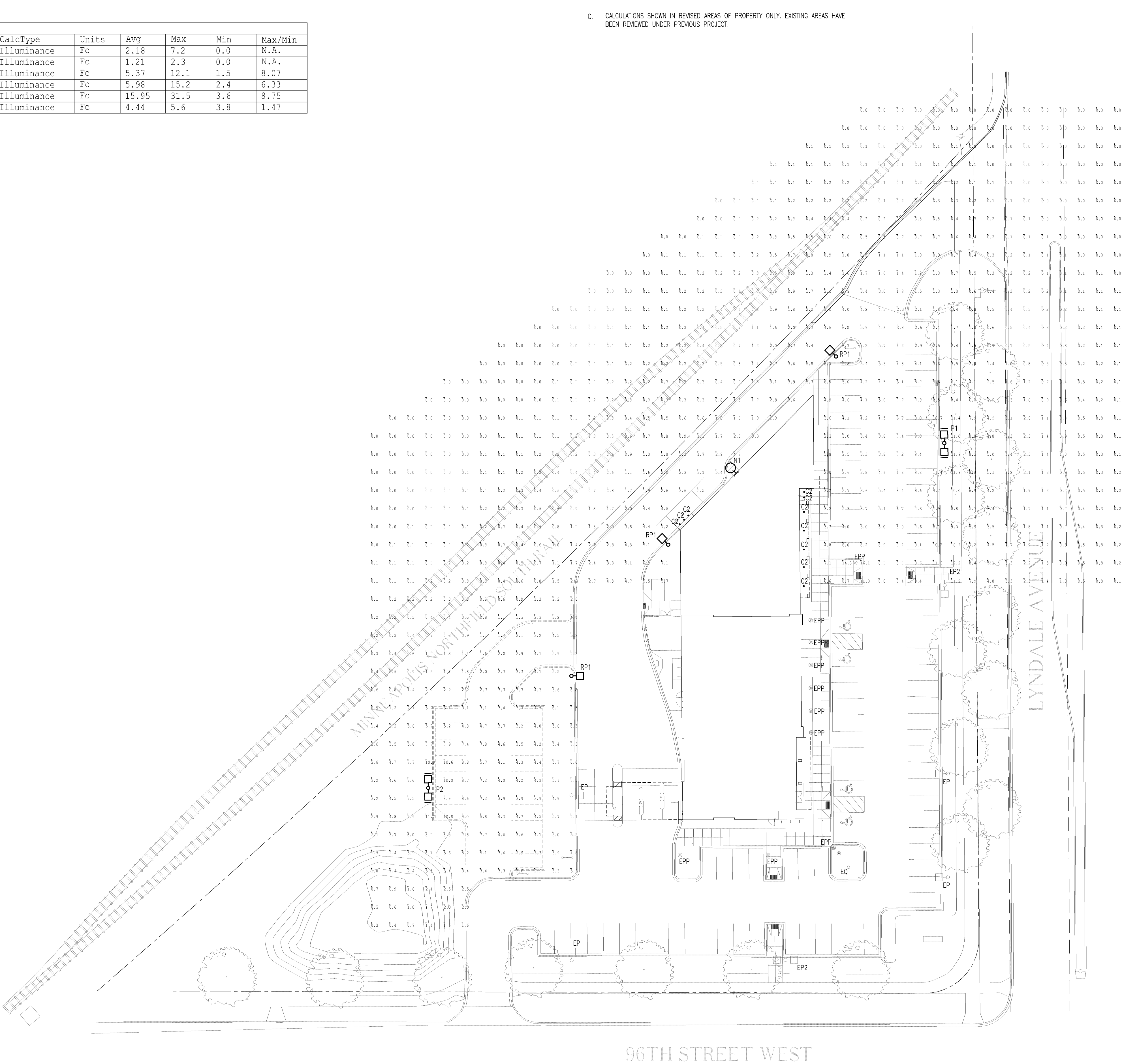


GENERAL NOTES

- A. REFER TO DETAIL 4/EQ.2B FOR LIGHT POLE BASE DETAIL.
- B. ALL EXTERIOR FIXTURES SHALL BE CONTROLLED VIA PHOTOCELL AND/OR TIMECLOCK CONTROL STRATEGY EMPLOYED SHALL COMPLY WITH MN ENERGY CODE AND CITY OF BLOOMINGTON CITY CODE.
- C. CALCULATIONS SHOWN IN REVISED AREAS OF PROPERTY ONLY. EXISTING AREAS HAVE BEEN REVIEWED UNDER PREVIOUS PROJECT.

