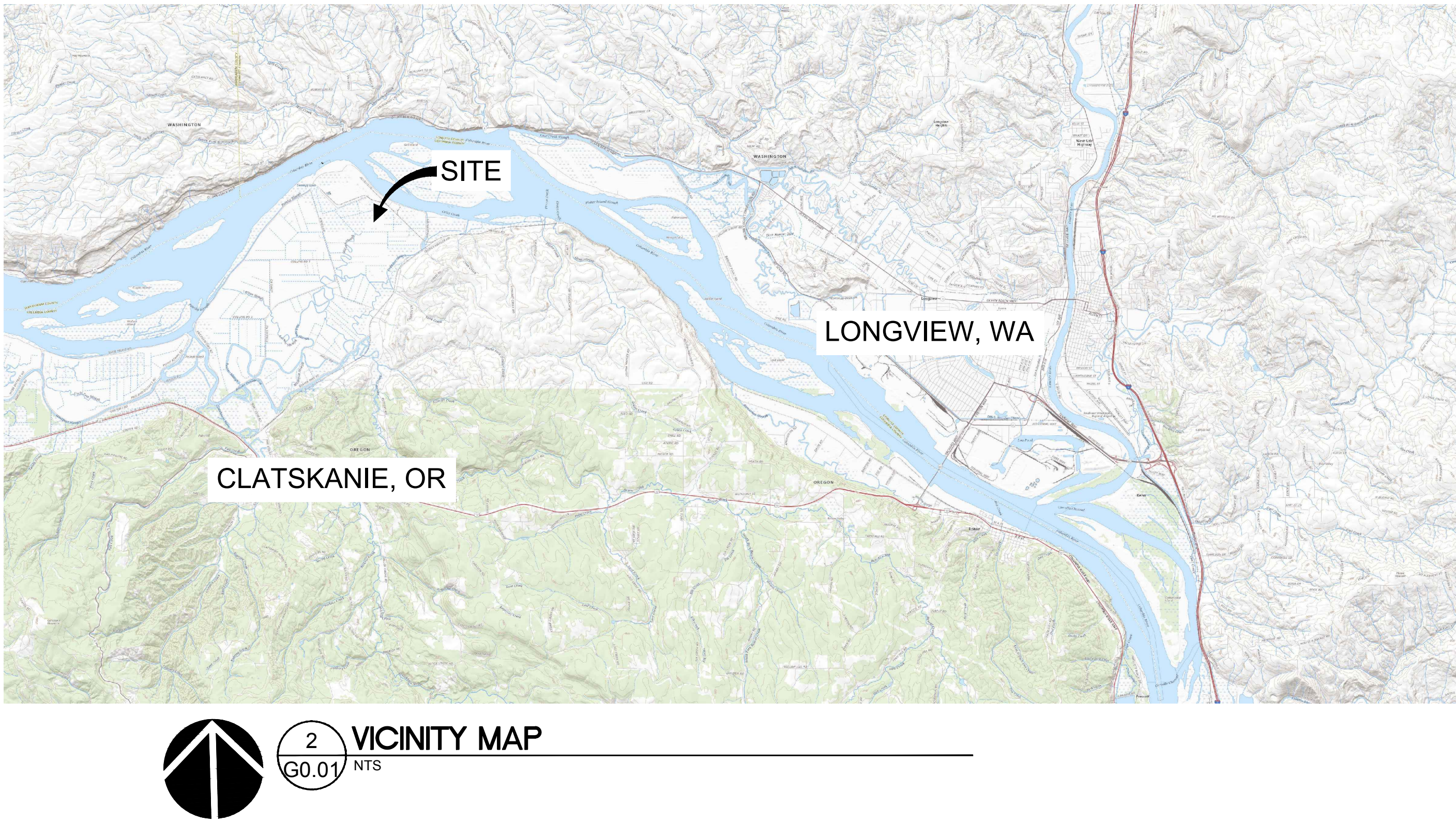
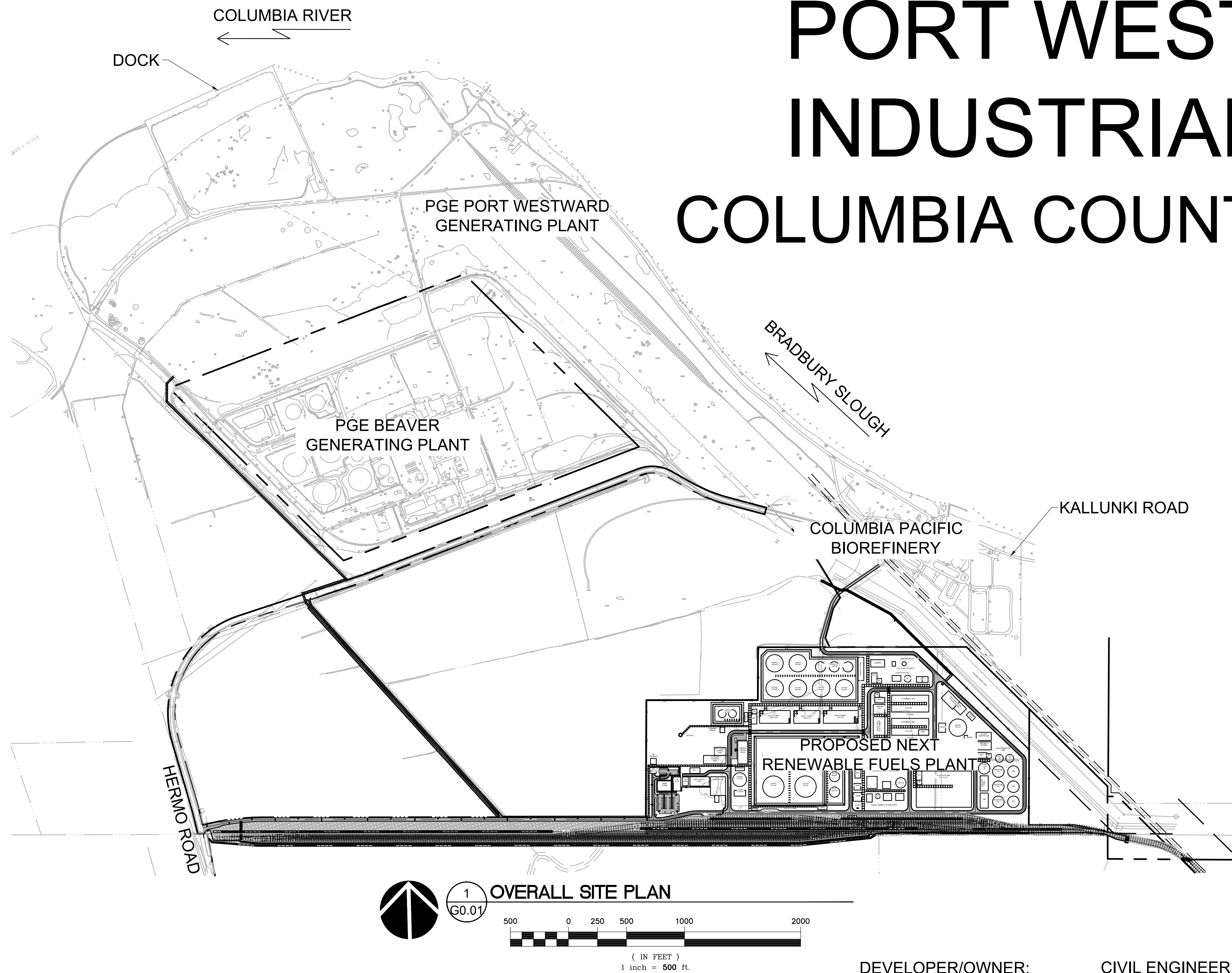


NEXT RENEWABLE FUELS PORT WESTWARD INDUSTRIAL PARK COLUMBIA COUNTY, OREGON



DEVELOPER/OWNER:

NEXT RENEWABLE FUELS OREGON
11767 KATY FREEWAY
SUITE 705
HOUSTON, TX 77079
CONTACT: GENE COTTEN
PHONE: 661-201-2653
GENE@NEXTRENEWABLES.COM

SITE INFORMATION:

PORT WESTWARD
CLATSKANIE, OR 97016
COLUMBIA COUNTY
TAX LOTS: SITE:
08042200 0100
08042200 0200
08042200 0300
DRIVEWAY:
08042200 1100
08042100 0700
PIPE RACK:
08042200 1100
08042100 0700
08041600 0200
08041600 0300

VERTICAL DATUM:

VERTICAL DATUM FOR THIS PROJECT IS NGVD29
LAND ELEVATIONS SHOWN ARE BASED ON LIDAR
SURVEY INFORMATION PROVIDED BY DAVE MILLS
SURVEYING, DATED AUGUST 27, 2020

CIVIL ENGINEER:

MACKENZIE
CONTACT: BRENT NIELSEN
1515 SE WATER AVE. #100
PORTLAND, OR 97214
PHONE: 971-346-3761
BNIELSEN@MCKNZE.COM

LANDSCAPE ARCHITECT:

MACKENZIE
CONTACT: STEVEN TUTTLE
1515 SE WATER AVE. #100
PORTLAND, OR 97214
PHONE: 503-224-9560
STUTTLE@MCKNZE.COM

SHEET INDEX

G0.01	COVER SHEET
C0.01	CIVIL NOTES AND LEGEND
V1.10	EXISTING SITE PLAN WEST
V1.11	EXISTING SITE PLAN EAST
V1.12	EXISTING SITE PLAN NORTH
C1.11	PROPOSED SITE PLAN
C1.12	ACCESS, PARKING, AND CIRCULATION PLAN
C1.13	ACCESS ROAD PLAN
C1.14	PIPELINE PLAN
C1.20	GRADING PLAN
C1.30	DRAINAGE PLAN
C1.40	SIGN PLAN
C1.50	ILLUMINATION PLAN
C1.51	ILLUMINATION PLAN - PARKING AND ILLUMINATION DETAILS
C2.11	WETLAND IMPACT MITIGATION PLAN
C2.12	WATERWAY IMPACT PLAN
C2.20	WETLAND IMPACT EARTHWORK PLAN
C2.21	WETLAND IMPACT CROSS-SECTION E-W
C2.22	WETLAND IMPACT CROSS-SECTION N-S
C2.23	WETLAND IMPACT TYPICAL CROSS-SECTIONS
EC1.10	EROSION CONTROL - NORTH
EC1.11	EROSION CONTROL - WEST
EC1.12	EROSION CONTROL - EAST
EC5.10	EROSION CONTROL DETAILS
L1.10	LANDSCAPE GENERAL INFORMATION AND PLANTING PLAN
L1.11	PLANTING PLAN - ENLARGEMENTS
L1.12	PLANTING PLAN - DRIVEWAY AND RAIL MAINTENANCE ROAD
L5.10	PLANTING DETAILS
L5.11	IRRIGATION DETAILS

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
COVER SHEET

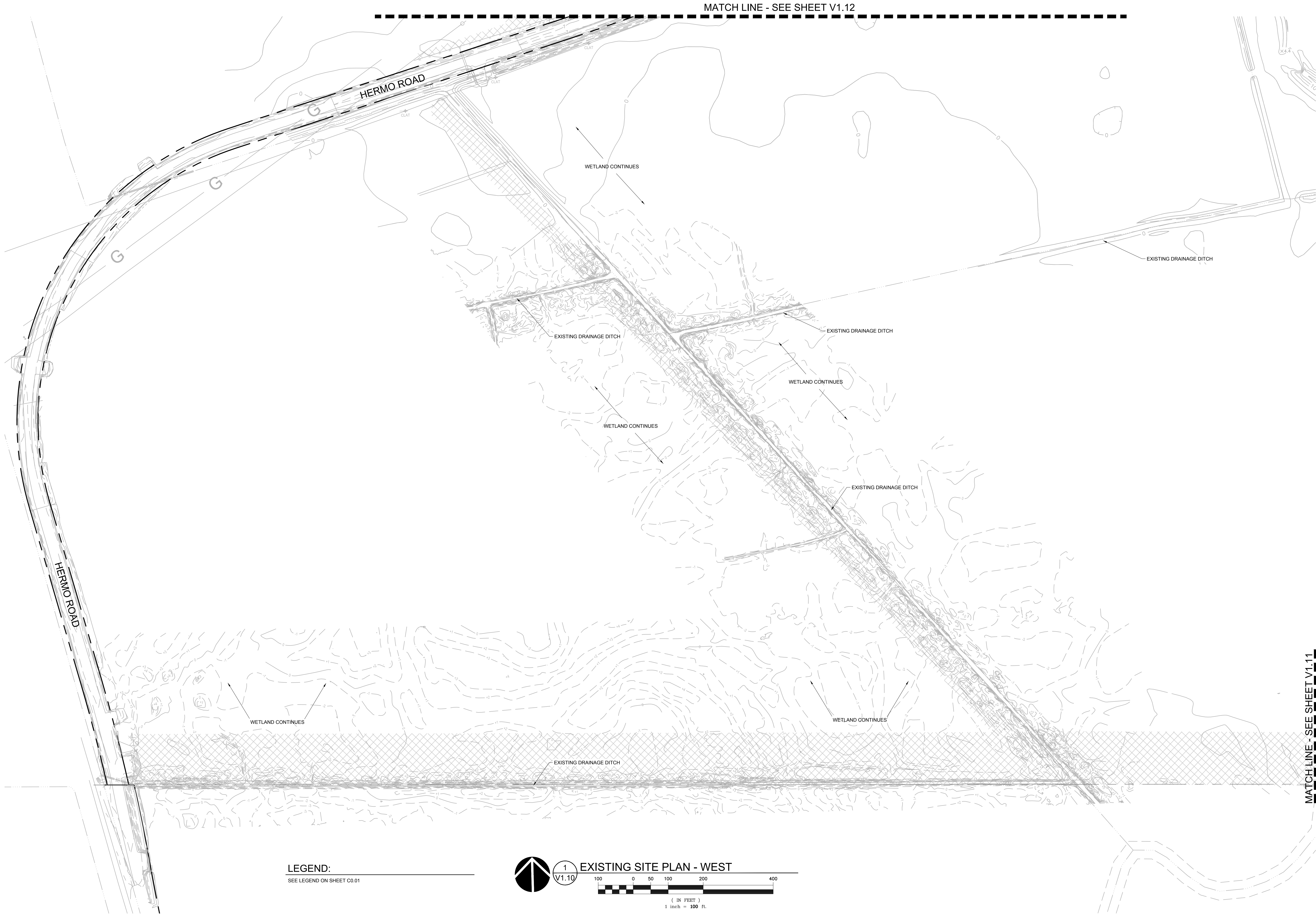
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CHECKED BY: BDN

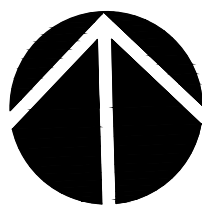
SHEET

G0.01

JOB NO. **2200315.01**



LEGEND:
SEE LEGEND ON SHEET C0.01

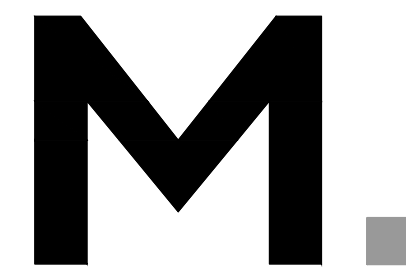


1
V1.10

EXISTING SITE PLAN - WEST



(IN FEET)
1 inch = 100 ft.



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Delta	Issued As	Issue Date

SHEET TITLE:
**EXISTING SITE
PLAN
WEST**

DRAWN BY: CAM

CHECKED BY: BDN

SHEET

V1.10

JOB NO. **2200315.01**

COMPLETENESS SUBMITTAL SET - 7/8/2021

"220031500" C:\TEMP\AC\FUBLISH_C471\2315-V1.10.DWG BDN 07/08/21 11:06 1:10

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
EXISTING SITE
PLAN
EAST

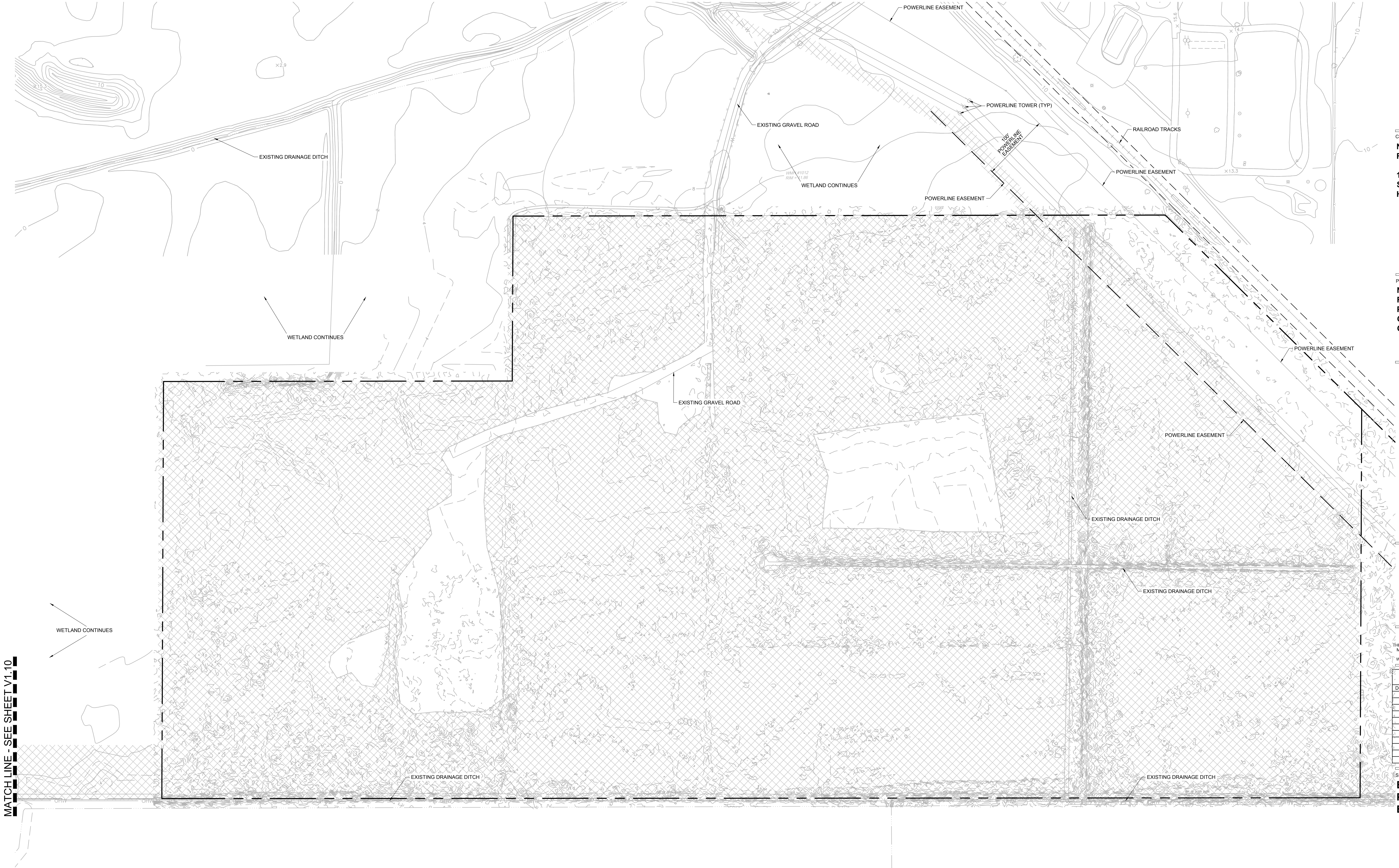
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CHECKED BY: BDN
SHEET

JOB NO. 2200315.01

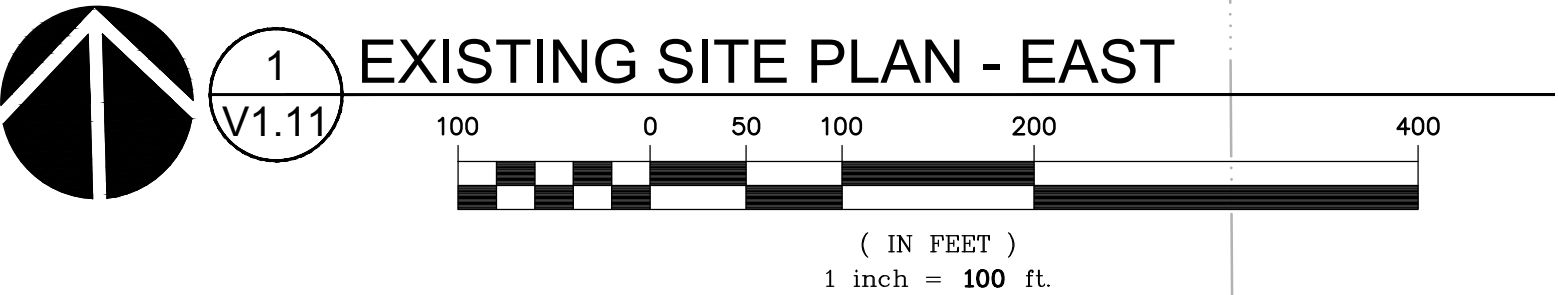
V1.11

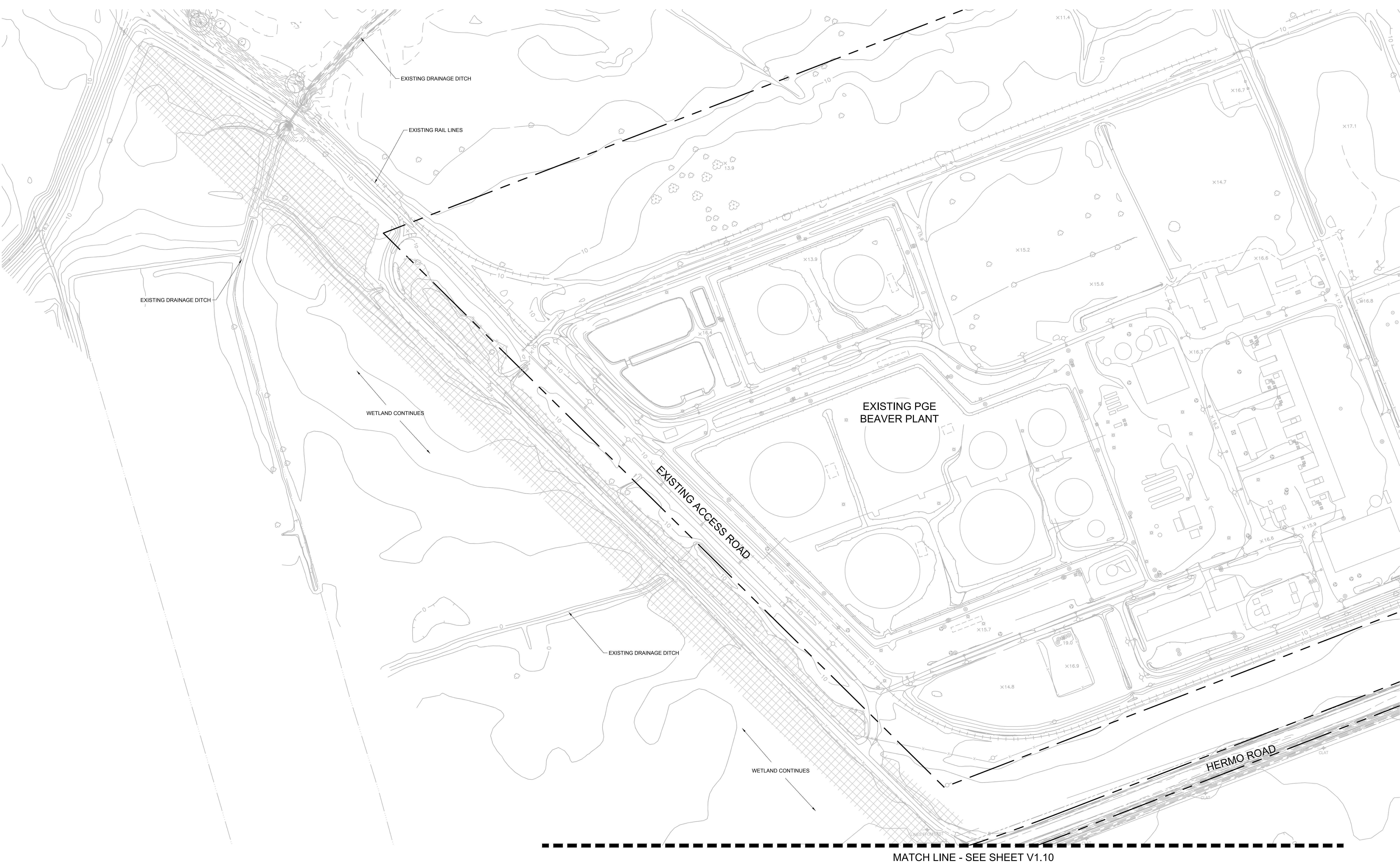
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LEGEND:
SEE LEGEND ON SHEET C0.01







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ACKNOWLEDGMENTS

CKENZIE.

Client

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[illegible]

SHEET TITLE:
**PROPOSED
SITE PLAN**

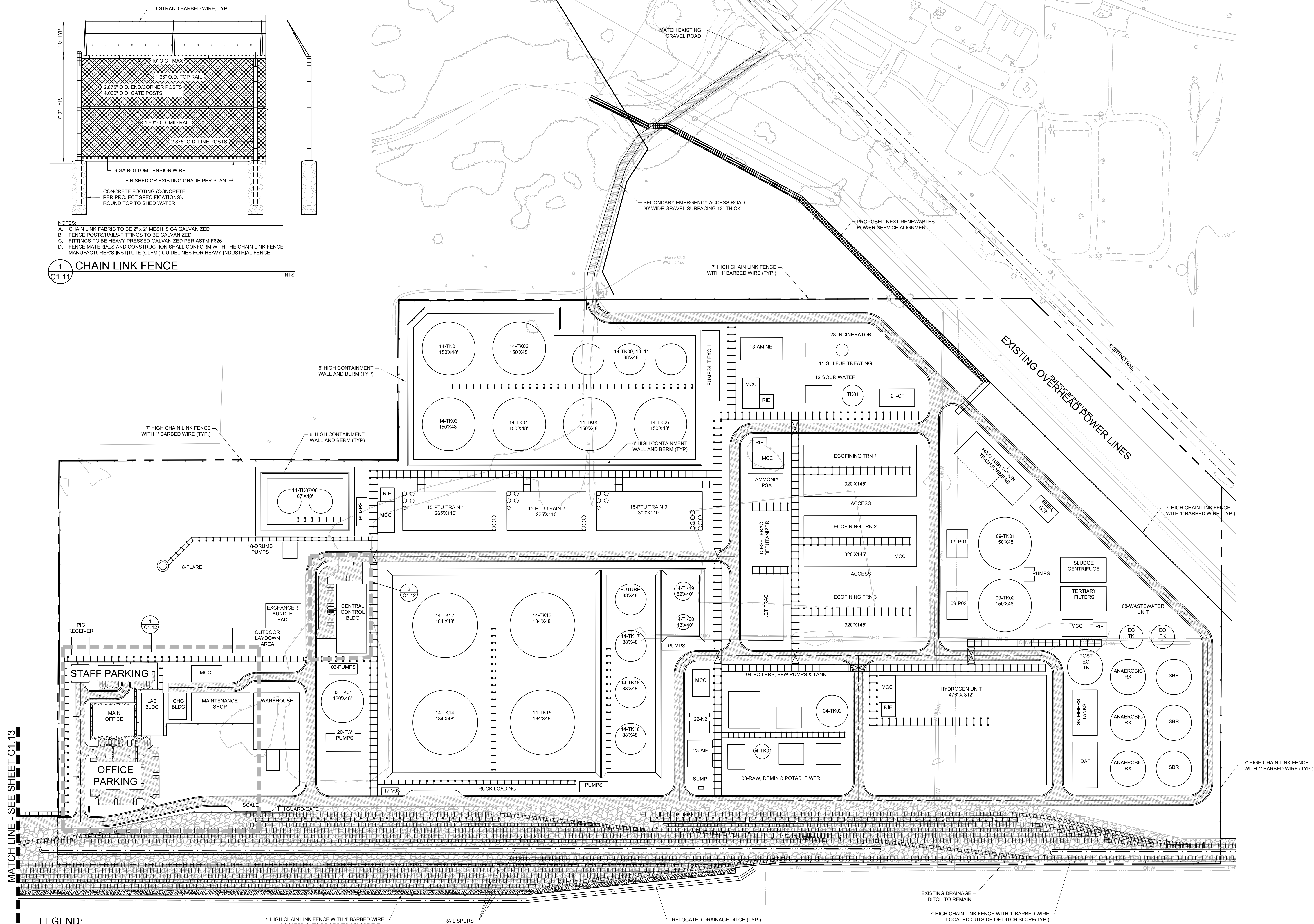
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CHECKED BY: BDN

SHEET

C1.11

JOB NO. **2200315.01**



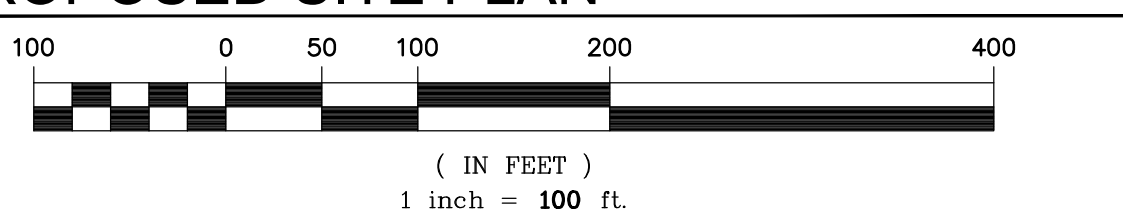
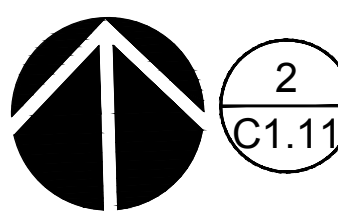
LEGEND:

SEE LEGEND ON SHEET C0.01

PARKING SUMMARY:

	STANDARD SPACES	ACCESSIBLE SPACES	TOTAL SPACES
OFFICE PARKING	79	5	84
STAFF PARKING	20	0	20
CONTROL BLDG PARKING	23	1	24
TOTAL PARKING	122	6	128

PROPOSED SITE PLAN



BUILDING AREA SUMMARY:

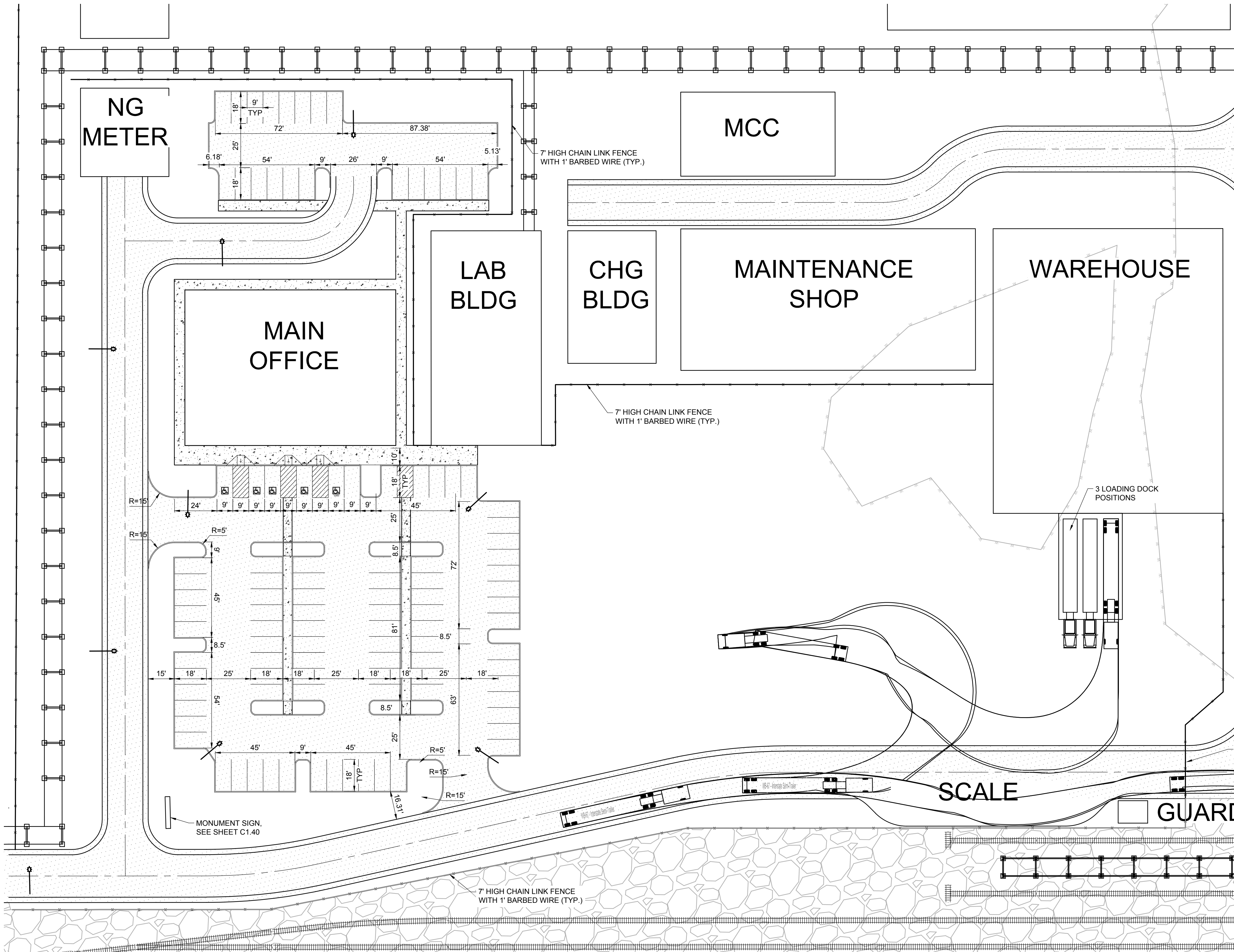
MAIN OFFICE:	20,250 SF
LAB:	7,500 SF
CHANGE BUILDING:	3,750 SF
WAREHOUSE:	21,025 SF
MAINTENANCE:	13,335 SF
CENTRAL CONTROL :	12,580 SF
TOTAL BUILDING FLOOR AREA:	78,330 SF

SITE COVERAGE SUMMARY:

TOTAL SITE AREA:	6,327,777 SF	(145.27 AC)
PROPOSED PAVED AREA:	1,175,130 SF	(26.98 AC)
PROPOSED GRAVEL AREA:	2,332,620 SF	(53.55 AC)
PROPOSED ROOF AREA:	829,187 SF	(19.04 AC)
PROPOSED TANK AREA:	265,593 SF	(6.10 AC)
PROPOSED INTERVIEW AREA:	4,602,530 SF	(105.66 AC)
PROPOSED LANDSCAPE AREA:	1,725,247 SF	(39.61 AC)

