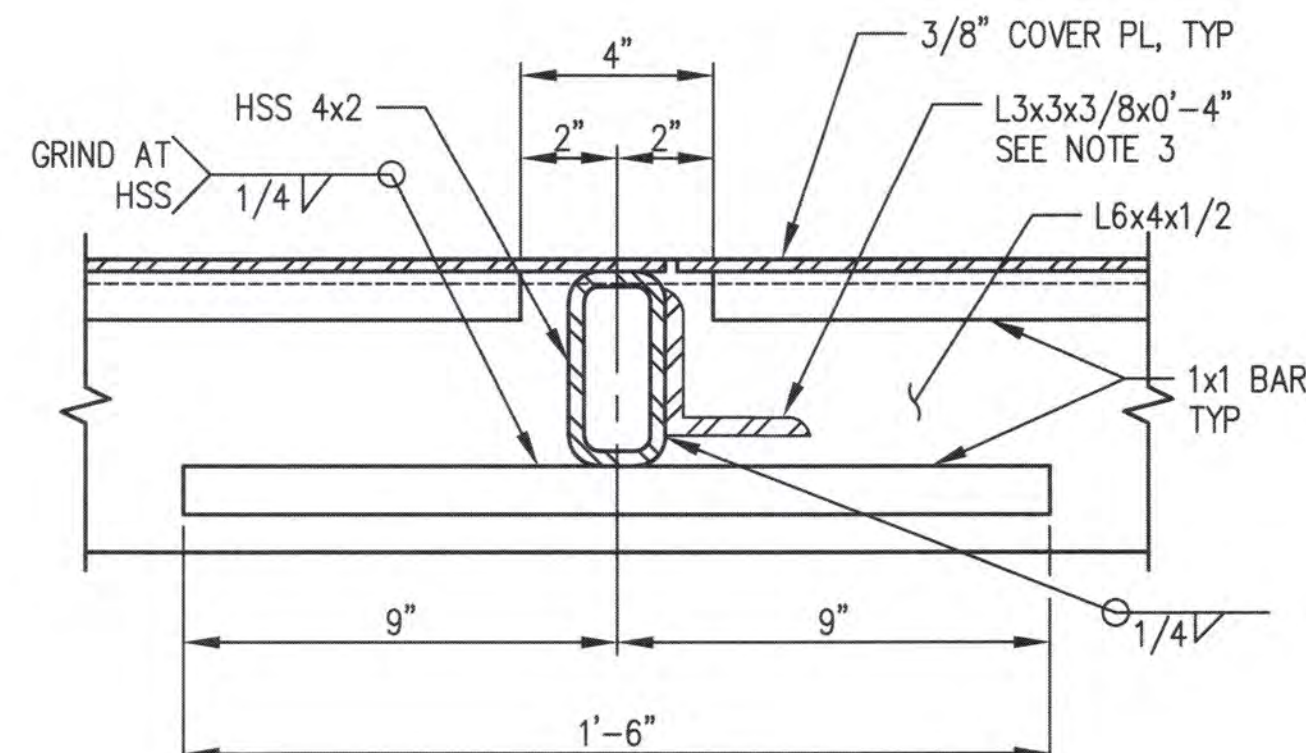
3 PLAN - FRAME
S6.1 SCALE: 1" = 1'-0"



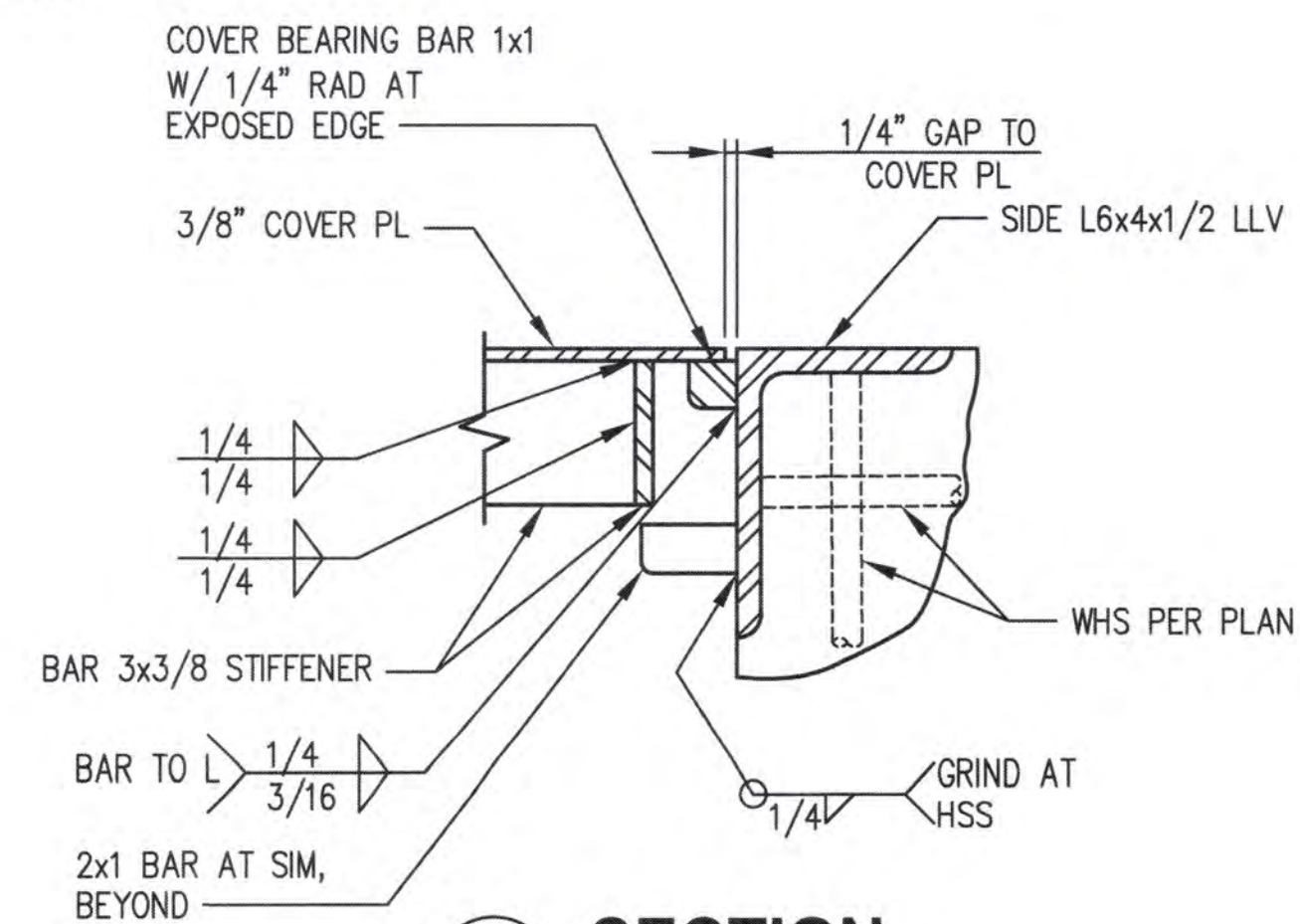
1 PLAN - COVERS
SCALE: 1" = 1'-0"



A SECTION
SCALE: 3" = 1'-0"



B SECTION
SCALE: 3" = 1'-0"

