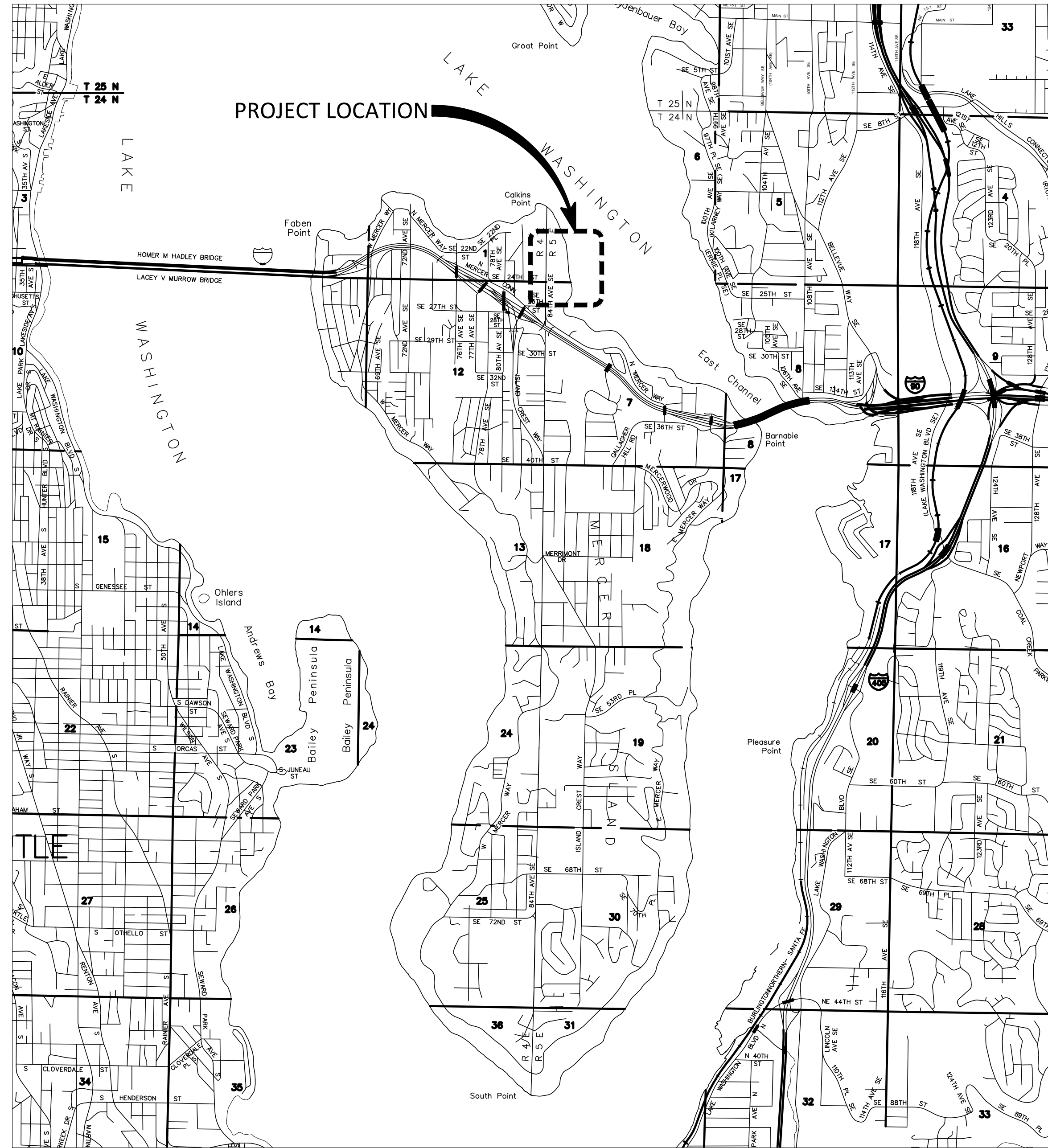


LUTHER BURBANK PARK COMPREHENSIVE WATERFRONT IMPROVEMENTS

CITY OF MERCER ISLAND PUBLIC WORKS DEPARTMENT



VICINITY MAP

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42	S-042	FIXED PIER GRATING DETAILS
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OWNER
 CITY OF MERCER ISLAND PUBLIC WORKS DEPARTMENT
 9611 SE 36TH STREET
 MERCER ISLAND, WA 98040

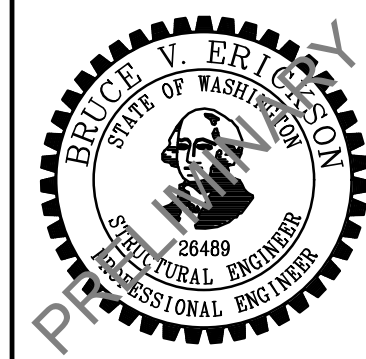
PROJECT ADDRESS
 2040 84TH AVE SE
 MERCER ISLAND, WA 98040

PROJECT CONTACT
 PAUL WEST
 (206) 677-1028
 paul.west@mercerisland.gov

CAD USER: RICKT PLOT DATE: Oct 10, 2022-12:33pm
 PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_G-001.dwg



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LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS

COVER SHEET

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	G-001
SHEET NO.	01 OF 44

60% SUBMITTAL

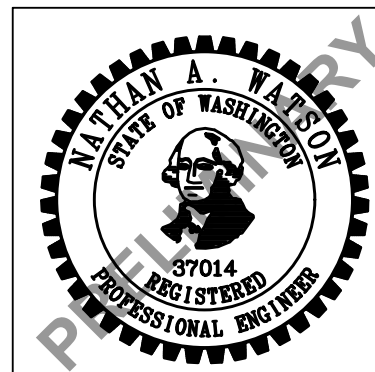
PROJECT GENERAL NOTES

1. UNLESS NOTED OTHERWISE CONTRACTOR SHALL FOLLOW THE WSDOT SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION (2018).
2. DATUM:
 - A. VERTICAL DATUM: NAVD 88, OLWM: 16.75, OHWM: 18.67
 - B. HORIZONTAL DATUM: NAD83
3. BOUNDARY SURVEY: TOPOGRAPHIC SURVEY AND CONTROL PROVIDED BY KPFF IN AUGUST OF 2020.
4. BATHYMETRY: BATHYMETRIC CONTOURS COLLECTED BY WILSON ENGINEERING.
5. EXISTING STRUCTURES:
 - A. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS OF EXISTING STRUCTURES THAT MAY IMPACT THE WORK.
 - B. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER, IF THERE ARE ANY CONFLICTS BETWEEN PROPOSED WORK AND EXISTING STRUCTURES TO REMAIN ON-SITE.
6. UTILITIES:
 - A. CONTRACTOR SHALL UTILIZE A UTILITY LOCATE SERVICE TO IDENTIFY UNDERGROUND UTILITIES, AT LEAST 48 HOURS PRIOR TO CONSTRUCTION AT THE SITE.
 - B. CONTRACTOR SHALL PROTECT-IN-PLACE ALL UTILITIES THAT ARE NOT INDICATED FOR DEMOLITION.
 - C. ANY DAMAGE TO EXISTING UTILITIES, FACILITIES OR EQUIPMENT, EXCEPT ITEMS TO BE DEMOLISHED, SHALL BE REPAIRED BY AND AT THE EXPENSE OF THE CONTRACTOR.
 - D. EXISTING BURIED WATER UTILITIES CURRENTLY AT UNKNOWN LOCATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNKNOWN WATER UTILITIES IN UPLAND AREA PRIOR TO ANY TEMPORARY UTILITY RE-ROUTE IMPLEMENTATION.
 - E. CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND OWNER FOR ALL MAINTAINED UTILITY SERVICES INCLUDING, BUT NOT LIMITED TO EXISTING STORM DRAINAGE, WATER AND ELECTRICAL LINES. IF NEEDED CONTRACTOR SHALL COORDINATE THE ACTIVATION AND DE-ACTIVATION OF UTILITIES WITH THE ENGINEER AND OWNER. CONTRACTOR SHALL PROVIDE A MINIMUM OF 2 DAYS ADVANCE WRITTEN NOTICE TO THE ENGINEER AND OWNER.
7. TRAFFIC CONTROL:
 - A. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY VEHICULAR OR PEDESTRIAN TRAFFIC CONTROL REQUIRED DURING THE PROJECT. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
8. IN WATER WORK:
 - A. CONTRACTOR SHALL LOCATE ALL EQUIPMENT WITHIN PROJECT WORK AREA LIMITS.
 - B. IN WATER WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE PROJECT PERMITS.
9. STORMWATER POLLUTION PREVENTION PLAN (SWPPP):
 - A. CONTRACTOR SHALL PROVIDE THE SWPPP.

CODES AND DESIGN CRITERIA:

1. STORM DRAINAGE:
 - A. STORM DRAINAGE SYSTEM IS DESIGNED USING AND SHALL CONFORM TO THE 2014 DEPARTMENT OF ECOLOGY STORM WATER MANUAL.
 - B. CONTRACTOR SHALL BE RESPONSIBLE FOR RE-ROUTING STORMWATER DURING CONSTRUCTION.
 - C. CONTRACTOR SHALL PROVIDE ALL PUMPS, TANKS, PIPES, HOSES, APPURTENANCES AND POWER TO COLLECT AND DISCHARGE THE STORMWATER DURING CONSTRUCTION ACTIVITIES.
2. FIRE PROTECTION SYSTEM:
 - A. THE FIRE PROTECTION SYSTEM INCLUDING PIPES AND APPURTENANCES SHALL CONFORM TO THE 2015 VERSION OF THE SEATTLE FIRE CODE, PARTICULARLY CHAPTER 36 – MARINAS AND BOATYARDS. THE FIRE SYSTEM SHALL ALSO CONFORM TO THE 2016 EDITION OF THE NFPA 14 FOR THE INSTALLATION OF STANDPIPES AND HOSE SYSTEMS. WHERE THERE IS CONFLICT THE SEATTLE FIRE CODE SHALL BE ADHERED TO.
 - B. PORTABLE FIRE EXTINGUISHERS WITH A MINIMUM RATING OF 2A 20-BC SHALL BE PLACED ON THE DOCK AND FLOAT AT 75 FOOT INTERVALS, WITH NO PORTION OF THE FLOAT MORE THAN 75 FEET FROM AN EXTINGUISHER.
 - C. A SIGN AT DOCK STATING THE FOLLOWING IS REQUIRED: LOCATIONS OF FIRST AID FACILITIES, TELEPHONES, FIRE FIGHTING EQUIPMENT, EMERGENCY EQUIPMENT, AND FIRE EXITS. A SIGN SHOULD ALSO INCLUDE TELEPHONE NUMBERS OF CLOSE AMBULANCE SERVICE, HOSPITAL, POLICE, AND FIRE DEPARTMENT.
 - D. FOR FIRE PROTECTION ON FLOAT, ABOVE WATER LEVEL PIPING SHALL BE GALVANIZED STEEL OF THE SIZE SHOWN IN THE DRAWINGS.
 - E. FOR FIRE PROTECTION ON FLOAT, BELOW WATER LEVEL PIPING SHALL BE HDPE OF A PRESSURE CLASS TO WITHSTAND THE REQUIREMENTS OF THE FIRE CODE.
 - F. FIRE SUPPRESSION SYSTEM SHALL CONSIST OF 6"Ø PIPING IN A DRY SYSTEM UNLESS NOTED OTHERWISE IN PLAN.

CAD USER: gmachuca PLOT DATE: Oct 10, 2022-01:48pm PATH: N:\2020\20000291 Luther Burbank Park\Drawings\Current (DWG2018)\G-002 PROJECT GENERAL NOTES.dwg



NO.	DATE	BY	REVISION



LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS

PROJECT GENERAL NOTES

DRAWN: AS	PROJECT NO.: 2200248
DESIGN: SS	SCALE: AS SHOWN
CHECKED: NAW	DATE: 10/07/2022
DRAWING NO.	G-002
SHEET NO.	02 of 44

60% SUBMITTAL

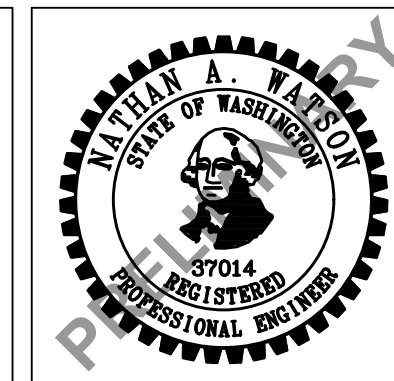
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 PATH: \\kpff\Projects\2020\20000291 Luther Burbank Park\Drawings\Current (DWG2018)\G-003 TEMPORARY ACCESS AND STAGING PLAN.dwg

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LEGEND:
 - - - LAYDOWN AREA BOUNDARY
 - - - TRUCK/VEHICLE ACCESS

NOTES:
 1. AERIAL FROM BING MAPS



NO.	DATE	BY	REVISION



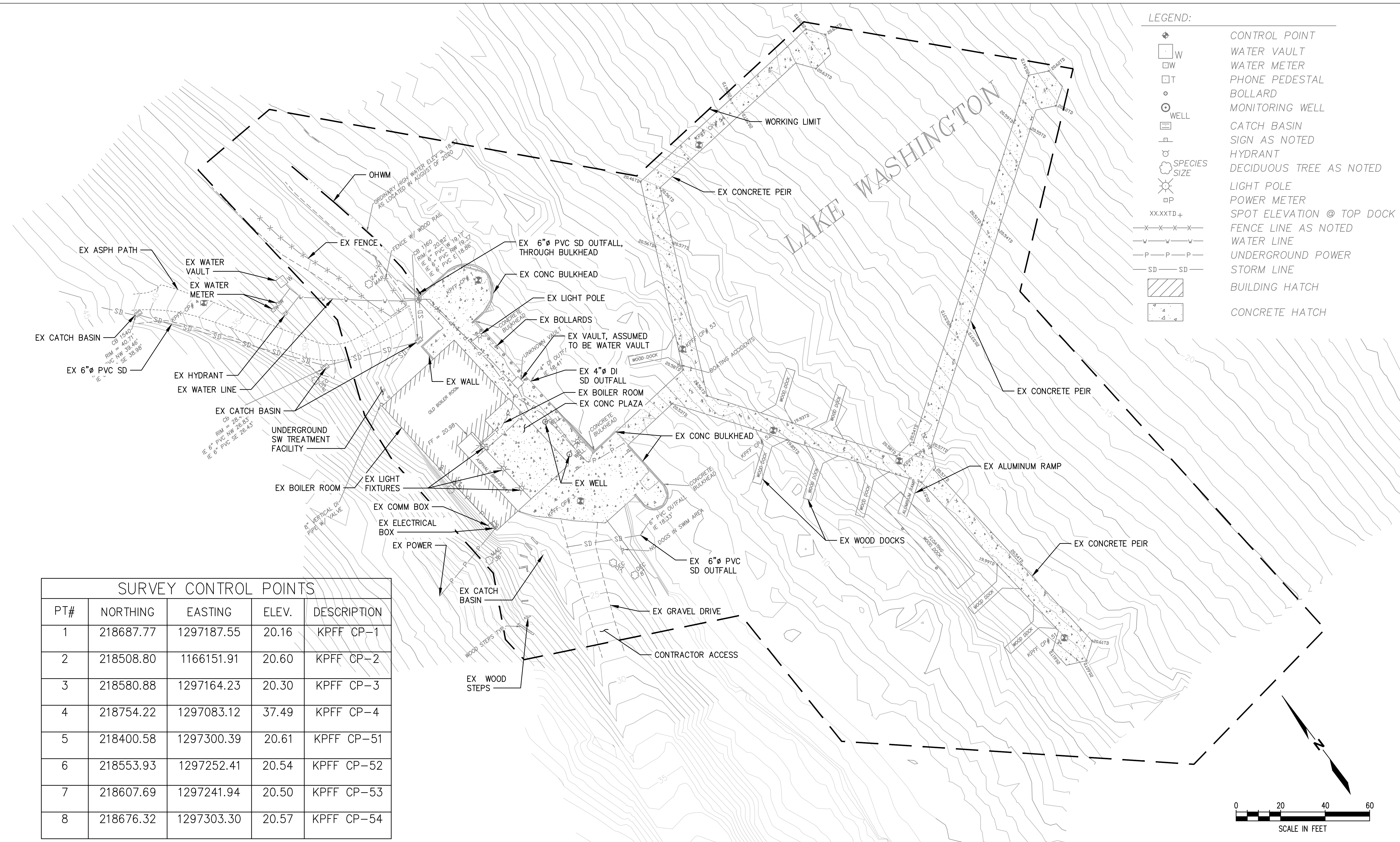
LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS

TEMPORARY ACCESS PLAN

DRAWN: AS	PROJECT NO.: 2200248
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CHECKED: NAW	DATE: 10/07/2022
DRAWING NO.	G-003
SHEET NO.	03 OF 44

60% SUBMITTAL

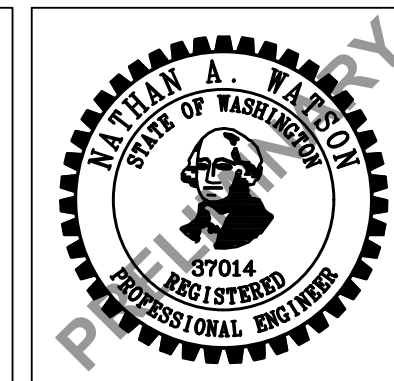
CAD USER: gmachuca PLOT DATE: Oct 10, 2022-01:49pm
 PATH: \\kpff\Projects\2020\20000291 Luther Burbank Park\Drawings\Current (DWG2018)\G-010 EXISTING CONDITIONS SITE PLAN.dwg



LEGEND:

	CONTROL POINT
	WATER VAULT
	WATER METER
	PHONE PEDESTAL
	BOLLARD
	MONITORING WELL
	CATCH BASIN
	SIGN AS NOTED
	HYDRANT
	DECIDUOUS TREE AS NOTED
	LIGHT POLE
	POWER METER
	SPOT ELEVATION @ TOP DOCK
	FENCE LINE AS NOTED
	WATER LINE
	UNDERGROUND POWER
	STORM LINE
	BUILDING HATCH
	CONCRETE HATCH

SURVEY CONTROL POINTS				
PT#	NORTHING	EASTING	ELEV.	DESCRIPTION
1	218687.77	1297187.55	20.16	KPFF CP-1
2	218508.80	1166151.91	20.60	KPFF CP-2
3	218580.88	1297164.23	20.30	KPFF CP-3
4	218754.22	1297083.12	37.49	KPFF CP-4
5	218400.58	1297300.39	20.61	KPFF CP-51
6	218553.93	1297252.41	20.54	KPFF CP-52
7	218607.69	1297241.94	20.50	KPFF CP-53
8	218676.32	1297303.30	20.57	KPFF CP-54



NO.	DATE	BY	REVISION



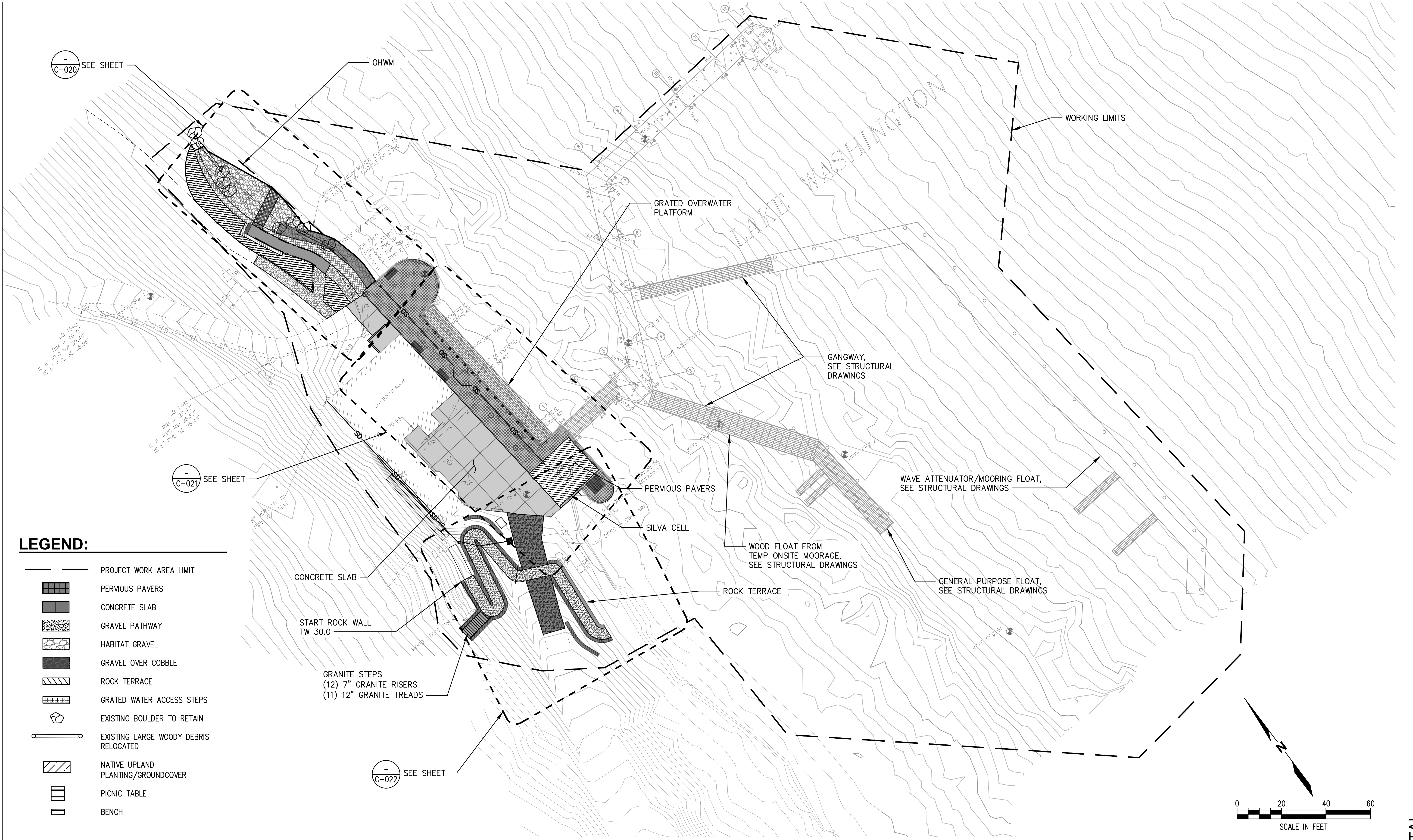
LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS

EXISTING CONDITIONS SITE PLAN

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DESIGN: SS	SCALE: 1" = 20'
CHECKED: NAW	DATE: 10/07/2022
DRAWING NO.	G-010
SHEET NO.	04 OF 44

60% SUBMITTAL

CAD USER: rluiten PLOT DATE: Oct 11, 2022-03:51pm
 PATH: N:\2020\20000291 Luther Burbank Park\Drawings\Current (DMC2018)\G-020 OVERALL SITE AND SURFACING PLAN.dwg



LEGEND:

- PROJECT WORK AREA LIMIT
- PERVIOUS PAVERS
- CONCRETE SLAB
- GRAVEL PATHWAY
- HABITAT GRAVEL
- GRAVEL OVER COBBLE
- ROCK TERRACE
- GRATED WATER ACCESS STEPS
- EXISTING BOULDER TO RETAIN
- EXISTING LARGE WOODY DEBRIS RELOCATED
- NATIVE UPLAND PLANTING/GROUNDCOVER
- PICNIC TABLE
- BENCH

CONCRETE SLAB
 START ROCK WALL
 TW 30.0
 GRANITE STEPS
 (12) 7" GRANITE RISERS
 (11) 12" GRANITE TREADS

GRATED OVERWATER PLATFORM

GANGWAY,
 SEE STRUCTURAL DRAWINGS

WAVE ATTENUATOR/MOORING FLOAT,
 SEE STRUCTURAL DRAWINGS

GENERAL PURPOSE FLOAT,
 SEE STRUCTURAL DRAWINGS

WOOD FLOAT FROM
 TEMP ONSITE MOORAGE,
 SEE STRUCTURAL DRAWINGS

ROCK TERRACE

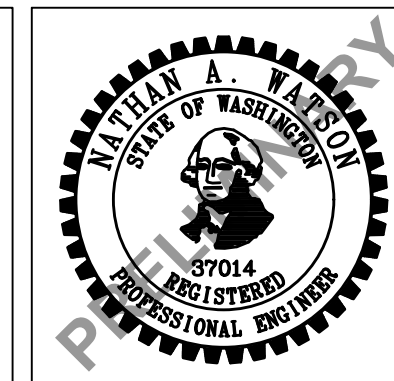
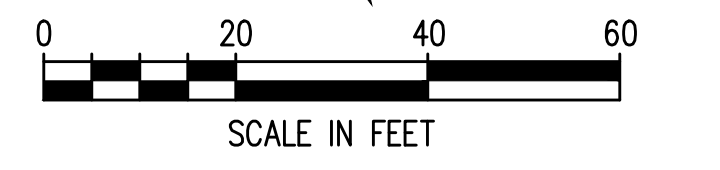
SILVA CELL

PERVIOUS PAVERS

SEE SHEET
 C-020

SEE SHEET
 C-021

SEE SHEET
 C-022



NO.	DATE	BY	REVISION



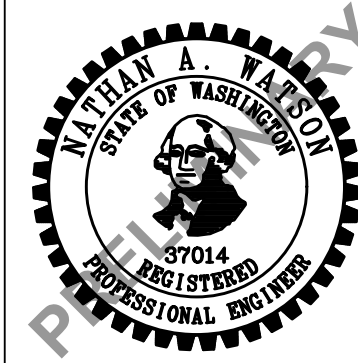
LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS

OVERALL SITE IMPROVEMENT AND SURFACING PLAN

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CHECKED: NAW	DATE: 10/07/2022
DRAWING NO.	G-020
SHEET NO.	05 of 44

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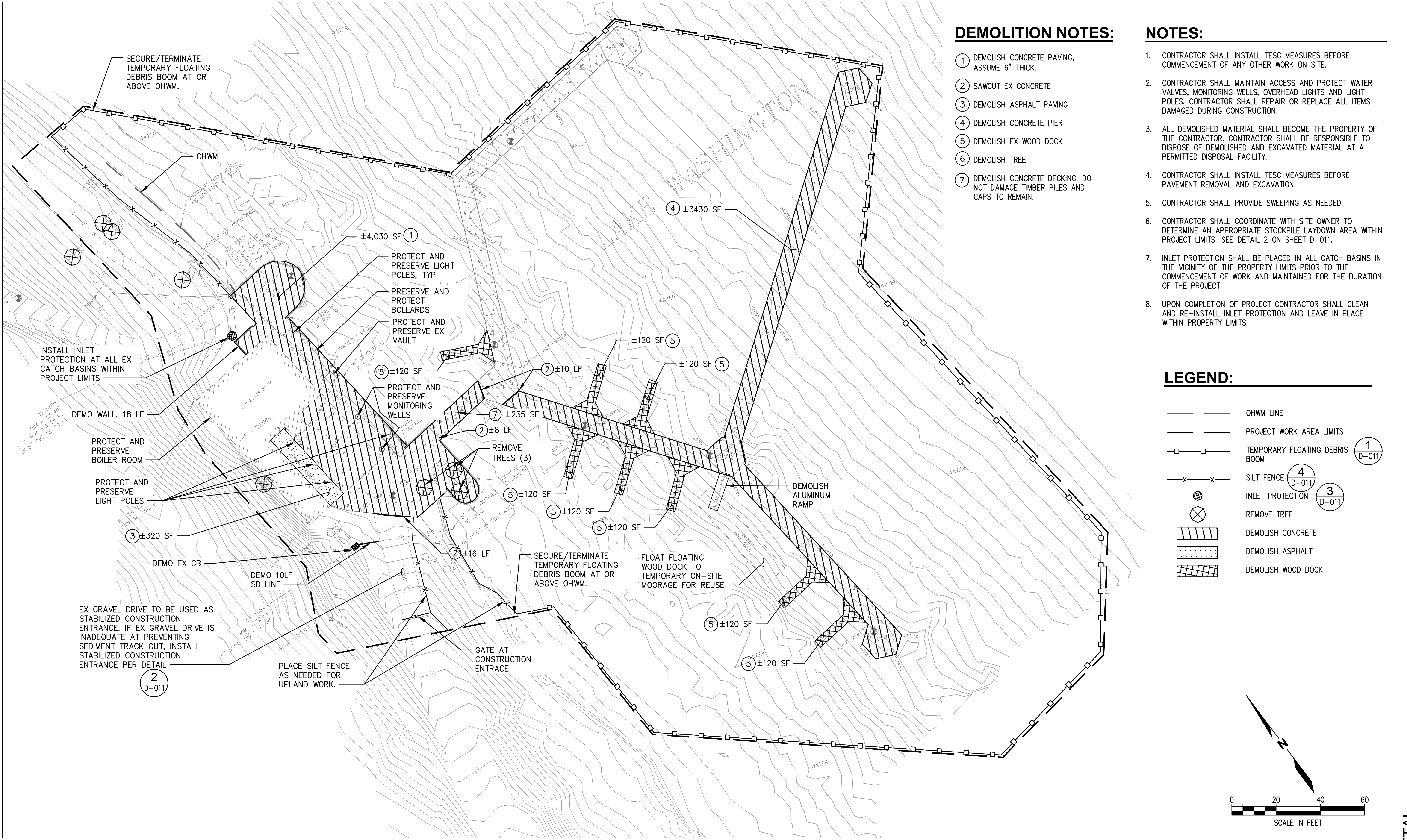


NO.	DATE	BY	REVISION

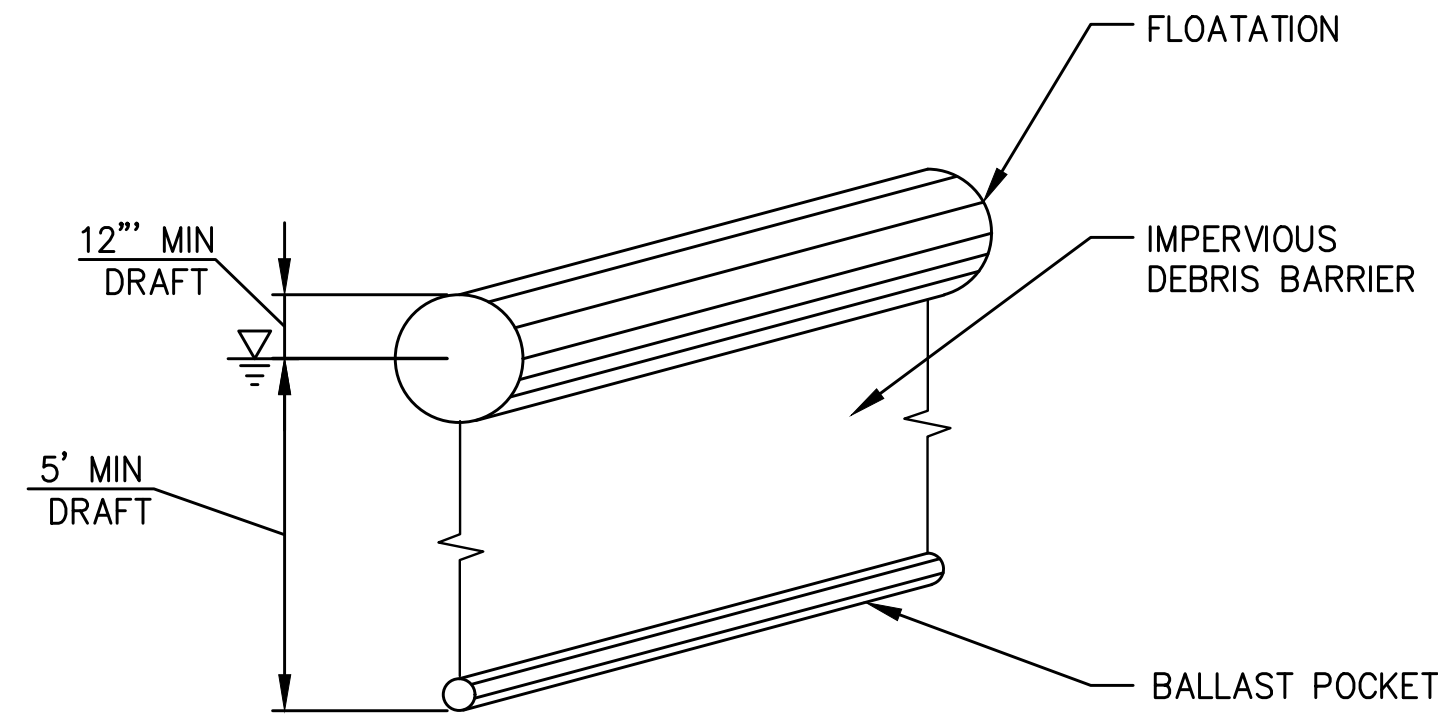


LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS
 DEMO AND TESC SITE PLAN

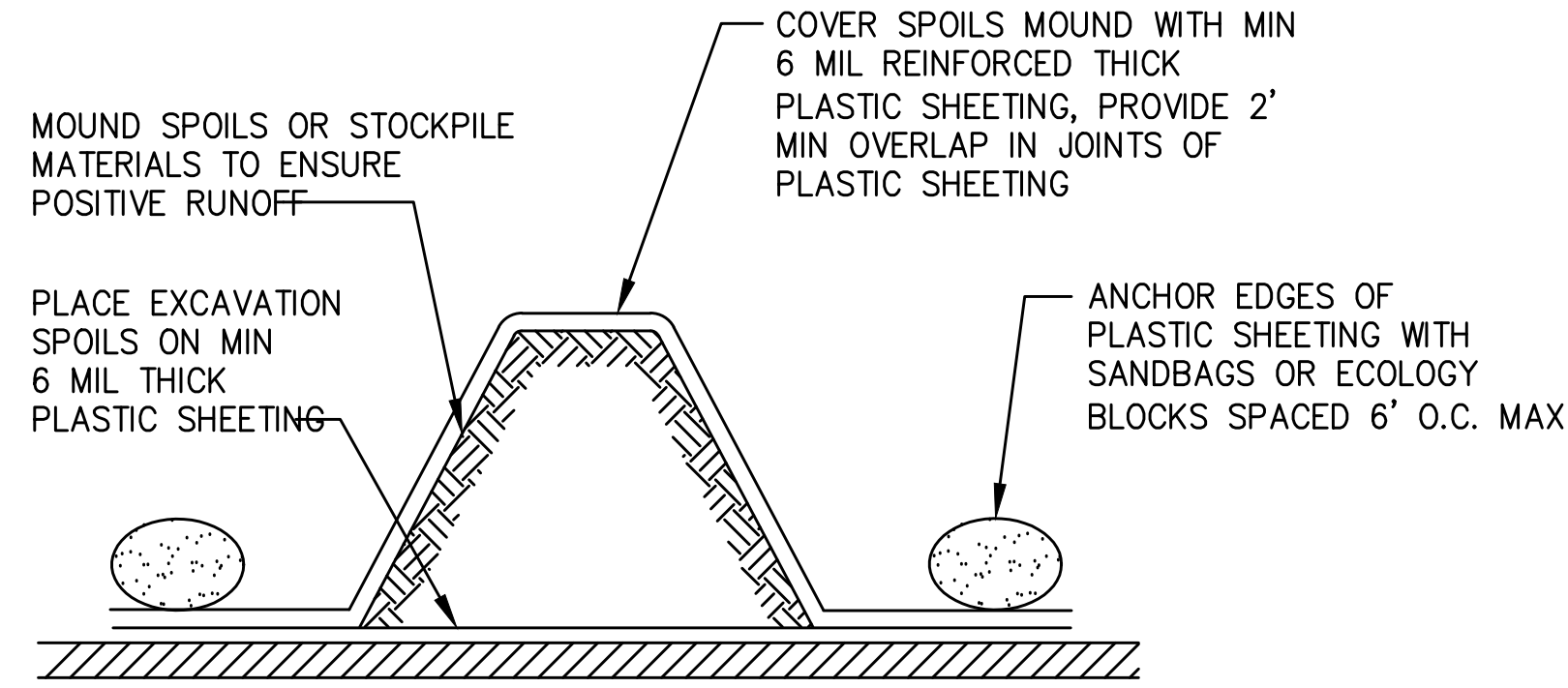
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SHEET NO.	06 of 44



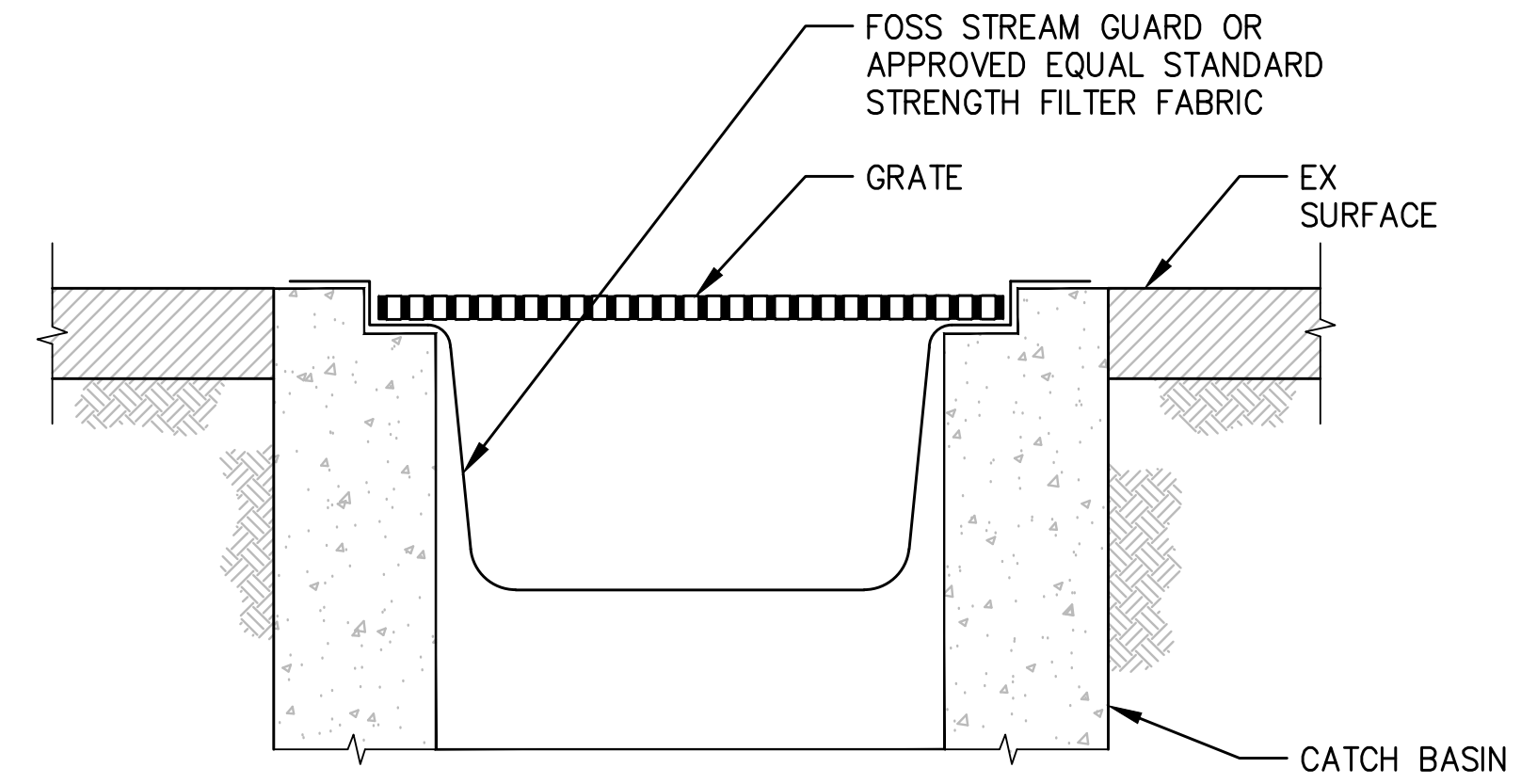
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1 DEBRIS BOOM
D-010 NTS



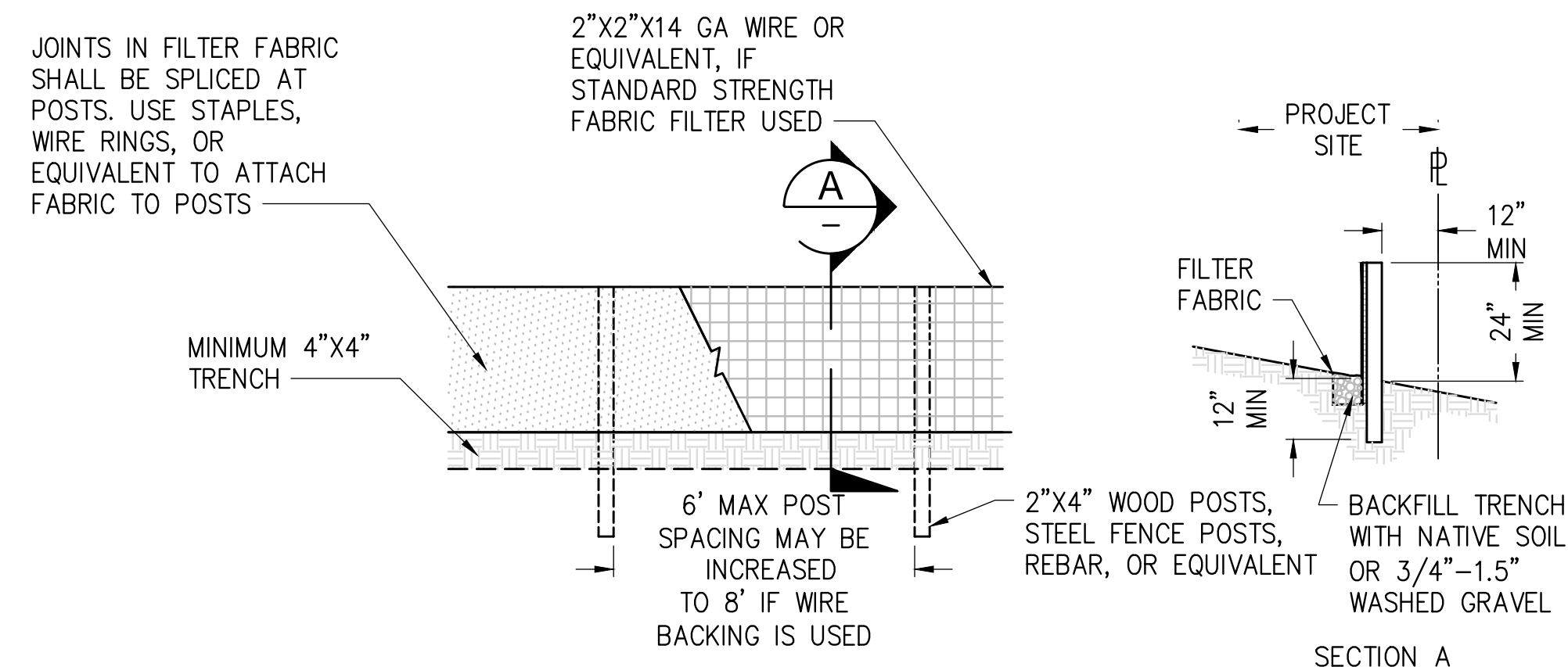
2 STOCKPILE PROTECTION DETAIL
D-010 NTS



MAINTENANCE STANDARDS:

- EXISTING CATCH BASINS SHALL BE FITTED WITH FILTER FABRIC AS SHOWN.
- ANY ACCUMULATED SEDIMENT ON OR AROUND THE FILTER FABRIC SHALL BE REMOVED IMMEDIATELY. SEDIMENT SHALL NOT BE REMOVED BY FLUSHING WITH WATER. ALL SEDIMENT MUST BE DISPOSED OF OFF-SITE.

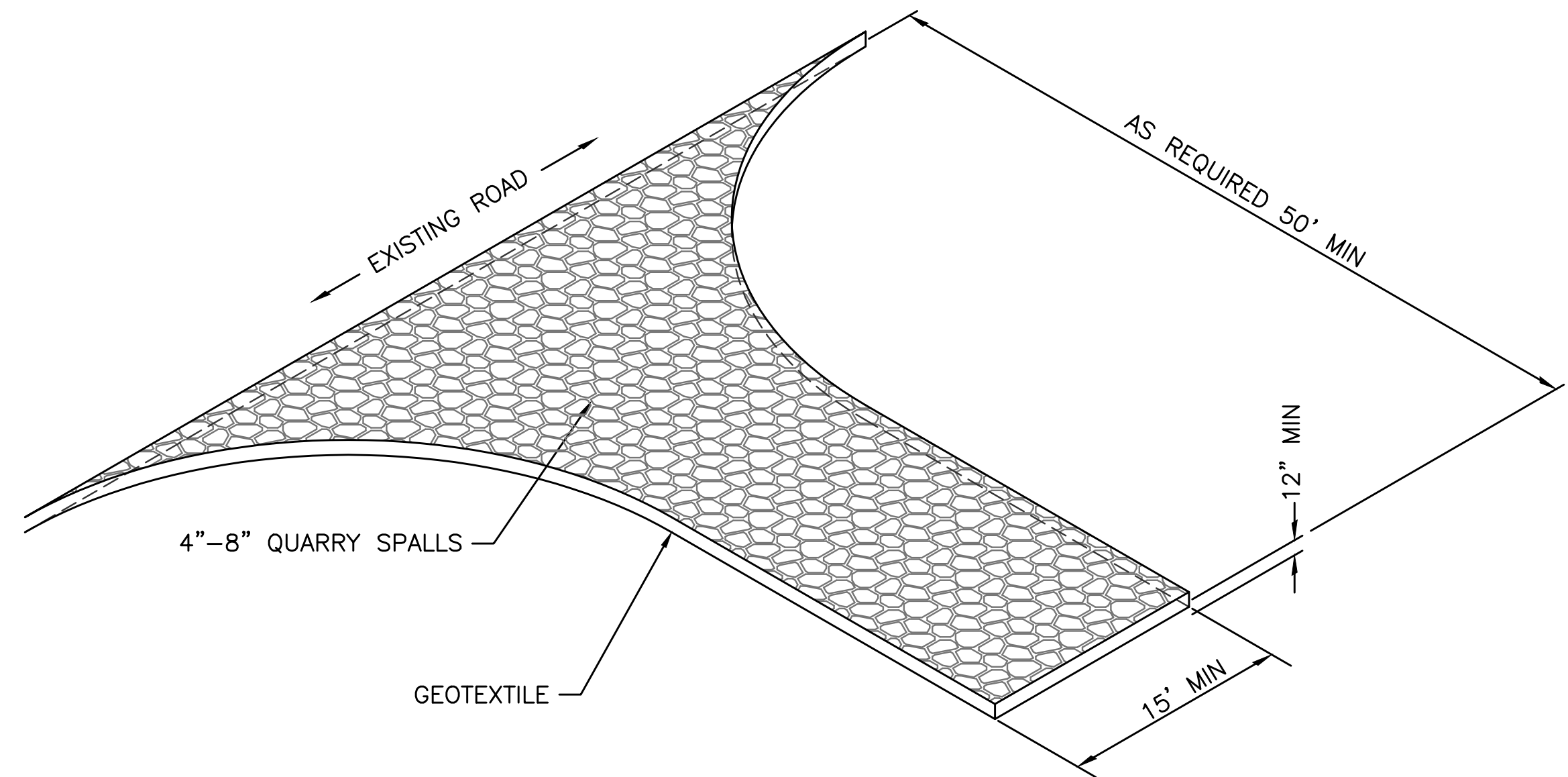
3 INLET PROTECTION DETAIL
D-010 NTS



4 SILT FENCE
D-010 NTS

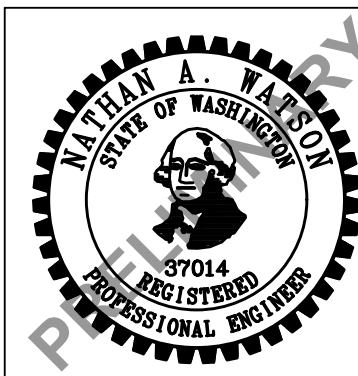
MAINTENANCE NOTES:

- REPAIR ANY DAMAGE IMMEDIATELY.
- IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, INTERCEPT AND CONVEY THEM TO A SEDIMENT POND.
- IT IS IMPORTANT TO CHECK THE UPHILL SIDE OF THE FENCE FOR SIGNS OF THE FENCE CLOGGING, ACTING AS A BARRIER TO FLOW, AND THEN CAUSING CHANNELIZATION OF FLOWS PARALLEL TO THE FENCE. IF THIS OCCURS, REPLACE THE FENCE OR REMOVE THE TRAPPED SEDIMENT.
- REMOVE SEDIMENT DEPOSITS WHEN THE DEPOSIT REACHES APPROXIMATELY ONE-THIRD THE HEIGHT OF THE SILT FENCE, OR INSTALL A SECOND SILT FENCE.
- IF THE FILTER FABRIC (GEOTEXTILE) HAS DETERIORATED DUE TO ULTRAVIOLET BREAKDOWN, REPLACE IT.



5 CONSTRUCTION ENTRANCE DETAIL
D-010 NTS

CAD USER: gmachuca PLOT DATE: Oct 10, 2022-01:50pm
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NO.	DATE	BY	REVISION



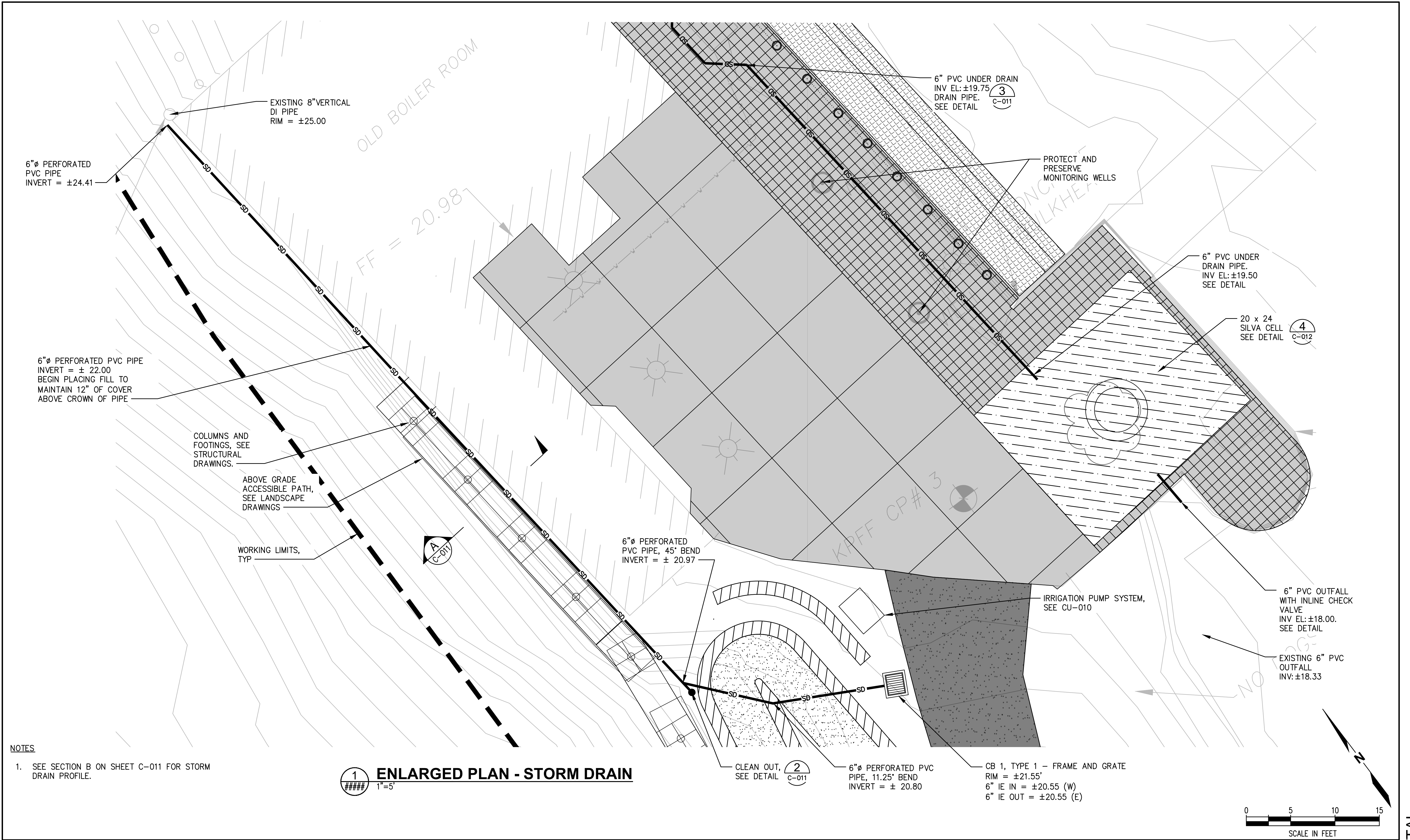
LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS

TESC DETAILS

DRAWN: AS	PROJECT NO.: 2200248
DESIGN: SS	SCALE: AS SHOWN
CHECKED: NAW	DATE: 10/07/2022
DRAWING NO.	D-011
SHEET NO.	07 of 44

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CAD USER: gmachuca PLOT DATE: Oct 10, 2022-01:52pm
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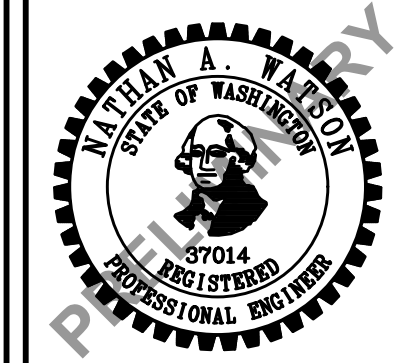
NOTES

- SEE SECTION B ON SHEET C-011 FOR STORM DRAIN PROFILE.

