

**ADDENDUM NO. 1
TO THE
BIDDING DOCUMENTS
FOR
BID NUMBER #24210
WRF IMPROVEMENTS**

PW # 2022.117, 2022.118, 2022.119, 2022.120

**FOR
LAKE COUNTY DEPARTMENT OF PUBLIC WORKS**

DATE: January 26, 2024

TO ALL BIDDERS BIDDING ON THE ABOVE PROJECT:

All Bidders submitting a Bid on the above Contract shall carefully read this Addendum and give it consideration in the preparation of their Bid.

I. The following are revisions to the Specifications:

1. The following revisions shall be made to SECTION 01 11 00C – CONTRACT C SUMMARY OF WORK:
 - A. Page 01 11 00C-2, subparagraph 1.03., add the following:
 - G. For motor control center modifications to 35MCC-1 and 35MCC-2, one MCC shall remain in service at all times, and a minimum of three blowers shall be powered and operational at all times.
 1. If a simultaneous shutdown of 35MCC-1 and 35MCC-2 is required, contractor shall coordinate and schedule the shutdown(s) at the same day and time as allowable shutdowns provided in Section 1.03.F.1. and meet the requirements detailed in Section 1.03.F.2-4.
2. The following revisions shall be made to SECTION 01 35 16 – ALTERATION PROJECT PRODECURES:
 - A. Page 01 35 16, subparagraph 3.08., add the following:
 - D. Contractor shall full comply with the Lake County Construction and Demolition Debris Recycling Ordinance.
 - E. Contract D Only: Contractor shall fill out and submit Recycling Plan prior to construction and Recycling Compliance Report after construction. See Appendix for forms.
3. The following revisions shall be made to SECTION 01 41 00 – REGULATORY REQUIREMENTS:
 - A. Page 01 41 00-1, subparagraph 1.01.A., add the following:
 6. Lake County Solid Waste Hauling and Recycling Ordinance.

- a. Complete and submit Lake County Construction and Demolition Debris Recycling Plan prior to construction. Form is included in the Appendix.
- b. Complete and submit Lake County Construction and Demolition Debris Recycling Compliance Report prior to Substantial Completion of project. Form is included in Appendix.

4. The following revisions shall be made to SECTION 46 61 41 – DISC FILTERS:

- A. Page 46 61 41-2, subparagraph 2.02, line 11, replace “Maximum Filter Disc Diameter, ft” with “Maximum Filter Disc Diameter, meters”

II. The following are revisions to the Specifications Appendix:

1. The following revisions shall be made to the Table Contents:

A. Add the following:

- 10. Lake County Construction and Demolition Debris Recycling Plan 3 pages
- 11. Lake County Construction and Demolition Debris Recycling Compliance Report 1 page

2. Insert forms attached to this Addendum immediately after the last page of the General NPDES Permit.

III. The following are revisions to the Drawings which pertain to All Contracts:

- 1. Sheet 6, Drawing 001-G-3, delete Drawing 001-G-3 and add a revised Drawing 001-G-3 attached to this Addendum.
- 2. Sheet 126, Drawing 999-S-1, delete Drawing 999-S-1 and add a revised Drawing 999-S-1 attached to this Addendum.

IV. The following are revisions to the Drawings which pertain to Contract A:

- 1. Sheet 31, Drawing 050-S-4, delete Drawing 050-S-4 and add a revised Drawing 050-S-4 attached to this Addendum.
- 2. Sheet 32, Drawing 050-S-5, delete Drawing 050-S-5 and add a revised Drawing 050-S-5 attached to this Addendum.
- 3. Sheet 33, Drawing 050-S-6, delete Drawing 050-S-6 and add a revised Drawing 050-S-6 attached to this Addendum.
- 4. Sheet 34, Drawing 050-S-7, delete Drawing 050-S-7 and add a revised Drawing 050-S-7 attached to this Addendum.

V. The following are revisions to the Drawings which pertain to Contract C:

- 1. Sheet 75, Drawing 035-S-2, delete Drawing 035-S-2 and add a revised Drawing 035-S-2 attached to this Addendum.
- 2. Sheet 76, Drawing 035-S-3, delete Drawing 035-S-3 and add a revised Drawing 035-S-3 attached to this Addendum.
- 4. Sheet 79, Drawing 035-M-3, delete Drawing 035-M-3 and add a revised Drawing 035-M-3 attached to this Addendum.

VI. The following are revisions to the Drawings which pertain to Contract D:

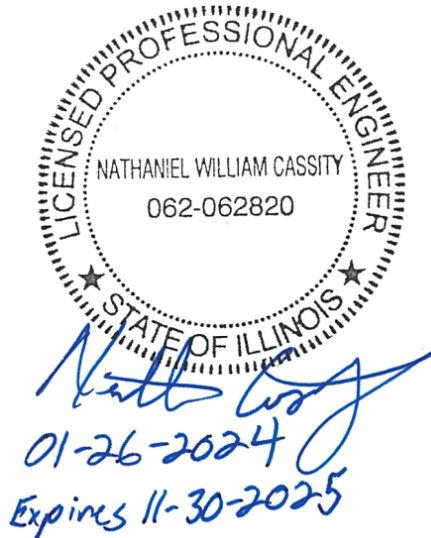
1. Sheet 102, Drawing 065-A-1, delete Drawing 065-A-1 and add a revised Drawing 065-A-1 attached to this Addendum.
2. Sheet 105, Drawing 065-AS-3, delete Drawing 065-AS-3 and add a revised Drawing 065-AS-3 attached to this Addendum.
3. Sheet 115, Drawing 065-M-4, delete Drawing 065-M-4 and add a revised Drawing 065-M-4 attached to this Addendum.

VII. Any revisions to any of the Contract Documents made by this Addendum shall be considered as the same revision to any and all related areas of the Contract Documents not specifically called out in this Addendum.

VIII. The Bidder shall acknowledge receipt of this Addendum using the Addendum Acknowledgement form.

DONOHUE & ASSOCIATES, INC.
SHEBOYGAN, WISCONSIN

Nathan Cassity, PE





Lake County Central Permit Facility
500 West Winchester Road, Unit 101
Libertyville, Illinois 60048-1331
Phone: 847.377.2600
E-mail: lcpermits@lakecountyil.gov

Lake County Construction and Demolition Debris Recycling Plan

This form must be completed by the applicant before a permit will be issued for any new construction, renovation, and/or demolition projects of 1,500 square feet or greater gross floor area.

Permit Number: Project Description:

Start Date of Construction: (Enter a proposed start date)

1. Please identify what materials will be diverted from disposal to meet the 75% diversion Requirement:

Two horizontal lines for text entry.

2. Will the C&D debris be separated on-site or left co-mingled and taken to a C&D debris recycling facility for final sorting?

Describe:

3. List vendors or facilities that will collect or receive the C&D Debris:

Please take note of the following requirements and initial the form:

- It is the owner/contractor's responsibility to verify that 75% of all construction and demolition debris has been diverted from area landfills. This includes all debris hauled away by sub-contractors.
The waste hauler you select must be informed that there is a construction and demolition debris diversion ordinance. The hauler selected must submit verification of compliance before a final inspection can be scheduled or a Certificate of Occupancy issued.
Failure to comply with the Lake County Solid Waste Hauling and Recycling Ordinance may result in fines and hearing costs in excess of \$1,000.00.

Lake County Solid Waste Hauling and Recycling Ordinance

Construction and Demolition Debris Recycling Program

Effective January 1, 2014, Lake County has adopted the Lake County Solid Waste Hauling and Recycling Ordinance. This ordinance requires 75% of construction and demolition debris to be diverted from landfills for all new construction, renovation, demolition, entire re-roofing, or entire re-siding projects of 1,500 square feet or greater gross floor area, in unincorporated Lake County.

For all re-roofing and re-siding projects, there are two steps to construction debris recycling:

1. Sign the re-roofing or re-siding registration form or permit application.
2. Have the construction debris hauled to a facility that recycles, meeting the 75% diversion requirement.

For all other projects of 1,500 square feet or greater gross floor area, there are four steps to construction debris recycling:

1. Sign the permit application.
2. Complete the "Construction and Demolition Debris Recycling Plan" and submit it with your permit application documents.
3. Have the construction debris hauled to a facility that recycles and ask for receipts that show the weight of debris generated by the project and the weight of debris being recycled or diverted from landfill disposal.
4. Ten or more days prior to final inspection, submit a completed "Construction and Demolition Debris Recycling Compliance Report" along with the receipts that show that the 75% diversion requirement has been met. Fax to (847) 984-5854 or send via email to: lcpermits@lakecountyiil.gov

The full text of the ordinance is available online at: <http://tinyurl.com/y79dyeos>

If you have any questions, please call the Lake County Central Permit Facility at (847) 377-2600.

I/We, _____, agree that I/we will comply with the requirements of the Solid Waste Hauling and Recycling Ordinance by diverting 75% of construction and demolition debris generated by this project, as described above. **I/We understand that compliance with this ordinance is mandatory. Failure to comply may result in fines and a delay in issuance of a certificate of occupancy. I/We further agree that burning or other improper disposal of construction and demolition debris is not an acceptable form of compliance with the ordinance.**

Signature of applicant or general contractor

Date

C&D Debris Haulers						
HAULER	ADDRESS	CITY	ST	ZIP	PHONE	
TKG Environmental Services	345 Lakewood Ave	Waukegan	IL	60085	847-505-1400	
American Roll Off Systems	611 Lakeshore Blvd.	Wauconda	IL	60084	847 526-7643	
Americlean Dependable Roll Off	32023 N Pine Ave	Grayslake	IL	60030	847 566-8080	
Box Co.	24213 Forest Dr.	Lake Zurich	IL	60047	847-847-7707	
Brakenbox	2300 W 167th St.	Markham	IL	60428	708 331-4200	
C & M Recycling	1600 Morrow Ave.	North Chicago	IL	60064	847 578-1066	
CADCO Waste Service	40 W Hwy 173	Antioch	IL	60002	847 782-1776	
Cleveland Corporation	400 N. Greenbay Rd.	Zion	IL	60099	847 872-7200	
College Hunks Hauling Junk	3182 Doolittle Dr	Northbrook	IL	60062	224 374-1804	
O & M Roll Off Service	P.O. Box 95335	Palatine	IL	60062	847 419-1416	
D & P Construction	8605 W. Bryn Maur Ave Ste. 301	Chicago	IL	60631	773 714-9330	
Direct Source Material Handling	2306 Hatchery Rd.	Spring Grove	IL	60081	815-675-0363	
DisposAll Waste Services	6201 Canal Bank Rd.	Forest View	IL	60402	708 458-9800	
Doc's Dumpsters, Inc.	2121 S. River Rd.	McHenry	IL	60051	815 385-5025	
Eagle Biomass	1400 S. IL Rt. 31 Suite 203	McHenry	IL	60050	815 378-8188	
Excel Disposal	5817 46th St.	Kenosha	WI	53144	262 657-0575	
Groot Industries	40 Poter Drive	Round Lake Park	IL	60073	847 693-2700	
Ideal Roll Off Services	3600 Pacific Ave	Gurnee	IL	60031	847 623-9110	
Justrite Roll Off Container Services	42339 N Fossland Ave.	Zion	IL	60099	847 746-1308	
K. Hoving Recycling & Disposal	2351 Powis Dr.	West Chicago	IL	60185	630 377-7000	
Liberty Waste & Recycling Service	24821 N. Gilmer Rd.	Mundelein	IL	60060	877 949-8720	
MBL Recycling	630 S Hicks Rd.	Palatine	IL	60067	847 776-1500	
Petersen Disposal Service	35845 N Barberrry Ln	Gurnee	IL	60031	847 623-3010	
Premium Disposal	205 E Butterfield Rd. #287	Elmhurst	IL	60126	630 530-9118	
Advanced Disposal Services	2230 Ernie Kruger Circle	Waukegan	IL	60087	847 623-3870	
Waste Management North	22333 W. Hwy. 173	Antioch	IL	60002	800 796-9696	

Note: The firms listed do not represent an endorsement by Lake County but are provided solely as a courtesy to customers who require such services within Lake County. It is the owner's/contractor's responsibility to notify their hauler about the 75% diversion requirement. Construction and demolition debris haulers are not required to be selected from this list.



Lake County Central Permit Facility
500 West Winchester Road
Libertyville, Illinois 60048-1331
Phone: 847.377.2600
E-mail lcpermits@lakecountyil.gov

Lake County Construction and Demolition Debris Recycling Compliance Report

This form must be completed by the applicant and submitted not less than ten (10) business days prior to the scheduled date for the final inspection of any new construction, renovation, and/or demolition projects of 1,500 square feet or greater gross floor area.