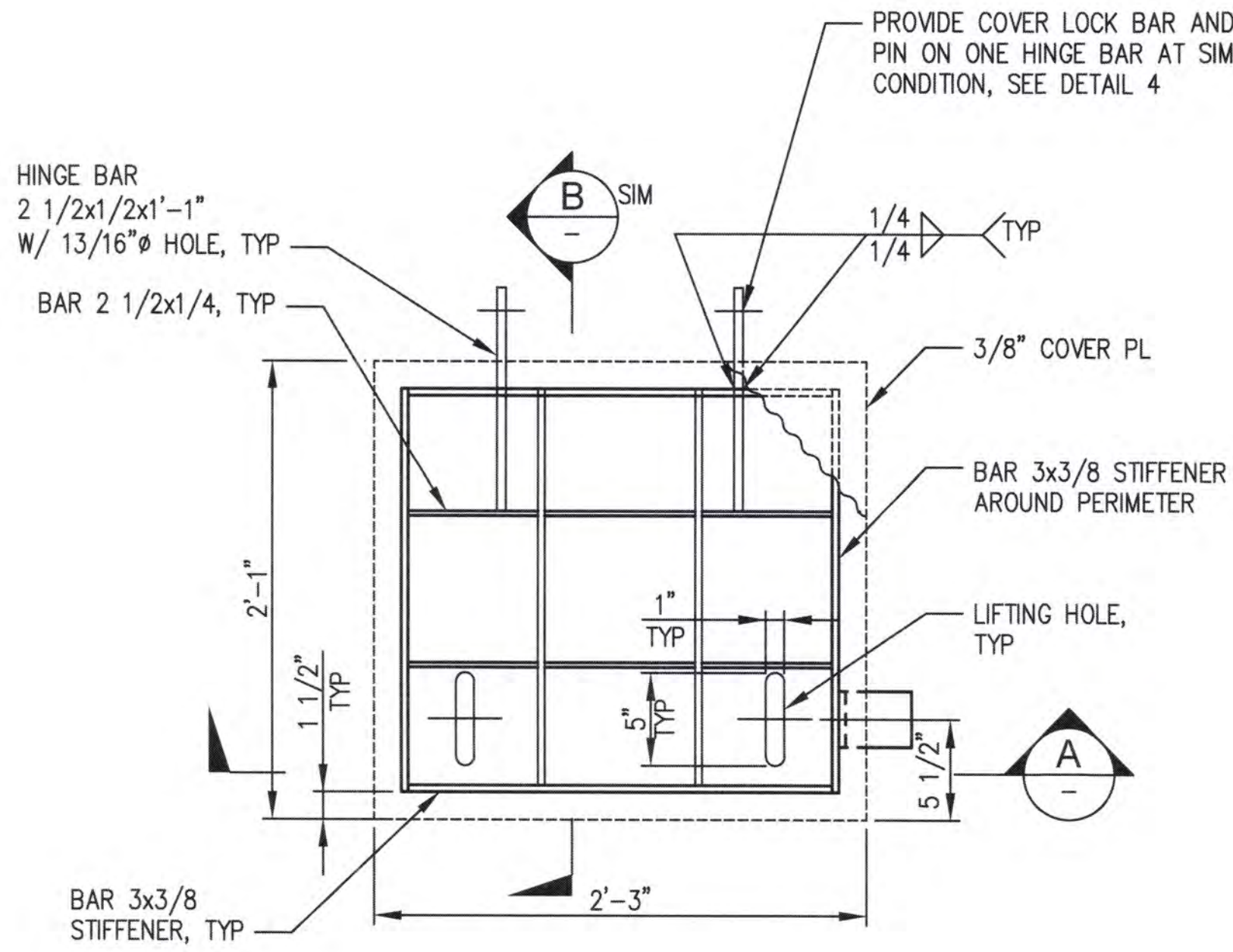


C SECTION
SCALE: 3" = 1'-0"

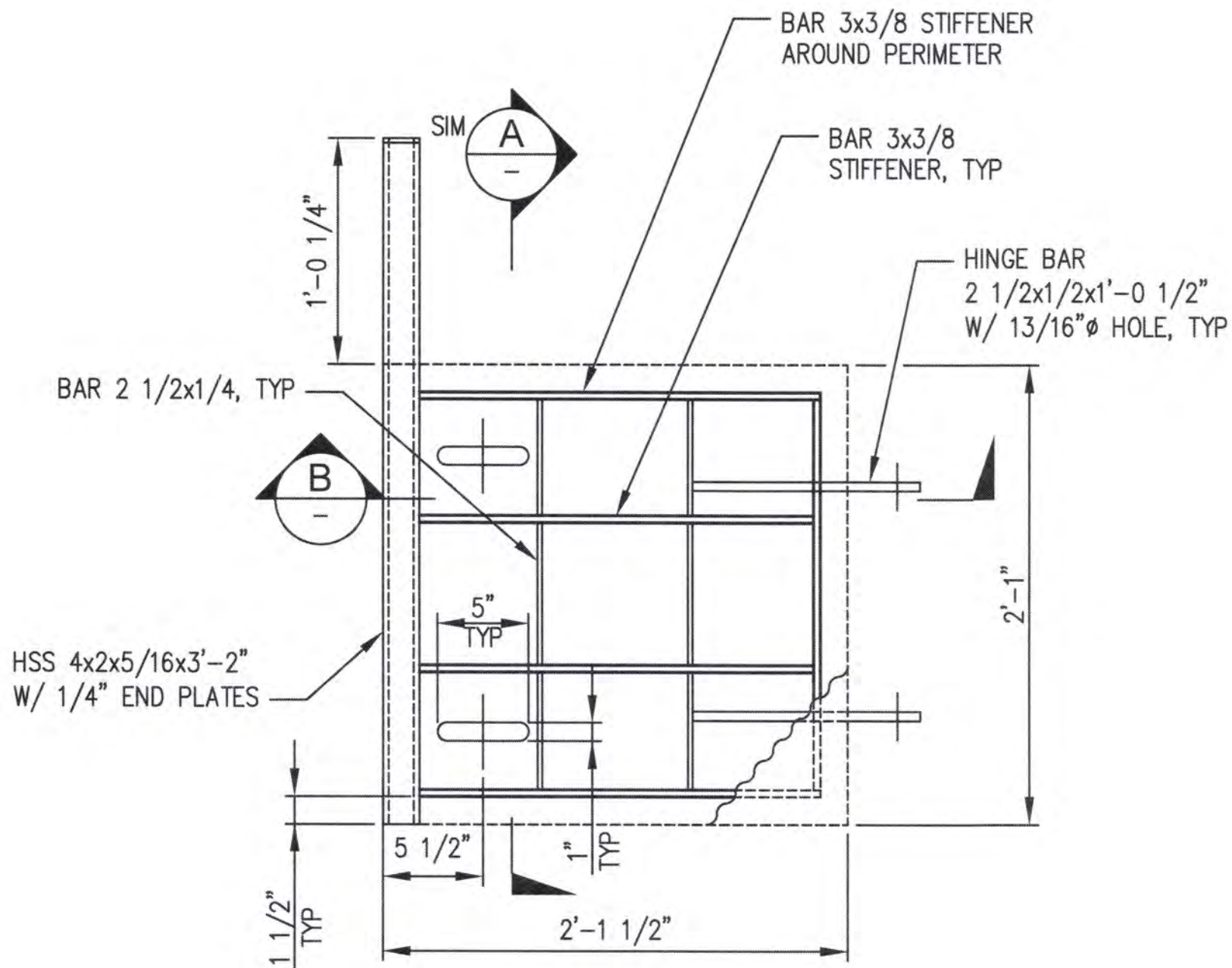
NOTES

- ALL PLATE AND BAR FOR VAULT COVERS SHALL BE FABRICATED FROM ASTM A 514 QUENCHED AND TEMPERED LOW ALLOY STEEL.
- THE TERM "PLATE" AND "BAR" HAVE BEEN USED INTERCHANGEABLY FOR SOME ASTM A 514 MATERIAL CALL OUTS.
- POSITION ANGLE VERTICALLY SUCH THAT ADJACENT LID HAS 1/8" CLEARANCE FROM TOP FACE OF ANGLE TO BOTTOM OF STIFFENER.

