

PL201900139
PL2019-139

POWER & COMMUNICATION LEGEND

120V DUPLEX OUTLET	MOTOR CONNECTION
120V QUAD OUTLET	ELECTRICAL DISCONNECT
240 VOLT RECEPTACLE	ELECTRICAL STARTER DISCONNECT
DATA/COMMUNICATIONS OUTLET	ELECTRICAL CONNECTION W/NON-FUSED DISCONNECT
TELEPHONE OUTLET	ELECTRICAL CONNECTION W/FUSED DISCONNECT
TELEVISION OUTLET	ELECTRICAL CONNECTION W/WEATHER PROOF DISCONNECT
DATA/TV COMBO OUTLET	ELECTRICAL CONNECTION W/20A SWITCH FUSE
TELE/TV OUTLET	PANELBOARD
FLOOR OUTLET	THERMOSTAT MOUNTED AT 48" A.F.F.
JUNCTION BOX	SMOKE/CO ALARM
PUSHBUTTON STATION	SMOKE ALARM
SPEAKER	
TIME CLOCK	
NURSE CALL PULL STATION	

LIGHTING LEGEND

RECESSED 2x4 FLUORESCENT FIXTURE	SINGLE POLE SWITCH
RECESSED 2x2 FLUORESCENT FIXTURE	2-POLE SWITCH
INDICATES NIGHTLIGHT FIXTURE	3-WAY SWITCH
INDICATES EMERGENCY FIXTURE	4-WAY SWITCH
INDICATES EMERGENCY/NIGHTLIGHT FIXTURE	SWITCH W/PILOT LIGHT
SURFACE MOUNT 1x4 FLUORESCENT FIXTURE	WALL MOUNTED SINGLE LEVEL OCCUPANCY SENSOR
HIGH BAY 2x4 FLUORESCENT FIXTURE	WALL MOUNTED DUAL LEVEL OCCUPANCY SENSOR
SURFACE WALL MOUNTED FLUORESCENT FIXTURE	CEILING MOUNTED OCCUPANCY SENSOR
SURFACE CEILING MOUNT FLUORESCENT FIXTURE	INDICATES FIXTURE TO REMAIN ON FOR SECURITY PURPOSES
RECESSED DOWNLIGHT	A.B. INDICATES LIGHT FIXTURE SWITCH-LEDS
SURFACE WALL MOUNTED FIXTURE	P-X INDICATES PANEL AND CIRCUIT NUMBER
SURFACE MOUNTED FIXTURE	I INDICATES LIGHT FIXTURE TYPE
SURFACE MOUNTED PENDANT FIXTURE	EX INDICATES EXISTING FIXTURE
OUTSIDE POLE-MOUNT LIGHT FIXTURE	RL INDICATES RELOCATED FIXTURE
EXTERIOR GROUND MOUNTED LIGHT FIXTURE	TC INDICATES FIXTURE CONTROLLED BY TIMECLOCK
EMERGENCY LIGHTING FIXTURE	EM INDICATES EMERGENCY FIXTURE
LED EXIT SIGN-SHADED AREA INDICATES ILLUMINATED FACE	
LED EXIT/EMERGENCY SIGN-SHADED AREA INDICATES ILLUMINATED FACE	
EXTERIOR EMERGENCY EGRESS LIGHT	

