

120V DUPLEX OUTLET		MOTOR EQUIPMENT CONNECTION
120V QUAD OUTLET		ELECTRICAL DISCONNECT
208 OR 240 VOLT RECEPTACLE		ELECTRICAL CONNECTION W/DISCONNECT
120V CEILING RECEPTACLE		ELECTRICAL CONNECTION W/WEATHER PROOF DISCONNECT
DATA/COMMUNICATION OUTLET		
TELEPHONE OUTLET		
TV OUTLET		
DATA/TV COMBO OUTLET		ELECTRICAL PANEL
FLOOR BOX		① THERMOSTAT MOUNTED AT 48" A.F.F.
JUNCTION BOX		SMOKE/CO ALARM
E-STOP FOR GRILL OR FIRE PIT		SMOKE ALARM
TIMER FOR FRILL OR FIRE PIT		NITROGEN DIOXIDE DETECTOR
C BELOW COUNTER OUTLET		
C ABOVE COUNTER OUTLET		
DEDICATED RECEPTACLE		
GROUND FAULT CIRCUIT INTERRUPTER		CARBON MONOXIDE DETECTOR
WEATHER PROOF COVER WITH GFI		

RECESSED 2X4 FIXTURE	§	SINGLE POLE SWITCH
RECESSED 2X2 FIXTURE	§ ₃	THREE WAY SWITCH
SURFACE MOUNT 1X4 FIXTURE	§ ₄	FOUR WAY SWITCH
SURFACE MOUNT 2X4 FIXTURE	OCU	OCCUPANCY SENSORS
WALL MOUNTED FIXTURE	OCU	
CEILING MOUNTED STRIP FIXTURE	OCU	
RECESSED OR DISC FIXTURE	ITC	VACANCY SENSORS
WALL MOUNTED FIXTURE	ITC	CEILING OCCUPANCY SENSORS
SURFACE CEILING MOUNTED FIXTURE	ITC	
PENDANT MOUNTED FIXTURE	nl	INDICATES NIGHT LIGHT FIXTURE
EXTERIOR POLE MOUNTED FIXTURE	ab	INDICATES LIGHT FIXTURE SWITCH LEG
BOLLARD OR GROUND MOUNTED FIXTURE	P-X	INDICATES PANEL AND CIRCUIT NUMBER
EMERGENCY LIGHTING FIXTURE	I	INDICATES LIGHT FIXTURE TYPE
EMERGENCY EXIT SIGN	EX	INDICATES EXISTING FIXTURE
EMERGENCY EXIT SIGN WITH EMERGENCY HEADS	RL	INDICATES RELOCATED FIXTURE
EXTERIOR EMERGENCY EGRESS LIGHT	TC	INDICATES TIME CLOCK CONTROLLED FIXTURE
	EM	INDICATES FIXTURE EMERGENCY OR STANDBY POWER

PRIOR TO ANY DIGGING, TRENCHING ETC. CONTACT ALL LOCAL UTILITY COMPANIES AND MUNICIPALITIES AND CONFIRM EXACT LOCATIONS OF ALL EXISTING UTILITIES.

MATERIALS AND EQUIPMENT SHALL BE LISTED AND/OR LABELED BY ID OR ANOTHER NATIONALLY RECOGNIZED TESTING LABORATORY.

ALL MATERIAL, EQUIPMENT, REMOVED DEVICES, ETC. SHALL BE NEW, UNLESS SPECIFICALLY NOTED AS BEING REUSED.

ALL MATERIALS AND EQUIPMENT SHALL BE STORED, HANDLED, CARRIED, INSTALLED, CONNECTED, CLEANED, ADJUSTED, TESTED, CONDITIONED AND PLACED IN SERVICE IN ACCORDANCE WITH THE MANUFACTURERS DIRECTIONS AND RECOMMENDATIONS.

ALL UTILITIES TO BE CONNECTED 4' AWAY FROM EDGE OF CURB.

ALL UTILITIES TO BE LOCATED TO A COMMON EQUIPMENT GROUP.

USE 6" PIPE TYPE THIN.

THE CONTROLLING LIGHTING CONTRACTORS SHALL BE MOUNTED INSIDE THE BUILDING WITH TIME-CLOCK CONTROL & REMOTE PHOTOCELLS LOCATED ON THE EXTERIOR SIDE OF THE BUILDING WALL. INSTALL PHOTOCELLS AT LOCATIONS WHERE BUILDING OR OTHER STRUCTURES CAST SHADOWS ON THEIR PROPER OPERATION. PLANT BRANCH CIRCUIT SUPPLY CONNECTIONS WILL BE PROVIDED BY THE BUILDING ELECTRICAL CONTRACTORS.

