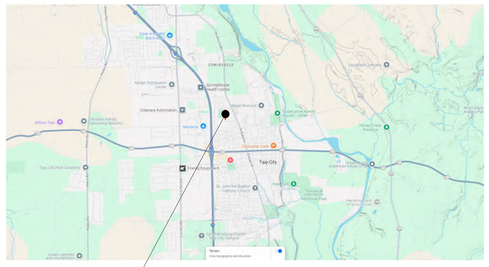
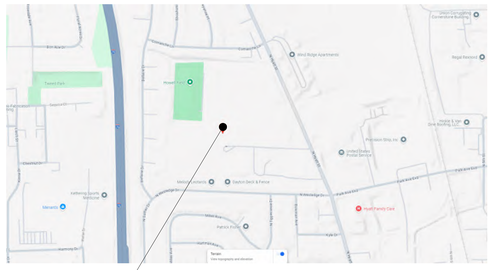
TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N HYATT STREET, TIPP CITY, OH 45371

CONSTRUCTION DOCUMENTS **02/07/2025**



2 G0.1 VICINITY LOCATION MAP
12" = 1'-0"



1 G0.1 SITE LOCATION MAP
12" = 1'-0"

STRUCTURAL ENGINEER:

JEZERINAC GEERS & ASSOCIATES, INC.

5640 FRANTZ RD
DUBLIN, OHIO 43017

PH: (614) 766-0066

CIVIL ENGINEER:

CHOICE ONE ENGINEERING

440 EAST HOEWISHER ROAD
SIDNEY, OHIO 45365

PH: (937) 497-0200

BOARD OF EDUCATION

BOARD PRESIDENT.....AMBER DRUM
BOARD VICE PRESIDENT.....ANGELA MCMURRY
BOARD MEMBER.....RICHARD MAINS, SR.
BOARD MEMBER.....CYNTHIA DILLARD
BOARD MEMBER.....KYLE THOMPSON

ADMINISTRATION

SUPERINTENDENT.....AARON MORAN
TREASURER.....DAVID STEVENS
DIRECTOR - BUSINESS OPERATIONS..KIM HAGEN

ARCHITECTS
MECHANICAL, ELECTRICAL & PLUMBING ENGINEERS
LANDSCAPE ARCHITECTS
TECHNOLOGY DESIGNERS
INTERIOR DESIGNERS
MASTER PLANNING

GARMANN MILLER

38 SOUTH LINCOLN DRIVE
PO BOX 71
MINSTER, OHIO 45865
419.628.4240

1156 DUBLIN ROAD
SUITE 102
COLUMBUS, OHIO 43215
614.502.4240

275 VETERANS WAY
SUITE 200
CARMEL, INDIANA 46032
317.343.9343

1690 BROADWAY
SUITE 19-455
FORT WAYNE, INDIANA
260.299.4240

SHEET INDEX

GENERAL / CIVIL / LANDSCAPE / ARCHITECTURAL / STRUCTURAL / PLUMBING / MECHANICAL / ELECTRICAL / TECH

STATE OF OHIO
ERIC JAMES BALTZELL
E-65072
REGISTERED
PROFESSIONAL ENGINEER

ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

GARMANN MILLER
MINSTER, OHIO | COLUMBUS, OHIO | INDIANAPOLIS, INDIANA | FORT WAYNE, INDIANA
(HEADQUARTERS)

A NEW BUILDING FOR
TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING
575 N HYATT STREET, TIPP CITY, OH 45371

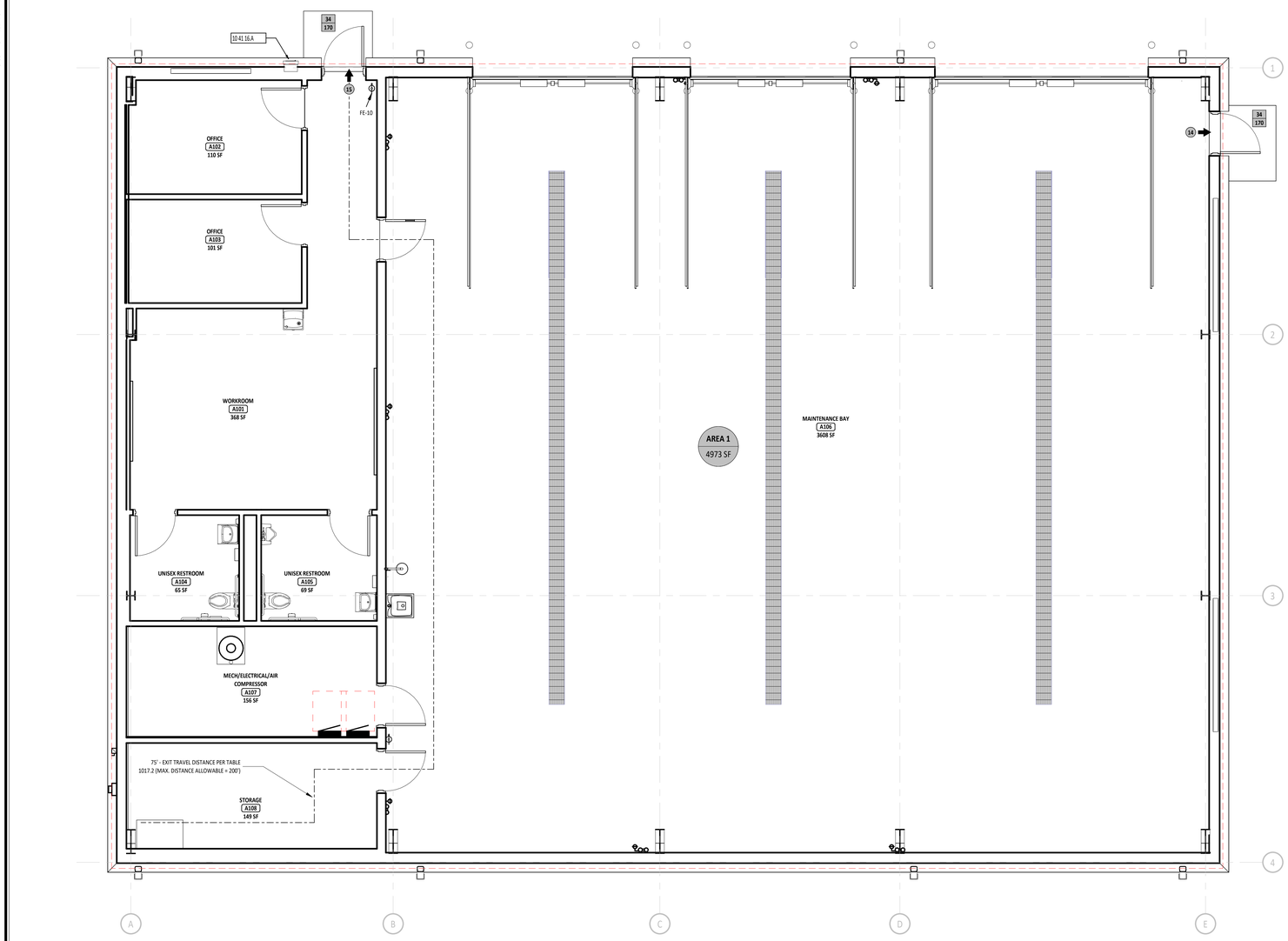
ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	EJS	BW

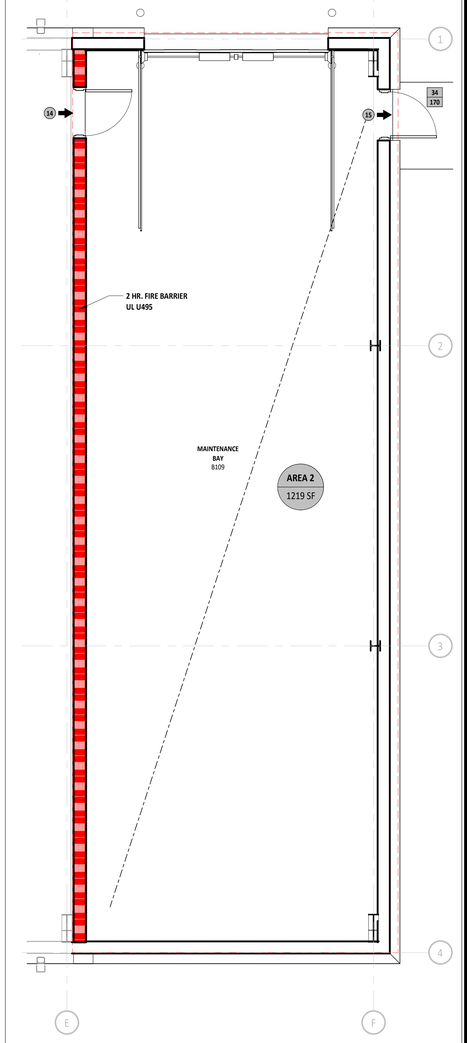
SHEET TITLE:
COVER SHEET

SHEET NUMBER:
G0.1

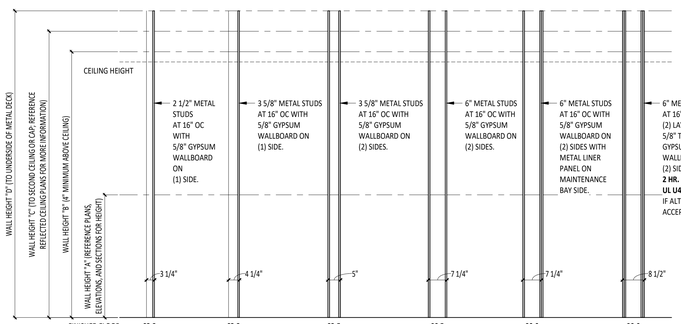
PRINTED ON: 2/7/2025 4:33:20 PM



1 G1.0 FIRST FLOOR CODE PLAN
1/4" = 1'-0"

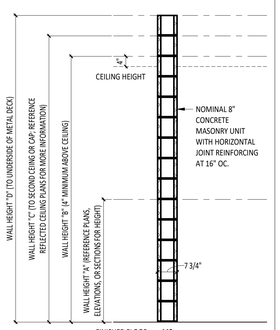


2 G1.0 FIRST FLOOR CODE PLAN - ALTERNATE



REFERENCE FLOOR PLANS FOR LOCATIONS.

4 G1.0 STUD WALL TYPES (S)
1/2" = 1'-0"



REFERENCE FLOOR PLANS FOR LOCATIONS.

5 G1.0 CONCRETE MASONRY WALL TYPES (M)
1/2" = 1'-0"

GENERAL NOTES

A REFERENCE GENERAL CONSTRUCTION NOTES AND SPECIFICATIONS FOR MORE INFORMATION AND BID ALTERNATES.

B REFERENCE SPECIFICATIONS AND DRAWINGS FOR SPECIAL REQUIREMENTS AND CONDITIONS.

C FINISH FIRST FLOOR ELEVATION INDICATED FOR THE NEW WORK IS 100'-0". REFERENCE SITE DRAWINGS FOR RELATIONSHIP TO U.S.G.S. DATUM. ELEVATIONS OF EXISTING ELEMENTS RELATIVE TO 100'-0" SHALL BE FIELD VERIFIED BY THE CONTRACTOR(S). CONTRACTOR(S) SHALL NOTIFY THE CONSTRUCTION MANAGER IMMEDIATELY OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

D THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE WORK IS COMPLETE. CONTRACTOR(S) SHALL DETERMINE THE CONSTRUCTION PROCEDURES AND SEQUENCES AND ENSURE THE INTEGRITY OF THE WORK AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES SHORING, SHEATHING, TEMPORARY ENCLOSURES AND TEMPORARY POSITIVE WATER DRAINAGE FROM THE SITE AND ALL BUILDING ROOFS.

E CONTRACTOR(S) SHALL MAINTAIN ALL LEGAL EGRESS FROM THE WORK TO COMPLY WITH APPLICABLE BUILDING CODES, SAFETY REGULATIONS AND THE DISCRETION OF THE GOVERNING LOCAL BUILDING CODE AUTHORITIES FOR THE HEALTH, SAFETY AND WELFARE OF THE PUBLIC FOR NORMAL ACTIVITIES AND EMERGENCY EGRESS FROM THE WORK. THE CONTRACTOR(S) SHALL FURNISH AND INSTALL ANY TEMPORARY WALLS, DOORS, HARDWARE PARTITIONS, SCREENS, ENCLOSURES AND PEDESTRIAN PROTECTIONS TO MAINTAIN SUCH LEGAL EGRESS.

F CONTRACTOR(S) SHALL VERIFY ALL DIMENSIONS AND CLEARANCES BEFORE PROCEEDING WITH THE WORK. COMMENCEMENT OF THE WORK, BY THE CONTRACTOR(S), CONSTITUTES ACCEPTANCE OF THE EXISTING CONDITIONS. CONTRACTOR(S) SHALL NOTIFY THE CONSTRUCTION MANAGER IMMEDIATELY OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

H DIFFERENT FLOOR FINISH MATERIALS SHALL MEET UNDER THE CENTERLINE OF THE DOOR IN THE CLOSED POSITION UNLESS NOTED OR DETAILED OTHERWISE.

I FURNISH AND INSTALL FLOOR DRAINS 1/2" BELOW FLOOR PERIMETER. SLOPE FINISH FLOOR TO FLOOR DRAINS. REFERENCE PLUMBING DRAWINGS FOR EXACT LOCATIONS.

J FURNISH AND INSTALL CASING BEAD AT ALL LOCATIONS WHERE GYPSUM WALLBOARD ABUTS DISSIMILAR MATERIALS. TYPICAL UNLESS NOTED OR DETAILED OTHERWISE.

K ALL DIMENSIONS ARE MEASURED TO THE FACE OF MASONRY OR THE FACE OF STUD UNLESS NOTED OR DETAILED OTHERWISE.

Q IF FRAME WIDTH DOES NOT MATCH WALL WIDTH, DOOR AND BORROWED LITE FRAMES SHALL BE INSTALLED TO THE CORRIDOR OR PASSAGE SIDE OF THE WALL UNLESS NOTED OR DETAILED OTHERWISE. NON-CORRIDOR OR NON-PASSAGE FRAMES FROM ROOM TO ROOM SHALL BE FURNISHED AND INSTALLED TO THE SIDE OF THE WALL FACING THE LARGER ROOM. REFERENCE DOOR AND WINDOW DETAILS FOR FRAME LOCATIONS RELATIVE TO THE WALL ONLY. DEDICATED WINDOW FRAMES SHALL BE FURNISHED AND INSTALLED TO THE CENTERLINE OF THE WALL CROSS SECTION.

R INTERIOR FINISHES SHALL BE FURNISHED AND INSTALLED IN ACCORDANCE WITH THE LOCAL BUILDING CODE AUTHORITY HAVING JURISDICTION OVER THE WORK, AS WELL AS ALL APPLICABLE FEDERAL, STATE AND LOCAL BUILDING CODES AND REGULATIONS.

S REFERENCE FINISH MATERIAL SCHEDULE FOR ALL INTERIOR FINISHES. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.

U REFERENCE EQUIPMENT PLANS FOR EQUIPMENT MOUNTING HEIGHTS.

V REFERENCE FLOOR PLANS FOR FIRE EXTINGUISHER (FE) AND FIRE EXTINGUISHER CABINET (FEC) LOCATIONS. REFERENCE EQUIPMENT DRAWINGS FOR MOUNTING HEIGHTS.

BB REFERENCE PLUMBING DRAWINGS FOR ALL VENT STACK LOCATIONS. COORDINATE LOCATIONS OF SUCH PENETRATIONS WITH THE CONTRACTOR(S).

II IN THE EVENT OF INCONSISTENCIES WITHIN OR BETWEEN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL PROVIDE THE BETTER QUALITY OR GREATER QUALITY OF WORK AND SHALL COMPLY WITH THE STRICTER REQUIREMENTS.

JJ BASIC DEFINITIONS: 'FURNISH' SHALL MEAN TO PURCHASE AND DELIVER PRODUCT TO THE SITE READY FOR INSTALLATION; 'INSTALL' SHALL MEAN TO TAKE FURNISHED PRODUCT AND ASSEMBLE, ERECT, SECURE IN PLACE, CONNECT IN OPERATION AS APPLICABLE; 'PROVIDE' SHALL MEAN TO FURNISH AND INSTALL.

OCCUPANCY TABULATION PER 2017 OBC TABLE 1004.1.2 - L1 - BASE BID

ROOM NUMBER	NAME	USE GROUP	AREA (GROSS)	OCCUPANT LOAD FACTOR	OCCUPANT(S)	NUMBER OF EXITS
A101	WORKROOM	B	368 SF	15	23	1
A102	OFFICE	B	110 SF	100	2	
A103	OFFICE	B	101 SF	100	2	
A104	UNISEX RESTROOM	B	65 SF	0		
A105	UNISEX RESTROOM	B	69 SF	0		
A106	MAINTENANCE BAY	S-1	3,608 SF	300	13	2
A107	MECH/ELECTRICAL/AIR COMPRESSOR	S-1	156 SF	300	1	
A108	STORAGE	S-1	149 SF	100	2	

OCCUPANCY TABULATION PER 2017 OBC TABLE 1004.1.2 - L1 - ALTERNATE

ROOM NUMBER	NAME	USE GROUP	AREA (GROSS)	AREA (NET)	OCCUPANT LOAD FACTOR	OCCUPANT(S)	NUMBER OF EXITS
B109	MAINTENANCE BAY	S-1	1,115 SF	1115 SF	300	4	1

BUILDING AREA SCHEDULE - BASE BID

AREA NUMBER	LEVEL	AREA	NOTES
AREA 1	FIRST FLOOR	4973 SF	
Grand total		4973 SF	

BUILDING AREA SCHEDULE - ALTERNATE

AREA NUMBER	LEVEL	AREA	NOTES
AREA 2	FIRST FLOOR	1219 SF	
Grand total		1219 SF	

PLUMBING FIXTURE COUNT - BUSINESS

TOTAL OCCUPANT LOAD = 47

FIXTURES REQUIRED
24 / 50 = 1 WATER CLOSET(S) - MALE
24 / 50 = 1 WATER CLOSET(S) - FEMALE
24 / 40 = 1 LAVATORY(IES) - MALE
24 / 40 = 1 LAVATORY(IES) - FEMALE
24 / 100 = 1 DRINKING FOUNTAIN(S)
1 SERVICE SINK(S)

ACTUAL PROVIDED
1 WATER CLOSET(S) - MALE
1 URINAL(S) - MALE
1 LAVATORY(IES) - MALE
1 WATER CLOSET(S) - FEMALE
1 LAVATORY(IES) - FEMALE
1 DRINKING FOUNTAIN(S)
1 SERVICE SINK(S)

CODE PLAN LEGEND

X → OCCUPANT LOAD THROUGH EXIT

XX" → CLEAR EXIT WIDTH
XXX → ALLOWABLE NUMBER OF OCCUPANTS THROUGH EXIT

OCCUPANCY GROUPS USED

B BUSINESS
S STORAGE

CODE INFORMATION

BUILDING DESCRIPTION: NEW BUS GARAGE FOR TIPP CITY SCHOOLS.

APPLICABLE CODE: 2024 OHIO BUILDING CODE

NUMBER OF EXITS
REQUIRED: 2
ACTUAL: 2

DESIGN UNIFORM LOAD: SEE STRUCTURAL SHEETS

BUILDING AREA 1

OCCUPANCY / USE GROUP: S-1
ACCESSORY: B
LESS THAN 10% OF THE MAIN OCCUPANCY

CONSTRUCTION TYPE: TYPE II-B

ALLOWABLE AREA (TABLE 506.2): 17,500 SF

ACTUAL BUILDING AREA 1: 4,9730 SF

BUILDING IS NON-SPRINKLERED

BUILDING AREA 2 - ALTERNATE

OCCUPANCY / USE GROUP: S-1

CONSTRUCTION TYPE: TYPE II-B

ALLOWABLE AREA (TABLE 506.2): 17,500 SF

ACTUAL BUILDING AREA 1: 1,219 SF

BUILDING IS NON-SPRINKLERED
BUILDING AREA 1 AND 2 IS SEPARATED BY A 2 HOUR FIRE BARRIER

202: COMMERCIAL MOTOR VEHICLE = GROSS VEHICLE WEIGHT OF 10,000 LBS OR MORE OR TRANSPORTS 16 OR MORE PASSENGERS.

311.2: MOTOR VEHICLE REPAIR GARAGE = S-1 OCCUPANCY.
MOTOR VEHICLE REPAIR GARAGES COMPLYING WITH THE MAXIMUM ALLOWABLE QUANTITIES OF HAZARDOUS MATERIALS SPECIFIED IN TABLE 307.1(1) (SEE SECTION 406.8)

TABLE 504.3: MAXIMUM HEIGHT FOR TYPE II-B, NON-SPRINKLERED, S OCCUPACY = 55 FT.
TABLE 504.4: MAXIMUM NUMBER OF STORIES FOR TYPE II-B, NON-SPRINKLERED, S-1 = 2 STORIES.
TABLE 506.2: ALLOWABLE AREA FOR TYPE II-B, NON-SPRINKLERED, S-1 = 17,500 SF

903.2.9.1: SPRINKLERS NOT REQUIRED FOR S-1 REPAIR GARAGES WHERE FIRE AREA IS LESS THAN 5,000 SF.

TABLE 307.1(1)
MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD[1] (M, N, P

MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE[5] Solid pounds (cubic feet)	STORAGE[5] Liquid gallons (pounds)	STORAGE[5] Gas (cubic feet at NTP)	USE-CLOSED SYSTEMS[6] Solid pounds (cubic feet)	USE-CLOSED SYSTEMS[6] Liquid gallons (pounds)	USE-CLOSED SYSTEMS[6] Gas (cubic feet at NTP)	USE-OPEN SYSTEMS[6] Solid pounds (cubic feet)	USE-OPEN SYSTEMS[6] Liquid gallons (pounds)
Combustible liquid[4]	II	H-2 or H-3	NA	120[F, K]	NA	NA	120[F]	NA	NA	30[F]
	IIIA	H-2 or H-3		330[F, K]			330[F]			80[F]
	IIIB	NA		13,200[F, K]			13,200[F]			3,300[F]
Flammable gas	Gaseous	H-2	NA	NA	1,000[F, K]	NA	NA	1,000[F, K]	NA	NA
	Liquefied			(150)[F, K]	NA		(150)[F, K]	NA		
Flammable liquid[4]	IA	H-2 or H-3	NA	30[F, K]	NA	NA	30[F]	NA	NA	10[F]
	IB and IC			120[F, K]			120[F]			30[F]
Flammable liquid, combination (IA, IB, IC)	NA	H-2 or H-3	NA	120[F, K, L]	NA	NA	120[F, L]	NA	NA	30[F, L]
Oxidizer	4	H-1	1[K]	(1)[F, K]	NA	0.25[K]	(0.25)[K]	NA	0.25[K]	(0.25)[K]
	3[C]	H-2 or H-3	10[K, L]	(10)[K, L]		2[C]	(2)[C]		2[C]	(2)[C]
	2	H-3	250[C, K]	(250)[C, K]		250[C]	(250)[C]		50[C]	(50)[C]
	1	NA	4,000[K, L]	(4,000)[K, L]		4,000[C]	(4,000)[C]		1,000[C]	(1,000)[C]

STATE OF OHIO
ERIC JAMES BALTZELL
E-65072
REGISTERED
PROFESSIONAL ENGINEER
ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

GARMANN MILLER
MARION, OHIO | COLUMBUS, OHIO | MCDONOUGH, GEORGIA | FORT WAYNE, INDIANA
mmmgfirm.com

NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

574 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	EJS	BW

SHEET TITLE:

CODE PLANS

SHEET NUMBER:

G1.0

PRINTED ON: 2/7/2025 4:33:24 PM

ELEVATION DATUM
ALL ELEVATIONS ARE BASED ON NAVD 88 (ODOT VRS GEOID 18).

GENERAL NOTES AND DETAILS
ALL CONSTRUCTION METHODS, MATERIALS, AND SPECIFICATIONS SHALL COMPLY WITH THE LATEST VERSION OF THE CITY OF TIPP CITY STANDARDS AND SPECIFICATIONS AND/OR THE LATEST VERSION OF THE OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION STANDARDS AND SPECIFICATIONS (INCLUDING CURRENT SUPPLEMENTAL SPECIFICATIONS 800 AND 832), WHICHEVER IS MORE RESTRICTIVE AS DETERMINED BY THE CITY OF TIPP CITY.

UNDERGROUND UTILITIES
THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC. EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION ACCORDING TO THE BEST AVAILABLE DATA. THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING THEM IN THE FIELD PRIOR TO CONSTRUCTION AND WILL BE RESPONSIBLE FOR ANY DAMAGE DONE TO THEM. CONTRACTOR TO CONTACT OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) 48 HOURS PRIOR TO CONSTRUCTION.

NON-MEMBERS MUST BE CALLED DIRECTLY.

UTILITY OWNERSHIP
LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

STREETS, STORM SEWER, WATER, AND SANITARY
CITY OF TIPP CITY
260 S GARBER DRIVE
TIPP CITY, OHIO 45371
(937) 637-6305
ATTN: ERIC MACK

ELECTRIC
CITY OF TIPP CITY
260 S GARBER DRIVE
TIPP CITY, OHIO 45371
(937) 637-6305
ATTN: JERRY GEE

ELECTRIC
AES OHIO
1900 DRYDEN ROAD
DAYTON, OHIO 45439
(937) 331-4521
ATTN: WILLIAM GOURLEY

CABLE
CHARTER COMMUNICATIONS
3691 TURNER ROAD
DAYTON, OHIO 45415
(937) 396-8611
ATTN: MARY EVANS

TELEPHONE
FRONTIER
117 BURGUNDY DRIVE
UNION, OHIO 45322
(937) 833-0468
ATTN: CHARLES BERNACCHI

CABLE
METRONET
100 HARRISBURG ROAD
ENGLEWOOD, OHIO 45322
(812) 213-1318
ATTN: JEROD INGLES

GAS
CENTERPOINT ENERGY
6500 CLYO ROAD
CENTERVILLE, OHIO 45459
(317) 718-3639

OHIO UTILITIES PROTECTION SERVICE 2 WORKING DAYS BEFORE YOU DIG CALL TOLL FREE 800-362-2764

UTILITY INTERFERENCE
IF, DURING THE CONSTRUCTION, INTERFERENCE ARISES WITH EXISTING UTILITIES IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY AND COORDINATE AS NEEDED WITH THE UTILITY COMPANY INVOLVED. ANY AND ALL WORK REQUIRED FOR PRIVATE UTILITIES SHALL BE COORDINATED WITH AND, IF REQUIRED, DONE BY THEIR RESPECTIVE OWNERS, UNLESS OTHERWISE NOTED ON THESE PLANS. THE CONTRACTOR SHALL NOTIFY, AT LEAST 7 DAYS BEFORE BREAKING GROUND, ALL PUBLIC SERVICE CORPORATIONS HAVING WIRES, POLES, PIPES, CONDUITS, MANHOLES, OR OTHER STRUCTURES THAT MAY BE AFFECTED BY THIS OPERATION, INCLUDING ALL STRUCTURES WHICH ARE AFFECTED AND NOT SHOWN ON THESE PLANS.

EXISTING TILE HOOKUPS
THE DRAINAGE TILE CURRENTLY CONNECTED TO THE EXISTING STORM SEWER SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. ANY DRAINAGE TILE DAMAGED BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR TO A CONDITION EQUAL TO OR BETTER THAN ITS ORIGINAL CONDITION. ALL TILE REMOVED, REPLACED AND/OR CONNECTED TO THE STORM SEWER SHALL BE NOTED ON THE RECORD DRAWINGS AND SHALL BE INSPECTED BY THE CITY OF TIPP CITY BEFORE THEY ARE COVERED.

ALL FIELD OR STORM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS OR PLUGGED AS APPROVED AND DIRECTED BY THE CITY OF TIPP CITY. CONNECTION OF INTERSECTING DRAIN TILES AND THE PROPOSED STORM SEWER SHALL BE THROUGH MANUFACTURED TEES, UNLESS OTHERWISE APPROVED BY THE CITY OF TIPP CITY. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

GEOTECHNICAL ENGINEERING REPORT
CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT FOR THE PROPOSED PROJECT AND PERFORM ALL GEOTECHNICAL WORK IN ACCORDANCE WITH THIS REPORT.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES
WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, CITY OF TIPP CITY SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT THE EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, CITY OF TIPP CITY SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTORS OVERALL LUMP SUM BID FOR THE PROJECT.

MUD
THE TRACKING OR SPILLAGE OF MUD, DIRT, OR DEBRIS UPON PUBLIC STREETS IS PROHIBITED AND ANY SUCH OCCURRENCE SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR.

EXISTING UTILITY CONFLICT NOTE
IF A CONFLICT ARISES WITH EXISTING UTILITIES, THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND APPROPRIATE UTILITY COMPANY TO GET THE CONFLICT RESOLVED.

UTILITY STATEMENT
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. CHOICE ONE ENGINEERING CORPORATION MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN-SERVICE OR ABANDONED. CHOICE ONE ENGINEERING CORPORATION FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. CHOICE ONE ENGINEERING CORPORATION HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

CAD FILE DISCLAIMER
THE CAD FILE ASSOCIATED WITH THESE CONSTRUCTION PLANS IS A NON-CERTIFIED DOCUMENT. ANY USE OF THE INFORMATION OBTAINED OR DERIVED FROM THE ASSOCIATED CAD FILE WILL BE AT THE RECEIVING PARTY/USER'S RISK. CHOICE ONE ENGINEERING CORP. OFFERS NO WARRANTY AS TO THE ACCURACY OF THE INFORMATION IN THE CAD FILE OR THAT REVISIONS HAVE BEEN ISSUED AFTER THE CAD DRAWING WAS RELEASED. RECEIVING PARTIES/USERS SHALL HOLD HARMLESS TO THE MAXIMUM EXTENT ALLOWED BY LAW CHOICE ONE ENGINEERING CORP. FROM ANY USE OF THE CAD FILE BY THE RECEIVING PARTY/USER. IN ALL CIRCUMSTANCES, AND AT ALL TIMES, THE PUBLISHED PAPER AND/OR PDF DRAWINGS FOR THE PROJECT SHALL SUPERSEDE THE CAD FILES. IN THE CASE OF AN INCONSISTENCY BETWEEN THE PUBLISHED PAPER/PDF DRAWINGS AND THE ASSOCIATED CAD FILE, THE PUBLISHED PAPER/PDF DRAWINGS SHALL GOVERN THE PROJECT AND ALL WORK.

SAFETY
THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL SAFETY REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS ALSO THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INITIATE, MAINTAIN, AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS, AND PROGRAMS IN CONNECTION WITH THE WORK.

MASONRY COLLAR
A CONCRETE COLLAR SHALL BE PROVIDED WHERE PROPOSED STORM SEWER PIPE IS CONNECTED TO AN EXISTING PIPE. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

DEWATERING AND BY-PASS PUMPING
ANY DEWATERING, COFFERDAMS, OR PUMPING NECESSARY FOR THE CONSTRUCTION OF ANY ITEMS SHALL BE INCIDENTAL TO THOSE PARTICULAR CONSTRUCTION ITEMS AND SHALL BE INCLUDED IN THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

CLEAN WATER NOTE
ROOF DRAINS, FOUNDATION DRAINS, AND ALL OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SYSTEM ARE PROHIBITED.

SANITARY SEWER/LATERAL NOTE
ALL SANITARY SEWER LINES AND SANITARY LATERALS MUST BE INSTALLED WITH 40 INCHES MINIMUM OF COVER OR BELOW FROST DEPTH WHICHEVER IS GREATER.

STORM SEWER INSTALLATION
THIS WORK CONSISTS OF CONSTRUCTING STORM SEWER. THE CONTRACTOR SHALL PROVIDE ALL TOOLS AND EQUIPMENT REQUIRED FOR INSTALLING THESE ITEMS. THE WORK ALSO INCLUDES FURNISHING ALL MATERIALS, EXCAVATING, BEDDING, LAYING PIPE, JOINTING, BACKFILLING, REMOVAL AND RESTORATION OF DISTURBED FACILITIES AND SURFACES, CURB REPAIR, SIDEWALK REPAIR, PAVEMENT REPAIR (I.E. PAVEMENT IN STREETS, ALLEYS AND DRIVEWAYS), DISPOSAL OF ALL SURPLUS EXCAVATION AND DISCARDED MATERIALS, AND OTHER WORK NECESSARY TO COMPLETE THE ITEMS. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD LOCATE ALL EXISTING STORM SEWER, AND OTHER UTILITIES, PRIOR TO INSTALLING THE PROPOSED STORM SEWER SYSTEM. THE EXISTING STORM SEWER AND LATERALS SHOWN ON THE PLANS ARE IN THE APPROXIMATE LOCATION AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD LOCATE PROPOSED TIE-INS TO THE EXISTING STORM PRIOR TO ANY STORM SEWER CONSTRUCTION. ALL TIE-INS SHALL BE THROUGH PREMANUFACTURED TEES OR HOLES INSTALLED USING A CORING MACHINE. PIPE MAY BE ANY OF THE PIPE TYPES LISTED BELOW UNLESS OTHERWISE SPECIFIED ON THE PLANS.

TYPES OF PIPE PERMITTED	ODOT MATERIALS NUMBERS
CORRUGATED POLYETHYLENE SMOOTH-LINED PIPE (CPSLP)	707.33
POLYPROPYLENE CORRUGATED DOUBLE WALL PIPE (PCDWP)	707.65
POLYVINYL CHLORIDE SOLID WALL PIPE (SDR-35)	707.45
REINFORCED CONCRETE PIPE	706.02

GENERAL NOTES
1. INSTALL AND TEST ALL UTILITIES PER THE LATEST VERSION OF THE CITY OF TIPP CITY STANDARDS.

2. ALL DISTURBED AREAS AND ALL NON-PAVEMENT AREAS SHALL HAVE A MINIMUM OF 6" OF TOP SOIL PLACED AND ARE TO BE SEEDED AND MULCHED PER ODOT ITEM 659.

3. ALL CONCRETE USED FOR HEAVY DUTY PAVEMENT(S) AND STANDARD DUTY PAVEMENT(S) SHALL BE ODOT QC-IP AND REINFORCED WITH CONCRETE FIBERS AS SPECIFIED IN THE PROPOSED PAVEMENT SECTION(S) OR AS NOTED HERE. ALL OTHER CONCRETE (WALKS, CURBS, ETC.) SHALL ALSO BE ODOT QC-IP. ALL CONCRETE SHALL BE REINFORCED WITH 3 LBS/CY OF EITHER EUCLID CHEMICAL TUFSTRAND SF, FORTA FERRO FIBRILLATED MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 2" LENGTH, ASPECT RATIO 50 TO 90. CONTRACTOR SHALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES.

4. CONTRACTOR TO BE RESPONSIBLE FOR ANY PERMITS OR FEES THAT MAY BE NECESSARY FOR THE COMPLETION OF THE SITE WORK.

5. ALL WORK SHALL CONFORM WITH ALL FEDERAL, STATE, AND LOCAL ADA REGULATIONS AND STANDARDS.

6. ALL ITEMS ON SITE PLAN SHALL BE CONSTRUCTED PER THE LATEST VERSION OF THE CITY OF TIPP CITY STANDARDS.

STORM AND SANITARY CONDUITS/STRUCTURES AND RELATED WORK
THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 611, PIPE CULVERTS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES, EXCEPT AS HEREIN MODIFIED.

THE INSTALLATION OF ALL STORM SEWER, SANITARY SEWER, AND ALL CORRESPONDING STRUCTURES SHALL BE PER MANUFACTURER'S RECOMMENDATIONS OR AS NOTED ON THE PLANS. THE CONTRACTOR SHALL BE REQUIRED TO MAINTAIN A HIGH STANDARD OF WORK. CONTRACTOR IS RESPONSIBLE TO ENSURE ALL WORK IS PERFORMED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR AS NOTED ON THE PLANS. CONTRACTOR SHALL ALSO ENSURE THAT ALL ITEMS ARE FULLY AND PROPERLY FUNCTIONAL, AND TO A QUALITY ACCEPTABLE TO THE OWNER.

ALL PIPE CULVERTS, CONDUITS, SEWERS, DRAINS, AND DRAINAGE STRUCTURES (CATCH BASINS, YARD DRAINS, MANHOLES, ETC.) SHALL MEET THE MATERIAL REQUIREMENTS OF THIS ITEM. THE FOLLOWING ITEMS WILL NOT BE REQUIRED UNLESS OTHERWISE NOTED: 1) INSTALLATION PLAN, 2) CONSTRUCTION INSPECTION FORMS, 3) PERFORMANCE INSPECTIONS AND REPORTS, 4) CONDUIT AND DRAINAGE STRUCTURE EVALUATIONS.

THE CONTRACTOR SHALL ENSURE THE CONDUIT BEDDING AND BACKFILL COMPACTION DENSITY MEETS ASTM D698 (98% STANDARD PROCTOR). TESTING MAY BE REQUIRED IF DEEMED NECESSARY BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

MAINTAINING TRAFFIC
MAINTAIN TRAFFIC AS INDICATED IN THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", ALSO THE FOLLOWING REQUIREMENTS SHALL APPLY.

EXCAVATIONS WITHIN PUBLIC RIGHT-OF-WAY LIMITS SHALL BE CLOSED AT TIMES WHEN WORK IS NOT BEING PERFORMED.

LOCAL TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT DURING THE TIME THAT AN APPROVED CLOSURE AND DETOUR IS ALLOWED BY THE GOVERNING AUTHORITY.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH ITEM 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLACING NECESSARY TRAFFIC CONTROL DEVICES AND PAVEMENT REPAIR MATERIALS TO MAINTAIN THE TRAVELED PAVEMENT SAFELY.

NO SHUT DOWN OF ANY OWNER FACILITY DRIVE, ROADWAY OR PARKING LOT WILL BE ALLOWED WITHOUT WRITTEN CONSENT FROM THE OWNER. ALL OWNER ROADWAYS MUST HAVE AT LEAST ONE LANE OPEN AT ALL TIMES. NO STAGING OF TRUCKS OUTSIDE OF CONSTRUCTION LIMITS WILL BE PERMITTED WITHOUT CONSENT FROM THE OWNER.

SUBCONTRACTOR SUPERVISION
THE CONTRACTOR IS REQUIRED TO HAVE SOMEONE ON-SITE TO SUPERVISE THE SUBCONTRACTOR FOR QUALITY CONTROL PURPOSES AND TO PROVIDE ANY NECESSARY ASSISTANCE TO THE SUBCONTRACTOR TO ENSURE QUALITY WORK. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

EXCAVATION AND EMBANKMENT
TOPSOIL SHALL BE REMOVED FROM ALL DISTURBED AREAS AND ALL AREAS TO BE EXCAVATED OR EMBANKED. A MINIMUM OF 6" OF TOPSOIL SHALL BE FINE GRADED ON ALL DISTURBED AREAS.

ALL EMBANKMENT SHALL BE COMPACTED TO A MINIMUM OF 100% STANDARD PROCTOR OR AS DETERMINED BY THE OWNER. TESTING MAY BE REQUIRED BY THE OWNER.

SAWCUT PAVEMENT JOINTS
MORE THAN ONE SAWCUT MAY BE NECESSARY TO ENSURE A CLEAN CUT. JUST PRIOR TO ASPHALT OR CONCRETE PLACEMENT, ASPHALT MATERIAL SHALL BE PLACED ON THE VERTICAL FACE OF SAWCUT JOINTS PRIOR TO PAVING AS PER 401.14. AFTER THE ASPHALT WORK IS COMPLETED, THE TRANSVERSE JOINTS SHALL BE SEALED WITH LIQUID ASPHALT.

WATER LINE CROSSING SEPARATION
CONTRACTOR SHALL LOWER/DIP ANY EXISTING OR PROPOSED WATER LINES AS NEEDED TO OBTAIN AN 18" MINIMUM SEPARATION DISTANCE FROM THE WATER LINE TO ANY STORM OR SANITARY SEWER. WATER LINE SHALL BE LAID AT LEAST 10' HORIZONTALLY FROM ANY SEWERS. WHENEVER A SANITARY OR STORM SEWER AND WATER LINE MUST CROSS, THE SEWER AND WATER SHALL BE LAID AT SUCH AN ELEVATION THAT THERE IS AT LEAST 18" OF SEPARATION BETWEEN THE OUTSIDE WALLS OF THE TWO PIPES. ALSO ONE FULL LENGTH OF WATERLINE SHALL BE LOCATED SO THE JOINTS ARE AS FAR FROM THE STORM AND SANITARY SEWERS AS POSSIBLE. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18" VERTICAL SEPARATION, THE SEWER SHALL BE CONSTRUCTED OF WATER LINE TYPE MATERIALS WHICH WOULD BE ABLE TO WITHSTAND A 100 PSI PRESSURE TEST (NOTE: DO NOT PRESSURE TEST SEWER TO 100 PSI). THESE REQUIREMENTS WILL EXTEND FOR THE DISTANCE OF THE ENTIRE SPAN. NO CHANGE OF MATERIALS ARE ALLOWED MID-SPAN. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

PAVEMENT MARKINGS
ALL PAVEMENT MARKINGS SHALL BE PER ODOT ITEM 640 AND 642. ALL PAVEMENT MARKINGS TO BE TYPE 1, UNLESS APPLICATION IS REQUIRED WHEN AIR AND PAVEMENT TEMPERATURES ARE BETWEEN 35 °F AND 50 °F, THEN OBTAIN APPROVAL FROM THE OWNER AND APPLY ONLY PRE-QUALIFIED TYPE IA COLD WEATHER TRAFFIC PAINT MATERIALS PER ITEM 642 AND 740.

ALL MARKING LAYOUT AND COLOR SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

DOWNSPOUTS
THE CONTRACTOR SHALL CONNECT ANY DOWNSPOUTS AS SHOWN ON THE SITE PLAN OR TO THE CLOSEST STORM PIPING OR CATCH BASINS USING CPSLP OR PVC SDR-35 SEWER OR APPROVED EQUAL.

UTILITIES
CONTRACTOR SHALL INSTALL AND/OR COORDINATE THE INSTALLATION OF GAS, ELECTRIC, TELEPHONE, CABLE TELEVISION, FIBER OPTIC, ETC.. CONTRACTOR SHALL CONTACT THE UTILITY COMPANIES PRIOR TO INSTALLATION OF ANY FACILITIES. ALL UTILITIES SHALL BE INSTALLED PER EACH PARTICULAR UTILITY COMPANY'S STANDARDS AND PROCEDURES. CONTRACTOR TO VERIFY ACTUAL SIZES, LOCATIONS (POINTS OF ENTRY INTO THE BUILDING) AND INVERTS OF ALL UTILITIES TYING INTO THE BUILDING WITH ALL ARCHITECT PLANS (BUILDING, PLUMBING, ELECTRICAL, ETC.) BEFORE CONSTRUCTION.

ASPHALT PAVEMENT REPLACEMENT NOTE
ANY EXISTING PAVEMENT THAT IS TO BE REMOVED SHALL BE SAWCUT FULL DEPTH AND RESTORED TO MATCH THE EXISTING PAVEMENT CROSS SECTION UNLESS OTHERWISE NOTED IN THE PLANS.

ASPHALT
ALL ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS SHALL APPLY TO THIS PROJECT EXCEPT FOR ODOT ITEM 401.20 ASPHALT BINDER PRICE ADJUSTMENT (ASPHALT CONCRETE BID ITEMS ARE NOT ELIGIBLE FOR ANY ASPHALT BINDER PRICE ADJUSTMENT).

ALL ASPHALT DELIVERED SHALL BE ACCOMPANIED WITH A LOAD TICKET AS PER ITEM 401.21.

REVIEW OF DRAINAGE FACILITIES
BEFORE FINAL ACCEPTANCE BY THE OWNER, REPRESENTATIVES OF THE OWNER, AND THE CONTRACTOR, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. ALL EXISTING SEWERS INSPECTED BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO PRE-EXISTING CONDITION OF THE SEWER. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE CITY OF TIPP CITY AND/OR OWNER.

ALL NEW CONDUITS, UNDERDRAINS (INCLUDING THE STONE BACKFILL ABOVE THE UNDERDRAIN PIPING), INLETS, CATCH BASINS, MANHOLES, SWALES/DITCHES, AND DETENTION/RETENTION BASINS CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER (INCLUDING SEDIMENT) AND IN A CLEAN CONDITION AND FULLY AND PROPERLY FUNCTIONAL BEFORE THE PROJECT WILL BE ACCEPTED BY THE OWNER.

CLEARING AND GRUBBING
CONTRACTOR TO CLEAR THE AREA AS SHOWN ON THE PLANS AND/OR AS NEEDED TO WORK ON THIS PROJECT. UNLESS STATED ELSEWHERE IN THE PLANS, CLEARING AND GRUBBING IS TO BE KEPT TO A MINIMUM IN ORDER TO PRESERVE THE WOODED AREAS.

MODIFICATIONS
ANY MODIFICATIONS TO THE SPECIFICATIONS OR CHANGES TO THE WORK AS SHOWN ON THE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE OWNER.

RESTORATION
THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY DISTURBED AND/OR DAMAGED AREAS, INCLUDING PAVEMENT, TO CONDITIONS EQUAL TO OR BETTER THAN CONDITIONS PRIOR TO CONSTRUCTION OR TO THE SATISFACTION OF THE OWNER.

MISCELLANEOUS
THE INTENT OF THESE DRAWINGS IS TO INCLUDE ALL ITEMS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK BY THE CONTRACTOR. PERFORMANCE BY THE CONTRACTOR SHALL BE REQUIRED TO THE EXTENT CONSISTENT WITH THE CONTRACT DOCUMENTS AND REASONABLY INFERABLE FROM THEM AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS.

IN THE CASE OF AN INCONSISTENCY BETWEEN DRAWINGS AND SPECIFICATIONS OR WITHIN EITHER DOCUMENT, THE BETTER QUALITY OR GREATER QUANTITY OF WORK SHALL BE PROVIDED IN ACCORDANCE WITH THE OWNER'S REPRESENTATIVE'S INTERPRETATION.

CONTRACTORS SHALL VERIFY ALL GRADES, ELEVATIONS, AND EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION.

CONTRACTOR'S LUMP SUM BID PRICE SHALL INCLUDE ALL ITEMS AND OPERATIONS NEEDED, REQUIRED AND NECESSARY FOR THE PROPER EXECUTION OF THE PROJECT AND TO COMPLETE ALL WORK.

GRAFFITI AND VANDALISM
THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF ANY CONCRETE WORK OR OTHER ITEMS UNDER THIS CONTRACT WHICH IS DEEMED UNACCEPTABLE BY THE OWNER DUE TO GRAFFITI OR VANDALISM DAMAGE.

OWNER COORDINATION NOTES
THE CONTRACTOR SHALL COORDINATE THE PROPOSED WORK WITH THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY WORK ON SITE. IF THE CONTRACTOR IS TO ENGAGE IN ANY OPERATIONS THAT AFFECT THE EXISTING FACILITY OPERATIONS, THE CONTRACTOR SHALL COORDINATE THE SCHEDULING OF SUCH ACTIVITIES WITH THE OWNER'S REPRESENTATIVE PRIOR TO PERFORMING ANY SUCH OPERATIONS OR ACTIVITIES.

THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY SUPPORT, BRACING, AND OTHER DEVICES AS MAY BE REQUIRED OR AS DIRECTED BY OWNER'S REPRESENTATIVE OR THE ENGINEER TO PROTECT THE SAFETY OF THE PUBLIC, ADJACENT STRUCTURES, ROADWAY AND/OR UTILITIES. ALL WORK TO BE COORDINATED WITH THE OWNER'S REPRESENTATIVE.

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ISSUANCES/REVISIONS
CONSTRUCTION DOCUMENTS 2/7/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	JAC	NJS

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:
C0.1

GENERAL NOTES FOR CIVIL WORK

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING AND IS TO INCLUDE SUCH COSTS AS A PART OF THE LUMP SUM PRICE ON THE PROJECT.

2. THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE APPROPRIATE UNDERGROUND UTILITY MARKING SERVICE PRIOR TO THE START OF ANY CONSTRUCTION IN ORDER TO AVOID CONFLICTS WITH EXISTING UTILITIES. IF CONFLICTS ARE DISCOVERED, THE CONTRACTOR IS TO NOTIFY THE OWNER PRIOR TO THE START OF ANY WORK THAT WOULD BE IN CONFLICT WITH THE UTILITIES.

3. THE CONTRACTOR IS TO VISIT AND INVESTIGATE THE PROJECT SITE, PRIOR TO BIDDING, IN ORDER TO DETERMINE THE EXISTING GROUND AND SITE CONDITIONS. FOR SOIL TYPE AND GROUND WATER TABLE, THE CONTRACTOR IS ENCOURAGED TO UTILIZE ANY AVAILABLE DATA TO ESTIMATE GROUND CONDITIONS. SHOULD THE BIDDING CONTRACTOR REQUIRE ADDITIONAL TEST HOLES PRIOR TO BIDDING IN ORDER TO DETERMINE OR VALIDATE GROUND CONDITIONS, THIS CAN BE COMPLETED AT THE DISCRETION OF THE OWNER. NO TEST HOLES ARE TO BE DUG WITHOUT CONTACTING THE OWNER'S REPRESENTATIVE PRIOR TO EXCAVATION AND WITHOUT RECEIVING WRITTEN APPROVAL FROM THE OWNER'S REPRESENTATIVE TO DO SO.

4. THE CONTRACTOR SHALL COMPLY WITH ALL RULES AND REGULATIONS WITH REGARD TO EXCAVATION, SAFETY, QUALITY AND WORK PROGRESS. IT IS THE CONTRACTORS RESPONSIBILITY TO COMPLY WITH THESE THROUGHOUT CONSTRUCTION OPERATIONS.

5. THE LOCATION OF MATERIALS STORED ON SITE MUST RECEIVE THE APPROVAL OF THE OWNER. IN GENERAL, MATERIALS SHOULD BE STORED SO AS TO MINIMIZE THE INCONVENIENCE TO THE OWNER.

6. IF EXCAVATED MATERIALS ARE FOUND TO BE CONTAMINATED, REMEDIATION WILL BE AT THE OWNER'S EXPENSE PRIOR TO REMOVAL FROM THE SITE OR DISPOSAL ON-SITE BY THE CONTRACTOR. THIS PROCESS WILL BE COORDINATED BETWEEN THE OWNER AND CONTRACTOR.

7. TRENCH EXCAVATION SHALL BE PERFORMED IN ACCORDANCE WITH THE BID SPECIFICATIONS AND IN ACCORDANCE WITH ALL APPLICABLE OSHA RULES AND REGULATIONS. IN ADDITION, THE OWNER MAY HAVE ADDITIONAL REQUIREMENTS FOR EXCAVATION AND TRENCHING ON OWNER PROPERTY THAT MAY BE MORE STRINGENT THAN CURRENT LOCAL OR OSHA REQUIREMENTS. IN THIS CASE, THE OWNER'S REQUIREMENTS ARE TO BE FOLLOWED UNLESS THIS ACTION WOULD BE CONSIDERED NON-COMPLIANT WITH CURRENT GOVERNING CODES OR REGULATIONS AS DEFINED BY LOCAL OR GOVERNING AUTHORITIES. WHERE A NON-COMPLIANCE ISSUE IS NOTED, THE CONTRACTOR IS TO MAKE THE OWNER AND ENGINEER AWARE OF THE GOVERNING CODE.

8. THE CONTRACTOR WILL BE RESPONSIBLE TO REPAIR, REPLACE, AND/OR RECONNECT ANY EXISTING DRAINAGE TILES, NOT SHOWN ON THE PLANS, WHICH CROSS THROUGH THE EXCAVATED TRENCH. ANY DRAINAGE TILES ENCOUNTERED ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER AND A MEASUREMENT TAKEN FROM THE NEAREST MANHOLE OR INLET STRUCTURE TO THE CENTERLINE OF THE TILE. THIS INFORMATION SHALL BE PROVIDED TO THE OWNER AS PART OF THE RECORD DRAWINGS.

9. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPAIRS TO ANY UTILITY LINE(S) THAT THE CONTRACTOR DAMAGES UNLESS OTHERWISE CLEARLY THE RESPONSIBILITY OF THE UTILITY COMPANY.

10. THE CONTRACTOR WILL REPLACE ALL DAMAGED OR REMOVED DRIVES AND PAVEMENT WITH THE REQUIRED THICKNESS SHOWN ON THE PLANS OR MATCH EXISTING IF GREATER.

11. ALL DISTURBED LAWN AREAS SHALL BE GRADED TO DRAIN TO THE NEAREST INLET STRUCTURE.

12. CONTRACTOR SHALL USE PROPER EROSION CONTROL TECHNIQUES TO MAINTAIN GRADE PRIOR TO SEEDING.

13. CONTRACTOR TO REFER TO ODOT SPECIFICATION, ITEM 659 FOR SEEDING AND MULCHING UNLESS OTHERWISE SPECIFIED. CONTRACTOR WILL NOT SEED ANY AREA UNTIL OWNER HAS INSPECTED FINAL TOPSOIL GRADING.

14. CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE ALL FENCES, LAWN DECORATIONS, TREES, SHRUBS, PLANTING, VEGETATION ETC. WHICH IS DAMAGED, DISTURBED OR REMOVED DURING CONSTRUCTION.

15. DURING PAVING OPERATIONS, THE CONTRACTOR MUST SUBMIT A WRITTEN PLAN IDENTIFYING DRIVE AREAS WITHIN THE SITE THAT WILL BE SHUT DOWN FOR CONSTRUCTION OPERATIONS PRIOR TO START OF ANY WORK IN THOSE AREAS. CONTRACTOR MUST MAINTAIN A MINIMUM OF ONE LANE FOR TRAFFIC IN ANY AREAS SO DESIGNATED BY THE OWNER THROUGHOUT ALL CONSTRUCTION OPERATIONS.

ITEM 659 SEEDING AND MULCHING, CLASS 1 (LAWN MIXTURE), AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 659, SEEDING AND MULCHING, EXCEPT AS HEREIN MODIFIED.

ALL DISTURBED AREAS OR AREAS DESIGNATED FOR SEEDING SHALL BE GRADED AND SEEDED AND SHALL HAVE A MINIMUM OF 6" OF TOPSOIL OVER THE ENTIRE AREA. TESTING THE PH OF ANY EXISTING OR IMPORTED TOPSOIL PER ODOT 659.02 SHALL BE WAIVED. THE AREA SHALL BE HAND-RAKED AND DRESSED READY FOR SEEDING. NO STONE OVER $1^{9}/_{32}$ IN SIZE PERMITTED IN THE TOP 6".

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL.

IT'S THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE THE REQUIRED GERMINATION RATES AND ENSURE THE GRASS IS ESTABLISHED TO THE SATISFACTION OF THE OWNER WHICH MAY REQUIRE WATERING, REGRADING/ADDING TOPSOIL AND RESEEDING.
ANY AREAS THAT HAVE ERODED OR WHERE NEW GRASS DID NOT GERMINATE SHALL BE ADDRESSED BY THE CONTRACTOR UNTIL THE AREAS ARE STABILIZED, SHAPED, AND DRAINED, AS INDICATED IN THE PLANS.

ANY DISTURBED AREA, OUTSIDE OF THE PROJECT WORK LIMITS, CAUSED BY THE CONTRACTOR'S WORK, SHALL BE RESTORED TO THE SATISFACTION OF THE PROPERTY OWNER AND PROJECT OWNER'S REPRESENTATIVE, AT THE CONTRACTOR'S SOLE EXPENSE.
THIS ITEM INCLUDES: TOPSOIL, SEEDING, MULCHING, COMMERCIAL FERTILIZER, WATER, AND REPAIR SEEDING AND MULCHING.

PAYMENT FOR ITEM 659 SEEDING AND MULCHING, CLASS 1 (LAWN MIXTURE), AS PER PLAN, FOR ALL ABOVE OPERATIONS, SHALL BE INCLUDED IN THE LUMP SUM BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

UTILITY PLAN NOTES

LOCATE EXISTING UTILITIES NOTE:
THIS ITEM OF WORK MAY BE PERFORMED ON AS NEEDED BASIS AND SHALL CONSIST OF THE CONTRACTOR FIELD LOCATING THE VARIOUS EXISTING UTILITY LINES LOCATION, SIZE, AND DEPTH PRIOR TO PERFORMING ANY PROPOSED WORK OR ONCE WORK HAS BEGUN. THIS WORK MAY ALSO REQUIRE THE CONTRACTOR TO INSPECT THE LINES BY OTHER METHODS SUCH AS DYE TESTING OR CAMERA/VIDEO TO FIND THE ORIGIN AND LOCATION OF THE LINE. THE CONTRACTOR SHALL COOPERATE AND COORDINATE WITH THE OWNER AS NEEDED TO ENSURE EXISTING FACILITY OPERATIONS ARE MAINTAINED.

ALL WORK TO BE PER AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND TO BE WITNESSED BY THE OWNER'S REPRESENTATIVE. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

UNKNOWN EXISTING UNDERGROUND UTILITIES:
CONTRACTOR TO BE AWARE THERE MAY BE OTHER UNKNOWN SERVICES OR UNKNOWN UNDERGROUND UTILITIES OR ITEMS WHICH MAY BE LOCATED WITHIN THE SITE AND MAY REQUIRE REMOVAL OR REROUTING IN ORDER TO PERFORM THE PROPOSED PROJECT. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY OF ANY UNKNOWN UNDERGROUND UTILITIES OR OTHER ITEMS WHICH ARE ENCOUNTERED AND WORK WITH THE OWNER TO DECIDE HOW THESE ITEMS SHOULD BE HANDLED.

GAS, ELECTRIC, COMMUNICATION CONFLICT NOTE:
CONTRACTOR TO LOWER/DIP THESE UTILITIES AS NEEDED TO AVOID CONFLICTS WITH ANY PROPOSED OR EXISTING SANITARY OR STORM OR WATER LINES THEY MAY CONFLICT WITH. IF THESE UTILITY LINES CONFLICT WITH ANY PROPOSED OR EXISTING WATERLINES THEN CONTRACTOR TO DETERMINE WHETHER TO LOWER/DIP THE WATERLINE OR LOWER/DIP THE GAS/ELECTRIC/COMMUNICATION LINE(S). CONTRACTOR MAY NEED TO CONSULT WITH AND OBTAIN OWNER'S APPROVAL AS TO WHICH UTILITY WILL BE LOWERED PRIOR TO PERFORMING THIS WORK. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

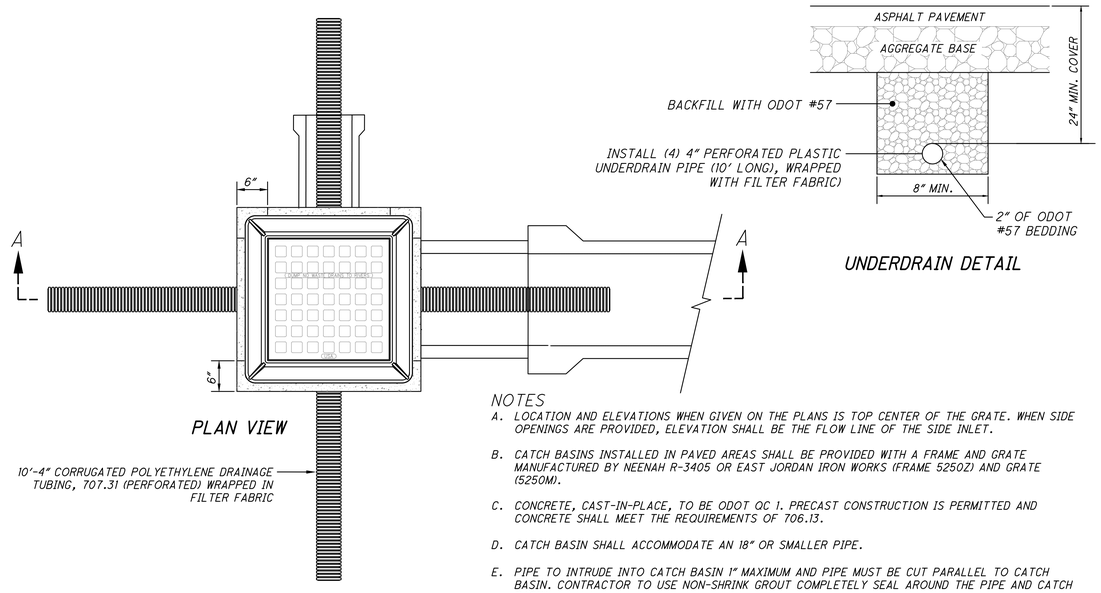
DOWNSPOUT PIPING NOTE:
THE CONTRACTOR SHALL CONNECT ANY DOWNSPOUTS AS SHOWN ON THE SITE PLAN OR TO THE CLOSEST STORM PIPING OR CATCH BASINS USING CPSLP OR PVC SDR-35 SEWER OR APPROVED EQUAL.

ELECTRICAL/MECHANICAL NOTE:
CONTRACTOR SHALL REFER TO THE ELECTRICAL/MECHANICAL DRAWINGS FOR DEMOLITION AND/OR INSTALLATION INFO. OF ALL EXISTING AND PROPOSED ELECTRICAL/MECHANICAL ITEMS FOR THE SITE AND/OR HOW THESE ITEMS ARE TO BE HANDLED AND ADDRESSED.

EXISTING BUILDING STORM, DOWNSPOUTS AND ROOF DRAINS NOTE:
FOR ALL EXISTING ROOF DRAINS AND/OR DOWNSPOUTS FROM THE EXISTING BUILDING, CONTRACTOR SHALL REROUTE AND TIE THEM INTO THE PROPOSED STORM SYSTEM. IF THERE ARE ANY ADDITIONAL ROOF DRAINS OR DOWNSPOUTS DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION, CONTRACTOR SHALL TIE THEM INTO THE PROPOSED STORM SEWER AS NEEDED/REQUIRED AND AS DIRECTED BY THE OWNER.

THERE MAY BE EXISTING STORM LINES IN THE AREA OF THE EXISTING BUILDING(S) THAT PICK UP THE EXISTING DOWNSPOUTS FROM THE EXISTING BUILDING(S). THE SIZE, LOCATION, DEPTH, ROUTING OF THESE EXISTING DOWNSPOUT COLLECTOR LINES IS UNKNOWN. CONTRACTOR SHALL BE AWARE OF THAT THIS PIPING MAY BE PRESENT AND SHALL ENSURE ALL EXISTING DOWNSPOUTS AND THEIR RELATED PIPING REMAINS IN SERVICE THROUGHOUT THE PROJECT, UNLESS OTHERWISE NOTED

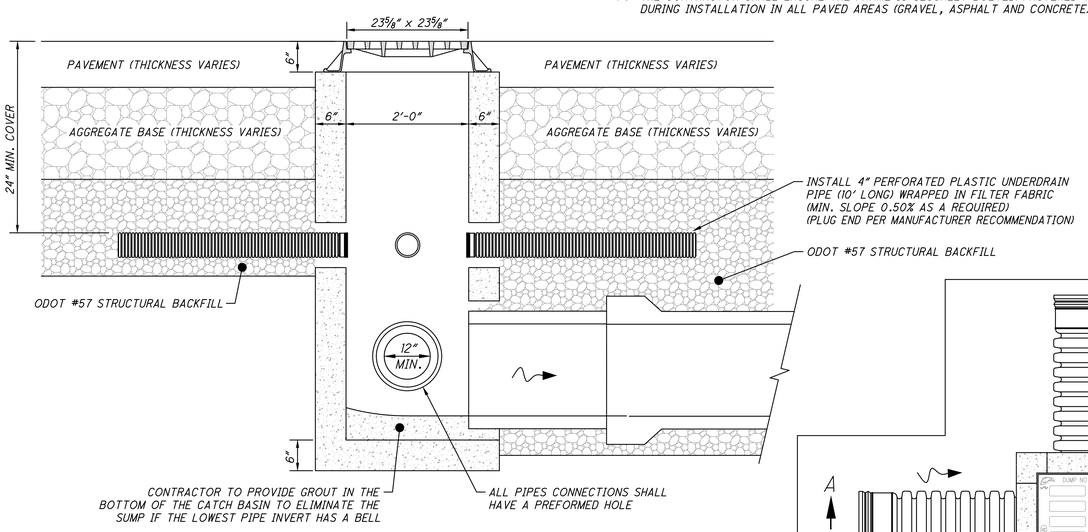
COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.



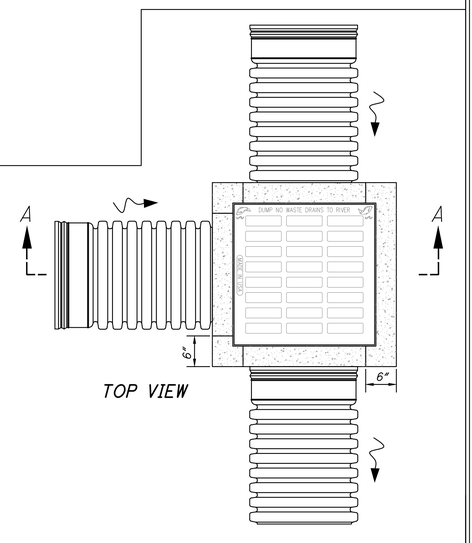
PLAN VIEW

UNDERDRAIN DETAIL

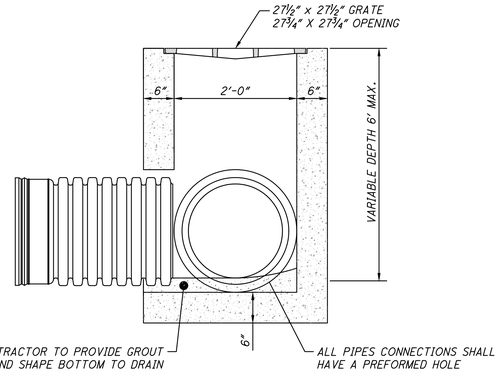
NOTES
A. LOCATION AND ELEVATIONS WHEN GIVEN ON THE PLANS IS TOP CENTER OF THE GRATE. WHEN SIDE OPENINGS ARE PROVIDED, ELEVATION SHALL BE THE FLOW LINE OF THE SIDE INLET.
B. CATCH BASINS INSTALLED IN PAVED AREAS SHALL BE PROVIDED WITH A FRAME AND GRATE MANUFACTURED BY NEENAH R-3405 OR EAST JORDAN IRON WORKS (FRAME 5250Z) AND GRATE (5250M).
C. CONCRETE, CAST-IN-PLACE, TO BE ODOT QC 1. PRECAST CONSTRUCTION IS PERMITTED AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13.
D. CATCH BASIN SHALL ACCOMMODATE AN 18" OR SMALLER PIPE.
E. PIPE TO INTRUDE INTO CATCH BASIN 1" MAXIMUM AND PIPE MUST BE CUT PARALLEL TO CATCH BASIN. CONTRACTOR TO USE NON-SHRINK GROUT COMPLETELY SEAL AROUND THE PIPE AND CATCH BASIN.
F. THE CONTRACTOR SHALL ENSURE THE FRAME IS SECURELY BOLTED/FASTENED TO THE CATCH BASIN DURING INSTALLATION IN ALL PAVED AREAS (GRAVEL, ASPHALT AND CONCRETE).



2-2C CATCH BASIN (PAVED AREAS, WITH UNDERDRAINS)



TOP VIEW



SECTION A-A

NOTES
A. LOCATION AND ELEVATIONS WHEN GIVEN ON THE PLANS IS TOP CENTER OF THE GRATE. WHEN SIDE OPENINGS ARE PROVIDED, ELEVATION SHALL BE THE FLOW LINE OF THE SIDE INLET.
B. CATCH BASINS INSTALLED IN NON-PAVED AREAS SHALL BE PROVIDED WITH A RECESSED GRATE MANUFACTURED BY NEENAH CATALOG NO. R-4859-C (TYPE A) OR EAST JORDAN IRON WORKS 5110 (TYPE M3) OR EQUIVALENT.
C. CONCRETE, CAST-IN-PLACE, TO BE ODOT QC 1. PRECAST CONSTRUCTION IS PERMITTED AND CONCRETE SHALL MEET THE REQUIREMENTS OF 706.13.
D. GRATE ELEVATION TO BE PLACED 4" - 6" BELOW THE NORMAL DITCH LINE RETURNING TO NORMAL 10'-0" ON EACH SIDE OF STRUCTURE.
E. CATCH BASIN SHALL ACCOMMODATE AN 18" OR SMALLER PIPE.
F. PIPE TO INTRUDE INTO CATCH BASIN 1" MAXIMUM AND PIPE MUST BE CUT PARALLEL TO CATCH BASIN. CONTRACTOR TO USE NON-SHRINK GROUT COMPLETELY SEAL AROUND THE PIPE AND CATCH BASIN.

2-2B CATCH BASIN (NON-PAVED AREAS)

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LOVELAND, OHIO 513.239.8554
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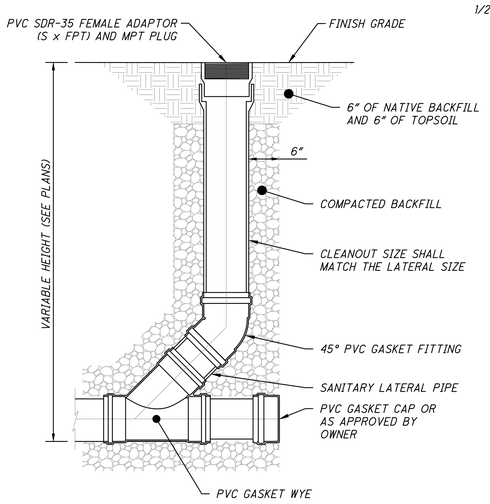
NEW BUILDING FOR
TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING
575 N WYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	2/7/2025

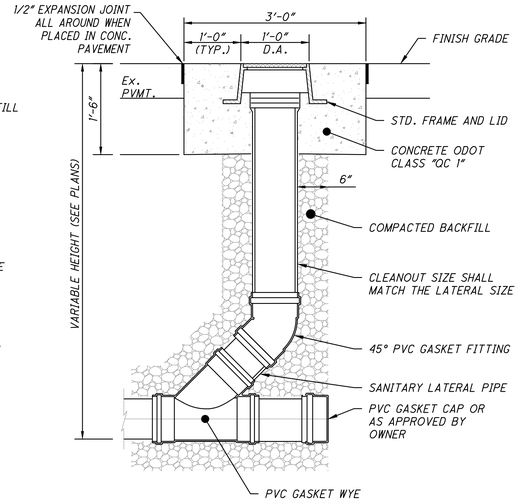
PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	JAC	NJS

SHEET TITLE:
GENERAL NOTES AND DETAILS

SHEET NUMBER:
C0.2



ONE-WAY CLEANOUT DETAIL
(NON-TRAFFIC AREAS)



ONE-WAY CLEANOUT DETAIL
(TRAFFIC AREAS)

NOTES

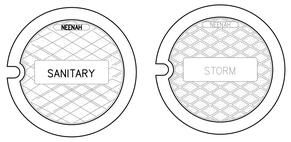
A. CLEANOUT REQUIRED AT THE R/W OR EASEMENT LINE UNLESS OTHERWISE SHOWN IN THE PLANS.

B. CLEANOUT MATERIALS SHALL BE SCH. 40 (GLUED JOINTS) OR SDR-35 PVC AND THE DIA. SHALL MATCH THE LATERAL PIPE DIA.

C. TRACER WIRE REQUIRED FOR EACH SANITARY SEWER LATERAL FROM THE MAIN TO THE CLEANOUT. TRACER WIRE SHALL BE EXTENDED UP THE CLEANOUT RISER TO A POINT JUST BELOW CLEANOUT CAP WHERE A 3/16" HOLE SHALL BE DRILLED THROUGH THE WALL OF THE PIPE.

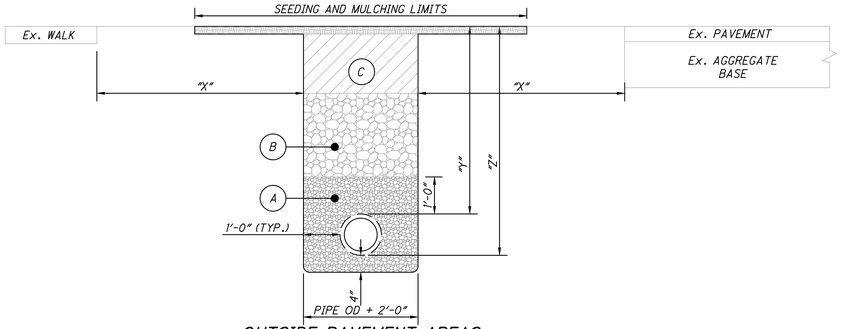
D. CLEANOUT FRAME AND LID SHALL BE NEENAH R-1976, EJIW 1578ZPT FRAME/1578A LID, OR SIGMA VB2276. LID MARKED "SANITARY"

E. THE CLEANOUT AND ALL THE COMPONENTS SHOWN IN THE DETAILS SHALL BE INCLUDED IN THE COST OF ITEM 611 SANITARY SEWER LATERALS.



CLEANOUT LID

CLEANOUT LID

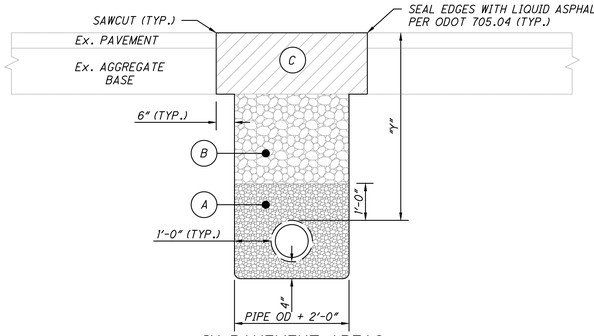


OUTSIDE PAVEMENT AREAS

"X"= DISTANCE FROM EDGE OF TRENCH TO EDGE OF CLOSEST PROPOSED OR EXISTING PAVEMENT, CURB, DRIVEWAYS, ALLEYS, STONE AREA OR WALKS.

"Z"= DISTANCE FROM TOP OF BEDDING TO FINISH SURFACE.

"Y"= DEPTH OF COVER FOR PROPOSED CONDUIT
WATER MAINS.....4'-6" MIN. (REFER TO PROFILE)
STORM SEWERS.....2'-0" MIN. (REFER TO PROFILE)
SANITARY SEWERS.....4'-0" MIN. (REFER TO PROFILE)



IN PAVEMENT AREAS

NOTES

(A.) BEDDING SHALL BE PER ODOT 703.11 "STRUCTURAL BACKFILL FOR 611 BEDDING AND BACKFILL" TYPE 3 (#57 OR #67 AGGREGATE), OR OTHER APPROVED EQUIVALENT BY THE MUNICIPALITY. THERE SHALL BE 4" MIN. BEDDING BELOW THE PIPE. THE FOLLOWING BEDDING MATERIAL SHALL BE USED PER PROPOSED CONDUIT:

- WATER MAIN, WATER SERVICES, FIRE HYDRANTS AND APPURTENANCES - SHALL BE NATURAL CRUSHED STONE OR NATURAL GRAVEL.
- STORM AND SANITARY SEWERS - SHALL BE CRUSHED LIMESTONE OR NATURAL CRUSHED STONE.

(B.) STRUCTURAL BACKFILL - DENSITY TEST TO 95% OF ASTM D698 STANDARD PROCTOR CURVE MAY BE REQUIRED BY MUNICIPALITY TO BE COMPLETED BY A CERTIFIED COMMERCIAL TESTING LABORATORY.

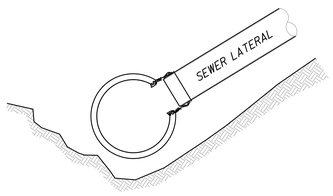
FOR "OUTSIDE PAVEMENT AREAS":
ALL TRENCHES WHERE "X" IS GREATER THAN "Z", THE BACKFILL MATERIAL SHALL BE COMPACTED NATIVE MATERIAL IN 12" MAXIMUM LIFTS OR AS APPROVED BY THE MUNICIPALITY. NO MATERIAL SHALL BE USED FOR BACKFILLING THAT CONTAINS STONE, ROCKS, ETC., GREATER THAN 3" DIAMETER.

ALL TRENCHES WHERE "Z" IS GREATER THAN "X", THE BACKFILL MATERIAL SHALL BE ODOT ITEM 703.11, TYPE 1 (#304 AGGREGATE). THE AGGREGATE SHALL BE COMPACTED IN 12" MAXIMUM LIFTS AND BE USED UNTIL THE BACKFILL HEIGHT RESULTS IN "X" BEING GREATER THAN "Z" AT WHICH TIME NATIVE BACKFILL CAN BE USED.

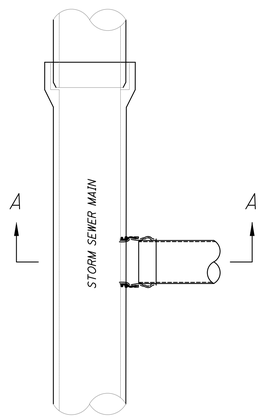
FOR "IN PAVEMENT AREAS":
ALL TRENCHES SHALL HAVE ODOT ITEM 703.11, TYPE 1 (#304 AGGREGATE) BACKFILL PLACED FROM THE TOP OF THE BEDDING TO THE BOTTOM OF THE ROADWAY BASE.

(C.) ALL "OUTSIDE PAVEMENT AREAS" SHALL RECEIVE A MIN. OF 6" OF TOPSOIL OVER THE COMPACTED MATERIAL AND THEN SEEDED PER ODOT 659. ALL "IN PAVEMENT AREAS" SHALL FOLLOW THE CORRESPONDING PAVEMENT COMPOSITION PROVIDED IN THE HATCH LEGEND. THE TRENCH DETAIL SHOWS THE PAVEMENT REPAIR LIMITS. ANY PAVEMENT REPAIR BEYOND THIS WILL BE AT THE COST OF THE CONTRACTOR.

TRENCH DETAIL
NTS



SECTION A-A



NOTES

A. THE INSERTA TEE GASKETED CONNECTION FITTING TYPE SHALL MATCH THE STORM SEWER MAIN MATERIAL AND BE MANUFACTURED BY INSERTA FITTINGS CO. OR EQUAL.

B. RECOMMEND CUTTING HOLE WITH A HOLE SAW FOR PVC PIPE AND A DIAMOND BIT FOR CONCRETE OR CLAY PIPE. THE HOLE SAW SIZE SHOULD FOLLOW THE MANUFACTURERS RECOMMENDATIONS. CONTRACTOR IS RESPONSIBLE TO FIX ANY LOOSE CONNECTIONS DUE TO IMPROPER HOLE SIZE.

C. INSERTA TEES SHALL BE USED WHEREVER POSSIBLE AND BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

INSERTA TEE (LATERAL TO MAIN) CONNECTION
NTS

NOTES

A. WALK TO BE POURED ON 3" MINIMUM ODOT #304 OR ODOT #411 AGGREGATE.

B. PROVIDE EDGING AND BROOM FINISH TO ALL EXPOSED SURFACES.

C. CONCRETE SHALL CONFORM TO ODOT ITEM 499 CONCRETE AND WORK SHALL CONFORM TO ODOT ITEM 608, UNLESS OTHERWISE SPECIFIED WITHIN.

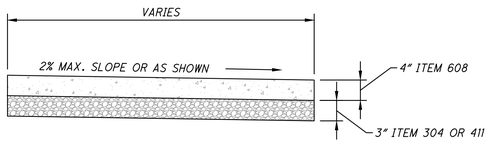
D. USE WHITE PIGMENTED CURING COMPOUND IMMEDIATELY AFTER FINISHING SURFACES. ANY OTHER METHOD OR TYPE OF CURING COMPOUND MUST BE PREAPPROVED.

E. ALL CONCRETE SHALL BE ODOT QC-IP.

F. PROPOSED CONCRETE WALK SHALL BE JOINTED AS CLOSE TO SQUARE AS POSSIBLE. JOINT SPACING MAY VARY SLIGHTLY DEPENDING ON THE LENGTH AND WIDTH OF THE PROPOSED SIDEWALK AREAS. JOINT SPACING SHALL TYPICALLY RANGE FROM 4'X4' TO 10'X10'. IN ALL CASES THE SIDEWALK SHALL BE JOINTED SO THAT THE MAXIMUM ASPECT RATIO (OF PANEL LENGTH TO WIDTH) OF THE JOINTING IS 1.25:1 OR LESS. CONTRACTOR TO VERIFY METHOD AND TYPE OF CONTROL JOINTING WITH OWNER PRIOR TO PERFORMING WORK.

G. SIDEWALK SHALL HAVE EXPANSION JOINTS EVERY 100'.

H. CONCRETE TO INCLUDE 3 LBS/CY OF EITHER EUCLID CHEMICAL TUFSTRAND SF, FORTA FERRO SYNTHETIC MACROFIBERS OR APPROVED EQUIVALENT MEETING ASTM C 1116 TYPE 3, MINIMUM 2" LENGTH, ASPECT RATIO 50 TO 90. CONTRACTOR SHALL CONTACT THE FIBER MANUFACTURER'S SUPPLIER 48 HOURS PRIOR TO ORDERING THE FIRST BATCH OF CONCRETE FOR APPROPRIATE MIXING AND FINISHING PROCEDURES.



CONCRETE WALK
NTS

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SHEET TITLE:
GENERAL DETAILS

SHEET NUMBER:
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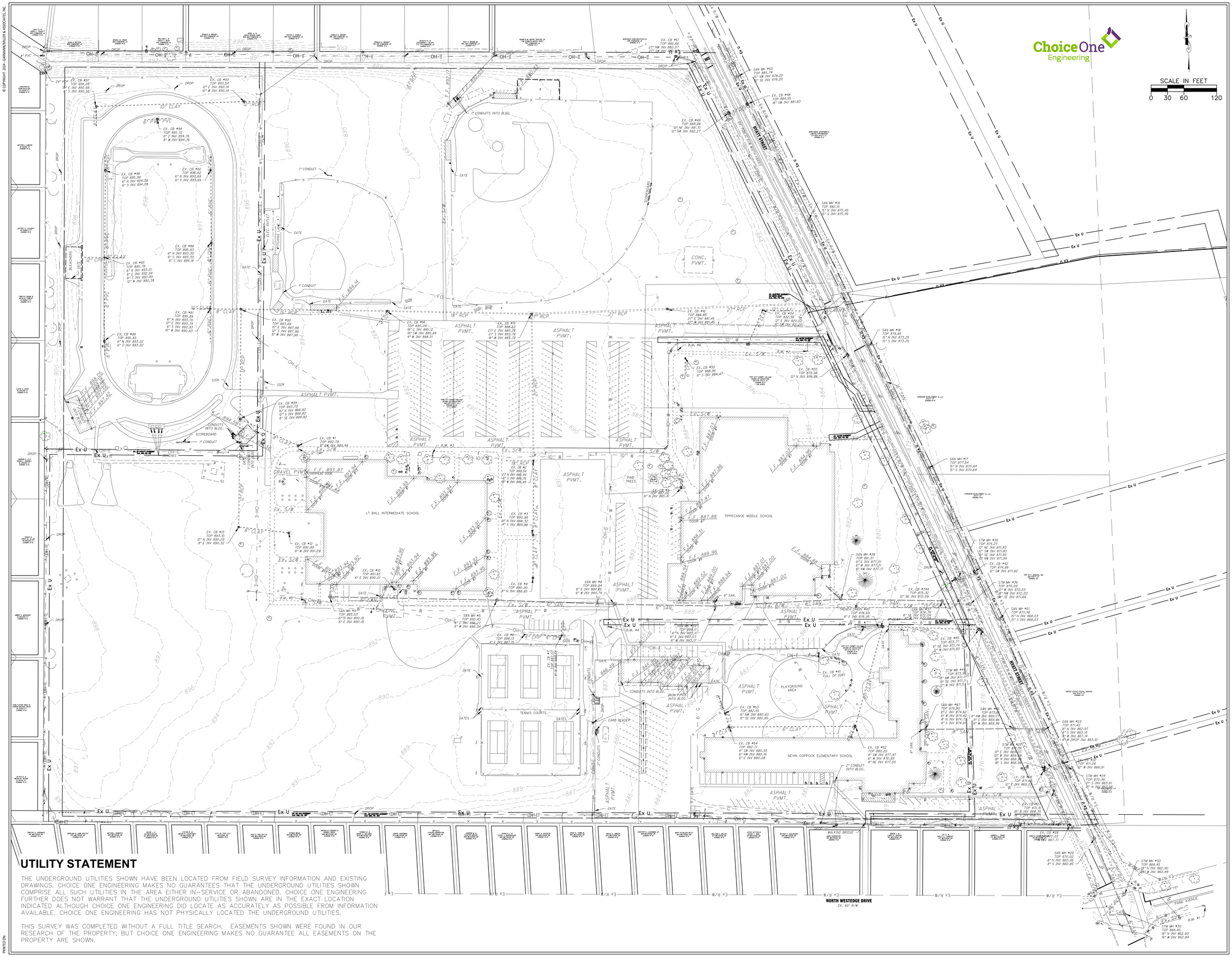

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. CHOICE ONE ENGINEERING MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN-SERVICE OR ABANDONED. CHOICE ONE ENGINEERING FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH CHOICE ONE ENGINEERING DID LOCATE AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. CHOICE ONE ENGINEERING HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

THIS SURVEY WAS COMPLETED WITHOUT A FULL TITLE SEARCH. EASEMENTS SHOWN WERE FOUND IN OUR RESEARCH OF THE PROPERTY, BUT CHOICE ONE ENGINEERING MAKES NO GUARANTEE ALL EASEMENTS ON THE PROPERTY ARE SHOWN.

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SHEET NUMBER:
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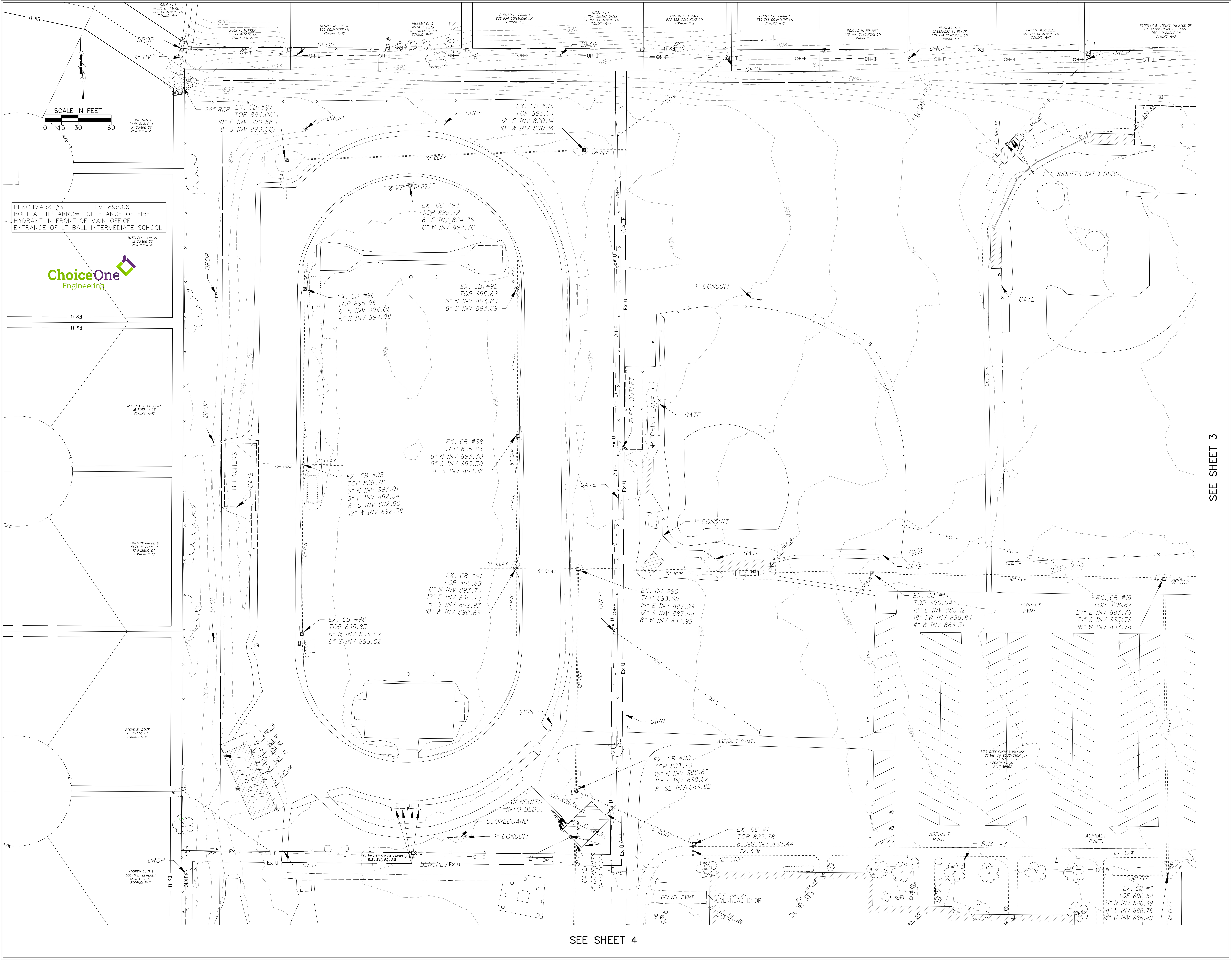

SCALE IN FEET
0 15 30 60
BENCHMARK #3 ELEV. 895.06
BOLT AT TIP ARROW TOP FLANGE OF FIRE
HYDRANT IN FRONT OF MAIN OFFICE
ENTRANCE OF LT BALL INTERMEDIATE SCHOOL.
ChoiceOne Engineering
EX. CB #97
TOP 894.06
10" E INV 890.56
8" S INV 890.56
EX. CB #93
TOP 893.54
12" E INV 890.14
10" W INV 890.14
EX. CB #94
TOP 895.72
6" E INV 894.76
6" W INV 894.76
EX. CB #96
TOP 895.98
6" N INV 894.08
6" S INV 894.08
EX. CB #92
TOP 895.62
6" N INV 893.69
6" S INV 893.69
EX. CB #88
TOP 895.83
6" N INV 893.30
6" S INV 893.30
8" S INV 894.16
EX. CB #95
TOP 895.78
6" N INV 893.01
8" E INV 892.54
6" S INV 892.90
12" W INV 892.38
EX. CB #91
TOP 895.89
6" N INV 893.70
12" E INV 890.74
6" S INV 892.93
10" W INV 890.63
EX. CB #98
TOP 895.83
6" N INV 893.02
6" S INV 893.02
EX. CB #90
TOP 893.69
15" E INV 887.98
12" S INV 887.98
8" W INV 887.98
EX. CB #14
TOP 890.04
18" E INV 885.12
18" SW INV 885.84
4" W INV 888.31
EX. CB #15
TOP 888.62
27" E INV 883.78
21" S INV 883.78
18" W INV 883.78
EX. CB #99
TOP 893.70
15" N INV 888.82
12" S INV 888.82
8" SE INV 888.82
EX. CB #1
TOP 892.78
8" NW INV 889.44
EX. CB #2
TOP 890.54
21" N INV 886.49
8" S INV 886.76
18" W INV 886.49
BLEACHERS
GATE
1" CONDUIT
1" CONDUITS INTO BLDG.
ELEC. OUTLET
PITCHING LANE
SIGN
CONDUITS INTO BLDG.
SCOREBOARD
BENCHES
ASPHALT PVMT.
GRAVEL PVMT.
OVERHEAD DOOR
B.M. #3
TIPP CITY EXEMPTED VILLAGE BOARD OF EDUCATION
SEE SHEET 3
SEE SHEET 4

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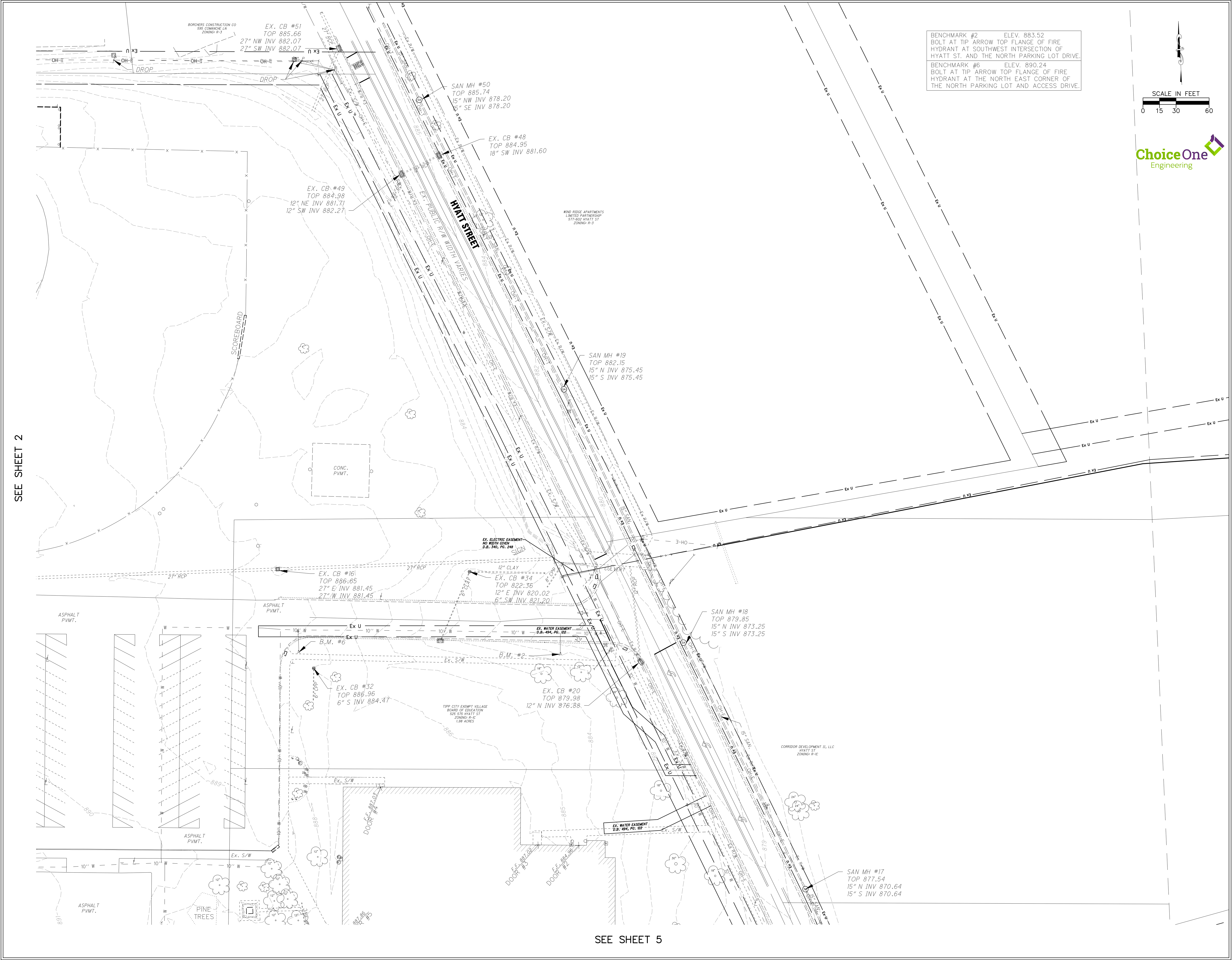

BORCHERS CONSTRUCTION CO
595 COMANCHE LN
ZONING: R-3
EX. CB #51
TOP 885.66
27" NW INV 882.07
27" SW INV 882.07
SAN MH #50
TOP 885.74
15" NW INV 878.20
15" SE INV 878.20
EX. CB #48
TOP 884.95
18" SW INV 881.60
EX. CB #49
TOP 884.98
12" NE INV 881.71
12" SW INV 882.27
HYATT STREET
EX. PUBLIC R/W WIDTH VARIES
WIND RIDGE APARTMENTS
LIMITED PARTNERSHIP
577-602 HYATT ST
ZONING: R-3
SCOREBOARD
SAN MH #19
TOP 882.15
15" N INV 875.45
15" S INV 875.45
CONC.
PVMT.
SEE SHEET 2
EX. ELECTRIC EASEMENT
NO WIDTH GIVEN
D.B. 340, PG. 248
EX. CB #16
TOP 886.65
27" E INV 881.45
27" W INV 881.45
EX. CB #34
TOP 822.36
12" E INV 820.02
6" SW INV 821.20
SAN MH #18
TOP 879.85
15" N INV 873.25
15" S INV 873.25
ASPHALT
PVMT.
EX. WATER EASEMENT
D.B. 494, PG. 122
B.M. #6
B.M. #2
EX. CB #32
TOP 886.96
6" S INV 884.47
EX. CB #20
TOP 879.98
12" N INV 876.88
TIPP CITY EXEMPT VILLAGE
BOARD OF EDUCATION
525 575 HYATT ST
ZONING: R-1C
1.38 ACRES
CORRIDOR DEVELOPMENT II, LLC
HYATT ST
ZONING: R-1C
SAN MH #17
TOP 877.54
15" N INV 870.64
15" S INV 870.64
PINE
TREES
SEE SHEET 5

BENCHMARK #2 ELEV. 883.52
BOLT AT TIP ARROW TOP FLANGE OF FIRE HYDRANT AT SOUTHWEST INTERSECTION OF HYATT ST. AND THE NORTH PARKING LOT DRIVE.

BENCHMARK #6 ELEV. 890.24
BOLT AT TIP ARROW TOP FLANGE OF FIRE HYDRANT AT THE NORTH EAST CORNER OF THE NORTH PARKING LOT AND ACCESS DRIVE.

SCALE IN FEET
0 15 30 60

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BENCHMARK #5 ELEV. 895.50
BOLT AT TIP ARROW TOP FLANGE OF FIRE HYDRANT AT SOUTHWEST CORNER OF LT BALL INTERMEDIATE SCHOOL.

SCALE IN FEET
0 15 30 60

GRANT & KARLA M. KLAN
16 NAVAHO CT
ZONING: R-1C

AMBER S. MCKENZIE
12 NAVAHO CT
ZONING: R-1C

KARLI DAYNE GRILE & JORDAN MICHAEL BOYD
16 SIOUX CT
ZONING: R-1C

OLIVIA D. & MEGAN M. RESOR
12 SIOUX CT
ZONING: R-1C

LT BALL INTERMEDIATE SCHOOL

EX. CB #13
TOP 893.10
12" N INV 890.29
8" E INV 890.32

EX. CB #12
TOP 892.89
8" W INV 891.09

EX. CB #10
TOP 891.83
6" E INV 890.01

EX. CB #3
TOP 890.88
8" N INV 888.32
4" S INV 889.88

EX. CB #4
TOP 890.90
8" N INV 888.85

SAN MH #11
TOP 893.53
6" N INV 890.18
6" E INV 890.18

SAN MH #5
TOP 892.43
6" E INV 886.27
6" W INV 886.34

EX. CB #6
TOP 888.13
4" E INV 887.15

B.M. #5

GATE

TENNIS COURTS

GATES

ASPHALT PVMT.

CONC. PVMT.

EX. 20' GAS EASEMENT D.B. 326, PG. 387

EX. 20' ELECTRIC EASEMENT D.B. 599, PG. 363

NORTH WESTEDGE DRIVE
EX. 60' R/W

TIMOTHY A. SPRINGER
941 WESTEDGE DR
ZONING: R-1C

MARIJAN & LJUBE KRISTIC
933 WESTEDGE DR
ZONING: R-1C

MITCHELL ROBERTS
925 WESTEDGE DR
ZONING: R-1C

DAVID L. & KATHRYN BLACK
917 WESTEDGE DR
ZONING: R-1C

STEVEN R. & MEGAN R. COURTAWAY
911 WESTEDGE DR
ZONING: R-1C

CITY OF TIPP CITY
WESTEDGE DR
ZONING: R-1C

JACK D. PHILLIPS III
899 WESTEDGE DR
ZONING: R-1C

THOMAS WEAD
893 WESTEDGE DR
ZONING: R-1C

MICHELLE SODDERS & ROBERT PRICE
885 WESTEDGE DR
ZONING: R-1C

THOMAS B. & MARIE A. HELLMAN
875 WESTEDGE DR
ZONING: R-1C

JANICE TANGEMAN
873 WESTEDGE DR
ZONING: R-1C

BRYAN & CYNTHIA DENNISTON
867 WESTEDGE DR
ZONING: R-1C

ANDREW M. & SAVETKA BRAZIE
863 WESTEDGE DR
ZONING: R-1C

CHARLES L. & CAROL J. BURGBACHER
855 WESTEDGE DR
ZONING: R-1C

GARRY K. KOOGL
849 WESTEDGE
ZONING: R-1C

SEE SHEET 5

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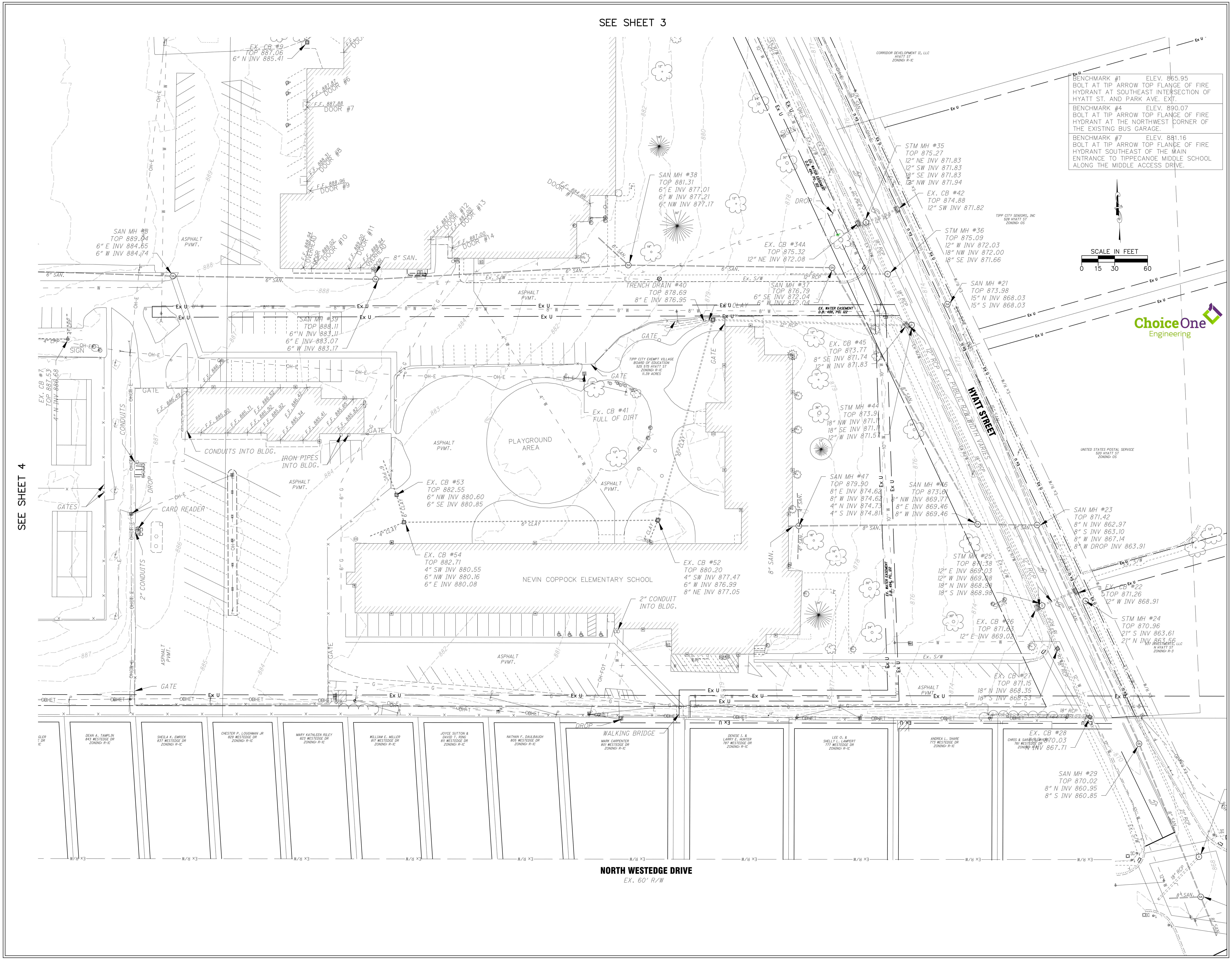
SHEET TITLE:

EXISTING CONDITIONS SW

SHEET NUMBER:

C1.4



STATE OF OHIO
JAKE CORDONNIER
88966
REGISTERED PROFESSIONAL ENGINEER

GARMANN MILLER

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NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

CONSTRUCTION DOCUMENTS	2/7/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	AJP	JAC

SHEET TITLE:

EXISTING CONDITIONS SE

SHEET NUMBER:

C1.5

PRINTED ON:

NOTES:

CONTRACTOR TO VERIFY EXACT LOCATION, DEPTH AND SIZE OF UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY CONFLICTS PRIOR TO THE INSTALLATION OF UTILITIES.

