

GRUNDY COUNTY HIGHWAY DEPARTMENT PROPOSED STORAGE BUILDING MORRIS, ILLINOIS JUNE, 2026

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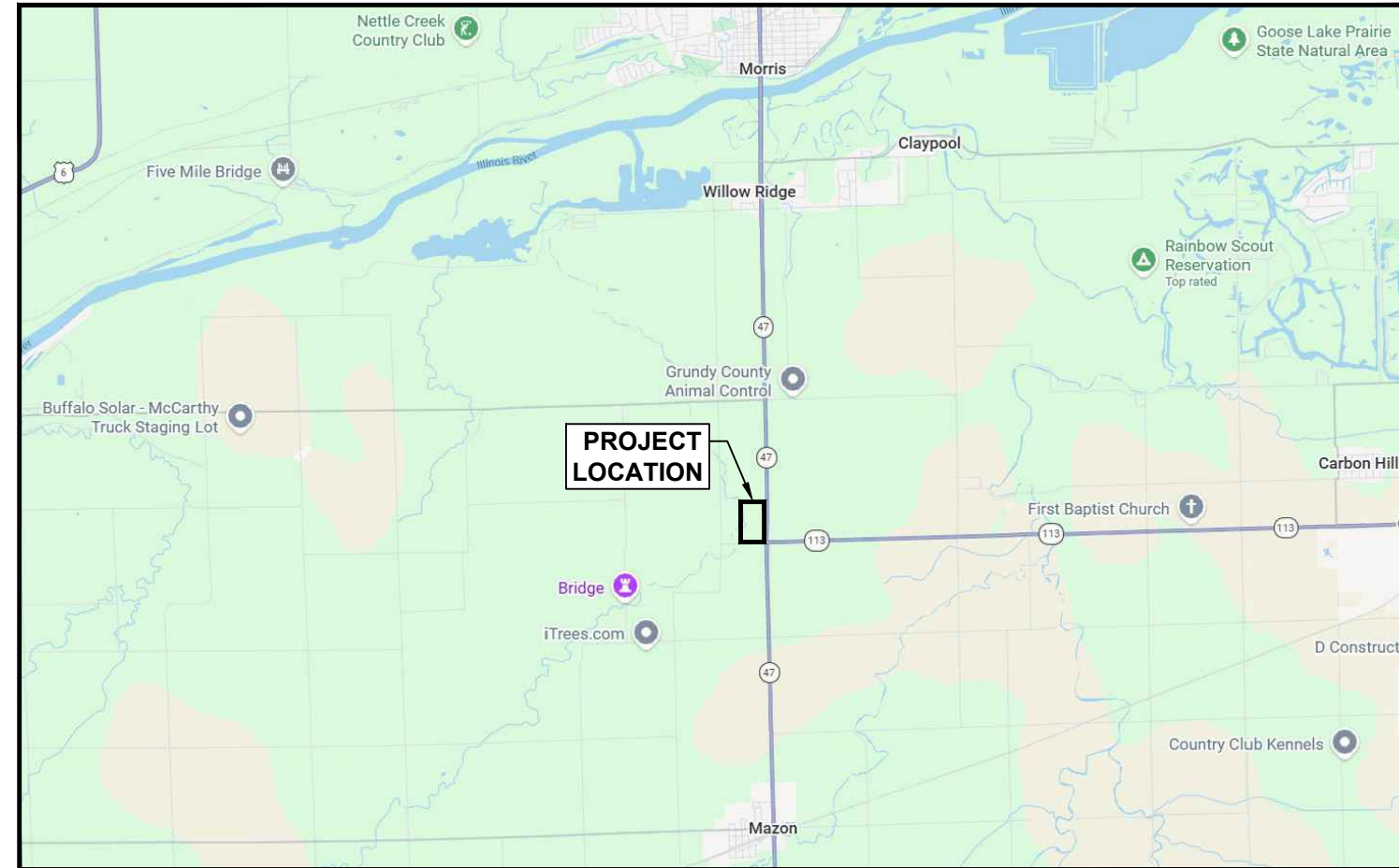
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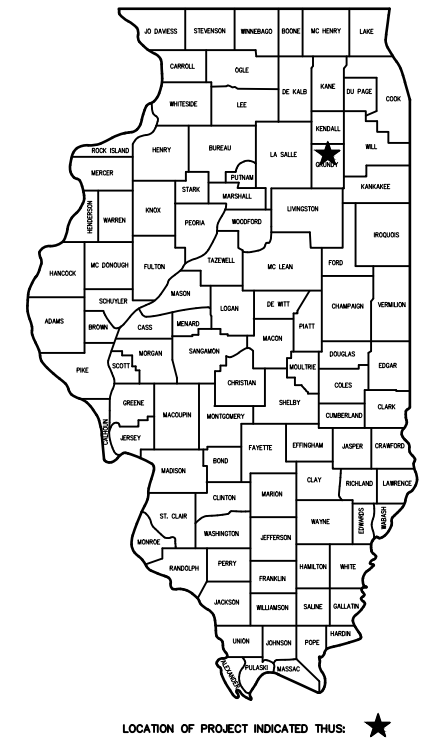
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LEGEND

EXISTING RIGHT-OF-WAY	=====
EXISTING SANITARY SEWER	-----
EXISTING CONTOUR LINE	-----
PROPOSED CONTOUR LINE	-----
EXISTING STORM SEWER	-----
PROPOSED STORM SEWER	-----
EXISTING MANHOLE	○
PROPOSED MANHOLE	○
EXISTING CATCH BASIN	□
EXISTING INLET	○
PROPOSED INLET/CATCH BASIN	○
PROPOSED FLARED END SECTION	○
EXISTING CLEAN OUT	○
EXISTING WATER SERVICE VALVE	○
EXISTING WATER VALVE	○
EXISTING FIRE HYDRANT	○
EXISTING HANDHOLE	○
EXISTING ELECTRIC METER	○
EXISTING JUNCTION BOX	○
EXISTING LIGHT STANDARD	○
EXISTING UTILITY POLE W/ LIGHT	○
EXISTING T.V. PEDESTAL	○
EXISTING TELEPHONE PEDESTAL	○
EXISTING UTILITY POLE	○
EXISTING GUY WIRE	○
EXISTING SIGN	○
EXISTING MAILBOX	○
EXISTING BUSH	○
EXISTING DECIDUOUS TREE W/ SIZE	○ DIA.
EXISTING EVERGREEN TREE W/ SIZE	○ DIA.
PROPOSED INLET PROTECTION	○
BITUMINOUS SURFACE	BIT
AGGREGATE SURFACE	AGG
CONCRETE SURFACE	CONC
SIDEWALK	SWK
BUILDING	BLDG
RIGHT-OF-WAY	R.O.W.
BACK OF CURB	BOC
EDGE OF PAVEMENT	EOP
ELEVATION	EL
ELEVATION	ELEV
FLOW LINE	FL
LANDSCAPE	L.S.
REINFORCED CONCRETE PIPE	RCP
CORRUGATED METAL PIPE	CMP
CORRUGATED POLYETHYLENE PIPE	CPE
SURFACE WATER DIRECTION	~~~~~



LOCATION MAP
N.T.S.



LOCATION OF PROJECT INDICATED THUS: ★

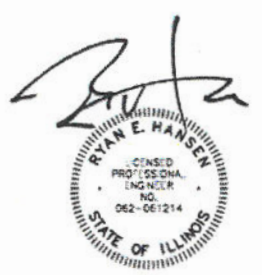
BENCHMARKS

BM - FINISH FLOOR AT NORTH MAN DOOR
OF EXISTING HIGHWAY DEPT. GARAGE

ELEV. = 567.18

SURVEYOR / ENGINEER:

CHAMLIN & ASSOCIATES, INC.
4150 PROGRESS BLVD.
PERU, IL. 61354
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e-mail : PERU@CHAMLIN.COM



11-30-2025
PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-201117



CHAMLIN & ASSOCIATES, INC. © 2025
Drawing Name: I:\2497\2497-00 GRUNDY CO HWY DEPT NEW STORAGE BLDG\CAD\C-COVER.dwg
Last Modified: Wednesday, June 24, 2026 12:32:19 PM
Plotted On: Wednesday, June 24, 2026 12:43:13 PM
by: Jorge L. Sanchez



PERU MORRIS
OTTAWA
ILLINOIS

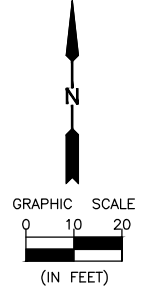
DRAWN BY: LMP
CHECKED BY: Tim H.
DATE: 06/2026

REVISIONS				
LEVEL	BY	DATE	DESCRIPTION	

BID SET

CURRENT AS OF: 06/19/26	
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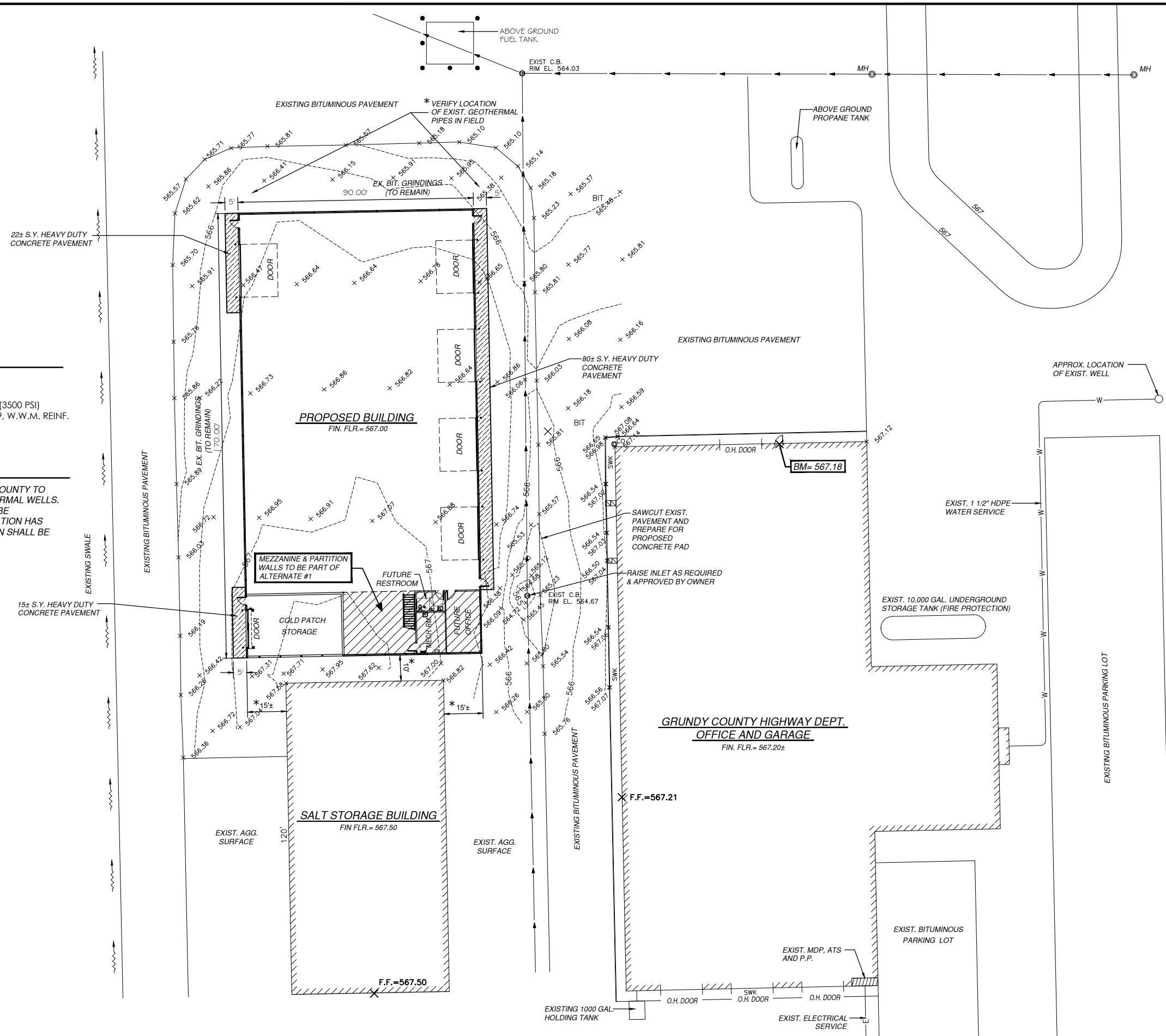


LEGEND

HEAVY DUTY CONCRETE - 6" (3500 PSI) CONCRETE WITH W2.9 x W2.9, W.W.M. REINF.

NOTE:

* CONTRACTOR SHALL WORK WITH THE COUNTY TO VERIFY LOCATION OF EXISTING GEOTHERMAL WELLS. PROPOSED BUILDING LOCATION SHALL BE DETERMINED IN FIELD ONCE WELL LOCATION HAS BEEN ESTABLISHED. BUILDING LOCATION SHALL BE APPROVED BY COUNTY.



DRAWN BY: DS	LEVEL	BY	DATE	REVISIONS	DESCRIPTION
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DATE: 06/2026					

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 OTTAWA ILLINOIS

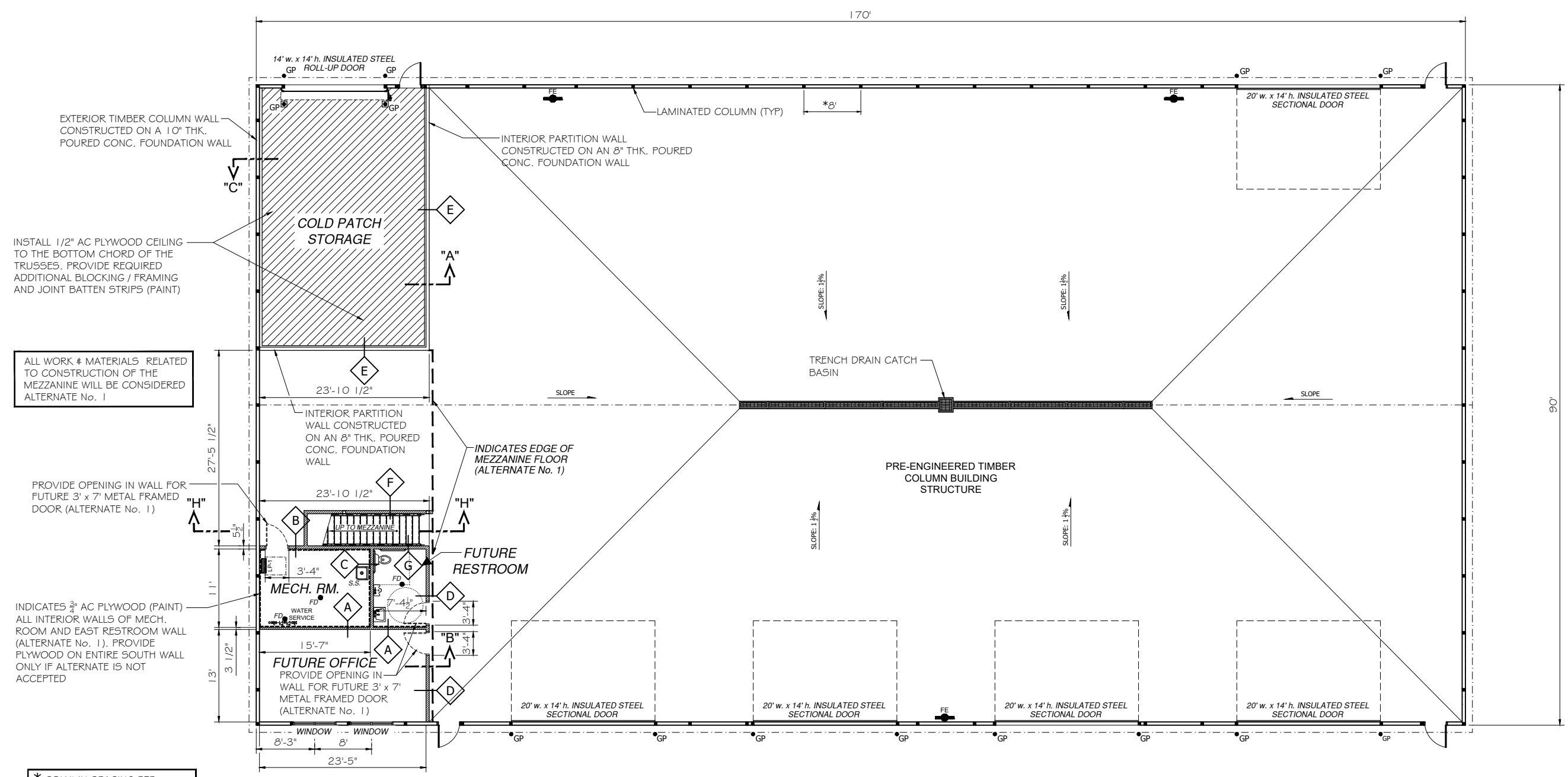
GRUNDY COUNTY HIGHWAY DEPARTMENT
PROPOSED STORAGE BUILDING
 MORRIS, ILLINOIS

SITE & DIMENSIONAL LAYOUT PLAN

BIDDING PLANS

CURRENT AS OF: 06/19/2026	
SCALE: AS NOTED	SHEET C1.0
FILE NO.: 2497.00	Y- OF

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ALL WORK & MATERIALS RELATED TO CONSTRUCTION OF THE MEZZANINE WILL BE CONSIDERED ALTERNATE No. 1

PROVIDE OPENING IN WALL FOR FUTURE 3' x 7' METAL FRAMED DOOR (ALTERNATE No. 1)

INDICATES 3/4" AC PLYWOOD (PAINT) ALL INTERIOR WALLS OF MECH. ROOM AND EAST RESTROOM WALL (ALTERNATE No. 1). PROVIDE PLYWOOD ON ENTIRE SOUTH WALL ONLY IF ALTERNATE IS NOT ACCEPTED

* COLUMN SPACING PER BUILDING MANUF. BASED ON DESIGN REQUIREMENTS.

GENERAL NOTES:

1. THE CONTRACTOR SHALL APPLY A LITHIUM BASED CONCRETE DENSIFIER, "LITHI-TEK 4500" OR APPROVED EQUAL, TO THE ENTIRE GARAGE FLOOR AREA (15,300± S.F.). APPLICATION SHALL BE AS RECOMMENDED BY THE MANUFACTURER. VERIFY CONCRETE SURFACE FINISH WITH MANUFACTURER PRIOR TO POUR.
2. ALL DIMENSIONS ARE TAKEN FROM BUILDING FRAMING (FACE OF STUDS OR WALL GIRTS / FURRING). WALL STUDS WIDTH USED = (3 1/2" OR 5 1/2") UNLESS SHOWN OTHERWISE.
3. ALL WALLS (STRUCTURAL & PARTITION), MEZZANINE FLOOR / FRAMING, HANDRAILS, STAIRS, AND MISC. MATERIALS PERTAINING TO THE MEZZANINE OR ROOM CONSTRUCTION SHALL BE INCLUDED IN ALTERNATE No. 1. UNDER FLOOR PLUMBING & ELECTRICAL SERVICE SHALL BE INCLUDED IN BASE BID.

LAYOUT PLAN

SCALE 1/8" = 1'-0"
 0 2 4 8



FIRE EXTINGUISHER LEGEND
 FE SURFACE MOUNTED FIRE EXTINGUISHER (SUPPLIED AND INSTALLED BY OWNER)

DRAWN BY: Tim H	REVISIONS			
CHECKED BY: Ryan H	LEVEL	BY	DATE	DESCRIPTION
DATE: 06/2026				

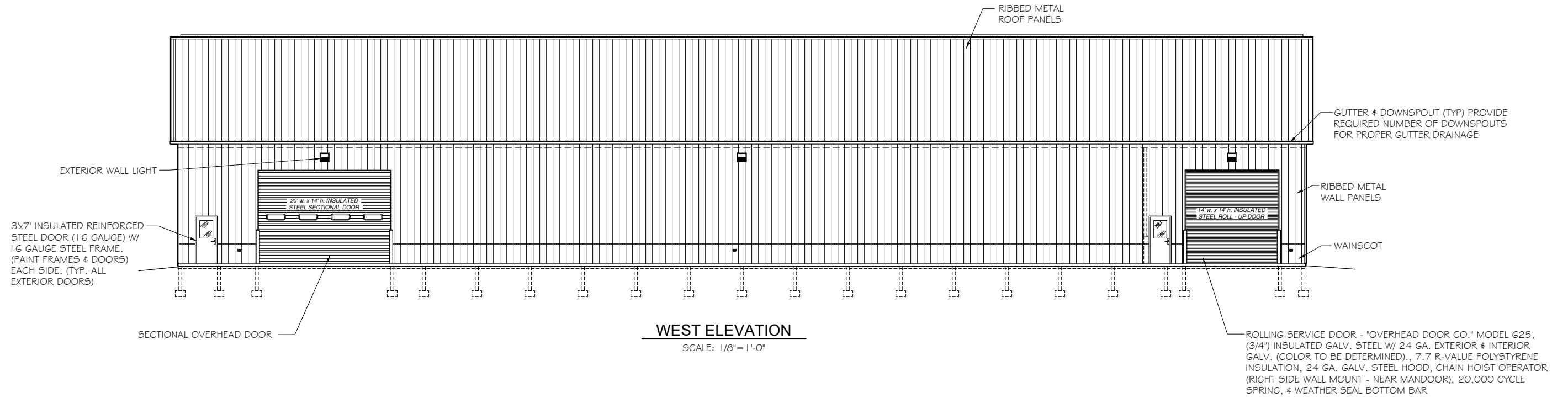

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GRUNDY COUNTY HIGHWAY DEPARTMENT
 PROPOSED STORAGE BUILDING
 MORRIS, ILLINOIS

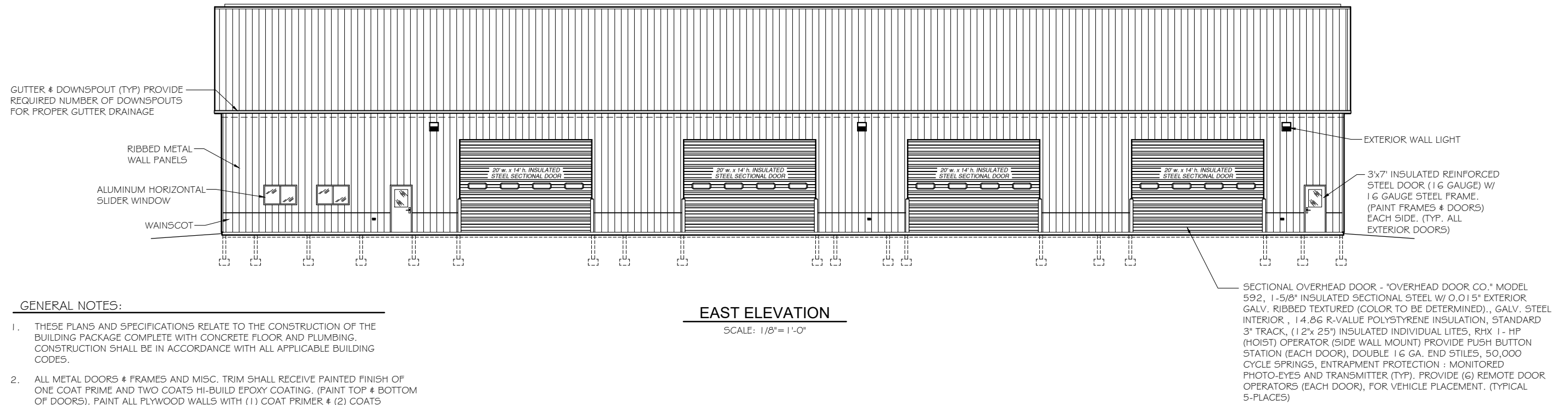
LAYOUT PLAN

BIDDING PLANS
 CURRENT AS OF: 06/19/26
 SCALE: AS NOTED SHEET A-1.0
 FILE NO.: 2497.00 Y- OF

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WEST ELEVATION
SCALE: 1/8" = 1'-0"



EAST ELEVATION
SCALE: 1/8" = 1'-0"

GENERAL NOTES:

1. THESE PLANS AND SPECIFICATIONS RELATE TO THE CONSTRUCTION OF THE BUILDING PACKAGE COMPLETE WITH CONCRETE FLOOR AND PLUMBING. CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE BUILDING CODES.
2. ALL METAL DOORS & FRAMES AND MISC. TRIM SHALL RECEIVE PAINTED FINISH OF ONE COAT PRIME AND TWO COATS HI-BUILD EPOXY COATING. (PAINT TOP & BOTTOM OF DOORS). PAINT ALL PLYWOOD WALLS WITH (1) COAT PRIMER & (2) COATS SEMI-GLOSS ACRYLIC.

DRAWN BY: Tim H	REVISIONS			
	LEVEL	BY	DATE	DESCRIPTION
CHECKED BY: Ryan H				
DATE: 04/26				

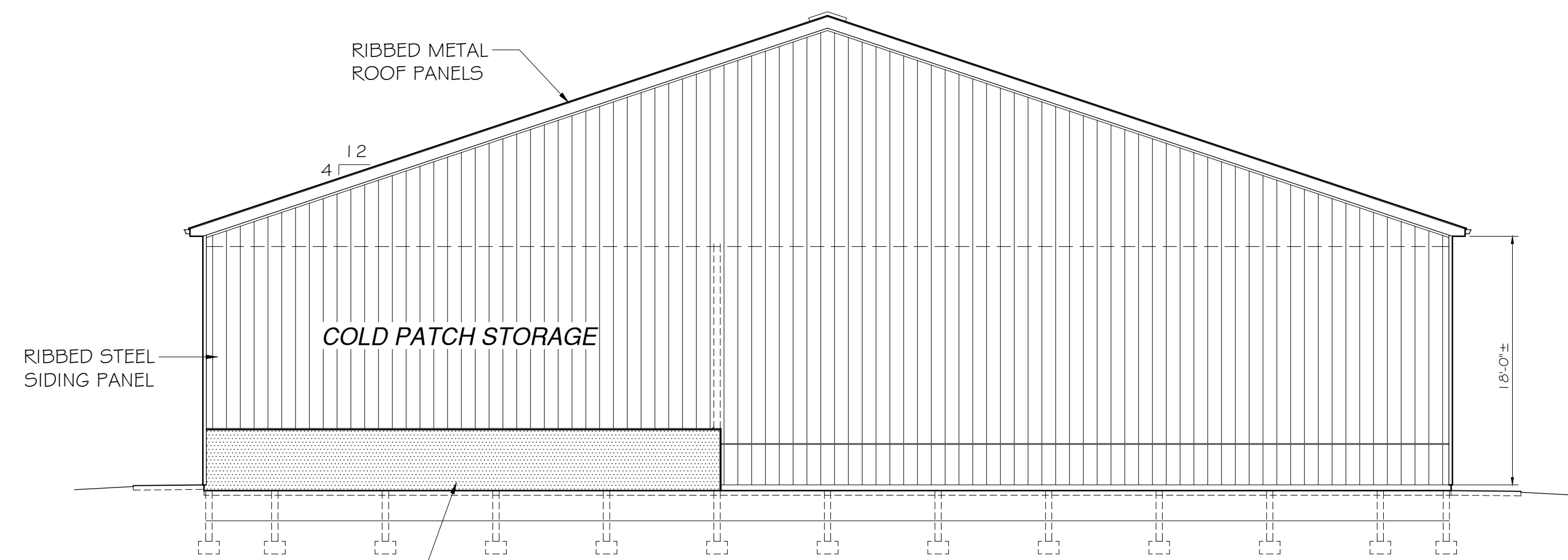

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GRUNDY COUNTY HIGHWAY DEPARTMENT
 PROPOSED STORAGE BUILDING
 MORRIS, ILLINOIS

EAST & WEST ELEVATIONS

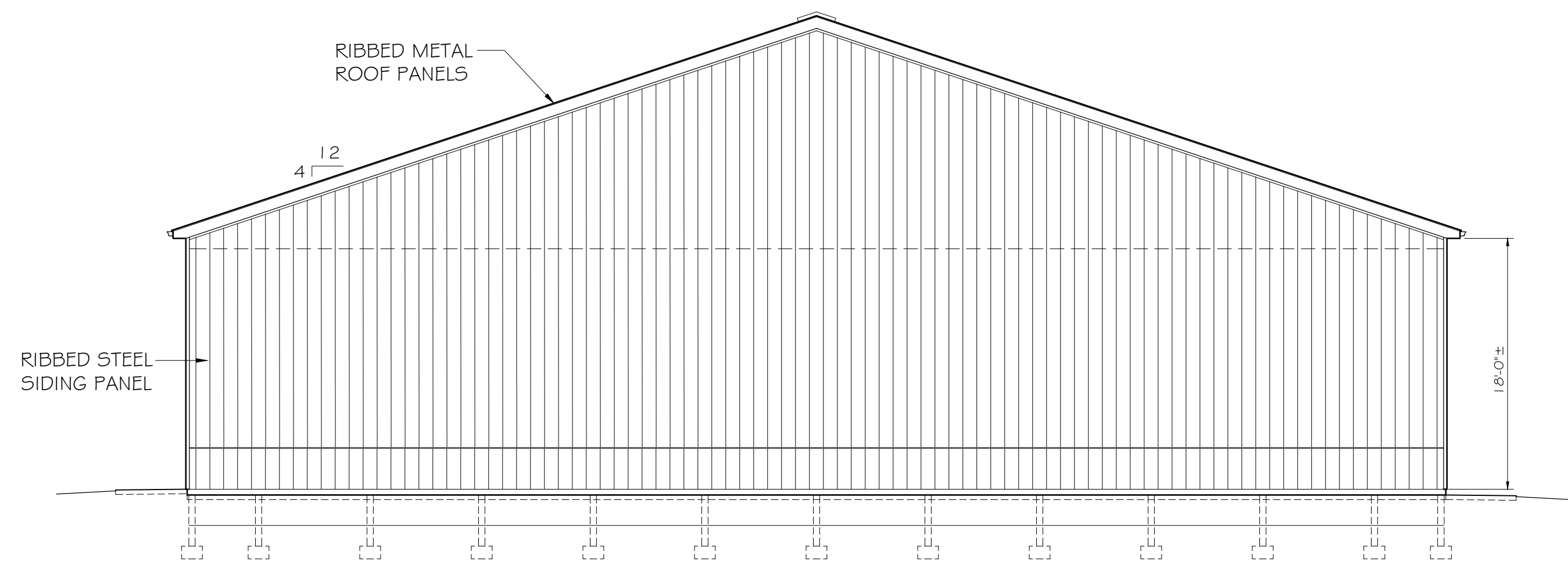
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SOUTH ELEVATION

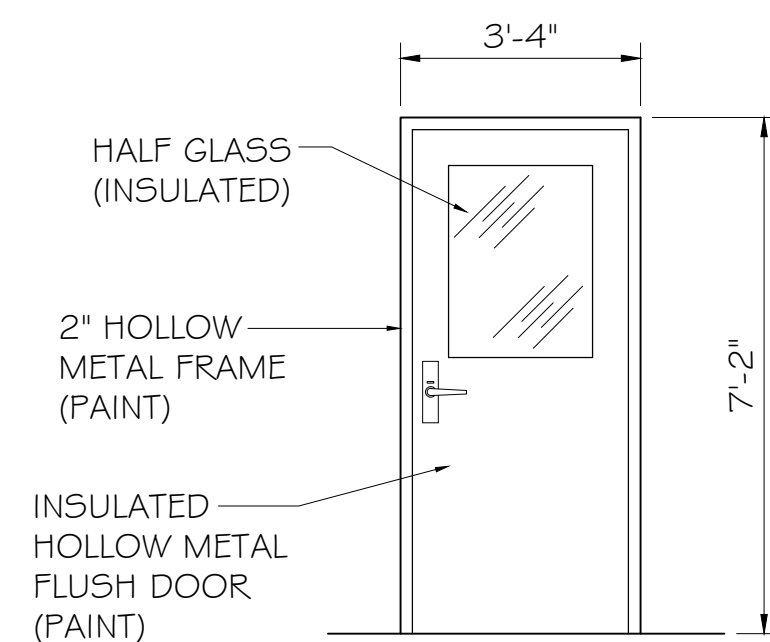
SCALE: 1/8" = 1'-0"



NORTH ELEVATION

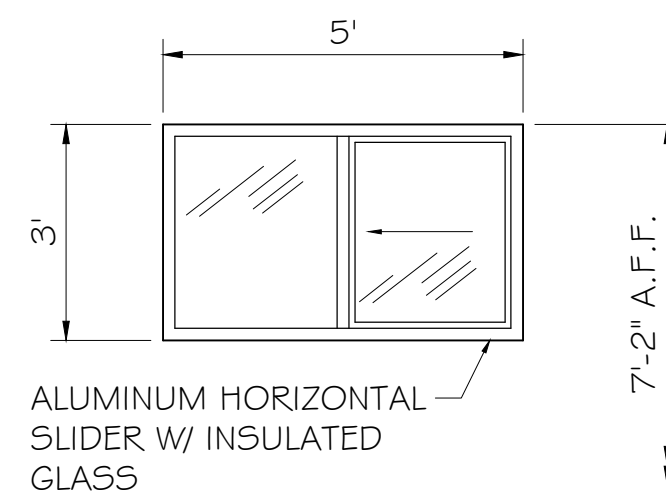
SCALE: 1/8" = 1'-0"

RUB ALL EXPOSED VERTICAL CONCRETE WALL SURFACES WITH CARBORUNDUM STONE / SAND CEMENT MIX. COMPLETED FINISH SHALL BE APPROVED & ACCEPTED BY ENGINEER.