1 ENLARGED PLAN - STORM DRAIN
 1"=5'



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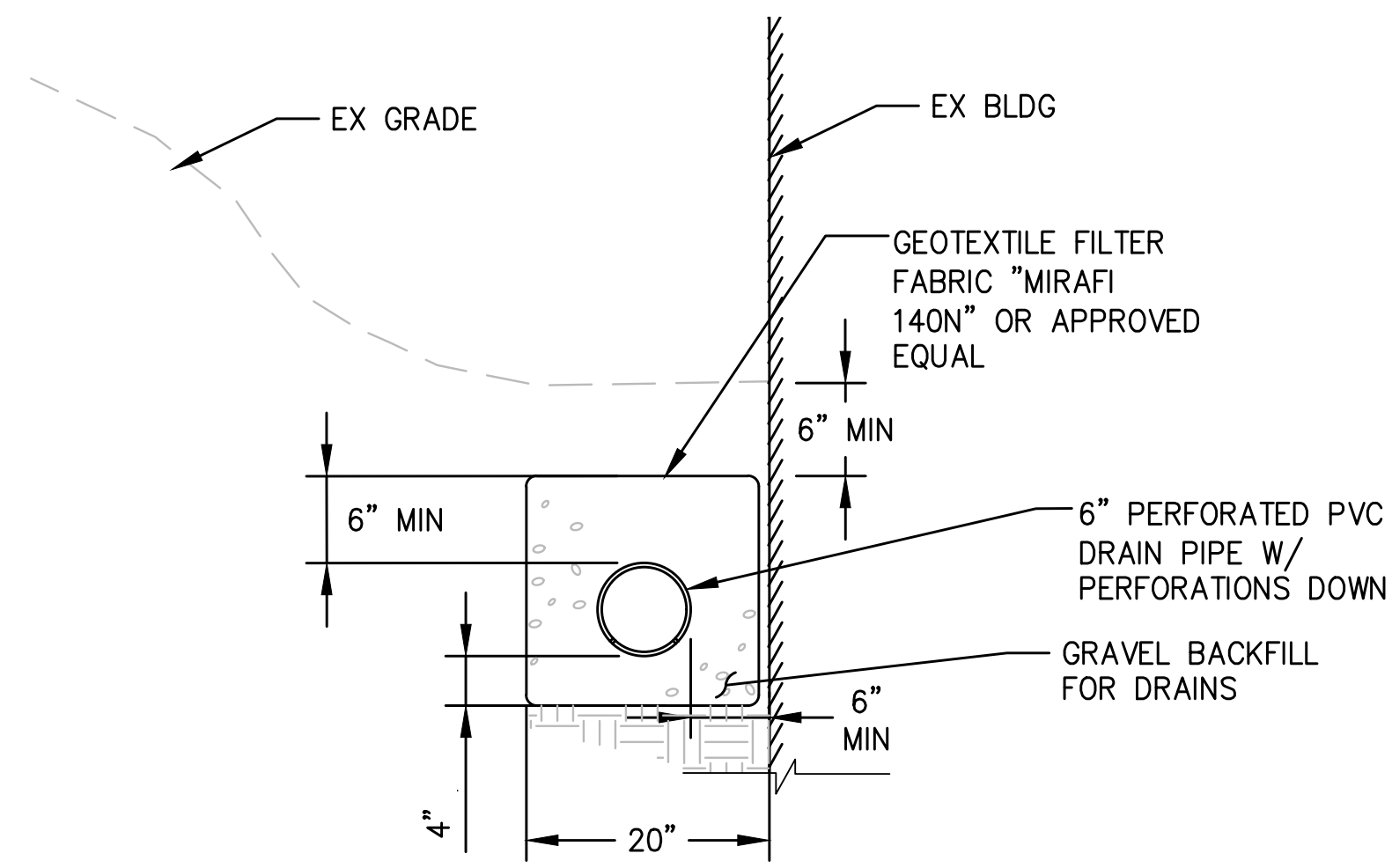


**LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS**

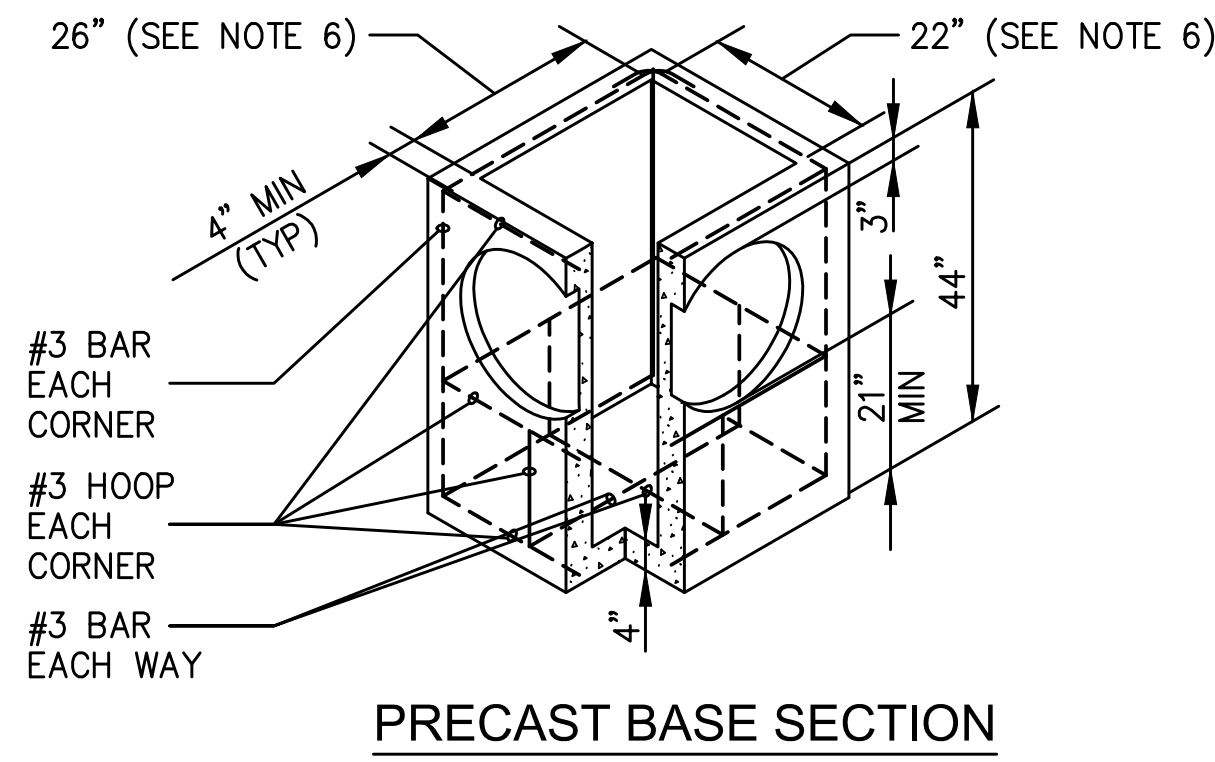
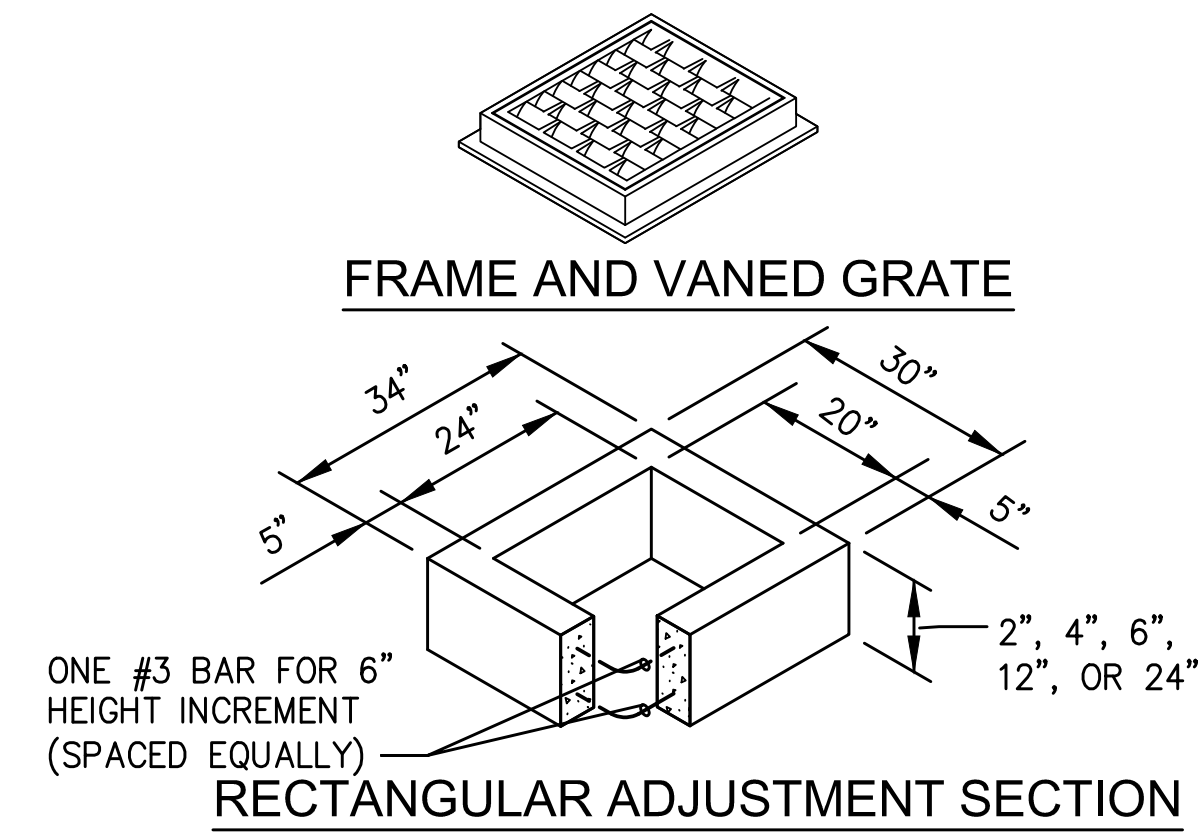
ENLARGED PLAN - STORM DRAIN

DRAWN: AS	PROJECT NO.: 2200248
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CHECKED: NAW	DATE: 10/07/2022
DRAWING NO.	C-010
SHEET NO.	08 OF 44

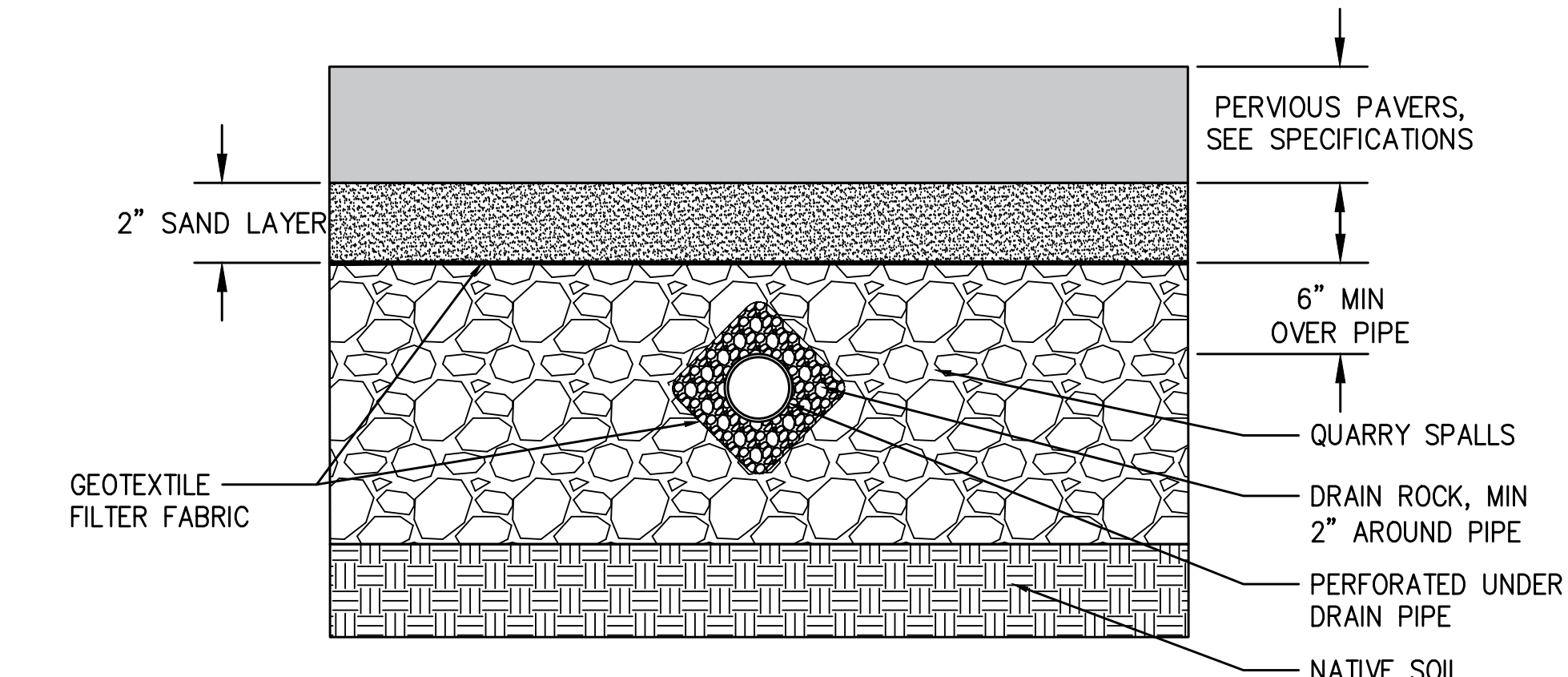
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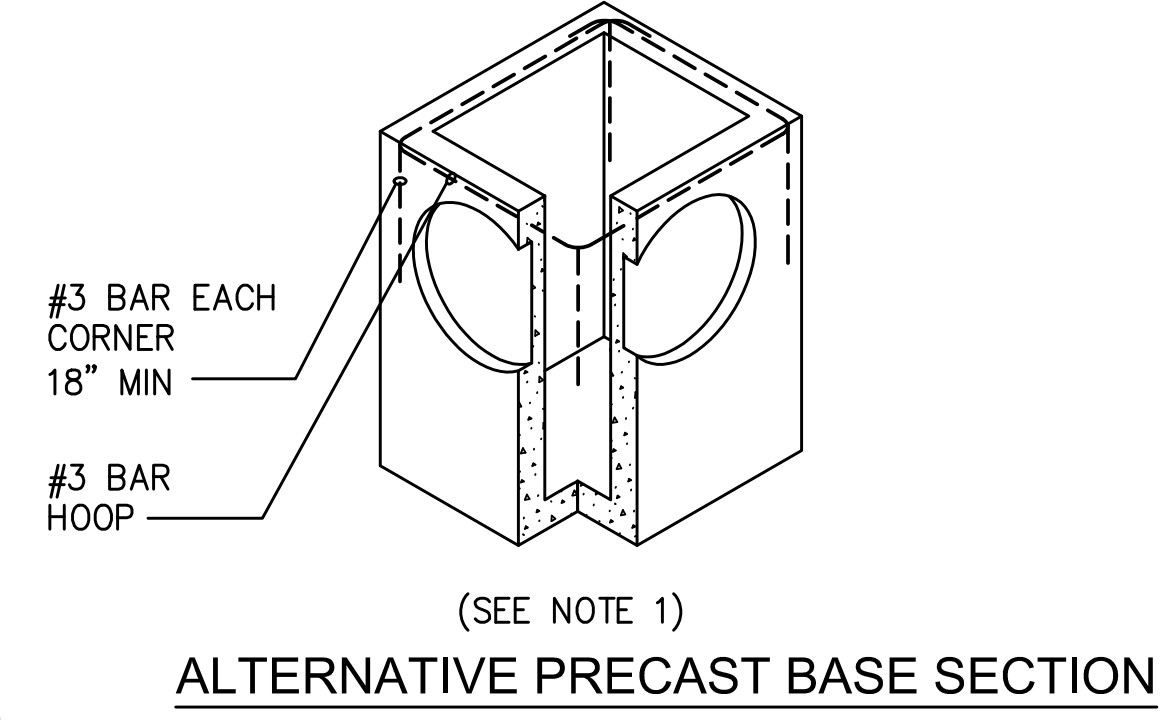
1
C-011 NTS
STORM DRAIN WALL AND FOOTING DRAIN SECTION



1
C-010 NTS
CATCH BASIN TYPE 1 DETAIL

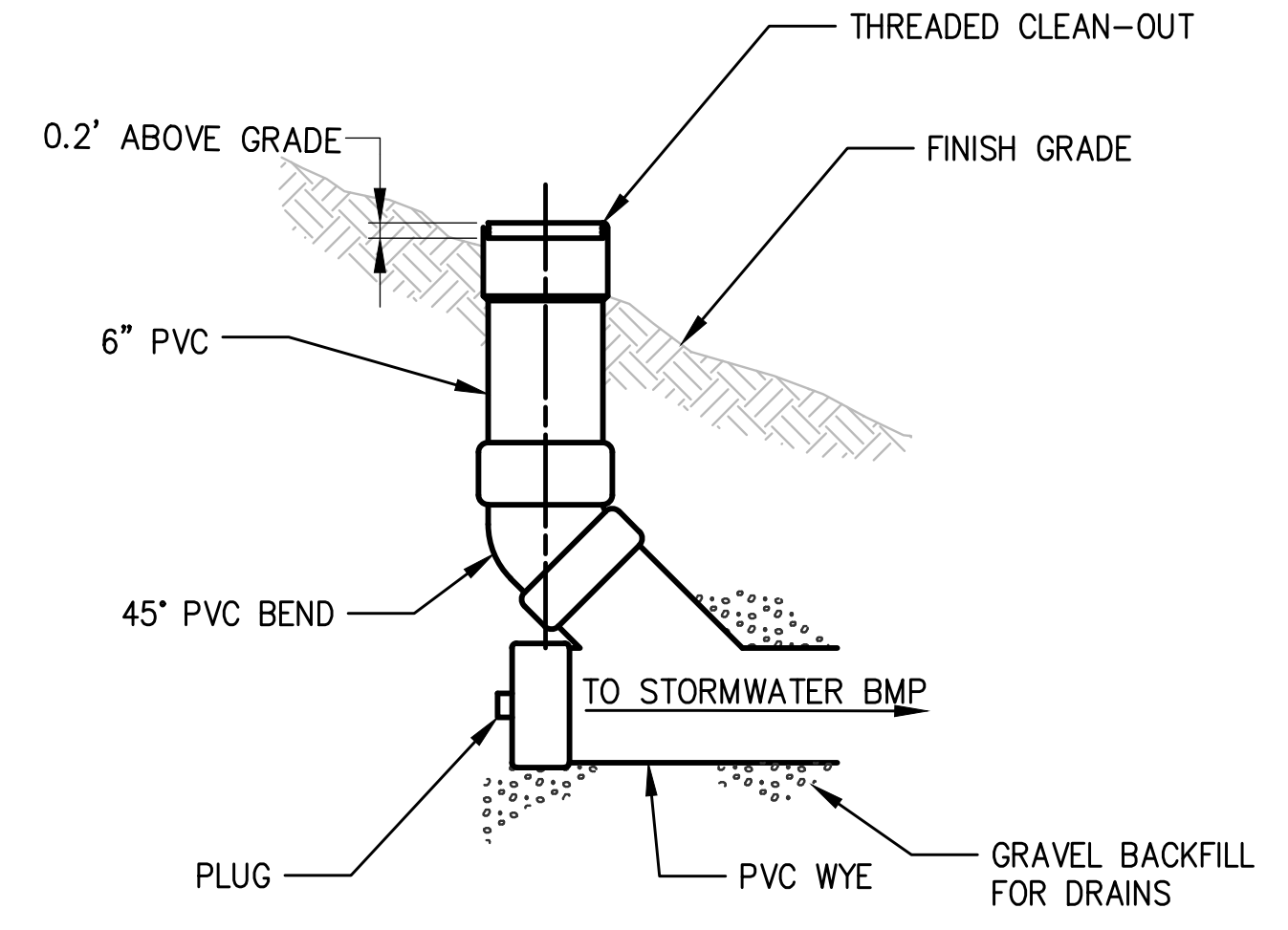


3
C-010 NTS
UNDERDRAIN DETAIL

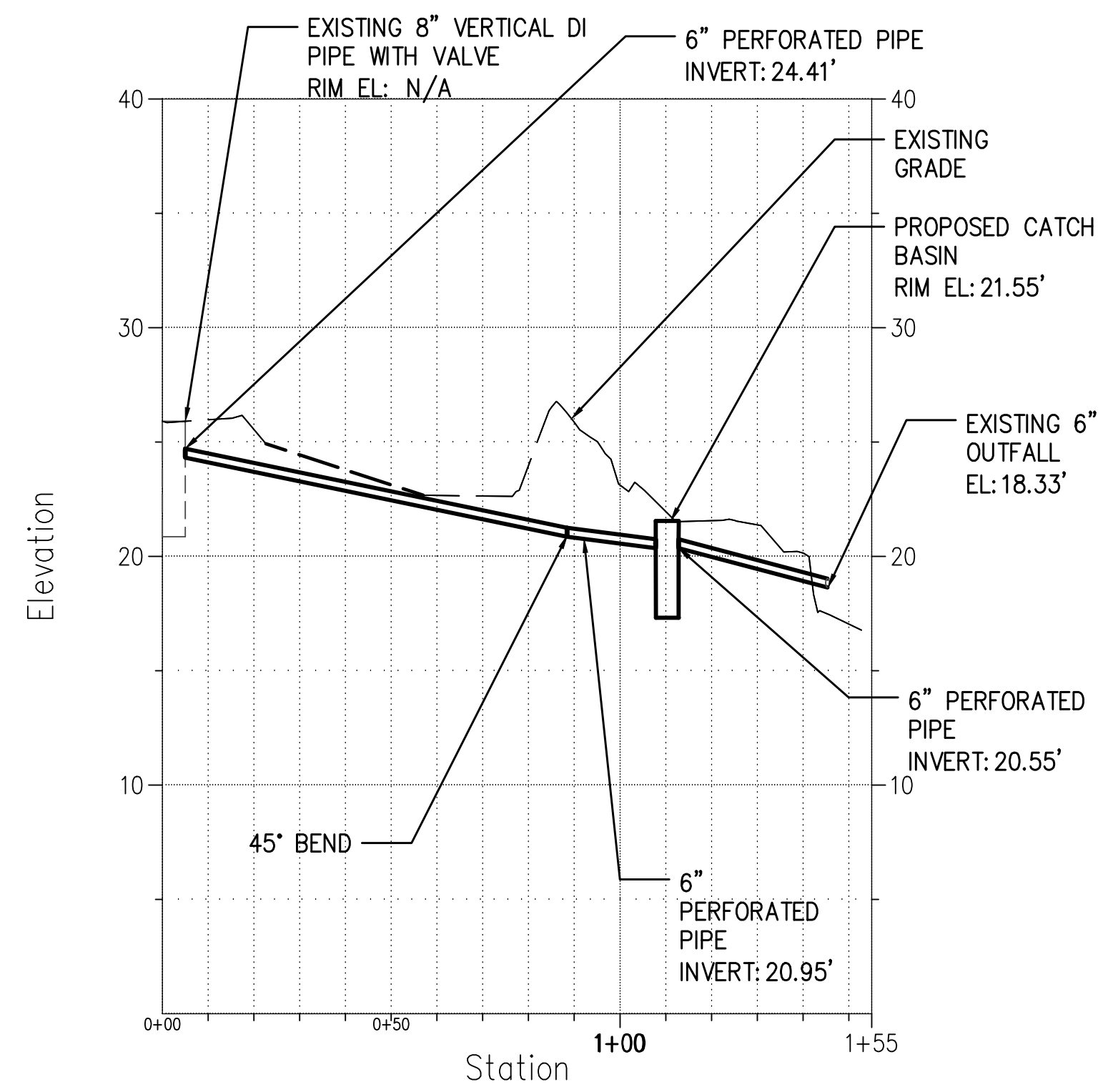


(SEE NOTE 1)

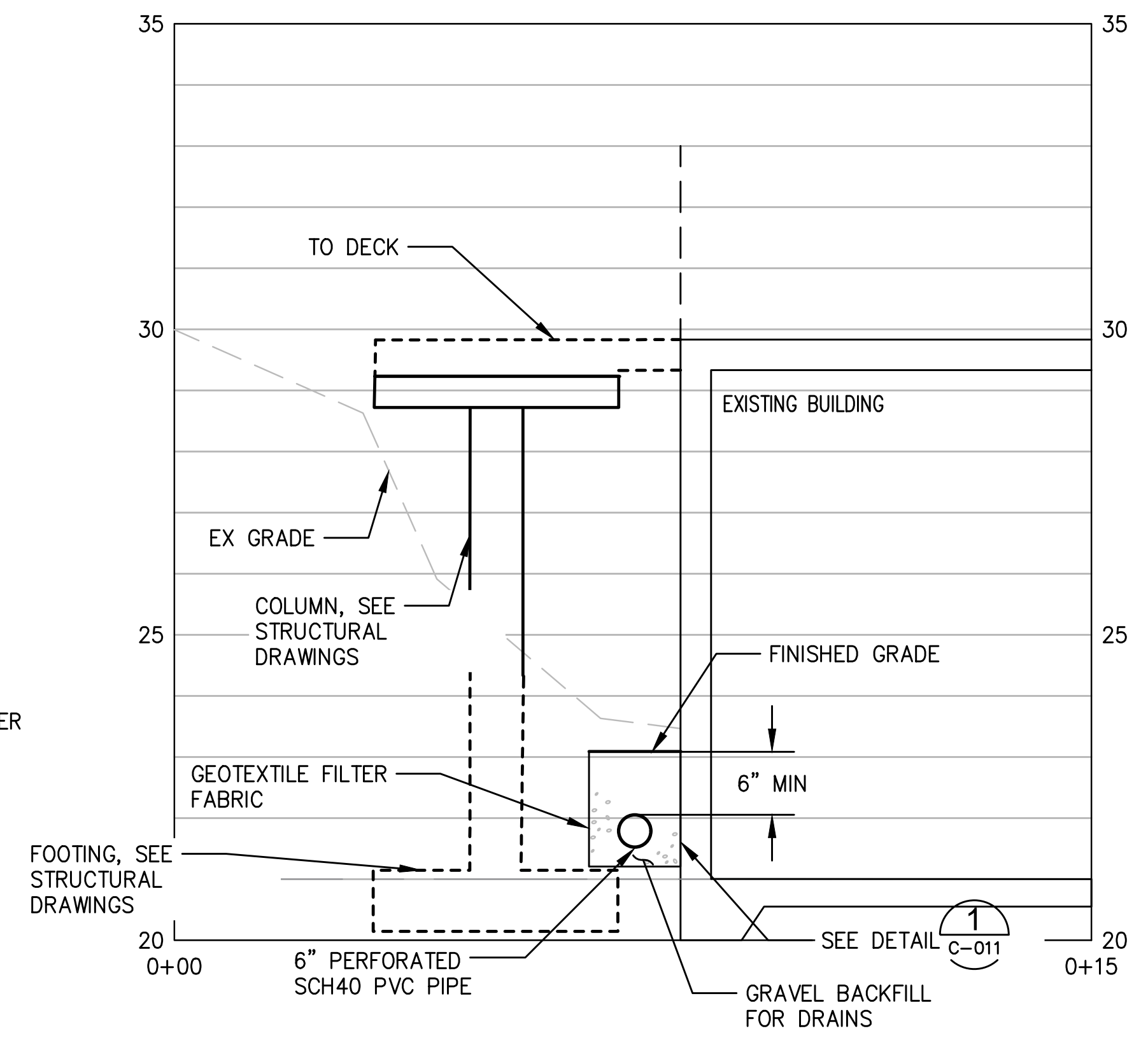
PIPE ALLOWANCES	
PIPE MATERIAL	MAXIMUM INSIDE DIAMETER
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
CPSSP * (STD.SPEC.9-05.20)	12"
SOLID WALL PVC (STD.SPEC.9-05.12(1))	15"
PROFILE WALL PVC (STD.SPEC.9-05.12(2))	15"



2
C-010 NTS
CLEANOUT DETAIL



B
C-010 NTS
STORM DRAIN PROFILE

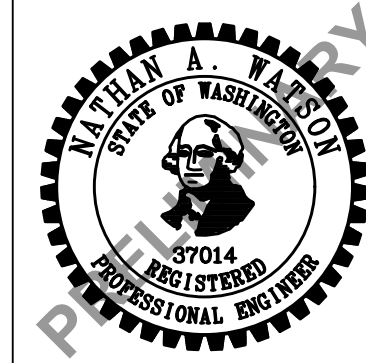


A
C-010 NTS
STORM DRAIN AND PATHWAY SECTION

CAD USER: gmachuca PLOT DATE: Oct 10, 2022-01:53pm
 PATH: \\kpf\itac\Projects\2020\20000291 Luther Burbank Park\Drawings\Current (DWG2018)\C-011 STORM DRAIN DETAILS.dwg



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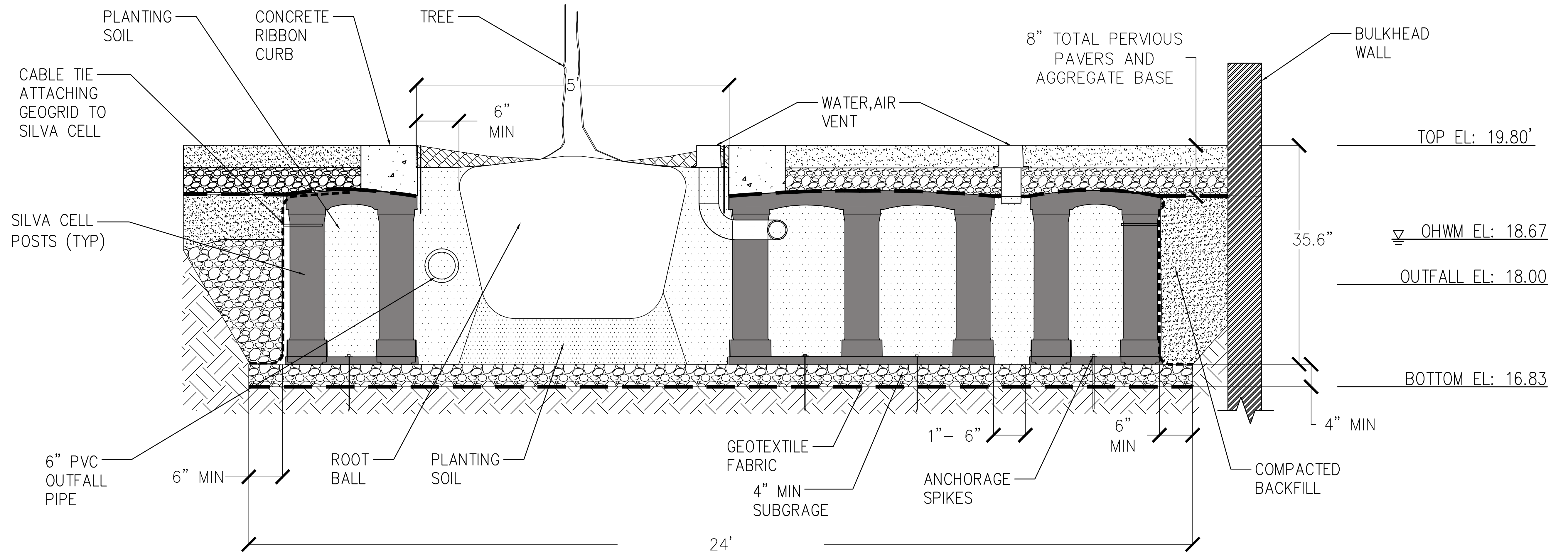


LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS

STORM DRAIN DETAILS

DRAWN: AS	PROJECT NO.: 2200248
DESIGN: SS	SCALE: AS SHOWN
CHECKED: NAW	DATE: 10/07/2022
DRAWING NO.	C-011
SHEET NO.	09 OF 44

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NOTES

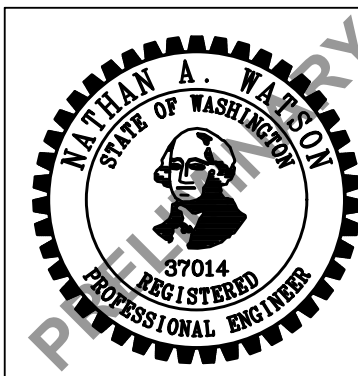
- 1. SILVA CELL MAY CONTAIN X NUMBER OF TREES.

4 SILVA CELL DETAIL
C-010 NTS

CAD USER: gmachuca PLOT DATE: Oct 10, 2022-01:53pm
 PATH: \\kpff\Projects\2020\20000291 Luther Burbank Park\Drawings\Current (DWG2018)\C-011 STORM DRAIN DETAILS.dwg



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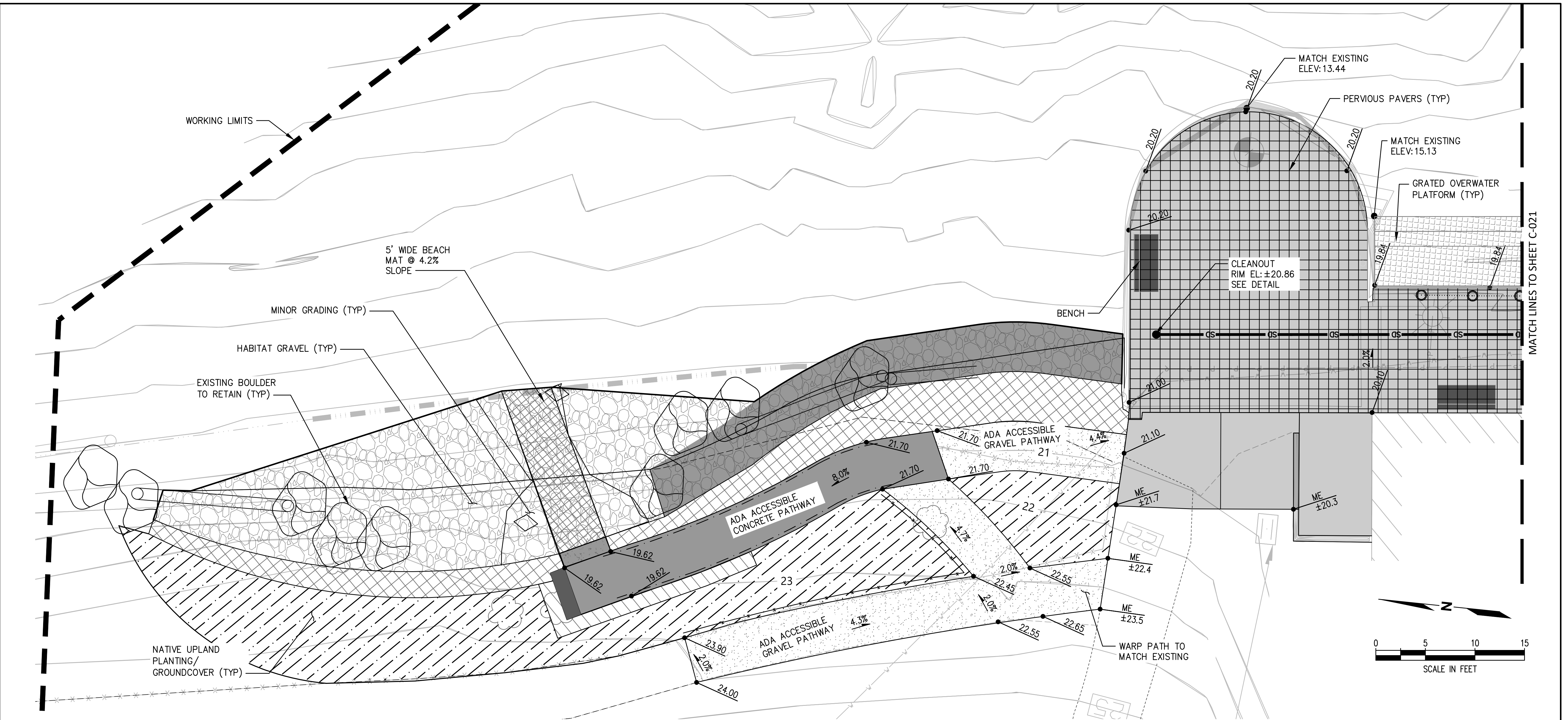
LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS

SILVA CELL DETAIL

DRAWN: AS	PROJECT NO.: 2200248
DESIGN: SS	SCALE: AS SHOWN
CHECKED: NAW	DATE: 10/07/2022
DRAWING NO.	C-012
SHEET NO.	10 OF 44

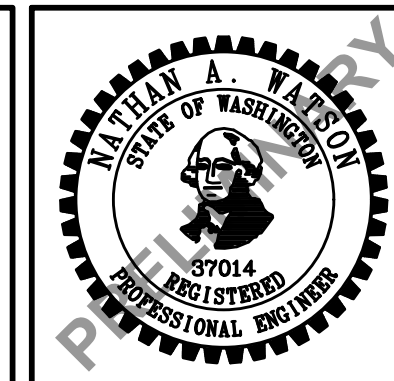
60% SUBMITTAL

CAD USER: rjuten PLOT DATE: Oct 11, 2022-04:38pm
 PATH: N:\2020\20000291 Luther Burbank Park\Drawings\Current (DMC2018)\C-020 GRADING PLAN (1-3). Updated.dwg



LEGEND

- PROJECT WORK AREA LIMIT
- PERVIOUS PAVERS
- CONCRETE SLAB ON GRADE
- GRAVEL PATHWAY
- HABITAT GRAVEL
- GRAVEL OVER COBBLE
- ROCK TERRACE
- GRATED WATER ACCESS STEPS
- EXISTING BOULDER TO RETAIN
- EXISTING LARGE WOODY DEBRIS RELOCATED
- NATIVE UPLAND PLANTING/GROUNDCOVER
- BENCH



NO.	DATE	BY	REVISION



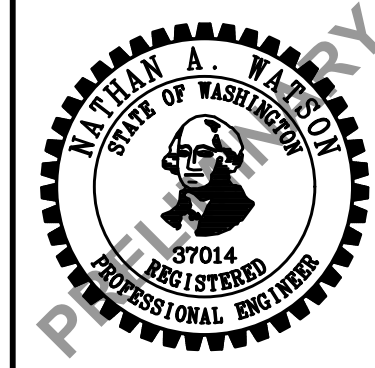
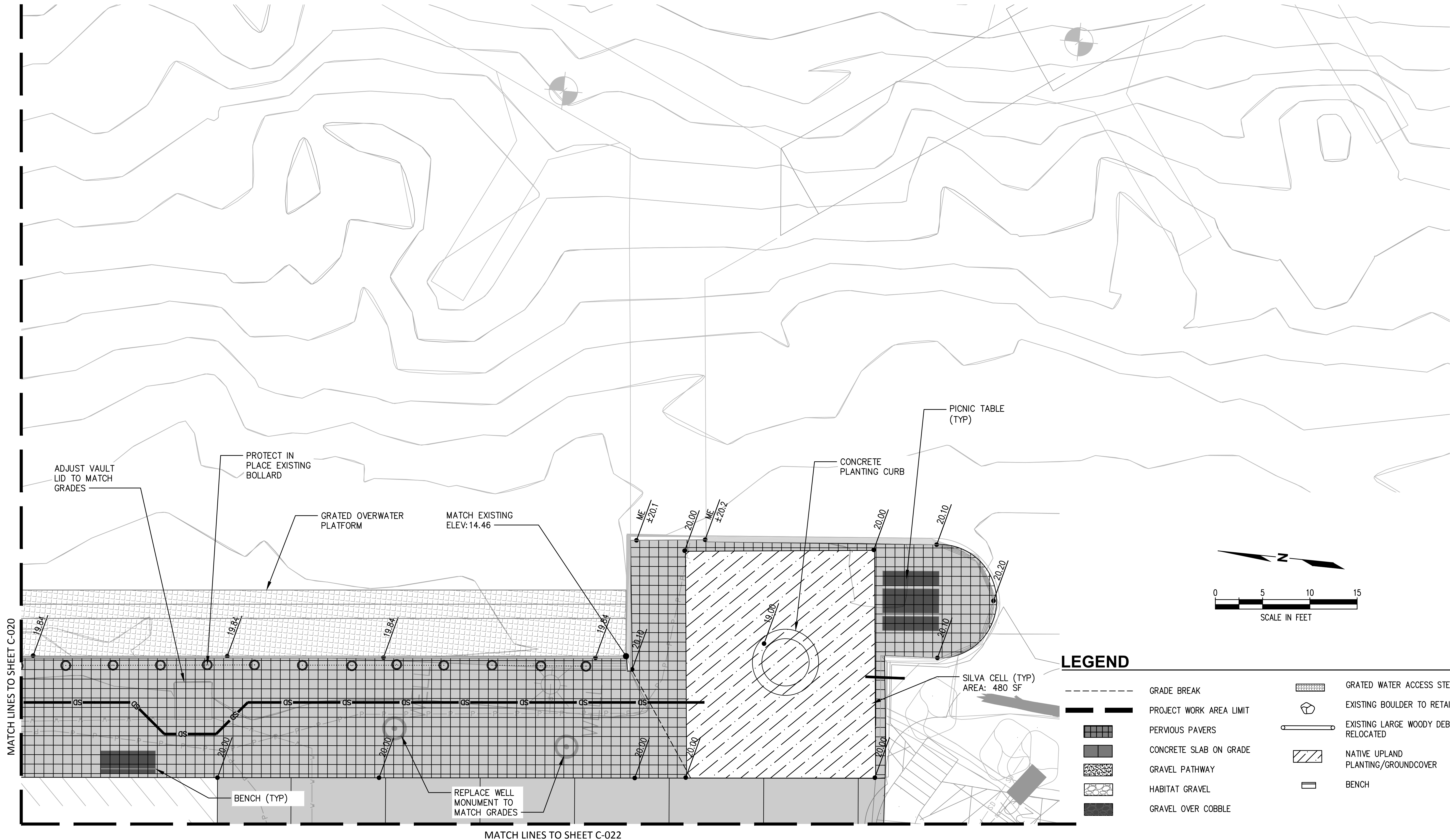
LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS

GRADING PLAN-1

DRAWN: AS	PROJECT NO.: 2200248
DESIGN: SS	SCALE: 1" = 5'
CHECKED: NAW	DATE: 10/07/2022
DRAWING NO.	C-020
SHEET NO.	11 of 44

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CAD USER: gmachuca PLOT DATE: Oct 10, 2022-01:54pm
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NO.	DATE	BY	REVISION



LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS

GRADING PLAN-2

DRAWN: AS	PROJECT NO.: 2200248
DESIGN: SS	SCALE: 1" = 5'
CHECKED: NAW	DATE: 10/07/2022
DRAWING NO.	C-021
SHEET NO.	12 OF 44

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MATCH LINES TO SHEET C-021

MATCH EXISTING TRAIL AT LIMITS

CONNECT TO ROCK TERRACE PER CONSTRUCTION MATERIAL SHEETS

IRRIGATION PUMP SYSTEM, SEE CU-010

CONSTRUCT ROCK TERRACE

GRADE ADJACENT TO PATH TO CREATE DRAINAGE DITCH SURFACE WITH TOPSOIL AND HYDROSEED

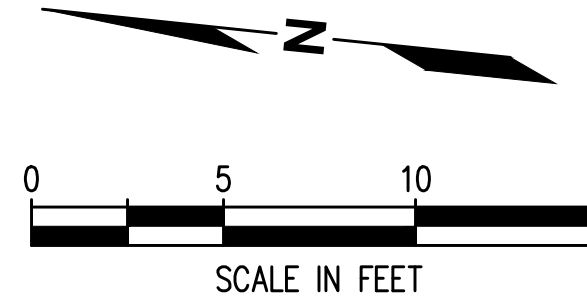
8" CULVERT BELLOW PATH, PIPE INVERT PLACED AT LOW POINT IN DITCH CHANNEL

START ROCK WALL TW 30.0

GRADE FOR NEW TRAIL TO CONNECT TO EXISTING

GRADE ADJACENT TO PATH, SURFACE WITH TOPSOIL AND HYDROSEED, SEE LANDSCAPING

GRANITE STEPS (12) 7" GRANITE RISERS (11) 12" GRANITE TREADS TS: 34.36 BS: 27.36



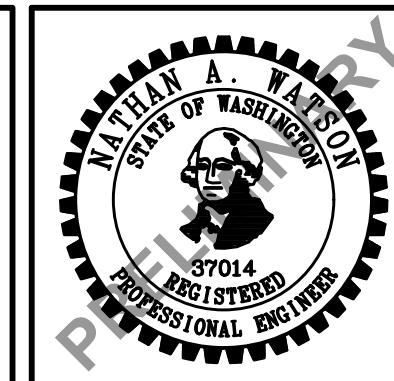
LEGEND

- GRADE BREAK
- PROJECT WORK AREA LIMIT
- [Grid Pattern] PERVIOUS PAVERS
- [Solid Grey] CONCRETE SLAB ON GRADE
- [Dotted] GRAVEL PATHWAY
- [Circular Pattern] HABITAT GRAVEL
- [Dark Grey] GRAVEL OVER COBBLE
- [Hatched] GRATED WATER ACCESS STEPS
- [Boulder] EXISTING BOULDER TO RETAIN
- [Line with X] EXISTING LARGE WOODY DEBRIS RELOCATED
- [Diagonal Lines] NATIVE UPLAND PLANTING/GROUND COVER
- [Cross-hatched] ROCK TERRACE

CAD USER: gmachuca PLOT DATE: Oct 10, 2022-01:54pm PATH: \\kpf\proj\Projects\2020\20000291 Luther Burbank Park\Drawings\Current (DWG2018)\C-020 GRADING PLAN (1-3) Updated.dwg



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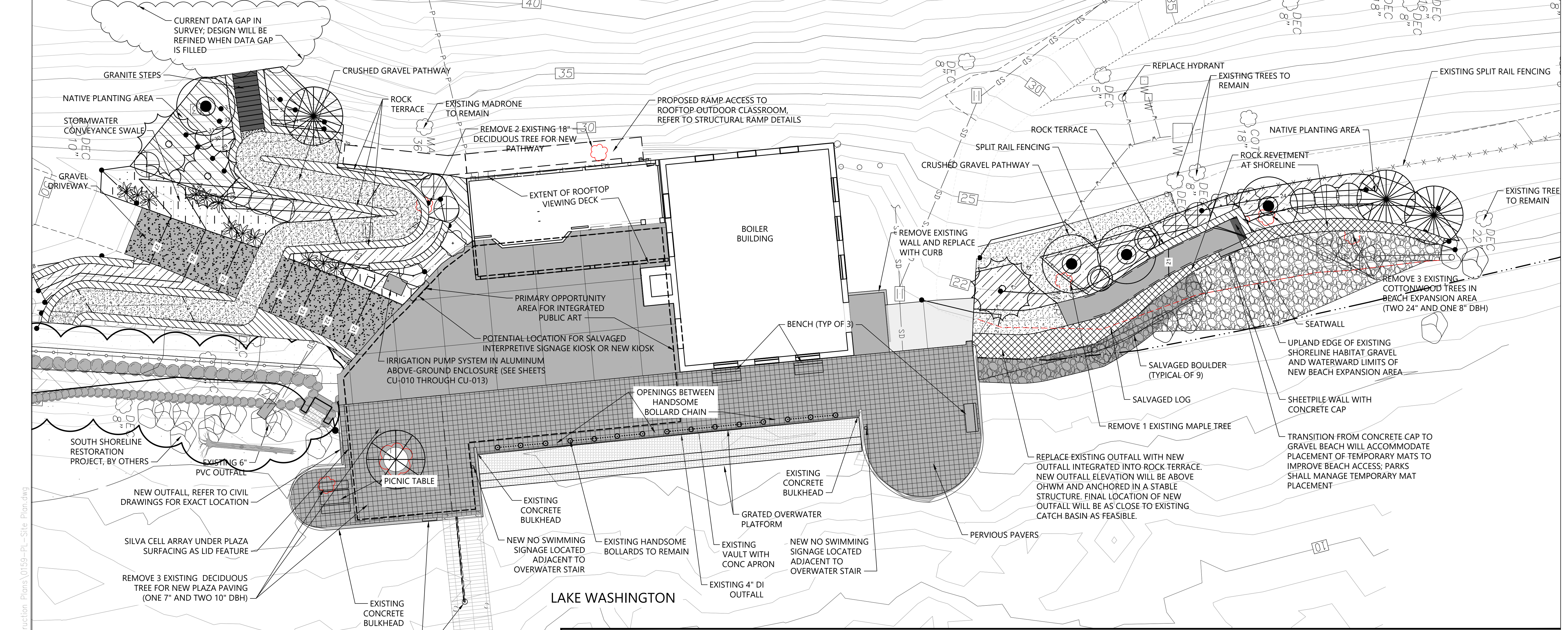


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WATERFRONT IMPROVEMENTS

GRADING PLAN-3

DRAWN: AS	PROJECT NO.: 2200248
DESIGN: SS	SCALE: 1" = 5'
CHECKED: NAW	DATE: 10/07/2022
DRAWING NO.	C-022
SHEET NO.	13 OF 44

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LAKE WASHINGTON

LEGEND:

EXISTING CONTOUR	EXISTING BOLLARD AND CHAIN TO REMAIN	SALVAGED LOG
EXISTING TREE TO RETAIN	HABITAT GRAVEL	SALVAGED BOULDER
EXISTING TREE TO REMOVE	GRAVEL OVER COBBLE	PROPOSED TREE
EXISTING UPLAND EDGE OF SHORELINE HABITAT GRAVEL	ROCK TERRACE	PROPOSED SHRUBS/GROUNDCOVERS
EXISTING ORDINARY HIGH WATER LINE	ROCK REVETMENT	RIPARIAN SHRUBS
EXISTING BOULDER TO RETAIN	FRP GRATING	NATIVE UPLAND PLANTING/GROUNDCOVER
PROPOSED CONTOUR	HANDRAIL	STORMWATER CONVEYANCE PLANTING
PERVIOUS PAVERS	SPLIT RAIL FENCING	
CONCRETE SLAB ON GRADE WITH SAWCUT JOINT SCORING	PICNIC TABLE	
CRUSHED GRAVEL PATHWAY	BENCH	

NOTES:

- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83 (2011), U.S. SURVEY FEET
- VERTICAL DATUM: NAVD88

SCALE IN FEET
0 10 20

NORTH

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LUTHER BURBANK PARK WATERFRONT IMPROVEMENTS



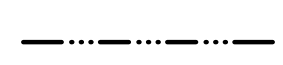


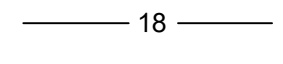


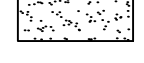
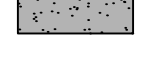
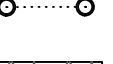


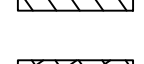
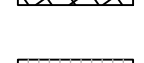




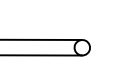

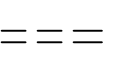
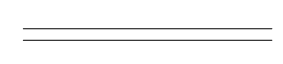

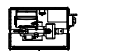

COMPOSITE SITE PLAN

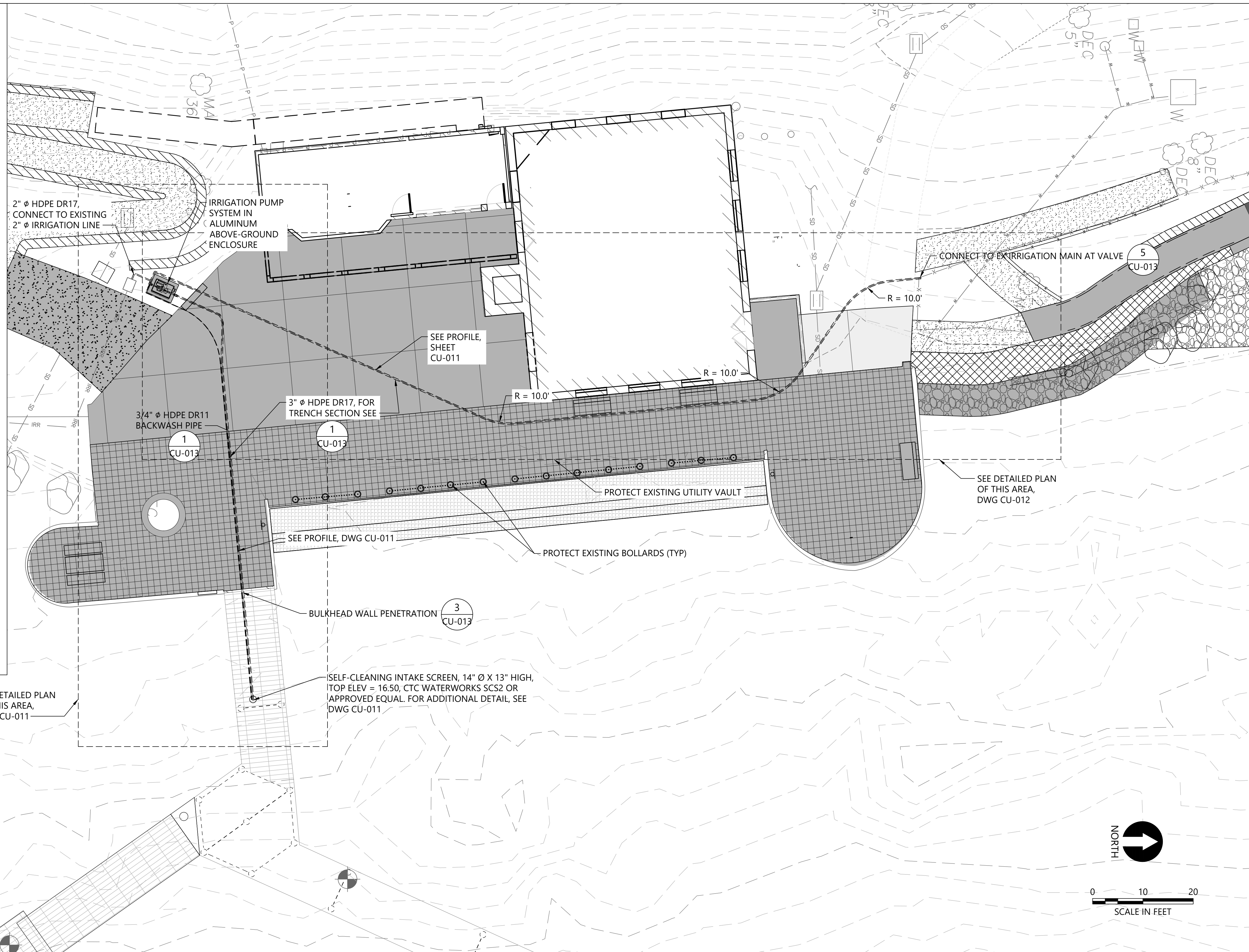
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DESIGN: AS	SCALE: AS NOTED
CHECKED: AS/DR	DATE: 10/07/2022
DRAWING NO.	G-021
SHEET NO. 14	OF 44

CAD USER: chawett PLOT DATE: Oct 11, 2022-02:50pm
PATH: K:\Projects\0159-KPFF Consulting Engineers\Mercer Island\Construction Plans\0159-PL-Site Plan.dwg

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LEGEND:

-  EXISTING CONTOUR
-  EXISTING TREE TO RETAIN
-  EXISTING ORDINARY HIGH WATER LINE
-  EXISTING IRRIGATION LINE
-  EXISTING BOULDER TO RETAIN
-  PROPOSED CONTOUR
-  PERVIOUS PAVERS
-  CONCRETE SLAB ON GRADE WITH SAWCUT JOINT SCORING
-  CRUSHED GRAVEL PATHWAY
-  GRAVEL DRIVEWAY PAVING
-  EXISTING BOLLARD AND CHAIN TO RETAIN
-  HABITAT GRAVEL
-  GRAVEL OVER COBBLE
-  ROCK TERRACE
-  ROCK REVETMENT
-  FRP GRATING
-  HANDRAIL
-  SPLIT RAIL FENCING
-  PICNIC TABLE
-  BENCH
-  SALVAGED LOG
-  SALVAGED BOULDER
-  PROPOSED PIPE (BURIED)
-  PROPOSED PIPE (ABOVE GROUND)
-  PROPOSED INTAKE SCREEN
-  PROPOSED PUMP SYSTEM



NOTES:

1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83), U.S. SURVEY FEET
2. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
3. SURVEY BASE MAP FROM PACIFIC GEOMATIC SERVICES, DATED OCTOBER 28, 2019.

CAD USER: chawett PLOT DATE: Oct 11, 2022-02:50pm
 PATH: K:\Projects\0159-KPFF Consulting Engineers\Mercer Island Luther Burbank Dock Repair\Construction Plans\0159-PL-Intake-Overall-Site-Plan.dwg



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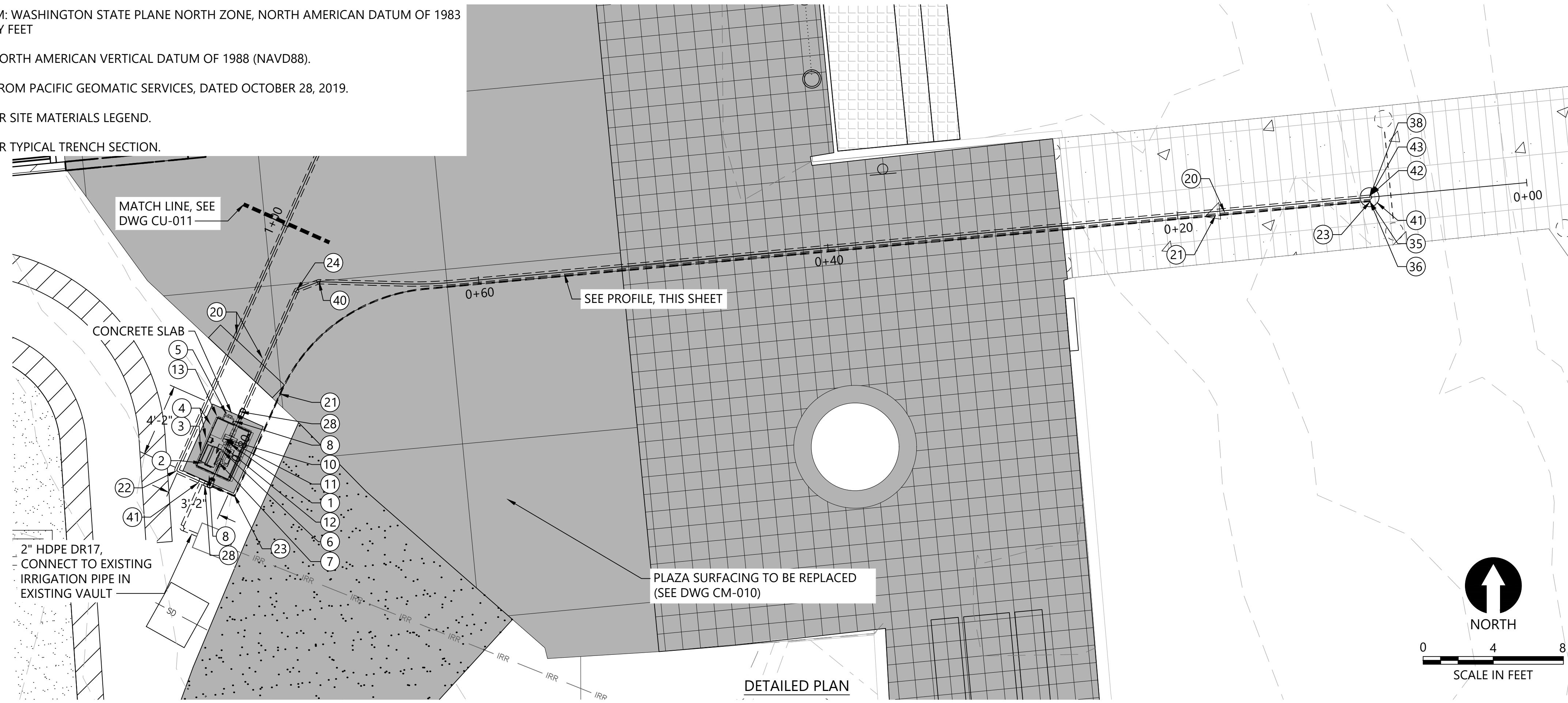
INTAKE AND PUMPING FACILITIES -
 OVERALL PLAN

DRAWN: CW/RF	PROJECT NO.: 2200248
DESIGN: AS	SCALE: AS NOTED
CHECKED: AS/DR	DATE: 10/07/2022
DRAWING NO.	CU-010
SHEET NO. 15	OF 44

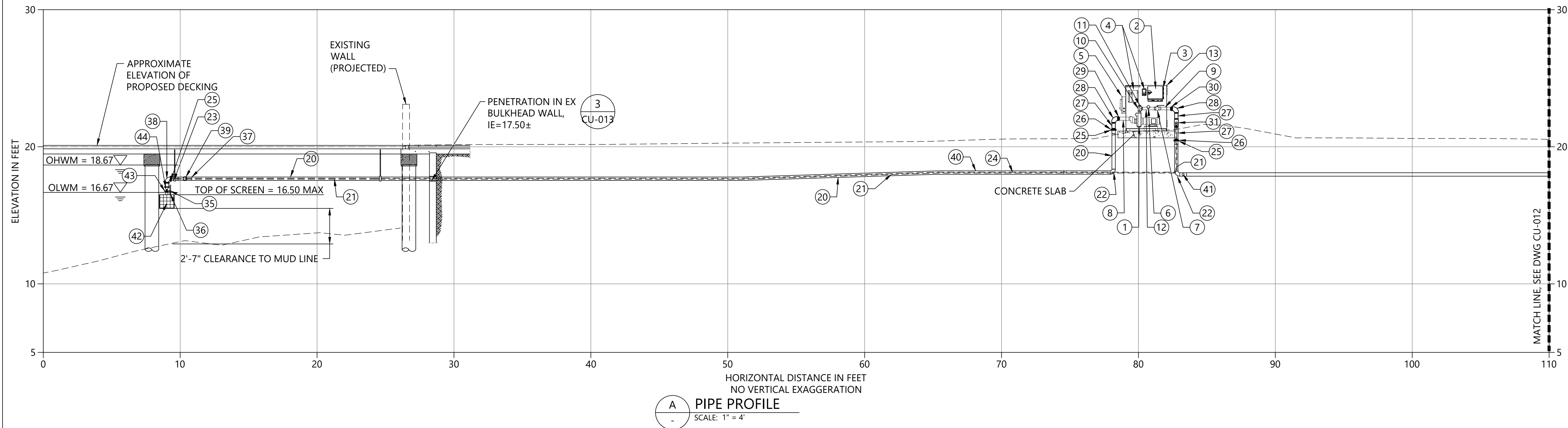
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NOTES:

- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83), U.S. SURVEY FEET
- VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- SURVEY BASE MAP FROM PACIFIC GEOMATIC SERVICES, DATED OCTOBER 28, 2019.
- SEE DWG CU-010 FOR SITE MATERIALS LEGEND.
- SEE DWG CU-013 FOR TYPICAL TRENCH SECTION.



