APPENDIX B

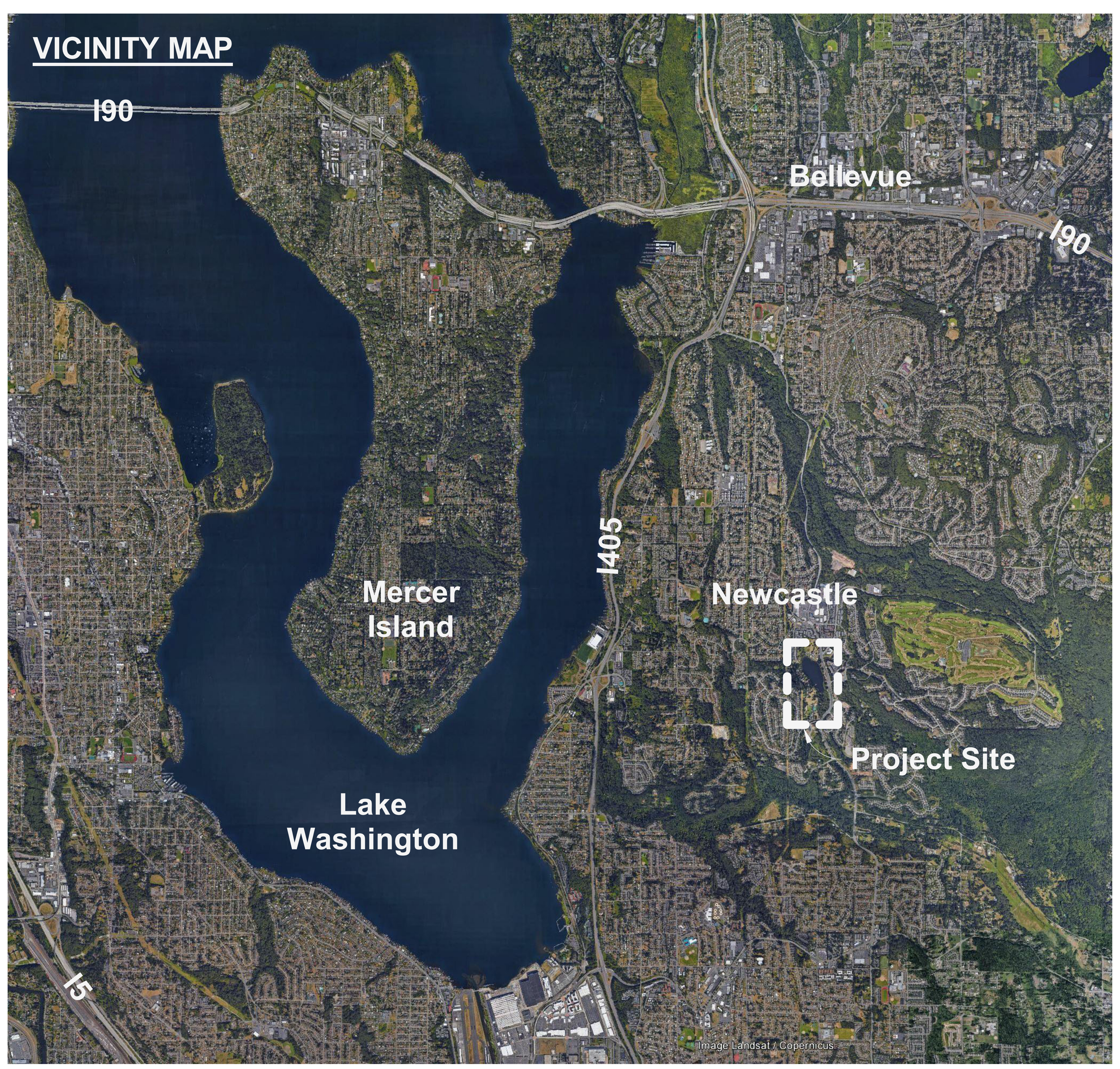
PLANS AND DETAILS

LAKE BOREN PARK

PRELIMINARY BID SET

02/01/2023

CITY OF NEWCASTLE
KING COUNTY, WASHINGTON



City Officials

MAYOR
LINDA NEWING

DEPUTY MAYOR
ARIANA SHERLOCK

CITY COUNCIL
TOM GRIFFIN
CHRIS VILLASEÑOR
PRATIMA LAKHOTIA
PAUL CHARBONNEAU
ROBERT CLARK

CITY MANAGER
SCOTT PINGEL

PUBLIC WORKS DIRECTOR
JEFF BRAUNS, PE

Project Consultant Team

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Sheet Index

Grand total: 52

berger PARTNERSHIP
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bergerpartnership.com

CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

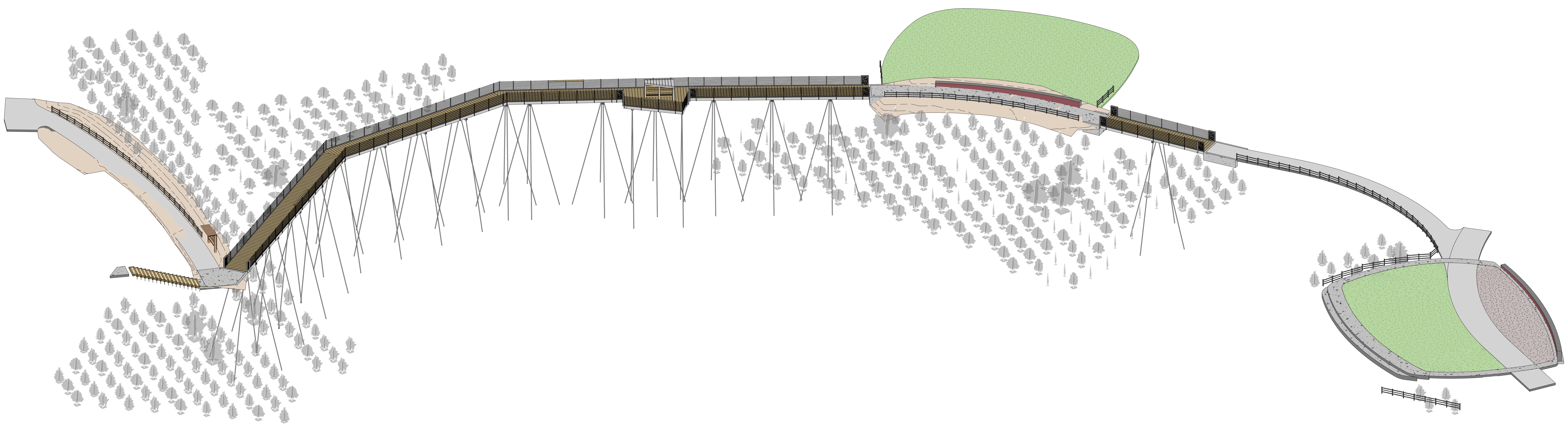
REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM,JZ / GB

SHEET NAME:
COVER

SHEET NUMBER:
G000



1 OVERALL ISO - FOR REFERENCE ONLY

Berger Partnership Project Number: 20154880.01

Plotted: 3/10/2023 1:21:07 PM

Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle

13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM / GB

SHEET NAME:
OVERALL ISO VIEW

SHEET NUMBER:
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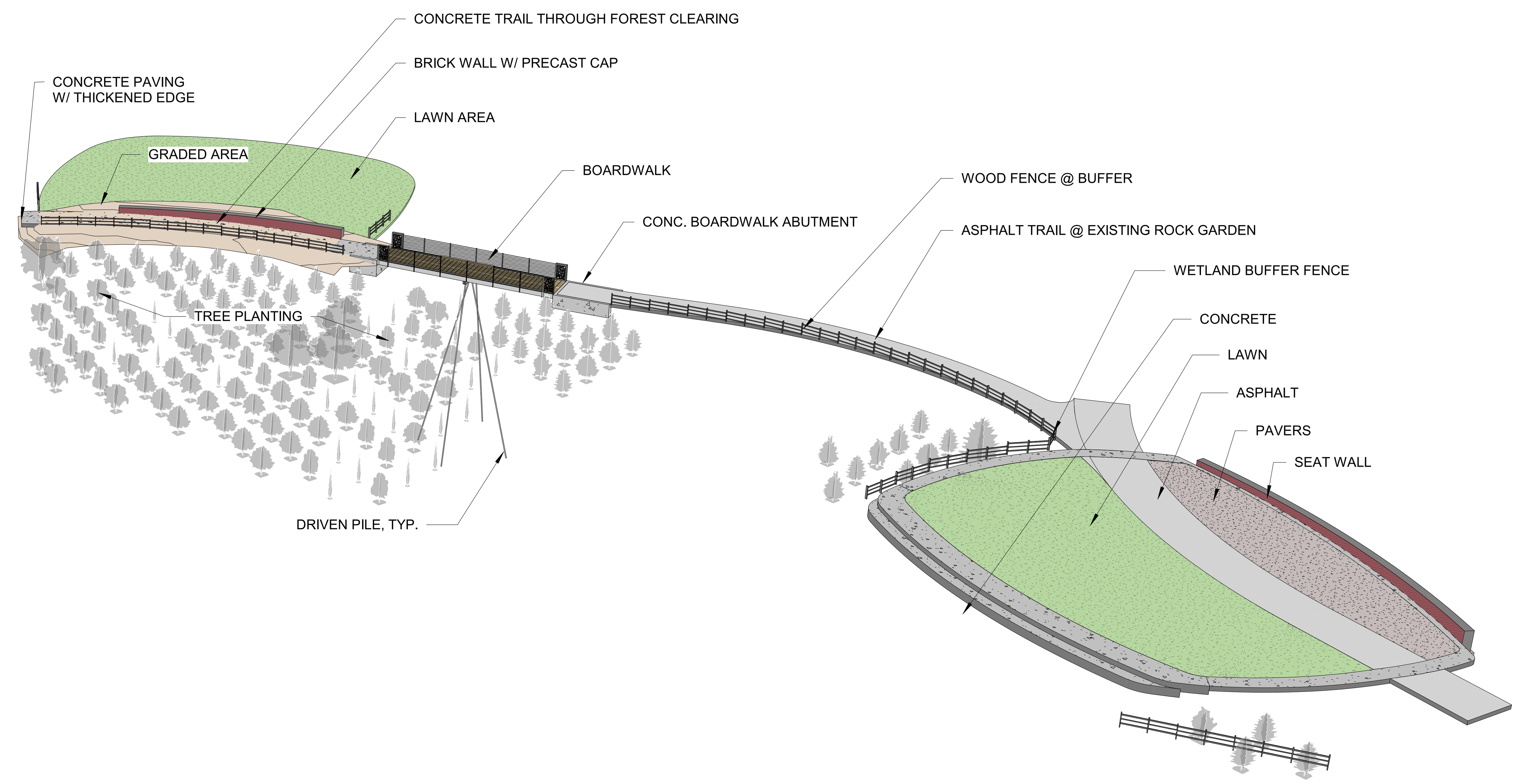
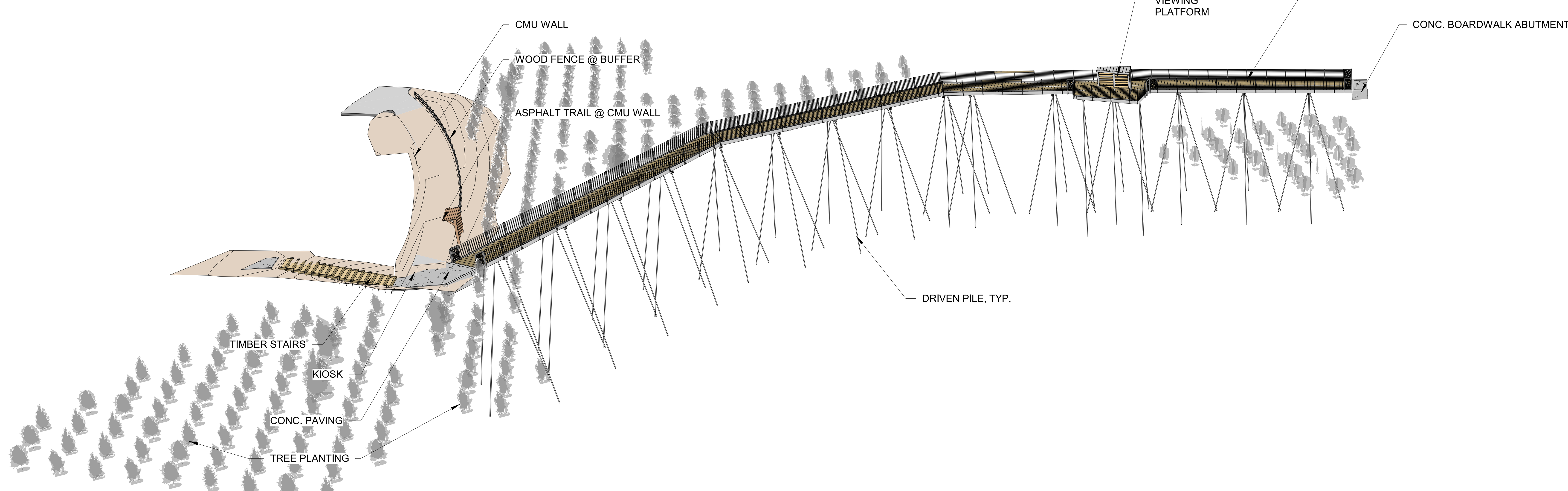


1 OVERALL PERSPECTIVE VIEW - WEST PORTION



2 OVERALL PERSPECTIVE VIEW - EAST PORTION

Berger Partnership Project Number: 20154880.01
Plotted: 3/10/2023 1:24:05 PM
Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt

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1869 Washington 1994

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM / GB

SHEET NAME:
OVERALL PERSPECTIVE VIEW

SHEET NUMBER:
G102

1 Overall Site Plan
1" = 50'-0"

NORTH
0' 50' 100'
SCALE: 1"= 50'-0"

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM / GB

SHEET NAME:
OVERALL SITE PLAN

SHEET NUMBER:
G200

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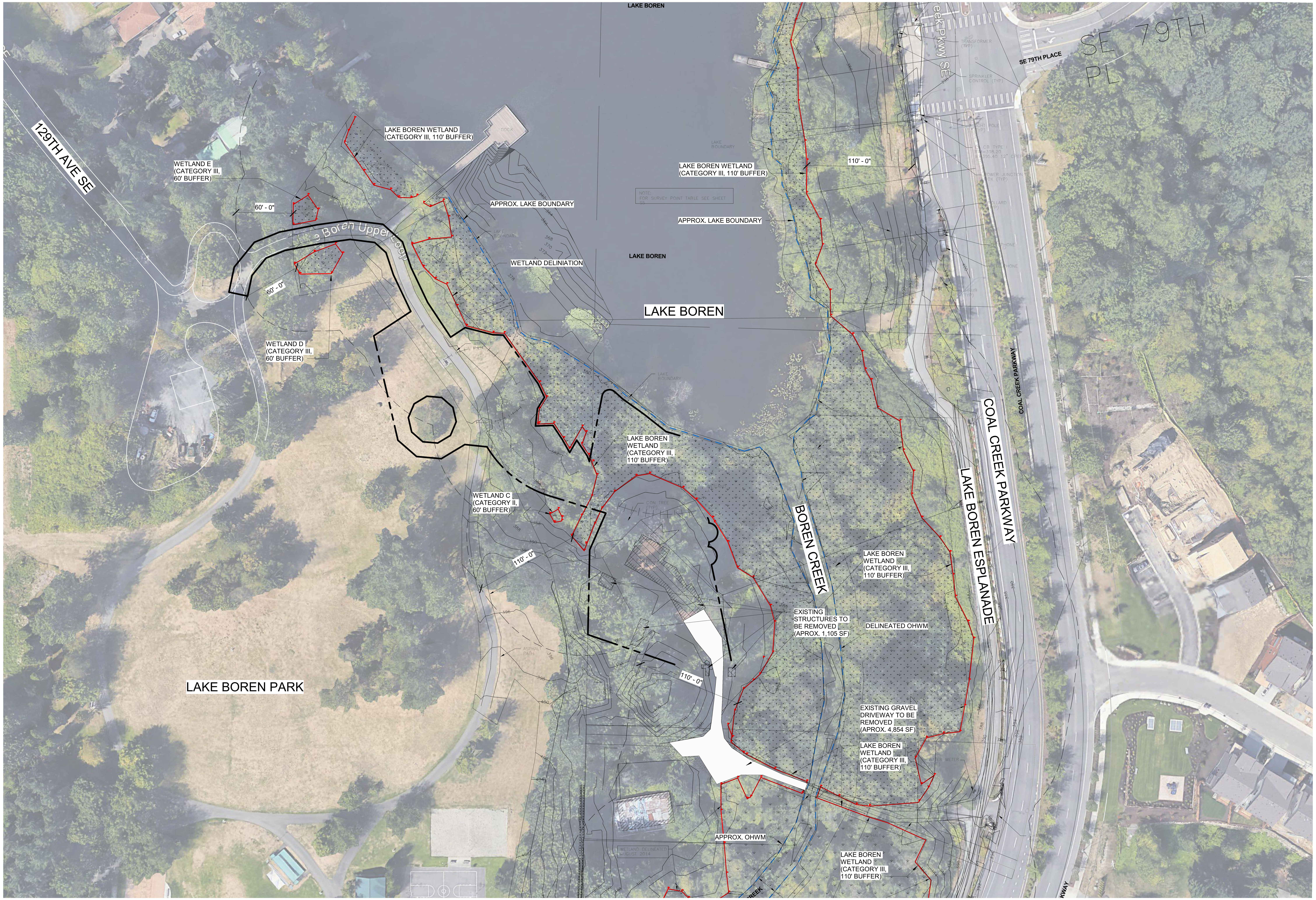

1 Critical Area Plan - Existing Conditions

1" = 50'-0"

NORTH

0' 50' 100'

SCALE: 1"= 50'-0"

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle

13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM / GB

SHEET NAME:
CRITICAL AREA PLAN - OVERALL

SHEET NUMBER:
W100

Berger Partnership Project Number: 20154880.01

Plotted: 3/10/2023 1:31:11 PM

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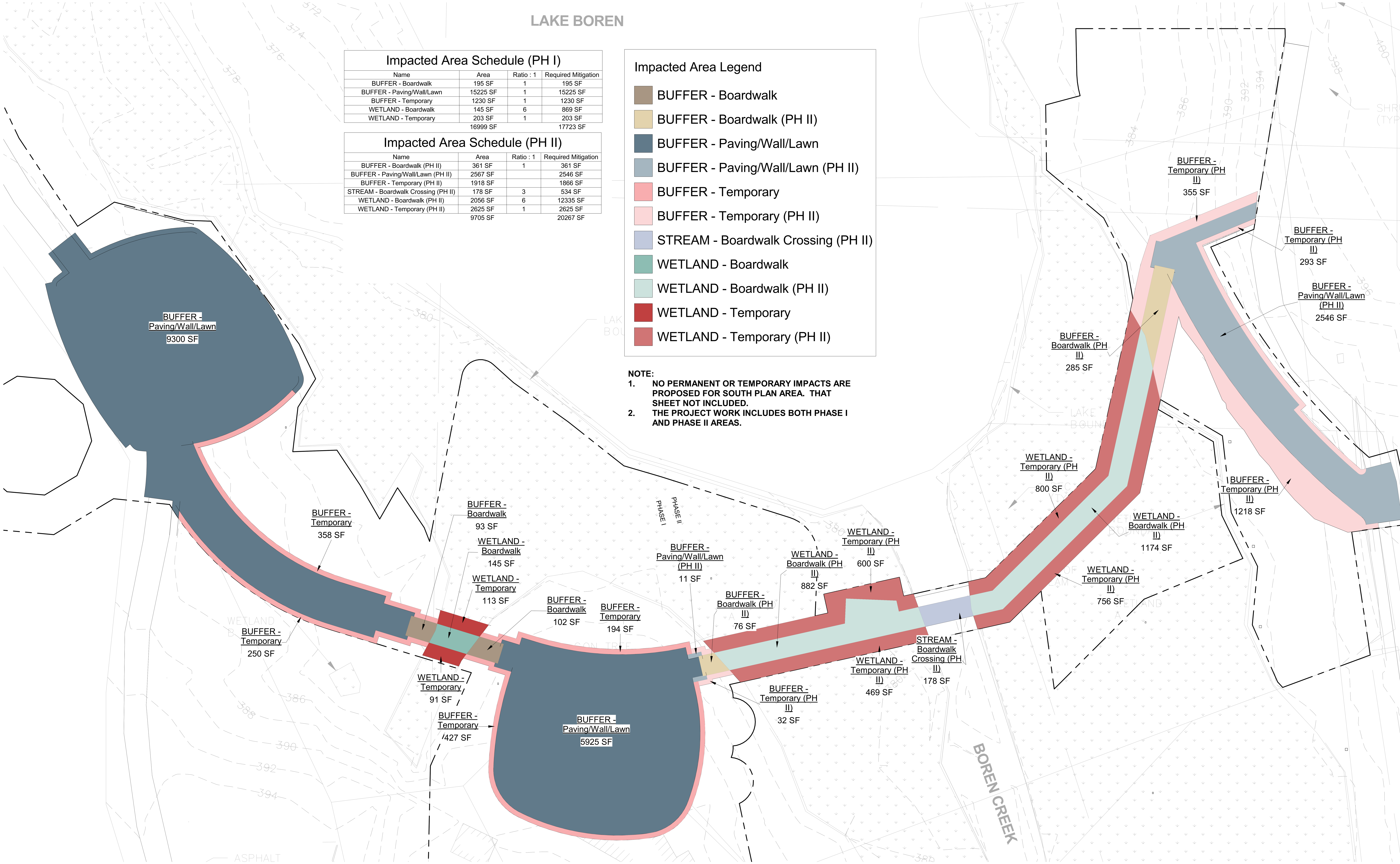

Impacted Area Schedule (PH I)

Name	Area	Ratio : 1	Required Mitigation
BUFFER - Boardwalk	195 SF	1	195 SF
BUFFER - Paving/Wall/Lawn	15225 SF	1	15225 SF
BUFFER - Temporary	1230 SF	1	1230 SF
WETLAND - Boardwalk	145 SF	6	869 SF
WETLAND - Temporary	203 SF	1	203 SF
	16999 SF		17723 SF

Impacted Area Schedule (PH II)

Name	Area	Ratio : 1	Required Mitigation
BUFFER - Boardwalk (PH II)	361 SF	1	361 SF
BUFFER - Paving/Wall/Lawn (PH II)	2567 SF		2546 SF
BUFFER - Temporary (PH II)	1918 SF		1866 SF
STREAM - Boardwalk Crossing (PH II)	178 SF	3	534 SF
WETLAND - Boardwalk (PH II)	2056 SF	6	12335 SF
WETLAND - Temporary (PH II)	2625 SF	1	2625 SF
	9705 SF		20267 SF

Impacted Area Legend

- BUFFER - Boardwalk
- BUFFER - Boardwalk (PH II)
- BUFFER - Paving/Wall/Lawn
- BUFFER - Paving/Wall/Lawn (PH II)
- BUFFER - Temporary
- BUFFER - Temporary (PH II)
- STREAM - Boardwalk Crossing (PH II)
- WETLAND - Boardwalk
- WETLAND - Boardwalk (PH II)
- WETLAND - Temporary
- WETLAND - Temporary (PH II)

NOTE:

1. **NO PERMANENT OR TEMPORARY IMPACTS ARE PROPOSED FOR SOUTH PLAN AREA. THAT SHEET NOT INCLUDED.**
2. **THE PROJECT WORK INCLUDES BOTH PHASE I AND PHASE II AREAS.**

1 Critical Area Impacts Plan - North
1" = 20'-0"

NORTH
0' 20' 40'
SCALE: 1"= 20'-0"

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON GREGORY E. BROWER NO. 545 EXP. 10/14/2024 LANDSCAPE ARCHITECT

SET TYPE: BID SET

SET ISSUE DATE: 03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED: MM / GB

SHEET NAME: CRITICAL AREA IMPACTS PLAN

SHEET NUMBER: W201

Berger Partnership Project Number: 20154880.01 Plotted: 3/10/2023 1:31:19 PM Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt

Mitigation Schedule (PH I)

Name	Area
Mitigation Area - Buffer	7971 SF
Mitigation Area - Buffer (No Mow Seed Mix)	6828 SF
Mitigation Area - Wetland	6752 SF
Restoration Area - Buffer	2679 SF
Restoration Area - Wetland	203 SF
WETLAND - Temporary	0 SF
	24434 SF

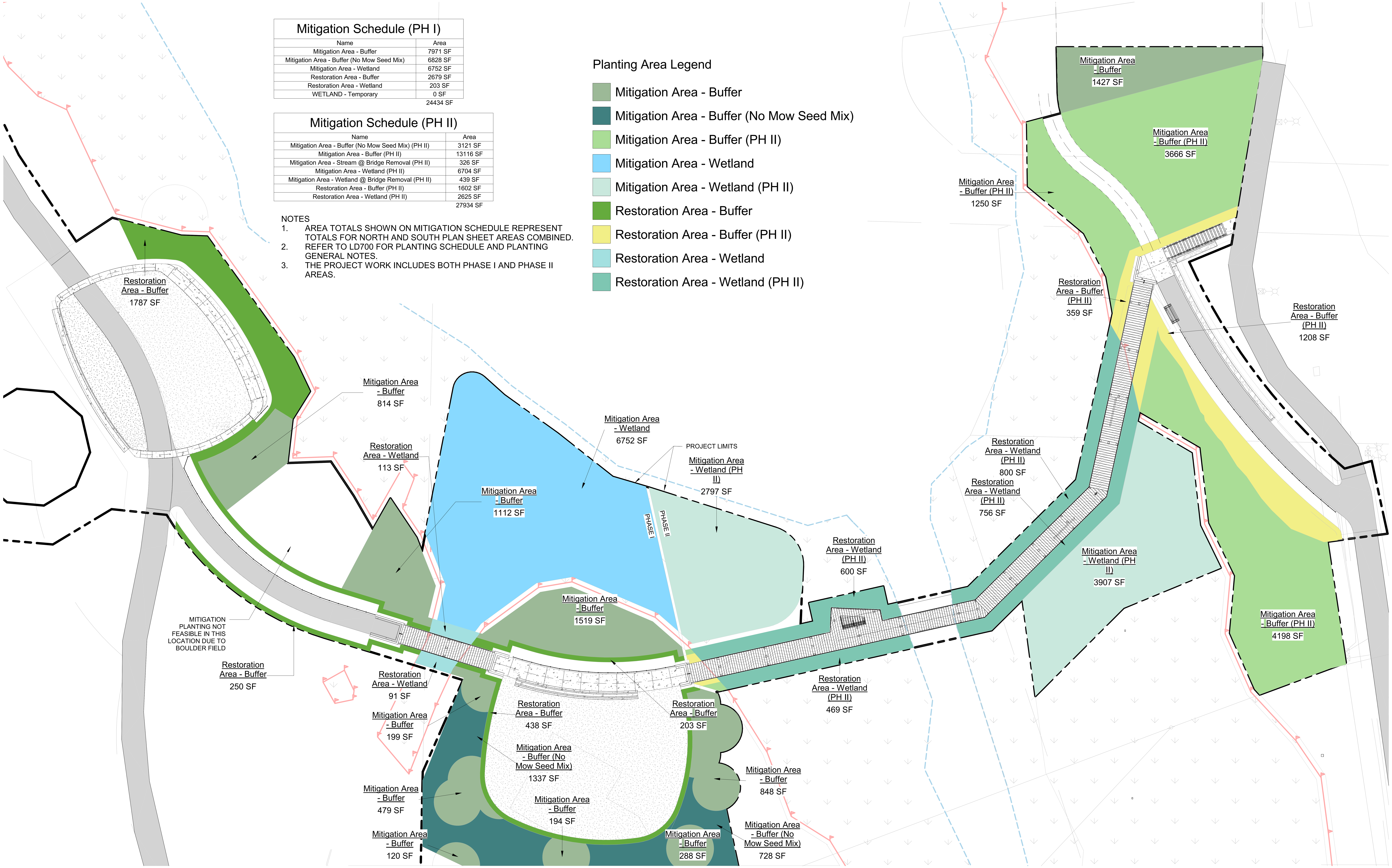
Mitigation Schedule (PH II)

Name	Area
Mitigation Area - Buffer (No Mow Seed Mix) (PH II)	3121 SF
Mitigation Area - Buffer (PH II)	13116 SF
Mitigation Area - Stream @ Bridge Removal (PH II)	326 SF
Mitigation Area - Wetland (PH II)	6704 SF
Mitigation Area - Wetland @ Bridge Removal (PH II)	439 SF
Restoration Area - Buffer (PH II)	1602 SF
Restoration Area - Wetland (PH II)	2625 SF
	27934 SF

NOTES
1. AREA TOTALS SHOWN ON MITIGATION SCHEDULE REPRESENT TOTALS FOR NORTH AND SOUTH PLAN SHEET AREAS COMBINED.
2. REFER TO LD700 FOR PLANTING SCHEDULE AND PLANTING GENERAL NOTES.
3. THE PROJECT WORK INCLUDES BOTH PHASE I AND PHASE II AREAS.

Planting Area Legend

- Mitigation Area - Buffer
- Mitigation Area - Buffer (No Mow Seed Mix)
- Mitigation Area - Buffer (PH II)
- Mitigation Area - Wetland
- Mitigation Area - Wetland (PH II)
- Restoration Area - Buffer
- Restoration Area - Buffer (PH II)
- Restoration Area - Wetland
- Restoration Area - Wetland (PH II)



1 Mitigation Plan - North
1" = 20'-0"

Berger Partnership Project Number: 20154880.01
Plotted: 3/10/2023 1:31:27 PM
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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

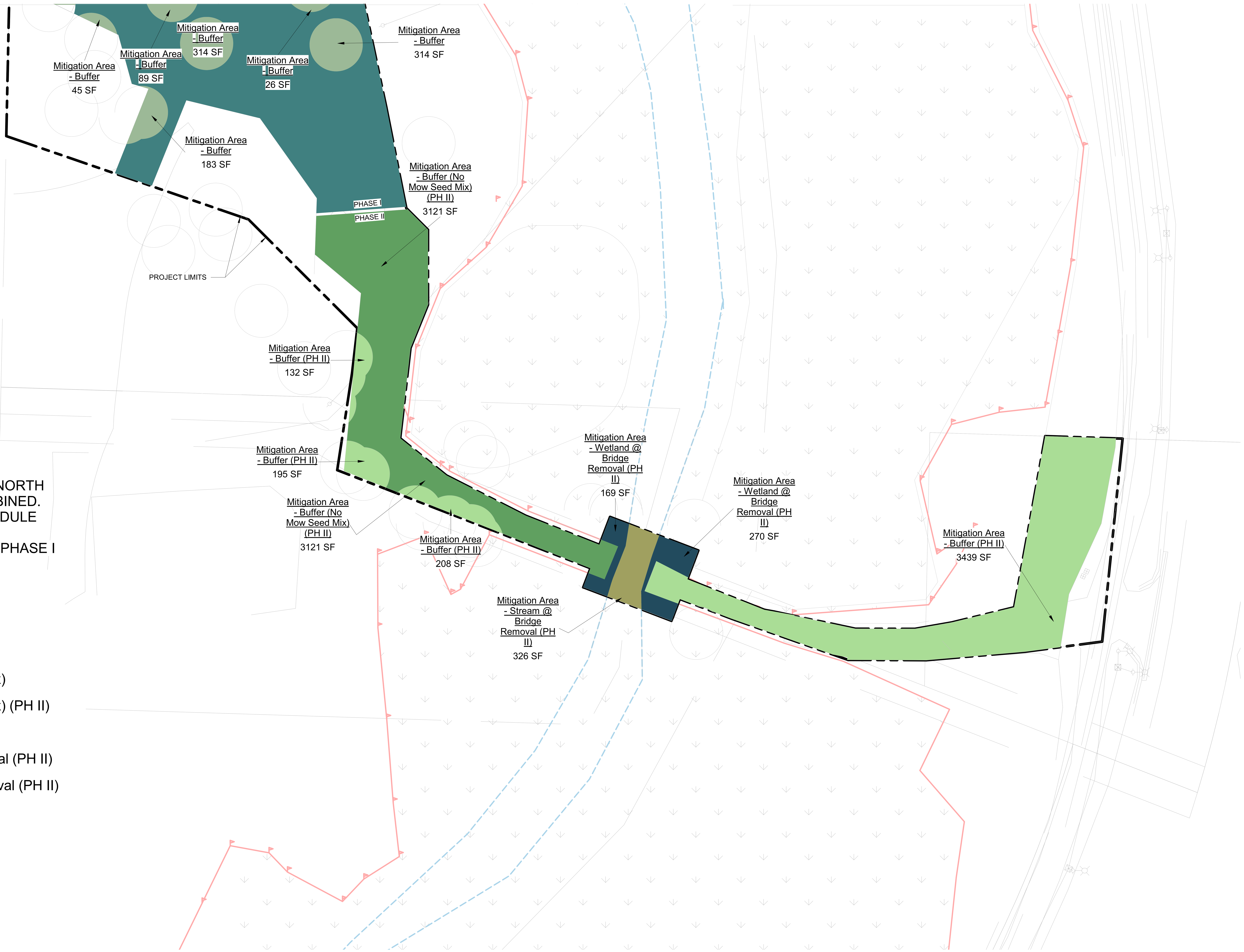
REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM / GB

SHEET NAME:
MITIGATION PLAN

SHEET NUMBER:
W301



Mitigation Schedule (PH I)

Name	Area
Mitigation Area - Buffer	7971 SF
Mitigation Area - Buffer (No Mow Seed Mix)	6828 SF
Mitigation Area - Wetland	6752 SF
Restoration Area - Buffer	2679 SF
Restoration Area - Wetland	203 SF
WETLAND - Temporary	0 SF
	24434 SF

Mitigation Schedule (PH II)

Name	Area
Mitigation Area - Buffer (No Mow Seed Mix) (PH II)	3121 SF
Mitigation Area - Buffer (PH II)	13116 SF
Mitigation Area - Stream @ Bridge Removal (PH II)	326 SF
Mitigation Area - Wetland (PH II)	6704 SF
Mitigation Area - Wetland @ Bridge Removal (PH II)	439 SF
Restoration Area - Buffer (PH II)	1602 SF
Restoration Area - Wetland (PH II)	2625 SF
	27934 SF

NOTES

1. AREA TOTALS SHOWN ON MITIGATION SCHEDULE REPRESENT TOTALS FOR NORTH AND SOUTH PLAN SHEET AREAS COMBINED.
2. REFER TO LD700 FOR PLANTING SCHEDULE AND PLANTING GENERAL NOTES.
3. THE PROJECT WORK INCLUDES BOTH PHASE I AND PHASE II AREAS.

Planting Area Legend

- Mitigation Area - Buffer
- Mitigation Area - Buffer (No Mow Seed Mix)
- Mitigation Area - Buffer (No Mow Seed Mix) (PH II)
- Mitigation Area - Buffer (PH II)
- Mitigation Area - Stream @ Bridge Removal (PH II)
- Mitigation Area - Wetland @ Bridge Removal (PH II)

1 Mitigation Plan - South
1" = 20'-0"

NORTH
0' 20' 40'
SCALE: 1"= 20'-0"

THE CITY OF NEWCASTLE
1869 Washington 1994

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM / GB

SHEET NAME:
MITIGATION PLAN

SHEET NUMBER:
W302

Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt
Plotted: 3/10/2023 1:31:29 PM
Berger Partnership Project Number: 20154880.01

ABBREVIATIONS

AVE	AVENUE
AC	ASBESTOS CEMENT PIPE
ADJ	ADJUST
ALT	ALTERNATE
ALUM	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AP	ANGLE POINT
ASPH	ASPHALT
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
ASSY	ASSEMBLY
BF	BLIND FLANGE
BLDG	BUILDING
BLK	BLOCK
BO	BLOW OFF
BOP	BEGINNING OF PROJECT
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
CTR	CENTER
CAP	CORRUGATED ALUMINUM PIPE
CB	CATCH BASIN
CI	CAST IRON
℄	CENTER LINE
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
C	CONDUIT
CONN	CONNECTION
CONT	CONTINUOUS
CPEP	CORRUGATED POLYETHYLENE PIPE
CPLG	COUPLING
CY	CUBIC YARD
CONT	CONTINUED
CL	CLASS
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
DC	DEGREE OF CURVATURE
DI	DUCTILE IRON
DIA	DIAMETER
DOT	DEPARTMENT OF TRANSPORTATION
DIM	DIMENSION
DWGS	DRAWING(S)
D	DRAIN
E	EAST
EA	EACH
EL	ELEVATION
ELEC	ELECTRICAL
EOA	EDGE OF ASPHALT
EOP	END OF PROJECT
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EXIST	EXISTING
FIG	FIGURE
FIN	FINISHED
FL	FLANGE
FT	FEET
GA	GAUGE
GALV	GALVANIZED
GI	GALVANIZED IRON
GV	GATE VALVE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
INV	INVERT
IN	INCH
L	LENGTH
LB	POUND
LF	LINEAR FEET
MAX	MAXIMUM
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
MISC	MISCELLANEOUS
N	NORTH
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
PI	POINT OF INTERSECTION
PP	POWER POLE
PVI	POINT OF VERTICAL INTERSECTION
PE	PLAIN END
PERF	PERFORATED
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
PVT	POINT OF VERTICAL TANGENT
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
QTY	QUANTITY
RET	RETAINING
RR	RAILROAD
R	RADIUS
RED	REDUCER
REINF	REINFORCE
REQD	REQUIRED
R/W	RIGHT-OF-WAY
SL	SLOPE
S	SOUTH
SCH	SCHEDULE
SF	SQUARE FEET
SHT	SHEET
SPECS	SPECIFICATIONS
SQ	SQUARE
STA	STATION
STD	STANDARD
TB	THRUST BLOCK
TC	TOP OF CURB
TEL	TELEPHONE
TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
THRD	THREADED
THRU	THROUGH
TYP	TYPICAL
VERT	VERTICAL
W	WEST
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
W/	WITH
W/O	WITHOUT

LINETYPES

EXISTING	DESCRIPTION
SURFACE FEATURES	
	CURB (TYPE AS NOTED)
	CURB & GUTTER
	GRAVEL SURFACING
	CONCRETE SURFACING
	FENCE/RAILING (TYPE AS NOTED)
	FENCE WITH GATE
	SHRUB/TREE/VEGETATION LINE
	EDGE OF LANDSCAPING
SURVEY	
	RIGHT-OF-WAY LINE
	CENTERLINE OF RIGHT-OF-WAY
	PROPERTY LINE
10	CONTOUR LINE
UTILITIES	
OH	OVERHEAD UTILITIES
F	BURIED ELECTRICAL
T	BURIED TELEPHONE/COMMUNICATIONS
TV	BURIED CABLE TELEVISION
G	GAS MAIN (SIZE AS NOTED)
S	SANITARY SEWER MAIN (SIZE AS NOTED)
D	STORM DRAIN (SIZE AS NOTED)
D	CULVERT (SIZE & TYPE AS NOTED)

WATER SYMBOLS

EXISTING	DESCRIPTION
	CAP/PLUG
	COUPLING/ADAPTER
	GUARD POST
	WATER METER
FIRE HYDRANT	
	FIRE HYDRANT (2-NOZZLE)
	FIRE HYDRANT (3-NOZZLE)
VALVES	
	GATE VALVE

GAS/POWER/TELEPHONE SYMBOLS

EXISTING	DESCRIPTION
	GAS VALVE
	UTILITY POLE
	UTILITY POLE ANCHOR
	UTILITY PEDESTAL
	TELEPHONE VAULT (SIZE VARIES)

SURVEY SYMBOLS

EXISTING	DESCRIPTION
	MONUMENT (IN CASE)
	SET NAIL/TAG
	IRON PIPE

SIGNALIZATION/ILLUMINATION SYMBOLS

EMERGENCY VEHICLE INDICATOR LIGHTS	
	JUNCTION BOX (TYPE I, II, III)
	STREET LIGHT ASSEMBLY/LUMINAIRE

SANITARY/STORM SEWER SYMBOLS

EXISTING	DESCRIPTION
	STORM DRAIN CATCH BASIN, CONCRETE INLET, OR YARD/AREA DRAIN (ACTUAL DIMENSION SHOWN FOR PROPOSED)
	SANITARY SEWER MANHOLE (ACTUAL DIMENSION SHOWN FOR PROPOSED)

SURFACE FEATURES/LANDSCAPING

EXISTING	DESCRIPTION
	BUILDING
	BUS STOP
	MAIL BOX (NOTED)
	SIGN
	RIP RAP
	ROCK WALL
	SHRUB
	TREE (CONIFER)
	TREE (DECIDUOUS)
	WETLAND
	EDGE OF CREEK/STREAM OR LAKE

SURVEY NOTES:

1. THE FEATURES DEPICTED ON THIS MAP HAVE BEEN DELINEATED FOR CRTICIAL AREAS AND SURVEYED/MAPPED SEVERAL TIMES SINCE 2001. THE MAP HAS BEEN UPDATED BASED UPON A PARTIAL SURVEY COMPLETED IN JULY 2017. IT IS POSSIBLE THAT SOME ITEMS HAVE CHANGED OR ARE NO LONGER PRESENT AND THAT SOME NEW ITEMS EXIST, BUT WERE NOT RECENTLY SURVEYED AND THEREFORE ARE NOT SHOWN.
2. DELINEATION OF THE LAKE BOUNDARY (EDGE OF WATER SURFACE) AND WETLANDS A, B, D, E, AND F WERE COMPLETED IN JUNE 2017. DELINEATION OF OTHER WETLANDS OCCURRED IN NOVEMBER 2011 AND AUGUST 2014. DELINEATION OF THE STREAM OHWM LYING NORTH OF THE WOODEN BRIDGE WAS COMPELTED IN NOVEMBER 2011 AND JUNE 2017. OTHER AREAS OF THE STREAM WERE DELINEATED IN NOVEMBER 2011. SEE INDIVIDUAL NOTES FOR MORE SPECIFIC INFORMATION.
3. VERTICAL DATUM: NAVD88 HOLDING CITY OF BELLEVUE BM 3100/718.

0 1" 2"
TWO INCHES AT FULL SCALE.
IF NOT, SCALE ACCORDINGLY

Gray & Osborne, Inc.
CONSULTING ENGINEERS
3710 168TH STREET NE, BLDG. B, SUITE 210
ARLINGTON, WA 98223 • (360) 454-5490

DATE: JAN 2019
SCALE: NOTED
DRAWN: SEM
CHECKED: RWK
APPROVED: RWK

No. | REVISION | DATE | APPD

ROGER W. KUYKENDALL 1-23-19
RICHARD A. BOND 1/23/19

CITY OF NEWCASTLE
KING COUNTY WASHINGTON
LAKE BOREN SURVEY
SITE LEGEND

SHEET: S1
OF: 5
JOB NO.: 17536
DWG: BOREN SITE MAP

M:\Newcastle\17536 Lake Boren Park Survey\Planset\Civil\Boren Site Map.dwg, 1/22/2019 2:26 PM, STEPHEN MOORE

Berger Partnership Project Number: 20154860.01 Plotted: 3/10/2023 1:32:56 PM Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt

SURVEY INCLUDED FOR REFERENCE ONLY. SURVEY SHOWN HEREIN IS NOT TO SCALE. REFER TO PROJECT MANUAL FOR SIGNED SURVEY SHEETS.

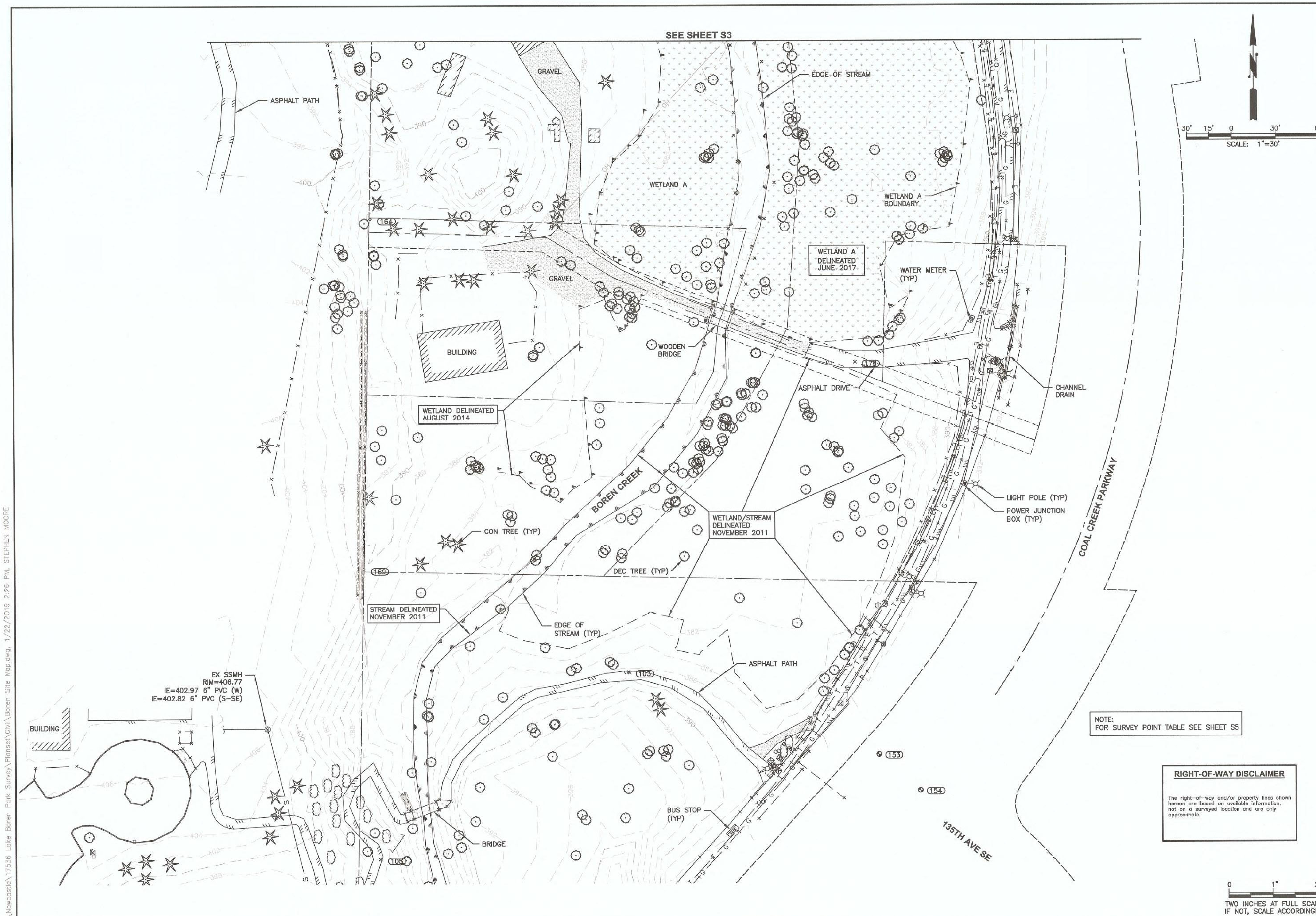
THE CITY OF NEWCASTLE Washington 1869 1994

berger PARTNERSHIP
1927 Post Alley, Ste. 2 Seattle, WA 98101
206 325 6877 bergerpartnership.com

CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)
City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

SET TYPE: BID SET
SET ISSUE DATE: 03/10/23
REVISIONS:
Δ DESCRIPTION DATE

DRAWN/CHECKED: MM / GB
SHEET NAME: SURVEY
SHEET NUMBER: S1



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DATE:	JAN 2019
SCALE:	NOTED
DRAWN:	SEM
CHECKED:	RWK
APPROVED:	RWK

No.	REVISION	DATE	APPD

CITY OF NEWCASTLE
KING COUNTY WASHINGTON
LAKE BOREN SURVEY
SITE MAP

SHEET: S2
OF: 5
JOB NO.: 17536
DWG:BOREN SITE MAP

SURVEY INCLUDED FOR REFERENCE ONLY. SURVEY SHOWN HEREIN IS NOT TO SCALE. REFER TO PROJECT MANUAL FOR SIGNED SURVEY SHEETS.

THE CITY OF NEWCASTLE
1869 Washington 1994

berger PARTNERSHIP
1927 Post Alley, Ste. 2
Seattle, WA 98101
206 325 6877
bergerpartnership.com

CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle

13058 SE 84TH WAY NEWCASTLE, WA 98056

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

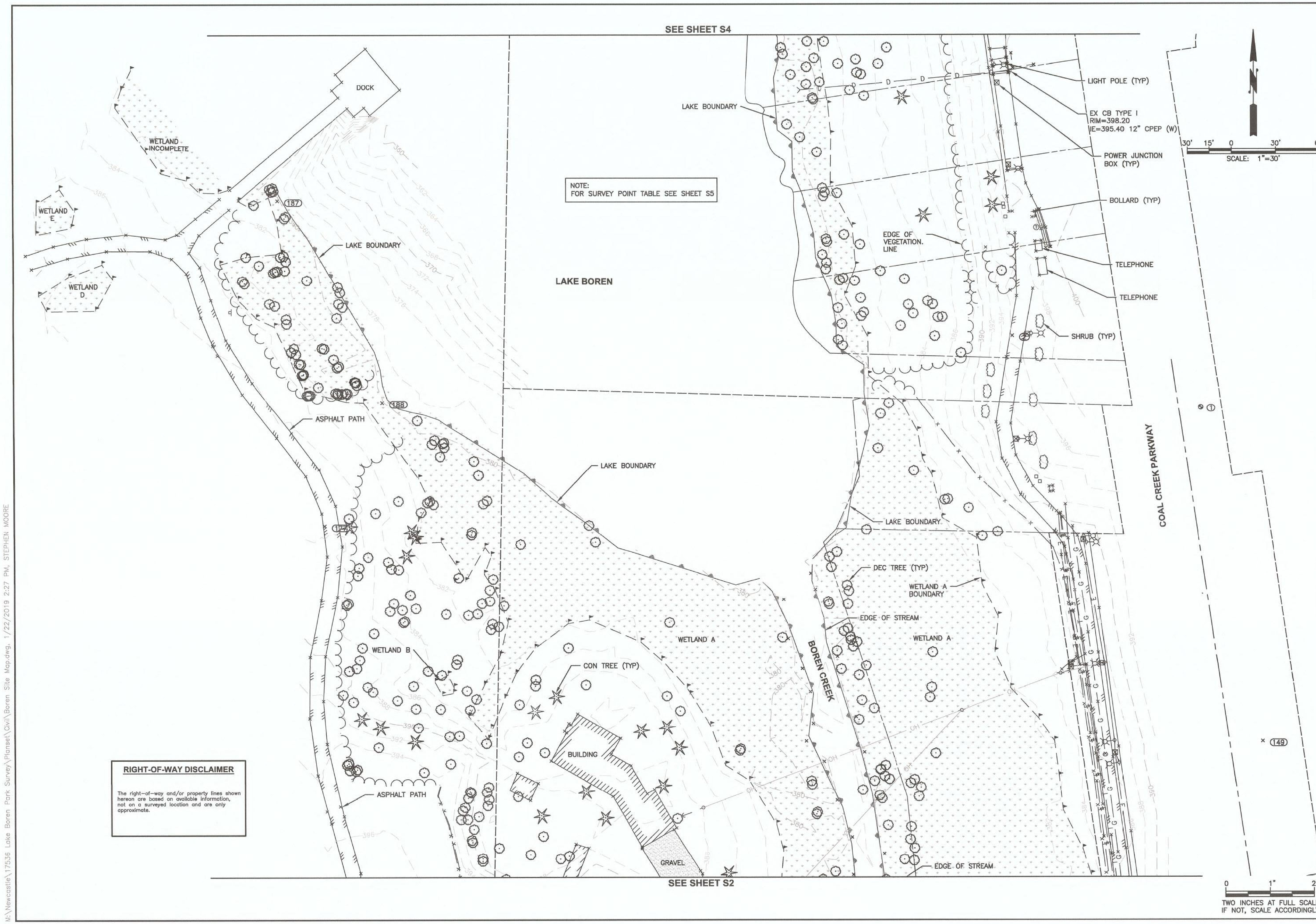
Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM / GB

SHEET NAME:
SURVEY

SHEET NUMBER:
S2

Plotted: 3/10/2023 1:32:57 PM
Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt
Berger Partnership Project Number: 20154880.01



Gray & Osborne, Inc.
CONSULTING ENGINEERS
3710 168TH STREET NE, BLDG. B, SUITE 210
ARLINGTON, WA 98223 • (360) 454-5490

DATE:	JAN 2019
SCALE:	NOTED
DRAWN:	SEM
CHECKED:	RWK
APPROVED:	RWK

No.	REVISION	DATE	APPD

ROGER W. KUYKENDALL
RICHARD A. BOND

CITY OF NEWCASTLE
KING COUNTY WASHINGTON
LAKE BOREN SURVEY
SITE MAP

SHEET: S3
OF: 5
JOB NO.: 17536
DWG:BOREN SITE MAP

THE CITY OF NEWCASTLE
1869 Washington 1994

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Seattle, WA 98101
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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

SET TYPE:
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SHEET NAME:
SURVEY

SHEET NUMBER:
S3

SURVEY INCLUDED FOR REFERENCE ONLY. SURVEY SHOWN HEREIN IS NOT TO SCALE. REFER TO PROJECT MANUAL FOR SIGNED SURVEY SHEETS.

Berger Partnership Project Number: 20154880.01 Plotted: 3/10/2023 1:32:58 PM Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt

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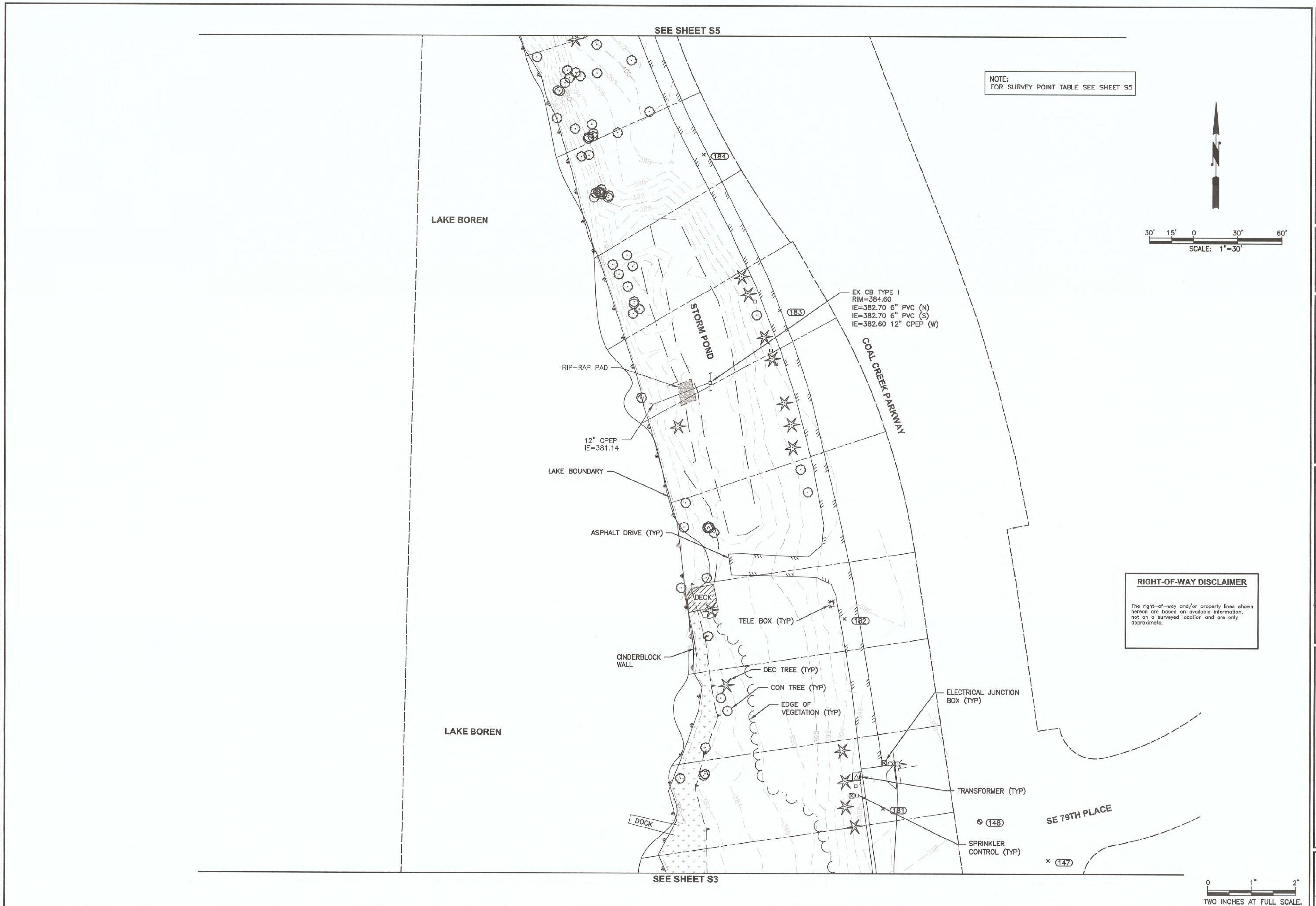

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CONSULTING ENGINEERS
3710 168TH STREET NE, BLDG. B, SUITE 210
ARLINGTON, WA 98223 • (360) 454-5490

DATE: JAN 2019
SCALE: NOTED
DRAWN: SEM
CHECKED: RWK
APPROVED: RWK

No.	REVISION	DATE	APP'D

CITY OF NEWCASTLE
KING COUNTY WASHINGTON
LAKE BOREN SURVEY
SITE MAP

SHEET: S4
OF: 5
JOB NO.: 17536
DWG: BOREN SITE MAP

SURVEY INCLUDED FOR REFERENCE ONLY. SURVEY SHOWN HEREIN IS NOT TO SCALE. REFER TO PROJECT MANUAL FOR SIGNED SURVEY SHEETS.

THE CITY OF NEWCASTLE Washington 1869 1994

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM / GB

SHEET NAME:
SURVEY

SHEET NUMBER:
S4

Berger Partnership Project Number: 20154880.01
Plotted: 3/10/2023 1:32:59 PM
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M:\Newcastle\17536 Lake Boren Park Survey\Planset\Civil\Boren Site Map.dwg, 1/22/2019 2:27 PM, STEPHEN MOORE

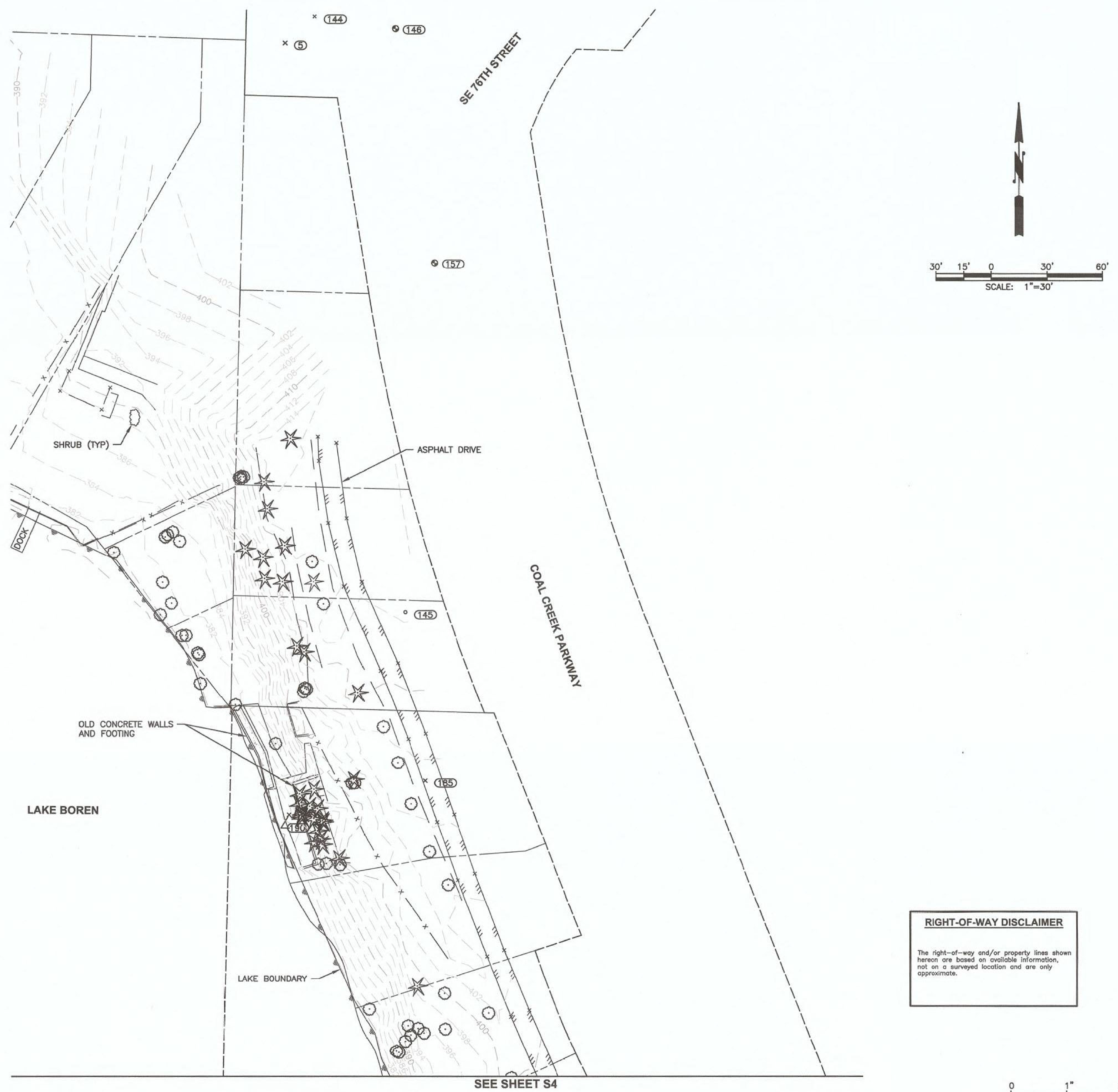
CITY OF NEWCASTLE - LAKE BOREN
JOB NUMBER - # 17536, 11576,13421, 13532

Horizontal Datum: NAD83[CORS96] WSPCS N.ZONE

Vertical Datum: NAVD88
HELD BENCHMARK 719 FROM CITY OF BELLEVUE STATION 3100.

