



NORTH DAKOTA PARKS AND RECREATION DEPARTMENT

ELECTRICAL UPGRADES FORT ABRAHAM LINCOLN STATE PARK 2023



PROJECT CONTACTS

CLIENT

NORTH DAKOTA PARKS AND RECREATION DEPARTMENT
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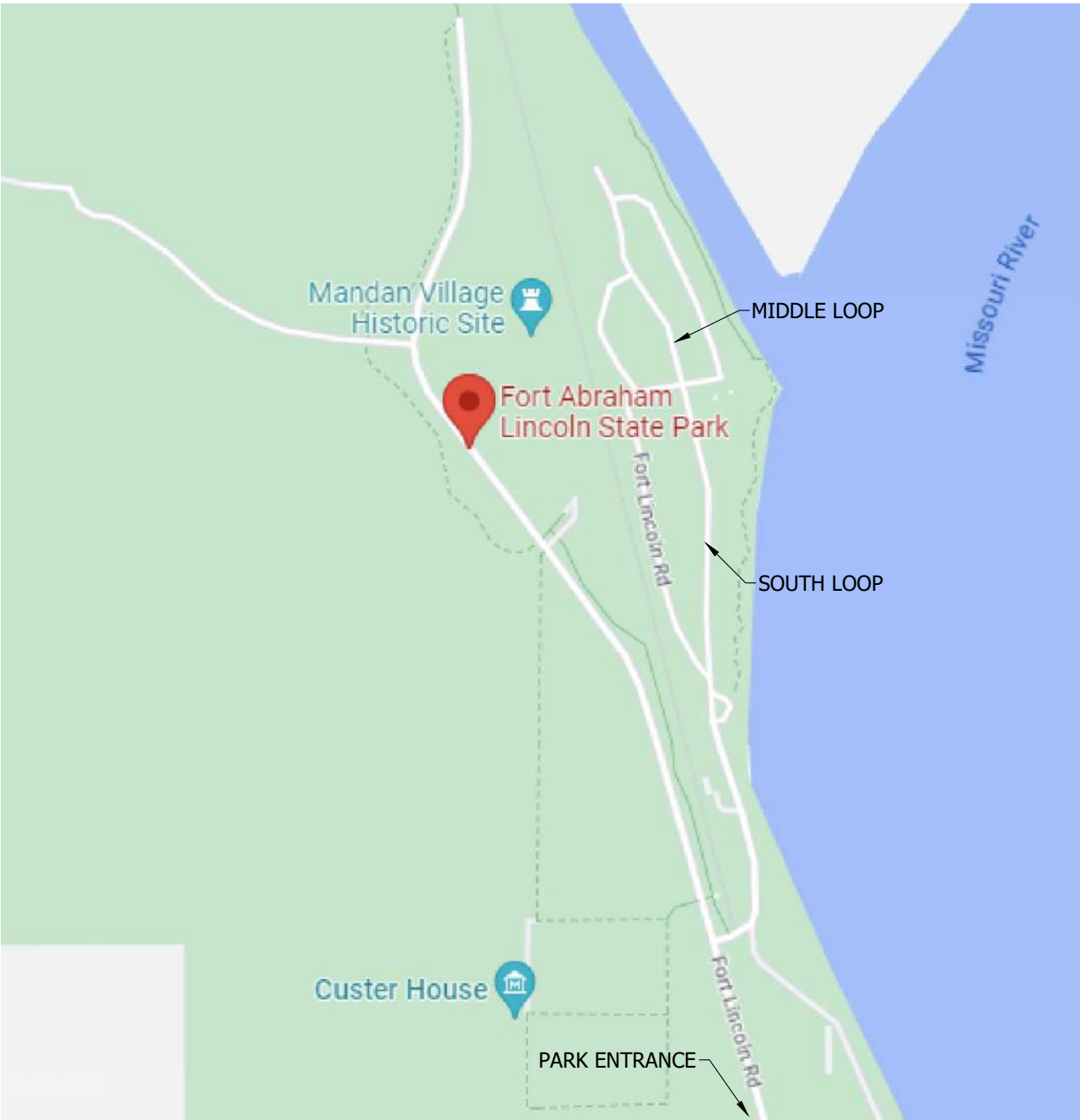
PROJECT ENGINEERS

BARTLETT & WEST
Mike Van Duyne
3456 E. CENTURY AVE.
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701-221-8362

UTILITIES

MOR-GRAN-SOU ELECTRIC
Jason Helgeson
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- GENERAL NOTES:
- IT IS UNDERSTOOD THAT THESE PLANS WERE DESIGNED IN ACCORDANCE WITH STANDARD PRACTICES WIDELY ACCEPTED THROUGH THE FIELD OF ELECTRICAL ENGINEERING AND SURVEYING AT THE TIME THEY WERE ISSUED. ALTHOUGH THE PLANS REPRESENTED HERE HAVE BEEN DESIGN BY, OR UNDER THE DIRECT SUPERVISION OF, A REGISTERED PROFESSIONAL ENGINEER, BARTLETT & WEST WILL NOT BE RESPONSIBLE FOR THE ACCURACY OF ANY PHYSICAL WORK THAT IS NOT CONSTRUCTED UNDER THE DIRECT FULL TIME OBSERVATION OF PERSONNEL EMPLOYED BY BARTLETT & WEST.
 - LOCATIONS OF EXISTING UTILITIES SHOWN ARE APPROXIMATE AND BASED UPON INFORMATION PROVIDED TO BARTLETT & WEST AND/OR FIELD OBSERVED. ACCURACY OF LOCATIONS OF ALL UNDERGROUND UTILITIES IS NEITHER GUARANTEED NOR WARRANTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
 - ALL CONSTRUCTION SHALL CONFORM WITH LOCAL AND STATE BUILDING, PLUMBING, AND ELECTRICAL CODES.



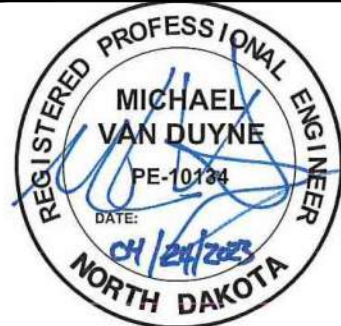
NORTH DAKOTA ONE CALL
1-800-795-0555



Bartlett & West

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**FORT ABRAHAM LINCOLN STATE PARK
COVER SHEET**



DESIGNED BY:	ARH
DRAWN BY:	SDM
APPROVED BY:	MSV
DESIGN PROJ:	21219.000
CONST PROJ:	
SCALE:	AS NOTED
DATE:	04-24-2023
DRAWING NO:	FL-CS
SHEET NO:	1 of 16

LIGHTING / ELECTRICAL

	POLE MOUNTED LIGHTING FIXTURE WITH TENNON ARM		BRANCH CIRCUIT IN CONDUIT CONCEALED IN CEILING OR WALL
	POLE MOUNTED LIGHTING FIXTURE		BRANCH CIRCUIT BELOW GRADE OR SLAB
	CEILING MOUNTED LIGHTING FIXTURE 1x4 AND ID TAG		BRANCH CIRCUIT IN EXPOSED CONDUIT
	CEILING MOUNTED LIGHTING FIXTURE 2x2 AND ID TAG		BRANCH CIRCUIT HOMERUN TO PANEL
	CEILING MOUNTED LIGHTING FIXTURE 2x4 AND ID TAG		DIAGONAL LINES INDICATE NUMBER OF CONDUCTORS
	EMERGENCY LIGHTING FIXTURE		GROUND WIRE - INCLUDED IN ALL BRANCH CIRCUITS UNLESS OTHERWISE NOTED
	CEILING MOUNTED DAYLIGHT CONTROLLED		#18 WIRE
	CEILING MOUNTED WITH EMERGENCY BALLAST		#16 WIRE
	CEILING MOUNTED LIGHT FIXTURE WITH NIGHT LIGHT		#14 WIRE
	PADDLE CEILING FAN		#12 WIRE
	CEILING MOUNTED EXIT LIGHT		BRANCH CIRCUIT OR FEEDER - SEE SCHEDULE FOR CONDUCTOR & CONDUIT QUANTITY & SIZE
	EXIT LIGHT (WALL MOUNTED)		FLEXIBLE CONDUIT
	CEILING MOUNT		TWISTED PAIR
	WALL MOUNT		LIGHTING CONTROL WIRING
	LIGHT TRACK WITH LIGHT TYPES AS INDICATED		MOTOR CONTROLLER
	SINGLE RECEPTACLE		MANUAL MOTOR CONTROLLER
	DUPLEX RECEPTACLE		COMBINATION MOTOR CONTROLLER
	FOURPLEX RECEPTACLE		DISCONNECT SWITCH
	RECESSED FLOOR MOUNTED JUNCTION BOX		EQUIPMENT MOTOR
	SURFACE MOUNTED JUNCTION BOX		UTILITY METER
	CEILING MOUNTED JUNCTION BOX		
	PHOTOCELL		
	ELECTRICAL POWER PEDESTAL		
	JUNCTION BOX		
	TYPE 1 JUNCTION BOX		
	TYPE 2 JUNCTION BOX		
	PLUGMOLD - OUTLETS AT 12" O.C. UNLESS OTHERWISE NOTED		
	TIME SWITCH		
	LIGHTING CONTACTOR		
	SPRING WOUND TIMER		
	HAND-OFF-AUTO SELECTOR SWITCH		
	MANUAL STARTER WITH THERMAL OVERLOADS		
	LIGHTING PANEL		
	DISTRIBUTION PANEL		
	TELEPHONE TERMINAL PANEL		
	THERMOSTAT		
	HUMIDISTAT		
	(1) RJ-45 COMMUNICATION/DATA OUTLET		
	(2) RJ-45 COMMUNICATION/DATA OUTLET		
	(4) RJ-45 COMMUNICATION/DATA OUTLET		
	CEILING MOUNTED COMMUNICATION/DATA OUTLET		
	FLOOR MOUNTED COMMUNICATION/DATA OUTLET		
	TELEVISION OUTLET		
	WALL SPEAKER		
	CEILING SPEAKER		
	COLUMN SPEAKER		
	HORN SPEAKER		
	CALL-IN STATION		
	MOTION DETECTOR		
	CLOSED CIRCUIT TELEVISION OUTLET		
	PUSHBUTTON STATION		
	RELAY CABINET		
	CLOCK SPEAKER		
	CARD READER		
	MAGNETIC LOCK		
	ALARM CONTACTS		
	SECURITY CAMERA		
	SINGLE POLE SWITCH		
	DOUBLE POLE SWITCH		
	3-WAY SWITCH		
	4-WAY SWITCH		
	SINGLE POLE SWITCH WITH PILOT LAMP		
	MOMENTARY CONTACT		
	SINGLE POLE SWITCH, KEY OPERATED		
	DIMMER SWITCH		
	LOW VOLTAGE SWITCH		
	VACANCY SENSOR SWITCH		
	OCCUPANCY SENSOR		
	POWER PACK		

GENERAL SYMBOLS

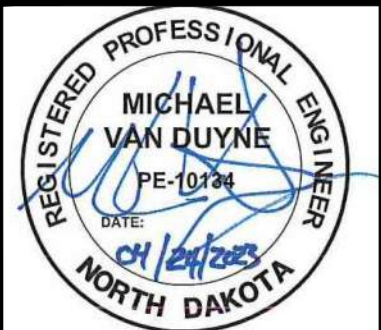
	INDICATES DIRECTION OF PLAN NORTH
	DETAIL REFERENCE - UPPER NUMBER INDICATES DETAIL NUMBER, LOWER NUMBER INDICATES SHEET NUMBER
	PLAN NOTE REFERENCE
	REVISION DELTA
	ROOM NUMBER REFERENCE
	SECTION CUT REFERENCE - UPPER NUMBER INDICATES DETAIL NUMBER, LOWER NUMBER INDICATES SHEET NUMBER
	CONTINUATION
	INDICATES CONNECTION TO EXISTING SYSTEM
	BREAK LINE
	MATCHLINE

ABBREVIATIONS

GENERAL:			
AFF	ABOVE FINISHED FLOOR	G/C	GENERAL CONTRACTOR
AFG	ABOVE FINISHED GRADE	M/C	MECHANICAL CONTRACTOR
CL	CENTERLINE ELEVATION	E/C	ELECTRICAL CONTRACTOR
DN	DOWN	P/C	PLUMBING CONTRACTOR
EX	EXISTING		
ELECTRICAL:			
AC	ALTERNATING CURRENT		
BKR	BREAKER		
CTCB	CONTROL TRANSFORMER CIRCUIT BREAKER		
DISC	DISCONNECT SWITCH		
DR	DUPLEX RECEPTACLE, GFI		
DCB	DISCONNECT CIRCUIT BREAKER		
GFCB	GROUND FAULT CIRCUIT BREAKER		
HBCB	HOT BOX CIRCUIT BREAKER		
LCB	LIGHT CIRCUIT BREAKER		
MCB	MAIN CIRCUIT BREAKER		
MD	MOTORIZED DAMPER		
MPCB	MOTOR POWER CIRCUIT BREAKER		
PCB	PUMP CIRCUIT BREAKER		
PHCB	PANEL HEATER CIRCUIT BREAKER		
RCB	RECEPTACLE CIRCUIT BREAKER		
SCB	SPARE CIRCUIT BREAKER		
TR	TRANSFORMER		
TCB	TRANSFORMER CIRCUIT BREAKER		
TR	TELEMETRY RADIO		
VCCB	VALVE CONTROLS CIRCUIT BREAKER		
VFD	VARIABLE FREQUENCY DRIVE		
" "	QUOTATION AROUND TEXT INDICATES A SCHEDULED ITEM		
*	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES DEVICE BOTTOM TO BE MOUNTED 4" ABOVE COUNTER TOP BACKSPASH		
GFCI	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES GROUND FAULT INTERRUPTER		
IG	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES ISOLATED GROUND SERVICE		
TL	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES LOCKING OR TWIST-LOCK TYPE DEVICE		
WP	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES WEATHER-PROOF ENCLOSURE		
XP	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES EXPLOSION-PROOF ENCLOSURE		
##"	THESE NUMBERS ADJACENT TO ANY SYMBOL INDICATES THE MOUNTING HEIGHT AFF TO TOP OF OF DEVICE		
TP	THESE LETTERS ADJACENT TO ANY SYMBOL INDICATES TAMPER PROOF		

ELECTRICAL SYMBOLS
FORT ABRAHAM LINCOLN STATE PARK

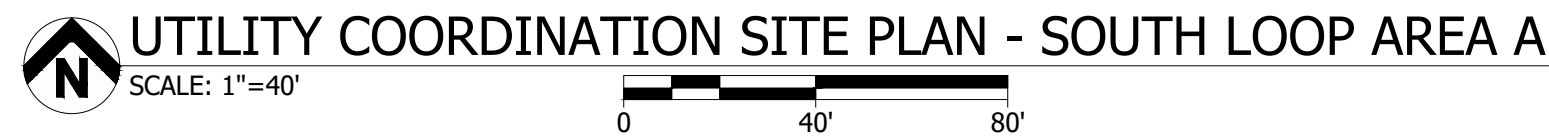
NORTH DAKOTA PARKS & RECREATION DEPARTMENT
ELECTRICAL UPGRADES
BISMARCK, NORTH DAKOTA



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UTILITY COORDINATION SITE PLAN
SOUTH LOOP
FORT ABRAHAM LINCOLN STATE PARK
NORTH DAKOTA PARKS & RECREATION DEPARTMENT
ELECTRICAL UPGRADES
BISMARCK, NORTH DAKOTA



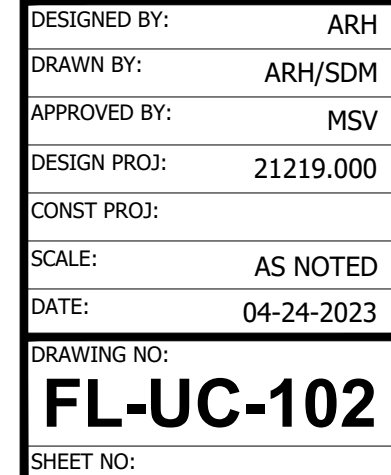
- ① REFER TO ELECTRICAL SITE DETAIL SHEET PL-E-501 FOR ALL SITE DETAIL AND DIMENSIONS FOR ALL NEW PEDESTALS.
- ② ALL NEW DIRECT BURY WIRE TO BE A MINIMUM DEPTH OF 24" BELOW FINISHED GRADE BY E/C. REFER TO ELECTRICAL IMPROVEMENT SITE PLANS - MIDDLE LOOP FOR NEW ELECTRICAL IMPROVEMENTS.
- ③ ALL NEW WATER PIPE TO BE BURIED APPROXIMATELY 36" TO TOP OF PIPE BELOW FINISHED GRADE BY P/C. REFER TO WATER IMPROVEMENT SITE PLANS - MIDDLE LOOP FOR NEW WATER IMPROVEMENTS.

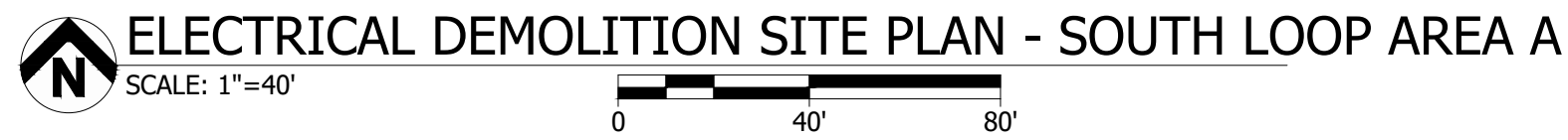
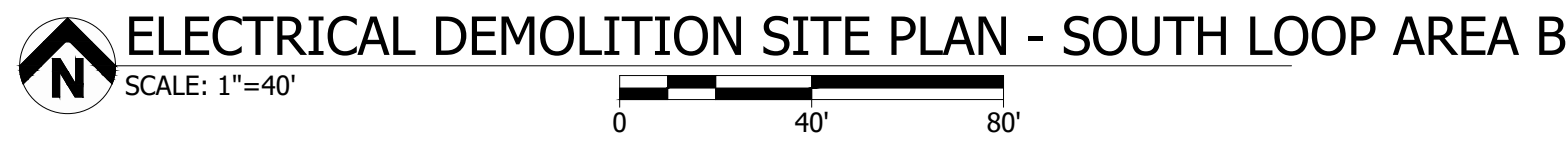
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1. ALL UTILITY COORDINATION TO BE COMPLETED BEFORE START OF CONSTRUCTION. THE SEQUENCE OF CONSTRUCTION SHALL TAKE PLACE AS DESCRIBED IN ONE OF THE BELOW OPTIONS.
 - 1.1. THE REMOVAL OF EXISTING ELECTRICAL PEDESTAL, DIRECT BURY WIRE AND INSTALLATION OF NEW PEDESTALS, DIRECT BURY WIRE SHALL BE DONE PRIOR TO INSTALLATION OF NEW ELECTRICAL WATER PIPE AND HYDRANTS.
 - 1.2. CONSTRUCTION OF BOTH ELECTRICAL DEMOLITION/IMPROVEMENT AND WATER IMPROVEMENT SHALL TAKE PLACE AT THE SAME TIME.
2. E/C TO FIELD COORDINATE ALL WORK WITH OTHER TRADES.

