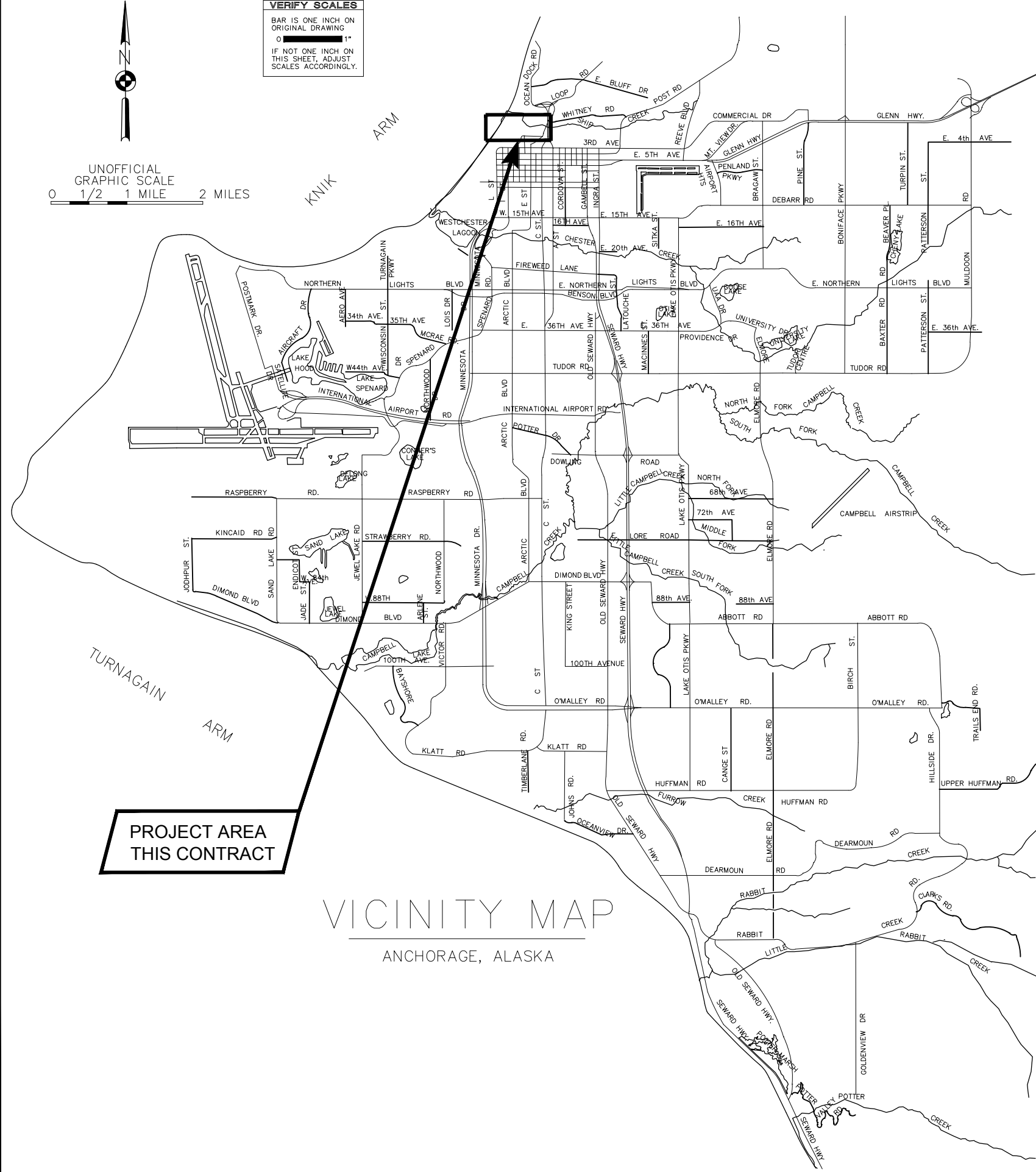


VERIFY SCALES
 BAR IS ONE INCH ON ORIGINAL DRAWING
 0 1"
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

UNOFFICIAL GRAPHIC SCALE
 0 1/2 1 MILE 2 MILES



VICINITY MAP
 ANCHORAGE, ALASKA

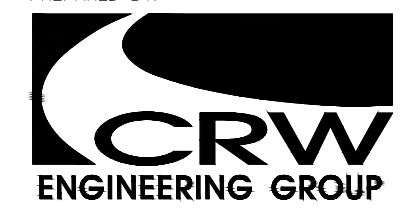


ALASKA RAILROAD CORPORATION

**ARRC DEPOT DRIVE IMPROVEMENTS
 PHASE II**

**FINAL DESIGN
 DECEMBER 2023**

PREPARED BY:



3940 ARCTIC BLVD. SUITE 300
 ANCHORAGE, ALASKA 99503
 PHONE: (907) 562-3252
 #AECL882-AK

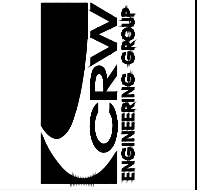
MBA

Consulting Engineers, Inc.
 (907) 274-2622 / FAX (907) 274-0914

**BETTISWORTH
 NORTH**

File: \\csweng.com\Projects\JobsData\31105.03 Depot Drive Ph 1\100_Coord_2019\01 Working Set\00 General\31105.03 - Sheet Index.dwg PLOT DATE: 12/7/2023 3:05 PM

SHEET INDEX	
SHEET NUMBER	SHEET TITLE
GENERAL	
G1	COVER & VICINITY MAP
G2	SHEET INDEX
G3	GENERAL NOTES
G4	LEGEND & ABBREVIATIONS
G5	KEY MAP
SURVEY	
V1	SURVEY CONTROL
DEMOLITION	
B1	DEMOLITION PLAN & SUMMARY TABLES
TYPICAL SECTIONS	
C1	TYPICAL SECTIONS
ROADWAY IMPROVEMENTS	
R1	ROAD PLAN & PROFILE
R2	DRIVEWAY GRADING
ROADWAY DETAILS	
D1	CURB RAMP DETAILS
D2	ROADWAY DETAILS
STRIPING	
S1	STRIPING PLAN
STORM DRAIN IMPROVEMENTS	
SD1	STORM DRAIN PLAN & PROFILE
SD2	STORM DRAIN PLAN & PROFILE
SD3	STORM DRAIN DETAILS
SD4	STORM DRAIN BIORETENTION SWALE DETAILS
ILLUMINATION IMPROVEMENTS	
I1	ELECTRICAL LEGEND & VICINITY MAP
I2	ILLUMINATION PLANS & SCHEDULE (PHASE I REFERENCE DRAWING)
I3	ELECTRICAL SCHEDULES & DETAILS (PHASE 1 REFERENCE DRAWING)
I4	ILLUMINATION PLANS & SCHEDULE
I5	ELECTRICAL SCHEDULES & DETAILS
I6	EXHIBIT – MOA STANDARD DETAILS
LANDSCAPE IMPROVEMENTS	
L1	LANDSCAPE PLAN
L2	LANDSCAPE DETAILS



PROJECT NO.	31105.03
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

PROJECT NO: 31105.03
 ARR DEPOT DRIVE IMPROVEMENTS – PHASE II
 SHEET INDEX
 STATUS: FINAL DESIGN
 DATE: DECEMBER 2023

SCALE	REV	DATE	DESCRIPTION	REVISION	BY
HOR. N/A VER. N/A					
DESIGNED BY MS					
DRAWN BY MS					
CHECKED BY MH					
APPROVED BY MH					

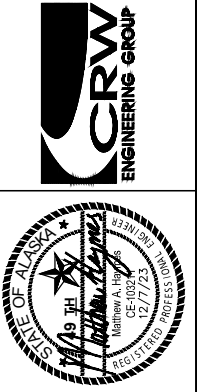
SHEET NO.
G2

File: \\crweng.com\Projects\JobsData\31105.03 Depot Drive Ph 1\00 Cond 2019\01 Working Set\00 General\31105.03 - General Notes.dwg PLOT DATE: 12/7/2023 3:05 PM

GENERAL NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE MUNICIPALITY OF ANCHORAGE (MOA) STANDARD SPECIFICATIONS, DATED 2015, CURRENT REVISION, (HEREINAFTER REFERRED TO AS MASS), THE LATEST EDITION OF THE ANCHORAGE WATER AND WASTEWATER UTILITY (AWWU) DESIGN AND CONSTRUCTION PRACTICES MANUAL (DCPM) AND THE SPECIAL PROVISIONS.
2. THE LOCATION OF THE EXISTING FEATURES AND UTILITIES SHOWN IN THESE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES ENCOUNTERED AND RECORD THEIR LOCATION ON THE CONTRACT RECORD DRAWINGS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. UTILITY CROSSINGS ARE NOT SHOWN IN THE PROFILE FOR CLARITY.
3. EXISTING UTILITIES OR WATER AND SEWER SERVICE LINES ARE NOT SHOWN IN THE TYPICAL CROSS SECTIONS.
4. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS PRIOR TO BEGINNING CONSTRUCTION. THE PERMITS SHALL BE MAINTAINED ON THE PROJECT SITE.
5. ALL WORK IN CLOSE PROXIMITY TO EXISTING OVERHEAD TELEPHONE AND/OR ELECTRIC UTILITIES SHALL COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL STATUTES, CODES AND GUIDELINES AND THE CLEARANCE REQUIREMENTS OF THE SERVING UTILITY.
6. LIMITS OF EXCAVATION SHOWN ON THE DRAWINGS ARE APPROXIMATE. ACTUAL LIMITS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER DURING CONSTRUCTION OPERATIONS.
7. GEOTECHNICAL (SOIL) INFORMATION IS INCLUDED IN THE CONTRACT DOCUMENTS.
8. ALL WORK SHALL BE PERFORMED WITHIN ALASKA RAILROAD CORPORATION (ARRC) PROPERTY OR PUBLIC RIGHT-OF-WAY. ALL DISTURBED AREA BEYOND THE SLOPE LIMITS SHALL BE RESTORED TO ORIGINAL CONDITION, UNLESS OTHERWISE NOTED. RE-VEGETATION SHALL BE IN ACCORDANCE WITH THE LANDSCAPING PLAN.
9. CONTRACTOR SHALL RESTORE DISTURBED AREAS TO PRE-CONSTRUCTION CONDITIONS, UNLESS OTHERWISE DIRECTED BY ENGINEER. PAYMENT FOR RESTORING DISTURBED AREAS OUTSIDE OF IDENTIFIED CONSTRUCTION LIMITS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE PAYMENT SHALL BE MADE. AREAS NOT BEING PAVED SHALL BE TOPSOIL AND SEEDED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS UNLESS OTHERWISE NOTED.
10. PROJECT CLEARING AND GRUBBING LIMITS SHALL COINCIDE WITH SLOPE OR EXCAVATION LIMITS. SLOPE LIMITS SHOWN ON THE DRAWINGS ARE APPROXIMATE. THE CONTRACTOR SHALL DETERMINE THE ACTUAL SLOPE LIMITS BASED ON SURVEY DATA AND SHALL OBTAIN APPROVAL OF THE CLEARING AND GRUBBING LIMITS BY THE ENGINEER. NOT ALL TREES AND SHRUBS ARE SHOWN ON THE PLANS. CONTRACTOR SHALL MINIMIZE IMPACTS TO THE EXISTING VEGETATION.
11. IN PREPARATION FOR AND IMMEDIATELY PRIOR TO PAVING, THE CONTRACTOR SHALL SAW CUT AND REMOVE ADDITIONAL PAVEMENT BEYOND THE INITIAL SAW CUT, A MINIMUM OF 1-FOOT ONTO UNDISTURBED ASPHALT. TRANSVERSE JOINTS SHALL NOT BE PERPENDICULAR TO CENTERLINE, BUT SHALL BE SKEWED BETWEEN FIFTEEN AND TWENTY-FIVE DEGREES (15° AND 25°) PER MASS SECTION 40.06. TACK COAT SHALL BE APPLIED TO THE SAWN FACE OF ASPHALT PRIOR TO BEGINNING PAVING. TACK COAT SHALL ALSO BE APPLIED BETWEEN LAYERS OF ASPHALT. TACK COAT SHALL BE INCIDENTAL TO THE PROJECT AND NO SEPARATE PAYMENT WILL BE MADE.
12. PAINT ALL CONTACT SURFACES INCLUDING CURBING, GUTTERS, MANHOLES, AND OTHER CONCRETE STRUCTURES WITH A THIN, UNIFORM COATING OF ASPHALTIC CEMENT OR APPROVED EQUAL MATERIAL PRIOR TO PAVING AGAINST THEM. ASPHALTIC CEMENT SHALL BE INCIDENTAL TO THE PROJECT AND NO SEPARATE PAYMENT WILL BE MADE.
13. PAVEMENT CROSS SLOPE SHALL VARY AT INTERSECTIONS TO PROVIDE POSITIVE DRAINAGE. WHERE PAVEMENT SLOPES EXCEED 6%, THE ENGINEER SHALL REVIEW CURB STAKING PRIOR TO FINAL GRADING AND CONCRETE PLACEMENT. IF 0.5% SLOPE CAN NOT BE MAINTAINED AROUND THE CURB RETURN, NOTIFY ENGINEER IMMEDIATELY.
14. ALL WORK AND MATERIALS REQUIRED FOR REMOVING ANY LITTER OR DEBRIS WITHIN THE PROJECT LIMITS SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE PAYMENT WILL BE MADE.
15. ALL ORGANIC MATERIAL SHALL BE REMOVED FROM THE SUBGRADE TO A DEPTH TO BE DETERMINED BY THE ENGINEER. NO ORGANIC MATERIAL OR OTHER DELETERIOUS MATERIAL SHALL BE UTILIZED FOR BACKFILL.
16. THE CONTRACTOR SHALL SUBMIT RECORD SURVEY NOTES WITH THE RECORD DRAWINGS.
17. EXCAVATION SHALL BE MEASURED BY CROSS-SECTION AND SHALL BE LIMITED TO THE PAY LIMITS IDENTIFIED IN THE TYPICAL CROSS SECTIONS UNLESS ADDITIONAL EXCAVATION IS DIRECTED BY THE ENGINEER.
18. THE ROADWAY STATIONING IS THE PROPOSED ROADWAY CENTERLINE PER SURVEY CONTROL DRAWING UNLESS OTHERWISE NOTED. SEE SURVEY CONTROL DRAWING FOR HORIZONTAL AND VERTICAL CONTROL.
19. ALL CURB LOCATIONS, RADIUS MEASUREMENTS AND ELEVATIONS ARE TO THE TOP BACK OF CURB (TBC) UNLESS OTHERWISE NOTED.
20. UNLESS OTHERWISE NOTED, ALL VALVE BOXES, CLEANOUTS, AND MANHOLES WITHIN THE CONSTRUCTION AREA SHALL BE ADJUSTED RELATIVE TO FINISH GRADE PER MASS OR THESE DRAWINGS.
21. FURNISH AND INSTALL RIGID BOARD HIGH DENSITY EXTRUDED POLYSTYRENE, MIN 60 PSI, EQUIVALENT TO R-20 PER 4" THICK INSULATION BETWEEN THE STORM DRAIN IMPROVEMENTS AND THE WATER AND SEWER UTILITIES WHEN THE VERTICAL CLEARANCE IS LESS THAN THREE FEET. IF 18 INCHES OF VERTICAL SEPARATION BETWEEN WATER AND SEWER/STORM DRAIN MAINS CAN NOT BE MAINTAINED THEN RELOCATION WILL BE REQUIRED.
22. ALL CURBS AND GUTTER SHALL BE PAID AS P.C.C CURB AND GUTTER (ALL TYPES).
23. WATER RESULTING FROM THE CONTRACTOR'S DEWATERING EFFORT MAY NOT BE PUMPED OR OTHERWISE DIVERTED INTO EXISTING STORM DRAINS UNLESS REQUIRED PERMITS, INCLUDING, BUT NOT LIMITED TO, THE ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION, ARE OBTAINED BY THE CONTRACTOR. UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE ALLOWED TO DIVERT WATER FROM EXCAVATION ONTO ROADWAYS. THE CONTRACTOR SHALL PROVIDE DISPOSAL SITE FOR EXCESS WATER AND SHALL BE RESPONSIBLE FOR SECURING AND PAYING FOR ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL PROVIDE COPIES OF PERMITS AND APPROVALS TO THE MOA ROW PERMIT OFFICE PRIOR TO BEGINNING DEWATERING.
24. ALL FILL, USABLE EXCAVATION, AND TRENCH BACKFILL SHALL BE COMPACTED TO 95% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT, PER MASS DIVISION 20, EARTHWORK, BASED ON MODIFIED PROCTOR TEST VALUES. ALL FILLS SHALL BE PLACED IN LIFT NOT EXCEEDING 12-INCHES.
25. ALASKA RAILROAD FLAG PROTECTION IS REQUIRED WHEN OPERATING EQUIPMENT INSIDE OR CAPABLE OF EXTENDING INTO ALASKA RAILROAD FLAGGING BOUNDARY. COORDINATE WITH ARRC TO ESTABLISH FLAGGING BOUNDARY PRIOR TO BEGINNING CONSTRUCTION.
26. CONTRACTOR SHALL COORDINATE ALL WORK AND ACCESS WITH ARRC WHILE ON ARRC PROPERTY.

CALL BEFORE YOU DIG!!!	
Alaska Digline, Inc.	Statewide 811
Alaska Railroad	265-2520
Military Fuel Lines	552-3760
State Storm Drains	333-2411



PROJECT NO.	31105.03
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

ARRC DEPOT DRIVE IMPROVEMENTS – PHASE II
GENERAL NOTES

PROJECT NO: 31105.03
STATUS: FINAL DESIGN
DATE: DECEMBER 2023

REV	DATE	DESCRIPTION	REVISION	BY

SCALE	HOR. N/A	VER. N/A
DESIGNED BY	MS	MS
DRAWN BY	MS	MS
CHECKED BY	MH	MH
APPROVED BY	MH	MH
SHEET NO.		
G3		

PLAN LEGEND

SYMBOL			SYMBOL		
EXISTING	PROPOSED		EXISTING	PROPOSED	
		CENTERLINE			STORM DRAIN MANHOLE
		PROPERTY LINE			CATCH BASIN MANHOLE
		ROW LINE			CATCH BASIN
		EASEMENT LINE			SANITARY SEWER MANHOLE
		SECTION LINE			SANITARY SEWER/SUBDRAIN CLEANOUT
		UNPAVED (GRAVEL) EDGE OF ROAD/DRIVEWAY			SEWER SERVICE CONNECTION
		EDGE OF PAVEMENT			CESSPOOL/SEPTIC TANK
		STREAM/EDGE OF WATERWAY			WATER WELL
		PAVEMENT/DRIVEWAY REMOVAL			WATERTIGHT SANITARY SEWER MANHOLE
		CURB CUT HATCH			WATER KEY BOX/VALVE MARKER
		CURB & GUTTER			FIRE HYDRANT
		RADIUS TO BACK OF CURB			DRY WELL
		DRAINAGE SWALE			GAS VALVE
		DRAINAGE ARROW			GAS METER
		BLUFF AREA/ EARTHWORK SLOPE			UNDERGROUND ELECTRIC PEDESTAL
		CULVERT			ELECTRICAL MANHOLE/J--BOX
		CHAINLINK FENCE			ELECTRIC METER
		WOOD FENCE			JB TYPE IA
		DECIDUOUS TREE/SHRUB			JB TYPE II
		CONIFEROUS TREE/SHRUB			JB TYPE III
		VEGETATION & BRUSH			ELECTRICAL VAULT
		GUARDRAIL			LUMINAIRE
		STREET SIGN			UTILITY POLE
		HANDICAPPED PARKING			GUY POLE
		TEST BORING OR TEST HOLE			GUY ANCHOR
		RAILROAD TRACKS			CONTROLLER OR ATR CABINET
		MAILBOX			LOAD CENTER
		HOUSE OR STRUCTURE			SWITCH CABINET
		CONTOUR LINE			ELECTRIC TRANSFORMER
		SPOT ELEVATION			JOINT USE POWER & TELE. POLE
		IRON PIN (REBAR) / IRON PIPE			TELEPHONE MANHOLE
		BENCHMARK			UNDERGROUND TELE. PEDESTAL
		TEMPORARY BENCHMARK			UNDERGROUND TV CABLE PEDESTAL
		BRASS CAP MONU./BLM CORNER			UNDERGROUND FIBER OPTIC PEDESTAL
		PK NAIL, SPIKE OR CONCRETE NAIL			FOOTING DRAIN SERVICE
		ALCAP OR PLASTIC CAP			TRAFFIC SIGNAL POLE/LUMINARE
		FILL SLOPE LIMITS			TRAFFIC SIGNAL POLE
		CUT SLOPE LIMITS			CLUSTER MAILBOX
		RETAINING WALL			PARCEL NUMBERS
		RETAINING WALL - SHEET PILE			PARKING METER
		CABLE TV LINE			OPTICOM DETECTOR
		CABLE TV LINE (OVERHEAD)			GAS LINE
		ELECTRIC LINE			SANITARY SEWER LINE
		ELECTRIC LINE (OVERHEAD)			STORM DRAIN LINE
		ELECTRIC & TELEPHONE (OVERHEAD)			SUBDRAIN
		FIBER OPTIC			TELEPHONE LINE
		FIN DRAIN			TELEPHONE LINE (OVERHEAD)
		FUEL/OIL LINE			TRAFFIC LINE
		FOOTING DRAIN SERVICE/STUBOUT			TREE PROTECTION ZONE
		ABANDONED UTILITY			WATER LINE

PROFILE LEGEND

		GRADE AT CENTER LINE		INSULATION
		APPROXIMATE EXCAVATION LIMITS		
		PIPE (PROFILE)		
		PIPE (SECTION)		
		WATER LEVEL		

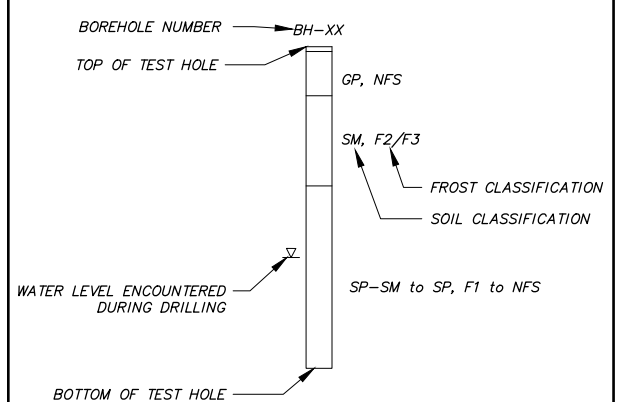
BOREHOLE SYMBOLS

	ORGANIC CLAY OR SILT (OL)
	ASPHALT CONCRETE (AC)
	SILT (ML)
	SILTY SAND (SM)
	POORLY GRADED SAND (SP)
	SILTY GRAVEL (GM)
	POORLY GRADED GRAVEL (GP)
	LEAN CLAY (CL)
	PEAT (PT)

NOTE:
LEGEND MAY CONTAIN SYMBOLS THAT ARE NOT USED ON THIS PROJECT.

COMMON ABBREVIATIONS			
ABBR.	DESCRIPTION	ABBR.	DESCRIPTION
AC	ASPHALT CONCRETE	N.I.C.	NOT IN CONTRACT
APPROX, APPX	APPROXIMATE	NTS	NOT TO SCALE
ARRC	ALASKA RAILROAD CORPORATION	NWT	NO WATER TABLE
AWWU	ANCHORAGE WATER AND WASTEWATER UTILITY	OC	ON CENTER
BH	BOREHOLE	OCEW	ON CENTER EACH WAY
BM	BENCH MARK	OD	OUTSIDE DIAMETER
BOP	BEGINNING OF PROJECT	OH	OVERHEAD
C&G	CURB AND GUTTER	PC	POINT OF CURVATURE
CB	CATCH BASIN	PCC	PORTLAND CONCRETE CEMENT
CBMH	CATCH BASIN MANHOLE	PE	POLYETHYLENE
C/L, CL	CENTERLINE	PI	POINT OF INTERSECTION
CMP	CORRUGATED METAL PIPE	PL, P/L	PROPERTY LINE
CO	CLEANOUT	PCMP	PRECOATED CORRUGATED METAL PIPE
CONST	CONSTRUCTION	PCPEP	PERFORATED CORRUGATED POLYETHYLENE PIPE
CPEP	CORRUGATED POLYETHYLENE PIPE	PRC	POINT OF REVERSE CURVATURE
DIA	DIAMETER	PT	POINT OF TANGENCY
DIP	DUCTILE IRON PIPE	PUE	PUBLIC USE EASEMENT
D.W.	DETECTABLE WARNING	PVC	POINT OF VERTICAL CURVATURE
ELEC	ELECTRIC / ELECTRICAL	PVI	POINT OF VERTICAL INTERSECTION
ELEV, EL	ELEVATION	PVT	POINT OF VERTICAL TANGENT
EOC	END OF CONCRETE	ROW, R/W	RIGHT OF WAY
EOP	END OF PROJECT / EDGE OF PAVEMENT	RT, R	RIGHT
EX, EXIST	EXISTING	S/W	SIDEWALK
F&I	FURNISH AND INSTALL	SS	STAINLESS STEEL
FG	FINISHED GRADE	SD	STORM DRAIN
GB	GRADE BREAK	SEC COR	SECTION CORNER
JB	JUNCTION BOX	SI	STREET INTERSECTION
LC	LOAD CENTER	ST	STREET
IAW	IN ACCORDANCE WITH	STA	STATION / STATIONING
IE	INVERT ELEVATION	STD	STANDARD
INTX	INTERSECTION	STRUCT	STRUCTURE
INV	INVERT	TBC	TOP BACK OF CURB
LF	LINEAR FOOT	TBM	TEMPORARY BENCH MARK
LT, L	LEFT	TCP	TEMPORARY CONSTRUCTION PERMIT
LUM	LUMINAIRE	TELE	TELEPHONE
MAX	MAXIMUM	TH	TEST HOLE
MH	MANHOLE	(TYP.)	TYPICAL
(MIN.)	MINIMUM	UG	UNDERGROUND
ML&P	MUNICIPAL LIGHT & POWER	UOC	UNLESS OTHERWISE NOTED
MON	MONUMENT	UTIL	UTILITY
MSL	MEAN SEA LEVEL	VB	VALVE BOX
N/A	NOT APPLICABLE	VC	VERTICAL CURVE

LEGEND - SOIL



NOTE:
SEE GEOTECHNICAL REPORT FOR DETAILED BOREHOLE INFORMATION.