NOTE: THIS INFORMATION SHOULD BE SHOWN ON THE PLANS, AND ALL MONUMENTS IN THE PROJECT AREA SHOULD BE CALLED OUT IN THE PLAN VIEW

POINT	NORTHING	EASTING	Elev.	DESCRIPTION
1	196510.04	1312053.80	404.68	SFMC, AKA 0433 (CITY OF BELLEVUE CONTROL) 0.6' E OF CURB ON E SIDE COAL CREEK PKWY SE- 290 FT +/- S OF INTX COAL CREEK PKWY SE & 79TH PL. 3" BRASSY W PUNCH STAMPED PLS 24780. MD=1.2'
2	196559.04	1311926.30	396.26	SSNT, IN ASPHALT PATH 1.1' E OF W EDGE. +/- 12' W OF LIGHT POLE. +/- 110' S OF TSBS ON W SIDE COAL CRK PKWY @ INTX SE 79TH PL.
3	196005.34	1311987.33	394.43	SSNT, 1' W OF E FEA @ S SIDE PRIVATE DRV. HSE # 8025. 4.5' W OF LIGHT POLE.
5	197842.28	1311632.51	407.81	SSNT, NW COR INTX COAL CREEK PKWY & SE 76TH SE. IN TBC @ W SIDE ADA RAMP. +/- 3' W'LY FROM CROSSWALK PAINT LINE.
103	195794.58	1311745.80	386.46	SSNT, 1' S OF N. FEA ALONG TRAIL, +/- 135' W'LY FROM RWB @W'LY SIDEWALK OF COAL CREEK.
105	195668.21	1311577.32	392.89	SSNT, 1' W OF E FEA (PAVED TRAIL) @ TOP OF ROCK STAIRS. W OF CONC WALK BRIDGE.
113	195585.88	1311545.03	393.53	SSRC,5/8" REBAR/RED CAP "G&O CONTROL", IN GRASS ON E. SIDE OF POND, 40' S. OF SW COR ASPHALT TRAIL 90°
114	195394.51	1311296.23	397.36	SSRC, 5/8" REBAR/RED CAP "G&O CONTROL", IN GRASS E. OF ENTR. TO PARK, 16' S. OF CURB, 26' N. OF 2 14" FIRS
144	197856.56	1311648.58	408.18	SFNT, FND MAG NAIL & "G&O CONTROL" TAG, NW COR INTX OF COAL CREEK & SE 76TH ST, SET IN TBC AT P.O.C. 7'E OF TSJB.
145	197534.23	1311696.82	412.29	SSRC, +/- 320' S'LY OF C/L SE 76TH ST. +/-5' W'LY OF WALL.
146	197849.99	1311692.11	408.79	SFMC, FND 1 3/4" BRASSY W/PUNCH LS 16930 SET IN 4"X4" CONC. 0.60' DOWN IN CASE AT INTX OF SE 76TH ST & COAL CREEK.
147	196772.10	1312027.23	400.32	SSNT, LRG MAG NAIL & "G&O CONTROL" TAG, SE COR INTX SE 79TH PL & COAL CREEK, IN SEAM AT TBC ON THE P.O.C. 9.6' N-NW OF SIGNAL LIGHT POLE.
148	196798.59	1311980.46	398.07	SFMC, DOWN 0.57' IN CASE. 1 3/4" BRASSY W/PUNCH "LS16930" SET IN 4"X4" CONC POST. C/L OF INTX SE 79TH PL & COAL CREEK.
149	196283.70	1312095.10	408.13	SSNT, LRG MAG NAIL & "G&O CONTROL" TAG, 1.5' W OF RWB.
153	195738.45	1311915.29	388.76	SFMC, DOWN 0.4' IN CASE. 1 5/8" BRASSY W/PUNCH "LS 16930" SET IN 4"X4" CONC POST. INTX COAL CREEK PKWY & 135TH AVE SE.
154	195714.25	1311943.37	389.67	SFMC, DOWN 0.5' IN CASE. 1 5/8" BRASSY W/PUNCH "LS 16930" SET IN 4"X4" CONC POST. C/L 135TH AVE SE & E EDGE OF E'LY N BOUND LANE OF COAL CREEK PKWY.
155	195205.99	1311661.63	368.52	SSNT, 6' E OF E'LY TBC COAL CREEK PKWY. +/- 70' S OF S. CROSSWALK @ INTX W/SE 84TH WAY. 5.3' W'LY OF PLP.
156	195342.41	1311614.00	373.91	SFMC, DOWN 0.55' IN CASE. 1 5/8" BRASSY W/PUNCH "LS 16930" SET IN 4"X4" CONC POST. C/L SE 84TH WAY W. EDGE OF W'LY S. BOUND LANE OF COAL CREEK PKWY.
157	197723.19	1311713.11	410.58	SFMC, DOWN 0.55' IN CASE. 1 5/8" BRASSY W/PUNCH "LS 16930" SET IN 4"X4" CONC POST. N BOUND LANE COAL CRK PKWY LEFT TURN LANE @ SE 76TH ST.
164	196101.84	1311572.43	389.08	SFRC. FOUND 5/8" REBAR WITH YELLOW CAP " C&T LS 10117" REBAR IS BENT TO THE S. 4.4' W. OF 24" COTTON TREE.
169	195864.55	1311566.54	389.93	SFP, FOUND 1/2" IRON PIPE.
177	196430.24	1311459.36	387.76	SSNT, W EDGE OF ASPHALT. ~15' W OF 14" FIR TREE #958(TAG #). ~60' S OF PICNIC TABLE SW CORNER OF LAKE.
179	196004.17	1311900.02	381.3	SSNT, IN ASPHALT ~5' N OF S EDGE OF ASPHALT. 31' E OF W END OF ASPHALT.
181	195896.61	1311960.51	389.03	SSNT, 1' W OF E EDGE OF ASPHALT. W OF A PHONE VAULT.
182	196807.42	1311914.46	397.86	SSN, 9' W OF E BACK OF CURB. ~27' S OF N END OF SIDEWALK. W SIDE INTX COAL CREEK PKWY & SE 79TH PL.
183	196936.78	1311887.78	396.14	SSNT, 3' E OF W EDGE OF ASPHALT. ~11' SSE FROM SE CORNER OF PHONE VAULT.
184	197146.98	1311843.48	394.52	SSNT, 1' W OF E EDGE OF ASPHALT. ~27' S OF LARGE LIGHT POLE #31.
185	197253.32	1311791.35	397.12	SSNT, 2' W OF E EDGE OF ASPHALT. JUST N OF N END OF POND TO W.
187	197493.94	1311650.48	408.36	SSHT, TOP OF BANK NE OF TOP OF STAIRS.
188	196650.85	1311428.01	380.52	SSN, @ EDGE OF WATER IN SMALL CLEARING S OF DOCK.
190	197580.02	1311632.67	413.32	SSN, 60-D NAIL W/ WHISKERS. @ TOP OF HILL ~8' NNE OF 48" FIR TREE, W OF ASPHALT TRAIL.



Gray & Osborne, Inc.
CONSULTING ENGINEERS
3710 168TH STREET NE, BLDG. B, SUITE 210
ARLINGTON, WA 98223 • (360) 454-5490

DATE:	JAN 2019
SCALE:	NOTED
DRAWN:	SEM
CHECKED:	RWK
APPROVED:	RWK

No.	REVISION	DATE	APPD

ROGER W. KUYKENDALL
STATE OF WASHINGTON
35188
REGISTERED PROFESSIONAL ENGINEER
1-23-19

RICHARD A. BOND
STATE OF WASHINGTON
40097
REGISTERED PROFESSIONAL LAND SURVEYOR
1/23/19

CITY OF NEWCASTLE
KING COUNTY WASHINGTON
LAKE BOREN SURVEY
SITE MAP
AND SURVEY POINT TABLE

SHEET: S5
OF: 5
JOB NO.: 17536
DWG:BOREN SITE MAP

SURVEY INCLUDED FOR REFERENCE ONLY. SURVEY SHOWN HEREIN IS NOT TO SCALE. REFER TO PROJECT MANUAL FOR SIGNED SURVEY SHEETS.

M:\Newcastle\17536 Lake Boren Park Survey\Planset\Civil\Borer Site Map.dwg, 1/22/2019 2:27 PM, STEPHEN MOORE

Berger Partnership Project Number: 2015480.01 Plotted: 3/10/2023 1:33:01 PM Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt

THE CITY OF NEWCASTLE
1869 Washington 1994

berger PARTNERSHIP
1927 Post Alley, Ste. 2
Seattle, WA 98101
206 325 6877
bergerpartnership.com

CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle

13058 SE 84TH WAY NEWCASTLE, WA 98056

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

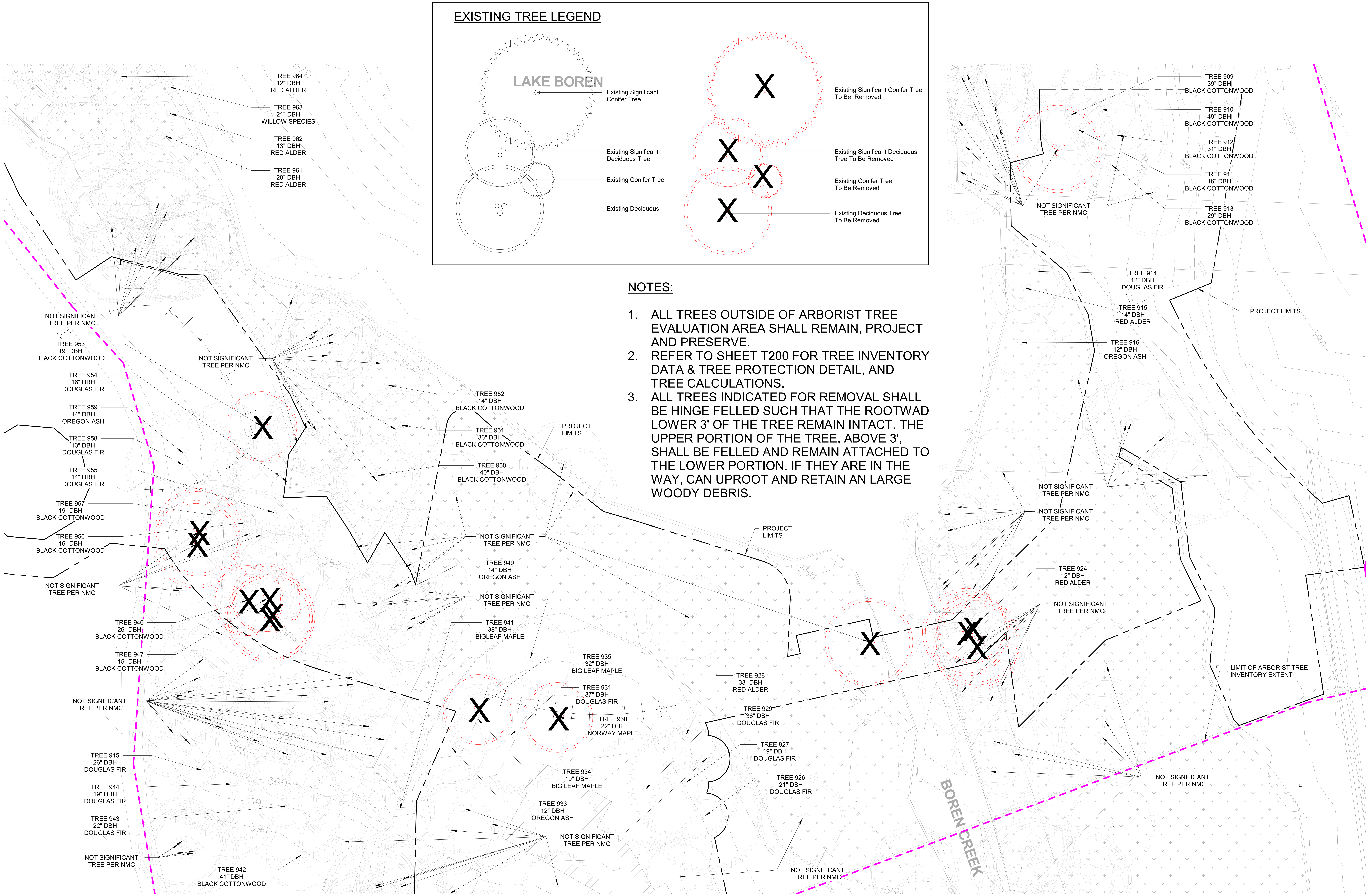
REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM / GB

SHEET NAME:
SURVEY

SHEET NUMBER:
S5



NOTES:

1. ALL TREES OUTSIDE OF ARBORIST TREE EVALUATION AREA SHALL REMAIN, PROJECT AND PRESERVE.
2. REFER TO SHEET T200 FOR TREE INVENTORY DATA & TREE PROTECTION DETAIL, AND TREE CALCULATIONS.
3. ALL TREES INDICATED FOR REMOVAL SHALL BE HINGE FELLED SUCH THAT THE ROOTWAD LOWER 3' OF THE TREE REMAIN INTACT. THE UPPER PORTION OF THE TREE, ABOVE 3', SHALL BE FELLED AND REMAIN ATTACHED TO THE LOWER PORTION. IF THEY ARE IN THE WAY, CAN UPROOT AND RETAIN AN LARGE WOODY DEBRIS.

1 Tree Plan - North
1" = 20'-0"

NORTH
0' 20' 40'
SCALE: 1"= 20'-0"

Berger Partnership Project Number: 20154880.01
Plotted: 3/10/2023 1:33:03 PM
Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt

THE CITY OF NEWCASTLE Washington 1869 1994

PARTNERSHIP berger
1927 Post Alley, Ste. 2 Seattle, WA 98101
206 325 6877 bergerpartnership.com

CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON GREGORY E. BROWER NO. 545 EXP. 10/14/2024 LANDSCAPE ARCHITECT

SET TYPE: BID SET

SET ISSUE DATE: 03/10/23

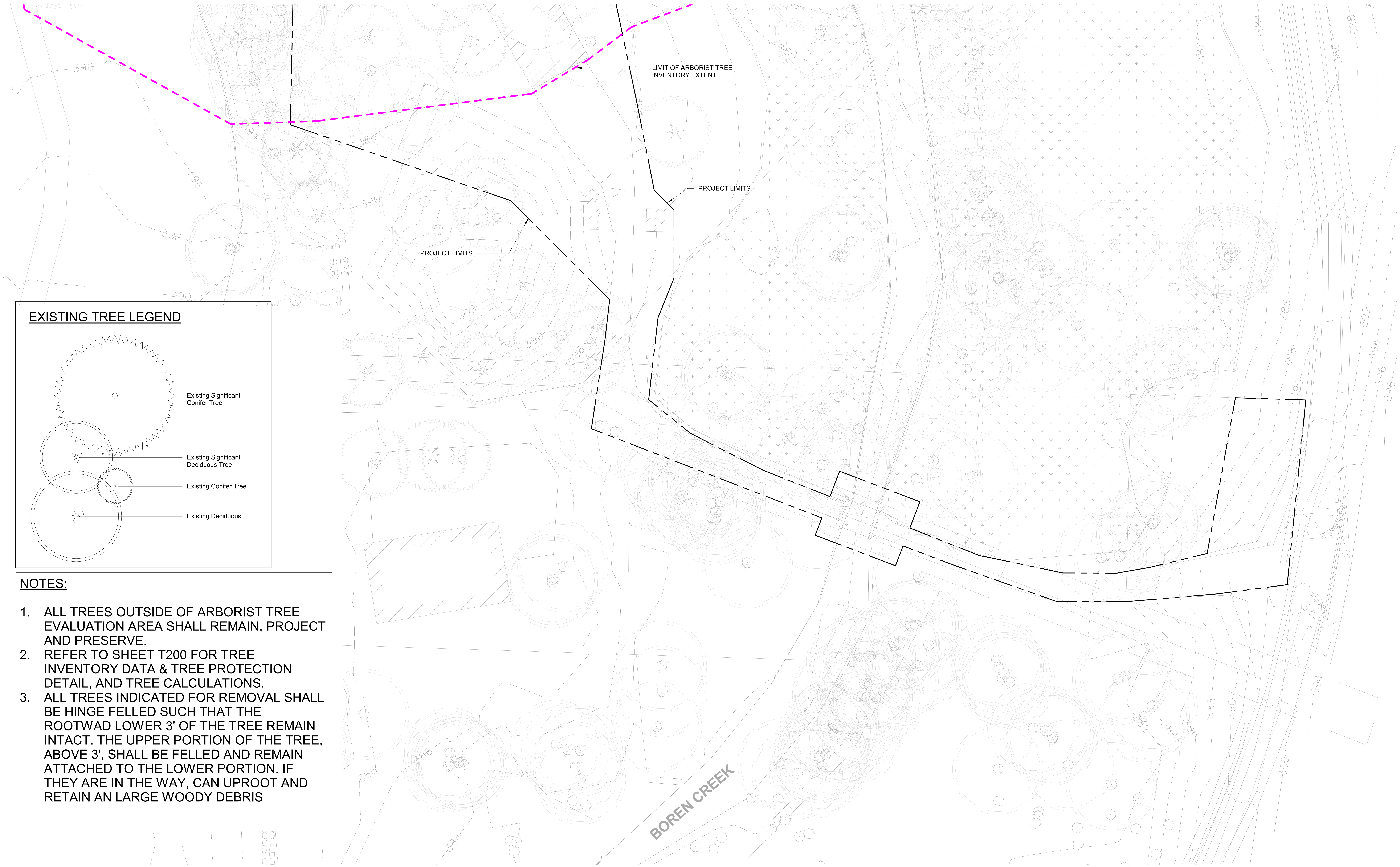
REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED: MM / GB

SHEET NAME: EXISTING TREE PLAN

SHEET NUMBER: T101



NOTES:

1. ALL TREES OUTSIDE OF ARBORIST TREE EVALUATION AREA SHALL REMAIN, PROJECT AND PRESERVE.
2. REFER TO SHEET T200 FOR TREE INVENTORY DATA & TREE PROTECTION DETAIL, AND TREE CALCULATIONS.
3. ALL TREES INDICATED FOR REMOVAL SHALL BE HINGE FELLED SUCH THAT THE ROOTWAD LOWER 3' OF THE TREE REMAIN INTACT. THE UPPER PORTION OF THE TREE, ABOVE 3', SHALL BE FELLED AND REMAIN ATTACHED TO THE LOWER PORTION. IF THEY ARE IN THE WAY, CAN UPROOT AND RETAIN AN LARGE WOODY DEBRIS

1 Tree Plan - South
1" = 20'-0"

NORTH

0' 20' 40'
SCALE: 1"= 20'-0"

Berger Partnership Project Number: 20154880.01
Plotted: 3/10/2023 1:33:09 PM
Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt

THE CITY OF NEWCASTLE Washington 1869 1994

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206 325 6877 bergerpartnership.com

CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON GREGORY E. BROWER LANDSCAPE ARCHITECT NO. 545 EXP. 10/14/2024

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

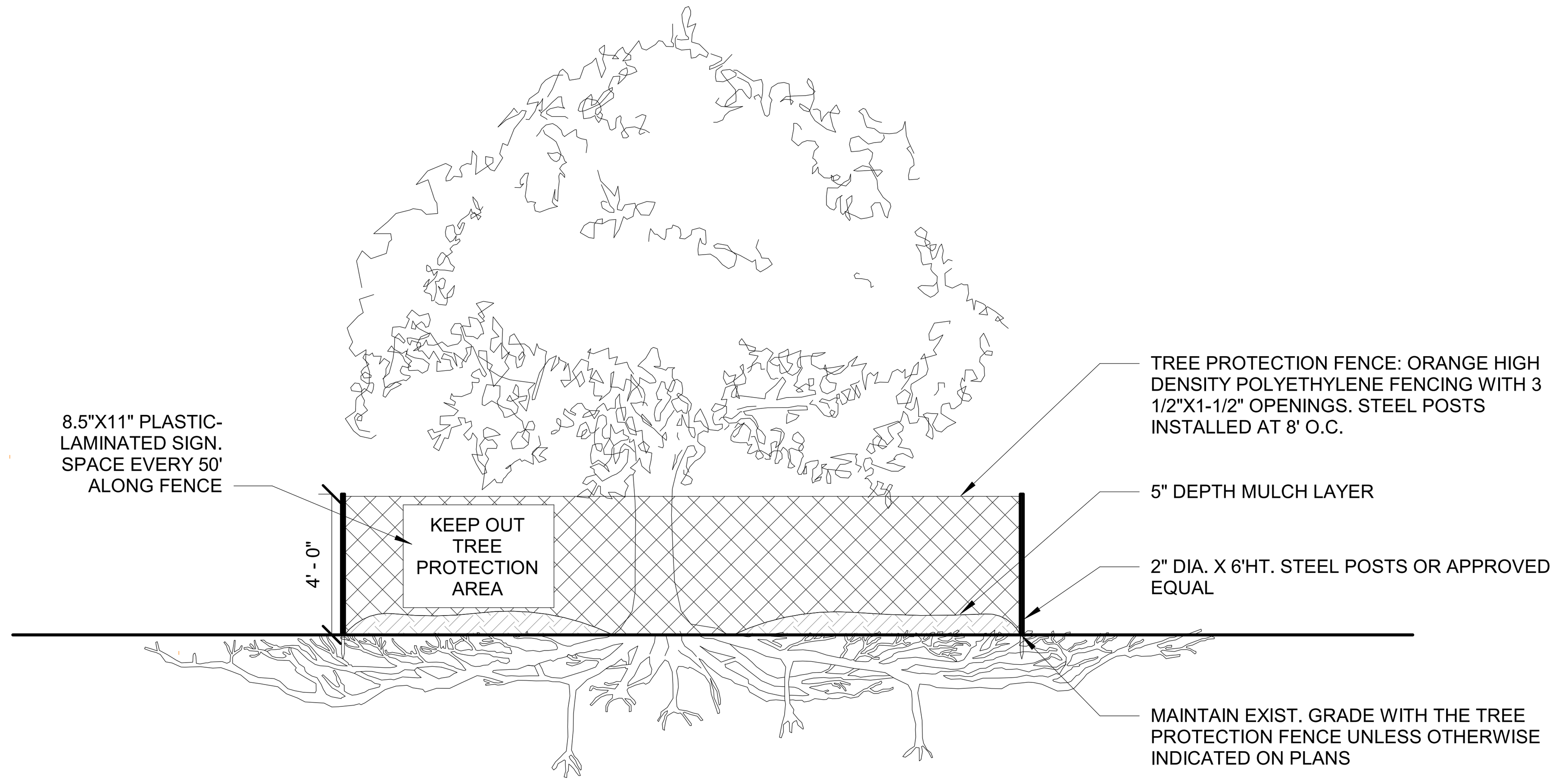
REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM / GB

SHEET NAME:
EXISTING TREE PLAN

SHEET NUMBER:
T102



NOTES:
1. SEE ARBORISTS REPORT DATED NOVEMBER 21, 2016 FOR SITE SPECIFIC TREE PROTECTION MEASURES. ARBORISTS REPORT TO TAKE PRECEDENCE OVER ANY INCONSISTENCIES.
2. SEE MOST CURRENT VERSION OF ANSI A300 (PART5) AND SPECIFICATIONS FOR ADDITIONAL TREE PROTECTION REQUIREMENTS AND DEFINITIONS.
3. NO PRUNING SHALL BE PERFORMED EXCEPT BY APPROVED ARBORIST.
4. NO EQUIPMENT SHALL OPERATE INSIDE FENCING INCLUDING DURING FENCE INSTALLATION AND REMOVAL.
5. THERE SHALL BE NO ACTIVITIES THAT WOULD CONTRIBUTE TO SOIL COMPACTION WHITHIN THE TREE PROTECTION ZONE.

1 TREE PROTECTION

1/4" = 1'-0"

THE WATERSHED COMPANY

Lake Boren Park
7925 129th Ave SE Newcastle, WA 98056
Parcel # 272405-9043, -9044, -9056, -9058, -9052, -9062, -9027, 342405-9119, -9157, -9073, 607300-0010

Table Issued: 6/8/2017
Site Visit: 6/7/2017

TAG #	TREE NAME	EV / DEC	# STEMS	COMB DBH (IN ROUNDED)	HEIGHT (FT)	RADIUS (FT)	CONDITION	SIGNIFICANT PER SMC	REMOVE (X)	NOTES
883	Pseudotsuga menziesii (Douglas-fir)	E	1	**35**	70	20	Fair	YES		Deck girdling base of truck
884	Acer macrophyllum (Bigleaf maple)	D	1	**27**	90	20	Fair	YES		20 degree lean towards lake
885	Pseudotsuga menziesii (Douglas-fir)	E	1	**26**	40	15	Fair	YES		
886	Populus balsamifera (Black cottonwood)	D	4	**64**	80	25	Good	YES		Significant beaver damage to base of truck
887	Pseudotsuga menziesii (Douglas-fir)	E	1	**9**	90	20	Fair	YES		
888	Pseudotsuga menziesii (Douglas-fir)	E	1	**11**	90	18	Good	YES		
889	Pseudotsuga menziesii (Douglas-fir)	E	1	**12**	90	20	Good	YES		
890	Thuja plicata (Western red cedar)	E	1	**9**	95	25	Good	YES		
891	Thuja plicata (Western red cedar)	E	1	**10**	90	18	Good	YES		
892	Pseudotsuga menziesii (Douglas-fir)	E	1	**11**	95	20	Fair	YES		Stressed cone crop and low live crown ratio
893	Pseudotsuga menziesii (Douglas-fir)	E	1	**11**	85	25	Fair	YES		
894	Fraxinus latifolia (Oregon ash)	D	2	**12**	95	15	Good			Co-dominate at base
895	Populus balsamifera (Black cottonwood)	D	3	**31**	45	10	Fair	YES		Co-dominate at base
896	Populus balsamifera (Black cottonwood)	D	1	**19**	110	18	Fair	YES		
897	Populus balsamifera (Black cottonwood)	D	1	**28**	95	20	Good	YES		
898	Populus balsamifera (Black cottonwood)	D	1	**22**	50	15	Good	YES		
899	Populus balsamifera (Black cottonwood)	D	1	**14**	100	16	Fair	YES		
900	Populus balsamifera (Black cottonwood)	D	1	**19**	95	15	Fair	YES		
901	Populus balsamifera (Black cottonwood)	D	3	**29**	95	14	Poor	YES		conks on one leader
902	Populus balsamifera (Black cottonwood)	D	1	**17**	75	12	Fair	YES		
903	Acer macrophyllum (Bigleaf maple)	D	4	**22**	120	20	Poor	YES		co-dom, included bark
904	Picea pungens (Colorado spruce)	E	2	**13**	100	15	Fair	YES		included bark
905	Thuja plicata (Western red cedar)	E	1	**10**	120	18	Good	YES		
906	Thuja plicata (Western red cedar)	E	1	**8**	95	20	Good	YES		
907	Picea abies (Norway spruce)	E	1	**13**	95	15	Good	YES		
908	Fraxinus latifolia (Oregon ash)	D	2	**9**	100	25	Fair			co-dom at 3', included bark
909	Populus balsamifera (Black cottonwood)	D	1	**39**	95	20	Poor	YES		epicormic shoots
910	Populus balsamifera (Black cottonwood)	D	1	**49**	80	25	Fair	YES		epicormic shoots
911	Populus balsamifera (Black cottonwood)	D	1	**16**	75	15	Fair	YES		
912	Populus balsamifera (Black cottonwood)	D	2	**31**	75	10	Fair	YES		Co-dominate at base
913	Populus balsamifera (Black cottonwood)	D	1	**29**	90	30	Fair	YES		
914	Pseudotsuga menziesii (Douglas-fir)	E	1	**12**	120	20	Fair	YES		stressed cone crop
915	Alnus rubra (Red alder)	D	3	**14**	100	15	Fair	YES		
916	Fraxinus latifolia (Oregon ash)	D	4	**17**	35	12	Fair	YES		
917	Fraxinus latifolia (Oregon ash)	D	2	**15**	90	23	Fair	YES		Co-dominate at 2'
918	Alnus rubra (Red alder)	D	1	**12**	90	20	Poor	YES		no top
919	Alnus rubra (Red alder)	D	2	**13**	85	12	Poor	YES		Failure at 20'
920	Alnus rubra (Red alder)	D	2	**11**	105	20	Fair			
921	Alnus rubra (Red alder)	D	3	**15**	95	18	Fair	YES		
922	Fraxinus latifolia (Oregon ash)	D	3	**14**	120	15	Fair	YES		

750 6th Street South
(425) 822-5242

THE WATERSHED COMPANY

Lake Boren Park
7925 129th Ave SE Newcastle, WA 98056
Parcel # 272405-9043, -9044, -9056, -9058, -9052, -9062, -9027, 342405-9119, -9157, -9073, 607300-0010

Table Issued: 6/8/2017
Site Visit: 6/7/2017

TAG #	TREE NAME	EV / DEC	# STEMS	COMB DBH (IN ROUNDED)	HEIGHT (FT)	RADIUS (FT)	CONDITION	SIGNIFICANT PER SMC	REMOVE (X)	NOTES
923	Salix sp. (Willow species)	D	4	**26**	50	30	Fair	YES		
824	Alnus rubra (Red alder)	D	1	**12**	95	12	Good		X	
925	Pseudotsuga menziesii (Douglas-fir)	E	1	**50**	95	12	Good	YES		
926	Pseudotsuga menziesii (Douglas-fir)	E	1	**21**	120	35	Good	YES		
927	Pseudotsuga menziesii (Douglas-fir)	E	1	**19**	45	15	Poor	YES		
928	Alnus rubra (Red alder)	D	3	**33**	100	20	Poor	YES		
929	Pseudotsuga menziesii (Douglas-fir)	E	1	**38**	75	20	Good	YES		
930	Acer platanoides 'Crimson King' (Norway	D	1	**22**	90	20	Good	YES	X	
931	Pseudotsuga menziesii (Douglas-fir)	E	1	**37**	75	12	Good	YES		
932	Pinus nigra (Austrian pine)	E	1	**28**	120	29	Fair	YES		supressed
933	Fraxinus latifolia (Oregon ash)	D	1	**12**	100	20	Good	YES		
934	Acer macrophyllum (Bigleaf maple)	D	1	**19**	30	12	Good	YES		
935	Acer macrophyllum (Bigleaf maple)	D	3	**32**	120	12	Fair	YES	X	
936	Pseudotsuga menziesii (Douglas-fir)	E	1	**40**	85	25	Good	YES		enlarged butress
937	Pseudotsuga menziesii (Douglas-fir)	E	1	**40**	30	8	Good	YES		
938	Fraxinus latifolia (Oregon ash)	D	1	**33**	100	18	Good	YES		
939	Tsuga heterophylla (Western hemlock)	E	1	**25**	100	20	Severe	YES		Dead
940	Acer macrophyllum (Bigleaf maple)	D	1	**28**	40	20	Fair	YES		
941	Acer macrophyllum (Bigleaf maple)	D	1	**38**	125	19	Poor	YES		Significant rot the base, 10 degee lean to west
942	Populus balsamifera (Black cottonwood)	D	1	**41**	95	18	Good	YES		
943	Pseudotsuga menziesii (Douglas-fir)	E	1	**22**	130	25	Fair	YES		
944	Pseudotsuga menziesii (Douglas-fir)	E	1	**19**	45	18	Fair	YES		
945	Pseudotsuga menziesii (Douglas-fir)	E	1	**26**	120	20	Fair	YES		kink in trunk at 15'
946	Populus balsamifera (Black cottonwood)	D	2	**26**	95	18	Fair	YES	X	
947	Populus balsamifera (Black cottonwood)	D	1	**15**	120	25	Fair	YES	X	
948	Populus balsamifera (Black cottonwood)	D	1	**22**	75	14	Fair	YES		
949	Fraxinus latifolia (Oregon ash)	D	1	**14**	95	15	Good	YES		
950	Populus balsamifera (Black cottonwood)	D	2	**40**	60	20	Good	YES		
951	Populus balsamifera (Black cottonwood)	D	1	**36**	100	15	Good	YES		
952	Populus balsamifera (Black cottonwood)	D	1	**14**	65	25	Fair	YES		
953	Populus balsamifera (Black cottonwood)	D	1	**19**	65	30	Good	YES	X	
954	Pseudotsuga menziesii (Douglas-fir)	E	1	**16**	100	27	Poor	YES		Significant canopy die-back
955	Pseudotsuga menziesii (Douglas-fir)	E	1	**14**	50	15	Poor	YES		
956	Populus balsamifera (Black cottonwood)	D	1	**16**	130	33	Fair	YES		
957	Populus balsamifera (Black cottonwood)	D	1	**19**	75	30	Good	YES		
958	Pseudotsuga menziesii (Douglas-fir)	E	1	**13**	100	25	Poor	YES		
959	Fraxinus latifolia (Oregon ash)	D	1	**14**	95	20	Fair	YES		
960	Salix sp. (Willow species)	D	1	**15**	65	20	Fair	YES		
961	Alnus rubra (Red alder)	D	2	**20**	40	12	Good	YES		
962	Alnus rubra (Red alder)	D	1	**13**	95	15	Good	YES		

750 6th Street South
(425) 822-5242

THE WATERSHED COMPANY

Lake Boren Park
7925 129th Ave SE Newcastle, WA 98056
Parcel # 272405-9043, -9044, -9056, -9058, -9052, -9062, -9027, 342405-9119, -9157, -9073, 607300-0010

Table Issued: 6/8/2017
Site Visit: 6/7/2017

TAG #	TREE NAME	EV / DEC	# STEMS	COMB DBH (IN ROUNDED)	HEIGHT (FT)	RADIUS (FT)	CONDITION	SIGNIFICANT PER SMC	REMOVE (X)	NOTES
963	Salix sp. (Willow species)	D	4	**21**	65	18	Severe	YES		split at base, all leaders co-dominant
964	Alnus rubra (Red alder)	D	1	**12**	100	15	Good	YES		
965	Alnus rubra (Red alder)	D	1	**16**	120	20	Good	YES		
966	Alnus rubra (Red alder)	D	2	**20**	70	30	Good	YES		Co-dominate at base
967	Alnus rubra (Red alder)	D	1	**19**	55	12	Good	YES		

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SIGNIFICANT TREE REMOVAL & REPLACEMENT

PHASE I

SIGNIFICANT TREES REMOVED	5
TREE REPLACEMENT	2 : 1
REQUIRED REPLACEMENT	10
PROPOSED REPLACEMENT	10

PHASE II

SIGNIFICANT TREES REMOVED	1
TREE REPLACEMENT	2 : 1
REQUIRED REPLACEMENT	2
PROPOSED REPLACEMENT	2

NOTES:
1. REFER TO PLANTING PLANS FOR TREE LOCATIONS & SPECIES.
2. REPLACEMENT TREES SHALL BE NATIVE SPECIES SIZED 2" CAL. OR GREATER
3. REPLACEMENT TREES ARE ALSO COUNTED AS PART OF WETLAND /BURFFER MITIGATION

THE CITY OF NEWCASTLE Washington 1869 1994

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM,JZ / GB

SHEET NAME:
EXISTING TREE CALCS, PROTECT, AND INDEX

SHEET NUMBER:
T200

Berger Partnership Project Number: 20154880.01 Plotted: 3/10/2023 1:33:11 PM Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt

GENERAL NOTES

1. ALL DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH PERMIT CONDITIONS, NEWCASTLE MUNICIPAL CODE, 2022 WSDOT STANDARD SPECIFICATIONS, AND PROJECT SPECIFICATIONS.
2. A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL APPLY.
4. REFER TO PROJECT MANUAL FOR ACCESS AND TRAFFIC CONTROL.

KING COUNTY TESC CONTROL NOTES (MODIFIED)

1. APPROVAL OF THIS EROSION AND SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
2. THE IMPLEMENTATION OF THESE ESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE APPLICANT/ESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY SURVEY TAPE OR FENCING, PRIOR TO CONSTRUCTION (2009 KING COUNTY STORMWATER DESIGN MANUAL APPENDIX D). DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
4. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS, WASH PADS, OR STREET SWEEPING MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN AND TRACK OUT TO ROAD RIGHT OF WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT.
5. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
6. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL COVER MEASURES, ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION ETC.) AS DIRECTED BY KING COUNTY.
7. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES.
8. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO CONSECUTIVE DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC COVER METHODS (E.G., SEEDING, MULCHING, PLASTIC COVERING, ETC.).
9. ANY AREA NEEDING ESC MEASURES, NOT REQUIRING IMMEDIATE ATTENTION, SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
10. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH, OR WITHIN TWENTY FOUR (24) HOURS FOLLOWING A STORM EVENT.
11. AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
12. ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE PERMANENT FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE ROUGH GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.
13. COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE SURFACE WATER DESIGN MANUAL.
14. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH MAP OF THOSE AREAS TO BE SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED BY CONTRACTOR TO THE INSPECTOR FOR REVIEW.

ABBREVIATIONS:

ADA	AMERICANS WITH DISABILITIES ACT
AGG	AGGREGATE
APPROX.	APPROXIMATE
AVE	AVENUE
BC	BOTTOM OF CURB
BFE	BASE FLOOD ELEVATION
CL	CENTER LINE, CLASS
CSBC	CRUSHED SURFACING BASE COURSE
CSTC	CRUSHED SURFACING TOP COURSE
CTR	CENTER
D	DELTA ANGLE
DPD	DEPARTMENT OF PLANNING AND DEVELOPMENT
DIP	DUCTILE IRON PIPE
E	EAST
ELEV	ELEVATION
EX/EXIST	EXISTING
FF	FINISHED FLOOR
G	GAS
H	HORIZONTAL
HMA	HOT MIX ASPHALT
KCSWDM	KING COUNTY SURFACE WATER DESIGN MANUAL
L	LENGTH
LT	LEFT
MIN	MINIMUM
MNRL	MINERAL
NO	NUMBER
N	NORTH
N/A	NOT APPLICABLE
OH	OVERHEAD UTILITY
PL	PROPERTY LINE
POC	POINT OF CONNECTION
PVC	POLYVINYLCHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS
ROW	RIGHT OF WAY
RT	RIGHT
S	SOUTH
SD	STORM DRAIN
SL	STREET LIGHT
ST	STREET
STA	STATION
STD	STANDARD
TC	TOP OF CURB
TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
TYP	TYPICAL
V	VERTICAL
W	WATER, WEST
WAC	WASHINGTON ADMINISTRATIVE CODE
WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
#	NUMBER
&	AND

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

JENIFER R. CLAPHAM STATE OF WASHINGTON 40799 REGISTERED PROFESSIONAL ENGINEER 2023-03-08

SET TYPE: **BID SET**

SET ISSUE DATE: **03/10/2023**

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED: **JP/SB/JC**

SHEET NAME: **STANDARD NOTES**

SHEET NUMBER: **C001**

LEGEND

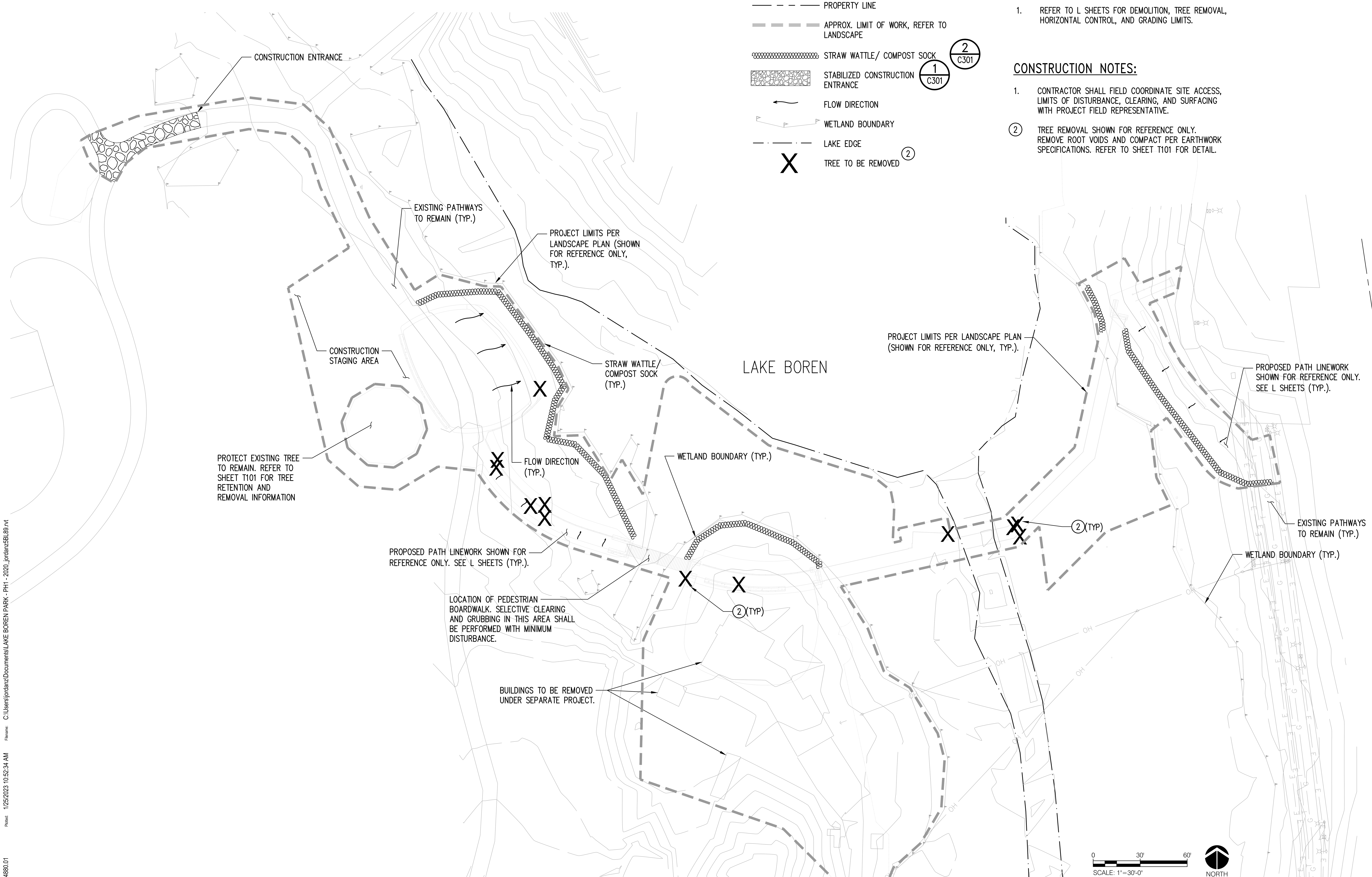
- PROPERTY LINE
- APPROX. LIMIT OF WORK, REFER TO LANDSCAPE
- STRAW WATTLE/ COMPOST SOCK (2 / C301)
- STABILIZED CONSTRUCTION ENTRANCE (1 / C301)
- FLOW DIRECTION
- WETLAND BOUNDARY
- LAKE EDGE
- X TREE TO BE REMOVED (2)

GENERAL NOTES:

1. REFER TO L SHEETS FOR DEMOLITION, TREE REMOVAL, HORIZONTAL CONTROL, AND GRADING LIMITS.

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL FIELD COORDINATE SITE ACCESS, LIMITS OF DISTURBANCE, CLEARING, AND SURFACING WITH PROJECT FIELD REPRESENTATIVE.
2. TREE REMOVAL SHOWN FOR REFERENCE ONLY. REMOVE ROOT VOIDS AND COMPACT PER EARTHWORK SPECIFICATIONS. REFER TO SHEET T101 FOR DETAIL.



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SET ISSUE DATE: **03/10/2023**

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED: **JP/SB/JC**

SHEET NAME: **EROSION CONTROL (WEST)**

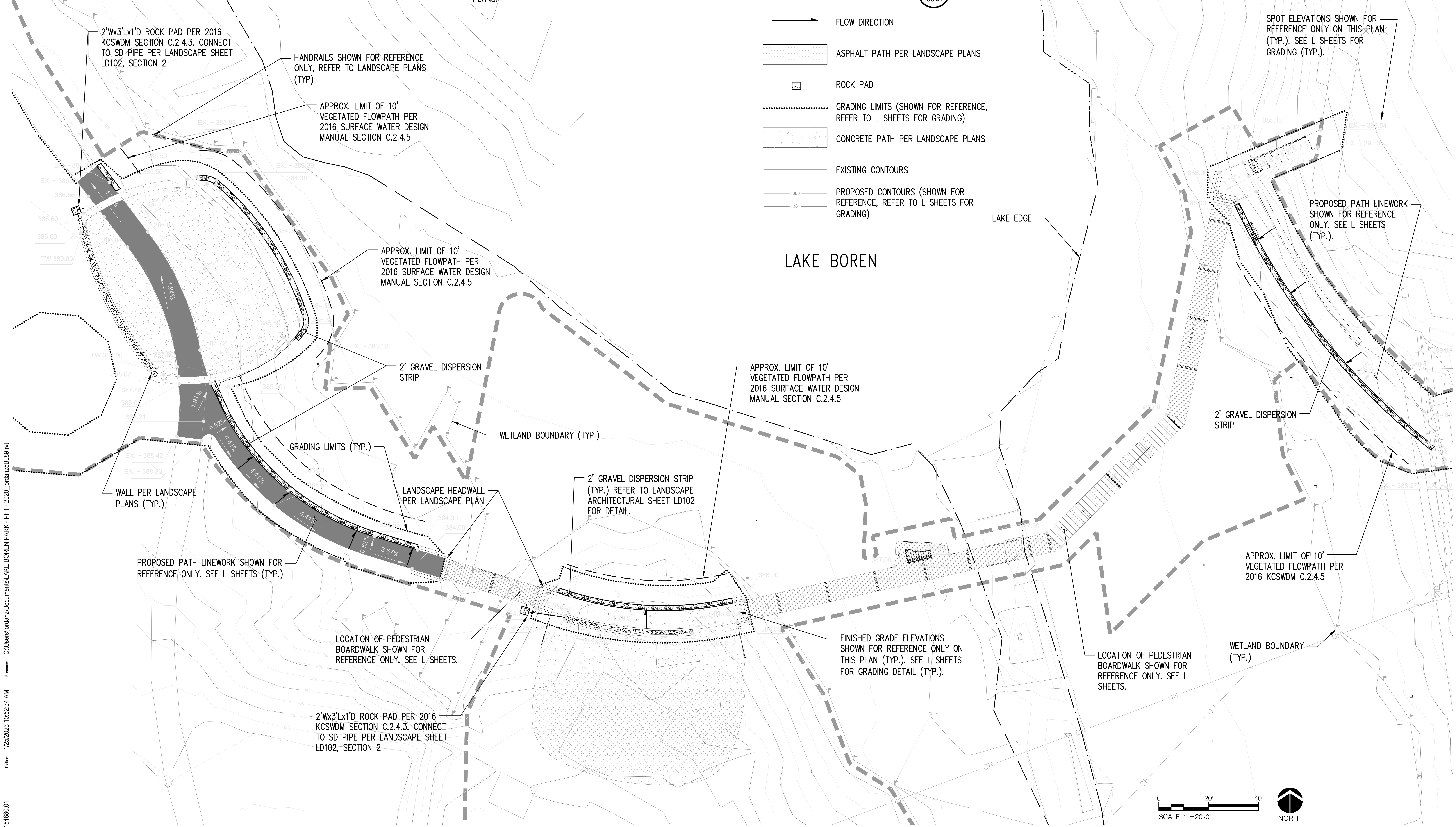
SHEET NUMBER: **C101**

NOTES:

1. LIMIT OF WORK AND GRADING INFORMATION ARE SHOWN ON THIS PLAN FOR REFERENCE ONLY. REFER TO LANDSCAPE ARCHITECTURAL PLANS FOR GRADING INFORMATION AND PATH CROSS-SECTIONS.
2. GENERAL GRADING INTENT IS FOR RUNOFF TO SHEET FLOW TOWARDS LAKE BOREN VIA DISPERSION STRIP AND VEGETATIVE FLOW PATH. SEE LANDSCAPE ARCHITECTURAL PLANS FOR LIMITS OF GRADING AND RESTORATION.
3. FOR HORIZONTAL CONTROL REFER TO LANDSCAPE ARCHITECTURAL PLANS.

LEGEND

- LIMIT OF 10' FLOW PATH
- LAKE EDGE
- WETLAND BOUNDARY
- APPROXIMATE LIMIT OF WORK. REFER TO LANDSCAPE
- GRAVEL DISPERSION (3 / C301)
- FLOW DIRECTION
- ASPHALT PATH PER LANDSCAPE PLANS
- ROCK PAD
- GRADING LIMITS (SHOWN FOR REFERENCE, REFER TO L SHEETS FOR GRADING)
- CONCRETE PATH PER LANDSCAPE PLANS
- EXISTING CONTOURS
- PROPOSED CONTOURS (SHOWN FOR REFERENCE, REFER TO L SHEETS FOR GRADING)



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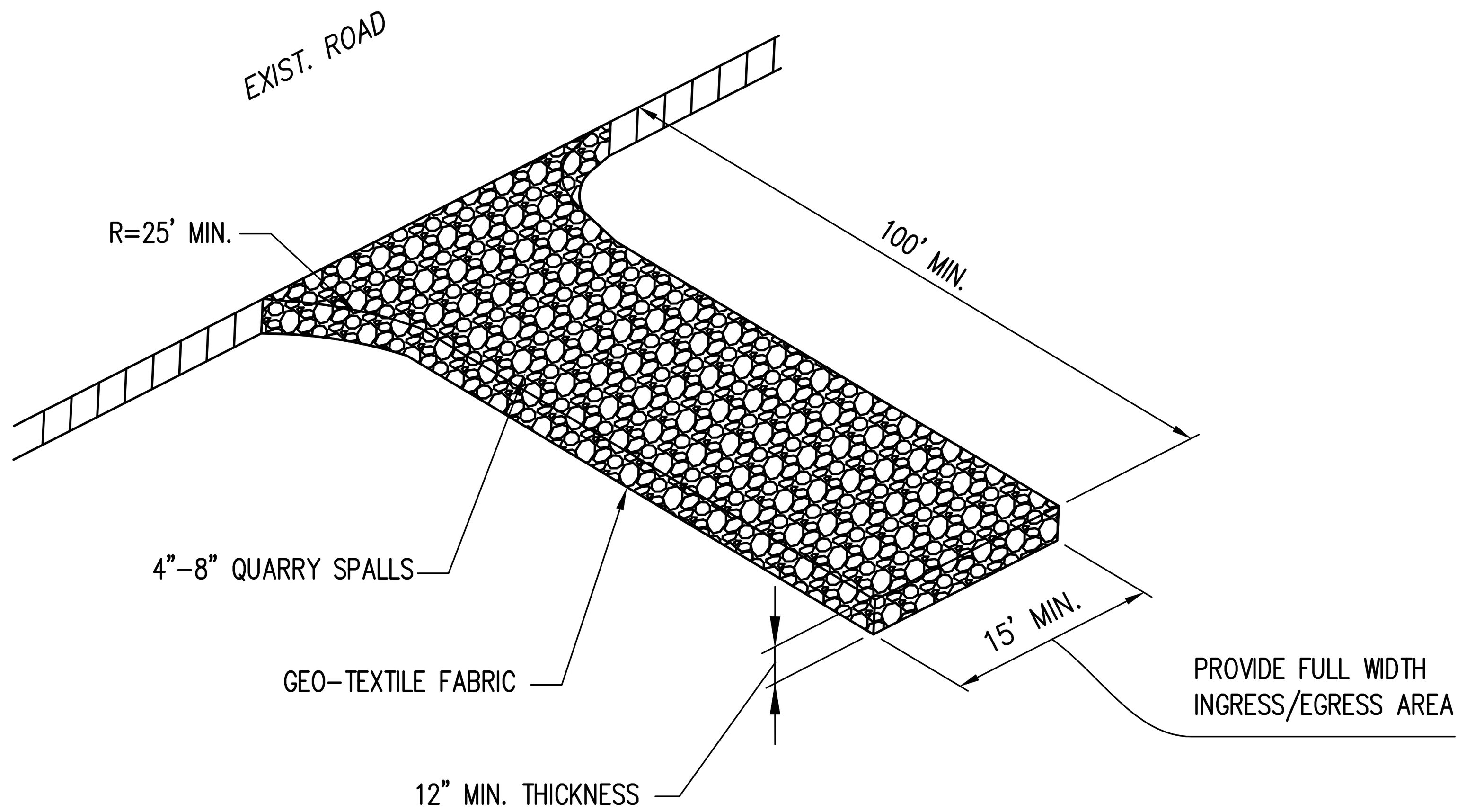
SET TYPE: BID SET
SET ISSUE DATE: 03/10/2023
REVISIONS:

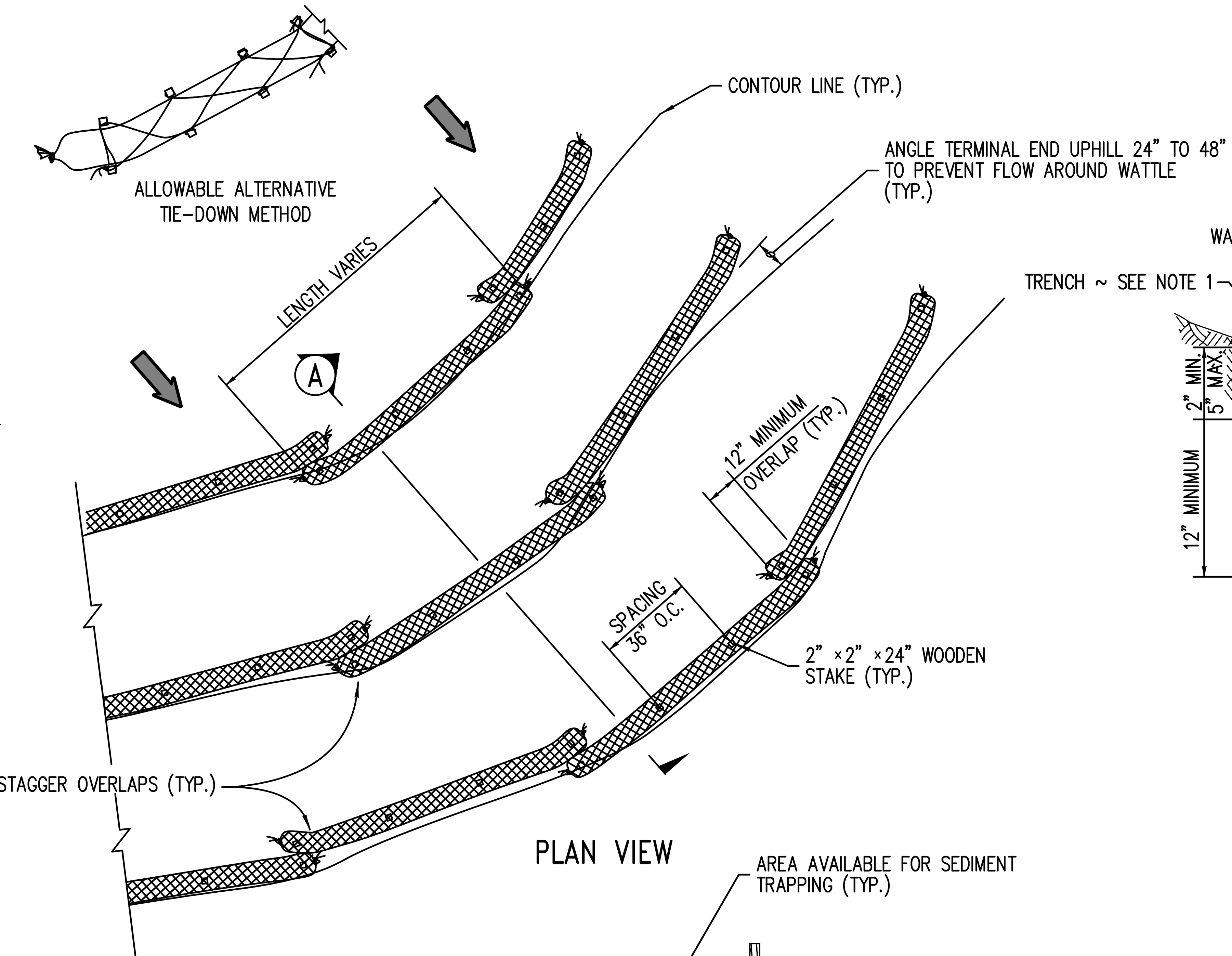
Δ	DESCRIPTION	DATE

DRAWN/CHECKED: JP/SB/JC
SHEET NAME: DRAINAGE PLAN (WEST)
SHEET NUMBER: C201

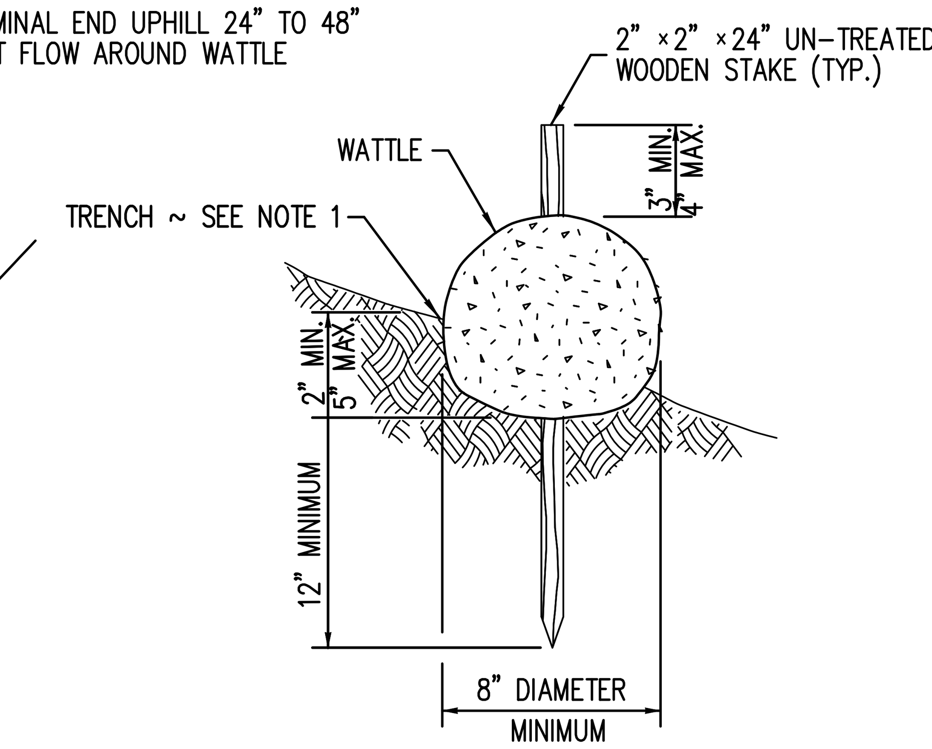


TEMPORARY CONSTRUCTION ENTRANCE 1 C101

NTS

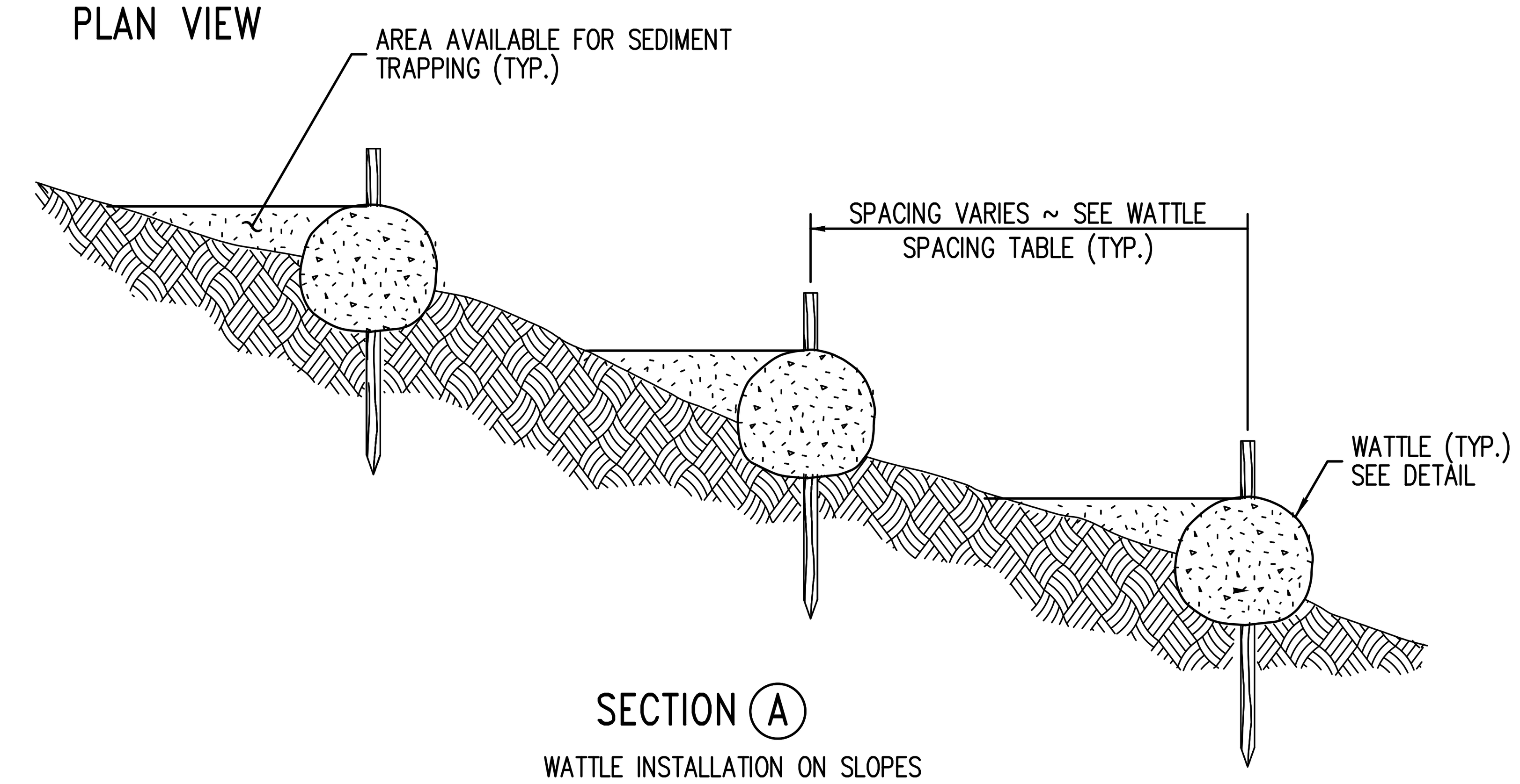


PLAN VIEW



WATTLE DETAIL

8" DIAMETER WATTLE SPACING TABLE	
SLOPE	MAXIMUM SPACING
1H : 1V	10' – 0"
2H : 1V	20' – 0"
3H : 1V	30' – 0"
4H : 1V	40' – 0"



SECTION A

WATTLE INSTALLATION ON SLOPES

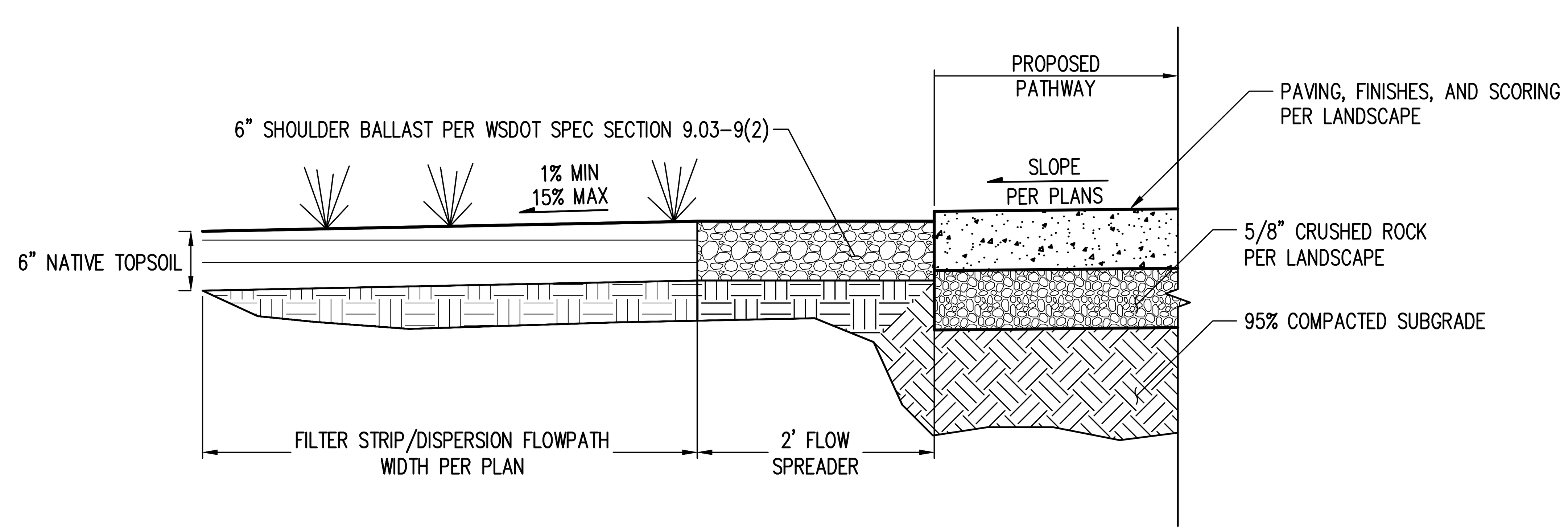
STRAW WATTLE 2 C101

WSDOT STD PLAN I–30.30–01

NTS

NOTES:

1. WATTLES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 9–14.5(5). INSTALL WATTLES ALONG CONTOURS. INSTALLATION SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATION 8–01.3(10).
2. SECURELY KNOT EACH END OF WATTLE. OVERLAP ADJACENT WATTLE ENDS 12" BEHIND ONE ANOTHER AND SECURELY TIE TOGETHER.
3. COMPACT EXCAVATED SOIL AND TRENCHES TO PREVENT UNDERCUTTING. ADDITIONAL STAKING MAY BE NECESSARY TO PREVENT UNDERCUTTING.
4. INSTALL WATTLE PERPENDICULAR TO FLOW ALONG CONTOURS.
5. WATTLES SHALL BE INSPECTED REGULARLY, AND IMMEDIATELY AFTER A RAINFALL PRODUCES RUNOFF, TO ENSURE THEY REMAIN THOROUGHLY ENTRENCHED AND IN CONTACT WITH THE SOIL.
6. PERFORM MAINTENANCE IN ACCORDANCE WITH STANDARD SPECIFICATION 8–01.3(15).
7. REFER TO STANDARD SPECIFICATION 8–01.3(16) FOR REMOVAL.