SITE NOTES

- THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY FOR A COMPLETE AND FUNCTIONAL ELECTRICAL SYSTEM.
- MATERIALS AND INSTALLATION SHALL COMPLY WITH CODES, UTILITY REQUIREMENTS, LAWS AND ORDINANCES OF FEDERAL, STATE, DSHA AND LOCAL GOVERNING BODIES HAVING JURISDICTION.
- THE CONTRACTOR SHALL COMPLY WITH ALL CODES AND STANDARDS APPLICABLE TO THIS PROJECT THAT ARE LISTED BUT NOT LIMITED TO: NEC, NFPA, NEMA, ANSI, IES, IEEE, NFPA LIFE SAFETY 101, ASHRAE 90.1, IECQ ENERGY CODE AND IBC BUILDING CODE.
- 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 UL OR ANOTHER NATIONALLY RECOGNIZED TESTING LABORATORY.
- ALL MATERIAL, EQUIPMENT, WIRING DEVICES, ETC. SHALL BE NEW, UNLESS SPECIFICALLY NOTED AS EXISTING TO BE REUSED.
- ALL MATERIALS AND EQUIPMENT SHALL BE STORED, HANDLED, ERECTED, INSTALLED, CONNECTED, CLEANED, ADJUSTED, TESTED, CONDITIONED AND PLACED IN SERVICE IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND RECOMMENDATIONS.
- COORDINATE THE UTILITY COMPANY SERVICE FEES AND INSTALLATION.
- ALL POLE FIXTURES TO BE LOCATED 4' AWAY FROM EDGE OF CURB.
- ALL EXTERIOR LIGHT FIXTURES TO BE CONNECTED TO A COMMON EQUIPMENT GROUND. USE #8 TYPE THWN.
- ALL CIRCUIT TO BE PLACED IN 1" CONDUITS UNLESS OTHERWISE NOTED. CIRCUIT TO USE COPPER WIRE, TYPE THWN.
- 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 OBSTRUCTIONS WILL NOT INTERFERE WITH THEIR PROPER OPERATION. FINAL BRANCH CIRCUIT SUPPLY CONNECTIONS WILL BE PROVIDED BY THE BUILDING ELECTRICAL CONTRACTORS.
- MIN. BURIAL DEPTH FOR THE LIGHTING CIRCUIT SHALL BE 24". A SLIGHT DECREASE IN DEPTH IS ALLOWED WITHIN 10' OF THE POLES.
- VERIFY CONSTRUCTION AREAS ON OTHER SITE PLANS FOR POTENTIAL OBSTACLES AND CONSTRUCTION LIMITS.

ELECTRIC GENERAL NOTES

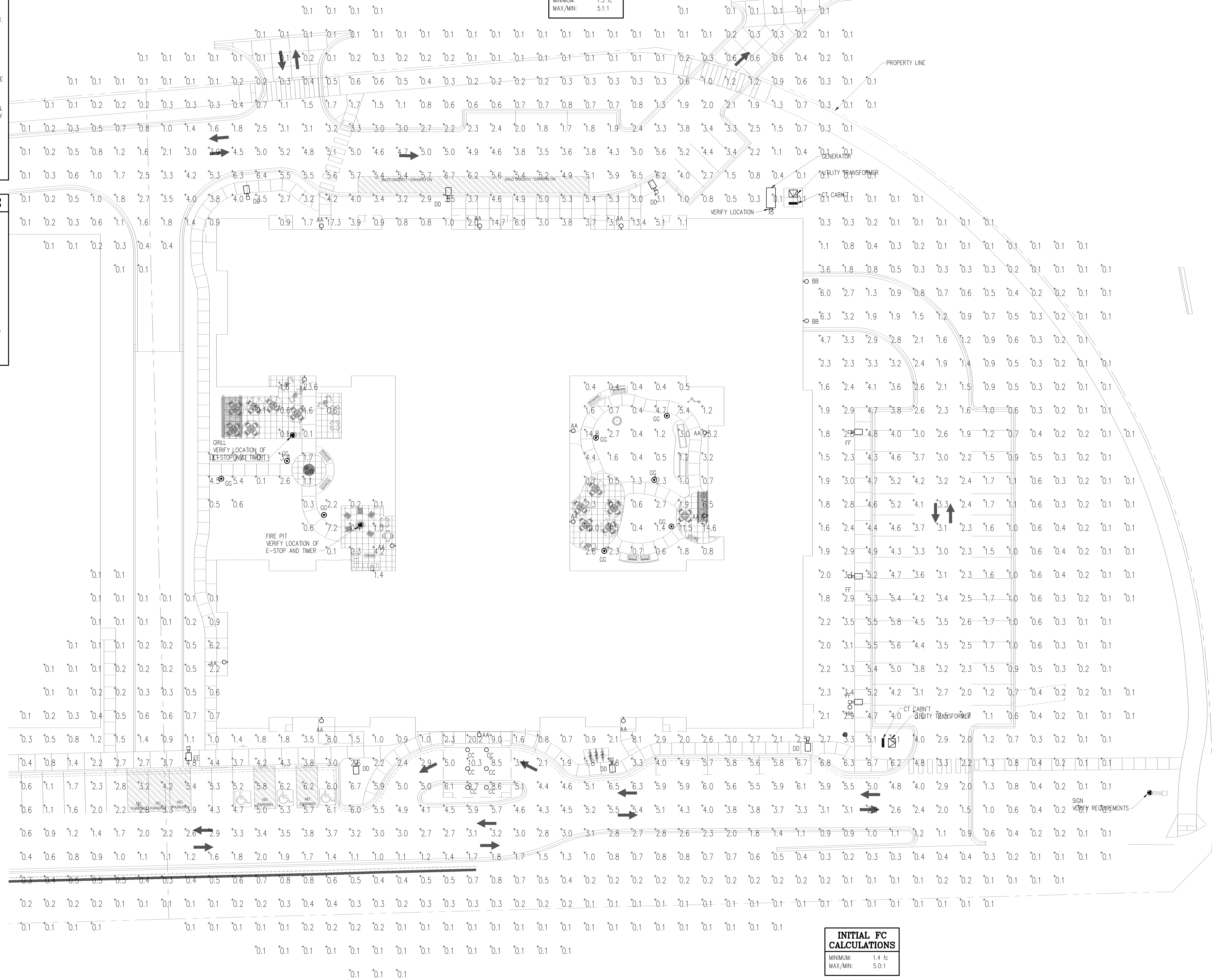
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- COORDINATE WORK WITH ALL OTHER TRADES.
- EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ALL WIRING SHALL BE INSTALLED IN APPROVED RACEWAYS.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED AT ALL LOCATIONS.
- ALL MEASUREMENTS TO TOP OF BOX. RECEPTACLES SHALL BE 20" A.F.F. SWITCHES SHALL BE 48" A.F.F.
- GFI PROTECT ALL RECEPTACLES WITHIN 6' OF EVERY SINK.

