

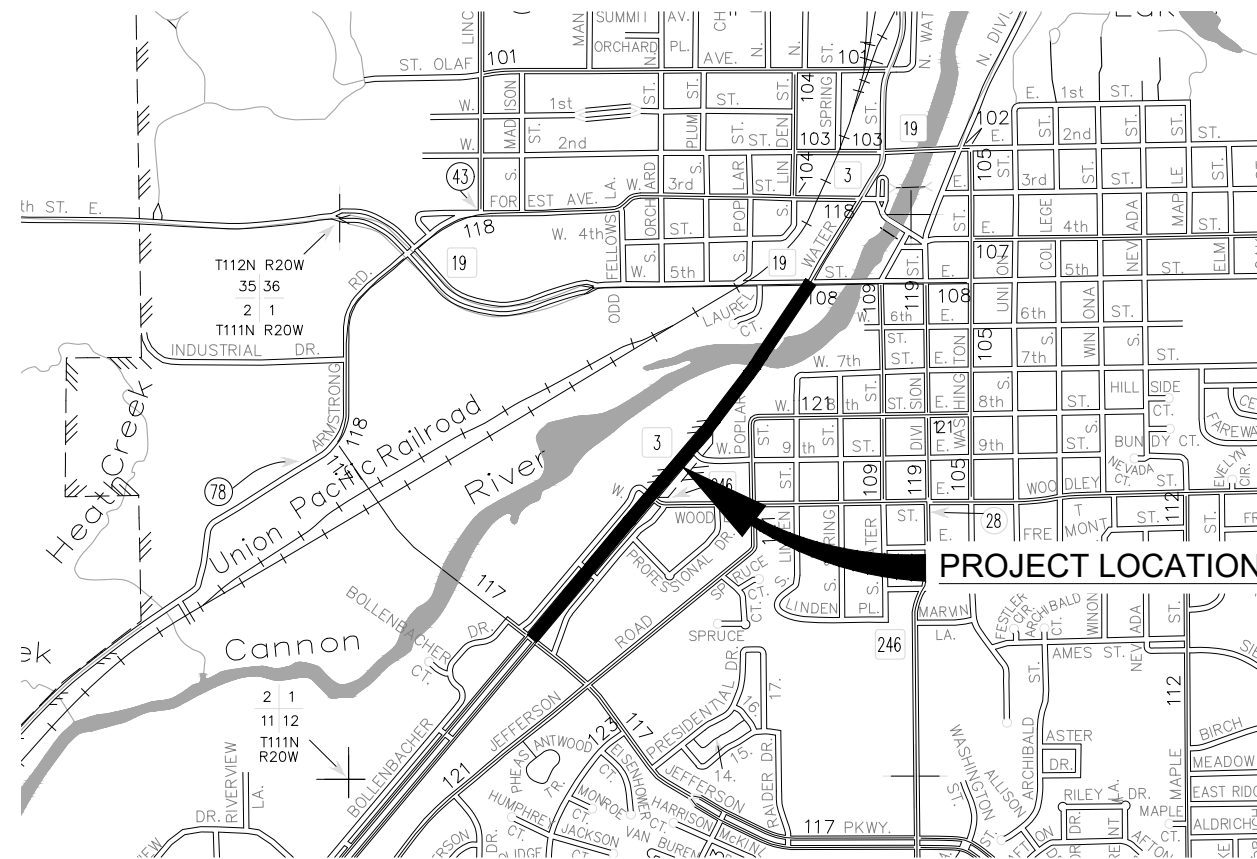
# CITY OF NORTHFIELD, MINNESOTA

## CONSTRUCTION PLANS FOR

### STREET LIGHTING IMPROVEMENTS

# TH 3 LIGHTING IMPROVEMENTS PHASE II

CITY PROJECT NO. STRT2026-A92



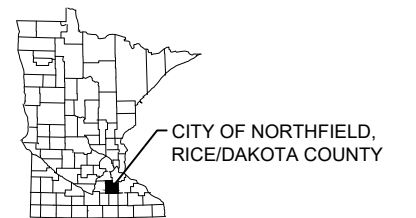
GOVERNING SPECIFICATIONS  
THE 2021 EDITION OF THE CITY OF NORTHFIELD TECHNICAL SPECIFICATIONS SHALL GOVERN EXCEPT AS MODIFIED BY THE SPECIFICATIONS FOR THIS PROJECT.

ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES AND STATEMENT OF ESTIMATED QUANTITIES
3	DETAILS
4-6	LIGHTING PLAN
7	WIRING DIAGRAM

THIS PLAN CONTAINS 7 SHEETS

### PROJECT LOCATION



APPROVED:

CITY ENGINEER OF NORTHFIELD

DATE

NORTHFIELD, MINNESOTA



I HEREBY CERTIFY THAT THIS PLAN 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.

*John P. Carlson* Signature  
JOHN P. CARLSON, P.E.

Date: 04/07/2026 Lic. No. 24001

FILE NO.

NFIEL 187488

1 of 7

NOTE:  
THE SUBSURFACE UTILITY QUALITY INFORMATION IN THIS PLAN IS LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02 ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."

THE CONTRACTOR SHALL CALL THE GOPHER STATE ONE CALL SYSTEM AT 811 BEFORE COMMENCING EXCAVATION.



Know what's below.  
Call before you dig.

### EXISTING

- RIGHT OF WAY
- PERMANENT EASEMENT
- PROPERTY LINE
- △<sup>XX</sup> HORIZONTAL CONTROL POINT
- ×<sup>BM</sup> BENCHMARK
- <sup>#</sup> SURVEY MARKER
- <sup>#</sup> SOIL BORING
- SANITARY SEWER AND MANHOLE
- FM LIFT FORCE MAIN AND LIFT STATION
- CO SANITARY SEWER SERVICE & CLEANOUT
- WATER MAIN, HYDRANT, VALVE AND MANHOLE
- WATER SERVICE AND CURB STOP BOX
- << STORM SEWER, MANHOLE AND CATCH BASIN
- >> CULVERT AND APRON ENDWALL
- G GAS MAIN, VALVE, VENT AND METER
- HH HANDHOLE
- FO BURIED FIBER OPTIC CABLE AND MANHOLE
- T-BUR BURIED PHONE CABLE, PEDESTAL AND MANHOLE
- TV-BUR BURIED TV CABLE, PEDESTAL AND MANHOLE
- P-BUR BURIED ELECTRIC CABLE, PEDESTAL, MANHOLE, TRANSFORMER AND METER
- P-OH OVERHEAD WIRE, POLE AND GUY WIRE
- ★ LIGHT POLE