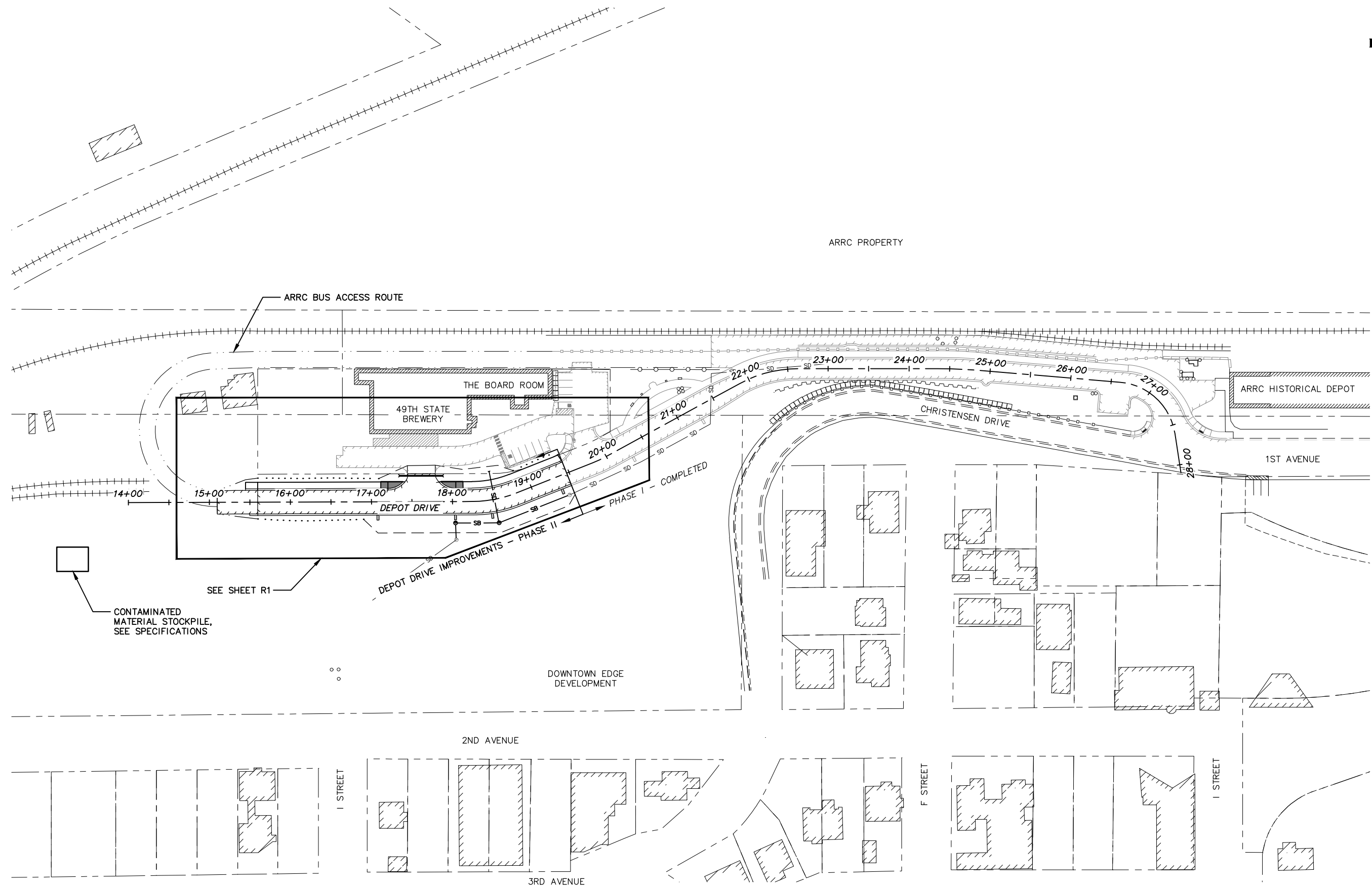
PROJECT NO.	31105.03
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

ARRC DEPOT DRIVE IMPROVEMENTS - PHASE II
LEGEND & ABBREVIATIONS
 PROJECT NO.: 31105.03
 CITY GRID: 1230
 WATER GRID: 1230
 SEWER GRID: 1230
 DATE: DECEMBER 2023
 STATUS: FINAL DESIGN

SCALE	HOR. VER.	N/A	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY

File: \\cwrweng.com\Projects\JobsData\31105.03\Depot Drive Ph. 1\00_Cadd_2019\01 Working Set\00 General\31105.03 - Key Map.dwg PLOT DATE: 12/7/2023 3:37 PM

K STREET



CRW ENGINEERING GROUP

STATE OF ALASKA

Matthew A. Long

12723

REGISTERED PROFESSIONAL ENGINEER

PROJECT NO.	31105.03
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

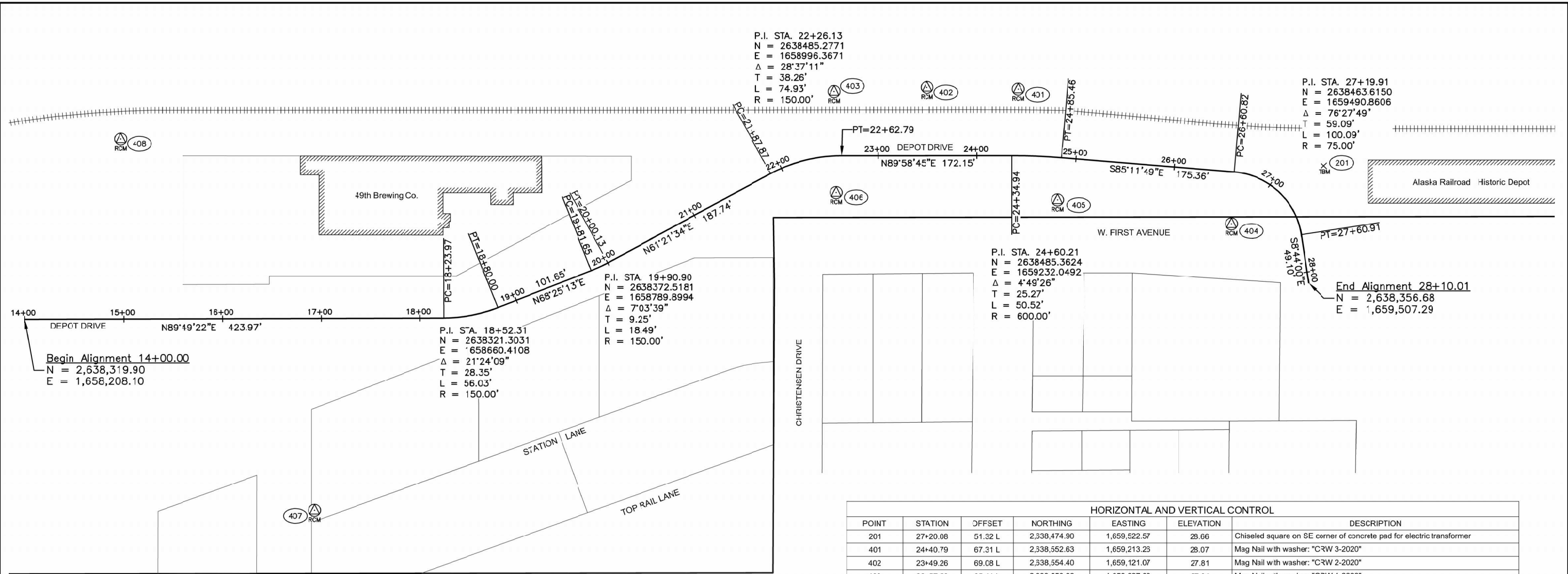
ARRC DEPOT DRIVE IMPROVEMENTS - PHASE II

KEY MAP

PROJECT NO.	
STATUS:	FINAL DESIGN
DATE:	DECEMBER 2023

REV	DATE	DESCRIPTION	BY

SCALE	HOR. 1" = 60'
VER.	N/A
DESIGNED BY	MS
DRAWN BY	MS
CHECKED BY	MH
APPROVED BY	MH



HORIZONTAL AND VERTICAL CONTROL						
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION	DESCRIPTION
201	27+20.08	51.32 L	2,338,474.90	1,659,522.57	28.66	Chiseled square on SE corner of concrete pad for electric transformer
401	24+40.79	67.31 L	2,338,552.63	1,659,213.25	28.07	Mag Nail with washer: "CRW 3-2020"
402	23+49.26	69.08 L	2,338,554.40	1,659,121.07	27.81	Mag Nail with washer: "CRW 2-2020"
403	22+57.50	65.11 L	2,338,550.26	1,659,027.02	27.91	Mag Nail with washer: "CRW 1-2020"
404	26+66.17	52.49 R	2,338,416.07	1,659,429.13	31.16	Rebar with Yellow Cap: "SCHILLINGER S-12039"
405	24+85.05	43.07 R	2,338,440.36	1,659,253.25	41.33	Mag Nail washer: "CRW2"
406	22+55.42	37.45 R	2,338,447.70	1,659,029.11	49.32	3.25" AL Cap: "CRW CP22 2020"
407	16+92.63	194.25 R	2,338,126.56	1,658,501.33	43.49	2" AKRR AL Cap: "ANC 407 2023"
408	14+97.40	181.90 L	2,338,502.10	1,658,304.94	27.69	2" AKRR AL Cap: "ANC 408 2023"

HORIZONTAL AND VERTICAL CONTROL STATEMENT

The coordinate system for this survey is Alaska State Plane Zone 4 (NAD83). The Vertical Datum for this survey is NAVD88 (Geoid 12B). The Basis of Coordinates and Vertical Elevation is from CORS station ANC2, broadcasting on November 2, 2023, the following coordinates and heights:

Northing: 2,621,462.07'
 Easting: 1,643,344.12'
 Ellipsoid Height: 188.37'
 Orthometric Height: 168.10'

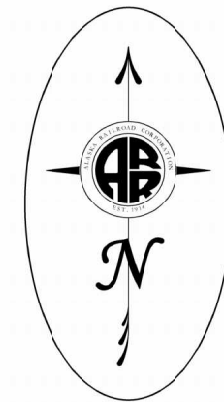
Control values, both horizontal and vertical, were determined with long, repeat RTK GPS (2 x 180 seconds one day apart) observations from a GPS base station at Pt.401. The control value, horizontal and vertical, of Pt.401 was determined by RTK GPS methods from ANC2.

NOTES

- All dimensions and coordinates shown are in U.S. Survey Feet.
- Whether listed or not, all monuments or property markers, corners, or accessories, which will be disturbed or buried, shall be referenced and re-established in their original position (A.S. 19.10.260) and re-recorded (A.S. 34.65.040).
- It is the contractor's responsibility to verify all control prior to use.
- Alaska Railroad Corporation's (ARRC) Land Services completed this control survey in November 2023 to validate previously set control from other projects and to densify the control network prior to construction. Previous surveys to located features, such as underground utilities, were performed by RTK methods holding the broadcast value of ANC2.
- ARRC Boundary, Lease and other background information is shown for orientation purposes only.

LEGEND

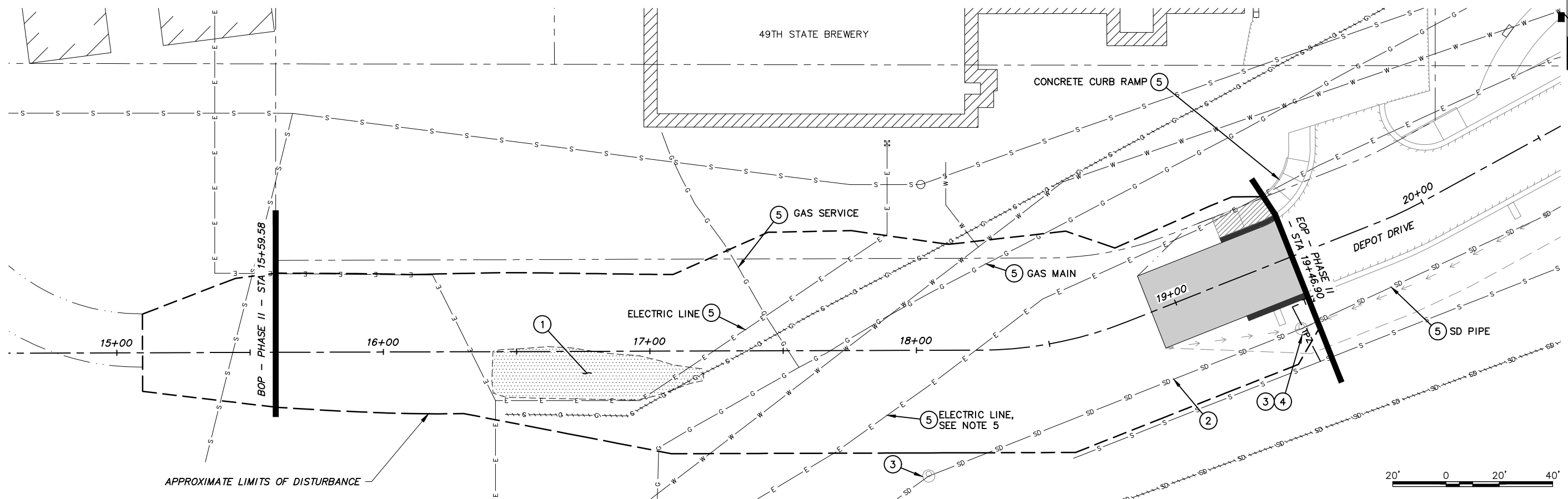
- RANDOM CONTROL MONUMENT
- TEMPORARY BENCH MARK
- POINT NUMBER IDENTIFIER
- RAILROAD TRACKS
- ARRC LEASE BOUNDARY or MOA PARCEL FROM GIS
- ARRC ANCHORAGE RESERVE BOUNDARY
- BUILDING



PREPARED BY ARRC LAND SERVICES
 327 W SHIP CREEK AVE
 ANCHORAGE, AK 99501
 907-265-2411
 LANDSERVICES@AKRR.COM

ALASKA RAILROAD CORPORATION
 REAL ESTATE DEPARTMENT, LAND SERVICES
 P.O. BOX 107500, ANCHORAGE, ALASKA 99510-7500
ARRC Depot Drive Improvements - Phase II Survey Control Sheet
 DRAWN BY: DCA DATE: 2023-12-06
 CHECKED BY: JSR
 APPROVED BY: JSR
Anchorage Terminal Reserve
 ORIGINAL SIZE: 22"x34" **Sheet V1 of V1**

File: \\cwrw.com\Projects\JobsData\31105.03\Depot Drive Ph. 1\100_Coord_2019\01 Working Set\01 Civil\31105.03 Demolition.dwg PLOT DATE: 12/7/2023 3:47 PM



LEGEND

- ① CLEAR AND GRUB WITHIN LIMITS OF DISTURBANCE AFTER CLEARING LIMITS HAVE BEEN APPROVED BY ENGINEER AND AFTER TEMPORARY TREE PROTECTION FENCES (SECTION 75.12) HAVE BEEN ESTABLISHED AS SHOWN, OR AS DIRECTED BY THE ENGINEER IN THE FIELD (SECTION 20.04). NOT ALL TREES, SHRUBS, AND VEGETATION ARE SPECIFICALLY CALLED OUT OR SHOWN.
- ② REMOVE PIPE (SECTION 70.07).
- ③ CONNECT TO EXISTING STORM DRAIN MANHOLE (SECTION 55.04).
- ④ ADJUST STORM DRAIN MANHOLE TO FINISH GRADE (SECTION 55.08)
- ⑤ PROTECT IN PLACE
- REMOVAL OF CURB & GUTTER AS SHOWN & NOTED IN SUMMARY TABLES.
- REMOVAL OF PAVEMENT AS SHOWN & NOTED IN SUMMARY TABLES.
- REMOVAL OF SIDEWALK AS SHOWN & NOTED IN SUMMARY TABLES.
- CLEARING AND GRUBBING (SECTION 20.04)
- - - APPROXIMATE LIMITS OF DISTURBANCE
- TPZ - TEMPORARY TREE PROTECTION FENCE (SECTION 75.12), LOCATIONS TO BE FIELD VERIFIED, SEE SHEET L2 FOR DETAIL.

NOTES:

1. SEE SUMMARY TABLES FOR STATION AND OFFSET OF DEMOLITION ITEMS.
2. SEE ROADWAY IMPROVEMENTS (R) SHEETS FOR EXTENT OF PROPOSED.
3. SEE STORM DRAIN (SD) SHEETS FOR MORE INFORMATION.
4. SEE ILLUMINATION (I) SHEETS FOR ADDITIONAL DEMO ITEMS.
5. EXISTING ELECTRIC LINE IS A SHALLOW BURIED CONCRETE ENCASED DUCT BANK CONTAINING HIGH VOLTAGE. CONTRACTOR SHALL POTHOLE THE UTILITY TO DETERMINE DEPTH PRIOR TO BEGINNING DEMOLITION AND STORM DRAIN WORK. USE EXTREME CAUTION WHEN EXCAVATING WITHIN 10' OF THE ELECTRIC LINE.

70.07				
REMOVE PIPE ②				
APPX STATION BEGIN	APPX OFFSET (FT)	APPX STATION END	APPX OFFSET (FT)	LENGTH (FT)
18+04.5	47.2 RT	19+40.3	26.5 RT	150

20.07				
REMOVE SIDEWALK OR CONCRETE APRON				
APPX STATION BEGIN	APPX OFFSET (FT)	APPX STATION END	APPX OFFSET (FT)	AREA (SY)
19+24.30	16.5 LT	19+46.48	17.1 LT	19

20.08				
REMOVE CURB AND GUTTER				
APPX STATION BEGIN	APPX OFFSET (FT)	APPX STATION END	APPX OFFSET (FT)	(LF)
19+24.30	14.5 LT	19+46.90	15.2 LT	22
19+22.98	14.5 RT	19+46.90	14.5 RT	24

20.09		
REMOVE EXISTING PAVEMENT		
STATION TO STATION	OFFSET (FT)	AREA (SY)
18+90.30 TO 19+46.90	LT&RT	183

55.04	
CONNECT TO EXISTING STORM DRAIN SYSTEM ③	
APPX STATION	APPX OFFSET (FT)
18+04	47.2 RT
19+40	26.5 RT

55.08			
ADJUST STORM DRAIN MANHOLE TO FINISH GRADE ④			
APPX STATION	APPX OFFSET (FT)	EXISTING GRADE (FT)	PROPOSED TOP OF CASTING ELEVATION (FT)
19+40.30	26.5 RT	24.66	24.39



PROJECT NO.	31105.03
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

ARRC DEPOT DRIVE IMPROVEMENTS - PHASE II
 DEMOLITION PLAN & SUMMARY TABLES

PROJECT NO.:
 STATUS: FINAL DESIGN
 DATE: DECEMBER 2023

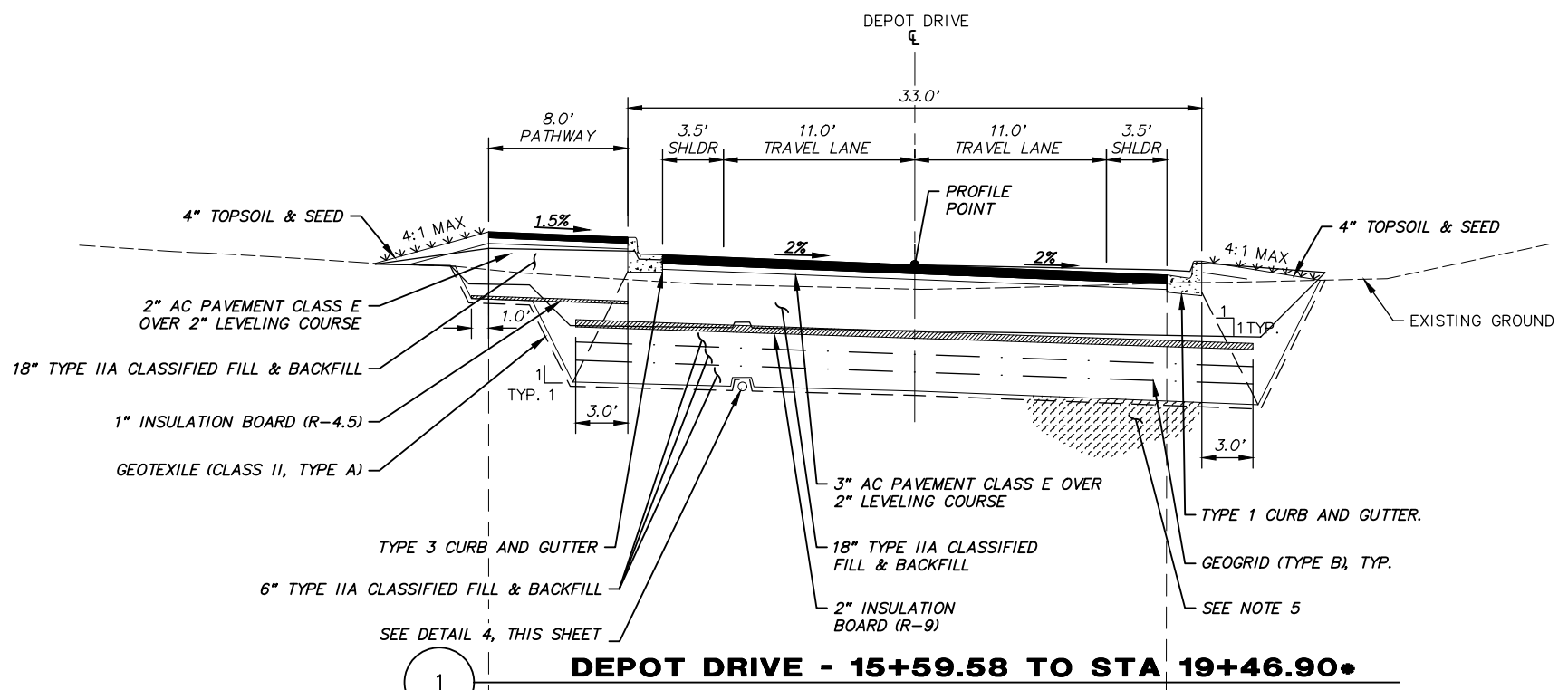
REV	DATE	DESCRIPTION	BY

SCALE	HOR. 1" = 20'
VER.	N/A
DESIGNED BY	MS
DRAWN BY	MS
CHECKED BY	MH
APPROVED BY	MH

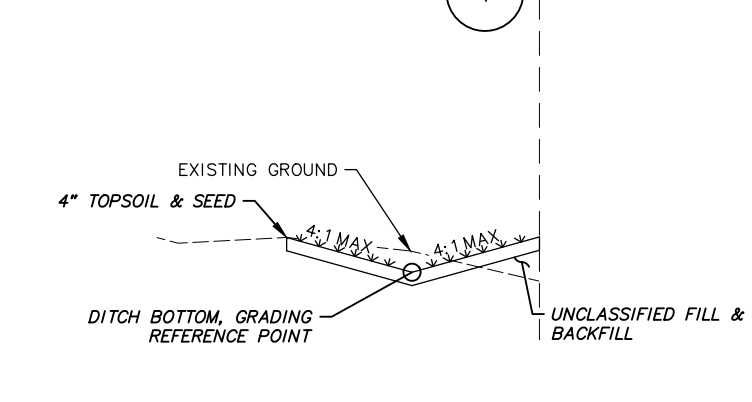
REV	DATE	DESCRIPTION	BY

NOTES

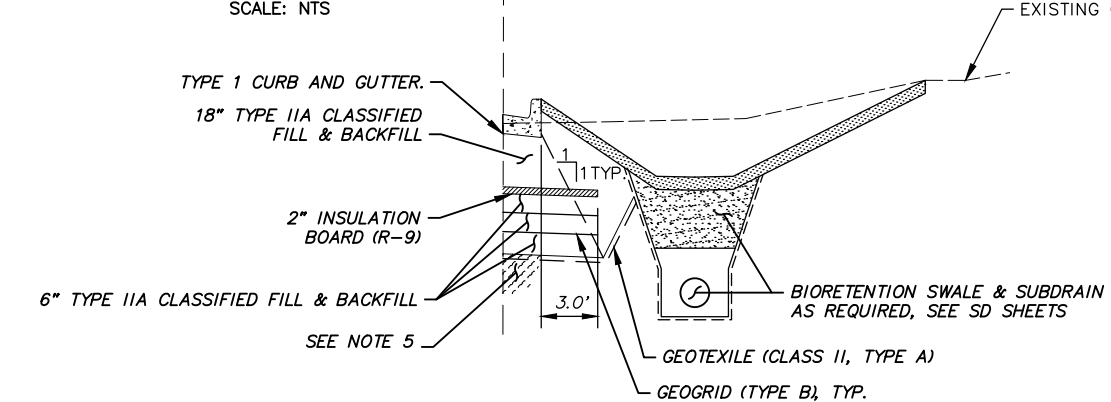
- ALL TRANSITIONS IN SUBBASE THICKNESS SHOULD BE GRADED MINIMUM 8H:1V LONGITUDINALLY AND 4H:1V IN TRANSVERSE DIRECTION, UNLESS OTHERWISE NOTED.
 - ALL TRANSITIONS IN INSULATION SHOULD BE STEPPED DOWN IN 1 INCH INCREMENTS.
 - BOARD INSULATION SHOULD HAVE A MINIMUM R-VALUE 4.5 PER INCH, 60 PSI COMPRESSIVE STRENGTH, AND MAXIMUM WATER ABSORPTION OF 0.3 PERCENT BY VOLUME IN ACCORDANCE WITH MASS.
 - PLACE 4" TOPSOIL AND SEEDING ON ALL DISTURBED AREAS; SEE LANDSCAPING (L) SHEETS FOR MORE INFORMATION.
 - IF ENCOUNTERED, AND AS DIRECTED BY THE ENGINEER, REMOVE SOFT SUBGRADE, PEAT, OR ORGANICS AND BACKFILL WITH TYPE II CLASSIFIED FILL AND BACKFILL.
 - SEE ROADWAY (R) SHEETS FOR MORE INFORMATION.
 - SEE STORM DRAIN (SD) SHEETS FOR MORE INFORMATION.
 - GEOGRID SHALL BE TYPE B REINFORCEMENT PER MASS AND MEET TYPE 2 STRENGTH PER AASHTO M 288.
- * TRANSITION FILL SLOPE TO BIORETENTION SWALE BETWEEN STA 16+90.00 AND 17+07.98 CONTINUOUSLY.
 ** TRANSITION TO MATCH EXISTING GROUND CONTINUOUSLY OVER 50'. ENSURE POSITIVE DRAINAGE.
 *** SEE SHEET R2 FOR DRIVEWAY LAYOUT AND GRADING LIMITS.