MIN. BURIAL DEPTH FOR THE LIGHTING CORD SHALL BE 24". A SLIGHT DECREASE IN DEPTH MAY BE USED FOR THE POLYESTER CORD.

VERIFY CONSTRUCTION AREAS ON OTHER SITE PLANS FOR POTENTIAL OBSTACLES AND CONSTRUCTION LIMITS.

ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH NATIONAL, STATE AND LOCAL ELECTRICAL & BUILDING CODES.

COORDINATE WORK WITH ALL OTHER TRADES.

EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED AT ALL LOCATIONS.

ALL MEASUREMENTS TO TOP OF BOX.

GFI PROTECT ALL RECEPTABLES WITHIN 6' OF EVERY SINK.

DRAWINGS ONLY REPRESENT AN APPROXIMATE LOCATION OF ALL RECEPTABLES, SWITCHES, LIGHTS, TV/DATA JACKS, ELECTRICAL EQUIPMENT, ETC. FINAL LOCATIONS WILL BE DETERMINED IN THE FIELD AND MAY VARY FROM DRAWINGS DUE TO UNFORESEEN CIRCUMSTANCES.

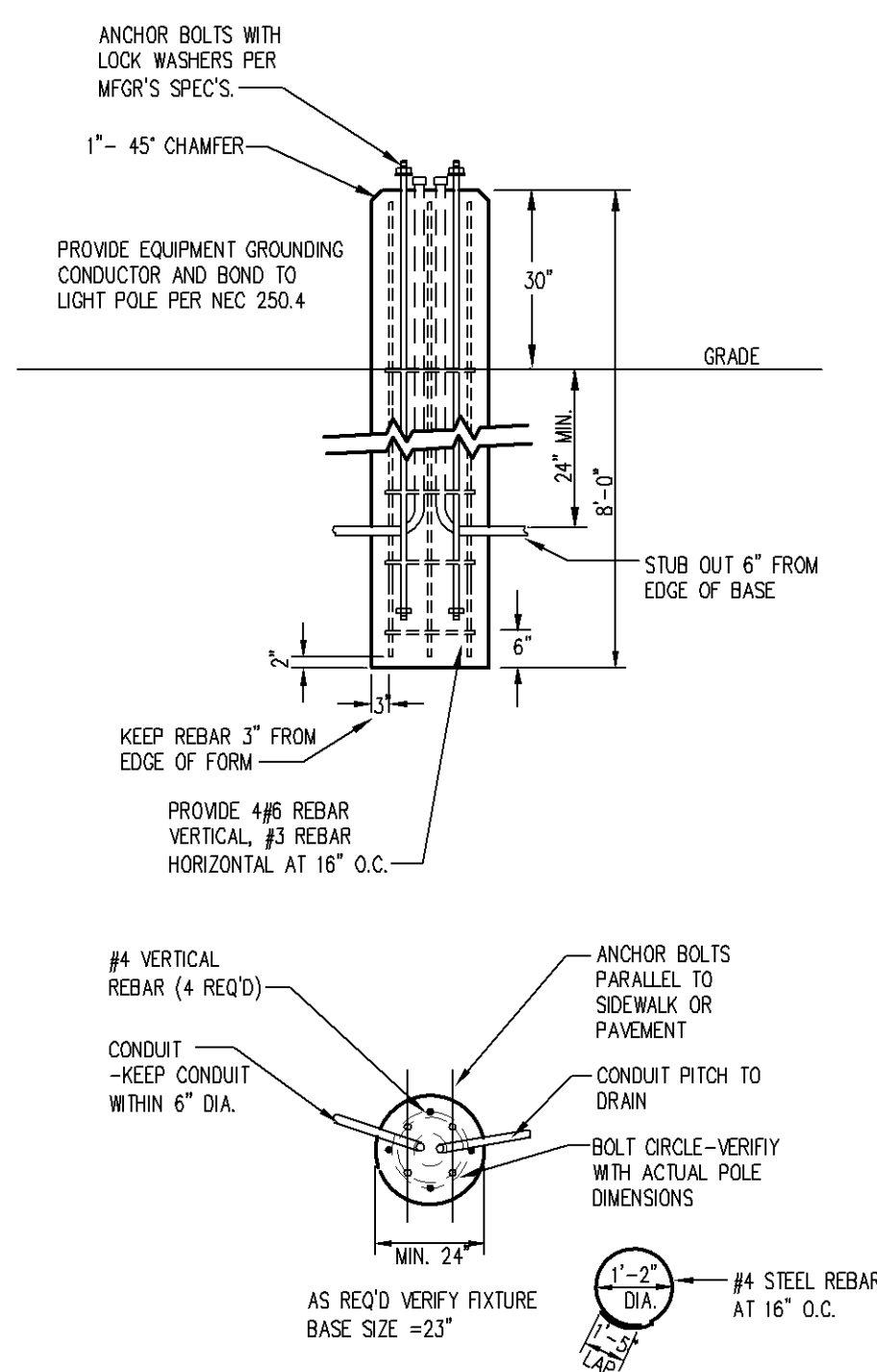
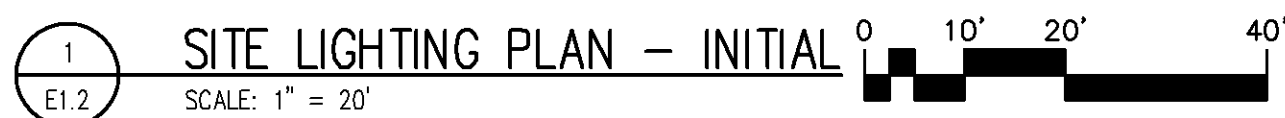
PROVIDE GFI PROTECTION FOR ALL AREAS LISTED UNDER NEC 210.8.