INITIAL LLF AT 1.0. SEE LIGHT LEVELS BELOW

Calculation Summary						
Label	CalcType	Units	Avg	Max	Min	Max/Min
EAST PROPERTY LINE	Illuminance	Fc	2.18	7.2	0.0	N.A.
NORTHWEST PROPERTY LINE	Illuminance	Fc	1.21	2.3	0.0	N.A.
PARKING AREA	Illuminance	Fc	5.37	12.1	1.5	8.07
PEDESTRIAN ACCESS	Illuminance	Fc	5.98	15.2	2.4	6.33
SIDE ENTRY "A"	Illuminance	Fc	15.95	31.5	3.6	8.75
SIDE ENTRY "B"	Illuminance	Fc	4.44	5.6	3.8	1.47



1 SITE PLAN - PHOTOMETRIC - INITIAL

SCALE: 1" = 30'-0"



HTG
architects

www.htg-architects.com
Minneapolis Tampa Bismarck

9300 Hennepin Town Road
Minneapolis, MN 55347
Tel: 952.278.8880
Fax: 952.278.8822

PROJECT

RBCU

BUILDING ADDITION

LYNDALE OFFICE
BLOOMINGTON, MINNESOTA

[illegible]

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR 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


Matthew W. Fults

40887 January 31, 2019
REG. NO. DATE



emanuelson-podas
consulting engineers

7705 Bush Lake Road
Edina, MN 55439
ph: 952-930-0050
fax: 952-930-0777
www.epinc.com

SITE PLAN -
PHOTOMETRIC - INITIAL

DRAWN BY: MAB CHECKED BY: MWF

E0.2



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Matthew W. Fults

40887	January 31, 2019
REG. NO.	DATE



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consulting engineers

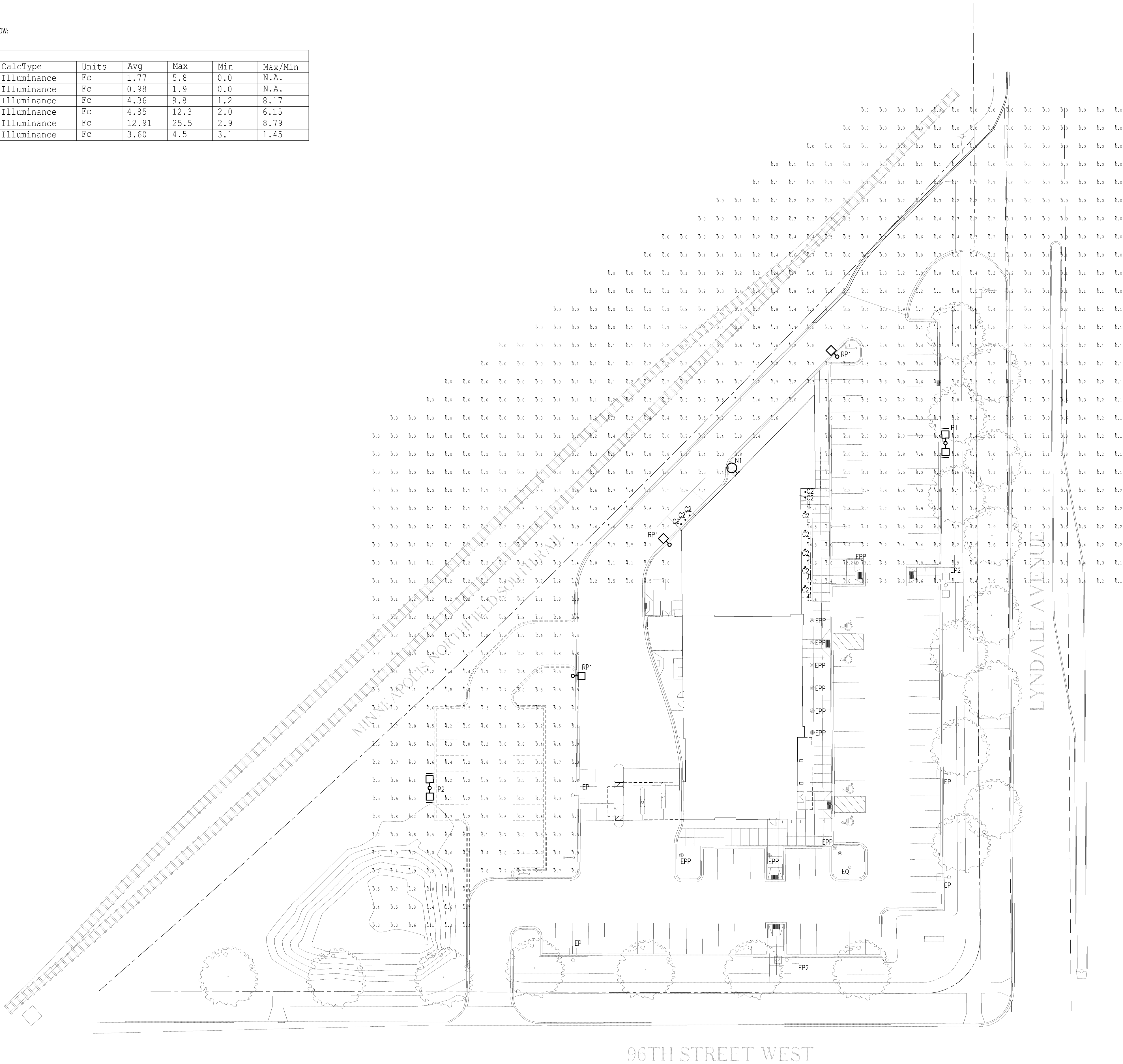
7705 Bush Lake Road
Edina, MN 55439
ph: 952-930-0050
fax: 952-930-0777
www.epinc.com