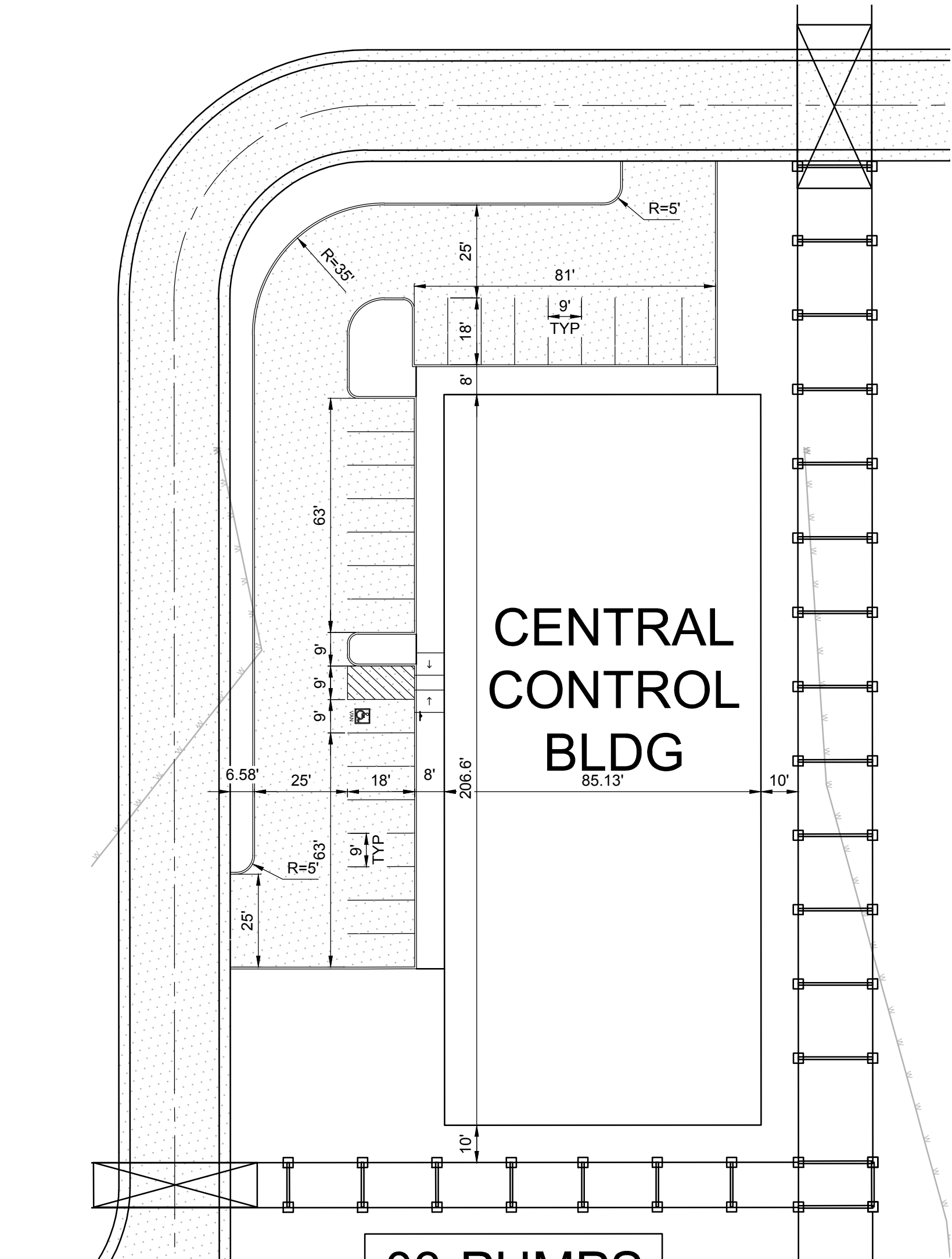
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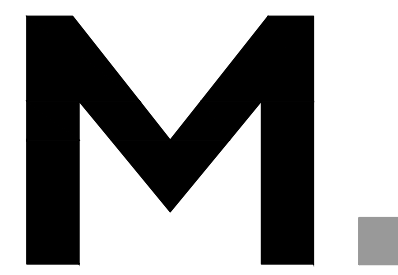


1 MAIN PARKING AND OFFICE AREA
C1.12
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

LEGEND:
SEE LEGEND ON SHEET C0.01



2 CENTRAL PARKING AREA
C1.12
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.



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Delta	Issued As	Issue Date

SHEET TITLE:
ACCESS,
PARKING, AND
CIRCULATION
PLAN

DRAWN BY: CAM

CHECKED BY: BDN

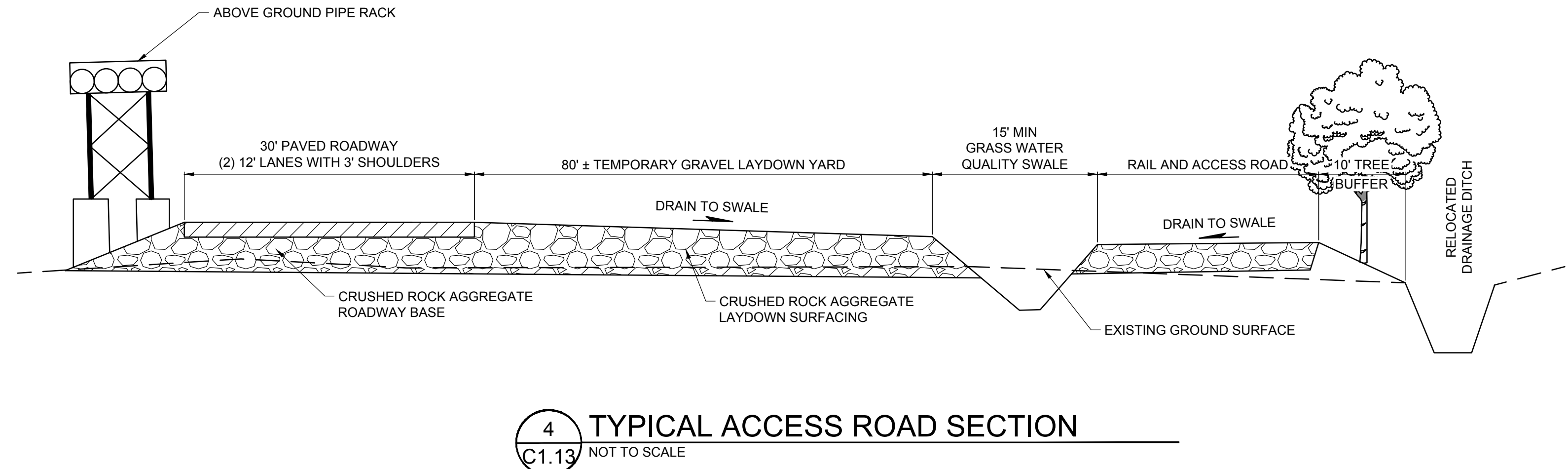
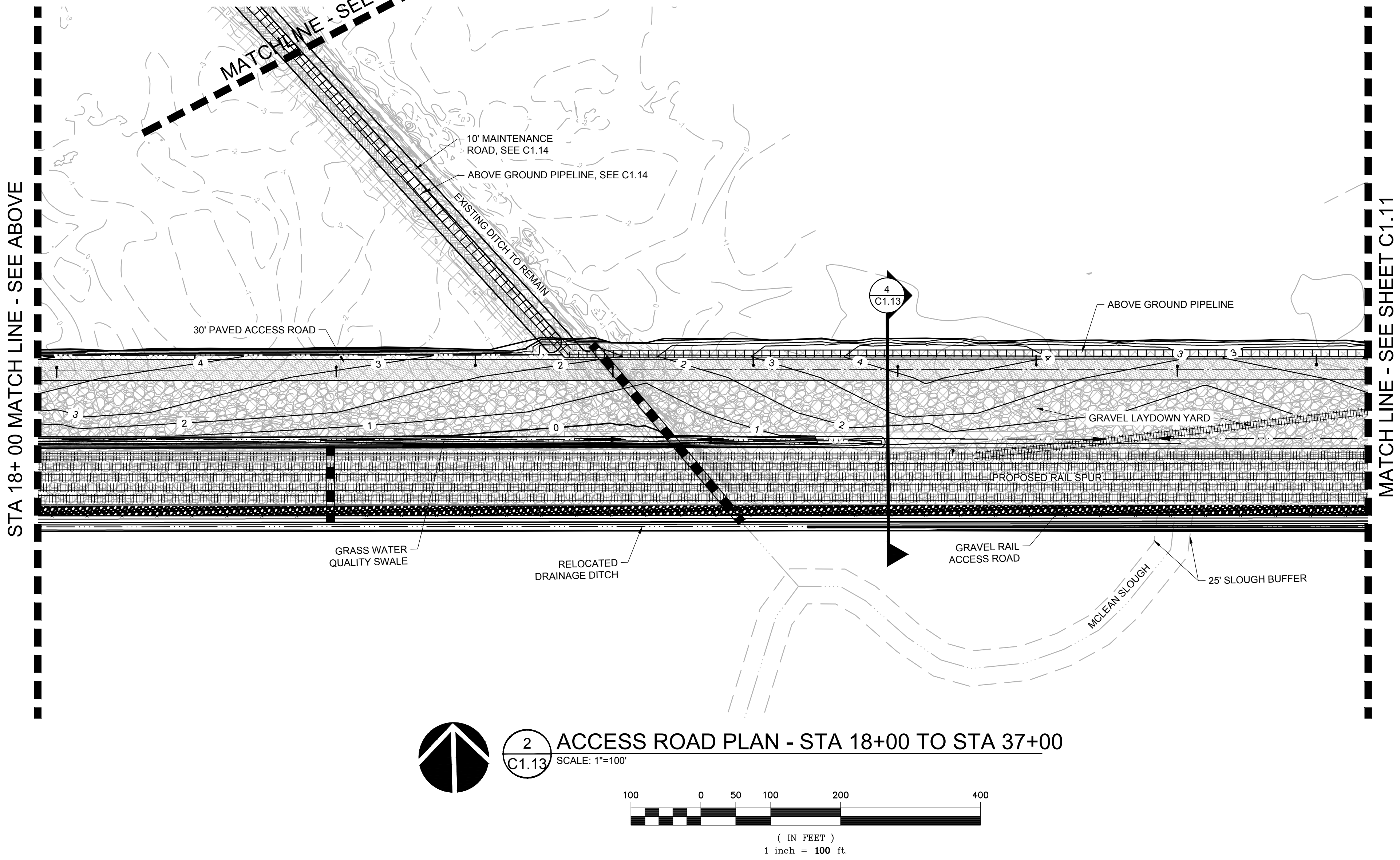
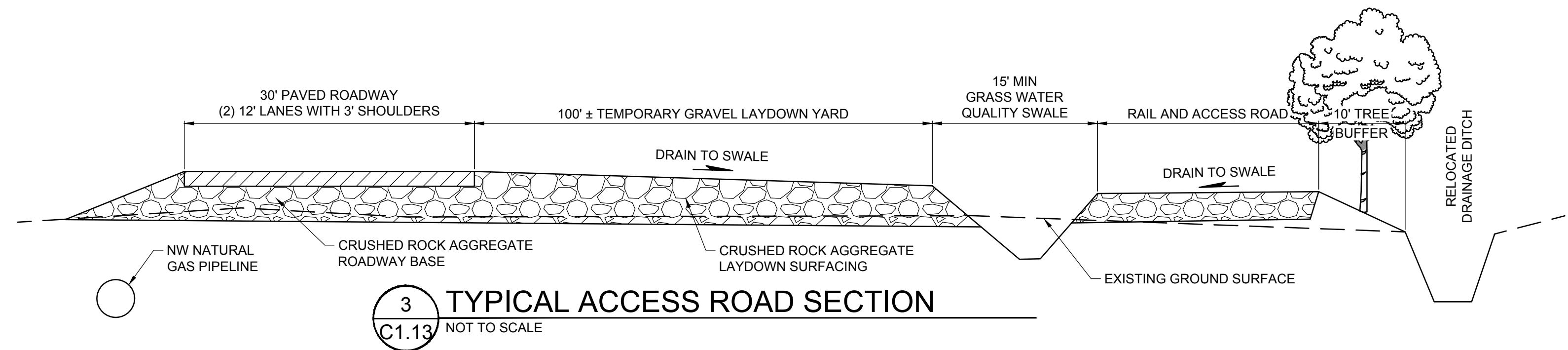
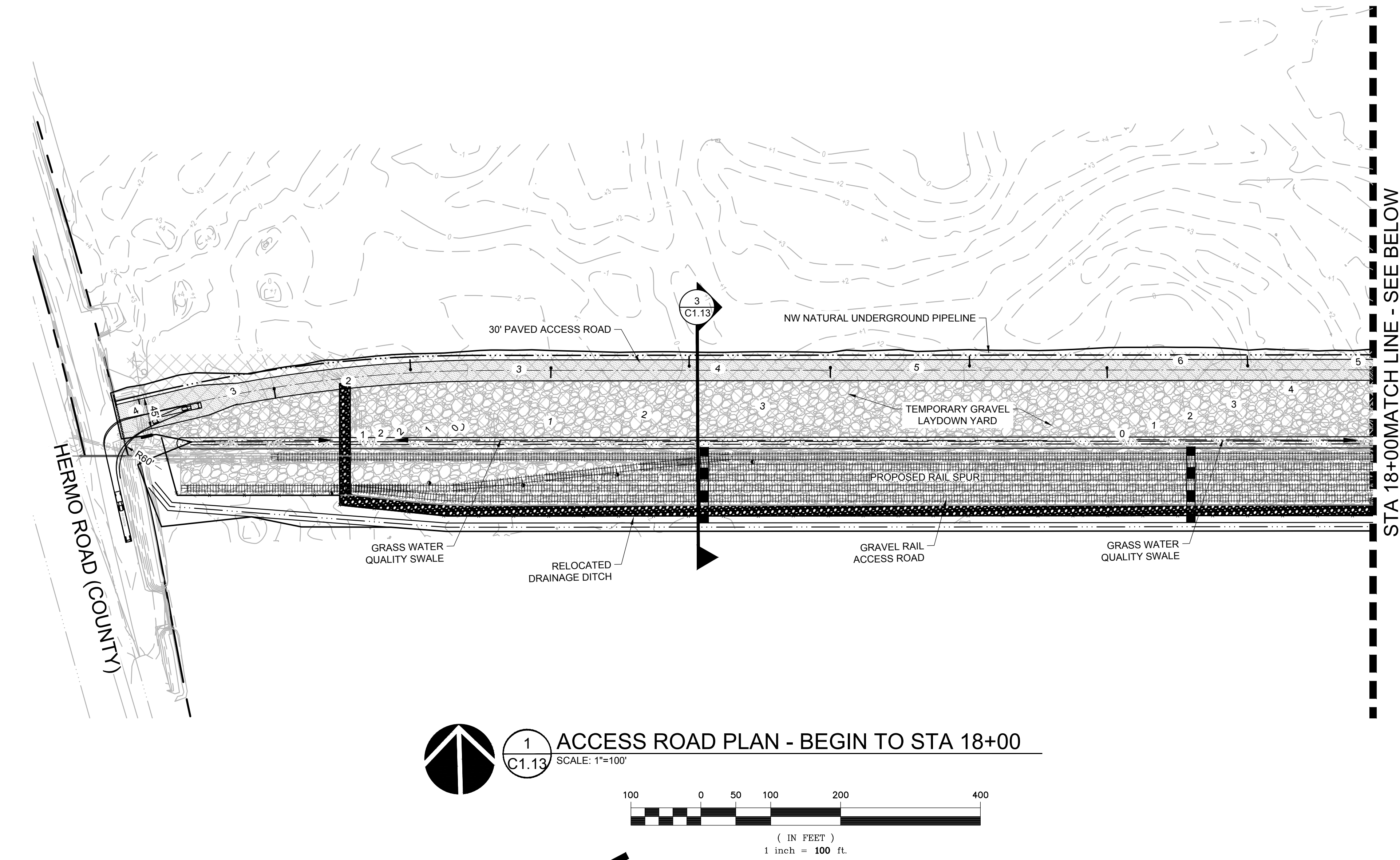
SHEET

C1.12

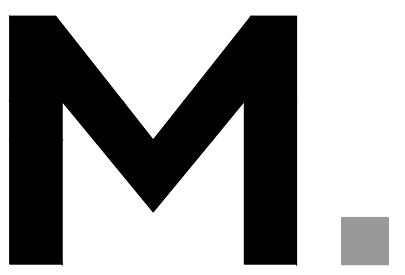
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COMPLETENESS SUBMITTAL SET - 7/8/2021

220031500DRAWINGS\CIVIL\1200315.01\12.DWG BDN 07/07/21 16:55 1/30



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Delta	Issued As	Issue Date

SHEET TITLE:
**PIPELINE
ALIGNMENT
PLAN**

DRAWN BY: BMR
CHECKED BY: BDN

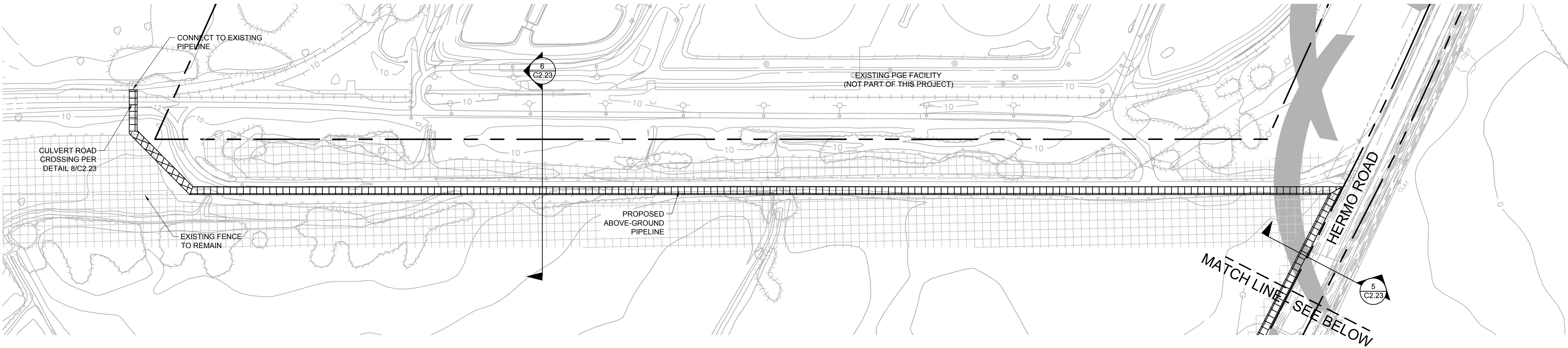
SHEET

C1.14

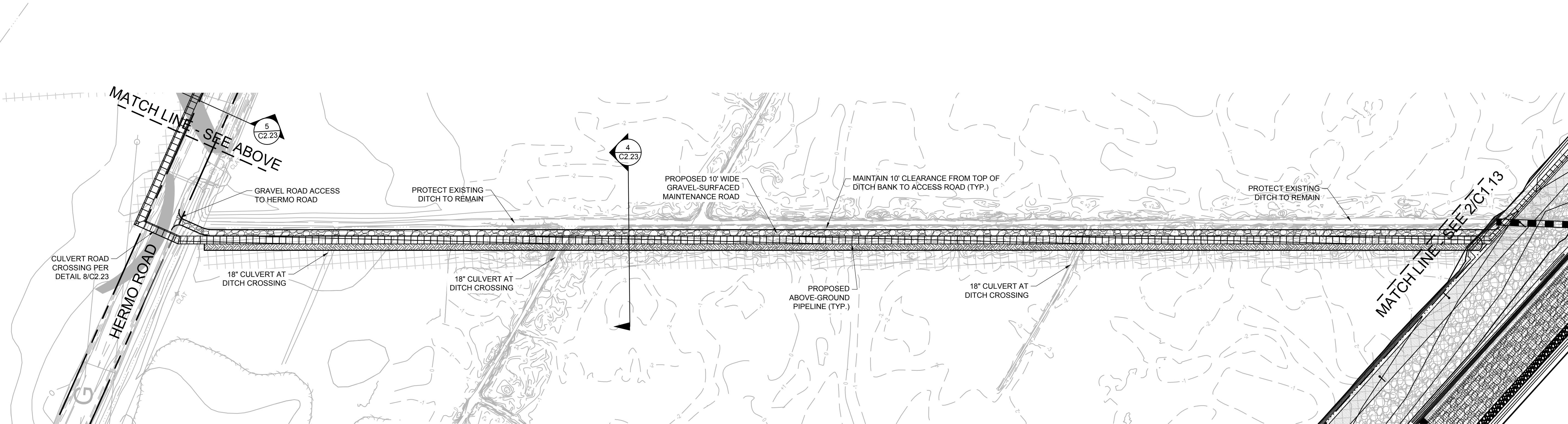
JOB NO. **2200315.01**

COMPLETENESS SUBMITTAL SET - 7/8/2021

2200315001DRAWINGS\DWG\15-C1.14.DWG BDN 07/07/21 16:58 1:100

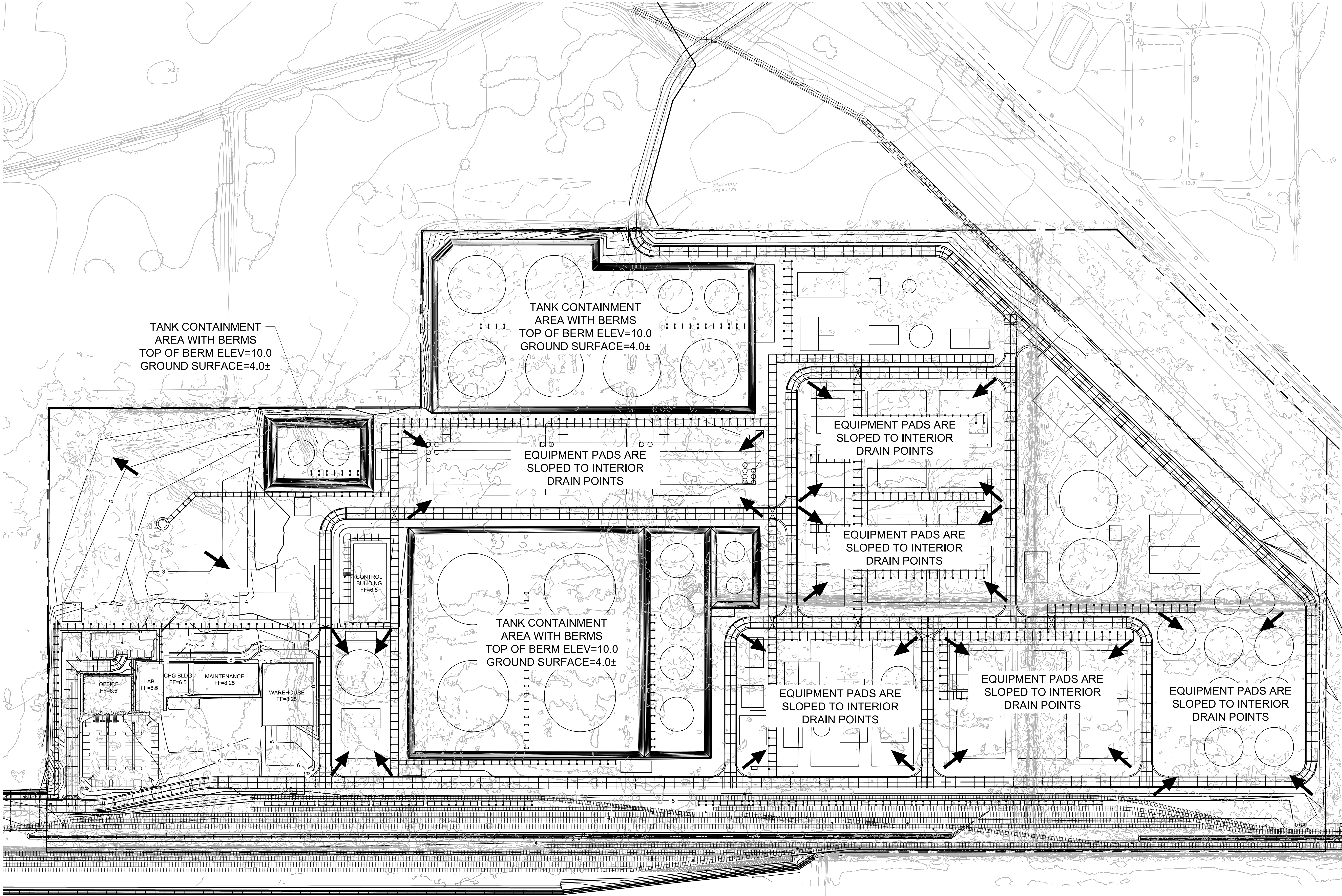


1 PIPELINE ALIGNMENT PLAN
C1.14
(IN FEET)
1 inch = 100 ft.

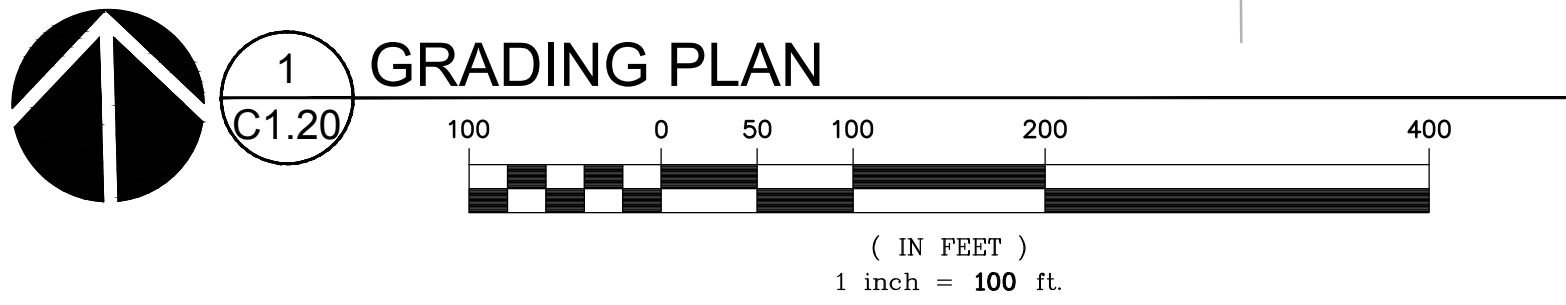


2 PIPELINE ALIGNMENT PLAN
C1.14
(IN FEET)
1 inch = 100 ft.

LEGEND:
SEE LEGEND ON SHEET C0.01



LEGEND:
SEE LEGEND ON SHEET C0.01



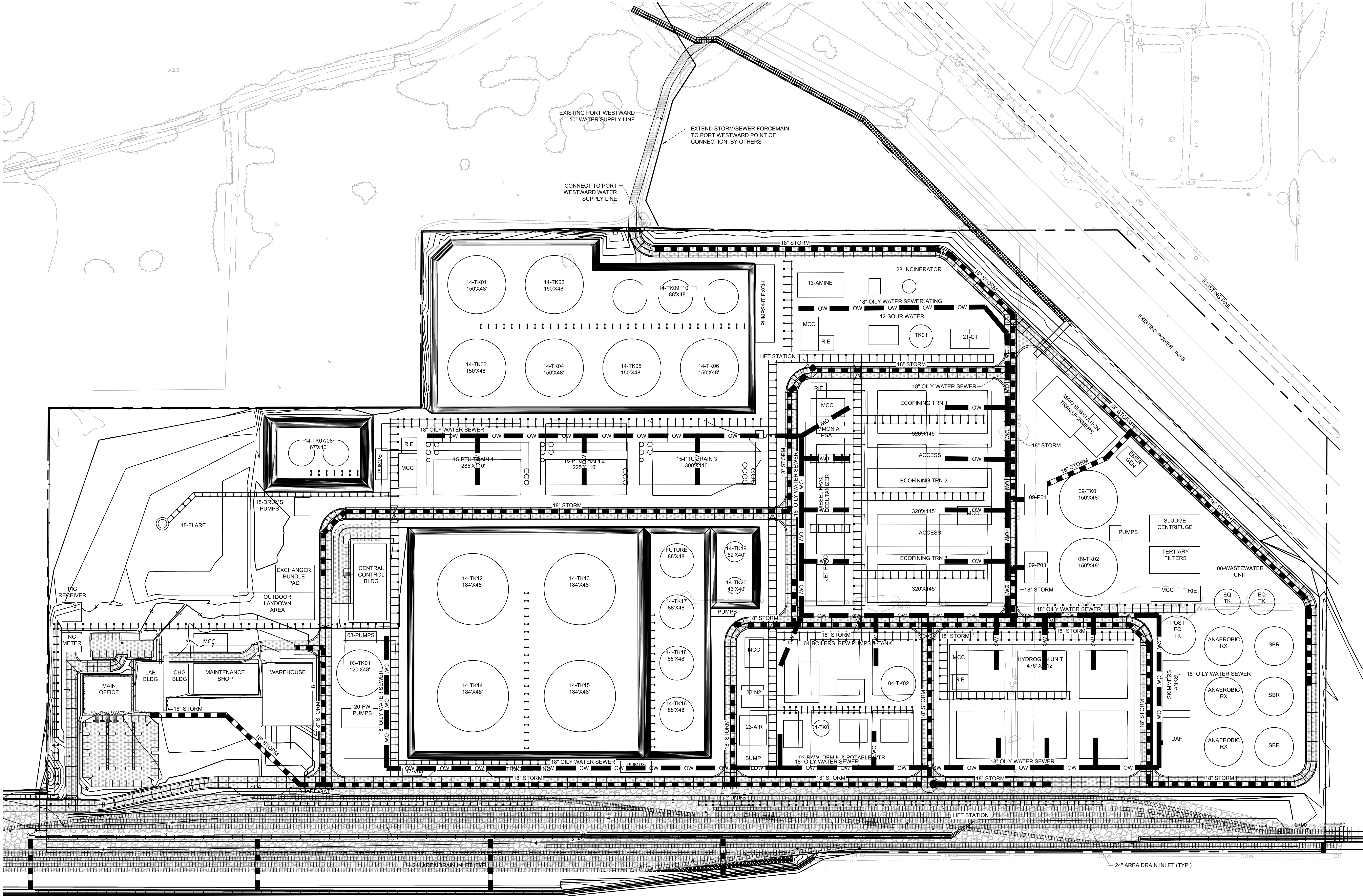
REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
GRADING PLAN

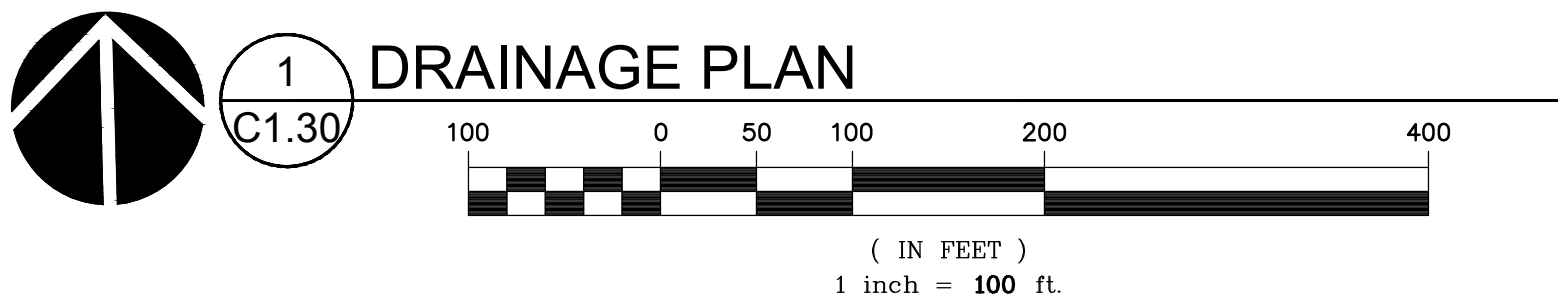
DRAWN BY: CAM
CHECKED BY: BDN
SHEET

C1.20

JOB NO. **2200315.01**



LEGEND:
REFER TO SHEET C0.01 FOR GENERAL LEGEND



REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
DRAINAGE
PLAN

DRAWN BY: CAM
CHECKED BY: BDN
SHEET

C1.30

JOB NO. 2200315.01

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
**SIGN
PLAN**

DRAWN BY: CAM

CHECKED BY: BDN

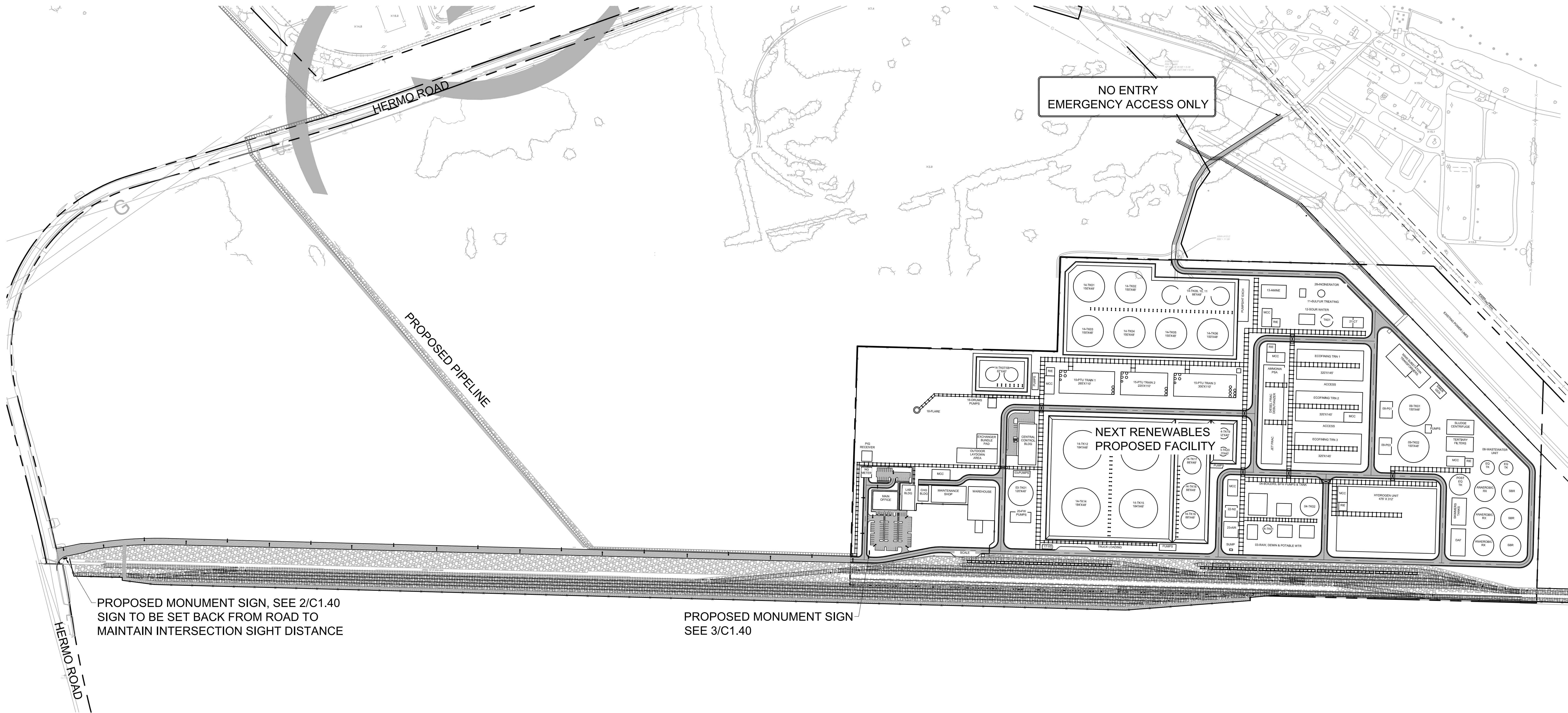
SHEET

C1.40

JOB NO. 2200315.01

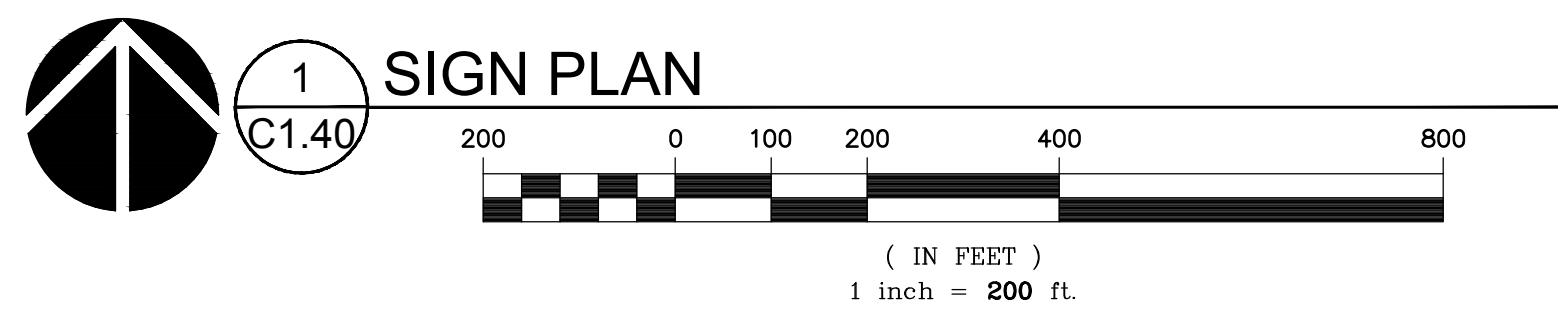
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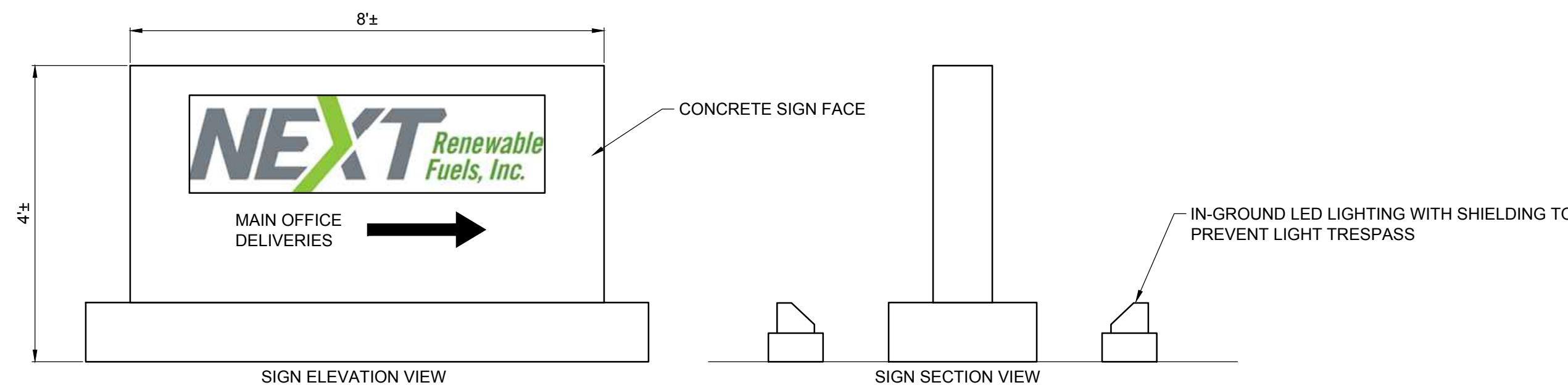
PROPOSED MONUMENT SIGN, SEE 2/C1.40
SIGN TO BE SET BACK FROM ROAD TO
MAINTAIN INTERSECTION SIGHT DISTANCE

PROPOSED MONUMENT SIGN
SEE 3/C1.40



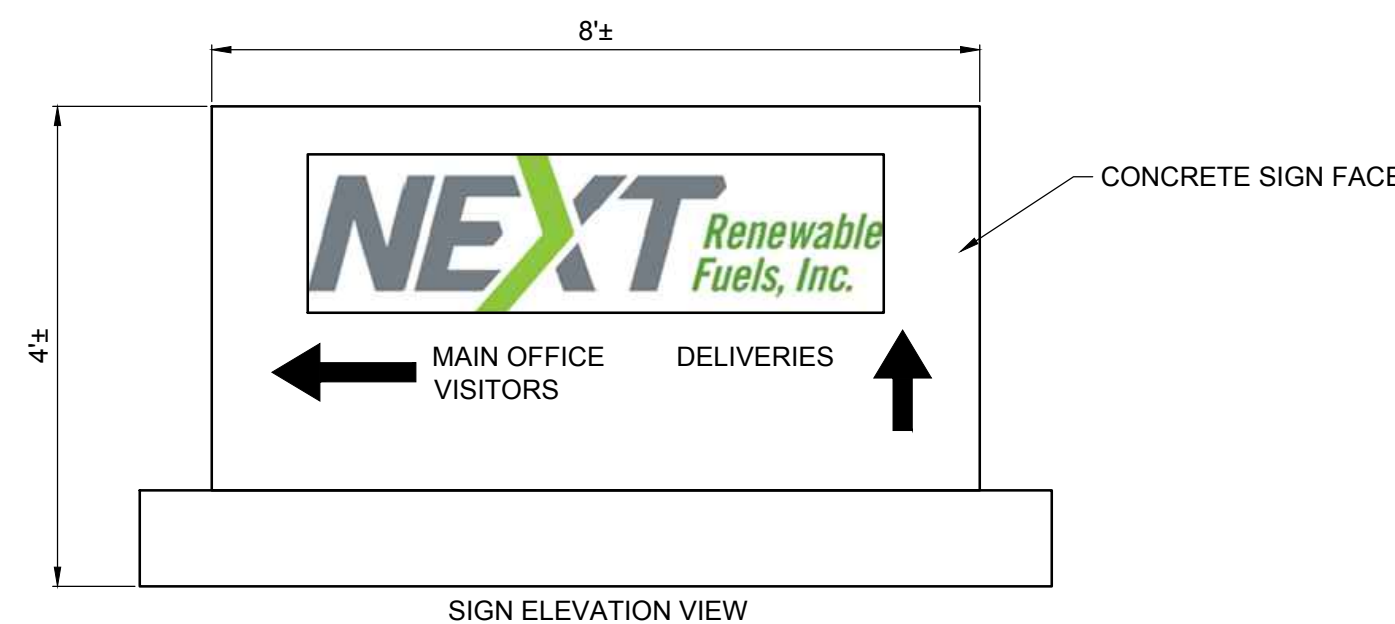
NOTE:

- INTERNAL PLANT SIGNAGE AND WAYFINDING WILL BE DESIGNED FOR BUILDING PERMIT SUBMITTAL AND WILL BE COORDINATED WITH THE FIRE MARSHAL.