PROVIDE TAMPER RESISTANT RECEPTABLES IN ALL AREAS LISTED UNDER NEC 406.12.

TYPE	MANUFACTURE	LAMPS	WATTAGE	LLF	LUMENS	DESCRIPTION	NOTES
AA	MESTER	LED	27	1.0	3600	SMALL EXTERIOR WALL PACK	-
BB	RP	LED	13	1.0	1280	DECORATIVE WALL PACK	-
CC	SUNOCO	LED	15	1.0	1050	EXTERIOR RECESSED DOWNLIGHT	-
DD	MESTER	LED	100	1.0	14100	POLE MOUNT FIXTURE, TYPE III OPTICS, 25' POLE	MALOS
EE	MESTER	LED	100	1.0	14000	POLE MOUNT FIXTURE, TYPE IV OPTICS, 25' POLE	MALOS
FF	MESTER	LED	250	1.0	36000	POLE MOUNT FIXTURE, TYPE V OPTICS, 25' POLE	MALOS

MAX	7.6 FC 25' PERIMETER EXCLUDED
MIN	1.3 FC 25' PERIMETER EXCLUDED
MAX : MIN	5.8 : 1
PERIMETER MIN.	0.6 FC

 *Elizabeth O'Neil*
CITY OF BLOOMINGTON PL202300193
MINNESOTA PL2023-193



NOTE:

- 1.) USE MFG'S DIMENSIONS FOR EXACT ANCHOR BOLT AND COVER PLACEMENT.
- 2.) INSTALL INLINE FUSES IN EACH UNGROUNDED CONDUCTOR WITHIN POLE BASE HAND HOLE
- 3.) TROWEL FINISH EXPOSED PORTION OF BASE TO REMOVE/COVER FORM MARKS.

2 POLE BASE DETAIL
E1.2 NOT TO SCALE

120V DUPLEX OUTLET		MOTOR EQUIPMENT CONNECTION
120V QUAD OUTLET		ELECTRICAL DISCONNECT
208 OR 240 VOLT RECEPTACLE		ELECTRICAL CONNECTION W/DISCONNECT
120V CEILING RECEPTACLE		ELECTRICAL CONNECTION W/WEATHER PROOF DISCONNECT
DATA/COMMUNICATION OUTLET		ELECTRICAL PANEL
TELEPHONE OUTLET		① THERMOSTAT MOUNTED AT 48" A.F.F.
TV OUTLET		
DATA/TV COMBO OUTLET		
FLOOR BOX		
JUNCTION BOX		
E-STOP FOR GRILL OR FIRE PIT		
TIMER FOR FRILL OR FIRE PIT		
BELOW COUNTER OUTLET		
ABOVE COUNTER OUTLET		
DEDICATED RECEPTACLE		
GROUND FAULT CIRCUIT INTERRUPTER		
WEATHER PROOF COVER WITH GFI		