EQUIPMENT LEGEND	
PACKAGED PUMP SYSTEM (RAINBIRD CLPSVAAS OR APPROVED EQUAL):	
NUMBER	DESCRIPTION
1	2" SELF-PRIMING, END-SUCTION, CENTRIFUGAL PUMP W/ VFD, 50 GPM @ 150 FEET TDH, ~ 5 HP*
2	IRRIGATION SYSTEM CONTROLLER
3	MOUNTING BRACKET FOR IRRIGATION SYSTEM CONTROLLER
4	208V 1-PHASE POWER DISCONNECT, PUMP START RELAY
5	MANUAL SWITCH (PROGRAMMABLE CONTROLLER OVERRIDE)
6	LIQUID-FILLED PRESSURE GAUGE, SST, DISCHARGE
7	2" ISOLATION VALVE
8	2-1/2" THREADED PIPE NIPPLE, SST, MNPT
9	2" THREADED NIPPLE, SST, MNPT
10	2" THREADED TEE, SST, FNPT
11	2" THREADED PLUG, SST, MNPT
12	2" THREADED NIPPLE, SST, MNPT, WITH WELDED OUTLET FOR PRESSURE GAGE AND AIR RELEASE VALVE
13	MARINE GRADE ALUMINUM DECK AND ENCLOSURE
SUCTION AND DISCHARGE PIPE AND FITTINGS:	
NUMBER	DESCRIPTION
20	3" HDPE PIPE, DR 17, BUTT-FUSED
21	3/4" HDPE PIPE, DR 11, BUTT-FUSED (BACKWASH LINE)
22	3" HDPE 90° BEND, DR 17, BUTT-FUSED
23	3/4" HDPE 90° BEND, DR11, BUTT-FUSED
24	3" HDPE 45° BEND, DR 17, BUTT-FUSED
25	3" HDPE FLANGE ADAPTER W/ DI BACKING RING
26	3" COMPANION FLANGE, SST, FNPT X FL
27	3" THREADED NIPPLE, SST, MNPT
28	3" 90° BEND, SST, FNPT
29	3" X 2-1/2" HEX BUSHING, SST, MNPT X FNPT
30	3" X 2" HEX BUSHING, SST, MNPT X FNPT
31	3" X 1" TEE, SST, FNPT
32	1" THREADED NIPPLE, SST, MNPT
33	1" 90° BEND, SST, FNPT
34	1" X 3/4" COUPLING, SST, MNPT X PACK JOINT
35	3/4" COUPLING, SST, MNPT X PACK JOINT
36	3/4" UNION, FNPT X FNPT
37	3" HDPE DR 17 TE, BUTT FUSED
38	3" 90° BEND, SST, FL X FL
39	3" HDPE DR 11, FULL PORT, BALL VALVE, BUTT FUSED, WITH 2" OPERATING NUT
40	3" HDPE 22.5° BEND, DR17, BUTT-FUSED
41	3" HDPE 22.5° BEND, DR17, BUTT-FUSED
FISH SCREEN AND ASSOCIATED FITTINGS:	
NUMBER	DESCRIPTION
42	CTC WATERWORKS SCS2, 100 GPM MAX, SELF-CLEANING INTAKE SCREEN, OR APPROVED EQUAL
43	3" COMPANION FL, SST
44	3" DOUBLE DOOR CHECK VALVE, WAFER STYLE



A PIPE PROFILE
SCALE: 1" = 4'

CAD USER: chawett PLOT DATE: Oct 11, 2022-02:50pm
PATH: K:\Projects\0159-KPFF Consulting Engineers\Mercer Island Luther Burbank Park\Intake-Overall-Site-Plan.dwg

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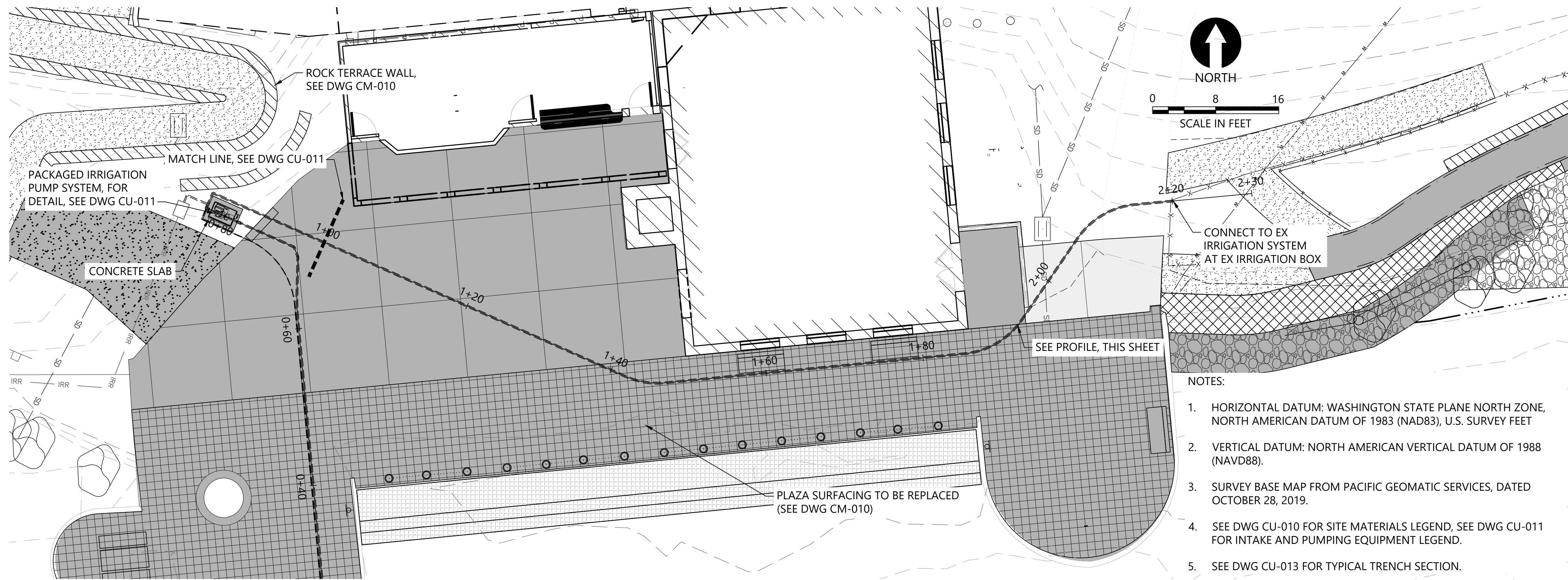


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WATERFRONT IMPROVEMENTS

INTAKE AND PUMPING FACILITIES -
EQUIPMENT PLAN AND SECTIONS (1 OF 2)

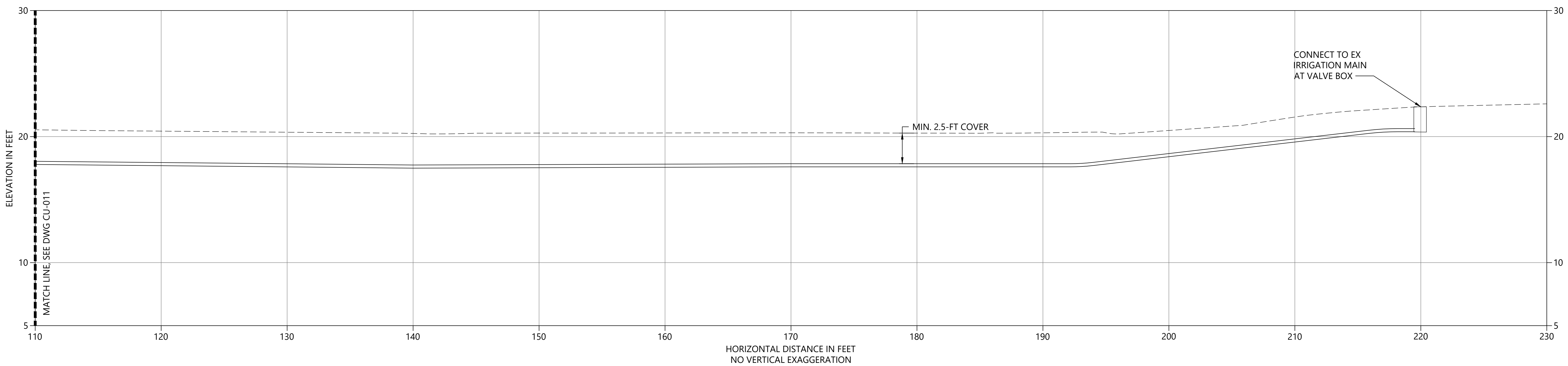
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DESIGN: AS	SCALE: AS NOTED
CHECKED: AS/DR	DATE: 10/07/2022
DRAWING NO. CU-011	
SHEET NO. 16	OF 44

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- NOTES:
1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83), U.S. SURVEY FEET
 2. VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
 3. SURVEY BASE MAP FROM PACIFIC GEOMATIC SERVICES, DATED OCTOBER 28, 2019.
 4. SEE DWG CU-010 FOR SITE MATERIALS LEGEND, SEE DWG CU-011 FOR INTAKE AND PUMPING EQUIPMENT LEGEND.
 5. SEE DWG CU-013 FOR TYPICAL TRENCH SECTION.

DETAILED PLAN



A PIPE PROFILE
SCALE: 1" = 4'

CAD USER: chawett PLOT DATE: Oct 11, 2022-02:50pm
PATH: K:\Projects\0159-KPFF Consulting Engineers\Mercer Island Luther Burbank Dock Repair\Construction Plans\0159-PL-Intake-Overall-Site-Plan.dwg

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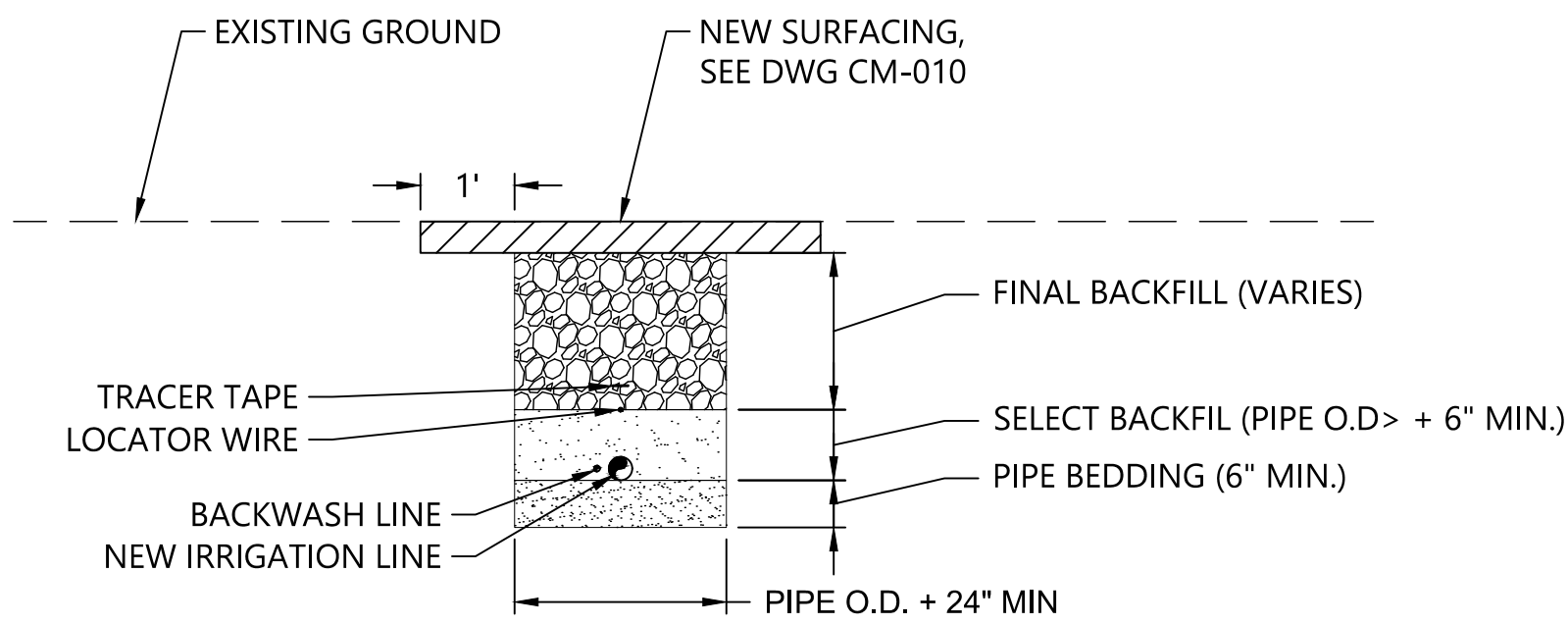
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WATERFRONT IMPROVEMENTS

INTAKE AND PUMPING FACILITIES -
EQUIPMENT PLAN AND SECTIONS (2 OF 2)

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DESIGN: AS	SCALE: AS NOTED
CHECKED: AS/DR	DATE: 10/07/2022
DRAWING NO. CU-012	
SHEET NO. 17	OF 44

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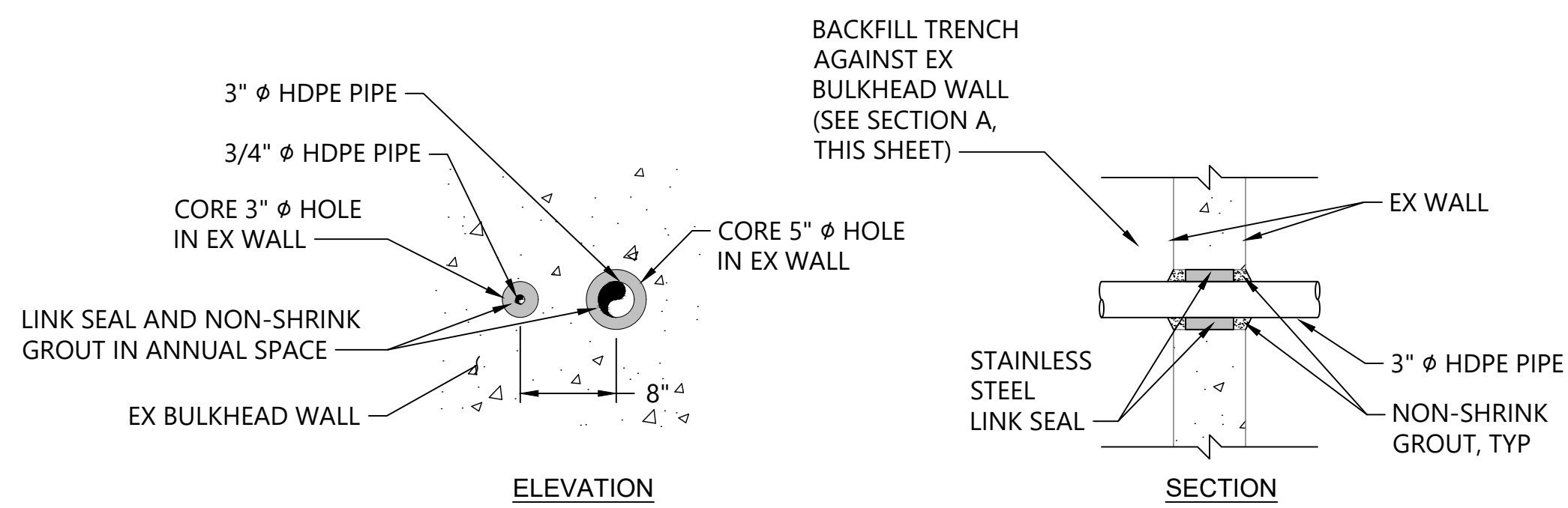
1 TYPICAL TRENCH SECTION
 ### SCALE: NTS

- TYPICAL TRENCH SECTION NOTES:
1. PIPE BEDDING - PIPE BEDDING SHALL BE AT LEAST 6 INCHES DEEP AND SHALL MEET THE REQUIREMENTS OF SECTION 9-03.12(3) OF THE STANDARD SPECIFICATIONS. IF EXCAVATED TRENCH BOTTOM IS UNSTABLE OR NOT SUITABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND BACKFILL WITH PIPE BEDDING. PLACE PIPE BEDDING IN MAXIMUM 6-INCH LIFTS AND COMPACT TO 90% OF MAXIMUM DRY DENSITY.
 2. SELECT BACKFILL - SELECT FILL SHALL ALSO MEET THE REQUIREMENTS OF SECTION 9-03.12(3) OF THE STANDARD SPECIFICATIONS. PLACE SELECT BACKFILL IN 6-INCH LIFTS TO A MINIMUM DEPTH OF 6 INCHES ABOVE THE CROWN OF THE PIPE AND COMPACT TO 90% OF MAXIMUM DRY DENSITY.
 3. FINAL BACKFILL - UNDER PATHWAYS AND OTHER HARD SURFACES, THE CONTRACTOR SHALL BACKFILL THE REMAINING PORTION OF THE TRENCH TO THE LINES AND GRADES SHOW WITH 5/8-INCH MINUS CRUSHED ROCK SURFACING COMPACTED TO 95% OF MAXIMUM DRY DENSITY.
 4. TRACER TAPE AND LOCATOR WIRE - TRACER TAPE SHALL MEET THE REQUIREMENTS OF SECTION 9-15.18 OF THE STANDARD SPECIFICATIONS. LOCATOR WIRE SHALL BE 12 GA. COPPER MULTI-STRAND RHW, CERTIFIED FOR DIRECT BURIAL. THE TRACER TAPE AND LOCATOR WIRE SHALL BE INSTALLED ALONG THE ENTIRE PROFILE OF THE PIPE.
 5. DRAIN ROCK - WHERE THE PIPE IS INSTALLED ACROSS OR UNDER DRAIN ROCK PLACED AS PART OF AN INFILTRATION TRENCH ADJACENT TO THE BOILER BUILDING, THE CONTRACTOR SHALL BACKFILL THE TRENCH WITH DRAIN ROCK AND OTHER MATERIALS TO MATCH THE MATERIALS EXCAVATED TO PLACE THE IRRIGATION PIPE.

PLACEHOLDER - DETAIL TO BE ADDED AT 90% DESIGN

2 INTAKE SCREEN DETAIL
 ### SCALE: NTS

PLACEHOLDER - DETAIL TO BE ADDED AT 90% DESIGN



3 BULKHEAD WALL PENETRATION DETAIL
 ### SCALE: 1" = 1'

4 DRAIN VALVE DETAIL
 ### SCALE: NTS

PLACEHOLDER - DETAIL TO BE ADDED AT 90% DESIGN

5 EXISTING IRRIGATION MAIN CONNECTION DETAIL
 ### SCALE: NTS



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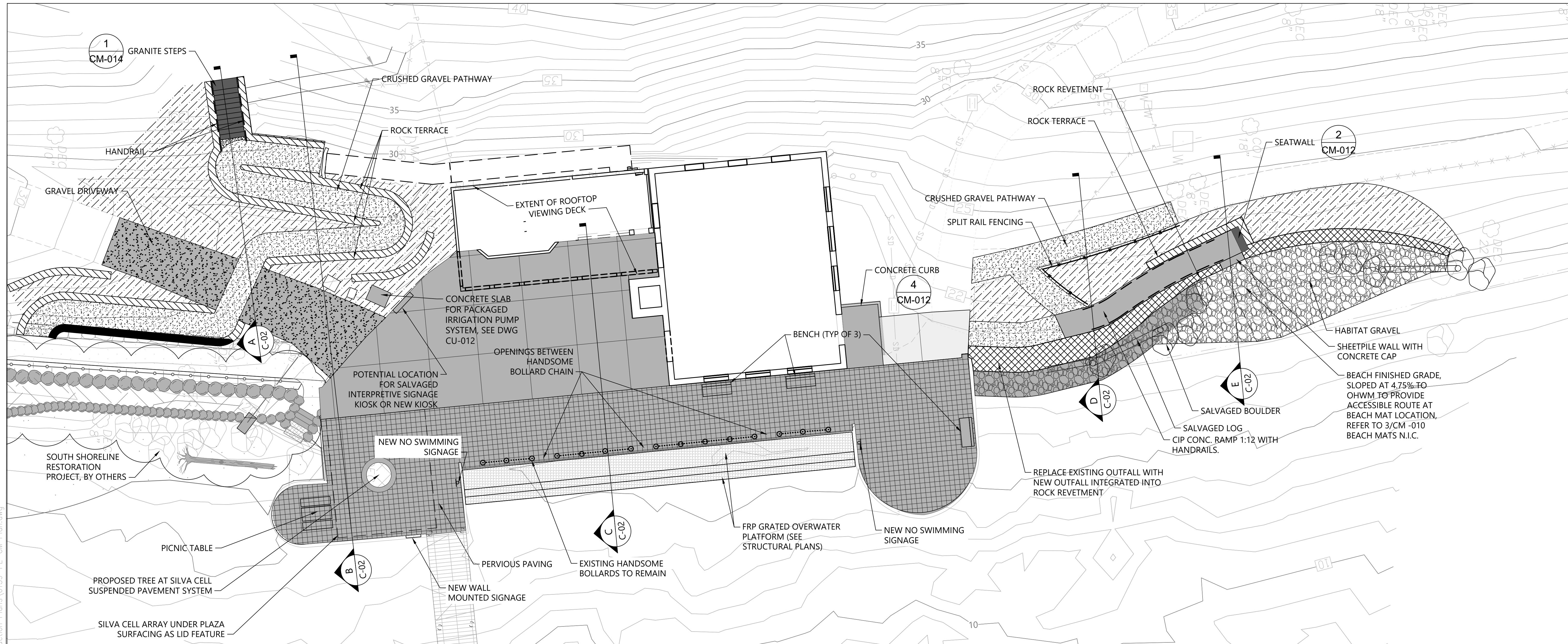
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INTAKE AND PUMPING FACILITIES -
 DETAILS

DRAWN: CW/RF	PROJECT NO.: 2200248
DESIGN: AS	SCALE: AS NOTED
CHECKED: AS/DR	DATE: 10/07/2022
DRAWING NO. CU-013	
SHEET NO. 18	OF 44

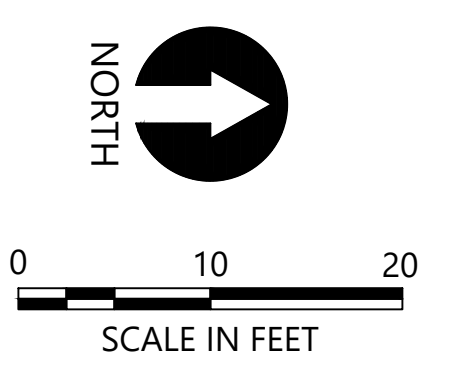
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 PATH: K:\Projects\0159-KPFF Consulting Engineers\Mercer Island Luther Burbank Dock Repair\Construction Plans\0159-PL-CM-Plan.dwg



LEGEND:

EXISTING CONTOUR	TOPSOIL
EXISTING TREE TO RETAIN	ROCK TERRACE ⁶ CM-013
EXISTING BOULDER TO RETAIN	ROCK REVETMENT ³ CM-014
PERVIOUS PAVERS	FRP GRATING
CONCRETE SLAB ON GRADE WITH SAWCUT JOINT SCORING ¹ CM-012	HANDRAIL ² CM-014
CRUSHED GRAVEL PATHWAY ² CM-013	SPLIT RAIL FENCING ¹ CM-015
GRAVEL DRIVEWAY PAVING ¹ CM-013	PICNIC TABLE ² CM-015
EXISTING BOLLARD AND CHAIN TO REMAIN	BENCH ³ CM-015
HABITAT GRAVEL ⁴ CM-013	SALVAGED LOG ³ CM-013
GRAVEL OVER COBBLE ⁴ CM-013	SALVAGED BOULDER ⁵ CM-013



- NOTES:**
- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83 (2011), U.S. SURVEY FEET
 - VERTICAL DATUM: NAVD88

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ANCHOR QEA

NO.	DATE	BY	REVISION



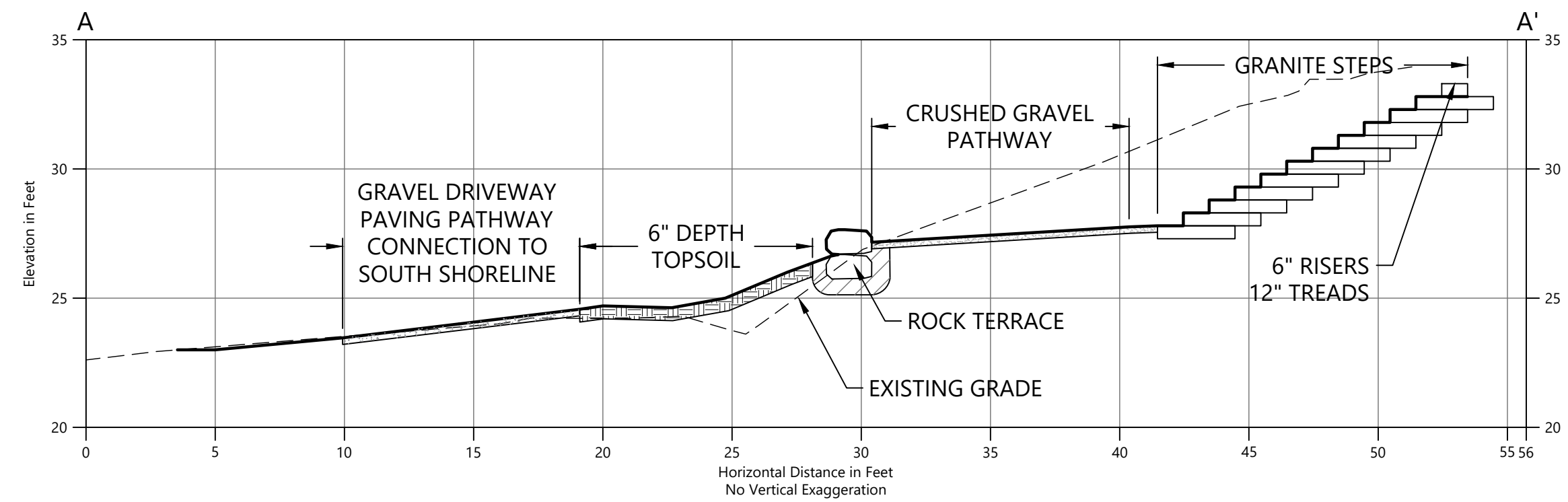
**LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS**

MATERIALS PLAN

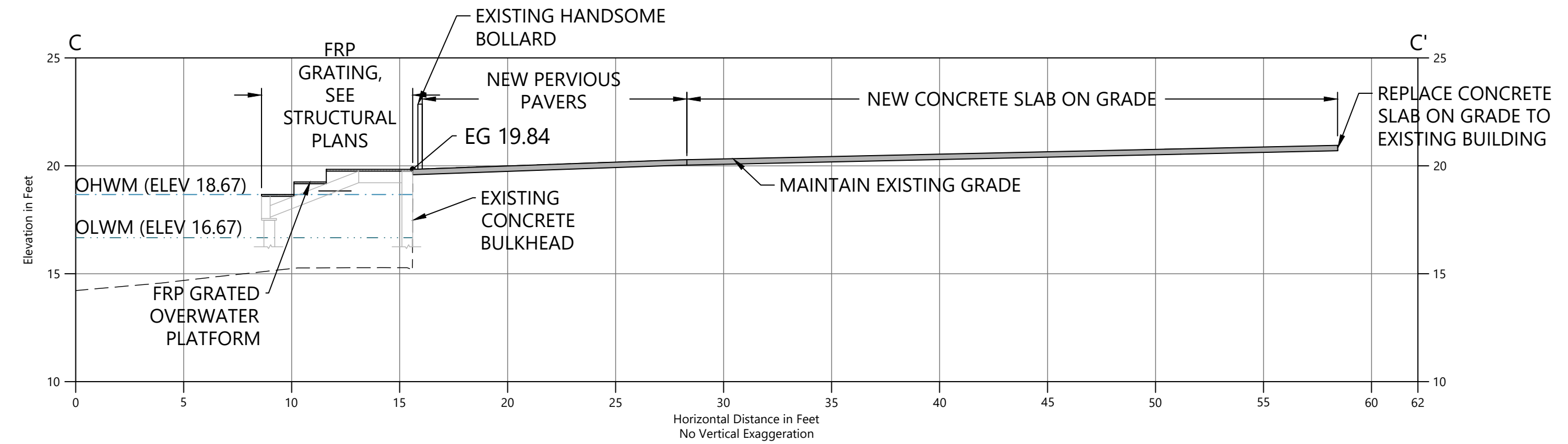
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DESIGN: AS	SCALE: AS NOTED
CHECKED: AS/DR	DATE: 10/07/2022
DRAWING NO. CM-010	
SHEET NO. 19	OF 44

60% SUBMITTAL

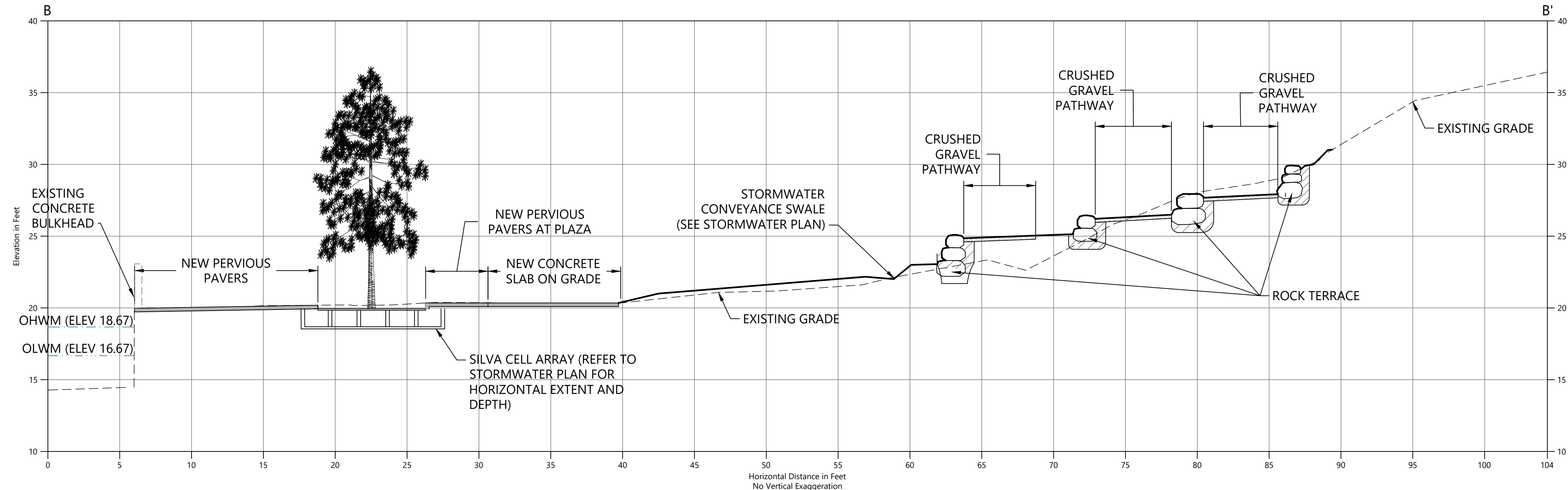
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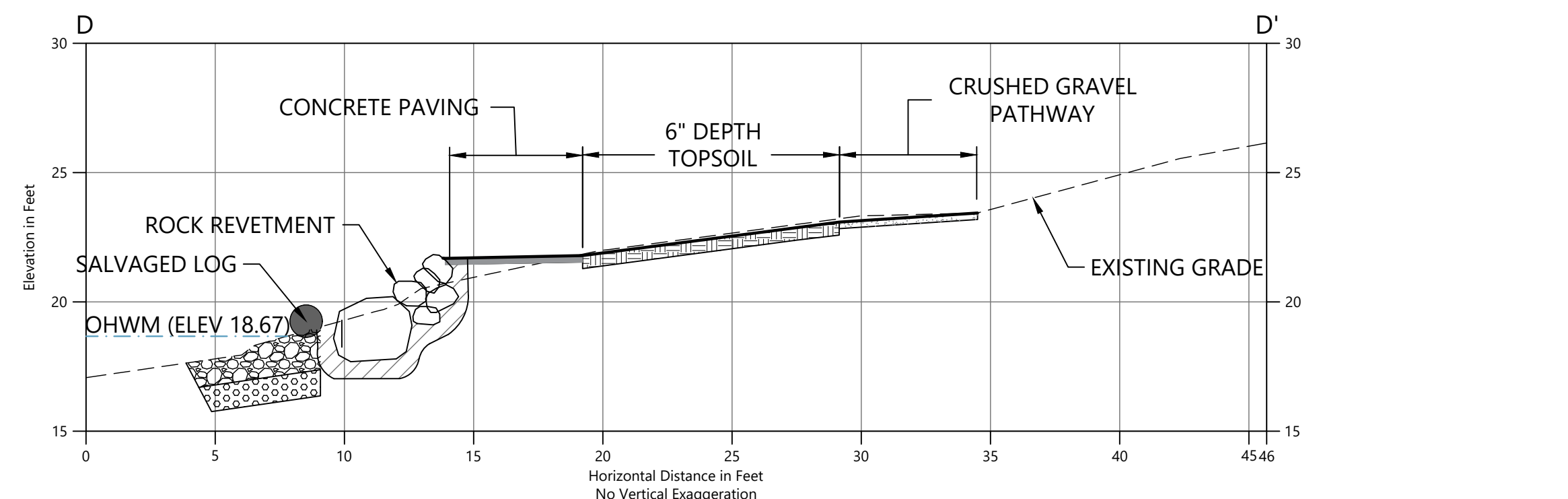
A SECTION A
 C-1 SCALE: 1" = 5'



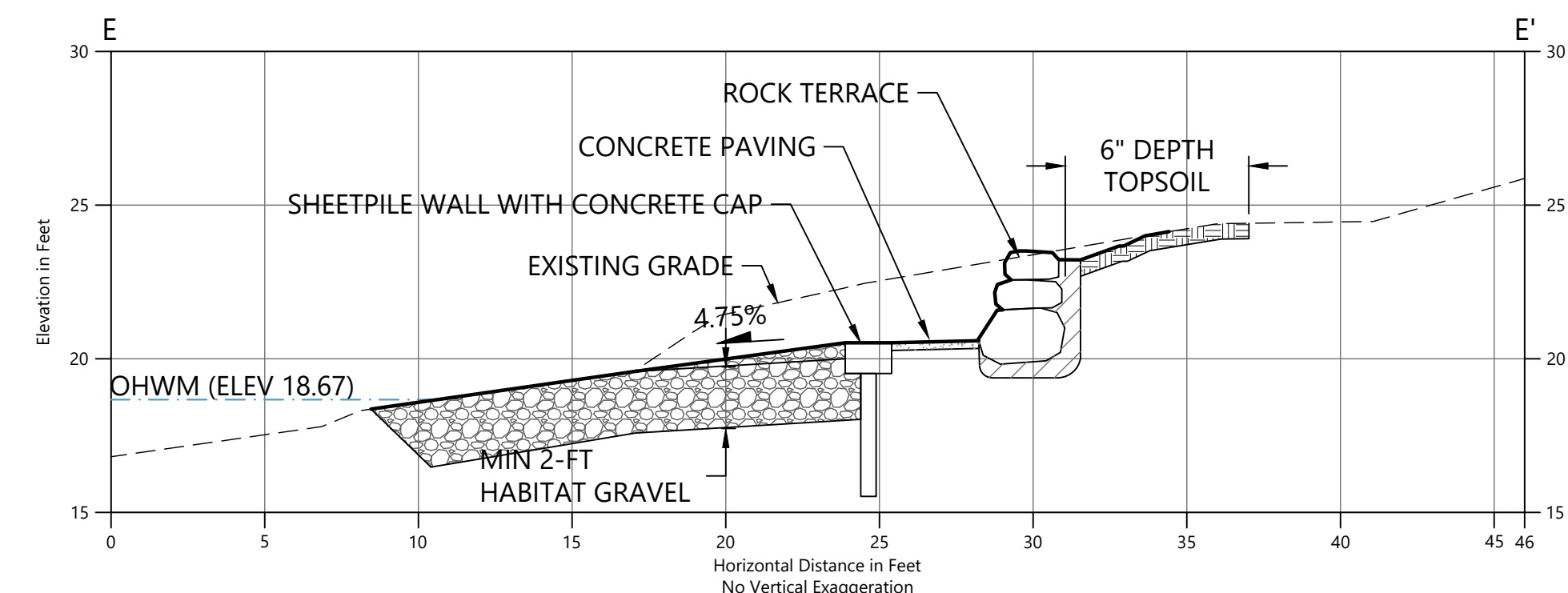
C SECTION C
 C-1 SCALE: 1" = 5'



B SECTION B
 C-1 SCALE: 1" = 5'

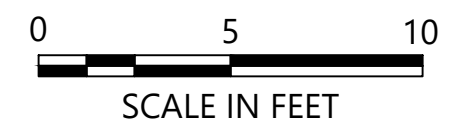


D SECTION D
 C-1 SCALE: 1" = 5'



E SECTION E
 C-1 SCALE: 1" = 5'

- LEGEND:**
- - - EXISTING GRADE
 - PROPOSED GRADE
 - [Pattern] HABITAT GRAVEL
 - [Pattern] ROCK TERRACE
 - [Pattern] TOPSOIL
 - [Pattern] CRUSHED GRAVEL PATHWAY



- NOTES:**
1. HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83 (2011), U.S. SURVEY FEET
 2. VERTICAL DATUM: NAVD88



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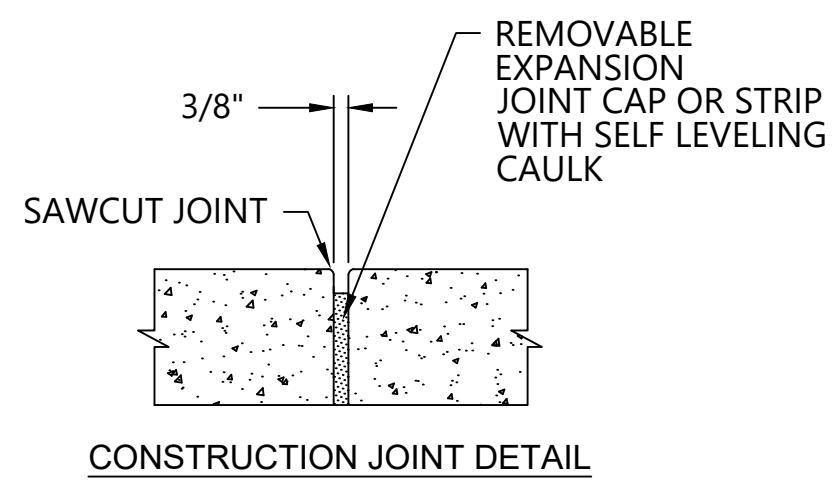
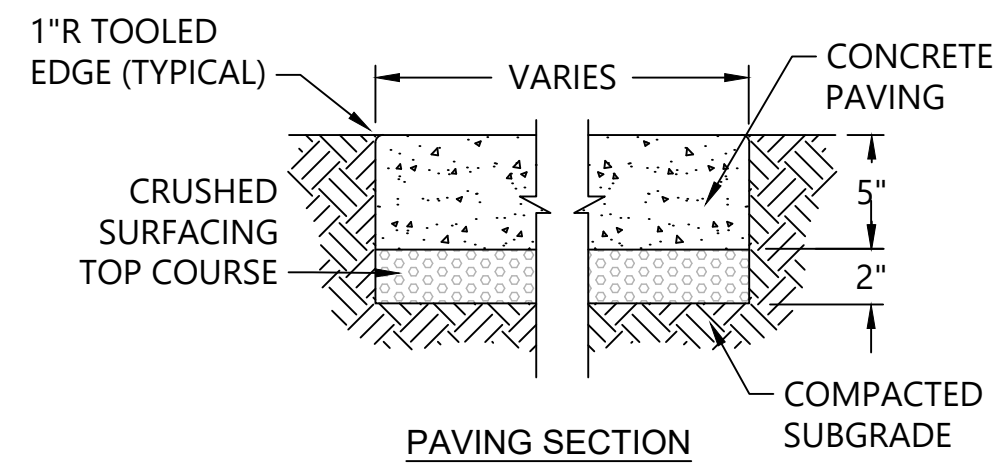
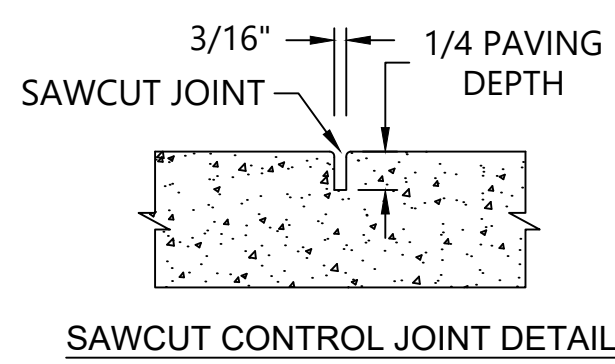
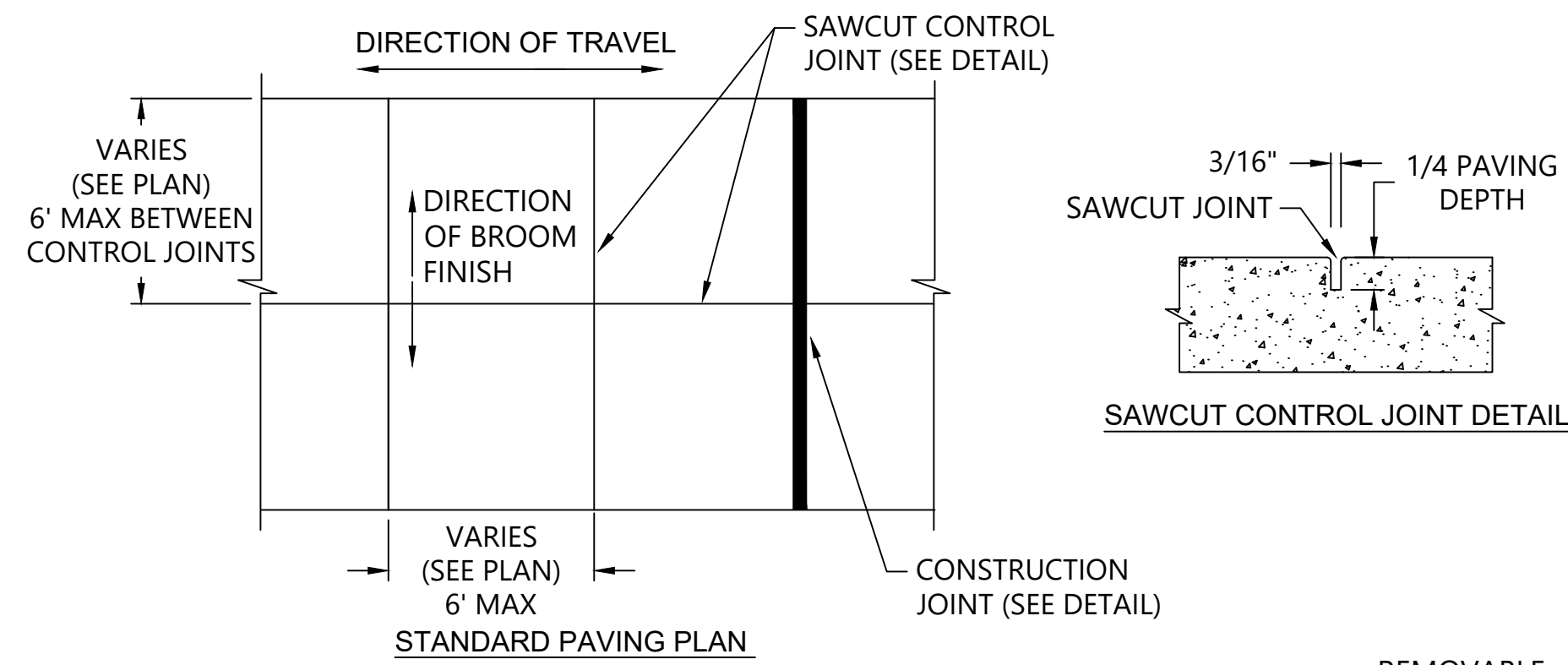


**LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS**

**CONSTRUCTION MATERIALS
 CROSS-SECTIONS**

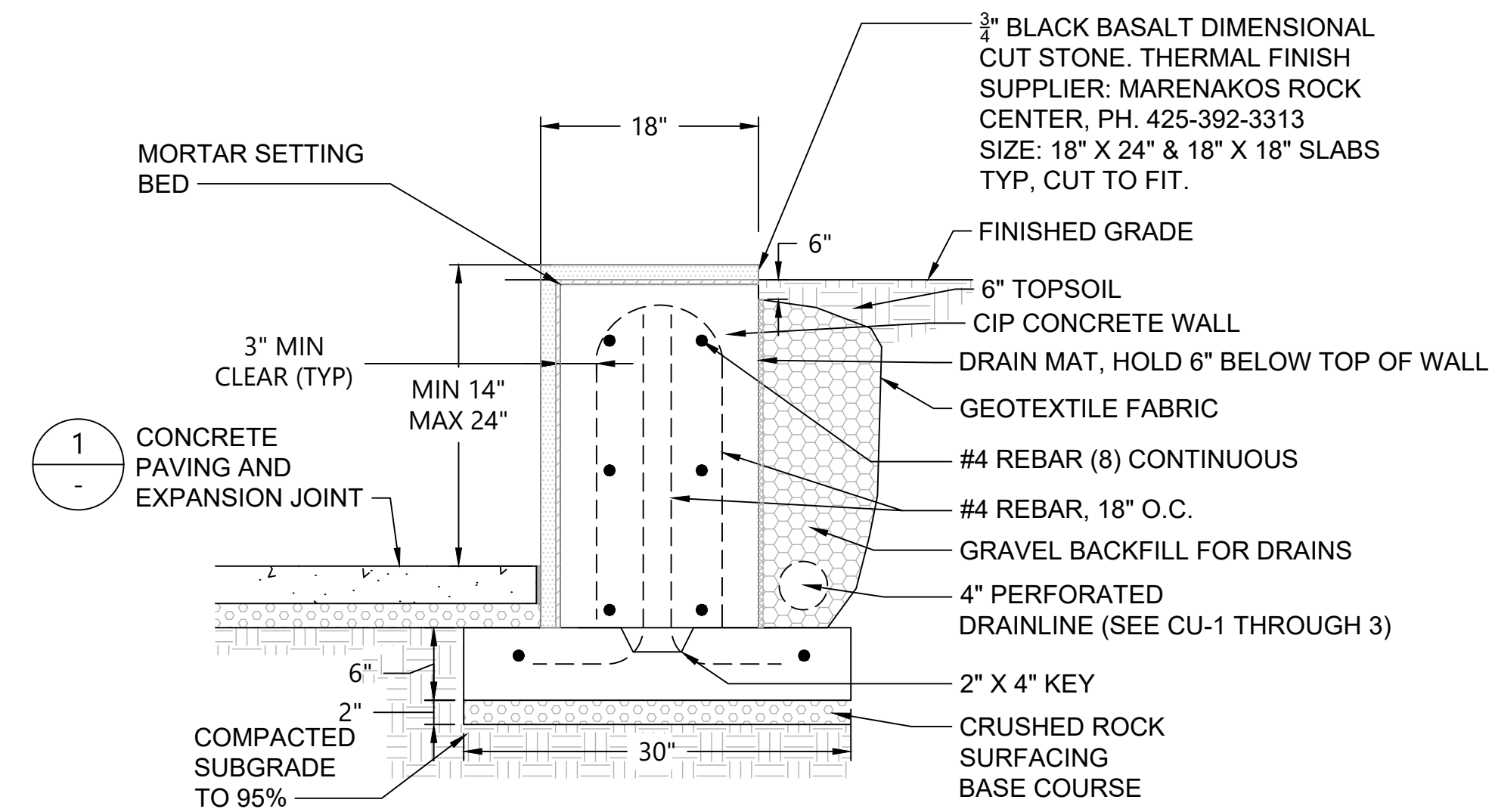
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DESIGN: AS	SCALE: AS NOTED
CHECKED: AS/DR	DATE: 10/07/2022
DRAWING NO.	CM-011
SHEET NO. 20	OF 44

60% SUBMITTAL

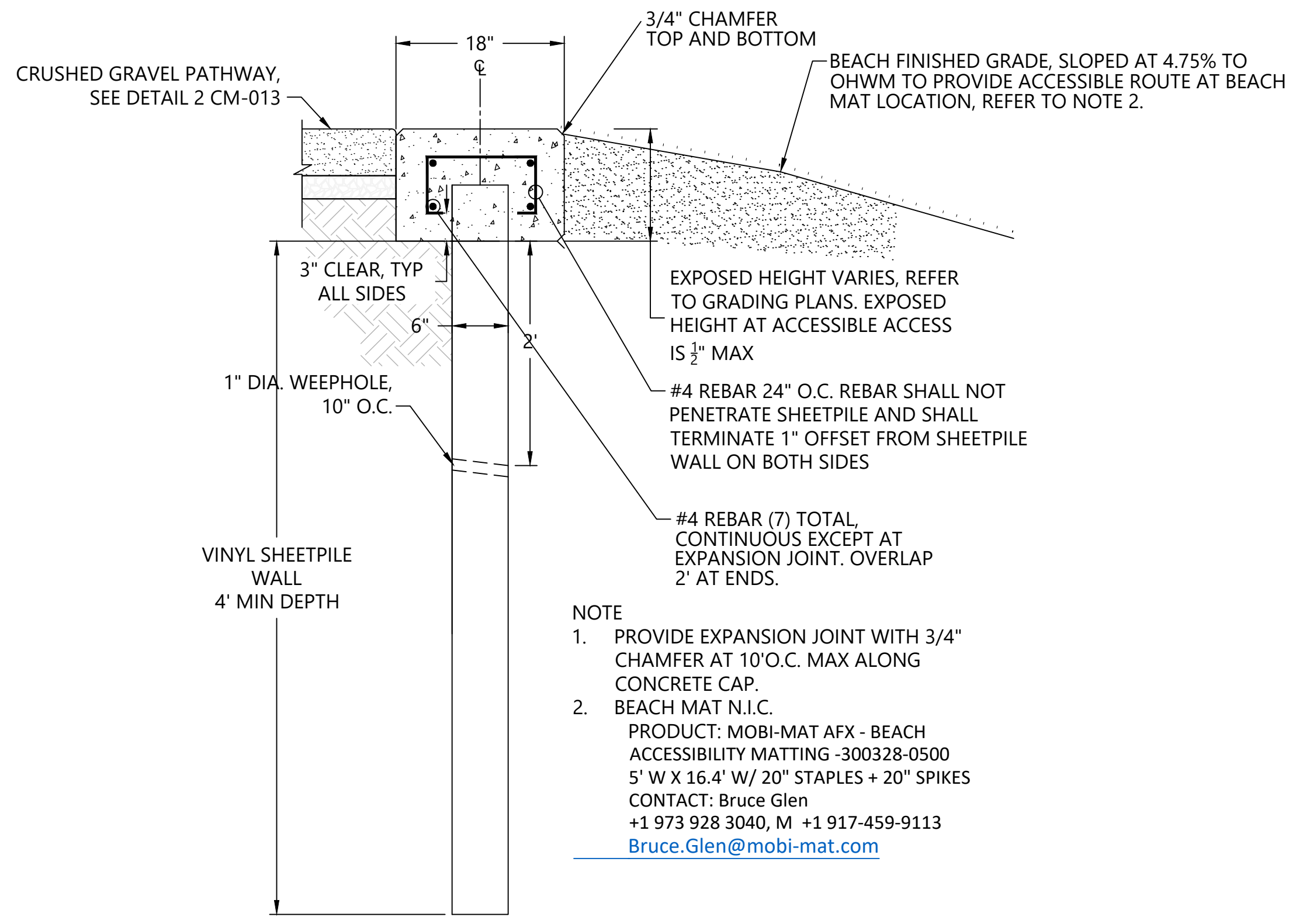


1 CONCRETE PAVING
SCALE: NTS

NOTE: CONCRETE PAVING SHALL INCLUDE FIBERMESH PER SPECIFICATIONS.

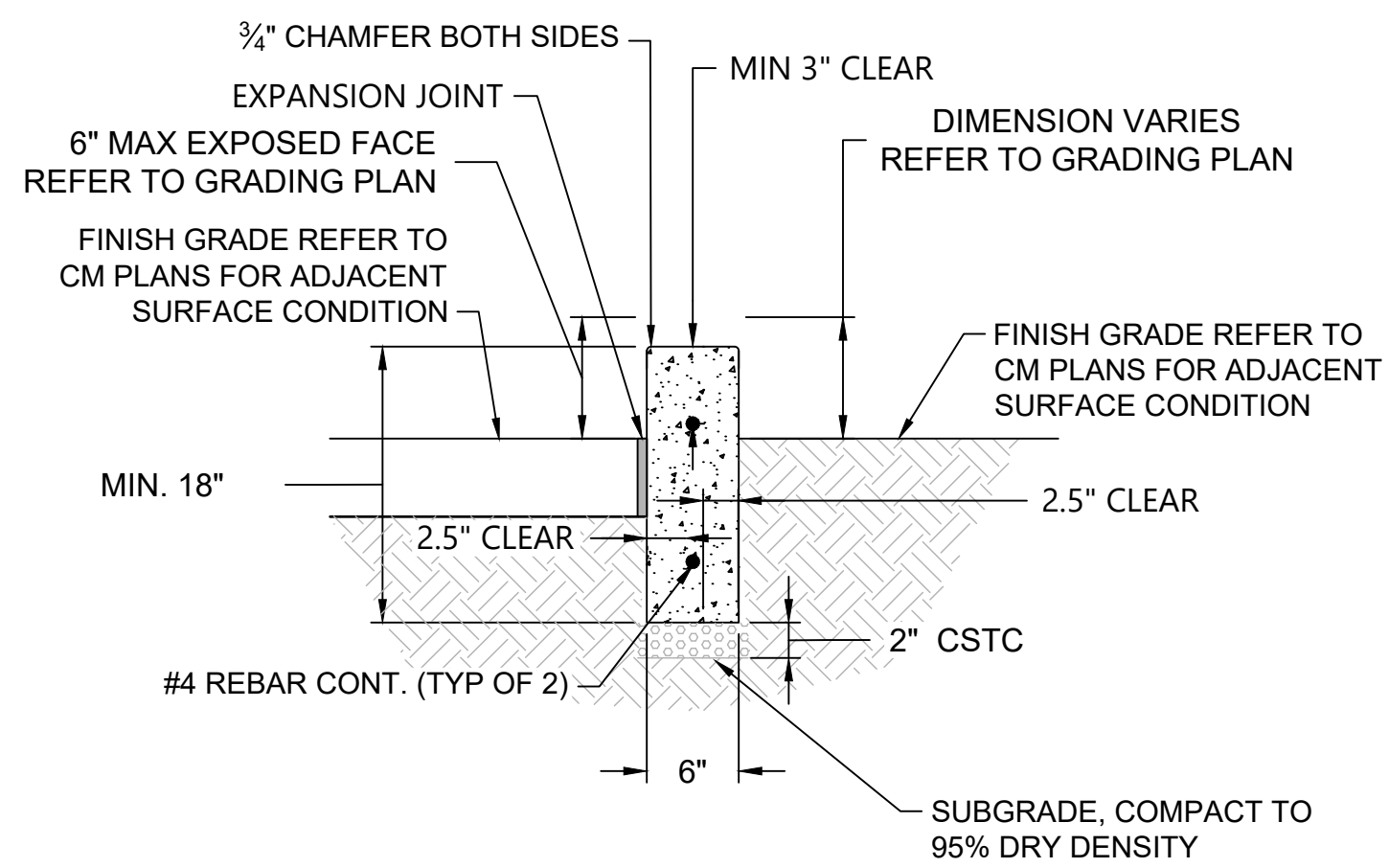


2 STONE CLAD SEAT WALL
SCALE: 1" = 1'



NOTE
1. PROVIDE EXPANSION JOINT WITH 3/4" CHAMFER AT 10'O.C. MAX ALONG CONCRETE CAP.
2. BEACH MAT N.I.C. PRODUCT: MOBI-MAT AFX - BEACH ACCESSIBILITY MATTING -300328-0500 5' W X 16.4' W/ 20" STAPLES + 20" SPIKES CONTACT: Bruce Glen +1 973 928 3040, M +1 917-459-9113 Bruce.Glen@mobi-mat.com

3 SHEETPILE WALL WITH CONCRETE CAP
SCALE: 1" = 1.0'



NOTES:
WHEN CONCRETE CURB IS ADJACENT TO CONCRETE PAVING, INSTALL PRE-MOLDED JOINT FILLER AT INTERFACE, USE SNAP LOCK FILLED WITH SIKA FLEX SELF-LEVELING CAULK.