ALL UTILITIES TO BE INSTALLED PER CITY OF TIPP CITY STANDARDS.

CONTRACTOR TO VERIFY AND LOCATE WHERE STORM, SANITARY, AND WATER LATERALS AND ALL OTHER PROPOSED UTILITY SERVICES TIE INTO THE PROPOSED BUILDING PER BUILDING PLANS. CONTRACTOR SHALL ALSO VERIFY THE SIZES AND TYPES OF ALL LATERALS AND HOW THEY MAY TIE INTO THE PROPOSED BUILDINGS.

CONTRACTOR TO FOLLOW ALL PERMIT REQUIREMENTS AND SPECIFICATIONS TO INSTALL THE PROPOSED UTILITIES INCLUDING COORDINATING THE INSTALLATION WITH LOCAL OFFICIALS AS NEEDED AND/OR REQUIRED.

CONTRACTOR TO COORDINATE ALL WORK WITH THE OWNER AS NEEDED/REQUIRED.

EXISTING UTILITY NOTES:

CONTRACTOR SHALL DETERMINE THE TYPE OF SERVICE FOR ALL EXISTING UNDERGROUND LINES THAT ARE ENCOUNTERED DURING CONSTRUCTION AND SHALL ENSURE THE FOLLOWING:

1. THAT ALL EXISTING STORM LINES OR ANY OTHER EXISTING CLEAN WATER DRAINAGE LINES THAT ARE DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION AND ARE OR NEED TO REMAIN IN SERVICE ARE ROUTED AS NEEDED TO ENSURE THAT THEY ARE CONNECTED INTO THE PROPOSED OR EXISTING STORM SEWER.

2. THAT ALL EXISTING SANITARY LINES THAT ARE DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION AND ARE TO REMAIN IN SERVICE ARE ROUTED AS NEEDED TO ENSURE THAT THEY ARE CONNECTED INTO ACTIVE EXISTING SANITARY SEWER LINES/STRUCTURES OR INTO PROPOSED SANITARY SEWER LINES/STRUCTURES.

3. THAT ALL EXISTING WATER LINES THAT ARE DISCOVERED AND/OR ENCOUNTERED DURING CONSTRUCTION AND ARE TO REMAIN IN SERVICE ARE ROUTED AS NEEDED TO ENSURE THAT THEY ARE CONNECTED INTO ACTIVE EXISTING WATER LINES OR INTO PROPOSED WATER LINES.

ALL WORK TO BE PER AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND TO BE WITNESSED BY THE OWNER'S REP. COST OF THIS ITEM SHALL BE INCLUDED IN THE COST OF THE CONTRACTOR'S OVERALL LUMP SUM BID FOR THE PROJECT.

WATER MAIN CROSSING SEPARATION NOTE:

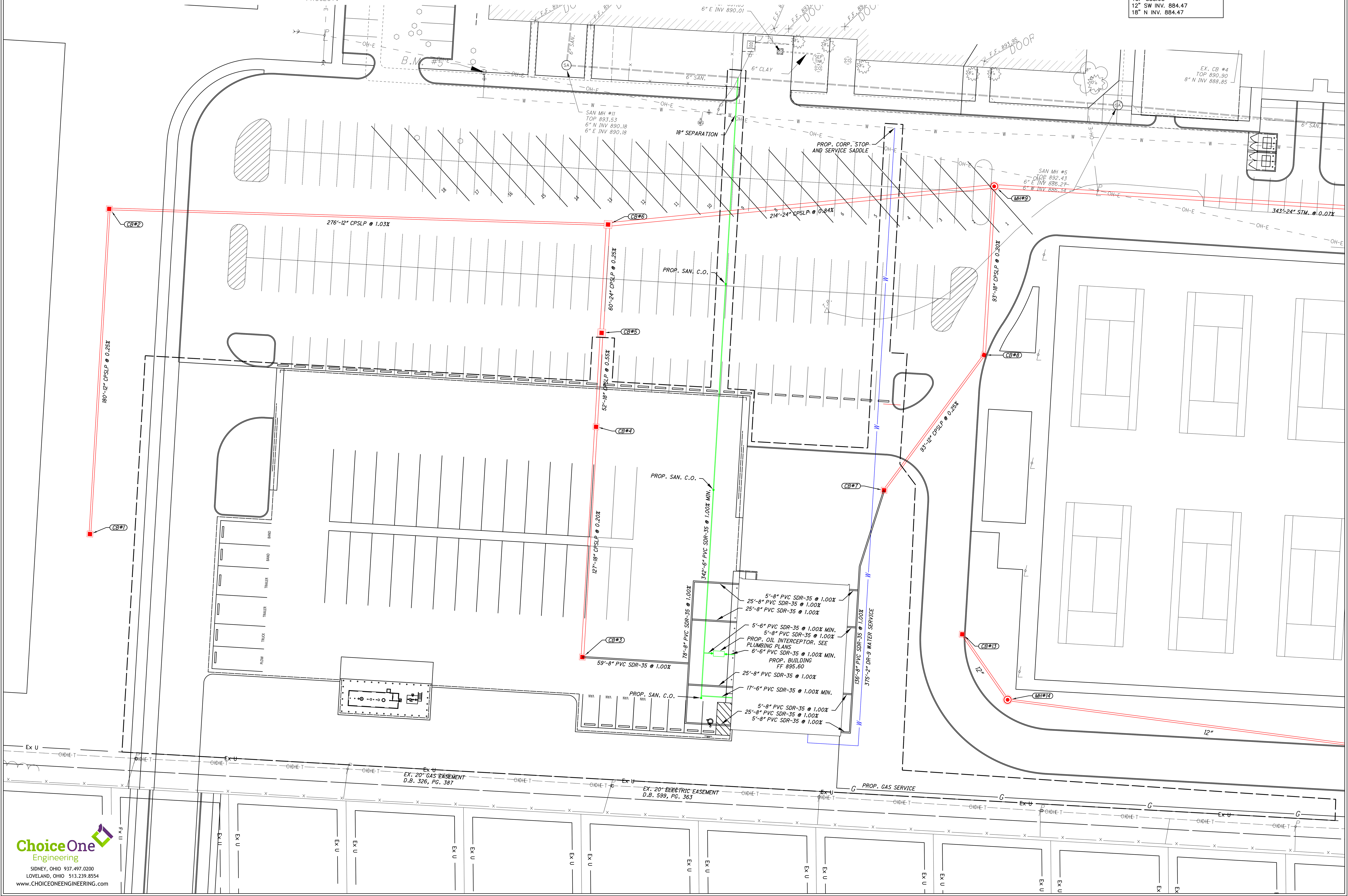
WHENEVER A SANITARY OR STORM SEWER AND WATER LINE MUST CROSS, THE SEWER AND WATER SHALL BE LAID AT SUCH AN ELEVATION THAT THERE IS AT LEAST 18" OF SEPARATION BETWEEN THE OUTSIDE WALLS OF THE TWO PIPES. IF REQUIRED, CONTRACTOR SHALL LOWER/DIP THE WATER MAIN AS NEEDED TO OBTAIN THE 18" MINIMUM SEPARATION DISTANCE. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18" VERTICAL SEPARATION, THE SANITARY SEWER SHALL BE CONSTRUCTED OF WATER LINE TYPE MATERIALS WHICH WOULD BE ABLE TO WITHSTAND A 100 PSI PRESSURE TEST (NOTE: DO NOT PRESSURE TEST SANITARY SEWER TO 100 PSI). THESE REQUIREMENTS WILL EXTEND FOR THE DISTANCE OF THE ENTIRE SPAN. NO CHANGE OF MATERIALS ARE ALLOWED MID-SPAN.

AT CROSSINGS, THE WATER MAIN SHALL HAVE A MINIMUM VERTICAL DISTANCE OF 18" FROM STORM AND SANITARY SEWERS. ALSO ONE FULL LENGTH OF WATER MAIN SHALL BE LOCATED SO THE JOINTS ARE AS FAR FROM THE STORM AND SANITARY SEWERS AS POSSIBLE.

PROPOSED STORM STRUCTURES
#3 TYPE 2-2C CB TOP 892.24 18" N INV. 886.77 8" E INV. 886.77
#4 TYPE 2-2C CB TOP 891.61 18" S INV. 886.52 18" N INV. 886.52
#5 TYPE 2-3 CB TOP 890.85 18" S INV. 886.23 24" N INV. 886.23
#7 TYPE 2-2B CB TOP 889.34 12" NE INV. 884.70 8" S INV. 884.60
#8 TYPE 2-2C CB TOP 888.68 12" SW INV. 884.47 18" N INV. 884.47

SCALE IN FEET

0 10 20 40



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TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	2/7/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	JAC	NJS

SHEET TITLE:

UTILITY PLAN

SHEET NUMBER:

C2.1

NOTES:

CONTRACTOR TO VERIFY EXACT LOCATION, DEPTH AND SIZE OF UTILITIES PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY OWNER OF ANY CONFLICTS PRIOR TO THE INSTALLATION OF UTILITIES.

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SCALE IN FEET
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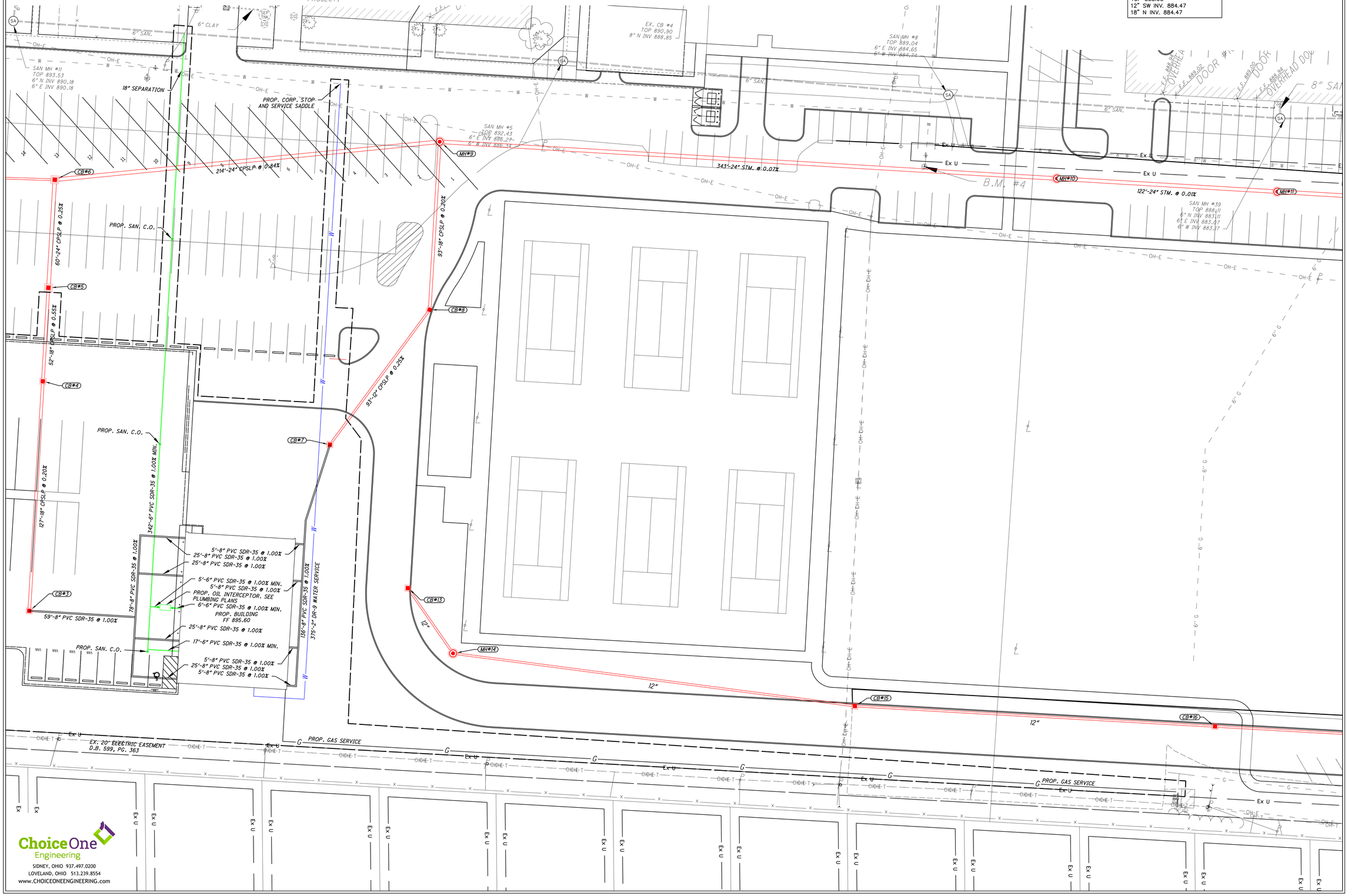

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ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	2/7/2025

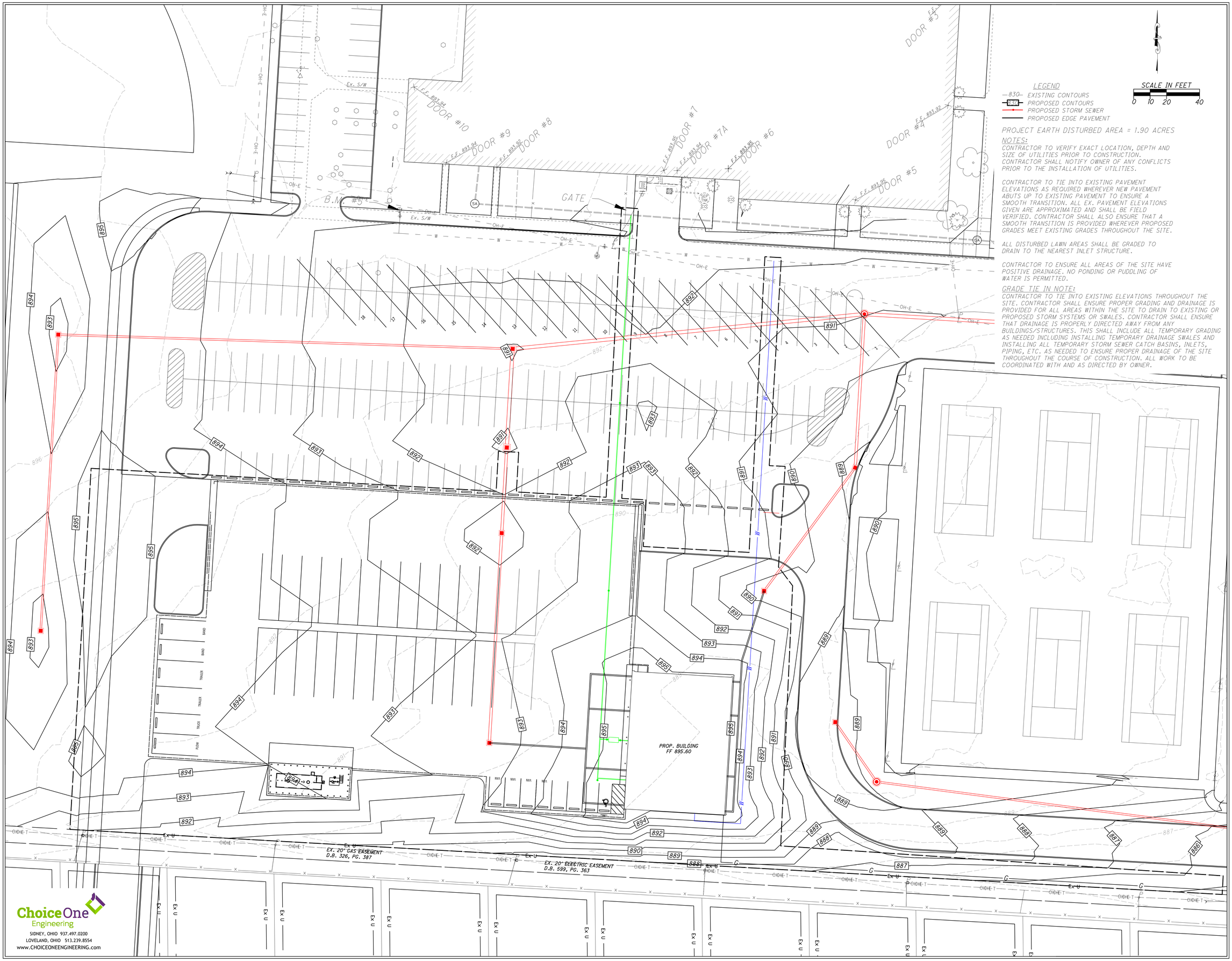
PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	JAC	NJS

SHEET TITLE:

UTILITY PLAN

SHEET NUMBER:

C2.2



LEGEND

- 830 — EXISTING CONTOURS
- 830 — PROPOSED CONTOURS
- PROPOSED STORM SEWER
- PROPOSED EDGE PAVEMENT

SCALE IN FEET
0 10 20 40

PROJECT EARTH DISTURBED AREA = 1.90 ACRES

NOTES:

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CONTRACTOR TO TIE INTO EXISTING PAVEMENT ELEVATIONS AS REQUIRED WHEREVER NEW PAVEMENT ABUTS UP TO EXISTING PAVEMENT TO ENSURE A SMOOTH TRANSITION. ALL EX. PAVEMENT ELEVATIONS GIVEN ARE APPROXIMATED AND SHALL BE FIELD VERIFIED. CONTRACTOR SHALL ALSO ENSURE THAT A SMOOTH TRANSITION IS PROVIDED WHEREVER PROPOSED GRADES MEET EXISTING GRADES THROUGHOUT THE SITE.

ALL DISTURBED LAWN AREAS SHALL BE GRADED TO DRAIN TO THE NEAREST INLET STRUCTURE.

CONTRACTOR TO ENSURE ALL AREAS OF THE SITE HAVE POSITIVE DRAINAGE. NO PONDING OR PUDDLING OF WATER IS PERMITTED.

GRADE TIE IN NOTE:

CONTRACTOR TO TIE INTO EXISTING ELEVATIONS THROUGHOUT THE SITE. CONTRACTOR SHALL ENSURE PROPER GRADING AND DRAINAGE IS PROVIDED FOR ALL AREAS WITHIN THE SITE TO DRAIN TO EXISTING OR PROPOSED STORM SYSTEMS OR SWALES. CONTRACTOR SHALL ENSURE THAT DRAINAGE IS PROPERLY DIRECTED AWAY FROM ANY BUILDINGS/STRUCTURES. THIS SHALL INCLUDE ALL TEMPORARY GRADING AS NEEDED INCLUDING INSTALLING TEMPORARY DRAINAGE SWALES AND INSTALLING ALL TEMPORARY STORM SEWER CATCH BASINS, INLETS, PIPING, ETC. AS NEEDED TO ENSURE PROPER DRAINAGE OF THE SITE THROUGHOUT THE COURSE OF CONSTRUCTION. ALL WORK TO BE COORDINATED WITH AND AS DIRECTED BY OWNER.

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ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	2/7/2025

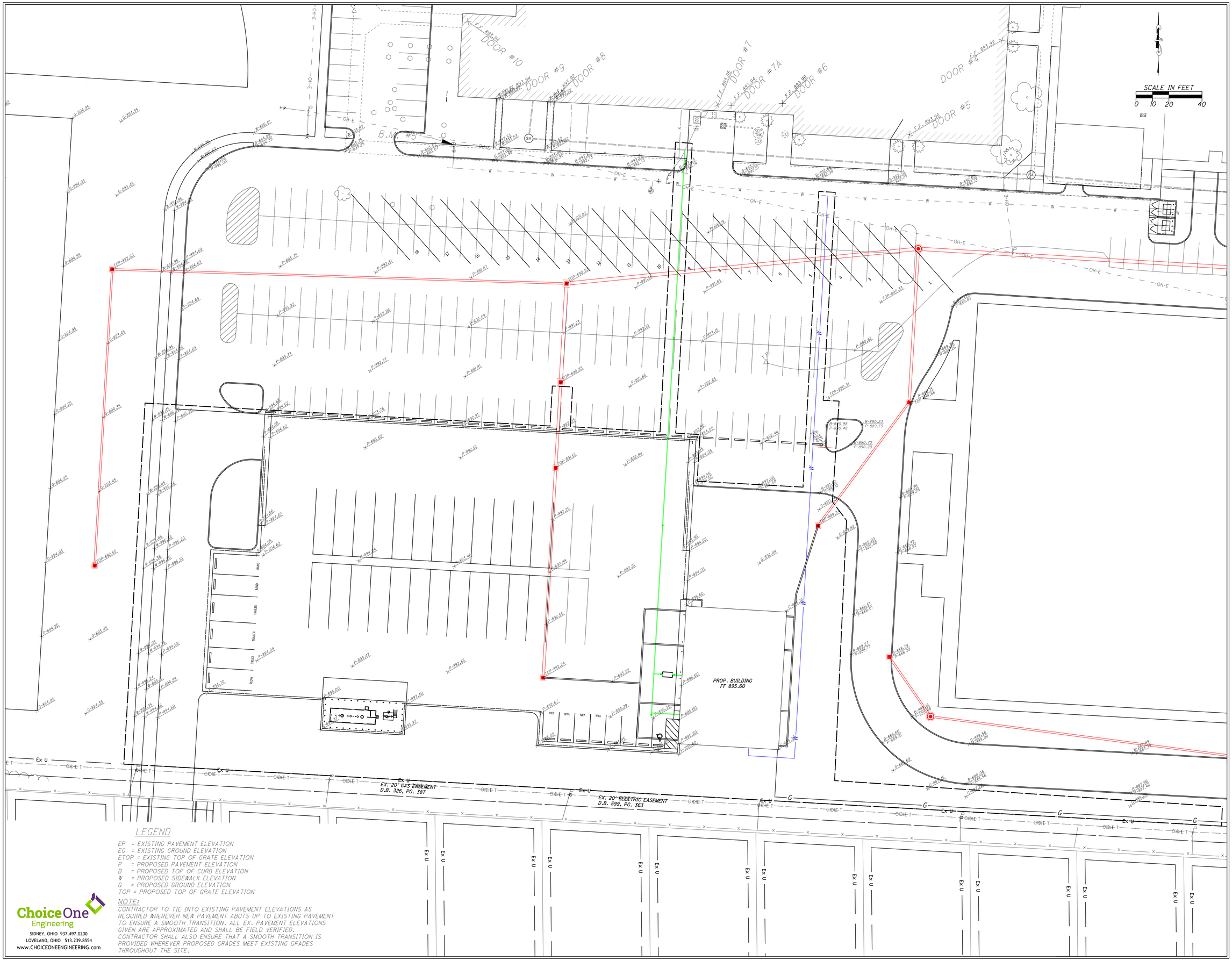
PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	JAC	JAC

SHEET TITLE:

GRADING PLAN

SHEET NUMBER:

C3.1



LEGEND

EP = EXISTING PAVEMENT ELEVATION
EG = EXISTING GROUND ELEVATION
ETOP = EXISTING TOP OF GRATE ELEVATION
P = PROPOSED PAVEMENT ELEVATION
B = PROPOSED TOP OF CURB ELEVATION
W = PROPOSED SIDEWALK ELEVATION
G = PROPOSED GROUND ELEVATION
TOP = PROPOSED TOP OF GRATE ELEVATION

NOTE:
CONTRACTOR TO TIE INTO EXISTING PAVEMENT ELEVATIONS AS REQUIRED WHEREVER NEW PAVEMENT ABUTS UP TO EXISTING PAVEMENT TO ENSURE A SMOOTH TRANSITION. ALL EX. PAVEMENT ELEVATIONS GIVEN ARE APPROXIMATED AND SHALL BE FIELD VERIFIED. CONTRACTOR SHALL ALSO ENSURE THAT A SMOOTH TRANSITION IS PROVIDED WHEREVER PROPOSED GRADES MEET EXISTING GRADES THROUGHOUT THE SITE.

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CONSTRUCTION DOCUMENTS	2/7/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	JAC	NJS

SHEET TITLE:

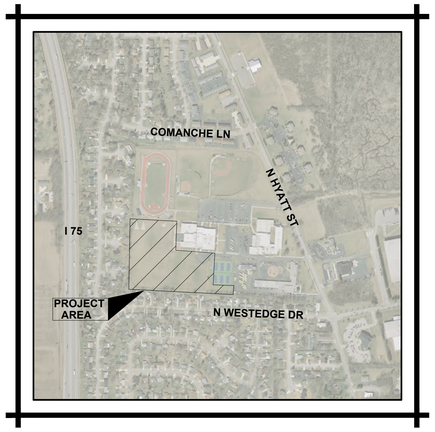
PAVEMENT ELEVATIONS PLAN

SHEET NUMBER:

C3.2

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING - SWPPP

CITY OF TIPP CITY
MIAMI COUNTY, OHIO



VICINITY MAP

SWPPP NOTE
THIS STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN PREPARED FOR TIPP CITY SCHOOLS FOR THE PERFORMANCE OF THE TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING IN MIAMI COUNTY, OHIO. ALL WORK SHALL BE PER AND COMPLY WITH THE OEPA CONSTRUCTION SITE STORM WATER GENERAL PERMIT, PERMIT #OHC000006. THIS INCLUDES FILING A CO-PERMITTEE NOI FORM WITH THE OEPA FOR ALL OPERATORS ENGAGED IN SITE WORK ON THE SITE. CONTRACTOR SHALL FOLLOW THE SPECIFICATIONS, INSTALLATION, MAINTENANCE AND REQUIREMENTS OF ODOT'S CURRENT SUPPLEMENTAL SPECIFICATION 832 "TEMPORARY SEDIMENT AND EROSION CONTROL." COMPLIANCE WITH SUPPLEMENTAL SPECIFICATION 832 SHALL INCLUDE THE STANDARD CONSTRUCTION DRAWING REFERENCES LISTED IN SECTION 832.03, BUT SHALL NOT INCLUDE SECTION 832.11 "INSPECTIONS AND SWPPP UPDATES." ALL INSPECTIONS AND SWPPP UPDATES SHALL BE PER THE OEPA CONSTRUCTION SITE STORM WATER GENERAL PERMIT, PERMIT #OHC000006. ALL WORK SHALL ALSO BE PER THE CURRENT ODOT CMS 107.19. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH LOCAL STORMWATER AND EROSION CONTROL REGULATIONS. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH AND INSTALLING ALL ITEMS NOTED AND AS REQUIRED BY OEPA AND LOCAL AUTHORITIES FOR MEETING ALL STORM WATER POLLUTION PREVENTION REQUIREMENTS. TIPP CITY SCHOOLS AND THE SELECTED CONTRACTOR SHALL BE THE RESPONSIBLE PARTY IN CHARGE OF THE SWPPP AND ASSOCIATED BMP'S.

SITE DATA
LOCATION SOIL TYPES_____SILTY CLAY LOAM, SILT LOAM
EARTH DISTURBED AREA_____1.90 ACRES
PROPOSED IMPERVIOUS AREA ADDED:_____1.45 ACRES
PRE-CONSTRUCTION RUNOFF COEFFICIENT:___0.30
POST-CONSTRUCTION RUNOFF COEFFICIENT:___0.76
DESCRIPTION OF PRIOR LAND USE_____OPEN GRASS FIELD
EXISTING QUALITY OF DISCHARGE FROM SITE___UNTREATED PERVIOUS RUNOFF
IMMEDIATE RECEIVING WATERS:_____ON-SITE DETENTION BASIN
SUBSEQUENT RECEIVING WATERS:_____CITY STORM SEWER
LATITUDE 39.967647° LONGITUDE -84.185757°

WATERS EDGE NOTE
ALL MATERIAL AND EQUIPMENT STAGING OR STORAGE AREAS, DEWATERING AREAS, CONCRETE TRUCK WASH OUT AREAS, CONSTRUCTION ACCESS LOCATIONS, AND VEHICLE FUELING AND REFUELING LOCATIONS MUST BE LOCATED A MINIMUM OF 100' FROM ANY CREEK/RIVER/STREAM WATERS EDGE.

CLEAN STORM SYSTEM NOTE
IMMEDIATELY PRIOR TO FINAL COMPLETION OF THE PROJECT, CONTRACTOR SHALL ENSURE THE ENTIRE STORM SYSTEM, INCLUDING BUT NOT LIMITED TO, THE DETENTION/RETENTION BASIN(S), CATCH BASINS, MANHOLES, PIPING, UNDERDRAINS AND UNDERDRAIN TRENCHES ARE FREE FROM SEDIMENTATION AND OTHER POLLUTANTS AND FOREIGN MATERIALS AND ARE TO BE CLEANED AS NEEDED TO ENSURE MAXIMUM STORMWATER QUALITY AND FULL FUNCTIONALITY.

OFFSITE CONSTRUCTION ACTIVITIES
IT IS EXPECTED ALL CONSTRUCTION ACTIVITIES WILL TAKE PLACE ON SITE.

SPILL REPORTING REQUIREMENTS
IN THE EVENT OF A SMALL RELEASE (LESS THAN 25 GALLONS) OF PETROLEUM WASTE, SPECIAL HANDING PROCEDURES MUST BE USED. IN THE EVENT OF A LARGE RELEASE (25 GALLONS OR MORE) OF PETROLEUM WASTE, YOU MUST CONTACT THE OHIO EPA (AT 1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) WITHIN 30 MINUTES OF A SPILL OF 25 OR MORE GALLONS.

VEHICLE FUELING
VEHICLE FUELING AND MAINTENANCE WILL BE PERFORMED VIA A SMALL REFUEL TANK ON THE BACK OF A PICK-UP TRUCK.

OPEN BURNING NOTE
OPEN BURNING IS NOT PERMITTED IN THE CORPORATION LIMIT.

CONTACT INFORMATION
FACILITY SITE LOCATION: 575 N HYATT STREET, TIPP CITY, OHIO 45371
OWNER: TIPP CITY SCHOOLS, 937-667-8448, 615 E KESSLER-COWLESVILLE ROAD, TIPP CITY, OHIO 45371
SWPPP CONTACT/CONTRACTOR CONTACT - TBD

SWPPP AND INSPECTION REPORTS LOCATION
NOTE: THE SWPPP AND INSPECTION REPORTS WILL BE KEPT ON-SITE IN THE JOB TRAILER/FOREMAN'S PICK-UP.

WASTE DISPOSAL NOTE
CONTAINERS (e.g. DUMPSTERS, DRUMS) MUST BE AVAILABLE FOR THE DISPOSAL OF DEBRIS, TRASH, HAZARDOUS MATERIAL AND PETROLEUM WASTES. ALL CONTAINERS MUST BE COVERED AND LEAK-PROOF.

CLEAN HARD FILL NOTE
NO CLEAN CONSTRUCTION WASTES SHALL BE DISPOSED OF INTO THE PROPERTY.

FUELING AND STAGING NOTE
CONTRACTOR'S STAGING AND STORAGE AREA WILL BE LOCATED WITHIN CONSTRUCTION LIMITS OF THE PROJECT. FUEL TANKS AND OTHER HAZARDOUS MATERIALS TO BE SAFELY STORED, PROTECTED, AND PROPERLY HANDLED BY CONTRACTOR. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE NO POLLUTANTS FROM THE STAGING/STORAGE AREA LEAVE THE SITE OR ENTER ADJACENT SURFACE WATERS OR THE STORM SYSTEM. CONTRACTOR SHALL CLEAN UP AND PROPERLY DISPOSE OF ANY WASTE MATERIALS.

SOIL STOCKPILE NOTE
CONTRACTOR'S SHALL LOCATE SOIL STOCKPILE AREAS WITHIN THE PROJECT AREA SO AS NOT TO BE WITHIN THE IMMEDIATE PROXIMITY OF ANY SURFACE WATERS OR STORM INLET STRUCTURES. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE NO POLLUTANTS FROM THE STOCKPILE AREA LEAVE THE SITE OR ENTER ADJACENT SURFACE WATERS OR THE STORM SYSTEM. THESE MEASURES MAY INCLUDE BUT SHALL NOT BE LIMITED TO INSTALLING FILTER FABRIC FENCE AROUND STOCKPILE, TEMPORARILY COVERING THE STOCKPILE AND/OR TEMPORARILY SEEDING THE STOCKPILE.

DEWATERING NOTE
PUMPING OF SEDIMENT LADEN WATER FROM TRENCHES OR ANY OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, DITCH OR STREAM CORRIDORS, ANY WETLANDS OR STORM SEWERS IS PROHIBITED. ALL SUCH WATER SHALL BE PROPERLY FILTERED OR SETTLED TO REMOVE SOIL PARTICLES PRIOR TO ITS RELEASE. IF AN AREA OF THE SITE OR TRENCH NEEDS DEWATERED, IT SHOULD BE PUMPED FROM A SUMP PIT WITH A SOCK FILTER OR OTHER TYPE OF FILTERING DEVICE ON THE DISCHARGE OF THE HOSE. DO NOT ALLOW DISCHARGED WATER TO PASS OVER DISTURBED GROUND. IF THE DISCHARGE WATER IS BEING PUMPED INTO A SEDIMENT POND THEN NO FILTER IS REQUIRED AT THE END OF THE HOSE. IF THE GROUNDWATER MUST BE LOWERED, THE WATER MAY BE FREELY DISCHARGED AS LONG AS THE WATER REMAINS CLEAN. DO NOT CO-MINGLE CLEAN GROUND WATER WITH SEDIMENT LADEN WATER OR DISCHARGE IT BY ALLOWING IT TO PASS OVER DISTURBED GROUND.

LOG/DOCUMENTATION SHEETS
AS PART OF THE SWPPP, THE CONTRACTOR SHALL MAINTAIN LOG/DOCUMENTATION SHEETS FOR THE FOLLOWING:
1) A SIGNATURE LOG CONTAINING THE SIGNATURES OF ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED IN THE IMPLEMENTATION OF THE SWPPP AS PROOF ACKNOWLEDGING THAT THEY REVIEWED AND UNDERSTAND THE CONDITIONS AND RESPONSIBILITIES OF THE SWPPP.
2) A GRADING AND STABILIZATION LOG DOCUMENTING THE PROJECTS GRADING AND STABILIZATION ACTIVITIES AND
3) A SWPPP AMENDMENT LOG DOCUMENTING CHANGES/AMENDMENTS TO THE SWPPP, WHICH OCCUR AFTER CONSTRUCTION ACTIVITIES COMMENCE.

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8956 GLENDALE MILFORD ROAD, SUITE 1 ⬩ LOVELAND, OHIO 45140 ⬩ 513.239.8554

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PROJECT DESCRIPTION
THIS PROJECT CONSISTS OF THE CONSTRUCTION A NEW BUILDING AND ASSOCIATED DRIVES AND PARKING. SITE WORK TO INCLUDE STORM SEWER, SANITARY SEWER, WATER, SITE GRADING, PAVEMENT WORK AND BUILDING CONSTRUCTION.

PROJECT WORK CONSTRUCTION DATES
START: SUMMER 2024
ESTIMATED COMPLETION: FALL 2025

EROSION CONTROL NOTES
A. INSTALL AND MAINTAIN FILTER FABRIC FENCE AND INLET PROTECTION WHERE SHOWN AND AS NEEDED TO MINIMIZE SEDIMENT LADEN WATER FROM LEAVING THE SITE OR ENTERING ANY STORM SYSTEM, ADJACENT DITCHES, STREAMS ETC. IF STORMWATER RUNOFF CONTAINING SEDIMENTS IS FOUND TO BE LEAVING THE PROJECT SITE IN AN AREA WHERE NO BMP/CONTROL MEASURE IS SHOWN OR IN PLACE, CONTRACTOR SHALL IMMEDIATELY INSTALL THE APPROPRIATE BMP/CONTROL MEASURE AS NEEDED TO REMEDY THE SITUATION (TYP. INLET PROTECTION, FILTER FABRIC FENCE, ETC.).

B. INSTALL INLET PROTECTION ON ALL STORM INLET STRUCTURES (YARD DRAINS, CATCH BASINS, MANHOLES WITH GRATED LIDS, ETC.) AND TO ANY EXISTING STORM STRUCTURES WITHIN THE PROJECT AREA WHICH MAY RECEIVE RUNOFF FROM THE CONSTRUCTION SITE AS NEEDED. INLET PROTECTION MAY CONSIST OF DEVICES SUCH AS SEDCAGE (WWW.SEDCATCH.COM), DANDY BAGS, SEDIGUARD FILTERS, FLEXSTORM INLET FILTERS, SEDIMENT FENCE OR OTHER DEVICES WHICH ARE EFFECTIVE AT MINIMIZING THE AMOUNT OF SEDIMENT ENTERING THE STRUCTURE.

C. CONTRACTOR IS RESPONSIBLE FOR IMMEDIATELY CLEANING UP ANY MUD, DIRT AND DEBRIS WHICH IS TRACKED OR SPILLED ONTO THE ROADWAYS.

D. PRE CONSTRUCTION - CONTRACTOR IS RESPONSIBLE TO INSTALL A CONSTRUCTION ENTRANCE AS NEEDED TO MINIMIZE ANY MUD, DIRT AND DEBRIS TRACKED ONTO THE ROADWAYS.

E. DURING CONSTRUCTION - THE CONTRACTOR MUST MAINTAIN EROSION CONTROL UNTIL AREA IS STABILIZED INCLUDING TEMPORARY SEEDING AS NEEDED. CONTRACTOR SHALL TEMPORARYILY SEED ALL CRITICAL EXPOSED SLOPES TO MINIMIZE SEDIMENT RUNOFF.

F. FINAL/POST CONSTRUCTION - CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS. CONTRACTOR SHALL ENSURE GRASS IS PERMANENTLY AND PROPERLY ESTABLISHED IN ALL AREAS WHERE GRASS IS SPECIFIED. ALL SEDIMENT AND EROSION CONTROL STRUCTURES, INCLUDING SEDIMENT FENCE, SHALL REMAIN IN PLACE UNTIL GRASS IS IN PLACE AND SITE IS STABILIZED. ONCE SITE IS STABILIZED AND ALL CONSTRUCTION IS COMPLETE, ALL SEDIMENT FENCE, INLET PROTECTION AND ANY OTHER TEMPORARY BMP'S SHALL BE REMOVED FROM THE SITE.

BMP NOTES
FOR ALL BMP'S INSTALLED, ENSURE THAT THE PONDING OF WATER BEHIND THE BMP WILL NOT DAMAGE PROPERTY OR POSE A SAFETY THREAT. IF PERIODIC INSPECTIONS OR OTHER INFORMATION INDICATES A CONTROL MEASURE/BMP HAS BEEN USED INAPPROPRIATELY, THE CONTRACTOR MUST REPLACE AND ADJUST THE CONTROL/BMP TO MEET SITE CONDITIONS AS REQUIRED. THE CONTRACTOR SHALL ADJUST THE SWPPP AND ITS CONTROLS/BMPS AND THEIR QUANTITIES TO MEET FIELD CONDITIONS AND THE OHIO EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION ACTIVITIES GENERAL PERMIT.

MAINTENANCE NOTE
THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ENSURE ALL TEMPORARY AND PERMANENT CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. ALL SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED IN A FUNCTIONAL CONDITION UNTIL ALL UP-SLOPE AREAS THEY CONTROL ARE PERMANENTLY STABILIZED. THE SWP3 SHALL BE DESIGNED TO MINIMIZE MAINTENANCE REQUIREMENTS. THE APPLICANT SHALL PROVIDE A DESCRIPTION OF MAINTENANCE PROCEDURES NEEDED TO ENSURE THE CONTINUED PERFORMANCE OF CONTROL PRACTICES.

SWPPP AND INSPECTION AVAILABILITY AND UPDATES NOTE
THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO ENSURE THE IMMEDIATE AVAILABILITY OF THE SWPPP AND INSPECTION REPORTS ON-SITE. THE CONTRACTOR SHALL ALSO BE SOLELY RESPONSIBLE TO PERFORM AND DOCUMENT ALL REQUIRED SWPPP INSPECTIONS AND ALL UPDATES AND AMENDMENTS TO THE SWPPP.

DOCUMENTATION AND GOVERNMENT INSPECTION NOTE
CONTRACTOR(S) SHALL PROVIDE THE OWNER'S REPRESENTATIVE A WRITTEN COPY OF THEIR CO-PERMITTEE APPLICATION AND ANY OTHER DOCUMENTATION THE CONTRACTOR(S) MAY SEND OR RECEIVE FROM THE OEPA OR ANY OTHER GOVERNING AUTHORITIES.

IF AN INSPECTOR OR REPRESENTATIVE FROM THE OEPA OR ANY OTHER GOVERNING AUTHORITY IS ON-SITE, THE CONTRACTOR SHALL IMMEDIATELY CONTACT AND NOTIFY THE OWNER'S REPRESENTATIVE.

STATE OF OHIO
JAKE CORDONNIER 88966
REGISTERED PROFESSIONAL ENGINEER

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NEW BUILDING FOR
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ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	2/7/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	JAC	NJS

SHEET TITLE:
SWPPP TITLE SHEET

SHEET NUMBER:
C4.1

IMPLEMENTATION SCHEDULE (EROSION CONSTRUCTION SEQUENCE)

THE CONTRACTOR OR ITS APPOINTED REPRESENTATIVES WILL ASSUME RESPONSIBILITY FOR INSTALLATION, INSPECTION AND MAINTENANCE OF ALL SOIL EROSION CONTROL MEASURES DURING CONSTRUCTION. THE INSTALLATION OF THE SOIL EROSION CONTROL MEASURES WILL BE COMPLETED, AS FOLLOWS:
A. PRIOR TO ANY GRADING OR EARTHWORK:
A-1. SILT FENCE AND INLET PROTECTION (ON EX. STORM STRUCTURES) TO BE INSTALLED AS SHOWN ON SWPPP
A-2. INSTALL CONSTRUCTION ENTRANCE(S) IF NEEDED AS SHOWN ON SWPPP. INSTALLATION OF ALL OTHER EROSION AND SEDIMENT CONTROL MEASURES, E.G. ROCK CHECK DAMS, CONCRETE WASHOUT PIT, SEDIMENT BASIN, ETC.
B. PERFORM ROUGH GRADING, INSTALL UTILITIES, BUILDINGS, PAVEMENT:
B-1. CLEAR AND GRUB AREA AS NEEDED
B-2. PERFORM SITE GRADING. INSTALL BUILDING(S)
B-3. INSTALL SANITARY, STORM, WATER LINES, OTHER UTILITIES, GRAVEL BASE, AND CURB AND GUTTER, AS PER PLAN(S), INSTALL INLET PROTECTION ON ALL PROPOSED STORM INLET STRUCTURES AS INDICATED ON THE PLANS AS SOON AS THEY ARE INSTALLED.
B-4 PERFORM TEMPORARY SEEDING AS NEEDED ON ANY DISTURBED AREAS PER THE TIME REQUIREMENTS FOR TEMPORARY SEEDING SPECIFIED ON THIS DRAWING.
B-5 INSTALL PAVEMENT.
C. PERFORM FINAL GRADING:
C-1. PLACE TOPSOIL AND PERFORM FINAL RAKING AND GRADING ON ALL DISTURBED AREAS.
C-2. ALL DISTURBED AREAS SHALL BE PERMANENTLY STABILIZED (SEEDED AND/OR MULCHED).
C-3. CLEAN UP SITE, AND ONCE SITE HAS REACHED FINAL STABILIZATION REMOVE ALL TEMPORARY BMP'S.
NOTES: A) CARE WILL BE TAKEN NOT TO DISTURB ANY EXISTING NATURAL VEGETATION NOT INVOLVED IN THE CONSTRUCTION PROCESS, WHENEVER POSSIBLE. B) TIMELY INSPECTIONS OF THE EROSION CONTROL MEASURES WILL BE MADE, BY THE CONTRACTOR, EVERY 7 DAYS, AND/OR AFTER ANY RAINFALL OF AT LEAST 1/2" IN A 24-HOUR PERIOD. REPORTS MUST BE KEPT ON-SITE AND SUPPLIED TO THE GOVERNING AUTHORITY IF REQUESTED.

INSPECTION SCHEDULE

A. THE SITE WILL BE INSPECTED PER OHIO EPA PERMIT No. OHC000006:

PART III.G.2.i
INSPECTIONS. THE PERMITTEE SHALL ASSIGN QUALIFIED INSPECTION PERSONNEL TO CONDUCT INSPECTIONS TO ENSURE THAT THE CONTROL PRACTICES ARE FUNCTIONAL AND TO EVALUATE WHETHER THE SWP3 IS ADEQUATE AND PROPERLY IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE PROPOSED IN PART III.G.1.H OF THE OHC000006 PERMIT OR WHETHER ADDITIONAL CONTROL MEASURES ARE REQUIRED. AT A MINIMUM, PROCEDURES IN A SWP3 SHALL PROVIDE THAT ALL CONTROLS ON THE SITE ARE INSPECTED:
* AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER 24-HOUR PERIOD BY THE END OF THE NEXT CALENDAR DAY, EXCLUDING WEEKENDS AND HOLIDAYS UNLESS WORK IS SCHEDULED; AND
* ONCE EVERY SEVEN CALENDAR DAYS.

THE INSPECTION FREQUENCY MAY BE REDUCED TO AT LEAST ONCE EVERY MONTH FOR DORMANT SITES IF:
* THE ENTIRE SITE IS TEMPORARILY STABILIZED OR
* RUNOFF IS UNLIKELY DUE TO WEATHER CONDITIONS FOR EXTENDED PERIODS OF TIME (E.G. SITE IS COVERED WITH SNOW, ICE, OR THE GROUND IS FROZEN).

THE BEGINNING AND ENDING DATES OF ANY REDUCED INSPECTION FREQUENCY SHALL BE DOCUMENTED IN THE SWP3. ONCE A DEFINABLE AREA HAS ACHIEVED FINAL STABILIZATION, THE AREA MAY BE MARKED ON THE SWP3 AND NO FURTHER INSPECTION REQUIREMENTS SHALL APPLY TO THAT PORTION OF THE SITE.

FOLLOWING EACH INSPECTION, A CHECKLIST MUST BE COMPLETED AND SIGNED BY THE QUALIFIED INSPECTION PERSONNEL REPRESENTATIVE. AT A MINIMUM, THE INSPECTION REPORT SHALL INCLUDE:
i. THE INSPECTION DATE;
ii. NAMES, TITLES, AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION;
iii. WEATHER INFORMATION FOR THE PERIOD SINCE THE LAST INSPECTION (OR SINCE COMMENCEMENT OF CONSTRUCTION ACTIVITY IF THE FIRST INSPECTION) INCLUDING A BEST ESTIMATE OF THE BEGINNING OF EACH STORM EVENT, DURATION OF EACH STORM EVENT, APPROXIMATE AMOUNT OF RAINFALL FOR EACH STORM EVENT (IN INCHES), AND WHETHER ANY DISCHARGES OCCURRED;
iv. WEATHER INFORMATION AND A DESCRIPTION OF ANY DISCHARGES OCCURRING AT THE TIME OF THE INSPECTION;
v. LOCATION(S) OF DISCHARGES OF SEDIMENT OR OTHER POLLUTANTS FROM THE SITE;
vi. LOCATION(S) OF BMPS THAT NEED TO BE MAINTAINED;
vii. LOCATION(S) OF BMPS THAT FAILED TO OPERATE AS DESIGNED OR PROVED INADEQUATE FOR A PARTICULAR LOCATION;
viii. LOCATION(S) WHERE ADDITIONAL BMPS ARE NEEDED THAT DID NOT EXIST AT THE TIME OF INSPECTION; AND
ix. CORRECTIVE ACTION REQUIRED INCLUDING ANY CHANGES TO THE SWP3 NECESSARY AND IMPLEMENTATION DATES.

DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION SHALL BE INSPECTED FOR EVIDENCE OF OR THE POTENTIAL FOR POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE SWP3 SHALL BE OBSERVED TO ENSURE THAT THOSE ARE OPERATING CORRECTLY. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION AND SEDIMENT CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO THE RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF-SITE VEHICLE TRACKING.

THE PERMITTEE SHALL MAINTAIN FOR THREE YEARS FOLLOWING THE SUBMITTAL OF A NOTICE OF TERMINATION FORM, A RECORD SUMMARIZING THE RESULTS OF THE INSPECTION, NAMES(S) AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTION, THE DATE(S) OF THE INSPECTION, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE SWP3 AND A CERTIFICATION AS TO WHETHER THE FACILITY IS IN COMPLIANCE WITH THE SWP3 AND THE PERMIT AND IDENTIFY ANY INCIDENTS OF NON-COMPLIANCE. THE RECORD AND CERTIFICATION SHALL BE SIGNED IN ACCORDANCE WITH PART V.G. OF THIS PERMIT.

i. WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE, WITH THE EXCEPTION OF A SEDIMENT SETTLING POND, IT SHALL BE REPAIRED OR MAINTAINED WITHIN 3 DAYS OF THE INSPECTION. SEDIMENT SETTLING PONDS SHALL BE REPAIRED OR MAINTAINED WITHIN 10 DAYS OF THE INSPECTION.

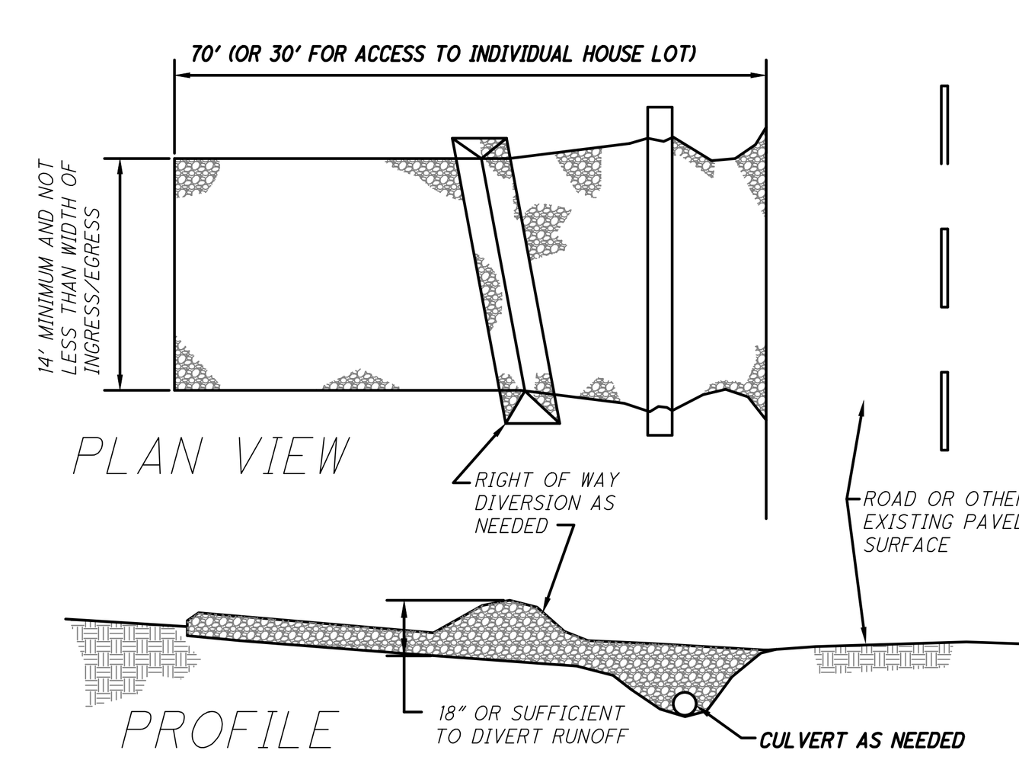
ii. WHEN PRACTICES FAIL TO PROVIDE THEIR INTENDED FUNCTION. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE FAILS TO PERFORM ITS INTENDED FUNCTION AND THAT ANOTHER, MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED, THE SWP3 SHALL BE AMENDED AND THE NEW CONTROL PRACTICE SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION.

iii. WHEN PRACTICES DEPICTED ON THE SWP3 ARE NOT INSTALLED. IF THE INSPECTION REVEALS THAT A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE CONTAINED IN PART III.G.1.H OF THIS PERMIT, THE CONTROL PRACTICE SHALL BE IMPLEMENTED WITHIN 10 DAYS FROM THE DATE OF THE INSPECTION. IF THE INSPECTION REVEALS THAT THE PLANNED CONTROL PRACTICE IS NOT NEEDED, THE RECORD SHALL CONTAIN A STATEMENT OF EXPLANATION AS TO WHY THE CONTROL PRACTICE IS NOT NEEDED.

B. VEGETATIVE PLANTINGS - SPRING PLANTINGS WILL BE CHECKED DURING SUMMER OR EARLY FALL.
C. REPAIRS - ANY EROSION CONTROL MEASURES, STRUCTURAL MEASURES, OR OTHER RELATED ITEMS IN NEED OF REPAIR WILL BE MADE WITHIN 7 DAYS.
D. MOWING - DRAINAGE WAYS, DITCHES, AND OTHER AREAS THAT SUPPORT A DESIGNED FLOW OF WATER WILL BE MOWED REGULARLY TO MAINTAIN THAT FLOW.
E. FERTILIZATION - SEEDED AREAS WHERE THE SEED HAS NOT PRODUCED A GOOD COVER WILL BE INSPECTED AND FERTILIZED AS NECESSARY.

CONSTRUCTION ENTRANCE

A. STONE SIZE - 2" STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
B. LENGTH - THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS, BUT NOT LESS THAN 70' (EXCEPT ON SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES).
C. THICKNESS - THE STONE LAYER SHALL BE AT LEAST 6" THICK.
D. WIDTH - THE ENTRANCE SHALL BE AT LEAST 10' WIDE, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
E. BEDDING - A GEOTEXTILE SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL HAVE A GRAB TENSILE STRENGTH OF AT LEAST 200 LBS. AND A MULLEN BURST STRENGTH OF AT LEAST 190 LBS.
F. CULVERT - A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE, IF NEEDED, TO PREVENT SURFACE WATER FLOWING ACROSS THE ENTRANCE FROM BEING DIRECTED OUT ONTO PAVED SURFACES (IF DRIVE IS PLACED ACROSS A DITCH).
G. WATER BAR - A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE, IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES (IF DRIVE IS PLACED ON A SLOPE).
H. MAINTENANCE - TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
I. CONSTRUCTION ENTRANCE SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFFSITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
J. CONSTRUCTION ENTRANCES ARE INSTALLED TO MINIMIZE OFFSITE TRACKING OF SEDIMENTS. A STONE ACCESS DRIVE SHOULD BE INSTALLED AT EVERY POINT WHERE VEHICLES ENTER OR EXIT THE SITE. EVERY INDIVIDUAL LOT SHOULD ALSO HAVE ITS OWN DRIVE ONCE CONSTRUCTION ON THE LOT BEGINS.
NOTE: ALTERNATIVE STABILIZATION METHODS FOR CONSTRUCTION ENTRANCE/EXIT SUCH AS MANUFACTURED STEEL PLATES, GRID PLATES, ETC. OR STEEL PIPES/GRATINGS WILL ALSO BE CONSIDERED BUT WILL REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO THE USE OF SUCH ALTERNATIVE METHODS AS ON-SITE CONSTRUCTION ENTRANCES/EXIT. ANY PROPOSED ALTERNATIVE METHODS SHALL SHALL BE SHOWN TO EFFECTIVELY REMOVE MUD AND DEBRIS FROM VEHICLE WHEELS PRIOR TO EXITING THE SITE.



CONSTRUCTION ENTRANCE DETAIL

NON-SEDIMENT POLLUTION CONTROL

A. CONSTRUCTION PERSONNEL, INCLUDING SUBCONTRACTORS WHO MAY USE OR HANDLE HAZARDOUS OR TOXIC MATERIALS, SHALL BE MADE AWARE OF THE FOLLOWING GENERAL GUIDELINES:

DISPOSAL AND HANDLING OF HAZARDOUS AND OTHER CONSTRUCTION WASTE

DO:
* PREVENT SPILLS
* USE PRODUCTS UP
* FOLLOW LABEL DIRECTIONS FOR DISPOSAL
* REMOVE LIDS FROM EMPTY BOTTLES AND CANS WHEN DISPOSING IN TRASH
* RECYCLE WASTE WHENEVER POSSIBLE

DON'T
* DON'T POUR INTO WATERWAYS, STORM DRAINS, OR ONTO THE GROUND
* DON'T POUR DOWN THE SINK, FLOOR DRAIN, OR SEPTIC TANKS
* DON'T BURY CHEMICALS OR CONTAINERS
* DON'T BURN CHEMICALS OR CONTAINERS
* DON'T MIX CHEMICALS TOGETHER

B. CONTAINERS SHALL BE PROVIDED FOR COLLECTION OF ALL WASTE MATERIAL INCLUDING CONSTRUCTION DEBRIS, TRASH, PETROLEUM, AND ANY HAZARDOUS MATERIALS TO BE USED ON SITE. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THAT MATERIAL.

C. NO WASTE MATERIALS SHALL BE BURIED ON SITE. SITE PERSONNEL, INCLUDING SUBCONTRACTORS, SHALL BE NOTIFIED THAT NO CONSTRUCTION-RELATED MATERIALS ARE TO BE BURIED ON SITE.

D. MIXING, PUMPING, TRANSFERRING, OR OTHERWISE HANDLING CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT, CONCRETE DRYING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH, OR STORM DRAIN.

E. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES, OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS.

F. CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. A SUMP OR PIT SHALL BE CONSTRUCTED IF NEEDED TO CONTAIN CONCRETE WASH WATER.

G. IF HAZARDOUS SUBSTANCES SUCH AS OIL, DIESEL FUEL, HYDRAULIC FLUID, ANTIFREEZE, ETC. ARE SPILLED, LEAKED, OR RELEASED ONTO THE SOIL, THE SOIL SHOULD BE DUG UP AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL (NOT A CONSTRUCTION/DEMOLITION DEBRIS LANDFILL). SPILLS ON PAVEMENT SHALL BE ABSORBED WITH SAWDUST OR KITTY LITTER AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL. HAZARDOUS OR INDUSTRIAL WASTES SUCH AS MOST SOLVENTS, GASOLINE, OIL-BASED PAINTS, AND CEMENT CURING COMPOUNDS REQUIRE SPECIAL HANDLING. CONTACT OHIO EPA (1-800-282-9378),

H. SPILLS OF 25 GAL. OR MORE OF PETROLEUM PRODUCTS SHALL BE REPORTED TO OHIO EPA (1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MIN. OF THE DISCOVERY OF THE RELEASE.

I. STREETS NEED TO BE SWEPT AS OFTEN AS NECESSARY TO KEEP THEM CLEAN AND FREE FROM SEDIMENT. SEDIMENT TO BE SWEPT BACK ONTO THE LOT - NOT DOWN THE STORM SEWER.

J. STOCKPILES OF SOIL AND OTHER MATERIALS SHALL BE STORED AWAY FROM WATERCOURSES, DITCHES, OR STORM DRAINS, AND SHALL HAVE EROSION CONTROL MATERIALS PLACED AROUND THEM.

K. ALL STREAM CROSSINGS SHALL BE CONSTRUCTED ENTIRELY OF NON-ERODIBLE MATERIAL.

PROCESS WASTEWATER/LEACHATE MANAGEMENT NOTE

ALL PROCESS WASTEWATERS (e.g. EQUIPMENT WASHING, LEACHATE ASSOCIATED WITH ON-SITE WASTE DISPOSAL, AND CONCRETE WASH-OUTS) MUST BE COLLECTED AND DISPOSED OF PROPERLY (e.g. TO A PUBLICLY-OWNED TREATMENT WORKS). THE NPDES CONSTRUCTION STORM WATER GENERAL PERMIT ONLY AUTHORIZES THE DISCHARGE OF STORM WATER AND CERTAIN UNCONTAMINATED NON-STORM WATERS. THE DISCHARGE OF NON-STORM WATERS TO WATERS OF THE STATE MAY BE IN VIOLATION OF LOCAL, STATE, AND FEDERAL LAWS OR REGULATIONS.

HANDLING OF TOXIC OR HAZARDOUS MATERIALS NOTE

NO SOLID, SANITARY, OR TOXIC WASTE IS TO BE DISPOSED OF ON THE PROJECT SITE. RECYCLING OF USED OR UNUSED HAZARDOUS MATERIALS SHALL NOT OCCUR ON SITE EITHER. AREAS DESIGNATED FOR CEMENT TRUCK WASHOUTS, AND VEHICLE FUELING SHALL NOT TAKE PLACE ON PARKING LOT BASE.

CONSTRUCTION CHEMICAL COMPOUNDS NOTE

NO MIXING OR STORAGE OF CHEMICAL COMPOUNDS SUCH AS FERTILIZERS, LIME, ASPHALT, OR CONCRETE ARE PERMITTED TO TAKE PLACE ON-SITE. ALL MIXING SHALL TAKE PLACE BEFORE ENTERING THE SITE.

CONSTRUCTION & DEMOLITION DEBRIS NOTE

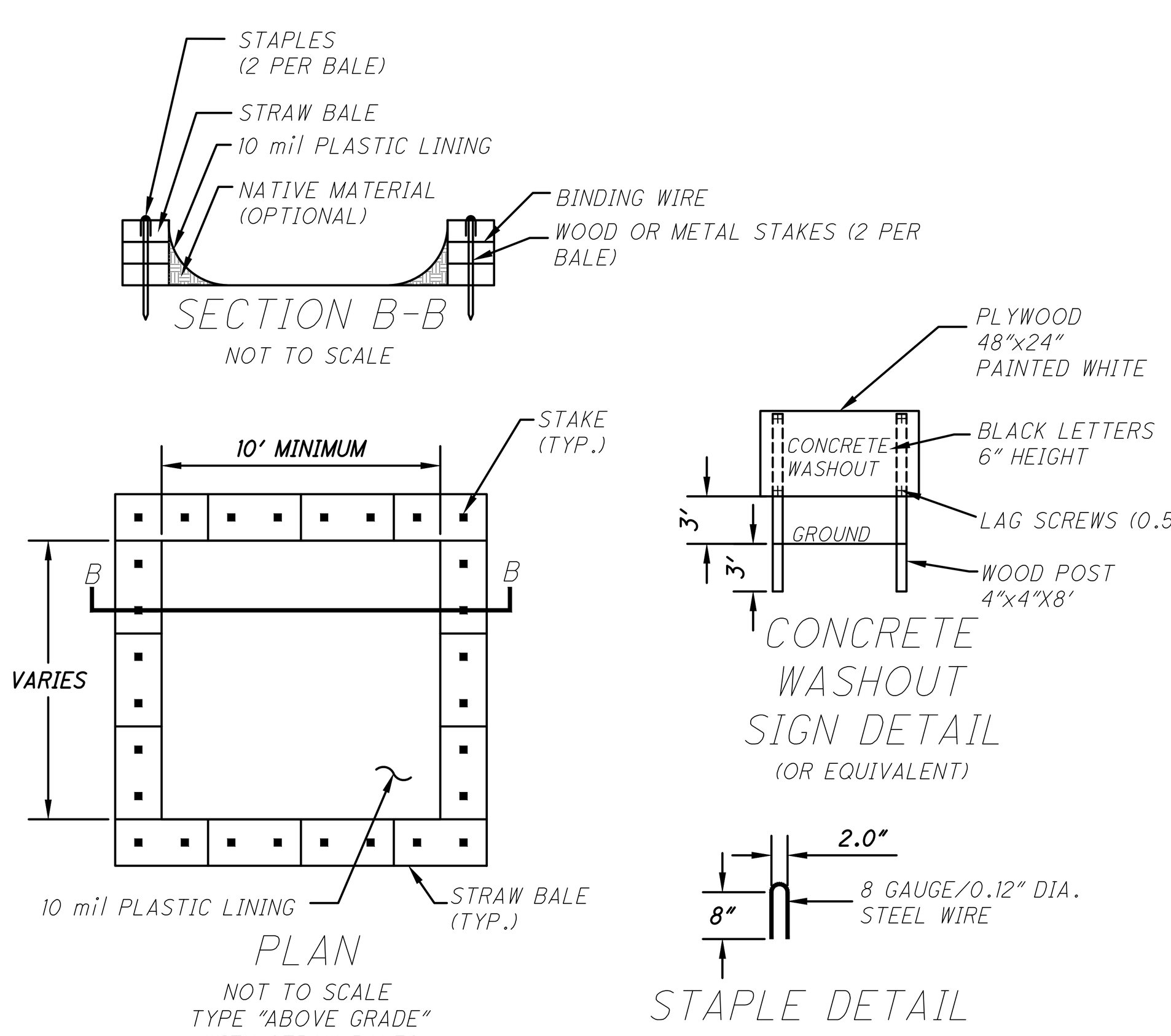
ALL CONSTRUCTION AND DEMOLITION DEBRIS (C&DD) WASTE SHALL BE DISPOSED OF IN AN OHIO EPA APPROVED C&DD LANDFILL AS REQUIRED BY OHIO REVISED CODE (ORC) 3714. MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS (SEE OHIO ADMINISTRATIVE CODE 3745-20).

CONTAMINATED SOILS NOTE

SOILS CONTAMINATED BY PETROLEUM OR OTHER CHEMICAL SPILLS SHALL BE HANDLED AND DISPOSED OF PROPERLY. ALL CONTAMINATED SOILS MUST BE TREATED AND/OR DISPOSED OF IN AN OHIO EPA APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITY (TSDFs). IF CONTAMINATION HAPPENS TO OCCUR, TARPS ARE TO BE USED TO PREVENT STORM WATER FROM COMING INTO CONTACT WITH THE MATERIAL.

CONCRETE WASHOUT NOTE

CONCRETE WASHOUT OPERATIONS SHALL TAKE PLACE WITHIN THE PROPOSED PROJECT AREA UTILIZING THE CONTRACTOR'S PORTABLE CONCRETE WASHOUT CONTAINER OR WITHIN A BERMED/CONTAINED AREA. CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ENSURE WASHOUT MATERIAL DOES NOT LEAVE THE WASHOUT AREA OR ENTER THE STORM SYSTEM. CONTRACTOR SHALL CLEAN UP AND PROPERLY DISPOSE OF ALL LEFTOVER WASHOUT MATERIAL.



CONCRETE WASHOUT DETAIL

DUST CONTROL

DUST CONTROL SHALL BE PROVIDED AS NEEDED TO PREVENT SEDIMENT FROM BECOMING AIRBORNE. MEASURES SHALL INCLUDE WATERING VIA A WATER TRUCK OR OTHER WATERING DEVICE AS NEEDED TO REDUCE AND/OR ELIMINATE AIRBORNE DUST CREATED BY CONSTRUCTION AND CONSTRUCTION RELATED ACTIVITIES.

CONSTRUCTION OF A FILTER BARRIER (SILT FENCE)

A. SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.

B. ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS WHICH MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.

C. TO PREVENT WATER PONDED BY THE SILT FENCE FROM FLOWING AROUND THE ENDS, EACH END SHALL BE CONSTRUCTED UPSLOPE SO THAT THE ENDS ARE AT A HIGHER ELEVATION.

D. WHERE POSSIBLE, SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.

E. WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5' (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.

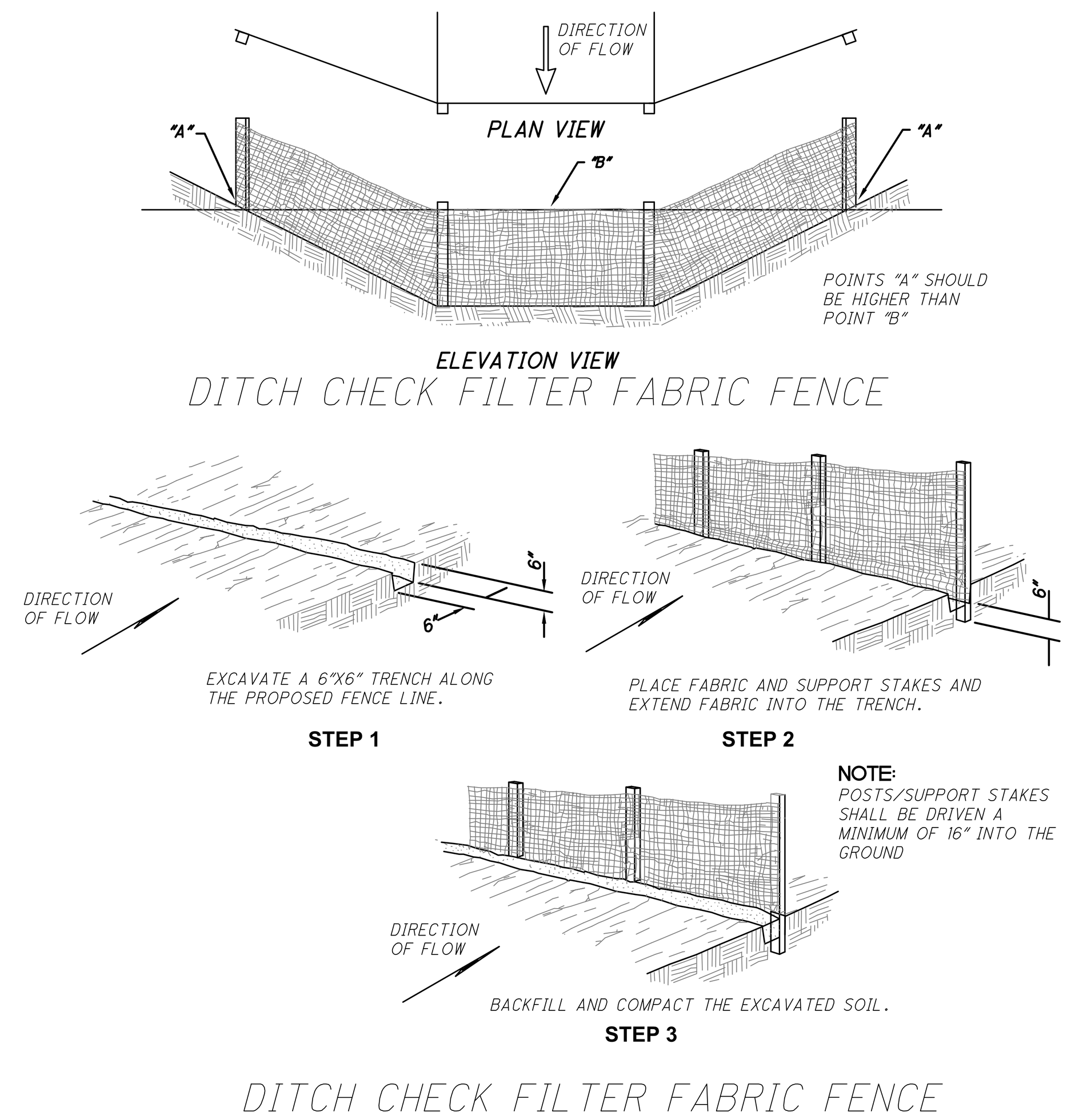
F. THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16" ABOVE THE ORIGINAL GROUND SURFACE.

G. THE SILT FENCE SHALL BE PLACED IN A TRENCH CUT A MINIMUM OF 6" DEEP. THE TRENCH SHALL BE CUT WITH A TRENCHER, CABLE LAYING MACHINE, OR OTHER SUITABLE DEVICE WHICH WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.

H. THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE AND SO THAT 8" OF CLOTH IS BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6" DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED.

I. SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE OVERLAPPED WITH THE END STAKES OF EACH SECTION WRAPPED TOGETHER BEFORE DRIVING INTO THE GROUND.

J. MAINTENANCE - SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. ALL THE GAPS AND TEARS IN THE FENCE MUST BE ELIMINATED AND REPAIRED. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE: 1) THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED, 2) ACCUMULATED SEDIMENT SHALL BE REMOVED, OR 3) OTHER PRACTICES SHALL BE INSTALLED.



FILTER FABRIC FENCE DETAIL

CRITERIA FOR SILT FENCE MATERIAL

A. FENCE POSTS - THE LENGTH SHALL BE A MINIMUM OF 48" LONG. WOOD POSTS WILL BE 2"-BY-2" HARDWOOD OF SOUND QUALITY. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 5'. POSTS/SUPPORT STAKES SHALL BE DRIVEN A MINIMUM OF 16" INTO THE GROUND.

B. SILT FENCE FABRIC SHALL CONFORM TO THE AASHTO SILT FENCE SPECIFICATION 100X AND SHALL HAVE A MINIMUM 100# GRAB TENSILE. SILT FENCE SHALL ALSO CONFORM TO THE MOST RECENT ODOT STANDARD FOR SEDIMENT/SILT FENCE (TABLE 712.09-1)

C. SILT FENCE SHALL BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PERMANENT STABILIZATION

ALL AREAS AT FINAL GRADE MUST BE PERMANENTLY STABILIZED WITHIN 7 DAYS OF REACHING FINAL GRADE. THIS IS USUALLY ACCOMPLISHED BY USING SEED AND MULCH, BUT SPECIAL MEASURES ARE SOMETIMES REQUIRED. THIS IS PARTICULARLY TRUE IN DRAINAGE DITCHES/SWALES, LOW AREAS, DETENTION POND BOTTOMS AND SIDES OR ON STEEP SLOPES. THESE MEASURES INCLUDE, BUT ARE NOT LIMITED TO, THE INSTALLATION OF EROSION CONTROL BLANKETS AND/OR MATTING, ADDITION OF TOPSOIL, OR ROCK RIP-RAP. CONTRACTOR SHALL UTILIZE THESE AND ANY OTHER SPECIAL MEASURES AS NEEDED TO PERMANENTLY STABILIZE THE SITE. PERMANENT SEEDING SHOULD BE DONE MARCH 1 TO MAY 31 AND AUGUST 1 TO SEPTEMBER 30. DORMANT SEEDING CAN BE DONE FROM NOVEMBER 20 TO MARCH 15. AT ALL OTHER TIMES OF THE YEAR, THE AREA SHOULD BE TEMPORARILY STABILIZED UNTIL A PERMANENT SEEDING CAN BE APPLIED.

AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREAS THAT WILL LIE DORMANT FOR ONE YEAR OR MORE.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE.
ANY AREAS WITHIN 50' OF A SURFACE WATER OF THE STATE (STREAM, WATERWAY, WATER BODY, ETC.) AND AT FINAL GRADE	WITHIN 2 DAYS OF REACHING FINAL GRADE
ANY OTHER AREAS AT FINAL GRADE.	WITHIN 7 DAYS OF REACHING FINAL GRADE WITHIN THAT AREA.

SOILS EXPOSED NOTE

CONTRACTOR SHALL PLAN AND IMPLEMENT CONSTRUCTION AND GRADING ACTIVITIES TO MINIMIZE THE AMOUNT OF SOIL EXPOSED DURING CONSTRUCTION ACTIVITIES.

TEMPORARY SEEDING SPECIES SELECTION			
SEEDING DATES	SPECIES	L.B./1000 SQ. FT.	PER ACRE
MARCH 1 TO AUGUST 15	OATS TALL FESCUE ANNUAL RYEGRASS	3 1 1	4 BUSHELS 40 LBS. 40 LBS.
	PERENNIAL RYEGRASS TALL FESCUE ANNUAL RYEGRASS	1 1 1	40 LBS. 40 LBS. 40 LBS.
AUGUST 16 TO NOVEMBER 1	RYE TALL FESCUE ANNUAL RYEGRASS	3 1 1	2 BUSHELS 40 LBS. 40 LBS.
	WHEAT TALL FESCUE ANNUAL RYEGRASS	1 1 1	2 BUSHELS 40 LBS. 40 LBS.
	PERENNIAL RYEGRASS TALL FESCUE ANNUAL RYEGRASS	1 1 1	40 LBS. 40 LBS. 40 LBS.
NOVEMBER 1 TO SPRING SEEDING	USE MULCH ONLY, SODDING PRACTICES OR DORMANT SEEDING		
NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED.			

SPECIFICATIONS FOR TEMPORARY SEEDING

A. TO MINIMIZE COSTS OF TEMPORARY STABILIZATION, LEAVE NATURAL COVER IN PLACE FOR AS LONG AS POSSIBLE. ONLY DISTURB AREAS YOU INTEND TO WORK WITHIN THE NEXT 14 DAYS.

B. STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION SITE.

C. THE SEEDBED SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. HOWEVER, TEMPORARY SEEDING SHALL NOT BE POSTPONED IF IDEAL SEEDBED PREPARATION IS NOT POSSIBLE.

D. SOIL AMENDMENTS - APPLICATIONS OF TEMPORARY VEGETATION SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. SOIL TESTS SHOULD BE TAKEN ON THE SITE TO PREDICT THE NEED FOR LIME AND FERTILIZER.

E. SEEDING METHOD - SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY PLACED USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

MULCHING TEMPORARY SEEDING

A. APPLICATIONS OF TEMPORARY SEEDING SHALL INCLUDE MULCH WHICH SHALL BE APPLIED DURING OR IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES AND WITH FAVORABLE SOIL CONDITIONS AND ON VERY FLAT AREAS MAY NOT NEED MULCH TO ACHIEVE ADEQUATE STABILIZATION.

B. MATERIALS:
- STRAW - IF STRAW IS USED, IT SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 2 TONS/ACRE OR 90 LBS./1,000 SQ. FT. (TWO TO THREE BALES). THE MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQ. FT. SECTIONS AND SPREAD TWO 45 LBS. BALES OF STRAW IN EACH SECTION.
- HYDROSEEDERS - IF WOOD CELLULOSE FIBER IS USED, IT SHALL BE USED AT 2,000 LB/AC. OR 46 LBS./1,000 SQ. FT.
- OTHER - OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTINGS APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 6 TONS/AC.
- STRAW MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR WATER. ANCHORING METHODS:
  -MECHANICAL - A DISK, CRIMPER, OR SIMILAR TYPE TOOL SHALL BE SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED, BUT GENERALLY, BE LEFT LONGER THAN 6".
  -MULCH NETTINGS - NETTINGS SHALL BE USED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. NETTING MAY BE NECESSARY TO HOLD MULCH IN PLACE IN AREAS OF CONCENTRATION RUN OFF AND ON CRITICAL SLOPES.
  -SYNTHETIC BINDERS - SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET, TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER.
  -WOOD CELLULOSE FIBER - WOOD-CELLULOSE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LBS./AC. THE WOOD-CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS./1000 GAL.

AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY DISTURBED AREAS WITHIN 50' OF A SURFACE WATER OF THE STATE (STREAM, WATERWAY, WATER BODY, ETC.) AND NOT AT FINAL GRADE.	WITHIN 2 DAYS OF THE MOST RECENT DISTURBANCE IF THE AREA WILL REMAIN IDLE FOR MORE THAN 14 DAYS
ANY DISTURBED AREAS THAT WILL BE DORMANT FOR MORE THAN 14 DAYS BUT LESS THAN 1 YEAR, AND NOT WITHIN 50' OF A SURFACE WATER OF THE STATE (STREAM, WATERWAY, WATER BODY, ETC.)	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA FOR RESIDENTIAL SUBDIVISIONS, DISTURBED AREAS MUST BE STABILIZED AT LEAST 7 DAYS PRIOR TO TRANSFER OF PERMIT COVERAGE FOR THE INDIVIDUAL LOT(S).
DISTURBED AREAS THAT WILL BE IDLE OVER WINTER	PRIOR TO THE ONSET OF WINTER WEATHER
WHERE VEGETATIVE STABILIZATION TECHNIQUES MAY CAUSE STRUCTURAL INSTABILITY OR ARE OTHERWISE UNOBTAINABLE, ALTERNATIVE STABILIZATION TECHNIQUES MUST BE EMPLOYED.	

PERMANENT STABILIZATION
ODOT ITEM 659 SEEDING AND MULCHING, CLASS 1 (LAWN MIXTURE), AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 659, SEEDING AND MULCHING, EXCEPT AS HEREIN MODIFIED.

ALL DISTURBED AREAS OR AREAS DESIGNATED FOR SEEDING SHALL BE GRADED AND SEEDED AND SHALL HAVE A MINIMUM OF 6'' OF TOPSOIL OVER THE ENTIRE AREA. TESTING THE PH OF ANY EXISTING OR IMPORTED TOPSOIL PER ODOT 659.02 SHALL BE WAIVED. THE AREA SHALL BE HAND-RAKED AND DRESSED READY FOR SEEDING. NO STONE OVER 1⁹⁄₃₂ IN SIZE PERMITTED IN THE TOP 6''.

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL.

IT⁵⁄₃₂S THE CONTRACTOR⁵⁄₃₂S SOLE RESPONSIBILITY TO PROVIDE THE REQUIRED GERMINATION RATES AND ENSURE THE GRASS IS ESTABLISHED TO THE SATISFACTION OF THE OWNER WHICH MAY REQUIRE WATERING, REGRADING/ADDING TOPSOIL AND RESEEDING. ANY AREAS THAT HAVE ERODED OR WHERE NEW GRASS DID NOT GERMINATE SHALL BE ADDRESSED BY THE CONTRACTOR UNTIL THE AREAS ARE STABILIZED, SHAPED, AND DRAINED, AS INDICATED IN THE PLANS.

ANY DISTURBED AREA, OUTSIDE OF THE PROJECT WORK LIMITS, CAUSED BY THE CONTRACTOR⁵⁄₃₂S WORK, SHALL BE RESTORED TO THE SATISFACTION OF THE PROPERTY OWNER AND PROJECT OWNER'S REPRESENTATIVE, AT THE CONTRACTOR⁵⁄₃₂S SOLE EXPENSE.

THIS ITEM INCLUDES: TOPSOIL, SEEDING, MULCHING, COMMERCIAL FERTILIZER, WATER, AND REPAIR SEEDING AND MULCHING.

THE ABOVE SHALL BE INCIDENTAL TO THE PROJECT.

STATE OF OHIO
JAKE CORDONNIER
88966
REGISTERED PROFESSIONAL ENGINEER

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575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	2/7/2025

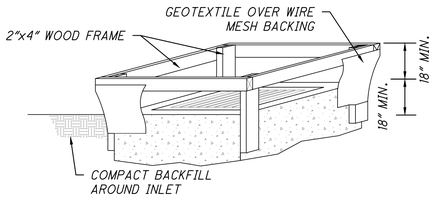
PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	JAC	NJS

SHEET TITLE:
SWPPP GENERAL EROSION CONTROL NOTES AND DETAILS

SHEET NUMBER:
C4.2

INLET PROTECTION FOR STORM STRUCTURES W/ GRATE

INLET PROTECTION MAY CONSIST OF SEDIMENT FENCE AND/OR DEVICES SUCH AS FLEX STORM INLET FILTERS, SEDCAGE (WWW.SEDCATCH.COM), DANDY BAGS, SEDIGUARD FILTERS, OR OTHER DEVICES (ALTERNATE PRODUCTS WHOSE PERFORMANCE IS EQUAL TO OR EXCEEDS THOSE LISTED) WHICH ARE EFFECTIVE AT MINIMIZING THE AMOUNT OF SEDIMENT ENTERING THE STRUCTURE . INSTALL INLET PROTECTION ON ALL PROPOSED YARD DRAINS, CATCH BASINS AND MANHOLES WITH GRATED LIDS AND TO ALL EXISTING STORM STRUCTURES WITH GRATED LIDS WITHIN THE PROJECT AREA WHICH MAY RECEIVE RUNOFF FROM THE CONSTRUCTION SITE.



NOTES

A. INLET PROTECTION SHALL BE CONSTRUCTED EITHER BEFORE UPSLOPE LAND DISTURBANCE BEGINS OR BEFORE THE STORM DRAIN BECOMES OPERATIONAL.

B. THE EARTH AROUND THE INLET SHALL BE EXCAVATED COMPLETELY TO A DEPTH OF AT LEAST 18".

C. THE WOODEN FRAME SHALL BE CONSTRUCTED OF 2" BY 4" CONSTRUCTION GRADE LUMBER. THE 2" BY 4" POST SHALL BE DRIVEN 1' INTO THE GROUND AT FOUR CORNERS OF THE INLET AND THE TOP PORTION OF 2" BY 4" FRAME ASSEMBLED USING THE OVERLAP JOINT SHOWN. THE TOP OF THE FRAME SHALL BE AT LEAST 6" BELOW ADJACENT ROAD, IF PONDED WATER WOULD POSE A SAFETY HAZARD TO TRAFFIC.

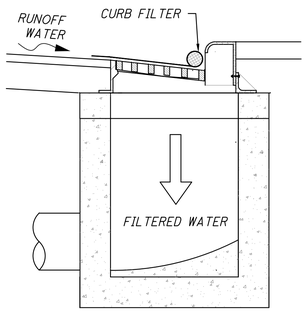
D. WIRE MESH SHALL BE OF SUFFICIENT STRENGTH TO SUPPORT FABRIC WITH WATER FULLY IMPOUNDED AGAINST IT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY TO THE FRAME.

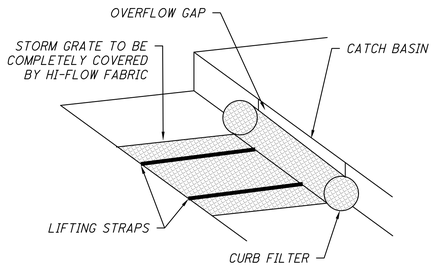
E. GEOTEXTILE SHALL HAVE AN EQUIVALENT OPENING SIZE OF 20-40 SIEVE AND BE RESISTANT TO SUNLIGHT. IT SHALL BE STRETCHED TIGHTLY AROUND THE FRAME AND FASTENED SECURELY. IT SHALL EXTEND FROM THE TOP OF THE FRAME TO 18" BELOW THE INLET NOTCH ELEVATION. THE GEOTEXTILE SHALL OVERLAY ACROSS ONE SIDE OF THE INLET SO THE ENDS OF THE CLOTH ARE NOT FASTENED TO THE SAME POST.

F. BACKFILL SHALL BE PLACED AROUND THE INLET IN COMPACTED 6" LAYERS UNTIL THE EARTH IS EVEN WITH NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES.

G. A COMPACTED EARTH DIKE OR A CHECK DAM SHALL BE CONSTRUCTED IN THE DITCH LINE BELOW THE INLET IF THE INLET IS NOT IN A DEPRESSION, AND IF RUNOFF BY PASSING THE INLET WILL NOT FLOW TO A SETTING POND, THE TOP OF EARTH DIKES SHALL BE AT LEAST 6" HIGHER THAN THE TOP OF THE FRAME.

INLET PROTECTION IN SWALES, DITCH LINES OR YARD INLETS





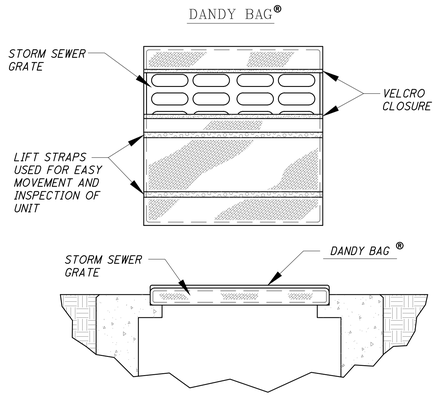
NOTES

A. DANDY CURB BAG, SEDIGUARDS, OR ALTERNATE PRODUCT WHOSE PERFORMANCE IS EQUAL TO OR EXCEEDS THOSE LISTED MAY BE USED.

B. REMOVE SEDIMENT FROM CURB INLET PROTECTION BEFORE IT HINDERS THE FILTERING CAPACITY.
- DANDY CURB BAG: LIFT GRATE AND REMOVE DANDY BAG, CLEAN ACCUMULATED SEDIMENT AND REPLACE BAG AS REQUIRED BY MANUFACTURER.
- SEDIGUARD: CLEAN SEDIGUARD ONCE IT IS DRY WITH A STIFF BROOM AFTER EVERY RAIN.
- ALTERNATE PRODUCTS: CLEAN AS REQUIRED PER MANUFACTURER'S RECCOMENDATIONS

C. INLET PROTECTION SHOULD NEVER INTERFERE WITH SAFETY OF ACTIVE TRAFFIC.

CURB INLET SEDIMENT FILTER DETAIL



DETAIL OF INLET SEDIMENT CONTROL DEVICE

DANDY BAG®
SPECIFICATIONS

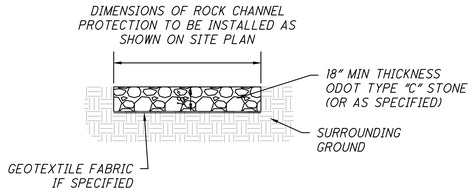
NOTE: THE DANDY BAG® WILL BE **MANUFACTURED IN THE U.S.A.** FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

HI-FLOW DANDY BAG® (SAFETY ORANGE)

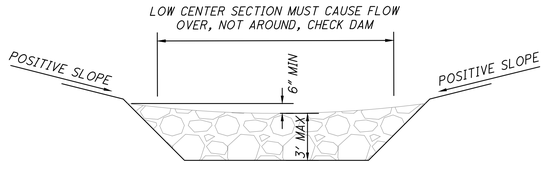
Mechanical Properties	Test Method	Units	MARV
Grab Tensile Strength	ASTM D 4632	kN (lbs)	1.62 (365) X 0.89 (200)
Grab Tensile Elongation	ASTM D 4632	%	24 X 10
Puncture Strength	ASTM D 4833	kN (lbs)	0.40 (90)
Mullen Burst Strength	ASTM D 3786	kPa (psi)	3097 (450)
Trapezoid Tear Strength	ASTM D 4533	kN (lbs)	0.51 (115) X 0.33 (75)
UV Resistence	ASTM D 4355	%	90
Apparent Opening Size	ASTM D 4751	Mm (US Std Sieve)	0.425 (40)
Flow Rate	ASTM D 4491	l/min/m²(gal/min/ft²)	5907 (145)
Permittivity	ASTM D 4491	Sec⁻¹	2.1

*Note: All Dandy Bags® can be ordered with optional oil absorbent pillows

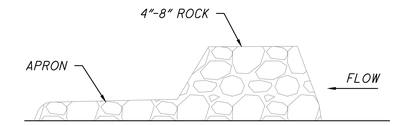
INLET PROTECTION - DANDY BAG



ROCK CHANNEL PROTECTION DETAIL FOR PIPE OUTLET



CROSS SECTION



PROFILE

NOTES

A. THE CHECK DAM SHALL BE CONSTRUCTED OF 4-8 INCH DIAMETER STONE, PLACED SO THAT IT COMPLETELY COVERS THE WIDTH OF THE CHANNEL. ODOT TYPE D STONE IS ACCEPTABLE, BUT SHOULD BE UNDERLAIN WITH A GRAVEL FILTER CONSISTING OF ODOT No. 3 OR 4 OR SUITABLE FILTER FABRIC.

B. MAXIMUM HEIGHT OF CHECK DAM SHALL NOT EXCEED 3.0 FEET.

C. THE MIDPOINT OF THE ROCK CHECK DAM SHALL BE A MINIMUM OF 6 INCHES LOWER THAN THE SIDES IN ORDER TO DIRECT ACROSS THE CENTER AND AWAY FROM THE CHANNEL SIDES.

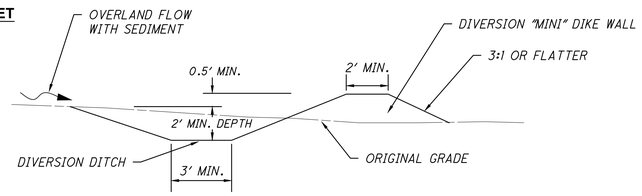
D. THE BASE OF THE CHECK DAM SHALL BE ENTRENCHED APPROXIMATELY 6 INCHES.

E. A STONE APRON SHALL BE CONSTRUCTED IMMEDIATELY DOWNSTREAM OF THE CHECK DAM TO PREVENT FLOWS FROM UNDERCUTTING THE STRUCTURE. THE APRON SHOULD BE 6 INCHES THICK AND ITS LENGTH TWO TIMES THE HEIGHT OF THE DAM.

F. STONE PLACEMENT SHALL BE PERFORMED EITHER BY HAND OR MECHANICALLY AS LONG AS THE CENTER OF CHECK DAM IS LOWER THAN THE SIDES AND EXTENDS ACROSS ENTIRE CHANNEL.

G. SIDE SLOPES SHALL BE A MINIMUM OF 2:1.

DITCH ROCK CHECK DAM



NOTES

A. BERM CAN BE CONSTRUCTED AS DITCH OR DIKE WALL

B. PLACE DITCH ON A GRADE TO DRAIN TO SEDIMENT BASIN.

CROSS SECTION OF A DIVERSION BERM

STATE OF OHIO
JAKE CORDONNIER 88966
REGISTERED PROFESSIONAL ENGINEER

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ISSUANCES/REVISIONS

CONSTRUCTION DOCUMENTS	2/7/2025

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SWPPP GENERAL EROSION CONTROL NOTES AND DETAILS

SHEET NUMBER:
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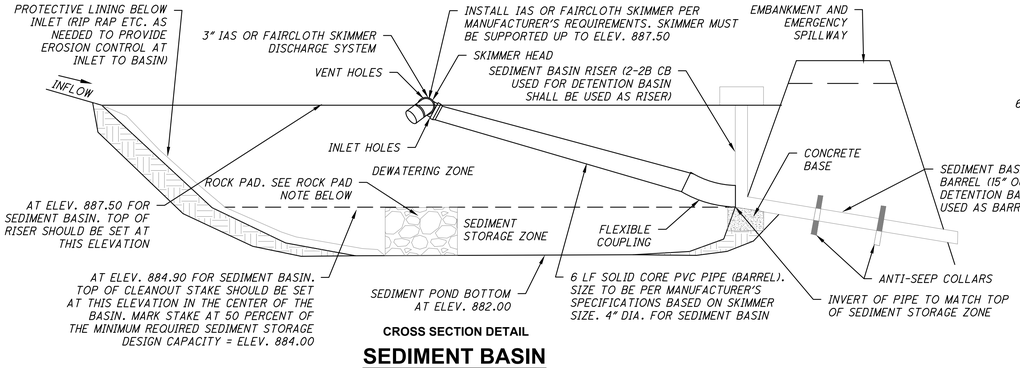
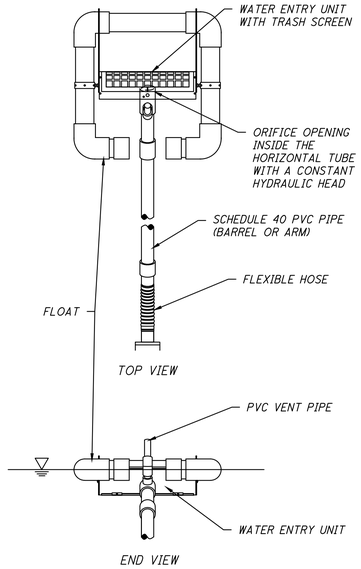


CROSS SECTION DETAIL

SEDIMENT BASIN

IAS SKIMMER
NTS



FAIRCLOTH SKIMMER
NTS

NOTES

A. SEDIMENT BASINS SHALL BE CONSTRUCTED AND OPERATIONAL BEFORE UPSLOPE LAND DISTURBANCE BEGINS.

B. SITE PREPARATION -THE AREA UNDER THE EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED AS NEEDED TO FACILITATE SEDIMENT CLEANOUT. GULLIES AND SHARP BREAKS SHALL BE SLOPED TO NO STEEPER THAN 1:1. THE SURFACE OF THE FOUNDATION AREA WILL BE THOROUGHLY SCARIFIED BEFORE PLACEMENT OF THE EMBANKMENT MATERIAL.

C. EMBANKMENT -THE FILL MATERIAL SHALL BE FREE OF ALL SOD, ROOTS, FROZEN SOIL, STONES OVER 6 IN. IN DIAMETER, AND OTHER OBJECTIONABLE MATERIAL. THE PLACING AND SPREADING OF THE FILL MATERIAL SHALL BE STARTED AT THE LOWEST POINT OF THE FOUNDATION AND THE FILL SHALL BE BROUGHT UP IN APPROXIMATELY 6 IN. HORIZONTAL LAYERS OR OF SUCH THICKNESS THAT THE REQUIRED COMPACTION CAN BE OBTAINED WITH THE EQUIPMENT USED. CONSTRUCTION EQUIPMENT SHALL BE OPERATED OVER EACH LAYER IN A WAY THAT WILL RESULT IN THE REQUIRED COMPACTION. SPECIAL EQUIPMENT SHALL BE USED WHEN THE REQUIRED COMPACTION CANNOT BE OBTAINED WITHOUT IT. THE MOISTURE CONTENT OF FILL MATERIAL SHALL BE SUCH THAT THE REQUIRED DEGREE OF COMPACTION CAN BE OBTAINED WITH THE EQUIPMENT USED. THE EMBANKMENTS OF THE SEDIMENT BASIN AND THE AREAS THAT LIE DOWNSTREAM OF THE POND MUST BE STABILIZED.

D. PIPE SPILLWAY -THE PIPE CONDUIT BARREL SHALL BE PLACED ON A FIRM FOUNDATION TO THE LINES AND GRADES SHOWN ON THE PLANS. CONNECTIONS BETWEEN THE RISER AND BARREL, THE ANTI-SEEP COLLARS AND BARREL AND ALL PIPE JOINTS SHALL BE WATERTIGHT. SELECTED BACKFILL MATERIAL SHALL BE PLACED AROUND THE CONDUIT IN LAYERS AND EACH LAYER SHALL BE COMPACTED TO AT LEAST THE SAME DENSITY AS THE ADJACENT EMBANKMENT. ALL COMPACTION WITHIN 2 FT. OF THE PIPE SPILLWAY WILL BE ACCOMPLISHED WITH HAND-OPERATED TAMPING EQUIPMENT.

E. RISER PIPE BASE -THE RISER PIPE SHALL BE SET A MINIMUM OF 6 IN. IN THE CONCRETE BASE.

F. TRASH RACKS -THE TOP OF THE RISER SHALL BE FITTED WITH TRASH RACKS FIRMLY FASTENED TO THE RISER PIPE.

G. SEED AND MULCH -THE SEDIMENT BASIN SHALL BE STABILIZED IMMEDIATELY FOLLOWING ITS CONSTRUCTION. IN NO CASE SHALL THE EMBANKMENT OR EMERGENCY SPILLWAY REMAIN BARE FOR MORE THAN 7 DAYS.

H. SEDIMENT CLEANOUT - ACCUMULATED SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT STORAGE ZONE ONCE IT EXCEEDS 50 PERCENT OF THE MINIMUM REQUIRED SEDIMENT STORAGE DESIGN CAPACITY AND PRIOR TO THE CONVERSION TO THE POST-CONSTRUCTION PRACTICE UNLESS SUITABLE STORAGE IS DEMONSTRATED BASED UPON OVER-DESIGN. THIS ELEVATION SHALL BE MARKED ON A CLEANOUT STAKE NEAR THE CENTER OF THE BASIN. SEDIMENT REMOVED FROM THE BASIN SHALL BE PLACED SO THAT IT WILL NOT ERODE.

I. FINAL REMOVAL - SEDIMENT BASINS SHALL BE REMOVED AFTER THE UPSTREAM DRAINAGE AREA IS STABILIZED OR AS INDICATED IN THE PLANS. DEWATERING AND REMOVAL SHALL NOT CAUSE SEDIMENT TO BE DISCHARGED. THE SEDIMENT BASIN SITE AND SEDIMENT REMOVED FROM THE BASIN SHALL BE STABILIZED.

OPERATIONS AND MAINTENANCE

SEDIMENT BASINS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT.
NECESSARY ACTIVITIES ARE SHOWN AS FOLLOWS:

A. ESTABLISH VEGETATIVE COVER AND FERTILIZE AS NECESSARY TO MAINTAIN A VIGOROUS COVER IN AND AROUND THE SEDIMENT BASIN.

B. REMOVE UNDESIRABLE VEGETATION PERIODICALLY TO PREVENT GROWTH OF TREES AND SHRUBS ON THE EMBANKMENT AND SPILLWAY AREAS.

C. PROMPTLY REPAIR ERODED AREAS. REESTABLISH VEGETATIVE COVER IMMEDIATELY WHERE SCOUR EROSION HAS REMOVED ESTABLISHED SEEDING.

D. PROMPTLY REMOVE ANY BURROWING RODENTS THAT MAY INVADE AREAS OF THE EMBANKMENT.

E. REMOVE TRASH AND DEBRIS THAT MAY BLOCK SPILLWAYS AND ACCUMULATE IN THE POND.

F. CHECK SPILLWAY OUTLETS AND POINTS OF INFLOW TO ENSURE DRAINAGE IS NOT CAUSING EROSION AND THAT OUTLETS ARE NOT CLOGGED. REPLACE DISPLACED RIPRAP IMMEDIATELY.

ROCK PAD NOTE

IT IS VERY IMPORTANT THAT A ROCK PAD BE CONSTRUCTED TO THE HEIGHT OF THE TOP OF THE SEDIMENT STORAGE ZONE. IF THIS IS NOT DONE OR IF THE PAD IS NOT BUILT TO THE SAME HEIGHT AS THE TOP OF THE SEDIMENT STORAGE ZONE, THE SKIMMER WILL NOT FUNCTION PROPERLY .

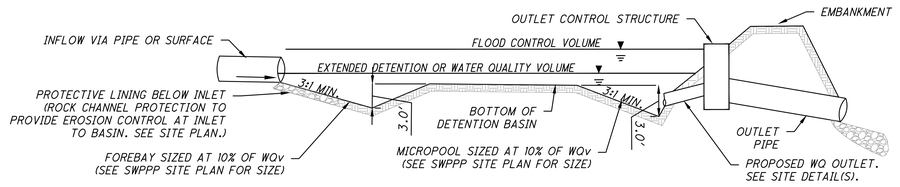
WHEN COMPLETE THE IAS FLEXIBLE COUPLING SHOULD BE LYING FLAT ON THE ROCK PAD. THE UNIT WILL BE TOUCHING AT TWO POINTS: THE TOP OF THE BARREL/MIDDLE OF THE SKIMMER HEAD AND THE POINT AT WHICH THE BARREL IS ATTACHED TO THE IAS FLEXIBLE COUPLING. SEE MANUFACTURER'S ASSEMBLY INSTRUCTIONS.