NOTE: SIGN DIMENSIONS, SYMBOLS, AND WORDING ARE PRELIMINARY. FINAL SIGN DESIGN TO BE PROVIDED WITH BUILDING PERMIT SUBMITTAL. SIGNS WILL MEET COLUMBIA COUNTY STANDARDS.

2 HERMO ROAD SIGN
C1.40 N.T.S.



NOTE: SIGN DIMENSIONS, SYMBOLS, AND WORDING ARE PRELIMINARY. FINAL SIGN DESIGN TO BE PROVIDED WITH BUILDING PERMIT SUBMITTAL. SIGNS WILL MEET COLUMBIA COUNTY STANDARDS.

3 PLANT ENTRANCE SIGN
C1.40 N.T.S.

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
**ILLUMINATION
PLAN**

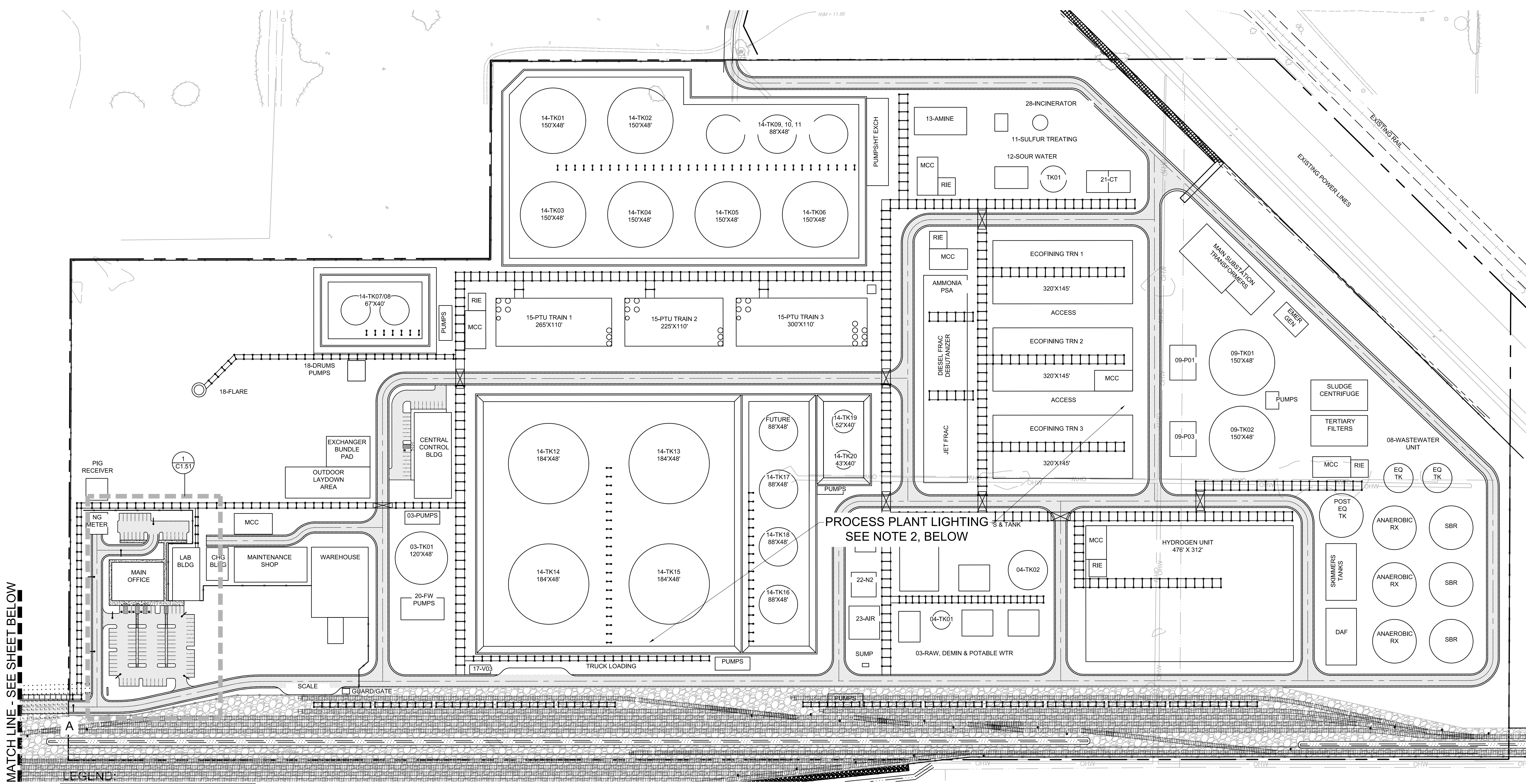
DRAWN BY: CAM
CHECKED BY: BDN
SHEET

C1.50

JOB NO. **2200315.01**

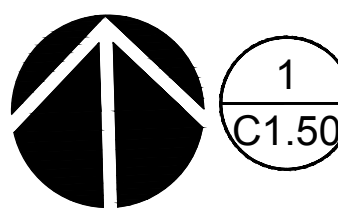
COMPLETENESS SUBMITTAL SET - 7/8/2021

Z200315001.DWG BDN 07/07/21 17:06 1:100



MATCH LINE - SEE SHEET BELOW

LEGEND
SEE LEGEND ON SHEET C0.01



1 ILLUMINATION PLAN

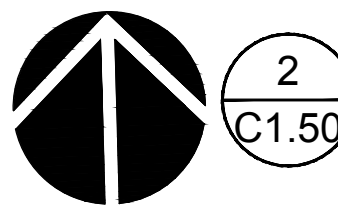
C1.50



(IN FEET)
1 inch = 100 ft.

ENTRANCE ROADWAY ILLUMINATION DATA:

AVERAGE = 1.71 (FOOT CANDLES)
UNIFORMITY RATIO = 5.7:1



2 ILLUMINATION PLAN - ROADWAY

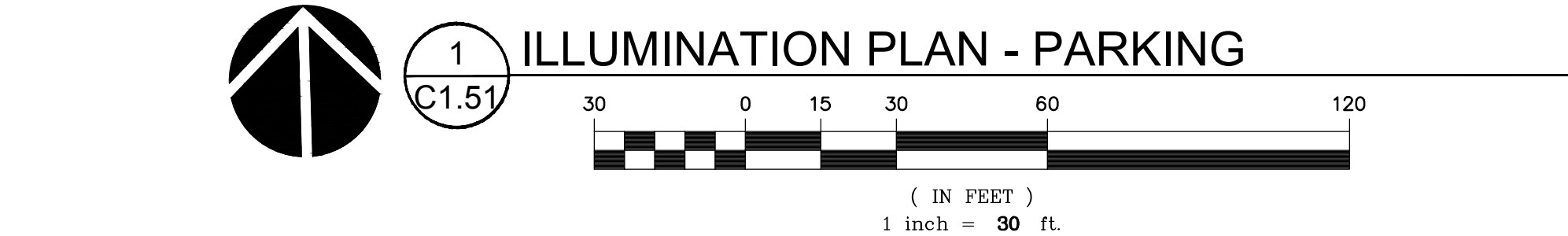
C1.50



(IN FEET)
1 inch = 100 ft.

NOTES:

- SEE SHEET C1.51 FOR LIGHTING SPECIFICATIONS
- ILLUMINATION WITHIN THE PROCESS PLANT WILL BE PROVIDED THROUGH LIGHTING INSTALLED ON EQUIPMENT STRUCTURES, STARWAYS, PIPERACKS ETC. TO MEET AMERICAN PETROLEUM INSTITUTE RECOMMENDED PRACTICE 540.
- PROCESS AND OUTDOOR LIGHTING WILL BE CONTROLLED THROUGH A COMBINATION OF PHOTOCELL, TIME CLOCK, MOTION DETECTION, PHYSICAL SWITCHING, OR OTHER MEANS.
- ALL OUTDOOR LIGHTS WILL BE SHIELDED SO AS NOT TO SHINE DIRECTLY ONTO ADJACENT PROPERTIES AND ROADS.



UNIFORMITY RATIO = 2.7:1

PERFORMANCE PACKAGE																
Performance Package	Drive Current (mA)	Input Watts	Optic	3K 13000K CCT, 70 CRI Min.						4K/5K 14000K/15000K CCT, 70 CRI Min.						
				Lumens		LPW		U	G	Lumens		LPW		U	G	
				Lumens						Lumens						
4GB	750	85	R2	15,854	125	2	0	0	0	11,957	125	2	0	0	0	0
	1050	130		22,986	130	0	0	3	3	16,390	132	0	0	3	0.17	0.05
	1300	161		27,917	137	0	0	0	0	19,758	135	0	0	0	0.19	0.06
	1500	188		32,416	162	0	0	0	0	21,384	162	0	0	0	0.16	0.09
	1700	213	R3	36,915	183	0	0	0	0	24,882	182	0	0	0	0.17	0.08
	1950	213		41,414	183	0	0	0	0	28,371	182	0	0	0	0.17	0.08
	1550	133		18,607	117	0	0	0	0	13,428	122	0	0	0	0.17	0.05
	1750	158		22,106	122	0	0	0	0	16,390	122	0	0	0	0.17	0.06
	1900	188	R4	25,940	122	0	0	0	0	17,131	120	0	0	0	0.18	0.07
	2100	213		29,439	124	0	0	0	0	19,758	124	0	0	0	0.18	0.07
	1000	177		14,609	138	0	0	0	0	10,677	115	0	0	0	0.18	0.06
	1200	198		17,131	142	0	0	0	0	12,798	119	0	0	0	0.18	0.07
	1300	180	R5	17,131	129	0	0	0	0	12,388	141	0	0	0	0.18	0.07
	1500	213		21,630	133	0	0	0	0	15,854	133	0	0	0	0.18	0.08
	1700	231		25,129	133	0	0	0	0	18,379	122	0	0	0	0.18	0.08
	1900	254		29,628	137	0	0	0	0	22,878	125	0	0	0	0.18	0.08
6GB	750	120	R2	18,379	128	0	0	0	0	13,714	128	0	0	0	0.18	0.07
	1050	165		25,940	135	0	0	0	0	19,758	129	0	0	0	0.18	0.08
	1300	198		32,416	145	0	0	0	0	25,940	135	0	0	0	0.18	0.09
	1500	224		37,915	145	0	0	0	0	29,628	135	0	0	0	0.18	0.09
	1700	251	R3	42,414	158	0	0	0	0	34,939	142	0	0	0	0.18	0.09
	1900	277		46,913	158	0	0	0	0	38,438	142	0	0	0	0.18	0.09
	1000	180		18,379	129	0	0	0	0	13,984	138	0	0	0	0.18	0.07
	1200	201		21,630	133	0	0	0	0	16,390	133	0	0	0	0.18	0.08
	1500	244														

Autobahn Series ATB2

Roadway Lighting

UMR POLE ADAPTOR

RECOMMENDED FOR USE WITH POLES OF 4" DIAMETER OR SMALLER

1-1/2\" RAD.

1/4\" PLATE

3"

7-1/2"

2-3/8"

9-1/2"

4 1/2 x 1-3/4" SLOTT
(2 PLATES)

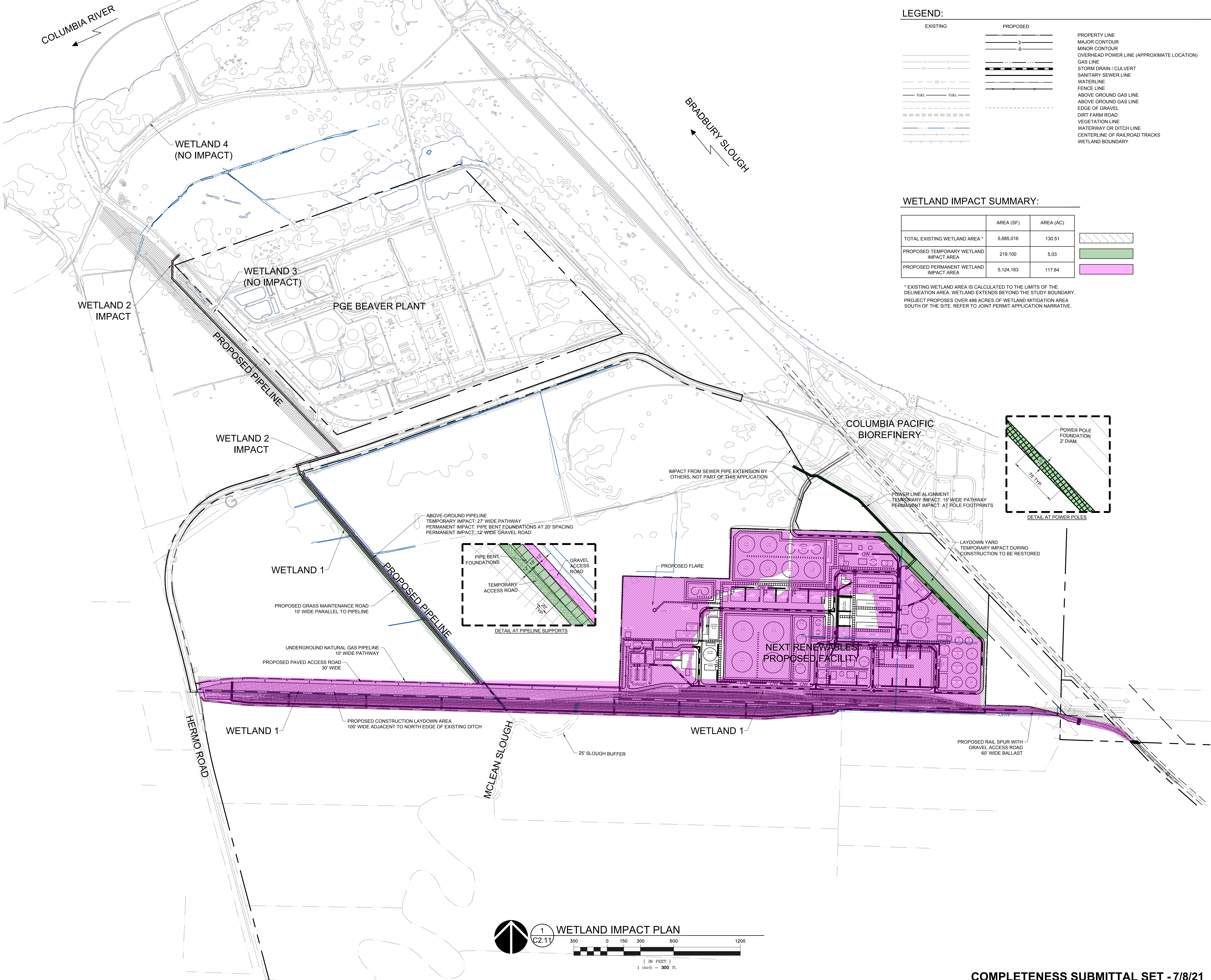
8"

1.66 O.D. x .140 WALL TH.

1/4\" PLATE

UMS POLE ADAPTOR

JOB NO. **2200315.01**



LEGEND:

EXISTING

PROPOSED

PROPERTY LINE

MAJOR CONTOUR

MINOR CONTOUR

OVERHEAD POWER LINE (APPROXIMATE LOCATION)

GAS LINE

STORM DRAIN / CULVERT

SANITARY SEWER LINE

WATERLINE

FENCE LINE

ABOVE GROUND GAS LINE

ABOVE GROUND GAS LINE

EDGE OF GRAVEL

DIRT FARM ROAD

VEGETATION LINE

WATERWAY OR DITCH LINE

CENTERLINE OF RAILROAD TRACKS

WETLAND BOUNDARY

WETLAND IMPACT SUMMARY:

	AREA (SF)	AREA (AC)	
TOTAL EXISTING WETLAND AREA *	5,685,016	130.51	
PROPOSED TEMPORARY WETLAND IMPACT AREA	219,100	5.03	
PROPOSED PERMANENT WETLAND IMPACT AREA	5,124,183	117.64	

* EXISTING WETLAND AREA IS CALCULATED TO THE LIMITS OF THE DELINEATION AREA. WETLAND EXTENDS BEYOND THE STUDY BOUNDARY. PROJECT PROPOSES OVER 488 ACRES OF WETLAND MITIGATION AREA SOUTH OF THE SITE. REFER TO JOINT PERMIT APPLICATION NARRATIVE.

M.

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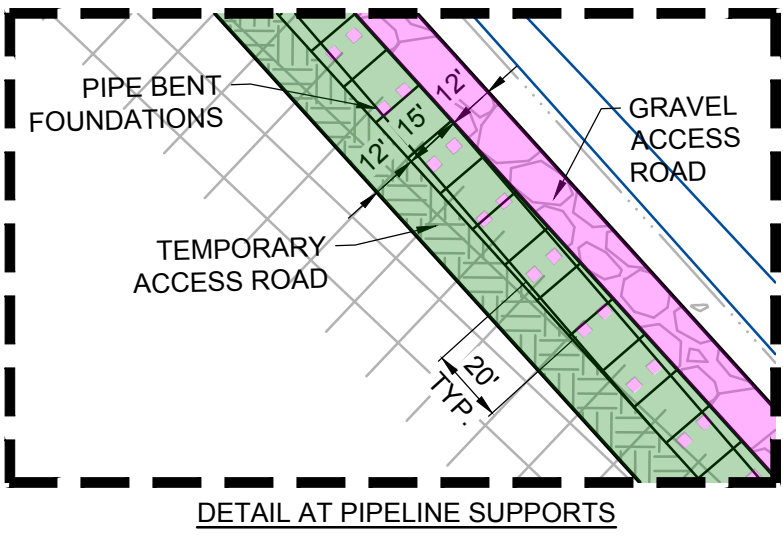
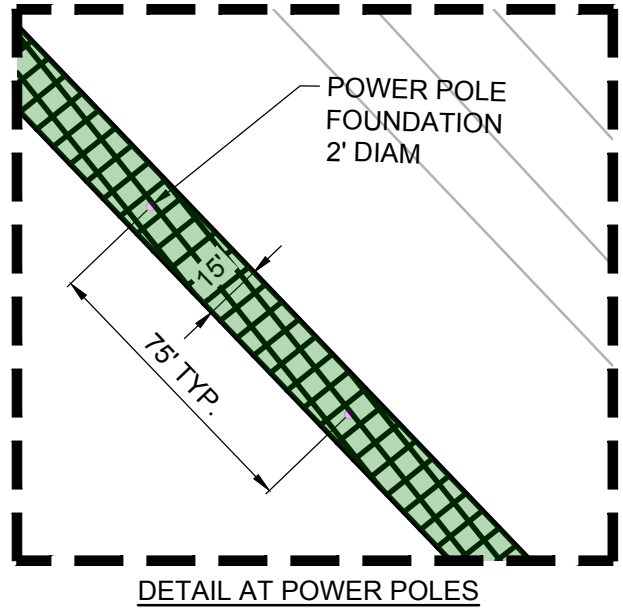
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Client
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FUELS OREGON**

**11767 KATY FREEWAY
SUITE 705
HOUSTON, TX 77079**

Project
**NEXT RENEWABLE
FUELS, INC.
PORT WESTWARD
COLUMBIA COUNTY,
OR**



REGISTERED PROFESSIONAL ENGINEER
NO. 82687PPE
OREGON
BRENT DANIEL WICK
EXPIRES: 12/31/22

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REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
**OVERALL
WETLAND
IMPACT PLAN**

DRAWN BY: CAM
CHECKED BY: BDN
SHEET

C2.11

JOB NO. **2200315.01**

1
C2.11

WETLAND IMPACT PLAN

300 0 150 300 600 1200

(IN FEET)
1 inch = 300 ft



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EXT RENEWABLE FUELS OREGON

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SUITE 705
HOUSTON, TX 7707

EXT RENEWABLE
UELS, INC.
ORT WESTWARD
OLUMBIA COUNT
R

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PROJECT TITLE:
**OVERALL
WATERWAY
IMPACT PLAN**

AWN BY: CAM

HECKED BY: BDN

EET

C2.12

B NO. **2200315.01**



EXISTING

PROPOSED

PROPERTY LINE
MAJOR CONTOUR
MINOR CONTOUR
OVERHEAD POWER LINE (APPROXIMATE LOCATION)
GAS LINE
STORM DRAIN / CULVERT
SANITARY SEWER LINE
WATERLINE
FENCE LINE
ABOVE GROUND GAS LINE
ABOVE GROUND GAS LINE
EDGE OF GRAVEL
DIRT FARM ROAD
VEGETATION LINE
WATERWAY OR DITCH LINE
CENTERLINE OF RAILROAD TRACKS
WETLAND BOUNDARY

WATERWAY IMPACT SUMMARY:

	AREA (SF)	AREA (AC)
PROPOSED TEMPORARY WATERWAY IMPACT AREA	1,133	0.03
PROPOSED PERMANENT WATERWAY IMPACT AREA	100,732	2.31

* EXISTING WATERWAY AREA IS CALCULATED TO THE OHW WITHIN THE LIMITS OF THE DELINEATION AREA. WATERWAYS EXTEND BEYOND THE STUDY BOUNDARY.

DWC BDN 03/03/21 17:10 1:2

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
**WETLANDS
IMPACT
EARTHWORK
PLAN**

DRAWN BY: CAM

CHECKED BY: BDN

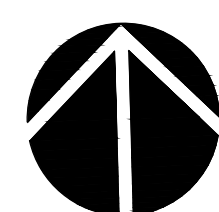
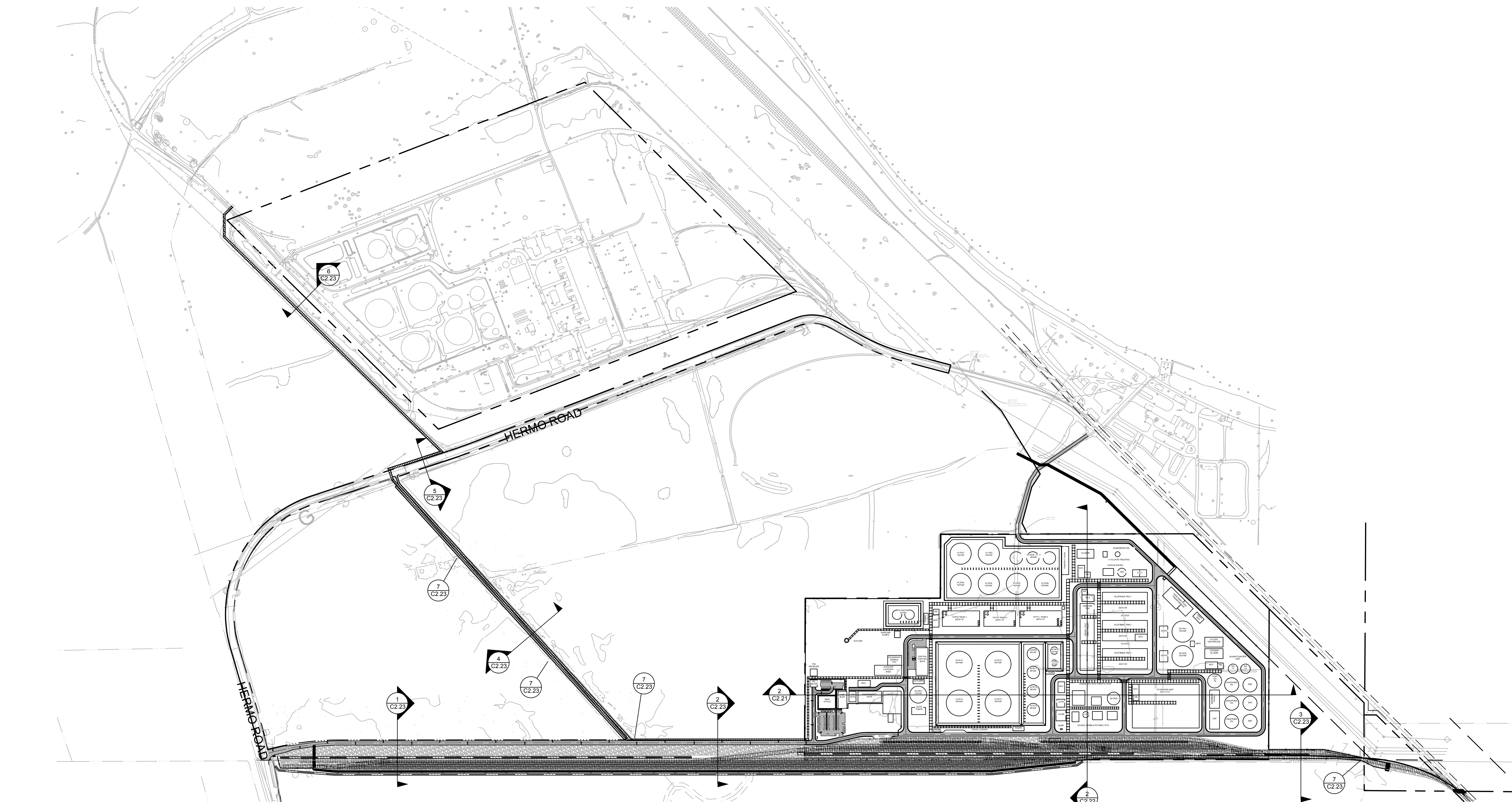
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C2.20

JOB NO. 2200315.01

COMPLETENESS SUBMITTAL SET - 7/8/2021

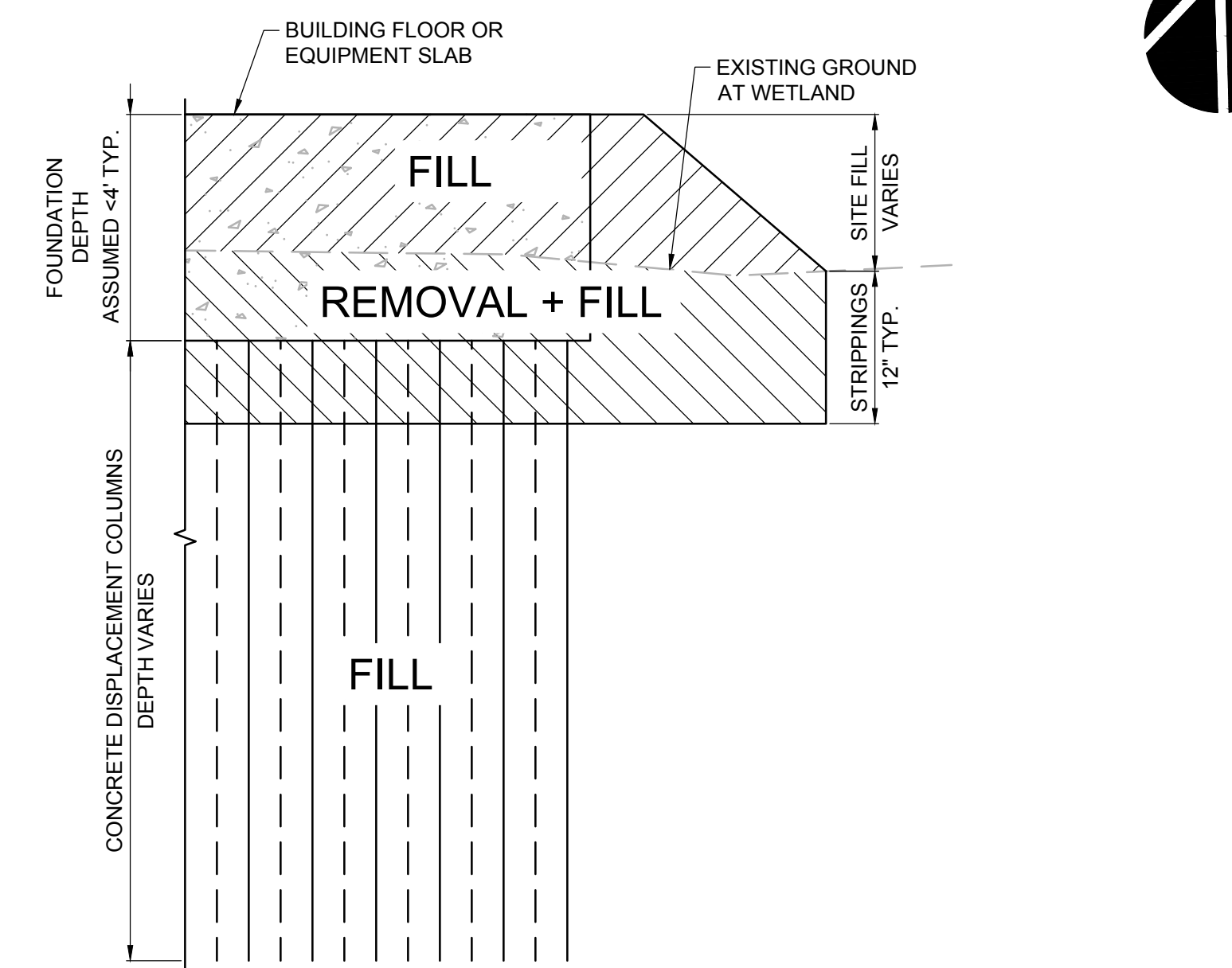
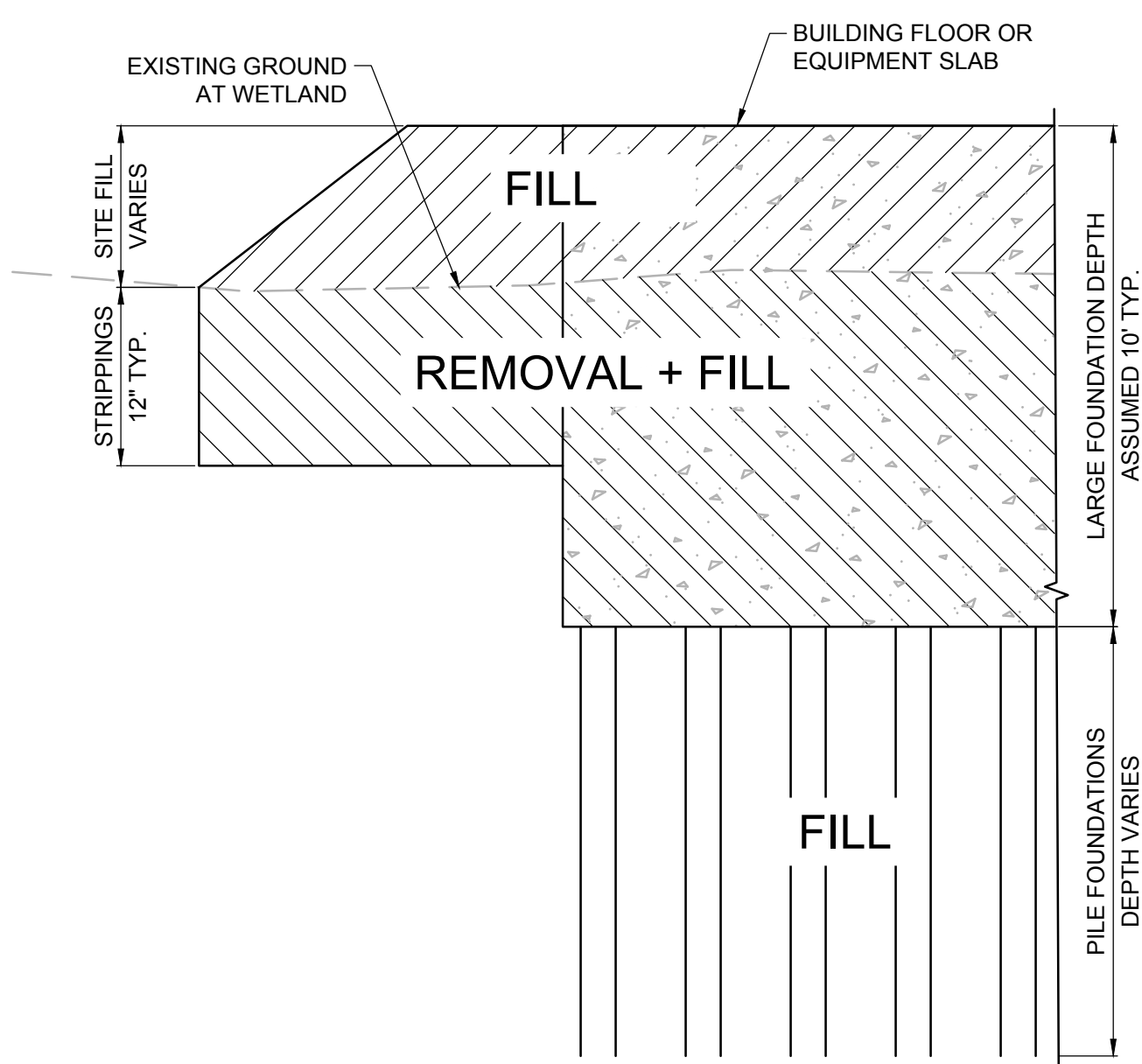
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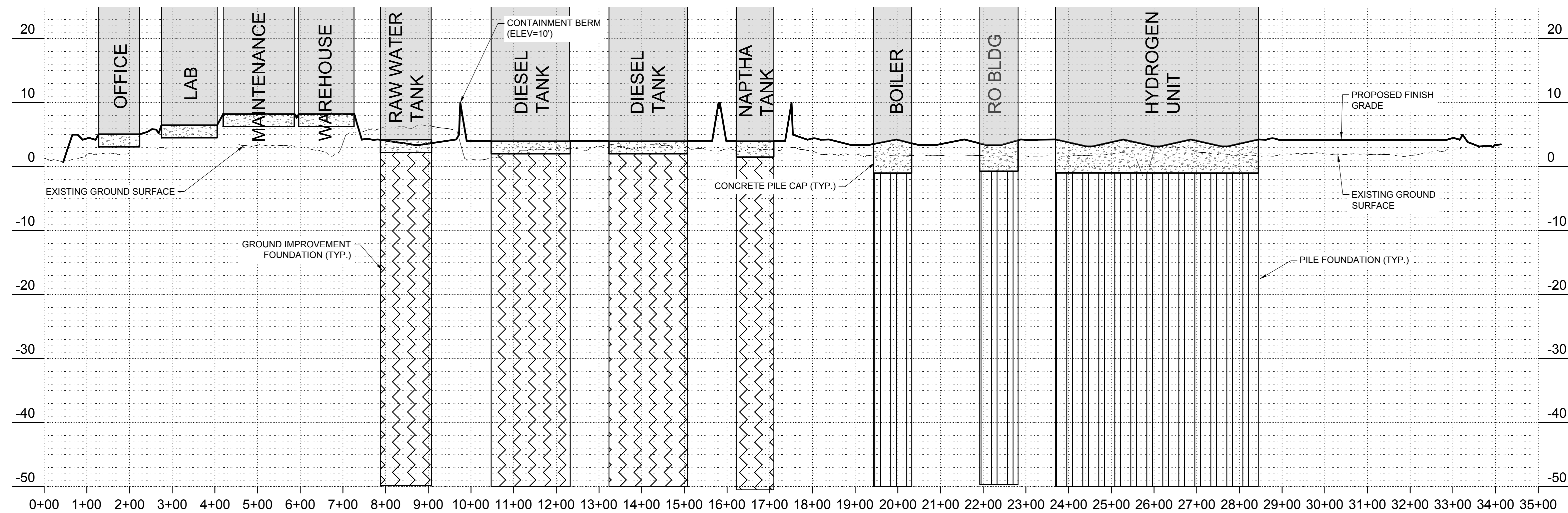
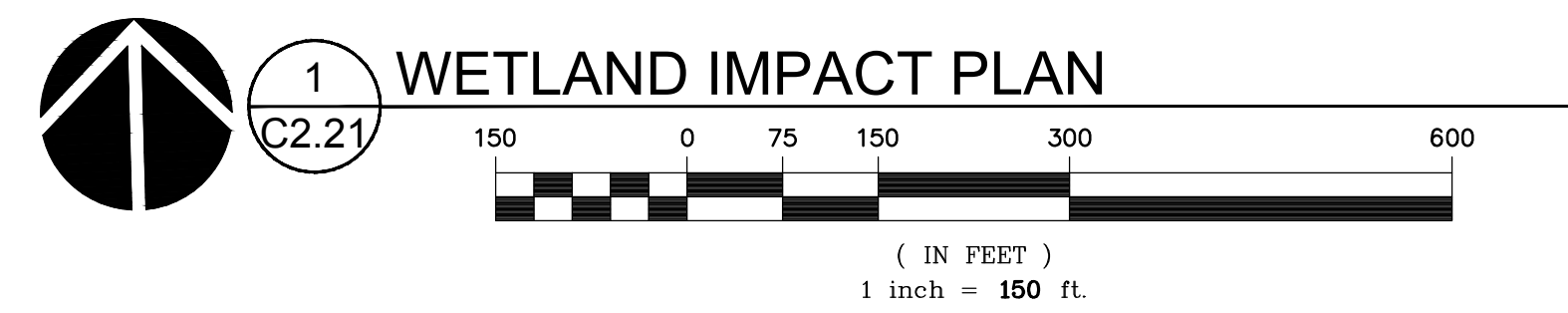
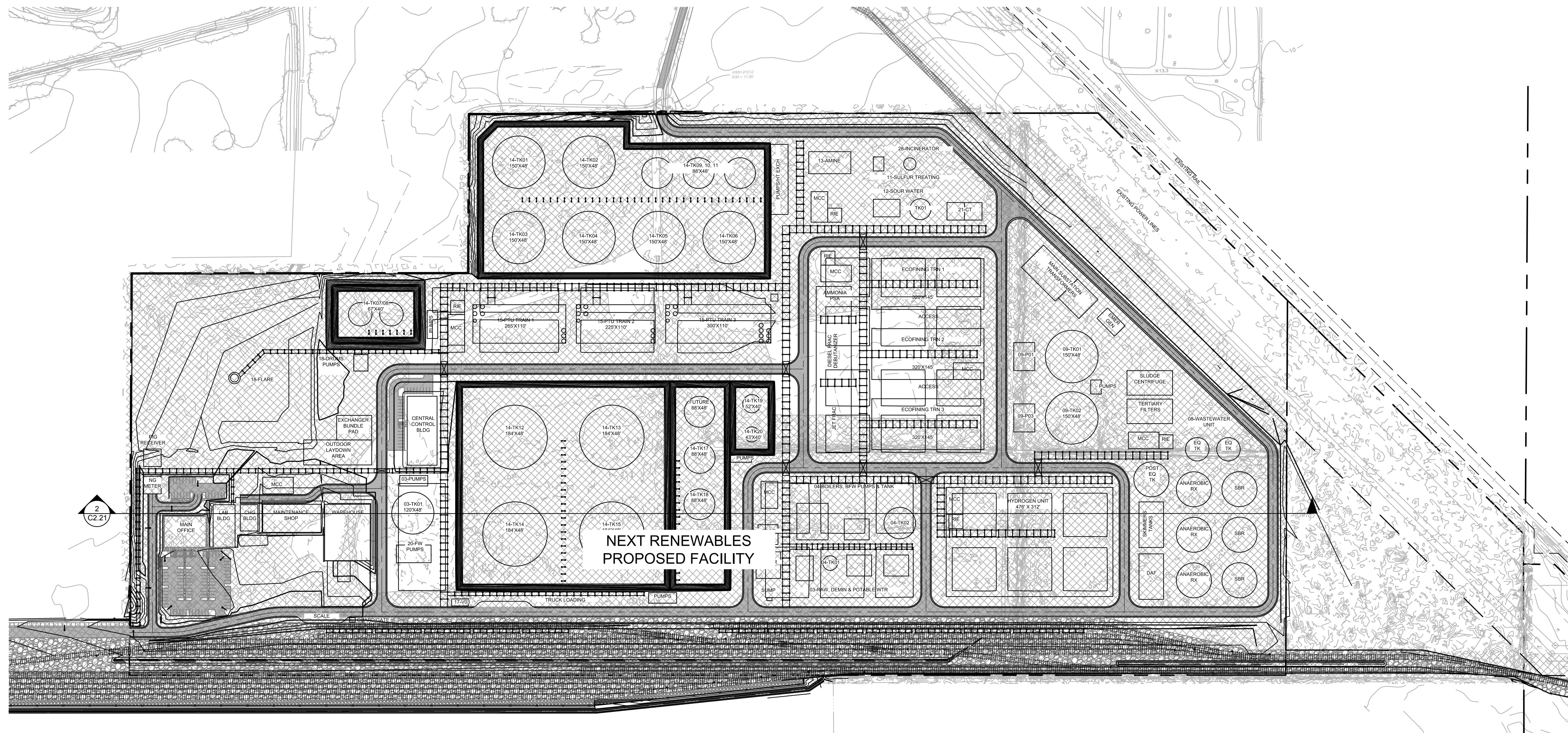