Permit # _____

Project Description: _____

Start Date of Demolition or Construction (C & D): _____

Weight of C & D Debris Generated _____ lbs.

Weight of C & D Debris Diverted _____ lbs.

Percent Diverted _____ (must be equal to or exceed 75%)

Please attach **receipts** from all vendors and facilities which collected or received C & D debris indicating weights received by each.

I, _____ to the best of my knowledge and ability have complied with the requirements of the Solid Waste Hauling and Recycling Ordinance by diverting 75% of construction and demolition debris generated by this project.

Signature

Date

Please send this report by fax (847) 984-5854 or by email: lcpermits@lakecountyil.gov, along with receipts that show that the 75% diversion requirement has been met.

PLUMBING / HVAC ABBREVIATIONS AND SYMBOLS

PLUMBING LEGEND

	HW - HOT WATER PIPE (ON PLUMBING DRAWINGS)
	HWRE - HOT WATER RECIRCULATING PIPE (ON PLUMBING DRAWINGS)
	HWS - HEATING WATER SUPPLY PIPE (ON HVAC DRAWINGS)
	HWR - HEATING WATER RETURN PIPE (ON HVAC DRAWINGS)
	PIPE (REFER TO FLOW STREAM IDENTIFIERS)
	BELOW SLAB OR BURIED PIPE (REFER TO FLOW STREAM IDENTIFIERS)
	VENT
	ELBOW FITTING (TURNED DOWN)
	ELBOW FITTING (TURNED UP)
	TEE OUTLET UP
	TEE OUTLET DOWN
	PIPE ANCHOR
	PIPE HANGER
	PIPE GUIDE
	CAP
	EXPANSION JOINT
	UNION
	FLANGE
	VENT THRU ROOF
	FLOOR DRAIN
	CLEANOUT
	FLOOR CLEANOUT
	WALL CLEANOUT
	HUB DRAIN
	ROOF DRAIN
	OVERFLOW DRAIN
	TRENCH DRAIN
	YARD HYDRANT
	WALL HYDRANT
	HOSE BIBB
	REDUCER (CONCENTRIC)
	REDUCER (ECCENTRIC)
	BALL VALVE
	BUTTERFLY VALVE
	CHECK VALVE
	GATE VALVE
	ANGLE STOP
	GLOBE VALVE
	PLUG VALVE
	PRESSURE REDUCING VALVE
	RELIEF OR SAFETY VALVE
	CONTROL VALVE (2-WAY)
	CONTROL VALVE (3-WAY)
	BALANCING VALVE
	MANUAL AIR VENT
	STRAINER
	BACKFLOW PREVENTER
	WATER HAMMER ARRESTOR

HVAC LEGEND

	ACCESS DOOR
	DUCT (FIRST FIG. IS SIDE SHOWN)
	DUCT SECTION (RETURN)
	DUCT SECTION (SUPPLY)
	DUCT LINING
	RETURN, EXHAUST OR SUPPLY GRILLE W/ MVD
	ELBOW DOWN
	ELBOW W/ TURNING VANES
	MANUAL VOLUME DAMPER
	FLEXIBLE CONNECTOR
	SMOKE DETECTOR
	STAT, T=TEMP, H=HUMIDITY, P=PRESSURE, G=GAS XX GAS MONITORED
	SENSOR WITH DISPLAY AND ADJUSTMENT
	SENSOR WITHOUT DISPLAY OR ADJUSTMENT
	FIRE DAMPER
	MOTOR OPERATED DAMPER
	GRAVITY BACKDRAFT DAMPER
	PRESSURE GAUGE
	THERMOMETER

FLOWSTREAM IDENTIFIERS

AI	INSTRUMENT AIR	HWR	HEATING WATER RETURN
AHP	AIR (HIGH PRESSURE)	HWRE	HOT WATER RECIRCULATION
AV	ACID VENT	HWS	HEATING WATER SUPPLY
AW	ACID WASTE	RHG	REFRIGERANT (HOT GAS)
CND	CONDENSATE	RL	REFRIGERANT (LIQUID)
CGR	COOLING GLYCOL RETURN	RS	REFRIGERANT (SUCTION)
CGS	COOLING GLYCOL SUPPLY	SAN	SANITARY SEWER
CR	CONDENSATE RETURN	SLP	STEAM (LOW PRESSURE)
CWR	CHILLED WATER RETURN	STM	STORM SEWER
CWS	CHILLED WATER SUPPLY	TW	TEMPERED WATER
F	FIRE SPRINKLER	V	VENT
NG	GAS (NATURAL)	W1	POTABLE CITY WATER
HGR	HEATING GLYCOL RETURN	W2	NON-POTABLE CITY WATER
HGS	HEATING GLYCOL SUPPLY	W3	PLANT EFFLUENT WATER (NOT-POTABLE)
HPHW	HIGH PRESSURE HOT WATER		
HPW	HIGH PRESSURE WATER		
HW	HOT WATER		

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	MVD	MANUAL VOLUME DAMPER
BDD	BACKDRAFT DAMPER	OA	OUTSIDE AIR
BOD	BOTTOM OF DUCT	PSIG	POUND PER SQUARE INCH (GAUGE)
CL	CENTER LINE ELEVATION	THRU	THROUGH
DFU	DRAINAGE FIXTURE UNIT	TOD	TOP OF DUCT
EL	ELEVATION	VTR	VENT THROUGH ROOF
EXP	EXPLOSION PROOF	WSFU	WATER SUPPLY FIXTURE UNIT
H-O-A	HAND-OFF-AUTO SWITCH	VIF	VERIFY IN FIELD
HP	HIGH POINT		
LP	LOW POINT		

EQUIPMENT / FIXTURE TAG IDENTIFIERS

ACU	AIR CONDITIONING UNIT	IH	INTAKE HOOD
ACCU	AIR COOLED CONDENSING UNIT	LAV	LAVATORY
AHU	AIR HANDLING UNIT	MAU	MAKE-UP AIR UNIT
B	BOILER	MCD	MOTOR CONTROL DAMPER
BS	BRANCH SELECTOR	MS	MOP SINK
CO	CLEANOUT	OAL	OUTSIDE AIR LOUVER
CP	CIRCULATING PUMP	P	PUMP
CS	COUNTERTOP SINK	RAL	RELIEF AIR LOUVER
DEH	DEHUMIDIFIER	RD	ROOF DRAIN
EAL	EXHAUST AIR LOUVER	RG	RETURN GRILLE
EEW	EMERGENCY EYEWASH STATION	RH	RELIEF HOOD
EF	EXHAUST FAN	RHP	RADIANT HEATING PANEL
EG	EXHAUST GRILLE	RZP	REDUCED ZONE PRESSURE BACKFLOW PREVENTER
EH	ELECTRIC HEATER	RTU	ROOFTOP UNIT
EUH	ELECTRIC UNIT HEATER	SD	SUPPLY DIFFUSER
EWC	ELECTRIC WATER COOLER	SF	SUPPLY FAN
EWH	ELECTRIC WATER HEATER	SG	SUPPLY GRILLE
EWS	EMERGENCY WASH STATION	SHR	SHOWER
FCU	FAN COIL UNIT	SP	SUMP PUMP
FD	FLOOR DRAIN	SPCP	SUMP PUMP CONTROL PANEL
GDCP	GAS DETECTION CONTROL PANEL	SS	SERVICE SINK
GUH	GAS UNIT HEATER	TCP	TEMPERATURE CONTROL PANEL
GWH	GAS WATER HEATER	TG	TRANSFER GRILLE
HB	HOSE BIB	TMV	THERMOSTATIC MIXING VALVE
HD	HUB DRAIN	UR	URINAL
HP	HEAT PUMP	VAV	VARIABLE AIR VOLUME BOX
HPHW	HIGH PRESSURE HOT WATER SYSTEM	WCCU	WATER COOLED CONDENSING UNIT
HPW	HIGH PRESSURE WATER SYSTEM	WC	WATER CLOSET
HUH	HOT WATER UNIT HEATER	WH	WALL HYDRANT
HWC	HOT WATER CONVECTOR	WHA	WATER HAMMER ARRESTOR (*"X" LETTER INDICATES SIZE)
ICD	INSULATED MOTOR CONTROL DAMPER		

ABBREVIATIONS

A	AMPERE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
C	CONTACTOR/CONDUIT/COIL
CB	CIRCUIT BREAKER
CKT, CCT	CIRCUIT
DISC	DISCONNECT
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFP	GROUND FAULT PROTECTION
GRD	GROUND
GRS	GALVANIZED RIGID STEEL
HF	HARMONIC FILTER
HH	HANDHOLE
HP	HORSEPOWER
J	JUNCTION BOX
KVA	KILOVOLT AMPERE
KW	KILOWATT
LC	LIGHTING CONTACTOR
LCP	LOCAL CONTROL PANEL
LED	LIGHT EMITTING DIODE
LP	LIGHTING PANEL
LSIGA	LONG TIME, SHORT TIME, INSTANTANEOUS, GROUND, ARC FLASH
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MH	MANHOLE
MV	MEDIUM VOLTAGE
NEC	NATIONAL ELECTRICAL CODE (ANSI/NFPA-70)
NEU, N	NEUTRAL
NC	NORMALLY CLOSED
NF	NON FUSED
NGR	NEUTRAL GROUND RESISTOR
NO	NORMALLY OPEN
OL	OVERLOAD RELAY
P	PHASE/POLE
PC	PHOTOCELL
PMG	PADMOUNT GEAR
PMT	PADMOUNT TRANSFORMER
PP	POWER PANEL
PVC	POLY VINYL CHLORIDE
SCCR	SHORT CIRCUIT CURRENT RATING
SPD	SURGE PROTECTIVE DEVICE
SW	SWITCH
SWBD	SWITCH BOARD
SWGR	SWITCHGEAR
V	VOLTS
VFC	VENDOR FURNISHED CABLE
VFD	VARIABLE FREQUENCY DRIVE
W	WIRE
WP	WEATHERPROOF
TR	TRANSFORMER
XP	EXPLOSION PROOF

ONE-LINE SYMBOLS

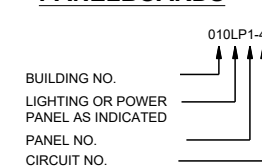
	MOLDED CASE CIRCUIT BREAKER (UPPER NUMERAL INDICATES FRAME SIZE) (LOWER NUMERAL INDICATES TRIP SETTING) (CL - INDICATES CURRENT LIMITING CIRCUIT BREAKER) (M - INDICATES MOTOR CIRCUIT PROTECTOR) (MAGNETIC STARTER AND MOLDED CASE CIRCUIT BREAKER)
	(FVNR - INDICATES FULL VOLTAGE NON-REVERSING)
	(FVR - INDICATES FULL VOLTAGE REVERSING)
	(SSRV - INDICATES SOLID STATE REDUCED VOLTAGE)
	(TSTW - INDICATES TWO SPEED TWO WINDING)
	(TSSW - INDICATES TWO SPEED SINGLE WINDING)
	(CONT - INDICATES CONTACTOR) (AUXILIARY CONTACTS - (2a TWO N.O.), (1b ONE N.C.) (NUMERAL INDICATES NEMA SIZE)
	COMBINATION MAGNETIC STARTER WITH MOLDED CASE CIRCUIT BREAKER (FVNR - INDICATES FULL VOLTAGE NON-REVERSING) (FVR - INDICATES FULL VOLTAGE REVERSING) (SSRV - INDICATES SOLID STATE REDUCED VOLTAGE) (TSTW - INDICATES TWO SPEED TWO WINDING) (AUXILIARY CONTACTS - (2a TWO N.O.), (1b ONE N.C.) (NUMERAL INDICATES NEMA SIZE)
	KEY INTERLOCK
	DELTA
	WYE GROUND
	AUTOMATIC TRANSFER SWITCH
	GENERATOR
	DRAW-OUT LV POWER CIRCUIT BREAKER (NUMERAL INDICATES DEVICE NUMBER)
	FUSED SWITCH (NUMERAL INDICATES FUSE SIZE)
	LIGHTNING ARRESTER
	UTILITY METER
	TRANSFORMER
	GROUND
	MOTOR (NUMERAL INDICATES HORSEPOWER)
	DRAW-OUT CIRCUIT BREAKER (NUMERAL INDICATES DEVICE NUMBER)
	MEDIUM-VOLTAGE TERMINATION
	CURRENT TRANSFORMER AND PROTECTIVE DEVICE (NUMERAL INDICATES DEVICE NUMBER)