SEDIMENT BASIN CALCULATIONS

REQUIRED SEDIMENT STORAGE VOLUME = 37 C.Y./ACRE * 9.28 ACRES = 343 C.Y.
TOP OF SEDIMENT STORAGE ZONE ELEVATION = 884.90 (395 C.Y.). SET CLEANOUT STAKE AT THIS ELEVATION.
REQUIRED DEWATERING ZONE VOLUME = 67 C.Y./ACRE * 9.28 ACRES = 622 C.Y.
DEWATERING ZONE VOLUME (BETWEEN 884.90 AND 887.50) = 801 C.Y.
TOTAL BASIN VOLUME REQUIRED TO TOP OF DEWATERING ZONE = 343 C.Y. + 622 C.Y. = 965 C.Y.
TOP OF DEWATERING ZONE ELEVATION = 887.50 (1196 C.Y.)
TOTAL SEDIMENT BASIN VOLUME PROVIDED TO ELEV. 888.00 = 1384 C.Y.
RISER AND BARREL: PROPOSED 15" DETENTION OUTLET AND 2-2B CB ARE TO BE USED AS OUTLET FOR SEDIMENT BASIN.
DEWATERING TIME : 2.71 DAYS
801 C.Y. * 27 = 27,627 C.F. VOLUME TO BE DEWATERED
USING A FAIRCLOTH/IAS WATER QUALITY SKIMMER WITH A 3" SKIMMER SIZE, IT DISCHARGES 10,205 CF PER 24 HOURS THEREFORE IT WILL TAKE 2.71 DAYS TO DEWATER THIS SEDIMENT BASIN.

SEDIMENT BASIN CONVERT TO SITE DETENTION BASIN NOTE

UPON COMPLETION OF THE PROJECT, IF THE SEDIMENT BASIN IS TO SERVE AND FUNCTION AS A SITE DETENTION/RETENTION BASIN, ALL SEDIMENT SHALL BE REMOVED FROM THE SEDIMENT BASIN WHICH IS ABOVE ITS PROPOSED FINAL SURFACE GRADES THROUGHOUT THE BASIN AND ALSO AS NEEDED TO PLACE ANY REQUIRED TOPSOIL. UPON PROJECT COMPLETION AND FINAL CLEANING, THE SEDIMENT BASIN SHOULD BE ESTABLISHED TO ITS PROPOSED RETENTION/DETENTION BASIN DESIGN INCLUDING CAPACITY, GRADES, OUTLETS, FOREBAY AND MICROPOOL.



FOREBAY AND MICROPOOL CROSS SECTION

TYPICAL MAINTENANCE ACTIVITIES FOR DETENTION BASINS

POTENTIAL POLLUTANT SOURCES POST CONSTRUCTION THAT SHOULD BE MONITORED INCLUDE: TRASH, FERTILIZERS, GRAINS, HERBICIDES, PESTICIDES, LAWN TREATMENT APPLICATIONS ALONG WITH ASSORTED FUELS, OILS, GREASE, HYDRAULIC FLUID, AND OTHER VEHICULAR FLUIDS ASSOCIATED WITH TRAFFIC THROUGHOUT THE DEVELOPED SITE.

MONTHLY: MOW EMBANKMENT AND CLEAN TRASH AND DEBRIS FROM OUTLET STRUCTURE. ADDRESS ANY ACCUMULATION OF HYDROCARBONS.

ANNUALLY: INSPECT EMBANKMENT AND OUTLET STRUCTURE FOR DAMAGE AND PROPER FLOW. REMOVE WOODY VEGETATION AND FIX ANY ERODING AREAS. MONITOR SEDIMENT ACCUMULATIONS IN FOREBAY AND MAIN POOL.

SEMI-ANNUALLY: INSPECT WETLAND AREAS FOR INVASIVE PLANS

3-7 YEARS: REMOVE SEDIMENT FROM FOREBAYS.

15-20 YEARS: MONITOR SEDIMENT ACCUMULATIONS IN THE MAIN POOL AND CLEAN AS POND BECOMES EUTROPHIC OR POOL VOLUME IS REDUCED SIGNIFICANTLY.

FINAL DETENTION BASIN

STATE OF OHIO
JAKE C CORDONNIER
88966
REGISTERED PROFESSIONAL ENGINEER

GARMANN MILLER
MUNSTER, OHIO | COLUMBUS, OHIO | INDIANAPOLIS, INDIANA | FT. WAYNE, INDIANA
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NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

CONSTRUCTION DOCUMENTS	10/08/2024

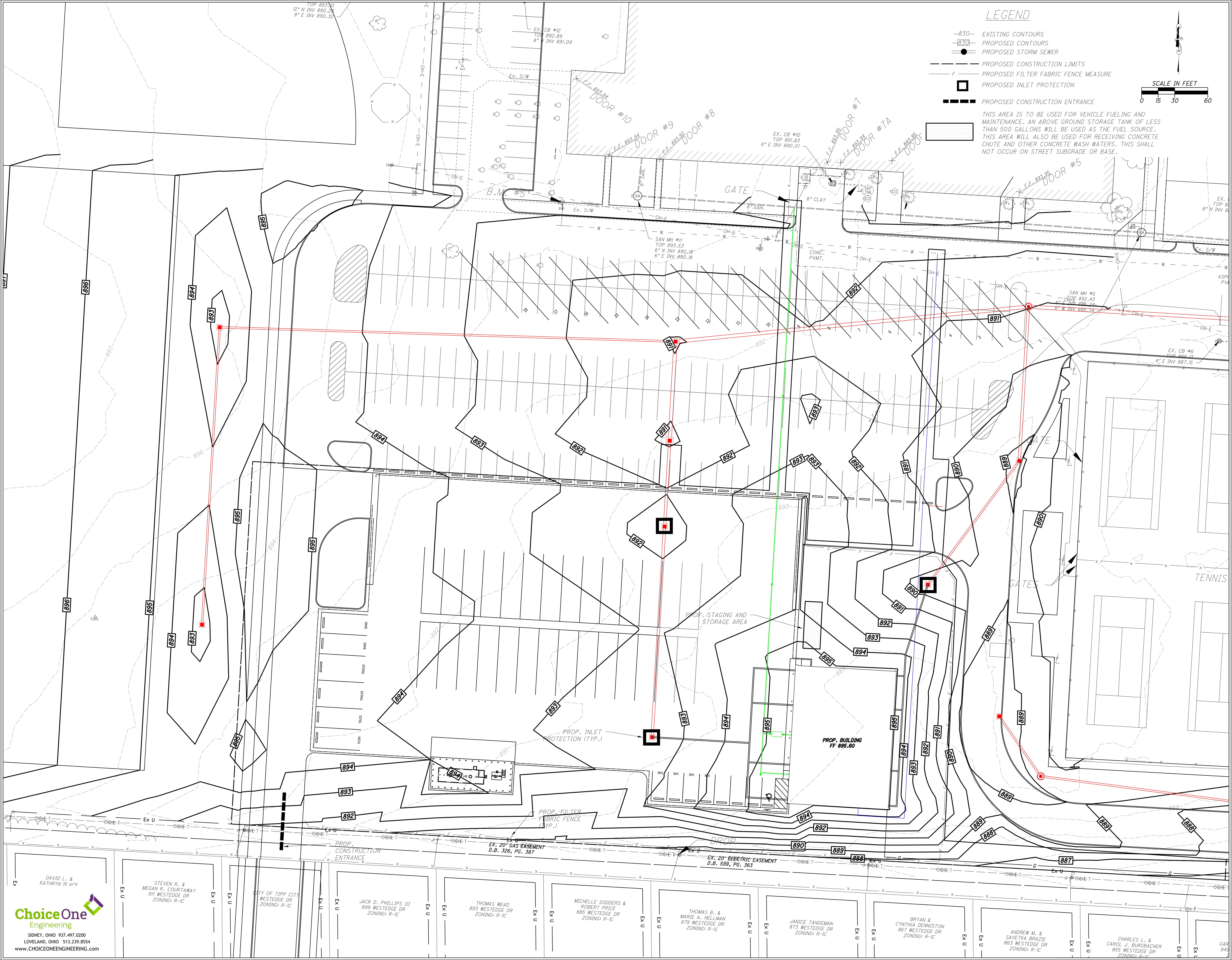
PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	JAC	NJS

SHEET TITLE:

SWPPP GENERAL EROSION CONTROL NOTES AND DETAILS

SHEET NUMBER:

C4.4



Choice One Engineering
SIDNEY, OHIO 937.497.0200
LOVELAND, OHIO 513.239.8554
www.CHOICEONEENGINEERING.com

STATE OF OHIO
JAKE CORDONNIER
88966
REGISTERED PROFESSIONAL ENGINEER

GARMANN MILLER
MINSTER, OHIO | COLUMBUS, OHIO | INDIANAPOLIS, INDIANA | FT. WAYNE, INDIANA
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575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	2/7/2025

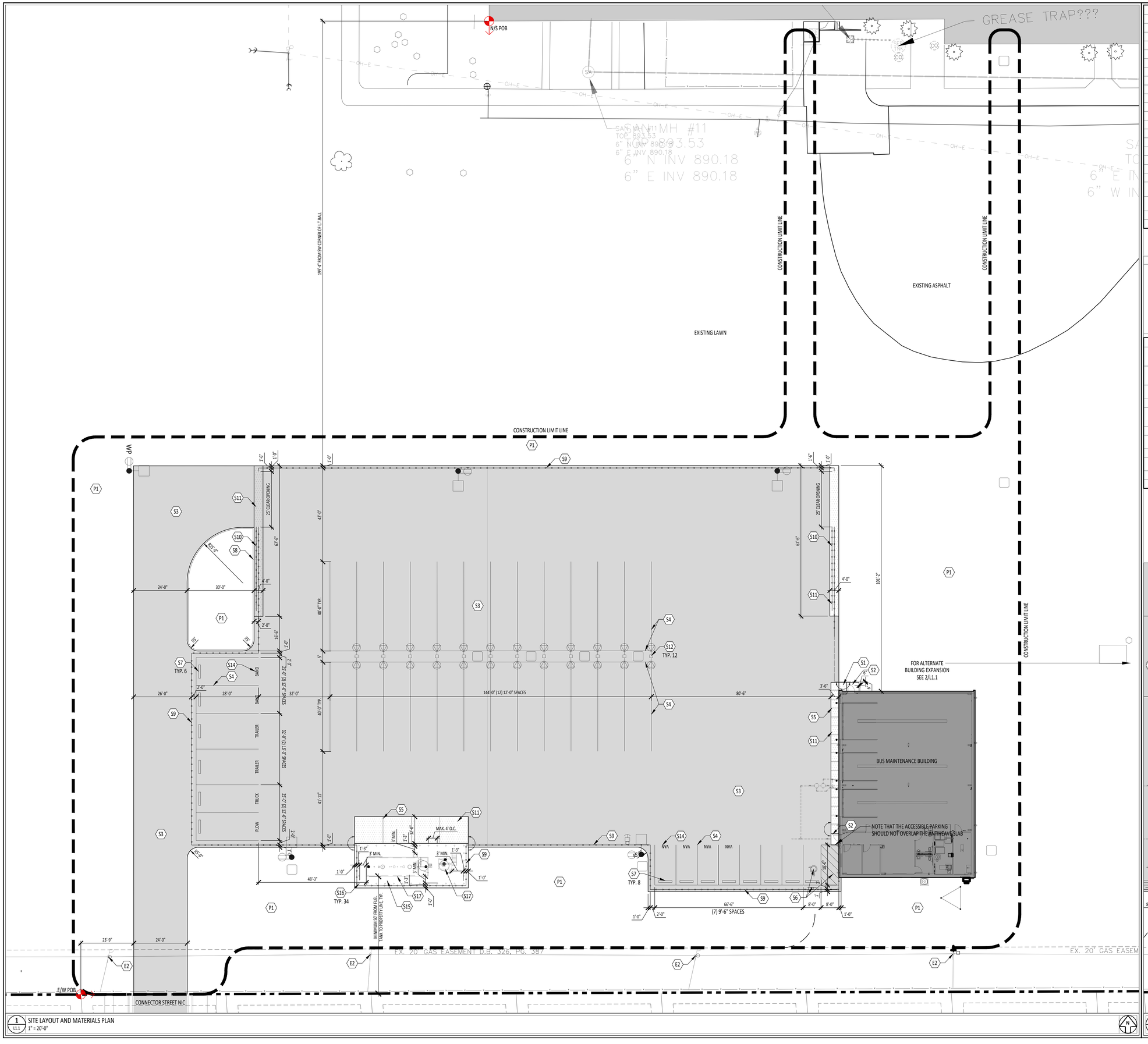
PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	JAC	NJS

SHEET TITLE:

SWPPP SITE EROSION CONTROL PLAN

SHEET NUMBER:

C4.5



1 L1.1 SITE LAYOUT AND MATERIALS PLAN
1" = 20'-0"

2 L1.1 ALTERNATE SITE LAYOUT AND MATERIALS PLAN
1" = 20'-0"

KEYNOTE SCHEDULE

	EXISTING
E1	EXISTING PAVEMENT TO REMAIN
E2	EXISTING ELECTRIC POLE TO REMAIN
	PLANTING
P1	SEEDED LAWN, SEE SPECIFICATIONS
	SITE
S1	STANDARD DUTY CONCRETE PAVEMENT, SEE DETAIL 2/L2.1
S2	ANTI HEAVE SLAB, SEE STRUCTURAL PLANS
S3	HEAVY DUTY ASPHALT PAVEMENT, SEE DETAIL 1/L2.1
S4	PAINTED PAVEMENT MARKINGS, PARKING SPACE STRIPING, SEE SPECIFICATIONS
S5	SAWCUT CONTROL OR EXPANSION JOINT, SEE DETAIL 2/L2.1
S6	HANDICAP PARKING, SEE DETAILS 4&5/L2.1
S7	CONCRETE WHEELSTOP, SEE DETAIL 3/L2.1
S8	CURB, SEE DETAIL 6/L2.1
S9	6' HIGH GALVANIZED CHAIN LINK FENCE WITH BARBED WIRE, SEE DETAILS 9/L2.1
S10	6' HIGH MANUAL CANTILEVER FENCE GATE WITH BARBED WIRE, SEE DETAIL 8/L2.1
S11	HEAVY DUTY CONCRETE PAVEMENT, SEE DETAIL 7/L2.1
S12	BUS PEDESTAL, SEE ELECTRICAL DRAWINGS
S13	POLE LIGHT, SEE ELECTRICAL DRAWINGS
S14	PAVEMENT MARKINGS AS INDICATED ON DRAWING, SEE DETAIL 10/L2.1, CONFIRM TEXT & PLACEMENT WITH OWNER PRIOR TO INSTALL
S15	CONCRETE PAVEMENT SURROUNDING FUEL TANKS - SEE THIS DRAWING FOR LAYOUT, SEE FUEL SYSTEM DRAWINGS FOR DETAIL
S16	BOLLARDS - SEE THIS DRAWING FOR LAYOUT, SEE FUEL SYSTEM DRAWING FOR DETAIL
S17	FUEL TANKS, SEE FUEL SYSTEM DRAWINGS

LEGEND

- P.O.B. (POINT OF BEGINNING)
- ALIGN
- KEYNOTE DESIGNATION-REFER TO NOTES THIS SHEET
- SD CONCRETE PAVEMENT; SEE DETAIL 2/L2.1
- HD CONCRETE PAVEMENT; SEE DETAILS 7/L2.1
- CONTROL JOINT
- CONCRETE PAVEMENT

GENERAL NOTES

A.	FIELD VERIFY DIMENSIONS & CONDITIONS PRIOR TO START OF CONSTRUCTION. NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCY OR SITUATION DISCOVERED THAT DOES NOT CONFORM TO CONSTRUCTION DOCUMENTS.
B.	WORK PERFORMED IS SUBJECT TO APPROVAL BY THE ARCHITECT AND OWNER. WORK FOUND TO BE UNSATISFACTORY SHALL BE REMOVED AND PROPERLY REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
C.	TEMPORARILY SUPPORT WALLS, HEADERS, STRUCTURES, PIPING, DUCTWORK, CONDUIT, ETC., AS REQUIRED UNTIL FINAL SUPPORTS ARE IN PLACE.
D.	PATCH & REPAIR ALL AREAS, SURFACES & MATERIALS TO CONDITION OF SURROUNDING AREA.
E.	CLOSELY COORDINATE WORK WITH THE OWNER AND WITH ALL OTHER CONTRACTORS HIRED BY THE OWNER. CLARIFY IN ADVANCE ANY QUESTIONS AS TO SCOPE OF WORK AND AREAS OF RESPONSIBILITY.
F.	PATCH AND REPAIR DISTURBED LAWN AREAS.
G.	DIMENSIONS ARE TO FACE OF CURB, FENCE, COLUMN OR CENTERLINE UNLESS OTHERWISE NOTED. WALKS SHALL BE CENTERED ON DOOR WAYS.
H.	WALKS SHALL MEET BOTH VERTICALLY AND HORIZONTALLY.
I.	LAYOUT AND DIMENSIONS ARE PARALLEL AND PERPENDICULAR TO ONE ANOTHER UNLESS OTHERWISE INDICATED IN PLANS.
J.	CONTRACTOR SHALL CALL OUPS (800) 362-2764 PRIOR TO COMMENCEMENT OF ANY WORK.
K.	EXCESS DIRT LOCATION TO BE COORDINATED WITH OWNER

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Registered
PROFESSIONAL ENGINEER

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NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N WYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

CONSTRUCTION DOCUMENTS	02/07/2025

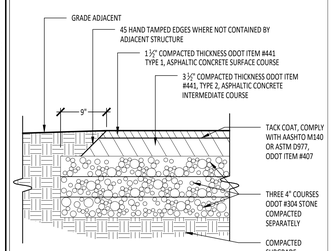
PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	AJW	KAT

SHEET TITLE:

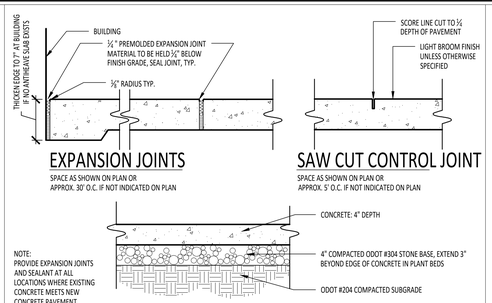
SITE LAYOUT AND MATERIALS PLAN

SHEET NUMBER:

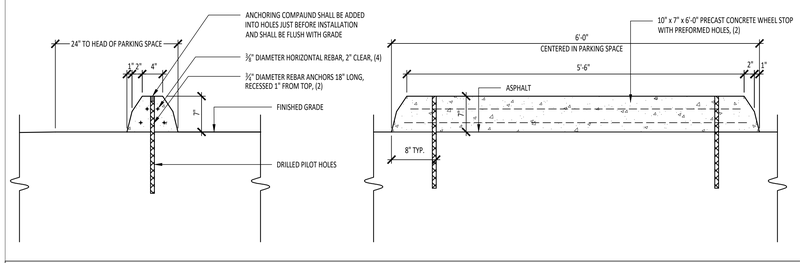
L1.1



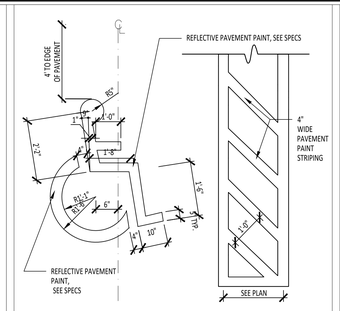
1 L2.1 ASPHALT PAVEMENT HEAVY DUTY
1" = 1'- 0"



2 L2.1 CONCRETE PAVEMENT AND JOINTS
1" = 1'- 0"

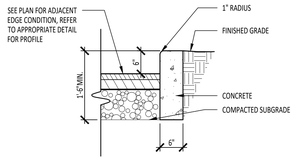


3 L2.1 CONCRETE WHEELSTOP
1" = 1'- 0"

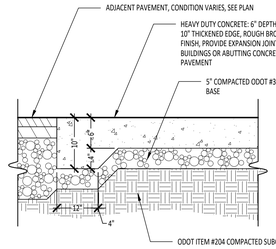


4 L2.1 HANDICAP PARKING LOGO
1/2" = 1'- 0"

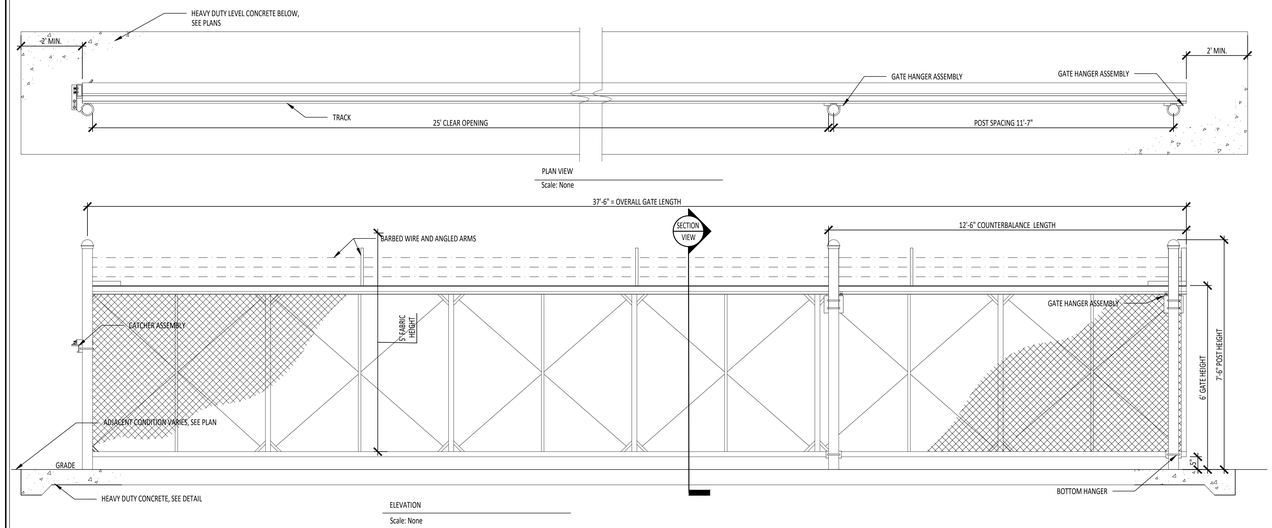
5 L2.1 RESERVED PARKING FOR HANDICAPPED SIGN
1/4" = 1'- 0"

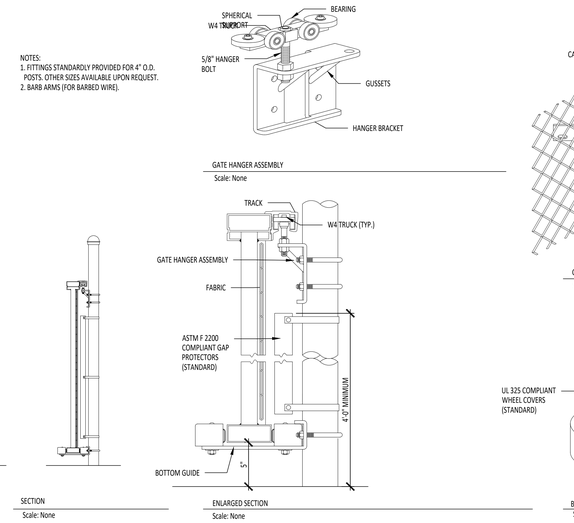


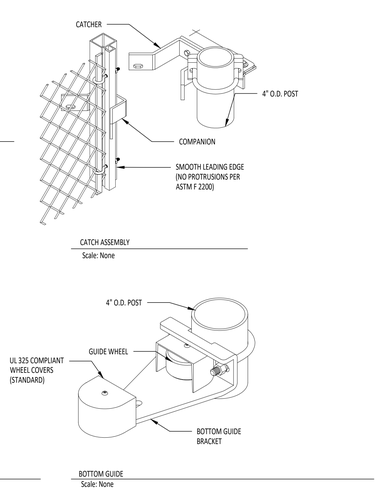
6 L2.1 CURB
3/4" = 1'- 0"



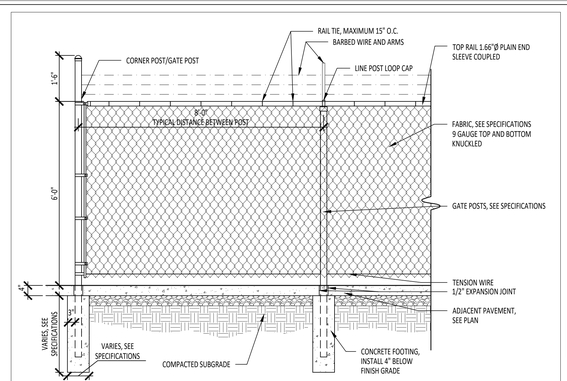
7 L2.1 HEAVY DUTY CONCRETE PAVEMENT
1" = 1'- 0"



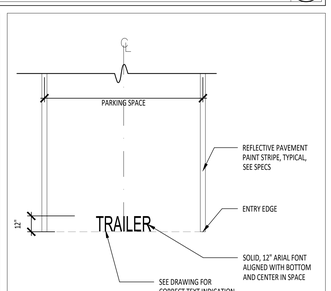




8 L2.1 CHAINLINK FENCE WITH BARBED WIRE
1/2" = 1'- 0"



9 L2.1 CHAINLINK FENCE WITH BARBED WIRE
1/2" = 1'- 0"



10 L2.1 VISITOR OR STAFF PARKING PAINT
1/4" = 1'- 0"

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ERIC JAMES BALTZELL
E-65072
Registered
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NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

CONSTRUCTION DOCUMENTS	02/07/2025

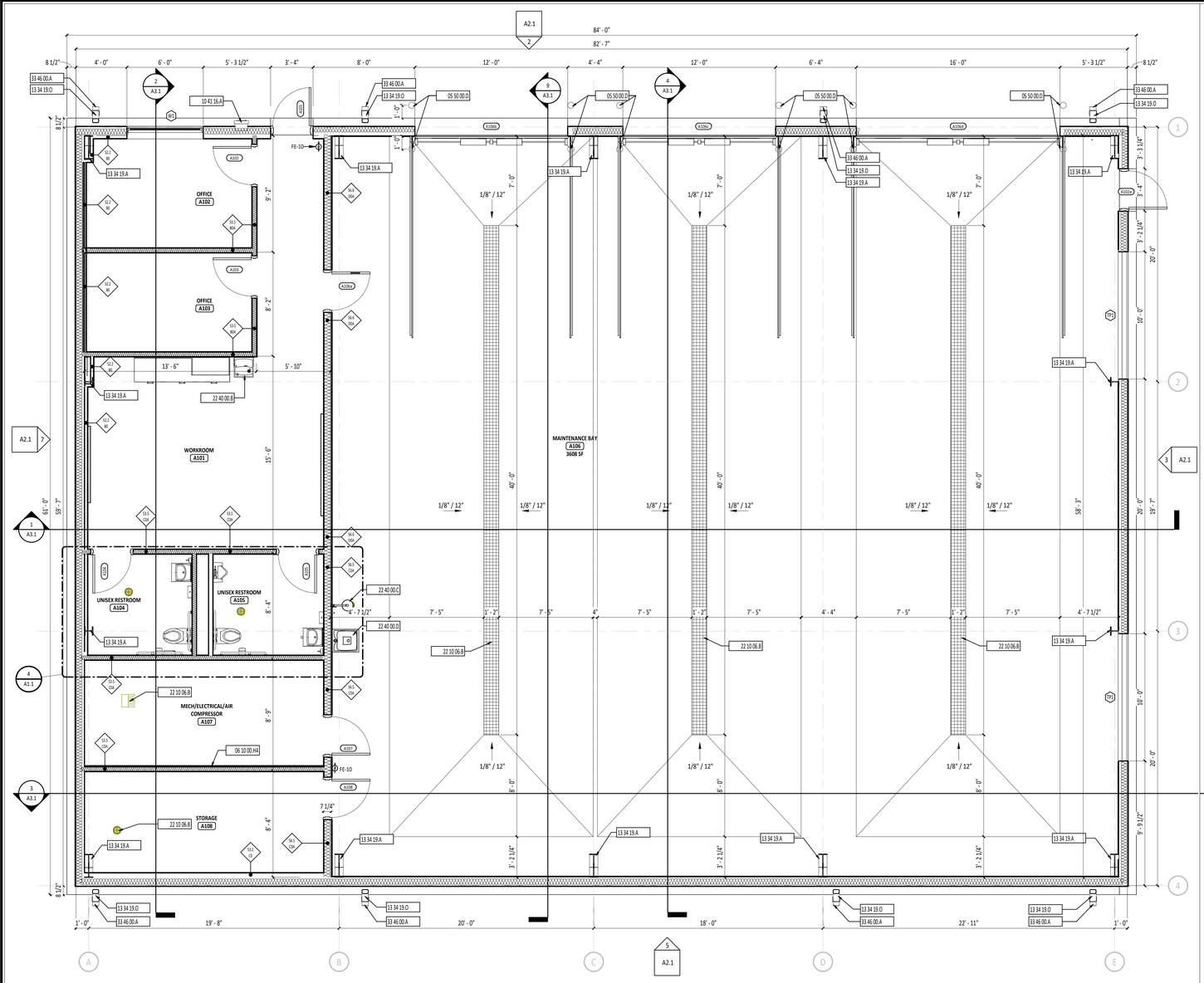
PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	AJW	KAT

SHEET TITLE:

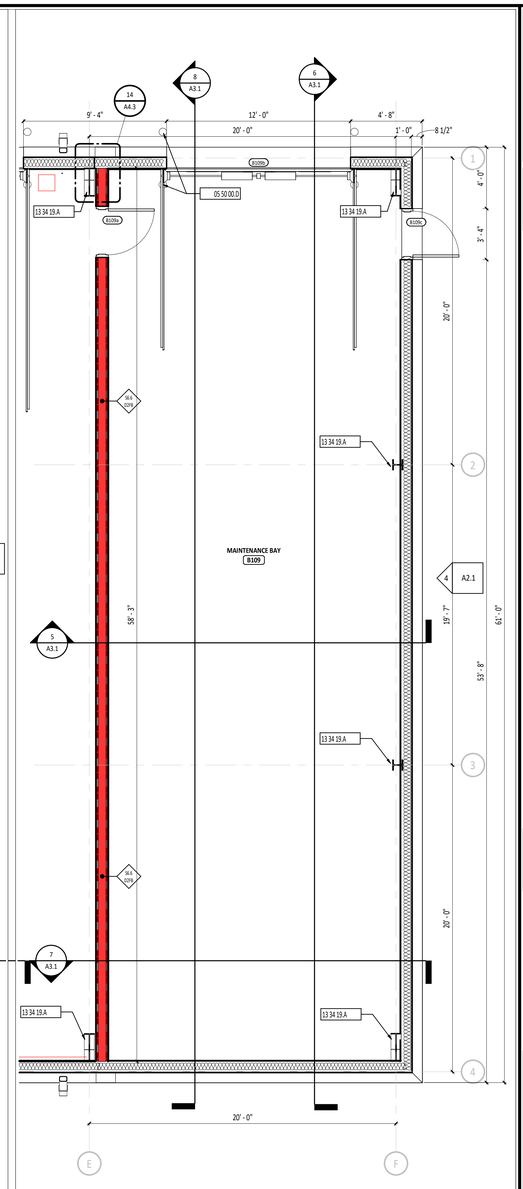
SITE DETAILS

SHEET NUMBER:

L2.1



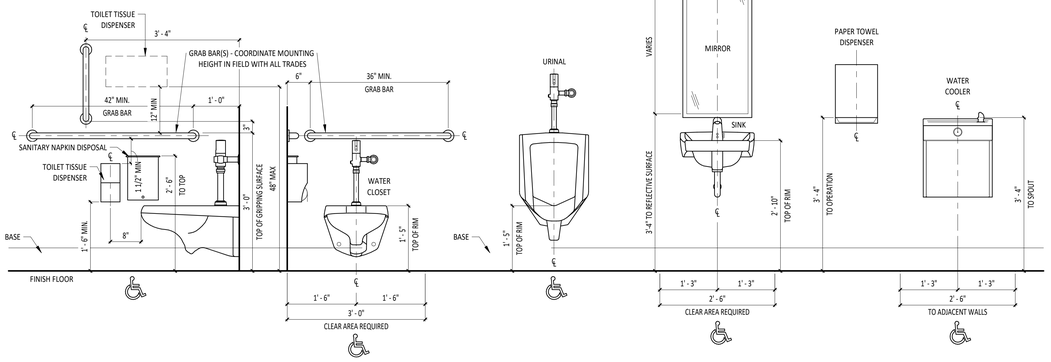
1 A1.1 FIRST FLOOR PLAN
1/4" = 1'-0"



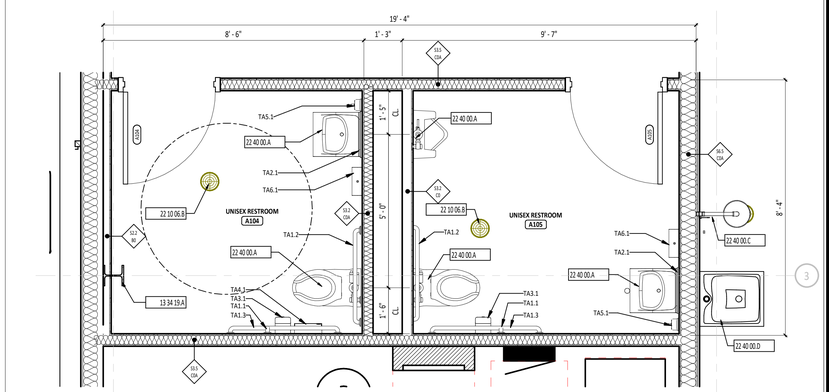
2 A1.1 FLOOR PLAN - ALTERNATE

NOTE:

REFERENCE PLUMBING FIXTURE SCHEDULES ON PLUMBING DRAWINGS FOR SPECIFIC MOUNTING HEIGHTS.



3 A1.1 MOUNTING HEIGHTS
3/4" = 1'-0"



4 A1.1 ENLARGED RESTROOM PLAN
1/2" = 1'-0"

FIRST FLOOR PLAN ROOM INDEX - OVERALL

ROOM NUMBER	ROOM NAME	AREA
A101	WORKROOM	368 SF
A102	OFFICE	110 SF
A103	OFFICE	101 SF
A104	UNISEX RESTROOM	65 SF
A105	UNISEX RESTROOM	69 SF
A106	MAINTENANCE BAY	3,608 SF
A107	MECH/ELECTRICAL/AIR COMPRESSOR	156 SF
A108	STORAGE	149 SF

FIRST FLOOR PLAN ROOM INDEX - ALTERNATE

ROOM NUMBER	ROOM NAME	AREA
B109	MAINTENANCE BAY	1,115 SF

FLOOR PLAN SYMBOLS LEGEND

- AED — AUTOMATED EXTERNAL DEFIBRILLATOR DESIGNATION
- XXX — DOOR DESIGNATION - REFERENCE DOOR/OPENING SCHEDULE.
- FE-_ — FIRE EXTINGUISHER DESIGNATION - REFERENCE SPECIFICATIONS
- FEC-_ — FIRE EXTINGUISHER CABINET DESIGNATION - REFERENCE SPECIFICATIONS
- A101 — ROOM DESIGNATION - REFERENCE ROOM INDEX.
- 01 — CURTAIN WALL/STOREFRONT/WINDOW TYPE DESIGNATION
- A 02 — WALL TYPE DESIGNATION - REFERENCE WALL TYPES.
- X — STRUCTURAL GRID - REFERENCE STRUCTURAL DRAWINGS.
- XX XX XX.XX.XX — DIVISIONAL KEYNOTE DESIGNATION - REFERENCE KEYNOTE SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
  - KEYNOTE DESIGNATION
  - SPECIFICATION SECTION
- AREA OF DETAIL — SIM — CALLOUT
  - DETAIL NUMBER
  - SHEET NUMBER
- EXTERIOR ELEVATION
  - DETAIL NUMBER
  - SHEET NUMBER
- INTERIOR ELEVATION
  - DETAIL NUMBER
  - SHEET NUMBER
- SECTION
  - DETAIL NUMBER
  - SHEET NUMBER

WALL TYPE INFORMATION

- WALL TYPE SYMBOL
- WALL TYPE (REFERENCE PLAN AND TYPE DETAILS)
- ADDITIONAL INFORMATION; SEE BELOW
- FIRE/SMOKE RATING: 0,1,2,3, OR S (SMOKE)
- WALL HEIGHT; REFERENCE WALL TYPE DETAILS

ADDITIONAL INFORMATION

A = ACOUSTICAL BATT INSULATION
FB = FIRE BARRIER WALL
G = GROUT WALL FULL

FIRE EXTINGUISHER

MARK	DESCRIPTION	NOTES
FE-10	FIRE EXTINGUISHER - 10.0LB - CLASS A:B:C	FURNISHED AND INSTALLED BY GC

FLOOR PLAN SYMBOLS LEGEND

- A101 — ROOM DESIGNATION - REFERENCE ROOM INDEX.
- EXTERIOR ELEVATION
  - DETAIL NUMBER
  - SHEET NUMBER
- SECTION
  - DETAIL NUMBER
  - SHEET NUMBER

#	KEYNOTE DESCRIPTION
05 50 00.D	EXTERIOR GALVANIZED BOLLARD - PAINT - REFERENCE ARCHITECTURAL, SITE, AND STRUCTURAL DRAWINGS.
06 10 00.H4	5/8" FIRE-RETARDANT PLYWOOD
10 41 16.A	KNOX BOX - TOP TO BE MOUNTED AT 52" AFF. COORDINATE LOCATION WITH AHJ.
13 34 19.A	PRE-ENGINEERED METAL BUILDING SYSTEM
13 34 19.O	PREFINISHED ALUMINUM DOWNSPOUT - PROVIDED BY P.E.M.B. MANUFACTURER
22 10 06.B	FLOOR DRAIN - REFERENCE PLUMBING DRAWINGS.
22 40 00.A	PLUMBING FIXTURE - REFERENCE PLUMBING DRAWINGS.
22 40 00.B	DRINKING WATER COOLER - REFERENCE PLUMBING DRAWINGS - REFERENCE A0.1 FOR MOUNTING HEIGHTS.
22 40 00.C	EMERGENCY EYEWASH - REFERENCE PLUMBING DRAWINGS.
22 40 00.D	FLOOR SERVICE SINK - REFERENCE PLUMBING DRAWINGS.
33 46 00.A	PVC DOWNSPOUT BOOT - BY SITE CONTRACTOR; PAINT

FLOOR PLAN GENERAL NOTES

A ALL DIMENSIONS ARE MEASURED TO THE FACE OF MASONRY OR THE FACE OF METAL STUD UNLESS NOTED OTHERWISE.
B ALL CMU CORNERS, HORIZONTAL OR VERTICAL, SHALL BE BULLNOSE UNLESS NOTED OR DETAILED OTHERWISE.
C INSTALL TREATED WOOD BLOCKING IN WALLS AS REQUIRED TO SECURE ALL EQUIPMENT, ACCESSORIES, HANDRAILS, CASEWORK, ETC. COORDINATE THIS WORK WITH ALL APPROPRIATE CONTRACTORS, SUPPLIERS AND MANUFACTURERS RECOMMENDATIONS.
E REFERENCE G1.0 FOR WALL TO DECK TERMINATION DETAILS.
F HINGE SIDE OF DOOR JAMB AT INTERSECTING WALLS TO BE LOCATED 4" FROM ADJACENT WALL UNLESS NOTED OTHERWISE - REFERENCE FLOOR PLANS.
G IF WALL TYPE IS NOT IDENTIFIED, WALL IS TO RUN FULL HEIGHT TO DECK.

RESTROOM ENLARGEMENT GENERAL NOTES

A TA = TOILET ACCESSORIES.
B REFERENCE SPECIFICATION SECTION 10 28 00 FOR TOILET ACCESSORIES.
C ALL TOILET ACCESSORIES SHALL BE SURFACE-MOUNTED UNLESS NOTED OTHERWISE.
D FOR TYPICAL MOUNTING HEIGHTS REFERENCE MOUNTING HEIGHT DETAILS ON SHEET A1.1.
E CONTRACTOR TO COORDINATE THE SIZE(S) OF THE ACCESSORIES SUPPLIED BY THE OWNER PRIOR TO INSTALLATION FOR ACCURATE PLACEMENT LOCATIONS.
F FE/FEC = FIRE EXTINGUISHER AND OR CABINET - REFERENCE SCHEDULES ON FLOOR PLAN SHEETS.

TOILET ACCESSORY SCHEDULE

MARK	DESCRIPTION	NOTES
TA1.1	GRAB BAR - SURFACE MOUNT - VERTICAL - 18" LENGTH - 39" AFF TO BOTTOM OF THE BAR	CONTRACTOR PROVIDED AND INSTALLED
TA1.2	GRAB BAR - SURFACE MOUNT - HORIZONTAL - 36" LENGTH - 36" AFF TO TOP OF THE GRIPPING SURFACE	CONTRACTOR PROVIDED AND INSTALLED
TA1.3	GRAB BAR - SURFACE MOUNT - HORIZONTAL - 42" LENGTH - 36" AFF TO TOP OF THE GRIPPING SURFACE	CONTRACTOR PROVIDED AND INSTALLED
TA2.1	MIRROR - 18"W x 36"H	CONTRACTOR PROVIDED AND INSTALLED
TA3.1	TOILET PAPER DISPENSER - SURFACE MOUNT - 18" AFF TO BOTTOM	OWNER PROVIDED CONTRACTOR INSTALLED
TA4.1	SANITARY NAPKIN DISPOSAL - SURFACE MOUNT - 30" AFF TO TOP	CONTRACTOR PROVIDED AND INSTALLED
TA5.1	SOAP DISPENSER - SURFACE MOUNT - 40" AFF TO OPERATION	OWNER PROVIDED CONTRACTOR INSTALLED
TA6.1	PAPER TOWEL DISPENSER UNIT - SURFACE MOUNT - FOLDED TOWELS - 40" AFF TO OPERATION	OWNER PROVIDED CONTRACTOR INSTALLED

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ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	EJS	BW

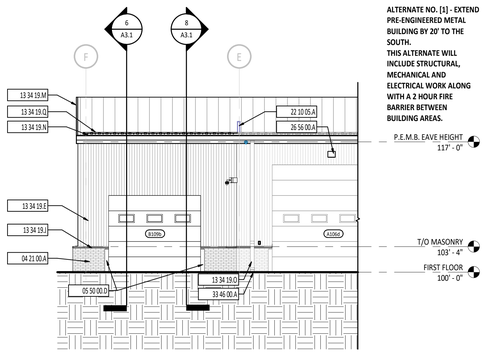
SHEET TITLE:

FLOOR PLAN

SHEET NUMBER:

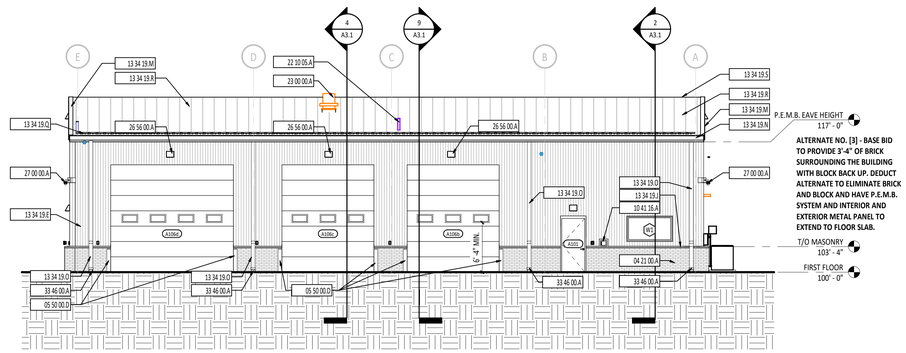
A1.1

PRINTED ON: 2/7/2025 4:33:30 PM



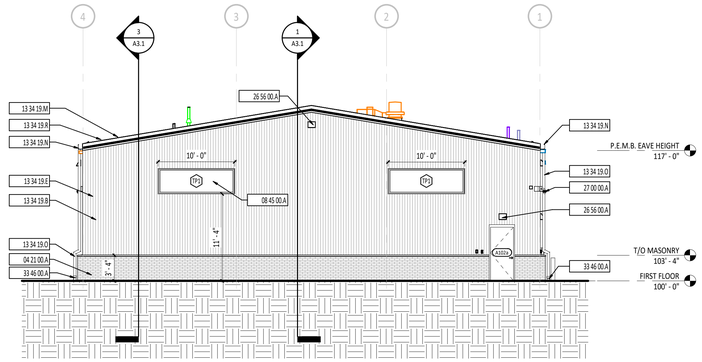
ALTERNATE NO. [1] - EXTEND PRE-ENGINEERED METAL BUILDING BY 20' TO THE SOUTH.
THIS ALTERNATE WILL INCLUDE STRUCTURAL, MECHANICAL AND ELECTRICAL WORK ALONG WITH A 2 HOUR FIRE BARRIER BETWEEN BUILDING AREAS.

1 A2.1 WEST BUILDING ELEVATION - ALTERNATE

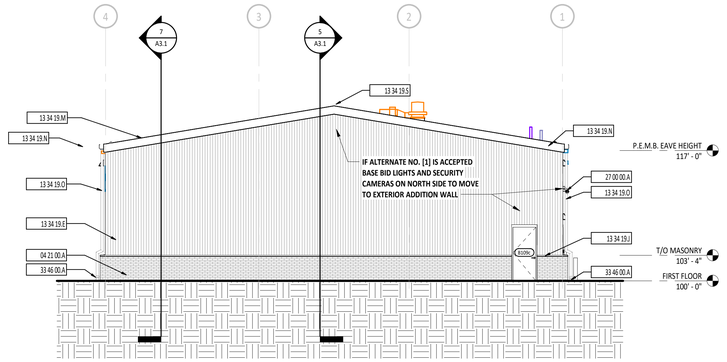


ALTERNATE NO. [3] - BASE BID TO PROVIDE 3'-4" OF BRICK SURROUNDING THE BUILDING WITH BLOCK BACK UP. DEDUCT ALTERNATE TO ELIMINATE BRICK AND BLOCK AND HAVE P.E.M.B. SYSTEM AND INTERIOR AND EXTERIOR METAL PANEL TO EXTEND TO FLOOR SLAB.

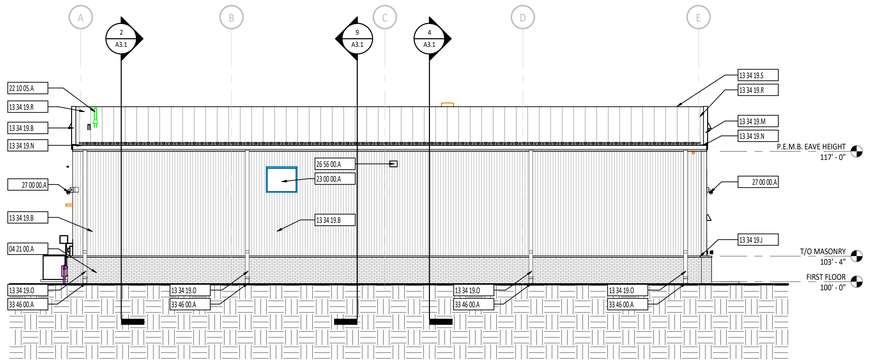
2 A2.1 WEST BUILDING ELEVATION
1/8" = 1'-0"



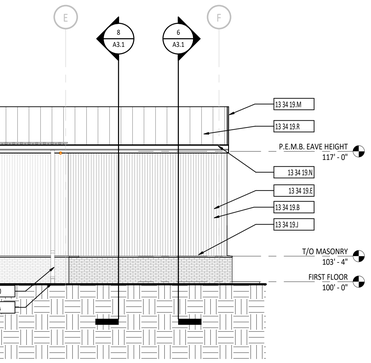
3 A2.1 NORTH BUILDING ELEVATION
1/8" = 1'-0"



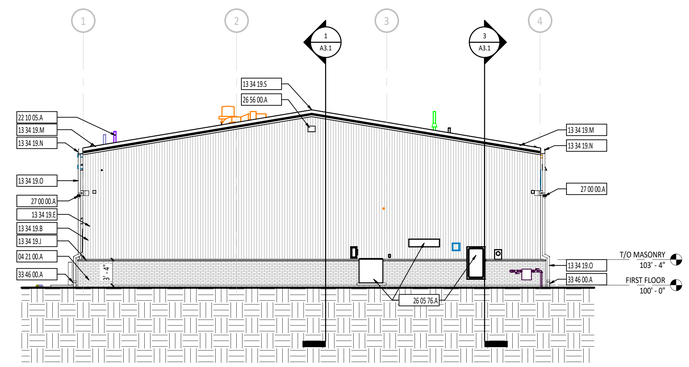
4 A2.1 NORTH BUILDING ELEVATION - ALTERNATE



5 A2.1 EAST BUILDING ELEVATION
1/8" = 1'-0"



6 A2.1 EAST BUILDING ELEVATION - ALTERNATE



7 A2.1 SOUTH BUILDING ELEVATION
1/8" = 1'-0"

EXTERIOR ELEVATION GENERAL NOTES

A PROVIDE CONTROL JOINTS AND EXPANSION JOINTS AT BUILDING INSIDE CORNERS AND AT CONCRETE MASONRY UNIT VENEER AND BRICK VENEER MATERIAL CHANGES.

EXTERIOR ELEVATION SYMBOLS LEGEND

- XXXX — DOOR DESIGNATION - REFERENCE DOOR/OPENING SCHEDULE.
- SIGNAGE DESIGNATION - REFERENCE SIGNAGE DETAILS.
- CURTAIN WALL/STOREFRONT/WINDOW TYPE DESIGNATION
- LEVEL ELEVATION — LEVEL LINE
- STRUCTURAL GRID - REFERENCE STRUCTURAL DRAWINGS.
- DIVISIONAL KEYNOTE DESIGNATION - REFERENCE KEYNOTE SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
  - XX XX XX.XX — KEYNOTE DESIGNATION / SPECIFICATION SECTION
- AREA OF DETAIL — X / XX.X — SIM — CALLOUT
  - DETAIL NUMBER
  - SHEET NUMBER
- X / XX.X — SIM — SECTION
  - DETAIL NUMBER
  - SHEET NUMBER

#	KEYNOTE DESCRIPTION
04 21 00.A	FACE BRICK VENEER
05 50 00.D	EXTERIOR GALVANIZED BOLLARD - PAINT - REFERENCE ARCHITECTURAL, SITE, AND STRUCTURAL DRAWINGS.
08 45 00.A	TRANSLUCENT WALL PANEL SYSTEM - ELIMINATE IF ALTERNATE 01 IS ACCEPTED
10 41 16.A	KNOX BOX - TOP TO BE MOUNTED AT 52" AFF. COORDINATE LOCATION WITH AHJ.
13 34 19.B	8" GIRT - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.E	FORMED METAL WALL PANEL - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.J	FLASHING TO MATCH METAL WALL PANEL - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.M	RAKE TRIM - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.N	PREFINISHED METAL GUTTER - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.O	PREFINISHED ALUMINUM DOWNSPOUT - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.Q	SNOW GUARD - CONTINUOUS ACROSS TOP OF VERTICAL LEGS - REFERENCE ROOF PLANS - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.R	STANDING SEAM METAL ROOFING SYSTEM WITH CODE COMPLIANT ANCHORAGES TRIM AND FLASHING - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.S	RIDGE CAP - PROVIDED BY P.E.M.B. MANUFACTURER
22 10 05.A	PLUMBING VENT - REFERENCE PLUMBING DRAWINGS.
23 00 00.A	MECHANICAL EQUIPMENT - REFERENCE MECHANICAL DRAWINGS.
26 05 76.A	ELECTRICAL EQUIPMENT - REFERENCE ELECTRICAL DRAWINGS.
26 56 00.A	EXTERIOR LIGHT - REFERENCE ELECTRICAL DRAWINGS.
27 00 00.A	TECHNOLOGY EQUIPMENT - REFERENCE TECHNOLOGY DRAWINGS.
33 46 00.A	PVC DOWNSPOUT BOOT - BY SITE CONTRACTOR; PAINT

STATE OF OHIO — ERIC JAMES BALTZELL E-65972 REGISTERED PROFESSIONAL ENGINEER

ERIC JAMES BALTZELL
LICENSE #E-65972
EXPIRATION DATE: 12/31/2025

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NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N. HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

	CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	EJS	BW

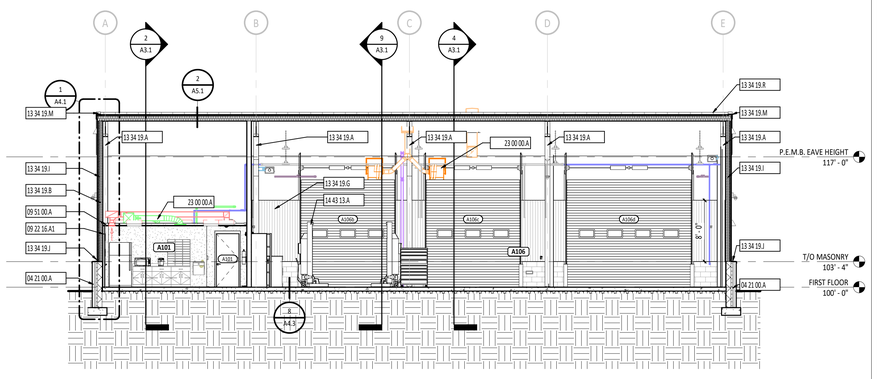
SHEET TITLE:

EXTERIOR ELEVATIONS

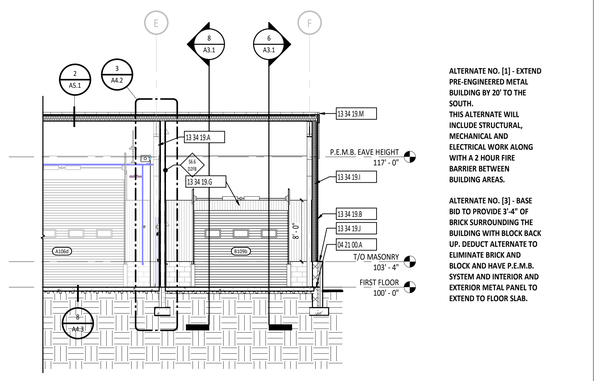
SHEET NUMBER:

A2.1

PRINTED ON: 2/6/2025 11:15:51 PM



1 A3.1 **BUILDING SECTION**
1/8" = 1'-0"



ALTERNATE NO. [1] - EXTEND PRE-ENGINEERED METAL BUILDING BY 20' TO THE SOUTH.
THIS ALTERNATE WILL INCLUDE STRUCTURAL, MECHANICAL AND ELECTRICAL WORK ALONG WITH A 2 HOUR FIRE BARRIER BETWEEN BUILDING AREAS.

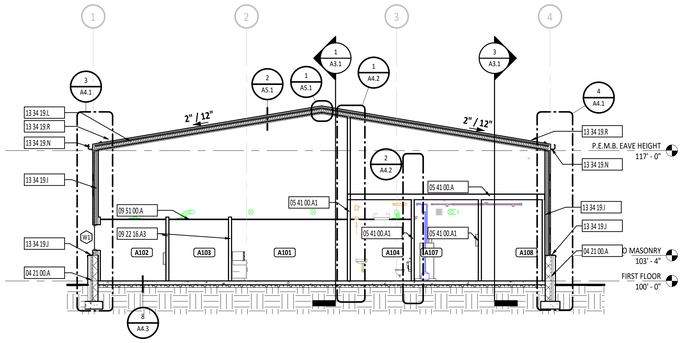
ALTERNATE NO. [3] - BASE BID TO PROVIDE 3'-4" OF BRICK SURROUNDING THE BUILDING WITH BLOCK BACK UP. DEDUCT ALTERNATE TO ELIMINATE BRICK AND BLOCK AND HAVE P.E.M.B. SYSTEM AND INTERIOR AND EXTERIOR METAL PANEL TO EXTEND TO FLOOR SLAB.

5 A3.1 **BUILDING SECTION - ALTERNATE**
1/8" = 1'-0"

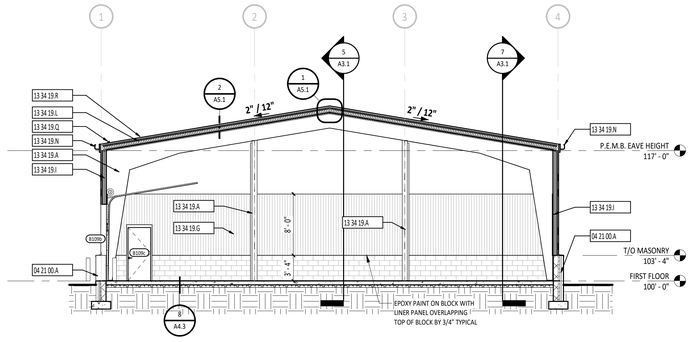
BUILDING SECTION SYMBOLS LEGEND

- XXXX — DOOR DESIGNATION - REFERENCE DOOR/OPENING SCHEDULE.
- A101 — ROOM DESIGNATION - REFERENCE ROOM INDEX.
- W — CURTAIN WALL/STOREFRONT/WINDOW TYPE DESIGNATION
- LEVEL ELEVATION — LEVEL LINE
- X — STRUCTURAL GRID - REFERENCE STRUCTURAL DRAWINGS.
- XX XX XX.XX.XX — DIVISIONAL KEYNOTE DESIGNATION - REFERENCE KEYNOTE SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
  - KEYNOTE DESIGNATION
  - SPECIFICATION SECTION
- AREA OF DETAIL — SIM — X / XX.X — CALLOUT
  - DETAIL NUMBER
  - SHEET NUMBER
- SIM — X / XX.X — SECTION
  - DETAIL NUMBER
  - SHEET NUMBER

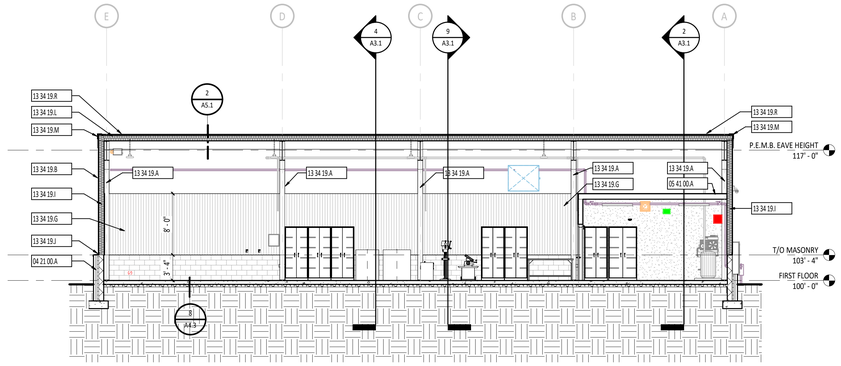
#	KEYNOTE DESCRIPTION
04 21 00.A	FACE BRICK VENEER
05 41 00.A	STRUCTURAL METAL STUD FRAMING - REFERENCE STRUCTURAL DRAWINGS.
05 41 00.A1	3 5/8" STRUCTURAL METAL STUD FRAMING - REFERENCE STRUCTURAL DRAWINGS.
09 21 16.C	(2) LAYERS 5/8" TYPE "X" GYPSUM WALLBOARD
09 22 16.A1	2 1/2" METAL STUDS AT 16" OC
09 22 16.A3	3 5/8" METAL STUDS AT 16" OC
09 51 00.A	ACOUSTICAL CEILING TILE AND SUSPENSION SYSTEM - REFERENCE REFLECTED CEILING PLANS FOR SPECIFIC CEILING TYPE.
13 34 19.A	PRE-ENGINEERED METAL BUILDING SYSTEM
13 34 19.B	8" GIRT - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.G	1" PREFINISHED FORMED VERTICAL METAL LINER PANEL - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.I	FABRIC LINER WALL SYSTEM WITH DOUBLE LAYER UNFACED BATT INSULATION WITH ONE LAYER TO FILL FULL GIRT CAVITY AND THE OTHER LAYER TO BE CONTINUOUS AND COMPRESSED BY THE EXTERIOR METAL PANEL ON THE OUTSIDE OF THE GIRTS - U-FACTOR OF .047 - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.J	FLASHING TO MATCH METAL WALL PANEL - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.L	FABRIC LINER ROOF SYSTEM WITH TWO LAYERS OF BATT INSULATION AND 1" THERMAL BLOCKS. FIRST LAYER OF INSULATION TO BE 8" AND FILL FULL PURLIN CAVITY WITH 3" INSULATION LAYER LAID PERPENDICULAR OVER PURLINS AND COMPRESSED BY STANDING SEAM ROOF - R-VALUE OF 25+11 MIN. - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.M	RAKE TRIM - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.N	PREFINISHED METAL GUTTER - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.O	PREFINISHED ALUMINUM DOWNSPOUT - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.Q	SNOW GUARD - CONTINUOUS ACROSS TOP OF VERTICAL LEGS - REFERENCE ROOF PLANS - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.R	STANDING SEAM METAL ROOFING SYSTEM WITH CODE COMPLIANT ANCHORAGES TRIM AND FLASHING - PROVIDED BY P.E.M.B. MANUFACTURER
14 43 13.A	ROTARY MOBILE COLUMN LIFT - MCHW18 - BY OWNER IN FUTURE PHASE
23 00 00.A	MECHANICAL EQUIPMENT - REFERENCE MECHANICAL DRAWINGS.
26 51 00.A	INTERIOR LIGHT - REFERENCE ELECTRICAL DRAWINGS.
33 46 00.A	PVC DOWNSPOUT BOOT - BY SITE CONTRACTOR; PAINT



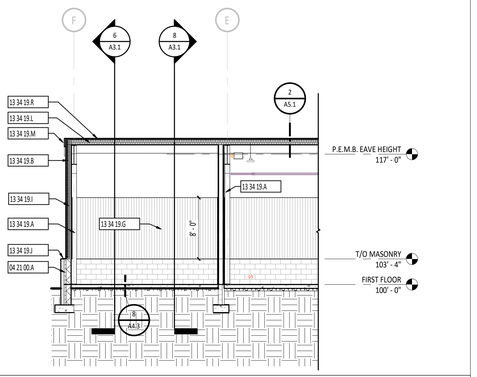
2 A3.1 **BUILDING SECTION**
1/8" = 1'-0"



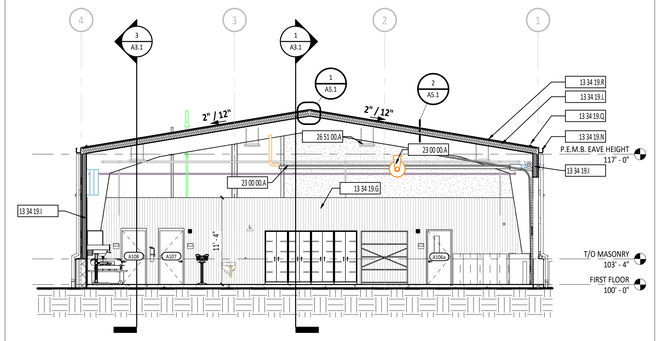
6 A3.1 **BUILDING SECTION - ALTERNATE**
1/8" = 1'-0"



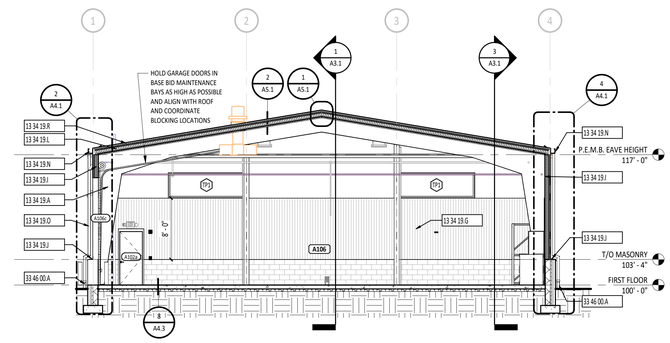
3 A3.1 **BUILDING SECTION**
1/8" = 1'-0"



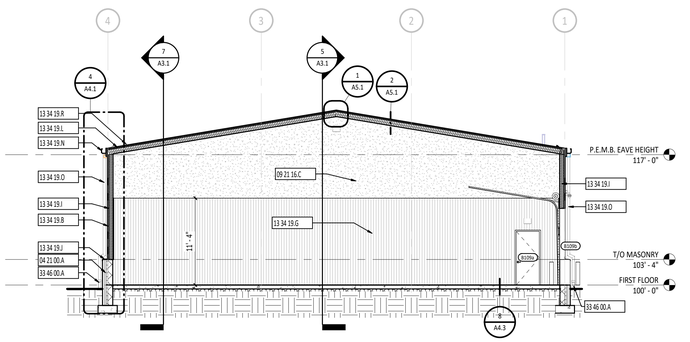
7 A3.1 **BUILDING SECTION - ALTERNATE**
1/8" = 1'-0"



9 A3.1 **BUILDING SECTION**
1/8" = 1'-0"



4 A3.1 **BUILDING SECTION**
1/8" = 1'-0"



8 A3.1 **BUILDING SECTION - ALTERNATE**
1/8" = 1'-0"

STATE OF OHIO
ERIC JAMES BALTZELL
E-65072
REGISTERED
PROFESSIONAL ENGINEER

ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

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NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

574 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	EJS	BW

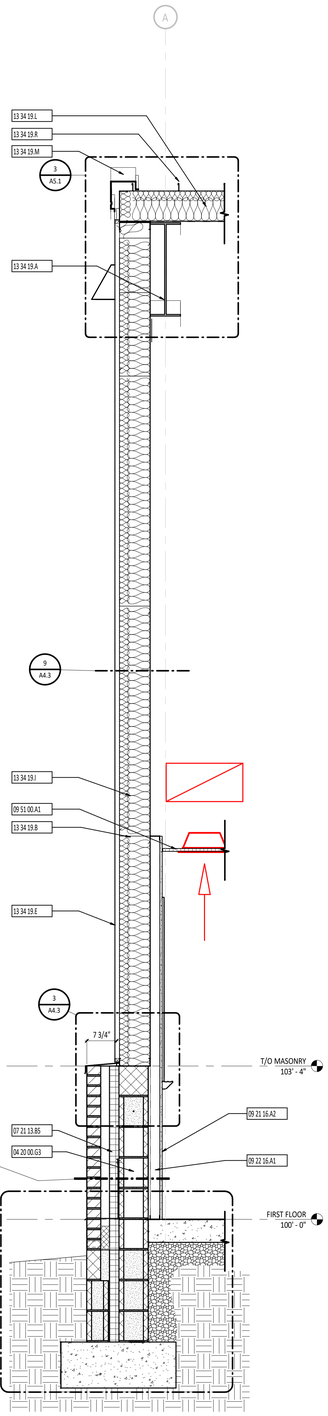
SHEET TITLE:

BUILDING SECTIONS / DETAILS

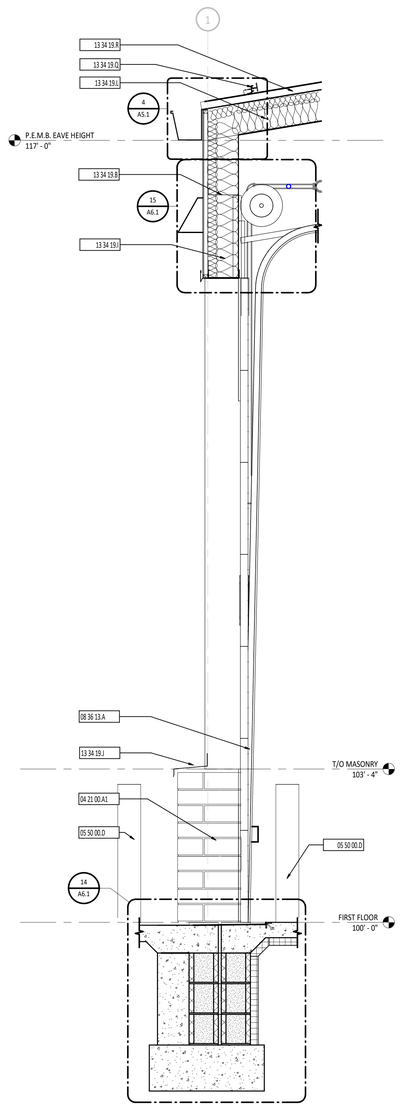
SHEET NUMBER:

A3.1

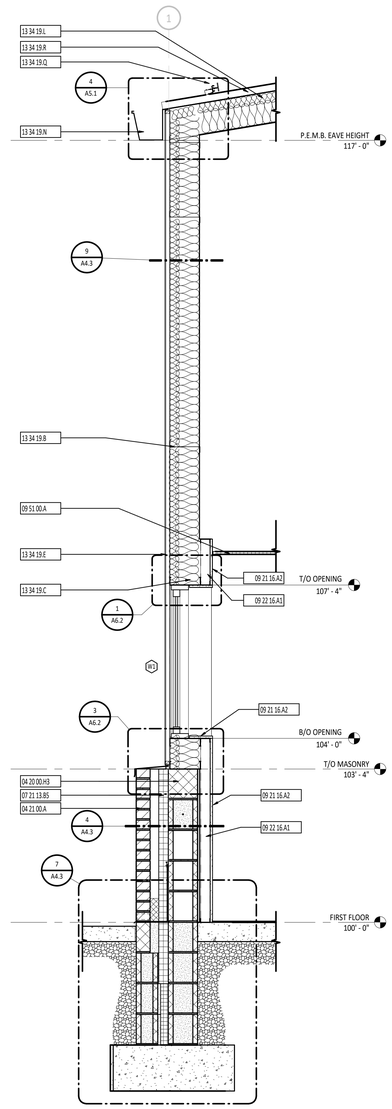
PRINTED ON: 2/8/2025 11:16:00 PM



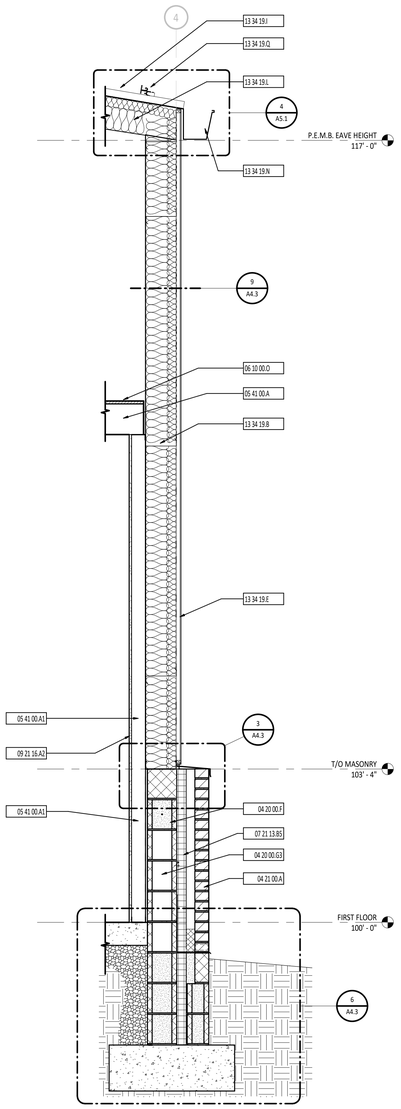
1 **WALL SECTION** A4.1 — 3/4" = 1'-0"



2 **WALL SECTION** A4.1 — 3/4" = 1'-0"



3 **WALL SECTION** A4.1 — 3/4" = 1'-0"



4 **WALL SECTION** A4.1 — 3/4" = 1'-0"

WALL SECTION SYMBOLS LEGEND

- XXXX — DOOR DESIGNATION - REFERENCE DOOR/OPENING SCHEDULE.
- A101 — ROOM DESIGNATION - REFERENCE ROOM INDEX.
- (X) — CURTAIN WALL/STOREFRONT/WINDOW TYPE DESIGNATION
- LEVEL ELEVATION — LEVEL LINE
- (X) — STRUCTURAL GRID - REFERENCE STRUCTURAL DRAWINGS.
- XX XX XX.XX.XX — DIVISIONAL KEYNOTE DESIGNATION - REFERENCE KEYNOTE SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
  - KEYNOTE DESIGNATION
  - SPECIFICATION SECTION
- AREA OF DETAIL — X / XX.X — SIM — CALLOUT
  - DETAIL NUMBER
  - SHEET NUMBER
- X / XX.X — SIM — SECTION
  - DETAIL NUMBER
  - SHEET NUMBER

#	KEYNOTE DESCRIPTION
04 20 00.F	CONCRETE MASONRY UNIT BOND BEAM - REFERENCE STRUCTURAL DRAWINGS.
04 20 00.G3	NOMINAL 8" CONCRETE MASONRY UNIT
04 20 00.H3	NOMINAL 8" SOLID CONCRETE MASONRY UNIT
04 21 00.A	FACE BRICK VENEER
04 21 00.A1	FACE BRICK VENEER (BEYOND)
05 41 00.A	STRUCTURAL METAL STUD FRAMING - REFERENCE STRUCTURAL DRAWINGS.
05 41 00.A1	3 5/8" STRUCTURAL METAL STUD FRAMING - REFERENCE STRUCTURAL DRAWINGS.
05 50 00.D	EXTERIOR GALVANIZED BOLLARD - PAINT - REFERENCE ARCHITECTURAL, SITE, AND STRUCTURAL DRAWINGS.
06 10 00.O	3/4" CEMENTITIOUS REINFORCED PANELS OVER METAL DECK
07 21 13.B5	2-1/2" BOARD INSULATION
08 36 13.A	OVERHEAD SECTIONAL DOOR - REFERENCE OPENING SCHEDULE.
09 21 16.A2	5/8" GYPSUM WALLBOARD
09 22 16.A1	2 1/2" METAL STUDS AT 16" OC
09 51 00.A	ACOUSTICAL CEILING TILE AND SUSPENSION SYSTEM - REFERENCE REFLECTED CEILING PLANS FOR SPECIFIC CEILING TYPE.
09 51 00.A1	
13 34 19.A	PRE-ENGINEERED METAL BUILDING SYSTEM
13 34 19.B	8" GIRT - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.C	8" C CHANNEL - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.E	FORMED METAL WALL PANEL - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.I	FABRIC LINER WALL SYSTEM WITH DOUBLE LAYER UNFACED BATT INSULATION WITH ONE LAYER TO FILL FULL GIRT CAVITY AND THE OTHER LAYER TO BE CONTINUOUS AND COMPRESSED BY THE EXTERIOR METAL PANEL ON THE OUTSIDE OF THE GIRTS - U-FACTOR OF .047 - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.J	FLASHING TO MATCH METAL WALL PANEL - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.L	FABRIC LINER ROOF SYSTEM WITH TWO LAYERS OF BATT INSULATION AND 1" THERMAL BLOCKS. FIRST LAYER OF INSULATION TO BE 8" AND FILL FULL PURLIN CAVITY WITH 3" INSULATION LAYER LAID PERPENDICULAR OVER PURLINS AND COMPRESSED BY STANDING SEAM ROOF - R-VALUE OF 25+11 MIN. - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.M	RAKE TRIM - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.N	PREFINISHED METAL GUTTER - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.Q	SNOW GUARD - CONTINUOUS ACROSS TOP OF VERTICAL LEGS - REFERENCE ROOF PLANS - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.R	STANDING SEAM METAL ROOFING SYSTEM WITH CODE COMPLIANT ANCHORAGES TRIM AND FLASHING - PROVIDED BY P.E.M.B. MANUFACTURER

STATE OF OHIO — ERIC JAMES BALTZELL — E-65072 — REGISTERED — PROFESSIONAL ENGINEER

ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

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NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

STEIN HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	EJS	BW

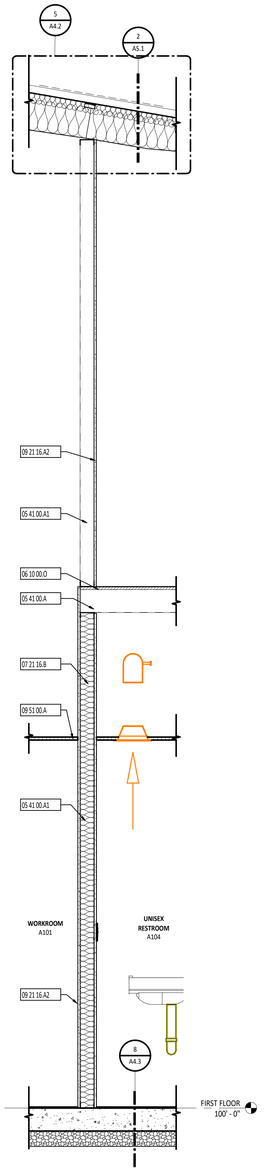
SHEET TITLE:

WALL SECTIONS

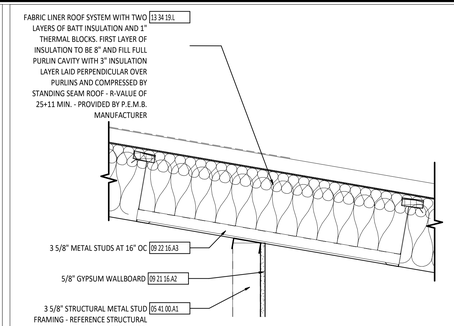
SHEET NUMBER:

A4.1

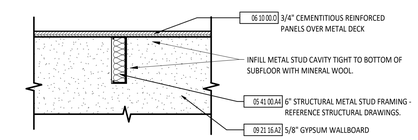
PRINTED ON: 2/8/2025 11:16:02 PM



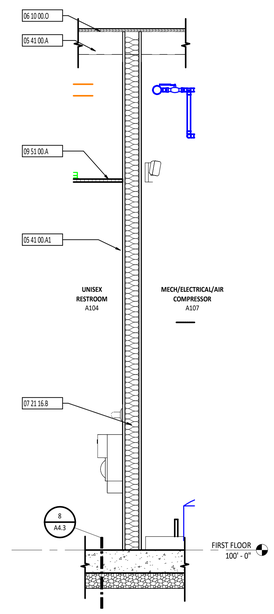
1 A4.2 WALL SECTION
3/4" = 1'-0"



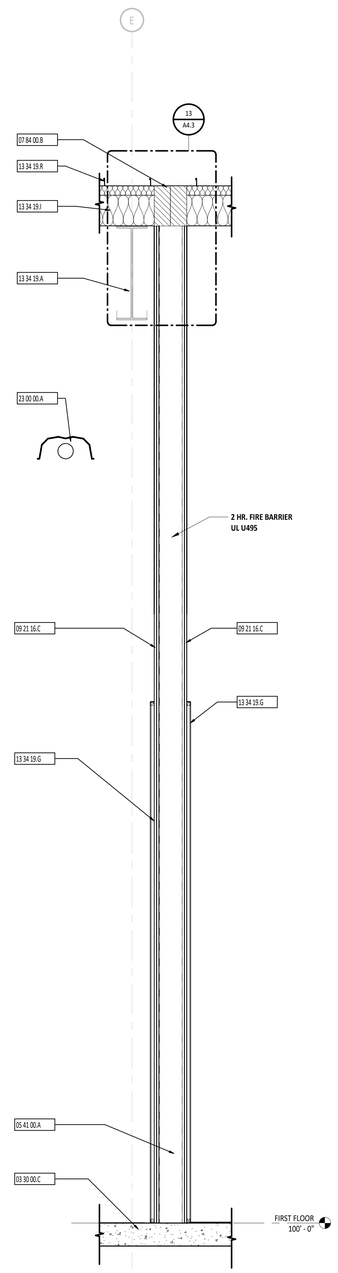
5 A4.2 WALL TERMINATION DETAIL
1 1/2" = 1'-0"



4 A4.2 WALL TERMINATION - INTERIOR JOIST POCKET
1 1/2" = 1'-0"



2 A4.2 WALL SECTION
3/4" = 1'-0"



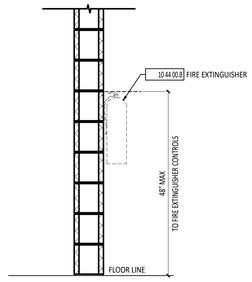
3 A4.2 WALL SECTION - ALTERNATE
3/4" = 1'-0"

WALL SECTION SYMBOLS LEGEND

- XXXX — DOOR DESIGNATION - REFERENCE DOOR/OPENING SCHEDULE.
- A101 — ROOM DESIGNATION - REFERENCE ROOM INDEX.
- (X) — CURTAIN WALL/STOREFRONT/WINDOW TYPE DESIGNATION
- LEVEL ELEVATION — LEVEL LINE
- X — STRUCTURAL GRID - REFERENCE STRUCTURAL DRAWINGS.
- XX XX XX.XX.XX — DIVISIONAL KEYNOTE DESIGNATION - REFERENCE KEYNOTE SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
  - KEYNOTE DESIGNATION
  - SPECIFICATION SECTION
- AREA OF DETAIL — X / XX.X — SIM — CALLOUT
  - DETAIL NUMBER
  - SHEET NUMBER
- X / XX.X — SIM — SECTION
  - DETAIL NUMBER
  - SHEET NUMBER

#	KEYNOTE DESCRIPTION
03 30 00.C	CONCRETE SLAB - REFERENCE STRUCTURAL DRAWINGS.
05 41 00.A	STRUCTURAL METAL STUD FRAMING - REFERENCE STRUCTURAL DRAWINGS.
05 41 00.A1	3 5/8" STRUCTURAL METAL STUD FRAMING - REFERENCE STRUCTURAL DRAWINGS.
05 41 00.A4	6" STRUCTURAL METAL STUD FRAMING - REFERENCE STRUCTURAL DRAWINGS.
06 10 00.O	3/4" CEMENTITIOUS REINFORCED PANELS OVER METAL DECK
07 21 16.B	ACOUSTIC BATT INSULATION - FULL CAVITY THICKNESS
07 84 00.B	2 HOUR FIRE RATED INSULATION - FILL FULL WALL THICKNESS
09 21 16.A2	5/8" GYPSUM WALLBOARD
09 21 16.C	(2) LAYERS 5/8" TYPE "X" GYPSUM WALLBOARD
09 22 16.A3	3 5/8" METAL STUDS AT 16" OC
09 51 00.A	ACOUSTICAL CEILING TILE AND SUSPENSION SYSTEM - REFERENCE REFLECTED CEILING PLANS FOR SPECIFIC CEILING TYPE.
10 44 00.B	FIRE EXTINGUISHER
13 34 19.A	PRE-ENGINEERED METAL BUILDING SYSTEM
13 34 19.G	1" PREFINISHED FORMED VERTICAL METAL LINER PANEL - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.I	FABRIC LINER WALL SYSTEM WITH DOUBLE LAYER UNFACED BATT INSULATION WITH ONE LAYER TO FILL FULL GIRT CAVITY AND THE OTHER LAYER TO BE CONTINUOUS AND COMPRESSED BY THE EXTERIOR METAL PANEL ON THE OUTSIDE OF THE GIRTS - U-FACTOR OF .047 - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.L	FABRIC LINER ROOF SYSTEM WITH TWO LAYERS OF BATT INSULATION AND 1" THERMAL BLOCKS. FIRST LAYER OF INSULATION TO BE 8" AND FILL FULL PURLIN CAVITY WITH 3" INSULATION LAYER LAID PERPENDICULAR OVER PURLINS AND COMPRESSED BY STANDING SEAM ROOF - R-VALUE OF 25+11 MIN. - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.R	STANDING SEAM METAL ROOFING SYSTEM WITH CODE COMPLIANT ANCHORAGES TRIM AND FLASHING - PROVIDED BY P.E.M.B. MANUFACTURER
23 00 00.A	MECHANICAL EQUIPMENT - REFERENCE MECHANICAL DRAWINGS.

6 A4.2 BOLLARD DETAIL
1/2" = 1'-0"



7 A4.2 SURFACE MOUNT FIRE EXTINGUISHER
3/4" = 1'-0"

STATE OF OHIO
ERIC JAMES BALTZELL
E-65072
REGISTERED
PROFESSIONAL ENGINEER
ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

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NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	EJS	BW

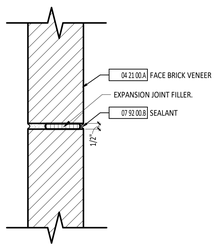
SHEET TITLE:

WALL SECTIONS

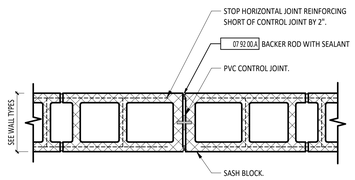
SHEET NUMBER:

A4.2

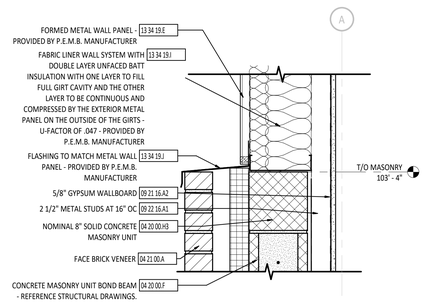
PRINTED ON: 2/7/2025 4:33:49 PM



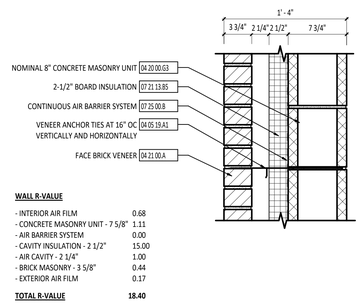
1 A4.3 BRICK EXPANSION JOINT
3" = 1'-0"



2 A4.3 TYPICAL CONTROL JOINT
1 1/2" = 1'-0"



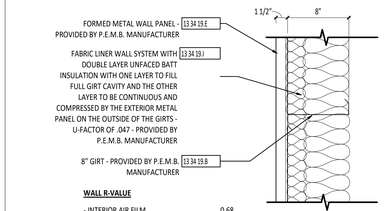
3 A4.3 MIDWALL DETAIL
1 1/2" = 1'-0"



WALL R-VALUE

- INTERIOR AIR FILM	0.68
- CONCRETE MASONRY UNIT - 7 5/8"	1.11
- AIR BARRIER SYSTEM	0.00
- CAVITY INSULATION - 2 1/2"	15.00
- AIR CAVITY - 2 1/4"	1.00
- BRICK MASONRY - 3 5/8"	0.44
- EXTERIOR AIR FILM	0.17
TOTAL R-VALUE	**18.40**

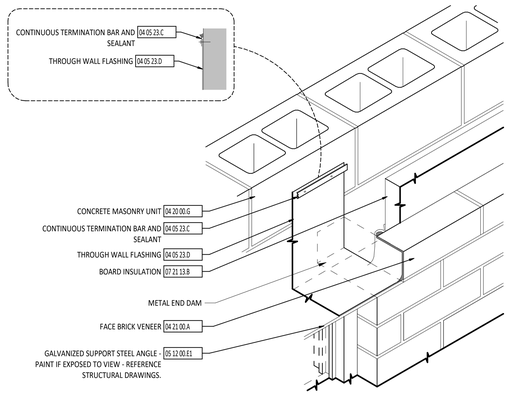
4 A4.3 EXTERIOR WALL ASSEMBLY
1 1/2" = 1'-0"



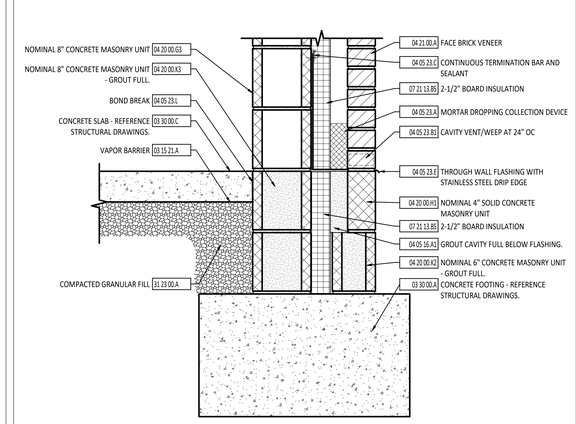
WALL R-VALUE

- INTERIOR AIR FILM	0.68
- P.E.M.B. 8" GIRT	0.00
- AIR BARRIER SYSTEM	0.00
- TWO LAYERS OF BLANKET INSULATION	25.00+10.00
- METAL WALL PANEL - 1 1/2"	0.61
- EXTERIOR AIR FILM	0.17

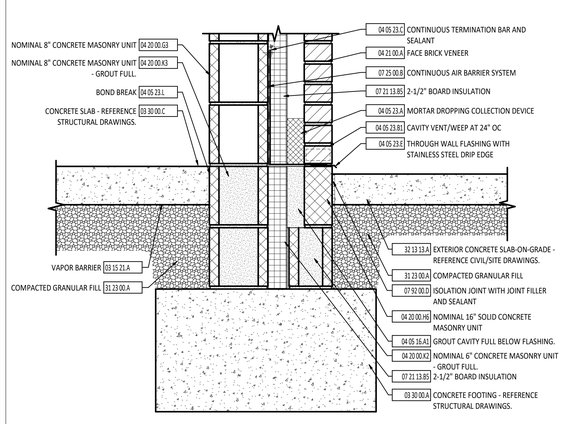
9 A4.3 EXTERIOR WALL ASSEMBLY
1 1/2" = 1'-0"



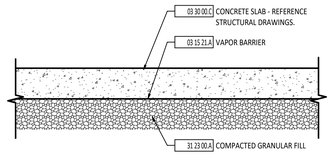
5 A4.3 END DAM FLASHING DETAIL AT OPENINGS
1 1/2" = 1'-0"



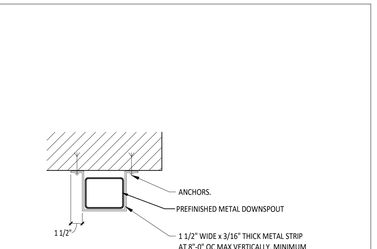
6 A4.3 TYPICAL FOUNDATION DETAIL
1 1/2" = 1'-0"



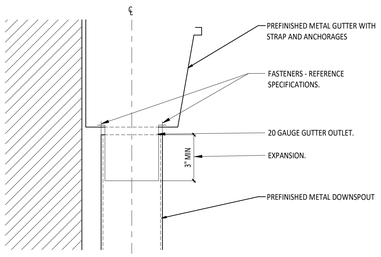
7 A4.3 TYPICAL FOUNDATION DETAIL - SIDEWALK
1 1/2" = 1'-0"



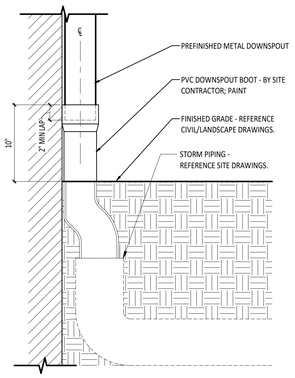
8 A4.3 CONCRETE SLAB ASSEMBLY
1 1/2" = 1'-0"



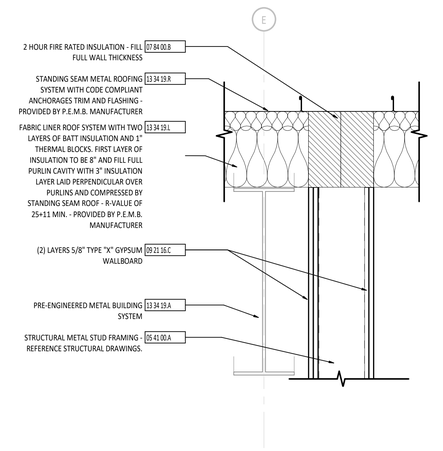
10 A4.3 DOWNSPOUT BRACKET DETAIL
1 1/2" = 1'-0"



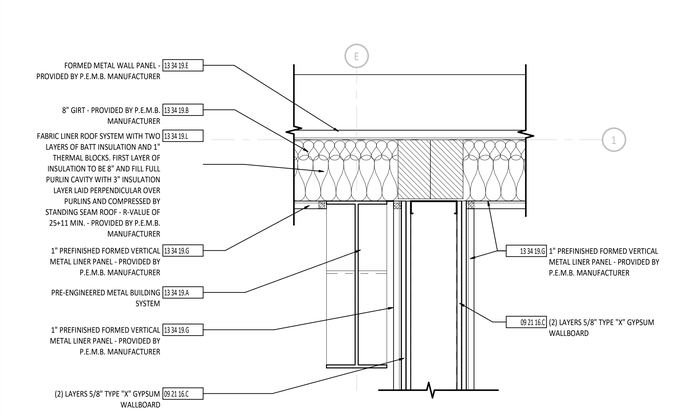
11 A4.3 GUTTER/DOWNSPOUT CONNECTION DETAIL
3" = 1'-0"



12 A4.3 DOWNSPOUT BOOT DETAIL
1 1/2" = 1'-0"



13 A4.3 FIRE BARRIER ROOF DETAIL
1 1/2" = 1'-0"



14 A4.3 FIRE BARRIER WALL DETAIL
1 1/2" = 1'-0"

STATE OF OHIO
ERIC JAMES BALTZELL
E-65972
REGISTERED
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ERIC JAMES BALTZELL
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EXPIRATION DATE: 12/31/2025

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NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

574 N MYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	JCR	BCW

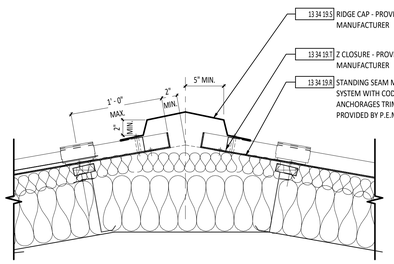
SHEET TITLE:

SECTION DETAILS

SHEET NUMBER:

A4.3

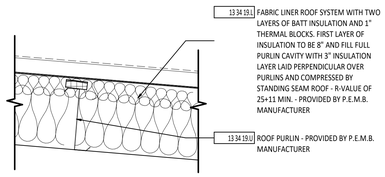
PRINTED ON: 2/8/2025 11:16:03 PM



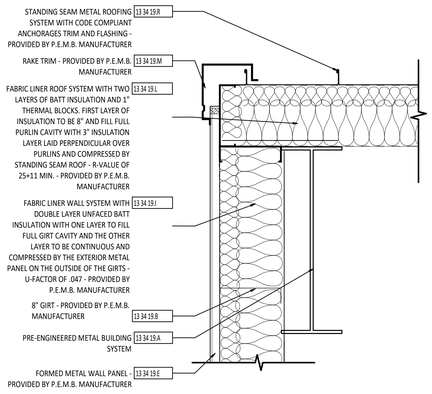
1 A5.1 RIDGE CAP DETAIL
1 1/2" = 1'-0"

ROOF R-VALUE:

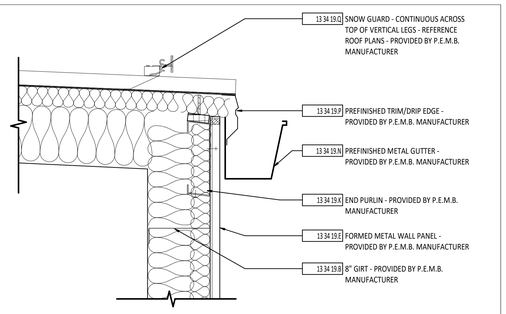
STANDING SEAM METAL ROOF	0.00
ROOF UNDERLAYMENT	0.00
(2) LAYERS BATT INSULATION (8"+3")	25+11
INSIDE AIR FILM	0.61



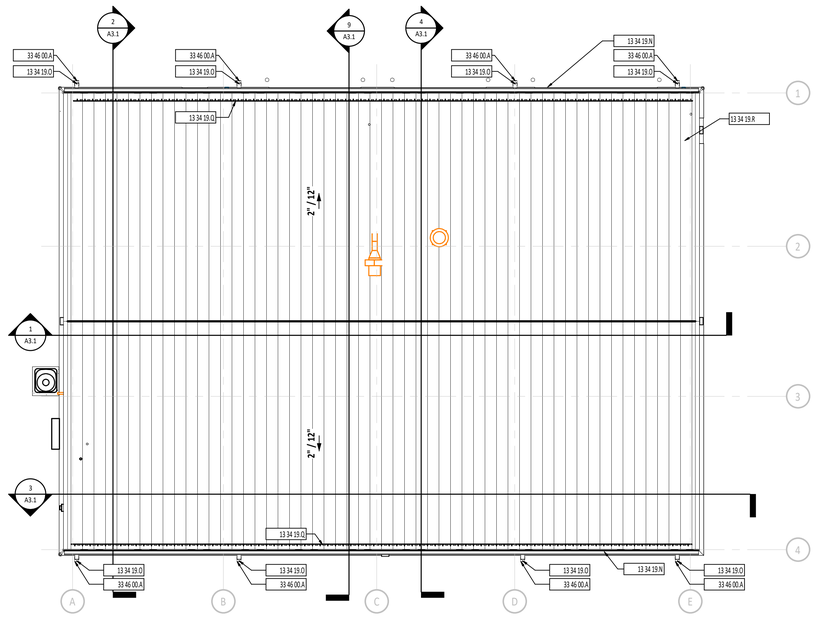
2 A5.1 ROOF ASSEMBLY
1 1/2" = 1'-0"



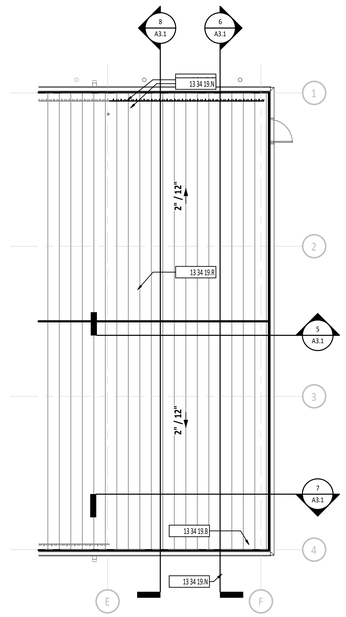
3 A5.1 RAKE WALL DETAIL
1 1/2" = 1'-0"



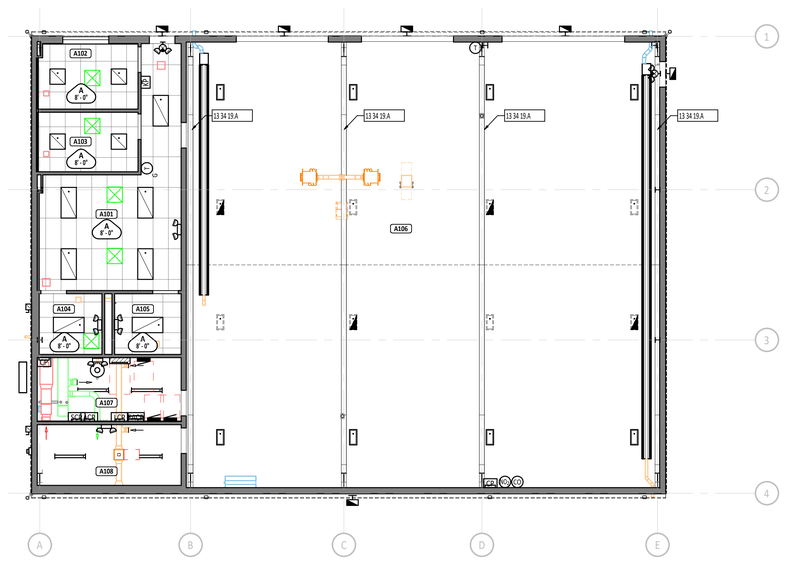
4 A5.1 EAVE DETAIL
1 1/2" = 1'-0"



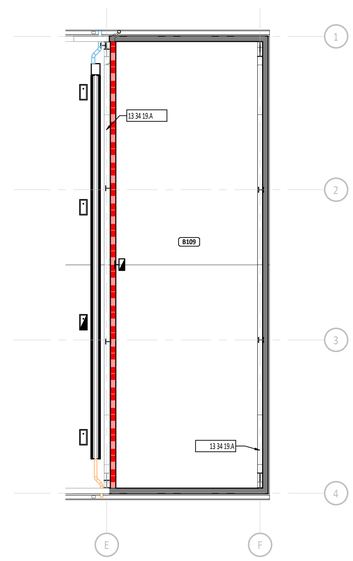
5 A5.1 ROOF PLAN
1/8" = 1'-0"



6 A5.1 ROOF PLAN - ALTERNATE
1/8" = 1'-0"



7 A5.1 REFLECTED CEILING PLAN
1/8" = 1'-0"



8 A5.1 REFLECTED CEILING PLAN - ALTERNATE
1/8" = 1'-0"

ROOF PLAN PLAN GENERAL NOTES

A PROVIDE FLASHING IN ACCORDANCE WITH THE SMACNA ARCHITECTURAL SHEET METAL MANUAL LATEST EDITION.
B REFER TO MANUFACTURER FOR ROOF INSTALLATION DETAILS.
C ALL WOOD BLOCKING AT ROOF PENETRATIONS SHALL BE PRESERVATIVE TREATED.