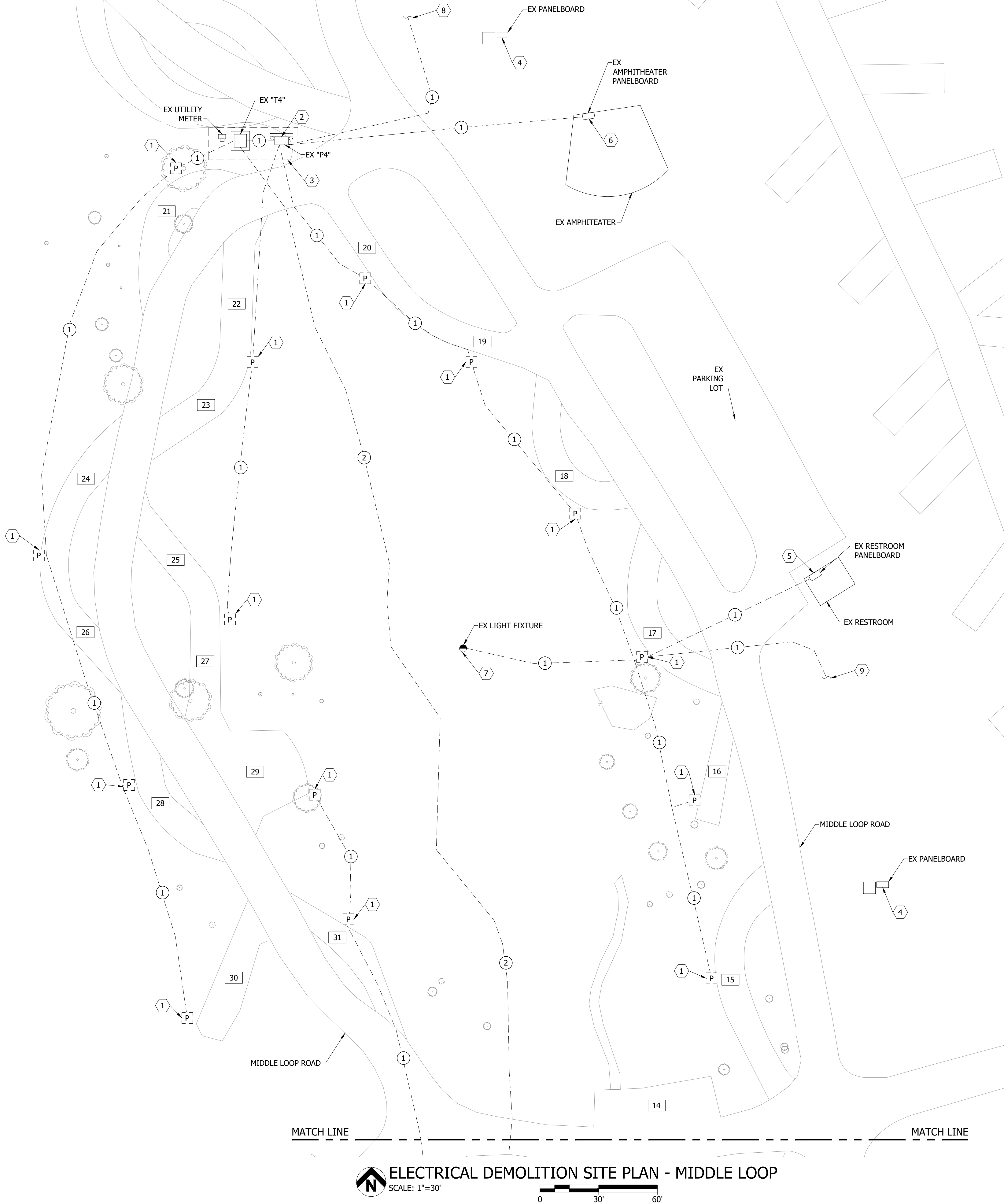
A map of the Middle Loop Work Area, showing the proposed alignment (solid line) and existing infrastructure (dashed line). The map includes labels for 'MIDDLE LOOP WORK AREA' and 'PROPOSED ALIGNMENT'.





- ① EX UNDERGROUND DIRECT BURY BRANCH FEEDER TO REMAIN AND BE ABANDONED IN PLACE.
- ② EX UNDERGROUND DIRECT BURY UTILITY MAIN FEEDER TO REMAIN AND BE ABANDONED IN PLACE.

[illegible]



GENERAL NOTES:

1. THE EX CONDITIONS HAVE BEEN SHOWN BASED ON CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE TO THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EX CONDITIONS.
2. E/C TO FIELD COORDINATE ALL WORK WITH OTHER TRADES.
3. E/C TO FIELD COORDINATE WITH MOR-GRAN-SOU ELECTRIC CO-OP (MGSEC) FOR ALL UTILITY COORDINATION.
MGSEC CONTACT: JASON HELGESON
PHONE: 701-663-0297
EMAIL: jhelgeson@morgransou.com
4. E/C TO BE RESPONSIBLE FOR A NEW UTILITY ELECTRICAL CONNECTION COSTS.

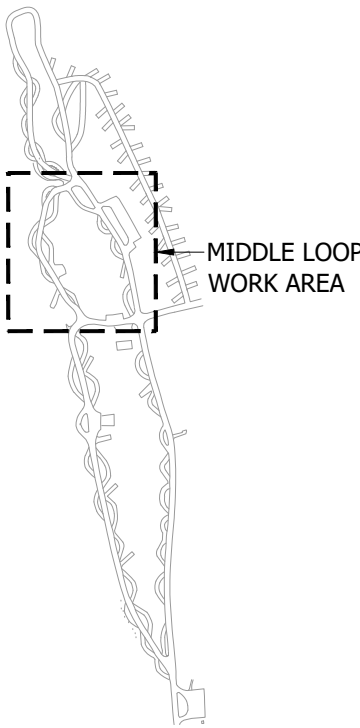
FEEDER SCHEDULE:

- ① EX UNDERGROUND DIRECT BURY BRANCH FEEDER TO REMAIN AND BE ABANDONED IN PLACE.
- ② EX UNDERGROUND DIRECT BURY UTILITY MAIN FEEDER TO REMAIN AND BE ABANDONED IN PLACE.

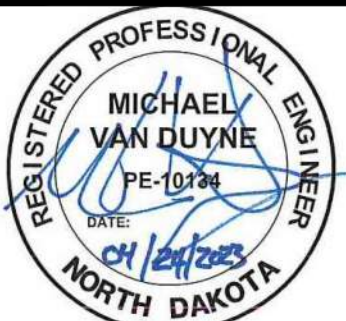
REFERENCE NOTES:

- ① EX RV POWER PEDESTAL, POWER CONNECTION AND ALL ASSOCIATED ABOVE GRADE WIRE AND CONDUIT TO BE REMOVED. EX BELOW GRADE DIRECT BURY WIRE TO BE CUT BACK AND REMOVED TO 1'-0" BELOW GRADE. EX BELOW GRADE DIRECT BURY WIRE BELOW 1'-0" TO BE DISCONNECTED, LABELED "ABANDONED", AND ABANDONED IN PLACE. REFER TO ELECTRICAL IMPROVEMENT SITE PLAN - MIDDLE LOOP FOR NEW POWER PEDESTAL IMPROVEMENTS.
- ② EX PANELBOARD, POWER CONNECTION, UNISTRUT, AND ALL ASSOCIATED ABOVE GRADE WIRE AND CONDUIT TO REMAIN. EX BELOW GRADE DIRECT BURY WIRE TO BE CUT BACK AND REMOVED TO 1'-0" BELOW GRADE. EX BELOW GRADE DIRECT BURY WIRE TO BE CUT BACK AND REMOVED TO 1'-0" BELOW GRADE. EX BELOW GRADE DIRECT BURY WIRE BELOW 1'-0" TO BE DISCONNECTED, LABELED "ABANDONED", AND ABANDONED IN PLACE. REFER TO ELECTRICAL IMPROVEMENT SITE PLAN - MIDDLE LOOP FOR NEW PANELBOARD IMPROVEMENTS.
- ③ E/C TO REFER TO ELECTRICAL DETAILS 3/FL-E-502 AND 2/FL-E-602.
- ④ EX PANELBOARD, ASSOCIATED TRANSFORMER, AND ALL ASSOCIATED BRANCH CIRCUITS TO REMAIN. E/C TO FIELD INVESTIGATE, RETRACE AND RELABEL ALL EX CIRCUIT BREAKERS. FIELD COORDINATE ALL CONNECTIONS.
- ⑤ EX PANELBOARD TO REMAIN. EX POWER CONNECTION AND ALL ASSOCIATED ABOVE GRADE WIRE AND CONDUIT TO REMAIN. EX BELOW GRADE DIRECT BURY WIRE TO BE CUT BACK AND REMOVED TO 1'-0" BELOW GRADE. EX BELOW GRADE DIRECT BURY WIRE BELOW 1'-0" TO BE DISCONNECTED, LABELED "ABANDONED", AND ABANDONED IN PLACE. REFER TO ELECTRICAL IMPROVEMENT SITE PLAN - MIDDLE LOOP FOR NEW PANELBOARD IMPROVEMENTS. E/C TO REFER TO ELECTRICAL DETAILS 6/FL-E-502 AND 2/FL-E-602.
- ⑥ EX PANELBOARD TO REMAIN. EX POWER CONNECTION AND ALL ASSOCIATED ABOVE GRADE WIRE AND CONDUIT TO REMAIN. EX BELOW GRADE DIRECT BURY WIRE TO BE CUT BACK AND REMOVED TO 1'-0" BELOW GRADE. EX BELOW GRADE DIRECT BURY WIRE BELOW 1'-0" TO BE DISCONNECTED, LABELED "ABANDONED", AND ABANDONED IN PLACE. REFER TO ELECTRICAL IMPROVEMENT SITE PLAN - MIDDLE LOOP FOR NEW PANELBOARD IMPROVEMENTS. E/C TO REFER TO ELECTRICAL DETAILS 7/FL-E-502 AND 2/FL-E-602.
- ⑦ EX POLE MOUNTED LIGHTING FIXTURE AND ASSOCIATED LIGHTING POLE TO REMAIN AND BE RECONNECTED. EX POWER CONNECTION AND ALL ASSOCIATED ABOVE GRADE WIRE AND CONDUIT TO BE REMOVED. EX BELOW GRADE DIRECT BURY WIRE TO BE CUT BACK AND REMOVED TO 1'-0" BELOW GRADE. EX BELOW GRADE DIRECT BURY WIRE BELOW 1'-0" TO BE DISCONNECTED, LABELED "ABANDONED", AND ABANDONED IN PLACE. REFER TO ELECTRICAL IMPROVEMENT SITE PLAN - MIDDLE LOOP FOR LIGHTING FIXTURE POWER CONNECTION.
- ⑧ EX RV POWER PEDESTAL, LIGHTS, POWER CONNECTION AND ALL ASSOCIATED ABOVE GRADE WIRE AND CONDUIT AT THE TRIPLE SHELTER TO BE REMOVED. EX BELOW GRADE DIRECT BURY WIRE TO BE CUT BACK AND REMOVED TO 1'-0" BELOW GRADE. EX BELOW GRADE DIRECT BURY WIRE BELOW 1'-0" TO BE DISCONNECTED, LABELED "ABANDONED", AND ABANDONED IN PLACE. REFER TO ELECTRICAL IMPROVEMENT SITE PLAN - MIDDLE LOOP FOR NEW POWER PEDESTAL IMPROVEMENTS.
- ⑨ EX GOODBOY AND SHEHEKE CABINS POWER CONNECTION AND ALL ASSOCIATED ABOVE GRADE WIRE AND CONDUIT AT THE CABINS TO BE REMOVED. EX BELOW GRADE DIRECT BURY WIRE TO BE CUT BACK AND REMOVED TO 1'-0" BELOW GRADE. EX BELOW GRADE DIRECT BURY WIRE BELOW 1'-0" TO BE DISCONNECTED, LABELED "ABANDONED", AND ABANDONED IN PLACE. REFER TO ELECTRICAL IMPROVEMENT SITE PLAN - MIDDLE LOOP FOR NEW POWER PEDESTAL IMPROVEMENTS.

KEY PLAN:

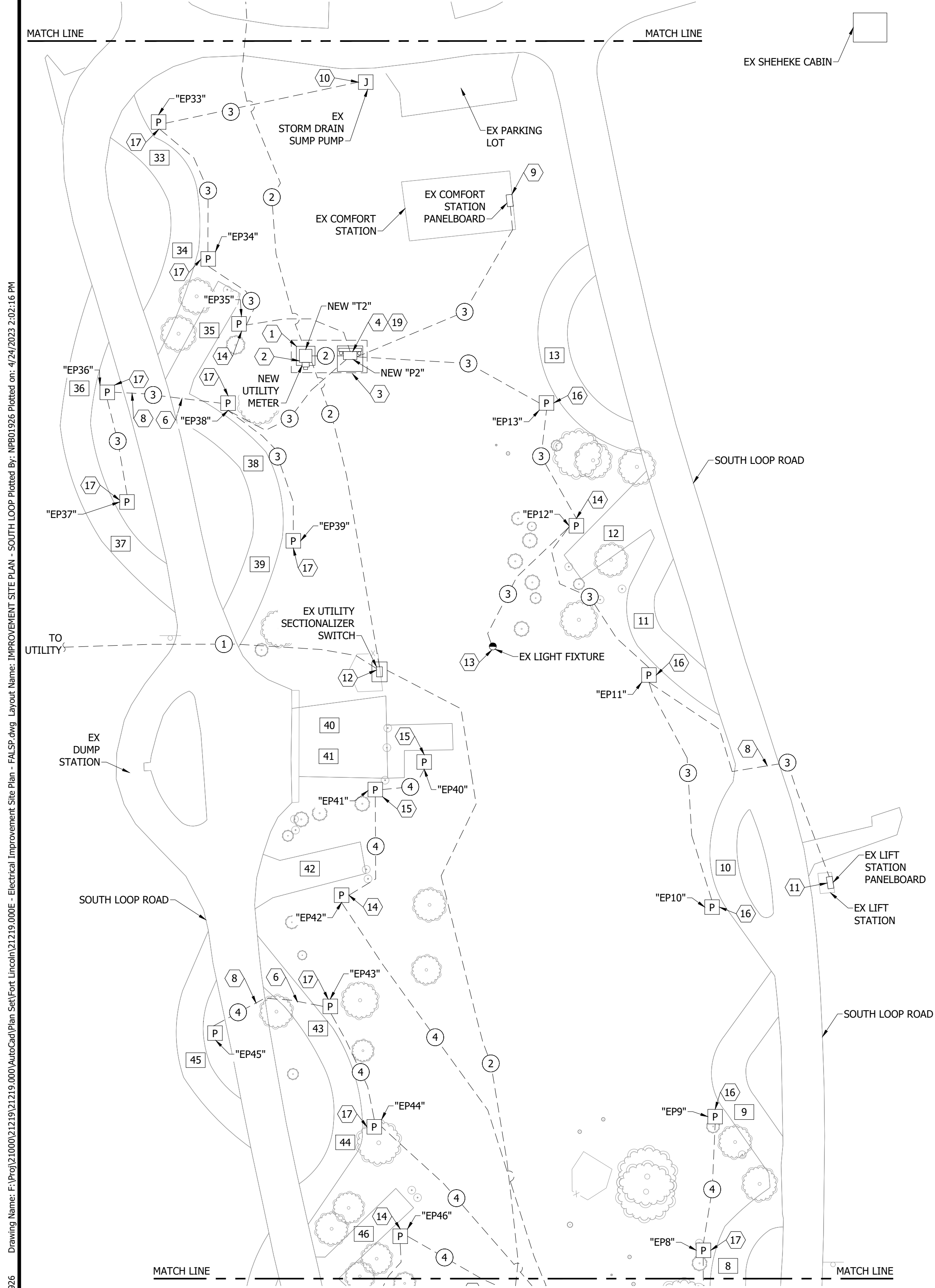


ELECTRICAL DEMOLITION SITE PLAN
MIDDLE LOOP
FORT ABRAHAM LINCOLN STATE PARK
NORTH DAKOTA PARKS & RECREATION DEPARTMENT
ELECTRICAL UPGRADES
BISMARCK, NORTH DAKOTA



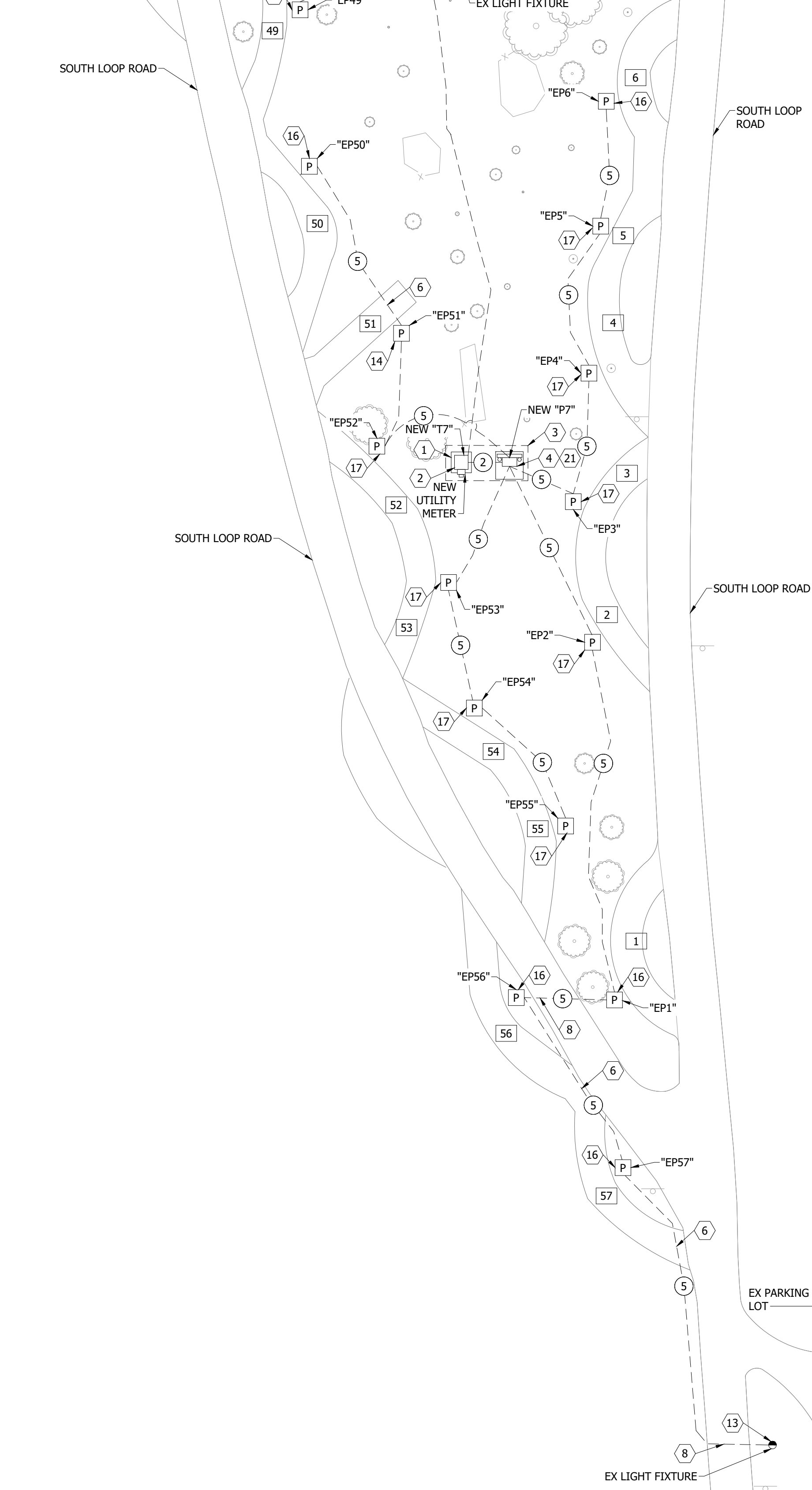
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FL-E-102	
SHEET NO:	

Drawing Name: F:\Proj\21000\21219\21219.000\AutoCad\Plan Set\Fort Lincoln\21219.000E - Electrical Improvement Site Plan - FALS.dwg Layout Name: IMPROVEMENT SITE PLAN - SOUTH LOOP Plotted by: NPB01296 Plotted on: 4/24/2023 2:02:16 PM
Last edit on: 4/24/2023 8:49 AM by: NPB01296



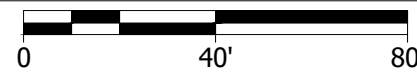
ELECTRICAL IMPROVEMENT SITE PLAN - SOUTH LOOP AREA B

SCALE: 1"=40'



ELECTRICAL IMPROVEMENT SITE PLAN - SOUTH LOOP AREA A

SCALE: 1"=40'



GENERAL NOTES:

- E/C TO PROVIDE ALL NEW PEDESTAL UNDERGROUND DIRECT BURY BRANCH FEEDERS WITHIN THE SAME TRENCH. FIELD COORDINATE EXACT LOCATION.
- E/C SHALL NOT REMOVE OR DISTURB ANY TREES OR SHRUBS WITHOUT OWNER APPROVAL. FIELD COORDINATE WITH OWNER.
- THE EX CONDITIONS HAVE BEEN SHOWN BASED ON CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE TO THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EX CONDITIONS.
- E/C TO FIELD COORDINATE ALL WORK WITH OTHER TRADES.
- E/C TO FIELD COORDINATE WITH MOR-GRAN-SOU ELECTRIC CO-OP (MGSEC) FOR ALL UTILITY COORDINATION.
MGSEC CONTACT: JASON HELGESON
PHONE: 701-663-0297
EMAIL: jhelgeson@morgransou.com
- E/C TO BE RESPONSIBLE FOR A NEW UTILITY ELECTRICAL CONNECTION COSTS.
- E/C TO REPLACE ALL THE DISTURBED STAND AND GRASS AREAS WITH MATCHING VEGETATION, MATERIALS, BACKFILLING, AND SEEDING REQUIREMENTS THAT MEET NORTH DAKOTA PARKS AND RECREATION DEPARTMENT'S STANDARDS. MIXED GRAVEL/SAND/DIRT REPLACEMENT FILL MATERIAL WILL NOT BE ACCEPTED. E/C WILL BE REQUIRED TO SORT EX MATERIAL IF REUSED. E/C TO FIELD COORDINATE ALL REQUIREMENTS WITH NORTH DAKOTA PARKS AND RECREATION DEPARTMENT.