FILTER STRIP/DISPERSION FLOWPATH 3 C201

NTS

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City of Newcastle

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JENNIFER R. CLAPHAM STATE OF WASHINGTON 40799 REGISTERED PROFESSIONAL ENGINEER 2023-03-08

SET TYPE: BID SET

SET ISSUE DATE: 03/10/2023

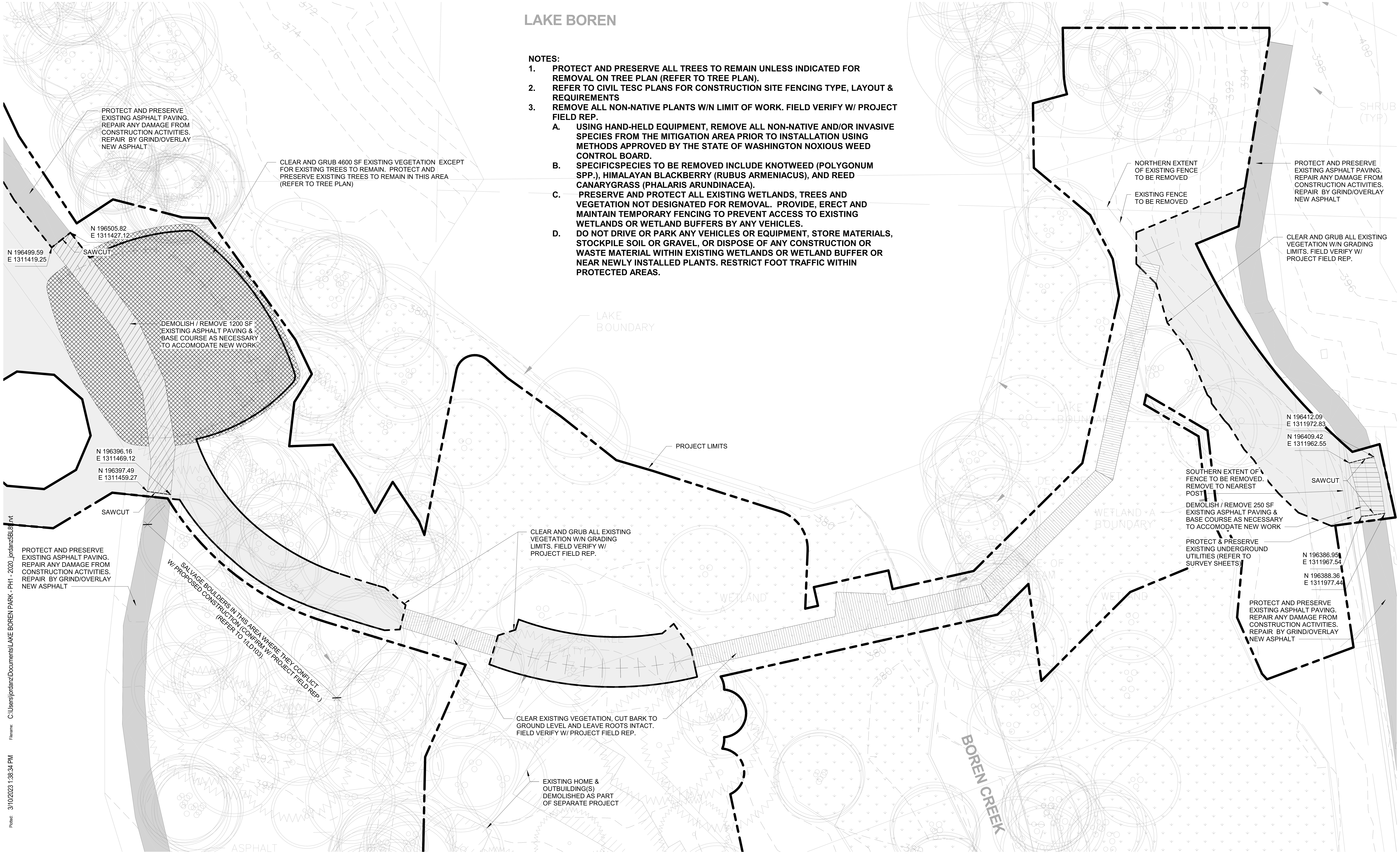
REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED: JP/SB/JC

SHEET NAME: CIVIL DETAILS

SHEET NUMBER: C301



NOTES:

1. PROTECT AND PRESERVE ALL TREES TO REMAIN UNLESS INDICATED FOR REMOVAL ON TREE PLAN (REFER TO TREE PLAN).
2. REFER TO CIVIL TESC PLANS FOR CONSTRUCTION SITE FENCING TYPE, LAYOUT & REQUIREMENTS
3. REMOVE ALL NON-NATIVE PLANTS W/N LIMIT OF WORK. FIELD VERIFY W/ PROJECT FIELD REP.
   A. USING HAND-HELD EQUIPMENT, REMOVE ALL NON-NATIVE AND/OR INVASIVE SPECIES FROM THE MITIGATION AREA PRIOR TO INSTALLATION USING METHODS APPROVED BY THE STATE OF WASHINGTON NOXIOUS WEED CONTROL BOARD.
   B. SPECIFICSPECIES TO BE REMOVED INCLUDE KNOTWEED (POLYGONUM SPP.), HIMALAYAN BLACKBERRY (RUBUS ARMENIACUS), AND REED CANARYGRASS (PHALARIS ARUNDINACEA).
   C. PRESERVE AND PROTECT ALL EXISTING WETLANDS, TREES AND VEGETATION NOT DESIGNATED FOR REMOVAL. PROVIDE, ERECT AND MAINTAIN TEMPORARY FENCING TO PREVENT ACCESS TO EXISTING WETLANDS OR WETLAND BUFFERS BY ANY VEHICLES.
   D. DO NOT DRIVE OR PARK ANY VEHICLES OR EQUIPMENT, STORE MATERIALS, STOCKPILE SOIL OR GRAVEL, OR DISPOSE OF ANY CONSTRUCTION OR WASTE MATERIAL WITHIN EXISTING WETLANDS OR WETLAND BUFFER OR NEAR NEWLY INSTALLED PLANTS. RESTRICT FOOT TRAFFIC WITHIN PROTECTED AREAS.

1 Demolition Plan - North
1" = 20'-0"

NORTH
0' 20' 40'
SCALE: 1"= 20'-0"

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NO. 545 EXP. 10/14/2024
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SET TYPE:
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SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM / GB

SHEET NAME:
DEMOLITION PLAN

SHEET NUMBER:
L101

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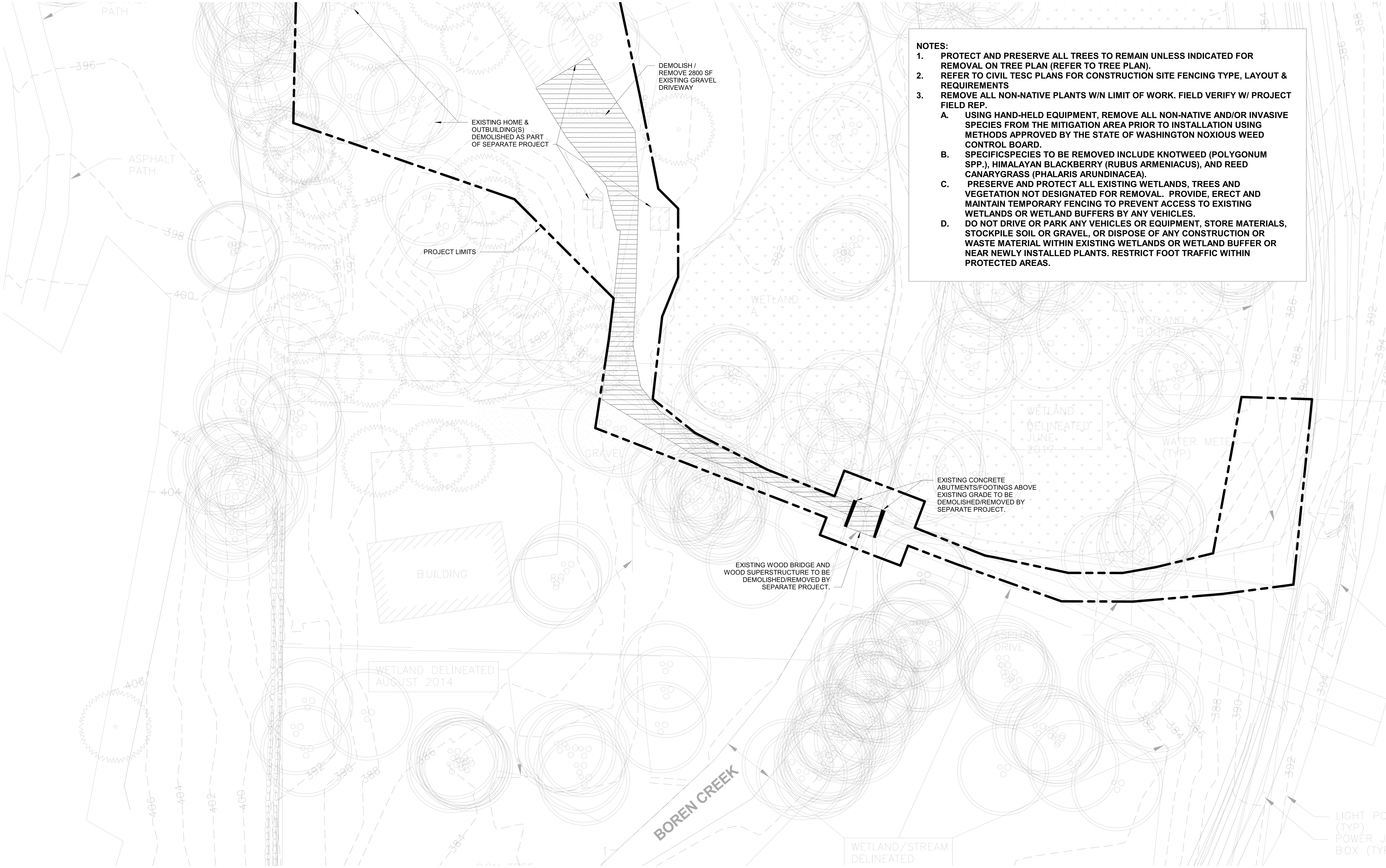

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   B. SPECIFICSPECIES TO BE REMOVED INCLUDE KNOTWEED (POLYGONUM SPP.), HIMALAYAN BLACKBERRY (RUBUS ARMENIACUS), AND REED CANARYGRASS (PHALARIS ARUNDINACEA).
   C. PRESERVE AND PROTECT ALL EXISTING WETLANDS, TREES AND VEGETATION NOT DESIGNATED FOR REMOVAL. PROVIDE, ERECT AND MAINTAIN TEMPORARY FENCING TO PREVENT ACCESS TO EXISTING WETLANDS OR WETLAND BUFFERS BY ANY VEHICLES.
   D. DO NOT DRIVE OR PARK ANY VEHICLES OR EQUIPMENT, STORE MATERIALS, STOCKPILE SOIL OR GRAVEL, OR DISPOSE OF ANY CONSTRUCTION OR WASTE MATERIAL WITHIN EXISTING WETLANDS OR WETLAND BUFFER OR NEAR NEWLY INSTALLED PLANTS. RESTRICT FOOT TRAFFIC WITHIN PROTECTED AREAS.

1 Demolition Plan - South
1" = 20'-0"

NORTH
0' 20' 40'
SCALE: 1"= 20'-0"

THE CITY OF NEWCASTLE Washington 1869 1994

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON GREGORY E. BROWER LANDSCAPE ARCHITECT NO. 545 EXP. 10/14/2024

SET TYPE: BID SET
SET ISSUE DATE: 03/10/23
REVISIONS:

Δ	DESCRIPTION	DATE

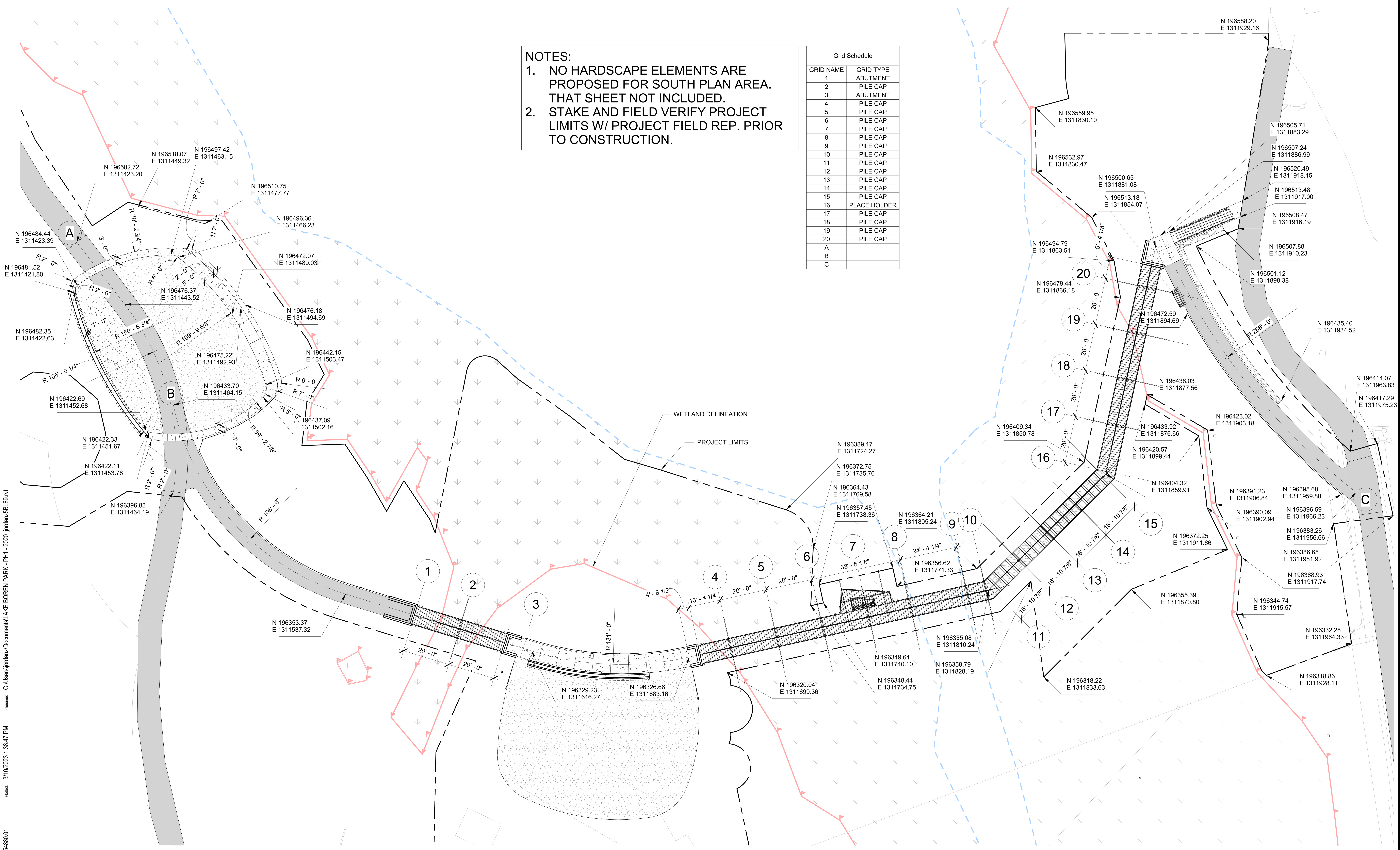
DRAWN/CHECKED: MM / GB
SHEET NAME: DEMOLITION PLAN
SHEET NUMBER: L102

Berger Partnership Project Number: 20154880.01
Plotted: 3/10/2023 1:38:39 PM
Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt

NOTES:
1. NO HARDSCAPE ELEMENTS ARE PROPOSED FOR SOUTH PLAN AREA. THAT SHEET NOT INCLUDED.
2. STAKE AND FIELD VERIFY PROJECT LIMITS W/ PROJECT FIELD REP. PRIOR TO CONSTRUCTION.

Grid Schedule

GRID NAME	GRID TYPE
1	ABUTMENT
2	PILE CAP
3	ABUTMENT
4	PILE CAP
5	PILE CAP
6	PILE CAP
7	PILE CAP
8	PILE CAP
9	PILE CAP
10	PILE CAP
11	PILE CAP
12	PILE CAP
13	PILE CAP
14	PILE CAP
15	PILE CAP
16	PLACE HOLDER
17	PILE CAP
18	PILE CAP
19	PILE CAP
20	PILE CAP
A	
B	
C	



1 Layout Plan - North
1" = 20'-0"

NORTH
0' 20' 40'
SCALE: 1"= 20'-0"

Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt
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Berger Partnership Project Number: 20154880.01

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City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE: BID SET

SET ISSUE DATE: 03/10/23

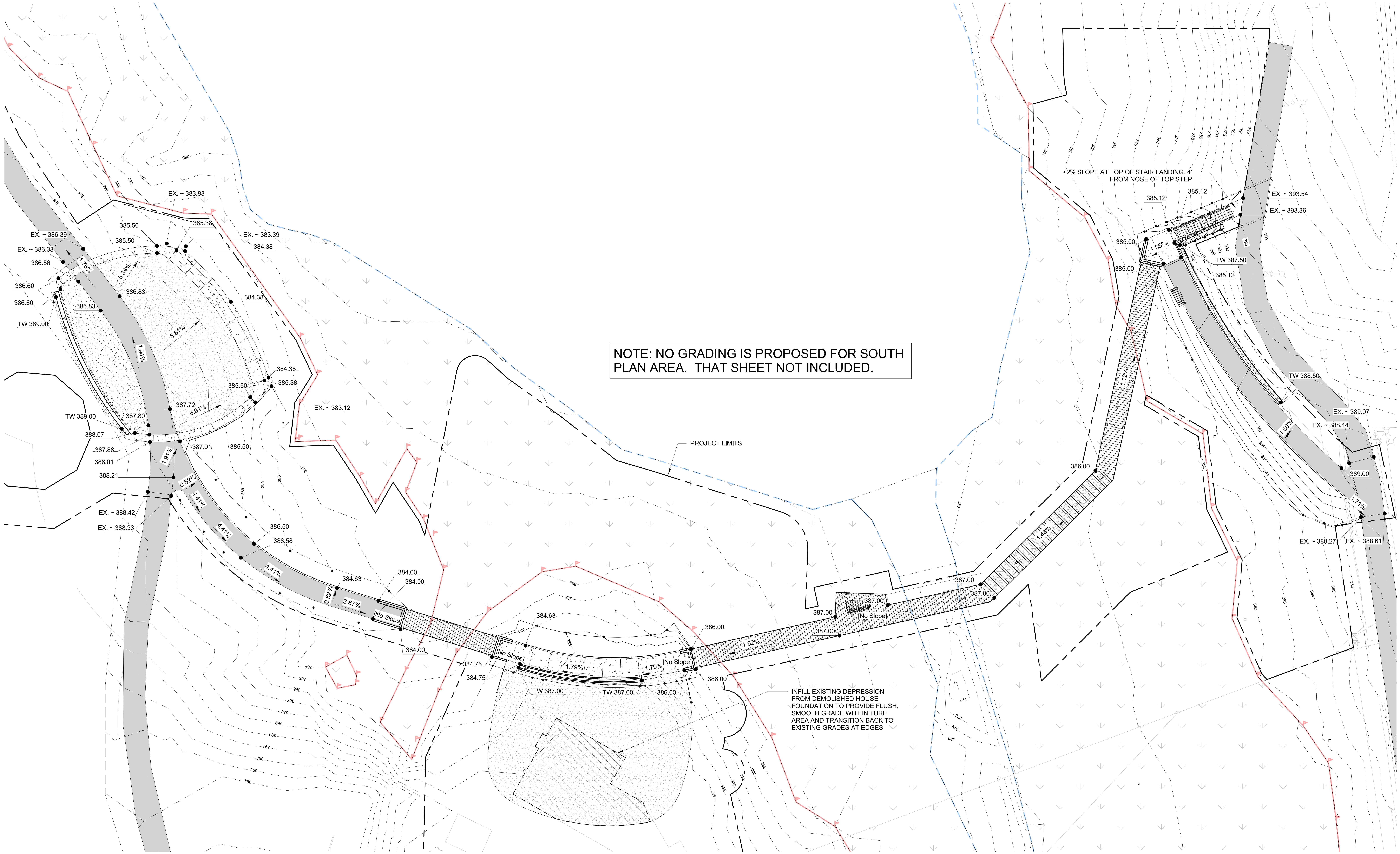
REVISIONS:

Δ	DESCRIPTION	DATE
1	PERMIT RESPONSE 1	05.02.2022

DRAWN/CHECKED: MM / GB

SHEET NAME: LAYOUT PLAN

SHEET NUMBER: L201



1 Grading Plan - North

1" = 20'-0"

NORTH

0' 20' 40'

SCALE: 1"= 20'-0"

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle

13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON GREGORY E. BROWER NO. 545 EXP. 10/14/2024 LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE
1	PERMIT RESPONSE 1	05.02.2022

DRAWN/CHECKED:
MM / GB

SHEET NAME:
GRADING PLAN

SHEET NUMBER:
L301

Berger Partnership Project Number: 20154880.01

Plotted: 3/10/2023 1:38:56 PM

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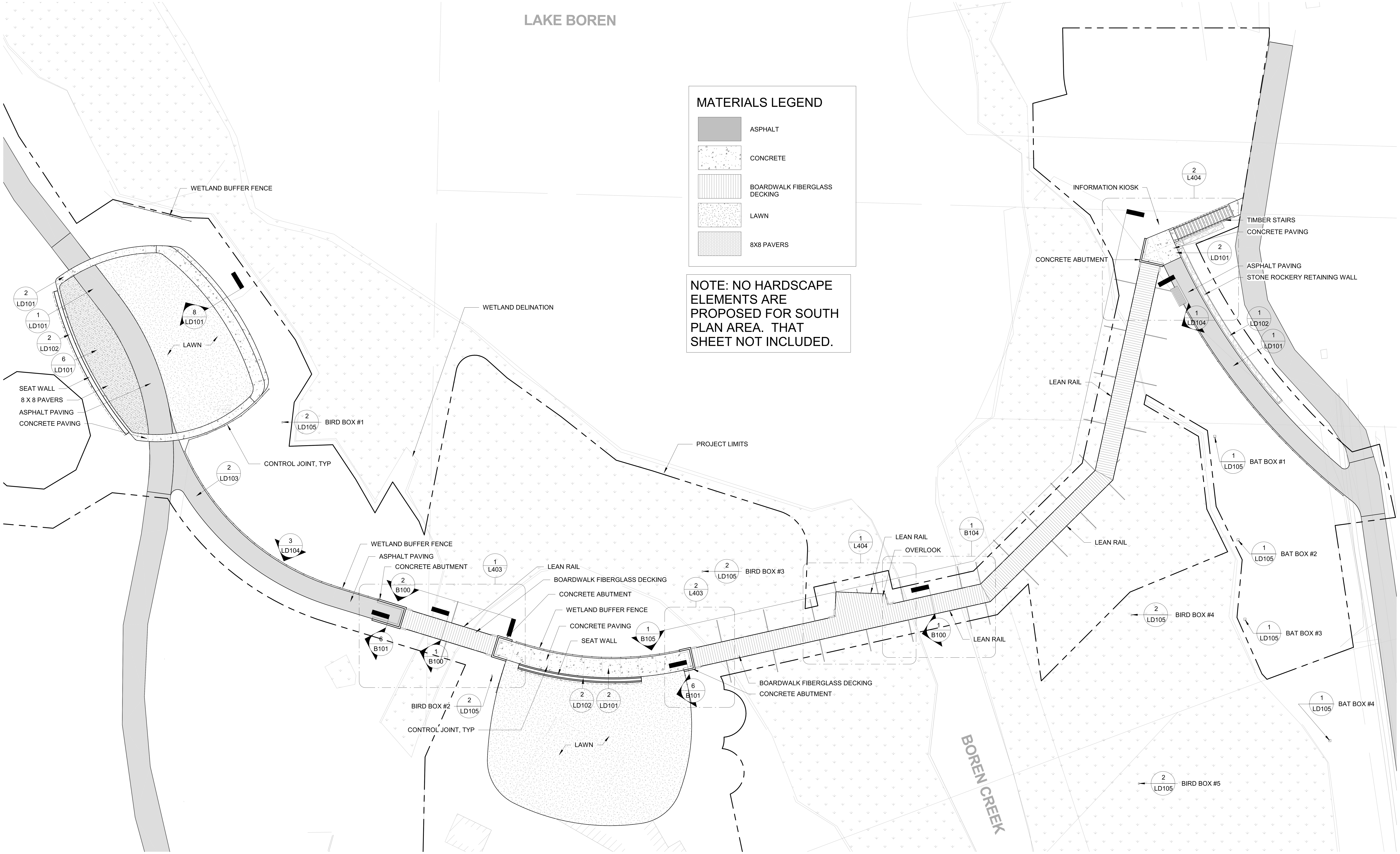

1 Materials Plan - North
1" = 20'-0"

NORTH
0' 20' 40'
SCALE: 1"= 20'-0"

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City of Newcastle
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NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
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SHEET NAME:
MATERIALS PLAN

SHEET NUMBER:
L401

Berger Partnership Project Number: 20154880.01
Plotted: 3/10/2023 1:39:04 PM
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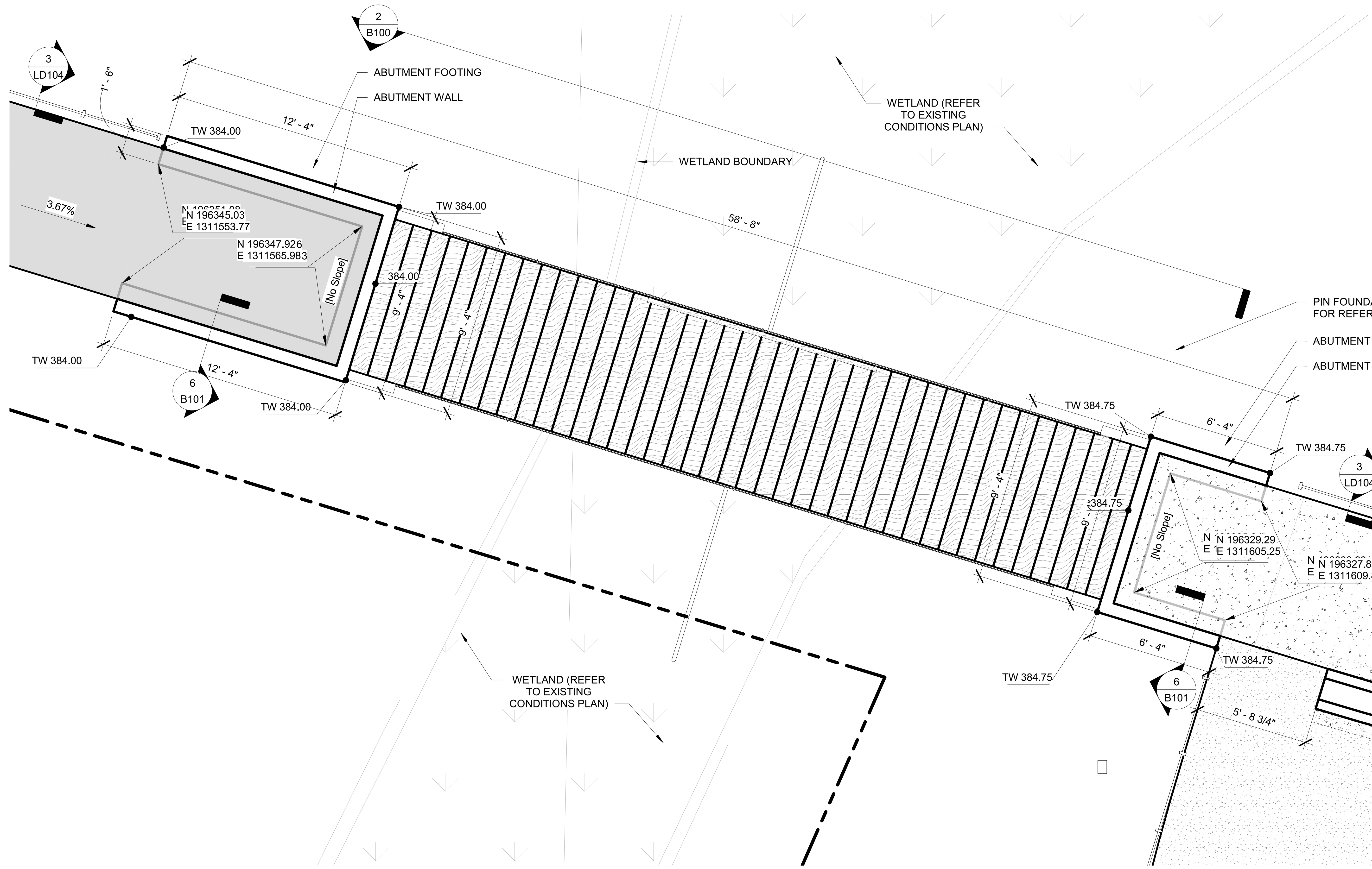
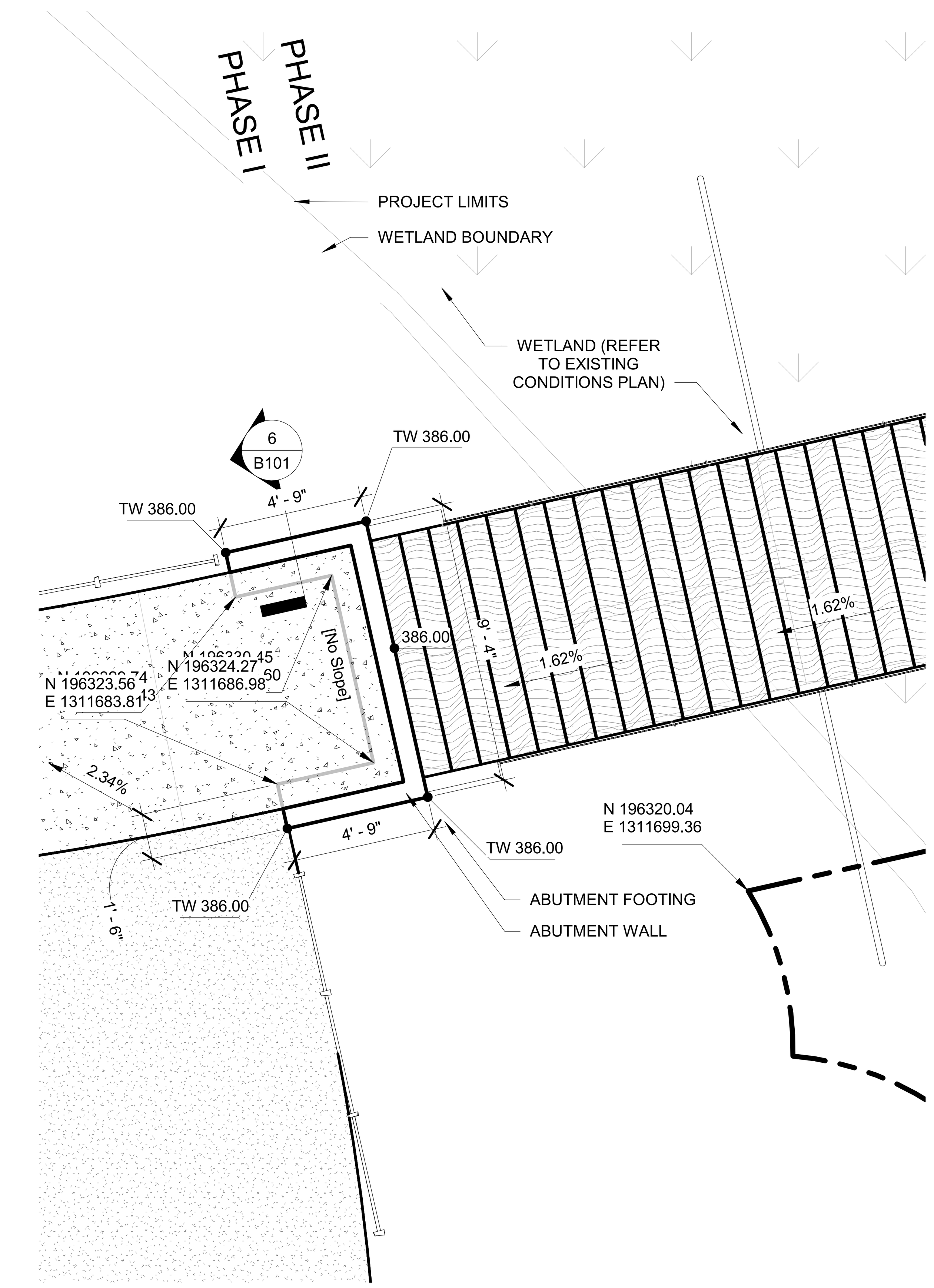


1 WEST BOARDWALK ENLARGEMENT
1/4" = 1'-0"



2 MAIN BOARDWALK - WEST ABUTMENT ENLARGEMENT
1/4" = 1'-0"

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STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

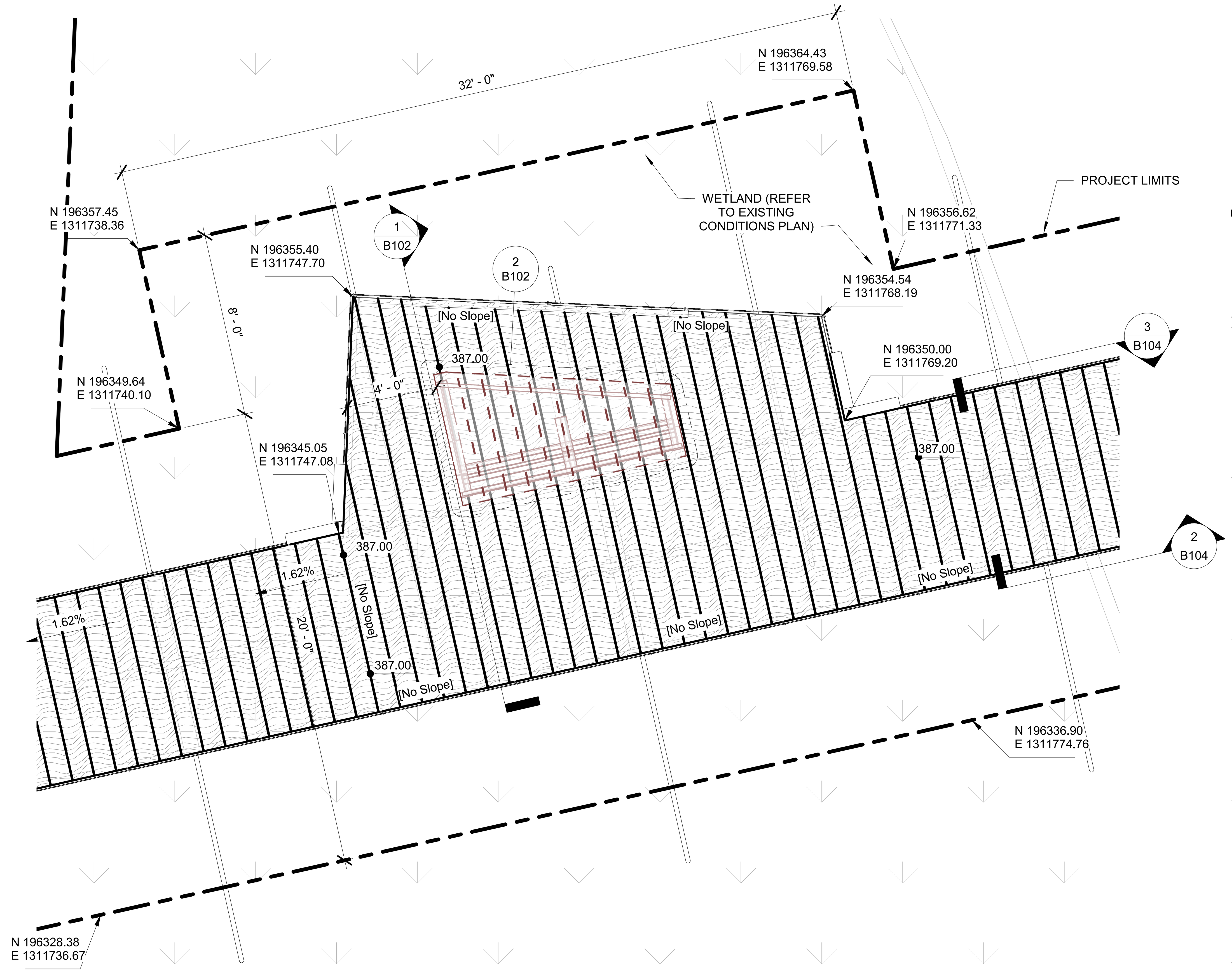
Δ	DESCRIPTION	DATE
1	PERMIT RESPONSE 2	06.21.2022

DRAWN/CHECKED:
MM / GB

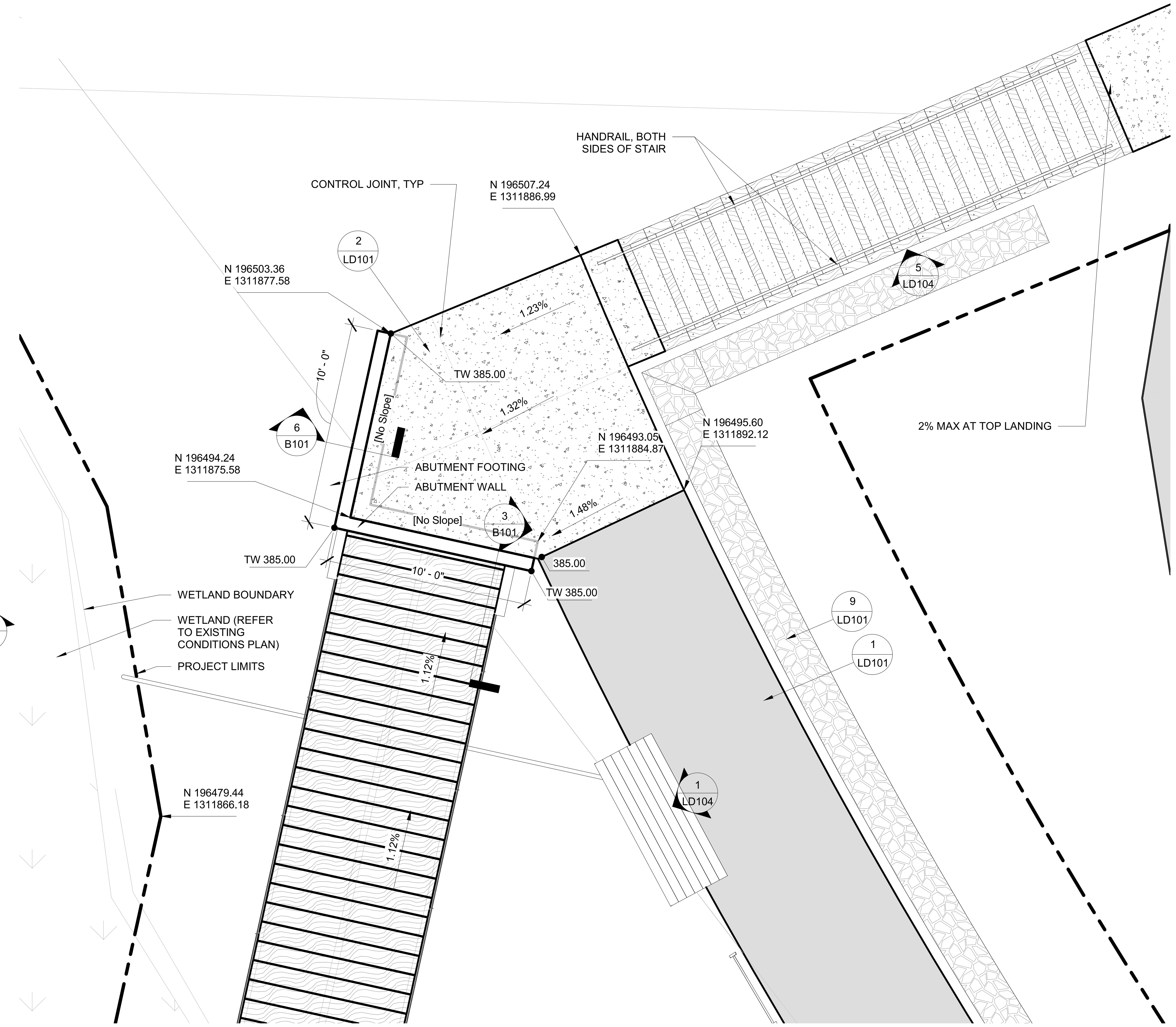
SHEET NAME:
ENLARGED PLANS

SHEET NUMBER:
L403

Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt
Plotted: 3/10/2023 1:39:08 PM
Berger Partnership Project Number: 20154880.01



1 MAIN BOARDWALK - VIEWING PLATFORM ENLARGEMENT
1/4" = 1'-0"



2 MAIN BOARDWALK - EAST ABUTMENT ENLARGEMENT
1/4" = 1'-0"

Berger Partnership Project Number: 20154880.01

Plotted: 3/10/2023 1:39:17 PM

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City of Newcastle
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03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE
1	PERMIT RESPONSE 1	05.02.2022
2	PERMIT RESPONSE 2	06.21.2022

DRAWN/CHECKED:
MM / GB

SHEET NAME:
ENLARGED PLANS

SHEET NUMBER:
L404

1 Irrigation Plan - North
1" = 20'-0"

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City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
JASON M. ANDERSON
LANDSCAPE ARCHITECT
NO 0936 EXP. 08/24/2024

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

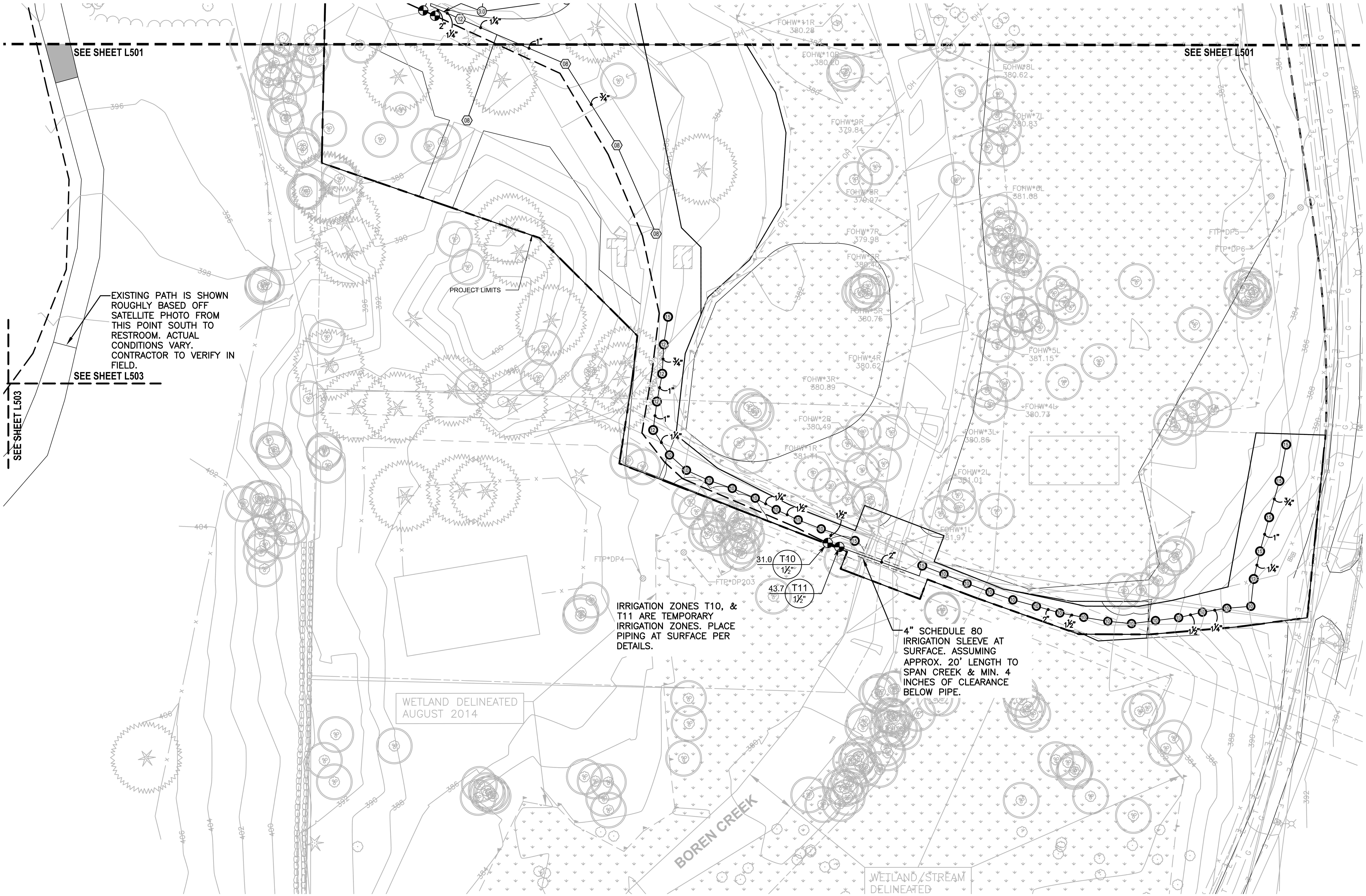
REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
JA

SHEET NAME:
IRRIGATION PLAN (NORTH)

SHEET NUMBER:
L501



1 Irrigation Plan - South

1" = 20'-0"

NORTH

0' 20' 40'

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STATE OF WASHINGTON JASON M. ANDERSON LANDSCAPE ARCHITECT NO. 0936 EXP. 08/24/2024

SET TYPE:
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SET ISSUE DATE:
03/10/23

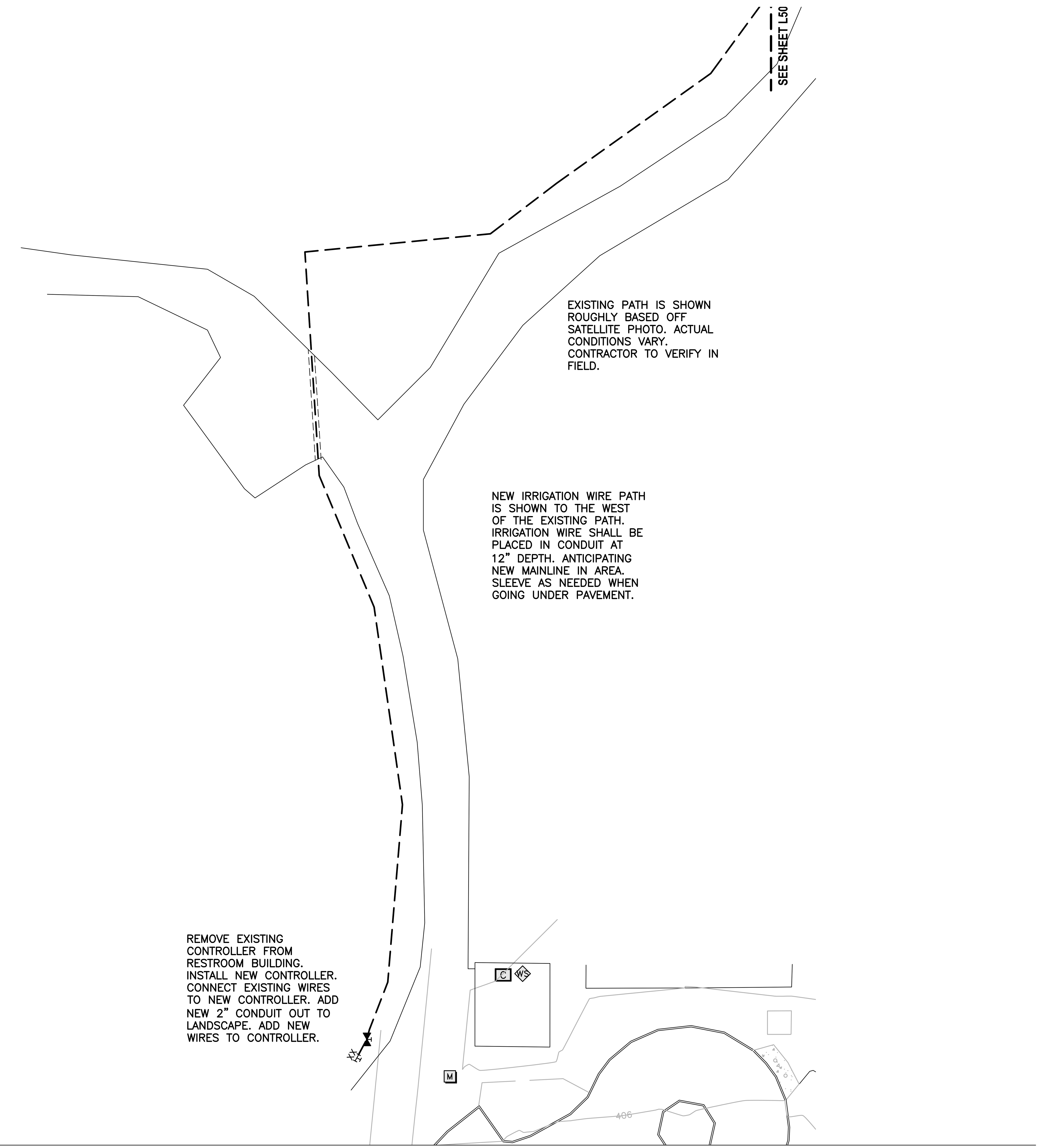
REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
JA

SHEET NAME:
IRRIGATION PLAN (SOUTH)

SHEET NUMBER:
L502



1 Irrigation Plan - West
1" = 20'-0"

NORTH
0' 20' 40'

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LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
JA

SHEET NAME:
IRRIGATION PLAN (WEST)

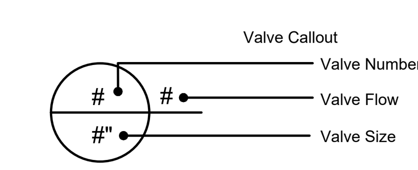
SHEET NUMBER:
L503

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
ES LCS RCS CS SS	HUNTER PROS-06-PRS30-CV 5' STRIP SPRAY SHRUB SPRAY, 30 PSI REGULATED 6.0" POP-UP. WITH FACTORY INSTALLED DRAIN CHECK VALVE. CO-MOLDED WIPER SEAL WITH UV RESISTANT MATERIAL.	30
8 Q T H F	HUNTER PROS-06-PRS30-CV 8' RADIUS SHRUB SPRAY, 30 PSI REGULATED 6.0" POP-UP. WITH FACTORY INSTALLED DRAIN CHECK VALVE. CO-MOLDED WIPER SEAL WITH UV RESISTANT MATERIAL.	30
10 Q T H F	HUNTER PROS-06-PRS30-CV 10' RADIUS SHRUB SPRAY, 30 PSI REGULATED 6.0" POP-UP. WITH FACTORY INSTALLED DRAIN CHECK VALVE. CO-MOLDED WIPER SEAL WITH UV RESISTANT MATERIAL.	30
12 Q T H TT TQ F	HUNTER PROS-06-PRS30-CV 12' RADIUS SHRUB SPRAY, 30 PSI REGULATED 6.0" POP-UP. WITH FACTORY INSTALLED DRAIN CHECK VALVE. CO-MOLDED WIPER SEAL WITH UV RESISTANT MATERIAL.	30
15 Q T H TT TQ F	HUNTER PROS-06-PRS30-CV 15' RADIUS SHRUB SPRAY, 30 PSI REGULATED 6.0" POP-UP. WITH FACTORY INSTALLED DRAIN CHECK VALVE. CO-MOLDED WIPER SEAL WITH UV RESISTANT MATERIAL.	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI	GPM	RADIUS
1.5	HUNTER I-20-04-SS TURF ROTOR, 4.0" POP-UP. ADJUSTABLE AND FULL CIRCLE. STAINLESS STEEL RISER. DRAIN CHECK VALVE. STANDARD NOZZLE.	45	1.50	31'
3.0	HUNTER I-20-04-SS TURF ROTOR, 4.0" POP-UP. ADJUSTABLE AND FULL CIRCLE. STAINLESS STEEL RISER. DRAIN CHECK VALVE. STANDARD NOZZLE.	45	3.00	38'
6.0	HUNTER I-20-04-SS TURF ROTOR, 4.0" POP-UP. ADJUSTABLE AND FULL CIRCLE. STAINLESS STEEL RISER. DRAIN CHECK VALVE. STANDARD NOZZLE.	45	6.00	43'
06	RAIN BIRD 2045-PJ-08 SHRUB IMPACT, ADJUSTABLE AND FULL CIRCLE ARC, 1/2" MALE THREADED INLET, PRECIPITATION RATE (MPR) NOZZLES. PRECISION JET TUBE MINIMIZES SIDE SPLASH.	45	2.30	38'
07	RAIN BIRD 2045-PJ-08 SHRUB IMPACT, ADJUSTABLE AND FULL CIRCLE ARC, 1/2" MALE THREADED INLET, PRECIPITATION RATE (MPR) NOZZLES. PRECISION JET TUBE MINIMIZES SIDE SPLASH.	45	3.00	39'
08	RAIN BIRD 2045-PJ-08 SHRUB IMPACT, ADJUSTABLE AND FULL CIRCLE ARC, 1/2" MALE THREADED INLET, PRECIPITATION RATE (MPR) NOZZLES. PRECISION JET TUBE MINIMIZES SIDE SPLASH.	45	3.70	40'
10	RAIN BIRD 2045-PJ-08 SHRUB IMPACT, ADJUSTABLE AND FULL CIRCLE ARC, 1/2" MALE THREADED INLET, PRECIPITATION RATE (MPR) NOZZLES. PRECISION JET TUBE MINIMIZES SIDE SPLASH.	45	5.40	42'
12	RAIN BIRD 2045-PJ-08 SHRUB IMPACT, ADJUSTABLE AND FULL CIRCLE ARC, 1/2" MALE THREADED INLET, PRECIPITATION RATE (MPR) NOZZLES. PRECISION JET TUBE MINIMIZES SIDE SPLASH.	45	7.10	44'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	HUNTER ICV-G-FS 1", 1-1/2", 2", AND 3" PLASTIC ELECTRIC REMOTE CONTROL VALVES, GLOBE CONFIGURATION, WITH NPT THREADED INLET/OUTLET, FOR COMMERCIAL/MUNICIPAL USE. WITH FILTER SENTRY.
	MATCO-NORCA 759 BRASS SHUT OFF BALL VALVE, 1/2" TO 4". TWO PIECE BODY, BLOW-OUT PROOF STEM, CHROME PLATED SOLID BRASS BALL, THREADED, WITH PTFE SEATS. SAME SIZE AS MAINLINE PIPE.
C	WEATHERMATIC SL4800 WITH (3) SLM12 SMARTLINE 36-ZONE CONTROLLER, INTERNAL 120VAC/230VAC TRANSFORMER, LARGE BACKLIT LCD DISPLAY
WS	WEATHERMATIC 420LS WIRED RAIN/FREEZE SENSOR - 35' OF CABLE. EXTRA-LONG 7" ALUMINUM BRACKET. FACTORY-SET FREEZE THERMOSTAT
M	WATER METER 2" EXISTING WATER METER LOCATED AT RESTROOM BUILDING. CURRENT WATER PRESSURE UNKNOWN.
XX	POINT OF CONNECTION 2"
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40
	IRRIGATION MAINLINE: PVC SCHEDULE 40
	IRRIGATION MAINLINE: PVC SCHEDULE 80 UNDER BOARDWALK
	PIPE SLEEVE: PVC SCHEDULE 40



IRRIGATION NOTES

1. PROVIDE AND INSTALL ALL IRRIGATION IN CONFORMANCE WITH THE CITY OF NEWCASTLE STANDARDS. IN THE EVENT OF CONFLICT BETWEEN NOTES OR DETAILS AND THESE DOCUMENTS, THE STANDARDS SHALL TAKE PRECEDENCE.
2. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES AND APPROPRIATE SAFETY REGULATIONS.
3. DRAWING IS SCHEMATIC, ACTUAL LOCATIONS MAY VARY DUE TO UTILITIES OR EXISTING CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR LOCATING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
4. EXISTING STATIC P.S.I AT IRRIGATION POINT OF CONNECTION IS ANTICIPATED TO BE 72 P.S.I. PRIOR TO INSTALLATION OF IRRIGATION SYSTEM, CONTRACTOR SHALL FIELD VERIFY EXISTING P.S.I. NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN THE DESIGN P.S.I. PRIOR TO PROCEEDING W/ WORK.
5. LOCATE QUICK COUPLING VALVE & AUTOMATIC CONTROL VALVES AT POINT OF EASY ACCESS. OWNER'S REPRESENTATIVE TO REVIEW & APPROVE FINAL LOCATION OF ALL QUICK COUPLERS & AUTOMATIC CONTROL VALVES PRIOR TO INSTALLATION.
6. HEAD LOCATION MUST BE ADJUSTED IN THE FIELD TO COMPLY W/ EXISTING SITE CONDITIONS AND PLANT MATERIALS. ADJUST SPRAY PATTERN FOR MAXIMUM COVERAGE AND MINIMUM OVERSPRAY.
7. CONTRACTOR SHALL COORDINATE IRRIGATION SLEEVING W/ PAVING WORK AS REQUIRED.
8. ALL IRRIGATION SLEEVES SHALL BE TWICE THE DIAMETER OF THE INSERT PIPE(S). SLEEVES SHALL NOT EXCEED 6" DIAMETER.
9. IRRIGATION CONTRACTOR TO PROVIDE AND INSTALL ALL REQUIRED PLUMBING SLEEVES WHERE NECESSARY. ALL IRRIGATION SLEEVING TO BE STAKED IN THE FIELD & LOCATED ON DIMENSIONED "AS-BUILT" DRAWING TO ALLOW FUTURE LOCATION & USE.
10. AIR BLOW IRRIGATION SYSTEM THROUGH QUICK COUPLERS TO WINTERIZE IRRIGATION SYSTEM.
11. PIPES TO SHARE TRENCHES WHERE POSSIBLE. SEPARATE COMMON PIPING BY 6" MIN.
12. WHERE PIPE SIZES ARE NOT SHOWN ON THE PLAN, PIPE SHALL BE SIZED TO THE NEXT LARGEST PIPE SIZE SHOWN UPSTREAM ON THE PLAN.
13. GENERAL CONTRACTOR TO PROVIDE AND INSTALL ALL CONDUIT TO CONTROLLER LOCATIONS & POINTS OF CONNECTION.
14. GENERAL CONTRACTOR TO PROVIDE POWER SOURCE FOR IRRIGATION CONTROLLER. (VERIFY LOCATION W/ OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK)
15. TEMPORARY IRRIGATION AREAS SHALL HAVE IRRIGATION HEADS AT BACK OF PATH INSTALLED PER POP UP SPRAY HEAD DETAIL. IRRIGATION HEADS IN TEMPORARY AREA NOT AT BACK OF PATH SHALL BE INSTALLED PER IRRIGATION HEAD ON GRADE DETAIL.
16. IRRIGATION MAINLINE SHALL BE PLACED UNDER BOARDWALK & HUNG WITH STRUTS. SEE NOTES IN PLAN.