EXTERIOR DOOR

N.T.S.



WINDOW

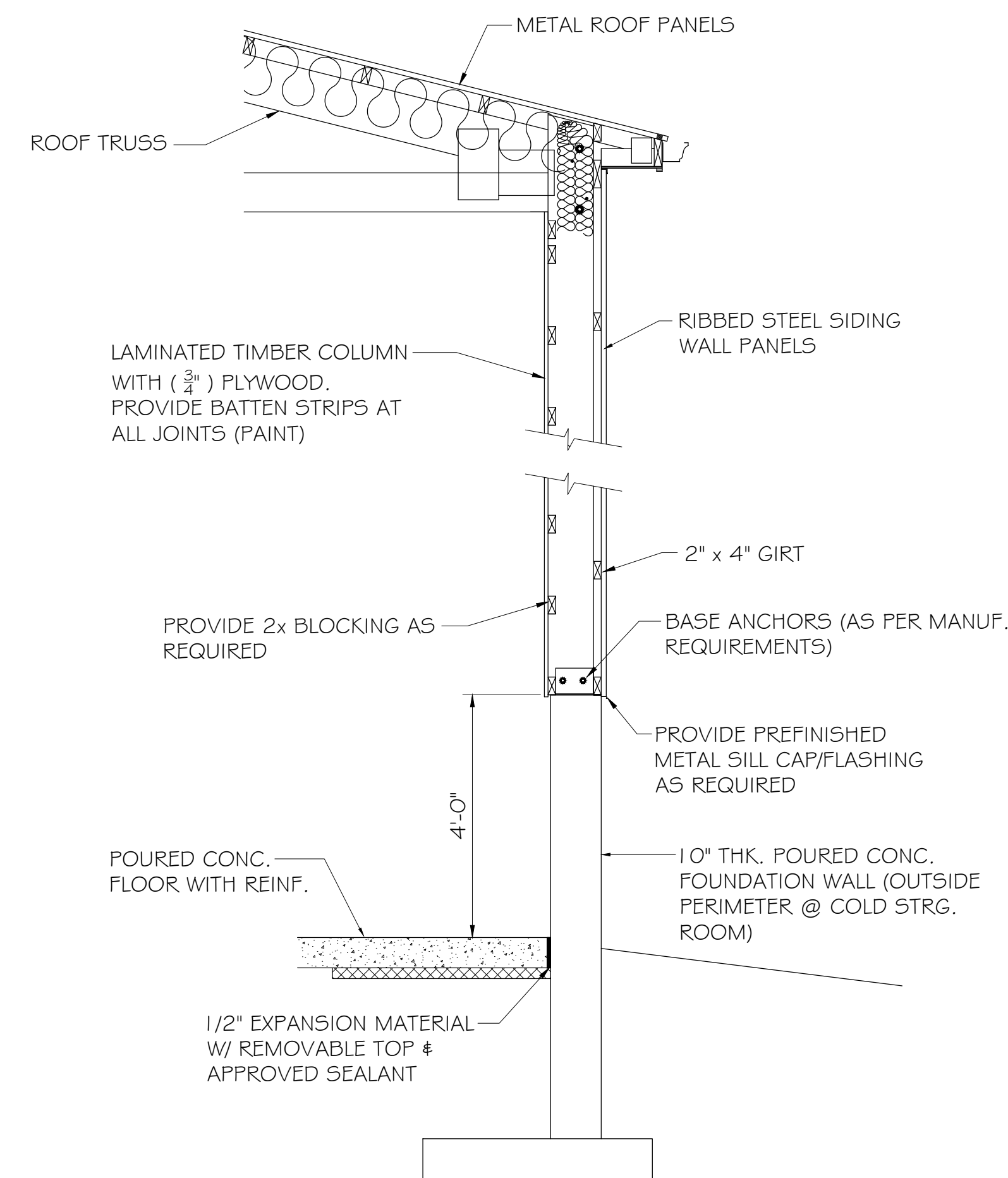
N.T.S.

DOOR HARDWARE SCHEDULE

GROUP NUMBER	DESCRIPTION	ALL HARDWARE SHALL BE US32D STAINLESS STEEL BASE METAL W/ SATIN FINISH
1	1 1/2 PAIR BUTTS, OUTSIDE LEVER HANDLE WITH CYLINDER LOCK, INTERIOR PANIC DEVICE, PERIMETER WEATHER STRIP, BOTTOM DOOR SWEEP, SURFACE MOUNTED "CUSH" CLOSER AND ACCESSIBLE THRESHOLD.	
2	1 1/2 PAIR BUTTS AND PASSAGE SET	
3	1 1/2 PAIR BUTTS AND PRIVACY SET	

DOOR & WINDOW NOTES:

- ALL DOOR SETS SHALL INCLUDE HEAVY-DUTY COMMERCIAL GRADE LEVER HANDLES. ALL HARDWARE SHALL BE IN STRICT ACCORDANCE W/ THE ILLINOIS ACCESSIBILITY CODE.
- EXTERIOR DOOR LOCKS SHALL BE KEYED TO MATCH THE OWNERS EXISTING MASTER KEY.
- ALL EXTERIOR DOOR & FRAME GLAZING SHALL BE (1") INSULATED WITH (1/4") TEMPERED GLASS (EACH SIDE). PROVIDE LOW E3 ARGON BETWEEN PANELS.
- ALL METAL DOORS AND FRAMES SHALL RECEIVE TWO FINISH COATS OF HI-BUILD EPOXY OVER FACTORY PRIME COAT. TOP AND BOTTOM OF ALL DOORS SHALL RECEIVE PAINT.
- ALUMINUM WINDOWS SHALL BE "GERKIN ALUMINUM SLIDER #5054 (OR APPROVED EQUAL), THERMALLY BROKEN, WITH SCREEN AND DEADBOLT LOCKS (SEE DETAIL FOR SIZE). COLOR TO BE SELECTED BY OWNER FROM STANDARD OPTIONS.
- EXTERIOR DOORS WITH EXIT DEVICE, SHALL FUNCTION AS FOLLOWS: KEY SHALL OPERATE LATCH, LEVER HANDLE RETRACTS LATCH EXCEPT WHEN LOCKED BY CYLINDER (INSIDE PANIC DEVICE ALWAYS OPERATES LATCH) LATCH DOGGING NOT REQUIRED.



**SECTION - "C"
EXTERIOR WALL SECTION**

SCALE 1/2" = 1'-0"

DRAWN BY: Tim H	REVISIONS			
	LEVEL	BY	DATE	DESCRIPTION
CHECKED BY: Ryan H				
DATE: 04/26				

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ILLINOIS

GRUNDY COUNTY HIGHWAY DEPARTMENT
PROPOSED STORAGE BUILDING
MORRIS, ILLINOIS

NORTH & SOUTH ELEVATIONS
AND DOOR / WINDOW DETAILS

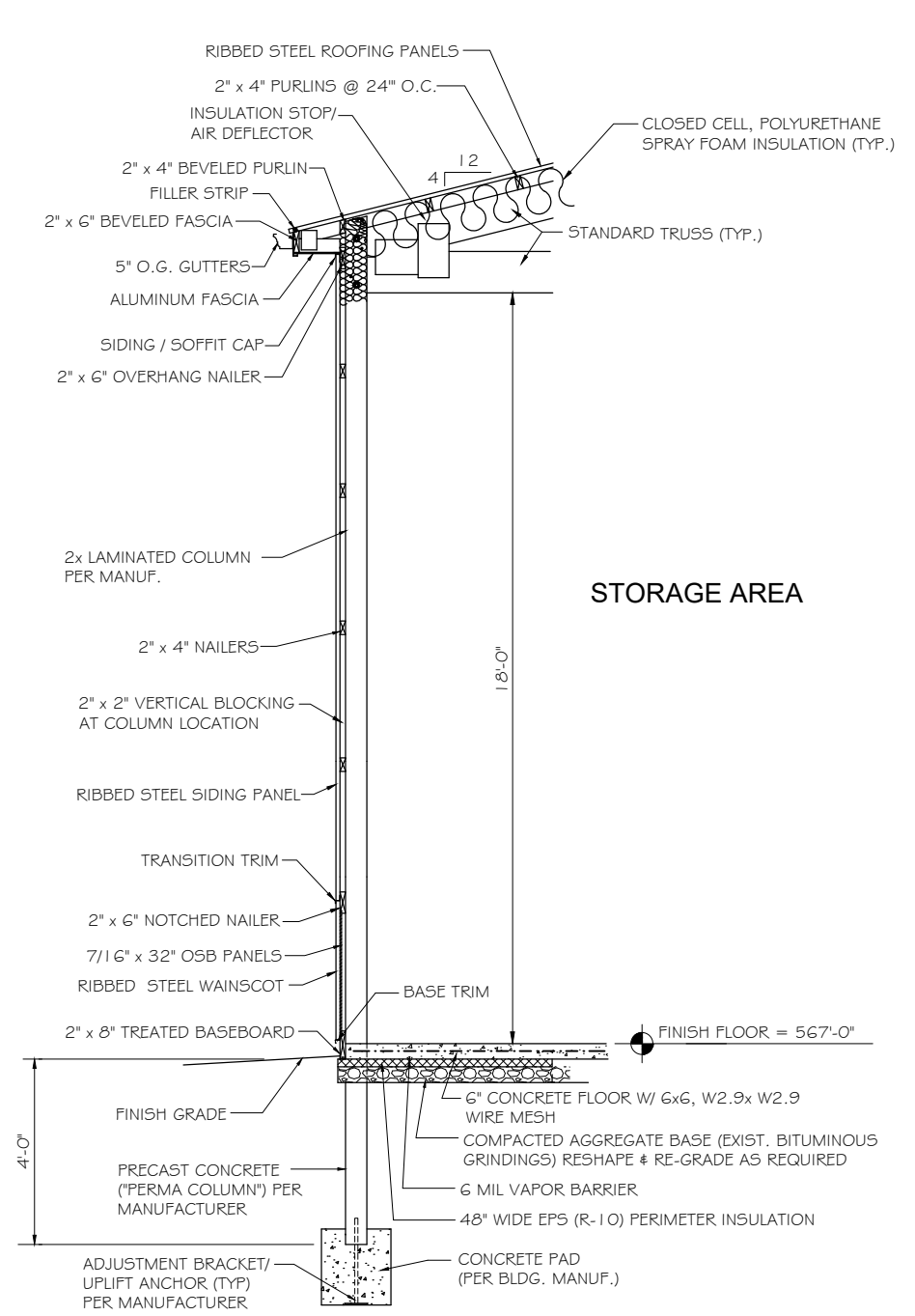
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CURRENT AS OF: 04/06/2026

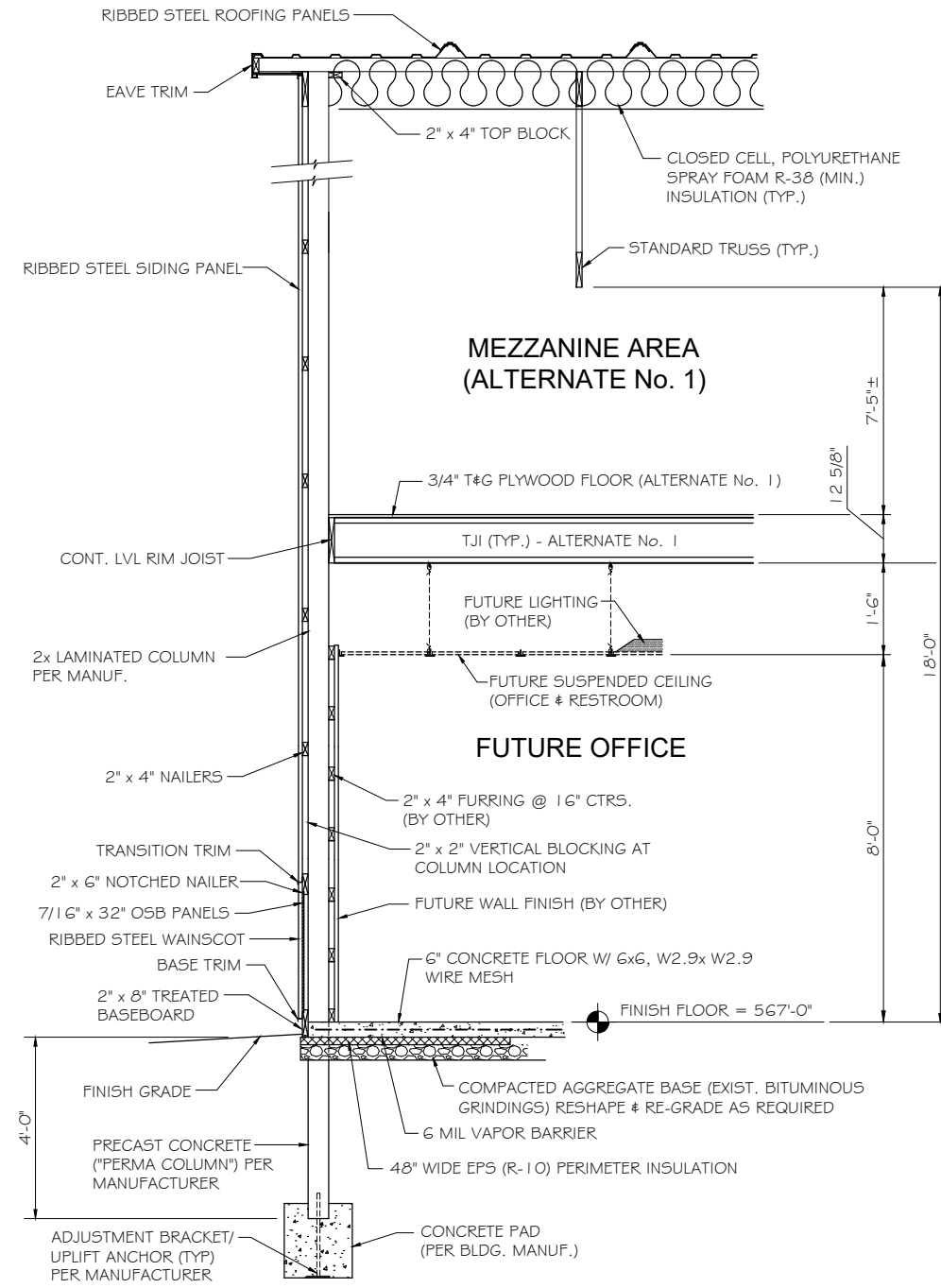
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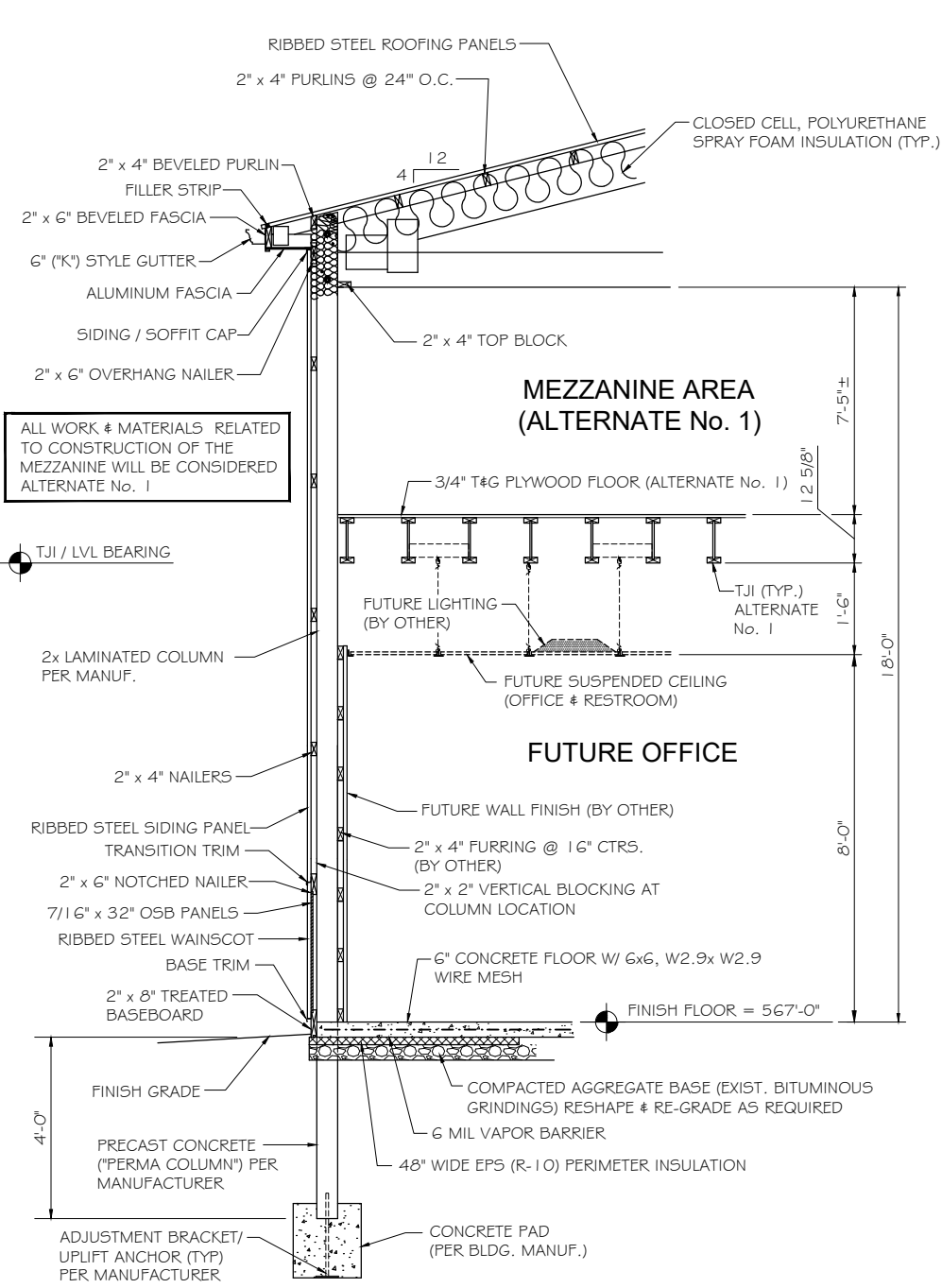
CHAMLIN & ASSOCIATES, INC. © 2022
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 Last Modified: Thursday, June 11, 2026 11:23:52 AM
 Plotted On: Thursday, June 11, 2026 2:35:40 PM
 by Tim Harris



TYPICAL SIDEWALL DETAIL (GARAGE)
N.T.S.

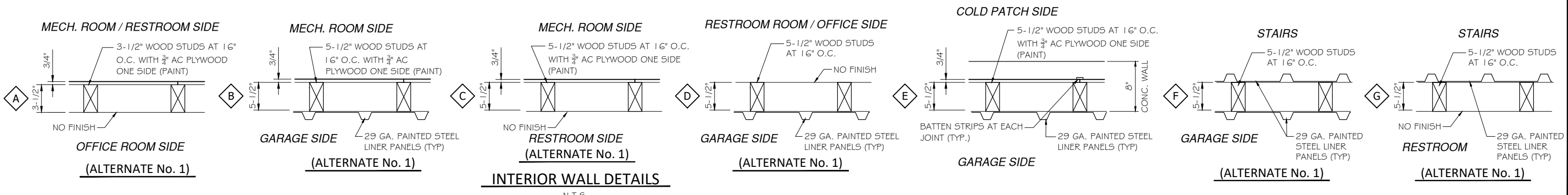


TYPICAL SIDEWALL DETAIL @ FUTURE OFFICE
SCALE 1/2" = 1'-0"



TYPICAL SIDEWALL DETAIL @ FUTURE OFFICE
SCALE 1/2" = 1'-0"

ALL WORK & MATERIALS RELATED TO CONSTRUCTION OF THE MEZZANINE WILL BE CONSIDERED ALTERNATE No. 1



INTERIOR WALL DETAILS
N.T.S.

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LEVEL	BY	DATE	DESCRIPTION						

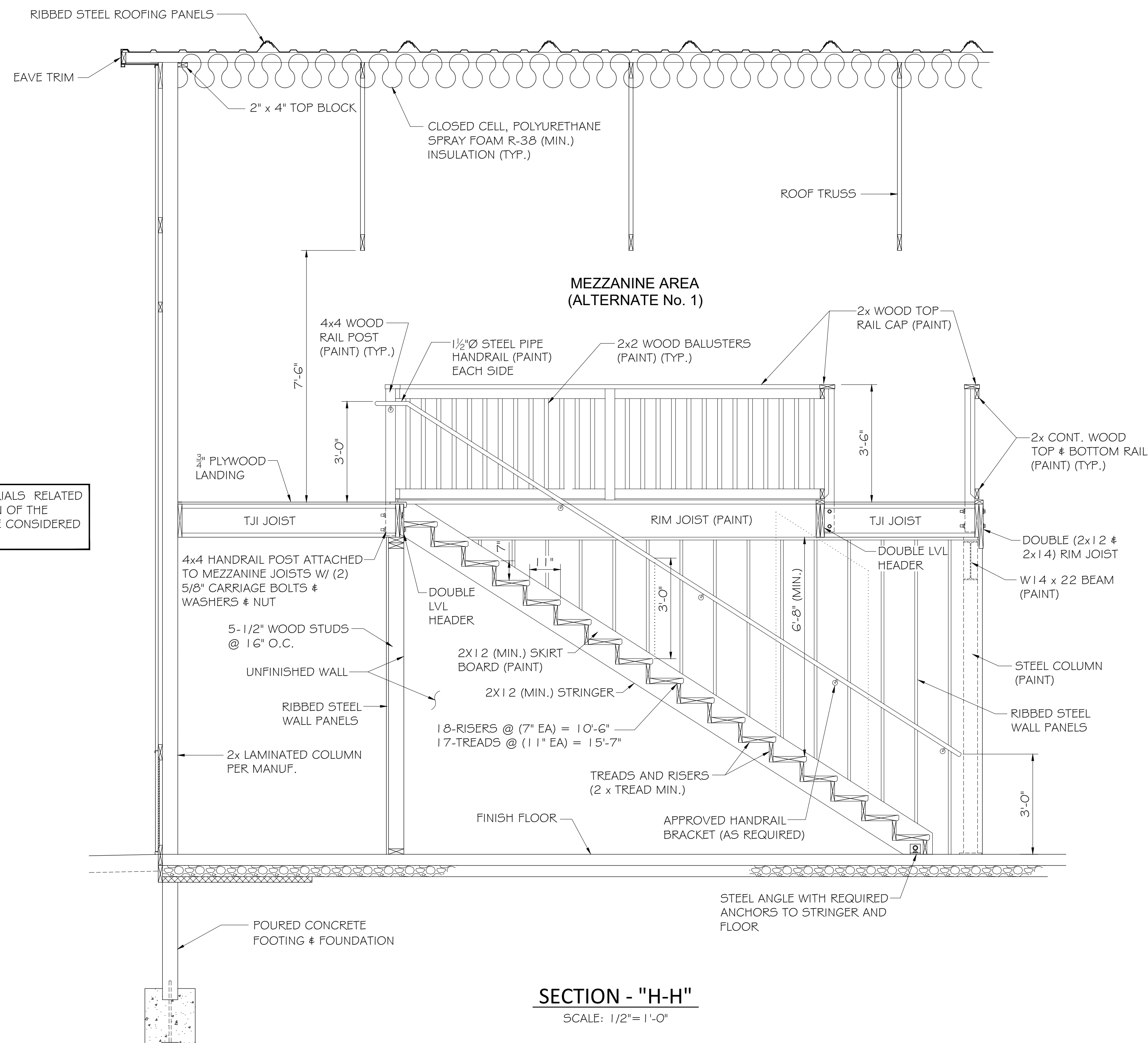


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 PROPOSED STORAGE BUILDING
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TYPICAL WALL SECTIONS
 BIDDING PLANS

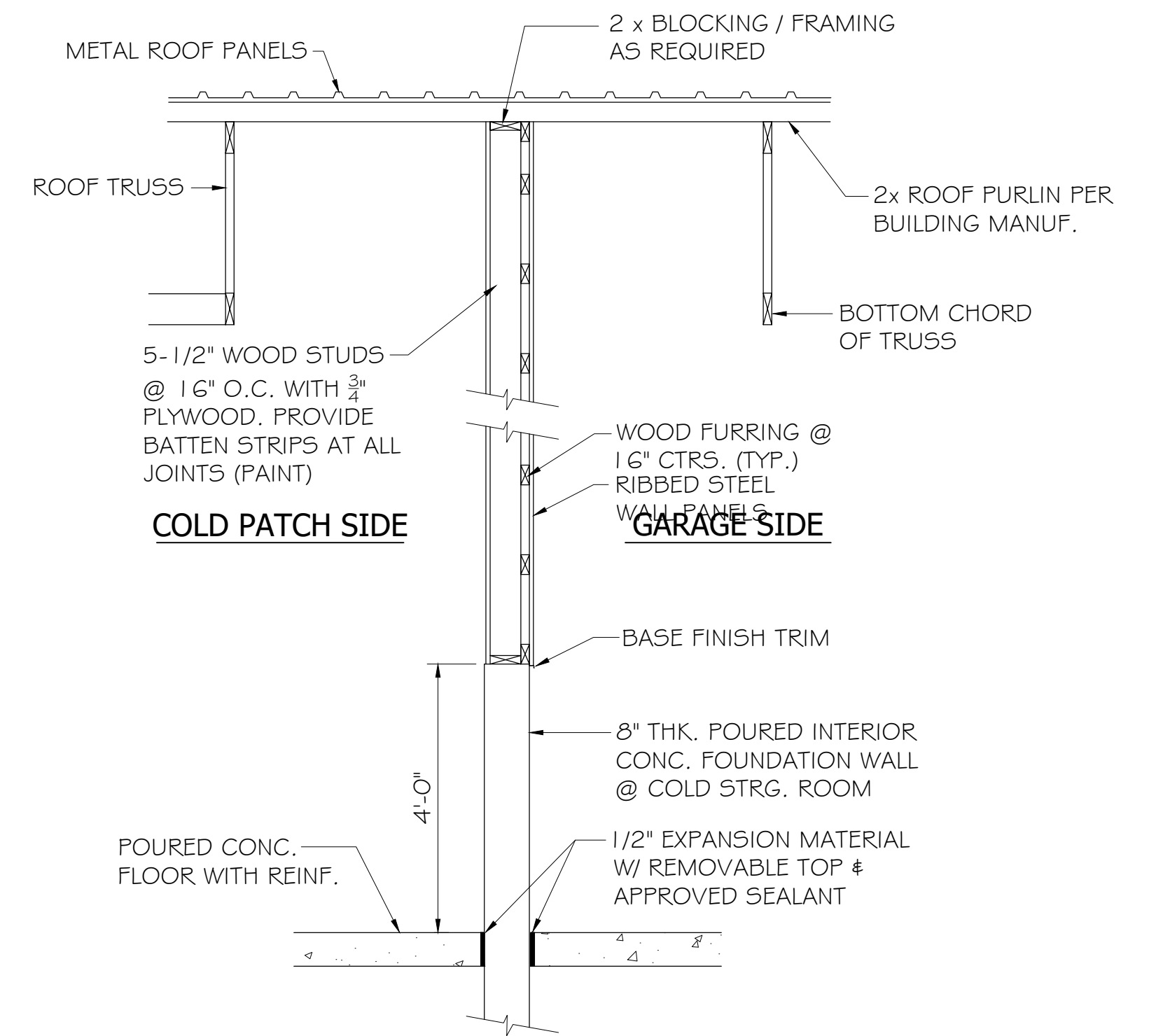
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 by: Tim Harris

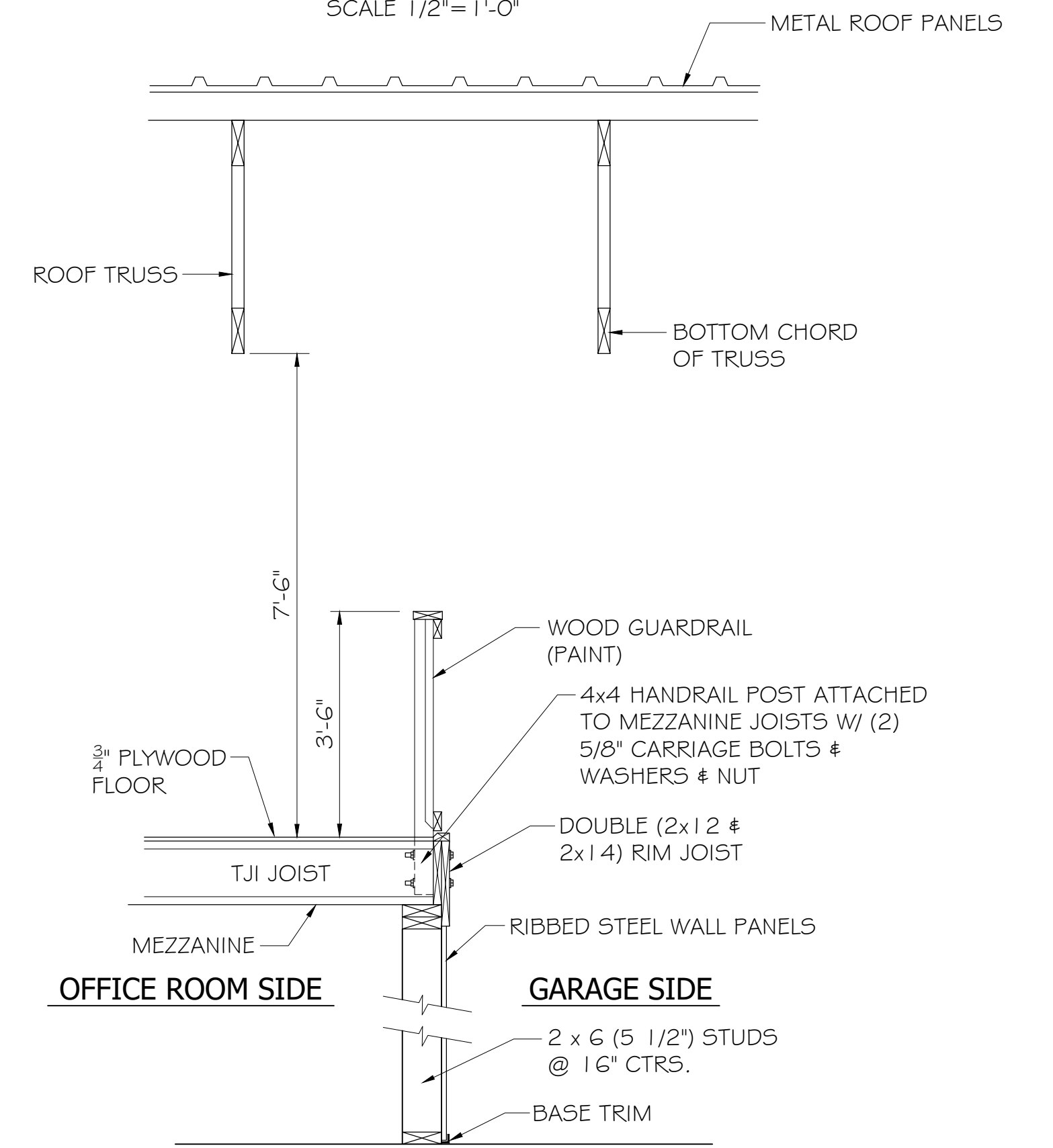


SECTION - "H-H"
SCALE: 1/2" = 1'-0"

