# DEER HAVEN PARK SITE ELECTRIC IMPROVEMENTS

# PREPARED FOR:

# PRESERVATION PARKS OF DELAWARE COUNTY

2656 HOGBACK ROAD SUNBURY, OHIO 43074

CONFORMING/BID SET OCTOBER 2, 2024





CONSULTANT

MECHANICAL / ELECTRICAL ENGINEER: ROGER D. FIELDS ASSOCIATES, INC 4588 KENNY ROAD COLUMBUS, OHIO 432209-2777





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TONY
R.
SCHORR
8879

TONY R. SCHORR, LICENSE #8879
EXPIRATION DATE 12/31/2025

OB/21/2024

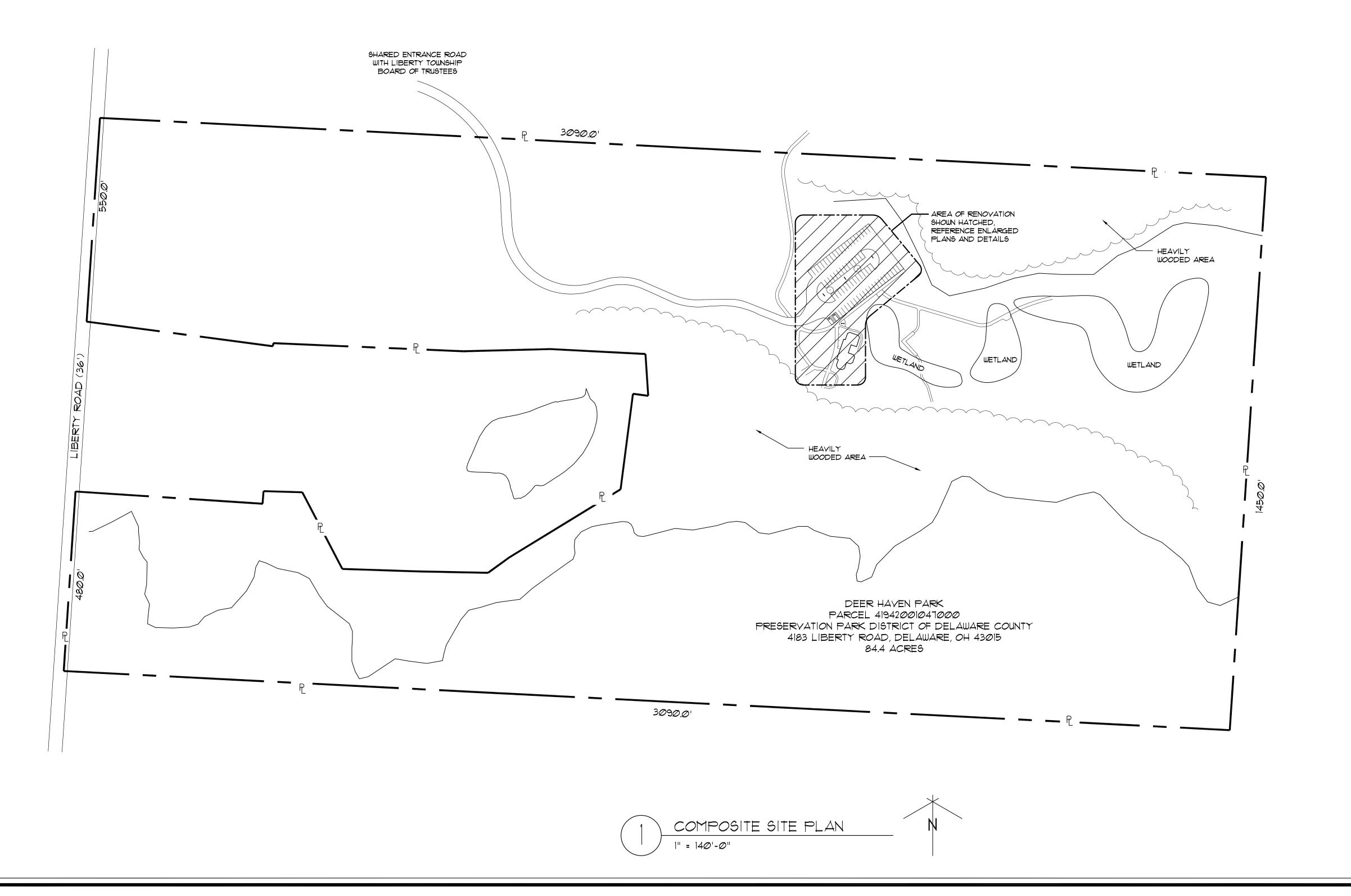
DATE



# UTILITY SERVICES INFORMATION ELECTRIC AEP ENERGY P.O. BOX 340 ZELIENOPLE, PA 16063 (866) 258-3782

# EXISTING CONDITIONS & DEMOLITION NOTES:

- 1. NOT USED.
- 2. ALL ITEMS SPECIFIED TO BE REMOVED SHALL BE COMPLETELY REMOVED AND DISPOSED OF OFFSITE TO APPROPRIATE WASTE DISPOSAL FACILITIES AT THE CONTRACTORS EXPENSE.
- 3. ALL WORK TO BE ACCOMPLISHED IN STRICT ACCORDANCE WITH ALL LOCAL ORDINANCES,
- CITY AND STATE.
- 4. NOT USED.
- 5. THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN PROVIDED BY PPDC AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ARCHITECT ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY DEMOLITION ACTIVITY, THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES FOR ONSITE LOCATIONS OF EXISTING UTILITIES.
- 6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALL OUPS, OR A PRIVATE UTILITY MARKING COMPANY, PRIOR TO CONSTRUCTION, AND TO HAVE ALL EXISTING UTILITIES LOCATED \$
- 1. CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL. ALL TRAFFIC CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (LATEST EDITION), AND ODOT ITEM 614.
- 8. CONTRACTOR IS RESPONSIBLE FOR PROVIDING JOB SITE SAFETY PER OSHA REQUIREMENTS.
- 9. CONTRACTOR IS RESPONSIBLE FOR PLACING AND MAINTAINING CONSTRUCTION FENCE, SIGNS, ETC, TO WARN AND KEEP PEOPLE OFF SITE FOR THE DURATION OF THE PROJECT.
- 10. EXTENTS OF DEMOLITION WORK IS NOT LIMITED TO ONLY WHAT IS SHOWN TO BE DEMOLISHED ON THIS PLAN. DEMOLITION WORK MUST BE COMPLETE SO THE PROPOSED STRUCTURES AND APPURTENANCES CAN BE CONSTRUCTED.
- 11. THE REMOVAL OF STRUCTURES AND OBSTRUCTIONS SHALL BE IN ACCORDANCE WITH ODOT
- 12. STATE AND LOCAL CODE REQUIREMENTS SHALL CONTROL THE DISPOSAL OF DEBRIS RESULTING FROM THE REMOVAL OPERATION.



# COMPOSITE SITE PLAN

# DEER HAVEN PARK SITE ELECTRIC IMPROVEMENTS

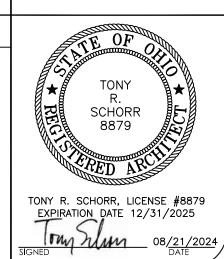
4183 LIBERTY ROAD DELAWARE, OH 43015

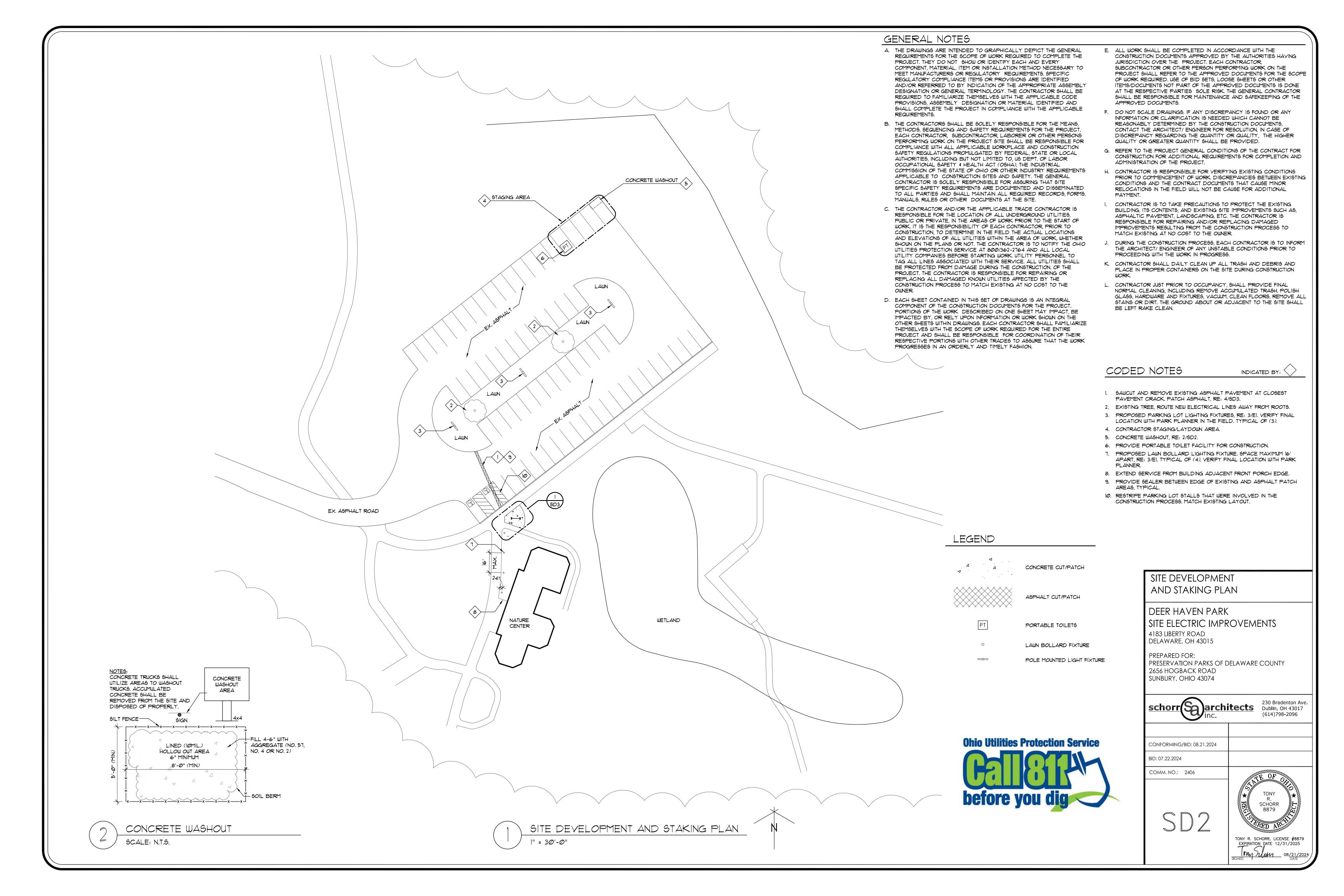
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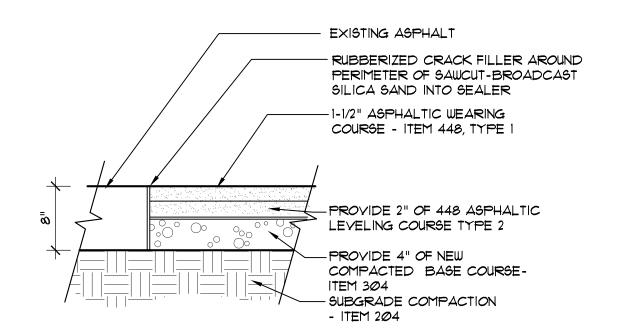