SITE PLAN -
PHOTOMETRIC - MAINTAINED

DRAWN BY: MAB CHECKED BY: MWF

E0.2A

3107.003A
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1 SITE PLAN - PHOTOMETRIC - MAINTAINED
SCALE: 1" = 30'-0"



LIGHTING FIXTURE SCHEDULE									
TYPE	DESCRIPTION	VOLTAGE	QUANTITY	LAMPS	TOTAL WATTAGE	DIFFUSER	MOUNTING	MANUFACTURER	CATALOG NUMBER
C2	LOW RIDGE/SEMI SPECULAR ADJ. SOFT GLOW CONE FINISH. APERTURE 7.12"	277	1	70W MH ED-17 1500 LUMENS	92	N/A	RECESSED	WILLIAMS LIGHTOLIER PORTFOLIO	MH75-70-SQ
F	EXTERIOR HD DOWNLIGHT PRISMATIC SPREAD LENS W/ GASKET. VERTICAL LAMP.	277	1	150W PSMH ED-17 12900 LUMENS	168	GLASS	RECESSED	WILLIAMS LIGHTOLIER PORTFOLIO	MH75-70-SQ
N	TYPE III DISTRIBUTION WALL PACK. BRONZE IN COLOR.	277	1	100W PSMH ED-17 8500 LUMENS	122	TEMPERED GLASS	BUILDING	WILLIAMS LIGHTOLIER PORTFOLIO	MH75-70-SQ
P	TYPE IV DISTRIBUTION POLE MOUNTED FIXTURE SEGMENTED OPTICS. 30 SQUARE ALUMINUM POLE. BRONZE IN COLOR. PROVIDE BASE PER DETAIL.	277	1	315W MCE 36200 LUMENS	341	TEMPERED GLASS	POLE	WILLIAMS LIGHTOLIER PORTFOLIO	MH75-70-SQ
P1	TYPE II DISTRIBUTION POLE MOUNTED FIXTURE SEGMENTED OPTICS. 30 SQUARE ALUMINUM POLE. BRONZE IN COLOR. PROVIDE BASE PER DETAIL.	277	1	315W MCE 36200 LUMENS	341	TEMPERED GLASS	POLE	WILLIAMS LIGHTOLIER PORTFOLIO	MH75-70-SQ
P2	DUAL HEAD TYPE IV DISTRIBUTION POLE MOUNTED FIXTURE SEGMENTED OPTICS. 30 SQUARE ALUMINUM POLE. BRONZE IN COLOR. PROVIDE BASE PER DETAIL.	277	2	315W MCE 36200 LUMENS	682	TEMPERED GLASS	POLE	WILLIAMS LIGHTOLIER PORTFOLIO	MH75-70-SQ
PP	TYPE V DISTRIBUTION PEDESTRIAN SCALE POLE MOUNTED FIXTURE. FULL CUTOFF OPTICS. 12 ROUND ALUMINUM POLE. PROVIDE BASE PER DETAIL.	277	1	150W CMH 14000 LUMENS	168	TEMPERED GLASS	POLE	WILLIAMS LIGHTOLIER PORTFOLIO	MH75-70-SQ