ALL WORK & MATERIALS RELATED TO CONSTRUCTION OF THE MEZZANINE WILL BE CONSIDERED ALTERNATE No. 1



SECTION - "A"
PARTITION WALL SECTION
SCALE 1/2" = 1'-0"



SECTION - "B"
PARTITION WALL SECTION
N.T.S.
(ALTERNATE No. 1)

REVISIONS	DESCRIPTION	DATE	BY	LEVEL


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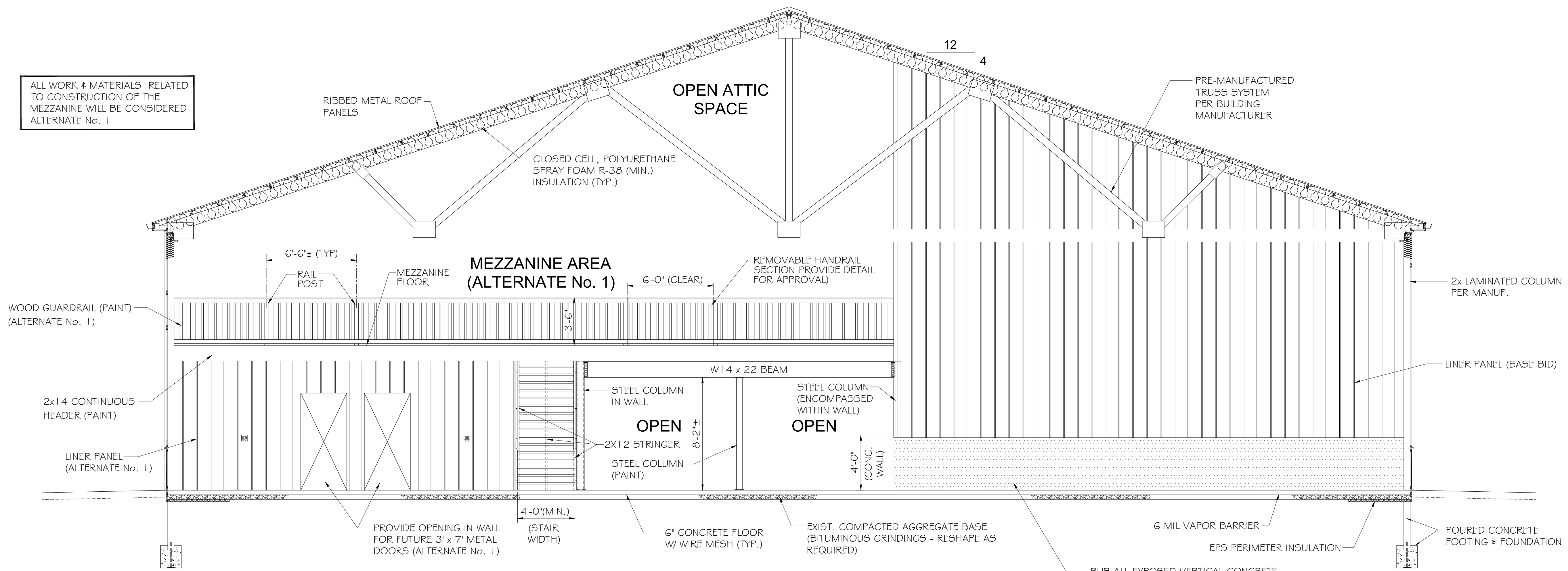
GRUNDY COUNTY HIGHWAY DEPARTMENT
PROPOSED STORAGE BUILDING
 MORRIS, ILLINOIS

TYPICAL BUILDING SECTIONS
AND STAIR RAIL DETAILS

BIDDING PLANS
 CURRENT AS OF: 06/19/26
 SCALE: AS NOTED
 FILE NO.: 2497.00 Y- OF SHEET A-5.0

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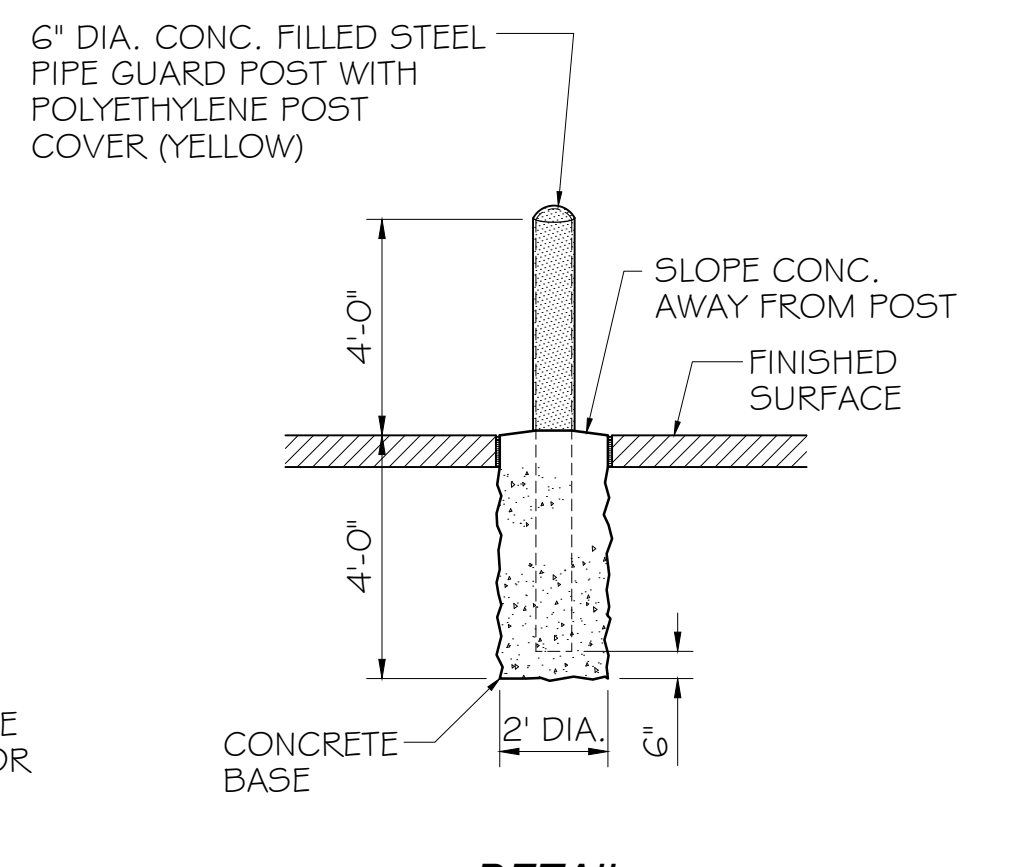
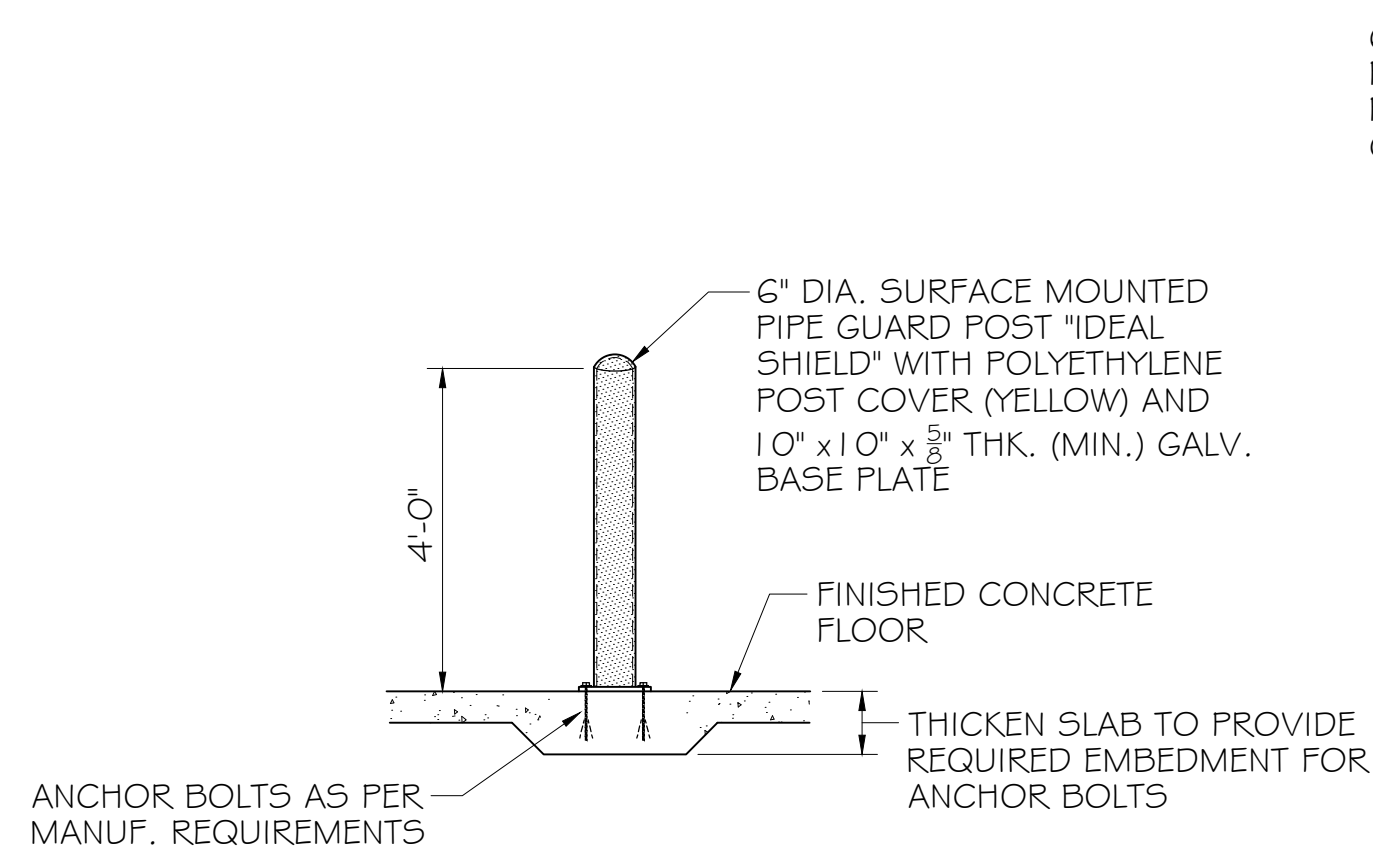
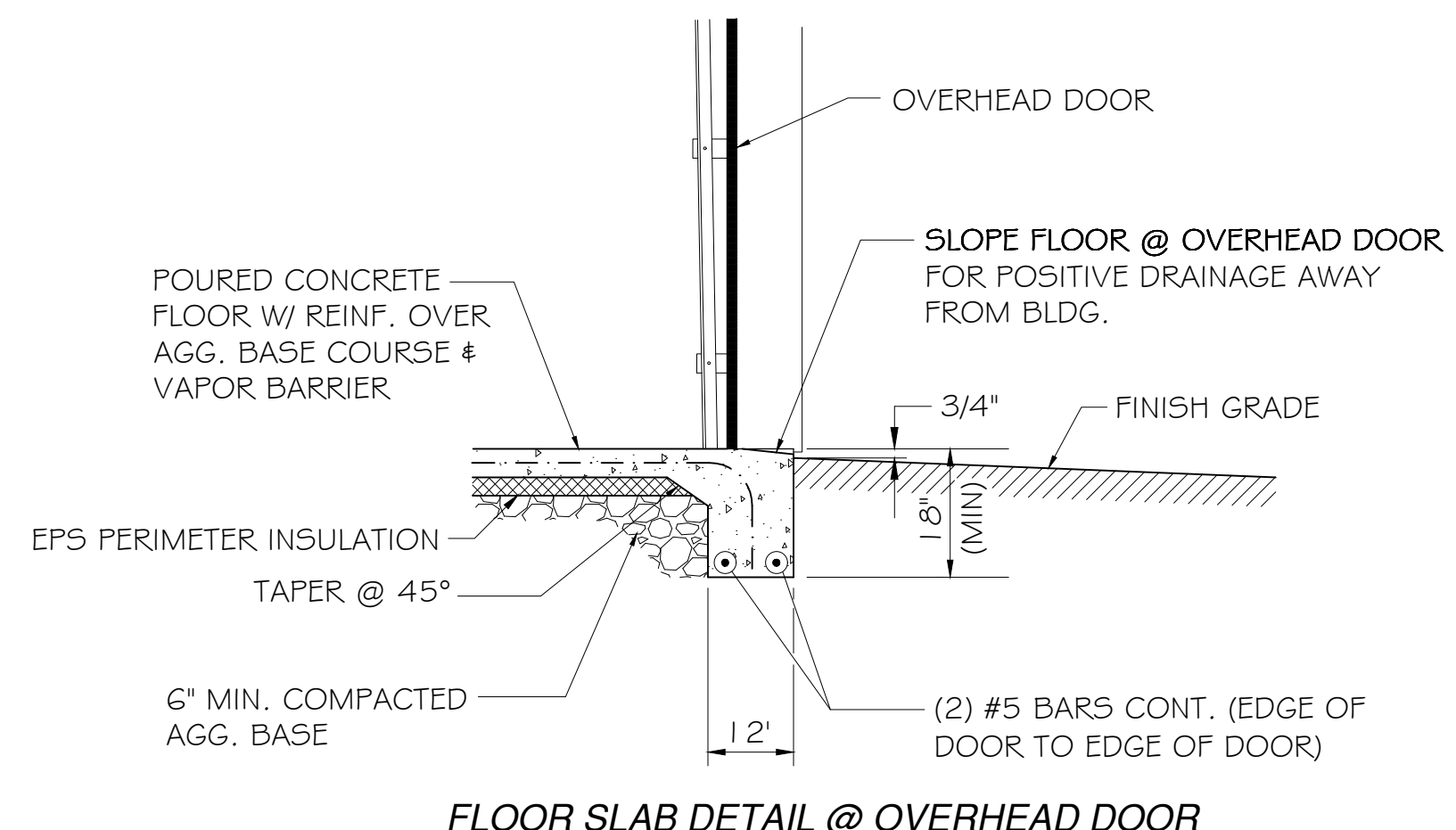
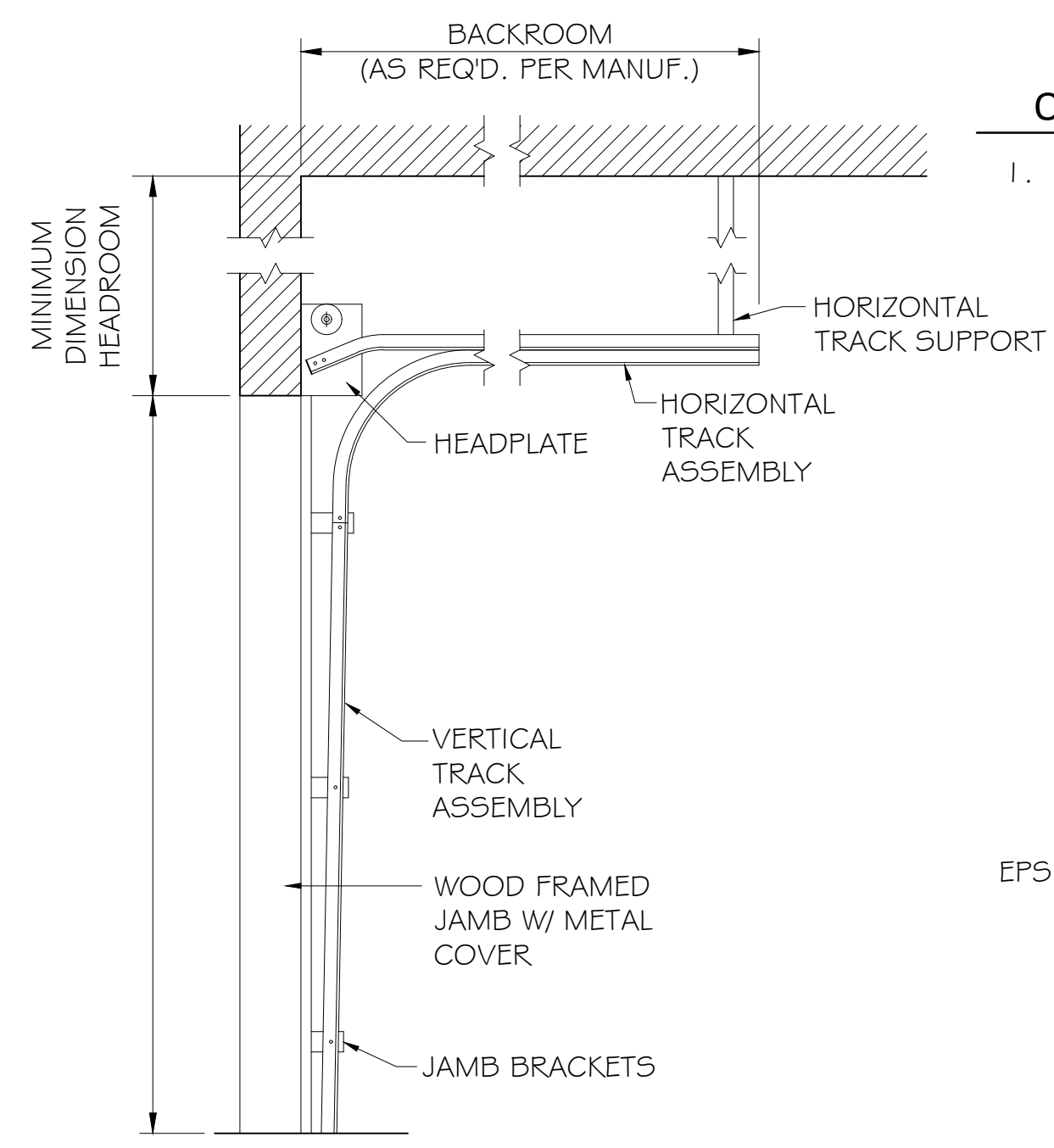
ALL WORK & MATERIALS RELATED TO CONSTRUCTION OF THE MEZZANINE WILL BE CONSIDERED ALTERNATE No. 1



TYPICAL THROUGH SECTION (LOOKING SOUTH)
 SCALE 1/4" = 1'-0"

OVERHEAD DOOR NOTES:

- PROVIDE LIFT CLEARANCE DOOR TYPE & RAIL, IF REQUIRED, FOR DOOR HEIGHT SPECIFIED. CONTRACTOR SHALL VERIFY DOOR INSTALLATION TO PROVIDE NECESSARY FRAMING / BLOCKING.



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CHECKED BY: Ryan H					
DATE: 06/2026					

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GRUNDY COUNTY HIGHWAY DEPARTMENT
 PROPOSED STORAGE BUILDING
 MORRIS, ILLINOIS

TYPICAL BUILDING THRU SECTION

BIDDING PLANS

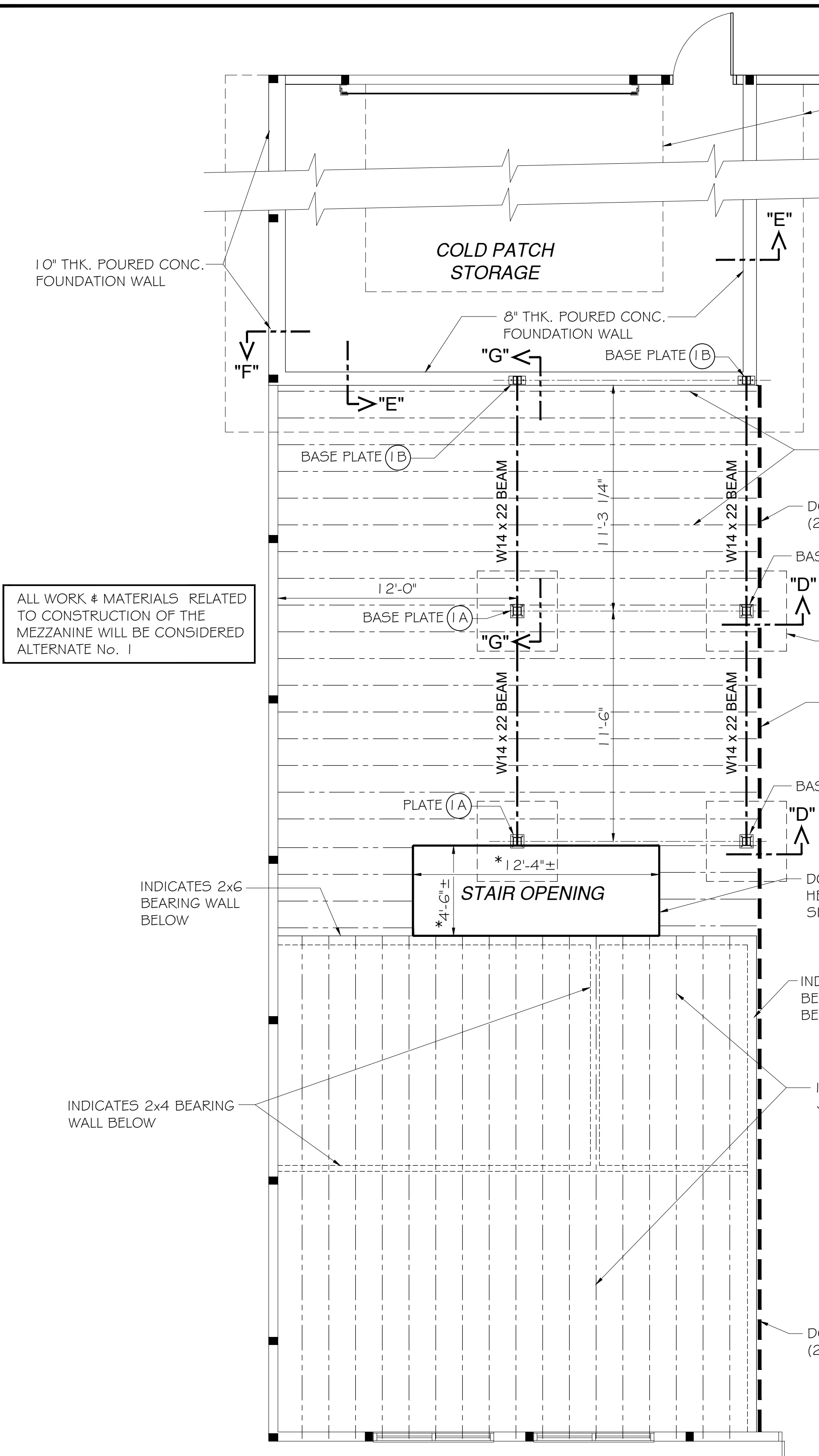
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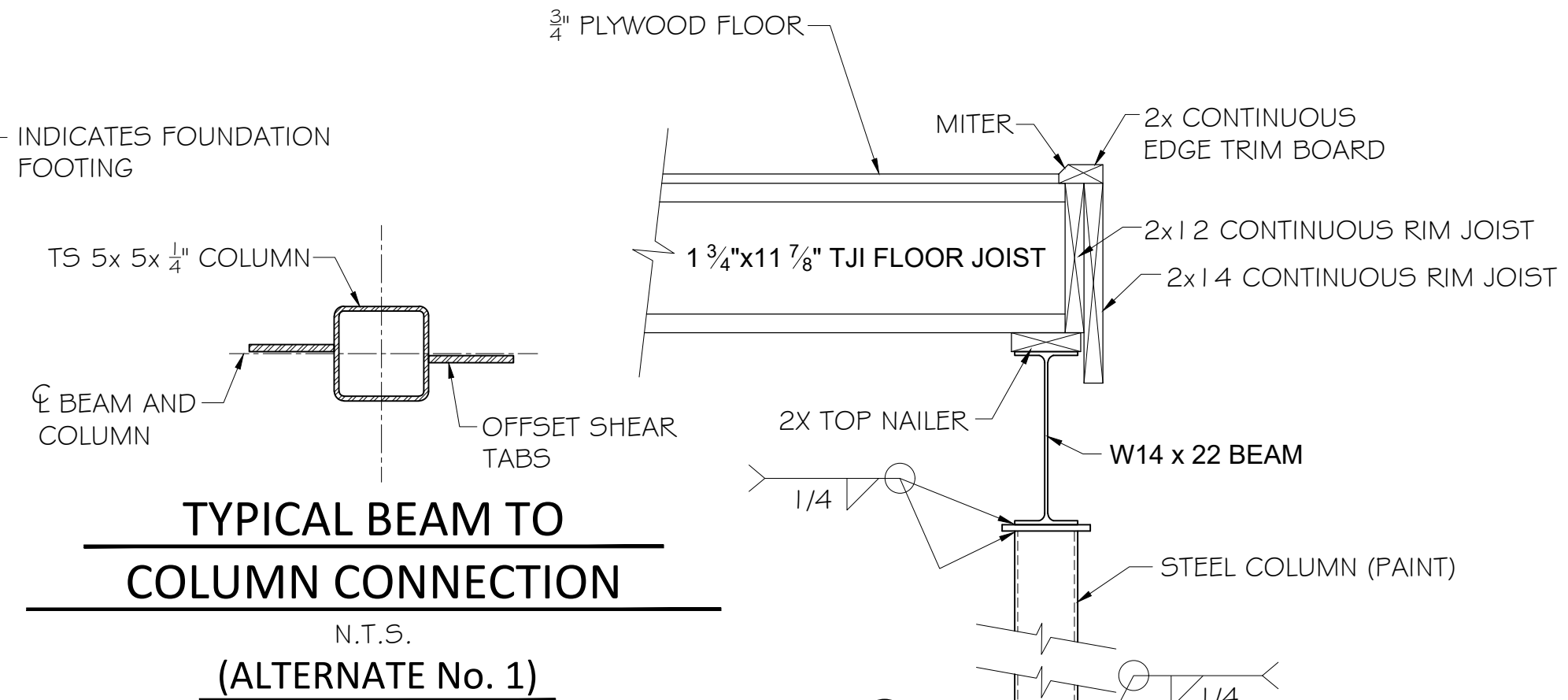
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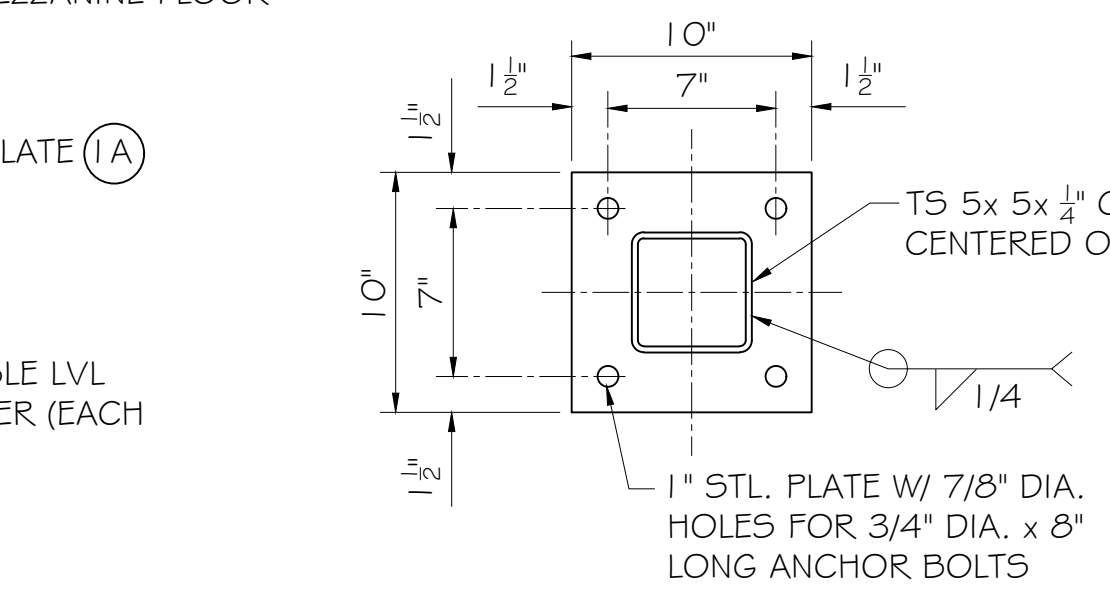


MEZZANINE FLOOR FRAMING PLAN
 SCALE 1/4" = 1'-0"
 (ALTERNATE No. 1)