ELECTRICAL ABBREVIATIONS AND SYMBOLS

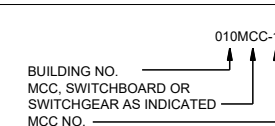
PLAN SYMBOLS

	LED FIXTURE - RECESSED (LETTER DENOTES TYPE)
	LED FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
	LED FIXTURE - WALL MOUNTED (LETTER DENOTES TYPE)
	LED OR HID FIXTURE - WALL MOUNTED (LETTER DENOTES TYPE)
	LED OR HID FIXTURE - POLE MOUNTED FIXTURE (LETTER DENOTES TYPE)
	LED OR HID FIXTURE - SURFACE/SUSPENDED (LETTER DENOTES TYPE)
	EMERGENCY BATTERY LIGHT
	REMOTE HEAD FOR EMERGENCY BATTERY LIGHT
	EXIT LIGHT WITH INDICATING DIRECTIONAL ARROW
	COMBO EMERGENCY LIGHT/EXIT SIGN
	SWITCH (SINGLE POLE, 2-POLE, 3-WAY, 4-WAY)
	MOMENTARY CONTACT SWITCH - CENTER OFF
	SWITCH / PILOT LIGHT
	DUPLEX GROUND RECEPTACLE - 120V
	EXPLOSIONPROOF SIMPLEX GROUND RECEPTACLE - 120V
	TELEPHONE OUTLET, WALL MOUNT WITH 3/4" CONDUIT TO TELEPHONE TERMINAL CABINET
	DATA INFORMATION OUTLET
	RECESSED CEILING SPEAKER
	VOLUME CONTROL
	WALL SPEAKER
	SMOKE DETECTOR
	FIRE ALARM HORN
	FIRE ALARM HORN AND STROBE
	FIRE ALARM STROBE
	FIRE ALARM PULL STATION
	HEAT DETECTOR
	FLOW SWITCH
	MOTION DETECTOR
	CONNECTION TO EQUIPMENT
	SPECIAL PURPOSE RECEPTACLE, NEMA TYPE AND AMPERE RATING AS INDICATED
	DUPLEX GROUND RECEPTACLE - 120V MOUNTED ABOVE COUNTERS OR WORK BENCHES
	3 WAY OR 4 WAY LIGHT AIR SWITCHES

PANELBOARDS



MOTOR CONTROL CENTER



DEVICE NUMBER	FUNCTION
27	UNDervOLTAGE RELAY
32	REVERSE POWER RELAY
46	PHASE-BALANCE CURRENT RELAY
47	PHASE-SEQUENCE VOLTAGE RELAY
50	INSTANTANEOUS OVERCURRENT
51	AC TIME OVERCURRENT RELAY
51N	GROUND OVERCURRENT
52	AC CIRCUIT BREAKER
59	OVERVOLTAGE RELAY
67	AC DIRECTIONAL OVERCURRENT
86	OVER/UNDER FREQUENCY RELAY
87	LOCKOUT RELAY
89	DIFFERENTIAL POTENTIAL TRANSFORMER

NOTE:

- THIS IS A STANDARD LEGEND. NOT ALL OF THE INFORMATION SHOWN ON THIS LEGEND IS NEEDED IN THESE CONTRACT DRAWINGS.
- WORK IN THIS CONTRACT SHOWN FULL TONE UNLESS OTHERWISE NOTED.

CODE COMPLIANCE NOTES
 CODE:
 2017 NATIONAL ELECTRICAL CODE (NEC)
 ILLINOIS ENERGY CONSERVATION CODE
 ASHRAE 90.1
 STATE OF ILLINOIS PLUMBING CODE
 2018 INTERNATIONAL MECHANICAL CODE
 2018 INTERNATIONAL FUEL GAS CODE

Date	01/25/2024
Checked By	JLP
Drawn By	JLP
Revision Description	ADDENDUM 1
Revision Number	1
Designed By	JLP/CEB
Drawn By	JLP/CEB
Checked By	JLW/JTB
Approved By	JLW/JTB
Filename	001G3.DWG
Project No.	14207/14208/14212
Project Date	JAN 2024

**LAKE COUNTY DEPARTMENT OF PUBLIC WORKS
WRF IMPROVEMENTS**

**GENERAL
PLUMBING LEGEND/HVAC LEGEND/ELECTRICAL LEGEND**

DONOHUE

Sheet No. 6
 Drawing No. 001-G-3

GENERAL STRUCTURAL NOTES

GENERAL

- THE GENERAL STRUCTURAL NOTES AND STANDARD STRUCTURAL DETAILS APPLY TO THE ENTIRE PROJECT UNLESS SPECIFICALLY NOTED OTHERWISE.

DESIGN CRITERIA

- DESIGN AND CONSTRUCT IN CONFORMANCE WITH THE INTERNATIONAL BUILDING CODE, 2018 EDITION.

2. SUPERIMPOSED DESIGN LOADS

- DPR STRUCTURE 065 - FLOOR LIVE LOAD
- DPR STRUCTURE 050 - FILTER PLATFORM LIVE LOAD
- ROOF LIVE LOAD
- ROOF DEAD LOAD
- MECHANICAL EQUIPMENT
- STAIRS AND WALKWAYS
- RISK CATEGORY OF BUILDING III

150 PSF + EQUIP
60 PSF
20 PSF
10 PSF
VERIFY WITH MFR
100 PSF OR 1000 CONC III

H. SNOW LOAD:

- GROUND SNOW LOAD, P_g
- FLAT ROOF SNOW LOAD, P_f
- SNOW EXPOSURE FACTOR, C_e
- SNOW LOAD IMPORTANCE FACTOR, I
- THERMAL FACTOR, C_t

30 PSF
24 PSF + DRIFT
1.0
1.1
1.0

I. WIND LOAD:

- ULTIMATE DESIGN WIND SPEED, V_{ult}
- NOMINAL DESIGN WIND SPEED, V_{asd}
- WIND EXPOSURE
- INTERNAL PRESSURE COEFFICIENT, G_{cpi}
- COMPONENTS AND CLADDING WIND PRESSURES

114 MPH
89 MPH
C
+/- 0.18 PSF
+/- 30 PSF

3. SEISMIC DESIGN DATA:

- IMPORTANCE FACTOR, I 1.25
- MAPPED SPECTRAL RESPONSE ACCELERATIONS
 - S_s 0.111g
 - S_1 0.059g
- SITE CLASS D
- SPECTRAL RESPONSE COEFFICIENTS
 - S_{ds} 0.118g
 - S_{d1} 0.095g
- SEISMIC DESIGN CATEGORY B
- ANALYSIS PROCEDURE EQUIVALENT LATERAL FORCE PROCEDURE

FOUNDATIONS

- GEOTECHNICAL INVESTIGATION BY SOIL AND MATERIAL CONSULTANTS, INC.
 - NET ALLOWABLE SOIL BEARING CAPACITY: 2000 PSF
- PLACE FOOTINGS ON NATURAL UNDISTURBED EARTH, STRUCTURAL FILL, AND FREE DRAINING FILL AS NOTED IN THE DRAWINGS.
- PLACE FILL AGAINST FOUNDATION WALLS ENCLOSING INTERIOR SPACES AFTER CONSTRUCTION SUCH AS CROSS WALLS OR SLABS ARE IN PLACE TO BRACE WALL AND SUCH CONSTRUCTION HAS REACHED ITS DESIGN STRENGTH.
- TO MINIMIZE LATERAL FORCES AGAINST THE STRUCTURE DUE TO WEDGING ACTION OF THE SOIL, BEGIN COMPACTION OF EACH LAYER AT THE STRUCTURE WALL.

REINFORCEMENT

- REINFORCEMENT STEEL
 - DEFORMED BARS: ASTM A615 - GRADE 60
 - UNLESS NOTED OTHERWISE PROVIDE CLEAR COVER FOR REINFORCEMENT AS FOLLOWS:
 - CAST AGAINST:
 - EARTH: 3 INCHES
 - MUD SLAB: 2 INCHES
 - EXPOSED TO EARTH, WEATHER, OR WATER
 - SLABS
 - #5 BARS OR SMALLER: 1 1/2 INCHES
 - #6 THROUGH #11 BARS: 2 INCHES
 - WALLS: 2 INCHES
 - NOT EXPOSED TO EARTH, WEATHER, OR WATER
 - SLABS AND WALLS
 - #3 THROUGH #7 BARS: 1 INCH
 - PLACE DOWELS BEFORE PLACING CONCRETE.
 - DO NOT FIELD WELD OR FIELD BEND REINFORCING BARS.

CONCRETE

- DESIGN STRENGTH
 - INTERIOR EQUIPMENT BASES, CONCRETE FILLETS IN TANKS, AND WHERE SPECIFICALLY NOTED CLASS B: $FC = 3000$ PSI
 - ALL LOCATIONS, EXCEPT WHERE CLASS B SPECIFIED CLASS A: $FC = 4500$ PSI
 - STRUCTURAL PRECAST CONCRETE $FC = 4000$ PSI
- PROVIDE WATERSTOP IN CONSTRUCTION JOINTS IN
 - WALLS AND SLABS SEPARATING DRY INTERIOR FROM EARTH OR LIQUID.
 - EXTERIOR WALLS AND SLABS OF LIQUID HOLDING TANKS
 - OTHER LOCATIONS SHOWN ON DRAWINGS.
- UNLESS NOTED OTHERWISE, CONSTRUCTION JOINTS SHOWN ARE OPTIONAL CONSTRUCTION JOINTS NOT SHOWN SHALL BE APPROVED BY ENGINEER.
- BEFORE CONCRETE IS PLACED, CONSTRUCTION JOINTS SHALL BE CLEANED, LAITANCE REMOVED, AND SURFACE WETTED. REMOVE STANDING WATER.
- LOCATE VERTICAL JOINTS IN WALL A MIN OF ONE-HALF WALL HEIGHT FROM CORNERS OR OTHER INTERSECTING WALLS.
- CONSTRUCTION JOINTS SHALL HAVE ROUGHENED SURFACES. SURFACE SHALL HAVE AMPLITUDE OF 1/4 IN. MIN.
- PROVIDE 3/4 IN. CHAMFER ON EXTERNAL CORNERS OF EXPOSED EDGES OF CONSTRUCTION JOINTS.
- VERIFY EQUIPMENT PAD AND CURB LOCATIONS, DIMENSIONS, AND ELEVATIONS WITH EQUIPMENT MANUFACTURERS.

MASONRY

- MASONRY ASSEMBLY NET COMPRESSIVE STRENGTH: $F'_m = 2,500$ POUNDS PER SQUARE INCH (MINIMUM)
- CONCRETE MASONRY UNIT COMPRESSIVE STRENGTH: $F'_cmu = 3,250$ POUNDS PER SQUARE INCH (MINIMUM)
- MORTAR: ASTM C270, PROPERTY SPECIFICATION TYPE S, 1,800 POUNDS PER SQUARE INCH (MINIMUM)
- MASONRY GROUT: ASTM C476, 2,500 POUNDS PER SQUARE INCH (MINIMUM)
- MASONRY OPENINGS LESS THAN 3 FT IN WIDTH THAT DO NOT HAVE A LINTEL SCHEDULED SHALL HAVE A TYPE L1 LINTEL. FOR TYPICAL LINTELS, SEE DETAILS.
- UNLESS NOTED OTHERWISE, PROVIDE A CONTINUOUS BOND BEAM REINFORCED WITH 2-#5 AROUND THE TOP OF BUILDINGS.
- UNLESS NOTED OTHERWISE, PROVIDE HORIZONTAL MASONRY REINFORCING IN WALLS AT 16 IN. ON CENTER.
- FILL JAMB CORES OR OPENINGS OVER 3 FT IN WIDTH WITH MASONRY GROUT FROM BOTTOM OF LINTEL TO BOTTOM OF WALL. REINFORCE CORES WHERE NOTED.
- WHEN GROUTING, PROVIDE CLEANOUTS AT THE BOTTOM OF EACH CELL CONTAINING VERTICAL REINFORCEMENT WHEN POUR HEIGHT EXCEEDS 4 FT.
- BRACE MASONRY WALLS UNTIL ROOF SYSTEM IS IN PLACE.