- ⊠ TRAFFIC SIGNAL
- ⊡ STREET NAME SIGN
- ⊢ SIGN (NON STREET NAME)
- ||||| RAILROAD TRACKS
- <sup>6"</sup> DECIDUOUS AND CONIFEROUS TREE
- <sup>XX</sup> BUSH / SHRUB AND STUMP
- ~~~~~ EDGE OF WOODED AREA
- WET WETLAND
- BUILDING
- X FENCE (UNIDENTIFIED)
- X BARBED WIRE FENCE
- XC CHAIN LINK FENCE
- XE ELECTRIC WIRE FENCE
- XWD WOOD FENCE
- XWW WOVEN WIRE FENCE
- PLATE BEAM GUARDRAIL
- CABLE GUARDRAIL
- O<sup>P</sup> POST / BOLLARD
- RETAINING WALL

### PROPOSED

- 6+00 STREET CENTERLINE
- RIGHT-OF-WAY
- PERMANENT EASEMENT
- TEMPORARY EASEMENT
- CONSTRUCTION LIMITS
- SANITARY SEWER, BULKHEAD AND MANHOLE
- FM FORCE MAIN
- CO SANITARY SERVICE AND CLEANOUT
- WATER MAIN, TEE, HYDRANT, BULKHEAD AND VALVE
- WATER VALVE MANHOLE, REDUCER, BEND AND CROSS
- WATER SERVICE AND CURB STOP BOX
- STORM SEWER, MANHOLE AND CATCH BASIN
- CULVERT AND APRON ENDWALL
- DRAIN TILE
- DITCH / SWALE
- RIPRAP
- STREET NAME SIGN
- SIGN (NON STREET NAME)
- RETAINING WALL

**GENERAL CONSTRUCTION NOTES:**

1. ALL WORK SHALL CONFORM TO APPLICABLE LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS.
2. CONSTRUCTION LIMITS ARE THE RIGHT OF WAY UNLESS NOTED OTHERWISE.
3. THE CONTRACTOR SHALL HAVE ALL UTILITIES LOCATED IN THE FIELD BEFORE DIGGING. THERE WILL BE NO ADDITIONAL COMPENSATION TO THE CONTRACTOR FOR WORKING AROUND EXISTING UTILITIES.
4. TRAFFIC CONTROL SHALL COMPLY WITH MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. SEE FIELD MANUAL LATEST VERSION.
5. WHERE SECTION OR SUBSECTION MONUMENTS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKS AND MONUMENTS UNTIL THE OWNER AND AUTHORIZED SURVEYOR OR AGENT HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATION.