CONFORMING/BID: 08.21.2024

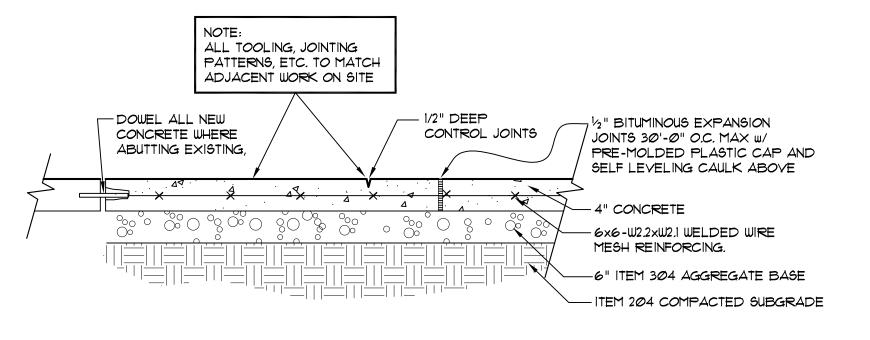
BID: 07.22.2024 COMM. NO.: 2406







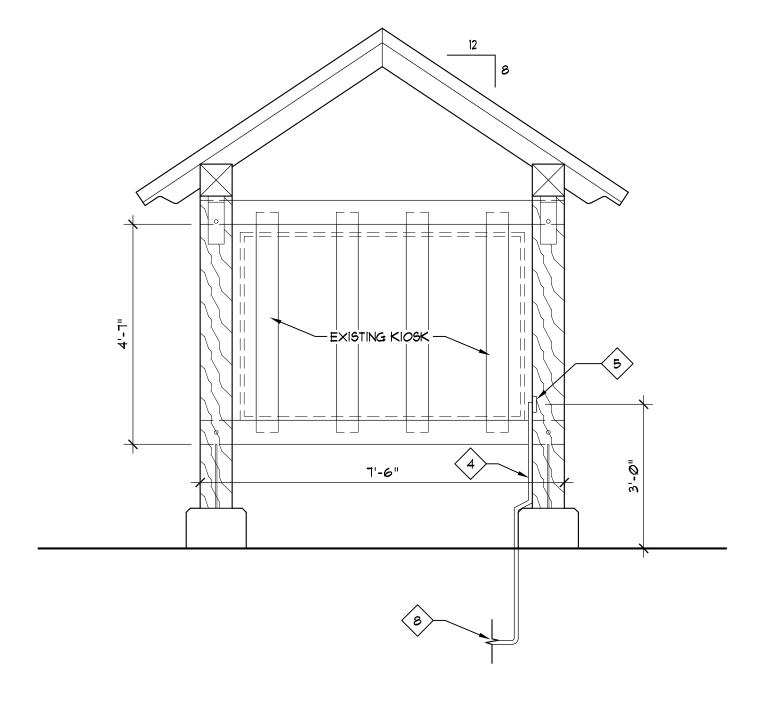
ASPHALT PATCH DETAIL SCALE: 1" = 1'-0"



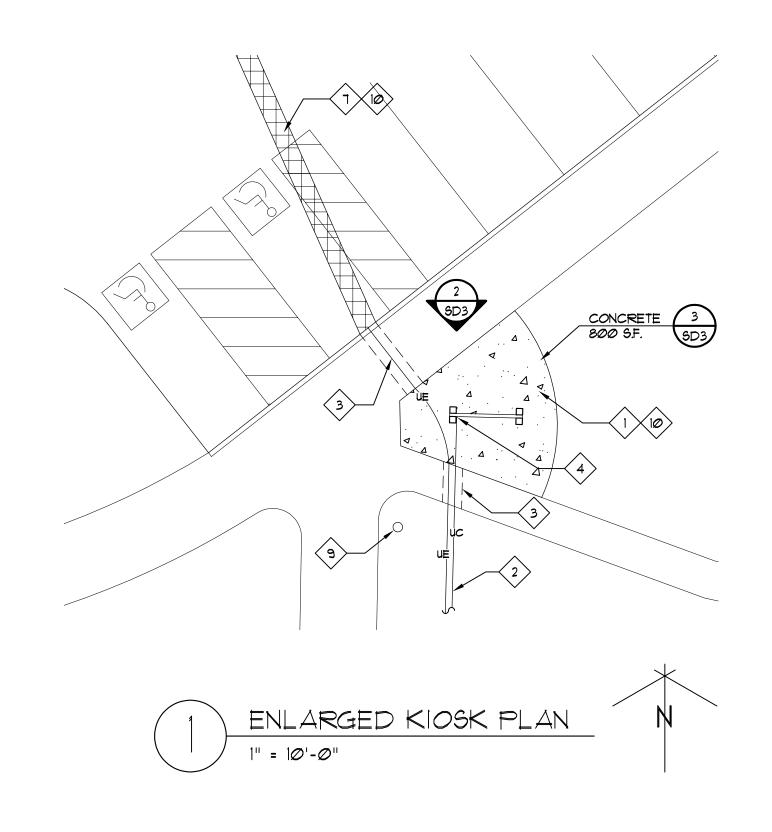


CONCRETE SIDEWALK DETAIL

1" = 1'-Ø"







# CODED FLOOR PLAN NOTES: INDICATED BY

APPLICABLE TO SHEET SD3

- 1. EXCAVATE AND REMOVE DAMAGED CONCRETE AT BASE OF KIOSK. RUN CONDUIT AND REPLACE CONCRETE AS INDICATED.
- 2. UNDERGROUND CONDUIT FROM LODGE TO KIOSK FOR FUTURE DIGITAL
- 3. PUSH UNDER SIDEWALK AT THIS LOCATION.
- 4. RISE CONDUIT UP WOOD POST AND TERMINATE IN JUNCTION BOX BETWEEN GAP IN WOOD POSTS, TYPICAL OF (2) CONDUITS AND BOXES.
- 5. JUNCTION BOX AND COVER PLATE.
- 6. UNDERGROUND ELECTRIC AND SPARE CONDUIT TO POLE MOUNTED PARKING LOT FIXTURE.
- 1. CUT AND PATCH ASPHALT PAVEMENT FOR SERVICE TO PARKING LOT ISLAND. REFERENCE SHEET SD2 FOR CONTINUATION.
- 8. REFERENCE ELECTRICAL PLAN FOR CONTINUATION AND SIZING REQUIREMENTS.
- 9. PROPOSED LAWN BOLLARD LIGHTING FIXTURE.
- 10. CONTRACTOR OPTION: THE CONTRACTOR MAY USE DIRECTIONAL BORE IN LIEU OF EXCAVATION TO AVOID CUTTING AND PATCHING ON PAYEMENT AREAS AND/OR AROUND TREES. NOTE! KIOSK CONCRETE AREA TO BE REPLACED WITH EITHER OPTION.

# ENLARGED KIOSK PLAN AND DETAILS

# DEER HAVEN PARK SITE ELECTRIC IMPROVEMENTS

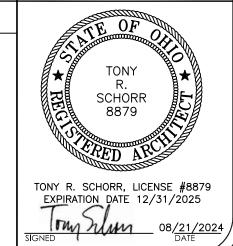
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#### GENERAL ABBREVIATIONS

SPECIFICATION

SERVICE SINK

STORM SEWER

SOUND TRAP

THERMOSTAT

STANDARD

SUPPLY & RETURN

SQUARE

SQ.FT. SQUARE FEET

S.S., S/S STAINLESS STEEL

STEEL

SUCT./S SUCTION

STORM

SWITCH

SOFTENED WATER

TEMPERED WATER

TEMPERATURE

THERMOSTAT

TYPICAL

VENT

VACUUM

VERTICAL

VIB. ISO. VIBRATION ISOLATOR

WITH

WATER

WET BULB WATER CLOSET

WASTE OIL

WALL TO WALL

TRANSFORMER

YARD HYDRANT

WITHOUT

YARD

WATER GAUGE WALL HYDRANT WATER HEATER

UNDERCUT

UNIT HEATER URINAL

UNIT VENTILATOR

VACUUM CLEANING VITRIFIED CLAY PIPE

VITRIFIED SEWER PIPE

VENT THRU ROOF WIDTH OR WATER

TEMPERATURE DIFFERENCE

THERMOMETER/ THERMOSTAT

S&R

S.S.

S.S.

STD.

STL.

STM.

SW.

SW TD

THERM.

T'STAT

T.W.

TYP.

UC

UH

VAC. VC VCP

VERT.

V.T.R.

W/

WB

WAT.

W.G.

WO

W/O

W/W

YD.