RECESSED 2X4 FIXTURE	\$	SINGLE POLE SWITCH
RECESSED 2X2 FIXTURE	3	THREE WAY SWITCH
SURFACE MOUNT 1X4 FIXTURE	4	FOUR WAY SWITCH
SURFACE MOUNT 2X4 FIXTURE	OCN	
WALL MOUNTED FIXTURE	OCN	OCCUPANCY SENSORS
CEILING MOUNTED STRIP FIXTURE	OCN	
RECESSED OR DISC FIXTURE	OCN	CEILING OCCUPANCY SENSORS
WALL MOUNTED FIXTURE	OCN	
SURFACE CEILING MOUNTED FIXTURE	OCN	LIGHTING CONTROL TIME CLOCK
PENDANT MOUNTED FIXTURE	NL	INDICATES NIGHT LIGHT FIXTURE
EXTERIOR POLE MOUNTED FIXTURE	ab	INDICATES LIGHT FIXTURE SWITCH LEG
BOLLARD OR GROUND MOUNTED FIXTURE	P-X	INDICATES PANEL AND CIRCUIT NUMBER
EMERGENCY LIGHTING FIXTURE	I	INDICATES LIGHT FIXTURE TYPE
EMERGENCY EXIT SIGN	EX	INDICATES EXISTING FIXTURE
EMERGENCY EXIT SIGN WITH EMERGENCY HEADS	RL	INDICATES RELOCATED FIXTURE
EXTERIOR EMERGENCY EGRESS LIGHT	TC	INDICATES TIME CLOCK CONTROLLED FIXTURE

- 1 PRIOR TO ANY DIGGING, TRENCHING, ETC. CONTACT ALL LOCAL UTILITY COMPANIES AND MUNICIPALITIES AND CONFIRM EXACT LOCATIONS OF ALL EXISTING UTILITIES.
- 2 MATERIALS AND EQUIPMENT SHALL BE LISTED AND/OR LABELED BY ID OR ANOTHER MEANS TO IDENTIFY THE MATERIALS TO BE TESTED IN TESTING LABORATORY.
- 3 ALL MATERIAL, EQUIPMENT, WIRING DEVICES, ETC. SHALL BE NEW, UNLESS SPECIFICALLY NOTED AS EXISTING TO BE REUSED.
- 4 ALL MATERIALS AND EQUIPMENT SHALL BE STORED, HANDLED, ERECTED, INSTALLED, CONNECTED, CLEANED, AUGURED, TESTED, CONDITIONED AND PLACED IN SERVICE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
- 5 ALL POLE FIXTURES TO BE LOCATED 4' AWAY FROM EDGE OF CURB.
- 6 ALL EXTERIOR LIGHT FIXTURES TO BE CONNECTED TO A COMMON EQUIPMENT GROUND. USE JG, TYPE THHN.
- 7 THE CONTROLLING LIGHTING CONTROLS SHALL BE MOUNTED INSIDE THE BUILDING WITH TIME-CLOCK, REMOTE PHOTOCELLS LOCATED ON THE EXTERIOR SIDE OF THE BUILDING. INSTALL PHOTOCELLS AT LOCATIONS WHERE BUILDING OR OTHER OBSTRUCTIONS WILL NOT INTERFERE WITH THEIR PROPER OPERATION. FINAL BRANCH CIRCUIT SUPPLY CONNECTIONS WILL BE PROVIDED BY THE BUILDING ELECTRICAL CONTRACTOR.
- 8 MIN. BURIAL DEPTH FOR THE LIGHTING CORD SHALL BE 24". A SLIGHT DECREASE IN BURIAL IS ALLOWED WITHIN 10' OF THE POLES.
- 9 VERIFY CONSTRUCTION LIMITS ON OTHER SITE PLANS FOR POTENTIAL OBSTACLES AND CONSTRUCTION AREAS.

- 1 ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH NATIONAL, STATE AND LOCAL
- 2 ELECTRICAL & BUILDING CODES.
- 3 COORDINATE WORK WITH ALL OTHER TRADES.
- 4 EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S
- 5 RECOMMENDATIONS.
- 6 ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED AT ALL LOCATIONS.
- 7 ALL MEASUREMENTS TO TOP OF BOX.
- 8 GFI PROTECT ALL RECEPTacles WITHIN 6' OF EVERY SINK.
- 9 DRAWINGS ONLY REPRESENT AN APPROXIMATE LOCATION OF ALL RECEPTacles,
- 10 SWITCHES, LIGHTS, TV/DATA JACKS, ELECTRICAL EQUIPMENT, ETC. FINAL LOCATIONS
- 11 WILL BE DETERMINED IN THE FIELD AND MAY VARY FROM DRAWINGS DUE TO
- 12 UNFORESEEN CIRCUMSTANCES.
- 13 PROVIDE GFI PROTECTION FOR ALL AREAS LISTED UNDER NEC 210.8.
- 14 PROVIDE TAMPER RESISTANT RECEPTacles IN ALL AREAS LISTED UNDER NEC 406.12.