4 CONCRETE CURB
SCALE: 1" = 1.0'

PLACEHOLDER - DETAIL TO BE ADDED AT 90% DESIGN

1 OUTFALL
SCALE: 1" = 1'

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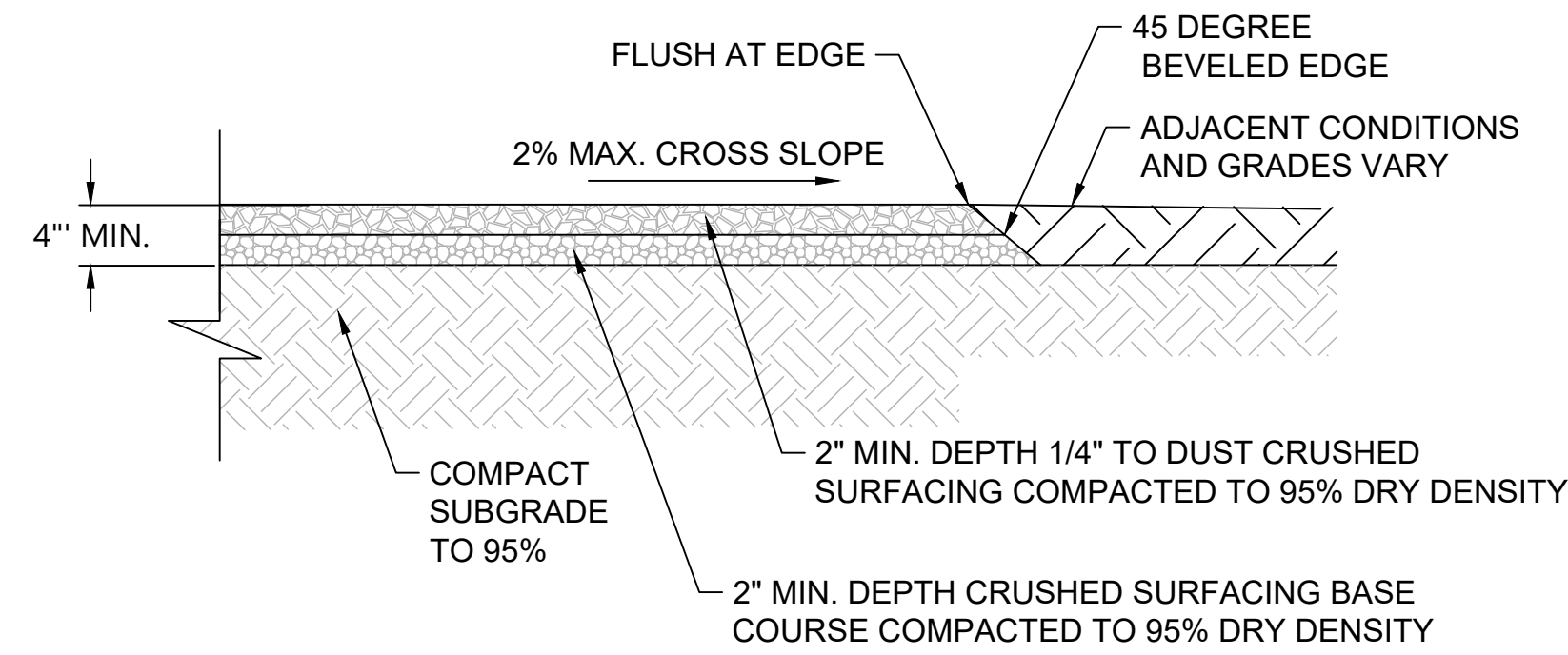
LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS

CONSTRUCTION MATERIALS DETAILS
(SHEET 1 OF 4)

DRAWN: CW/RF	PROJECT NO.: 2200248
DESIGN: AS	SCALE: AS NOTED
CHECKED: AS/DR	DATE: 10/07/2022
DRAWING NO.	CM-012
SHEET NO. 21	OF 44

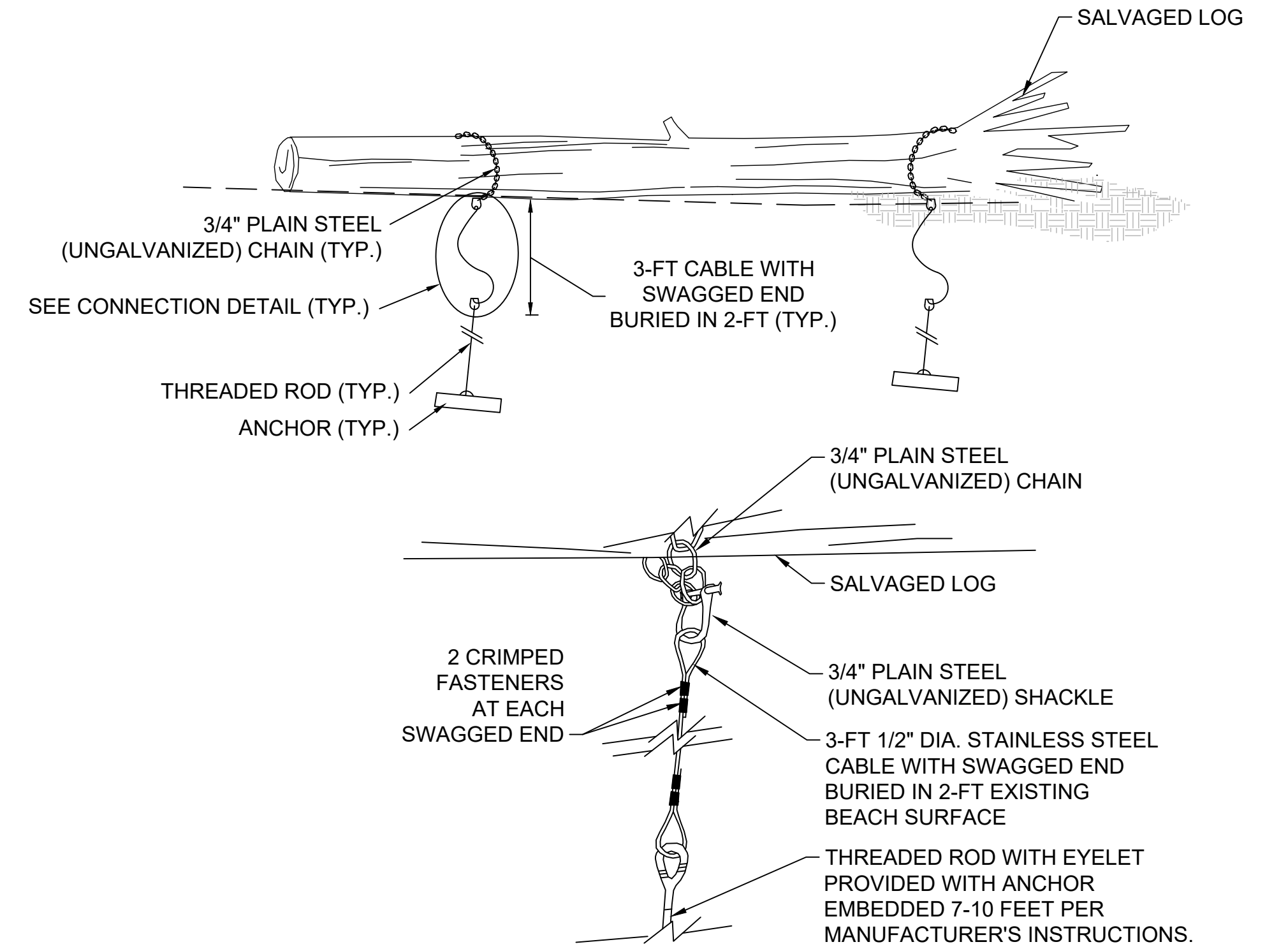
60% SUBMITTAL

PLACEHOLDER - DETAIL TO BE ADDED AT 90% DESIGN



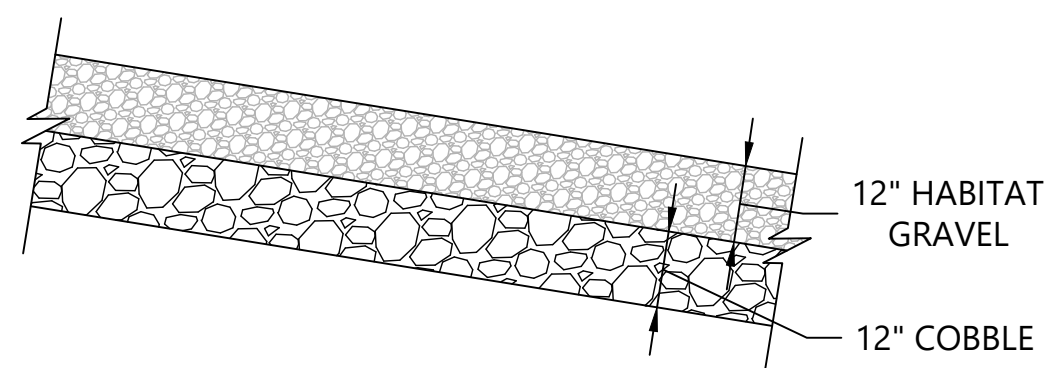
1 GRAVEL DRIVEWAY PAVING
SCALE: 1" = 1"
CM-010

2 CRUSHED GRAVEL PATHWAY
SCALE: 1" = 1"
CM-010



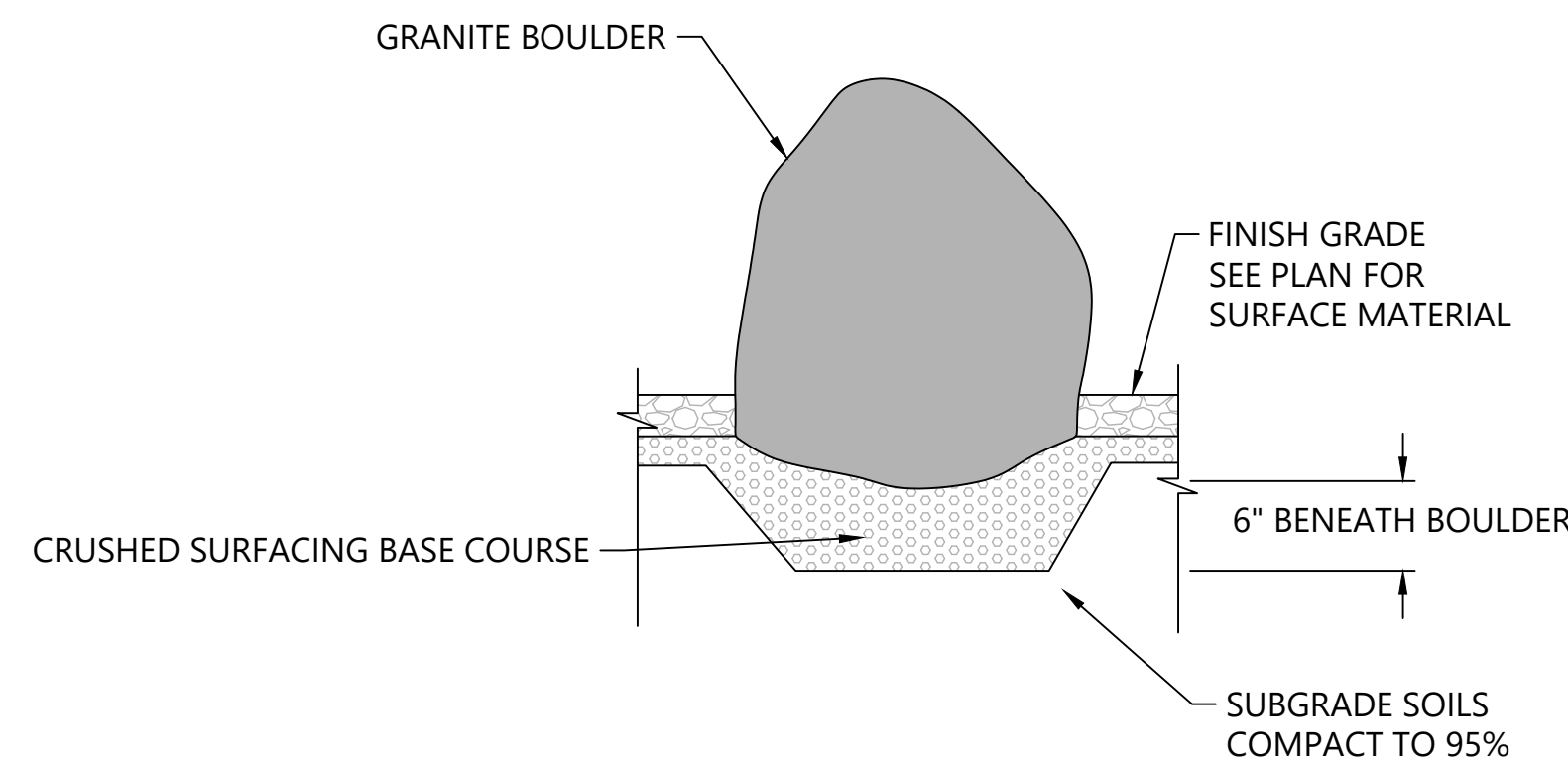
3 SALVAGED LOG
SCALE: NTS
CM-010

CONNECTION DETAIL



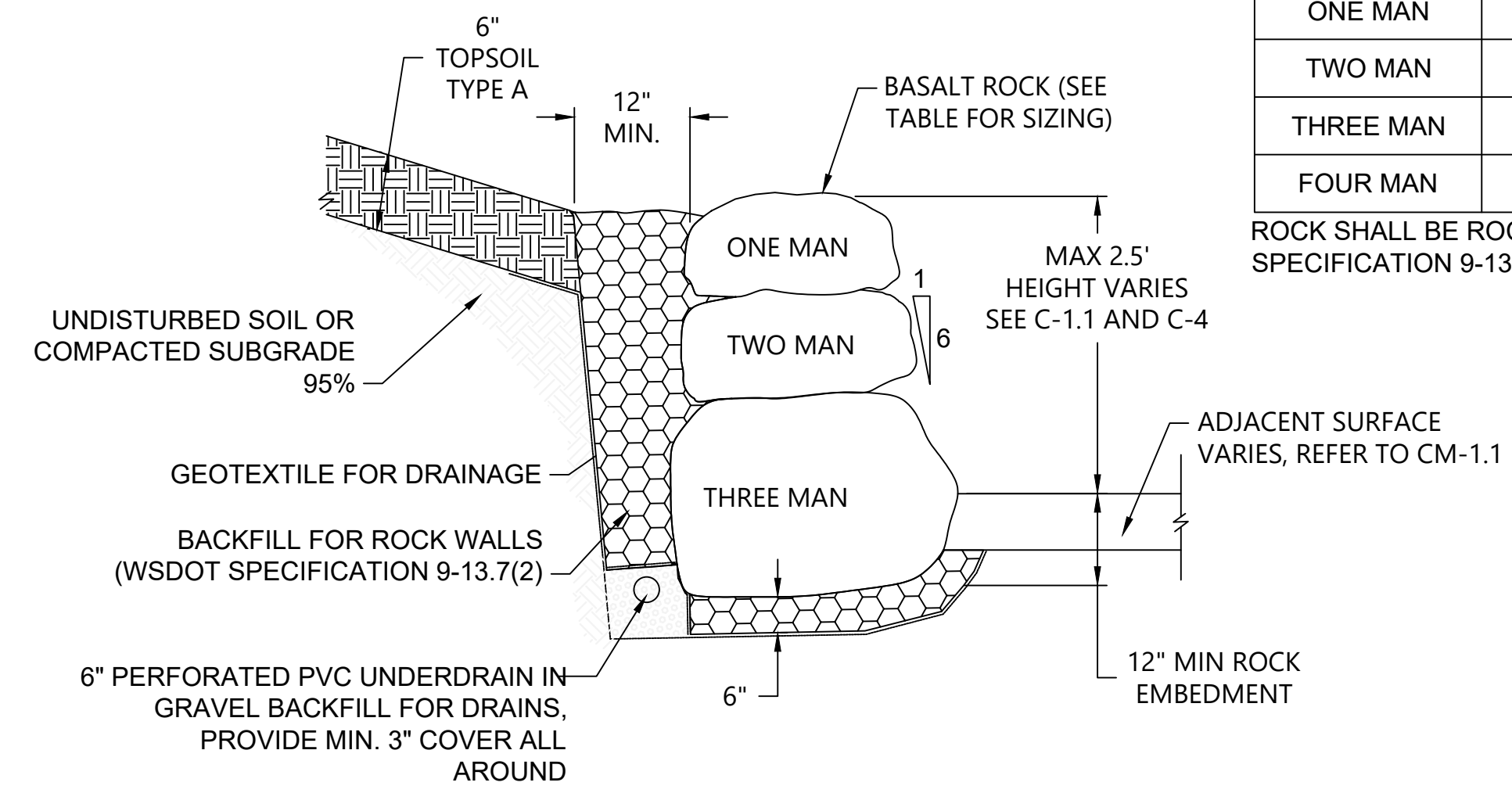
4 HABITAT GRAVEL OVER COBBLE
SCALE: NOT TO SCALE
CM-010

REFER TO WSDOT SPECIFICATION SPECIAL PROVISION 9-13.6(1) FOR HABITAT GRAVEL AND 9-13.6(2) BEACH SAND. COBBLE SHALL BE 8" STREAMBED COBBLE PER WSDOT SPECIFICATION 9-03.11(2).



5 SALVAGED BOULDER
SCALE: NTS
CM-010

NOTE: INSTALL CRUSHED SURFACING TOP COURSE OR RECYCLED AC BASE FOR BOULDERS 4 C FEET AND LARGER. FOR BOULDERS UNDER 4 CUBIC FEET PLACE ON 95% COMPACTED SUBGRADE AND BURY IN 6-12" OF BEACH GRAVEL/RIVER ROCK.



6 BASALT ROCK TERRACE
SCALE: NOT TO SCALE
CM-010

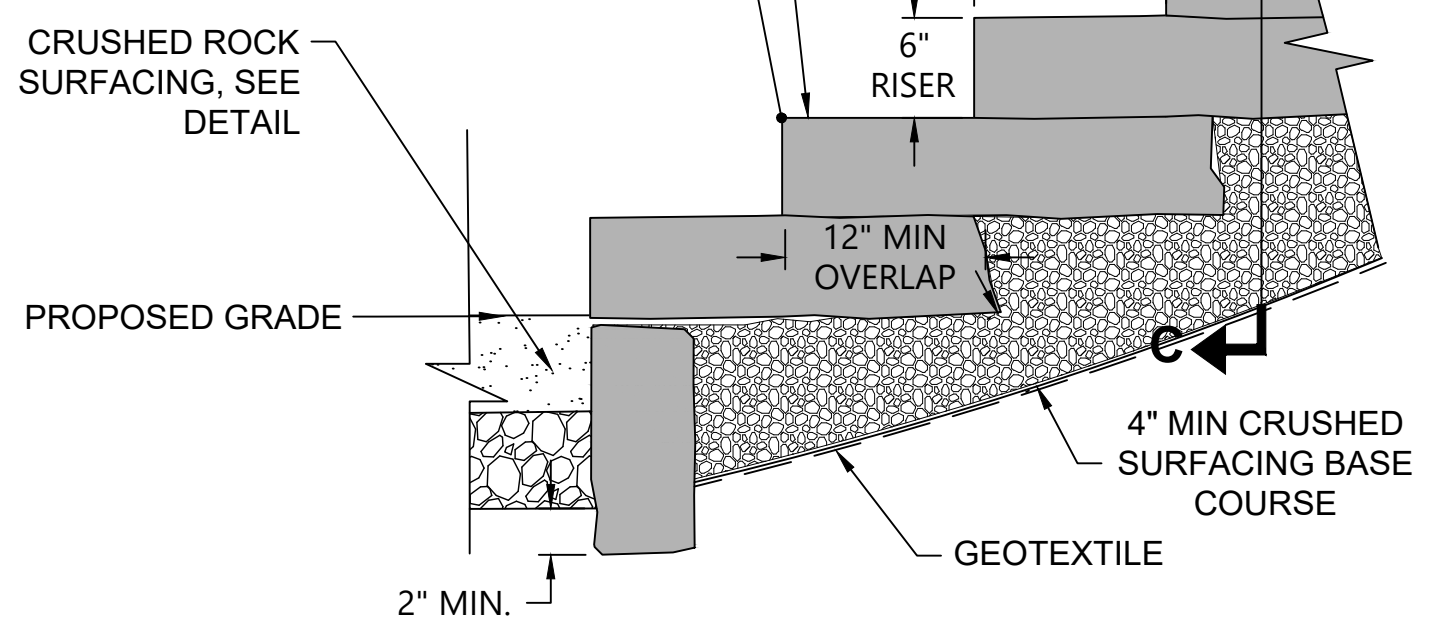
BASALT ROCK TABLE		
ROCK SIZE	ROCK WEIGHT (LBS)	AVERAGE DIMENSION (IN)
ONE MAN	50-200	12 TO 18
TWO MAN	200 TO 700	18 TO 28
THREE MAN	700 TO 2,000	28 TO 36
FOUR MAN	2,000 TO 4,000	36 TO 48

ROCK SHALL BE ROCK FOR ROCK WALL (WSDOT SPECIFICATION 9-13.7(1))

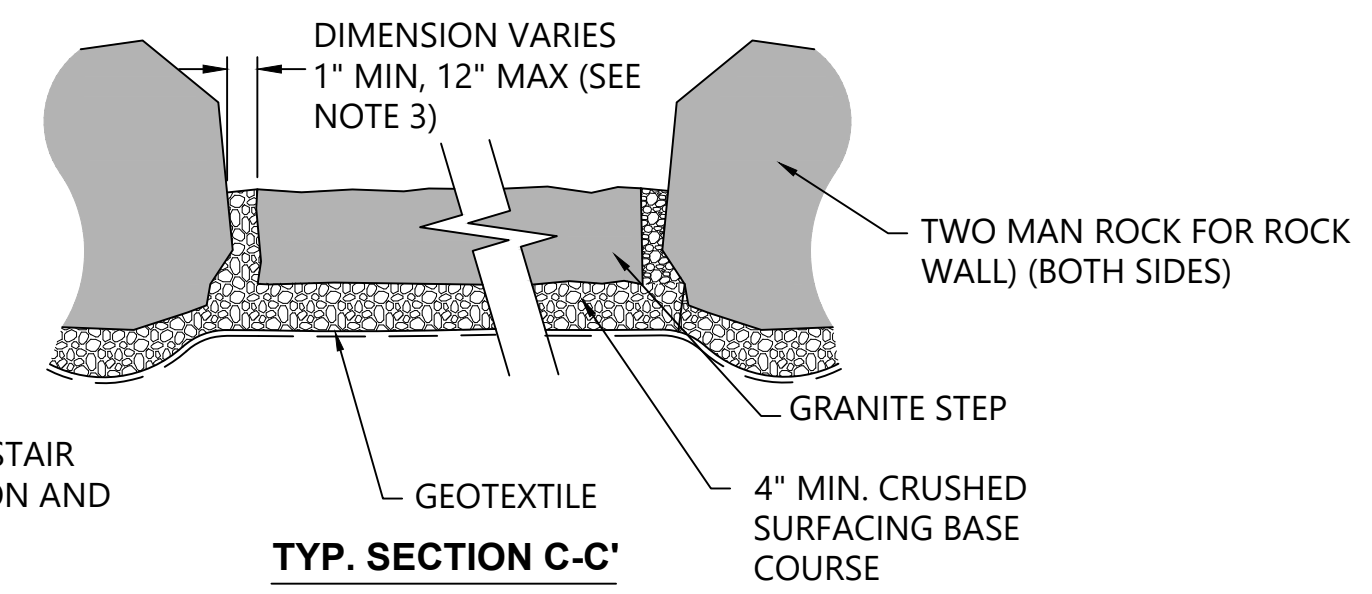
NO.	DATE	BY	REVISION

BLACK BASALT STEPS
DIMENSIONAL STONE.
FINISH: THERMAL WALKING
SURFACE AND ROCKFACE
EDGES SUPPLIER:
MARENAKOS ROCK CENTER,
PH. 425-392-3313
SIZE: 6"x15"x48" TYP

3
CM-013



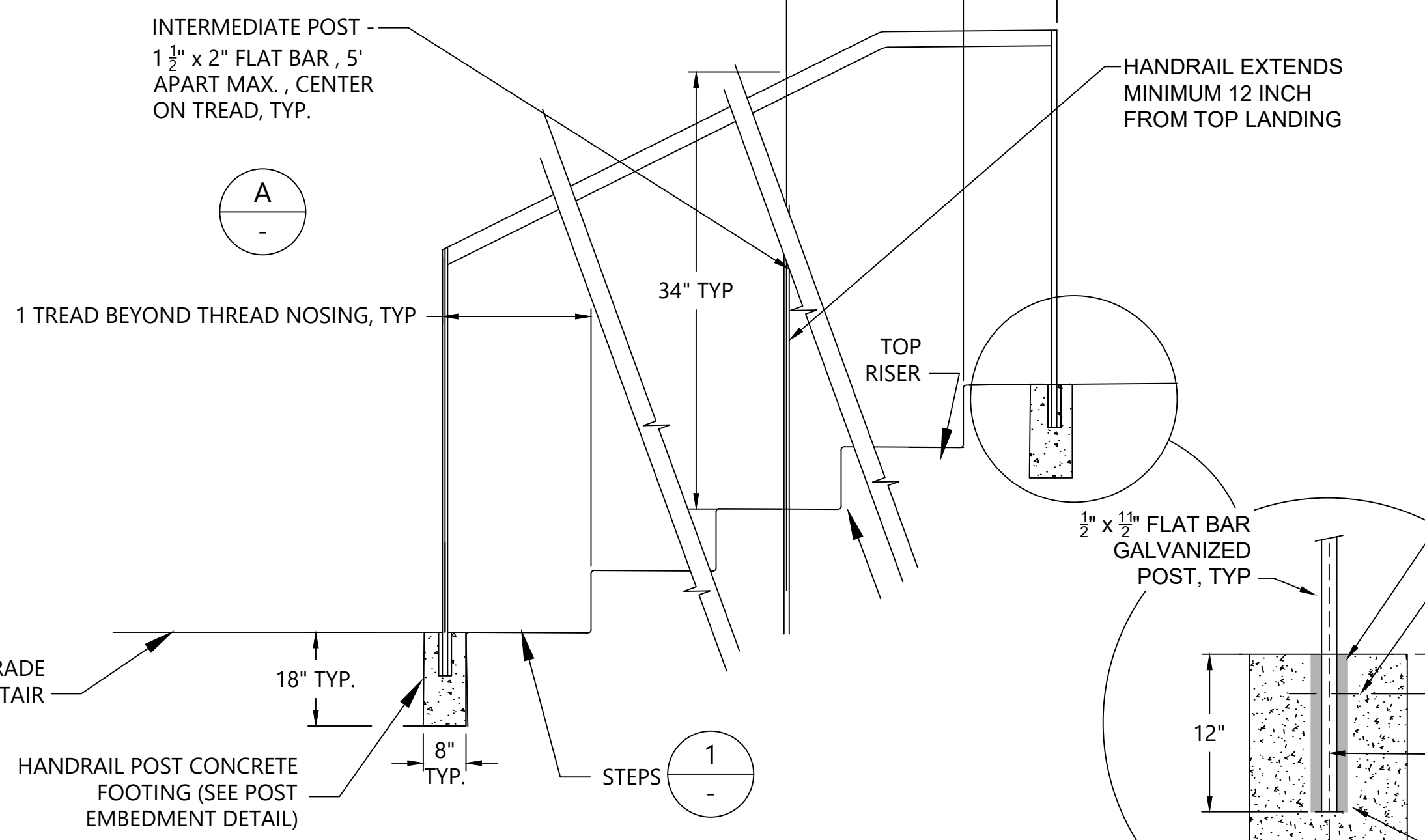
TYPICAL SECTION



TYP. SECTION C-C'

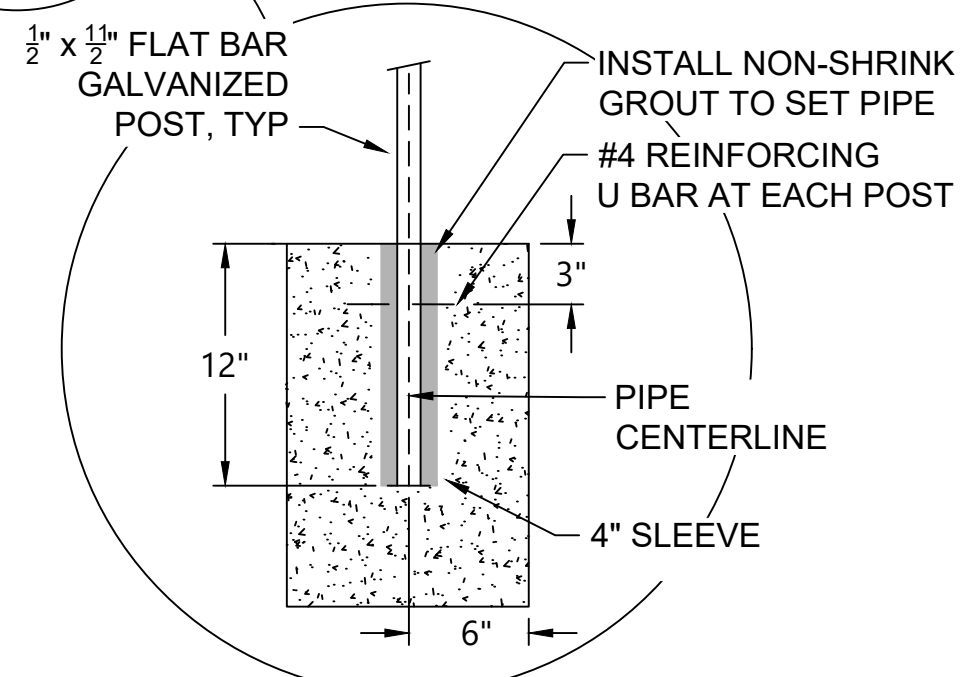
1
CM-010
STONE STAIRS
SCALE: NOT TO SCALE

- NOTES:
- SEE GRADING PLAN FOR TOP OF STAIR AND BOTTOM OF STAIR ELEVATION AND TREAD AND RISER COUNT
 - PLACE TWO MAN ROCK 12" MAX DISTANCE FROM GRANITE STEP TO ACCOMMODATE HANDRAIL FOOTING ONLY. PLACE TWO MAN ROCK AT 1" MIN AND 4" MAX ALONG GRANITE STEPS IN ALL OTHER AREAS.

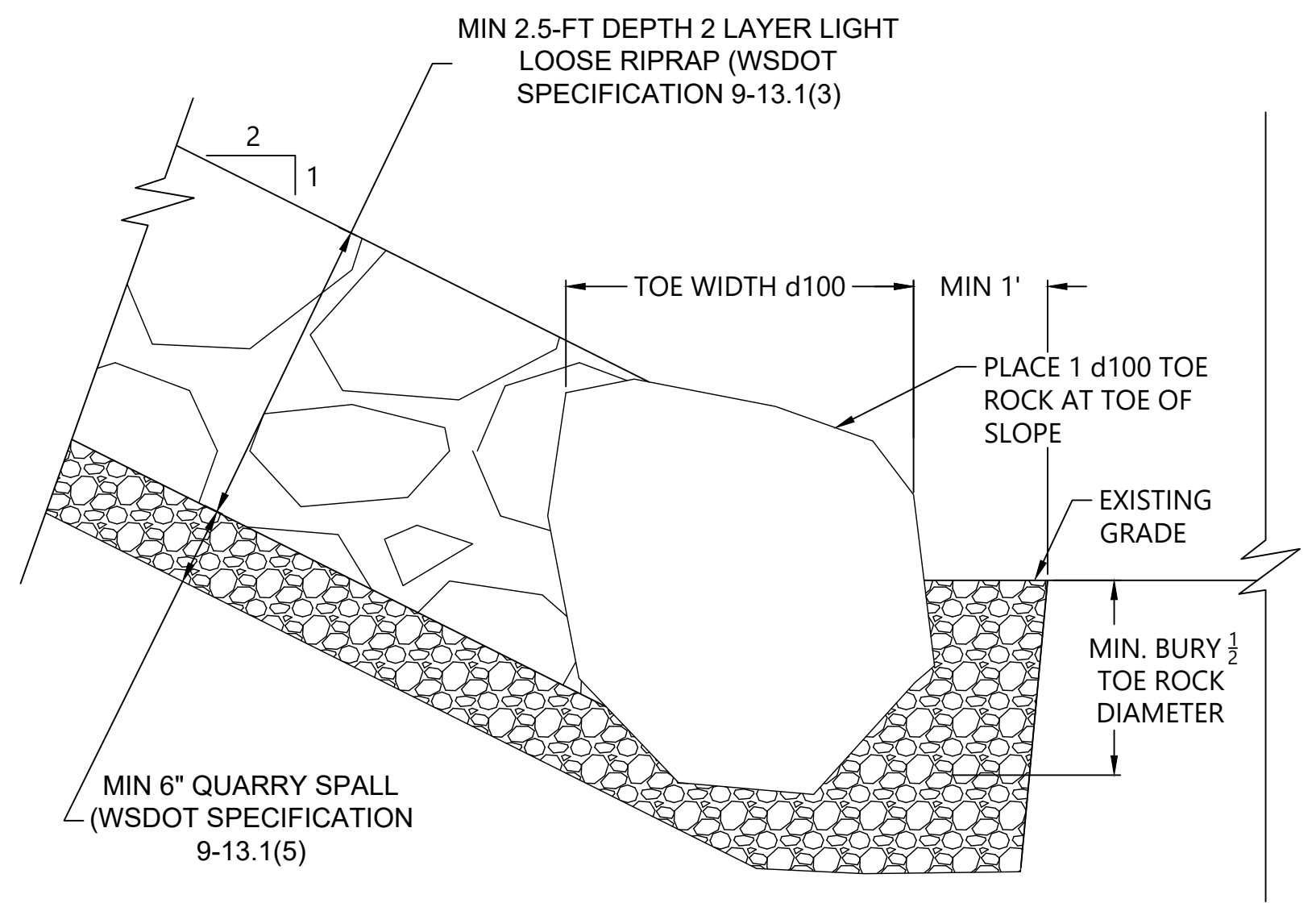


- NOTES:
- GRIND WELD JOINT SMOOTH.
 - HOT DIP GALV. AFTER FABRICATION
 - HANDRAIL TO FOLLOW ALIGNMENT SHOWN ON PLANS.
 - PROVIDE SHOP DRAWINGS.
 - FIELD MEASURE POST LOCATIONS AND FABRICATE HANDRAILING FOLLOWING STAIR INSTALLATION.
 - EMBED HANDRAIL FOOTING DIRECTLY ADJACENT TO STEP.
 - INSTALL 2 MAN BASALT EDGE STONE AFTER HANDRAIL INSTALLATION.
 - REFER TO STRUCTURAL PLANS FOR HANDRAIL AT BEACH ACCESS STEPS (SOUTH BEACH).

2
CM-010
HANDRAIL AT STONE STAIRS
SCALE: NOT TO SCALE



POST EMBEDMENT DETAIL
NOT TO SCALE



3
CM-010
ROCK REVETMENT
SCALE: 1" = 1.0'

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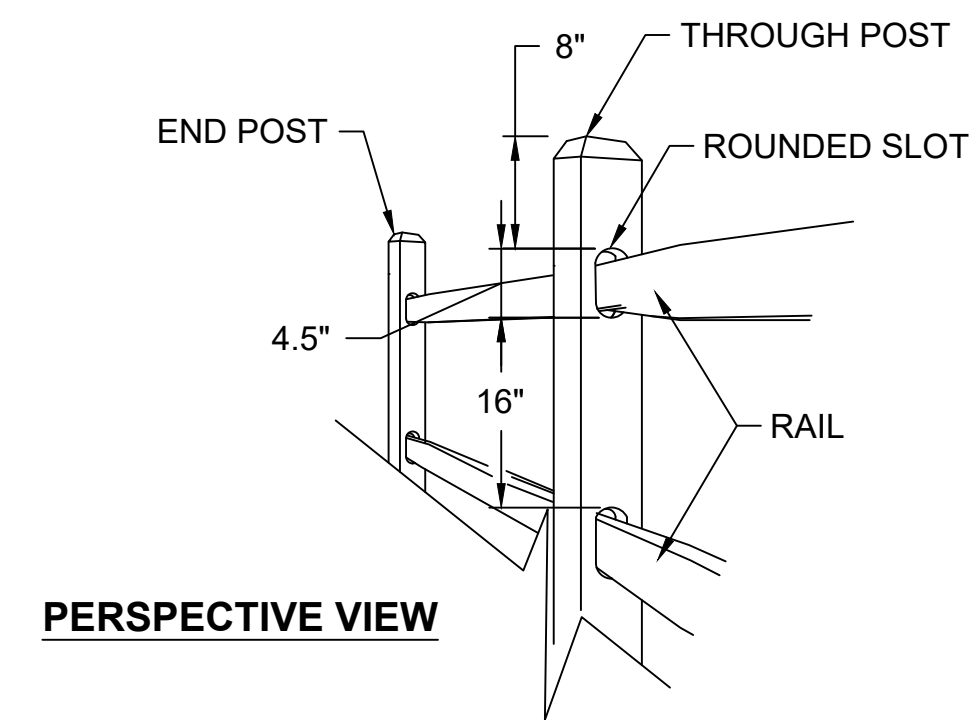
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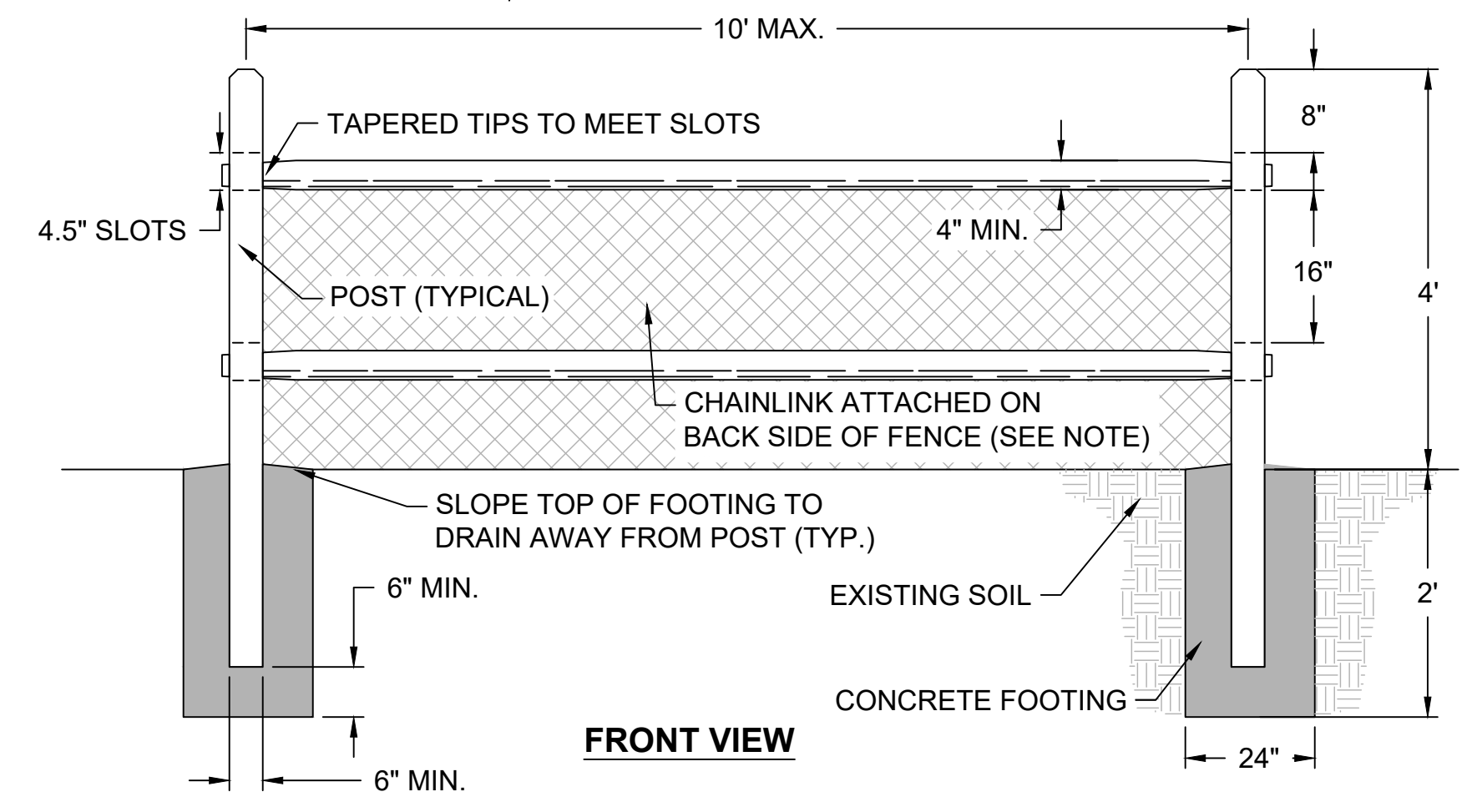
LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS
CONSTRUCTION MATERIALS DETAILS
(SHEET 3 OF 4)

DRAWN: CW/RF	PROJECT NO.: 2200248
DESIGN: AS	SCALE: AS NOTED
CHECKED: AS/DR	DATE: 10/07/2022
DRAWING NO. CM-014	
SHEET NO. 23	OF 44

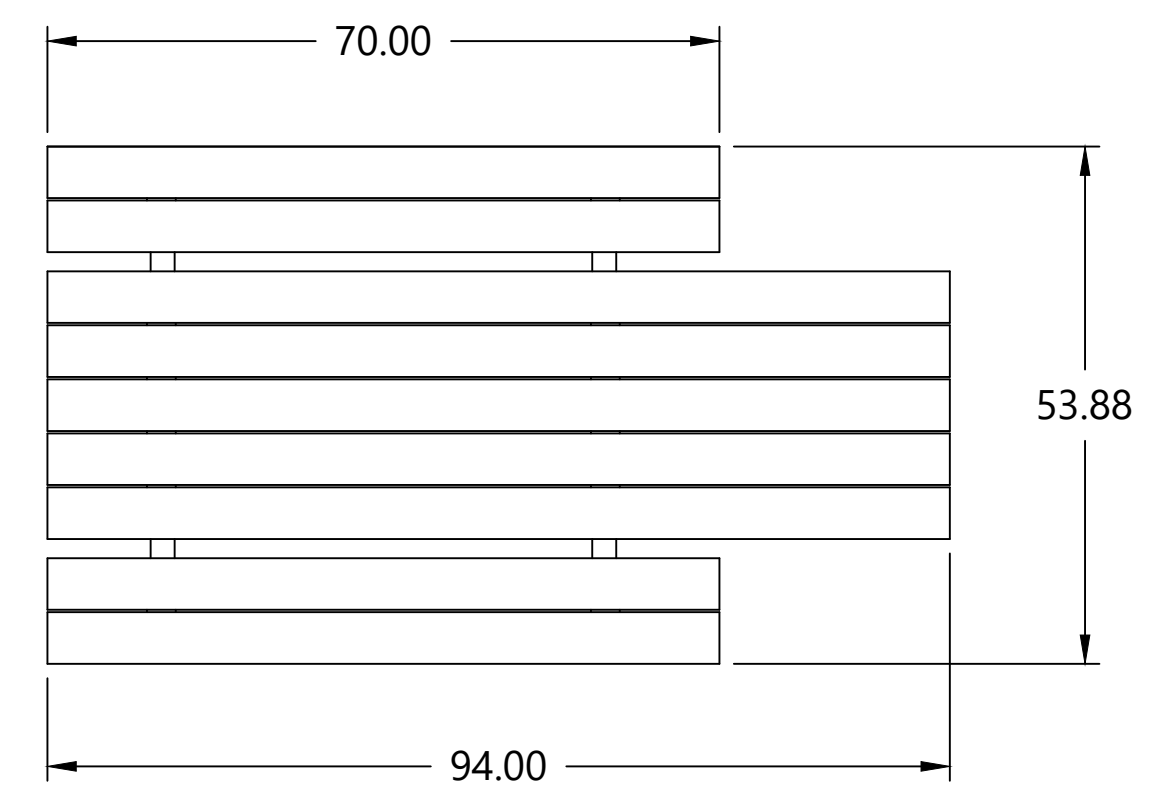
60% SUBMITTAL



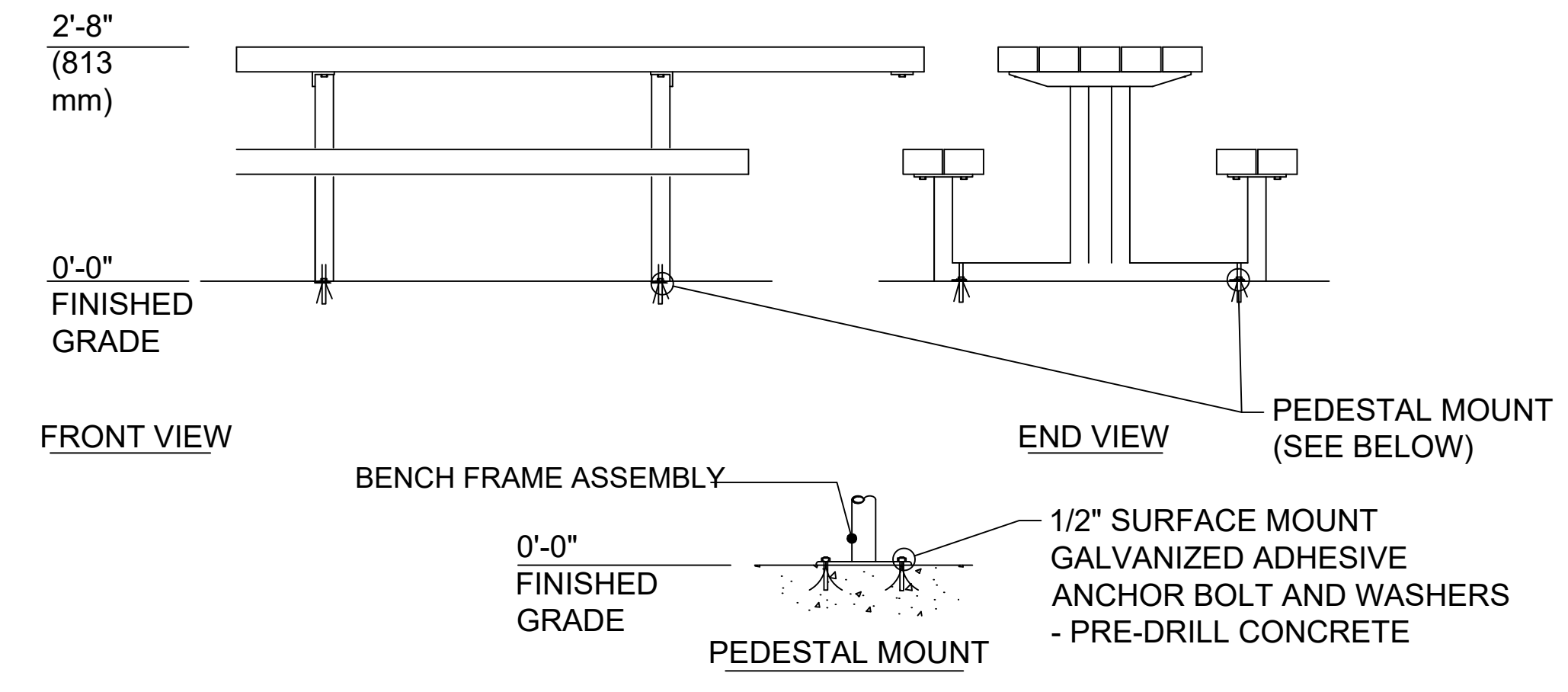
- NOTES:
1. RAIL SHALL NOT CONTINUE THROUGH END POST.
 2. STAPLE CHAINLINK FENCING TO POSTS USING 1 1/4" FENCING STAPLES, MAXIMUM SPACING BETWEEN STAPLES ON POST 12".
 3. BURY BOTTOM EDGE OF CHAINLINK A MINIMUM OF 4-INCHES BELOW GRADE.
 4. CHAINLINK SHALL BE BLACK VINYL-COATED 9 GAUGE.



1 SPLIT RAIL FENCE
CM-010 SCALE: NTS



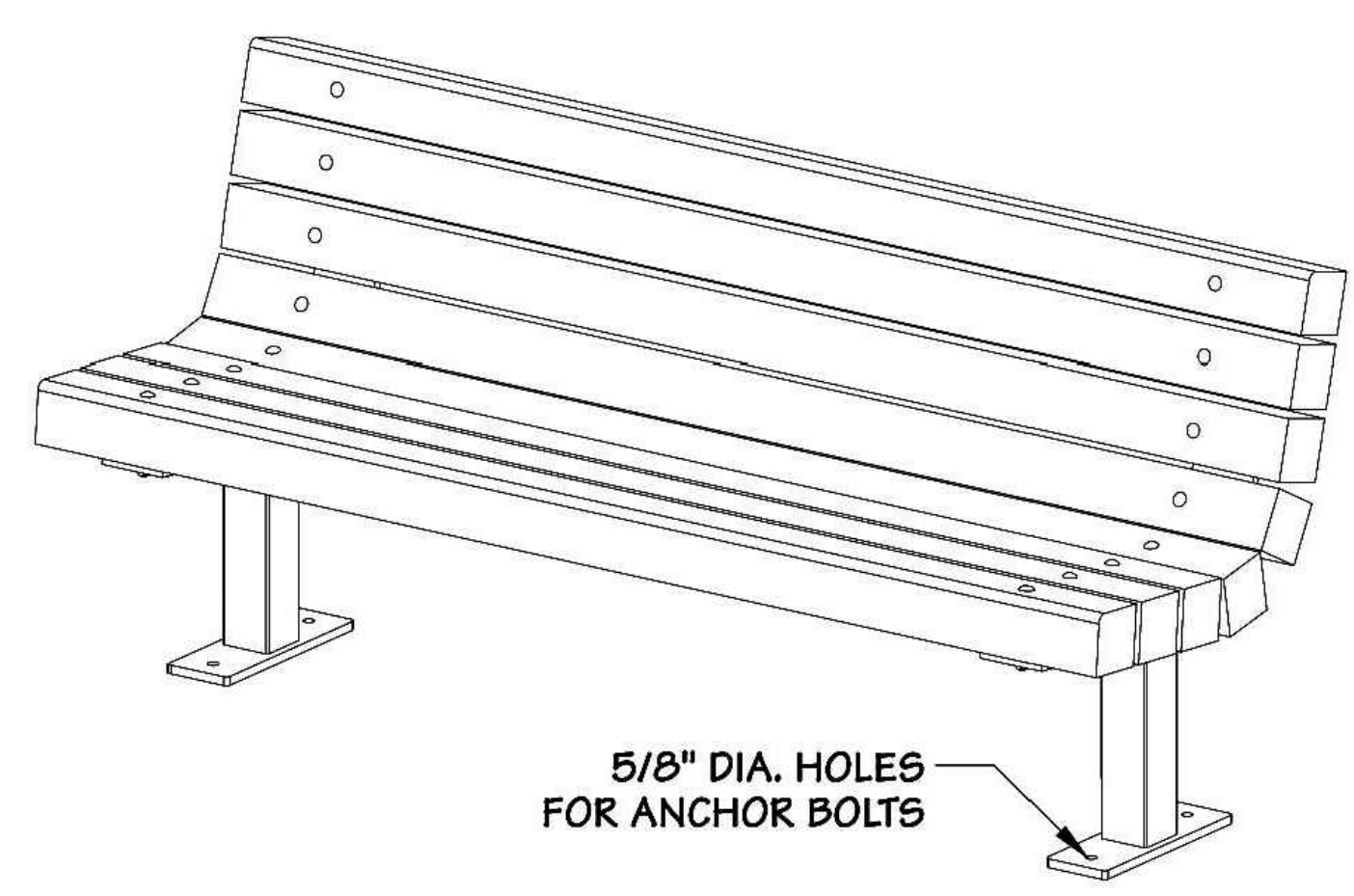
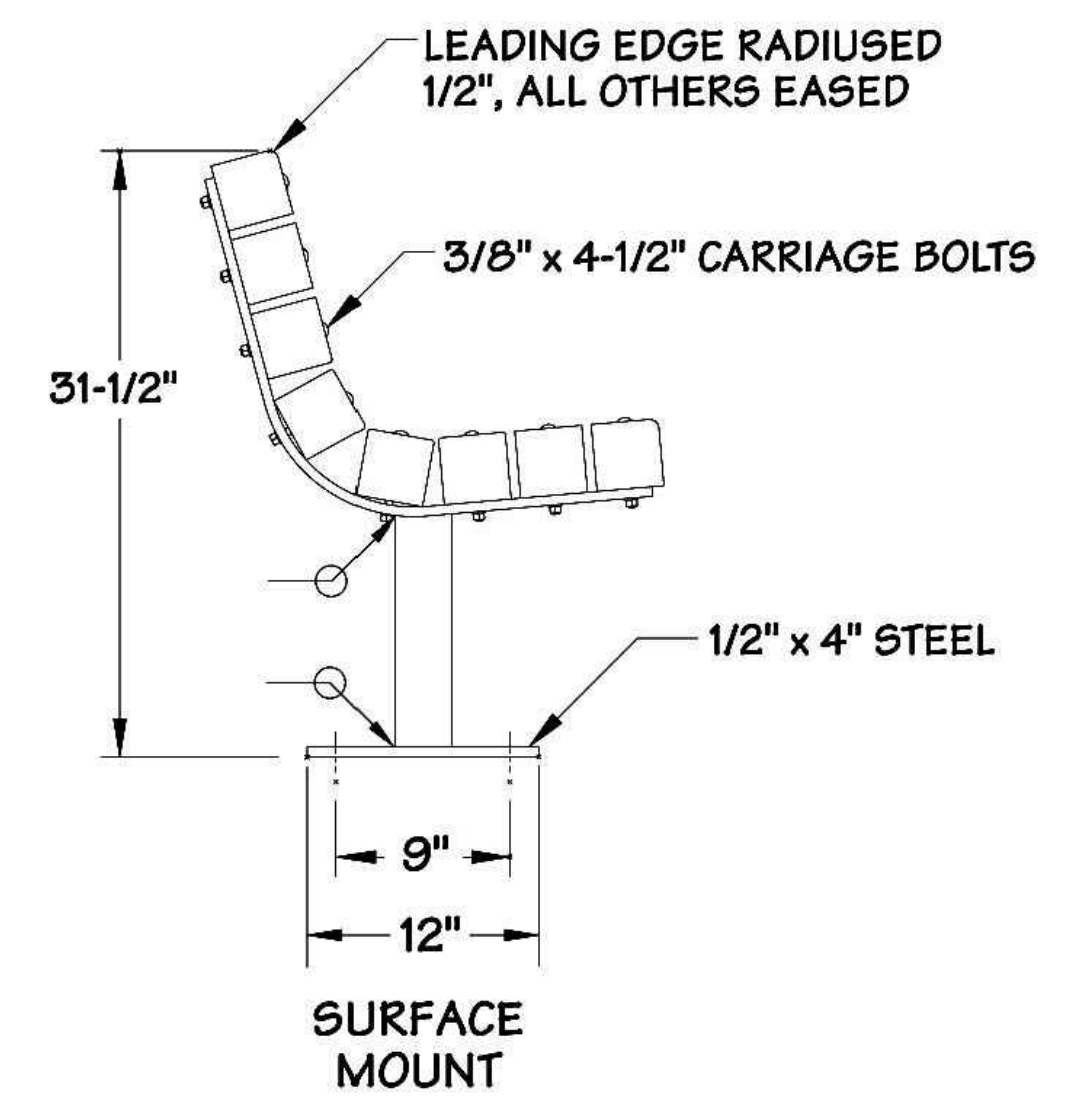
TOP VIEW



FRONT VIEW

END VIEW

2 PICNIC TABLES
CM-010 SCALE: NTS



3 BENCHES
CM-010 SCALE: NTS

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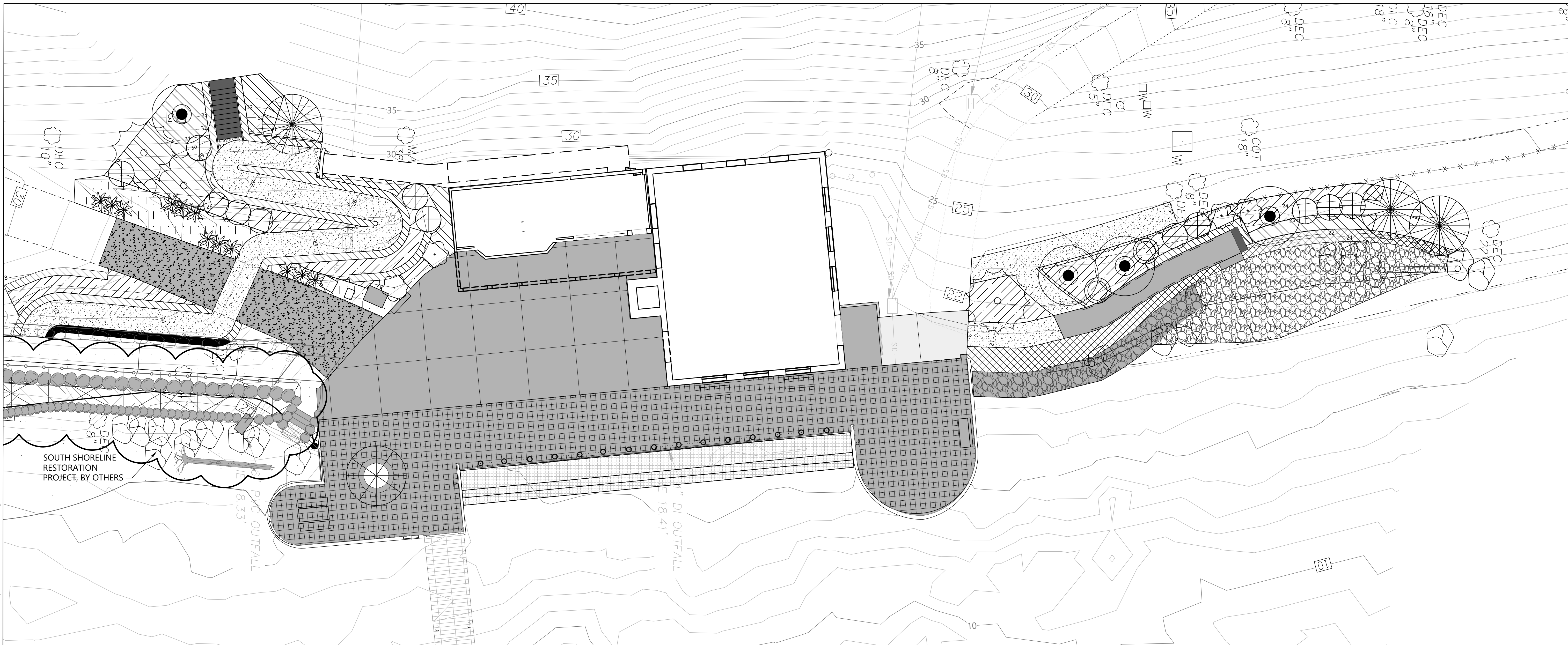


LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS

CONSTRUCTION MATERIALS DETAILS
(SHEET 4 OF 4)

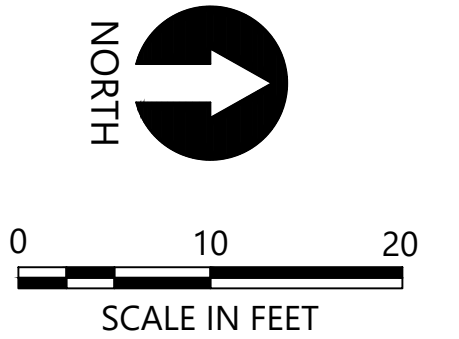
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DESIGN: AS	SCALE: AS NOTED
CHECKED: AS/DR	DATE: 10/07/2022
DRAWING NO.	CM-015
SHEET NO. 24	OF 44

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LEGEND:

- EXISTING CONTOUR
- EXISTING TREE TO RETAIN
- EXISTING LARGE WOODY DEBRIS RELOCATED
- PROPOSED TREE
- PROPOSED SHRUBS/GROUNDCOVERS
- RIPARIAN SHRUBS
- GROUNDCOVER
- STORMWATER CONVEYANCE PLANTING



- NOTES:**
- HORIZONTAL DATUM: WASHINGTON STATE PLANE NORTH ZONE, NAD83 (2011), U.S. SURVEY FEET
 - VERTICAL DATUM: NAVD88
 - SEE SHEET L02 FOR PLANT SCHEDULE

CAD USER: chawett PLOT DATE: Oct 11, 2022-02:51pm
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**LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS**

PLANTING PLAN

DRAWN: CW/RF	PROJECT NO.: 2200248
DESIGN: AS	SCALE: AS NOTED
CHECKED: AS/DR	DATE: 10/07/2022
DRAWING NO.	L-010
SHEET NO. 25	OF 44

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PLANT SCHEDULE						
COMMON NAME	SCIENTIFIC NAME	SIZE	SPACING	QUANTITY	NOTES	
TREES						
GRAND FIR	ABIES GRANDIS	5-6' HT	AS SHOWN	3		
WESTERN RED CEDAR	THUJA PLICATA	5-6' HT	AS SHOWN	3		
BIG LEAF MAPLE	ACER MACROPHYLLUM	1.5" CAL	AS SHOWN	4	1 2 3 L-012 L-012 L-012	
SWAMP OAK	QUERCUS PALUSTRIS	2" CAL	AS SHOWN	1		
VINE MAPLE	ACER CIRCINATUM	5 GAL	AS SHOWN	9		
HIGH SHRUBS						
INDIAN PLUM	OEMLERIA CERASIFORMIS	2 GAL	AS SHOWN		5 6 L-012 L-012	
MOCK ORANGE	PHILADELPHUS LEWISII	2 GAL	AS SHOWN			
SHRUBS - RIPARIAN						
SWORD FERN	POLYSTICHUM MUNITUM	1 GAL	3' O.C.			
RED FLOWERING CURRANT	RIBES SANGUINEUM	1 GAL	3' O.C.			
NOOTKA ROSE	ROSA NUTKANA	1 GAL	3' O.C.		5 6 L-012 L-012	
THIMBLEBERRY	RUBUS PARVIFLORUS	1 GAL	3' O.C.			
SNOWBERRY	SYMPHORICARPOS ALBUS	1 GAL	3' O.C.			
GROUNDCOVERS						
SWORD FERN	POLYSTICHUM MUNITUM	1 GAL	3' O.C.		4 6 L-012 L-012	
OREGON GRAPE	MAHONIA NERVOSA	1 GAL	3' O.C.			
SHRUBS/GROUNDCOVERS - STORMWATER CONVEYANCE AREA						
RED OSIER DOGWOOD	CORNUS SERICEA	1 GAL	AS SHOWN		4 5 6 L-012 L-012 L-012	
LADY FERN	ATHYRIUM FELIX FEMINA	1 GAL	AS SHOWN			
SEED MIX - STORMWATER CONVEYANCE AREA						

