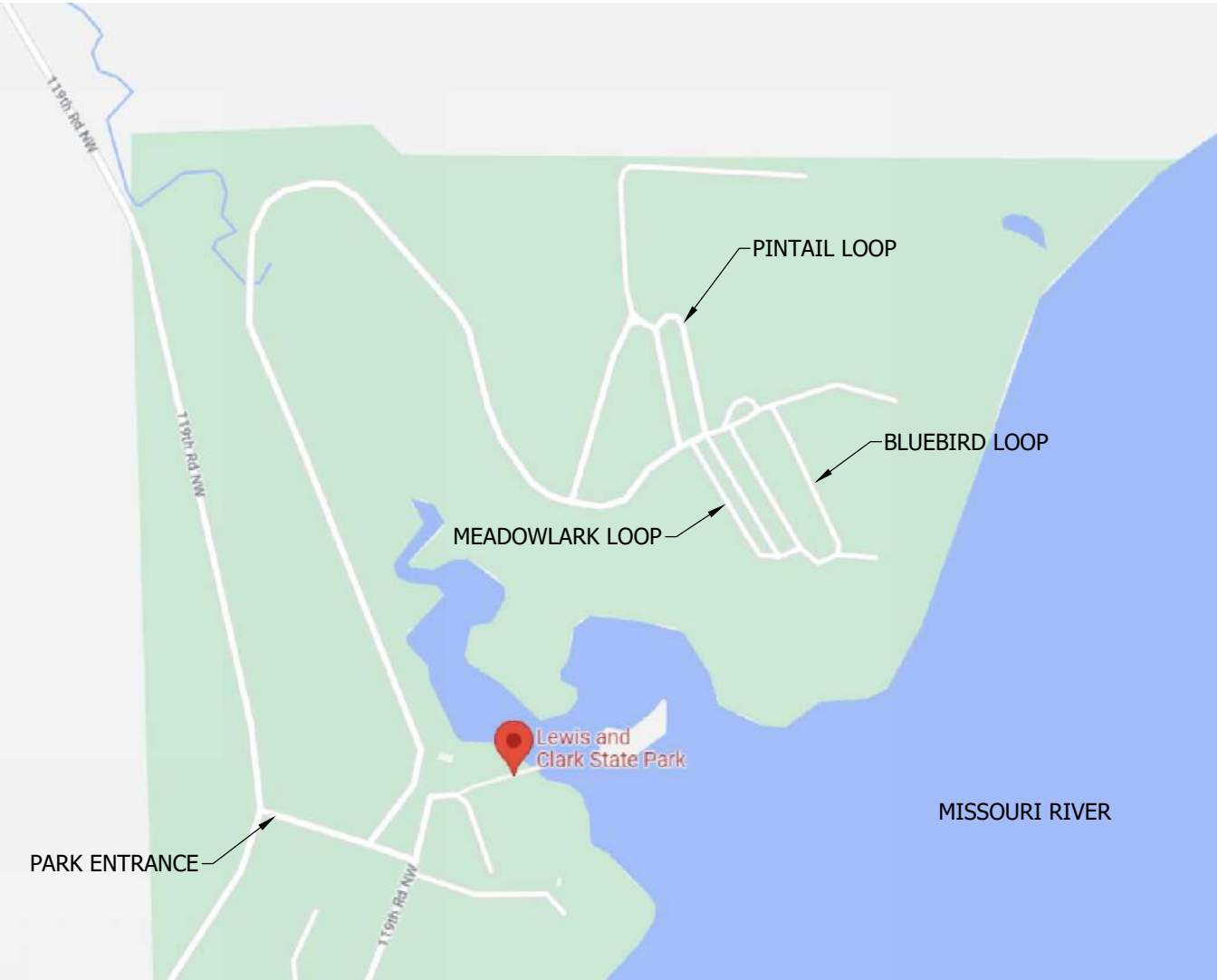
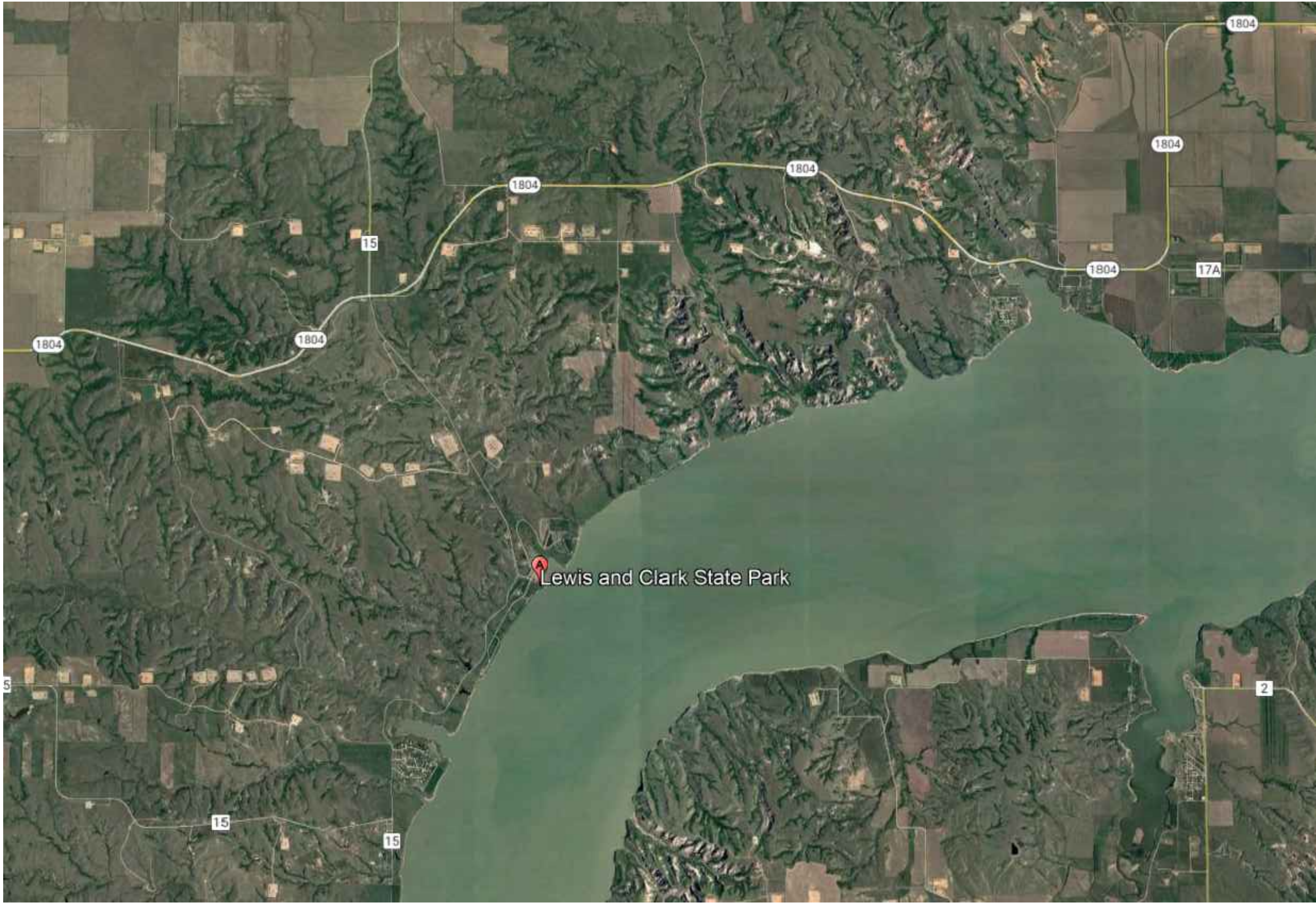




NORTH DAKOTA PARKS AND RECREATION DEPARTMENT

ELECTRICAL UPGRADES LEWIS & CLARK STATE PARK 2023



PROJECT CONTACTS

CLIENT

NORTH DAKOTA PARKS AND RECREATION DEPARTMENT
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LEWIS AND CLARK STATE PARK
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701-360-4737
PROJECT ENGINEERS

BARTLETT & WEST
Mike Van Duyne
3456 E. CENTURY AVE.
BISMARCK, ND 58503
701-221-8362

UTILITIES

MOUNTRAIL WILLIAMS ELECTRIC CO-OP
Scott Iverson
218 58TH ST. W.
WILLISTON, ND 58801
1-800-279-2667
scotti@mwec.com

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.