ROOF PLAN SYMBOLS LEGEND

F FLUE DESIGNATION
V VENT DESIGNATION
DIVISIONAL KEYNOTE DESIGNATION - REFERENCE KEYNOTE SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
XX XX XX.XX.XX — KEYNOTE DESIGNATION; SPECIFICATION SECTION
AREA OF DETAIL — X SIM / XX.X — CALLOUT: DETAIL NUMBER; SHEET NUMBER
X SIM / XX.X — SECTION: DETAIL NUMBER; SHEET NUMBER

#	KEYNOTE DESCRIPTION
13 34 19.A	PRE-ENGINEERED METAL BUILDING SYSTEM
13 34 19.B	8" GIRT - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.E	FORMED METAL WALL PANEL - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.I	FABRIC LINER WALL SYSTEM WITH DOUBLE LAYER UNFACED BATT INSULATION WITH ONE LAYER TO FILL FULL GIRT CAVITY AND THE OTHER LAYER TO BE CONTINUOUS AND COMPRESSED BY THE EXTERIOR METAL PANEL ON THE OUTSIDE OF THE GIRTS - U-FACTOR OF .047 - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.K	END PURLIN - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.L	FABRIC LINER ROOF SYSTEM WITH TWO LAYERS OF BATT INSULATION AND 1" THERMAL BLOCKS. FIRST LAYER OF INSULATION TO BE 8" AND FILL FULL PURLIN CAVITY WITH 3" INSULATION LAYER LAID PERPENDICULAR OVER PURLINS AND COMPRESSED BY STANDING SEAM ROOF - R-VALUE OF 25+11 MIN. - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.M	RAKE TRIM - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.N	PREFINISHED METAL GUTTER - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.O	PREFINISHED ALUMINUM DOWNSPOUT - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.P	PREFINISHED TRIM/DRIP EDGE - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.Q	SNOW GUARD - CONTINUOUS ACROSS TOP OF VERTICAL LEGS - REFERENCE ROOF PLANS - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.R	STANDING SEAM METAL ROOFING SYSTEM WITH CODE COMPLIANT ANCHORAGES TRIM AND FLASHING - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.S	RIDGE CAP - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.T	Z CLOSURE - PROVIDED BY P.E.M.B. MANUFACTURER
13 34 19.U	ROOF PURLIN - PROVIDED BY P.E.M.B. MANUFACTURER
33 46 00.A	PVC DOWNSPOUT BOOT - BY SITE CONTRACTOR; PAINT

FIRST FLOOR PLAN ROOM INDEX - OVERALL

ROOM NUMBER	ROOM NAME	AREA
A101	WORKROOM	368 SF
A102	OFFICE	110 SF
A103	OFFICE	101 SF
A104	UNISEX RESTROOM	65 SF
A105	UNISEX RESTROOM	69 SF
A106	MAINTENANCE BAY	3,608 SF
A107	MECH/ELECTRICAL/AIR COMPRESSOR	156 SF
A108	STORAGE	149 SF

REFLECTED CEILING PLAN SYMBOLS LEGEND

A101 / LEVEL ELEVATION — ROOM DESIGNATION - REFERENCE ROOM INDEX.
LEVEL LINE
X — STRUCTURAL GRID - REFERENCE STRUCTURAL DRAWINGS.
DIVISIONAL KEYNOTE DESIGNATION - REFERENCE KEYNOTE SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
XX XX XX.XX.XX — KEYNOTE DESIGNATION; SPECIFICATION SECTION
CEILING TYPE AND HEIGHT DESIGNATION — A / A'-A" — TYPE; HEIGHT
AREA OF DETAIL — X SIM / XX.X — CALLOUT: DETAIL NUMBER; SHEET NUMBER
X SIM / XX.X — SECTION: DETAIL NUMBER; SHEET NUMBER

REFLECTED CEILING PLAN MATERIAL PATTERNS LEGEND

CAP CEILING

REFERENCE ELECTRICAL/MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION

SOUND SYSTEM CEILING SPEAKER
FIRE ALARM SMOKE OR HEAT DETECTOR
LIGHT FIXTURE
LIGHT FIXTURE
LIGHT FIXTURE
LIGHT FIXTURE
CEILING MOUNTED EXIT SIGN
OS — OCCUPANCY SENSOR
AIR TERMINAL

CEILING SCHEDULE

MARK	DESCRIPTION	NOTES
A	2' x 4' SUSPENDED ACOUSTICAL PANEL CEILING	REFER TO SPEC SECTION 09 5100

STATE OF OHIO — ERIC JAMES BALTZELL — E-65072 — REGISTERED — PROFESSIONAL ENGINEER

ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

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NEW BUILDING FOR
TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING
571 N WYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

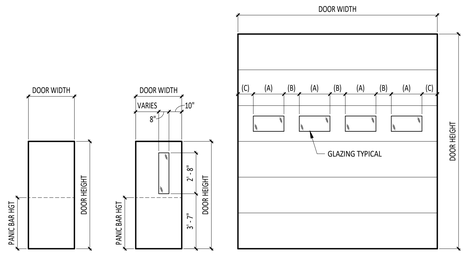
CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	EJS	BW

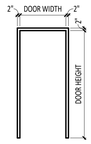
SHEET TITLE:
ROOF/ REFLECTED CEILING PLANS

SHEET NUMBER:
A5.1

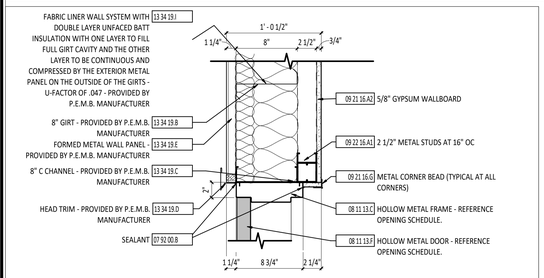
PRINTED ON: 2/7/2025 4:33:52 PM



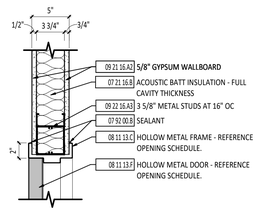
1 A6.1 DOOR TYPES 1/4" = 1'-0"



2 A6.1 HOLLOW METAL DOOR FRAME TYPES 1/4" = 1'-0"



4 A6.1 HEAD DETAIL - EXTERIOR 1 1/2" = 1'-0"



5 A6.1 HEAD DETAIL - INTERIOR 1 1/2" = 1'-0"

DOOR/OPENING SCHEDULE - BASE BID

NUMBER	DOOR SIZE	DOOR THK	DOOR MATL	DOOR TYPE	DOOR GLASS	FRAME DEPTH	FRAME MATL	FRAME TYPE	FRAME GLASS	DETAIL NUMBER HEAD	DETAIL NUMBER JAMB	DETAIL NUMBER SILL	HARDWARE SET	ROOM KEY SIDE	FUNCTION	LABEL (MIN)	NOTES
A101	3'-0" x 7'-0"	1 3/4"	HM	F	-	8 3/4"	HM	HM	-	4/A6.1	9-10/A6.1	11/A6.1	3.0		Exterior	-	
A102	3'-0" x 7'-0"	1 3/4"	HM	F	-	5 3/4"	HM	HM	-	5/A6.1	6/A6.1		6.0		Interior	-	
A102a	3'-0" x 7'-0"	1 3/4"	HM	F	-	8 3/4"	HM	HM	-	4/A6.1	9-10/A6.1	11/A6.1	1.0		Exterior	-	
A103	3'-0" x 7'-0"	1 3/4"	HM	F	-	5 3/4"	HM	HM	-	5/A6.1	6/A6.1		6.0		Interior	-	
A104	3'-0" x 7'-0"	1 3/4"	HM	F	-	5 3/4"	HM	HM	-	5/A6.1	6/A6.1		8.0		Interior	-	
A105	3'-0" x 7'-0"	1 3/4"	HM	F	-	5 3/4"	HM	HM	-	5/A6.1	6/A6.1		8.0		Interior	-	
A106a	3'-0" x 7'-0"	1 3/4"	HM	NL	G1	8 1/4"	HM	HM	-	7/A6.1	8/A6.1		2.0		Interior	-	
A106b	12'-0" x 14'-0"	2"	STL	OHD	EG-1	0"	STL	STL		15/A6.1	12-13/A6.1	14/A6.1	9.0		Exterior		
A106c	12'-0" x 14'-0"	2"	STL	OHD	EG-1	0"	STL	STL		15/A6.1	12-13/A6.1	14/A6.1	9.0		Exterior		
A106d	16'-0" x 14'-0"	2"	STL	OHD	EG-1	0"	STL	STL		15/A6.1	12-13/A6.1	14/A6.1	9.0		Exterior		
A107	3'-0" x 7'-0"	1 3/4"	HM	F	-	8 1/4"	HM	HM	-	7/A6.1	8/A6.1		4.0		Interior	-	
A108	3'-0" x 7'-0"	1 3/4"	HM	F	-	8 1/4"	HM	HM	-	7/A6.1	8/A6.1		7.0		Interior	-	

DOOR/OPENING SCHEDULE ALTERNATE

NUMBER	DOOR SIZE	DOOR THK	DOOR MATL	DOOR TYPE	DOOR GLASS	FRAME DEPTH	FRAME MATL	FRAME TYPE	FRAME GLASS	DETAIL NUMBER HEAD	DETAIL NUMBER JAMB	DETAIL NUMBER SILL	HARDWARE SET	ROOM KEY SIDE	FUNCTION	LABEL (MIN)	NOTES
A101	3'-0" x 7'-0"	1 3/4"	HM	F	-	8 3/4"	HM	HM	-	4/A6.1	9-10/A6.1	11/A6.1	3.0		Exterior	-	
A102	3'-0" x 7'-0"	1 3/4"	HM	F	-	5 3/4"	HM	HM	-	5/A6.1	6/A6.1		6.0		Interior	-	
A103	3'-0" x 7'-0"	1 3/4"	HM	F	-	5 3/4"	HM	HM	-	5/A6.1	6/A6.1		6.0		Interior	-	
A104	3'-0" x 7'-0"	1 3/4"	HM	F	-	5 3/4"	HM	HM	-	5/A6.1	6/A6.1		8.0		Interior	-	
A105	3'-0" x 7'-0"	1 3/4"	HM	F	-	5 3/4"	HM	HM	-	5/A6.1	6/A6.1		8.0		Interior	-	
A106a	3'-0" x 7'-0"	1 3/4"	HM	NL	G1	8 1/4"	HM	HM	-	7/A6.1	8/A6.1		2.0		Interior	-	
A106b	12'-0" x 14'-0"	2"	STL	OHD	EG-1	0"	STL	STL		15/A6.1	12-13/A6.1	14/A6.1	9.0		Exterior		
A106c	12'-0" x 14'-0"	2"	STL	OHD	EG-1	0"	STL	STL		15/A6.1	12-13/A6.1	14/A6.1	9.0		Exterior		
A106d	16'-0" x 14'-0"	2"	STL	OHD	EG-1	0"	STL	STL		15/A6.1	12-13/A6.1	14/A6.1	9.0		Exterior		
A107	3'-0" x 7'-0"	1 3/4"	HM	F	-	8 1/4"	HM	HM	-	7/A6.1	8/A6.1		4.0		Interior	-	
A108	3'-0" x 7'-0"	1 3/4"	HM	F	-	8 1/4"	HM	HM	-	7/A6.1	8/A6.1		7.0		Interior	-	
B109a	3'-0" x 7'-0"	1 3/4"	HM	F	-	9 1/2"	HM	HM	-	8/A6.2	9/A6.2		5.0		Interior	90 MIN	
B109b	12'-0" x 10'-0"	2"	STL	OHD	EG-1	0"	STL	STL		3/A6.1	12-13/A6.1	14/A6.1	9.0		Exterior		
B109c	3'-0" x 7'-0"	1 3/4"	HM	F	-	8 3/4"	HM	HM	-	4/A6.1	9-10/A6.1	14/A6.1	1.0		Exterior	-	

DOOR GENERAL NOTES

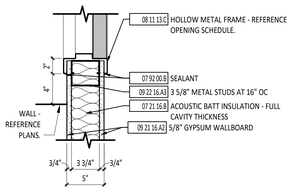
A REFERENCE A6 SHEETS FOR DOOR AND STOREFRONT DETAILS.
B REFERENCE SPECIFICATION SECTION 08 71 00 FOR HARDWARE SETS.

DOOR/OPENING SCHEDULE ABBREVIATIONS

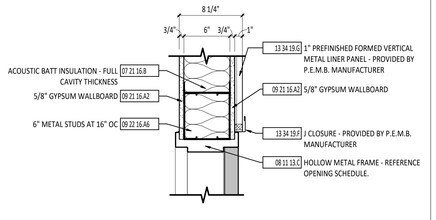
SYMBOL DESCRIPTION
F FLUSH
HM HOLLOW METAL
IG INSULATED GLASS
N NARROW LITE
TG TEMPERED GLASS

DOOR/OPENING SCHEDULE NOTES

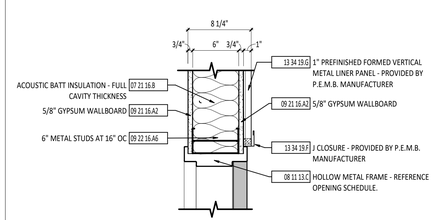
1. DOOR AND FRAME/LOCK BY SECTION 08 71 00
2. HOLLOW METAL FRAMED WINDOW.
3. EMERGENCY EXTERIOR DOOR NUMBERING - ADHERE 12" NUMERIC STICKER TO INSIDE FACE OF GLAZING. ACTUAL DOOR NUMBER TO BE THE FOLLOWING:
   - NUMERIC STICKER "1" AT DOOR A101
   - NUMERIC STICKER "2" AT DOOR A102a or B109c



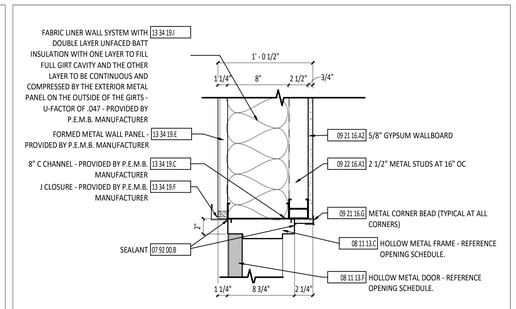
6 A6.1 JAMB DETAIL - INTERIOR 1 1/2" = 1'-0"



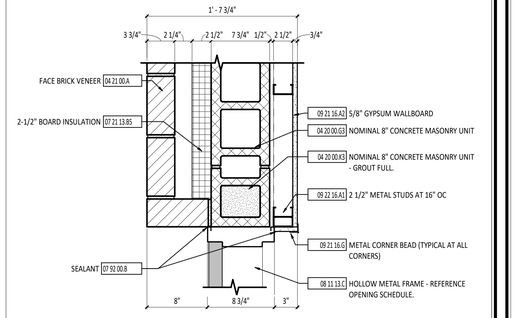
7 A6.1 HEAD DETAIL - INTERIOR 1 1/2" = 1'-0"



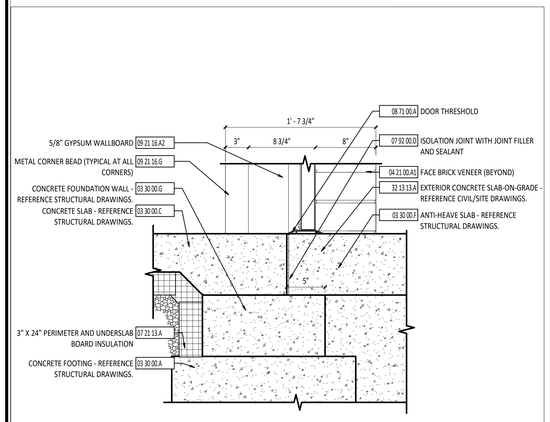
8 A6.1 JAMB DETAIL - INTERIOR 1 1/2" = 1'-0"



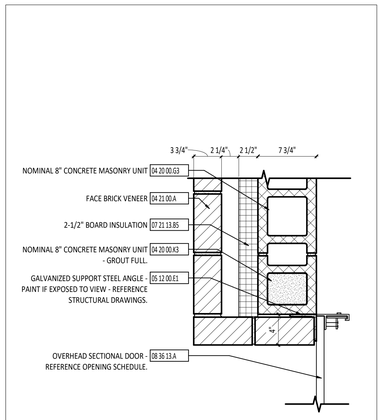
9 A6.1 JAMB DETAIL - EXTERIOR 1 1/2" = 1'-0"



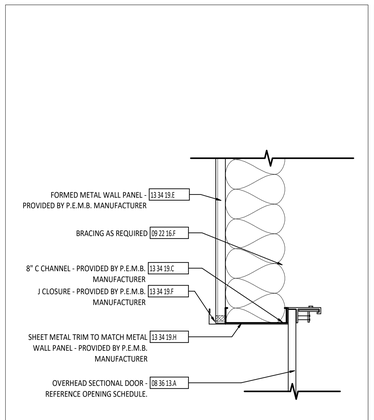
10 A6.1 JAMB DETAIL - EXTERIOR 1 1/2" = 1'-0"



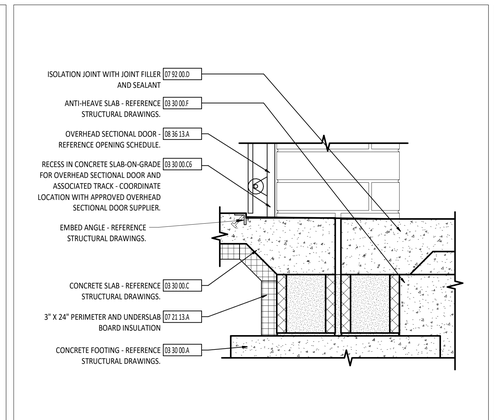
11 A6.1 SILL DETAIL - EXTERIOR 1 1/2" = 1'-0"



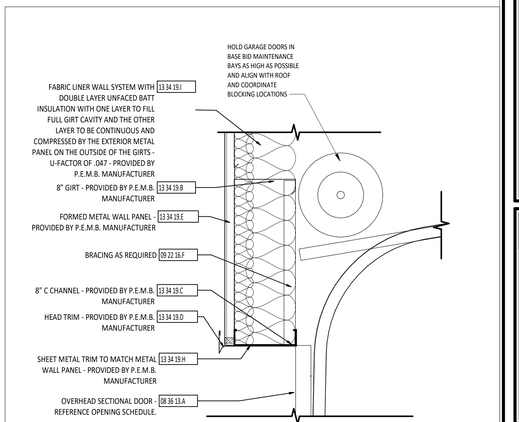
12 A6.1 JAMB DETAIL - EXTERIOR 1 1/2" = 1'-0"



13 A6.1 JAMB DETAIL - EXTERIOR 1 1/2" = 1'-0"



14 A6.1 SILL DETAIL - EXTERIOR 1 1/2" = 1'-0"



15 A6.1 HEAD DETAIL - EXTERIOR 1 1/2" = 1'-0"

STATE OF OHIO
ERIC JAMES BALTZELL
E-65972
REGISTERED
PROFESSIONAL ENGINEER
ERIC JAMES BALTZELL
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EXPIRATION DATE: 12/31/2025

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NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	EJS	BW

SHEET TITLE:

DOOR SCHEDULE, TYPES, AND DETAILS

SHEET NUMBER:

A6.1

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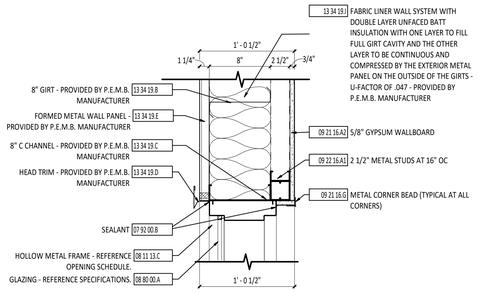
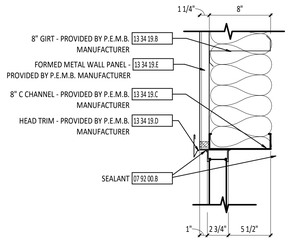
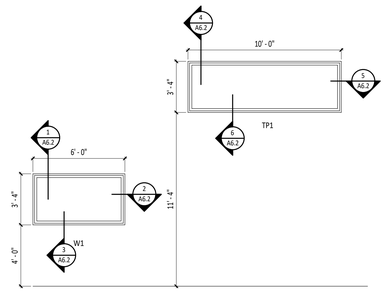


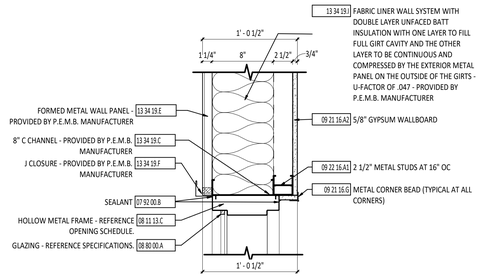
1 A6.2 HEAD DETAIL - EXTERIOR
1 1/2" = 1'-0"



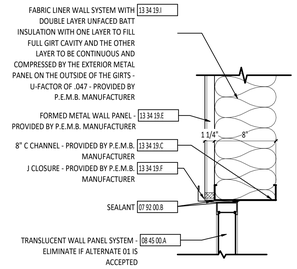
4 A6.2 HEAD DETAIL - EXTERIOR
1 1/2" = 1'-0"



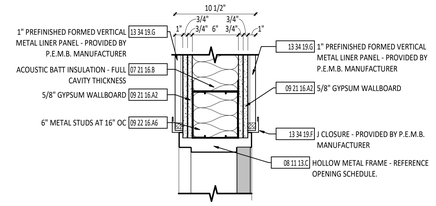
7 A6.2 WINDOW TYPES
1/4" = 1'-0"



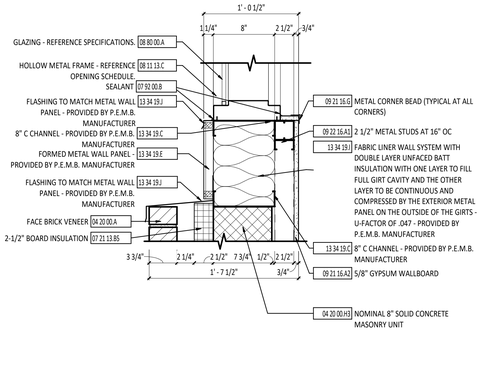
2 A6.2 JAMB DETAIL - EXTERIOR
1 1/2" = 1'-0"



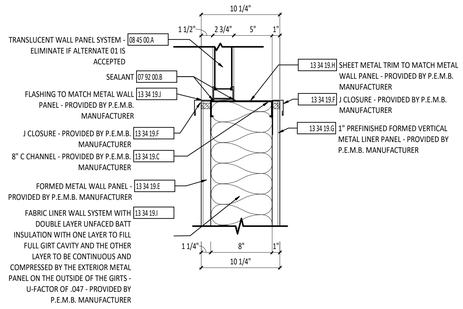
5 A6.2 JAMB DETAIL - EXTERIOR
1 1/2" = 1'-0"



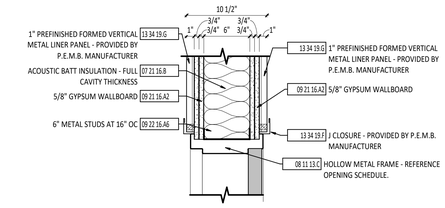
8 A6.2 HEAD DETAIL - INTERIOR
1 1/2" = 1'-0"



3 A6.2 SILL DETAIL - EXTERIOR
1 1/2" = 1'-0"



6 A6.2 SILL DETAIL - EXTERIOR
1 1/2" = 1'-0"



9 A6.2 HEAD DETAIL - INTERIOR
1 1/2" = 1'-0"

DOOR GENERAL NOTES

A REFERENCE A6 SHEETS FOR DOOR AND STOREFRONT DETAILS.
B REFERENCE SPECIFICATION SECTION 08 71 00 FOR HARDWARE SETS.

DOOR/OPENING SCHEDULE ABBREVIATIONS

SYMBOL	DESCRIPTION
F	FLUSH
HM	HOLLOW METAL
IG	INSULATED GLASS
N	NARROW LITE
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ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	EJS	BW

SHEET TITLE:

DOOR SCHEDULE, TYPES, AND DETAILS

SHEET NUMBER:

A6.2

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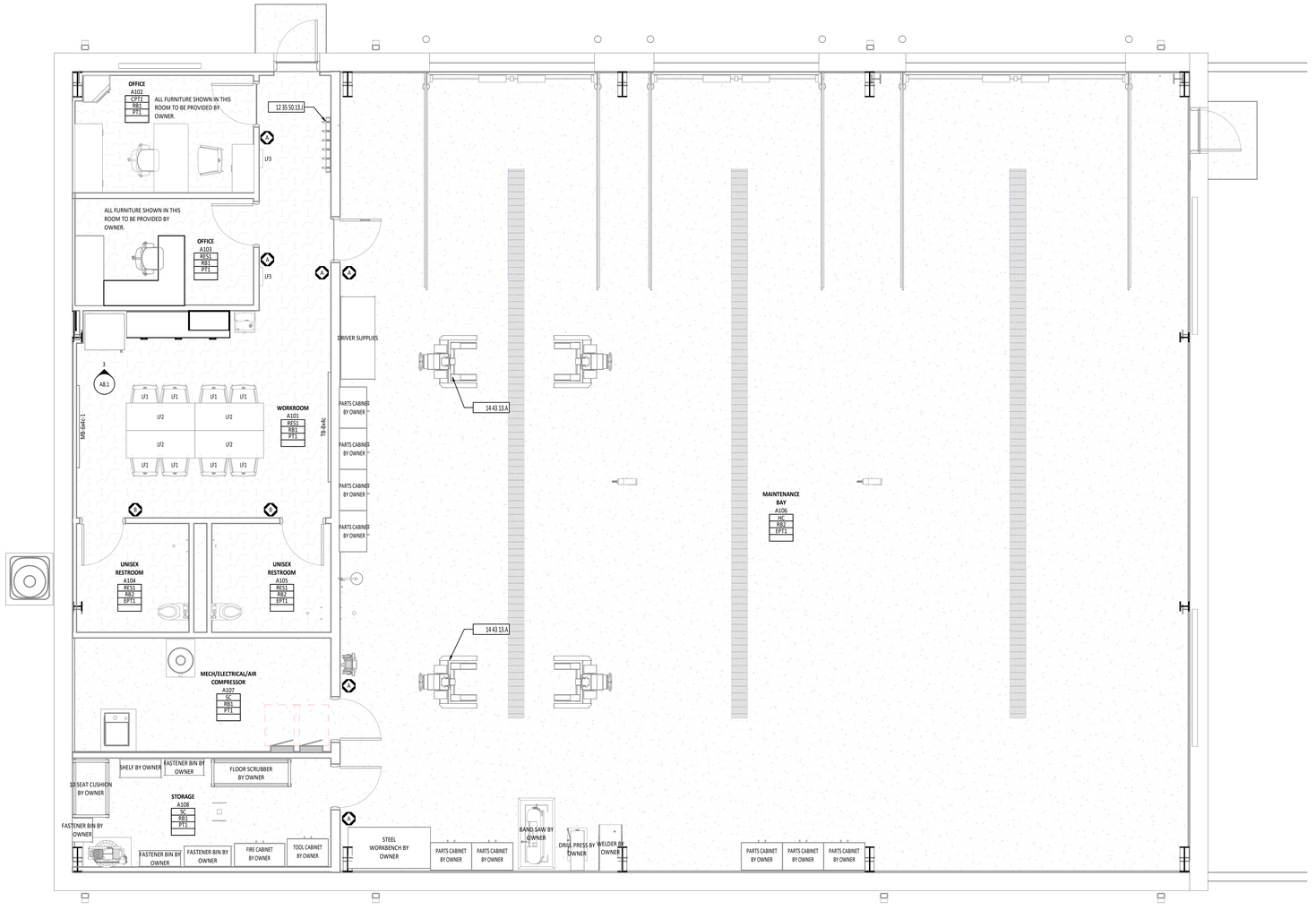
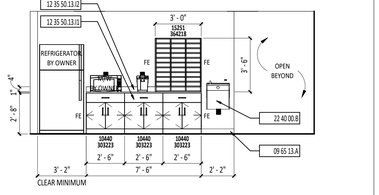


1 A8.1 **FIRST FLOOR FINISHES, FURNITURE AND EQUIPMENT PLAN**
1/4" = 1'-0"

2 A8.1 **FIRST FLOOR EQUIPMENT PLAN - ALTERNATE**



3 A8.1 **INTERIOR ELEVATION - WORKROOM A101 - EAST**
1/4" = 1'-0"

MARKERBOARD SCHEDULE

MARK	LENGTH	HEIGHT	TOP AFF	BOTTOM AFF	DESCRIPTION	FRAME	TRAY	STAFF LINES	NOTES
MB-6x4c-1	6' - 0"	4' - 0"	7' - 0"	3' - 0"	MARKERBOARD	•	•		

TACKBOARD SCHEDULE

MARK	LENGTH	HEIGHT	TOP AFF	BOTTOM AFF	DESCRIPTION	FRAME	NOTES
TB-8x4c	8' - 0"	4' - 0"	7' - 0"	3' - 0"	TACKBOARD	•	USE TACK FABRIC "TF1"

12 51 00 - FURNITURE SCHEDULE

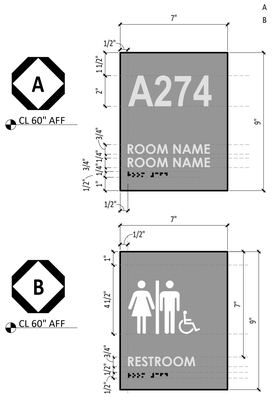
ROOM	ROOM NAME	TAG	QTY	DESCRIPTION
A101	WORKROOM	LF1	8	GUEST CHAIR - POLY SEAT AND BACK, ARMLESS
A101	WORKROOM	LF2	4	RECTANGULAR TABLE - 24x60, GLIDES
A101	WORKROOM	LF3	2	WALL-MOUNTED PAPER SLOT

SIGNAGE SCHEDULE - FIRST FLOOR PLAN

CONSTRUCTION DOCUMENTS ROOM NUMBER SERVED	CONSTRUCTION DOCUMENTS DOOR NUMBER / OPENING	CONSTRUCTION DOCUMENTS ROOM NAME	CONSTRUCTION DOCUMENTS SIGNAGE TYPE	ACTUAL SIGNAGE NUMBER	ACTUAL SIGNAGE NAME	NOTES
	B109		A	B109	MAINTENANCE	ALTERNATE
A101	A101	WORKROOM	A	101	WORKROOM	- -
A102	A102	OFFICE	A	102	OFFICE	- -
A103	A103	OFFICE	A	103	OFFICE	- -
A104	A104	UNISEX RESTROOM	B	- -	RESTROOM	- -
A105	A105	UNISEX RESTROOM	B	- -	RESTROOM	- -
A106	A106	MAINTENANCE BAY	A	106	MAINTENANCE	- -
A107	A107	MECH/ELECTRICAL/AIR COMPRESSOR	A	107	MECHANICAL/ELECTRICAL	- -
A108	A108	STORAGE	A	108	STORAGE	- -

SIGNAGE GENERAL NOTES

A VERIFY SIGNAGE NAME AND NUMBER WITH OWNER BEFORE MANUFACTURING.
B REFERENCE THIS SHEET FOR CONSTRUCTION DOCUMENTS SIGNAGE TYPE AND PLACEMENT LOCATION.



TYPE A
ROOM SIGN
- 1/4" THICK LAYERED ACRYLIC SIGN, ALL EDGES TO BE POLISHED.
- SOLID COLOR ACRYLIC TO MATCH SHERWIN WILLIAMS, GAUNTLET GRAY.
- 3/8" RAISED GRADE 2 BRAILLE, CLEAR. LEFT JUSTIFIED.
- RAISED LETTERING ROOM NUMBER, WHITE, "ARIAL NARROW" FONT, BOLD. LEFT JUSTIFIED.
- ROOM NAME AT 3/4" TALL RAISED LETTERING, WHITE. "CENTURY GOTHIC" FONT, BOLD. IF ONLY ONE LINE OF ROOM NAME IS NEEDED, USE BOTTOM LINE. LEFT JUSTIFIED

TYPE F
UNISEX & STAFF RESTROOM SIGN
- 1/4" THICK LAYERED ACRYLIC SIGN, ALL EDGES TO BE POLISHED.
- SOLID COLOR ACRYLIC TO MATCH SHERWIN WILLIAMS, GAUNTLET GRAY.
- 3/8" H RAISED GRADE 2 BRAILLE, CLEAR. LEFT JUSTIFIED.
- RAISED GRAPHIC, WHITE. LEFT JUSTIFIED.
- 3/4" TALL ROOM NAME RAISED LETTERING, WHITE. "CENTURY GOTHIC" FONT, BOLD. LEFT JUSTIFIED.

4 A8.1 **SIGNAGE DETAILS**
3" = 1'-0"

FINISH MATERIAL SCHEDULE

NAME	MANUFACTURER	STYLE	NUMBER	COLOR	SIZE	COMMENTS	EQUAL #1	EQUAL #2
03 35 00 CONCRETE FINISHING - HARDENED CONCRETE								
HC	REFER TO SPECIFICATIONS	REFER TO SPECIFICATIONS	- -	GRAY /NATURAL	- -		REFER TO SPECIFICATIONS	REFER TO SPECIFICATIONS
03 35 00 CONCRETE FINISHING - SEALED CONCRETE								
SC	REFER TO SPECIFICATIONS	REFER TO SPECIFICATIONS	- -	GRAY /NATURAL	- -		REFER TO SPECIFICATIONS	REFER TO SPECIFICATIONS
09 51 00 ACOUSTICAL CEILINGS - SUSPENSION SYSTEM								
TYPE A	ARMSTRONG	PRELUDE XL	---	WHITE	15/16" WIDE FACE	DOUBLE WEB CONSTRUCTION, CLASS 1 ZINC COATING, 8 GAUGE STEEL	USG	ROCKFON
09 51 00 ACOUSTICAL CEILINGS - TILE								
TYPE A	ARMSTRONG	SCHOOL ZONE FINE FISSURED	1714	WHITE	2'X4' X 3/4"	SQUARE EDGE. .70 MINIMUM NRC, SAG RESISTANT, ANTIOMICROBIAL. USE SUSPENSION TYPE A. CORRESPONDS WITH CEILING TYPE "A" ON SHEET A5.1	USG	ROCKFON
09 65 00 RESILIENT FLOORING - FLOOR TRANSITIONS								
FLT1	TARKETT	JOHNSONITE - METAL EDGE	ME 003	TBD	1/4" TO 3/8"	TO BE USED AT TRANSITION BETWEEN CPT AND RES FLOORING		
FLT2	TARKETT	JOHNSONITE WHEEL TRAFFIC TRANSITION	CTA-xx-J	TBD	1/4" TO SUBFLOOR	TO BE USED AT TRANSITIONS BETWEEN RES AND CONCRETE FLOORING		
09 65 00 RESILIENT FLOORING - RUBBER BASE								
RB1	TARKETT	TRADITIONAL RUBBER COVE WALL BASE	29	MOON ROCK	4"H		ROPPE - PINNACLE	MANNINGTON
RB2	TARKETT	TRADITIONAL RUBBER COVE WALL BASE	29	MOON ROCK	6"H		ROPPE - PINNACLE	MANNINGTON
09 67 23 RESINOUS FLOORING								
RES1	DUR-A-FLEX	HYBRI-FLEX EC	- -	PEWTER	1/4"" THICK	SELECTION TO BE MADE FROM MANUFACTURER'S STANDARD MIXES	KEY RESIN COMPANY	STONHARD
09 68 00 CARPETING - CARPET TILE								
CPT1	INTERFACE	THIRD SPACE 301	107842	BLACK	50 cm X 50 cm	INSTALL IN MONOLITHIC INSTALLATION PATTERN	TARKETT	SHAW
09 91 23 PAINTING - EPOXY PAINT								
EPT1	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	SW6070	HERON PLUME			REFER TO SPECIFICATIONS	REFER TO SPECIFICATIONS
EPT2	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	SW7019	GAUNTLET GRAY			REFER TO SPECIFICATIONS	REFER TO SPECIFICATIONS
09 91 23 PAINTING - PAINT								
PT1	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	SW6070	HERON PLUME			REFER TO SPECIFICATIONS	REFER TO SPECIFICATIONS
PT2	SHERWIN WILLIAMS	REFER TO SPECIFICATIONS	SW7019	GAUNTLET GRAY			REFER TO SPECIFICATIONS	REFER TO SPECIFICATIONS
10 11 00 VISUAL DISPLAY UNITS - TACKABLE FABRIC								
TF1	GUILFORD OF MAINE	FR 701 2100	795	FLANNEL	- -			
12 35 50.13 EDUCATIONAL CASEWORK - CASEWORK HARDWARE								
CH1	STEVENS INDUSTRIES	SLIMLINE 128	SA009MIN	BRUSHED NICKEL		BASE AND WALL CABINET HARDWARE	REFER TO SPECIFICATIONS	REFER TO SPECIFICATIONS
12 35 50.13 EDUCATIONAL CASEWORK - PLASTIC LAMINATE								
LT1	FORMICA	- - -	8842	WEATHERED ASH		VERTICAL LAMINATE	WILSONART	PIONITE
LT2	WILSONART	- - -	4623	GRAPHITE NEBULA		HORIZONTAL LAMINATE	FORMICA	PIONITE

FIRST FLOOR PLAN ROOM INDEX - OVERALL

ROOM NUMBER	ROOM NAME	AREA
A101	WORKROOM	368 SF
A102	OFFICE	110 SF
A103	OFFICE	101 SF
A104	UNISEX RESTROOM	65 SF
A105	UNISEX RESTROOM	69 SF
A106	MAINTENANCE BAY	3,608 SF
A107	MECH/ELECTRICAL/AIR COMPRESSOR	156 SF
A108	STORAGE	149 SF

FLOOR FINISHES GENERAL NOTES

A FLOORING TRANSITIONS AND SEAMS AT DOOR SHALL OCCUR DIRECTLY UNDER THE CENTERLINE OF CLOSED DOOR UNLESS NOTED OTHERWISE.
B FLOORING TRANSITIONS ARE TO BE EASED TO ACHIEVE A SMOOTH AND UNIFORM TRANSITION.
C TRANSITION STRIPS ARE REQUIRED IN ALL INSTANCES WHERE A FLOOR MATERIAL TRANSITION OCCURS.
D FLOOR FINISHES SHALL EXTEND UNDER BUILT-IN COUNTER AND EQUIPMENT.
E REFERENCE THE FINISH MATERIAL SCHEDULE FOR MANUFACTURERS, TYPES, AND COLOR SELECTIONS.
F REFERENCE INTERIOR ELEVATIONS, WHERE PROVIDED, FOR ADDITIONAL INFORMATION.
G ALL BASE MATERIALS SHALL BE INSTALLED TIGHT TO FLOORING SURFACE.
H REFERENCE FINISH FLOOR MATERIAL LEGEND FOR SPECIFIC FLOORING MATERIAL AND COLOR.
J EXPOSED CEILING / STRUCTURE TO BE PAINTED, UNLESS NOTED OTHERWISE
K ALL INTERIOR WALL FINISH TRANSITIONS SHOULD OCCUR AT AN INSIDE CORNER, IF A MATERIAL OR COLOR CHANGE OCCURS AT AN OUTSIDE CORNER, CONTRACTOR SHALL BRING THIS TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATION.

EQUIPMENT GENERAL NOTES

A KEY CASEWORK LOCKS ALIKE PER ROOM. PROVIDE MASTER KEY FOR ALL LOCKS.
B RESILIENT BASE ALONG ALL CABINET BASE FRONTS IS TO BE PROVIDED BY SPECIFICATION SECTION 09 65 13.
C ALL OPENINGS IN CASEWORK AND COUNTERTOPS TO BE CUT BY CASEWORK CONTRACTOR ONLY.
D REFERENCE FINISH MATERIAL SCHEDULE FOR LAMINATE COLOR SELECTIONS.

TYPICAL FINISHES

* UNLESS NOTED OTHERWISE, THESE FINISH SELECTIONS SHALL BE USED THROUGHOUT THE PROJECT. CONTRACTOR SHOULD BRING ANY DISCREPANCIES TO THE ARCHITECT'S ATTENTION IMMEDIATELY.

CASEWORK HARDWARE	CH1
EXPOSED HVAC ELEMENTS (CEILING)	MATCH PT1
EXPOSED HVAC ELEMENTS (WALLS)	MATCH ADJACENT WALL FINISH
EXPOSED STRUCTURE (CEILING)	MATCH PT1
EXPOSED METAL DECK	MATCH PT1
GWB CEILINGS AND BULKHEADS	PT1
HOLLOW METAL DOOR FRAMES	PT2
HOLLOW METAL DOORS	PT2
HOLLOW METAL RAILING	PT2
LAMINATE CASEWORK (HORIZONTAL)	LT2
LAMINATE CASEWORK (VERTICAL)	LT1
SWITCH PLATES AND OUTLET COVERS	WHITE
TACKBOARD FABRIC	TF1

FLOOR FINISH MATERIAL LEGEND

CARPET TILE 1 — CPT1
HARDENED CONCRETE — HC
SEALED CONCRETE — SC
RESINOUS FLOORING 1 — RES1

CASEWORK AND EQUIPMENT SYMBOLS LEGEND

CS — CASEWORK - CHAIN STOP DESIGNATION
FE — CASEWORK - FINISH END DESIGNATION
* — CASEWORK - MODIFIED FROM STANDARD DESIGNATION
A101 — ROOM DESIGNATION - REFERENCE ROOM INDEX.
1 — SIGNAGE DESIGNATION - REFERENCE SIGNAGE DETAILS.
LEVEL ELEVATION — LEVEL LINE
DIVISIONAL KEYNOTE DESIGNATION - REFERENCE KEYNOTE SCHEDULE AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
KEYNOTE DESIGNATION
SPECIFICATION SECTION
AREA OF DETAIL — CALLOUT — SIM — DETAIL NUMBER / SHEET NUMBER
INTERIOR ELEVATION — DETAIL NUMBER / SHEET NUMBER
SECTION — SIM — DETAIL NUMBER / SHEET NUMBER

#	KEYNOTE DESCRIPTION
09 65 13.A	BASE AS SCHEDULED - REFERENCE FINISH MATERIAL SCHEDULE.
12 35 50.13.I1	PLASTIC LAMINATE FINISH TO BE LT1 - REFERENCE FINISH MATERIAL SCHEDULE.
12 35 50.13.I2	PLASTIC LAMINATE FINISH TO BE LT2 - REFERENCE FINISH MATERIAL SCHEDULE.
12 35 50.13.J	COAT HOOKS. PLASTIC ON HARDWOOD SUBSTRATE. REFER TO SPECIFICATIONS.
14 43 13.A	ROTARY MOBILE COLUMN LIFT - MCHW18 - BY OWNER IN FUTURE PHASE
22 40 00.B	DRINKING WATER COOLER - REFERENCE PLUMBING DRAWINGS - REFERENCE A0.1 FOR MOUNTING HEIGHTS.

FINISH TAG LEGEND

A1XX → ROOM NUMBER

FLOOR FINISH	RF1
BASE FINISH	RB1
WALL FINISH	PT1
FINISH REMARK*	2

*REMARKS NUMBERS COORDINATE WITH "INTERIOR FINISH REMARKS" NOTES LEGEND ABOVE

MATERIALS NOTED IN FINISH TAG SHOULD BE CONSIDERED THE OVERALL FINISHES IN THE ROOM MARKED UNLESS NOTED OTHERWISE WITH KEYNOTES ON FINISH PLAN OR INTERIOR ELEVATIONS.

INTERIOR FINISH REMARKS

1. MULTIPLE WALL FINISHES IN THIS ROOM. REFER TO INFORMATION NOTED ON FINISH PLANS AND INTERIOR ELEVATIONS.
2. MULTIPLE FLOOR FINISHES IN THIS ROOM. REFER TO NOTED INFORMATION ON FINISH PLANS.
3. ALL FINISHES IN THIS ROOM ARE TO BE INCLUDED IN ALTERNATE. REFER TO PROJECT MANUAL FOR MORE INFORMATION.

STATE OF OHIO
ERIC JAMES BALTZELL
E-65072
REGISTERED
PROFESSIONAL ENGINEER

ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

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NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

574 N. HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

	CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	MEK	BAB

SHEET TITLE:

FINISHES, FURNITURE, AND EQUIPMENT FLOOR PLAN

SHEET NUMBER:

A8.1

PRINTED ON: 2/7/2025 4:33:59 PM

GENERAL STRUCTURAL NOTES

GENERAL

1. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE CONSTRUCTION IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE AND TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, SHEETING, TEMPORARY BRACING, GUYS, OR TIEDOWNS WHICH MIGHT BE NECESSARY. SUCH MATERIAL IS TO REMAIN THE CONTRACTOR'S PROPERTY AFTER COMPLETION OF THE PROJECT.

2. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.

3. MECHANICAL EQUIPMENT LOADS, OPENINGS AND STRUCTURE IN ANY WAY RELATED TO MECHANICAL REQUIREMENTS ARE SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR IS TO OBTAIN APPROVAL OF MECHANICAL AND OTHER TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. EXCESS COST RELATED TO VARIATION IN MECHANICAL REQUIREMENTS TO BE BORNE BY MECHANICAL CONTRACTOR.

4. DO NOT SCALE THE DRAWINGS WHERE DIMENSIONS ARE NOT SPECIFICALLY GIVEN. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS AND ELEVATIONS NOT SHOWN. COORDINATE ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECTURAL DRAWINGS. ALL DIMENSIONS AND ELEVATIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE NOT INTENDED TO AUGMENT, NOR SUPERSEDE THOSE SHOWN ON THE ARCHITECTURAL DRAWINGS.

5. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY THE ARCHITECT IMMEDIATELY WHERE CONFLICTS EXIST WITHIN THE DRAWINGS OR BETWEEN THE DRAWINGS AND FIELD CONDITIONS.

6. THROUGHOUT THESE PLANS, THE TERM "PROVIDE" IS DEFINED AS "SUPPLY AND INSTALL".

7. SHOP DRAWINGS ARE TO BE SUBMITTED BY COMPLETE ERECTION PHASE OR SEQUENCE. LIMITS OF EACH INDIVIDUAL ERECTION PHASE OR SEQUENCE ARE TO BE CLEARLY INDICATED ON THE PLANS. INCOMPLETE OR PIECEMEAL SHOP DRAWINGS WILL BE RETURNED PRIOR TO REVIEW. RESUBMITTALS ARE TO HAVE REVISIONS CLEARLY MARKED OR IDENTIFIED. THE CONTRACTOR SHALL REVIEW AND ACCEPT FULL RESPONSIBILITY FOR DIMENSIONAL CORRECTNESS. ALL SHOP DRAWINGS MUST BEAR THE APPROVAL STAMP OF THE CONTRACTOR PRIOR TO REVIEW BY THE ARCHITECT OR ENGINEER.

8. SHOULD ANY OF THE DETAILED INSTRUCTIONS SHOWN ON THE PLANS CONFLICT WITH THE GENERAL STRUCTURAL NOTES, THE SPECIFICATIONS OR WITH EACH OTHER, THE STRICTEST PROVISION WILL GOVERN.

9. CODE INFORMATION

- GOVERNING CODE:	2024 OHIO BUILDING CODE	
- BUILDING RISK CATEGORY:	CATEGORY II	
LOADING TYPE:	UNIFORM (PSF)	CONCENTRATED (LB)
FLOOR LIVE LOADS (WITH ALLOWABLE REDUCTIONS WHERE APPLICABLE):		
- STORAGE (LIGHT)	125 PSF	--
ROOF LIVE LOADS:		
- ORDINARY ROOFS	20 PSF	--
ROOF RAIN LOADS	PRIMARY	SECONDARY
- RAIN INTENSITY (i)	2.8 IN/HR	1.5 IN/HR
SNOW LOADS:		
- GROUND SNOW LOAD (Pg)	20 PSF	
- FLAT ROOF SNOW LOAD (Pf)	20 PSF	
- SNOW EXPOSURE FACTOR (Ce)	1.0	
- SNOW LOAD IMPORTANCE FACTOR (Is)	1.0	
- THERMAL FACTOR (Ct)	1.0	
WIND LOADS:		
- BASIC WIND SPEED (V)	107 MPH	
- BASIC ALLOWABLE WIND SPEED (V asd)	83 MPH	
- SITE EXPOSURE CATEGORY	C	
- INTERNAL PRESSURE COEFFICIENT	+/- 0.18	
SEISMIC LOADS:		
- SEISMIC IMPORTANCE FACTOR (Ie)	1.0	
- MAPPED SPECTRAL RESPONSE ACCELERATION (Ss)	0.177	
- MAPPED SPECTRAL RESPONSE ACCELERATION (S1)	0.072	
- SEISMIC SITE CLASS	D	
- DESIGN SPECTRAL RESPONSE ACCELERATION (Sds)	0.118	
- DESIGN SPECTRAL RESPONSE ACCELERATION (Sd1)	0.072	
- SEISMIC DESIGN CATEGORY	A	
- RESPONSE MODIFICATION COEFFICIENT (R)	3.0	
- SEISMIC RESPONSE COEFFICIENT (Cs)	0.039	
- SEISMIC DESIGN BASE SHEAR (V)	2.4 K	
- ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE	
- BASIC SEISMIC FORCE-RESISTING SYSTEM:	STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC	
SPECIAL LOADS		
- INTERIOR WALLS & PARTITIONS	5 PSF HORIZONTAL (ALLOWABLE)	
GEOTECHNICAL:		
- GEOTECHNICAL ENGINEER:	BOWSER MORNER	
- REFERENCE REPORT I.D. OR NUMBER:	216164-1024-185	
- REFERENCE REPORT DATE:	OCTOBER 1, 2024	
- ALLOWABLE DESIGN BEARING PRESSURE:	3,500 PSF	
- FOUNDATION TYPE:	SHALLOW SPREAD FOOTINGS	

DELEGATED DESIGN ITEMS

1. PREFABRICATED ITEMS SHOWN ON THE STRUCTURAL DRAWINGS ARE REFERENCED FOR GENERAL COORDINATION PURPOSES ONLY. THESE SYSTEMS SHALL BE DESIGNED, FURNISHED, AND INSTALLED AS REQUIRED BY OTHER PORTIONS OF THE CONTRACT DOCUMENTS. JEZERINAC GEERS WILL REVIEW THE DESIGN METHODOLOGY, LOADS, AND INSTALLATION DETAILS AS PART OF THE SHOP DRAWING REVIEW PROCESS AND MAY REQUEST A SEALED CALCULATION PACKAGE FOR REVIEW. SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY THE ENGINEER RESPONSIBLE FOR THE DESIGN OF THE DESIGNED ITEMS. DELEGATED DESIGN ITEMS FOR THIS PROJECT INCLUDE THE FOLLOWING:
   A. DIVISION 13:
      1. METAL BUILDING SYSTEMS

REINFORCED CONCRETE

1. SPECIFICATIONS: IN GENERAL, COMPLY WITH ACI-301-20, "SPECIFICATIONS FOR STRUCTURAL CONCRETE".

2. MATERIALS:
   A. STRUCTURAL CONCRETE:

MIX USAGE	f'c (PSI)	MAX w/cm	EXPOSURE CLASS	AIR CONTENT
LEAN CONCRETE	2,000	---	F0	---
FOOTINGS & INTERIOR COLUMN PIERS	3,500	0.55	F1	---
INTERIOR SLABS ON GRADE	4,000	0.45	F0	---
EXTERIOR FOUNDATION STEMWALLS, EXTERIOR FOUNDATION WALLS, & EXTERIOR COLUMN PIERS	4,500	0.45	F2	5%-7%
EXTERIOR UNREINFORCED SLABS ON GRADE & EXTERIOR CONCRETE NOT OTHERWISE IDENTIFIED	4,500	0.45	F2, C1	5%-7%

   B. ALL DEFORMED REINFORCING BARS: FY = 60,000 PSI.
   C. CEMENT: PORTLAND CEMENT, ASTM C150: TYPE I OR TYPE II; ASTM C1157: TYPE LH OR GU; OR ASTM C595: TYPE IL. ALL CEMENT FOR CONCRETE EXPOSED TO VIEW IS TO BE FROM THE SAME MILL.
   D. AGGREGATES: ASTM C33, USE SIZE NO. 57 FOR ALL MIXES UNLESS NOTED OTHERWISE.
   E. ADMIXTURES:
      1. WATER-REDUCING, LOW AND MID RANGE: ASTM C494, TYPE A OR D.
      2. HIGH-RANGE WATER REDUCING, SUPERPLASTICIZER: ASTM C494, TYPE F OR G.
   F. AIR-ENTRAINING: ASTM C260.
   G. FLY-ASH: ASTM C618, TYPE C OR F.
   H. NON-CHLORIDE, NON-CORROSIVE ACCELERATOR: ASTM C494, TYPE C OR E.
   I. VAPOR RETARDER SHALL CONFORM TO ASTM E1745 "STANDARD SPECIFICATION FOR PLASTIC WATER VAPOR RETARDERS USED IN CONTACT WITH SOIL OR GRANULAR FILL UNDER CONCRETE SLABS", CLASS A.
   J. VAPOR RETARDER SHALL BE INSTALLED IN ACCORDANCE WITH ASTM E1643 "STANDARD PRACTICE FOR INSTALLATION OF WATER VAPOR RETARDERS USED IN CONTACT WITH EARTH OR GRANULAR FILL UNDER CONCRETE SLABS. THE VAPOR RETARDER/BARRIER SHALL BE A MINIMUM OF 15 MILS THICK AND PLACED DIRECTLY ON THE GRANULAR FILL, BELOW THE CONCRETE FLOOR SLAB. LAP JOINTS A MINIMUM OF 6 INCHES AND SEAL WITH MANUFACTURER'S RECOMMENDED TAPE OR ADHESIVE.

3. FIELD MANUAL: PROVIDE AT LEAST ONE COPY OF THE ACI FIELD REFERENCE MANUAL, MNL-15(20) IN THE FIELD OFFICE AT ALL TIMES.

4. SUBMITTALS:
   A. SUBMIT A MIX DESIGN FOR EACH MIXTURE USAGE REQUIRED FOR THE PROJECT. CONCRETE PROPORTIONS ARE TO BE ESTABLISHED ON THE BASIS OF PREVIOUS FIELD EXPERIENCE OR TRIAL MIXTURES.
   B. SUBMIT PLACING DRAWINGS FOR ALL REINFORCING. INDICATE STRENGTH, SIZE, AND DETAILS OF ALL BAR REINFORCING.
   C. SUBMIT PRODUCT LITERATURE FOR ADMIXTURES AND CURING COMPOUNDS PROPOSED FOR USE.
   D. SUBMIT REPORTS OF ALL REQUIRED TESTING AND INSPECTIONS.

5. CONTINGENCIES:
   A. PROVIDE LEAN CONCRETE UNDER FOUNDATIONS FOR ACCIDENTAL OVER EXCAVATION, SOFT SPOTS, AND UTILITY TRENCHES.

6. FOOTINGS, PIERS, WALLS:
   A. DOWELS IN FOOTINGS TO MATCH VERTICAL PIER OR WALL REINFORCING.
   B. PROVIDE CORNER BARS AT WALL AND FOOTING CORNERS TO MATCH HORIZONTAL REINFORCING.
   C. LAP BARS AS INDICATED IN THE CONCRETE REINFORCING LAP SCHEDULE.

7. SPLICES:
   A. LAP SPLICE REINFORCING BARS AS SCHEDULED. MINIMUM LAP = 36 DIAMETERS.

8. CONSTRUCTION JOINTS:
   A. CONSTRUCTION JOINTS PERMITTED ONLY WHERE SHOWN OR AS APPROVED BY THE STRUCTURAL ENGINEER.

9. FINISHES:
   A. PER ACI 117, SURFACES OF INTERIOR SLABS ON GRADE ARE TO BE FINISHED TO THE FOLLOWING TOLERANCES: FLOOR FLATNESS F(f)=30 AND LEVELNESS F(l)=20 UNLESS NOTED OTHERWISE IN SPECIFICATIONS.
   B. TYPICAL INTERIOR FLOOR AREAS TO RECEIVE CARPET, RESILIENT FLOOR COVERING, OR TO REMAIN EXPOSED - TROWELED FINISH.
   C. INTERIOR FLOOR AREAS TO RECEIVE QUARRY TILE OR CERAMIC TILE - FLOATED FINISH.
   D. EXTERIOR SLABS - BROOM FINISH.

10. CURING:
   A. CURING IS TO COMMENCE IMMEDIATELY AFTER CONCRETE PLACEMENT AND CONTINUE FOR AT LEAST 7 DAYS. DO NOT ALLOW CURING TO BE DELAYED OVERNIGHT.
   B. INTERIOR SLABS TO RECEIVE QUARRY TILE OR CERAMIC TILE ARE TO BE MOIST-CURED WITHOUT THE USE OF A CURING COMPOUND.
   C. ALL OTHER SLABS MAY BE EITHER MOIST-CURED OR RECEIVE AN APPLICATION OF CURING COMPOUND.

11. FIELD QUALITY CONTROL:
   A. OBTAIN CONCRETE FOR REQUIRED TESTS AT POINT OF PLACEMENT. IF CONCRETE IS PUMPED, OBTAIN CONCRETE AT DISCHARGE END.
   B. FOR EACH CLASS OF CONCRETE, OTHER THAN LEAN CONCRETE, PERFORM ONE STRENGTH TEST FOR EACH 50 YARDS, OR FRACTION THEREOF, FOR ONE DAY PLACEMENT.
   C. DETERMINE SLUMP FOR EACH STRENGTH TEST.
   D. DETERMINE AIR CONTENT FOR EACH STRENGTH TEST OF EXTERIOR EXPOSED CONCRETE.
   E. MAINTAIN RECORDS OF ALL TESTS INDICATING EXACT LOCATION OF THE STRUCTURE REPRESENTED BY EACH TEST.

MASONRY

1. MATERIALS:
   A. CONCRETE BLOCK: ASTM C90 (HOLLOW AND SOLID), MINIMUM NET AREA COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS = 2,600 PSI.
   B. MORTAR: ASTM 270 TYPE S, MINIMUM COMPRESSIVE STRENGTH = 1,800 PSI
   C. GROUT FOR BOND BEAM AND CORE FILL: ASTM C476, COARSE TYPE WITH f'c = 2,500 PSI MIN.
   D. DESIGN COMPRESSIVE STRENGTH OF MASONRY SYSTEM: f'm = 2,250 PSI
   E. ALL DEFORMED REINFORCING BARS: FY = 60,000 PSI. LAP BARS AS INDICATED IN THE CONCRETE MASONRY REINFORCING LAP SCHEDULE.
   F. HORIZONTAL JOINT REINFORCING: STANDARD LADDER TYPE, 9 GA., HOT-DIPPED GALVANIZED FINISH. PROVIDE AT 8" O.C. BELOW GRADE, AND 16" O.C. ABOVE GRADE, UNLESS NOTED OTHERWISE.

2. MISCELLANEOUS:
   A. PROVIDE SOLID OR GROUT-FILLED CMU FOR ALL BELOW-GRADE FOUNDATION WALLS.
   B. FILL CORE SOLID AROUND CAST-IN ANCHOR RODS.
   C. PROVIDE SOLID CMU OR SOLIDLY FILLED HOLLOW CMU AT ALL EPOXY ANCHOR AND WEDGE ANCHOR LOCATIONS. EXTEND SOLID AREA AT LEAST 8" IN ALL DIRECTIONS FROM CENTER OF ANCHOR.
   D. HOLLOW MASONRY UNITS TO BE LAID WITH FULL MORTAR COVERAGE ON HORIZONTAL AND VERTICAL FACE SHELLS. WEBS ARE TO ALSO BE BEDDED IN ALL COURSES OF PIERS, PILASTERS, THE STARTING COURSE ON FOOTINGS, AND WHEN ADJACENT TO CELLS OR CAVITIES TO BE REINFORCED OR FILLED WITH CONCRETE OR GROUT. SOLID UNITS TO BE LAID WITH FULL HEAD AND BED JOINTS.
   E. WHERE HOLLOW MASONRY UNITS ARE USED ABOVE HOLLOW MASONRY UNITS OF A DIFFERENT THICKNESS, PROVIDE A CONTINUOUS COURSE OF SOLID MASONRY AT LEAST 8" HIGH BELOW THE TRANSITION.
   F. LAP SPLICE REINFORCING BARS AS SCHEDULED.
   G. ALL GROUTING OF MASONRY WALLS IS TO BE BY THE LOW-LIFT GROUTING METHOD (MAXIMUM LIFT HEIGHT 5'-0"), UNLESS CLEAN-OUTS AND INSPECTIONS ARE PROVIDED.

STRUCTURAL STEEL

1. MATERIALS:
   A. STRUCTURAL STEEL WIDE FLANGE SHAPES: ASTM A992, Fy = 50 KSI
   B. STRUCTURAL STEEL CHANNELS, ANGLES, PLATES, ETC.: ASTM A36, Fy = 36 KSI
   C. HIGH STRENGTH BOLTS: ASTM A325 OR A490
   D. ANCHOR RODS: ASTM F1554, GRADE 36, UNLESS NOTED OTHERWISE
   E. ELECTRODES: SERIES E70

2. SPECIFICATIONS:
   A. WELDING PERSONNEL AND PROCEDURES ARE TO BE QUALIFIED PER AWS D1.1. UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION TO BE GOVERNED BY THE LATEST REVISIONS OF:
      1. AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
      2. AISC CODE OF STANDARD PRACTICE.
      3. STRUCTURAL WELDING CODE, AWS D1.1 OF THE AMERICAN WELDING SOCIETY.
      4. SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.

3. SUBMITTALS:
   A. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL WHICH INCLUDE ERECTION PLANS, CONNECTION DETAILS, AND SHOP DETAILS INDICATING CUTS, COPES, CAMBERS, CONNECTIONS, HOLES, THREADED FASTENER TYPES AND SIZES, AND SIZES AND LENGTHS OF WELDS.
   B. INDICATE MATERIAL SPECIFICATIONS, STRENGTHS, AND FINISHES.

4. CONNECTIONS:
   A. FIELD CONNECTIONS ARE TO BE BOLTED, EXCEPT AS INDICATED OTHERWISE. SHOP CONNECTIONS MAY BE WELDED OR BOLTED.
   B. CONNECTIONS ARE TO BE DESIGNED BY THE FABRICATOR TO DEVELOP EITHER 110% OF THE FULL UNIFORM LOAD CAPACITY OF THE MEMBER (55% EACH END), OR THE FORCES SHOWN ON THE PLANS. MINIMUM CONNECTION CAPACITY TO BE 15 KIPS. FOLLOW INSTRUCTIONS ON DRAWINGS FOR GENERAL ARRANGEMENT OR PARTICULAR DETAILS.

5. COATINGS:
   A. DO NOT PAINT STEEL OR ANCHOR RODS WHICH WILL BE ENCASED IN CONCRETE OR MASONRY, NOR ANY STEEL WHICH IS SCHEDULED TO RECEIVE SPRAY-APPLIED OR INTUMESCENT-MASTIC FIREPROOFING.
   B. PAINT ALL INTERIOR EXPOSED STEEL (INCLUDING INTERIOR LINTELS) WITH TWO COATS OF RED-OXIDE PRIMER.
   C. HOT-DIP GALVANIZE ALL EXTERIOR STEEL (INCLUDING LINTELS AND BRICK SHELF ANGLES).
   D. PROVIDE A FIELD-APPLIED COAT OF ASPHALT-MASTIC PAINT FOR ALL BELOW-GRADE STEEL (INCLUDING ANCHOR RODS, NUTS, WASHERS, BASE PLATES, AND THE BELOW-GRADE PORTION OF COLUMNS) WHICH IS NOT FULLY ENCASED IN CONCRETE.
   E. INTERIOR NON-EXPOSED STEEL NEED NOT BE PRIME PAINTED.

6. MISCELLANEOUS:
   A. PROVIDE HOLES FOR OTHERS. IF OPENING IS NOT SHOWN ON THE STRUCTURAL DRAWINGS, OBTAIN PRIOR APPROVAL.
   B. STEEL SUPPORTING OR CONNECTING TO MECHANICAL AND OTHER EQUIPMENT AND ROOF OPENINGS AS SHOWN ON ARCHITECTURAL, MECHANICAL AND/OR ON STRUCTURAL DRAWINGS IS SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR IS TO RECONCILE EXACT SIZE AND LOCATION WITH MECHANICAL AND OTHER REQUIREMENTS BEFORE PROCEEDING WITH THIS WORK.
   C. PROVIDE HEAVY PLATE WASHERS AT ALL ANCHOR RODS.
   D. FINISH ENDS OF ALL COLUMNS, STIFFENERS AND ALL OTHER MEMBERS IN DIRECT BEARING.
   E. SEE ARCHITECTURAL SECTIONS AND DETAILS FOR ALL MISCELLANEOUS STRUCTURAL STEEL NOT OTHERWISE INDICATED IN THE STRUCTURAL DRAWINGS.

7. FIELD QUALITY CONTROL:
   A. INSPECTION AGENCY IS TO PERFORM INSPECTION OF BOLTED CONNECTIONS PER THE REQUIREMENTS OF AISC SPECIFICATION FOR STRUCTURAL JOINTS.

METAL DECK

1. MATERIALS:
   A. GALVANIZED SHEET STEEL: ASTM A653
   B. FLOOR DECK: 9/16" DEEP, CONFORM, GALVANIZED.

2. SPECIFICATIONS:
   A. WELDING PERSONNEL AND PROCEDURES ARE TO BE QUALIFIED PER AWS. DESIGN, FABRICATION, AND ERECTION TO BE GOVERNED BY THE LATEST REVISIONS OF:
      1. AISI "SPECIFICATION OF THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS."
      2. STRUCTURAL WELDING CODE, AWS D1.3 OF THE AMERICAN WELDING SOCIETY.
      3. SDI "DESIGN MANUAL FOR FLOOR DECK AND ROOF DECKS".

3. CONNECTIONS:
   A. DECK TO COLD-FORMED FRAMING: #12 SCREWS.
   B. SIDE LAP FASTENING: #10 SCREWS.

4. FINISH:
   A. GALVANIZED: CONFORM TO ASTM A653, G60.

5. MISCELLANEOUS:
   A. UNITS ARE TO BE CONTINUOUS OVER AT LEAST THREE SPANS. WHERE FEWER THAN THREE SPANS ARE NEEDED, GAGE IS TO BE INCREASED AS REQUIRED TO OBTAIN THE SAME DESIGN STRENGTH AS THE THREE-SPAN CONDITION. END LAPS ARE ONLY BE LOCATED OVER SUPPORTS.
   B. FIELD CUTTING TO BE PERFORMED WITH A SAW.

COLD FORMED METAL FRAMING

1. MATERIALS:
   A. COLD-FORMED METAL STUDS AND JOISTS SHOWN ON THE CONTRACT DOCUMENTS ARE DESIGNATED BY "DEPTH", "SHAPE", "WIDTH", AND "THICKNESS" AS FOLLOWS:
      1. DEPTH: 362 (3-5/8"), 600 (6"), 800 (8"), ETC.
      2. SHAPE: S (C-SHAPE), T (TRACK), U (CHANNEL)
      3. WIDTH: 125 (1-1/4"), 162 (1-5/8"), 200 (2"), ETC.
      4. THICKNESS: -43 (18 GA.), -54 (16 GA.), -68 (14 GA.), -97 (12 GA.)
      EXAMPLE: 600S162-54 = 6" C-SHAPE, 1 5/8" FLANGE, 16 GA.
   B. ALL 18 GA AND LIGHTER STUDS TO BE 33 KSI MATERIAL; ALL 16 GA AND HEAVIER STUDS TO BE 50 KSI MATERIAL.
   C. ALL TRACKS AND ACCESSORIES: FY = 33 KSI MINIMUM.

2. SPECIFICATIONS:
   A. WELDING PERSONNEL AND PROCEDURES ARE TO BE QUALIFIED PER AWS. DESIGN, FABRICATION, AND ERECTION TO BE GOVERNED BY LATEST REVISIONS OF:
      1. AISI "SPECIFICATION OF THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS."
      2. STRUCTURAL WELDING CODE, AWS D1.3 OF THE AMERICAN WELDING SOCIETY.

3. SUBMITTALS:
   A. SUBMIT MANUFACTURER'S STANDARD PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH TYPE OF COLD-FORMED METAL FRAMING AND ACCESSORY REQUIRED.

4. CONNECTIONS:
   A. FIELD CONNECTIONS MAY BE EITHER WELDED OR SCREWED, EXCEPT AS SPECIFICALLY DETAILED OTHERWISE.
   B. WELD SIZE TO BE 1/8" WITH AWS TYPE 6013 OR 7014 ROD.
   C. EXCEPT AS NOTED OTHERWISE, MECHANICAL FASTENERS TO BE SELF TAPPING #10-16 SCREWS.

5. FINISH:
   A. ALL MATERIAL TO BE GALVANIZED COATED IN ACCORDANCE WITH ASTM A525 G-60.
   B. TOUCH-UP FIELD WELDS WITH ZINC RICH PAINT.

6. MISCELLANEOUS:
   A. ALL FIELD CUTTING TO BE PERFORMED WITH A SAW.
   B. TRACKS TO BE SECURELY ANCHORED TO SUPPORTING STRUCTURE WITH WELD OR SCREW AT EACH SIDE OF TRACKS.
   C. PROVIDE HORIZONTAL BRIDGING AT 6'-0" O.C. MAX. FOR ALL STUD WALLS UNLESS NOTED OTHERWISE. BRIDGING IS NOT REQUIRED FOR PORTIONS OF INTERIOR NON-LOADBEARING STUD WALLS WHERE BOTH SIDES ARE FACED WITH SHEATHING.
   D. JOISTS TO BE LOCATED DIRECTLY OVER BEARING WALL STUDS UNLESS A LOAD DISTRIBUTION MEMBER IS PROVIDED AT THE TOP TRACK.
   E. BEARING WALL STUDS ARE TO BE LOCATED DIRECTLY BELOW JOIST BEARING UNLESS A LOAD DISTRIBUTION MEMBER IS PROVIDED AT THE TOP TRACK.
   F. END BLOCKING OR CONTINUOUS TRACK IS TO BE PROVIDED WHERE JOIST ENDS ARE NOT OTHERWISE RESTRAINED FROM ROTATION.
   G. WEB PUNCH-OUTS FOR BEAMS, JOISTS, AND RAFTERS ARE TO BE LOCATED A MINIMUM OF 10" AWAY FROM BEARING AND CONCENTRATED LOAD LOCATIONS. IF A PUNCH-OUT FALLS WITHIN 10" OF THESE LOCATIONS, PROVIDE REINFORCEMENT FOR THE MEMBER AS REQUIRED. ALTERNATELY, UN-PUNCHED SECTIONS MAY BE PROVIDED FOR BEAMS, JOISTS, AND RAFTERS.
   H. EACH MEMBER OF MULTIPLE MEMBER COLUMNS ARE TO BE SCREWED TOGETHER USING FULL-HEIGHT TRACKS AND #10 SCREWS AT 12" O.C. ALTERNATELY, MULTIPLE MEMBER COLUMNS MAY BE WELDED TOGETHER WITH A 1" WELD AT 18" ON CENTER, EACH SIDE, EACH PIECE, FOR THE FULL LENGTH OF THE COLUMN.

POST-INSTALLED ANCHOR SYSTEMS

1. GENERAL:
   A. LISTED ANCHOR PRODUCTS PROVIDED BELOW ARE NOT TO BE USED AS INTERCHANGEABLE PRODUCTS. EACH ANCHOR HAS DEFINED CAPACITIES BASED UPON TESTED PERFORMANCE WITH APPLICABLE SAFETY FACTORS AND WILL VARY ACROSS MANUFACTURERS. TYPES OF ANCHORS INDICATED THROUGHOUT THE DESIGN DOCUMENTS ARE DETAILED FOR THEIR SPECIFIC PURPOSE AND CAPACITY. SUBSTITUTION OF ANCHORS FROM THOSE SPECIFIED ARE ONLY ALLOWED AFTER ENGINEER REVIEW AND APPROVAL OR AMENDMENT FROM WRITTEN REQUEST BY THE CONTRACTOR.
   B. PROVIDE ANCHORAGE MATCHING MANUFACTURER, TYPE, DIAMETER, EMBEDMENT, AND BASE MATERIAL AS INDICATED IN THE DOCUMENTS.
   C. ALL POST-INSTALLED ANCHORS TO BE HAMMER DRILLED. FOLLOW ALL HOLE CLEANING AND INSTALLATION INSTRUCTIONS AS STIPULATED BY THE ANCHOR MANUFACTURER. FOLLOW ALL OSHA GUIDELINES FOR CONCRETE DRILLING AS IT PERTAINS TO SILICA DUST.
   D. INSTALLATION OF ADHESIVE ANCHORS MUST BE PERFORMED BY PERSONNEL TRAINED TO INSTALL ADHESIVE ANCHORS THROUGH MANUFACTURER TRAINING PROGRAMS.
   E. INSTALLATION OF ADHESIVE ANCHORS IN THE HORIZONTAL OR UPWARDLY INCLINED ORIENTATION AND WHERE SUPPORTING SUSTAINED TENSION LOADS SHALL BE INSTALLED BY CERTIFIED PERSONNEL BY ACI/CRSI INSTALLATION PROGRAMS.
   F. MINIMUM CONCRETE AGE FOR POST-INSTALLED ADHESIVE ANCHORS SHALL BE NOT LESS THAN 28 DAYS.
   G. ALL ANCHORS IN CONTACT WITH PRESSURE TREATED LUMBER ARE TO BE HOT DIPPED GALVANIZED PER ASTM A153 WITH A MINIMUM G185 COATING OR STAINLESS STEEL WITH CHEMICAL COMPOSITION CONFORMING TO AISI 303/304 OR AISI 316. FASTENERS AND CONNECTORS ARE TO BE OF THE SAME MATERIAL, STAINLESS STEEL OR HOT DIPPED GALVANIZED, DO NOT MIX MATERIALS.
   H. MINIMUM EMBEDMENT FOR MECHANICAL EXPANSION ANCHORAGE SYSTEMS IS TO BE 7 BOLT DIAMETERS. MINIMUM EMBEDMENT FOR SCREW ANCHORAGE AND ADHESIVE ANCHORAGE SYSTEMS IS TO BE 9 BOLT DIAMETERS.

2. ANCHORAGE TO CONCRETE
   A. ACCEPTABLE MECHANICAL EXPANSION ANCHORAGE SYSTEMS:
      1. DEWALT POWER STUD +SDI OR +SD2 WEDGE EXPANSION ANCHOR
      2. HILTI KWIK BOLT 3 EXPANSION ANCHOR
      3. HILTI KWIK BOLT TZ2 EXPANSION ANCHOR
      4. SIMPSON STRONG-BOLT 2 WEDGE EXPANSION ANCHOR
   B. ACCEPTABLE MECHANICAL SLEEVE ANCHORAGE SYSTEMS: (MAY NOT BE USED TO SECURE MAIN BUILDING FRAME COMPONENTS)
      1. DEWALT LOK-BOLT AS SLEEVE ANCHOR
      2. HILTI HLC SLEEVE ANCHOR
      3. SIMPSON SLEEVE-ALL SLEEVE ANCHOR
   C. ACCEPTABLE MECHANICAL SCREW ANCHORAGE SYSTEMS:
      1. DEWALT SCREW-BOLT+
      2. HILTI KWIK HUS-EZ SCREW ANCHOR
      3. SIMPSON TITEN HD SCREW ANCHOR
   D. ACCEPTABLE ADHESIVE ANCHORAGE SYSTEMS:
      1. DEWALT AC200+ ADHESIVE FOR REINFORCING BAR
      2. DEWALT PURE50+ ADHESIVE FOR THREADED ROD AND REINFORCING BAR
      3. DEWALT PURE110+ ADHESIVE FOR THREADED ROD AND REINFORCING BAR
      4. HILTI HIT-HY 200v3 ADHESIVE FOR THREADED ROD, REINFORCING BAR, AND HILTI SPECIFIC ROD AND INSERT SYSTEMS.
      5. HILTI HIT-RE 500 ADHESIVE FOR THREADED ROD AND REINFORCING BAR.
      6. HILTI HIT-RE 100 ADHESIVE FOR THREADED ROD AND REINFORCING BAR.
      7. SIMPSON AT-XP ADHESIVE FOR THREADED ROD AND REINFORCING BAR.
      8. SIMPSON SET-3G ADHESIVE FOR THREADED ROD AND REINFORCING BAR.

3. ANCHORAGE TO CONCRETE MASONRY OR BRICK MASONRY AS INDICATED:
   A. FOLLOW ALL MANUFACTURERS INSTALLATION INSTRUCTIONS IN REGARD TO LOCATION OF ANCHORS AWAY FROM HEAD JOINTS, MINIMUM EDGE DISTANCES, AND MINIMUM ANCHOR SPACING.
   B. ACCEPTABLE MECHANICAL EXPANSION ANCHORAGE SYSTEMS:
      1. DEWALT POWER STUD +SDI, SD4/SD6 WEDGE EXPANSION ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY
      2. HILTI KWIK BOLT 3 EXPANSION ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY
      3. SIMPSON STRONG-BOLT 2 WEDGE EXPANSION ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY
   C. ACCEPTABLE MECHANICAL SLEEVE ANCHORAGE SYSTEMS: (MAY NOT BE USED TO SECURE MAIN BUILDING FRAME COMPONENTS)
      1. DEWALT LOK-BOLT AS SLEEVE ANCHOR IN GROUT FILLED, SOLID, OR HOLLOW CONCRETE MASONRY, AND SOLID BRICK MASONRY
      2. HILTI HLC SLEEVE ANCHOR IN GROUT FILLED, SOLID, OR HOLLOW CONCRETE MASONRY, AND SOLID BRICK MASONRY
      3. SIMPSON SLEEVE-ALL SLEEVE ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY
   D. ACCEPTABLE MECHANICAL SCREW ANCHORAGE SYSTEMS:
      1. HILTI KWIK HUS-EZ SCREW ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY
      2. DEWALT SCREW-BOLT+ SCREW ANCHOR IN GROUT FILLED OR SOLID CONCRETE MASONRY AND BRICK MASONRY
      3. SIMPSON TITEN HD SCREW ANCHOR IN GROUT FILLED, SOLID, OR HOLLOW CONCRETE MASONRY
   E. ACCEPTABLE ADHESIVE ANCHORAGE SYSTEMS:
      1. DEWALT AC100+ GOLD FOR THREADED ROD AND REINFORCING BAR IN GROUT FILLED MASONRY CONSTRUCTION. USE WITH SCREEN TUBES IN HOLLOW MASONRY CONSTRUCTION.
      2. HILTI HIT-HY 270 ADHESIVE FOR THREADED ROD, REINFORCING BAR, AND HILTI SPECIFIC ROD AND INSERT SYSTEMS IN GROUT FILLED OR SOLID CONCRETE MASONRY CONSTRUCTION. USE WITH SCREEN TUBES IN HOLLOW MASONRY, MULIT-WYTHE MASONRY, OR BRICK WITH HOLES CONSTRUCTION.
      3. SIMPSON SET-XP ADHESIVE FOR THREADED ROD AND REINFORCING BAR IN GROUT FILLED, SOLID, AND HOLLOW CONCRETE MASONRY.

ABBREVIATIONS

AB	ANCHOR BOLT
ADD'L	ADDITIONAL
ALUM	ALUMINUM
ARCH	ARCHITECTURAL
B/ or BO	BOTTOM OF
BFB	BOTTOM FLANGE BRACE
BLDG	BUILDING
BM	BEAM
BOT	BOTTOM
CFMF	COLD-FORMED METAL FRAMING
CFMT	COLD-FORMED METAL TRUSS
CJ	CONTROL OR CONSTRUCTION JOINT
CLR	CLEAR
CM	CONSTRUCTION MANAGER
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
COORD	COORDINATE
CY	CUBIC YARD
DBL	DOUBLE
DEMO	DEMOLISH OR DEMOLITION
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DWG	DRAWING
EA	EACH
EJ	EXPANSION JOINT
ENG	ENGINEER
EW	EACH WAY
EXP	EXPANSION
FDN	FOUNDATION
FIN	FINISH OR FINISHED
FLR	FLOOR
FTG	FOOTING
FRTW	FIRE-RETARDANT TREATED WOOD
FV	FIELD VERIFY
GA	GAGE
GALV	GALVANIZE
GC	GENERAL CONTRACTOR
HC	HOLLOW CORE
HORIZ	HORIZONTAL
ID	INSIDE DIMENSION
IF	INSIDE FACE
INT	INTERIOR
JST	JOIST
JT	JOINT
KB	KICKER BRACE
L	ANGLE
LGMF	LIGHT GAGE METAL FRAMING
LLBB	LONG LEG BACK-TO-BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
MAS	MASONRY
MAX	MAXIMUM
MIN	MINIMUM
MTL	METAL
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OPP	OPPOSITE
OPNG	OPENING
OSB	ORIENTED STRAND BOARD
PAF	POWDER ACTUATED FASTENERS
PC	PRECAST
PEMB	PRE-ENGINEERED METAL BUILDING
PERP	PERPENDICULAR
PSI	POUNDS PER SQUARE INCH
PSF	POUNDS PER SQUARE FOOT
REINF	REINFORCING
REQ'D	REQUIRED
SCHED	SCHEDULE
SECT	SECTION
SER	STRUCTURAL ENGINEER OF RECORD
SF	SQUARE FOOT
SL	SLOPED
SLBB	SHORT LEG BACK-TO-BACK
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
SY	SQUARE YARD
SYM	SYMMETRICAL
T/ or TO	TOP OF
T&B	TOP AND BOTTOM
TEMP	TEMPORARY OR TEMPERATURE
T&G	TONGUE AND GROOVE
TYP	TYPICAL
UN	UNLESS NOTED
UNO	UNLESS NOTED OTHERWISE
VB	VAPOR BARRIER
VERT	VERICAL
W	WIDE FLANGE
W/	WITH
W/O	WITHOUT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
YD	YARD

IN ACCORDANCE WITH CHAPTER 17 OF THE REFERENCE BUILDING CODE, THE OWNER SHALL EMPLOY INSPECTION AGENCIES TO PERFORM SPECIAL INSPECTIONS DURING CONSTRUCTION INCLUDING INSPECTIONS OF SHOP-FABRICATED ITEMS WHEN APPLICABLE. ALL INSPECTION AGENCIES, INCLUDING FABRICATION FACILITIES, WHEN REQUIRED, SHALL BE QUALIFIED AND APPROVED BY THE BUILDING OFFICIAL. REFER TO OTHER DISCIPLINES FOR SPECIAL INSPECTIONS OF NON-STRUCTURAL SYSTEMS.

TABLE 1 — STATEMENT OF SPECIAL INSPECTIONS FOR STRUCTURAL DISCIPLINE

REQUIRED SPECIAL INSPECTIONS AND TESTS FOR SOILS

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	---	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	---	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	---	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	---
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	---	X

REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. INSPECT REINFORCEMENT AND VERIFY PLACEMENT.	---	X
2. INSPECT ANCHORS CAST IN CONCRETE.	---	X
3. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.		
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X	---
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4A.	---	X
4. VERIFY USE OF REQUIRED DESIGN MIX.	---	X
5. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	---
6. INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	---	X
7. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	---	X
8. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	---	X

'LEVEL B' QUALITY ASSURANCE REQUIRED SPECIAL INSPECTIONS AND TESTS OF MASONRY CONSTRUCTION

MINIMUM TESTS

VERIFICATION OF SLUMP FLOW AND VISUAL STABILITY INDEX (VSI) AS DELIVERED TO THE PROJECT SITE IN ACCORDANCE WITH ARTICLE 1.5.B.1.b.3 FOR SELF CONSOLIDATING GROUT

VERIFICATION OF f'_m AND f'_{AAC} IN ACCORDANCE WITH ARTICLE 1.4B PRIOR TO CONSTRUCTION, EXCEPT WHERE SPECIFICALLY EXEMPTED BY THE CODE.

MINIMUM SPECIAL INSPECTION

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS.	---	X
2. AS MASONRY CONSTRUCTION BEGINS, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:		
A. PROPORTIONS OF SITE-PREPARED MORTAR.	---	X
B. CONSTRUCTION OF MORTAR JOINTS.	---	X
C. LOCATION OF REINFORCEMENT AND CONNECTORS.	---	X
3. PRIOR TO GROUTING, VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:		
A. GROUT SPACE.	---	X
B. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS.	---	X
C. PLACEMENT OF REINFORCEMENT AND CONNECTORS.	---	X
D. PROPORTIONS OF SITE-PREPARED GROUT.	---	X
E. CONSTRUCTION OF MORTAR JOINTS.	---	X
4. VERIFY DURING CONSTRUCTION:		
A. SIZE AND LOCATION OF STRUCTURAL ELEMENTS.	---	X
B. TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES, OR OTHER CONSTRUCTION.	---	X
C. PREPARATION, CONSTRUCTION, AND PROTECTION OF MASONRY DURING COLD WEATHER (TEMPERATURE BELOW 40° F) OR HOT WEATHER (TEMPERATURE ABOVE 90° F)	---	X
D. PLACEMENT OF GROUT.	---	X
5. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS.	---	X

TABLE 2 — STATEMENT OF SPECIAL INSPECTIONS FOR STRUCTURAL DISCIPLINE

REQUIRED SPECIAL INSPECTIONS AND TESTS OF STRUCTURAL STEEL CONSTRUCTION

TYPE	PERFORM	OBSERVE
1. INSPECTION TASKS PRIOR TO WELDING:		
A. WELDER QUALIFICATION RECORDS AND CONTINUITY RECORDS.	---	X
B. WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE.	X	---
C. MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE.	X	---
D. MATERIAL IDENTIFICATION (TYPE/GRADE)	---	X
E. WELDER IDENTIFICATION SYSTEM.	---	X
F. FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY):		
• JOINT PREPARATIONS.	---	X
• DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL.	---	X
• CLEANLINESS (CONDITION OF STEEL SURFACES).	---	X
• TACKING (TACK WELD QUALITY AND LOCATION).	---	X
• BACKING TYPE AND FIT (IF APPLICABLE).	---	X
G. FIT-UP OF CJP GROOVE WELDS OF HSS T-, Y-, AND K-JOINTS WITHOUT BACKING (INCLUDING JOINT GEOMETRY):		
• JOINT PREPARATIONS.	---	X
• DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL.	---	X
• CLEANLINESS (CONDITION OF STEEL SURFACES).	---	X
• TACKING (TACK WELD QUALITY AND LOCATION).	---	X
H. CONFIGURATION AND FINISH OF ACCESS HOLES.	---	X
I. FIT-UP OF FILLET WELDS:		
• DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL.	---	X
• CLEANLINESS (CONDITION OF STEEL SURFACES).	---	X
• TACKING (TACK WELD QUALITY AND LOCATION).	---	X
2. INSPECTION TASKS DURING WELDING:		
A. CONTROL AND HANDLING OF WELDING CONSUMABLES.		
• PACKAGING	---	X
• EXPOSURE CONTROL	---	X
B. NO WELDING OVER CRACKED TACK WELDS.	---	X
C. ENVIRONMENTAL CONDITIONS:		
• WIND SPEED WITHIN LIMITS	---	X
• PRECIPITATION AND TEMPERATURE	---	X
D. WPS FOLLOWED:		
• SETTINGS ON WELDING EQUIPMENT	---	X
• TRAVEL SPEED	---	X
• SELECTED WELDING MATERIALS	---	X
• SHIELDING GAS TYPE/FLOW RATE	---	X
• PREHEAT APPLIED	---	X
• INTERPASS TEMPERATURE MAINTAINED (MIN./MAX.)	---	X
• PROPER POSITION (F, V, H, OH)	---	X
• TRAVEL SPEED	---	X
E. WELDING TECHNIQUES		
• INTERPASS AND FINAL CLEANING	---	X
• EACH PASS WITHIN PROFILE LIMITATIONS	---	X
• EACH PASS MEETS QUALITY REQUIREMENTS	---	X
F. PLACEMENT AND INSTALLATION OF STEEL HEADED STUD ANCHORS	X	---
3. INSPECTION TASKS AFTER WELDING:		
A. WELDS CLEANED.	---	X
B. SIZE, LENGTH, AND LOCATION OF WELDS	X	---
C. WELDS MEET VISUAL ACCEPTANCE CRITERIA:		
• CRACK PROHIBITION	X	---
• WELD /BASE-METAL FUSION	X	---
• CRATER CROSS SECTION	X	---
• WELD PROFILES	X	---
• WELD SIZE	X	---
• UNDERCUT	X	---
• POROSITY	X	---
D. ARC STRIKES.	X	---
E. K-AREA	X	---
F. WELD ACCESS HOLES IN ROLLED HEAVY SHAPES AND BUILT-UP HEAVY SHAPES.	X	---
G. BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED).	X	---
H. REPAIR ACTIVITIES.	X	---
I. DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER.	X	---
J. NO PROHIBITED WELDS HAVE BEEN ADDED WITHOUT THE APPROVAL OF THE EOR.	---	X
K. NON-DESTRUCTIVE TESTING FOR COMPLETE-JOINT-PENETRATION (CJP) WELDS:		
• UT SHALL BE PERFORMED ON ALL CJP JOINTS IN MATERIAL 5/16" AND GREATER.	X	---
4. INSPECTION TASKS PRIOR TO BOLTING FOR PRETENSIONED OR SLIP CRITICAL BOLTED JOINTS:		
A. MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS.	X	---
B. FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS.	---	X
C. CORRECT FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH IF THREADS ARE TO BE EXCLUDED FROM SHEAR PLANE).	---	X
D. CORRECT BOLTING PROCEDURE SELECTED FOR JOINT DETAIL.	---	X
E. CONNECTING ELEMENTS, INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS.	---	X
F. PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED.	---	X
G. PROTECTED STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS, AND OTHER FASTENER COMPONENTS.	---	X
5. INSPECTION TASKS DURING BOLTING FOR PRETENSIONED OR SLIP CRITICAL BOLTED JOINTS:		
A. FASTENER ASSEMBLIES PLACED IN ALL HOLES AND WASHERS AND NUTS ARE POSITIONED AS REQUIRED.	---	X
B. JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION.	---	X
C. FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING.	---	X
D. FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES.	---	X
6. INSPECTION TASKS AFTER ALL BOLTING:		
A. DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS.	X	---
7. ANCHOR ROD PLACEMENT		
A. INSPECTION DURING PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL FOR COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS (ANCHOR DIAMETER, GRADE, TYPE, AND LENGTH OF THE ANCHOR ROD OR EMBEDED ITEM AND THE EXTENT OR DEPTH OF EMBEDMENT INTO THE CONCRETE) PRIOR TO PLACEMENT OF CONCRETE.	---	X
8. INSPECTION OF THE FABRICATED STEEL OR ERECTED STEEL FRAME IN COMPLIANCE WITH THE DETAILS SHOWN ON THE CONSTRUCTION DOCUMENTS.	---	X

STRUCTURAL STEEL INSPECTION NOTES:
1. "PERFORM" — THESE TASKS SHALL BE PERFORMED FOR EACH WELDED/BOLTED JOINT OR MEMBER
2. "OBSERVE" — THE INSPECTOR SHALL OBSERVE THESE ITEMS ON A RANDOM BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE.

LAP SPLICE SCHEDULE FOR CONCRETE REINFORCING
3,000 psi & 3,500 psi CONCRETE UNCOATED REINFORCING BARS

BAR SIZE	3/4" CLR. (TOP BARS / OTHER BARS)	1 1/2" CLR. AND GREATER (TOP BARS / OTHER BARS)
#4	3'-1" / 2'-4"	3'-1" / 2'-4"
#5	3'-10" / 3'-0"	3'-10" / 3'-0"
#6	4'-8" / 3'-7"	4'-8" / 3'-7"
#7	7'-6" / 5'-9"	6'-9" / 5'-2"
#8	9'-3" / 7'-1"	7'-9" / 5'-11"
#9	11'-2" / 8'-7"	8'-8" / 6'-8"
#10	13'-6" / 10'-4"	9'-10" / 7'-6"
#11	15'-10" / 12'-2"	10'-11" / 8'-4"

LAP SPLICE SCHEDULE FOR CONCRETE REINFORCING
4,000 psi & 4,500 psi CONCRETE UNCOATED REINFORCING BARS

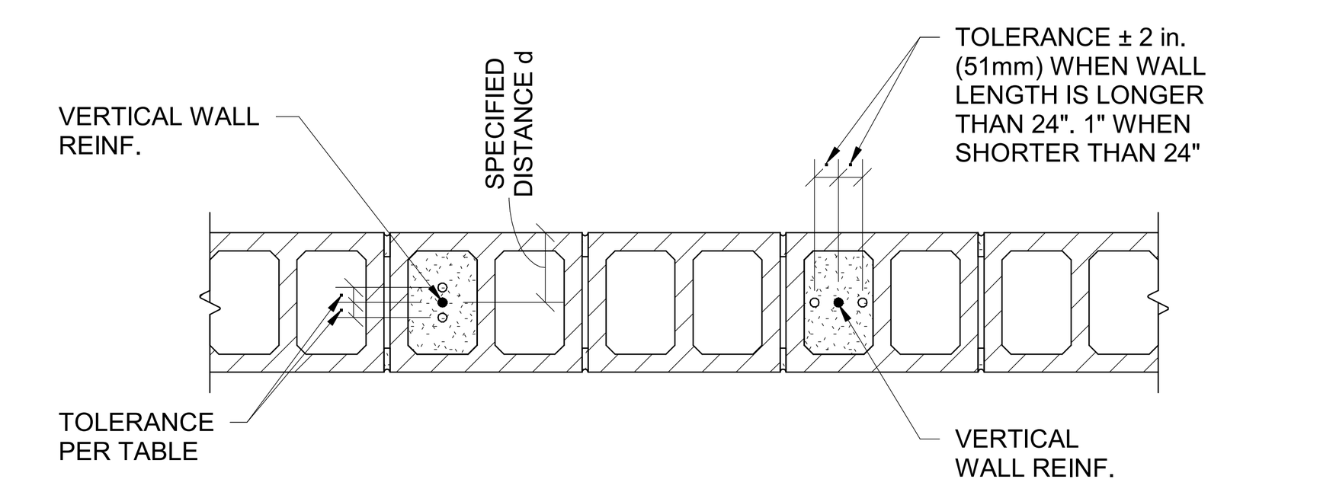
BAR SIZE	3/4" CLR. (TOP BARS / OTHER BARS)	1 1/2" CLR. AND GREATER (TOP BARS / OTHER BARS)
#4	2'-8" / 2'-1"	2'-8" / 2'-1"
#5	3'-4" / 2'-7"	3'-4" / 2'-7"
#6	4'-0" / 3'-1"	4'-0" / 3'-1"
#7	6'-6" / 5'-0"	5'-10" / 4'-6"
#8	8'-0" / 6'-2"	6'-8" / 5'-2"
#9	9'-8" / 7'-6"	7'-6" / 5'-10"
#10	11'-8" / 9'-0"	8'-6" / 6'-6"
#11	13'-8" / 10'-6"	9'-5" / 7'-3"

1. TOP BARS / OTHER BARS — TOP BARS ARE DEFINED AS HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW THE BAR.
2. BAR SPACING TO BE A MINIMUM OF THREE DIAMETERS UNLESS NOTED OR SCHEDULED OTHERWISE.
3. APPLICABLE ONLY FOR 60 KSI STEEL AND NORMAL WEIGHT CONCRETE.
4. IN LIEU OF LAP SPLICING, BARS MAY BE SPLICED BY MECHANICAL MEANS WHICH DEVELOP AT LEAST 125% OF THE BAR'S SPECIFIED YIELD STRENGTH.

REINFORCING COVER/TOLERANCE (#3 - #11 BARS)

EXPOSURE CONDITION	MIN. COVER (U.N.O.)	PLACEMENT TOLERANCE
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:	3"	0", +3"
EXPOSED TO EARTH OR WEATHER - #5 AND SMALLER BARS: - #6 AND LARGER BARS:	1-1/2" 2"	-1/4", +1/2" -1/4", +1/2"
NEITHER EXPOSED TO WEATHER, NOR IN CONTACT WITH GROUND - SLABS AND WALLS: - BEAMS, COLUMNS, & PIERS: (TO TIES OR STIRRUPS)	3/4" 1-1/2"	-1/4", +3/8" -1/4", +1/2"

"-" INDICATES TOLERANCE TOWARDS MEMBER FACE.
"+" INDICATES TOLERANCE AWAY FROM MEMBER FACE.



SPECIFIED DISTANCE d FROM FACE OF WALL TO CENTER OF REINFORCEMENT	ALLOWABLE TOLERANCE
d ≤ 8 in. (203 mm)	± 1/2 in. (13 mm)
8 in. (203 mm) < d ≤ 24 in. (607 mm)	± 1 in. (25 mm)
d > 24 in. (607 mm)	± 1-1/4 in. (32 mm)

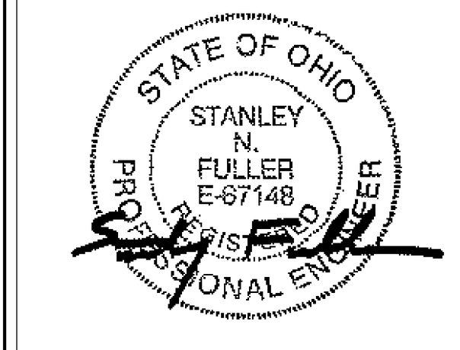
PROVIDE 1/2" MIN. CLEAR BETWEEN REINFORCING BARS AND THE INSIDE FACE OF THE MASONRY CELL.

CMU REINFORCING TOLERANCE LIMITATION

LAP SPLICE SCHEDULE FOR MASONRY REINFORCING

f'm = 2,250 psi	BAR CENTERED IN WALL d = t/2			
	ld (in)			
BAR #	8" CMU	10" CMU	12" CMU	14" CMU
#3	1'-0"	1'-0"	1'-0"	1'-0"
#4	1'-0"	1'-0"	1'-0"	1'-0"
#5	1'-7"	1'-3"	1'-0"	1'-0"
#6	2'-11"	2'-4"	1'-11"	1'-7"
#7	4'-1"	3'-2"	2'-7"	2'-2"
#8	(6'-3")	4'-10"	3'-11"	3'-4"
#9	-	(6'-2")	5'-0"	4'-3"

1. ( ) INDICATES LAP LENGTH GREATER THAN MAXIMUM ALLOWABLE HEIGHT OF 5'-0" FOR LOW-LIFT GROUTING.
2. APPLICABLE ONLY FOR BARS CENTERED IN MASONRY CELL.
3. APPLICABLE ONLY FOR 60 KSI STEEL AND ASTM C90 BLOCK.