PLANT QUANTITIES WILL BE PROVIDED AT 90%



NO.	DATE	BY	REVISION

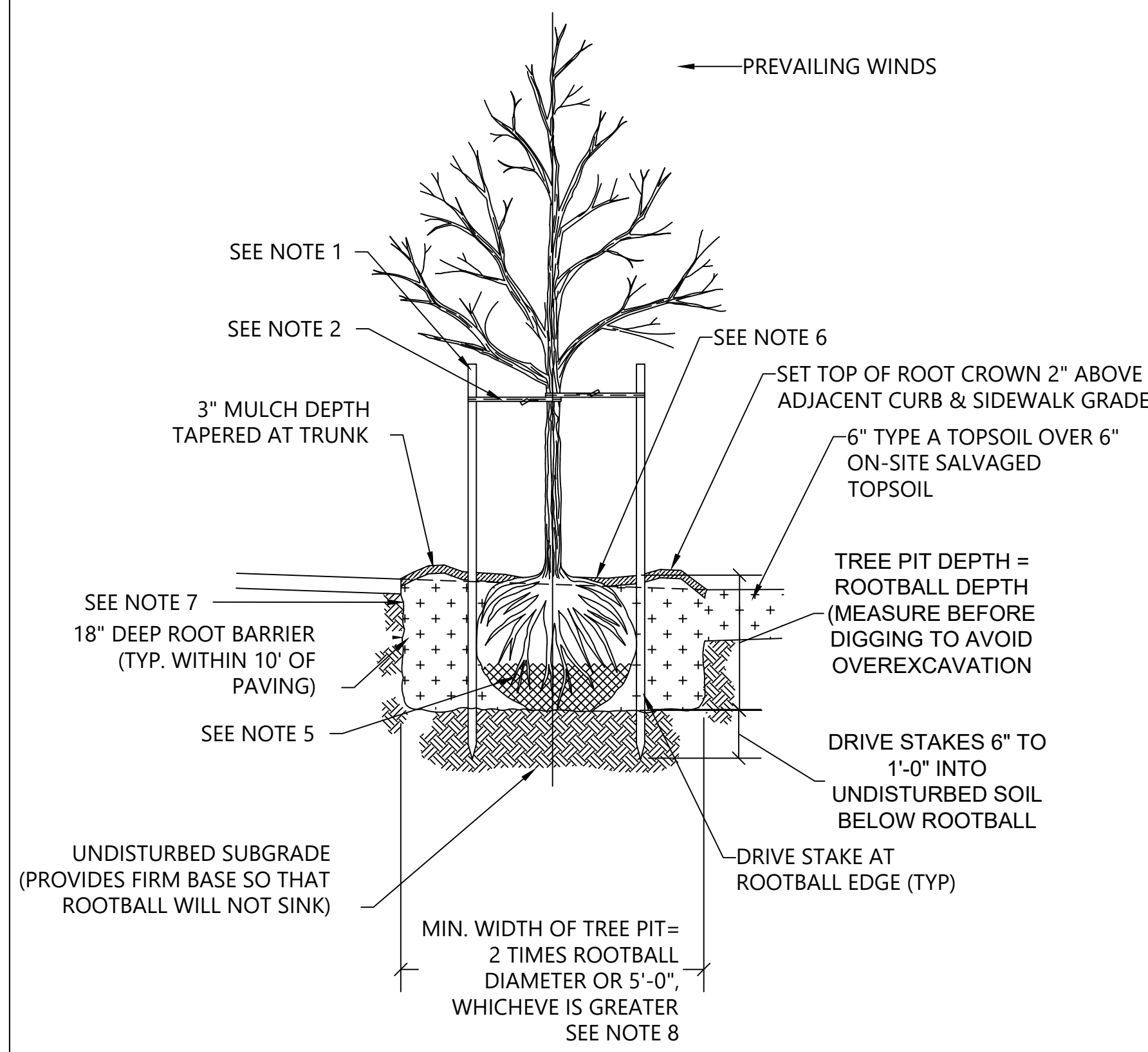


LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS

PLANT SCHEDULE

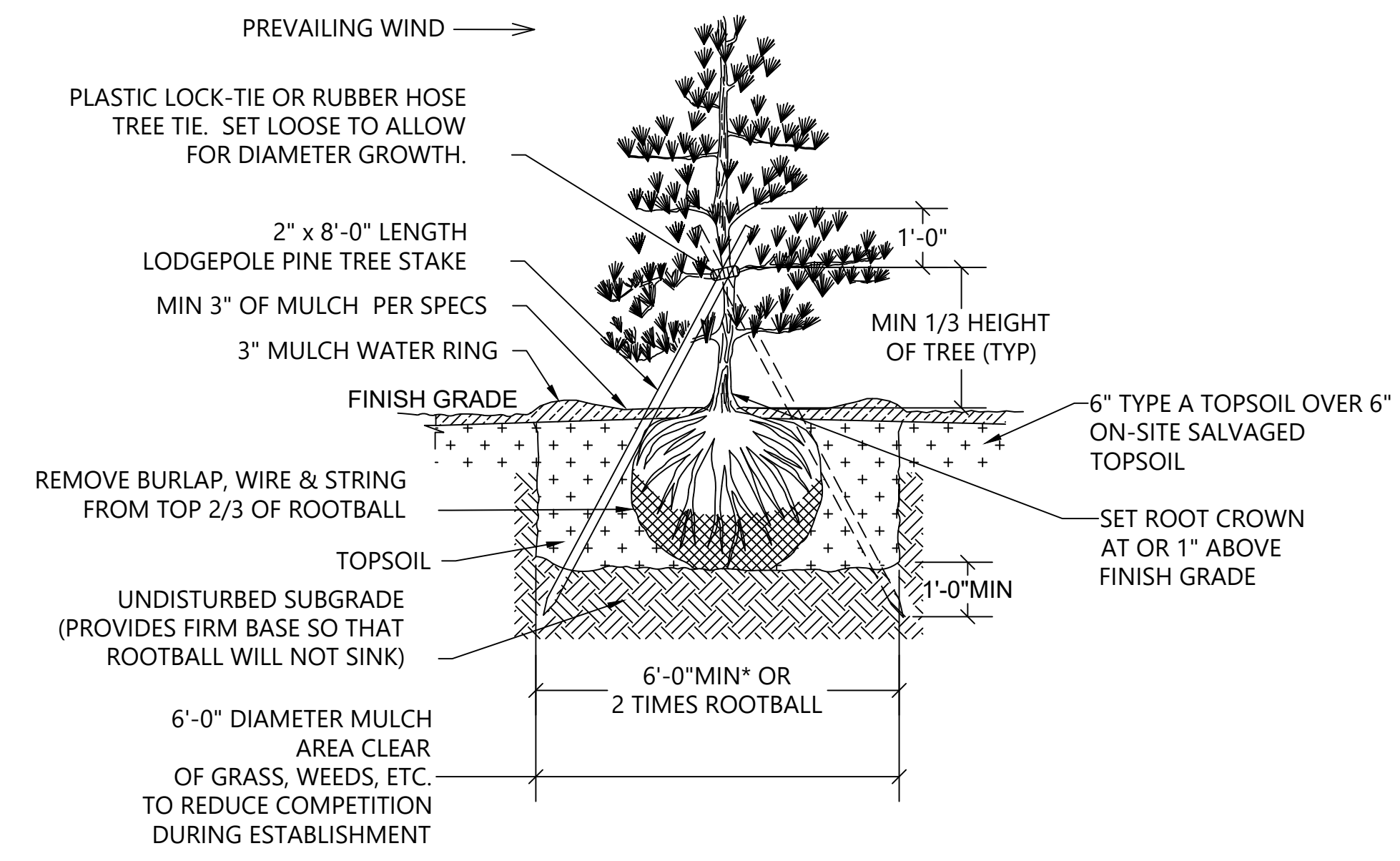
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DESIGN: AS	SCALE: AS NOTED
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DRAWING NO.	L-011
SHEET NO. 26	OF 44

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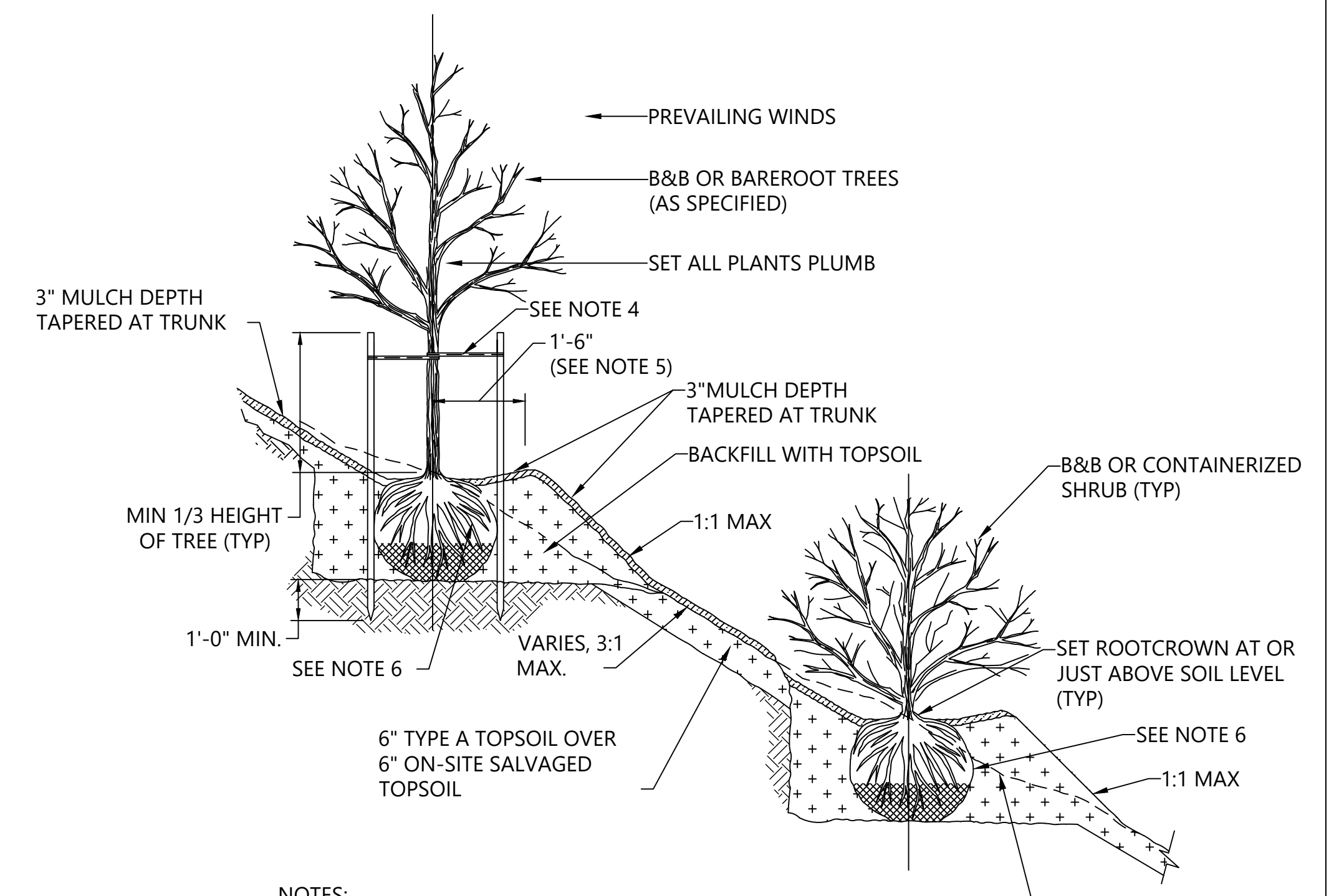


- NOTES:
1. STAKE TREES WITH (2) 2" DIAMETER (8'-0" LENGTH) LODGE POLE PINE OR DOUGLAS FIR STAKES
 2. CHAINLOCK TREE TIE. LOOP EACH TIE AROUND TREE LOOSELY TO PROVIDE 1" SLACK FOR DIAMETER GROWTH.
 3. ONE STAKE PER TREE ON WINDWARD SIDE;
 4. SECOND STAKE ON LEEWARD SIDE
 5. REMOVE ALL WIRE AND STRING. REMOVE TOP 2/3 OF BURLAP
 6. SHAPE SOIL TO PROVIDE 3' DIAMETER OR ROOTBALL DIAMETER, WHICHEVER IS GREATER, WATERING RING.
 7. ROUGHEN SIDES OF PLANTING HOLE MAXIMIZE EXCAVATED AREA WITHOUT UNDERMINING ADJACENT PAVING/CURB
 8. MULCH AREA TO BE CLEAR OF GRASS, WEEDS, ETC. TO REDUCE COMPETITION WITH TREE ROOTS

1 DECIDUOUS TREE PLANTING & STAKING
SCALE: NTS

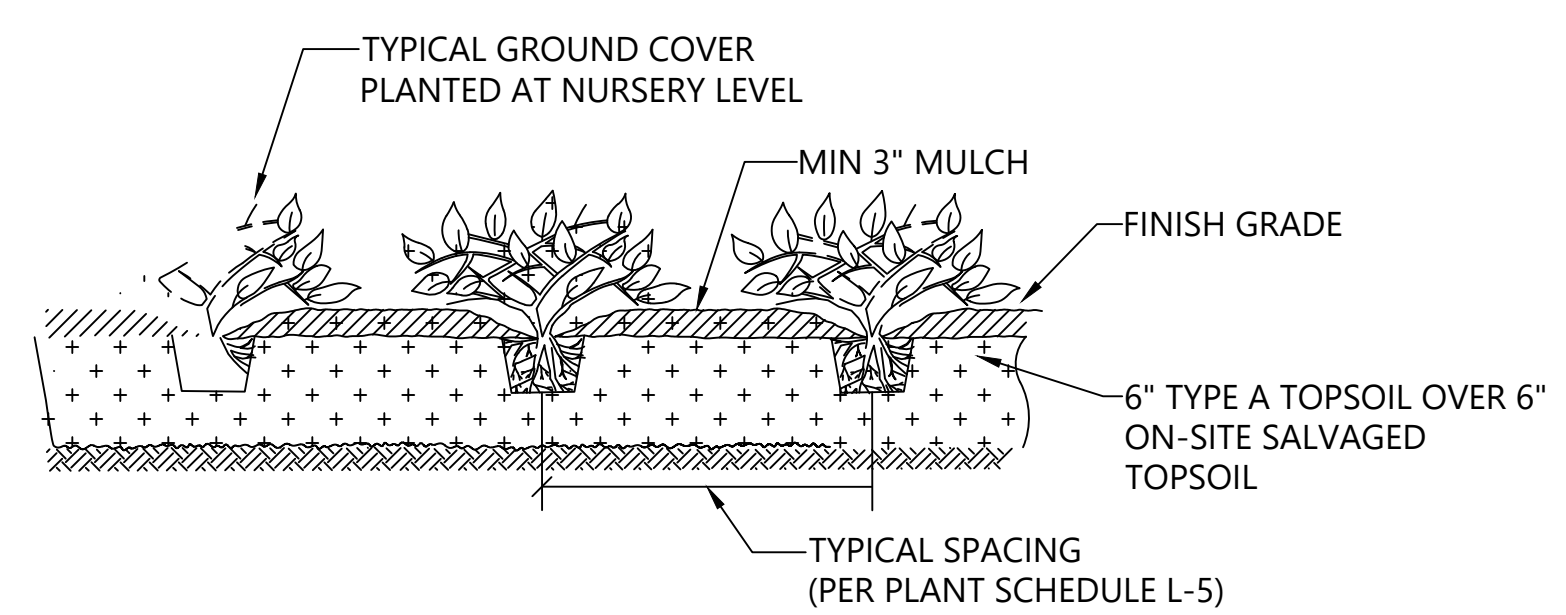


2 CONIFEROUS TREE PLANTING & STAKING
SCALE: NTS

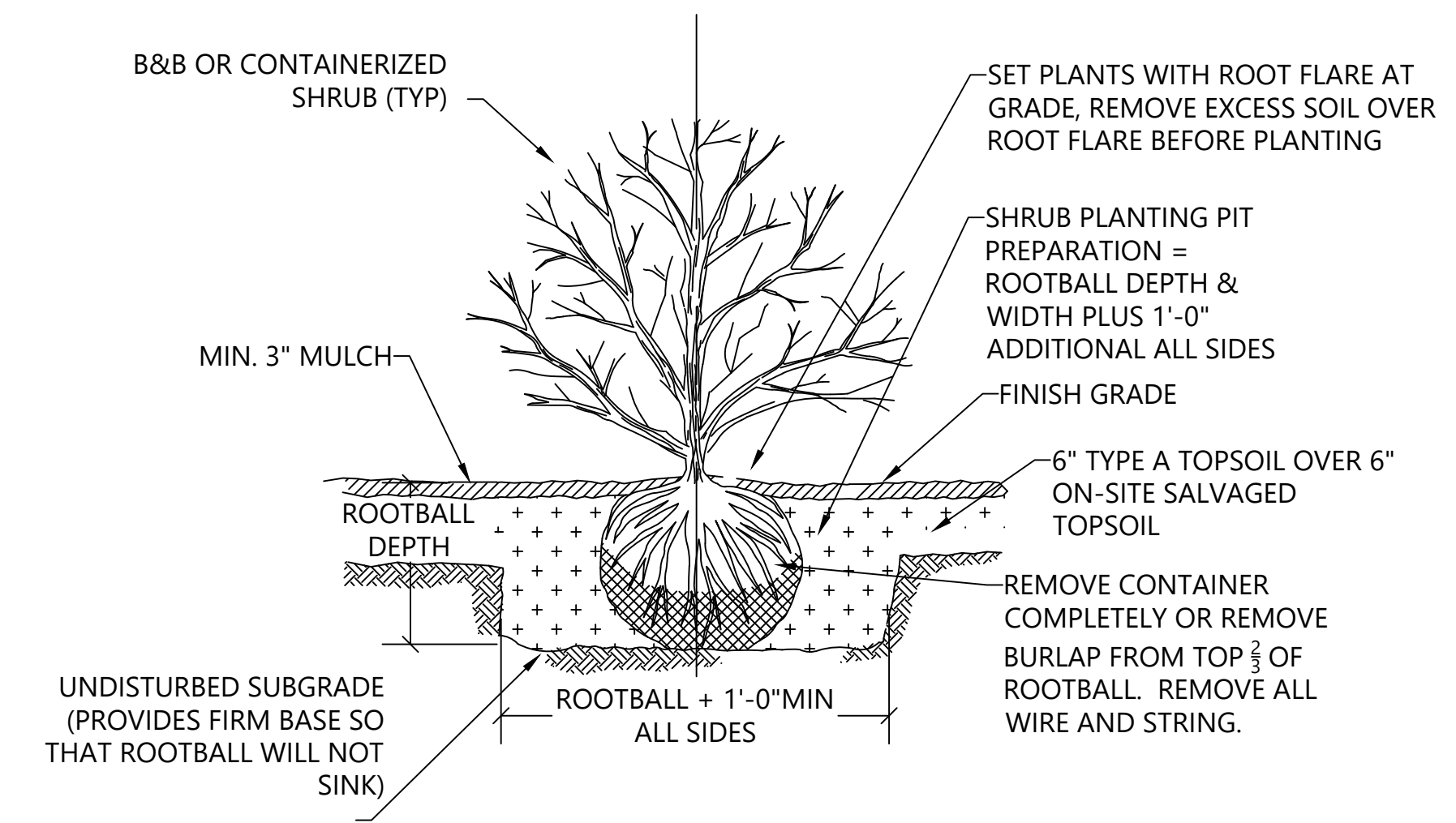


- NOTES:
1. STAKE TREES 2" DIA LODGE POLE PINE OR DOUGLAS FIR STAKES
 2. ONE STAKE PER TREE ON WINDWARD SIDE;
 3. SECOND STAKE ON LEEWARD SIDE
- SLOPES STEEPER THAN 3:1 MAY REQUIRE AN APPROVED EMBANKMENT STABILIZATION SYSTEM TO CREATE A LEVEL TREE PIT SUCH AS:
- ROCK FACING
 - PRECAST CONCRETE WALL UNITS
 - TIMBER WALL
 - MANUFACTURED SLOPE RETENTION UNITS
4. CHAINLOCK TREE TIE. LOOP EACH TIE AROUND TREE LOOSELY TO PROVIDE 1" SLACK FOR DIAMETER GROWTH.
 5. SHAPE SOIL TO PROVIDE 3' DIAMETER OR ROOTBALL DIAMETER, WHICHEVER IS GREATER, WATERING RING.
 6. REMOVE ALL WIRE AND STRING. REMOVE TOP 2/3 OF BURLAP.

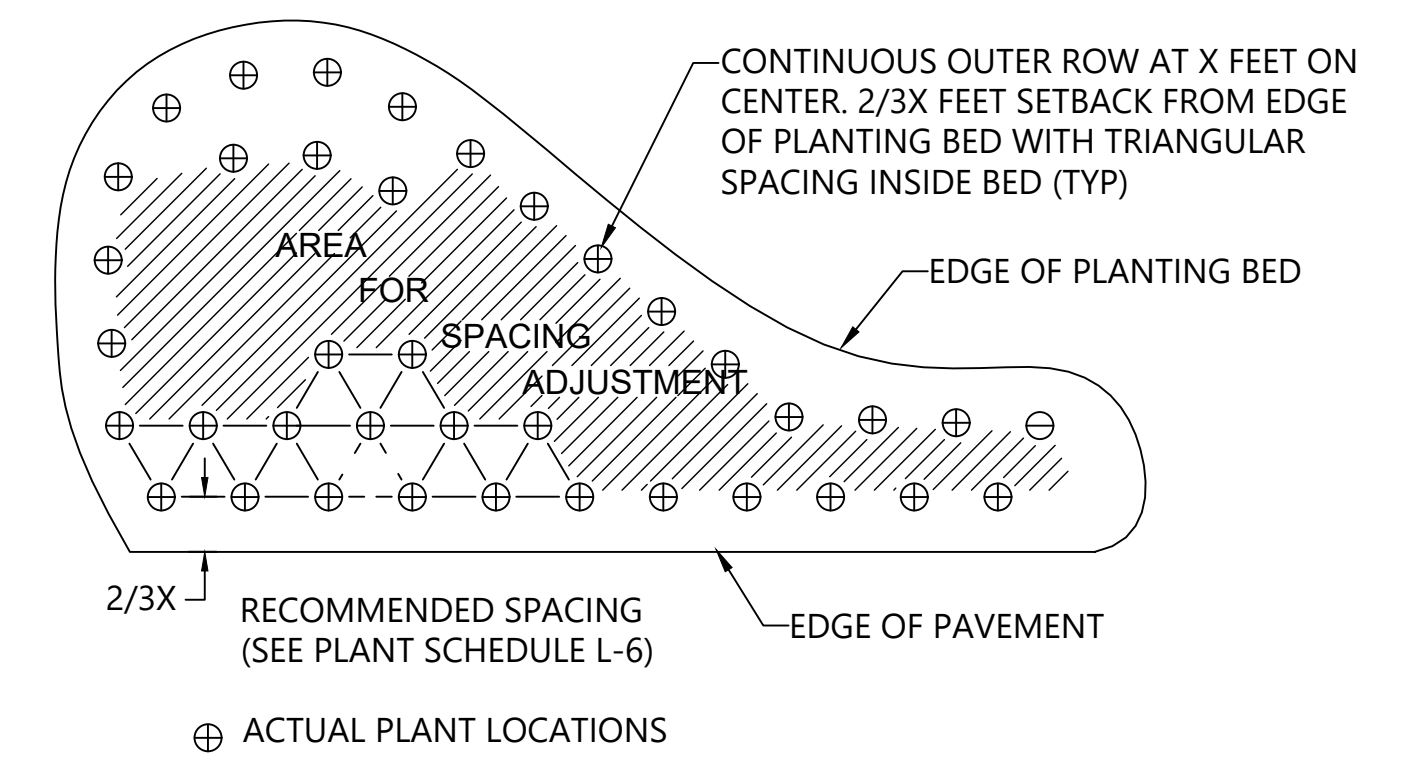
3 PLANTING ON SLOPES
SCALE: NTS



4 GROUNDCOVER, PERENNIAL, AND ORNAMENTAL GRASS PLANTING
SCALE: NTS



5 SHRUB PLANTING
SCALE: NTS



- NOTES: APPLY PLANTING PATTERN FOR SHRUB, GROUNDCOVER, GRASS, AND PERENNIAL PLANTINGS

6 PLANTING PATTERN
SCALE: NTS

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LUTHER BURBANK PARK WATERFRONT IMPROVEMENTS

PLANTING DETAILS

DRAWN: CW/RF	PROJECT NO.: 2200248
DESIGN: AS	SCALE: AS NOTED
CHECKED: AS/DR	DATE: 10/07/2022
DRAWING NO.	L-012
SHEET NO. 27	OF 44

60% SUBMITTAL

STRUCTURAL NOTES

DESIGN LOADS

ALL DESIGN AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION, AS AMENDED BY THE CITY OF MERCER ISLAND.

DEAD LOADS (DL)
DEAD LOADS SHALL INCLUDE THE SELF WEIGHT OF MATERIALS AND COMPONENTS LISTED BELOW.

REINFORCED CONCRETE = 150 PCF
STRUCTURAL STEEL = 490 PCF
WOOD/TIMBER = 35 PCF

GANGWAY DL ASSUMED = 105 PLF (HALF SUPPORTED AT EACH END)

DESIGN FREEBOARDS UNDER DEAD LOAD: WAVE ATTENUATOR/MOORING FLOAT = 24" ±2"
FINGER FLOATS = 1'-6" ±2"
GENERAL PURPOSE FLOAT = 9" ±1"
KAYAK FINGER FLOATS = 9" ±1"
ADA KAYAK LAUNCH = 9" ±1"

FLOAT CROSS SLOPES UNDER DEAD LOAD ONLY SHALL NOT EXCEED 2% (1:50). SEE MAXIMUM SLOPES BELOW.

FLOATS CONSIST OF FLOAT CONCRETE, STRUCTURAL STEEL, WOOD/TIMBER, FLOTATION PONTOONS, FRP GRATING, FOAM, RUBRAILS, BULLRAILS, CONNECTION HARDWARE, PILE GUIDE BRACKETS, GANGWAYS AND ALL HARDWARE PERMANENTLY ATTACHED TO THE FLOATS INCLUDING STANDPIPES, ETC.

LIVE LOADS (ULL & CLL)

IN ADDITION TO THE DEAD LOADS, THE FOLLOWING LIVE LOADS SHALL BE USED FOR DESIGN. LIVE LOAD REDUCTION IS PER IBC SECTION 1607.11.

FIXED PIER = 50 PSF UNIFORM LIVE LOAD (ULL)
GANGWAYS = 100 PSF ULL (FOR DELEGATED STRUCTURAL DESIGN)
= 50 PSF ULL (FOR SUPPORT REACTIONS AT EACH END)
FLOATS = 25 PSF ULL
= 400 LB CONCENTRATED LIVE LOAD (CLL)

CLL SHALL ACT OVER A 6"x6" AREA, APPLIED AT ANY POINT ON THE FLOAT DECK NOT CLOSER THAN 12" FROM ANY EDGE.

MAXIMUM SLOPES

MAXIMUM CROSS SLOPE UNDER DL ONLY, DL + ULL, OR DL + CLL: SHALL NOT EXCEED 2% (1:50)

MAXIMUM LONGITUDINAL SLOPE UNDER DL ONLY, AND DL + ULL: 1/8 INCH PER FOOT, NOT TO EXCEED 1 INCH IN 10 FEET UNDER DL AND CLL: 1/4 INCH PER FOOT, NOT TO EXCEED 2 INCHES IN 10 FEET

SNOW LOAD

THE SNOW LOAD IS DETERMINED USING CHAPTER 7 OF ASCE 7 IN ACCORDANCE WITH IBC SECTION 1608 AND WITH THE FOLLOWING FACTORS:

MINIMUM DESIGN LOAD 25 PSF PER MERCER ISLAND BUILDING CODE

SEISMIC LOADS

THE SEISMIC FORCE-RESISTING SYSTEM (SFRS) USED TO RESIST EARTHQUAKE AND WIND LOADS IS COMPRISED OF CANTILEVERED STEEL PILES DESIGNED TO REMAIN ELASTIC FOR CODE LEVEL EARTHQUAKE. EARTHQUAKE DESIGN IS BASED ON THE EQUIVALENT LATERAL FORCE PROCEDURE IN ASCE 7 SECTION 12.8 WITH THE FOLLOWING FACTORS:

SITE CLASS C	h_n =	___ FT
RISK CATEGORY II	T =	___ SECONDS
SEISMIC DESIGN CATEGORY D	R =	1.00
I_e = 1.00	ρ =	___
S_s = 1.388 g	C_s =	1.110
S_1 = 0.482 g	V =	C.W = ___ KIPS
S_{ps} = 1.110 g		
S_{D1} = 0.483 g		
T_L = ___ SECONDS		

THE SEISMIC FORCE-RESISTING SYSTEM IS COMPRISED OF THE STRUCTURAL CANTILEVERED STRUCTURAL STEEL PILES IDENTIFIED IN PLAN AND/OR ELEVATION.

WIND LOADS

WIND LOAD IS DETERMINED USING CHAPTERS 26-31 OF ASCE 7 IN ACCORDANCE WITH IBC SECTION 1609 WITH THE FOLLOWING FACTORS:

RISK CATEGORY II	K_{zt} =	1.0
EXPOSURE CATEGORY D	K_e =	1.0
V = 97.5 MPH	G_{cp} =	0.0
V_{std} = 75.5 MPH		

MINIMUM WIND LOAD APPLIED TO ALL PROJECTED VERTICAL SURFACES OF DOCKS, FLOATS, AND BERTHED BOATS SHALL NOT BE LESS THAN 15 PSF, APPLIED ABOVE THE WATER SURFACE.

SOIL LOADS

ALLOWABLE SOIL-BEARING PRESSURE 4000 PSF DL + LL
5333 PSF DL + LL + SEISMIC/WIND
PILE CAPACITY 5000 PSF DOWNWARD, END BEARING
350 PSF/LF DOWNWARD, SKIN FRICTION
300 PSF/LF UPWARD, SKIN FRICTION
2000 PSF LATERAL, 0 TO 5FT
4500 PSF LATERAL, > 5FT

WAVE LOADS

100-YR WIND WAVES
EXTREME WAVE HEIGHT = 2.0 FT
PERIOD = 2.7 SECONDS
LENGTH = 37.3 FT
HORIZONTAL WAVE LOAD = TBD

BOAT WAKE
EXTREME WAVE HEIGHT = 1.6 FT
PERIOD = 2.0 SECONDS
LENGTH = 20.5 FT
HORIZONTAL WAVE LOAD = TBD

GENERAL NOTES

SUBMITTALS

SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO ANY FABRICATION OR CONSTRUCTION FOR ALL STRUCTURAL ITEMS, INCLUDING THE FOLLOWING: CONCRETE OR MASONRY REINFORCEMENT, EMBEDDED STEEL ITEMS, STRUCTURAL STEEL, AND GRATING.

IF THE SHOP DRAWINGS DIFFER FROM OR ADD TO THE DESIGN OF THE STRUCTURAL DRAWINGS, THEY SHALL BEAR THE SEAL AND SIGNATURE OF THE WASHINGTON STATE REGISTERED PROFESSIONAL ENGINEER WHO IS RESPONSIBLE FOR THE DESIGN.

DEFERRED SUBMITTALS

PER IBC SECTION 107.3.4.1, DRAWINGS AND CALCULATIONS FOR THE DESIGN AND FABRICATION OF ITEMS THAT ARE DESIGNED BY OTHERS SHALL BEAR THE SEAL AND SIGNATURE OF THE WASHINGTON STATE REGISTERED PROFESSIONAL ENGINEER WHO IS RESPONSIBLE FOR THE DESIGN AND SHALL BE SUBMITTED TO THE ENGINEER AND THE BUILDING DEPARTMENT FOR REVIEW PRIOR TO FABRICATION. DEFERRED SUBMITTALS INCLUDE BUT ARE NOT LIMITED TO THE FOLLOWING:

GANGWAY
WAVE ATTENUATOR/MOORING FLOAT
FINGER FLOAT
GENERAL PURPOSE FLOAT
KAYAK FINGER FLOAT
ADA KAYAK LAUNCH

NONSTRUCTURAL COMPONENTS

DESIGN, DETAILING AND ANCHORAGE OF ALL NONSTRUCTURAL COMPONENTS SHALL BE IN ACCORDANCE WITH IBC SECTION 1613, ASCE 7 CHAPTER 13, AND THE PROJECT SPECIFICATIONS. NONSTRUCTURAL COMPONENTS DESIGNED BY OTHERS SHALL NOT INDUCE TORSIONAL LOADING INTO SUPPORTING STRUCTURAL MEMBERS WITHOUT ADDITIONAL BRACING OF THOSE MEMBERS TO ELIMINATE TORSIONAL FORCES. TORSIONAL BRACING SHALL BE DESIGNED BY THE NONSTRUCTURAL COMPONENT DESIGNER AND APPROVED BY THE ENGINEER.

DESIGN, DETAILING AND CONSTRUCTION OF ALL NONSTRUCTURAL COMPONENTS WHICH ATTACH TO STRUCTURE SHALL ACCOMMODATE CONSTRUCTION TOLERANCES AS ESTABLISHED BY THE STRUCTURAL SPECIFICATIONS

INSPECTION

SPECIAL INSPECTION PER IBC CHAPTER 17 SHALL BE PERFORMED BY AN APPROVED TESTING AGENCY AS INDICATED IN THE STATEMENT OF SPECIAL INSPECTIONS AND TESTING. ALL PREPARED SOIL-BEARING SURFACES SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF REINFORCING STEEL. SOIL COMPACTION SHALL BE SUPERVISED BY AN APPROVED TESTING AGENCY OR GEOTECHNICAL ENGINEER.

STRUCTURAL OBSERVATION

STRUCTURAL OBSERVATION OF THE SFRS WILL BE PERFORMED BY THE STRUCTURAL ENGINEER OF RECORD IN ACCORDANCE WITH IBC SECTION 1704.6. STRUCTURAL OBSERVATION CONSISTS OF VISUAL OBSERVATION OF THE STRUCTURAL SYSTEMS FOR GENERAL CONFORMANCE TO THE CONSTRUCTION DOCUMENTS AND DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED BY THE IBC AND AS SHOWN IN THE SPECIAL INSPECTIONS SCHEDULE. CONTRACTOR SHALL PROVIDE A MINIMUM OF 72 HOURS NOTICE BEFORE CONCEALING THE FOLLOWING STRUCTURAL COMPONENTS FROM VIEW:

REINFORCING STEEL FOR THE FIRST PLACEMENT OF THE FOLLOWING ELEMENTS: SFRS PILE CAPS.

STRUCTURAL OBSERVATIONS IN ADDITION TO THOSE REQUIRED BY IBC SECTION 1704.6 MAY BE PERFORMED AT THE ENGINEER'S DISCRETION. TIMING OF THESE SHALL BE DISCUSSED AT THE PREINSTALLATION CONFERENCE.

SPECIAL CONDITIONS

CONTRACTOR SHALL VERIFY ALL LEVELS, DIMENSIONS, AND EXISTING CONDITIONS IN THE FIELD BEFORE PROCEEDING. CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR FIELD CHANGES PRIOR TO INSTALLATION OR FABRICATION. IN CASE OF DISCREPANCIES BETWEEN THE EXISTING CONDITIONS AND THE DRAWINGS, THE CONTRACTOR SHALL OBTAIN DIRECTION FROM THE ENGINEER BEFORE PROCEEDING. DIMENSIONS NOTED AS PLUS OR MINUS (+) INDICATE UNVERIFIED DIMENSIONS AND ARE APPROXIMATE. NOTIFY ENGINEER IMMEDIATELY OF CONFLICTS OR EXCESSIVE VARIATIONS FROM INDICATED DIMENSIONS. NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS—DO NOT SCALE DRAWINGS. DIMENSIONS OF EXISTING CONDITIONS ARE BASED ON THE 1973 PIER PLANS AND 1988 FINGER PIER PLANS AND ARE TO BE FIELD-VERIFIED BY THE CONTRACTOR.

CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS, EXISTING CONSTRUCTION AND SOIL EXCAVATIONS, AS REQUIRED, AND IN A MANNER SUITABLE TO THE WORK SEQUENCE. TEMPORARY SHORING AND BRACING SHALL NOT BE REMOVED UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE DRAWINGS AND MATERIALS HAVE ACHIEVED DESIGN STRENGTH.

FIELD LOCATE REINFORCING BARS, TENDONS, AND EMBEDS AND PROVIDE A MINIMUM OF 2" CLEARANCE TO ALL CONCRETE CORES AND CUTS. NO REINFORCING BARS, TENDONS, OR EMBEDS IN EXISTING CONSTRUCTION SHALL BE CUT UNLESS DIRECTED TO BY THE ENGINEER OR AS SHOWN ON THE DRAWINGS.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE WORK.

SOILS

SEE THE GEOTECHNICAL REPORT BY GEOENGINEERS, INC, DATED _____, FOR MORE COMPLETE INFORMATION. EARTHWORK MATERIAL, BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT. BACKFILL BEHIND WALLS SHALL NOT BE PLACED BEFORE THE WALLS AND SUPPORTING SLABS ACHIEVE 28 DAY CONCRETE STRENGTH OR THE WALLS ARE TEMPORARILY BRACED. ALL TOPSOIL ORGANICS AND LOOSE SURFACE SOIL SHALL BE REMOVED FROM BENEATH FILL SUPPORTING CONCRETE SLABS OR PAVING.

MEMBER SPACING

ALL FRAMING MEMBERS SHALL BE EQUALLY SPACED BETWEEN GRID LINES, COLUMNS, AND DIMENSIONED FRAMING UNLESS NOTED OTHERWISE.

CONCRETE

CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF IBC CHAPTER 19.

CONCRETE MIXTURES

CONCRETE MIXTURES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

CONCRETE MIXTURES						
f _c (PSI)	TEST AGE(DAYS)	EXPOSURE CLASS				USE
		F	S	W	C	
4,000	28	F ₋	S ₋	W ₋	C ₋	FOUNDATIONS, CONCRETE PILE CAPS

CONCRETE MIXTURES SHALL CONFORM TO THE MOST STRINGENT REQUIREMENTS FOR EXPOSURE CLASSES SPECIFIED IN THE TABLE ABOVE AND ACI 318 TABLE 19.3.2.1.

WATER-REDUCING ADMIXTURES MAY BE INCORPORATED IN CONCRETE MIX DESIGNS BUT SHALL CONFORM TO ASTM C 494, AND BE USED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CaCl₂ OR OTHER WATER-SOLUBLE CHLORIDE ADMIXTURES SHALL NOT BE USED.

WATER/CEMENTITIOUS MATERIALS RATIO SHALL BE MEASURED BY WEIGHT AND SHALL BE BASED ON THE TOTAL CEMENTITIOUS MATERIAL. WATER/CEMENTITIOUS MATERIALS RATIO AND WATER CONTENT SHALL BE DETERMINED BY THE SUPPLIER BASED ON STRENGTH REQUIREMENTS AND SHALL NOT EXCEED THE MAXIMUM WATER/CEMENTITIOUS MATERIAL RATIO AND/OR WATER CONTENT IF SHOWN ABOVE OR IN ACI 318 TABLE 19.3.2.1 FOR THE EXPOSURE CLASSES LISTED.

FIELD-MEASURED SLUMP SHALL CONFORM TO THE SUBMITTED CONCRETE MIX DESIGN. TOLERANCE OF SLUMP SHALL CONFORM TO ASTM C 94.

ALL CONCRETE SUBJECT TO EXPOSURE CLASSES F1, F2 OR F3 SHALL BE AIR ENTRAINED. AIR-ENTRAINING AGENTS SHALL CONFORM TO ASTM C 260. THE AMOUNT OF ENTRAINED AIR SHALL BE ACCORDING TO ACI 318 TABLE 19.3.3.1 WITH A FIELD TOLERANCE OF ±1.5 PERCENT BY VOLUME. THE AMOUNT OF ENTRAINED AIR SHALL BE MEASURED IN THE FIELD AT THE DISCHARGE FROM THE TRUCK.

THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR APPROVAL 2 WEEKS PRIOR TO PLACING ANY CONCRETE. THE MIX DESIGN SHALL BE IN CONFORMANCE WITH ACI 318, CHAPTER 19. THE SUBMITTAL SHALL INDICATE WHERE EACH CONCRETE MIX IS TO BE USED ON THE PROJECT, AS WELL AS THE MAXIMUM AGGREGATE SIZE OF EACH MIX. MAXIMUM AGGREGATE SIZE SHALL CONFORM TO THE PROJECT SPECIFICATIONS.

CURING

IF THE AIR TEMPERATURE WILL EXCEED 75 DEGREES F WITHIN 48 HOURS OF PLACING CONCRETE, A MOIST CURE SHALL BE APPLIED TO THE CONCRETE FOR A PERIOD OF 36 HOURS AFTER FINISHING CONCRETE SURFACES. REFER TO THE PROJECT SPECIFICATIONS FOR CURING REQUIREMENTS.

REINFORCING STEEL

DEFORMED BARS	ASTM A 615, GRADE 60
HEADED DEFORMED BARS	ASTM A 970, HEAD TYPE HA

REINFORCING SHALL BE SUPPORTED AS SPECIFIED BY THE PROJECT SPECIFICATIONS AND THE CRSI MANUAL OF STANDARD PRACTICE. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH ACI STANDARD OF PRACTICE AS OUTLINED IN ACI 315, "GUIDE TO PRESENTING REINFORCING STEEL DESIGN DETAILS".

LAP ALL REINFORCING BARS AS NOTED ON THE DRAWINGS. WHERE SPLICE LENGTH IS NOT SHOWN, USE TYPE 1 (L FOR TOP BARS) SPLICE PER DEVELOPMENT AND SPLICE LENGTH SCHEDULE. MECHANICAL SPLICES CALLED OUT ON THE PLANS SHALL BE TYPE 1, UNLESS OTHERWISE NOTED. TYPE 1 SPLICES SHALL DEVELOP 125 PERCENT OF THE YIELD CAPACITY OF THE SPLICED BARS IN BOTH TENSION AND COMPRESSION. TYPE 2 SPLICES SHALL DEVELOP THE SPECIFIED TENSILE STRENGTH OF THE SPLICED BARS IN TENSION IN ADDITION TO MEETING TYPE 1 SPLICE REQUIREMENTS. SUBMIT ICC-ES OR IAPMO UES REPORT VALID FOR THE 2018 IBC DEMONSTRATING COMPLIANCE OF COUPLERS WITH THESE REQUIREMENTS.

AT THE CONTRACTOR'S OPTION AND WITH THE ENGINEER'S APPROVAL, HEADED DEFORMED BARS MAY BE USED IN LIEU OF REINFORCING BARS SHOWN WITH STANDARD 90 OR 180 DEGREE HOOKS AND MECHANICAL SPLICES MAY BE USED IN LIEU OF LAP SPLICES. USE OF HEADED DEFORMED BARS IS SUBJECT TO CONFORMANCE WITH ACI 318 SECTION 25.4.4. USE OF MECHANICAL SPLICES IS SUBJECT TO CONFORMANCE WITH ACI 318 SECTION 18.2.7 AND REQUIRES SUBMITTAL OF AN ICC-ES OR IAPMO UES REPORT VALID FOR THE 2018 IBC.

REINFORCING STEEL SHALL HAVE PROTECTION AS FOLLOWS, UNLESS NOTED OTHERWISE:

USE	COVER
BEAM STIRRUPS AND COLUMN TIES	1 1/2"
NONSTRUCTURAL SLAB-ON-GRADE	PER DETAILS
STRUCTURAL SLAB-AT-GRADE BOTTOM BARS	2"
WALL BARS:	
EXPOSED TO EARTH OR WEATHER	1 1/2" (#5 AND SMALLER)
FOOTING, PILE CAP, GRADE BEAM BOTTOM BARS	2" (#6 AND LARGER)
TOP BARS	3" (CAST AGAINST EARTH)
SIDE BARS	1 1/2"
EXPOSED TO EARTH OR WEATHER	2" (#6 AND LARGER WHERE EXPOSED TO EARTH OR WEATHER)
SIDE BARS	2"

WELDING OF REINFORCING, WHERE APPROVED BY THE ENGINEER, SHALL BE PERFORMED USING LOW HYDROGEN ELECTRODES AND PREHEATED IN ACCORDANCE WITH AWS D1.4. REINFORCING STEEL WELDING CODE. WELDERS AND WELDING PROCEDURES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS D1.4. MATERIALS SHALL CONFORM TO THE FOLLOWING:

REINFORCING BARS TO BE WELDED	ASTM A 706, GRADE 60, LOW ALLOY
WELDING ELECTRODES	E80XX

NONSHRINK GROUT

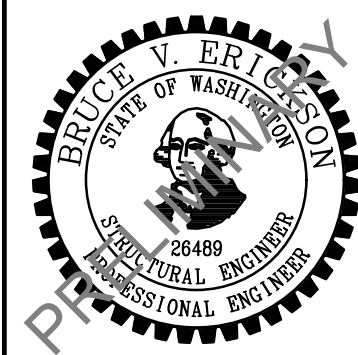
BASE PLATE GROUT SHALL BE NONSHRINK TYPE WITH MINIMUM f_c = 8,000 PSI. ALL OTHER NONSHRINK GROUT SHALL HAVE MINIMUM f_c = 5,000 PSI.

±	PLUS OR MINUS, TOLERANCE, CONTRACTOR VERIFY
@	AT
ADA	AMERICANS WITH DISABILITIES ACT
APPROX	APPROXIMATE, APPROXIMATELY
BLDG	BUILDING
BTM	BOTTOM
CL, CL	CENTERLINE
CLR	CLEAR
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
DBL	DOUBLE
DIA, Ø	DIAMETER
EA	EACH
EG	EXISTING GRADE
EL, ELEV	ELEVATION
EQ	EQUAL, EQUALLY
EXIST, (E)	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
FRP	FIBERGLASS REINFORCED PLASTIC
GALV	GALVANIZED
HDG	HOT DIPPED GALVANIZED
HSS	HOLLOW STRUCTURAL SECTION
IE	INVERT ELEVATION
INFO	INFORMATION
JT	JOINT
L	ANGLE
LB	POUND
MAX	MAXIMUM
MB	MALLEABLE BOLT
MIN	MINIMUM
NTS	NOT TO SCALE
OC	ON CENTER
OLWWM	ORDINARY HIGH WATER MARK, ELEVATION 18.67
OLWWM	ORDINARY LOW WATER MARK, ELEVATION 16.75
OPP	OPPOSITE
PCF	POUNDS PER CUBIC FOOT
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PT	PRESSURE TREATED
REINF	REINFORCEMENT
SIM	SIMILAR
SPA	SPACED, SPACING, SPACES
ST	STEEL
SYMM	SYMMETRY, SYMMETRICAL
TYP	TYPICAL
UHMW	ULTRA HIGH MOLECULAR WEIGHT
UNO	UNLESS NOTED OTHERWISE
UV	ULTRA VIOLET
VIF	VERIFY IN FIELD
w/	WITH
WP	WORK POINT

ABBREVIATIONS LIST



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NO.	DATE	BY	REVISION



LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS

STRUCTURAL NOTES

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-001
SHEET NO.	28 OF 44

60% SUBMITTAL

STRUCTURAL NOTES

ANCHORS

POST-INSTALLED ANCHORS

PROVIDE POST-INSTALLED ANCHORS PER THE FOLLOWING SCHEDULE UNLESS NOTED OTHERWISE:

ANCHORS IN CONCRETE		
ANCHOR TYPE	APPROVED ANCHOR(S)	EVALUATION REPORT
ADHESIVE	-	ICC-ES ESR-
MECHANICAL	-	ICC-ES ESR-

ADHESIVE REINFORCING DOWEL MATERIALS

ADHESIVE REINFORCING DOWELS (ARD) ASTM A 615, GRADE 60
 THREADED ARD ASTM F 1554, GRADE 36 (CARBON STEEL)
 ASTM A193 B8M CLASS 1 (STAINLESS)

ANCHOR EMBEDMENT DEPTHS LISTED SHALL BE CONSIDERED EFFECTIVE EMBEDMENT DEPTHS AS DEFINED IN THE ICC-ES OR IAPMO UES EVALUATION REPORTS. PROVIDE ANCHOR LENGTH AND HOLE PER EVALUATION REPORT TO ACCOMMODATE THE EFFECTIVE EMBEDMENT SPECIFIED IN THESE DRAWINGS.

MECHANICAL AND ADHESIVE ANCHORS SHALL BE ZINC PLATED CARBON STEEL UNLESS NOTED OTHERWISE. MECHANICAL AND ADHESIVE ANCHORS EXPOSED TO WEATHER SHALL BE STAINLESS STEEL.

DO NOT DAMAGE EXISTING REINFORCEMENT. IF LOCATION OF REINFORCEMENT IS UNKNOWN, SCAN FOR EXISTING REINFORCING STEEL PRIOR TO DRILLING.

USE OF ALTERNATE PRODUCTS, OR OF POST-INSTALLED ANCHORS AT LOCATIONS NOT SHOWN IN THESE DRAWINGS, IS SUBJECT TO THE APPROVAL OF THE ENGINEER. SUBMIT PROPOSED ANCHORS TO THE ENGINEER WITH AN ICC-ES OR IAPMO UES REPORT VALID FOR THE 2018 IBC AND DOCUMENTATION SHOWING THAT THE ALTERNATE PRODUCTS PROVIDE EQUIVALENT CAPACITY FOR ALL CONDITIONS IN THIS PROJECT. SUBMITTED ICC-ES AND IAPMO UES REPORTS SHALL DEMONSTRATE THAT THE ANCHORS ARE SUITABLE FOR USE IN CRACKED CONCRETE. WHERE ANCHORS RESIST SEISMIC LOADS OR SUSTAINED TENSION, SUBMITTED ICC-ES AND IAPMO UES REPORTS SHALL DEMONSTRATE THAT THE ANCHORS ARE SUITABLE FOR THE RESISTANCE OF SEISMIC LOADS OR SUSTAINED TENSION (AS APPLICABLE). DOCUMENTATION OF CAPACITY FOR ALTERNATE PRODUCTS MUST BE INCLUDED AS A DEFERRED SUBMITTAL.

ADHESIVES SHALL NOT BE INSTALLED PRIOR TO THE CONCRETE REACHING AN AGE OF 21 DAYS AS REQUIRED BY ACI 318.

ADHESIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED TO SUPPORT SUSTAINED TENSION LOADS SHALL BE INSTALLED BY PERSONNEL CERTIFIED BY THE ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM, OR EQUIVALENT PROGRAM.

WELDED HEADED STUDS, WELDED THREADED STUDS, AND DEFORMED BAR ANCHORS
 ALL STUDS AND DEFORMED BAR ANCHORS (DBA) SHALL BE AUTOMATICALLY END WELDED IN SHOP OR FIELD WITH EQUIPMENT RECOMMENDED BY MANUFACTURER WITH LENGTH AFTER WELD AS SHOWN ON THE STRUCTURAL DRAWINGS.

TYPE	MATERIAL	SIZE
WELDED HEADED STUDS	AWS D1.1 TYPE B	3/4"Ø UNLESS NOTED OTHERWISE
WELDED THREADED STUDS	AWS D1.1 TYPE A	PER DETAILS
DEFORMED BAR ANCHORS	ASTM A 1064	1/2"Ø UNLESS NOTED OTHERWISE

STRUCTURAL STEEL

REFERENCE SPECIFICATIONS

STRUCTURAL STEEL AISC 360 "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"

HIGH STRENGTH BOLTS RCSC "SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS"

WELDING AWS D1.1, TYPICAL
 AWS PREQUALIFIED JOINT DETAILS

WELDER CERTIFICATION AMERICAN WELDING SOCIETY (AWS)
 WASHINGTON ASSOCIATION OF BUILDING OFFICIALS (WABO)

STEEL MATERIALS

WIDE FLANGE SHAPES (W AND WT) ASTM A 992
 PLATES (PL), BARS ASTM A 36 TYPICAL
 ASTM A 572 GRADE 50 WHERE NOTED
 ASTM A 36
 ANGLES (L), CHANNELS (C AND MC) ASTM A 500, GRADE C
 STRUCTURAL TUBES (HSS) ASTM A 53, GRADE B
 STEEL PIPE ASTM A 252, GRADE 3 (MOD) FY = 50 KSI
 STEEL PIPE PILES ASTM F 3125, GRADE A 325
 STRUCTURAL BOLTS ASTM F 1554, GRADE 36
 ANCHOR RODS UNLESS NOTED OTHERWISE
 ASTM A 36, UNLESS NOTED OTHERWISE
 THREADED RODS 70 KSI, LOW HYDROGEN, TYPICAL
 WELDING ELECTRODES 60 KSI, MINIMUM, STEEL DECK AND COLD-FORMED FRAMING

STRUCTURAL STEEL DESIGN, FABRICATION AND ERECTION SHALL CONFORM TO THE REQUIREMENTS OF IBC CHAPTER 22. ALL MEMBERS ARE TO BE ERECTED WITH NATURAL MILL CAMBER OR INDUCED CAMBER UP, UNLESS OTHERWISE NOTED ON THE PLANS. SUBSTITUTION OF MEMBER SIZES OR STEEL GRADE WILL NOT BE ALLOWED WITHOUT PRIOR APPROVAL BY THE ENGINEER. A MINIMUM OF TWO BOLTS IS REQUIRED FOR ALL BEAM CONNECTIONS. ALTERNATIVE CONNECTIONS TO THOSE SHOWN ON THESE DRAWINGS WILL REQUIRE PRIOR APPROVAL BY THE ENGINEER

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ERECTION AIDS AND JOINT PREPARATIONS THAT INCLUDE, BUT ARE NOT LIMITED TO, ERECTION ANGLES, LIFT HOLES AND OTHER AIDS, WELDING PROCEDURES, REQUIRED ROOT OPENINGS, ROOT FACE DIMENSIONS, GROOVE ANGLES, BACKING BARS, COPEs, SURFACE ROUGHNESS VALUES, AND UNEQUAL PARTS.

PROTECTION OF STEEL

STRUCTURAL STEEL AND CONNECTIONS, INCLUDING PLATES AND OTHER STEEL ITEMS EMBEDDED IN CONCRETE, WHICH ARE EXPOSED TO WEATHER AND NOT TO BE PAINTED ACCORDING TO THE ENGINEER, SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION IN COMPLIANCE WITH ASTM A 123. ALL FIELD WELDS ON GALVANIZED MATERIAL SHALL BE COATED WITH BRUSH APPLIED ZINC-RICH PAINT COMPLYING WITH THE SPECIFICATIONS.

ALL COATINGS ARE TO FOLLOW THE SPECIFICATIONS AND PRODUCT MANUFACTURER'S INSTRUCTIONS.

WELDING

ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS, AND SHALL BE PERFORMED BY AWS-WABO-CERTIFIED WELDERS. ONLY WELDS THAT ARE PREQUALIFIED, AS DEFINED BY AWS, OR QUALIFIED BY TESTING SHALL BE USED. SHOP DRAWINGS SHALL SHOW ALL WELDING WITH AWS A2.4 SYMBOLS. WELDS SHOWN ON THE DRAWINGS ARE MINIMUM SIZES. INCREASE WELD SIZE TO AWS MINIMUM SIZES BASED ON THICKNESS. MINIMUM WELD SIZE SHALL BE 3/16-INCH, UNLESS NOTED OTHERWISE. THE WELDS SHOWN ARE FOR THE FINAL CONNECTIONS. FIELD WELD SYMBOLS ARE SHOWN WHERE FIELD WELDS ARE REQUIRED BY THE STRUCTURAL DESIGN. WHERE FIELD WELD IS NOT INDICATED, THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING IF A WELD SHOULD BE SHOP OR FIELD-WELDED IN ORDER TO FACILITATE THE STRUCTURAL STEEL ERECTION.

PILE DRIVING

PILES SHALL BE DRIVEN TO:
 THE REQUIRED TIP ELEVATION DEFINED IN THE PLANS,
 NO GREATER THAN 12" ABOVE FINAL CUTOFF ELEVATION,
 WITHIN 2 INCHES OF PLAN LOCATION;
 WITHIN 1% FROM VERTICAL.

PILE DRIVING BY VIBRATORY, IMPACT OR OTHER INSTALLATION MEANS MAY BE REQUIRED TO REACH REQUIRED TIP ELEVATION. OBSTRUCTIONS MAY BE ENCOUNTERED DURING PILE DRIVING.

PILE DRIVING AND PILE ACCEPTANCE CRITERIA SHALL BE ESTABLISHED IN COORDINATION WITH THE GEOTECHNICAL ENGINEER BASED ON EQUIPMENT SELECTED BY THE CONTRACTOR.

WOOD

WOOD CONSTRUCTION SHALL CONFORM TO ALL REQUIREMENTS OF IBC CHAPTER 23.

SAWN LUMBER

SAWN LUMBER SHALL CONFORM TO THE LATEST EDITION OF "GRADING AND DRESSING RULES" BY WCLIB OR "WESTERN LUMBER GRADING RULES" BY WWPA. LUMBER SHALL BE SEASONED DRY WITH A MAXIMUM MOISTURE CONTENT OF 19% AND BE THE SPECIES AND GRADE SPECIFIED BELOW.

USE	GRADE	F _v (PSI) (SINGLE USE)
-----	-------	-----------------------------------

PLANKING & PLATES 2" TO 4" THICK, 2" AND WIDER	HEM-FIR NO. 2	850
	DOUGLAS FIR-LARCH NO. 2	900

JOISTS & RAFTERS 2" TO 4" THICK, 2" AND WIDER	HEM-FIR NO. 2	850
	DOUGLAS FIR-LARCH NO. 2	900

BEAMS & STRINGERS 5"x5" AND LARGER	DOUGLAS FIR-LARCH NO. 1	1,350
---------------------------------------	-------------------------	-------

POSTS 5"x5" AND LARGER	DOUGLAS FIR-LARCH NO. 1	1,200
	DOUGLAS FIR-LARCH NO. 1	1,000

ROUND TIMBER PILES AND POLES

TIMBER PILES SHALL CONFORM TO ASTM D 25 AND TIMBER POLES SHALL CONFORM TO ASTM D 3200. PILES AND POLES SHALL BE PACIFIC COAST DOUGLAS FIR AND SHALL HAVE A MINIMUM CIRCUMFERENCE OF ___ INCHES WITH LENGTHS AS INDICATED. PILES AND POLES SHALL HAVE A MINIMUM ALLOWABLE COMPRESSIVE STRESS OF 1,300 PSI PARALLEL TO GRAIN.

PRESERVATIVE TREATMENT

SAWN LUMBER FOR THE OVERWATER STRUCTURE SHALL BE PRESERVATIVE TREATED PER IBC 2304.12.3. PRESERVATIVE AND FINAL RETENTION SHALL BE IN ACCORDANCE WITH AWPA U1 FOR FRESH WATER EXPOSURE (USE CATEGORY 4A, COMMODITY SPECIFICATION A). PENTACHLOROPHENOL, CREOSOTE, CHROMATED COPPER ARSENATE (CCA) OR COMPARABLY TOXIC COMPOUNDS ARE NOT PERMITTED. PRESERVATIVE TREATMENTS SHALL MEET ALL CURRENT BEST MANAGEMENT PRACTICES AS DESCRIBED BELOW.