GENERAL NOTES:
A. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE UNITS MEETING FIXTURE SCHEDULE DESCRIPTION AND SPECIFICATION REQUIREMENTS. THE FIXTURE CATALOG NUMBER MAY NOT BE COMPLETE; USE ONLY AS A GUIDE LINE.

NO CHANGE IN FIXTURE, LAMP, OR BALLAST WITHOUT A REVISED PLAN AND REVIEW.

Lights circled in red shall remain on for security purposes. All other lights (other than architectural lighting) shall be extinguished 1 hour after close of business and not illuminated prior to 1 hour before the start of business.

Any exterior lighting not on this plan shall not be installed without prior approval.

INSPECTIONS REQUIRED

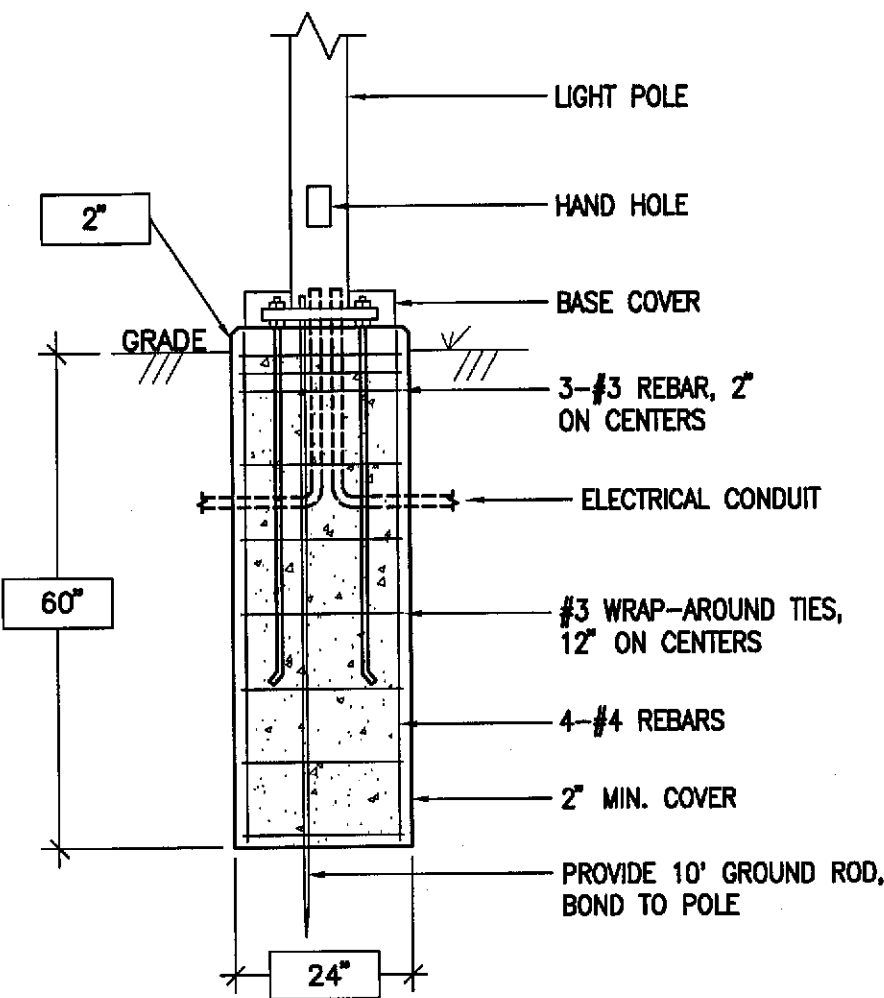
- Prior to the installation, an inspection to verify delivery of the approved lamp, fixture, and pole must be completed.
- Before a Certificate of Occupancy may be issued, a post-installation inspection by the Issuing Authority must verify compliance with the approved plan depicting the initial foot-candle levels. **Individual points may not vary more than 20 percent from the initial light level on the approved plan.** Any deviation below the Code requirements for the plan must be remedied prior to the issuance of a Certificate of Occupancy.

CALL (952) 563-8926 for an inspection.

EXTERIOR AND PARKING RAMP LIGHTING
You must use the City Planner signed/approved photometric set for all directives.
***Any changes to types of fixtures, poles, location of fixtures lighting levels etc, without re-review by the City Planner may result in the Certificate of Occupancy for the project in being denied until the lighting is brought into conformance with the approved plans.

2 LIGHT FIXTURE BASE DETAIL

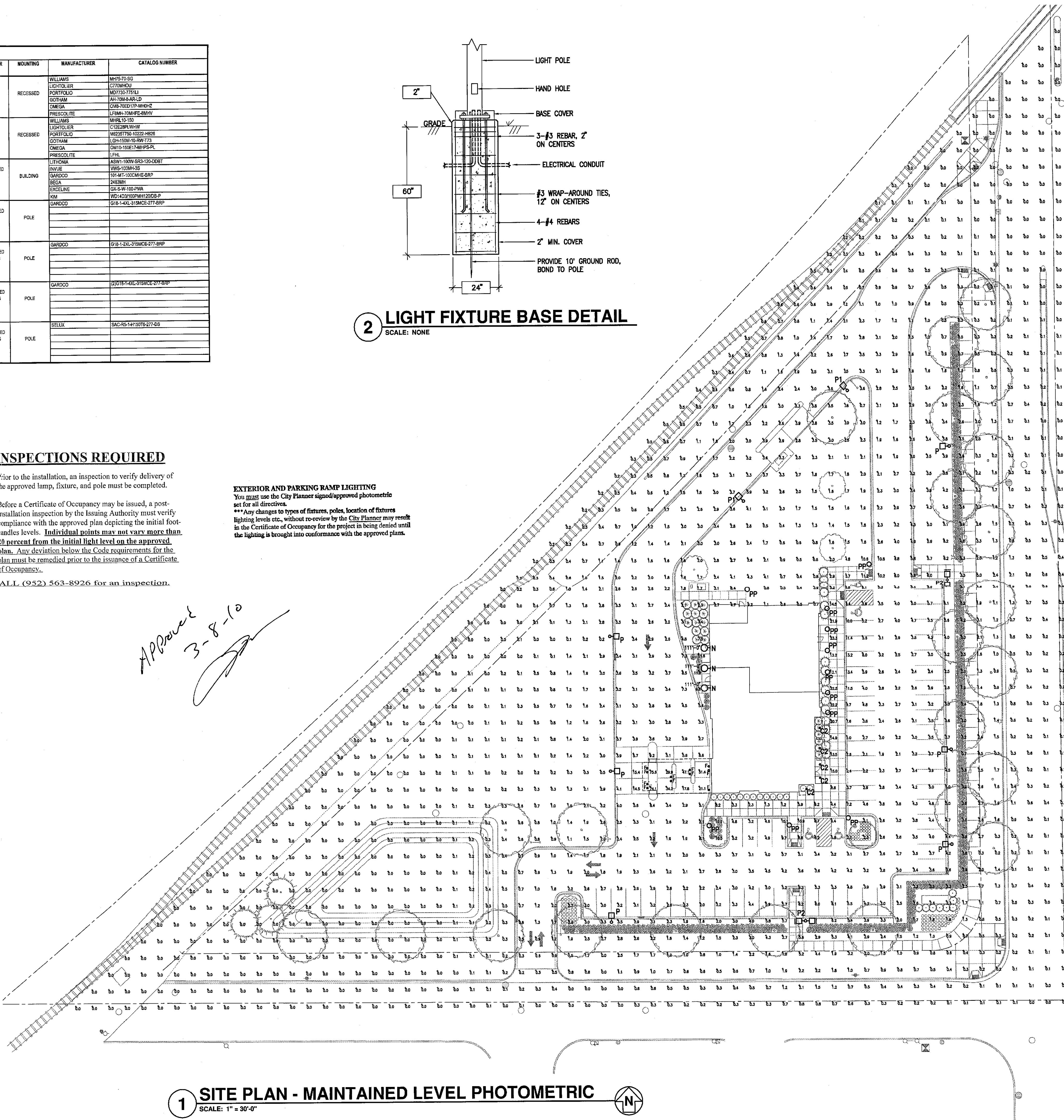
SCALE: NONE



Calculation Summary						
Label	CalcType	Units	Avg	Max	Min	Avg/Min
Parking_Retail	Illuminance	Fc	3.98	11.6	1.8	2.21
Parking_office	Illuminance	Fc	3.24	61.1	0.3	10.80
Pedestrian	Illuminance	Fc	10.23	28.6	0.8	12.79
Entry_1	Illuminance	Fc	22.21	29.9	12.1	1.84
Exit_1	Illuminance	Fc	13.13	15.5	9.4	1.40
Exit_2	Illuminance	Fc	9.93	10.3	9.4	1.06

1 SITE PLAN - MAINTAINED LEVEL PHOTOMETRIC

SCALE: 1" = 30'-0"



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Minneapolis Phoenix Tampa

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Minneapolis, MN 55347
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PROJECT

**RICHFIELD/
BLOOMINGTON
CREDIT UNION**

NEW BUILDING

BLOOMINGTON OFFICE
BLOOMINGTON, MINNESOTA

ISSUED SET December 15, 2009

REVISIONS

DATE	NO.	CITY COMMENTS
3-1-10		

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR 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

Matthew W. Fults
Matthew W. Fults

40887 REG. NO. 12/15/09 DATE

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consulting engineers
10401 Bren Road East
Minneapolis, MN 55343
ph: 952-930-0050
fax: 952-930-0777
www.epinc.net

SITE PLAN -
MAINTAINED LEVEL PHOTOMETRIC

DRAWN BY: MAB CHECKED BY: MWF

E0.2



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Minneapolis Tampa Bismarck

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Minneapolis, MN 55347
Tel: 952.278.8880
Fax: 952.278.8822

PROJECT

RBCU

BUILDING ADDITION

LYNDALE OFFICE
BLOOMINGTON, MINNESOTA

ISSUED SET	January 31, 2019
REVISIONS	

DATE	NO.	
03/19/19		CITY COMMENTS
05/10/19		CITY COMMENTS

[illegible]

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Matthew W. Fults

40887	January 31, 2019
REG. NO.	DATE



SITE PLAN - DETAILS

DRAWN BY: MAB CHECKED BY: MWF

E0.2B

3107.003A
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LIGHT FIXTURE SCHEDULE									
FXT. TYPE	DESCRIPTION	VOLTAGE	LAMPS		VA/ FXT.	MANUFACTURER	CATALOG NUMBER	NOTES	
			TYPE	QTY./ FXT.					
C2	6" LED DOWNLIGHT, DIFFUSE REFLECTOR. 2000 NOMINAL DELIVERED LUMENS. INDIVIDUAL DIODES SHALL NOT BE VISIBLE. DAMP LOCATION RATED.	277	LED 3000K	1	22	PRESCOTT GOTHAM ATLANTIC INTENSE PATHWAY	17881-4U/SL-20L-MFC-LP5L6 200-35/25-64R-MO-LJ LED6-3LM20-HZ SS6G4DR-L3-1630-HZ-SF ECPWF23-2000-3RELEMB-HAZ		
N1	LED WALL PACK, TYPE II DISTRIBUTION, 3000 NOMINAL DELIVERED LUMENS. SILVER IN COLOR.	277	LED 3000K	1	16	INALE NO EQUALS			
P1	EXISTING TO REMAIN LIGHT POLE WITH NEW HEADS. DUAL HEAD, TYPE IV DISTRIBUTION LED POLE MOUNTED FIXTURE, SEGMENTED OPTICS. ROTATE OPTICS AS SHOWN. 30" SQUARE ALUMINUM POLE W/ VIBRATION DAMPERS. SILVER IN COLOR. NEW HEADS AND POLE SHALL HAVE MATCHING FINISH.	277	315W MASTERCOLOR ELITE (MCE) 3K 36200 LUMENS	2	682	GARCOO NO EQUALS	(2) G18-1-4XL-315MCE-277-NP		
P2	DUAL HEAD, TYPE IV DISTRIBUTION POLE MOUNTED FIXTURE, SEGMENTED OPTICS. ROTATE OPTICS AS SHOWN. 30" SQUARE ALUMINUM POLE W/ VIBRATION DAMPERS. SILVER IN COLOR. HEAD AND POLE SHALL HAVE MATCHING FINISH. PROVIDE CONCRETE BASE PER DETAIL. PROVIDE BASE COVER.	277	315W MASTERCOLOR ELITE (MCE) 3K 36200 LUMENS	2	682	GARCOO NO EQUALS	(2)G18-1-4XL-315MCE-277-NP		
EP	EXISTING TO REMAIN LIGHT POLE. TYPE IV DISTRIBUTION POLE MOUNTED FIXTURE, SEGMENTED OPTICS. 30" SQUARE ALUMINUM POLE. SILVER IN COLOR.	277	315W MASTERCOLOR ELITE (MCE) 3K 36200 LUMENS	1	341	GARCOO	G18-1-4XL-315MCE-277-NP W/ HARPO SSSA30F6-4-R-10		
EP1	EXISTING TO REMAIN LIGHT POLE. TYPE II DISTRIBUTION POLE MOUNTED FIXTURE, SEGMENTED OPTICS. 30" SQUARE ALUMINUM POLE. SILVER IN COLOR.	277	315W MASTERCOLOR ELITE (MCE) 3K 36200 LUMENS	1	341	GARCOO	G18-1-2XL-315MCE-277-NP W/ HARPO SSSA30F6-4-R-10		
EP2	EXISTING TO REMAIN LIGHT POLE. DUAL HEAD TYPE IV DISTRIBUTION POLE MOUNTED FIXTURE, SEGMENTED OPTICS. 30" SQUARE ALUMINUM POLE. SILVER IN COLOR.	277	315W MASTERCOLOR ELITE (MCE) 3K 36200 LUMENS	2	682	GARCOO	(2) G18-1-4XL-315MCE-277-NP W/ HARPO SSSA30F6-4-R-10		
EPP	EXISTING TO REMAIN PEDESTRIAN SCALE LIGHT POLE. TYPE IV DISTRIBUTION POLE MOUNTED FIXTURE, SEGMENTED OPTICS. 12" ROUND ALUMINUM POLE. SILVER IN COLOR.	277	150W T6 G12 CELRANC METAL HALIDE 3K 14000 LUMENS	1	168	SELUX	SAC-R5-1-H150T6-830-SV-277-JS W/X35-12-SV-BCS POLE		
RP1	EXISTING TO BE RELOCATED LIGHT POLE. PROVIDE NEW CONCRETE BASE. TYPE II DISTRIBUTION POLE MOUNTED FIXTURE, SEGMENTED OPTICS. 30" SQUARE ALUMINUM POLE. SILVER IN COLOR.	277	315W MASTERCOLOR ELITE (MCE) 3K 36200 LUMENS	1	341	GARCOO	G18-1-2XL-315MCE-277-NP W/ HARPO SSSA30F6-4-R-10		
GENERAL NOTES:									
A. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE UNIT'S MEETING FIXTURE SCHEDULE DESCRIPTION AND SPECIFICATION REQUIREMENTS. THE FIXTURE CATALOG NUMBER MAY NOT BE COMPLETE; USE ONLY AS A GUIDELINE.									
B. ENGINEER RESERVES THE RIGHT TO REQUEST A WORKING SAMPLE OF ANY FIXTURE PRIOR TO SHOP DRAWING RELEASE.									
C. SCHEDULE IS FOR CITY REVIEW ONLY. SUBMIT SHOPS BASED ON FULL LIGHT FIXTURE SCHEDULE.									