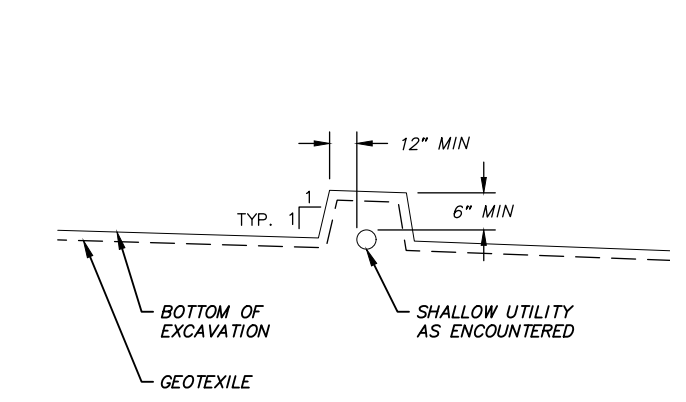
DEPOT DRIVE - 15+59.58 TO STA 19+46.90*
SCALE: NTS



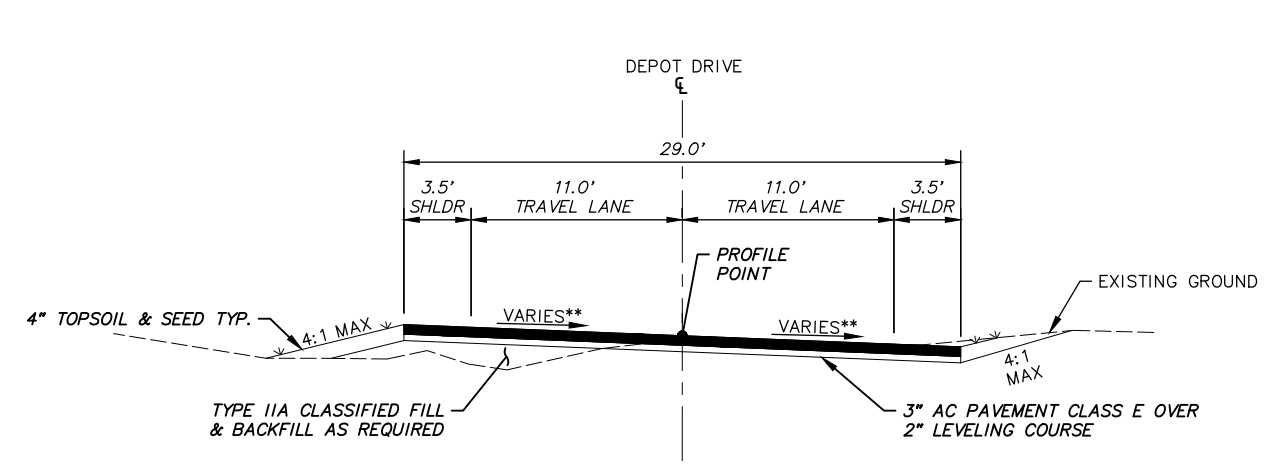
DEPOT DRIVE DITCH - 17+08.75 TO STA 18+86.33
SCALE: NTS



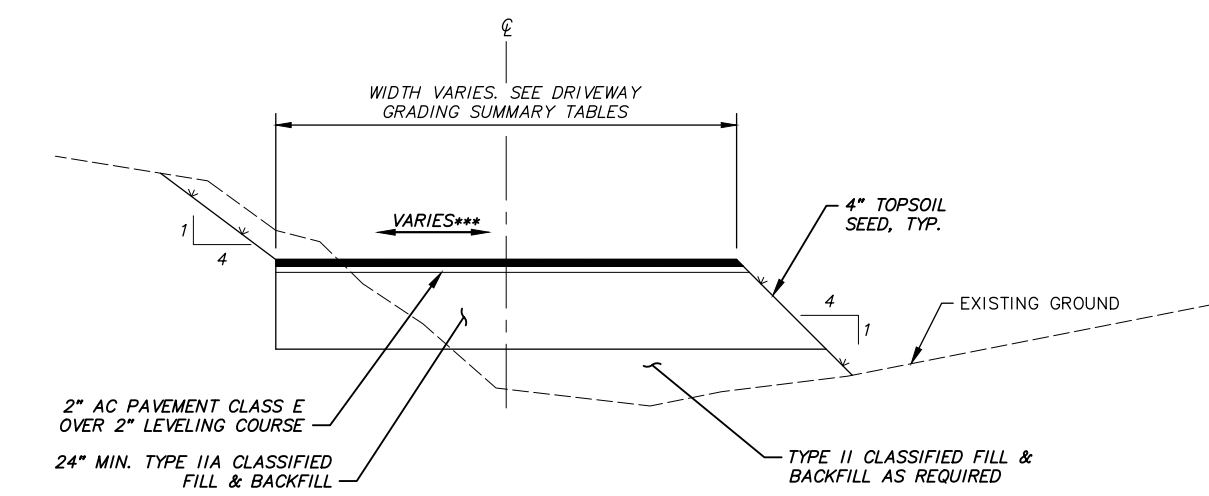
DEPOT DRIVE BIOSWALE - 17+07.98 TO STA 19+46.90*
SCALE: NTS



SHALLOW UTILITY DETAIL
SCALE: NTS



DEPOT DRIVE BOP TRANSITION - STA 15+09.58 TO STA 15+59.58
SCALE: NTS



49TH STATE BREWERY DRIVEWAY
SCALE: NTS

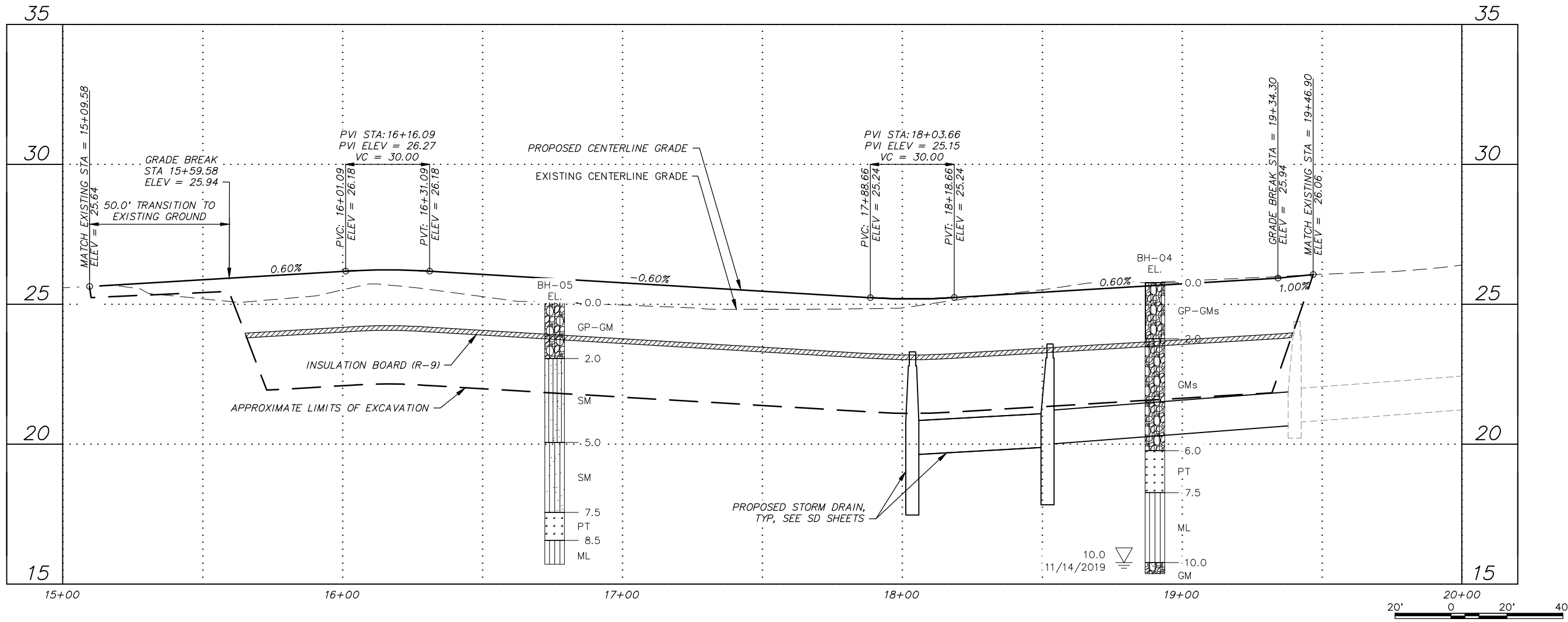
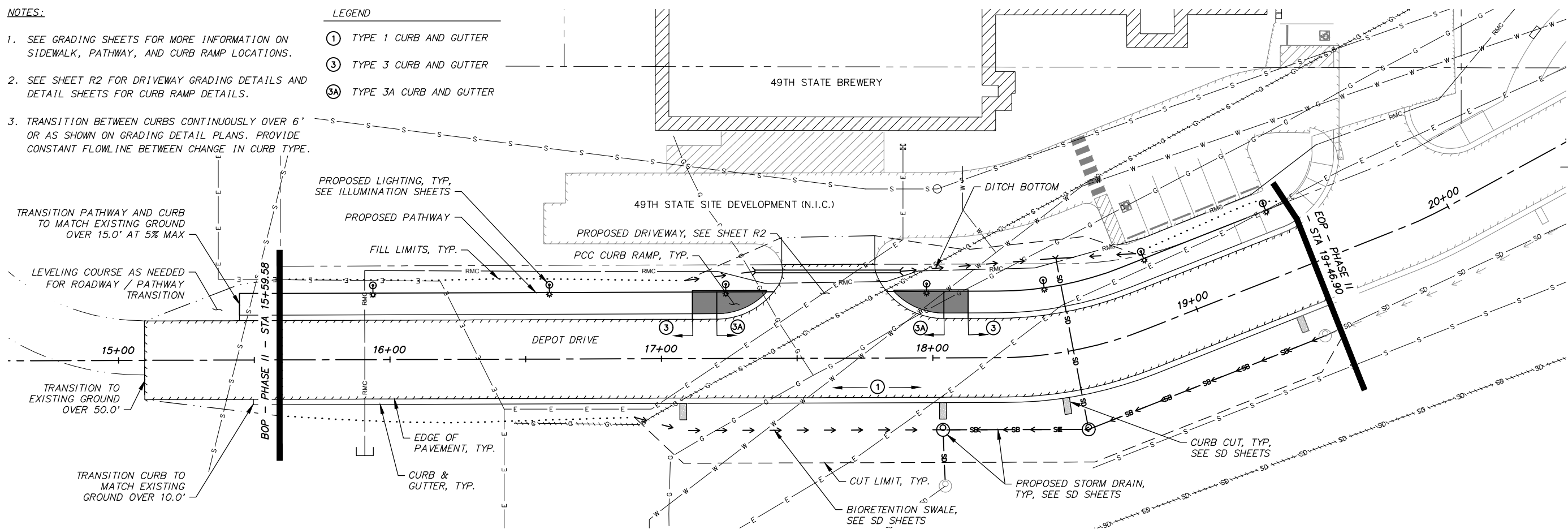
File: \\crweng.com\Projects\JobsData\31105.03\Depot Drive Ph II\00_Coord_2019\01 Working Set\01 Civil\31105.03 - Typical Sections.dwg PLOT DATE: 12/17/2023 3:06 PM

NOTES:

1. SEE GRADING SHEETS FOR MORE INFORMATION ON SIDEWALK, PATHWAY, AND CURB RAMP LOCATIONS.
2. SEE SHEET R2 FOR DRIVEWAY GRADING DETAILS AND DETAIL SHEETS FOR CURB RAMP DETAILS.
3. TRANSITION BETWEEN CURBS CONTINUOUSLY OVER 6' OR AS SHOWN ON GRADING DETAIL PLANS. PROVIDE CONSTANT FLOWLINE BETWEEN CHANGE IN CURB TYPE.

LEGEND

- ① TYPE 1 CURB AND GUTTER
- ③ TYPE 3 CURB AND GUTTER
- ③A TYPE 3A CURB AND GUTTER



File: \\crweng.com\Projects\JobsData\31105.03 Depot Drive Ph 1\100_Coord_2019\01 Working Set\01 Civil\31105.03 Road P&P.dwg PLOT DATE: 12/17/2023 3:41 PM



PROJECT NO.	31105.03
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

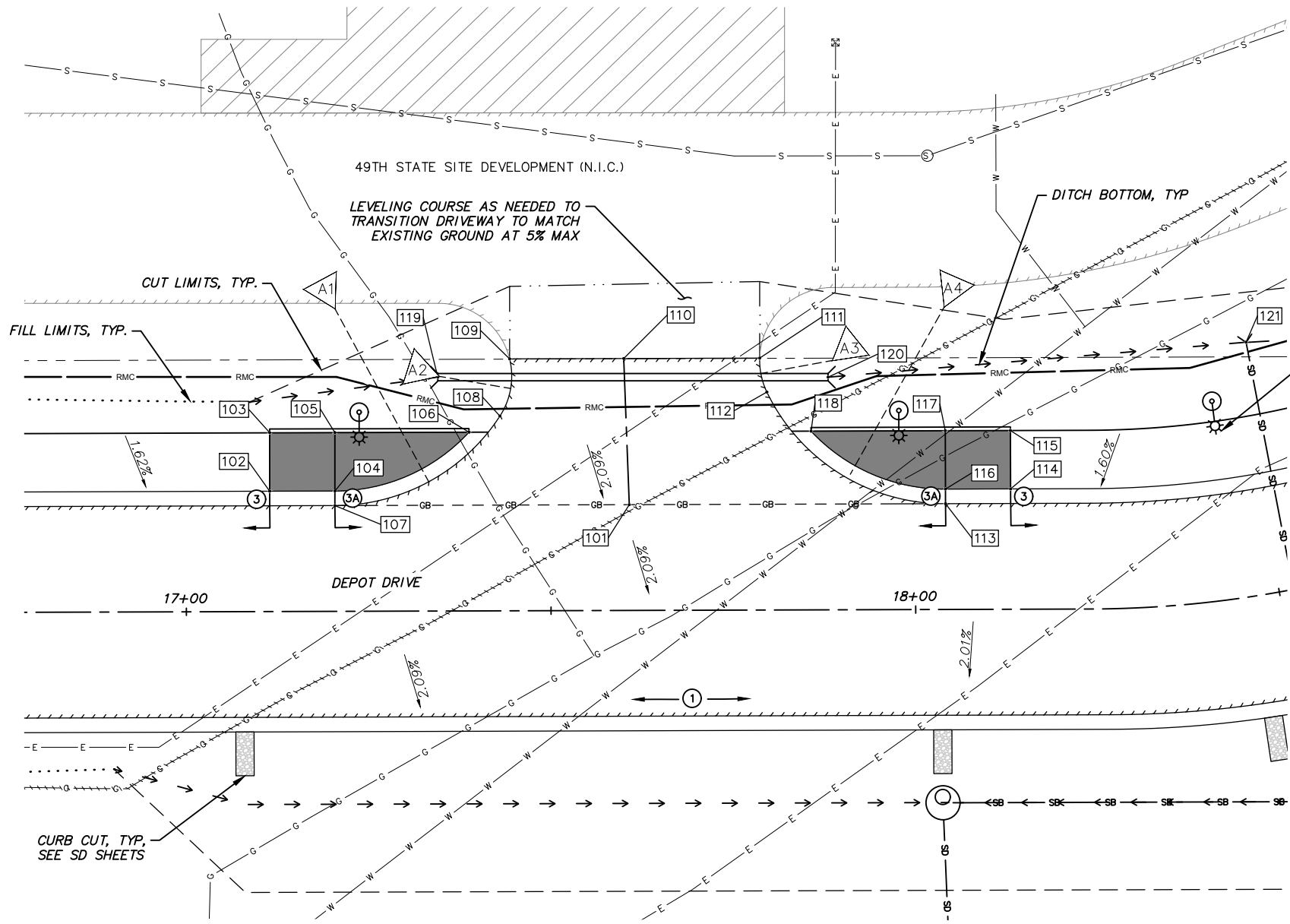
ARRC DEPOT DRIVE IMPROVEMENTS - PHASE II
ROAD PLAN & PROFILE
 STATUS: FINAL DESIGN
 DATE: DECEMBER 2023

REV	DATE	DESCRIPTION	BY

DESIGNED BY	MS
DRAWN BY	MS
CHECKED BY	MH
APPROVED BY	MH

SCALE: HOR. 1" = 20'
 VER. 1" = 2'
 SHEET NO. **R1**

File: \\cwrw.com\Projects\JobsData\31105.03 Depot Drive Ph II\00_Coord_2019\01 Working Set\01 Civil\31105.03 Driveway Grading.dwg PLOT DATE: 12/7/2023 3:07 PM



- LEGEND**
- ① TYPE 1 CURB AND GUTTER
 - ③ TYPE 3 CURB AND GUTTER
 - ③A TYPE 3A CURB AND GUTTER
 - 1.5% PROPOSED DIRECTION OF DRAINAGE AND GRADE
 - ▭ PCC CURB RAMP
 - - GB - - GRADE BREAK

- NOTES:**
- SEE STORM DRAIN (SD) SHEETS FOR LOCATIONS & ELEVATIONS OF SD PIPES & STRUCTURES.
 - THE MAXIMUM CROSS-SLOPE BETWEEN EDGES OF CURB RAMP EXTENDED SHALL BE 2%. IF A 2% CROSS-SLOPE CANNOT BE MAINTAINED NOTIFY ENGINEER PRIOR TO INSTALLATION OF AC PAVEMENT.
 - UNLESS OTHERWISE SHOWN, PROVIDE TRANSITION BETWEEN CURB TYPES CONTINUOUSLY OVER 6'. PROVIDE CONSTANT FLOWLINE BETWEEN CHANGE IN CURB TYPE.
 - SEE C1 FOR DRIVEWAY TYPICAL SECTION.
 - SEE DETAIL (D) SHEETS FOR CURB RAMP DETAILS.
 - MAINTAIN A MINIMUM SLOPE OF 0.5% ALONG FLOW LINE OF CURB.

POINT SUMMARY - 49TH STATE BREWERY DRIVEWAY

POINT #	STATION	OFFSET (FT)	ELEVATION (FT)	DESCRIPTION
101	17+60.77	14.50 LT	25.70	DRIVEWAY REFERENCE CENTERLINE
102	17+11.47	16.50 LT	26.53	TBC, BEGIN RAMP
103	17+11.50	24.53 LT	26.64	EOC, BEGIN RAMP
104	17+20.41	16.50 LT	26.03	TBC, PT CURVE, END RAMP, BEGIN LANDING
105	17+20.44	24.50 LT	26.15	EOC, END RAMP, BEGIN LANDING
106	17+38.84	24.50 LT	26.13	TBC, PC CURVE, END LANDING
107	17+20.41	14.50 LT	25.94	EOP, PT CURVE A1
108	17+43.07	26.70 LT	26.04	EOP, PCC CURVE A1 & A2
109	17+44.43	34.54 LT	26.12	EOP, PC CURVE A2
110	17+60.07	34.54 LT	26.01	DRIVEWAY REFERENCE CENTERLINE
111	17+78.71	34.54 LT	25.87	EOP, PC CURVE A3
112	17+79.68	29.88 LT	25.82	EOP, PCC CURVE A3 & A4
113	18+04.13	14.50 LT	25.48	EOP, PT CURVE A4
114	18+13.06	16.50 LT	26.04	TBC, BEGIN RAMP
115	18+13.06	24.50 LT	26.16	EOC, BEGIN RAMP
116	18+04.13	16.50 LT	25.58	TBC, PT CURVE, BEGIN LANDING, END RAMP
117	18+04.13	24.50 LT	25.70	EOC, BEGIN LANDING, END RAMP
118	17+85.72	24.50 LT	25.89	TBC, PC CURVE, END LANDING
119	17+34.57	32.06 LT	23.90	P1-1 IN, DITCH BOTTOM
120	17+88.08	31.89 LT	23.63	P1-1 OUT, DITCH BOTTOM
121	18+51.98	34.50 LT	23.33	P1-2 IN, DITCH BOTTOM

RADIUS TABLE

POINT #	STATION	OFFSET (FT)	RADIUS (FT)
A1	17+20.49	41.50 LT	27.0
A2	17+34.71	32.18 LT	10.0
A3	17+88.71	34.18 LT	10.0
A4	18+04.05	41.50 LT	27.0

PROJECT NO. 31105.03

CITY GRID 1230

WATER GRID 1230

SEWER GRID 1230

ARRC DEPOT DRIVE IMPROVEMENTS - PHASE II

DRIVEWAY GRADING

DATE: DECEMBER 2023

PROJECT NO. 31105.03

STATUS: FINAL DESIGN

SCALE: 1" = 10'

DESIGNED BY: MS

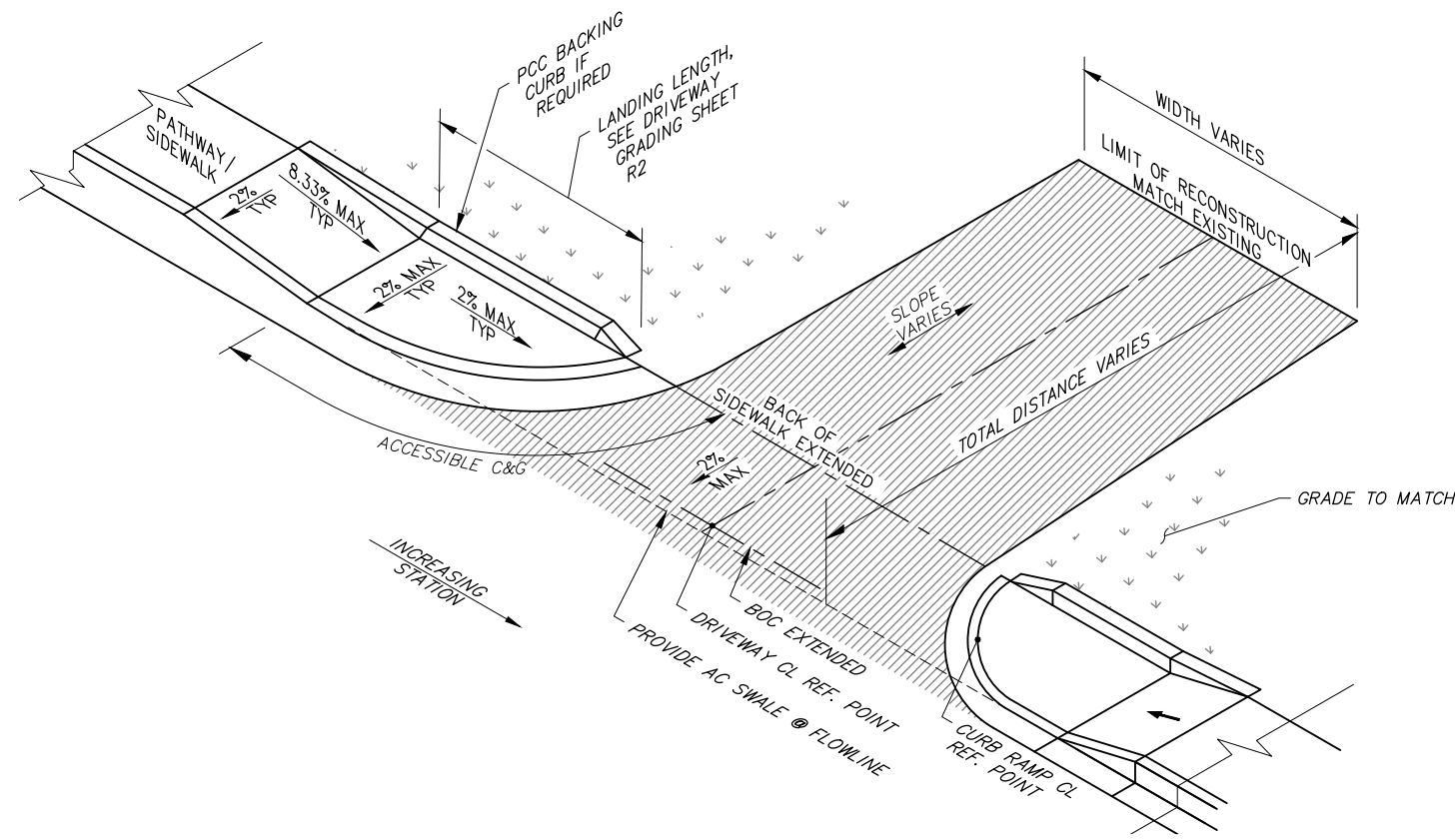
DRAWN BY: MS

CHECKED BY: MH

APPROVED BY: MH

R2

File: \\crweng.com\Projects\JobsData\31105.03 Depot Drive Ph II\00 Coord 2019\01 Working Set\01 Civil\31105.03 - Roadway_Details.dwg PLOT DATE: 12/17/2023 3:08 PM



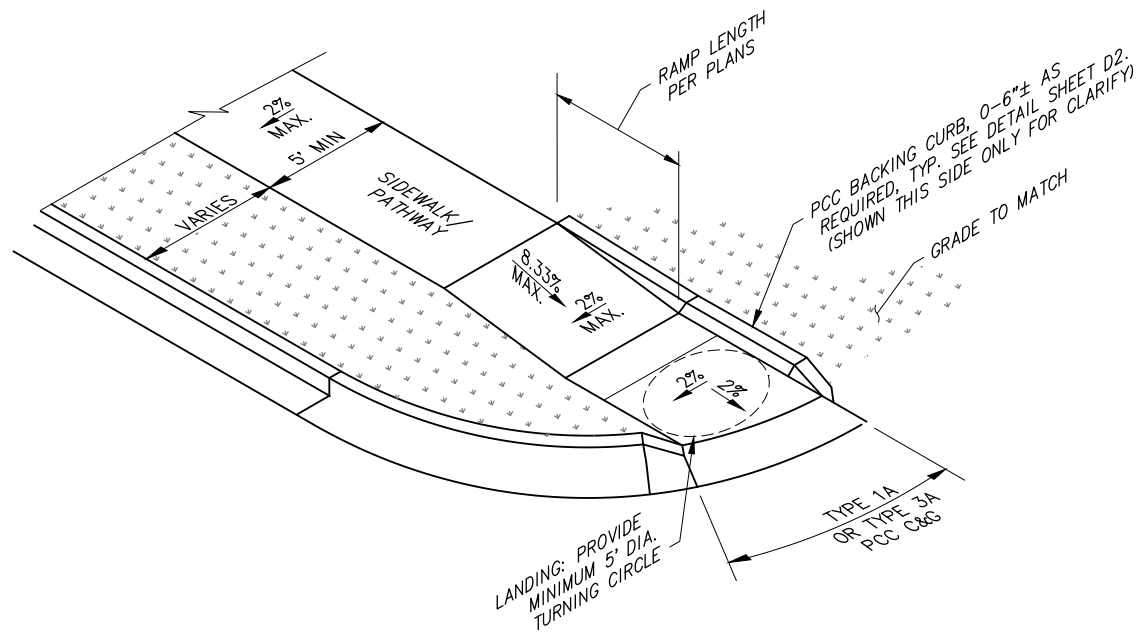
LEGEND:

LIMITS OF 2" AC PAVING

DRIVEWAY NOTES

1. ALL SLOPES ARE IN REFERENCE TO THE HORIZONTAL.
2. CENTER THE PROPOSED DRIVEWAY ENTRANCES ON DRIVEWAY CENTERLINE REFERENCE POINT.
3. SEE R2 FOR DRIVEWAY SPECIFICS & RAMP LENGTHS.

2 TYPICAL DRIVEWAY CURB RETURN WITH ATTACHED SIDEWALK/PATHWAY
SCALE: NTS



SHEET NOTES

1. SEE SHEET R2 FOR CURB RAMP LOCATIONS AND RAMP, LANDING, AND FLARE LENGTHS AND ELEVATIONS. RAMP/FLARE/LANDING LENGTH FOR PARALLEL CURB RAMPS SHALL BE AS MEASURED 3' OFF BACK OF CURB.
2. NOTIFY ENGINEER PRIOR TO INSTALLATION OF CONCRETE IF MAXIMUM/MINIMUM SLOPES CANNOT BE MAINTAINED.
3. ALL SLOPES ARE IN REFERENCE TO THE HORIZONTAL.
4. MINIMUM FLOWLINE SLOPE ALONG CURB RETURN IS 0.5%. NOTIFY ENGINEER IF MINIMUM SLOPE CAN'T BE MAINTAINED.
5. PROVIDE CONSTANT FLOWLINE BETWEEN CHANGES IN CURB TYPE.
6. CONSTRUCT SIDEWALK ADJACENT TO CURB RAMP PER THE TYPICAL SECTIONS SHOWN ON "C" SHEETS.
7. FORM BACKING CURB AS DIRECTED BY THE ENGINEER TO MATCH EXISTING GROUND. 4" TOPSOIL AND SEEDING SHALL BE PLACED ON DISTURBED GRASS AREAS PER THE LANDSCAPING PLANS.
8. CONSTRUCT RAMPS AND LANDINGS WITH A BROOM FINISH RUNNING PERPENDICULAR TO THE DIRECTION OF TRAVEL.
9. RAMP LOCATIONS MAY BE ADJUSTED TO ENSURE MINIMUM 48" CLEARANCE AROUND APPURTENANCES SUCH AS SIGNAL POLES, POWER POLES, LIGHT POLES, J-BOXES, SIGNS, CATCH BASINS AND MANHOLES. PRIOR TO PLACEMENT OF CONCRETE AND APPURTENANCES, THE RAMP LAYOUT AND LOCATION SHALL BE APPROVED BY THE ENGINEER.

1 TYPICAL UNIDIRECTIONAL CURB RAMP
SCALE: NTS

30.04 P.C.C. CURB RAMP					
SHEET	STATION	OFFSET (FT)	CURB RAMP TYPE	DETECTABLE WARNING	COMMENTS
R2	17+11.47	16.50 LT.	UNIDIRECTIONAL	NO	49TH STATE BREWERY DRIVEWAY
R2	18+13.06	16.50 LT.	UNIDIRECTIONAL	NO	49TH STATE BREWERY DRIVEWAY

SEE INTERSECTION LAYOUT AND DRIVEWAY GRADING SHEET R2 FOR CURB RAMP.