TIMBER PILES SHALL BE PRESERVATIVE TREATED PER IBC 2304.12.3.1 AND 1810.3.2.4.1. PRESERVATIVE AND MINIMUM FINAL RETENTION SHALL BE IN ACCORDANCE WITH AWPA U1 FOR FRESH WATER EXPOSURE (USE CATEGORY 4C, COMMODITY SPECIFICATION E). PENTACHLOROPHENOL, CREOSOTE, CCA OR COMPARABLY TOXIC COMPOUNDS ARE NOT PERMITTED. AMMONIACAL COPPER ZINC ARSENATE (ACZA) IS PERMITTED AND SHALL MEET ALL CURRENT BEST MANAGEMENT PRACTICES AS DESCRIBED BELOW.

PRESERVED WOOD PRODUCTS SHALL BE PRODUCED IN ACCORDANCE WITH THE MOST CURRENT VERSION OF THE "PRODUCTION GUIDE - BEST MANAGEMENT PRACTICES FOR THE USE OF PRESERVED WOOD IN AQUATIC AND SENSITIVE ENVIRONMENTS" (BMP'S) ISSUED BY WESTERN WOOD PRESERVERS INSTITUTE (WWPI) AND AVAILABLE AT WWW.PRESERVEDWOOD.COM.

ALL PRESERVED WOOD SHALL BE CERTIFIED BY AN INDEPENDENT THIRD-PARTY INSPECTION AGENCY TO HAVE BEEN PRODUCED IN COMPLIANCE WITH THE BMP'S. COMPLIANCE WILL BE DOCUMENTED BY THE PRESENCE OF THE BMP MARK LEGIBLY STAMPED, BRANDED, MARKED, END TAGGED, OR AN EQUIVALENT DESIGNATION ON EACH PIECE OF MATERIAL OR LOT ARRIVING ON SITE, OR IN LIEU OF PLACING THE BMP MARK ON EACH PIECE OF MATERIAL OR LOT, A CERTIFICATE OF COMPLIANCE ISSUED AND SIGNED BY A QUALIFIED INSPECTION AGENCY CERTIFYING THE MATERIAL AND/OR ITS PRODUCTION WAS INSPECTED IN COMPLIANCE WITH PROCEDURES PUBLISHED IN THE MOST CURRENT VERSION OF THE BMP'S. THE BMP MARK SHALL BE SHOWN ON THE CERTIFICATE OF COMPLIANCE.

COMPLIANCE FOR PRODUCTS NOT BEARING THE BMP MARK WILL BE DOCUMENTED BY A CERTIFICATE OF COMPLIANCE ISSUED AND SIGNED BY AN INSPECTION AGENCY CERTIFYING THAT THE MATERIAL AND/OR ITS PRODUCTION WAS INSPECTED IN COMPLIANCE WITH PROCEDURES PUBLISHED IN THE MOST CURRENT VERSION OF THE BMP'S. AN INDEPENDENT WOOD INSPECTION AGENCY OF THE PRODUCER'S CHOICE AND ACCEPTABLE TO THE PRODUCER CAN BE USED TO PROVIDE THE INSPECTION SERVICE.

FOLLOW CURRENT WWPI BMP'S FOR ALL WORK RELATED TO PRESERVATIVE TREATED WOOD INCLUDING BUT NOT LIMITED TO: PURCHASING, TRANSPORTATION, HANDLING, INSPECTION, STORAGE BOTH ON- AND OFF-SITE, FIELD TREATMENT OF CUTS, ABRASIONS, BORINGS, AND/OR OTHER INJURIES. CONTRACTOR SHALL SUBMIT BMP'S TO THE OWNER AND ENGINEER FOR REVIEW AND COMMENT PRIOR TO STARTING THE WORK.

GANGWAYS

GANGWAYS SHALL BE MADE OF ALUMINUM. ALL STRUCTURAL ALUMINUM, INCLUDING TUBES, PLATES, ANGLES AND PIPE SHALL BE ALLOY 6061-T6. ALL BOLTS FOR ALUMINUM CONSTRUCTION SHALL BE STAINLESS STEEL APPROPRIATE FOR USE WITH ALUMINUM IN MARINE ENVIRONMENTS. ISOLATORS SHALL BE USED WHEN CONNECTING DISSIMILAR MATERIALS, SUCH AS STEEL AND ALUMINUM.

FLOATS

CAD USER: RICKT PLOT DATE: Oct 10, 2022 - 11:02am
 PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_S-002.dwg



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LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS

STRUCTURAL NOTES

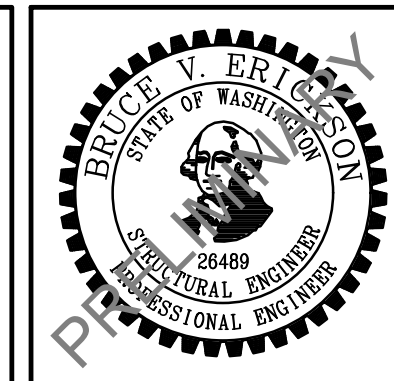
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DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-002
SHEET NO.	29 OF 44

60% SUBMITTAL

CAD USER: RICKT PLOT DATE: Oct 10, 2022-11:03am
PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_S-003.dwg



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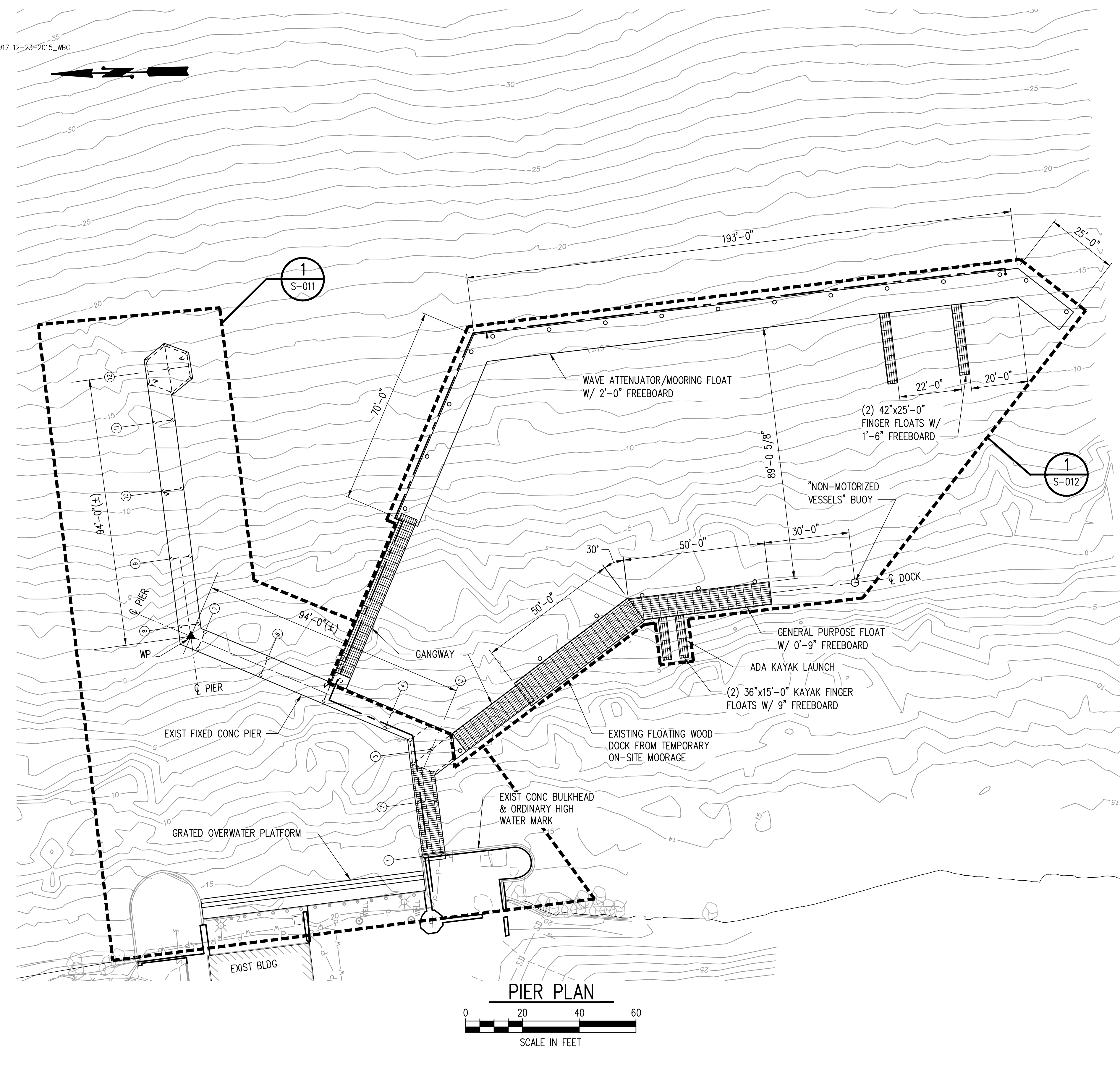
LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS

STATEMENT OF SPECIAL INSPECTIONS

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-003
SHEET NO.	30 OF 44

60% SUBMITTAL

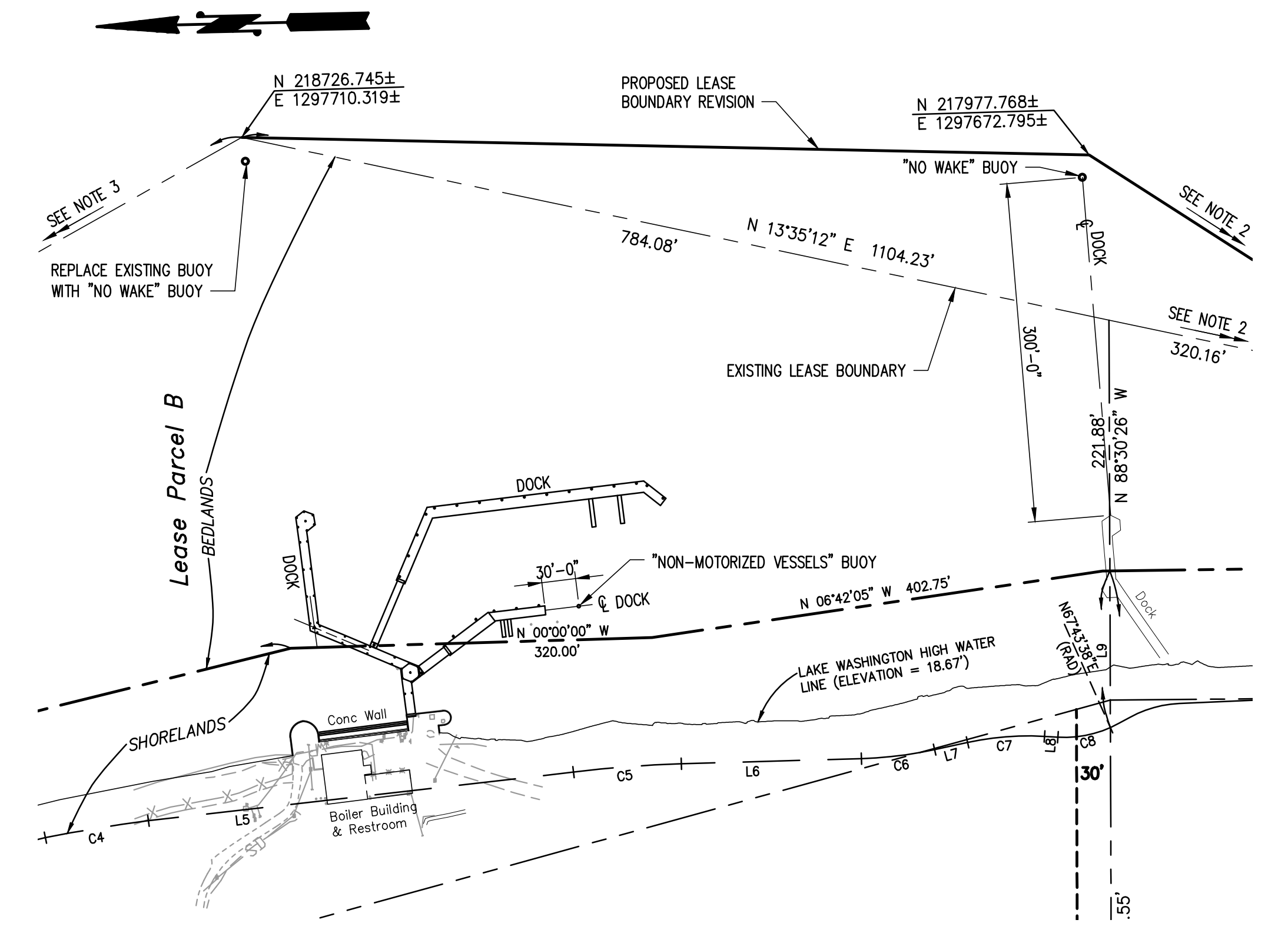
Xrefs:
 xLBPR-BDR22x34
 42000291 TOPOBM
 xLBPR-PIER
 DNR Lease No 20-A09917 12-23-2015_WBC



PIER PLAN
 0 20 40 60
 SCALE IN FEET

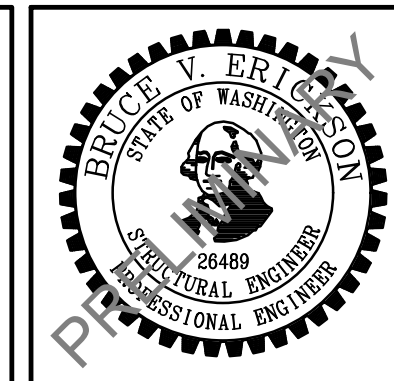
NOTES:

1. PROPOSED IMPROVEMENTS OVERWATER COVERAGE: ±4425 SF.
2. EXTENDS TO EXISTING BOUNDARY CORNER AT N 217653.411, E 1297450.919.
3. EXTENDS TO EXISTING BOUNDARY CORNER AT N 220320.192, E 1296873.931.



BUOY PLAN
 0 100 200 300
 SCALE IN FEET

CAD USER: RICKT PLOT DATE: Oct 10, 2022-11:04am
 PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_S-010.dwg



NO.	DATE	BY	REVISION

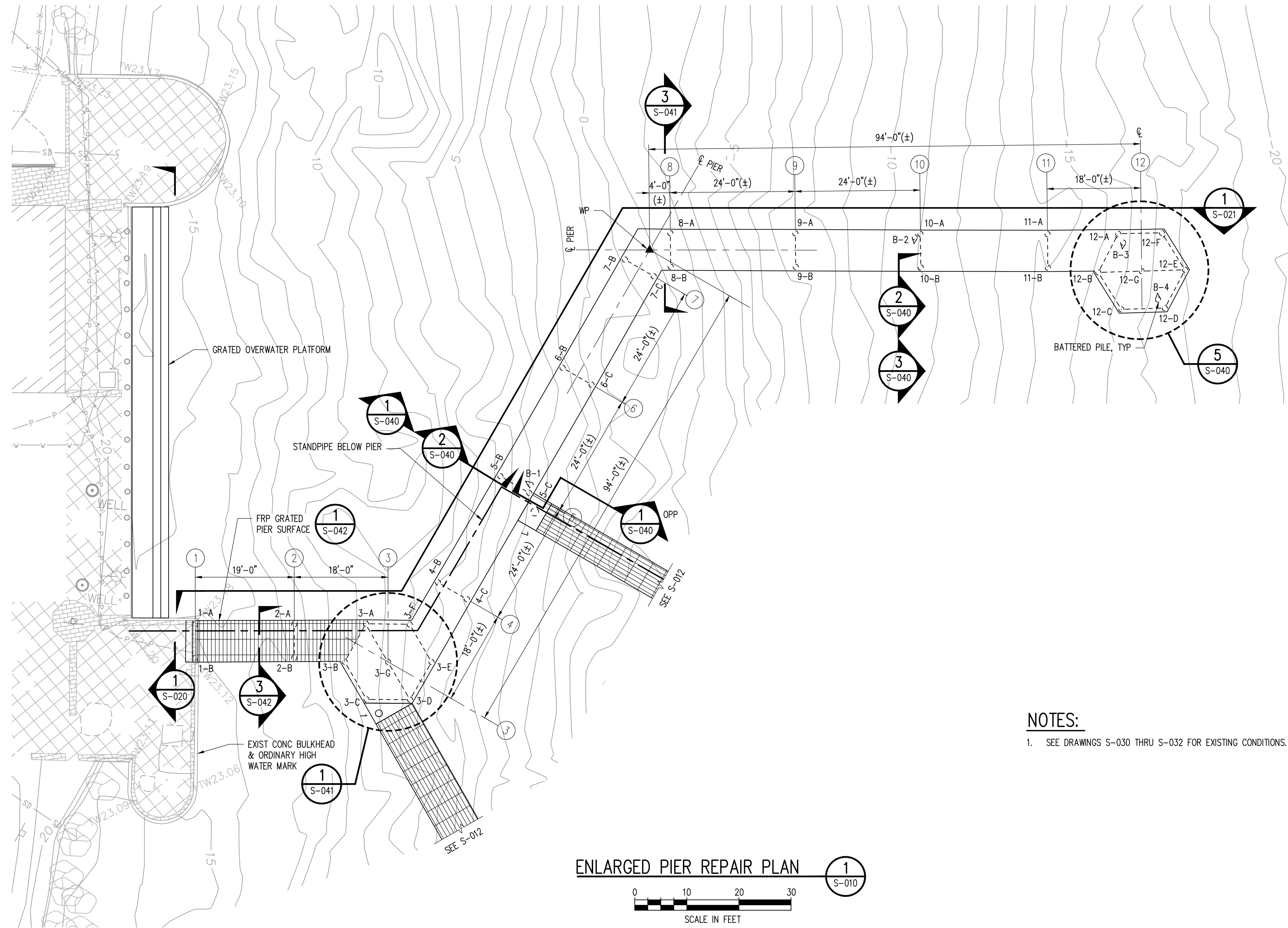


**LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS**

PIER IMPROVEMENT PLAN

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-010
SHEET NO.	31 OF 44

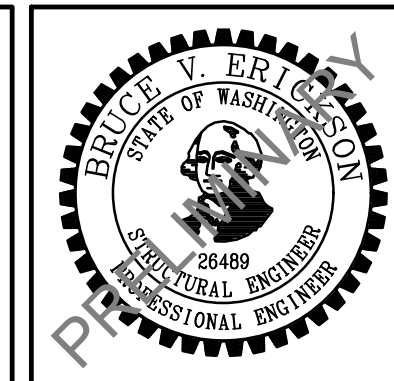
60% SUBMITTAL



NOTES:
 1. SEE DRAWINGS S-030 THRU S-032 FOR EXISTING CONDITIONS.

ENLARGED PIER REPAIR PLAN (1)
 S-010
 0 10 20 30
 SCALE IN FEET

CAD USER: RICKT PLOT DATE: Oct 10, 2022-11:05am
 PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_S-011.dwg



NO.	DATE	BY	REVISION

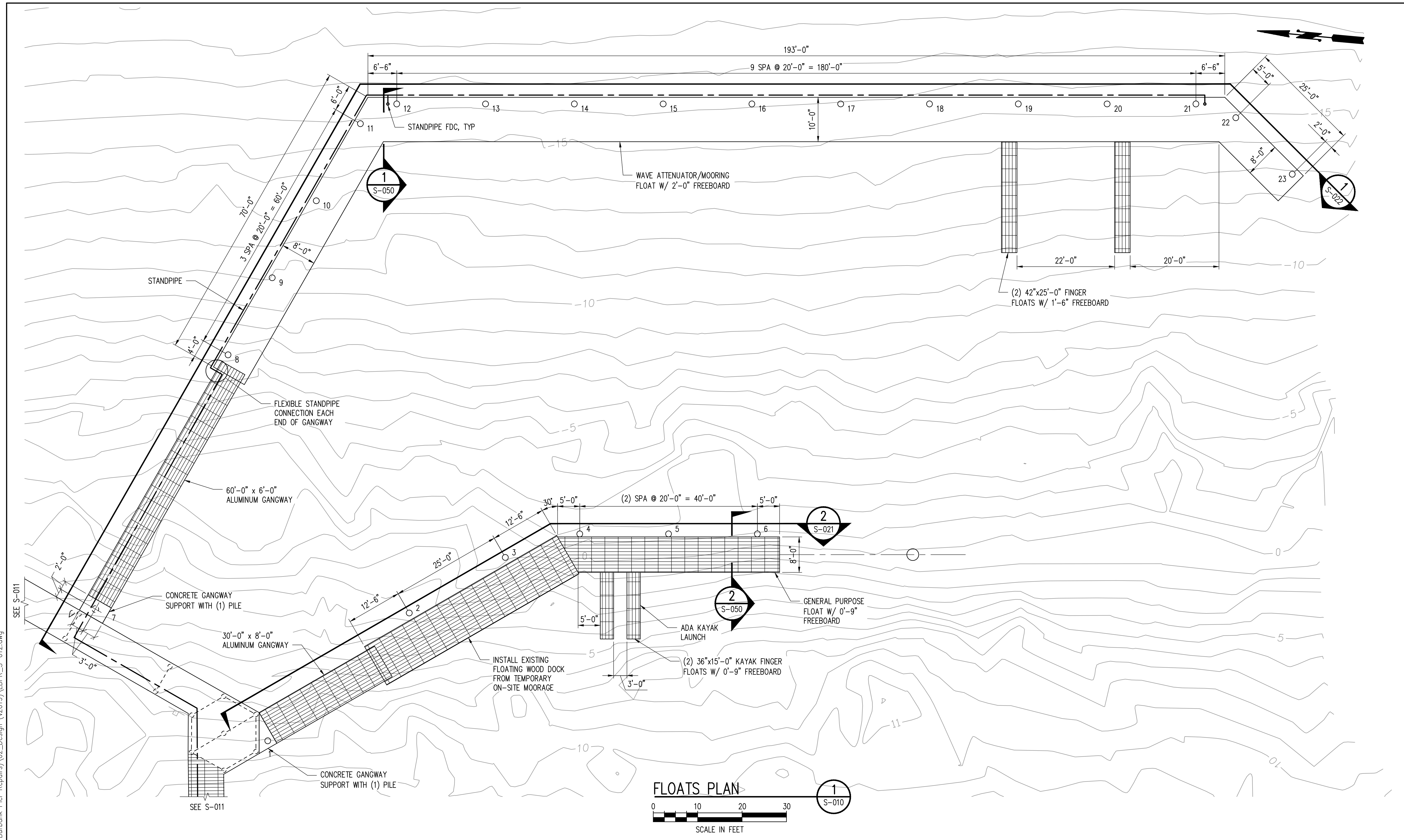


LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS

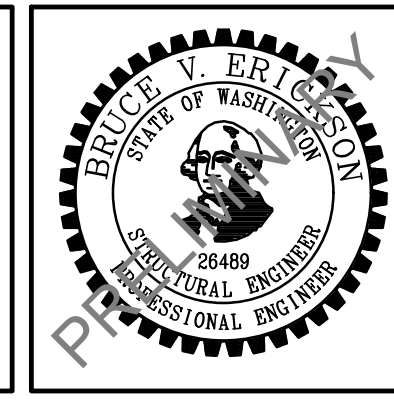
ENLARGED PIER REPAIR PLAN

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-011
SHEET NO.	32 OF 44

60% SUBMITTAL



CAD USER: RICKT PLOT DATE: Oct 10, 2022-11:06am
 PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_S-012.dwg



NO.	DATE	BY	REVISION

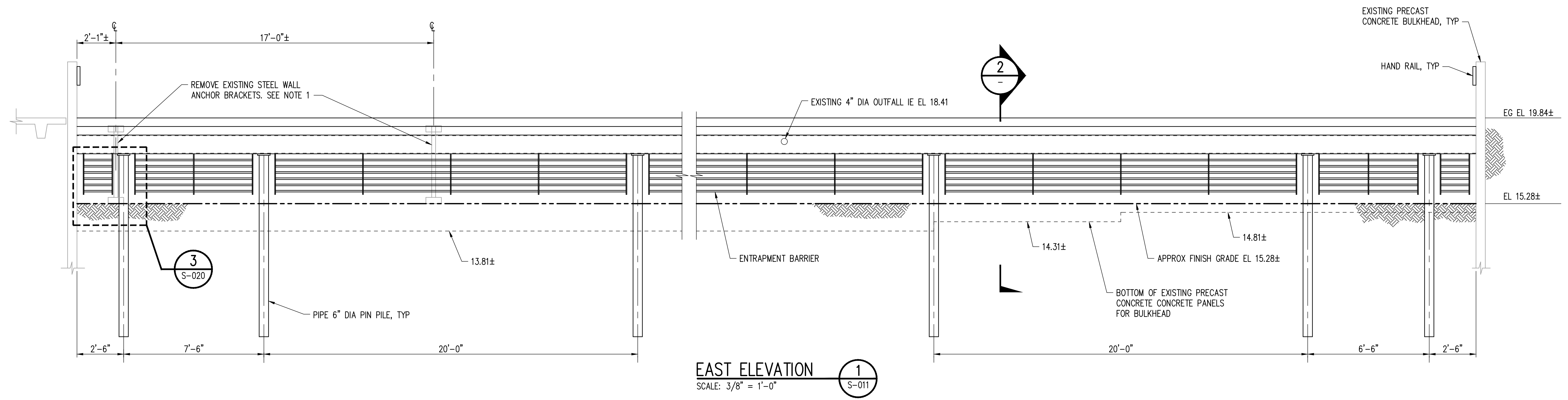


LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS

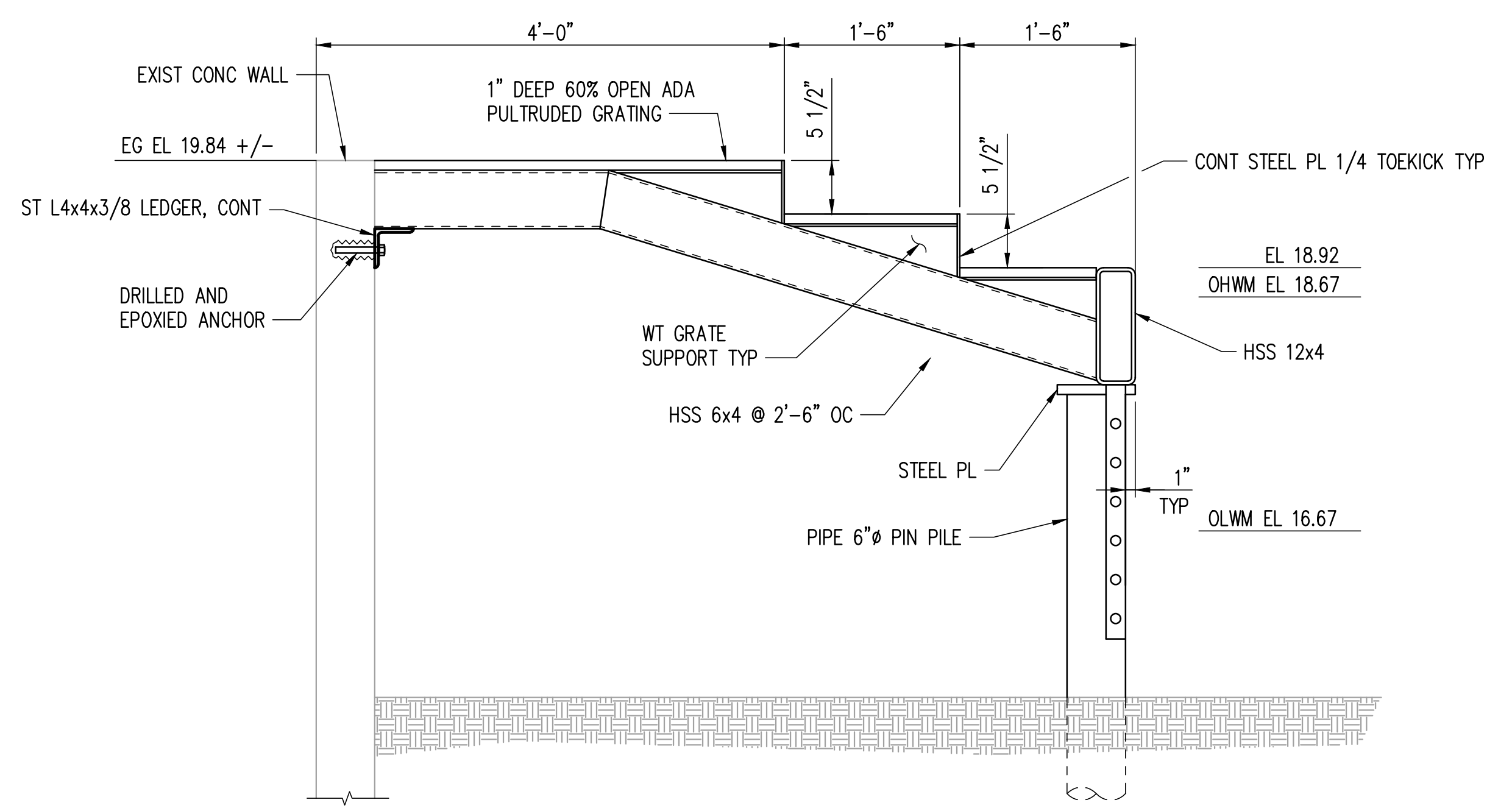
FLOATS PLAN

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-012
SHEET NO.	33 OF 44

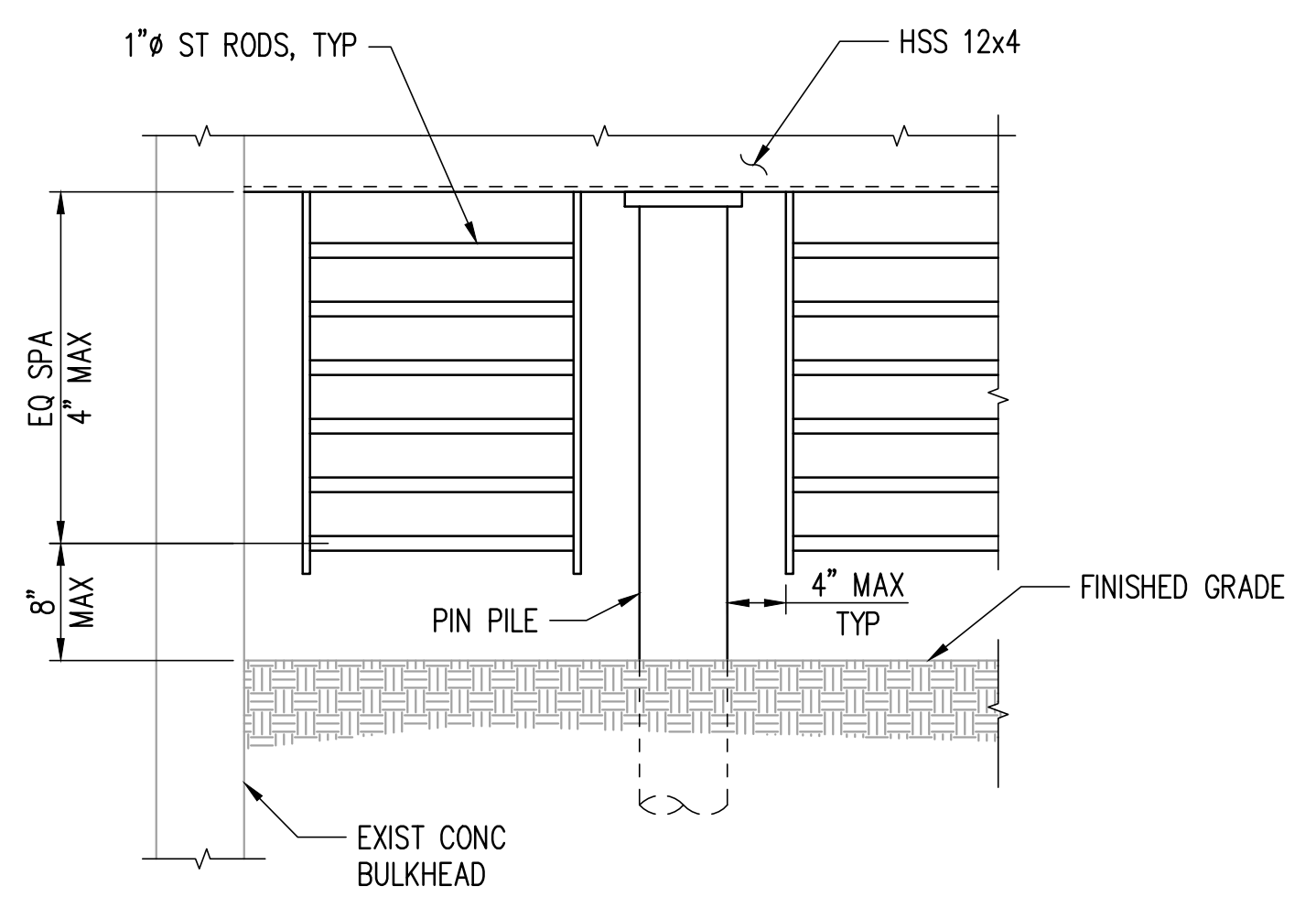
60% SUBMITTAL



EAST ELEVATION
SCALE: 3/8" = 1'-0"
1
S-011



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

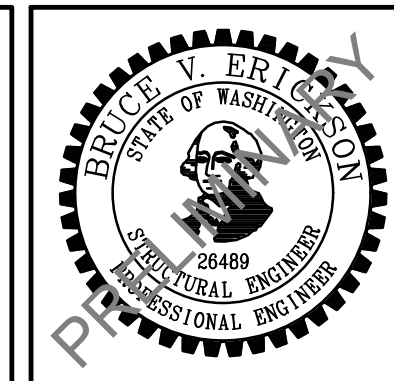


DETAIL
SCALE: 1" = 1'-0"
3

NOTES:

- EXISTING BRACKETS ARE ATTACHED TO WALL W/ (3) 5/8"Ø STEEL BOLTS. REMOVE BRACKET AND CUT AND GRIND BOLTS FLUSH TO WALL SURFACE.

CAD USER: RICKT PLOT DATE: Oct 10, 2022-11:08am
PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_S-020.dwg



NO.	DATE	BY	REVISION

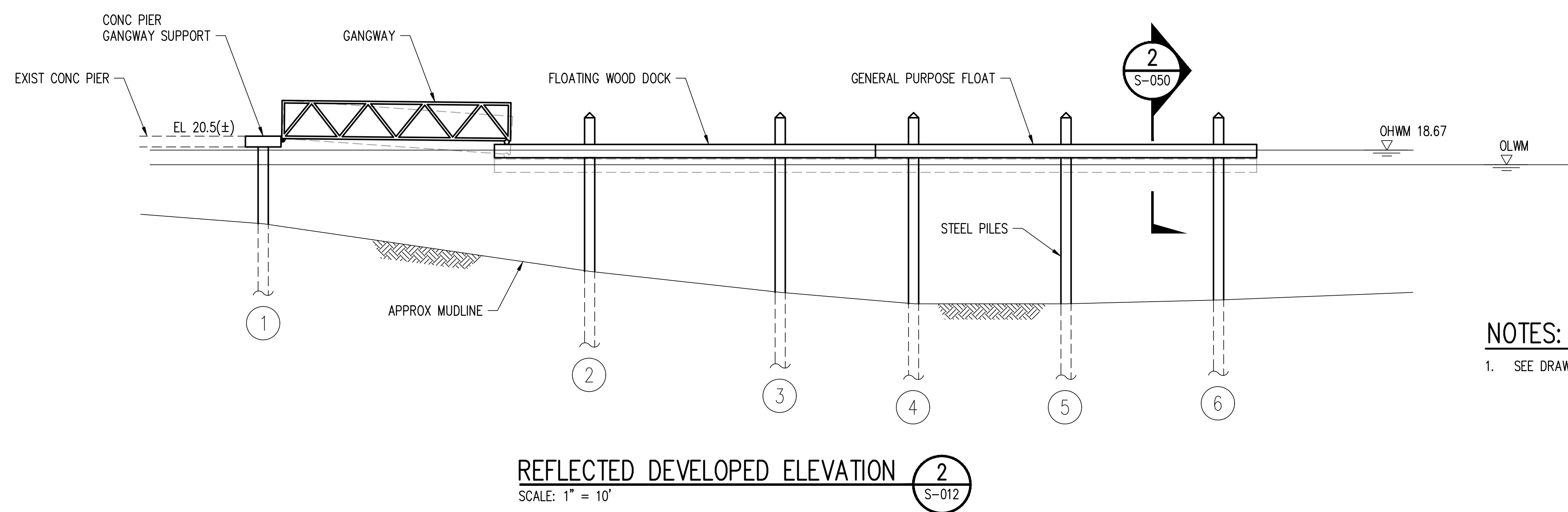
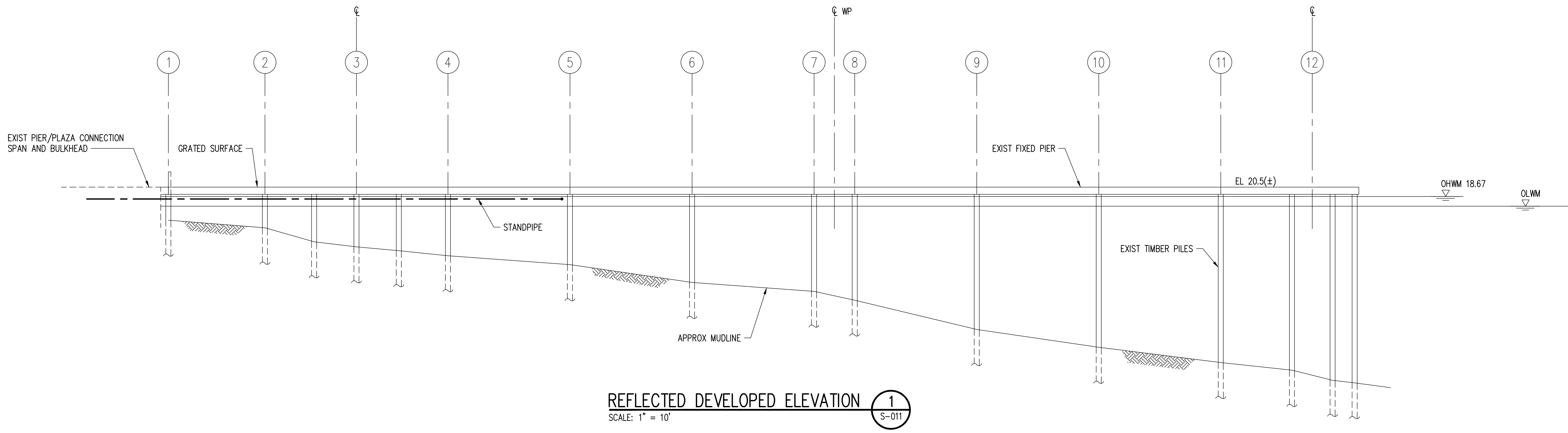


LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS

GRATED OVERWATER PLATFORM DETAILS

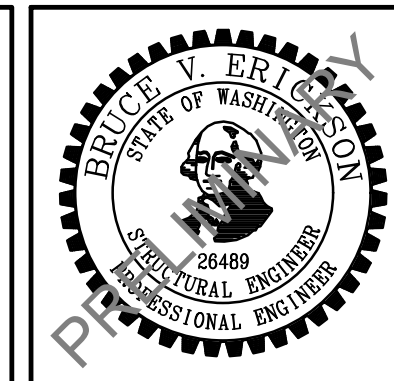
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DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-020
SHEET NO.	34 OF 44

60% SUBMITTAL



NOTES:
1. SEE DRAWING S-050 FOR PILE SCHEDULE.

CAD USER: RICKT PLOT DATE: Oct 10, 2022-11:08am
PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_S-021.dwg



NO.	DATE	BY	REVISION

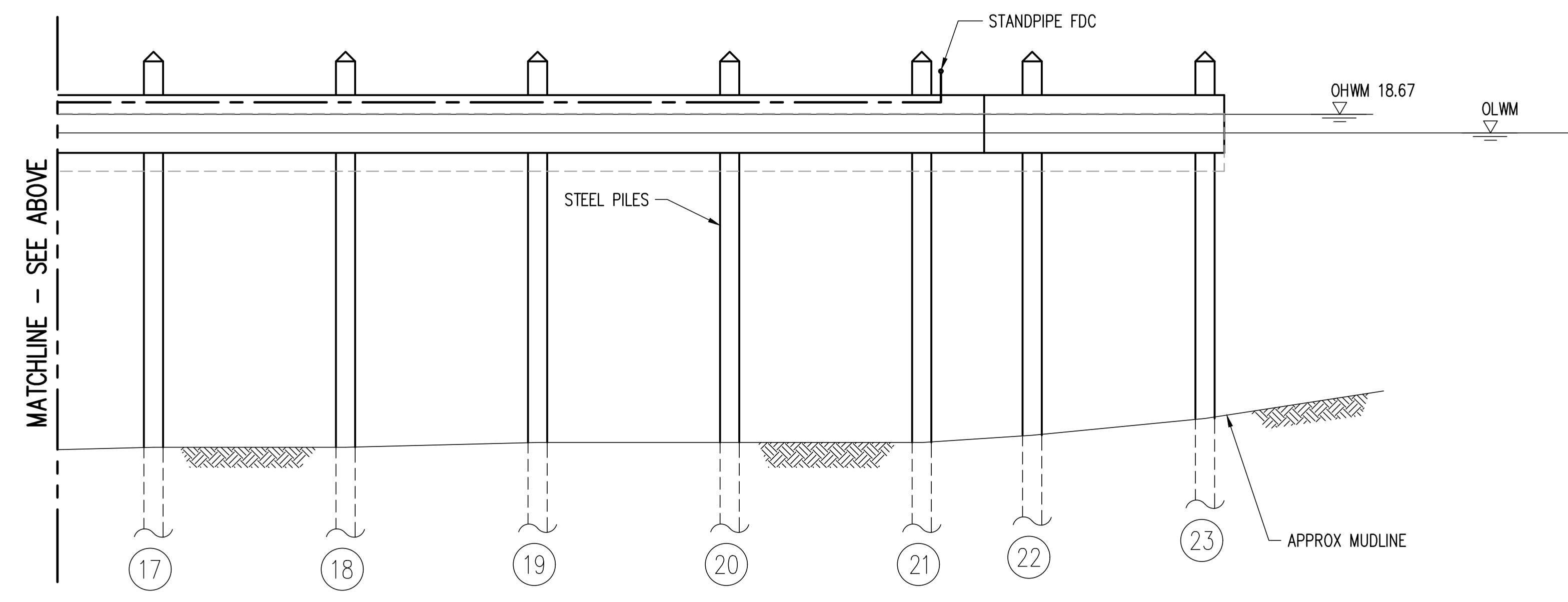
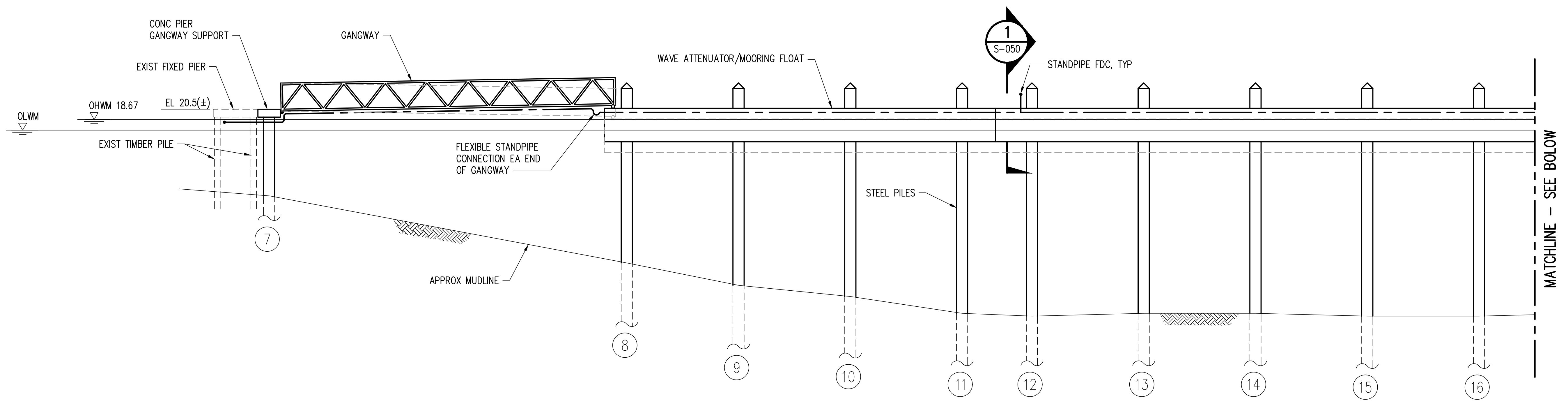


LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS

PIER AND FLOATS ELEVATION

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-021
SHEET NO.	35 OF 44

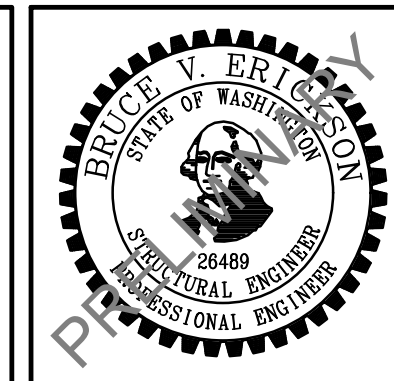
60% SUBMITTAL



REFLECTED DEVELOPED ELEVATION 1
SCALE: 1" = 10' S-012

NOTES:
1. SEE DRAWING S-050 FOR PILE SCHEDULE.

CAD USER: RICKT PLOT DATE: Oct 10, 2022-11:09am
PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_S-022.dwg



NO.	DATE	BY	REVISION

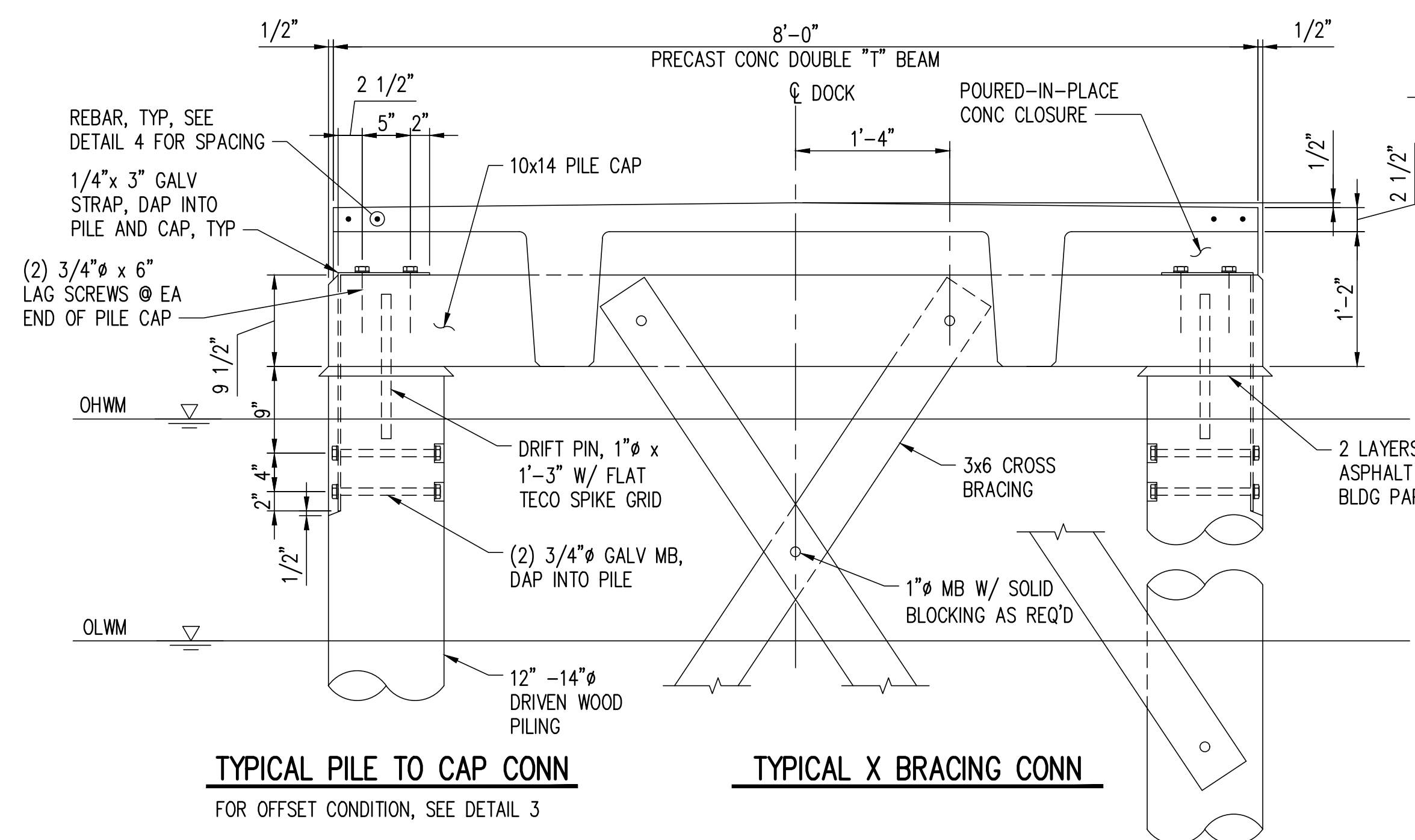


LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS

PIER AND FLOATS ELEVATION

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-022
SHEET NO.	36 OF 44

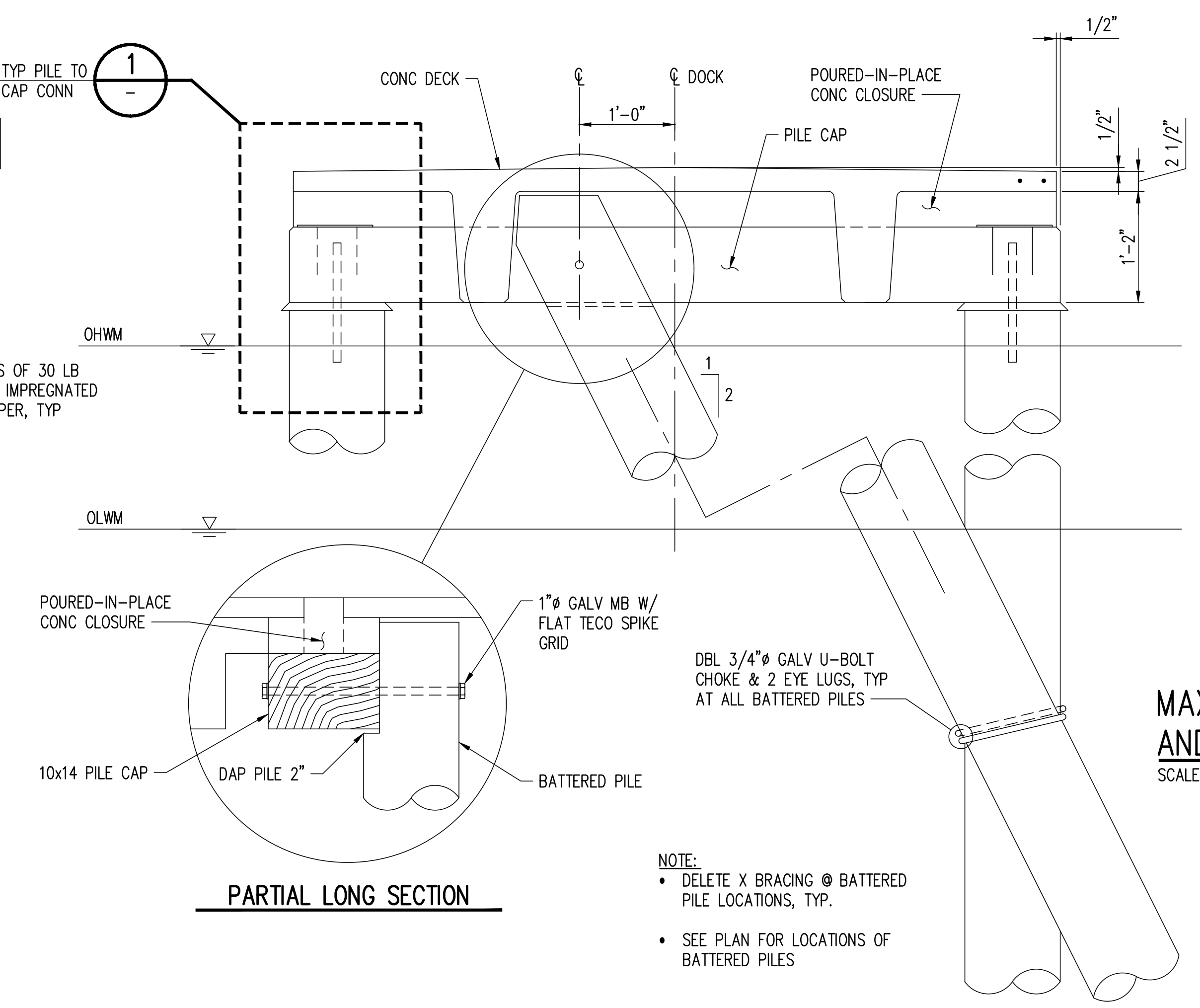
60% SUBMITTAL



TYPICAL PILE TO CAP CONN
 FOR OFFSET CONDITION, SEE DETAIL 3

TYPICAL X BRACING CONN

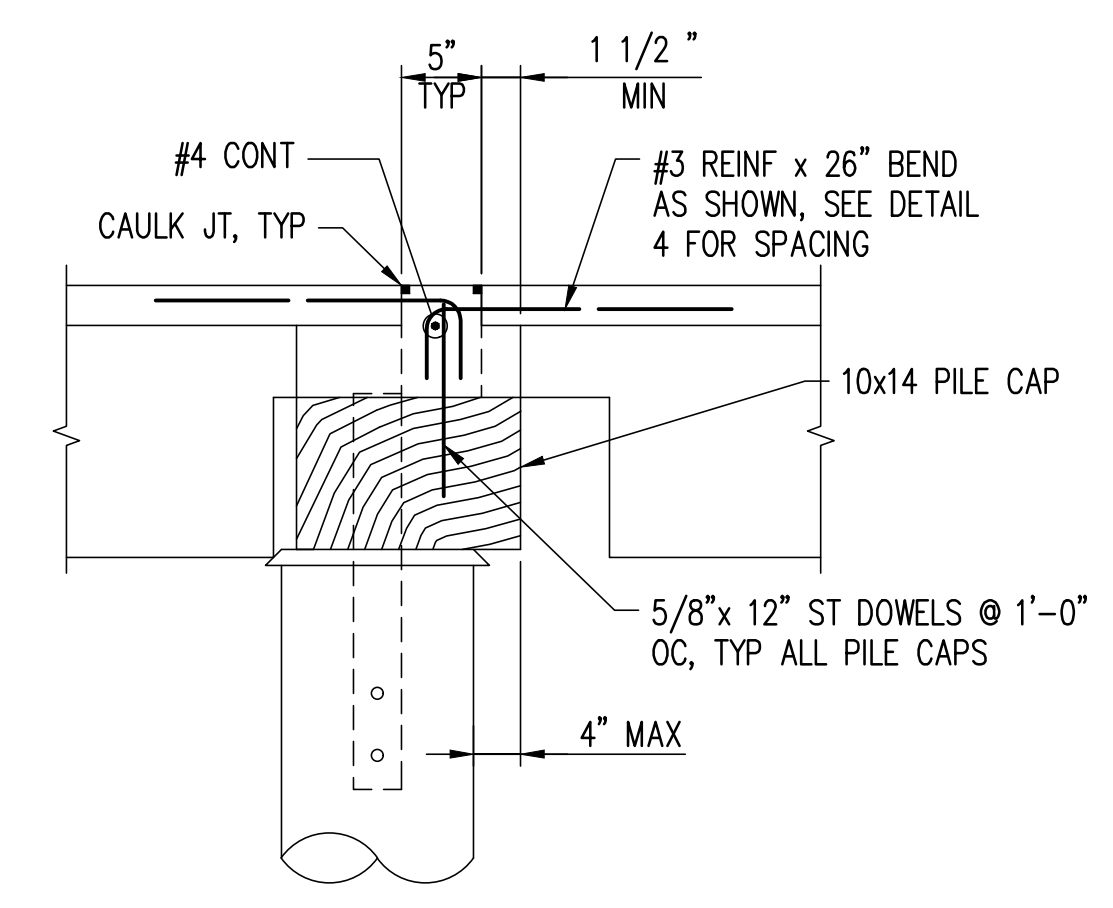
TYPICAL CROSS SECTION/RIGID DOCK
 SCALE: 1" = 1'-0"



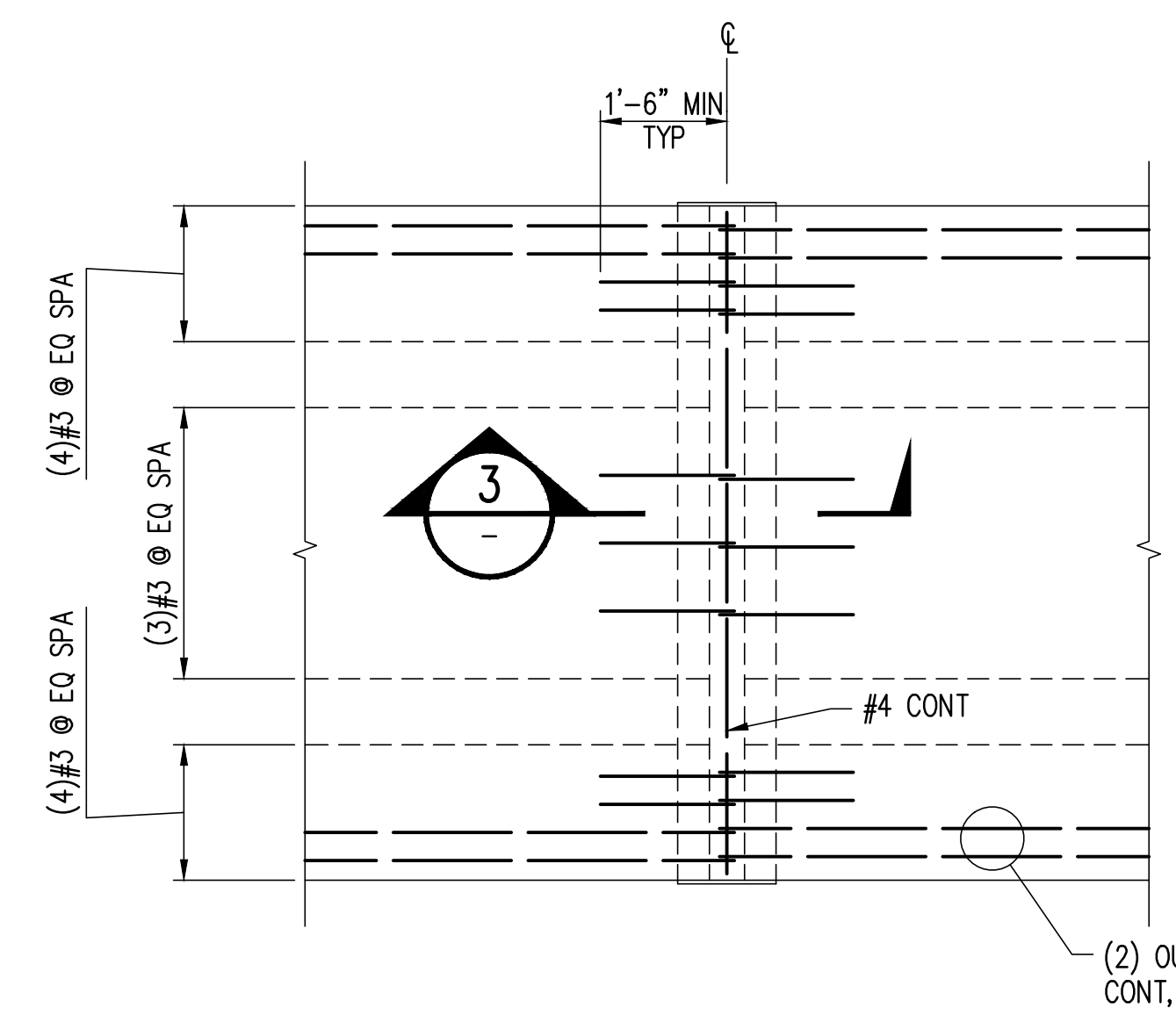
PARTIAL LONG SECTION

TYPICAL CROSS SECTION AT BATTERED PILES
 SCALE: 1" = 1'-0"

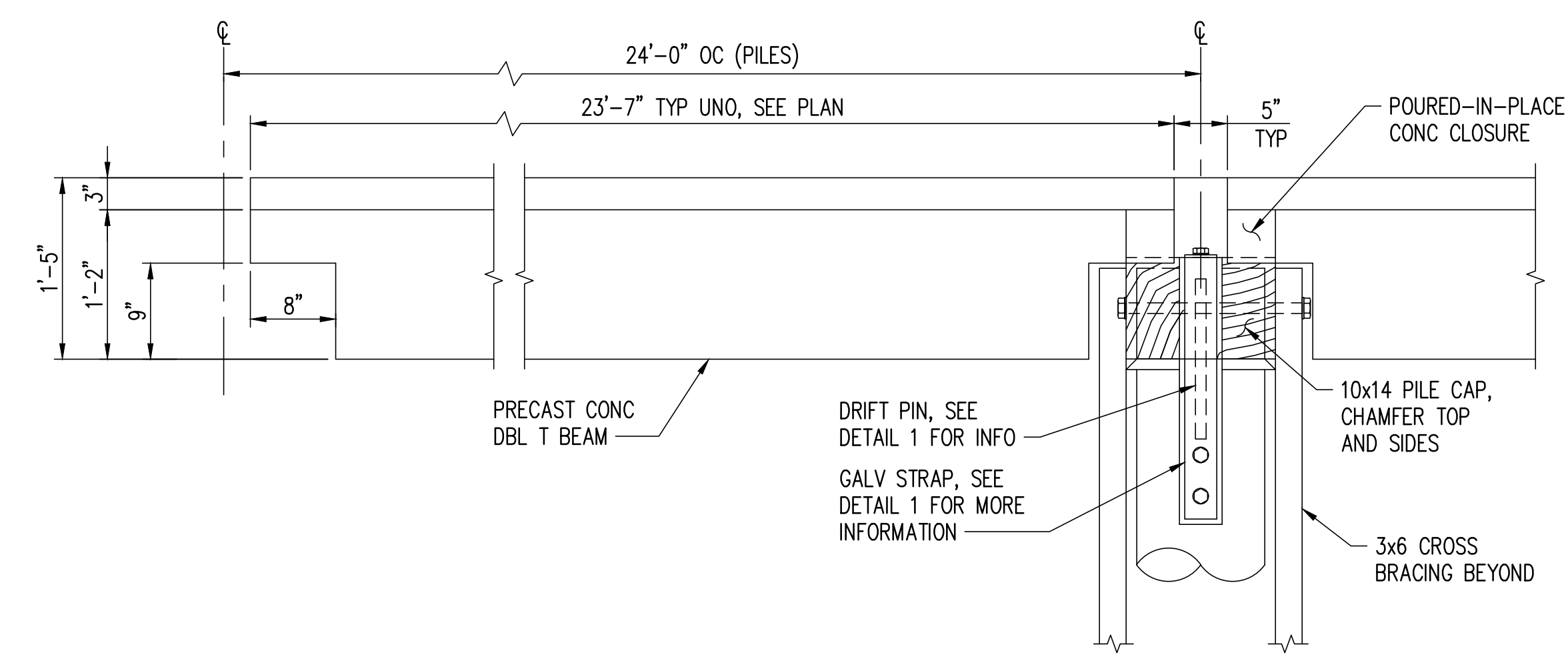
NOTES:
 1. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE FIELD PRIOR TO STARTING THE WORK. BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ENGINEER.