6. WHENEVER THE WORD "INCIDENTAL" IS USED IN THIS PLAN SET, IT SHALL MEAN NO DIRECT COMPENSATION WILL BE MADE.
7. CONTRACTOR SHALL PROVIDE ACCESS TO ALL PROPERTIES, UNLESS ALTERNATE PROVISIONS ARE APPROVED BY THE PROPERTY OWNER AND THE ENGINEER.
8. CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS A MINIMUM OF 48 HRS IN ADVANCE OF DISRUPTION TO SERVICE.
9. CONTRACTOR SHALL SUPPLY A TRASH CONTAINER ON SITE FOR CONSTRUCTION DEBRIS/TRASH. ABSOLUTELY NO TRASH TO BE DISCARDED IN EXCAVATIONS. CONTRACTOR SHALL ENSURE TRASH IS COLLECTED FROM WORK ACTIVITIES AND DISCARDED IN APPROPRIATE TRASH CONTAINERS DAILY.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING AND REPAIRING ALL EXISTING AREAS, PAVEMENTS, STRUCTURES, OR OTHER FACILITIES DAMAGED DURING CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER CONDITIONS.
11. UNDERGROUND UTILITY INVESTIGATION AND SITE RESTORATION IS CONSIDERED INCIDENTAL.
12. THE CONTRACTOR SHALL TAKE SPECIAL CARE NOT TO DAMAGE ANY TREES OR BUSHES. ANY ROOTS EXPOSED OR REMOVED BY EXCAVATION SHALL IMMEDIATELY BE SAWCUT AND SEALED TO PREVENT FURTHER DAMAGE TO THE TREE. ROOTS SHALL NOT BE LEFT EXPOSED WITHOUT SOIL COVER FOR MORE THAN 24 HOURS.

MnDOT STANDARD PLATES	
PLATE NO.	DESCRIPTION
8000K	TEMPORARY CHANNELIZERS (3 SHEETS)

**TURF ESTABLISHMENT NOTES:**

1. CONTRACTOR SHALL TAKE CARE TO MINIMIZE PROJECT DISTURBANCE.