PROJECT NO.	31105.03
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

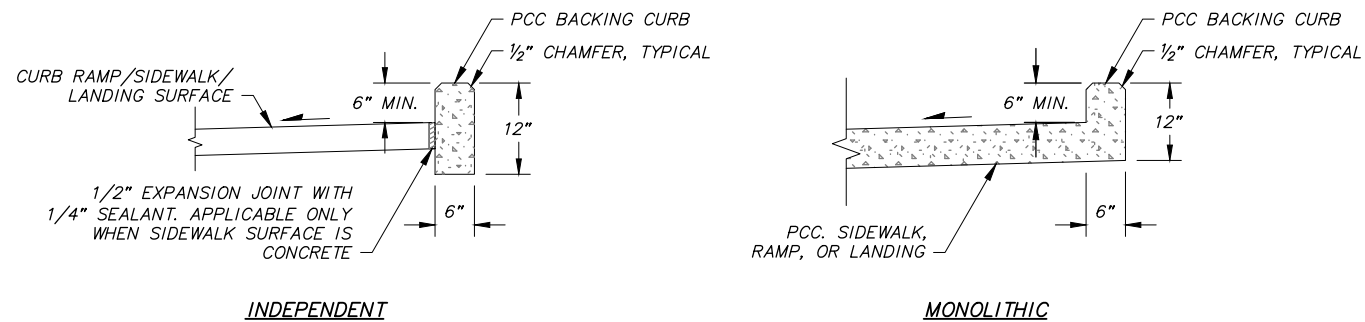
ARRC DEPOT DRIVE IMPROVEMENTS - PHASE II
CURB RAMP DETAILS
PROJECT NO. 31105.03
DATE: DECEMBER 2023
STATUS: FINAL DESIGN

REV	DATE	DESCRIPTION	BY

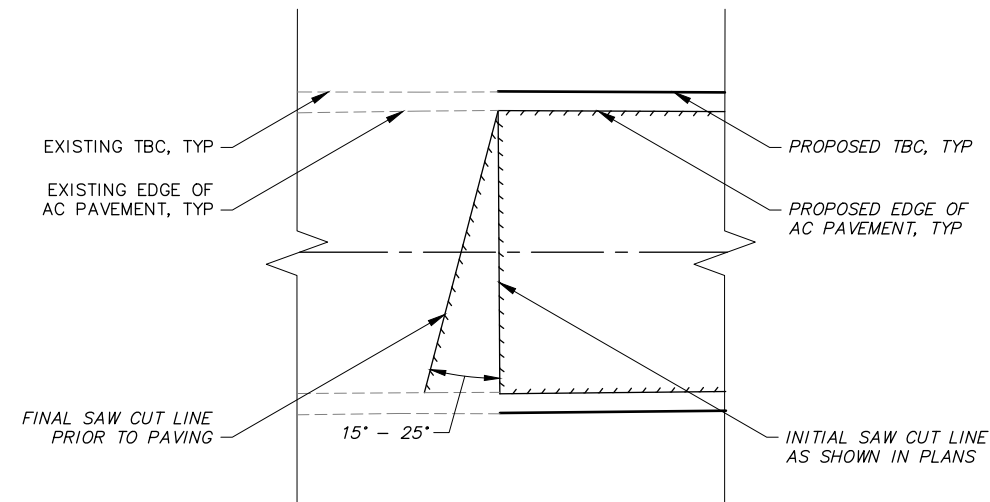
SCALE	HOR. N/A	VER. N/A
DESIGNED BY	MS	MS
DRAWN BY	MS	MS
CHECKED BY	MH	MH
APPROVED BY	MH	MH

SHEET NO. **D1**

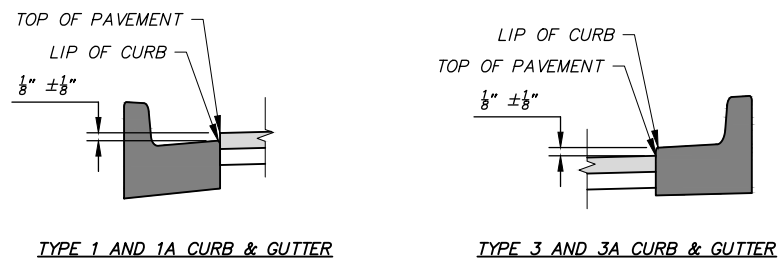
File: \\crweng.com\Projects\JobsData\31105.03 Depot Drive Ph II\00 Coord 2019\01 Working Set\01 Civil\31105.03 - Roadway_Details.dwg PLOT DATE: 12/17/2023 3:08 PM



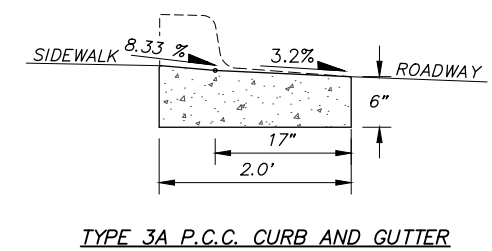
1 **BACKING CURB DETAILS**
SCALE: NTS



2 **TRANSVERSE SAW CUT JOINT DETAIL**
SCALE: NTS



3 **PAVEMENT-CURB INTERFACE DETAIL**
SCALE: NTS



4 **3A CURB & GUTTER DETAIL**
SCALE: NTS

- CURB AND GUTTER NOTES**
- ALL CURBS AND GUTTERS SHALL BE CONSTRUCTED IAW MASS SECTION 30.02 - "PORTLAND CEMENT CONCRETE, CURB & GUTTER, AND VALLEY GUTTER".
 - TRANSITION CURBS TO MAINTAIN CONSTANT FLOWLINE ACROSS CURB RAMP IAW PLANS.

PROJECT NO.	31105.03
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

ARRC DEPOT DRIVE IMPROVEMENTS - PHASE II

ROADWAY DETAILS

DATE: DECEMBER 2023

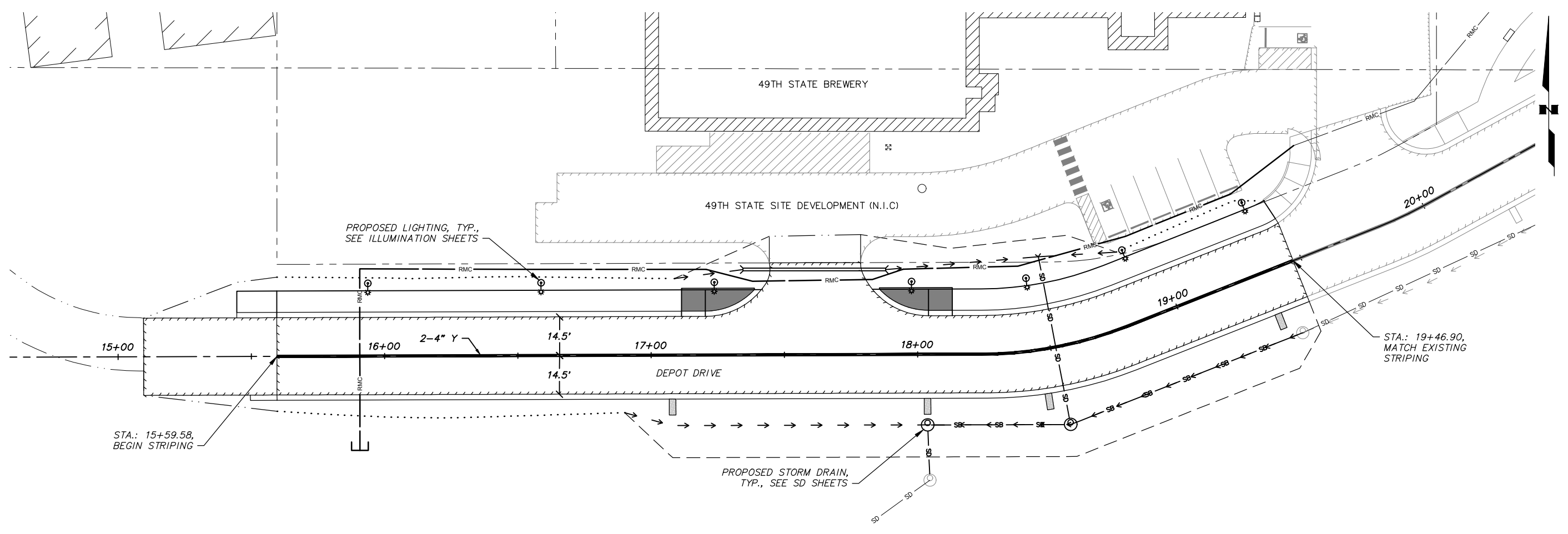
STATUS: FINAL DESIGN

REVISION	BY	DESCRIPTION	DATE

SCALE	HOR. N/A	VER. N/A
DESIGNED BY	MS	MS
DRAWN BY	MS	MS
CHECKED BY	MH	MH
APPROVED BY	MH	MH

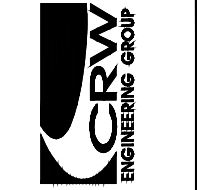
SHEET NO. **D2**

File: \\crweng.com\Projects\JobsData\31105.03 Depot Drive Ph 1\100_Coord_2019\01 Working Set\01 Civil\31105.03 Striping & Striping.dwg PLOT DATE: 12/7/2023 3:35 PM



STRIPING NOTES:

1. ALL STRIPING SHALL CONFORM TO THESE CONTRACT DOCUMENTS AND STANDARD MASS DETAILS. ALL REVISIONS SHALL CONFORM TO THE LATEST EDITION OF THE ALASKA TRAFFIC MANUAL AND THE MUTCD.
2. UNLESS OTHERWISE NOTED, PROVIDE METHYL METHACRYLATE PAINT OF THE COLORS AND WIDTHS SPECIFIED FOR THE TRAFFIC MARKINGS INDICATED IN THE DRAWINGS. PROVIDE 90 MIL GROOVED-IN APPLICATION FOR ALL PAVEMENT MARKINGS.
3. DIMENSIONS REFERENCE CENTER OF STRIPE TO CENTER OF STRIPE OR CENTER OF STRIPE TO EDGE OF PAVEMENT.
4. "Y" REFERENCES YELLOW MARKINGS.



PROJECT NO.	31105.03
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

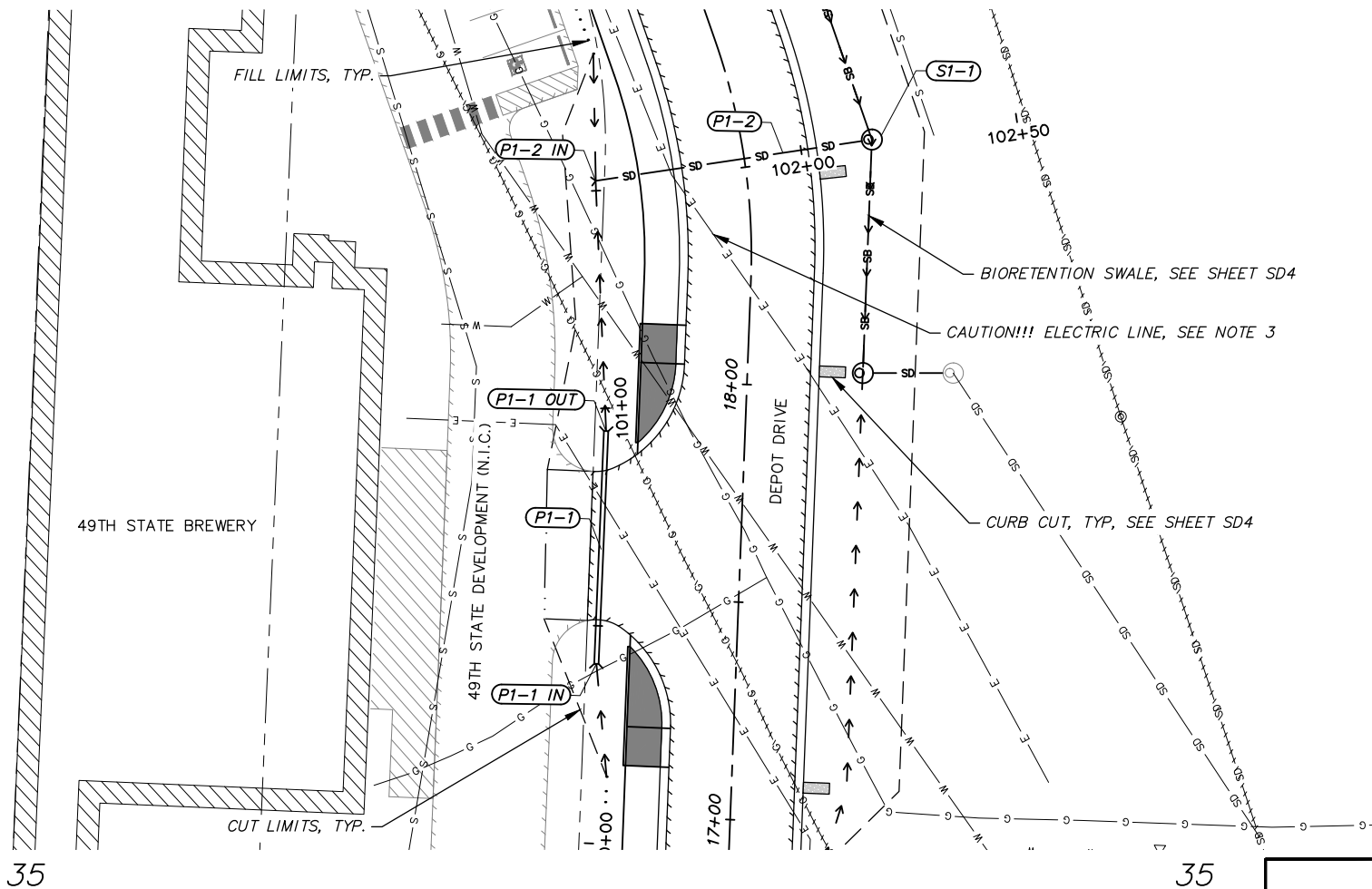
ARRC DEPOT DRIVE IMPROVEMENTS – PHASE II
STRIPING PLAN
 STATUS: FINAL DESIGN
 DATE: DECEMBER 2023

REV	DATE	DESCRIPTION	BY

SCALE	1" = 20'
HOR. VER.	N/A
DESIGNED BY	MS
DRAWN BY	MS
CHECKED BY	MH
APPROVED BY	MH

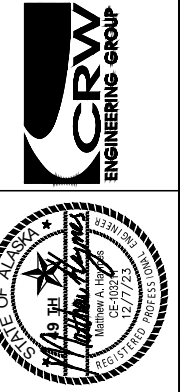
SHEET NO.
S1

File: \\crweng.com\Projects\JobsData\31105.03\Depot Drive Ph 1100_Corr\2019\01 Working Set\01 Civil\31105.03 Storm Drain P&P.dwg PLOT DATE: 12/7/2023 3:09 PM



NOTES:

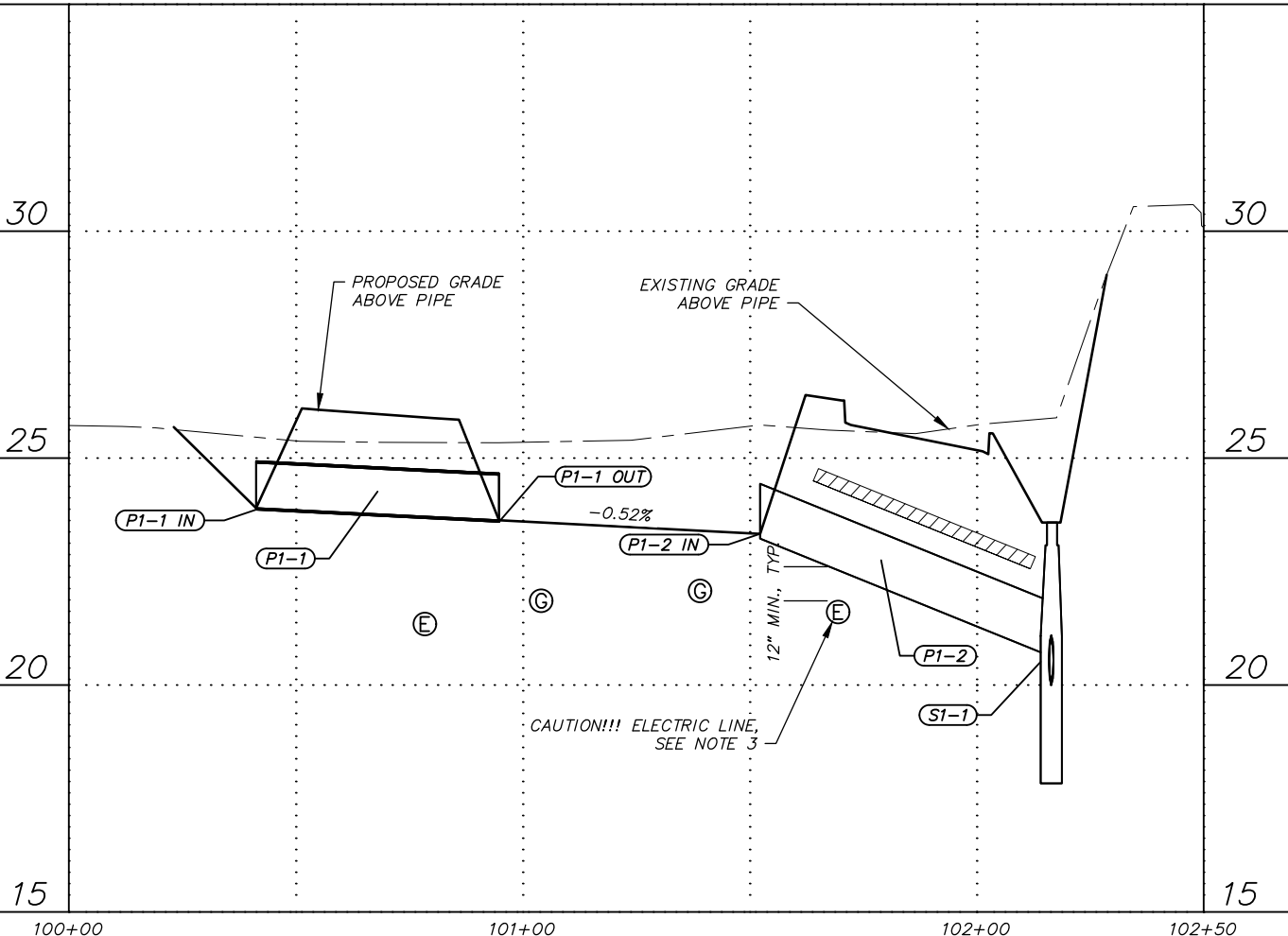
1. REFER TO SHEET SD3 FOR GENERAL STORM DRAIN STRUCTURE/PIPE NOTES AND STRUCTURE ABBREVIATIONS USED ON SUMMARY TABLES SHOWN ON THIS SHEET.
2. REFER TO SHEET SD3 FOR STORM DRAIN DETAILS.
3. EXISTING ELECTRIC LINE IS A SHALLOW BURIED CONCRETE ENCASED DUCT BANK CONTAINING HIGH VOLTAGE. CONTRACTOR SHALL POTHOLE THE UTILITY TO DETERMINE DEPTH PRIOR TO BEGINNING DEMOLITION AND STORM DRAIN WORK. USE EXTREME CAUTION WHEN EXCAVATING WITHIN 10' OF THE ELECTRIC LINE.



PROJECT NO.	31105.03
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

ARRC DEPOT DRIVE IMPROVEMENTS - PHASE II
STORM DRAIN PLAN & PROFILE

STATUS: FINAL DESIGN DATE: DECEMBER 2023



55.02 - STORM DRAIN PIPE								
PIPE NAME	SIZE (IN)	PIPE TYPE	LENGTH (FT.)	FROM	TO	INLET ELEVATION	OUTLET ELEVATION	SLOPE
P1-1	12"	CPEP, S	53.51	P1-1 IN	P1-1 OUT	23.90	23.63	0.50%
P1-2	12"	CPEP, S	64.12	P1-2 IN	S1-1	23.33	20.73	4.22%

55.05 - STORM DRAIN STRUCTURES						
STRUCTURE ID	TYPE OF STRUCTURE	TYPE OF CASTING	NORTHING	EASTING	TOP OF CASTING ELEVATION (FT)	COMMENTS
S1-1	MH 1 (RED HT)	MH	2638294.82	1658665.50	23.71	BEEHIVE INLET, PER MASS STANDARD DETAIL 55-9
P1-1 IN	END SECTION	-	2638353.00	1658542.57	-	CULVERT INLET
P1-1 OUT	END SECTION	-	2638363.00	1658596.08	-	CULVERT OUTLET
P1-2 IN	END SECTION	-	2638357.79	1658653.37	-	CULVERT INLET

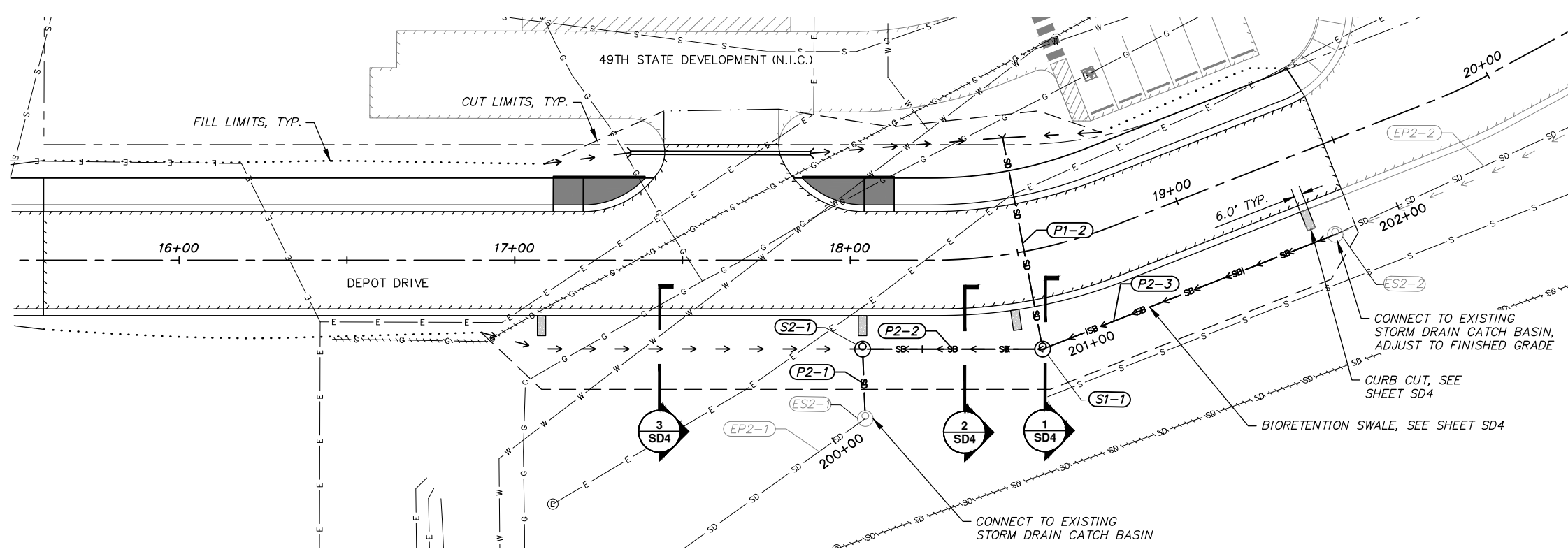
REV	DATE	DESCRIPTION	BY

SCALE	HOR. 1" = 20'
VER.	1" = 2'
DESIGNED BY	MS
DRAWN BY	MS
CHECKED BY	MH
APPROVED BY	MH

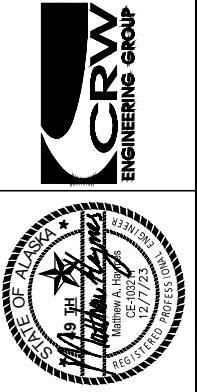
SHEET NO. SD1



File: \\csweng.com\Projects\JobsData\31105.03 Depot Drive Ph 1\100_Cadd_2019\01 Working Set\01 Civil\31105.03 Storm Drain P&P.dwg PLOT DATE: 12/7/2023 3:09 PM



- NOTES:**
- REFER TO SHEET SD3 FOR GENERAL STORM DRAIN STRUCTURE/PIPE NOTES AND STRUCTURE ABBREVIATIONS USED ON SUMMARY TABLES SHOWN ON THIS SHEET.
 - REFER TO SHEET SD3 FOR STORM DRAIN DETAILS.



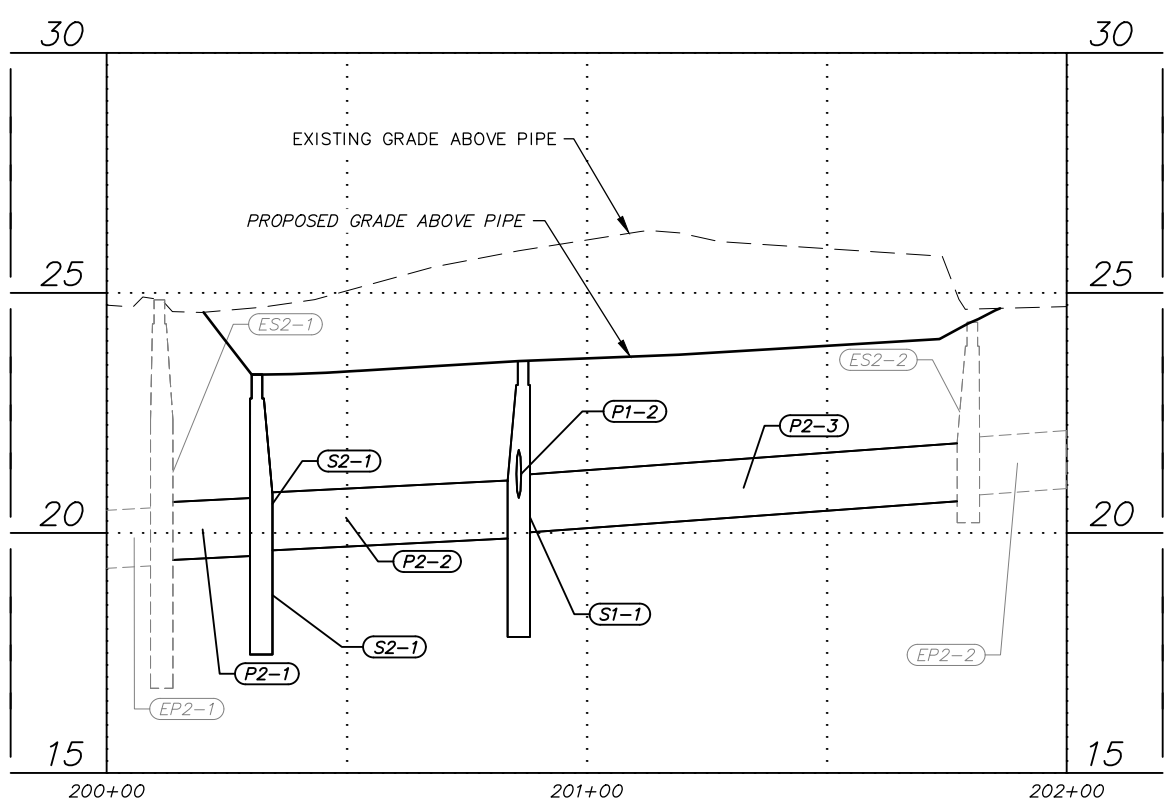
PROJECT NO.	31105.03
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

**ARRC DEPOT DRIVE IMPROVEMENTS – PHASE II
STORM DRAIN PLAN & PROFILE**

STATUS: FINAL DESIGN DATE: DECEMBER 2023

PIPE NAME	SIZE (IN)	PIPE TYPE	PIPE LENGTH (FT)	FROM	TO	INLET ELEVATION	OUTLET ELEVATION	SLOPE
P2-1	12"	CPEP, S	20.73	S2-1	ES2-1	19.63	19.53	0.50%
P2-2	12"	CPEP, SP	53.66	S1-1	S2-1	20.00	19.73	0.50%
P2-3	12"	CPEP, SP	93.65	ES2-2	S1-1	20.78	20.10	0.73%
EP2-1	12"	CPEP	EXISTING	ES2-1	-	19.43	-	-
EP2-3	12"	CPEP	EXISTING	-	ES2-2	-	20.88	-