1 WETLANDS REMOVAL AND FILL SUMMARY

(IN FEET)
1 inch = 300 ft.

Wetland 1	Wetland Removal (cy)			Wetland Fill (cy)			Temporary Wetland Removal (cy)		Temporary Wetland Fill (cy)		Wetland Impact (ac)		
	Site Strippings	Foundation Excavation	Total Removal	Site Grading	Foundation Backfill	Pile Displacement	Temporary Site Excavation	Temporary Site Grading	Temporary	Permanent	Temporary	Permanent	
Access Road + Laydown Area	32,200	-	32,200	125,724	32,300	-	-	-	-	-	0	13.47	
Facility Footprint	136,192	3,075	139,267	314,505	139,267	118,855	572,637	1,640	1,715	3.5	88.51	0	
Pipeline Alignment + Access Road	1,350	905	2,275	1,800	2,275	390	4,465	1,153	1,155	1.43	0.75	0	
Rail Spur	-	5,520	12,222	17,742	11,530	17,742	-	29,272	-	-	0	17	
Offsite Laydown Yard	-	-	-	-	-	-	-	175,000	27	0	0	0	
Total Wetland 1	175,262	16,222	191,484	453,558	191,484	119,245	764,288	2,793	177,870	32.03	120.1	0	
Wetland 2	Wetland Removal (cy)			Wetland Fill (cy)			Temporary Wetland Removal (cy)		Temporary Wetland Fill (cy)		Wetland Impact (ac)		
	Site Strippings	Foundation Excavation	Total Removal	Site Grading	Foundation Backfill	Pile Displacement	Temporary Site Excavation	Temporary Site Grading	Temporary	Permanent	Temporary	Permanent	
Access Road + Laydown Area	-	-	-	-	-	-	-	-	-	-	0	0	
Facility Footprint	-	-	-	-	-	-	-	-	-	-	0	0	
Pipeline Alignment + Access Road	-	1,600	1,600	-	1,600	20	1,620	5	5	0	0.03	0	
Rail Spur	-	-	-	-	-	-	-	-	-	-	0	0	
Total Wetland 2	-	1,600	1,600	-	1,600	20	1,620	5	5	0	0.03	0	
Wetland 3	Wetland Removal (cy)			Wetland Fill (cy)			Temporary Wetland Removal (cy)		Temporary Wetland Fill (cy)		Wetland Impact (ac)		
	Site Strippings	Foundation Excavation	Total Removal	Site Grading	Foundation Backfill	Pile Displacement	Temporary Site Excavation	Temporary Site Grading	Temporary	Permanent	Temporary	Permanent	
Access Road + Laydown Area	-	-	-	-	-	-	-	-	-	-	0	0	
Facility Footprint	-	-	-	-	-	-	-	-	-	-	0	0	
Pipeline Alignment + Access Road	-	2,200	2,200	-	2,200	50	2,250	5	5	0	0.01	0	
Rail Spur	-	-	-	-	-	-	-	-	-	-	0	0	
Total Wetland 3	-	2,200	2,200	-	2,200	50	2,250	5	5	0	0.01	0	
Total Wetland Impact		Wetland Removal (cy)			Wetland Fill (cy)			Temporary Wetland Removal (cy)		Temporary Wetland Fill (cy)		Wetland Impact (ac)	
	Site Strippings	Foundation Excavation	Total Removal	Site Grading	Foundation Backfill	Pile Displacement	Total Fill						
Access Road + Laydown Area	-	32,200	-	32,200	125,724	32,300	-	157,924	-	-	-	0	13.47
Facility Footprint	-	136,192	3,075	139,267	314,505	139,267	118,855	572,637	1,640	1,715	3.5	88.51	0
Pipeline Alignment + Access Road	-	1,350	4,725	6,075	1,800	6,075	460	8,335	1,153	1,155	1.43	0.75	0
Rail Spur	-	5,520	12,222	17,742	11,530	17,742	-	29,272	-	-	-	17	0
Offsite Laydown Yard	-	-	-	-	-	-	-	-	175,000	27	0	0	0
Total Project Site	175,262	20,022	195,284	453,558	195,284	119,315	764,118	2,803	177,880	32.03	120.1	0	0

EXCAVATION DEPTH BELOW EXISTING GRADE
CHARACTERIZED AS CUT VOLUME AND FILL VOLUME
WHERE BACKFILLED WITH SOIL OR CONCRETEFILL EMBANKMENT ABOVE EXISTING GRADE
CHARACTERIZED AS FILL VOLUMEPILE FOUNDATIONS
CHARACTERIZED AS FILL VOLUME, ASSUMES
DISPLACEMENT PILESCONCRETE DISPLACEMENT COLUMN FOUNDATIONS
CHARACTERIZED AS FILL VOLUME, ASSUMES 36%
DISPLACEMENT FACTOR FOR CONCRETE FILL



WETLAND IMPACT CROSS-SECTION

HORIZONTAL SCALE: 1" = 150'
 VERTICAL SCALE: 1" = 10' (15X EXAGGERATION)

REGISTERED PROFESSIONAL
ENGINEER
82687PE
OREGON
JUNE 2, 2010
BRENT DANIEL NIELSEN
EXPIRES: 12/31/22

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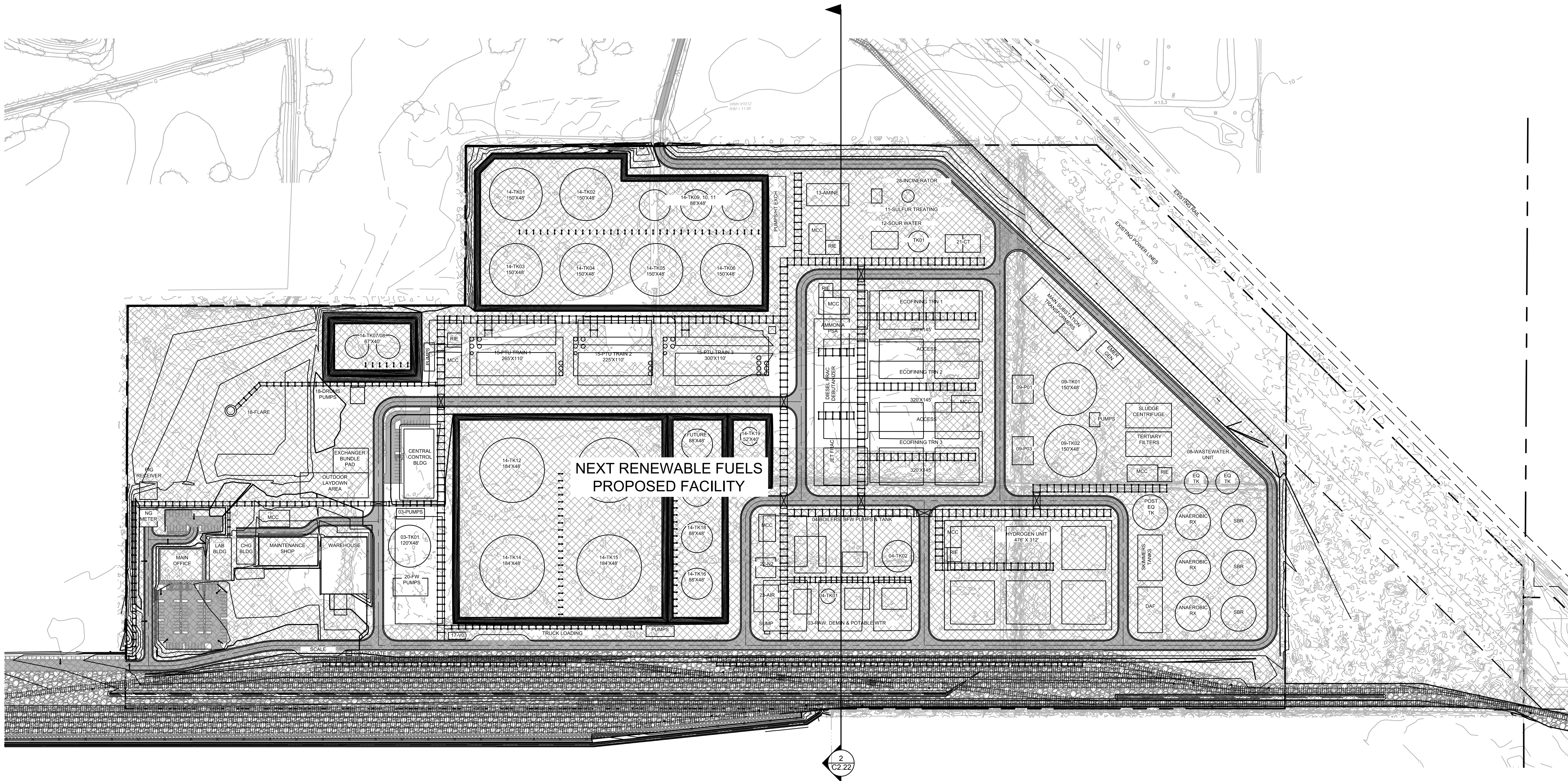
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ET TITLE:
SCHEMATIC
WETLAND FILL
CROSS
SECTION
EAST-WEST

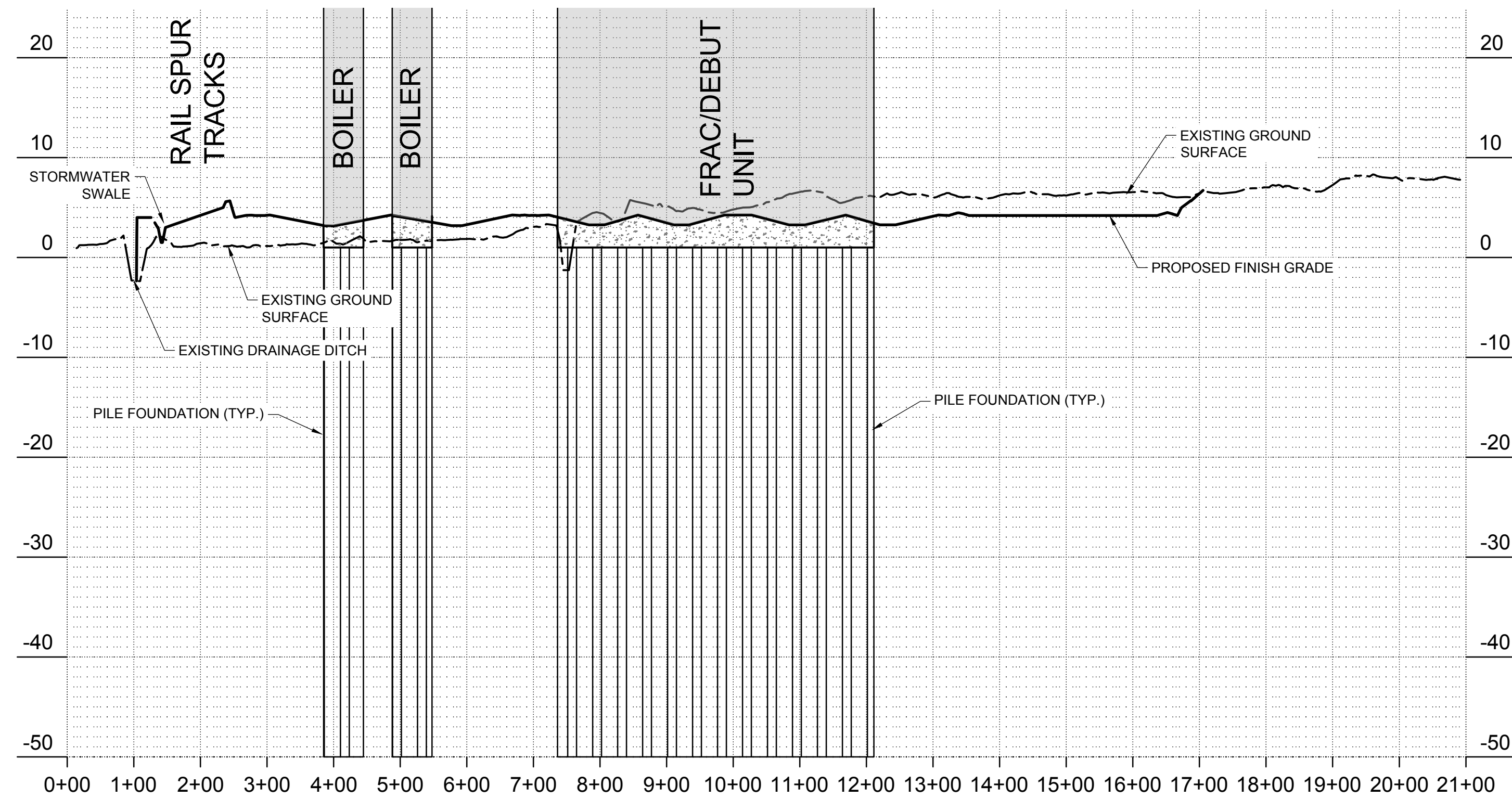
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CHECKED BY: BDN
ET

C2.21

NO. **2200315.01**

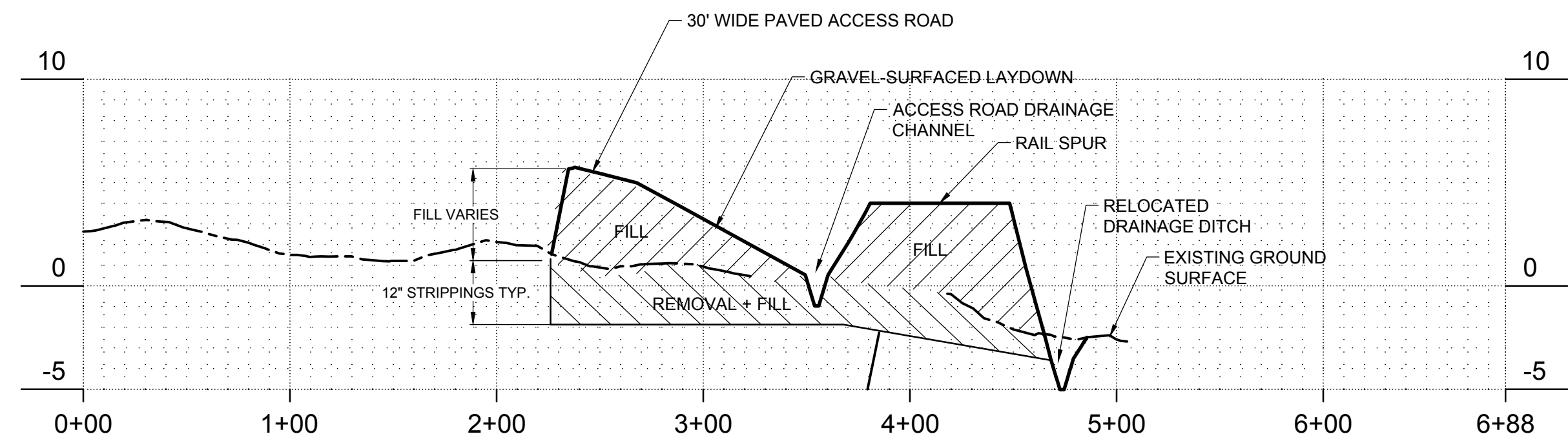


1 WETLAND IMPACT PLAN
150 0 75 150 300 600
(IN FEET)
1 inch = 150 ft.

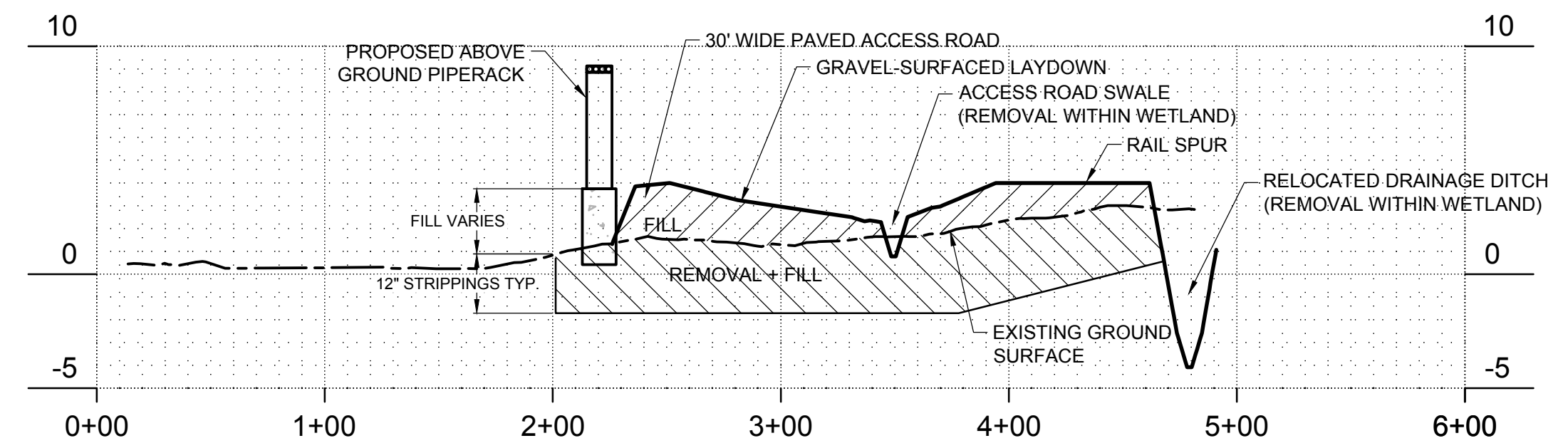


2 WETLAND IMPACT CROSS-SECTION
HORIZONTAL SCALE: 1" = 150'
VERTICAL SCALE: 1" = 10' (15X EXAGGERATION)

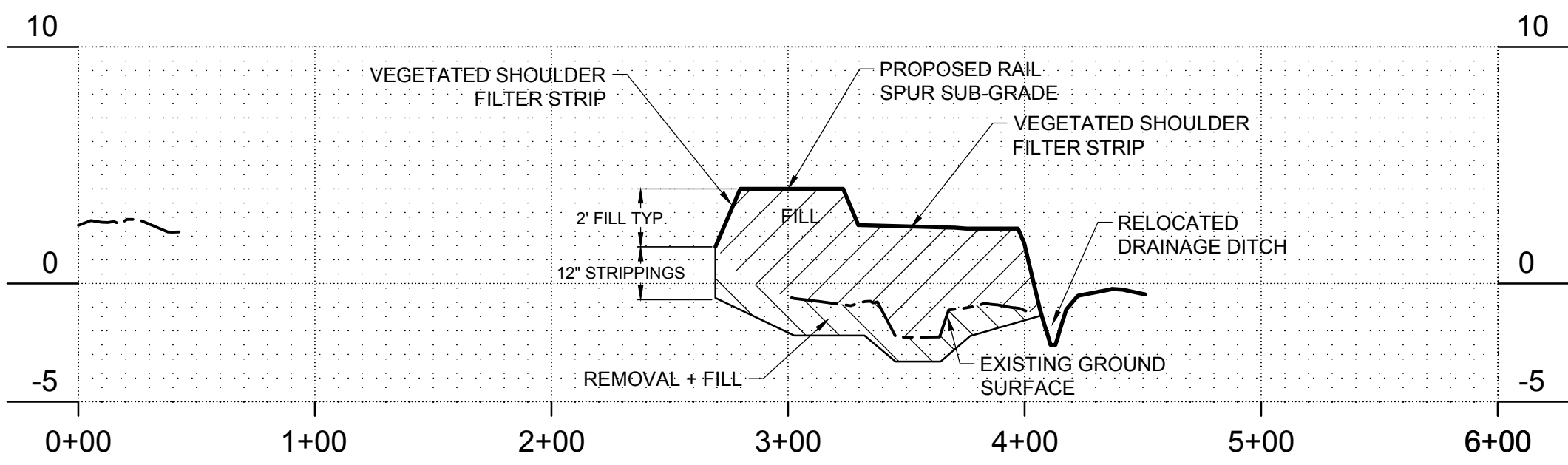
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Delta	Issued As	Issue Date



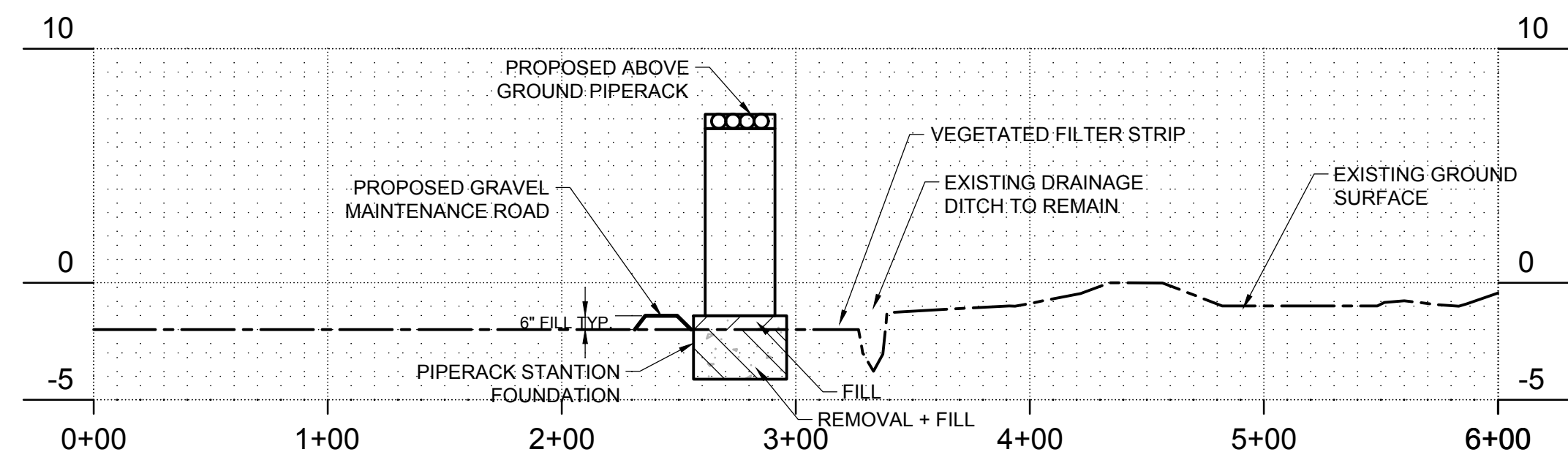
1 ACCESS ROAD CROSS-SECTION
C2.23 HORIZONTAL SCALE = 1"=60'
VERTICAL SCALE = 1"=6'



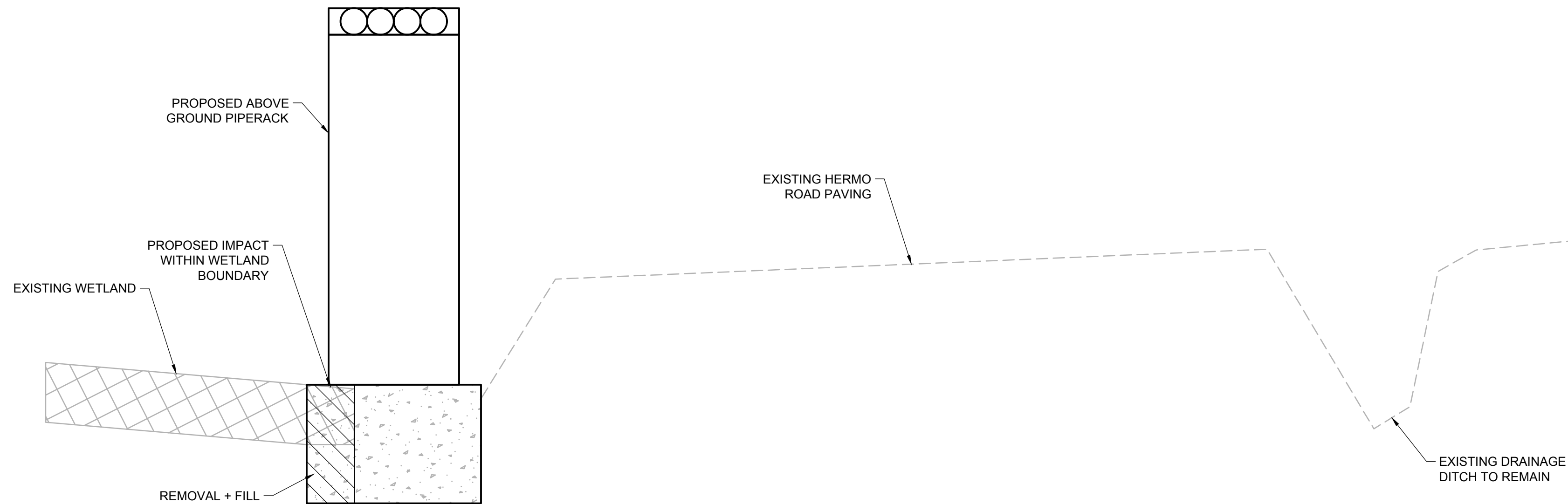
2 ACCESS ROAD CROSS SECTION WITH WIDENED PAVING
C2.23 HORIZONTAL SCALE = 1"=60'
VERTICAL SCALE = 1"=6'



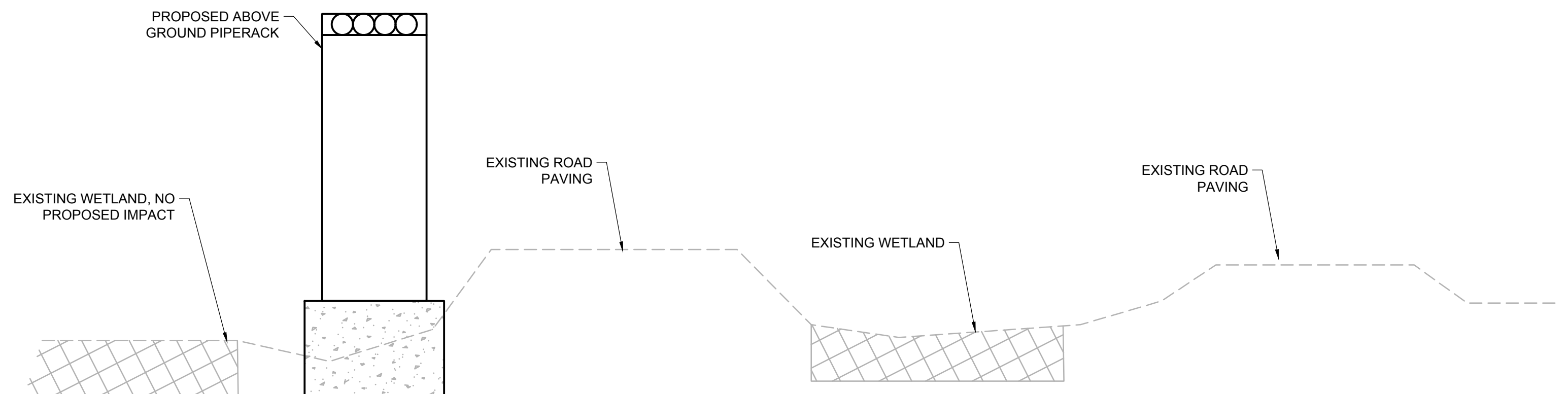
3 RAIL SPUR BRANCH LINE TYPICAL CROSS-SECTION
C2.23 HORIZONTAL SCALE = 1"=60'
VERTICAL SCALE = 1"=6'



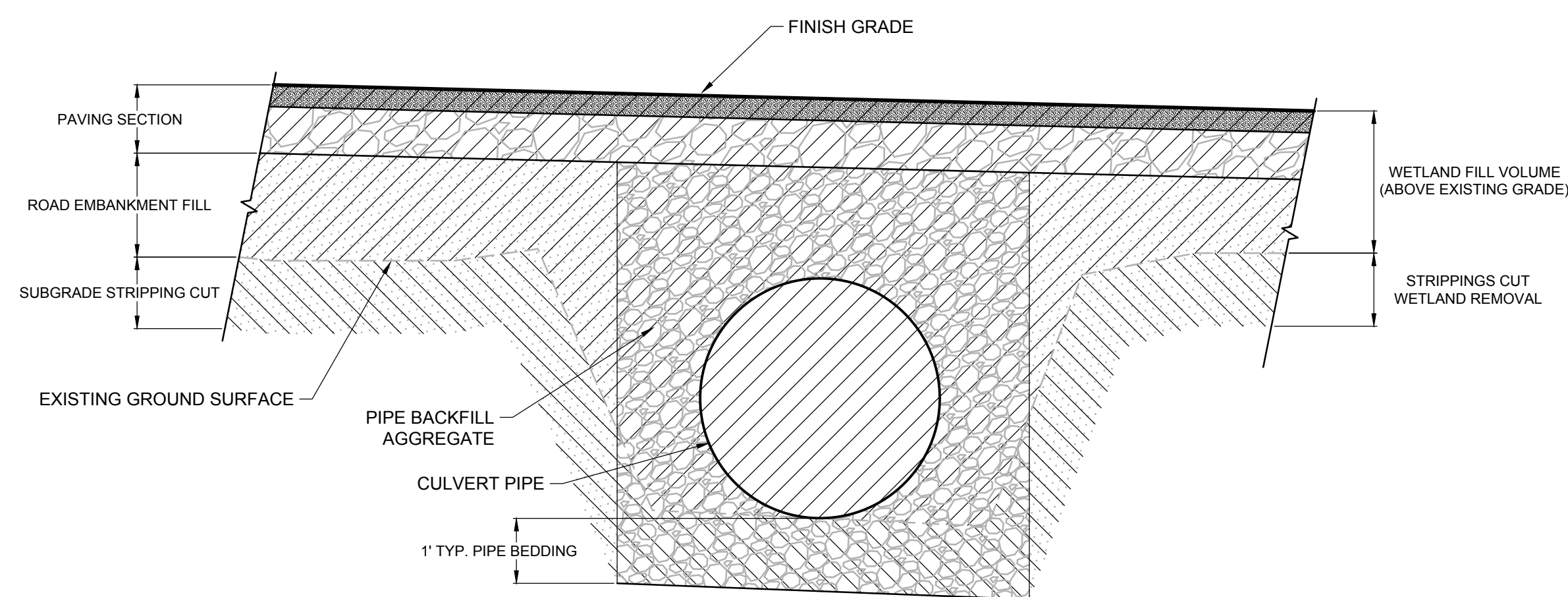
4 PIPELINE MAINTENANCE ROAD TYPICAL CROSS-SECTION
C2.23 HORIZONTAL SCALE = 1"=60'
VERTICAL SCALE = 1"=6'