LIGHTING FIXTURE SCHEDULE - INITIAL FC

TYPE	MANUFACTURER	MODEL #	LAMPS	WATTAGE	LLF	LUMENS	DESCRIPTION	NOTES
AA	HUBBELL	SGI-209W7T	LED	20	1.0	2363	SMALL EXTERIOR WALL PACK - HUBBELL	-
BB	HUBBELL	SGI-209W7T	LED	30	1.0	3570	MEDIUM EXTERIOR WALL PACK - HUBBELL	-
CC	NORA	NLXPAC-R509	LED	15	1.0	1050	EXTERIOR RECESSED DOWNLIGHT	-
DD	ATLAS	SLPWRLT25K	LED	115	1.0	18577	POLE MOUNT FIXTURE, TYPE SC OPTICS, 25' POLE - ATLAS	-
EE	ATLAS	SLPWRLT25K	LED	115	1.0	18546	POLE MOUNT FIXTURE, TYPE II OPTICS, 25' POLE - ATLAS	-
FF	ATLAS	SLPWRLT5K	LED	115	1.0	18056	POLE MOUNT FIXTURE, TYPE IV OPTICS, 25' POLE - ATLAS	-
GG	SKYLINE	BOLARL20W500LDM50K82	LED	20	1.0	1500	BOLLARD FIXTURE	-
HH	ECONOLIGHT	EGLSNFL02C27	LED	35	1.0	3800	FLAG POLE FIXTURE	-

NOTES:

INITIAL FC
CALCULATIONS
MINIMUM:
MAX/MIN:
1.3 fc
5.1:1



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PUSHBUTTON STATION	SMOKE ALARM
SPEAKER	
TIME CLOCK	
NURSE CALL CALL STATION	