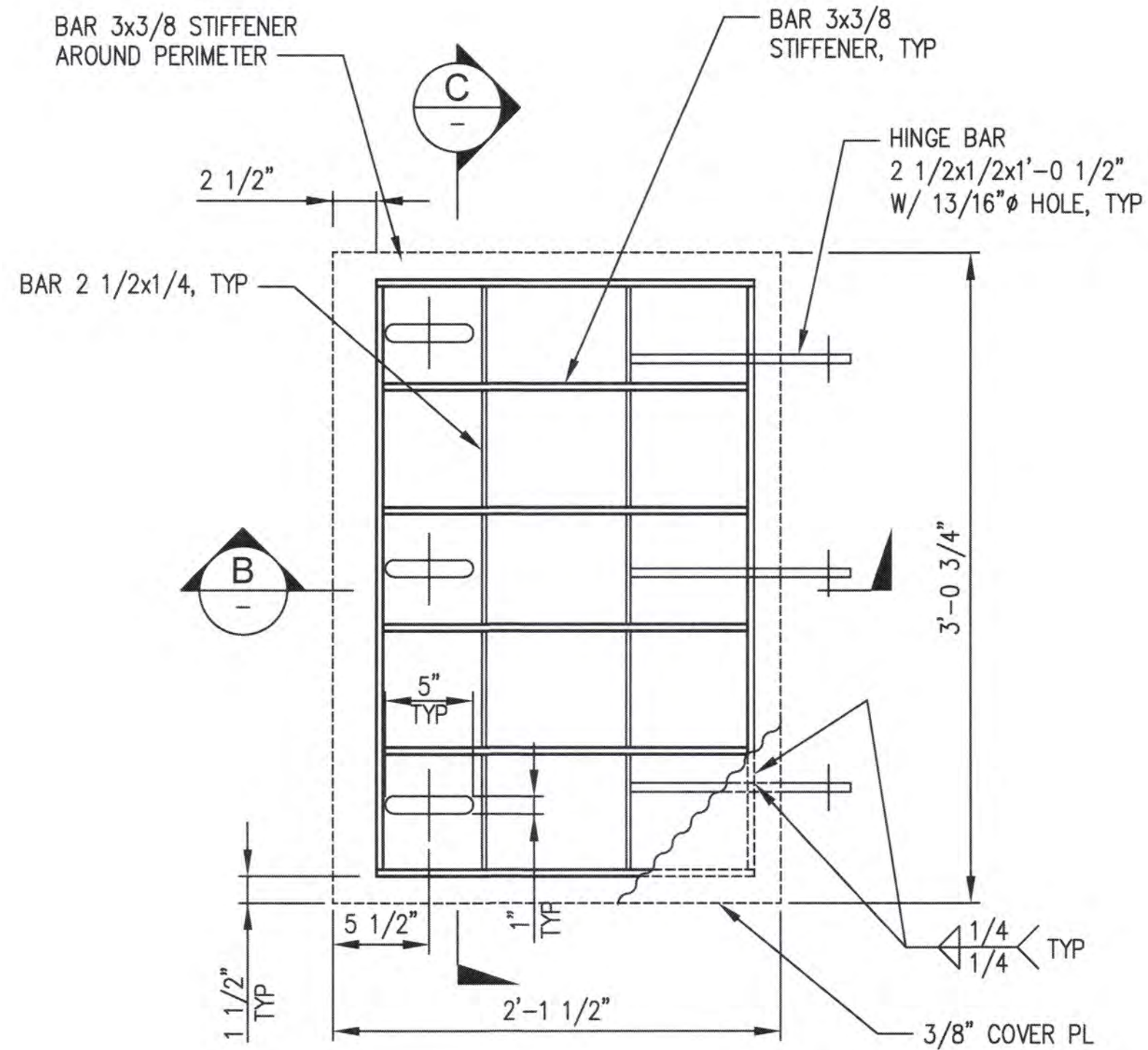
6658 S8.1 81 OF 83	CONT/CONS: 071357 M. ID: 201100.01 PHASE: BID SET	TOWNSHIP: DAT-HRZ: PARCEL:	RANGE: VERT: DRAWING SCALE: AS NOTED	TERMINAL 3 / TERMINAL 4 SHORE POWER NEW SHORE POWER VAULT DETAILS SHEET 1	APPROVED: <i>[Signature]</i> DIRECTOR ENG. DATE: 02/02/2022 PRINTED BY: dya Feb 02, 2022 PORT ADDRESS: ONE SITUM PLAZA TACOMA, WA 98421	TAH CHECKED BY PEY PROJ. ENGR DATE	02/02/2022 DATE	2407 North 31st Street, Suite 100 Tacoma, Washington 98406 (253) 544-0100 Fax (253) 596-0162	 	 Port of Tacoma P.O. BOX 1837 TACOMA, WA 98401 (253)583-5841	MARK:	REVISION:	BY:	APPR:	DATE:



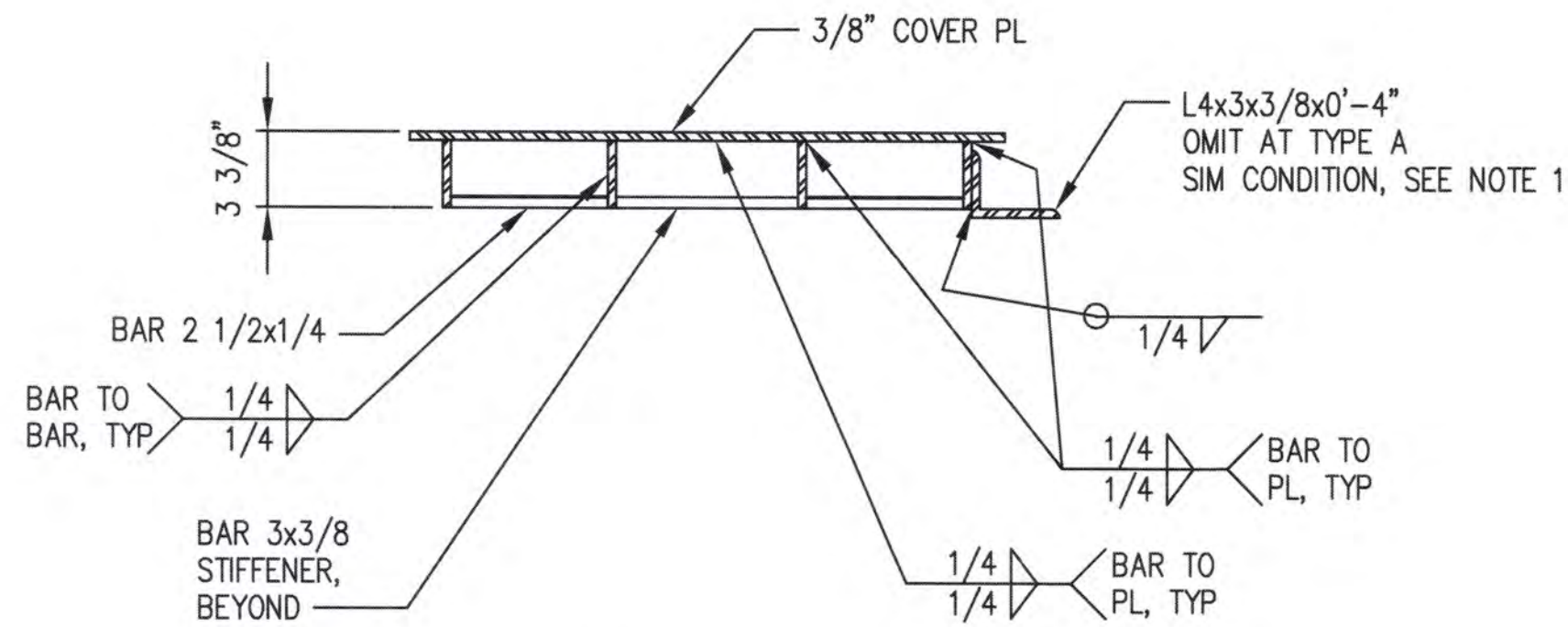
1 DETAIL - VAULT COVER (TYPE A)
S8.1 SCALE: 1 1/2" = 1'-0"