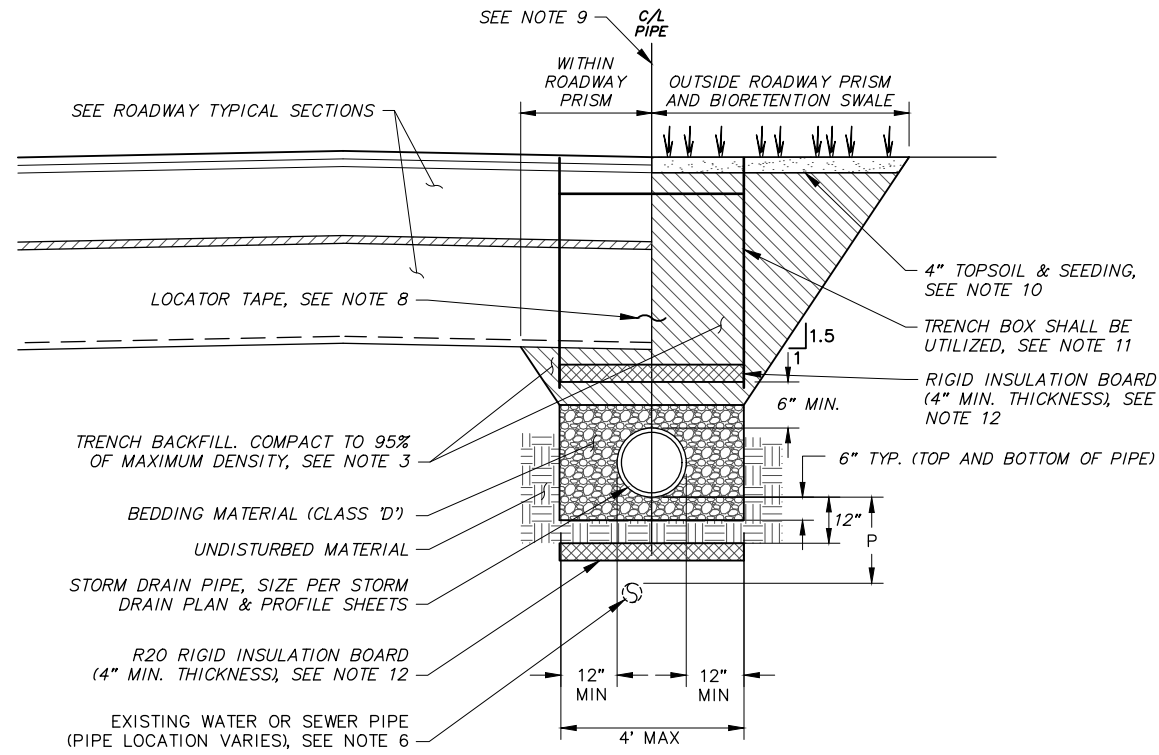
STRUCTURE ID	TYPE OF STRUCTURE	TYPE OF CASTING	NORTHING	EASTING	TOP OF CASTING ELEVATION (FT)	COMMENTS
S2-1	MH 1 (RED HT)	MH	2638294.40	1658529.31	23.81	BEEHIVE INLET, PER MASS STANDARD DETAIL 55-9
ES2-1	CONNECT	MH	2638273.94	1658612.71	24.86	EXISTING MH (TYPE 1)
ES2-2	CONNECT	MH	2638329.26	1658752.59	24.39	EXISTING MH (TYPE 1)



REV	DATE	DESCRIPTION	BY

SCALE	HOR. 1" = 20'
VER.	1" = 2'
DESIGNED BY	MS
DRAWN BY	MS
CHECKED BY	MH
APPROVED BY	MH

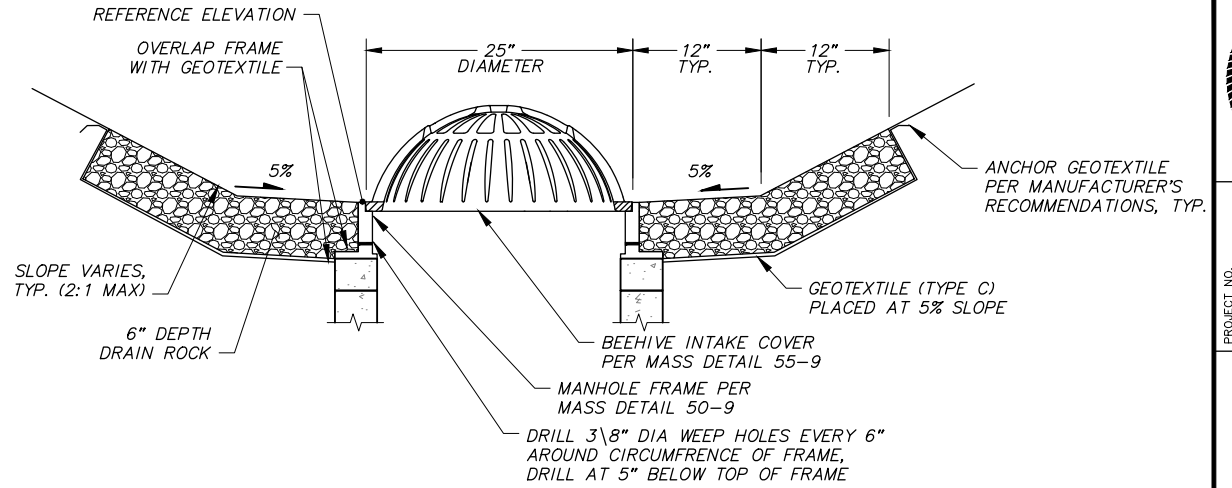
File: \\crweng.com\Projects\JobsData\31105.03\Depot Drive Ph II\00_Coord\2019\01 Working Set\01_Civil\31105.03 Storm Drain Details.dwg PLOT DATE: 12/7/2023 3:09 PM



1 TYPICAL STORM DRAIN TRENCH SECTION
SCALE: NTS

STORM DRAIN & SUBDRAIN TRENCH SECTION NOTES:

- SEE SHEET SD4 FOR BIORETENTION SWALE TRENCH SECTIONS
- TRENCH EXCAVATION AND SHORING SHALL COMPLY WITH ALL LOCAL, STATE, AND OSHA REGULATIONS AND REQUIREMENTS. INDICATED TRENCH WALL SLOPES AND DIMENSIONS ARE FOR PAY QUANTITY DETERMINATIONS ONLY.
- TRENCH BACKFILL SHALL BE NATIVE MATERIAL MEETING TYPE III CLASSIFICATION (MINIMUM) AS APPROVED BY THE ENGINEER. NATIVE MATERIAL NOT MEETING TYPE III CLASSIFICATION SHALL BE REMOVED AND REPLACED WITH TYPE II CLASSIFIED MATERIAL.
- REMOVE AND DISPOSE OF ALL ORGANIC MATERIALS IN ACCORDANCE WITH MASS SECTION 20.13.
- IN PREPARATION FOR AND IMMEDIATELY PRIOR TO PAVING, CONTRACTOR SHALL SAW CUT AND REMOVE AN ADDITIONAL 12 INCHES FROM EXISTING PAVEMENT EDGE. THE ENGINEER MAY REQUIRE MORE THAN 12 INCHES ADDITIONAL CUT IF THE EXISTING PAVEMENT HAS BEEN LIFTED IN THE REMOVAL PROCESS, IF THE JOINT DOES NOT OCCUR ON UNDISTURBED MATERIAL, OR IF THE JOINT IS LOCATED WITHIN THE TRAVEL LANE.
- WATER AND SEWER LINES CROSSING STORM DRAIN LINES REQUIRE A MINIMUM VERTICAL SEPARATION OF THREE (3) FEET. INSTALL R20 INSULATION BOARD WHEN 'P' IS LESS THAN 3', AS MEASURED FROM OUTSIDE OF PIPES & WITHIN BEDDING LIMITS, OR AS DIRECTED BY ENGINEER IN FIELD. EIGHTEEN (18) INCHES IS THE MINIMUM INSULATED SEPARATION DISTANCE. IF EIGHTEEN (18) INCHES CAN NOT BE OBTAINED, THE WATER LINE WILL HAVE TO BE RELOCATED.
- WHERE WATER AND STORM DRAIN MAINS CROSS, STORM DRAIN MAIN JOINTS SHALL BE AT LEAST 10 FEET FROM WATER MAIN JOINTS.
- INSTALL DETECTABLE LOCATOR TAPE THREE (3) FEET BELOW FINISH GRADE OR TWO (2) FEET DEEP IN THE STREET STRUCTURAL SECTION PER MASS SECTION 20.13.
- LOCATION OF STORM DRAIN VARIES WITHIN ROADWAY. INSTALL STORM DRAIN AS SHOWN ON STORM DRAIN PLAN & PROFILE SHEETS.
- PLACE 4" OF TOPSOIL AND SEEDING (SCHEDULE A) ON ALL DISTURBED AREAS OUTSIDE OF ROADWAY AND BIORETENTION SWALE. IF WITHIN BIORETENTION SWALE, SEE SHEET SD4 FOR TRENCH SECTION.
- TRENCH BOX SHALL BE UTILIZED TO MINIMIZE TRENCH WIDTH AND REDUCE IMPACTS TO ADJACENT INFRASTRUCTURE.
- INSTALL R20 INSULATION BOARD (4" MINIMUM THICKNESS).
 - ABOVE SD PIPE WHEN COVER IS LESS THAN 4'; INSULATION SHALL BE STAGGERED IN 2" LAYERS, WITH A MINIMUM WIDTH OF 4'.
 - BELOW SD PIPE WHEN 'P' IS LESS THAN 3', AS MEASURED FROM OUTSIDE OF PIPES & WITHIN BEDDING LIMITS, OR AS DIRECTED BY ENGINEER IN THE FIELD.



2 FIELD INLET DRAIN (OUTSIDE OF BIORETENTION SWALE)
SCALE: NTS

GENERAL STORM DRAIN STRUCTURE & PIPE NOTES:

- HORIZONTAL AND VERTICAL CONTROL POINTS FOR STORM DRAIN STRUCTURES (REFERENCE POINTS CALLED OUT IN PLAN & PROFILE SHEETS) ARE:

STRUCTURE	HORZ CONTROL	REFERENCE ELEV.
TYPE I MH (MH I)	CENTER OF MH	FG/TOP OF LID.
TYPE II CBMH (CBMH II)	CENTER OF MH	TBC @ MID. PT. OF CURB INLET HOOD
CATCH BASIN (CB)	CENTER OF CB	TBC @ MID. PT. OF CURB INLET HOOD
CB W/ FIELD INLET	CENTER OF CB	FG/TOP OF FRAME
TYPE I CBMH W/BEEHIVE	CENTER OF MH	FG/TOP OF FRAME
- PIPE LENGTHS ARE BASED ON THE HORIZONTAL DISTANCE BETWEEN THE CENTER OF CONNECTING STRUCTURES OR FITTINGS. PIPE SLOPES ARE CALCULATED USING THE ACTUAL LENGTH OF PIPE FROM THE INSIDE FACE OF STRUCTURES.
- UNLESS OTHERWISE NOTED ALL STORM DRAIN MAIN PIPE SHALL BE CPEP, TYPE S.
- THE FOLLOWING ABBREVIATIONS USED ON THE STORM DRAIN STRUCTURE TABLES ON THE PLAN & PROFILE SHEETS ARE DESCRIBED BELOW:
 - STRUCTURE TYPE:
 - MH I – STORM DRAIN MANHOLE, TYPE I
 - MH I (RED HT) – REDUCED HEIGHT STORM DRAIN MANHOLE, TYPE I
 - CB – CATCH BASIN
 - CB MH II – CATCH BASIN MANHOLE, TYPE II
 - CONNECT – CONNECT TO STORM DRAIN MANHOLE
 - CASTING TYPE:
 - C.I. – CURB INLET
 - MH – MANHOLE FRAME AND LID

PROJECT NO.	31105.03
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

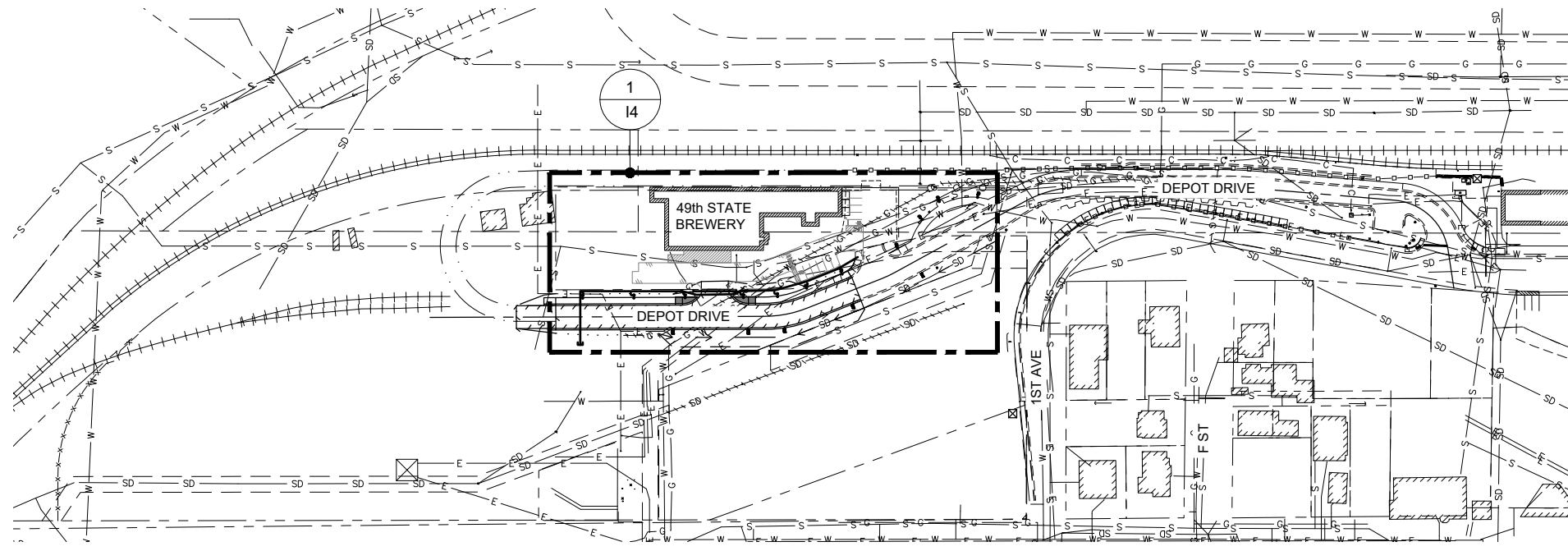
ARRC DEPOT DRIVE IMPROVEMENTS – PHASE II

STORM DRAIN DETAILS

SCALE	HOR. VER.	N/A	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY
			MS	MS	MH	MH

SHEET NO. **SD3**

PROJECT NO. 31105.03
ARRC DEPOT DRIVE IMPROVEMENTS – PHASE II
STORM DRAIN DETAILS
STATUS: FINAL DESIGN
DATE: DECEMBER 2023



1
I1
ELECTRICAL VICINITY MAP - ARRC DEPOT @ SHIP CREEK
1" = 100'



GENERAL NOTES

- ALL WORK SHALL CONFORM TO THE MOST RECENTLY ADOPTED EDITION OF THE MUNICIPALITY OF ANCHORAGE STANDARD SPECIFICATIONS (M.A.S.S.), TITLE 21, AND THE PROJECT MANAGEMENT & ENGINEERING DEPARTMENT DESIGN CRITERIA MANUAL (DCM) UNLESS OTHERWISE NOTED INCLUDING MOA STANDARD DETAILS. SEE SHEET I6 FOR EXHIBIT DRAWINGS.
- ALL RACEWAYS SHALL BE GALVANIZED RIGID METAL CONDUIT (RMC) PER SECTION 80.07 UNLESS OTHERWISE IDENTIFIED.
- CONTRACTOR SHALL COORDINATE MESH NETWORK LIGHTING CONTROL INTERFACE WITH ARRC PROVIDED EQUIPMENT AS REQUIRED.

ELECTRICAL LEGEND		
XFMR	TRANSFORMER	T
NIC	NOT IN CONTRACT	
CKT	CIRCUIT - NUMBER AS NOTED (TYP.)	CKT-XX
A/100	ELECTROLIER DESIGNATION - SEE SCHEDULE	
ETR	EXISTING TO REMAIN	
NEC	NATIONAL ELECTRICAL CODE	
TYP.	TYPICAL	
E	EMERGENCY LIGHT, CIRCUIT, PANEL	
C	CONDUIT, CONCEALED. SIZE AS NOTED (TYP.)	()
	CONDUIT, UNDERGROUND OR UNDERFLOOR	(---)
	CONDUIT, EXPOSED	(- - -)
FLEX	CONDUIT, FLEXIBLE	(~~~~)
	HOMERUN TO PANEL/CIRCUITS AS NOTED	(---) (---)
#X	WIRE COUNT OF # 12 UON/SPECIFIED	(#)
UP	CONDUIT UP	(↑)
DN	CONDUIT DOWN	(↓)
PNL	PANELBOARD - SEE SCHEDULES	()
	LOADCENTER - SEE SCHEDULES	()
	REFER TO INDICATED NOTE	()
	COMMUNICATIONS OUTLET	()
RECPT	DUPLEX RECEPTACLE - NEMA 5-20R GFCI TYPE	()
J-BOX	TYPE 1A JUNCTION BOX	()
	ELECTROLIER - VARIOUS TYPES AS NOTED	()
ARRC	ALASKA RAILROAD CORPORATION	
AFF	ABOVE FINISHED FLOOR	
AFG	ABOVE FINISHED GRADE	
AWG	AMERICAN WIRE GAUGE	
BNG	BELOW NATURAL GRADE	
(E)	EXISTING	
DCM	DESIGN CRITERIA MANUAL	
FOC	FIBER OPTIC CABLE	
GND	GROUND	
HDPE	HIGH DENSITY POLYETHYLENE	
LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT	
MDP	MAIN DISTRIBUTION PANEL	
MFR	MANUFACTURER	
MOA	MUNICIPALITY OF ANCHORAGE	
(N)	NEW	
PC	PHOTOCELL	()
RMC	RIGID METALLIC CONDUIT	
SCH	SCHEDULE	
WP	WEATHERPROOF	
WR	WEATHER RESISTANT	

LINETYPES	
(Solid line)	NEW WORK
(Dashed line)	EXISTING
(Dash-dot line)	DEMOLITION

THIS IS A STANDARD LEGEND, ALL SYMBOLS SHOWN ON LEGEND ARE NOT NECESSARILY ON THE DRAWING(S).

BEFORE YOU DIG CALL FOR FREE UNDERGROUND LOCATION

Locate Call Center of Alaska
 WEB: www.811ak.com
 Statewide...811
 who will notify subscribed utilities only.
 Other utilities need to be contacted individually.

File: Z:\23020001 - Depot Drive Phase II\Working\Drawings\23020-Eserfas.dwg PLOT DATE: 12/17/2023 2:03 PM

MBA
 Consulting Engineers, Inc.
 (907) 274-2622 / FAX (907) 274-0914

PROJECT NO.	31105.03
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

ARRC DEPOT DRIVE IMPROVEMENTS - PHASE II
ELECTRICAL LEGEND & VICINITY MAP

DATE: DECEMBER 2023
 STATUS: FINAL DESIGN

REV	DATE	DESCRIPTION	BY

SCALE	HOR. N/A	VER. N/A
DESIGNED BY		
DRAWN BY		
CHECKED BY		
APPROVED BY		

SHEET NO. **11**

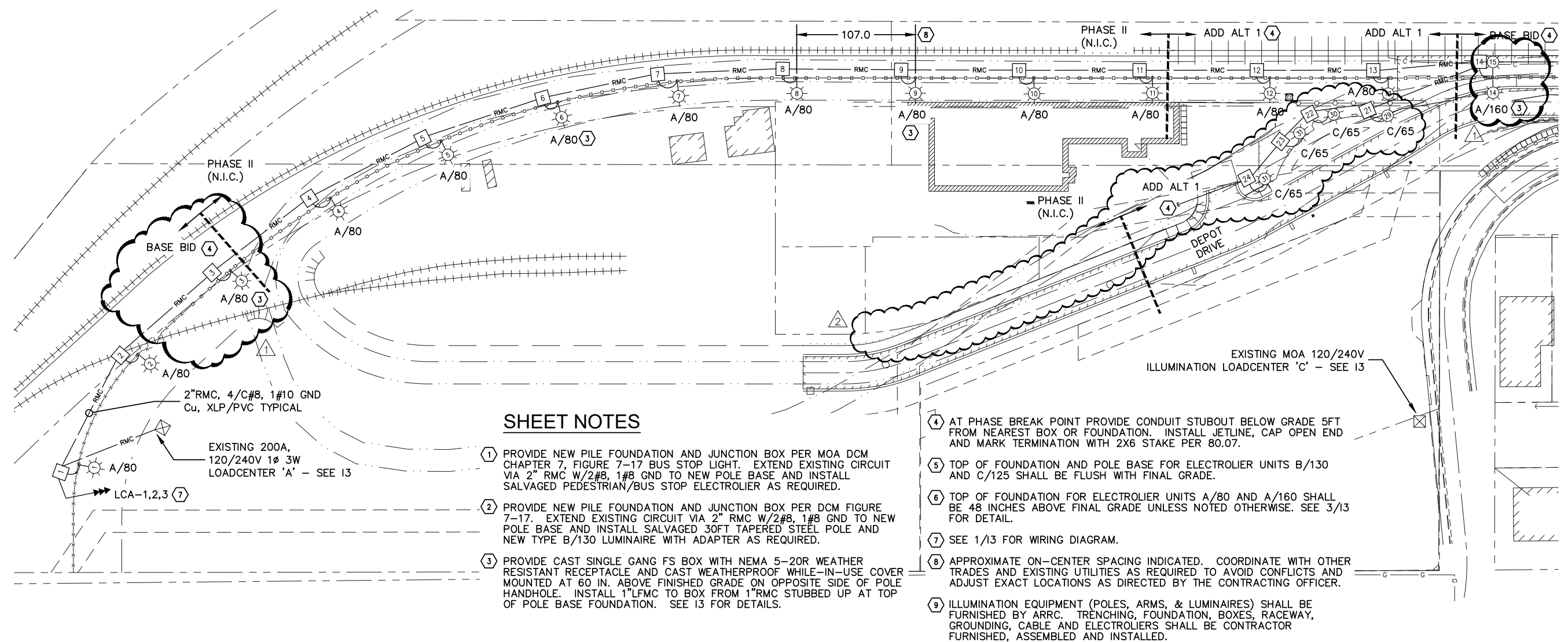
PROJECT NO.	20002
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

ARRC DEPOT DRIVE IMPROVEMENTS
ILLUMINATION PLANS & SCHEDULE

PROJECT NO: 20002
DATE: FEB 2020
STATUS: FINAL

REV	DATE	DESCRIPTION	BY
1	2/28/2020	ADJ. PHASE SHIFT & ELECTROLIER ORIENTATION	
2	8/19/2020	REVISE LAYOUT AT PLAZA	

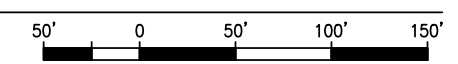
SCALE	HOR.	VER.
DESIGNED BY	JHE	
DRAWN BY	JHE	
CHECKED BY	EMC	
APPROVED BY	EMC	



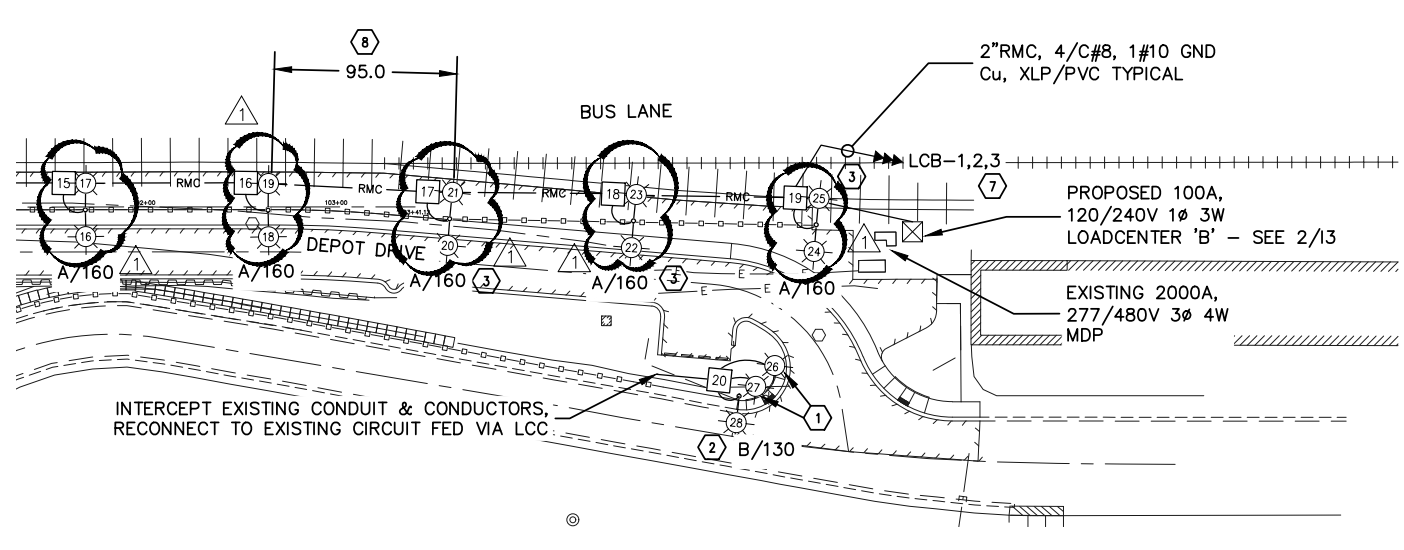
SHEET NOTES

- PROVIDE NEW PILE FOUNDATION AND JUNCTION BOX PER MOA DCM CHAPTER 7, FIGURE 7-17 BUS STOP LIGHT. EXTEND EXISTING CIRCUIT VIA 2" RMC W/2#8, 1#8 GND TO NEW POLE BASE AND INSTALL SALVAGED PEDESTRIAN/BUS STOP ELECTROLIER AS REQUIRED.
- PROVIDE NEW PILE FOUNDATION AND JUNCTION BOX PER DCM FIGURE 7-17. EXTEND EXISTING CIRCUIT VIA 2" RMC W/2#8, 1#8 GND TO NEW POLE BASE AND INSTALL SALVAGED 30FT TAPERED STEEL POLE AND NEW TYPE B/130 LUMINAIRE WITH ADAPTER AS REQUIRED.
- PROVIDE CAST SINGLE GANG FS BOX WITH NEMA 5-20R WEATHER RESISTANT RECEPTACLE AND CAST WEATHERPROOF WHILE-IN-USE COVER MOUNTED AT 60 IN. ABOVE FINISHED GRADE ON OPPOSITE SIDE OF POLE HANDHOLE. INSTALL 1"LFMC TO BOX FROM 1"RMC STUBBED UP AT TOP OF POLE BASE FOUNDATION. SEE 13 FOR DETAILS.
- AT PHASE BREAK POINT PROVIDE CONDUIT STUBOUT BELOW GRADE 5FT FROM NEAREST BOX OR FOUNDATION. INSTALL JETLINE, CAP OPEN END AND MARK TERMINATION WITH 2X6 STAKE PER 80.07.
- TOP OF FOUNDATION AND POLE BASE FOR ELECTROLIER UNITS B/130 AND C/125 SHALL BE FLUSH WITH FINAL GRADE.
- TOP OF FOUNDATION FOR ELECTROLIER UNITS A/80 AND A/160 SHALL BE 48 INCHES ABOVE FINAL GRADE UNLESS NOTED OTHERWISE. SEE 3/13 FOR DETAIL.
- SEE 1/13 FOR WIRING DIAGRAM.
- APPROXIMATE ON-CENTER SPACING INDICATED. COORDINATE WITH OTHER TRADES AND EXISTING UTILITIES AS REQUIRED TO AVOID CONFLICTS AND ADJUST EXACT LOCATIONS AS DIRECTED BY THE CONTRACTING OFFICER.
- ILLUMINATION EQUIPMENT (POLES, ARMS, & LUMINAIRES) SHALL BE FURNISHED BY ARRC. TRENCHING, FOUNDATION, BOXES, RACEWAY, GROUNDING, CABLE AND ELECTROLIERS SHALL BE CONTRACTOR FURNISHED, ASSEMBLED AND INSTALLED.

