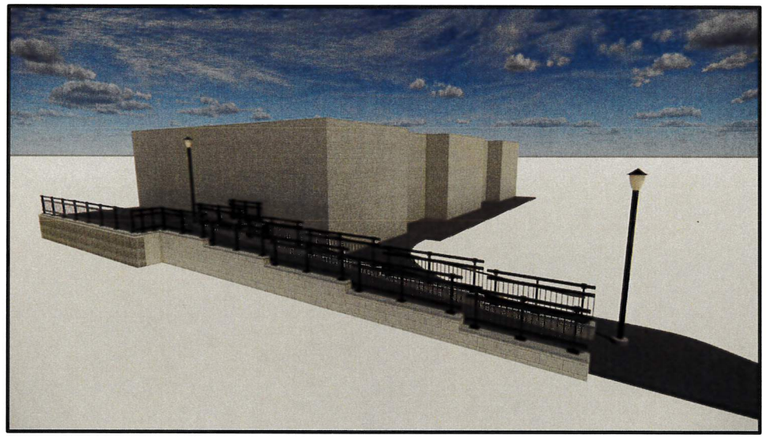
CITY OF WATERTOWN

PLAZA PHASE II - ADA COMPLIANT CONCRETE RAMP AND STAIR

1 EAST MAIN STREET
WATERTOWN, WISCONSIN 53094

SHEET INDEX



EXISTING PROJECT CONDITIONS

INFORMATION PERTAINING TO EXISTING PROJECT CONDITIONS, SUCH AS LOCATIONS OF ARCHITECTURAL AND STRUCTURAL BUILDING COMPONENTS, MECHANICAL AND ELECTRICAL EQUIPMENT, PIPING, DUCTWORK, ROUGHING AND OTHER MISCELLANEOUS CONSTRUCTION, APPEARS ON PROJECT DRAWINGS. THIS INFORMATION IS BASED ON AVAILABLE RECORDS AS WELL AS INFORMATION COLLECTED WITH REASONABLE CARE AT THE PROJECT SITE. CONTRACTORS SHALL BE SOLELY RESPONSIBLE FOR VERIFYING DIMENSIONS AND RELATED INFORMATION AT THE PROJECT SITE PRIOR TO PROCURING ANY MATERIALS, PRODUCTS OR EQUIPMENT TO PERFORM THEIR WORK.

STRUCTURAL	ARCHITECTURAL
WISCONSIN GEORGE R. CARR E-43841 MILWAUKEE WI PROFESSIONAL ENGINEER 3-24-25	WISCONSIN CURT W HOFFMANN 11478 MILWAUKEE, WI ARCHITECT 3/24/25

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CLIENT:
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PROJECT TITLE:
PLAZA PHASE II - ADA COMPLIANT CONCRETE RAMP AND STAIR

1 EAST MAIN STREET
WATERTOWN, WISCONSIN 53094

ISSUE:
01 2025-03-24 ADDENDUM #02

PROJECT INFORMATION:

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DATE:	2025-03-24
DRAWN BY:	RMG
CHECKED BY:	CWH
APPROVED BY:	CWH
SCALE:	AS NOTED

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
G-001

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RAMP DESIGN REQUIREMENTS

ADA ACCESSIBLE RAMPS AND STAIRS SHALL COMPLY WITH 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

SECTION 405 REQUIREMENTS AS FOLLOWS:

RAMP SLOPE

-SLOPE REQUIREMENTS	≥ 1:20 ≤	1:12
-SLOPE PROVIDED	=	1:12
-CROSS SLOPE REQUIRMENTS	≤	1:48
-CROSS SLOPE PROVIDED	=	1:48

FLOOR SURFACES

-SURFACE REQUIREMENTS	=	SLIP RESISTANT
-SURFACE PROVIDED	=	CONCRETE WITH BROOM FINISH

RAMP RUN AND LANDING REQUIREMENTS

-RAMP RUN RISE REQUIREMENTS	=	30" MAXIMUM RISE HEIGHT
-RAMP RUN RISE PROVIDED	=	24" RISE HEIGHT
-CLEAR RUN WIDTH REQUIREMENT	=	36" CLEAR
-CLEAR RUN WIDTH PROVIDED	=	48" CLEAR
-LANDING WIDTH REQUIREMENTS	=	MINIMUM WIDTH OF RAMP RUN
-LANDING WIDTH PROVIDED	=	48" CLEAR
-LANDING CLEAR LENGTH REQUIRED	=	60" MINIMUM
-LANDING CLEAR LENGTH PROVIDED	=	60" CLEAR

-LANDINGS REQUIRED AT BOTTOM AND TOP OF EACH RAMP RUN.

HANDRAILS

-HANDRAILS AND HANDRAIL SUPPORTS MUST BE OUTSIDE OF THE CLEAR WIDTH.
-RAMP RUNS WITH A RISE GREATER THAN 6 INCHES SHALL HAVE HANDRAILS COMPLYING WITH SECTION 505 OF A117.1.
-HANDRAILS NEED TO BE PROVIDED ON BOTH SIDES OF RAMPS AND STAIRS.
-HANDRAILS NEED TO BE CONTINUOUS WITHIN THE FULL LENGTH OF EACH RAMP RUN OR STAIR FLIGHT.
-HANDRAIL HEIGHT TO TOP OF GRABBING SURFACE:
-HEIGHT FROM RAMP SURFACE = **34" - 38"**
-HEIGHT FROM STAIR NOSING = **34" - 38"**
-HANDRAILS SHALL BE AT A CONSISTENT HEIGHT
-CLEARANCE BETWEEN HANDRAIL SURFACE AND ADJACENT SURFACES SHALL BE 1 1/2" MINIMUM.
-TOP AND BOTTOM EXTENSIONS SHALL BE 12" MINIMUM AND EXTEND OUT IN THE SAME DIRECTION OF TRAVEL AND SHALL TURN DOWN EITHER TO THE GROUND OR BACK INTO THE LAST RAIL POSTS. SEE SECTION 505.10 OF THE 2010 ADA STANDARDS FOR HANDRAIL EXTENSION REQUIREMENTS.

STRUCTURAL DESIGN SPECIFICATIONS

1. DESIGN IS IN ACCORDANCE WITH THE STATE OF WISCONSIN AND THE 2015 INTERNATIONAL BUILDING CODE.
2. MINIMUM 28 DAY CONCRETE CYLINDER STRENGTH SHALL BE

FOOTINGS	3000 PSI
FOUNDATION WALLS	4000 PSI
SLABS ON GRADE	4000 PSI

3. REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60.
4. CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM C90 NORMAL WEIGHT UNITS. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS SHALL BE f'_m = 2000 PSI.
5. MORTAR SHALL CONFORM TO ASTM C270 TYPE S.
6. MASONRY GROUT SHALL CONFORM TO ASTM C476. MINIMUM COMPRESSIVE STRENGTH SHALL BE f'_m = 2000 PSI.
7. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE MASONRY CONSTRUCTION SHALL BE f'_m = 2000 PSI.
8. STRUCTURAL STEEL PLATES SHALL CONFORM TO THE FOLLOWING

THICKNESS ≤ 3/8"	ASTM A1011 CS TYPE B (OR APPROVED EQUAL)
3/16" ≤ THICKNESS ≤ 4"	ASTM A572 GRADE 50
THICKNESS > 4"	ASTM A36

9. ASSUMED BEARING CAPACITY FOR SPREAD FOOTINGS IS 1500 PSF.
10. DESIGN LOADS

FLOOR LIVE LOAD	
STAIRS AND EXIT WAYS	100 PSF

EARTHWORK

1. FOOTINGS SHALL BE CAST ON UNDISTURBED SUBSOIL. IF DESIGN CAPACITY IS NOT ENCOUNTERED AT THE ELEVATIONS SHOWN, FOOTINGS MUST BE LOWERED. CONSULT ENGINEER BEFORE PROCEEDING.
2. NO HOLES, TRENCHES OR DISTURBANCES OF THE SOIL SHALL BE ALLOWED WITHIN THE VOLUME DESCRIBED BY 45 DEGREE LINES SLOPING FROM THE BOTTOM EDGE OF THE FOOTING. IF SUCH ARE REQUIRED, FOOTINGS MUST BE LOWERED.
3. BACKFILL EVENLY ON EACH SIDE OF FOUNDATION WALLS AND RETAINING WALLS.
4. TOPSOIL AND FILL BELOW SLABS ON GROUND SHALL BE REMOVED. AGGREGATE BASE COURSE UNDER SLABS ON GROUND SHALL BE COMPACTED TO 6-INCH LAYERS (EXCEPT WHERE LOOSE FILL IS INDICATED ON DRAWINGS).
5. BACKFILL AGAINST EXTERIOR FOUNDATION WALLS SHALL BE COMPACTED TO MAXIMUM 6-INCH LAYERS.