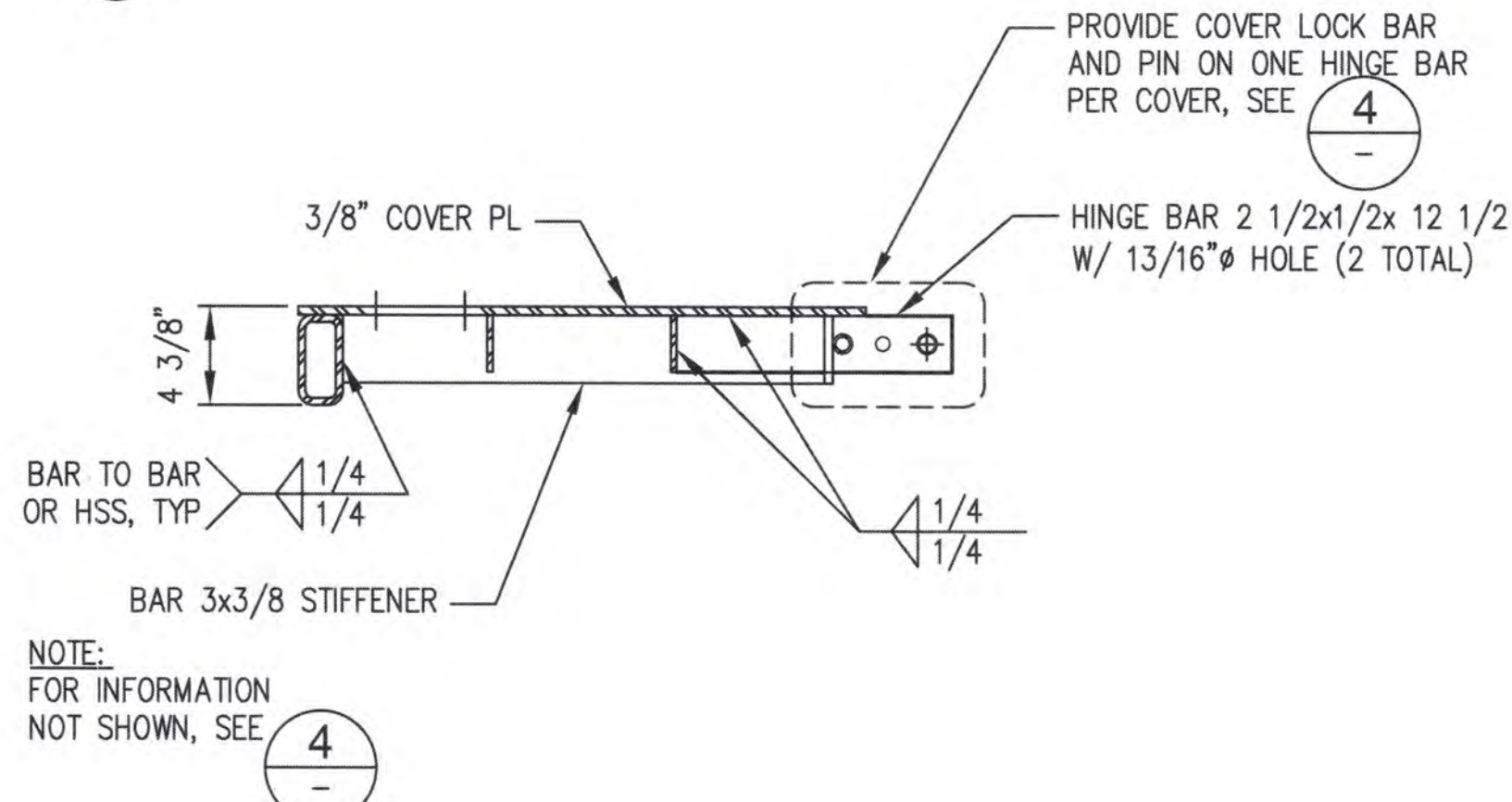
2 DETAIL - VAULT COVER (TYPE B)
S8.1 SCALE: 1 1/2" = 1'-0"



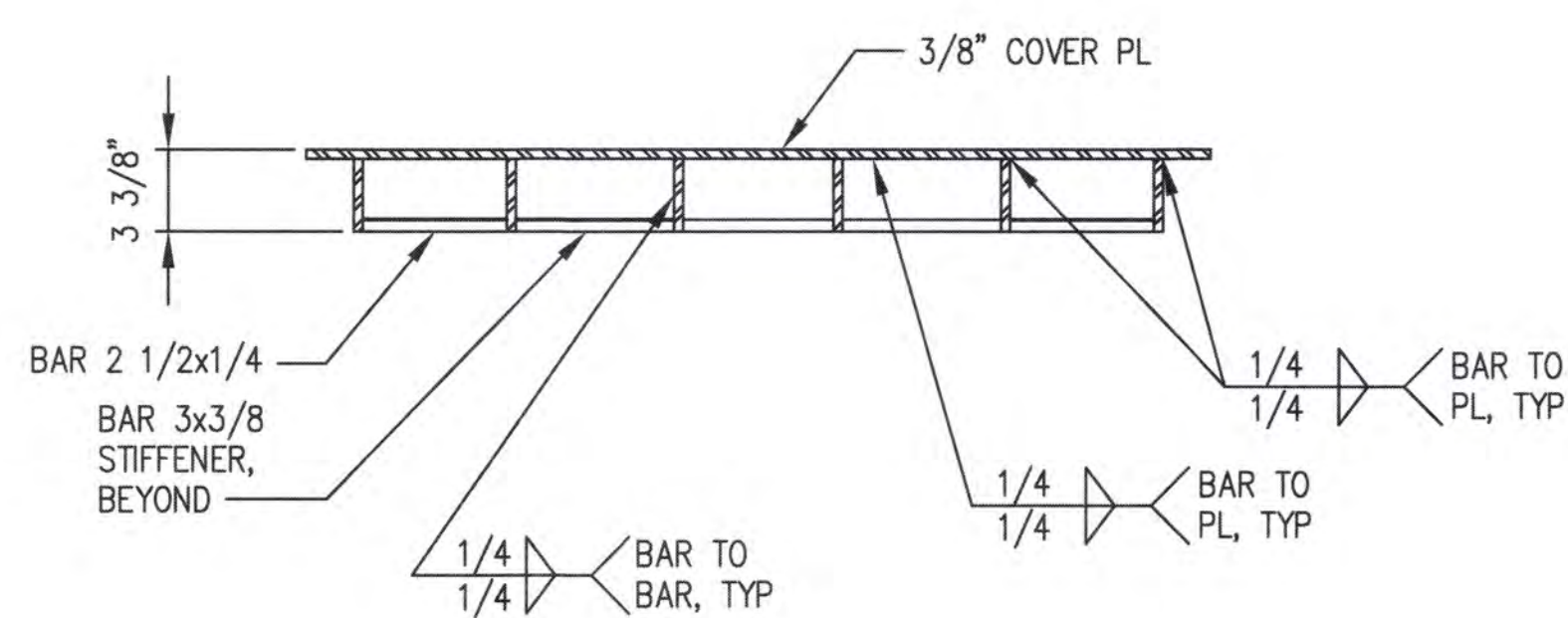
3 DETAIL - VAULT COVER (TYPE C)
S8.1 SCALE: 1 1/2" = 1'-0"



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



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



C SECTION
SCALE: 1 1/2" = 1'-0"