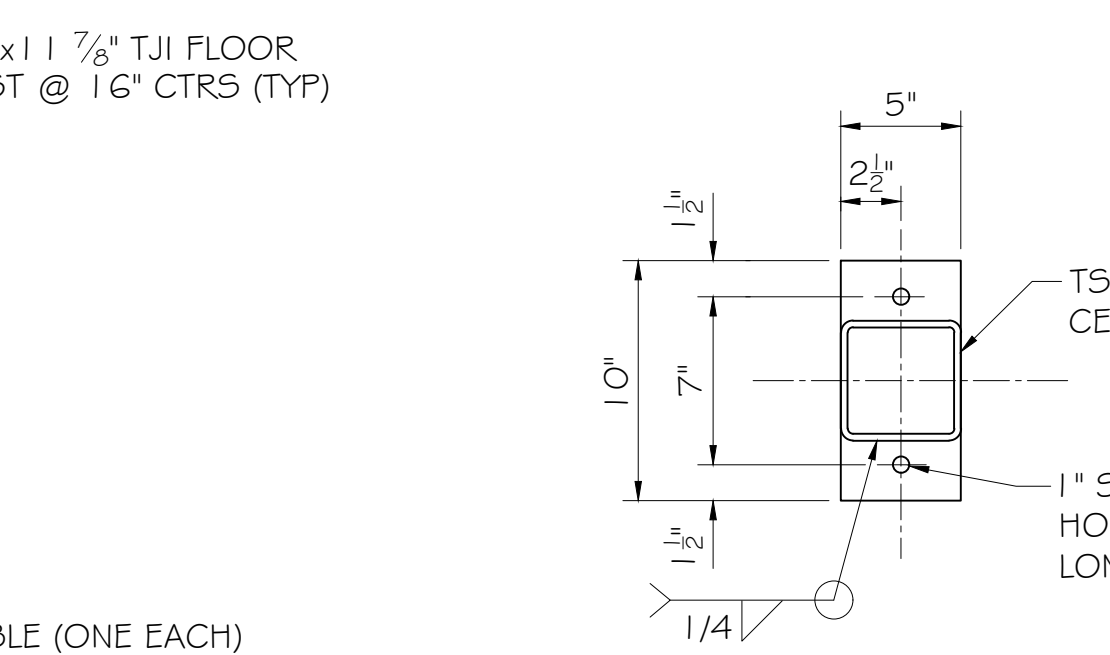
* CONTRACTOR TO VERIFY REQUIRED OPENING TO MAINTAIN PROPER CLEARANCES



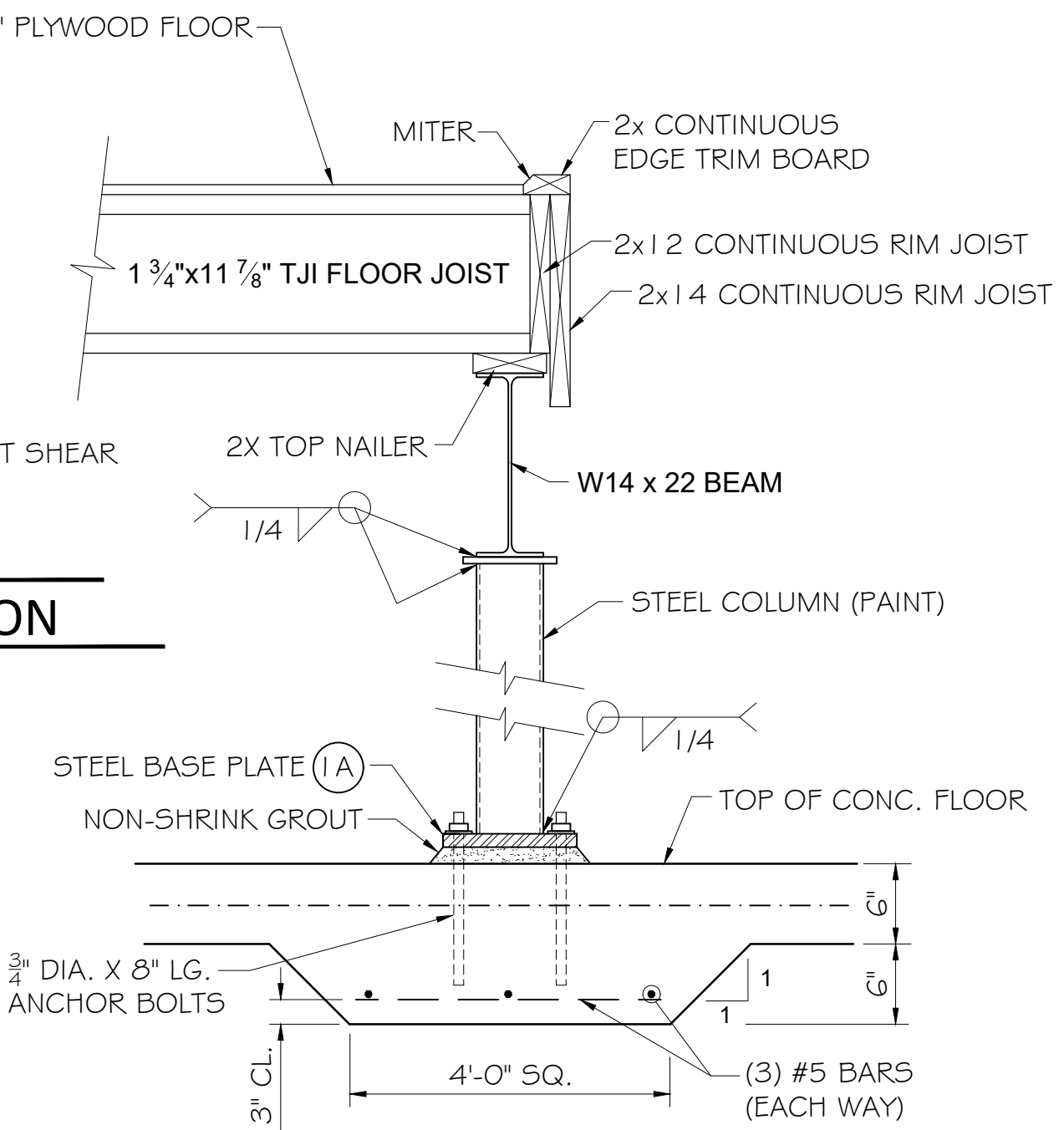
TYPICAL BEAM TO COLUMN CONNECTION
 N.T.S.
 (ALTERNATE No. 1)



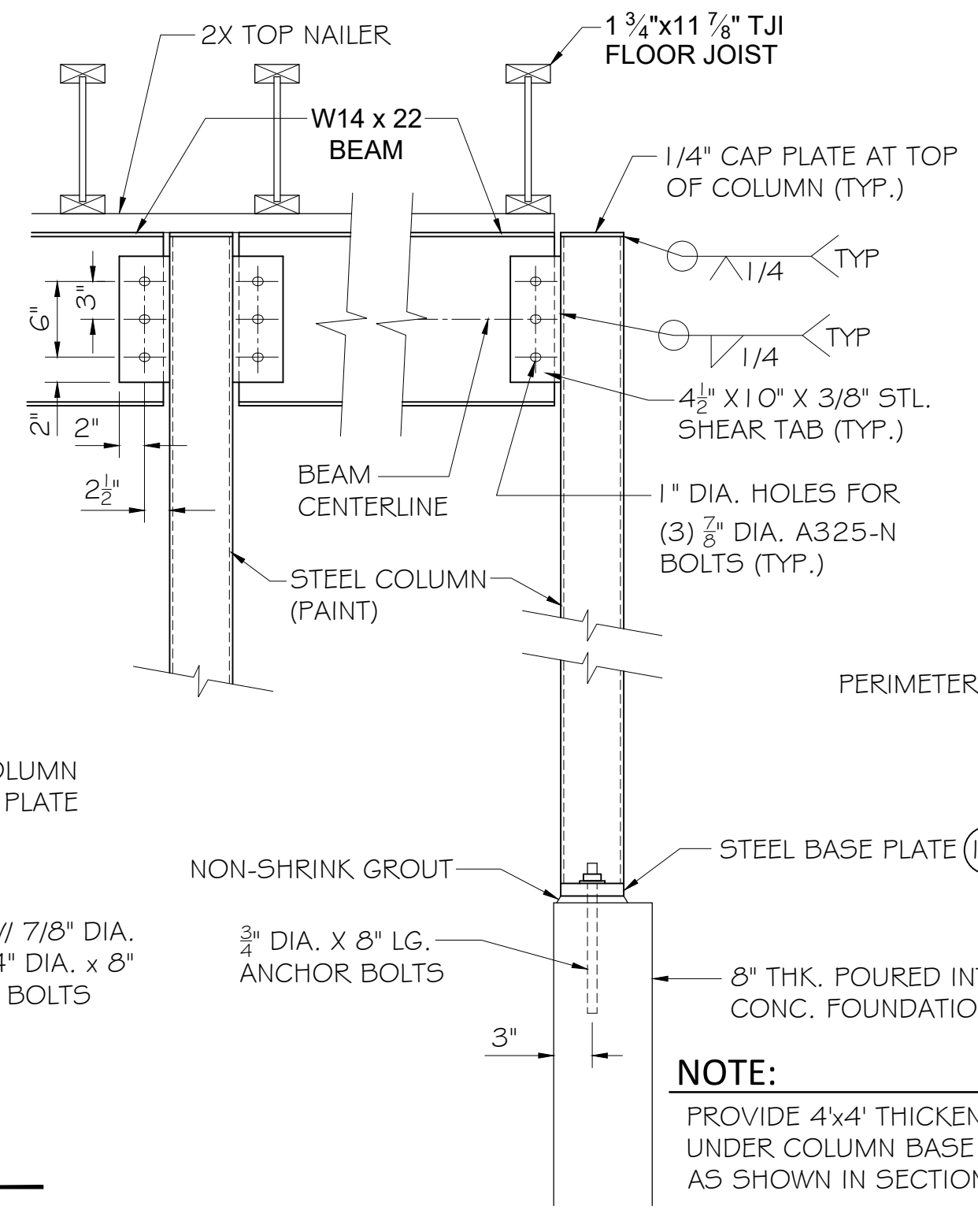
BASE PLATE - COLUMN 1A
 N.T.S.



BASE PLATE - COLUMN 1B
 N.T.S.
 (ALTERNATE No. 1)

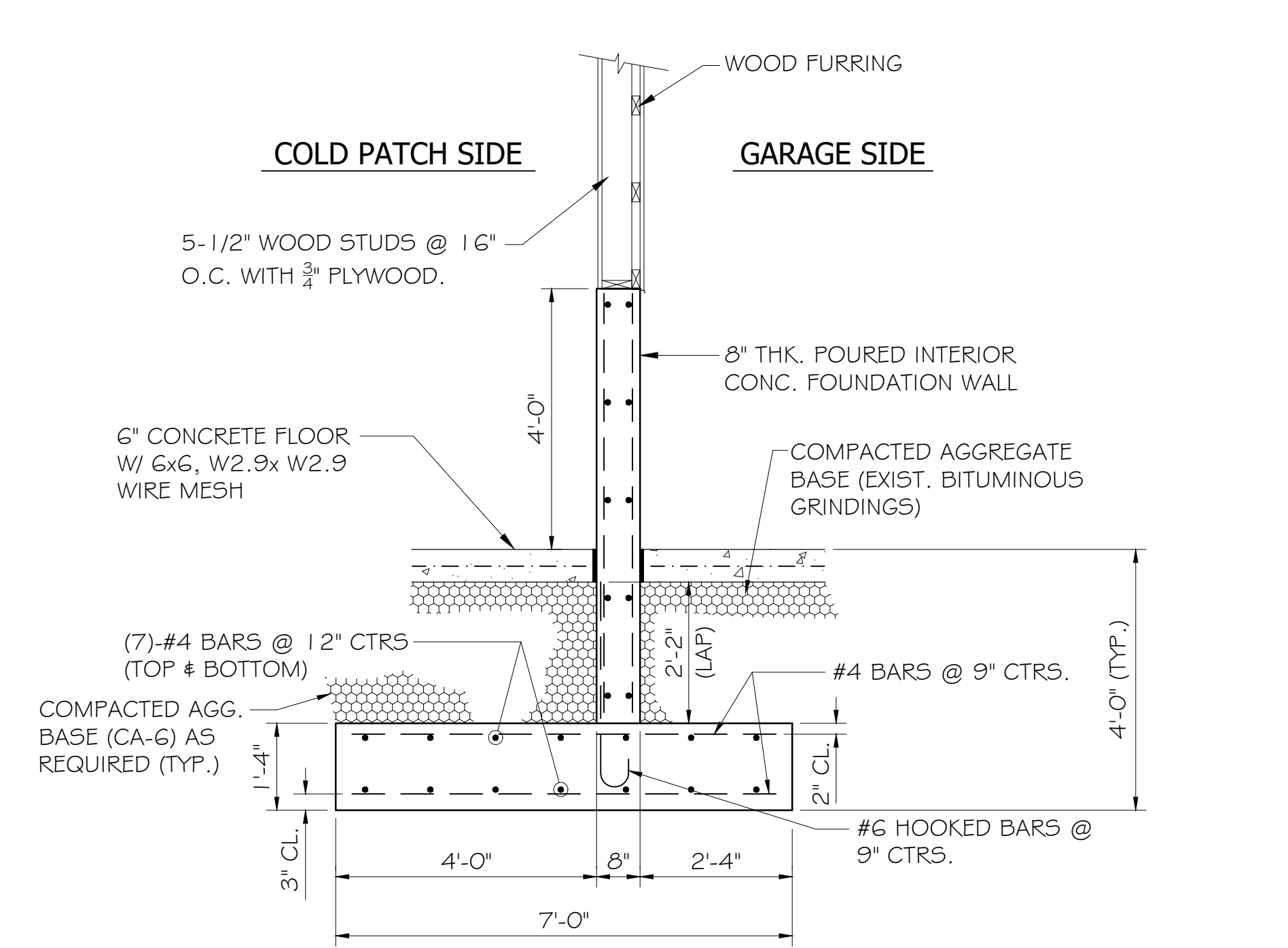


SECTION - "D"
MEZZANINE FLOOR FRAMING
 SCALE: 1" = 1'-0"
 (ALTERNATE No. 1)

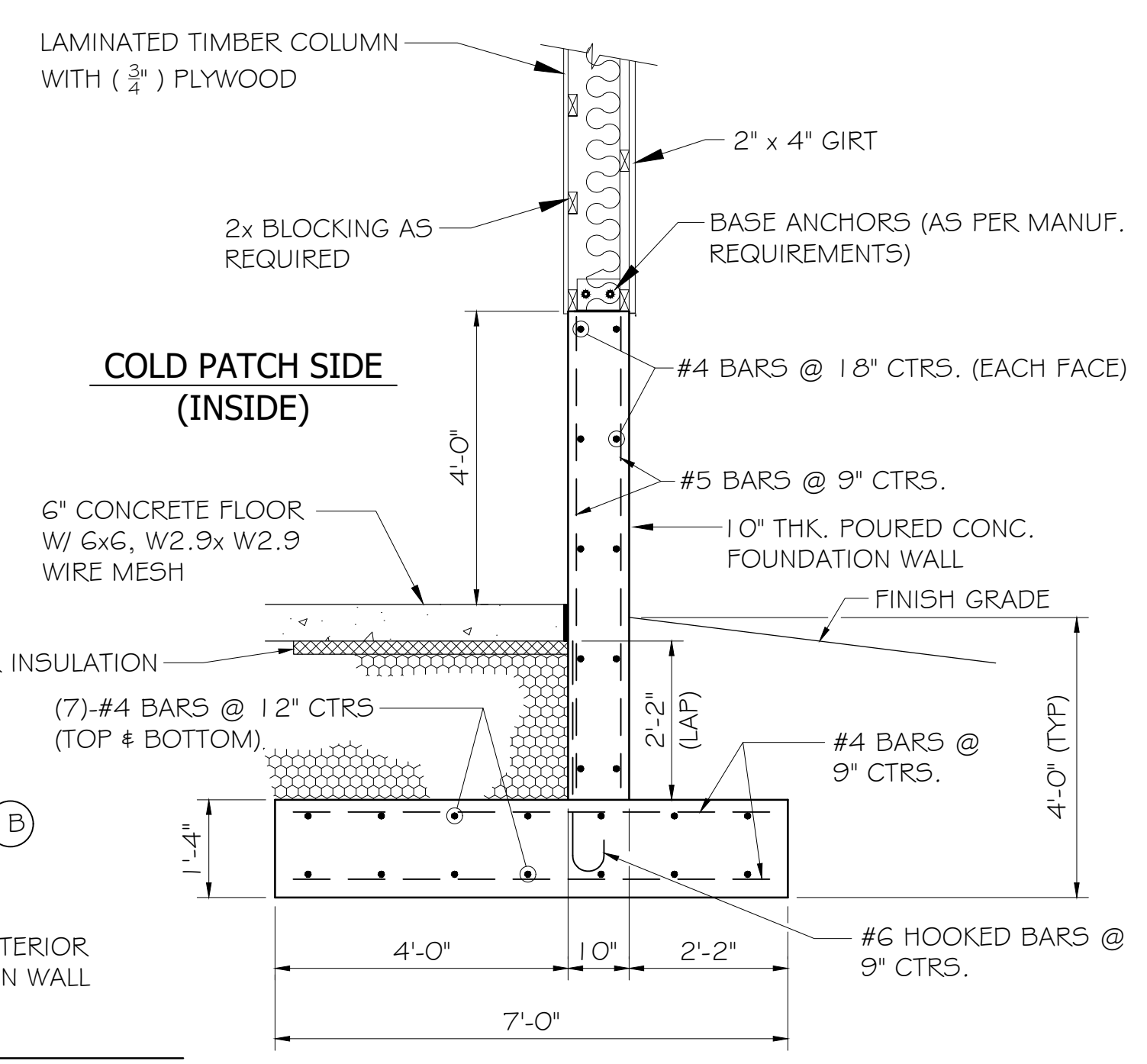


SECTION - "G-G"
MEZZANINE FLOOR FRAMING
 SCALE 1/2" = 1'-0"
 (ALTERNATE No. 1)

NOTE:
 PROVIDE 4'x4' THICKENED SLAB UNDER COLUMN BASE PLATE (1A), AS SHOWN IN SECTION-"D" ABOVE.



SECTION - "E"
PARTITION WALL SECTION
 SCALE 1/2" = 1'-0"



SECTION - "F"
EXTERIOR WALL SECTION
 SCALE 1/2" = 1'-0"

DRAWN BY: Tim H	LEVEL	BY	DATE	REVISIONS	DESCRIPTION
CHECKED BY: Jorge S.					
DATE: 06/2026					


 PERU MORRIS
 OTTAWA MENDOTA
 ILLINOIS

GRUNDY COUNTY HIGHWAY DEPARTMENT
 PROPOSED STORAGE BUILDING
 MORRIS, ILLINOIS

STRUCTURAL PLAN

BIDDING PLANS
 CURRENT AS OF: 06/19/26
 SCALE: AS NOTED
 FILE NO.: 2497.00 Y- OF
 SHEET S-1.0

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 Last Modified: Friday, June 19, 2026 1:19:16 PM
 Plotted On: Friday, June 19, 2026 1:18:41 PM
 by: Brian D. Stone

DIVISION 21 - FIRE SUPPRESSION

21000 FIRE SUPPRESSION GENERAL REQUIREMENTS

- UNLESS THE CONTRACT DOCUMENTS INCLUDE MORE STRINGENT REQUIREMENTS, THE INTERNATIONAL BUILDING CODE, INTERNATIONAL ENERGY CONSERVATION CODE, INTERNATIONAL MECHANICAL CODE, STATE PLUMBING CODE, NATIONAL ELECTRIC CODE, NFPA AND ASHRAE STANDARDS AND GUIDELINES IN EFFECT AS OF THE DATE OF THE DRAWINGS ARE MADE A PART OF THE CONTRACT DOCUMENTS BY REFERENCE. PROVIDE PRODUCTS AND INSTALLATION IN COMPLIANCE WITH UL, NEMA, AND OTHER APPLICABLE STANDARDS.
- COMPLY WITH ALL MANUFACTURERS' INSTALLATION INSTRUCTIONS. MAINTAIN MANUFACTURER RECOMMENDED MAINTENANCE AND SERVICE CLEARANCE.
- SUBMIT ELECTRONIC COPIES IN PDF FORMAT OF PRODUCT DATA INCLUDING CATALOG CUTS, SPECIFICATIONS, PERFORMANCE, FEATURES, DIAGRAMS, AND DIMENSIONS FOR PROPOSED EQUIPMENT.
- PROJECT RECORD DOCUMENTS:
 - PROVIDE RECORD DRAWINGS MARKED IN RED TO SHOW HOW ACTUAL INSTALLATION VARIES FROM THAT ORIGINALLY SHOWN.
 - PROVIDE SYSTEM AND EQUIPMENT START-UP AND TESTING REPORTS AND CERTIFICATES.
 - PROVIDE OPERATION AND MAINTENANCE MANUALS FOR INSTALLED EQUIPMENT AND WARRANTY INFORMATION.
- PROVIDE DEMONSTRATION AND TRAINING FOR INSTALLED EQUIPMENT TO INSTRUCT PERSONNEL TO ADJUST, OPERATE, AND MAINTAIN. DOCUMENT TRAINING SESSION AGENDAS AND ATTENDEES AND INCLUDE IN O&M MANUAL DOCUMENTATION.
- COORDINATE REQUIRED WORK WITH OTHER TRADES AND EQUIPMENT.
- DEMOLITION:
 - DEMOLISH AND REMOVE SYSTEMS, EQUIPMENT AND COMPONENTS AS INDICATED. CAP REMAINING MATERIALS WITH SAME OR COMPATIBLE MATERIALS. PATCH REMAINING OPENINGS TO MATCH SURROUNDING MATERIALS.
 - SALVAGED MATERIALS FOR REINSTALLATION TO BE REPAIRED AND CLEANED FOR REUSE AND PROTECTED FROM DAMAGE DURING STORAGE.
 - WHERE PIPE, DUCTWORK, INSULATION, OR EQUIPMENT TO REMAIN IS DAMAGED OR DISTURBED, REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL CAPACITY AND QUALITY.
 - DO NOT RE-USE EXISTING MATERIALS NOTED TO BE REMOVED UNLESS SPECIFICALLY NOTED.
 - REMOVE DEMOLISHED WASTE MATERIALS FROM THE PROJECT SITE AND PROPERLY DISPOSE.
- FIELD CONDITIONS:
 - OWNER MAY OCCUPY PORTIONS OF THE BUILDING IMMEDIATELY ADJACENT TO CONSTRUCTION AREA. PROVIDE SAFETY BARRIERS FOR OCCUPANTS AND PROTECTION OF EXISTING CONDITIONS FOR AREAS AFFECTED BY CONSTRUCTION ACTIVITIES.
 - SELECTIVE DEMOLITION AREA. CONDUCT SELECTIVE DEMOLITION SO OWNERS OPERATIONS WILL NOT BE DISRUPTED. PROVIDE TEMPORARY PARTITIONS AND DUST BARRIERS TO AVOID DISTURBING OWNER OCCUPIED AREAS.
- IF SUSPECTED HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB AND IMMEDIATELY NOTIFY ARCHITECT AND OWNER.

210500 COMMON WORK RESULTS FOR FIRE SUPPRESSION

- INSTALL SLEEVES FOR PIPING PASSING THROUGH PENETRATIONS IN FLOORS, PARTITIONS, ROOFS, AND WALLS.
- PROVIDE FIRESTOPPING PROTECTION AT PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.
- PROVIDE SERVICE CLEARANCE REQUIRED BY MANUFACTURERS AT ALL EQUIPMENT.
- PROVIDE GROUT IN ACCORDANCE WITH ASTM C1107/C1107M, GRADE B.
- SILICONE SEALANT:
 - SILICONE SEALANT, S, NS, 25, NT: SINGLE-COMPONENT, NONSAG, PLUS 25 PERCENT AND MINUS 25 PERCENT MOVEMENT CAPABILITY, NONTRAFFIC-USE, NEUTRAL-CURING SILICONE JOINT SEALANT.
 - SILICONE SEALANTS MUST COMPLY WITH ASTM C920 AND HAVE A VOC OF 250 G/L OR LESS.
- SLEEVES
 - PROVIDE SHEET METAL, STEEL PIPE, CAST IRON PIPE, OR PVC SLEEVES AT PIPE PENETRATIONS THROUGH WALLS, AND CEILINGS. SLEEVES ARE NOT REQUIRED FOR CORE DRILLED HOLES.
 - INSTALL SLEEVES LARGE ENOUGH TO ACCOMMODATE PIPE INSULATION WHERE CONTINUOUS INSULATION IS REQUIRED. ALLOW FOR 1/4 INCH ANNUAL SPACE BETWEEN SLEEVE AND PIPING MATERIAL.
 - SEAL SPACE AROUND OUTSIDE OF SLEEVE WITH GROUT, COMPOUND OR SEALANT.
 - PROVIDE MECHANICAL LINK SEALS IN ANNUAL SPACE BETWEEN PIPING AND SLEEVE WHERE EXPOSED TO EXTERIOR ELEMENTS FOR AN AIR AND WATERTIGHT SEAL.
- ESCUTCHEONS
 - ONE PIECE, CHROME PLATED STEEL OR STAINLESS STEEL FINISH WITH SET SCREW OR SPRING RETAINER CLIP.
 - SPLIT-PLATE, CHROME PLATED STEEL WITH EXPOSED OR CONCEALED RIVET HINGE AND SET SCREW OR SPRING RETAINER CLIP.
 - PROVIDE ESCUTCHEONS FOR PIPING PENETRATIONS OF WALLS, CEILINGS, AND FLOORS EXPOSED TO VIEW.

210529 HANGERS AND SUPPORTS FOR PIPING AND EQUIPMENT

- HANGERS AND SUPPORTS TO COMPLY WITH NFPA 13.
- PROVIDE METAL SUPPORTS AND STRAPS TO SUSPEND EQUIPMENT FROM STRUCTURE ABOVE.
- INSTALL HANGERS, SUPPORTS, CLAMPS, AND ATTACHMENTS AS REQUIRED TO PROPERLY SUPPORT PIPING FROM BUILDING STRUCTURE. MAINTAIN MINIMUM SPACING AS REQUIRED BY CODE. DO NOT ATTACH TO ROOF DECK FOR SUPPORT.

DIVISION 21 - FIRE SUPPRESSION

212400 - DRY CHEMICAL FIRE EXTINGUISHING SYSTEMS

- DESIGN SYSTEM AND PREPARE DRAWINGS IN ACCORDANCE WITH NFPA 17 STANDARD FOR DRY CHEMICAL EXTINGUISHING SYSTEMS FOR TOTAL FLOODING AND LOCAL APPLICATIONS.
- FIRE EXTINGUISHING SYSTEM TO CONSIST OF SELF CONTAINED AND SELF ACTIVATING DRY CHEMICAL CANISTERS, WITH VISUAL PRESSURE GAUGE AND ACTIVATION SPRINKLER HEAD. FIRE ALARM SYSTEM FOR THE BUILDING, BY THE ELECTRICAL CONTRACTOR, INCLUDES HEAT DETECTION THROUGHOUT FOR AN ACTIVE FIRE DETECTION SYSTEM. A FIRE EVENT WILL BE SUPERVISED AND NOTIFIED SEPARATELY BY THE FIRE ALARM SYSTEM VIA HEAT DETECTION.
- INSTALLATION TO COMPLY WITH THE TERMS OF THE PRODUCT LISTING, MANUFACTURERS DESIGN, INSTALLATION, AND MAINTENANCE MANUAL.
- MATERIALS AND EQUIPMENT SHALL HAVE BOTH UNDERWRITERS LABORATORIES AND FACTORY MUTUAL APPROVAL.
- SYSTEM IS INTENDED FOR USE IN NORMALLY UNOCCUPIED SPACES. PROVIDE SIGNAGE TO ALERT ANY OCCUPANTS OF HAZARDS, PRECAUTIONS, AND PROCEDURES IN THE EVENT OF AN ACTIVATION.
- CF-33 DRY CHEMICAL AGENT, MONO-AMMONIUM PHOSPHATE BASED, NON-CORROSIVE, NON-CONDUCTIVE & NON-TOXIC; WITH HIGH PURITY COMPRESSED DRY NITROGEN AS PROPELLANT.
- DRY CHEMICAL CYLINDER AND VALVE ASSEMBLY CONSISTING OF PRESSURIZED CYLINDER CONTAINING DRY CHEMICAL EXTINGUISHING MATERIAL AND FITTING WITH A BRASS VALVE ASSEMBLY COMPLETE WITH PRESSURE SWITCH, VISUAL INDICATOR PRESSURE GAUGE AND MOUNTING BRACKET.
- SELF ACTIVATING, AUTOMATIC HEAT ACTIVATION BY MEANS OF A SPRINKLER HEAD RATED AT 155 F (68 C).
- DISCHARGE ENTIRE CONTENTS WITHIN 10 SECONDS OF ACTIVATION.
- PERFORM TESTS IN ACCORDANCE WITH NFPA 17. FURNISH OWNER WITH WRITTEN STATEMENT SIGNED AND DATED AFFIRMING THAT THE SYSTEM HAS BEEN INSTALLED AND TESTED IN ACCORDANCE WITH NFPA 17 AND LEFT READY FOR OPERATION.
-

FIRE PROTECTION GENERAL NOTES:

- REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS, EQUIPMENT SCHEDULES, AND DETAILS.
- ROUTE PIPING SYSTEMS CONCEALED ABOVE CEILINGS UNLESS INDICATED OTHERWISE. MAIN DROPS AND RISES ARE SHOWN. PROVIDE ADDITIONAL DROPS AND RISES AS REQUIRED. INDICATED ELEVATIONS ARE APPROXIMATE. COORDINATE WITH ACTUAL FIELD CONDITIONS.
- COORDINATE INSTALLATION OF PIPING WITH OTHER PIPING SYSTEMS, DUCTWORK, LIGHTS, AND STRUCTURE.
- SUPPORT PIPING AND EQUIPMENT FROM TOP CHORD OF JOISTS OR METAL STRUT BEARING ON WALLS. PROVIDE INTERMEDIATE METAL SUPPORTS AS REQUIRED. DO NOT ATTACH TO ROOF DECK FOR SUPPORT.
- REFER TO EQUIPMENT SCHEDULES AND DETAILS FOR EQUIPMENT PIPE SIZES AND TRIM.
- REFERENCED FINISHED FIRST FLOOR ELEVATION IS 0.0'.
- INSTALL SPRINKLER SYSTEM IN ACCORDANCE WITH ALL APPLICABLE NFPA, STATE AND LOCAL CODES. PIPE SIZES AS SHOWN ARE MINIMUM REQUIREMENTS. PROVIDE EXTENDED COVERAGE SPRINKLERS AS NECESSARY.
- COORDINATE EXACT LOCATION OF SPRINKLER HEADS WITH LIGHTS, CEILING LAYOUT, STRUCTURE, AND ROOF SLOPE.
- EXPOSED PIPING TO BE LOCATED WHERE SHOWN WITH ALL DEVIATIONS SUBJECT TO PRIOR APPROVAL. CONCEALED PIPING MAY BE ROUTED AS NECESSARY.
- ALL WORK FROM POINT OF NEW CONNECTION SHALL USE NEW MATERIALS. RE-USE OF REMOVED MATERIALS SHALL NOT BE ALLOWED, UNLESS SPECIFICALLY NOTED.
- THESE NOTES APPLY TO ALL FIRE PROTECTION DRAWINGS.