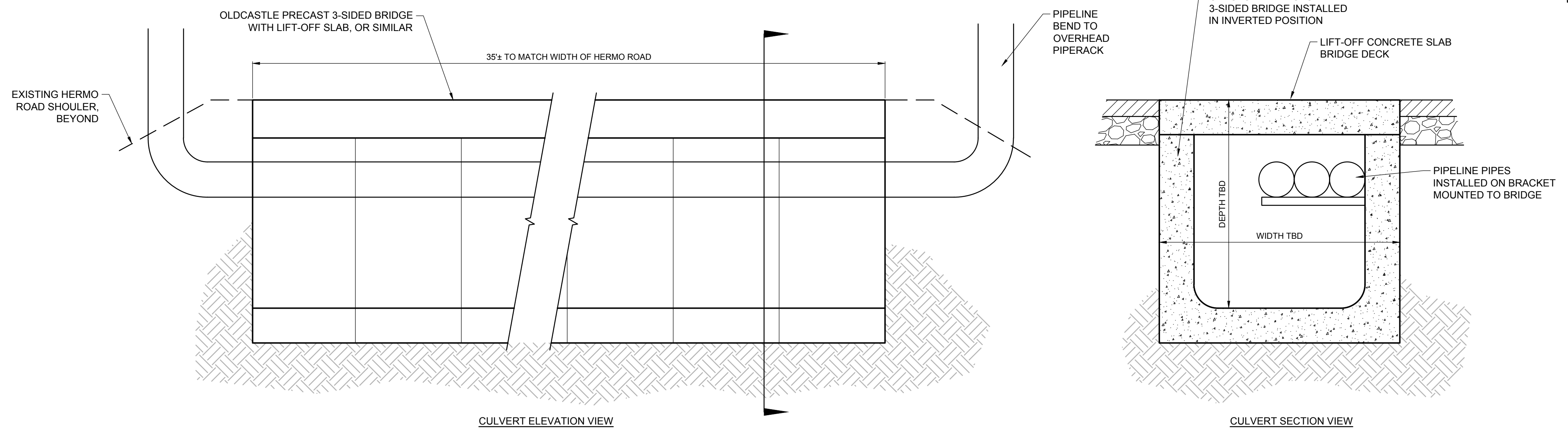
5 TYPICAL CROSS-SECTION OF PIPERACK ALONG HERMO ROAD
C2.23 NOT TO SCALE



6 TYPICAL CROSS-SECTION OF PIPERACK ALONG SERVICE ROAD
C2.23 NOT TO SCALE



7 TYPICAL CROSS-SECTION OF CULVERT INSTALLATION
C2.23 NOT TO SCALE



8 PIPELINE CULVERT ROAD CROSSING
C2.23 NOT TO SCALE

COMPLETENESS SUBMITTAL SET - 7/8/2021

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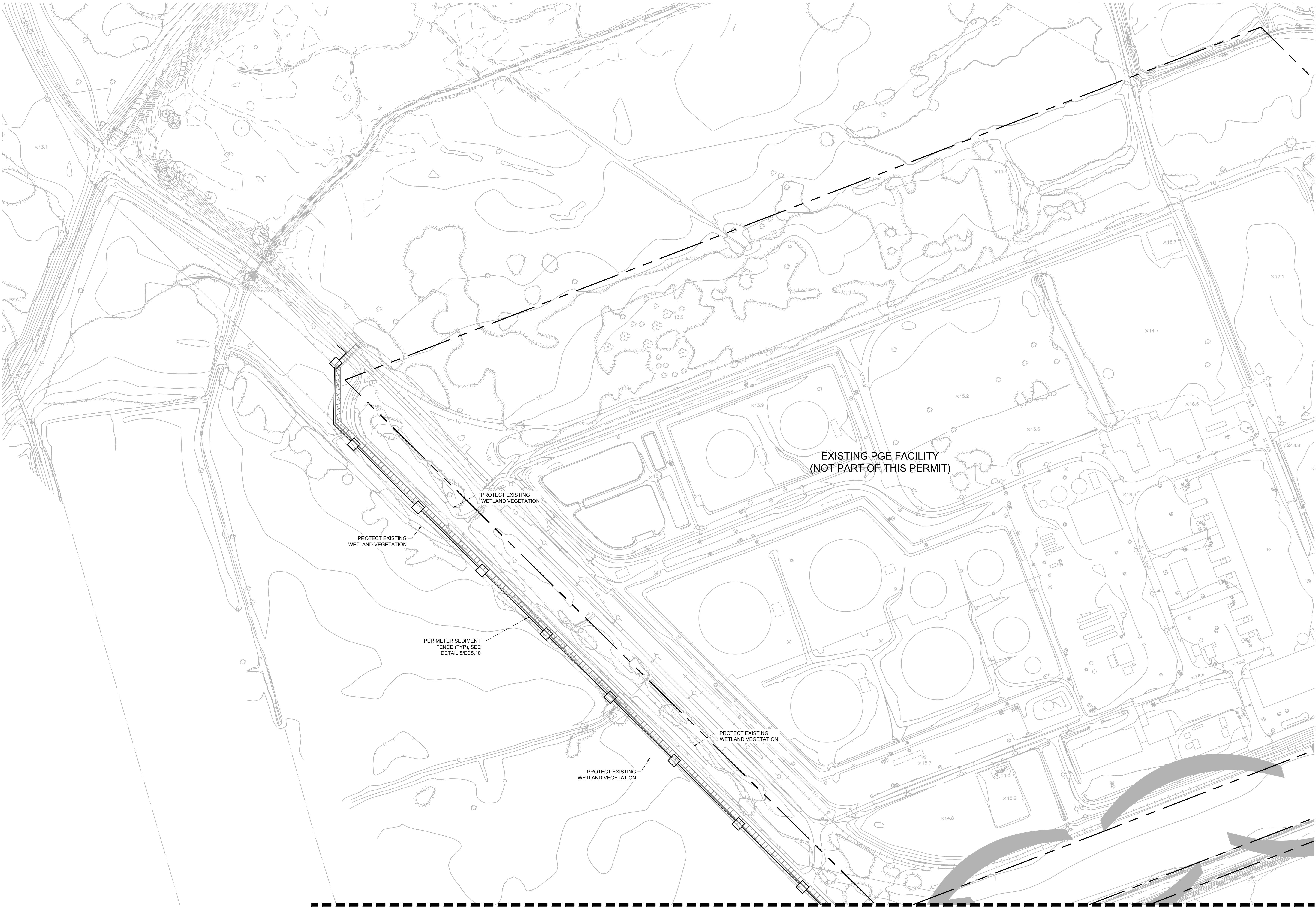
REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
**WETLAND
IMPACTS -
TYPICAL
SECTIONS**

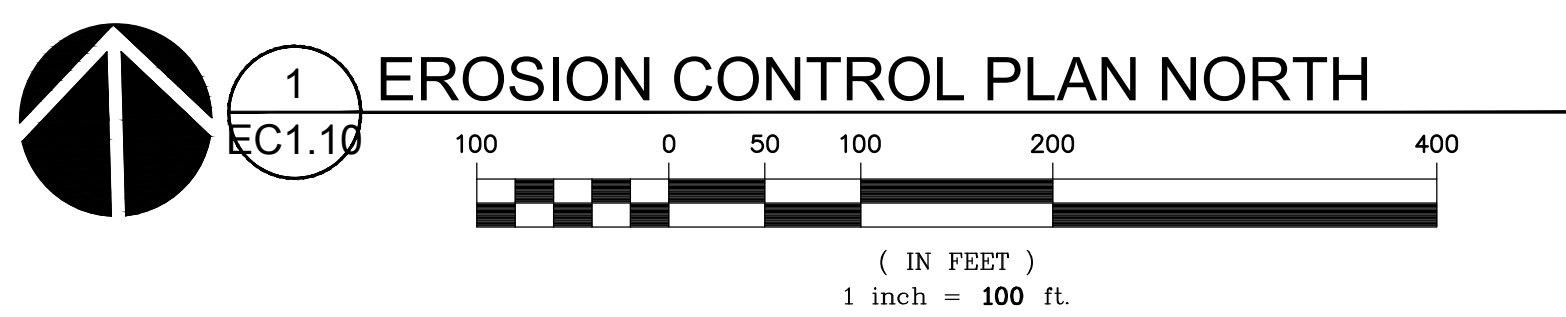
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CHECKED BY: BDN
SHEET

C2.23

JOB NO. 2200315.01



LEGEND:
SEE LEGEND ON SHEET C0.01



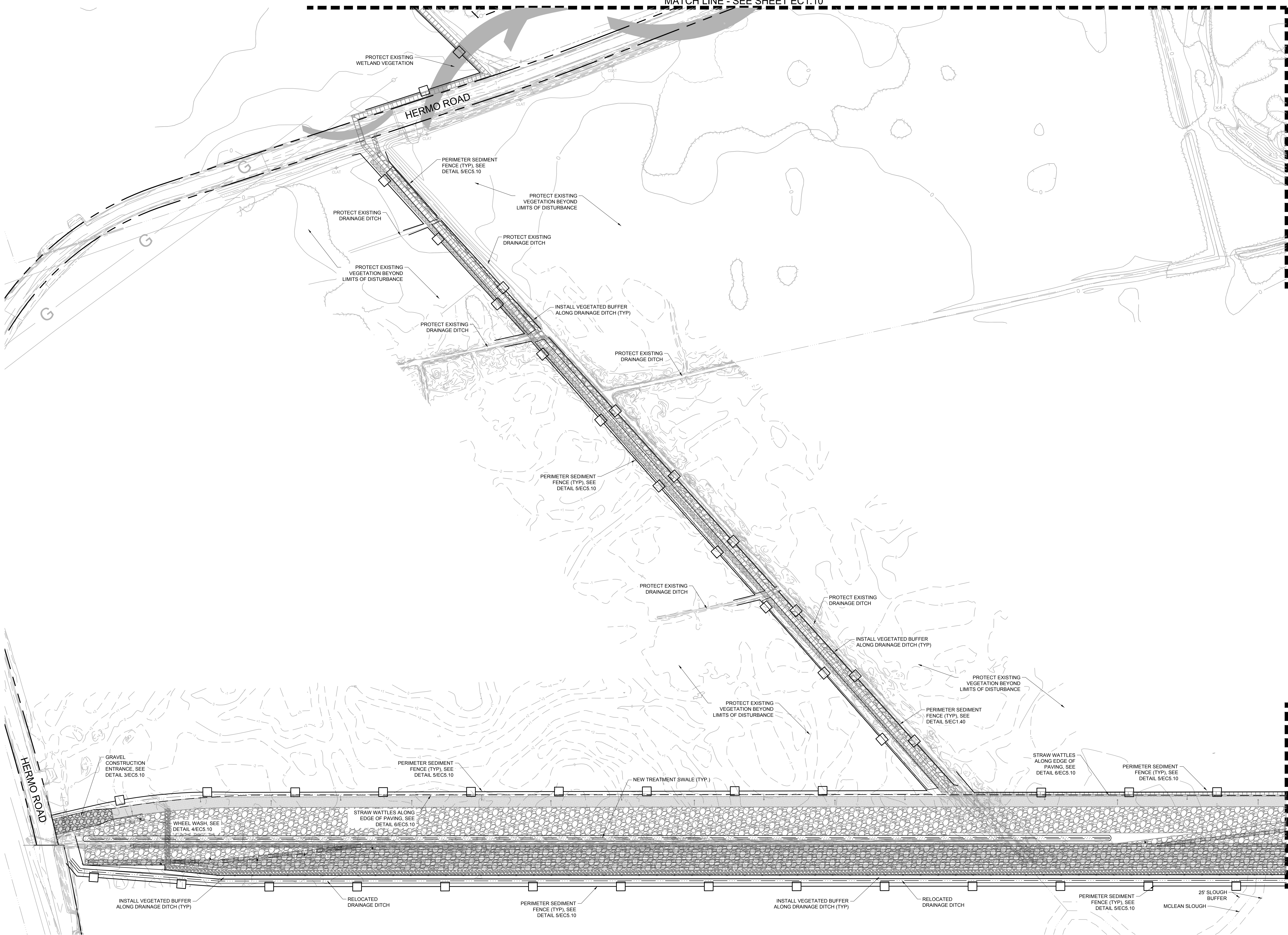
REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
**CONSTRUCTION
EROSION
CONTROL PLAN
NORTH**

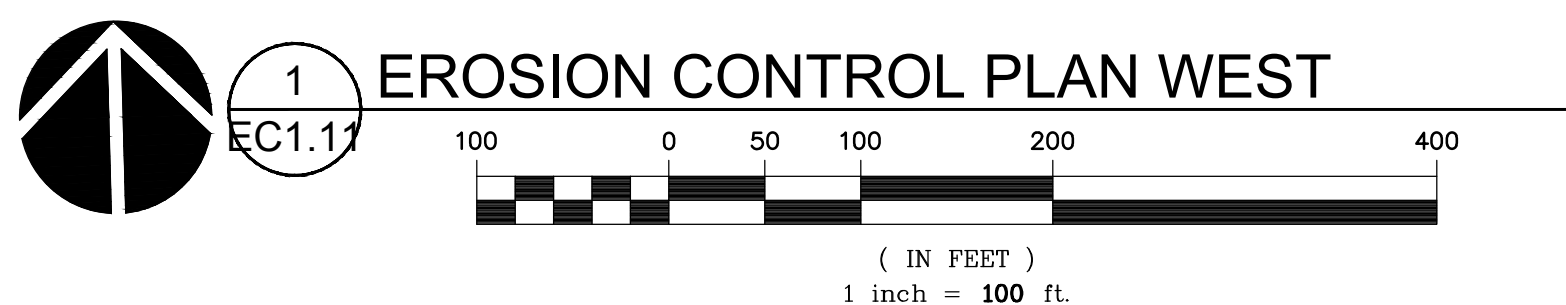
DRAWN BY: CAM
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SHEET

EC1.10

JOB NO. **2200315.01**



EROSION CONTROL LEGEND:
SEE LEGEND ON SHEET C0.01



EROSION CONTROL PLAN WEST

MATCH LINE - SEE SHEET EC1.12

MATCH LINE - SEE SHEET EC1.12

M.

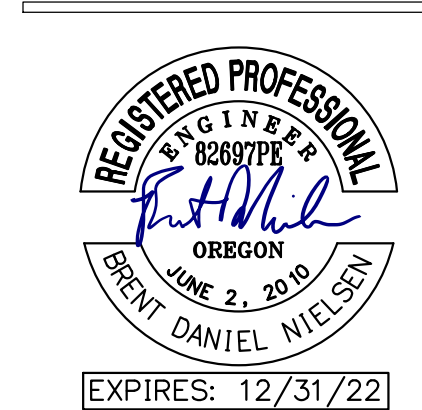
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REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
**CONSTRUCTION
EROSION
CONTROL PLAN
WEST**

DRAWN BY: CAM
CHECKED BY: BDN
SHEET

EC1.11

JOB NO. **2200315.01**

COMPLETENESS SUBMITTAL SET - 7/8/2021

220031500DRAWINGS\REVIEWS\EC1.11-12.DWG BDN 07/07/21 17:15 1:10

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
**CONSTRUCTION
EROSION
CONTROL PLAN
EAST**

DRAWN BY: CAM

CHECKED BY: BDN

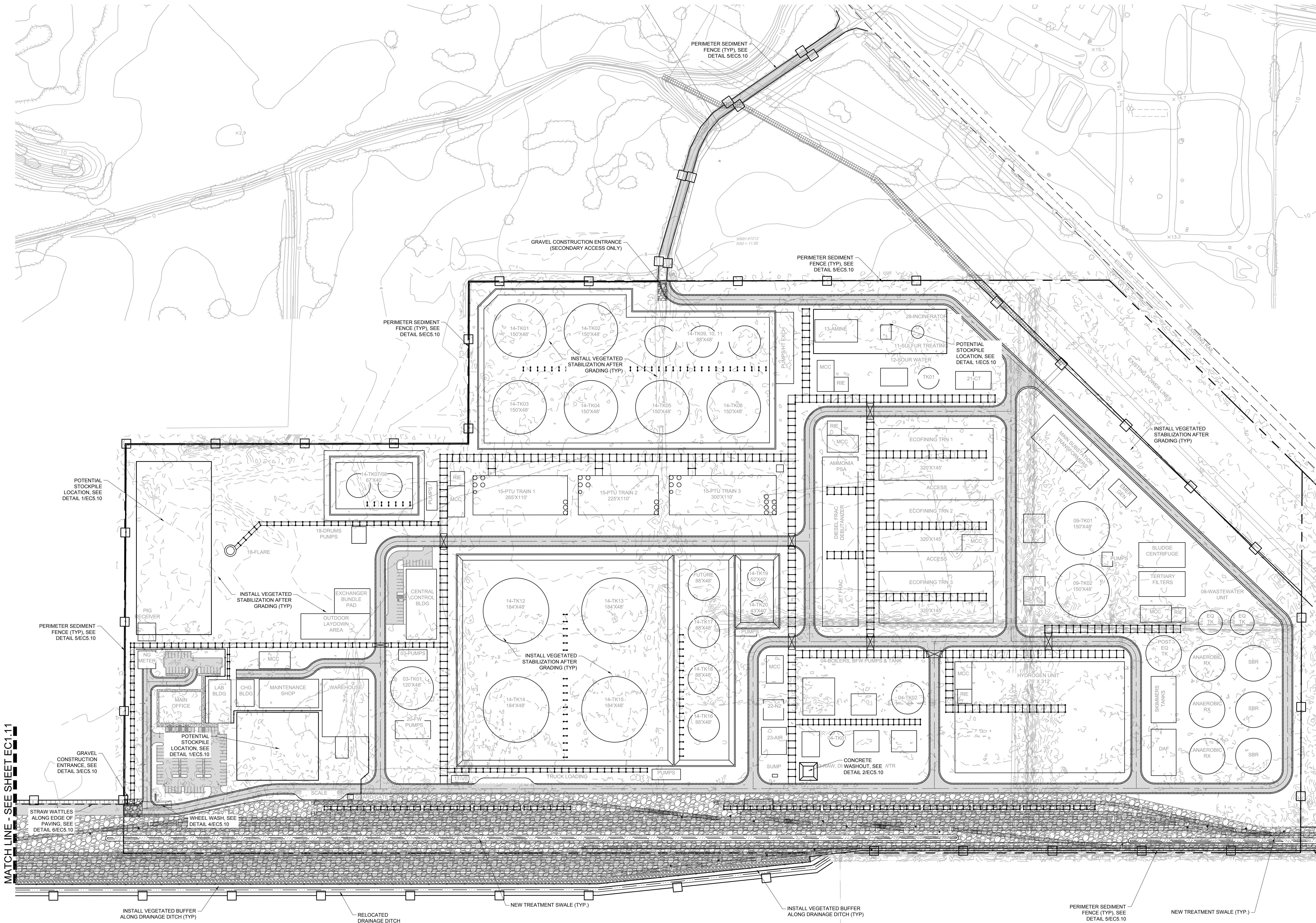
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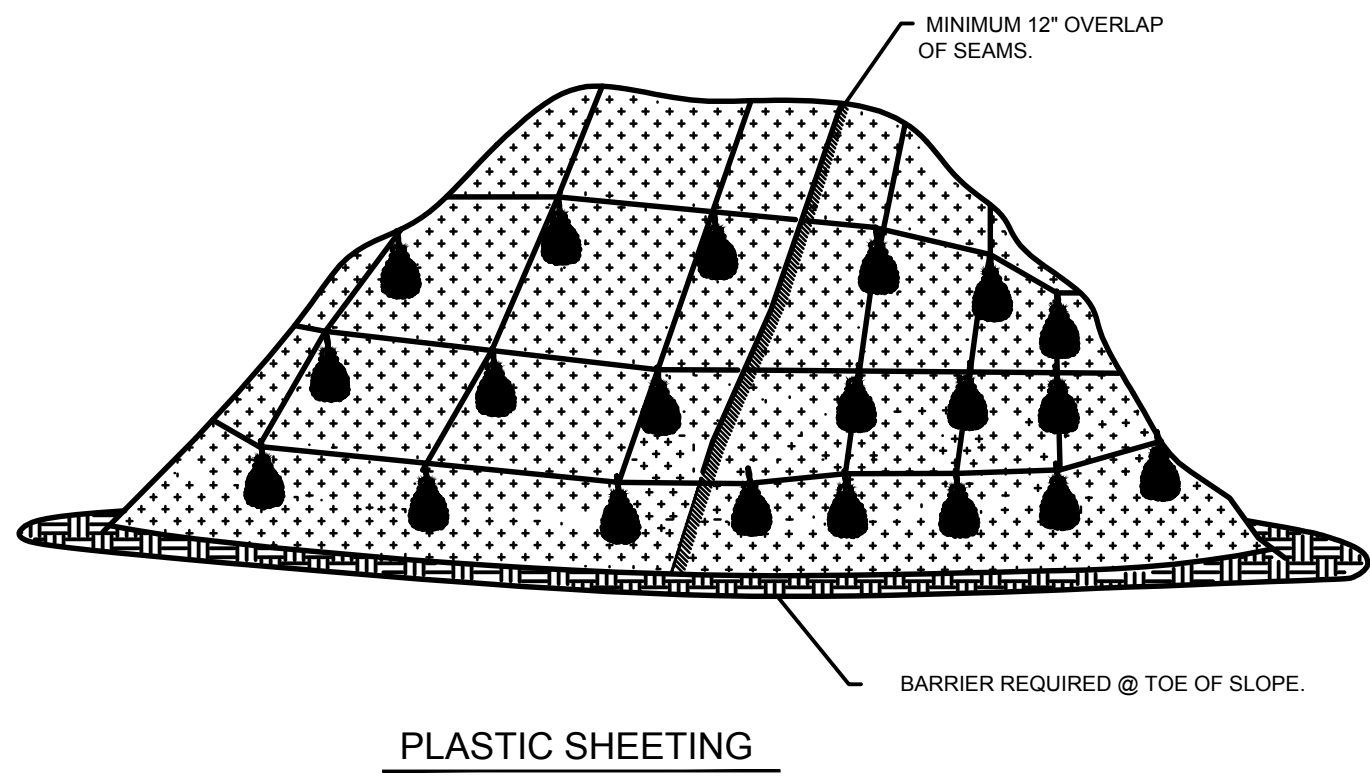
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JOB NO. 2200315.01

COMPLETENESS SUBMITTAL SET - 7/8/2021

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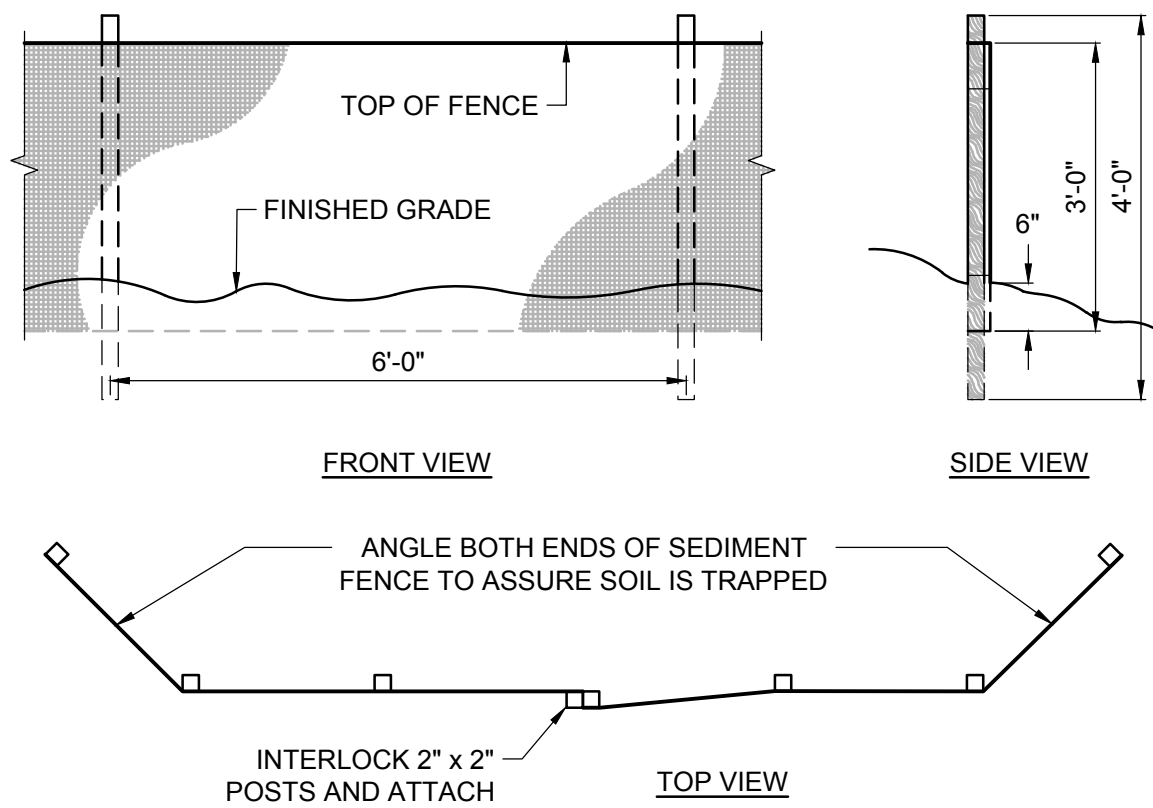




- NOTES:
1. MINIMUM 12" OVERLAP OF ALL SEAMS REQUIRED.
 2. BARRIER REQUIRED @ TOE OF STOCK PILE.
 3. COVERING MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR TIRES ON ROPES WITH A MAXIMUM 10' GRID SPACING IN ALL DIRECTIONS.

1 STOCKPILE COVER/SHEETING

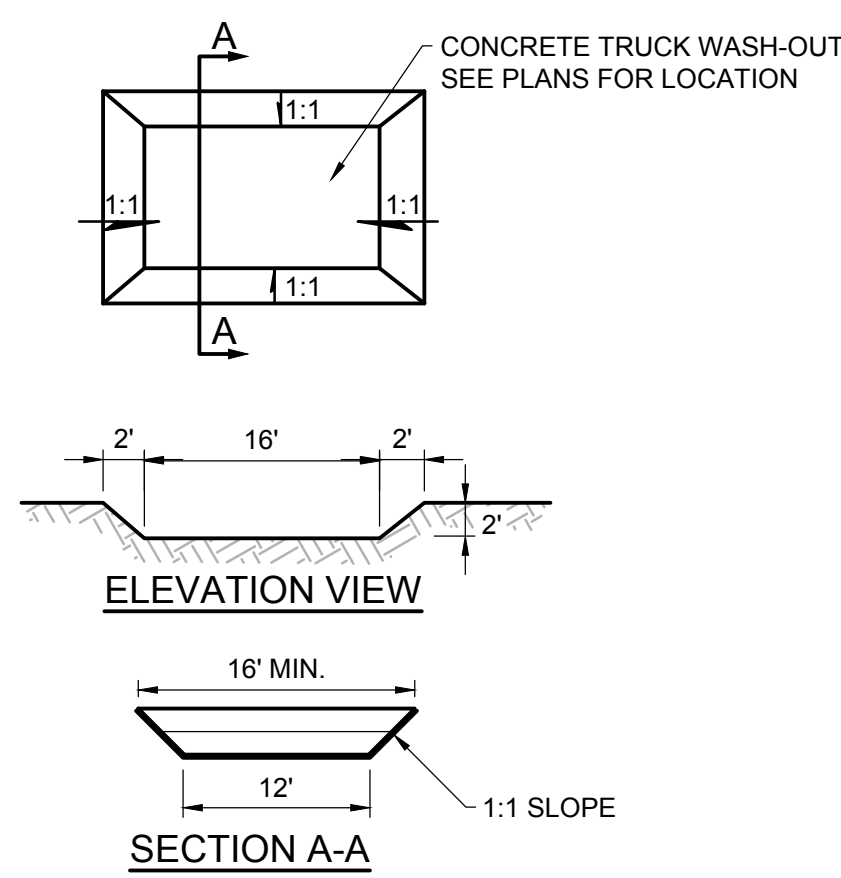
EC5.10 N.T.S.



- NOTES:
- A. BURY BOTTOM OF FILTER FABRIC 6" MIN VERTICALLY BELOW FINISHED GRADE
 - B. UTILIZE 2" x 2" FIR, PINE, OR STEEL FENCE POSTS TO ANCHOR FENCING
 - C. ATTACH FENCING TO POSTS USING STITCHED LOOPS INSTALLED ON UPHILL SIDE OF SLOPE
 - D. COMPACT THE NATIVE FILL IN ALL AREAS OF FILTER FABRIC TRENCH
 - E. ACCUMULATED SEDIMENT CAN BE ALLOWED TO REACH NO MORE THAN ONE-THIRD OF THE SEDIMENT FENCE HEIGHT

5 SEDIMENT FENCE

EC5.10 N.T.S.

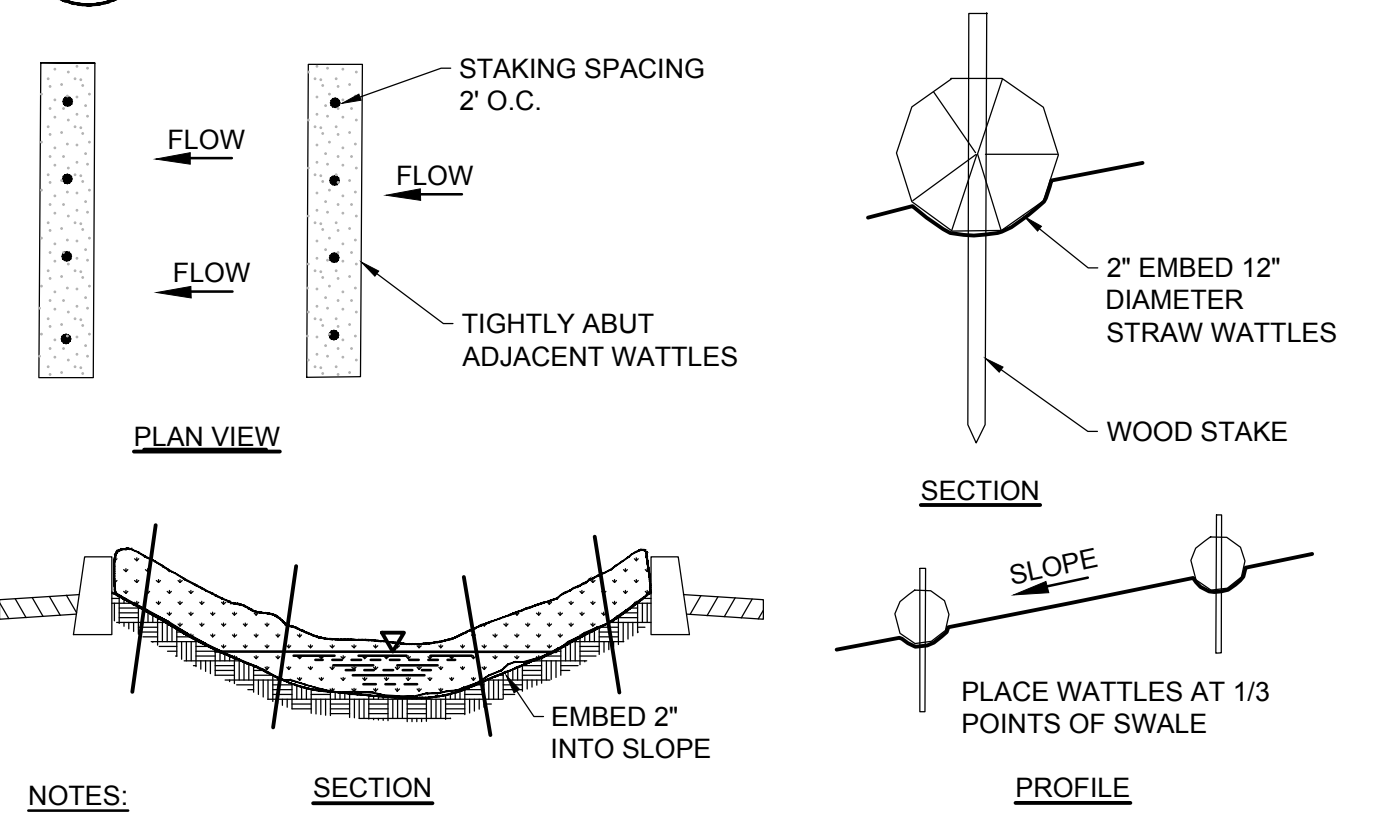


NOTES:

1. CONCRETE WASHOUT AREA. LOCATED SO RUNOFF CANNOT ENTER STORM SYSTEM. IF WASH-OUT CANNOT BE LOCATED MINIMUM OF 50' FROM ENTRY TO STORM SYSTEM. THAN SECONDARY MEASURES SUCH AS BERMS AND TEMPORARY SETTLING PITS MAY BE REQUIRED.
2. CONTRACTOR SHALL CLEAN OUT CONCRETE TRUCK WASH-OUT AREA WHEN WHEN DEPTH REACHES 1'.

2 CONCRETE WASHOUT

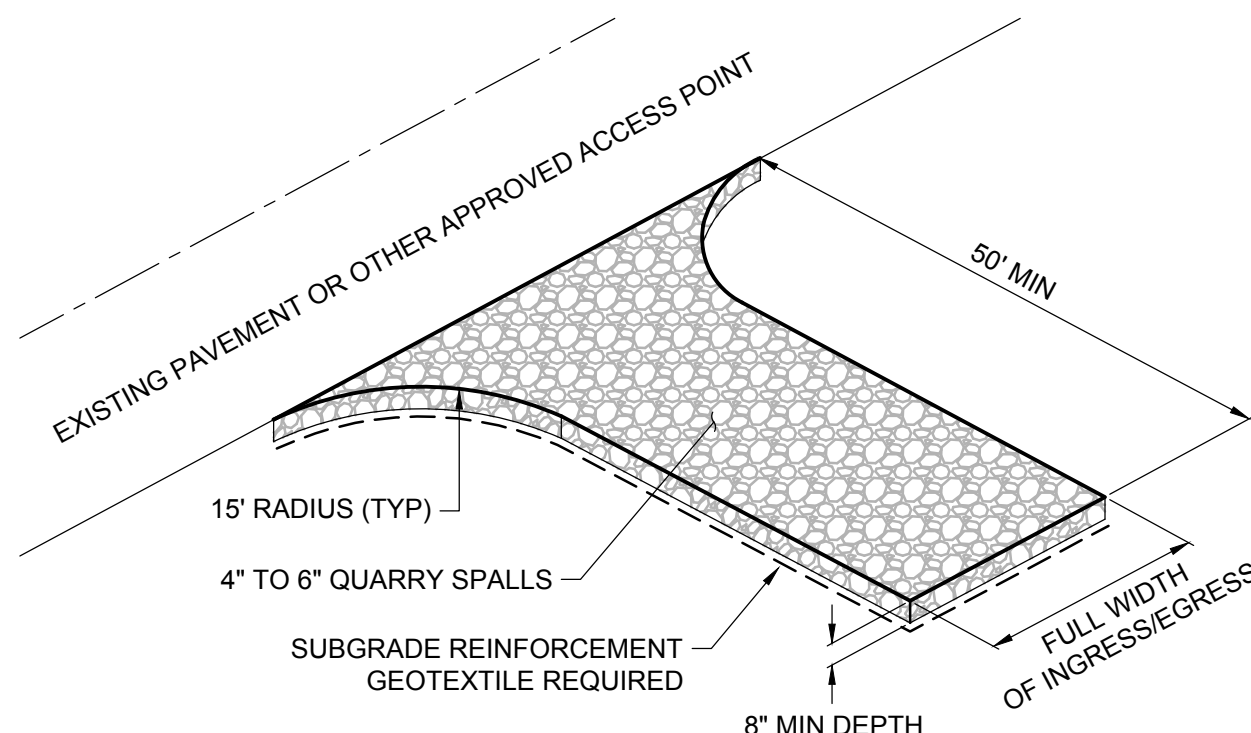
EC5.10 N.T.S.