TYPE	MANUFACTURE	LAMPS	WATTAGE	LLF	LUMENS	DESCRIPTION	NOTES
AA	MESTER	LED	27	81	2916	SMALL EXTERIOR WALL PACK	--
BB	RP	LED	13	81	1037	DECORATIVE WALL PACK	--
CC	SUNCO	LED	15	81	850	EXTERIOR RECESSED DOWNLIGHT	--
DD	MESTER	LED	100	81	11421	POLE MOUNT FIXTURE, TYPE III OPTICS, 25' POLE	MALOS
EE	MESTER	LED	100	81	11360	POLE MOUNT FIXTURE, TYPE IV OPTICS, 25' POLE	MALOS
FF	MESTER	LED	250	81	21940	POLE MOUNT FIXTURE, TYPE V OPTICS, 25' POLE	MALOS

MAX	6.2 FC 25' PERIMETER EXCLUDED
MIN	1.1 FC 25' PERIMETER EXCLUDED
MAX : MIN	5.6 : 1
PERIMETER MIN.	0.5 FC

 *Elephantine O'Ney*
CITY OF BLOOMINGTON
MINNESOTA
PL202300193
PL2023-193

REPORT WAS PREPARED BY ME OR UNDER MY DIRECT
SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL
ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Dustin J. Kilness

DUSTIN J. KILNESS DATE: 4/15/24 REG. NO. 623316

**BERDY
ELECTRIC LLC**
1 Industrial Boulevard • Souk Rapids, MN 56379
Phone: 320-658-0847
FAX: 320-658-0312

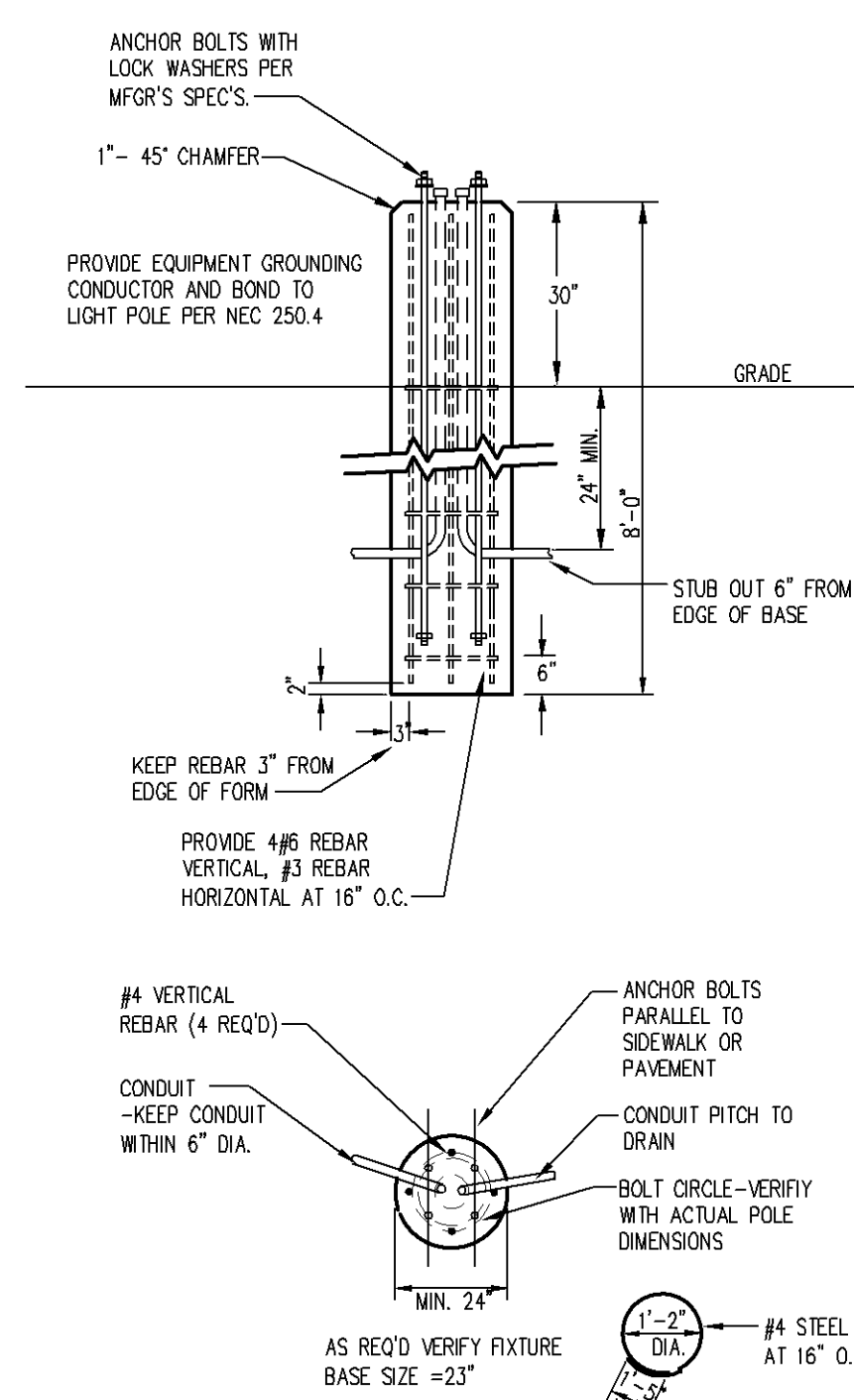
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DATE: 7/13/24	AS SHOWN	DR
SCALE:	DRAWN BY:	DJK
CHECKED BY:		
JOB NO.		760