FIRE PROTECTION ABBREVIATIONS

ABBREVIATION	DESCRIPTION
A/E	ARCHITECT / ENGINEER
AC	ABOVE CEILING
AD	ACCESS DOOR
BFP	BACK FLOW PREVENTER
BHP	BRAKE HORSEPOWER
CONTR	CONTRACTOR
CV	CHECK VALVE
CW	COLD WATER
DIA	DIAMETER
DN	DOWN
DV	DRAIN VALVE
FA	FROM ABOVE
FB	FROM BELOW
FDC	FIRE DEPARTMENT CONNECTION
FLA	FULL LOAD AMPERES
FP	FIRE PROTECTION
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
NC	NEW CONNECTION
P	PUMP
Ø	DIAMETER
RLA	RUNNING OR RATED LOAD AMPS
SP	SPRINKLER
TA	TO ABOVE
TB	TO BELOW
TYP	TYPICAL
V	VOLTS
W	WATTS
(P)	PRESENT
(PA)	PRESENT TO BE ABANDONED
(PR)	PRESENT TO BE RELOCATED
(PX)	PRESENT TO BE REMOVED
(R)	RELOCATED

FIRE PROTECTION SYMBOLS

SYMBOL	DESCRIPTION
SPRINKLER	
-----	DEMOLITION
	SPRINKLER - CONCEALED
	SPRINKLER - PENDANT
	SPRINKLER - RECESSED
	SPRINKLER - UPRIGHT
	SPRINKLER - WALL
	FLOW ALARM
	PIPE FITTING
	UP / DOWN
	FIRE DEPARTMENT CONNECTION
	SHUTOFF VALVE
	CHECK VALVE
	STRAINER
	BACKFLOW PREVENTER
	INDICATES DETAIL/SECTION NUMBER
	INDICATES SHEET NUMBER
	INDICATES DETAIL/SECTION NUMBER AND SHEET NUMBER



SIGNATURE
 06-19-26
 DATE



BRUNER, COOPER & ZUCK, INC.
 835 Golden Valley Drive
 Bettendorf, IA 52722
 563.355.1856
 2026049-3

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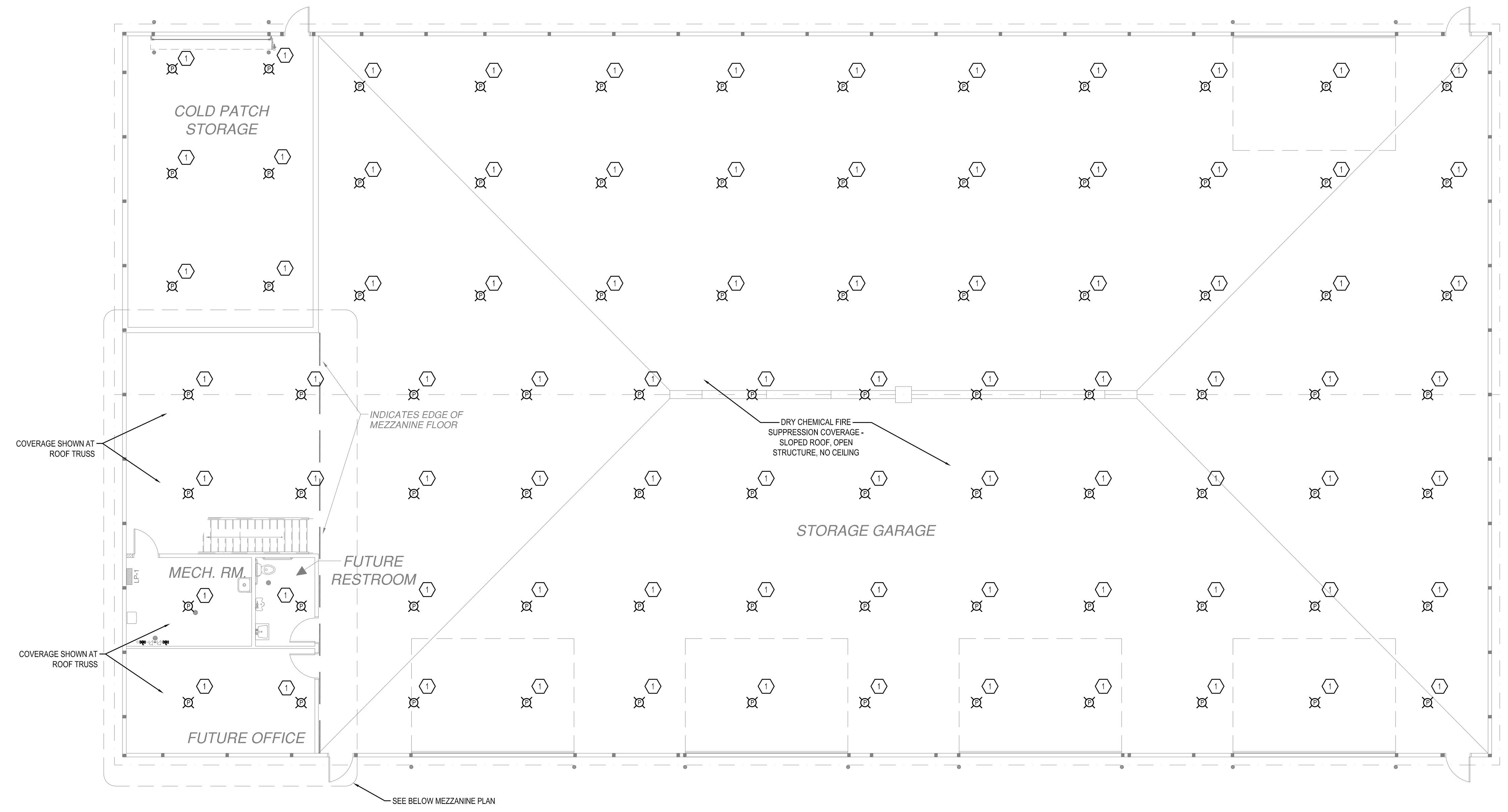
PERU MORRIS
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GRUNDY COUNTY HIGHWAY DEPARTMENT
 PROPOSED STORAGE BUILDING
 MORRIS, ILLINOIS

FIRE PROTECTION GENERAL REQUIREMENTS
BIDDING PLANS

CURRENT AS OF: 06/19/26	SHEET FP-0
SCALE: AS NOTED	FILE NO.: 2497.00 Y- OF

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 by: Brian D. Stone

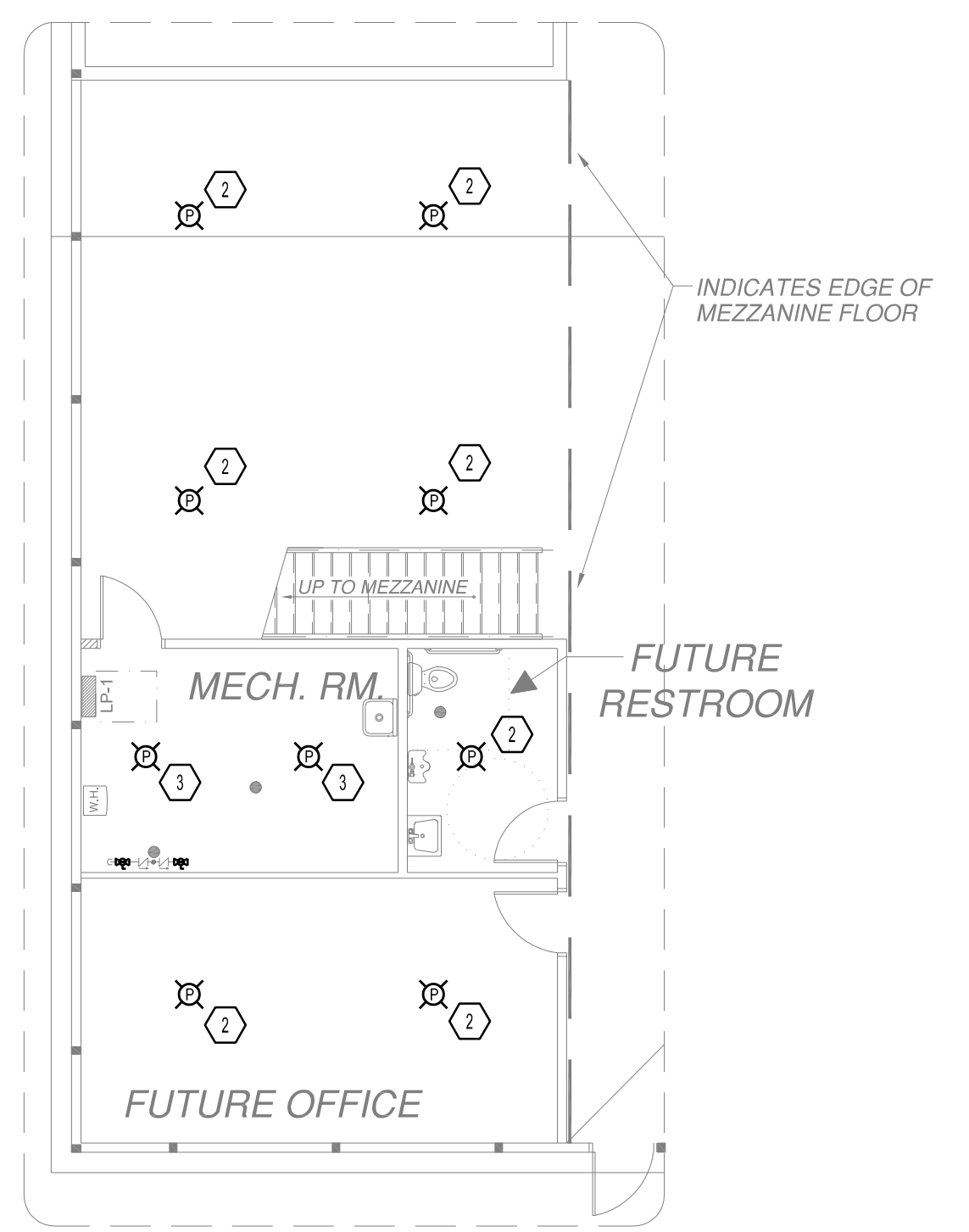


FIRE PROTECTION PLAN

SCALE 1/8" = 1'-0"
 0 2 4 8



- FIRE PROTECTION KEVED NOTES:**
- 1 15' x 15' x 30' HEIGHT COVERAGE, VERTICAL DRY CHEMICAL CANISTER WITH FIXED SPRINKLER, EQUIVALENT TO CEASEFIRE CF6750. SUPPORT FROM STRUCTURE NEAR ROOF.
 - 2 15' x 15' x 15' HEIGHT COVERAGE, HORIZONTAL DRY CHEMICAL CANISTER WITH FIXED SPRINKLER, EQUIVALENT TO CEASEFIRE CFP375/P. SUPPORT BETWEEN FLOOR JOISTS. FUTURE CEILING APPLICATION TO UTILIZE BRAIDED FLEXIBLE HOSE TO ALLOW FOR SPRINKLER PLACEMENT IN DROP CEILING.
 - 3 11' x 11' x 13' HEIGHT COVERAGE, VERTICAL DRY CHEMICAL CANISTER WITH FIXED SPRINKLER, EQUIVALENT TO CEASEFIRE CFP1700. SUPPORT BETWEEN FLOOR JOISTS.



**BELOW MEZZANINE
 FIRE PROTECTION PLAN
 (ALTERNATE BID #1)**

SCALE 1/8" = 1'-0"
 0 2 4 8



**BRUNER, COOPER &
 ZUCK, INC.**
 835 Golden Valley Drive
 Bettendorf, IA 52722
 563.355.1856
 2026049-3

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DATE: 06/2026					



PERU MORRIS
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GRUNDY COUNTY HIGHWAY DEPARTMENT
 PROPOSED STORAGE BUILDING
 MORRIS, ILLINOIS

FIRE PROTECTION FLOOR PLAN

**BIDDING
 PLANS**

CURRENT AS OF: 06/19/26	
SCALE: AS NOTED	SHEET FP-1
FILE NO.: 2497.00 Y-	OF

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 Drawing Name: I:\2026\PROJECTS\2026049-3 GRUNDY CO HIGHWAY STORAGE BLDG\DESIGN_MECHANICAL\DRAWINGS\2026049-3 P Sheets.dwg Last Modified: Friday, June 19, 2026 2:24:46 PM Plotted On: Friday, June 19, 2026 2:33:16 PM by Brian D. Stone

DIVISION 22 PLUMBING

220000 PLUMBING GENERAL REQUIREMENTS

- THE SCOPE OF WORK DESCRIBED BY THE SPECIFICATIONS AND PLAN SHEETS IS INTENDED TO SERVE AS A DESIGN-BUILD GUIDELINE FOR FINAL DESIGN ENGINEERING, SIZING AND SELECTION BY THE CONTRACTOR.
- CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR FINAL ENGINEERING, DESIGN, SIZING, SELECTION, COORDINATION, INSTALLATION AND CONSTRUCTION ADMINISTRATION. CONTRACTOR AND LICENSED ENGINEER OF RECORD TO VERIFY ALL REQUIREMENTS.
- ENGINEERING SERVICES TO PREPARE PLUMBING CONSTRUCTION DOCUMENTS BY A LICENSED PE ARE OFFERED TO THE CONTRACTOR BY BRUNER, COOPER, AND ZUCK, INC. (BCZ) FOR A FEE OF \$ 4,700.
- GRUNDY COUNTY AND CITY OF MORRIS CODES ENFORCED INCLUDE INTERNATIONAL ENERGY CODE, INTERNATIONAL BUILDING CODE, INTERNATIONAL MECHANICAL CODE, INTERNATIONAL FIRE CODE, 2004 ILLINOIS PLUMBING CODE, NATIONAL ELECTRIC CODE (NEC), PRIVATE SEWER CODE, PRIVATE WATER, NFPA-13, STATE & LOCAL AUTHORITIES HAVING JURISDICTION, ETC.
- IN-FLOOR WATER, WASTE & VENT, FLOOR DRAINS, CLEANOUTS AND ROUGH-INS FOR FUTURE PLUMBING FIXTURES TO BE INSTALLED IN CONCRETE FLOOR SLAB. CAP PIPING AT BOTH ENDS FOR FUTURE EXTENSION BY OTHERS. PLUG OR COVER FLOOR DRAINS TO PREVENT WATER INTRUSION UNTIL WASTE SYSTEM IS COMPLETED.
- IN-FLOOR TRENCH DRAIN AND VEHICLE STORAGE AREA WASTE & VENT SYSTEM TO ON-SITE STORAGE TANK TO BE COMPLETE AND OPERATIONAL. INCLUDE TRIPLE BASIN SEDIMENT AND GAS-OIL INTERCEPTOR.
- COMPLY WITH REQUIREMENTS OF STATE AND FEDERAL ADA REQUIREMENTS.
- PROVIDE PRODUCTS AND INSTALLATION IN COMPLIANCE WITH UL, NEMA, SMACNA, AMCA, AND OTHER APPLICABLE STANDARDS.
- COMPLY WITH ALL MANUFACTURERS' INSTALLATION INSTRUCTIONS. MAINTAIN MANUFACTURER RECOMMENDED MAINTENANCE AND SERVICE CLEARANCE.
- PROJECT RECORD DOCUMENTS FOR OWNER AT COMPLETION OF PROJECT:
 - PROVIDE RECORD DRAWINGS MARKED IN RED TO SHOW ACTUAL INSTALLATION.
 - PROVIDE SYSTEM AND EQUIPMENT START-UP AND TESTING REPORTS AND CERTIFICATES.
 - PROVIDE ELECTRONIC COPIES IN PDF FORMAT OF PRODUCT DATA INCLUDING CATALOG CUTS, SPECIFICATIONS, PERFORMANCE, FEATURES, DIAGRAMS, AND DIMENSIONS FOR PROPOSED EQUIPMENT.
 - PROVIDE OPERATION AND MAINTENANCE MANUALS FOR INSTALLED EQUIPMENT AND WARRANTY INFORMATION.
- PROVIDE DEMONSTRATION AND TRAINING FOR INSTALLED EQUIPMENT TO INSTRUCT PERSONNEL TO ADJUST, OPERATE, AND MAINTAIN. DOCUMENT TRAINING SESSION AGENDAS AND ATTENDEES AND INCLUDE IN O&M MANUAL DOCUMENTATION.
- COORDINATE REQUIRED WORK WITH OTHER TRADES AND EQUIPMENT.

220500 COMMON WORK RESULTS FOR PLUMBING

- PLUMBING INSTALLATION BY A STATE LICENSED PLUMBER.
- COMPLY WITH ALL MANUFACTURERS' INSTALLATION INSTRUCTIONS.
- PROVIDE FIRESTOPPING PROTECTION AT PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.
- PROVIDE SERVICE CLEARANCE REQUIRED BY MANUFACTURERS AT ALL EQUIPMENT.

221116 DOMESTIC WATER PIPING

- PROVIDE WATER SERVICE ROUGH-IN FOR FUTURE. INCLUDE WATER SERVICE FROM 5 FT OUTSIDE OF BUILDING EXTERIOR, INTO BUILDING MECHANICAL ROOM, AND 18" ABOVE FINISHED SLAB FOR FUTURE EXTENSION. CAP PIPING AT BOTH ENDS.
- PROVIDE TYPE L COPPER TUBE AND FITTINGS OR HDPE PLASTIC PIPING FOR WATER SERVICE. PROVIDE DOMESTIC WATER PIPING MATERIALS ALLOWED BY CODE.
- VERIFY EXISTING UTILITY LOCATIONS FOR NEW CONNECTIONS PRIOR TO CONSTRUCTION.
- PLUMBING INSTALLATION TO COMPLY WITH STATE AND LOCAL PLUMBING CODES AND WATER UTILITY REQUIREMENTS.
- CONCEAL PIPING IN WALLS AND ABOVE CEILINGS IN FINISHED SPACES. ROUTE PIPING PARALLEL TO BUILDING WALLS.
- INSTALL UNDERGROUND WATER PIPING MATERIALS AS ALLOWED BY STATE AND LOCAL CODES.
- PROVIDE PLASTIC UNDERGROUND IDENTIFICATION WARNING TAPE BURIED ABOVE WATER PIPING. PROVIDE TRACEABLE WARNING TAPE FOR NON-METALLIC WATER PIPING.
- BURY EXTERIOR WATER PIPING AT A MINIMUM DEPTH OF 54 INCHES BUT NOT LESS THAN 18 INCHES BELOW AVERAGE LOCAL FROST DEPTH.

221316 SANITARY WASTE AND VENT PIPING

- PROVIDE WASTE AND VENT PIPING IN-FLOOR FLOOR ROUGH-INS FOR FUTURE PLUMBING FIXTURES AND APPURTENANCES WHERE SHOWN ON FLOOR PLAN. EXTEND WASTE PIPING TO 5 FT OUTSIDE BUILDING EXTERIOR FOR FUTURE EXTENSION. INSTALL ROUGH-IN PIPING TO ABOVE FLOOR WITH ADEQUATE MATERIAL TO MAKE FUTURE CONNECTIONS. CAP PIPING AT BOTH ENDS.
- SANITARY WASTE IS INTENDED TO CONNECT TO FUTURE ON-SITE SEPTIC SYSTEM OR WASTE TREATMENT SYSTEM.
- PROVIDE COMPLETE WASTE AND VENT SYSTEM FOR GARAGE AREA TRENCH DRAINS CONNECTING TO ON-SITE UNDERGROUND HOLDING TANK IN ACCORDANCE WITH THE PRIVATE SEWAGE DISPOSAL LICENSING ACT, FOR PERIODIC EVACUATION BY OWNERS WASTE HANDLING PROVIDER.
- PROVIDE PVC SCHEDULE 40 DWV FOR WASTE & VENT. PROVIDE SANITARY WASTE AND VENT PIPING AS ALLOWED BY CODE.
- VERIFY EXISTING UTILITY LOCATIONS FOR NEW CONNECTIONS PRIOR TO CONSTRUCTION.
- PLUMBING INSTALLATION TO COMPLY WITH STATE AND LOCAL PLUMBING CODES AND UTILITY REQUIREMENTS.
- ROUTE PIPING PARALLEL TO BUILDING WALLS.
- INSTALL PIPING AT REQUIRED SLOPE TO DRAIN.
- INSTALL UNDERGROUND PIPING MATERIALS AS ALLOWED BY STATE AND LOCAL CODES.

221319 SANITARY WASTE PIPING SPECIALTIES

- PROVIDE FLOOR DRAINS, TRENCH DRAINS AND CLEANOUTS IN FINISHED SLAB.
- TRENCH DRAINS AND CATCH BASINS WITH REMOVABLE HEAVY DUTY CAST IRON GRATES TO WITHSTAND HEAVY TRUCK TRAFFIC. SIZE CATCH BASIN TO ALLOW OUTLET ABOVE BOTTOM FOR SEDIMENT COLLECTION AND CLEANOUT.
- INSTALL CLEANOUTS IN ACCESSIBLE AREAS AS REQUIRED BY CODE.
- INSTALL FLOOR DRAINS WITH TOP RIM RECESSED 1/8" BELOW FINISHED FLOOR.
- INSTALL TRENCH DRAINS WITH TOP RIM FLUSH WITH FINISHED FLOOR SLOPING TOWARDS TRENCH DRAINS.

221323 SANITARY WASTE INTERCEPTORS

- PROVIDE GAS AND OIL INTERCEPTOR FOR FLOOR DRAINS AND TRENCH DRAINS WITHIN VEHICLE STORAGE GARAGE AREA.
- PROVIDE A CATCH BASIN OR SOLIDS INTERCEPTOR UPSTREAM OF GAS AND OIL INTERCEPTOR TO COLLECT SAND AND GRAVEL DEBRIS.
- INSTALL INTERCEPTOR IN ACCORDANCE WITH MANUFACTURER REQUIREMENTS WITH APPROPRIATE CLEARANCES FOR MAINTENANCE AND SERVICE.

224000 PLUMBING FIXTURES

- ABOVE FLOOR PLUMBING FIXTURES SHOWN ON PLANS ARE SHOWN FOR COORDINATION OF ROUGH-IN LOCATIONS WITH ALL IN SLAB PIPING TO BE INSTALLED IN FINISHED SLAB, FOR FUTURE PLUMBING FIXTURE INSTALLATION.
- IN FLOOR FIXTURES AND APPURTENANCES SUCH AS FLOOR DRAINS, TRENCH DRAINS AND CLEANOUTS ARE TO BE INSTALLED AS PART OF FINISHED SLAB.

PLUMBING ABBREVIATIONS

ABBREVIATION	DESCRIPTION
A/E	ARCHITECT / ENGINEER
AC	ABOVE CEILING
AD	AREA DRAIN
AF	ABOVE FLOOR
AP	ACCESS PANEL
BF	BELOW FLOOR
BFP	BACK FLOW PREVENTER
BT	BATH TUB
BTU	BRITISH THERMAL UNITS
BV	BALANCING VALVE
CA	COMPRESSED AIR
CB	CATCH BASIN
CEB	CONCRETE EQUIPMENT BASE
CI	CAST IRON
CL	CEILING
CO	CLEANOUT
CONTR	CONTRACTOR
CSS	CLINICAL SERVICE SINK
CV	CHECK VALVE
CW	COLD WATER
CW-H	COLD WATER HARD
CW-S	COLD WATER SOFT
D	DISPOSAL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DN	DOWN
DS	DOWNSPOUT
DSC	DOWNSPOUT CONNECTOR
DSO	DOWNSPOUT OUTLET
DV	DRAIN VALVE
DW	DISH WASHER
EF	EMERGENCY FIXTURE
EWC	ELECTRIC WATER COOLER
FA	FROM ABOVE
FB	FROM BELOW
FD	FLOOR DRAIN
G	GAS
GEN	GENERAL
GI	GREASE INTERCEPTOR
GPM	GALLONS PER MINUTE
GO	GAS OUTLET
H	HYDRANT
HTX	HEAT EXCHANGER
HP	HORSEPOWER
HW	HOT WATER
HW-140	HOT WATER 140 F
HW-180	HOT WATER 180 F
HWC	HOT WATER - CIRCULATING
HW-C-140	HOT WATER-CIRCULATION 140 F
HW-C-180	HOT WATER-CIRCULATION 180 F
HW-H	HOT WATER HARD
HW-S	HOT WATER SOFT
HW-T	HOT WATER TEMPERED
INV	INVERT ELEVATION
IW	IN WALL
JS	JANITOR SINK
KE	KITCHEN EQUIPMENT
L	LAVATORY
LE	LAB EQUIPMENT
MB	MOP BASIN
MBH	THOUSANDS BTU
MH	MANHOLE
MIN	MINIMUM
NC	NEW CONNECTION
OB	OUTLET BOX
OI	OIL INTERCEPTOR
P	PUMP
PD	PUMP DISCHARGE
Ø	DIAMETER
PLB	PLUMBING
RD	ROOF DRAIN
RDL	ROOF DRAIN LEADER
SAN	SANITARY
SH	SHOWER
SHT	SHEET
SK	SINK
SS	STAINLESS STEEL
SS	SERVICE SINK
ST	STORM
SV	SHUTOFF VALVE
TA	TO ABOVE
TB	TO BELOW
TMV	THERMOSTATIC MIXING VALVE
TV	THROTTLING VALVE
TW	TEMPERED WATER
TYP	TYPICAL
UR	URINAL
V	VOLTS
V	VENT
VCT	VITRIFIED CLAY TILE
VTR	VENT THRU ROOF
W	WASTE
WC	WATER CLOSET
WF	WASH FOUNTAIN
WH	WATER HEATER
WHA	WATER HAMMER ARRESTOR
WT	WHIRLPOOL TUB
(P)	PRESENT
(PA)	PRESENT TO BE ABANDONED
(PR)	PRESENT TO BE RELOCATED
(PX)	PRESENT TO BE REMOVED
(R)	RELOCATED

PLUMBING SYMBOLS

SYMBOL	DESCRIPTION
PLUMBING	
---	COLD WATER PIPING
----	HOT WATER PIPING
-----	HOT WATER - CIRCULATING PIPING
-----	VENT PIPING
-----	WASTE PIPING - ABOVE GRADE
-----	WASTE PIPING - BELOW GRADE
-----	GAS PIPING
-----	DEMOLITION
⊕	WALL HYDRANT
△	SHOWER
○	FLOOR DRAIN - ROUND
□	FLOOR DRAIN - SQUARE
○	CLEANOUT - ROUND
□	CLEANOUT - SQUARE
⊕	VENT THRU ROOF
⊕	ROOF DRAIN
⊕	GAS METER
⊕	WATER METER
⊕	BACKFLOW PREVENTER
⊕	REGULATOR
⊕	PIPE FITTING
⊕	UP / DOWN
⊕	SHUTOFF VALVE
⊕	THROTTLING VALVE
⊕	BALANCING VALVE
⊕	CHECK VALVE
⊕	STRAINER
⊕	RELIEF VALVE
⊕	REDUCER / INCREASER
⊕	DIRECTION OF FLOW
⊕	FLEXIBLE CONNECTION
⊕	UNION
⊕	PUMP
⊕	TEMPERATURE SENSOR
⊕	PRESSURE SENSOR
⊕	FLOW SENSOR
⊕	THERMOMETER
⊕	PRESSURE GAUGE
⊕	BREAK
⊕	CAP
⊕	INDICATES DETAIL/SECTION NUMBER
⊕	INDICATES SHEET NUMBER
⊕	INDICATES DETAIL/SECTION NUMBER
⊕	INDICATES SHEET NUMBER

PLUMBING GENERAL NOTES:

- REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND DETAILS.
- INSTALL PIPING SYSTEMS IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL CODES.
- ROUTE PIPING SYSTEMS CONCEALED ABOVE CEILINGS UNLESS INDICATED OTHERWISE. COORDINATE WITH ACTUAL FIELD CONDITIONS.
- ROUTE PIPING CONCEALED WITHIN INTERIOR WALLS UNLESS INDICATED OTHERWISE.
- COORDINATE INSTALLATION OF PIPING WITH OTHER PIPING SYSTEMS, DUCTWORK, LIGHTS, AND STRUCTURE.
- REFERENCED FINISHED FIRST FLOOR ELEVATION IS 0.0'.



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 563.355.1856
 2026049-3

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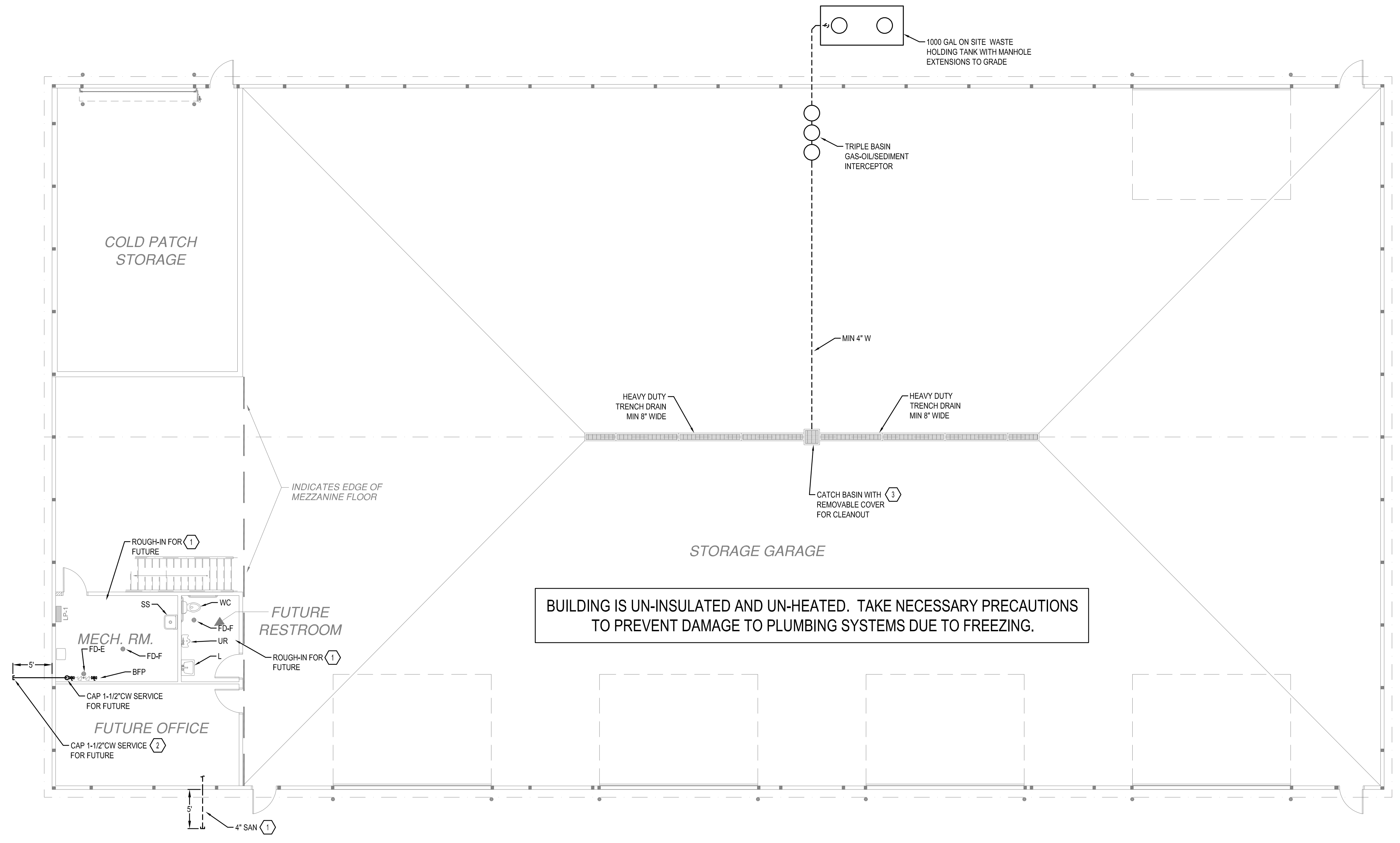
GRUNDY COUNTY HIGHWAY DEPARTMENT
 PROPOSED STORAGE BUILDING
 MORRIS, ILLINOIS

PLUMBING GENERAL REQUIREMENTS

BIDDING PLANS

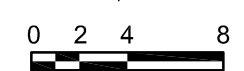
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 Last Modified: Friday, June 12, 2026 9:08:17 AM
 Plotted On: Friday, June 19, 2026 1:59:40 PM
 by Brian D. Stone



- PLUMBING KEYED NOTES:**
- 1 PROVIDE WASTE & VENT ROUGH-IN BELOW FINISHED FLOOR FOR FUTURE PLUMBING FIXTURE. INSTALL UNDERGROUND SANITARY SERVICE AT MINIMUM 36" BELOW GRADE. EXTEND TO 5 FT OUTSIDE OF BUILDING EXTERIOR AND CAP FOR FUTURE EXTENSION.
 - 2 PROVIDE WATER SERVICE ROUGH-IN BELOW FINISHED FLOOR FOR FUTURE WATER SERVICE. INSTALL UNDERGROUND WATER SERVICE AT MINIMUM 54" BELOW GRADE. EXTEND TO 5 FT OUTSIDE OF BUILDING EXTERIOR AND CAP FOR FUTURE EXTENSION.
 - 3 PROVIDE TRENCH DRAINS EMPTYING INTO A MINIMUM 24"x24" CATCH BASIN WITH OUTLET 18" ABOVE BOTTOM FOR SEDIMENT SETTLEMENT & REMOVAL.