XFMR

D	COMPRESSED AIRAB. ABOVE	G GALV	GAS
D. D.	ACCESS DOOR AREA DRAIN	GALV. G.C.	GALVANIZED GENERAL CONTRACTOR
F.F.	ABOVE FINISHED FLOOR	GEN.	GENERAL
H LT.	AIR HANDLER ALTERNATE	G.I. GPM	GREASE INTERCEPTOR GALLONS PER MINUTE
.UM.	ALUMINUM	GR	GRILLE
P. PROX.	ACCESS PANEL APPROXIMATELY	GRAV. G.T.C.	GRAVITY GENERAL TRADES CONTRACTOR
RCH.	ARCHITECT	H./HT.	HEIGHT
R'T. ITO.	ARRANGEMENT	HAC	HEATING AND AIR CONDITIONING
,	AUTOMATIC ACID VENT	HB HORIZ.	HOSE BIBB HORIZONTAL
,	AT	HP	HIGH PRESSURE
V	ACID WASTE AND	HP HPS	HORSEPOWER HIGH PRESSURE STEAM
	ANGLE	H.S.	HAIR STRAINER
.L. D.D.	BALANCING BACKDRAFT DAMPER	HTG. HTR.	HEATING HEATER
л. <i>Б.</i> Р	BACKFLOW PREVENTER	HV	HEATING & VENTILATING
P DG.	BRAKE HORSEPOWER BUILDING	HV HVAC	HIGH VELOCITY HEATING, VENTILATING AND AIR CONDITIONING
	D.BASEBOARD RADIATION	H'STAT	HUMIDISTAT
MT.	BASEMENT	I.D. IN.	INSIDE DIAMETER INSIDE
	BATH TUB BLACKTOP	IND.	INDIRECT
M.	BOTTOM	IND. U.	INDUCTION UNIT
U /.	BRITISH THERMAL UNIT BACKWATER VALVE	INV. INV. ELEV.	INVERT INVERT ELEVATION
B.	CABINET	INSUL.	INSULATION
P. 3.	CAPACITY CATCH BASIN	INT. J.R.	INTERIOR JANITOR'S RECEPTOR
	CENTER TO CENTER	K.EC.	KITCHEN EQUIPMENT CONTRACTOR
IL./CLG.	CEILING	L. LAB	LENGTH LABORATORY
H M	CUBIC FEET PER HOUR CUBIC FEET PER MINUTE	L.A.T.	LEAVING AIR TEMPERATURE
IEM.	CHEMICAL	LAV	LAVATORY
	CAST IRON CENTERLINE	LH LPS	LEFT HAND LOW PRESSURE STEAM
<b>)</b> .	CLEANOUT	LV'G.	LEAVING
L MB	COLUMN COMBINATION	L.W.T. M.A.	LEAVING WATER TEMP. MIXED AIR
NC.	CONCRETE	MAN. DPR.	. MANUAL DAMPER
ND.	CONDENSATE/CONDENSER	MAT. MAX.	MATERIAL MAXIMUM
NN NST	CONNECTION/CONNECT CONSTRUCTION	MBH	THOUSAND BTU PER HOUR
NTR.	CONTRACTOR	MECH. MET/MTL.	MECHANICAL METAL
NV ORD	CONVECTOR/CONVERTER COORDINATE	MEZZ.	MEZZANINE
Н	CABINET UNIT HEATER	MFR.	MANUFACTURER
. FT.	CUBIC FEET DEEP	MH MIN.	MANHOLE MINIMUM
	DRY BULB	MISC.	MISCELLANEOUS
L W	DOUBLE DOMESTIC COLD WATER	M.O. MPS	MOTOR OPERATED MEDIUM PRESSURE STEAM
Т.	DETAIL	MS	MOTOR STARTER
G. F. =	DEGREES FARENHEIGHT DRINKING FOUNTAIN	MTD./MT. N <sub>2</sub>	MOUNTED/MOUNT NITROGEN
W	DOMESTIC HOT WATER	N.I.C.	NOT IN CONTRACT
WR	DOM. HOT WATER RETURN	NO./# NOM.	NUMBER NOMINAL
A.ORØ FF.	DIAMETER DIFFUSER	N.T.S.	NOT TO SCALE
И.	DIMENSION	N <sub>2</sub> O O.	NITROUS OXIDE OXYGEN
SCH.	DISCHARGE DOOR LOUVER	O.A.	OUTSIDE AIR
<b>1</b> .	DAMPER MOTOR	O/C	ON CENTER
l. 'R.	DOWN DAMPER	O.D. O.I.	OUTSIDE DIAMETER OIL INTERCEPTOR
1\. \.	DOOR	OPG.	OPENING
S.	DOWNSPOUT DISTILLED WATER	OPP. OU./OZ.	OPPOSITE OUNCE
/ /H	DISTILLED WATER DOMESTIC WATER HEATER	O.V.	OUTLET VELOCITY
<b>/</b> V	DRAIN, WASTE AND VENT	P. P.C.	PROPANE PLUMBING CONTRACTOR
/G	DRAWING EACH	P.D.	PRESSURE DROP
λ.T.	ENTERING AIR TEMPERATURE	P.I.V.	POST INDICATOR VALVE
). F.	ELECTRICAL CONTRACTOR EFFICIENCY	P/L PLBG.	PROPERTY LINE PLUMBING
- EC	ELECTRIC, ELECTRICAL	PNEU.	PNEUMATIC
ΞM.	ELEMENT	PRESS. PRV	PRESSURE PRESSURE REDUCING VALVE
EV. ERG.	ELEVATION EMERGENCY	PROP.	PROPELLER
GR.	ENGINEER	PSI PSIG	POUNDS PER SQUARE INCH POUNDS PER SQUARE INCH GAUGE
T. UIP.	ENTERING EQUIPMENT	PSF	POUNDS PER SQUARE FOOT
S.P.	EXTERNAL STATIC PRESSURE	PT R	PLASTER TRAP REGISTER
!	EXPANSION TANK EYE WASH	R.A.	RETURN AIR
/C	ELECTRIC WATER COOLER	RAD.	RADIUS/RADIATION/RADIATOR
V.T. H	ENTERING WATER TEMP. EXHAUST	R.D. RECIRC.	ROOF DRAIN RECIRCULATING
IST.	EXISTING	REG.	REGISTER
Т.	EXTERIOR	REINF. REL.	REINFORCED RELIEF
	FAN FIRE	REQ'D.	REQUIRED
	FLOOR DRAIN	RH RHC	RIGHT HAND REHEAT COIL
	FIRE DAMPER FIRE EXTINGUISHER	RM.	ROOM
i.C.	FIRE EXTINGUISHER CABINET	RPM RWC	REVOLUTIONS PER MINUTE RAINWATER CONDUCTOR
.E.C. I.	FOOD SERVICE EQUIPMENT CONTRACTOR FIRE HYDRANT	RW	RAW WATER
I.C.	FIRE HOSE CABINET	R/W	RIGHT OF WAY
I.E.C.	FIRE HOSE/EXTINGUISHER CABINET FIGURE	S. S.A.	SINK SHOCK ABSORBER
l.	FINISH	S.A.	SUPPLY AIR
I. RAD.	FINNED RADIATION	SAN. SB	SANITARY SEWER SHAMPOO BOWL
EX. R./FL.	FLEXIBLE FLOOR	SD	SMOKE DETECTOR
М	FEET PER MINUTE	SD	SHOWER DRAIN
k Т	FLOAT & THERMOSTATIC FEET	S. DPR. SECT.	SMOKE DAMPER SECTION
HD	FEET OF HEAD	S.F.	SQUARE FEET
R	FUEL OIL RETURN	SHR. SHT.	SHOWER SHEET
S C	FUEL OIL SUPPLY FIRE PROTECTION CONTRACTOR	SHT. MT'L	SHEET METAL
RN.	FURNISH(ED)	S.M., S/M S.P.	SHEET METAL STATIC PRESSURE
'.	FLUSH VALVE	J J.F.	STATIO I NEODONE