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle

13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
JASON M. ANDERSON
NO. 0936 EXP. 08/24/2024
LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

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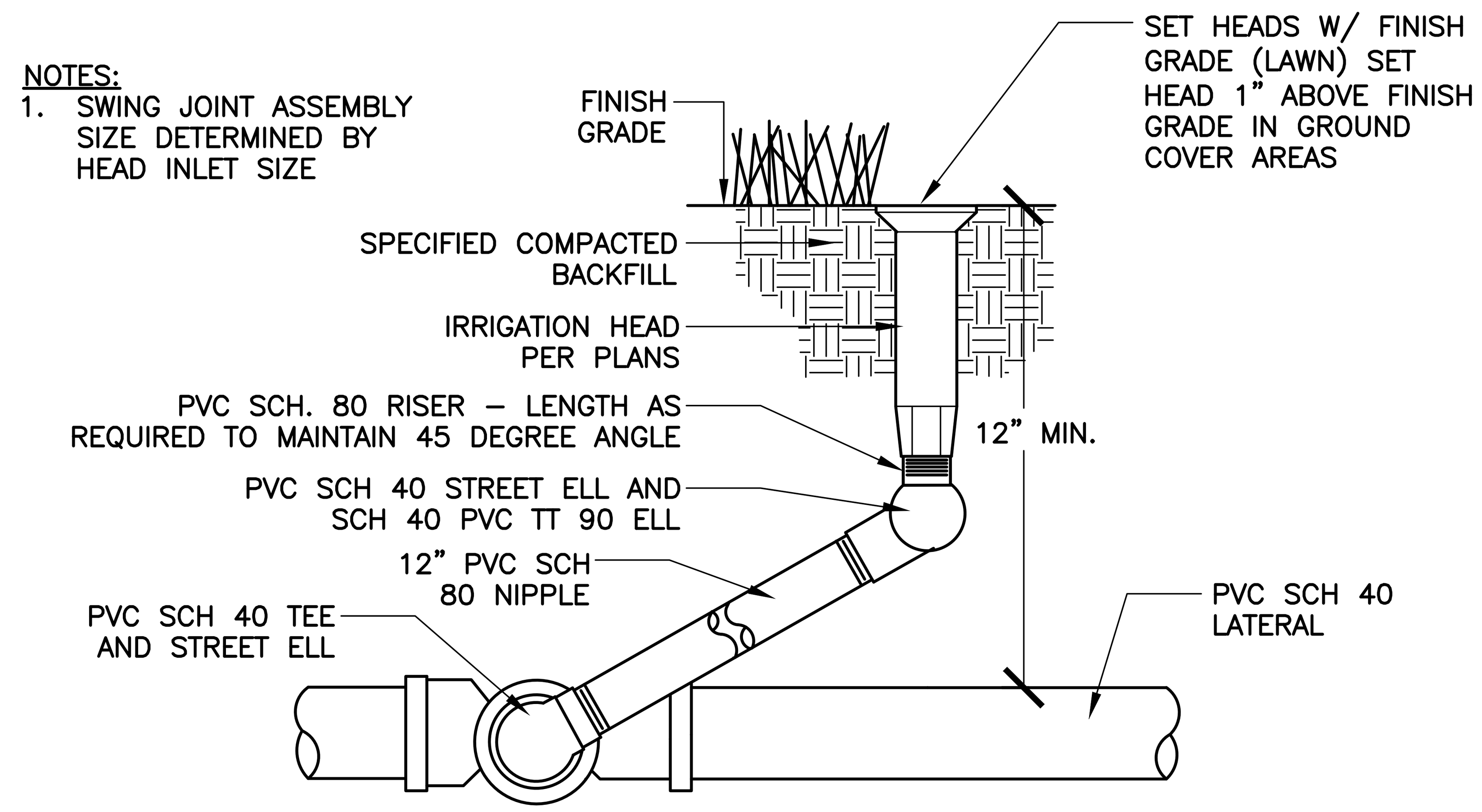
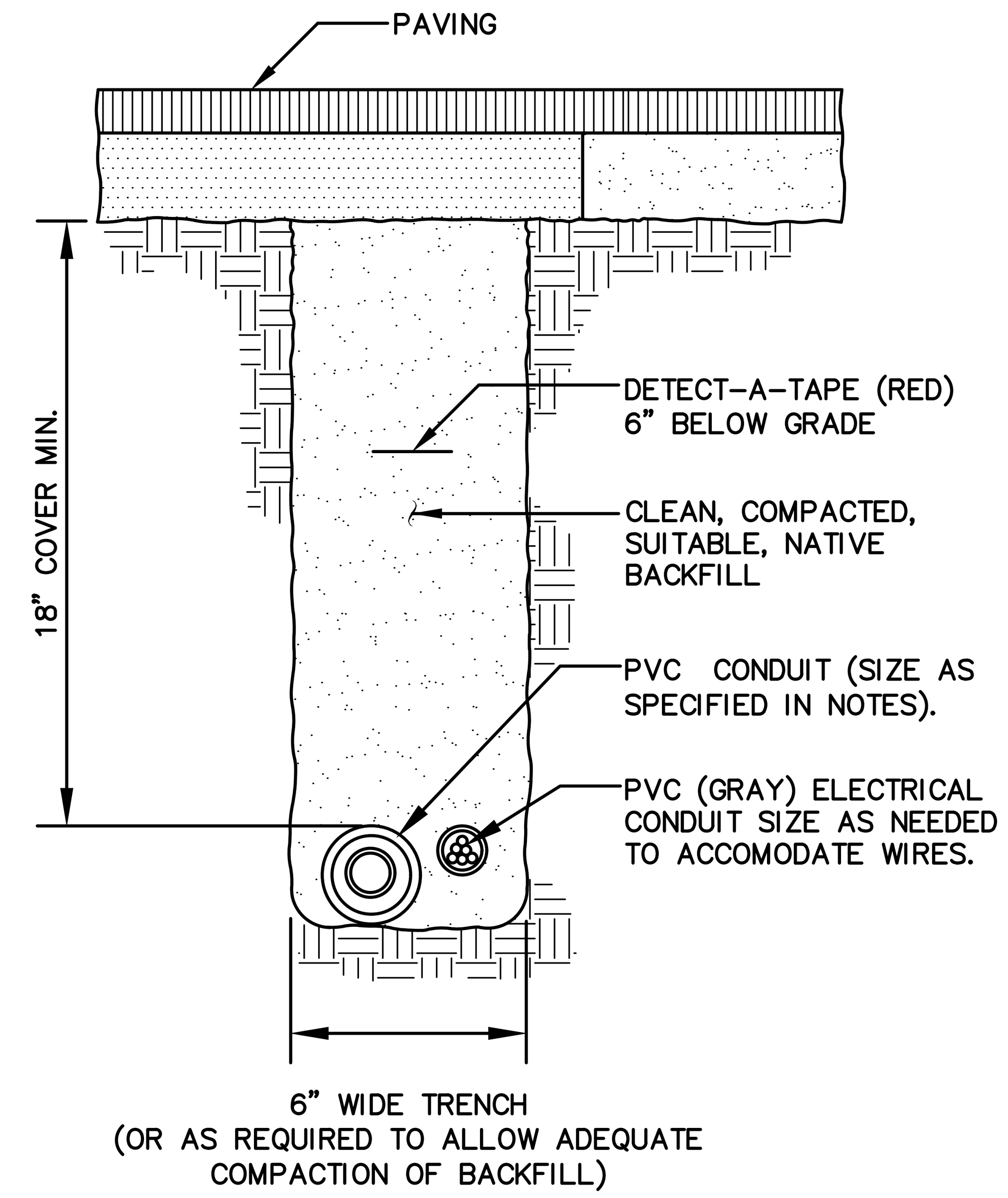
JA

SHEET NAME:
IRRIGATION SCHEDULE

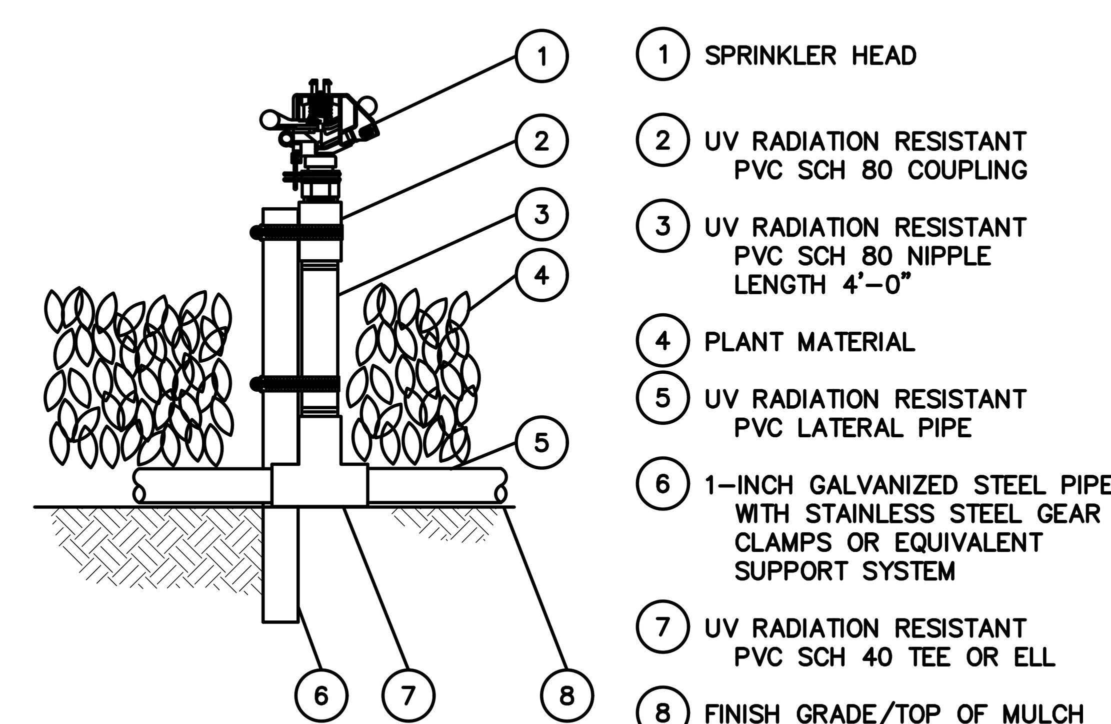
SHEET NUMBER:
L504



1 POP UP SPRAY HEAD



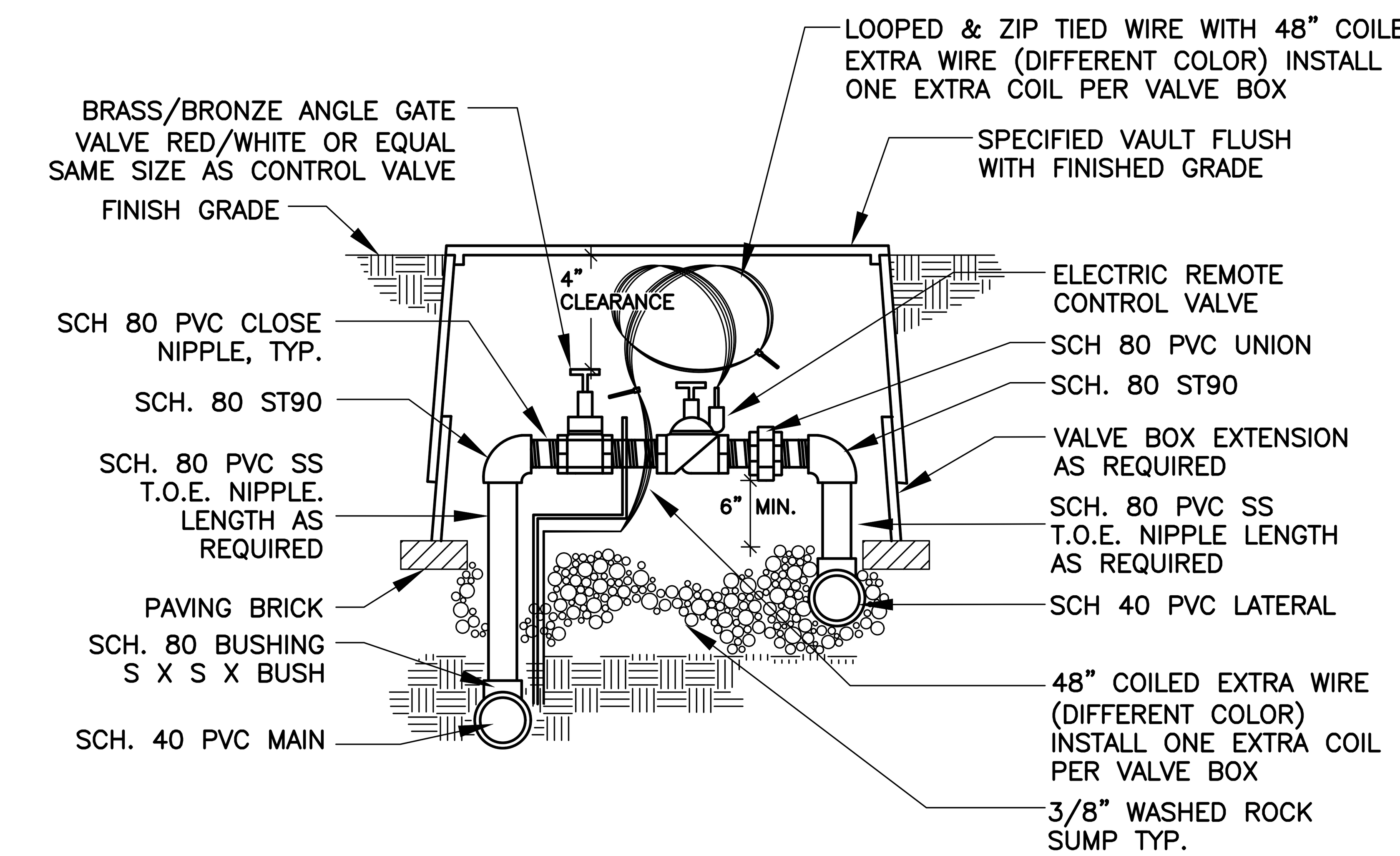
2 TRENCH UNDER PAVEMENT



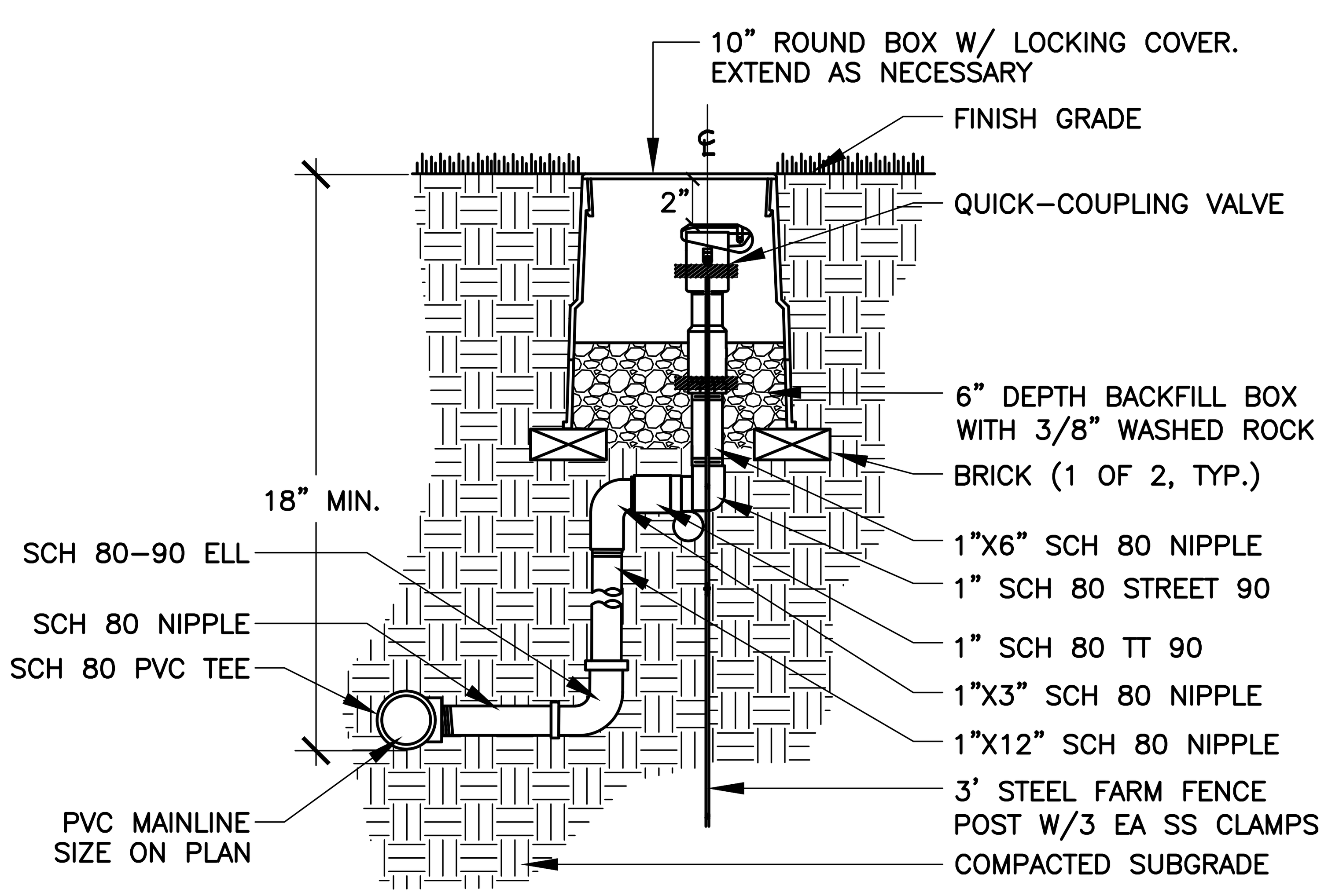
NOTES:

1. USE #4 X 24" REBAR ROD WITH "J" HOOKED RADIUS AT ONE END TO HOLD PIPE SECURELY IN PLACE. INSTALL AT INTERVALS OF 10 FEET.

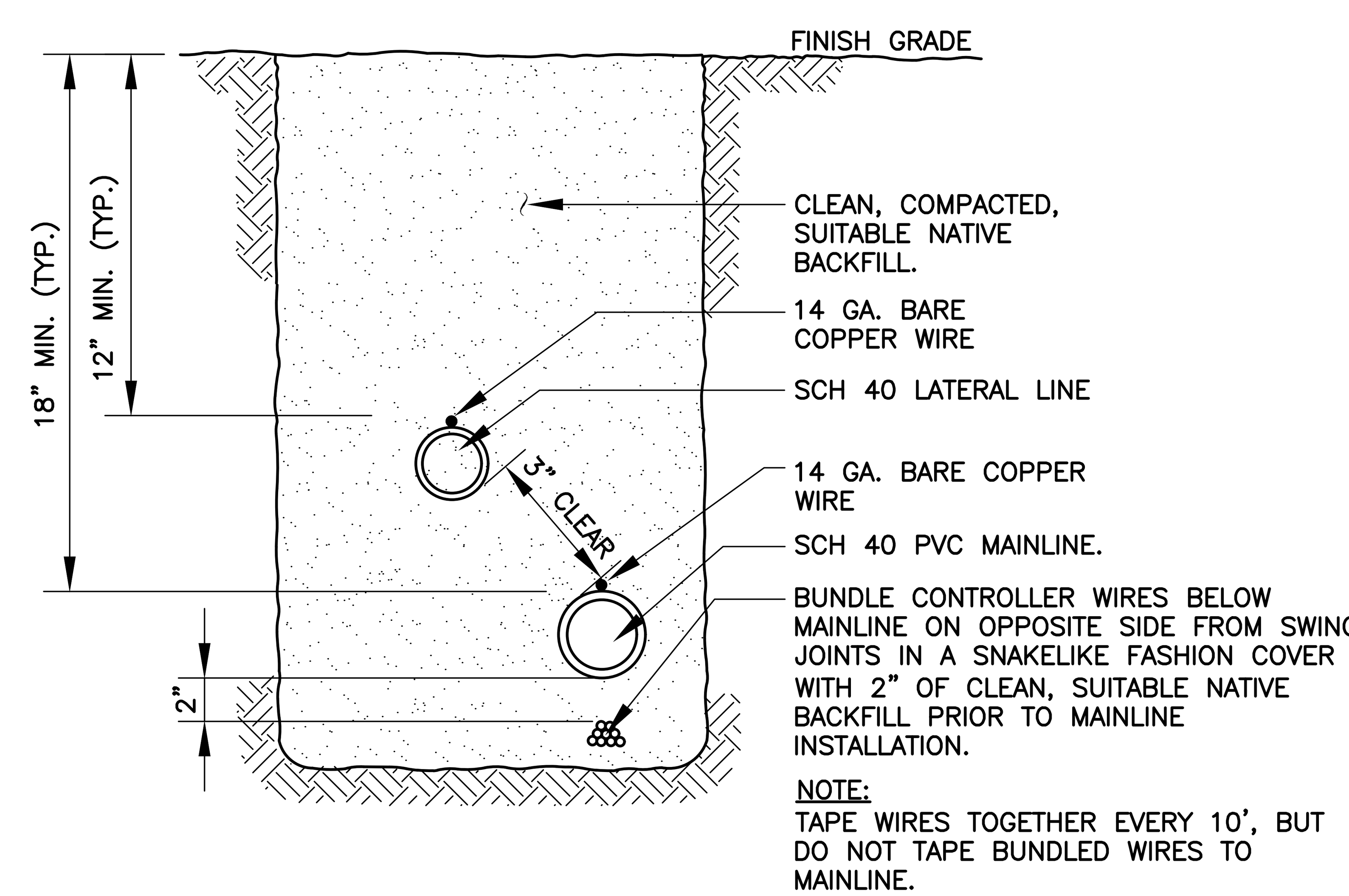
3 IRRIGATION HEAD ON GRADE



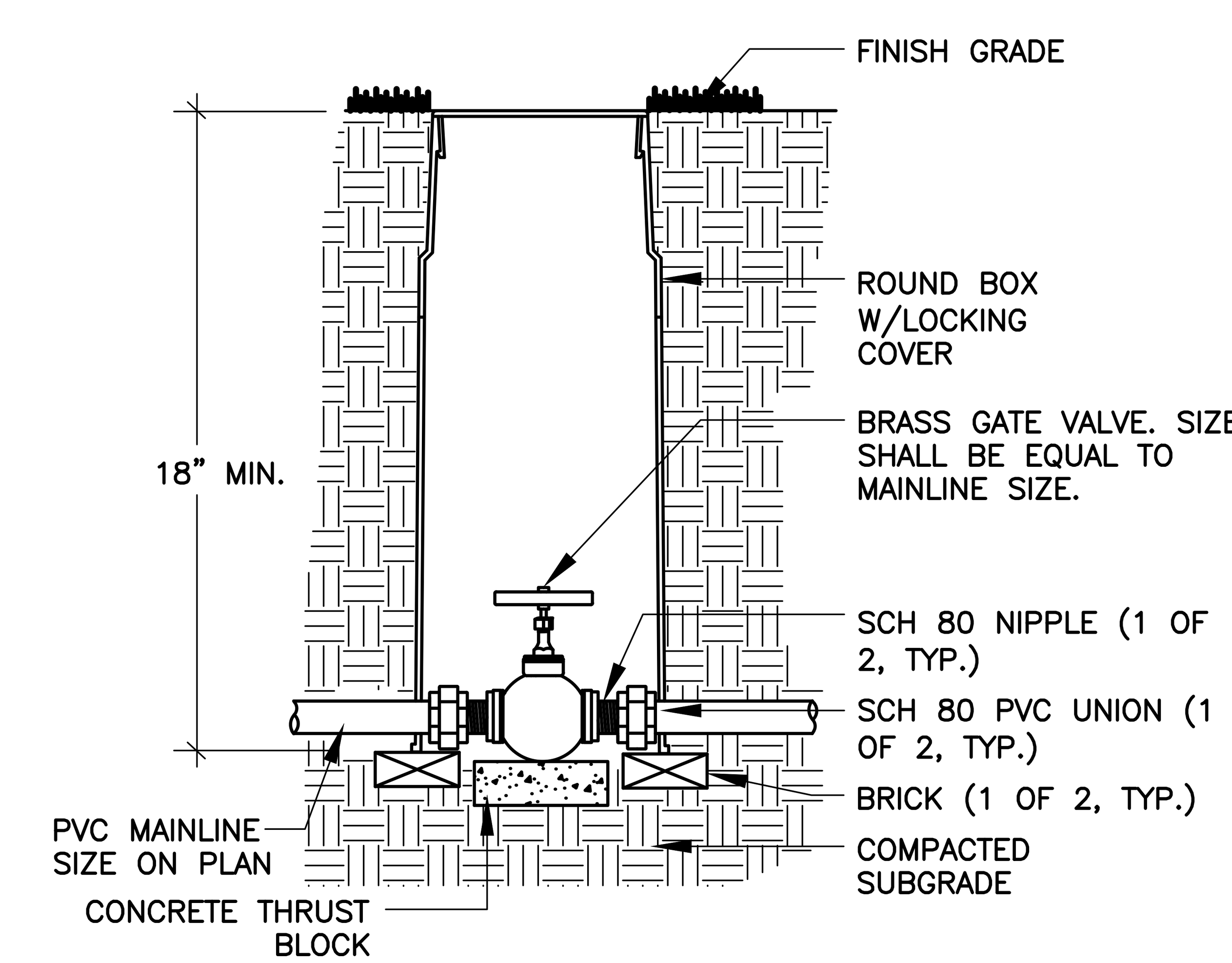
4 AUTOMATIC VALVE ASSEMBLY



5 QUICK COUPLER VALVE ASSEMBLY



6 IRRIGATION TRENCH



7 GATE VALVE ASSEMBLY

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STATE OF WASHINGTON JASON M. ANDERSON LANDSCAPE ARCHITECT 0936 EXP. 08/24/2024

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REVISIONS:

Δ	DESCRIPTION	DATE

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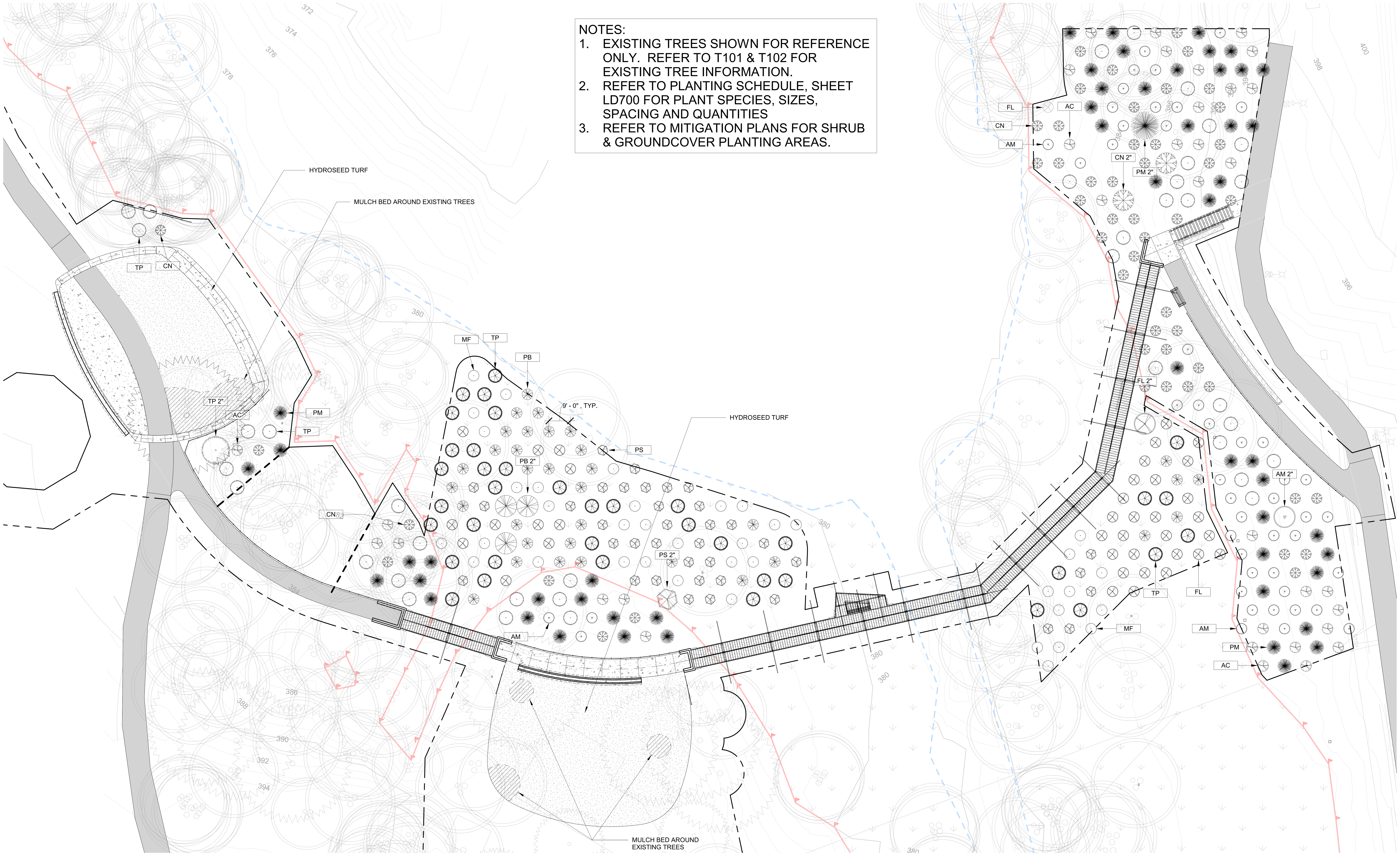
JA

SHEET NAME:
IRRIGATION DETAILS

SHEET NUMBER:
L505

NOTES:

1. EXISTING TREES SHOWN FOR REFERENCE ONLY. REFER TO T101 & T102 FOR EXISTING TREE INFORMATION.
2. REFER TO PLANTING SCHEDULE, SHEET LD700 FOR PLANT SPECIES, SIZES, SPACING AND QUANTITIES
3. REFER TO MITIGATION PLANS FOR SHRUB & GROUNDCOVER PLANTING AREAS.



1 Planting Plan - North
1" = 20'-0"

Berger Partnership Project Number: 20154880.01
Plotted: 3/10/2023 1:39:32 PM
Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt

THE CITY OF NEWCASTLE Washington 1869 1994

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206 325 6877 bergerpartnership.com

CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

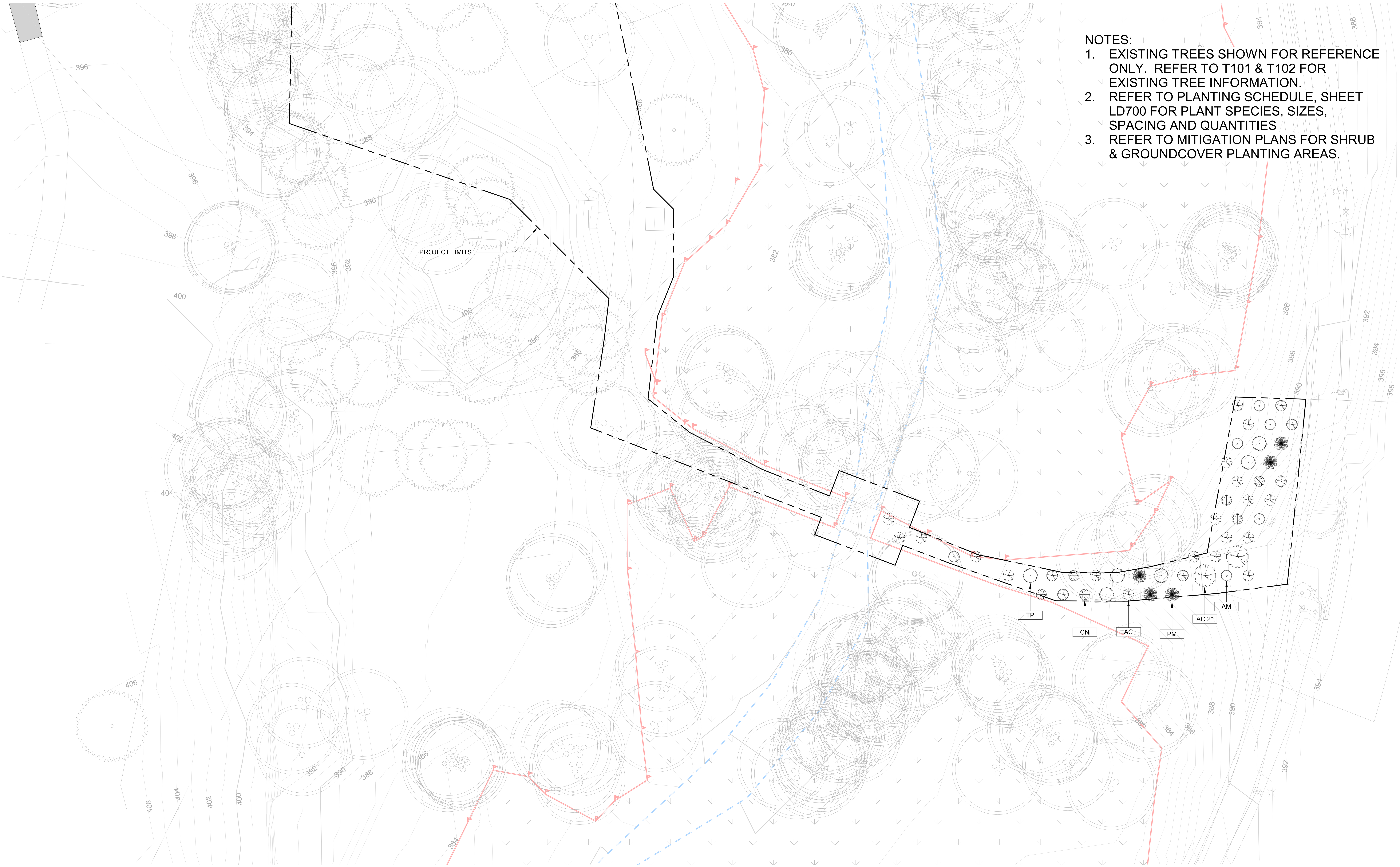
REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM / GB

SHEET NAME:
PLANTING PLAN

SHEET NUMBER:
L601



NOTES:
1. EXISTING TREES SHOWN FOR REFERENCE ONLY. REFER TO T101 & T102 FOR EXISTING TREE INFORMATION.
2. REFER TO PLANTING SCHEDULE, SHEET LD700 FOR PLANT SPECIES, SIZES, SPACING AND QUANTITIES
3. REFER TO MITIGATION PLANS FOR SHRUB & GROUNDCOVER PLANTING AREAS.

1 Planting Plan - South (PH II)
1" = 20'-0"

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
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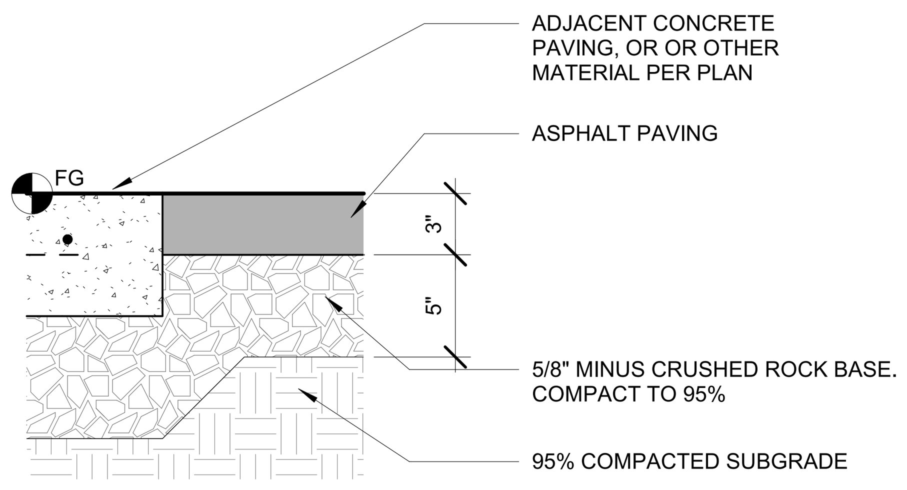
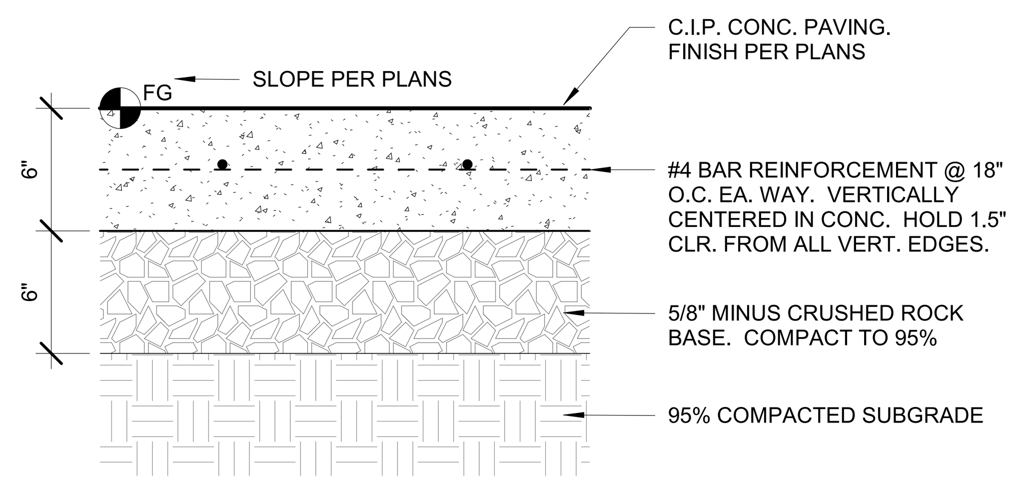
SHEET NAME:
PLANTING PLAN

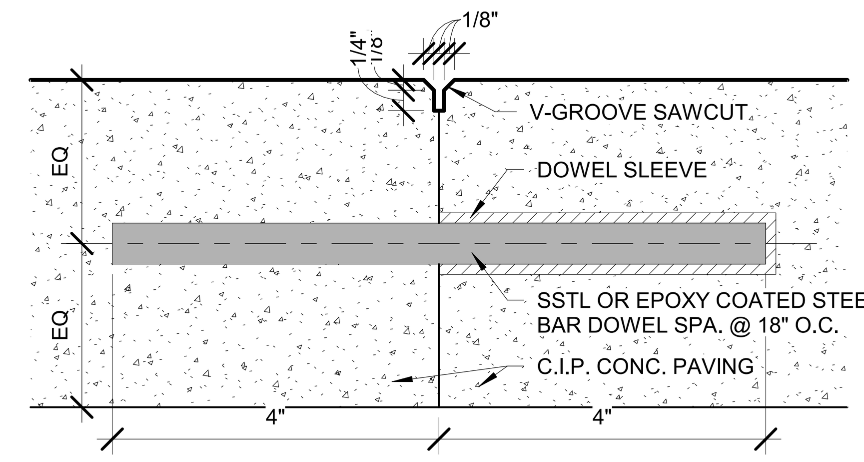
SHEET NUMBER:
L602

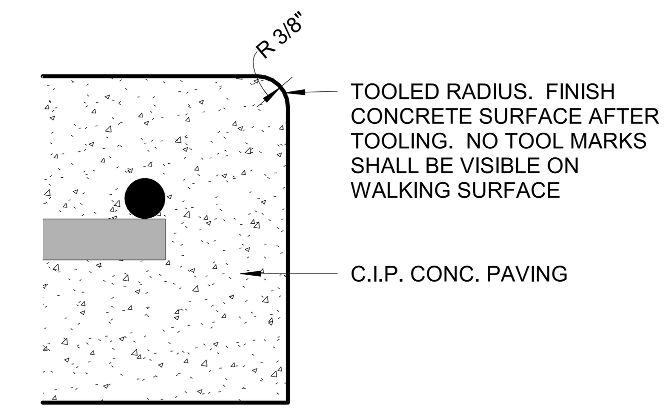
Berger Partnership Project Number: 20154880.01 Plotted: 3/10/2023 1:39:33 PM Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt

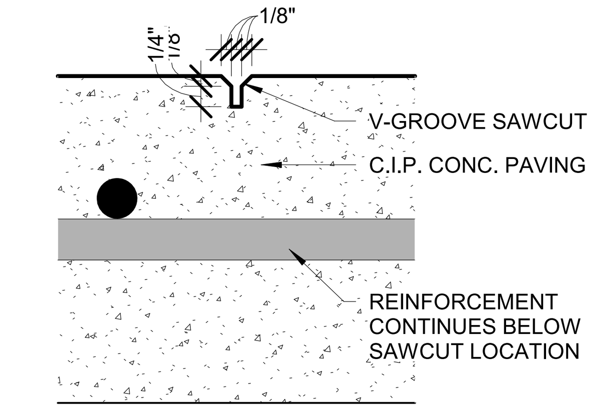
NOTES:
1. MAXIMUM SLOPE IN DIRECTION OF TRAVEL SHALL BE LESS THAN OR EQ. TO 4.9% UNLESS NOTED OTHERWISE.
2. MIN. CROSS SLOPE (PERPENDICULAR TO DIRECTION OF TRAVEL) SHALL BE 1%; MAX. CROSS SLOPE SHALL BE LESS THAN OR EQUAL TO 2%.
3. MEET ALL ADJACENT PAVING SURFACES IN FLUSH CONDITION UNLESS NOTED OTHERWISE.











1 ASPHALT PAVING
1 1/2" = 1'-0"

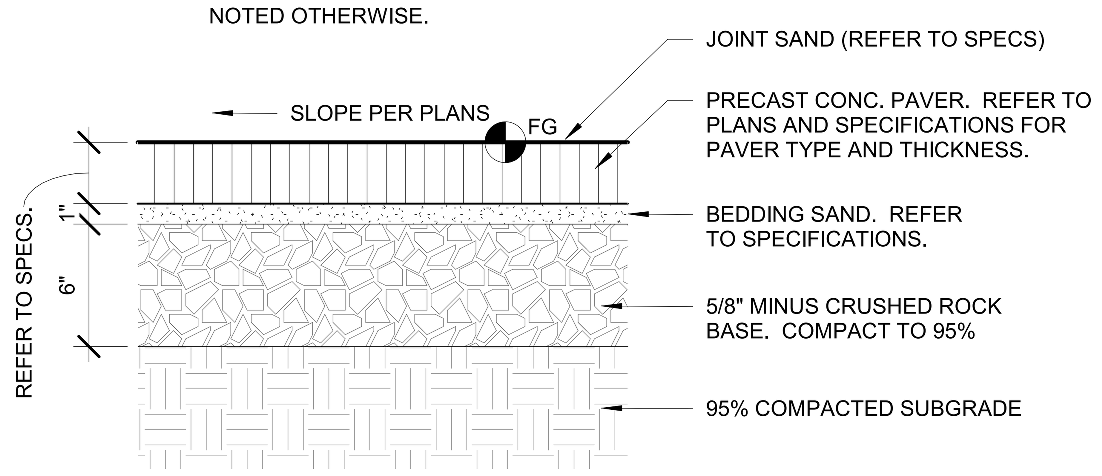
2 CONCRETE PAVING
1 1/2" = 1'-0"

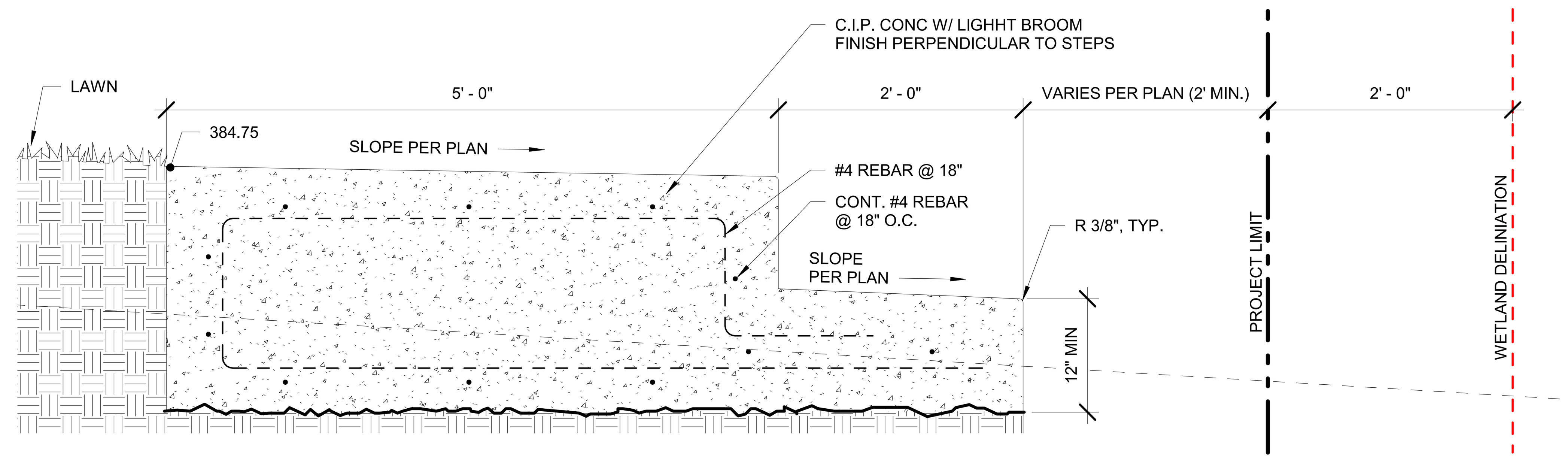
3 CONCRETE PAVING CONSTRUCTION JOINT
6" = 1'-0"

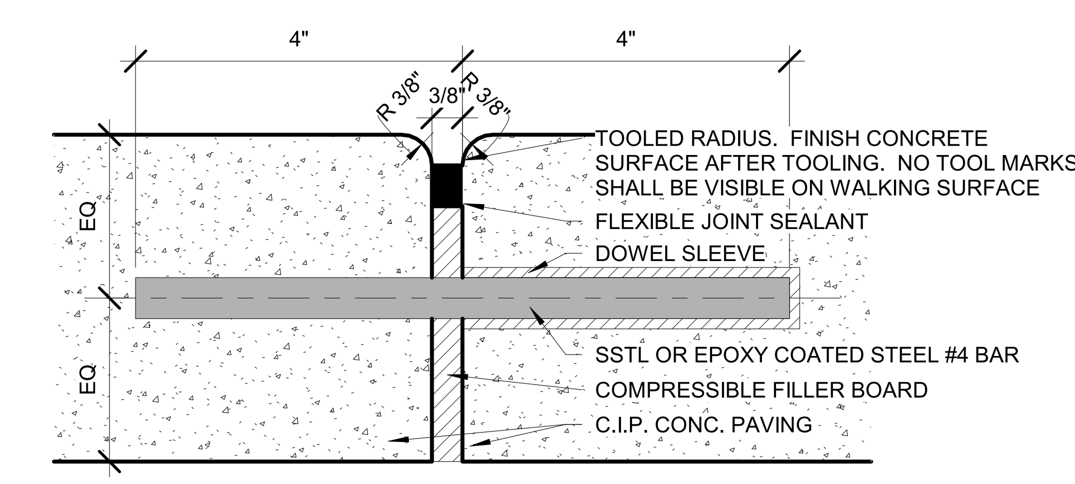
4 CONCRETE PAVING EDGE
6" = 1'-0"

5 CONCRETE PAVING PATTERN LINE
6" = 1'-0"

NOTES:
1. MAXIMUM SLOPE IN DIRECTION OF TRAVEL SHALL BE LESS THAN OR EQ. TO 4.9% UNLESS NOTED OTHERWISE.
2. MIN. CROSS SLOPE (PERPENDICULAR TO DIRECTION OF TRAVEL) SHALL BE 1%; MAX. CROSS SLOPE SHALL BE LESS THAN OR EQUAL TO 2%.
3. MEET ALL ADJACENT PAVING SURFACES IN FLUSH CONDITION UNLESS NOTED OTHERWISE.