CONCRETE

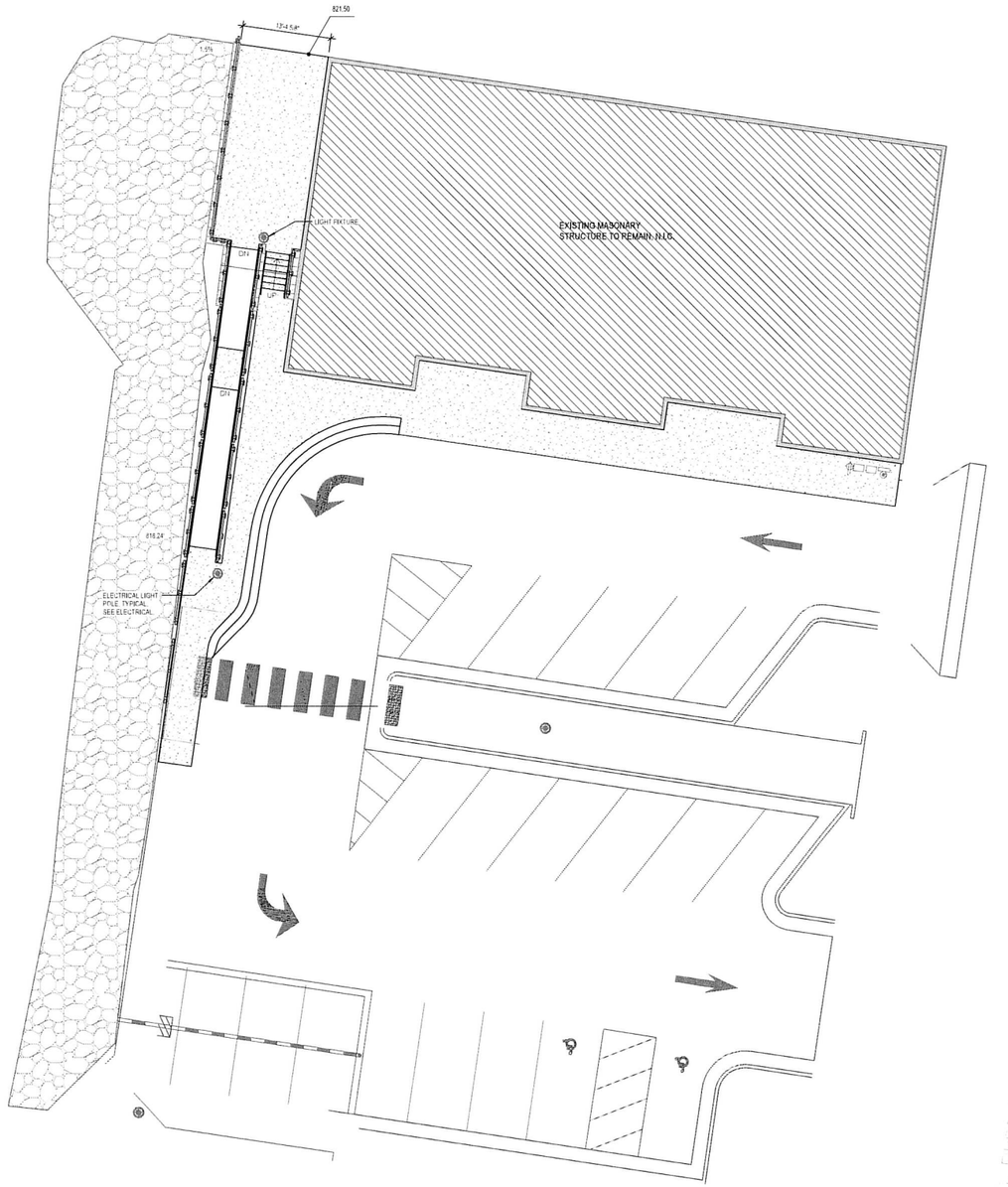
1. FORMWORK SHALL BE DESIGNED IN ACCORDANCE WITH THE ACI "MANUAL OF CONCRETE PRACTICE", LATEST EDITION.
2. REINFORCING STEEL SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH THE ACI "MANUAL OF CONCRETE PRACTICE", LATEST EDITION, UNLESS OTHERWISE NOTED.
3. LAP ALL WALL BARS 30 DIAMETERS UNLESS OTHERWISE DETAILED. LAP WELDED WIRE MESH 6 INCHES.
4. PROVIDE COLUMN AND WALL DOWELS OF THE SAME SIZE AND NUMBER AS THE RESPECTIVE COLUMN AND WALL REINFORCING UNLESS OTHERWISE DETAILED.
5. CONCRETE PROTECTION FOR REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", ACI 318-14.
6. SLABS ON GRADE SHALL BE CAST ALLOWING A SUFFICIENT NUMBER OF JOINTS TO ADEQUATELY CONTROL SHRINKAGE CRACKING. SAWCUTTING SHALL BE DONE AS SOON AS SAWCUT WILL NOT RAVEL. CONCRETE OR WITHIN 24 HOURS MAXIMUM OF INITIAL POURING OPERATION. MAXIMUM SIZE OF PANELS SHALL BE 15 FEET BY 15 FEET FOR 6-INCH SLAB ON GRADE.
7. EXTERIOR SLABS ON GRADE SHALL BE 6 INCHES THICK AND REINFORCED WITH 6x6-W2.1xW2.1 WELDED WIRE FABRIC.
8. ALLOW AT LEAST 24 HOURS BEFORE POURING ADJACENT WALL SECTIONS BETWEEN CONSTRUCTION JOINTS. MAXIMUM LENGTH OF POUR TO BE 40 FEET, UNLESS CRACK INDUCERS ARE USED AS DETAILED ON THE DRAWINGS.
9. CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 24 HOURS PRIOR TO PLACING CONCRETE.
10. CONSTRUCTION JOINTS IN BEAMS, JOISTS OR SLABS TO BE LOCATED BETWEEN THE 1/4 POINT AND CENTERLINE OF SPAN, OR AS DIRECTED BY THE ENGINEER.
11. DO NOT PLACE OR CUT HOLES IN CONCRETE SLABS, BEAMS, WALLS OR COLUMNS WITHOUT PRIOR APPROVAL OF THE ENGINEER.
12. EXTERIOR EXPOSED CONCRETE SHALL BE AIR-ENTRAINED. AIR CONTENT SHALL BE 6 PERCENT (+/-1 1/2 PERCENT).
13. PIPES AND CONDUITS EMBEDDED IN OR PASSING THROUGH STRUCTURAL MEMBERS MUST BE APPROVED BY THE STRUCTURAL ENGINEER. PIPE AND CONDUITS EMBEDDED IN CONCRETE SHALL NOT BE LARGER THAN 2 INCHES IN OUTSIDE DIAMETER AT THEIR WIDEST POINT OR FITTING OR 1/3 OF THE THICKNESS OF THE SLAB, BEAM OR WALL.
14. ELECTRICAL CONDUIT OR PIPES EMBEDDED IN OR PASSING THROUGH SLABS, BEAMS OR WALLS SHALL BE LOCATED AND PLACED SO THAT
    1. THEY ARE NOT CLOSER THAN THREE DIAMETERS ON CENTER.
    2. THE CONCRETE COVER IS NOT LESS THAN 2 INCHES.
    3. THEY RUN BETWEEN REINFORCING AND DO NOT DISPLACE IT IN ANY MANNER.
15. ALUMINUM CONDUITS SHALL NOT BE PLACED IN CONCRETE.
16. CHAMFER ALL EXPOSED CONCRETE CORNERS. SEE ARCHITECTURAL/STRUCTURAL DRAWINGS FOR REQUIREMENTS.
17. CONCRETE SHALL BE TESTED BY THE OWNER'S TESTING LAB. REFER TO SPECIFICATIONS FOR REQUIREMENTS.
18. PROPER CURING PROCEDURES SHALL BE USED FOR SLAB ON GRADE TO PREVENT CURLING.
19. CALCIUM CHLORIDE SHALL NOT BE USED IN CONCRETE MIXES.
20. PROVIDE WATERSTOPS AT ALL CONSTRUCTION JOINTS BELOW THE WATER TABLE AND AS SHOWN ON DRAWINGS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

CONCRETE MASONRY

1. PRODUCTION AND CONSTRUCTION OF CONCRETE MASONRY SHALL BE IN ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES", ACI 530-13, AND THE NCMA "TEK MANUAL FOR CONCRETE MASONRY DESIGN AND CONSTRUCTION". LATEST EDITION.
2. HOT AND COLD WEATHER CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE IMIAC (INTERNATIONAL MASONRY INDUSTRY ALL-WEATHER COUNCIL) "RECOMMENDED PRACTICES AND GUIDE SPECIFICATIONS FOR HOT AND COLD WEATHER MASONRY AND CONSTRUCTION".
3. CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED.
4. MASONRY WALLS SHALL BE ADEQUATELY BRACED TO RESIST WIND FORCES UNTIL PERMANENT DESIGN SUPPORTS ARE IN PLACE AND FUNCTIONAL. BRACING SHALL BE DESIGNED BY THE CONTRACTOR.
5. PROVIDE DOWELS INTO FOUNDATION THE SAME SIZE AND NUMBER AS WALL REINFORCING.
6. LAP REINFORCING BARS 48 DIAMETERS.
7. CONCRETE MASONRY WALLS SHALL BE REINFORCED AT EVERY OTHER BED JOINT WITH 3/16-INCH TRUSS TYPE JOINT REINFORCEMENT.
8. VERTICAL BARS SHOWN ON THE DESIGN DRAWINGS SHALL BE PLACED IN A CONTINUOUS UNOBSTRUCTED CELL OF NOT LESS THAN 3 INCHES BY 4 INCHES.
9. ALL BOND BEAMS AND PILASTERS SHALL BE REINFORCED AS SHOWN ON THE DESIGN DRAWINGS AND FILLED WITH GROUT.

MISCELLANEOUS

1. DIMENSIONS OF EXISTING CONSTRUCTION OR CONSTRUCTION IN PROGRESS SHALL BE VERIFIED AND COORDINATED PRIOR TO FABRICATION OF STRUCTURAL COMPONENTS.
2. VERIFY AND COORDINATE WITH ALL CONTRACTORS, THE LOCATION OF ALL ARCHITECTURAL AND MECHANICAL APPURTENANCES AND OPENINGS.
3. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR THE FOLLOWING ITEMS PRIOR TO FABRICATION: REINFORCING BARS.



A3 ADA RAMP SITE PLAN
1/8" = 1'-0"

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ADA RAMP SITE PLAN

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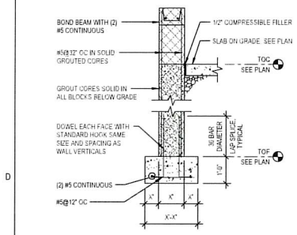
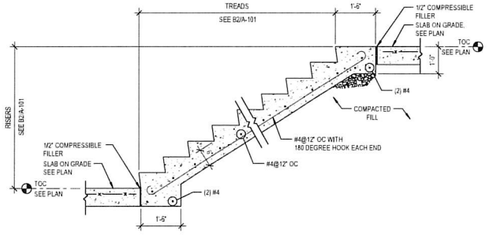
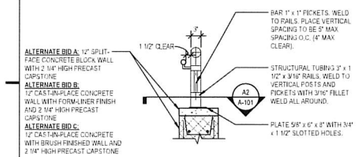


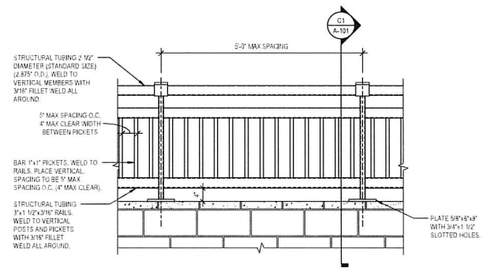
D1 DETAIL
1/2" = 1'-0"



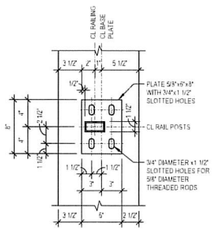
D2 SECTION
1/2" = 1'-0"



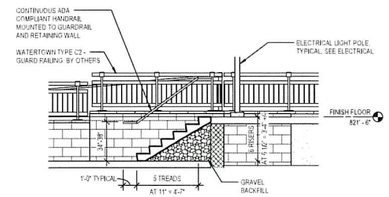
GUARD RAIL SECTION DETAIL
BY OTHERS - NOT IN CONTRACT
C1 3/4" = 1'-0"