	ELECT	RICA	L SYM	BOLS	
		 L			
3. MOUNTING I 4. RTD: REFER 5. ADJUST MO	HEIGHT ÒN PĹAN SUPERSEDES THIS SCHED I TO DRAWING. UNTING HEIGHTS OF DEVICES WHICH PROTI	ULE. RUDE MOR	E THAN 4" INTO	CORRIDORS AND WALKWAYS AS	
	TO MEET A.D.A. CLEARANCE REQUIREMENTS		CVMPOL	ITEM	MII
SYMBOL	_ITEM	<u>M.H.</u>	SYMBOL	ITEM_	<u>M.H.</u>
	SURFACE MOUNTED LIGHTING FIXTURE		FACP	FIRE ALARM CONTROL PANEL	TOP @ 6
	RECESSED MOUNTED LIGHTING FIXTURE		FAAP	FIRE ALARM ANNUNCIATOR	TOP @ 6
	LIGHTING ON EMERGENCY CIRCUIT		EGA	EMERGENCY GENERATOR ANNUNCIATOR	_
0	CEILING MOUNTED FIXTURE			AUDIO/VISUAL ALARM BELL	80"
	LIGHTING ON EMERGENCY CIRCUIT		V	VISUAL ALARM STROBE	80"
$\frac{1}{8}$	WALL MOUNTED FIXTURE	RTD	SM <sub>D</sub>	DUCT SMOKE DETECTOR	
$\frac{\otimes}{\otimes}$	SINGLE FACE EXIT LIGHT W/DIRECTION AF		SM SB	CEILING SMOKE DETECTOR  CEILING SMOKE DETECTOR W/ SOUNDER I	DAGE
\$ \$ <sub>3</sub> \$ <sub>4</sub> \$ <sub>K</sub> \$ <sub>P</sub>	SWITCH, 3-WAY, 4-WAY, KEY, PILOT	48"	SM SB	HEAT DETECTOR	SASE
\$ <sub>1.V</sub>	SWITCH, LOW VOLTAGE	48"	DH	MAGNETIC DOOR HOLD-OPEN DEVICE	RTD
\$ <sub>PB</sub>	PUSHBUTTON SWITCH	48"	WF	WATER FLOW SWITCH	I I I
₹OO	SWITCHED LOADS, WIRING & CONDUIT	40	ss	SUPERVISORY SWITCH	
; U	PUSHBUTTON SWITCH	48"	PS	PRESSURE SWITCH	
	WALL DIMMER, 3-WAY	48"	TS	TAMPER SWITCH	
	LOW VOLTAGE WALL DIMMER	48"		FIRE ALARM SYSTEM CONDUIT	
Φ 🖶	DUPLEX RECEPT.; QUADRUPLEX	18"	TV	TV OUTLET	18"
"φ"	SINGLE RECEPT.	18"		TV SYSTEM CONDUIT	
O <sub>E</sub> <b>P</b> E	LIGHT OR DEVICE ON EMERG. CIRCUIT		⊢©	CLOCK OUTLET	80"
⊙ ♥	FLOOR RECEPT.; FLOOR TELEPHONE OUTL	.ET	Ю	CLOCK	80"
$\nabla$	TELEPHONE OUTLET	18"	<b>←</b> c <b>→</b>	CLOCK SYSTEM CONDUIT	
▼	TELEPHONE/DATA OUTLET	18"	IM	INTERCOM MASTER	RTD
©	DATA OUTLET	18"		INTERCOM STAFF STATION	48"
<b>—</b> ⊤ <b>—</b>	TELEPHONE CONDUIT		Ю	REMOTE INTERCOM	48"
<b>₩</b> 30A	30 AMP, 208V. OUTLET	18"	<b>├</b> । →	INTERCOM SYSTEM CONDUIT	
▶	SPECIAL POWER OUTLET	18" RTD	<u> </u>	CEILING SPEAKER	
0	JUNCTION BOX	KID		TRUMPET SPEAKER	80"
<b>∕</b>	SINGLE-PHASE MOTOR		®	CEILING SOUND REINFORCEMENT SPEAKE	
<b>10</b>	THREE-PHASE MOTOR			WALL SOUND REINFORCEMENT SPEAKER	
⊠ ⊠	MAGNETIC STARTER	<b>-</b> 0	VC O1	VOLUME CONTROL	48"
Lh Sh	COMBINATION STARTER/DISCONNECT SWI	ICH	<u>©</u> ⊲	HORN SPEAKER	80"
_	NON-FUSED DISCONNECT SWITCH (20A FUSES)			MICROPHONE JACK	RTD
F LPN 30	FUSED DISCONNECT SWITCH (30A FUSES) SPEED CONTROLLER	48"		BUZZER LOW VOLTAGE TRANSFORMER	80" RTD
© ①	ELECTRIC THERMOSTAT	48"	— s — →	SOUND SYSTEM CONDUIT	KID
	PANELBOARD TOP (		FD	PROGRAM BELL	80"
	WIRING ABOVE CEILING OR IN JOIST SPACE	_	WP	WEATHERPROOF	00
	WIRING UNDER FLOOR OR IN WALL	_	ССТ	CIRCUIT	
A-1/3	HOME RUN TO PANEL "A", 2-POLE BRKR.		GFI	GROUND FAULT INTERRUPTER	
A-1/3	EMERGENCY CIRCUIT		1 2	BEDSIDE STATION (SINGLE, DUAL)	60"
F	MANUAL FIRE ALARM PULL STATION	48"		EMERGENCY, STAFF STATIONS	48"
	AUDIO ALARM HORN	80"	NC NC	NURSE'S CALL ANNUNCIATOR	
SM <sub>SB</sub>	CEILING SMOKE DET. W/ SOUNDER BASE		—NC—→	NURSE'S CALL SYSTEM CONDUIT	
	AUDIO/VISUAL ALARM HORN/STROBE	80"	Φ <sub>EX</sub> \$ <sub>EX</sub>	EXISTING LIGHT, DEVICE OR SWITCH	
⊠⊲	AUDIO/VISUAL ALARM SPEAKER/STROBE	80"	*R ♥R	RELOCATED EXISTING DEVICE	
BO	AUDIO ALARM BELL	80"	<u> </u>	EXISTING WIRING TO REMAIN	
C1	CONTACTOR "C1"		[]	ITEM TO BE REMOVED	
MD	SECURITY MOTION DETECTOR	84"	тс	TIME CLOCK	RTD
<b>6</b> 3	SECURITY DOOR SWITCH		B	BLANK OUTLET BOX	
<b>®</b>	SECURITY WINDOW SWITCH		0	CONNECT TO EXISTING	
EL	ELECTRIC LOCK		€B	SECURITY GLASS BREAK	
DR	REMOTE DOOR RELEASE	48"	HS	SECURITY SIREN	80"
CR	CARD READER	48"	P	PHOTOCELL	
	CCTV CAMERA	RTD	os vs	OCCUPANCY/VACANCY SENSOR (WALL)	
<b>-</b> ₿-	ALARM STROBE/BEACON	80"	@ _	OCCUPANCY/VACANCY SENSOR (CEILING)	)
<u></u>			vs <sub>D</sub>	DIMMING VACANCY SENSOR	

# **ELECTRICAL SHEET INDEX**

VSD DIMMING VACANCY SENSOR
HA AUXILIARY WALL PANEL

- E0 ELECTRICAL GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS
   E1 ELECTRICAL PLANS
   E2 ELECTRICAL SCHEDULES

ISOLATED GROUND RECEPTACLE

E3 ELECTRICAL SPECIFICATIONS

#### ELECTRICAL GENERAL NOTES (APPLIES TO ALL SHEETS)

- A. ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATIONS OF ALL DIVISION 26 AND 27 EQUIPMENT AND DEVICES WITH CEILINGS, SOFFITS, DIFFUSERS, GRILLES, REGISTERS, STRUCTURAL MEMBERS, JOISTS, BRACING, PIPING, DUCTWORK, HANGERS, AND MECHANICAL EQUIPMENT, ETC.
- B. PROVIDE FIRE CAULK AT ALL PENETRATIONS THROUGH RATED WALLS. ALL PENETRATIONS THROUGH FIRE-RATED PARTITIONS SHALL BE COMPLETELY SEALED AS PER SPECIFICATIONS, ASSOCIATED DETAILS, OR AN APPROVED UL-LISTED
- SYSTEM. SEE ARCHITECTURAL DRAWINGS FOR IDENTIFICATION DETAILS. C. ALL NEW ELECTRICAL WORK SHALL BE CONCEALED FROM VIEW (IN FINISHED AREAS). ANY CONDUIT THAT MUST BE VISIBLE
- SHALL BE COORDINATED AND APPROVED BY ARCHITECT PRIOR TO ROUGH-IN. D. ALL BRANCH CIRCUIT WIRING SHALL BE RUN ABOVE CEILING OR IN WALL. NO UNDERFLOOR CONDUIT IS PERMITTED,
- UNLESS NOTED OTHERWISE. E. ALL 20 AMP, 120 VOLT, SINGLE PHASE BRANCH CIRCUIT WIRING SHALL BE 2-#12 CU, 1-#12 CU GRD. IN 3/4" CONDUIT UNLESS
- NOTED OTHERWISE. CONTRACTOR SHALL UPSIZE WIRE ACCORDINGLY FOR 3% VOLTAGE DROP MAXIMUM WHERE NECESSARY.
- F. MAKE ALL FINAL CONNECTIONS TO ALL EQUIPMENT (INCLUDING EQUIPMENT PROVIDED BY OTHERS) FOR COMPLETE, FULLY OPERATING SYSTEM.
- G. DISCONNECT AND REMOVE ALL EXISTING WIRING AND CONDUIT NO LONGER BEING USED.
- H. ALL LOW VOLTAGE CABLING IN PLENUM RATED CEILINGS SHALL BE RATED FOR USE IN PLENUM RATED ASSEMBLIES.

ELECTRICAL GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

DEER HAVEN PARK SITE ELECTRIC IMPROVEMENTS 4183 LIBERTY ROAD

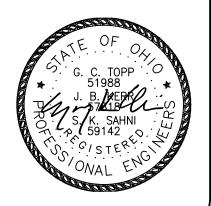
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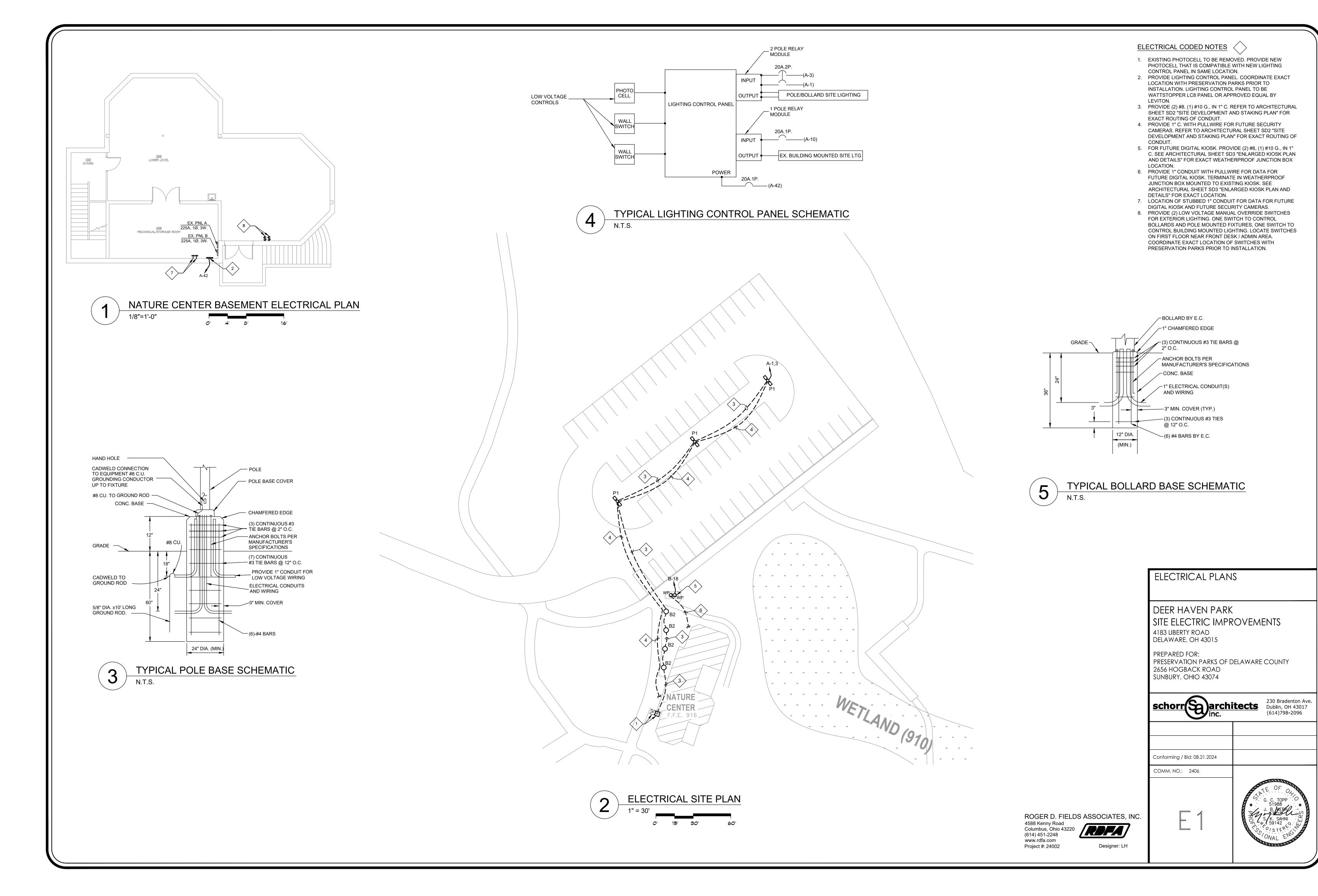
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DELAWARE, OH 43015