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NEW BUILDING FOR
TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING
575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

	CONSTRUCTION DOCUMENTS	02/07/2024

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	JPK (R24)	SNF

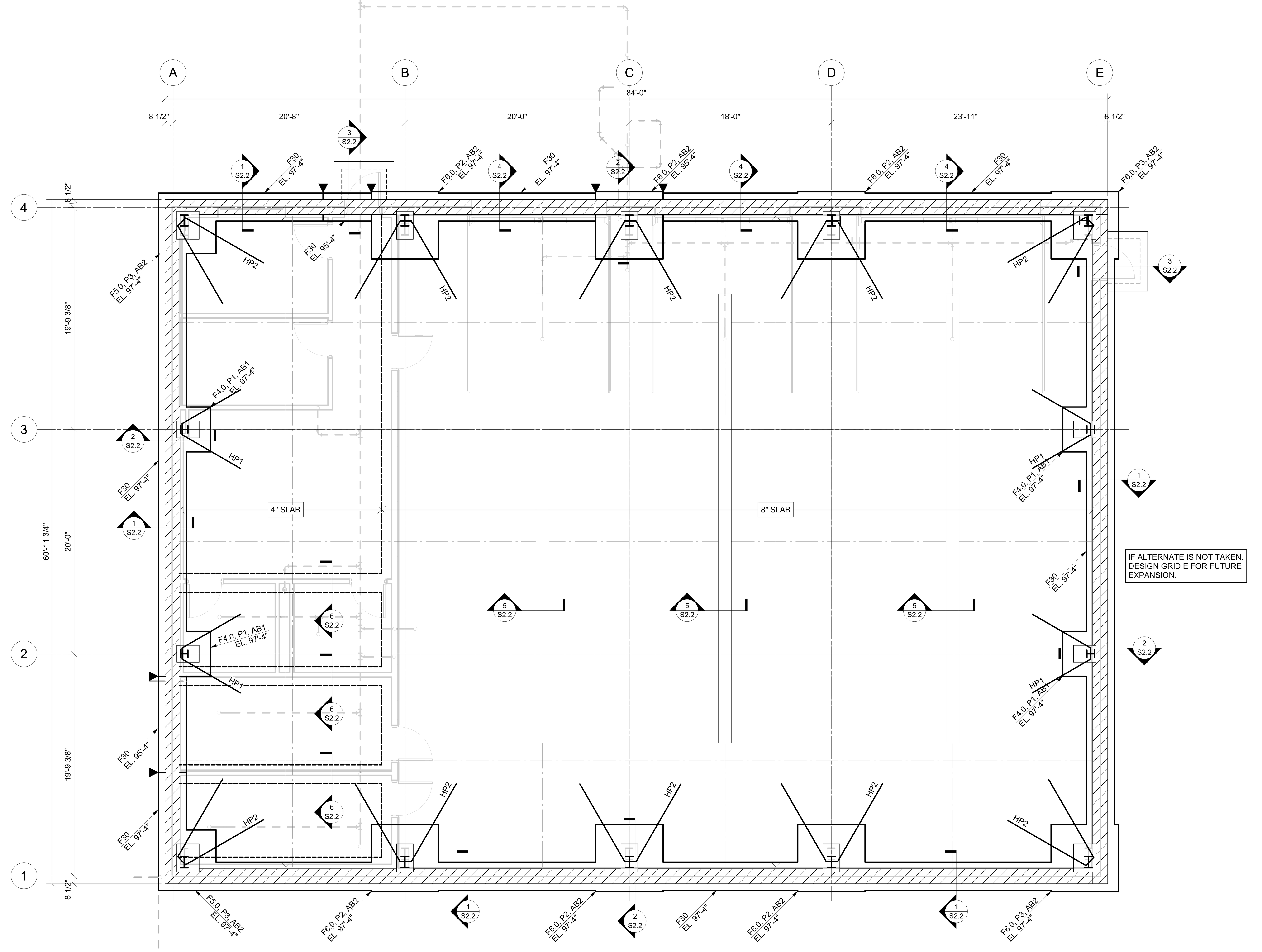
Jezerinac Geers Structural Engineering

PROJECT NUMBER:	24.27.520
DESIGNED BY:	KA
DRAWN BY:	JPK (R24)
CHECKED BY:	SNF
DOCUMENT STATUS:	☐ PROGRESS ■ PERMIT ■ BIDDING ☐ CONSTRUCTION

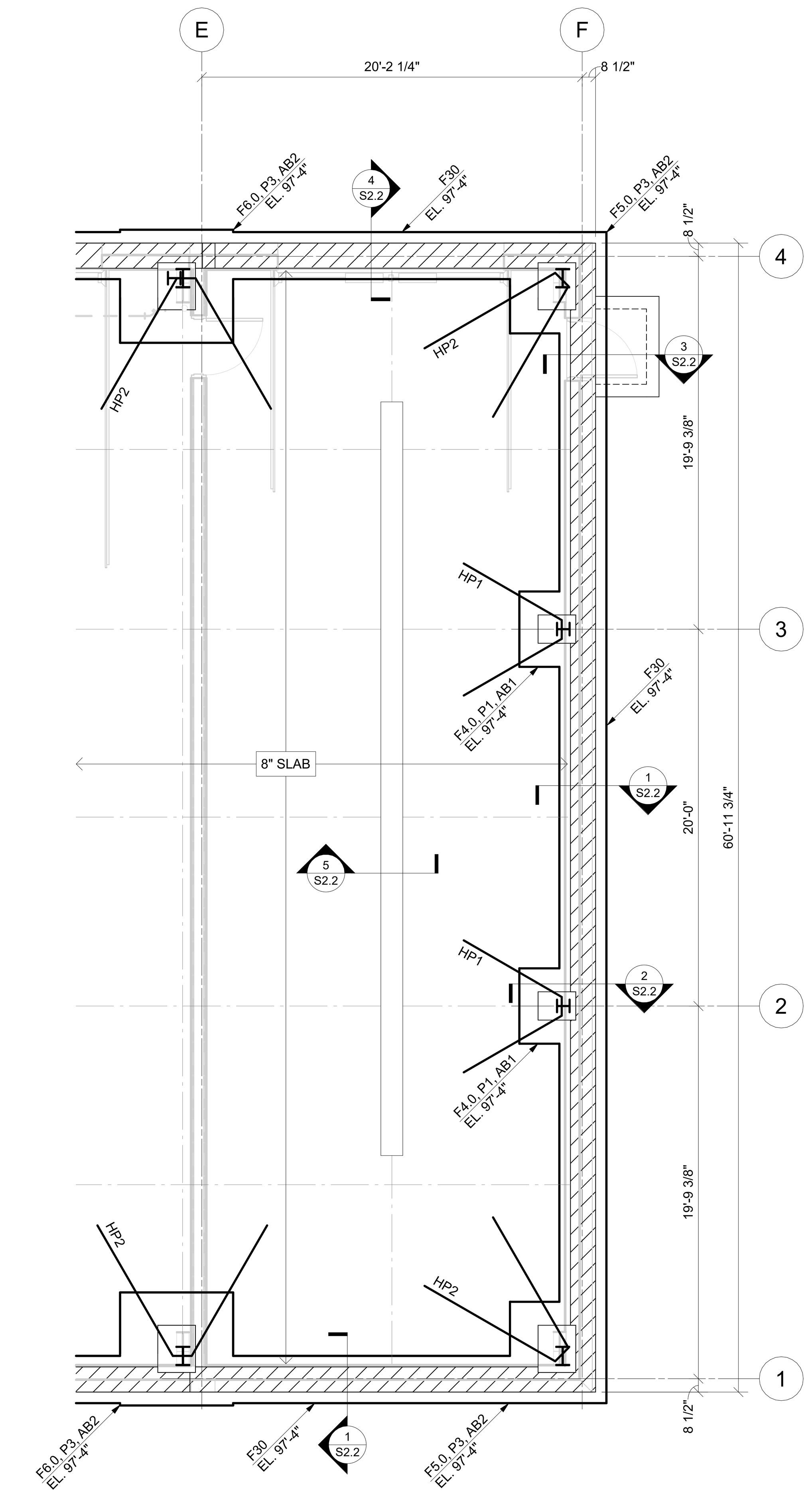
SHEET TITLE:
GENERAL STRUCTURAL INFORMATION

SHEET NUMBER:
S0.1

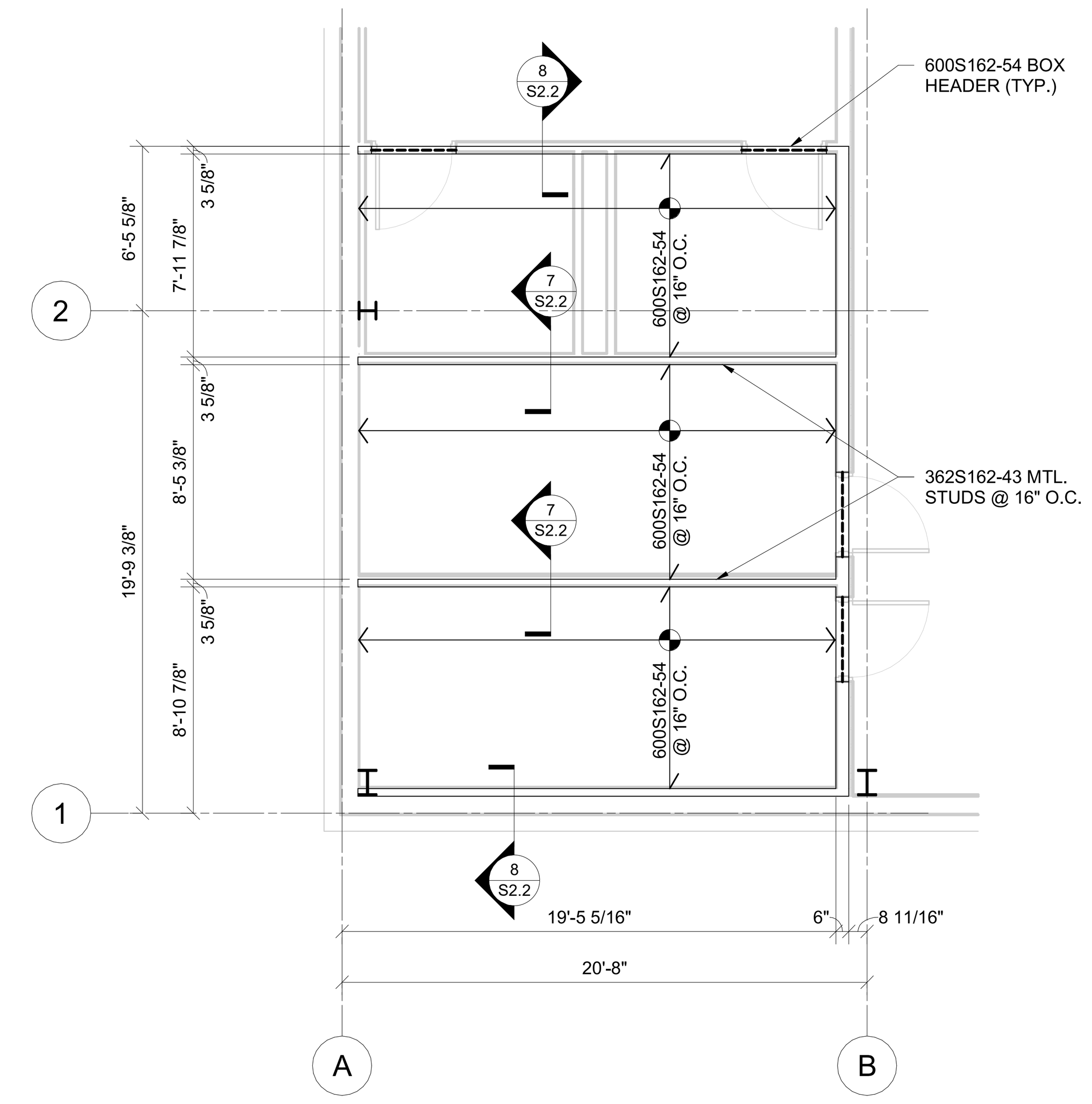
PRINTED ON: 2/4/2025 9:58:13 AM



FOUNDATION PLAN - BASE BID
3/16" = 1'-0"



FOUNDATION PLAN - ALTERNATE
3/16" = 1'-0"



STORAGE PLATFORM FRAMING PLAN
3/16" = 1'-0"

FOUNDATION NOTES

1. ▼ INDICATES FOOTING STEP PER SECTION 1/S2.1. STEP AT A RATIO NOT TO EXCEED ONE VERTICAL TO TWO HORIZONTAL.
2. ( ) INDICATES APPROXIMATE LOCATION AND INVERT ELEVATION OF UNDERGROUND UTILITIES. COORDINATE THE LOCATION AND DEPTH OF ALL UNDERGROUND MECHANICAL, ELECTRICAL, PLUMBING, AND/OR CIVIL WORK WITH THE APPROPRIATE TRADE CONTRACTOR(S) PRIOR TO CONSTRUCTION. NOT ALL UNDERGROUND UTILITIES ARE SHOWN ON THE STRUCTURAL DRAWINGS. FOUNDATIONS BUILT PRIOR TO THE INSTALLATION OF UNDERGROUND UTILITIES ARE TO BE STEPPED OR DROPPED COMPLETELY BELOW THE UTILITY DEPTH PER SECTION 1/S2.1 AND SLEEVED PER SECTION 2/S2.1. WHERE UNDERGROUND UTILITIES ARE IN PLACE PRIOR TO FOUNDATION CONSTRUCTION, THEY ARE TO BE ENCASED PER SECTION 3/S2.1. SEE SECTION 4/S2.1 FOR TRENCH EXCAVATION AND UTILITY PLACEMENT REQUIREMENTS FOR WORK THAT IS LAID ADJACENT TO FOOTINGS.
3. P(x) INDICATES CONCRETE PIER TYPE PER DETAILS ON SHEET S2.1.
4. HP(x) INDICATES HAIRPIN TYPE PER SCHEDULE AND DETAILS ON SHEET S2.1.
5. AB(x) INDICATES ANCHOR BOLT TYPE PER SCHEDULE AND DETAIL ON SHEET S2.1.
6. DESIGN SOIL BEARING PRESSURE = 3,500 PSF BASED ON GEOTECHNICAL EXPLORATION REPORT BY BOWSER MORNER DATED OCTOBER 1, 2024. REFERENCE THIS REPORT FOR ANY REQUIRED SOIL REMEDIATION PRIOR TO FOUNDATION AND/OR SLAB-ON-GRADE CONSTRUCTION. FOOTING EXCAVATIONS MAY BE REQUIRED TO EXTEND THROUGH EXISTING FILL REGIONS IN ORDER TO BEAR ON SUITABLE MATERIAL. OVER-EXCAVATIONS ARE TO BE FILLED WITH LEAN CONCRETE OR CONTROLLED-DENSITY FLOWABLE FILL UP THE PLANNED BOTTOM OF FOOTING ELEVATION. PLACE NO CONCRETE PRIOR TO INSPECTION AND APPROVAL OF BEARING SURFACES BY SOILS ENGINEER.
7. BOTTOM OF FOOTINGS ARE TO BE AT LEAST 32-INCHES BELOW THE ADJACENT EXTERIOR FINISHED GRADE FOR FROST PROTECTION.
8. KEEP FOUNDATIONS FREE OF WATER AT ALL TIMES. REPLACE WEAKENED SOIL WITH LEAN CONCRETE OR FLOWABLE FILL.
9. ELEVATIONS SHOWN ON FOOTINGS INDICATE ELEVATION AT TOP OF FOOTING. REFERENCE ELEVATION/TOP OF CONCRETE SLAB ELEVATION AS NOTED ON PLANS. COORDINATE ABSOLUTE ELEVATION OF TOP OF SLAB WITH SITE DRAWINGS.
10. FOUNDATIONS HAVE BEEN DESIGNED BASED UPON PRELIMINARY/ASSUMED METAL BUILDING REACTIONS. FOUNDATION CONSTRUCTION IS NOT TO BEGIN UNTIL FINAL BUILDING DRAWINGS AND REACTIONS HAVE BEEN RECEIVED, REVIEWED, AND FOUNDATION DESIGNS HAS BEEN VERIFIED. ANY VARIATION IN LOADING FROM PRELIMINARY/ASSUMED BUILDING REACTIONS MAY REQUIRE REDESIGN OF THE FOUNDATIONS, PIERS, AND/OR ANCHOR BOLTS. ADDITIONAL COSTS ASSOCIATED WITH REDESIGN ARE TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
11. PROVIDE CORNER BARS AT ALL FOOTING AND CONCRETE WALL INTERSECTIONS PER DETAIL 5/S2.1.
12. PROVIDE FOUNDATION DOWELS TO MATCH SIZE AND SPACING OF VERTICAL MASONRY WALL REINFORCING AS SHOWN ON THE WALL AND/OR FRAMING PLANS. WHERE VERTICAL REINFORCING IS INTERRUPTED BY OPENING IN WALL (DOOR, WINDOW, LOUVER, ETC.) PROVIDE ONE ADDITIONAL DOWEL AT EACH JAMB FOR EACH 6'-0" OF OPENING WIDTH. SEE SECTION 6/S2.1 FOR DOWEL PLACEMENT AND SCHEDULE ON SHEET S0.1 FOR LENGTH OF LAP SPLICES.
13. SEE SECTION 7/S2.1 FOR TYPICAL OUTDOOR MECHANICAL EQUIPMENT PADS.
14. SEE SHEET S0.1 FOR GENERAL STRUCTURAL INFORMATION.

SLAB NOTES

1. SLAB CONSTRUCTION:

   4" CONCRETE SLAB ON GRADE W/ 6x6 W2.9/W2.9 WWF, OVER 15-MIL. VAPOR BARRIER, OVER 12" COMPACTED STONE SUBBASE. WIRE MESH ON THIS PROJECT IS AN INTEGRAL COMPONENT OF THE FOUNDATION DESIGN AND MAY NOT BE REPLACED WITH FIBER ADDITIVE.

   8" CONCRETE SLAB ON GRADE W/ #5 REINFORCING BARS AT 18" O.C. EACH WAY, OVER 12" COMPACTED STONE SUBBASE.
2. INDICATES SLAB CONTROL/CONSTRUCTION JOINT PER SECTIONS 8/S2.1 AND 9/S2.1. CONTROL JOINTS ARE TO BE LOCATED IN AREAS SHOWN AT A SPACING NOT TO EXCEED 12'-0" O.C. UNLESS DIMENSIONED OTHERWISE. PROVIDE CONTROL JOINTS AT CONCRETE PIERS PER DETAIL 10/S2.1. COORDINATE CONTROL JOINT LAYOUT WITH ARCHITECTURAL FLOOR FINISH PATTERNS.
3. REFER TO DIVISION 31 SPECIFICATIONS FOR DEPTH AND PLACEMENT OF DRAINAGE FILL AND DIVISION 3 FOR VAPOR BARRIER OR RETARDER BELOW SLABS ON GRADE.
4. WIRE MESH AND/OR STEEL REINFORCING IS TO BE SUPPORTED DURING CONCRETE PLACEMENT ON CHAIRS OR BOLSTERS AT MID-DEPTH OF SLAB. MESH AND/OR STEEL REINFORCING IS NOT TO BE PULLED INTO PLACE DURING CONCRETE PLACEMENT.
5. SEE ARCHITECTURAL AND/OR STRUCTURAL PLANS FOR FINISHED FLOOR ELEVATIONS. COORDINATE TOP OF SLAB ELEVATION WITH THICKNESS OF ARCHITECTURAL FINISHED FLOOR PRODUCTS.
6. SEE SHEET S0.1 FOR GENERAL STRUCTURAL INFORMATION.

PLATFORM FRAMING NOTES

1. DESIGN LIVE LOADS:

   STORAGE 125 PSF
2. FLOOR CONSTRUCTION:

   9/16" x 26 GAGE METAL DECK. PROVIDE No. 8 SCREWS FOR FRAMING THICKNESSES UP TO 54 MILS AND No. 10 SCREWS FOR FRAMING MEMBERS OVER 54 MILS. SPACE SCREWS AT 6" O.C. AT ALL PANEL EDGES AND AT 12" O.C. AT ALL INTERMEDIATE SUPPORTS UNLESS NOTED OTHERWISE.
3. SEE ARCHITECTURAL DRAWINGS FOR TOP OF PLATFORM ELEVATION. REFERENCE ELEVATION 100'-0" = TOP OF FIRST FLOOR SLAB ON GRADE.
4. SEE ARCHITECTURAL DRAWINGS FOR ANY DIMENSIONS NOT INDICATED HEREIN.
5. SEE SHEET S0.1 FOR GENERAL STRUCTURAL INFORMATION.

CONT. WALL FOOTING SCHEDULE

MARK	SIZE	REINFORCING
F30	2'-6" x 1'-0" DP.	(3) #5 CONT. BOT.

SPREAD FOOTING SCHEDULE

MARK	SIZE	REINFORCING
F4.0	4'-0" x 4'-0" x 1'-0" DP.	(4) #5 EACH WAY BOT.
F5.0	5'-0" x 5'-0" x 1'-0" DP.	(5) #5 EACH WAY BOT.
F6.0	6'-0" x 6'-0" x 1'-3" DP.	(6) #6 EACH WAY BOT.

ALL FOUNDATION DESIGNS AND DETAILS ARE **PRELIMINARY** PENDING REVIEW OF FINAL METAL BUILDING INFORMATION

STATE OF OHIO
STANLEY N. FULLER
E-67148
REGISTERED PROFESSIONAL ENGINEER

GARMANN MILLER
MINSTER, OHIO | COLUMBUS, OHIO | INDIANAPOLIS, INDIANA | FORT WAYNE, INDIANA

NEW BUILDING FOR
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575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS		
	CONSTRUCTION DOCUMENTS	02/07/2024

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24054.02	JPK (R24)	SNF

SHEET TITLE:
STRUCTURAL PLANS

SHEET NUMBER:
S1.1

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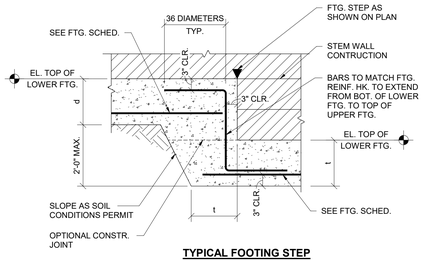
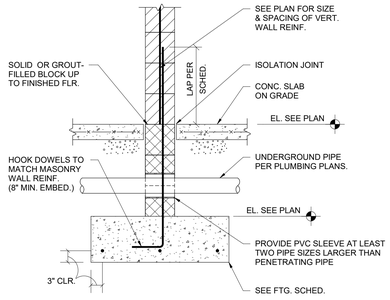


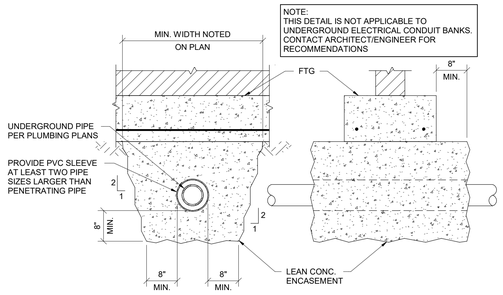
TYPICAL FOOTING STEP

SECTION 1 — 3/4" = 1'-0"



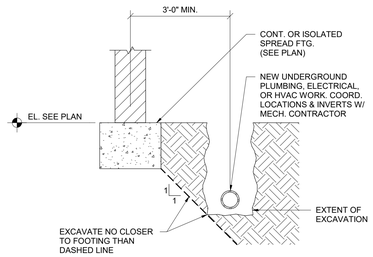
TYPICAL PLUMBING THROUGH STEMWALL

SECTION 2 — 3/4" = 1'-0"

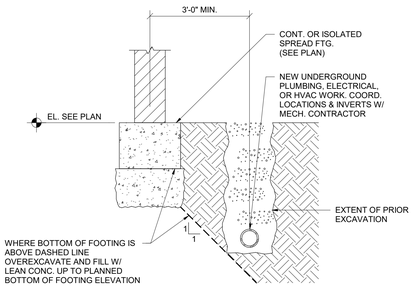


TYPICAL PLUMBING UNDER FOOTING

SECTION 3 — 3/4" = 1'-0"

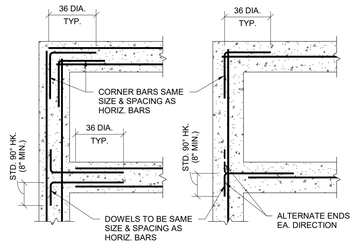


TYPICAL EXCAVATION CLEARANCE REQUIREMENTS AT NEW UNDERGROUND WORK



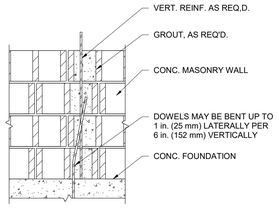
TYPICAL OVEREXCAVATION REQUIREMENTS AT IN-PLACE UNDERGROUND WORK

SECTION 4 — 3/4" = 1'-0"



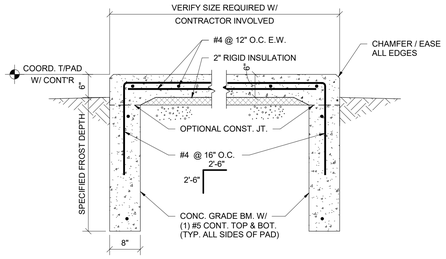
TYPICAL CORNER BARS FOR CONCRETE WALL AND FOOTING CONSTRUCTION

SECTION 5 — 3/4" = 1'-0"



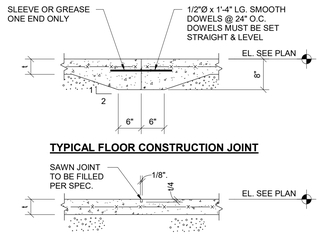
CMU REINFORCING DOWEL PLACEMENT

SECTION 6 — 3/4" = 1'-0"



TYPICAL EXTERIOR EQUIPMENT PAD

SECTION 7 — 3/4" = 1'-0"

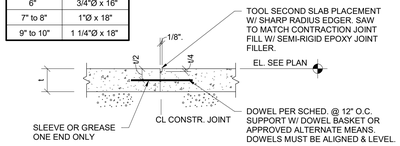


TYPICAL FLOOR CONSTRUCTION JOINT

TYPICAL FLOOR CONTROL JOINT

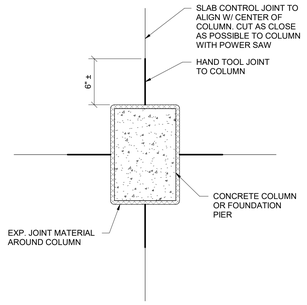
SECTION 8 — 3/4" = 1'-0"

SLAB THK.	DOWEL SIZE
6"	3/4"Ø x 16"
7" to 8"	1"Ø x 18"
9" to 10"	1 1/4"Ø x 18"

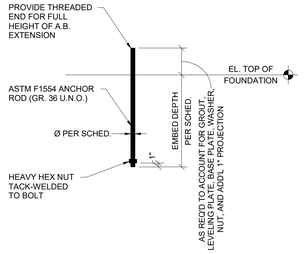


TYPICAL HEAVY-DUTY FLOOR SLAB CONSTRUCTION JOINT

SECTION 9 — 3/4" = 1'-0"

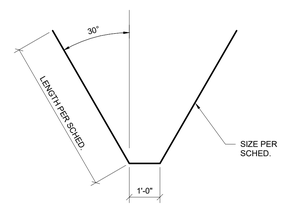


SECTION 10 — 1 1/2" = 1'-0"

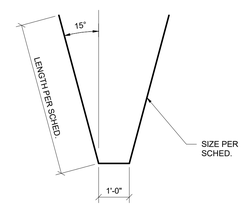


TYPICAL ANCHOR BOLT

ANCHOR BOLT SCHEDULE	
MARK	DIAM. x EMBED.
AB1	(4) 3/4"Ø W/ 9" EMBED.
AB2	(4) 3/4"Ø W/ 21" EMBED.



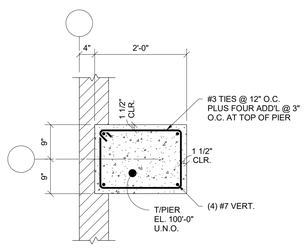
SLAB EDGE



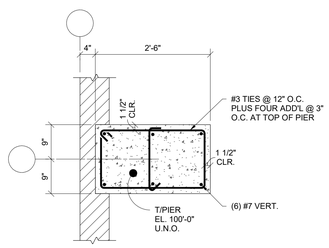
SLAB CORNER

TYPICAL HAIRPINS

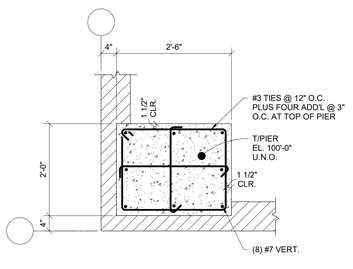
HAIRPIN SCHEDULE		
MARK	SIZE	LENGTH
HP1	#5	6'-0"
HP2	#7	9'-0"



PIER P1



PIER P2



PIER P3

PIER TYPES

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STATE OF OHIO — STANLEY N. FULLER E-97148 — PROFESSIONAL ENGINEER

GARMANN MILLER — ARCHITECTS, INC. | CINCINNATI, OHIO | INDIANAPOLIS, INDIANA | COLUMBUS, OHIO | PHOENIX, ARIZONA — GARMANNMILLER.COM

NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N MYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS		
	CONSTRUCTION DOCUMENTS	02/07/2024

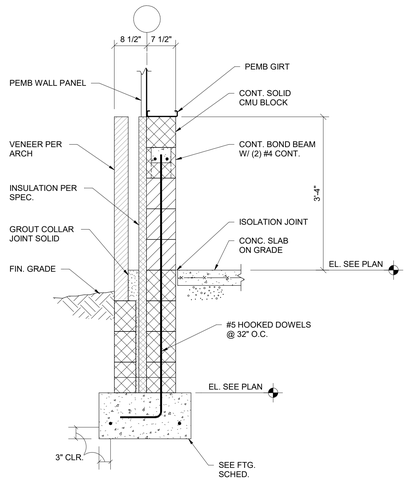
PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	JPK (R24)	SNF

SHEET TITLE:

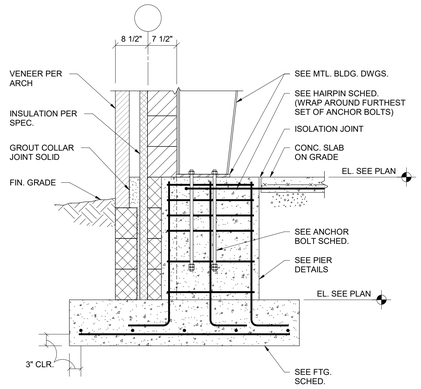
STRUCTURAL DETAILS

SHEET NUMBER:

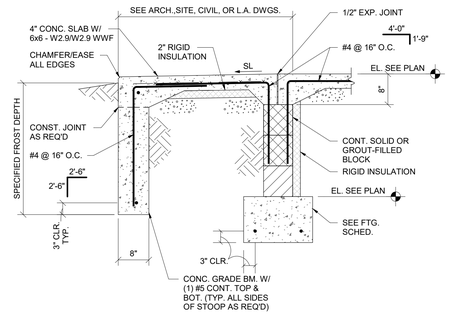
S2.1



SECTION 1
3/4" = 1'-0"

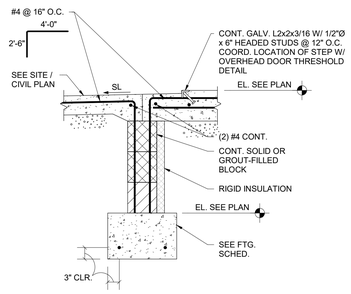


SECTION 2
3/4" = 1'-0"



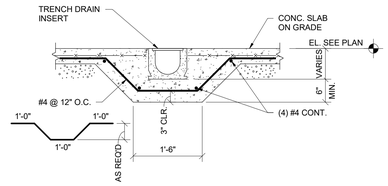
TYPICAL INTERIOR-TO-EXTERIOR SLAB TRANSITION

SECTION 3
3/4" = 1'-0"



TYPICAL INTERIOR-TO-EXTERIOR SLAB AT OVERHEAD DOORS

SECTION 4
3/4" = 1'-0"



SECTION 5
3/4" = 1'-0"

SECTION 6
3/4" = 1'-0"

SECTION 7
3/4" = 1'-0"

SECTION 8
3/4" = 1'-0"

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STATE OF OHIO
STANLEY N. FULLER
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PROFESSIONAL ENGINEER

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PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	JPK (R24)	SNF

SHEET TITLE:
STRUCTURAL DETAILS

SHEET NUMBER:
S2.2

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- NOTE:

	ABBREVIATIONS USED ON THE CONTRACT DOCUMENTS, INCLUDE BUT ARE NOT LIMITED TO THOSE LISTED BELOW.

- CHARACTERS

&	AND
Ø	DIAMETER/ROUND

A

A	AIR
AB	ABOVE BASE
ABV	ABOVE
AC	AIR CONDITIONING
ACOUS	ACOUSTICAL
AD	AREA DRAIN
ADD	ADDENDUM
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY
AG	ABOVE GROUND
ALT	ALTERNATE
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECT/ARCHITECTURAL
AUTO	AUTOMATIC
AV	ACID RESISTANT VENT
AW	ACID RESITANT WASTE

B

BFF	BELOW FINISHED FLOOR
BLDG	BUILDING
BLW	BELOW
BO	BY OTHER
BOT	BOTTOM
BSMT	BASEMENT
BTU	BRITISH THERMAL UNITS
BTUH	BRITISH THERMAL UNITS PER HOUR
BTWN	BETWEEN

C

CAP	CAPACITY
CB	CATCH BASIN
CCW	COUNTER CLOCKWISE
CFCV	CONSTANT FLOW CONTROL VALVE
CFM	CUBIC FEET PER MINUTE
CHW	CIRCULATING HOT WATER
CI	CAST IRON
CLG	CEILING/COOLING
CO	CLEAN OUT
COL	COLUMN
COMB	COMBINATION
CONC	CONCRETE
COND	CONDENSATE
CONF	CONFERENCE
CONN	CONNECT
CONST	CONSTRUCTION
CONT	CONTINUE/CONTINUATION
CONTR	CONTRACT/CONTRACTOR
COORD	COORDINATE
CTR	CENTER
CUFT	CUBIC FEET
CV	CHECK VALVE
CW	COLD WATER
CW	CLOCKWISE

D

D	DEGREE
DB	DRY BULB
DET	DETAIL
DI	DEIONIZED WATER
DIA	DIAMETER
DISCH	DISCHARGE
DIV	DIVISION
DMPR	DAMPER
DN	DOWN
DW	DISTILLED WATER
DWG	DRAWING

E

E/A	EXHAUST AIR
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EL	ELBOW
ELEC	ELECTRICAL
ELEV	ELEVATION
EP	EXPLOSION PROOF
EQ	EQUAL
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EXIST	EXISTING
EXP	EXPANSION JOINT
EXT	EXTERIOR

F

F	DEGREES FAHRENHEIT
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN/FIRE DAMPER
FDV	FIRE DEPARTMENT VALVE
FHC	FIRE HOSE CABINET
FL	FLOOR
FLEX	FLEXIBLE
FLG	FLANGE
FO	FUEL OIL
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL VALVE
FPM	FEET PER MINUTE
FRP	FIBERGLASS REINFORCED PIPE
FS	FULL SIZE/FLOOR SINK
FT	FOOT/FEET
FTG	FOOTING
FTR	FIN TUBE RADIATION
FUT	FUTURE

G

GA	GAGE/GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GENL	GENERAL
GPM	GALLONS PER MINUTE
GR	GRADE
GW	GREASE WASTE

H

HB	HOSE BIB
HD	HEAD
HORZ	HORIZONTAL
HP	HORSE POWER/HIGH PRESSURE
HTG	HEATING
HTR	HEATER
HW	HOT WATER
HYD	HYDRANT

I

ID	INDIRECT
IN	INCH
INL	INLET
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
INWG	INCHES WATER GAUGE

J

JST SPC	JOIST SPACE
JT	JOINT

L

LAB	LABORATORY
LAT	LEAVING AIR TEMPERATURE
LB	POUND
LB/HR	POUNDS PER HOUR
LF	LINEAL FOOT
LP	LOW PRESSURE
LPG	LIQUEFIED PERTOLEUM GAS
LR	LIQUID REFRIGERANT
LVR	LOUVER
LWT	LEAVING WATER TEMPERATURE

M

M/A	MIXED AIR
MAN	MANUAL
MATL	MATERIAL
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBD	MOTORIZED BYPASS DAMPER
MBH	ONE THOUSAND BTU PER HOUR
MCF	ONE THOUSAND CUBIC FEET
MCW	MAKE-UP COLD WATER
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MOTORIZED BYPASS DAMPER
MISC	MISCELLANEOUS
MTR	MOTOR
MU/A	MAKE-UP/AIR

N

N	NECK
NC	NOISE CRITERIA/NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NUMBER/NORMALLY OPEN
NOM	NOMINAL
NTS	NOT TO SCALE

O

O	OXYGEN
O/A	OUTSIDE AIR
OC	ON CENTER
OF	OVERFLOW
OPNG	OPENING
ORD	OVERFLOW ROOF DDRAIN

P

PD	PRESSURE DROP
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PR	PAIR
PREL	PRELIMINARY
PRESS	PRESSURE
PRIM	PRIMARY
PRV	PRESSURE REDUCING VAL
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PW	POTABLE WATER
PWR	POWER

R

R	DUCT RISER
R/A	RETURN AIR
RCP	RADIANT CEILING PANEL
RD	ROOF DRAIN
REC	RECESSED
RED	REDUCER
REFR	REFRIGERATION
REQD	REQUIRED
REV	REVERSE
RH	RELATIVE HUMIDITY
RL/A	RELIEF AIR
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RW	RAIN WATER

S

S/A	SUPPLY AIR
SAN	SANITARY
SCHED	SCHEDULE
SD	SMOKE DAMPER
SECT	SECTION
SF	SQUARE FOOT
SHT	SHEET
SIM	SIMILAR
SLV	SLEEVE
SM	SURFACE MOUNT
SP	STANDPIPE/STATIC PRESSURE
SPEC	SPECIFICATION
SPS	STATIC PRESSURE STATION
SQ	SQUARE
SR	SUCTION REFRIGERANT
SS	STAINLESS STEEL
SSD	SOIL SUBDRAIN
STD	STANDARD
STM	STEAM
STRUCT	STRUCTURAL
SUCT	SUCTION
SUSP	SUSPENDED

T

T	THERMOSTAT
TCP	TEMPERATURE CONTROL PANEL
TD	TEMPERATURE DROP
TDR	TRENCH DRAIN
TEFC	TOTALLY ENCLOSED FAN COOLED
TEMP	TEMPERATURE
TYP	TYPICAL

U

UFD	UNDER FLOOR DUCT
UG	UNDERGROUNG

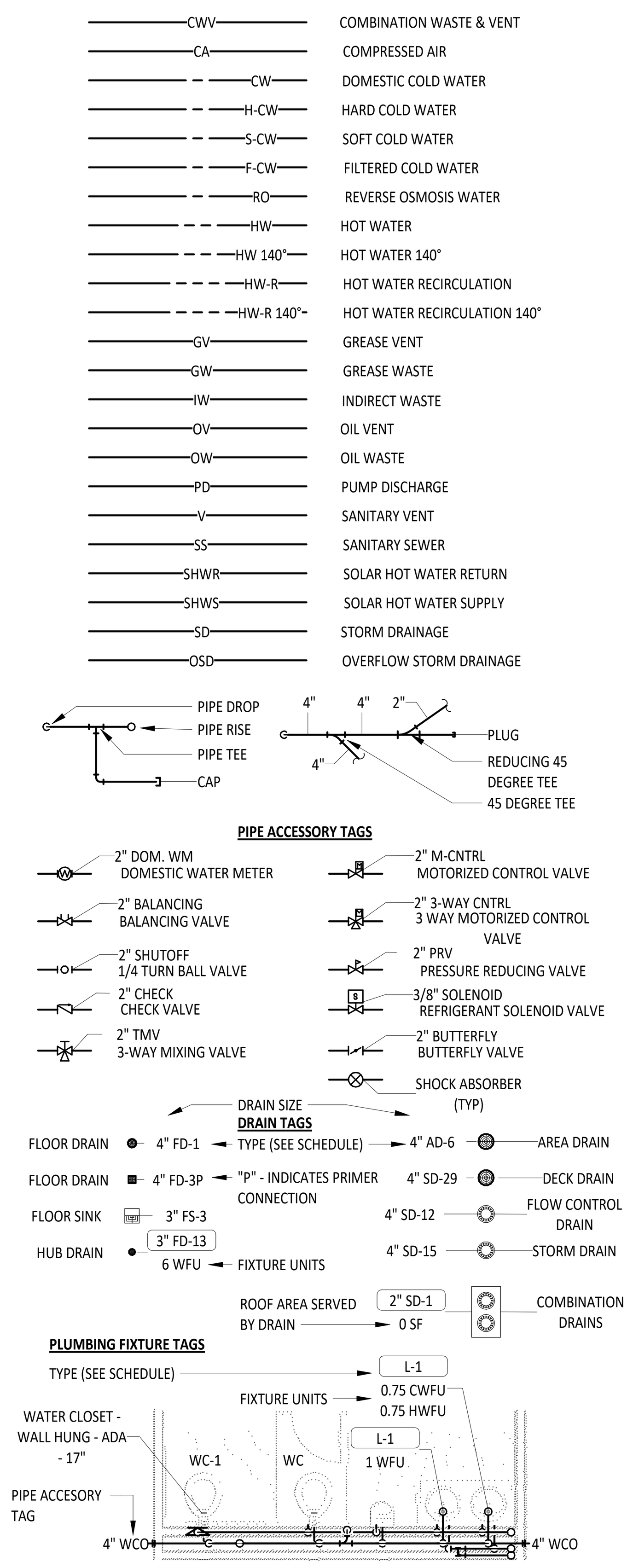
V

V	VENT
VAV	VARIABLE AIR VOLUME
VEL	VELOCITY
VENT	VENTILATION
VERT	VERTICAL
VOL	VOLUME
VTR	VENT THROUGH ROOF

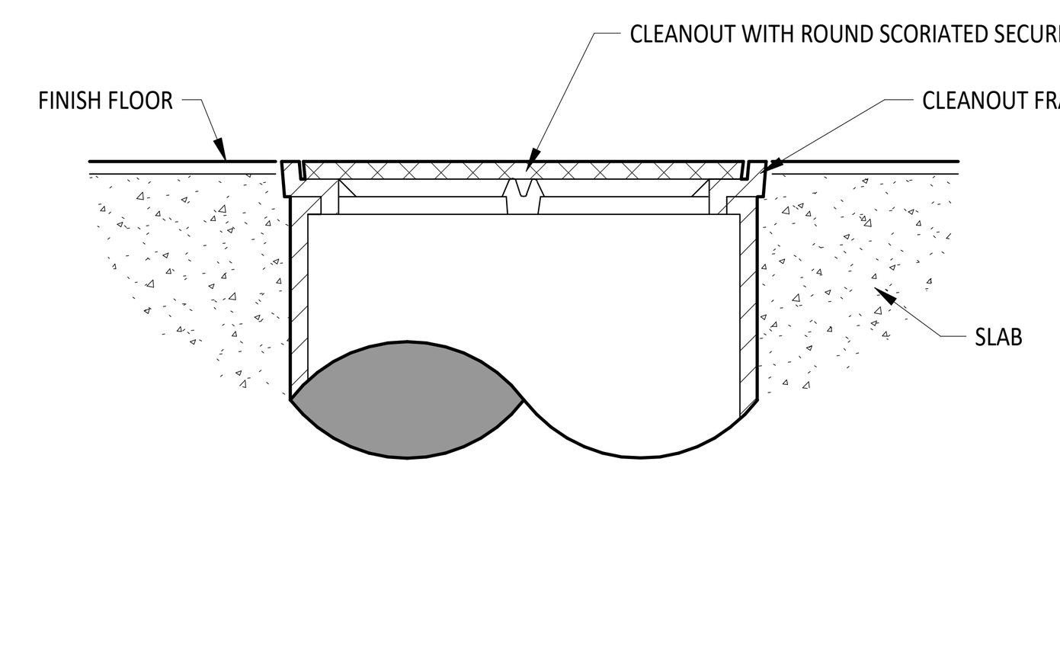
W

W	WASTE
WB	WET BULB
WCO	WALL CLEAN OUT
WH	WALL HYDRANT

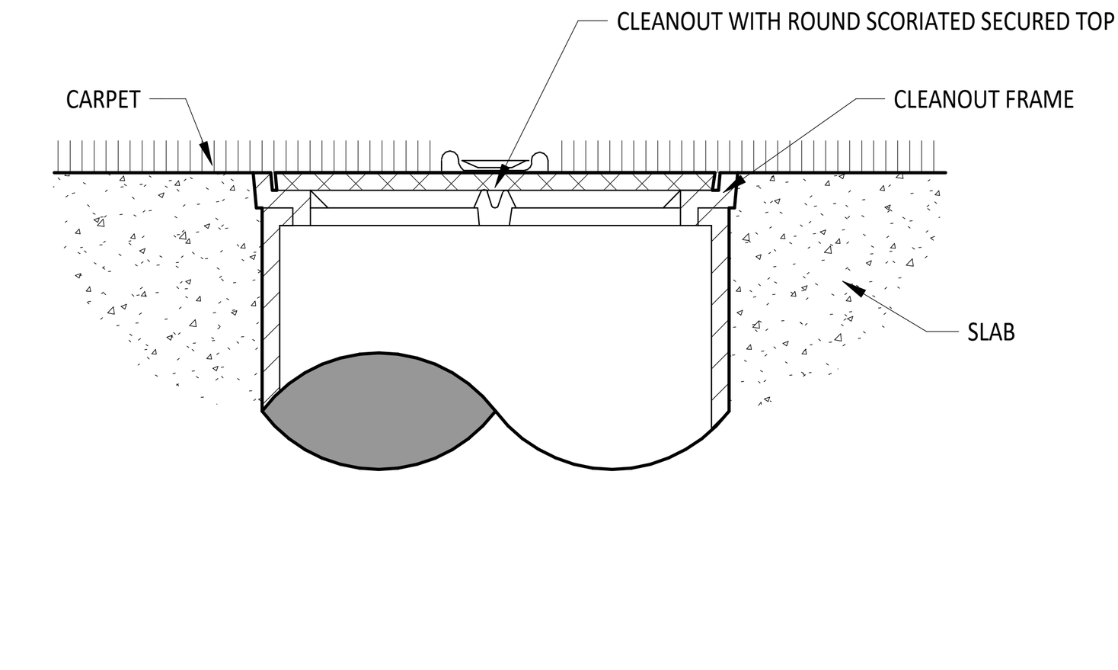
ABBREVIATIONS



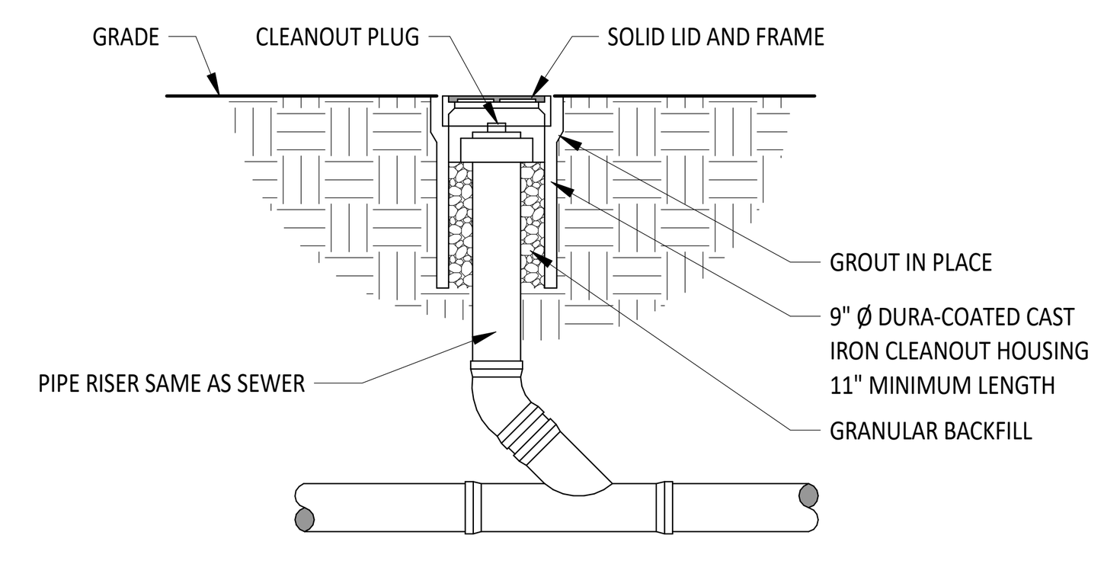
1 P1.1 PLUMBING AND PIPING SYMBOLS
1/8" = 1'-0"



2 P1.1 CLEANOUT - FLUSH WITH FINISH FLOOR
NTS

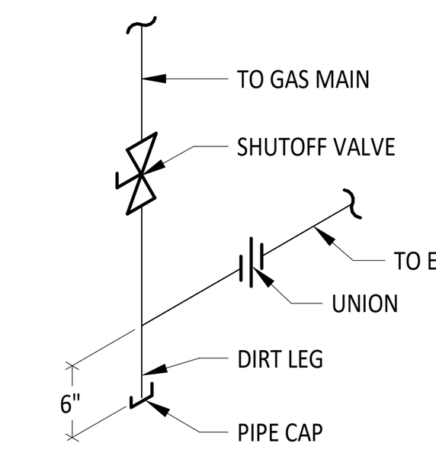


3 P1.1 CLEANOUT - CARPETED AREAS
NTS

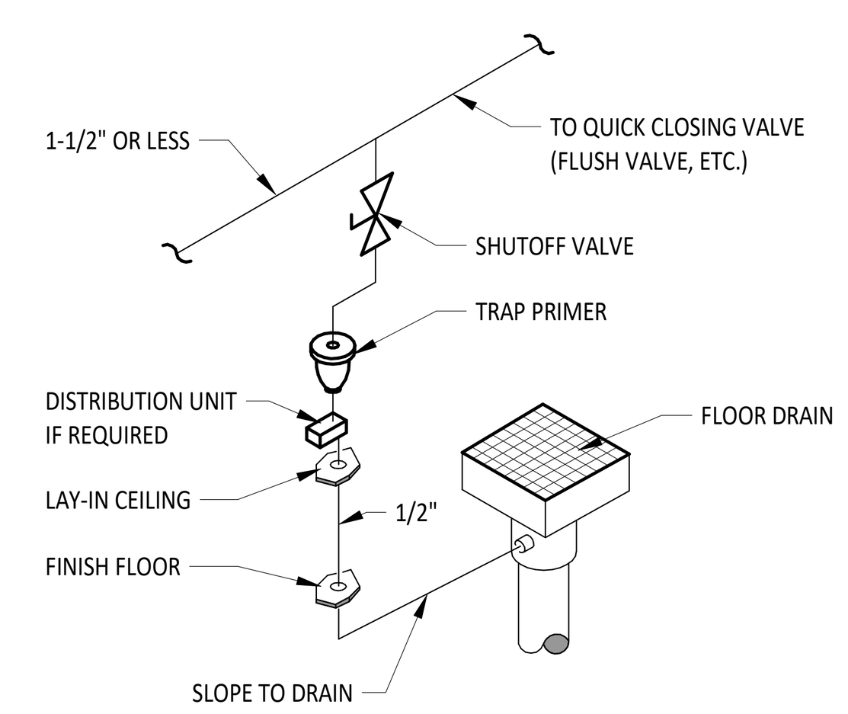


NOTE:
RODDING HOLES SHALL BE LOCATED ON ALL SANITARY AND STORM SEWERS LEAVING THE BUILDING AT 5'-0" OUTSIDE OF THE BUILDING WALL, AT THE ENDS OF THE SEWERS, AND AS SHOWN ON THE PLANS.

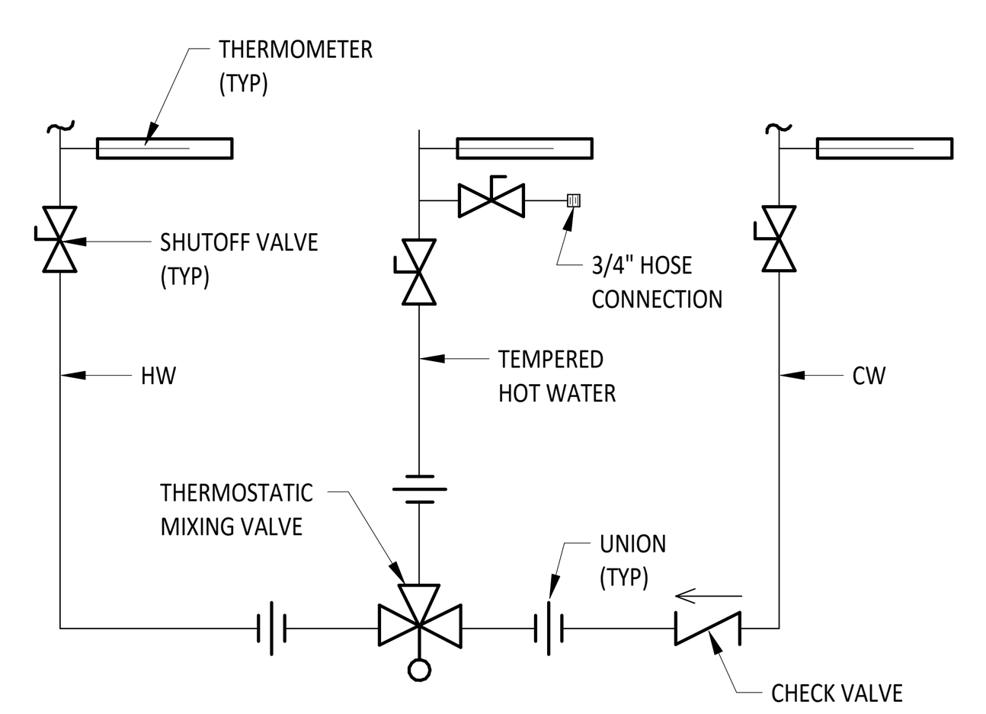
4 P1.1 "RH" RODDING HOLE DETAIL
NTS



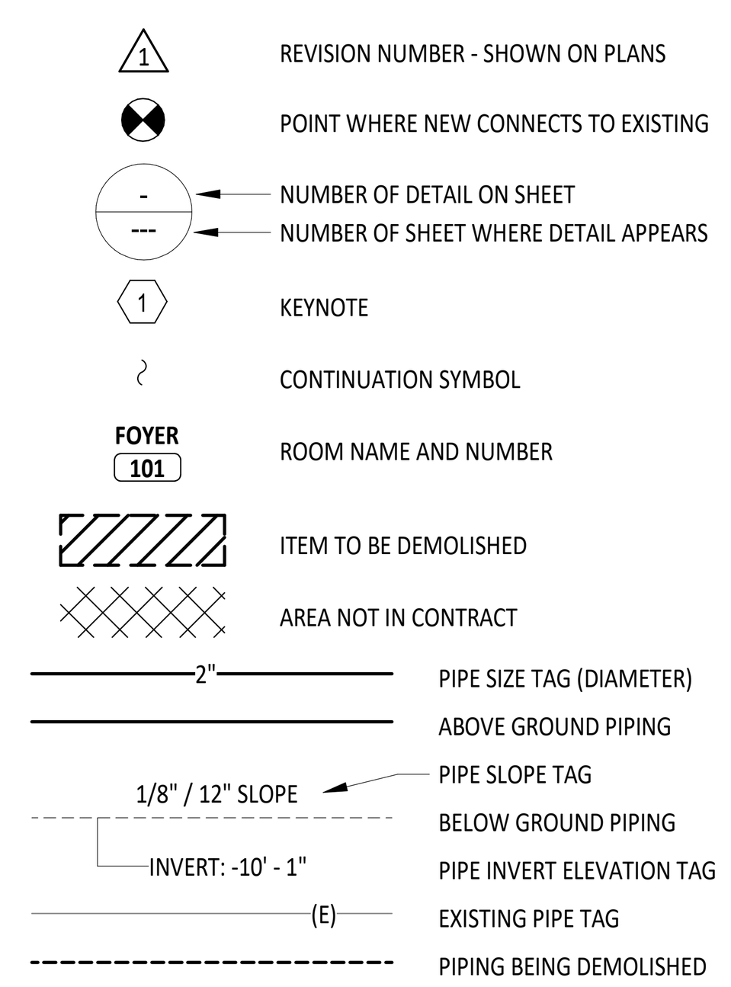
5 P1.1 GAS EQUIPMENT CONNECTION DETAIL
NTS



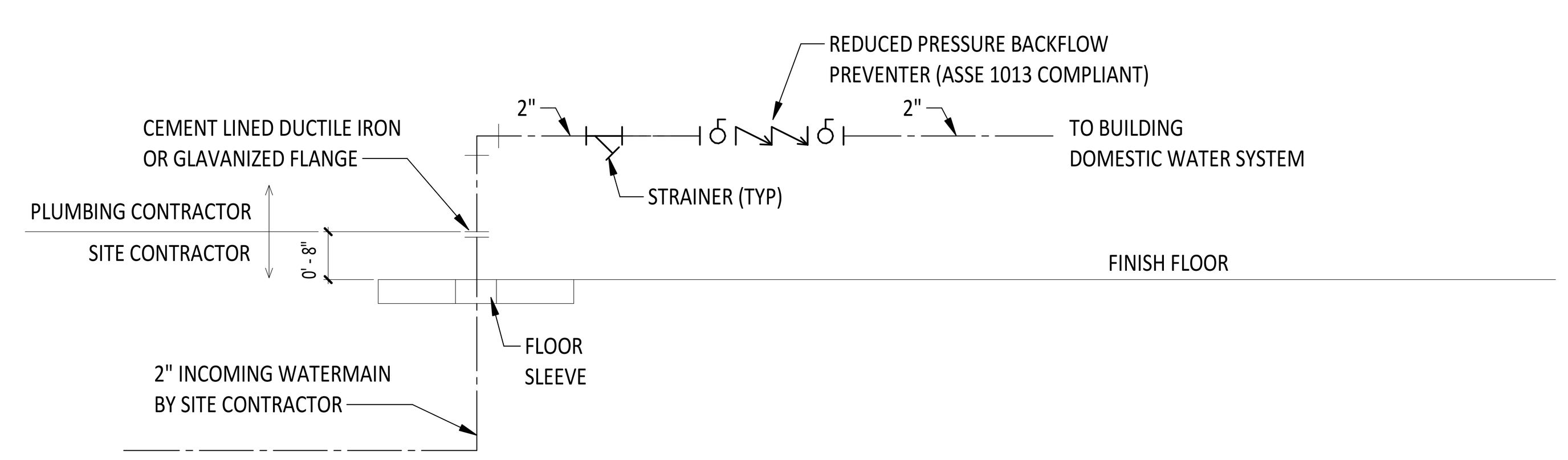
6 P1.1 TRAP PRIMER DETAIL
NTS



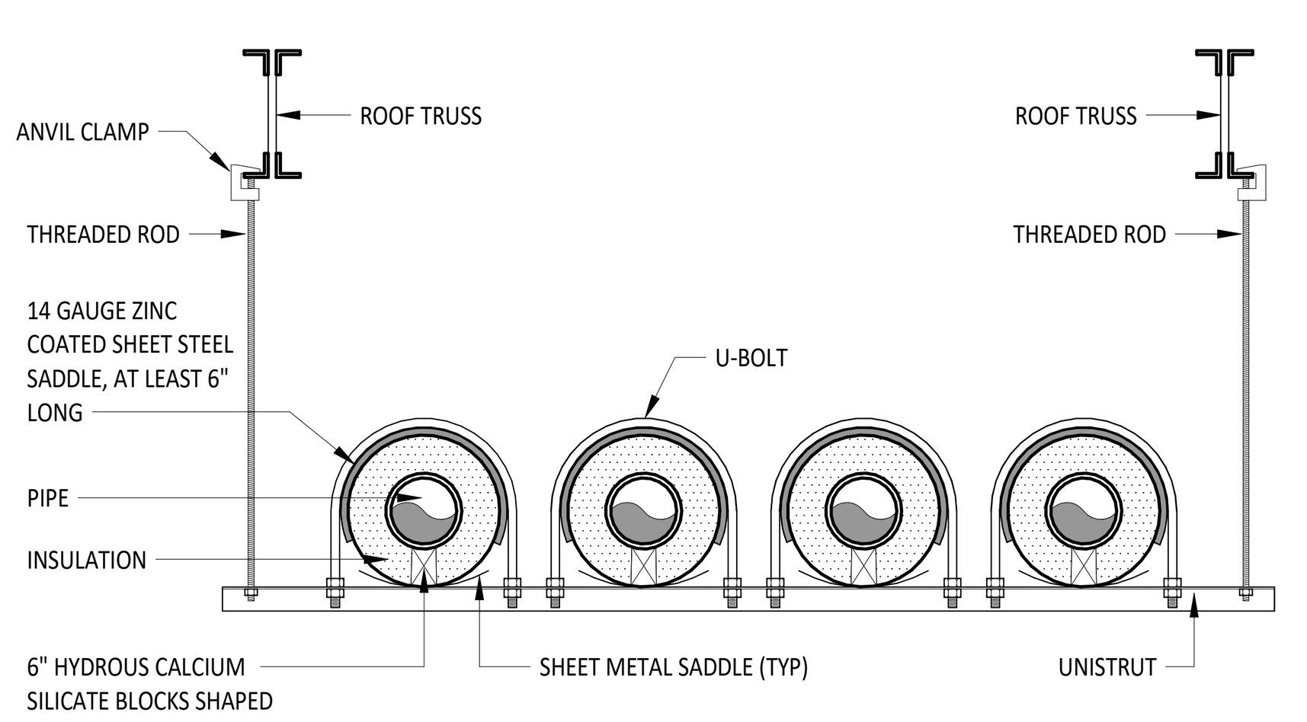
7 P1.1 THERMOSTATIC MIXING VALVE DETAIL
NTS



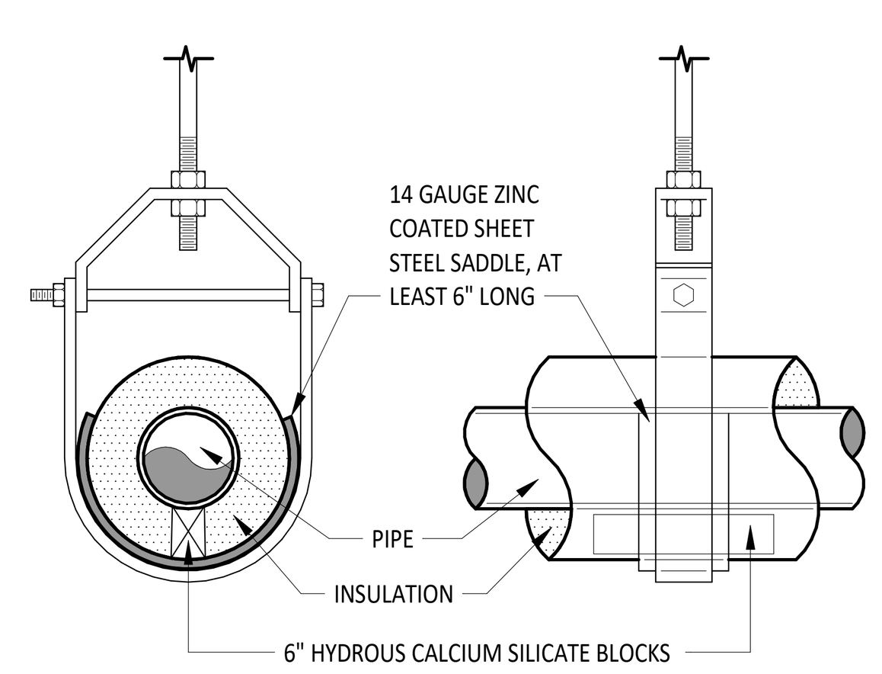
8 P1.1 GENERAL PLUMBING SYMBOLS
1/8" = 1'-0"



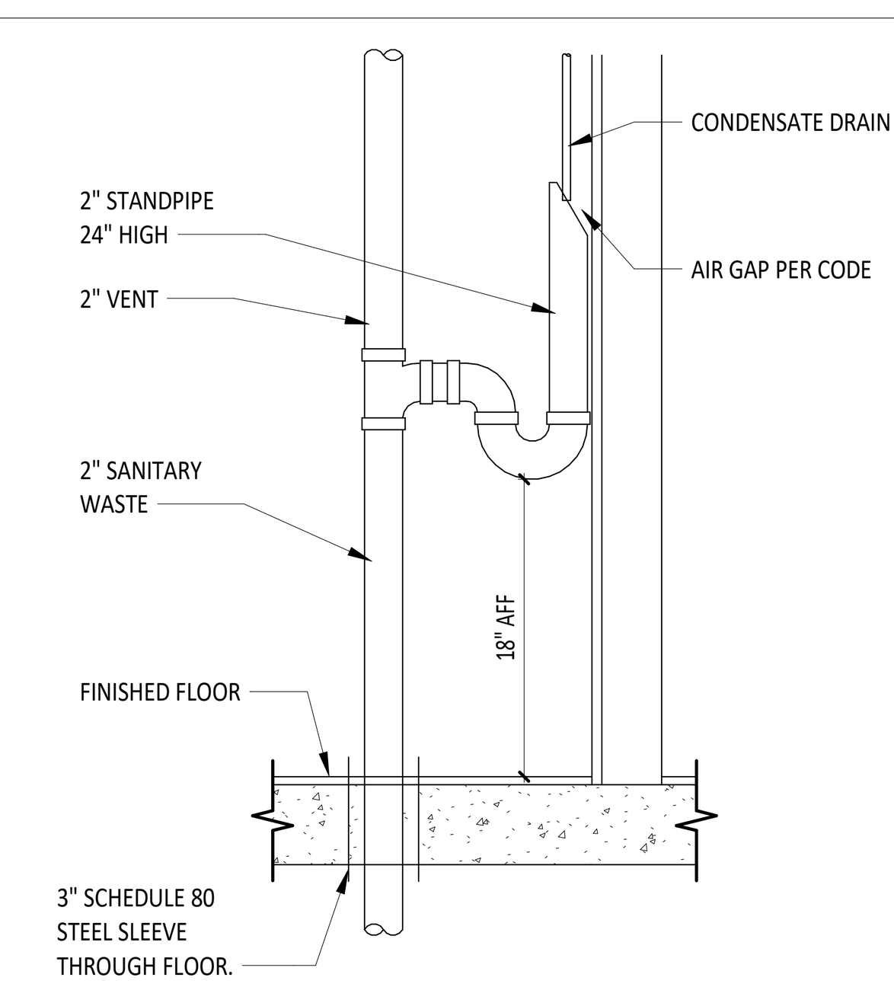
9 P1.1 INCOMING WATERMAIN DETAIL



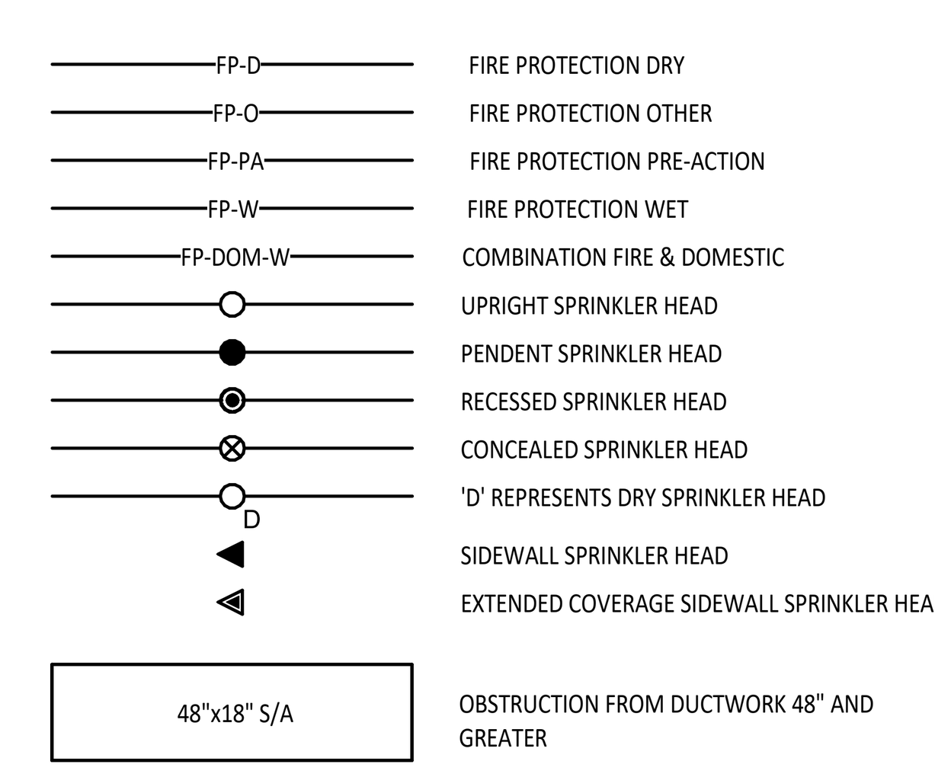
11 P1.1 PLUMBING PIPE HANGER DETAIL
NTS



12 P1.1 PIPE HANGER - CLEVIS - 6" AND SMALLER
NTS



13 P1.1 STANDPIPE RISER DETAIL
NTS



14 P1.1 FIRE PROTECTION SYMBOLS
1/8" = 1'-0"

PLUMBING SHEET INDEX

SHEET NUMBER	SHEET NAME
P1.1	GENERAL NOTES, ABBREVIATIONS, LEGENDS AND SHEET INDEX
P1.2	SITE PLUMBING PLAN
P2.1	PLUMBING PLAN
P4.1	PLUMBING SCHEDULES AND PLUMBING ENLARGEMENT
P5.1	SANITARY ISOMETRIC AND DETAILS

PLUMBING GENERAL NOTES

A PROVIDE TRAP PRIMERS FOR FLOOR DRAINS SERVING MECHANICAL ROOMS, MECHANICAL DECKS, EMERGENCY SHOWERS, KITCHEN FLOOR DRAINS, AND AS REQUIRED BY CODE. SUPPLY NEAREST COLD WATER PIPING CONNECTED TO A FLUSH VALVE OR SOLENOID VALVE. SUPPLY PIPING SHALL BE 1/2" VALVED COLD WATER LINE. REFERENCE DETAIL FOR ADDITIONAL INFORMATION.

B VERIFY INVERT ELEVATIONS ON UNDERGROUND SANITARY AND STORM PIPING. COORDINATE DEPTHS WITH THE BUILDING CONSTRUCTION AND ALL OTHER UTILITIES.

C ALL FINAL GAS CONNECTIONS SHALL BE MADE WITH FLEXIBLE STAINLESS STEEL PIPE OR RIDGED PIPE WITH UNION, SHUT-OFF VALVE AND DIRT LEG. REFERENCE DETAIL FOR ADDITIONAL INFORMATION.

D PITCH UNDERFLOOR SANITARY WASTE AND STORM PIPING 3" AND GREATER AT 1/8" PER FOOT, UNLESS NOTED OTHERWISE. PITCH ALL OTHER WASTE PIPING AT 1/4" PER FOOT UNLESS OTHERWISE NOTED.

E FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION.

F ROUTE DOMESTIC WATER, FIRE PROTECTION, SANITARY SEWER, AND STORM SEWER SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFERERENCE CIVIL PLANS.

G PROVIDE CLEANOUT IN ACCESSIBLE LOCATION AT THE BASE OF ALL PLUMBING RISERS.

H WHERE FLOOR DRAINS OCCUR WITHIN THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK.

I FIRE SEAL AROUND PIPING PENETRATIONS OF FIRE RATED WALLS. REFERERNCE SPECIFICATION.

J PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF.

K FIELD VERIFY ALL NEW WATER, WASTE, AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS.

L WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR SHALL BE 2" MINIMUM.

STATE OF OHIO
ERIC JAMES BALTZELL E-65072
REGISTERED
PROFESSIONAL ENGINEER
ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

GARMANN MILLER

NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	02/07/2025

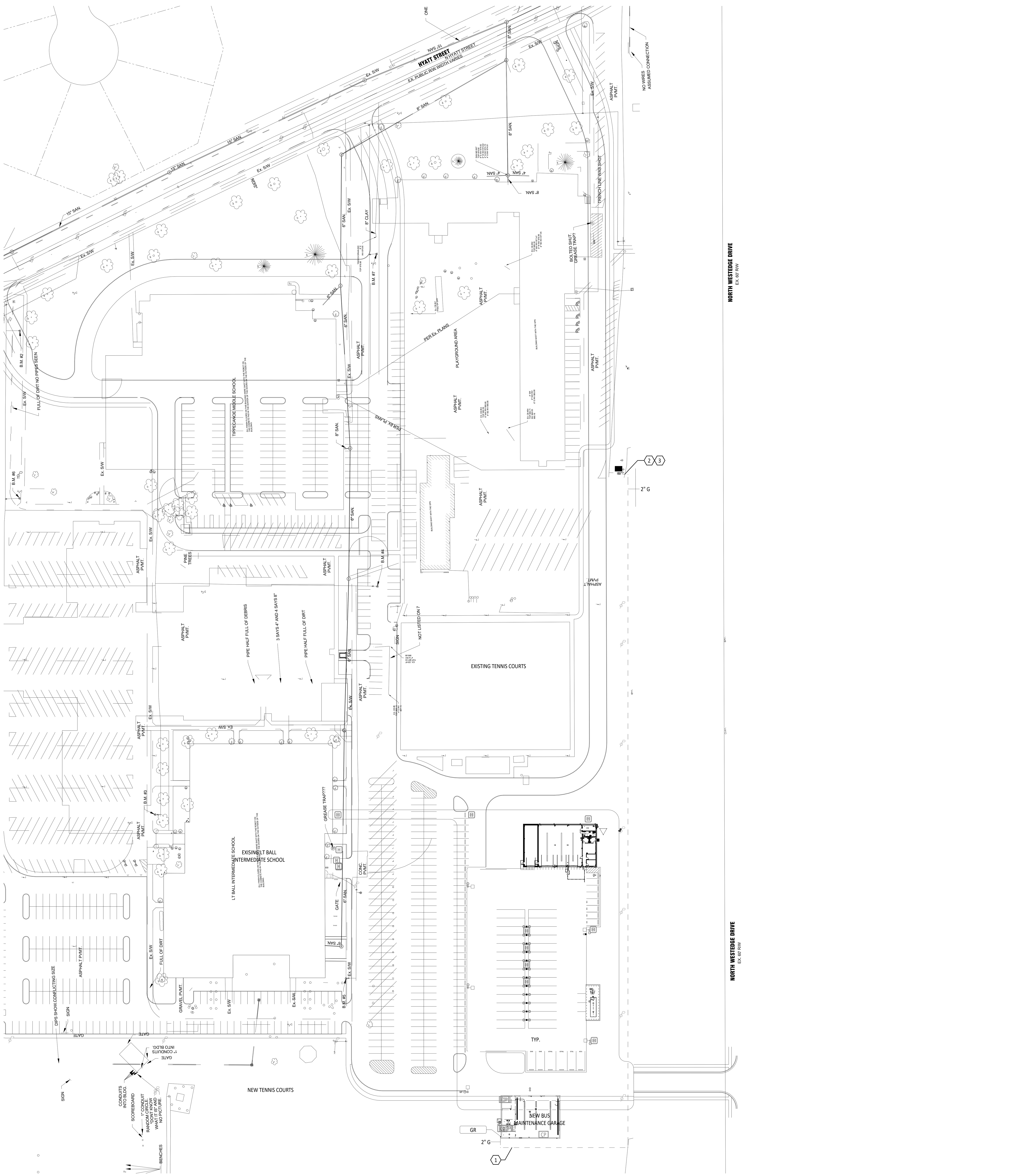
PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	DJL	CSM

SHEET TITLE:

GENERAL NOTES, ABBREVIATIONS, LEGENDS AND SHEET INDEX

SHEET NUMBER:

P1.1



1 P1.2 PLUMBING SITE PLAN
1" = 60'-0"

#	KEYNOTE DESCRIPTION
1	ROUTE NATURAL GAS ON THE SITE AS SHOWN AND CONNECT TO NEW BUILDING REGULATOR. COORDINATE WORK WITH THE GENERAL CONTRACTOR.
2	APPROXIMATE LOCATION OF EXISTING GAS METER / REGULATOR SET BY CENTER POINT ENERGY GAS COMPANY.
3	PROVIDE SHUT-OFF VALVES FOR EACH INDIVIDUAL BRANCH FROM NATURAL GAS METER. THE VALVE FOR THE BUS GARAGE BUILDING SHALL BE LABELED 'BUS GARAGE NG' AND THE VALVE FOR THE EXISTING LINE SHALL BE LABELED LT BALL AND MS NG'. TAG SHALL BE 2" ETCHED STAINLESS STEEL VALVE TAG AND ATTACHED TO VALVE WITH STAINLESS STEEL CHAIN.

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	CONSTRUCTION DOCUMENTS	02/07/2025

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24054.02	DJL	CSM

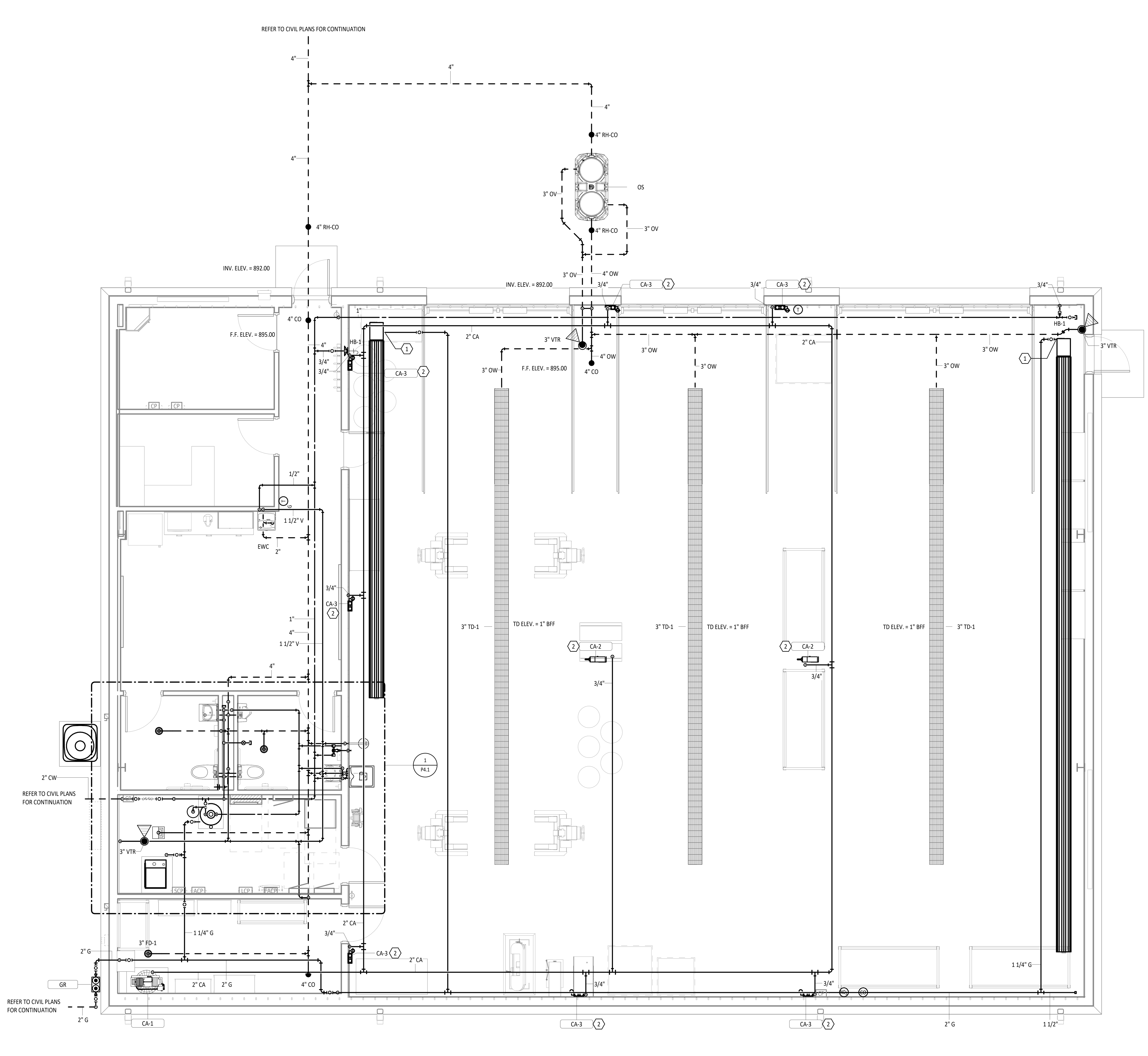
SHEET TITLE:

SITE PLUMBING PLAN

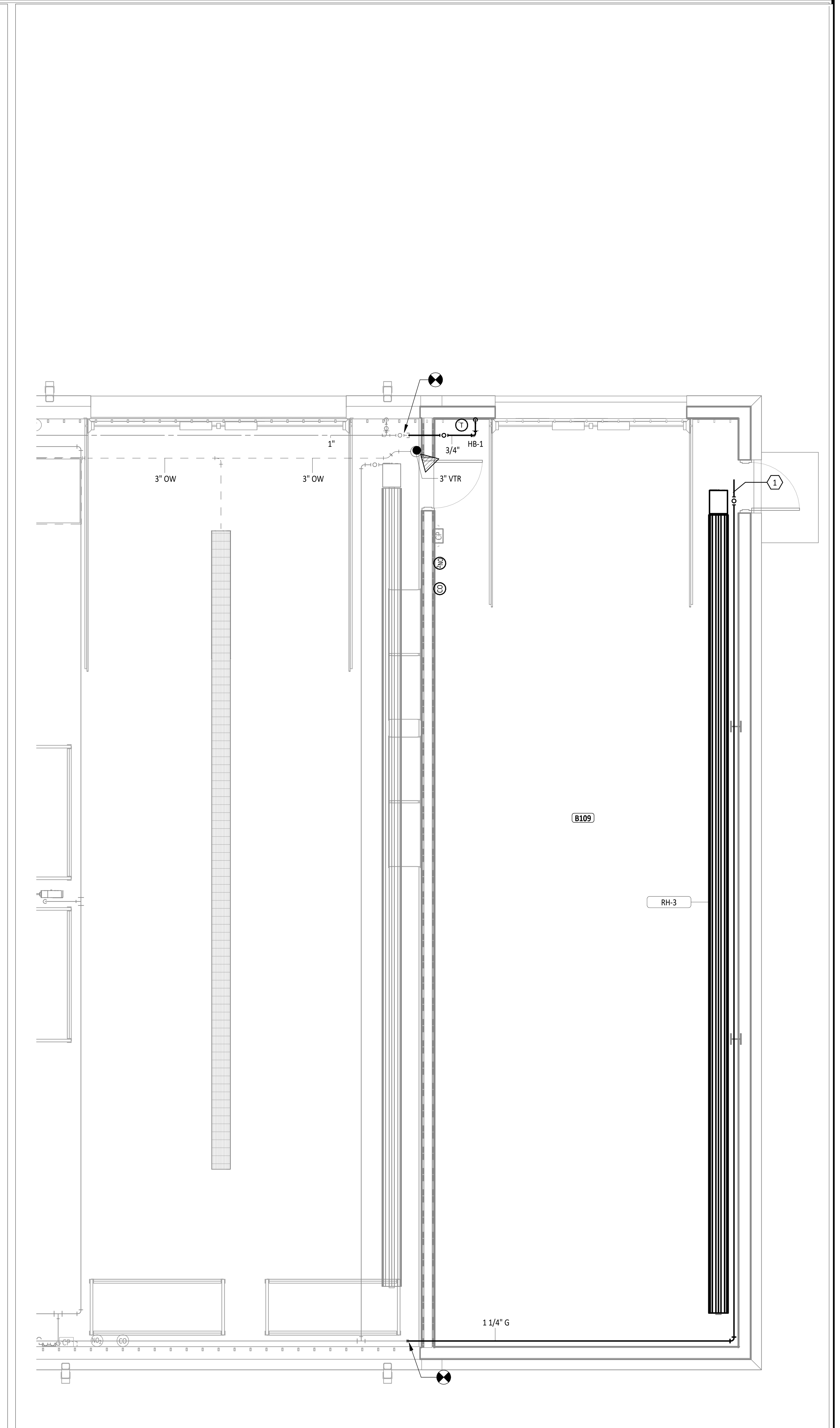
SHEET NUMBER:

P1.2

PRINTED ON: 2/5/2025 9:03:55 AM



1 P2.1 PLUMBING PLAN
1/4" = 1'-0"



2 P2.1 ALTERNATE - PLUMBING PLAN
1/4" = 1'-0"

FIRST FLOOR PLAN ROOM INDEX - UNIT A		
ROOM NUMBER	ROOM NAME	AREA
A101	WORKROOM	368 SF
A102	OFFICE	110 SF
A103	OFFICE	101 SF
A104	UNISEX RESTROOM	65 SF
A105	UNISEX RESTROOM	69 SF
A106	MAINTENANCE BAY	3,608 SF
A107	MECH/ELECTRICAL/AIR COMPRESSOR	156 SF
A107	WORKROOM	Not Placed
A108	STORAGE	149 SF

PLUMBING GENERAL NOTES

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PLUMBING GENERAL NOTES

G PROVIDE CLEANOUT IN ACCESSIBLE LOCATION AT THE BASE OF ALL PLUMBING RISERS.

H WHERE FLOOR DRAINS OCCUR WITHIN THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK.

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K FIELD VERIFY ALL NEW WATER, WASTE, AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS.

L WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR SHALL BE 2" MINIMUM.

#	KEYNOTE DESCRIPTION
1	PROVIDE GAS CONNECTION TO HVAC EQUIPMENT PROVIDED BY DIVISION 23 MECHANICAL CONTRACTOR. PROVIDE SHUT-OFF VALVE AND DIRT LEG AT UNIT CONNECTION. REFER TO GAS EQUIPMENT CONNECTION DETAIL FOR ADDITIONAL INFORMATION.
2	PIGGYBACK FILTER/REGULATOR, 3/8" NPT, 90 CFM MAX FLOW, 0-140 PSI ADJUSTMENT RANGE, WITH FLUSH MOUNT GAUGE, POLYCARBONATE BOWL, MANUAL DRAIN. SET OUTLET PRESSURE TO 90 PSI. QUICK CONNECT COUPLING, 1/2" BODY SIZE AND 3/8" THREADED END CONNECTION SIZE, STEEL CONSTRUCTION, BALL LATCHING MECHANISM.

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ISSUANCES/REVISIONS

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24054.02	DJL	CSM

SHEET TITLE:

PLUMBING PLAN

SHEET NUMBER:

P2.1

PRINTED ON: 2/5/2025 9:03:59 AM

DOMESTIC FIXTURE SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL	QTY	MATERIAL DESCRIPTION	FINISH	MOUNTING HEIGHT	DEPTH	ADA	TRIM				FLOW FIXTURE				FLUSH FIXTURE		WASTE ROUGH-IN PIPE SIZE	INDIRECT WASTE PIPE SIZE	VENT PIPE SIZE	COLD WATER ROUGH-IN PIPE SIZE	HOT WATER ROUGH-IN PIPE SIZE	SPECIFICATION
										MANUFACTURER	MODEL	TYPE	MOTION SENSOR CONTROL	WATER FLOW	COLD WATER TEMP.	HOT WATER TEMP.	MAX. MIXED WATER TEMP.	VOL. PER FLUSH	MIN. VOL. PER FLUSH						
EEW	EMERGENCY EYE/FACE WASH	BRADLEY	S19294JBT	1	STAINLESS STEEL	STAINLESS STEEL CABINET	21" TO BOTTOM		Yes				No	5.10 GPM	40 °F		40 °F	[redacted]		2"	---	1-1/2"	1"		BARRIER FREE, RECESSED, WALL MOUNTED, EYE/FACE WASH WITH SWING-DOWN STAINLESS STEEL DRAIN PAN. UNIT CONSTRUCTION SHALL BE WELDED 16 GUAGE TYPE 304 STAINLESS STEEL WITH #4 BRUSHED SATIN FINISH. UNIT SHALL INCLUDE CHROME-PLATED BRASS EYE/FACE WASH SUPPLY FITTINGS. INCLUDE ANSI COMPLIANT SIGN.
EWC	BOTTLE FILLER - ADA	ELKAY	LZWSSM	1	STAINLESS STEEL	STAINLESS STEEL CABINET	36" TO SPOUT		Yes				Yes	0.13 GPM	40 °F		40 °F			2"	---	1-1/2"	1/2"		SINGLE LEVEL WALL HUNG BOTTLE FILLER. THE UNIT SHALL BE COMPLETE WITH CABINET, MOUNTING FRAME, 120 VOLT, 60 CYCLE, SINGLE PHASE POWER CONNECTION, FULLY AUTOMATIC, COMPLETE AND READY TO OPERATE.
HB-1	HOSE BIBB	ZURN	Z1330	2	STAINLESS STEEL	STAINLESS STEEL	0'-8" AFF					MANUAL	No	2.50 GPM	40 °F		40 °F						1/2"		INTERIOR HOSE BIBB WITH VACUUM BREAKER, 3/4" HOSE THREAD OUTLET, LOCK SHIELD CAP, AND REMOVABLE "TEE" HANDLE. PROVIDE SHUTOFF VALVE IN COLD WATER SUPPLY AHEAD OF HOSE BIBB.
L-1	LAVATORY - WALL HUNG - ADA	KOHLER	K-2005	2	WHITE VITREOUS CHINA	WHITE	34" TO RIM	0' - 6 1/2"	Yes	KOHLER	K-15243-4RA	MANUAL	No	0.35 GPM	40 °F	120 °F	105 °F			---	2"	---	1/2"	1/2"	LAVATORY: WALL MOUNTED LAVATORY, CONCEALED ARM SUPPORTS, REAR OVERFLOW, FAUCET LEDGE, 4" CENTERS, GRID STRAINER. FAUCET: DECK MOUNTED MANUAL FAUCET WITH VANDAL RESISTANT SPRAY, EXTERNAL ASSE 1070 COMPLIANT THERMOSTATIC MIXING VALVE, GRID DRAIN, ANGLE STOPS AND SUPPLIES. INSULATE WATER AND AND WASTE WITH ADA INSULATION KIT. MOUNT AT ADA COMPLIANT HEIGHT.
UR	URINAL - ADA	KOHLER	K-5452	1	WHITE VITREOUS CHINA	WHITE	17" TO RIM		Yes	KOHLER	K-76319	MANUAL	No		40 °F		40 °F	0.5 gal	0.5 gal	2"	---	1-1/2"	3/4"		WALL HUNG URINAL WITH WASHOUT ACTION, TOP SPUD, SIZE 18" WITH INTEGRAL EXTENDED SHIELDS SUPPORTED BY THROUGH GOING BOLTS AND C.P. NUTS. SOLAR POWERED SENSOR ACTIVATED FLUSHOMETER.
WC	WATER CLOSET - WALL HUNG	KOHLER	K-84325	1	WHITE VITREOUS CHINA	WHITE	15" TO RIM		No	KOHLER	K-76322	MANUAL	No		40 °F		40 °F	1.6 gal	1.6 gal	4"	---	2"	1"		WATER CLOSET: ELONGATED WALL HUNG WATER CLOSET, CARRIER, 1-1/2" TOP SPUD, SIPHON ACTION JETTED BOWL, WITH SELF SUSTAINING ELONGATED OPEN FRONT SEAT. FLUSH VALVE: EXPOSED, QUIET CLOG RESISTANT, DIAPHARM-TYPE, MANUAL FLUSH.
WC-1	WATER CLOSET - WALL HUNG - ADA - 17"	KOHLER	K-84325	1	WHITE VITREOUS CHINA	WHITE	17" TO RIM		Yes	KOHLER	K-76322	MANUAL	No		40 °F		40 °F	1.6 gal	1.6 gal	4"	---	2"	1"		WATER CLOSET: ELONGATED WALL HUNG WATER CLOSET, CARRIER, 1-1/2" TOP SPUD, SIPHON ACTION JETTED BOWL, WITH SELF SUSTAINING ELONGATED OPEN FRONT SEAT. FLUSH VALVE: EXPOSED, QUIET CLOG RESISTANT, DIAPHARM-TYPE, MANUAL FLUSH.
WSSK	WALL SERVICE SINK	ZURN	MS2620-DF1	1	MOLDED PLASTIC/FIBERGLASS	WHITE		0' - 0"	No	ZURN		MANUAL	No	2.50 GPM	40 °F	120 °F	105 °F			---	3"	---	3/4"	3/4"	WALL SERVICE SINK: 26" X 22" SINGLE COMPARTEMENT SINK, MUTLI-PURPOSE SINK, WALL MOUNTED, PROVIDE WITH FILLER PANEL WITH SINK. FAUCET: DUAL HANDLE , 6" SWING SPOUT, 4" CENTERSET, COVERPLATE, P-TRAP, TAILPIECES, SUPPLIES, AND STOPS.

FLOOR DRAIN SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL	QTY	MATERIAL DESCRIPTION		WASTE	VENT	PRIMER	SPECIFICATION
					DRAIN BODY	STRAINER	PIPE SIZE	PIPE SIZE	PIPE SIZE	
FD-1	FLOOR DRAIN	ZURN	ZN415-BZ1	4	DURA-COATED CAST IRON BODY	POLISHED NICKEL BRONZE	3"	2"	---	DURA-COATED CAST IRON BODY, TYPE B POLISHED NICKEL BRONZE STRAINER, ADJUSTABLE COLLAR WITH SEEPAGE SLOTS, INVERTIBLE MEMBRANE COLLAR, PROVIDE TRAP PRIMER PER STATE AND LOCAL CODES.
FS	FLOOR SINK	ZURN	Z566	1	DURA-COATED CAST IRON BODY	DURA-COATED CAST IRON	3"	2"	---	12" SQUARE X 8" DEEP DURA-COATED CAST IRON SANITARY FLOOR SINK WITH LOOSE SET CAST IRON GRATE, FULL GRATE, DOME BOTTOM STRAINER, AND NO HUB OUTLET. PROVIDE WITH TRAP PRIMER PER STATE AND LOCAL CODES.
TD-1	TRENCH DRAIN	ZURN	Z886-U3-GDC	3	HIGH DENSITY POLYETHYLENE	GALVANIZED DUCTILE	3"			44'-0" x 0'-6" WIDE PRESLOPED TRENCH DRAIN SYSTEM, HIGH DENSITY POLYETHYLENE DRAIN CHANNEL WITH MINIMUM 0.75% BOTTOM SLOPE, HEAVY DUTY GALVANIZED DUCTILE SLOTTED GRATE-CLASS C. PROVIDE TWO OF MANUFACTURES CLEANING SHOVELS. PROVIDE Z887 CATCH BASIN. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. REFER TO SPECIFICATIONS.

AIR COMPRESSOR SCHEDULE

ID	MANUFACTURER	MODEL NO.	TYPE	PUMP		MOTOR		RECEIVER SIZE	DIMENSIONS		UNIT WEIGHT	FLA	VOLT	PH	REMARKS
				FLOW	DISCHARGE PRESS	QTY	POWER		HEIGHT	DIAMETER					
CA-1	INGERSOLL RAND	2340L5	VETICAL	14 CFM	175.0 psi	1	5.00 hp	60.0 gal	5' - 9"	2' - 8"	430 lb	28 A	208 V	1	TWO STAGE RECIPROCATING AIR COMPRESSOR WITH MANUAL DRAIN VALVE TO NEAREST FLOOR DRAIN. REFER TO DETAIL FOR ADDITIONAL INFORMATION.
CA-2	REELCRAFT	5650 OLP	RETRACTABLE HOSE REEL	0 CFM	0.0 psi	0	0.00 hp	0.0 gal	0' - 0"	0' - 0"	0 lb	0 A	0 V	0	PROVIDE FILTER / REGULATOR. HEAVY DUTY SPRING DRIVEN REEL WITH SWIVEL, CORROSION RESISTANT POWDER COAT FINISH, 50' HOSE, 3/8" I.D. PROVIDE QUICK DISCONNECT COUPLING FOR HOSE END WITH 1/2" BODY AND 1/2" THREADED CONNECTION.
CA-3			QUICK DISCONNECT COUPLING		0.0 psi				0' - 0"	0' - 0"	0 lb	0 A		0	PROVIDE FILTER / REGULATOR. QUICK CONNECT COUPLING, 1/2" BODY SIZE AND 3/8" THREADED END CONNECTION SIZE, STEEL CONSTRUCTION, BALL LATCHING MECHANISM.

REDUCED PRESSURE BACKFLOW PREVENTER SCHEDULE

ID	NOMINAL DIAMETER	DESCRIPTION	MANUFACTURER	MODEL	COUNT	MATERIAL	FLUID PROPERTIES	VALVE PROPERTIES					REMARKS
							TYPE	RATED FLOW	PRESSURE DROP AT RATED FLOW	MAXIMUM ALLOWABLE WORKING PRESSURE	MAXIMUM ALLOWABLE WORKING TEMPERATURE	HYDROSTATIC TEST PRESSURE	
RPBP	2"	DOUBLE CHECK VALVE ASSEMBLY	ZURN WILKINS	975 XL	1	BRASS	WATER	160.0 GPM	16.6 ftH2O	403.7 ftH2O	140 °F	807.4 ftH2O	ASSE 1013 CERTIFIED, REDUCED PRESSURE BACKFLOW PREVENTER WITH FULL PORT QUARTER TURN SHUT OFF VALVES. MOUNT 3'-0" AFF. PROVIDE AN AIR GAP WITH RELIEF PIPED TO NEAREST FLOOR DRAIN.

CLEAN OUT SCHEDULE

ID	DESCRIPTION	MANUFACTURER	MODEL	QTY	MATERIAL	FINISH DESCRIPTION	PIPE ACCESSORY DIAMETER	SPECIFICATION
CO	FLOOR CLEANOUT	ZURN	ZN1400-BZ1	3	DURA-COATED CAST IRON	POLISHED NICKEL BRONZE	4"	ROUND FLOOR CLEANOUT WITH ADJUSTABLE COVER, THREADED CONNECTION, GAS AND WATER TIGHT SEAL. COVER TO BE FLUSHED WITH FINISHED FLOOR.
WCO	WALL CLEANOUT	ZURN	Z1441	1	DURA-COATED CAST IRON	STAINLESS STEEL	4"	9" ROUND WALL SMOOTH STAINLESS STEEL WALL COVER, THREADED CONNECTION, GAS AND WATER TIGHT SEAL.
RH-CO	RODDING HOLE	ZURN	Z1474	3	<varies>	DURA-COATED CAST IRON	4"	ROUND FRAME WITH SOLID TOP COVER. SET COVER FLUSH WITH GRADE. REFER TO DETAIL FOR ADDITIONAL INFORMATION.

GAS-FIRED WATER HEATER SCHEDULE

ID	MANUFACTURER	MODEL NO.	TYPE	GAS-FIRED HEAT EXCHANGER						UNIT WEIGHT	REMARKS
				GAS BURNER			WATERSIDE				
					FUEL		STORAGE				
				INPUT	TYPE	PRESS AVAIL	RECOVERY	VOL	MAX TEMP RISE		
DWH	AO SMITH	BT-60	GAS-FIRED TANK	60000 Btu/h	NG	0.5 psi	58 gal/h	55.0 gal	100 °F	185 lb	OUTLET TEMPERATURE SHALL BE SET AT 120 DEGREES F. PROVIDE DRAIN PAN. PROVIDE 4" VENT KIT.

OIL WATER SEPARATOR SCHEDULE

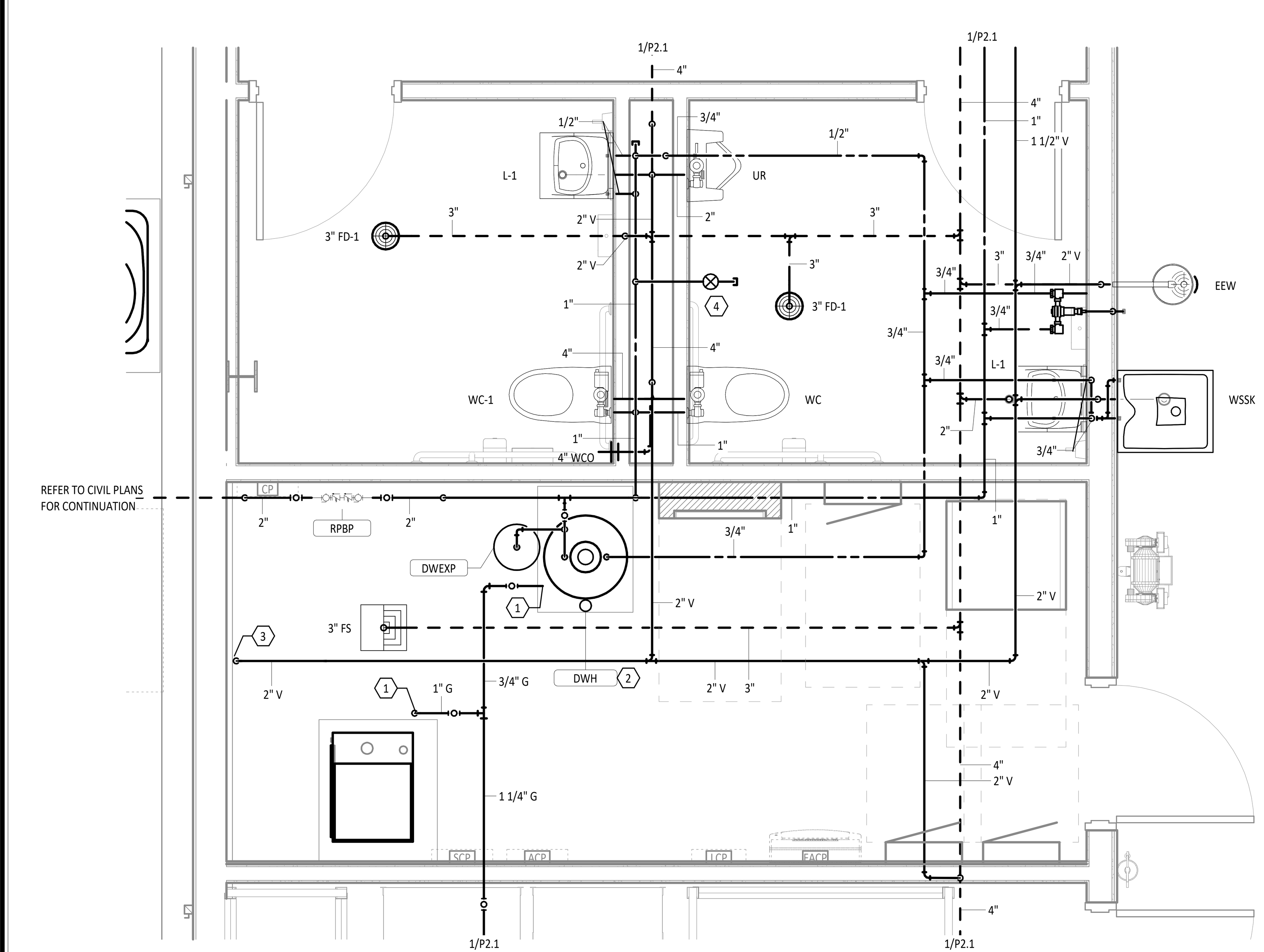
ID	MANUFACTURER	MODEL	TYPE	MATERIAL DESCRIPTION	COVER TYPE	MAXIMUM FLOW RATE	PIPE CONNECTIONS		CAPACITY			DIMENSIONS			UNIT WEIGHT	REMARKS
							INLET PIPE DIAMETER	OUTLET PIPE DIAMETER	LIQUID	OIL	SOLIDS	LENGTH	WIDTH	HEIGHT		
OS	STRIEM	OS-100	OIL INTERCEPTOR	HIGH DENSITY POLYETHYLENE	TRAFFIC RATED	100.0 GPM	4"	4"	250.0 gal	144.0 gal	95.0 gal	5' - 8"	2' - 9"	4' - 3"	343 lb	PROVIDE MANHOLE EXTENSION AND 24" DIAMETER MANHOLE COVER.

DOMESTIC EXPANSION TANK SCHEDULE

ID	MANUFACTURER	MODEL	TANK VOLUME	ACCEPTANCE VOLUME	PRESS RELIEF	DIMENSIONS		UNIT WEIGHT	REMARKS
						DIAMETER	HEIGHT		
DWEXP	ZURN WILKINS	WTTA-12	5.0 gal	3.3 gal	40 psi	1' - 0"	1' - 2"	28 lb	DOMESTIC HOT WATER THERMAL EXPANSION TANK, FIXED BLADDER TYPE, 3/4" NPT STAINLESS STEEL CONNECTION.

GAS REGULATOR SCHEDULE

ID	MANUFACTURER	MODEL	CAPACITY	CONNECTION SIZE	OUTLET PRESSURE	MAXIMUM INLET PRESSURE	REMARKS
GR	SENSUS	243-12-2	750000 Btu/h	2"	0.5 psi	2.0 psi	NATURAL GAS REGULATOR. SET OUTLET PRESSURE TO 14" W.C., GREEN SPRING, 3/8" ORIFICE.



1 P4.1 ENLARGED PLUMBING PLAN
1/2" = 1'-0"

PLUMBING GENERAL NOTES

- A PROVIDE TRAP PRIMERS FOR FLOOR DRAINS SERVING MECHANICAL ROOMS, MECHANICAL DECKS, EMERGENCY SHOWERS, KITCHEN FLOOR DRAINS, AND AS REQUIRED BY CODE. SUPPLY NEAREST COLD WATER PIPING CONNECTED TO A FLUSH VALVE OR SOLENOID VALVE. SUPPLY PIPING SHALL BE 1/2" VALVED COLD WATER LINE. REFERENCE DETAIL FOR ADDITIONAL INFORMATION.
- B VERIFY INVERT ELEVATIONS ON UNDERGROUND SANITARY AND STORM PIPING. COORDINATE DEPTHS WITH THE BUILDING CONSTRUCTION AND ALL OTHER UTILITIES.
- C ALL FINAL GAS CONNECTIONS SHALL BE MADE WITH FLEXIBLE STAINLESS STEEL PIPE OR RIDGED PIPE WITH UNION, SHUT-OFF VALVE AND DIRT LEG. REFERENCE DETAIL FOR ADDITIONAL INFORMATION.
- D PITCH UNDERFLOOR SANITARY WASTE AND STORM PIPING 3" AND GREATER AT 1/8" PER FOOT, UNLESS NOTED OTHERWISE. PITCH ALL OTHER WASTE PIPING AT 1/4" PER FOOT UNLESS OTHERWISE NOTED.
- E FIELD VERIFY LOCATION AND INVERTS OF SITE UTILITIES PRIOR TO INSTALLATION.
- F ROUTE DOMESTIC WATER, FIRE PROTECTION, SANITARY SEWER, AND STORM SEWER SERVICES TO SITE UTILITIES 5'-0" FROM BUILDING UNLESS NOTED OTHERWISE. REFERERENCE CIVIL PLANS.
- G PROVIDE CLEANOUT IN ACCESSIBLE LOCATION AT THE BASE OF ALL PLUMBING RISERS.
- H WHERE FLOOR DRAINS OCCUR WITHIN THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK.
- I FIRE SEAL AROUND PIPING PENETRATIONS OF FIRE RATED WALLS. REFERERNCE SPECIFICATION.
- J PROVIDE SLEEVES AND/OR OPENINGS TO RUN PIPES THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF.
- K FIELD VERIFY ALL NEW WATER, WASTE, AND VENT PIPING CONNECTIONS AND PROVIDE NEW CONNECTIONS AS REQUIRED FOR PROPERLY OPERATING SYSTEMS.
- L WASTE AND VENT PIPING BELOW FLOOR AND THROUGH FLOOR SHALL BE 2" MINIMUM.

#	KEYNOTE DESCRIPTION
1	PROVIDE GAS CONNECTION TO HVAC EQUIPMENT PROVIDED BY DIVISION 23 MECHANICAL CONTRACTOR. PROVIDE SHUT-OFF VALVE AND DIRT LEG AT UNIT CONNECTION. REFER TO GAS EQUIPMENT CONNECTION DETAIL FOR ADDITIONAL INFORMATION.
2	3-1/2" HOUSEKEEPING PAD BY DIVISION 22 PLUMBING CONTRACTOR.
3	ROUTE SANITARY VENT PIPING UP TO MEZZANINE ABOVE AND THROUGH THE ROOF. ROUTE TIGHT TO STRUCTURE. COORDINATE EXACT LOCATION WITH GENERAL CONTRACTOR.
4	EXTEND 3/4" COLD WATER LINE UP TO ABOVE CEILING AND INSTALL WATER HAMMER ARRESTOR ABOVE CEILING FOR MAINTENANCE ACCESS.