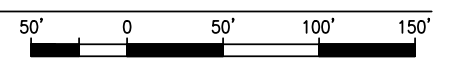
1 PARTIAL ILLUMINATION PLAN
12 1" = 50'

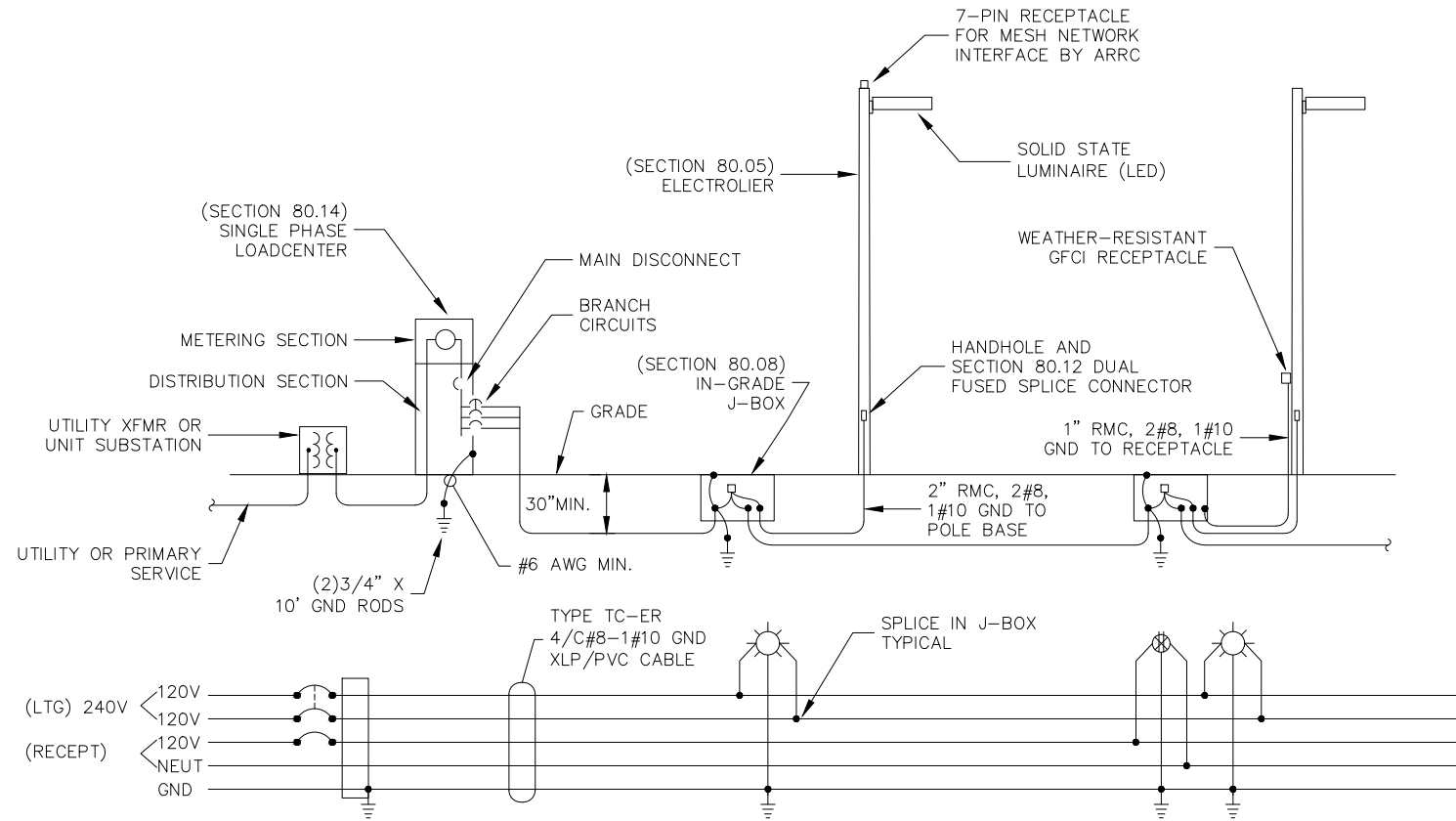


ELECTROLIER SCHEDULE					
TYPE	LM OUTPUT	DIST	TEMP	DESCRIPTION	MFR/MODEL NO. (OR EQUAL)
A/80 6 9	9,200	II	40K	SOLID STATE ROADWAY LUMINAIRE, MEDIUM GREY POLYMER HOUSING, TENON MOUNT, 120-277V DRIVER, NEMA 7-PIN PHOTOCELL RECEPTACLE, IP66/ANSI 3G, UTILITY LABEL.	CREE: RSWM-A-HT-2ME-9L-40K8-UL-GY-N (LUMINAIRE) VALMONT: R-2MA0432B-220840605T40-SBF (POLE/ARM)
A/160 6 9	18,400	II	40K	SAME AS TYPE A/80 EXCEPT DUAL 4FT MAST ARMS AND LUMINAIRES @ 180 DEGREES.	CREE: RSWM-A-HT-2ME-9L-40K8-UL-GY-N (LUMINAIRE) VALMONT: R-2MA0432B-220840605T40-SBF (POLE/ARM)
B/130 5	16,022	III	40K	SOLID STATE AREA LUMINAIRE, GREEN DIE-CAST HOUSING, INTEGRAL ARM MOUNT, 120-277V DRIVER, NEMA 7-PIN PHOTOCELL RECEPTACLE, IP66/ANSI 3G, SINGLE POLE MOUNTING BRACKET.	CREE: OSQ-A-NM-3ME-K40KULRPB1A (LUMINAIRE) VALMONT: DS210660A300HGFB CAB (POLE)
C/65 5	5,790	III	35K	SOLID STATE DECORATIVE PUBLIC TRANSIT/PEDESTRIAN LUMINAIRE, VERDE GREEN DIE-CAST HOUSING, 120-277V DRIVER, NEMA 7-PIN PHOTOCELL RECEPTACLE, GFCI OUTLET.	STERNBERG: 1A1970LEDSBF4ARC35T3MDL03FGR7HSHNCSX (LUMINAIRE) 3812FP4/DSPAGFI/VG (POLE)

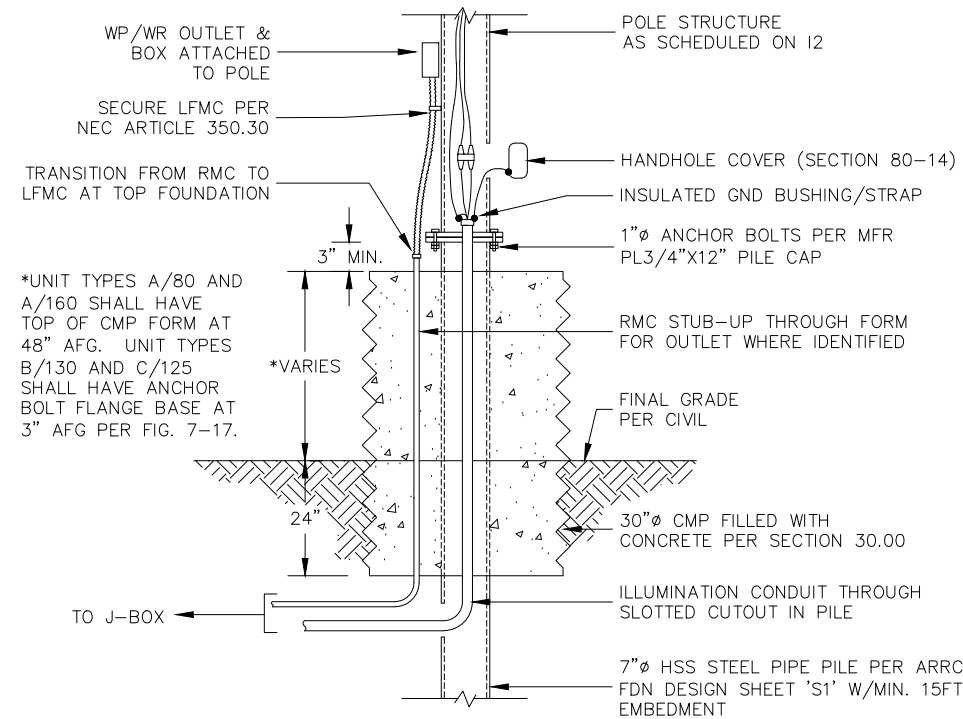


2 PARTIAL ILLUMINATION PLAN
12 1" = 50'





1 TYPICAL ILLUMINATION AND OUTLET CIRCUIT WIRING DIAGRAM
13 NOT TO SCALE



3 ELECTROLIER FOUNDATION DETAILS
13 NOT TO SCALE

A.I.R. REQUIREMENTS

SHORT CIRCUIT AND SERVICE NOTES:

BASED ON THE FOLLOWING:

UTILITY	=	MLP	
TRANSFORMER SIZE	=	50	KVA
TRANSFORMER IMPEDANCE	=	1.40	% Z
LENGTH OF SERVICE CONDUCTORS	=	95	FEET
SERVICE CONDUCTOR SIZE	=	#3/0 AWG	
NUMBER OF PARALLEL RUNS	=	1	
CONDUIT TYPE	=	Copper in Non-Metallic*	
MOTOR CONTRIBUTION	=	0	HP

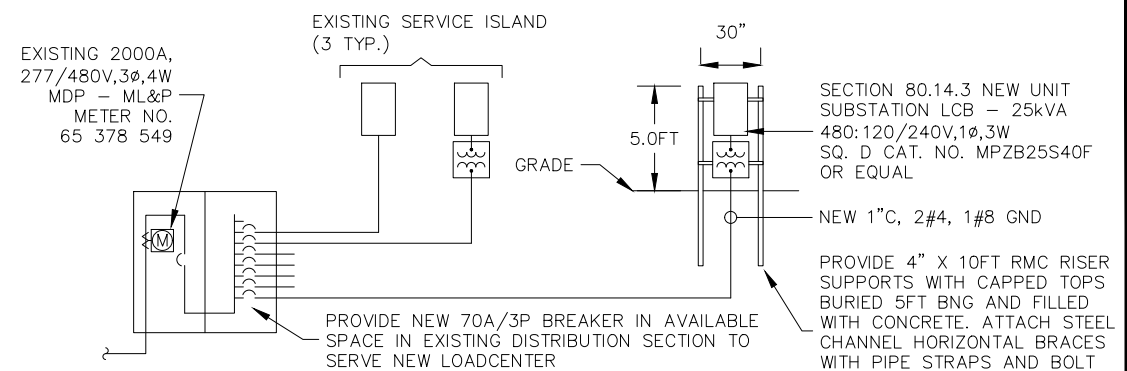
AVAILABLE SHORT CIRCUIT AMPS SUMMARY

LOCATION	TR#1	LCA
SCA RMS @ XR	14.663	5.674
	1.49	0.67

THE ABOVE DATA (OTHER THAN MOTOR LOAD) SHALL BE CONFIRMED WITH THE SERVING UTILITY BEFORE EQUIPMENT IS ORDERED. ANY VARIATIONS THAT MIGHT INCREASE AVAILABLE SHORT-CIRCUIT CURRENT SHALL BE REPORTED TO THE CONTRACTING AGENCY.

SERVICE EQUIPMENT SHALL HAVE AN INTEGRATED SHORT CIRCUIT RATING SUITABLE FOR THE AVAILABLE SCA. DOWNSTREAM EQUIPMENT AND CIRCUIT BREAKER AIC RATINGS MAY BE SATISFIED BY UTILIZING ONE OF THE FOLLOWING METHODS:

- EQUIPMENT RATED FOR THE AVAILABLE SCA AT EACH POINT IN THE SYSTEM.
- UL-LISTED SERIES-CONNECTED CIRCUIT BREAKER COMBINATIONS RATED FOR THE AVAILABLE SCA AT EACH POINT.



2 PROPOSED YARD POWER ONE-LINE DIAGRAM
13 NOT TO SCALE

PANEL: LCA

PROJECT: DEPOT DRIVE IMPROVEMENTS
LOCATION: NEMA 3R EXTERIOR

MOUNTING: SURFACE LUGS
OPTIONS: FEEDTHRU SHUNT TRIP ISO GND BAR
 FLUSH CB
 SUBFEED LUG SUBFEED BRKR SOLID NEUTRAL

VOLTAGE: 240/120 VOLT
1 PHASE 3 WIRE
200 A MCB
22k AIC

NOTE	CIRCUIT DESCRIPTION	KVA	AMP	P	CKT	CKT	AMP	P	KVA	CIRCUIT DESCRIPTION	NOTE
	DEPOT DRIVE PH VIII	1.1	20		1	2	20	1	0.5	RECEPTACLES PH VIII	
	SPARE		20		3	4	20	1		SPACE	
	SPACE		2	7	8					SPACE	
	SPACE		1	9	10					SPACE	
	SPACE		1	11	12					SPACE	
	SPACE		1	13	14					SPACE	
	SPACE		1	15	16					SPACE	
	SPACE		1	17	18					SPACE	
	SPACE		1	19	20					SPACE	
	SPACE		1	21	22					SPACE	
	SPACE		1	23	24					SPACE	
	SPACE		1	25	26					SPACE	
	SPACE		1	27	28					SPACE	
	SPACE		1	29	30					SPACE	
	CONNECTED LOAD:	1.7	KVA		6.9	A					
	DEMAND LOAD:	1.9	KVA		8.0	A					

DATE: _____
REV: _____

PANEL: LCB

PROJECT: DEPOT DRIVE IMPROVEMENTS
LOCATION: NEMA 3R EXTERIOR

MOUNTING: SURFACE LUGS
OPTIONS: FEEDTHRU SHUNT TRIP ISO GND BAR
 FLUSH CB
 SUBFEED LUG SUBFEED BRKR SOLID NEUTRAL

VOLTAGE: 240/120 VOLT
1 PHASE 3 WIRE
100 A MCB
22k AIC

NOTE	CIRCUIT DESCRIPTION	KVA	AMP	P	CKT	CKT	AMP	P	KVA	CIRCUIT DESCRIPTION	NOTE
	DEPOT DRIVE PH VIII	2.2	20		1	2	20	1	0.7	RECEPTACLES PH VIII	
	SPARE		20		3	4	20	1		SPACE	
	SPACE		2	7	8					SPACE	
	SPACE		1	9	10					SPACE	
	SPACE		1	11	12					SPACE	
	SPACE		1	13	14					SPACE	
	SPACE		1	15	16					SPACE	
	SPACE		1	17	18					SPACE	
	SPACE		1	19	20					SPACE	
	SPACE		1	21	22					SPACE	
	SPACE		1	23	24					SPACE	
	SPACE		1	25	26					SPACE	
	SPACE		1	27	28					SPACE	
	CONNECTED LOAD:	2.9	KVA		12.0	A					
	DEMAND LOAD:	3.4	KVA		14.3	A					

DATE: _____
REV: _____

PANEL: LCC

PROJECT: EXISTING MOA TYPE 1A
LOCATION: NEMA 3R EXTERIOR

MOUNTING: SURFACE LUGS
OPTIONS: FEEDTHRU SHUNT TRIP ISO GND BAR
 FLUSH CB
 SUBFEED LUG SUBFEED BRKR SOLID NEUTRAL

VOLTAGE: 240/120 VOLT
1 PHASE 3 WIRE
100 A MCB
14k AIC

NOTE	CIRCUIT DESCRIPTION	KVA	AMP	P	CKT	CKT	AMP	P	KVA	CIRCUIT DESCRIPTION	NOTE
	SPACE				1	2	100			MAIN	
	SIGNAL CONTROLLER	50			3	4		2			
	CONTROLS	20	1	7	8	20	1			RECEPTACLES	
	LIGHTING	20			9	10	20			RECEPTACLES	
			2	11	12		2			LIGHTING	
					13	14	20				
					15	16		2			
	CONNECTED LOAD:	0.0	KVA		0.0	A					
	DEMAND LOAD:	0.0	KVA		0.0	A					

DATE: _____
REV: _____

MBA
Consulting Engineers, Inc.
(907) 274-9852 / FAX (907) 274-9814

PROJECT NO. 20002
CITY GRID 1230
WATER GRID 1230
SEWER GRID 1230

SCH: ALL
ARRC DEPOT DRIVE IMPROVEMENTS
ELECTRICAL SCHEDULES & DETAILS

DATE: FEB 2020
STATUS: FINAL

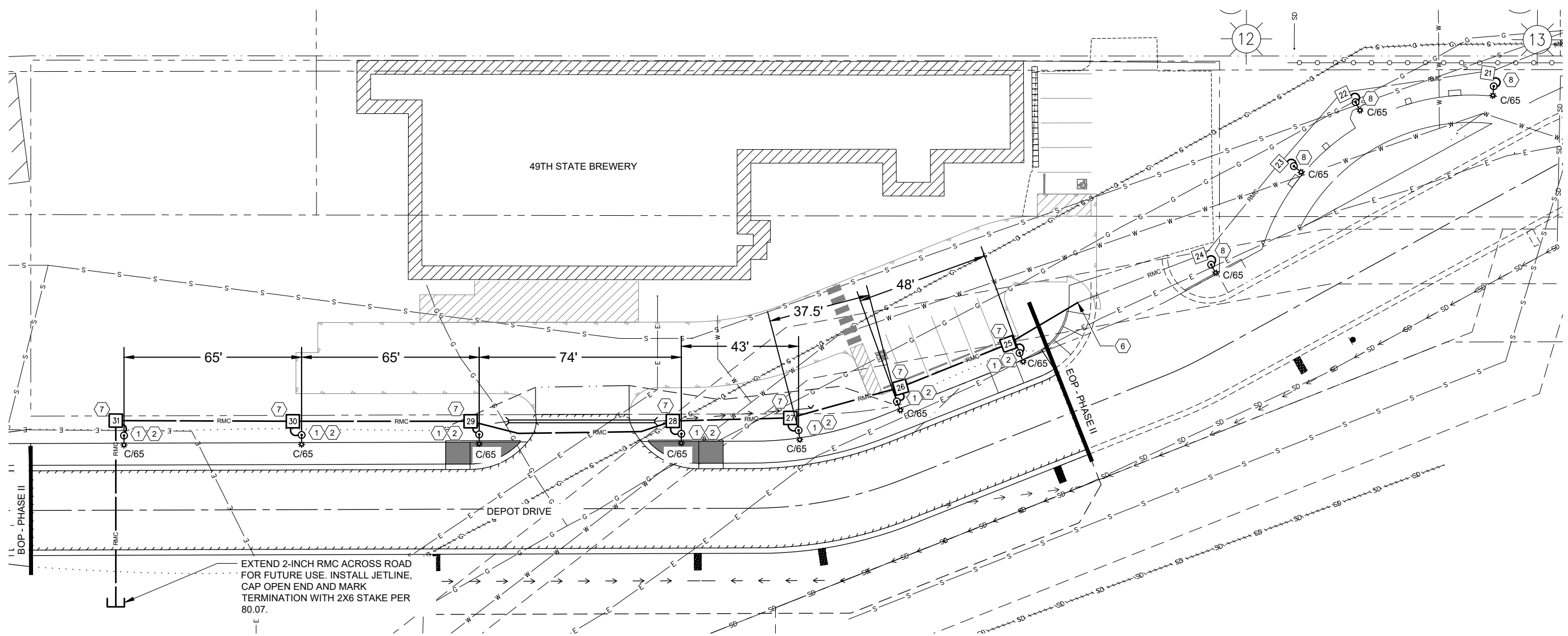
SCALE: _____
DR. VER. _____
DESIGNED BY JHE
DRAWN BY JHE
CHECKED BY EWC
APPROVED BY EWC

REVISION
BY _____
DATE _____
DESCRIPTION _____

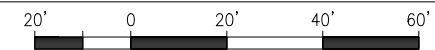
REFERENCE DRAWING

SHEET NO. 13

File: Z:\23020001 - Depot Drive Phase II\Working\Drawings\23020-Eserefss.dwg PLOT DATE: 12/17/2023 2:04 PM



1 ILLUMINATION PLAN
14 1" = 20'





SHEET NOTES

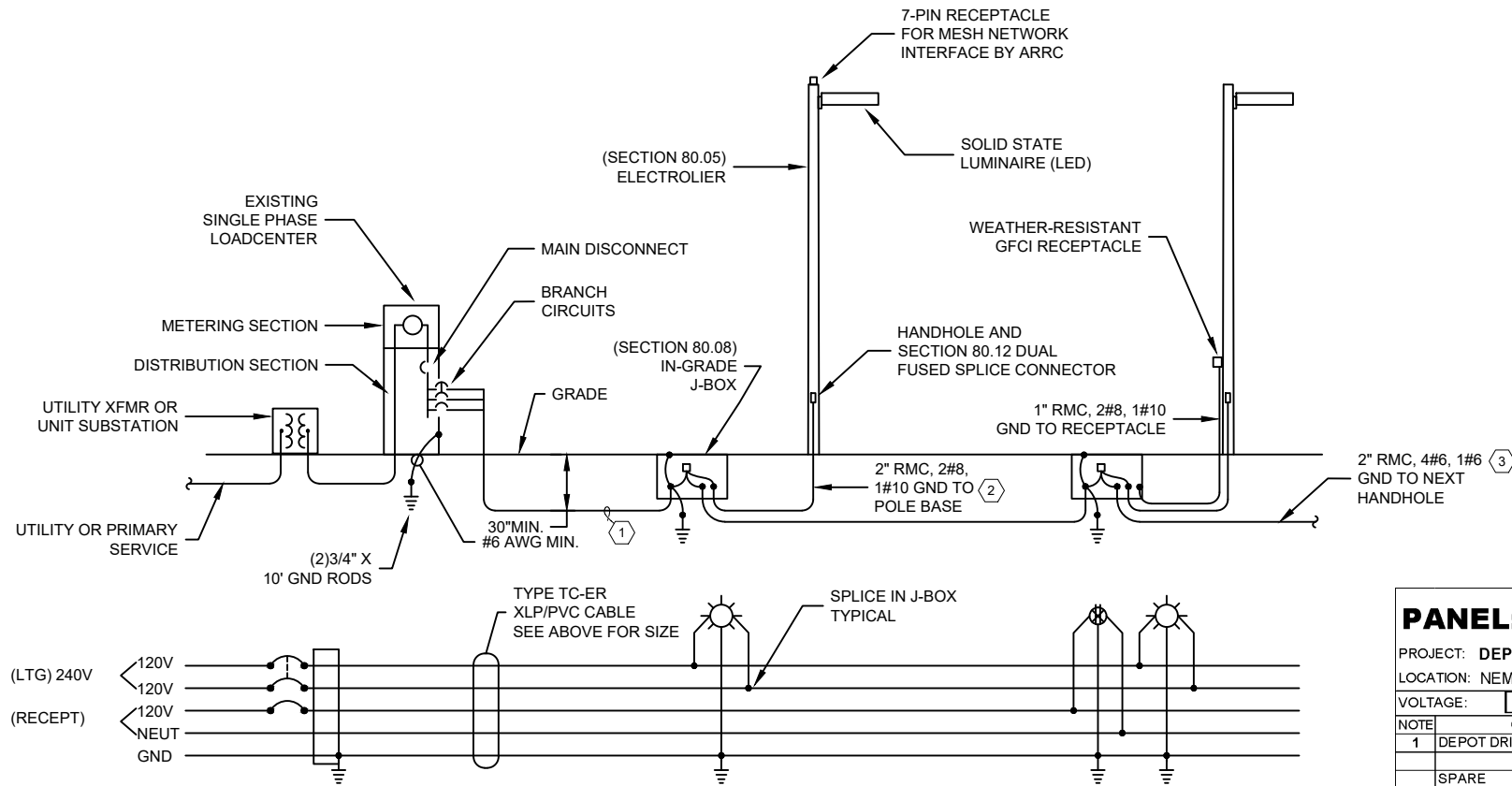
- 1 PROVIDE NEW PILE FOUNDATION AND JUNCTION BOX PER MOA DCM CHAPTER 7, FIGURE 7-17 BUS STOP LIGHT. PROVIDE NEW C/65 PEDESTRIAN/BUS STOP ELECTROLIER AS REQUIRED. EXTEND EXISTING LIGHTING CIRCUIT TO NEW ELECTROLIERS.
- 2 PROVIDE CAST SINGLE GANG FS BOX WITH NEMA 5-20R WEATHER RESISTANT RECEPTACLE AND CAST WEATHERPROOF WHILE-IN-USE COVER MOUNTED AT 60 IN. ABOVE FINISHED GRADE ON OPPOSITE SIDE OF POLE HANDHOLE. INSTALL 1"LMC TO BOX FROM 1"RMC STUBBED UP AT TOP OF POLE BASE FOUNDATION. EXTEND CIRCUIT LCB-4 TO NEW RECEPTACLE. SEE SHEET 15 FOR DETAILS.
- 3 TOP OF FOUNDATION AND POLE BASE FOR ELECTROLIER UNITS C/65 SHALL BE FLUSH WITH FINAL GRADE.
- 4 SEE 1/15 FOR WIRING DIAGRAM.
- 5 APPROXIMATE ON-CENTER SPACING INDICATED. COORDINATE WITH OTHER TRADES AND EXISTING UTILITIES AS REQUIRED TO AVOID CONFLICTS AND ADJUST EXACT LOCATIONS AS DIRECTED BY THE CONTRACTING OFFICER.
- 6 LOCATE AND INTERCEPT PHASE 1 CONDUIT BREAK POINT (SEE REFERENCE DRAWING I2). CONNECT NEW CONDUIT AND CONDUCTORS TO EXISTING. SEE SHEET 15 FOR WIRING DIAGRAM AND NOTES.
- 7 LOCATE JUNCTION BOXES PER DETAIL 80-18 ON SHEET 16 AND LANDSCAPING PLANS.
- 8 REMOVE AND DISPOSE OF EXISTING FIXTURE AND RMC POST. PROVIDE NEW C/65 PEDESTRIAN/BUS STOP ELECTROLIER, MOUNT ON EXISTING BASE. MODIFY OR REPLACE EXISTING PILE CAP AS REQUIRED TO MATCH NEW POLE. EXTEND EXISTING LIGHTING CIRCUIT TO NEW ELECTROLIERS. PROVIDE RECEPTACLE PER SHEET NOTE 2, EXCEPT RUN WIRING THROUGH POLE PER DETAIL 3/15 AND CONNECT RECEPTACLE TO CIRCUIT LCB-6. PROVIDE NEW 2 #6, #6 GND IN EXISTING CONDUIT FROM LCB TO POLE 24. TOPSOIL AND SEED ALL DISTURBED AREAS. REPAIR DAMAGE TO EXISTING GRADE, LAWN, AND LANDSCAPING TO THE SATISFACTION OF THE ENGINEER.

ELECTROLIER SCHEDULE

TYPE	LM OUTPUT	DIST	TEMP	DESCRIPTION	MFR/MODEL NO. (OR EQUAL)
C/65	5,790	III	35K	SOLID STATE DECORATIVE PUBLIC TRANSIT/PEDESTRIAN LUMINAIRE, VERDE GREEN DIE-CAST HOUSING, 120-277V DRIVER, NEMA 7-PIN PHOTOCELL RECEPTACLE, GFCI OUTLET.	STERNBERG:1A-GL1970-S-BFS-16L35T3-MDL012-SV2-EZ-FDRB/CSXHPM (LUMINAIRE) 3812FP4-.125-PCC-R7-GF120 LPIUC-DHPA/VG (POLE)

PROJECT NO. 31105.03	CITY GRID 1230	WATER GRID 1230	SEWER GRID 1230
ARRC DEPOT DRIVE IMPROVEMENTS - PHASE II			DATE: DECEMBER 2023
ILLUMINATION PLANS & SCHEDULE			STATUS: FINAL DESIGN
SCALE: HOR. N/A VER. N/A	DESIGNED BY: DH	DRAWN BY: DH	CHECKED BY: RD APPROVED BY: EC
SHEET NO. 14			



1 TYPICAL ILLUMINATION AND OUTLET CIRCUIT WIRING DIAGRAM
 15 NOT TO SCALE

NOTES

- 1 PROVIDE #2 AWG, #2 AWG NEUTRAL, #2 AWG GROUND IN EXISTING CONDUIT FROM THE LOAD CENTER TO J-BOX 25 FOR RECEPTACLE CIRCUITS.
- 2 EXTEND EXISTING LIGHTING CIRCUIT TO NEW ELECTROLIERS.
- 3 PROVIDE 2 #6 AWG CONDUCTORS FROM J-BOX 24 TO NEW ELECTROLIERS, AND 2 #6 AWG CONDUCTORS FROM J-BOX 25 TO NEW RECEPTACLES. PROVIDE #6 GROUND FROM J-BOX 24 TO NEW ELECTROLIERS AND NEW RECEPTACLES. GROUND ALL FIXTURES AND DEVICES PER NEC AND MANUFACTURER'S INSTRUCTIONS.