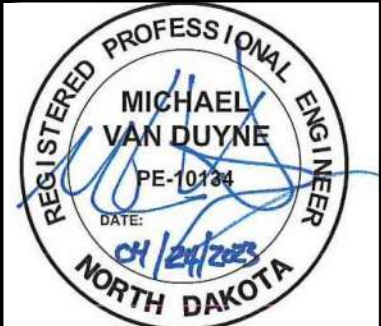
INDEX OF SHEETS	
DRAWING NO.	DESCRIPTION
LC-CS	COVER SHEET
LC-E-000	ELECTRICAL SYMBOLS
LC-UC-101	UTILITY COORDINATION SITE PLAN - PINTAIL LOOP
LC-E-101	ELECTRICAL DEMOLITION SITE PLAN - PINTAIL LOOP
LC-E-102	ELECTRICAL DEMOLITION SITE PLAN - MEADOWLARK LOOP
LC-E-103	ELECTRICAL DEMOLITION SITE PLAN - PLOVER LOOP
LC-E-111	ELECTRICAL IMPROVEMENT SITE PLAN - PINTAIL LOOP
LC-E-501	ELECTRICAL SITE DETAILS
LC-E-502	ELECTRICAL DETAILS
LC-E-601	ELECTRICAL SCHEDULES
LC-E-602	ELECTRICAL RISER DIAGRAMS

Bartlett & West

3456 E CENTURY AVENUE - BISMARCK, ND 58503
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WWW.BARTLETTANDWEST.COM

**LEWIS & CLARK STATE PARK
COVER SHEET**

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:	LC-CS
SHEET NO:	1 of 11



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Drawing Name: F:\proj\21000\21219\21219\000\AutoCad\Plan Set\Lewis & Clark\21219.000E - Electrical Symbols.dwg Layout Name: ELECTRICAL SYMBOLS Plotted by: NP801926 Plotted on: 4/24/2023 2:16:20 PM
Last edit on: 4/21/2023 11:42 AM by: NP801926

LIGHTING / ELECTRICAL

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

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

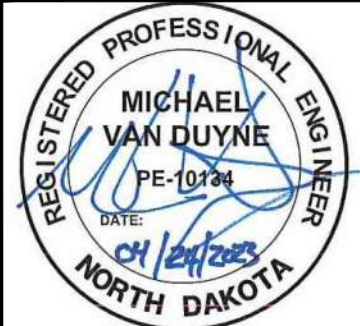
GENERAL SYMBOLS

	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

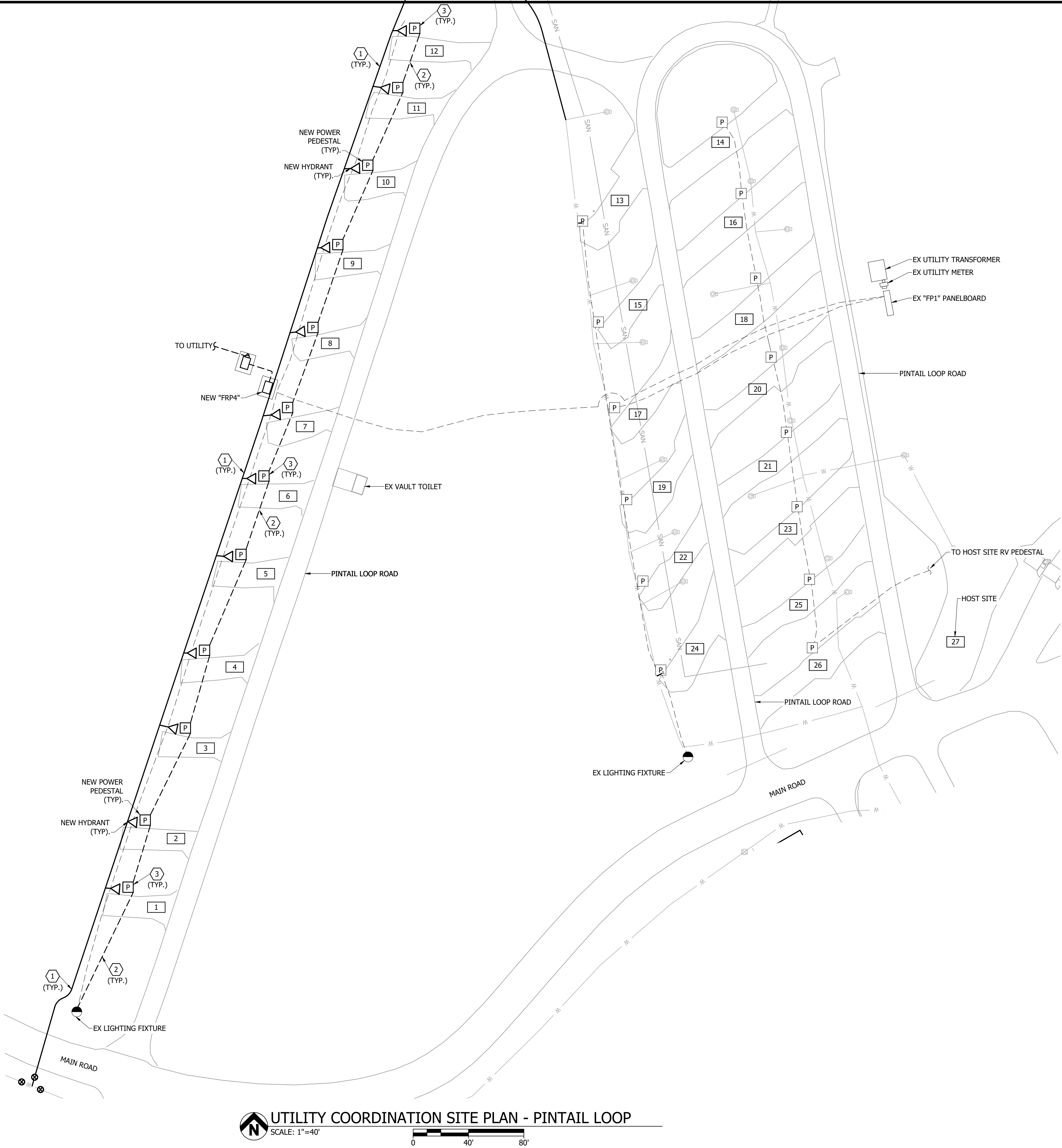
ABBREVIATIONS

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
LEWIS & CLARK 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:	
LC-E-000	
SHEET NO:	



UTILITY COORDINATION SITE PLAN - PINTAIL LOOP
SCALE: 1"=40'

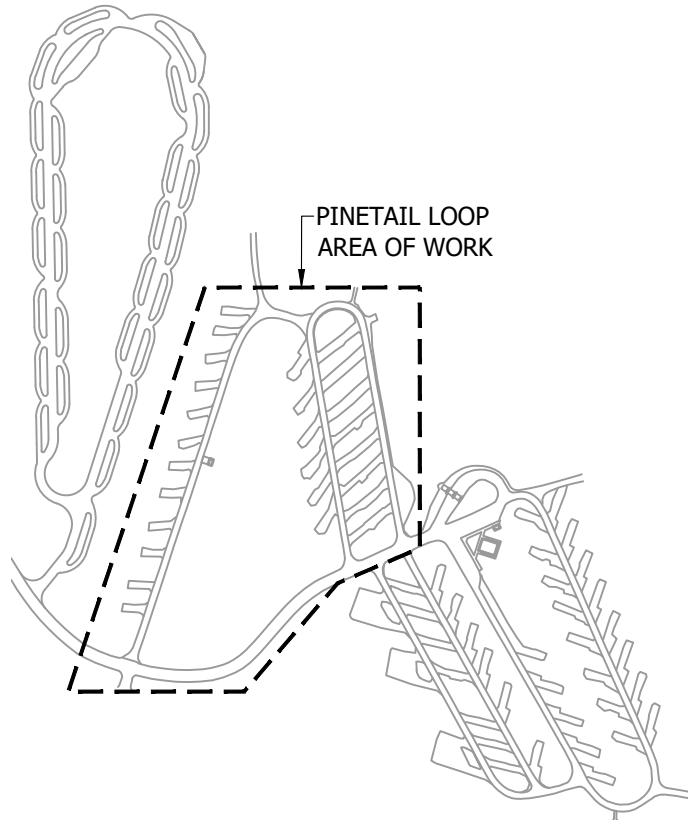
REFERENCE NOTES:

- 1 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 - PINTAIL LOOP FOR NEW WATER IMPROVEMENTS.
- 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 - PINTAIL LOOP FOR NEW ELECTRICAL IMPROVEMENTS.
- 3 REFER TO ELECTRICAL DETAIL 1/LC-E-501 FOR BACK-IN SITE DETAIL AND DIMENSIONS FOR ALL NEW PEDESTALS.

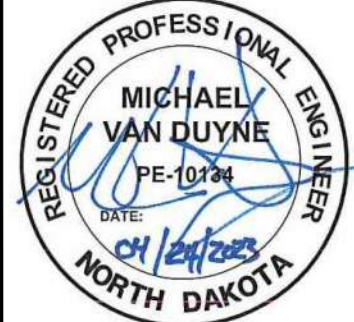
GENERAL NOTES:

- 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 PEDESTALS, 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.