2. WHEN A WATER TRUCK IS REQUESTED BY THE ENGINEER, THE CONTRACTOR SHALL RESPOND WITHIN 4 HOURS. IF THE CONTRACTOR DOES NOT COMPLY, A \$250 PENALTY WILL BE ASSESSED PER INCIDENT. (INCIDENTAL)
3. WHEN STREET SWEEPING IS REQUESTED BY THE OWNER/ENGINEER, THE CONTRACTOR SHALL RESPOND WITHIN 4 HOURS. IF THE CONTRACTOR DOES NOT COMPLY, A \$250 PENALTY WILL BE ASSESSED PER INCIDENT. (INCIDENTAL)

**TRAFFIC CONTROL NOTES:**

1. CONTRACTOR SHALL SUPPLY A TRAFFIC CONTROL PLAN FOR ALL WORK.
2. TRAFFIC CONTROL PLANS SHALL BE SUBMITTED TO THE ENGINEER, RICE COUNTY, AND MNDOT WITH THE PERMIT SUBMITTAL FOR THE WORK IN THE RIGHT OF WAY OF RICE COUNTY AND MNDOT. NO WORK SHALL COMMENCE UNTIL PERMITS HAVE BEEN APPROVED AND EXECUTED. CONTRACTOR SHALL PROVIDE THE CITY AND ENGINEER WITH A COPY OF THE APPROVED PERMIT FROM THE COUNTY AND MNDOT.
3. ACCESS MUST BE PROVIDED AT ALL TIMES TO BUSINESSES.

STATEMENT OF ESTIMATED QUANTITIES			
Item No.	DESCRIPTION	Unit	PROJECT TOTALS
2021.501	MOBILIZATION	LS	1
2104.502	REMOVE LIGHTING UNIT	EACH	32
2545.502	LIGHTING UNIT TYPE SPECIAL 1	EACH	31
2545.502	LIGHTING UNIT TYPE SPECIAL 2	EACH	1
2563.601	TRAFFIC CONTROL	LS	1
2575.501	TURF ESTABLISHMENT	LS	1

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Designed By	AKF	-		
Checked By	AKF	-		

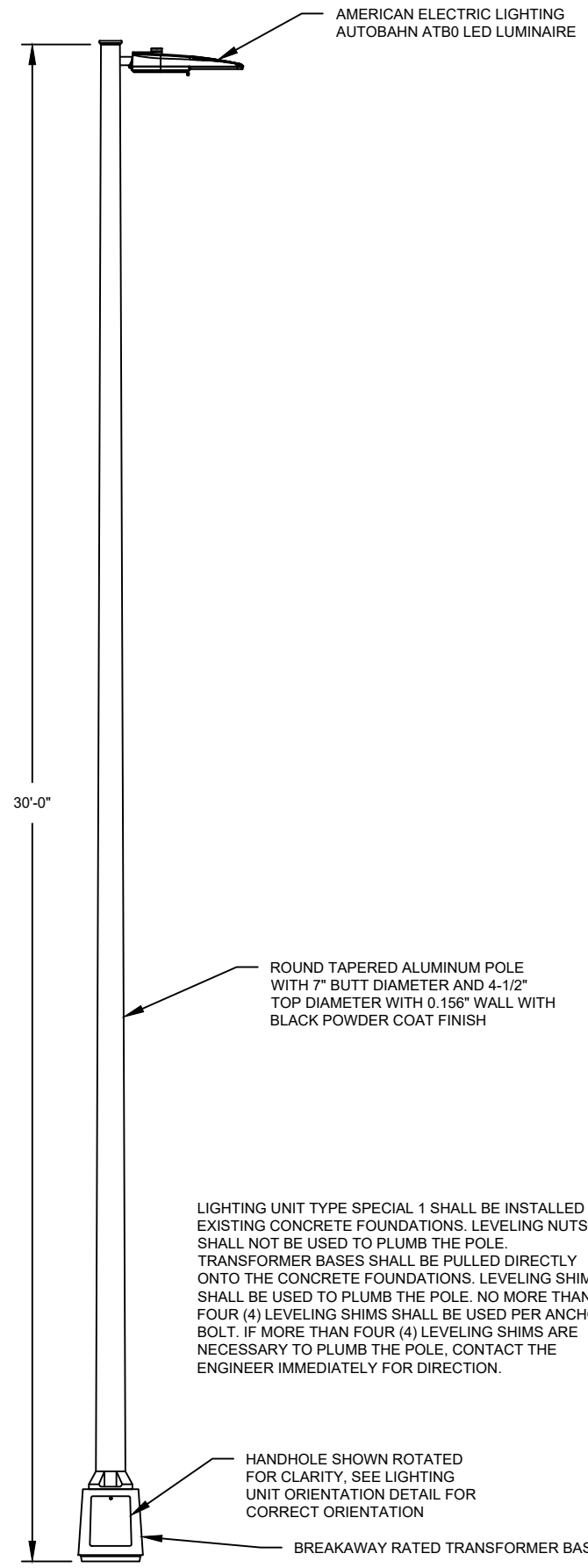


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*John P. Carlson*  
 JOHN P. CARLSON, P.E.  
 DATE: 04/07/2026 LICENSE NO. 24001

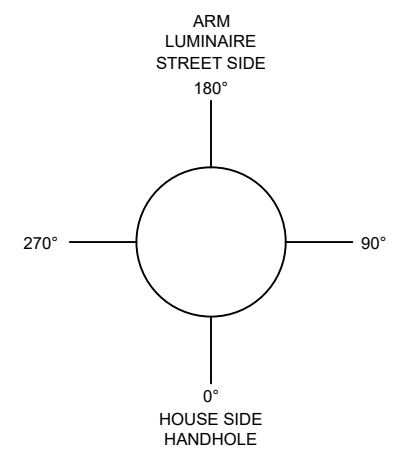
**TH 3 LIGHTING IMPROVEMENTS**  
**PHASE II**  
 NORTHFIELD, MINNESOTA

**GENERAL NOTES AND STATEMENT OF ESTIMATED QUANTITIES**



**LIGHTING UNIT TYPE SPECIAL 1 & SPECIAL 2 DETAIL**  
NOT TO SCALE