- NOTES:
1. WATTLES TO BE MADE OF STRAW.
 2. SLOPE REQUIRES MINOR PREPARATION PRIOR TO INSTALLATION
 3. RILLS AND SHALLOW GULLIES SHOULD BE SMOOTHED AS WORK PROGRESSES.
 4. WATTLES SHOULD BE INSTALLED AT THIRD POINTS OF SWALE.
 5. WATTLE MUST BE TIGHT AGAINST THE SOIL. IN TRENCH. MAKE SURE NO GAPS EXIST BETWEEN THE SOIL AND THE WATTLE.
 6. STAKES MUST BE DRIVEN A MINIMUM OF 12 IN. INTO UNDISTURBED MATERIAL. INSTALL STAKES EVERY 2'.
 7. INSPECT ONCE PER WEEK ON ACTIVE SITES, ONCE EVERY TWO WEEKS ON INACTIVE SITES, AND WITHIN 24 HOURS FOLLOWING A 0.5 INCH RAIN EVENT.
 8. MAKE SURE THE WATTLES ARE IN CONTACT WITH THE SOIL.
 9. STRING SHOULD BE WRAPPED ROUND WATTLE EVERY FOOT OF ITS LENGTH.

6 STRAW WATTLE EROSION CONTROL

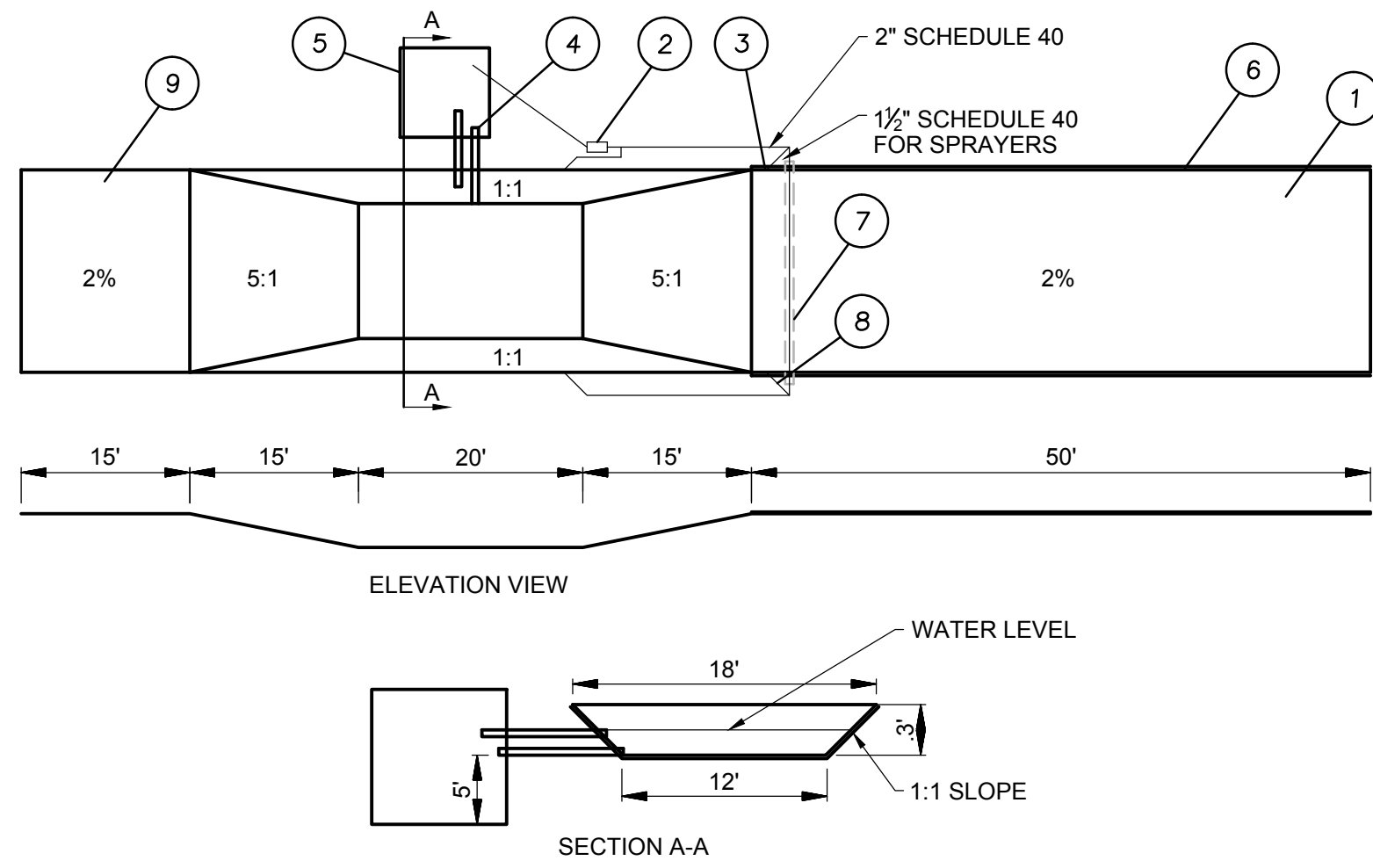
EC5.10 N.T.S.



- NOTES:
1. QUARRY SPALL MATERIAL SHALL BE "CLEAN" (LESS THAN 5% PASSING THE US STANDARD NO 200 SIEVE)
 2. CONTRACTOR IS RESPONSIBLE FOR OBTAINING APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION FOR ALTERNATES, SUCH AS A RUMBLE TRACK
 3. PROTECT CONSTRUCTION ENTRANCES FROM SILTATION FROM ADJOINING BARE SOIL AREAS
 4. ANY RAMPING CONSTRUCTED TO MOUNT EXISTING ROADWAY CURBING SHALL NOT IMPEDE DRAINAGE OF THE ROADWAY

3 CONSTRUCTION ENTRANCE

EC5.10 N.T.S.

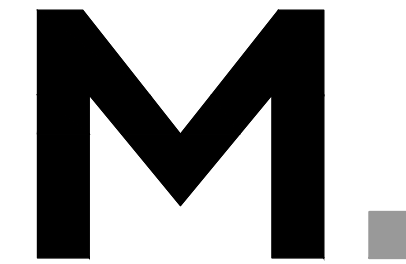


NOTES:

1. ASPHALT CONSTRUCTION ENTRANCE - 6" ASPHALT TREATED BASE(ATB).
2. 3-INCH TRASH PUMP WITH FLOATS ON THE SUCTION HOSE.
3. MIDPOINT SPRAY NOZZLES IF NEEDED.
4. 6-INCH SEWER PIPE WITH BUTTERFLY VALVES. BOTTOM ONE IS A DRAIN. LOCATE TOP PIPES INVERT ONE FOOT ABOVE BOTTOM OF WHEEL WASH.
5. 8'x8' SLUMP WITH 5' OF CATCH. BUILD SO CAN BE CLEANED WITH TRACKHOE.
6. ASPHALT CURB ON THE LOW ROAD SIDE TO DIRECT WATER BACK TO THE POND.
7. 6-INCH SLEEVE UNDER ROAD.
8. BALL VALVES.
9. 15' ATB APRON TO PROTECT GROUND FROM SPLASHING WATER.

4 WHEEL WASH

EC5.10 N.T.S.



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Project
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Delta	Issued As	Issue Date

SHEET TITLE:
**EROSION
CONTROL
DETAILS**

DRAWN BY: CAM
CHECKED BY: BDN
SHEET

EC5.10

JOB NO. **2200315.01**

COMPLETENESS SUBMITTAL SET - 7/8/2021

2200315001.dwg EC5.10.DWG BDN 07/07/21 17:17 1:1

SHEET INDEX

L1.10	LANDSCAPE GENERAL INFORMATION AND PLANTING PLAN
L1.11	PLANTING PLAN - ENLARGEMENTS
L1.12	PLANTING PLAN - DRIVEWAY AND RAIL MAINTENANCE ROAD
L5.10	PLANT DETAILS
L5.11	IRRIGATION DETAILS

ZONING COMPLIANCE

PARKING AREA (10% LANDSCAPE MIN)	
NORTH PARKING AREA	7,567 SF
NORTH PARKING LANDSCAPE AREA	3,450 SF
SOUTH PARKING AREA	31,551 SF
SOUTH PARKING LANDSCAPE AREA	6,225 SF
CENTRAL PARKING AREA	11,951 SF
CENTRAL PARKING LANDSCAPE AREA	3,870 SF

LANDSCAPE NOTES

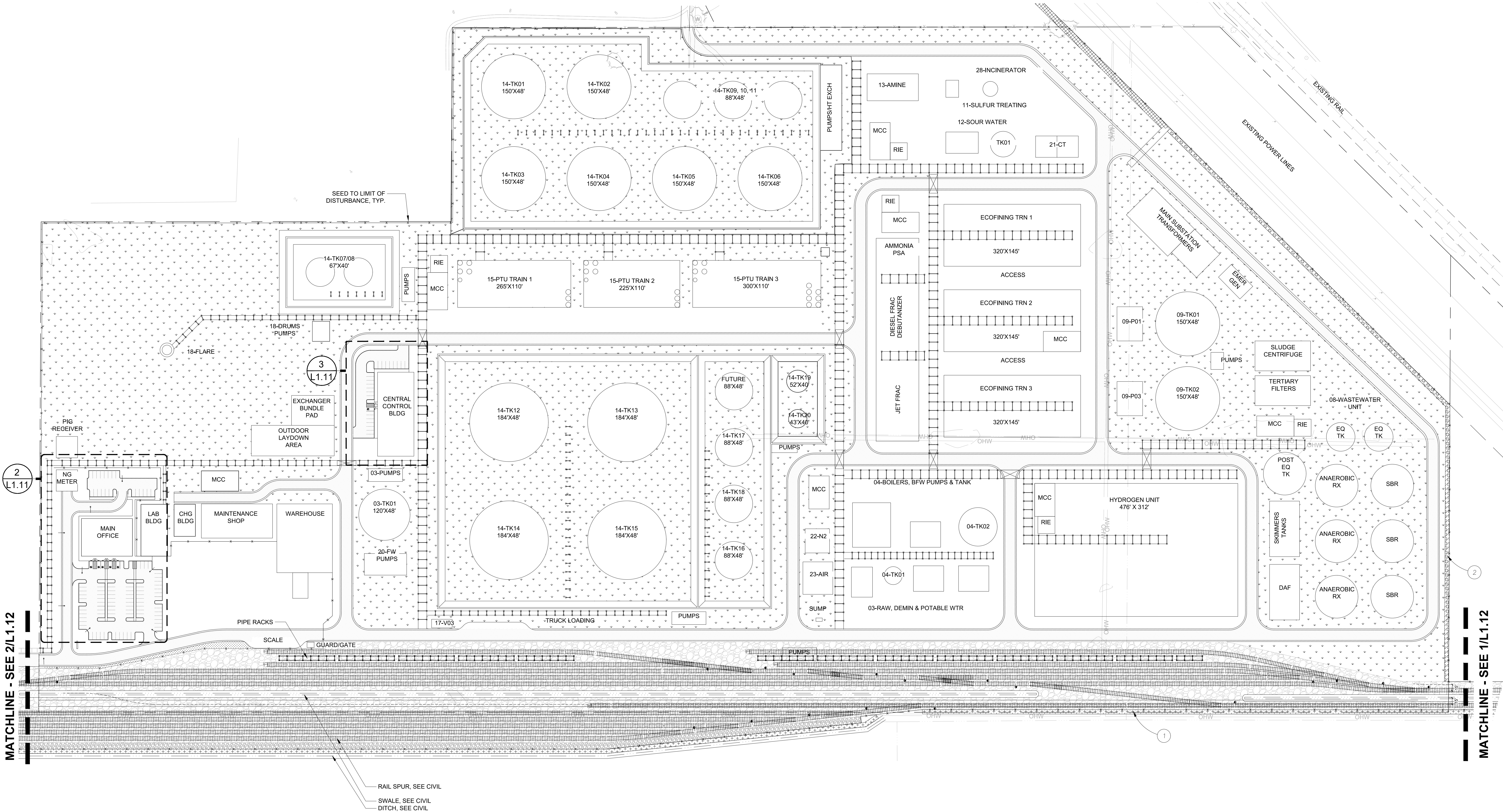
- GENERAL
- CONTRACTOR SHALL CONFIRM ALL EXISTING CONDITIONS PRIOR TO COMMENCING WORK.
 - CALL BEFORE YOU DIG. CONTRACTOR SHALL VERIFY INVERT ELEVATIONS OF ALL UNDERGROUND UTILITIES AND NOTIFY LANDSCAPE ARCHITECT IF THERE ARE ANY DISCREPANCIES WITH PLANTING ROOT ZONES. TO REQUEST LOCATES FOR PROPOSED EXCAVATION CALL 1-800-332-2344 (OR 811) IN OREGON.
 - NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS WITH EXISTING CONDITIONS PRIOR TO COMMENCEMENT OF ANY WORK.
 - LOCATION OF EXISTING TREES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK.
 - DAMAGE TO EXISTING CONCRETE CURB, ASPHALT PAVING, OR OTHER STRUCTURE SHALL BE REPAIRED OR REPLACED TO PRE CONSTRUCTION CONDITIONS.
 - CONTRACTOR SHALL COORDINATE WITH THE OWNER ANY DISRUPTION TO VEHICULAR CIRCULATION PRIOR TO COMMENCEMENT OF ANY WORK.
- PLANTING
- ALL EXISTING TREES, PLANTS, AND ROOTS SHALL BE PROTECTED FROM DAMAGE FROM ANY CONSTRUCTION PREPARATION, REMOVAL OR INSTALLATION ACTIVITIES WITHIN AND ADJACENT TO PROJECT LIMITS.
 - SHRUBS ADJACENT TO PARKING AREAS SHALL BE PLANTED 2 FT MINIMUM AWAY FROM THE BACK OF CURB. SHRUBS AND GROUND COVER ALONG OTHER PAVEMENT EDGES SHALL BE PLANTED A MINIMUM OF ONE HALF THEIR ON CENTER SPACING AWAY FROM PAVEMENT EDGE.
 - ALL PLANT MATERIAL SHALL BE HEALTHY NURSERY STOCK, WELL BRANCHED AND ROOTED, FULL FOLIAGE, FREE FROM INSECTS, DISEASES, WEEDS, WEED ROT, INJURIES AND DEFECTS WITH NO LESS THAN MINIMUMS SPECIFIED IN AMERICAN STANDARDS FOR NURSERY STOCK, ANSI Z60.1-2004.
 - DO NOT PLANT TREES ABOVE WATERLINES, UTILITIES, OR OTHER UNDERGROUND PIPING.
 - IF DISTURBANCE IS NECESSARY AROUND EXISTING TREES, CONTRACTOR SHALL PROTECT THE CROWN AND ALL WORK WITHIN THE TREE DRIPZONE SHALL BE LIMITED TO THE USE OF HAND TOOLS AND MANUAL EQUIPMENT ONLY.
 - REPLACE, REPAIR AND RESTORE DISTURBED LANDSCAPE AREAS DUE TO GRADING, TRENCHING OR OTHER REASONS TO PRE-CONSTRUCTION CONDITION AND PROVIDE MATERIAL APPROVED BY THE OWNER AND OWNER'S REPRESENTATIVE UNLESS OTHERWISE INDICATED. ALL DISTURBED SOIL SHALL RECEIVE TYPE B NATIVE SEED MIX. IF SEEDING DURING DRY SEASON PROVIDE IRRIGATION THROUGH ESTABLISHMENT. THIS APPLIES TO ALL DISTURBED SOIL ALONG LINEAR IMPROVEMENTS.
 - A SOILS ANALYSIS, BY AN INDEPENDENT SOILS TESTING LABORATORY RECOGNIZED BY THE STATE DEPARTMENT OF AGRICULTURE, SHALL BE USED TO RECOMMEND AN APPROPRIATE PLANTING SOIL AND/OR SPECIFIED SOIL AMENDMENTS.
 - TOPSOIL SHALL BE AMENDED AS RECOMMENDED BY AN INDEPENDENT SOILS TESTING LABORATORY AND AS OUTLINED IN THE SPECIFICATION.

- ALL LANDSCAPED AREAS SHALL BE COVERED BY A LAYER OF ORGANIC MULCH TO A MINIMUM DEPTH OF 2-INCHES.
- IRRIGATION
- UNLESS OTHERWISE INDICATED, ALL NEW LANDSCAPE AREAS TO BE IRRIGATED WITH A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. PROVIDE LOOP SYSTEM FOR OPTIMUM EFFICIENCY.
 - CONTRACTOR SHALL SUBMIT SHOP DRAWINGS (IRRIGATION PLANS) TO LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION. DRAWINGS TO INDICATE HEAD TYPE, GALLONS PER MINUTE, LATERAL LINES, AND BE AT MINIMUM SCALE OF 1"=20'
 - CONTRACTOR TO DETERMINE STATIC WATER PRESSURE AT THE P.O.C. PRIOR TO PREPARING SHOP DRAWINGS.
 - CONTRACTOR SHALL ESTABLISH MINIMUM PRESSURE AND MAXIMUM DEMAND REQUIREMENTS FOR IRRIGATION SYSTEM DESIGN, AND PROVIDE INFORMATION IN AN IRRIGATION SCHEDULE.
 - IRRIGATION SYSTEM AS DESIGNED AND INSTALLED SHALL PERFORM WITHIN THE TOLERANCES AND SPECIFICATIONS OF THE SPECIFIED MANUFACTURERS.
 - SYSTEM SHALL BE DESIGNED TO SUPPLY MANUFACTURER'S SPECIFIED MINIMUM OPERATING PRESSURE TO FARTHEST EMITTER FROM WATER METER.
 - SYSTEM SHALL PROVIDE HEAD TO HEAD COVERAGE WITHOUT OVERSPRAY ONTO BUILDING, FENCES, SIDEWALKS, PARKING AREAS, OR OTHER NON-VEGETATED SURFACES.
 - ALL IRRIGATION PIPE MATERIAL AND INSTALLATION SHALL CONFORM TO APPLICABLE CODE FOR PIPING AND COMPONENT REQUIREMENTS.
 - PROVIDE SLEEVING AT ALL AREAS WHERE PIPE TRAVELS UNDER CONCRETE OR HARD SURFACING.
 - VALVES SHALL BE WIRED AND INSTALLED PER MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES AND CONNECTED TO THE IRRIGATION CONTROLLER.
 - REFER TO CIVIL DETAILS AND DETAILS ON L5.10 FOR POINT OF CONNECTION AND BACKFLOW PREVENTION INFORMATION.
 - CONTROLLER TO BE MOUNTED ON BUILDING EXTERIOR. GENERAL CONTRACTOR TO COORDINATE LOCATION WITH OWNER'S REPRESENTATIVE.
 - ZONE THE FOLLOWING AREAS SEPARATELY: TEMPORARY AREAS, PERMANENT LANDSCAPE AREAS, AND TREES.
 - QUICK COUPLERS TO BE PLACED EVERY 300 LINEAR FEET MAX.
 - IRRIGATION SHALL BE WINTERIZED THROUGH LOW PRESSURE, HIGH VOLUME AIR BLOWOUT CONNECTION THROUGH QUICK COUPLER.
 - THE SYSTEM SHALL BE GRAVITY DRAINED. THE CONTRACTOR SHALL PROVIDE APPROPRIATE MANUAL DRAINS AT LOW POINTS.

PLANT SCHEDULE

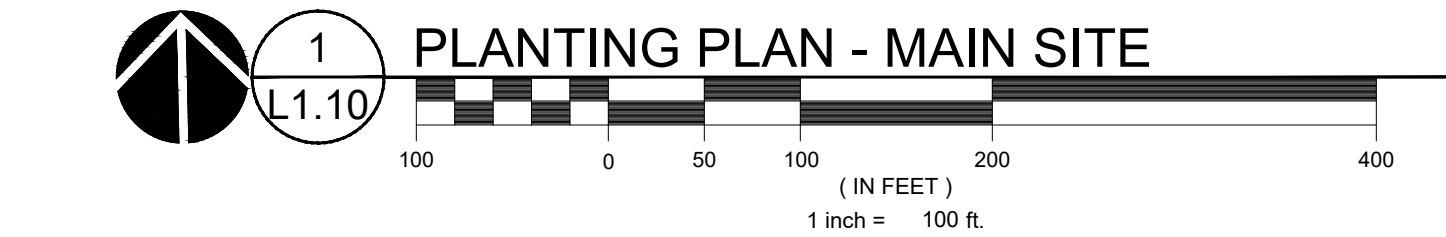
	ACER RUBRUM "OCTOBER GLORY" OCTOBER GLORY MAPLE	10' HT. MIN. B&B	
	FRAXINUS LATIFOLIA OREGON ASH	10' HT. MIN. B&B	
	QUERCUS GARRYANA OREGON OAK	10' HT. MIN. B&B	
	RHAMNUS PURSHIANA CASCARA	10' HT. MIN. B&B	
SHRUBS	BOTANICAL / COMMON NAME	SIZE	SPACING
	AMELANCHIER ALNIFOLIA SERVICEBERRY	6'-8' HT. MIN., B&B	180" o.c.
	ARBUTUS UNEDO "COMPACTA" DWARF STRAWBERRY TREE	5 GAL.	60" o.c.
	CORNUS SERICEA "WELSEY" KELSEY DWARF REDTIG DOGWOOD	1 GAL.	24" o.c.
	COTONEASTER GLAUCOPHYLLUS BRIGHT BEAD COTONEASTER	5 GAL.	72" o.c.
	GAULTHERIA SHALLON SALAL	5 GAL.	60" o.c.
	HOLIDISCUS DISCOLOR OCEAN-SPRAY	5 GAL.	96" o.c.
	LONICERA INVOLUCRATA TWINBERRY	5 GAL.	72" o.c.
	MAHONIA AQUIFOLIUM OREGON GRAPE	5 GAL.	54" o.c.
	ROSA X "NOARE" TM FLOWER CARPET RED GROUND COVER ROSE	3 GAL.	36" o.c.
	SPIRAEA BETULIFOLIA BIRCH LEAF SPIREA	1 GAL.	24" o.c.
	SPIRAEA DOUGLASII WESTERN SPIREA	1 GAL.	48" o.c.

	VACCINIUM OVATUM EVERGREEN LANCEBERRY	5 GAL.	36" o.c.
	VIBURNUM DAVIDII DAVID VIBURNUM	5 GAL.	36" o.c.
SHRUB AREAS	BOTANICAL / COMMON NAME	SIZE	SPACING
	PERIMETER PLANTING TYPE A SEE 3/L1.11	---	---
	PERIMETER PLANTING TYPE B SEE 4/L1.11	---	---
GROUND COVERS	BOTANICAL / COMMON NAME	SIZE	SPACING
	ARCTOSTAPHYLOS UVA-URSI KINKINNICK	1 GAL.	24" o.c.
	MAHONIA REPENS CREEPING MAHONIA	1 GAL.	18" o.c.
	SEED MIX TYPE A LAWN	1 LB / 1000 SF	
	SEED MIX TYPE B NATIVE UPLAND MIX	1 LB / 1000 SF	



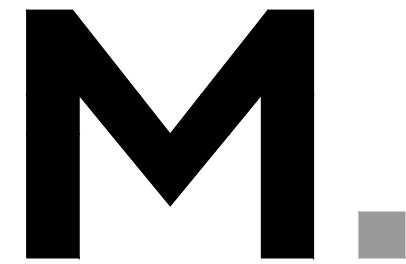
MATCHLINE - SEE 2/L1.12

MATCHLINE - SEE 1/L1.12



KEYNOTES

- PERIMETER PLANTING, TYPE A, SEE 3/L1.11
- PERIMETER PLANTING, TYPE B, SEE 4/L1.11



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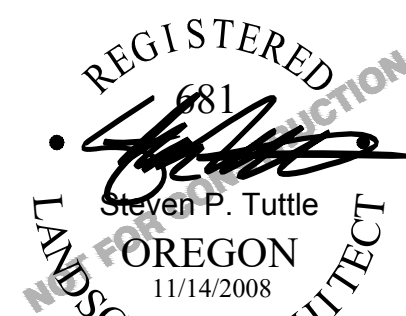
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A	PLAN CHECK	03/17/2021

SHEET TITLE:
LANDSCAPE
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INFORMATION
AND PLANTING
PLAN

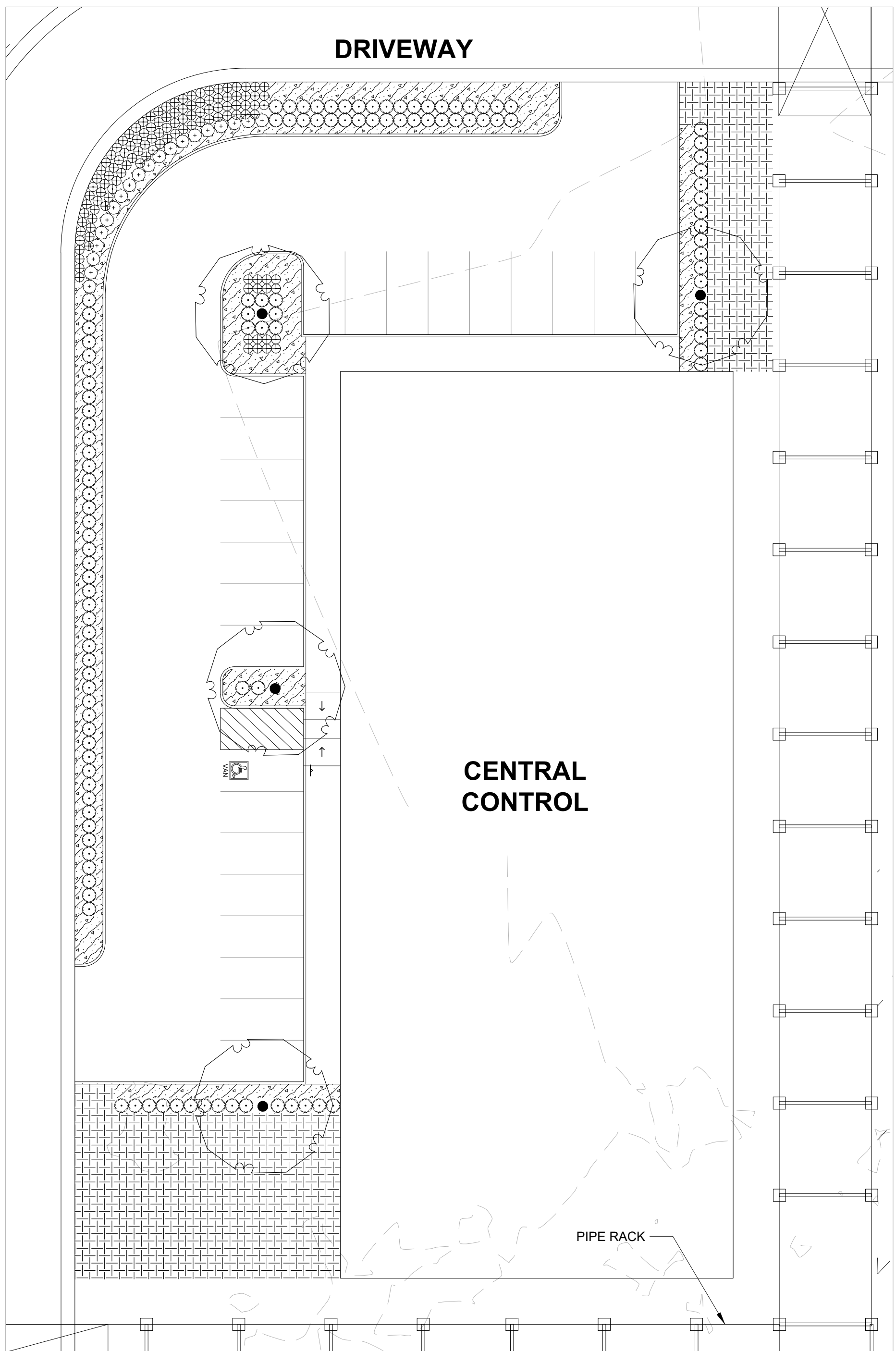
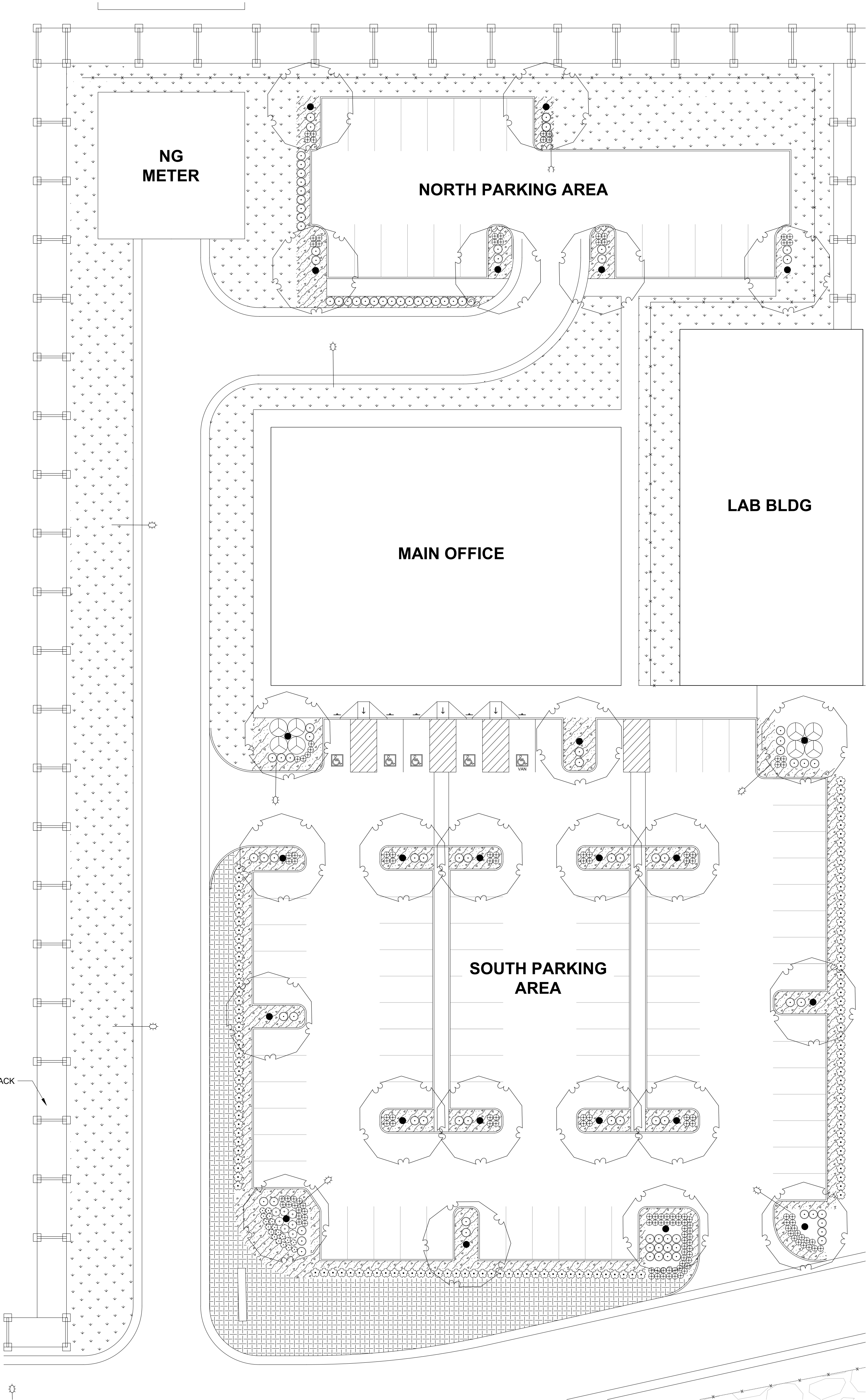
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CHECKED BY: SPT
SHEET

L1.10

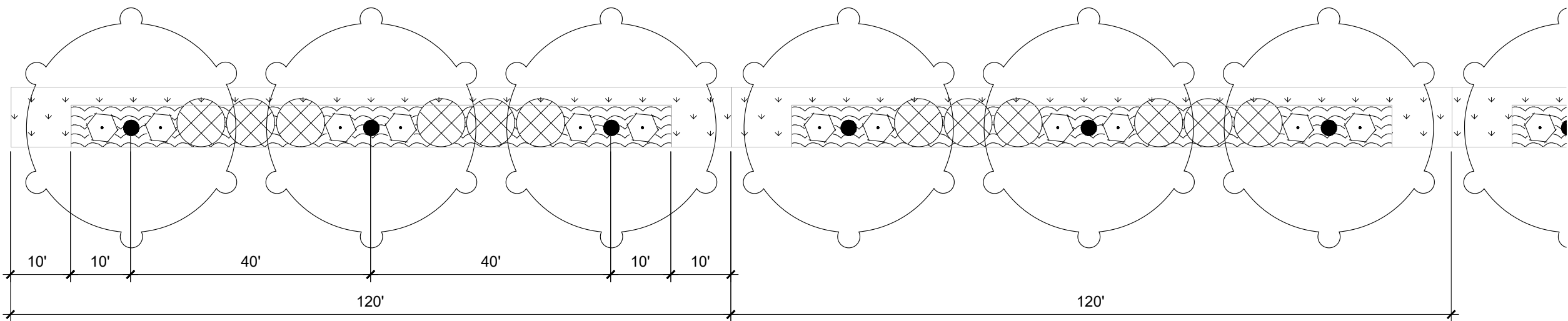
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COMPLETENESS SUBMITTAL SET - 7/8/2021

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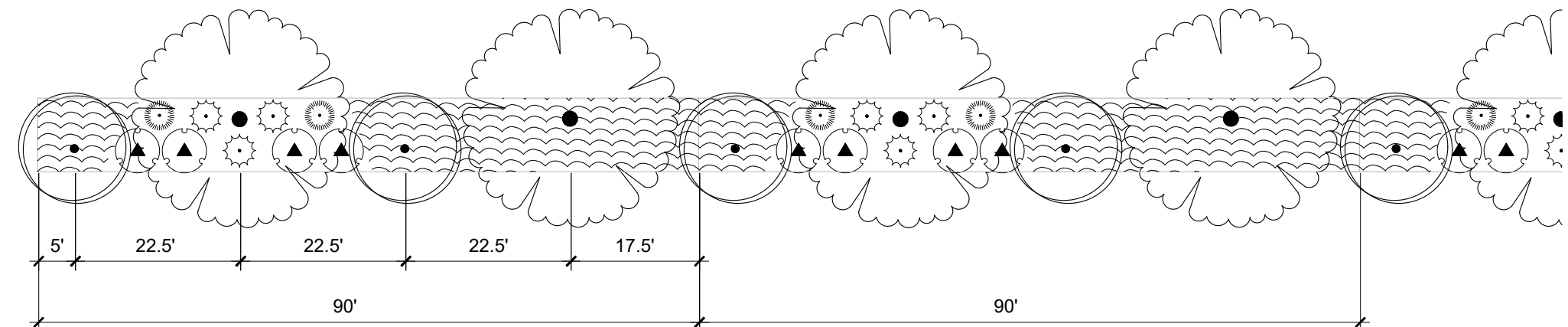


2 PLANTING PLAN - CENTRAL CONTROL PARKING AREA



3 PERIMETER PLANTING TYPE A, TYPICAL

- NOTES
1. PLANT PERIMETER IN PREPARED SOIL PER DETAIL 41.5.10.
 2. PATTERN REPEATS EVERY 120LF AND INCLUDES 3 TREES, 12 SHRUBS, AND GROUND COVER AS SHOWN.
 3. 20' WIDE GRASSY BREAKS ARE PROVIDED TO FACILITATE MAINTENANCE ACCESS BETWEEN THE ROAD ALONG THE NORTH AND THE CHANNEL ALONG THE SOUTH.



4 PERIMETER PLANTING TYPE B, TYPICAL

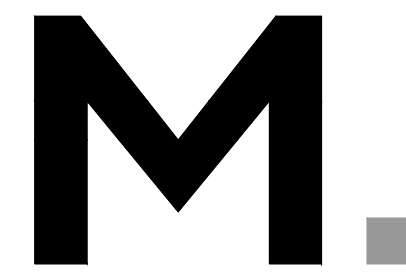
- NOTES
1. REMOVE ANY NOXIOUS OR NUISANCE PLANTS WITHIN PERIMETER PLANTING, INCLUDING BLACKBERRY, BINDWEED, LOOSESTRIPE, ETC.
 2. PATTERN REPEATS EVERY 90LF AND INCLUDES 4 TREES AND 9 SHRUBS AS SHOWN.