COMM. NO.: 2406



ROGER D. FIELDS ASSOCIATES, INC. 4588 Kenny Road Columbus, Ohio 43220 (614) 451-2248 www.rdfa.com Project #: 24002 Designer: LH



LIGHTING FIXTURE SCHEDULE

NOTE: FIXTURE NUMBER, LETTER PREFIX INDICATES TYPE OF MOUNTING AS FOLLOWS: CH-CHAIN HUNG; CL-CEILING MOUNTED; S-STEM SUSPENDED; W-WALL MOUNTED; R-CEILING RECESSED; WR-WALL RECESSED; CV-COVE MOUNTED; UC-UNDER CABINET; RF-ROOF MOUNTED; P-POST OR POLE; GR-GROUND MOUNTED; H-MOUNTED IN HOOD; B -BOLLARD

FIXTURE TYPE	MANUFACTURER	CATALOG NO./MODEL NO.	WATTAGE/TYPE	COLOR TEMP/LUMENS	FINISH	DESCRIPTION
P1		RD1 LED P4 30K ASY MVOLT RPA DBLXD RSS 25 4B DM28RAD DBLXD	85.7W/LED	3000K/11000L		DARK SKY COMPLIANT LED POLE MOUNTED FIXTURE MOUNTED WITH A DOUBLE CONFIGURATION AT 25FT
В2	INTRIGUE LIGHTING OR EQUAL BY VISIONAIRE LIGHTING, FC OUTDOOR LIGHTING, OR KIM LIGHTING	AR 6 B 21LED 3K D 180HSS UNV 42 BLK	41.2W/LED	3000K/2006L	_	DARK SKY COMPLIANT LED BOLLARD FIXTURE WITH DOME TOP AND HOUSE SIDE SHIELD.

		EX. Panel:	Α									
Location: MECHANICAL/STORAGE ROOM Volts: 240/120								20	Surge Protection Device: NO			
	Supply From: POWER CO. XFMR  Mounting: SURFACE						Phases: 1 Wires: 3			Main Type	: MCB	
										Mains Rating: 250		
Enclosure: NEMA 1					A.I.C. Rating: 10,000				MCB Rating: 250			
-		Licosure				7.1.0	. realing. 10,00			mob Rating	. 200	
СКТ	Note	LOAD	CB/P	TYPE		4	В	TYPE	CB/P	LOAD	Note	скт
1		POLE MOUNTED / BOLLARD SITE LTG	20/2	L	0.34				50/2	ELECTRIC HEAT PUMP		2
3		=	-	L			0.34		- 2			4
5		DRYER	30/2						25/2	CONDENSING UNIT		6
7			2						2			8
9		LIGHTING	20/1						20/1	OUTSIDE LIGHTS		10
11		RESTROOM LIGHTING	20/1						20/1	TRACK LIGHTING		12
13		LIGHTING	20/1						20/1	LIBRARY LIGHTING		14
15		LOWER LEVEL LIGHTS	20/1						20/1	MECHANICAL/STORAGE LIGHTING		16
17		SUMP PUMP	20/1						20/1	EFFLUENT PUMP		18
19		RECEPTACLES	20/1						20/1	WATER HEATER		20
21		SMOKE DUCT	20/1						20/1	RECEPTACLES		22
23		RECEPTACLES	20/1						20/1	WATER COOLER		24
25		KITCHEN RECEPTA CLES	20/1						20/1	KITCHEN RECEPTA CLES		26
27		RESTROOM RECEPTA CLES	20/1						20/1	VIEWING RECEPTACLES		28
29		EXTERIOR RECEPTACLES	20/1						20/1	MICROWAVE		30
31		COPIER	20/1						20/1	SENSOR FAUCET		32
33		EHD-1	20/1						20/1	EHD-1		34
35		WATER HEATER	20/1						20/1	WATER HEATER		36
37		COMPUTER	20/1						20/1	COMPUTER		38
39		BASEMENT DUCT DETECTOR	20/1						20/1	EXISTING LOAD.		40
41		WASHER	20/1			0.10		E	20/1	LIGHTING CONTROL PANEL		42
		.i.	K	ilow atts:	0.	44	0.34			•	*	

		EX. P	anel: B										
Location: MECHANICAL/STORAGE ROOM Volts: 240/120								Surge Protection Device: NO					
Supply From: POWER CO. XFMR					3	Phases: 1			Main Type: MCB Mains Rating: 250				
	Mounting: SURFACE				Wires: 3								
			Enclosure: NEMA1			A.I.C. Rating: 10,000			MCB Ratir	0.000000000			
СКТ	Note	LOAD	CB/P	TYPE	А	В	TYPE	СВ/Р	LOAD	Note	скт		
1	2	GEO-THERMAL UNIT	80/2		0.25			50/2	SPARE		2		
3		•	-					-			4		
5		RECEPTACLES	20/1					60/2	GEO COMPRESSOR		6		
7		OFFICE RECEPTACLES	20/1					-			8		
9		LIGHTING	20/1					20/1	CEILING FANS		10		
11		LIGHTING	20/1					20/1	OFFICE RECEPTACLES		12		
13		DISHWASHER	20/1					20/2	BACK DOOR HEATER		14		
15	2	DISPOSAL	20/1								16		
17		OFFICE RECEPTACLES	20/1					20/1	J BOX FOR FUTURE DIGITAL KIOSK		18		
19		OFFICE RECEPTACLES	20/1					20/2	OFFICE SPLIT UNIT		20		
21		OFFICE CAN LTG	20/1					-2			22		
23		STOVE	20/2					30/2	WATER HEATER		24		
25			-					2			26		
27		BIRD SANCTUARY	50/2					50/2	SEWAGE LIFT PUMP		28		
29			-					- 2			30		
- 100	-		K	ilow atts:	0.25	0.00		Ex-		77	2014		

ELECTRICAL SCHEDULES

DEER HAVEN PARK SITE ELECTRIC IMPROVEMENTS

4183 LIBERTY ROAD DELAWARE, OH 43015

PREPARED FOR:
PRESERVATION PARKS OF DELAWARE COUNTY
2656 HOGBACK ROAD
SUNBURY, OHIO 43074



Conforming / Bid: 08.21.2024

COMM. NO.: 2406

ROGER D. FIELDS ASSOCIATES, INC.

Designer: LH

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Project #: 24002

Designer: LH



#### **ELECTRICAL GENERAL NOTES AND SPECIFICATIONS**

#### 26 00 00 ELECTRICAL SPECIFICATIONS

- 1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL. STATE AND LOCAL CODES. TO INCLUDE THE STATE BUILDING CODE AND THE NATIONAL ELECTRICAL CODE.
- ALL WORK SHALL BE PERFORMED BY LICENSED CONTRACTORS AS REQUIRED BY LOCAL AND STATE CODES.
- 3. ALL EQUIPMENT AND APPLIANCES INSTALLED ON THIS PROJECT SHALL BEAR THE LABEL OF AN APPROVED TESTING AGENCY, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.
- 4. THIS CONTRACTOR SHALL ARRANGE FOR AND CONDUCT ALL INSPECTIONS, TESTS, AND APPROVALS OF ITS WORK AND SHALL BEAR ALL COST FOR SAME. INSPECTIONS SHALL BE PERFORMED BY AUTHORITY HAVING JURISDICTION. 5. ARCHITECT/ENGINEER SHALL SUBMIT DOCUMENTS FOR PLAN APPROVAL AND PAY COST TO SECURE PLAN APPROVAL. CONTRACTOR SHALL PAY FOR ANY ADDITIONAL PERMITS AND FEES.
- 6. PROTECT ALL EQUIPMENT AND MATERIAL DURING CONSTRUCTION FROM DAMAGE BY WEATHER, WATER, DIRT, AND OTHER CONSTRUCTION ACTIVITIES.
- 7. SUBMIT SHOP DRAWINGS FOR REVIEW BY ARCHITECT/ENGINEER PRIOR TO INSTALLATION. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS EARLY ENOUGH IN PROJECT TO ALLOW AMPLE TIME FOR REVIEW WITHOUT CAUSING TIME DELAYS OR CONFLICTS IN THE JOB PROGRESS. SUBMITTALS SHALL BE IN ACCORDANCE WITH GENERAL CONDITIONS AND THE MANUFACTURERS LISTED ON THE DRAWINGS. SUBMITTALS SHALL BEAR THE STAMP OF THE CONTRACTOR SHOWING THAT IT IS REVIEWED AND APPROVED BY THEM AND THAT THEY ARE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. LACK OF SUCH CONTRACTOR APPROVAL WILL BE CAUSE FOR REJECTION WITHOUT REVIEW BY THE ARCHITECT/ENGINEER. WHERE TRADE NAMES. BRANDS OF MANUFACTURERS OF EQUIPMENT OR MATERIALS ARE SHOWN ON THE DRAWINGS OR SPECIFICATIONS THE EXACT EQUIPMENT SHALL BE USED ON THE PROJECT. THE USE OF ANY UNAUTHORIZED EQUIPMENT OR MATERIAL SHALL BE SUBJECT TO REMOVAL AND REPLACEMENT AT THE REQUEST OF THE OWNER. AT THE CONTRACTOR'S EXPENSE
- 8. CHECK EACH NEW PIECE OF EQUIPMENT AND FIXTURES IN THE SYSTEM FOR DEFECTS, VERIFYING THAT ALL PARTS ARE PROPERLY FURNISHED AND INSTALLED, THAT ALL ITEMS FUNCTION PROPERLY, AND THAT ALL ADJUSTMENTS HAVE BEEN MADE.
- 9. ANY ROOF PATCHING IS TO BE DONE BY GENERAL CONTRACTOR.
- 10. CONTRACTOR MUST EXAMINE ALL AREAS AND CONDITIONS IN WHICH THE WORK IS TO BE DONE, AND NOTIFY THE ARCHITECT OF CONDITIONS DETRIMENTAL TO THE PROPER AND TIMELY COMPLETION OF THE WORK. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- 11. MAINTAIN IN OPERATING CONDITION ALL ACTIVE BRANCH CIRCUITS DESIGNATED TO REMAIN. DOWNTIME MUST BE KEPT TO A MINIMUM CONTRACTOR SHALL NOTIFY AND OBTAIN APPROVAL FROM OWNER FOR ANY OUTAGES. REQUIRED FOR THIS WORK. CONTRACTOR SHALL PROVIDE A MINIMUM OF (48) HOURS ADVANCE NOTICE FOR ANY
- 12. CONTRACTOR SHALL LIMIT ITS ACTIVITIES TO AREAS OF THE BUILDING THAT ARE BEING RENOVATED. BUILDING ACCESS, STORAGE OF MATERIALS, DELIVERIES, PARKING, ETC. SHALL BE COORDINATED WITH THE OWNER'S
- 13. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION OF SAFETY GUIDELINES TO REDUCE THE RISK OF INJURIES. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF EXCESS MATERIALS AND CLEANING OF DEBRIS ON A DAILY BASIS, AND SHALL BEAR THE COST OF SAME.
- 14. WORK SHALL BE CARRIED OUT IN A NEAT AND WORKMANLIKE MANNER SO THAT IT DOES NOT DAMAGE THE BUILDING.
- 15 MISCELLANEOUS ACCESSORIES:

ACCESSORIES ARE INCLUDED

- A. PROVIDE ANY ADAPTERS, FITTINGS, TRIM, AND OTHER APPURTENANCES AS NECESSARY TO SECURELY INSTALL ALL ITEMS OF EQUIPMENT SPECIFIED OR SHOWN ON THE DRAWINGS
- B. THESE ACCESSORIES ARE REQUIRED EVEN THOUGH THEY MAY NOT BE SHOWN OR DETAILED ON THE
- C. INSTALLATION SHALL BE COMPATIBLE WITH THE BUILDING CONSTRUCTION ON WHICH THE ITEM IS TO BE
- D. VERIFY THE TYPE OF CONSTRUCTION PRIOR TO ORDERING THE EQUIPMENT ITEM, SO THAT ALL REQUIRED
- 16. INSTALL EQUIPMENT FOR EASY DISCONNECTION AND REPLACEMENT TO FACILITATE SERVICE, MAINTENANCE, REPAIR, REPLACEMENT OF COMPONENTS AND ELIMINATE INTERFERENCE WITH OTHER INSTALLATIONS.
- 17. CONTRACTOR SHALL CLEAN UP CONSTRUCTION DEBRIS RESULTING FROM CONTRACTOR'S WORK AS WELL AS ALL WORK AREAS AFFECTED BY CONTRACTOR'S WORK
- 18. UPON COMPLETION OF WORK, ALL MATERIAL AND EQUIPMENT SHALL BE THOROUGHLY CLEANED OF STICKERS, DIRT, GREASE, RUST, OIL, AND OTHER FOREIGN MATTER.
- 19. PROVIDE ELECTRONIC COPIES OF REVIEWED SHOP DRAWINGS OF EACH EQUIPMENT ITEM TO OWNER. PROVIDE MARKED-UP RECORD DRAWINGS SHOWING ANY DEVIATIONS IN LOCATION OF EQUIPMENT. RECORD ADDENDUM AND CHANGE ORDER ITEMS, AT COMPLETION OF PROJECT DELIVER RECORD DRAWINGS AND ONE (1) BOUND 8-1/2"x11" OPERATING AND MAINTENANCE MANUAL TO ARCHITECT FOR REVIEW. PROVIDE OPERATING AND MAINTENANCE MANUAL IN PHYSICAL FORMAT AND A COPY ON A UNIVERSAL SERIAL BUS (USB) FLASH DRIVE.
- 20.REQUIREMENTS FOR COMPLETION OF WORK: FOR SUBSTANTIAL COMPLETION, PROVIDE ALL REQUIRED OPERATING TESTS, OPERATING AND MAINTENANCE MANUALS, INSTRUCTION OF OWNER'S PERSONNEL IN OPERATION OF ALL SYSTEMS, SPARE PARTS, AND SPECIAL TOOLS.
- 21.PROVIDE (1) FULL YEAR GUARANTEE FROM DATE OF FINAL COMPLETION ON ALL EQUIPMENT AND WORK PERFORMED, INCLUDING ANY EXISTING SYSTEM THAT IS RE-USED. CONTRACTOR SHALL WARRANT THAT THE WORK HAS BEEN COMPLETED IN COMPLIANCE WITH ESTABLISHED CODES AND REGULATIONS. CERTIFICATE SHALL BE GIVEN TO OWNER AT PROJECT COMPLETION.

# 26 05 00 COMMON WORK RESULTS FOR ELECTRICAL

- 1. CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING. BIDS SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS. ALL REQUIREMENTS INCLUDING MODIFICATIONS WHICH ARE REQUIRED TO MEET THE INTENT OF THE DRAWINGS AND SPECIFICATIONS ARE TO BE OBTAINED BY ELECTRICAL CONTRACTOR PRIOR TO AND INCLUDED IN BID PRICE. FIELD VERIFY ALL EXISTING ELECTRICAL AND TELEPHONE EQUIPMENT, LOCATIONS. CONDITIONS, ETC. FAILURE TO VISIT THE SITE SHALL NOT RELIEVE THE CONTRACTOR FROM ANY RESPONSIBILITY IN THE PERFORMANCE OF THE ELECTRICAL WORK.
- 2. BRIEF SUMMARY OF WORK: FURNISH MATERIAL, LABOR, TOOLS, ACCESSORIES, AND EQUIPMENT TO COMPLETE AND LEAVE READY FOR OPERATION ALL SYSTEMS OF THIS PROJECT AS DESCRIBED IN THESE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS.
- 3. THE INSTALLATION SHALL BE COMPLETE IN EVERY RESPECT PROVIDING ALL LABOR AND MATERIALS.
- 4. THE REQUIREMENTS AS SET FORTH UNDER GENERAL CONDITIONS, INSTRUCTIONS TO BIDDERS AND GENERAL
- REQUIREMENTS ARE A PART OF THIS CONTRACT. 5. BIDS SHALL BE BASED ON A COMPLETE/FULL SET OF DRAWINGS.
- 6. CONTRACTOR MUST READ THE ENTIRE SPECIFICATIONS COVERING OTHER BRANCHES OF WORK AND IS RESPONSIBLE FOR COORDINATION OF THE WORK WITH WORK PERFORMED BY OTHER TRADES.
- 7. FURNISH ALL LABOR, MATERIALS, TESTING, EQUIPMENT, INCIDENTALS AND TOOLS TO PERFORM ELECTRICAL WORK SHOWN, NOTED OR SCHEDULED FOR A COMPLETE AND FINISHED INSTALLATION.
- 8. MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND AS SUCH APPEAR ON THE UNDERWRITERS LABORATORIES LIST OF APPROVED ITEMS AND SHALL BE SIZED IN CONFORMITY WITH REQUIREMENTS OF THE 2023 NATIONAL ELECTRICAL CODE AND OTHER APPLICABLE CODES, WHICHEVER ARE MORE STRINGENT
- 9. INCLUDE ANY LABOR AND MATERIALS NOT SPECIFICALLY MENTIONED, BUT NECESSARY TO PROVIDE A COMPLETE AND FULLY OPERATIVE ELECTRICAL SYSTEMS.
- 10. PROVIDE ALL DIRECTIONAL BORING OR EXCAVATION AND BACKFILL REQUIRED FOR INSTALLATION OF ELECTRICAL WORK, IF ANY. CONTRACTOR SHALL COORDINATE ROUTING AND LOCATE AND TOUCH EACH EXISTING UTILITY BEFORE ANY EXCAVATION WORK IS BEGUN. TRENCHES FOR BURIAL OF ELECTRICAL CONDUITS SHALL BE OF SUFFICIENT DEPTH, SUCH THAT TOP OF HIGHEST CONDUIT IS NOT LESS THAN 24" BELOW FINISHED GRADE. NO LARGE ROCKS (OVER 2") OR OTHER DEBRIS THAT WOULD DAMAGE THE CONDUITS WILL BE PERMITTED. PLACE NO BACKFILL UNTIL UNDERGROUND CIRCUITS HAVE BEEN TESTED. COMPACT BACKFILL IN 6" DEEP LAYERS. PROVIDE SETON 6" WIDE RED METALLIC UNDERGROUND WARNING/DETECTION TAPE DETECTABLE WITH METAL DETECTOR FOR BURIED ELECTRIC LINE BELOW. INSTALL DETECTABLE WARNING TAPE 12" (MIN.) ABOVE UNDERGROUND INSTALLATION. PROVIDE SEED GRASS COVER TO RESTORE LANDSCAPE TO ORIGINAL CONDITION.
- 11.PROVIDE ROUGH-IN BOXES, WIRING, CONDUIT, AND FINAL CONNECTION FOR ALL ITEMS OF EQUIPMENT REQUIRING ELECTRICAL POWER. COORDINATE WITH EQUIPMENT SUPPLIERS AND OTHER CONTRACTORS REGARDING ROUGH-IN AND FINAL CONNECTIONS REQUIREMENTS. SUCH AS MOUNTING HEIGHT, PLUG-RECEPTACLE CONFIGURATIONS, WIRE AND BREAKER SIZE, AND SPECIAL GROUNDING
- 12. ALL ELECTRICAL ITEMS SHOWN DASHED ARE TO BE DISCONNECTED AND REMOVED, INCLUDING WIRING AND CONDUIT, ALL THE WAY BACK TO THE SOURCE, EXCEPT AS OTHERWISE INDICATED.
- 13 CUTTING AND PATCHING: GENERAL TRADES CONTRACTOR SHALL PATCH FLOORS AND WALLS IN AREAS OF REMOVED WIRING. COORDINATE LOCATION OF CORE-DRILLING OF WALLS AND FLOORS WITH OTHER CONTRACTORS AND EQUIPMENT. GENERAL TRADES CONTRACTOR SHALL SAW-CUT EXISTING FLOOR SLAB AND PATCH FLOOR FOR NEW UNDERFLOOR CONDUITS. PROVIDE ALL OTHER CUTTING AND PATCHING REQUIRED FOR WORK. PATCH TO MATCH ADJACENT SURFACES. GENERAL TRADES CONTRACTOR SHALL PROVIDE PAINTING.
- 14. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO THE WORK OF OTHER CONTRACTORS, OR THE BUILDING, OR ITS CONTENTS, PEOPLE, ETC; CAUSED BY ANY EQUIPMENT INSTALLED OR REUSED THROUGH EQUIPMENT FAILURE AND SHALL MAKE, AT ITS OWN EXPENSE, ALL REPAIRS TO MERCHANDISE, FIXTURES AND
- 15. ALL ELECTRIC WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIRING. HANGERS SHALL INCLUDE ALL MISCELLANEOUS STEEL INSTALLATION OF WORK AND SHALL BE FASTENED TO BUILDING STEEL. CONCRETE OR MASONRY. BUT NOT PIPING OR DUCTWORK. ALL CONDUIT SHALL BE CONCEALED WHEREVER POSSIBLE. EXPOSED CONDUITS SHALL BE IN STRAIGHT LINES PARALLEL WITH OR AT RIGHT ANGLES TO COLUMN LINES OR BEAMS AND SEPARATED AT LEAST 3 INCHES FROM WATER LINES WHEREVER THEY RUN ALONGSIDE OR ACROSS SUCH LINES. ALL CONDUCTORS SHALL BE INSTALLED IN CONDUIT, OR OTHER CODE APPROVED RACEWAYS.
- 16. ALL LINE AND LOW VOLTAGE POWER AND CONTROL WIRING SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR
- 17. SLEEVES SHALL EXTEND AT LEAST TWO (2") INCHES ABOVE FINISHED FLOOR AND ALL SLEEVES, OPENINGS, ETC., THROUGH FIRE RATED WALLS AND FLOORS SHALL BE FIRE SEALED WITH CALCIUM SILICATE, SILICONE "RTV" FOAM, "3M" FIRE RATED SEALANTS OR EQUAL BY HILTI AFTER CONDUIT/CABLES INSTALLATION SO AS TO RETAIN THE FIRE
- RATING. PATCHES SHALL MATCH ADJACENT SURFACES. 18. THE LOCATION OF OUTLETS AND EQUIPMENT SHOWN ON THE DRAWINGS ARE APPROXIMATE AND THE