BUILDING IS UN-INSULATED AND UN-HEATED. TAKE NECESSARY PRECAUTIONS TO PREVENT DAMAGE TO PLUMBING SYSTEMS DUE TO FREEZING.

PLUMBING PLAN
 SCALE 1/8" = 1'-0"




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GRUNDY COUNTY HIGHWAY DEPARTMENT
 PROPOSED STORAGE BUILDING
 MORRIS, ILLINOIS

PLUMBING FLOOR PLAN

BIDDING
 PLANS

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SCALE: AS NOTED	SHEET P-1
FILE NO.: 2497.00 Y-	OF

DIVISION 23 HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

230100 HVAC GENERAL REQUIREMENTS

- THE SCOPE OF WORK DESCRIBED BY THE SPECIFICATIONS AND PLAN SHEETS IS INTENDED TO SERVE AS A DESIGN-BUILD GUIDELINE FOR FINAL DESIGN ENGINEERING, SIZING AND SELECTION BY THE CONTRACTOR.
- CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR FINAL ENGINEERING, DESIGN, SIZING, SELECTION, COORDINATION, INSTALLATION AND CONSTRUCTION ADMINISTRATION. CONTRACTOR AND LICENSED ENGINEER OF RECORD TO VERIFY ALL REQUIREMENTS.
- ENGINEERING SERVICES TO PREPARE HVAC CONSTRUCTION DOCUMENTS BY A LICENSED PE ARE OFFERED TO THE CONTRACTOR BY BRUNER, COOPER, AND ZUCK, INC. (BCZ) FOR A FEE OF \$ 4,000.
- GRUNDY COUNTY AND CITY OF MORRIS CODES ENFORCED INCLUDE INTERNATIONAL ENERGY CODE, INTERNATIONAL BUILDING CODE, INTERNATIONAL MECHANICAL CODE, INTERNATIONAL FIRE CODE, 2004 ILLINOIS PLUMBING CODE, NATIONAL ELECTRIC CODE (NEC), PRIVATE SEWER CODE, PRIVATE WATER, NFPA 13, STATE & LOCAL AUTHORITIES HAVING JURISDICTION, ETC. COORDINATE WITH AUTHORITIES HAVING JURISDICTION FOR APPLICABLE CODES REQUIRED FOR PERMITTING.
- HVAC SYSTEM DESIGN REQUIREMENTS: VENTILATION AND EXHAUST REQUIREMENTS PER CODE. SUMMER VENTILATION ONLY, NO AIR CONDITIONING, NO HEAT AT THIS TIME.
- COMPLY WITH REQUIREMENTS OF STATE AND FEDERAL ADA REQUIREMENTS.
- PROVIDE PRODUCTS AND INSTALLATION IN COMPLIANCE WITH UL, NEMA, SMACNA, AMCA, AND OTHER APPLICABLE STANDARDS.
- COMPLY WITH ALL MANUFACTURERS' INSTALLATION INSTRUCTIONS. MAINTAIN MANUFACTURER RECOMMENDED MAINTENANCE AND SERVICE CLEARANCE.
- PROJECT RECORD DOCUMENTS FOR OWNER AT COMPLETION OF PROJECT:
 - PROVIDE RECORD DRAWINGS MARKED IN RED TO SHOW ACTUAL INSTALLATION.
 - PROVIDE SYSTEM AND EQUIPMENT START-UP AND TESTING REPORTS AND CERTIFICATES.
 - PROVIDE ELECTRONIC COPIES IN PDF FORMAT OF PRODUCT DATA INCLUDING CATALOG CUTS, SPECIFICATIONS, PERFORMANCE, FEATURES, DIAGRAMS, AND DIMENSIONS FOR PROPOSED EQUIPMENT.
 - PROVIDE OPERATION AND MAINTENANCE MANUALS FOR INSTALLED EQUIPMENT AND WARRANTY INFORMATION.
- PROVIDE DEMONSTRATION AND TRAINING FOR INSTALLED EQUIPMENT TO INSTRUCT PERSONNEL TO ADJUST, OPERATE, AND MAINTAIN. DOCUMENT TRAINING SESSION AGENDAS AND ATTENDEES AND INCLUDE IN O&M MANUAL DOCUMENTATION.
- COORDINATE REQUIRED WORK WITH OTHER TRADES AND EQUIPMENT.

230500 COMMON WORK RESULTS FOR HVAC

- INSTALL SLEEVES FOR PIPING PASSING THROUGH PENETRATION IN FLOORS, PARTITIONS, ROOFS, AND WALLS.
- PROVIDE FIRESTOPPING PROTECTION AT PENETRATIONS THROUGH FIRE RATED ASSEMBLIES.
- PROVIDE SERVICE CLEARANCE REQUIRED BY MANUFACTURERS AT ALL EQUIPMENT.

230529 HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT

- PROVIDE METAL SUPPORTS AND STRAPS TO SUSPEND EQUIPMENT FROM STRUCTURE ABOVE. MEET MSS SP-58.
- INSTALL HANGERS, SUPPORTS, CLAMPS, AND ATTACHMENTS AS REQUIRED TO PROPERLY SUPPORT PIPING FROM BUILDING STRUCTURE. MAINTAIN MINIMUM SPACING AS REQUIRED BY CODE. DO NOT HANG FROM ROOF DECK FOR SUPPORT.

230593 TESTING, ADJUSTING, AND BALANCING FOR HVAC

- PERFORM TESTING, ADJUSTING, AND BALANCING ACTIVITIES BY A CERTIFIED BALANCING AGENT. INCLUDE COPIES OF TESTING, ADJUSTING, AND BALANCING RESULTS IN O&M DOCUMENTATION.
- MARK EQUIPMENT SETTINGS WITH PAINT OR OTHER PERMANENT IDENTIFICATION MATERIAL INDICATING FINAL POSITION AND SETTINGS FOR BALANCING DEVICES.
- BALANCE AIR SYSTEMS TO WITHIN +/- 10% OF DESIGN AIRFLOW.
- PERFORM TESTING, ADJUSTING, AND BALANCING FOR ALL AIR SYSTEMS AND ASSOCIATED EQUIPMENT.
- ONE BALANCING DAMPER IS TO BE COMPLETELY OPEN WHEN BALANCING IS COMPLETE.

230700 DUCTWORK INSULATION

- INSULATE DUCTWORK IN COMPLIANCE WITH INTERNATIONAL ENERGY CODE AND ASHRAE 90.1 REQUIREMENTS.
- INSULATE DUCTWORK WHERE NECESSARY TO AVOID CONDENSATION.

230900 INSTRUMENTATION AND CONTROL FOR HVAC

- PROVIDE CONTROLS, SYSTEMS AND EQUIPMENT FOR PROPER OPERATION AND COMPLIANCE WITH APPLICABLE CODES.
- COORDINATE FINAL SETTINGS WITH OWNER.
- PROVIDE ON-SITE OWNER TRAINING AND DEMONSTRATION OF CONTROL SYSTEMS, COMPONENTS AND OPERATION.

DIVISION 23 HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)

233113 METAL DUCTS

- PROVIDE GALVANIZED SHEETMETAL DUCTWORK IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS.
- SEAL CLASSES AND LEAKAGE TO AS DEFINED BY SMACNA.
- INSULATE DUCTWORK PER ENERGY CODE WITH INTERNAL DUCT LINER OR EXTERNAL DUCT WRAP.
- PROVIDE METAL SUPPORTS AND STRAPS TO SUSPEND DUCTWORK FROM STRUCTURE ABOVE. COMPLY WITH SMACNA FOR SUPPORT OF DUCT.

233300 AIR DUCT ACCESSORIES

- PROVIDE VOLUME DAMPERS, TURNING VANES, AND ACCESS DOORS CONSTRUCTED PER SMACNA STANDARDS.
- PROVIDE UL LISTED FIRE DAMPERS AT PENETRATIONS THROUGH RATED ASSEMBLIES.
- PROVIDE MANUAL VOLUME DAMPERS AT ALL INLETS AND OUTLETS FOR BALANCING PURPOSES.

233400 HVAC FANS

- PROVIDE HVAC FANS FOR VENTILATION AND EXHAUST SYSTEMS AS REQUIRED BY CODE.

233700 AIR OUTLETS AND INLETS

- PROVIDE GRILLES, REGISTERS AND DIFFUSERS FOR AIR DISTRIBUTION SYSTEMS.

233719 FIXED LOUVERS

- PROVIDE LOUVERS WITH BIRD SCREEN ON BACK OF LOUVERS FOR AIR INTAKE AND EXHAUST OPENINGS AT BUILDING EXTERIOR, TO PROTECT OPENINGS FROM WATER PENETRATION.
- INCLUDE LOW LEAK MOTORIZED DAMPERS AT AIR INTAKE AND EXHAUST OPENINGS. FAIL CLOSED OPERATION TO PREVENT UNWANTED OUTSIDE AIR INFILTRATION TO PREVENT FREEZING.

MECHANICAL SYMBOLS

SYMBOL	DESCRIPTION
VENTILATION	
-----	DEMOLITION
	COMBINATION FIRE/SMOKE DAMPER
	FIRE DAMPER
	SMOKE DAMPER
	MOTOR OPERATED DAMPER
	THERMOSTAT
	SENSOR
	DIRECTION OF AIRFLOW
	FLEXIBLE DUCT
	VAV BOX
	DUCT RISE/DROP
	RETURN DUCT
	SUPPLY DUCT
	FLEXIBLE CONNECTION
	SD-XX SUPPLY DIFFUSER
	### CFM (F) TYPICAL
	SR-XX CEILING MOUNTED SUPPLY REGISTER
	### CFM (F) TYPICAL
	XX-XX WALL MOUNTED GRILLE/REGISTER
	### CFM (F) TYPICAL
	XX-XX CEILING MOUNTED GRILLE
	### CFM (F) TYPICAL
	INDICATES DETAIL/SECTION NUMBER INDICATES SHEET NUMBER
# XX symbol"/>	INDICATES DETAIL/SECTION NUMBER INDICATES SHEET NUMBER
HEATING	
-----	SUPPLY PIPING
-----	RETURN PIPING
-----	GAS PIPING
-----	DEMOLITION
	TRAP
	PIPE FITTING
	UP / DOWN
	SHUTOFF VALVE
	THROTTLING VALVE
	BALANCING VALVE
	CONTROL VALVE
	THREE-WAY CONTROL VALVE
	CHECK VALVE
	STRAINER
	RELIEF VALVE
	REGULATOR
	REDUCER / INCREASER
	DIRECTION OF FLOW
	UNION
	PUMP
	THERMOSTAT
	SENSOR
	TEMPERATURE SENSOR
	PRESSURE SENSOR
	FLOW SENSOR
	THERMOMETER
	PRESSURE GAUGE
	MANUAL VENT
	AUTOMATIC VENT
	INDICATES DETAIL/SECTION NUMBER INDICATES SHEET NUMBER
# XX symbol"/>	INDICATES DETAIL/SECTION NUMBER INDICATES SHEET NUMBER

MECHANICAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION
A/E	ARCHITECT / ENGINEER
AC	ABOVE CEILING
ACV	AUTOMATIC CONTROL VALVE
AD	ACCESS DOOR
AF	ABOVE FLOOR
AHU	AIR HANDLING UNIT
AS	AIR SEPARATOR
B	BOILER
BF	BELOW FLOOR
BFP	BACK FLOW PREVENTER
BHP	BRAKE HORSEPOWER
BTU	BRITISH THERMAL UNITS
BV	BALANCING VALVE
CA	COMBUSTION AIR
CC	COOLING COIL
CD	CONDENSATE DRAIN
CEB	CONCRETE EQUIPMENT BASE
CFM	CUBIC FEET PER MINUTE
CL	CEILING
CONTR	CONTRACTOR
CONV	CONVECTOR
CU	CONDENSING UNIT
CV	CHECK VALVE
DB	DRY BULB
DIA	DIAMETER
DN	DOWN
DV	DRAIN VALVE
EA	EXHAUST AIR
EG	EXHAUST GRILLE
ELEC	ELECTRICAL
ENT	ENTERING
ER	EXHAUST REGISTER
ESP	EXTERNAL STATIC PRESSURE
EXP	EXPOSED
FA	FROM ABOVE
FB	FROM BELOW
FD	FIRE DAMPER
FL	FLOOR
FLA	FULL LOAD AMPERES
FUR	FURNACE
G	GAS
GEN	GENERAL
GPM	GALLONS PER MINUTE
HC	HEATING COIL
HTX	HEAT EXCHANGER
HP	HORSEPOWER
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
LCU/L	LOAD COIL
LVG	LEAVING
MAU	MAKEUP AIR UNIT
MBH	THOUSANDS BTU
MECH	MECHANICAL
MOD	MOTORIZED DAMPER
OA	OUTSIDE AIR
P	PUMP
Ø	DIAMETER
PHC	PRE-HEAT COIL
RA	RETURN AIR
REF	REFRIGERANT PIPING
RG	RETURN GRILLE
RH	RELATIVE HUMIDITY
RHG	REFRIGERANT HOT GAS
RHC	RE-HEAT COIL
RL	REFRIGERANT LIQUID
RLA	RUNNING OR RATED LOAD AMPS
RS	REFRIGERANT SUCTION
RTU	ROOFTOP UNIT
RV	ROOF VENT
SA	SUPPLY AIR
SD	SUPPLY DIFFUSER
SG	SUPPLY GRILLE
SHT	SHEET
SP	STATIC PRESSURE
SR	SUPPLY REGISTER
SS	STAINLESS STEEL
STRUC	STRUCTURAL
SV	SHUTOFF VALVE
TA	TO ABOVE
TB	TO BELOW
TG	TRANSFER GRILLE
TV	THROTTLING VALVE
TYP	TYPICAL
UFIT	UNDER FLOOR IN TILE
UH	UNIT HEATER
V	VOLTS
VA	VENT AIR
VAV	VARIABLE AIR VOLUME
W	WATTS
WAC	WINDOW AIR CONDITIONER
WB	WET BULB
WC	WATER COLUMN
(P)	PRESENT
(PA)	PRESENT TO BE ABANDONED
(PR)	PRESENT TO BE RELOCATED
(PX)	PRESENT TO BE REMOVED
(R)	RELOCATED

MECHANICAL GENERAL NOTES:

- REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- ROUTE PIPING SYSTEMS CONCEALED ABOVE CEILINGS UNLESS INDICATED OTHERWISE. MAIN DROPS AND RISES ARE SHOWN. PROVIDE ADDITIONAL DROPS AND RISES AS REQUIRED. INDICATED ELEVATIONS ARE APPROXIMATE. COORDINATE WITH ACTUAL FIELD CONDITIONS.
- ROUTE PIPING CONCEALED WITHIN INTERIOR WALLS UNLESS INDICATED OTHERWISE.
- COORDINATE INSTALLATION OF PIPING WITH OTHER PIPING SYSTEMS, DUCTWORK, LIGHTS, AND STRUCTURE.
- SUPPORT PIPING AND EQUIPMENT FROM TOP CHORD OF JOISTS OR METAL STRUT BEARING ON WALLS. PROVIDE INTERMEDIATE METAL SUPPORTS AS REQUIRED. DO NOT ATTACH TO ROOF DECK FOR SUPPORT.
- GAS PIPING LOCATED IN RETURN AIR PLENUMS, CONCEALED IN WALLS, OR LOCATED BELOW FLOOR SHALL BE WELDED WITH NO VALVES OR UNIONS.
- REFER TO EQUIPMENT SCHEDULES AND DETAILS FOR EQUIPMENT PIPE SIZES AND TRIM.
- REFERENCED FINISHED FIRST FLOOR ELEVATION IS 0.0'.
- ROUTE DUCTWORK CONCEALED ABOVE CEILING UNLESS INDICATED OTHERWISE. MAIN DROPS AND RISES ARE SHOWN. PROVIDE ADDITIONAL DROPS AND RISES AS REQUIRED. INDICATED ELEVATIONS ARE APPROXIMATE. COORDINATE WITH ACTUAL FIELD CONDITIONS.
- ALL DUCT DIMENSIONS ARE INSIDE FREE AREA. INCREASE OVERALL DUCT SIZE TO ALLOW FOR DUCT LINER WHERE SPECIFIED.
- COORDINATE INSTALLATION OF DUCTWORK WITH PIPING SYSTEMS, LIGHTS, AND STRUCTURE.
- COORDINATE EXACT LOCATION OF GRILLES, REGISTERS, AND DIFFUSERS WITH LIGHTS, CEILING LAYOUT, STRUCTURE, AND ROOF SLOPE.
- REFER TO EQUIPMENT SCHEDULES FOR FLEXIBLE DUCT SIZES, EQUIPMENT CONNECTIONS, AND MOUNTING HEIGHTS.
- SUPPORT DUCTWORK AND EQUIPMENT FROM TOP CHORD OF JOISTS OR METAL STRUT BEARING ON WALLS. PROVIDE INTERMEDIATE METAL SUPPORTS AS REQUIRED. DO NOT ATTACH TO ROOF DECK FOR SUPPORT.
- ALL WORK FROM POINT OF NEW CONNECTION SHALL USE NEW MATERIALS. RE-USE OF REMOVED MATERIALS SHALL NOT BE ALLOWED, UNLESS SPECIFICALLY NOTED.
- THESE NOTES APPLY TO ALL MECHANICAL DRAWINGS.

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PROPOSED STORAGE BUILDING
MORRIS, ILLINOIS

MECHANICAL GENERAL REQUIREMENTS

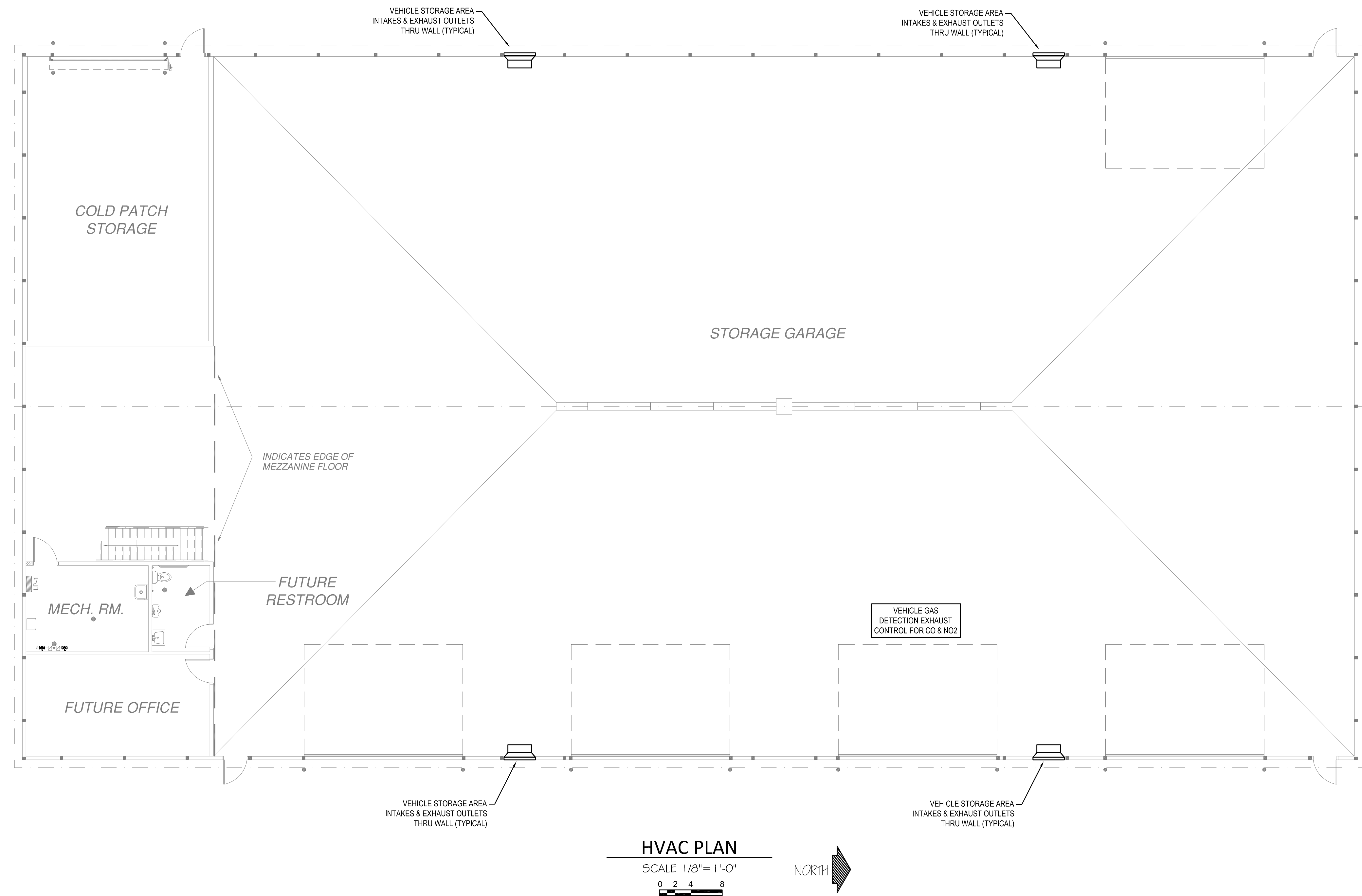
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HVAC PLAN

SCALE 1/8" = 1'-0"
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 2026049-3

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GRUNDY COUNTY HIGHWAY DEPARTMENT
 PROPOSED STORAGE BUILDING
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HVAC FLOOR PLAN

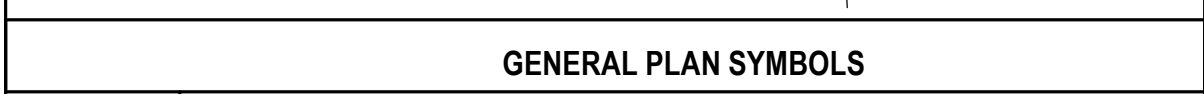
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ELECTRICAL ABBREVIATIONS		
1P	1 POLE (2P, 3P, 4P, ETC.)	LVNG LIGHTNING
A	6" ABOVE COUNTER OR BACKSPASH TO CENTERLINE OF DEVICE	M LOW VOLTAGE
A, AMP	AMPERE	MAX MAXIMUM
AC	ABOVE COUNTER	MAGS MAGNETIC STARTER
ACLG	ABOVE CEILING	MC MOMENTARY CONTACT
AF	AMP FRAME	MC MECHANICAL CONTRACTOR
AFF	ABOVE FINISHED FLOOR	MCC MAIN CIRCUIT BREAKER
AFG	ABOVE FINISHED GRADE	MCC MOTOR CONTROL CENTER
AFCI	ARC FAULT CIRCUIT INTERRUPTER	MDC MAIN DISTRIBUTION CENTER
AHU	AIR HANDLING UNIT	MDF MAIN DISTRIBUTION PANEL
AL	ALUMINUM	MFR MANUFACTURER
ALT	ALTERNATE	MFS MAIN FUSED DISCONNECT SWITCH
AMP	AMPERE	MH MANHOLE
AMPL	AMPLIFIER	MC MICROPHONE
ANNUN	ANNUNCIATOR	MIN MINIMUM
APPROX	APPROXIMATELY	MISC MISCELLANEOUS
AQ-STAT	AQUASTAT	MLO MAIN LUGS ONLY
ARCH	ARCHITECT, ARCHITECTURAL	MMS MANUAL MOTOR STARTER
AS	AMP SWITCH	MOA MULTIOUTLET ASSEMBLY
AT	AMP TRIP	MSP MOTOR STARTER PANELBOARD
A.T.C.	AUTOMATIC TEMPERATURE CONTROLS	MSB MAIN SWITCHBOARD
ATS	AUTOMATIC TRANSFER SWITCH	MSS MOTOR STARTER SWITCH
AUTO	AUTOMATIC	MT MOUNT
AUX	AUXILIARY	MTR MANUAL TRANSFER SWITCH
AV	AUDIO VISUAL	MTC MOTOR, MOTORIZED
AWG	AMERICAN WIRE GAUGE	N.C. NORMALLY CLOSED
B	BLACK DEVICE COLOR WITH BLACK UNBREAKABLE THERMOPLASTIC COVER PLATE	NEC NATIONAL ELECTRICAL CODE
BATT	BATTERY	NEMA NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION
BD	BOARD	NFDS NON-FUSED SAFETY DISCONNECT SWITCH
BLDG	BUILDING	NIC NOT IN CONTRACT
BMS	BUILDING MANAGEMENT SYSTEM	NL NIGHT LIGHT
C	CONDUIT	N.O. NORMALLY OPEN
CAB	CABINET	NPF NORMAL POWER FACTOR
CAT	CATALOG	NTS NOT TO SCALE
CATV	CABLE TELEVISION	OC ON CENTER
CB	CIRCUIT BREAKER	OH OVERHEAD
CCTV	CLOSED CIRCUIT TELEVISION	OL OVERLOADS
CKT	CIRCUIT	PA PANEL ADDRESS
CLG	CEILING	PB PULL BOX OR PUSHBUTTON
CM	CONSTRUCTION MANAGER	PC PLUMBING CONTRACTOR
COMB	COMBINATION	PE PNEUMATIC ELECTRIC
CMPR	COMPRESSOR	PF POWER FACTOR
CONN	CONNECTION	PH PHASE
CONST	CONSTRUCTION	PIV POST INDICATING VALVE
CONT	CONTINUATION OR CONTINUOUS	PN PANEL
CONTR	CONTRACTOR	PP POWER POLE
CONV	CONVECTOR	PR PAIR
CP	CIRCULATING PUMP	PRI PRIMARY
CRT	CATHODE-RAY TUBE	PROJ PROJECTION
CT	CURRENT TRANSFORMER	PRV POWER ROOF VENTILATOR
CTR	CENTER	PT POTENTIAL TRANSFORMER
CJ	COPPER	PT POLYVINYL CHLORIDE (CONDUIT)
DEPT	DEPARTMENT	PWR POWER
DET	DETAL	QUAN QUANTITY
DIA	DIAMETER	RAC RIGID ALUMINUM CONDUIT
DISC	DISCONNECT	RCPPT RECEPTACLE
DIST	DISTRIBUTION	REQD REQUIRED
DN	DOWN	RM ROOM
DO	AUTOMATIC DOOR OPENER	RMC RIGID METALLIC CONDUIT
DRP	DAMPER	RTU ROOF TOP UNIT
DS	SAFETY DISCONNECT SWITCH	SC SURFACE CONDUIT
DG	DOUBLE THROW	SEC SECONDARY
DWG	DRAWING	SHT SHEET
EC	ELECTRICAL CONTRACTOR	SIM SIMILAR
ELEC	ELECTRIC, ELECTRICAL	SLD SINGLE-LINE DIAGRAM
ELEV	ELEVATOR	SN SOLID NEUTRAL
ELU	EMERGENCY LIGHTING UNIT	SPEC SPECIFICATION
EM	EMERGENCY	SPKR SPEAKER
EMS	ENERGY MANAGEMENT SYSTEM	SP SPARE
EMT	ELECTRICAL METALLIC TUBING	SPP SINGLE-POINT POWER
EP	ELECTRIC PNEUMATIC	SR SURFACE RACEWAY
EPO	EMERGENCY POWER OFF EQUIPMENT	SS STAINLESS STEEL
EQUIP	EQUIPMENT	SSW SELECTOR SWITCH
EWC	ELECTRIC WATER COOLER	S/S STOP/START PUSHBUTTONS
EXIST	EXISTING	STA STATION
EXH	EXHAUST	STD STANDARD
EXP	EXPLOSION PROOF	SURF SURFACE MOUNTED
FA	FIRE ALARM	SW SWITCH
FABP	FIRE ALARM BOOSTER POWER SUPPLY PANEL	SWBD SWITCHBOARD
FACP	FIRE ALARM CONTROL PANEL	SYM SYMMETRICAL
FCU	FAN COIL UNIT	SYS SYSTEM
FKT	FIXTURE	TEL TELEPHONE
FLR	FLOOR	TERM TERMINAL
FLUOR	FLUORESCENT	T TAMPER RESISTANT
F.P.C.	FIRE PROTECTION CONTRACTOR	TL TWIST LOCK
FU	FUSE	T-STAT THERMOSTAT
FUDS	FUSED SAFETY DISCONNECT SWITCH	TTC TELEPHONE TERMINAL CABINET
GA	GALIE	TVT TELEVISION TERMINAL CABINET
GC	GENERAL CONTRACTOR	TYP TYPICAL
GEN	GENERATOR	UC UNDER COUNTER
GFI	GROUND FAULT CIRCUIT INTERRUPTER	UE UNDERGROUND ELECTRICAL
GFP	GROUND FAULT PROTECTOR	UG UNDERGROUND
GND	GROUND	UH UNIT HEATER
GYP BD	GYPSPUM BOARD	UL UNDERGROUND TELEPHONE
HWC-#	DOMESTIC WATER CIRCULATING PUMP	UTIL UTILITY
HOA	HANDS-OFF-AUTOMATIC SWITCH	UV ULTRAVIOLET
H	INSTALL DEVICE HORIZONTALLY	V VOLT
HP	HORSEPOWER	VA VOLT-AMPERES
HT	HEIGHT	VDT VIDEO DISPLAY TERMINAL
HTG	HEATING	VERT VERTICAL
HVAC	HEATING, VENTILATING AND AIR CONDITIONING	VFD VARIABLE FREQUENCY DRIVE
IC	INTERRUPTING CAPACITY	VOL VOLUME
IG	ISOLATED GROUND	W WATT
IMC	INTERMEDIATE METAL CONDUIT	WI WITH
INCAND	INCANDESCENT	WG WIRE GUARD
IR	INFRARED	WH WATER HEATER
IW	INTERLOCK WITH	W/O WITHOUT
J-BOX	JUNCTION BOX	WP WEATHERPROOF
K.E.C.	KITCHEN EQUIPMENT CONTRACTOR	XFR TRANSFER
KV	KILOVOLT	XX LOCATION-SPECIFIC MOUNTING
KVA	KILOVOLT-AMPERE	TO CENTERLINE OF DEVICE
KVAR	KILOVOLT-AMPERE REACTIVE	
KW	KILOWATT	
KWH	KILOWATT HOUR	

BREAKER/DEVICE SCHEDULE	
SYMBOL	DESCRIPTION
A	ARC FAULT INTERRUPTER (AFCI)
AR	ARC ENERGY REDUCTION MAINTENANCE SWITCH
E	EXISTING BREAKER TO REMAIN
EM	PROVIDE IDENTIFICATION PER NEC 700.12(I)(2)(4)
G	EXISTING BREAKER SERVING NEW CIRCUIT
GE	GROUND FAULT CIRCUIT INTERRUPTER (GFCI) PROTECTION (5mA)
GF	GROUND FAULT CIRCUIT INTERRUPTER FOR EQUIPMENT (30mA)
HL	ADJUSTABLE GROUND FAULT PROTECTION FOR EQUIPMENT
K#	HANDLE LOCK TO LOCK BREAKER IN CLOSED POSITION
LSI	KEY INTERLOCK (# REPRESENTS GROUPED KEYING)
LSIA	LONG-TIME, SHORT-TIME, INSTANTANEOUS ADJUSTMENT
N	LONG-TIME, SHORT-TIME, INSTANTANEOUS ADJUSTMENT, AND GROUND FAULT ADJUSTMENT
NE	NEW BREAKER IN EXISTING PANEL
SD	NEW BREAKER SERVING EXISTING CIRCUIT
ST	NEW BREAKER SERVING EXISTING CIRCUIT DENOTE SERVICE DISCONNECT SHUNT TRIP (120V OPERATED UNLESS NOTED OTHERWISE)

EQUIPMENT/DEVICE HOME RUN KEY	
1.	BRANCH CIRCUIT WIRING SHALL BE #12AWG UNLESS NOTED OTHERWISE ON THE PLAN OR IN THE SCHEDULES.
2.	AS A MINIMUM USE 10 AWG CONDUCTOR FOR 20 AMPERE, 120 VOLT BRANCH CIRCUIT HOME RUNS LONGER THAN 100 FEET AND 277 VOLT BRANCH CIRCUIT HOME RUNS LONGER THAN 200 FEET.
3.	REFER TO SPECIFICATION SECTION 260519 FOR ADDITIONAL REQUIREMENTS.