EQUIPMENT SCHEDULE							
SYMBOL	DESCRIPTION	WATTAGE & CCT	LUMENS	MOUNTING	OPTICS	COLOR & FINISH	MANUFACTURER & SERIES #
	LIGHTING UNIT TYPE SPECIAL 1 LED LUMINAIRE ON ROUND TAPERED ALUMINUM POLE WITH BREAKAWAY TRANSFORMER BASE	124 WATT LED 3000K	18,160	30' POLE ON EXISTING CONCRETE LIGHT FOUNDATION	TYPE IV	BLACK POWDER COAT	AMERICAN ELECTRIC LIGHTING - LUMINAIRE: ATB0-P304-MVOLT-R4-3K-BK-P7-AO-SH-UMRBK HAPCO - POLE: RTA30C7BF-BA
	LIGHTING UNIT TYPE SPECIAL 2 LED LUMINAIRE ON ROUND TAPERED ALUMINUM POLE WITH BREAKAWAY TRANSFORMER BASE	67 WATT LED 3000K	10,590	30' POLE ON EXISTING STEEL SCREW-IN LIGHT FOUNDATION	TYPE III	BLACK POWDER COAT	AMERICAN ELECTRIC LIGHTING - LUMINAIRE: ATB0-P301-MVOLT-R3-3K-BK-P7-AO-SH-UMRBK HAPCO - POLE: RTA30C7BF-BA



**LIGHTING UNIT ORIENTATION DETAIL**

LIGHTING UNIT TYPE SPECIAL 1 SHALL BE INSTALLED ON EXISTING CONCRETE FOUNDATIONS. LEVELING NUTS SHALL NOT BE USED TO PLUMB THE POLE. TRANSFORMER BASES SHALL BE PULLED DIRECTLY ONTO THE CONCRETE FOUNDATIONS. LEVELING SHIMS SHALL BE USED TO PLUMB THE POLE. NO MORE THAN FOUR (4) LEVELING SHIMS SHALL BE USED PER ANCHOR BOLT. IF MORE THAN FOUR (4) LEVELING SHIMS ARE NECESSARY TO PLUMB THE POLE, CONTACT THE ENGINEER IMMEDIATELY FOR DIRECTION.

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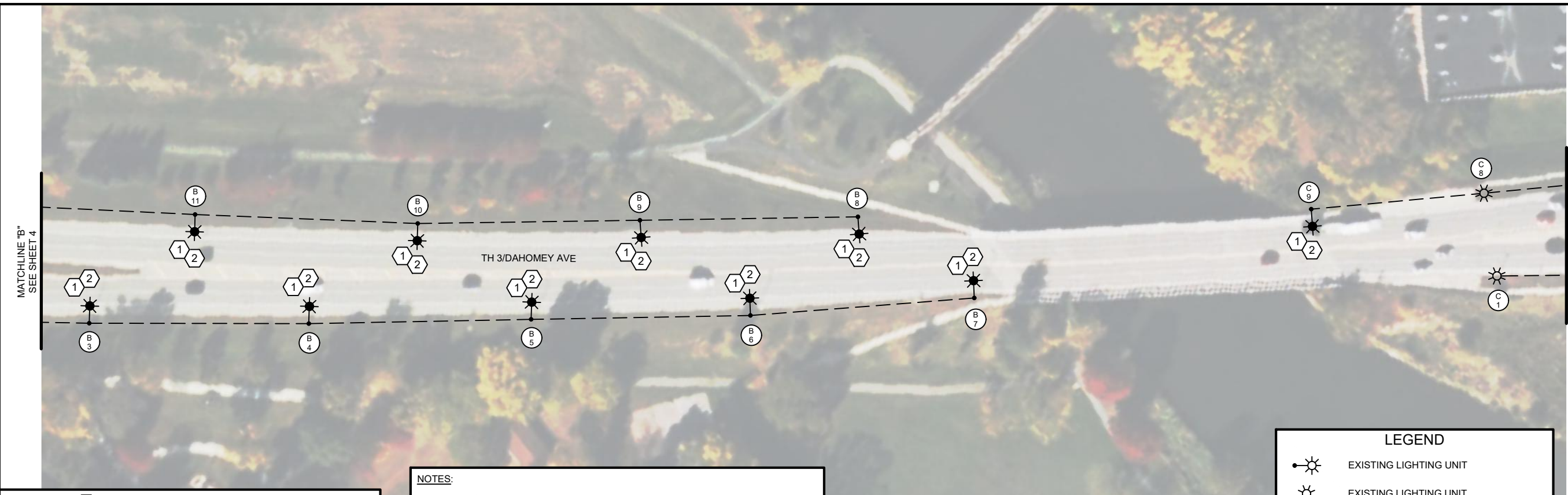
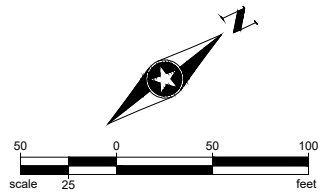
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*John P. Carlson*  
JOHN P. CARLSON, P.E.  
DATE: 04/07/2026 LICENSE NO. 24001