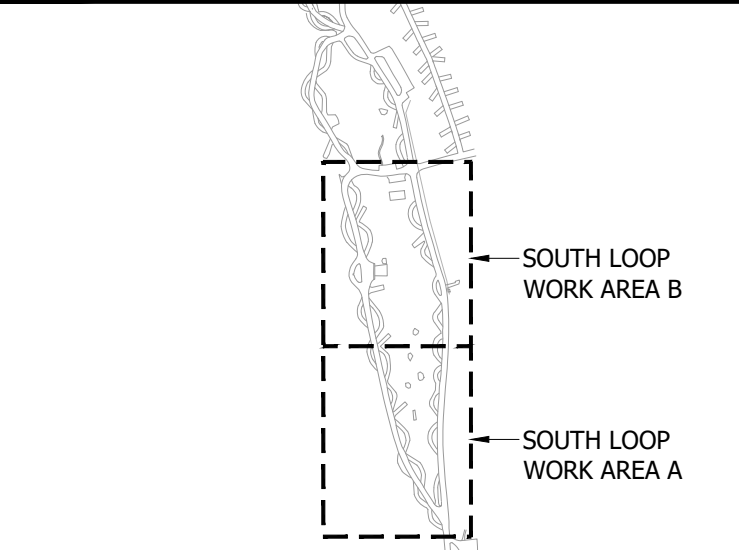
FEEDER SCHEDULE:

- EX UNDERGROUND DIRECT BURY MAIN FEEDER TO REMAIN.
- NEW UTILITY FEEDERS. REFER TO ELECTRICAL IMPROVEMENT RISER DIAGRAM 3/FL-E-602.
- NEW UNDERGROUND DIRECT BURY BRANCH FEEDER TRENCH. REFER TO ELECTRICAL WIRING DETAIL 2/FL-E-504 FOR CIRCUITING AND FEEDER SCHEDULE.
- NEW UNDERGROUND DIRECT BURY BRANCH FEEDER TRENCH. REFER TO ELECTRICAL WIRING DETAIL 1/FL-E-505 FOR CIRCUITING AND FEEDER SCHEDULE.
- NEW UNDERGROUND DIRECT BURY BRANCH FEEDER TRENCH. REFER TO ELECTRICAL WIRING DETAIL 2/FL-E-505 FOR CIRCUITING AND FEEDER SCHEDULE.

REFERENCE NOTES:

- E/C TO PROVIDE NEW UTILITY TRANSFORMER CONCRETE EQUIPMENT PAD. E/C TO FIELD VERIFY EXACT LOCATION AND COORDINATE ALL REQUIREMENTS WITH ELECTRIC UTILITY.
- NEW UTILITY TRANSFORMER AND UTILITY METER, PROVIDED BY ELECTRIC UTILITY. E/C TO COORDINATE EXACT CONNECTION REQUIREMENTS WITH ELECTRIC UTILITY.
- REFER TO ELECTRICAL IMPROVEMENT RISER DIAGRAM DETAIL 3/FL-E-602.
- NEW 1200 AMP, 120/240 VOLT, 1 PHASE, 3 WIRE PANELBOARD. REFER TO PANELBOARD SCHEDULE ON SHEET FL-E-601.
- EX 800 AMP, 120/240 VOLT, 1 PHASE, 3 WIRE PANELBOARD. E/C TO RELABEL AND RECONFIGURE PANELBOARD, REFER TO PANELBOARD SCHEDULE ON SHEET FL-E-601.
- E/C HAS THE OPTION TO BORE UNDER THE STAND (RV GRAVEL PAD) OR TRENCH THROUGH THE STAND. E/C TO RECLAIM TO EX CONDITIONS. E/C TO REPLACE ALL THE DISTURBED STAND AND GRASS AREAS WITH MATCHING MATERIALS, BACKFILLING, AND SEEDING REQUIREMENTS THAT MEET NORTH DAKOTA PARKS AND RECREATION DEPARTMENT'S STANDARDS. MIXED GRAVEL/SAND/DIRT REPLACEMENT FILL MATERIAL WILL NOT BE ACCEPTED. E/C WILL BE REQUIRED TO SORT EX MATERIAL IF REUSED. E/C TO FIELD COORDINATE ALL REQUIREMENTS.
- E/C TO PROVIDE NEW CONCRETE EQUIPMENT PAD UNDER EX PANELBOARD. E/C TO FIELD VERIFY EXACT LOCATION AND COORDINATE ALL REQUIREMENTS WITH ELECTRIC UTILITY.
- E/C HAS THE OPTION TO BORE UNDER THE ROAD OR TRENCH THROUGH THE ROAD. E/C TO RECLAIM TO EX CONDITIONS. E/C TO REPLACE ALL THE DISTURBED ASPHALT ROADWAY, GRAVEL, AND GRASS AREAS WITH MATCHING MATERIALS, BACKFILLING, AND SEEDING REQUIREMENTS THAT MEET NORTH DAKOTA PARKS AND RECREATION DEPARTMENT'S STANDARDS. MIXED GRAVEL/SAND/DIRT REPLACEMENT FILL MATERIAL WILL NOT BE ACCEPTED. E/C WILL BE REQUIRED TO SORT EX MATERIAL IF REUSED IN GRAVEL AREAS. E/C TO FIELD COORDINATE ALL REQUIREMENTS.
- E/C TO CONNECT NEW FEEDER WIRE AND CONDUIT TO EX COMFORT STATION PANELBOARD. PROVIDE NEW LABEL "COMFORT STATION PANELBOARD" FOR EX PANELBOARD, REFER TO ELECTRICAL RISER DIAGRAM DETAIL 3/FL-E-602.
- E/C TO CONNECT NEW FEEDER WIRE AND CONDUIT TO EX STORM DRAIN SUMP PUMP JUNCTION BOX. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS. REFER TO ELECTRICAL RISER DIAGRAM DETAIL 3/FL-E-602.
- E/C TO CONNECT NEW FEEDER WIRE AND CONDUIT TO EX LIFT STATION PANELBOARD. PROVIDE NEW LABEL "LIFT STATION PANELBOARD" FOR EX PANELBOARD. REFER TO ELECTRICAL RISER DIAGRAM DETAIL 3/FL-E-602.
- EX SECTIONALIZER SWITCH TO REMAIN. E/C TO CONNECT NEW MAIN FEEDER WIRE AND CONDUIT TO EX SECTIONALIZER SWITCH. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS. REFER TO ELECTRICAL RISER DIAGRAM DETAIL 3/FL-E-602.
- E/C TO CONNECT NEW FEEDER WIRE AND CONDUIT TO EX POLE MOUNTED LIGHTING FIXTURE. ALL EXPOSED FEEDER WIRE TO BE IN RIGID CONDUIT PAINTED TO MATCH EX POLE FINISH. FIELD VERIFY EXACT REQUIREMENTS.
- E/C TO REFER TO 1/FL-E-501 FOR NEW SINGLE BACK-IN PEDESTAL LOCATION.
- E/C TO REFER TO 2/FL-E-501 FOR NEW DOUBLE BACK-IN PEDESTAL LOCATION.
- E/C TO REFER TO 4/FL-E-501 FOR NEW SINGLE PULL-THROUGH PEDESTAL LOCATION.
- E/C TO REFER TO 5/FL-E-501 FOR NEW DOUBLE PULL-THROUGH PEDESTAL LOCATION.
- EX UTILITY TRANSFORMER AND UTILITY METER, TO REMAIN. E/C TO COORDINATE EXACT CONNECTION REQUIREMENTS WITH ELECTRIC UTILITY.
- E/C TO REFER TO 5/FL-E-506 FOR PANELBOARD BERM MOUNTING DETAIL.
- E/C TO REFER TO 5/FL-E-506 FOR PANELBOARD BERM MOUNTING DETAIL.
- E/C TO REFER TO 5/FL-E-506 FOR PANELBOARD BERM MOUNTING DETAIL.

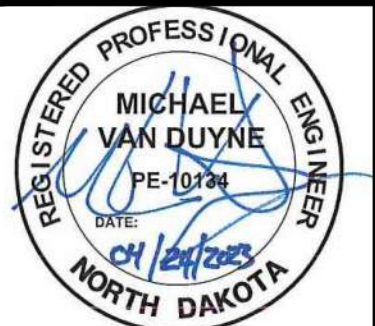
KEY PLAN:



Bartlett & West

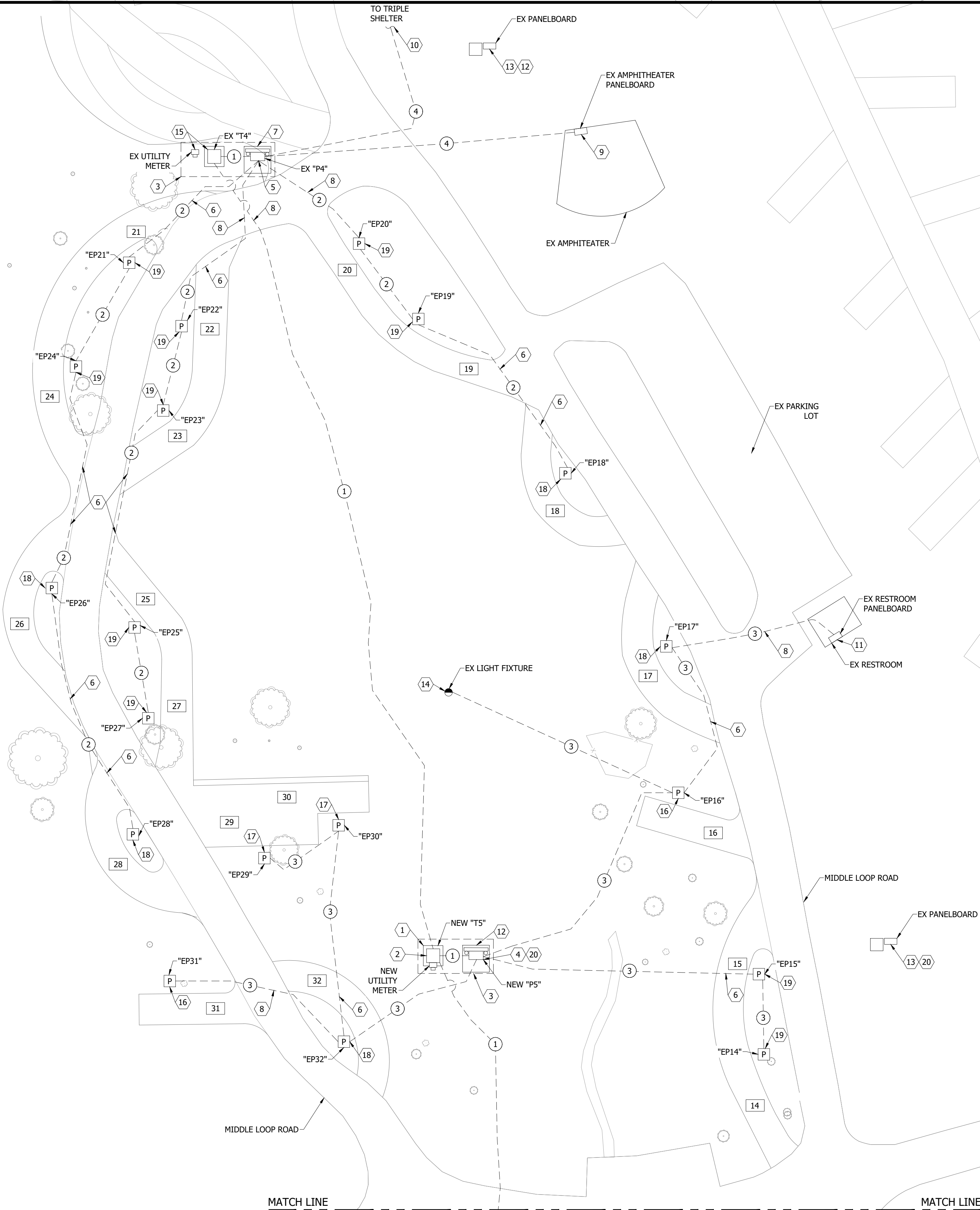
3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE 701-258-1110 - FAX 701-258-1111
WWW.BARTLETTANDWEST.COM

ELECTRICAL IMPROVEMENT SITE PLAN
SOUTH LOOP
FORT ABRAHAM LINCOLN STATE PARK
NORTH DAKOTA PARKS & RECREATION DEPARTMENT
ELECTRICAL UPGRADES
BISMARCK, NORTH DAKOTA



DESIGNED BY:	ARH
DRAWN BY:	SDM
APPROVED BY:	MSV
DESIGN PROJ:	21219.000
CONST PROJ:	
SCALE:	AS NOTED
DATE:	04-24-2023
DRAWING NO:	FL-E-111
SHEET NO:	7 of 16

Drawing Name: F:\Proj\21000\21219\21219\000\AutoCad\Plan Set\Fort Lincoln\21219.000E - Electrical Improvement Site Plan - FALSIF.dwg
 Layout Name: IMPROVEMENT SITE PLAN - MIDDLE LOOP
 Plotted on: 4/24/2023 2:02:32 PM
 Last edit on: 4/24/2023 8:49 AM by: NPB01926



GENERAL NOTES:

- E/C TO PROVIDE ALL NEW PEDESTAL UNDERGROUND DIRECT BURY BRANCH FEEDERS WITHIN THE SAME TRENCH. FIELD COORDINATE EXACT LOCATION.
- E/C SHALL NOT REMOVE OR DISTURB ANY TREES OR SHRUBS WITHOUT OWNER APPROVAL. FIELD COORDINATE WITH OWNER.
- THE EX CONDITIONS HAVE BEEN SHOWN BASED ON CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE TO THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EX CONDITIONS.
- E/C TO FIELD COORDINATE ALL WORK WITH OTHER TRADES.
- E/C TO FIELD COORDINATE WITH MOR-GRAN-SOU ELECTRIC CO-OP (MGSEC) FOR ALL UTILITY COORDINATION.
MGSEC CONTACT: JASON HELGESON
PHONE: 701-663-0297
EMAIL: jhelgeson@morgransou.com
- E/C TO BE RESPONSIBLE FOR A NEW UTILITY ELECTRICAL CONNECTION COSTS.
- E/C TO REPLACE ALL THE DISTURBED STAND AND GRASS AREAS WITH MATCHING VEGETATION, MATERIALS, BACKFILLING, AND SEEDING REQUIREMENTS THAT MEET NORTH DAKOTA PARKS AND RECREATION DEPARTMENT'S STANDARDS. MIXED GRAVEL/SAND/DIRT REPLACEMENT FILL MATERIAL WILL NOT BE ACCEPTED. E/C WILL BE REQUIRED TO SORT EX MATERIAL IF REUSED. E/C TO COORDINATE ALL REQUIREMENTS WITH NORTH DAKOTA PARKS AND RECREATION DEPARTMENT.

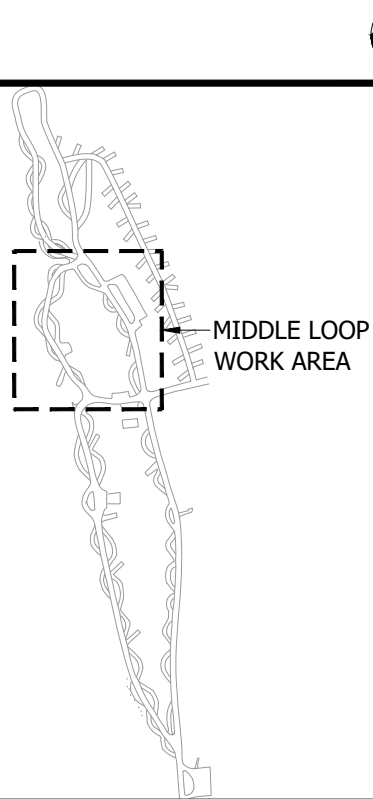
FEEDER SCHEDULE:

- NEW UTILITY FEEDERS. REFER TO ELECTRICAL IMPROVEMENT RISER DIAGRAM 4/FL-E-602.
- NEW UNDERGROUND DIRECT BURY BRANCH FEEDER TRENCH. REFER TO ELECTRICAL WIRING DETAIL 5/FL-E-503 FOR CIRCUITING AND FEEDER SCHEDULE.
- NEW UNDERGROUND DIRECT BURY BRANCH FEEDER TRENCH. REFER TO ELECTRICAL WIRING DETAIL 1/FL-E-504 FOR CIRCUITING AND FEEDER SCHEDULE.
- EX UNDERGROUND DIRECT BURY FEEDER, REFER TO ELECTRICAL WIRING DETAIL 5/FL-E-503 FOR CIRCUITING AND FEEDER SCHEDULE.

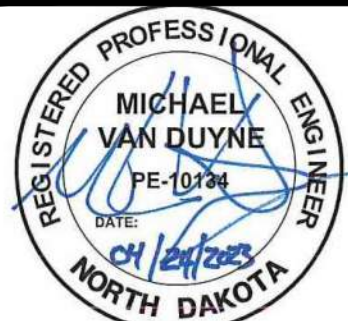
REFERENCE NOTES:

- E/C TO PROVIDE NEW UTILITY TRANSFORMER CONCRETE EQUIPMENT PAD. E/C TO FIELD VERIFY EXACT LOCATION AND COORDINATE ALL REQUIREMENTS WITH ELECTRIC UTILITY.
- NEW UTILITY TRANSFORMER AND UTILITY METER, PROVIDED BY ELECTRIC UTILITY. E/C TO COORDINATE EXACT CONNECTION REQUIREMENTS WITH ELECTRIC UTILITY.
- REFER TO ELECTRICAL IMPROVEMENT RISER DIAGRAM DETAIL 4/FL-E-602.
- NEW 800 AMP, 120/240 VOLT, 3 WIRE PANELBOARD. REFER TO PANEL BOARD SCHEDULE ON SHEET FL-E-601. REFER TO DETAIL 4/FL-E-503.
- EX 800 AMP, 120/240 VOLT, 1 PHASE, 3 WIRE PANELBOARD. E/C TO RELABEL AND RECONFIGURE PANELBOARD, REFER TO PANELBOARD SCHEDULE ON SHEET FL-E-601.
- E/C HAS THE OPTION TO BORE UNDER THE STAND (RV GRAVEL PAD) OR TRENCH THROUGH THE STAND. E/C TO RECLAIM TO EX CONDITIONS. E/C TO REPLACE ALL THE DISTURBED STAND AND GRASS AREAS WITH MATCHING MATERIALS, BACKFILLING, AND SEEDING REQUIREMENTS THAT MEETING NORTH DAKOTA PARKS AND RECREATION DEPARTMENT'S STANDARDS. MIXED GRAVEL/SAND/DIRT REPLACEMENT FILL MATERIAL WILL NOT BE ACCEPTED. E/C WILL BE REQUIRED TO SORT EX MATERIAL IF REUSED. E/C TO FIELD COORDINATE ALL REQUIREMENTS.
- E/C TO PROVIDE NEW 6" CONCRETE EQUIPMENT PAD UNDER EX PANELBOARD. PROVIDE PAD WITH 4'-0" IN FRONT OF PANEL DOOR AND 0'-6" LARGER THAN PANEL AND SUPPORTS ON ALL OTHER SIDES. E/C TO FIELD VERIFY EXACT LOCATION AND COORDINATE ALL REQUIREMENTS WITH ELECTRIC UTILITY.
- E/C HAS THE OPTION TO BORE UNDER THE ROAD OR TRENCH THROUGH THE ROAD. E/C TO RECLAIM TO EX CONDITIONS. E/C TO REPLACE ALL THE DISTURBED ASPHALT ROADWAY, GRAVEL, AND GRASS AREAS WITH MATCHING MATERIALS, BACKFILLING, AND SEEDING REQUIREMENTS THAT MEETING NORTH DAKOTA PARKS AND RECREATION DEPARTMENT'S STANDARDS. MIXED GRAVEL/SAND/DIRT REPLACEMENT FILL MATERIAL WILL NOT BE ACCEPTED. E/C WILL BE REQUIRED TO SORT EX MATERIAL IF REUSED IN GRAVEL AREAS. E/C TO FIELD COORDINATE ALL REQUIREMENTS.
- EX FEEDER WIRE AND CONDUIT TO EX AMPHITHEATER PANELBOARD. PROVIDE NEW LABEL "AMPHITHEATER PANELBOARD" FOR EX PANELBOARD, FIELD VERIFY EX CONDITIONS. REFER TO ELECTRICAL RISER DIAGRAM DETAIL 4/FL-E-602.
- EX FEEDER WIRE AND CONDUIT TO EX TRIPLE SHELTER POWER PEDESTALS AND EX LIGHT FIXTURES. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS. REFER TO ELECTRICAL RISER DIAGRAM DETAIL 4/FL-E-602.
- E/C TO CONNECT NEW FEEDER WIRE AND CONDUIT TO EX RESTROOM PANELBOARD. PROVIDE NEW LABEL "RESTROOM PANELBOARD" FOR EX PANELBOARD. REFER TO ELECTRICAL RISER DIAGRAM DETAIL 4/FL-E-602.
- E/C TO FIELD INVESTIGATE, RETRACE EX CIRCUITS CONNECTIONS AND RELABEL ALL EX CIRCUIT BREAKERS IN EX PANELBOARD.
- EX PANELBOARD AND ASSOCIATED TRANSFORMER TO REMAIN, UNLESS NOTED OTHERWISE.
- E/C TO CONNECT NEW FEEDER WIRE AND CONDUIT TO EX POLE MOUNTED LIGHTING FIXTURE. ALL EXPOSED FEEDER WIRE TO BE IN RIGID CONDUIT PAINTED TO MATCH EX POLE FINISH. FIELD VERIFY EXACT REQUIREMENTS.
- EX UTILITY TRANSFORMER AND UTILITY METER, TO REMAIN. E/C TO COORDINATE EXACT CONNECTION REQUIREMENTS WITH ELECTRIC UTILITY.
- E/C TO REFER TO 1/FL-E-501 FOR NEW SINGLE BACK-IN PEDESTAL LOCATION.
- E/C TO REFER TO 2/FL-E-501 FOR NEW DOUBLE BACK-IN PEDESTAL LOCATION.
- E/C TO REFER TO 4/FL-E-501 FOR NEW SINGLE PULL-THROUGH PEDESTAL LOCATION.
- E/C TO REFER TO 5/FL-E-501 FOR NEW DOUBLE PULL-THROUGH PEDESTAL LOCATION.
- E/C TO REFER TO 5/FL-E-506 FOR PANELBOARD BERM MOUNTING DETAIL.