METALS

- STEEL
 - W SHAPES: ASTM A992
 - S, C, AND MC SHAPES: ASTM A36
 - SQUARE OR RECTANGULAR TUBE: ASTM A500, GRADE C, 50 KSI
 - PIPE: ASTM A53
 - PLATES AND BARS: ASTM A36
 - BOLTED CONNECTIONS FOR STEEL MEMBERS: ASTM F3125, GRADE A325
 - BOLTED CONNECTIONS FOR ALUMINUM MEMBERS: STAINLESS STEEL
 - STAINLESS STEEL
 - EXTERIOR AND SUBMERGED USES: AISI, TYPE 316
 - INTERIOR AND ARCHITECTURAL USES: AISI, TYPE 304
 - CAST-IN-PLACE ANCHOR BOLTS: AISI, TYPE 316
- ALUMINUM
 - SHAPES AND PLATES: ALLOY 6061-T6 OR 6063-T6
- ANCHOR BOLTS, 1/2" MINIMUM DIA:
 - DRY LOCATIONS: ASTM F1554, GRADE 36, GALVANIZED
 - ALL OTHER LOCATIONS: STAINLESS STEEL
- WELD STRUCTURAL STEEL WITH E70XX ELECTRODES IN ACCORDANCE WITH AWS REQUIREMENTS.
- WELD ALUMINUM IN ACCORDANCE WITH AWS AND AA REQUIREMENTS.
- COAT ALUMINUM SURFACES IN CONTACT WITH CONCRETE IN ACCORDANCE WITH AA REQUIREMENTS. UNDER NO CIRCUMSTANCES SHALL ALUMINUM CONTACT DISSIMILAR METALS.

MISCELLANEOUS

- VERIFY PERTINENT EXISTING CONDITIONS AND DIMENSIONS BEFORE STARTING CONSTRUCTION AND/OR FABRICATION.
- DO NOT FIELD CUT PRESTRESSING STRANDS IN PRECAST PRESTRESSED CONCRETE MEMBERS WITHOUT WRITTEN APPROVAL OF FABRICATOR AND ENGINEER.
- FOR ADDITIONAL OPENINGS, ANCHORS, AND EMBEDDED ITEMS SEE ARCHITECTURAL, PROCESS, PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS.

REMOVALS

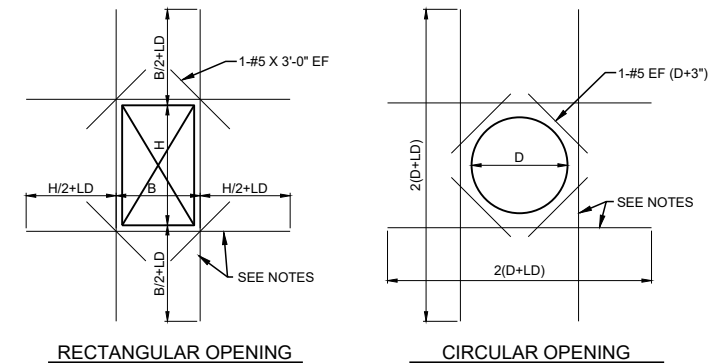
- REMOVE ALL CONCRETE ANCHORS, ANCHOR BOLTS AND OTHER EMBEDMENTS A MINIMUM OF 1" BEYOND FINISHED SURFACE AND PATCH SURFACE WITH PATCHING MORTAR TO MATCH EXISTING.
- REMOVE EXISTING CONCRETE PADS OF ANY EQUIPMENT BEING REMOVED. REMOVE CONCRETE AND REINFORCEMENT A MINIMUM OF 1" BEYOND FINISHED SURFACE AT ANY LOCATION WHERE NEW CONCRETE PAD WILL NOT COVER ROUGH SURFACE OF REMOVAL. PATCH BACK TO FINISHED SURFACE WITH PATCHING MORTAR.
- SAWCUT AND REMOVE CONCRETE TO LIMITS NOTED. REMOVE CONCRETE AND REINFORCEMENT A MINIMUM 1" BEYOND FINISHED SURFACE AT ANY LOCATION WHERE NEW CONCRETE WILL NOT COVER ROUGH SURFACE OF REMOVAL. PATCH BACK TO FINISHED SURFACE WITH PATCHING MORTAR.

MINIMUM REINFORCEMENT BAR SPLICE AND ANCHORAGE LENGTH (INCHES) S010

BAR SIZE	LAPPED SPLICE LENGTH		EMBEDMENT LENGTH		COMPRESSION LAP LENGTH
	TOP BARS	OTHERS	TOP BARS	OTHERS	
3	24	19	19	15	12
4	32	25	25	19	15
5	40	31	31	24	19
6	48	37	37	29	23
7	70	54	54	42	26
8	80	62	62	48	30
9	91	70	70	54	34
10	102	78	78	61	38
11	113	87	87	67	42

NOTES:

- TOP BARS ARE HORIZONTAL BARS SO PLACED THAT MORE THAN 12" OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.
- FOR BARS SPACED LESS THAN 6 BAR DIAMETER OC INCREASE LENGTH BY 25%.
- WHEN LAPPING TWO DIFFERENT SIZE BARS USE THE LAP LENGTH OF THE SMALLER BAR UNLESS NOTED OTHERWISE.
- EMBEDMENT LENGTH IS MINIMUM LENGTH OF EMBEDMENT FOR STRAIGHT DOWELS WHERE END HOOK IS NOT SHOWN, UNLESS OTHERWISE NOTED.
- COMPRESSION LAP LENGTH FOR VERTICAL COLUMN BARS ONLY.
- HOOKS SHALL BE ACI STANDARD UNLESS OTHERWISE NOTED.
- FOR EPOXY COATED REINFORCEMENT, INCREASE LENGTH BY 20% FOR TOP BARS AND 50% FOR OTHERS.



RECTANGULAR OPENING

CIRCULAR OPENING

NOTES:

- THESE DETAILS APPLY TO ALL OPENINGS IN CONCRETE WALLS AND SLABS WHEN THE LARGEST OPENING DIMENSION IS GREATER THAN TWO TIMES SECTION THICKNESS OR GREATER THAN REINFORCING SPACING IN THE SECTION, UNLESS OTHERWISE INDICATED IN THE DRAWINGS.
- THE AREA OF ADDITIONAL REINFORCING REQUIRED IN EACH FACE ON EACH SIDE OF AN OPENING SHALL EQUAL OR EXCEED ONE-HALF OF THE AREA OF THE INTERCEPTED BARS IN EACH FACE, IN EACH DIRECTION, RESPECTIVELY WITH A MINIMUM OF 1-#5 BAR EACH FACE.
- PLACE THE ADDED BARS IN THE SAME LAYERS AS THE WALL OR SLAB REINFORCING.
- LD = EMBEDMENT LENGTH. SEE S010

ADDITIONAL REINFORCEMENT AT OPENINGS IN WALLS AND SLABS DETAIL S020

NTS

Revision Number	Revision Description	Drawn By	Checked By	Date
01	ADDENDUM NO. 1	CDP	NWC	01/26/2024

Designed By	CDP
Drawn By	CDP
Checked By	SDR
Approved By	SDR
Filename	999SD1.DWG
Project No.	14207/14208/14212
Project Date	JAN 2024

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS
WRF IMPROVEMENTS

GENERAL NOTES, SCHEDULES AND STANDARD DETAILS
STRUCTURAL



Sheet No. 126

Drawing No.

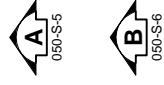
999-S-1

GENERAL NOTES:

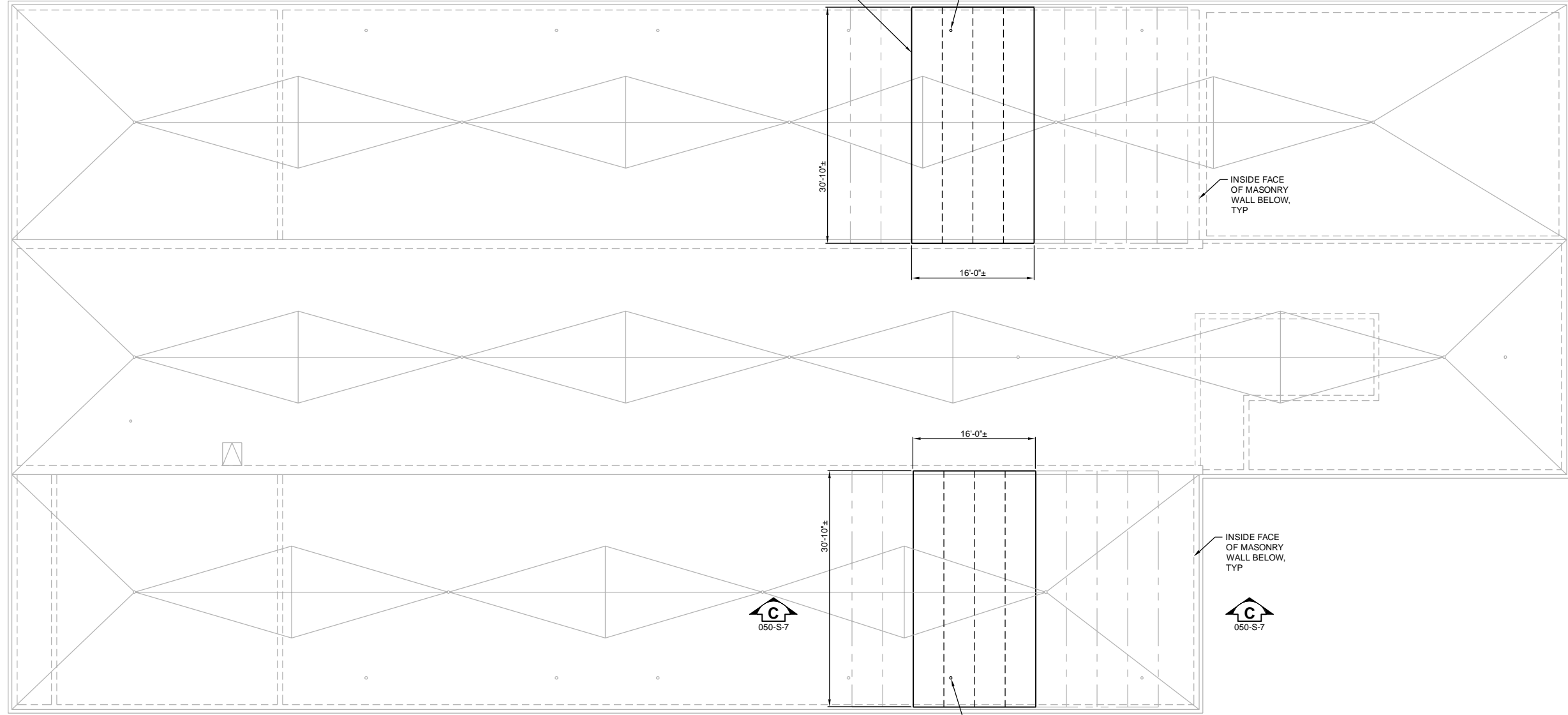
1. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
2. REFER TO 001 SERIES OF DRAWINGS FOR THE SPACE ENVIRONMENT/HAZARDOUS RATING SCHEDULE REGARDING ENVIRONMENTAL CONDITIONS ANTICIPATED WITHIN EACH SPACE AND ALLOWABLE MATERIALS OF CONSTRUCTION TO BE USED WITHIN EACH SPACE.
3. FOR BALLASTED EPDM ROOF, SEE SPECIFICATION SECTION 07 53 23.



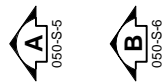
PROVIDE NEW PRECAST ROOF PLANKS, BALLASTED EPDM MEMBRANE ROOF AND INSULATION AFTER NEW EQUIPMENT HAS BEEN LOWERED INTO BUILDING. BALLAST MAY BE REUSED AT CONTRACTOR'S OPTION. MATCH LINES AND LEVELS OF EXISTING ROOF. COAT EXPOSED INTERIOR SURFACES OF CONCRETE ROOF PLANKS. COATING COLOR SHALL MATCH EXISTING ROOF PLANK, TYP. SEE SPECIFICATION SECTION 09 96 00.



NEW OVERFLOW ROOF DRAIN TO MATCH EXISTING, SEE (A773)



NEW OVERFLOW ROOF DRAIN TO MATCH EXISTING, SEE (A773)



ROOF PLAN



Date	01/26/2024
Checked By	NWC
Drawn By	CDP
Revision Description	ADDENDUM NO. 1
Revision Number	01
Designed By	CDP
Drawn By	CDP
Checked By	SDR
Approved By	SDR
Filename	DPR50SP1.DWG
Project No.	14207.A
Project Date	JAN 2024

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS
 WRF IMPROVEMENTS
 FILTER IMPROVEMENTS
 CONTRACT A
 BATTERY B FILTER BUILDING
 PLAN



Sheet No. 31

Drawing No.