**TH 3 LIGHTING IMPROVEMENTS**  
**PHASE II**  
NORTHFIELD, MINNESOTA

**DETAILS**





MATCHLINE "C"  
SEE LOWER LEFT

MATCHLINE "B"  
SEE SHEET 4

**KEY NOTES:** #

1. REMOVE LIGHTING UNIT
2. INSTALL LIGHTING UNIT ON EXISTING LIGHT FOUNDATION
3. FURNISH AND INSTALL NEW HOT DIPPED GALVANIZED ANCHOR BOLTS, WASHERS, AND NUTS ON EXISTING STEEL SCREW-IN FOUNDATION, BOLTS, WASHERS, AND NUTS SHALL BE SIZED PER POLES MANUFACTURER'S RECOMMENDATIONS. (INCIDENTAL)

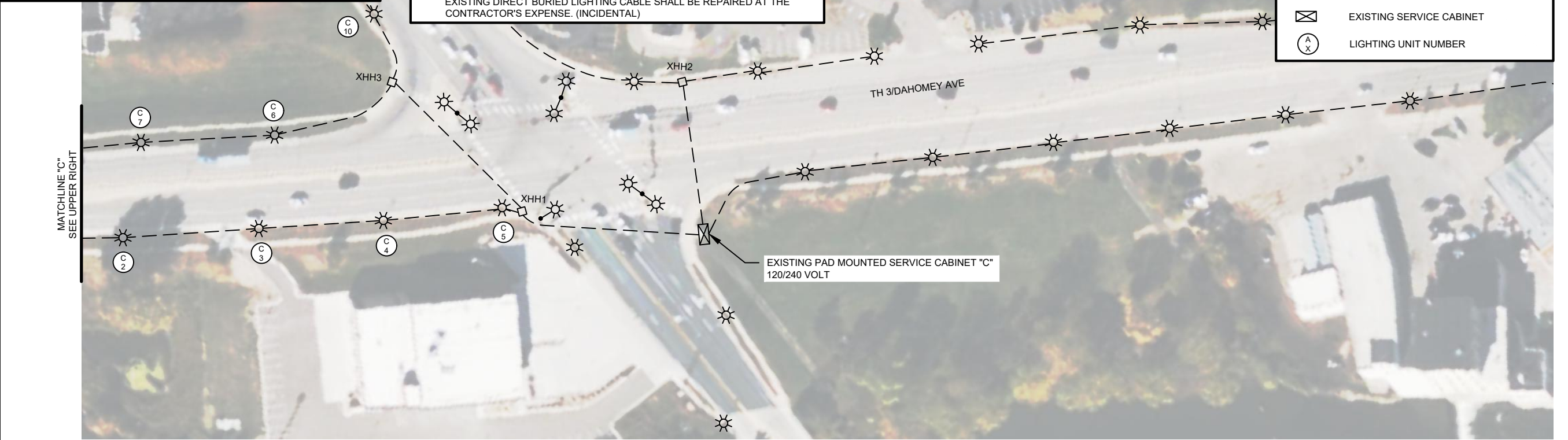
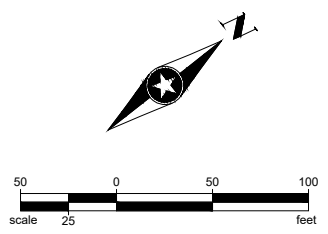
**NOTES:**

1. CONTRACTOR SHALL VERIFY ANCHOR BOLT PROJECTION ABOVE THE CONCRETE FOUNDATION. IF THE MANUFACTURER'S REQUIRED ANCHOR BOLT PROJECTION FOR THE PROPOSED LIGHTING UNIT IS NOT ACHIEVED, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER FOR DIRECTION PRIOR TO INSTALLATION. INSTALLATIONS THAT DO NOT ACHIEVE FULL NUT THREAD ENGAGEMENT WILL NOT BE ACCEPTED.
2. THE CONTRACTOR SHALL BACKFILL AND COMPACT SOIL AROUND EXISTING STEEL SCREW-IN LIGHT FOUNDATIONS. ENSURE EXISTING DIRECT BURIED CABLE IS PROTECTED DURING COMPACTION PROCESS. ANY DAMAGE TO THE EXISTING DIRECT BURIED LIGHTING CABLE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. (INCIDENTAL)

## TH 3/DAHOMY AVE

**LEGEND**

- EXISTING LIGHTING UNIT
- EXISTING LIGHTING UNIT
- LIGHTING UNIT TYPE SPECIAL 1
- LIGHTING UNIT TYPE SPECIAL 2
- LUMINAIRE UNIT
- EXISTING UNDERGROUND CIRCUITRY
- EXISTING HANDHOLE
- EXISTING SERVICE CABINET
- LIGHTING UNIT NUMBER



MATCHLINE "C"  
SEE UPPER RIGHT