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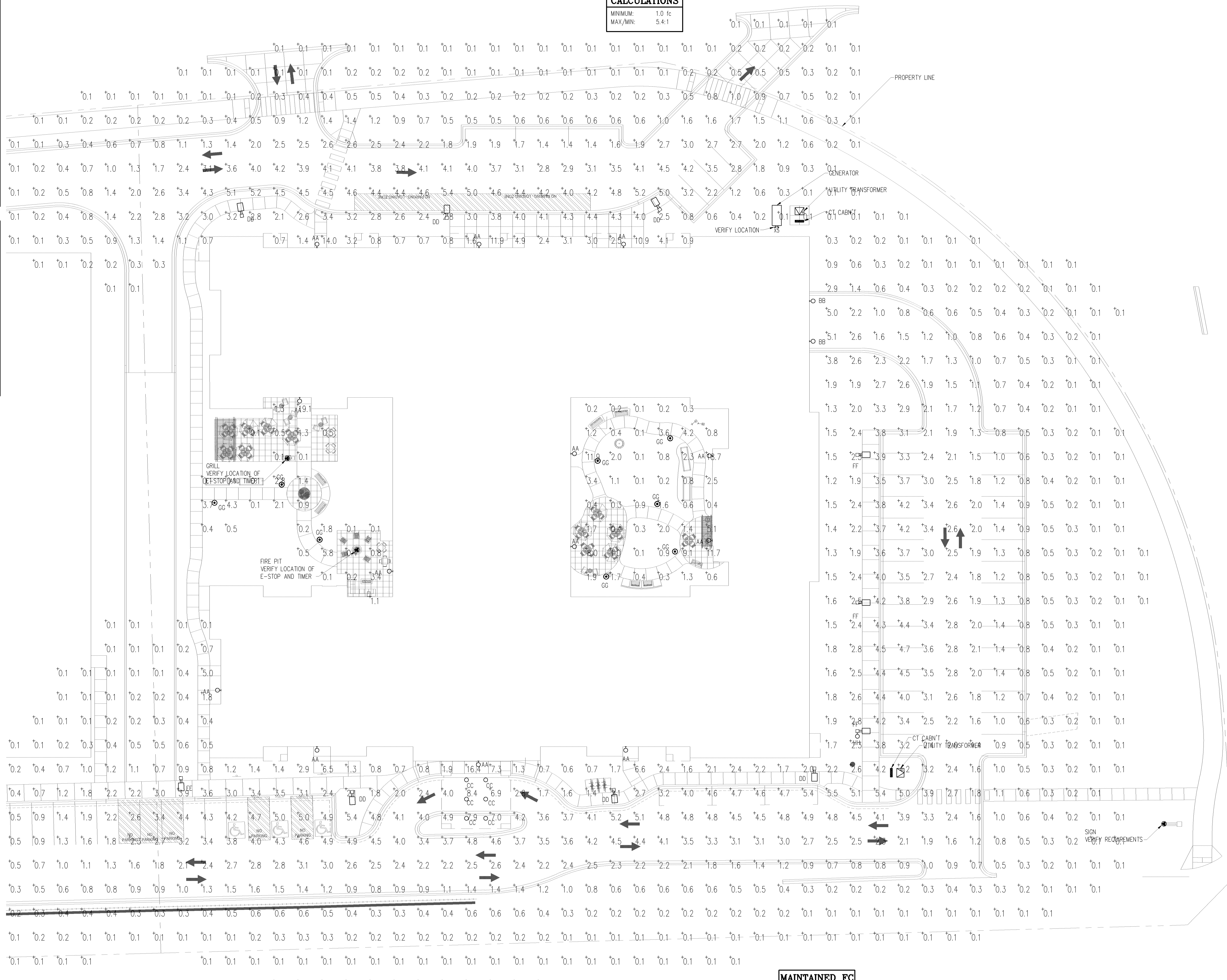
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- PROTECT ALL RECEPTACLES WITHIN 6' OF EVERY SINK.