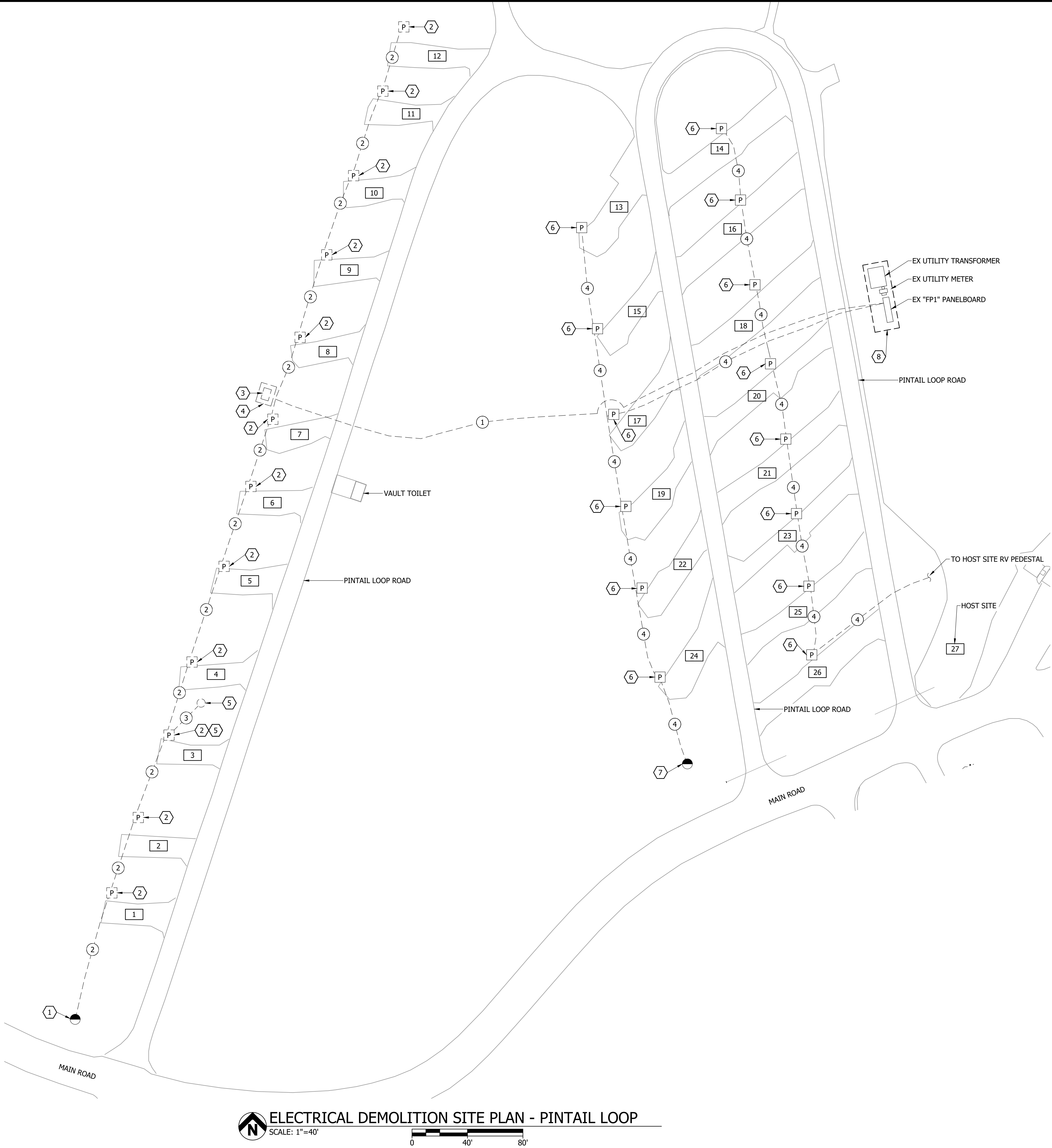
KEY PLAN:




UTILITY COORDINATION SITE PLAN
PINTAIL LOOP
LEWIS & CLARK 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:	LC-UC-101
SHEET NO:	




ELECTRICAL DEMOLITION SITE PLAN - PINTAIL LOOP
 SCALE: 1"=40'

REFERENCE NOTES:

- 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 - PINTAIL LOOP FOR LIGHTING FIXTURE POWER CONNECTION.
- 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 - PINTAIL LOOP FOR NEW POWER PEDESTAL IMPROVEMENTS.
- EX PANELBOARD, POWER CONNECTION, UNISTRUT, 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 - PINTAIL LOOP FOR NEW PANELBOARD IMPROVEMENTS.
- EX CONCRETE EQUIPMENT PAD TO REMAIN. EX POWER EQUIPMENT PAD TO BE MODIFIED BY E/C AS REQUIRED FOR NEW PANELBOARD REQUIREMENTS. REFER TO ELECTRICAL IMPROVEMENT SITE PLAN - PINTAIL LOOP (SITES 1 - 12) FOR NEW PANELBOARD IMPROVEMENTS. REFER TO DETAILS 3/LC-E-501 & 1/LC-E-602.
- EX WIRELESS INTERNET UTILITY POLE, WIRELESS INTERNET POLE MOUNTED EQUIPMENT, WIRELESS INTERNET POWER PEDISTAL MOUNTED EQUIPMENT, ALL ASSOCIATED ABOVE AND BELOW GROUND WIRE AND CONDUIT TO BE REMOVED BACK TO SITE #3's EX POWER PEDESTAL. E/C TO PROVIDE EX WIRELESS INTERNET EQUIPMENT AND UTILITY POLE BACK TO THE OWNER. E/C TO FIELD COORDINATE EXACT REQUIREMENTS WITH OWNER.
- EX RV POWER PEDESTAL, POWER CONNECTION AND ALL ASSOCIATED ABOVE GRADE WIRE AND CONDUIT TO REMAIN. EX BELOW GRADE DIRECT BURY WIRE TO REMAIN.
- EX POLE MOUNTED LIGHTING FIXTURE, LIGHTING POLE, POWER CONNECTION AND ALL ASSOCIATED ABOVE GRADE WIRE AND CONDUIT TO REMAIN. EX BELOW GRADE DIRECT BURY WIRE TO REMAIN.
- E/C TO REFER TO ELECTRICAL DETAILS 2/LC-E-501 AND 1/LC-E-602.

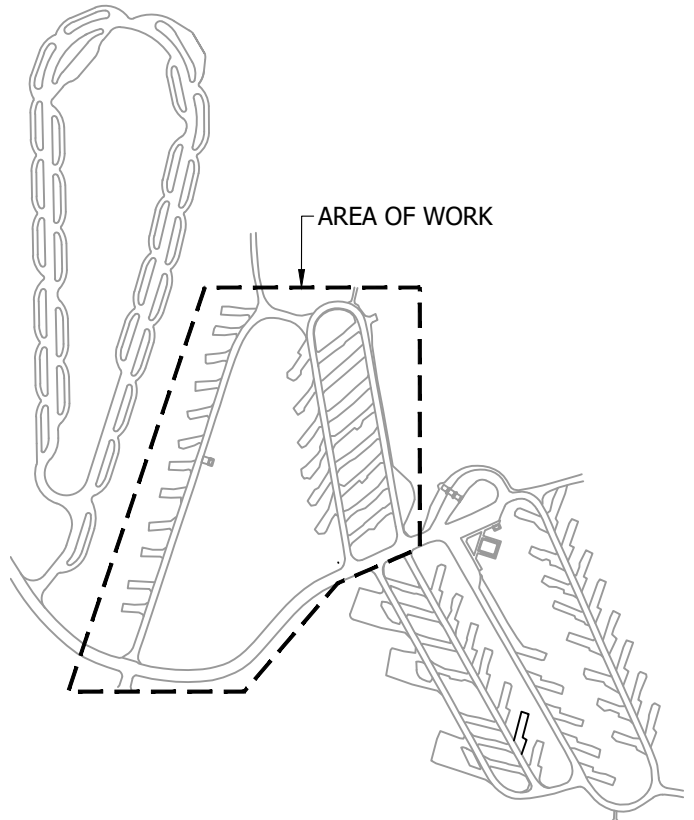
GENERAL NOTES:

- 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 MOUNTAIN WILLIAMS ELECTRIC CO-OP (MWEC) FOR ALL UTILITY COORDINATION.
MWEC CONTACT: SCOTT IVERSON
PHONE: 701-774-7120
EMAIL: scott@mwec.com
- E/C TO BE RESPONSIBLE FOR A NEW UTILITY ELECTRICAL CONNECTION COSTS.

FEEDER SCHEDULE:

- EX UNDERGROUND DIRECT BURY UTILITY MAIN FEEDER TO REMAIN AND BE ABANDONED IN PLACE.
- EX UNDERGROUND DIRECT BURY BRANCH FEEDER TO REMAIN AND BE ABANDONED IN PLACE.
- EX ABOVE AND UNDERGROUND WIRELESS INTERNET DATA WIRE TO BE REMOVED.
- EX UNDERGROUND DIRECT BURY BRANCH FEEDER TO REMAIN.

KEY PLAN:



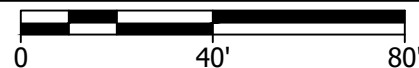
ELECTRICAL DEMOLITION SITE PLAN
PINTAIL LOOP
LEWIS & CLARK STATE PARK
 NORTH DAKOTA PARKS & RECREATION DEPARTMENT
 ELECTRICAL UPGRADES
 BISMARCK, NORTH DAKOTA



DESIGNED BY:	ARH
DRAWN BY:	SDM
APPROVED BY:	MSV
DESIGN PROJ:	21219.000
CONST PROJ:	
SCALE:	AS NOTED
DATE:	04-24-2023
DRAWING NO:	LC-E-101
SHEET NO:	4 of 11



SCALE: 1"=40'



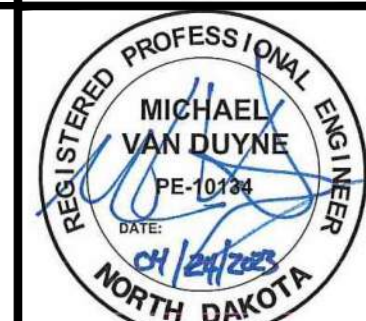
- 1 EX WIRELESS INTERNET UTILITY POLE, WIRELESS INTERNET POLE MOUNTED EQUIPMENT, WIRELESS INTERNET POWER PEDISTAL MOUNTED EQUIPMENT, ALL ASSOCIATED ABOVE AND BELOW GROUND WIRE AND CONDUIT TO BE REMOVED BACK TO SITE #33'S EX POWER PEDESTAL. E/C TO PROVIDE EX WIRELESS INTERNET EQUIPMENT AND UTILITY POLE BACK TO THE OWNER. E/C TO FIELD COORDINATE EXACT REQUIREMENTS WITH OWNER.
- 2 EX WIRELESS INTERNET UTILITY POLE, WIRELESS INTERNET POLE MOUNTED EQUIPMENT, WIRELESS INTERNET POWER PEDISTAL MOUNTED EQUIPMENT, ALL ASSOCIATED ABOVE AND BELOW GROUND WIRE AND CONDUIT TO BE REMOVED BACK TO SITE #60'S EX POWER PEDESTAL. E/C TO PROVIDE EX WIRELESS INTERNET EQUIPMENT AND UTILITY POLE BACK TO THE OWNER. E/C TO FIELD COORDINATE EXACT REQUIREMENTS WITH OWNER.
- 3 EX RV POWER PEDESTAL, POWER CONNECTION AND ALL ASSOCIATED ABOVE GRADE WIRE AND CONDUIT TO REMAIN. EX BELOW GRADE DIRECT BURY WIRE TO REMAIN.