- ARCHITECT/OWNER/CONSTRUCTION MANAGER SHALL HAVE THE RIGHT TO RELOCATE ANY OUTLETS. EQUIPMENT OR FIXTURES BEFORE THEY ARE INSTALLED WITHOUT ADDITIONAL COST. COORDINATE DEVICE LOCATIONS. 24.FURNISH APPROVED CERTIFICATE OF FINAL INSPECTION, AND TURN OVER TO OWNER AT COMPLETION OF
- 25.GENERAL TRADES CONTRACTOR SHALL PROVIDE CONCRETE PADS AND BASES. COORDINATE PLACEMENT OF CONDUITS AND ANCHOR BOLTS WITH THE GENERAL TRADES CONTRACTOR.

#### 26 05 05 SELECTIVE DEMOLITION FOR ELECTRICAL

- 1. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ANY/ALL NECESSARY ELECTRICAL DEMOLITION WORK THAT IS REQUIRED TO FACILITATE THE NEW INSTALLATION, FIELD COORDINATE PRIOR TO BIDS. REMOVE AND/OR MODIFY EXISTING EQUIPMENT, ETC. AS REQUIRED FOR A COMPLETE INSTALLATION. ANY EQUIPMENT OR DEVICE REMAINING IN USE AFTER PART OF THE FOLIPMENT OR DEVICES HAVE BEEN REMOVED ARE TO BE RECONNECTED TO EXISTING OR NEW CIRCUITS AND LEFT IN WORKING ORDER. FEEDERS TO PANELS AND WIRING TO OTHER EQUIPMENT TO BE ROUTED CONCEALED IN FINISHED AREAS, CONTRACTOR SHALL NOTIFY, AND OBTAIN APPROVAL FROM OWNER FOR ANY OUTAGES REQUIRED FOR THIS WORK
- 2. DURING THE COURSE OF WORK, IF ANY ASBESTOS IS ENCOUNTERED, CONTRACTOR SHALL IMMEDIATELY CEASE ALL WORK ASSOCIATED THEREWITH AND IMMEDIATELY NOTIFY THE A/E AND OWNER. CONTRACTOR SHALL NOT REMOVE OR DISTURB ANY MATERIAL SUSPECTED OF, OR IDENTIFIED AS, CONTAINING ASBESTOS. OWNER SHALL REMOVE OR SEAL SUCH MATERIALS PRIOR TO ANY WORK UNDER THIS CONTRACT.
- 3. DISCONNECT AND REMOVE ALL EXISTING CONDUITS AND RACEWAYS NO LONGER BEING USED WHETHER SHOWN ON THE DRAWING OR NOT.

#### 26 05 19 LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

- 1. WIRE SHALL BE SINGLE CONDUCTOR COPPER WITH 600 VOLT INSULATION. MINIMUM WIRE SIZE SHALL BE #12 AWG, ALL WIRE AND CABLE SHALL BE NEW AND SHALL BE BROUGHT TO THE SITE IN UNBROKEN PACKAGES. ALL WIRING OF ANY TYPE SHALL BE IN CONDUIT. NO STRANDED WIRE ALLOWED FOR #10 AND #12 AWG SIZES. (INCREASE CONDUCTOR BY ONE SIZE FOR EVERY 150' INCREMENT OF DISTANCE FROM THE PANELBOARD FOR 120 VOLT CIRCUITS).
- 2. THE USE OF MC, AC, OR NM (ROMEX) TYPE CABLE IS PERMITTED.
- 3. GENERAL WIRING SHALL BE RATED AT 600V AND BE XHHW, TWHN OR THHN. (ALUMINUM CONDUCTORS ARE NOT PERMITTED.) AS MANUFACTURED BY SERVICE WIRE, CERROWIRE, HOUSTON WIRE AND CABLE, ENCORE WIRE, SOUTHWIRE, OMNI CABLE, OR SUPERIOR ESSEX
- 4. WIRE CONNECTORS SHALL BE EQUAL TO SCOTCHLOK FOR #8 AND SMALLER, AND EQUAL TO T & B "LOCK-TITE" FOR #6 AND LARGER. EQUAL BY POLARIS, ILSCO, ARLINGTON INDUSTRIES, OR BUCHANAN.
- 5. ALL WIRING TO BE COLOR CODED AS FOLLOWS:

120/240 VOLT SYSTEM

NEUTRAL-WHITE PHASE A OR L1-BLACK PHASE B OR L2-RED

GROUND-GREEN

- 6. OPTION: MULTICONDUCTOR CABLE. UNLESS OTHERWISE EXCLUDED, THE FOLLOWING OPTION MAY BE USED IN LIEU OF WIRE AND CONDUIT ONLY WHERE CONCEALED AND WHERE PERMITTED BY AHJ
- A. TYPE MC COPPER CONDUCTORS, 90 EGREES C., INSULATED GREEN GROUNDING CONDUCTOR INSTALLED IN ACCORDANCE WITH NEC ARTICLE 330. INTERLOCKED ALUMINUM METAL SHEATH SHALL BE IDENTIFIED AS SUITABLE FOR GROUND RETURN PATH.

#### 26 05 26 GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

- 8. FURNISH AND INSTALL A COMPLETE WIRED GROUNDING SYSTEM FOR ELECTRICAL EQUIPMENT AND CIRCUITS AS SHOWN ON THE DRAWINGS. ALL GROUNDING PROVIDED SHALL BE ACCORDING TO NEC ARTICLE 250 AND AS
- 9. ALL ENCLOSURES AND NON-CURRENT CARRYING METALS TO BE GROUNDED. CONDUIT SYSTEM TO BE ELECTRICALLY CONTINUOUS. ALL LOCK NUTS MUST CUT THROUGH ENAMELED OR PAINTED SURFACES ON ENCLOSURES. WHERE ENCLOSURES AND NON-CURRENT CARRYING METALS ARE ISOLATED FROM THE CONDUIT SYSTEM, USE BONDING JUMPERS WITH APPROVED CLAMPS.
- 10. ALL GROUNDING CONDUCTORS SHALL BE GREEN, WHERE EXPOSED IN PANEL, SWITCHBOARD, OUTLET, BOXES,
- 11.RUN A SEPARATE GROUNDING CONDUCTOR IN EACH CONDUIT, #12 MINIMUM, OR AS SHOWN ON DRAWINGS. FOR BRANCH CIRCUITS AND PANEL FEEDERS BOND THE GROUNDING CONDUCTOR TO THE CONDUIT, WHERE ENTERING AND LEAVING THE CONDUIT. ALL GROUND CLAMPS SHALL BE PENN-UNION OR EQUAL. SIMILAR TO "GPL" TYPE. CONDUIT GROUND BUSHINGS SHALL BE THOMAS & BETTS OR EQUAL, SIMILAR TO #3800 SERIES WITH NYLON
- 12. ALL DEVICES SHALL BE BONDED TO THE CONDUIT SYSTEM. USE A BONDING JUMPER BETWEEN THE OUTLET BOX AND THE DEVICE GROUNDING TERMINAL METAL-TO-METAL CONTACT BETWEEN THE DEVICE YOKE AND THE OUTLET BOX IS NOT ACCEPTABLE AS A BOND FOR EITHER SURFACE MOUNTED BOXES OR FLUSH TYPE BOXES ALL JUNCTION BOXES, OUTLET BOXES AND PULL BOXES SHALL BE BONDED TO THE CONDUIT SYSTEM. ALL FLEXIBLE CONDUIT SHALL BE JUMPERED WITH A GROUND CONDUCTOR.