LIGHTING FIXTURE SCHEDULE - MAINTAINED FC

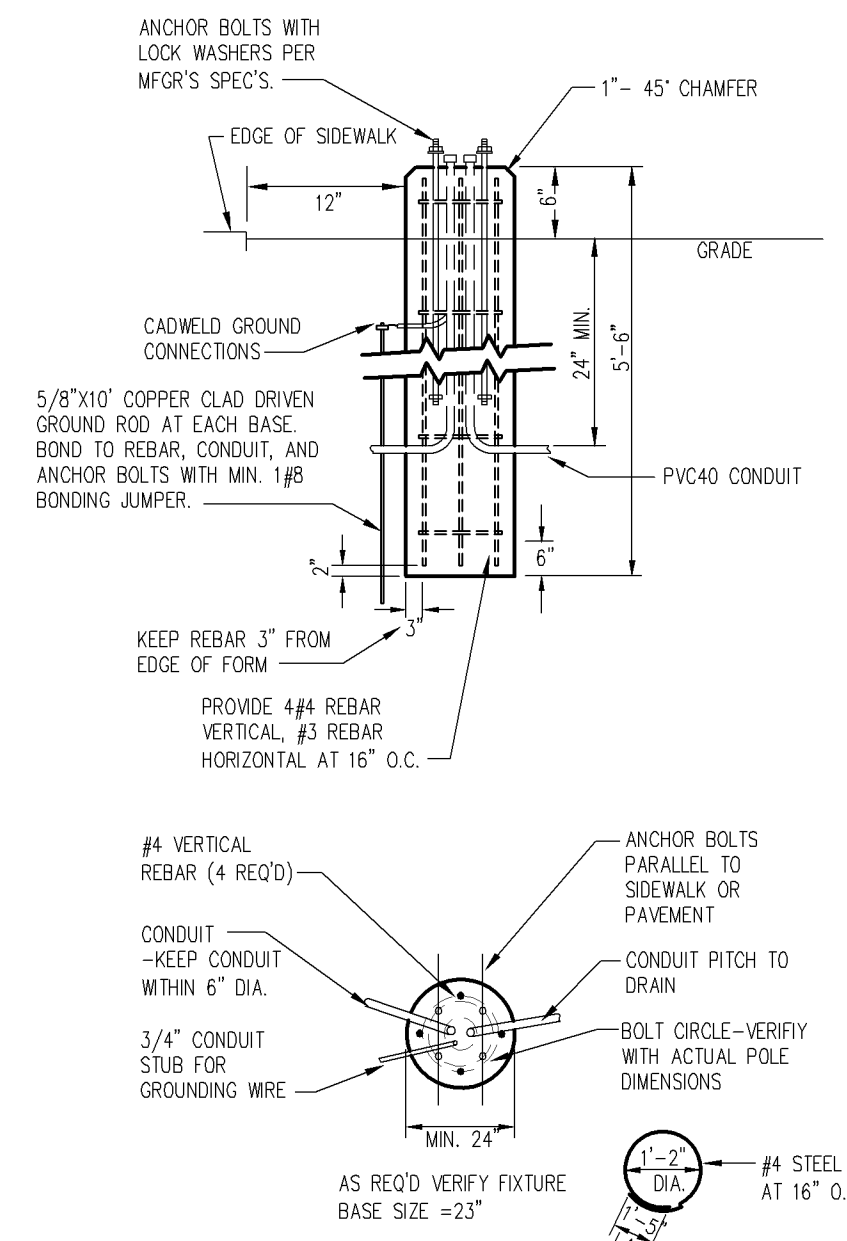
TYPE	MANUFACTURER	MODEL #	LAMPS	WATTAGE	LLF	LUMENS	DESCRIPTION	NOTES
AA	HUBBELL	S61-305K7FT	LED	20	.81	1833	SMALL EXTERIOR WALL PACK - HUBBELL	-
BB	HUBBELL	S61-305K7FT	LED	30	.81	2648	MEDIUM EXTERIOR WALL PACK - HUBBELL	-
CC	NORA	NLOPAC-R6509	LED	15	.81	850	EXTERIOR RECESSED DOWNLIGHT	-
DD	ATLAS	SLPM18LT25K	LED	115	.81	15047	POLE MOUNT FIXTURE, TYPE SC OPTICS, 25' POLE - ATLAS	-
EE	ATLAS	SLPM18LT35K	LED	115	.81	15022	POLE MOUNT FIXTURE, TYPE III OPTICS, 25' POLE - ATLAS	-
FF	ATLAS	SLPM18LT5K	LED	115	.81	14625	POLE MOUNT FIXTURE, TYPE IV OPTICS, 25' POLE - ATLAS	-
GG	SAYLITE	BOLAFL20W500LDMV50K8Z	LED	20	.81	1215	BOLLARD FIXTURE	-
HH	ECONOLIGHT	EGL5MFL02C27	LED	35	.81	3078	FLAG POLE FIXTURE	-