[illegible]

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PHONE 701-258-1110 - FAX 701-258-1111
www.bartlettwest.com

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. ALL EX POWER EQUIPMENT, POWER PEDESTALS, POWER CONNECTIONS, ABOVE GROUND WIRE AND CONDUIT, BELOW GRADE DIRECT BURY WIRE WITHIN THE MEADOWLARK AND BLUEBIRD LOOPS TO REMAIN UNLESS NOTED OTHERWISE.

① EX ABOVE AND UNDERGROUND WIRELESS INTERNET DATA WIRE TO BE REMOVED.



DRAWN BY: SDM

APPROVED BY: MSV

DESIGN PROJ:	21219.000
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CONST PROJ:

SCALE: AS NOTED

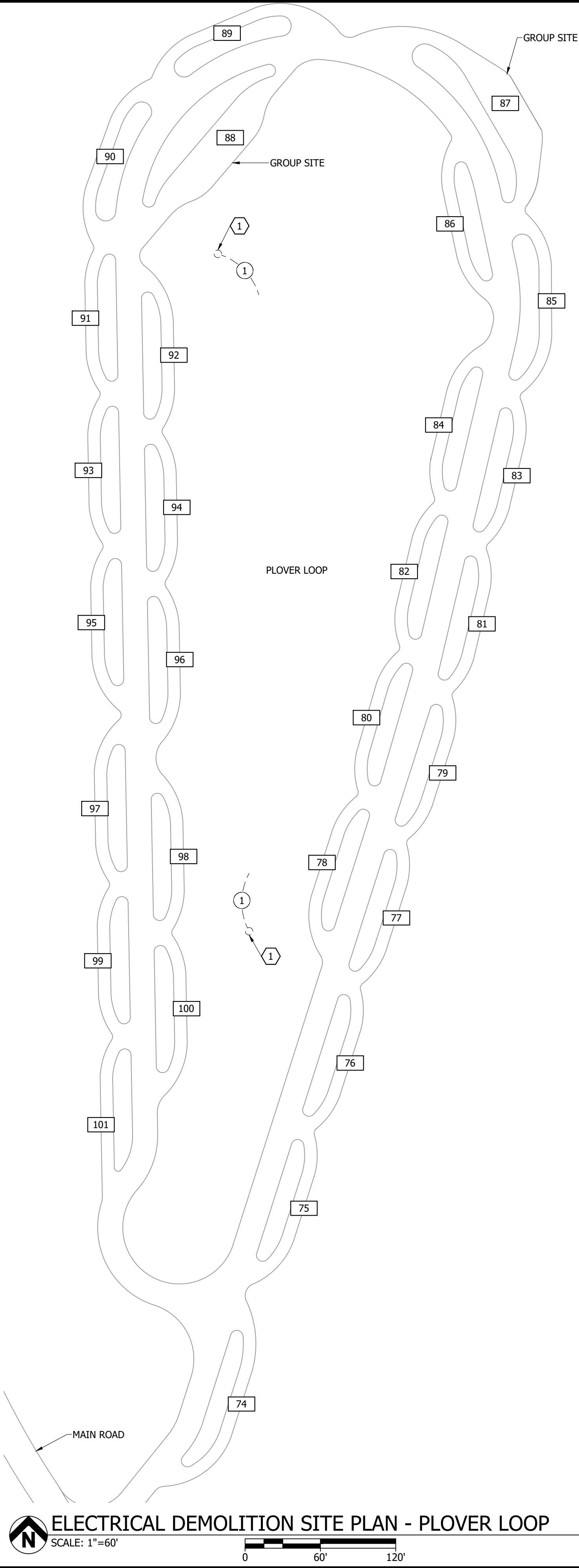
DATE: 04-24-2023

DRAWING NO:

LC-E-102

SHEET NO. _____

5 of 11



BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

REFERENCE NOTES:

- 1 EX WIRELESS INTERNET UTILITY POLE, WIRELESS INTERNET POWER PEDISTAL MOUNTED EQUIPMENT, ALL ASSOCIATED ABOVE AND BELOW GROUND WIRE AND CONDUIT TO BE REMOVED. REMOVE EX COILED UP WIRE. E/C TO PROVIDE EX WIRELESS INTERNET EQUIPMENT AND UTILITY POLE BACK TO THE OWNER. E/C TO FIELD COORDINATE EXACT REQUIREMENTS WITH OWNER.

BY	
DESCRIPTION	
DATE	
#	

Bartlett & West

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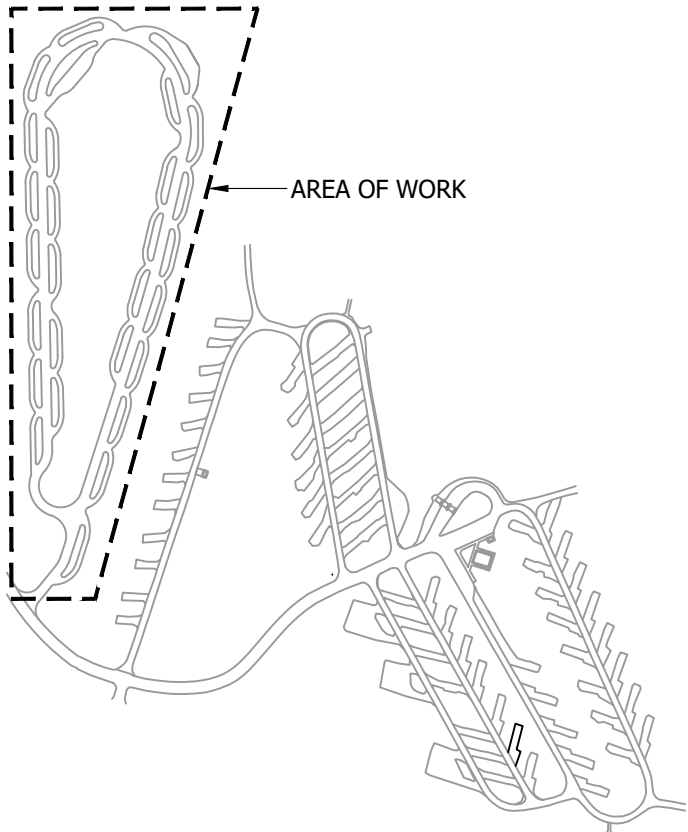
GENERAL NOTES:

- 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.
- ALL EX POWER EQUIPMENT, POWER PEDESTALS, POWER CONNECTIONS, ABOVE GROUND WIRE AND CONDUIT, BELOW GRADE DIRECT BURY WIRE WITHIN THE MEADOWLARK AND BLUEBIRD LOOPS TO REMAIN UNLESS NOTED OTHERWISE.

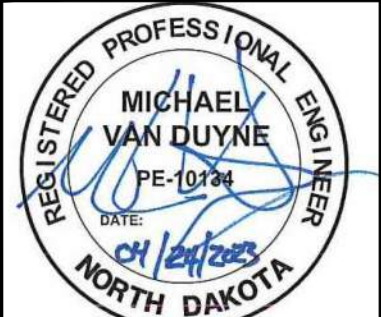
FEEDER SCHEDULE:

- 1 EX ABOVE AND UNDERGROUND WIRELESS INTERNET DATA WIRE TO BE REMOVED.

KEY PLAN:



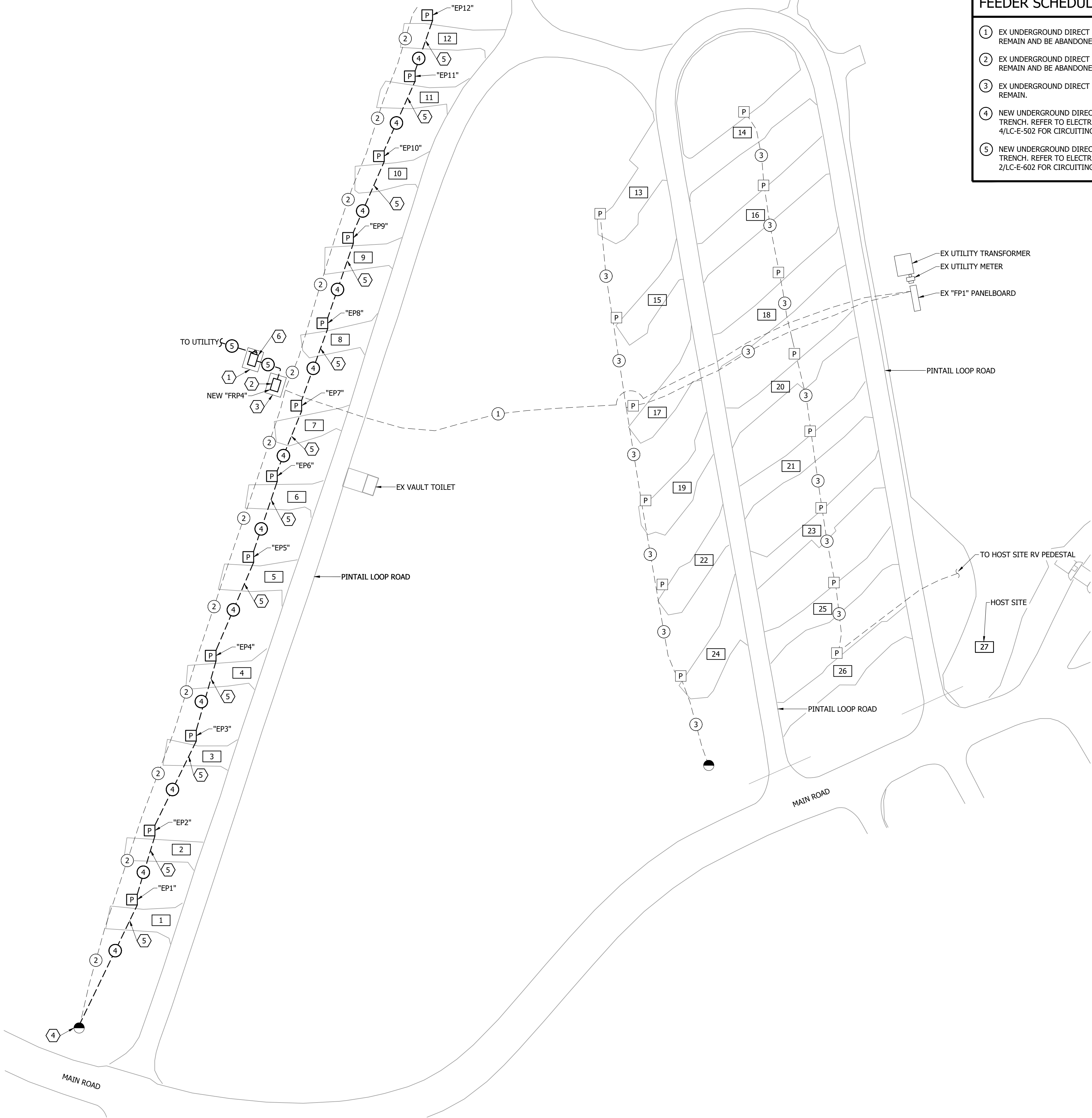
ELECTRICAL DEMOLITION SITE PLAN
PLOVER LOOP
LEWIS & CLARK STATE PARK
NORTH DAKOTA PARKS & RECREATION DEPARTMENT
ELECTRICAL UPGRADES
BISMARCK, NORTH DAKOTA



DESIGNED BY:	MSV
DRAWN BY:	SDM
APPROVED BY:	MSV
DESIGN PROJ:	21219.000
CONST PROJ:	
SCALE:	AS NOTED
DATE:	04-24-2023
DRAWING NO:	LC-E-103
SHEET NO:	6 of 11

Last edit on: 4/21/2023 12:04 PM by: NPB01926 Drawing Name: F:\proj\21000\21219\21219.000\AutoCad\Plan Set\Lewis & Clark\21219.000E - Electrical Improvement Site Plans - LCSP.dwg Layout Name: IMPROVEMENT SITE PLAN - PINTAIL LOOP Plotted on: 4/24/2023 2:16:27 PM

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.



 **ELECTRICAL IMPROVEMENT SITE PLAN - PINTAIL LOOP**
SCALE: 1"=40'

FEEDER SCHEDULE:

- EX UNDERGROUND DIRECT BURY MAIN FEEDER TO REMAIN AND BE ABANDONED IN PLACE.
- EX UNDERGROUND DIRECT BURY BRANCH FEEDER TO REMAIN AND BE ABANDONED IN PLACE.
- EX UNDERGROUND DIRECT BURY BRANCH FEEDER TO REMAIN.
- NEW UNDERGROUND DIRECT BURY BRANCH FEEDER TRENCH. REFER TO ELECTRICAL WIRING DETAILS 4/LC-E-502 FOR CIRCUITING AND FEEDER SCHEDULE.
- NEW UNDERGROUND DIRECT BURY MAIN FEEDER TRENCH. REFER TO ELECTRICAL WIRING DETAILS 2/LC-E-602 FOR CIRCUITING AND FEEDER SCHEDULE.

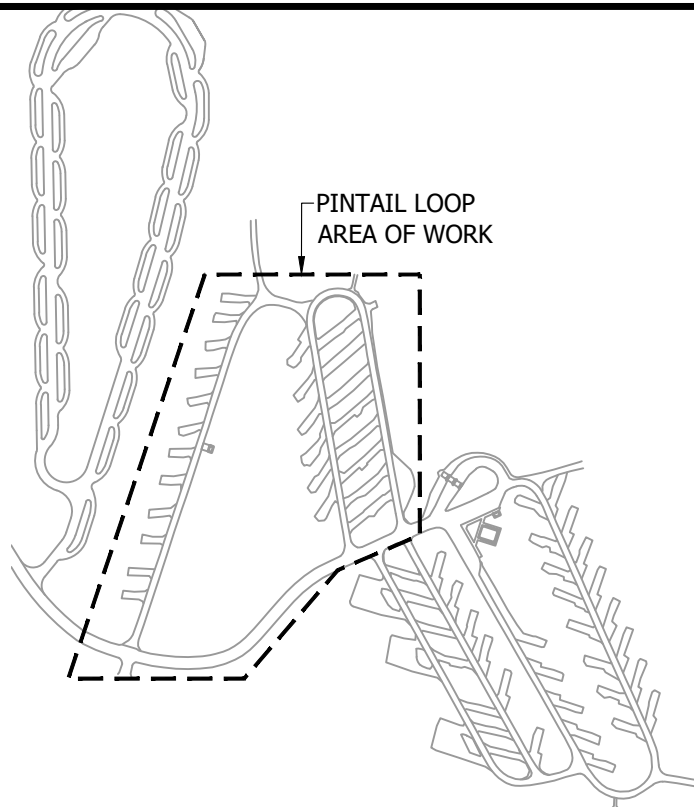
REFERENCE NOTES:

- 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 "FRP4" 800 AMP, 120/240 VOLT, 1 PHASE, 3 WIRE PANELBOARD . REFER TO "FRP4" SCHEDULE LC-E-601 AND ELECTRICAL IMPROVEMENT RISER DIAGRAM DETAIL 2/LC-E-602.
- EX CONCRETE EQUIPMENT PAD TO REMAIN. EX POWER EQUIPMENT PAD TO BE MODIFIED BY E/C AS REQUIRED FOR NEW PANELBOARD REQUIREMENTS. FIELD COORDINATE EXACT REQUIREMENTS.
- E/C TO CONNECT NEW FEEDER WIRE AND CONDUIT TO EXISTING 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 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.
- NEW UTILITY TRANSFORMER AND UTILITY METER, PROVIDED BY ELECTRIC UTILITY. E/C TO COORDINATE EXACT CONNECTION REQUIREMENTS WITH ELECTRIC UTILITY.

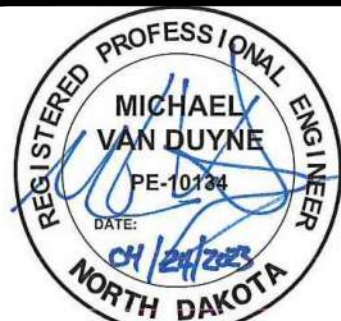
GENERAL NOTES:

- 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 MOUNTAIN WILLIAMS ELECTRIC CO-OP (MWEC) FOR ALL ELECTRIC UTILITY COORDINATION.
MWEC CONTACT: SCOTT IVERSON
PHONE: (701) 774-7120
EMAIL: scotti@mwec.com
- E/C TO BE RESPONSIBLE FOR ALL NEW ELECTRIC UTILITY CONNECTION COSTS.
- E/C TO RECLAIM STAND AND GRASS AREAS TO ORIGINAL CONDITIONS. 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 PARK AND RECREATION DEPARTMENT.
- E/C TO REFER TO 1/LC-E-501 FOR ALL NEW BACK-IN PEDESTAL LOCATIONS.

KEY PLAN:



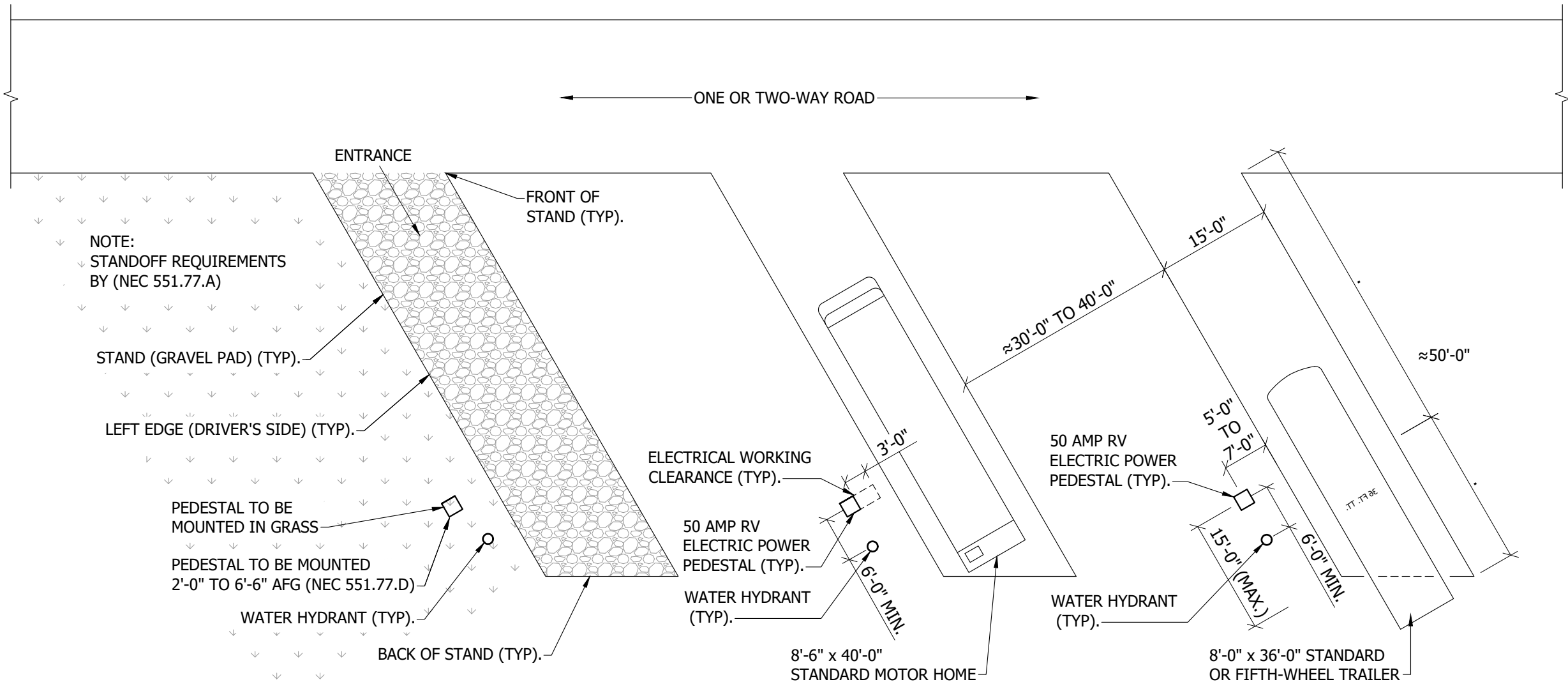
ELECTRICAL IMPROVEMENT SITE PLAN
PINTAIL LOOP
LEWIS & CLARK STATE PARK
NORTH DAKOTA PARKS & RECREATION DEPARTMENT
ELECTRICAL UPGRADES
BISMARCK, NORTH DAKOTA



DESIGNED BY:	ARH
DRAWN BY:	SDM
APPROVED BY:	MSV
DESIGN PROJ:	21219.000
CONST PROJ:	
SCALE:	AS NOTED
DATE:	04-24-2023
DRAWING NO:	LC-E-111
SHEET NO:	7 of 11



3 EX "FP2" PANELBOARD
NOT TO SCALE



1 LEWIS & CLARK (EX SITES)
BACK-IN SITE DETAIL (SITES 1-12)
NOT TO SCALE



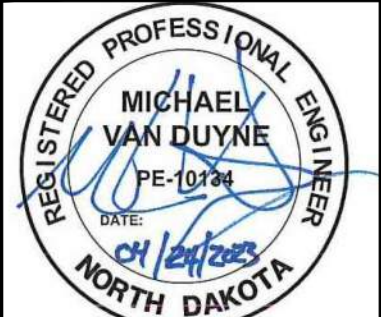
2 EX "FP1" MAIN DISTRIBUTION PANELBOARD
NOT TO SCALE

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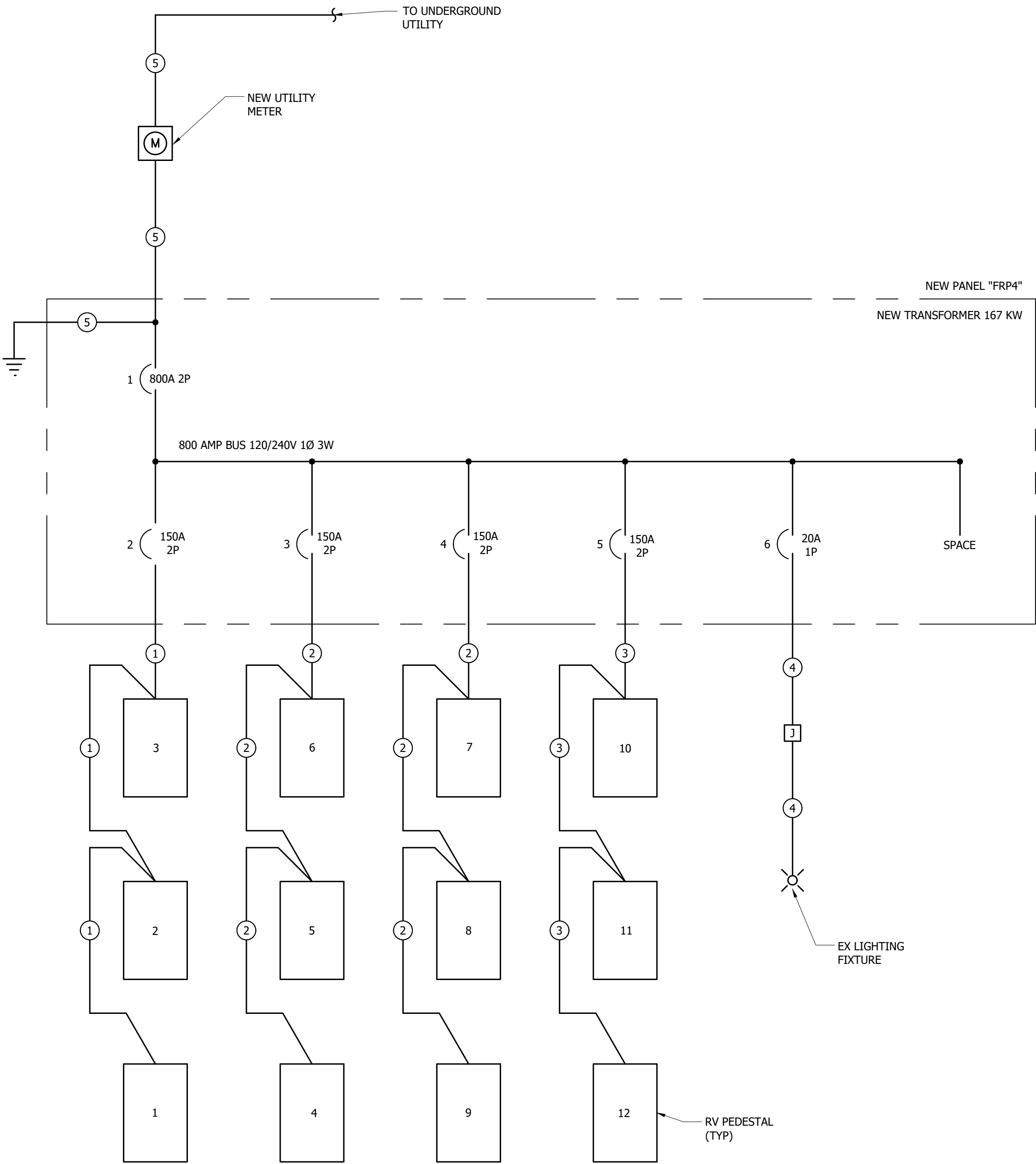
**ELECTRICAL SITE DETAILS
LEWIS & CLARK STATE PARK**

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
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DRAWING NO:	LC-E-501
SHEET NO:	8 of 11

Drawing Name: F:\proj\21000\21219\01219\000\AutoCad\Plan Set\Lewis & Clark\21219.000E - Electrical Details - LCSP.dwg Layout Name: ELECTRICAL DETAILS - LCSP.dwg Plotted on: 4/24/2023 2:16:24 PM
 Last edit on: 4/21/2023 11:43 AM by: NPB01926



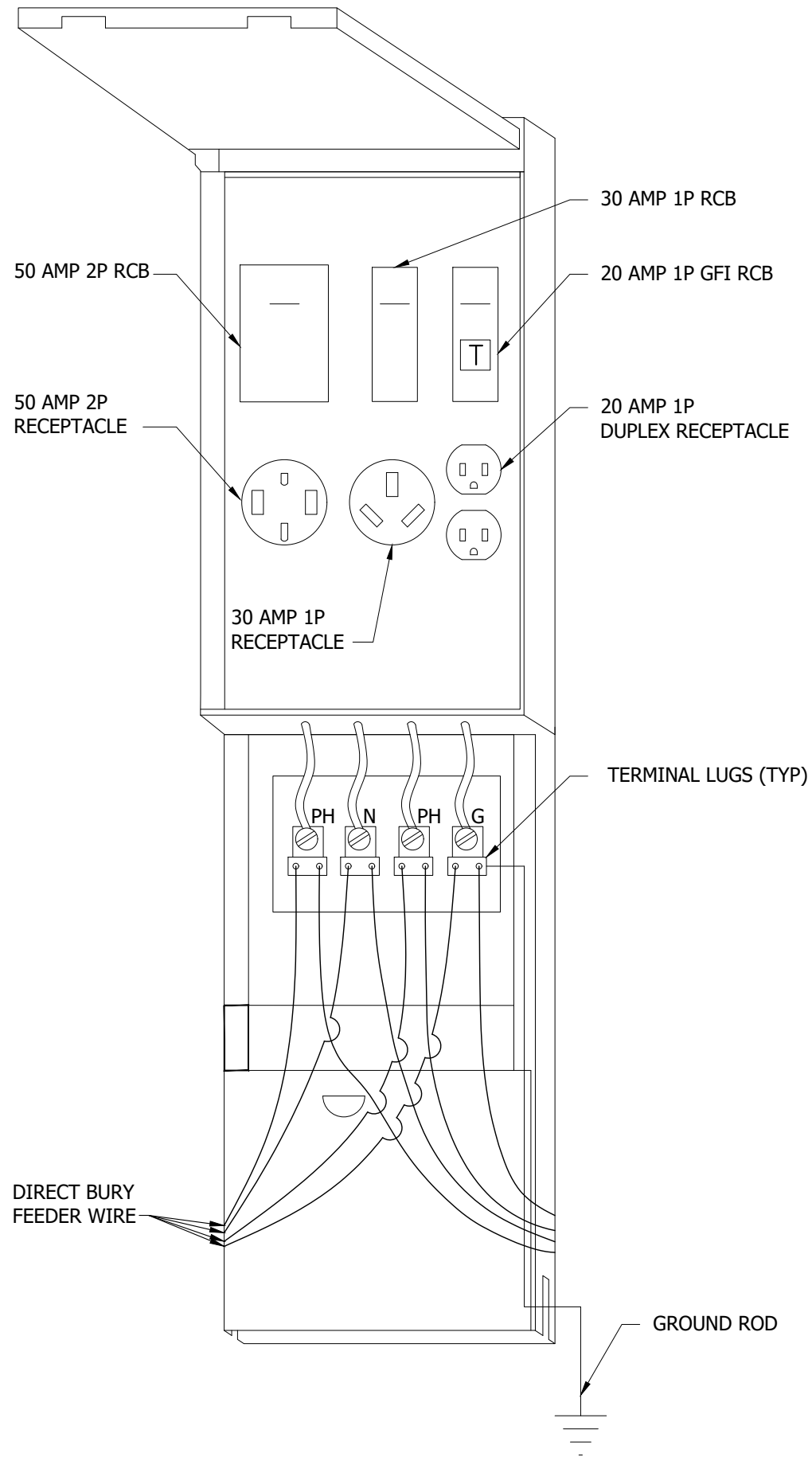
4 ELECTRICAL WIRING DIAGRAM
 NOT TO SCALE