PLANT KEY LEGEND

TREES	BOTANICAL / COMMON NAME
	ACER RUBRUM 'OCTOBER GLORY' OCTOBER GLORY MAPLE
	FRAXINUS LATIFOLIA OREGON ASH
	QUERCUS GARRYANA OREGON OAK
	RHAMNUS PURSHIANA CASCARA
SHRUBS	BOTANICAL / COMMON NAME
	AMELANCHIER ALNIFOLIA SERVICEBERRY
	CORNUS SERICEA 'KELSEY' KELSEY DWARF REDTWIG DOGWOOD
	COTONEASTER GLAUCOPHYLLUS BRIGHT BEAD COTONEASTER
	GAULTHERIA SHALLON SALAL
	HOLODISCUS DISCOLOR OCEAN-SPRAY
	LONICERA INVOLUCRATA TWINBERRY
	MAHONIA AQUIFOLIUM OREGON GRAPE
	ROSA X 'NOARE' TM FLOWER CARPET RED GROUNDCOVER ROSE
	SPIRAEA BETULIFOLIA BIRCH LEAF SPIREA
	SPIRAEA DOUGLASII WESTERN SPIREA
	VACCINIUM OVATUM EVERGREEN HUCKLEBERRY
	VIBURNUM DAVIDII DAVID VIBURNUM
GROUND COVERS	BOTANICAL / COMMON NAME
	ARCTOSTAPHYLOS UVA-URSI KINNIKINNICK
	MAHONIA REPENS CREEPING MAHONIA
	SEED MIX TYPE A LAWN
	SEED MIX TYPE B NATIVE UPLAND MIX

REFERENCE NOTES

1. PLANT SIZE AND SPACING, SEE PLANT SCHEDULE L1.10



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PLAN-
ENLARGEMENTS

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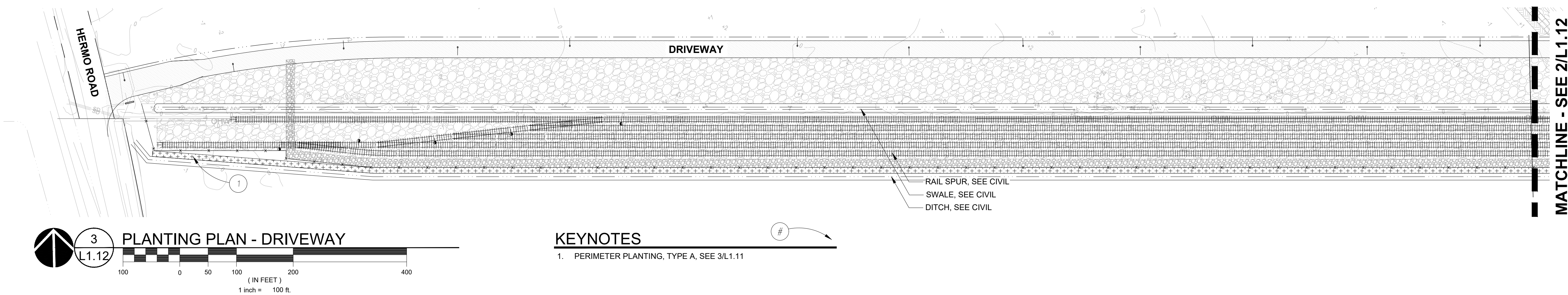
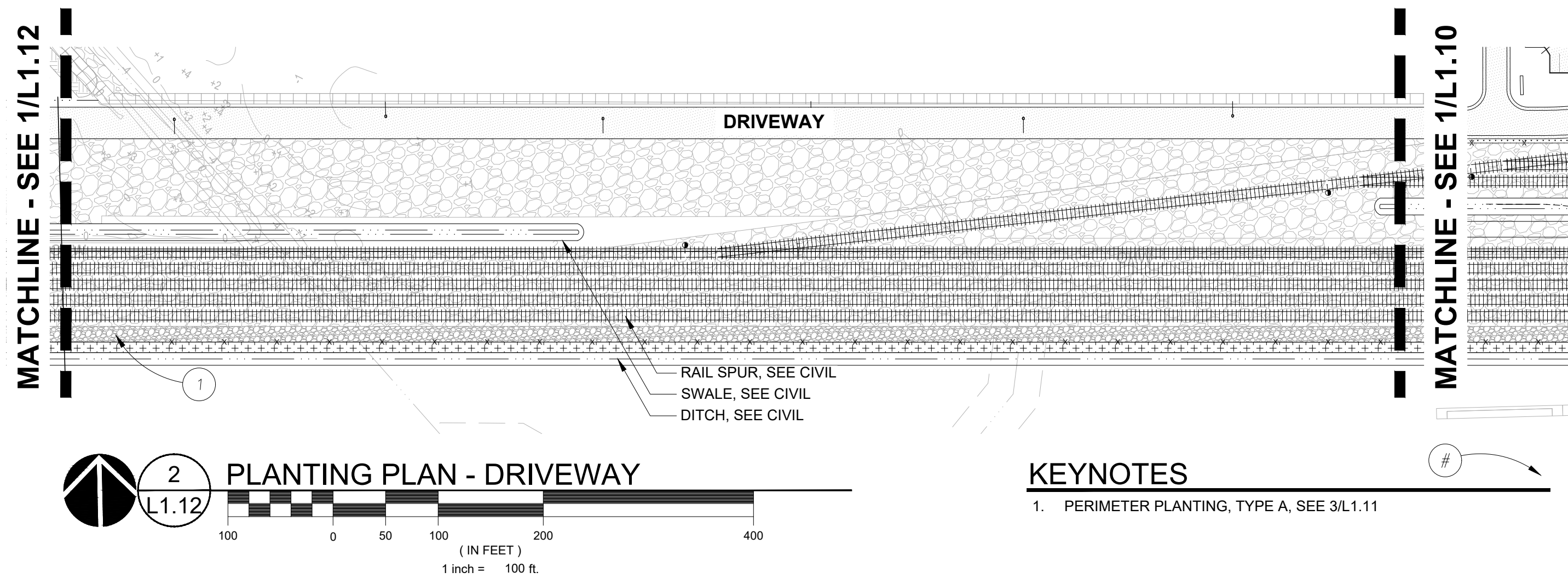
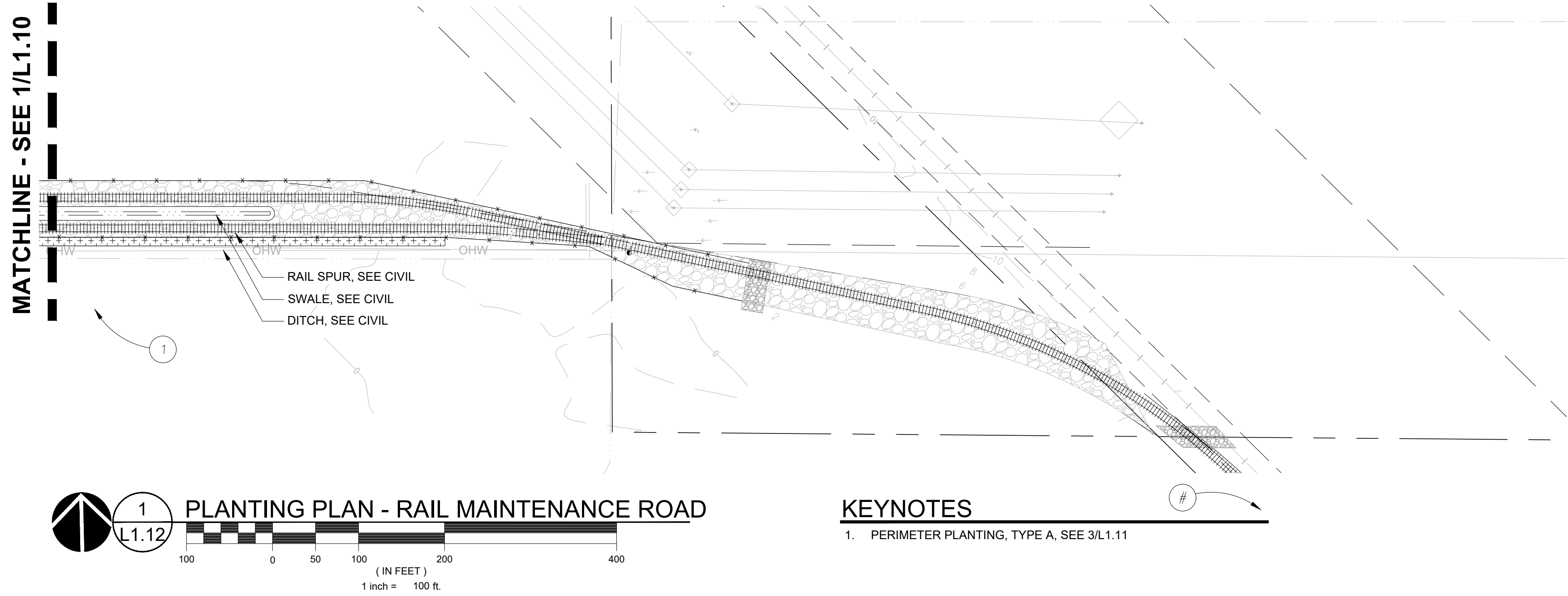
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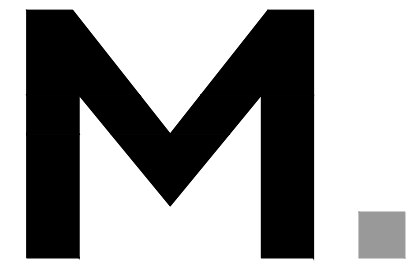
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PLANT SCHEDULE			
	ACER RUBRUM "OCTOBER GLORY" OCTOBER GLORY MAPLE	10' HT. MIN. B&B	
	FRAXINUS LATIFOLIA OREGON ASH	10' HT. MIN. B&B	
	QUERCUS GARRYANA OREGON OAK	10' HT. MIN. B&B	
	RHAMNUS PURSHIANA CASCARA	10' HT. MIN. B&B	
SHRUBS	BOTANICAL / COMMON NAME	SIZE	SPACING
	AMELANCHIER ALNIFOLIA SERVICEBERRY	6"-8" HT. MIN., B&B	180" o.c.
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	VIBURNUM DAVIDII DAVID VIBURNUM	5 GAL.	36" o.c.
SHRUB AREAS	BOTANICAL / COMMON NAME	SIZE	SPACING
	PERIMETER PLANTING TYPE A SEE 3/L1.11	---	
	PERIMETER PLANTING TYPE B SEE 4/L1.11	---	
GROUND COVERS	BOTANICAL / COMMON NAME	SIZE	SPACING
	ARCTOSTAPHYLOS UVA-URSI KNUKKNICK	1 GAL.	24" o.c.
	MAHONIA REPENS CREEPING MAHONIA	1 GAL.	18" o.c.
	SEED MIX TYPE A LAWN	1 LB / 1000 SF	
	SEED MIX TYPE B NATIVE UPLAND MIX	1 LB / 1000 SF	



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SHEET TITLE:
PLANTING PLAN
- DRIVEWAY
AND RAIL
MAINTENANCE
ROAD

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CHECKED BY: SPT

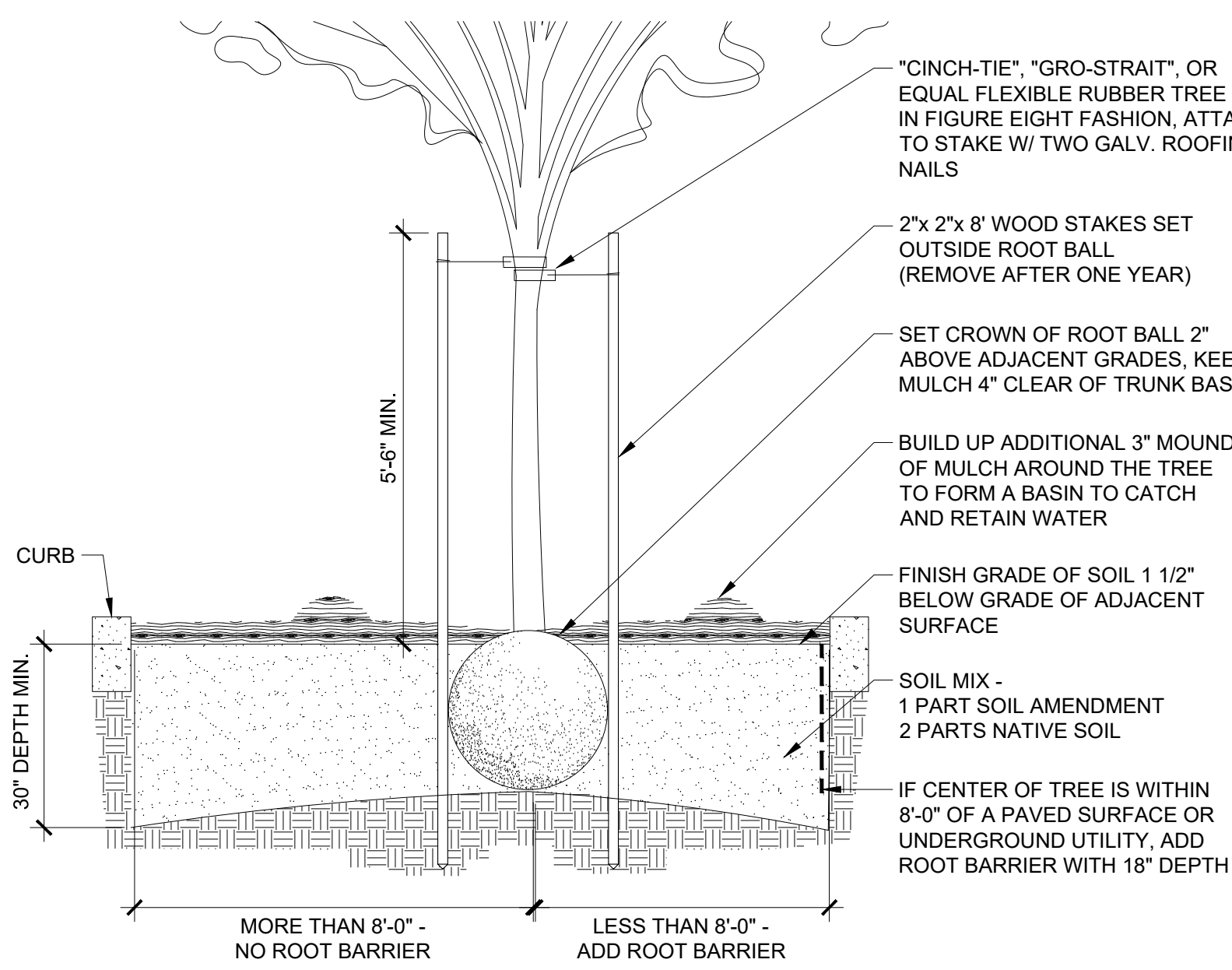
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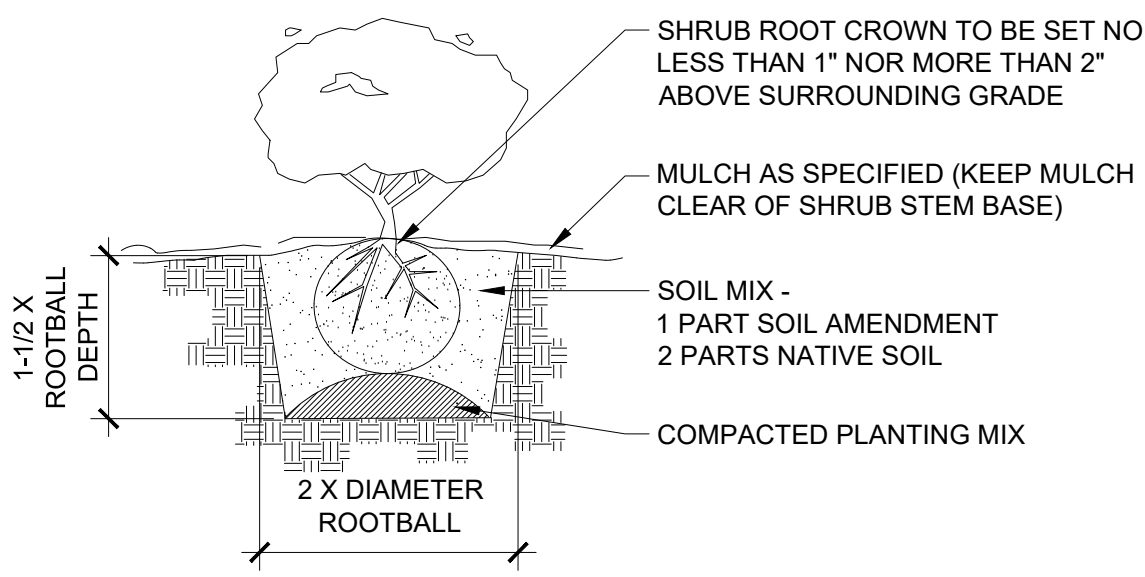
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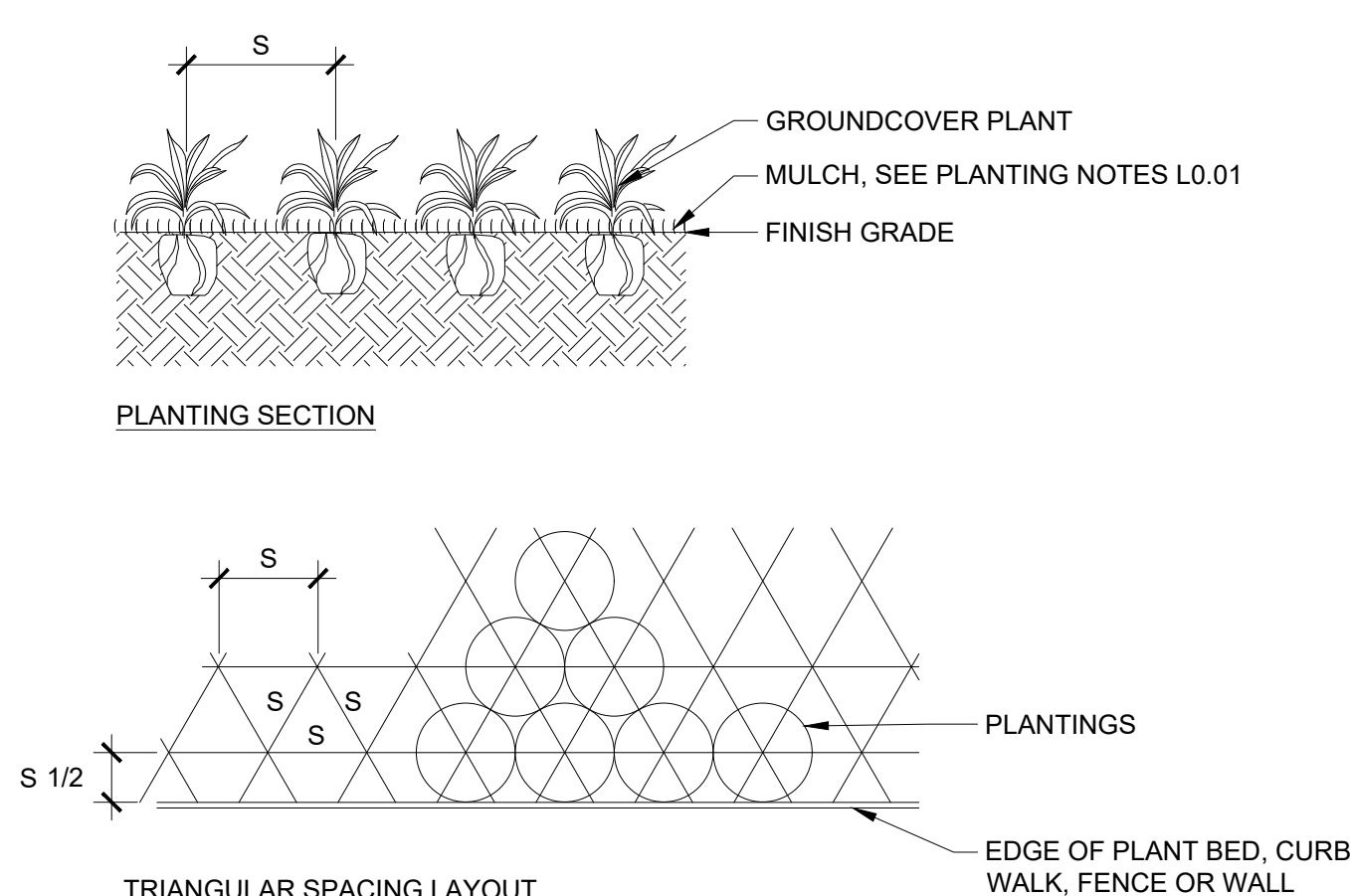
1 DECIDUOUS TREE PLANTING DETAIL

- NOTES
1. PLANT ALL TREES AT LEAST 32 INCHES FROM THE END OF HEAD-IN PARKING SPACES TO PREVENT DAMAGE FROM CAR OVERHANGS.
 2. ALL ROOTS MUST BE COMPLETELY COVERED. BACKFILL SHOULD BE THOROUGHLY WATERED AS IT IS PLACED AROUND THE ROOTS.
 3. SCARIFY AND ROUGHEN BOTTOM OF PLANTING PIT PRIOR TO PLACING TREE AND TOPSOIL. SLOPE BOTTOM TO DRAIN TO SIDES.
 4. THE ENTIRE WIDTH OF THE PLANTING ISLAND SHALL CONTAIN ONLY SOIL/COMPOST PLANTING MIX AND BE FREE OF ALL DEBRIS INCLUDING GARBAGE, CONCRETE, GRAVEL OR OTHER FOREIGN MATERIALS.
 5. ALL TREES SHALL CONFORM TO MOST RECENT ANSI Z60.1 AMERICAN STANDARD FOR NURSERY STOCK. FIRST LIMBS OF DECIDUOUS TREES IN PARKING LOTS AND ALONG STREETS AND SIDEWALKS SHALL BE 5 FEET ABOVE GROUND OR HIGHER.
 6. EXCAVATE HOLE INTO PREPARED SOIL TO ONE INCH LESS THAN HEIGHT OF ROOTBALL AND TWO TIMES THE WIDTH OF THE ROOTBALL. TAMP BOTTOM OF PIT UNDER ROOTBALL THOROUGHLY TO KEEP TREE FROM SETTLING. BUTTRESS AT THE BOTTOM OF THE PIT NO LESS THAN THREE FEET WIDE IF NEEDED TO REINFORCE LATERAL SUPPORT. DO NOT DAMAGE THE ROOTBALL WHEN PLANTING. REMOVE ALL WIRE, STRING AND BURLAP FROM TOP AND SIDES OF ROOTBALL ONLY AFTER PLACING IN THE HOLE.
 8. SET TREE STRAIGHT ON TAMPED SOIL.
 9. BACKFILL HOLE WITH APPROVED PLANTING MEDIUM MIX TO HALF DEPTH. TAMP SOIL TO STABILIZE ROOTBALL. FINISH BACKFILLING AND TAMP AGAIN.
 10. STAKE TREES OUTSIDE OF ROOTBALL AND PARALLEL TO PLANTING ISLAND CURBS WITH TREE STAKES. USE ONE INCH HEAVY CHAINLOCK TREE TIES OR SIMILAR. REMOVE AFTER ONE YEAR.
 11. WATER IMMEDIATELY AND THOROUGHLY, TWICE PER WEEK DURING THE FIRST MONTH, THEN ONCE PER WEEK THROUGH THE REMAINDER OF THE DRY SEASON. WATER A MINIMUM OF ONCE PER MONTH DURING THE SECOND SUMMER SEASON.
 12. ALL PLANTING BEDS CONTAINING TREES AND SHRUBS AND SURFACE DRAINAGE SHALL BE PREPARED SIMILAR TO THIS LANDSCAPE TREE PLANTING AND DRAINAGE DETAIL.



2 SHRUB PLANTING

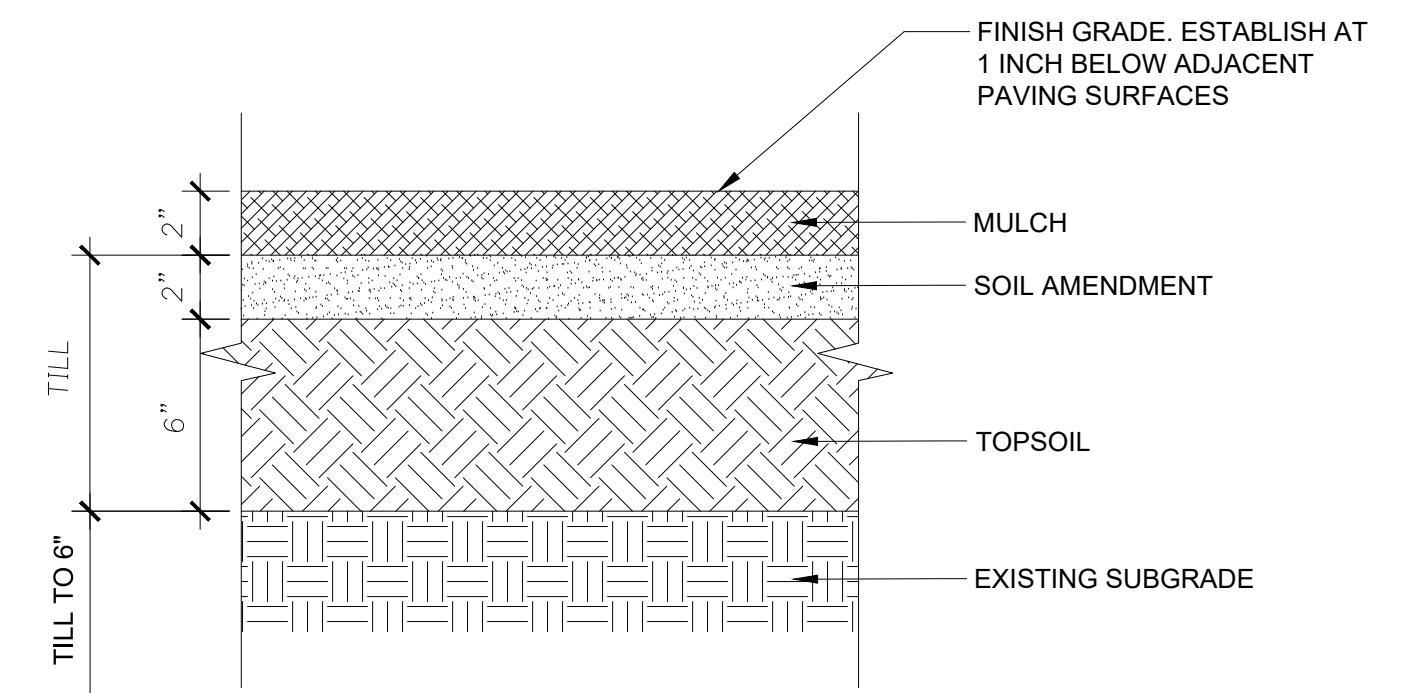
SCALE: NTS



- NOTES
1. TILL SOIL SO THAT THERE ARE NO CLODS OR CLUMPS LARGER THAN 1 1/2" DIAMETER

3 GROUNDCOVER PLANTING

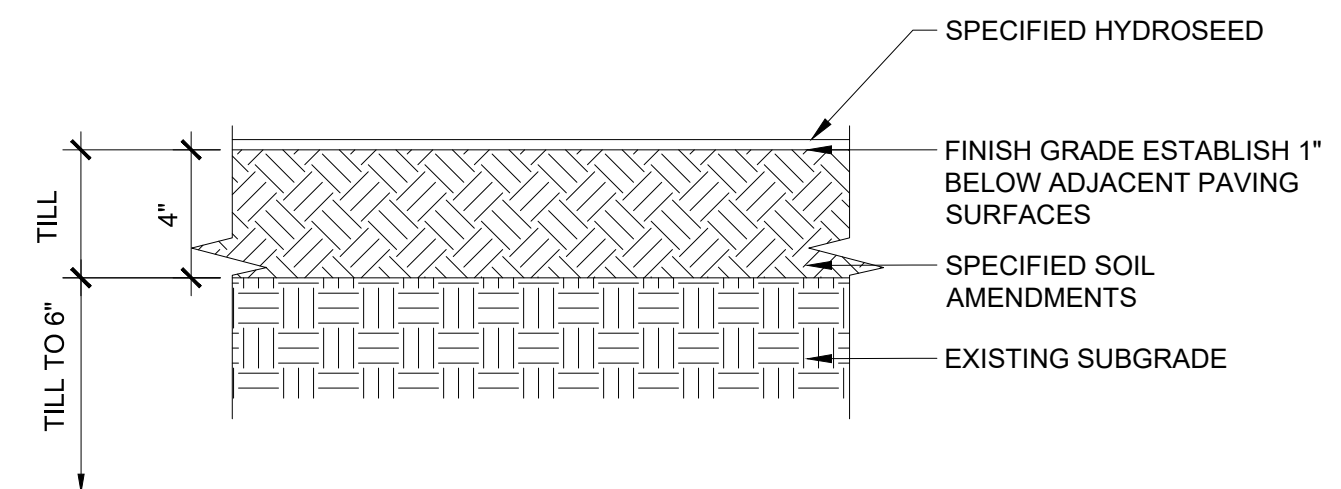
SCALE: NTS



- NOTES
1. REMOVE ALL ROCK, DEBRIS AND OTHER FOREIGN MATTER OVER 1" IN DIAMETER FROM TOP 12" OF SOIL.
 2. RIP AND TILL SUBGRADE TO 6" DEEP (MIN.) PRIOR TO INSTALLING TOPSOIL AND TILL INTERFACE OF SUBGRADE AND TOPSOIL.
 3. TILL TOPSOIL AND SOIL AMENDMENTS TO A MIN. 12" DEPTH.
 4. SUBMIT SAMPLE OF MULCH & TOPSOIL FOR ACCEPTANCE PRIOR TO PLACEMENT.

4 SOIL PREPARATION

SCALE: NTS



- NOTES
1. REMOVE ALL ROCK, DEBRIS AND OTHER FOREIGN MATTER OVER 1" IN DIAMETER FROM TOP 6" OF SOIL.
 2. RIP AND TILL SUBGRADE TO 6" DEEP (MIN.) PRIOR TO INSTALLING TOPSOIL AND TILL INTERFACE OF SUBGRADE AND TOPSOIL.
 3. TILL TOPSOIL AND SOIL AMENDMENTS TO A MIN. 8" DEPTH.
 4. SUBMIT SAMPLE OF BARK MULCH & TOPSOIL FOR ACCEPTANCE PRIOR TO PLACEMENT.