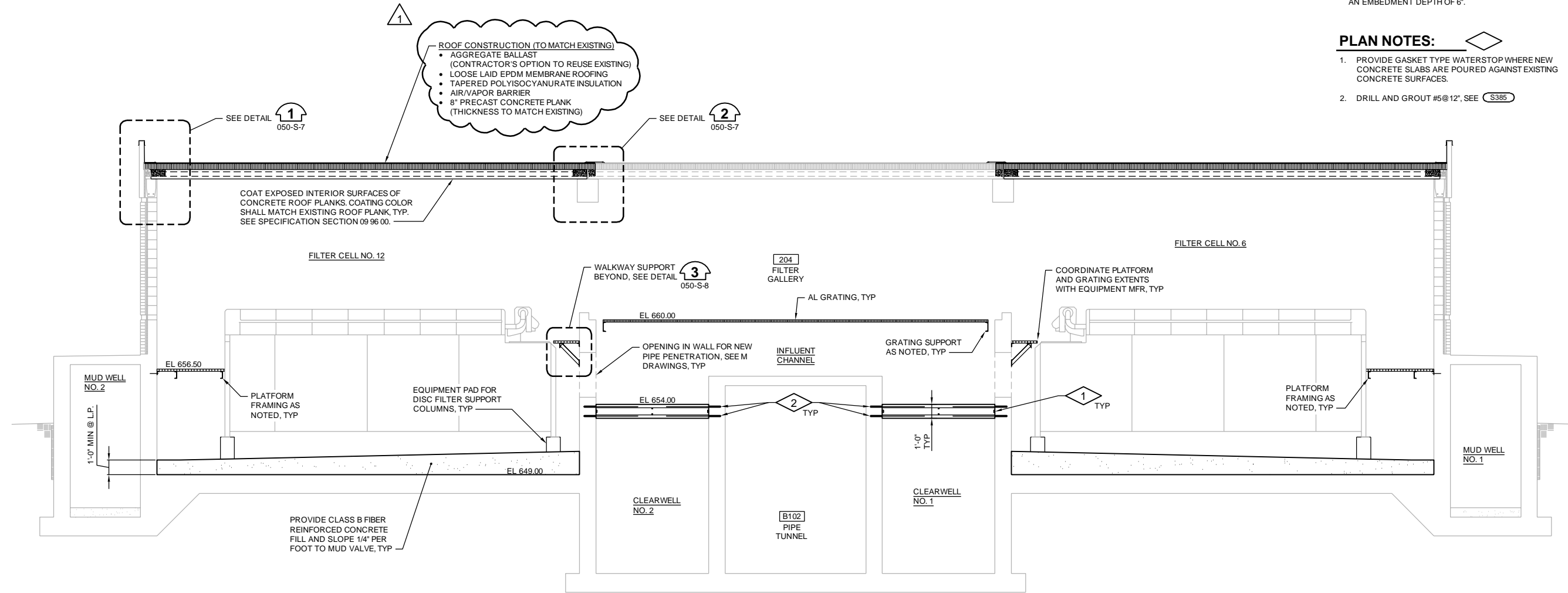
050-S-4

GENERAL NOTES:

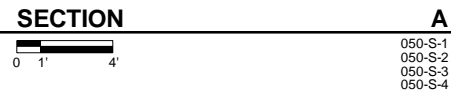
1. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
2. REFER TO 001 SERIES OF DRAWINGS FOR THE SPACE ENVIRONMENT/HAZARDOUS RATING SCHEDULE REGARDING ENVIRONMENTAL CONDITIONS ANTICIPATED WITHIN EACH SPACE AND ALLOWABLE MATERIALS OF CONSTRUCTION TO BE USED WITHIN EACH SPACE.
3. ALL PLATFORM MEMBERS SHALL BE CONSTRUCTED OF ALUMINUM. ALL BOLTED CONNECTIONS SHALL BE 1/2" DIA SS BOLTS AND ALL WALL ANCHORS SHALL BE 1/2" DIA SS CONCRETE ADHESIVE ANCHORS AT AN EMBEDMENT DEPTH OF 6".

PLAN NOTES:

1. PROVIDE GASKET TYPE WATERSTOP WHERE NEW CONCRETE SLABS ARE POURED AGAINST EXISTING CONCRETE SURFACES.
2. DRILL AND GROUT #5@12", SEE S385



- NOTES:
1. ALL REINFORCEMENT SHOWN #5@12".
 2. FOR ADDITIONAL PLATFORM DETAILS, SEE DRAWING 050-S-8.



Revision Number	Revision Description	Drawn By	Checked By	Date
01	ADDENDUM NO. 1	CDP	NWC	01/26/2024

Designed By	CDP
Drawn By	CDP
Checked By	SDR
Approved By	SDR
Filename	DPR50SS1.DWG
Project No.	14207.A
Project Date	JAN 2024

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS
WRF IMPROVEMENTS
FILTER IMPROVEMENTS
CONTRACT A
BATTERY B FILTER BUILDING
SECTION

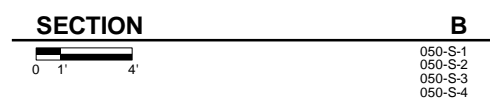
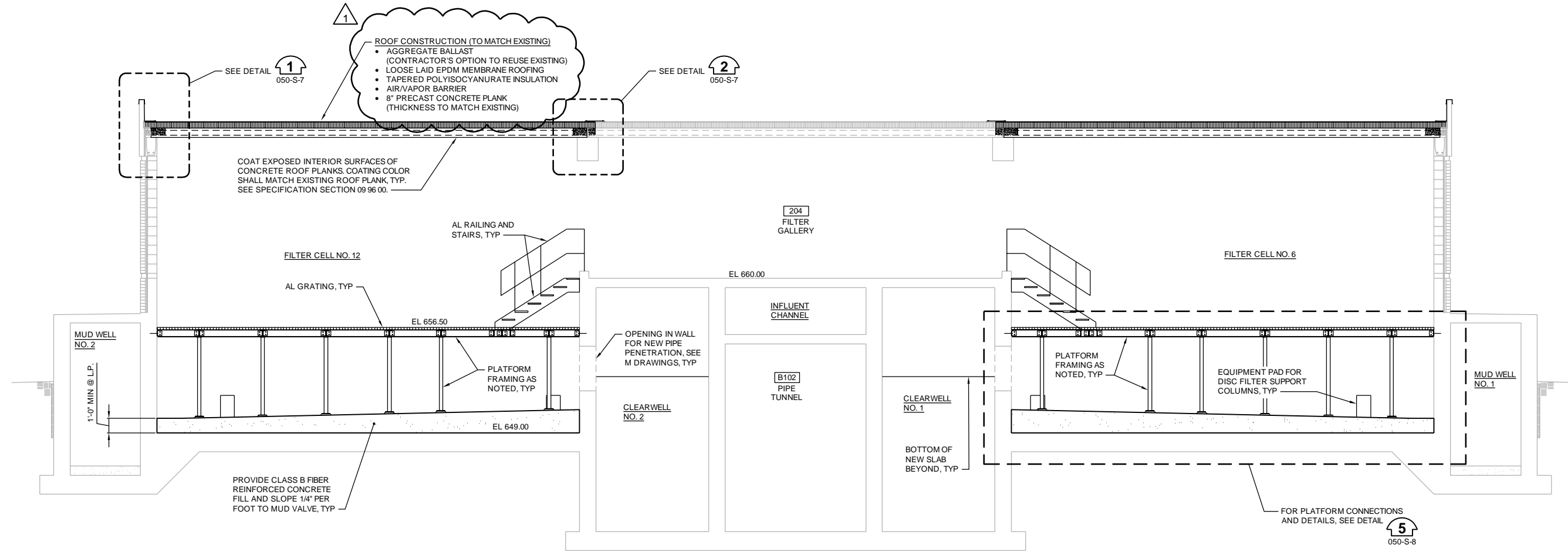


Sheet No. 32
Drawing No.

050-S-5

GENERAL NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
2. REFER TO 001 SERIES OF DRAWINGS FOR THE SPACE ENVIRONMENT/HAZARDOUS RATING SCHEDULE REGARDING ENVIRONMENTAL CONDITIONS ANTICIPATED WITHIN EACH SPACE AND ALLOWABLE MATERIALS OF CONSTRUCTION TO BE USED WITHIN EACH SPACE.
3. ALL PLATFORM MEMBERS SHALL BE CONSTRUCTED OF ALUMINUM. ALL BOLTED CONNECTIONS SHALL BE 1/2" DIA SS BOLTS AND ALL WALL ANCHORS SHALL BE 1/2" DIA SS CONCRETE ADHESIVE ANCHORS AT AN EMBEDMENT DEPTH OF 6".



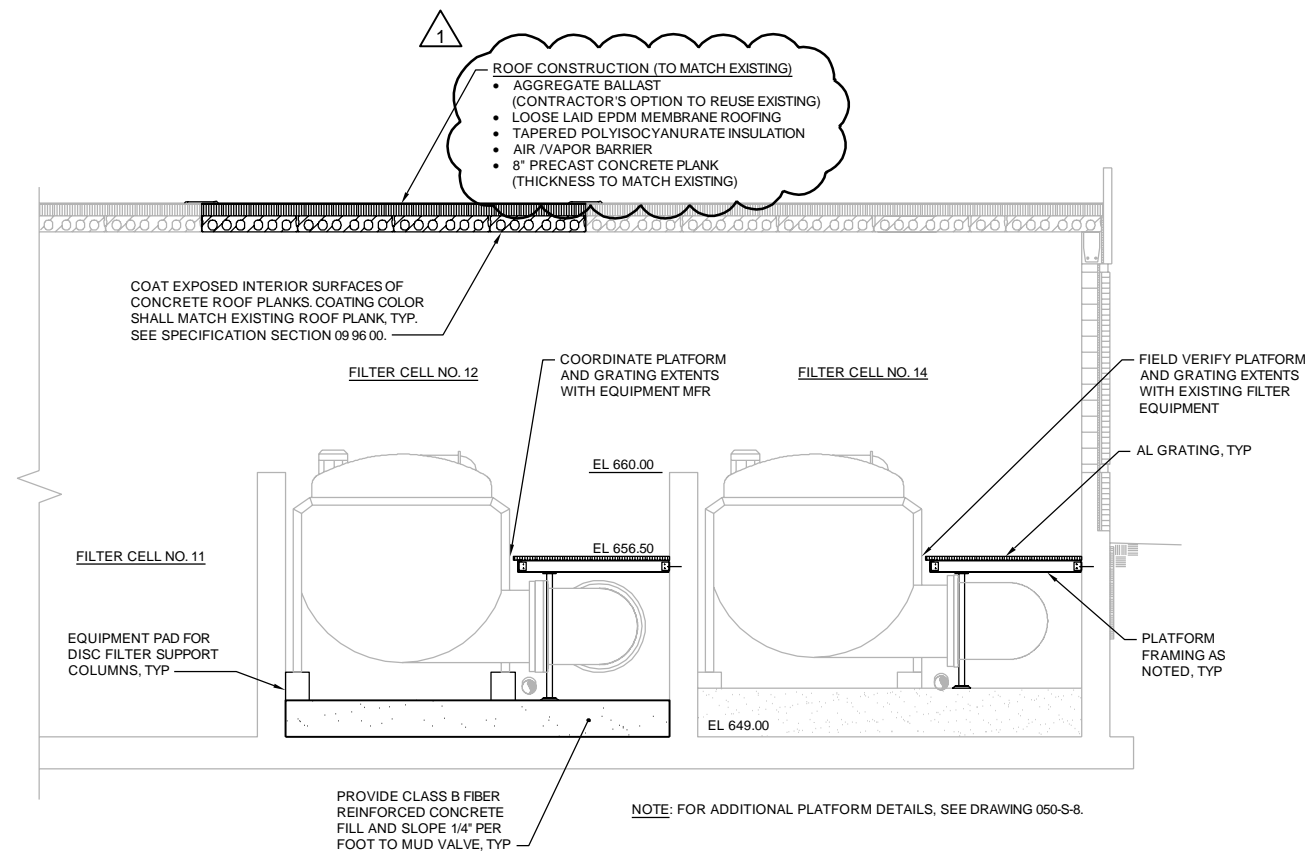
Date	01/26/2024
Checked By	NWC
Drawn By	CDP
Revision Description	ADDENDUM NO. 1
Revision Number	01
Designed By	CDP
Drawn By	CDP
Checked By	SDR
Approved By	SDR
Filename	DPR50SS1.DWG
Project No.	14207.A
Project Date	JAN 2024

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS
 WRF IMPROVEMENTS
 FILTER IMPROVEMENTS
 CONTRACT A
 BATTERY B FILTER BUILDING
 SECTION



Sheet No. 33
Drawing No.