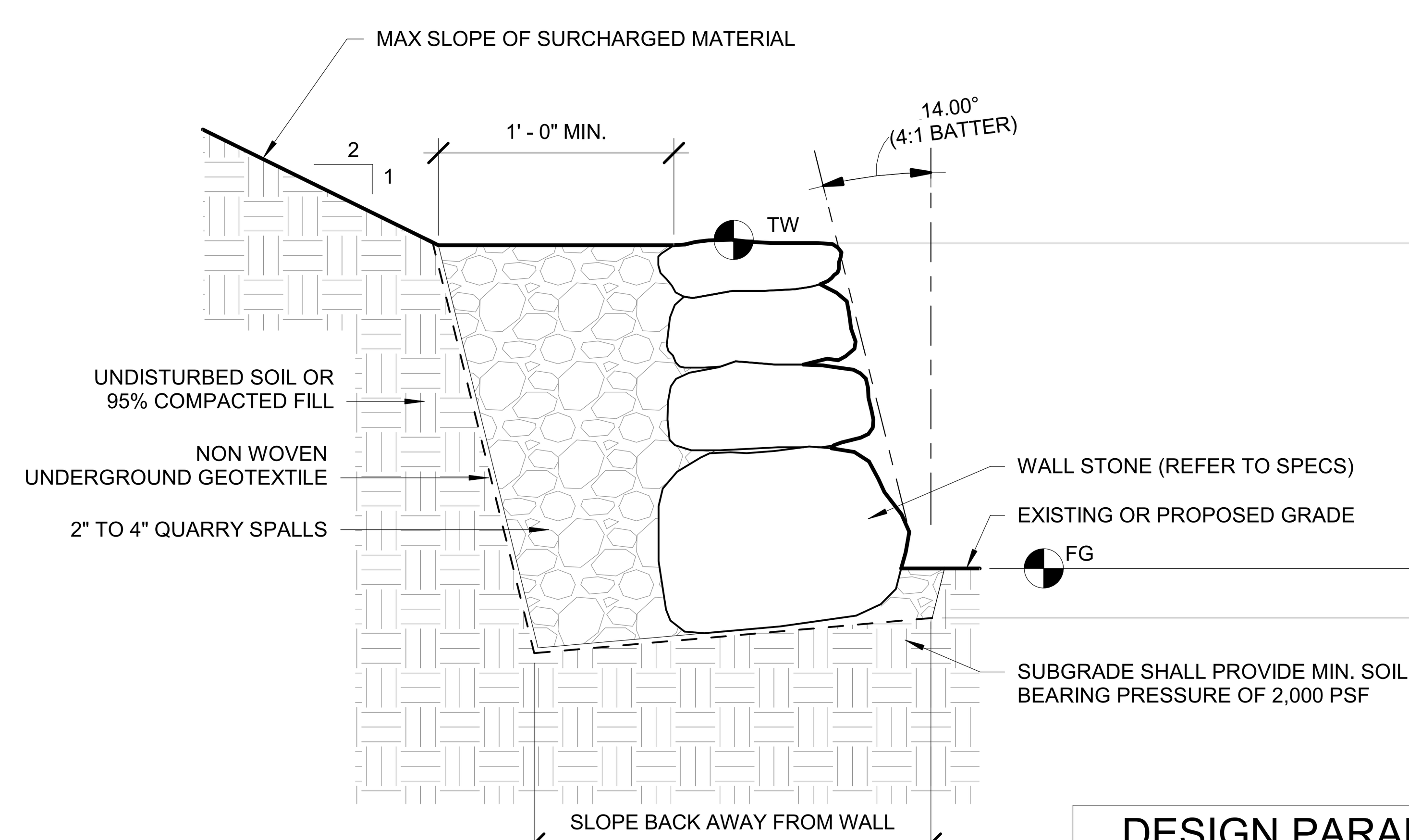




6 PRECAST CONCRETE PAVERS
1 1/2" = 1'-0"

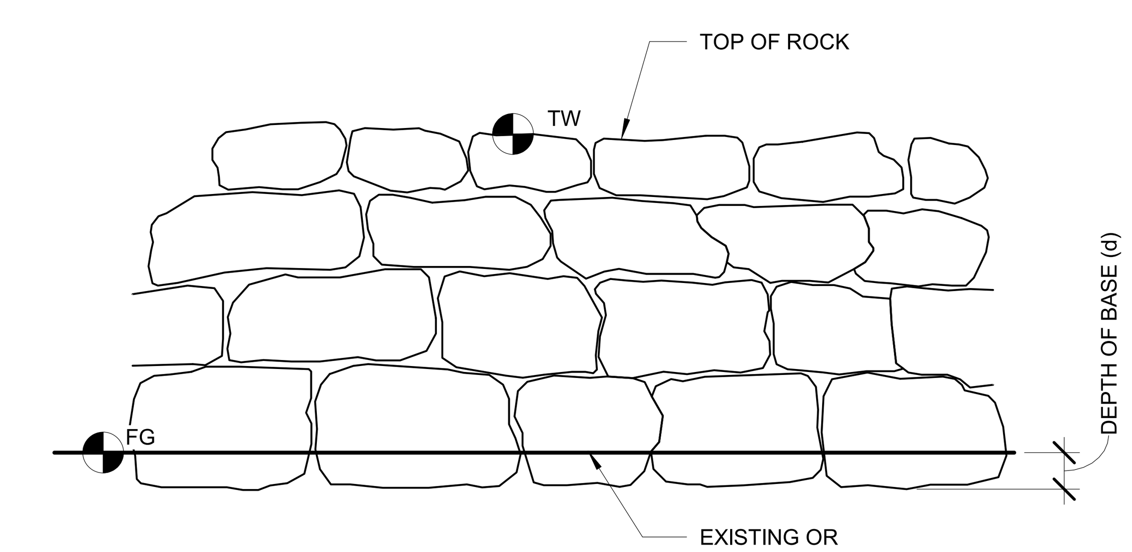
8 BEACH END DETAIL
1" = 1'-0"

7 CONCRETE PAVING EXPANSION JOINT
6" = 1'-0"



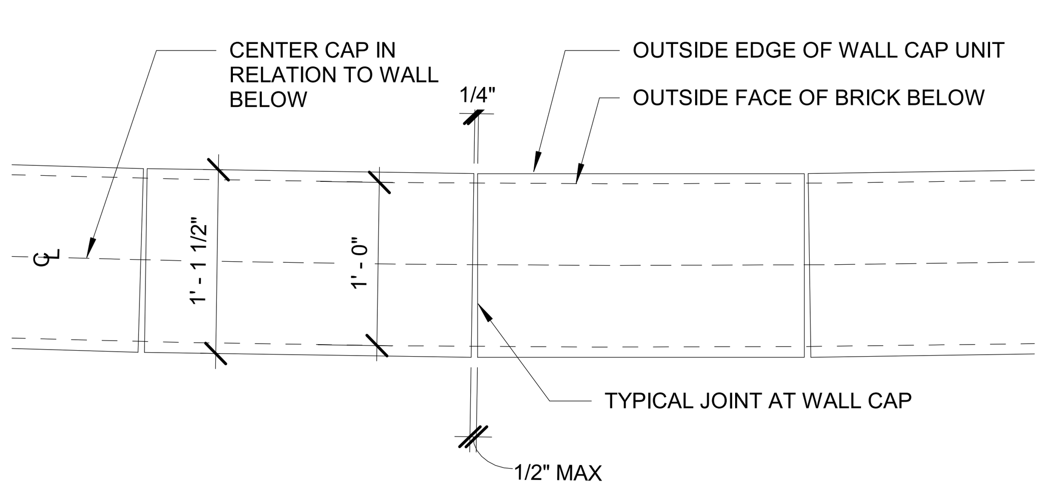
SECTION 'h' <2'-6"

DESIGN PARAMETERS			
(h)	(d)	SIZE(BASE)	SIZE(TOP)
2 FEET	18 INCHES	2-MAN	1-MAN
24 - 30 IN	18 INCHES	3-MAN	2-MAN



ELEVATION

ROCK SIZES			
SIZE	APPROX. WEIGHT	MIN. APPROX.	APPROX.VOLUME
1-MAN	200-400 LBS.	12 INCHES	2 CF
2-MAN	500-800 LBS.	13 INCHES	4 CF
3-MAN	900-1200 LBS.	16 INCHES	6.6 CF
4-MAN	1300-2000 LBS.	18 INCHES	12.5 CF
5-MAN	2000-4000 LBS.	24 INCHES	18.5 CF
6-MAN	4100-6000 LBS.	30 INCHES	31 CF



10 WALL CAP LAYOUT
1" = 1'-0"

9 ROCKERY RETAINING WALL
1 1/2" = 1'-0"

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3/10/2023 1:39:34 PM
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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
LANDSCAPE ARCHITECT
NO. 545 EXP. 10/14/2024

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

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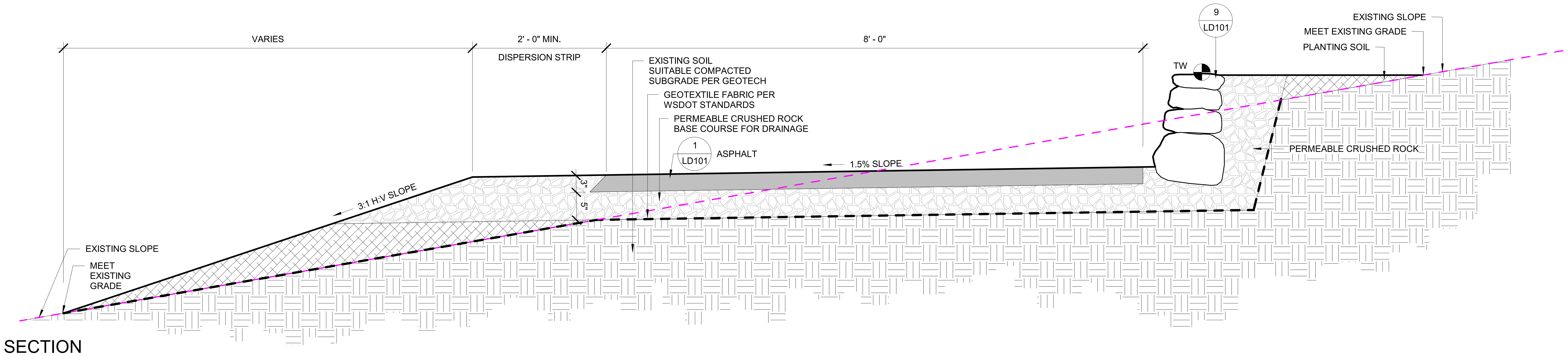
MM/JZ / GB

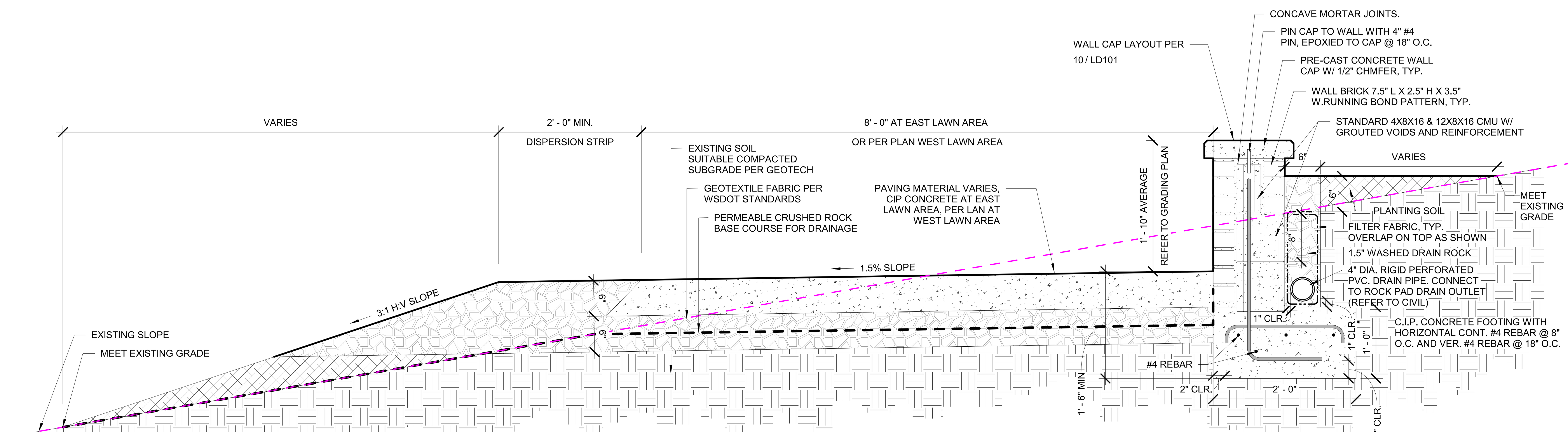
SHEET NAME:
TYPICAL PAVING DETAILS

SHEET NUMBER:
LD101



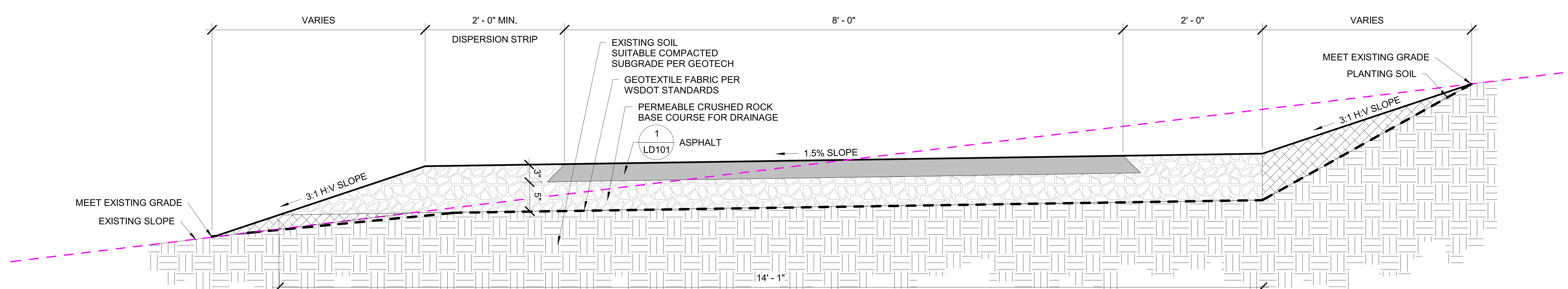
1 TYPICAL CUT/FILL TRAIL SECTION

1" = 1'-0"



2 TYPICAL FOREST CLEARING SECTION

1" = 1'-0"



3 TYPICAL PATH SECTION

1" = 1'-0"

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle

13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

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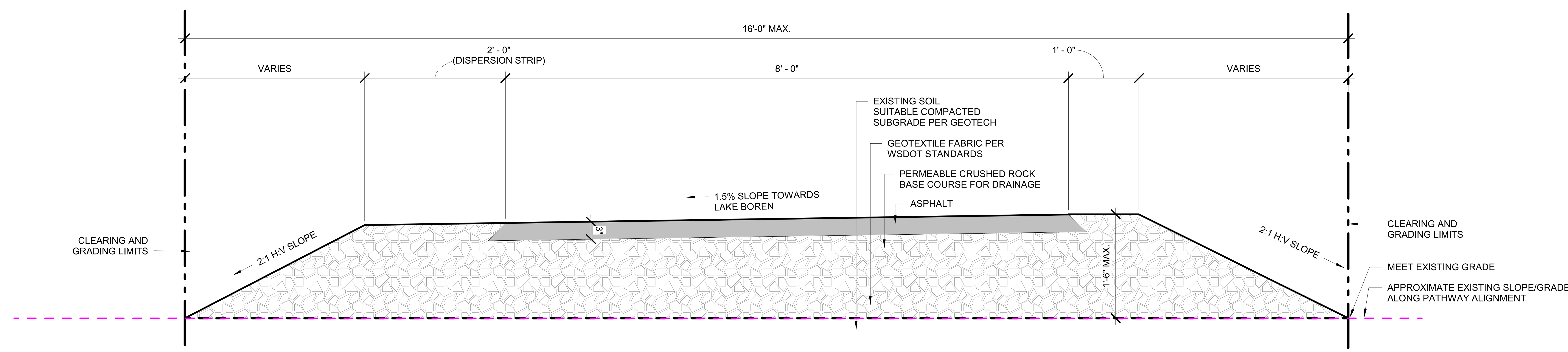
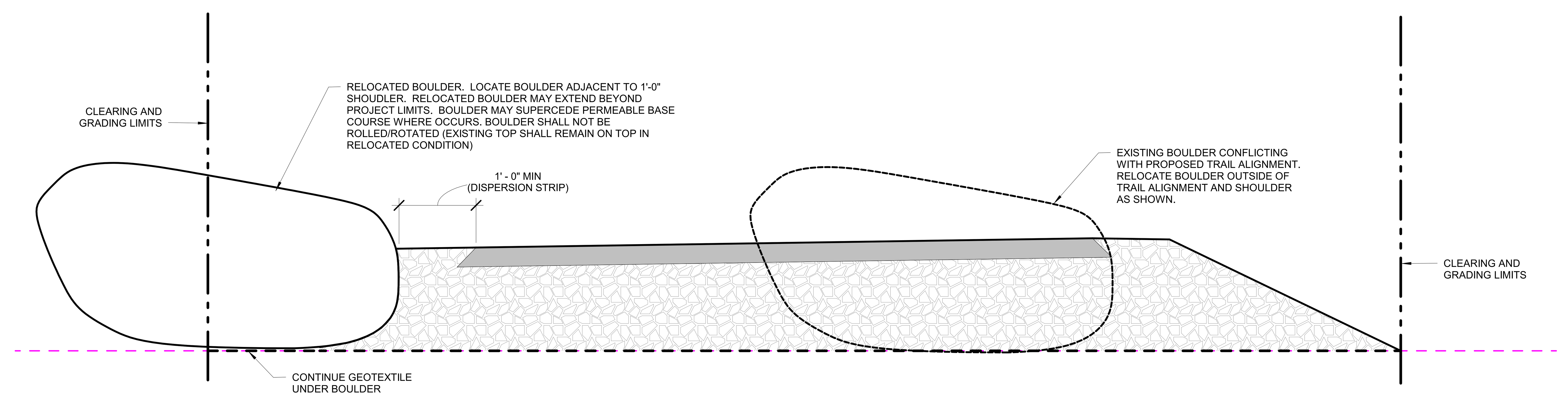
MM / GB

SHEET NAME:
TYPICAL TRAIL DETAILS

SHEET NUMBER:
LD102



TYPICAL SECTION



TYPICAL SECTION @ EXISTING BOULDER CONFLICT

2 TYPICAL TRAIL @ ROCK GARDEN

1" = 1'-0"

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STATE OF WASHINGTON
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LANDSCAPE ARCHITECT

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BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

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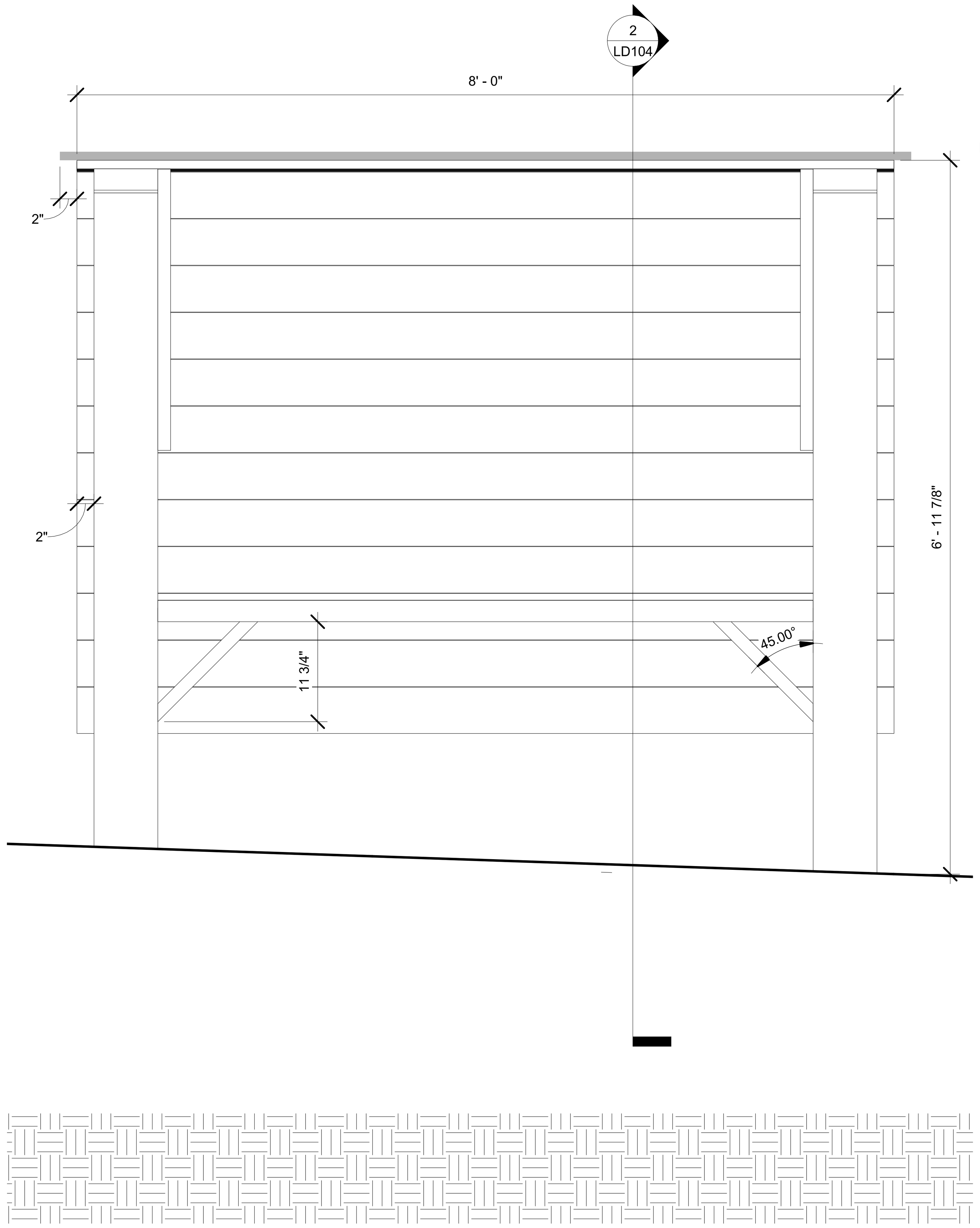
MM / GB

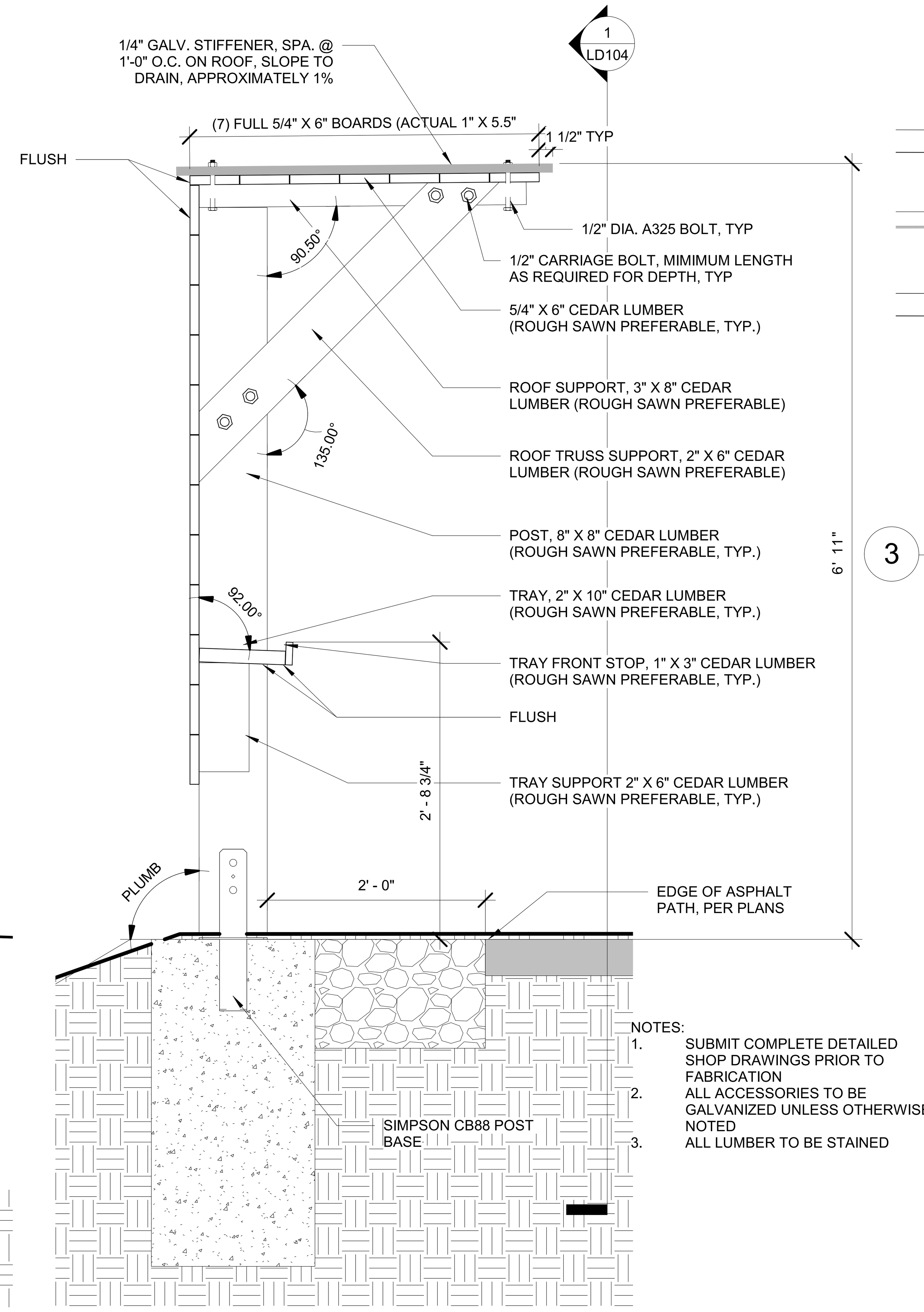
SHEET NAME:
TYPICAL TRAIL DETAILS

SHEET NUMBER:
LD103

Berger Partnership Project Number: 20154880.01
Plotted: 3/10/2023 1:39:36 PM
Filename: C:\Users\jjordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt

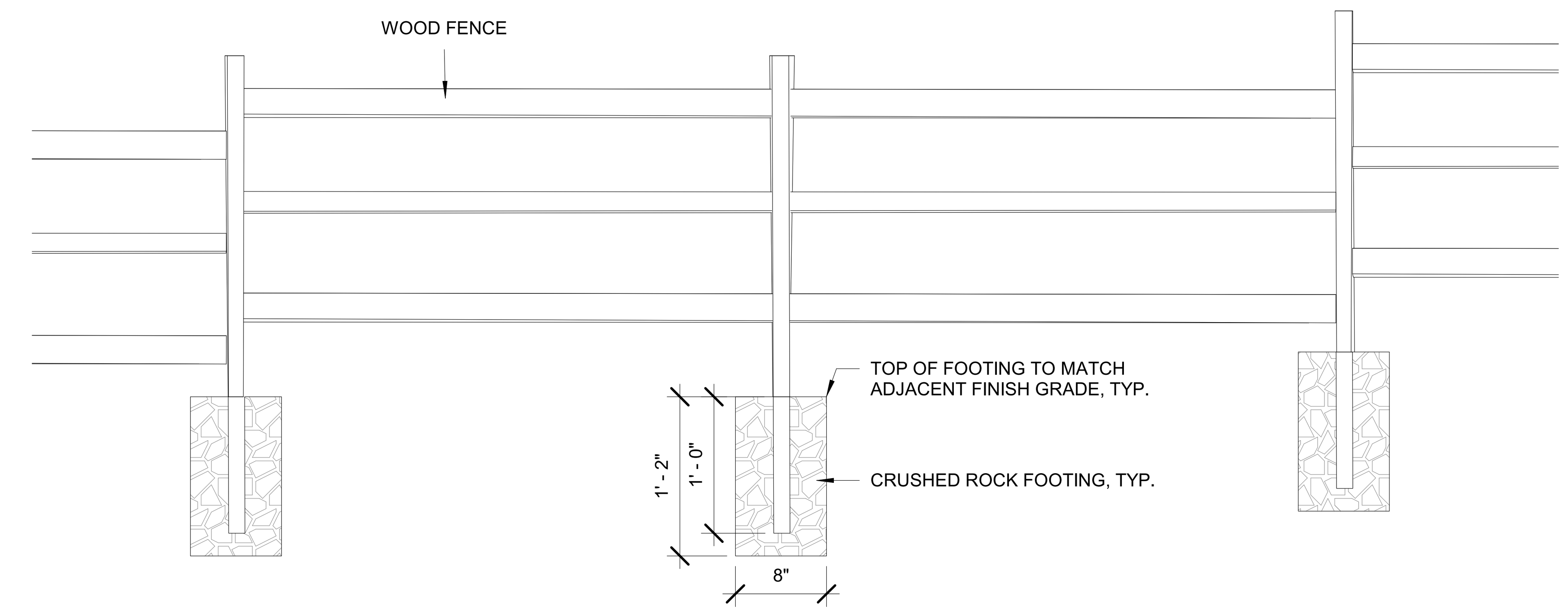


1 KIOSK FRONT VIEW
1" = 1'-0"

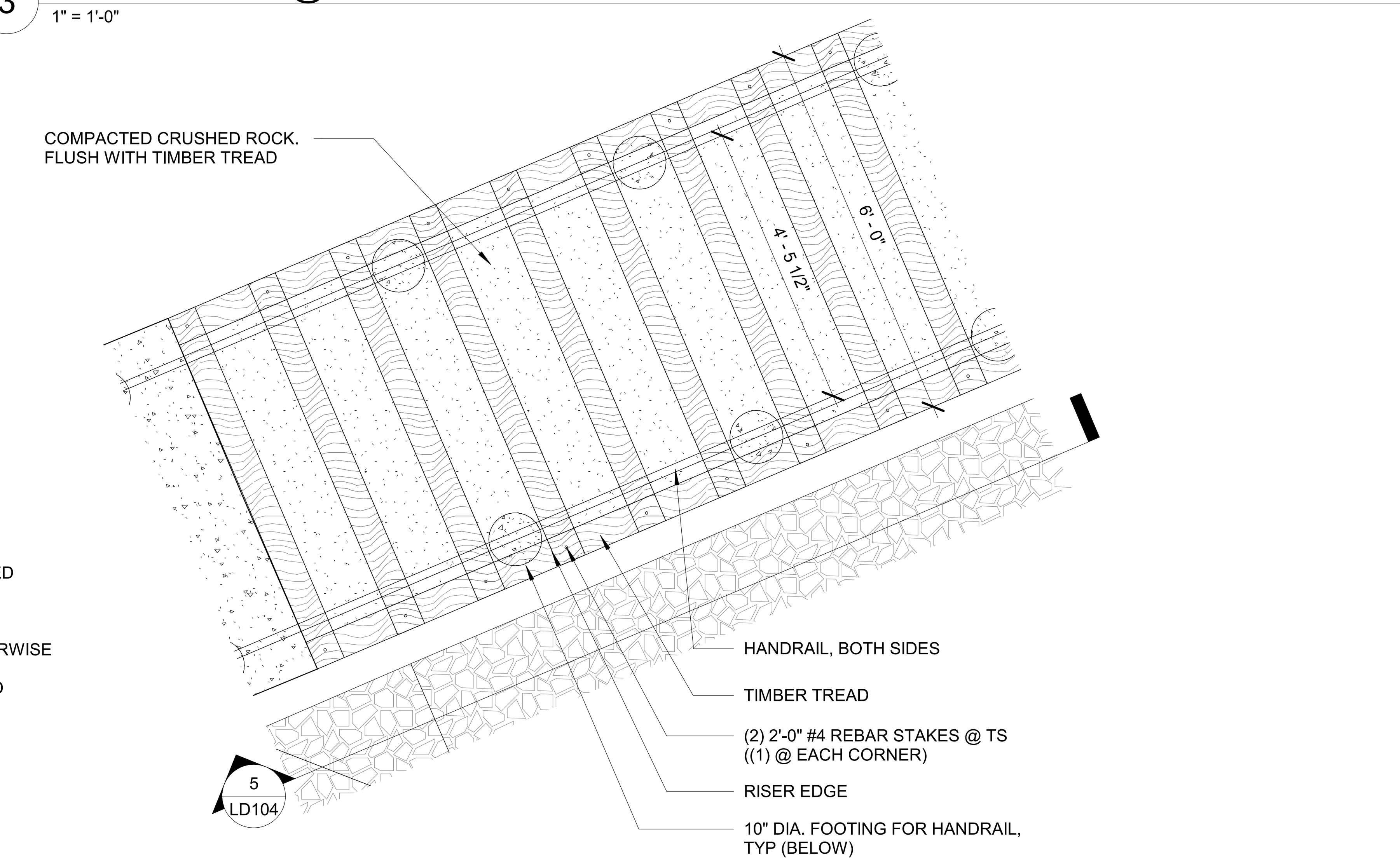


NOTES:
1. SUBMIT COMPLETE DETAILED SHOP DRAWINGS PRIOR TO FABRICATION
2. ALL ACCESSORIES TO BE GALVANIZED UNLESS OTHERWISE NOTED
3. ALL LUMBER TO BE STAINED

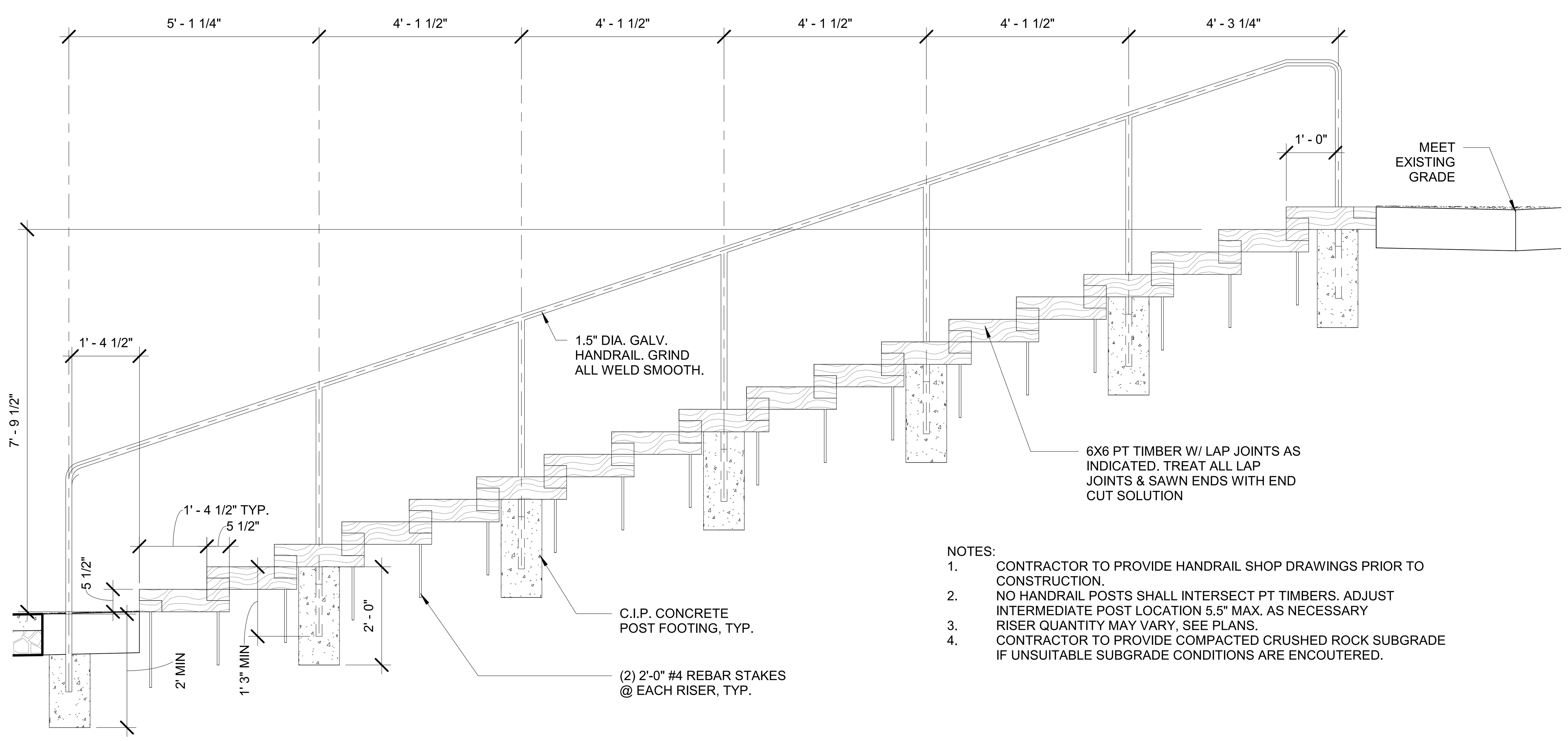
2 KIOSK SECTION DETAIL
1" = 1'-0"



3 WOOD FENCE @ BUFFER
1" = 1'-0"

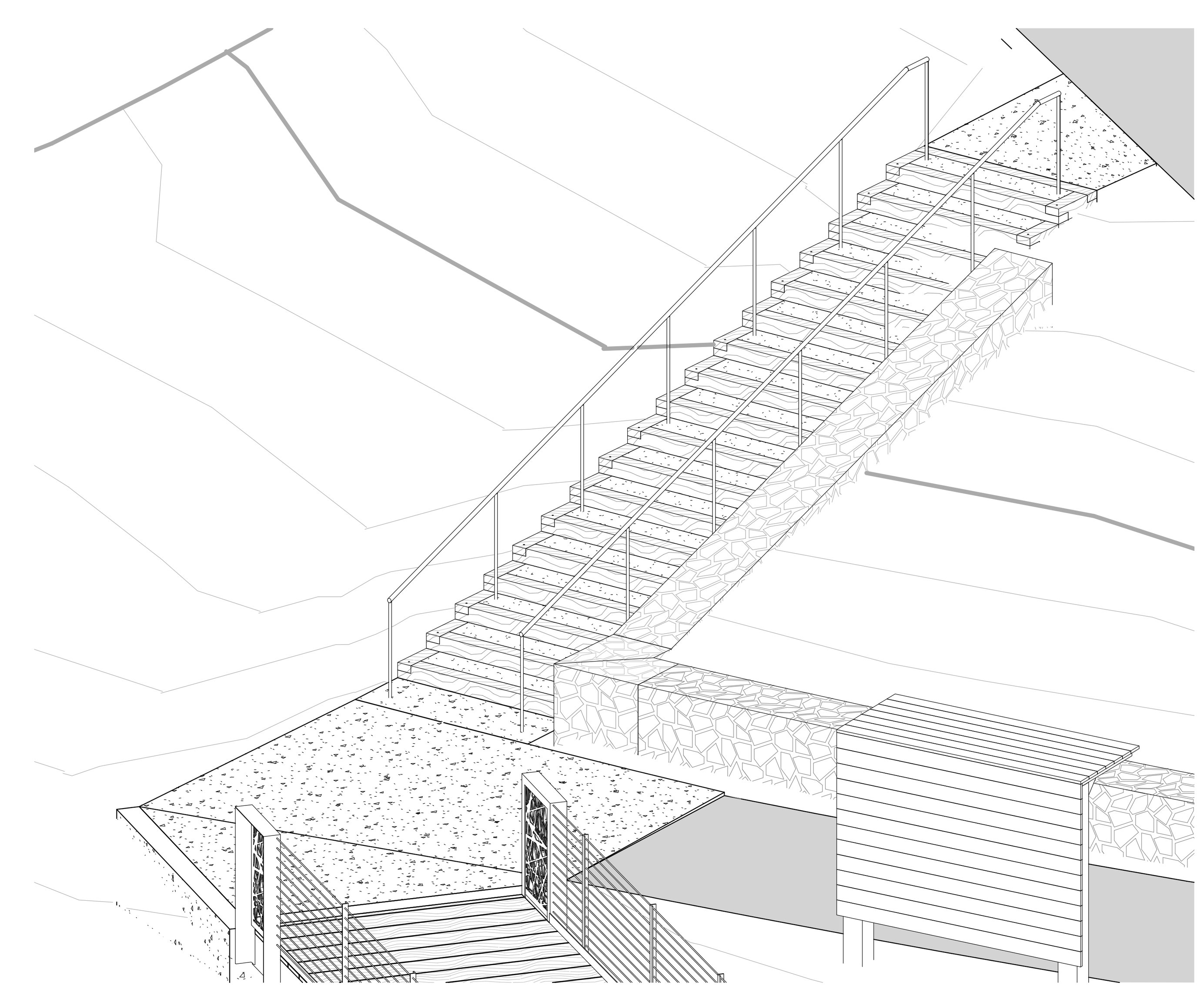


4 TIMBER STAIR ENLARGEMENT
1/2" = 1'-0"



NOTES:
1. CONTRACTOR TO PROVIDE HANDRAIL SHOP DRAWINGS PRIOR TO CONSTRUCTION.
2. NO HANDRAIL POSTS SHALL INTERSECT PT TIMBERS. ADJUST INTERMEDIATE POST LOCATION 5.5" MAX. AS NECESSARY
3. RISER QUANTITY MAY VARY, SEE PLANS.
4. CONTRACTOR TO PROVIDE COMPACTED CRUSHED ROCK SUBGRADE IF UNSUITABLE SUBGRADE CONDITIONS ARE ENCOUTERED.

5 WOOD STAIR
1/2" = 1'-0"



6 TIMBER STAIR VIEW - DESIGN INTENT REFERENCE ONLY

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DRAWN/CHECKED:
MM / GB

SHEET NAME:
SITE DETAILS

SHEET NUMBER:
LD104

Berger Partnership Project Number: 20154880.01
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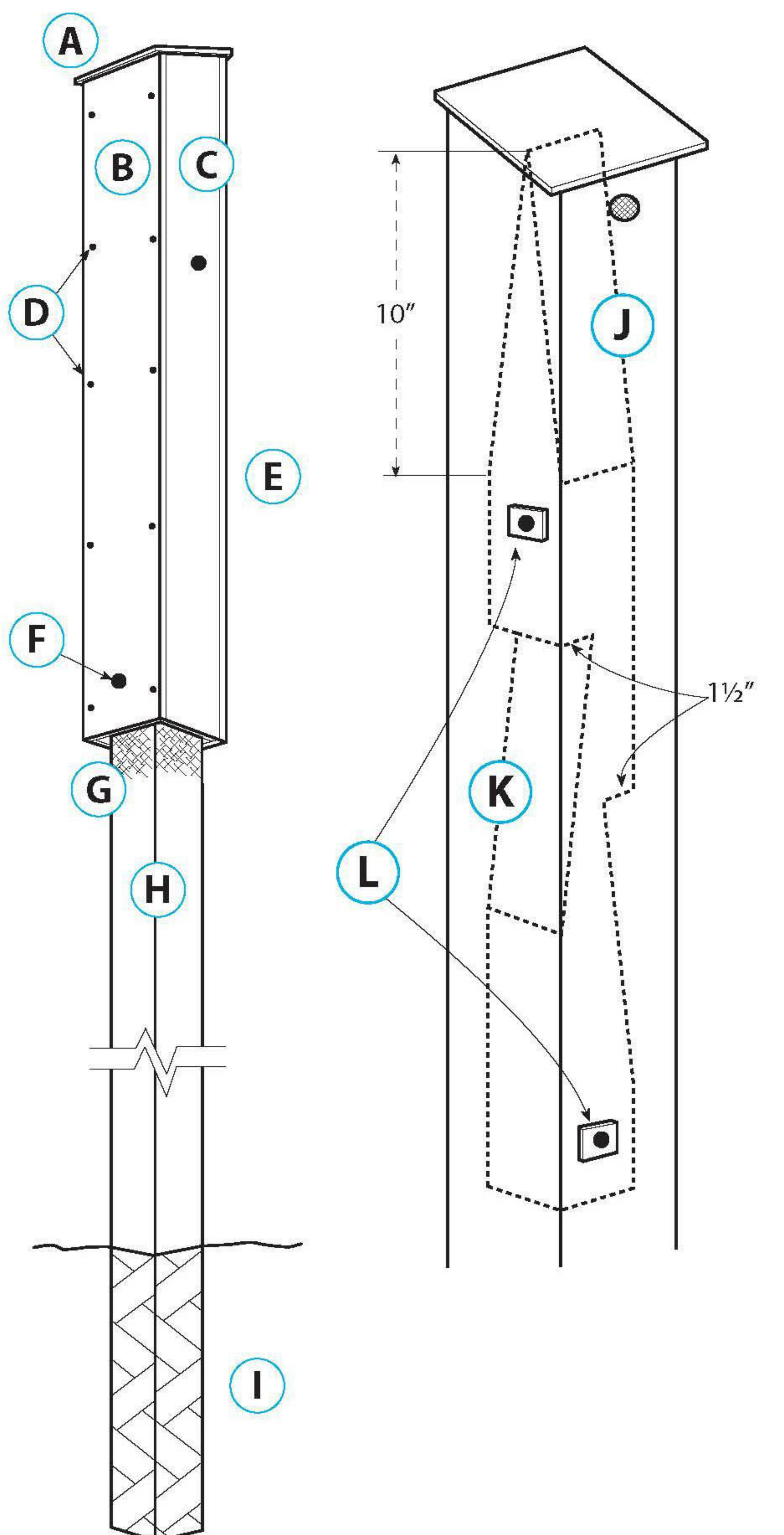
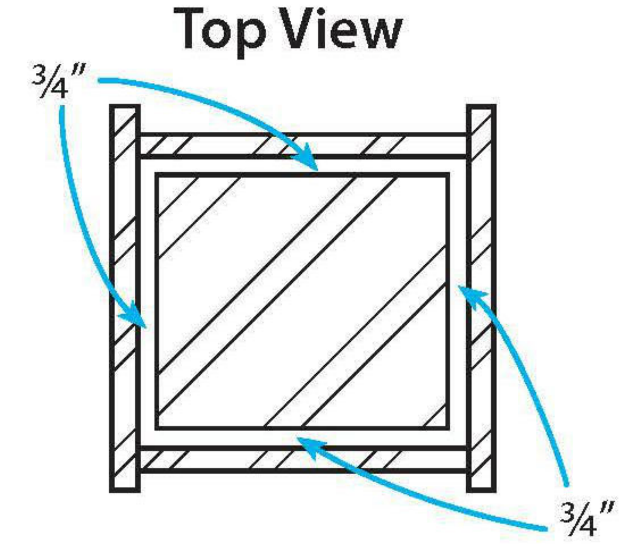
- PER WDFW, BAT BOXES SHOULD BE PAINTED WITH MULTIPLE COATS OF FLAT BLACK LATEX PAINT AND PLACED TO RECEIVE FULL SUN (SOUTH-FACING)
- TO CREATE A TIGHT MICROCLIMATE HOUSES SHOULD BE CAULKED AND SCREWED TOGETHER.

Woodworking Projects for Backyard Wildlife

Post Bat House Houses



Top View



Materials

- **A** Slanted roof
- **B** 1 x 6 board
- **C** 1 x 8 board ripped or left full size (see top view below)
- **D** Galvanized screws
- **E** Bat house box should be at least 3′ long
- **F** 4 lag bolts
- **G** Bats enter and exit here. Roughen area with claw hammer.
- **H** Non-treated 4 x 4 post 12 to 16 long.
- **I** Place 30″ to 36″ into ground. Chemical treatment is recommended.
- **J** Cut top of post at an angle and roughen sides. This is where most bats will roost.
- **K** 1 1/2″ cut
- **L** 3/4″ spacer (wood block). Use 4 lag bolts to attach box to 4 x 4 post

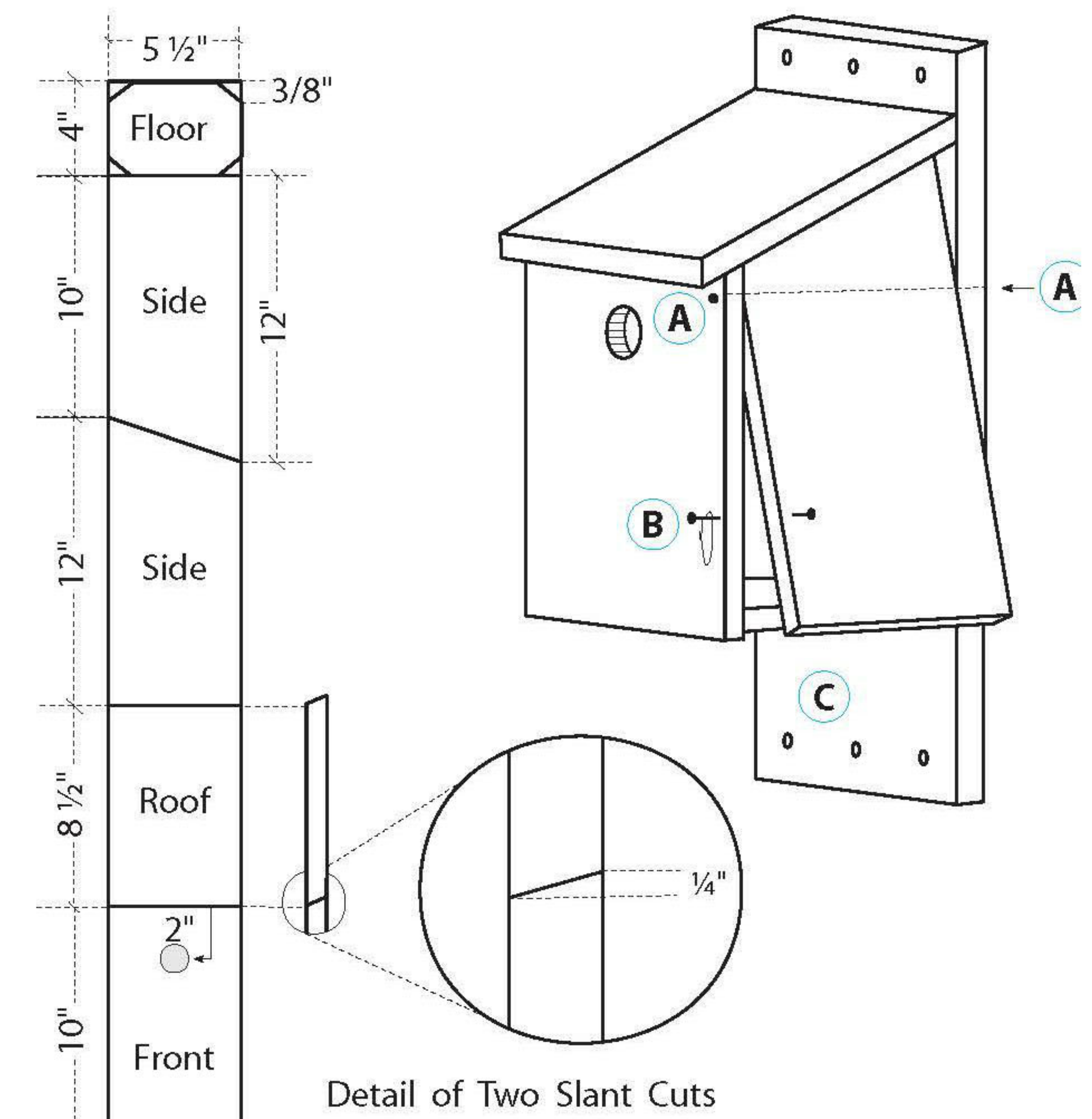
For placement and other information, see http://www.batcon.org

WDFW Living With Wildlife Series • www.wdfw.wa.gov/living/projects/

1 BAT BOX DETAILS

Woodworking Projects for Backyard Wildlife

Basic Songbird Nest Box



- **A** Pivot screws work as hinges. To allow the side to open easily, the two pivot screws need to be level
- **B** Loop wire around nails
- **C** Holes for attaching box to a tree or post with nails, lag bolts, or wire.

Exact Entry Hole Dimensions

- Chickadees 1inch to 11/8″*
- House wrens 11/8″*
- Violet-green swallows 1¼″*
- Tree swallows 1¼″
- Nuthatches 1¼″*
- Bluebirds 1½″
- * See Optional Entry Hole

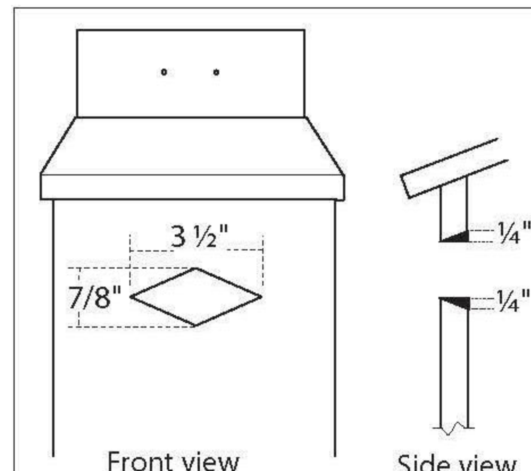
PROVIDE THE SELECTED SIZES IN EQUAL QUANTITIES

Materials

One 1x6″ x 6′ rough cedar board

Eighteen 1-1/4″ outdoor wood screws or # 7 galvanized nails

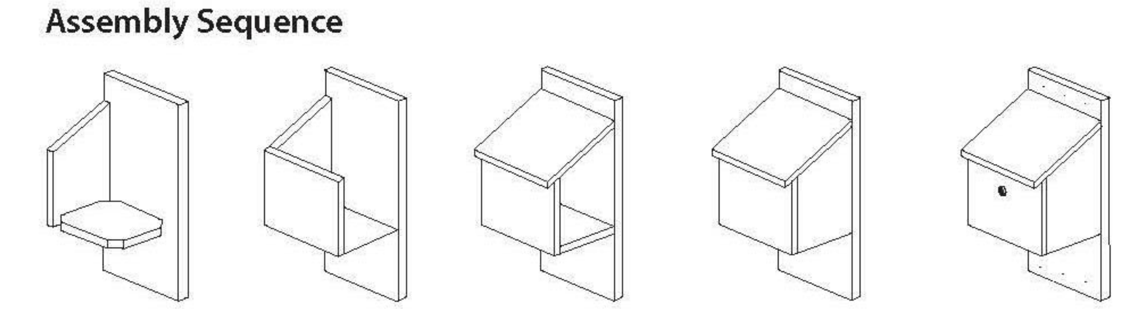
Wire to keep side door shut



*** Optional Entry Hole**

NOTE: This diamond-shaped entry hole is designed to prevent access by house sparrows. To work properly, it is extremely important that the final entry hole be made to these dimensions. To accommodate Violet-green Swallows, file down the area inside of the entry hole, as shown in the side view.

Assembly Sequence



WDFW Living With Wildlife Series • www.wdfw.wa.gov/living/projects/

2 BIRD BOX DETAILS

Berger Partnership Project Number: 20154880.01

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NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE: BID SET

SET ISSUE DATE: 03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED: MM / GB

SHEET NAME: HABITAT FEATURE DETAILS

SHEET NUMBER: LD105

Tree Planting Schedule - Buffer (PH I)

Count	Type Image	Type Mark	Type	Description	Size	Spacing	Comments
7		AC	ACER CIRCINATUM	VINE MAPLE	5 GAL.	9'-0" O.C.	
3		AM	ACER MACROPHYLLUM	BIG LEAF MAPLE	5 GAL.	9'-0" O.C.	
7		CN	CORNUS NUTTALLII	WHITE FLOWERING DOGWOOD	5 GAL.	9'-0" O.C.	
11		FL	FRAXINUS LATIFOLIA	OREGON ASH	5 GAL.	9'-0" O.C.	
17		PM	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	5 GAL.	9'-0" O.C.	
17		TP	THUJA PLICATA	WESTERN RED CEDAR	5 GAL.	9'-0" O.C.	

Grand total: 62

Tree Planting Schedule - Buffer (PH II)

Count	Type Image	Type Mark	Type	Description	Size	Spacing	Comments
52		AC	ACER CIRCINATUM	VINE MAPLE	5 GAL.	9'-0" O.C.	
50		AM	ACER MACROPHYLLUM	BIG LEAF MAPLE	5 GAL.	9'-0" O.C.	
50		CN	CORNUS NUTTALLII	WHITE FLOWERING DOGWOOD	5 GAL.	9'-0" O.C.	
27		FL	FRAXINUS LATIFOLIA	OREGON ASH	5 GAL.	9'-0" O.C.	
40		PM	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	5 GAL.	9'-0" O.C.	
26		TP	THUJA PLICATA	WESTERN RED CEDAR	5 GAL.	9'-0" O.C.	

Grand total: 245

Tree Planting Schedule - Wetland (PH I)

Count	Type Image	Type Mark	Type	Description	Size	Spacing	Comments
17		MF	MALUS FUSCA	PACIFIC CRAB APPLE	5 GAL.	9'-0" O.C.	
15		PS	PICEA SITCHENSIS	SITKA SPRUCE	5 GAL.	9'-0" O.C.	
25		PB	POPULUS BALSAMIFERA	BLACK COTTONWOOD	5 GAL.	9'-0" O.C.	
23		TP	THUJA PLICATA	WESTERN RED CEDAR	5 GAL.	9'-0" O.C.	

Grand total: 80

Tree Planting Schedule - Replacement Trees (PH I)

Count	Type Image	Type Mark	Type	Description	Size	Spacing	Comments
1		PS 2"	PICEA SITCHENSIS 2	SITKA SPRUCE	2" CAL./GREATER	9'-0" O.C.	
3		PB 2"	POPULUS BALSAMIFERA 2	BLACK COTTONWOOD	2" CAL./GREATER	9'-0" O.C.	
1		TP 2"	THUJA PLICATA 2	WESTERN RED CEDAR	2" CAL./GREATER	9'-0" O.C.	

Grand total: 5

Tree Planting Schedule - Replacement Trees (PH II)

Count	Type Image	Type Mark	Type	Description	Size	Spacing	Comments
2		AC 2"	ACER CIRCINATUM 2	VINE MAPLE	2" CAL./GREATER	9'-0" O.C.	
1		AM 2"	ACER MACROPHYLLUM 2	BIG LEAF MAPLE	2" CAL./GREATER	9'-0" O.C.	
2		CN 2"	CORNUS NUTTALLII 2	WHITE FLOWERING DOGWOOD	2" CAL./GREATER	9'-0" O.C.	
1		FL 2"	FRAXINUS LATIFOLIA 2	OREGON ASH	2" CAL./GREATER	9'-0" O.C.	
1		PM 2"	PSEUDOTSUGA MENZIESII 2	DOUGLAS FIR	2" CAL./GREATER	9'-0" O.C.	

Grand total: 7

Tree Planting Schedule - Wetland (PH II)

Count	Type Image	Type Mark	Type	Description	Size	Spacing	Comments
21		MF	MALUS FUSCA	PACIFIC CRAB APPLE	5 GAL.	9'-0" O.C.	
22		PS	PICEA SITCHENSIS	SITKA SPRUCE	5 GAL.	9'-0" O.C.	
9		PB	POPULUS BALSAMIFERA	BLACK COTTONWOOD	5 GAL.	9'-0" O.C.	
15		TP	THUJA PLICATA	WESTERN RED CEDAR	5 GAL.	9'-0" O.C.	

Grand total: 67

PLANTING GENERAL NOTES

NOTE #	DESCRIPTION
1	ALL NEWLY PLANTED BUFFER AREA AND LAWN AREAS SHALL BE IRRIGATED. WETLAND AREAS SHALL NOT BE IRRIGATED. REFER TO IRRIGATION PLANS.
2	ALL LAWN AREAS SHALL RECEIVE IMPORT TOPSOIL. REFER TO SPECIFICATIONS FOR SOIL DEPTH, TYPE AND PREPARATION REQUIREMENTS.
3	NEW TREE, SHRUB, AND GROUNDCOVER PLANTING SHALL RECEIVE TOPSOIL FOR PIT PLANTING ONLY. REFER TO SPECIFICATIONS FOR SOIL TYPE AND PREPARATION REQUIREMENTS..
4	MULCH ALL BUFFER PLANTING AREAS. REFER TO SPECIFICATIONS FOR MULCH TYPE AND DEPTH.
5	ALL PLANT MATERIAL MUST BE REVIEWED IN THE FIELD, AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING.
6	THE CONTRACTOR SHALL STAKE ALL TREE LOCATIONS IN THE FIELD PRIOR TO PLANTING. TREE LOCATIONS ARE SUBJECT TO MODIFICATION BY LANDSCAPE ARCHITECT.
7	ALL TREE LOCATIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING
8	STAKE ALL DECIDUOUS TREES 2" CAL. OR GREATER. REFER TO DETAIL(S).
9	GUY ALL CONIFEROUS TREES 2" CAL. OR GREATER. REFER TO DETAIL(S).
10	ALL PLANTS SHAL BE LAID OUT IN THE FIELD PER THE PLANS. LAYOUT SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING.
11	PLANT QUANTITIES SHOWN ON PLANS TAKE PRECEDENT OVER PLANT QUANTITIES PROVIDED IN PLANT SCHEDULE.
12	IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE PLANTING TO MEET SPACING REQUIREMENTS AND PLANT LAYOUT SHOWN.
13	ALL BUFFER PLANTING AREA FINISH GRADES (TOP OF MULCH) SHALL BE 1" BELOW ADJACENT PAVED SURFACES UNLESS NOTED OR DIRECTED OTHERWISE.
14	EXISTING TREE PROTECTION MEASURES SHALL TAKE PRECEDENCE OVER SOIL PREPARATION AND PLANTING REQUIREMENTS. NOTIFY LANDSCAPE ARCHITECT OF ANY DISCREPANCIES IMMEDIATELY. WHERE A DISCREPANCY EXISTS, SOIL PREPARATION AND PLANTING WITHIN TREE PROTECTION MEASURES SHALL BE ONLY AS APPROVED OR DIRECTED BY THE LANDSCAPE ARCHITECT.
15	PLANTING SHALL HAVE 3'-0" O.C. SPACING, WITH TREES @ 9'-0" O.C., SHRUBS @ 6'-0" O.C. & GROUNDCOVER @ 3'-0" O.C.
16	REFER TO MITIGATION PLANS FOR PLANTING BY AREA TYPE (BUFFER, WETLAND, NO MOW SEED MIX, STREAM).
17	COMPLETE PLANTING PLAN (WITH SHRUB & GROUNDCOVER LAYOUT) WILL BE PROVIDED WITH 90% SUBMITTAL.