GENERAL PLAN SYMBOLS	
MARK	SCHEDULED EQUIPMENT (UNDERLINED)
MARK	NONSCHEDULED EQUIPMENT
(E) MARK	EXISTING EQUIPMENT - HALFTONE - (E) PREFIX
(R) MARK	EXISTING RELOCATED EQUIPMENT - (R) PREFIX
	SECTION VIEW, TOP REPRESENTS DETAIL NUMBER, BOTTOM REPRESENTS SHEET NUMBER
	ENLARGED VIEW, TOP REPRESENTS VIEW NUMBER, BOTTOM REPRESENTS SHEET NUMBER
	NEW WORK BY THE E.C. (DARK SOLID LINE)
	NEW UNDERGROUND WORK BY THE E.C. (DARK DASHED LINE)
	WORK BY OTHERS AND/OR EXISTING (LIGHT SOLID LINE)
	DEMO WORK BY THE E.C. (DARK DASHED LINE)
	MATCHLINE
	KEYED NOTE
	LIGHTING CONTROL SYMBOL (DIAMOND)
	KITCHEN EQUIPMENT SYMBOL (OCTAGON)

GENERAL ELECTRICAL SYMBOLS	
	ELECTRICAL CONNECTION TO EQUIPMENT
	EMERGENCY STOP PUSH BUTTON. REFER TO SCHEDULE FOR ADDITIONAL INFORMATION.
	DIGITAL POWER METER, LCD DISPLAY, MONITORING OF VOLTAGE, CURRENT, POWER, PF, FREQUENCY, MIN/MAX AND AVERAGE VALUES, AND ENERGY.
	AUTOMATIC DOOR PUSH PAD
	PANELBOARD - SEE SCHEDULES FOR MORE INFORMATION
	UTILITY TRANSFORMER - PROVIDED BY UTILITY
	SWITCHBOARD - SEE SCHEDULES FOR MORE INFORMATION
	TRANSFORMER - SEE SCHEDULES FOR MORE INFORMATION
	DISCONNECT SWITCH, SEE SCHEDULES FOR MORE INFORMATION
	POWER METER
	COMBINATION STARTER, SEE SCHEDULES FOR MORE INFORMATION
	ELECTRICAL EQUIPMENT, DASHED LINES INDICATE CODE REQUIRED CLEARANCES. SEE SCHEDULES FOR MORE INFORMATION
	GROUND BAR

GENERAL POWER SYMBOLS	
SYMBOL	DESCRIPTION
	DUPLEX / DOUBLE DUPLEX RECEPTACLE, NEMA 5-20R, EMERGENCY POWER. REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION
	DUPLEX / DOUBLE DUPLEX RECEPTACLE, REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION
	CORD REEL / CORD DROP. REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION
	SIMPLEX RECEPTACLE, NEMA 5-20R
	SPECIAL RECEPTACLE

GENERAL FIRE ALARM SYMBOLS	
SYMBOL	DESCRIPTION
	CONTROL PANEL
	NOTIFICATION APPLIANCE CIRCUIT EXTENDER PANEL
	REMOTE ANNUNCIATOR PANEL
	POST INDICATOR VALVE AND TAMPER SWITCH
	AIR PRESSURE SWITCH
	VALVE TAMPER SWITCH
	WATER FLOW SWITCH
	BEAM SMOKE REFLECTOR
	LINEAR BEAM SMOKE DETECTOR
	LINEAR BEAM SMOKE DETECTOR
	DUCT SMOKE DETECTOR
	DUCT SMOKE DETECTOR REMOTE INDICATOR STATION
	HEAT DETECTOR ADDRESSABLE
	LINEAR HEAT DETECTION CABLE
	ADDRESSABLE FIRE ALARM MANUAL PULL STATION
	SMOKE DETECTOR
	AUDIO/VISUAL NOTIFICATION APPLIANCE, CEILING MOUNTED
	VISUAL NOTIFICATION APPLIANCE, CEILING MOUNTED
	SPEAKER NOTIFICATION APPLIANCE, CEILING MOUNTED
	SPEAKER/VISUAL NOTIFICATION APPLIANCE, CEILING MOUNTED
	HORN NOTIFICATION APPLIANCE, WALL MOUNTED
	AUDIO/VISUAL NOTIFICATION APPLIANCE, WALL MOUNTED
	SPEAKER NOTIFICATION APPLIANCE, WALL MOUNTED
	SPEAKER/VISUAL NOTIFICATION APPLIANCE, WALL MOUNTED
	VISUAL NOTIFICATION APPLIANCE, WALL MOUNTED
	ADDRESSABLE MONITOR MODULE
	ADDRESSABLE RELAY MODULE
	MAGNETIC DOOR HOLDER
	HVAC ELEVATOR HOISTWAY DAMPER
	HVAC SMOKE DAMPER
	ZONE ADAPTER MODULES
	CO DETECTOR
	VOICE COMMAND CENTER
	DUCT CO DETECTOR
	BELL
	HIGH FIDELITY SPEAKER - CEILING MOUNT
	HIGH FIDELITY SPEAKER - WALL MOUNT
	AIR SAMPLING SMOKE DETECTOR
	FIRE SMOKE DAMPER

GENERAL SWITCH SYMBOLS	
SYMBOL	DESCRIPTION
	SWITCH REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION.
	REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION
	REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION
	REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION

NURSE CALL SYMBOLS	
SYMBOL	DESCRIPTION
	REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION
	REFER TO SUBSCRIPT SCHEDULE FOR MORE INFORMATION

GENERAL LIGHTING SYMBOLS	
SYMBOL	DESCRIPTION
	CRITICAL FIXTURE (FULL SHADED)
	LIFE SAFETY (HALF SHADED)
	RECESSED MOUNTED (DIAGONAL SLASH)
	SURFACE MOUNTED
	SURFACE OR PENDANT FIXTURE (DOTS)
	RECESSED DOWNLIGHT
	EMERGENCY FIXTURE
	SINGLE / DOUBLE FACED EXIT SIGN
	EMERGENCY REMOTE HEAD (SINGLE/DOUBLE)
	COMBINATION EXIT/EMERGENCY FIXTURE
	WALL MOUNTED FIXTURE (STEM OR STEMS)
	CYLINDRICAL FIXTURE (ARROW INDICATES WALL WASH)

- GENERAL NOTES**
- ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL CODES INCLUDING BUT NOT LIMITED TO THE NATIONAL ELECTRICAL CODE, THE INTERNATIONAL BUILDING CODE, AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES, AND INTERNATIONAL ENERGY CONSERVATION CODE. THE AUTHORITY HAVING JURISDICTION SHALL HAVE THE FINAL DECISION ON ALL INSTALLATIONS AND PRACTICES.
 - ALL MATERIAL FURNISHED SHALL BE NEW, FREE OF DEFECTS, AND LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY UNLESS NOTED OTHERWISE.
 - INSTALLATION OF EQUIPMENT SHALL BE IN ACCORDANCE WITH CURRENT STANDARDS AND SPECIFICATIONS APPROVED BY THE AUTHORITY HAVING JURISDICTION (A.H.J.). PLACE ALL CABLES/WIRING IN CONDUIT OR RACEWAY UNLESS NOTED OTHERWISE. DO NOT LIE ON, OR SUPPORT CABLE FROM, CEILING DEVICES, PIPING OR DUCTWORK. PROVIDE NEW WIRING FOR ALL BRANCH CIRCUITS AND FEEDERS.
 - FEEDERS ON DRAWINGS ARE SCHEMATIC ONLY. CONDUIT RUNS SHALL COMPLY WITH CONDUIT SPECIFICATIONS AND CONTAIN BENDS THAT ARE NOT GREATER THAN 90 DEGREES. CONDUITS ABOVE GRADE SHALL BE RUN PARALLEL TO OR PERPENDICULAR WITH BUILDING LINES AND STRUCTURE.
 - CIRCUIT WIRING FOR THE EMERGENCY SYSTEM SHALL BE INSTALLED IN SEPARATE CONDUIT/RACEWAY AND BE KEPT ENTIRELY INDEPENDENT OF ALL OTHER WIRING AND EQUIPMENT PER THE N.E.C.
 - ALL FEEDER AND BRANCH CIRCUITS TO PANELS, MOTORS, LIGHTS, RECEPTACLES, GENERAL DISTRIBUTION, ETC. SHALL CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR SIZED ACCORDING TO THE N.E.C. THE CONDUIT SYSTEM SHALL NOT BE CONSIDERED AN ACCEPTABLE GROUND.
 - REFER TO MECHANICAL EQUIPMENT SCHEDULES FOR DETAILED INFORMATION ON EQUIPMENT, DISCONNECTS, AND CONTROLS. E.C. SHALL PROVIDE AND INSTALL ITEMS AS NOTED BY THE E.C. ON THE MECHANICAL SCHEDULES.
 - ALL WIRING AND FEEDER SIZES ON DRAWINGS ARE SIZED FOR COPPER WIRING UNLESS SPECIFICALLY NOTED OTHERWISE.
 - IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO COORDINATE INSTALLATION OF ELECTRICAL SYSTEM AND THOSE REQUIRING ELECTRICAL CONNECTIONS TO MAINTAIN NEC REQUIRED CLEARANCES, INCLUDING BUT NOT LIMITED TO AREAS ABOVE ACCESSIBLE CEILINGINGS
 - PROVIDE CABLE OR CONDUIT AND WIRE AS REQUIRED TO ACHIEVE CIRCUITING AS SHOWN. SIZE CONDUCTOR PER NEC AMPACITIES AND WIRE FILL CRITERIA. PROVIDE DEDICATED NEUTRALS AND GROUND CONDUCTOR FOR CIRCUITING, UNLESS NOTED OTHERWISE.
 - CONDUIT FOR POWER WIRING SHALL BE PERMITTED TO BE LOCATED BENEATH FLOOR SLAB UNLESS NOTED OTHERWISE. RACEWAYS FOR LOW VOLTAGE CABLING FOR CONTROL, TELECOMMUNICATIONS, AND OTHER LOW VOLTAGE SYSTEMS SHALL NOT BE ALLOWED BENEATH, NOR WITHIN THE FLOOR SLAB UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. WHERE CABLING IS ROUTED BENEATH OR WITHIN THE FLOOR SLAB, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THE CABLING IS LISTED FOR SUCH USE.
 - ALL ELECTRICAL CONDUCTORS SHALL BE STRANDED COPPER WITH TYPE THHN-THWN INSULATION UNLESS SPECIFICALLY NOTED OTHERWISE. THE MINIMUM WIRE SIZE SHALL BE #12 AWG.
 - ALL NEW CIRCUITS REQUIRING NEUTRAL CONDUCTORS SHALL HAVE DEDICATED NEUTRALS. SHARED NEUTRALS ARE NOT ALLOWED.
 - A GREEN GROUNDING CONDUCTOR SHALL BE CONNECTED TO ALL LOADS SERVED. THE CONDUCTOR SHALL BE SIZED PER THE NATIONAL ELECTRICAL CODE TO ACCOMMODATE THE LOAD SERVED. ALL GROUNDING CONDUCTORS SHALL BE INSTALLED IN CONDUIT.
 - ALL BUILDING WIRING SHALL BE INSTALLED IN CONDUIT, MINIMUM SIZE SHALL BE 3/4".
 - ALL HOME RUN CONDUITS SHALL BE A MINIMUM OF 1" CONDUIT WITH 4-11/16" DEEP JUNCTION BOXES. ALL JUNCTION BOX COVERS SHALL BE CLEARLY MARKED TO IDENTIFY CIRCUIT NUMBERS IN THE ENCLOSURES. EACH HOME RUN RACEWAY SYSTEM SHALL HAVE SPARE CAPACITY FOR A MINIMUM OF 1 ADDITIONAL CIRCUIT AND ASSOCIATED DEDICATED NEUTRAL CONDUCTORS.
 - ALL CONDUITS SHALL BE CONCEALED IN WALLS, ABOVE CEILING, ETC. WHERE POSSIBLE. ALL EXPOSED SURFACE RACEWAY SHALL BE ROUTED PARALLEL AND PERPENDICULAR TO WALLS AND CEILING. SURFACE CONDUIT SHALL BE FACTORY OR FIELD PAINTED TO MATCH MOUNTING SURFACE.
 - COORDINATE THE EXACT LOCATION OF ALL DEVICES LOCATED ABOVE OR BELOW COUNTERS, ETC. WITH OTHER TRADES, ARCHITECTURAL ELEVATIONS, AND REVIEWED SUBMITTALS PRIOR TO ROUGH-IN. ARCHITECTURAL ELEVATIONS AND DETAILS TAKE PRECEDENCE OVER LOCATIONS SHOWN ON ELECTRICAL DRAWINGS.
 - ALL CUTTING AND PATCHING REQUIRED FOR CONDUITS, DEVICES OR OTHER ELECTRICAL EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
 - ALL PENETRATIONS THROUGH FIRE-RATED WALLS, FLOORS, AND CEILING SHALL BE SEALED WITH A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) APPROVED FIRE-RATED SYSTEM EQUAL TO OR EXCEEDING THE RATING OF THE MATERIAL PENETRATED.
 - COORDINATE LOCATIONS OF ALL ELECTRICAL ITEMS INCLUDING LIGHTING FIXTURES, CEILING MOUNTED DEVICES (OCCUPANCY SENSORS, FIRE ALARM DETECTORS, SPEAKERS, ETC.) WITH EACH OTHER AND WITH ALL SPRINKLER HEADS, AIR SUPPLY DIFFUSER AND RETURN GRILLES. ALL CEILING DEVICES SHALL BE CENTERED IN CEILING TILE, WHERE POSSIBLE.
 - COORDINATE ALL MOUNTING OF ELECTRICAL MATERIALS. EQUIPMENT AND DEVICES REQUIRED FOR EQUIPMENT/DEVICES SUPPLIED BY OTHERS. ELECTRICAL ITEMS SHALL BE MOUNTED TO AVOID ANY INTERFERENCE WITH OTHER EQUIPMENT OPERATION OR ACCESS. ALL INSTALLATIONS OF ELECTRICAL ITEMS FOR EQUIPMENT/DEVICES SUPPLIED BY OTHERS SHALL BE COORDINATED AND APPROVED BY SUPPLYING CONTRACTOR PRIOR TO ROUGH-IN.
 - BOXES LOCATED ON OPPOSITE SIDES OF FIRE RATED WALLS SHALL BE OFFSET A MINIMUM OF 24" OR A FIRE RATED MATERIAL EQUAL TO OR GREATER THAN THE FIRE WALL MATERIAL RATING SHALL BE INSTALLED AROUND THE BOX. BOXES LOCATED ON OPPOSITE SIDES OF NON-FIRE RATED WALLS SHALL BE OFFSET A MINIMUM 6".
 - ELECTRICAL DRAWINGS ARE PROVIDED AT A DESIGN DEVELOPMENT (DD) LEVEL TO ILLUSTRATE GENERAL INTENT, SYSTEM REQUIREMENTS, AND COORDINATION EXPECTATIONS. FINAL ELECTRICAL DESIGN, INCLUDING EQUIPMENT SIZING, CIRCUITING, CONDUIT ROUTING, PANEL SCHEDULES, LOAD CALCULATIONS, AND SHORT-CIRCUIT COORDINATION, SHALL BE THE RESPONSIBILITY OF THE DESIGN-BUILD CONTRACTOR AND THEIR LICENSED PROFESSIONAL ENGINEER OF RECORD. THE CONTRACTOR'S DESIGN TEAM SHALL PREPARE AND SEAL FINAL CONSTRUCTION DRAWINGS IN COMPLIANCE WITH APPLICABLE CODES AND STANDARDS.
 - LAYOUTS SHOWN ARE DIAGRAMMATIC AND REPRESENT THE GENERAL LOCATION, CONNECTION POINTS, AND COORDINATION REQUIREMENTS FOR OWNER-PROVIDED OR ARCHITECT-SPECIFIED EQUIPMENT (E.G., DOOR OPERATORS, AIR COMPRESSOR, WELDER OUTLETS, AND OTHER DESIGNATED DEVICES). FINAL LOCATIONS, CAPACITIES, AND WIRING METHODS SHALL BE COORDINATED WITH OWNER, ARCHITECT, AND OTHER TRADES PRIOR TO ISSUANCE OF FINAL DRAWINGS AND BEGINNING CONSTRUCTION.
 - MANUFACTURER SELECTIONS, MATERIALS, AND EQUIPMENT MODELS SHALL BE PER CONTRACTOR'S DESIGN UNLESS SPECIFIC PREFERENCES OR CUT SHEETS ARE INDICATED BY THE OWNER OR ARCHITECT. ANY SELECTIONS INDICATED ON PLANS ARE FOR REFERENCE ONLY.

ELECTRICAL SHEET LIST	
E-0	ELECTRICAL TITLE SHEET
E-1	SITE PLAN - ELECTRICAL
E-2	FIRST FLOOR PLAN - ELECTRICAL LIGHTING
E-3	FIRST FLOOR PLAN - ELECTRICAL POWER
E-4	FIRST FLOOR PLAN - ELECTRICAL SYSTEMS
E-5	ELECTRICAL PANEL SCHEDULES AND ONE LINE DIAGRAM
E-6	ELECTRICAL SCHEDULES

DRAWN BY:	LEVEL	BY	DATE	REVISIONS	DESCRIPTION
JJM					
CHKD BY:					
BRK					
DATE:					
06/19/26					

PERU MORRIS
OTTAWA MENDOTA
ILLINOIS

GRUNDY COUNTY HIGHWAY DEPARTMENT
PROPOSED STORAGE BUILDING
MORRIS, ILLINOIS

ELECTRICAL TITLE SHEET

BID SET

CURRENT AS OF: 06/19/26	SHEET E-0
SCALE: AS NOTED	FILE NO.: 2487.00 Y- OF

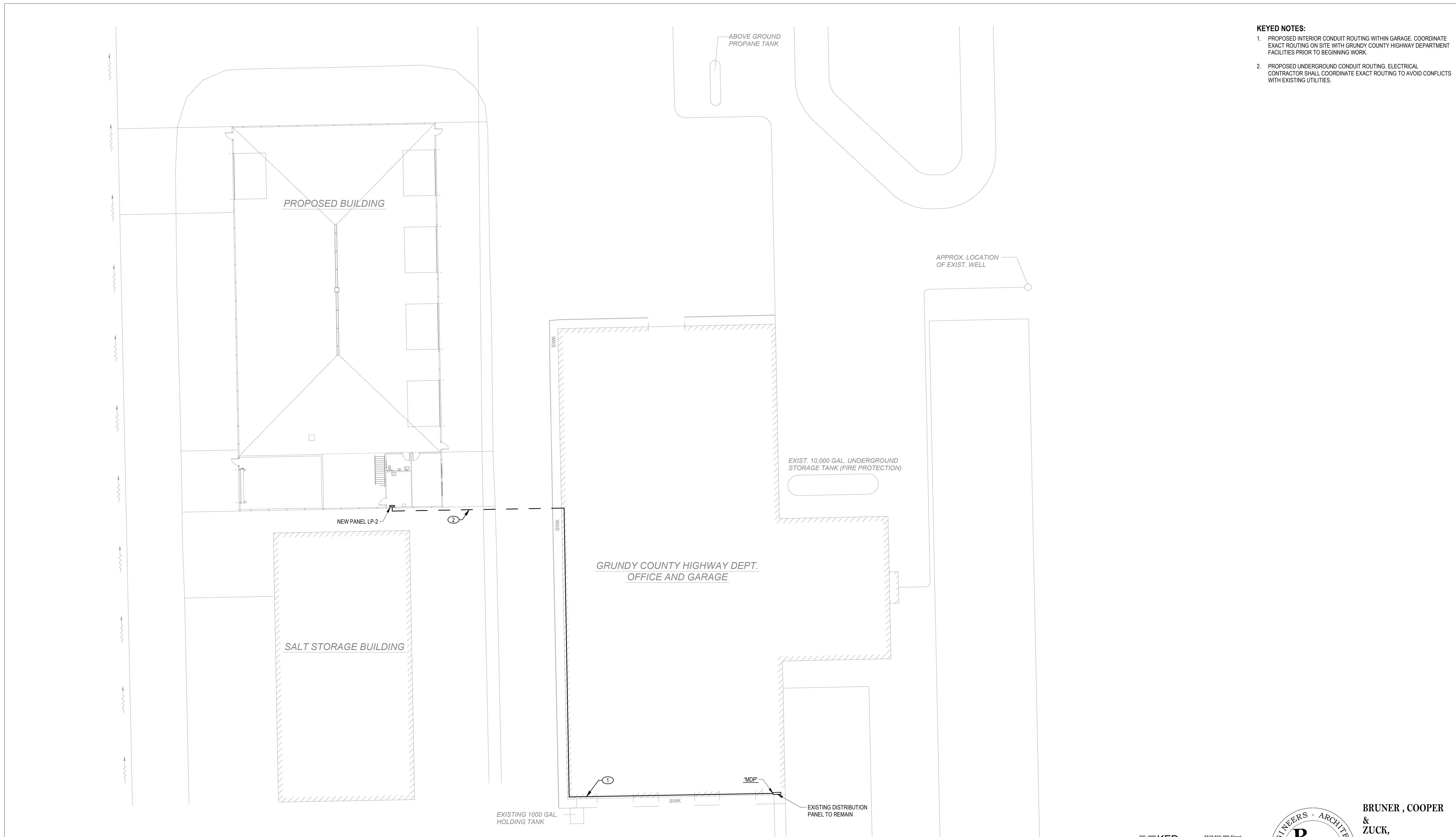
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- KEYED NOTES:**
1. PROPOSED INTERIOR CONDUIT ROUTING WITHIN GARAGE. COORDINATE EXACT ROUTING ON SITE WITH GRUNDY COUNTY HIGHWAY DEPARTMENT FACILITIES PRIOR TO BEGINNING WORK.
 2. PROPOSED UNDERGROUND CONDUIT ROUTING. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT ROUTING TO AVOID CONFLICTS WITH EXISTING UTILITIES.

1 **SITE PLAN - ELECTRICAL**
1" = 20'-0"

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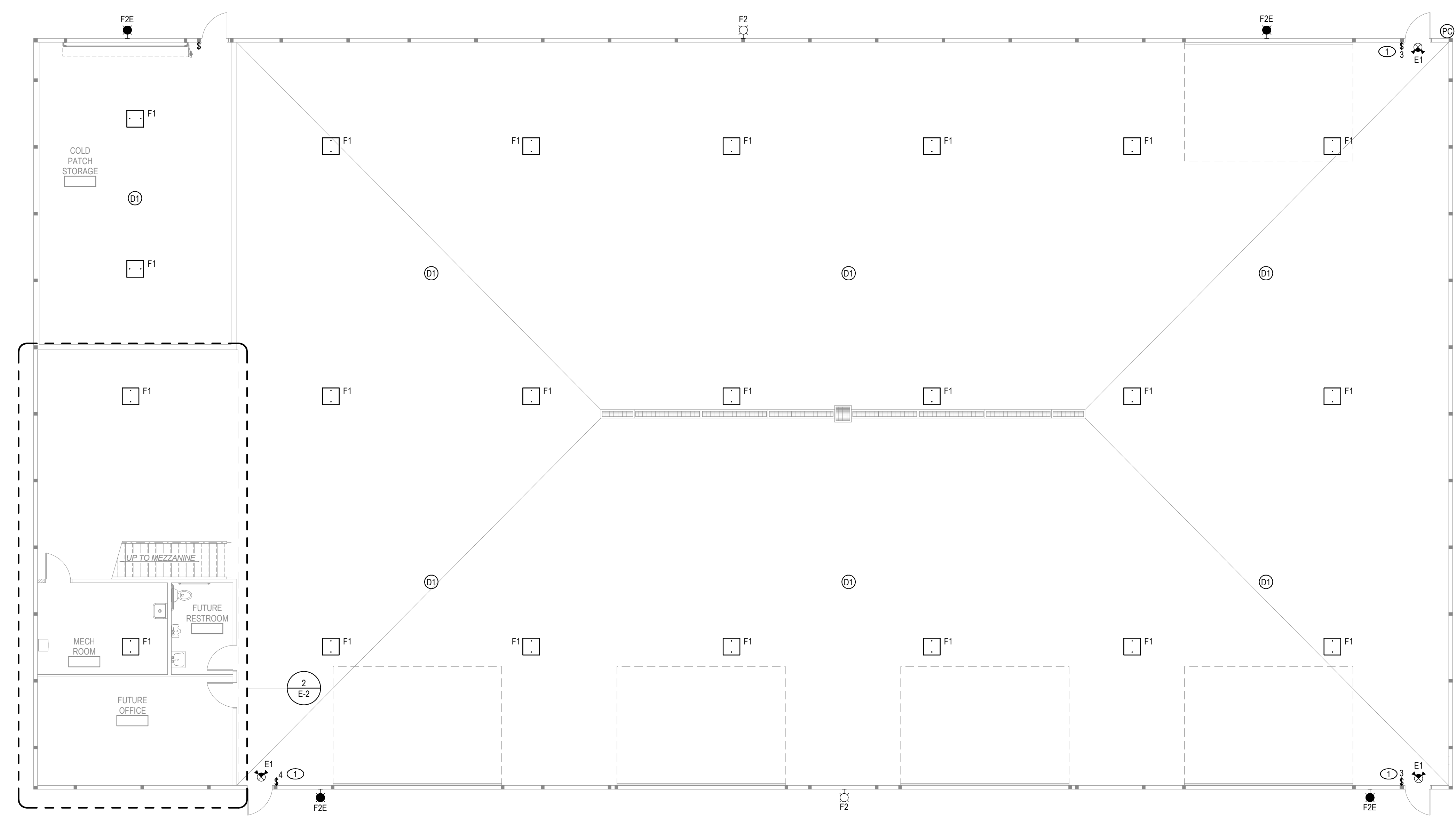
**GRUNDY COUNTY HIGHWAY DEPARTMENT
PROPOSED STORAGE BUILDING**
MORRIS, ILLINOIS

SITE PLAN - ELECTRICAL

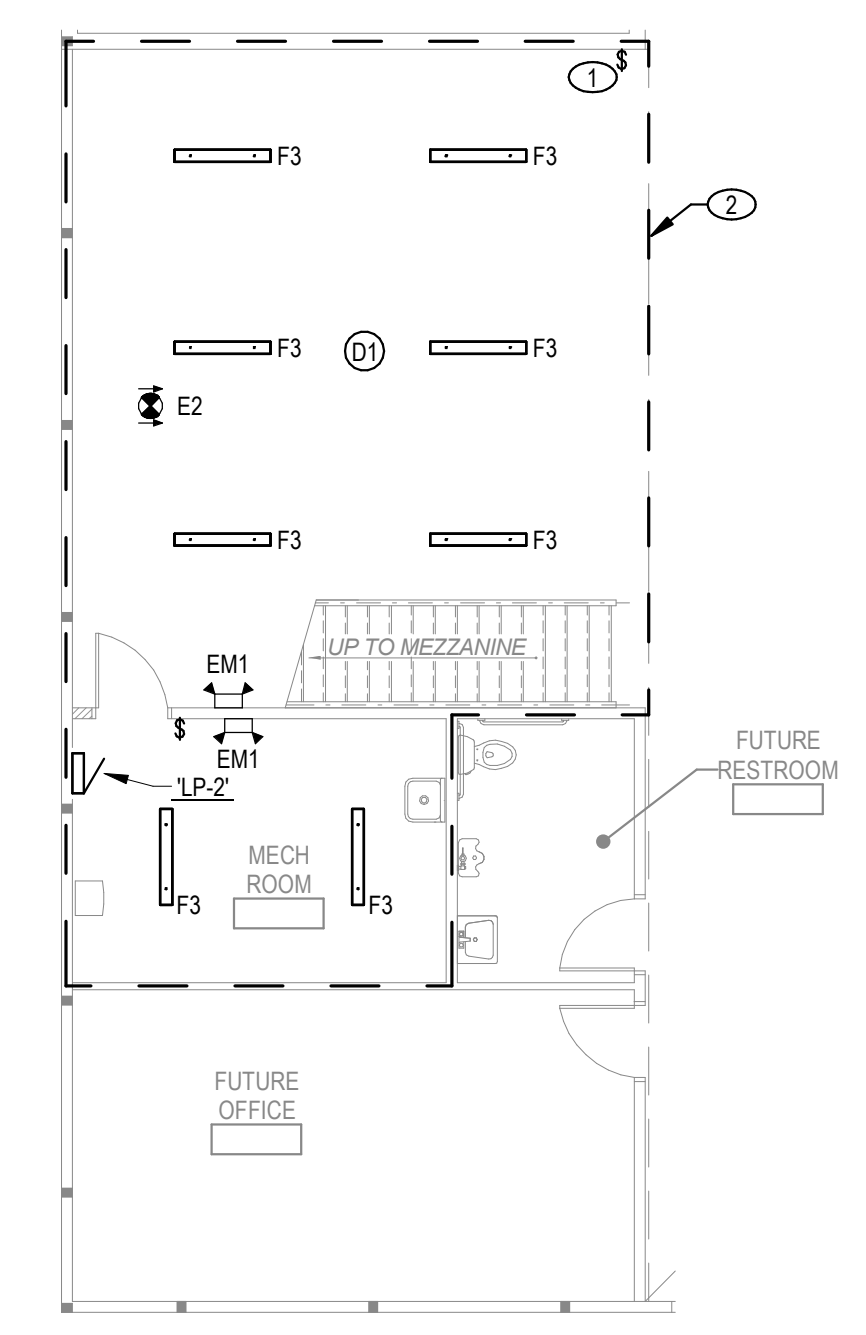
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CURRENT AS OF: 06/19/26		
SCALE: AS NOTED	SHEET	E-1
FILE NO.: 2487.00	Y-	OF

- KEYED NOTES:**
- COORDINATE FINAL SWITCH LOCATIONS WITH THE OWNERS REPRESENTATIVE PRIOR TO ROUGH-IN.
 - ALTERNATE BID 1: FURNISH AND INSTALL LIGHTING AND CONTROLS BELOW MEZZANINE AS SHOWN.



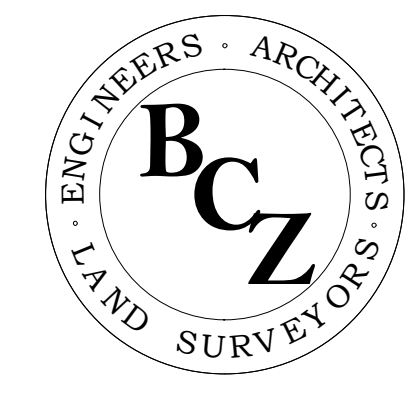
1 FIRST FLOOR PLAN - ELECTRICAL LIGHTING
1/8" = 1'-0"



2 BELOW MEZZANINE - LIGHTING
1/8" = 1'-0"

NOTE:
FINAL LUMINAIRE TYPES, QUANTITIES, LAYOUT, LOCATIONS, AND MOUNTING HEIGHTS SHALL BE BY CONTRACTOR AND SHALL BE COORDINATED WITH THE OWNERS REPRESENTATIVE PRIOR TO BEGINNING WORK. FINAL LIGHTING CONTROL LOCATIONS AND SWITCHING ARRANGEMENT SHALL BE BY THE CONTRACTOR AND SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK.