STATE OF OHIO
ERIC JAMES BALTZELL
E-65072
REGISTERED PROFESSIONAL ENGINEER
ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

GARMANN MILLER

NEW BUILDING FOR
TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING
575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	DJL	CSM

SHEET TITLE:
PLUMBING SCHEDULES AND PLUMBING ENLARGEMENT

SHEET NUMBER:
P4.1

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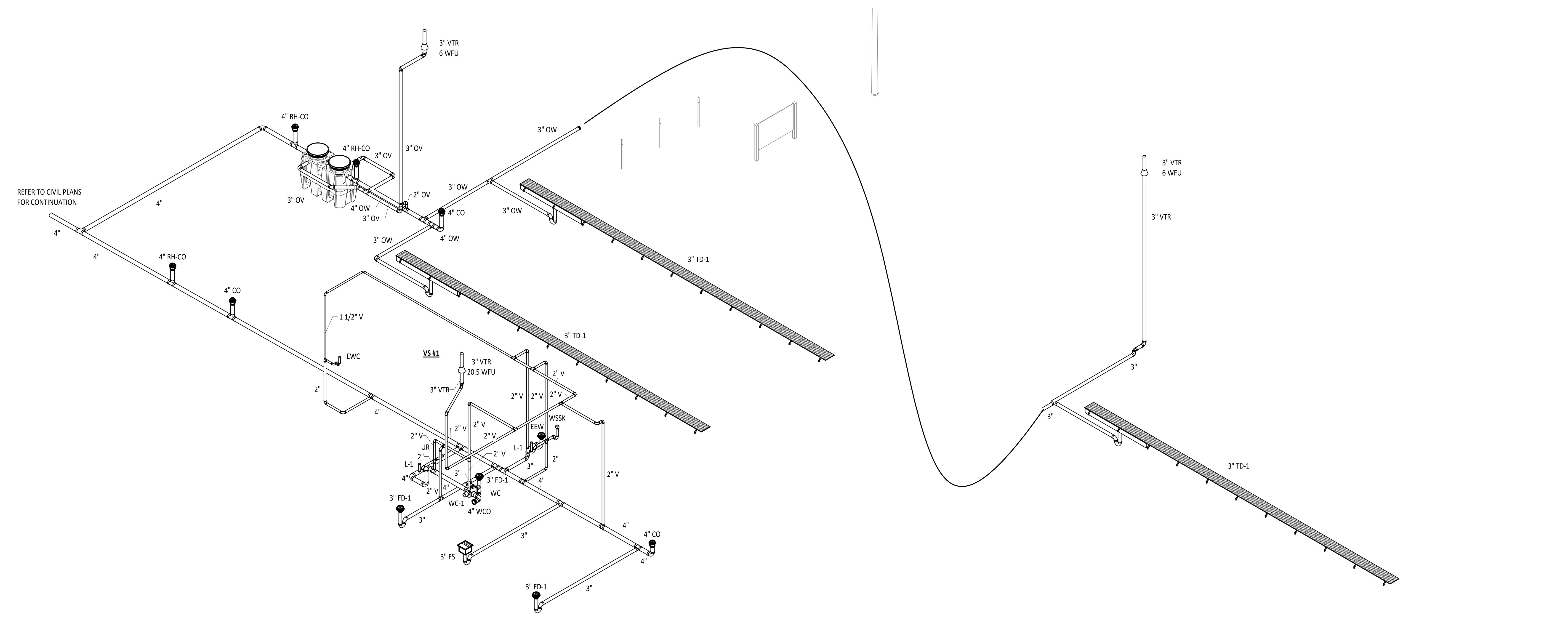
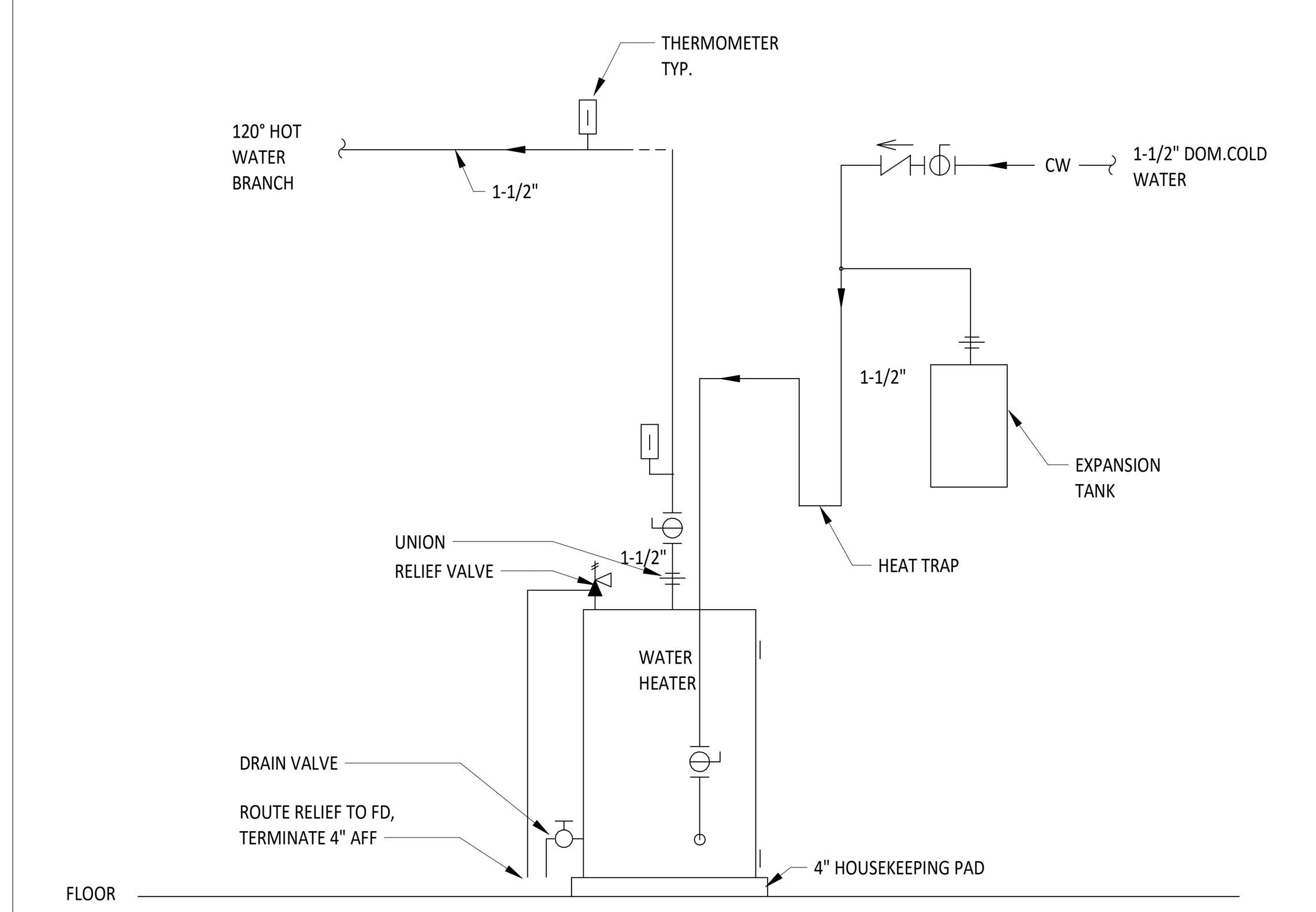
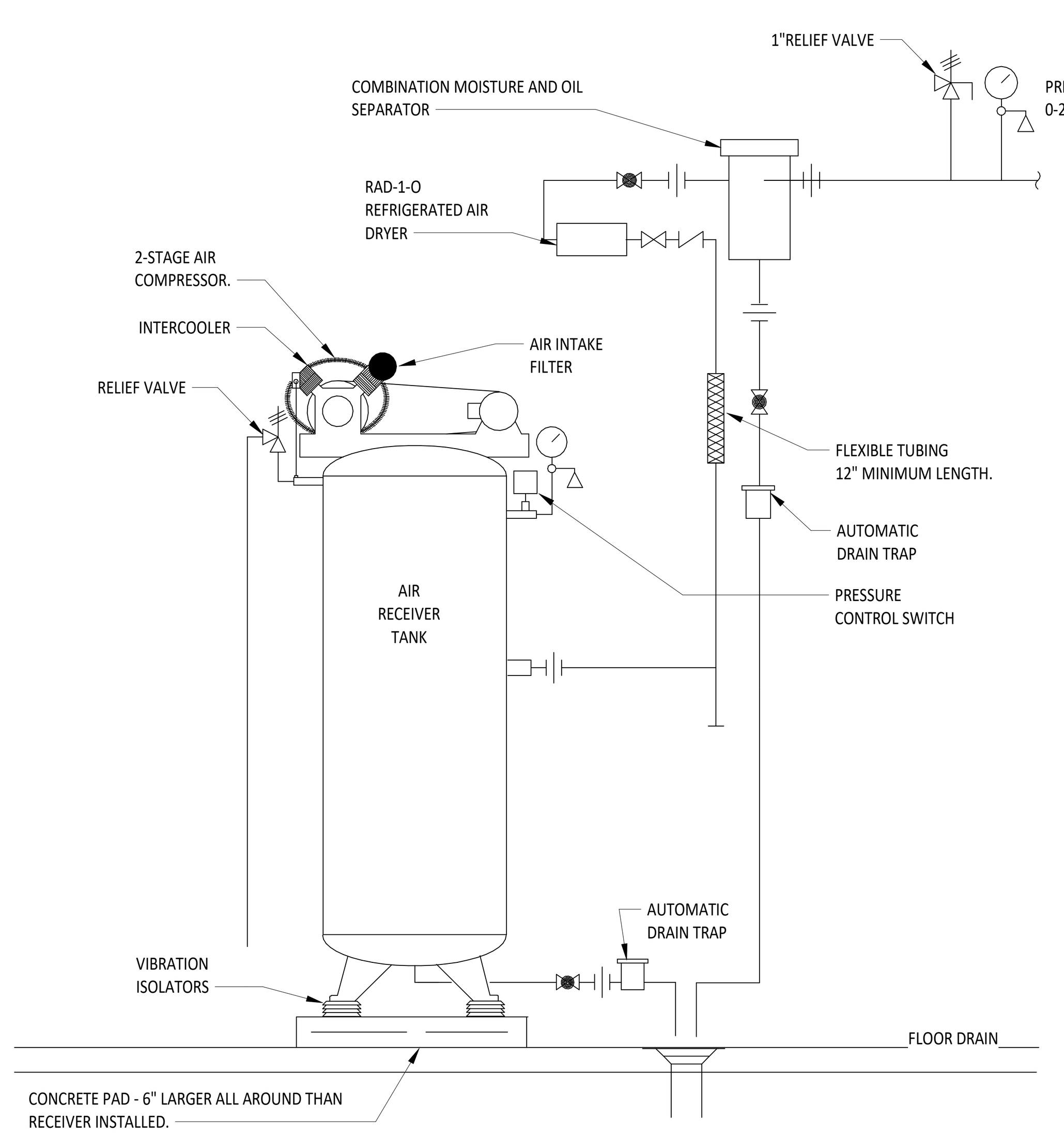


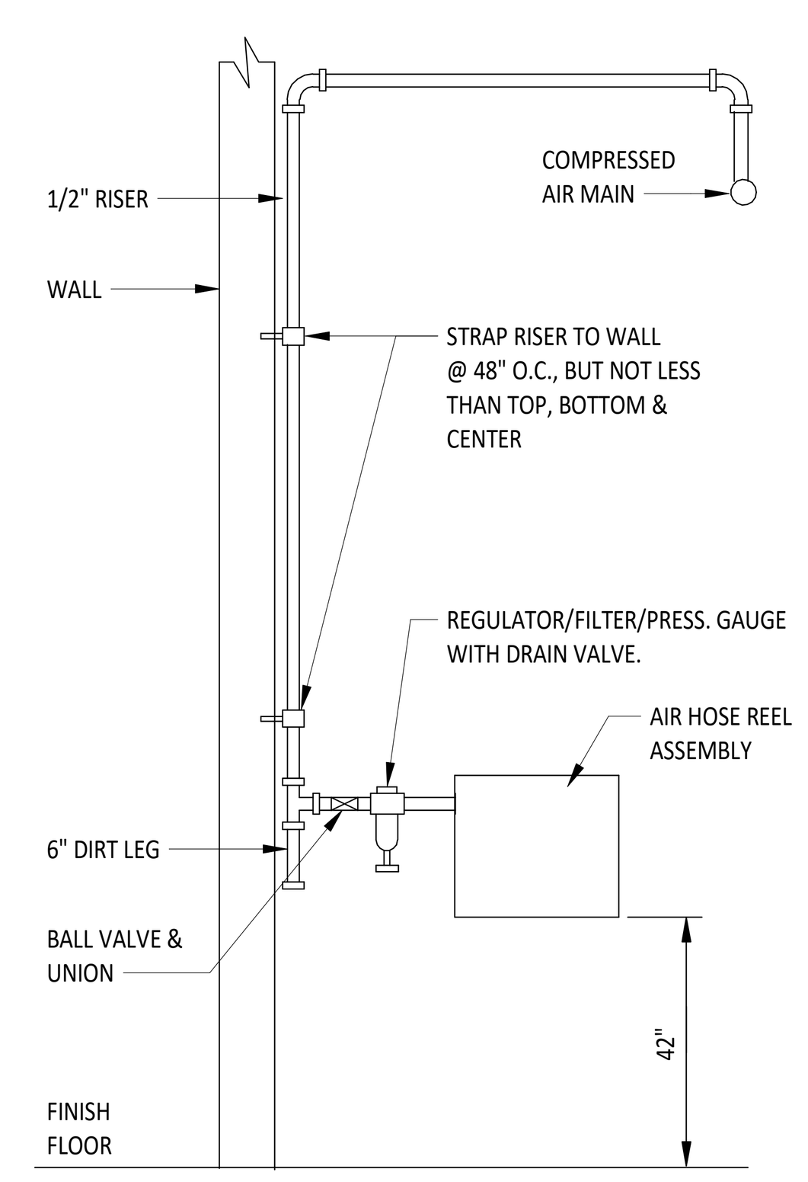
1 P5.1 **WASTE AND VENT RISER DIAGRAM - BASE BID**
NTS



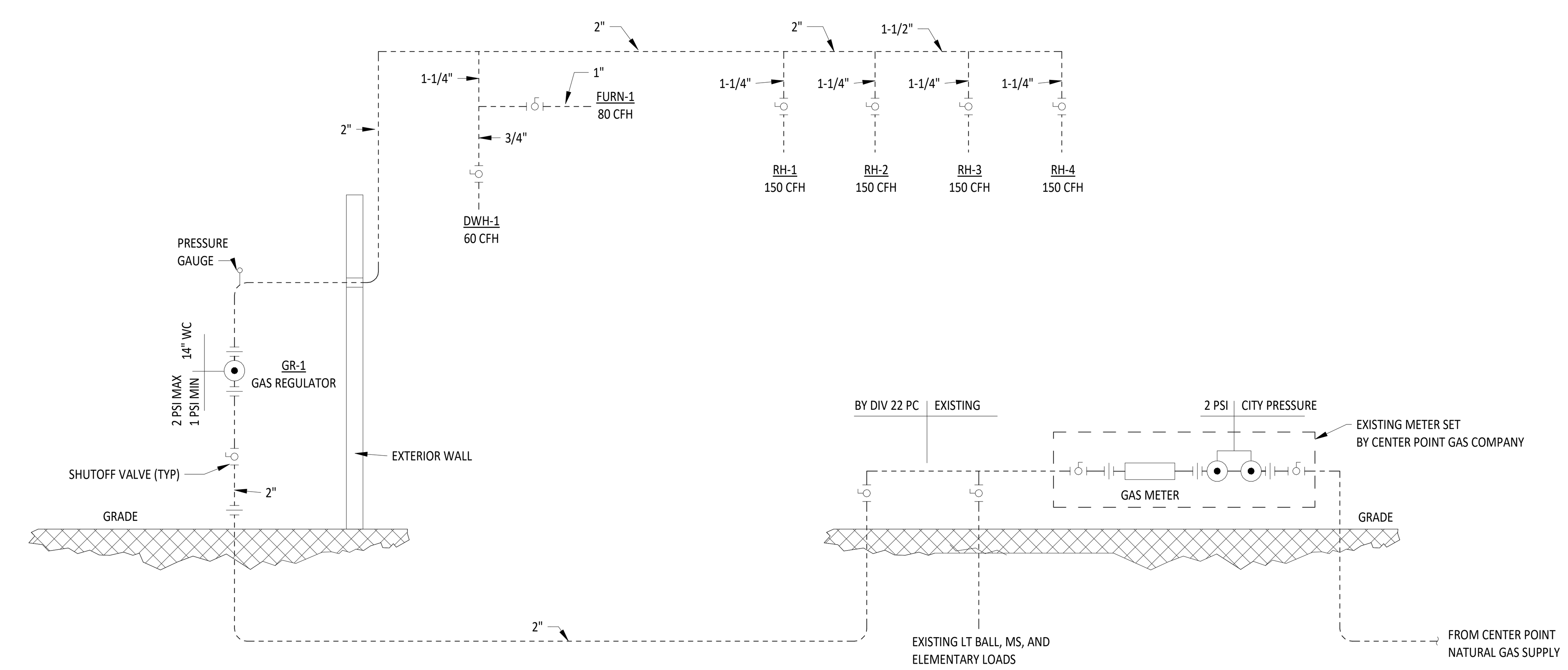
2 P5.1 **WATER HEATER PIPING DETAIL**
NTS



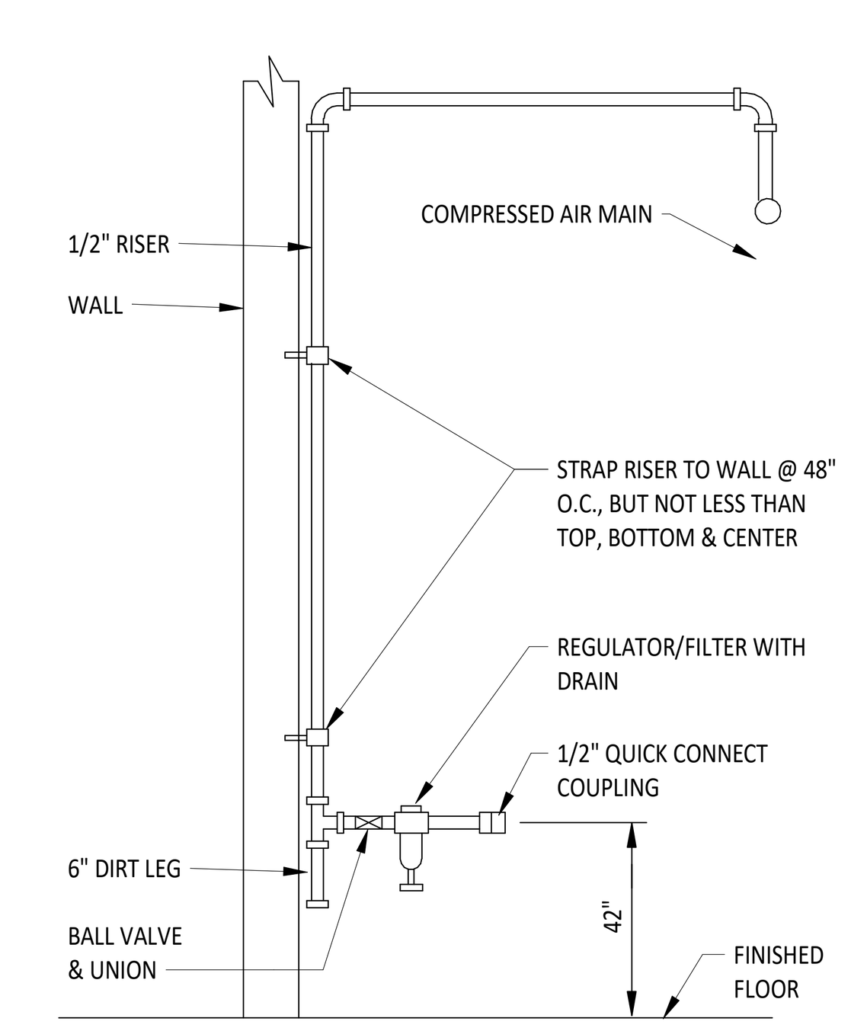
3 P5.1 **SIMPLEX AIR COMPRESSOR DETAIL**
NTS



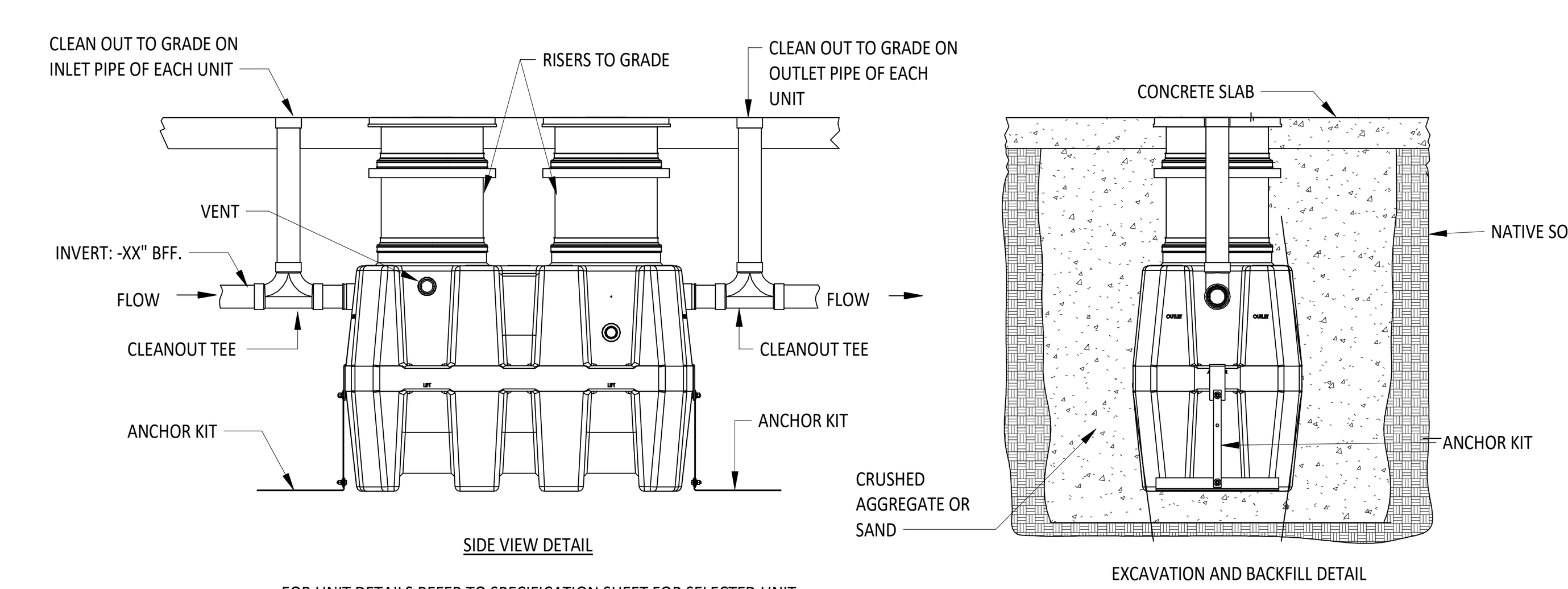
4 P5.1 **COMPRESSED AIR HOSE REEL DETAIL**
NTS



5 P5.1 **NATURAL GAS PIPING DETAIL**
NTS



6 P5.1 **COMPRESSED AIR WALL OUTLET**
NTS



FOR UNIT DETAILS REFER TO SPECIFICATION SHEET FOR SELECTED UNIT

NOTES:

SCHIER OIL SEPARATORS ARE RATED AND MANUFACTURED WITH AN INTERNAL FLOW CONTROL SYSTEM ALREADY INPLACE. THEY DO NOT REQUIRE AN EXTERNAL FLOW CONTROL SYSTEM OR AIR INTAKE VENT. SCHIER OIL SEPARATORS ARE NOT TO BE INSTALLED IN ANY OTHER MANNER EXCEPT AS SHOWN. CONSULT LOCAL CODES FOR SEPARATE TRAPPING REQUIREMENTS, CLEANOUT LOCATIONS AND ADDITIONAL INSTALLATION INSTRUCTIONS.

7 P5.1 **OIL/SAND SEPARATOR DETAIL**
NTS

STATE OF OHIO
ERIC JAMES BALTZELL
E-65072
REGISTERED
PROFESSIONAL ENGINEER
ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

GARMANN MILLER

NEW BUILDING FOR
TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING
575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	DJL	CSM

SHEET TITLE:
SANITARY ISOMETRIC AND DETAILS

SHEET NUMBER:
P5.1

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- NOTE:

	ABBREVIATIONS USED ON THE CONTRACT DOCUMENTS, INCLUDE BUT ARE NOT LIMITED TO THOSE LISTED BELOW.

- CHARACTERS

&	AND
Ø	DIAMETER/ROUND

A

A	AIR
AB	ABOVE BASE
ABV	ABOVE
AC	AIR CONDITIONING
ACOUS	ACOUSTICAL
AD	AREA DRAIN
ADD	ADDENDUM
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY
AG	ABOVE GROUND
ALT	ALTERNATE
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECT/ARCHITECTURAL
AUTO	AUTOMATIC
AV	ACID RESISTANT VENT
AW	ACID RESITANT WASTE

B

BFF	BELOW FINISHED FLOOR
BLDG	BUILDING
BLW	BELOW
BO	BY OTHER
BOT	BOTTOM
BSMT	BASEMENT
BTU	BRITISH THERMAL UNITS
BTUH	BRITISH THERMAL UNITS PER HOUR
BTWN	BETWEEN

C

CAP	CAPACITY
CB	CATCH BASIN
CCW	COUNTER CLOCKWISE
CFCV	CONSTANT FLOW CONTROL VALVE
CFM	CUBIC FEET PER MINUTE
CHW	CIRCULATING HOT WATER
CI	CAST IRON
CLG	CEILING/COOLING
CO	CLEAN OUT
COL	COLUMN
COMB	COMBINATION
CONC	CONCRETE
COND	CONDENSATE
CONF	CONFERENCE
CONN	CONNECT
CONST	CONSTRUCTION
CONT	CONTINUE/CONTINUATION
CONTR	CONTRACT/CONTRACTOR
COORD	COORDINATE
CTR	CENTER
CUFT	CUBIC FEET
CV	CHECK VALVE
CW	COLD WATER
CW	CLOCKWISE

D

D	DEGREE
DB	DRY BULB
DET	DETAIL
DI	DEIONIZED WATER
DIA	DIAMETER
DISCH	DISCHARGE
DIV	DIVISION
DMPR	DAMPER
DN	DOWN
DW	DISTILLED WATER
DWG	DRAWING

E

E/A	EXHAUST AIR
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EL	ELBOW
ELEC	ELECTRICAL
ELEV	ELEVATION
EP	EXPLOSION PROOF
EQ	EQUAL
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EXIST	EXISTING
EXP	EXPANSION JOINT
EXT	EXTERIOR

F

F	DEGREES FAHRENHEIT
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN/FIRE DAMPER
FDV	FIRE DEPARTMENT VALVE
FHC	FIRE HOSE CABINET
FL	FLOOR
FLEX	FLEXIBLE
FLG	FLANGE
FO	FUEL OIL
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL VALVE
FPM	FEET PER MINUTE
FRP	FIBERGLASS REINFORCED PIPE
FS	FULL SIZE/FLOOR SINK
FT	FOOT/FEET
FTG	FOOTING
FTR	FIN TUBE RADIATION
FUT	FUTURE

G

GA	GAGE/GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GENL	GENERAL
GPM	GALLONS PER MINUTE
GR	GRADE
GW	GREASE WASTE

H

HB	HOSE BIB
HD	HEAD
HORZ	HORIZONTAL
HP	HORSE POWER/HIGH PRESSURE
HTG	HEATING
HTR	HEATER
HW	HOT WATER
HYD	HYDRANT

I

ID	INDIRECT
IN	INCH
INL	INLET
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
INWG	INCHES WATER GAUGE

J

JST SPC	JOIST SPACE
JT	JOINT

L

LAB	LABORATORY
LAT	LEAVING AIR TEMPERATURE
LB	POUND
LB/HR	POUNDS PER HOUR
LF	LINEAL FOOT
LP	LOW PRESSURE
LPG	LIQUEFIED PERTOLEUM GAS
LR	LIQUID REFRIGERANT
LVR	LOUVER
LWT	LEAVING WATER TEMPERATURE

M

M/A	MIXED AIR
MAN	MANUAL
MATL	MATERIAL
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBD	MOTORIZED BYPASS DAMPER
MBH	ONE THOUSAND BTU PER HOUR
MCF	ONE THOUSAND CUBIC FEET
MCW	MAKE-UP COLD WATER
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MOTORIZED BYPASS DAMPER
MISC	MISCELLANEOUS
MTR	MOTOR
MU/A	MAKE-UP/AIR

N

N	NECK
NC	NOISE CRITERIA/NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NUMBER/NORMALLY OPEN
NOM	NOMINAL
NTS	NOT TO SCALE

O

O	OXYGEN
O/A	OUTSIDE AIR
OC	ON CENTER
OF	OVERFLOW
OPNG	OPENING
ORD	OVERFLOW ROOF DDRAIN

P

PD	PRESSURE DROP
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PR	PAIR
PREL	PRELIMINARY
PRESS	PRESSURE
PRIM	PRIMARY
PRV	PRESSURE REDUCING VAL
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PW	POTABLE WATER
PWR	POWER

R

R	DUCT RISER
R/A	RETURN AIR
RCP	RADIANT CEILING PANEL
RD	ROOF DRAIN
REC	RECESSED
RED	REDUCER
REFR	REFRIGERATION
REQD	REQUIRED
REV	REVERSE
RH	RELATIVE HUMIDITY
RL/A	RELIEF AIR
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RW	RAIN WATER

S

S/A	SUPPLY AIR
SAN	SANITARY
SCHED	SCHEDULE
SD	SMOKE DAMPER
SECT	SECTION
SF	SQUARE FOOT
SHT	SHEET
SIM	SIMILAR
SLV	SLEEVE
SM	SURFACE MOUNT
SP	STANDPIPE/STATIC PRESSURE
SPEC	SPECIFICATION
SPS	STATIC PRESSURE STATION
SQ	SQUARE
SR	SUCTION REFRIGERANT
SS	STAINLESS STEEL
SSD	SOIL SUBDRAIN
STD	STANDARD
STM	STEAM
STRUCT	STRUCTURAL
SUCT	SUCTION
SUSP	SUSPENDED

T

T	THERMOSTAT
TCP	TEMPERATURE CONTROL PANEL
TD	TEMPERATURE DROP
TDR	TRENCH DRAIN
TEFC	TOTALLY ENCLOSED FAN COOLED
TEMP	TEMPERATURE
TYP	TYPICAL

U

UFD	UNDER FLOOR DUCT
UG	UNDERGROUNG

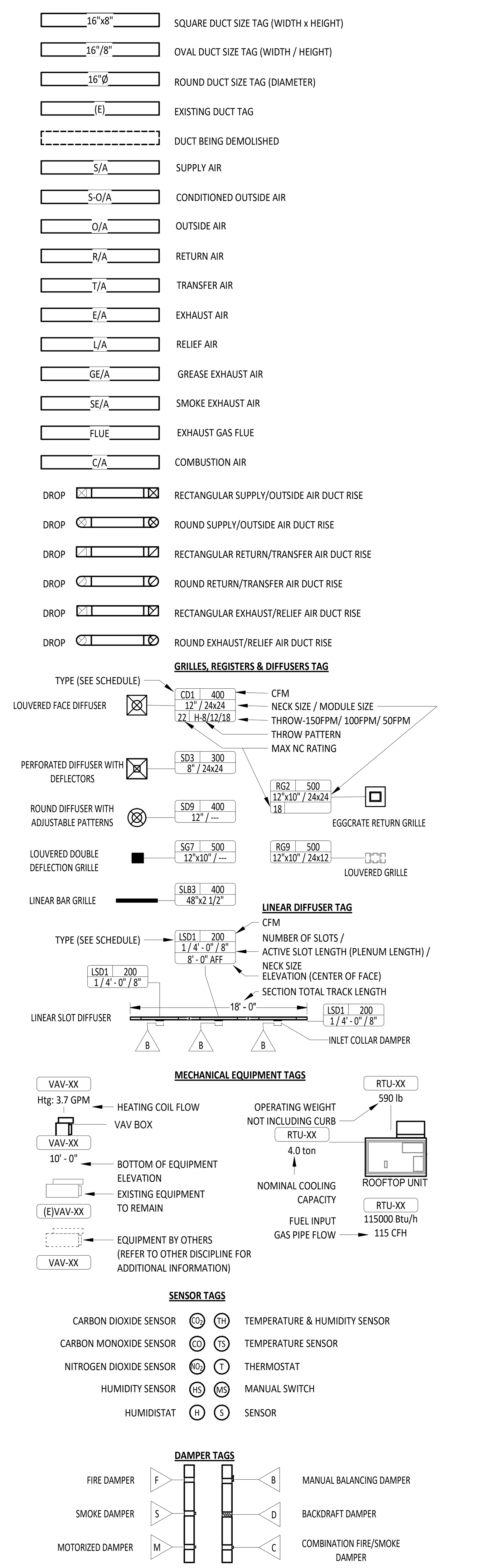
V

V	VENT
VAV	VARIABLE AIR VOLUME
VEL	VELOCITY
VENT	VENTILATION
VERT	VERTICAL
VOL	VOLUME
VTR	VENT THROUGH ROOF

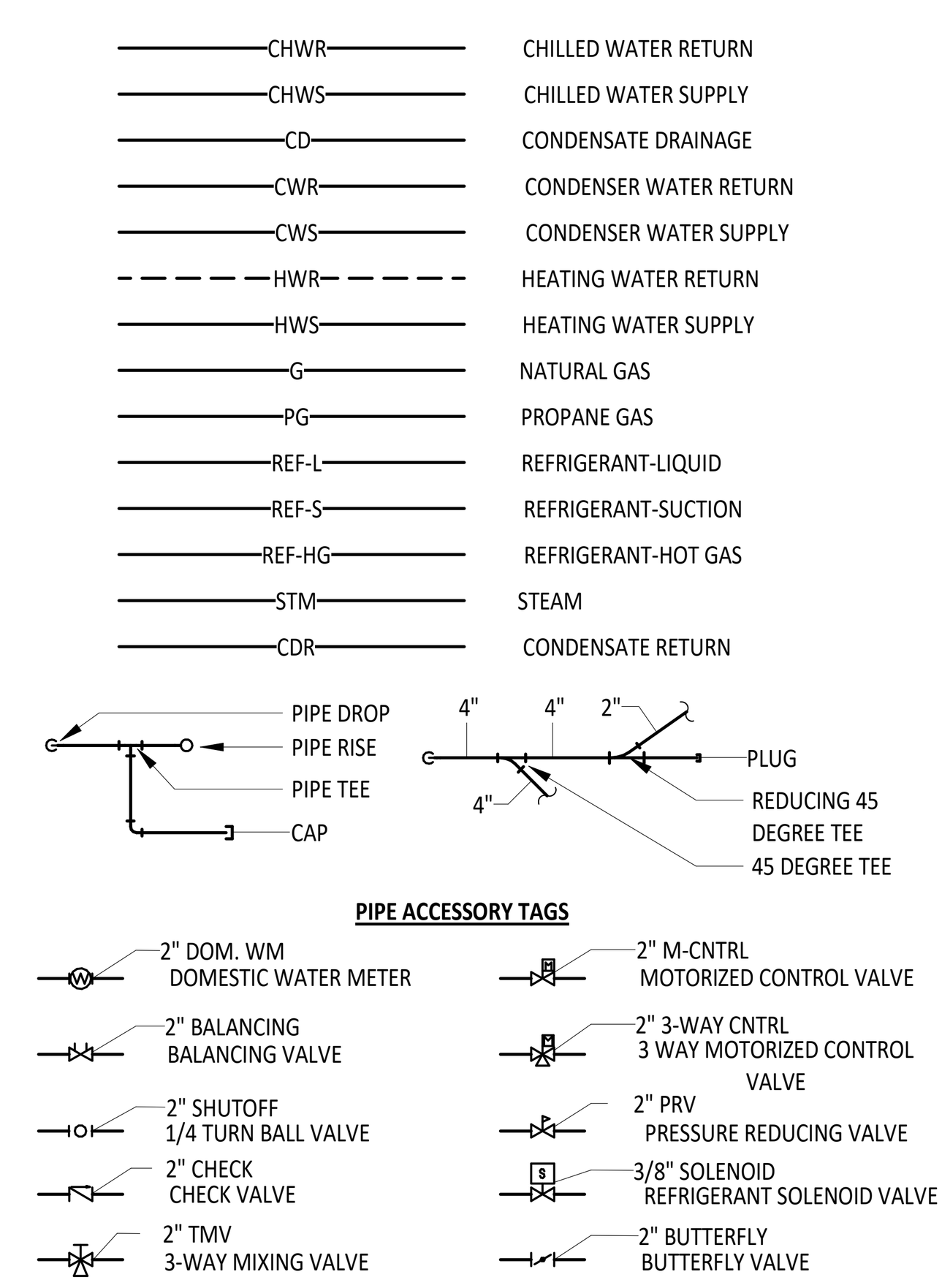
W

W	WASTE
WB	WET BULB
WCO	WALL CLEAN OUT
WH	WALL HYDRANT

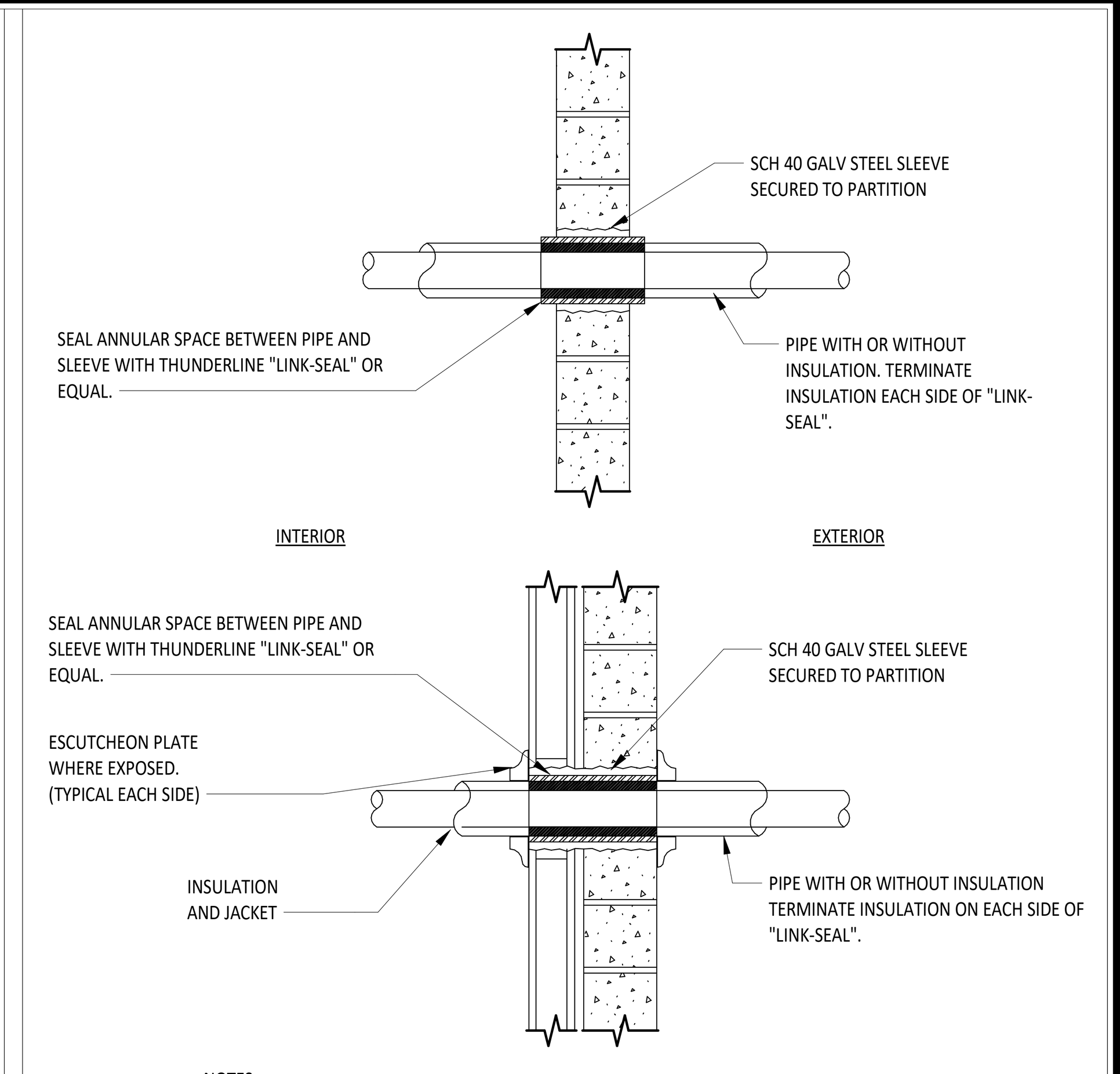
ABBREVIATIONS



1 M1.1 HVAC SYMBOLS
NTS

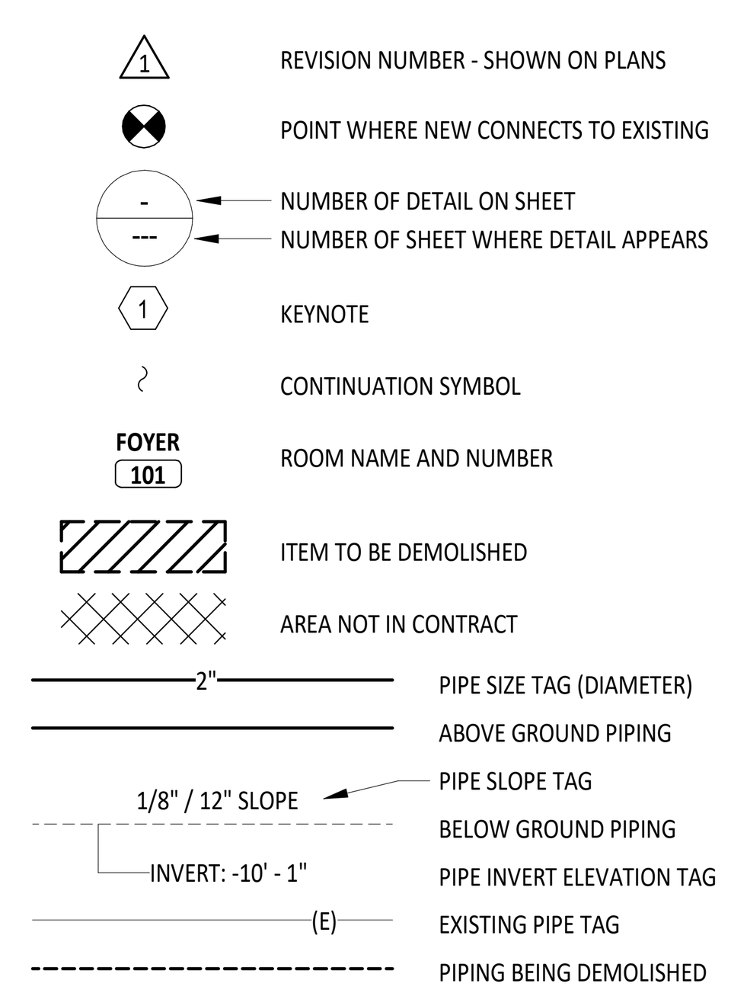


2 M1.1 PIPING SYMBOLS
NTS



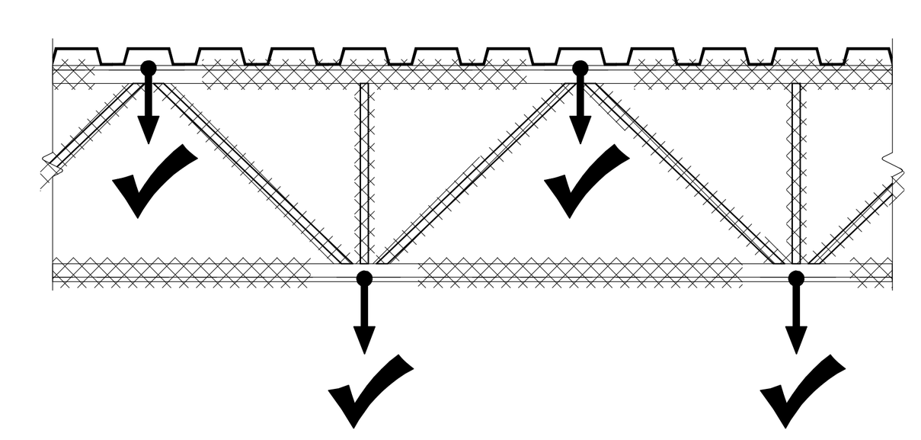
NOTES:
1. TYPICAL FOR NON-INSULATED PIPING AND CONDUIT.
2. TYPICAL FOR MASONRY OR CONCRETE WALL.
3. FOR WALL PENETRATION WITH FIRE RATINGS GREATER THAT (1) HOUR, USE THUNDERLINE "PYRO-PAC" SEALS OR EQUAL.
4. WHERE PIPING EXPOSED AT FINISHED WALL, FLUSH MOUNT SLEEVE, AND PROVIDE AN ESCUTCHEON PLATE.

3 M1.1 PIPE PENETRATION THRU EXTERIOR WALLS
NTS



4 M1.1 GENERAL MECHANICAL SYMBOLS
NTS

ACCEPTABLE LOCATIONS TO HANG LOADS FROM STEEL JOISTS

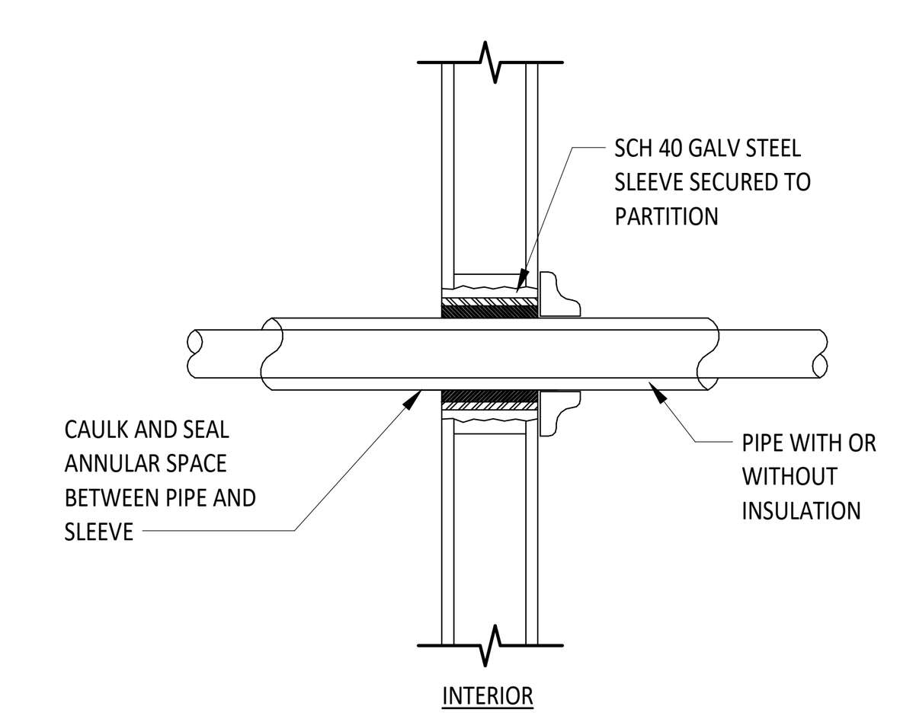


1. LOADS IN EXCESS OF 100 LBS ARE ONLY TO BE HUNG FROM STEEL JOISTS AT THE LOCATIONS INDICATED WITH A CHECKMARK.
2. DO NOT HANG LOADS IN EXCESS OF 100 LBS FROM LOCATIONS AND/OR MEMBERS INDICATED WITH DIAGONAL HATCHING UNLESS ADDITIONAL REINFORCING ANGLES ARE INSTALLED PER THE STRUCTURAL DRAWINGS.
3. LOADS LESS THAN 100 LBS MAY BE HUNG ANYWHERE ALONG THE HORIZONTAL MEMBERS. DO NOT HANG ANY LOADS FROM THE DIAGONAL NOR VERTICAL MEMBERS.
4. THIS SECTIONS APPLIES TO LOADS HANGING FROM BOTH NEW AND EXISTING JOISTS.
5. SPACE HANGERS OUT SO THAT NOT ALL LOADS ARE HANGING FROM THE SAME JOIST.

5 M1.1 JOIST HANGING DETAIL
NTS

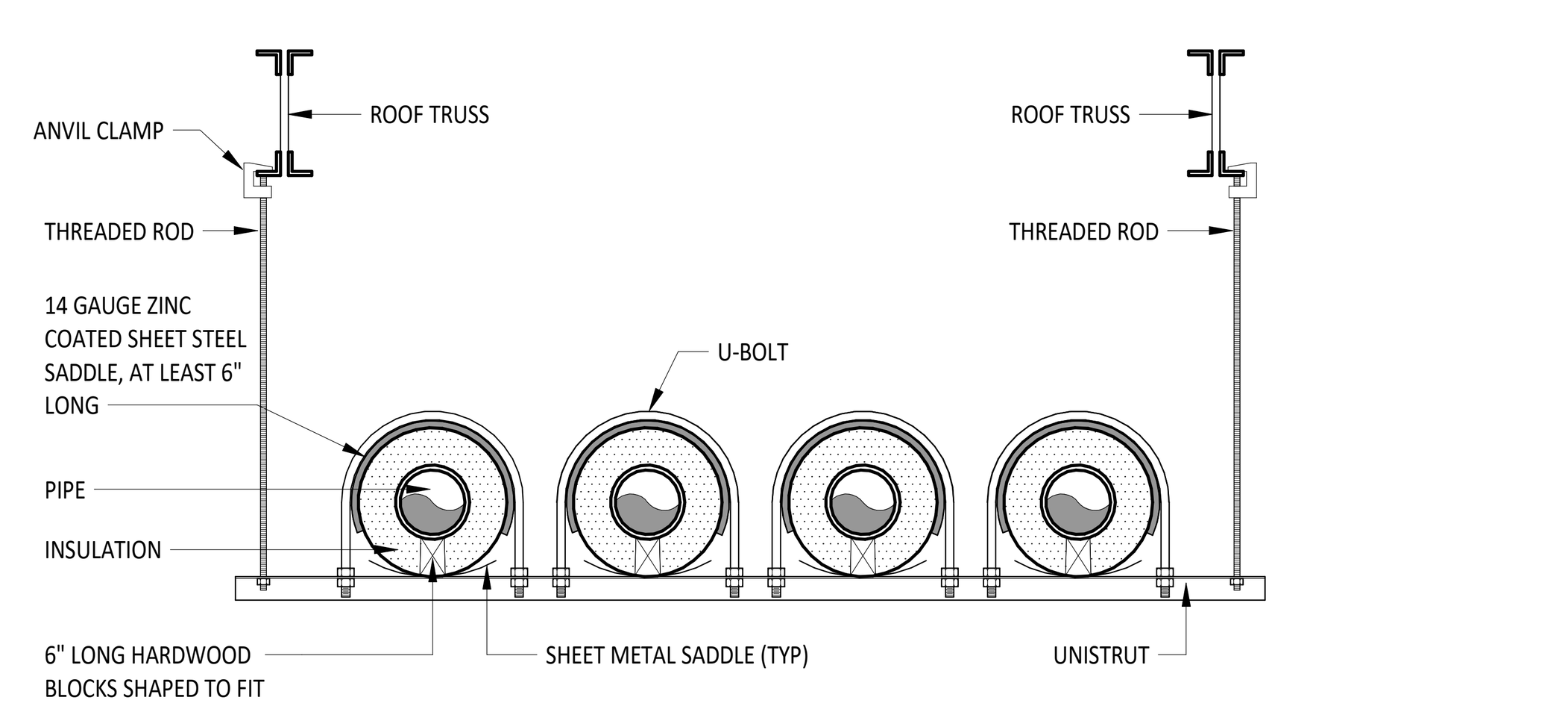
AC	AIR CONDITIONING UNIT	EWH	ELECTRIC WATER HEATER
ACC	AIR COOLED CONDENSER	FCU	FAN COIL UNIT
ACCU	AIR COOLING CONDENSING UNIT	FP	FIRE PUMP
AHU	AIR HANDLING UNIT	GI	GREASE INTERCEPTOR
AS	AIR SEPARATOR	GRV	GRAVITY ROOF VENTILATOR
B	BOILER	HWP	HEATING WATER PUMP
CH	CHILLER	HX	HEAT EXCHANGER
CT	COOLING TOWER	HRU	HEAT RECOVERY UNIT
CH	CABINET UNIT HEATER	PRV	POWER ROOF VENTILATOR
CWP	CONDENSER WATER PUMP	RE	RETURN/EXHAUST FAN
CHWP	CHILLED WATER PUMP	RTU	ROOFTOP UNIT
DBP	DOMESTIC WATER BOOSTER PUMP	SEP	SEWAGE EJECTOR PUMP
DC	DUCT MOUNTED COIL	SF	SUPPLY FAN
DCP	DOMESTIC WATER CIRCULATING PUMP	SP	SUMP PUMP
EF	EXHAUST FAN	UH	UNIT HEATER
EDC	ELECTRIC DUCT COIL	WH	WATER HEATER
ET	EXPANSION TANK		

6 M1.1 EQUIPMENT ABBREVIATIONS
NTS

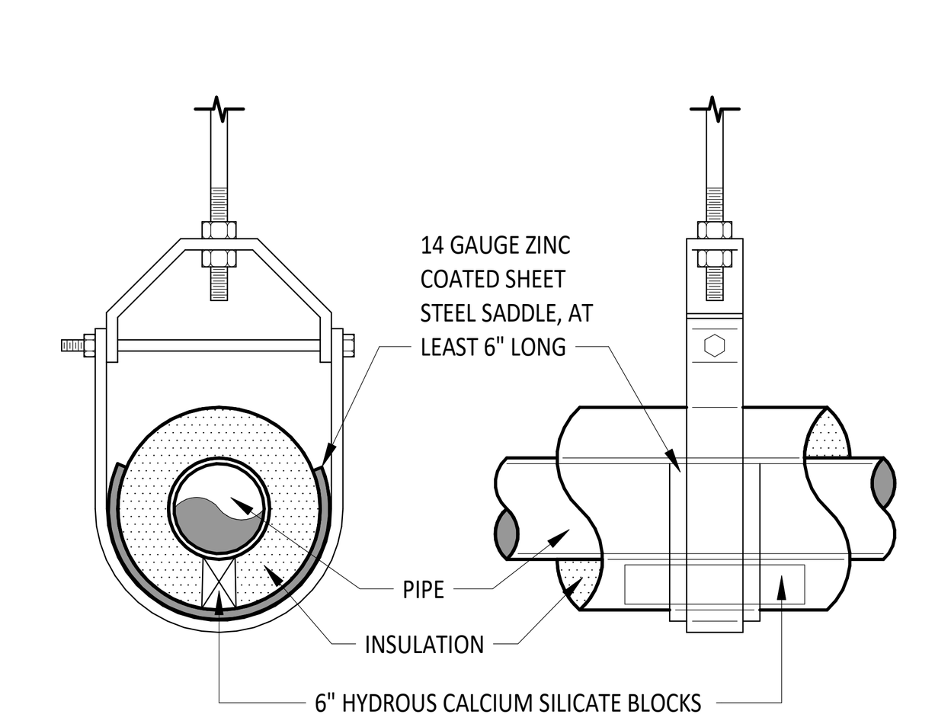


NOTES:
1. TYPICAL FOR NON-INSULATED PIPE AND CONDUIT.
2. ALL CAULKING AND SEALANT SHALL BE FIRE RATED (SEE SPECIFICATIONS).
3. WHERE PIPING IS EXPOSED AT FINISHED WALL, FLUSH MOUNT SLEEVE AND PROVIDE AN ESCUTCHEON PLATE.

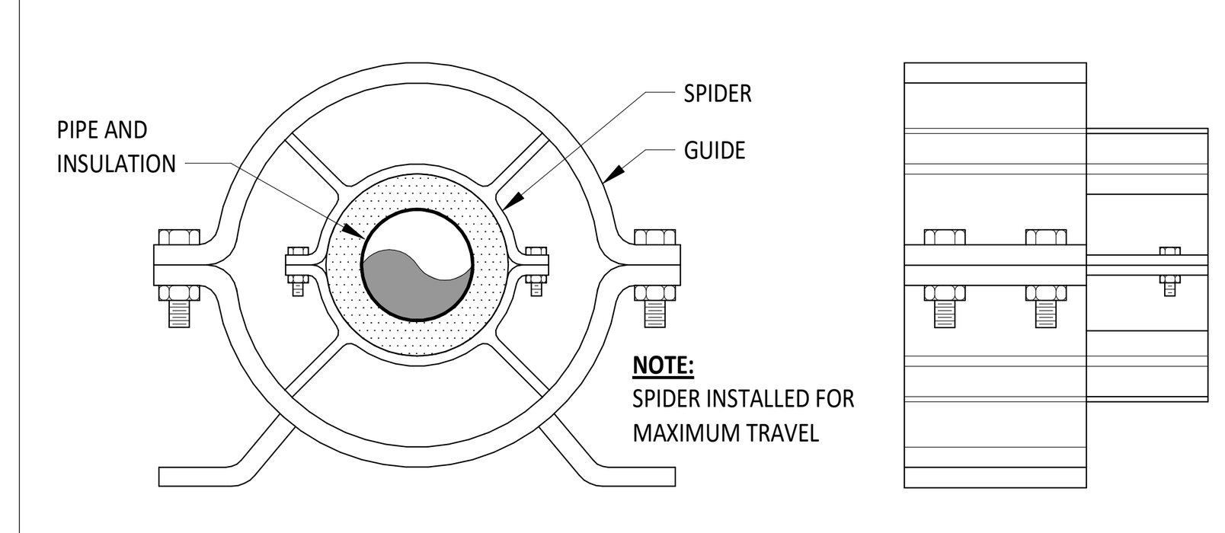
7 M1.1 PIPE PENETRATION THRU INTERIOR WALLS
NTS



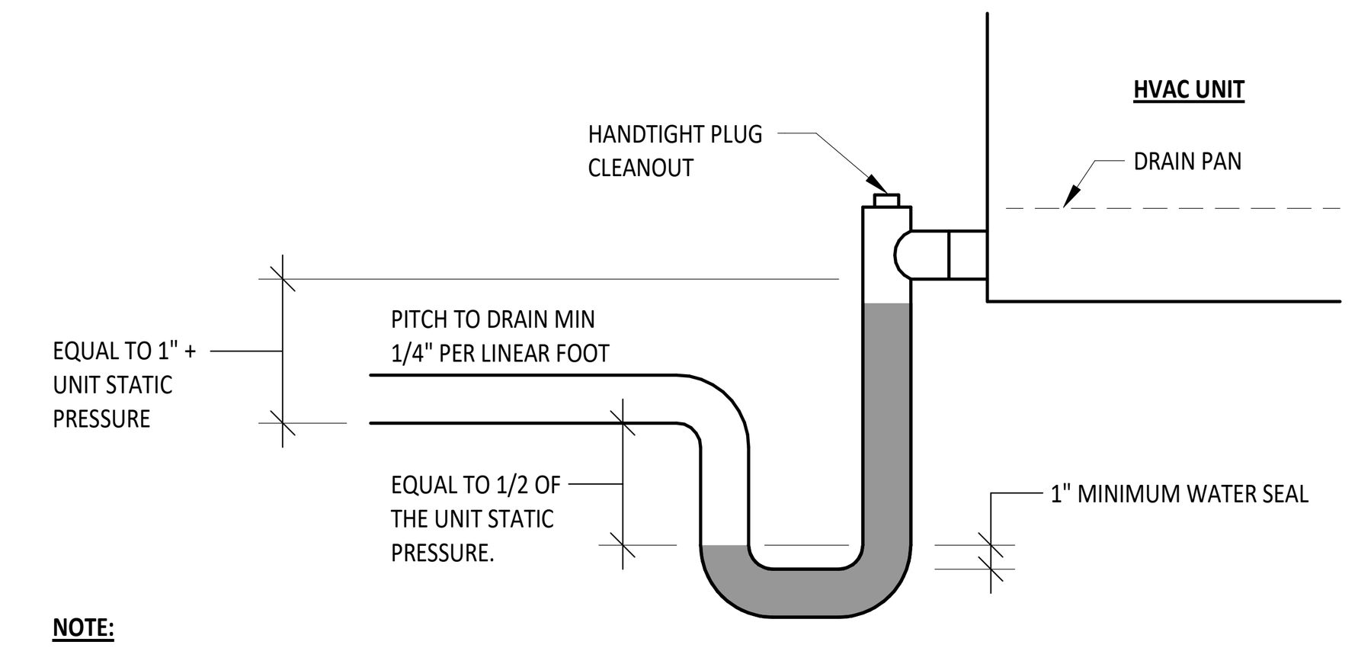
8 M1.1 PLUMBING PIPE HANGER DETAIL
NTS



9 M1.1 CLEVIS PIPE HANGER DETAIL - 6" AND SMALLER
NTS



10 M1.1 PIPE ALIGNMENT GUIDE DETAIL
NTS



NOTE:
1. CONNECT TO UNIT FULL SIZE
2. REFER TO SPECIFICATIONS FOR PIPING REQUIREMENTS.

11 M1.1 CONDENSATE TRAP PIPING DIAGRAM - AIR HANDLER
NTS

MECHANICAL SHEET INDEX

SHEET NUMBER	SHEET NAME
M1.1	GENERAL NOTES, ABBREVIATIONS, LEGENDS AND SHEET INDEX
M2.1	MECHANICAL PLAN
M5.1	MECHANICAL SCHEDULES AND DETAILS

HVAC GENERAL NOTES

A DIVISION 23 MECHANICAL CONTRACTOR IS REQUIRED TO COORDINATE DIFFUSER AND GRILLE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS.

B ALL EQUIPMENT LOCATED ABOVE CEILING REQUIRING MAINTENANCE SHALL BE INSTALLED WITHIN (2) FEET OF THE CEILING FOR MAINTENANCE PURPOSES. DO NOT INSTALL UNITS ABOVE LIGHTS AND CEILING SPEAKERS. COORDINATE LOCATION WITH ARCHITECTURAL REFLECTED CEILING PLAN AND GENERAL CONTRACTOR.

C ANY BALANCING DAMPERS OR OTHER DEVICES IN DUCTS ABOVE HARD CEILINGS SHALL BE LOCATED ABOVE NEAREST ACCESSIBLE CEILING.

D THIS CONTRACTOR SHALL BE REQUIRED TO REPLACE FILTERS ON HVAC EQUIPMENT AFTER ALL DUST PRODUCING CONSTRUCTION HAS BEEN COMPLETED AND PRIOR TO THE FINAL PUNCH.

E ALL ROOF MOUNTED EQUIPMENT SHALL BE A MINIMUM 10'-0" FROM EDGE OF ROOF.

F LOCATE DUCTWORK AND MECHANICAL EQUIPMENT AWAY FROM THE SPACE ABOVE ELECTRICAL PANELS. TRANSFORMERS AND OTHER ELECTRICAL EQUIPMENT.

G FIRE SEAL AROUND DUCT PENETRATIONS OF FIRE RATED WALLS. REFER TO SPECIFICATION.

H PROVIDE SLEEVES AND/OR OPENINGS TO RUN DUCTS THROUGH FOUNDATIONS, FLOORS, WALLS, AND ROOF.

I CONTRACTOR SHALL LOCATE THERMOSTATS AND TEMPERATURE SENSORS AT 3'-8" AFF, A MINIMUM OF 4" FROM LIGHT SWITCH.

J CONDENSATE DRAINS SHALL BE SUPPLIED FOR ALL COOLING EQUIPMENT. CONTRACTOR SHALL ENSURE PROPER INSTALLATION AND DRAINAGE AS REQUIRED BY FEDERAL, STATE, AND LOCAL CODES. CONDENSATE PIPING SHALL BE TYPE "L" COPPER.

K REMOVE ALL UNUSED PIPING, DUCTWORK AND ACCESSORIES. DISPOSE OF THESE ITEMS OFF SITE.

L WHERE FLOOR DRAINS OCCUR WITHIN THE LIMITS OF CONSTRUCTION, PREVENT CONSTRUCTION DEBRIS FROM ENTERING DRAIN BODY BY SEALING DRAIN OPENING PRIOR TO START OF WORK. UNSEAL DRAINS AT COMPLETION OF CONSTRUCTION.

M COORDINATE INSTALLATION OF PIPING, DUCTWORK, CONDUIT, LIGHTS, CABLE TRAY, STRUCTURE, AND EQUIPMENT TO PREVENT CONFLICTS.

N THE CONTRACTOR SHALL BE FAMILIAR WITH ALL THE CONDITIONS BOTH EXISTING AND THOSE ILLUSTRATED BY THESE DOCUMENTS AS WELL AS THOSE WHICH CAN BE REASONABLY ANTICIPATED INCLUDING, BUT NOT LIMITED TO ARCHITECTURAL, ELECTRICAL, VENTILATION, PLUMBING, AND OTHER SYSTEMS INVOLVED ON THIS PROJECT.

O FINAL PRODUCT SHALL BE A COMPLETE AND FUNCTIONING SYSTEM, AND SHALL CONFORM TO ALL REQUIREMENTS OF APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING BUT NOT LIMITED TO THE INTERNATIONAL BUILDING CODE AND INTERNATIONAL MECHANICAL CODE.

P ADJUST PIPING AND DUCTWORK SIZES TO PROPERLY CONNECT TO MECHANICAL EQUIPMENT.

Q INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, AT A LEVEL OF QUALITY AND WORKMANSHIP CONSISTENT WITH THE SPECIFICATIONS.

R LOCATIONS OF PIPING, DUCTWORK AND EQUIPMENT AS INDICATED ON THE DRAWING, ARE APPROXIMATE AND SUBJECT TO MINOR ADJUSTMENTS IN THE FIELD. WORK SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID INTERFERENCE IN THE FIELD. CONSULT ENGINEER IF MANUFACTURER'S MINIMUM CLEARANCE REQUIRED CAN'T BE MAINTAINED.

S INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS.

STATE OF OHIO
ERIC JAMES BALTZELL
E-65072
REGISTERED
PROFESSIONAL ENGINEER
ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

GARMANN MILLER

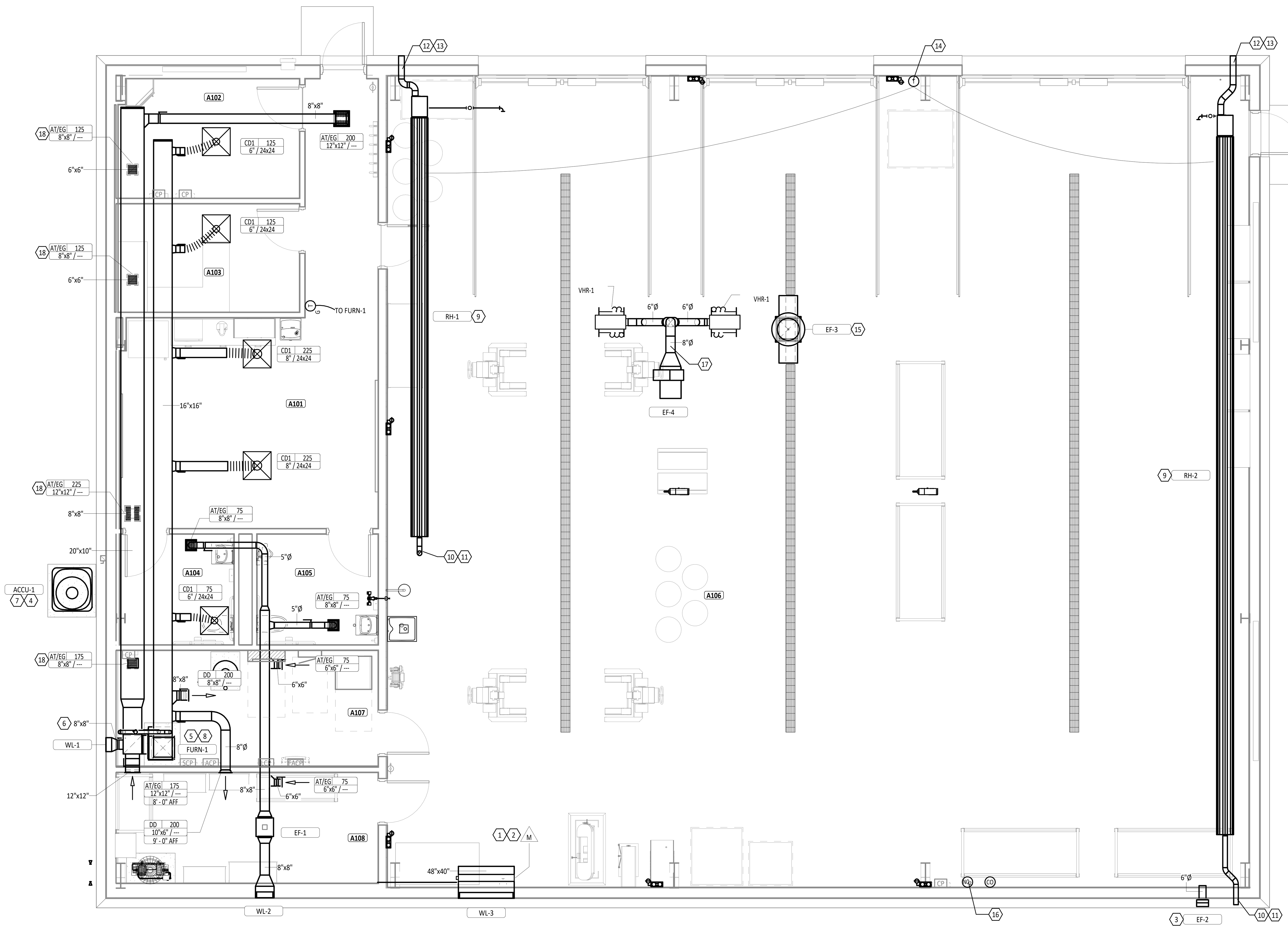
NEW BUILDING FOR
TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING
575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	02/07/2025

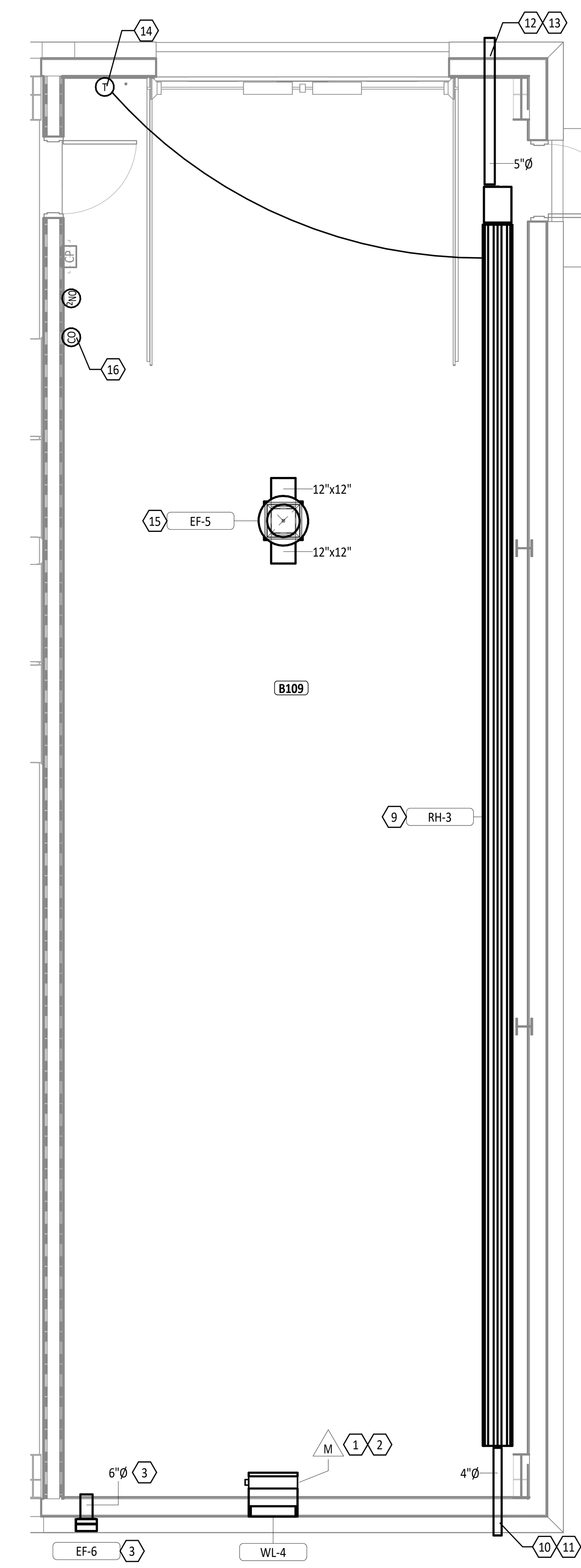
PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	DJL	CSM

SHEET TITLE:
GENERAL NOTES, ABBREVIATIONS, LEGENDS AND SHEET INDEX

SHEET NUMBER:
M1.1



1 M2.1 MECHANICAL PLAN
1/4" = 1'-0"



2 M2.1 ALTERNATE - MECHANICAL PLAN
1/4" = 1'-0"

FIRST FLOOR PLAN ROOM INDEX - UNIT A		
ROOM NUMBER	ROOM NAME	AREA
A101	WORKROOM	368 SF
A102	OFFICE	110 SF
A103	OFFICE	101 SF
A104	UNISEX RESTROOM	65 SF
A105	UNISEX RESTROOM	69 SF
A106	MAINTENANCE BAY	3,608 SF
A107	MECH/ELECTRICAL/AIR COMPRESSOR	156 SF
A107	WORKROOM	Not Placed
A108	STORAGE	149 SF

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S INSTALL EXPOSED PIPING AND DUCTWORK AS HIGH AS PRACTICAL IN ROOMS WITHOUT CEILINGS.

#	KEYNOTE DESCRIPTION
1	END OF DUCT OPEN TO SPACE. PROVIDE RIGID BOARD INSULATION ON DUCT SLEEVE. PROVIDE INSECT SCREEN ON END OF DUCT.
2	OUTSIDE AIR INTAKE. PROVIDE MOTORIZED CONTROL DAMPER IN DUCTWORK. DAMPER SHALL BE NORMALLY SPRING RETURN CLOSED AND INTERLOCKED WITH EXHAUST FAN WITHIN SPACE TO OPEN WHEN FAN IS ENERGIZED. REFER TO SPECIFICATIONS FOR BACKDRAFT DAMPER REQUIREMENTS. WIRING BETWEEN DAMPER ACTUATOR AND FAN TO BE BY DIVISION 26 ELECTRICAL CONTRACTOR.
3	TERMINATE EXHAUST DUCT WITH OR EQUAL TO FANTECH EXHAUST GRILLE MODEL MGE4. MOUNT AT 3'-0" AFF. COORDINATE EXACT LOCATION WITH GENERAL CONTRACTOR.
4	3-1/2" HOUSEKEEPING PAD BY DIVISION 23 MECHANICAL CONTRACTOR. PAD TO EXTEND TO BUILDING AND A MINIMUM OF 0'-6" PAST EDGES OF EQUIPMENT.
5	PROVIDE 3" PVC FLUE AND COMBUSTION AIR PIPE AND ROUTE PER MANUFACTURERS RECOMMENDATIONS. TERMINATE THROUGH ROOF WITH FURNACE MANUFACTURERS CONCENTRIC VENT KIT. COORDINATE ROOF PENETRATION WITH GENERAL CONTRACTOR.
6	8" X 8" OUTSIDE AIR DUCT SHALL BE ROUTED FROM WALL LOUVER TO THE RETURN DUCT FOR FURN-1. DUCT SHALL BE PROVIDED WITH MANUAL BALANCE DAMPER. DAMPER SHALL BE BALANCED FOR 125 CFM.
7	SIZE AND ROUTE REFRIGERANT PIPING FROM INDOOR COIL TO OUTDOOR CONDENSING UNIT PER MANUFACTURERS RECOMMENDATIONS. SEAL EXTERIOR WALL PENETRATION AIR AND WATER TIGHT.
8	ROUTE CONDENSATE LINE TO FLOOR DRAIN WITHIN SPACE. COORDINATE WITH DIVISION 22 PLUMBING CONTRACTOR. PROVIDE TRAP PER MANUFACTURERS RECOMMENDATIONS. REFER TO DETAIL.

#	KEYNOTE DESCRIPTION
9	RADIANT HEATER SYSTEM. PROVIDE WITH ONE SIDE REFLECTOR. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE WITH LIGHTS AND ALL OTHER TRADES.
10	4" SINGLE WALL FLUE THROUGH WALL OR ROOF AT THIS APPROXIMATE LOCATION. PROVIDE AND INSTALL VENT TERMINATION KIT. COORDINATE EXACT LOCATION AND INSTALLATION REQUIREMENTS WITH OTHER TRADES AND MANUFACTURERS REQUIREMENTS.
11	4" DIA, 20 GAUGE, GALVANIZED SPIRAL VENT PIPE. VENT PIPE TO BE SLOPED DOWNWARD AWAY FROM BURNER 1/2" FOR EVERY 20'-0". COORDINATE WITH GENERAL CONTRACTOR.
12	PROVIDE AND INSTALL INTAKE TERMINATION KIT THROUGH THE ROOF OR WALL IN APPROXIMATE LOCATION. COORDINATE EXACT LOCATION AND INSTALLATION WITH OTHER TRADES AND MANUFACTURER'S REQUIREMENTS.
13	5" DIA, 20 GAUGE, GALVANIZED SPIRAL COMBUSTION AIR DUCT.
14	24V 2-STAGE THERMOSTAT / ROOM SENSOR FOR RADIANT HEATING SYSTEM. THERMOSTAT TO BE PROVIDED BY UNIT MANUFACTURER. LOW VOLTAGE, WIRING BY MECHANICAL CONTRACTOR. MOUNT STATS WITH INSULATED WALL PLATE. COORDINATE EXACT LOCATION WITH OWNER.
15	EXHAUST DUCT END OPEN TO SPACE. PROVIDE INSECT SCREEN ON END OF DUCT.
16	LOCATION OF CARBON MONOXIDE (CO) AND NITROGEN DIOXIDE (NO2) SENSORS FOR OPERATION OF EXHAUST FAN WITHIN SPACE. SENSORS SHALL BE PROVIDED AND INSTALLED BY DIVISION 26 ELECTRICAL CONTRACTOR.
17	PROVIDE 45° PANT LEG Y FITTING TO DIVIDE RISER. RISER SHALL BE 8" DIA. MINIMUM 3'-0" OF STRAIGHT DUCT SHALL BE PROVIDED AT FAN INLET.
18	PROVIDE MANUAL VOLUME DAMPER IN VERTICAL DUCT OFF OF RETURN GRILLE.

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STATE OF OHIO
ERIC JAMES BALTZELL
E-65072
REGISTERED
PROFESSIONAL ENGINEER
ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

GARMANN MILLER
MINSTER, OHIO | COLUMBUS, OHIO | INDIANAPOLIS, INDIANA | FORT WAYNE, INDIANA

NEW BUILDING FOR
TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING
575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	DJL	CSM

SHEET TITLE:
MECHANICAL PLAN

SHEET NUMBER:
M2.1

EXHAUST FAN SCHEDULE

ID	LOCATION Space: Name	LOCATION Space: Number	MANUFACTURER	MODEL NO.	TYPE	ARRANGEMENT	FAN AIRFLOW DESIGN	FAN PRESS ESP	FAN RPM	FAN DRIVE TYPE	FAN MOTOR POWER	FAN MOTOR ECM	ROOF CURB	UNIT WEIGHT	FLA	VOLT	PH	CONTROL SPEED CONTROLLER	DISCONNECT TYPE	ACCESSORIES	REMARKS
EF-1	PARTS/FLUID STORAGE	A108	GREENHECK	SQ-90-VG	INLINE	HORIZONTAL	300 CFM	0.50 in-wg	1540	DIRECT	0.10 hp	Yes		47 lb	0.2 A	115 V	1	YES	YES	BACKDRAFT DAMPER	7-DAY PROGRAMMABLE TIMER SWITCH BY DIVISION 26. COORDINATE EXACT LOCATION WITH GENERAL CONTRACTOR.
EF-2	MAINTENANCE BAY	A106	FANTECH	RVF 6	EXTERIOR INLINE	INLINE	243 CFM	0.25 in-wg	2379	DIRECT	0.10 hp	Yes	Yes	9 lb	0.5 A	115 V	1	NO	NO	BACKDRAFT DAMPER	PROVIDE WITH MANUFACTURER BACKDRAFT DAMPER AND METAL EXHAUST GRILLE. 24/7 OPERATION. INSTALL AT 3'-0" AFF.
EF-3	MAINTENANCE BAY	A106	GREENHECK	G-140-VG	ROOF MOUNTED	DOWNFLOW	2700 CFM	0.50 in-wg	1621	DIRECT	1.00 hp	Yes	Yes	63 lb	16.0 A	115 V	1	YES	YES	BACKDRAFT DAMPER	MANUAL CONTROLS BY DIVISION 26 WITH GAS DETECTION AND TOGGLE SWITCH.
EF-4	MAINTENANCE BAY	A106	GREENHECK	USF-13	ROOF MOUNTED	UPBLAST	1200 CFM	4.00 in-wg	2554	DIRECT	1.50 hp	Yes	Yes	226 lb	6.6 A	208 V	3	YES	YES	BACKDRAFT DAMPER	STARTER BY DIVISION 26.

EXHAUST FAN SCHEDULE - ALTERNATE BID

ID	LOCATION Space: Name	LOCATION Space: Number	MANUFACTURER	MODEL NO.	TYPE	ARRANGEMENT	FAN AIRFLOW DESIGN	FAN PRESS ESP	FAN RPM	FAN DRIVE TYPE	FAN MOTOR POWER	FAN MOTOR ECM	ROOF CURB	UNIT WEIGHT	FLA	VOLT	PH	CONTROL SPEED CONTROLLER	DISCONNECT TYPE	ACCESSORIES	REMARKS
EF-5	MAINTENANCE BAY	B109	GREENHECK	G-099-VG	ROOF MOUNTED	DOWNFLOW	850 CFM	0.50 in-wg	1496	DIRECT	0.25 hp	Yes	Yes	41 lb	5.8 A	115 V	1	YES	YES	BACKDRAFT DAMPER	MANUAL CONTROLS BY DIVISION 26 WITH GAS DETECTION AND TOGGLE SWITCH.
EF-6	MAINTENANCE BAY	B109	FANTECH	RVF 6	EXTERIOR INLINE	INLINE	243 CFM	0.25 in-wg	2379	DIRECT	0.10 hp	Yes	Yes	9 lb	0.5 A	115 V	1	NO	NO	BACKDRAFT DAMPER	PROVIDE WITH MANUFACTURER BACKDRAFT DAMPER AND METAL EXHAUST GRILLE. 24/7 OPERATION. INSTALL AT 3'-0" AFF.

GAS-FIRED FURNACE SCHEDULE

ID	LOCATION NAME	LOCATION NO.	MANUFACTURER	MODEL NO.	ARRANGEMENT	SUPPLY AIR FLOW	OUTSIDE AIR FLOW	FAN PRESS ESP	FAN DRIVE TYPE	FAN MOTOR QTY	FAN MOTOR POWER	GAS BURNER INPUT	GAS BURNER CAP	GAS BURNER QTY	GAS BURNER STAGES	FUEL TYPE	FUEL PRESS AVAIL	AIRSIDE EAT(db)	AIRSIDE LAT(db)	AFUE	FILTER TYPE	UNIT WEIGHT	MCA	MOCP	VOLT	PH	INTERLOCK ID	REMARKS
FURN-1	MECH/ELECTRICAL/AIR COMPRESSOR	A107	CARRIER	59TP6B080V17	UPFLOW	1175 CFM	125 CFM	0.50 in-wg	DIRECT VARIABLE SPEED	1	1.0 hp	80000 Btu/h	74400 Btu/h	1	2	NG	0.5 psi	54.00 °F	112.6 °F	96%	1" MERV 8	162 lb	10 A	15 A	115 V	1	ACCU-1	VARIABLE SPEED FAN; EXTERNAL FILTER CABINET; PROGRAMMABLE T-STAT

AIR COOLED CONDENSING UNIT

ID	MANUFACTURER	MODEL NO.	COMPRESSOR AHRI TOTAL CAPACITY	SEER	EER	MCA	MOCP	VOLT	PH	INTERLOCK ID	REMARKS
ACCU-1	CARRIER	24ACB736A003	36000 Btu/h	15	12.5	20 A	35 A	208 V	1	FURN-1	PROVIDE MATCHING CASED INDOOR A-COIL. MOUNT ON NEOPRENE ISOLATORS.

INFRARED HEATING SYSTEM SCHEDULE - BASE BID

ID	LOCATION NAME	LOCATION NO.	MANUFACTURER	MODEL NO.	TYPE	ARRANGEMENT	GAS-FIRED HEAT EXCHANGER TYPE	GAS BURNER INPUT	GAS BURNER INPUT @ MIN FIRE	GAS BURNER STAGES	FUEL TYPE	FUEL PRESS AVAIL	AFUE	UNIT DIMENSIONS UNIT LENGTH	UNIT WEIGHT	FLA	MCA	MOCP	VOLT	PH	REMARKS
RH-1	MAINTENANCE BAY	A106	ROBERTS GORDON	CTH3-150	RADIANT	DOWNWARD REFLECTOR	MODULATING	150000 Btu/h	100000 Btu/h	2	NG	0.5 psi	80%	30' - 0"	250 lb	1 A	2 A	15 A	120 V	1	PROVIDE ONE SIDE REFLECTOR. MOUNT AS HIGH AS POSSIBLE IN COORDINATION WITH MANUFACTURER'S REQUIRED CLEARANCES. COORDIANTE MOUNTING HEIGHT WITH STRUCTURE AND LIGHTS. PROVIDE WITH MANUFACTURER'S FRESH AIR INTAKE AND TERMINATION KIT. PROVIDE THERMOSTAT.
RH-2	MAINTENANCE BAY	A106	ROBERTS GORDON	CTH3-150	RADIANT	DOWNWARD REFLECTOR	MODULATING	150000 Btu/h	100000 Btu/h	2	NG	0.5 psi	80%	50' - 0"	250 lb	1 A	2 A	15 A	120 V	1	PROVIDE ONE SIDE REFLECTOR. MOUNT AS HIGH AS POSSIBLE IN COORDINATION WITH MANUFACTURER'S REQUIRED CLEARANCES. COORDIANTE MOUNTING HEIGHT WITH STRUCTURE AND LIGHTS. PROVIDE WITH MANUFACTURER'S FRESH AIR INTAKE AND TERMINATION KIT. PROVIDE THERMOSTAT.

INFRARED HEATING SYSTEM SCHEDULE - ALTERNATE BID

ID	LOCATION NAME	LOCATION NO.	MANUFACTURER	MODEL NO.	TYPE	ARRANGEMENT	GAS-FIRED HEAT EXCHANGER TYPE	GAS BURNER INPUT	GAS BURNER INPUT @ MIN FIRE	GAS BURNER STAGES	FUEL TYPE	FUEL PRESS AVAIL	AFUE	UNIT DIMENSIONS UNIT LENGTH	UNIT WEIGHT	FLA	MCA	MOCP	VOLT	PH	REMARKS
RH-3	MAINTENANCE BAY	B109	ROBERTS GORDON	CTH3-150	RADIANT	DOWNWARD REFLECTOR	MODULATING	150000 Btu/h	100000 Btu/h	2	NG	0.5 psi	80%	50' - 0"	250 lb	1 A	2 A	15 A	120 V	1	PROVIDE ONE SIDE REFLECTOR. MOUNT AS HIGH AS POSSIBLE IN COORDINATION WITH MANUFACTURER'S REQUIRED CLEARANCES. COORDIANTE MOUNTING HEIGHT WITH STRUCTURE AND LIGHTS. PROVIDE WITH MANUFACTURER'S FRESH AIR INTAKE AND TERMINATION KIT. PROVIDE THERMOSTAT.

ASHRAE 62.1 EXHAUST RATE PROCEDURE SUMMARY - BASE BID

Zone	Level	LOCATION NO.	LOCATION NAME	Occupancy Category	Area, Az	Exhaust Rate	Exhaust Rate per Fixture	Numer of Fixtures	Calculated exhaust (Restrooms)	Calculated Exhaust (per SF)	Specified Exhaust Airflow	Individual Exhaust Air Flow	Actual Exhaust Airflow	Exhaust Thru ERW	Specified -Actual = 0CFM?
FURN-1	FIRST FLOOR	A101	WORKROOM	Conference/meeting	368 SF						0 CFM		0 CFM		0 CFM
FURN-1	FIRST FLOOR	A102	OFFICE	Office space	110 SF						0 CFM		0 CFM		0 CFM
FURN-1	FIRST FLOOR	A103	OFFICE	Office space	101 SF						0 CFM		0 CFM		0 CFM
FURN-1	FIRST FLOOR	A104	UNISEX RESTROOM	Toilets (public)	65 SF		75 CFM	1	75 CFM		75 CFM		75 CFM		0 CFM
FURN-1	FIRST FLOOR	A105	UNISEX RESTROOM	Toilets (public)	69 SF		75 CFM	1	75 CFM		75 CFM		75 CFM		0 CFM
FURN-1	FIRST FLOOR	A107	MECH/ELECTRICAL/AIR COMPRESSOR	Non-Occupiable	156 SF	0.50 CFM/SF				78 CFM	75 CFM		0 CFM		75 CFM
FURN-1	FIRST FLOOR	A108	PARTS/FLUID STORAGE	Non-Occupiable	149 SF	0.50 CFM/SF				75 CFM	75 CFM		0 CFM		75 CFM
FURN-1: 7					1018 SF						300 CFM	0 CFM	150 CFM	0 CFM	
HEATING ONLY	FIRST FLOOR	A106	MAINTENANCE BAY	Warehouses	3608 SF	0.75 CFM/SF				2706 CFM	2700 CFM		0 CFM		2700 CFM
HEATING ONLY: 1					3608 SF						2700 CFM	0 CFM	0 CFM	0 CFM	

ASHRAE 62.1 EXHAUST RATE PROCEDURE SUMMARY - ALTERNATE BID

Zone	Level	LOCATION NO.	LOCATION NAME	Occupancy Category	Area, Az	Exhaust Rate	Exhaust Rate per Fixture	Numer of Fixtures	Calculated exhaust (Restrooms)	Calculated Exhaust (per SF)	Specified Exhaust Airflow	Individual Exhaust Air Flow	Actual Exhaust Airflow	Exhaust Thru ERW	Specified -Actual = 0CFM?
Default	FIRST FLOOR	B109	MAINTENANCE BAY	Warehouses	1115 SF	0.75 CFM/SF				836 CFM	850 CFM	850 CFM	0 CFM	0 CFM	850 CFM
Default: 1					1115 SF						850 CFM	850 CFM	0 CFM	0 CFM	

ASHRAE 62.1 VENTILATION RATE PROCEDURE SUMMARY - BASE BID

ROOM IDENTITY NO.	LOCATION NAME	Occupancy Category	Area, Az	Selected Supply Airflow	Number of People, Pz	Outdoor Airflow Rate Per Person, Rp	Outdoor Airflow Rate Per Unit Area, Ra	Zone Air Distribution Effectiveness, Ez	Breathing Zone Outdoor Airflow, Voz	Required Outdoor Air Intake Flow, Vot	OA Delivered	Specified Exhaust Airflow
A101	WORKROOM	Conference/meeting	368 SF	450 CFM	10	5.0 CFM	0.06 CFM/SF	0.8	72 CFM	90 CFM	95 CFM	0 CFM
A102	OFFICE	Office space	110 SF	125 CFM	1	5.0 CFM	0.06 CFM/SF	0.8	12 CFM	15 CFM	15 CFM	0 CFM
A103	OFFICE	Office space	101 SF	125 CFM	1	5.0 CFM	0.06 CFM/SF	0.8	11 CFM	14 CFM	15 CFM	0 CFM
A104	UNISEX RESTROOM	Toilets (public)	65 SF	75 CFM	0							75 CFM
A105	UNISEX RESTROOM	Toilets (public)	69 SF	0 CFM	0							75 CFM
A107	MECH/ELECTRICAL/AIR COMPRESSOR	Non-Occupiable	156 SF	200 CFM	0							75 CFM
A108	PARTS/FLUID STORAGE	Non-Occupiable	149 SF	200 CFM	0							75 CFM
FURN-1: 7			1018 SF	1175 CFM	12				95 CFM	118 CFM	125 CFM	300 CFM
A106	MAINTENANCE BAY	Warehouses	3608 SF	0 CFM	0	0.0 CFM	0.06 CFM/SF	1	216 CFM	216 CFM		2700 CFM
HEATING ONLY: 1			3608 SF	0 CFM	0				216 CFM	216 CFM	0 CFM	2700 CFM

ASHRAE 62.1 VENTILATION RATE PROCEDURE SUMMARY - ALTERNATE BID

ROOM IDENTITY NO.	LOCATION NAME	Occupancy Category	Area, Az	Selected Supply Airflow	Number of People, Pz	Outdoor Airflow Rate Per Person, Rp	Outdoor Airflow Rate Per Unit Area, Ra	Zone Air Distribution Effectiveness, Ez	Breathing Zone Outdoor Airflow, Voz	Required Outdoor Air Intake Flow, Vot	OA Delivered	Specified Exhaust Airflow
B109	MAINTENANCE BAY	Warehouses	1115 SF	0 CFM	0	0.0 CFM	0.06 CFM/SF	1	67 CFM	67 CFM		850 CFM
Default: 1			1115 SF	0 CFM	0				67 CFM	67 CFM	0 CFM	850 CFM

LOUVER SCHEDULE - BASE BID

ID	SERVES	MANUFACTURER	MODEL NO.	TYPE	DESIGN AIRFLOW	PD	DIMENSIONS WIDTH	DIMENSIONS HEIGHT	DIMENSIONS TOP MOUNT HEIGHT	UNIT WEIGHT	REMARKS
WL-1	FURN-1 OA	GREENHECK	EHH-501	WIND-DRIVEN	125 CFM	0.50 in-wg	12"	12"	5' - 0"	6 lb	COLOR TO BE SELECTED BY ARCHITECT.
WL-2	EF-1 EXHAUST	GREENHECK	EHH-501	WIND-DRIVEN	300 CFM	0.10 in-wg	16"	16"	9' - 0"	11 lb	COLOR TO BE SELECTED BY ARCHITECT.
WL-3	EF-3 INTAKE	GREENHECK	EHH-501	WIND-DRIVEN	2700 CFM	0.05 in-wg	48"	40"	15' - 0"	88 lb	COLOR TO BE SELECTED BY ARCHITECT.

LOUVER SCHEDULE - ALTERNATE BID

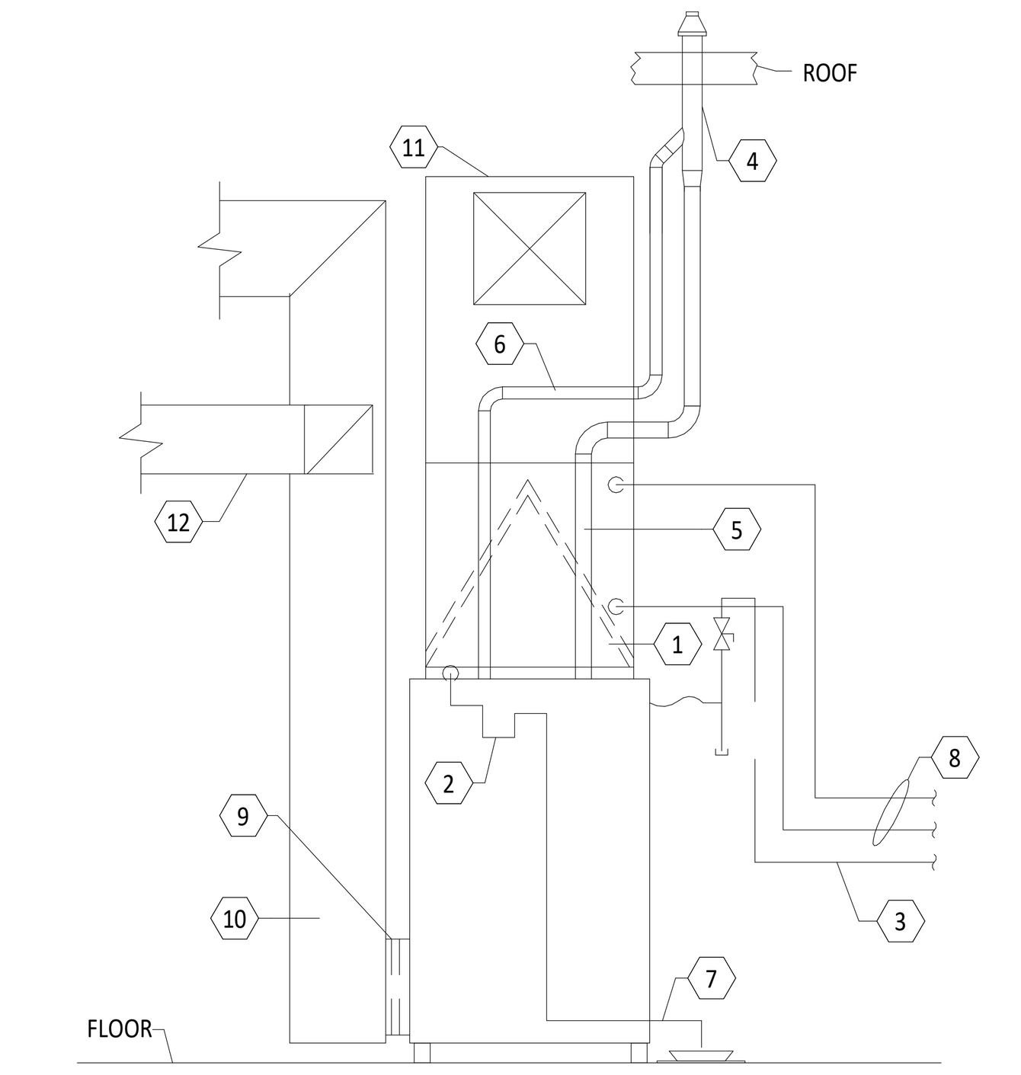
ID	SERVES	MANUFACTURER	MODEL NO.	TYPE	DESIGN AIRFLOW	PD	DIMENSIONS WIDTH	DIMENSIONS HEIGHT	DIMENSIONS TOP MOUNT HEIGHT	UNIT WEIGHT	REMARKS
WL-4	EF-5 INTAKE	GREENHECK	EHH-501	WIND-DRIVEN	850 CFM	0.05 in-wg	24"	24"	15' - 0"	88 lb	COLOR TO BE SELECTED BY ARCHITECT.

VEHICLE EXHAUST TERMINATIONS

MARK	MFG	MODEL	DESCRIPTION
VHR-1	MONOXIVENT	9000-W- HOSE WITH REEL / 23827-SC-SL TAILPIPE PIECE	4"Ø SPRING RETURN HOSE REEL ASSEMBLY WITH MANUAL EXTENSION HOSE REEL WITH SPRING RETURN BY LOCK AND LATCH FEATURE. 18" DRUM WIDTH. SERIES 4000 HOSE, 4"Ø AT 40 FT LENGTH. NEOPRENE LARGE OVAL TAILPIPE ADAPTER WITH SPRING CLAMP. MOUNT TO BOTTOM OF STRUCTURE. SUPPORT FROM ROOF STRUCTURE. PROVIDE ADDITIONAL STRUCTURAL SUPPORT AS REQUIRED.
VHR-1: 2			

GRILLES, REGISTERS AND DIFFUSERS SCHEDULE

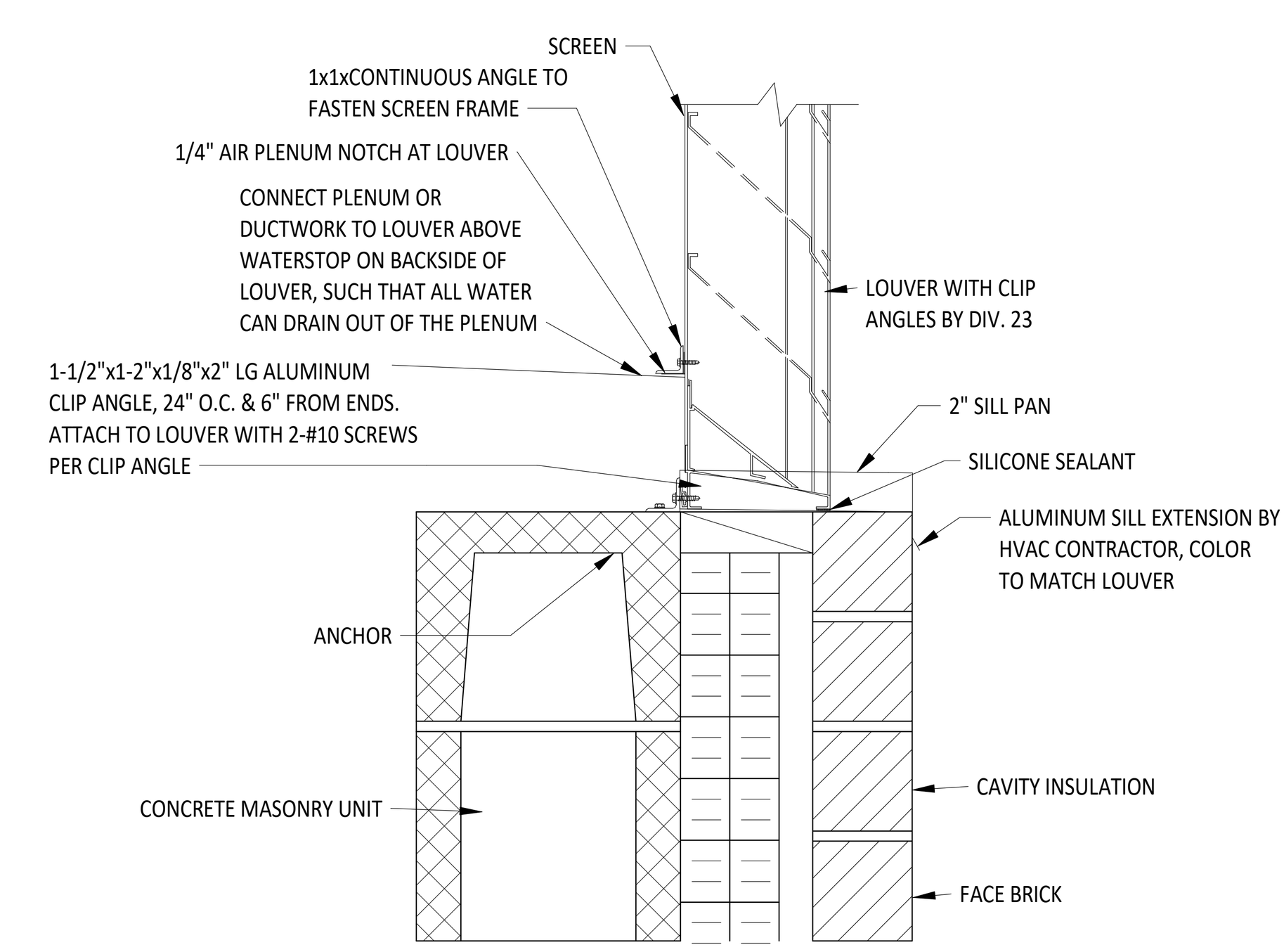
ID	DESCRIPTION	MANUFACTURER	MODEL	QTY	FACE SIZE	NECK SIZE	NECK WIDTH	NECK HEIGHT	BLADE DESIGN THICKNESS	BLADE DESIGN SPACING	DEFLECTION ANGLE SINGLE	DEFLECTION ANGLE DOUBLE	ORIENTATION	INSTALLATION BORDER TYPE	NOTES
CD1	LOUVERED FACE DIFFUSER	TITUS	TDC-AA	2	24x24	8"								TYPE 3 (LAY-IN)	18" x 18" CORE. REFER TO SPECIFICATIONS.
CD1	LOUVERED FACE DIFFUSER	TITUS	TDC-AA	3	24x24	6"								TYPE 3 (LAY-IN)	18" x 18" CORE. REFER TO SPECIFICATIONS.
DD	LOUVERED DOUBLE DEFLECTION GRILLE	TITUS	S300FS	1	---		10"	6"	1/8"	3/4"	45.0°	0.0°	DOUBLE-SHORT	DUCT MOUNT INSTALLATION	REFER TO SPECIFICATIONS.
AT/EG	LOUVERED GRILLE	TITUS	355FL	2	---		6"	6"	1/8"	1/2"	35.0°		LONG	TYPE 1 (SURFACE)	REFER TO SPECIFICATIONS.
DD	LOUVERED DOUBLE DEFLECTION GRILLE	TITUS	S300FS	1	---		8"	8"	1/8"	3/4"	45.0°	0.0°	DOUBLE-SHORT	DUCT MOUNT INSTALLATION	REFER TO SPECIFICATIONS.
AT/EG	LOUVERED GRILLE	TITUS	355FL	5	---		8"	8"	1/8"	1/2"	35.0°		LONG	TYPE 1 (SURFACE)	REFER TO SPECIFICATIONS.
AT/EG	LOUVERED GRILLE	TITUS	355FL	3	---		12"	12"	1/8"	1/2"	35.0°		LONG	TYPE 1 (SURFACE)	REFER TO SPECIFICATIONS.