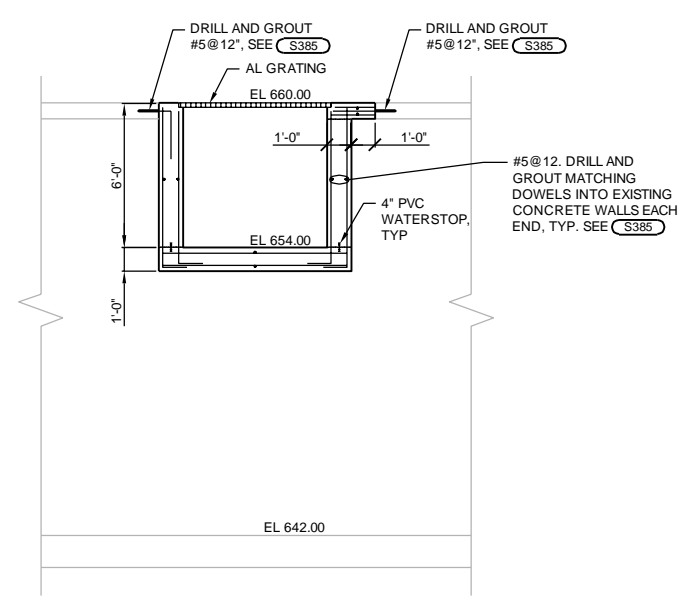
050-S-6



SECTION C

0 1' 4'

050-S-1
050-S-2
050-S-3
050-S-4

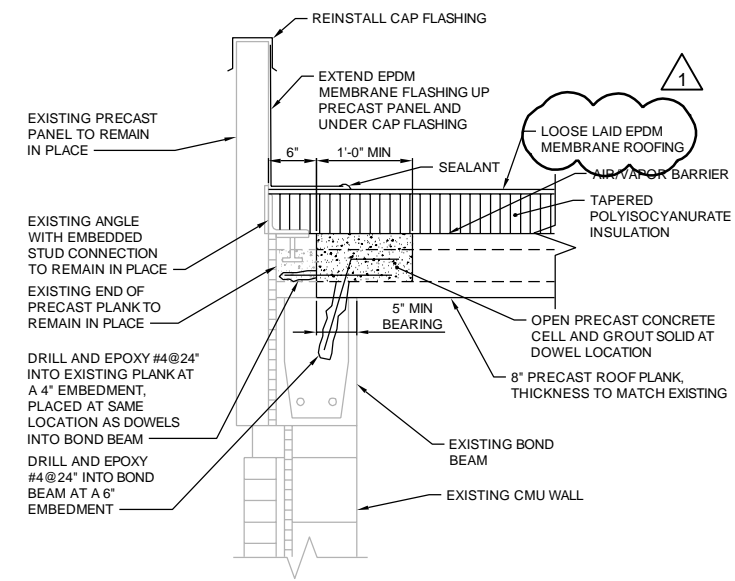


NOTE: ALL REINFORCEMENT SHOWN #5@12".

SECTION D

0 1' 4'

050-S-1
050-S-2
050-S-3

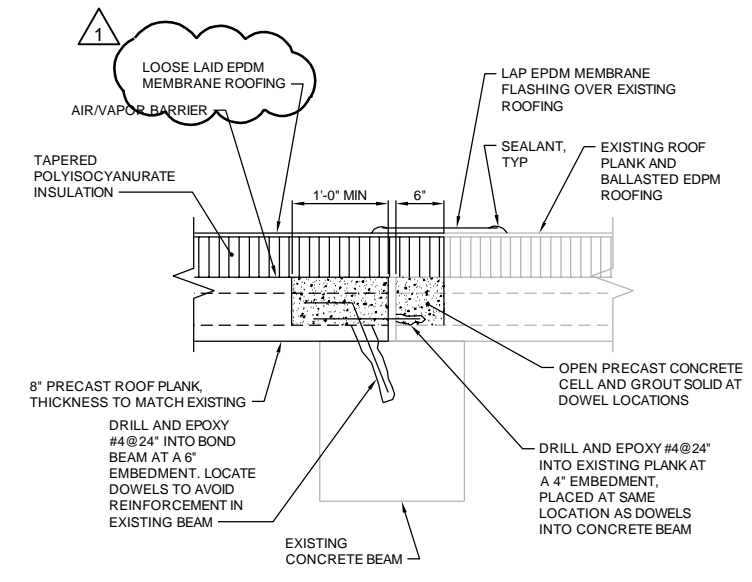


NOTE: AGGREGATE BALLAST NOT SHOWN FOR CLARITY. AT CONTRACTOR'S OPTION, EXISTING BALLAST MAY BE REINSTALLED.

PARAPET DETAIL 1

0 1'

050-S-5
050-S-6



NOTE: AGGREGATE BALLAST NOT SHOWN FOR CLARITY. AT CONTRACTOR'S OPTION, EXISTING BALLAST MAY BE REINSTALLED.

PRECAST BEARING DETAIL 2

0 1'

050-S-5
050-S-6

GENERAL NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
2. REFER TO 001 SERIES OF DRAWINGS FOR THE SPACE ENVIRONMENT/HAZARDOUS RATING SCHEDULE REGARDING ENVIRONMENTAL CONDITIONS ANTICIPATED WITHIN EACH SPACE AND ALLOWABLE MATERIALS OF CONSTRUCTION TO BE USED WITHIN EACH SPACE.
3. SECTION C IS REPRESENTATIVE FOR BOTH SETS OF FILTER CELLS NO. 12 AND 14, AND FILTER CELLS NO. 6 AND 13.
4. ALL PLATFORM MEMBERS SHALL BE CONSTRUCTED OF ALUMINUM. ALL BOLTED CONNECTIONS SHALL BE 1/2" DIA SS BOLTS AND ALL WALL ANCHORS SHALL BE 1/2" DIA SS CONCRETE ADHESIVE ANCHORS AT AN EMBEDMENT DEPTH OF 6".

Date	01/26/2024
Checked By	NWC
Drawn By	CDP
Revision Description	ADDENDUM NO. 1
Revision Number	01
Designed By	CDP
Drawn By	CDP
Checked By	SDR
Approved By	SDR
Filename	DPR50SS1.DWG
Project No.	14207.A
Project Date	JAN 2024

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS
WRF IMPROVEMENTS
FILTER IMPROVEMENTS

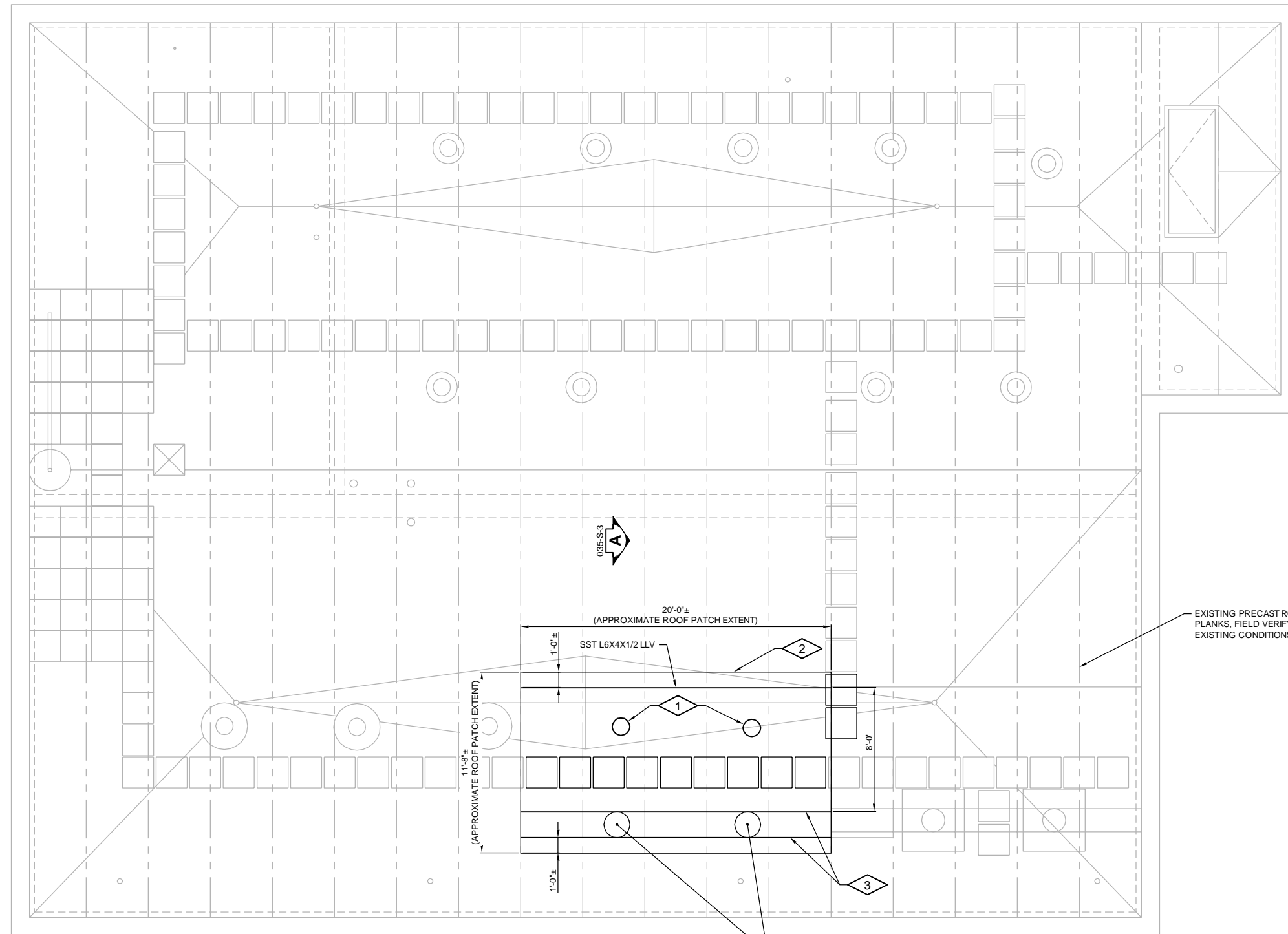
CONTRACT A

BATTERY A FILTER BUILDING
SECTIONS AND DETAILS

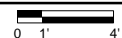


Sheet No. 34

Drawing No.



ROOF PLAN



GENERAL NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
2. REFER TO 001 SERIES OF DRAWINGS FOR THE SPACE ENVIRONMENT/HAZARDOUS RATING SCHEDULE REGARDING ENVIRONMENTAL CONDITIONS ANTICIPATED WITHIN EACH SPACE AND ALLOWABLE MATERIALS OF CONSTRUCTION TO BE USED WITHIN EACH SPACE.
3. FOR BALLASTED EPDM ROOF, SEE SPECIFICATION SECTION 07 53 23.

PLAN NOTES:

1. PATCH ROOF OPENING, SEE **A961**
2. PATCH ROOF AREA AFTER REMOVAL WORK.
 - PROVIDE ROOF MEMBRANE, INSULATION, AND VAPOR BARRIER TO MATCH EXISTING. MATCH EXISTING LINES AND LEVELS OF EXISTING ROOF.
 - REINSTALL AGGREGATE BALLAST AND ROOF WALKWAY PADS.
3. INSTALL SST L6X4X1/2 LLV ON UNDERSIDE OF EXISTING ROOF PLANK, IMMEDIATELY ADJACENT TO NEW OPENINGS FOR ALP INTAKE.

Revision Number	Revision Description	Checked By	Date
01	ADDENDUM NO. 1	NWC	01/26/2024

Designed By	CDP
Drawn By	CDP
Checked By	SDR
Approved By	SDR
Filename	DPR35SP1.DWG
Project No.	14208
Project Date	JAN 2024

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS
WRF IMPROVEMENTS
BLOWER REPLACEMENT

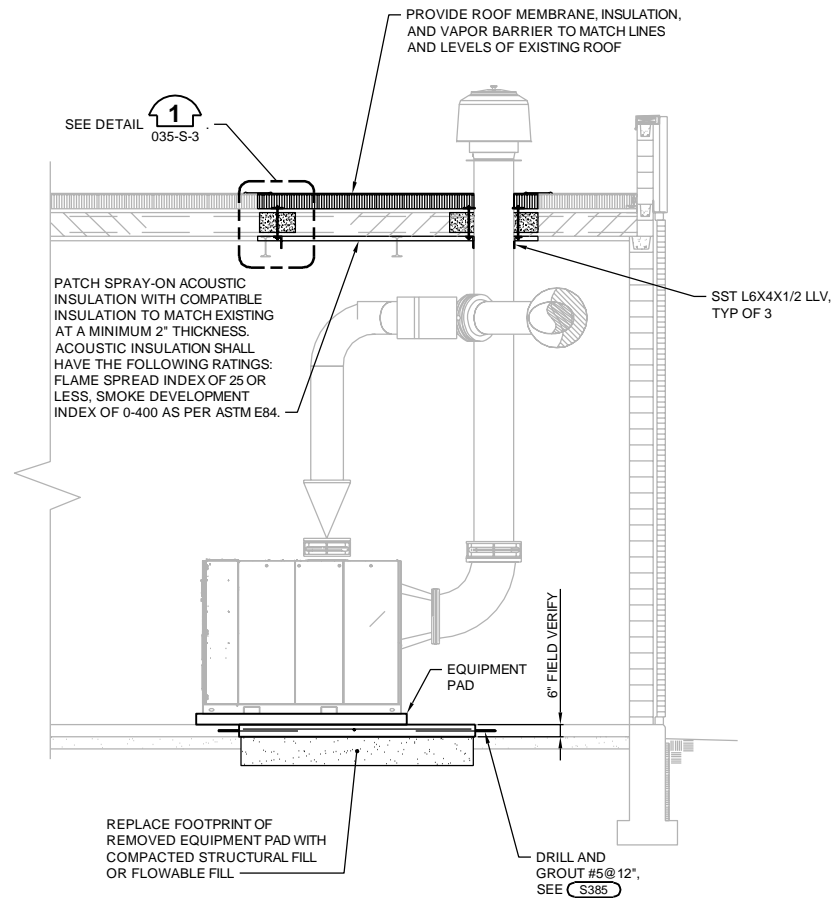
CONTRACT C
BATTERY B BLOWER BUILDING
PLAN



Sheet No. 75

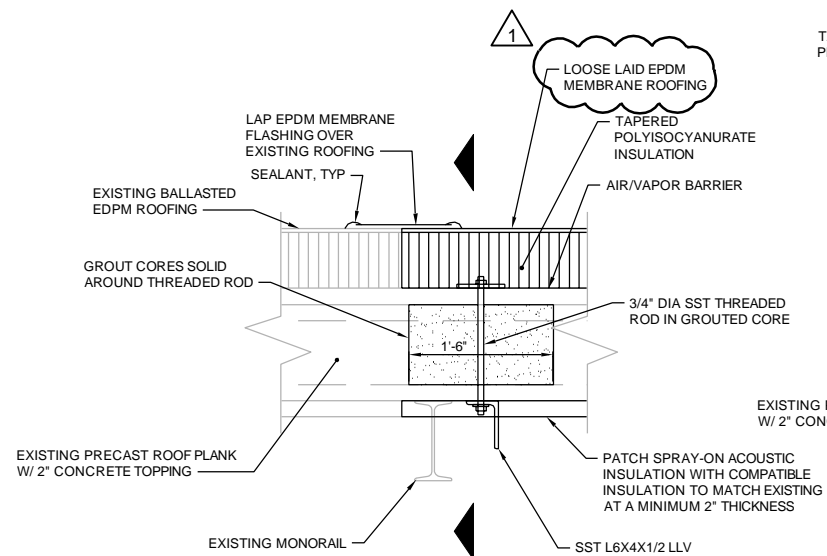
Drawing No.

035-S-2



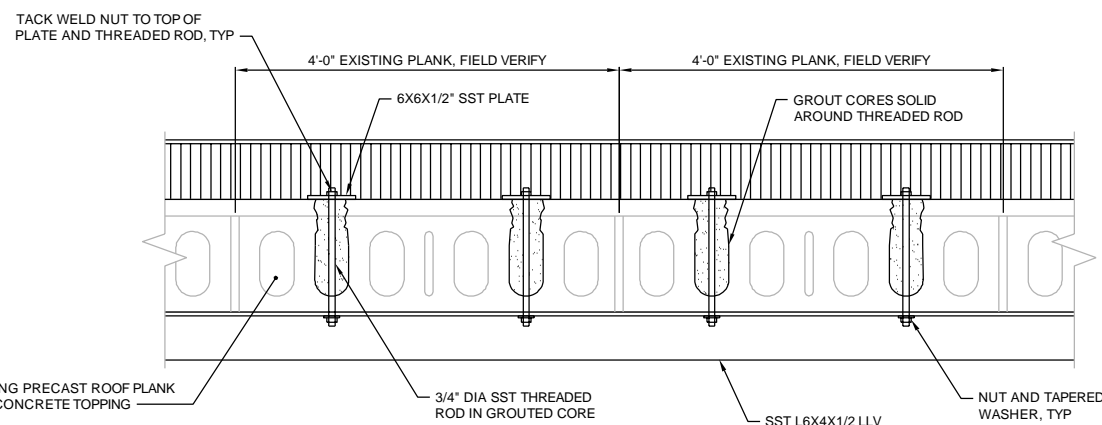
NOTE: REINFORCEMENT SHOWN #5@12".

SECTION A
035-S-1
035-S-2



NOTE: DETAIL IS SIMILAR FOR ALL THREE ROOF SUPPORT ANGLES.

DETAIL 1
035-S-3



- NOTES:**
1. CONTRACTOR SHALL LOCATE PRECAST PLANK CORES PRIOR TO DRILLING AND INSTALLING RODS.
 2. PROVIDE A MINIMUM OF 2 THREADED RODS PER EACH EXISTING PRECAST ROOF PLANK FOR EACH SUPPORT ANGLE.
 3. CONTRACTOR SHALL OPEN TOP OF PRECAST PLANK CORE CELLS AT THREADED ROD LOCATIONS AS REQUIRED TO GROUT RODS. CORES SHALL BE GROUTED FULL WIDTH FOR A MINIMUM LENGTH OF 18".
 4. ROOF SUPPORT ANGLES SHALL BE INSTALLED PRIOR TO REMOVING ROOF PLANK FOR ALP INTAKE PIPING.
 5. AGGREGATE BALLAST NOT SHOWN FOR CLARITY.

SECTION

GENERAL NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
2. REFER TO 001 SERIES OF DRAWINGS FOR THE SPACE ENVIRONMENT/HAZARDOUS RATING SCHEDULE REGARDING ENVIRONMENTAL CONDITIONS ANTICIPATED WITHIN EACH SPACE AND ALLOWABLE MATERIALS OF CONSTRUCTION TO BE USED WITHIN EACH SPACE.

Revision Number	Revision Description	Checked By	Date
01	ADDENDUM NO. 1	NWC	01/26/2024

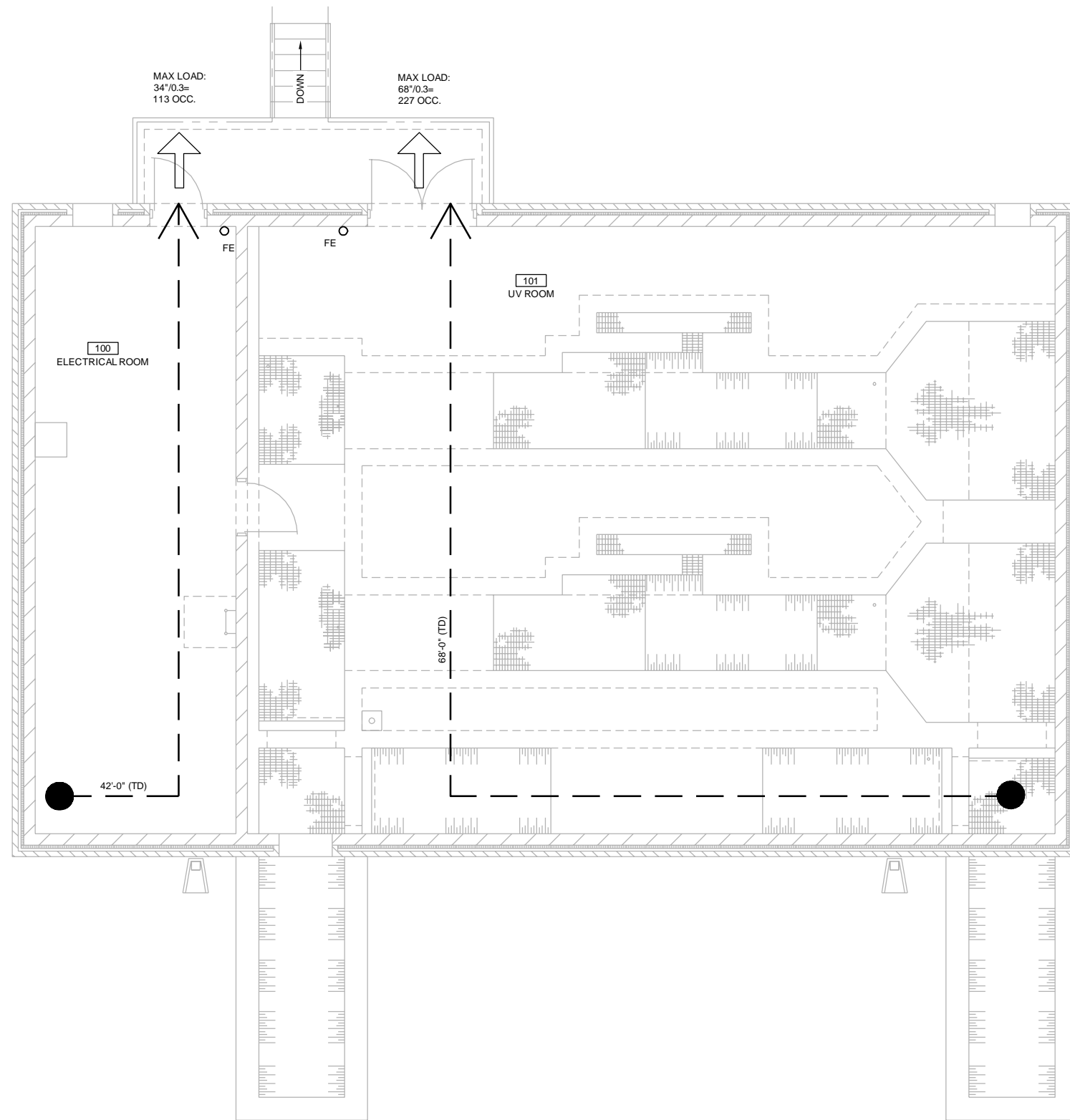
Designed By	CDP
Drawn By	CDP
Checked By	SDR
Approved By	SDR
Filename	DPR35SS1.DWG
Project No.	14208
Project Date	JAN 2024

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS
 WRF IMPROVEMENTS
 BLOWER REPLACEMENT
 CONTRACT C
 BATTERY BLOWER BUILDING
 SECTION AND DETAIL



Sheet No. 76
Drawing No.

035-S-3



CODE COMPLIANCE NOTES

CODE: ILLINOIS COMMERCIAL BUILDING CODE BASED ON INTERNATIONAL BUILDING CODE 2018 EDITION.

2018 INTERNATIONAL FIRE CODE AND 2018 ENERGY CONSERVATION CODE.

CHAPTER 3
REFERENCE IBC SECTION 306
OCCUPANCY TYPE: LOW-HAZARD FACTORY INDUSTRIAL F-2

CHAPTER 5
REFERENCE TABLE 506.2
TYPE OF CONSTRUCTION: IIB
ALLOWABLE BUILDING AREA: 23,000 SF PER STORY (TABLE 503)
TOTAL ACTUAL BUILDING AREA: 2,356 SF- GRADE FLOOR

REFERENCE TABLE 504.3
TOTAL ALLOWABLE BUILDING HEIGHT: 55 FT.
ACTUAL BUILDING HEIGHT: 15'-8"
REFERENCE TABLE 504.4
ALLOWABLE NO. OF STORIES: 3
ACTUAL NO. OF STORIES: 1

REFERENCE TABLE 509 (NOT APPLICABLE)
INCIDENTAL USES: MECHANICAL ROOMS REQUIRE 1-HR. FIRE SEPARATION WHERE ANY PIECE OF EQUIPMENT IS OVER 400,000 BTU PER HOUR INPUT. (NOT APPLICABLE)

CHAPTER 6
REFERENCE TABLE 601
FIRE RESISTIVE REQUIREMENTS
EXTERIOR BEARING WALLS: 0 HR.
EXTERIOR NON-BEARING WALLS: 0 HR. (>30 FT.) TABLE 602
STRUCTURAL FRAMES: 0 HR.
PARTITIONS: 0 HR.
SHAFT ENCLOSURES: 0 HR. (NOT APPLICABLE)
FLOOR: 0 HR.
ROOF: 0 HR.