PHASE II LOAD SUMMARY

EXISTING LOAD:	2.2 KVA
ADDED LOAD:	2.5 KVA
TOTAL LOAD:	4.7 KVA

PANEL: LCB (ETR)

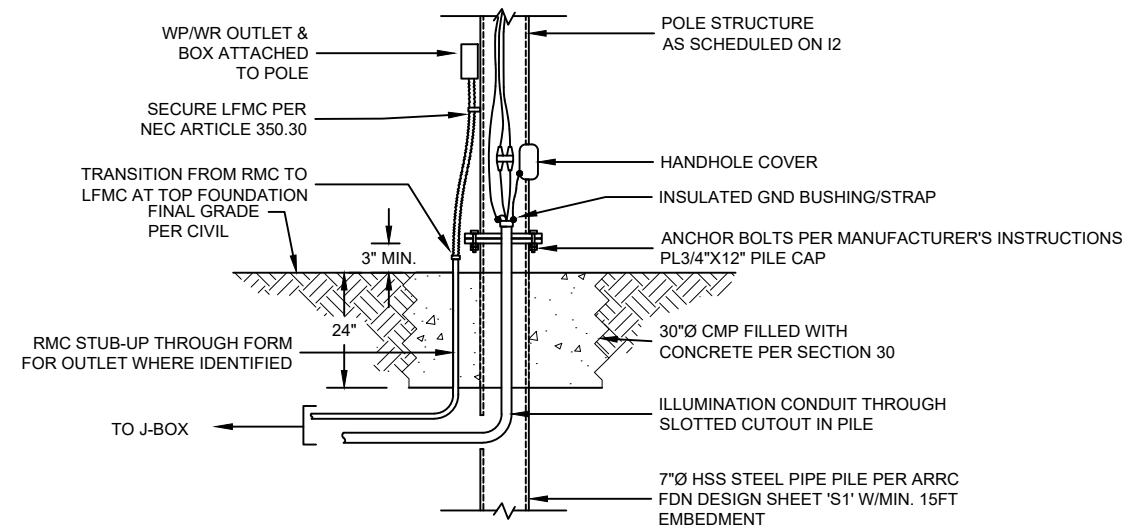
PROJECT: DEPOT DRIVE IMPROVEMENTS
 LOCATION: NEMA 3R EXTERIOR

MOUNTING: SURFACE LUGS
 FLUSH CB

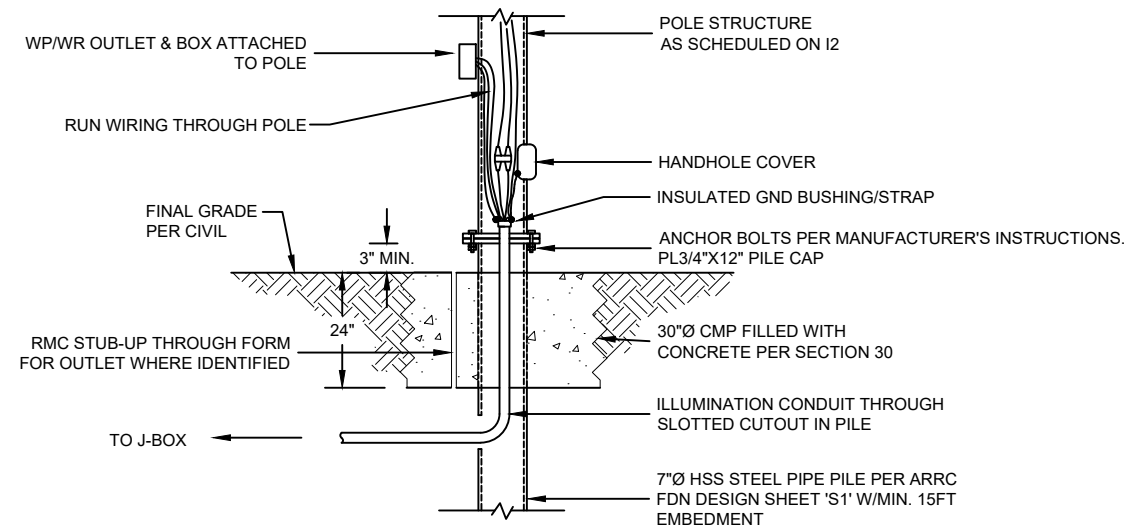
MAINS: FEEDTHRU SHUNT TRIP ISO GND BAR
 SUBFEED LUG SUBFEED BRKR SOLID NEUTRAL

VOLTAGE: 240/120 VOLT 1 PHASE 3 WIRE 100 A MCB 22k AIC

NOTE	CIRCUIT DESCRIPTION	KVA	AMP	P	CKT	CKT	AMP	P	KVA	CIRCUIT DESCRIPTION	NOTE
1	DEPOT DRIVE LIGHTING	2.0	20		1	2	20	1	0.7	DEPOT DRIVE RECEPTACLES	
					2	3	20	1	1.3	DEPOT DRIVE RECEPTACLES 25-31	2
	SPARE		20		5	6	20	1	0.7	DEPOT DRIVE RECEPTACLES 21-24	3
	SPACE				7	8				SPACE	
	SPACE				9	10				SPACE	
	SPACE				11	12				SPACE	
	SPACE				13	14				SPACE	
	SPACE				15	16				SPACE	
	SPACE				17	18				SPACE	
	SPACE				19	20				SPACE	
	SPACE				21	22				SPACE	
	SPACE				23	24				SPACE	
	SPACE				25	26				SPACE	
	SPACE				27	28				SPACE	
CONNECTED LOAD:		4.7 KVA	19.5 A	NOTE:							
DEMAND LOAD:		5.9 KVA	24.4 A	(1) ADDED 0.5 KVA TO EXISTING CIRCUIT							
				(2) NEW LOAD ON EXISTING SPARE CB							
				(3) NEW LOAD ON NEW CB							
DATE:											
REV:											



2 ELECTROLIER FOUNDATION DETAIL - POLE 25-31
 15 NOT TO SCALE



3 ELECTROLIER FOUNDATION DETAIL - POLE 21-24
 15 NOT TO SCALE



PROJECT NO.	31105.03
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

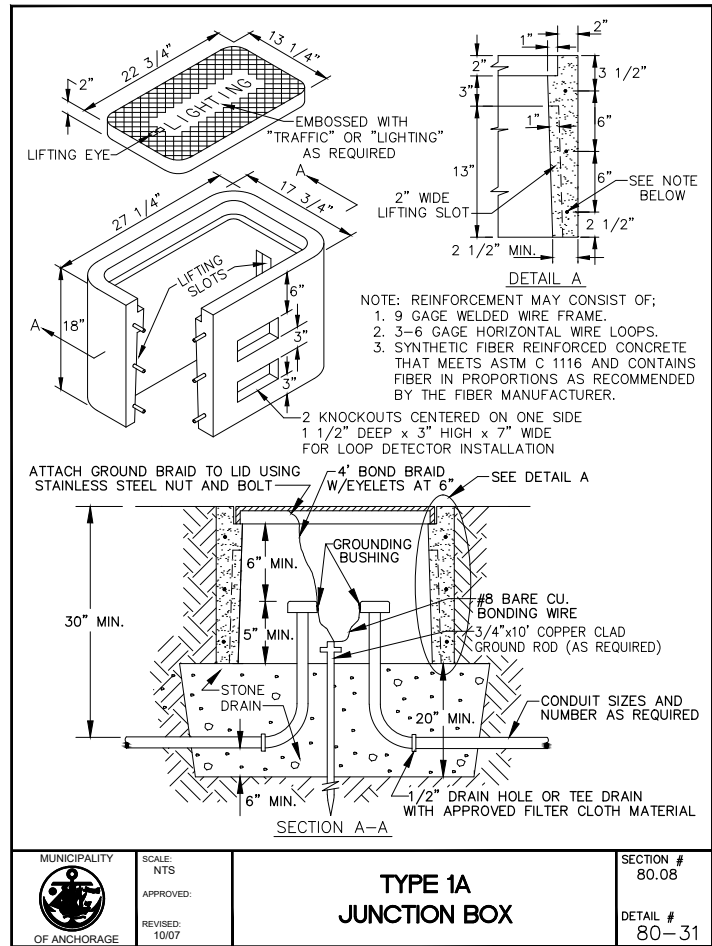
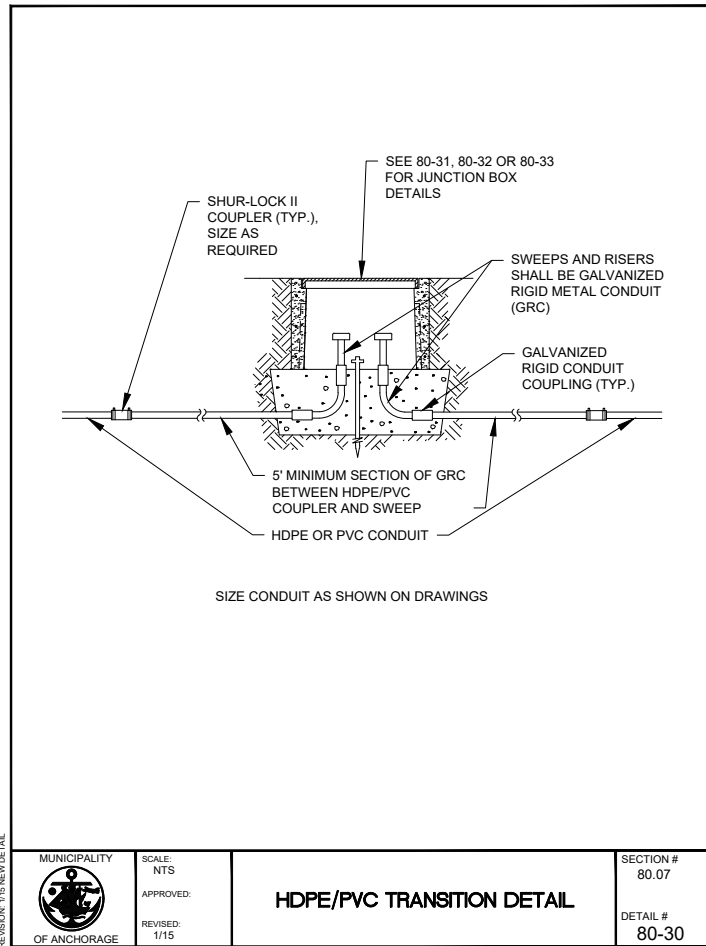
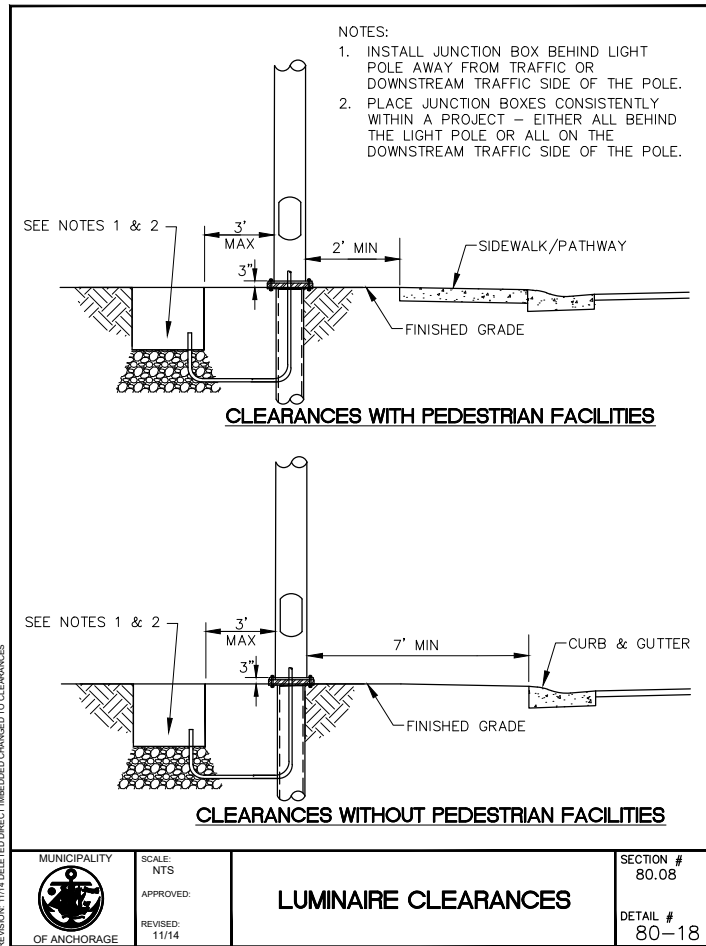
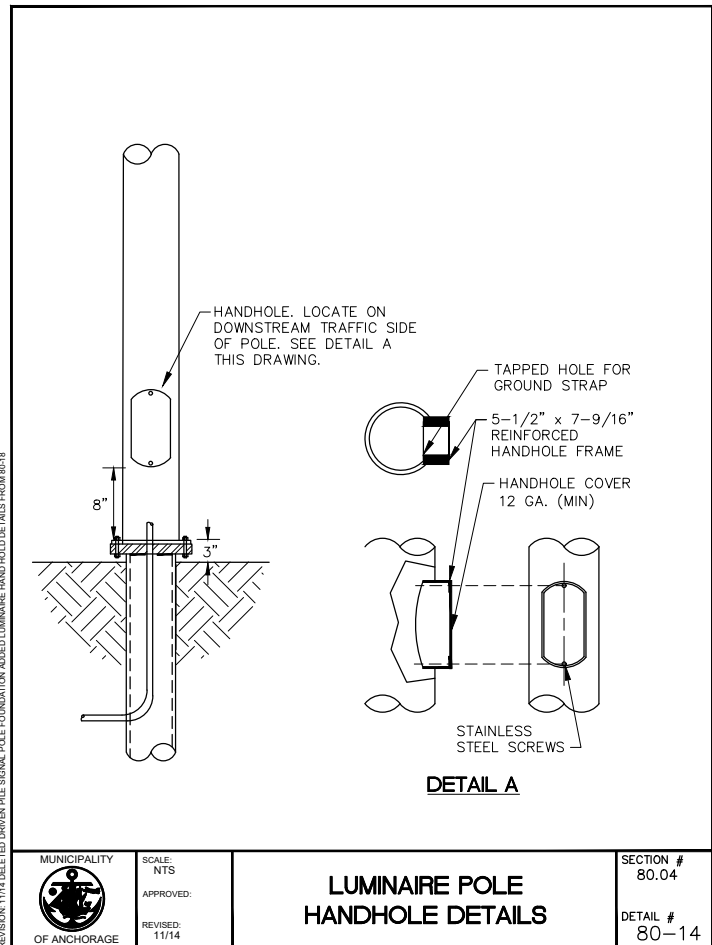
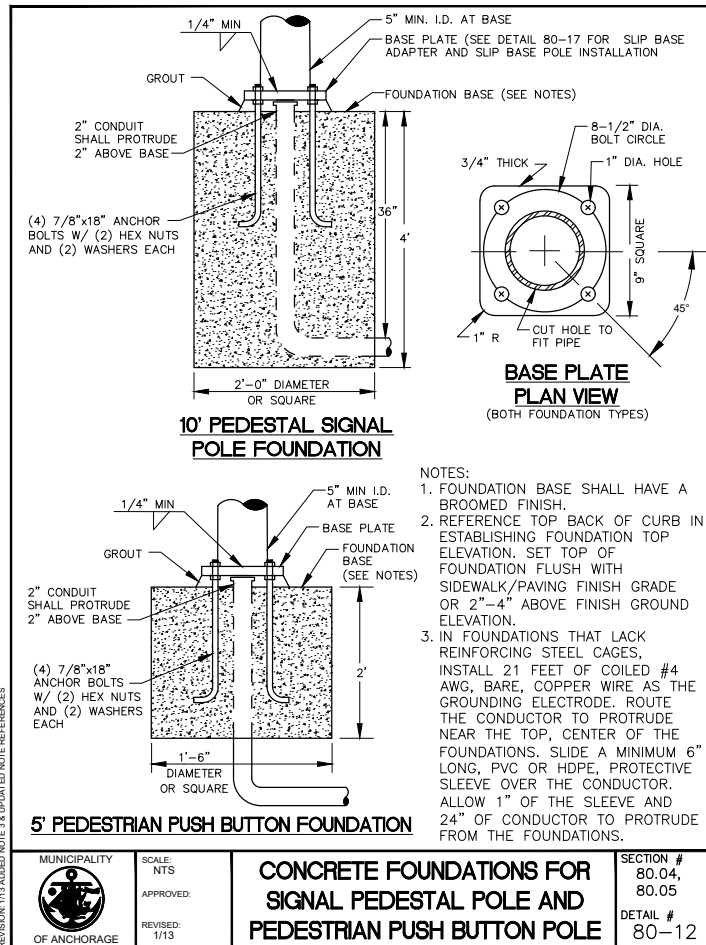
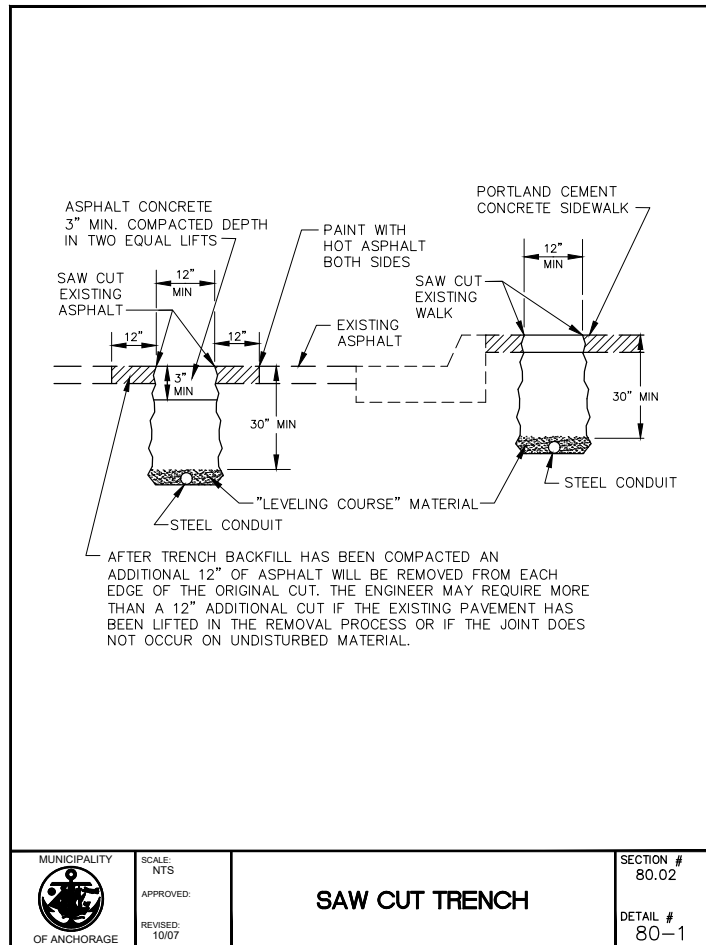
ARRC DEPOT DRIVE IMPROVEMENTS - PHASE II
 ELECTRICAL SCHEDULES & DETAILS

31105.03

REVISION	DESCRIPTION	DATE	REV	BY

SCALE	N/A
DESIGNED BY	N/A
DRAWN BY	DH
CHECKED BY	DH
APPROVED BY	RD
EC	EC

File: Z:\23020001 - Depot Drive Phase II\Working Drawings\23020-ESerfas.dwg PLOT DATE: 12/17/2023 2:04 PM



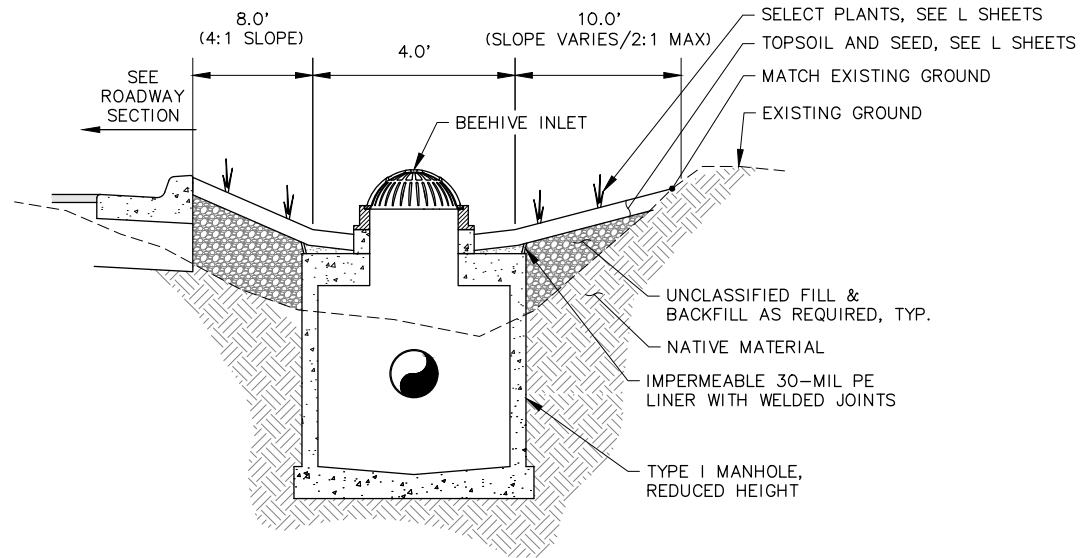
PROJECT NO. 31105.03
CITY GRID 1230
WATER GRID 1230
SEWER GRID 1230

ARRC DEPOT DRIVE IMPROVEMENTS - PHASE II
EXHIBIT - MOA STANDARD DETAILS

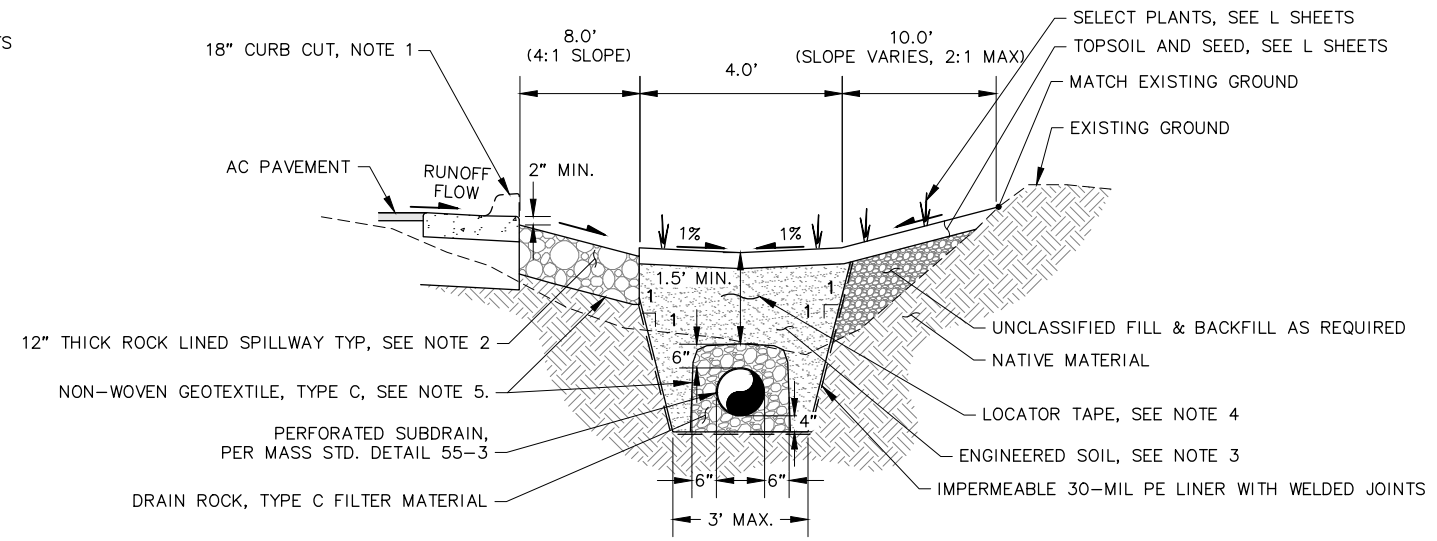
DATE: DECEMBER 2023

SCALE	HOR. VER.	N/A	DESCRIPTION	DATE	REV	BY	REVISION

STATUS: FINAL DESIGN



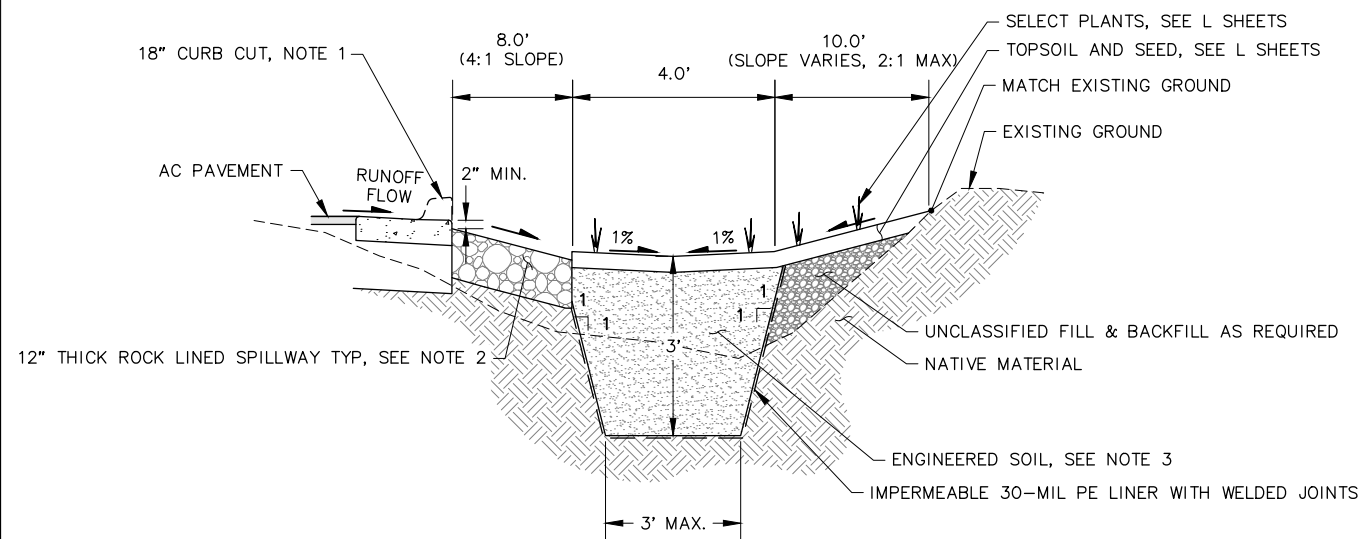
1 **BIORETENTION STORM DRAIN MANHOLE SECTION VIEW**
SCALE: NTS



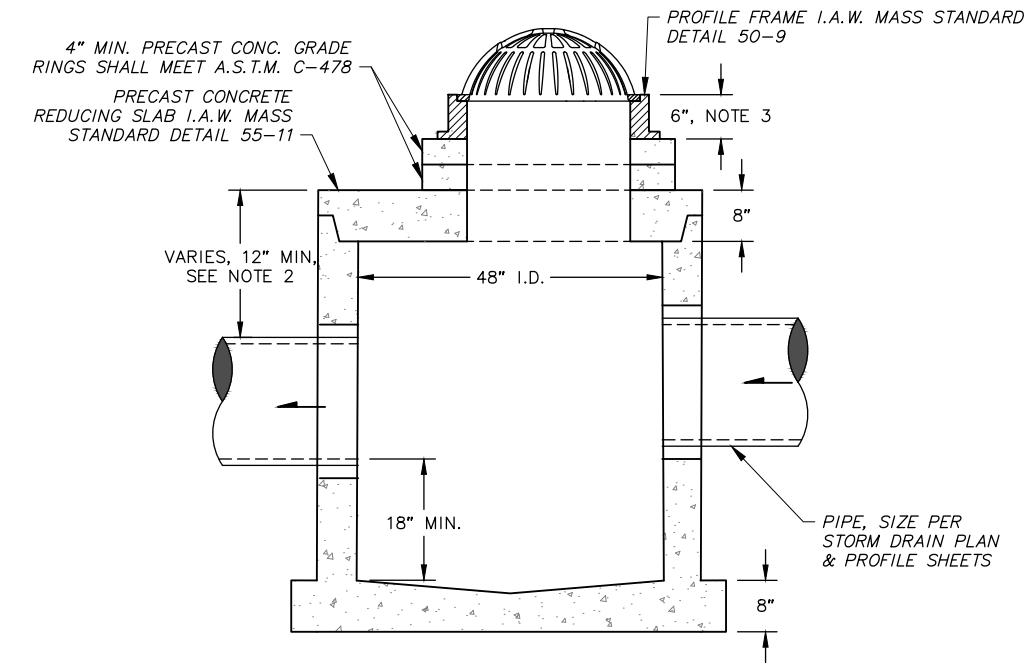
2 **BIORETENTION SWALE WITH PIPE & CURB CUT SECTION VIEW**
SCALE: NTS

BIORETENTION NOTES:

1. INSTALL CURB CUTS ADJACENT TO BIORETENTION SWALE. LOCATE CUTS 6' DOWNSTREAM OF NEAREST STORM DRAIN MANHOLE UNLESS OTHERWISE SHOWN.
2. ROCK LINED SPILLWAY MEDIA SHALL CONFORM TO DRAIN ROCK PER MASS 20.18. LENGTH IN THE DIRECTION OF FLOW SHALL BE A MINIMUM OF 8 FEET, WITH A MINIMUM WIDTH OF 2.5 FEET. INSTALL SPILLWAY AT CURB CUTS ONLY, MIN. 2" BELOW FLOW LINE.
3. SEE SPECIAL PROVISIONS FOR ENGINEERED SOIL SPECIFICATIONS.
4. INSTALL DETECTABLE LOCATOR TAPE AT LEAST 18 INCHES BUT NO MORE THAN 24 INCHES ABOVE THE CROWN OF THE PIPE.
5. A MINIMUM 12" OVERLAP OF GEOTEXTILE WRAPPING AT THE TOP OF THE SUBDRAIN AND DRAIN ROCK IS REQUIRED.