—
BLOOMINGTON, MN
LIGHTING PLAN - MAINTAIN

DRAWING NO.
E1.3



NOTE:

- 1.) USE MFR'S DIMENSIONS FOR EXACT ANCHOR BOLT AND COVER PLACEMENT.
- 2.) INSTALL INLINE FUSES IN EACH UNGROUNDED CONDUCTOR WITHIN POLE BASE HAND HOLE.
- 3.) TROWEL FINISH EXPOSED PORTION OF BASE TO REMOVE/COVER FORM MARKS.

2 POLE BASE DETAIL
E1.3 NOT TO SCALE

1
E1.3

SITE LIGHTING PLAN – MAINTAINED

0 10' 20' 40'

SCALE: 1" = 20'

PRELIMINARY SET

 *Elizabeth Olney*
CITY OF BLOOMINGTON
MINNESOTA
PL202300193
PL2023-193

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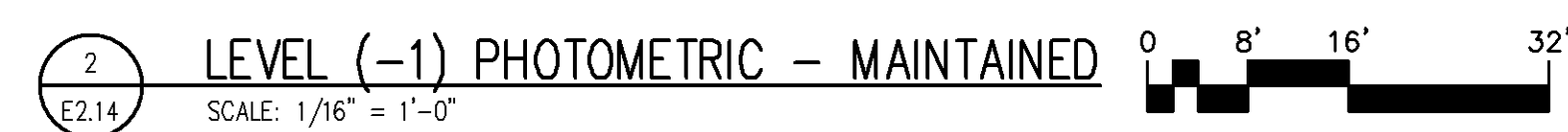
LEVEL (-1) PHOTOMETRICS

DRAWING NO.
E2.14



LIGHTING FIXTURE SCHEDULE – EXTERIOR (INITIAL)							
TYPE	MANUFACTURE	LAMPS	WATTAGE	LLF	LUMENS	DESCRIPTION	NOTES
1	SAYLITE	LED	36	1.0	4500	4' STRIP FIXTURE	--
1A	SAYLITE	LED	36	1.0	4500	4' STRIP FIXTURE WITH OCC SENSOR	--
2	SAYLITE	LED	54	1.0	9000	8' STRIP FIXTURE	--
2A	SAYLITE	LED	54	1.0	9000	8' STRIP FIXTURE WITH OCC SENSOR	--

NOTES:



LIGHTING FIXTURE SCHEDULE – EXTERIOR (MAINTAINED)							
TYPE	MANUFACTURE	LAMPS	WATTAGE	LLF	LUMENS	DESCRIPTION	NOTES
1	SAYLITE	LED	36	.81	3645	4' STRIP FIXTURE	–
1A	SAYLITE	LED	36	.81	3645	4' STRIP FIXTURE WITH OCC SENSOR	–
2	SAYLITE	LED	54	.81	7290	8' STRIP FIXTURE	–
2A	SAYLITE	LED	54	.81	7290	8' STRIP FIXTURE WITH OCC SENSOR	–

NOTES: