Zoning Review Only September 5, 2018

Lighting Plan Approved

PH:763.684.1548 FAX:763.682.9048
KRAUS-ANDERSON

On-Site Lighting & Survey, LLC

1111 HIGHWAY 25 NORTH SUITE 201 **BUFFALO MN 55313**

VALLEY WEST **CENTER**

10520-10608 FRANCE AVENUE BLOOMINGTON. MN 55431

RICHARD L.J. KLUZAK

PROFESSIONAL ENGINEER

1111 HIGHWAY 25 NORTH SUITE 201 BUFFALO MN 55313

> PH:763.682.7128 FAX:763.682.904**8**

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.

Date: 09/05/2018 License #: 23463

DATE INIT DESCRIPTION 1 02.13.2018 NM/ JCM ADDED FIXTURES
2 09.05.2018 JLS INITIAL LED PLAN ADDED

EXISTING PHOTOMETRIC SCHEDULES & DETAILS

KA180129

01.29.2018

N.MOLENDA

J.MACKEY

SL1.1 2

FOR ADDITIONAL LIGHTING INFORMATION CONTACT:
On-Site Lighting & Survey, LLC
& Survey, LLC
PH: 763.684.1548

BASED ON THE INFORMATION PROVIDED, ALL DIMENSIONS AND LUMINAIRE LOCATIONS SHOWN REPRESENT RECOMMENDED POSITIONS. THE ENGINEER AND/OR ARCHITECT MUST DETERMINE APPLICABILITY OF THE LAYOUT TO EXISTING OR FUTURE FIELD

THE LIGHTING PATTERN REPRESENTS ILLUMINATION LEVELS CALCULATED FROM LABORATORY DATA TAKEN UNDER THE CONTROLLED CONDITIONS UTILIZING

CURRENT INDUSTRY STANDARD LAMP RATINGS IN ACCORDANCE WITH ILLUMINATING ENGINEERING SOCIETY APPROVED METHODS. ACTUAL PERFORMANCE OF ANY MANUFACTURER'S LUMINAIRE MAY VARY DUE TO VARIATION IN ELECTRICAL VOLTAGE, TOLERANCE IN LAMPS, AND OTHER VARIABLE FIELD CONDITIONS.

Calculation Summary							
Label	Avg	Max	Min	Avg/Min	Max/Min	# Pts	%PtsRange
All Calculation Points	1.05	11.1	0.0	N.A.	N.A.	1018	N.A.
Parking Bouncing-Ton	0.77	2.7	0.2	3.85	13.50	84	N.A.



O.4

 $\overset{+}{0}.6$ $\overset{+}{0}.5$ $\overset{+}{0}.4$ $\overset{+}{0}.3$ $\overset{+}{0}.3$ $\overset{+}{0}.3$

 $\stackrel{+}{1}.1$ $\stackrel{+}{1}.0$ $\stackrel{+}{0}.9$ $\stackrel{+}{0}.7$ $\stackrel{+}{0}.6$

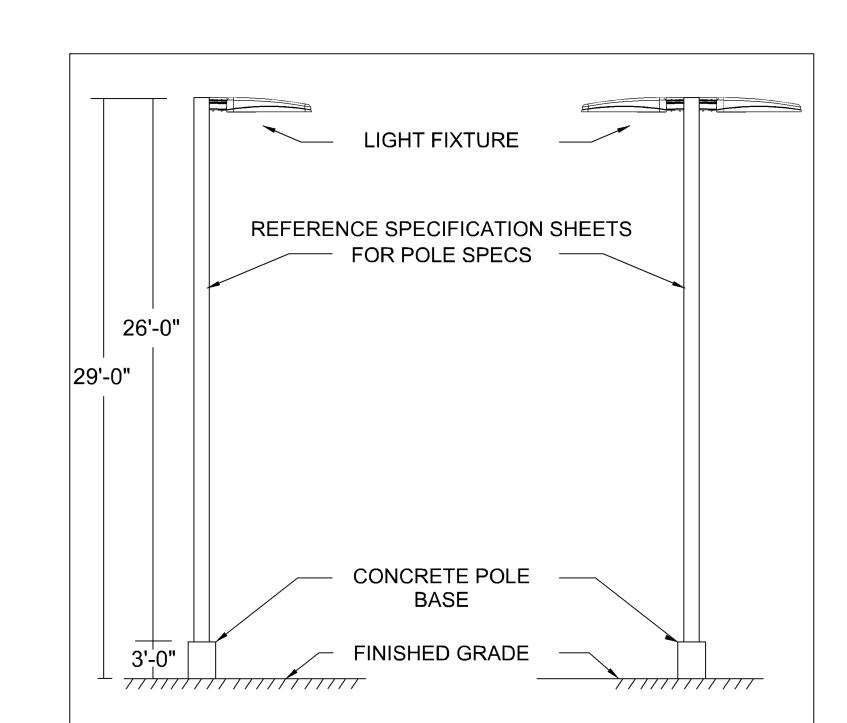
 $\overset{+}{0}.8$ $\overset{+}{0}.7$ $\overset{+}{0}.6$ $\overset{+}{0}.5$ $\overset{+}{0}.4$ $\overset{+}{0}.4$ $\overset{+}{0}.4$



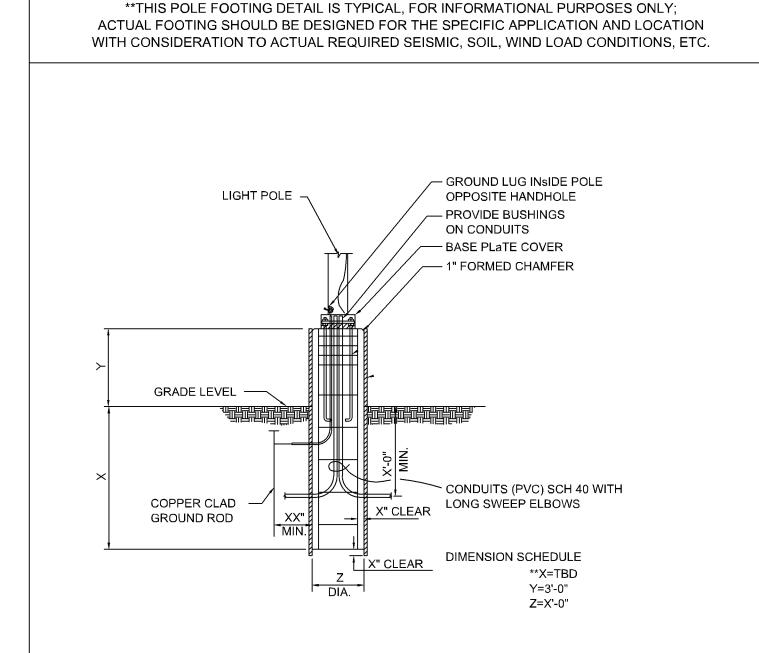


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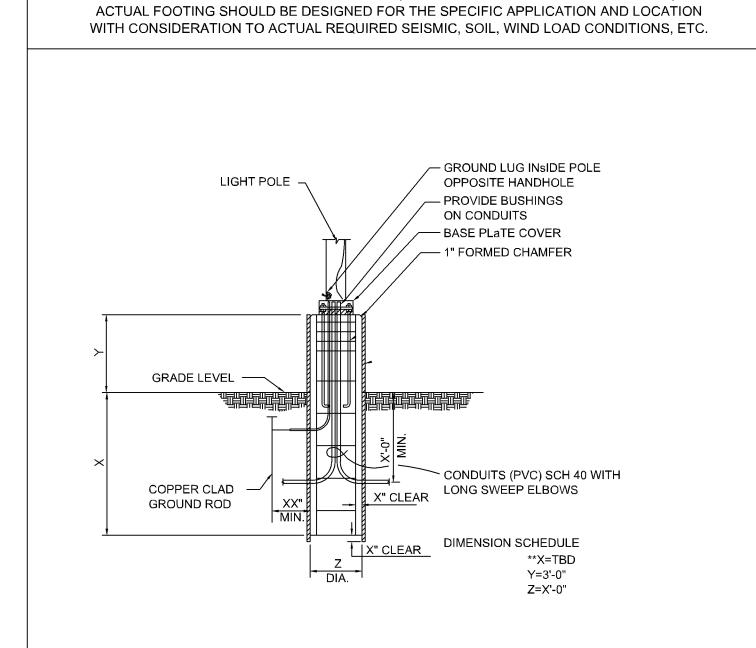
Lighting Plan Approve Zoning Review Only September 5, 2018







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(2)	LIGHT POLE BASE DETAIL (TYPICAL)
(3)	SCALE: NTS

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FOR ADDITIONAL LIGHTING INFORMATION CONTACT:
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PH: 763.684.1548

Luminaire Schedule

Symbol	Qty	Label	Arranged	TLL	LLF	Description	BUG Rating
	1	Mb-2	BACK-BACK	N.A.	0.81	New Base, Pole, Fixt 391W LED T5WQ 29' Mtg Ht (4000K/44347 Lumens/1000mA) EATON_McGraw-Edison_GLEON-AF-07-LED-E1-5WQ	B5-U0-G5

2.0	2.0	2.3	⁺ 2.7	⁺ 3 . 4	4.0	3.5	2.7
2.6	2.6	2.9	⁺ 3.4	⁺ 3 . 7	⁺ 3.4	⁺ 3.0	2.5
3.1	3.2	3.6	⁺ 3.8	⁺ 3.6	3.3	2.9	2.7
⁺ 3.6	⁺ 3.9	4.2	4.2	4.0	⁺ 3.6	⁺ 3.3	⁺ 3.0
4.1	4.5	⁺ 4 . 8	⁺ 4.9	⁺ 4.7	4.3	⁺ 3.8	⁺ 3.3
4.3	4.9	5.2	5.3	52	4.8	4.2	⁺ 3.5
4.5	5.1	⁺ 5 . 4	5.8	⁺ 5.5	5	7. 6	⁺ 3.7
4.5			6.2				
4.4	5.0	5.3	5.6	5 . 4	V 19	1.5	⁺ 3.7
4.2	4.7	⁺ 5.0	5.1	5.0	⁺ 4. 7	4.1	⁺ 3.5
4.0	4.3	4.5	⁺ 4.6	⁺ 4 . 4	4.0	⁺ 3.7	⁺ 3.2
⁺ 3.4	⁺ 3.8	⁺ 3.9	⁺ 3.9	⁺ 3.7	⁺ 3.4	⁺ 3.2	⁺ 2.9
2.8			⁺ 3.6				
2.3	2.5	⁺ 3.0	⁺ 3.5	⁺ 3 . 7	3.4	2.9	2.4
1.9	2.0	⁺ 2.3	⁺ 2.8	⁺ 3 . 6	4.1	⁺ 3.6	2.8

Calculation Summary				
Label	Avg	Max	Min	Avg/Min
All Calculation Points	1.11	11.1	0.0	N.A.
Parking Bouncing-Ton	4.13	6.2	2.0	2.07

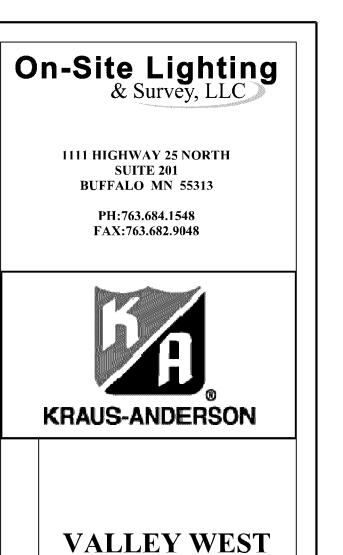
Max/Min # Pts %PtsRange

1018 N.A.

N.A.