KEY PLAN:

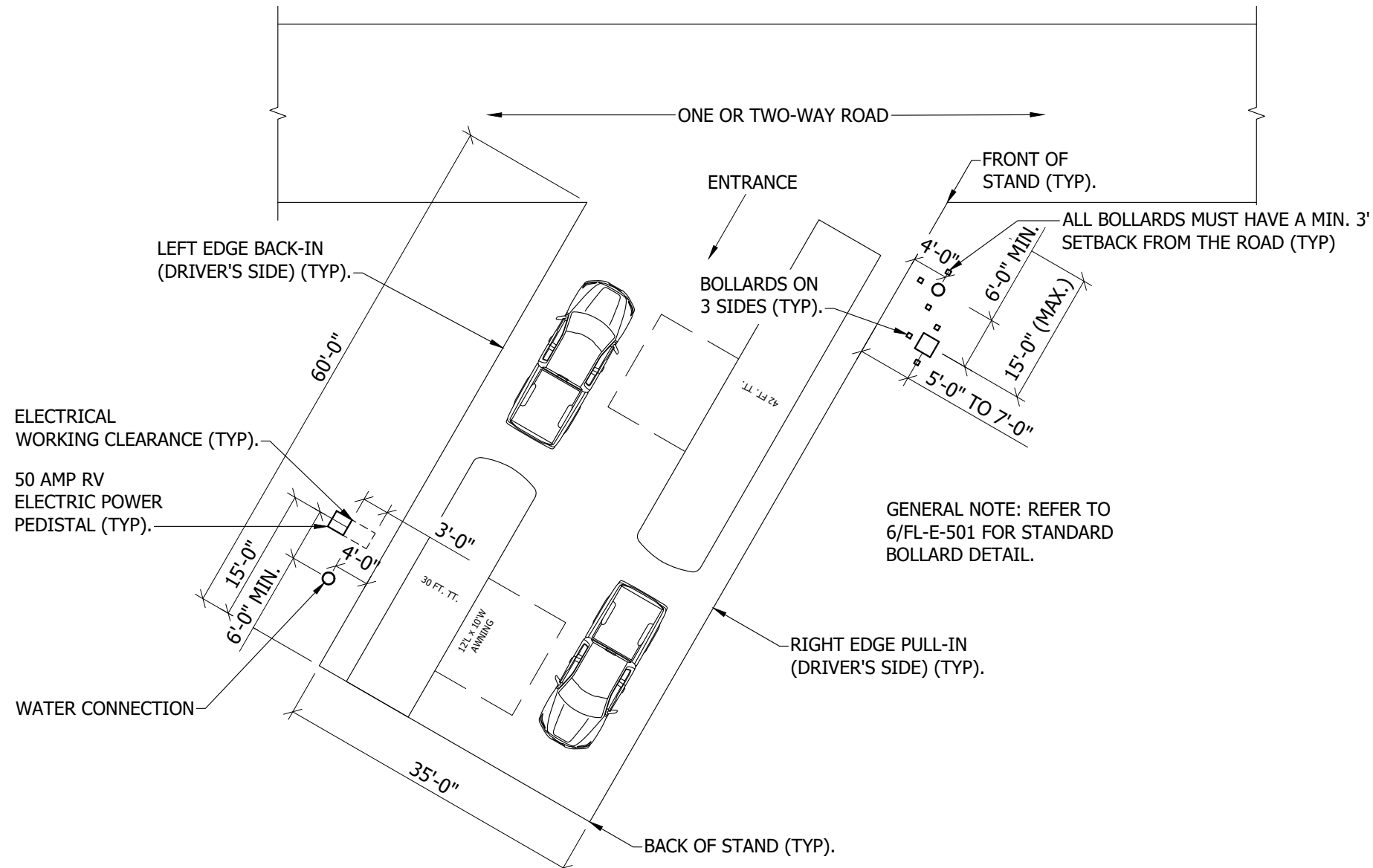


ELECTRICAL IMPROVEMENT SITE PLAN
 MIDDLE LOOP
 FORT ABRAHAM LINCOLN STATE PARK
 NORTH DAKOTA PARKS & RECREATION DEPARTMENT
 ELECTRICAL UPGRADES
 BISMARCK, NORTH DAKOTA

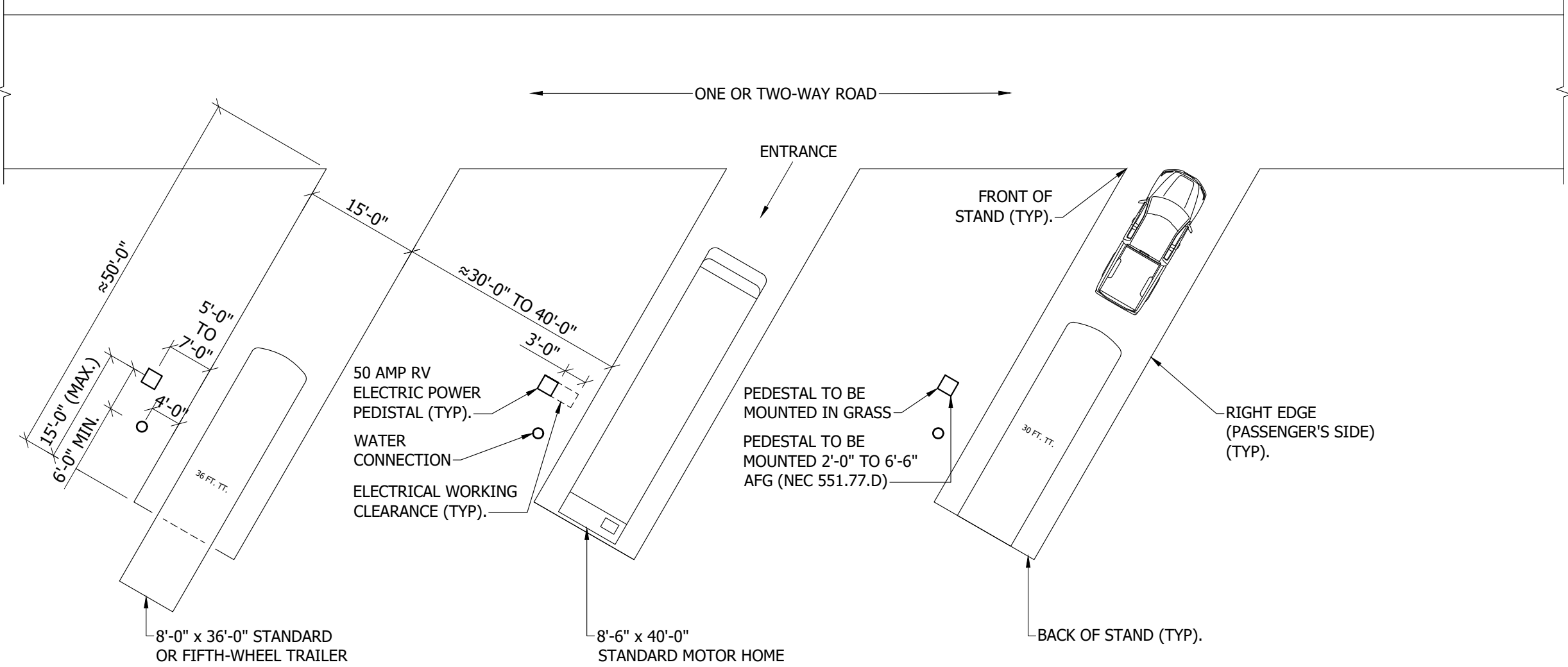


DESIGNED BY:	ARH
DRAWN BY:	SDM
APPROVED BY:	MSV
DESIGN PROJ:	21219.000
CONST PROJ:	
SCALE:	AS NOTED
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DRAWING NO:	
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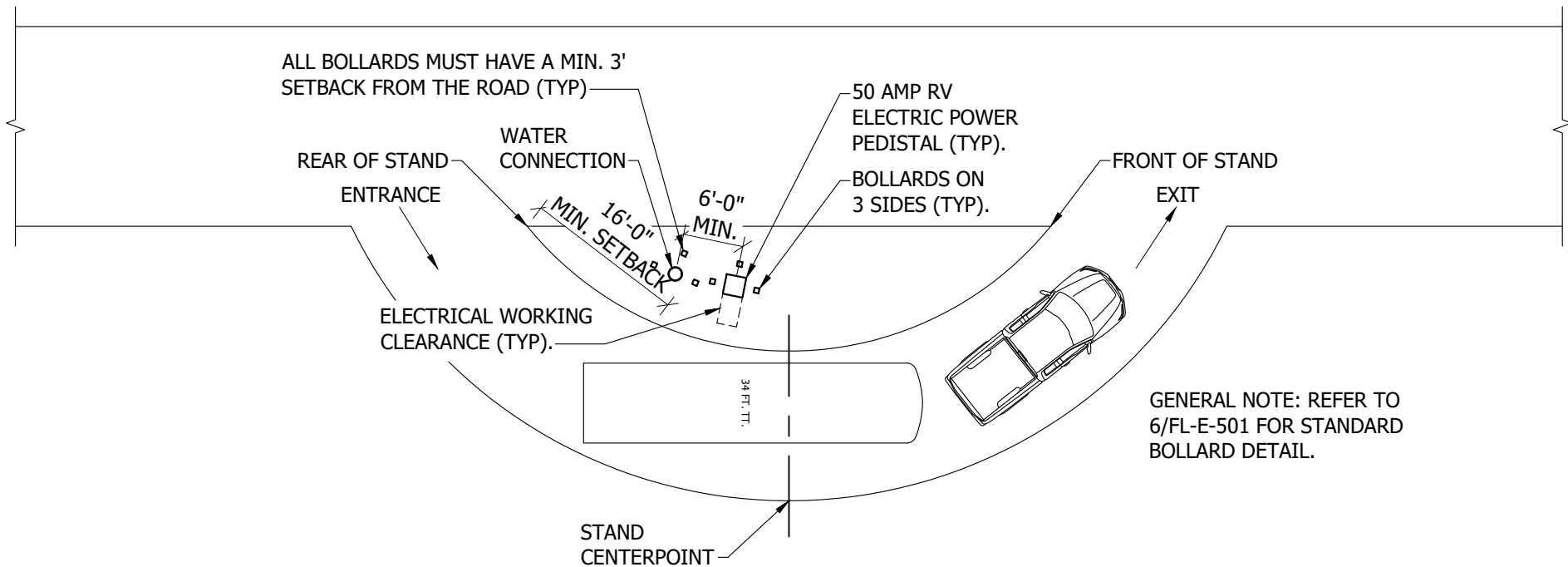
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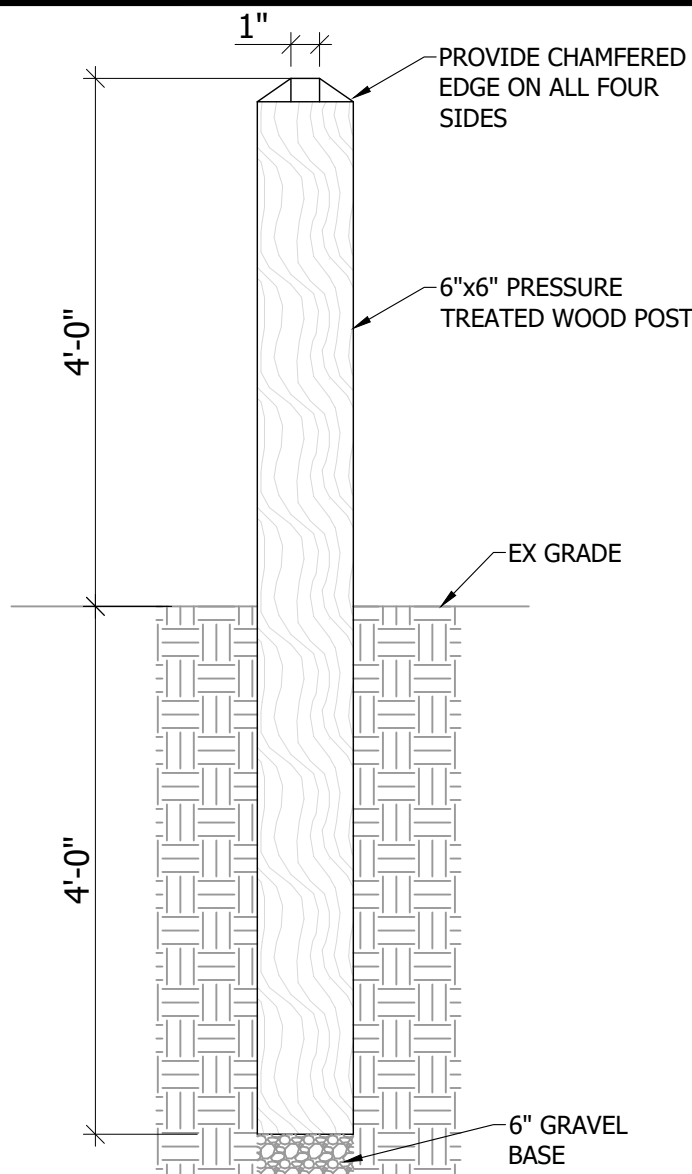
3 FORT ABRAHAM LINCOLN
PULL-IN & BACK-IN SITE DETAIL
NOT TO SCALE



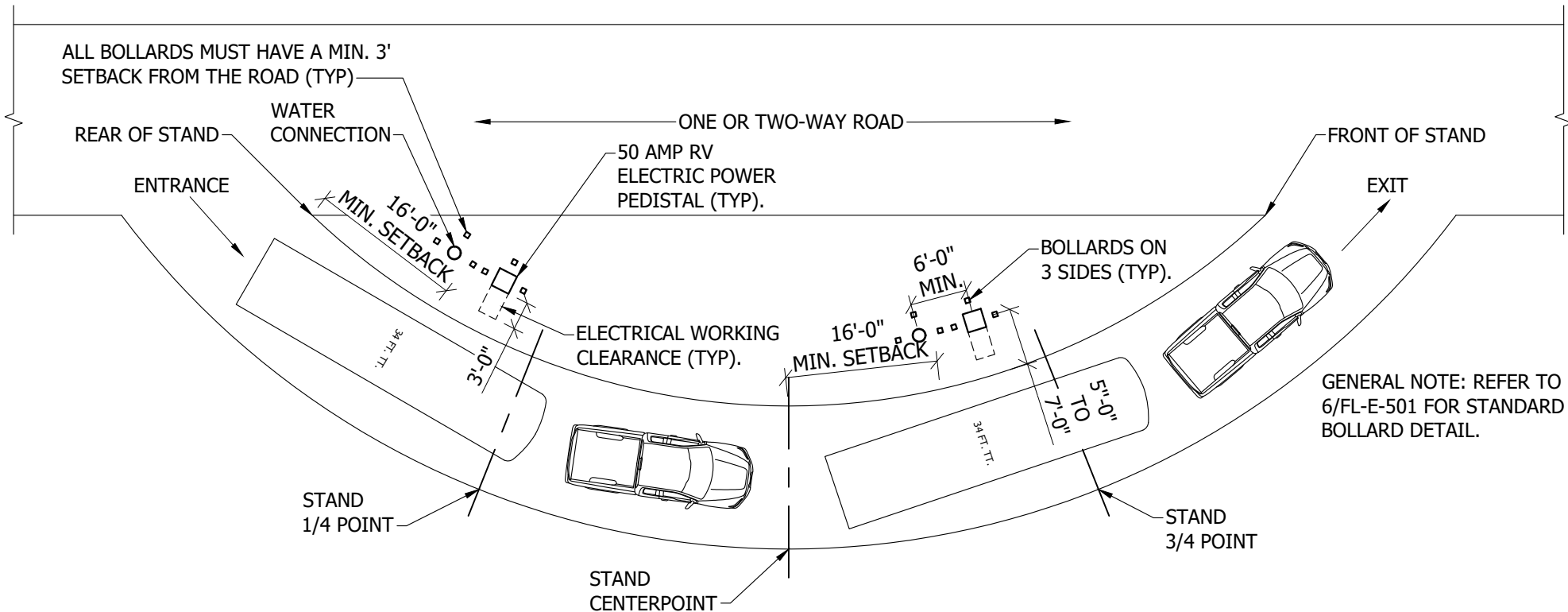
1 FORT ABRAHAM LINCOLN
BACK-IN SITE DETAIL
NOT TO SCALE