NOTES

1. POSITION ANGLE VERTICALLY SUCH THAT ADJACENT LID HAS 1/8" CLEARANCE FROM TOP FACE OF ANGLE TO BOTTOM OF STIFFENER.

4 DETAIL - COVER LOCK
SCALE: 3" = 1'-0"

6658 S8.2 82 OF 83	TERMINAL 3 / TERMINAL 4 SHORE POWER NEW SHORE POWER VAULT DETAILS SHEET 2				APPROVED: <i>[Signature]</i>		TAH: 02/02/2022	CHECKED BY: DATE
	CONTRACT: 071357	TOWNSHIP: 201100.01	RANGE: 201100.01	SECTION: 201100.01	DATE: 02/02/2022	PROJECT: 02/02/2022	DATE: 02/02/2022	DATE: 02/02/2022
M. ID: 201100.01		DATE-HRZ: 201100.01		DIRECTOR ENG. DATE: 02/02/2022		PROJ. ENGR DATE: 02/02/2022		
PHASE: BID SET		PARCEL: 201100.01		PRINTED BY: dyl Feb 02, 2022		TACOMA, WA 98421		
DRAWING SCALE: AS NOTED				PORT ADDRESS: ONE SITUUM PLAZA				
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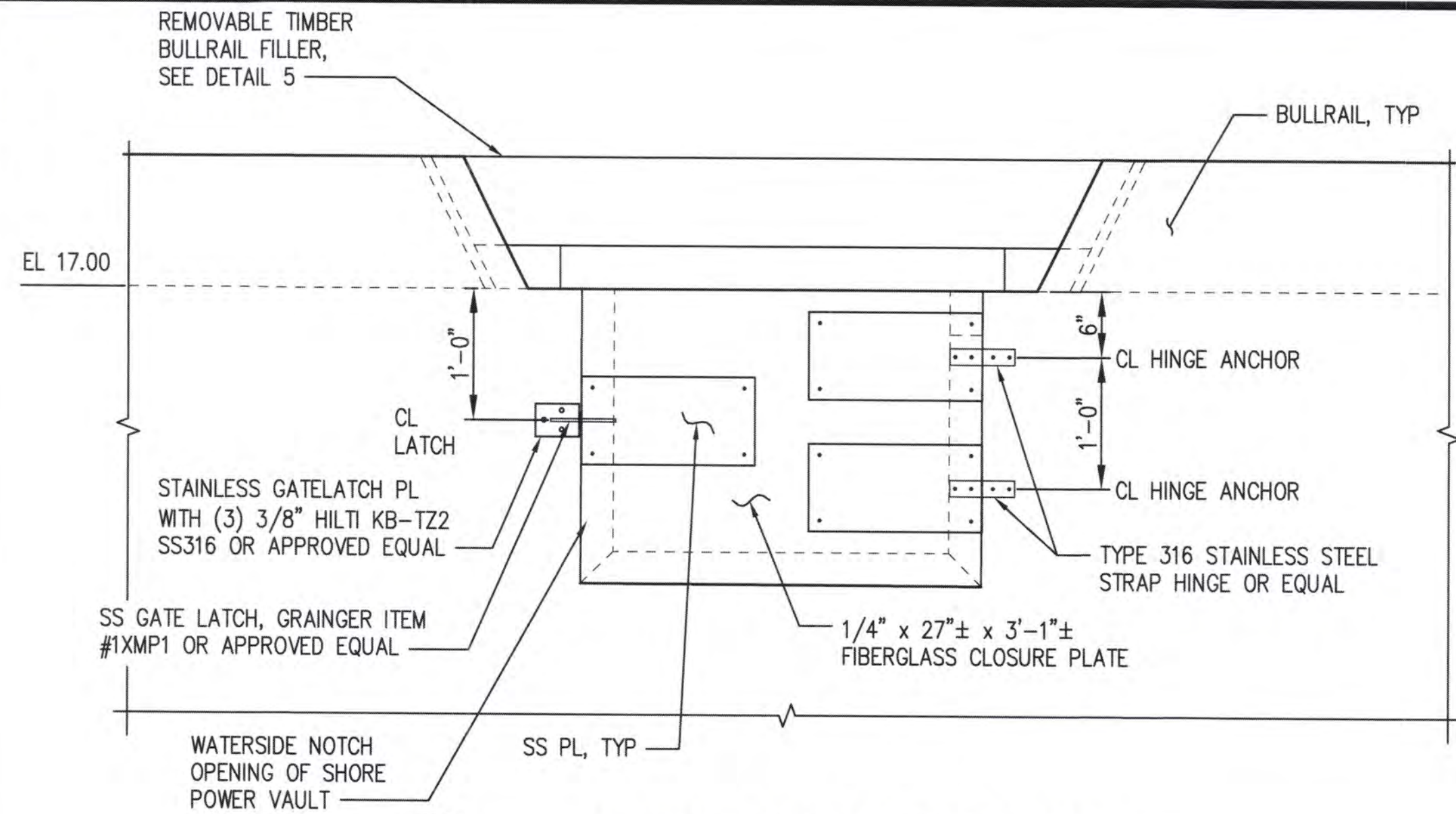
DATE: _____