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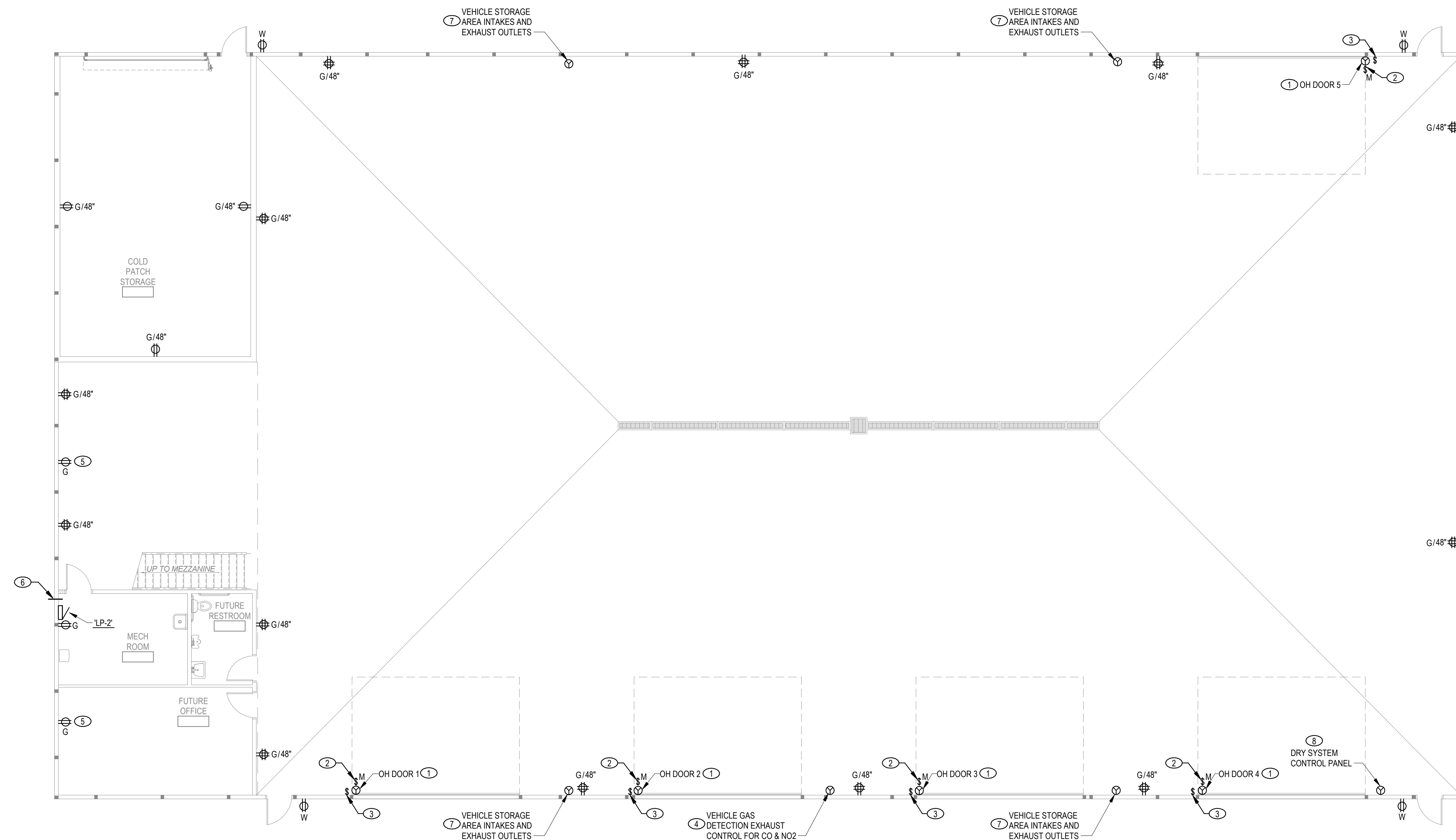
FIRST FLOOR PLAN -
ELECTRICAL LIGHTING

BID SET

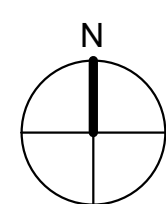
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SCALE: AS NOTED	SHEET	E-2
FILE NO.: 2487.00	Y-	OF

KEYED NOTES:

1. ELECTRICAL CONTRACTOR SHALL VERIFY EXACT OVERHEAD DOOR OPERATOR ELECTRICAL REQUIREMENTS AND MOUNTING LOCATION WITH THE OVERHEAD DOOR SUPPLIER PRIOR TO ROUGH-IN. THIS SHALL INCLUDE VOLTAGE, PHASE, HP, AMPERAGE, ETC.
2. FURNISH AND INSTALL LOCAL DISCONNECTING MEANS FOR OVERHEAD DOOR OPERATOR PER MANUFACTURERS INSTRUCTIONS.
3. FURNISH AND INSTALL ALL REQUIRED CONDUIT AND CONDUCTORS REQUIRED FOR OVERHEAD DOOR OPERATOR SWITCH AND PHOTO-EYES PER MANUFACTURERS INSTRUCTIONS. COORDINATE ALL WORK WITH DOOR SUPPLIER SUBMITTALS AND ON-SITE REPRESENTATIVE PRIOR TO ROUGH-IN AND INSTALLATION.
4. PROVIDE ELECTRICAL CONNECTION TO VEHICLE GAS DETECTION EXHAUST CONTROL FOR CO AND NO2 CONTROL PANEL. COORDINATE ALL ELECTRICAL REQUIREMENTS AND FINAL LOCATION WITH MECHANICAL CONTRACTOR.
5. ALTERNATE BID 1 - PROVIDE RECEPTACLE MOUNTED +48" AFF ON MEZZANINE LEVEL.
6. FURNISH AND INSTALL A 4" CONDUIT STUBBED TO BUILDING EXTERIOR FOR TELECOMMUNICATIONS SERVICE ENTRANCE. COORDINATE ALL REQUIREMENTS WITH THE OWNER'S REPRESENTATIVE AND THE TELECOMMUNICATIONS SERVICE PROVIDER PRIOR TO ROUGH-IN.
7. PROVIDE ELECTRICAL CONNECTION TO EXHAUST FANS AND INTAKE DAMPERS. PROVIDE ALL REQUIRED INTERLOCKS AND DISCONNECT SWITCHES. COORDINATE ALL ELECTRICAL REQUIREMENTS AND FINAL LOCATIONS WITH MECHANICAL CONTRACTOR.
8. FURNISH AND INSTALL A 120-VOLT CONNECTION TO THE FIRE SUPPRESSION DRY SYSTEM CONTROL PANEL. COORDINATE EXACT LOCATION WITH THE FIRE PROTECTION CONTRACTOR PRIOR TO ROUGH-IN.



NOTE:
FINAL RECEPTACLE, QUANTITIES, LAYOUT, LOCATIONS, AND MOUNTING HEIGHTS SHALL BE BY CONTRACTOR AND SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK.



1 FIRST FLOOR PLAN - ELECTRICAL POWER
1/8" = 1'-0"

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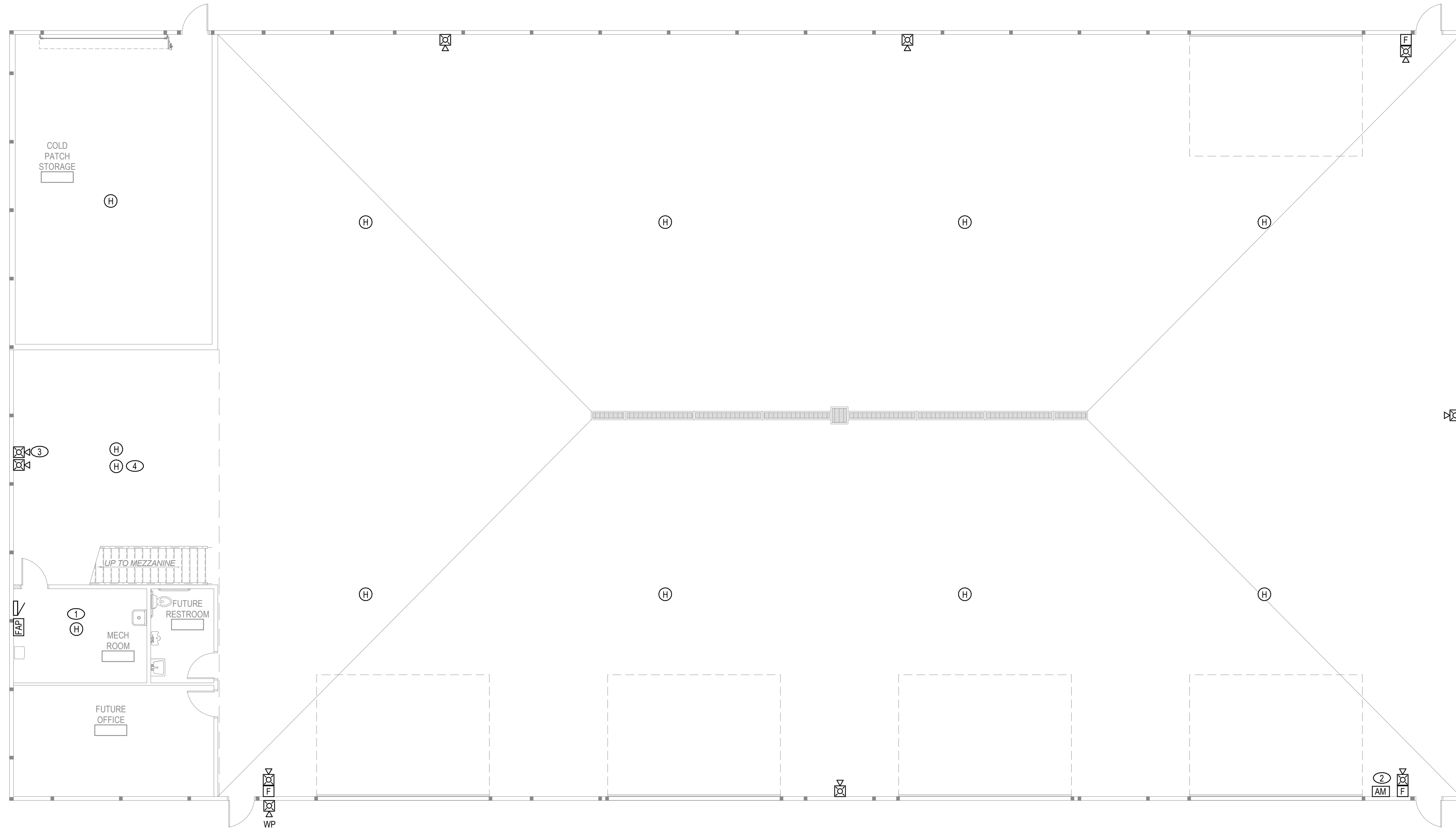
GRUNDY COUNTY HIGHWAY DEPARTMENT
PROPOSED STORAGE BUILDING
MORRIS, ILLINOIS

FIRST FLOOR PLAN -
ELECTRICAL POWER

BID SET

CURRENT AS OF: 06/19/26	
SCALE: AS NOTED	SHEET E-3
FILE NO.: 2487.00	Y- OF

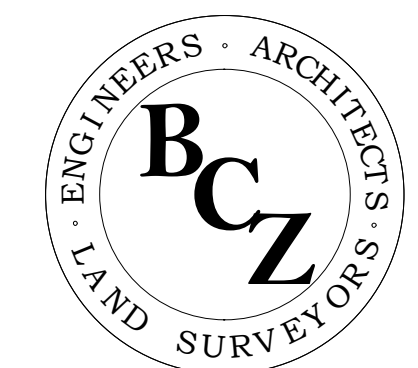
- KEYED NOTES:**
1. ALTERNATE BID 1: FURNISH AND INSTALL HEAT DETECTOR IN MECHANICAL ROOM AS SHOWN.
 2. FURNISH AND INSTALL ADDRESSABLE FIRE ALARM MONITOR MODULES AT THE FIRE SUPPRESSION DRY SYSTEM CONTROL PANEL TO MONITOR ALARM, SUPERVISORY, AND TROUBLE SIGNALS AT THE FIRE ALARM CONTROL PANEL. COORDINATE EXACT REQUIREMENTS WITH THE FIRE PROTECTION CONTRACTOR.
 3. ALTERNATE BID 1: FURNISH AND INSTALL FIRE ALARM NOTIFICATION DEVICE ON MEZZANINE LEVEL.
 4. ALTERNATE BID 1: FURNISH AND INSTALL HEAT DETECTOR BELOW MEZZANINE.



NOTE:
FINAL FIRE ALARM DEVICE QUANTITIES, LAYOUT, AND LOCATIONS SHALL BE BY CONTRACTOR AND SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK. NEW FIRE ALARM DEVICE SHALL MATCH THE EDWARDS EST SYSTEM INSTALLED IN THE HIGHWAY DEPARTMENT ADMIN BUILDING.

1
FIRST FLOOR PLAN - ELECTRICAL SYSTEMS
 1/8" = 1'-0"

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 Johnston, IA 50131
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**GRUNDY COUNTY HIGHWAY DEPARTMENT
 PROPOSED STORAGE BUILDING**
 MORRIS, ILLINOIS

**FIRST FLOOR PLAN -
 ELECTRICAL SYSTEMS**

BID SET

CURRENT AS OF: 06/19/26		
SCALE: AS NOTED	SHEET	E-4
FILE NO.: 2487.00	Y-	OF

NEW BRANCH PANEL

BRANCH PANELBOARD: LP-2										
LOCATION: MECH. RM.			VOLTAGE: 208/120 Wye			MAIN DEVICE: MCB 200A				
MOUNTING: SURFACE			PHASE: 3			BUS RATING: 200				
ENCLOSURE: NEMA 1			WIRE: 4			NEUTRAL RATING: 100.00%				
FED FROM: MDP			LUGS: Standard			A.I.C. RATING: 10,000				
CKT #	CKT BKR A/P	NOTES	CIRCUIT DESCRIPTION	A	B	C	CIRCUIT DESCRIPTION	NOTES	CKT BKR P/A	CKT #
1										2
3										4
5										6
7										8
9										10
11										12
13										14
15										16
17										18
19										20
21										22
23										24
25										26
27										28
29										30
31										32
33										34
35										36
37										38
39										40
41										42
43										44
45										46
47										48
49										50
51										52
53										54
55										56
57										58
59										60
TOTAL CONNECTED KVA BY PHASE				0 KVA	0 KVA	0 KVA				
TOTAL CONNECTED AMPS BY PHASE				0 A	0 A	0 A				

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	CALCULATED LOAD	PANELBOARD TOTALS
Continuous	0 VA	0.00%	0 VA	TOTAL CONNECTED KVA 0 KVA
				TOTAL CALCULATED KVA 0 KVA
				TOTAL CONNECTED AMPS 0 A
				TOTAL CALCULATED AMPS 0 A

NOTES:

NOTE: ELECTRICAL CONTRACTOR SHALL DETERMINE FINAL CIRCUIT BREAKER SIZES, QUANTITIES, AND CIRCUITING FOR ALL DEVICES AND EQUIPMENT. PANEL SCHEDULE IS SHOWN FOR REFERENCE ONLY.

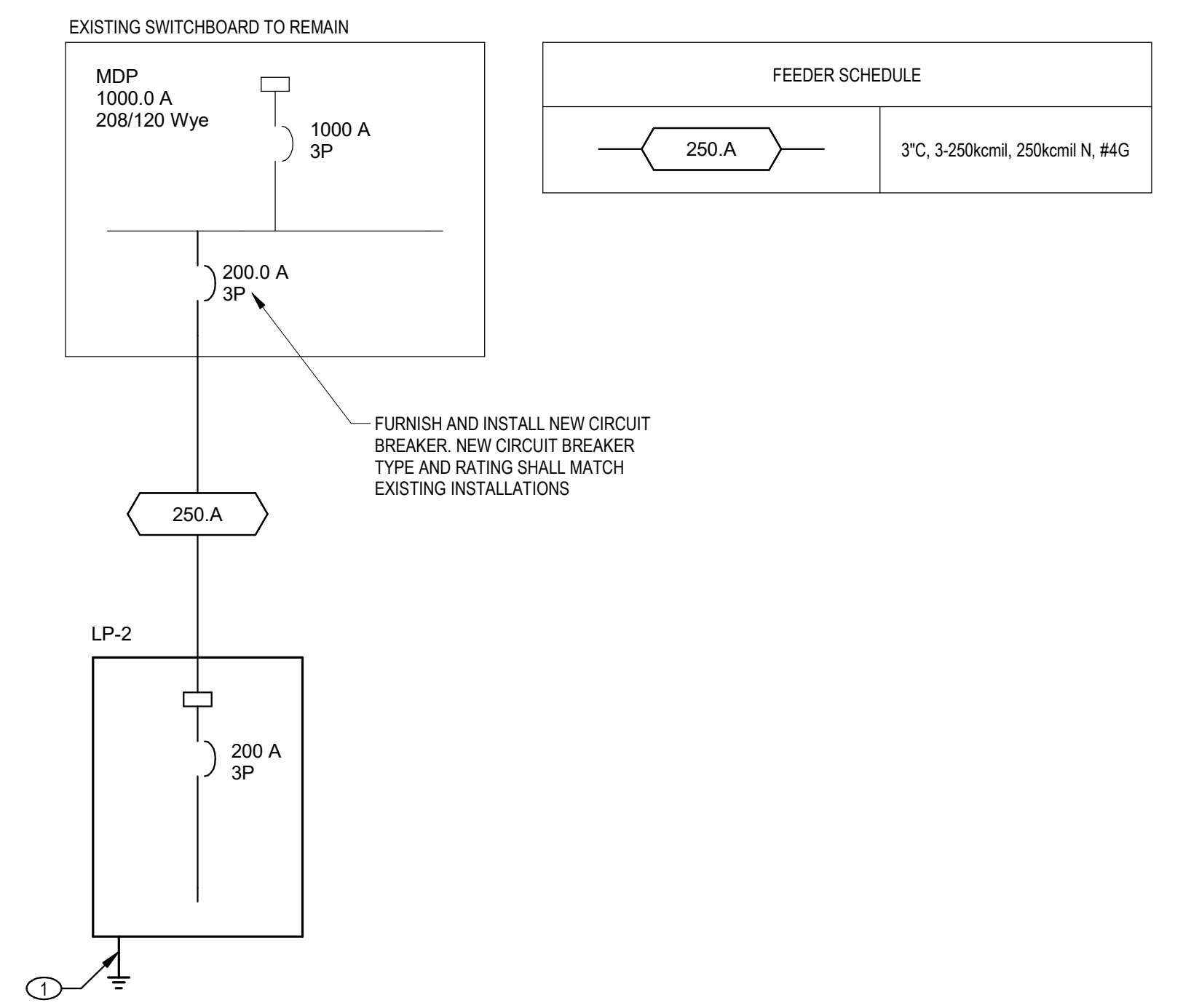
EXISTING DISTRIBUTION PANEL TO REMAIN

DISTRIBUTION PANELBOARD: MDP									
LOCATION: HIGHWAY DEPT GARAGE			VOLTAGE: 208/120 Wye			MAIN DEVICE: MCB			
MOUNTING: FLOOR			PHASE: 3			BUS RATING: 1000 A			
ENCLOSURE: NEMA 1			WIRE: 4			NEUTRAL RATING: 100.00%			
FED FROM: UTILITY			LUGS: Standard			A.I.C. RATING: 65,000			
CKT #	CIRCUIT DESCRIPTION	KVA LOAD PHASE 'A'	KVA LOAD PHASE 'B'	KVA LOAD PHASE 'C'	FRAME	TRIP	POLES	FEEDER RACEWAY & CONDUCTORS	NOTES
1	LP-2	0	0	0	200 A	200 A	3	3" C, 3-250kcmil, 250kcmil N, #4G	N
2	SPACE	--	--	--	--	--	3		
3	SPACE	--	--	--	--	--	3		
4	SPACE	--	--	--	--	--	3		
5	SPACE	--	--	--	--	--	3		
6	SPACE	--	--	--	--	--	3		
7	SPACE	--	--	--	--	--	3		
8	SPACE	--	--	--	--	--	3		
9	SPACE	--	--	--	--	--	3		
10	SPACE	--	--	--	--	--	3		
11	SPACE	--	--	--	--	--	3		
12	SPACE	--	--	--	--	--	3		
13	SPACE	--	--	--	--	--	3		
14	SPACE	--	--	--	--	--	3		
15	SPARE	0	0	0	1000 A	1000 A	3		
16	SPARE	0	0	0	225 A	225 A	3		
17	LP1	0	0	0	200 A	200 A	3		
18	PP1	0	0	0	200 A	200 A	3		
19	SPACE	--	--	--	--	--	3		
20	CA1	0	0	0	400 A	400 A	3		
TOTAL CONNECTED KVA BY PHASE		0 KVA	0 KVA	0 KVA					
TOTAL CONNECTED AMPS BY PHASE		0 A	0 A	0 A					

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	CALCULATED LOAD	PANELBOARD TOTALS
Continuous	0 VA	0.00%	0 VA	TOTAL CONNECTED KVA 0 KVA
				TOTAL CALCULATED KVA 0 KVA
				TOTAL CONNECTED AMPS 0 A
				TOTAL CALCULATED AMPS 0 A

NOTES:

- KEYED NOTES:
- FURNISH AND INSTALL #4 AWG GROUND (GREEN) WIRE IN CONDUIT PER ARTICLE 250 OF THE NEC. CONNECT TO GROUND GRID, WATER SERVICE ENTRANCE, AND REBAR/CONCRETE FOOTING FOUNDATION SYSTEM. ANY INSTALLED GROUNDING CONDUCTOR SHALL NOT BE CONNECTED TO THE EQUIPMENT GROUNDING CONDUCTOR OR TO THE GROUNDING ELECTRODE(S) PER NEC ARTICLE 250.32 (B)(1).



1 ONE LINE DIAGRAM
N.T.S.

FAULT CURRENT SCHEDULE								
DEVICE	FAULT AT DEVICE	AIC RATING	VOLTAGE	FEEDER		TRANSFORMER		
				SIZE	LENGTH	KVA	Z%	FAULT AT PRIMARY
LP-2	5.432	10,000	208V	250kcmil	312'			

VOLTAGE DROP SCHEDULE						
DEVICE	FEEDER		BRANCH CIRCUIT		TOTAL VOLTAGE DROP	
	VOLTAGE DROP	WIRE SIZE	MAX VOLTAGE DROP	CIRCUIT NUMBER		
LP-2	2.16%	250kcmil			2.16%	

ARC-FLASH SCHEDULE				
DEVICE	VOLTAGE	INCIDENT ENERGY	WORKING DISTANCE	ARC-FLASH BOUNDARY DISTANCE
LP-2	208V	0.11 cal/cm²	1'-0"	0'-3"

NOTE: ONE LINE DIAGRAM, VOLTAGE DROP SCHEDULE, FAULT CURRENT SCHEDULE, AND ARC FLASH SCHEDULE IS SHOWN FOR REFERENCE ONLY. FINAL FEEDER SIZES, CONDUIT SIZES, CONDUCTOR MATERIALS, AND GROUNDING ARRANGEMENT SHALL BE BY THE ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING AVAILABLE FAULT CURRENT AT THE SITE.

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GRUNDY COUNTY HIGHWAY DEPARTMENT
PROPOSED STORAGE BUILDING
MORRIS, ILLINOIS

ELECTRICAL PANEL
SCHEDULES AND ONE
LINE DIAGRAM

BID SET

CURRENT AS OF: 06/19/26

SCALE: AS NOTED SHEET E-5

FILE NO.: 2487.00 Y- OF

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

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LUMINAIRE SCHEDULE									
TYPE	DESCRIPTION	DELIVERED LUMENS	CRI	CCT	DIMMING	WATTS	VOLTAGE	EMERGENCY BACK-UP	
E1	WALL OR CEILING MOUNTED COMBINATION EXIT/EMERGENCY LIGHT, SINGLE SIDED, THERMOPLASTIC HOUSING, SELF-TESTING/SELF-DIAGNOSTICS, ARROWS/MOUNTING PER PLANS	NA		0 K	NA	14 W	120	BATTERY	
E2	EXIT SIGN, SINGLE OR DOUBLE SIDED, THERMOPLASTIC HOUSING, SELF-TESTING/SELF-DIAGNOSTICS, ARROWS/MOUNTING PER PLANS	NA		0 K	NA	5 W	120	BATTERY	
EM1	INDOOR LED EMERGENCY LIGHTING UNIT, TWO ADJUSTABLE HEADS, SELF-TEST/SELF-DIAGNOSTICS, THERMOPLASTIC HOUSING	NA		0 K	NA	3 W	120	BATTERY	
F1	RECTANGULAR LED HIGH BAY	24,000	80	4000 K	0-10V	174 W	120		
F2	EXTERIOR WALL PACK	6000	80	4000 K	0-10V	15 W	120		
F2E	EXTERIOR WALL PACK, WITH COLD WEATHER BATTERY PACK	6000	80	4000 K	0-10V	15 W	120	BATTERY	
F3	4' LED STRIP LIGHT	5000	80	4000 K	0-10V	38 W	120		

NEMA 5-20R RECEPTACLE SUBSCRIPT SCHEDULE		
SUBSCRIPT	DESCRIPTION	MODEL
W	DUPLEX GROUND FAULT WEATHER RESISTANT RECEPTACLE, SPECIFICATION GRADE WITH DIE-CAST WEATHERPROOF COVER (WHILE IN USE), NEMA 5-20R	HUBBELL LEVITON PASS & SEYMOUR COOPER
G	DOUBLE DUPLEX GROUND FAULT RECEPTACLE, SPECIFICATION GRADE, NEMA 5-20R	HUBBELL LEVITON PASS & SEYMOUR COOPER
G	DUPLEX GROUND FAULT RECEPTACLE, SPECIFICATION GRADE, NEMA 5-20R	HUBBELL LEVITON PASS & SEYMOUR COOPER

FIRE ALARM DEVICE SCHEDULE		
SYMBOL	DESCRIPTION	MODEL
	ADDRESSABLE FIRE ALARM MANUAL PULL STATION, DOUBLE ACTION, RED POLYCARBONATE BODY, KEY RESET, STATUS LED	EDWARDS EST
	ADDRESSABLE MONITOR MODULE, LED INDICATOR, SUPERVISION OF NORMALLY OPEN OR NORMALLY CLOSED CONTACT DEVICE	EDWARDS EST
	FIRE ALARM AUDIOVISUAL NOTIFICATION APPLIANCE, WALL MOUNTED, RED HOUSING WITH "FIRE" MARKING, 4-WIRE	EDWARDS EST
	FIRE ALARM AUDIOVISUAL NOTIFICATION APPLIANCE, WEATHER PROOF WALL MOUNTED, RED WHITE HOUSING WITH "FIRE" MARKING, 4-WIRE	EDWARDS EST
	FIRE ALARM CONTROL PANEL, ADDRESSABLE, SURFACE MOUNT, WITH CELLULAR DIALER.	EDWARDS EST
	HEAT DETECTOR, ADDRESSABLE, RATE-OF-RISE OR FIXED TEMPERATURE SENSOR WITH A 135 OR 155 DEGREE TEMPERATURE ALARM, STATUS LED	EDWARDS EST

GENERAL ELECTRICAL SCHEDULE		
SYMBOL	DESCRIPTION	MANUFACTURER
	CONNECTION TO MECHANICAL EQUIPMENT	MOTOR/EQUIPMENT FURNISHED AND INSTALLED BY M.C.
	ELECTRICAL CONNECTION TO MISC. EQUIPMENT	EQUIPMENT FURNISHED AND INSTALLED BY OTHERS
DIST. PANEL 'MDP'	EXISTING DISTRIBUTION PANEL TO REMAIN, 120/208 VOLT, 3-PHASE, 4-WIRE, NEMA 1 HOUSING, REFER TO ONE-LINE DIAGRAM FOR DETAILS	SQUARE D I-LINE
PANEL 'LP-Z'	NEW BRANCH CIRCUIT PANELBOARD, 208/120V, 3-PHASE, 4-WIRE, NEMA 1 HOUSING, COPPER BUS, COPPER GROUND AND NEUTRAL BUS. REFER TO PANEL SCHEDULES FOR DETAILS.	SQUARE D NQ SERIES SIEMENS EATON
	MANUAL MOTOR SWITCH, COORDINATE VOLTAGE WITH EQUIPMENT SERVED, LOCKABLE IN THE 'OFF' POSITION, WITH MELTING THERMAL OVERLOADS SIZED PER MOTOR NAMEPLATE, COORDINATE NEMA TYPE WITH EQUIPMENT LOCATION. SIZE AND QUANTITY OF POLES SHALL MATCH EQUIPMENT DEVICE IS SERVING.	SQUARE D CLASS 2510 SIEMENS EATON

SWITCH SUBSCRIPT SCHEDULE		
SUBSCRIPT	DESCRIPTION	MODEL
	SINGLE POLE SWITCH, COMMERCIAL GRADE, 20 AMP	ACUITY COOPER HUBBELL LEVITON PASS & SEYMOUR
3	SINGLE POLE THREE WAY SWITCH, COMMERCIAL GRADE, 20 AMP	ACUITY COOPER HUBBELL LEVITON PASS & SEYMOUR
4	SINGLE POLE FOUR WAY SWITCH, COMMERCIAL GRADE, 20 AMP	ACUITY COOPER HUBBELL LEVITON PASS & SEYMOUR
MS	OCCUPANCY SENSOR WALL SWITCH, DUAL TECHNOLOGY, 180 DEGREE COVERAGE, 120/277V	SENSOR SWITCH WATTSTOPPER HUBBELL COOPER

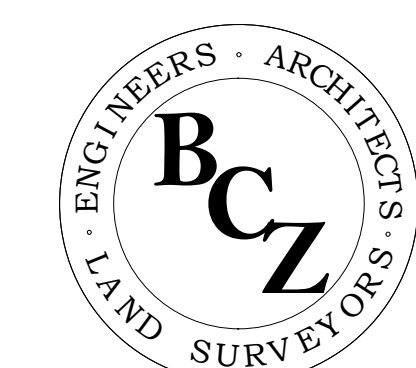
CEILING MOUNTED OCCUPANCY SENSOR SCHEDULE		
SUBSCRIPT	DESCRIPTION	MODEL
D1	DIGITAL OCCUPANCY SENSOR, DUAL SENSING TECHNOLOGIES (PASSIVE INFRARED AND ULTRASONIC OR MIRCOPHONIC), LOW VOLTAGE, CEILING MOUNT, 360 DEGREE COVERAGE, UP TO 1000 SF COVERAGE	ACUITY WATTSTOPPER COOPER HUBBELL

PHOTOCELL SCHEDULE		
SUBSCRIPT	DESCRIPTION	MODEL
PC	EXTERIOR RATED PHOTOCELL, FOR CONTROL OF EXTERIOR WALL PACKS.	ACUITY WATTSTOPPER COOPER HUBBELL TORK

NOTE:
MANUFACTURER SELECTIONS, MATERIALS, AND EQUIPMENT MODELS SHALL BE PER CONTRACTOR'S DESIGN UNLESS SPECIFIC PREFERENCES OR CUT SHEETS ARE INDICATED BY THE OWNER OR ARCHITECT. ANY SELECTIONS INDICATED ON PLANS ARE FOR REFERENCE ONLY.

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GRUNDY COUNTY HIGHWAY DEPARTMENT PROPOSED STORAGE BUILDING
MORRIS, ILLINOIS

ELECTRICAL SCHEDULES

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