NOTES:

MAINTAINED FC CALCULATIONS	
MINIMUM:	1.0 fc
MAX/MIN:	5.4:1



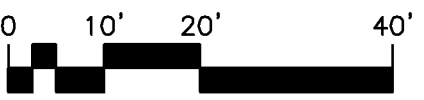
MAINTAINED FC CALCULATIONS	
MINIMUM:	1.1 fc
MAX/MIN:	5.2:1



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.) TRIMMED FINISH EXPOSED PORTION OF BASE TO REMOVE/COVER FORM MARKS.

2 POLE BASE DETAIL
NOT TO SCALE

1 ELECTRICAL SITE PLAN - MAINTAINED FC
SCALE: 1" = 20'-0"



PRELIMINARY SET

PROPOSED PROJECT FOR:
CHERRYWOOD POINTE OF BLOOMINGTON
BLOOMINGTON, MN
ELECTRICAL SITE PLAN - MAINTAINED FC

1. I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Tony Pault
DATE: 12/17/19 REG. NO. 21097

CORPORATE OFFICE
3500 Highway 100 E.
Suite 200
Minnetonka, MN 55345
TEL 761-250-4499
FAX 761-250-4496
A.C. Co.
Auth Consulting/associates

BRANCH OFFICE
3500 Highway 100 E.
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Minnetonka, MN 55345
TEL 761-250-4499
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A.C. Co.
Auth Consulting/associates

DRAWN BY: DAK	CHECKED BY: TUA	DATE:	NAME:
DWG FILE:	REF FILE:	REVISION DESCRIPTION:	DATE:
JOB NUMBER: 508-237-15			

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DATE:	
NAME:	
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REF FILE:	
DWG FILE:	
CHECKED BY:	DATE:
DRAWN BY:	DATE:

BERD!
ELECTRIC LLC
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Phone: 320-656-0847
FAX: 320-656-0312