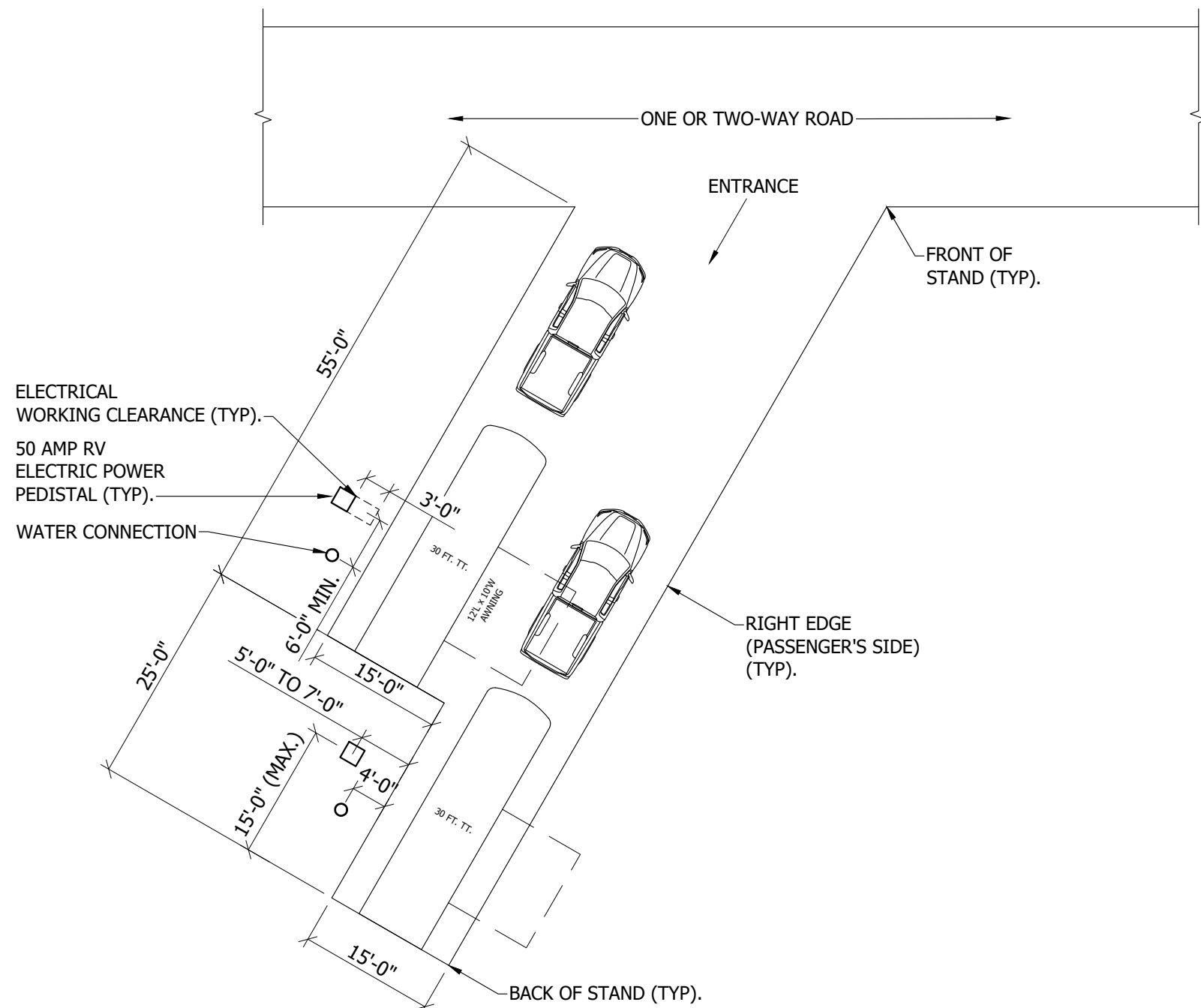
4 FORT ABRAHAM LINCOLN
SINGLE PULL-THRU SITE DETAIL
NOT TO SCALE



6 BOLLARD DETAIL
NOT TO SCALE



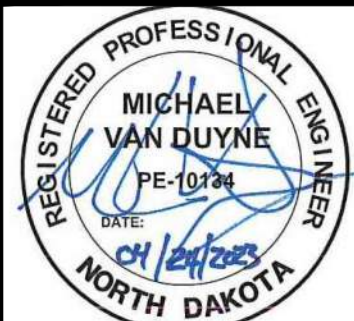
5 FORT ABRAHAM LINCOLN
DOUBLE PULL-THRU SITE DETAIL
NOT TO SCALE



2 FORT ABRAHAM LINCOLN
DOUBLE BACK-IN SITE DETAIL
NOT TO SCALE

ELECTRICAL SITE DETAILS
FORT ABRAHAM LINCOLN STATE PARK

NORTH DAKOTA PARKS & RECREATION DEPARTMENT
ELECTRICAL UPGRADES
BISMARCK, NORTH DAKOTA



DESIGNED BY:	MSV
DRAWN BY:	SDM
APPROVED BY:	MSV
DESIGN PROJ:	21219.000
CONST PROJ:	
SCALE:	AS NOTED
DATE:	04-24-2023
DRAWING NO:	FL-E-501
SHEET NO:	9 of 16



NOT TO SCALE



4 NOT TO SCALE



1 NOT TO SCALE



8 EX STU
NOT TO SCALE



5 EX RES
NOT TO SCALE



2 EX "P3"
NOT TO SCALE



9 EX SUM
NOT TO SCALE



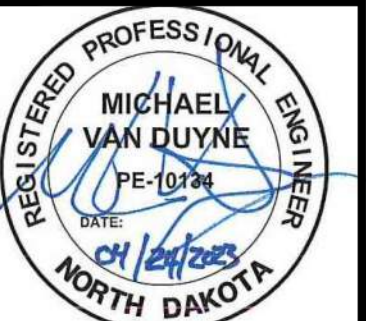
6 EX RES
NOT TO SCALE



3 EX "P4"
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ELECTRICAL DETAILS
FORT ABRAHAM LINCOLN STATE PARK

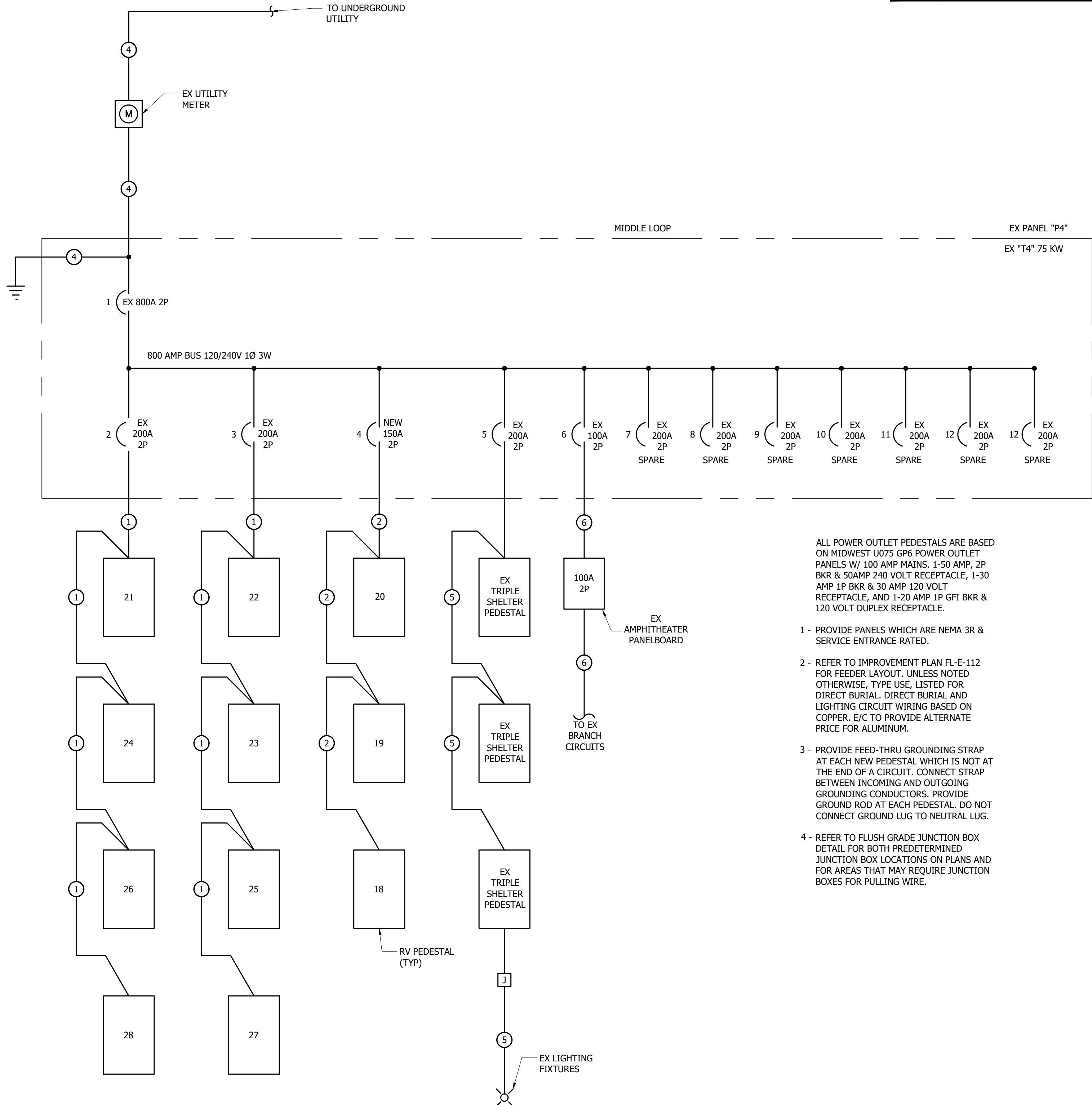
NORTH DAKOTA PARKS & RECREATION DEPARTMENT
ELECTRICAL UPGRADES
BISMARCK, NORTH DAKOTA



DESIGNED BY:	ARH
DRAWN BY:	ARH/SDM
APPROVED BY:	MSV
DESIGN PROJ:	21219.000
CONST PROJ:	
SCALE:	AS NOTED
DATE:	04-24-2023
DRAWING NO:	FL-E-502
SHEET NO:	

FEEDER SCHEDULE:

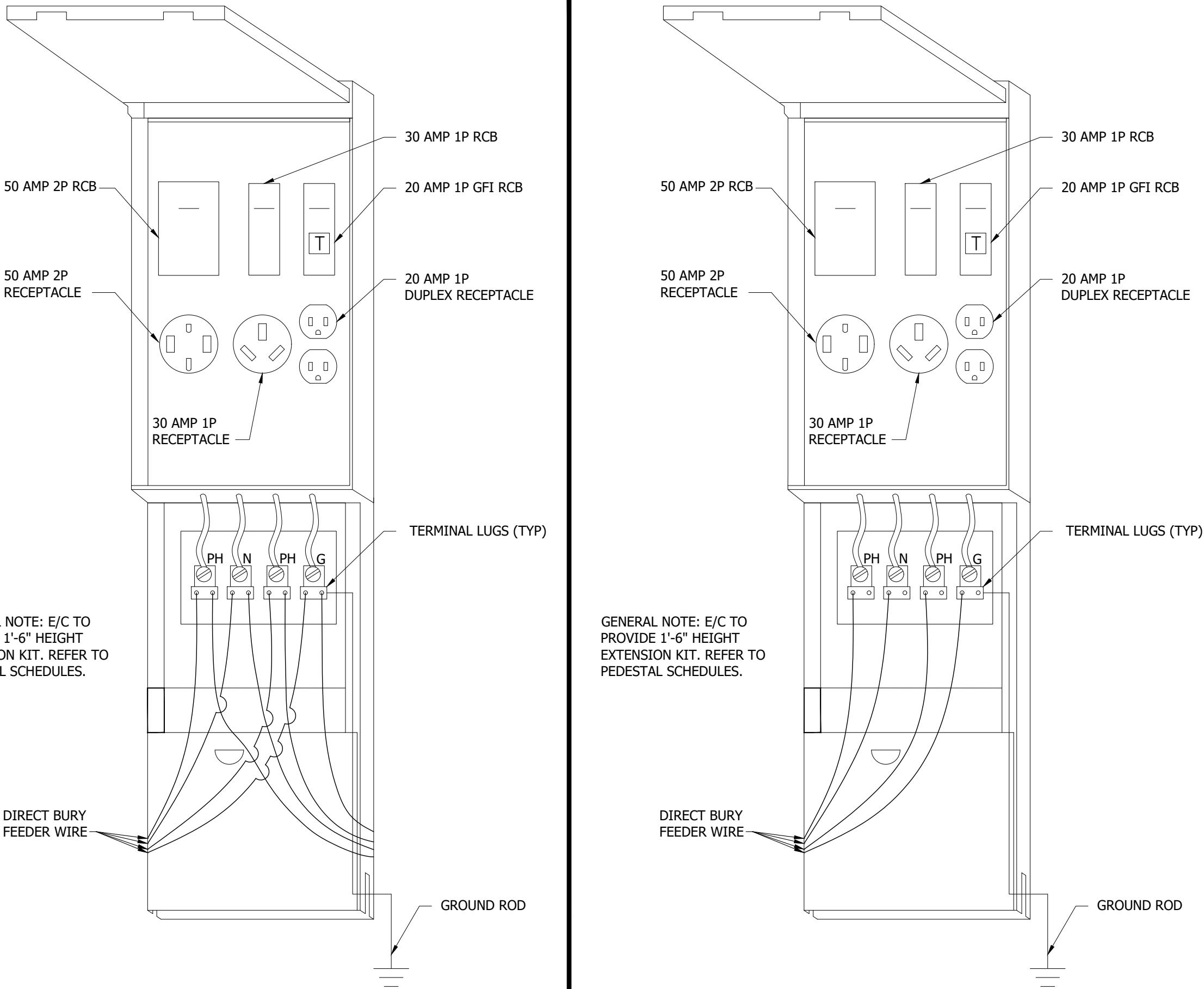
- ① 3-250 DIRECT BURY CABLE WITH 250G.(BASED ON COPPER)
- ② 3-3/0 DIRECT BURY CABLE WITH 3/0G.(BASED ON COPPER)
- ③ 2-10 DIRECT BURY CABLE WITH 10G. (BASED ON COPPER)
- ④ REFER TO ELECTRICAL IMPROVEMENT RISER DIAGRAM.
- ⑤ EX DIRECT BURY CABLE FEEDER TO REMAIN.
- ⑥ EX BRANCH FEEDERS TO REMAIN.



⑤ EX "P4" ELECTRICAL WIRING DIAGRAM (MIDDLE LOOP)
NOT TO SCALE

ALL POWER OUTLET PEDESTALS ARE BASED ON MIDWEST U075 GP6 POWER OUTLET PANELS W/ 100 AMP MAINS. 1-50 AMP, 2P BKR & 50AMP 240 VOLT RECEPTACLE, 1-30 AMP 1P BKR & 30 AMP 120 VOLT RECEPTACLE, AND 1-20 AMP 1P GFI BKR & 120 VOLT DUPLEX RECEPTACLE.

- 1 - PROVIDE PANELS WHICH ARE NEMA 3R & SERVICE ENTRANCE RATED.
- 2 - REFER TO IMPROVEMENT PLAN FL-E-112 FOR FEEDER LAYOUT. UNLESS NOTED OTHERWISE, TYPE USE, LISTED FOR DIRECT BURIAL. DIRECT BURIAL AND LIGHTING CIRCUIT WIRING BASED ON COPPER. E/C TO PROVIDE ALTERNATE PRICE FOR ALUMINUM.
- 3 - PROVIDE FEED-THRU GROUNDING STRAP AT EACH NEW PEDESTAL WHICH IS NOT AT THE END OF A CIRCUIT. CONNECT STRAP BETWEEN INCOMING AND OUTGOING GROUNDING CONDUCTORS. PROVIDE GROUND ROD AT EACH PEDESTAL. DO NOT CONNECT GROUND LUG TO NEUTRAL LUG.
- 4 - REFER TO FLUSH GRADE JUNCTION BOX DETAIL FOR BOTH PREDETERMINED JUNCTION BOX LOCATIONS ON PLANS AND FOR AREAS THAT MAY REQUIRE JUNCTION BOXES FOR PULLING WIRE.

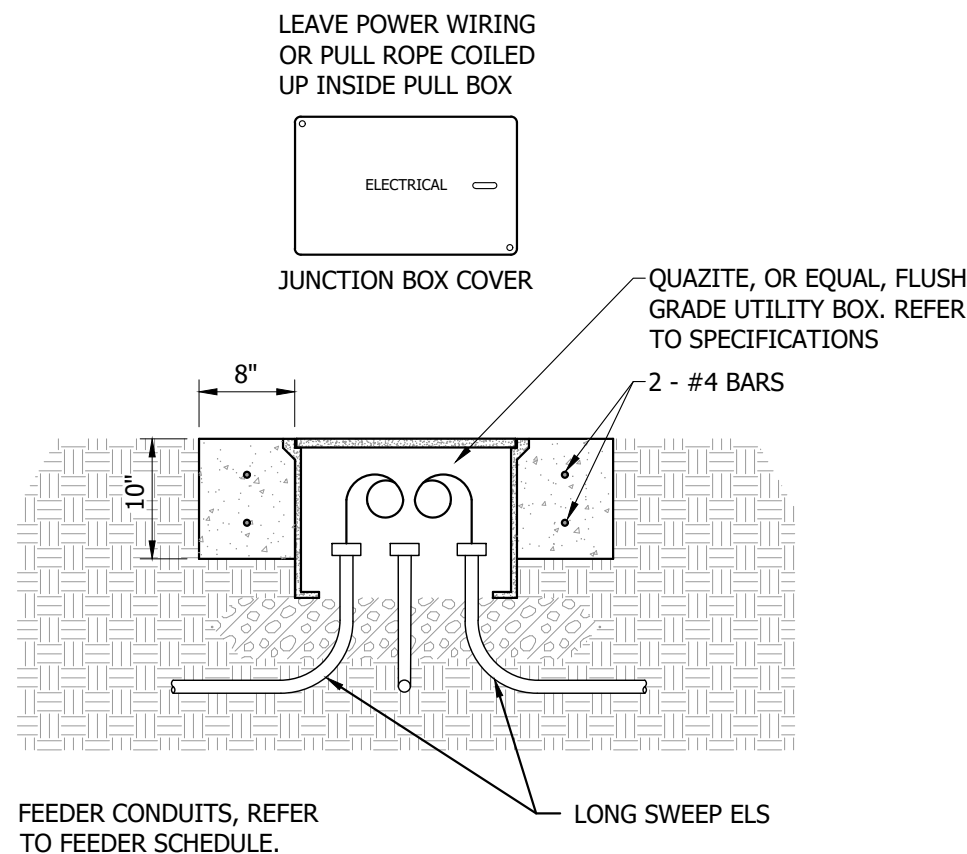


② FEED THRU RV PEDESTAL DETAIL
NOT TO SCALE

① END OF LINE RV PEDESTAL DETAIL
NOT TO SCALE



④ HIGH AND LOW WATER ELEVATION
NOT TO SCALE



FEEDER CONDUITS, REFER TO FEEDER SCHEDULE.

③ FLUSH GRADE JUNCTION BOX DETAIL
NOT TO SCALE

Bartlett & West

3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE 701-258-1110 - FAX 701-258-1111
WWW.BARTLETTWEST.COM

ELECTRICAL DETAILS
FORT ABRAHAM LINCOLN STATE PARK

NORTH DAKOTA PARKS & RECREATION DEPARTMENT
ELECTRICAL UPGRADES
BISMARCK, NORTH DAKOTA



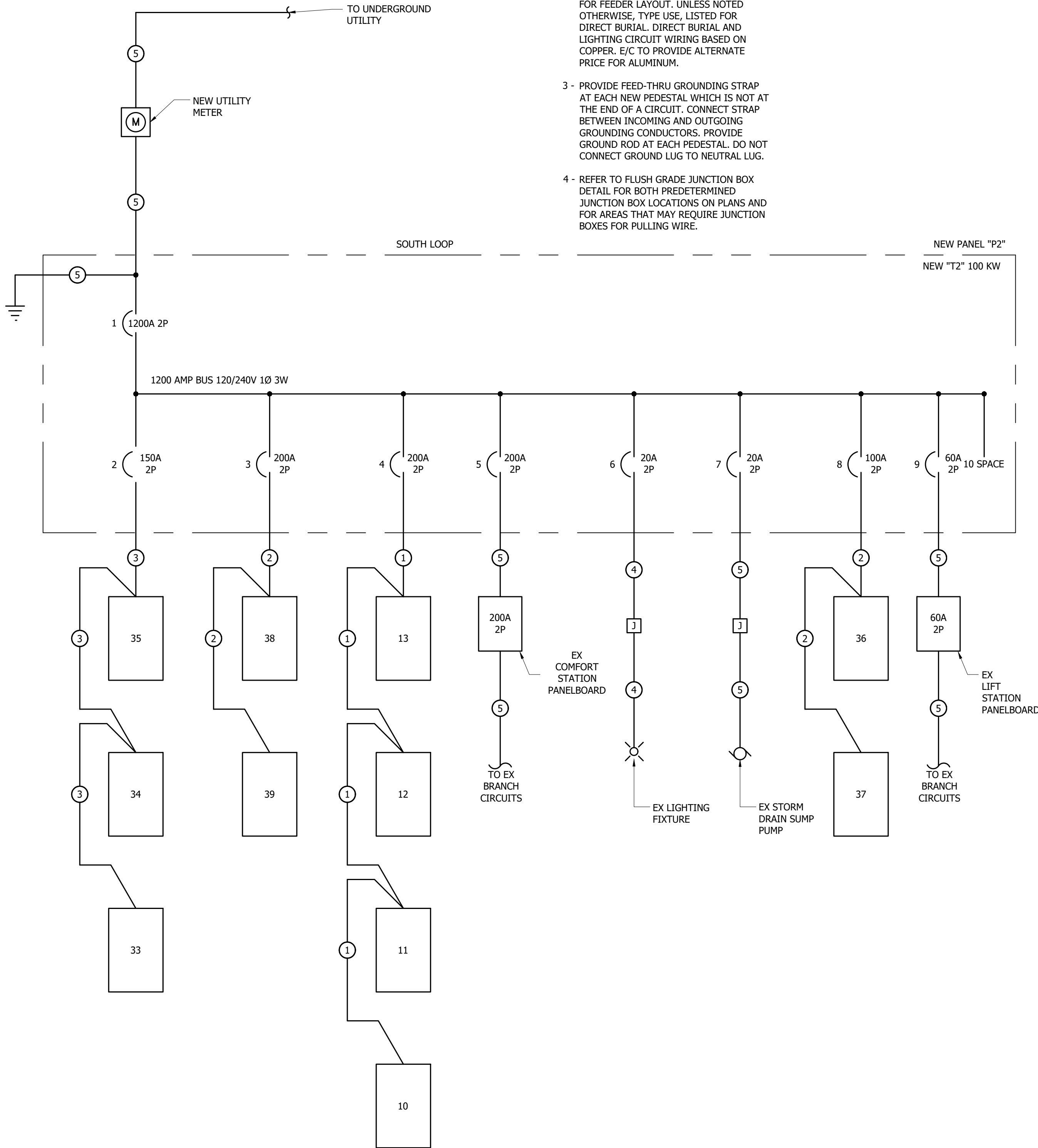
DESIGNED BY:	ARH
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APPROVED BY:	MSV
DESIGN PROJ:	21219.000
CONST PROJ:	
SCALE:	AS NOTED
DATE:	04-24-2023
DRAWING NO:	FL-E-503
SHEET NO:	11 of ----

FEEDER SCHEDULE:

- ① 3-250 DIRECT BURY CABLE WITH 250G.(BASED ON COPPER)
② 3-4/0 DIRECT BURY CABLE WITH 4/0G.(BASED ON COPPER)
③ 3-1/0 DIRECT BURY CABLE WITH 1/0G. (BASED ON COPPER)
④ 2-10 DIRECT BURY CABLE WITH 10G. (BASED ON COPPER)
⑤ REFER TO ELECTRICAL IMPROVEMENT RISER DIAGRAM.