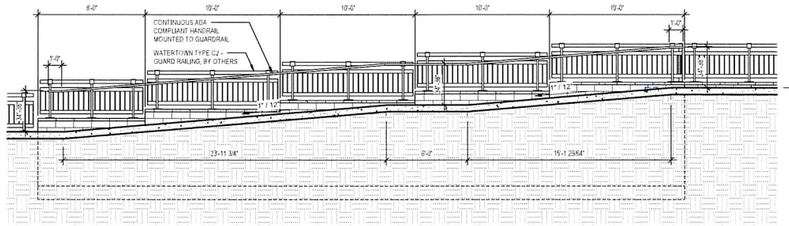
WATERTOWN TYPE C2 - GUARD RAILING
BY OTHERS - NOT IN CONTRACT
C2 3/4" = 1'-0"



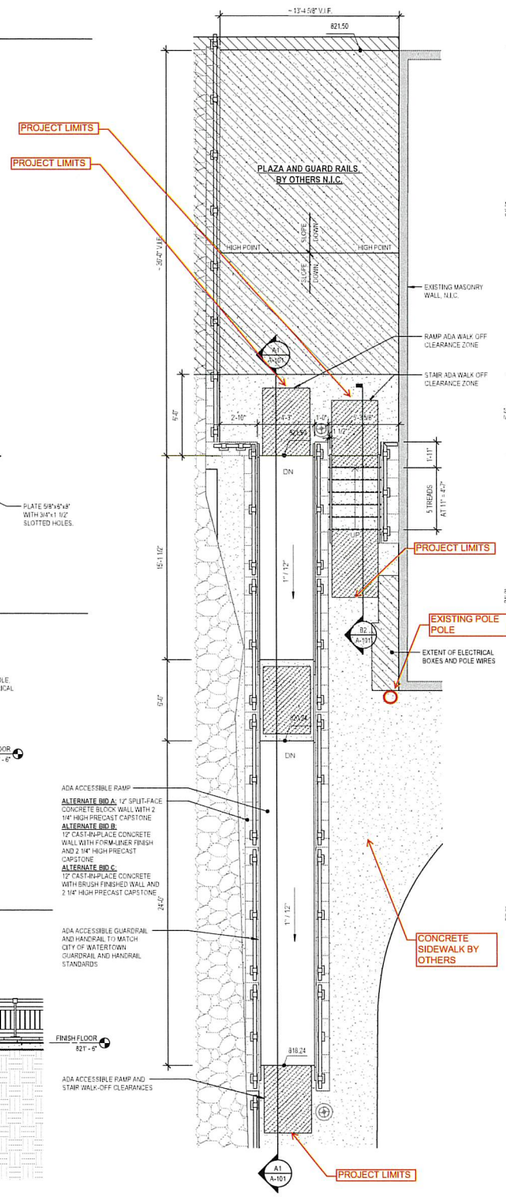
TYPICAL RAIL POST BASE PLATE
BY OTHERS - NOT IN CONTRACT
A2 1 1/2" = 1'-0"



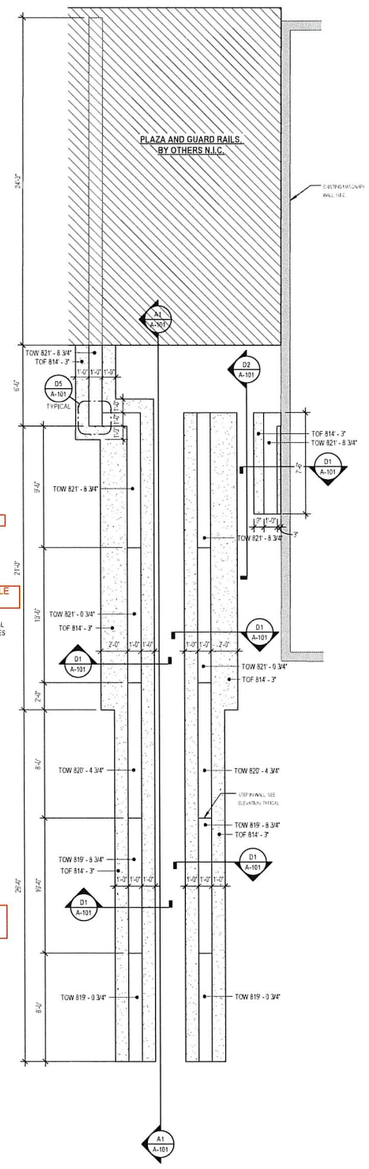
B2 STAIR SECTION
1/4" = 1'-0"



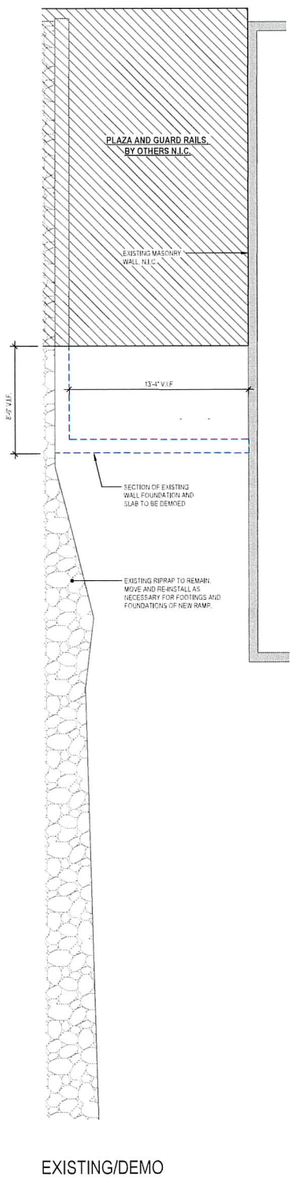
A1 RAMP SECTION
1/4" = 1'-0"



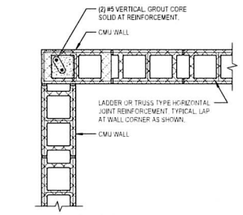
A3 ADA RAMP AND STAIR PLAN
1/4" = 1'-0"



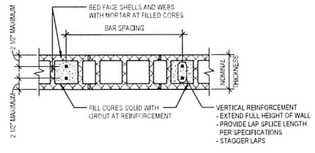
A5 FOUNDATION PLAN
1/4" = 1'-0"



EXISTING/DEMO
ADA RAMP AND STAIR PLAN
A6 1/4" = 1'-0"



D5 CMU WALL CORNER
1" = 1'-0"



D6 CMU WALL REINFORCEMENT
1" = 1'-0"

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ADA RAMP AND STAIR PLANS AND DETAILS

SHEET NUMBER:
A-101

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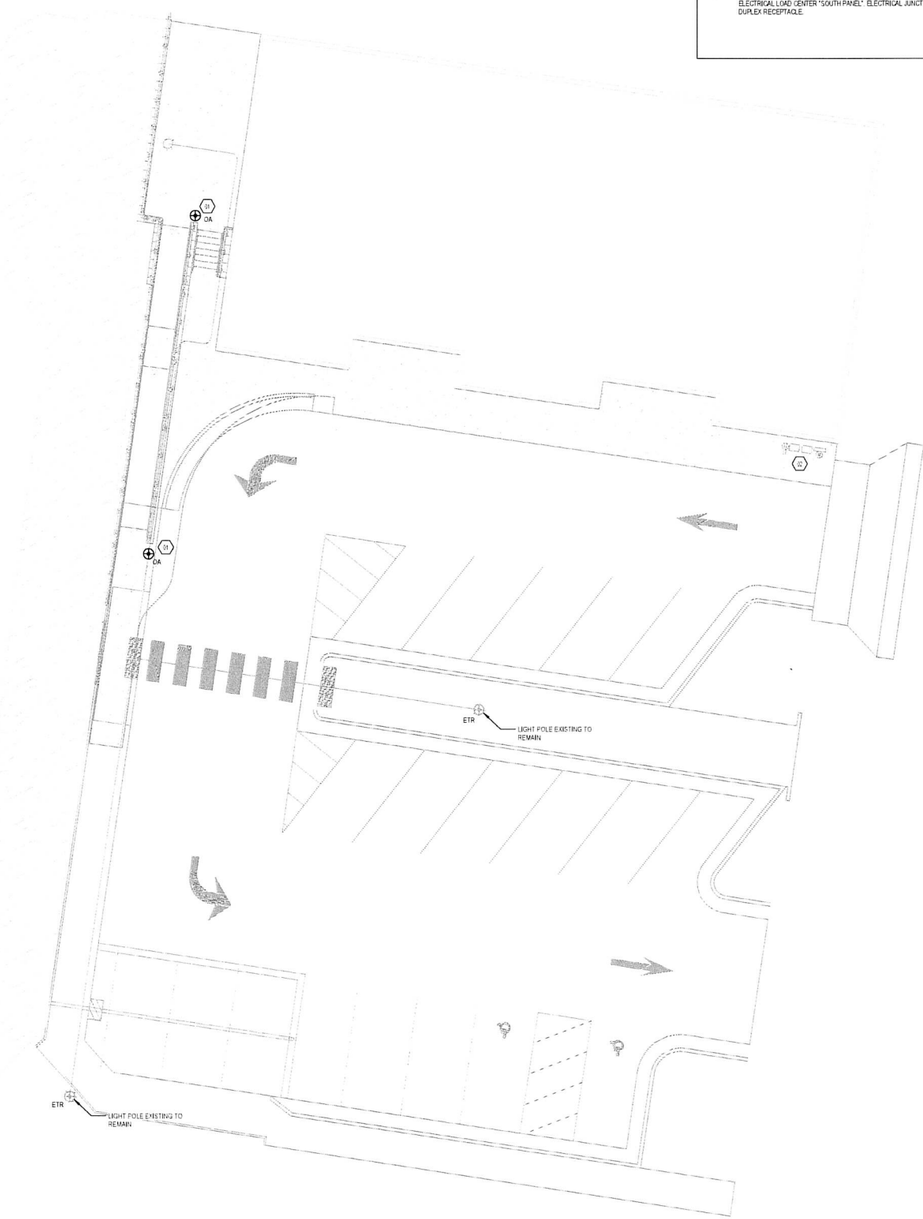
SHEET KEYNOTES

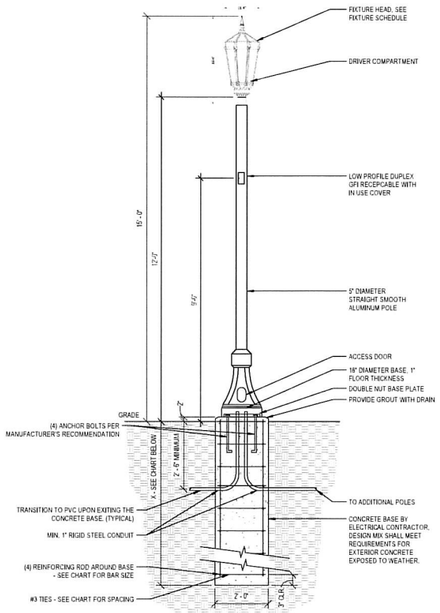
01 CIRCUIT NEW LIGHTS TO EXISTING PANEL LABELED "SOUTH PANEL". UTILIZE CIRCUIT BREAKER CURRENTLY USED FOR ADJACENT EXISTING LIGHT FIXTURES. PROVIDE NEW CONDUIT AND WIRE FROM PANEL TO POLES. USE 3-#10 IN 1" CONDUIT

02 EXISTING ELECTRICAL EQUIPMENT TO REMAIN. ELECTRICAL METER STACK/METER, ELECTRICAL LOAD CENTER "SOUTH PANEL", ELECTRICAL JUNCTION BOX, WEATHER-PROOF DUPLEX RECEPTACLE.