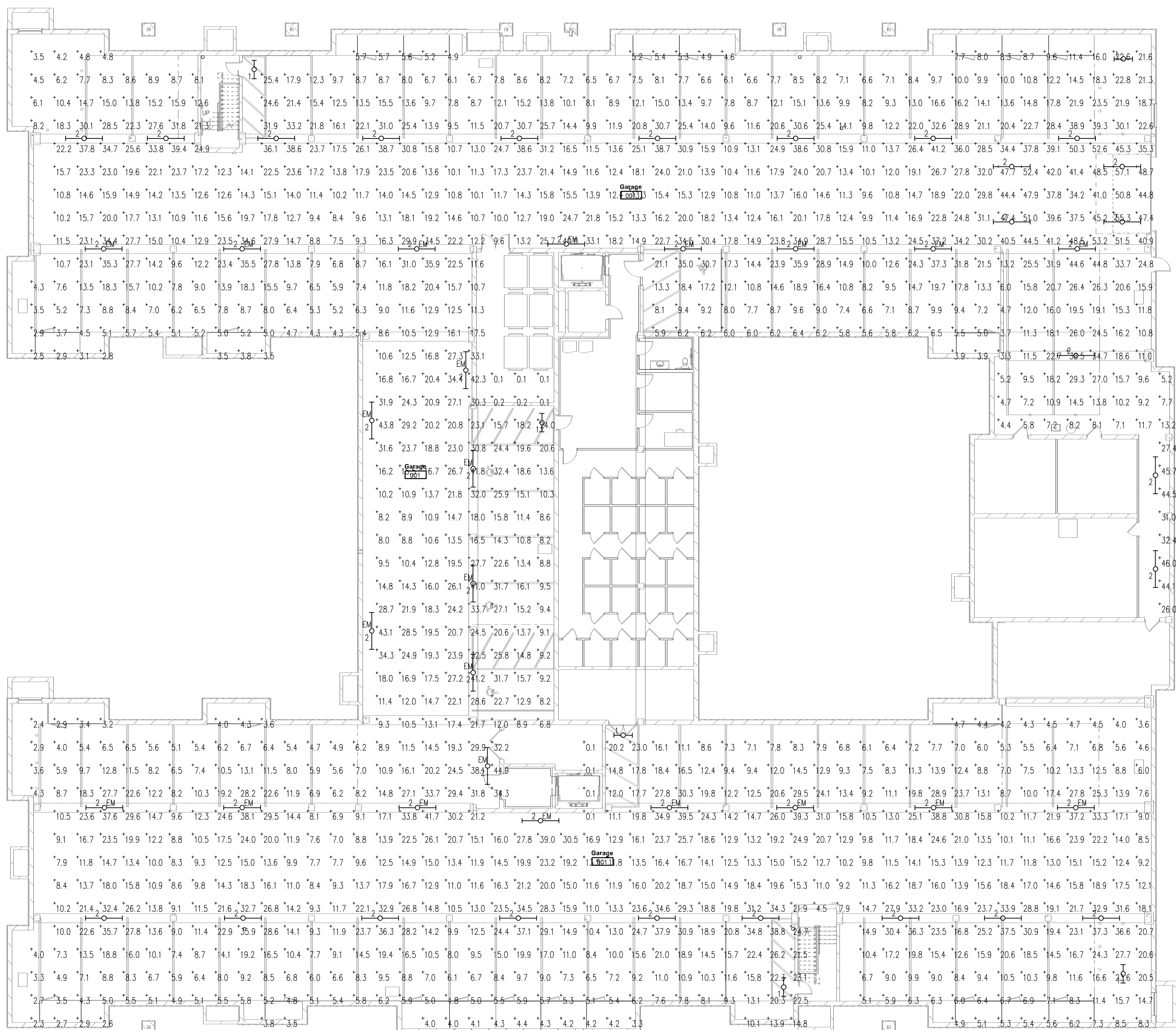
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Fax: 715-881-5277

CORPORATE OFFICE
500 Highway 100
Suite 100
Bloomington, WI 55410
Tel: 715-881-5277
Fax: 715-881-5277

A.C.A.
Auth Consulting/associates

I HEREBY CERTIFY THAT THE PLAN SPECIFICATION OR REPORT WAS PREPARED BY THE ENGINEER AND THAT THE ENGINEER IS A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Tammy Pouti
DATE: 12/17/19 REG. NO. 21097

PROJECT: PROPOSED PROJECT FOR: CHERRYWOOD POINTE OF BLOOMINGTON, MN
SHEET NO. E2.7
GARAGE LIGHTING CALCULATION PLAN



INITIAL FC CALCULATIONS
MINIMUM: 7.0 fc
MAX/MIN: 6.31

GARAGE LIGHTING PLAN – INITIAL FC
SCALE: 1/16" = 1'-0"