APPR: _____

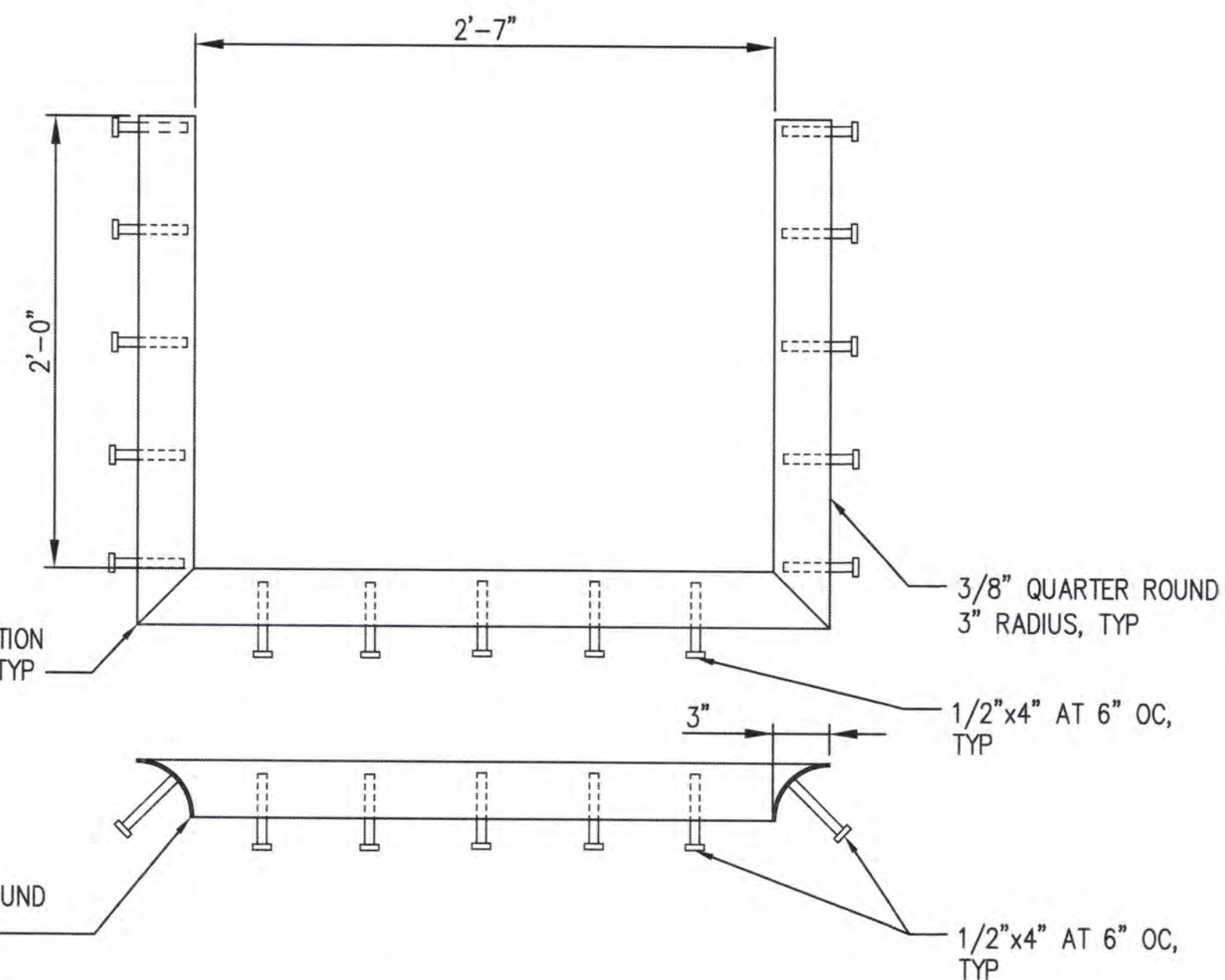
BY: _____

REVISION: _____

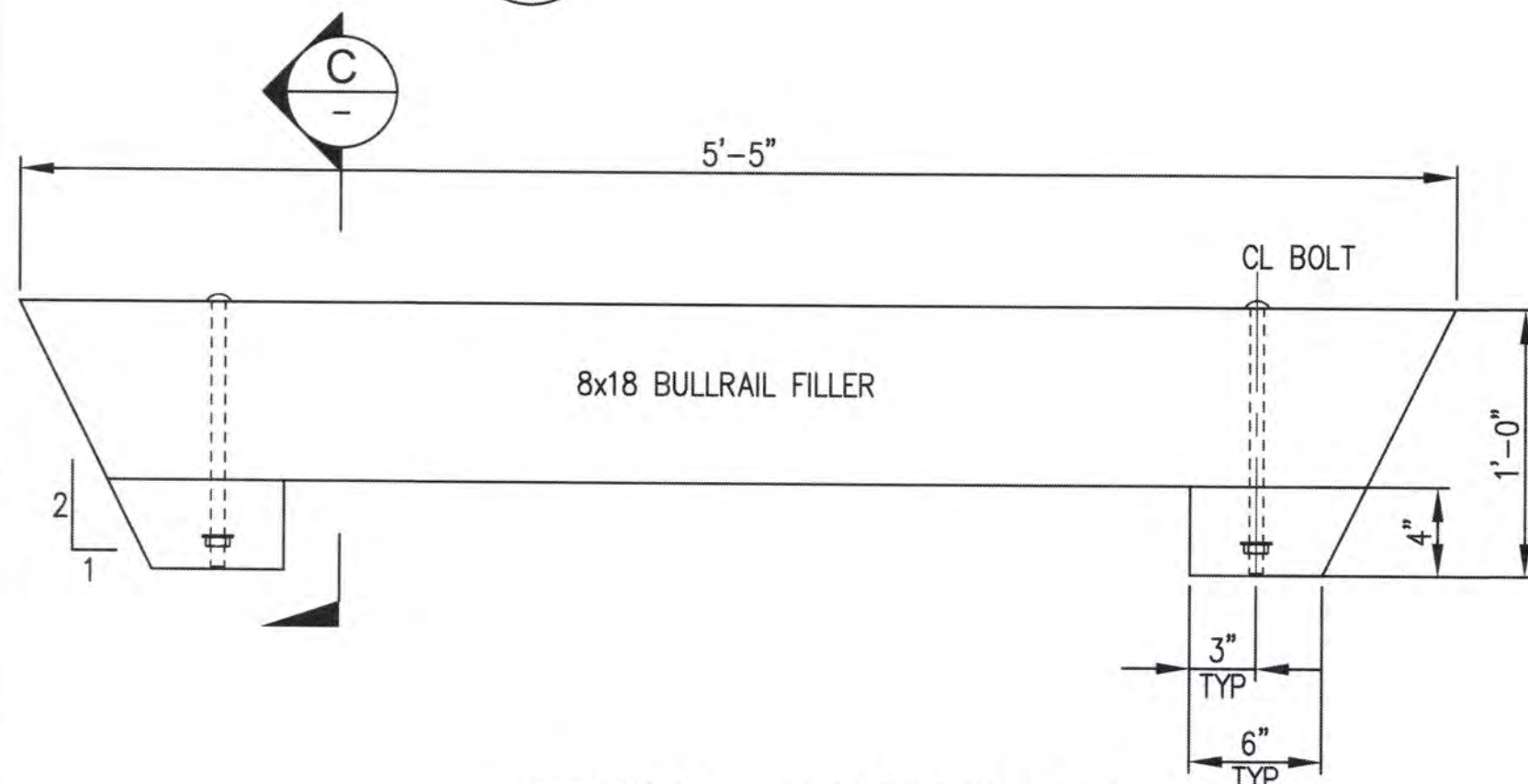
MARK: _____



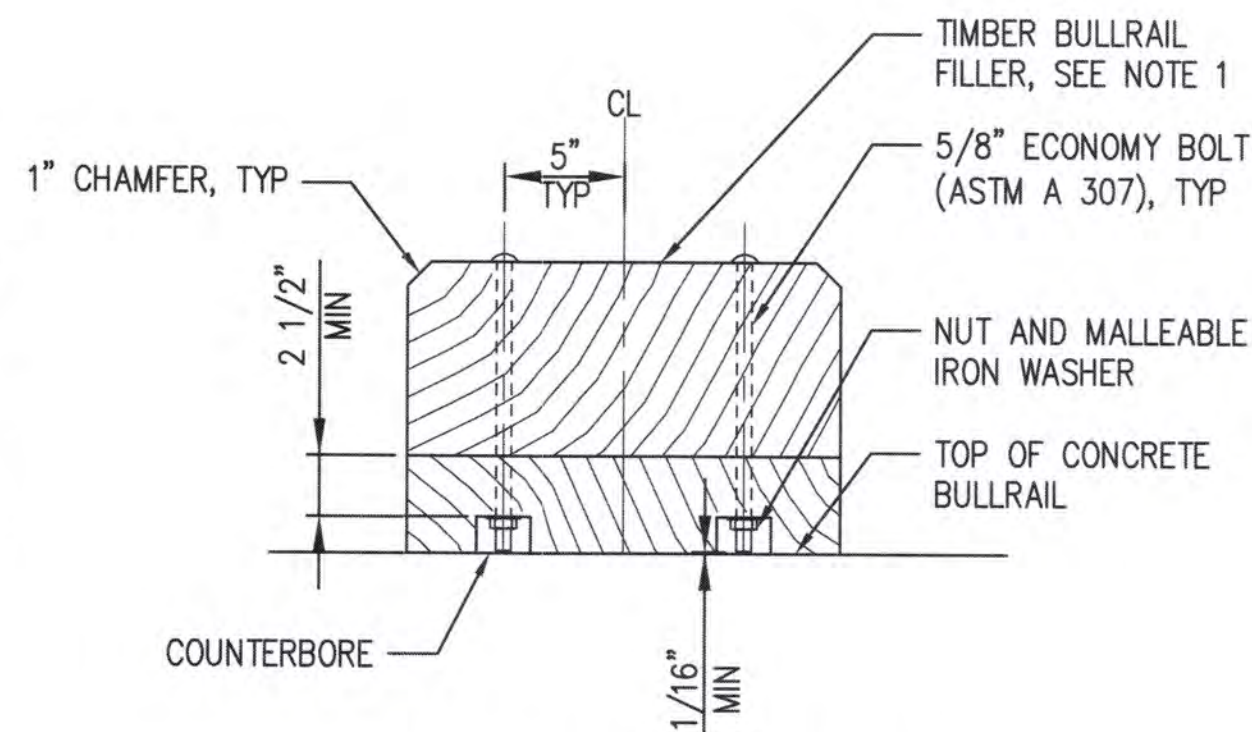
1
S8.1
DETAIL - CLOSURE PLATE
SCALE: 1" = 1'-0"



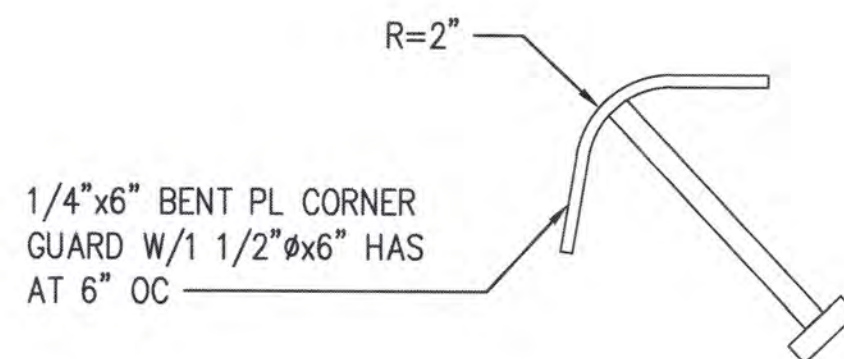
3
S7.1
WINDOW ROUNDED EDGE ASSEMBLY
SCALE: 1 1/2" = 1'-0"



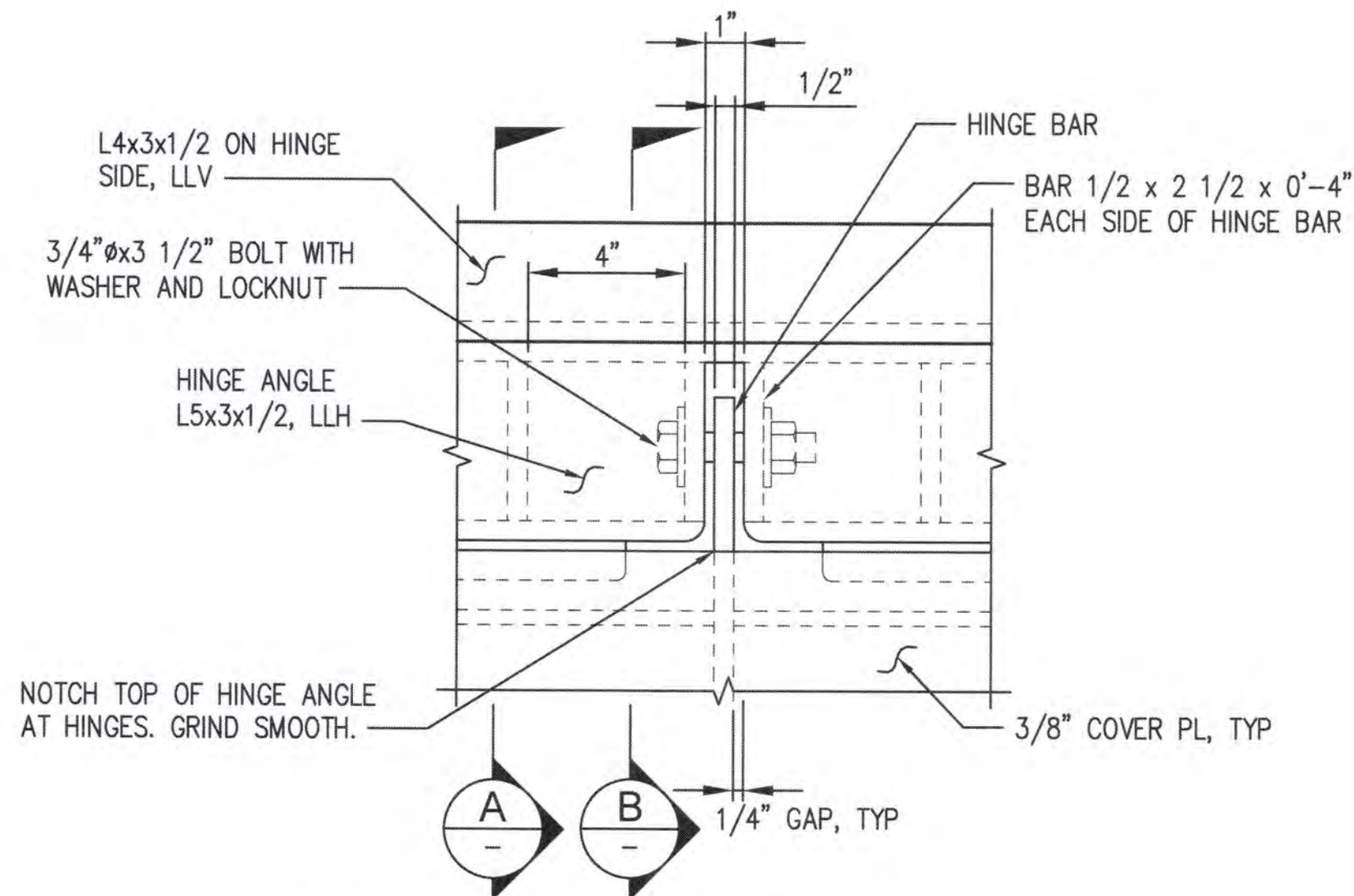
5
-
DETAIL - REMOVABLE TIMBER BULLRAIL FILLER
SCALE: 1 1/2" = 1'-0"



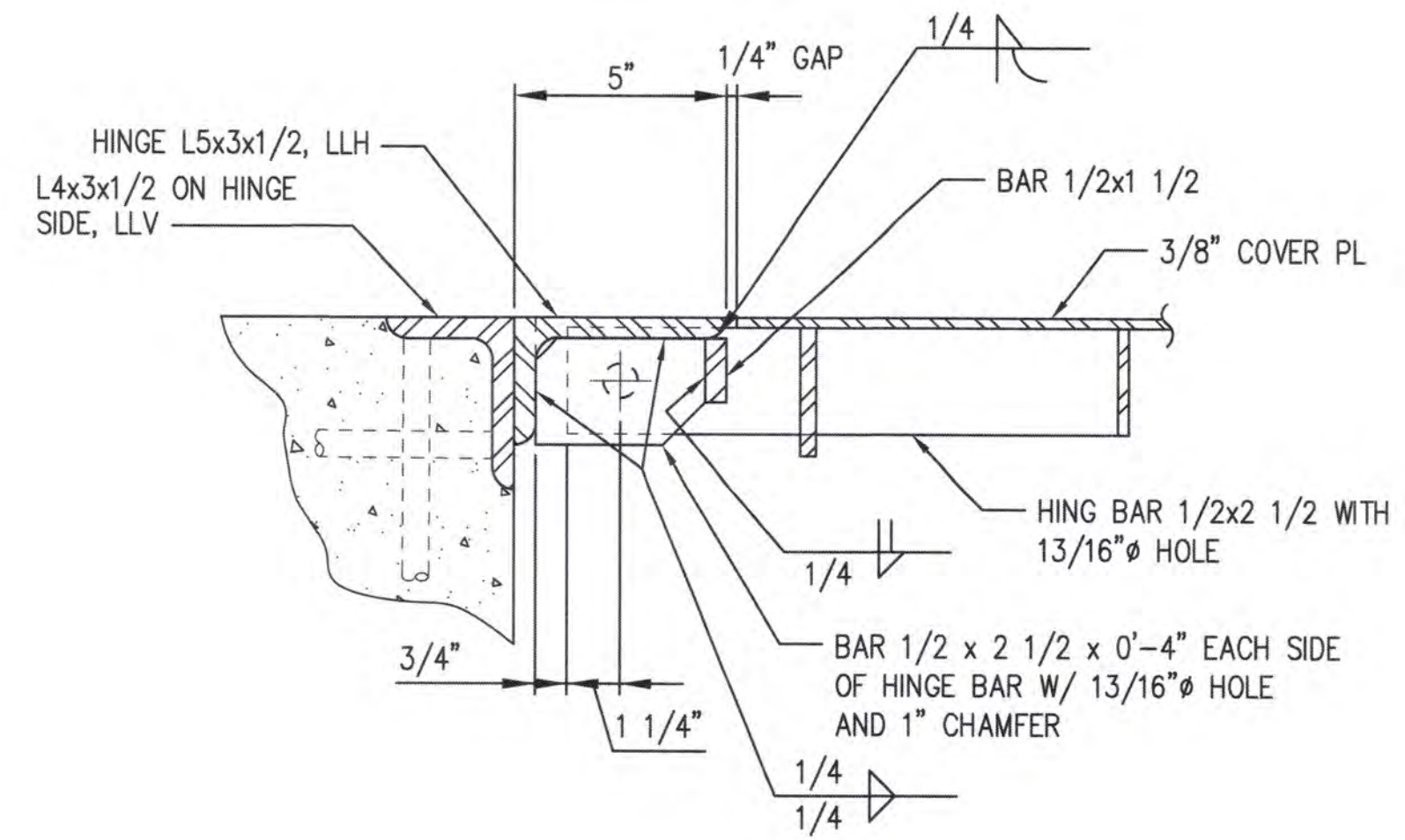
C
-
SECTION - REMOVABLE TIMBER BULLRAIL FILLER
SCALE: 1 1/2" = 1'-0"