LED PHOTOMETRIC STAT AREA





CENTER

10520-10608 FRANCE AVENUE BLOOMINGTON. MN 55431

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PROFESSIONAL ENGINEER

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LED

PHOTOMETRIC

SCHEDULES

& DETAILS

KA180129

01.29.2018

N.MOLENDA

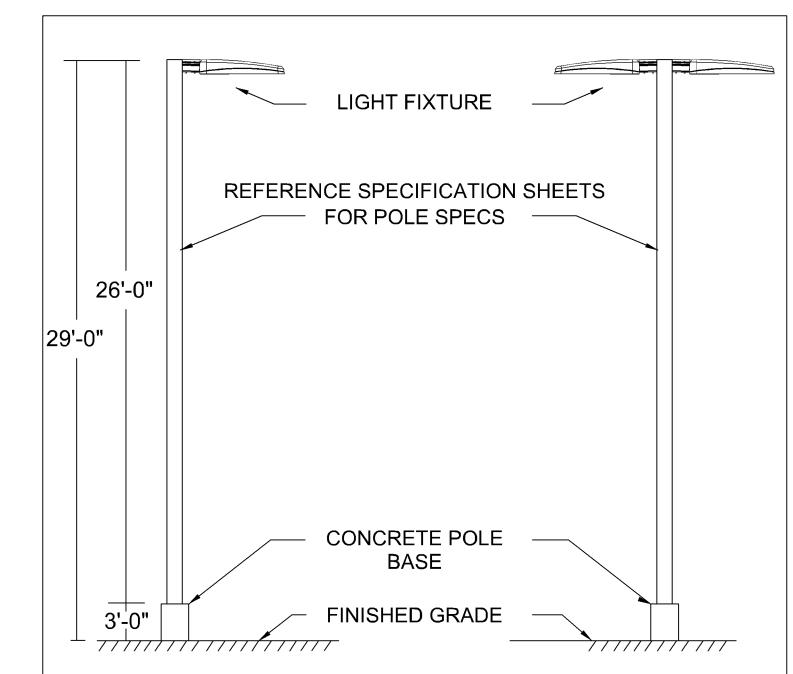
J.MACKEY

SL3.1

DATE INIT DESCRIPTION

State of Minnesota.

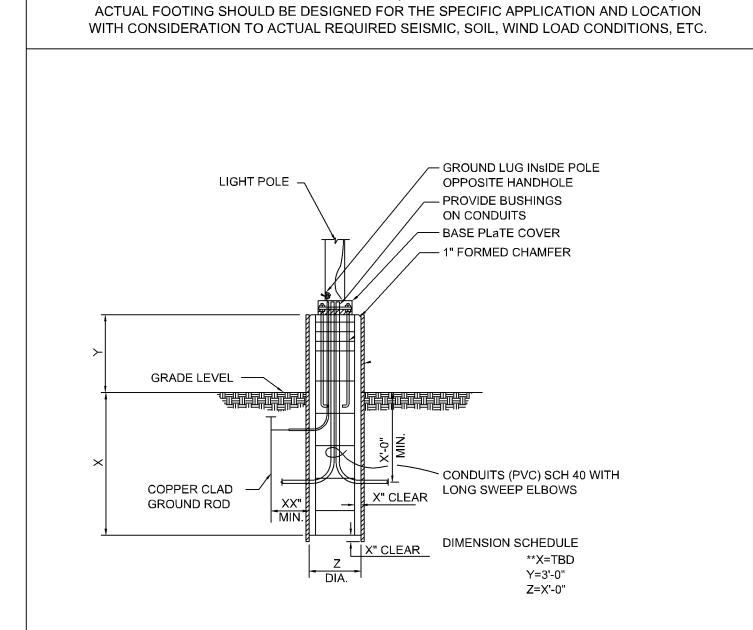
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BUG Rating