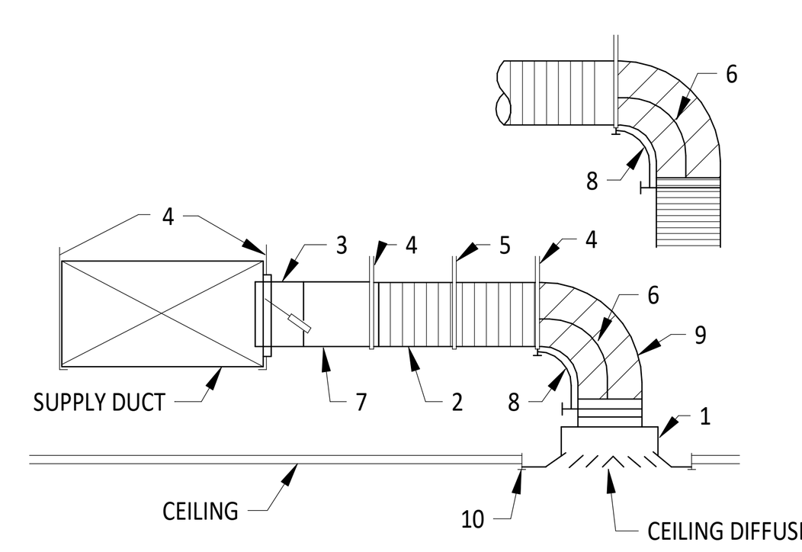
KEYNOTE

1. CASED DX COIL - A OR N COIL WITH DRAIN PAN
2. TRAPPED CONDENSATE DRAIN LINE W/ CLEANOUT AND BRUSH
3. GAS PIPING WITH SHUTOFF VALVE AND DIRT LEG.
4. CONCENTRIC ROOF FLUE KIT
5. PVC COMBUSTION AIR PIPE
6. PVC INTAKE AIR PIPE
7. RUN CONDENSATE DRAIN TO NEAREST FLOOR DRAIN OR CONDENSATE PUMP. DRAIN TO BE LOCATED WITH 24" OF EQUIPMENT AND ROUTED TO BEING A TRIPPING HAZARD.
8. REFRIGERANT PIPING
9. 2" FILTER RACK BY FURNACE MANUFACTURER
10. R.A. DUCT
11. S.A. PLENUM
12. O.A. DUCT

1 M5.1 FURNACE DETAIL



2 M5.1 WALL LOUVER CONNECTION



1. SQUARE-TO-ROUND ADAPTOR IF DIFFUSER NECK IS SQUARE.

2. INSULATED FLEXIBLE DUCT SAME DIAMETER AS BRANCH DUCT 7, 7 FT. MAXIMUM TOTAL LENGTH PER AIR DEVICE. STRETCH FLEXIBLE DUCT TO AT LEAST 90% OF FULLY EXTENDED LENGTH.

3. SPIN-IN BRANCH TAP FITTING, STRAIGHT SIDE, WITH MANUAL DAMPER. DAMPER SHAFT IN HORIZONTAL. INTEGRAL INSULATION GUARD SLEEVE REQUIRED FOR TAP FITTING TO MAIN DUCT WITH INTERNAL INSULATION, AND EXTENDED DAMPER SHAFT AND HANDLE WITH STAND-OFF TO ACCOMODATE EXTERNAL INSULATION.

4. DUCT STRAP HANGER. ATTACH TO STRUCTURE.

5. STRAP HANGER REQUIRED IF LENGTH OF FLEXIBLE DUCT IS LONGER THAN 4 FT.

6. MINIMUM CENTERLINE RADIUS EQUAL TO DUCT DIAMETER.

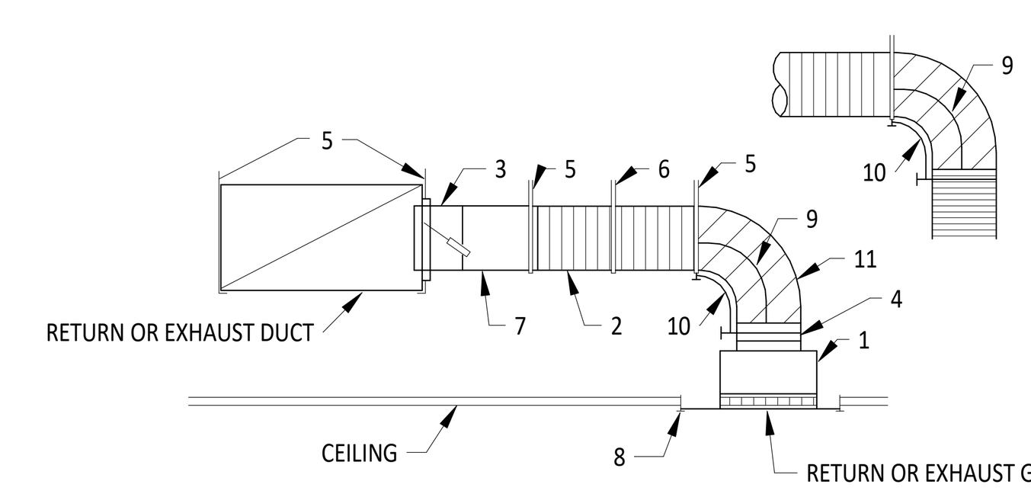
7. ROUND SHEETMETAL BRANCH DUCT, SAME SIZE AS DIFFUSER INLET UNLESS NOTED OTHERWISE.

8. FLEXIBLE DUCT ELBOW SUPPORT, INSTALLED WITH NYLON BANDING PER MANUFACTURER'S INSTRUCTIONS.

9. A RADIUS'D SHEETMETAL ELBOW MAY BE USED IN LIEU OF A FLEXIBLE ELBOW SUPPORT WHEN CONNECTED DIRECTLY TO AIR DEVICE.

10. CEILING T-BAR SUPPORT (FOR LAY-IN APPLICATIONS). COORDINATE WITH CEILING CONTRACTOR AND VERIFY T-BAR TYPE FOR COMPATIBILITY WITH DIFFUSER.

3 M5.1 DUCT CONNECTION - CEILING DIFFUSER



1. SHEET METAL PLENUM, FULL SIZE OF GRILLE NECK, MINIMUM 6" TALL WITH SAME INTERNAL OR EXTERNAL INSULATION AS RETURN OR EXHAUST DUCT.

2. FLEXIBLE DUCT, SAME DIAMETER AS BRANCH DUCT 7, 7 FT. MAXIMUM TOTAL LENGTH PER GRILLE. STRETCH FLEXIBLE DUCT TO AT LEAST 90% OF FULLY EXTENDED LENGTH.

3. SPIN-IN BRANCH TAP FITTING, STRAIGHT SIDE, WITH MANUAL DAMPER. DAMPER SHAFT IN HORIZONTAL. INTEGRAL INSULATION GUARD SLEEVE REQUIRED FOR TAP FITTING TO MAIN DUCT WITH INTERNAL INSULATION, AND EXTENDED DAMPER SHAFT AND HANDLE WITH STAND-OFF REQUIRED FOR EXTERNALLY INSULATED DUCTWORK.

4. SPIN-IN TAP FITTING SIMILAR TO 3 EXCEPT NO DAMPER.

5. DUCT STRAP HANGER. ATTACH TO STRUCTURE.

6. STRAP HANGER REQUIRED IF LENGTH OF FLEXIBLE DUCT IS LONGER THAN 4 FT.

7. ROUND SHEETMETAL BRANCH DUCT, SIZE AS INDICATED IN ADJACENT SCHEDULE UNLESS NOTED OTHERWISE ON PLANS.

8. CEILING T-BAR SUPPORT (FOR LAY-IN APPLICATIONS). COORDINATE WITH CEILING CONTRACTOR AND VERIFY T-BAR TYPE FOR COMPATIBILITY WITH GRILLE.

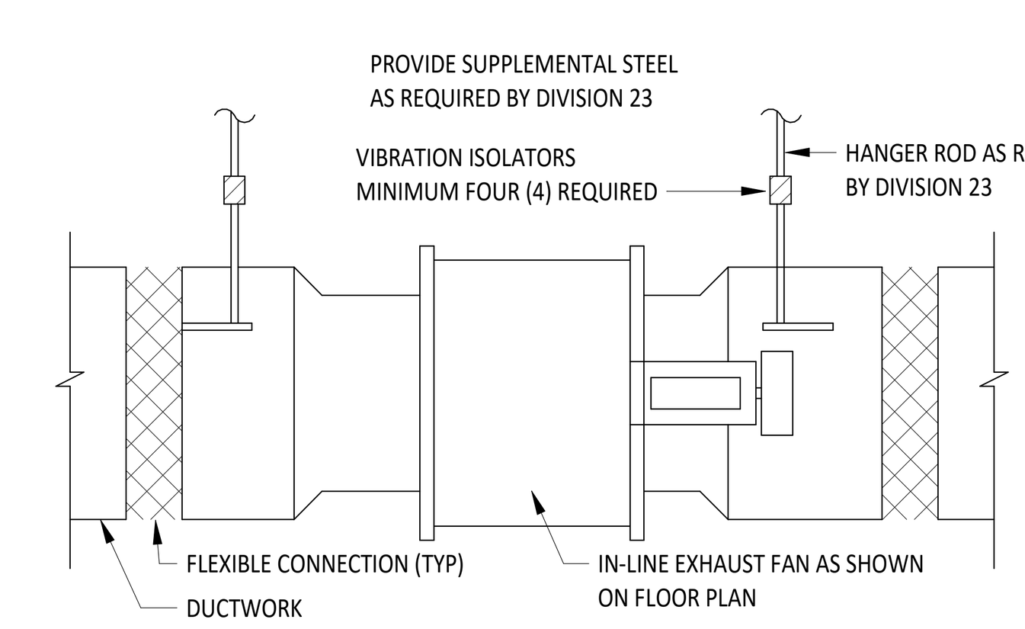
9. MINIMUM CENTERLINE RADIUS EQUAL TO DUCT DIAMETER.

10. FLEXIBLE DUCT ELBOW SUPPORT, INSTALLED WITH NYLON BANDING PER MANUFACTURER'S INSTRUCTIONS.

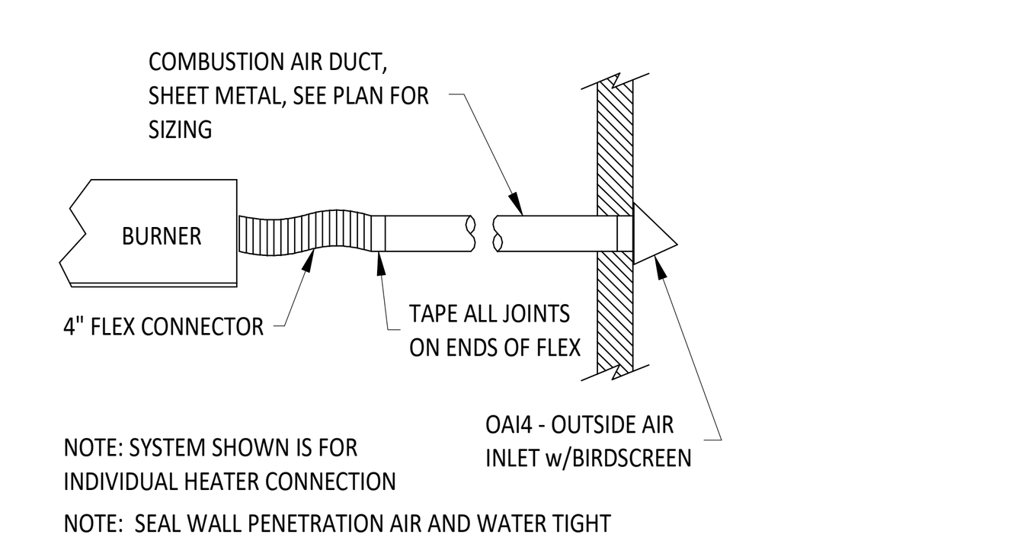
11. A RADIUS'D SHEETMETAL ELBOW MAY BE USED IN LIEU OF A FLEXIBLE ELBOW SUPPORT WHEN CONNECTED DIRECTLY TO AIR DEVICE.

ROUND SHEETMETAL BRANCH DUCT	
BRANCH CFM	RD. DUCT SIZE
0 TO 80 CFM	6"D
81 TO 120 CFM	7"D
121 TO 200 CFM	8"D
201 TO 400 CFM	10"D
401 TO 700 CFM	12"D
701 TO 1000 CFM	14"D

4 M5.1 DUCT CONNECTION - RETURN EXHAUST GRILLE



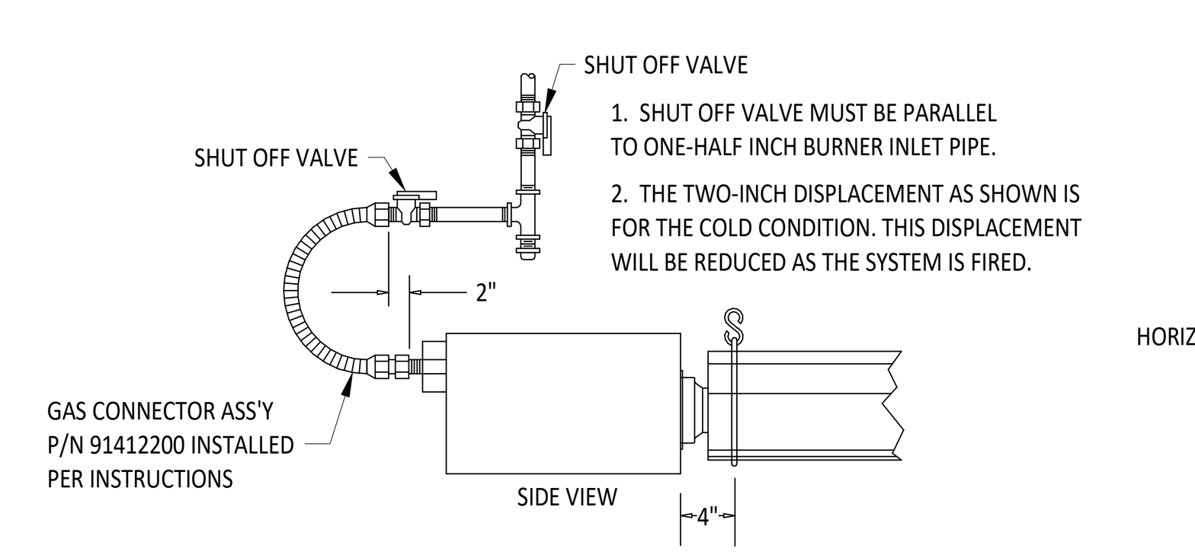
5 M5.1 INLINE EXHAUST FAN



NOTE: SYSTEM SHOWN IS FOR INDIVIDUAL HEATER CONNECTION

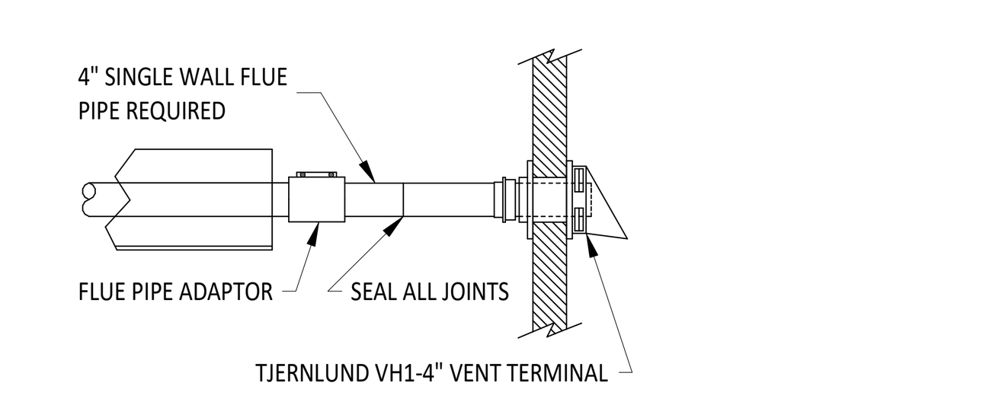
NOTE: SEAL WALL PENETRATION AIR AND WATER TIGHT

6 M5.1 OUTSIDE COMBUSTION AIR DETAIL



1. SHUT OFF VALVE MUST BE PARALLEL TO ONE-HALF INCH BURNER INLET PIPE.
2. THE TWO-INCH DISPLACEMENT AS SHOWN IS FOR THE COLD CONDITION. THIS DISPLACEMENT WILL BE REDUCED AS THE SYSTEM IS FIRED.

7 M5.1 OUTSIDE COMBUSTION AIR DETAIL



NOTE: SEAL WALL PENETRATION AIR AND WATER TIGHT

8 M5.1 SIDEWALL VENT DETAIL

STATE OF OHIO
ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

GARMANN MILLER

NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS		
	CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	DJL	CSM

SHEET TITLE:

MECHANICAL SCHEDULES AND DETAILS

SHEET NUMBER:

M5.1

- NOTE:

ABBREVIATIONS USED ON THE CONTRACT DOCUMENTS, INCLUDE BUT ARE NOT LIMITED TO THOSE LISTED BELOW.

A

A	AMPS, AMPERE, AMPERAGE
A/V	AUDIO/VISUAL
AC	ABOVE COUNTER
ac	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AVAILABLE INTERRUPTING CURRENT
AL	ALUMINUM
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE

B

BKR	BREAKER
BTM	BOTTOM

C

C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CU	COPPER

D

dc	DIRECT CURRENT
DIA	DIAMETER

E

EC	ELECTRICAL CONTRACTOR
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EX	EXISTING

F

FA	FIRE ALARM
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FDR	FEEDER
FLA	FULL LOAD AMPS
FUT	FUTURE

G

GEN	GENERATOR
GFI OR GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFP OR GFPE	GROUND FAULT PROTECTION OF EQUIPMENT
GND	GROUND

H

HOA	HAND-OFF-AUTO
HP	HORSEPOWER
HT	HEIGHT

I

IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IG	ISOLATED GROUND

K

KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPS
KVAR	KILOVOLT AMPS REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR

L

LOC	LOCATION
LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS, AND GROUND FAULT PROTECTION

M

mA	MILLIAMPS
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPACITY
MCC	MOTOR CONTROL CENTER
MH	MOUNTING HEIGHT
MIN	MINIMUM
MTD	MOUNTED
MTS	MANUAL TRANSFER SWITCH

N

N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEUT	NEUTRAL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE

O

OH	OVERHEAD

P

P	POLE
PA	PUBLIC ADDRESS
PC	PHOTOCELL
PH	PHASE
PVC	POLYVINYL CHLORIDE

R

RGS	RIGID GALVANIZED STEEL

S

SPD	SURGE PROTECTION DEVICE
SW	SWITCH

T

TEMP	TEMPORARY
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL

U

UG	UNDERGROUND
UL	UNDERWRITERS' LABORATORIES
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTABLE POWER SUPPLY

V

V	VOLTS, VOLTAGE
VFD	VARIABLE FREQUENCY DRIVE

W

W	WIRE
WG	WIRE GUARD
WP	WEATHER PROOF

X

XFMR	TRANSFORMER

ABBREVIATIONS

GENERAL DRAWINGS SYMBOLS

SYMBOL	DESCRIPTION
X	KEYED NOTE REFERENCE
X	REVISION NUMBER - SHOWN ON PLANS
	CONTINUATION SYMBOL
	NUMBER OF DETAIL ON SHEET DRAWING NUMBER WHERE DETAIL APPEARS

DEMOLITION (IF APPLICABLE)

SYMBOL	DESCRIPTION	NOTES
	DASHED SYMBOL INDICATES EXISTING DEVICE OR EQUIPMENT TO BE REMOVED.	REFER TO DEMOLITION PLANS FOR ADDITIONAL INFORMATION
	SOLID SYMBOL, LIGHTER IN COLOR INDICATES EXISTING DEVICE OR EQUIPMENT TO REMAIN.	

CIRCUIT AND RACEWAY SYMBOLS

SYMBOL	DESCRIPTION
	TICK MARKS DENOTING CONDUCTOR IDENTIFICATION. REFER TO 'KEY TO ELECTRICAL CIRCUIT WIRING' DETAIL FOR MORE INFORMATION.
	CIRCUIT CONCEALED IN CEILING, WALL, OR FLOOR OF NEW CONSTRUCTION. CONCEALED WHEREVER POSSIBLE IN AREAS OF OPEN STRUCTURE OR EXISTING CONSTRUCTION.
	INDICATES CONCEALED CONDUIT UNDERGROUND/UNDERFLOOR
	HOMERUN TO PANEL OR LOCATION NOTED
V H	SURFACE MOUNT RACEWAY. REFER TO PLANS FOR TYPE. DENOTES HORIZONTALLY MOUNTED RACEWAY DENOTES VERTICALLY MOUNTED RACEWAY
(2)2"	CONDUIT SLEEVE(S) ABOVE CEILING FOR TECHNOLOGY CABLING. (#) INDICATES QUANTITY, #" INDICATES CONDUIT SIZE. REFER TO ARCHITECTURAL SECTIONS FOR CEILING HEIGHTS.
	LADDER TYPE CABLE TRAY. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
	WIRE MESH CABLE TRAY. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
DOWN UP	CONDUIT TURNS

LIGHTING FIXTURE SYMBOLS

REFER TO LUMINAIRE SCHEDULE FOR ALL FIXTURE TYPES AND ADDITIONAL INFORMATION.

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
	SOLID HATCH INDICATES LIGHT FIXTURE CONNECTED TO EMERGENCY CIRCUIT. HATCH WILL BE MODIFIED FOR EACH FIXTURE TYPE.	VARIES	REFER TO LUMINAIRE SCHEDULE
A a	CAPITAL LETTER INDICATES FIXTURE TYPE LOWERCASE LETTER INDICATES SWITCHING		
	RECESSED MOUNTED LUMINAIRE; APPROXIMATE SIZE AS INDICATED ON PLANS.	CEILING	
	SURFACE OR SUSPENDED MOUNT LUMINAIRE; APPROXIMATE SIZE AS INDICATED ON PLANS.		
	RECESSED MOUNTED DOWNLIGHT LUMINAIRE. DIRECTIONAL ARROW INDICATES AIMABLE FIXTURE TYPE.		
	SURFACE MOUNTED DOWNLIGHT LUMINAIRE.		
	PENDANT MOUNT LUMINAIRE; APPROXIMATE SIZE AS INDICATED ON PLANS.		
	STRIP LIGHT LUMINAIRE.		
	PENDANT MOUNT LUMINAIRE; APPROXIMATE SIZE AS INDICATED ON PLANS.		
	PENDANT MOUNTED ROUND OR RING TYPE LUMINAIRE; APPROXIMATE SIZE AS INDICATED ON PLANS.		
	RECESSED MOUNTED ROUND OR RING TYPE LUMINAIRE; APPROXIMATE SIZE AS INDICATED ON PLANS.		
	TRACK MOUNTED LUMINAIRES. PROVIDE TRACK LENGTH AND QUANTITY OF FIXTURES AS INDICATED ON PLANS. AIM AS INDICATED ON PLANS.		
	EXTERIOR WALL PACK LUMINAIRE.	WALL	
	WALL MOUNTED LUMINAIRE.		
	WALL MOUNTED LUMINAIRE.		
	EMERGENCY BATTERY PACK LUMINAIRE.		
	SINGLE OR DOUBLE (AS INDICATED) EMERGENCY REMOTE HEAD.		
	WALL MOUNTED EXIT SIGN, ARROWS AND EMERGENCY LIGHTS AS INDICATED. SHADED AREA INDICATES FACE LOCATION(S).		
	CEILING MOUNTED EXIT SIGN, ARROWS AND EMERGENCY LIGHTS AS INDICATED. SHADED AREA INDICATES FACE LOCATION(S).	CEILING	
	FLOOD LIGHT LUMINAIRE.	EXTERIOR	VARIES, SEE PLANS
	LIGHTED BOLLARD OR IN-GRADE LUMINAIRE.		
	DECORATIVE POLE TOP AREA LUMINAIRE.		
	POLE MOUNT LUMINAIRE. NUMBER OF HEAD(S)/TYPE(S) AS INDICATED.		

LIGHTING CONTROL SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
$	SINGLE POLE SWITCH, 20A, 120/277V WITH COVERPLATE.	WALL	44", UNO
$ 3	THREE-WAY SWITCH, 20A, 120/277V WITH COVERPLATE.		
$ 4	FOUR-WAY SWITCH, 20A, 120/277V WITH COVERPLATE.		
$ P	SINGLE POLE PILOT LIGHT SWITCH, 20A, 120/277V WITH COVERPLATE.		
$ K	KEY OPERATED SINGLE POLE SWITCH, 20A, 120/277V WITH COVERPLATE.		
$ 3K	KEY OPERATED THREE-WAY SWITCH, 20A, 120/277V WITH COVERPLATE.		
$ 4K	KEY OPERATED FOUR-WAY SWITCH, 20A, 120/277V WITH COVERPLATE.		
$ OS	OCCUPANCY SENSOR SWITCH. EQUAL TO SENSORSWITCH - #WSXA PDT WH		
$ OD	OCCUPANCY SENSOR DIMMING SWITCH. EQUAL TO SENSORSWITCH - #WSXA PDT D WH		
OS	WALL MOUNTED OCCUPANCY SENSOR.	WALL	96", UNO
OS	CORNER MOUNTED OCCUPANCY SENSOR.		
OS	CEILING MOUNTED OCCUPANCY SENSOR. EQUAL TO SENSORSWITCH - #CM PDT 9 R	CEILING	SURFACE
	CEILING MOUNTED DAYLIGHT SENSOR.		
PC	WALL MOUNTED OUTDOOR PHOTOCELL	WALL	96", UNO
LCP	LIGHTING CONTROL PANEL WITH DIGITAL TIME CLOCK. PROVIDE QUANTITY OF RELAYS AS REQUIRED. EQUAL TO nLIGHT - #ARP INTENC08 MVOLT SC SM	WALL	72" TO TOP

WIRING DEVICE SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
	SOLID HATCH INDICATES DEVICE CONNECTED TO EMERGENCY POWER. PROVIDE RED DEVICE WITH COVERPLATE TO MATCH REST OF ROOM.	WALL, UNO	VARIES
X	DUPLEX RECEPTACLE, 20A, 125V, NEMA 5-20R, WITH COVERPLATE MOUNTED VERTICALLY.	WALL, UNO	16"
X	DUPLEX RECEPTACLE, 20A, 125V, NEMA 5-20R, WITH COVERPLATE. EXTRA LINE INDICATES DEVICE TO BE MOUNTED HORIZONTALLY.		
X	DOUBLE DUPLEX RECEPTACLE, 20A, 125V, NEMA 5-20R, WITH COMMON COVERPLATE.		
X	SINGLE RECEPTACLE, 20A, 125V, NEMA 5-20R, WITH COVERPLATE MOUNTED VERTICALLY.		
X	SPECIAL PURPOSE RECEPTACLE WITH COVERPLATE. REFER TO PLANS FOR TYPE.	WALL, UNO	44", UNO
X	DUPLEX RECEPTACLE, 20A, 125V, NEMA 5-20R, WITH COVERPLATE MOUNTED VERTICALLY.		
X	DUPLEX RECEPTACLE, 20A, 125V, NEMA 5-20R, WITH COVERPLATE. EXTRA LINE INDICATES DEVICE TO BE MOUNTED HORIZONTALLY.		
X	DOUBLE DUPLEX RECEPTACLE, 20A, 125V, NEMA 5-20R, WITH COMMON COVERPLATE.		
X	SINGLE RECEPTACLE, 20A, 125V, NEMA 5-20R, WITH COVERPLATE MOUNTED VERTICALLY.		
X	IN FLOOR SINGLE RECEPTACLE. TYPE AS INDICATED ON PLANS.	FLOOR	VARIES
X	IN FLOOR DUPLEX RECEPTACLE. TYPE AS INDICATED ON PLANS.		
X	IN FLOOR DOUBLE DUPLEX RECEPTACLE. TYPE AS INDICATED ON PLANS.		
X	IN FLOOR SPECIAL PURPOSE RECEPTACLE. TYPE AS INDICATED ON PLANS.		
X	CEILING MOUNTED SINGLE RECEPTACLE.	CEILING	FLUSH
X	CEILING MOUNTED DUPLEX RECEPTACLE.		
X	CEILING MOUNTED DOUBLE DUPLEX RECEPTACLE.		
X	CEILING MOUNTED SPECIAL PURPOSE RECEPTACLE.		
X	PEDESTAL MOUNTED SINGLE RECEPTACLE.	FLOOR	VARIES
X	PEDESTAL MOUNTED DUPLEX RECEPTACLE.		
X	PEDESTAL MOUNTED DOUBLE DUPLEX RECEPTACLE.		
X	PEDESTAL MOUNTED SPECIAL PURPOSE RECEPTACLE.		
	'X' INDICATES RECEPTACLE TYPE OTHER THAN STANDARD NO DESIGNATOR INDICATES STANDARD POWER DEVICE GFI = GFCI RATED GFT = GFCI RATED AND TAMPER RESISTANT TR = TAMPER RESISTANT IG = ISOLATED GROUND U = USB CHARGING PORTS SR = SOUND REINFORCEMENT IFP - INTERACTIVE FLAT PANEL VID = VIDEO OUTLET — 96" VP = VIDEO PROJECTOR — 80" WC = WATER COOLER WF = WASH FOUNTAIN WP = WEATHER-PROOF AND GFCI RATED (METAL IN-USE COVERPLATE) MW = MICROWAVE - COORDINATE WITH CASEWORK INSTALLER. — 60"		
X	FLOOR BOX WITH TWO (2) DUPLEX RECEPTACLES, NEMA 5-20R, UNO. 'X' INDICATES TYPE, REFER TO SPECIFICATIONS. PROVIDE PROPER COVER FOR THE ASSOCIATED FLOOR TYPE (CARPET, TILE, WOOD, ETC.) COORDINATE WITH FLOOR INSTALLER.	FLOOR	VARIES
X	POKE-THRU WITH TWO (2) DUPLEX RECEPTACLES, NEMA 5-20R, UNO. 'X' INDICATES TYPE, REFER TO SPECIFICATIONS. PROVIDE PROPER COVER FOR THE ASSOCIATED FLOOR TYPE (CARPET, TILE, WOOD, ETC.) COORDINATE WITH FLOOR INSTALLER.		
	JUNCTION BOX OR EQUIPMENT CONNECTION.	VARIES, SEE PLANS	VARIES, SEE PLANS
	JUNCTION BOX OR EQUIPMENT CONNECTION WITH SWITCH FOR MAINTENANCE DISCONNECT. PROVIDE SWITCH RATED FOR VOLTAGE AND LOAD SHOWN ON PLANS.		
	WALL MOUNTED JUNCTION BOX.		
	MOTOR CONNECTION.	N/A	N/A
	MOTOR CONNECTION WITH SWITCH FOR MAINTENANCE DISCONNECT. PROVIDE SWITCH RATED FOR VOLTAGE AND LOAD SHOWN ON PLANS.		
$ DT	7-DAY PROGRAMMABLE TIMER SWITCH RATED FOR LOAD BEING CONTROLLED. EQUAL TO INTERMATIC - #EI600WC	WALL	44", UNO
$ F	20A, FUSED MOTOR SWITCH, PROVIDE OVERLOADS RATED TO MOTOR.		
	CORD REEL RECEPTACLE. REFER TO SPECIFICATIONS FOR TYPE.	STRUCTURE	VARIES
	DROP CORD RECEPTACLE. REFER TO ASSOCIATED DROP CORD DETAIL FOR MORE INFORMATION.		

ELECTRICAL EQUIPMENT SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
	SURFACE MOUNTED PANELBOARD - CIRCUIT BREAKER TYPE. DASHED LINES ON PLAN INDICATE CLEARANCES. REFER TO PANEL SCHEDULES AND ONE-LINE DIAGRAM.	VARIES	78" TO TOP
	FLUSH MOUNTED PANELBOARD - CIRCUIT BREAKER TYPE. DASHED LINES ON PLAN INDICATE CLEARANCES. REFER TO PANEL SCHEDULES AND ONE-LINE DIAGRAM.		
	DISTRIBUTION PANEL - CIRCUIT BREAKER TYPE. DASHED LINES ON PLAN INDICATE CLEARANCES. REFER TO PANEL SCHEDULES AND ONE-LINE DIAGRAM.	VARIES	VARIES
	METER BASE.	VARIES	78" TO TOP
	NON-FUSED DISCONNECT SWITCH.	VARIES	VARIES
	FUSED DISCONNECT SWITCH.		
	COMBINATION MAGNETIC MOTOR STARTER AND DISCONNECT SWITCH.		
	MAGNETIC MOTOR STARTER.		
CP	CONTROL PANEL. REFER TO PLANS FOR MORE INFORMATION.	WALL	44", UNO
ATS	AUTOMATIC TRANSFER SWITCH.	VARIES	72" TO TOP
MTS	MANUAL TRANSFER SWITCH.		
ECB	ENCLOSED CIRCUIT BREAKER.		
VFD	VARIABLE FREQUENCY DRIVE.		
	GROUND BAR. REFER TO GROUNDING DETAIL.	WALL	16"

FIRE ALARM SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
FACP	FIRE ALARM CONTROL PANEL. REFER TO SPECIFICATIONS.	WALL	72" TO TOP
NAC	FIRE ALARM NAC POWER SUPPLY. REFER TO SPECIFICATIONS.		
FAA	FIRE ALARM ANNUNCIATOR PANEL. REFER TO SPECIFICATIONS.	WALL	48"
F	FIRE ALARM PULL STATION. REFER TO SPECIFICATIONS.	WALL	44"
	FIRE ALARM HORN DEVICE. REFER TO SPECIFICATIONS.	WALL	80", UNO
	FIRE ALARM HORN/STROBE DEVICE. REFER TO SPECIFICATIONS.		
	FIRE ALARM SPEAKER DEVICE. REFER TO SPECIFICATIONS.		
	FIRE ALARM SPEAKER/STROBE DEVICE. REFER TO SPECIFICATIONS.		
	FIRE ALARM STROBE LIGHT ONLY DEVICE. REFER TO SPECIFICATIONS.		
	CEILING MOUNT FIRE ALARM SPEAKER DEVICE. REFER TO SPECIFICATIONS.	CEILING	SURFACE
	CEILING MOUNT FIRE ALARM SPEAKER/STROBE DEVICE. REFER TO SPECIFICATIONS.		
	FIRE ALARM SMOKE DETECTOR. REFER TO SPECIFICATIONS.		
	FIRE ALARM HEAT DETECTOR. REFER TO SPECIFICATIONS.		
CO	CARBON MONOXIDE DETECTOR. REFER TO SPECIFICATIONS.		
	FIRE ALARM DUCT SMOKE DETECTOR. REFER TO SPECIFICATIONS.	DUCT MTD.	SEE PLANS
	FIRE ALARM MAGNETIC DOOR HOLDER. REFER TO SPECIFICATIONS.	WALL	VARIES
	FIRE ALARM REMOTE TEST STATION FOR HIDDEN SMOKE/DUCT DETECTOR. REFER TO SPECIFICATIONS.	VARIES	SEE PLANS
AM	FIRE ALARM ADDRESSABLE MODULE (MONITOR OR RELAY). REFER TO SPECIFICATIONS.		
	FIRE ALARM SPRINKLER BELL. FURNISHED BY FIRE SUPPRESSION CONTRACTOR, INSTALLED BY DIVISION 26.	WALL	96"
	TAMPER VALVE/SWITCH FOR PLUMBING PIPING. PROVIDE FIRE ALARM CONNECTIONS AS REQUIRED.	PIPE	N/A
	FLOW SWITCH FOR SPRINKLER PIPING. PROVIDE FIRE ALARM CONNECTIONS AS REQUIRED.		
	POST INDICATOR VALVE (PIV). PROVIDE FIRE ALARM CONNECTIONS AS REQUIRED.		
SD	SMOKE DAMPER CONNECTION. REFER TO PLANS FOR TYPE.	AT DUCT	SEE PLANS

SECURITY/ACCESS CONTROL SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
ACP	ACCESS CONTROL SYSTEM CONTROL PANEL. DIVISION 26 TO PROVIDE 120V CONNECTION TO PANEL AS REQUIRED. COORDINATE WORK WITH DIVISION 28.	WALL	72" TO TOP
SCP	SECURITY SYSTEM CONTROL PANEL. DIVISION 26 TO PROVIDE 120V CONNECTION TO PANEL AS REQUIRED. COORDINATE WORK WITH DIVISION 28.		
EL	ELECTRIC LOCK, PROVIDED BY DIVISION 08. PROVIDE 3/4" CONDUIT WITH PLASTIC BUSHING FROM DOOR FRAME TO ABOVE ACCESSIBLE CEILING. COORDINATE ROUGH-IN REQUIREMENTS WITH DIVISION 08 AND DIVISION 28.	DOOR	SEE PLANS
DC	DOOR CONTACT, PROVIDED BY DIVISION 28. PROVIDE 3/4" CONDUIT WITH PLASTIC BUSHING FROM DOOR FRAME TO ABOVE ACCESSIBLE CEILING. COORDINATE ROUGH-IN REQUIREMENTS WITH DIVISION 08 AND DIVISION 28.		
REX	REQUEST TO EXIT DEVICE, PROVIDED BY DIVISION 28. PROVIDE 3/4" CONDUIT WITH PLASTIC BUSHING FROM DOOR FRAME TO ABOVE ACCESSIBLE CEILING. COORDINATE ROUGH-IN REQUIREMENTS WITH DIVISION 08 AND DIVISION 28.	VARIES	VARIES
CR	CARD READER, PROVIDED BY DIVISION 28. PROVIDE SINGLE GANG BACK BOX WITH 3/4" CONDUIT WITH PLASTIC BUSHING TO ABOVE ACCESSIBLE CEILING. COORDINATE WITH DIVISION 28 PRIOR TO ROUGH-IN.	WALL	44"
KP	KEYPAD, PROVIDED BY DIVISION 28. PROVIDE SINGLE GANG BACK BOX WITH 3/4" CONDUIT WITH PLASTIC BUSHING TO ABOVE ACCESSIBLE CEILING. COORDINATE WITH DIVISION 28 PRIOR TO ROUGH-IN.	WALL	44"
MD	CEILING MOUNT MOTION DETECTOR. PROVIDE ROUGH-IN IN HARD CEILING AS REQUIRED FOR INSTALLATION. PROVIDE 3/4" CONDUIT WITH PLASTIC BUSHING TO ABOVE ACCESSIBLE CEILING. COORDINATE BACK BOX AND WORK WITH DIVISION 28.	HARD CEILING	N/A
MD	WALL MOUNT MOTION DETECTOR. PROVIDE SINGLE GANG BACK BOX WITH 3/4" CONDUIT WITH PLASTIC BUSHING TO ABOVE ACCESSIBLE CEILING. COORDINATE WORK WITH DIVISION 28.	WALL	96", UNO
	SECURITY SYSTEM ALARM BELL PROVIDED BY DIVISION 28. PROVIDE BACK BOX AND PATHWAY AS REQUIRED. COORDINATE WITH DIVISION 28.	WALL	80", UNO
	VOICE ONLY INTERCOM STATION BY DIVISION 28. BACK BOX FURNISHED BY DIVISION 28, INSTALLED BY DIVISION 26. PROVIDE 1" CONDUIT WITH PLASTIC BUSHING TO ABOVE ACCESSIBLE CEILING.	WALL	44"
	VOICE & VIDEO INTERCOM STATION BY DIVISION 28. BACK BOX FURNISHED BY DIVISION 28, INSTALLED BY DIVISION 26. PROVIDE 1" CONDUIT WITH PLASTIC BUSHING TO ABOVE ACCESSIBLE CEILING.		
MS	DESK MOUNT MASTER INTERCOM STATION PROVIDED BY DIVISION 28. COORDINATE PATHWAY REQUIREMENTS WITH DIVISION 28.	VARIES	VARIES
	ELECTRONIC DOOR RELASE PUSHBUTTON PROVIDED BY DIVISION 28. COORDINATE PATHWAY REQUIREMENTS WITH DIVISION 28.		

MISCELLANEOUS SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
GCPx	GYM EQUIPMENT CONTROL PANEL FURNISHED BY GYM EQUIPMENT INSTALLER. DIVISION 26 TO PROVIDE POWER CONNECTIONS TO ALL GYM EQUIPMENT SHOWN ON PLANS.	WALL	72" TO TOP
GEC	GYM EQUIPMENT CONTROLLER FURNISHED BY GYM EQUIPMENT INSTALLER. DIVISION 26 TO PROVIDE BACK BOX AND ALL NECESSARY POWER/CONTROL WIRING TO GYM EQUIPMENT CONTROL PANEL.	WALL	44"
GA	GENERATOR ANNUNCIATOR PANEL.	WALL	56"
FUSE	SPARE FUSE CABINET.	WALL	72" TO TOP
	AUTOMATIC DOOR OPERATOR FURNISHED BY DIVISION 08, INSTALLED BY DIVISION 26. COORDINATE WITH DOOR INSTALLER.	WALL	44"
	PUSH BUTTON. REFER TO DRAWINGS FOR MORE INFORMATION.		
	PUSH BUTTON. REFER TO DRAWINGS FOR MORE INFORMATION.		
	OVERHEAD UTILITY POLE	N/A	N/A
H	SITE IN-GRADE PULL BOX. REFERNCE SITE PLAN FOR MORE INFORMATION.		
CO	CARBON MONOXIDE SENSOR	WALL	44"
NO2	NITROGEN DIOXIDE SENSOR		

TECHNOLOGY OUTLET SYMBOLS

STUB ALL CONDUITS FOR TECHNOLOGY OUTLETS ABOVE ACCESSIBLE CEILING, UNO. PROVIDE PULL STRING AND PLASTIC BUSHING ON END OF EACH CONDUIT. PROVIDE COVERPLATE FOR UNUSED BOXES.

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
	DATA OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING. PROVIDE ONE (1) 1-1/4" CONDUIT.	WALL	16", UNO
	VOICE & DATA OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING. PROVIDE ONE (1) 1-1/4" CONDUIT.		
	VOICE OUTLET. 2-GANG, 3.5" DEEP BOX WITH 1-GANG EXTENSION RING. PROVIDE ONE (1) 1" CONDUIT.	WALL	44"
LI	LOCAL INPUT OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING. PROVIDE ONE (1) 1-1/4" CONDUIT.	WALL	16", UNO
IFP	INTERACTIVE FLAT PANEL OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING. PROVIDE ONE (1) 1-1/4" CONDUIT.	WALL	44"
LVP	LARGE VENUE PROJECTOR OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING. PROVIDE TWO (2) 1-1/4" CONDUIT.	WALL	AS NOTED
SA	GYMNASIUM AUDIO SYSTEM OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING. PROVIDE TWO (2) 1-1/4" CONDUIT.	WALL	16"
SP	STAGE PRESENTER OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING. PROVIDE TWO (2) 1-1/4" CONDUIT.		
TPC	TEACHER PERSONAL COMPUTER OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING. PROVIDE TWO (2) 1-1/4" CONDUIT.		
SR	SOUND REINFORCEMENT OUTLET. 4-11/16", 3.5" DEEP BOX WITH 2-GANG EXTENSION RING. PROVIDE TWO (2) 1-1/4" CONDUIT.	WALL	44"
VID	VIDEO MONITOR OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING. PROVIDE ONE (1) 1-1/4" CONDUIT.	WALL	96", UNO
CAM	CAMERA OUTLET. 2-GANG, 3.5" DEEP BOX WITH 1-GANG EXTENSION RING. PROVIDE ONE (1) 1" CONDUIT. PROVIDE WEATHERPROOF COVERPLATE FOR EXTERIOR APPLICATIONS.	WALL	144", UNO
WAP	WIRELESS ACCESS POINT OUTLET. 2-GANG, 3.5" DEEP BOX WITH 1-GANG EXTENSION RING. PROVIDE ONE (1) 1" CONDUIT. PROVIDE WEATHERPROOF COVERPLATE FOR EXTERIOR APPLICATIONS.		

AUDIO DEVICE SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
PA	PUBLIC ADDRESS SOUND SYSTEM RACK.	FLOOR	N/A
SD	STUDENT DINING SOUND SYSTEM RACK.		
GS	GYMNASIUM SOUND SYSTEM RACK.		
PR	PORTABLE SOUND SYSTEM RACK.		
MS	MUSIC/VOCAL ROOM SOUND SYSTEM RACK.		
M	HANGING MICROPHONE PROVIDED BY DIVISION 28. DIVISION 26 TO PROVIDE CEILING MOUNTED JUNCTION BOX AND RACEWAY AS REQUIRED. COORDINATE WITH DIVISION 28.	WALL	16", UNO
	MICROPHONE OUTLET. 1-GANG, 3.5" DEEP BOX WITH 1-GANG EXTENSION RING. PROVIDE 1" CONDUIT TO ABOVE ACCESSIBLE CEILING WITH PULL WIRE. PROVIDE PLASTIC BUSHING ON END OF CONDUIT.		
	AUXILIARY/MICROPHONE OUTLET. 2-GANG, 3.5" DEEP BOX WITH 1-GANG EXTENSION RING. PROVIDE 1" CONDUIT TO ABOVE ACCESSIBLE CEILING WITH PULL WIRE. PROVIDE PLASTIC BUSHING ON END OF CONDUIT.		
S	SPEAKER FOR PA SYSTEM, UNO. PROVIDE ROUGH-IN AND RACEWAY AS REQUIRED IN HARD CEILINGS. COORDINATE WITH DIVISION 27.	HARD CEILING	N/A
R	SPEAKER FOR LOCAL SOUND REINFORCEMENT. PROVIDE ROUGH-IN AND RACEWAY AS REQUIRED IN HARD CEILINGS. COORDINATE WITH DIVISION 27.		
DS	SPEAKER FOR STUDENT DINING SOUND SYSTEM PROVIDED BY DIVISION 27. DIVISION 26 TO PROVIDE JUNCTION BOX AT SPEAKER LOCATION AND PATHWAYS AS REQUIRED. COORDINATE WITH DIVISION 27.	VARIES	SEE PLANS
GS	SPEAKER FOR GYMNASIUM SOUND SYSTEM PROVIDED BY DIVISION 27. DIVISION 26 TO PROVIDE JUNCTION BOX AT SPEAKER LOCATION AND PATHWAYS AS REQUIRED. COORDINATE WITH DIVISION 27.		
	SPEAKER FOR PA SOUND SYSTEM. PROVIDE 3/4" CONDUIT FROM CUSTOM BACK BOX, PROVIDED BY DIVISION 27, TO ABOVE ACCESSIBLE CEILING, PROVIDE PULL STRING AND PLASTIC BUSHING ON END OF CONDUIT.	WALL	144", UNO
	HORN TYPE SPEAKER PROVIDED BY DIVISION 28. PROVIDE 1-GANG, 3.5" DEEP BOX WITH 1-GANG EXTENSION RING. PROVIDE 3/4" CONDUIT WITH PULL STRING TO ABOVE ACCESSIBLE CEILING. PROVIDE PLASTIC BUSHING ON END OF CONDUIT.		
	SOUND SYSTEM SPEAKER. PROVIDE ROUGH-IN AS REQUIRED FOR INSTALLATION. COORDINATE WORK WITH DIVISION 28.	VARIES	SEE PLANS
	CALL-IN SWITCH FOR PA SYSTEM. PROVIDE 1-GANG, 3.5" DEEP BOX WITH 1-GANG EXTENSION RING. PROVIDE 3/4" CONDUIT WITH PULL STRING TO ABOVE ACCESSIBLE CEILING. PROVIDE PLASTIC BUSHING ON END OF CONDUIT.	WALL	44"
VC	VOLUME CONTROL FOR PA SYSTEM. PROVIDE 1-GANG, 3.5" DEEP BOX WITH 1-GANG EXTENSION RING. PROVIDE 3/4" CONDUIT WITH PULL STRING TO ABOVE ACCESSIBLE CEILING. PROVIDE PLASTIC BUSHING ON END OF CONDUIT.		
	ADMINISTRATIVE CONSOLE FOR PA SYSTEM. PROVIDE BACK BOX AND PATHWAY AS REQUIRED FOR INSTALLATION. COORDINATE WITH DIVISION 28.	VARIES	SEE PLANS

NOTE: ALL SYMBOLS OR ABBREVIATIONS MAY NOT BE USED FOR THIS PROJECT AND ARE SUBJECT TO CHANGE ON OTHER DRAWINGS.

ELECTRICAL SHEET INDEX

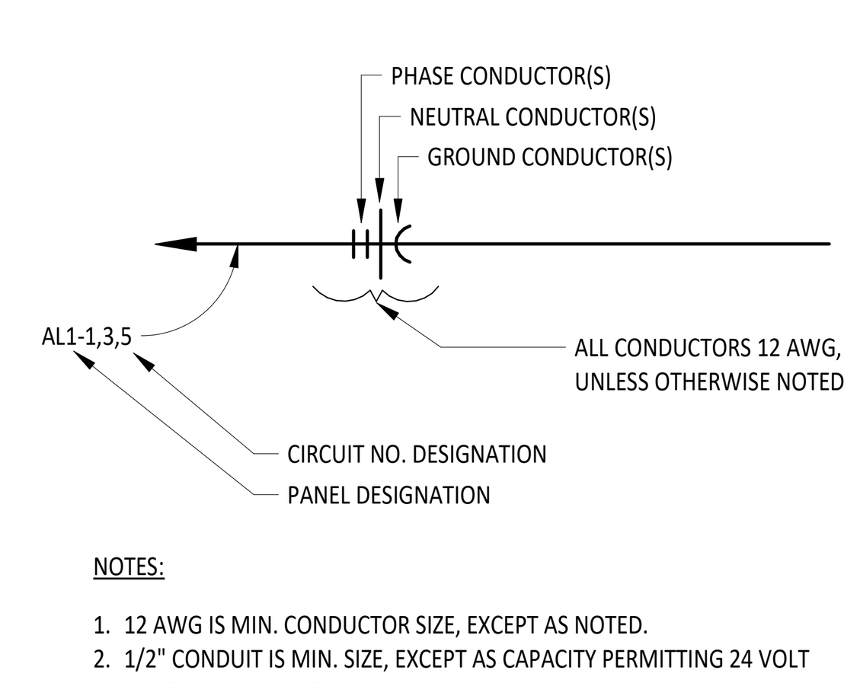
SHEET NUMBER	SHEET NAME
E1.1	GENERAL NOTES, ABBREVIATIONS, LEGENDS AND SHEET INDEX
E1.2	ELECTRICAL DETAILS
E2.1	SITE ELECTRICAL PLAN
E3.1	ELECTRICAL FLOOR PLANS
E4.1	ONE-LINE DIAGRAM, LUMINAIRE AND PANEL SCHEDULES

ELECTRICAL GENERAL NOTES

A. ALL GENERAL WALL MOUNT WIRING DEVICES TO BE GREY IN COLOR. COVERPLATES TO BE STAINLESS STEEL. CEILING MOUNT RECEPTACLES TO BE WHITE IN COLOR WITH WHITE, NYLON, UNBREAKABLE COVERS.
B. ALL MOUNTING HEIGHTS REFER TO THE BOTTOM OF BOX OR DEVICE UNO.
C. ALL CONDUIT TO BE CONCEALED.
D. TICK MARKS ON LIGHTING PLAN CIRCUITING INDICATE A CHANGE IN SWITCHING.
E. ALL WORK SHALL CONFORM TO THE 2023 N.E.C., NATIONAL, STATE, AND LOCAL CODES WHICH APPLY. THE FUEL ISALND AND MAINTENANCE BAY WIRING METHODS SHALL BE IN STRICT CONFORMANCE WITH ARTICLE 500 HAZARDOUS LOCATIONS AND ARTICLE 514 MOTOR FUELING DISPENSING FACILITIES OF THE NEC 2023.
F. ALL MATERIAL AND EQUIPMENT SHALL CONFORM TO U.L. AND NEMA STANDARDS WHICH APPLY.
G. THIS CONTRACTOR SHALL PAY ALL FEES AND OBTAIN ALL PERMITS REQUIRED TO THE EXECUTION OF HIS WORK.
H. THIS CONTRACTOR SHALL GUARANTEE HIS ENTIRE ELECTRICAL INSTALLATION AGAINST DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR.
I. WIRE SIZES BASED ON AWG (AMERICAN WIRE GAUGE) OR KCMIL, MINIMUM WIRE SIZE SHALL BE 12 AWG, UNO.
J. CONDUCTORS SHALL BE TYPE 'THHN/THWN' STRANDED COPPER. CONDUCTORS 6 AWG, AND LARGER, MAY BE COPPER OR ALUMINUM.
K. EXPOSED EXTERIOR CONDUIT SHALL BE RIGID GALVANIZED STEEL OR INTERMEDIATE GRADE METAL CONDUIT. INTERIOR CONDUIT MAY BE ELECTRICAL METALIC TUBING. CONDUIT BURIED BELOW GRADE SHALL BE SCHEDULE 40 PVC WITH APPROPRIATE SIZE GREEN GROUND WIRE UNO.

ELECTRICAL LIGHTING CONTROL GENERAL NOTES

A. ALL SENSOR LOCATIONS ARE APPROXIMATE. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS PRIOR TO INSTALLATION. IF PENDANT FIXTURES ARE PRESENT, LOCATION AND COVERAGE OF SENSORS SHOULD BE REVIEWED.
B. ULTRASONIC CEILING MOUNT SENSORS REQUIRE THAT THEY BE LOCATED NO CLOSER THAN 6' TO AIR SUPPLY/RETURN REGISTERS.
C. CONTRACTOR IS RESPONSIBLE FOR PROPER SENSITIVITY AND TIME DELAY SETTINGS, VERIFICATION OF MANUFACTURER'S RECOMMENDED PLACEMENT, AND FIELD VERIFICATION OF CIRCUITS WITH RESPECT TO POWER PACK PLACEMENT.
D. CONTRACTOR SHALL PROVIDE A LIGHTING CONTROL REPRESENTATIVE/TECHNICIAN FOR INITIAL SET-UP OF LIGHTING CONTROL SYSTEMS. ONE (1) HOUR MINIMUM DEMONSTRATION AND TRAINING SHALL BE PROVIDED FOR EACH TYPE OF LIGHTING CONTROL SYSTEM. THE LIGHTING CONTROL REPRESENTATIVE/TECHNICIAN SHALL BE REQUIRED TO MAKE A SECOND SITE VISIT FOR POST COMMISSIONING REPAIRS AND ADJUSTMENTS.
E. CONTRACTOR SHALL PROVIDE ALL REQUIRED SOFTWARE FOR EACH LIGHTING CONTROL SYSTEM. SOFTWARE SHALL BE INSTALLED ON COMPUTER OF OWNER'S CHOICE. COORDINATE WITH OWNER.
F. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF REQUIRED NUMBER OF POWER PACKS. ONE POWER PACK IS REQUIRED FOR EACH CONTROL/TOGGLE SWITCH. MAXIMUM NUMBER OF SENSORS THAT CAN BE WIRED IN PARALLEL TO A SINGLE POWERPACK IS DEPENDENT ON SENSOR MODEL (SEE INDIVIDUAL DATA SHEETS FOR mA CONSUMPTION).
G. EQUALS BY LEVITON, WATTSTOPPER, CRESTRON, NOVITALS, LUTRON, STARFIELD, AND COOPER.



NOTES:

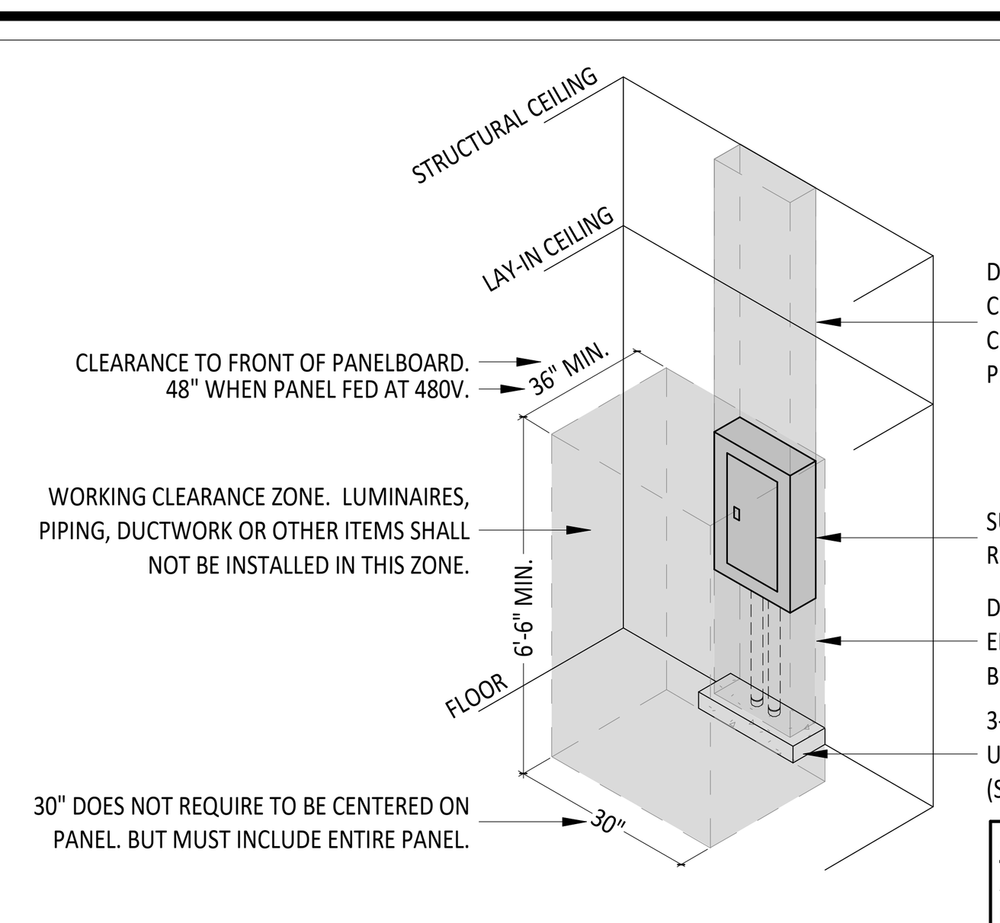
1. 12 AWG IS MIN. CONDUCTOR SIZE, EXCEPT AS NOTED.
2. 1/2" CONDUIT IS MIN. SIZE, EXCEPT AS CAPACITY PERMITTING 24 VOLT CONTROL CONDUCTOR.
3. PROVIDE DEDICATED NEUTRALS.

BRANCH CIRCUIT GENERAL NOTES:

1. CONDUIT ROUTING FOR BRANCH CIRCUITS ARE NOT SHOWN ON PLANS AND IS LEFT TO THE DISCRETION OF THE CONTRACTOR. THE FOLLOWING WIRE SIZES SHALL BE USED UNLESS NOTED OTHERWISE IN PANEL SCHEDULE. DETERMINE FURTHEST DISTANCE FROM BRANCH PANELBOARD TO FURTHEST DEVICE PRIOR TO WIRE INSTALLATION. INCREASE WIRE SIZE AS NECESSARY FOR FURTHER DISTANCES.

CIRCUIT TYPE	CONDUCTOR SIZE	MAXIMUM LENGTH
20A, 120V	10 AWG	100 FEET
20A, 120V	8 AWG	175 FEET
20A, 277V	10 AWG	200 FEET

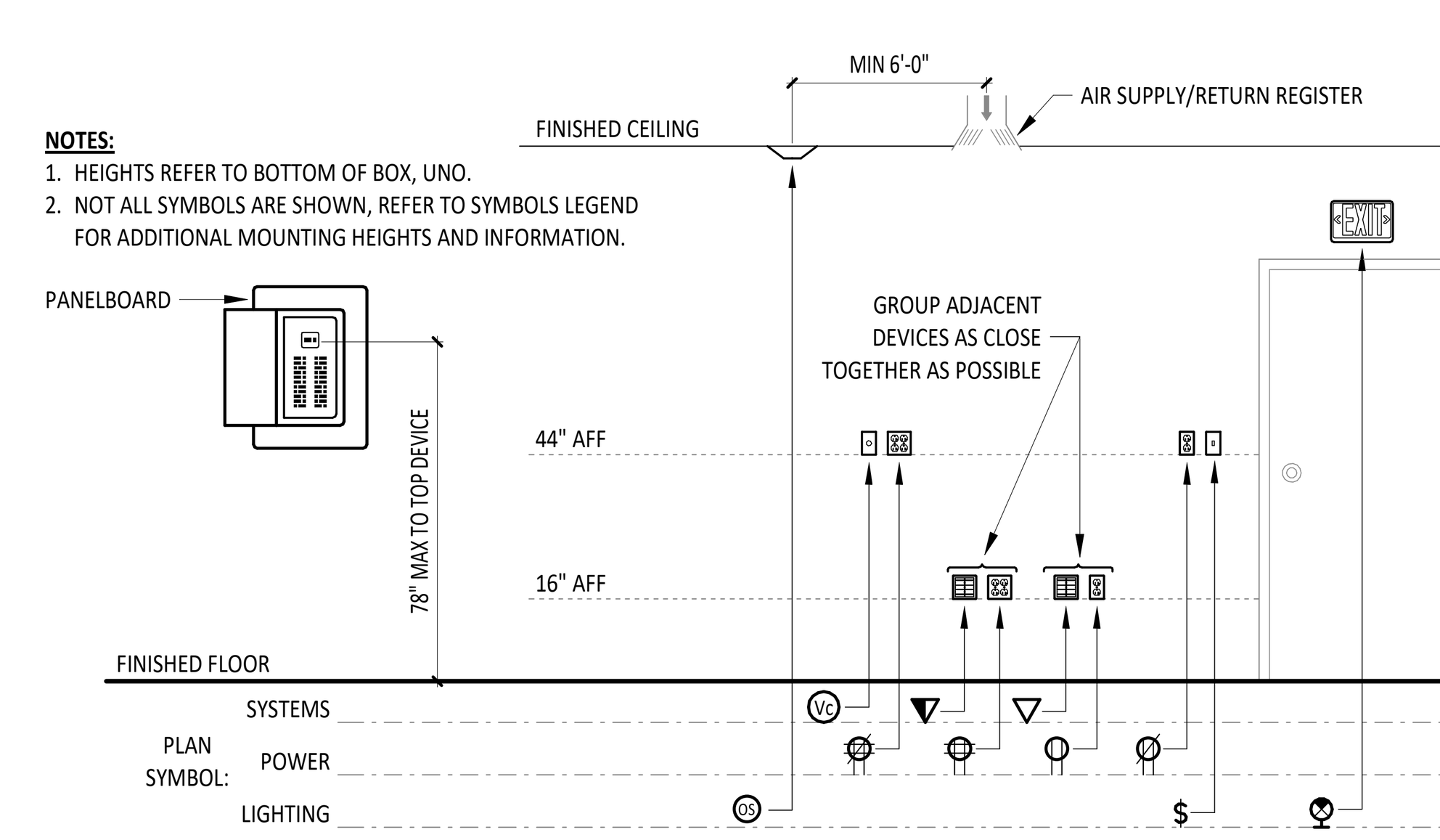
1 E1.1 KEY TO ELECTRICAL CIRCUIT WIRING
NTS



GENERAL NOTES:
A. REFER TO NEC SECTION 110.26 FOR MORE INFORMATION.
B. COORDINATE ALL WORK WITH OTHER TRADES TO MAINTAIN ALL OTHER NEC CLEARANCES AND REQUIREMENTS.

2 E1.1 PANELBOARD CLEARANCES
NTS

NOTES:
1. HEIGHTS REFER TO BOTTOM OF BOX, UNO.
2. NOT ALL SYMBOLS ARE SHOWN, REFER TO SYMBOLS LEGEND FOR ADDITIONAL MOUNTING HEIGHTS AND INFORMATION.



3 E1.1 ELECTRICAL MOUNTING HEIGHT DETAIL
NTS

STATE OF OHIO
ERIC JAMES BALTZELL E-65072
REGISTERED PROFESSIONAL ENGINEER
ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

GARMANN MILLER

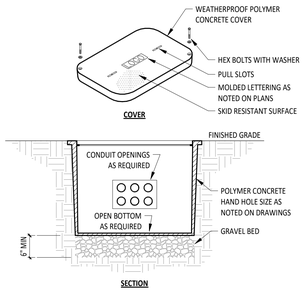
NEW BUILDING FOR
TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING
575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	02/07/2025

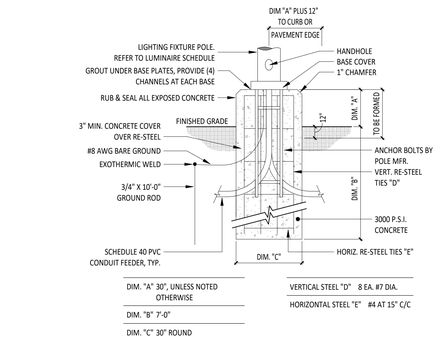
PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	DNW	KCR

SHEET TITLE:
GENERAL NOTES, ABBREVIATIONS, LEGENDS AND SHEET INDEX

SHEET NUMBER:
E1.1



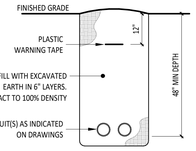
1 E1.2 IN-GRADE HAND HOLE ENCLOSURE
NTS



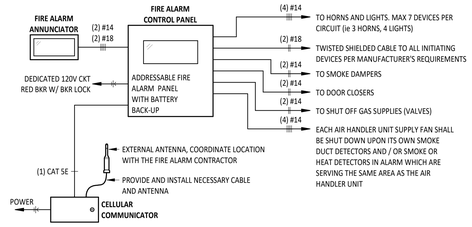
DIM. "A" 30", UNLESS NOTED OTHERWISE	VERTICAL STEEL "D" 8 EA. #7 DIA.
DIM. "B" 7'-0"	HORIZONTAL STEEL "E" #4 AT 15" C/C
DIM. "C" 30" ROUND	

NOTE:
1. TACK WELD ALL ANCHOR BOLT NUTS IN PLACE WHEN POLES ARE SET AND PLUMB. REPAIR FINISH WITH COLD GALVANIZING COMPOUND.
2. SET POLES USING DOUBLE NUT CONSTRUCTION METHOD.

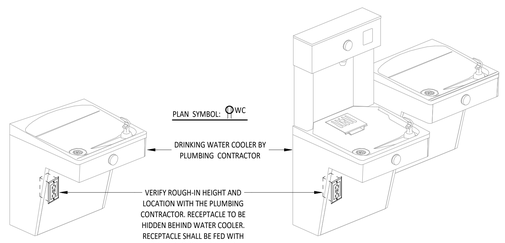
2 E1.2 CONCRETE POLE BASE DETAIL - 30'-0" POLE
NTS



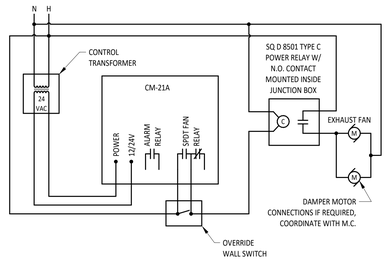
3 E1.2 CONDUIT TRENCH DETAIL
NTS



4 E1.2 FIRE ALARM RISER DIAGRAM
NTS

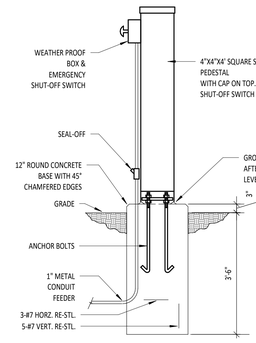


5 E1.2 WATER COOLER RECEPTACLE DETAIL
NTS

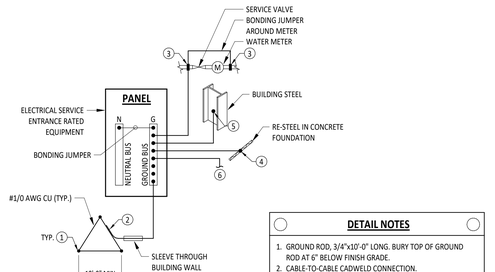


- COORDINATE REQUIREMENTS WITH MANUFACTURER. PROVIDE ALL RELAYS, CONTACTORS, CONTROL TRANSFORMERS NECESSARY FOR A COMPLETE SYSTEM.
- OPERATION OF SYSTEM TO BE AS FOLLOWS:
  WHEN THE CO DETECTOR OPERATES OR THE OVERRIDE TOGGLE SWITCH IS DEPRESSED, THE FOLLOWING SHALL OCCUR:
  1. 120V COIL AND 120V CONTACTOR RATED AT 30A WILL BE ENERGIZED TO OPERATE:
     A. EXHAUST FAN
     B. DAMPER MOTOR IF REQUIRED

6 E1.2 WIRING DIAGRAM - CARBON MONOXIDE DETECTION SYSTEM
NTS

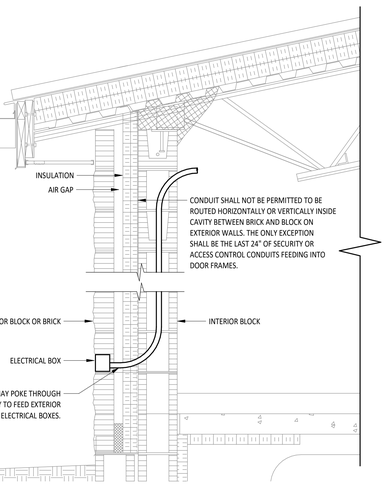


7 E1.2 EMERGENCY SHUT-OFF PEDESTAL
NTS

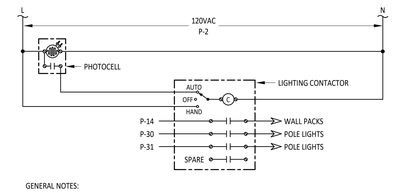


DETAIL NOTES
1. GROUND ROD, 3/4"x10'-0" LONG. BURY TOP OF GROUND ROD AT 6" BELOW FINISH GRADE.
2. CABLE-TO-CABLE CADWELD CONNECTION.
3. WATER PIPE GROUND CLAMP.
4. EXOTHERMIC WELDED CONNECTION TO RE-STEEL.
5. EXOTHERMIC WELDED CONNECTION TO BUILDING STEEL.
6. TO ADDITIONAL CONNECTIONS AS REQUIRED BY N.E.C. ARTICLE 250.

8 E1.2 SERVICE GROUNDING ELECTRODE SYSTEM
1/8" = 1'-0"

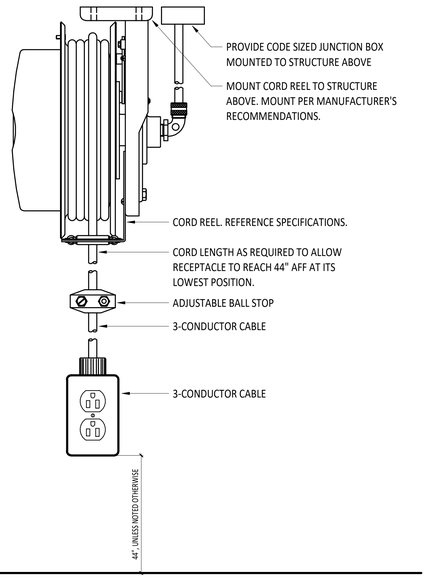


9 E1.2 TYPICAL EXTERIOR WALL CAVITY
NTS

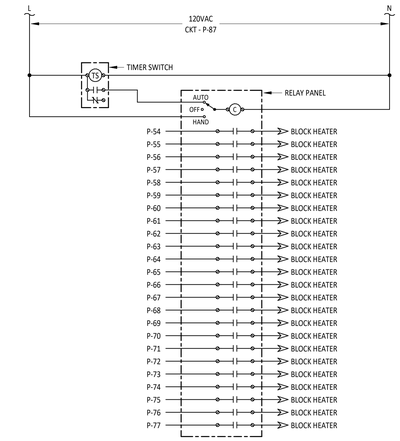


GENERAL NOTES:
1. PHOTOCELL SHALL BE INTERMATIC K4236C, OREQ.
2. PROVIDE AN ELECTRICALLY HELD LIGHTING CONTACTOR WITH 120VAC COIL AND NUMBER OF POLES AS SHOWN, NEMA 1 ENCLOSURE.
3. CONTACTOR SHALL HAVE INTEGRAL H-O-A SELECTOR SWITCH.

10 E1.2 EXTERIOR LIGHTING CONTROL DIAGRAM - BUS GARAGE
NTS

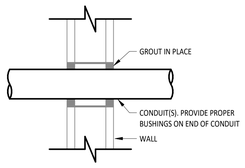


13 E1.2 CORD REEL DETAIL
NTS

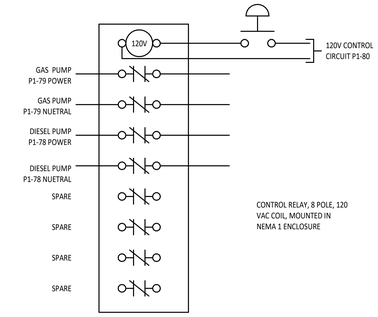


GENERAL NOTES:
1. TIMER SWITCH SHALL BE A 7-DAY PROGRAMMABLE TIMER SWITCH RATED FOR THE LOAD BEING CONTROLLED, INTERMATIC EI600WC, OREQ.
2. PROVIDE AN ELECTRICALLY HELD LIGHTING CONTACTOR WITH 120VAC COIL AND NUMBER OF POLES AS SHOWN, NEMA 1 ENCLOSURE.
3. CONTACTOR SHALL HAVE H-O-A SELECTOR SWITCH TO OVERRIDE TIMER.

14 E1.2 BUS BLOCK HEATER CONTROL DIAGRAM
NTS



11 E1.2 CONDUIT SLEEVE(S) THROUGH WALLS
NTS



12 E1.2 EMERGENCY SHUT-OFF PEDESTAL
NTS

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STATE OF OHIO
ERIC JAMES BALTZELL
E-65072
REGISTERED
PROFESSIONAL ENGINEER
ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

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TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

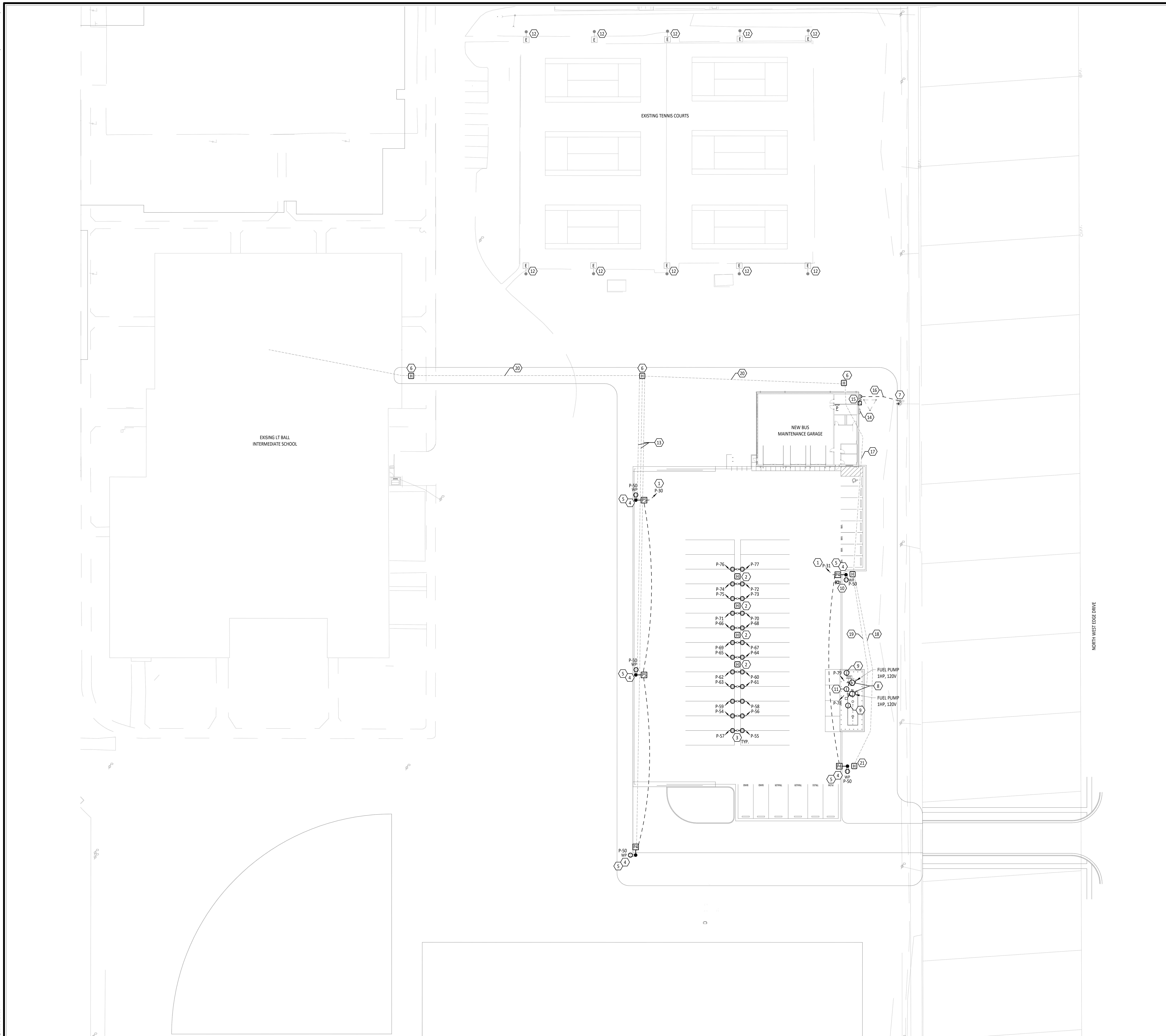
NEW BUILDING FOR
515 N. MYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	DNW	KCR

SHEET TITLE:
ELECTRICAL DETAILS

SHEET NUMBER:
E1.2



1
E2.1
ELECTRICAL SITE PLAN
1" = 30'-0"

UTILITY COMPANY CONTACT

CITY OF TIPP CITY — 260 S. GARBER DR. TIPP CITY, OHIO 45371
JERRY GEE — ELECTRIC SUPERINTENDENT
(OFFICE) 937.667.0519

ELECTRICAL SITE GENERAL NOTES

A SEE CIVIL SITE PLAN, AND LANDSCAPE SITE PLANS FOR EXACT LOCATION OF OTHER UTILITIES. INSTALLATION OF ELECTRICAL WORK SHALL BE COORDINATED WITH THE OTHER TRADES.
B ELECTRICAL UTILITY SERVICE CONDUITS TO BE MINIMUM OF 48" BELOW GRADE TO TOP OF CONDUITS.
C PROVIDE PULL WIRES IN ALL EMPTY CONDUITS.
D ALL UNDERGROUND CONDUIT SHALL BE 1" SCHEDULE 40 PVC, UNLESS NOTED OTHERWISE.
E COORDINATE CONSTRUCTION WITH THE ELECTRIC UTILITY COMPANY.
F PROVIDE IDENTIFICATION LABEL FOR EACH POLE LIGHT.

#	KEYNOTE DESCRIPTION
1	CIRCUIT TO BE ROUTED THROUGH EXTERIOR PHOTOCELL/TIMER/CONTACTOR FOR CONTROL OF EXTERIOR LIGHTS. REFER TO DETAIL 10/E1.2.
2	ALTERNATE 02: ELECTRICAL CONTRACTOR SHALL PROVIDE AN IN-GRADE PULLING BOX 24"X24"X24" DEEP WITH TIER 22 RATING MINIMUM FOR FUTURE BUS CHARGERS. LID SHALL BE FLUSH MOUNT WITH FINISH GRADE AND HAVE THE WORD "ELECTRICAL" ON LID. PROVIDE FOUR (4) 2" CONDUITS PER BOX ROUTED FROM METAL WIREWAY MOUNTED ON EXTERIOR WALL OF ELECTRICAL ROOM. ROUTE CONDUITS INTO BOX. PROVIDE EXCAVATION, BACKFILL AND COMPACTION AS REQUIRED. PROVIDE PULLSTRING IN EACH CONDUIT AND PROVIDE CAPS ON CONDUIT ENDS.
3	PROVIDE A GFCI DEAD FRONT DEVICE AND TWIST LOCK RECEPTACLE IN A 2-GANG WEATHER-PROOF BOX WITH IN USE COVER. COORDINATE TWIST LOCK CONFIGURATION WITH OWNER. THE BOX SHALL BE MOUNTED TO A 4" X 4" X 6' SQUARE, DIRECT BURY RATED TREATED WOOD POST. 36" OF POST SHALL BE BURIED. TWO RECEPTACLES PER POST. RECEPTACLE SHALL BE MOUNTED WITH TOP OF BOX EVEN WITH TOP OF POST IN A NEMA 3R ENCLOSURE. TYPICAL OF TWELVE (12) LOCATIONS. RECEPTACLES TO BE ON A TIMER LOCATED IN ELECTRICAL ROOM. REFER TO DETAIL 14/E1.2 FOR ADDITIONAL INFORMATION. COORDINATE WORK WITH SITE CONTRACTOR.
4	PROVIDE ONE EMPTY 1-1/2" CONDUIT WITH PULLWIRE TO THIS POLE FOR FUTURE SECURITY CAMERA CABLING. EXTEND THE CABLING CONDUIT BACK TO HANDHOLE. EXTEND RECEPTACLE CIRCUIT TO TOP OF POLE FOR CAMERA POWER.
5	PROVIDE INTEGRAL FESTOON OUTLET ON POLE AND RECEPTACLE. RECEPTACLE TO BE WEATHERPROOF, GFCI TYPE. PROVIDE CIRCUIT AS INDICATED ADJACENT TO RECEPTACLE.
6	PROVIDE TIER 15, QUAZITE IN-GRADE ENCLOSURE. ENCLOSURE SHALL BE 36" X 36" X 36" WITH OPEN BOTTOM. LOGO TO BE "COMMUNICATIONS".
7	UNDERGROUND FEEDER FROM SECONDARY OF UTILITY COMPANY PEDESTAL AT UTILITY POLE BASE TO METER. REFERENCE ONE-LINE DIAGRAM FOR FEEDER INFORMATION.
8	PROVIDE POWER CONNECTION TO FUEL PUMPS. WIRING TO BE RUN IN 1" CONDUIT TO ELECTRICAL PANEL IN BUS MAINTENANCE GARAGE VIA CONTACTOR IN OFFICE A102. REFER TO DETAIL 12/E1.2 FOR MORE INFORMATION
9	PROVIDE (2) 1" CONDUIT FOR CONTROL CABLING FROM FUEL TANK SENSORS, PROBES, ETC. RACEWAYS AND CABLING SHALL BE ROUTED FROM TANK TO CONTROL PANEL IN BUS MAINTENANCE GARAGE.
10	FUEL SYSTEM INSTALLER TO PROVIDE A RED MAINTAINED EMERGENCY SHUT-OFF PUSH BUTTON AT THIS LOCATION. BUTTON SHALL CONTROL THE SHUNT TRIP CIRCUIT BREAKER UPSTREAM OF ELECTRIC PANEL SERVING FUEL ISLAND, REMOVING POWER FROM THE FUEL ISLAND AND TANKS WHEN ACTIVATED. REFERENCE DETAIL 7/E1.2 AND 12/E1.2 FOR ADDITIONAL INFORMATION.
11	PROVIDE (2) 1" SPARE CONDUITS FOR FUEL ISLAND TO ELECTRICAL PANEL IN BUS MAINTENANCE GARAGE. COORDINATE WORK WITH FUEL SYSTEM INSTALLER.
12	EXISTING POLE LIGHT TO REMAIN.
13	PROVIDE ONE (1) 1-1/2" CONDUIT FOR FUTURE POLE CAMERA. COORDINATE WORK WITH DIVISION 27.
14	ALTERNATE 02: PROVIDE 48"X12"X12" DEEP NEMA 3R WIREWAY FOR FUTURE EV BUS CHARGER CONDUITS. COORDINATE EXACT LOCATION WITH OTHER EQUIPMENT IN THE AREA.
15	REFERENCE ONE-LINE DIAGRAM FOR DISCONNECT SIZE AND ENCLOSURE TYPE.
16	UNDERGROUND PRIMARY SERVICE CONDUITS. PROVIDE (2) 4" PVC SCHEDULE 40 CONDUITS WITH PULL ROPE APPROX. 48" BELOW FINISHED GRADE. ALL BENDS SHALL BE 36" RADIUS SWEEPS. COORDINATE WORK WITH UTILITY COMPANY PRIOR TO START OF WORK. REFERENCE DETAIL 3/E1.2 FOR UNDERGROUND CONDUIT DETAIL.
17	PROVIDE ONE (1) 2" CONDUIT WITH A 2" 4-CELL FABRIC INNERDUCT. COORDINATE WORK WITH DIVISION 27.
18	PROVIDE ONE (1) 2" CONDUIT WITH A 2" 3-CELL FABRIC INNERDUCT. COORDINATE WORK WITH DIVISON 27.
19	PROVIDE ONE (1) 1-1/2" CONDUIT WITH A 2" 3-CELL FABRIC INNERDUCT FOR FUEL ISLAND. COORDINATE WORK WITH DIVISION 27.
20	PROVIDE TWO (2) 2" CONDUITS EACH HAVING ONE 2", 3-CELL FABRIC INNERDUCT. COORDINATE WORK WITH DIVISION 27.
21	PROVIDE TIER 15, QUAZITE IN-GRADE ENCLOSURE. ENCLOSURE SHALL BE 24" X 12" X 36" WITH OPEN BOTTOM. LOGO TO BE "COMMUNICATIONS".

Know what's **below.**
Call before you dig.

STATE OF OHIO
ERIC JAMES BALTZELL E-65072
REGISTERED
PROFESSIONAL ENGINEER
ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

GARMANN MILLER

NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS		
	CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	DNW	KCR

SHEET TITLE:

SITE ELECTRICAL PLAN

SHEET NUMBER:

E2.1

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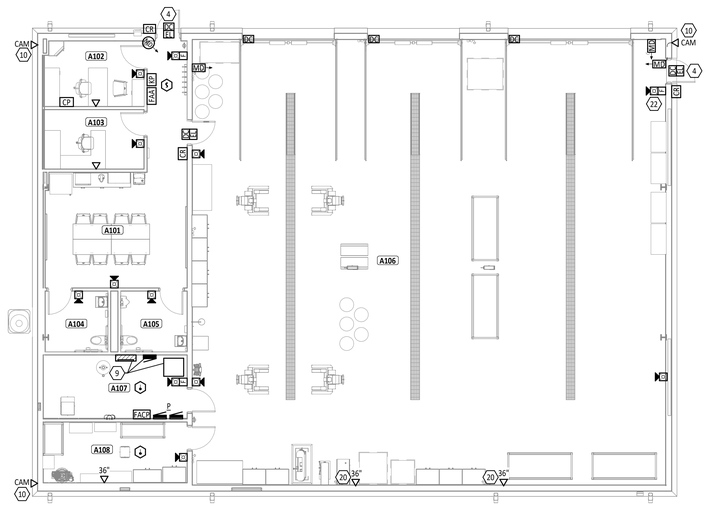
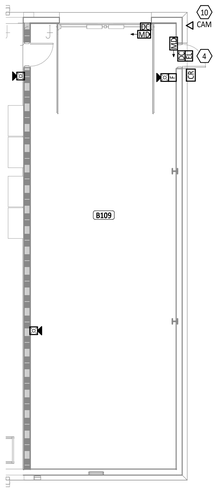
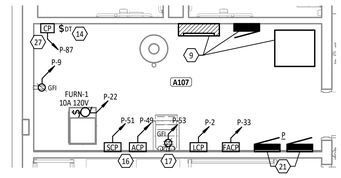


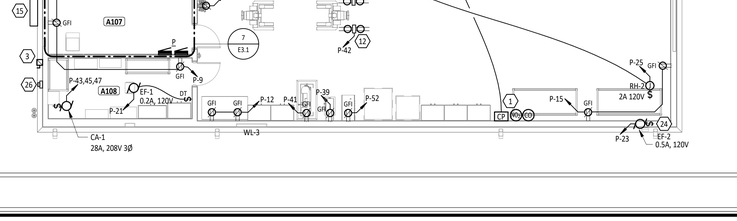
1 E3.1 **SYSTEMS PLAN**
1/8" = 1'-0"



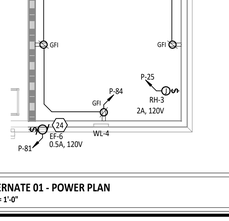
4 E3.1 **ALTERNATE 01 - SYSTEMS PLAN**
1/8" = 1'-0"



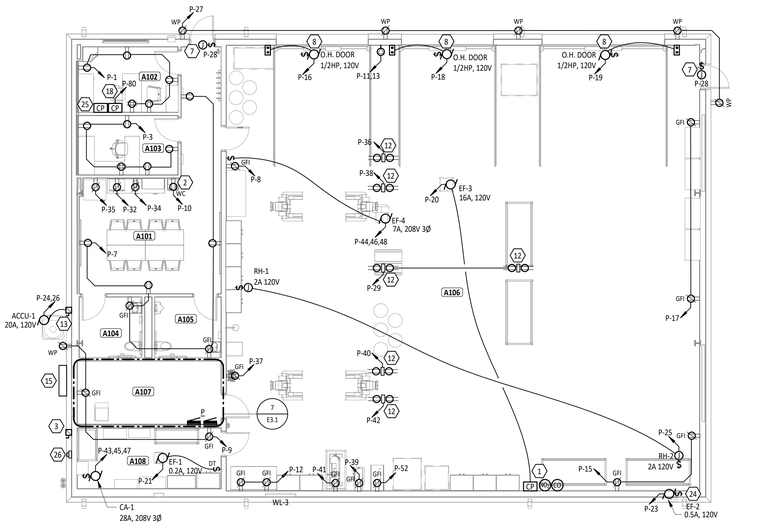
7 E3.1 **ENLARGED MECH/ELECTRICAL ROOM**
1/4" = 1'-0"



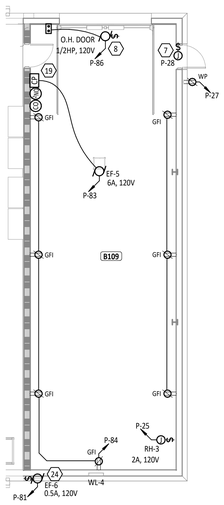
2 E3.1 **LIGHTING PLAN**
1/8" = 1'-0"



5 E3.1 **ALTERNATE 01 - LIGHTING PLAN**
1/8" = 1'-0"



3 E3.1 **POWER PLAN**
1/8" = 1'-0"



6 E3.1 **ALTERNATE 01 - POWER PLAN**
1/8" = 1'-0"

FIRST FLOOR PLAN ROOM INDEX - UNIT A

ROOM NUMBER	ROOM NAME	AREA
A101	WORKROOM	368 SF
A102	OFFICE	110 SF
A103	OFFICE	101 SF
A104	UNISEX RESTROOM	65 SF
A105	UNISEX RESTROOM	69 SF
A106	MAINTENANCE BAY	3,608 SF
A107	MECH/ELECTRICAL/AIR COMPRESSOR	156 SF
A107	WORKROOM	Not Placed
A108	STORAGE	149 SF

SYSTEMS GENERAL NOTES

A WHERE DEVICES ARE SHOWN UNDER CABINETS, CASEWORK, FURNITURE AND THE LIKE; REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT PLACEMENT SO THAT DEVICES SHALL BE LOCATED WITHIN KNEE SPACE OR OPEN AREA.

B ALL LOW VOLTAGE CABLING FOR THE SCOPE OF WORK BY DIVISION 26, 27, AND 28 IN EXPOSED CEILING SPACES SHALL BE ROUTED INSIDE CONDUIT. COORDINATE WITH INSTALLER OF EACH SYSTEM PRIOR TO ROUGH-IN. PAINT CONDUIT TO MATCH SURROUNDING AREA.

C CONDUIT IN EXPOSED CEILING SPACES SHALL BE CONCEALED INSIDE WALLS. EXPOSED CONDUIT SHALL ONLY BE ALLOWED IN JOIST SPACE NEAR ROOF.

D ALL CONDUIT ENDS FOR CABLING NOT CONNECTED TO A BOX OR FITTING SHALL BE PROVIDED WITH NYLON BUSHINGS TO PROTECT CABLING FROM DAMAGE.

E ALL MOUNTING HEIGHTS REFER TO BOTTOM OF BOX, UNO.

LIGHTING GENERAL NOTES

A REFER TO ARCHITECTURAL REFLECTED CEILING PLANS ON THE A5 SERIES DRAWINGS FOR ADDITIONAL INFORMATION AND EXACT LOCATION OF LUMINAIRES.

B VERIFY EXACT LOCATION OF ALL LIGHT SWITCHES AND CONTROLS DEVICES WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.

C WHERE MULTIPLE SWITCHES ARE GROUPED TOGETHER AT A SINGLE LOCATION, ALL SWITCHES SHALL BE INSTALLED UNDER A COMMON FACEPLATE.

D CIRCUIT ALL EMERGENCY LIGHTS, NIGHT LIGHTS (IF APPLICABLE) AND EXIT LIGHTS TO AN UNSWITCHED HOT CONDUCTOR, UPSTREAM OF ALL CONTROLS.

E REFER TO SHEET E4.1 FOR LUMINAIRE SCHEDULE AND ADDITIONAL INFORMATION.

F ALL LIGHTING CONTROL DEVICES, RELAYS, ETC. ABOVE LAY-IN CEILINGS SHALL BE MARKED WITH A BLACK 3/4" DIAMETER, PRESSURE-SENSITIVE ADHESIVE PAPER CIRCLE.

G ALL MOUNTING HEIGHTS REFER TO BOTTOM OF LIGHT FIXTURE, UNO.

POWER GENERAL NOTES

A WHERE DEVICES ARE SHOWN UNDER CABINETS, CASEWORK, FURNITURE AND THE LIKE; REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT PLACEMENT SO THAT DEVICES SHALL BE LOCATED WITHIN KNEE SPACE OR OPEN AREA.

B CASEWORK INSTALLER SHALL CUT HOLES IN CASEWORK FOR RECEPTACLES, DEVICES, ETC., UNLESS NOTED OTHERWISE.

C ALL CONDUCTORS FOR EQUIPMENT CONNECTIONS SHALL BE COPPER UNLESS NOTED OTHERWISE AND APPROVED BY THE MANUFACTURER.

D COORDINATE WITH ALL OTHER TRADES TO MAINTAIN ALL REQUIRED CLEARANCES ABOUT ELECTRICAL EQUIPMENT WITH ACCORDANCE TO THE NATIONAL ELECTRICAL CODE.

E REFER TO MECHANICAL, PLUMBING, AND OTHER APPLICABLE DRAWINGS FOR EXACT EQUIPMENT LOCATIONS.

F MAINTAIN ALL FIRE RATINGS WHERE CONDUIT PENETRATES WALL, CEILINGS, AND FLOORS WITH ONLY U.L. LISTED FIRE ASSEMBLIES.

G ALL MOUNTING HEIGHTS REFER TO BOTTOM OF BOX, UNO.

#	KEYNOTE DESCRIPTION
1	PROVIDE A SELF-CONTAINED CO/NO DETECTION SYSTEM EQUAL TO ACME CEL SERIES. PROVIDE AN OVERRIDE SWITCH, RELAYS AND CONTACTORS NEEDED FOR A COMPLETE SYSTEM. CONTROL PANEL SHALL BE INTERCONNECTED TO EF-3 AND LOUVER WL-3. COORDINATE WITH MECHANICAL CONTRACTOR. REFERENCE DETAIL 6/E1.2 FOR OPERATION DETAILS.
2	RECEPTACLE FOR WATER COOLER, COORDINATE EXACT MOUNTING LOCATION OF RECEPTACLE WITH PLUMBING CONTRACTOR. REFERENCE DETAIL 5/E1.2.
3	PROVIDE 400A, 208V, 3-POLE HEAVY DUTY DISCONNECT IN NEMA 3R ENCLOSURE FOR MAIN ELECTRICAL SERVICE. REFERENCE ONE-LINE DIAGRAM AND SITE PLAN FOR MORE INFORMATION.
4	DOOR PROVIDED WITH ELECTRIC STRIKE AND POWER PACK BY DOOR HARDWARE SUPPLIER. DIVISION 26 TO PROVIDE POWER TO POWER PACK ABOVE CEILING, BACK BOXES, RACEWAYS, BUSHINGS AND PULL STRINGS FOR CABLING FROM ABOVE CEILING/POWER PACK TO ELECTRIC STRIKE IN DOOR FRAME. CABLING BY SECURITY/ACCESS CONTROL CONTRACTOR. COORDINATE WORK WITH DOOR HARDWARE INSTALLER AND SECURITY/ACCESS CONTROL CONTRACTOR. REFERENCE DETAIL 3 ON THIS SHEET FOR 120-VOLT POWER REQUIREMENTS.
5	PROVIDE EXTERIOR PHOTOCELL AT 15'-0" AFF, FACING NORTH. MOUNT TO WEATHERPROOF JUNCTION BOX. REFERENCE DETAIL 10/E1.2.
6	CIRCUIT TO BE ROUTED THROUGH EXTERIOR PHOTOCELL/TIMER/CONTACTOR FOR CONTROL OF EXTERIOR LIGHTS. REFER TO DETAIL 10/E1.2.
7	PROVIDE POWER CONNECTION ABOVE CEILING FOR ELECTRIC STRIKE POWER PACK(S), TRANSFORMER(S) AND ACCESS CONTROL PANEL(S). REFERENCE 1/E3.1 FOR EXACT QUANTITIES. PROVIDE CIRCUIT AS INDICATED ADJACENT TO BOX.
8	OVERHEAD DOOR MOTOR IS SIDE MOUNTED. PROVIDE NECESSARY POWER AND CONTROL CONNECTIONS TO MOTOR. COORDINATE WITH G.C. AND OVERHEAD DOOR INSTALLER.
9	FUTURE EQUIPMENT FOR ELECTRIC BUS CHARGERS. SHOWN FOR REFERENCE ONLY.
10	PROVIDE SINGLE GANG, FLUSH MOUNTED JUNCTION BOX ON EXTERIOR OF BUILDING WITH 1" CONDUIT STUBBED TO INSIDE. MOUNT THE BOX AND CABLE SLEEVE ABOVE THE CEILING FOR EXTERIOR CAMERA/WAP. PROVIDE PLASTIC BUSHING ON END OF CONDUIT AND WEATHERPROOF BLANK COVER FOR EXTERIOR BOX. CAMERA LOCATION IS CRITICAL. ROUTE CONDUIT HORIZONTALLY AS REQUIRED TO AVOID STRUCTURE. REFERENCE TECHNOLOGY DRAWINGS FOR MORE DETAILS. COORDINATE WORK WITH TECHNOLOGY CONTRACTOR PRIOR TO ROUGH-IN.
11	SHADED FIXTURE TO BE PROVIDED WITH INTEGRAL BATTERY BACKUP, 90 MINUTE MINIMUM. PROVIDE SWITCH LEG FOR CONTROL AND UNSWITCHED CIRCUIT FOR POWER MONITORING.
12	PROVIDE CORD REEL FROM ABOVE DOWN TO EQUIPMENT LOCATION. REFERENCE DETAIL 13/E1.2.
13	PROVIDE 30A, 208V, 3-POLE HEAVY DUTY DISCONNECT IN NEMA 3R ENCLOSURE.
14	DIGITAL TIMER SWITCH FOR BUS BLOCK HEATERS.
15	ALTERNATE 02: METAL WIREWAY FOR FUTURE EV BUS CONDUITS. REFERENCE SITE PLAN FOR ADDITIONAL INFORMATION.
16	PROVIDE POWER FOR SECURITY AND ACCESS CONTROL PANEL. COORDINATE WORK WITH TECHNOLOGY CONTRACTOR.
17	RECEPTACLE FOR TECHNOLOGY RACK. COORDINATE EXACT LOCATION WITH TECHNOLOGY CONTRACTOR.
18	PROVIDE POWER AND LV RACEWAYS FOR FUEL ISLAND MONITOR PANEL MOUNTED 44" AFF. FUEL SYSTEM INSTALLER TO PROVIDE PANEL. REFERENCE ELECTRICAL SITE PLAN AND FUEL ISLAND PLANS. COORDINATE WORK WITH FUEL SYSTEM INSTALLER.
19	PROVIDE A SELF-CONTAINED CO/NO DETECTION SYSTEM EQUAL TO ARMSTRONG AMC-1AVC. PROVIDE AN OVERRIDE SWITCH, RELAYS AND CONTACTORS NEEDED FOR A COMPLETE SYSTEM. CONTROL PANEL SHALL BE INTERCONNECTED TO EF-5 AND LOUVER WL-4. COORDINATE WITH MECHANICAL CONTRACTOR. REFERENCE DETAIL 6/E1.2 FOR OPERATION DETAILS.
20	ROUTE CONDUIT TO ABOVE ACCESSIBLE CEILING.
21	BOTTOM OF PANELBOARD TO BE 18" AFF OR HIGHER.
22	BASE BID: HORN STROBE WITH PULL STATION. ALTERNATE 01: HORN STROBE.
23	ALTERNATE 01: MOUNT FIXTURE AT THE CENTER OF THE BUILDING.
24	EXHAUST FAN TO RUN 24/7.
25	CONTACTOR FOR FUEL ISLAND POWER. REFER TO DETAIL 12/E1.2 FOR MORE INFORMATION.
26	UTILITY METER.
27	BUS BLOCK HEATER CIRCUITS TO BE ROUTED THROUGH CONTACTS IN RELAY PANEL AND CONTROLLED BY DIGITAL TIMER. REFERENCE DETAIL 14/E1.2 FOR MORE INFORMATION.