5 SOIL PREP. AT HYDROSEED

SCALE: NTS

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
**PLANTING
DETAILS**

DRAWN BY: RAC
CHECKED BY: SPT
SHEET

REVISION SCHEDULE		
Delta	Issued As	Issue Date

SHEET TITLE:
**IRRIGATION
DETAILS**

DRAWN BY: RAC

CHECKED BY: SPT

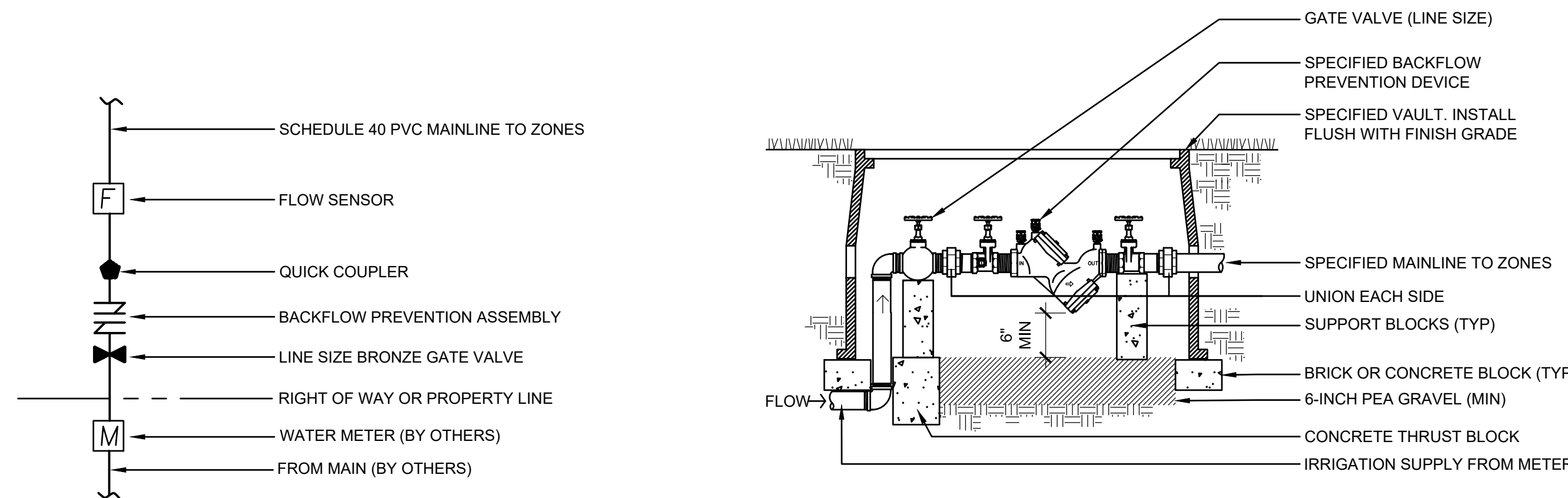
SHEET

L5.11

JOB NO. 2200315.01

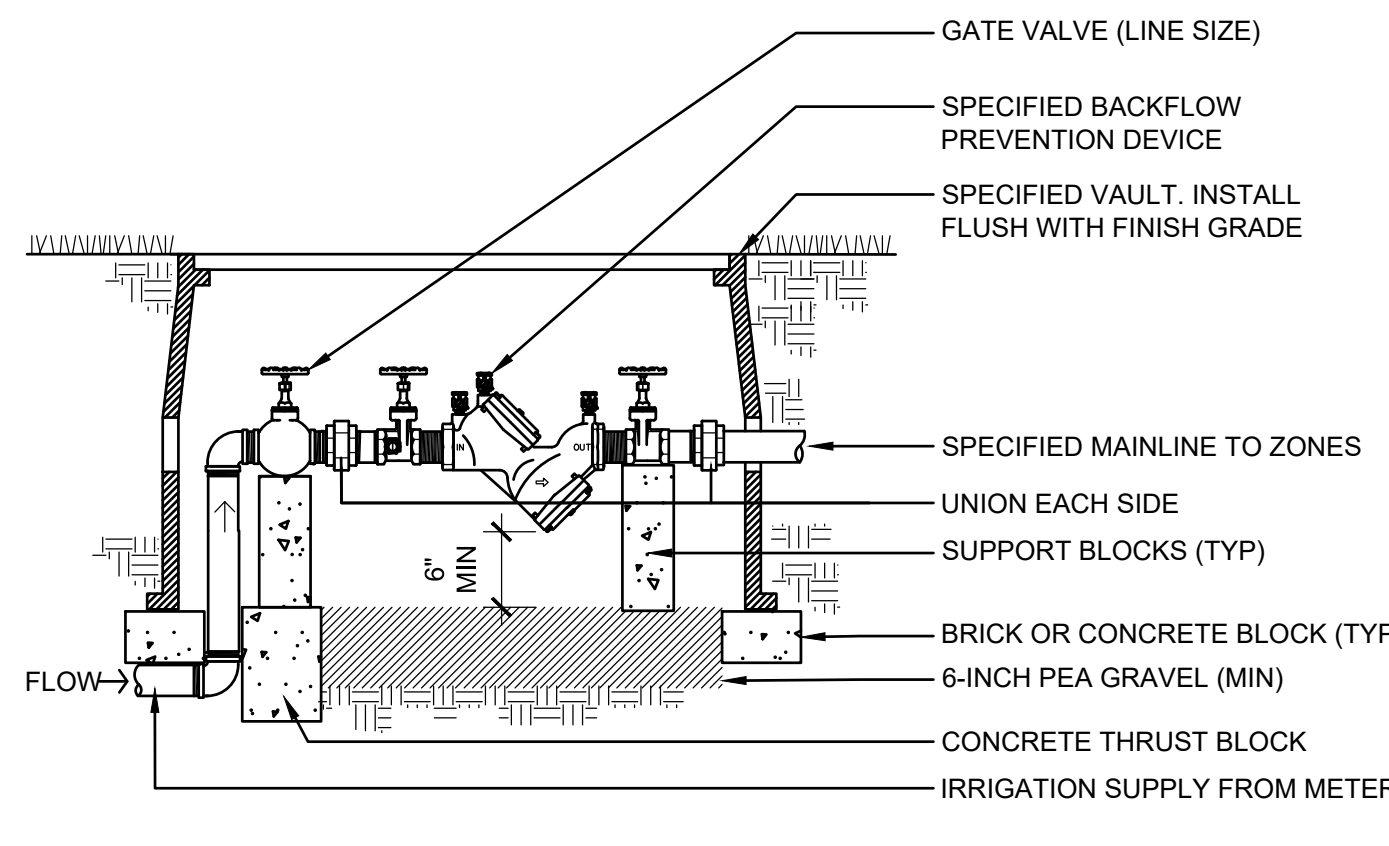
COMPLETENESS SUBMITTAL SET - 7/8/2021

220031500DRAWINGS\LANDSCAPE\315-L5.11.DWG L5.11 LJM 06/18/21 15:39 1.0.00



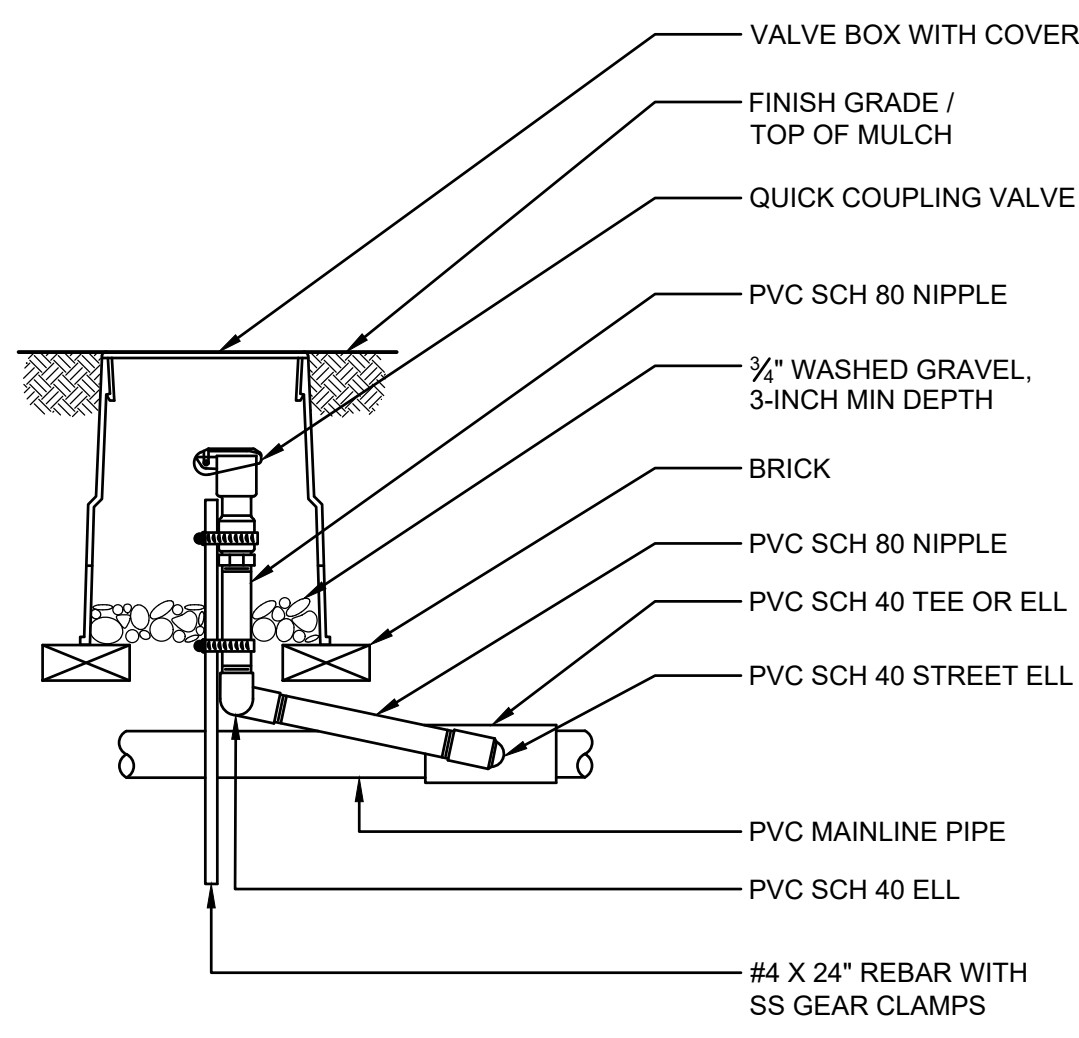
1 POINT OF CONNECTION

SCALE: NTS



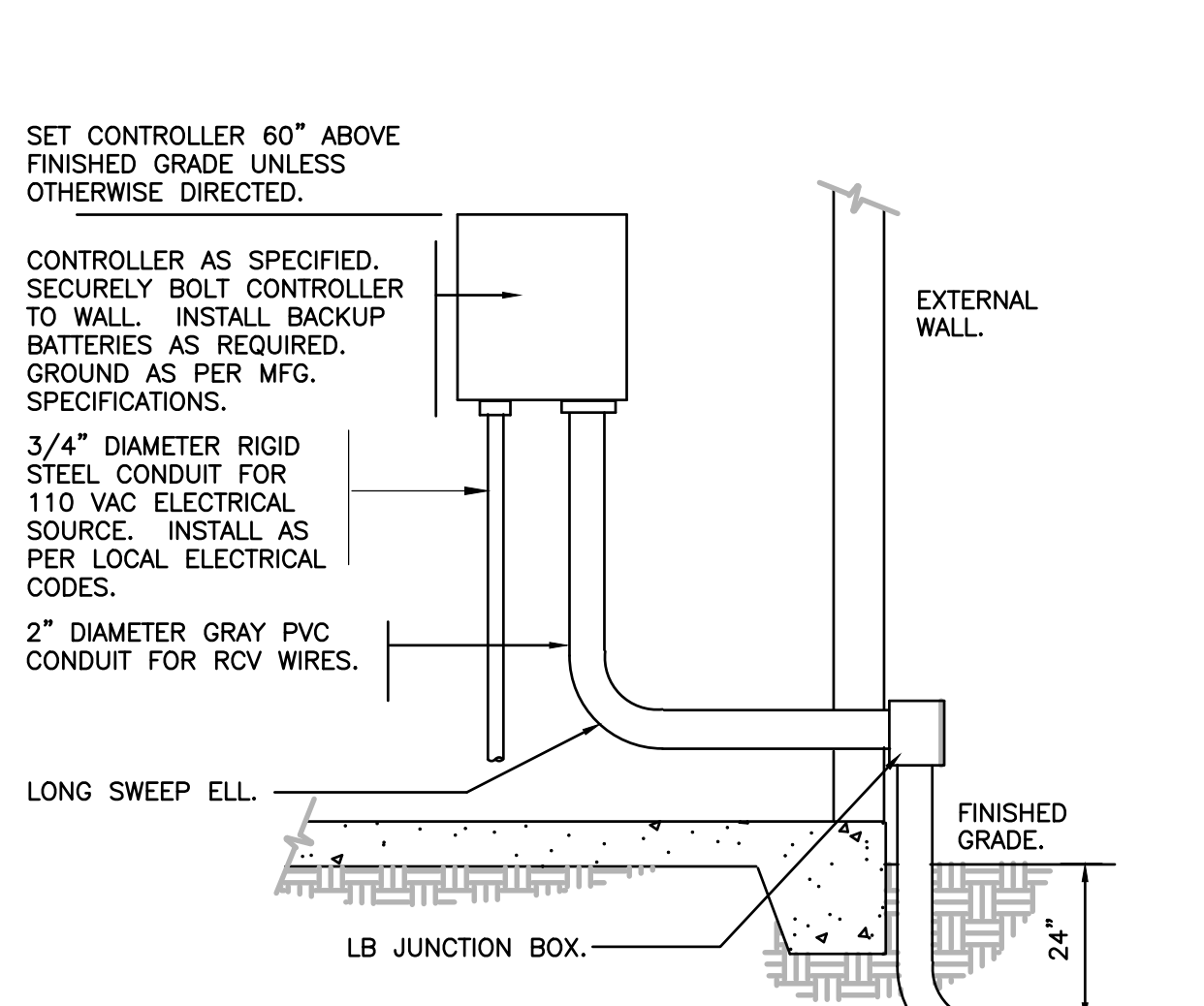
2 DOUBLE CHECK VALVE
BACKFLOW PREVENTOR (BELOW GRADE)

SCALE: NTS



3 QUICK COUPLER VALVE

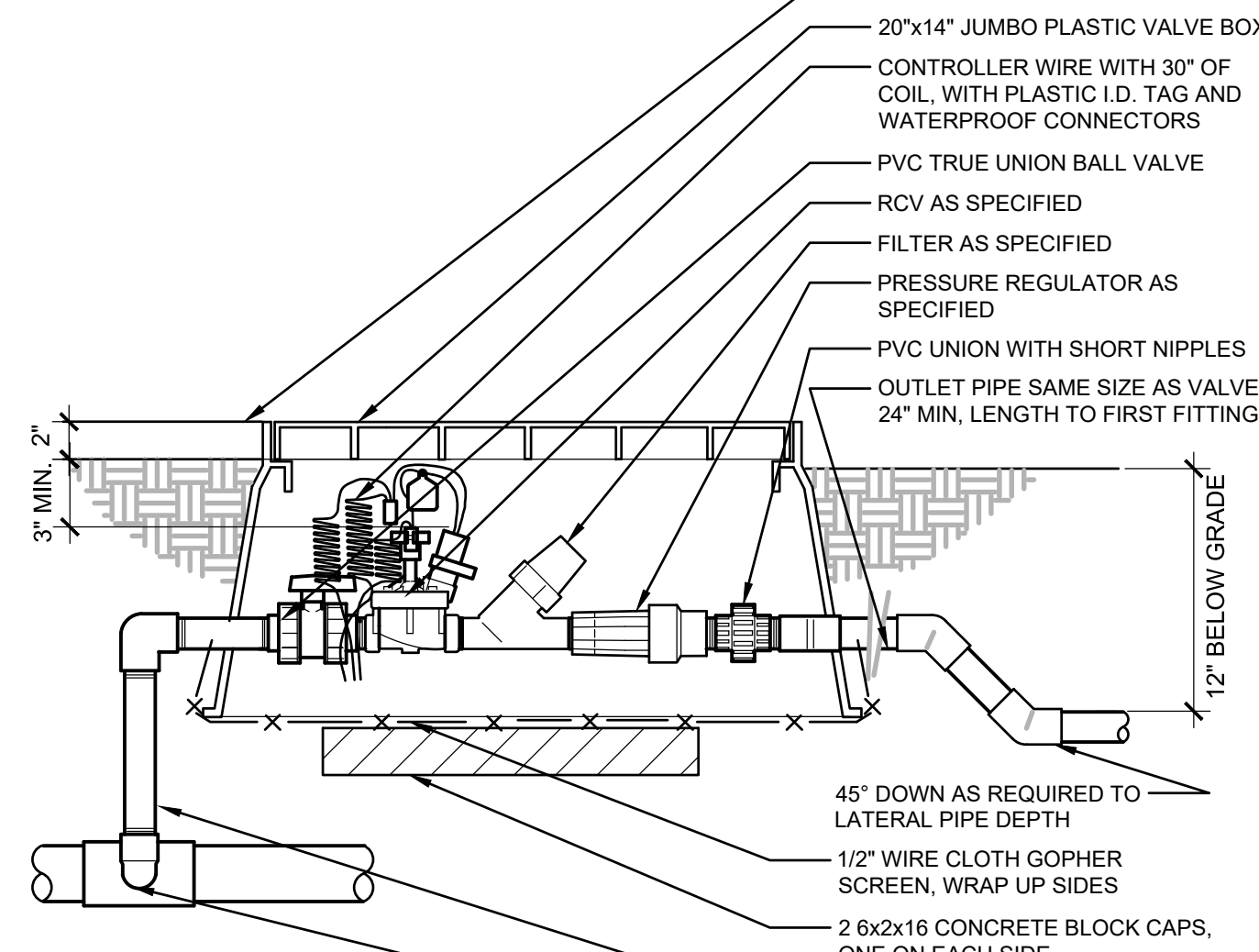
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4 INTERIOR WALL MOUNT CONTROLLER

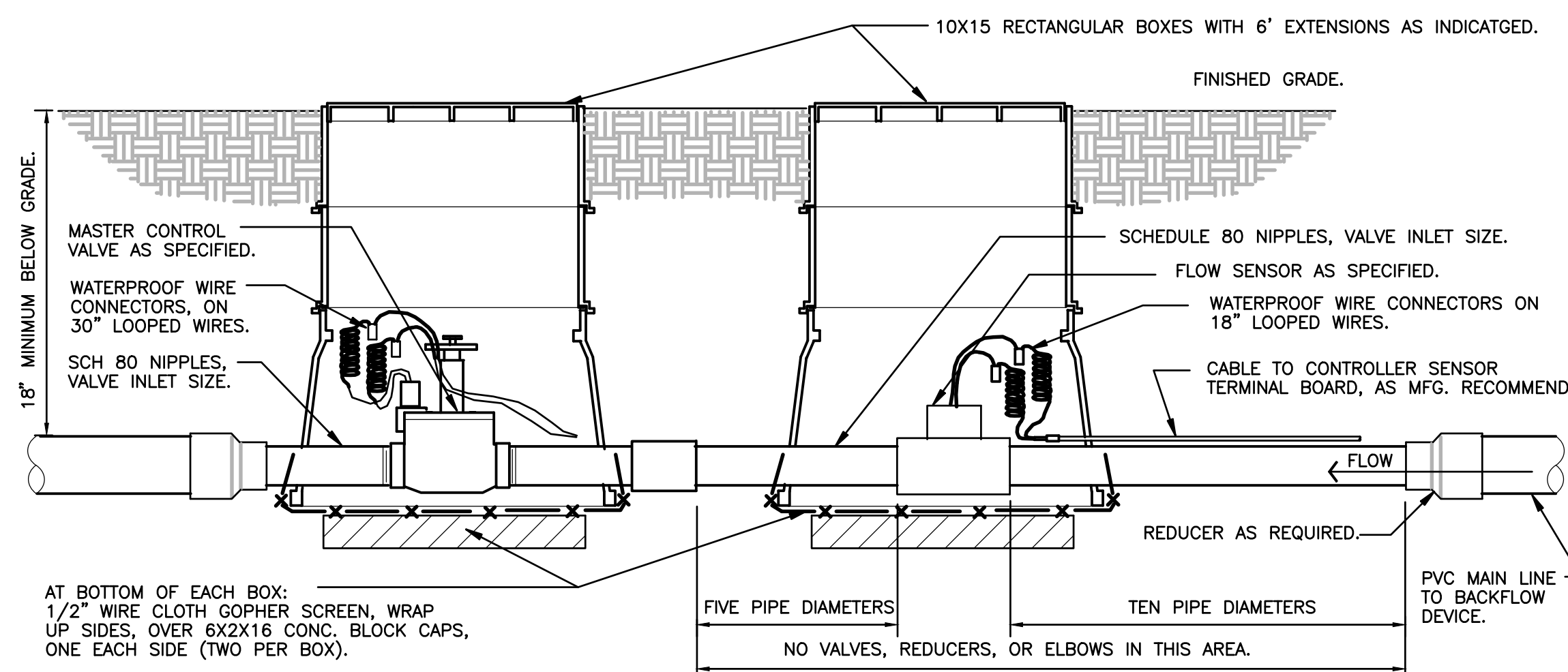
1" = 1'-0"

FX-IR-FX-CONT-21



5 1" DRIP VALVE/FILTER/REGULATOR

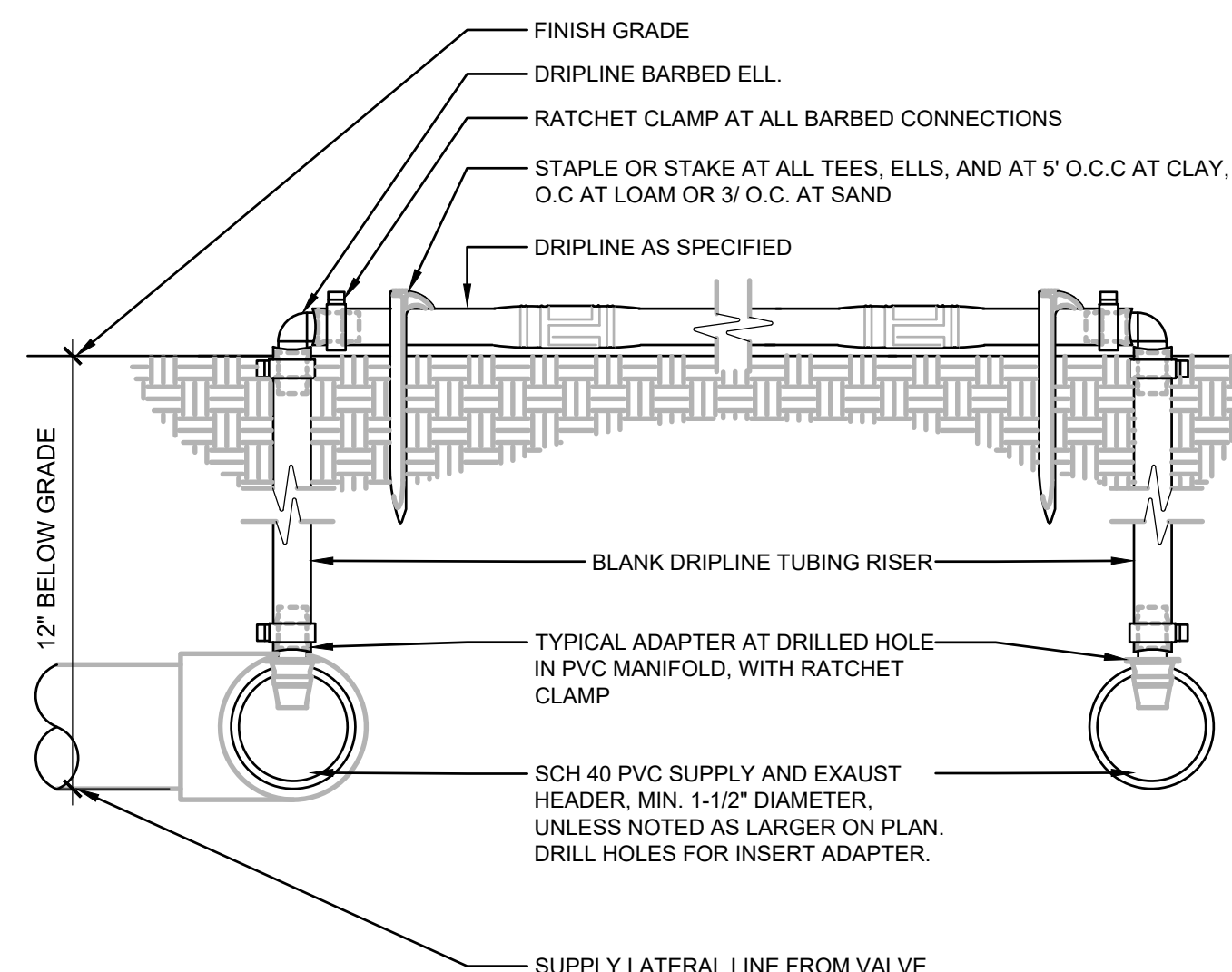
SCALE: NTS



6 MASTER VALVE/FLOW SENSOR ASSEMBLY

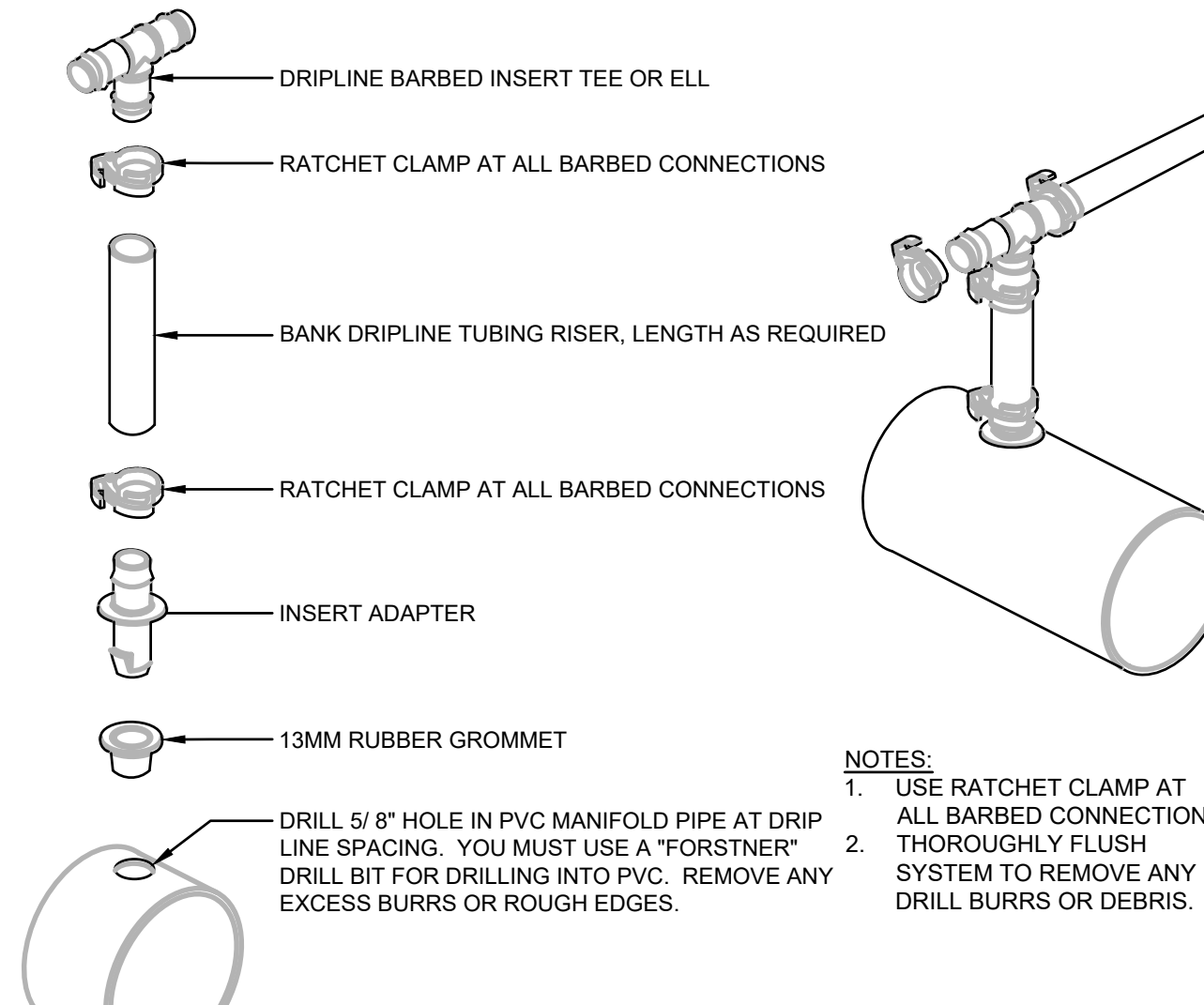
1 1/2" = 1'-0"

FX-IR-FX-MAST-56



7 DRIPLINE TO MANIFOLD ADAPTER CONNECTION

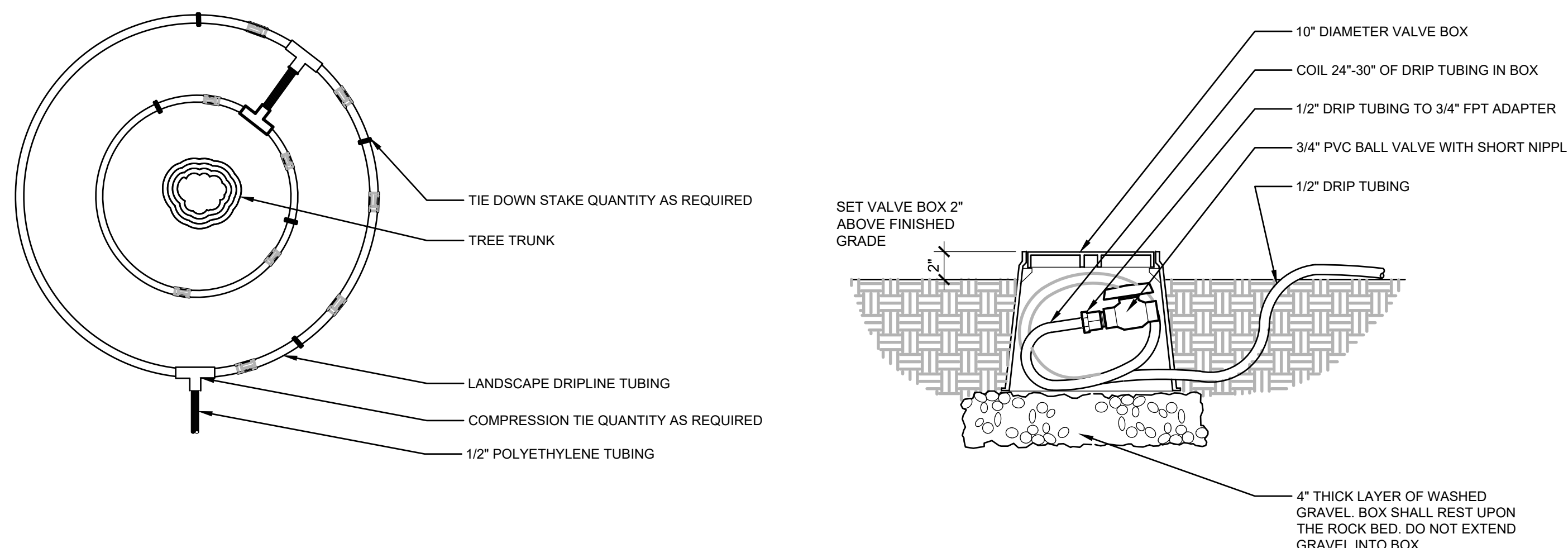
SCALE: NTS



8 ZONE CONTROL

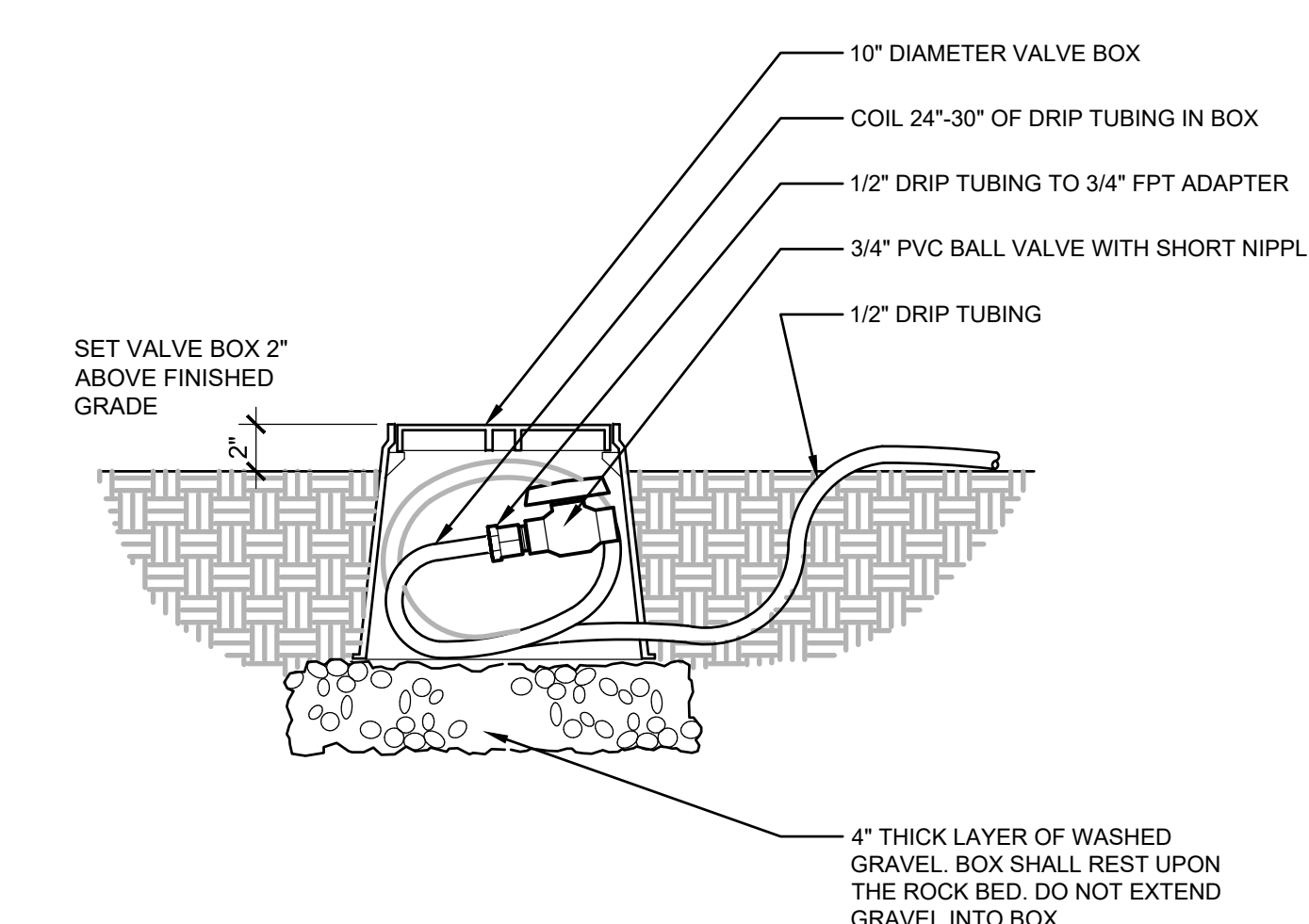
SCALE: NTS

315-L5.11.DWG



9 DRIPLINE AROUND TREE

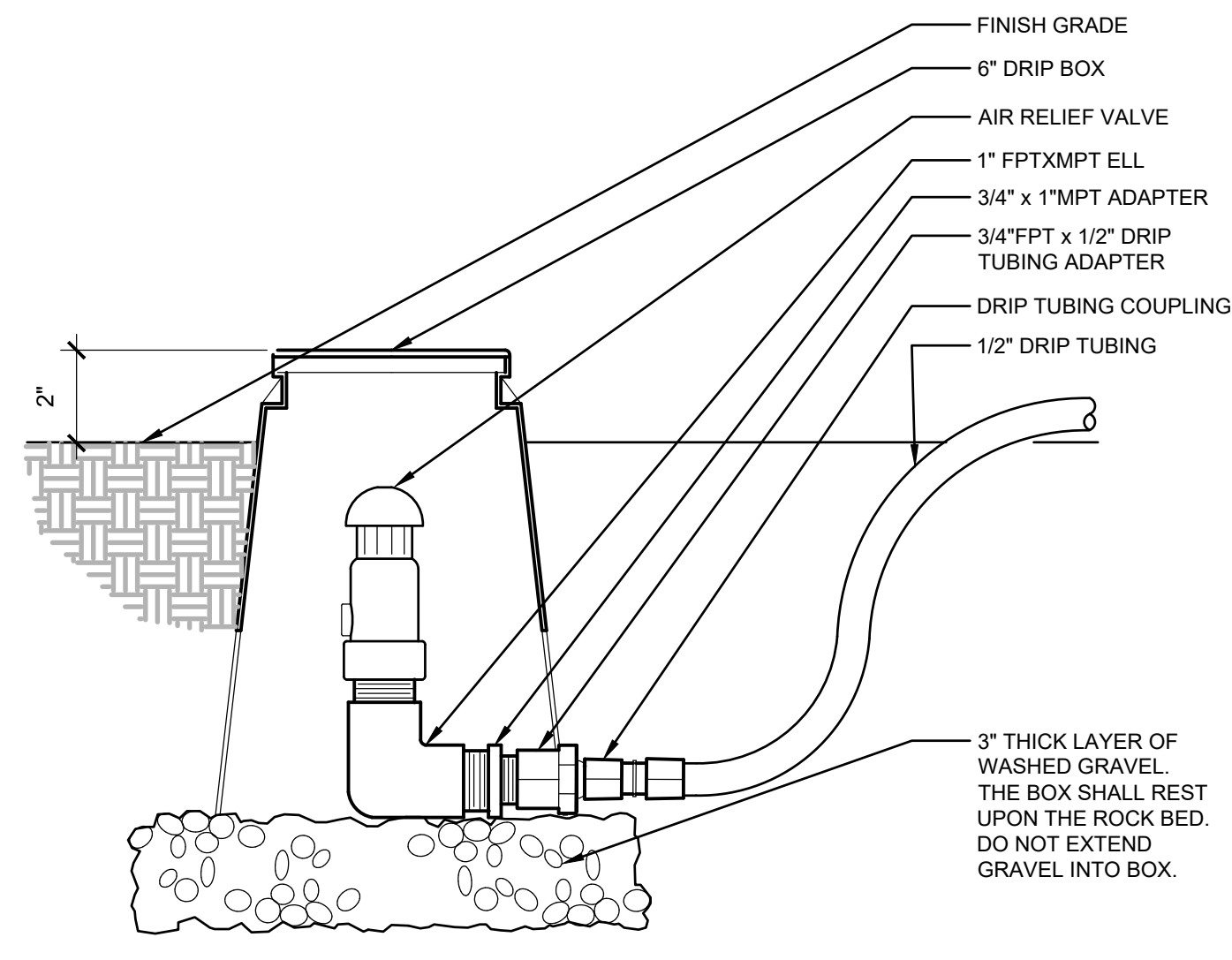
SCALE: NTS



10 DRIP FLUSH VALVE

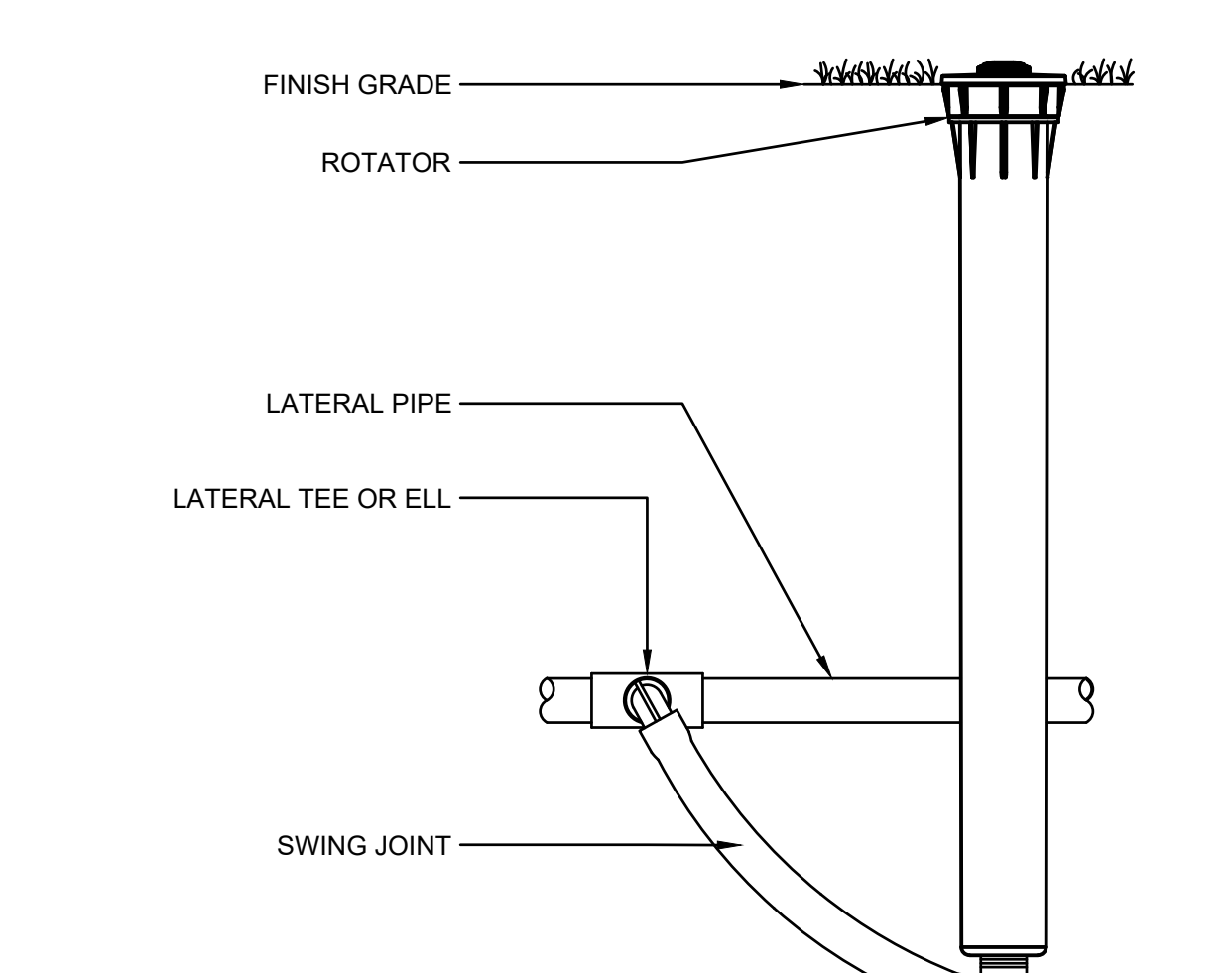
1:1

SCALE: NTS



11 DRIP AIR RELIEF VALVE IN BOX

SCALE: NTS



12 MULTI-TRAJECTORY SPRAY HEAD

DETAIL-SUBTITLE

SCALE: NTS

L5.11-HEAD-SPRAY-INT.DWG