REFERENCE TABLE 602
FIRE SEPARATION FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE (TABLE 602)
>30 FT.
TYPE IIB
OCCUPANCY GROUP F-2
0 HR. FIRE-RESISTANCE RATING

CHAPTER 7
REFERENCE TABLE 705.8
MAXIMUM AREA OF EXTERIOR WALL OPENINGS
EXTERIOR WALL OPENINGS: (30 OR GREATER) TABLE 705.8
UNPROTECTED NON-SPRINKLERED
MAXIMUM ALLOWABLE AREA OF EXTERIOR WALL OPENINGS: NO LIMIT

CHAPTER 9
PORTABLE FIRE EXTINGUISHERS ARE TO BE PROVIDED WHERE REQUIRED BY NFPA 101 AND LOCATED AND INSTALLED IN ACCORDANCE WITH NFPA 10. PORTABLE FIRE EXTINGUISHERS - MODERATE HAZARD.
CLASS A FIRES
MAX 1,500 SF PER UNIT OF A RATING
MAX FLOOR AREA PER EXTINGUISHER: 11,250 SF
MAX. TRAVEL DISTANCE: 75 FT.
MIN. SINGLE RATED UNIT: 2-A

CHAPTER 10
REFERENCE TABLE 1004.1.2
AREA PER OCCUPANT: 100 SF PER OCCUPANT
TOTAL BUILDING OCCUPANT LOAD: 21 OCCUPANTS (BASED ON 100 SF /OCCUPANT)
SEE CODE PLAN AND OCCUPANT LOAD TABLE FOR OCCUPANT LOAD DISTRIBUTION THROUGHOUT BUILDING

EGRESS WIDTH (REFERENCE IBC 1005.1)
MINIMUM WIDTH OF EGRESS COMPONENTS SHALL BE DETERMINED BY MULTIPLYING THE OCCUPANT LOAD BY 0.3 FOR STAIRS AND 0.2 FOR ALL OTHER COMPONENTS. SEE CODE PLAN FOR ACTUAL OCCUPANT LOADS AND MINIMUM EGRESS WIDTH REQUIRED PER DOOR

REFERENCE TABLE 1006.2.1
SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY WITHOUT SPRINKLER SYSTEM
OCCUPANCY: GROUP F
MAXIMUM OCCUPANT LOAD: 49
MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE: 75 FT.

REFERENCE TABLE 1006.3.2(2)
STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR OTHER OCCUPANCIES
OCCUPANCY: GROUP F
WITHOUT SPRINKLER SYSTEM
MAXIMUM OCCUPANT LOAD PER STORY: 49
MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE: 75 FT.

REFERENCE 1008.1.10
ALL EXIT DOORS AT ELECTRICAL ROOMS OVER 6 FT. WIDE WITH EQUIPMENT OVER 1,200 AMPERES SHALL BE PROVIDED WITH PANIC EXIT HARDWARE. DOORS SHALL SWING IN THE DIRECTION OF EGRESS TRAVEL

REFERENCE SECTION 1010.1.2.1
DOORS SHALL SWING IN THE DIRECTION OF EGRESS WHERE SERVING AN OCCUPANT LOAD OF 50 OR MORE PERSONS.

REFERENCE TABLE 1014.3
COMMON PATH OF EGRESS: 75 FT. WITHOUT SPRINKLER SYSTEM

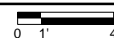
REFERENCE TABLE 1017.2
EXIT ACCESS TRAVEL DISTANCE:
LOW-HAZARD FACTORY INDUSTRIAL F-2 OCCUPANCY: 300 FT. WITHOUT SPRINKLER SYSTEM

REFERENCE TABLE 1020.2
MINIMUM CORRIDOR WIDTH: 36 IN. WITH OCCUPANT LOAD < 50
ACCESS TO MECHANICAL SYSTEMS OR EQUIPMENT: 24 IN.
STAIRWAY WIDTH: 36 IN. MINIMUM (LESS THAN 50 OCCUPANTS)

LEGEND

- MAX LOAD: XX'/0.X =XXX OCC.
- EXIT LOCATION
- EGRESS COMPONENT WIDTH/ CAPACITY FACTOR = MAX OCC. LOAD
- XX'(TD)
- TRAVEL DISTANCE
-
- FIRE EXTINGUISHER

GRADE CODE PLAN



OCCUPANT LOAD TABLE					
ROOM NO.	LOCATION	USE GROUP	AREA(SF)	AREA PER OCC.	OCCUPANT LOAD
100	ELECTRICAL ROOM	FACTORY INDUSTRIAL F-2	413	100	4.13
101	UV ROOM	FACTORY INDUSTRIAL F-2	1661	100	16.61
TOTAL					20.74

Revision Number	Revision Description	Checked By	Date
01	ADDENDUM NO. 1	NWC	01/26/2024

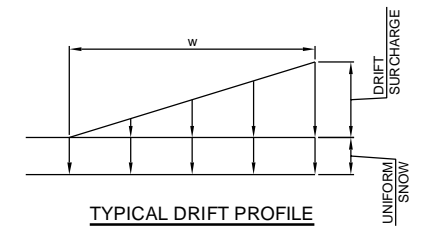
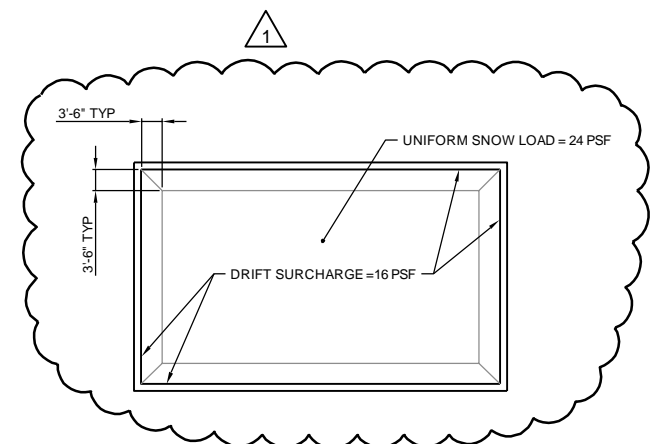
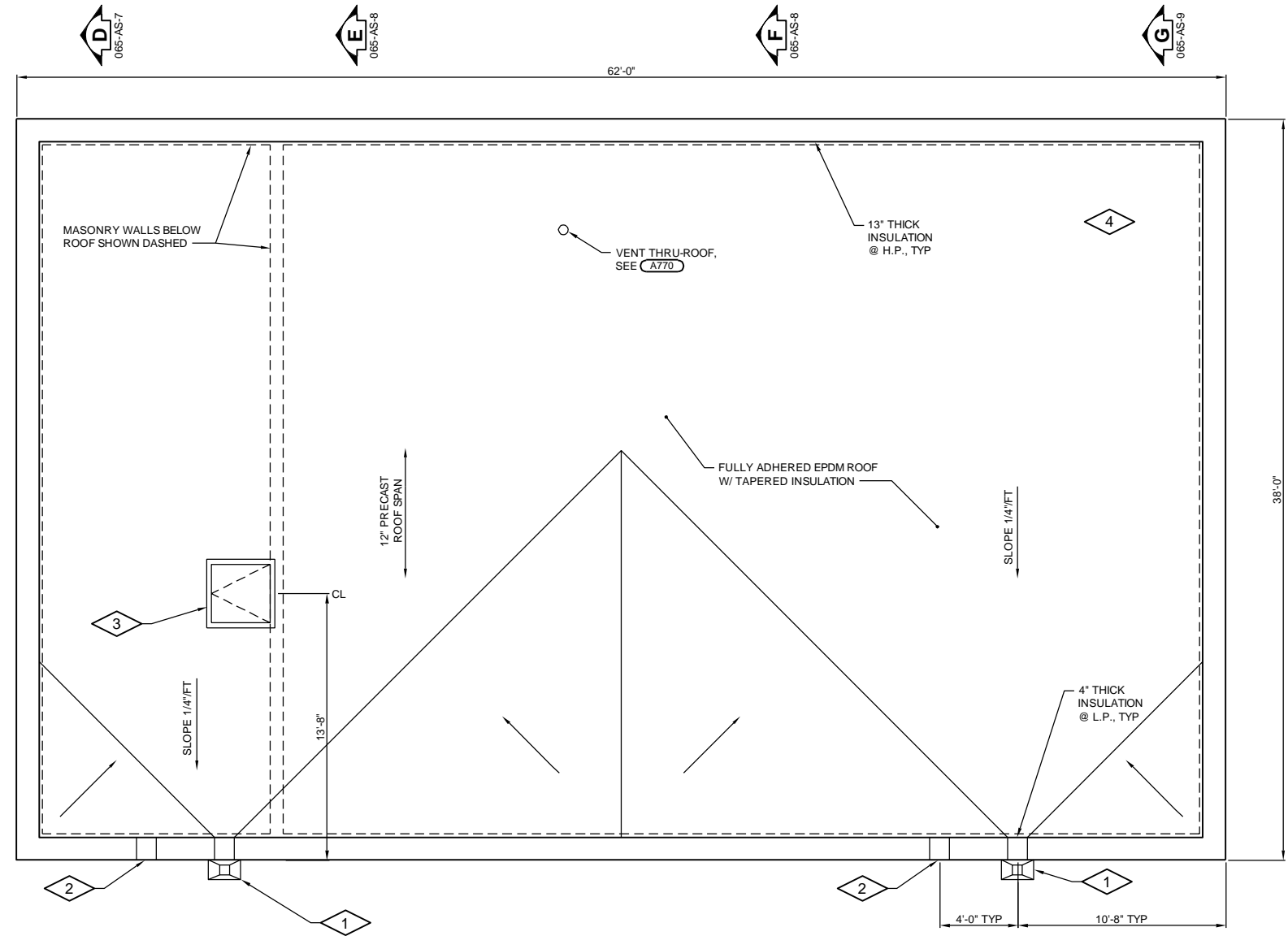
Designed By	SRW
Drawn By	SRW
Checked By	SDR
Approved By	SDR
Filename	065AP1.DWG
Project No.	14212
Project Date	JAN 2024

LAKE COUNTY DEPARTMENT OF PUBLIC WORKS
 WRF IMPROVEMENTS
 UV UPGRADE
 CONTRACT D
 UV DISINFECTION BUILDING PLAN



Sheet No. 102
Drawing No.

065-A-1



NOTE: DRIFT SURCHARGE IN ADDITION TO UNIFORM SNOW LOAD.

ROOF SNOW LOAD DIAGRAM 1
NTS 065-AS-3

GENERAL NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
2. REFER TO 001 SERIES OF DRAWINGS FOR THE SPACE ENVIRONMENT/HAZARDOUS RATING SCHEDULE REGARDING ENVIRONMENTAL CONDITIONS ANTICIPATED WITHIN EACH SPACE AND ALLOWABLE MATERIALS OF CONSTRUCTION TO BE USED WITHIN EACH SPACE.
3. FOR FULLY ADHERED EPDM ROOF, SEE SPECIFICATION SECTION 07 53 24.

PLAN NOTES:

1. THRU-WALL SCUPPER WITH CONDUCTOR HEAD AND METAL DOWNSPOUT, SEE A781
2. OVERFLOW SCUPPER, SEE A785
3. 3'-0" X 3'-0" AL ROOF ACCESS HATCH W/ CURB, SEE S590
4. FOR ROOF SNOW LOAD DIAGRAM, SEE 1 065-AS-3

ROOF PLAN
0 1' 4'

Date	01/26/2024
Checked By	NWC
Drawn By	CDP
Revision Description	ADDENDUM NO. 1
Revision Number	01
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LAKE COUNTY DEPARTMENT OF PUBLIC WORKS
WRF IMPROVEMENTS
UV UPGRADE
CONTRACT D
UV DISINFECTION BUILDING
PLAN AND DETAIL



Sheet No. 105
Drawing No.

065-AS-3