FEEDER SCHEDULE:

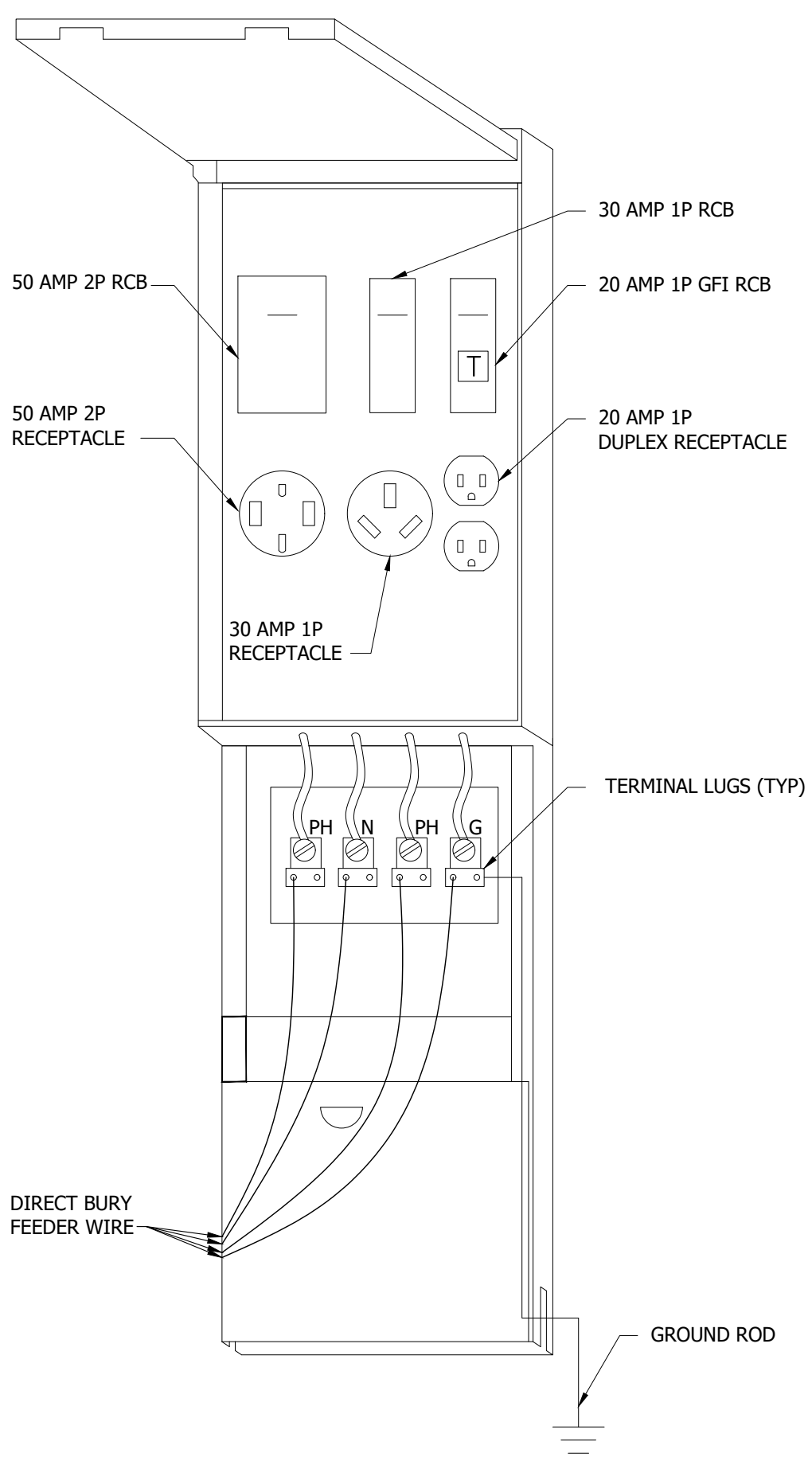
- 1 3-4/0 DIRECT BURY CABLE WITH 4/0G.(BASED ON COPPER)
- 2 3-3/0 DIRECT BURY CABLE WITH 3/0G.(BASED ON COPPER)
- 3 3-1/0 DIRECT BURY CABLE WITH 1/0G. (BASED ON COPPER)
- 4 2-10 DIRECT BURY CABLE WITH 1-10G. (BASED ON COPPER)
- 5 REFER TO ELECTRICAL IMPROVEMENT RISER DIAGRAM.

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.

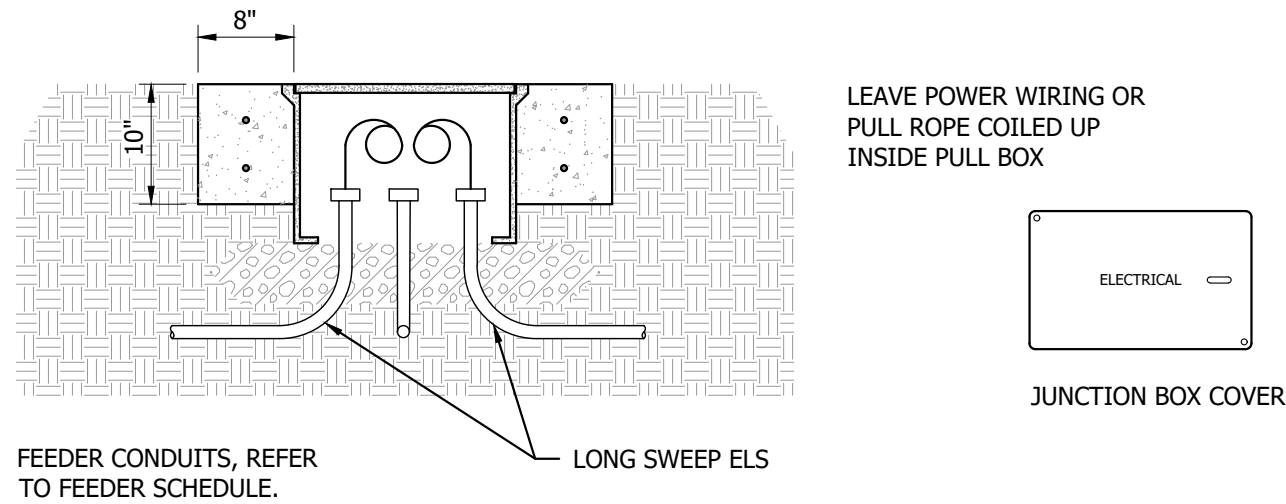
- 1 - PROVIDE PANELS WHICH ARE NEMA 3R & SERVICE ENTRANCE RATED.
- 2 - REFER TO IMPROVEMENT PLAN LC-E-111 FOR FEEDER LAYOUT. UNLESS NOTED OTHERWISE, TYPE USE, LISTED FOR DIRECT BURIAL. DIRECT BURIAL AND LIGHTING CIRCUIT WIRING BASED ON COPPER. E/C TO PROVIDE ALTERNATE PRICE FOR ALUMINUM.
- 3 - PROVIDE 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 FEED THRU RV PEDESTAL DETAIL
 NOT TO SCALE