LIGHTING FIXTURES

- POLE MOUNTED WITH ARM
- POST TOP POLE
- BOLLARD
- FLOOD LIGHT





NOTES:
1. A DRILLED 2'-0" DIA. HOLE SHALL BE USED AS THE FORM FOR THE CONCRETE BASE IN UNDISTURBED EARTH, EXCLUDING FILL MATERIAL.
2. BACKFILL AROUND CONCRETE BASE WITH COMPACTED GRANULAR BASE A MINIMUM OF 2'-0" IN ALL DIRECTIONS IN EXCAVATED AREAS OR IN EXISTING SOIL CONTAINING FILL OF OBJECTIONABLE MATERIAL.
3. DESIGN BASED ON IBC 2015
   100 MPH WIND SPEED - EXPOSURE C (1609.4.3)
   150 PSF/FT - LATERAL SOIL PRESSURE (1610)
   OCCUPANCY CATEGORY III (1604.5)
   IMPORTANCE FACTOR 1.0 (ASCE 7 TABLE 1.5-1)

POLE HEIGHT	X	REBAR SIZE	#3 TIE SPACING
12'-0"	7'3"	#5	10"

A1 LIGHT FIXTURE POLE BASE DETAIL FLUSH
NTS

A3 ELECTRICAL SITE PLAN
1/8" = 1'-0"

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WISCONSIN
ERVIN D. STERN
D-17656
SHOREWOOD
WI
DESIGNER

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APPROVED BY:	ES
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ADA RAMP SITE PLAN - ELECTRICAL

SHEET NUMBER:
E-100

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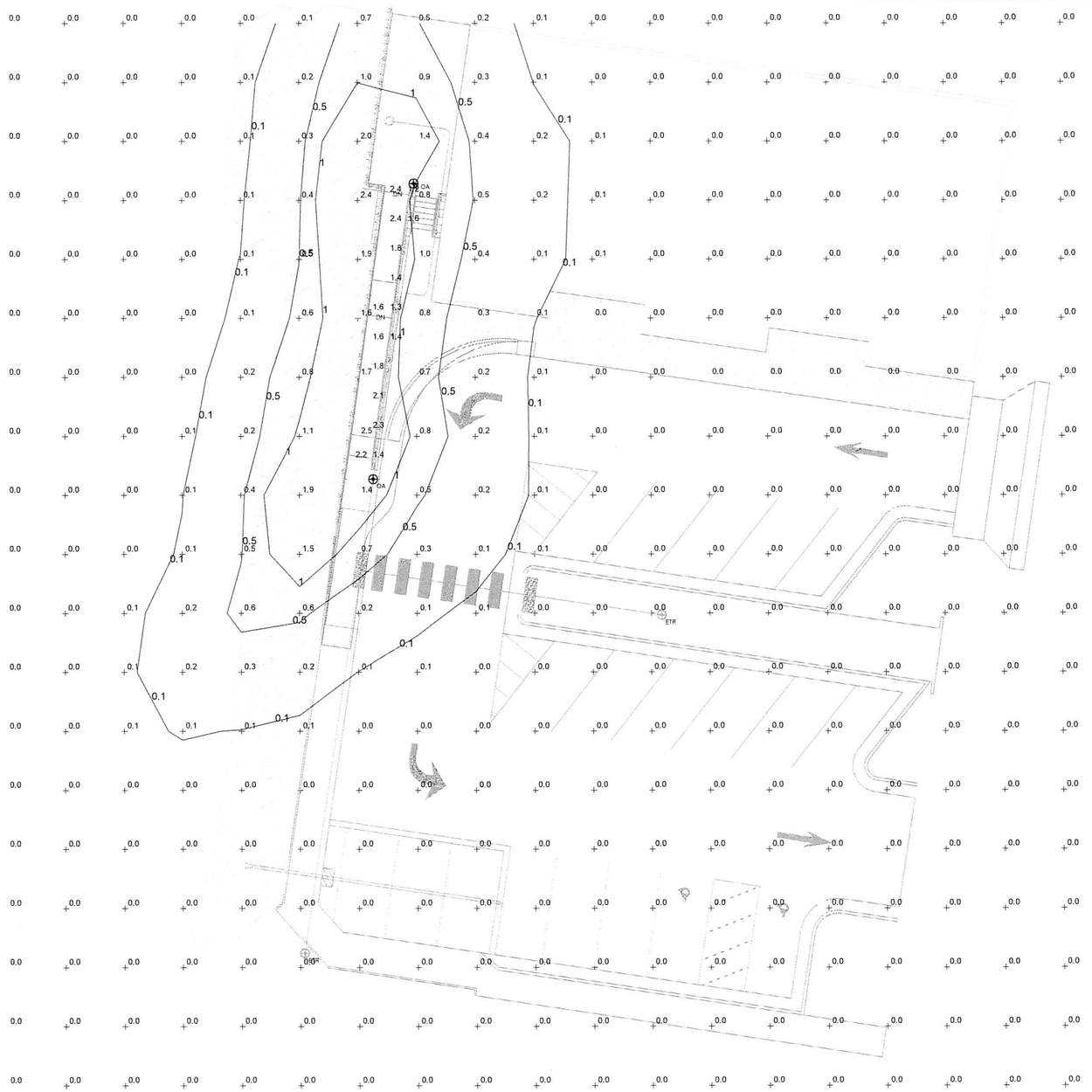
GENERAL SHEET NOTES

1. THE CALCULATIONS SHOWN ON THIS SHEET DO NOT INCLUDE CONTRIBUTIONS FROM EXISTING ADJACENT LIGHT FIXTURES.



Statistics					
Description	Avg	Max	Min	Max/Min	Avg/Min
Ramp	1.8 fc	2.4 fc	1.2 fc	2.0:1	1.5:1

A3 ELECTRICAL PHOTOMETRIC PLAN

1/8" = 1'-0"

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DESIGNER

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ADA RAMP SITE PLAN - PHOTOMETRIC

SHEET NUMBER:
E-101

LIGHT FIXTURE SCHEDULE

GENERAL NOTES:

A. SEE SPECIFICATION SECTION FOR ADDITIONAL INFORMATION REGARDING FIXTURE AND INSTALLATION REQUIREMENTS.

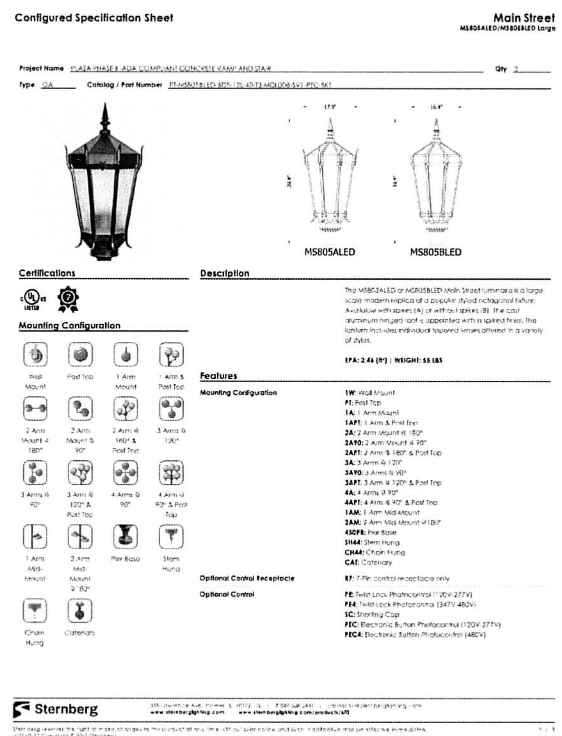
B. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED PARTS AND PIECES FOR A COMPLETE INSTALLATION.

C. ALL REMOTE DRIVERS SHALL BE LOCATED IN AN ACCESSIBLE LOCATION THAT MEETS THE AMBIENT TEMPERATURE REQUIREMENTS OF THE DRIVER. ELECTRICAL CONTRACTOR SHALL VERIFY WITH SUBMITTED SHOP DRAWING WIRING DIAGRAMS THAT ALL DRIVER LOCATIONS ARE WITHIN MANUFACTURER'S RECOMMENDED DISTANCE REQUIREMENTS.

NOTES:

1. PROVIDE LIGHT FIXTURE WITH LOW PROFILE DUPLEX GFI RECEPTACLE WITH IN USE COVER.
2. PROVIDE 18" DIAMETER BASE AS SHOWN ON CUTSHEET ON THIS PAGE.

TAG	PERFORMANCE & ELECTRICAL DATA				LIGHT FIXTURE PROPERTIES				OPTIONS & ACCESSORIES		MOUNTING		SEE NOTE
	LUMENS	KELVIN TEMP	LOAD	FIXTURE VOLTAGE	DESCRIPTION	MANUFACTURER	CATALOG SERIES	DEPTH OR HEIGHT	ACCESSORIES / DOOR / REFLECTOR / TRIM TYPE	COLOR / FINISH	TYPE	HEIGHT	
OA	2670	4000	27 VA	120-277V	DECORATIVE POST TOP LED WITH PHOT-CONTROL	STERNBERG	PT-MS805BLED-BD5-12L-40-T3-MDL008-SV1-PEC-BKT	15' - 0"		BLACK	5" ROUND STRAIGHT SMOOTH ALUMINUM	12' POLE	1, 2



Configured Specification Sheet — **Main Street** MS805ALED/MS805BLED Large

Project Name PLAZA PHASE II ADA COMPLIANT CONCRETE RAMP AND STAIR — Qty 2

Type OA — Catalog / Part Number PT-MS805BLED-BD5-12L-40-T3-MDL008-SV1-PEC-BKT

MS805ALED — MS805BLED

Certifications

Mounting Configuration

Wall Mount; Post Top; 1 Arm Mount; 1 Arm & Post Top; 2 Arm Mount @ 180°; 2 Arm Mount @ 90°; 2 Arm @ 180° & Post Top; 3 Arms @ 120°; 3 Arms @ 90°; 3 Arm @ 120° & Post Top; 4 Arms @ 90°; 4 Arm @ 90° & Post Top; 1 Arm Mid-Mount; 2 Arm Mid-Mount @ 180°; Pier Base; Stem Hung; Chain Hung; Catenary

Description

The MS805ALED or MS805BLED Main Street luminaire is a large scale modern replica of a popular styled octagonal fixture. Available with spikes (A) or without spikes (B). The cast aluminum hinged roof is appointed with a spiked finial. The lantern includes individual tapered lenses offered in a variety of styles.