MAXIMUM PILE OFFSET, REINFORCING AND MINIMUM BEARING CRITERIA
 SCALE: 1" = 1'-0"



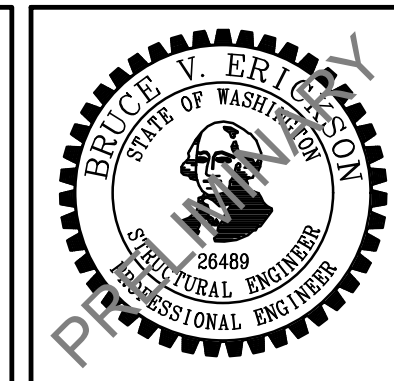
TYPICAL DOCK CONN REINFORCING PLAN
 SCALE: 1/2" = 1'-0"



TYPICAL RIGID DOCK CONN/ELEVATION
 SCALE: 1" = 1'-0"

NOTE: ALL INFORMATION ON THIS SHEET SHOWS EXISTING CONDITIONS AND WAS TAKEN FROM RECORD DRAWINGS FROM PREVIOUS PROJECTS. IT IS SHOWN FOR CONTRACTOR INFORMATION ONLY.

CAD USER: RICKT PLOT DATE: Oct 10, 2022-11:10am
 PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_S-030.dwg



NO.	DATE	BY	REVISION

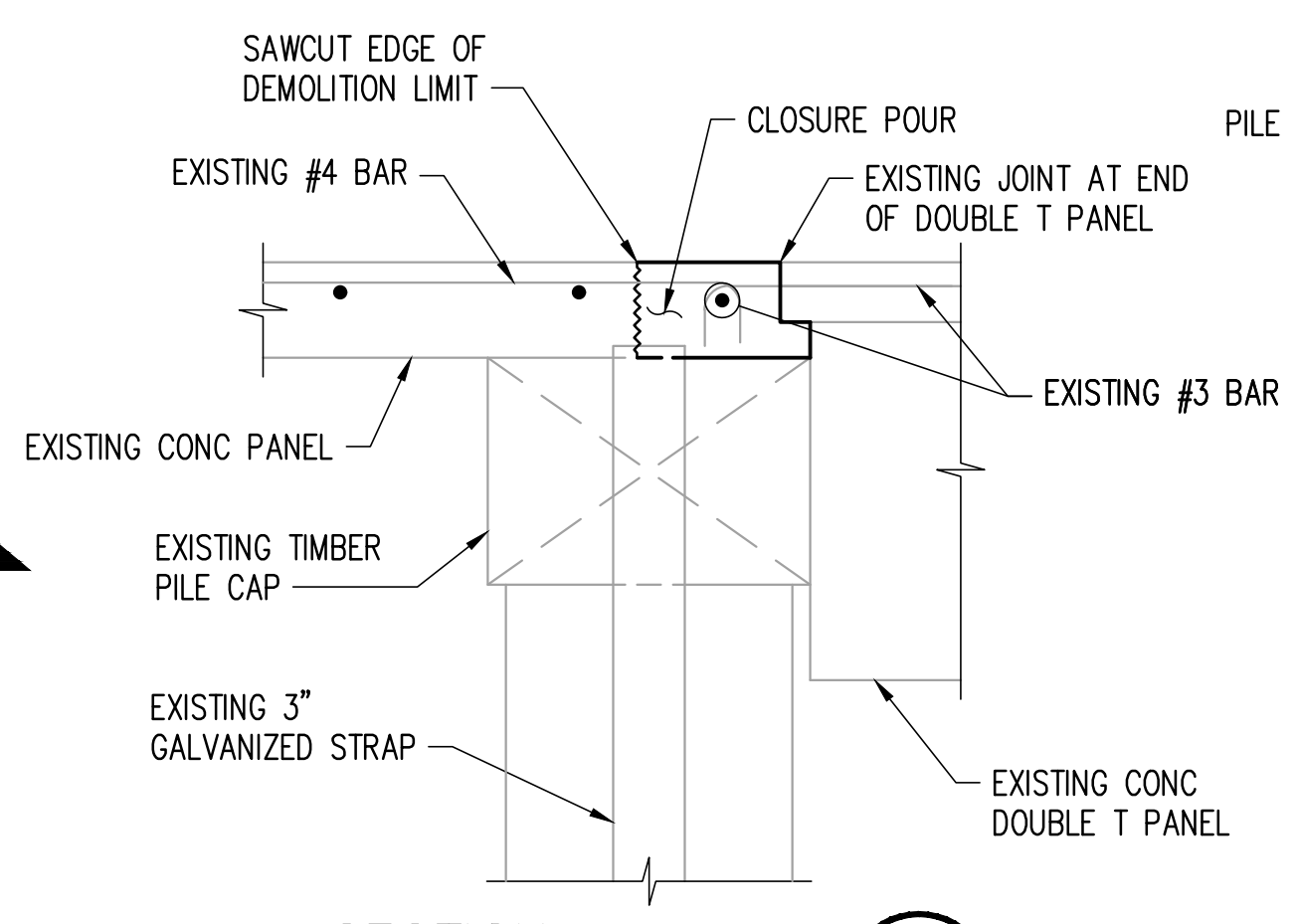
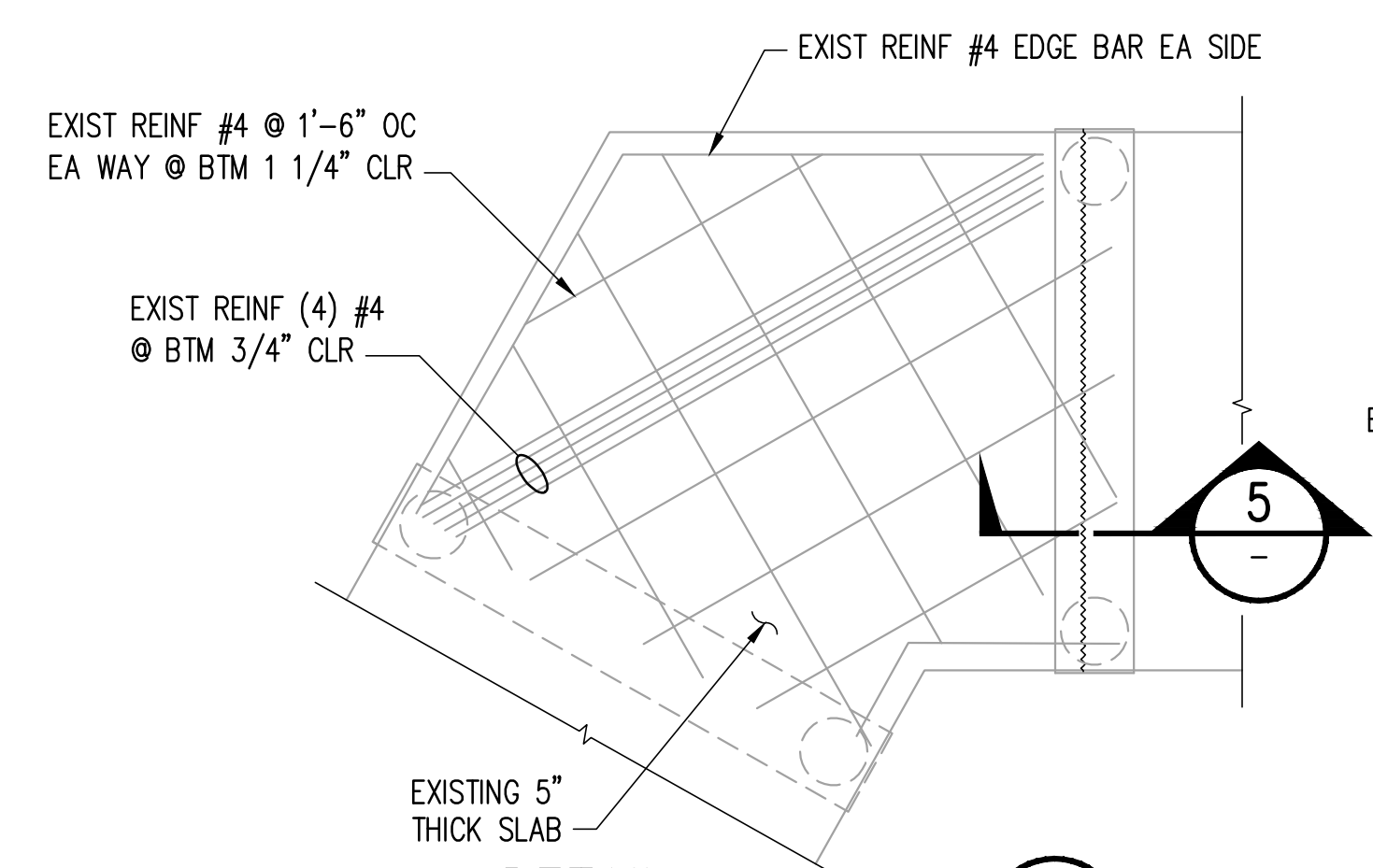
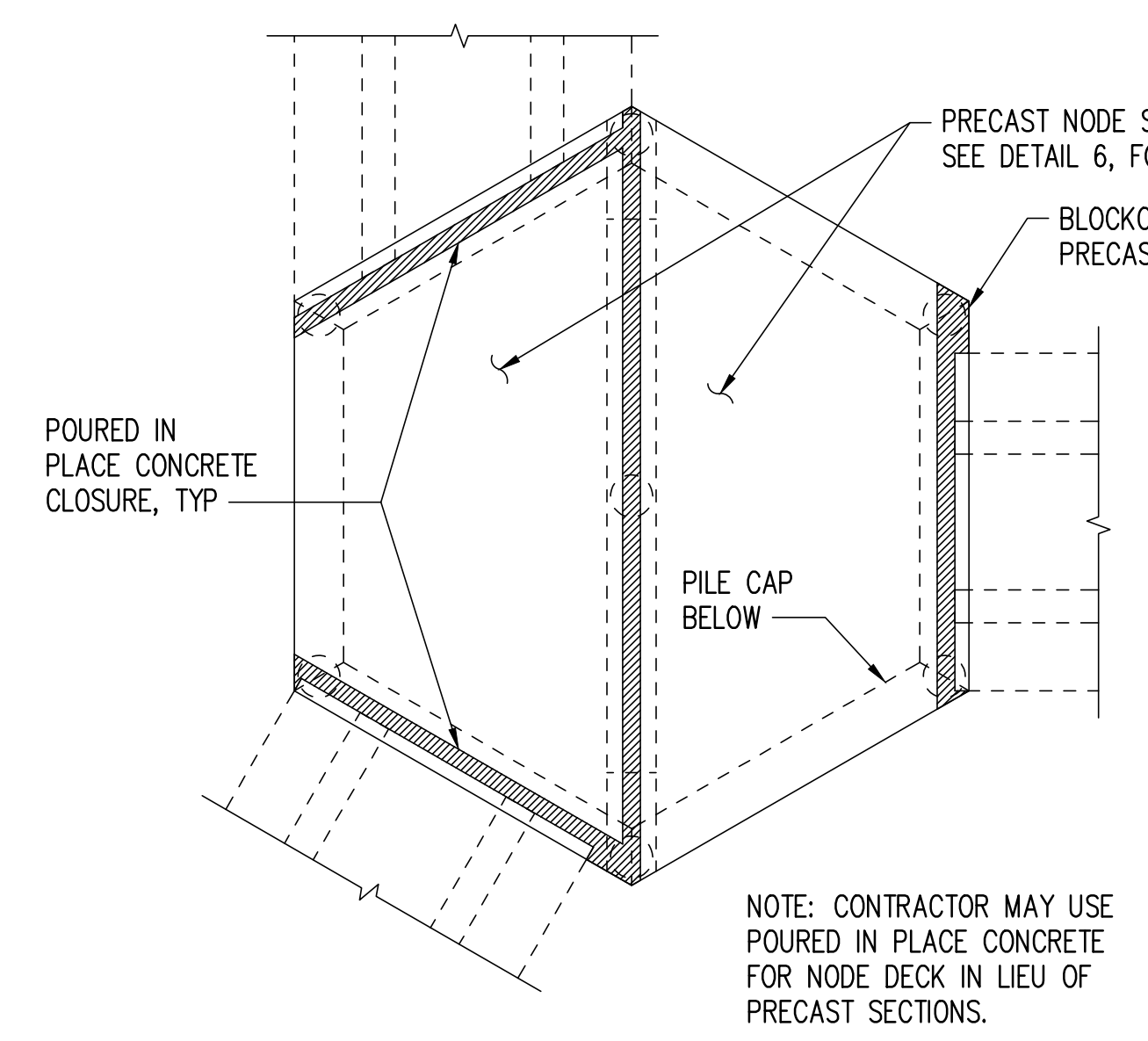
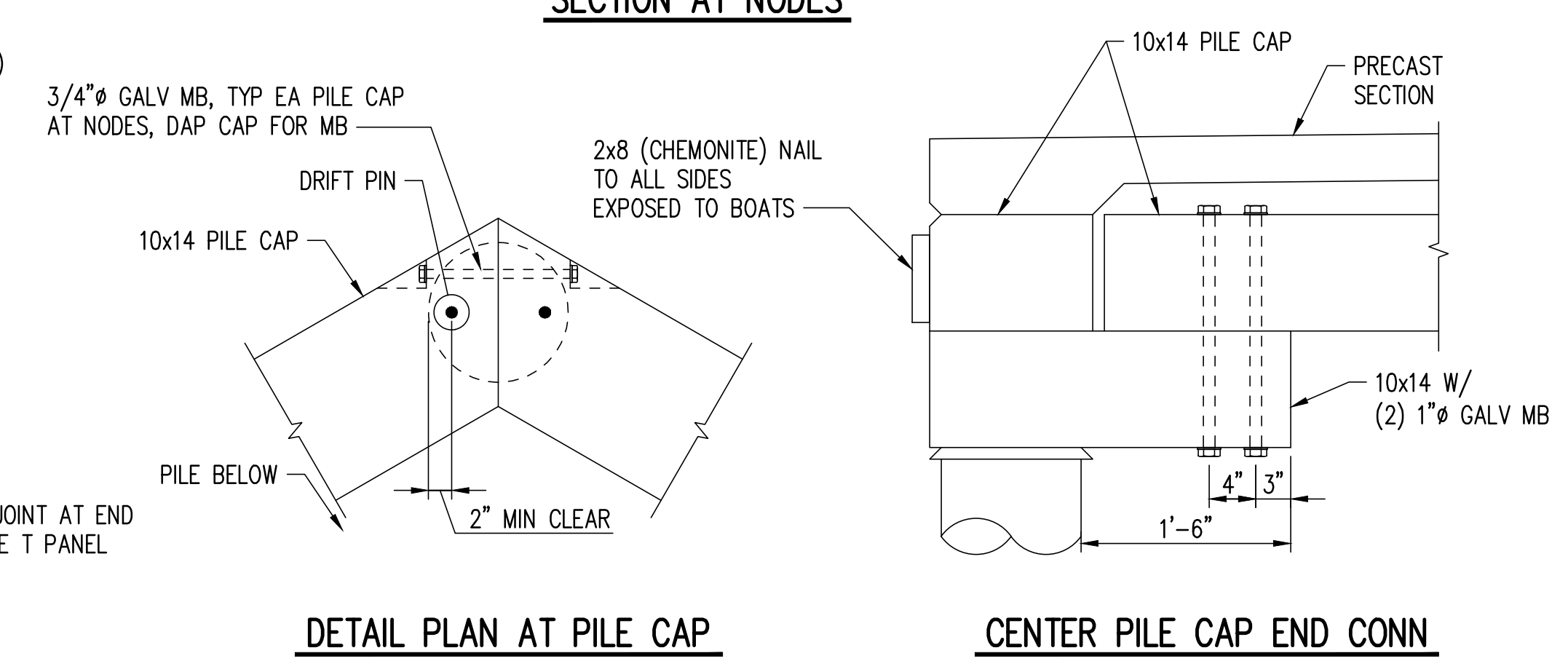
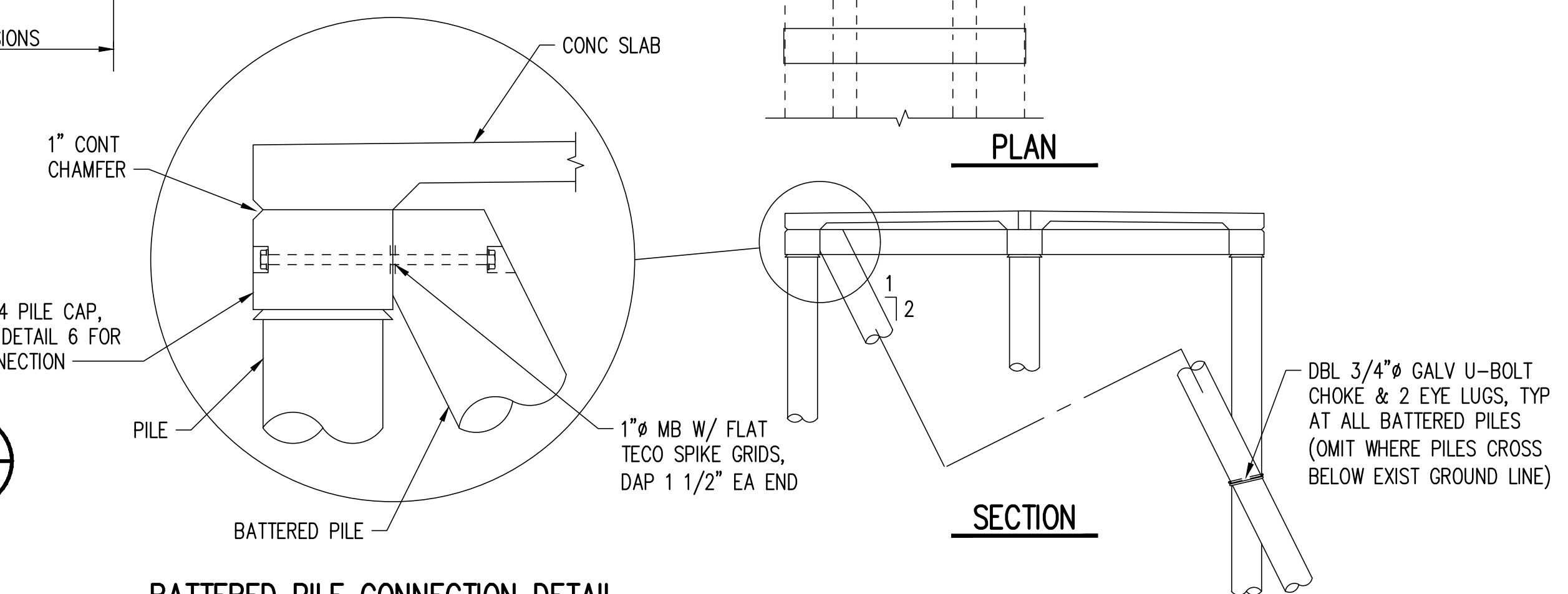
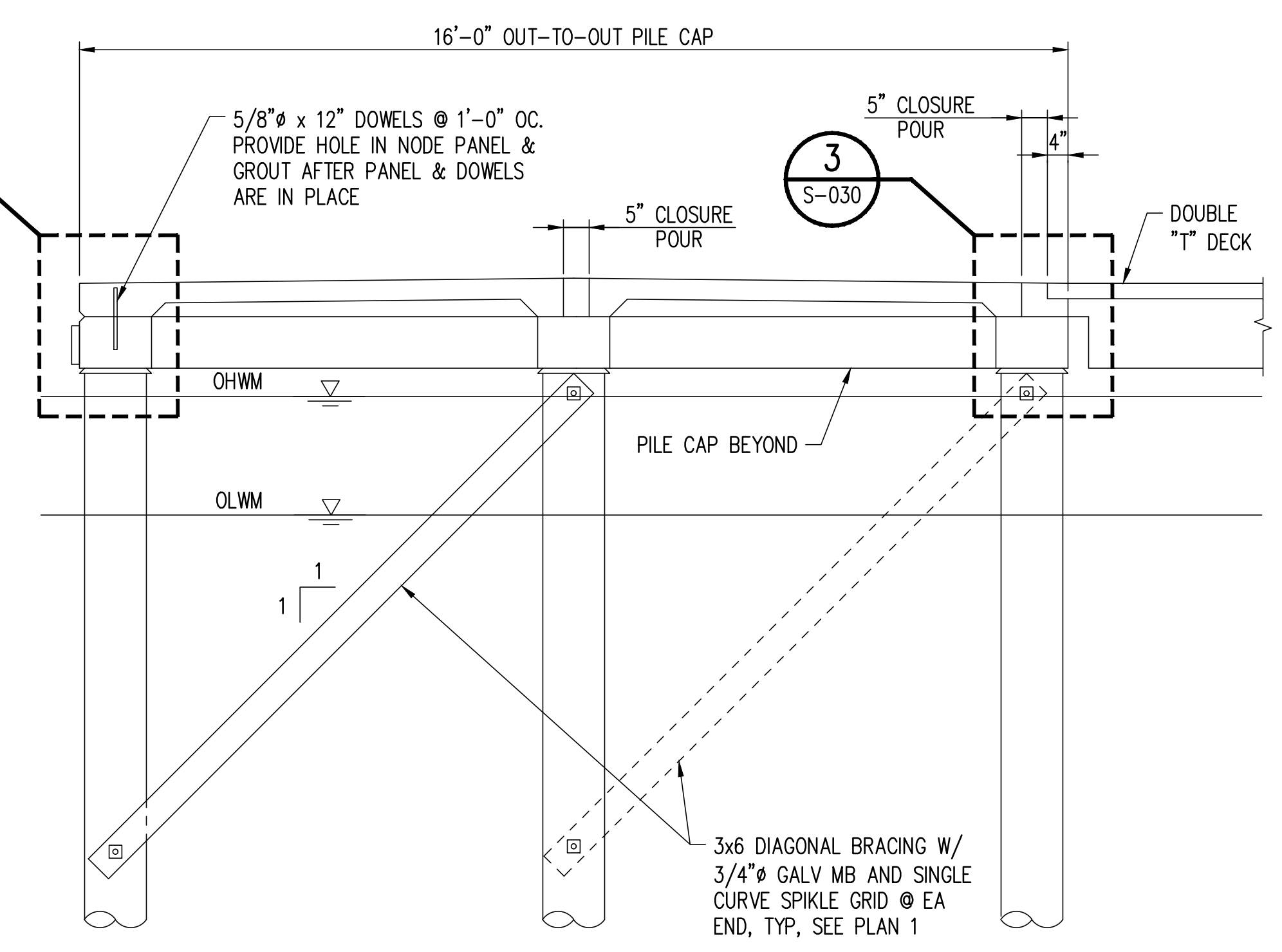
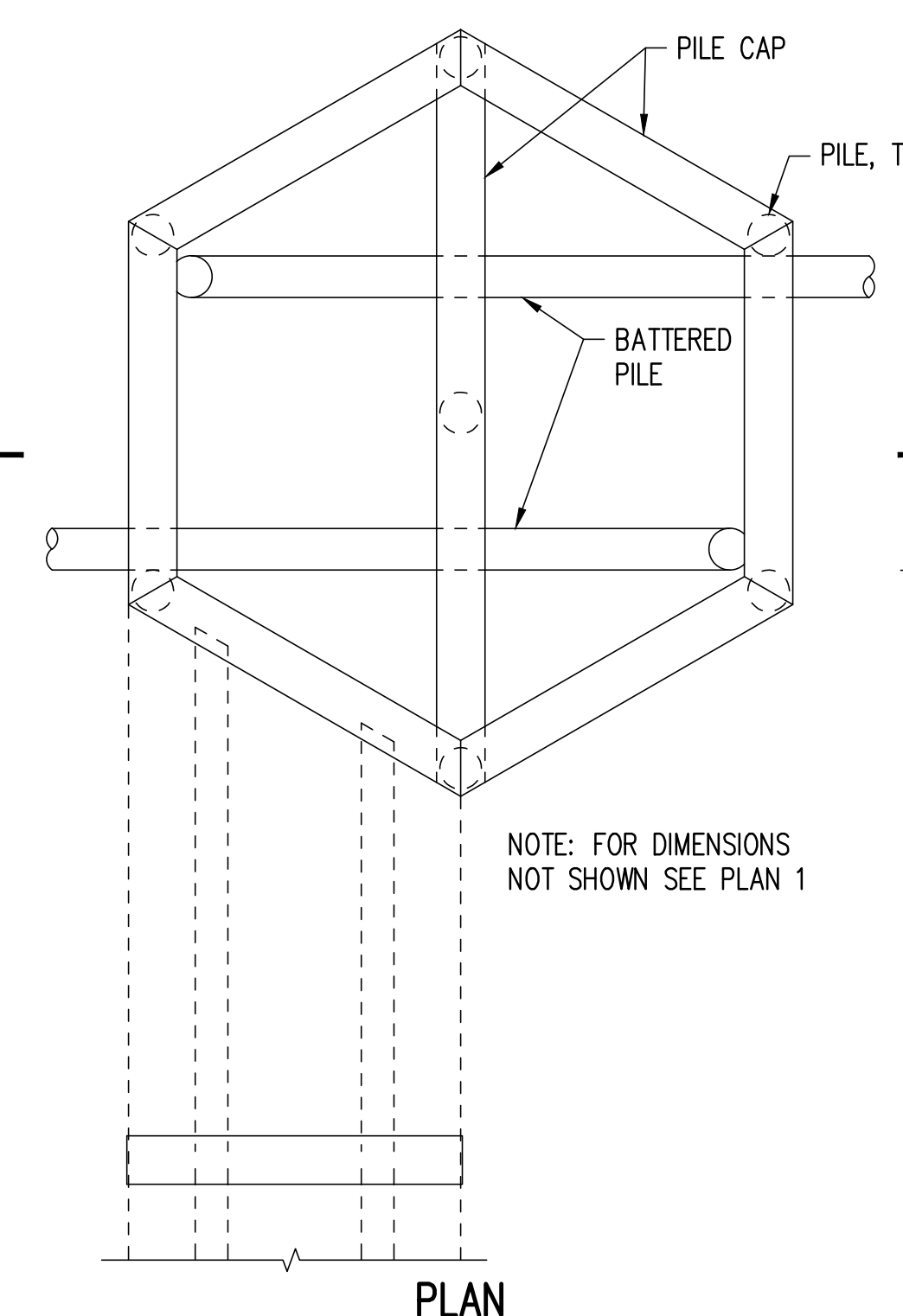
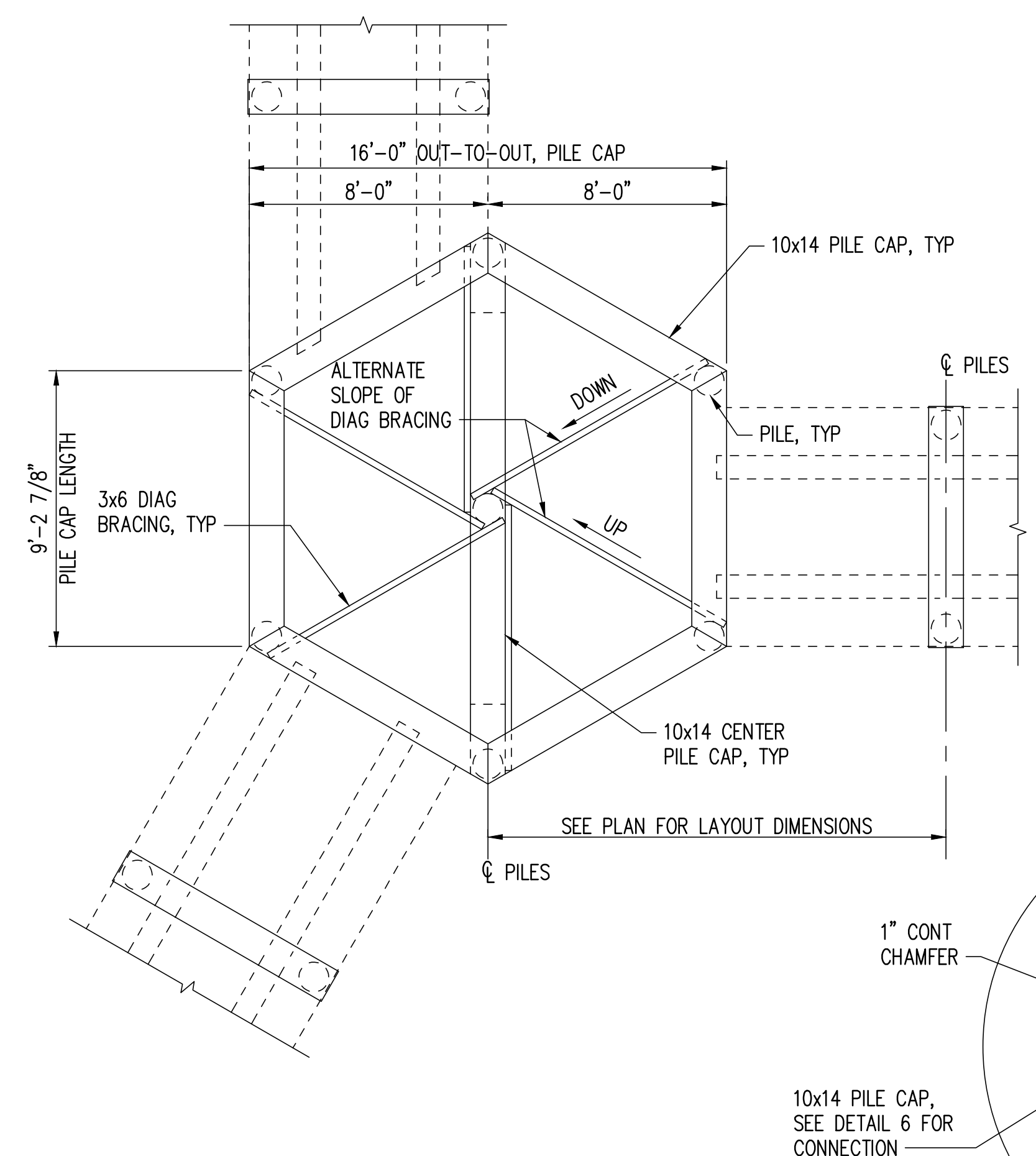


**LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS**
 FIXED PIER EXISTING CONDITIONS 1

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-030
SHEET NO.	37 OF 44

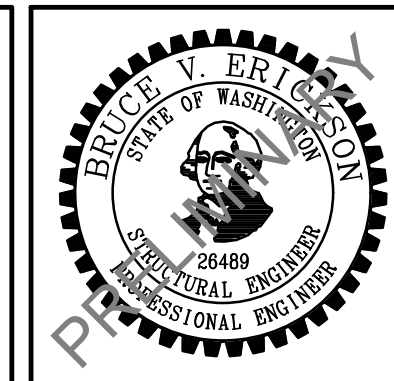
60% SUBMITTAL

- NOTES:**
- SEE DRAWING S-030 FOR ADDITIONAL NOTES.
 - EXISTING CONDITION REPAIR SHOWN IN DETAIL 4, COMPLETED 2022.



NOTE: ALL INFORMATION ON THIS SHEET SHOWS EXISTING CONDITIONS AND WAS TAKEN FROM RECORD DRAWINGS FROM PREVIOUS PROJECTS. IT IS SHOWN FOR CONTRACTOR INFORMATION ONLY.

CAD USER: RICKT PLOT DATE: Oct 10, 2022-11:11am
PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_S-031.dwg



NO.	DATE	BY	REVISION



**LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS**

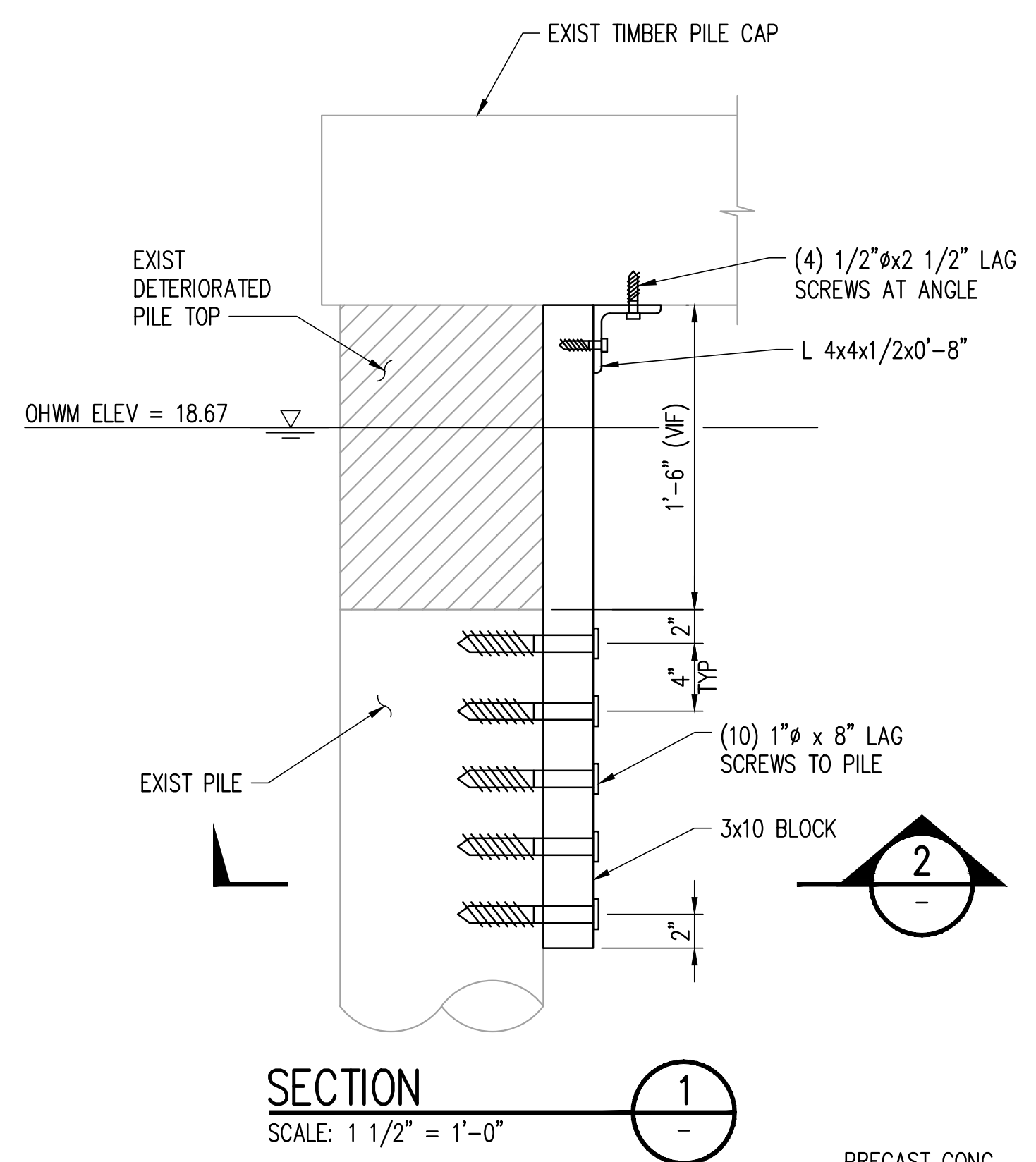
FIXED PIER EXISTING CONDITIONS 2

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-031
SHEET NO.	38 OF 44

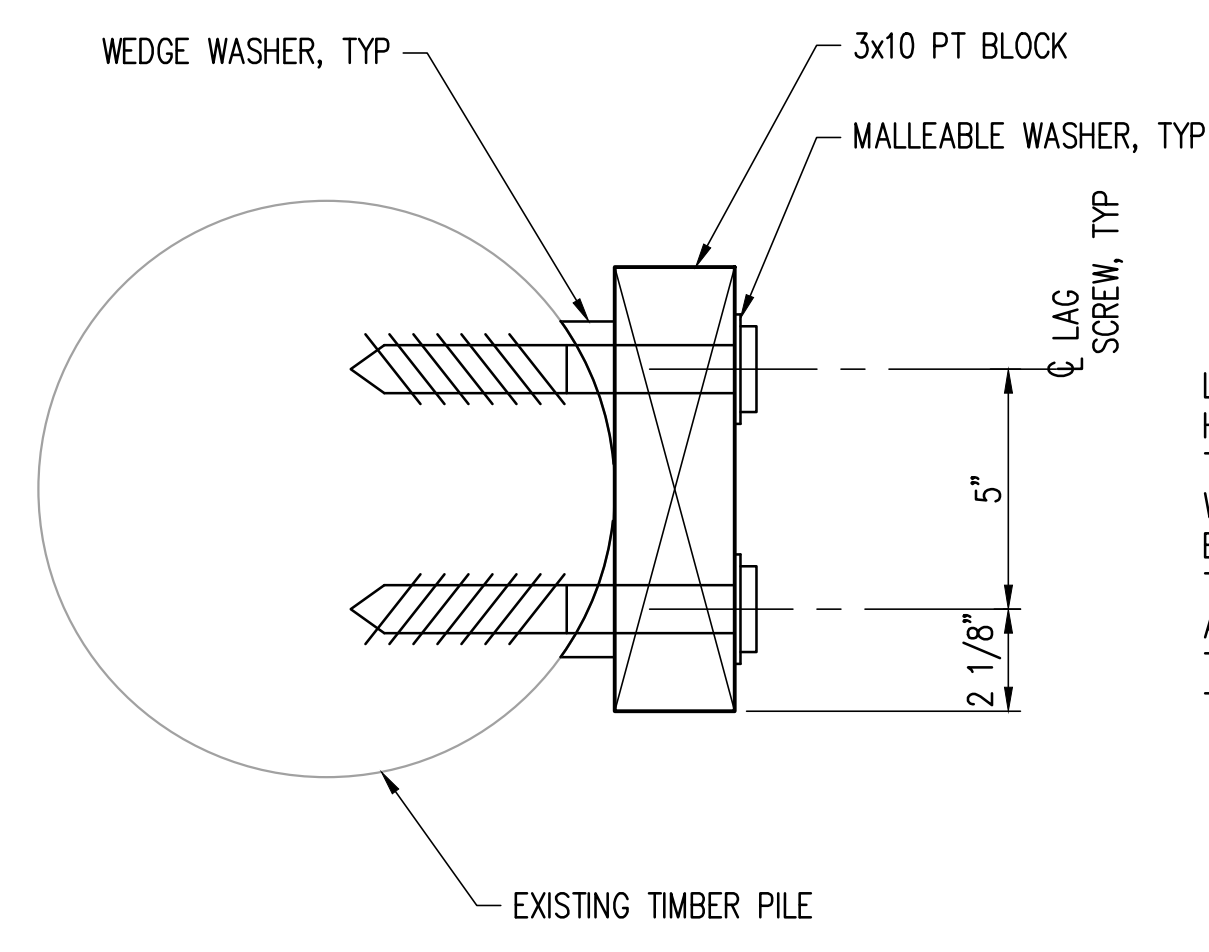
60% SUBMITTAL

NOTES:

- SEE DRAWING S-030 FOR ADDITIONAL NOTES.
- EXISTING CONDITION TEMPORARY REPAIR SHOWN IN SECTION DETAIL 1 COMPLETED 2022.

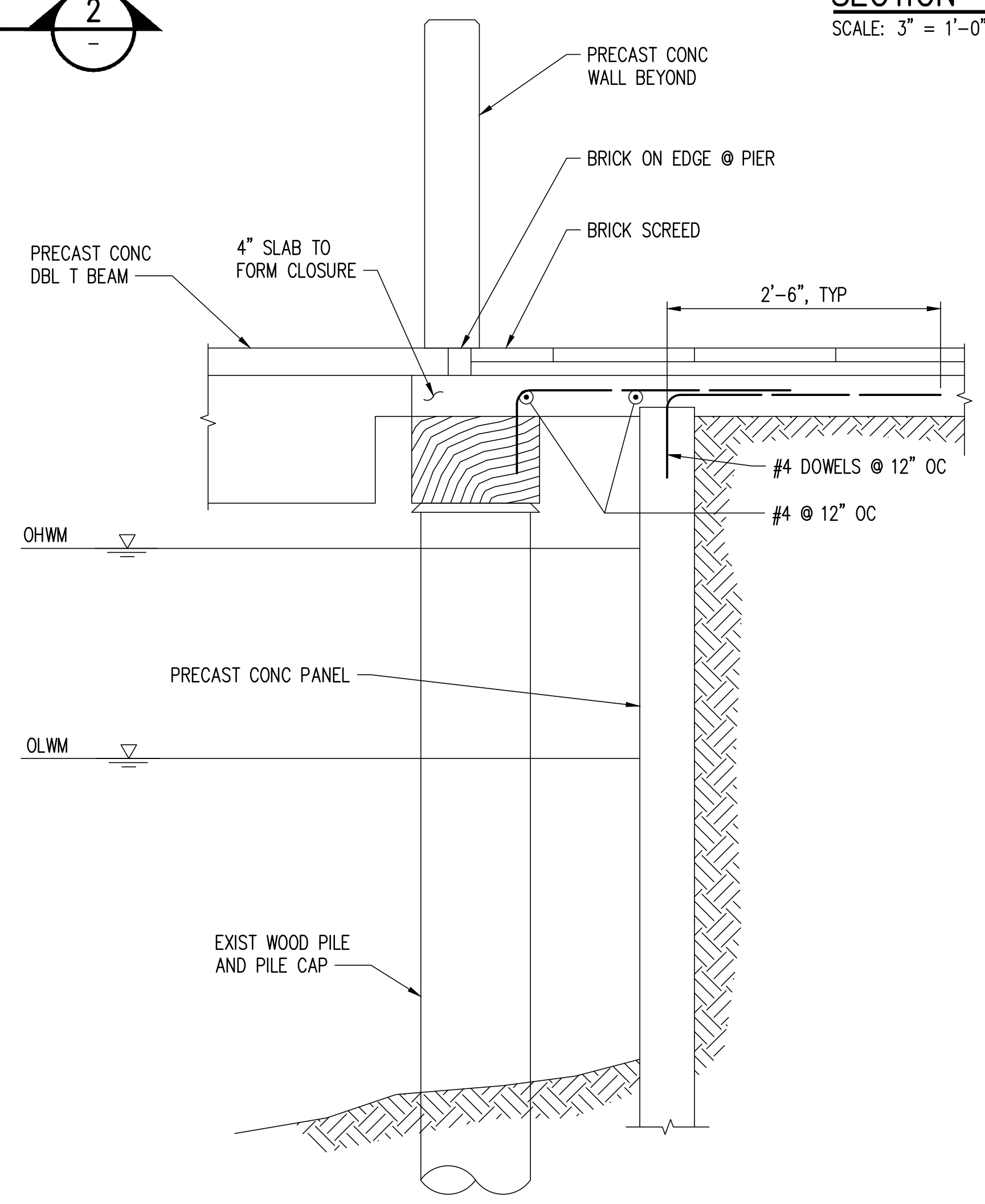


SECTION 1
SCALE: 1 1/2" = 1'-0"



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

LAG SCREWS SHALL BE INSTALLED SNUG TIGHT, HOWEVER SHALL NOT INDUCE BENDING OF TIMBER BLOCKS. CONTRACTOR MAY FABRICATE WEDGE WASHERS TO ENSURE BLOCKS ARE NOT BENT. ANY BLOCK THAT IS BENT FROM OVER TIGHTENING LAG SCREWS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE CITY. BLOCKS THAT ARE BENT WILL LIKELY BE SPLIT ALONG THE GRAIN OF THE BLOCKS.



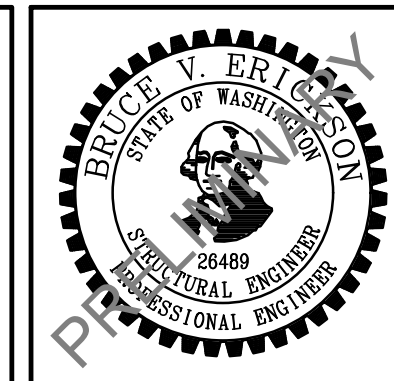
PIER/PLAZA CONNECTION 3
SCALE: 1/2" = 1'-0"

NOTE: ALL INFORMATION ON THIS SHEET SHOWS EXISTING CONDITIONS AND WAS TAKEN FROM RECORD DRAWINGS FROM PREVIOUS PROJECTS. IT IS SHOWN FOR CONTRACTOR INFORMATION ONLY.

CAD USER: RICKT PLOT DATE: Oct 10, 2022-11:12am
PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_S-032.dwg



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**LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS**

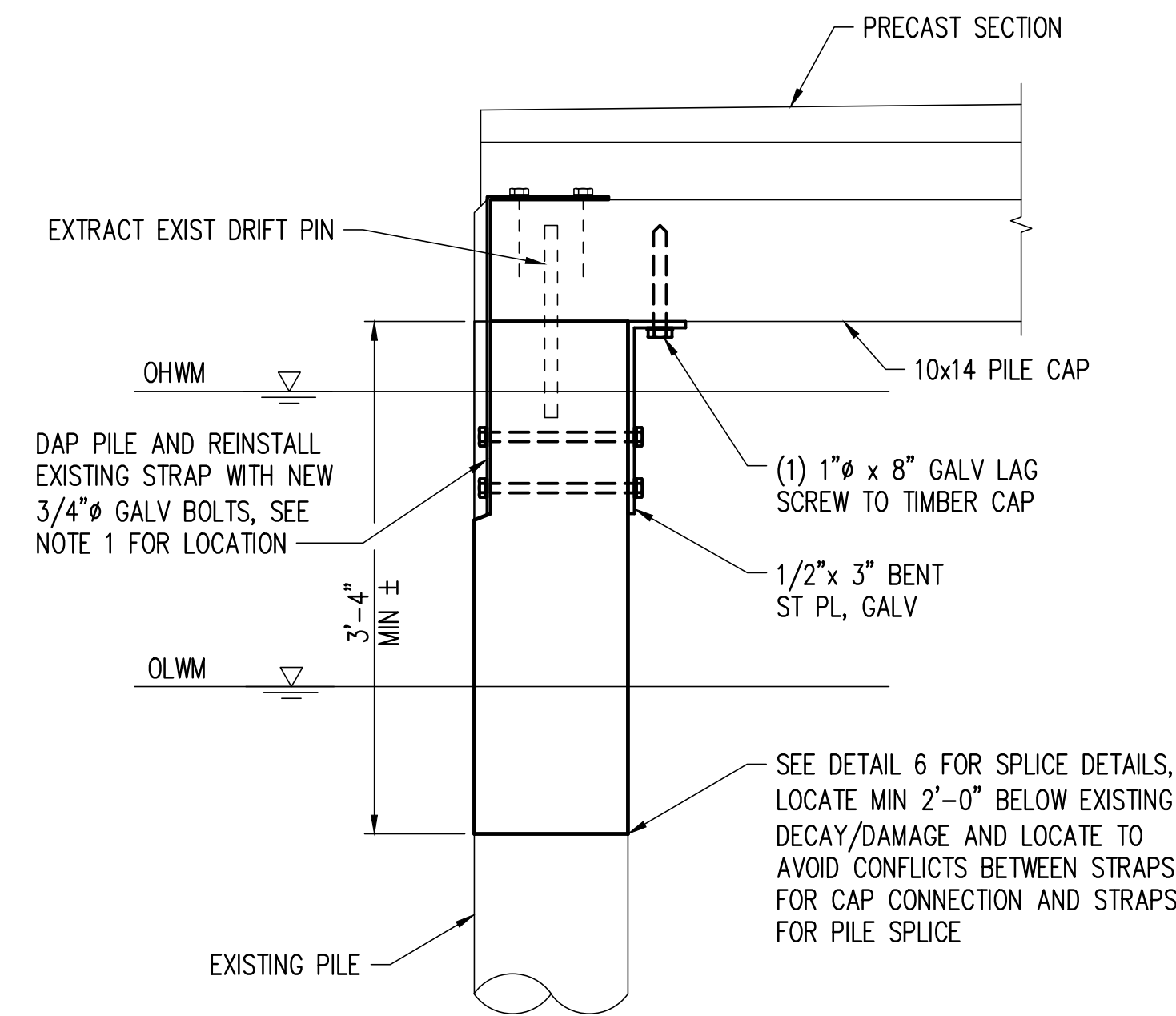
FIXED PIER EXISTING CONDITIONS 3

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-032
SHEET NO.	39 OF 44

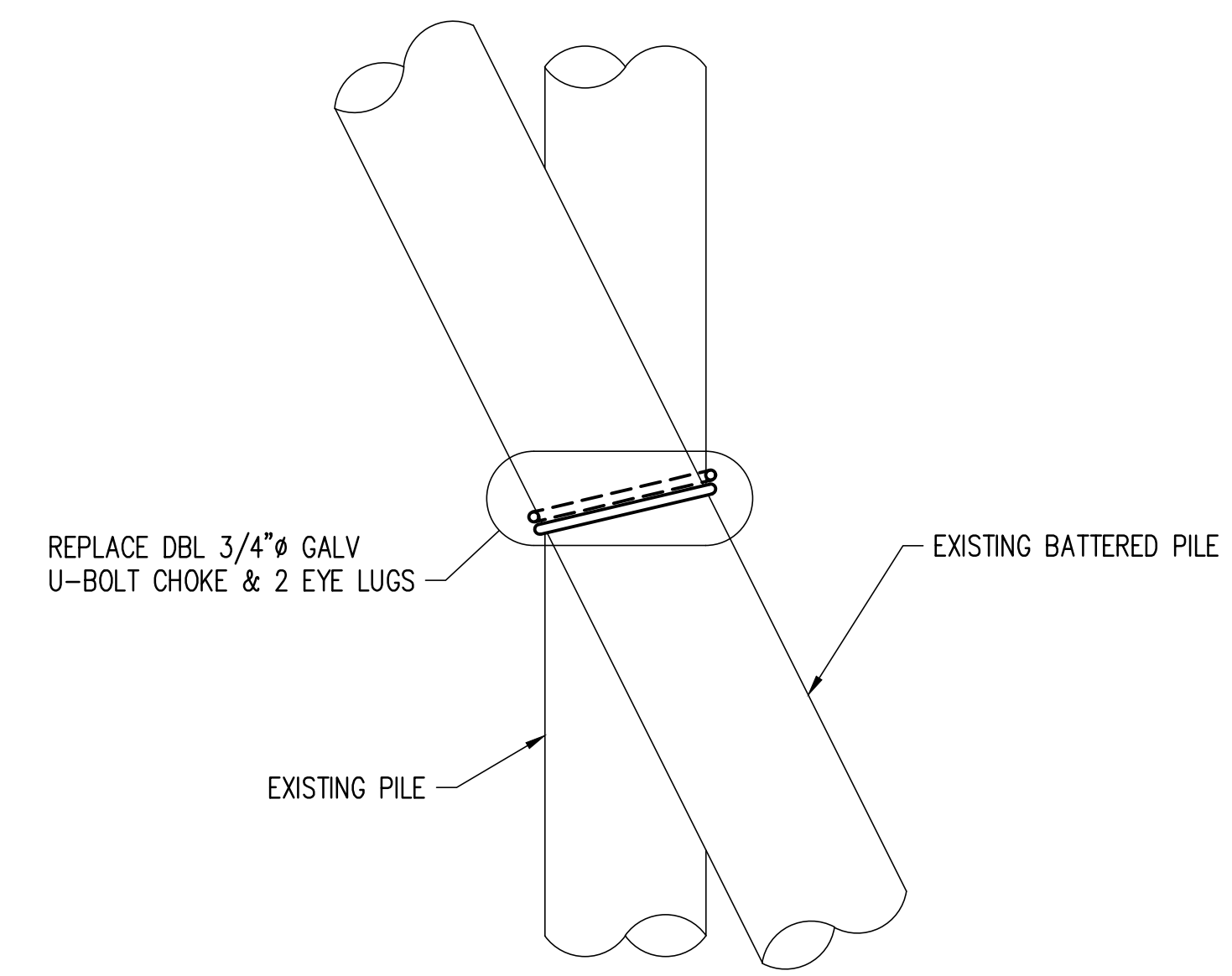
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NOTES:

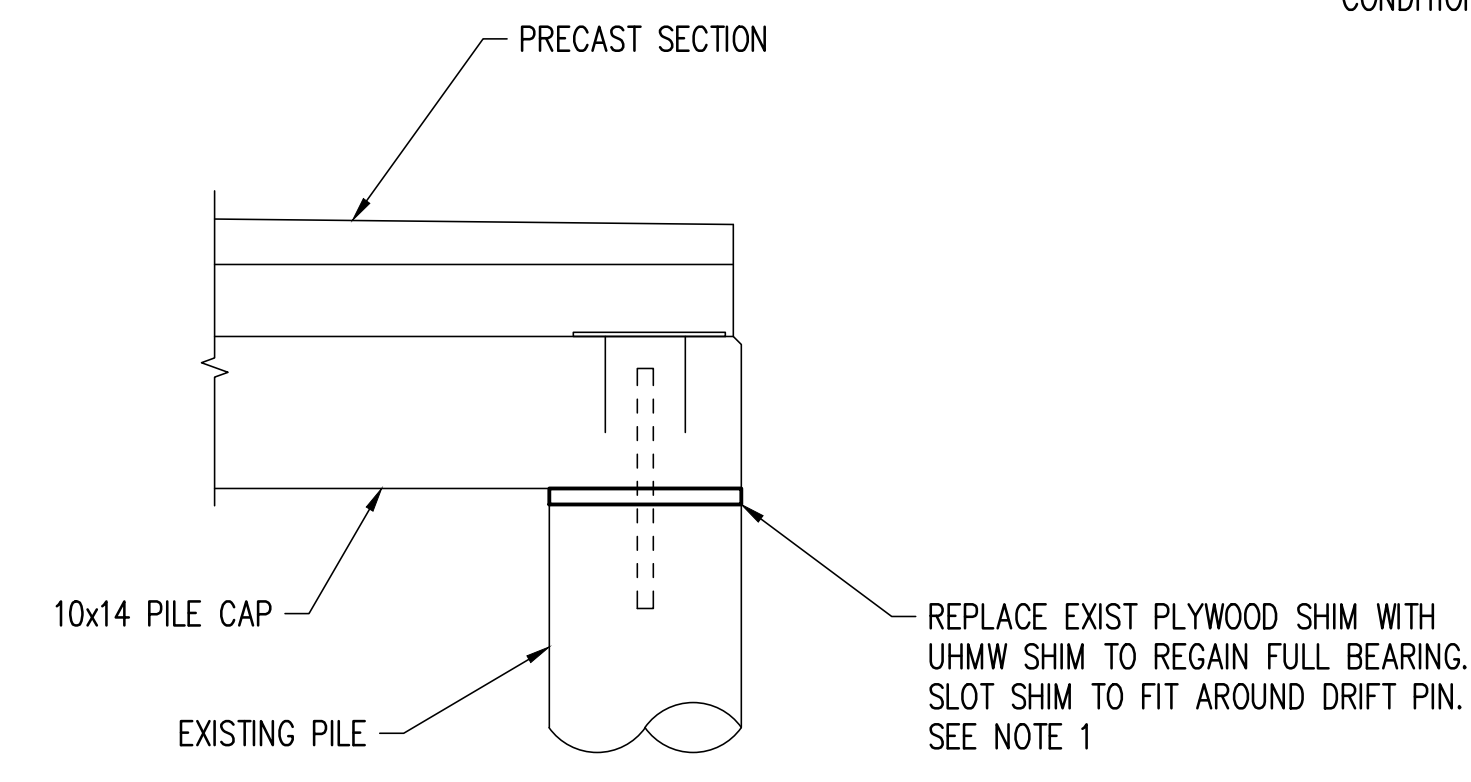
- SEE DRAWINGS S-030 THRU S-032 FOR EXISTING CONDITIONS.
- EXTRACT DECAYED PILE CAPS FULL LENGTH WITHOUT DAMAGING EXISTING CONC DECK AND TIMBER PILES, AND REPLACE WITH TREATED 10x14 TIMBERS. REPLACE CONNECTING HARDWARE SHOWN IN EXISTING CONDITIONS UNO.