B5-U0-G5

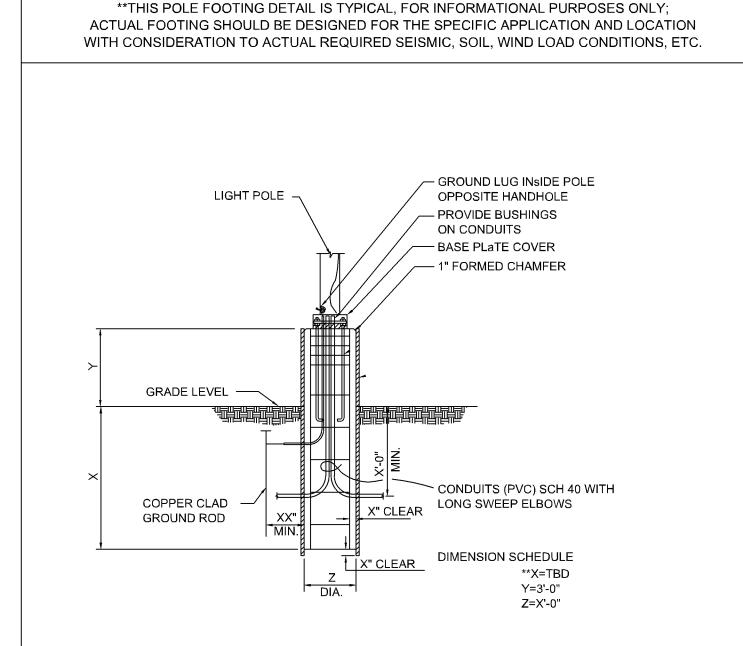




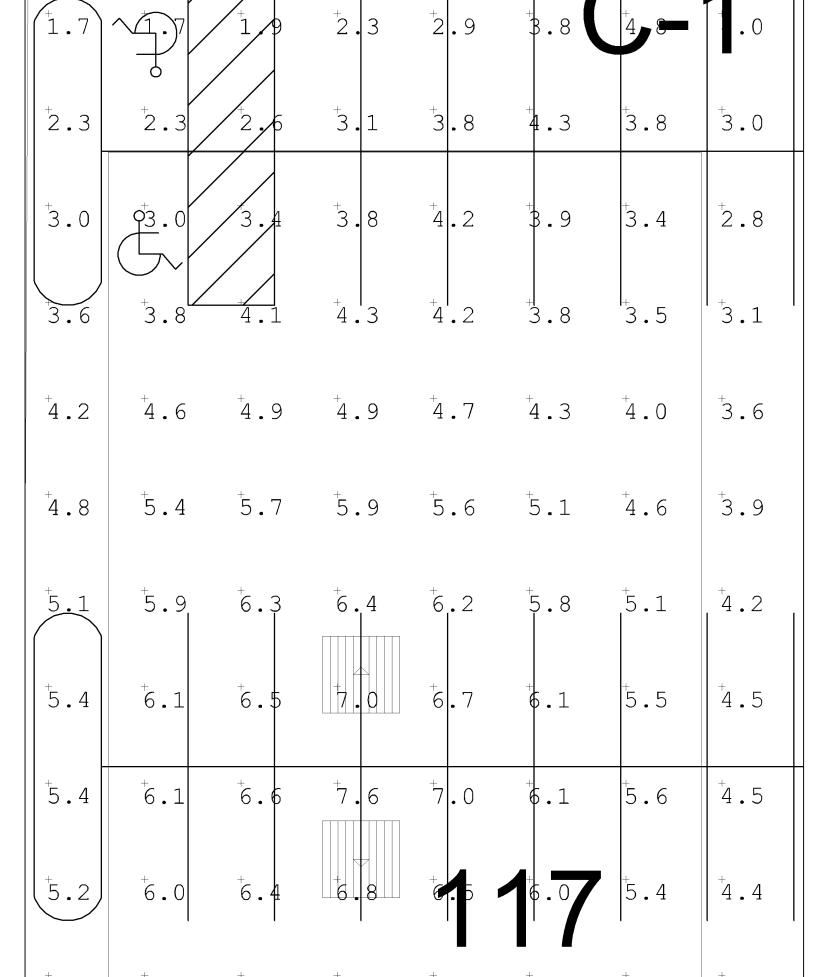
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Lighting Plan Approved





(³ ⊀)—	LIGHT POI	LE BASE D	ETAIL (TY	(PICAL)	



Arranged

BACK-BACK

TLL

LLF Description

5.2	6.0	6 . 4	7.0	+ 5	16.07	5.6	4.
			⁺ 6.2	_			4.
4.7	5.1	⁺ 5.3	⁺ 5.5	÷	1b-	- 2	⁺ 3.
4.0	4.4	⁺ 4.6	4.5	4.3	4.0	*3.8	+3.
3.3			4.1		3. 7	3.3	3.
2.7	2.9	⁺ 3.4	⁺ 3 . 9	4.1	3.8	⁺ 3.3	2.

Calculation Summary							
Label	Avg	Max	Min	Avg/Min	Max/Min	# Pts	%PtsRange
All Calculation Points	1.13	11.1	0.0	N.A.	N.A.	1018	N.A.
Parking Bouncing-Ton	4.88	7.6	2.3	2.12	3.30	84	N.A.

0.99 New Base, Pole, Fixt 391W LED T5WQ 29' Mtg Ht (4000K/44347 Lumens/1000mA) EATON_McGraw-Edison_GLEON-AF-07-LED-E1-5WQ



Luminaire Schedule



On-Site Lighting & Survey, LLC 1111 HIGHWAY 25 NORTH SUITE 201 **BUFFALO MN 55313** PH:763.684.1548 FAX:763.682.9048 **KRAUS-ANDERSON** VALLEY WEST **CENTER** 10520-10608 FRANCE AVENUE BLOOMINGTON. MN 55431 RICHARD L.J. KLUZAK PROFESSIONAL ENGINEER 1111 HIGHWAY 25 NORTH SUITE 201 BUFFALO MN 55313 PH:763.682.7128 FAX:763.682.904**8** 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. Date: 09/05/2018 License #: 23463 # DATE INIT DESCRIPTION

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INITIAL LED **PHOTOMETRIC SCHEDULES** & DETAILS

KA180129 01.29.2018

N.MOLENDA

J.MACKEY

SL3.3