EPA: 2.46 (ft²) | WEIGHT: 55 LBS

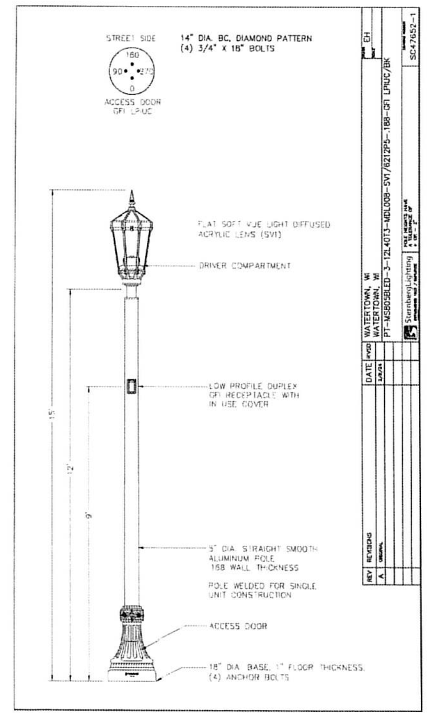
Features

Mounting Configuration
1W: Wall Mount
PT: Post Top
1A: 1 Arm Mount
1APT: 1 Arm & Post Top
2A: 2 Arm Mount @ 180°
2A90: 2 Arm Mount @ 90°
2APT: 2 Arm @ 180° & Post Top
3A: 3 Arms @ 120°
3A90: 3 Arms @ 90°
3APT: 3 Arm @ 120° & Post Top
4A: 4 Arms @ 90°
4APT: 4 Arm @ 90° & Post Top
1AM: 1 Arm Mid-Mount
2AM: 2 Arm Mid Mount @180°
450PB: Pier Base
SH44: Stem Hung
CH44: Chain Hung
CAT: Catenary

Optional Control Receptacle
R7: 7-Pin control receptacle only

Optional Control
PE: Twist Lock Photocontrol (120V-277V)
PE4: Twist-Lock Photocontrol (347V-480V)
SC: Shorting Cap
PEC: Electronic Button Photocontrol (120V-277V)
PEC4: Electronic Button Photocontrol (480V)

Sternberg — www.sternberglighting.com — www.sternberglighting.com/products/670



LIGHT FIXTURE SCHEDULE ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS INDICATED HERE ARE USED IN THE SCHEDULE AND MAY NOT APPLY TO CURRENT PROJECT.

ACCESSORIES / DOOR / REFLECTOR / TRIM TYPE

AS = ASYMMETRIC
B = BAFFLE REFLECTOR
CR = CONTINUOUS RUN
D = DIRECT
D/ID = DIRECT / INDIRECT
DG = DOUBLE GASKETED DOOR FRAME
EM = REMOTE EMERGENCY DRIVER
ID = INDIRECT
S = SYMMETRIC
SG = SINGLE GASKETED DOOR FRAME
SS = STAINLESS STEEL TRIM AND DOOR FRAME
SR = STANDARD REFLECTOR
TG = TRIPLE GASKETED DOOR FRAME, LENS AND BODY
VR = VANDAL RESISTANT
WG = WIRE GUARD
WW = WALL WASH

COLOR / FINISH

B = BLACK
BZ = BRONZE
C = CLEAR
CU = COPPER
CUS = CUSTOM PAINTED FINISH - COLOR AS SELECTED BY ARCHITECT
DBZ = DARK BRONZE
G = GOLD
GL = GLOSS
M = MATTE
NA = NATURAL ALUMINUM
RAL# = RAL NUMBER
S = SILVER
SSP = SEMI-SPECULAR / HAZE
W = WHITE

DIMMING TYPE

0-10-0.1 = 0-10 V 0.1%
0-10-1 = 0-10 V 1%
0-10-5 = 0-10 V 5%
0-10-10 = 0-10 V 10%
BL = BILEVEL / STEP
E = ELDOLED
FF = FORWARD PHASE
D = DALI
DX = DMX
L = LUTRON
N = NONE
O = OSRAM
P = PHASE
RF = REVERSE PHASE

DRIVER LOCATION

I = INTEGRAL
N = NONE
R = REMOTE

LENS TYPE

C = CLEAR
D = DROP DOWN
F = FLUSH
N = NONE
R = REGRESSED
O = OPAL
P = POP UP
PA = PATTERN 12 ACRYLIC LENS - .125" MINIMUM THICKNESS

REQUIRED LISTINGS

= IP ## RATED
AT = AIR TIGHT
C#D# = CLASS # DIVISION #
DL = DAMP LOCATION
F = FIRE RATED
IC = IC RATED
IR = IMPACT RESISTANT
LR = LIGATURE RESISTANT
SL = SHOWER LIGHT
TR = TAMPER RESISTANT
VR = VANDAL RESISTANT
WL = WET LOCATION

MOUNTING MATERIAL

B = BRICK
C = CONCRETE
CB = CONCRETE BASE
DW = DRYWALL
ES = EXPOSED STRUCTURE
G = GROUND
LG = LAY-IN GRID
M = METAL
PL = PLASTER
S = STONE
T = TILE
V = VARIES
W = WOOD

MOUNTING TYPE

C = COVE
CH = CHAIN - PROVIDE ACCESSORY KIT
CA = CATENARY
MP = MONOPOINT
MPC = MULTIPORT CANOPY
PC = PENDANT - CABLE
PCH = PENDANT - CHAIN
PRS = PENDANT - RIGID STEM
PS = PENDANT - SWAG
PO = POLE
R = RECESSED
S = SURFACE
TC = TRACK - CABLE
TMC = TRACK - MONORAIL - CURVED
TMF = TRACK - MONORAIL - FLEXIBLE
TMS = TRACK - MONORAIL - STRAIGHT
W = WALL

SENSOR TYPE

D = DAYLIGHT SENSOR
MO = MULTI-LEVEL OCCUPANCY SENSOR
N = NONE
O = OCCUPANCY SENSOR
P = PHOTOCELL

GRAEF
275 West Wisconsin Avenue,
Suite 300
Milwaukee, WI 53203
414 / 259 1500
www.graef-usa.com

CLIENT:
CITY OF WATERTOWN

PROJECT TITLE:
PLAZA PHASE II - ADA COMPLIANT CONCRETE RAMP AND STAIR

1 EAST MAIN STREET
WATERTOWN, WISCONSIN 53094

ISSUE:
01 2025-03-24 ADDENDUM #02

WISCONSIN — ERVIN D STERN — D-1765E — SHOREWOOD, WI — DESIGNER

PROJECT INFORMATION:

PROJECT NUMBER:	2023-0158
DATE:	2025-03-24
DRAWN BY:	JO
CHECKED BY:	ES
APPROVED BY:	ES
SCALE:	AS NOTED

SHEET TITLE:
ELECTRICAL SCHEDULES

SHEET NUMBER:
E-601

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GENERAL ELECTRICAL PROVISIONS

WORK INCLUDED IN CONTRACT
MENTION OF ANY ARTICLE, OPERATION OR METHOD REQUIRES THAT CONTRACTOR SHALL PROVIDE SAME AND PERFORM EACH OPERATION IN COMPLETE ACCORDANCE WITH CONDITIONS STATED. CONTRACTOR SHALL PROVIDE ALL MATERIAL, LABOR, EQUIPMENT, AND TRANSPORTATION AS NECESSARY TO COMPLETE PROJECT IN COMPLIANCE WITH CONTRACT DOCUMENTS. IN GENERAL, WORK INCLUDES EVERYTHING ESSENTIAL FOR COMPLETE ELECTRICAL SYSTEM IN OPERATING ORDER AS SHOWN ON DRAWINGS AND INDICATED IN SPECIFICATIONS.

ALL MATERIALS SHALL BE SUITABLY STORED AND PROTECTED PRIOR TO INSTALLATION AND ALL WORK SHALL BE PROTECTED AFTER INSTALLATION, DURING CONSTRUCTION, AND PRIOR TO ACCEPTANCE.

SHALL ANY CONFLICTS OCCUR WITHIN OR BETWEEN SPECIFICATIONS DRAWINGS OR OTHER DOCUMENTS, CONTRACTOR SHALL INCLUDE THE MORE EXPENSIVE ALTERNATIVE.

BIDDING PROCEDURES
BASE BID SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT AS SHOWN ON CONSTRUCTION DRAWINGS AND AS REQUIRED AND SPECIFIED

BASE BID SHALL NOT INCLUDE ANY CONDITIONS OR QUALIFYING STATEMENTS SHALL BE IN STRICT ACCORDANCE WITH SPECIFICATION REQUIREMENTS AND SHALL BE BASED UPON INSTALLATION OF MATERIALS AND EQUIPMENT AS SPECIFIED

PERMITS AND LICENSES
CONTRACTOR SHALL PREPARE AND SUBMIT REQUIRED APPLICATIONS AND DRAWINGS FOR ALL CONSTRUCTION PERMITS AND APPROVALS TO AUTHORITIES HAVING JURISDICTION OVER PROJECT. ALL LICENSES AND PERMITS REQUIRED SHALL BE SECURED AND PAID FOR BY CONTRACTOR AND SHALL BE SECURED BY THE CONTRACTOR BEFORE STARTING WORK.

STANDARDS AND CODES
WORK SHALL BE INSTALLED IN ACCORDANCE WITH NATIONAL, STATE, AND LOCAL CODES, ORDINANCES, LAWS, AND REGULATIONS. COMPLY WITH ALL APPLICABLE OSHA REGULATIONS.

MATERIALS SHALL HAVE UL OR ETL LABEL WHERE UL OR ETL STANDARD AND / OR TEST EXISTS

ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH RECOGNIZED INDUSTRY STANDARDS AND SHALL FOLLOW EQUIPMENT MANUFACTURER'S PUBLISHED INSTRUCTIONS

MATERIALS AND EQUIPMENT
MATERIALS AND EQUIPMENT REQUIRED SHALL BE NEW, UNLESS OTHERWISE INDICATED.

EQUIPMENT SUPPLIED SHALL BE BASED ON MATERIALS AND EQUIPMENT OF MANUFACTURERS SPECIFIED. NO SUBSTITUTIONS WILL BE ALLOWED.