PH I

BUFFER PLANT SCHEDULE (10,383 SF)

2 GAL. SHRUBS @ 6'-0" O.C. (Quantity: 167)
RED FLOWERING CURRANT / RIBES SANGUINEUM (33)
TALL OREGON GRAPE / MAHONIA AQUIFOLIUM (33)
OCEANSPRAY / HOLODISCUS DISCOLOR (33)
PACIFIC YEW / TAXUS BREVIFOLIA (34)
OSOBERRY / OEMLERIA CERASIFORMIS (34)

1 GAL GROUNDCOVER @ 3'-0" O.C. (Quantity: 666)
SNOWBERRY / SYMPHORICARPOS ALBUS (133)
LOW OREGONA GRAPE / MAHONIA NERVOSA (133)
SWORD FERN / POLYSTICHUM MUNTUM (133)
SALAL / GAULTHERIA SHALLON (133)
TUFTED HAIRGRASS / DESCHAMPSIA CESPITOSA (134)

WETLAND PLANT SCHEDULE (6,955 SF)

2 GAL. SHRUBS @ 6'-0" O.C. (Quantity: 112)
PACIFIC NINEBARK / PHYSOCARPUS CAPITATUS (28)
TWINBERRY / LONICERA INVOLUCRATA (28)
SALMONBERRY / RUBUS SPECTABILIS (28)
RED TWIG DOGWOOD / CORNUS SERICEA (28)

1 GAL GROUNDCOVER @ 3'-0" O.C. (Quantity: 446)
SLOUGH SEDGE / CAREX OBNUPTA (111)
SMALL-FLOWERED BULRUSH / SCIRPUS MICROCARPUS (111)
LADY FERN / ATHYRIUM FELIX-FEMINA (112)
SKUNK CABBAGE / LYSICHITON AMERICANUS (112)

NO MOW SEED MIX (6,828 SF)

SOLD AS PRO TIME 404 BY HOBBS AND HOPKINS, PORTLAND, OREGON

5% WESTERN YARROW / ACHILLEAN MILLEFOLIUM
55% CALIFORNIA BROME / BROMUS CARINATUS
25% BLUE BILDRYE / ELYMUS GLAUCUS
15% SICK KEELED LUPINE / LUPINUS ALBAUCAULUS

SEED AT THE RATE OF 40 LBS PER ACRE

PH II

BUFFER PLANT SCHEDULE (14,718 SF)

2 GAL. SHRUBS @ 6'-0" O.C. (Quantity: 236)
RED FLOWERING CURRANT / RIBES SANGUINEUM (47)
TALL OREGON GRAPE / MAHONIA AQUIFOLIUM (47)
OCEANSPRAY / HOLODISCUS DISCOLOR (47)
PACIFIC YEW / TAXUS BREVIFOLIA (47)
OSOBERRY / OEMLERIA CERASIFORMIS (48)

1 GAL GROUNDCOVER @ 3'-0" O.C. (Quantity: 944)
SNOWBERRY / SYMPHORICARPOS ALBUS (188)
LOW OREGONA GRAPE / MAHONIA NERVOSA (189)
SWORD FERN / POLYSTICHUM MUNTUM (189)
SALAL / GAULTHERIA SHALLON (189)
TUFTED HAIRGRASS / DESCHAMPSIA CESPITOSA (189)

WETLAND PLANT SCHEDULE (7,143 SF)

2 GAL. SHRUBS @ 6'-0" O.C. (Quantity: 115)
PACIFIC NINEBARK / PHYSOCARPUS CAPITATUS (28)
TWINBERRY / LONICERA INVOLUCRATA (29)
SALMONBERRY / RUBUS SPECTABILIS (29)
RED TWIG DOGWOOD / CORNUS SERICEA (29)

1 GAL GROUNDCOVER @ 3'-0" O.C. (Quantity: 458)
SLOUGH SEDGE / CAREX OBNUPTA (114)
SMALL-FLOWERED BULRUSH / SCIRPUS MICROCARPUS (114)
LADY FERN / ATHYRIUM FELIX-FEMINA (115)
SKUNK CABBAGE / LYSICHITON AMERICANUS (115)

NO MOW SEED MIX (3,121 SF)

SOLD AS PRO TIME 404 BY HOBBS AND HOPKINS, PORTLAND, OREGON

5% WESTERN YARROW / ACHILLEAN MILLEFOLIUM
55% CALIFORNIA BROME / BROMUS CARINATUS
25% BLUE BILDRYE / ELYMUS GLAUCUS
15% SICK KEELED LUPINE / LUPINUS ALBAUCAULUS

SEED AT THE RATE OF 40 LBS PER ACRE

STREAM PLANT SCHEDULE (326 SF)

SITKA SPRUCE / PICEA SITCHENSIS
SITKA WILLOW / SALIX SITCHENSIS
SALMONBERRY / RUBUS SPECTABILIS
TWINBERRY / LONICERA INVOLUCRATA
LADY FERN / ATHYRIUM FILIX-FEMINA
DEER FERN / BLECHNUM SPICANT

NOTE:

1. THE PROJECT WORK INCLUDES BOTH PHASE I AND PHASE II PLANTING.

THE CITY OF NEWCASTLE Washington 1869 1994

PARTNERSHIP berger
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Seattle, WA 98101
206 325 6877
bergerpartnership.com

CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle

13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON GREGORY E. BROWER LANDSCAPE ARCHITECT NO. 545 EXP. 10/14/2024

SET TYPE: **BID SET**

SET ISSUE DATE: **03/10/23**

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED: **MM / GB**

SHEET NAME: **PLANTING SCHEDULE**

SHEET NUMBER: **LD700**

Berger Partnership Project Number: 20154880.01
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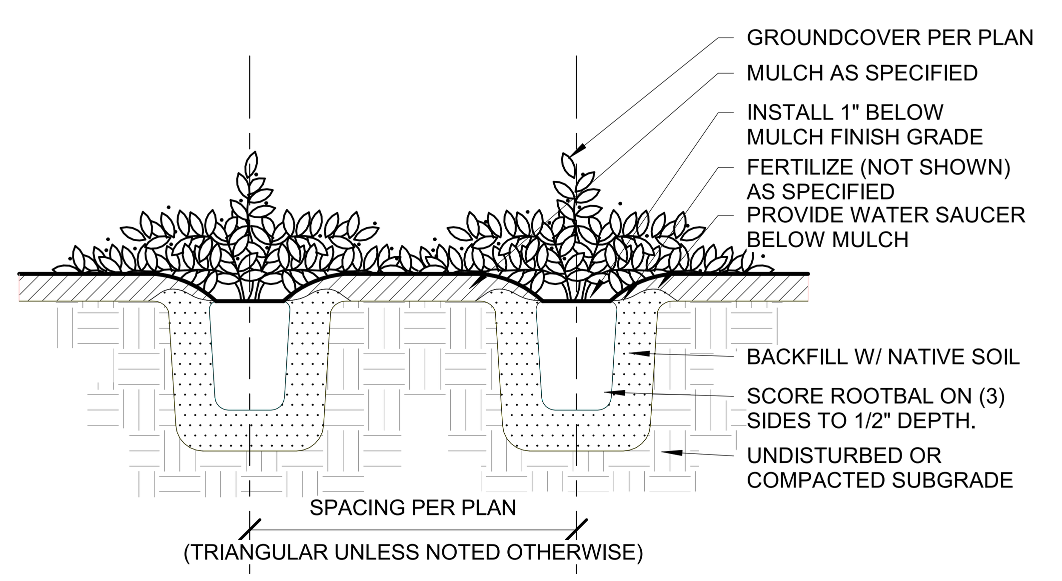
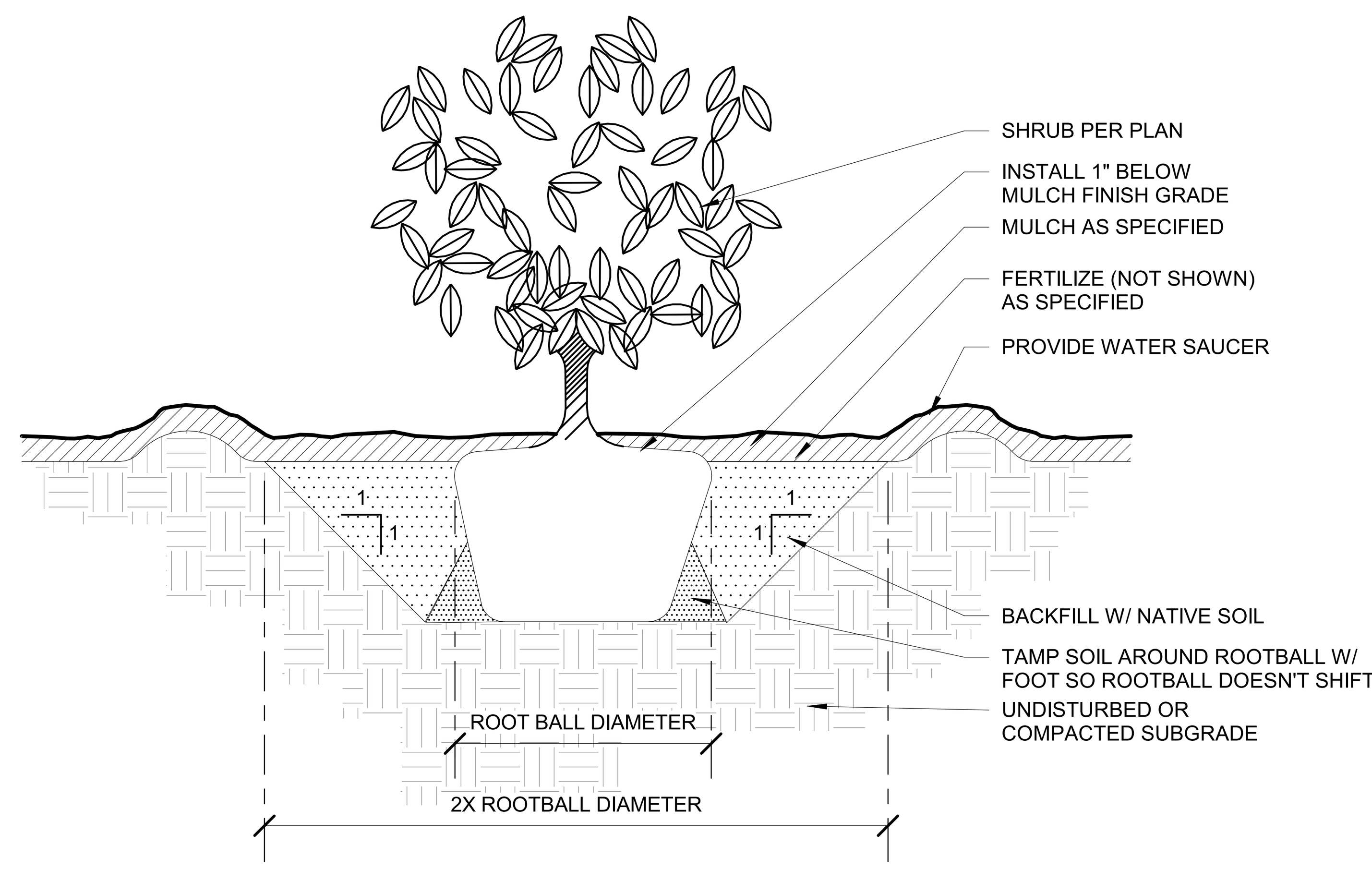


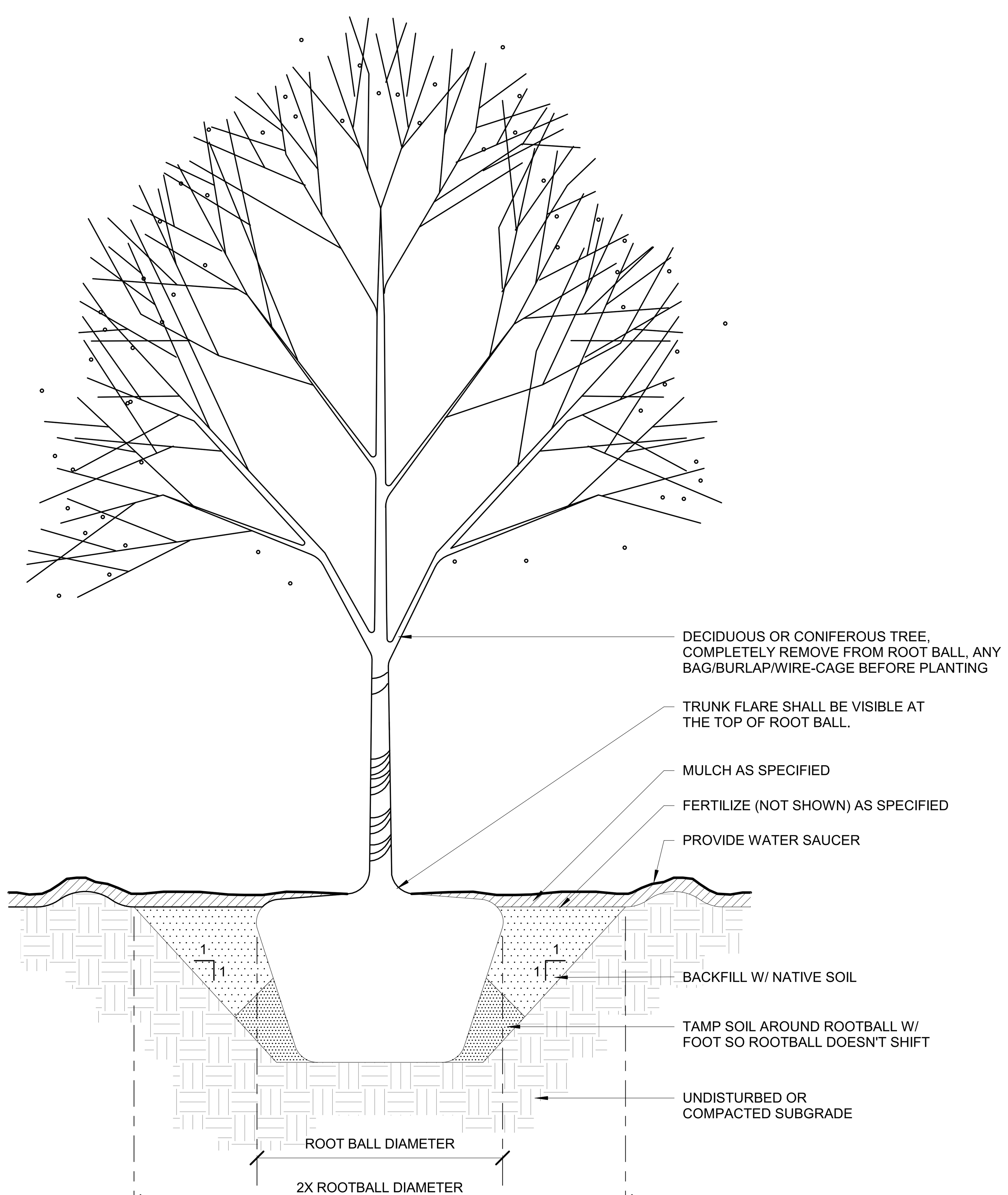
1 PLANTING - GROUNDCOVER

1" = 1'-0"



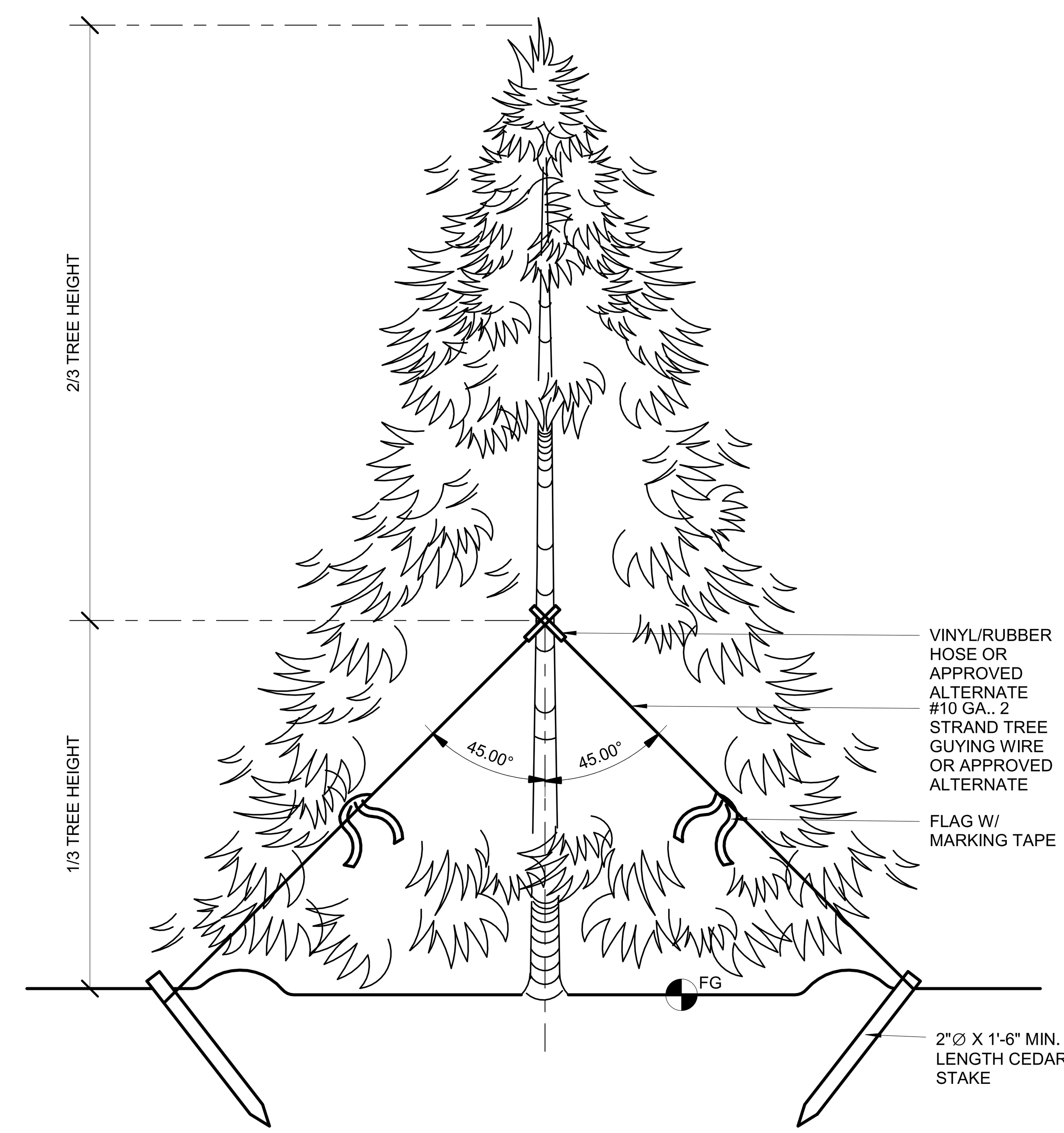
2 PLANTING - SHRUB

1" = 1'-0"



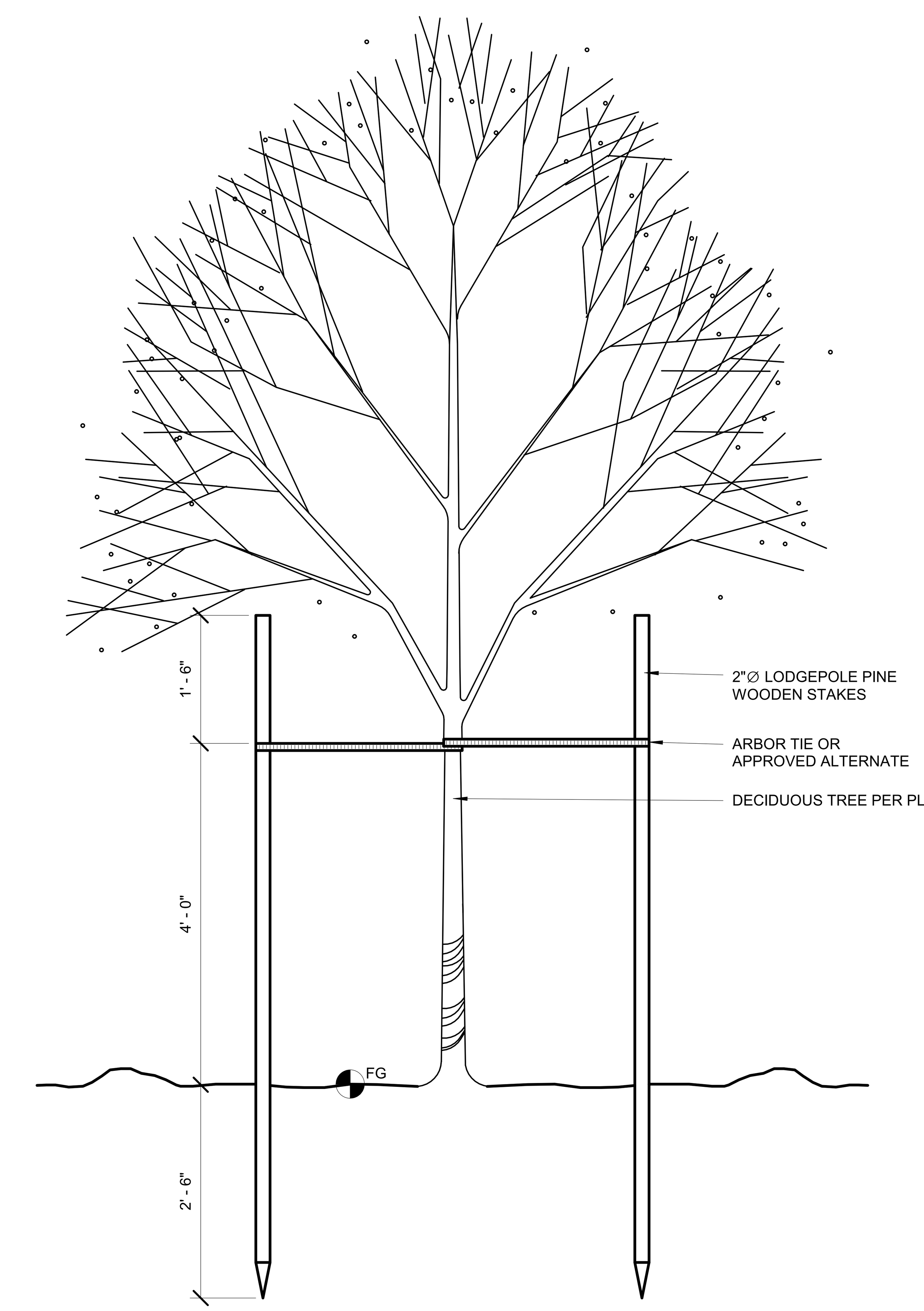
3 PLANTING - CONIFEROUS AND DECIDUOUS TREE

3/4" = 1'-0"



4 TREE GUYING - CONIFER

3/4" = 1'-0"



5 TREE STAKING - DECIDUOUS

3/4" = 1'-0"

Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt

Plotted: 3/10/2023 1:40:38 PM

Berger Partnership Project Number: 20154880.01

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle

13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON GREGORY E. BROWER LANDSCAPE ARCHITECT NO. 545 EXP. 10/14/2024

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

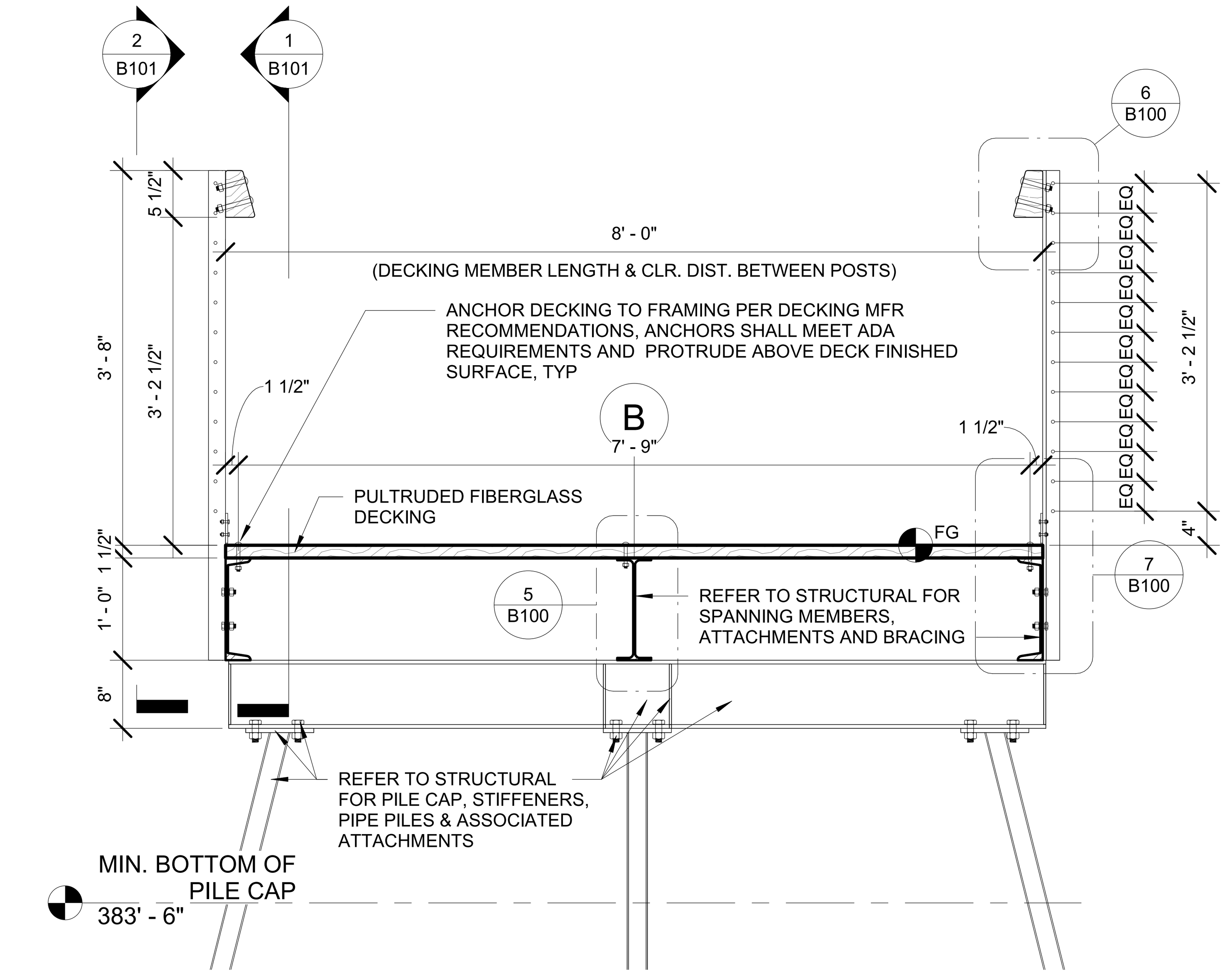
REVISIONS:

Δ	DESCRIPTION	DATE

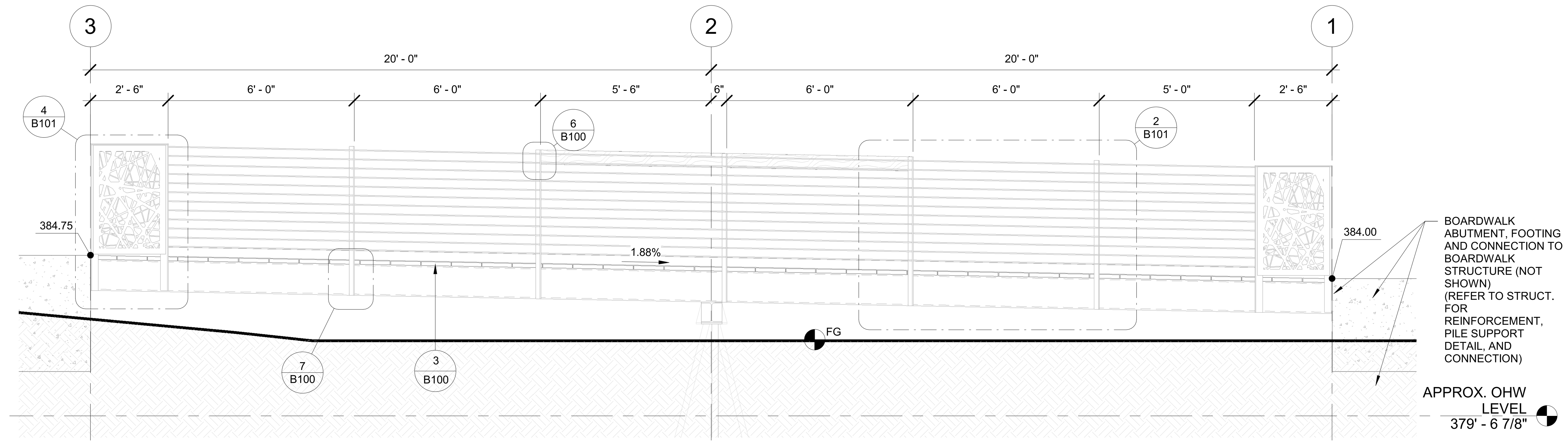
DRAWN/CHECKED:
MM / GB

SHEET NAME:
PLANTING DETAILS

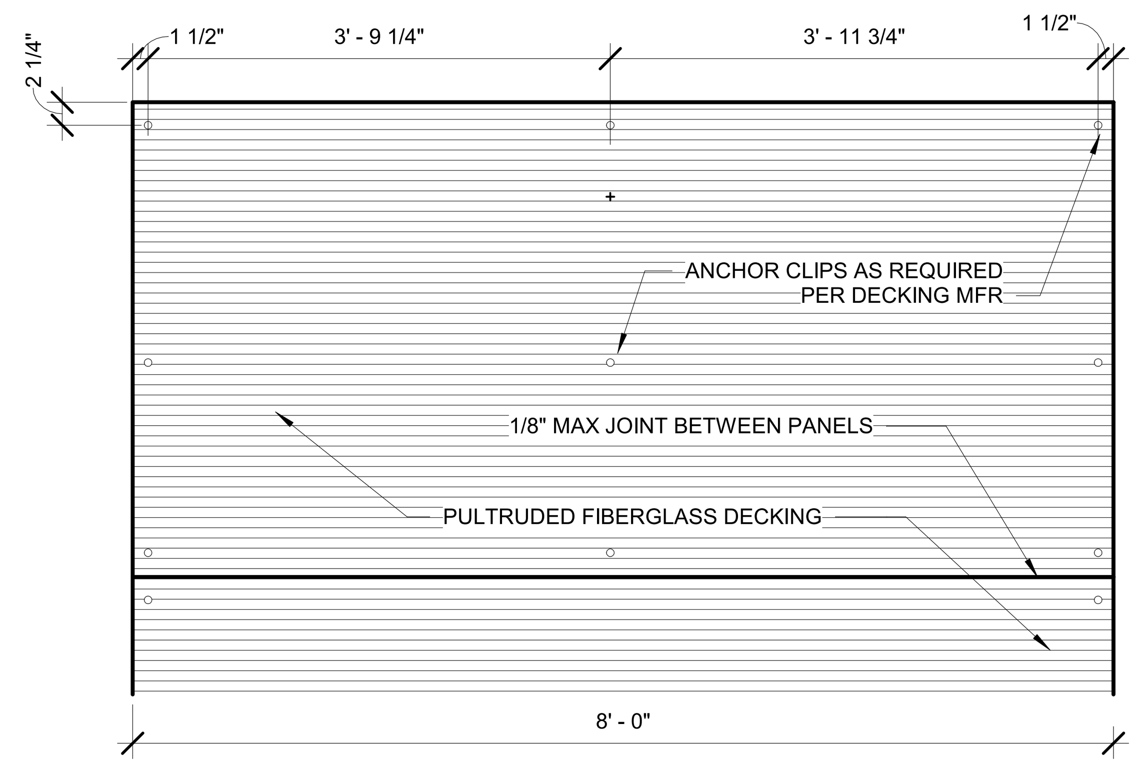
SHEET NUMBER:
LD701



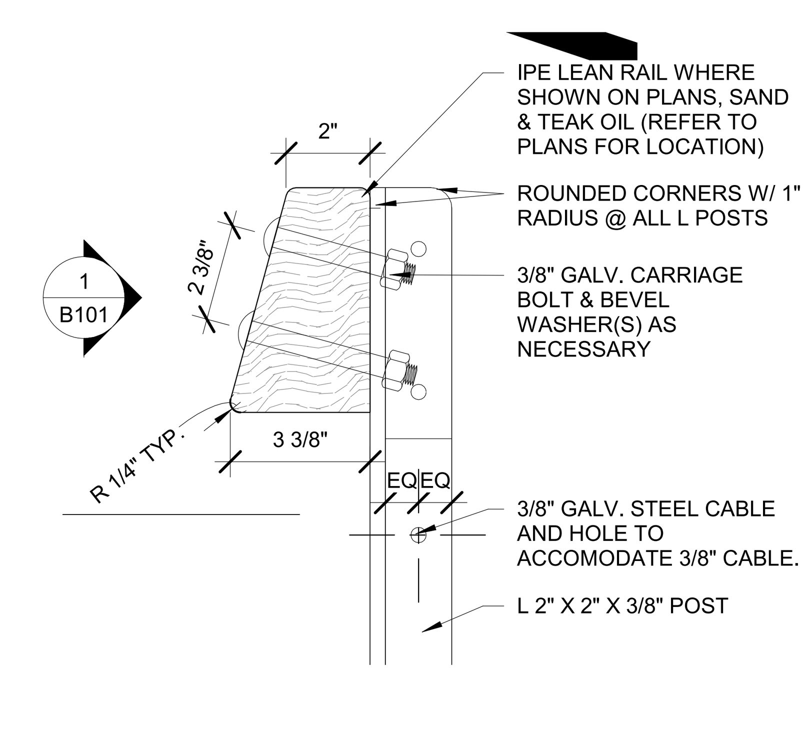
1 BOARDWALK TYPICAL SECTION
3/4" = 1'-0"



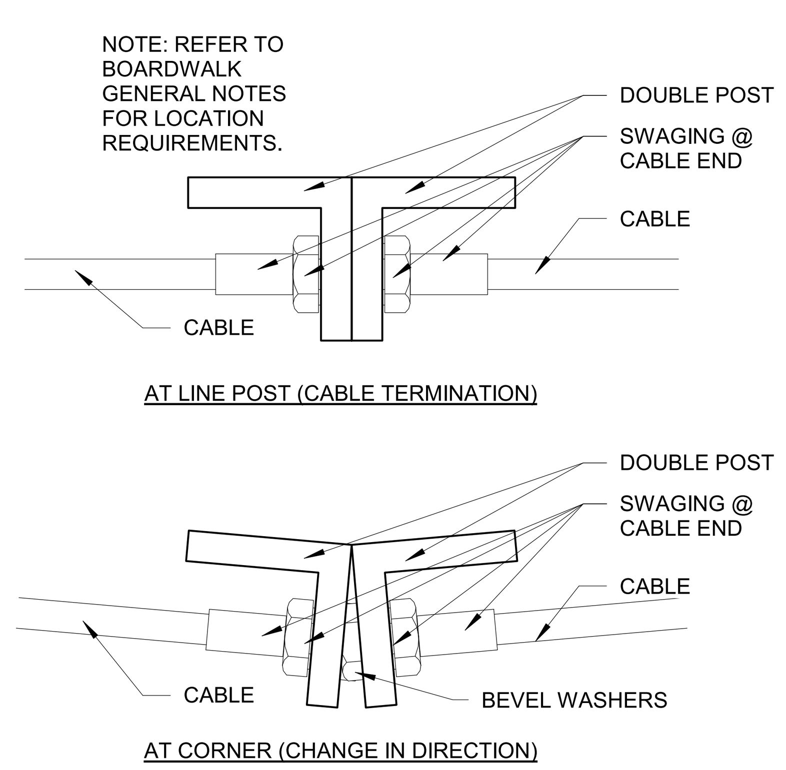
2 BOARDWALK SECTION GRIDS 1-3
3/8" = 1'-0"



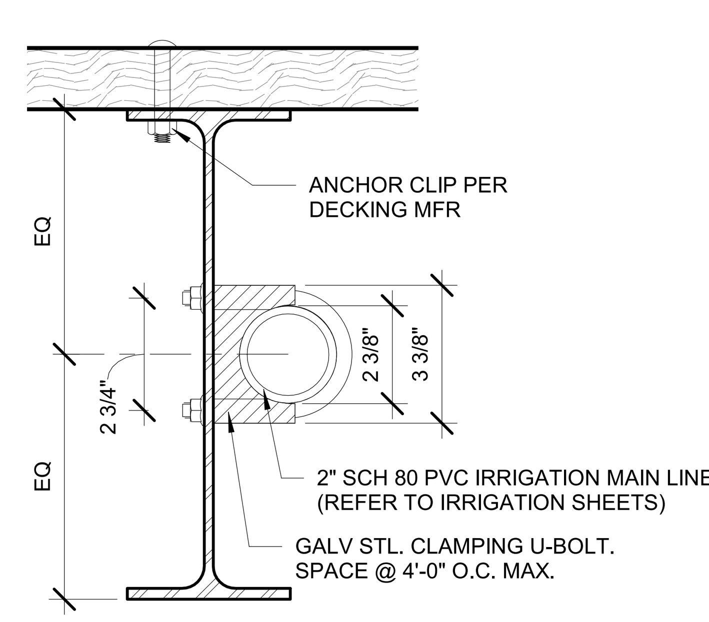
3 TYPICAL DECKING PLAN
3/4" = 1'-0"



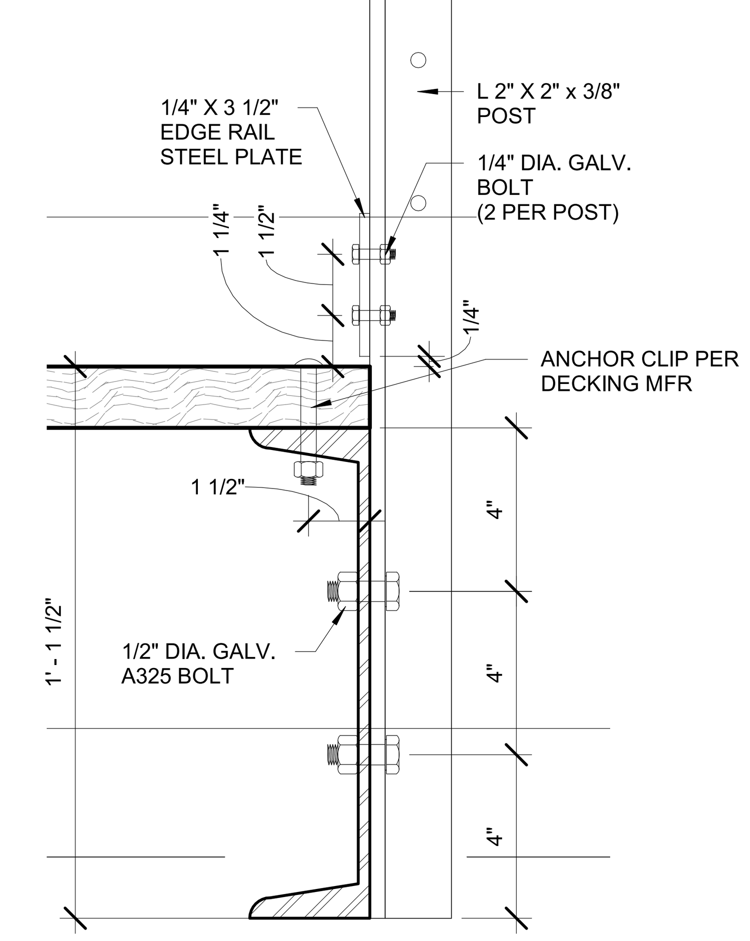
6 BOARDWALK TYPICAL SECTION - RAIL TOP
3" = 1'-0"



4 DOUBLE POST PLAN
6" = 1'-0"



5 BOARDWALK TYPICAL SECTION - CLAMPING U-BOLT
3" = 1'-0"



7 BOARDWALK TYPICAL SECTION - RAIL BOTTOM
3" = 1'-0"

BOARDWALK GENERAL NOTES

1. REFER TO LANDSCAPE LAYOUT PLANS FOR LAYOUT OF BOARDWALK PILE CAPS AND BOARDWALK ALIGNMENT.
2. REFER TO LANDSCAPE GRADING PLANS FOR SLOPING/GRADING OF BOARDWALK.
3. REFER TO STRUCTURAL FOR ALL PILE, PILE CAP, AND SPANNING MEMBER (W12X16, C12X20.7) DETAILS.
4. REFER TO STRUCTURAL FOR BOARDWALK STRUCTURE TYPICAL SECTION.
5. REFER TO LANDSCAPE FOR BOARDWALK DECKING AND RAILING DETAILS.
6. REFER TO STRUCTURAL FOR GENERAL STRUCTURAL NOTES CONCERNING REQUIREMENTS/CRITERIA FOR QUALITY ASSURANCE, GEOTECHNICAL, CONCRETE, ANCHORING, WOOD AND STEEL.
7. REFER TO STRUCTURAL FOR PILE ADJUSTMENT CRITERIA
8. REFER TO GEOTECHNIAL REPORTS FOR ADDITIONAL GEOTECHNICAL REQUIREMENTS AND INFORMATION.
9. BOARDWALK SHALL COMPLY WITH 2010 AMERCANS WITH DISABILITIES (ADA) STANDARDS FOR ACCESSIBLE DESIGN.
10. BOARDWALK SHALL COMPLY WITH 2015 INTERNATIONAL BUILDING CODE (IBC)
11. ALL EXPOSED STEEL EDGES SHALL BE SLIGHTLY EASED SUCH THAT THERE ARE NO SHARP EDGES OR CORNERS WHICH COULD POSE A HAZARD.
12. BOARDWALK ASSEMBLY REQUIREMENTS:
    - A. CONTRACTOR SHALL PROVIDE ALL NECESSARY WASHERS, BEVEL WASHERS, NUTS, BOLTS, SCREWS, AND OTHER FASTENERS TO ACHIEVE CONNECTIONS SHOWN AND AS NECESSARY TO ACHIEVE GEOMETRIES AS SHOWN IN THE DRAWINGS.
    - B. CONTRACTOR SHALL PROVIDE ALL HOLE LOCATIONS NECESSARY TO ACCOMODATE CABLES/FASTENERS AND SHALL ENSURE HOLES ARE SIZED AND LOCATED APPROPRIATELY.
    - C. ALL NUTS SHALL BE INSTALLED USING THREAD SEAL SUCH THAT THEY CANNOT BE EASILY REMOVED.
    - D. EXTRA THREAD WHICH PROTRUDES A DISTANCE FROM THE NUT GREATER THAN 1/2 THE DIAMETER OF THE BOLT MUST BE CUT OFF AND GROUND SMOOTH. TOUCH UP GALVANIZE AFTER CUTTING.
13. BOARDWALK MATERIAL REQUIREMENTS:
    - A. ALL STEEL MEMBERS AND FASTENERS SHALL BE HOT DIP GALVANIZED STEEL WITH THE EXCEPTION OF THE PRECUT PANELS.
    - B. PRECUT PANELS SHALL BE 1/4" THICK CORTEN STEEL AND SHALL INCLUDE HOLES FOR FASTENERS. PRECUT PANELS SHALL BE COMPLEX NEST PATTERN, AVAILABLE FROM REVAMP.
    - C. FIELD TOUCH-UP ANY FIELD CUT MEMBERS.
14. GEOMETRIC REQUIREMENTS:
    - A. NO SPLICES OF MEMBERS, WITH THE EXCEPTION OF THE EDGE RAIL STEEL PLATE, SHALL BE ALLOWED WITHOUT APPROVAL FROM THE PROJECT FIELD REPRESENTATIVE.
    - B. ALL POSTS SHALL BE PLUMB.
    - C. END POSTS SHALL BE PLUMB AND SHALL HAVE HORIZONTAL TOP.
    - D. DECKING SHALL HAVE DIRECTIONAL SLOPE LESS THAN 1.5% AS SHOWN ON THE LANDSCAPE GRADING PLAN.
    - E. DECKING SHALL HAVE NO CROSS SLOPE.
    - F. CABLES SHALL BE PARALLEL TO DECKING SLOPE.
    - G. LEAN RAILS SHALL BE PARALLEL TO DECKING SLOPE.
    - H. THE COMPLETED GUARDRAIL SHALL:
        - a. NOT ALLOW THE PASSAGE OF A 4" SPHERE.
        - b. BE 3'-6 1/2" IN HEIGHT AS MEASURED FROM THE FINISHED SURFACE OF THE DECKING TO THE CENTERLINE OF THE TOP CABLE.
        - c. BE A MINIMUM OF 3'-6 1/2" IN HEIGHT AS MEASURED FROM THE FINISHED SURFACE OF THE DECKING TO THE TOP OF THE END PANEL.
        - d. BE CONTINUOUS WITH NO FULL HEIGHT GAPS.
15. CABLES AND CABLE TIGHTENING:
    - A. CABLES SHALL BE TIGHTENED TO 300 LBS TENSION.
    - B. CABLES SHALL BE CAREFULLY TIGHTENED TO AVOID CAUSING DEFLECTION OF POST AND END POST MEMBERS.
    - C. CABLES SHALL HAVE A MAXIMUM LENGTH OF 70'-0".
    - D. CABLES SHALL BE TIGHTENED STARTING AT THE MIDDLE CABLE AND THEN THE CABLE ABOVE AND BELOW THAT, AND SO FORTH UNTIL ALL CABLES ARE TIGHTENED.
    - E. PROTECTOR SLEEVES SHALL BE USED TO PROTECT CABLES AT ALL ANGLED TRANSITIONS.
    - F. CABLES MAY ONLY TERMINATE AT END POSTS, CORNER POSTS , AND DOUBLE LINE POSTS - REFER TO DOUBLE POST PLAN DETAIL.
    - G. PROVIDE DOUBLE POSTS AT CORNERS (CHANGES IN DIRECTION) - REFER TO DOUBLE POST PLAN DETAIL
16. THE CONTRACTOR SHALL SUBMIT BOARDWALK SHOP DRAWINGS. INCOMPLETE SHOP DRAWINGS WILL BE REJECTED. TO BE CONSIDERED COMPLETE AND READY FOR REVIEW, THE SHOPS DRAWINGS SHALL SHOW, AT A MINIMUM, THE FOLLOWING:
    - A. ALL MEMBERS, MEMBER SIZING, LENGTHS, MATERIALS AND FINISHES.
    - B. ANY SPLICES.
    - C. ALL FASTENERS, FASTENER MATERIAL, FASTENER SIZING.
    - D. ALL WELDS, AND WELD TYPES.
    - E. ANY GALVANIZATION FIELD TOUCH UP LOCATIONS.
    - F. ABUTMENTS AND ABUTMENT REINFORCEMENT AND PILE SUPPORT.
    - G. ALL HOLES, HOLES SIZES, AND HOLE LOCATIONS.
    - H. ALL CABLES AND CABLE SWAGING.
    - I. OVERALL LAYOUT AND TYPICAL DETAILS.

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM / GB

SHEET NAME:
BOARDWALK DETAILS

SHEET NUMBER:
B100

Berger Partnership Project Number: 20154880.01
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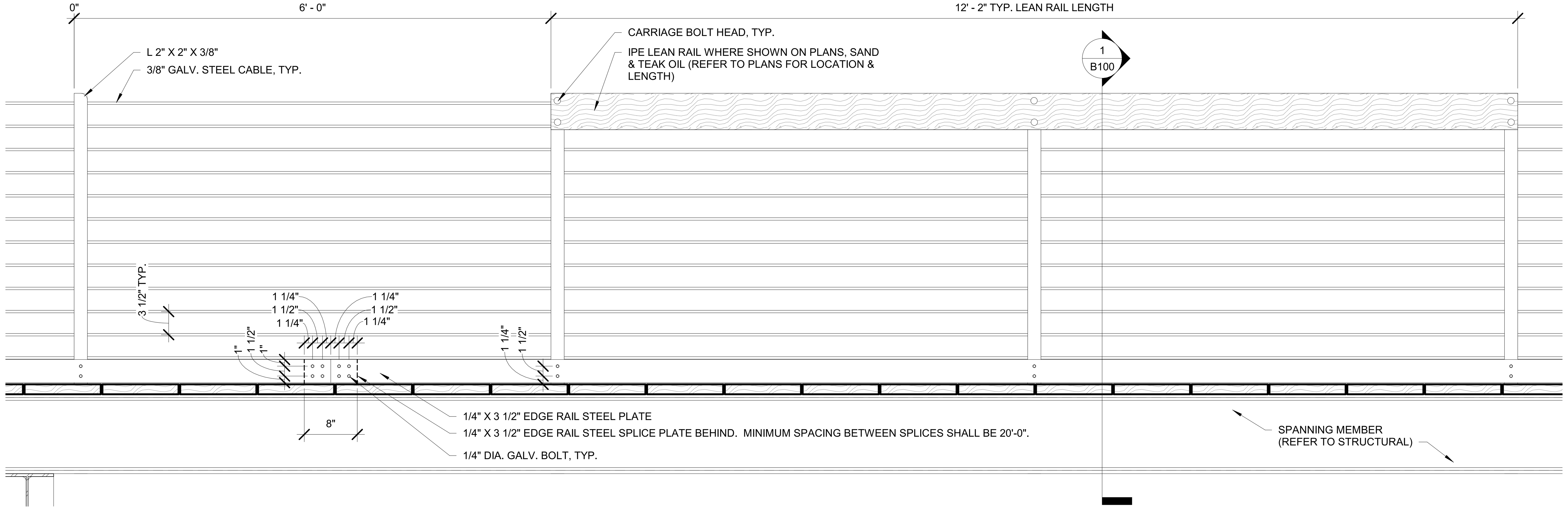
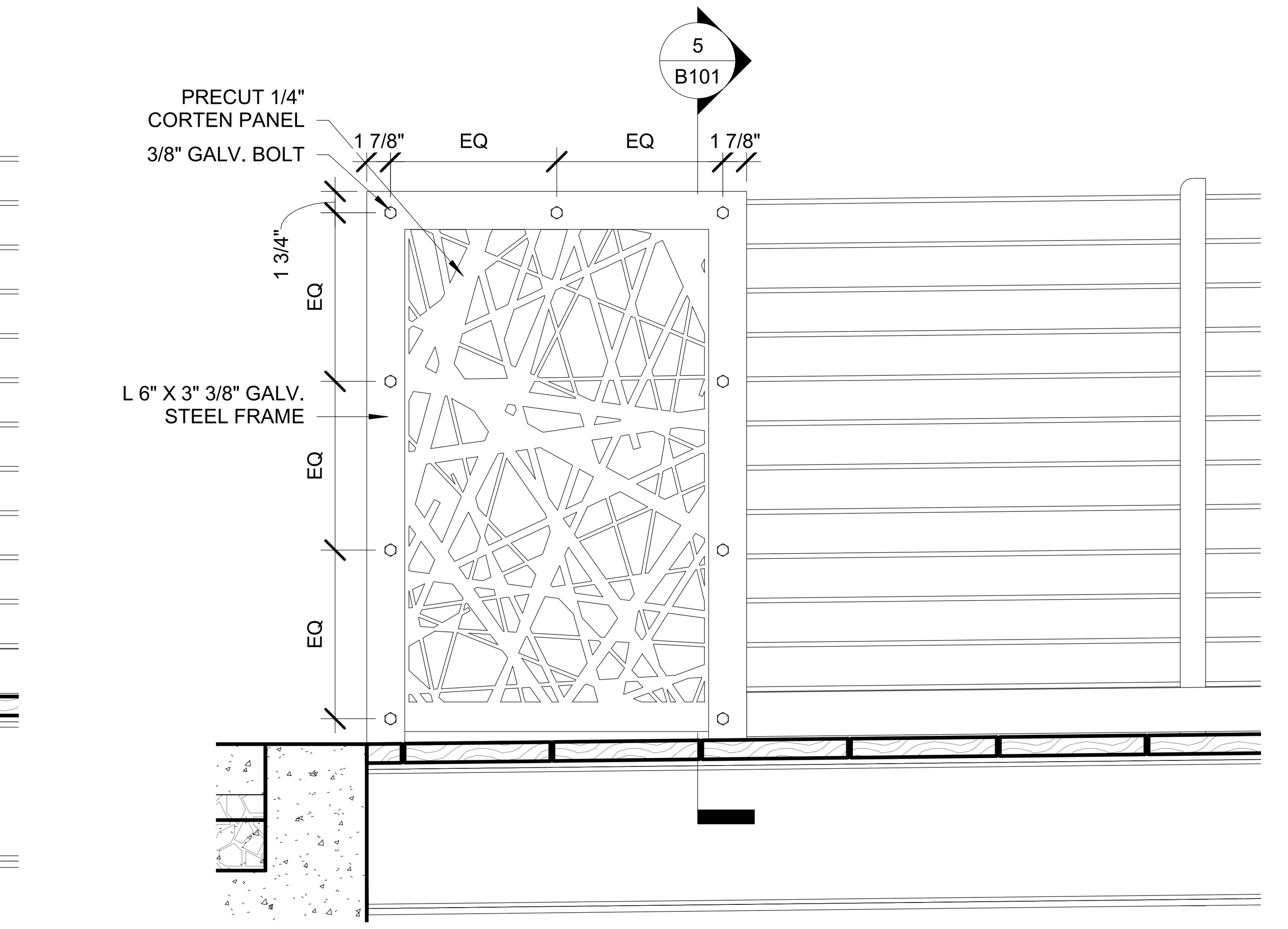
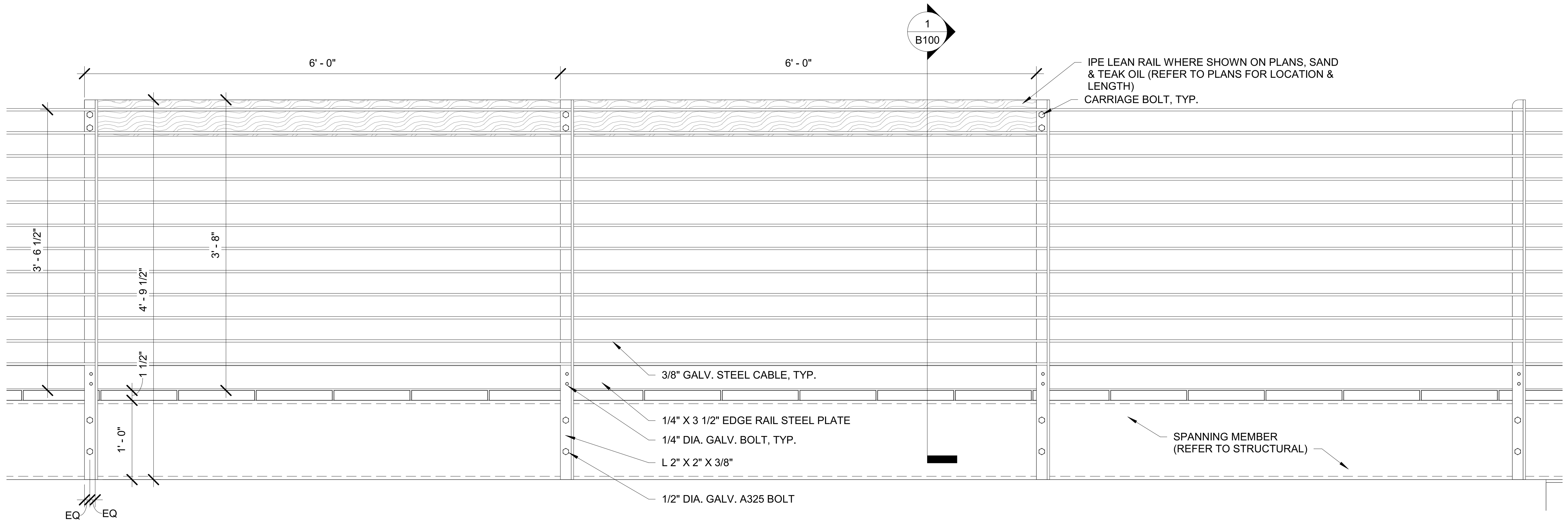


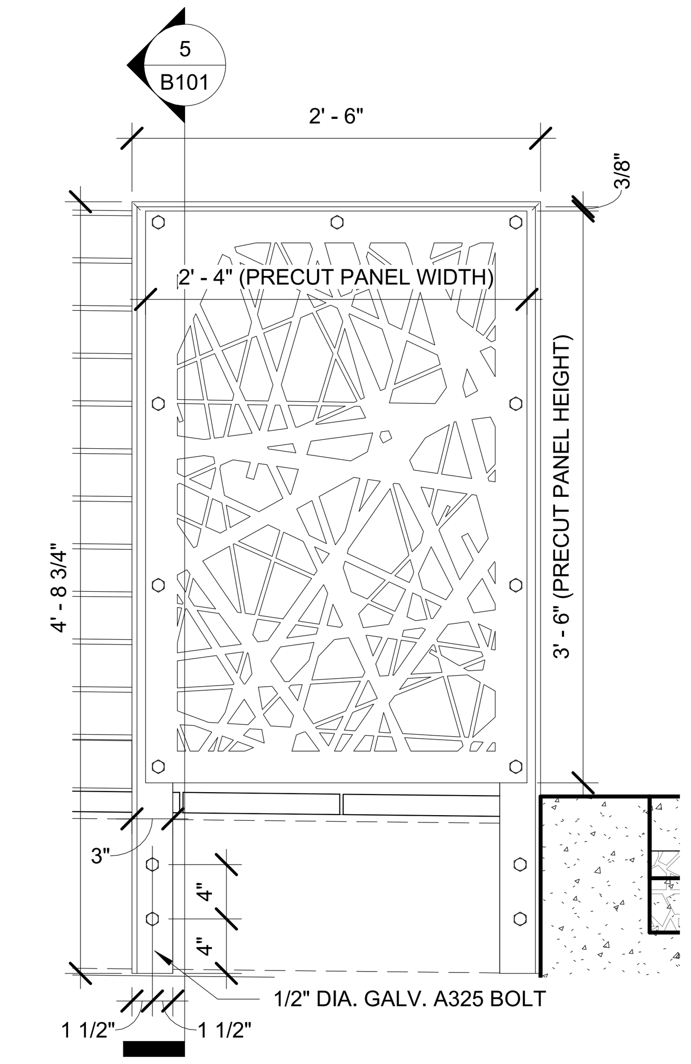
1 GUARDRAIL TYPICAL DETAIL - FRONT
1" = 1'-0"



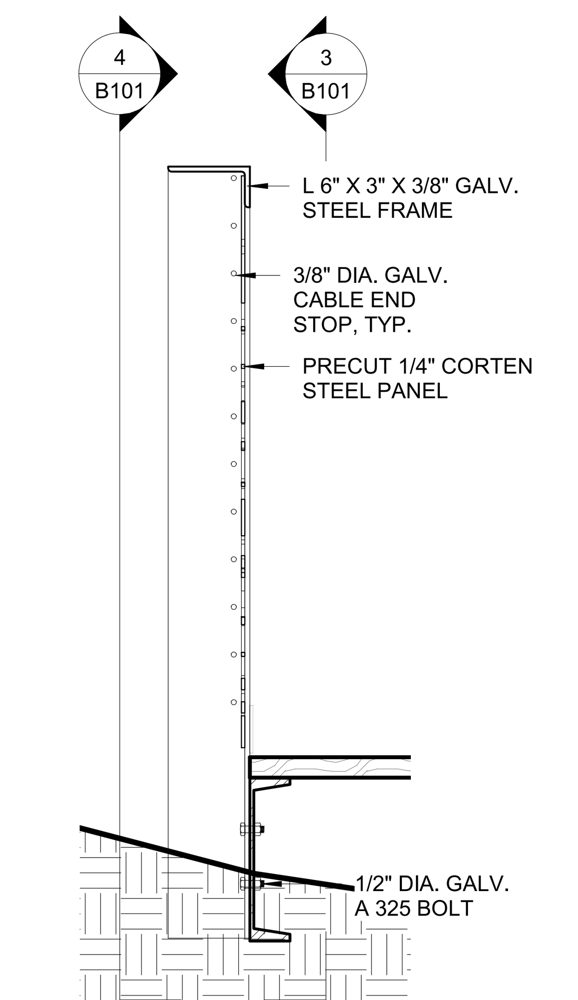
3 GUARDRAIL END POST DETAIL - FRONT
1" = 1'-0"



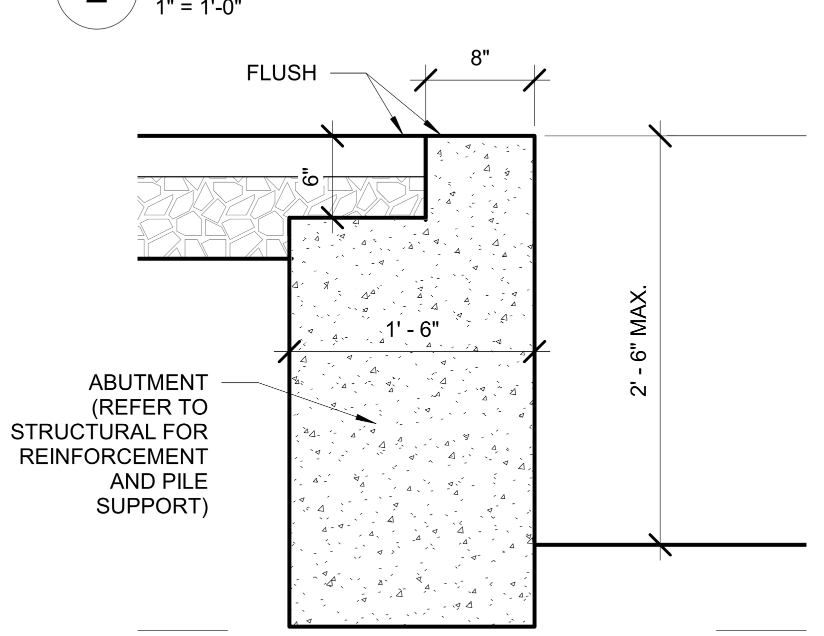
2 GUARDRAIL TYPICAL DETAIL - BACK
1" = 1'-0"



4 GUARDRAIL END POST DETAIL - BACK
1" = 1'-0"



5 GUARDRAIL END SECTION DETAIL
1" = 1'-0"



6 ABUTMENT TYPICAL SECTION
1" = 1'-0"

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON GREGORY E. BROWER NO. 545 EXP. 10/14/2024 LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:
Δ	DESCRIPTION	DATE