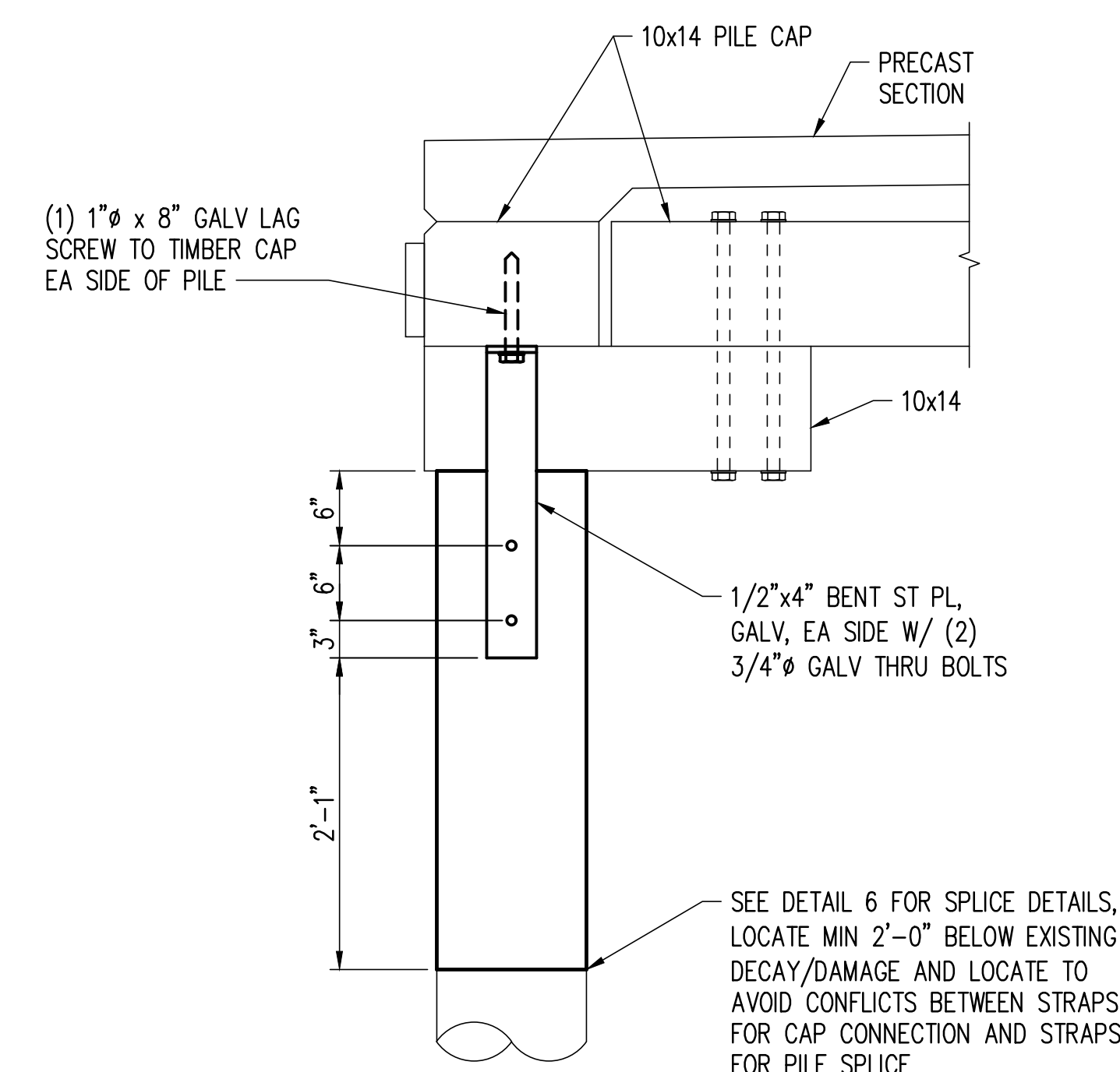
SECTION 1
SCALE: 1" = 1'-0"



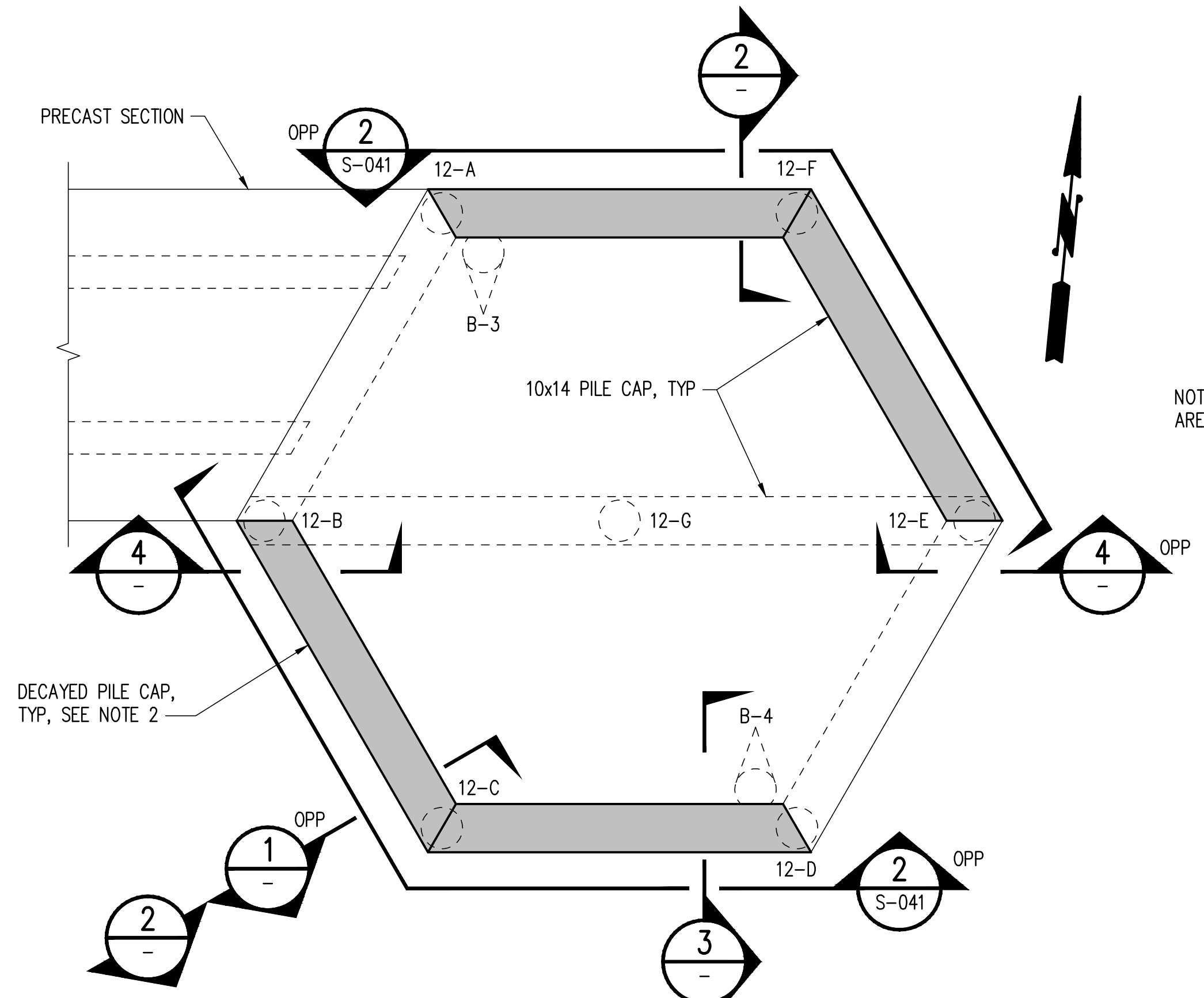
SECTION 2
SCALE: 1" = 1'-0"



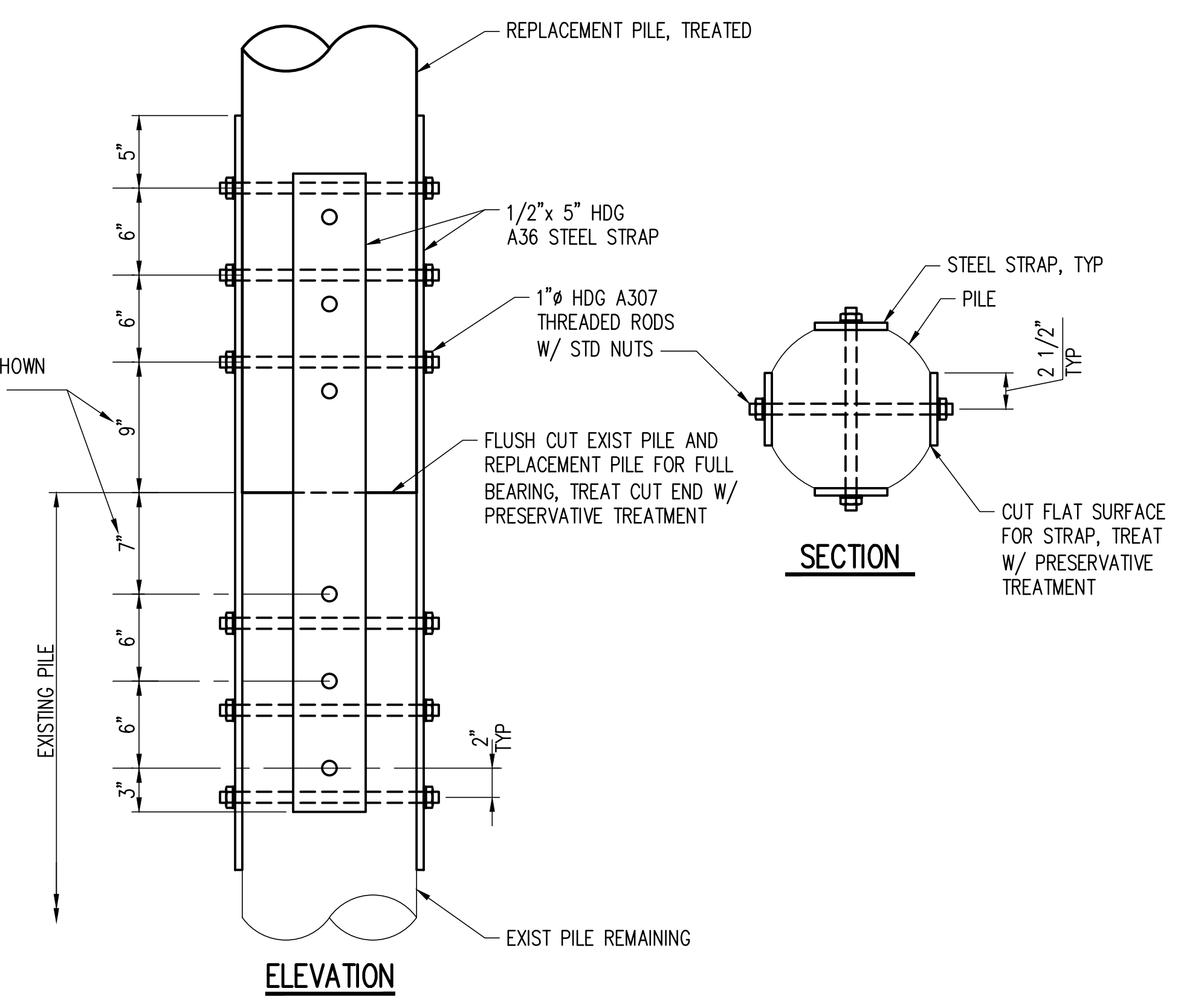
SECTION 3
SCALE: 1" = 1'-0"



SECTION 4
SCALE: 1" = 1'-0"
S-041



DETAIL 5
SCALE: 3/8" = 1'-0"
S-011

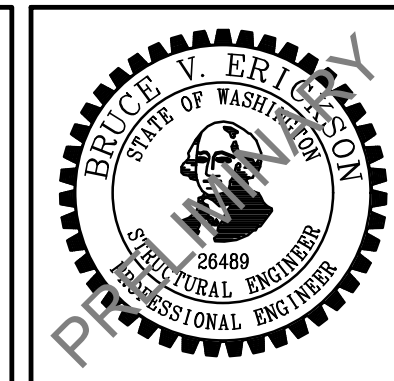


DETAIL 6
SCALE: 1 1/2" = 1'-0"

CAD USER: RICKT PLOT DATE: Oct 10, 2022-11:13am
PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_S-040.dwg



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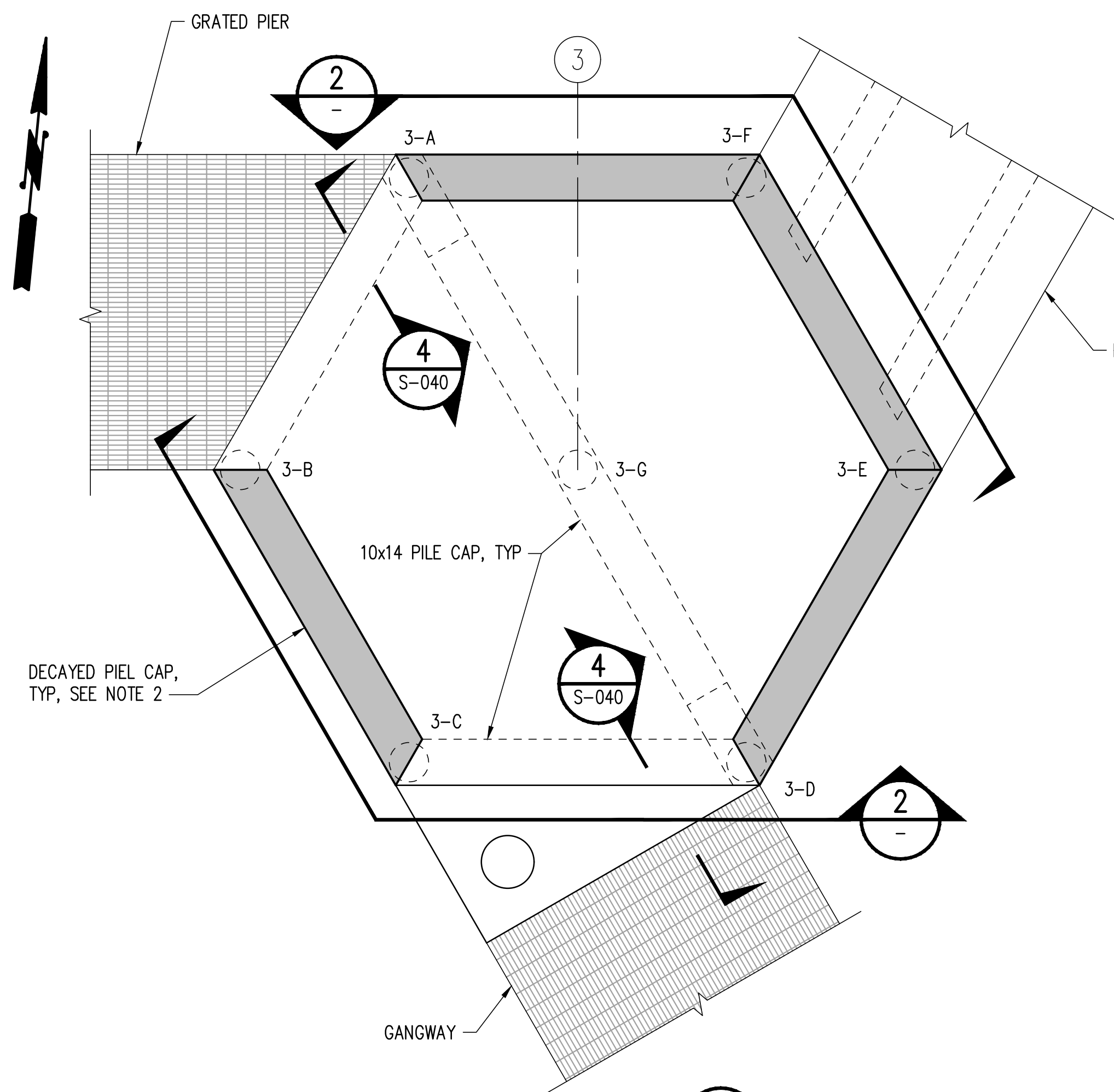


**LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS**

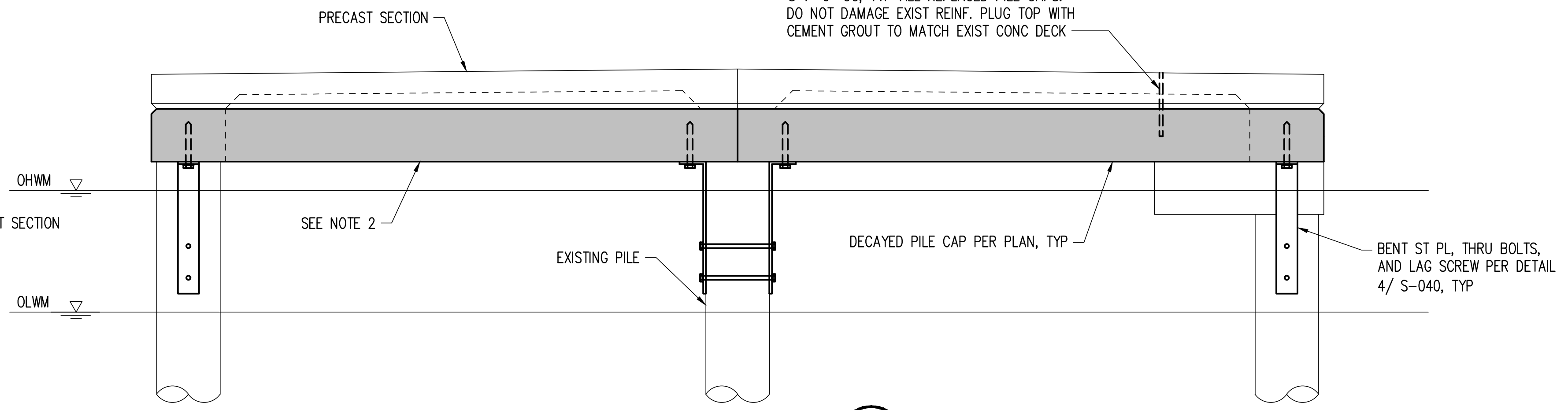
FIXED PIER REPAIR DETAILS

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-040
SHEET NO.	40 OF 44

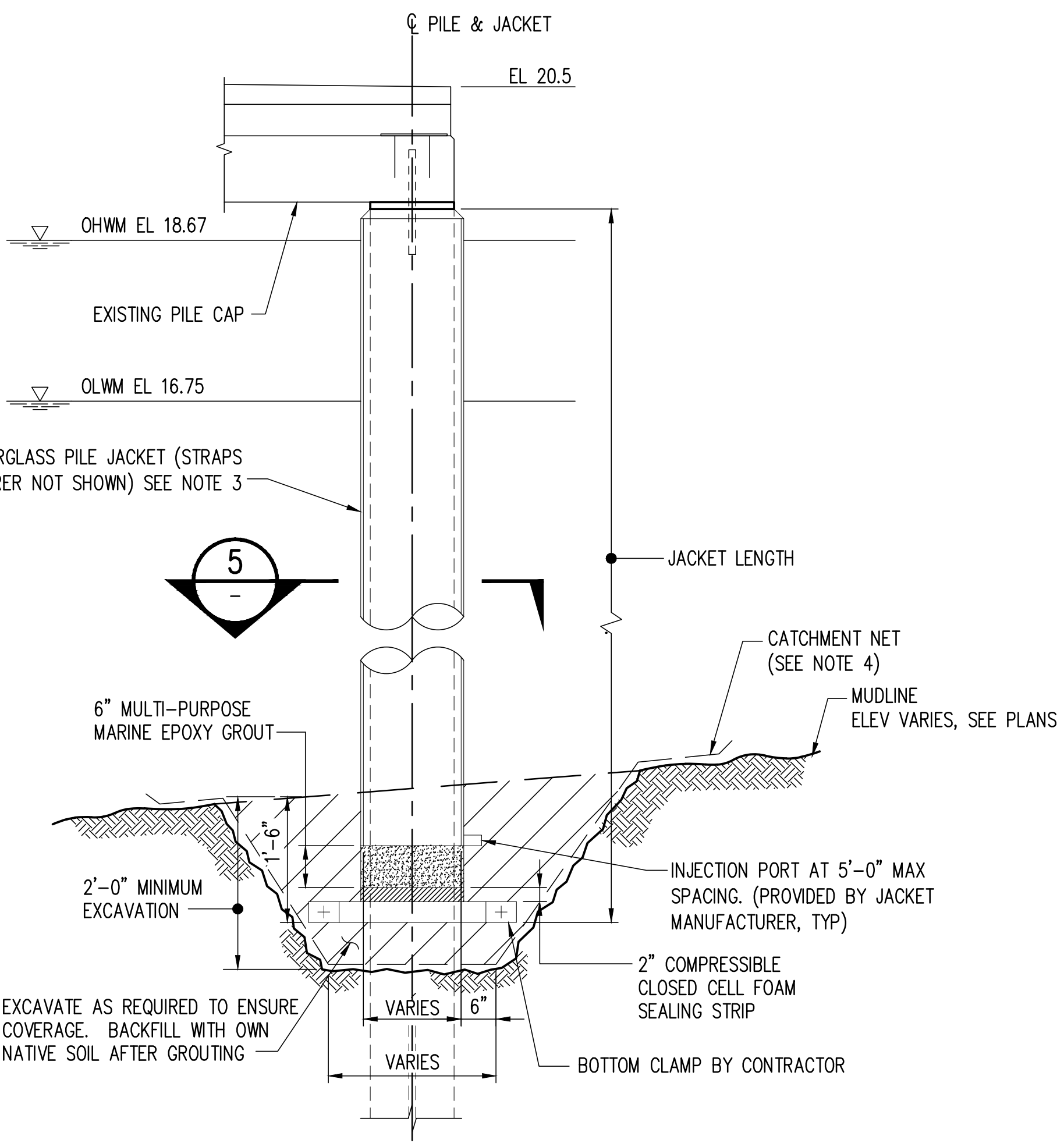
60% SUBMITTAL



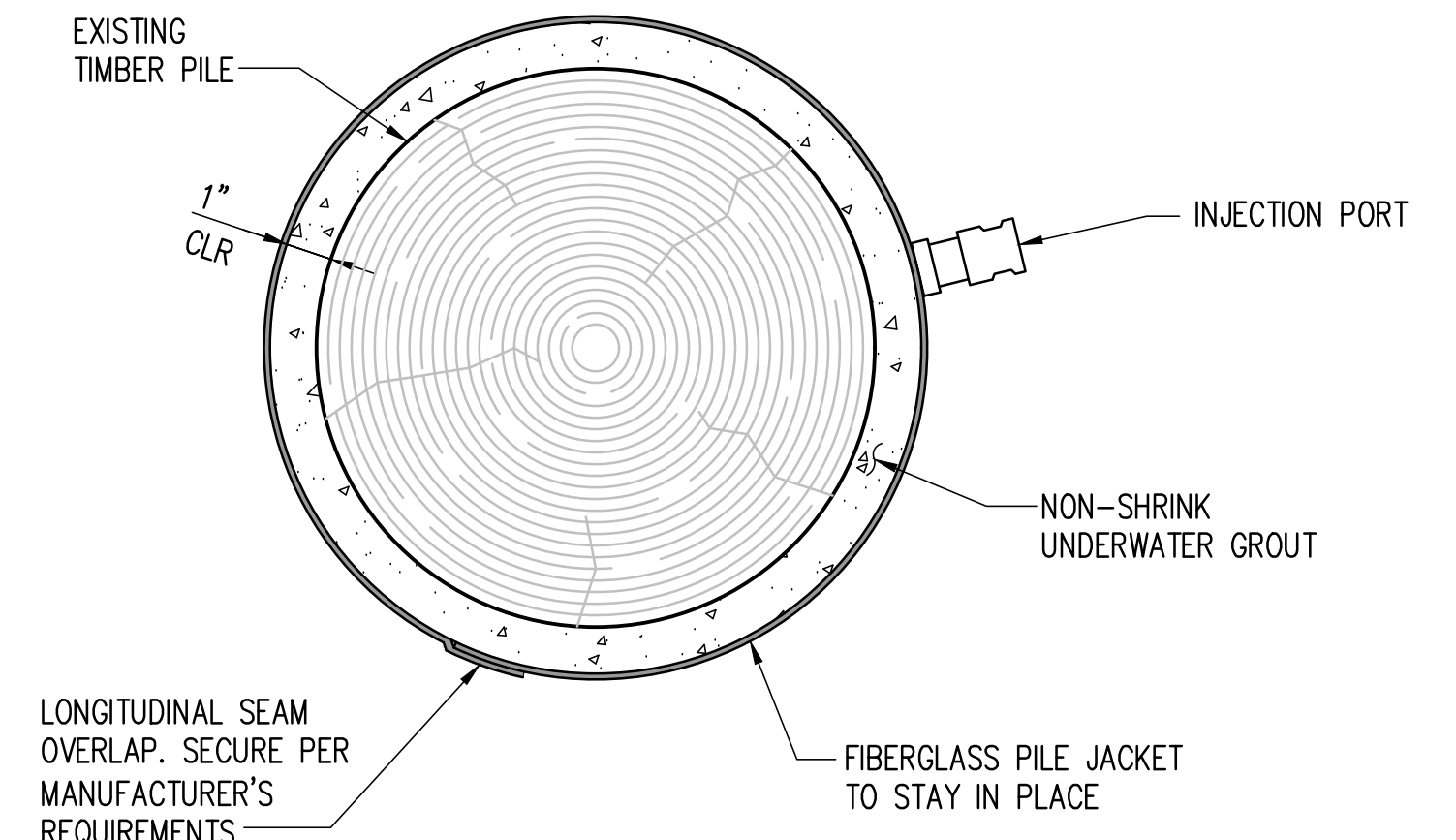
DETAIL
SCALE: 3/8" = 1'-0"
1



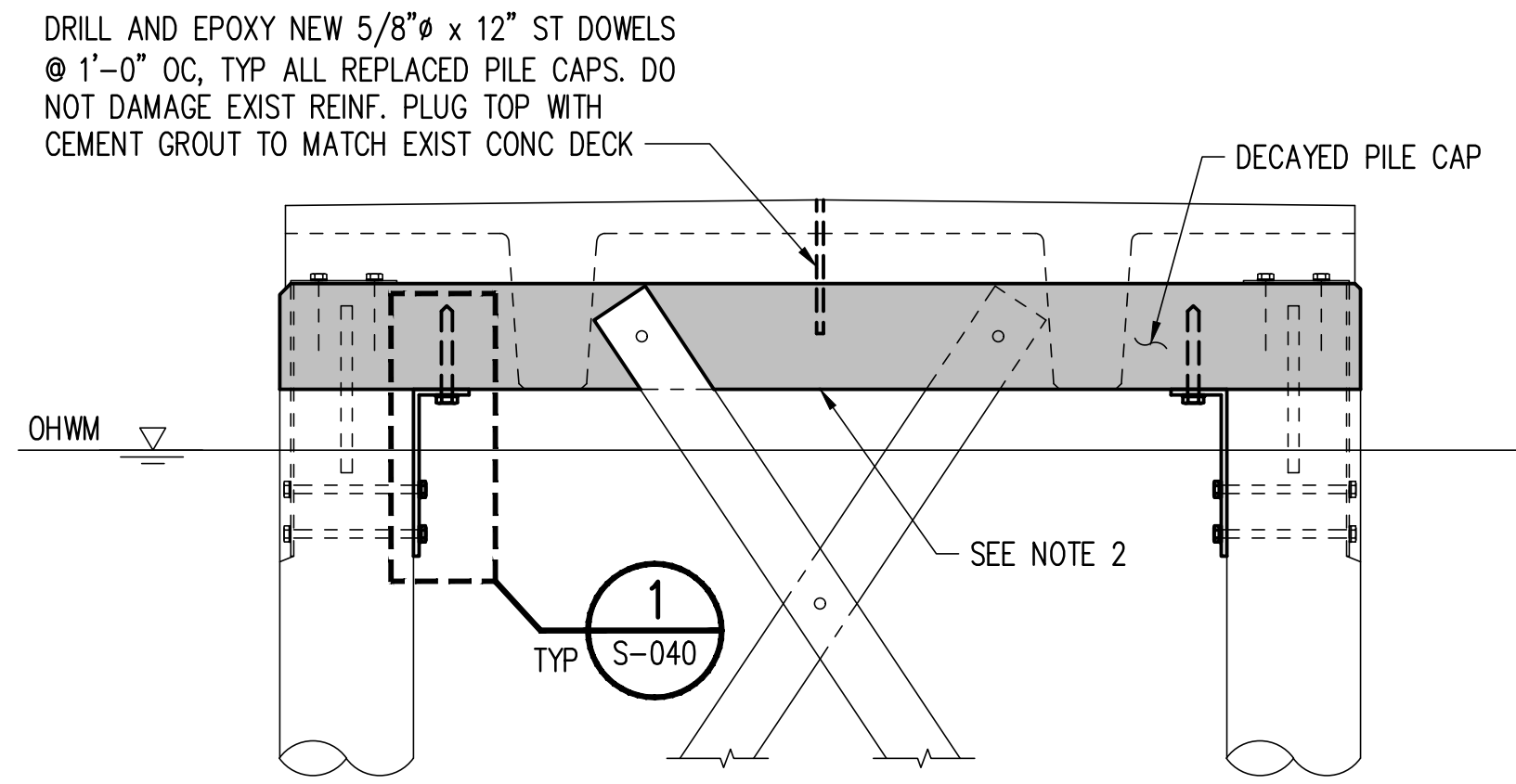
SECTION
SCALE: 3/4" = 1'-0"
2



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



SECTION
SCALE: 3" = 1'-0"
5



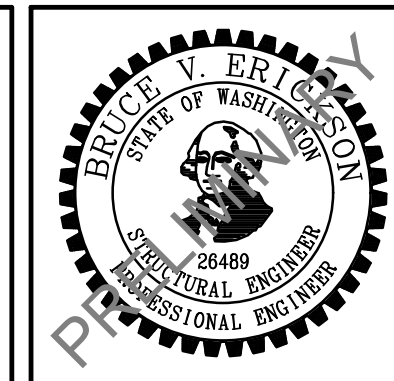
SECTION
SCALE: 3/4" = 1'-0"
3

- NOTES:**
- SEE DRAWINGS S-030 THRU S-032 FOR EXISTING CONDITIONS.
 - EXTRACT DECAYED PILE CAPS FULL LENGTH WITHOUT DAMAGING EXISTING CONC DECK AND TIMBER PILES, AND REPLACE WITH TREATED 10x14 TIMBERS. REPLACE CONNECTING HARDWARE SHOWN IN EXISTING CONDITIONS UNO.
 - PLACE JACKETS AROUND ALL (38) PILES, INCLUDING PILES REPAIRED PER DETAIL 6/S-040.

CAD USER: RICKT PLOT DATE: Oct 10, 2022-11:14am
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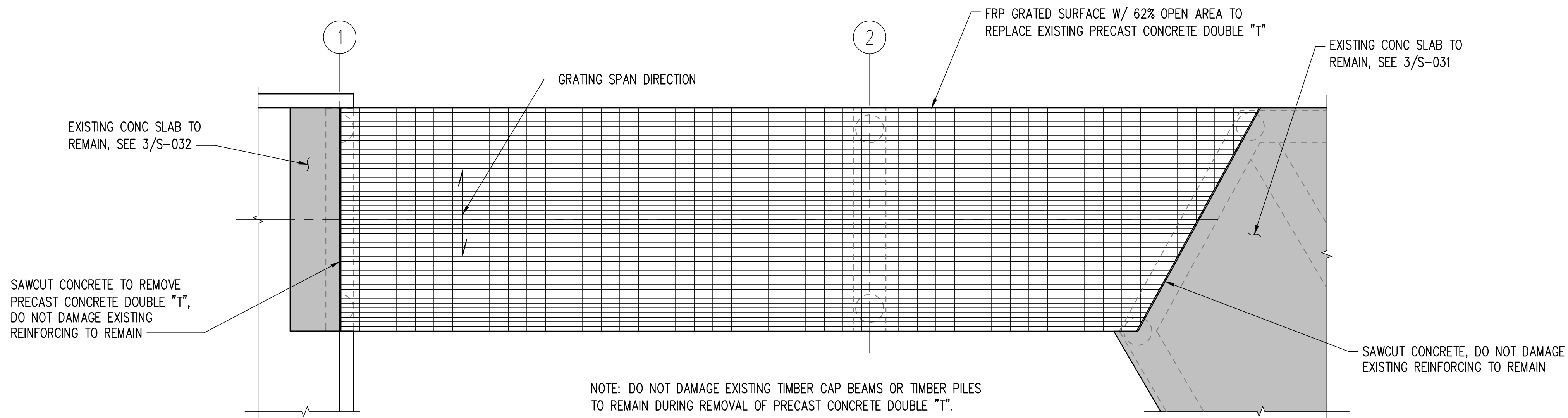


**LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS**

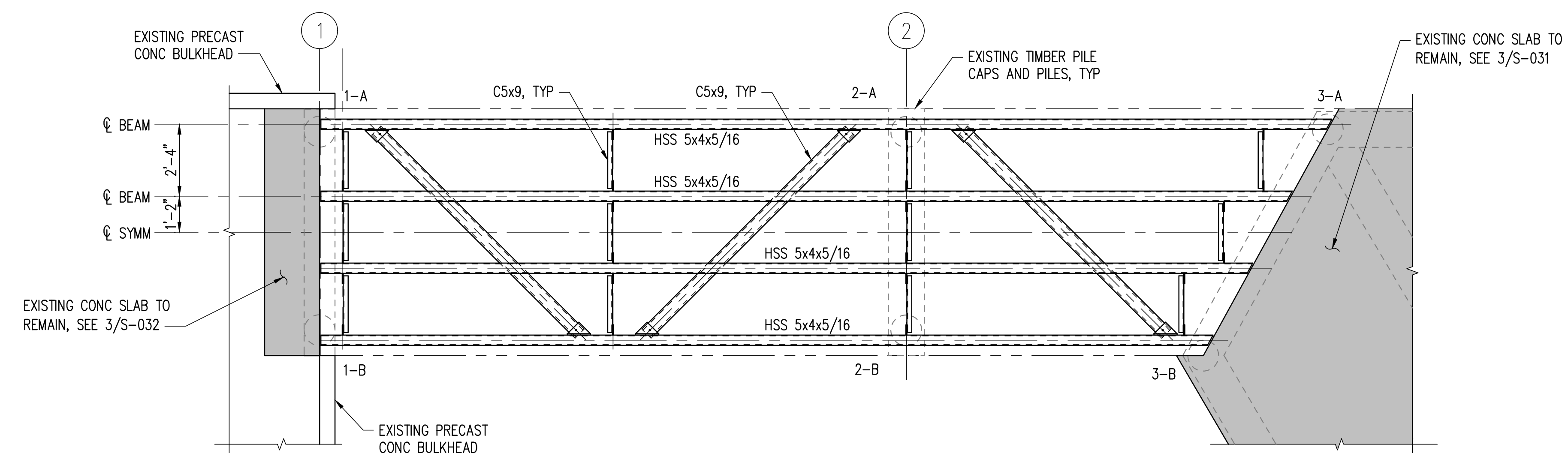
FIXED PIER REPAIR DETAILS

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-041
SHEET NO.	41 OF 44

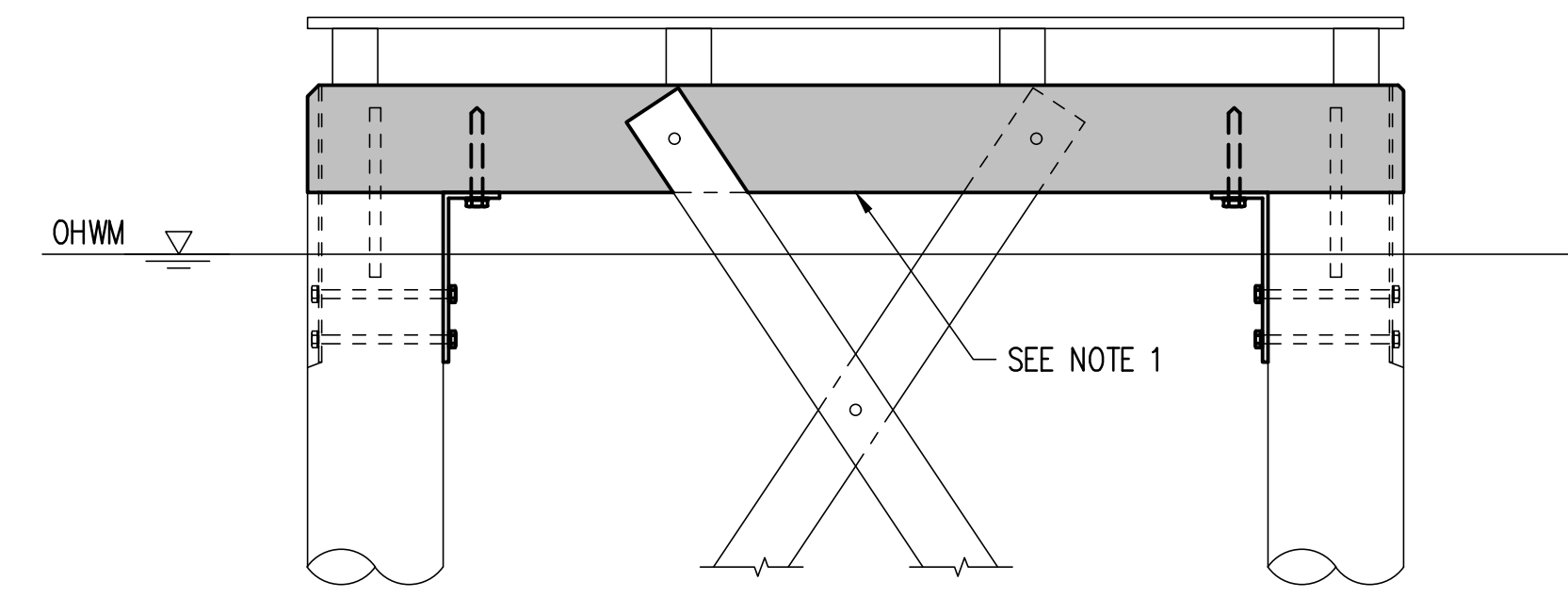
60% SUBMITTAL



FINISH PLAN DETAIL 1
SCALE: 3/8" = 1'-0"



FRAMING PLAN DETAIL 2
SCALE: 3/8" = 1'-0"

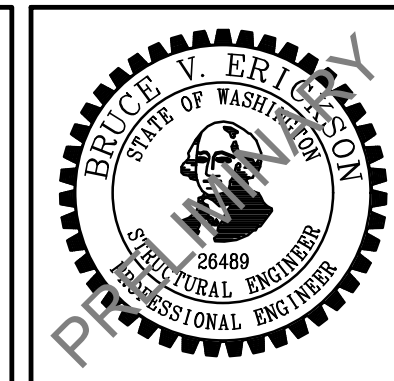


SECTION 3
SCALE: 3/4" = 1'-0"

NOTES:

1. EXTRACT DECAYED PILE CAP AT BENT 2 FULL LENGTH WITHOUT DAMAGING EXISTING TIMBER PILES. REPLACE WITH TREATED 10x14 TIMBER. REPLACE CONNECTING HARDWARE SHOWN IN EXISTING CONDITIONS UNO.

CAD USER: RICKT PLOT DATE: Oct 10, 2022-11:15am
PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_S-042.dwg



NO.	DATE	BY	REVISION



LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS

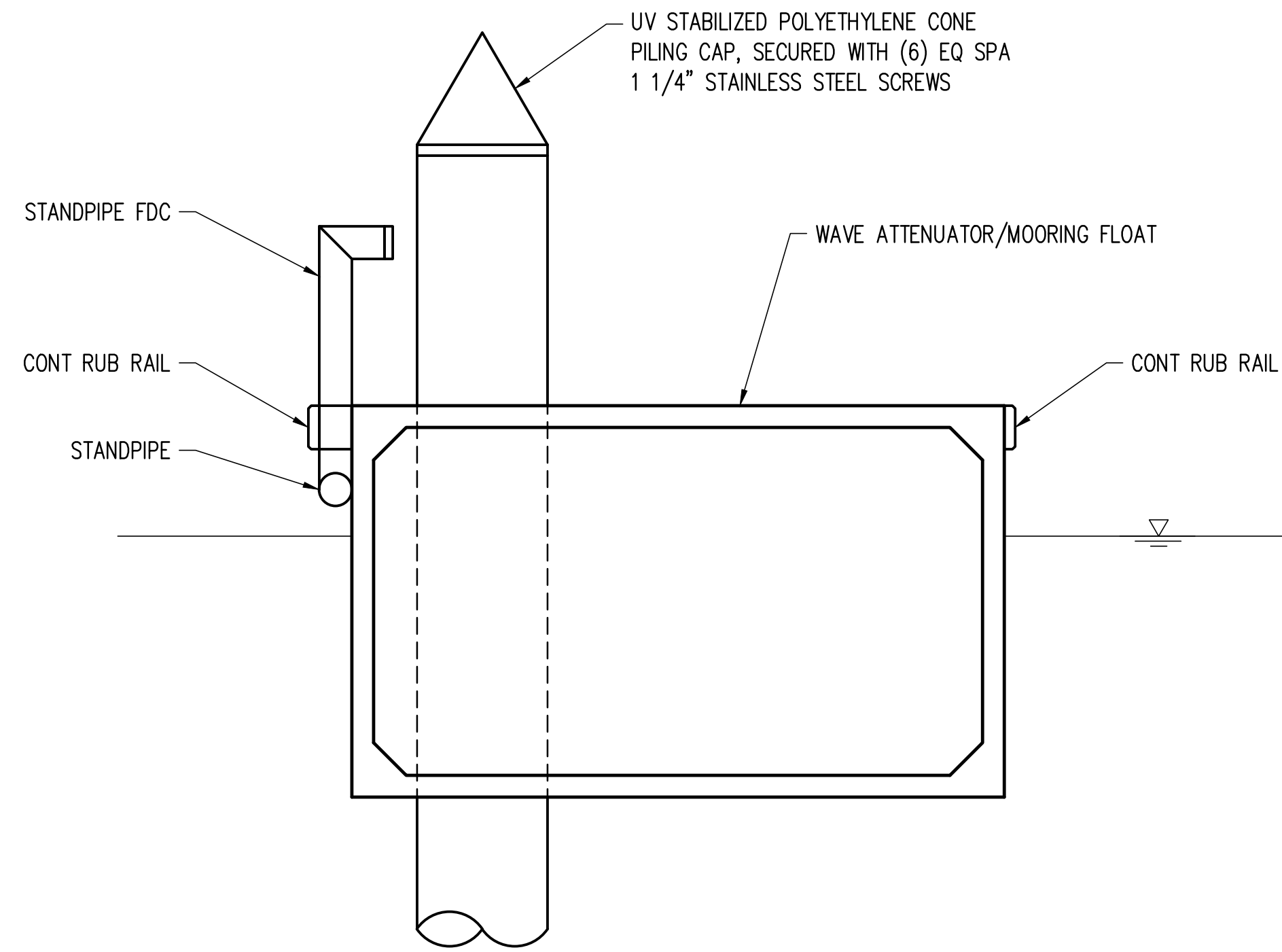
FIXED PIER GRATING DETAILS

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-042
SHEET NO.	42 OF 44

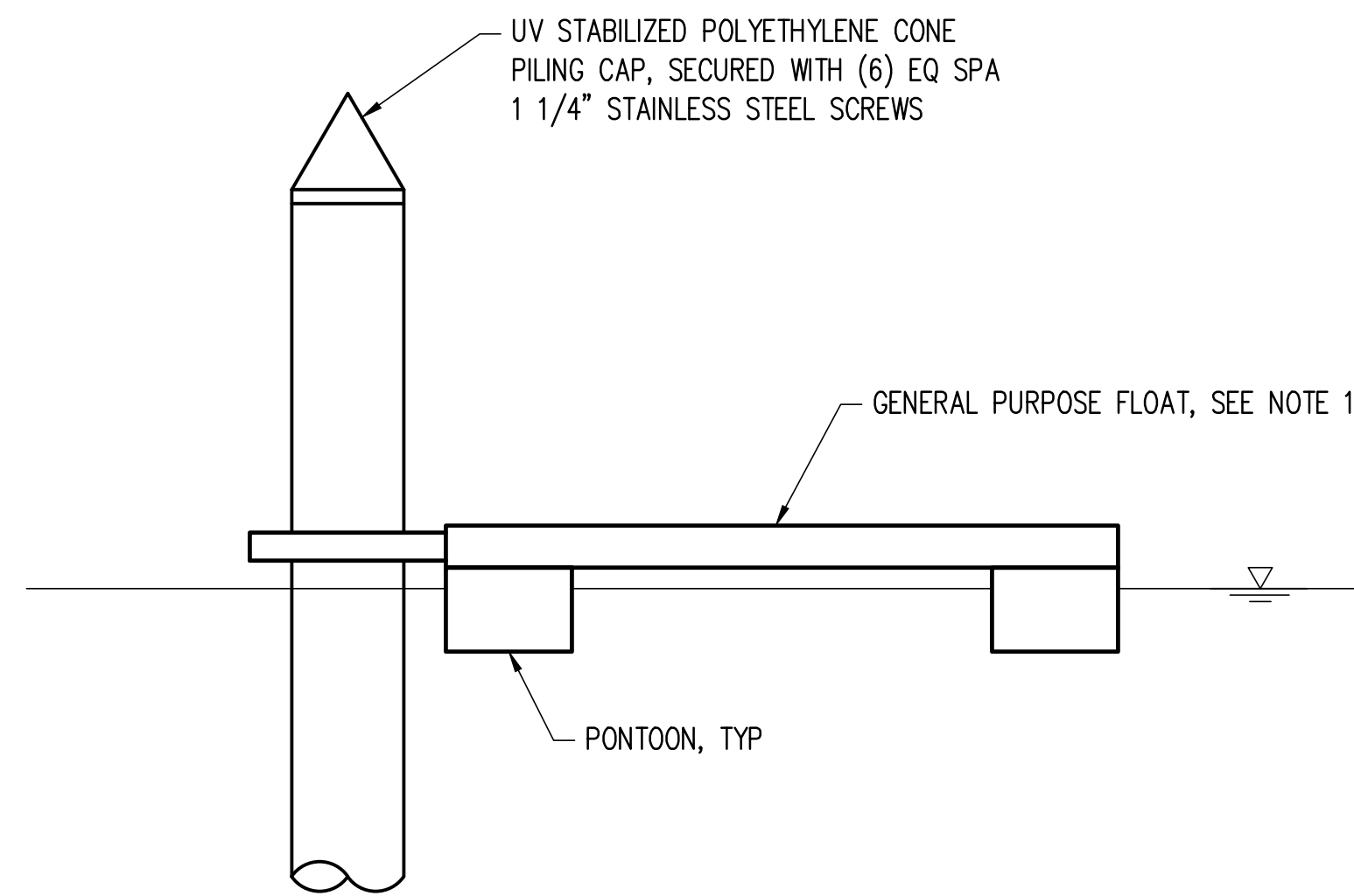
60% SUBMITTAL

NOTES:

- 40% MINIMUM LIGHT TRANSMISSION IS REQUIRED. SEE STRUCTURAL NOTES AND SPECIFICATIONS FOR MORE INFORMATION



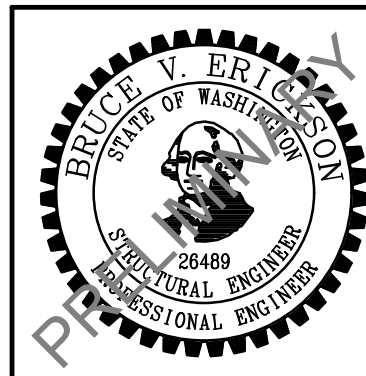
SECTION 1
SCALE: 1/2" = 1'-0"



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

PILE SCHEDULE						
Pile ID	Nominal Dia (in)	Wall t (in)	Cutoff Elev (ft)	Approx Mudline Elev (ft)	Embed (ft)	Tip Elev (ft)
1	16	0.625	20.00	9.00	20.00	-11.00
2	16	0.625	22.00	2.75	20.00	-17.25
3	16	0.625	22.00	-0.25	20.00	-20.25
4	16	0.625	22.00	-1.75	20.00	-21.75
5	16	0.625	22.00	-1.50	20.00	-21.50
6	16	0.625	22.00	-1.00	20.00	-21.00
7	16	0.625	20.00	5.50	20.00	-14.50
8	24	0.625	25.00	-7.50	28.00	-35.50
9	24	0.625	25.00	-10.75	28.00	-38.75
10	24	0.625	25.00	-13.00	28.00	-41.00
11	24	0.625	25.00	-16.00	28.00	-44.00
12	24	0.625	25.00	-16.50	28.00	-44.50
13	24	0.625	25.00	-16.25	28.00	-44.25
14	24	0.625	25.00	-16.25	28.00	-44.25
15	24	0.625	25.00	-16.25	28.00	-44.25
16	24	0.625	25.00	-16.25	28.00	-44.25
17	24	0.625	25.00	-16.00	28.00	-44.00
18	24	0.625	25.00	-15.75	28.00	-43.75
19	24	0.625	25.00	-15.50	28.00	-43.50
20	24	0.625	25.00	-15.50	28.00	-43.50
21	24	0.625	25.00	-15.50	28.00	-43.50
22	24	0.625	25.00	-14.75	28.00	-42.75
23	24	0.625	25.00	-12.75	28.00	-40.75

CAD USER: RICKT PLOT DATE: Oct 10, 2022-11:16am
 PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_S-050.dwg



NO.	DATE	BY	REVISION

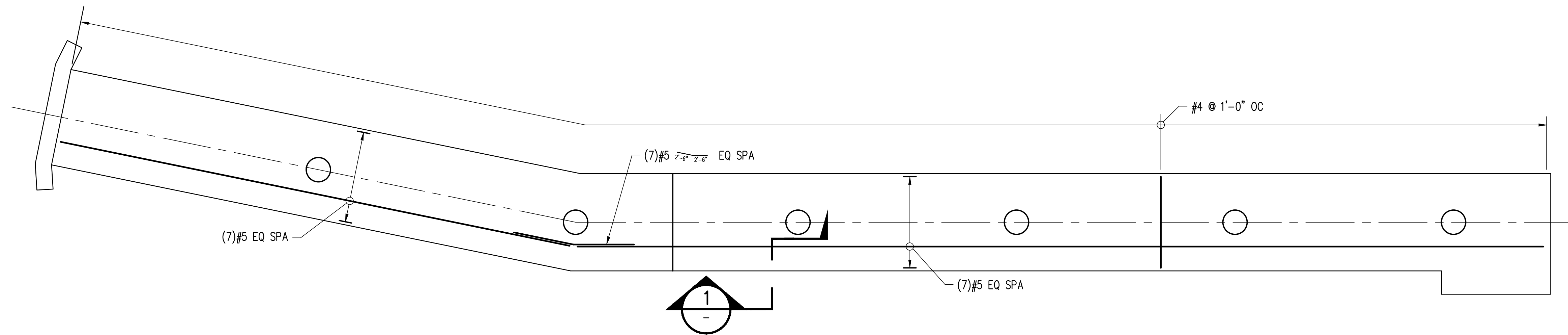


**LUTHER BURBANK PARK
 WATERFRONT IMPROVEMENTS**

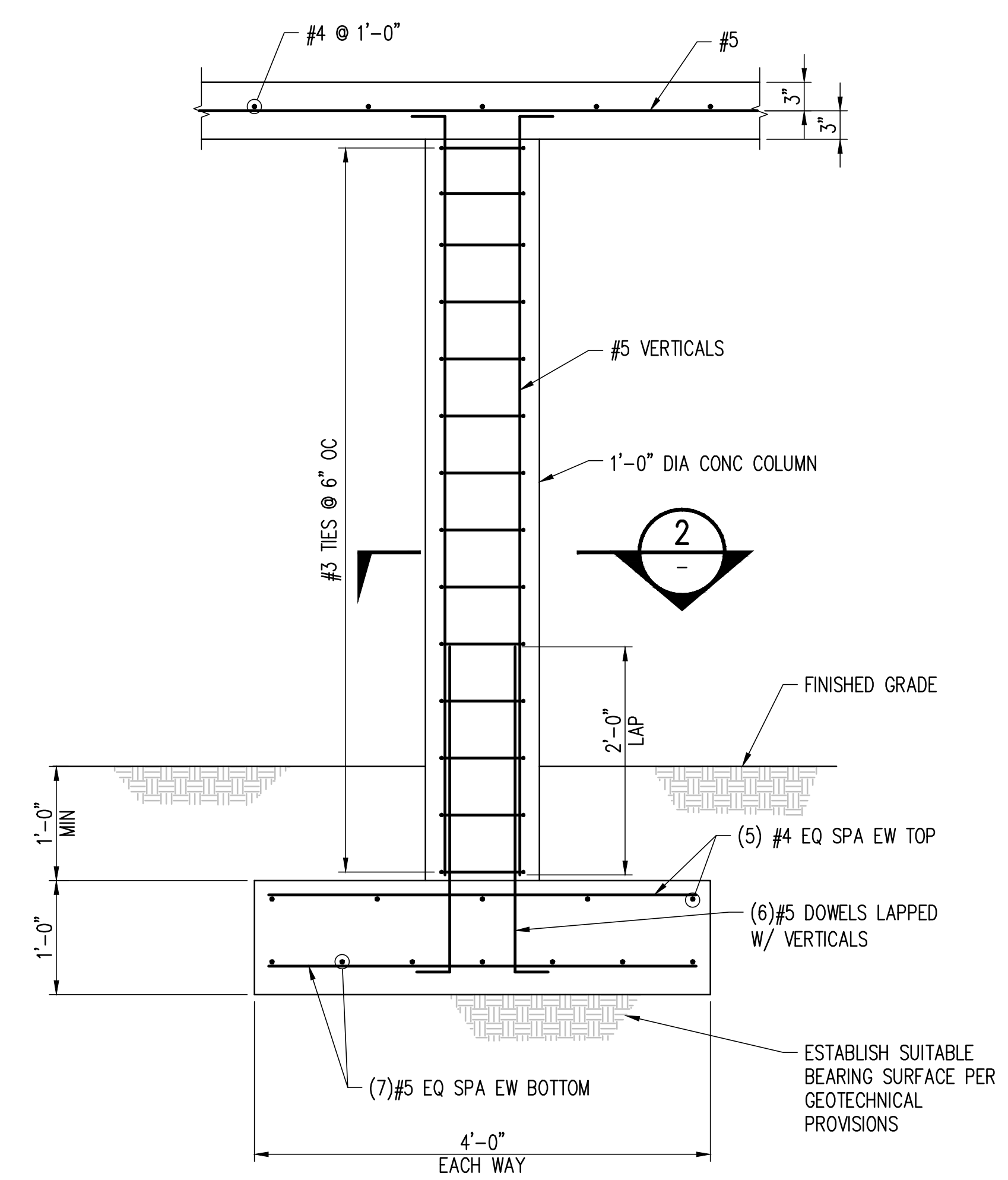
FLOAT DETAILS

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-050
SHEET NO.	43 OF 44

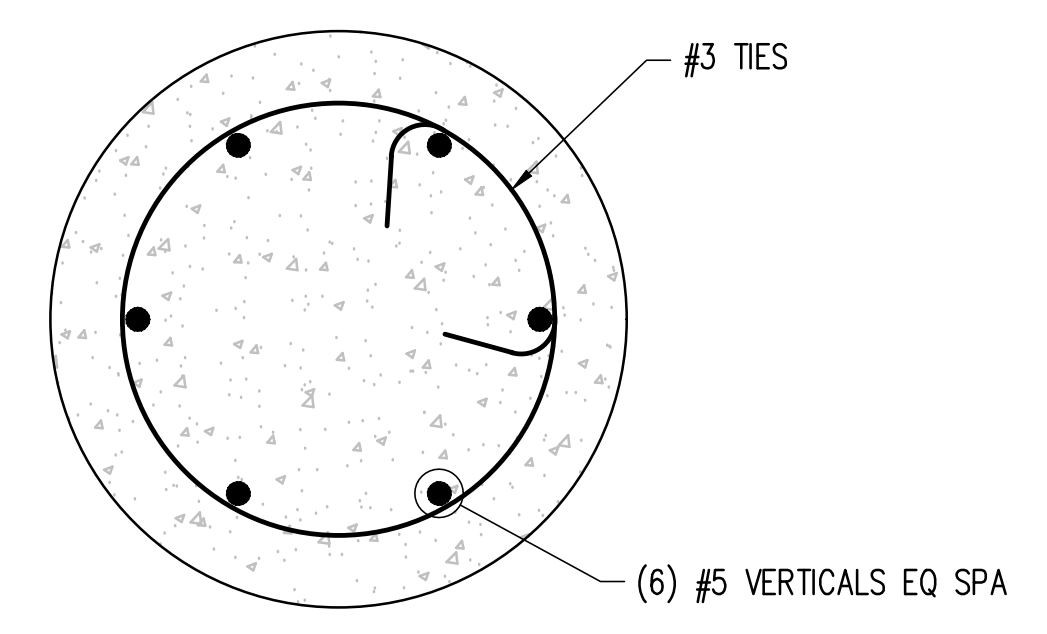
60% SUBMITTAL



PLAN
SCALE: 3/8" = 1'-0"

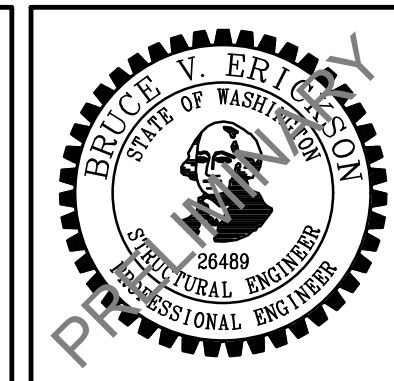


COLUMN ELEVATION
SCALE: 1" = 1'-0"



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

CAD USER: RICKT PLOT DATE: Oct 10, 2022-11:17am
PATH: V:\2000291 (Luther Burbank Pier Repairs)\02_Design (v2019)\LBPR_S-060.dwg



NO.	DATE	BY	REVISION



LUTHER BURBANK PARK
WATERFRONT IMPROVEMENTS

OUTDOOR CLASSROOM RAMP DETAILS

DRAWN: RRT	PROJECT NO.: 2200248
DESIGN: WBC	SCALE: AS SHOWN
CHECKED: AKB	DATE: 10/07/2022
DRAWING NO.	S-060
SHEET NO.	44 OF 44

60% SUBMITTAL