SUBMITTALS
THE FOLLOWING EQUIPMENT SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE ENGINEER.
- LIGHTING CONTROL DEVICES
- LIGHTING FIXTURES

CLEANING AND PAINTING
RUBBISH RESULTING FROM WORK SHALL BE REMOVED AND DISPOSED OF ON DAILY BASIS IN SUCH MANNER AS TO BE ACCEPTABLE TO OWNER.

CONTRACTOR SHALL CLEAN ALL EXPOSED IRON WORK, INTERIOR AND EXTERIOR OF CABINETS AND PULL BOXES, ETC

WHERE PAINTED SURFACES OF EQUIPMENT HAVE BEEN DAMAGED OR RUSTED DURING CONSTRUCTION, CONTRACTOR SHALL PAINT SAME TO MATCH FINAL

TESTS AND ACCEPTANCE
OPERATION OF EQUIPMENT AND ELECTRICAL SYSTEMS DOES NOT CONSTITUTE ACCEPTANCE OF WORK BY OWNER. FINAL ACCEPTANCE IS TO BE MADE AFTER CONTRACTOR HAS ADJUSTED HIS EQUIPMENT AND DEMONSTRATED THAT IT FULFILLS REQUIREMENTS OF DRAWINGS AND SPECIFICATIONS.

UPON COMPLETION OF INSTALLATION, CONTRACTOR SHALL FURNISH CERTIFICATES OF APPROVAL AND OCCUPANCY PERMITS FROM AUTHORITIES HAVING JURISDICTION. CONTRACTOR SHALL DEMONSTRATE THAT ALL WORK IS COMPLETE AND IN PERFECT OPERATING CONDITION, WITH RACEWAY AND CONDUIT SYSTEM PROPERLY GROUNDED, WIRING FREE FROM GROUNDS AND SHORTS, AND ENTIRE INSTALLATION IS FREE FROM ANY PHYSICAL DEFECTS.

IN PRESENCE OF ENGINEER AND OWNER, CONTRACTOR SHALL DEMONSTRATE PROPER OPERATION OF ALL SYSTEMS.

UNLESS OTHERWISE INDICATED, ALL WORK SHALL BE GUARANTEED FOR A MINIMUM OF ONE (1) YEAR AFTER DATE OF FINAL ACCEPTANCE.

DEFINITIONS
AE - ARCHITECT AND / OR ENGINEER

PROVIDE - FURNISHED, INSTALLED, AND COMPLETELY WIRED AND CONNECTED BY ELECTRICAL CONTRACTOR

NEC - NATIONAL ELECTRICAL CODE

CONTRACTOR - PERSON OR GROUP RESPONSIBLE FOR PROJECT CONSTRUCTION

ELECTRICAL SERVICE AND DISTRIBUTION

PRODUCTS
REUSE EXISTING LOAD-CENTER PANELBOARD

EXECUTION
PROVIDE TEMPORARY SERVICE IN AREAS OF CONSTRUCTION FOR ALL TRADES, INCLUDE LIGHTING AND 120 VOLT POWER. COSTS TO PROVIDE AND TO REMOVE TEMPORARY SERVICE ELECTRICAL EQUIPMENT AND POWER DISTRIBUTION SHALL BE INCLUDED IN THE CONTRACTOR'S BASE B.O. UTILITY ENERGY COSTS FOR TEMPORARY POWER SHALL BE PAID BY OWNER.

EXISTING PERMANENT SERVICE SHALL REMAIN IN PLACE. NEW FEEDERS AND CIRCUIT BREAKER SHALL BE PROVIDED IN ACCORDANCE WITH DRAWINGS.

GROUNDING SHALL BE IN ACCORDANCE WITH ALL CODES

CONTRACTOR TO PROVIDE ALL ARC FLASH LABELING ON ELECTRICAL EQUIPMENT AS REQUIRED BY NFPA 70E, STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE.

GROUNDING

PRODUCTS
ALL GROUNDING CONDUCTORS SHALL BE COPPER.

GROUND RODS SHALL BE COPPER-CLAD STEEL, ¾" DIAMETER, 10' LONG.

MECHANICAL CONNECTIONS SHALL BE MADE WITH EXOTHERMIC WELDS OR WITH MECHANICAL CONNECTORS AT THE CONTRACTOR'S OPTION. MECHANICAL CONNECTORS SHALL BE BRONZE AND SHALL BE IRREVERSIBLE.

GROUND BUSSES SHALL BE ¼" THICK BY 2" HIGH IN CROSS SECTION, LENGTHS AS INDICATED ON THE PLANS.

EXECUTION
REMOVE SURFACE CONTAMINANTS AT ALL CONNECTION POINTS.

GROUND ELECTRICAL SYSTEMS AND EQUIPMENT AS REQUIRED BY THE NEC, THE LOCAL UTILITY, AND LOCAL ORDINANCES.

PROVIDE SEPARATE GROUNDING CONDUCTOR WITH EACH FEEDER CONDUIT AND BRANCH CIRCUIT CONDUIT. DO NOT RELY ON METAL RACEWAY AS THE SOLE EQUIPMENT GROUND FOR ELECTRICAL CIRCUITS. BOND GROUND CONDUCTOR AT BOTH ENDS OF RACEWAYS WITH BOLTED GROUNDING LUGS.

SIZE GROUNDING CONDUCTORS IN ACCORDANCE WITH THE NEC.

FIRMLY ATTACH GROUNDS BEFORE CIRCUITS ARE ENERGIZED.

ELECTRICAL WIRING METHODS

ACCEPTABLE WIRING METHODS SHALL BE INDIVIDUAL CONDUCTORS IN CIRCULAR RACEWAYS. EXCEPTIONS ARE AS FOLLOWS:
- CONDUCTORS FOR SYSTEMS RATED 50 VOLTS AND LESS AND ROUTED 6' AFF OR HIGHER, MAY BE INSTALLED IN FREE AIR WITHOUT RACEWAYS IN UNFINISHED MECHANICAL ROOMS, ELECTRICAL ROOMS, TELECOM CLOSETS. CONDUCTORS INSTALLED UNDER THIS EXCEPTION SHALL HAVE INSULATION RATINGS COMPLIANT WITH THE NEC, APPROPRIATE TO THE CONDITIONS WHERE THE CONDUCTORS ARE LOCATED.
- CONDUCTORS FOR SYSTEMS RATED 120 VOLTS AND LESS AND ROUTED ABOVE ACCESSIBLE CEILINGS CONCEALED FROM VIEW MAY BE INSTALLED IN FREE AIR WITHOUT RACEWAYS AT THE CONTRACTOR'S OPTION.
- REVIEW PLANS OF OTHER TRADES AND IDENTIFY ANY AIR-HANDLING PLENUMS. CONDUCTORS INSTALLED UNDER THIS EXCEPTION SHALL HAVE INSULATION RATINGS COMPLIANT WITH THE NEC, APPROPRIATE TO THE CONDITIONS WHERE THE CONDUCTORS ARE LOCATED.
- WHERE SPECIFICALLY INDICATED OTHERWISE ON THE DRAWINGS

BUILDING WIRE AND CABLE

PRODUCTS
SINGLE CONDUCTOR INSULATED WIRE.

SOLID OR STRANDED CONDUCTOR FOR #10 AWG AND SMALLER. CONDUCTOR #8 AWG AND LARGER SHALL BE STRANDED.

COPPER CONDUCTORS ONLY

INSULATION VOLTAGE RATING 600 VOLTS. RATED 75° CELSIUS, UNLESS OTHERWISE INDICATED.

ACCEPTABLE INSULATION TYPES:
- CONCEALED OR EXPOSED DRY INTERIOR LOCATIONS. USE ONLY BUILDING WIRE TYPE THW, THWN / THHN OR XHHW INSULATION
- WET OR DAMP INTERIOR LOCATIONS. USE ONLY BUILDING WIRE TYPE THW INSULATION.
- EXTERIOR LOCATIONS. USE ONLY BUILDING WIRE TYPE THW, OR USE INSULATION.
- UNDERGROUND LOCATIONS. USE ONLY BUILDING WIRE TYPE THW, OR USE INSULATION.

WIRING CONNECTORS FOR CONDUCTORS #10 AWG AND SMALLER: 3M SCOTCH-LOK COMPRESSION TYPE SOLDERLESS CONNECTORS WITH PLASTIC OUTER SHELL.

WIRING CONNECTORS FOR CONDUCTORS #8 AWG AND LARGER: SOLDERLESS COMPRESSION TYPE CONNECTORS, TOOL AND DIE APPLIED, OF TYPE THAT WILL NOT LOOSEN UNDER VIBRATION OR NORMAL STRAINS. BURNDY "HY-GENT" TYPE OR EQUIVALENT. SPLIT BOLT CONNECTORS ARE NOT ACCEPTABLE.

RUBBER INSULATING ELECTRICAL TAPE: SCOTCH 3M MODEL 23, 30-MIL TAPE.

EXECUTION
CONDUCTOR SHALL NOT BE SMALLER THAN #12 AWG FOR POWER AND LIGHTING CIRCUITS.

CONDUCTOR SHALL NOT BE SMALLER THAN #14 AWG FOR CONTROL CIRCUITS.

ALL WIRES SHALL BE NEW, DELIVERED TO SITE IN UNBROKEN CARTONS, AND SHALL BE LESS THAN ONE YEAR OLD OUT OF MANUFACTURER'S STOCK.

DO NOT DRAW CONDUCTORS INTO CONDUITS UNTIL BUILDING IS ENCLOSED AND WATERTIGHT AND UNTIL WORK THAT MAY CAUSE CONDUCTOR DAMAGE HAS BEEN COMPLETED.

EACH TAP, JOINT, OR SPLICE IN CONDUCTORS #8 AWG AND LARGER SHALL BE TAPED WITH TWO HALF-LAP LAYERS OF VINYL PLASTIC ELECTRICAL TAPE AND FINISH WRAP OF COLOR CODING TAPE. WHERE REQUIRED BY THE NEC OR LOCAL CODES.

CABLE SPLICES SHALL BE MADE ONLY IN DISTRIBUTION AND JUNCTION BOXES.

NEATLY TRAIN AND BUNDLE WIRING INSIDE BOXES, EQUIPMENT, AND PANELBOARDS.

SIZE CONDUIT, OUTLET BOXES, AND OTHER RACEWAY SYSTEM COMPONENTS IN ACCORDANCE WITH NEC REQUIREMENTS AS MINIMUM.

MULTIWIRE BRANCH CIRCUITS ARE NOT PERMITTED. EACH BRANCH CIRCUIT SHALL CONTAIN A DEDICATED NEUTRAL CONDUCTOR FOR EACH PHASE CONDUCTOR. A SINGLE NEUTRAL SHARED BETWEEN MULTIPLE PHASE CONDUCTORS ARE NOT PERMITTED.