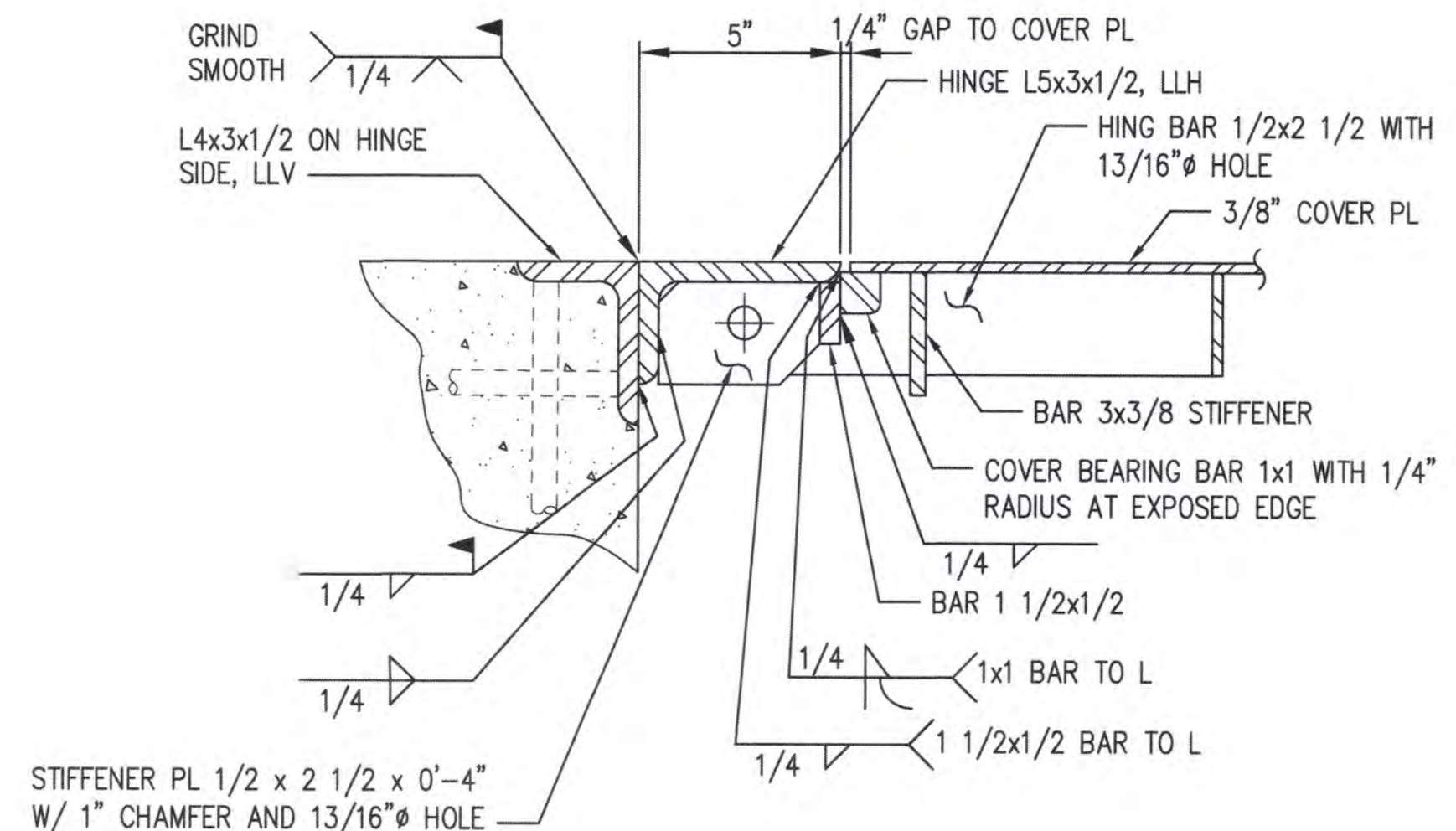
4
S7.2
DEATAIL - BENT PL CORNER GUARD
SCALE: 3" = 1'-0"



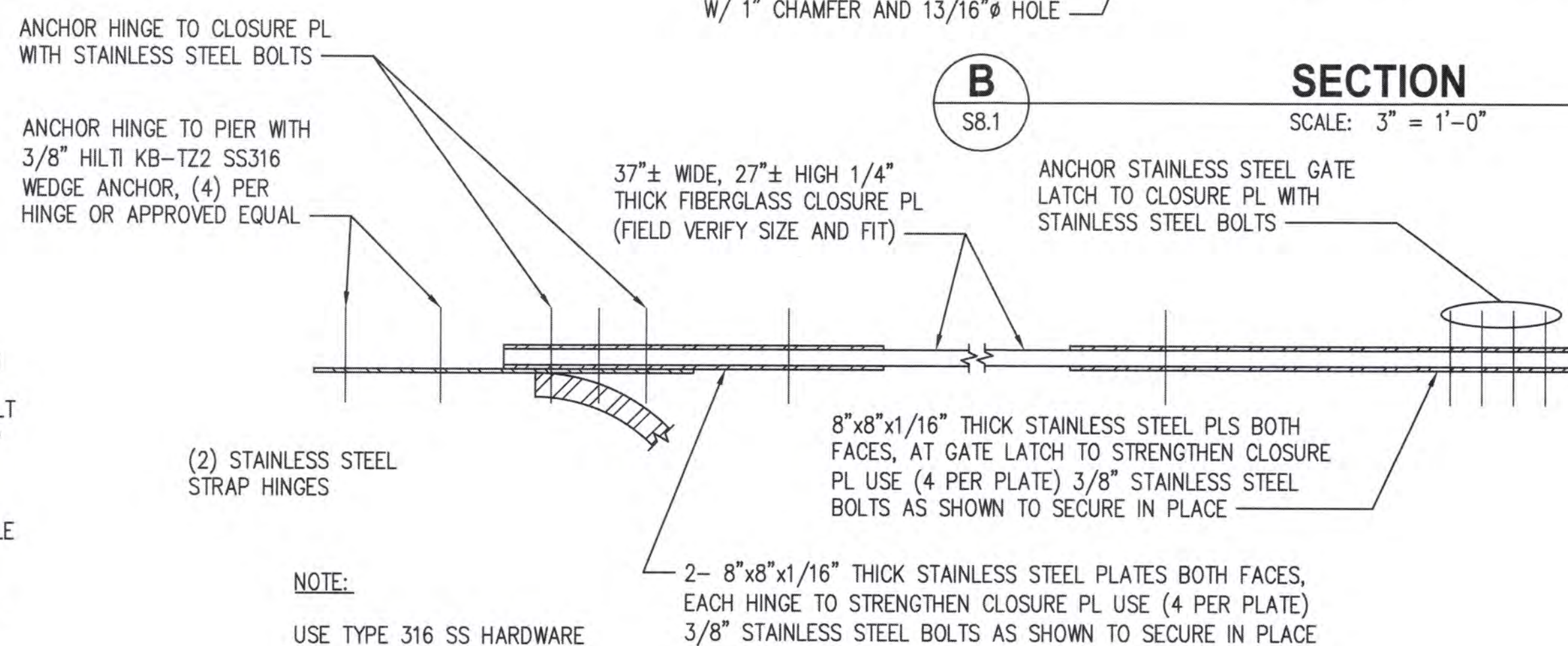
2
-
DETAIL - HINGE
SCALE: 3" = 1'-0"



A
S8.1
SECTION
SCALE: 3" = 1'-0"



B
S8.1
SECTION
SCALE: 3" = 1'-0"



6
S8.1
DETAIL - CLOSURE PLATE
SCALE: 3" = 1'-0"

NOTES:

1. REMOVABLE TIMBER BULLRAIL FILLER SHALL BE ACZA TREATED DOUGLAS-FIR, GRADE NO. 1. ACZA WATERBORNE SALTS PRESERVATIVES SHALL RETAIN A MINIMUM OF 0.40 PCF.