## TH 3/DAHOMY AVE

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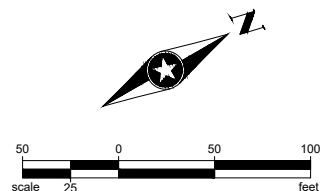


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JOHN P. CARLSON, P.E.  
DATE: 04/07/2026 LICENSE NO. 24001

**TH 3 LIGHTING IMPROVEMENTS  
PHASE II**  
NORTHFIELD, MINNESOTA

**LIGHTING PLAN**



**NOTES:**

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**KEY NOTES:** #

1. REMOVE LIGHTING UNIT
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**LEGEND**

- EXISTING LIGHTING UNIT
- EXISTING LIGHTING UNIT
- LIGHTING UNIT TYPE SPECIAL 1
- LIGHTING UNIT TYPE SPECIAL 2
- LUMINAIRE UNIT
- EXISTING UNDERGROUND CIRCUITRY
- EXISTING HANDHOLE
- EXISTING SERVICE CABINET
- LIGHTING UNIT NUMBER

## TH 3/WATER ST

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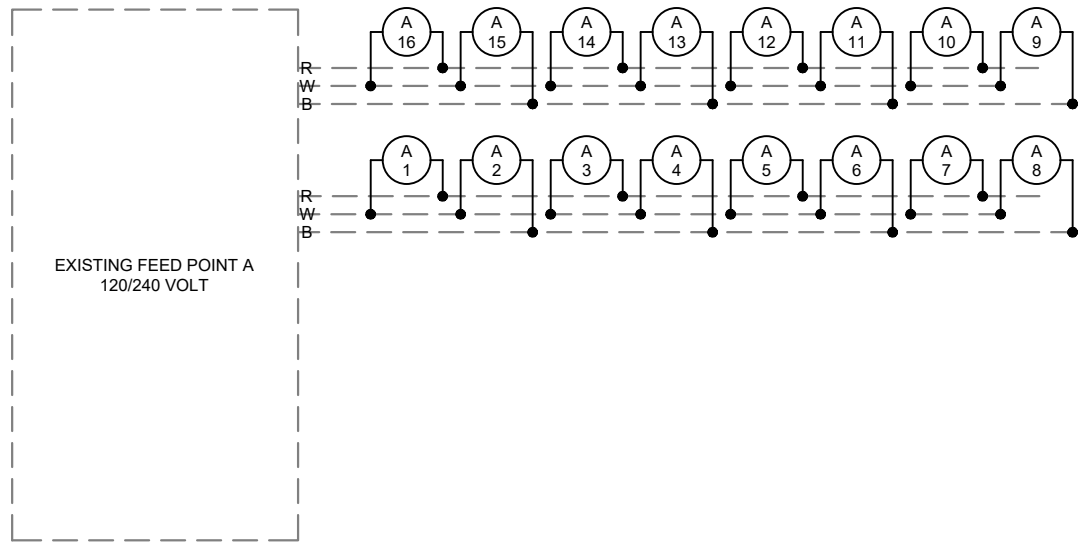
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### TH 3 LIGHTING IMPROVEMENTS PHASE II NORTHFIELD, MINNESOTA

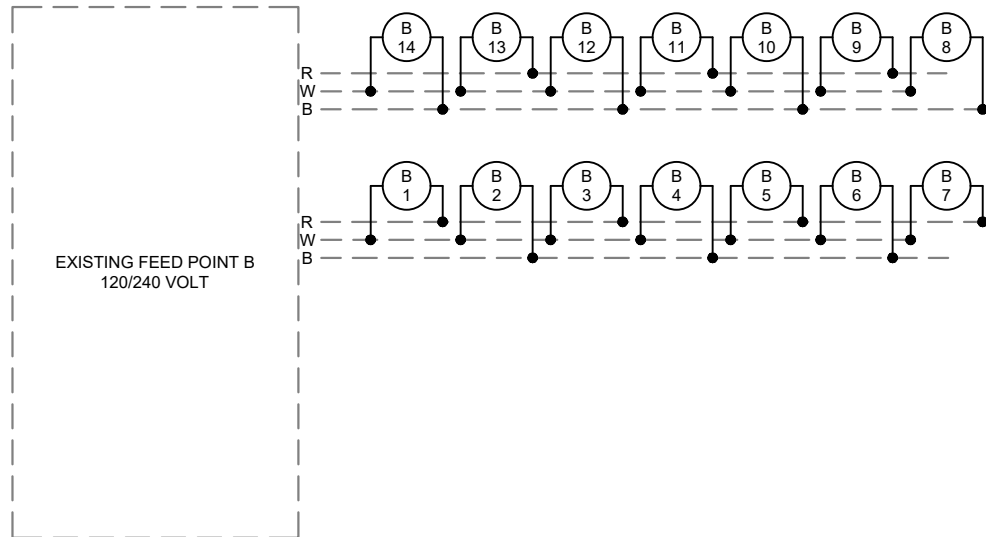
**LIGHTING PLAN**

B AND R DENOTE CURRENT CARRYING CONDUCTORS  
W DENOTES NEUTRAL CONDUCTOR  
GROUND NOT SHOWN

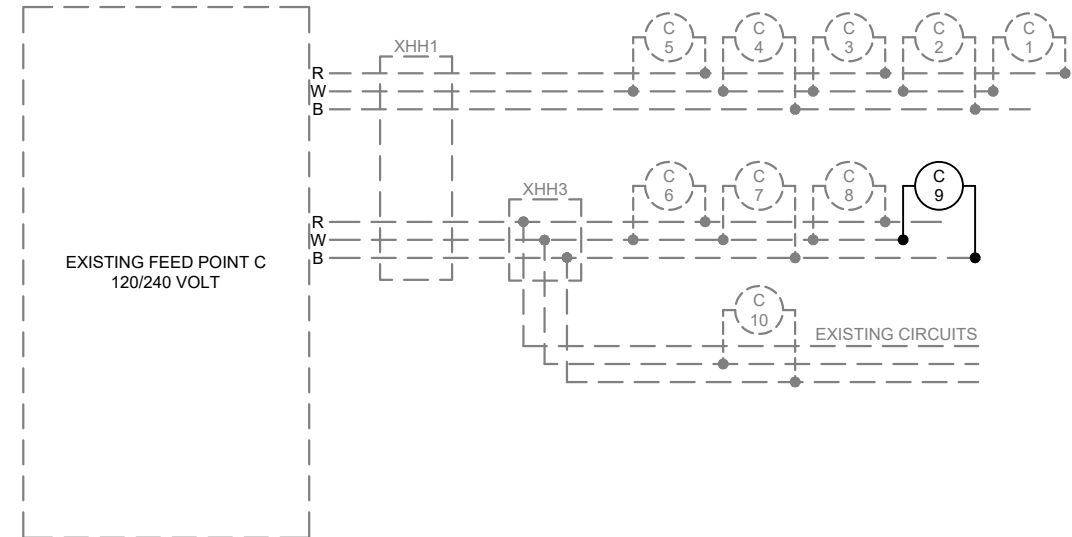


LEGEND	
	PROPOSED LIGHTING UNIT NUMBER
	EXISTING LIGHTING UNIT NUMBER
	EXISTING WIRE
	SPLICE
	EXISTING SPLICE
	EXISTING HANDHOLE

B AND R DENOTE CURRENT CARRYING CONDUCTORS  
W DENOTES NEUTRAL CONDUCTOR  
GROUND NOT SHOWN



B AND R DENOTE CURRENT CARRYING CONDUCTORS  
W DENOTES NEUTRAL CONDUCTOR  
GROUND NOT SHOWN



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**TH 3 LIGHTING IMPROVEMENTS**  
**PHASE II**  
NORTHFIELD, MINNESOTA

**WIRING DIAGRAM**