INSTALL WIRE COLORS IN ACCORDANCE WITH FOLLOWING:
- BLACK AND RED FOR SINGLE PHASE CIRCUITS AT 120/240 VOLTS
- BLACK, RED, AND BLUE FOR CIRCUITS AT 120/208 VOLTS SINGLE OR THREE-PHASE

NEUTRAL CONDUCTORS: WHITE WHEN TWO OR MORE NEUTRALS ARE LOCATED IN ONE CONDUIT. INDIVIDUALLY IDENTIFY EACH WITH PROPER CIRCUIT NUMBER.

RACEWAYS AND BOXES

PRODUCTS
METAL CONDUIT:
- RIGID METAL CONDUIT (RMC).
- INTERMEDIATE METAL CONDUIT (IMC).
- ELECTRICAL METALLIC TUBING (EMT).

METAL CONDUIT FITTINGS (BOX TERMINATORS AND COUPLINGS):
- STEEL OR MALLEABLE IRON, ZINC GALVANIZED, OR CADMIUM PLATED.
- SET SCREW STYLE FASTENERS.
- BOX CONNECTORS SHALL HAVE NON-METALLIC INSULATED THROATS.
- DO NOT USE ALUMINUM OR DIE CAST FITTINGS

LIQUID-TIGHT FLEXIBLE METAL CONDUIT (LFMC):
- INTERLOCKED STEEL CONSTRUCTION WITH PVC SUNLIGHT RESISTANT JACKET.
- FITTINGS: NEMA FB 1, LIQUID-TIGHT, SUITABLE FOR GROUNDING, SUITABLE FOR WET LOCATIONS, TAPERED THREADED HUB, NON-METALLIC MATERIALS.

NON-METALLIC CONDUIT:
- PRODUCT DESCRIPTION: NEMA TC 2; SCHEDULE 40 OR 80 PVC; UL LISTED AND AS REQUIRED BY NEC; SUNLIGHT RESISTANT.
- RATED FOR 90° CELSIUS CABLE.
- FITTINGS AND CONDUIT BODIES: NEMA TC 3, SCHEDULE 40 OR 80, TO MATCH CONDUIT

OUTLET BOXES
- INTERIOR OUTLET BOXES SHALL BE GALVANIZED STAMPED STEEL WITH PRE-PUNCHED KNOCK OUTS. SIZE SHALL BE 4-11/16" SQUARE, 2-½" DEEP MINIMUM.
- EXTERIOR OUTLET BOXES SHALL BE CAST FERRALLOY, TYPE FD, CAST FERALLOY. FURNISH GASKETED COVER BY BOX MANUFACTURER.

EXECUTION
MINIMUM RACEWAY SIZE: 3/4" UNLESS OTHERWISE INDICATED.

SPLIT, CRUSHED, OR SCARRED CONDUIT IS NOT ACCEPTABLE.

WELDED CONDUIT IS NOT ACCEPTABLE.

RACEWAY AND BOXES LOCATED AS INDICATED ON DRAWINGS, AND AT OTHER LOCATIONS REQUIRED FOR SPLICES, TAPS, WIRE PULLING, EQUIPMENT CONNECTIONS, AND COMPLIANCE WITH REGULATORY REQUIREMENTS. RACEWAY AND BOXES ARE SHOWN IN APPROXIMATE LOCATIONS UNLESS DIMENSIONED. PROVIDE RACEWAY TO COMPLETE WIRING SYSTEM.

UNDERGROUND (OUTSIDE) MORE THAN 5'-0" OUTSIDE FOUNDATION WALL: PROVIDE SCHEDULE 40 NON-METALLIC CONDUIT, UNLESS OTHERWISE INDICATED.

UNDERGROUND (OUTSIDE) WITHIN 5'-0" FROM FOUNDATION WALL TO INSIDE OF BUILDING: PROVIDE RIGID STEEL CONDUIT. ONCE INSIDE BUILDING PROVIDE STEEL CONDUIT. PROVIDE INTERLOCKING RUBBER GASKETS AROUND RACEWAYS PASSING BELOW GRADE THROUGH BUILDING FOUNDATION WALLS. UTILIZE LINK-SEAL TYPE GASKETS OR EQUIVALENT.

WET, DAMP, AND OUTDOOR LOCATIONS: PROVIDE RIGID STEEL CONDUIT. PROVIDE CAST METAL JUNCTION AND PULL BOXES.

DRY LOCATIONS: PROVIDE METAL CONDUIT (RMC, IMC, OR EMT) UNLESS OTHERWISE INDICATED. PROVIDE STAMPED STEEL OR SHEET METAL BOXES.

SUPPORT RACEWAY USING TWO-HOLE MALLEABLE IRON STRAPS, LAY-IN ADJUSTABLE HANGERS, CLEVIS HANGERS, OR SPLIT HANGERS. PROVIDE LIGHT GAUGE STEEL FRAMING FOR RACEWAY TRAPEZE HANGERS OR FOR OTHER RACEWAY SUPPORT AS REQUIRED.

SECURE CONDUITS IN PLACE WITH MALLEABLE CORROSION-PROOF ALLOY STRAPS OR HANGERS. CONDUIT STRAPS USED IN CORROSIVE AREAS SHALL BE PVC COATED.

DO NOT SUPPORT RACEWAY WITH WIRE OR PERFORATED PIPE STRAPS. REMOVE WIRE USED FOR TEMPORARY SUPPORTS.

ROUTE INTERIOR RACEWAYS PARALLEL WITH OR PERPENDICULAR TO WALLS, CEILINGS, AND OTHER PRIMARY ARCHITECTURAL AND STRUCTURAL ELEMENTS.

CUT CONDUIT SQUARE USING SAW OR PIPE CUTTER. DE-BURR CUT ENDS. BRING CONDUIT TO SHOULDER OF FITTINGS. FASTEN SECURELY.

JOIN NON-METALLIC CONDUIT USING CEMENT AS RECOMMENDED BY MANUFACTURER. WIPE NON-METALLIC CONDUIT DRY AND CLEAN BEFORE JOINING. APPLY FULL EVEN COAT OF CEMENT TO ENTIRE AREA INSERTED IN FITTING. ALLOW JOINT TO CURE FOR MINIMUM 20 MINUTES.

INSTALL CONDUIT HUBS TO FASTEN CONDUIT TO CAST BOXES IN DAMP AND WET LOCATIONS.

INSTALL NO MORE THAN EQUIVALENT OF THREE (3) 90 DEGREE BENDS BETWEEN BOXES.

INSTALL CONDUIT BODIES TO MAKE SHARP CHANGES IN DIRECTION, AS AROUND BEAMS.

INSTALL HYDRAULIC ONE-SHOT BENDER TO FABRICATE OR FACTORY ELBOWS FOR BENDS IN METAL CONDUIT LARGER THAN 2" SIZE.

AVOID MOISTURE TRAPS. INSTALL JUNCTION BOX WITH DRAIN FITTING AT LOW POINTS IN CONDUIT SYSTEM.

PROVIDE WATERTIGHT CONDUIT SYSTEM WHERE INSTALLED IN WET LOCATIONS SUCH AS UNDERGROUND, OR WHERE EMBEDDED IN CONCRETE.

CONDUIT RUNS THAT EXTEND THROUGH AREAS OF DIFFERENT TEMPERATURE OR ATMOSPHERIC CONDITIONS OR THAT ARE PARTLY INDOORS AND PARTLY OUTDOORS SHALL BE SEALED, DRAINED, AND INSTALLED IN MANNER THAT WILL PREVENT DRAINAGE OF CONDENSED OR ENTRAPPED MOISTURE INTO CABINETS, MOTORS, OR EQUIPMENT ENCLOSURES.

CONDUIT CONNECTIONS AT MOTORS AND OTHER EQUIPMENT THAT VIBRATES:
- PROVIDE LIQUID-TIGHT FLEXIBLE METAL CONDUIT
- USE DOUBLE LOCKNUTS AND INSULATED BUSHINGS WITH THREADS FULLY ENGAGED.

EXTERIOR UNDERGROUND DIRECT BURIED CONDUITS SHALL BE BURIED AT DEPTH OF NOT LESS THAN 30" BELOW GRADE. UNDERGROUND CONDUITS SHALL SLOPE 1/8" PER FOOT FOR PROPER DRAINAGE. CONDUITS SHALL DRAIN TOWARD MANHOLES AND JUNCTION BOXES. CONDUITS SHALL NOT PITCH TO ELECTRICAL EQUIPMENT.

INSTALL KNOCKOUT CLOSURES IN UNUSED OPENINGS IN BOXES.

CLEAN EXPOSED SURFACES AND RESTORE FINISH.

ELECTRICAL RECEPTACLES

PRODUCTS
PROVIDE ALL WIRING DEVICE TYPES FROM A SINGLE MANUFACTURER.

FOR BIDDING PURPOSES, DEVICE COLOR AND DEVICE COVER PLATES IN FINISHED AREAS SHALL BE WHITE. VERIFY COLOR AND MATERIAL OF EXISTING DEVICES AND COVER PLATES AND PROVIDE NEW PLATES TO MATCH EXISTING.

ACCEPTABLE MANUFACTURERS ARE:
- HUBBELL
- LEVITON.
- ARROW-HART, INC.
- PASS & SEYMOUR/LEGRAND

RECEPTACLES
- GENERAL USE DUPLEX CONVENIENCE RECEPTACLE: HEAVY DUTY. SPECIFICATION GRADE, 20 AMP, 125 VOLT, NEMA 5- 20R HUBBEL CAT. NO. HBL5352.
- WEATHER-RESISTANT: CORROSION RESISTANT HEAVY DUTY. SPECIFICATION GRADE, 20 AMP DUPLEX, 125 VOLT, NEMA 5-20P. HBL53CM62 (COLOR-YELLOW)
- GFCI RECEPTACLE, HEAVY DUTY: SPECIFICATION GRADE, SELF-TESTING, 20 AMP, 125 VOLT, NEMA 5-20R, UL 2096 COMPLIANT. HUBBELL CAT. NO GFST20.
- WEATHER-RESISTANT GFCI: EXTRA HEAVY-DUTY GRADE, 20 AMP DUPLEX, 125 VOLT, NEMA 5-20R, UL 2096 COMPLIANT, HUBBELL CAT. NO. GFR5362.

WEATHERPROOF COVERPLATE: GASKETED DIE CAST METAL PLATE WITH HINGED AND GASKETED DEVICE COVERS. COVER SHALL ALLOW CORDS TO BE PLUGGED IN AND COVER CLOSED. PROVIDE INTERMATIC CP1010MC FOR SINGLE DUPLEX RECEPTACLES OR WP1630MC FOR DOUBLE (QUAD) DUPLEX RECEPTACLES.