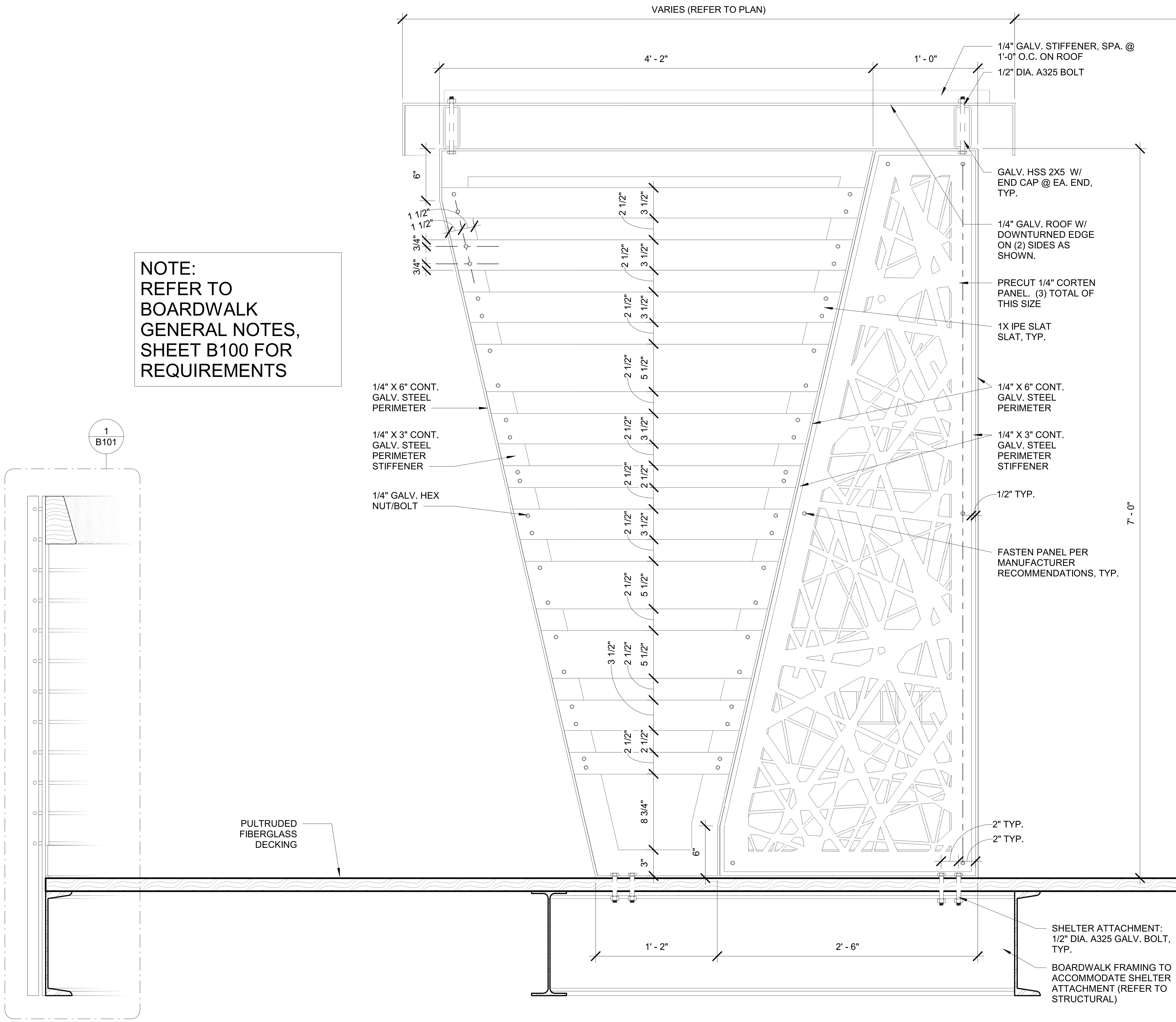
DRAWN/CHECKED:
MM / GB

SHEET NAME:
RAILING DETAILS

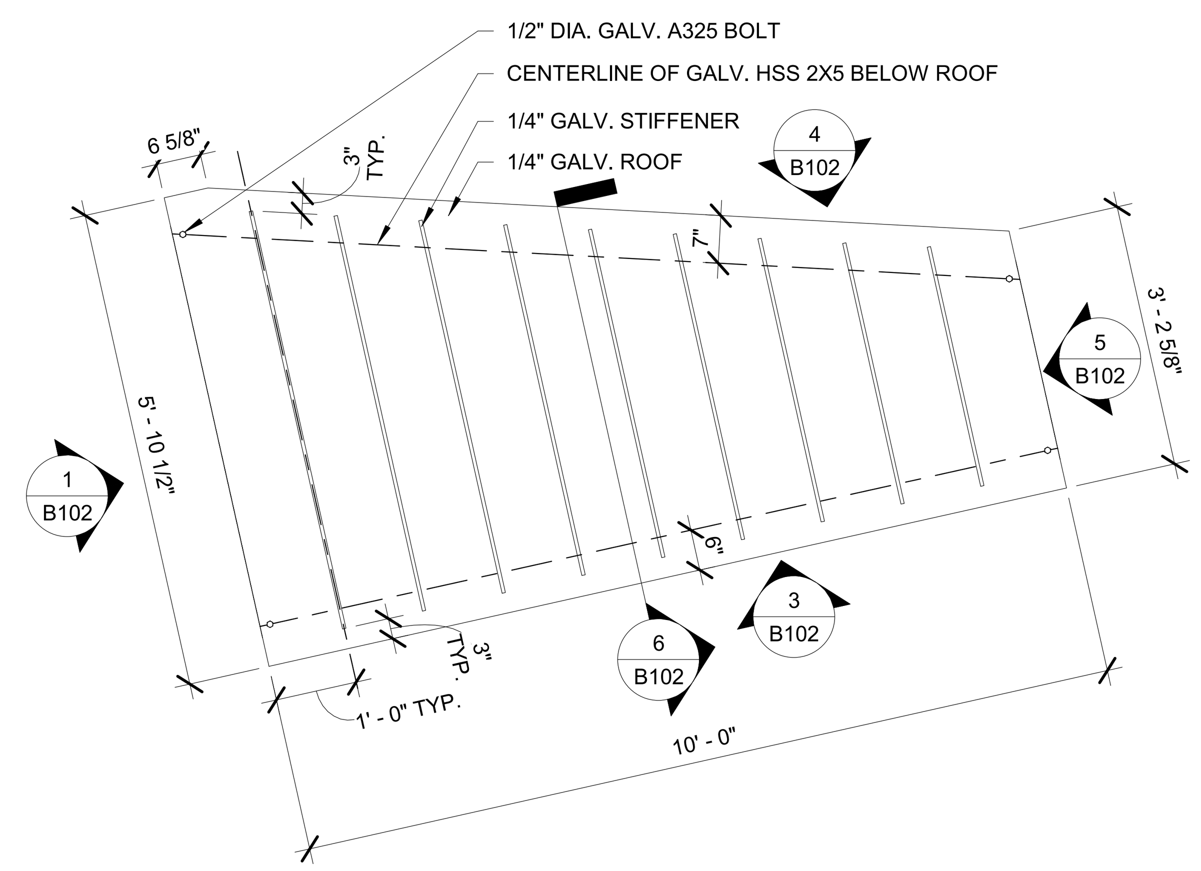
SHEET NUMBER:
B101

Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt
Plotted: 3/10/2023 1:41:54 PM
Berger Partnership Project Number: 20154880.01

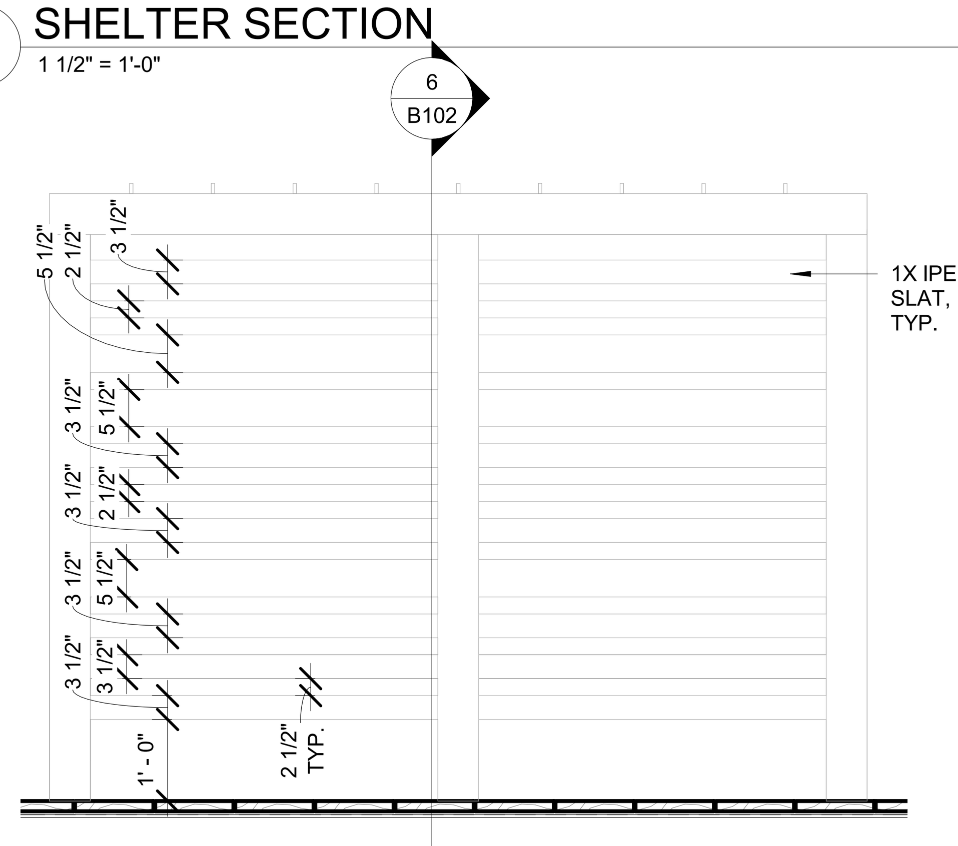
NOTE:
REFER TO
BOARDWALK
GENERAL NOTES,
SHEET B100 FOR
REQUIREMENTS



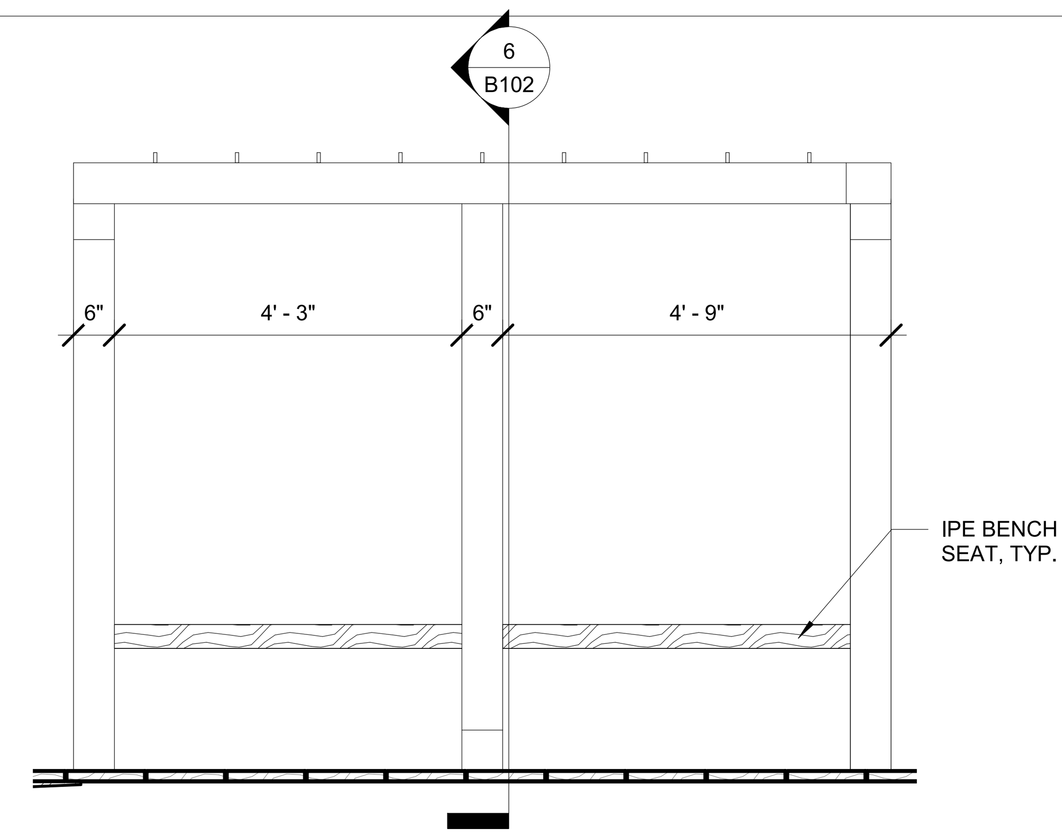
1 SHELTER SECTION
1 1/2" = 1'-0"



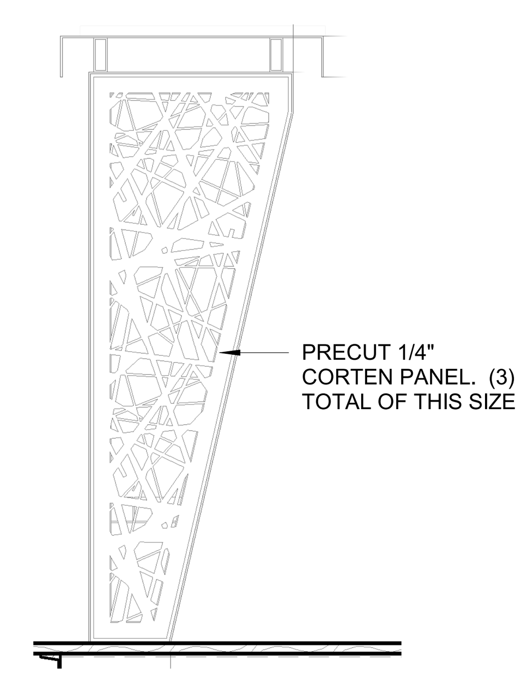
2 SHELTER ROOF PLAN
1/2" = 1'-0"



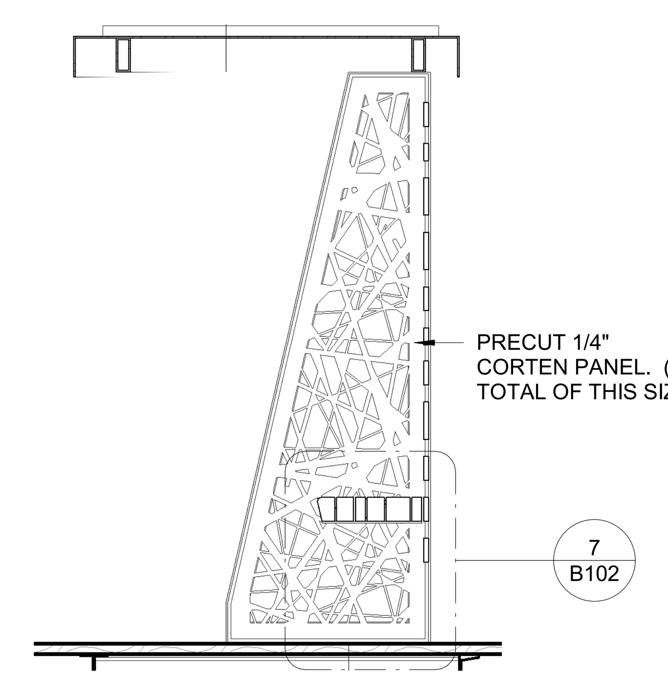
3 SHELTER BACK
1/2" = 1'-0"



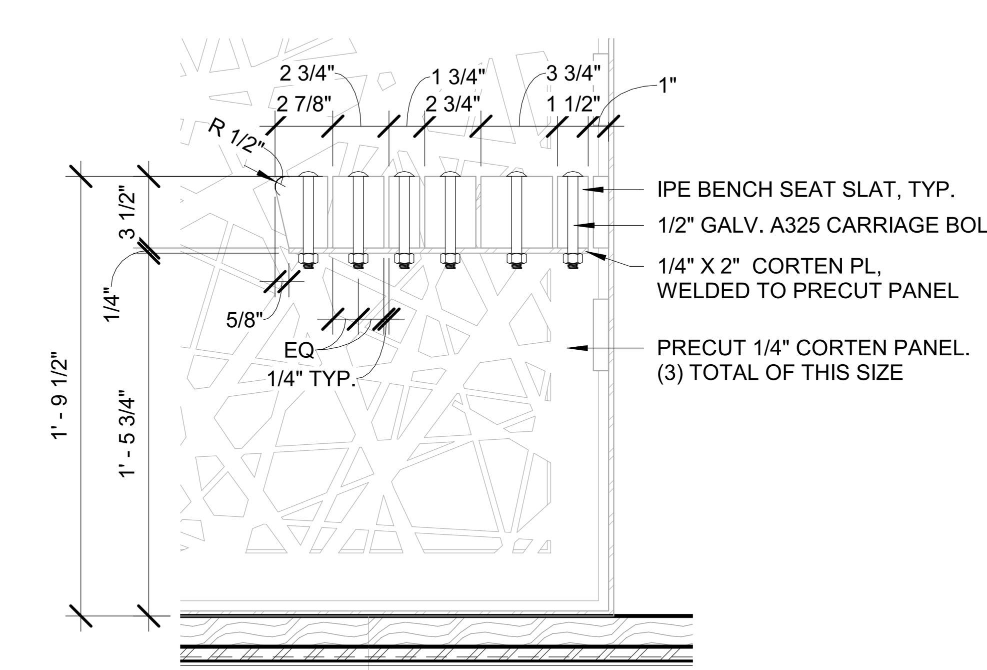
4 SHELTER FRONT
1/2" = 1'-0"



5 SHELTER SECTION 2
1/2" = 1'-0"



6 SHELTER SECTION 3
1/2" = 1'-0"



7 SHELTER BENCH SECTION
1 1/2" = 1'-0"

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
LANDSCAPE ARCHITECT

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

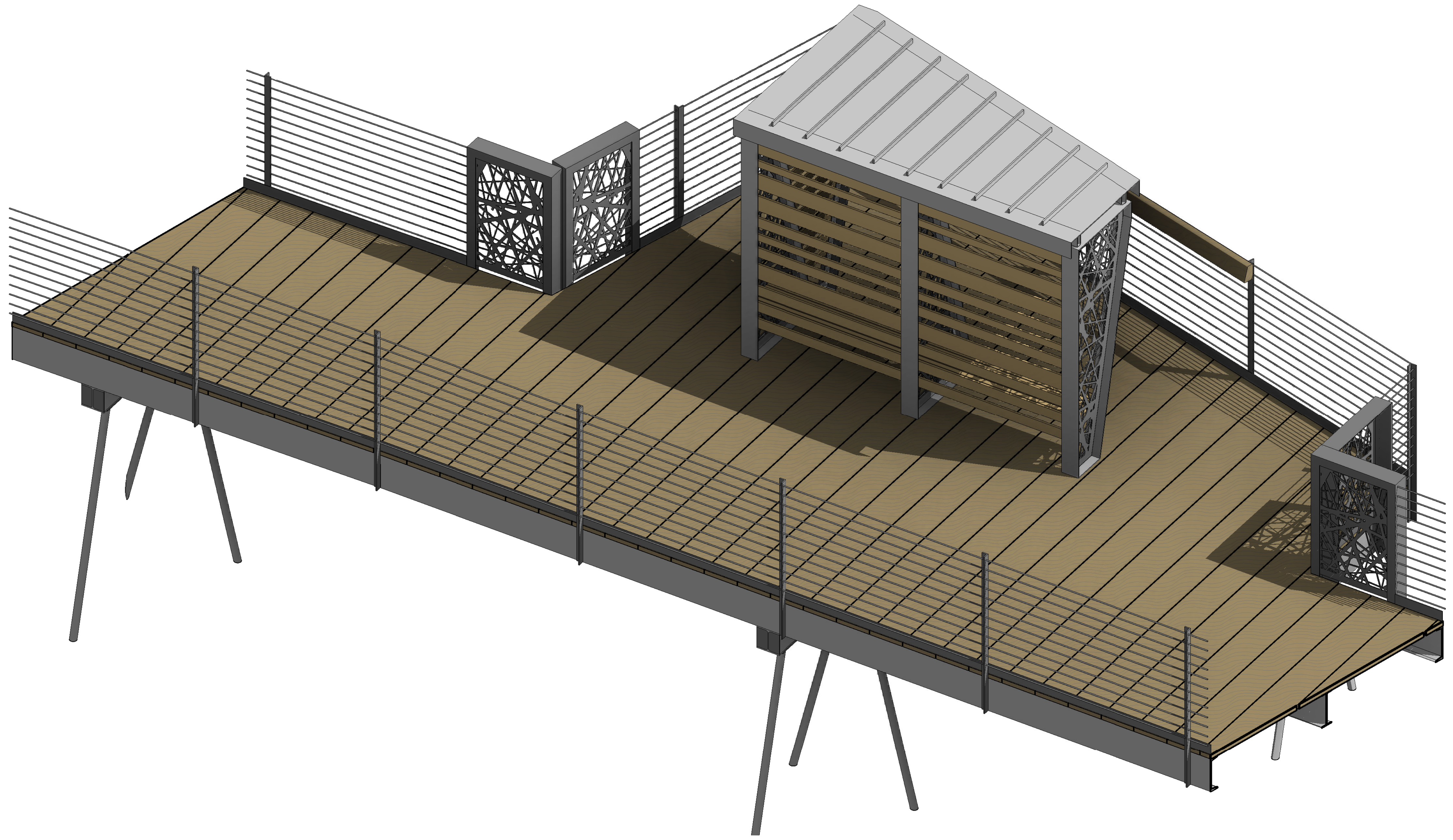
REVISIONS:

Δ	DESCRIPTION	DATE

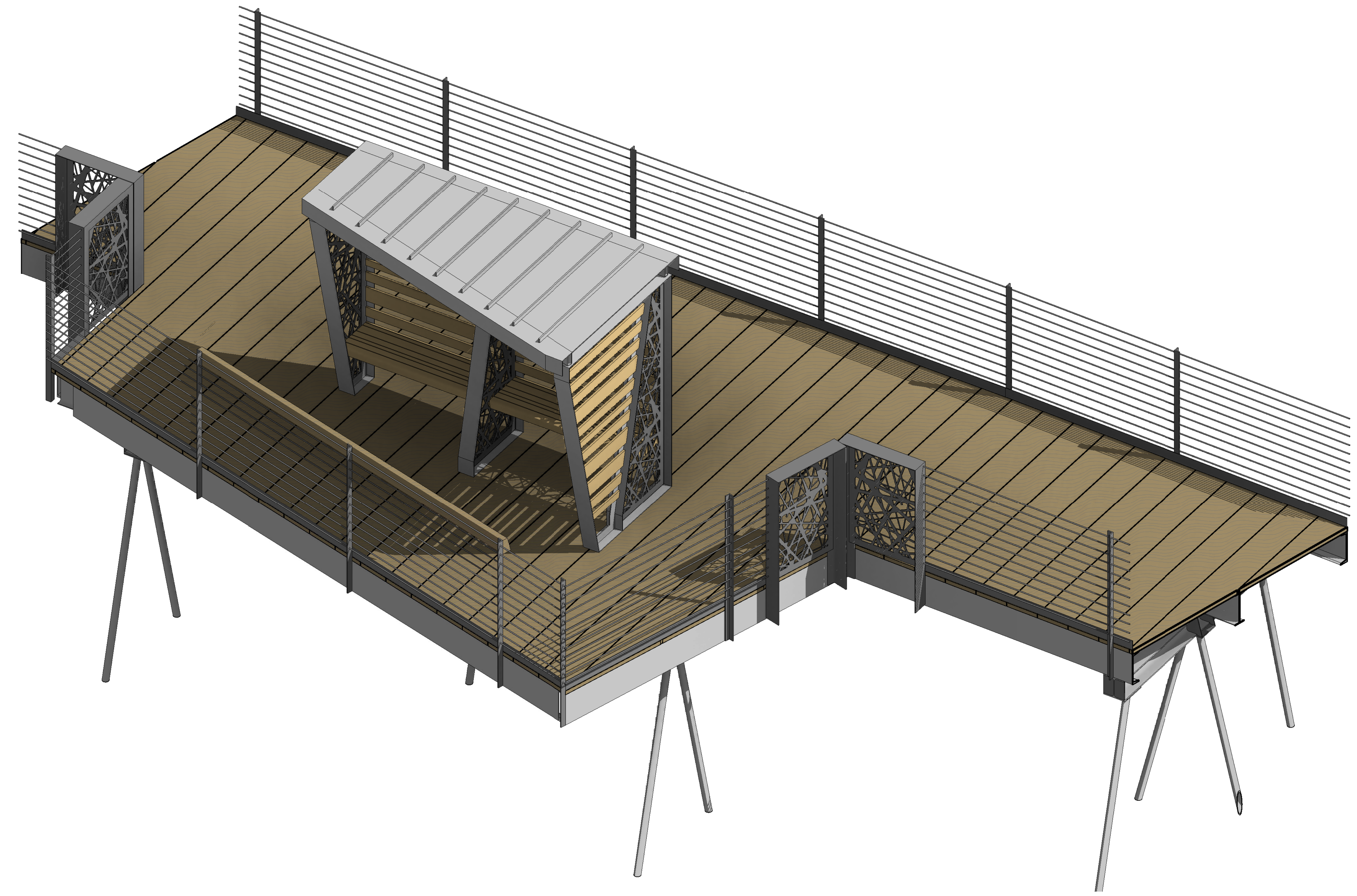
DRAWN/CHECKED:
MM / GB

SHEET NAME:
VIEWING PLATFORM DETAILS

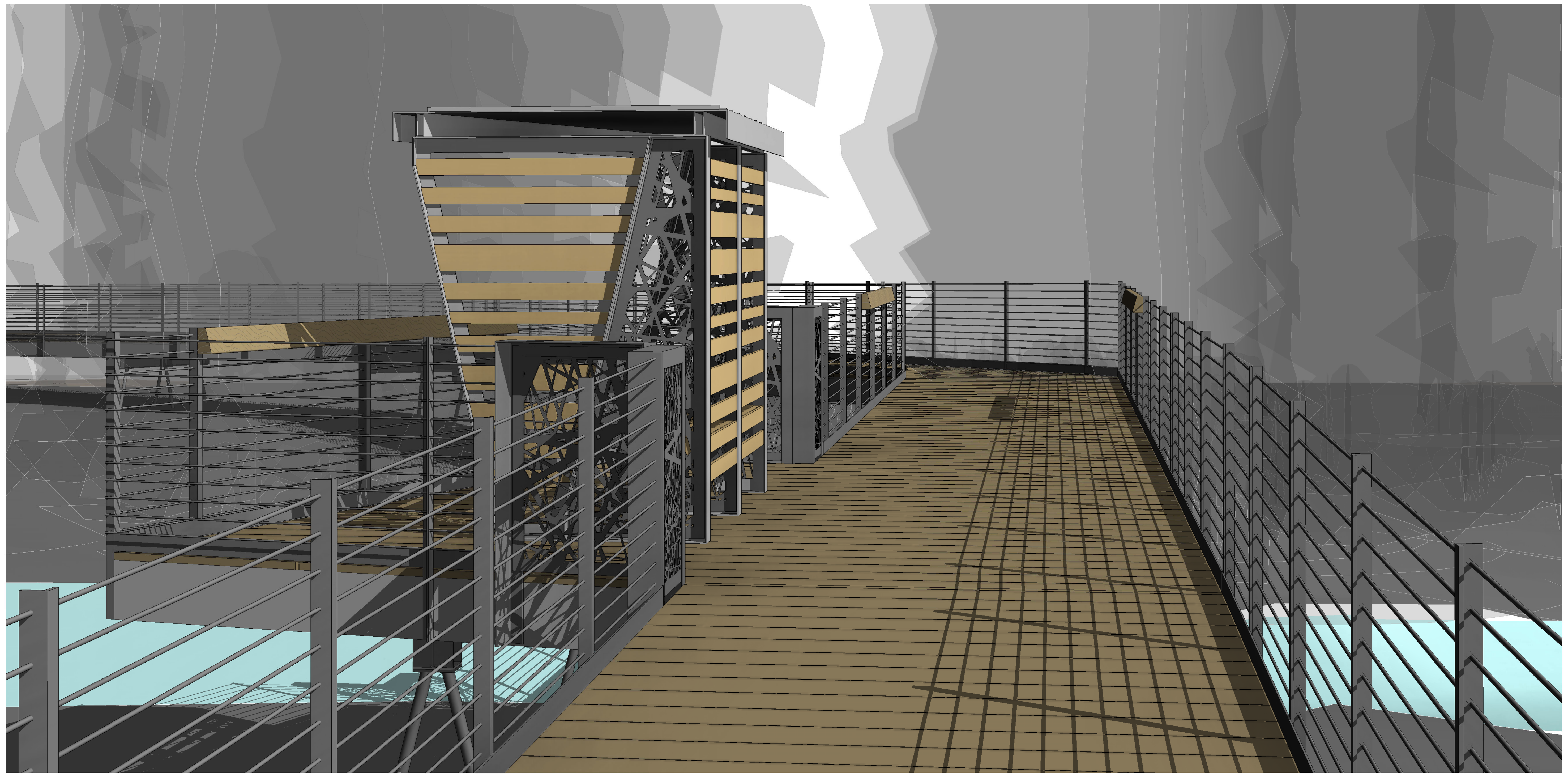
SHEET NUMBER:
B102



1 VIEWING PLATFORM NORTH FACING ISO - DESIGN INTENT VIEW



2 VIEWING PLATFORM SOUTH FACING ISO - DESIGN INTENT VIEW



3 BOARDWALK PERSPECTIVE - DESIGN INTENT VIEW

Berger Partnership Project Number: 20154880.01 Plotted: 3/10/2023 1:42:08 PM Filename: C:\Users\jordanz\Documents\LAKE BOREN PARK - PH1 - 2020_jordanz5BL89.rvt

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle

13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON GREGORY E. BROWER NO. 545 EXP. 10/14/2024 LANDSCAPE ARCHITECT

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Δ	DESCRIPTION	DATE

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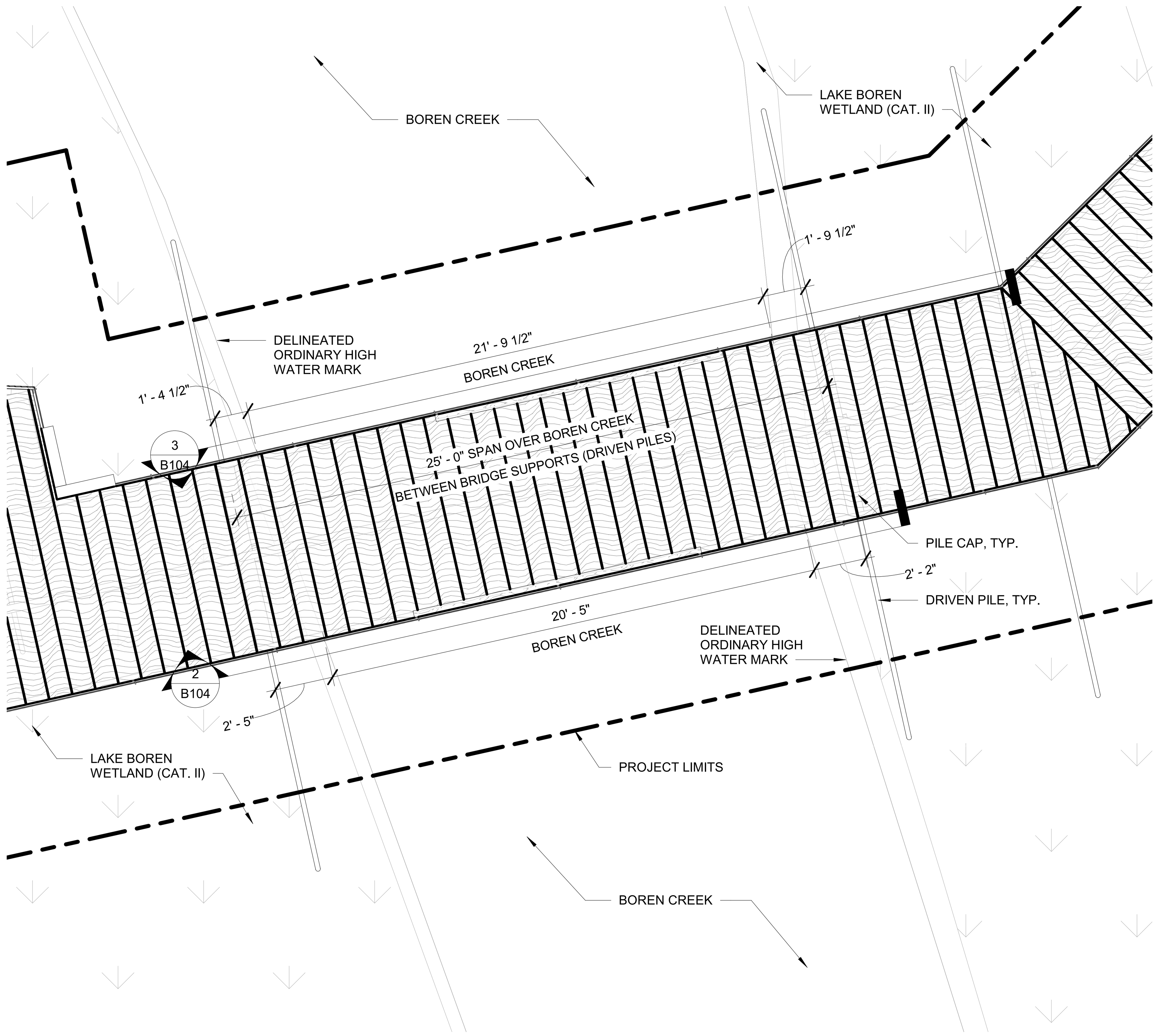
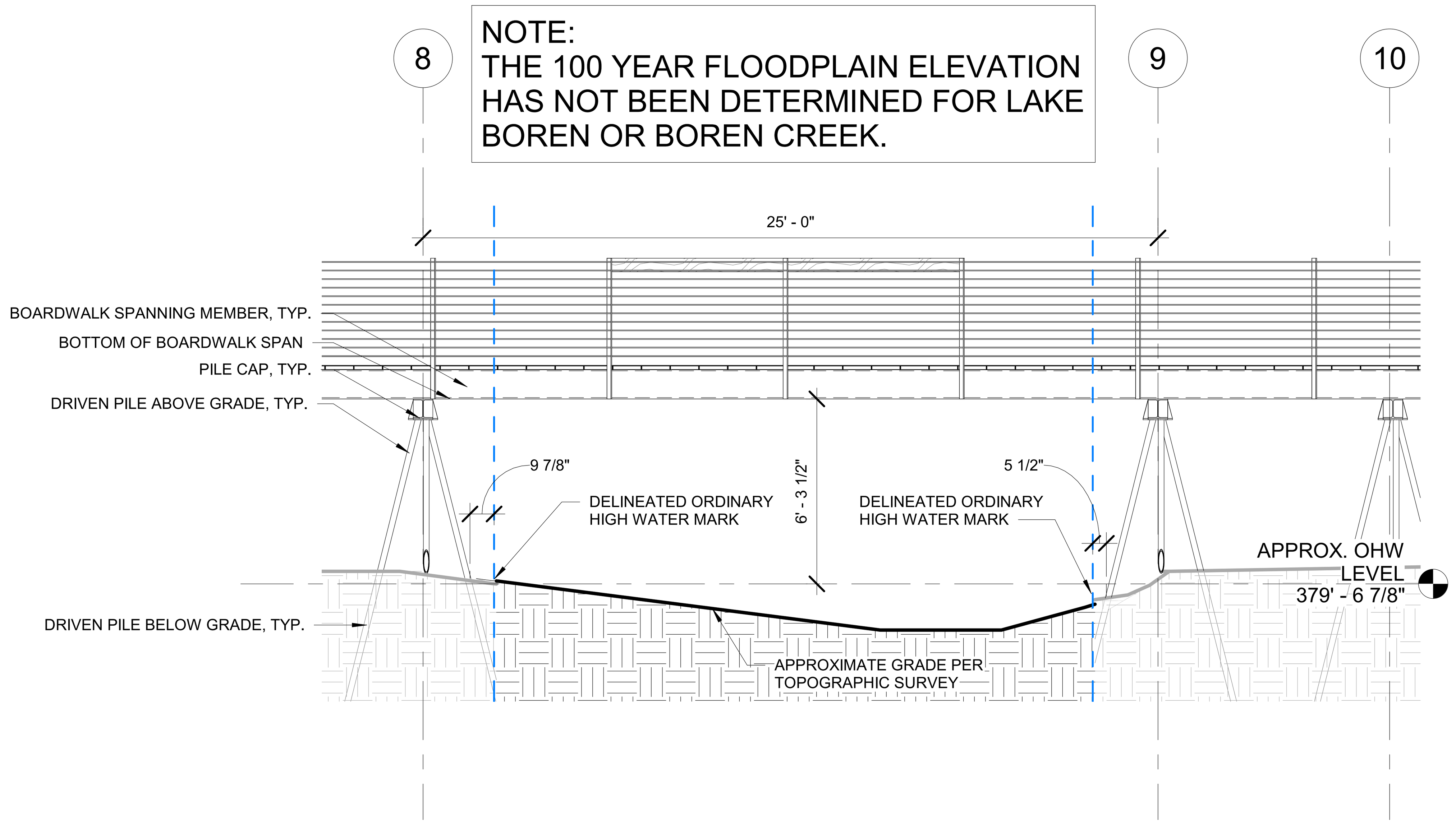
VIEWING PLATFORM VIGNETTES

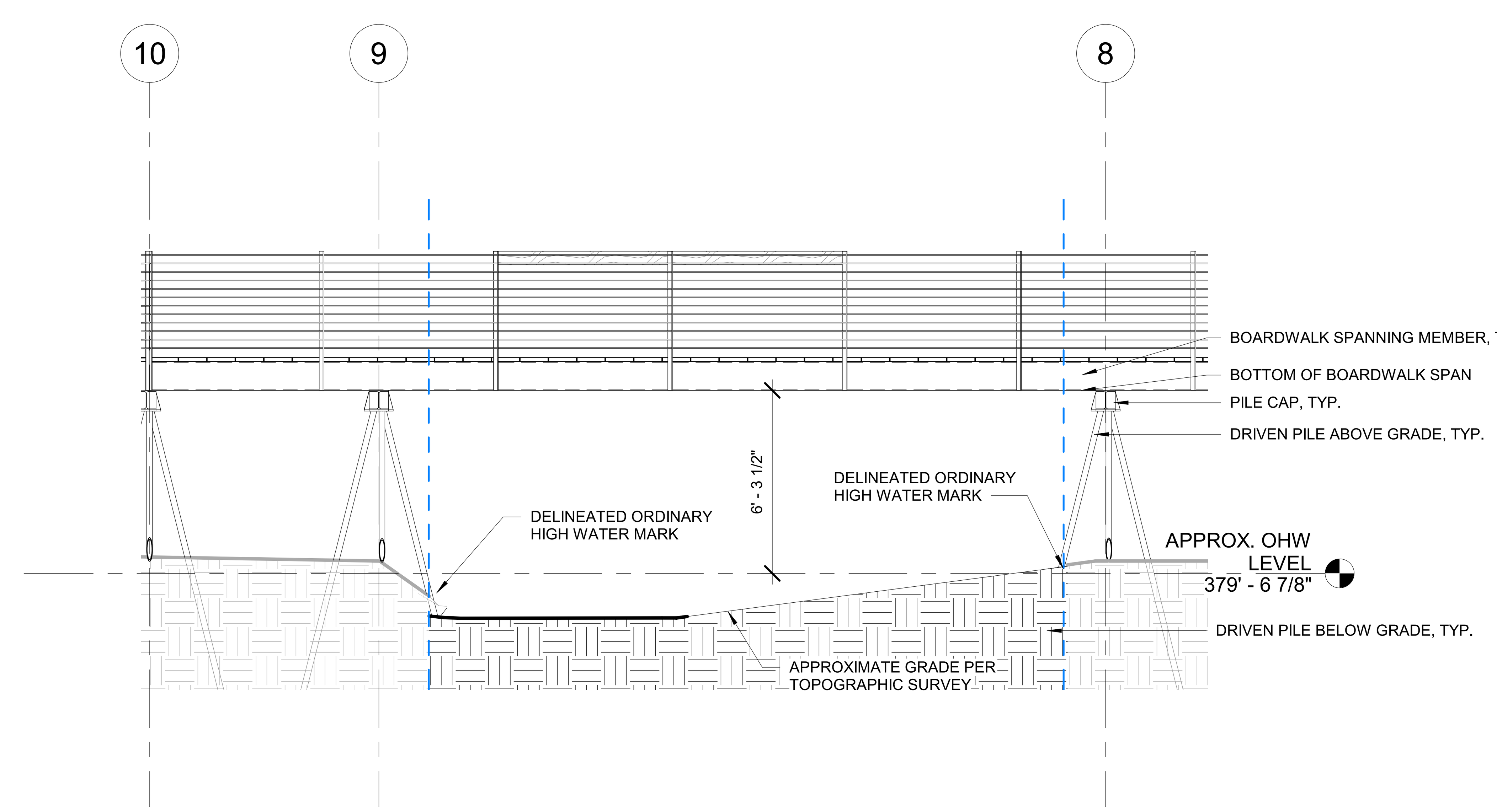
SHEET NUMBER:
B103



1 MAIN BOARDWALK - STREAM CROSSING ENLARGEMENT
1/4" = 1'-0"



2 BOARDWALK STREAM CROSSING - SECTION 1
1/4" = 1'-0"



3 BOARDWALK STREAM CROSSING - SECTION 2
1/4" = 1'-0"

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STATE OF WASHINGTON
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SHEET NAME:
STREAM CROSSING DETAILS

SHEET NUMBER:
B104

Berger Partnership Project Number: 20154880.01
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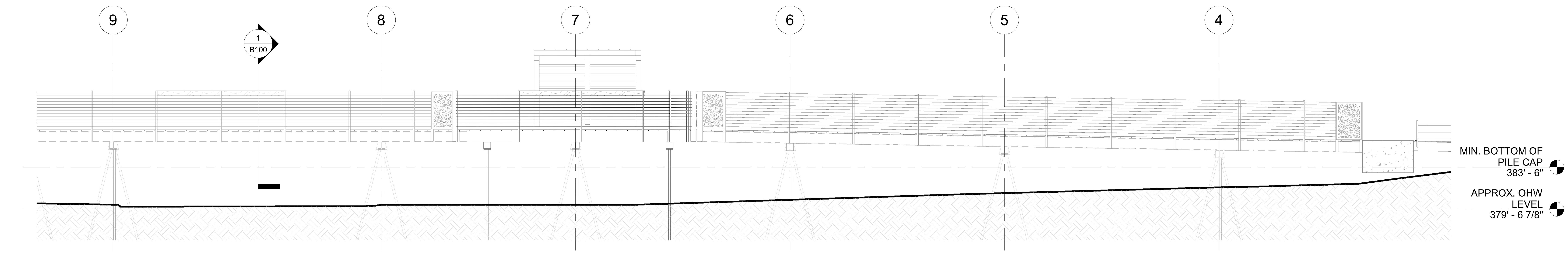
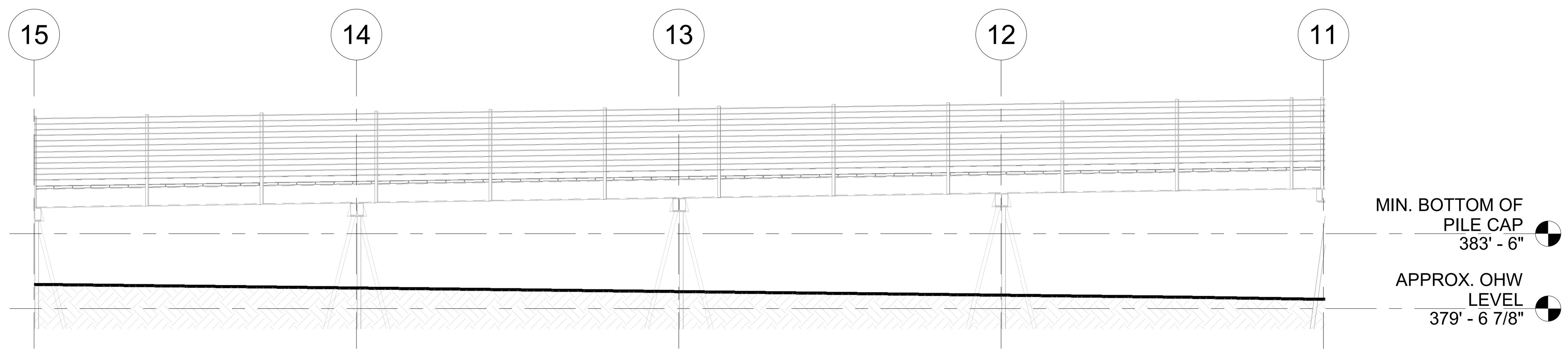
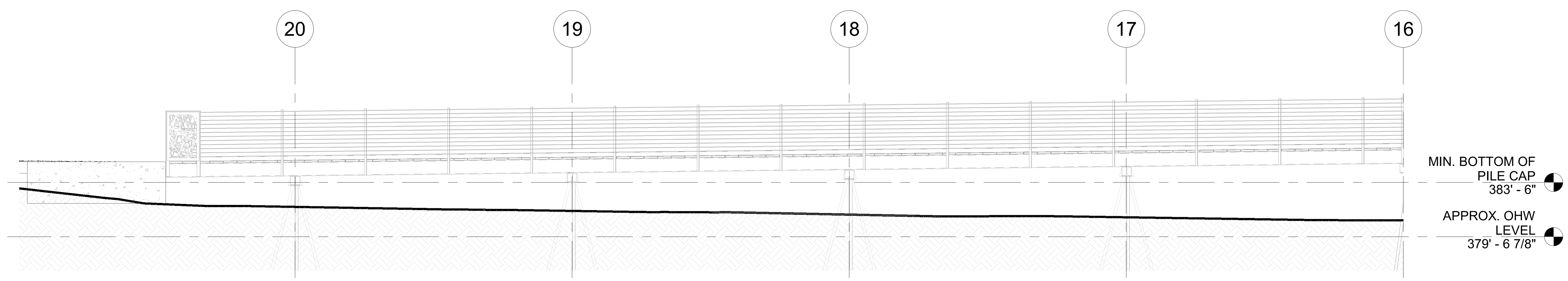


1 BOARDWALK SECTION GRIDS 4-10
3/16" = 1'-0"



2 BOARDWALK SECTION GRIDS 11-15
3/16" = 1'-0"



3 BOARDWALK SECTION GRIDS 16-20
3/16" = 1'-0"

Berger Partnership Project Number: 20154880.01
Plotted: 3/10/2023 1:42:16 PM
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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle

13058 SE 84TH WAY NEWCASTLE, WA 98056

STATE OF WASHINGTON
GREGORY E. BROWER
NO. 545 EXP. 10/14/2024
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SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
MM / GB

SHEET NAME:
BOARDWALK ELEVATIONS

SHEET NUMBER:
B105

General Structural Notes

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

CRITERIA

1. ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (2018 EDITION) WITH CITY OF NEWCASTLE AMENDMENTS.

2. DESIGN LOADING CRITERIA:
   HANDRAILS AND GUARDS
   GUARDRAILS. . . . . 50 PLF
   GUARDRAILS CONCENTRATED LOAD . . . . 200 LBS
   MISCELLANEOUS LOADS
   PEDESTRIAN WALKWAY. . . . . .100 PSF
   DECKS . . . . 1.5 x AREA SERVED
   DEFLECTION CRITERIA
   LIVE LOAD DEFLECTION L/360
   TOTAL LOAD DEFLECTION L/240
   ENVIRONMENTAL LOADS
   WIND . . . . GCpi=0.18, 98 MPH, RISK CATEGORY II, EXPOSURE "B"
   EARTHQUAKE . ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
   LATERAL SYSTEM: BATTERED PILES, Vs = 2.90 KIPS
   SITE CLASS=E, Ss=1.41, Sds=1.128, S1=0.486, SD1=0.722, Cs=0.904, SDC D, Ie=1.0, R=1.0
   SEE PLANS FOR ADDITIONAL LOADING CRITERIA

3. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. ARCHITECTURAL DRAWINGS ARE THE PRIME CONTRACT DRAWINGS. ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, THE SPECIFICATION, THESE GENERAL NOTES AND THE SITE CONDITIONS SHALL BE REPORTED TO THE ARCHITECT, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE GENERAL CONTRACTOR AFTER DISCOVERY OF SUCH DISCREPANCY SHALL BE DONE AT THE GENERAL CONTRACTOR'S RISK.

4. PRIMARY STRUCTURAL ELEMENTS NOT DIMENSIONED ON THE STRUCTURAL PLANS AND DETAILS SHALL BE LOCATED BY THE ARCHITECTURAL PLANS AND DETAILS. VERTICAL DIMENSION CONTROL IS DEFINED BY THE ARCHITECTURAL WALL SECTIONS, BUILDING SECTION, AND PLANS. DETAILING AND SHOP DRAWING PRODUCTION FOR STRUCTURAL ELEMENTS WILL REQUIRE DIMENSIONAL INFORMATION CONTAINED IN BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.

5. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PRECAUTIONS AND THE METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES REQUIRED TO PERFORM THE CONTRACTORS WORK. THE STRUCTURAL ENGINEER HAS NO OVERALL SUPERVISORY AUTHORITY OR ACTUAL AND/OR DIRECT RESPONSIBILITY FOR THE SPECIFIC WORKING CONDITIONS AT THE SITE AND/OR FOR ANY HAZARDS RESULTING FROM THE ACTIONS OF ANY TRADE CONTRACTOR. THE STRUCTURAL ENGINEER HAS NO DUTY TO INSPECT, SUPERVISE, NOTE, CORRECT, OR REPORT ANY HEALTH OR SAFETY DEFICIENCIES TO THE OWNER, CONTRACTORS, OR OTHER ENTITIES OR PERSONS AT THE PROJECT SITE.

6. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR THE STRUCTURE AND STRUCTURAL COMPONENTS UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE PLANS. CONFORM TO ASCE 37-14 "DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION".

7. CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

8. DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER. ALL TYPICAL NOTES AND DETAILS SHOWN ON DRAWINGS SHALL APPLY, UNLESS NOTED OTHERWISE. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE TYPICAL DETAILS ARE NOTED ON THE PLANS, THE SPECIFIED TYPICAL DETAIL SHALL BE USED. WHERE NO TYPICAL DETAIL IS NOTED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE APPROPRIATE TYPICAL DETAIL FROM THOSE PROVIDED OR REQUEST ADDITIONAL INFORMATION. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED ALTERNATE TYPICAL DETAILS TO THOSE PROVIDED WITH RELATED CALCULATIONS TO THE ENGINEER FOR APPROVAL PRIOR TO SHOP DRAWING PRODUCTION AND FIELD USE.

9. ALL STRUCTURAL SYSTEMS, WHICH ARE TO BE COMPOSED OF COMPONENTS TO BE FIELD ERECTED, SHALL BE SUPERVISED BY THE SUPPLIER DURING MANUFACTURING, DELIVERY, HANDLING, STORAGE AND ERECTION IN ACCORDANCE WITH INSTRUCTIONS PREPARED BY THE SUPPLIER.

10. SHOP DRAWINGS FOR THE FOLLOWING ITEMS SHALL BE SUBMITTED TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION OF THESE ITEMS.

    REINFORCING STEEL (FOR BOTH CONCRETE AND MASONRY CONSTRUCTION)
    STRUCTURAL STEEL

    APPROVED SETS OF ALL SHOP DRAWINGS SHALL ALSO BE SUBMITTED TO THE BUILDING DEPARTMENT.

11. SHOP DRAWING REVIEW: DIMENSIONS AND QUANTITIES ARE NOT REVIEWED BY THE ENGINEER OF RECORD, THEREFORE MUST BE VERIFIED BY THE CONTRACTOR. CONTRACTOR SHALL REVIEW AND STAMP DRAWINGS PRIOR TO REVIEW BY ENGINEER OF RECORD. CONTRACTOR SHALL REVIEW DRAWINGS FOR CONFORMANCE WITH THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, AND ALL SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO. SUBMITTALS SHALL INCLUDE A REPRODUCIBLE AND ONE COPY; REPRODUCIBLE WILL BE MARKED AND RETURNED WITHIN TWO WEEKS OF RECEIPT WITH A NOTATION INDICATING THAT THE SUBMITTAL HAS BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE SUBMITTED ITEMS SHALL NOT BE INSTALLED UNTIL THEY HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

    SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT, BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

QUALITY ASSURANCE

12. SPECIAL INSPECTION SHALL BE PROVIDED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND SECTIONS 110 AND 1705 OF THE INTERNATIONAL BUILDING CODE BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE ARCHITECT, AND RETAINED BY THE BUILDING OWNER. THE ARCHITECT, STRUCTURAL ENGINEER, AND BUILDING DEPARTMENT SHALL BE FURNISHED WITH COPIES OF ALL INSPECTION AND TEST RESULTS. SPECIAL INSPECTION OF THE FOLLOWING TYPES OF CONSTRUCTION IS REQUIRED UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL FABRICATION AND ERECTION	PER AISC 360
CONCRETE CONSTRUCTION	PER TABLE 1705.3
SOIL CONDITIONS, FILL PLACEMENT, AND DENSITY	PER TABLE 1705.6
DRIVEN DEEP FOUNDATION (PILES)	PER TABLE 1705.7
EXPANSION BOLTS AND THREADED EXPANSION INSERTS	PER MANUFACTURER
EPOXY GROUTED INSTALLATIONS	PER MANUFACTURER

    PERIODIC INSPECTION: INSPECTION SHALL BE PERFORMED AT INTERVALS NECESSARY TO CONFIRM THAT WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE WITH REQUIREMENTS.
    CONTINUOUS INSPECTION: INSPECTOR SHALL BE ONSITE AND OBSERVE THE WORK REQUIRING INSPECTION AT ALL TIMES THAT WORK IS PERFORMED.

GEOTECHNICAL

13. FOUNDATION NOTES: SUBGRADE PREPARATION INCLUDING DRAINAGE, EXCAVATION, COMPACTION, AND FILLING REQUIREMENTS, SHALL CONFORM STRICTLY WITH RECOMMENDATIONS GIVEN IN THE SOILS REPORT OR AS DIRECTED BY THE SOILS ENGINEER. FOOTINGS SHALL BEAR ON SOLID UNDISTURBED EARTH OR COMPACTED STRUCTURAL FILL AT LEAST 18" BELOW LOWEST ADJACENT FINISHED GRADE. FOOTING DEPTHS/ELEVATIONS SHOWN ON PLANS (OR IN DETAILS) ARE MINIMUM AND FOR GUIDANCE ONLY; THE ACTUAL ELEVATIONS OF FOOTINGS MUST BE ESTABLISHED BY THE CONTRACTOR IN THE FIELD WORKING WITH THE TESTING LAB AND SOILS ENGINEER. BACKFILL BEHIND ALL RETAINING WALLS WITH FREE DRAINING GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE AS NOTED IN THE SOILS REPORT.

    ALLOWABLE PASSIVE EARTH PRESSURE (FS OF 1.5 INCLUDED). . . . . . . 200 PCF
    2" DIAMETER PILE CAPACITY (COMPRESSION/TENSION/LATERAL) . . . 4,000 LBS

    SOILS REPORT REFERENCE: ASSOCIATED EARTH SCIENCES RPT. 170147E001 9/14/2017

14. PIN PILES SHOWN ON THE PLAN SHALL BE 2"DIAMETER SCHEDULE 80. THE MAXIMUM CAPACITY OF 2"PILES SHALL BE 2 TONS. ALL PILES SHALL BE DRIVEN TO REFUSAL IN ACCORDANCE WITH THE GEOTECHNICAL REPORT. AS A MINIMUM, PILE REFUSAL SHALL BE DEFINED AS 1 INCH OF PENETRATION IN 60 SECONDS DURING CONTINUOUS DRIVING OF A 90 LB JACK HAMMER UNDER THE FULL WEIGHT AND EFFORT OF THE OPERATOR. PILES USED IN COMMON TO RESIST LATERAL EARTH PRESSURES SHALL HAVE THE ADDITIONAL REQUIREMENT OF BEING EMBEDDED A MINIMUM OF 10 FEET BELOW RETAINED GRADE. THE MAXIMUM PILE ECCENTRICITY SHALL BE 2 INCHES. GEOTECHNICAL SPECIAL INSPECTION SHALL BE SUBJECT TO THE DISCRETION OF THE GEOTECHNICAL ENGINEER AND THE BUILDING DEPARTMENT. SEE PLANS FOR OTHER SIZES AND CRITERIA.

CONCRETE

15. CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH ACI 301, INCLUDING TESTING PROCEDURES. CONCRETE SHALL ATTAIN A 28-DAY STRENGTH OF f'c = 4,500 PSI AND MIX SHALL CONTAIN NOT LESS THAN 5-1/2 SACKS OF CEMENT PER CUBIC YARD AND SHALL BE PROPORTIONED TO PRODUCE A SLUMP OF 5" OR LESS. REQUIRED CONCRETE STRENGTH IS BASED ON THE DURABILITY REQUIREMENTS OF SECTION 1904 OF THE IBC.

16. A CONCRETE PERFORMANCE MIX SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, FINE AND COARSE AGGREGATE, WATER AND ADMIXTURES AS WELL AS THE WATER CEMENT RATIO, SLUMP, CONCRETE YIELD AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH ACI 318, SECTION 5.3. THE USE OF A PERFORMANCE MIX REQUIRES BATCH PLANT INSPECTION, THE COST OF WHICH SHALL BE PAID BY THE GENERAL CONTRACTOR. REVIEW OF MIX SUBMITTALS BY THE ENGINEER OF RECORD INDICATES ONLY THAT INFORMATION PRESENTED CONFORMS GENERALLY WITH CONTRACT DOCUMENTS. CONTRACTOR OR SUPPLIER MAINTAINS FULL RESPONSIBILITY FOR SPECIFIED PERFORMANCE.

17. ALL CONCRETE WITH SURFACES EXPOSED TO WEATHER OR STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, AND C618. TOTAL AIR CONTENT FOR FROST-RESISTANT CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318, TABLE 19.3.2.1 MODERATE EXPOSURE, F1.

18. REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, FY = 60,000 PSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, FY = 40,000 PSI. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185. SPIRAL REINFORCEMENT SHALL BE DEFORMED WIRE CONFORMING TO ASTM A615, GRADE 60, FY = 60,000 PSI.

19. DETAILING OF REINFORCING STEEL (INCLUDING HOOKS AND BENDS) SHALL BE IN ACCORDANCE WITH ACI 315-99 AND 318-14. LAP ALL CONTINUOUS REINFORCEMENT #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS #5 AND SMALLER 40 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318-14, CLASS B. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

    NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

20. CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

    FOOTINGS AND OTHER UNFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH . . . . 3"
    FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#6 BARS OR LARGER) . . . . 2"
    FORMED SURFACES EXPOSED TO EARTH OR WEATHER (#5 BARS OR SMALLER). . 1-1/2"
    COLUMN TIES OR SPIRALS AND BEAM STIRRUPS . . . . 1-1/2"
    SLABS AND WALLS (INT. FACE). . . GREATER OF BAR DIAMETER PLUS 1/8" OR 3/4"

21. CONCRETE WALL REINFORCING--PROVIDE THE FOLLOWING UNLESS DETAILED OTHERWISE:

6" WALLS	#4 @ 16 HORIZ.	#4 @ 18 VERTICAL	1 CURTAIN
8" WALLS	#4 @ 12 HORIZ.	#4 @ 18 VERTICAL	1 CURTAIN
10" WALLS	#4 @ 18 HORIZ.	#4 @ 18 VERTICAL	2 CURTAINS
12" WALLS	#4 @ 16 HORIZ.	#4 @ 18 VERTICAL	2 CURTAINS

22. CAST-IN-PLACE CONCRETE: SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN ALL CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE WALLS. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES, BOTH CAST-IN-PLACE AND PRECAST.

23. NON-SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3000 PSI MINIMUM).

ANCHORAGE

24. EXPANSION BOLTS INTO CONCRETE AND CONCRETE MASONRY UNITS SHALL BE "KWIK BOLT TZ" AS MANUFACTURED BY THE HILTI CORP., INSTALLED IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-1917, INCLUDING MINIMUM EMBEDMENT REQUIREMENTS. BOLTS INTO CONCRETE MASONRY OR BRICK MASONRY UNITS SHALL BE INTO FULLY GROUTED CELLS. SUBSTITUTES PROPOSED BY CONTRACTOR SHALL BE SUBMITTED FOR REVIEW WITH ICC REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. PERIODIC SPECIAL INSPECTION IS REQUIRED TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, ANCHOR LOCATION, TIGHTENING TORQUE, HOLE DIMENSIONS, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS.