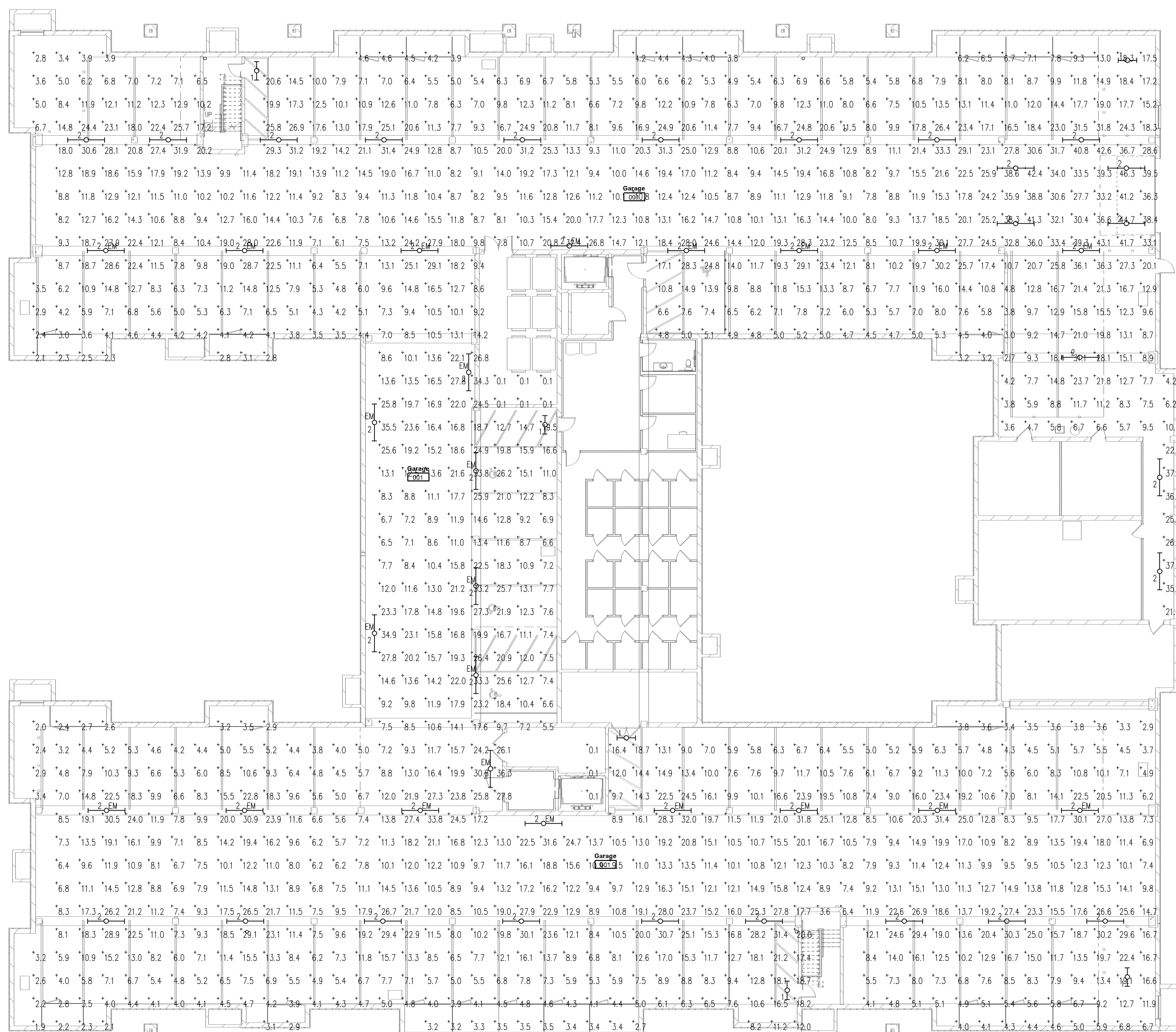
0 8' 16' 32'

LIGHTING FIXTURE SCHEDULE – MAINTAINED						
TYPE	MANUFACTURER	MODEL #	LAMPS	WATTAGE	LUMENS	LLF
1	SAYLITE	C48LF42W565OLDW40K	LED	42	4576	.81
2	SAYLITE	C86LF66W1300OLDW40K	LED	86	9153	.81

NOTES:

LIGHTING FIXTURE SCHEDULE – INITIAL						
TYPE	MANUFACTURER	MODEL #	LAMPS	WATTAGE	LUMENS	LLF
1	SAYLITE	C48LF42W565OLDW40K	LED	42	5650	1.0
2	SAYLITE	C86LF66W1300OLDW40K	LED	86	11300	1.0

NOTES:



MAINTAINED FC CALCULATIONS
MINIMUM: 5.3 fc
MAX/MIN: 6.31

GARAGE LIGHTING PLAN – MAINTAINED FC
SCALE: 1/16" = 1'-0"

0 8' 16' 32'