EXECUTION
INSTALL RECEPTACLES WITH GROUNDING POLE ON TOP.

CONNECT WIRING DEVICE GROUNDING TERMINAL TO OUTLET BOX WITH BONDING JUMPER AND BRANCH CIRCUIT EQUIPMENT GROUNDING CONDUCTOR

INSTALL GALVANIZED STEEL PLATES ON OUTLET BOXES AND JUNCTION BOXES IN UNFINISHED AREAS. ABOVE ACCESSIBLE CEILINGS, AND ON SURFACE MOUNTED OUTLETS.

DO NOT USE TERMINALS ON WIRING DEVICES (HOT OR NEUTRAL) FOR FEED-THROUGH CONNECTIONS. LOOPED OR OTHERWISE MAKE CIRCUIT CONNECTIONS VIA WIRE CONNECTORS AND PIGTAILS.

PROVIDE A LAYER OF ELECTRICAL TAPE AROUND PERIMETER SIDES OF EACH WIRING DEVICE SO THAT TERMINATIONS ARE INSULATED.

WHERE GFI PROTECTED RECEPTACLES ARE INDICATED ON DRAWINGS, EACH RECEPTACLE INDICATED SHALL BE A GFI RECEPTACLE. STANDARD RECEPTACLES PROTECTED WITH AN UPSTREAM GFI RECEPTACLE SHALL NOT BE APPROVED.

VERIFY EACH RECEPTACLE DEVICE IS ENERGIZED.

TEST EACH RECEPTACLE DEVICE FOR PROPER POLARITY.

TEST EACH GFCI RECEPTACLE DEVICE FOR PROPER OPERATION.

MARK PANEL AND CIRCUIT NUMBER SERVING DEVICE ON BACKSIDE OF DEVICE PLATE WITH A PERMANENT MARKING SYSTEM THAT DOES NOT SHOW THROUGH FRONT OF PLATE.

LIGHTING FIXTURES

PRODUCTS
REFER TO PLANS AND/OR TO LIGHTING FIXTURE SCHEDULE.

LIGHT FIXTURES WITH INTEGRAL LED'S SHALL BE PROVIDED WITH THE FOLLOWING COLOR CHARACTERISTICS. SEE LIGHTING FIXTURE SCHEDULE FOR ANY EXCEPTIONS.
- LED'S WITH A COLOR RENDERING INDEX OF 80 OR HIGHER.

PROVIDE LED LIGHT FIXTURES WITH 0-10 VDC DIMMING CAPABILITY WITH INTEGRAL DRIVERS UNLESS NOTED OTHERWISE IN THE LIGHTING FIXTURE SCHEDULE.

EXECUTION
WHERE LAMPS ARE NEEDED, PROVIDE FIXTURES COMPLETE WITH INITIAL FILL OF LAMPS AS SCHEDULED. PROVIDE BALLASTS AS SPECIFIED.

CONTRACTOR SHALL VERIFY CEILING CONSTRUCTION PRIOR TO ORDERING FIXTURES. PROVIDE RECESS FIXTURES WITH TRIM CHARACTERISTICS COMPATIBLE WITH CEILING TYPES WHERE FIXTURES ARE TO BE INSTALLED.

DEMOLITION

CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY EXISTING CODE VIOLATIONS OBSERVED DURING THE COURSE OF PERFORMING HIS WORK. THE ENGINEER WILL DECIDE IF CORRECTIVE ACTION NEEDS TO BE TAKEN. CORRECTIVE ACTIONS THAT CHANGE THE SCOPE OF THE WORK WILL BE CONSIDERED A CHANGE ORDER AND WILL BE PROCESSED ACCORDINGLY.

EXISTING BUILDINGS SHALL REMAIN IN SERVICE DURING CONSTRUCTION.

PRIOR TO DEMOLITION OR ALTERATION OF STRUCTURES, THE FOLLOWING SHALL BE ACCOMPLISHED:
- OWNER RELEASE OF SUCH STRUCTURE.
- DISCONNECTION OF ELECTRICAL POWER TO EQUIPMENT AND CIRCUITS REMOVED OR AFFECTED BY DEMOLITION WORK.
- ELECTRICAL SERVICES REROUTED OR SHUT OFF OUTSIDE AREA OF DEMOLITION.
- COORDINATE SEQUENCING WITH OWNER AND OTHER CONTRACTORS.
- SURVEY AND RECORD CONDITION OF EXISTING FACILITIES TO REMAIN IN PLACE THAT MAY BE AFFECTED BY DEMOLITION OPERATIONS.

POWER OUTAGES AND INTERRUPTIONS IN BUILDING SYSTEMS SHALL BE HELD TO A MINIMUM AND SHALL BE DONE AT A TIME CONVENIENT TO OWNER. TIME OF ALL OUTAGES SHALL BE SCHEDULED WITH OWNER AND ALL OTHER TRADES AFFECTED BY OUTAGE AT LEAST TEN WORKING DAYS IN ADVANCE.

IDENTIFY SALVAGE ITEMS IN COOPERATION WITH OWNER. OWNER MAY KEEP ANY EQUIPMENT IN DEMOLITION AREAS. CONTRACTOR SHALL DELIVER EQUIPMENT OWNER WANTS SALVAGED TO AREA IN BUILDING DESIGNATED BY OWNER. CONTRACTOR SHALL REMOVE ALL MATERIALS IN DEMOLISHED AREA NOT SALVAGED FROM SITE. CONTRACTOR SHALL OBTAIN RELEASE OF ALL MATERIALS BEFORE DISPOSITION.

AFTER DEMOLITION OPERATIONS ARE COMPLETED, SURVEY CONDITIONS AND RESTORE EXISTING FACILITIES TO THEIR PRE-DEMOLITION CONDITION.

REMOVE ABANDONED CONDUIT, INCLUDING ABANDONED CONDUIT ABOVE ACCESSIBLE CEILINGS. CUT CONDUIT CAST INTO CONCRETE STRUCTURES FLUSH WITH WALLS AND FLOORS. PATCH SURFACES AROUND CONDUITS.

REMOVE CONDUIT, WIRE, BOXES, AND FASTENING DEVICES TO AVOID ANY INTERFERENCE WITH NEW INSTALLATION.

DE-ENERGIZE AND DISCONNECT ELECTRICAL SYSTEMS IN WALLS, FLOORS, AND CEILINGS SCHEDULED FOR REMOVAL.

DISCONNECT OR SHUT OFF POWER TO AREAS WHERE ELECTRICAL WORK IS TO BE REMOVED. REMOVE ELECTRICAL FIXTURES, EQUIPMENT AND RELATED SWITCHES, OUTLETS, CONDUIT AND WIRING WHICH ARE NOT PART OF FINAL PROJECT.

REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTION.

REMOVE ABANDONED GROUNDING AND BONDING COMPONENTS. FASTENERS AND SUPPORTS, AND ELECTRICAL IDENTIFICATION COMPONENTS, INCLUDING ABANDONED COMPONENTS ABOVE ACCESSIBLE CEILINGS.

CUT EMBEDDED SUPPORT ELEMENTS FLUSH WITH WALLS AND FLOORS.

FEEDERS, BRANCH CIRCUITS, AND OTHER SYSTEM WIRING WHICH ARE TO REMAIN IN SERVICE BUT WHICH ARE PRESENTLY ROUTED THROUGH AREAS BEING DEMOLISHED SHALL BE REROUTED AROUND DEMOLITION AREA.

WHERE EXISTING BRANCH CIRCUITS ARE TO BE EXTENDED OR MODIFIED, EXISTING CONDUIT THAT HAS NOT BEEN REMOVED MAY BE REUSED AT CONTRACTOR'S DISCRETION. EXISTING CONDUITS THAT ARE REMOVED FROM THEIR EXISTING LOCATION SHALL NOT BE REUSED.

EXISTING WIRING MAY BE SPLICED AND USED TO EXTEND THAT IT WAS NOT REMOVED. EXISTING CONDUCTORS THAT HAVE BEEN REMOVED SHALL NOT BE REUSED.

REMOVE AND PROTECT ITEMS REQUESTED BY OWNER TO BE SALVAGED AND TRANSPORT TO LOCATION ON SITE DESIGNATED BY OWNER.

CONTRACTOR SHALL TOUR DEMOLITION AREAS WITH OWNER TO DETERMINE STATUS OF ALL EQUIPMENT TO BE REMOVED DURING DEMOLITION.

ALL EQUIPMENT THAT IS TO BE SALVAGED FOR REUSE BY THE OWNER SHALL BE REMOVED BY CONTRACTOR AND TRANSPORTED TO AN OWNER DESIGNATED STORAGE AREA ON SITE.

RACEWAY, BOXES, AND SUPPORTING DEVICES SHALL BECOME PROPERTY OF CONTRACTOR AND SHALL BE REMOVED FROM SITE AND DISPOSED OF BY THE CONTRACTOR.

REMOVED EQUIPMENT SHALL BE DISPOSED OF BY CONTRACTOR UNLESS SPECIFICALLY OTHERWISE INDICATED ON DRAWINGS OR REQUESTED BY OWNER. CONTRACTOR SHALL PROVIDE TRANSPORT FOR DISPOSAL.

ANY HAZARDOUS MATERIALS REMOVED FROM SERVICE AS PART OF THIS PROJECT SHALL BE DISPOSED OF BY THE ELECTRICAL CONTRACTOR IN COMPLETE COMPLIANCE WITH ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL LAWS. EXAMPLES OF SUCH MATERIALS WOULD INCLUDE LIGHT FIXTURE LAMPS AND LIGHT FIXTURE BALLASTS THAT CONTAIN REGULATED ELEMENTS.

REFER TO ARCHITECTURAL DEMOLITION PLANS FOR ADDITIONAL WORK, SUCH AS PAINTING, THAT WOULD REQUIRE THE ELECTRICAL CONTRACTOR TO MASK, TAPE, OR OTHERWISE PROTECT EXISTING ELECTRICAL ITEMS NOT SCHEDULED FOR DEMOLITION.

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CLIENT:
CITY OF WATERTOWN

PROJECT TITLE:
PLAZA PHASE II - ADA COMPLIANT CONCRETE RAMP AND STAIR

1 EAST MAIN STREET
WATERTOWN, WISCONSIN 53094

ISSUE:
01 2025-03-24 ADDENDUM #02

WISCONSIN
ERVIN D. STERN
D-17655
SHOREWOOD
WI
DESIGNER
3/24/2025

PROJECT INFORMATION:

PROJECT NUMBER:	2023-0158
DATE:	2025-03-24
DRAWN BY:	JO
CHECKED BY:	ES
APPROVED BY:	ES
SCALE:	AS NOTED

SHEET TITLE:
ELECTRICAL SPECIFICATIONS

SHEET NUMBER:
E-901

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