25. EPOXY-GROUTED ITEMS (THREADED RODS OR REINFORCING BAR) SPECIFIED ON THE DRAWINGS SHALL BE INSTALLED USING "SET-XP" HIGH STRENGTH EPOXY AS MANUFACTURED BY THE SIMPSON STRONG, TIE COMPANY. INSTALL IN STRICT ACCORDANCE WITH ICC-ES REPORT NO. ESR-2508. MINIMUM BASE MATERIAL TEMPERATURE IS 50 DEGREES, F. RODS SHALL BE ASTM A-36 UNLESS OTHERWISE NOTED. PERIODIC SPECIAL INSPECTION OF INSTALLATION IS REQUIRED TO VERIFY ANCHOR OR EMBEDED BAR TYPE AND DIMENSIONS, LOCATION, ADHESIVE IDENTIFICATION AND EXPIRATION, HOLE DIMENSIONS, HOLE CLEANING PROCEDURE, ANCHOR EMBEDMENT, AND ADHERENCE TO THE INSTALLATION INSTRUCTIONS. CONTINUOUS SPECIAL INSPECTION IS REQUIRED FOR HORIZONTAL AND OVERHEAD INSTALLATIONS.

STEEL

26. STRUCTURAL STEEL DESIGN, FABRICATION, AND ERECTION SHALL BE BASED ON:

    A. AISC 360 AND SECTION 2205.2 OF THE INTERNATIONAL BUILDING CODE.
    B. APRIL 14, 2010 AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES AMENDED AS FOLLOWS: AS NOTED IN THE CONTRACT DOCUMENTS, BY THE DELETION OF PARAGRAPH 4.4.1, AND REVISE REFERENCE FROM "STRUCTURAL DESIGN DRAWINGS" TO "CONTRACT DOCUMENTS" IN PARAGRAPH 3.1.
    C. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM F3125 GRADE A325 OR GRADE A490 BOLTS.

27. WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A992, FY = 50 KSI. OTHER ROLLED SHAPES INCLUDING PLATES, SHALL CONFORM TO ASTM A36, FY = 36 KSI. STEEL PIPE SHALL CONFORM TO ASTM A-53, TYPE E OR S, GRADE B, Fy = 35 KSI. STRUCTURAL TUBING SHALL CONFORM TO ASTM A500, GRADE B, FY = 42 KSI (ROUND), FY = 46 KSI (SQUARE AND RECTANGULAR). CONNECTION BOLTS SHALL CONFORM TO ASTM ASTM F3125 A325-N OR ASTM A307.

28. ARCHITECTURALLY EXPOSED STRUCTURAL STEEL SHALL CONFORM TO SECTION 10 OF THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

29. ALL STEEL EXPOSED TO THE WEATHER OR IN CONTACT WITH GROUND SHALL BE CORROSION PROTECTED BY GALVANIZATION OR PROVIDED WITH EXTERIOR PAINT SYSTEM, UNLESS OTHERWISE NOTED.

30. SHOP PRIME ALL STEEL EXCEPT:

    A. STEEL ENCASED IN CONCRETE.
    B. SURFACES TO BE WELDED.
    C. CONTACT SURFACES AT HIGH-STRENGTH BOLTS.
    D. MEMBERS TO BE GALVANIZED.
    E. MEMBERS WHICH WILL BE CONCEALED BY INTERIOR FINISHES.
    F. SURFACES TO RECEIVE SPRAYED FIREPROOFING.
    G. SURFACES TO RECEIVE OTHER SPECIAL SHOP PRIMERS.

31. ALL ASTM F3125 A325-N CONNECTION BOLTS NEED ONLY BE TIGHTENED TO A SNUG TIGHT CONDITION, DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT. THIS MAY BE ATTAINED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER USING AN ORDINARY SPUD WRENCH.

32. ALL ANCHORS EMBEDDED IN MASONRY OR CONCRETE SHALL BE A307 HEADED BOLTS OR A36 THREADED ROD WITH AN ASTM 563 HEAVY HEX NUT TACK WELDED ON THE EMBEDDED END.

33. ALL WELDING SHALL BE IN CONFORMANCE WITH AISC AND AWS STANDARDS AND SHALL BE PERFORMED BY WABO CERTIFIED WELDERS USING E70XX ELECTRODES. WELDERS SHALL BE WABO CERTIFIED FOR THE WELDS BEING PERFORMED. ONLY PREQUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED. ALL COMPLETE JOINT PENETRATION GROOVE WELDS SHALL BE MADE WITH A FILLER MATERIAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT -20 DEGREES F AND 40 FT - LBS AT 70 DEGREES F, AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION.

General Structural Notes
Continued on S1.2

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)
City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

DAN J. SAY STATE OF WASHINGTON 33000 PROFESSIONAL ENGINEER
02/01/23

SET TYPE: BID SET
SET ISSUE DATE: 03/10/23
REVISIONS: Δ DESCRIPTION DATE
DRAWN/CHECKED: RJ / GFJ
SHEET NAME: GENERAL STRUCTURAL NOTES
SHEET NUMBER: S1.1

General Structural Notes, Continued

THE FOLLOWING APPLY UNLESS SHOWN OTHERWISE ON THE DRAWINGS

WOOD

34. FRAMING LUMBER SHALL BE S-DRY, KD, OR MC-19, AND GRADED AND MARKED IN CONFORMANCE WITH WCLIB STANDARD "GRADING RULES FOR WEST COAST LUMBER NO. 17", OR WWPA STANDARD, "WESTERN LUMBER GRADING RULES 2011". FURNISH TO THE FOLLOWING MINIMUM STANDARDS:

JOISTS AND BEAMS	(2X & 3X MEMBERS)	HEM-FIR NO. 2 MINIMUM BASE VALUE, Fb = 850 PSI
	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fb = 1000 PSI
BEAMS	(INCL. 6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fb = 1350 PSI
POSTS	(4X MEMBERS)	DOUGLAS FIR-LARCH NO. 2 MINIMUM BASE VALUE, Fc = 1350 PSI
	(6X AND LARGER)	DOUGLAS FIR-LARCH NO. 1 MINIMUM BASE VALUE, Fc = 1000 PSI
STUDS, PLATES & MISC. FRAMING:		DOUGLAS-FIR-LARCH OR HEM-FIR NO. 2

35. ALL WOOD IN DIRECT CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE-TREATED WITH AN APPROVED PRESERVATIVE OR (2) LAYERS OF ASPHALT IMPREGNATED BUILDING PAPER SHALL BE PROVIDED BETWEEN UNTREATED WOOD AND CONCRETE OR MASONRY.

36. PRESERVATIVE TREATED WOOD SHALL BE TREATED PER AWPA STANDARD U1 TO THE USE CATEGORY EQUAL TO OR HIGHER THAN THE INTENDED APPLICATION. TREATED WOOD FOR ABOVE GROUND USE SHALL BE TREATED TO AWPA UC3B. WOOD IN CONTINUOUS CONTACT WITH FRESH WATER OR SOIL SHALL BE TREATED TO AWPA UC4A. WOOD FOR USE IN PERMANENT FOUNDATIONS SHALL BE TREATED TO AWPA UC4B.

37. FASTENERS AND TIMBER CONNECTORS USED WITH TREATED WOOD SHALL HAVE CORROSION RESISTANCE AS INDICATED IN THE FOLLOWING TABLE, UNLESS OTHERWISE NOTED.

WOOD TREATMENT	CONDITION	PROTECTION
HAS NO AMMONIA CARRIER	INTERIOR DRY	G90 GALVANIZED
CONTAINS AMMONIA CARRIER	INTERIOR DRY	G185 OR A185 HOT DIPPED OR CONTINUOUS HOT-GALVANIZED PER ASTM A653
CONTAINS AMMONIA CARRIER	INTERIOR WET	TYPE 304 OR 316 STAINLESS
CONTAINS AMMONIA CARRIER	EXTERIOR	TYPE 304 OR 316 STAINLESS
AZCA	ANY	TYPE 304 OR 316 STAINLESS

INTERIOR DRY CONDITIONS SHALL HAVE WOOD MOISTURE CONTENT LESS THAN 19%. WOOD MOISTURE CONTENT IN OTHER CONDITIONS (INTERIOR WET, EXTERIOR WET, AND EXTERIOR DRY) IS EXPECTED TO EXCEED 19%. CONNECTORS AND THEIR FASTENERS SHALL BE THE SAME MATERIAL. COMPLY WITH THE TREATMENT MANUFACTURERS RECOMMENDATIONS FOR PROTECTION OF METAL.

38. TIMBER CONNECTORS CALLED OUT BY LETTERS AND NUMBERS SHALL BE "STRONG-TIE" BY SIMPSON COMPANY, AS SPECIFIED IN THEIR CATALOG NUMBER C-2015. EQUIVALENT DEVICES BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THEY HAVE ICC-ES APPROVAL FOR EQUAL OR GREATER LOAD CAPACITIES. PROVIDE NUMBER AND SIZE OF FASTENERS AS SPECIFIED BY MANUFACTURER FOR MAXIMUM LOAD CARRYING CAPACITY. CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

ALL 2X JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "LUS" SERIES JOIST HANGERS. ALL TJI JOISTS SHALL BE CONNECTED TO FLUSH BEAMS WITH "ITS" SERIES JOIST HANGERS. ALL DOUBLE-JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH "MIT" SERIES JOIST HANGERS.

WHERE CONNECTOR STRAPS CONNECT TWO MEMBERS, PLACE ONE-HALF OF THE NAILS OR BOLTS IN EACH MEMBER.

ALL SHIMS SHALL BE SEASONED AND DRIED AND THE SAME GRADE (MINIMUM)AS MEMBERS CONNECTED.

39. WOOD FASTENERS

A. NAIL SIZES SPECIFIED ON DRAWINGS ARE BASED ON THE FOLLOWING SPECIFICATIONS:

SIZE	LENGTH	DIAMETER
6d	2"	0.113"
8d	2-1/2"	0.131"
10d	3"	0.148"
12d	3-1/4"	0.148"
16d BOX	3-1/2"	0.135"

IF CONTRACTOR PROPOSES THE USE OF ALTERNATE NAILS, THEY SHALL SUBMIT NAIL SPECIFICATIONS TO THE STRUCTURAL ENGINEER (PRIOR TO CONSTRUCTION) FOR REVIEW AND APPROVAL.

NAILS - PLYWOOD (APA RATED SHEATHING) FASTENERS TO FRAMING SHALL BE DRIVEN FLUSH TO FACE OF SHEATHING WITH NO COUNTERSINKING PERMITTED. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 30 DIGRESS WITH THE MEMBER AND STARTED 1/3 THE LENGTH OF THE NAIL FROM THE MEMBER END.

B. ALL BOLTS IN WOOD MEMBERS SHALL CONFORM TO ASTM A307. PROVIDE WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG BOLTS BEARING ON WOOD. INSTALLATION OF LAG BOLTS SHALL CONFORM TO THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH A LEAD BORE HOLE OF 60 TO 70 PERCENT OF THE SHANK DIAMETER. LEAD HOLES ARE NOT REQUIRED FOR 3/8" AND SMALLER LAG SCREWS.

Statement of Special Inspections

Special inspections shall be provided per the requirements of IBC section 1705 and as noted herein

DRIVEN DEEP FOUNDATION ELEMENTS

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC	COMMENTS	REFERENCES
1. VERIFY ELEMENT MATERIALS, SIZES AND LENGTHS COMPLY WITH THE REQUIREMENTS	X			IBC 1705.7
2. OBSERVE DRIVING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH ELEMENT	X			
5. SEE STEEL CONSTRUCTION INSPECTION REQUIREMENTS FOR STEEL PILE ELEMENTS				IBC 1705.2

STRUCTURAL STEEL

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC	COMMENTS	REFERENCE
1. FABRICATED AND ERECTED STEEL:				
a. COMPLIANCE WITH DETAILS SHOWN ON CONSTRUCTION DOCUMENTS		X		AISC 360, SECTION N5.7
b. APPLICATION OF JOINT DETAILS AT EACH CONNECTION		X		
2. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:				
a. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATIONS IN THE APPROVED CONSTRUCTION DOCUMENTS		X		AISC 360, SECTION A3.5 AND APPLICABLE AWS A5 DOCUMENTS
b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED		X		
3. INSPECTION OF WELDING:				
a. COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELD	X			IBC 1705.2 AWS D1.1
b. SINGLE PASS FILLET WELDS $\leq$ 5/16"		X		

CONCRETE AND CONCRETE REINFORCING

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC	COMMENTS	REFERENCE
1. INSPECTION OF REINFORCING STEEL INCLUDING PLACEMENT		X		IBC 1908.4 ACI 318: Ch. 20, 25.2, 25.3, 26.6.1-26.6.3
2. INSPECTION OF ANCHORS CAST IN CONCRETE		X		ACI 318: 17.8.2
3. INSPECTION OF POST-INSTALLED ANCHORS IN HARDENED CONCRETE MEMBERS:				
a. ADHESIVE ANCHORS	X		SEE ICC-ES ESR REPORT FOR ADDITIONAL REQUIREMENTS	ACI 318: 17.8.2.4
4. VERIFYING USE OF REQUIRED DESIGN MIX		X		IBC 1904.1 IBC 1904.2 IBC 1908.2 IBC 1908.3 ACI 318: Ch. 19, 26.4.3, 26.4.4
5. INSPECT FORMWORK FOR GENERAL CONFORMITY TO APPROVED PLANS FOR SIZE, SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED		X		ACI 318: 26.11.1.2(b)

NOTES

1. TESTING AND SPECIAL INSPECTION REPORTS SHALL BE PREPARED FOR EACH INSPECTION ITEM ON A DAILY BASIS WHENEVER WORK IS PERFORMED ON THAT ITEM. REPORTS SHALL BE DISTRIBUTED TO OWNER, CONTRACTOR, BUILDING OFFICIAL, ARCHITECT, AND STRUCTURAL ENGINEER.

2. "STRUCTURAL STEEL" REFERS TO STEEL CONSTRUCTION DEFINED BY AISC 303, "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES."

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City of Newcastle

13058 SE 84TH WAY NEWCASTLE, WA 98056

DAN J. SAY
STATE OF WASHINGTON
PROFESSIONAL ENGINEER

02/01/23

SET TYPE:
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SET ISSUE DATE:
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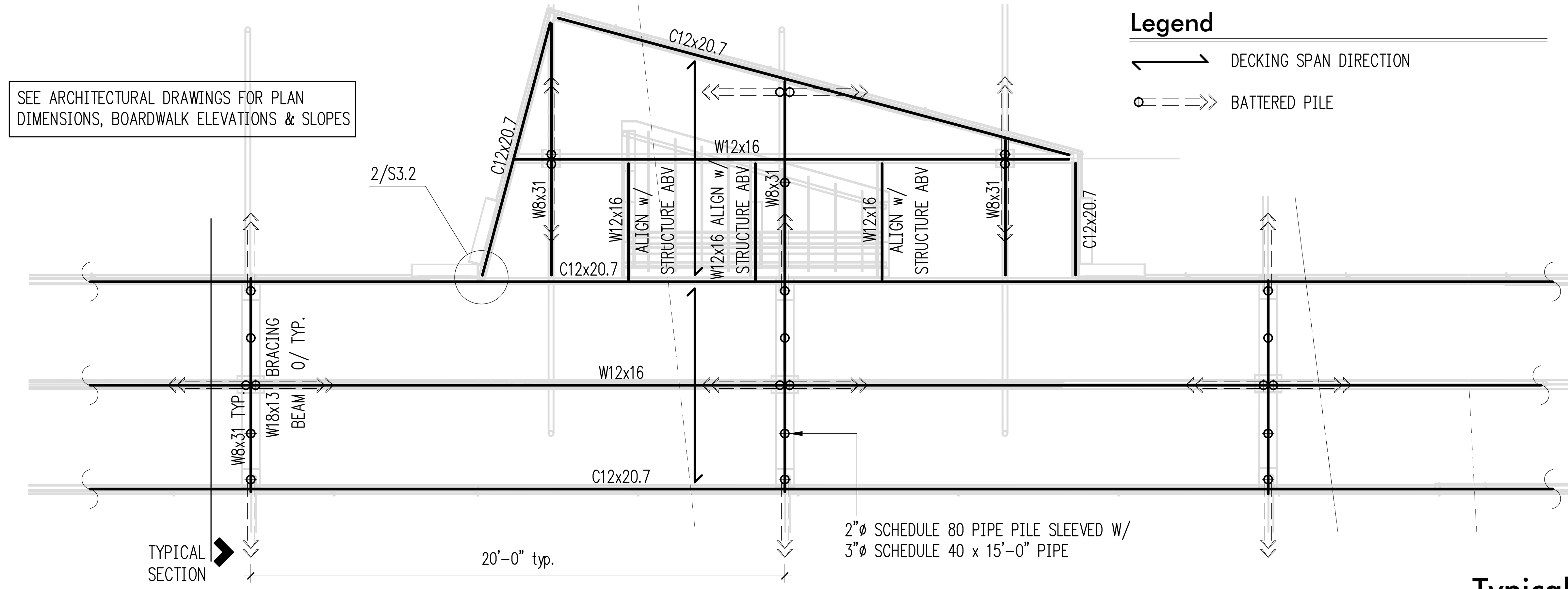
Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
RJ / GFJ

SHEET NAME:
GENERAL STRUCTURAL NOTES, CONTINUED

SHEET NUMBER:
S1.2



Legend

DECKING SPAN DIRECTION

BATTERED PILE

Typical Plan

Scale: 1/4" = 1'-0"

Pipe Pile Plan Notes

1. PIPE PILES SHALL BE 2"ø (SCHEDULE 80). ALL 2"ø PIPE PILES SUPPORTING ELEVATED BOARDWALK FRAMING SHALL BE SLEEVED WITH A 3"ø SCHEDULE 40 X 15'-0" PIPE. REFER 3/S3.1 AND 8/S3.1 FOR CONNECTION DETAILING.
2. ALL PILES SHALL BE DRIVEN TO REFUSAL. REFER TO THE GEOTECHNICAL REPORT AND PIPE PILE SCHEDULE THIS SHEET FOR MINIMUM HAMMER SIZE (POUNDS) AND REFUSAL CRITERIA.
3. MINIMUM EMBEDMENT: ALL PILES SHALL BE DRIVEN COMPLETELY THROUGH LOOSE MATERIAL INTO THE UNDERLYING COMPETENT NATURAL SEDIMENTS AS DETERMINED IN THE FIELD PER THE GEOTECHNICAL REPORT.
4. MONITORING: CONTINUOUS SPECIAL INSPECTION IS REQUIRED DURING INSTALLATION OF ALL PIPE PILES.
5. LOAD TESTING: REFER TO THE GEOTECHNICAL REPORT AND PIPE PILE SCHEDULE THIS SHEET FOR LOAD TESTING RECOMMENDATIONS/REQUIREMENTS.
6. REFER GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.
7. REFER TO THE GEOTECHNICAL REPORT FOR ADDITIONAL REQUIREMENTS.
8. CONTRACTOR SHALL DRIVE ALL PILES, SURVEY AS-BUILT PILE LOCATIONS, AND THEN SUBMIT SHOP DRAWINGS SHOWING AS-BUILT PILE LOCATIONS AND LENGTHS.

Pipe Pile Schedule

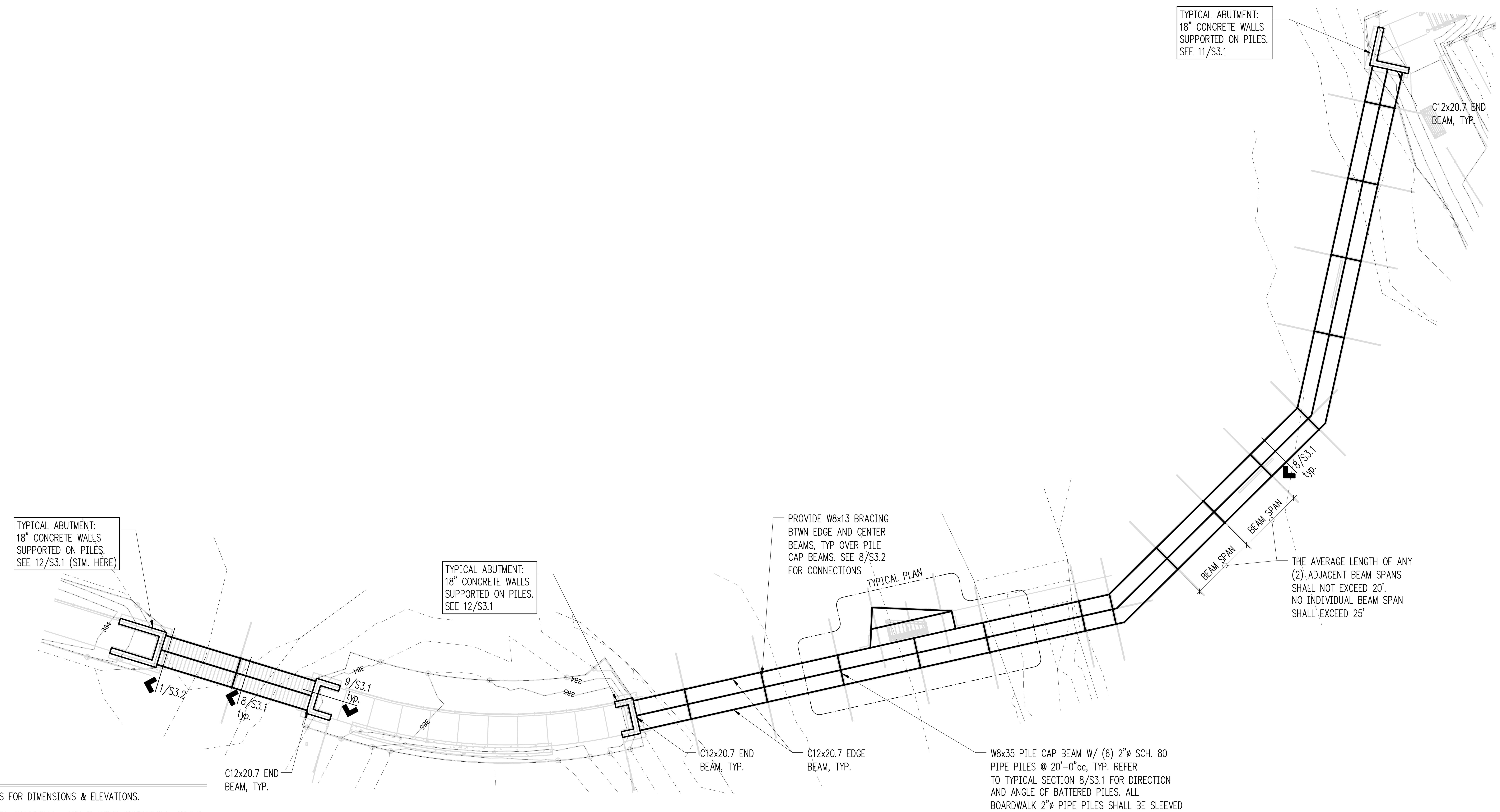
PIPE ø (inches)	WALL THICKNESS	MIN. HAMMER SIZE (lbs)	REFUSAL① CRITERIA (sec.)	ALLOWABLE② COMPRESSIVE LOADS (kips)
2	SCHED. 80	90	60	4

① REFUSAL IS DEFINED AS LESS THAN 1 INCH OF PENETRATION IN "X" SECONDS UNDER CONSTANT DRIVING.

② ALLOWABLE LOADS TO BE VERIFIED BY LOAD TESTS IN ACCORDANCE WITH ASTM D-1143 "QUICK LOAD TEST."

MINOR PIPE PILE ADJUSTMENT OPTIONS TO DEAL WITH OBSTRUCTIONS:

1. INDIVIDUAL PIPE PILES MAY BE SHIFTED ALONG THE LENGTH OF THE PILE CAP BEAMS 6" MAXIMUM IN EITHER DIRECTION.
2. PILE CAP BEAMS MAY BE SHIFTED ALONG THE LENGTH OF THE BOARDWALK 3'-0" IN EITHER DIRECTION EXCEPT AT KINKS IN BOARDWALK DIRECTIONS AND AT OVERLOOK. THE AVERAGE LENGTH OF ANY (2) ADJACENT BEAM SPANS SHALL NOT EXCEED 20'-0". NO INDIVIDUAL BEAM SPAN SHALL EXCEED 25'-0".
3. CONTACT ENGINEER IF MINOR SHIFT IN PIPE PILE DOES NOT CLEAR OBSTRUCTION.



Plan Notes

1. DO NOT SCALE DRAWINGS. REFER TO LANDSCAPE DRAWINGS FOR DIMENSIONS & ELEVATIONS.
2. ALL FASTENERS & HARDWARE SHALL BE STAINLESS STEEL OR GALVANIZED PER GENERAL STRUCTURAL NOTES.
3. REFER TO GEOTECHNICAL REPORT FOR ADDITIONAL REQUIREMENTS.
4. REFER TO GENERAL STRUCTURAL NOTES FOR ADDITIONAL REQUIREMENTS.

Boardwalk Plan

Scale: 1/16" = 1'-0"

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City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

DAN J. SAY
02/01/23

SET TYPE: BID SET

SET ISSUE DATE: 03/10/23

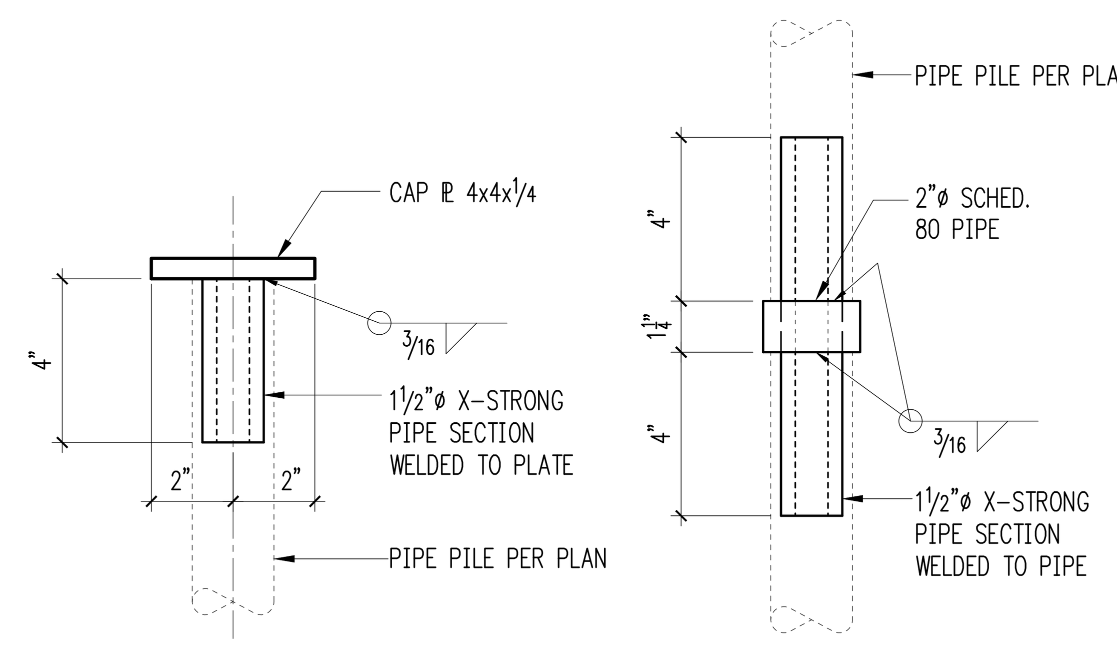
REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED: RJ / GFJ

SHEET NAME: BOARDWALK PLANS

SHEET NUMBER: S2.1



Cap For 2"ø SCH. 80 A53 GRADE B Pipe Piles

NOTE:
CUT OFF PILE AT APPROPRIATE ELEVATION IN FTG. & HAMMER CAP ONTO TOP OF PILE

Coupler For Splicing 2"ø Sch. 80 A53 GRADE B Pipe Piles

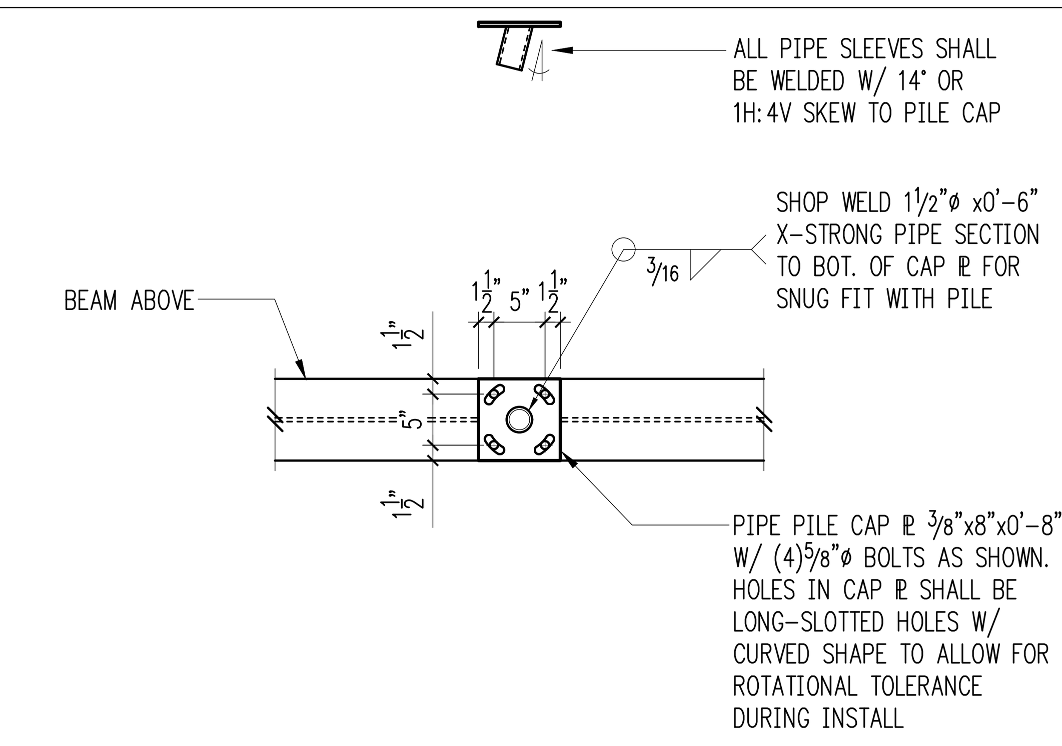
NOTE:
SPLICE PIPE PILES BY HAMMERING COUPLER INTO END OF SECTION

NOTES:
1. PLATE MATERIAL: A36
2. ALL BOLTS, STEEL FRAMING AND PLATE MATERIAL SHALL BE GALVANIZED.

3" = 1'-0"

Pile Cap Plate - 2" Pipe 1

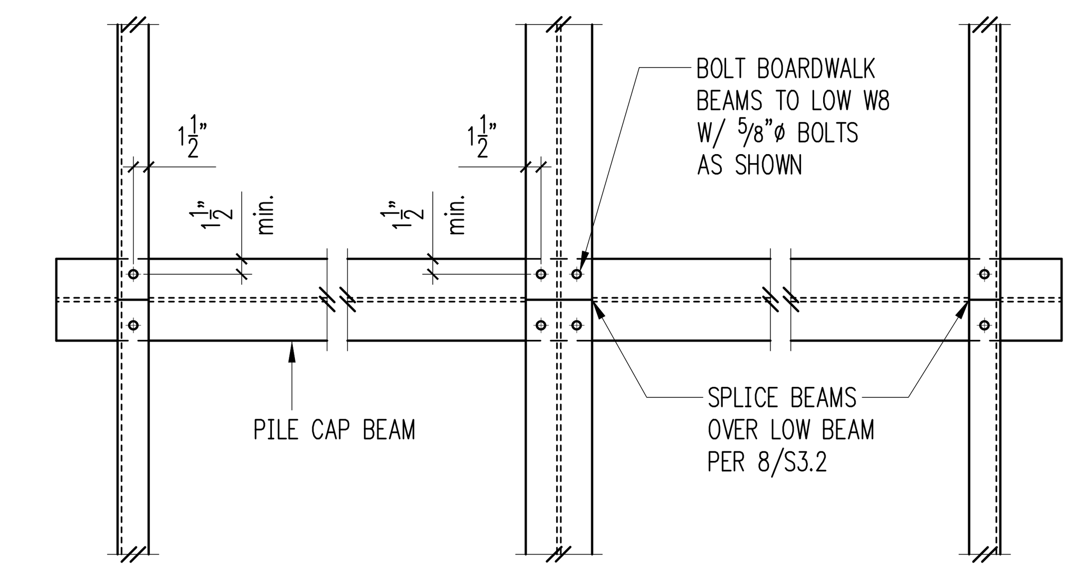
2



View from Below

NOTES:
1. BOLT TYPE: A307N
2. PLATE MATERIAL: A36
3. ALL BOLTS, STEEL FRAMING AND PLATE MATERIAL SHALL BE GALVANIZED.
4. OPTION TO FIELD WELD 3" SCH. 40 SLEEVE PIPE DIRECTLY TO CAP PLATE IN LIEU OF 1-1/2" PIPE SLEEVE AND 5/8"ø THRU BOLT @ CONTRACTOR'S OPTION.

3/4" = 1'-0" 3



Plan View

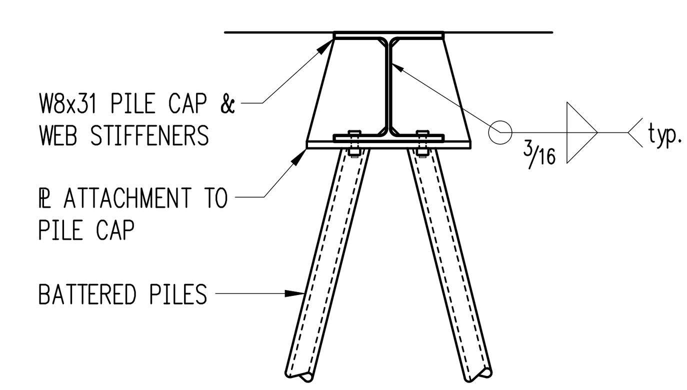
NOTES:
1. BOLT TYPE: A307N
2. PLATE MATERIAL: A36
3. ALL BOLTS, STEEL FRAMING AND PLATE MATERIAL SHALL BE GALVANIZED.
4. GUARDRAIL, GRATING, AND BRACING BEAMS NOT SHOWN FOR CLARITY.

3/4" = 1'-0" 4

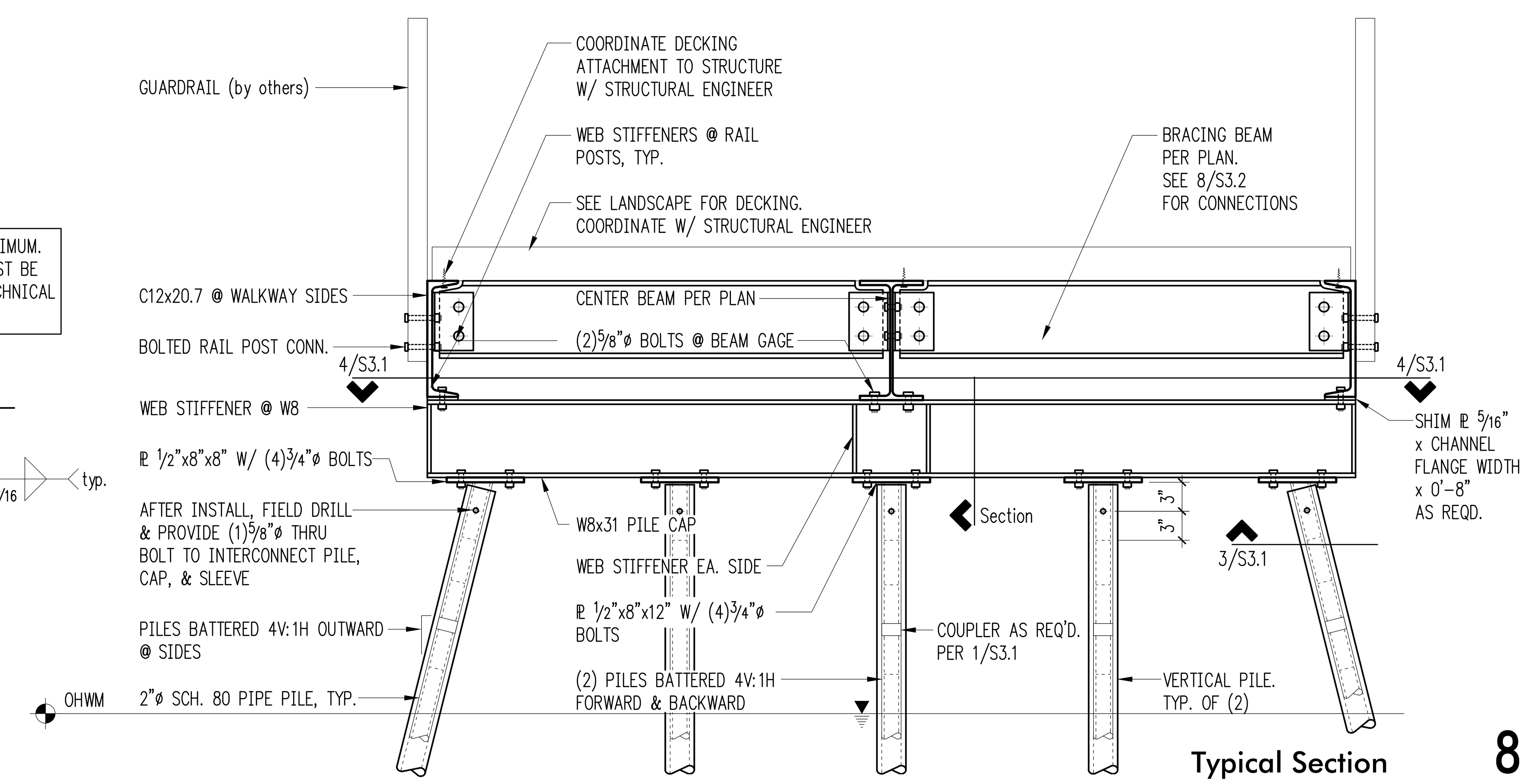
5

NOTES:
1. BOLT TYPE: A307N
2. PLATE MATERIAL: A36
3. ALL BOLTS, STEEL FRAMING AND PLATE MATERIAL SHALL BE GALVANIZED.
4. ALL PILES SHALL BE BATTERED AT 1H:4V (14°).
5. OPTION TO FIELD WELD 3" SCH. 40 SLEEVE PIPE DIRECTLY TO CAP PLATE IN LIEU OF 1-1/2" PIPE SLEEVE AND 5/8"ø THRU BOLT @ CONTRACTOR'S OPTION.

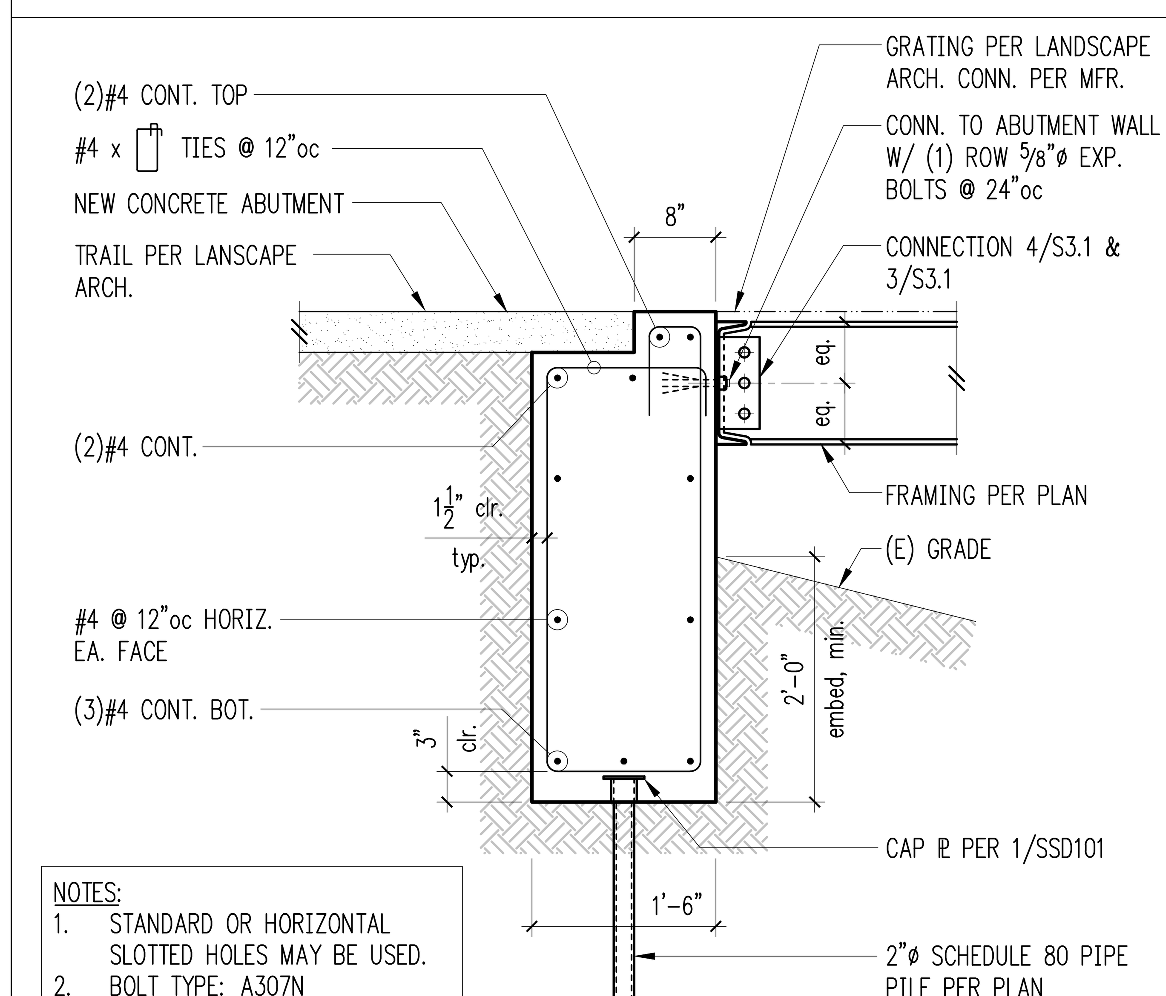
ESTIMATED PILE EMBED DEPTH IS 30' MINIMUM. ASSUMED PILE CAPACITY IS 4.0k BUT MUST BE VERIFIED BY LOAD TESTS PER THE GEOTECHNICAL REPORT



Section



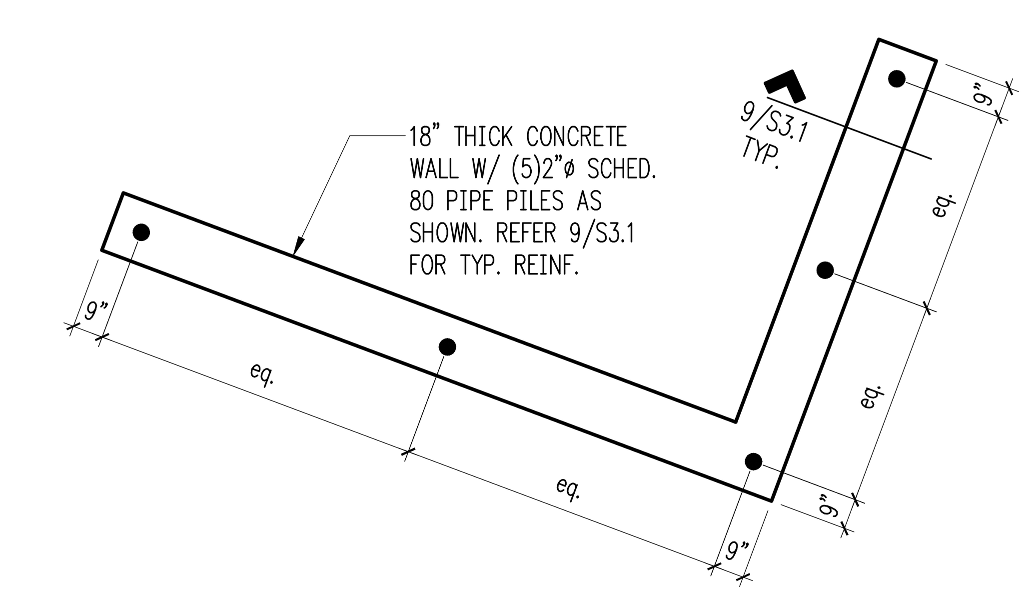
Typical Section 8



NOTES:
1. STANDARD OR HORIZONTAL SLOTTED HOLES MAY BE USED.
2. BOLT TYPE: A307N
3. PLATE MATERIAL: A36
4. ALL BOLTS, STEEL FRAMING AND PLATE MATERIAL SHALL BE GALVANIZED.

3/4" = 1'-0" 9

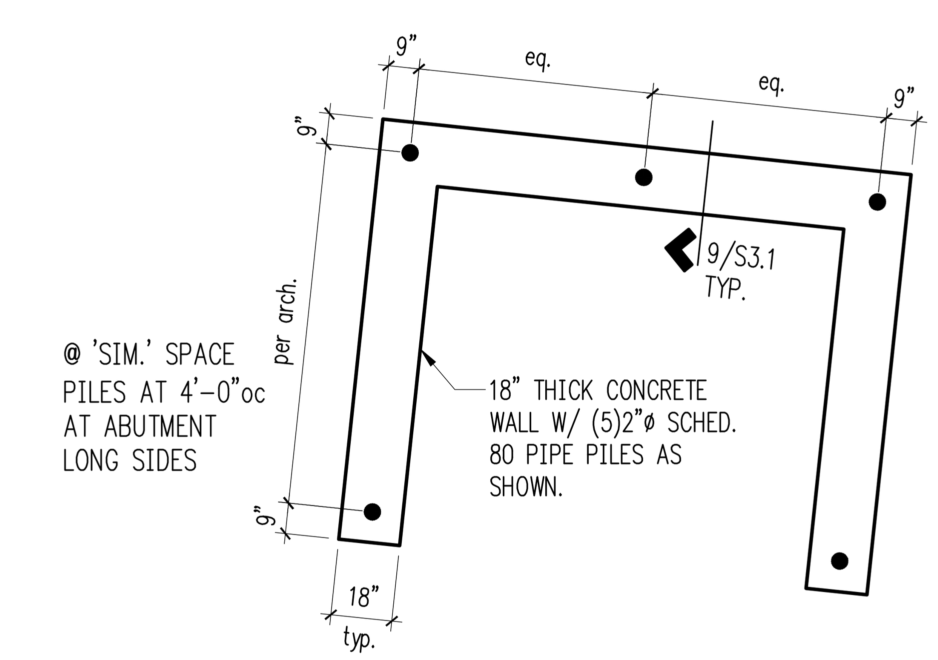
10



NOTES:
1. REFER LANDSCAPE ARCH. DRAWINGS FOR ALL EXACT DIMENSIONS AND ELEVATIONS.
2. BOARDWALK FRAMING AND TRAIL NOT SHOWN FOR CLARITY.

1/4" = 1'-0"

North Abutment Partial Plan 11



NOTES:
1. REFER LANDSCAPE ARCH. DRAWINGS FOR ALL EXACT DIMENSIONS AND ELEVATIONS.
2. BOARDWALK FRAMING AND TRAIL NOT SHOWN FOR CLARITY.

1/4" = 1'-0"

South Abutment Partial Plan 12

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

DAN J. SAY STATE OF WASHINGTON PROFESSIONAL ENGINEER 23000
02/01/23

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

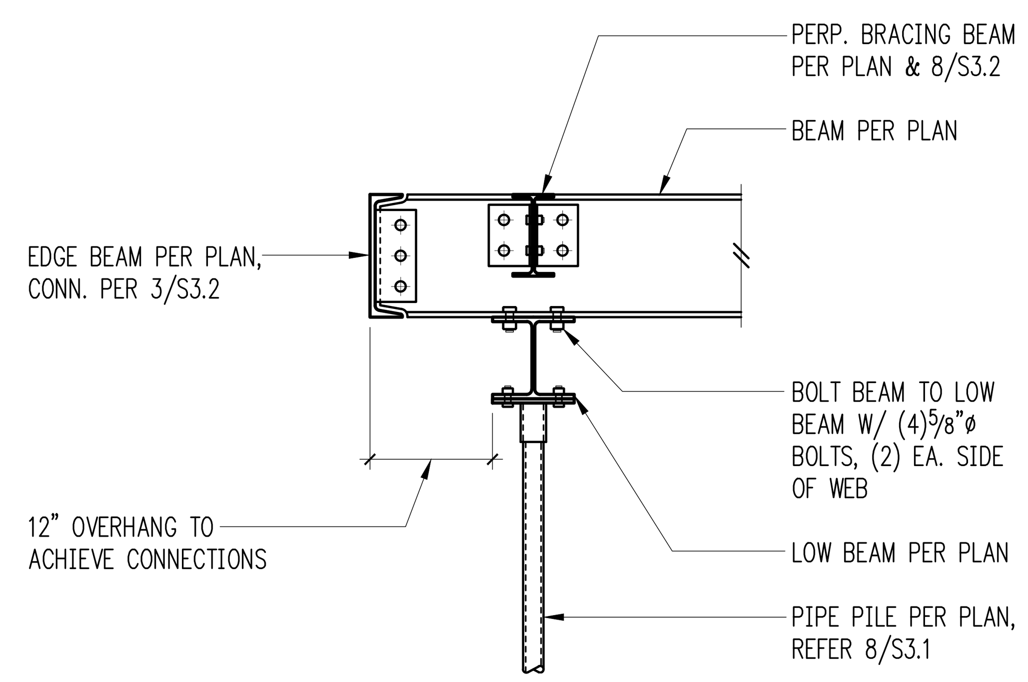
REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
RJ / GFJ

SHEET NAME:
BOARDWALK DETAILS

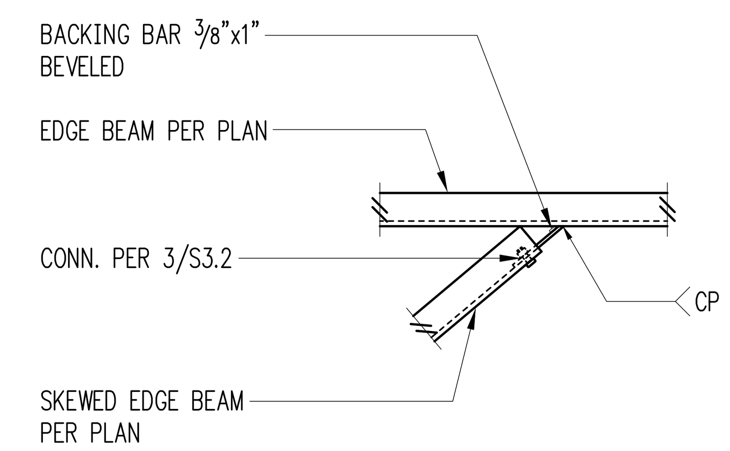
SHEET NUMBER:
S3.1



NOTES:
1. BOLT TYPE: A307N
2. PLATE MATERIAL: A36
3. ALL BOLTS, STEEL FRAMING AND PLATE MATERIAL SHALL BE GALVANIZED.

3/4" = 1'-0"

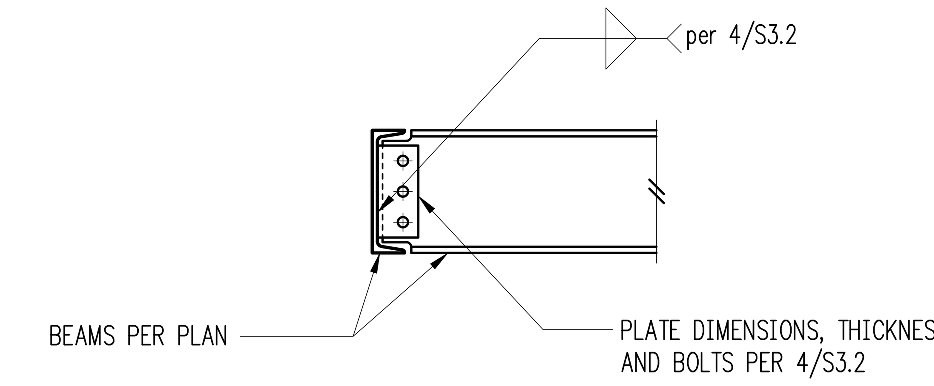
1



NOTES:
1. BOLT TYPE: A307N
2. PLATE MATERIAL: A36
3. ALL BOLTS, STEEL FRAMING AND PLATE MATERIAL SHALL BE GALVANIZED.

3/4" = 1'-0"

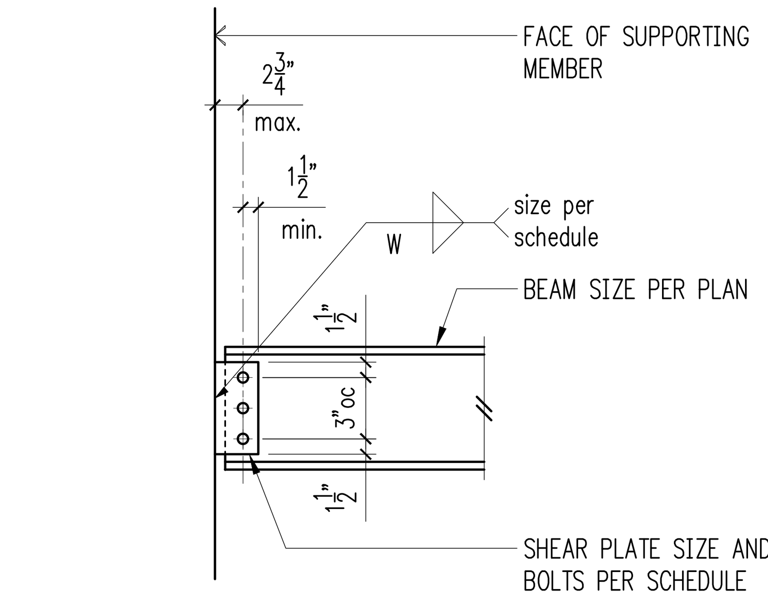
2



NOTES:
1. STANDARD OR HORIZONTAL SLOTTED HOLES MAY BE USED.
2. BOLT TYPE: A307N
3. PLATE MATERIAL: A36
4. ALL BOLTS, STEEL FRAMING AND PLATE MATERIAL SHALL BE GALVANIZED.

3/4" = 1'-0"

Typical Beam to Beam Connection 3



Shear Plate Schedule

Beam Size	No. of Bolts	Bolt Size	Plate Thickness	Weld Size	Capacity
C12, W12	3	3/4"ø	1/4"	3/16"	16k

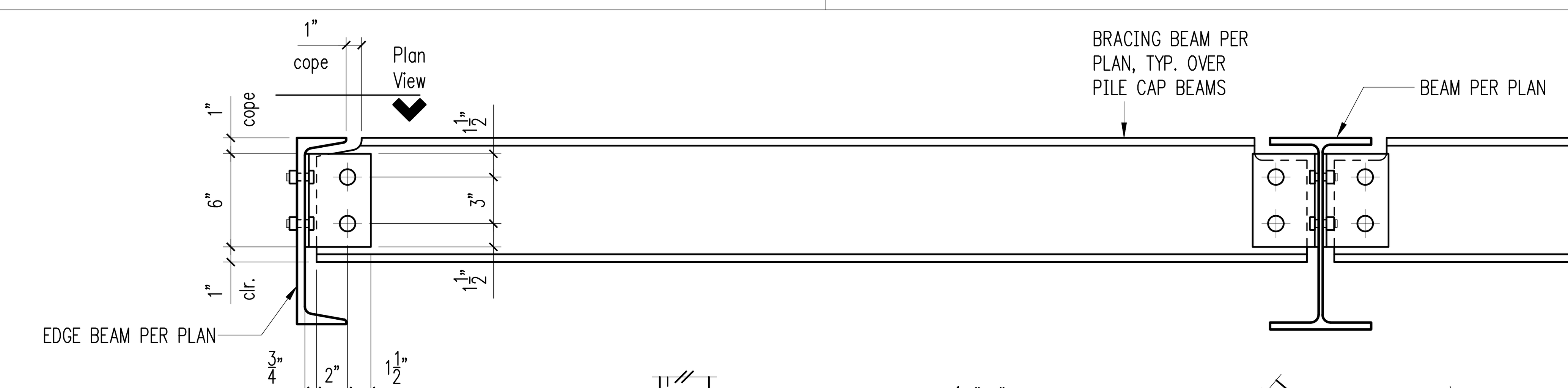
NOTES:
1. STANDARD OR HORIZONTAL SLOTTED HOLES MAY BE USED.
2. BOLT TYPE: A307N
3. PLATE MATERIAL: A36
4. ALL BOLTS, STEEL FRAMING AND PLATE MATERIAL SHALL BE GALVANIZED.

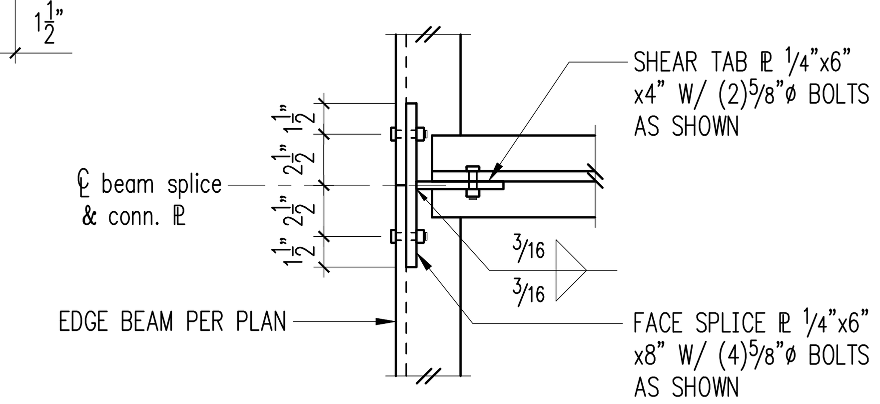
3/4" = 1'-0"

Typical Single Shear Plate Connection and Schedule 4

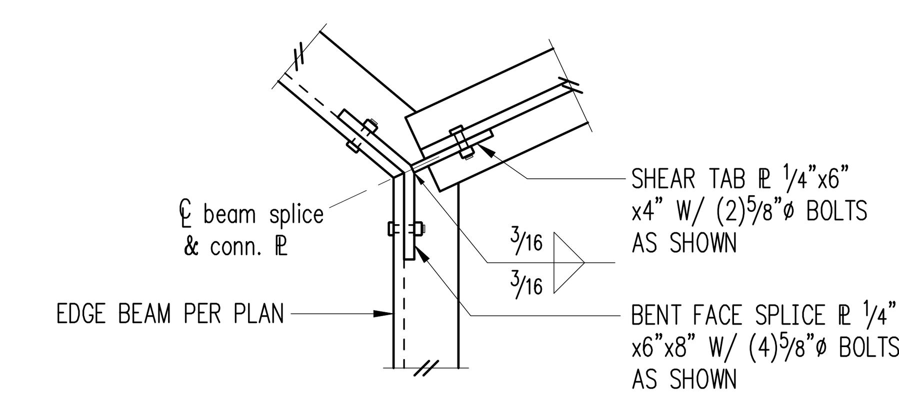
5

5





Plan View at Beam Splice
(straight run)



Plan View at Beam Splice
(kinked run)

NOTES:
1. STANDARD OR HORIZONTAL SLOTTED HOLES MAY BE USED.
2. BOLT TYPE: A307N
3. PLATE MATERIAL: A36
4. ALL BOLTS, STEEL FRAMING AND PLATE MATERIAL SHALL BE GALVANIZED.

1 1/2" = 1'-0"

8

9

10

11

12

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CROSSTOWN TRAIL IN LAKE BOREN PARK (P-022)

City of Newcastle
13058 SE 84TH WAY NEWCASTLE, WA 98056

DAN J. SAY
STATE OF WASHINGTON
PROFESSIONAL ENGINEER
02/01/23

SET TYPE:
BID SET

SET ISSUE DATE:
03/10/23

REVISIONS:

Δ	DESCRIPTION	DATE

DRAWN/CHECKED:
RJ / GFJ

SHEET NAME:
BOARDWALK DETAILS

SHEET NUMBER:
S3.2