1 END OF LINE RV PEDESTAL DETAIL
 NOT TO SCALE



3 FLUSH GRADE JUNCTION BOX DETAIL
 NOT TO SCALE

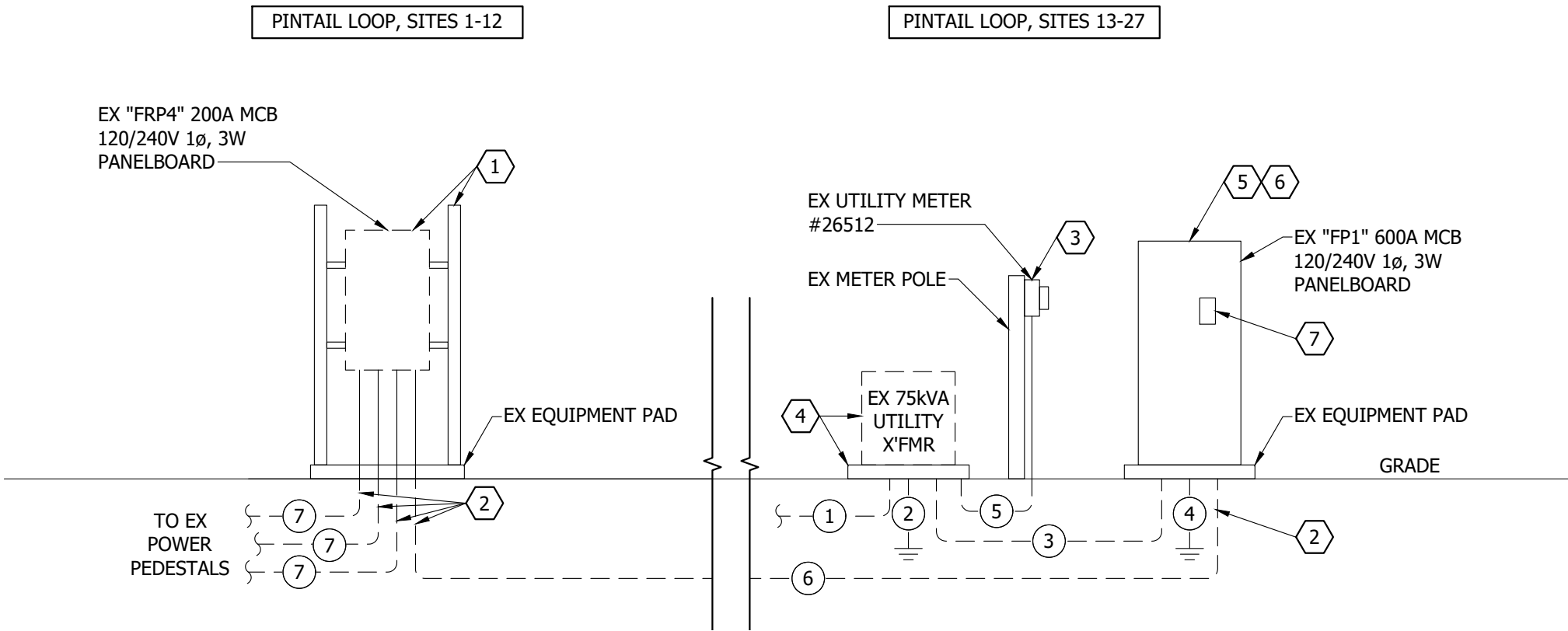
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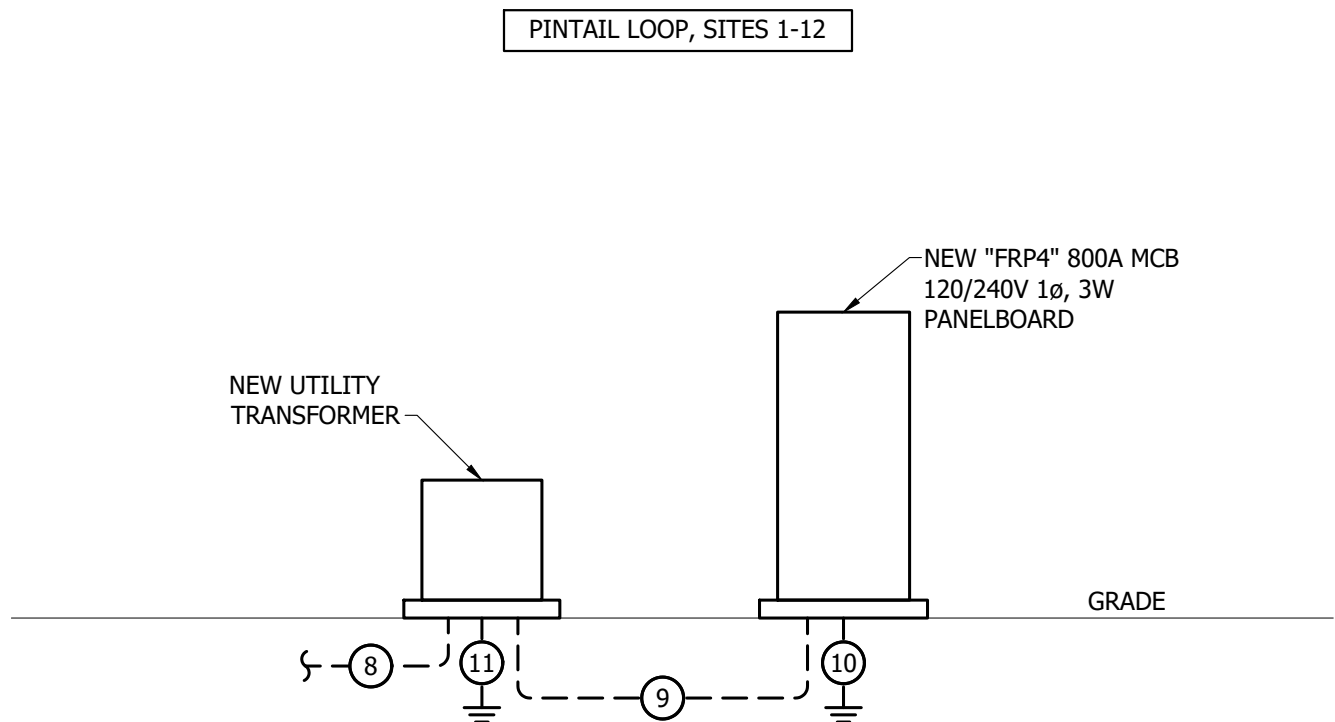
ELECTRICAL DETAILS
 LEWIS & CLARK STATE PARK
 NORTH DAKOTA PARKS & RECREATION DEPARTMENT
 ELECTRICAL UPGRADES
 BISMARCK, NORTH DAKOTA



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APPROVED BY:	MSV
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SCALE:	AS NOTED
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SHEET NO:	9 of 11



1 ELECTRICAL DEMOLITION RISER DIAGRAM
 NOT TO SCALE



2 ELECTRICAL IMPROVEMENT RISER DIAGRAM
 NOT TO SCALE

REFERENCE NOTES:

- EX PANELBOARD, POWER CONNECTION, UNISTRUT, 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 AND ABANDONED IN PLACE.
- EX UTILITY METER, METER POLE, AND ASSOCIATED WIRE TO REMAIN. METER NUMBER 26512.
- EX UTILITY TRANSFORMER, EQUIPMENT BASE, AND ASSOCIATED WIRE AND CONDUIT TO REMAIN.
- EX MDP PANELBOARD, POWER CONNECTIONS, UNISTRUT, AND EQUIPMENT PAD TO REMAIN. ALL EX WIRE AND CONDUIT TO BE TO REMAIN UNLESS NOTED OTHERWISE.
- E/C WILL BE RESPONSIBLE TO FIELD VERIFY AND CONFIRM ALL PANELBOARD CIRCUITS EX LABELING IS CORRECT. E/C WILL REMOVE EX PANELBOARD LABELING AND RE-LABEL ALL PANELBOARD CIRCUITING LABELING. E/C TO REFER TO SPECIFICATIONS.
- E/C DISCONNECT EX 200A/240V/2P CIRCUIT BREAKER POWER CONNECTION SERVING EX "FRP4" PANELBOARD. E/C TO LABEL EX CIRCUIT BREAKER AS SPARE AND SET IN THE OFF POSITION. REFER TO DETAIL 2/LC-E-501.

GENERAL NOTES:

- 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 MOUNTRAIL WILLIAMS ELECTRIC CO-OP (MWEC) FOR ALL UTILITY COORDINATION.
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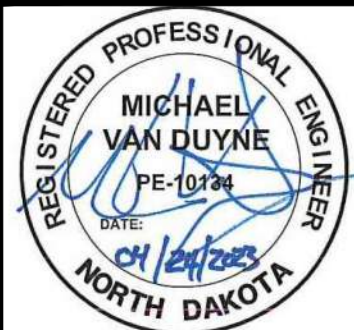
FEEDER SCHEDULE:

- EX UTILITY PRIMARY FEEDER WIRE AND CONDUIT TO REMAIN.
- EX UTILITY GROUND WIRE AND CONDUIT TO REMAIN.
- EX MAIN SERVICE FEEDER WIRE AND CONDUIT TO REMAIN.
- EX MAIN SERVICE GROUND WIRE AND CONDUIT TO REMAIN.
- EX UTILITY METER WIRE AND CONDUIT TO REMAIN.
- EX UNDERGROUND DIRECT BURY MAIN FEEDER TO REMAIN AND BE ABANDONED IN PLACE.
- EX UNDERGROUND DIRECT BURY BRANCH FEEDER TO REMAIN AND BE ABANDONED IN PLACE.
- UTILITY TO PROVIDE PRIMARY FEEDERS, ASSOCIATED CONDUIT AND TRENCHING. E/C TO COORDINATE WITH UTILITY.
- 3-300 IN EACH OF 3-2 1/2". (BASED ON COPPER)
- 1-2/0G IN 1". (BASED ON COPPER)
- UTILITY GROUND WIRE AND CONDUIT, COORDINATE WITH UTILITY.

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ELECTRICAL RISER DIAGRAMS
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 ELECTRICAL UPGRADES
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