ALL POWER OUTLET PEDESTALS ARE BASED ON MIDWEST U075 GP6 POWER OUTLET PANELS W/ 100 AMP MAINS. 1-50 AMP, 2P BKR & 50AMP 240 VOLT RECEPTACLE, 1-30 AMP 1P BKR & 30 AMP 120 VOLT RECEPTACLE, AND 1-20 AMP 1P GFI BKR & 120 VOLT DUPLEX RECEPTACLE.

- 1 - PROVIDE PANELS WHICH ARE NEMA 3R & SERVICE ENTRANCE RATED.
2 - REFER TO IMPROVEMENT PLAN FL-E-111 FOR FEEDER LAYOUT. UNLESS NOTED OTHERWISE, TYPE USE, LISTED FOR DIRECT BURIAL, DIRECT BURIAL AND LIGHTING CIRCUIT WIRING BASED ON COPPER. E/C TO PROVIDE ALTERNATE PRICE FOR ALUMINUM.
3 - PROVIDE FEED-THRU GROUNDING STRAP AT EACH NEW PEDESTAL WHICH IS NOT AT THE END OF A CIRCUIT. CONNECT STRAP BETWEEN INCOMING AND OUTGOING GROUNDING CONDUCTORS. PROVIDE GROUND ROD AT EACH PEDESTAL. DO NOT CONNECT GROUND LUG TO NEUTRAL LUG.
4 - REFER TO FLUSH GRADE JUNCTION BOX DETAIL FOR BOTH PREDETERMINED JUNCTION BOX LOCATIONS ON PLANS AND FOR AREAS THAT MAY REQUIRE JUNCTION BOXES FOR PULLING WIRE.



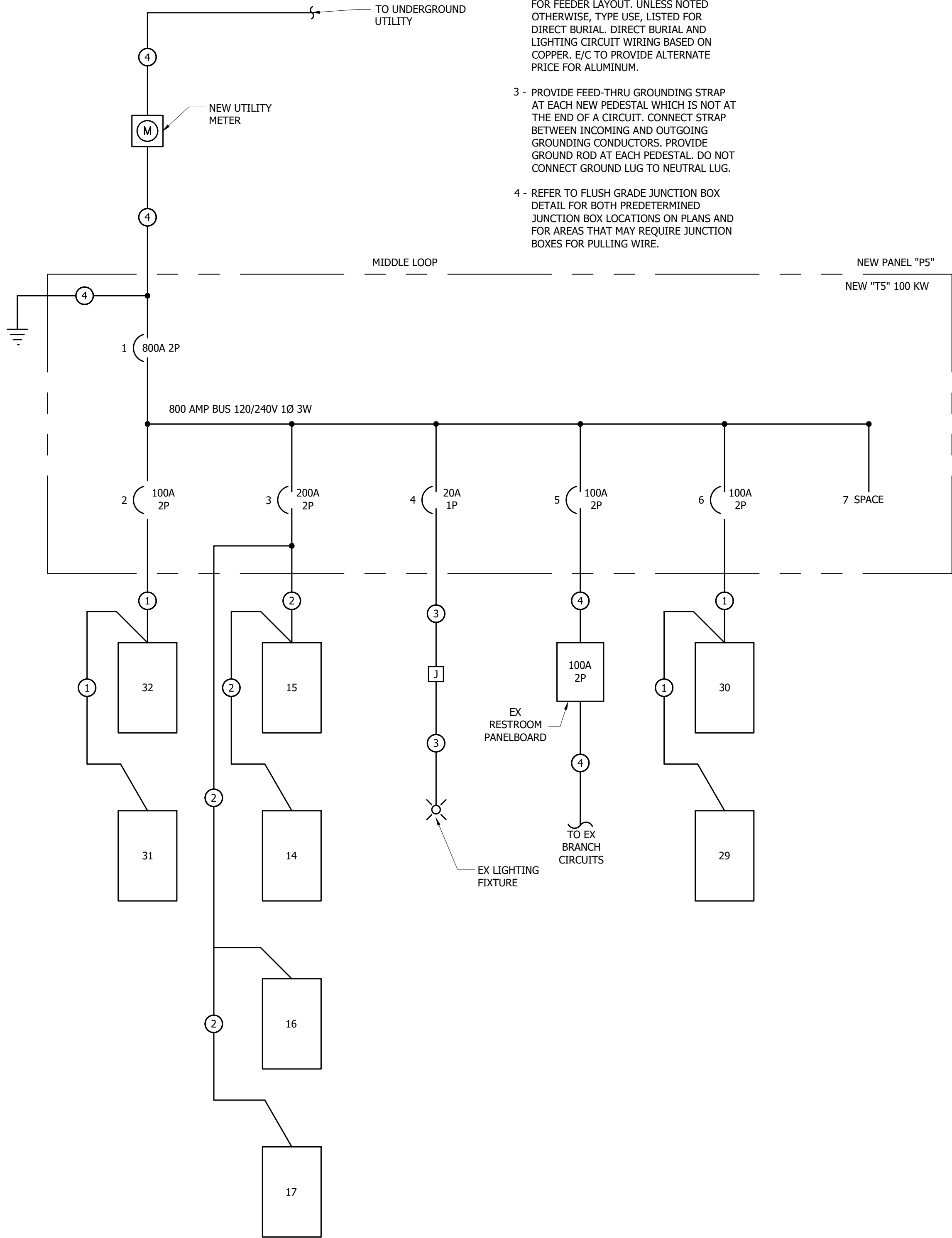
② NEW "P2" ELECTRICAL WIRING DIAGRAM (SOUTH LOOP)
NOT TO SCALE

FEEDER SCHEDULE:

- ① 3-1/0 DIRECT BURY CABLE WITH 1/0G.(BASED ON COPPER)
② 3-1 DIRECT BURY CABLE WITH 1G.(BASED ON COPPER)
③ 2-10 DIRECT BURY CABLE WITH 10G. (BASED ON COPPER)
④ REFER TO ELECTRICAL IMPROVEMENT RISER DIAGRAM.

ALL POWER OUTLET PEDESTALS ARE BASED ON MIDWEST U075 GP6 POWER OUTLET PANELS W/ 100 AMP MAINS. 1-50 AMP, 2P BKR & 50AMP 240 VOLT RECEPTACLE, 1-30 AMP 1P BKR & 30 AMP 120 VOLT RECEPTACLE, AND 1-20 AMP 1P GFI BKR & 120 VOLT DUPLEX RECEPTACLE.

- 1 - PROVIDE PANELS WHICH ARE NEMA 3R & SERVICE ENTRANCE RATED.
2 - REFER TO IMPROVEMENT PLAN FL-E-112 FOR FEEDER LAYOUT. UNLESS NOTED OTHERWISE, TYPE USE, LISTED FOR DIRECT BURIAL, DIRECT BURIAL AND LIGHTING CIRCUIT WIRING BASED ON COPPER. E/C TO PROVIDE ALTERNATE PRICE FOR ALUMINUM.
3 - PROVIDE FEED-THRU GROUNDING STRAP AT EACH NEW PEDESTAL WHICH IS NOT AT THE END OF A CIRCUIT. CONNECT STRAP BETWEEN INCOMING AND OUTGOING GROUNDING CONDUCTORS. PROVIDE GROUND ROD AT EACH PEDESTAL. DO NOT CONNECT GROUND LUG TO NEUTRAL LUG.
4 - REFER TO FLUSH GRADE JUNCTION BOX DETAIL FOR BOTH PREDETERMINED JUNCTION BOX LOCATIONS ON PLANS AND FOR AREAS THAT MAY REQUIRE JUNCTION BOXES FOR PULLING WIRE.



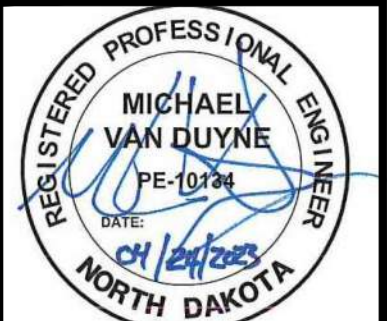
① NEW "P5" ELECTRICAL WIRING DIAGRAM (MIDDLE LOOP)
NOT TO SCALE

Bartlett & West

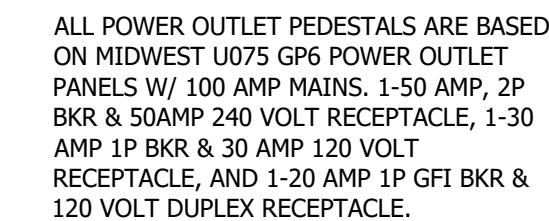
3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE 701-258-1110 - FAX 701-258-1111
WWW.BARTLETTWEST.COM

ELECTRICAL DETAILS
FORT ABRAHAM LINCOLN STATE PARK

NORTH DAKOTA PARKS & RECREATION DEPARTMENT
ELECTRICAL UPGRADES
BISMARCK, NORTH DAKOTA



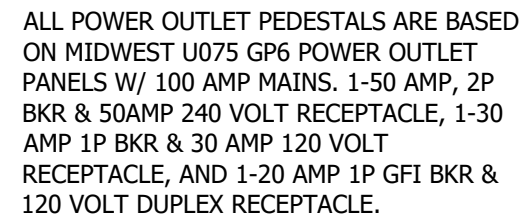
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APPROVED BY:	MSV
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SCALE:	AS NOTED
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DRAWING NO:	FL-E-504
SHEET NO:	12 of ----



- 1 - PROVIDE PANELS WHICH ARE NEMA 3R & SERVICE ENTRANCE RATED.
- 2 - REFER TO IMPROVEMENT PLAN FL-E-111 FOR FEEDER LAYOUT. UNLESS NOTED OTHERWISE, TYPE USE, LISTED FOR DIRECT BURIAL. DIRECT BURIAL AND LIGHTING CIRCUIT WIRING BASED ON COPPER, E/C TO PROVIDE ALTERNATE PRICE FOR ALUMINUM.
- 3 - PROVIDE FEED-THRU GROUNDING STRAP AT EACH NEW PEDESTAL WHICH IS NOT AT THE END OF A CIRCUIT. CONNECT STRAP BETWEEN INCOMING AND OUTGOING GROUNDING CONDUCTORS. PROVIDE GROUND ROD AT EACH PEDESTAL. DO NOT CONNECT GROUND LUG TO NEUTRAL LUG.
- 4 - REFER TO FLUSH GRADE JUNCTION BOX DETAIL FOR BOTH PREDETERMINED JUNCTION BOX LOCATIONS ON PLANS AND FOR AREAS THAT MAY REQUIRE JUNCTION BOXES FOR PULLING WIRE.

- ① 3-350 DIRECT BURY CABLE WITH 350G.(BASED ON COPPER)
- ② 3-4/0 DIRECT BURY CABLE WITH 4/0G.(BASED ON COPPER)
- ③ 3-2/0 DIRECT BURY CABLE WITH 2/0G. (BASED ON COPPER)
- ④ 2-10 DIRECT BURY CABLE WITH 10G. (BASED ON COPPER)
- ⑤ REFER TO ELECTRICAL IMPROVEMENT RISER DIAGRAM.

2 "P7" ELECTRICAL WIRING DIAGRAM (SOUTH LOOP)



- 1 - PROVIDE PANELS WHICH ARE NEMA 3R & SERVICE ENTRANCE RATED.
- 2 - REFER TO IMPROVEMENT PLAN FL-E-111 FOR FEEDER LAYOUT. UNLESS NOTED OTHERWISE, TYPE USE, LISTED FOR DIRECT BURIAL. DIRECT BURIAL AND LIGHTING CIRCUIT WIRING BASED ON COPPER. E/C TO PROVIDE ALTERNATE PRICE FOR ALUMINUM.
- 3 - PROVIDE FEED-THRU GROUNDING STRAP AT EACH NEW PEDESTAL WHICH IS NOT AT THE END OF A CIRCUIT. CONNECT STRAP BETWEEN INCOMING AND OUTGOING CABLES CORRESPONDING TO THE SAME GROUND ROD AT EACH PEDESTAL. DO NOT CONNECT GROUND LUG TO NEUTRAL LUG.
- 4 - REFER TO FLUSH GRADE TERMINATION BOX DETAIL FOR BOTH PREDETERMINED JUNCTION BOX LOCATIONS ON PLANS AND FOR AREAS THAT MAY REQUIRE JUNCTION BOXES FOR PULLING WIRE.

- ① 3-4/0 DIRECT BURY CABLE WITH 4/0G.(BASED ON COPPER)
- ② 3-3/0 DIRECT BURY CABLE WITH 3/0G.(BASED ON COPPER)
- ③ 2-10 DIRECT BURY CABLE WITH 10G. (BASED ON COPPER)
- ④ REFER TO ELECTRICAL IMPROVEMENT RISER DIAGRAM.

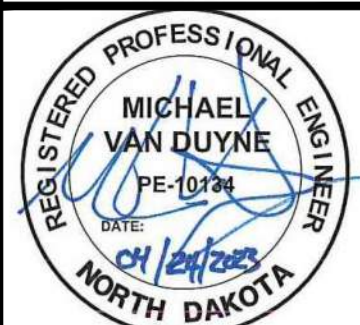
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Bartlett & West