4 LIGHT FIXTURE POLE BASE DETAIL

2 **FIXTURE TYPE "C2"**
NO SCALE

3 **FIXTURE TYPE "N1"**
NO SCALE

1 **FIXTURE TYPE "P" SERIES**

DESCRIPTION

The classic lines and sophisticated construction of the Vision Wall luminaire makes it an ideal complement to architectural site design. Offering LED technology across the site, flood and well mounted features the Vision series provides true family scaling in both physical form and lumens capability for architectural site lighting applications. UL-listed for use in wet locations.

SPECIFICATION FEATURES

Construction
HOUSING: One piece die-cast aluminum construction for precise tolerance control and repeatability in manufacturing. Integral aluminum heat sink provides superior thermal heat transfer in 40°C ambient environments. DOOR: Die-cast aluminum door maintains a nominal .25" thickness and features concealed hinge to the housing. Door frame is hinged and secured to the housing via four captive stainless steel Allen head fasteners.

Optics
Choice of six patented, high efficiency AxiacLED Optic distributions. Optics are precisely designed to shape light output, maximizing efficiency and application spacing. AxiacLED Optic technology creates consistent distributions with the scalability to meet customized application requirements. Offered Standard 4000K or 2700K CCT minimum 70 CRI. Optional 3000K CCT, 70 or 80 CRI.

DIMENSIONS

Catalog #	Type
Project	N1
Comments	Date
Prepared by	

Electrical
LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficiency, and prolonged life. Standard drivers feature electronic universal voltage: 110V-277V 60/50Hz, 3A/9.6W or 480V class operation. 480V is compatible for use with 480V systems only. Greater than 0.9 power factor, less than 20% harmonic distortion, and is suitable for operation in 40°C to 100°F/100A common.

All fixtures are made with die-cast aluminum for mold surge protection. LightHABs feature an IP68 enclosure rating and maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21.

Mounting
Standard zinc plated attachment plate for flexibility to 4" x 8oz. Two threaded studs with locking nuts for mounting plate fixing via keyhole slots on backside of housing. Mounting plate features one-piece EPDM gasket on fixture side of plate to firmly seal fixture wall surface, preventing entry of moisture and particulates. Optional mounting arrangements include an embedded mount bracket, or cast aluminum surface conduct adapter, each available as accessories.

Finish
Housing is finished in five-stage super premium TIG powder coated paint, 2.5 mil nominal thickness for superior protection against fade and wear. The LightHAB™ cover plates are standard white and may be specified to match finish of luminaire housing standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Contact Outdoor Architectural Colors brochure for a complete selection.

Warranty
Five year warranty.

VWM
VISION WALL
MEDIUM LED

1 - 5 LightHABs
Solid State LED

ARCHITECTURAL WALL LUMINAIRE

CERTIFICATION DATA
UL, cUL, ENEC
UL Classified
LM78 LM80 Compliant
80-90%
ENERGY DATA
9.6Watt/LED Driver
0.9 Power Factor
120-277V/50 & 60Hz, 3A/9.6W, 480V/6W
40°C Maximum Temperature
40°C Ambient Temperature Rating

SHIPPING DATA
Approximate Net Weight
65 lbs. (30.40 kg.)

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Invue

Catalog #		Type
Project		N1
Comments		Date
Prepared by		



moisture and particulates. Optional mounting arrangements include an embedded mount bracket, or cast aluminum surface conduit adapter, each available as accessories.

Finish
Housing is finished in five-stage super premium TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. The LightBAR® cover plates are standard white and may be specified to match finish of luminaire housing standard colors include black, bronze, grey, white, dark titanium and graphite metallic. RAL and custom color matches available. Consult Outdoor Architectural Colors brochure for a complete selection.

**VWVV
VISION WALL
MEDIUM LED**

1-5 LightBARs

Warranty
Five-year warranty.

CERTIFICATION DATA
 U.L./eUL Listed
 IP66 LightBARS
 LM79 / LM80 Compliant

ENERGY DATA
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60Hz, 347V/60Hz

SHIPPING DATA
Approximate Net Weight
45 lbs. (20.45 kg.)

TD#14081E
2017-05-07 10:43:46