# 26 05 33 RACEWAY AND BOXES FOR ELECTRICAL SYSTEMS

- 1. MINIMUM SIZES OF CONDUITS SHALL BE 3/4" FOR STANDARD CONDUIT, 1" FOR SITE CONDUIT, AND 1/2" FOR FLEX CONDUIT AND LOW VOLTAGE WIRING. ELECTRIC METALLIC TUBING (EMT) SHALL BE GALVANIZED OR ELECTRO-GALVANIZED. FITTINGS SHALL BE SET SCREW OR COMPRESSION TYPE, FITTING SHALL BE AS MANUFACTURED BY REGEL, STEEL CITY, RACO, T & B, EFCOR OR EQUAL.
- 2. OUTLET BOXES AND COVERS SHALL BE GALVANIZED, ONE-PIECE PRESSED STEEL KNOCKOUT.
- 3. JUNCTION, PULL BOXES AND COVERS SHALL BE GALVANIZED STEEL, CODE GAUGE SIZE.
- 4. WIREWAYS SHALL BE RIGID, HEAVY-GAUGE, STEEL WITH HINGED/SCREW-ON COVERS AND BAKED ENAMEL FINISH. SQUARE D, HOFFMAN, NIEDAX, HAMMOND, OR WIEGMAN. PROVIDE SIZE AS INDICATED ON THE DRAWINGS.
- 5. GRADE MOUNTED PULL BOXES SHALL BE WATERTIGHT, OPEN BOTTOM, HEAVY DUTY GASKETED COVERS, TIER 15, SUITABLE FOR OCCASIONAL NON-DELIBERATE VEHICLE DRIVE OVER APPLICATION WITH LOGO, SIZED AS REQUIRED QUAZITE NET-TECH SYNERTEC OR HIGHLINE 6. SHALLOW 1-1/2 IN. DEEP BOXES MAY BE USED ONLY IN WALLS TOO THIN FOR STANDARD DEPTH BOXES. BOXES
- FOR SURFACE CONDUIT WORK AND IN WET LOCATIONS SHALL BE FS SERIES. EXTERIOR EXPOSED BOXES SHALL BE WEATHERPROOF WITH GASKETS. PAINT ALL BOXES CONTAINING FIRE ALARM WIRING RED. APPLETON, RACO, STEEL CITY, THOMAS & BETTS, NATIONAL ELECTRIC, OR CROUSE HINDS.
- 7. CONDUIT SHALL BE STANDARD STEEL RIGID, IMC OR EMT (THIN WALL) ACCORDING TO LOCAL CODE. CONDUIT SHALL BE CONCEALED IN FINISHED AREAS, EXCEPT AS OTHERWISE APPROVED BY ARCHITECT. REPUBLIC, ALLIED, STEEL DUCT, SHAMROCK, OMEGA, WESTERN TUBES, WHEATLAND, OR LTV. EMT CONNECTIONS SHALL BE COMPRESSION OR SET SCREW TYPE.
- 8. PAINTING OF ELECTRICAL CONDUITS, ETC., IF REQUIRED, WILL BE BY GENERAL CONTRACTOR.
- 9. MAXIMUM CONDUIT HANGER SPACING SHALL BE 8'-0" FOR 3/4" THRU 1 1/4" AND 10'-0" FOR 1 1/2" THRU 4" CONDUITS. DO NOT SUPPORT CONDUIT FROM PIPING, DUCTWORK, OR CEILING SYSTEM. 10. LEAVE A #10 AWG PULL WIRE OR NYLON PULL STRING IN ALL EMPTY CONDUITS.
- 11.FLASH AND COUNTERFLASH ALL RACEWAYS WHICH PENETRATE THE ROOF OR USE PITCH POCKETS. INSURE THAT PENETRATIONS ARE COMPLETELY WEATHERPROOF. ALL RACEWAY SYSTEMS EXPOSED TO THE WEATHER SHALL BE WEATHERPROOF. PRIOR APPROVAL BY LANDLORD IS REQUIRED TO ADD ADDITIONAL EQUIPMENT LOADS TO STRUCTURE OR TO MAKE HOLES IN EXISTING ROOF. NOTIFY LANDLORD'S ROOFING CONTRACTOR AT LEAST 72 HOURS PRIOR TO ANY REQUIRED ROOF WORK.
- 12.1-1/2 IN. OR LARGER INTERIOR AND EXPOSED CONDUITS INSTALLED WITHIN 8 FT. OF FINISHED FLOOR MUST BE RIGID OR INTERMEDIATE. ALL OTHER CONDUITS SHALL BE EMT WITH INSULATED BUSHINGS AND THROAT FITTINGS 3/4" (MIN.). UNDERGROUND AND BELOW SLAB CONDUITS SHALL BE 1" (MIN.). SCHEDULE 40 PVC AND TERMINATE BELOW GRADE OR THE SLAB AND CONNECT TO RIGID STEEL OR INTERMEDIATE METAL RISER CONDUIT. CONDUITS EXPOSED OUTDOORS MUST BE RIGID STEEL
- 13. CONTRACTOR SHALL USE APPROVED, UL-LISTED, FIRE-RETARDANT SEALANTS, BACKING, AND NEW PACKING AS REQUIRED TO MAINTAIN FIRE RATING OF THE STRUCTURE PENETRATED BY NEW CONDUITS, SPRAY UL-LISTED FOAM SEALANT AROUND WIRES IN NEW CONDUITS.
- 14.INSTALL BOXES RIGIDLY ON BUILDING STRUCTURE AND SUPPORT INDEPENDENTLY OF THE CONDUIT SYSTEM USING FASTENERS SUCH AS "CADDY CLIPS" OR EQUAL. ALSO PROVIDE SUITABLE/PROPER BOX EXTENSIONS TO EXTEND BOXES TO FINISHED FACES OF WALLS ETC. ALL OUTLET BOXES TO HAVE SUITABLE BLOCKING BEHIND THEM TO MINIMIZE THE DEFLECTION THAT OCCURS WHEN PLUGGING/UNPLUGGING INTO THESE DEVICES.
- 15.PROVIDE EXPANSION FITTINGS WHERE CONDUITS EMERGE AND RISE UP FROM BELOW GRADE TO RISER CONDUITS.

# 26 09 23 LIGHTING CONTROL DEVICES

1. SEE SHEET E1, "DEER HAVEN ELECTRICAL PLANS" FOR LIGHTING CONTROL DETAILS.

# **26 24 16 PANELBOARDS**

1. PROVIDE FULL-SIZE BREAKERS. ALL C/B SHALL BE OF QUICK-MAKE AND QUICK--BREAK DESIGN, THERMAL MAGNETIC-TYPE PLUG-IN BREAKERS, TRIP-FREE AND TRIP-INDICATING, AND COPPER BUS. ALL MULTI-POLE BREAKERS SHALL BE COMMON TRIP. EXISTING PANEL IS SQUARE D NQ SERIES. MATCH EXISTING BREAKER TYPE. TAG ALL BRANCH CIRCUITS AND PROVIDE TYPEWRITTEN CIRCUIT DIRECTORY IN DOOR.

# 26 28 00 LOW-VOLTAGE CIRCUIT PROTECTIVE DEVICES

- 1. PROVIDE ENCLOSED MOLDED CASE CIRCUIT BREAKER AS CALLED FOR ON THE DRAWINGS AND AS REQUIRED BY CODE. CIRCUIT BREAKER SHALL COMPLY WITH UL 98, NEMA, AND ANSI. MINIMUM INTERRUPTING CAPACITY AS SHOWN ON THE DRAWINGS. THERMAL MAGNETIC AND TRIPPED CIRCUIT BREAKER IN NEMA 1 ENCLOSURE AS MANUFACTURED BY GE, SQUARE D, SIEMENS OR EATON.
- 2. NEW OR REFURBISHED CIRCUIT BREAKERS SHALL BE COMPATIBLE WITH EXISTING PANELBOARDS/DISTRIBUTION PANELS/SWITCHBOARDS

#### **26 50 00 LIGHTING**

1. ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL FIXTURES AND LAMPS. ALL FIXTURES AND LAMPS SHALL BE UL LISTED, LIGHTING FIXTURES AND LAMPS SHALL BE FURNISHED AS SCHEDULED ON THE LIGHTING FIXTURE SCHEDULE.

#### 27 00 00 COMMUNICATIONS SPECIFICATIONS

1. THIS WORK IS PART OF THE ELECTRICAL WORK. REFER TO SECTION 27 05 28 AND 27 11 00.

#### 27 05 28 PATHWAYS FOR COMMUNICATIONS

- 1. COORDINATE ROUGH-IN LOCATIONS OF LOW VOLTAGE OUTLETS, AND PROVIDE ALL NECESSARY PATHWAYS WITH PULL WIRE AND JUNCTION BOX FOR LOW-VOLTAGE ROUGH-IN LOCATIONS. THE OWNER SHALL PROVIDE THE FOLLOWING WORK DIRECTLY OR THROUGH A SEPARATELY NEGOTIATED CONTRACT. CLOSELY FIELD COORDINATE WITH OWNERS TECHNOLOGY CONTRACTOR.
- I. TELEPHONES, JACKS, COVER PLATES, WIRING, AND FINAL CONNECTIONS.
- J. COMPUTERS, CONNECTORS, JACKS, COVER PLATES, CABLING, AND FINAL CONNECTION.
- K. SECURITY SYSTEM COMPONENTS, ROUGH-IN, WIRING, AND FINAL CONNECTION. L. TELEVISION RECEIVERS, CONNECTORS, COVER PLATES, CABLING, AND FINAL CONNECTION.
- M. ACCESS CONTROL

**ELECTRICAL SPECIFICATIONS** 

DEER HAVEN PARK SITE ELECTRIC IMPROVEMENTS 4183 LIBERTY ROAD

DELAWARE, OH 43015

PREPARED FOR: PRESERVATION PARKS OF DELAWARE COUNTY 2656 HOGBACK ROAD SUNBURY, OHIO 43074



Conforming / Bid: 08.21.2024

COMM. NO.: 2406

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