3456 E CENTURY AVENUE - BISMARCK, ND 58503
PHONE 701-258-1110 - FAX 701-258-1111
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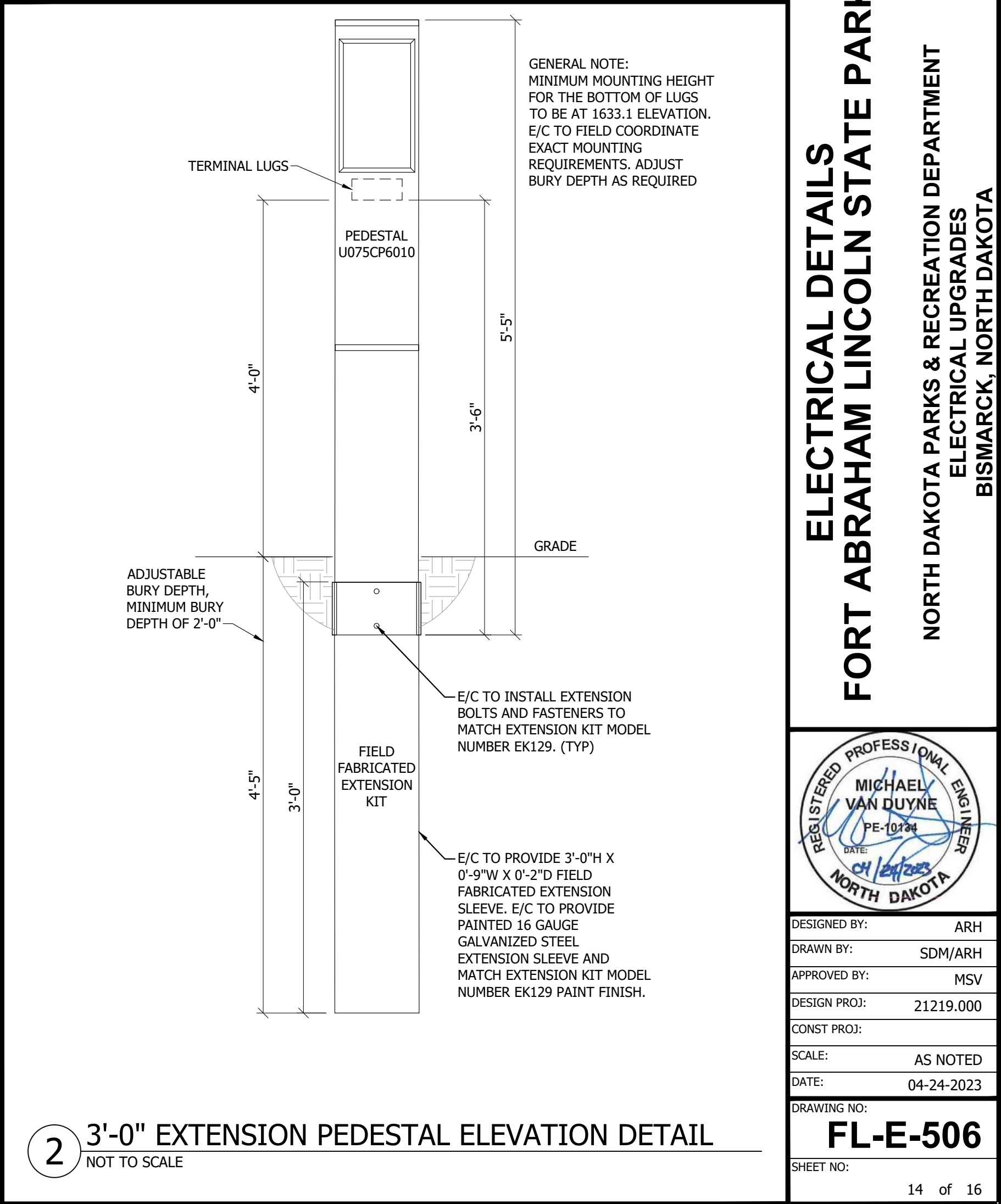
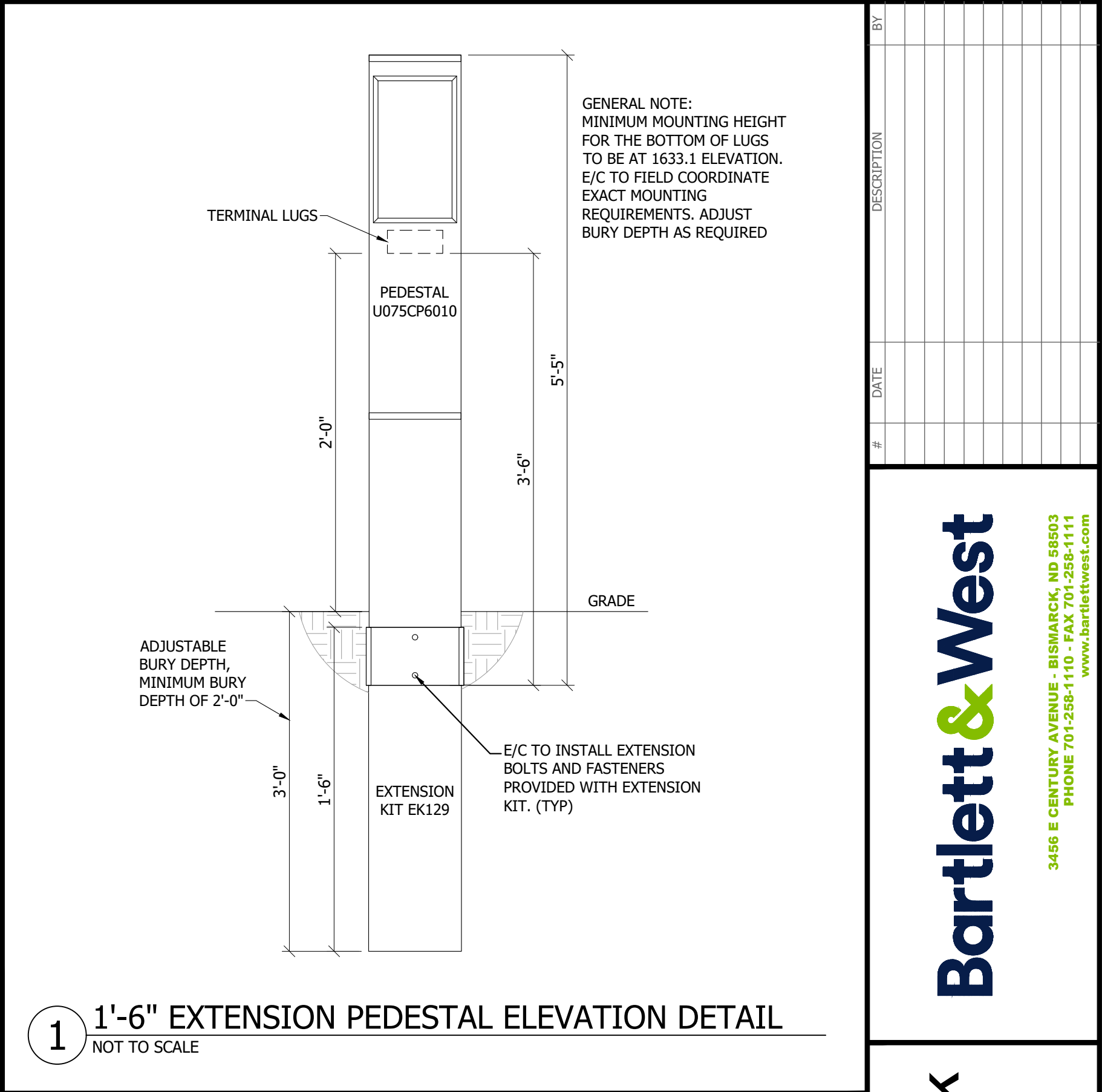
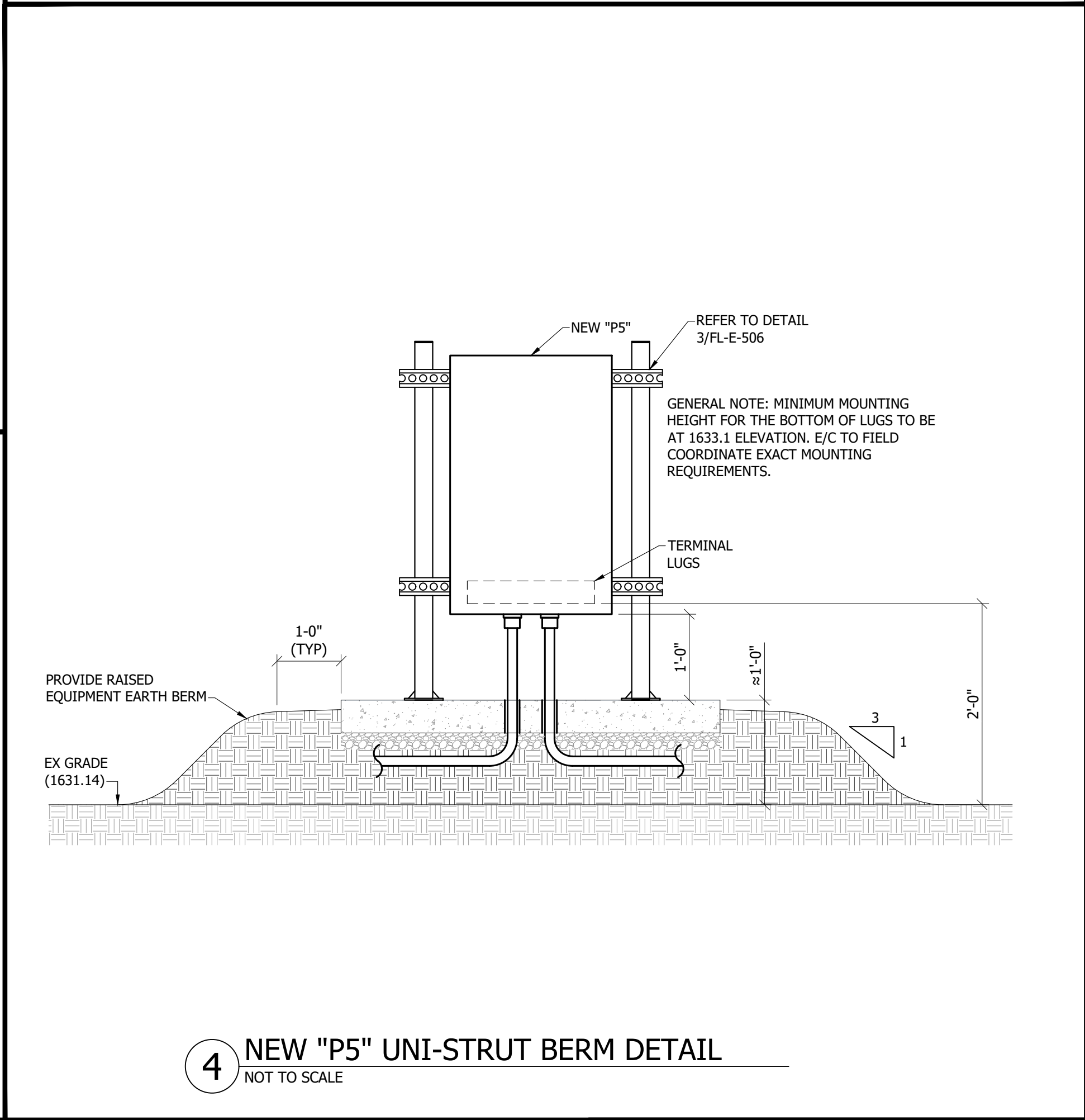
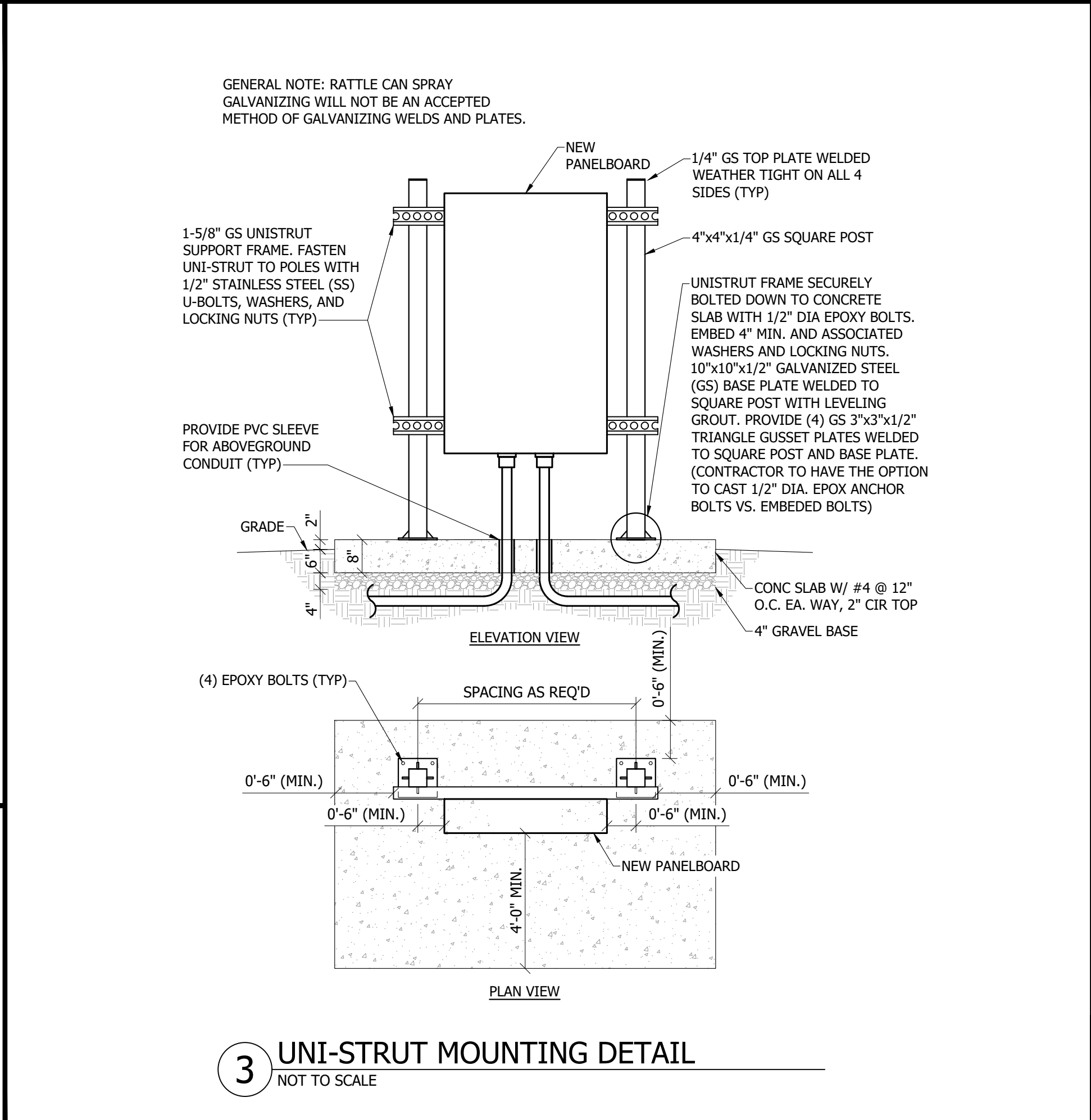
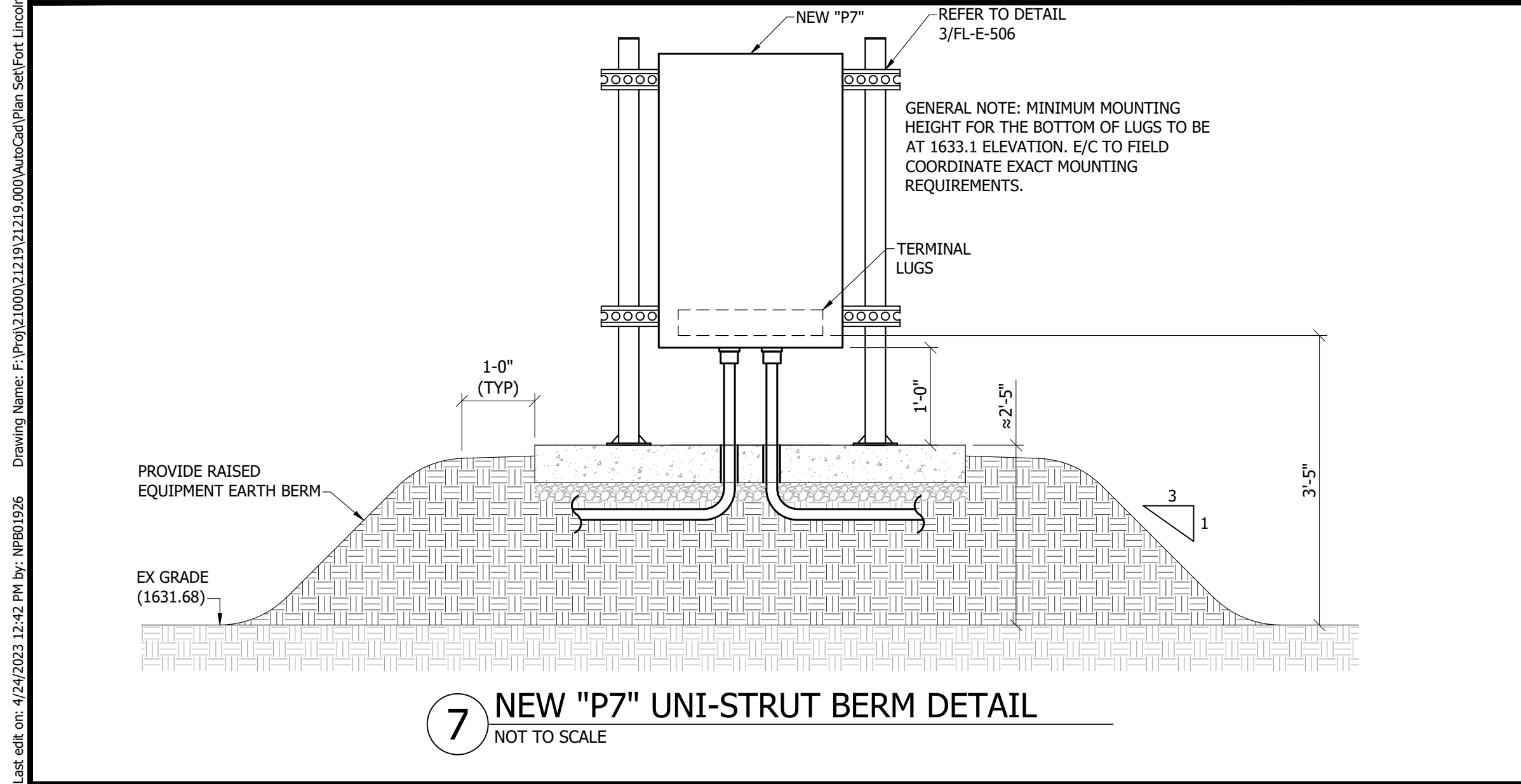
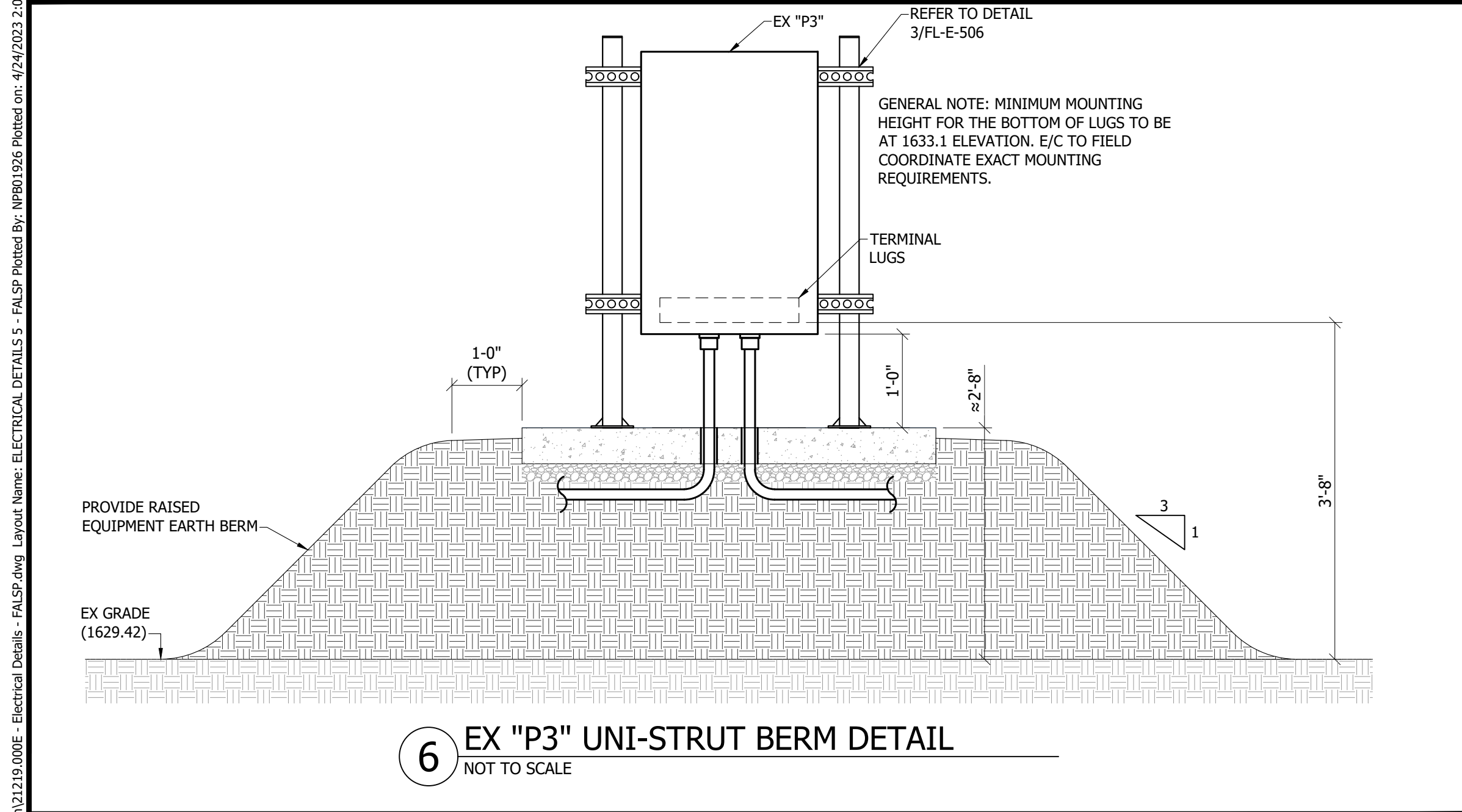
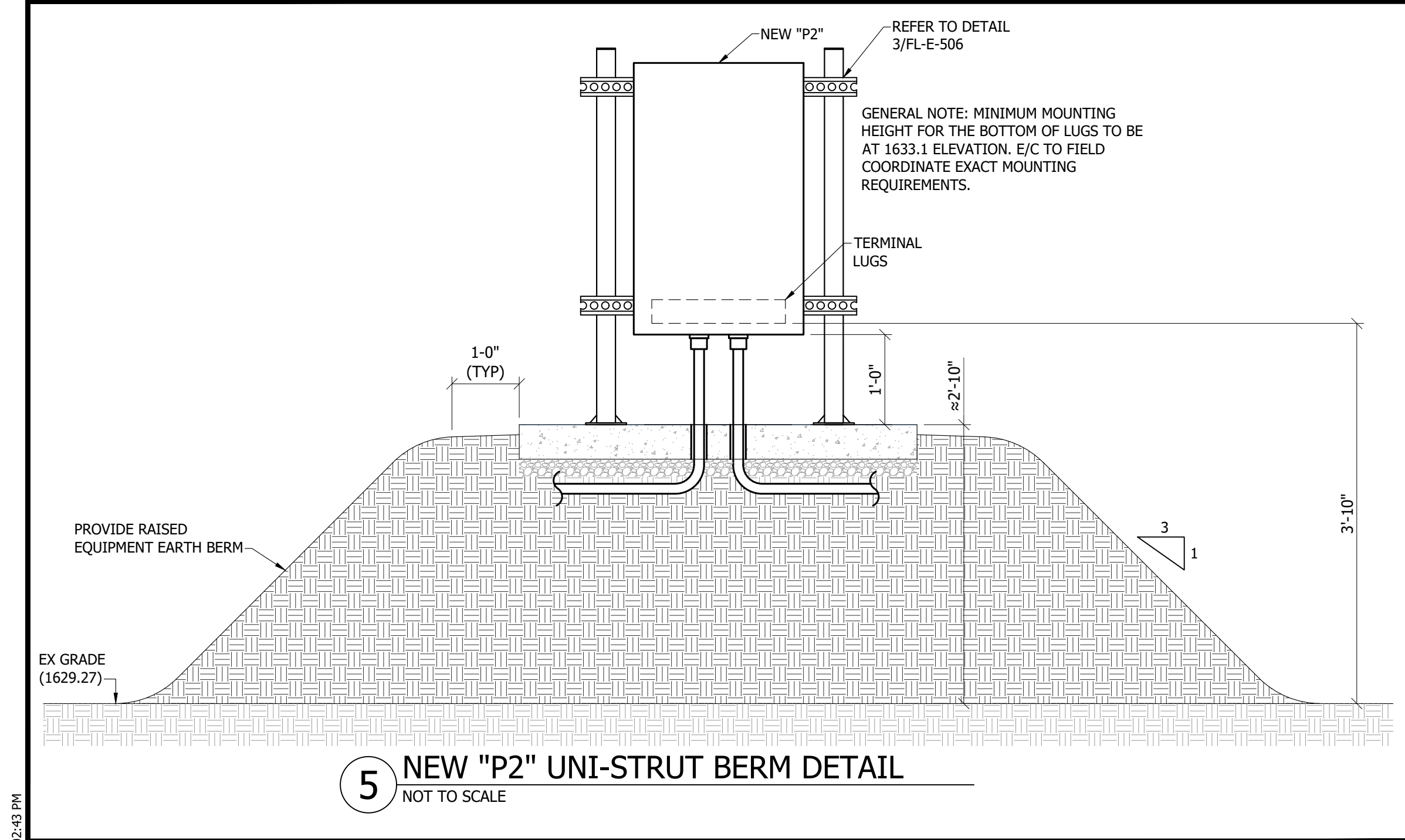
ELECTRICAL DETAILS