STATE OF OHIO
ERIC JAMES BALTZELL
E-65072
REGISTERED
PROFESSIONAL ENGINEER

ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

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NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

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24054.02	DNW	KCR

SHEET TITLE:

ELECTRICAL FLOOR PLANS

SHEET NUMBER:

E3.1

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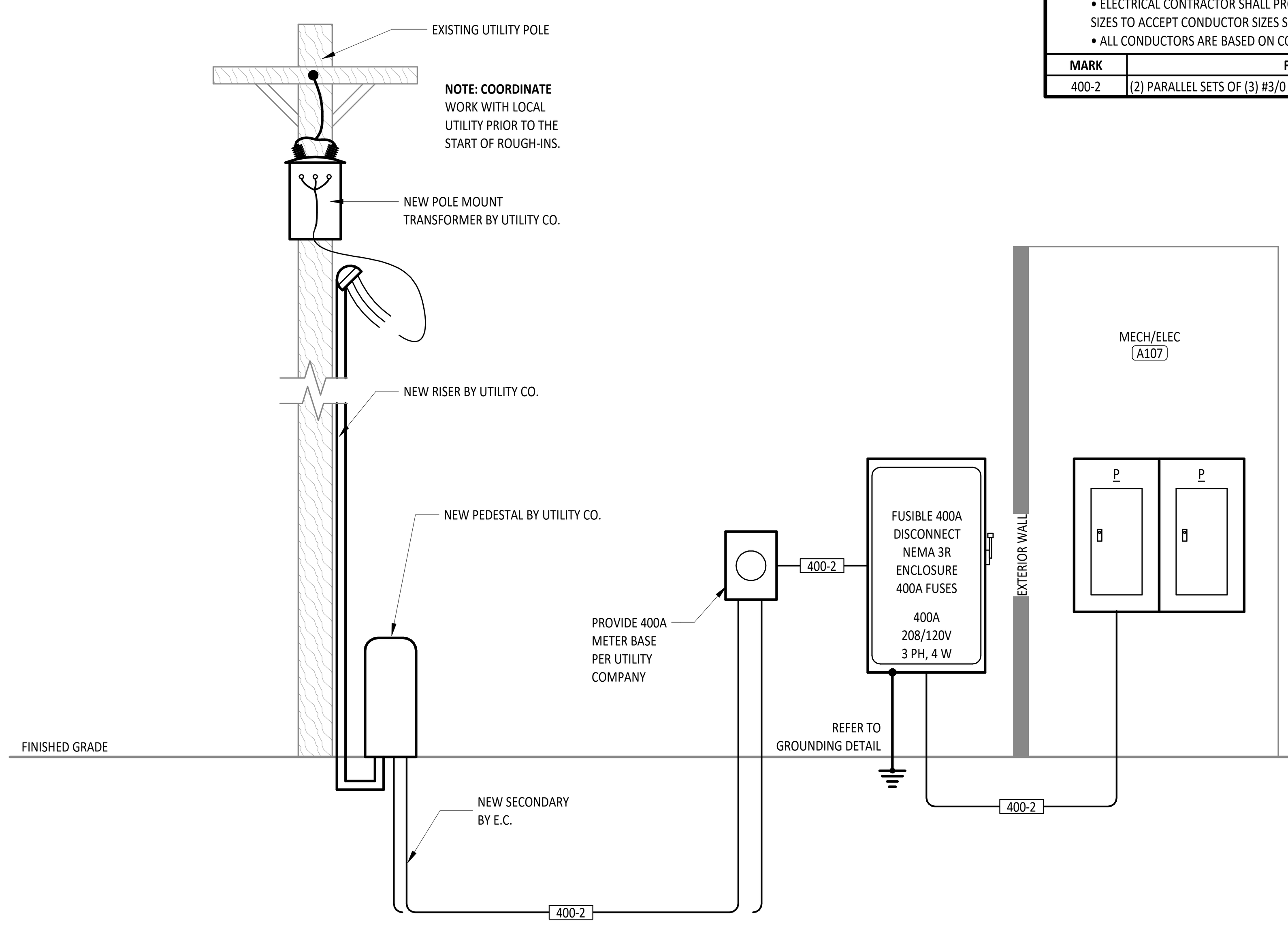

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E4.1
ELECTRICAL ONE-LINE DIAGRAM - BUS MAINTENANCE GARAGE
NTS

FEEDER SCHEDULE

GENERAL NOTES:
- ELECTRICAL CONTRACTOR SHALL PROVIDE THE NUMBER OF LUGS AND PROPER LUG SIZES TO ACCEPT CONDUCTOR SIZES SHOWN.
- ALL CONDUCTORS ARE BASED ON COPPER, UNLESS NOTED OTHERWISE.

MARK	FEEDER DESCRIPTION
400-2	(2) PARALLEL SETS OF (3) #3/0 AWG, #3 AWG G, 2"C

LUMINAIRE SCHEDULE

MARK	MOUNTING	LAMPS				BALLAST/DRIVER	FIXTURE VOLTAGE	INPUT WATTS	FIXTURE DESCRIPTION	COMMENTS	BASIS OF DESIGN & APPROVED MANUFACTURERS
		TYPE	MIN. LUMENS	CCT	CRI						
A	RECESSED	LED	4000 lm	4000K	80 CRI	0-10V DIMMING DOWN TO 10%	UNV	37 W	2FT X 4FT LED FLAT PANEL, WHITE FROST LENS, WHITE FINISH, U.L. LISTED	FIXTURE SETTINGS: LUMEN PACKAGE - LOW LUMEN COLOR TEMPATURE - 4000K	LITHONIA| CPX 2X4 AL08 80CRI SWW7 SWL MVOLT DAYBRITE | SBP SERIES METALUX | FPS SERIES COLUMBIA | CBT SERIES
B	RECESSED	LED	3300 lm	4000K	80 CRI	0-10V DIMMING DOWN TO 10%	UNV	30 W	2FT X 2FT LED PLAT PANEL, WHITE FROST LENS, WHITE FINISH, U.L. LISTED	FIXTURE SETTINGS: LUMEN PACKAGE - MEDIUM LUMEN COLOR TEMPATURE - 4000K	LITHONIA| CPX 2X2 AL07 80CRI SWW7 SWL MVOLT DAYBRITE | SBP SERIES METALUX | FPS SERIES COLUMBIA | CBT SERIES
E	30'-0" POLE	N/A	N/A	N/A	N/A	N/A	N/A	1 W	EXISTING FIXTURE TO REMAIN.		
EM	WALL	LED	N/A	4000K	N/A	ELECTRONIC DRIVER	UNV	1 W	WHITE THERMOPLASTIC LED BATTERY PACK LUMINAIRE, UNIVERSAL MOUNTING, WHITE HOUSING. U.L. LISTED	CONNECT TO LOCAL LIGHTING CIRCUT AHEAD OF SWITCHING 90 MINUTE BATTERY BACK-UP. MOUNT FIXTURE 8'-0" AFF UNO.	LITHONIA| EU2L EXITRONIX | QMR SERIES SURE-LITES | APEL SERIES COMPASS | CU2 SERIES
H	PENDANT	LED	15000 lm	4000K	80 CRI	0-10V DIMMING DOWN TO 10%	UNV	105 W	2FT LED HIGH BAY LUMINAIRE, STEEL CHANNEL, GLARE CONTROL ACRYLIC LENS, CABLE SUSPENDED, WHITE FINISH, CSA/U.L. LISTED.	PROVIDE MOUNTING HARDWARE NECESSARY TO HANG FIXTURE FLUSH WITH BOTTOM OF STRUCTURAL STEEL. PROVIDE EMERGENCY DRIVER FOR SHADED FIXTURES.	LITHONIA| CPHB 15000LM SEF GCL MD MVOLT GZ10 40K 80CRI DAYBRITE | FCY SERIES METALUX | SPHB SERIES ILP | EVT1 SERIES
P4	30'-0" POLE	LED	29900 lm	4000K	80 CRI	0-10V DIMMING	UNV	220 W	EXTERIOR LED AREA LUMINAIRE, SINGLE-PIECE DIE-CAST ALUMINUM HOUSING, TYPE IV DISTRIBUTION, NIGHT-TIME FRIENDLY, INTEGRATED MOTION SENSOR, BLACK FINISH, U.L. WET LOCATION LISTED.	PROVIDE 5" 11g ROUND STRAIGHT STEEL POLE, SAME COLOR AS FIXTURE. PROVIDE VIBRATION DAMPER, BASE COVER, TOP CAP, AND HANDHOLE COVER. REFERENCE DETAIL 2/E1.2 FOR ASSOCIATED FOUNDATION DETAIL.	LITHONIA | DSX2 P3 40K 70CRI T4M MVOLT RPA NLTAIR2 PIRHN DBLXD GARDCO | OPF-M SERIES LUMARK | PRV SERIES BEACON | VP SERIES
P5	30'-0" POLE	LED	30700 lm	4000K	80 CRI	0-10V DIMMING	UNV	220 W	EXTERIOR LED AREA LUMINAIRE, SINGLE-PIECE DIE-CAST ALUMINUM HOUSING, TYPE V DISTRIBUTION, NIGHT-TIME FRIENDLY, INTEGRATED MOTION SENSOR, BLACK FINISH, U.L. WET LOCATION LISTED.	PROVIDE 5" 11g ROUND STRAIGHT STEEL POLE, SAME COLOR AS FIXTURE. PROVIDE VIBRATION DAMPER, BASE COVER, TOP CAP, AND HANDHOLE COVER. REFERENCE DETAIL 2/E1.2 FOR ASSOCIATED FOUNDATION DETAIL.	LITHONIA | DSX2 P3 40K 70CRI T5M MVOLT RPA NLTAIR2 PIRHN DBLXD GARDCO | OPF-M SERIES LUMARK | PRV SERIES BEACON | VP SERIES
S	SURFACE	LED	4000 lm	4000K	80 CRI	0-10V DIMMING DOWN TO 10%	UNV	35 W	4FT LED STRIP LIGHT, HIGH-GLOSS, BAKED WHITE ENAMEL LENS	MOUNT FIXTURE 9'-6" AFF.	LITHONIA| CSS L48 AL03 MVOLT SWW3 80CRI DAYBRITE | FSS SERIES METALUX | SNX SERIES ILP | SS4 SERIES
W1	WALL	LED	1300 lm	4000K	80 CRI	0-10V DIMMING DOWN TO 10%	UNV	15 W	ARCHITECTUAL RECTILINEAR WALL PACK, DIE-CAST ALUMINUM HOUSING, FULLY GASKETED DIE-CAST DOOR FRAME, BLACK FINISH, U.L. WET LOCATION LISTED.	MOUNT FIXTURE 8'-0" AFF. PROVIDE EMERGENCY DRIVER FOR SHADED FIXTURES.	LITHONIA| WDGE2 LED P1 40K 80CRI T2M MVOLT SRM GARDCO | GWM SERIES HEPER USA | LW6048 SERIES BEACON | RWL1 SERIES
W2	WALL	LED	2000 lm	4000K	80 CRI	0-10V DIMMING DOWN TO 10%	UNV	15 W	ARCHITECTUAL RECTILINEAR WALL PACK, DIE-CAST ALUMINUM HOUSING, FULLY GASKETED DIE-CAST DOOR FRAME, BLACK FINISH, U.L. WET LOCATION LISTED.	MOUNT FIXTURE 15'-0" AFF. PROVIDE EMERGENCY DRIVER FOR SHADED FIXTURES.	LITHONIA | WDGE2 LED P2 40K 80CRI TFTM MVOLT SRM GARDCO | GWM SERIES HEPER USA | LW6048 SERIES BEACON | RWL1 SERIES
X	WALL	LED	N/A	RED	N/A	ELECTRONIC DRIVER	UNV	3 W	WHITE THERMOPLASTIC LED EXIT LIGHT, UNIVERSAL MOUNTING, RED LETTERS 6" HIGH WITH 3/4" STROKE (100' MINIMUM VIEWIN DISTANCE - UL924 STANDARDS). U.L. LISTED	CONNECT TO LOCAL LIGHTING CIRCUT AHEAD OF SWITCHING 90 MINUTE BATTERY BACK-UP. MOUNT FIXTURE 8'-0" AFF UNO.	LITHONIA| LHQM LED R EXITRONIX | QCRT SERIES SURE-LITES | APC / APX SERIES COMPASS | CCR SERIES

PANEL P (1 OF 2)

MOUNTING: SURFACE
FED FROM: UTILITY
ENCLOSURE: NEMA 1
LOCATION: MECH/ELECTRICAL/AIR COMPRESSOR A107
AIC RATING: 10,000
VOLTAGE: 208Y/120V 3PH 4W
MAINS RATING: 400 A
MAINS TYPE: 400 A | MCB
OTHER:
PANEL NOTES:
PROVIDE PANEL WITH FEED THRU LUGS AND EXERNAL SURGE PROTECTION DEVICE (SPD). PROVIDE CIRCUIT BREAKER SIZE PER MANUFACTURER RECOMMENDATION.

NOTE	CIRCUIT DESCRIPTION	POLES	AMP	CKT	A	B	C	CKT	AMP	POLES	CIRCUIT DESCRIPTION	NOTE
	RECEPTACLES OFFICE	1	20	1	1080 / 500			2	20	1	LIGHTING CONTROL PANEL	
	RECEPTACLES OFFICE	1	20	3		1080 / 886		4	20	1	LIGHTING MAINTENANCE BAY NORTH	
	LIGHTING OFFICE/STORAGE	1	20	5			560 / 889	6	20	1	LIGHTING MAINTENANCE BAY SOUTH	
	GENERAL RECEPTACLE WORKROOM	1	20	7	1080 / 180			8	20	1	RECEPTACLES MAINTENANCE BAY NORTH WALL	
	GENERAL RECEPTACLES	1	20	9		540 / 600		10	20	1	RECEPTACLE MAINTENANCE BAY A106	
	RECEPTACLE MAINTENANCE BAY	2	20	11			90 / 360	12	20	1	RECEPTACLES MAINTENANCE BAY WEST WALL	
				13	90 / 142			14	20	1	LIGHTING	
	RECEPTACLES MAINTENANCE BAY WEST AND SOUTH WALLS	1	20	15		360 / 240		16	20	1	O.H. DOOR	
	RECEPTACLE MAINTENANCE BAY SOUTH WALL	1	20	17			360 / 240	18	20	1	O.H. DOOR	
	O.H. DOOR	1	20	19	240 / 2420			20	20	1	EF-3	
	EF-1	1	20	21		24 / 1200		22	15	1	FURN-1	
	EF-2	1	20	23			60 / 1664	24	35	2	ACCU-1	1
	RADIANT HEATERS	1	15	25	480 / 1664			26				
	OUTDOOR RECEPTACLES	1	20	27		1080 / 480		28	20	1	ELECTRIC STRIKES	
	DROP CORDS	1	20	29			720 / 695	30	20	1	EXTERIOR POLE LIGHTS	
	EXTERIOR POLE LIGHTS	1	20	31	463 / 600			32	20	1	MICROWAVE	
	FACP	1	20	33		500 / 180		34	20	1	COFFEE MAKER	
	REFRIGERATOR	1	20	35			180 / 360	36	20	1	BUS LIFT CHARGER	
	GRINDER	1	20	37	1000 / 360			38	20	1	BUS LIFT CHARGER	
	DRILL PRESS	1	20	39		1000 / 360		40	20	1	BUS LIFT CHARGER	
	BANDSAW	1	20	41			1000 / 360	42	20	1	BUS LIFT CHARGER	
1	CA-1	3	40	43	3362 / 793			44	20	3	EF-4	
				45		3362 / 793		46				
				47			3362 / 793	48				
	ACCESS CONTROL PANEL	1	20	49	500 / 900			50	20	1	RECEPTACLES - LIGHT POLES	
	SECURITY CONTROL PANEL	1	20	51		500 / 1000		52	20	1	WELDER	
	TECH RACK	1	20	53			360 / 900	54	20	1	BLOCK HEATER	
				VA SUBTOTALS:	27018 VA	22349 VA	22899 VA					
				AMP SUBTOTALS:	226 A	186 A	192 A					

LOAD TYPE:	CONNECTED VA	DEMAND FACTOR	DEMAND VA	DEMAND AMPS
LIGHTING	4480 VA	125.0%	5600 VA	16 A
MOTORS	24493 VA	110.3%	27015 VA	75 A
RECEPTACLE	37936 VA	63.2%	23968 VA	67 A
MISC EQUIPMENT	960 VA	90.0%	864 VA	2 A

SUBTOTAL	PHASE
27018 VA	A
22349 VA	B
22899 VA	C
PANEL TOTALS	
67762 VA	CONNECTED
57316 VA	DEMAND
188 A	CONNECTED
159 A	DEMAND

CIRCUIT NOTES:
(1) PROVIDE (3) #8 AWG CU. #10 AWG CU G., 3/4" C

PANEL P (2 OF 2)

MOUNTING: SURFACE
FED FROM: P
ENCLOSURE: NEMA 1
LOCATION: MECH/ELECTRICAL/AIR COMPRESSOR A107
AIC RATING: 10,000
VOLTAGE: 208Y/120V 3PH 4W
MAINS RATING: 400 A
MAINS TYPE: MLO
OTHER:
PANEL NOTES:

NOTE	CIRCUIT DESCRIPTION	POLES	AMP	CKT	A	B	C	CKT	AMP	POLES	CIRCUIT DESCRIPTION	NOTE
	BLOCK HEATER	1	20	55	900 / 900			56	20	1	BLOCK HEATER	
	BLOCK HEATER	1	20	57		900 / 900		58	20	1	BLOCK HEATER	
	BLOCK HEATER	1	20	59			900 / 900	60	20	1	BLOCK HEATER	
	BLOCK HEATER	1	20	61	900 / 900			62	20	1	BLOCK HEATER	
	BLOCK HEATER	1	20	63		900 / 900		64	20	1	BLOCK HEATER	
	BLOCK HEATER	1	20	65			900 / 900	66	20	1	BLOCK HEATER	
	BLOCK HEATER	1	20	67	900 / 900			68	20	1	BLOCK HEATER	
	BLOCK HEATER	1	20	69		900 / 900		70	20	1	BLOCK HEATER	
	BLOCK HEATER	1	20	71			900 / 900	72	20	1	BLOCK HEATER	
	BLOCK HEATER	1	20	73	900 / 900			74	20	1	BLOCK HEATER	
	BLOCK HEATER	1	20	75		900 / 900		76	20	1	BLOCK HEATER	
	BLOCK HEATER	1	20	77			900 / 1920	78	35	1	DIESEL PUMP	1
1	GASOLINE PUMP	1	35	79	1920 / 1000			80	20	1	FUEL ISLAND MONITOR PANEL	
	ALTERNATE - EF-2	1	20	81		0 / 540		82	20	1	ALTERNATE - RECEPTACLES MAINTENANCE BAY	
	ALTERNATE - EF-5	1	20	83			1196 / 720	84	20	1	ALTERNATE - RECEPTACLES MAINTENANCE BAY	
	ALTERNATE - LIGHTING MAINTENANCE BAY	1	20	85	887 / 240			86	20	1	ALTERNATE 01: OVERHEAD DOOR	
	BLOCK HEAT RELAY PANEL	1	20	87		500 / 0		88	20	1	SPARE BREAKER	
	SPARE BREAKER	1	20	89			0 / 0	90	20	1	SPARE BREAKER	
	SPARE BREAKER	1	20	91	0 / 0			92	--	1	SPACE ONLY	
	SPARE BREAKER	1	20	93		0 / 0		94	--	1	SPACE ONLY	
	SPARE BREAKER	1	20	95			0 / 0	96	--	1	SPACE ONLY	
				VA SUBTOTALS:	11206 VA	8240 VA	10136 VA					
				AMP SUBTOTALS:	96 A	69 A	87 A					

LOAD TYPE:	CONNECTED VA	DEMAND FACTOR	DEMAND VA	DEMAND AMPS
LIGHTING	887 VA	125.0%	1109 VA	3 A
MOTORS	4776 VA	110.1%	5256 VA	15 A
RECEPTACLE	21960 VA	72.8%	15980 VA	44 A
MISC EQUIPMENT	0 VA	0.0%	0 VA	0 A

SUBTOTAL	PHASE
11206 VA	A
8240 VA	B
10136 VA	C
PANEL TOTALS	
27580 VA	CONNECTED
22292 VA	DEMAND
77 A	CONNECTED
62 A	DEMAND

CIRCUIT NOTES:
(1) PROVIDE (3) #8 AWG CU. #10 AWG CU G., 3/4" C

STATE OF OHIO
ERIC JAMES BALTZELL E-65072 REGISTERED
PROFESSIONAL ENGINEER
ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

GARMANN MILLER

NEW BUILDING FOR
TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING
575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	DNW	KCR

SHEET TITLE:
ONE-LINE DIAGRAM, LUMINAIRE AND PANEL SCHEDULES

SHEET NUMBER:
E4.1

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TECHNOLOGY CABLING SYMBOLS

REFER TO FACEPLATE ELEVATIONS FOR MORE INFORMATION ON TECHNOLOGY OUTLETS.

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
D#	DATA OUTLET	WALL	16", UNO
V#D#	VOICE/DATA OUTLET	WALL	16", UNO
V#	VOICE OUTLET	WALL	44"
	'#' INDICATES NUMBER OF VOICE AND / OR DATA CABLES TO BE PROVIDED AT EACH LOCATION		
LI	LOCAL INPUT OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING AND TWO (2) 1-1/4" CONDUIT.	WALL	16", UNO
IFP	INTERACTIVE FLAT PANEL OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING AND ONE (1) 1-1/4" CONDUIT.	WALL	44"
LVP	LARGE VENUE PROJECTOR OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING AND TWO (2) 1-1/4" CONDUIT.	WALL	AS NOTED
SA	GYMNASIUM AUDIO SYSTEM OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING AND TWO (2) 1-1/4" CONDUIT.	WALL	16"
SP	STAGE PRESENTER OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING AND TWO (2) 1-1/4" CONDUIT.		
TPC	TEACHER PERSONAL COMPUTER OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING AND TWO (2) 1-1/4" CONDUIT.		
SR	SOUND REINFORCEMENT OUTLET. 4-11/16", 3.5" DEEP BOX WITH 2-GANG EXTENSION RING AND TWO (2) 1-1/4" CONDUIT. (DETAIL X ON SHEET EX.X)	WALL	44"
VID	VIDEO MONITOR OUTLET. 2-GANG, 3.5" DEEP BOX WITH 2-GANG EXTENSION RING AND ONE (1) 1-1/4" CONDUIT.	WALL	96", UNO
CAM	CAMERA OUTLET. 2-GANG, 3.5" DEEP BOX WITH 1-GANG EXTENSION RING AND ONE (1) 1" CONDUIT.	WALL	144", UNO
WAP	WIRELESS ACCESS POINT OUTLET. 2-GANG, 3.5" DEEP BOX WITH 1-GANG EXTENSION RING AND ONE (1) 1" CONDUIT.		
CM	20 FT OF CAT 6 CABLE COILED ABOVE ACCESSIBLE CEILING FOR FUTURE CAMERA INSTALLATION BY 28 2300 CONTRACTOR		
SS	20 FT OF CAT 6 CABLE COILED ABOVE ACCESSIBLE CEILING FOR FUTURE SECURITY SYSTEM INSTALLATION BY 28 1601 CONTRACTOR.		
WAP	20 FT OF CAT 6 CABLE COILED ABOVE ACCESSIBLE CEILING FOR FUTURE WIRELESS ACCESS POINT INSTALLATION BY 27 2300 CONTRACTOR		
	LADDER TYPE CABLE TRAY		
	BASKET TYPE CABLE TRAY		
(2)2"	CONDUIT SLEEVE(S) FOR TECHNOLOGY CABLING PROVIDED BY DIVISION 26. DIVISION 26 TO PROVIDE FIRE STOPPING WHEN PENETRATING THROUGH FIRE WALLS AS REQUIRED BY CODE.	8" ABOVE CEILING	SEE PLANS
		WALL	16", UNO

DENOTES HORIZONTALLY MOUNTED RACEWAY
DENOTES VERTICALLY MOUNTED RACEWAY

1 T1.1 **TECHNOLOGY CABLING SYMBOLS LEGEND**

AUDIO DEVICE SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
PA	PUBLIC ADDRESS SOUND SYSTEM RACK.	FLOOR	N/A
SD	STUDENT DINING SOUND SYSTEM RACK.		
GS	GYMNASIUM SOUND SYSTEM RACK.		
PR	PORTABLE SOUND SYSTEM RACK.		
MS	MUSIC/VOCAL ROOM SOUND SYSTEM RACK.		
M	HANGING MICROPHONE PROVIDED BY DIVISION 27. DIVISION 26 TO PROVIDE CEILING MOUNTED JUNCTION BOX AND PATHWAY AS REQUIRED. COORDINATE WITH DIVISION 26.	CEILING	N/A
MB	MICROPHONE OUTLET PROVIDED BY DIVISION 27. DIVISION 28 TO PROVIDE SINGLE GANG BACK BOX AND PATHWAY TO ABOVE ACCESSABLE CEILING. COORDINATE WORK WITH DIVISION 26.	WALL	16", UNO
MB	AUXILIARY/MICROPHONE OUTLET BY DIVISION 27. DIVISION 26 TO PROVIDE BACK BOX AND PATHWAYS. COORDINATE WORK WITH DIVISION 26.	WALL	96", UNO
S	PUBLIC ADDRESS SYSTEM CEILING SPEAKER BY DIVISION 27.	CEILING	N/A
S	CLASSROOM SOUND REINFORCEMENT SYSTEM SPEAKER PROVIDED BY DIVISION 27.		
S	PUBLIC ADDRESS SYSTEM FLUSH MOUNT WALL SPEAKER PROVIDED BY DIVISION 27.	WALL	96", UNO
	PUBLIC ADDRESS HORN TYPE SPEAKER PROVIDED BY DIVISION 27.		
	SOUND SYSTEM SPEAKER PRIVIDED BY DIVISION 27. DIVISION 26 TO PROVIDE ROUGH INS AS REQUIRED FOR INSTALLATION. COORDINATE WORK WITH DIVISION 26.	VARIES	SEE PLANS
	PUBLIC ADDRESS CALL-IN SWITCH PROVIDED BY DIVISION 27. DIVISION 26 TO PROVIDE BACK BOX AND PATHWAY TO ABOVE ACCESSABLE CEILING.	WALL	44"
S	PUBLIC ADDRESS SYSTEM VOLUME CONTROL PROVIDED BY DIVISION 27. DIVISION 26 TO PROVIDE BACK BOX AND PATHWAY TO ABOVE ACCESSABLE CEILING.		
	ADMINISTRATIVE CONTROL CONSOLE FOR THE PUBLIC ADDRESS SYSTEM BY DIVISION 27. DIVISION 26 TO PROVIDE BACK BOX AND PATHWAY AS REQUIRED FOR INSTALLATION. COORDINATE WORK WITH DIVISION 26.	VARIES	SEE PLANS

2 T1.1 **AUDIO DEVICE SYMBOLS LEGEND**

TECHNOLOGY EQUIPMENT SYMBOLS

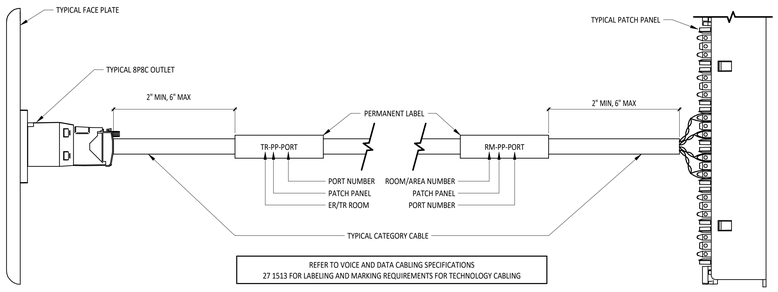
SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
	MULTI-SENSOR CCTV CAMERA, CABLING BY 27 1513 CAMERA BY 28 2300.	VARIES	144", UNO
	CCTV CAMERA, CABLING BY 27 1513, CAMERA BY 28 2300		
	WIRELESS ANALOG CLOCK - DUAL FACE - CEILING MOUNT	WALL	96", UNO
	WIRELESS ANALOG CLOCK - DUAL FACE - WALL MOUNT	WALL	96", UNO
	WIRELESS ANALOG CLOCK - SINGLE FACE - WALL MOUNT		
	WIRELESS ANALOG CLOCK - SINGLE FACE - WALL MOUNT WITH WIRE GUARD		
12	16" WIRELESS ANALOG CLOCK - SINGLE FACE - WALL MOUNT		
12	16" WIRELESS ANALOG CLOCK - SINGLE FACE - WALL MOUNT WITH WIRE GUARD		
12:00	WIRELESS DIGITAL CLOCK - WALL MOUNT - DOUBLE SIDED - SINGLE FACE - LEFT	WALL	96", UNO
	WIRELESS ANALOG CLOCK - WALL MOUNT DOUBLE SIDED - SINGLE FACE - RIGHT	WALL	96", UNO
12:00 12:00	WIRELESS DIGITAL CLOCK - WALL MOUNT - DOUBLE SIDED - DUAL FACE	WALL	96", UNO
12:00	WIRELESS DIGITAL CLOCK - WALL MOUNT	WALL	96", UNO
12:00	WIRELESS DIGITAL CLOCK & PA SPEAKER COMBO - WALL MOUNT	WALL	96"
	WIRELESS ACCESS POINT - CEILING MOUNTED	CEILING	
	WIRELESS ACCESS POINT - WALL MOUNTED	WALL	144", UNO
	LARGE VENUE VIDEO PROJECTOR		
	XX" IFP - INTERACTIVE FLAT PANEL DISPLAY		
	'XX' INDICATES DISPLAY SIZE DIAGONALLY IN INCHES		
	TYPICALL CLASSROOM/SMALL GROUP ROOM	WALL	MATCH WHITE BOARD
	TYPICALL CONFERENCE ROOM	WALL	42", UNO
	XX" LCD - STANDARD FLAT PANEL DISPLAY		
	'XX' INDICATES DISPLAY SIZE DIAGONALLY IN INCHES		
	TYPICALL CLASSROOM/SMALL GROUP ROOM	WALL	MATCH WHITE BOARD
	TYPICALL OFFICE AND COMMOMS AREAS	WALL	42", UNO
	TYPICALL CONFERENCE ROOM	WALL	72", UNO
	DESK MOUNT PHONE		
	WALL MOUNT PHONE	WALL	44", UNO

3 T1.1 **TECHNOLOGY EQUIPMENT SYMBOLS LEGEND** NTS

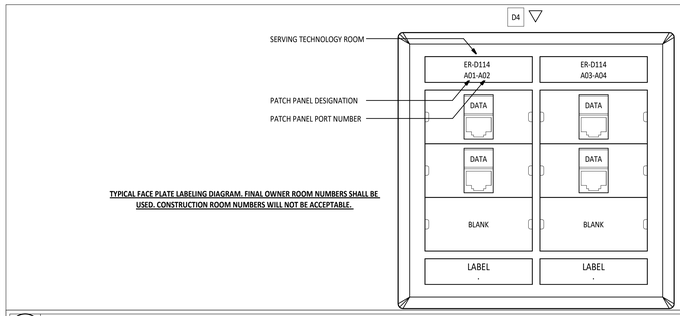
SECURITY/ACCESS CONTROL SYMBOLS

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
ACP	ACCESS CONTROL SYSTEM CONTROL PANEL. DIVISION 26 TO PROVIDE 120V CONNECTION TO PANEL AS REQUIRED. COORDINATE WORK WITH DIVISION 26.	WALL	72" TO TOP
SCP	SECURITY SYSTEM CONTROL PANEL. DIVISION 26 TO PROVIDE 120V CONNECTION TO PANEL AS REQUIRED. COORDINATE WORK WITH DIVISION 26.		
EL	ELECTRONIC LOCK PROVIDED BY DIVISION 08. DIVISION 26 TO PROVIDE PATHWAYS TO ABOVE ACCESSABLE CEILING. COORDINATE WORK WITH DIVISION 08 AND DIVISION 26	DOOR	SEE PLANS
DC	DOOR CONTACT PROVIDED BY DIVISION 28. DIVISION 26 TO PROVIDE PATHWAYS TO ABOVE ACCESSABLE CEILING. COORDINATE WORK WITH DIVISION 08 AND DIVISION 26.		
REX	REQUEST TO EXIT DEVICE BY DIVISION 28. DIVISION 26 TO PROVIDE PATHWAYS TO ABOVE ACCESSABLE CEILING. COORDINATE WORK WITH DIVISION 08 AND DIVISION 26	VARIES	VARIES
CR	ACCESS CONTROL CARD READER PROVIDED BY DIVISION 28. DIVISION 26 TO PROVIDE BACK BOX AND PATHWAY TO ABOVE ACCESSABLE CEILING. COORDINATE WORK WITH DIVISION 26.	WALL	44"
KP	SECURITY SYSTEM KEYPAD PROVIDED BY DIVISION 28. DIVISION 26 TO PROVIDE BACK BOX AND PATHWAY TO ABOVE ACCESSABLE CEILING. COORDINATE WORK WITH DIVISION 26.	WALL	48"
MM	HARD CEILING MOUNT MOTION DETECTOR PROVIDED BY DIVISION 28. DIVISION 26 TO PROVIDE BACK BOX AND PATHWAY TO ABOVE ACCESSABLE CEILING. COORDINATE WORK WITH DIVISION 26.	HARD CEILING	N/A
MM	CEILING MOUNT MOTION DETECTOR PROVIDED BY DIVISION 28. COORDINATE WORK WITH DIVISION 26.	WALL	96", UNO
	SECURITY SYSTEM ALARM BELL PROVIDED BY DIVISION 28. DIVISION 26 TO PROVIDE BACK BOX AND PATHWAY TO ABOVE ACCESSABLE CEILING. COORDINATE WORK WITH DIVISION 26.	WALL	80", UNO
	AUDIO ONLY INTERCOM STATION BY DIVISION 28. DIVISION 26 TO PROVIDE BACK BOX AND PATHWAY TO ABOVE ACCESSABLE CEILING. COORDINATE WORK WITH DIVISION 26.	WALL	48"
	AUDIO & VIDEO INTERCOM STATION BY DIVISION 28. DIVISION 26 TO PROVIDE BACK BOX AND PATHWAY TO ABOVE ACCESSABLE CEILING. COORDINATE WORK WITH DIVISION 26.	WALL	48"
DS	DESK MOUNT MASTER INTERCOM STATION PROVIDED BY DIVISION 28. COORDINATE PATHWAY REQUIREMENTS WITH DIVISION 26.	VARIES	VARIES
	ELECTRONIC DOOR RELEASE OR LOCK DOWN PUSH BUTTON PROVIDED BY DIVISION 28. COORDINATE PATHWAY REQUIREMENTS WITH DIVISION 26.		

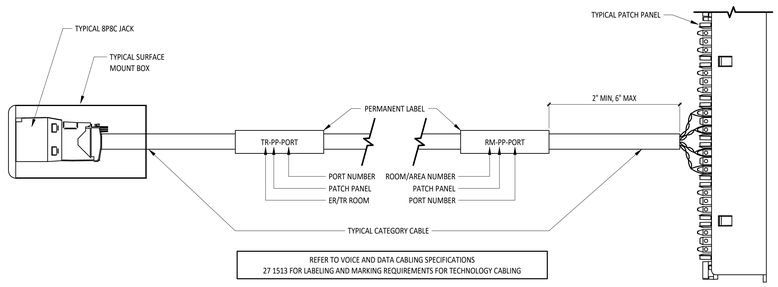
4 T1.1 **SECURITY/ACCESS CONTROL SYMBOL LEGEND**



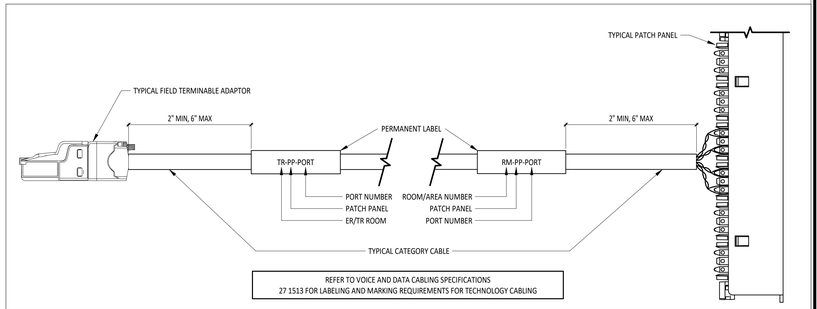
5 T1.1 **CABLE LABELING SCHEMATIC - FACEPLATE TO PATCH PANEL**



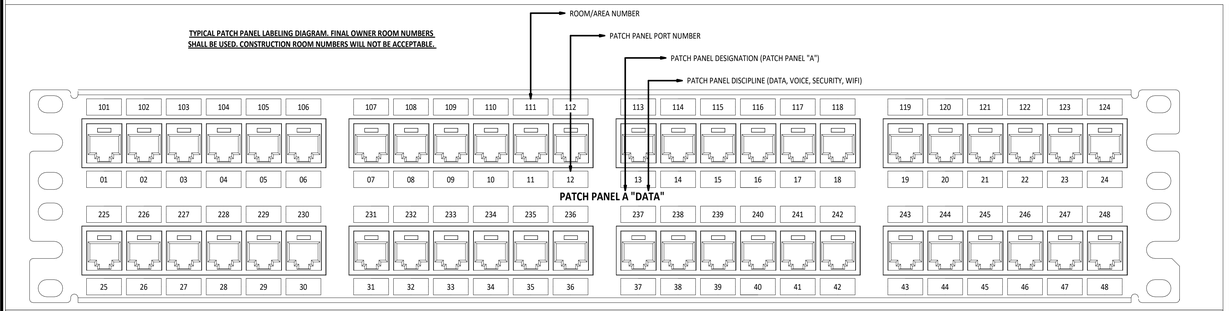
6 T1.1 **TYPICAL FACEPLATE LABELING SCHEMATIC**



7 T1.1 **CABLE LABELING SCHEMATIC - SURFACE MOUNT BOX TO PATCH PANEL**



8 T1.1 **CABLE LABELING SCHEMATIC - FIELD TERMINAL ADAPTER TO PATCH PANEL**



9 T1.1 **TYPICAL PATCH PANEL LABELING SCHEMATIC**

TECHNOLOGY CABLING AND JACK COLOR CODING

CABLE TYPE	DESCRIPTION	COLOR CABLE	COLOR JACK
CATEGORY 6	DATA NETWORK CABLE	BLUE	BLUE
CATEGORY 6	VOICE NETWORK CABLE	BLUE	BLUE
CATEGORY 6	WIRELESS DATA NETWORK CABLE	BLUE	BLUE
CATEGORY 6	SECURITY, ACCESS CONTROL, CCTV NETWORK CABLE	GREEN	GREEN
CATEGORY 6	LOCAL PEER TO PEER	ORANGE	ORANGE
CATEGORY 6	USB OVER TWISTED PAIR, HDMI OVER TWISTED PAIR	ORANGE	ORANGE
3.5MM AUDIO	SHIELDED 22AWG/2 CONDUCTOR	N/A	MATCH FACEPLATE
HDMI	ACTIVE OPTICAL HDMI	N/A	MATCH FACEPLATE

10 T1.1 **TECHNOLOGY CABLING AND JACK COLOR CODING**

- NOTE:

	ABBREVIATIONS USED ON THE CONTRACT DOCUMENTS, INCLUDE BUT ARE NOT LIMITED TO THOSE LISTED BELOW.

A

AC	ABOVE COUNTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AV	AUDIO/VISUAL

C

CAM	CAMERA
CAT	CATEGORY
CCTV	CLOSED-CIRCUIT TELEVISION

D

D	DATA
DC	DIRECT CURRENT
DSD	DIGITAL SIGNAGE DISPLAY

E

E	EXISTING
EC	ELECTRICAL CONTRACTOR
ER	EQUIPMENT ROOM

G

GBE	GIGABIT ETHERNET
GPON	GIGABIT PASSIVE OPTICAL NETWORK

I

IFP	INTERACTIVE FLAT PANEL DISPLAY
ISG(N)	ISOLATED SYSTEMS GROUND
IWB	INTERACTIVE WHITE BOARD

L

LI	LOCAL INPUT
LVP	LARGE VENUE PROJECTOR

M

MM	MULTIMODE FIBER OPTIC CABLE

O

OLT	OPTICAL LINE TERMINAL
ONT	OPTICAL NETWORK TERMINAL
OREQ	OR EQUAL
OS	OPTICAL SPLITTER

P

PA	PUBLIC ADDRESS
PDU	POWER DISTRIBUTION UNIT
PoE	POWER OVER ETHERNET
POL	PASSIVE OPTICAL LAN
PON	PASSIVE OPTICAL NETWORK

Q

Q	EMPTY BOX WITH BLANK COVER

R

RU	RACK UNITS

S

SA	SOUND AMPLIFICATION
SM	SINGLE MODE FIBER OPTIC CABLE
SP	STAGE PRESENTER
SR	SOUND REINFORCEMENT
SS	SECURITY SYSTEM

T

TBB	TELECOMMUNICATIONS BONDING BACKBONE
TE	TELECOMMUNICATIONS ENCLOSURE
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BACKBONE
TPC	TEACHERS PERSONAL COMPUTER
TR	TELECOMMUNICATIONS ROOM
TYP	TYPICAL

U

UNO	UNLESS NOTED OTHERWISE

V

V	VOICE
VID	VIDEO
VOD	VIDEO ON DEMAND
VoIP	VOICE OVER INTERNET PROTOCOL
VP	VIDEO PROJECTOR

W

WAP	WIRELESS ACCESS POINT
WG	WIREGUARD; SIZED SPECIFICALLY FOR DEVICE IT IS SERVING
WP	WEATHERPROOF

X

XGS-PON-10	10 GIGABIT SYNCHRONOUS - PASSIVE OPTICAL NETWORK

TECHNOLOGY CABLING/EQUIPMENT GENERAL NOTES

A RACK LAYOUTS SHALL NOT BE CHANGED WITHOUT APPROVAL FROM THE ARCHITECT AND THE CONSTRUCTION MANAGER.

B ALL EQUIPMENT, OWNER OR CONTRACTOR PROVIDED, SHALL BE MOUNTED IN THE RACKS WITH THE PROPER MOUNTING HARDWARE AND WITH THE PROPER PATCH CABLE LENGTH AND COLOR.

C ALL EMPTY OR UNUSED RACK SPACE MUST BE FILLED WITH BLANK PANELS FOR PROPER HOT/COLD ISLE VENTILATION.

D TECHNOLOGY CABLING CONTRACTORS ARE RESPONSIBLE FOR PROVIDING, BUT IS NOT LIMITED TO, THE FOLLOWING FOR THEIR RESPECTIVE SPECIFICATION SECTIONS: TWO POST RACKS, FOUR POST RACKS, WALL/FLOOR MOUNT CABINETS, VERTICAL CABLE MANAGERS, HORIZONTAL CABLE MANAGERS, PATCH PANELS, FIBER ENCLOSURES AND COUPLER PANELS, BLANK PANELS, SHELVES FOR ANY OWNER EQUIPMENT OR EQUIPMENT NOT RACK MOUNTABLE, AND PAGING SYSTEM.

E TECHNOLOGY EQUIPMENT CONTRACTORS ARE RESPONSIBLE FOR PROVIDING, BUT IS NOT LIMITED TO, THE FOLLOWING FOR THEIR RESPECTIVE SPECIFICATION SECTIONS: NETWORK SWITCHES, CORE SWITCHES, FILE SERVER, NTP SERVER, VOD SERVER (DIGITAL MEDIA MANAGEMENT SYSTEM), ENCODER CHASSIS (DIGITAL MEDIA MANAGMENT SYSTEM), IP KVM, IP TELEPHONE GATEWAY, UPS UNITS, COORDINATING A-SITE EQUIPMENT INSTALLATION AND OR PROGRAMING, PATCH CABLES, AND PATCH CABLES FOR OWNER EQUIPMENT.

F REFER TO SPECIFICATIONS FOR DETAILS AND MORE INFORMATION INCLUDING MISC.MATERIALS REQUIRED TO BE PROVIDED.

G ALL EQUIPMENT, OWNER OR CONTRACTOR PROVIDED, SHALL BE MOUNTED IN THE RACKS WITH THE PROPER MOUNTING HARDWARE AND WITH THE PROPER PATCH CABLE LENGTH AND COLOR.

H TECHNOLOGY DRAWINGS COVER ALL OF DIVISION 27 AND 28 SPECIFICATIONS EXCLUDING FIRE ALARM. IT IS HIGHLY RECOMMENDED THAT THE CONTRACTOR REVIEWS DIVISION 27 AND 28 SPECIFICATIONS AND ATTENDS THE PRE BID MEETING PRIOR TO SUBMITTING BIDS..

I ALL CABLING IN EXPOSED AREAS MUST BE ENCLOSED IN A CONDUIT. PAINT CONDUIT TO MATCH SURROUNDING AREA.

J THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TECHNOLOGY SYSTEMS ROUGH-IN REQUIREMENTS, COORDINATE WITH THE SYSTEMS SUPPLIER FOR ANY VENDOR SPECIFIC REQUIREMENTS.

K CONTRACTORS SHALL PROVIDE APPROPRIATE FACEPLATES, JACKS, CONNECTORS, AND CABLING FOR EACH TECHNOLOGY ROUGH-IN INDICATED.

L CONTRACTORS SHALL PROVIDE ALL TERMINATIONS FOR CABLING INDICATED.

M CONTRACTORS SHALL LABEL ALL CABLING AS REQUIRED BY PER THE LASTEST NEC AND ANSI/TIA/EIA-606 STANDARDS.

N CABLE TIES ARE FOR OUTDOOR USE ONLY AND SHALL BE TRIMMED TO AVOID SHARP EDGES WITH FLUSH CUTTERS.

O PROVIDE BLACK NON-PRINTED VELCRO STRAPS FOR INDOOR USE. USE PLENUM WHERE REQUIRED.

P PROVIDE COVER PLATES ON ALL EMPTY TECHNOLOGY ROUGH-INS.

Q CONTRACTORS SHALL COORDINATE INSTALLATION AND GROUNDING OF TELEPHONE, CATV, AND ITC DEMARCS/SERVICE ENTRANCES.

R EACH WAP LOCATION REQUIRES TWO (2) SHIELDED CAT 6 CABLES.

S TYPICAL TECHNOLOGY ROUGH-INS, IN NEW WALLS, ARE 2-GANG OUTLET BOXES, 3-1/2" DEEP WITH A MIN OF 1-1/4" CONDUIT STUBBED ABOVE ACCESSIBLE CEILING. TECHNOLOGY ROUGH-INS ON EXISTING WALLS WILL BE SURFACE MOUNTED DUAL CHANNEL RACEWAY.

T ANY PENETRATION THROUGH FIRE WALLS MUST USE 2" CONDUIT AND PROPER FIRE STOPPING PER THE LASTEST CODES AND STANDARDS.

U CEILING SPACE IS USED AS A PLENUM, ALL CABLE AND INSULATION MATERIALS SHALL BE PLENUM RATED.

TECHNOLOGY SHEET INDEX

STATE OF OHIO
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E-65072
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PROFESSIONAL ENGINEER
ERIC JAMES BALTZELL
LICENSE #E-65072
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GARMANN MILLER
ARCHITECTS, CINCY | COLUMBUS, OHIO | INDIANAPOLIS, INDIANA | FORT WAYNE, INDIANA
cincinnati@garmann-miller.com

NEW BUILDING FOR
TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING
575 N MYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

DD PHASE SUBMISSION	09/05/2024
CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	CDT	GAW

SHEET TITLE:
GENERAL NOTES, ABBREVIATIONS, LEGENDS, DIAGRAMS AND SHEET INDEX

SHEET NUMBER:
T1.1

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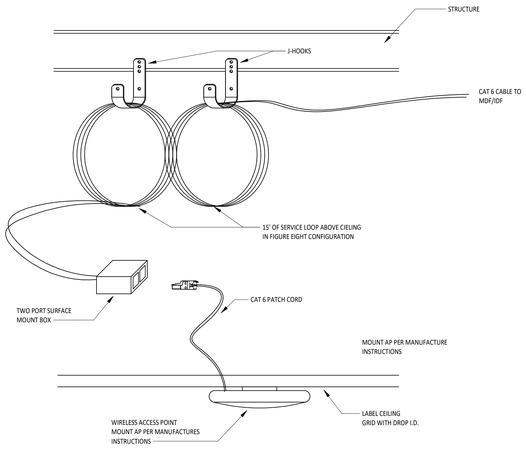
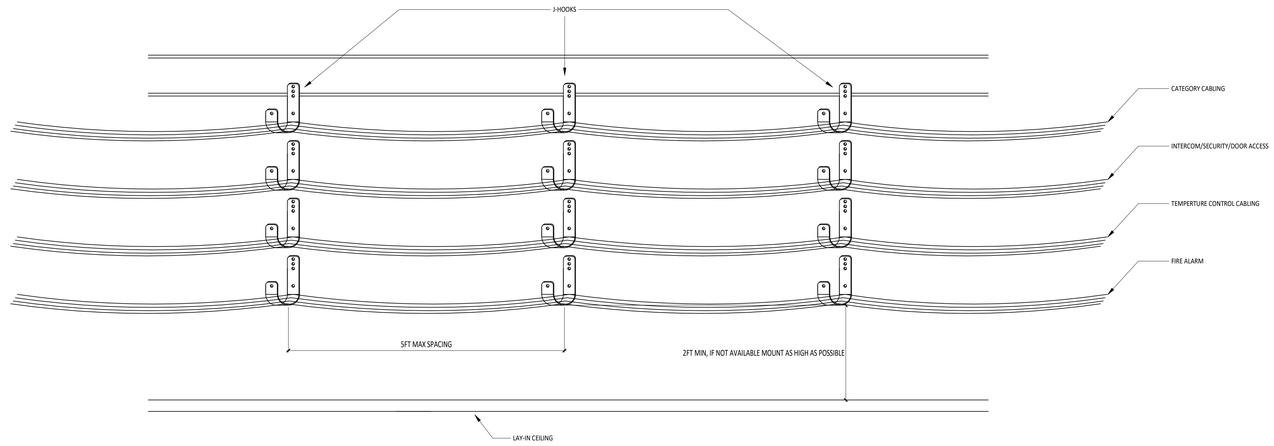
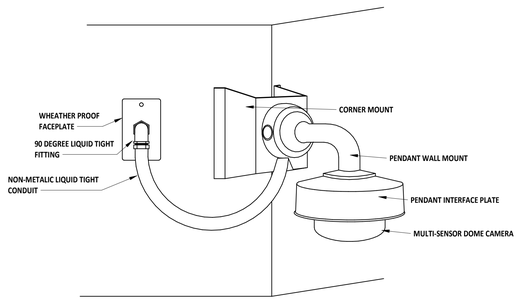


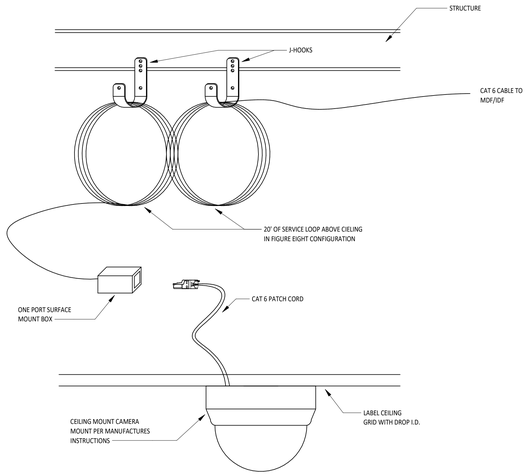
1 T1.2 **TYPICAL WIRELESS ACCESS POINT DETAIL**



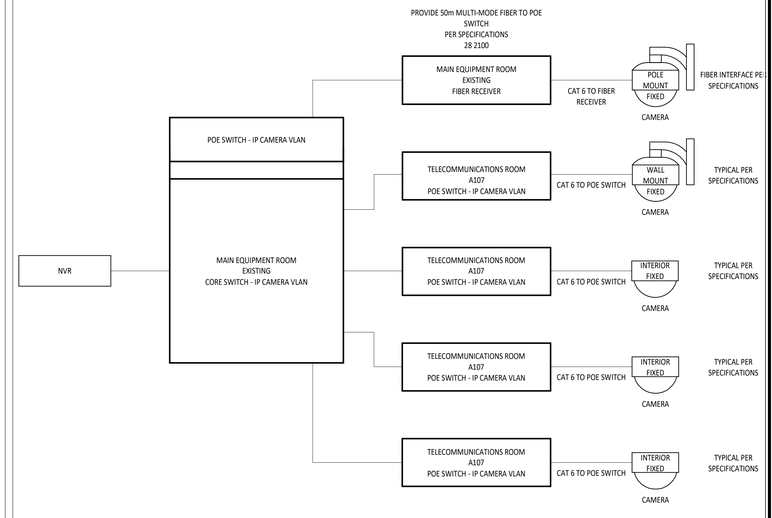
2 T1.2 **TYPICAL CABLE SUPPORT DETAIL**



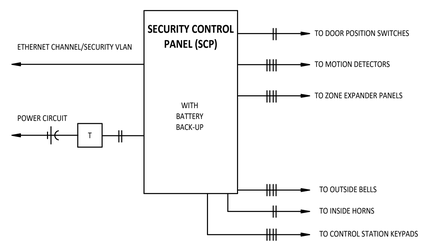
3 T1.2 **TYPICAL CCTV SCHEMATIC**



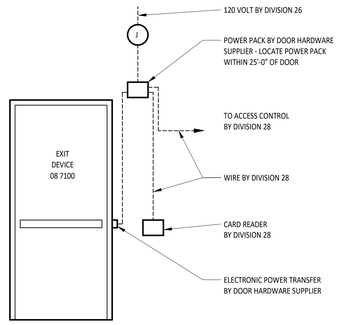
4 T1.2 **TYPICAL CEILING MOUNT CAMERA DETAIL**



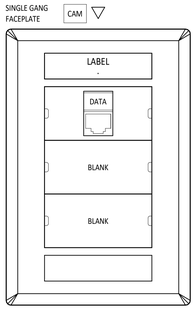
5 T1.2 **TYPICAL CCTV SCHEMATIC**



6 T1.2 **RISER DIAGRAM - SECURITY SYSTEM**

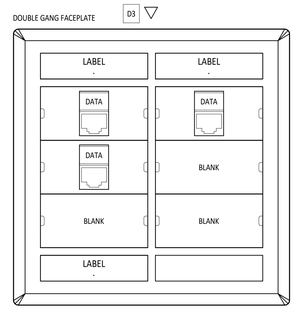


7 T1.2 **ACCESS CONTROL SYSTEM SCHEMATIC WIRE DIAGRAM - SINGLE DOOR**



TYPICAL TYPE (CAM) OUTLET - LABEL AS SHOWN IN DETAILS & ABOVE
- (1) CAT 6 BLUE CABLE TO TR AS INDICATED ON PLANS

8 T1.2 **CAMERA OUTLET (CAM)**



TYPICAL TYPE (D3) OUTLET - LABEL AS SHOWN IN DETAILS & ABOVE
- (3) CAT 6 BLUE CABLES TO TR AS INDICATED ON PLANS

9 T1.2 **DATA OUTLET (D3)**

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NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS	
DD PHASE SUBMISSION	09/05/2024
CONSTRUCTION DOCUMENTS	02/07/2025

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T1.2

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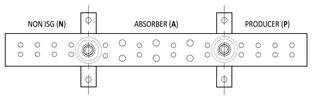
TYPICAL TELECOMMUNICATIONS GROUND BAR (TGB) - TELECOMMUNICATIONS ROOMS



BONDING CONDUCTORS TO BE CONNECTED TO APPROPRIATE SECTION

NON ISG (**N**) SECTION
- CABLE TRAYS
- EQUIPMENT CHASSIS GROUNDS
- SERVER AND WIRE MGMT RACKS
- ANY DATA/SERVER REFERENCE GROUNDS

ABSORBER (**A**) SECTION (FROM LEFT TO RIGHT)
- BUILDING STEEL - 2/0
- ELECTRIC GROUND/MGN - MATCH PANEL GROUND - 6AWG MINIMUM - PANEL XXXX, ROOM A107

PRODUCER (**P**) SECTION
- METALLIC CABLE SHIELDS (TELEPHONE, CATV, ETC.)
- EXTERNAL ANTENNA SHIELDS
- LIGHTNING ARRESTORS/PROTECTORS (COMMUNICATIONS, ALL TYPES)

1 / T1.3 **GROUNDING AND BONDING SCHEMATIC DIAGRAM**

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T1.3

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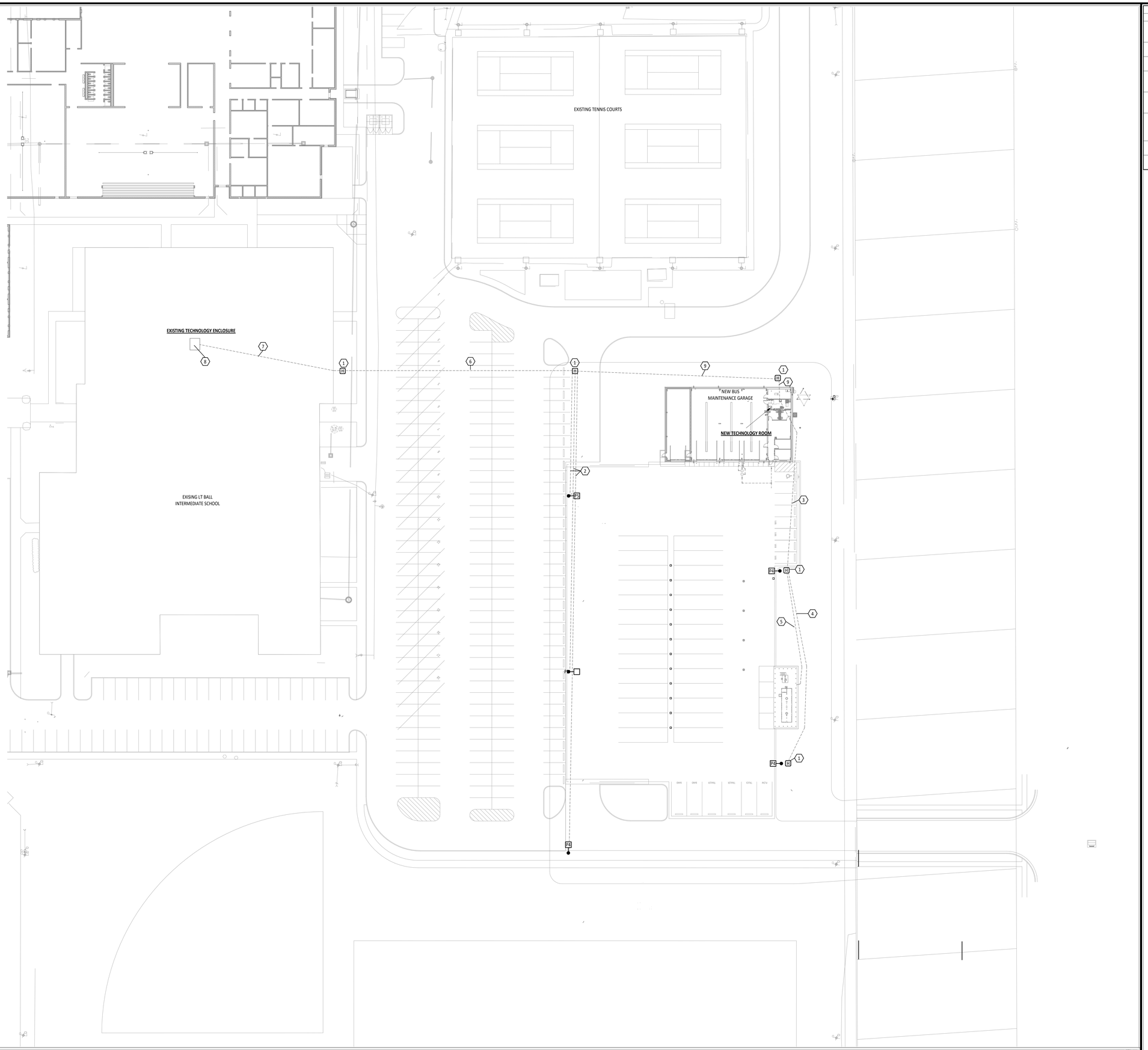

#	KEYNOTE DESCRIPTION
1	DIVISION 26 TO PROVIDE PULL BOX FOR DIVISION 27 CONDUIT.
2	ONE (1) 1-1/2" CONDUIT FOR FUTURE POLE CAMERA BY DIVISION 26. DIVISION 27 TO PROVIDE A 2-STRAND SINGLE MODE FIBER OPTIC CABLE WITH 40' OF SLACK COILED FOR FUTURE USE.
3	ONE (1) 2" CONDUIT WITH A 2" 4-CELL FABRIC INNERDUCT PROVIDED BY DIVISION 26.
4	ONE (1) 2" CONDUIT WITH A 2" 3-CELL FABRIC INNERDUCT PROVIDED BY DIVISION 26.
5	ONE (1) 1-1/2" CONDUIT WITH A 2" 3-CELL FABRIC INNERDUCT FOR FUEL ISLAND PROVIDED BY DIVISION 26. DIVISION 27 TO PROVIDE A 2-STRAND SINGLE MODE FIBER OPTIC CABLE WITH 40' OF SLACK COILED FOR FUTURE USE.
6	TWO (2) 2" CONDUITS EACH HAVING ONE 2", 3-CELL FABRIC INNERDUCT FROM THE TECHNOLOGY ROOM IN THE BUS GARAGE TO NEW HAND HOLE BY DIVISION 26.
7	DIVISION 27 TO PROVIDE ONE (1) 6-STRAND OS2 SINGLE MODE FIBER OPTIC CABLE ABOVE CEILING TO EXISTING TECHNOLOGY ROOM TO NEW BUS MAINTENANCE BUILDING. PROVIDE SC-UPC SPLICE ON CONNECTORS ON EACH END.
8	APPROXIMATE LOCATION OF EXISTING TECHNOLOGY RACK. FIELD TO VERIFY BEFORE PROCURING ANY MATERIAL.
9	THREE (2) 2" CONDUITS EACH HAVING ONE 2", 3-CELL FABRIC INNERDUCT BY PROVIDED BY DIVISION 26.

1 T2.1 **TECHNOLOGY SITE PLAN**
1" = 30'-0"

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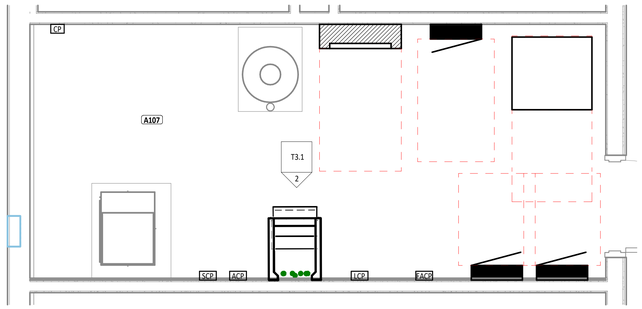
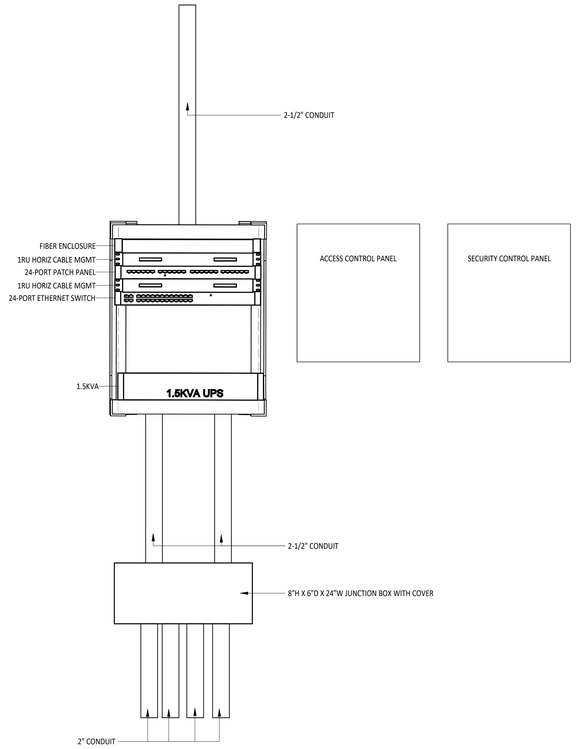
TECHNOLOGY SITE PLAN

SHEET NUMBER:
T2.1



1 T3.1 **ENLARGED TECHNOLOGY ROOM A107**
1/2" = 1'-0"



2 T3.1 **TECHNOLOGY RACK**
1 1/2" = 1'-0"

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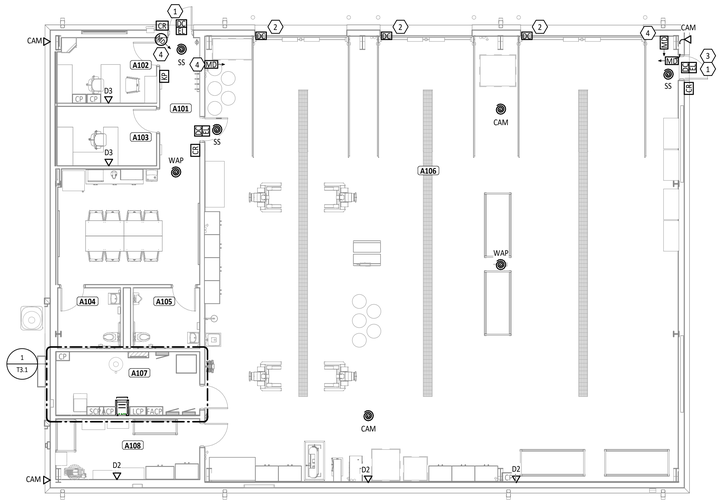
SHEET TITLE:

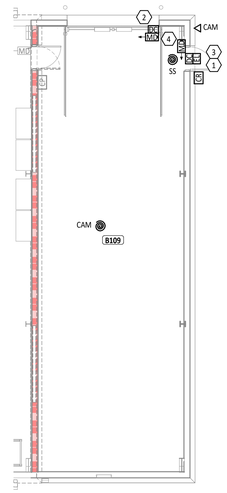
ENLARGED TECHNOLOGY ROOMS

SHEET NUMBER:

T3.1



1 TC1.1 **FIRST FLOOR TECHNOLOGY CABLING PLAN - BASE BID**
1/8" = 1'-0"

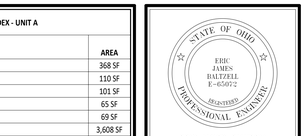


2 TC1.1 **FIRST FLOOR TECHNOLOGY CABLING PLAN = ALTERNATE #1**
1/8" = 1'-0"

FIRST FLOOR PLAN ROOM INDEX - UNIT A

ROOM NUMBER	ROOM NAME	AREA
A101	WORKROOM	368 SF
A102	OFFICE	110 SF
A103	OFFICE	101 SF
A104	UNISEX RESTROOM	65 SF
A105	UNISEX RESTROOM	69 SF
A106	MAINTENANCE BAY	3,608 SF
A107	MECH/ELECTRICAL/AIR COMPRESSOR	156 SF
A107	WORKROOM	Not Placed
A108	STORAGE	149 SF

#	KEYNOTE DESCRIPTION
1	DOOR PROVIDED WITH ELECTRIC STRIKE BY DOOR HARDWARE SUPPLIER. DOOR HARDWARE SUPPLIER TO PROVIDE POWER PACK WITH DRY CONTACT FOR ELECTRIC STRIKE. PROVIDE WIRING FROM ELECTRIC STRIKE POWER PACK TO ACCESS CONTROL SYSTEM. COORDINATE WORK WITH HARDWARE SUPPLIER PRIOR TO ROUGH-IN. CONNECT DOOR TO ACCESS CONTROL SYSTEM TO PROVIDE INDIVIDUAL TIMED CONTROL OF THE ELECTRIC STRIKE. DIVISION 26 TO PROVIDE ALL PATHWAYS AND POWER REQUIRED FOR PROPER OPERATION.
2	PROVIDE AN INTRUSION DETECTION SYSTEM DOOR CONTACT FOR OVERHEAD DOOR.
3	INSTALL DOOR SECURITY ON EXTERIOR DOOR IF ALTERNATE #01 IS ACCEPTED.
4	PROVIDE AN INTRUSION DETECTION SYSTEM MOTION DETECTOR.



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SHEET TITLE:
TECHNOLOGY CABLING PLANS

SHEET NUMBER:
TC1.1

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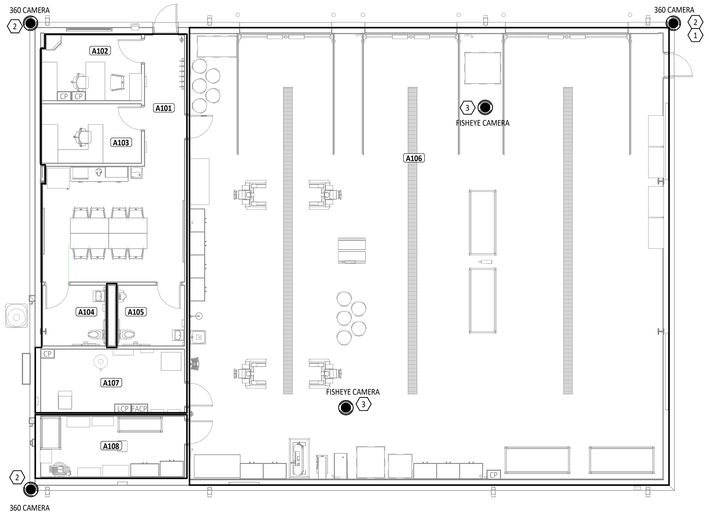
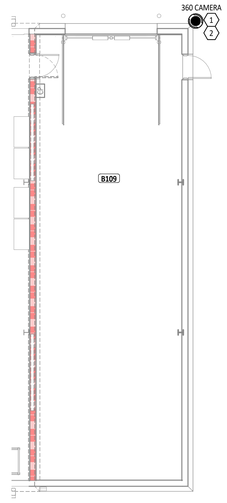


1 TE1.1 **FIRST FLOOR TECHNOLOGY EQUIPMENT PLAN - BASE BID**
1/8" = 1'-0"



2 TE1.1 **FIRST FLOOR TECHNOLOGY EQUIPMENT PLAN - ALTERNATE #1**
1/8" = 1'-0"

FIRST FLOOR PLAN ROOM INDEX - UNIT A

ROOM NUMBER	ROOM NAME	AREA
A101	WORKROOM	368 SF
A102	OFFICE	110 SF
A103	OFFICE	101 SF
A104	UNISEX RESTROOM	65 SF
A105	UNISEX RESTROOM	69 SF
A106	MAINTENANCE BAY	3,608 SF
A107	MECH/ELECTRICAL/AIR COMPRESSOR	156 SF
A107	WORKROOM	Not Placed
A108	STORAGE	149 SF

#	KEYNOTE DESCRIPTION
1	MOVE 360 DEGREE CORNER MOUNTED CAMERA TO NEW LOCATION IF ALTERNATE #1 IS ACCEPTED.
2	INSTALL OWNER FURNISHED 360 DEGREE CORNER MOUNTED CAMERA.
3	INSTALL OWNER FURNISHED FISHEYE CAMERA.

STATE OF OHIO
ERIC JAMES BALTZELL
E-65072
REGISTERED
PROFESSIONAL ENGINEER

ERIC JAMES BALTZELL
LICENSE #E-65072
EXPIRATION DATE: 12/31/2025

GARMANN MILLER
MARION, OHIO | COLUMBUS, OHIO | INDIANAPOLIS, INDIANA | FORT WAYNE, INDIANA
mmmgfirm.com

NEW BUILDING FOR
TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING
574 N WYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

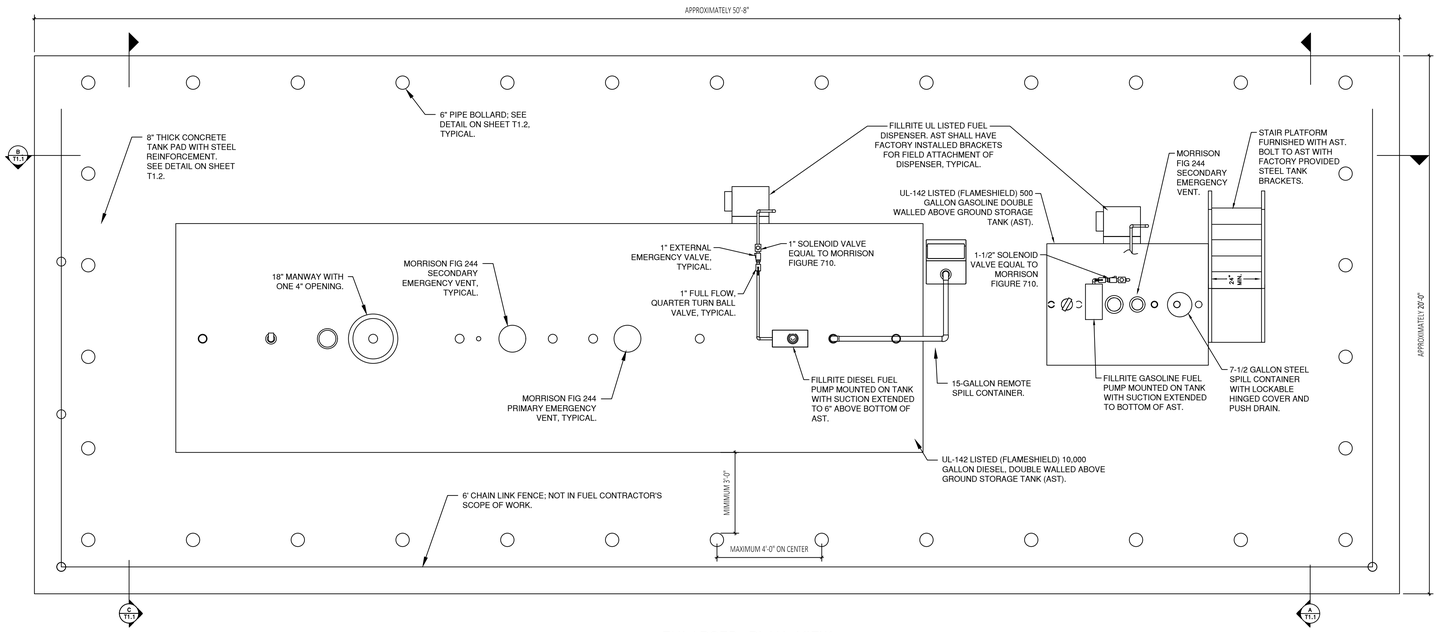
	DD PHASE SUBMISSION	09/05/2024
	CONSTRUCTION DOCUMENTS	02/07/2025

PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	CDT	GAW

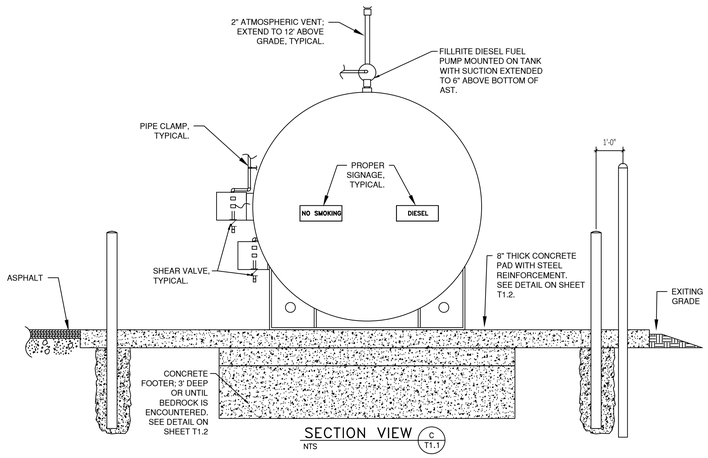
SHEET TITLE:
TECHNOLOGY EQUIPMENT PLANS

SHEET NUMBER:
TE1.1

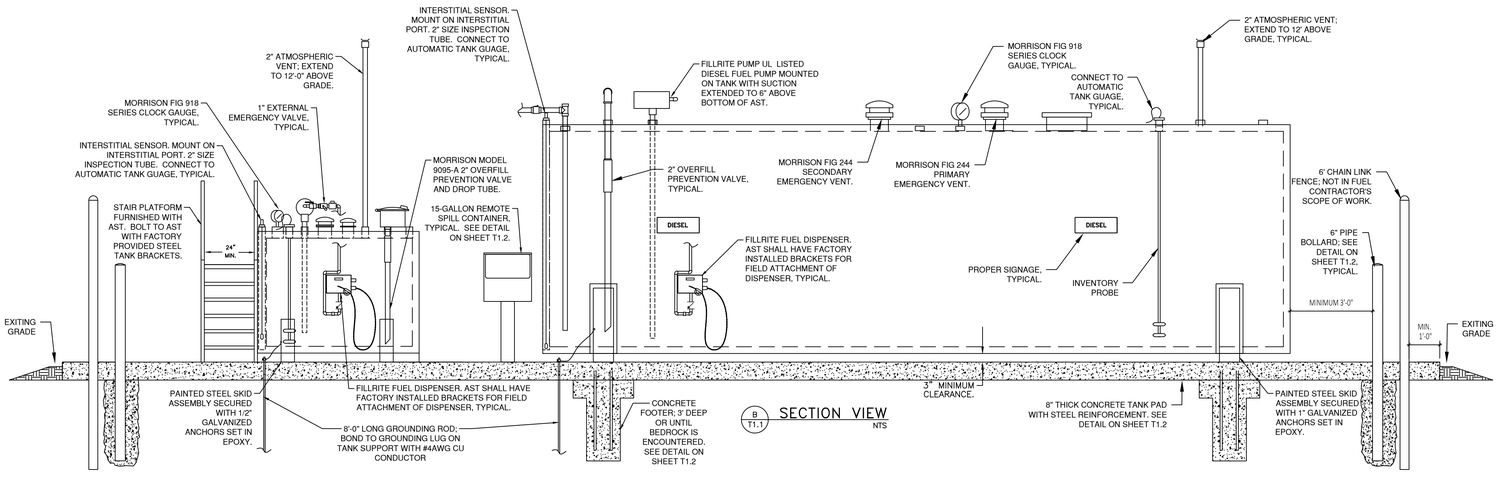
PRINTED ON: 2/4/2025 11:13:55 AM



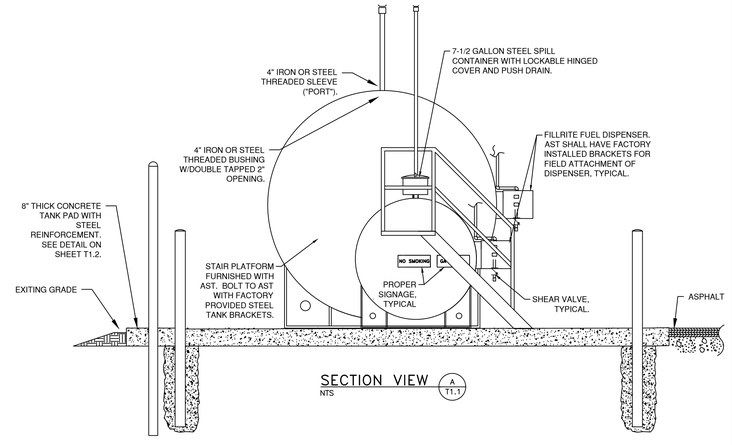
ENLARGED PLAN VIEW
NTS



SECTION VIEW
NTS C T1.1



SECTION VIEW
NTS B T1.1



SECTION VIEW
NTS A T1.1

STATE OF OHIO
DAVID B. GANDEE
E-44943
REGISTERED
PROFESSIONAL ENGINEER
DAVID B. GANDEE, P.E.
2/05/25
DATE

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NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS	
CONSTRUCTION DOCUMENTS	02/07/2025

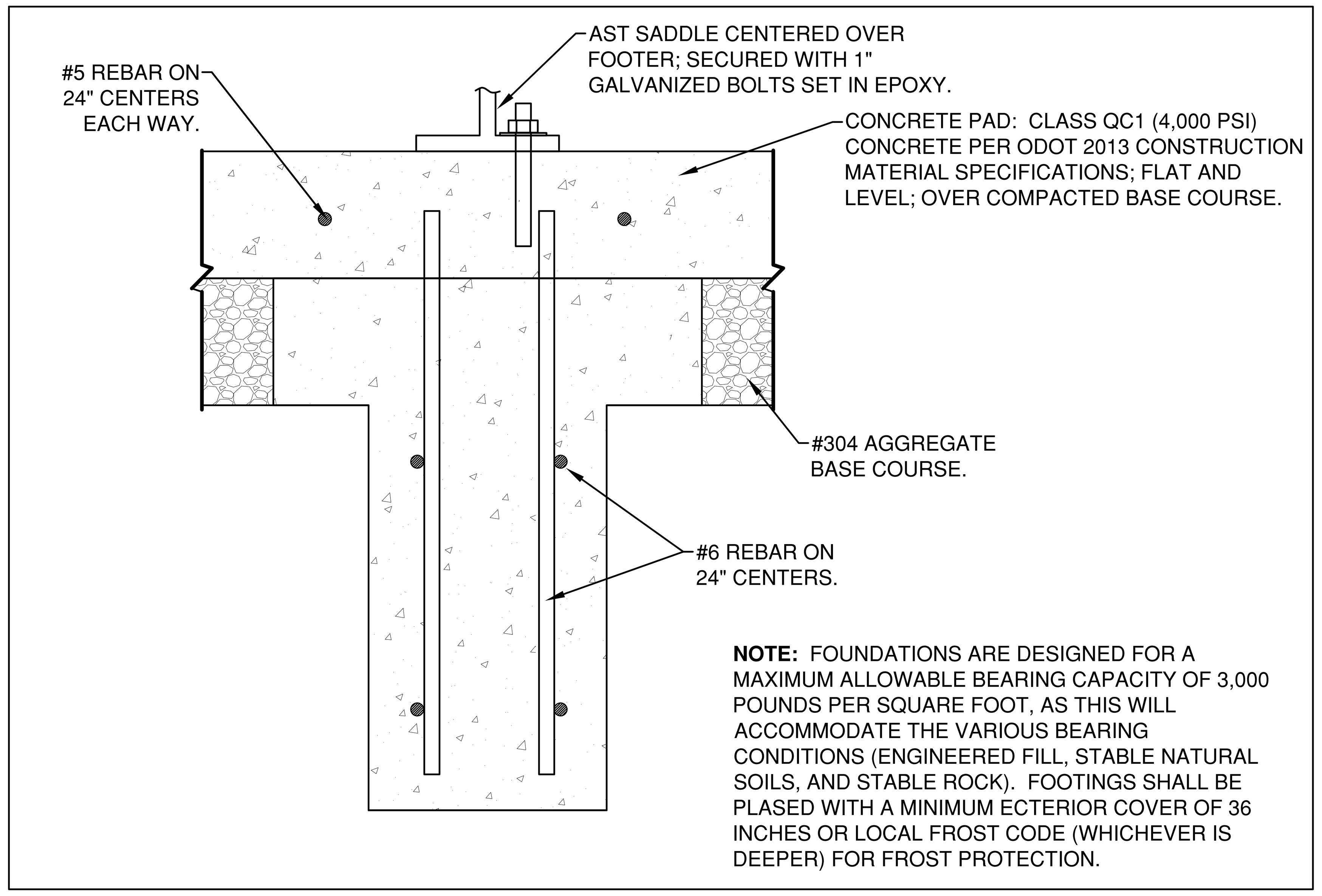
PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	NAH	DBG

SHEET TITLE:

FUEL SYSTEM DETAILS

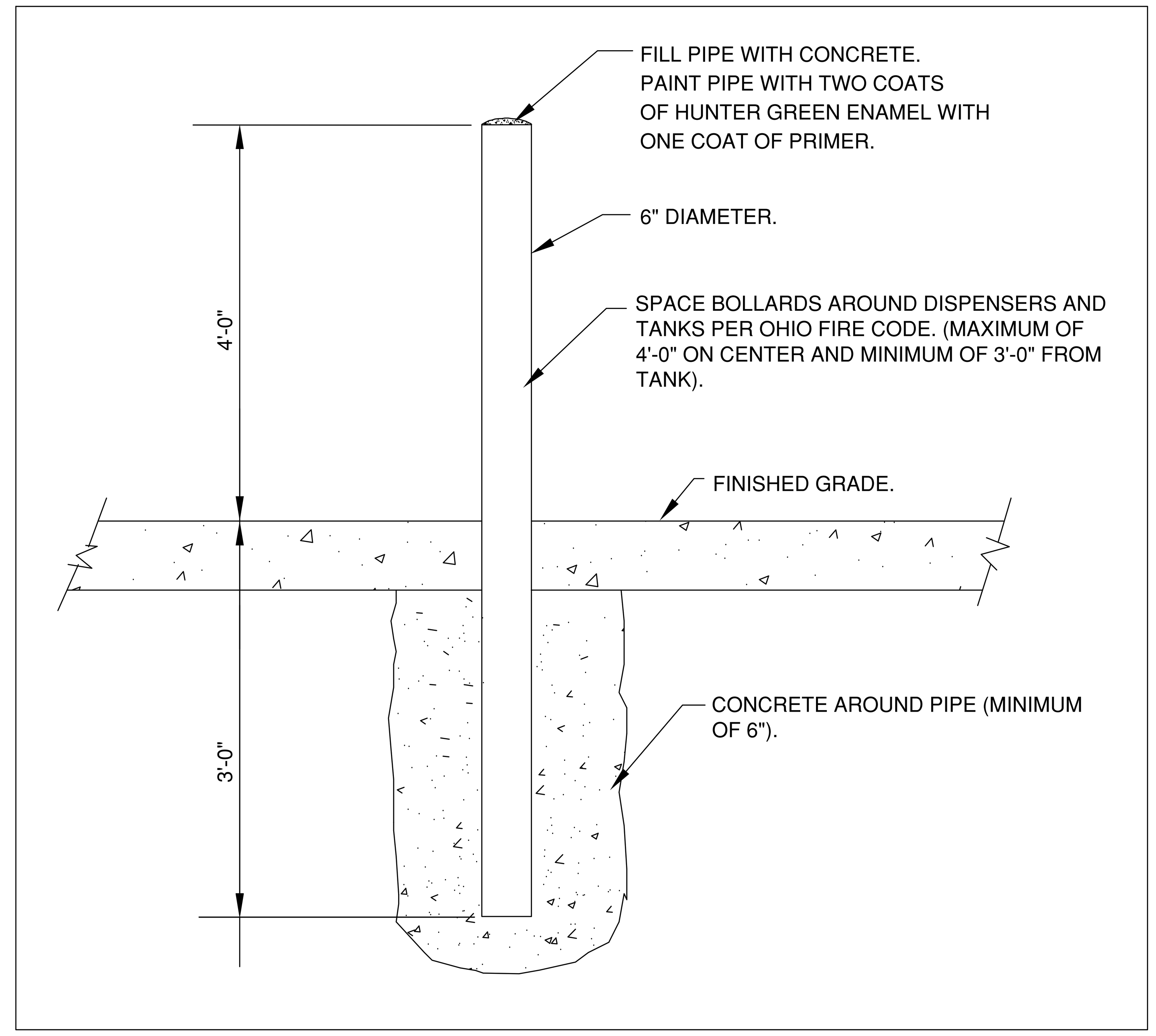
SHEET NUMBER:

T1.1



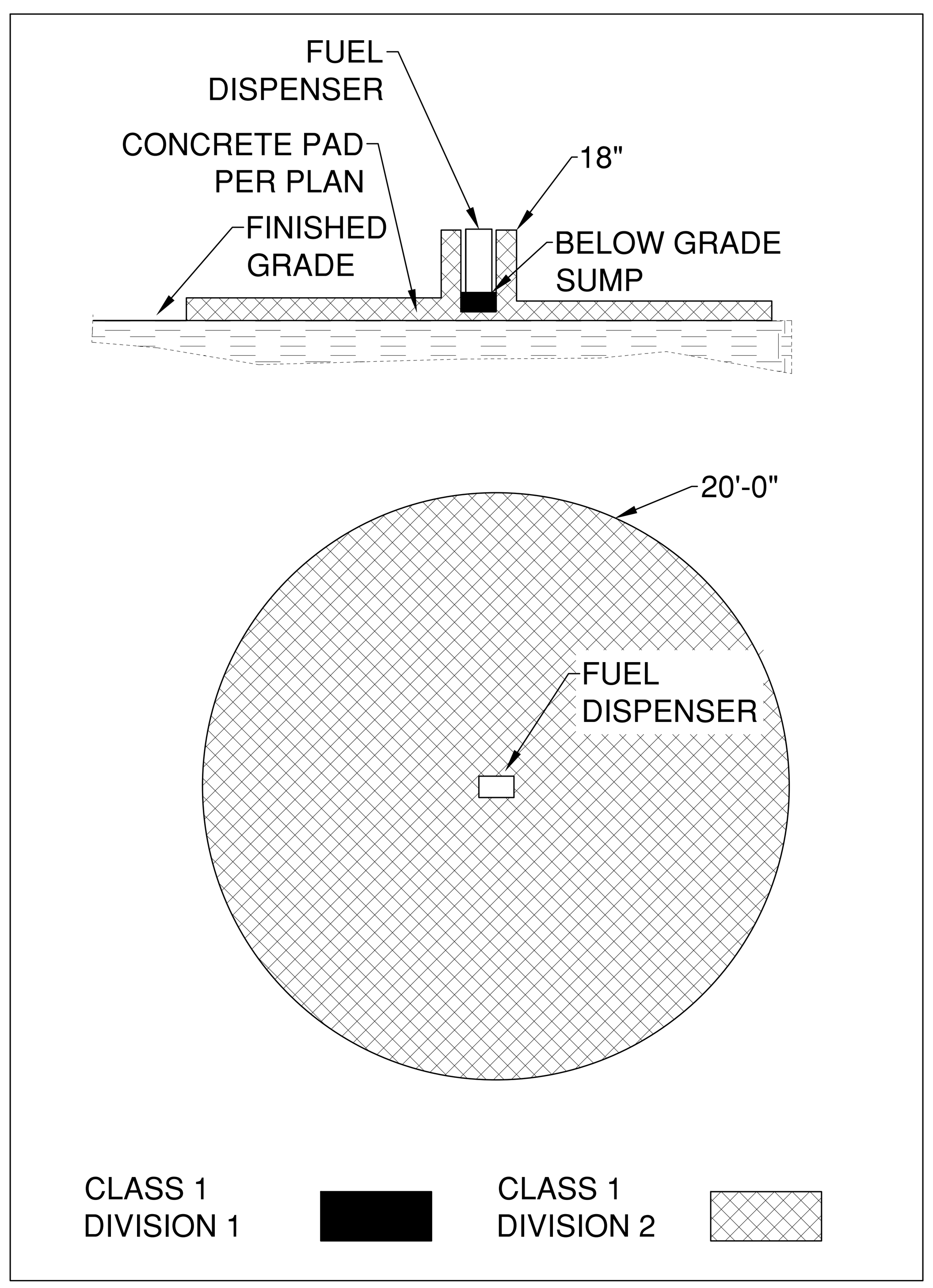
TANK PAD & FOOTER DETAIL

Not To Scale



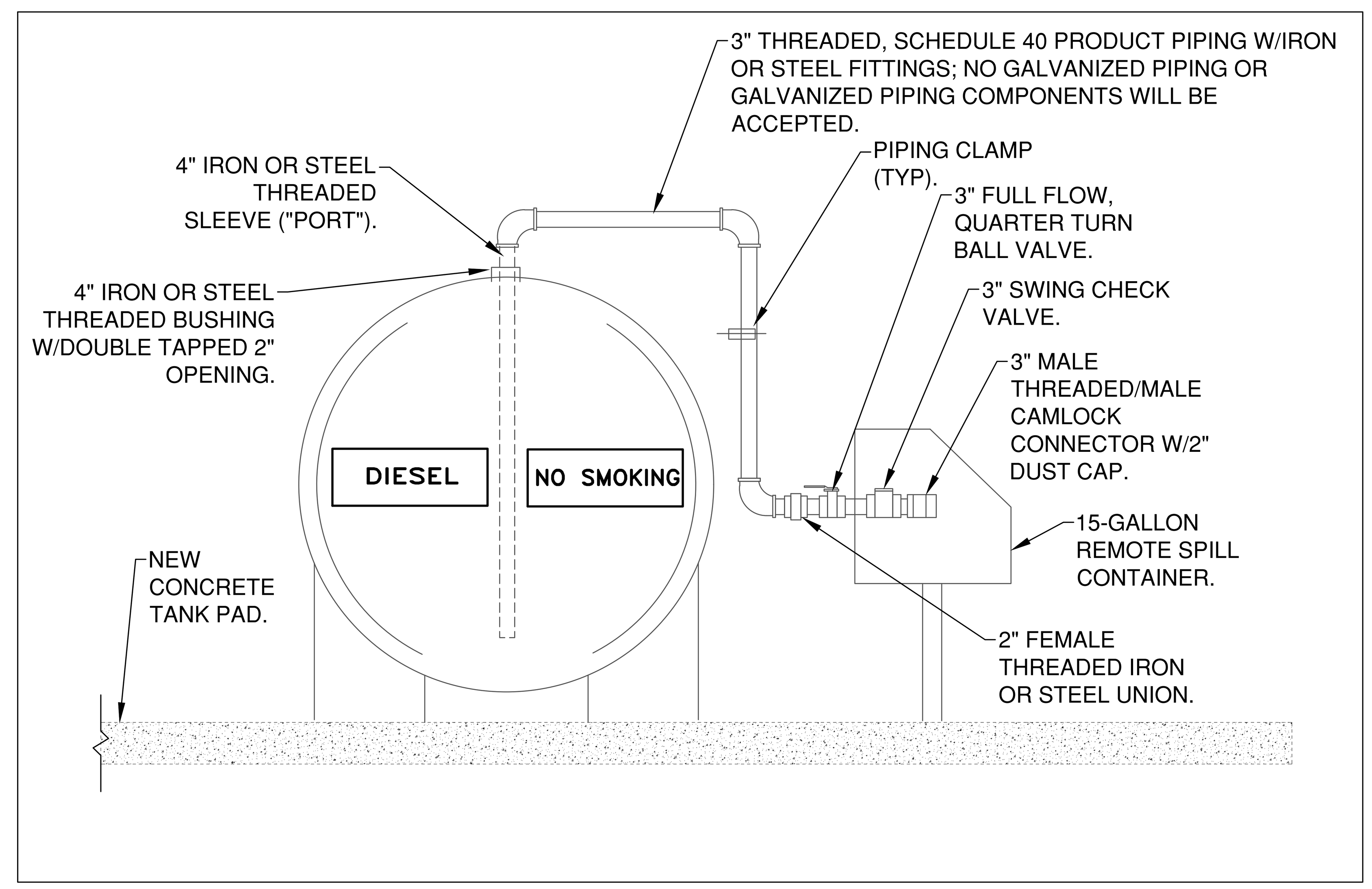
BOLLARD DETAIL

Not To Scale



FUEL DISPENSER HAZARDOUS LOCATIONS

Not To Scale



DIESEL REMOTE FILL DETAIL

Not To Scale

STATE OF OHIO
DAVID B. GANDEE
E-44943
REGISTERED PROFESSIONAL ENGINEER

DAVID B. GANDEE P.E. 02/05/25 DATE

GARMANN MILLER

NEW BUILDING FOR

TIPP CITY SCHOOLS NEW BUS MAINTENANCE BUILDING

575 N HYATT STREET, TIPP CITY, OH 45371

ISSUANCES/REVISIONS

CONSTRUCTION DOCUMENTS	02/07/2025

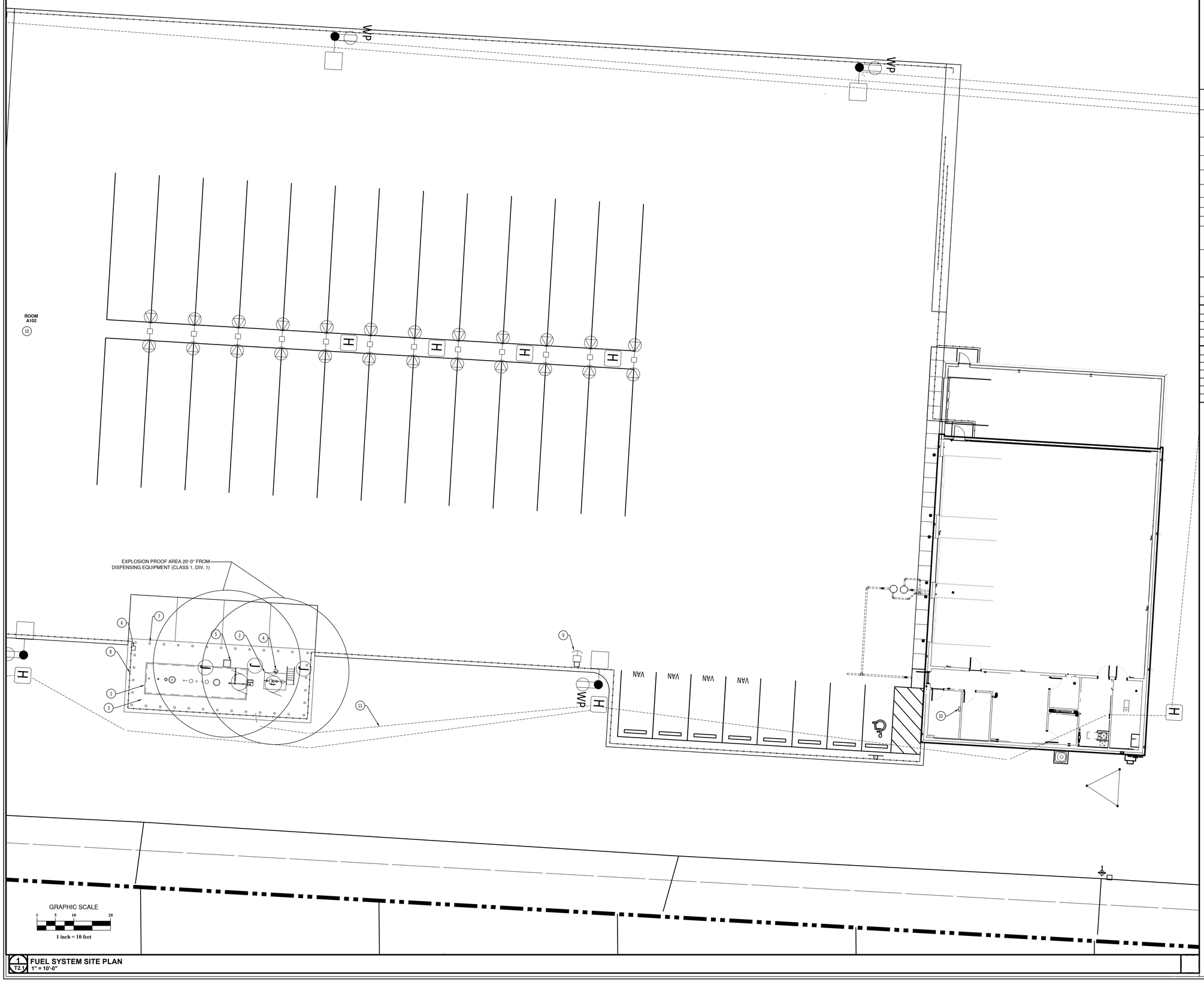
PROJECT NUMBER:	DRAWN BY:	CHECKED BY:
24054.02	NAH	DBG

SHEET TITLE:

FUEL SYSTEM MISC. DETAILS

SHEET NUMBER:

T1.2



1 T2.1 **FUEL SYSTEM SITE PLAN**
1" = 10'-0"

FUEL SYSTEM GENERAL NOTES

1. ALL PRODUCTS SHALL BE MANUFACTURED FOR USE WITH GASOLINE ON GASOLINE APPLICATIONS AND DIESEL ON DIESEL APPLICATIONS.
2. ROUTE COMMUNICATION LINES IN CONDUIT. ALL COMMUNICATION WIRING SHALL BE SHIELDED. LOW VOLTAGE WIRING SHALL NOT BE INSTALLED WITHIN THE SAME CONDUIT AS 120V WIRING.
3. EXISTING UNDERGROUND PRODUCT PIPING, ELECTRICAL CONDUIT, AND UTILITY LINES MAY NOT BE LOCATED AS SHOWN ON THIS SITE PLAN. LOCATE AND IDENTIFY EXISTING UTILITIES IN FIELD PRIOR TO START OF WORK. NOTIFY OHIO UTILITIES PROTECTION SERVICES (OUPS) PRIOR TO START OF WORK; PROVIDE OUPS CONFIRMATION. REPAIR ANY LINES DAMAGED DURING WORK TO SATISFACTION OF OWNER AND UTILITY COMPANY.
4. EXISTING UTILITY LINES MAY BE GALVANIZED OR PLASTIC.
5. UNDERGROUND WIRING SYSTEMS SHALL BE INSTALLED AT A MINIMUM DEPTH OF 2'-0" BELOW GRADE TO TOP OF CABLES.
6. PROVIDE ALL SIGNAGE REQUIRED UNDER NFPA-30, NFPA-30A, AND DIVISION OF STATE FIRE MARSHAL.
7. HAND DIGGING MAY BE REQUIRED.
8. PRODUCT PIPING & FITTINGS, ABOVE GROUND: SCHEDULE 40, PAINTED, GRADE B BLACK CARBON STEEL-ASTM A53 & MALLABLE IRON; THREADED FITTINGS-ASME B16.3; NO GALVANIZED PIPE OR FITTINGS WILL BE ACCEPTED.
9. ATMOSPHERIC VENT PIPING: GRADE B BLACK CARBON STEEL-ASTM A53.

FUEL SYSTEM CODED NOTES

1	PROVIDE ONE UL-142 LISTED (FLAMESHIELD) 10,000g DIESEL DOUBLE-WALLED ABOVEGROUND STORAGE TANK AND ALL APPURTENANCES; SEE SHEETS T1.1 AND T1.2 FOR DETAILS.
2	PROVIDE ONE UL-142 LISTED (FIREGUARD) 500g GASOLINE DOUBLE-WALLED ABOVEGROUND STORAGE TANK AND ALL APPURTENANCES; SEE SHEETS T1.1 AND T1.2 FOR DETAILS.
3	PROVIDE CONCRETE TANK PAD; SEE SHEETS T1.1 AND T1.2 FOR DETAILS. SIZE OF CONCRETE PAD IS APPROXIMATELY 20'-0" X 50'-8".
4	PROVIDE SINGLE HOSE GASOLINE DISPENSER MOUNTED TO FACTORY INSTALLED BRACKET ON TANK.
5	PROVIDE SINGLE HOSE DIESEL DISPENSER MOUNTED TO FACTORY INSTALLED BRACKET ON TANK.
6	PROVIDE FIRE EXTINGUISHER.
7	PROVIDE STEEL BOLLARDS; SEE DETAIL ON SHEET T1.2.
8	6' CHAIN LINK FENCE; NOT IN FUEL CONTRACTOR'S SCOPE OF WORK.
9	PROVIDE EMERGENCY SHUTOFF PUSHBUTTON, CONDUIT, AND PLACARD; EMERGENCY SHUT-OFF SHALL CUT ELECTRIC TO ALL DISPENSING DEVICES. REFER TO SHEET E1.2. FOR ADDITIONAL INFORMATION.
10	PROVIDE OMNTEC TANK GAUGING AND LEAK DETECTION SYSTEM IN UTILITY ROOM IN BUS MAINTENANCE GARAGE. PROVIDE CONDUIT TO CONNECT CONTROLLER INTERFACE TO INTERSTITIAL SENSORS, INVENTORY PROBES, AND OVERFILL ALARM. REFER TO SHEET E2.1 FOR ADDITIONAL INFORMATION.
11	UNDERGROUND CONDUIT FOR LOW VOLTAGE AND LINE VOLTAGE DEVICES; NOT IN FUEL CONTRACTOR'S SCOPE OF WORK. REFER TO SHEET E2.1 FOR ADDITIONAL INFORMATION.

FIRE CODE DISTANCE NOTES (AST)	
FIRE-RESISTANT TANK TO PROPERTY LINE	50'-0"
FIRE-RESISTANT TANK TO IMPORTANT BUILDING	190'-0"
EMERGENCY SHUTOFF SWITCH TO DIESEL DISPENSER	95'-0"
EMERGENCY SHUTOFF SWITCH TO GASOLINE DISPENSER	82'-0"
BUILDING CODE NOTES	
CONSTRUCTION TYPE	IIB
USE GROUP	U
AREA (CONCRETE PAD)	1,020 SF
OCCUPANT LOAD	N/A
SEISMIC USE GROUP	1
SEISMIC SITE CLASS	D

811 Know what's **below.** **Call** before you dig.

STATE OF OHIO
DAVID B. GANDEE
E-44943
PROFESSIONAL ENGINEER

DAVID B. GANDEE, P.E. — 02/05/25 DATE

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SHEET TITLE:
FUEL SYSTEM SITE PLAN

SHEET NUMBER:
T2.1