3 **BIORETENTION SWALE & CURB CUT SECTION**
SCALE: NTS

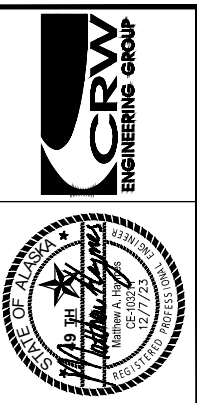


4 **TYPE I MANHOLE REDUCED HEIGHT**
SCALE: NTS

TYPE I MANHOLE REDUCED HEIGHT NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE 2015 MUNICIPALITY OF ANCHORAGE STANDARD SPECIFICATIONS (MASS) AS CURRENTLY AMENDED AND AS MODIFIED ON THESE DETAILS.
2. BASE SECTION HEIGHT BETWEEN TOP OF PIPE AND REDUCING SLAB SHALL BE REDUCED AS NECESSARY TO FACILITATE THE CONSTRUCTION OF THE STORM DRAIN PIPE OR SUBDRAIN PIPE AS SHOWN ON THE PLAN AND PROFILE SHEETS.

File: \\cwrweng.com\Projects\JobsData\31105.03 Depot Drive Ph II\00_Cadd_2019\01 Working Set\01 Civil\31105.03 Storm Drain Details.dwg PLOT DATE: 12/7/2023 3:09 PM



PROJECT NO.	31105.03
CITY GRID	1230
WATER GRID	1230
SEWER GRID	1230

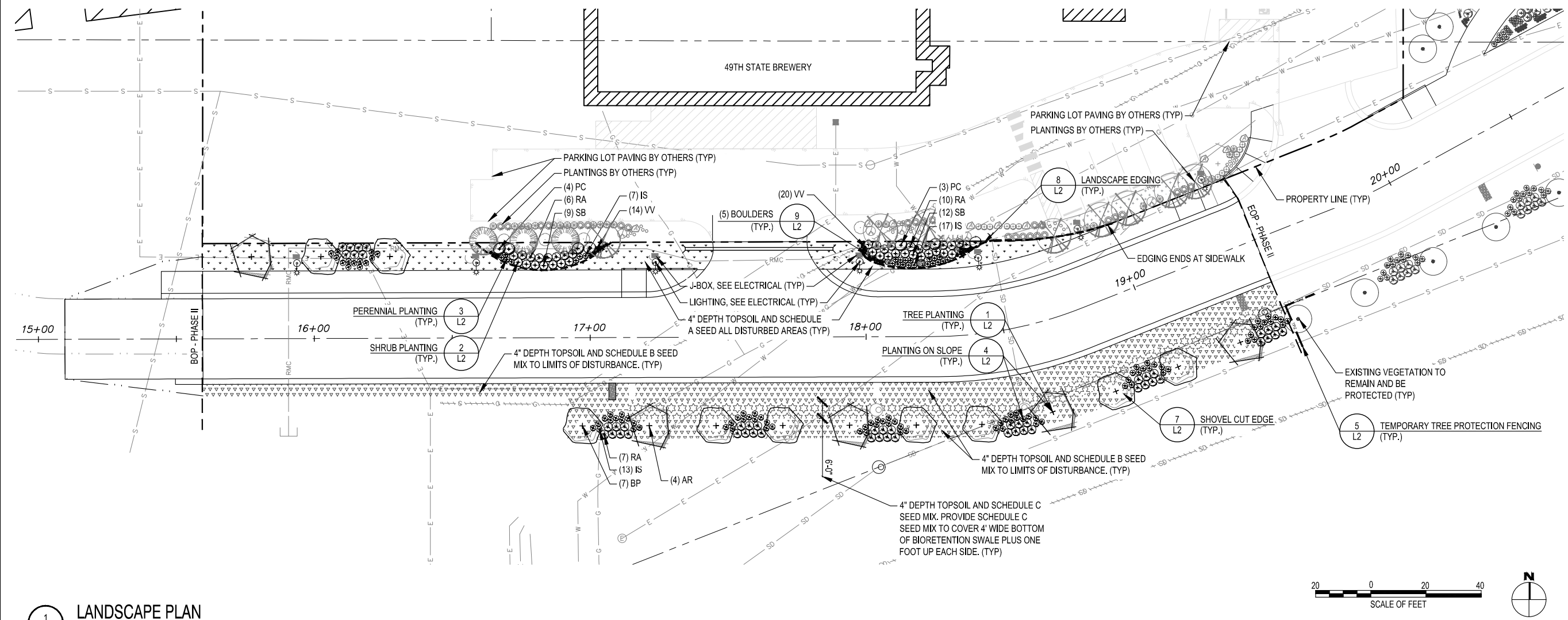
ARRC DEPOT DRIVE IMPROVEMENTS - PHASE II
STORM DRAIN BIORETENTION SWALE DETAILS

PROJECT NO. 31105.03
STATUS: FINAL DESIGN
DATE: DECEMBER 2023

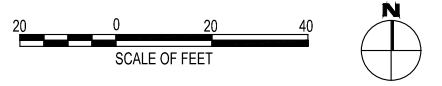
REV	DATE	DESCRIPTION	BY

SCALE	HOR. N/A	VER. N/A
DESIGNED BY	MS	MS
DRAWN BY	MS	MS
CHECKED BY	MH	MH
APPROVED BY	MH	MH

File: P:\23-148-Depot Drive Phase II\2-CAD\Drawings\LA\BN_PLAN.dwg PLOT DATE: 12/4/2023 1:55 PM



1
L1
LANDSCAPE PLAN
NTS



LANDSCAPE SCHEDULE

DECIDUOUS TREES						
QTY.	SYMBOL	ABBR.	LATIN NAME	COMMON NAME	SIZE	FURNISHING NOTES
5		AR	ACER RUBRUM	RED MAPLE	2" CAL.	B&B SINGLE STEM
9		BP	BETULA PAPIRYFERA	PAPER BIRCH	2" CAL.	B&B SINGLE STEM

SHRUBS						
QTY.	SYMBOL	ABBR.	LATIN NAME	COMMON NAME	SIZE	FURNISHING NOTES
65		RA	ROSA ACICULARIS	PRICKLY ROSE	#3 CONT.	POTTED 18" MIN. HT.
7		PC	PHILDELPHUS CORONIUS 'SNOWBELLE'	'SNOWBELLE' MOCK ORANGE	#3 CONT.	POTTED NOTES
21		SB	SPIREA BETULIFOLIA 'TOR'	BIRCHLEAF SPIREA 'TOR'	#2 CONT.	POTTED NOTES
34		VV	VACCINIUM VITIS-IDAEA	LINGONBERRY	4" CONT.	POTTED NOTES

PERENNIALS						
QTY.	SYMBOL	ABBR.	LATIN NAME	COMMON NAME	SIZE	FURNISHING NOTES
115		IS	IRIS SETOSA	WILD FLAG IRIS	MIN. #3 CONT.	POTTED 24" SPACING

MISCELLANEOUS			MISCELLANEOUS		
QTY.	SYMBOL	DESCRIPTION	QTY.	SYMBOL	DESCRIPTION
		4" TOPSOIL AND SCHEDULE A MOWABLE SEED MIX			LANDSCAPE EDGING
		4" TOPSOIL AND SCHEDULE B WILDFLOWER SEED MIX			TREE PROTECTION ZONE FENCE
		4" TOPSOIL AND SCHEDULE C WETLAND SEED MIX	1		3" DIA. BOULDER
			3		2" DIA. BOULDER
			1		1" DIA. BOULDER

LANDSCAPE ABBREVIATIONS:

ABBR.	ABBREVIATION
ADD	ADDITIVE
ALT	ALTERNATIVE
B&B	BALL & BURLAP
CAL.	CALIPER
CL	CENTERLINE
CONT.	CONTAINER
DIA.	DIAMETER
Ø	DIAMETER
HT.	HEIGHT
MAX.	MAXIMUM
MIN.	MINIMUM
N.I.C.	NOT IN CONTRACT
O.C.	ON CENTER
QTY.	QUANTITY
TYP.	TYPICAL

- GENERAL LANDSCAPE NOTES:**
- IMMEDIATELY NOTIFY ENGINEER OF ANY DISCREPANCIES IN THE PLANS OR ON THE SITE. MODIFICATIONS IN THE FIELD SHALL NOT BE MADE UNTIL APPROVAL HAS BEEN GRANTED BY THE ENGINEER.
 - SEE CIVIL FOR EXISTING AND PROPOSED UTILITIES.
 - CONTRACTOR TO COORDINATE WITH UTILITY PROVIDERS AND VERIFY LOCATION OF UTILITIES PRIOR TO CONSTRUCTION.
 - ALL MATERIALS AND WORK SHALL COMPLY WITH MUNICIPALITY OF ANCHORAGE STANDARD SPECIFICATIONS (MASS) UNLESS OTHERWISE SPECIFIED.
 - ALL PLANTS SHALL BE NURSERY GROWN UNLESS OTHERWISE SPECIFIED.
 - ALL PLANTING BEDS SHALL RECEIVE MIN 18" DEPTH TOPSOIL AND MIN. 3" DEPTH SHREDDED BARK MULCH.
 - ALL TREE, SHRUB AND PERENNIAL PLANTINGS IN SEEDED AREAS TO RECEIVE MIN. 18" DEPTH TOPSOIL AND MIN. 3" DEPTH SHREDDED BARK MULCH. PLACE MULCH IN A 5'Ø RING AROUND STEM OR TRUNK UNLESS OTHERWISE NOTED. PROVIDE A SHOVEL CUT EDGE PER DETAIL 7/L2.
 - DO NOT APPLY HYDROSEEDING PRODUCT OR SEED MIX IN THE MULCHED AREA AROUND STEM OR TRUNK OF NEW PLANTINGS.
 - ALL DISTURBED LANDSCAPE AREAS NOT WITHIN PLANTING BEDS SHALL RECEIVE 4" MINIMUM TOPSOIL AND SCHEDULE A SEED MIX, UNLESS OTHERWISE NOTED ON PLANS.
 - REFER TO SHEET L2 FOR LANDSCAPE PLANTING DETAILS.
 - ALL DECIDUOUS TREES SHALL RECEIVE MOOSE PROTECTION FENCING PER 6/L2.

BETTISWORTH NORTH

PROJECT NO.	31105.03
CITY GRID	12.30
WATER GRID	12.30
SEWER GRID	12.30

ARRC DEPOT DRIVE IMPROVEMENTS - PHASE II

LANDSCAPE PLAN

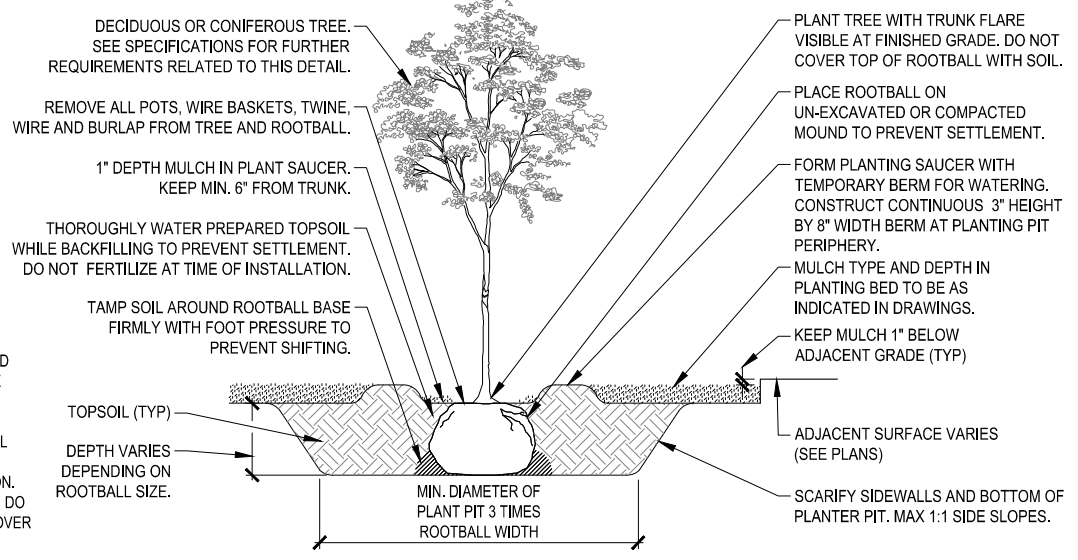
STATUS: FINAL DESIGN DATE: DECEMBER 2023

REV	DATE	DESCRIPTION	BY

SCALE	HOR. N/A	VER. N/A
DESIGNED BY	SC	SC
DRAWN BY	SC	SC
CHECKED BY	MK	MK
APPROVED BY	MK	MK

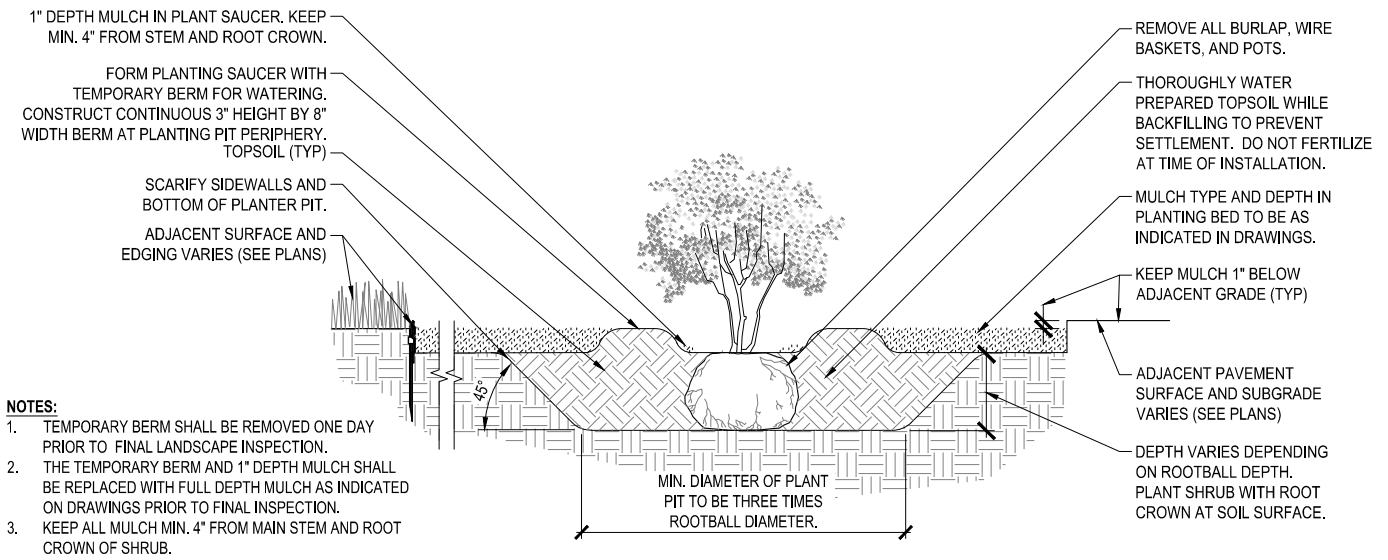
SHEET NO. **L1**

File: P:\23-148 Depot Drive Phase II\2-CAD\Drawings\LA\2 LANDSCAPE DETAILS.dwg PLOT DATE: 12/14/2023 1:55 PM



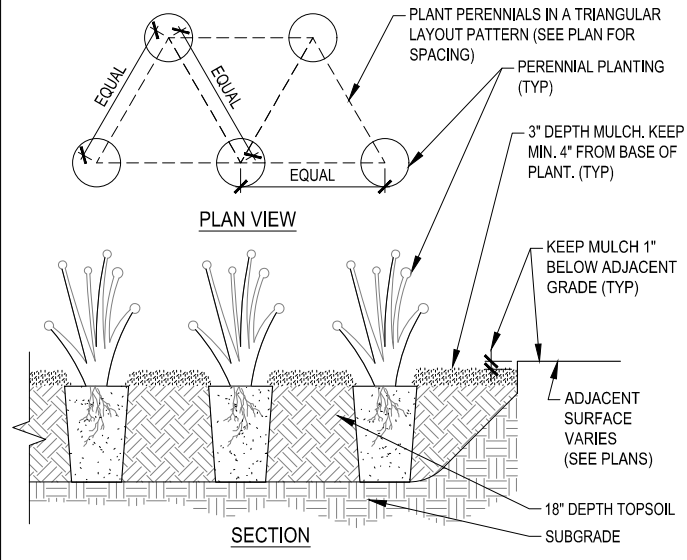
- NOTES:**
- TEMPORARY BERM SHALL BE REMOVED ONE DAY PRIOR TO FINAL LANDSCAPE INSPECTION.
 - THE TEMPORARY BERM AND 1" DEPTH MULCH SHALL BE REPLACED WITH FULL DEPTH MULCH AS INDICATED ON DRAWINGS PRIOR TO FINAL INSPECTION. KEEP ALL MULCH MIN. 6" FROM TRUNK. DO NOT ALLOW MULCH OR TOPSOIL TO COVER TRUNK FLARE.

1 TREE PLANTING
L2 NTS

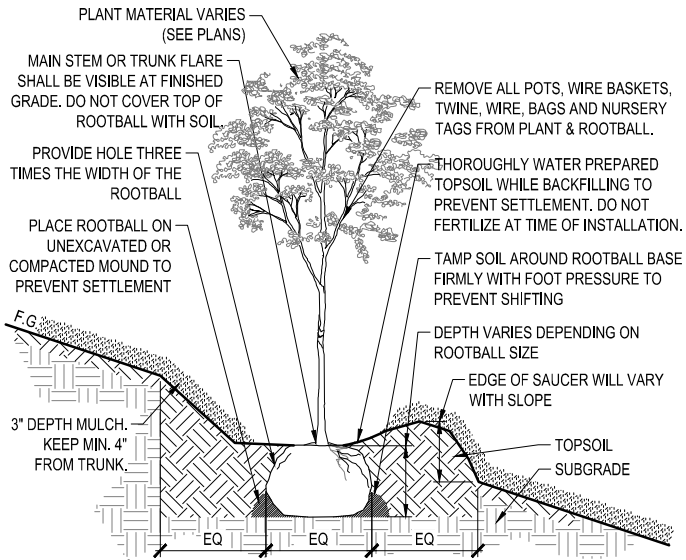


- NOTES:**
- TEMPORARY BERM SHALL BE REMOVED ONE DAY PRIOR TO FINAL LANDSCAPE INSPECTION.
 - THE TEMPORARY BERM AND 1" DEPTH MULCH SHALL BE REPLACED WITH FULL DEPTH MULCH AS INDICATED ON DRAWINGS PRIOR TO FINAL INSPECTION.
 - KEEP ALL MULCH MIN. 4" FROM MAIN STEM AND ROOT CROWN OF SHRUB.

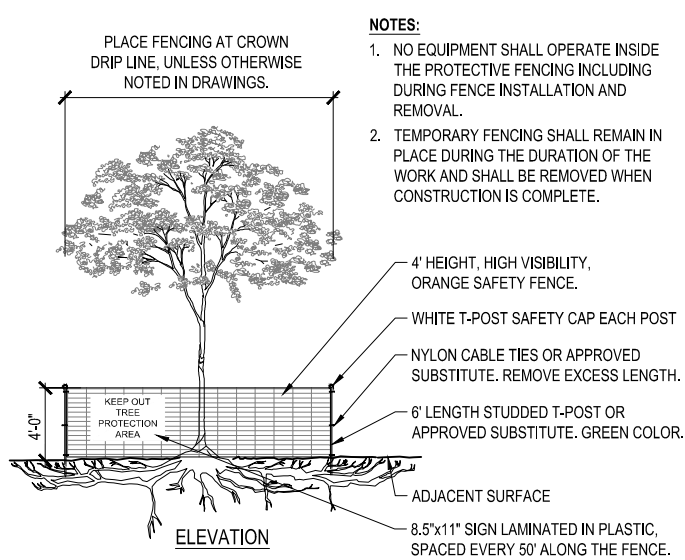
2 SHRUB PLANTING
L2 NTS



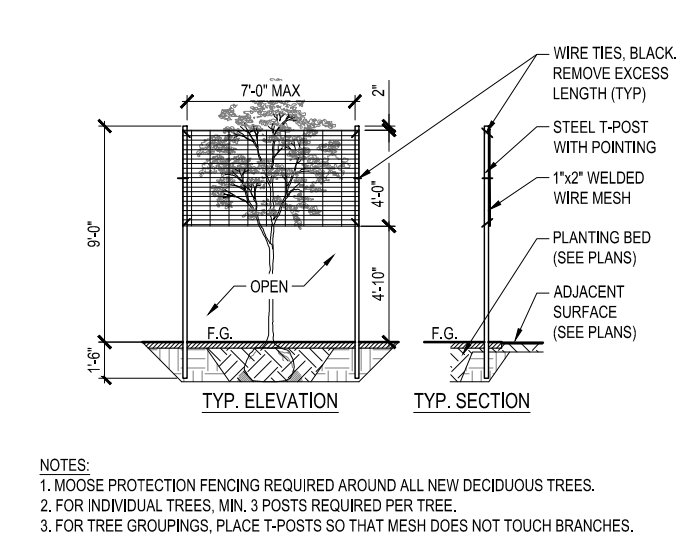
3 PERENNIAL PLANTING
L2 NTS



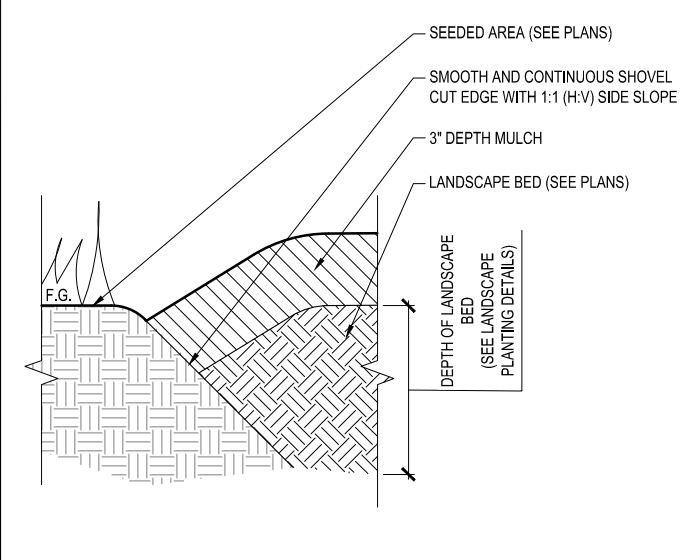
4 PLANTING ON SLOPE
L2 NTS



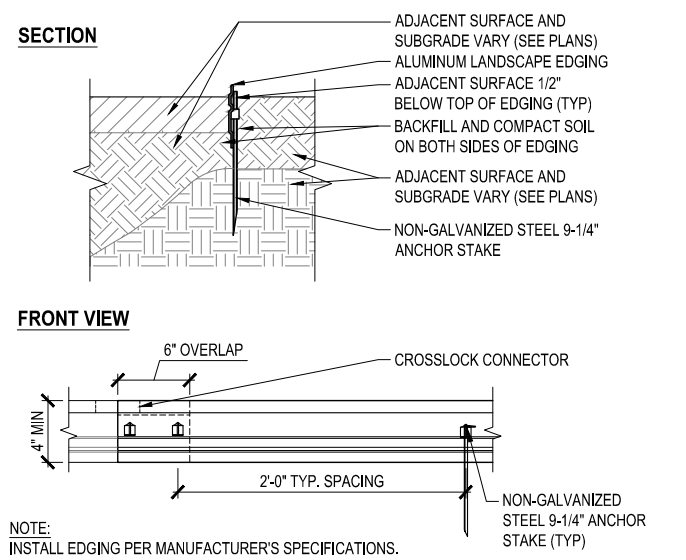
5 TEMPORARY TREE PROTECTION FENCING
L2 NTS



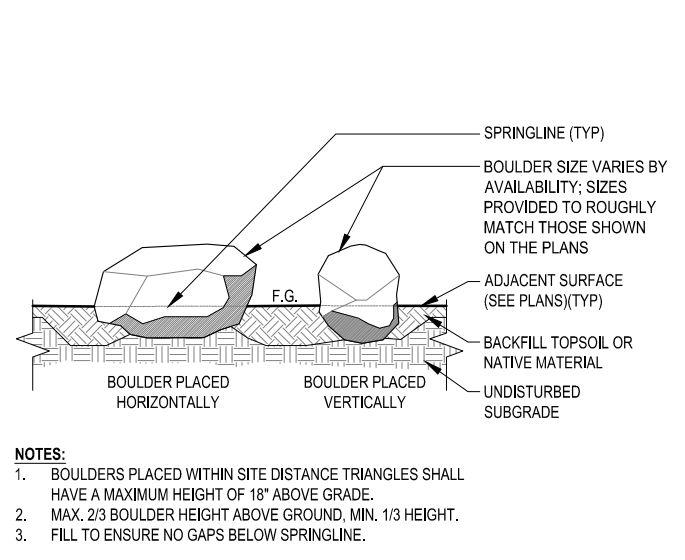
6 MOOSE PROTECTION FENCE
L2 NTS



7 SHOVEL CUT EDGE
L2 NTS



8 LANDSCAPE EDGING
L2 NTS



9 BOULDER
L2 NTS



PROJECT NO.	31105.03
CITY GRID	12.30
WATER GRID	12.30
SEWER GRID	12.30

ARRC DEPOT DRIVE IMPROVEMENTS - PHASE II

LANDSCAPE DETAILS

DATE: DECEMBER 2023

STATUS: FINAL DESIGN

SCALE	REV	DATE	DESCRIPTION	BY
HOR. N/A				
VER. N/A				
DESIGNED BY				
DRAWN BY				
CHECKED BY				
APPROVED BY				

SHEET NO. L2