**NORTH DAKOTA PARKS & RECREATION DEPARTMENT
ELECTRICAL UPGRADES
BISMARCK, NORTH DAKOTA**



DESIGNED BY:	ARH
DRAWN BY:	ARH/SDM
APPROVED BY:	MSV
DESIGN PROJ:	21219.000
CONST PROJ:	
SCALE:	AS NOTED
DATE:	04-24-2023
DRAWING NO: FL-E-505	
SHEET NO:	

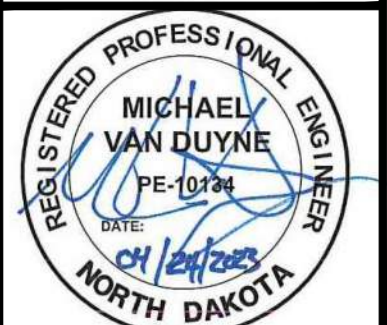
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ELECTRICAL DETAILS

FORT ABRAHAM LINCOLN STATE PARK

NORTH DAKOTA PARKS & RECREATION DEPARTMENT
ELECTRICAL UPGRADES
BISMARCK, NORTH DAKOTA



DESIGNED BY:	ARH
DRAWN BY:	SDM/ARH
APPROVED BY:	MSV
DESIGN PROJ:	21219.000
CONST PROJ:	
SCALE:	AS NOTED
DATE:	04-24-2023
DRAWING NO:	
FL-E-506	
SHEET NO:	14 of 16

RV PEDESTAL SCHEDULE - MIDDLE LOOP										
MARK	MFGR	MODEL	AMPERAGE	VOLTAGE	POLES	EX"P4" CIRCUIT #	"P5" CIRCUIT #	RECEPTACLES	ENCLOSURE TYPE	NOTES
"EP14"	MIDWEST	U075GP6	100	240	2		3	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP15"	MIDWEST	U075GP6	100	240	2		3	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP16"	MIDWEST	U075GP6	100	240	2		3	50A/2P, 30A/1P, 20A/1P	NEMA 3R	1,3,4,5
"EP17"	MIDWEST	U075GP6	100	240	2		3	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP18"	MIDWEST	U075GP6	100	240	2	4		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP19"	MIDWEST	U075GP6	100	240	2	4		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP20"	MIDWEST	U075GP6	100	240	2	4		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP21"	MIDWEST	U075GP6	100	240	2	2		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP22"	MIDWEST	U075GP6	100	240	2	3		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP23"	MIDWEST	U075GP6	100	240	2	3		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP24"	MIDWEST	U075GP6	100	240	2	2		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP25"	MIDWEST	U075GP6	100	240	2	3		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP26"	MIDWEST	U075GP6	100	240	2	2		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP27"	MIDWEST	U075GP6	100	240	2	3		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP28"	MIDWEST	U075GP6	100	240	2	2		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP29"	MIDWEST	U075GP6	100	240	2		6	50A/2P, 30A/1P, 20A/1P	NEMA 3R	1,3,4,5
"EP30"	MIDWEST	U075GP6	100	240	2		6	50A/2P, 30A/1P, 20A/1P	NEMA 3R	1,3,4,5
"EP31"	MIDWEST	U075GP6	100	240	2		2	50A/2P, 30A/1P, 20A/1P	NEMA 3R	1,3,4,5
"EP32"	MIDWEST	U075GP6	100	240	2		2	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
NOTES: 1. LOCATE NEW BACK IN PEDESTALS 5'-7" FROM LEFT EDGE (DRIVER'S SIDE) OF STAND AND A MAXIMUM OF 15'-0" FROM BACK OF STAND TO COMPLY WITH 551.77(A) OF N.E.C. 2. LOCATE NEW PULL THROUGH PEDESTALS 5'-7" FROM LEFT EDGE (DRIVER'S SIDE) OF STAND AND A MAXIMUM OF 16'-0" FROM BACK OF STAND TO THE CENTER POINT BETWEEN THE TWO READS THAT GIVE ACCESS TO AND FROM THE SITE TO COMPLY WITH 551.77(A) OF N.E.C. 3. E/C TO PROVIDE 1'-6" HEIGHT EXTENSION KIT MODEL NUMBER EK129 AND ALL ASSOCIATED ACCESSORIES. 4. E/C TO REFER TO 1'-6" EXTENSION PEDESTAL ELEVATION DETAIL 1/FL-E-506. 5. PROVIDE FEED THRU LUGS.										

RV PEDESTAL SCHEDULE - SOUTH LOOP											
MARK	MFGR	MODEL	AMPERAGE	VOLTAGE	POLES	EX "P2" CIRCUIT #	"P3" CIRCUIT #	"P7" CIRCUIT #	RECEPTACLES	ENCLOSURE TYPE	NOTES
"EP1"	MIDWEST	U075GP6	100	240	2			5	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP2"	MIDWEST	U075GP6	100	240	2			5	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP3"	MIDWEST	U075GP6	100	240	2			2	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP4"	MIDWEST	U075GP6	100	240	2			2	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP5"	MIDWEST	U075GP6	100	240	2			2	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP6"	MIDWEST	U075GP6	100	240	2			2	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP7"	MIDWEST	U075GP6	100	240	2		3		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP8"	MIDWEST	U075GP6	100	240	2		3		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP9"	MIDWEST	U075GP6	100	240	2		3		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"E10"	MIDWEST	U075GP6	100	240	2	4			50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP11"	MIDWEST	U075GP6	100	240	2	4			50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP12"	MIDWEST	U075GP6	100	240	2	4			50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP13"	MIDWEST	U075GP6	100	240	2	4			50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP33"	MIDWEST	U075GP6	100	240	2	2			50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP34"	MIDWEST	U075GP6	100	240	2	2			50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP35"	MIDWEST	U075GP6	100	240	2	2			50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP36"	MIDWEST	U075GP6	100	240	2	8			50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP37"	MIDWEST	U075GP6	100	240	2	8			50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP38"	MIDWEST	U075GP6	100	240	2	3			50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP39"	MIDWEST	U075GP6	100	240	2	3			50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP40"	MIDWEST	U075GP6	100	240	2		5		50A/2P, 30A/1P, 20A/1P	NEMA 3R	1,3,4,5
"EP41"	MIDWEST	U075GP6	100	240	2		5		50A/2P, 30A/1P, 20A/1P	NEMA 3R	1,3,4,5
"EP42"	MIDWEST	U075GP6	100	240	2		5		50A/2P, 30A/1P, 20A/1P	NEMA 3R	1,3,4,5
"EP43"	MIDWEST	U075GP6	100	240	2		2		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP44"	MIDWEST	U075GP6	100	240	2		2		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP45"	MIDWEST	U075GP6	100	240	2		2		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP46"	MIDWEST	U075GP6	100	240	2		4		50A/2P, 30A/1P, 20A/1P	NEMA 3R	1,3,4,5
"EP47"	MIDWEST	U075GP6	100	240	2		4		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP48"	MIDWEST	U075GP6	100	240	2		4		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP49"	MIDWEST	U075GP6	100	240	2		4		50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP50"	MIDWEST	U075GP6	100	240	2			3	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP51"	MIDWEST	U075GP6	100	240	2			3	50A/2P, 30A/1P, 20A/1P	NEMA 3R	1,3,4,5
"EP52"	MIDWEST	U075GP6	100	240	2			3	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP53"	MIDWEST	U075GP6	100	240	2			4	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP54"	MIDWEST	U075GP6	100	240	2			4	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP55"	MIDWEST	U075GP6	100	240	2			4	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP56"	MIDWEST	U075GP6	100	240	2			5	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5
"EP57"	MIDWEST	U075GP6	100	240	2			5	50A/2P, 30A/1P, 20A/1P	NEMA 3R	2,3,4,5

NOTES:

1. LOCATE NEW BACK IN PEDESTALS 5'-7" FROM LEFT EDGE (DRIVER'S SIDE) OF STAND AND A MAXIMUM OF 15'-0" FROM BACK OF STAND TO COMPLY WITH 551.77(A) OF N.E.C.

2. LOCATE NEW PULL THRU PEDESTALS 5'-7" FROM LEFT EDGE (DRIVER'S SIDE) OF STAND AND A MAXIMUM OF 16'-0" FROM BACK OF STAND TO THE CENTER POINT BETWEEN THE TWO READS THAT GIVE ACCESS TO AND FROM THE SITE TO COMPLY WITH 551.77(A) OF N.E.C.

3. E/C TO PROVIDE FIELD FABRICATED 3'-0" HEIGHT EXTENSION SLEEVE SIMILAR TO EXTENSION KIT MODEL NUMBER EK129. E/C TO PROVIDE MATCHING FASTENERS AND BOLTS.

4. E/C TO REFER TO 3'-0" EXTENSION PEDESTAL ELEVATION DETAIL 2/FL-E-506.

5. PROVIDE FEED THRU LUGS.

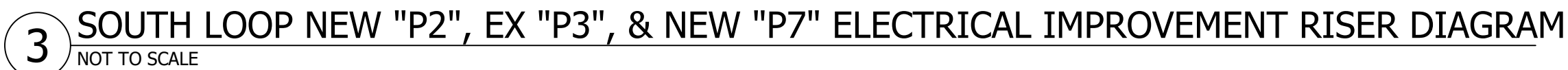
CIRCUIT BREAKER DISTRIBUTION PANEL SCHEDULE					
MARK:	NEW "P5"		NEMA 3R		MAIN BUSS: 800 AMP
VOLTAGE:	120/240	PHASE: 1	WIRE: 3	GROUND BUS: 400 AMP	
MIDDLE LOOP				CIRCUIT BREAKER	
UNIT NO.	EQUIPMENT SERVED			AMP	POLE
1	MCB			800	2
2	RV SITE 32,31			100	2
3	RV SITE 14,15,16,17			200	2
4	EX LIGHT FIXTURE			20	1
5	EX RESTROOM PANELBOARD			100	2
6	RV SITE 30, 29			100	2
7	SPACE				
8					
9					
10					
11					
12					
ACCESSORIES:					
35K AIC RATING (MINIMUM)					

CIRCUIT BREAKER DISTRIBUTION PANEL SCHEDULE					
MARK:		NEW "P7"		NEMA 3R	
MAIN BUSS:		1200		AMP	
VOLTAGE:		120/240		PHASE: 1	
WIRE:		3		GROUND BUS: 600 AMP	
SOUTH LOOP				CIRCUIT BREAKER	
UNIT NO.	EQUIPMENT SERVED			AMP	POLE
1	MCB			1000	2
2	RV SITE 3,4,5,6			200	2
3	RV SITE 50,51,52			150	2
4	RV SITE 53,54,55			150	2
5	RV SITE 2,1,56,57			200	2
6	EX LIGHT FIXTURE			20	1
7	SPACE				
8					
9					
10					
11					
12					
ACCESSORIES:					
35K AIC RATING (MINIMUM)					

CIRCUIT BREAKER DISTRIBUTION PANEL SCHEDULE					
MARK:		NEW "P2"		NEMA 3R	
MAIN BUSS:		1200 AMP			
VOLTAGE:		120/240		PHASE: 1	
WIRE:		3		GROUND BUS: 600 AMP	
SOUTH LOOP				CIRCUIT BREAKER	
UNIT NO.	EQUIPMENT SERVED			AMP	POLE
1	MCB			1000	2
2	RV SITE 35,34,33			150	2
3	RV SITE 38,39			100	2
4	RV SITE 13,12,11,10			200	2
5	EX COMFORT STATION			200	2
6	EX LIGHT FIXTURE			20	1
7	EX STORM DRAIN SUMP PUMP			20	1
8	RV SITE 36, 37			100	2
9	EX LIFT STATION			60	2
10	SPARE				
11					
12					
ACCESSORIES:					
35K AIC RATING (MINIMUM)					

CIRCUIT BREAKER DISTRIBUTION PANEL SCHEDULE					
MARK:		EX "P3"		NEMA 3R	
MAIN BUSS:		800		AMP	
VOLTAGE:		120/240		PHASE: 1	
WIRE:		3		GROUND BUS: 400	
AMP					
SOUTH LOOP			CIRCUIT BREAKER		
UNIT NO.	EQUIPMENT SERVED			AMP	POLE
1	MCB			800	2
2	RV SITE 44,43,45			**150	2
3	RV SITE 7,8,9			**150	2
4	RV SITE 46,47,48,49			200	2
5	RV SITE 42,41,40			**150	2
6	EX LIGHT FIXTURE			20	1
7	SPACE				
8					
9					
10					
11					
12					
ACCESSORIES:					
35K AIC RATING (MINIMUM)					
** E/C TO REMOVE EX CIRCUIT BREAKER AND REPLACE WITH NEW CIRCUIT BREAKER AS NOTED					

CIRCUIT BREAKER DISTRIBUTION PANEL SCHEDULE					
MARK:	EX "P4"		NEMA 3R	MAIN BUSS:	800 AMP
VOLTAGE:	120/240	PHASE:	1	WIRE:	3
MIDDLE LOOP				GROUND BUS: 400 AMP	
UNIT NO.	EQUIPMENT SERVED			CIRCUIT BREAKER	
				AMP	POLE
1	MCB			800	2
2	RV SITE 21,24,26,28			200	2
3	RV SITE 22,23,25,27			200	2
4	RV SITE 20,19,18			**150	2
5	EX TRIPLE SHELTER			200	2
6	EX AMPHITHEATER			100	2
7	SPARE			200	2
8	SPARE			200	2
9	SPARE			200	2
10	SPARE			100	2
11	SPARE			100	2
12	SPARE			100	2
13	SPARE			100	2
ACCESSORIES:					
35K AIC RATING (MINIMUM)					
** E/C TO REMOVE EX CIRCUIT BREAKER AND REPLACE WITH NEW					

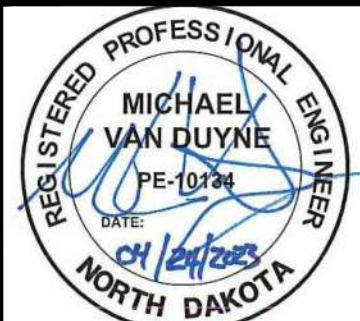


1. THE EX CONDITIONS HAVE BEEN SHOWN BASED ON CASUAL ON-SITE INVESTIGATION WITH NO GUARANTEE TO THEIR ACCURACY, CONTRACTOR TO BE RESPONSIBLE TO FIELD VERIFY EX CONDITIONS.
2. E/C TO FIELD COORDINATE ALL WORK WITH OTHER TRADES.
3. E/C TO FIELD COORDINATE WITH MOR-GRAN-SOU ELECTRIC CO-OP (MGSEC) FOR ALL UTILITY COORDINATION.
MGSEC CONTACT: JASON HELGESON
PHONE: 701-663-0297
EMAIL: jhelgeson@morgransou.com
4. E/C TO BE RESPONSIBLE FOR A NEW UTILITY ELECTRICAL CONNECTION COSTS.

- 1 EX PANELBOARD, POWER CONNECTION, UNISTRUT, AND ALL ASSOCIATED ABOVE GRADE WIRE AND CONDUIT TO REMAIN.
- 2 EX BELOW GRADE DIRECT BURY WIRE TO BE CUT BACK AND REMOVED TO 1'-0" BELOW GRADE. EX BELOW GRADE DIRECT BURY WIRE BELOW 1'-0" TO BE DISCONNECTED AND ABANDONED IN PLACE.
- 3 EX UTILITY METER, METER POLE, AND ASSOCIATED WIRE TO REMAIN.
- 4 EX UTILITY TRANSFORMER, EQUIPMENT BASE, AND ASSOCIATED WIRE AND CONDUIT TO REMAIN.
- 5 EX UTILITY SECTIONALIZER SWITCH, POWER CONNECTIONS, UNI-STRUT, AND EQUIPMENT PAD TO REMAIN. ALL EX WIRE AND CONDUIT TO BE TO REMAIN UNLESS NOTED OTHERWISE.
- 6 EX PANELBOARD, POWER CONNECTION, UNISTRUT, AND ALL ASSOCIATED ABOVE GRADE WIRE AND CONDUIT TO BE REMOVED.
- 7 EX "T3" TRANSFORMER AND EQUIPMENT BASE TO BE RELOCATED. REFER TO SOUTH LOOP - IMPROVEMENT PLAN FOR NEW LOCATION. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS.
- 8 EX "P3" PANELBOARD TO BE RELOCATED, EX UNISTRUT AND EQUIPMENT PAD SHOULD BE REMOVED. REFER TO SOUTH LOOP - IMPROVEMENT PLAN FOR NEW LOCATION. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS.
- 9 E/C TO PROVIDE NEW UNI-STRUT MOUNTING STRUCTURE. REFER TO UNISTRUT MOUNTING DETAIL 3/FL-E-506.
- 10 EX UTILITY METER TO BE RELOCATED. REFER TO SOUTH LOOP - IMPROVEMENT PLAN FOR NEW LOCATION. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS.
- 11 RELOCATE EX PANELBOARD.
- 12 RELOCATE EX UTILITY METER.
- 13 CONNECT NEW MAIN FEEDERS TO EX PANEL.

- ① EX UTILITY PRIMARY FEEDER WIRE AND CONDUIT TO REMAIN.
- ② EX UTILITY GROUND WIRE AND CONDUIT TO BE REMOVED.
- ③ EX MAIN SERVICE FEEDER WIRE AND CONDUIT TO BE REMOVED.
- ④ EX MAIN SERVICE GROUND WIRE AND CONDUIT TO REMAIN.
- ⑤ EX UTILITY METER WIRE AND CONDUIT TO REMAIN.
- ⑥ EX UNDERGROUND DIRECT BURY MAIN FEEDER TO REMAIN AND BE ABANDONED IN PLACE.
- ⑦ EX UNDERGROUND DIRECT BURY BRANCH FEEDER TO REMAIN AND BE ABANDONED IN PLACE.
- ⑧ UTILITY TO PROVIDE PRIMARY FEEDERS, ASSOCIATED CONDUIT AND TRENCHING. E/C TO COORDINATE WITH UTILITY.
- ⑨ EX UTILITY GROUND WIRE AND CONDUIT TO REMAIN.
- ⑩ EX UNDERGROUND DIRECT BURY MAIN FEEDER WIRE AND CONDUIT TO REMAIN.
- ⑪ EX BRANCH FEEDERS TO REMAIN.
- ⑫ EX MAIN SERVICE GROUND WIRE AND CONDUIT TO BE REMOVED.
- ⑬ UTILITY TO PROVIDE UTILITY METER WIRE AND CONDUIT. E/C TO COORDINATE WITH UTILITY.
- ⑭ 3-350 IN EACH OF 4-3". (BASED ON COPPER)
- ⑮ 1-3/0G IN 1". (BASED ON COPPER)
- ⑯ UTILITY TO PROVIDE GROUND WIRE AND CONDUIT. E/C TO COORDINATE WITH UTILITY.
- ⑰ 3-3/0 AND 1-6G IN 2". (BASED ON COPPER)
- ⑱ 3-1/0 AND 1-3G IN 1 1/2". (BASED ON COPPER)
- ⑲ EX MAIN SERVICE FEEDER WIRE AND CONDUIT TO BE INTERCEPTED AND EXTENDED TO NEW "T3" LOCATION. UTILITY TO PROVIDE PRIMARY FEEDERS, ASSOCIATED CONDUIT AND TRENCHING. E/C TO COORDINATE WITH UTILITY.
- ⑳ 3-1 AND 1-8G IN 1 1/2". (BASED ON COPPER)
- ㉑ 3-350 IN EACH OF 3-3". (BASED ON COPPER)
- ㉒ 1-3/0G IN 1". (BASED ON COPPER)
- ㉓ EX UTILITY METER WIRE AND CONDUIT TO BE REMOVED
- ㉔ 2 SETS OF 3-300 DIRECT BURY CABLE WITH 300G. (BASED ON COPPER)

**ELECTRICAL RISER DIAGRAMS
FORT ABRAHAM LINCOLN**



DESIGNED BY:	MSV
DRAWN BY:	SDM
APPROVED BY:	MSV
DESIGN PROJ:	21219.000
CONST PROJ:	
SCALE:	AS NOTED
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