

CONSTRUCT FIELD MAINTENANCE SHOP (FMS) BAY ADDITION FORT LEONARD WOOD READINESS CENTER FORT LEONARD WOOD, MISSOURI



OWNER: STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR
DEPARTMENT OF
PUBLIC SAFETY

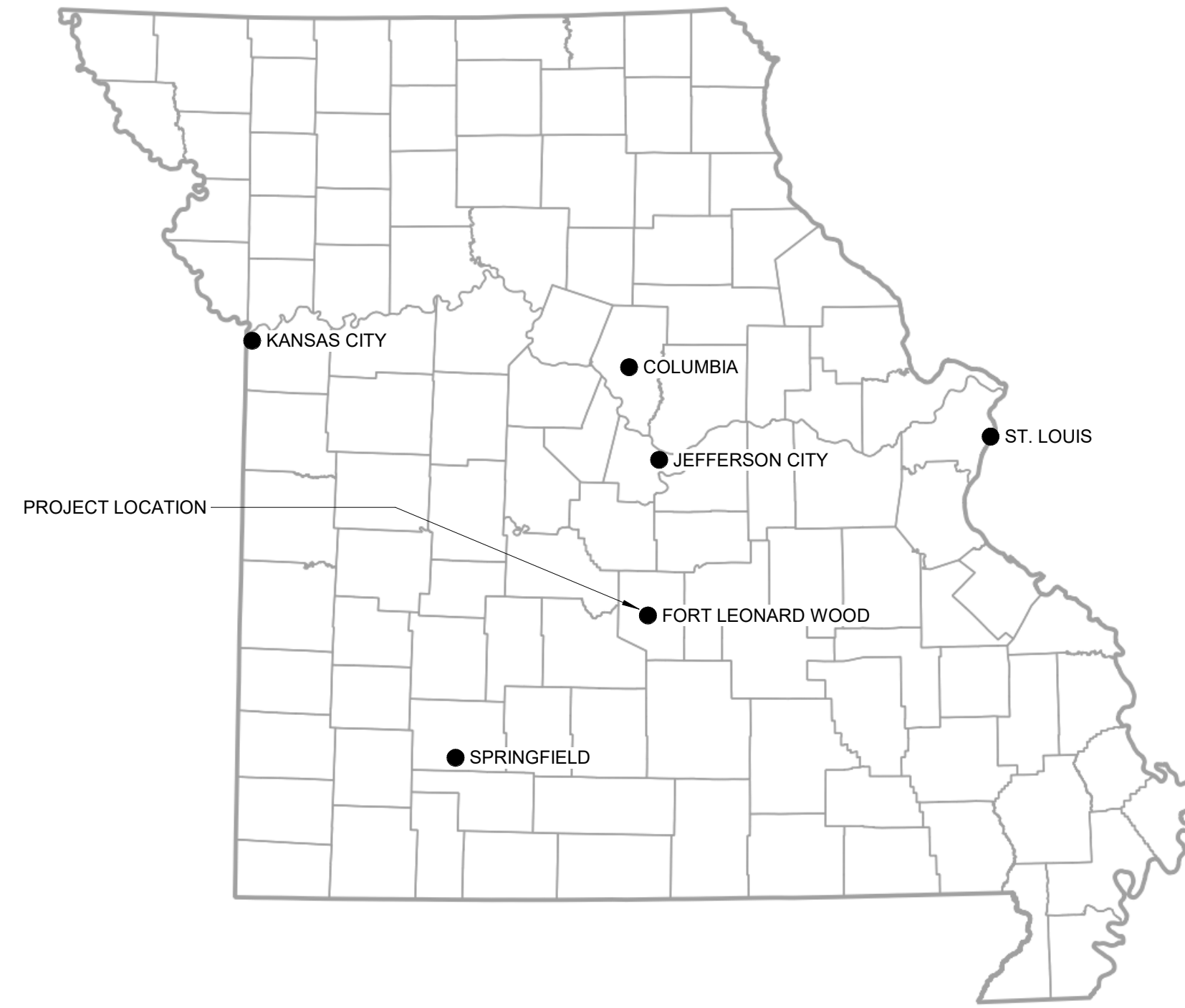
PROJECT
MANAGEMENT: OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT,
DESIGN AND CONSTRUCTION

DESIGNER: KLINGNER & ASSOCIATES, P.C.

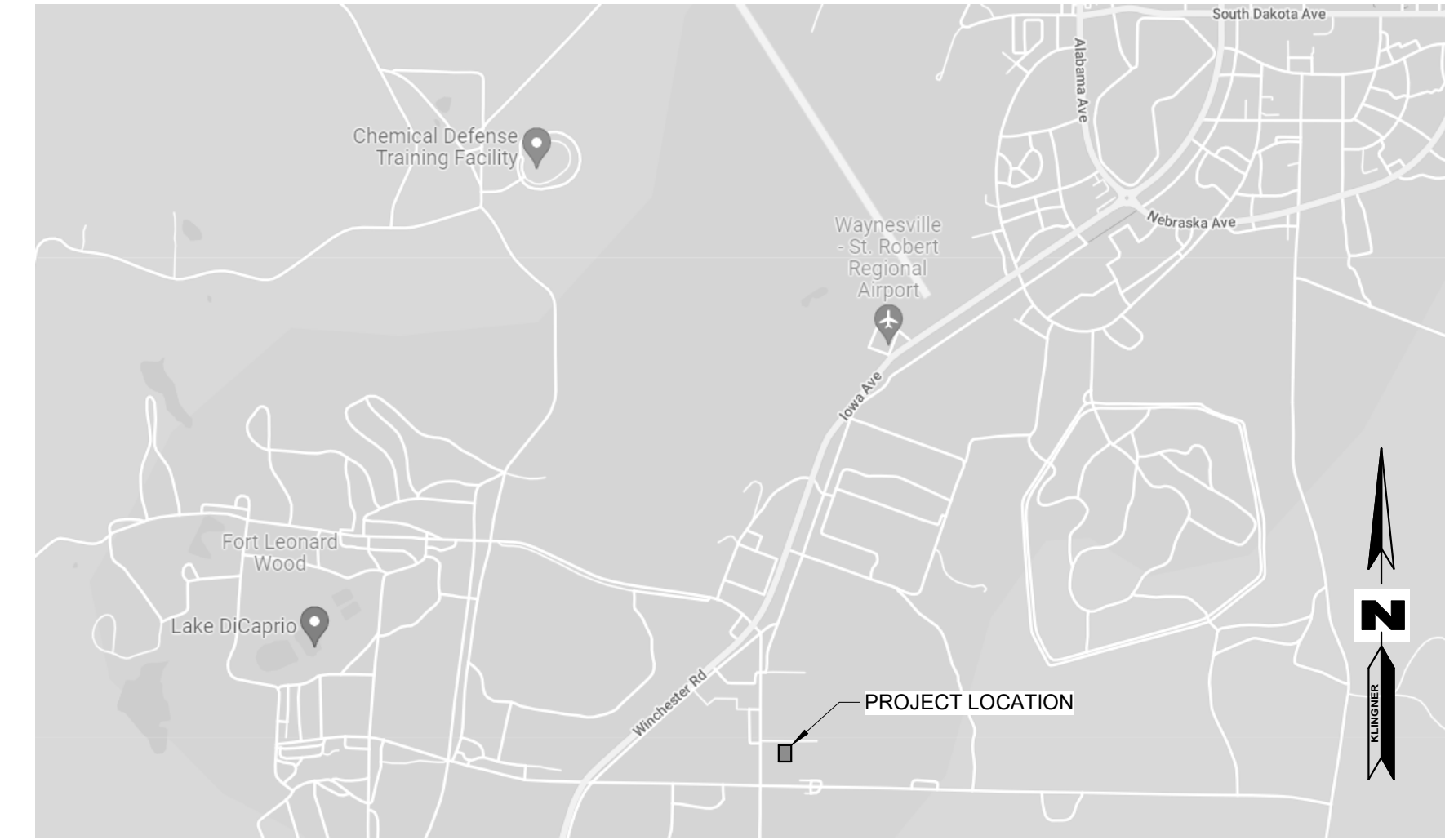
PROJECT NUMBER: T2126-01

SITE NUMBER: 6306
ASSET NUMBER: 8136306004

SHEET NUMBER	SHEET NAME	CURRENT REVISION DATE
G001	TITLE SHEET	01/27/23
G002	INDEX SHEET	01/27/23
G101	CODE PLAN & REVIEW	01/27/23
C001	GENERAL NOTES & LEGEND	01/27/23
CD101	EXISTING CONDITIONS & SITE DEMO PLAN	01/27/23
C101	SITE & UTILITY PLAN	01/27/23
C102	GRADING & EROSION CONTROL PLAN	01/27/23
C501	DETAILS	01/27/23
AD101	SELECTIVE DEMOLITION	01/27/23
A101	FLOOR PLAN	01/27/23
A102	ENLARGED FLOOR PLAN	01/27/23
A110	INTERIOR FINISH PLAN	01/27/23
A120	REFLECTED CEILING PLAN	01/27/23
A130	ROOF PLAN	01/27/23
A201	BUILDING ELEVATIONS	01/27/23
A301	BUILDING SECTIONS	01/27/23
A310	WALL SECTIONS	01/27/23
A601	DOOR SCHEDULE & DETAILS	01/27/23
S001	STRUCTURAL NOTES	01/27/23
S101	FOUNDATION PLAN	01/27/23
S102	FOUNDATION DETAILS	01/27/23
S103	FOUNDATION DETAILS	01/27/23
MEP001	MEP SYMBOLS LIST	01/27/23
D101	DEMOLITION FLOOR PLAN	01/27/23
FP101	FIRE SUPPRESSION PLAN	01/27/23
P101	BELOW FLOOR PLUMBING PLAN	01/27/23
P102	ABOVE FLOOR PLUMBING PLAN	01/27/23
P601	PLUMBING SCHEDULES AND DETAILS	01/27/23
M101	MECHANICAL FLOOR PLAN	01/27/23
M401	AIRFLOW SCHEMATICS	01/27/23
M601	MECHANICAL SCHEDULES AND DETAILS	01/27/23
M701	CONTROLS SEQUENCE OF OPERATIONS	01/27/23
E101	ELECTRICAL POWER PLAN	01/27/23
E102	ELECTRICAL LIGHTING PLAN	01/27/23
E103	ELECTRICAL LOW VOLTAGE PLAN	01/27/23
E601	ELECTRICAL SCHEDULES AND DETAILS	01/27/23



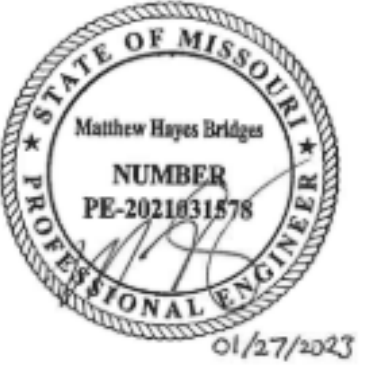
PROJECT LOCATION MAP



GENERAL NOTES:

- 1) THE CONTRACTOR(S) SHALL FIELD VERIFY EXISTING DIMENSIONS AND CONDITIONS AND TELL THE ENGINEER OF ANY DISCREPANCIES AND INTERFERENCES ENCOUNTERED PRIOR TO STARTING WORK AFFECTED THEREBY.
- 2) THE CONTRACTOR(S) SHALL COMPLY WITH THE LATEST EDITION OF APPLICABLE CODES AND STANDARDS INCLUDING BUT NOT LIMITED TO:
 - THE AMERICANS WITH DISABILITIES ACT (ADAAG)
 - INTERNATIONAL BUILDING CODE (IBC)
 - NATIONAL ELECTRIC CODE (NEC)
 - INTERNATIONAL MECHANICAL CODE (IMC)
 - INTERNATIONAL PLUMBING CODE (IPC)
 - LIFE SAFETY CODE (NFPA 101)
 - ASHRAE STANDARD 90.1
 - AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)
 - AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
 - AMERICAN CONCRETE INSTITUTE (ACI)
 - SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION (SMACNA)
- 3) THE CONTRACTOR(S) SHALL BE RESPONSIBLE FOR OSHA COMPLIANCE AND JOB SITE SAFETY.
- 4) CONTRACTOR(S) SHALL VERIFY LOCATIONS OF ALL UTILITIES (TELEPHONE, DATA, GAS, ELECTRIC, SANITARY AND STORM SEWERS, PRIVATE MISSOURI NATIONAL GUARD UTILITIES, ETC.) AT THE SITE BEFORE STARTING EXCAVATION OR CONSTRUCTION. THESE ITEMS SHALL BE MARKED AND PROTECTED.
- 5) CONTRACTOR(S) SHALL TAKE PRECAUTIONS NECESSARY TO PROTECT ADJACENT PROPERTY FROM DAMAGE RESULTING FROM CONSTRUCTION OPERATIONS.
- 6) CONTRACTOR SHALL PROTECT EXISTING FINISHES AND OTHER BUILDING COMPONENTS FROM DAMAGE. ANY SURFACES AND/OR COMPONENTS DAMAGED DURING THE CONSTRUCTION PROJECTS SHALL BE RETURNED TO PRE-PROJECT CONDITIONS AND/OR MADE TO MATCH ADJACENT MATERIALS. WHERE REQUIRED, A SURFACE MOUNTED ACCESS PANEL MAY BE USED TO CREATE ACCESS TO WALL AND CEILING CAVITIES TO FACILITATE CONSTRUCTION ACTIVITY. SEE DETAIL SHEET FOR ACCESS PANEL INFORMATION.

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR



MATTHEW H. BRIDGES - ENGINEER
MO # PE-2021031578

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KLINGNER & ASSOCIATES, P.C. - ARCHITECTURE
MISSOURI STATE CERTIFICATE OF AUTHORITY #2001010108

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

CONSTRUCT FIELD
MAINTENANCE SHOP
(FMS) BAY ADDITION

FORT LEONARD WOOD
READINESS CENTER

10744 FLW V, BLDG 5175
FORT LEONARD WOOD,
MO 65473

PROJECT # T2126-01
SITE # 6306
ASSET # 8136306004

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____

ISSUE DATE: 01/27/23

CAD DWG FILE: G002
DRAWING BY: MHB
CHECKED BY: JJN
DESIGNED BY: MHB

SHEET TITLE:

INDEX SHEET

SHEET NUMBER:

G002
SHEET 2 OF 36

JANUARY 27, 2023

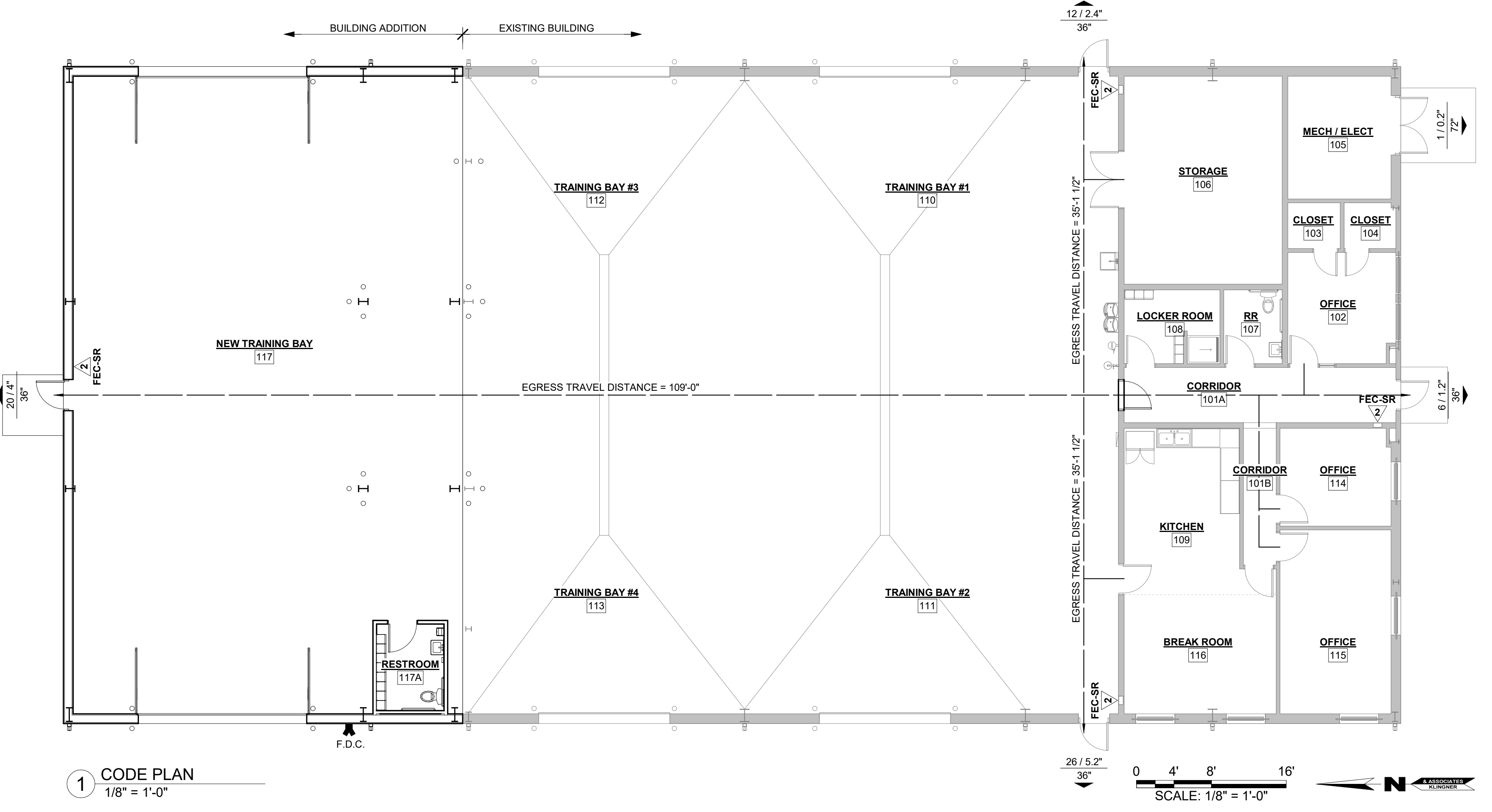
2018 INTERNATIONAL BUILDING CODE REVIEW		
Code Section & Provisions	Code Requirement	Application To This Project
Chapter 3: Occupancy Classification and Use		
303.1.2 Small Assembly Spaces	A room or space used for assembly purposes that is less than 750 square feet in area and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.	Kitchen and Break Room area = 437 SF < 750 SF These areas shall be classified as part of the main occupancy, Group S-1. The example given of "Motor vehicle repair garages" most closely represents the use of this building. Building addition will be a Storage Group S-1 Occupancy.
311.2 Moderate-hazard storage, Group S-1	Storage Group S-1 occupancies includes buildings occupied for storage uses that are not classified as Group S-2. Group S-1 includes among others: Motor vehicle repair garages complying with the maximum allowable quantities of hazardous materials listed in Table 307.1(1) (see Section 406.8).	
Chapter 4: Special Detailed Requirements Based on Occupancy and Use		
406.1 Motor-Vehicle-Related Occupancies, General	All motor-vehicle-related occupancies shall comply with Section 406.2. [...] Repair garages shall also comply with Section 406.8.	This use most closely resembles the definition of a "repair garage," which means sections 406.2 and 406.8 will apply. See those sections for additional information.
406.2.2 Clear height	The clear height of each floor level in vehicle and pedestrian traffic areas shall not be less than 7 feet.	This minimum clear height is maintained in all areas.
406.2.4 Floor surfaces	Floor surfaces shall be of concrete or similar approved noncombustible and nonabsorbent materials. The area of floor used for the parking of automobiles or other vehicles shall be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry doorway. Exception 3: Slip-resistant, nonabsorbent, interior floor finishes having a critical radiant flux not more than 0.45 W/cm2, as determined by ASTM E648 or NFPA 253, shall be permitted in repair garages.	The floor surface of the addition shall be slip-resistant, nonabsorbent, interior floor finish complying with Exception 3. The slope requirement does not apply as it will not be used for parking.
406.2.9 Equipment and appliances	Equipment and appliances shall be installed in accordance with Section 406.2.9.1 through 406.2.9.3 and the International Mechanical Code, International Fuel Gas Code and NFPA 70.	Equipment and appliances shall be installed in accordance with these requirements.
406.2.9.1 Elevation of ignition sources	Equipment and appliances having an ignition source and located in hazardous locations and public garages, private garages, repair garages, automotive motor fuel-dispensing facilities and parking garages shall be elevated such that the source of ignition is not less than 18 inches above the floor surface on which the equipment or appliance rests.	The limits specified in these sections shall be observed.
406.2.9.2 Public garages	Appliances located in public garages, motor fuel-dispensing facilities, repair garages or other areas frequented by motor vehicles shall be installed not less than 8 feet above the floor. Where motor vehicles are capable of passing under an appliance, the appliance shall be installed at the clearances required by the appliance manufacturer and not less than 1 foot higher than the tallest vehicle garage door opening. Exception: The requirements of this section shall not apply where the appliances are protected from motor vehicle impact and installed in accordance with Section 406.2.9.1 and NFPA 30A.	The limits specified in these sections shall be observed.
406.8 Repair garages	Repair garages shall be constructed in accordance with the International Fire Code and Sections 406.2 and 406.8. This occupancy shall not include motor fuel-dispensing facilities, as regulated in Section 406.7.	The limits specified in these sections shall be observed.
406.8.1 Ventilation	Repair garages shall be mechanically ventilated in accordance with the International Mechanical Code. The ventilation system shall be controlled at the entrance to the garage.	A system which meets these requirements shall be provided.
406.8.2 Gas detection system	Repair garages used for repair of vehicles fueled by nonodorized gases including but not limited to hydrogen and nonodorized LNG, shall be provided with a gas detection system that complies with Section 916. The gas detection system shall be designed to detect leakage of nonodorized gaseous fuel.	There is a gas detection system installed in the existing portion of the building. The system will be expanded upon to include the building addition.
406.8.3 Automatic sprinkler system	A repair garage shall be equipped with an automatic sprinkler system in accordance with Section 903.2.9.1.	A system which meets these requirements shall be provided.
Chapter 5: General Building Heights and Areas		
504.3, Table: Allowable building height in feet above grade plane	Group S-1, sprinklered, Type IIB = 75 feet	The building height shall not exceed 75 feet.
504.4, Table: Allowable number of stories above grade plane	Group S-1, sprinklered, Type IIB = 3 stories	Only one story above grade plane shall be provided.
506.2, Table: Allowable area factor in square feet	Group S-1, sprinklered, Type IIB = 70,000 square feet	The building's footprint will be approximately 10,040 square feet and therefore compliant.
506.2 Accessory Occupancies	Accessory occupancies are those occupancies that are ancillary to the main occupancy of the building or portion thereof. Accessory occupancies shall comply with the provisions of Sections 508.2.1 through 508.2.4.	The limits specified in these sections shall be observed.
508.2.1 Occupancy Classification	Accessory occupancies shall be individually classified in accordance with Section 302.1. The requirements of this code shall apply to each portion of the building based on the occupancy classification of that space.	The limits specified in these sections shall be observed.
508.2.2 Allowable Building Height	The allowable height and number of stories of the building containing accessory occupancies shall be in accordance with Section 504 for the main occupancy of the building.	The limits specified in these sections shall be observed.
508.2.3 Allowable Building Area	The allowable area of the building shall be based on the applicable provisions of Section 506 for the main occupancy of the building. Aggregate accessory occupancies shall not occupy more than 10 percent of the floor area of the story in which they are located and shall not exceed the tabular values for nonsprinklered buildings in Table 506.2 for each accessory occupancy.	Total gross area = 10,040 SF 10% Total area = 1,004 SF > 581 SF, therefore the Offices shall be considered accessory occupancies
508.2.4 Separation of Occupancies	No separation is required between accessory occupancies and the main occupancy.	The limits specified in this section shall be observed.
Chapter 6: Types of Construction		
601, Table: Fire-resistance rating requirements for building elements (hours)	Type IIB: Primary structural frame = 0 hours Exterior bearing walls = 0 hours Interior bearing walls = 0 hours Nonbearing exterior walls = See Table 602 Nonbearing interior walls = 0 hours Floor construction = 0 hours Roof construction = 0 hours	No components are required to have a fire-resistance rating.
602, Table: Fire-resistance rating requirements for exterior walls based on fire separation distance	X ≥ 30, Type IIB, Group S-1 = 0 hours	No components are required to have a fire-resistance rating.
Chapter 8: Interior Finishes		
803.13, Table: Interior wall and ceiling finish requirements by occupancy	Group S, sprinklered: Corridors = Class C; Rooms and enclosed spaces = Class C	A minimum of Class C finishes will be provided.
Chapter 9: Fire Protection and Life Safety Systems		
903.2.9.1 Automatic sprinkler systems - Repair Garages	An automatic sprinkler system shall be provided throughout all buildings used as repair garages in a occupancy where one of the following conditions exists: 1. Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 10,000 square feet. 2. Buildings not more than one story above grade plane, with a fire area containing a repair garage exceeding 12,000 square feet. 3. Buildings with repair garages servicing vehicles parked in basements. 4. A Group S-1 fire area used for the storage of commercial motor vehicles where the fire area exceeds 5,000 square feet.	An automatic sprinkler system will be provided.
906.1 Portable Fire Extinguishers	Portable fire extinguishers shall be installed in all of the following locations: 1. Group S occupancies. 2. Within 30 feet distance of travel from commercial cooking equipment... 3. In areas where flammable or combustible liquids are stored, used or dispensed. 4. On each floor of structures under construction ... in accordance with Section 3315.1 of the International Fire Code. 5. Where required by the International Fire Code sections indicated in Table 906.1. 6. Special-hazard areas ... where required by the fire code official.	See code plan for locations of fire extinguishers.
906.3(1), Table: Fire extinguishers for Class A fire hazards	Ordinary (Moderate) Hazard Occupancy: Minimum-rated single extinguisher = 2-A Maximum floor area per unit of A = 1,500 square feet Maximum floor area for extinguisher = 11,250 square feet Maximum distance of travel to extinguisher = 75 feet	See code plan for locations of fire extinguishers.
916.8 System activation, Gas Detection Systems	A gas detection alarm shall be initiated where any sensor detects a concentration of gas exceeding the following thresholds: 1. For flammable gases, a gas concentration exceeding 25 percent of the lower flammability limit (LFL). 2. For nonflammable gases, a gas concentration exceeding one-half of the IDLH, unless a different threshold is specified by the section of this code requiring a gas detection system.	A system which meets these requirements shall be provided.
916.10 Fire alarm system connections	Gas sensors and gas detection systems shall not be connected to fire alarm systems unless approved and connected in accordance with the fire alarm equipment manufacturer's instructions.	A system which meets these requirements shall be provided.
Chapter 10: Means of Egress		
1004.5, Table: Maximum floor area allowances per occupant	See occupant load table.	See occupant load table.
1005.3.2 Means of egress sizing, other egress components	The capacity, in inches, of means of egress components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.2 inch per occupant.	See egress calculation tags on code plan. In all cases, the occupant load multiplied by the factor does not exceed the allowable width.
1006.2.1, Table: Spaces with one exit or exit access doorway	Group S-1 maximum occupant load = 29, maximum common path of egress travel with sprinkler system = 100 feet	See egress calculation tags and paths on code plan. A total of four (4) exits shall be provided.

2018 INTERNATIONAL BUILDING CODE REVIEW		
Code Section & Provisions	Code Requirement	Application To This Project
1010.1.1 Size of doors	The required capacity of each door opening shall be sufficient for the occupant load thereof and shall provide a minimum clear opening width of 32 inches.	All doors shall be of sufficient width.
1017.2, Table: Exit access travel distance	Group S-1, with sprinkler system = maximum 250 feet	See paths on code plan. In all cases, the exit access travel does not exceed the allowable distance.
Chapter 11: Accessibility		
1105.1.3 Public entrances, restricted entrances	Where restricted entrances are provided to a building or facility, at least one restricted entrance to the building or facility shall be accessible.	The existing east and west entrances are accessible. The door on the north side of the addition will also be accessible.

Chapter 29: Plumbing Systems		
Code Section & Provisions	Code Requirement	Application To This Project
2902.1, Table: Minimum Number of Required Plumbing Fixtures	Water Closets: 1 per 100 occupants; Lavatories: 1 per 100 occupants; Drinking Fountains: 1 per 1000 occupants; Other: 1 service sink	One additional water closet and lavatory to be included in the building addition.

OCCUPANCY CLASSIFICATION & OCCUPANT LOAD SCHEDULE						
ROOM #	ROOM NAME	OCCUPANCY CLASSIFICATION	TABLE 1004.5		ROOM AREA	# OF OCCUPANTS
			FUNCTION OF SPACE	FLOOR AREA PER OCCUPANT		
103	CLOSET	STORAGE - MODERATE HAZARD S-1	ACCESSORY STORAGE, MECH. EQUIP. ROOM	300 SF	27 SF	1.0
104	CLOSET	STORAGE - MODERATE HAZARD S-1	ACCESSORY STORAGE, MECH. EQUIP. ROOM	300 SF	27 SF	1.0
105	MECH/ELECT	STORAGE - MODERATE HAZARD S-1	ACCESSORY STORAGE, MECH. EQUIP. ROOM	300 SF	145 SF	1.0
106	STORAGE	STORAGE - MODERATE HAZARD S-1	ACCESSORY STORAGE, MECH. EQUIP. ROOM	300 SF	376 SF	2.0
ACCESSORY STORAGE, MECH. EQUIP. ROOM					575 SF	5.0
116	BREAK ROOM	STORAGE - MODERATE HAZARD S-1	ASSEMBLY, TABLES & CHAIRS	15 SF	207 SF	14.0
ASSEMBLY, TABLES & CHAIRS					207 SF	14.0
102	OFFICE	BUSINESS B	BUSINESS AREAS	150 SF	135 SF	1.0
109	KITCHEN	STORAGE - MODERATE HAZARD S-1	BUSINESS AREAS	150 SF	230 SF	2.0
114	OFFICE	BUSINESS B	BUSINESS AREAS	150 SF	123 SF	1.0
115	OFFICE	BUSINESS B	BUSINESS AREAS	150 SF	234 SF	2.0
BUSINESS AREAS					722 SF	6.0
101A	CORRIDOR	CIRCULATION, RESTROOM, ETC.	CIRCULATION, RESTROOM, ETC.		171 SF	
101B	CORRIDOR	CIRCULATION, RESTROOM, ETC.	CIRCULATION, RESTROOM, ETC.		51 SF	
107	RR	CIRCULATION, RESTROOM, ETC.	CIRCULATION, RESTROOM, ETC.		49 SF	
108	LOCKER ROOM	CIRCULATION, RESTROOM, ETC.	CIRCULATION, RESTROOM, ETC.		79 SF	
117A	RESTROOM	CIRCULATION, RESTROOM, ETC.	CIRCULATION, RESTROOM, ETC.		66 SF	
CIRCULATION, RESTROOM, ETC.					418 SF	0.0
110	TRAINING BAY #1	STORAGE - MODERATE HAZARD S-1	GARAGE	200 SF	1362 SF	7.0
111	TRAINING BAY #2	STORAGE - MODERATE HAZARD S-1	GARAGE	200 SF	1361 SF	7.0
112	TRAINING BAY #3	STORAGE - MODERATE HAZARD S-1	GARAGE	200 SF	1027 SF	6.0
113	TRAINING BAY #4	STORAGE - MODERATE HAZARD S-1	GARAGE	200 SF	1027 SF	6.0
117	NEW TRAINING BAY	STORAGE - MODERATE HAZARD S-1	GARAGE	200 SF	2760 SF	14.0
GARAGE					7536 SF	40.0
GRAND TOTAL					9457 SF	65.0

FIRE EXTINGUISHER EQUIPMENT SCHEDULE				
#	CABINET TYPE & TRIM	EXTINGUISHER TYPE	EXTINGUISHER UNITS OF A	COMMENTS
1	FULL RECESSED CABINET	ABC DRY CHEMICAL	4A MIN	FULL GLAZING WITH SAFETY LOCK AND FLUSH PULL HANDLE
2	SEMI RECESSED CABINET	ABC DRY CHEMICAL	4A MIN	FULL GLAZING WITH SAFETY LOCK AND FLUSH PULL HANDLE
3	SURFACE MOUNT CABINET	ABC DRY CHEMICAL	4A MIN	FULL GLAZING WITH SAFETY LOCK AND FLUSH PULL HANDLE
4	SURFACE MOUNT EXTINGUISHER	ABC DRY CHEMICAL	4A MIN	PROVIDE APPROPRIATE MOUNTING BRACKET AND HARDWARE



CODE PLAN SYMBOL LEGEND	
	FIRE EXTINGUISHER TAG - SEE SCHEDULE
	OCCUPANTS / WIDTH REQUIRED WIDTH PROVIDED
	FIRE DEPARTMENT CONNECTION
	EGRESS ROUTE

DESCRIPTION:
This project consists of an addition to an existing Type IIB building. The main occupancy, including the addition, most closely resembles motor vehicle repair garages, considering it Moderate-hazard Storage Group S-1. The building is sprinklered.

The area and occupancy of the building is such that fire-resistive construction, fire walls/barriers/partitions, fire alarms, etc. are not required. See code review matrix for additional information.

BUILDING AREA SUMMARY (GROSS):
Existing Building: 7,043 SF
Building Addition: 2,997 SF
TOTAL AREA: 10,040 SF

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR



CODY N. BASHAM - ARCHITECT
MO # A-2021000203

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MISSOURI STATE CERTIFICATE OF AUTHORITY #2001010108

OFFICE OF ADMINISTRATION
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MANAGEMENT,
DESIGN AND CONSTRUCTION

CONSTRUCT FIELD
MAINTENANCE SHOP
(FMS) BAY ADDITION
FORT LEONARD WOOD
READINESS CENTER

10744 FLW V, BLDG 5175
FORT LEONARD WOOD,
MO 65473

PROJECT # T2126-01
SITE # 6306
ASSET # 8136306004

REVISION:
DATE:
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DATE:
ISSUE DATE: 01/27/23

CAD DWG FILE: G101
DRAWING BY: MSG
CHECKED BY: CNB
DESIGNED BY: CNB

SHEET TITLE:
**CODE PLAN &
REVIEW**

SHEET NUMBER:
G101
SHEET 3 OF 36
JANUARY 27, 2023

GENERAL NOTES

- ALL DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR.
- ANY DISCREPANCIES BETWEEN SPECIFICATIONS, DRAWINGS, AND/OR SITE CONDITIONS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- ALL AREAS DESIGNATED TO REMAIN UNDISTURBED SHALL BE PROTECTED BY THE CONTRACTOR THROUGHOUT CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR STAKING THE LOCATION OF ALL PROPOSED IMPROVEMENTS, INCLUDING ROUGH AND FINISHED ELEVATIONS AND ALL OTHER PROPOSED IMPROVEMENTS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL VERIFY THAT ALL APPLICABLE LOCAL, STATE, & FEDERAL CODES ARE FOLLOWED. ALL APPLICABLE LOCAL AND STATE NOTIFICATIONS AND PERMITS SHALL BE ACQUIRED PRIOR TO CONSTRUCTION, INCLUDING ALL NECESSARY UTILITY CONNECTION PERMITS FROM THE RESPECTIVE UTILITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND SERVICES REQUIRED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL REFERENCE POINTS, BENCHMARKS, MONUMENT STAKES, AND PROPERTY CORNERS DURING CONSTRUCTION. REPLACEMENT OF LOST REFERENCE POINTS SHALL BE AT THE CONTRACTORS EXPENSE.
- REMOVE ALL STRUCTURES, FOUNDATIONS, WALLS, PAVEMENTS, AND ALL OTHER ITEMS IN CONFLICT WITH PROPOSED IMPROVEMENTS IN ACCORDANCE WITH THE SPECIFICATIONS.
- REFERENCES TO "STANDARD SPECIFICATIONS" SHALL MEAN THE MISSOURI DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", LATEST ADDITION.
- THE MEANS OF THE WORK AND THE SAFETY OF THE CONTRACTOR'S EMPLOYEES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- NO WORK SHALL BE PERFORMED BEYOND THE LIMITS OF CONSTRUCTION WITHOUT OWNER APPROVAL.
- SITE CLEAN-UP SHALL BE PERFORMED ON A DAILY BASIS. SIDEWALKS, PARKING LOTS, ROADWAYS, AND THE PROJECT SITE SHALL BE KEPT CLEAN AT ALL TIMES. CONTROL DUST IN AND AROUND ALL WORK AND STAGING AREAS.
- ALL OPEN EXCAVATIONS SHALL BE PROTECTED.
- MAINTAIN POSITIVE DRAINAGE ON THE SITE THROUGHOUT THE PROJECT DURATION.
- IF A DISCREPANCY IN THE SPOT ELEVATIONS IS NOTED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTING. IF THERE IS A DISCREPANCY BETWEEN THE SPOT ELEVATIONS AND CONTOURS, THE CONTOURS SHALL GOVERN.
- IF SOIL OR GROUNDWATER IS ENCOUNTERED WHICH EMITS A PETROLEUM ODOR OR IS DISCOLORED THE CONTRACTOR SHALL STOP EXCAVATION AND NOTIFY THE OWNER IMMEDIATELY. THE OWNER WILL COORDINATE ENVIRONMENTAL EFFORTS TO HANDLE THE IMPACTED SOIL OR GROUNDWATER IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL TAKE APPROPRIATE ACTION TO ENSURE PUBLIC AND EMPLOYEE SAFETY.
- OWNER WILL CONTINUE TO UTILIZE THE FACILITY DURING CONSTRUCTION.

EROSION CONTROL NOTES

- EROSION CONTROL SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, THE DETAILS IN THESE PLANS, AND THE MISSOURI DEPARTMENT OF NATURAL RESOURCES STANDARDS AND REQUIREMENTS FOR EROSION AND SEDIMENT CONTROL.
- THE EROSION CONTROL SHOWN ON THIS SET OF PLANS SHALL BE CONSIDERED THE MINIMUM ACCEPTABLE FOR THIS PROJECT. THERE MAY BE ADDITIONAL EROSION CONTROL REQUIRED DUE TO THE VARIOUS CONSTRUCTION TECHNIQUES, WHICH MAY BE USED. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING AND MAINTAINING ALL THE RUNOFF FROM THE SITE, IN A MANNER WHICH KEEPS ALL SILT ON SITE.
- A LAND DISTURBANCE PERMIT WILL NOT BE REQUIRED SINCE LESS THAN 1 ACRE OF LAND WILL BE DISTURBED BY GRADING OPERATIONS.
- ALL INLET PROTECTION AND TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED UPON COMPLETION OF PAVING OPERATIONS AND FINAL STABILIZATION OF LANDSCAPED AND SEED AREAS.

GRADING NOTES

- TOPSOIL SHALL BE STRIPPED TO A DEPTH OF 6 INCHES WITHIN THE GRADING LIMITS AND STOCKPILED ON SITE FOR USE IN FINAL GRADING (COORDINATE WITH OWNER). IF ACCEPTABLE TOPSOIL IS NOT AVAILABLE ON SITE, THE CONTRACTOR SHALL PROVIDE IT TO A DEPTH OF 6 INCHES.
- TOPSOIL SHALL BE LOAMY IN NATURE, FREE FROM HARD CLODS, STIFF CLAY, SOD, STONES, ROOTS, STICKS, AND OTHER DEBRIS OVER 1 INCH IN SIZE. TOPSOIL SHALL BE FREE OF TOXIC MATERIALS AND SHALL HAVE A pH RANGE BETWEEN 5.5 AND 7.0.
- ALL EXCESS MATERIALS NOT USED FOR CONSTRUCTION OF THE PROJECT SHALL BE DISPOSED OFF SITE BY THE CONTRACTOR AT THE CONTRACTORS EXPENSE.
- PROPOSED CONTOURS ARE INTENDED TO PROVIDE A MIN. 1% SLOPE IN PAVEMENT AREAS AND 2% IN TURFED AREAS. CONTRACTORS SHALL BE RESPONSIBLE FOR PROVIDING A SMOOTH UNIFORM DRAINING SURFACE THAT DOES NOT CREATE PONDING WATER OR SHARP BREAKS. CONTOURS OR ELEVATIONS THAT WILL NOT PROVIDE SUCH SURFACE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER/ARCHITECT IMMEDIATELY.
- FINAL ELEVATIONS INDICATED ARE THE FINISHED SURFACE ELEVATIONS, WHETHER GRASS, CONCRETE, PAVEMENT, OR MULCH. THE CONTRACTOR SHALL COORDINATE SUBGRADE ELEVATIONS TO ALLOW FOR PAVEMENT, CONCRETE OR MULCH DEPTHS.
- ALL DISTURBED AREAS NOT WITHIN PAVEMENT & LANDSCAPE AREAS SHALL BE SEEDED PER THE SPECIFICATIONS. THE AREAS INDICATED TO BE SEEDED ON THIS PLAN ARE ESTIMATED DISTURBED AREAS. DISTURBED AREAS OUTSIDE OF THOSE INDICATED SHALL BE SEEDED REGARDLESS OF THE LIMITS INDICATED.
- SLOPES 4:1 AND STEEPER SHALL RECEIVE A TEMPORARY EROSION CONTROL BLANKET. PROVIDING PROTECTION FOR UP TO 12 MONTHS IN ACCORDANCE WITH SECTION 806 OF THE MoDOT STANDARD SPECIFICATIONS.

UTILITY NOTES

- THE LOCATION OF EXISTING UTILITIES IN CONSTRUCTION AREAS SHALL BE FIELD VERIFIED BY THE CONTRACTOR BY CONTACTING THE MISSOURI ONE CALL SYSTEM, INC. OR THE INDIVIDUAL UTILITIES NOT PARTICIPATING IN THIS SYSTEM. EXISTING UTILITIES TO REMAIN SHALL BE PROTECTED. ANY REPAIR OR RELOCATION REQUIRED, AS A RESULT OF DAMAGE BY CONSTRUCTION ACTIVITIES SHALL BE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL PAY UTILITY PERMIT AND/OR INSPECTION FEES.
- UTILITY TRENCHES WITHIN PAVEMENT AREAS SHALL BE BACKFILLED WITH APPROVED COMPACTED GRANULAR BACKFILL.
- ALL ELECTRIC SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE, CURRENT VERSION.
- ADJUST ALL VALVES, MANHOLES, CASTINGS, GAS VENTS, ETC., TO MATCH THE NEW SURFACE. ADJUSTMENT SHALL BE COORDINATED WITH THE UTILITY COMPANIES AND THE COST FOR ALL ADJUSTMENTS SHALL BE INCIDENTAL TO THE CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER. REPAIR ANY DAMAGE TO SAID STRUCTURES AND APPURTENANCES THAT OCCUR DURING CONSTRUCTION.
- THE DRAWINGS INDICATE THE BEST KNOWLEDGE OF THE OWNER AND ENGINEER/ARCHITECT ON THE GENERAL LOCATION AND NATURE OF THE EXISTING AND OR PROPOSED UNDERGROUND UTILITIES IN THE AREA OF CONSTRUCTION. EXPLORATORY EXCAVATIONS AT THE SITE TO DETERMINE INSITU LOCATIONS WERE NOT CONDUCTED. QUALITY LEVEL C IN ACCORDANCE WITH CHASCE 38-02, STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA, WAS UTILIZED. REGARDLESS OF THE LEVEL OF INVESTIGATION, THE UTILITIES SHOWN SHOULD NOT BE CONSIDERED A WARRANTY OR GUARANTEE OF ACTUAL PRESENCE OR LOCATION AND THE CONTRACTOR REMAINS RESPONSIBLE FOR THE LOCATION, VERIFICATION, AND PROPER NOTIFICATION OF POTENTIAL UTILITIES.

QUALITY LEVELS:

QUALITY LEVEL A - PROVIDES THE HIGHEST LEVEL OF ACCURACY BY LOCATING OR POTHOLING UTILITIES IN ADDITION TO QUALITY LEVELS B, C, AND D TASKS. THE LOCATED UTILITY INFRASTRUCTURE IS SURVEYED AND MAPPED TO DEVELOP PLAN AND PROFILE INFORMATION.

QUALITY LEVEL B - INVOLVES DESIGNATING THE HORIZONTAL POSITION OF SUBSURFACE UTILITIES THROUGH SURFACE DETECTION METHODS AND RECORDING THE INFORMATION THROUGH A SURVEY METHOD. IN ADDITION TO QUALITY LEVEL C AND D TASKS.

QUALITY LEVEL C - INVOLVES SURVEYING VISIBLE SUBSURFACE UTILITY STRUCTURES SUCH AS MANHOLES, HAND-HOLES, UTILITY VALVES AND METERS, FIRE HYDRANTS, PEDESTALS AND UTILITY MARKERS, AND THEN CORRELATING THE INFORMATION WITH EXISTING UTILITY RECORDS TO CREATE COMPOSITE DRAWINGS. IN ADDITION TO QUALITY LEVEL D TASKS

QUALITY LEVEL D - INVOLVES COLLECTING DATA FROM EXISTING UTILITY RECORDS, THAT MAY INCLUDE AS-BUILT DRAWINGS, DISTRIBUTION AND SERVICE MAPS, EXISTING GEOGRAPHIC INFORMATION SYSTEM DATABASE, CONSTRUCTION PLANS, ETC. DATABASES, CONSTRUCTION PLANS, ETC.

ABBREVIATIONS

- FL FLOWLINE ELEVATION
- TC TOP OF CURB ELEVATION
- GL GUTTER LINE ELEVATION
- TG TOP OF GRATE ELEVATION
- STA STATION
- FES FLARED END SECTION
- SWI STORM WATER INLET
- FFE FINISH FLOOR ELEVATION
- HP HIGH POINT
- LP LOW POINT
- TW TOP OF WALL ELEVATION
- BW BOTTOM OF WALL ELEVATION
- DS DOWNSPOUT
- EP EDGE OF PAVEMENT

LEGEND

EXISTING	PROPOSED	
		PROPERTY LINE
		LOT LINE
		RIGHT OF WAY LINE
		CENTERLINE
		EASEMENT
		BUILDING SETBACK
		CONSTRUCTION LIMITS
		FENCE LINE
		CHAIN LINK FENCE
		FENCE W/ SQUARE POSTS
		STREAM
		STRUCTURE
		PAVEMENT MARKINGS
		EDGE OF PAVEMENT
		CURB AND GUTTER
		RAILROAD TRACKS
		WATER LINE
		FIRE PROTECTION
		GAS LINE
		OVERHEAD ELECTRIC
		UNDERGROUND ELECTRIC
		OVERHEAD TELEPHONE
		UNDERGROUND TELEPHONE
		CABLE TELEVISION
		FIBER OPTIC
		COMMUNICATION LINE
		STORM SEWER
		SANITARY SEWER
		FORCE MAIN
		COMBINED SEWER
		IRRIGATION SYSTEM
		MAST ARM SIGNAL (3 SIGNALS)
		MAST ARM SIGNALS (2 SIGNALS)
		UTILITY TRAFFIC SIGN
		SIGN
		MANHOLE
		STORM WATER INLET
		CATCH BASIN
		CLEANOUT
		CULVERT
		BOX CULVERT
		WATER VALVE
		FIRE HYDRANT
		POST INDICATOR VALVE
		WATER METER
		GAS VALVE
		GAS METER
		TELEPHONE PEDESTAL
		CABLE TV PEDESTAL
		ELECTRIC METER
		UTILITY POLE
		LIGHT STANDARD
		LIGHT POLE
		GUY WIRE
		SUMMIT / HIGH POINT
		CONTOURS
		INDEX CONTOURS
		DIRECTION OF DRAINAGE
		SPOT ELEVATION
		DECIDUOUS SHRUB
		DECIDUOUS TREE
		CONIFEROUS SHRUB
		CONIFEROUS TREE

BENCHMARK

- CHISELED "□" LIGHT POLE BASE
SOUTHWEST CORNER SITE - ELEV 1140.47

811

Know what's below.
Call before you dig.

NOTE
UTILITY INFORMATION IS FOR THE CONVENIENCE OF THE CONTRACTOR. BEFORE CONSTRUCTION BEGINS THE CONTRACTOR SHALL CONTACT MISSOURI ONE CALL SYSTEM, INC. AT 811 OR 1-800-344-7493 AND THE INDIVIDUAL UTILITIES NOT INCLUDED IN THIS SYSTEM FOR THE LOCATION OF ALL EXISTING UTILITIES. CONTRACTOR TO VERIFY THE LOCATION OF PRIVATE (MONG) UTILITIES.

STATE OF MISSOURI
MICHAEL L. PARSON,
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MANAGEMENT,
DESIGN AND CONSTRUCTION

CONSTRUCT FIELD
MAINTENANCE SHOP
(FMS) BAY ADDITION

FORT LEONARD WOOD
READINESS CENTER

10744 FLW V, BLDG 5175
FORT LEONARD WOOD,
MO 65473

PROJECT # T2126-01
SITE # 6306
ASSET # 8136306004

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 01/27/2023

CAD DWG FILE: C001
DRAWING BY: DCD
CHECKED BY: CSW
DESIGNED BY: DCD

SHEET TITLE:
**GENERAL NOTES
& LEGEND**

SHEET NUMBER:

C001
SHEET 4 OF 36

JANUARY 27, 2023



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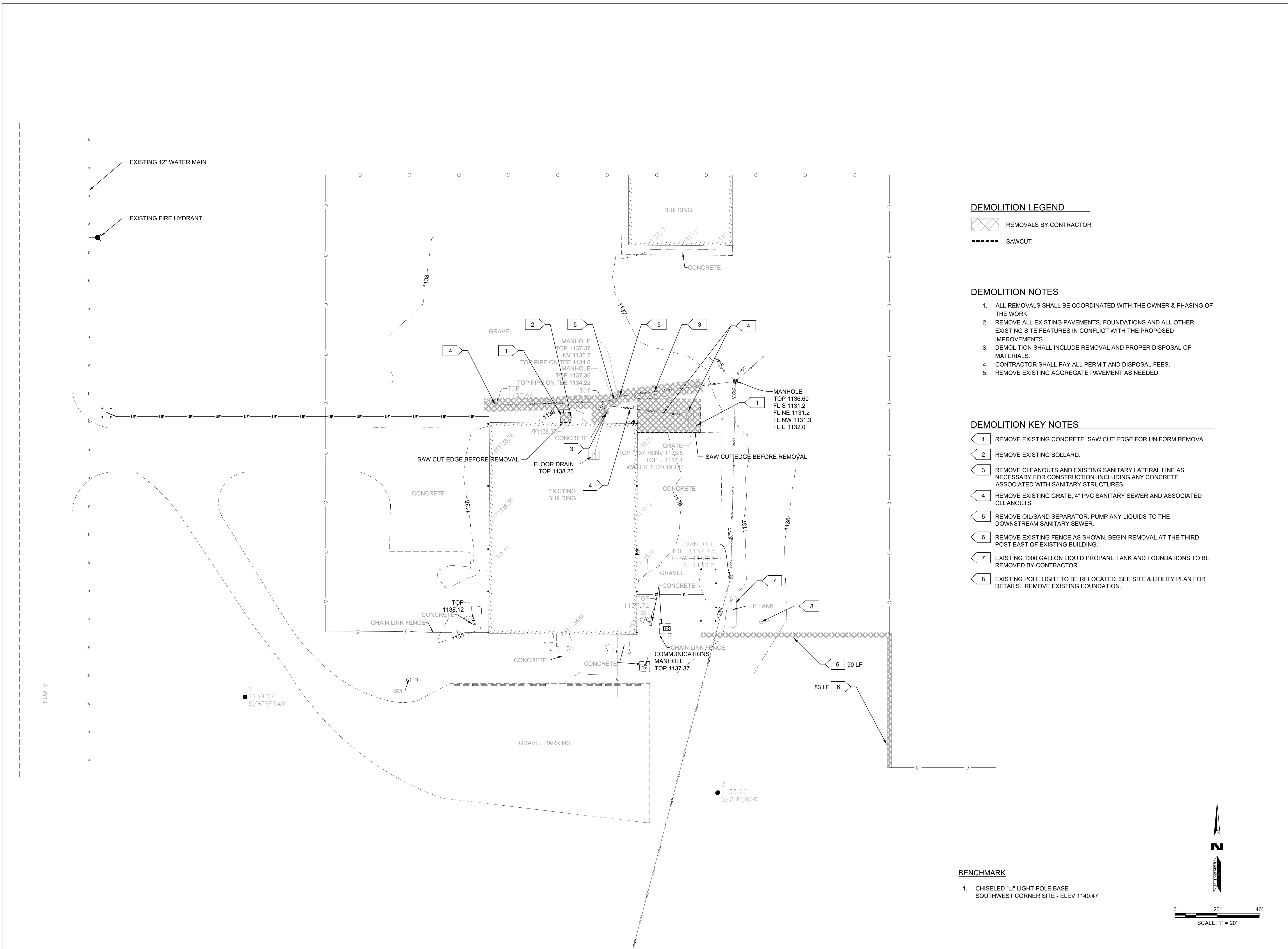
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DRAWING BY: DCD
CHECKED BY: CSW
DESIGNED BY: DCD

SHEET TITLE:
**EXISTING
CONDITIONS &
SITE DEMO PLAN**

SHEET NUMBER:

CD101
SHEET 5 OF 36

JANUARY 27, 2023



DEMOLITION LEGEND

- REMOVALS BY CONTRACTOR
- SAWCUT

DEMOLITION NOTES

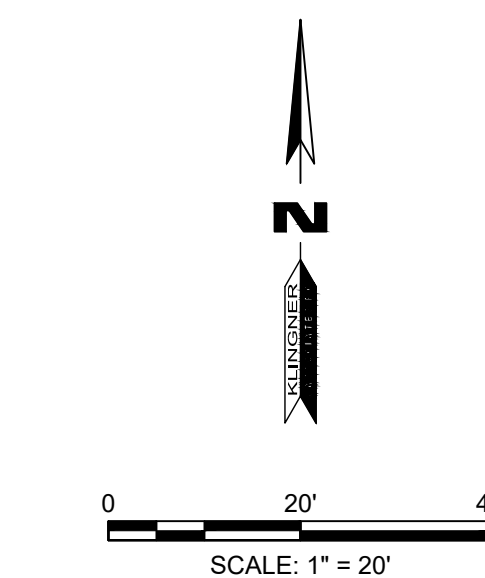
1. ALL REMOVALS SHALL BE COORDINATED WITH THE OWNER & PHASING OF THE WORK.
2. REMOVE ALL EXISTING PAVEMENTS, FOUNDATIONS AND ALL OTHER EXISTING SITE FEATURES IN CONFLICT WITH THE PROPOSED IMPROVEMENTS.
3. DEMOLITION SHALL INCLUDE REMOVAL AND PROPER DISPOSAL OF MATERIALS.
4. CONTRACTOR SHALL PAY ALL PERMIT AND DISPOSAL FEES.
5. REMOVE EXISTING AGGREGATE PAVEMENT AS NEEDED

DEMOLITION KEY NOTES

- 1 REMOVE EXISTING CONCRETE. SAW CUT EDGE FOR UNIFORM REMOVAL.
- 2 REMOVE EXISTING BOLLARD.
- 3 REMOVE CLEANOUTS AND EXISTING SANITARY LATERAL LINE AS NECESSARY FOR CONSTRUCTION. INCLUDING ANY CONCRETE ASSOCIATED WITH SANITARY STRUCTURES.
- 4 REMOVE EXISTING GRATE, 4" PVC SANITARY SEWER AND ASSOCIATED CLEANOUTS
- 5 REMOVE OIL/SAND SEPARATOR. PUMP ANY LIQUIDS TO THE DOWNSTREAM SANITARY SEWER.
- 6 REMOVE EXISTING FENCE AS SHOWN. BEGIN REMOVAL AT THE THIRD POST EAST OF EXISTING BUILDING.
- 7 EXISTING 1000 GALLON LIQUID PROPANE TANK AND FOUNDATIONS TO BE REMOVED BY CONTRACTOR.
- 8 EXISTING POLE LIGHT TO BE RELOCATED. SEE SITE & UTILITY PLAN FOR DETAILS. REMOVE EXISTING FOUNDATION.

BENCHMARK

1. CHISELED "D" LIGHT POLE BASE
SOUTHWEST CORNER SITE - ELEV 1140.47



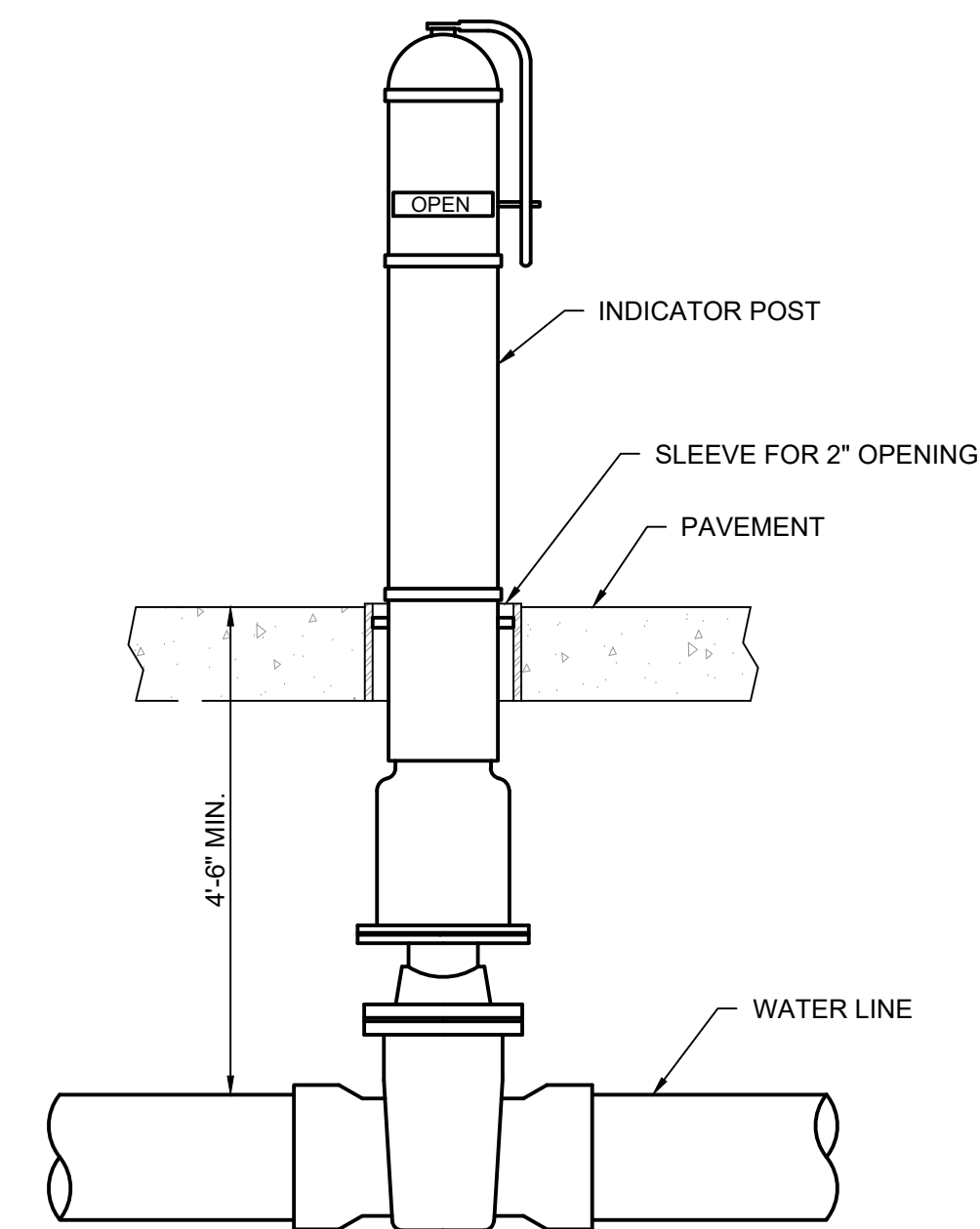
SANITARY STRUCTURE TABLE				
STRUCTURE NO.	TOP ELEV.	FLOWLINE ELEV.	DESCRIPTION	GRATE TYPE
A	1137.96	W - 1136.71 E - 1136.46	OIL/SAND SEPARATOR (MODEL NO. OMC 750) WITH H-20 RATED FRAMES & LID- INSTALL FRAME IN CONCRETE PER MANUFACTURER'S STANDARD DETAILS FOR TRAFFIC RATED INSTALLATION	N/A
B	1137.44	W - 1135.94	6"Ø TRENCH DRAIN OULET PIPE	N/A
C	NA	1131.67	CONNECTION TO SANITARY LATERAL UPSTREAM OF OIL/SAND SEPARATOR	N/A

PAVEMENT LEGEND

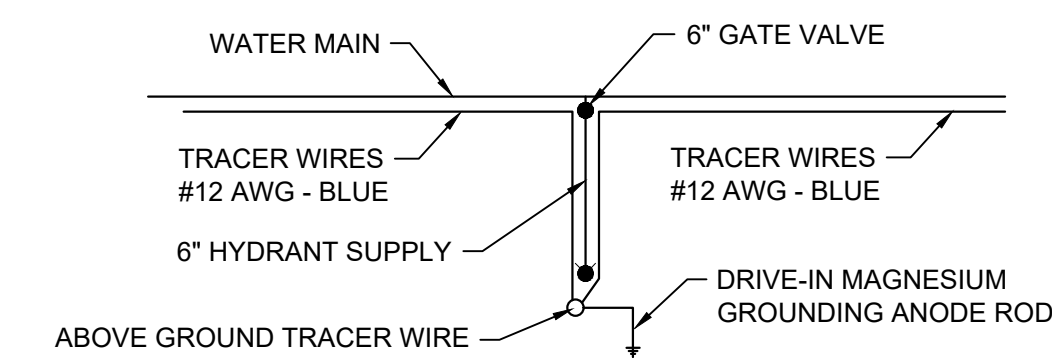
PC CONCRETE PAVEMENT (DETAIL 3/C501)

AGGREGATE PAVEMENT (DETAIL 2/C501)

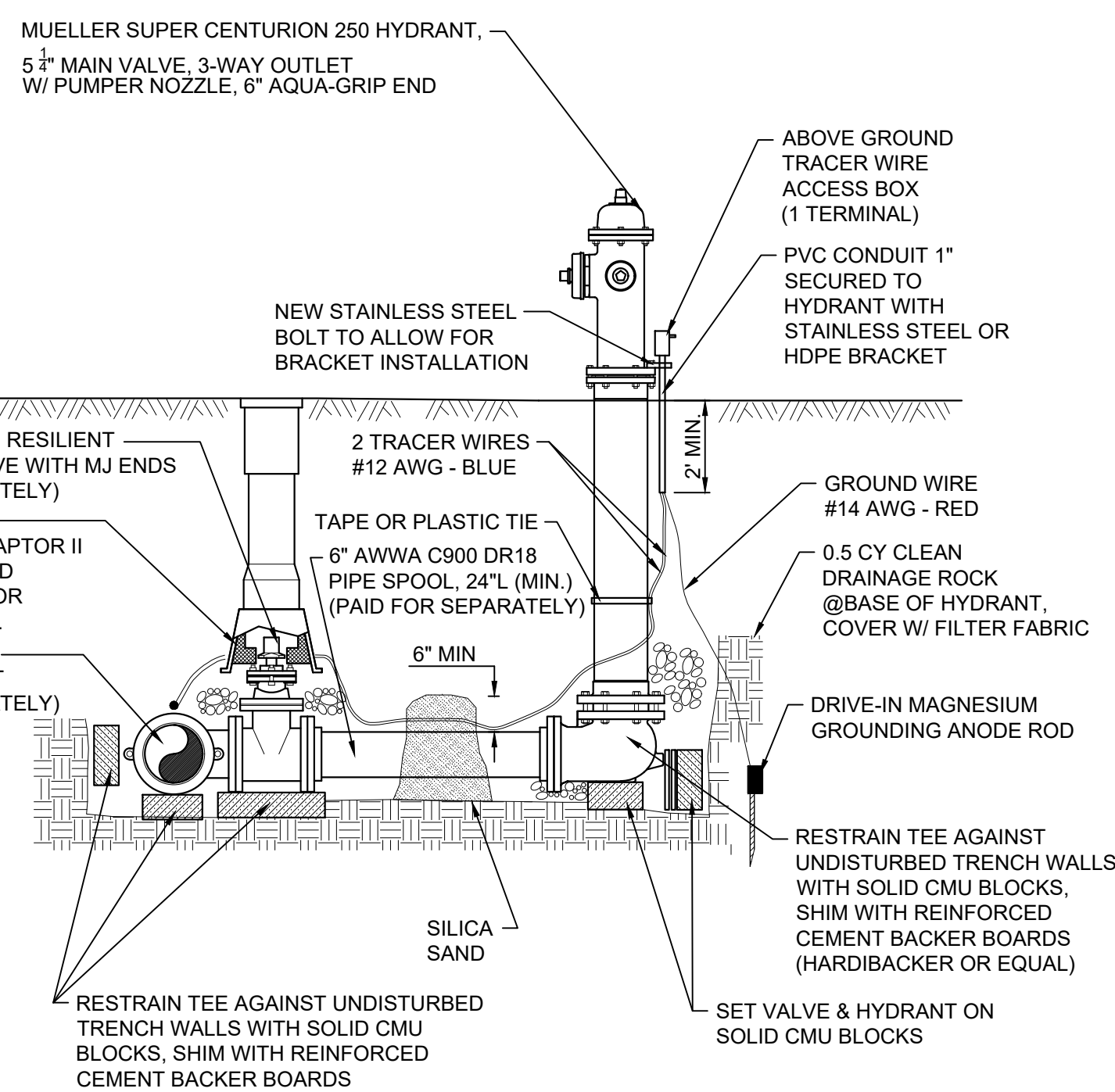
- SITE & UTILITY PLAN NOTES**
- CONTRACTOR TO CONFIRM EXISTENCE AND EXACT LOCATION OF SANITARY SEWER. INTENTION IS TO INSTALL A NEW SAND AND OIL INTERCEPTOR SUCH THAT NO DOMESTIC SANITARY WASTE IS DIRECTED TO THE INTERCEPTOR. CONTRACTOR TO ADJUST ACTUAL LOCATION OF INTERCEPTOR BASED UPON FIELD OBSERVATIONS.
 - SPLASH PADS TO BE USED AT PROPOSED DOWNSPOUT LOCATIONS
 - PROPANE TANK TO HAVE 6" CONCRETE SLAB POURED BEFORE PLACEMENT
 - COORDINATE LOCATION OF (6) 6" DIAMETER BOLLARDS IN FIELD



1 INDICATOR POST DETAIL
N.T.S.



TRACER WIRE SCHEMATIC



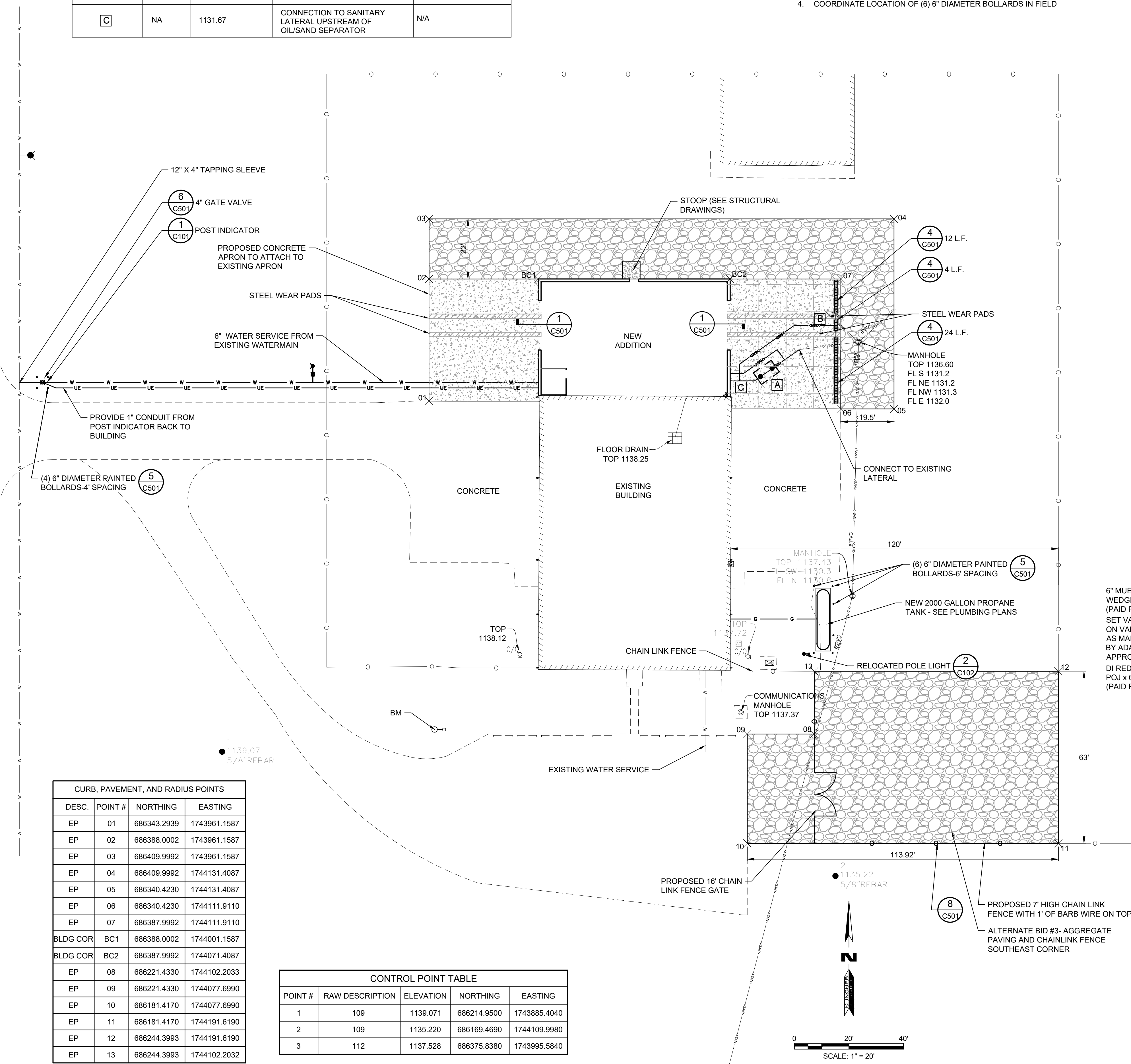
NOTES

- PROVIDE 48" MINIMUM COVER OVER HYDRANT LEAD.
- USE STAINLESS STEEL BOLTS & HARDWARE FOR BURIED FLANGE CONNECTIONS.
- FOLLOW VALVE INSTALLATION DETAILS FOR SETTING HYDRANT LEAD VALVE.

2 FIRE HYDRANT WITH TRACER WIRE DETAIL
N.T.S.

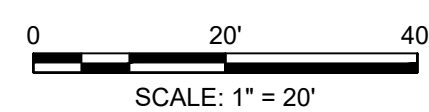
BENCHMARK

- CHISELED "C" LIGHT POLE BASE
SOUTHWEST CORNER SITE - ELEV 1140.47



CURB, PAVEMENT, AND RADIUS POINTS				
DESC.	POINT #	NORTHING	EASTING	
EP	01	686343.2939	1743961.1587	
EP	02	686388.0002	1743961.1587	
EP	03	686409.9992	1743961.1587	
EP	04	686409.9992	1744131.4087	
EP	05	686340.4230	1744131.4087	
EP	06	686340.4230	1744111.9110	
EP	07	686387.9992	1744111.9110	
BLDG COR	BC1	686388.0002	1744001.1587	
BLDG COR	BC2	686387.9992	1744071.4087	
EP	08	686221.4330	1744102.2033	
EP	09	686221.4330	1744077.6990	
EP	10	686181.4170	1744077.6990	
EP	11	686181.4170	1744191.6190	
EP	12	686244.3993	1744191.6190	
EP	13	686244.3993	1744102.2032	

CONTROL POINT TABLE				
POINT #	RAW DESCRIPTION	ELEVATION	NORTHING	EASTING
1	109	1139.071	686214.9500	1743885.4040
2	109	1135.220	686169.4690	1744109.9980
3	112	1137.528	686375.8380	1743995.5840



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10744 FLW V, BLDG 5175
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MO 65473

PROJECT # T2126-01
SITE # 6306
ASSET # 8136306006

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ISSUE DATE: 01/27/2023

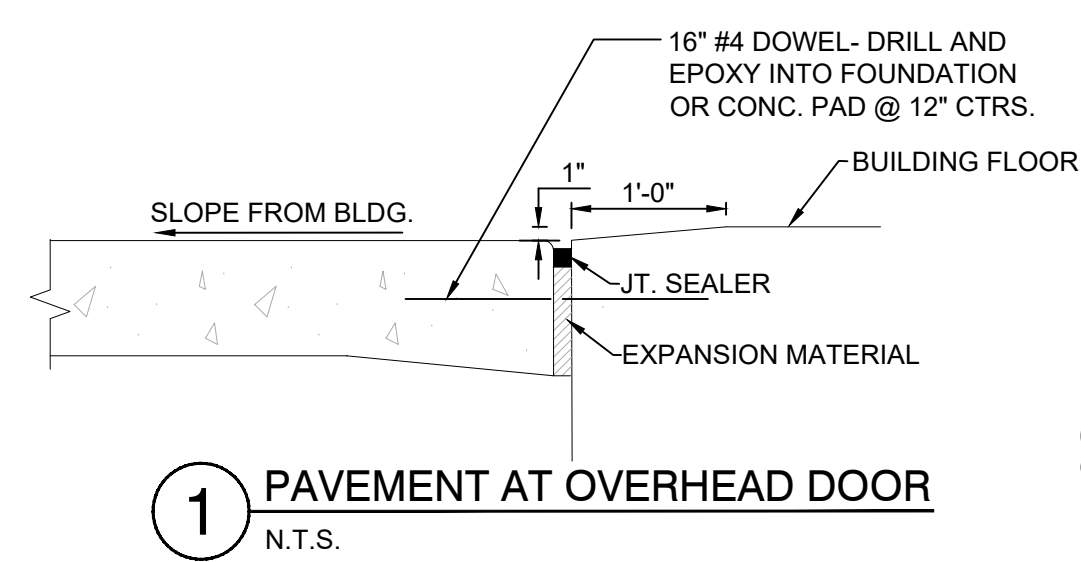
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DRAWING BY: DCD
CHECKED BY: CSW
DESIGNED BY: DCD

SHEET TITLE:
**SITE & UTILITY
PLAN**

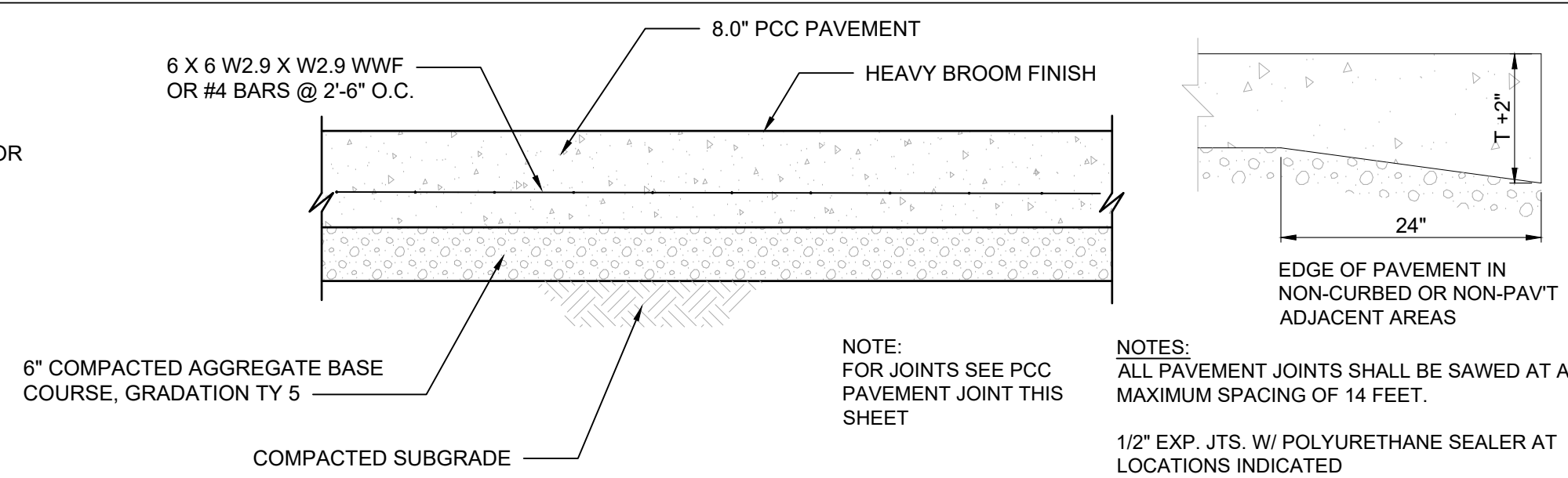
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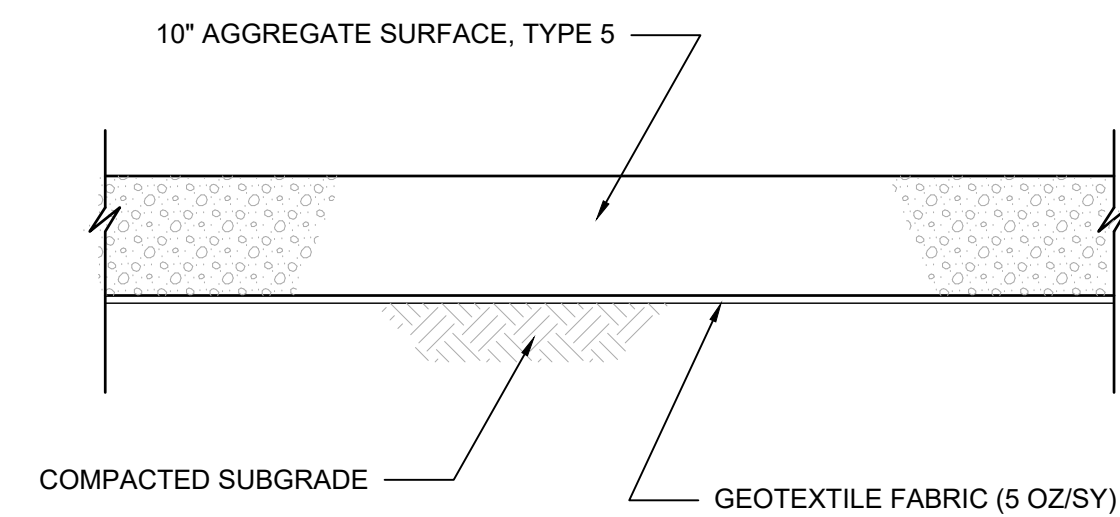
JANUARY 27, 2023



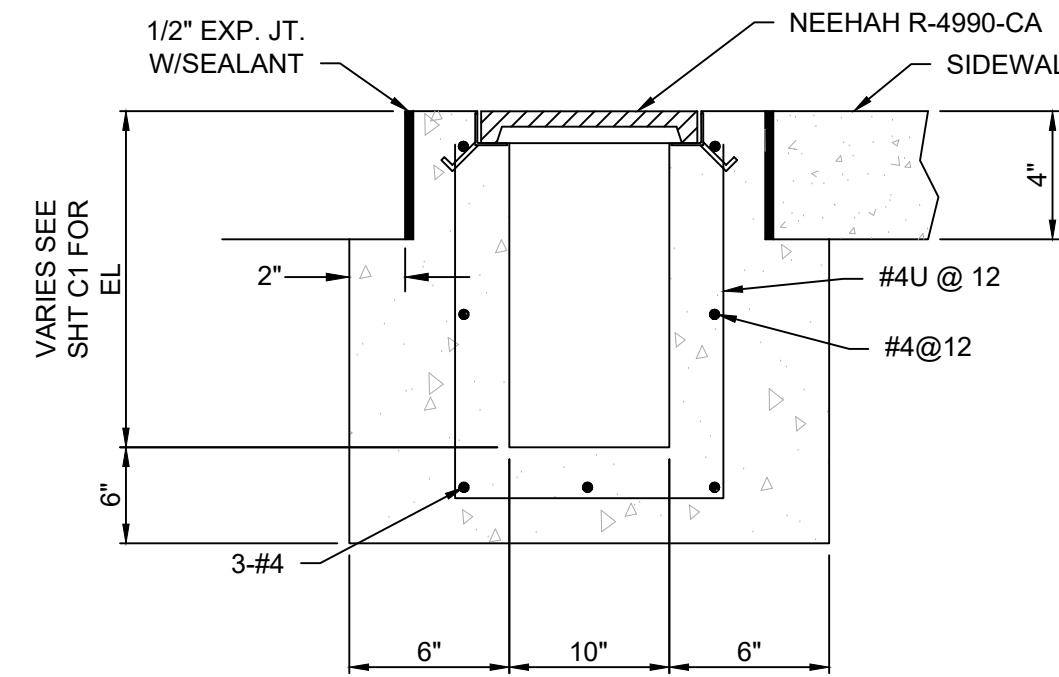
1 PAVEMENT AT OVERHEAD DOOR
N.T.S.



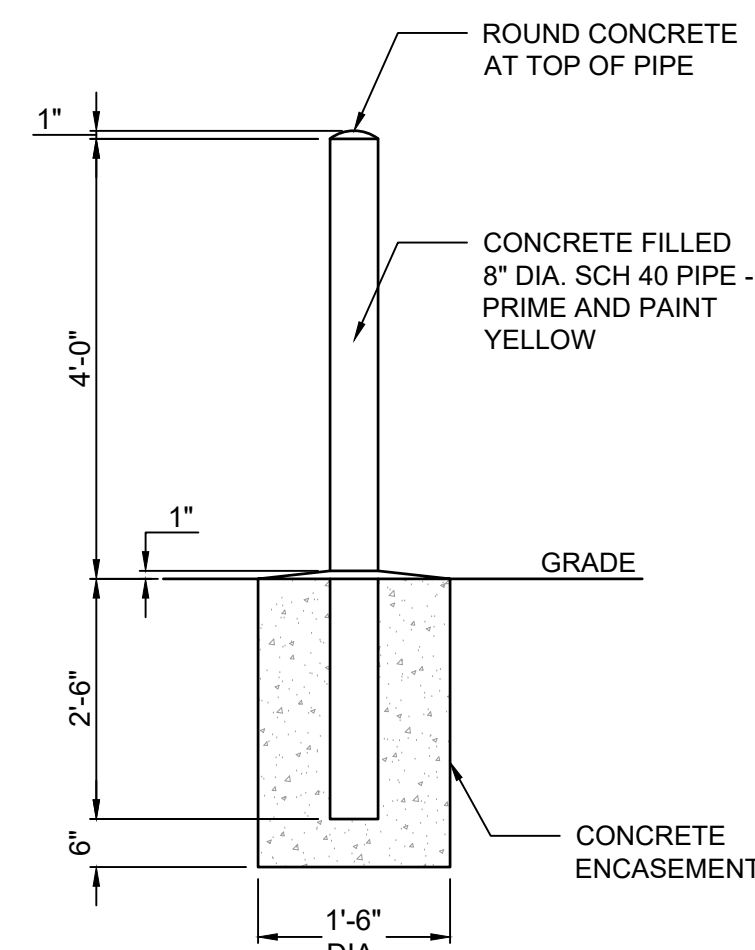
3 PCC PAVING DETAIL
N.T.S.



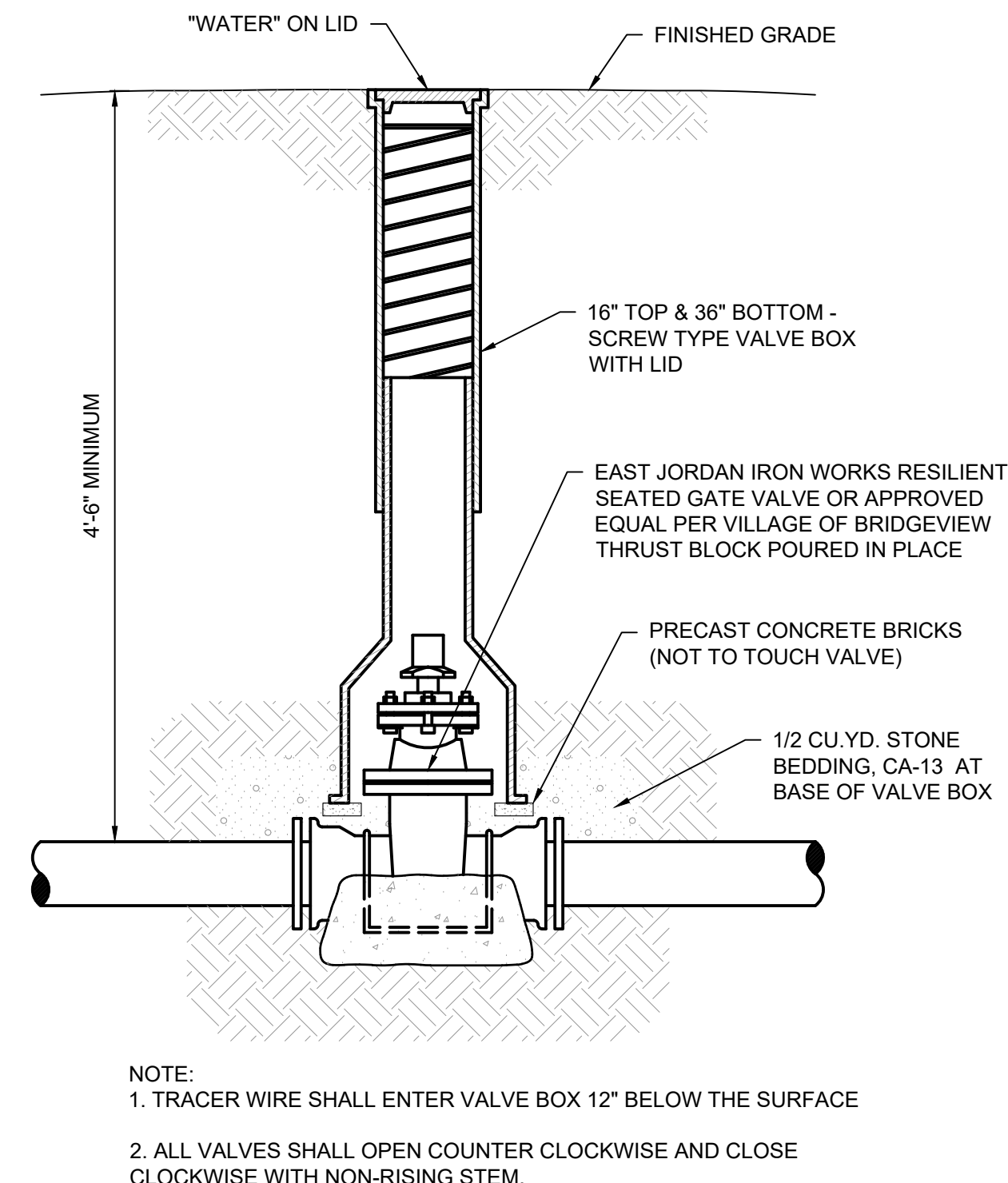
2 AGGREGATE PAVING DETAIL
N.T.S.



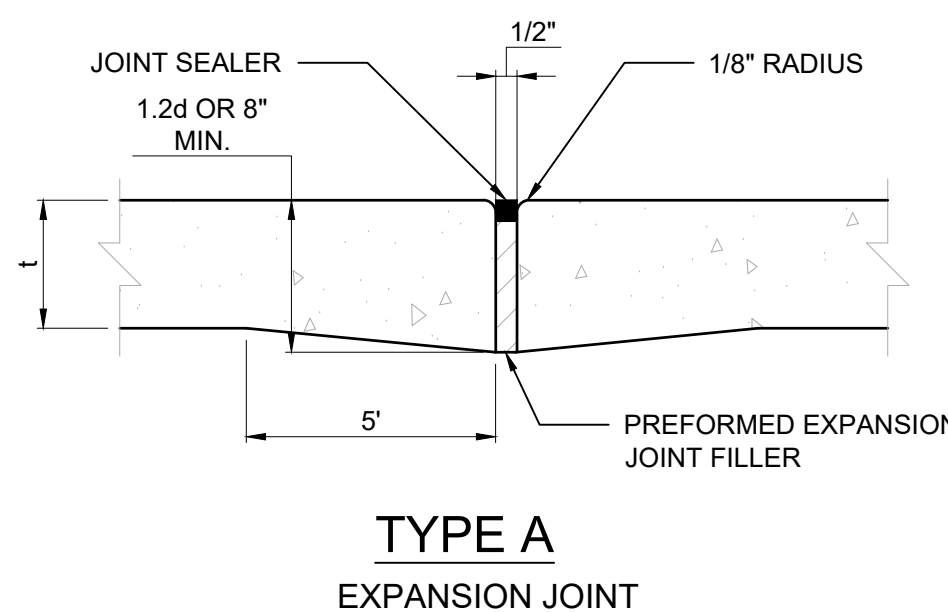
4 TRENCH DRAIN
N.T.S.



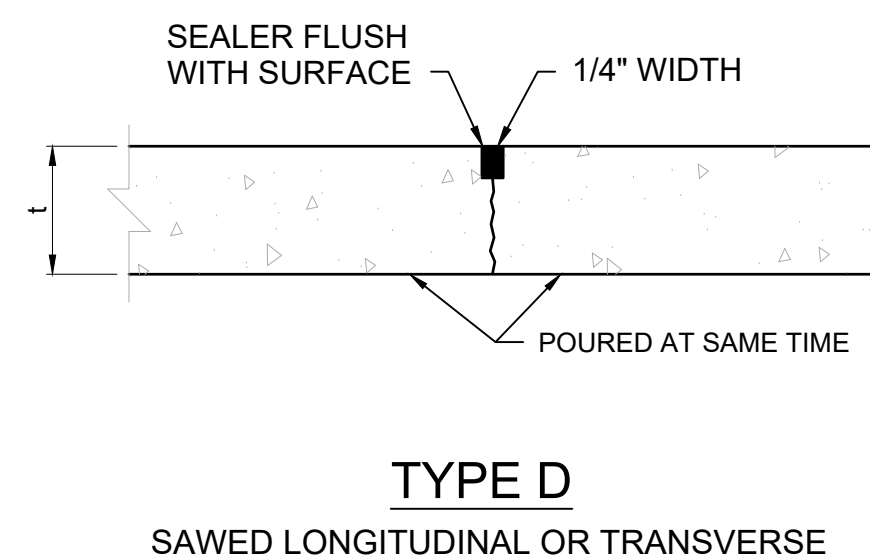
5 BOLLARD
N.T.S.



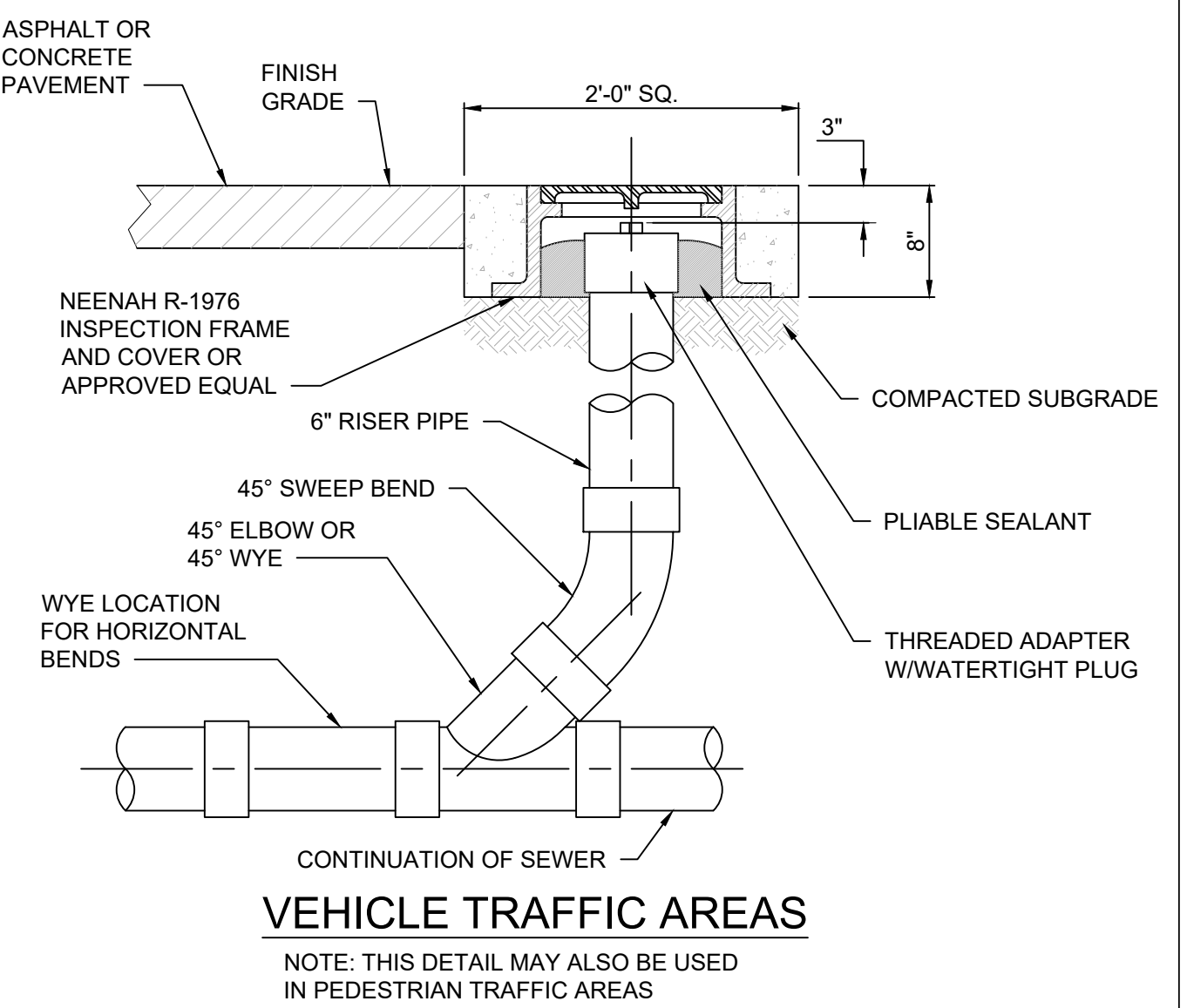
6 VALVE SETTING
N.T.S.



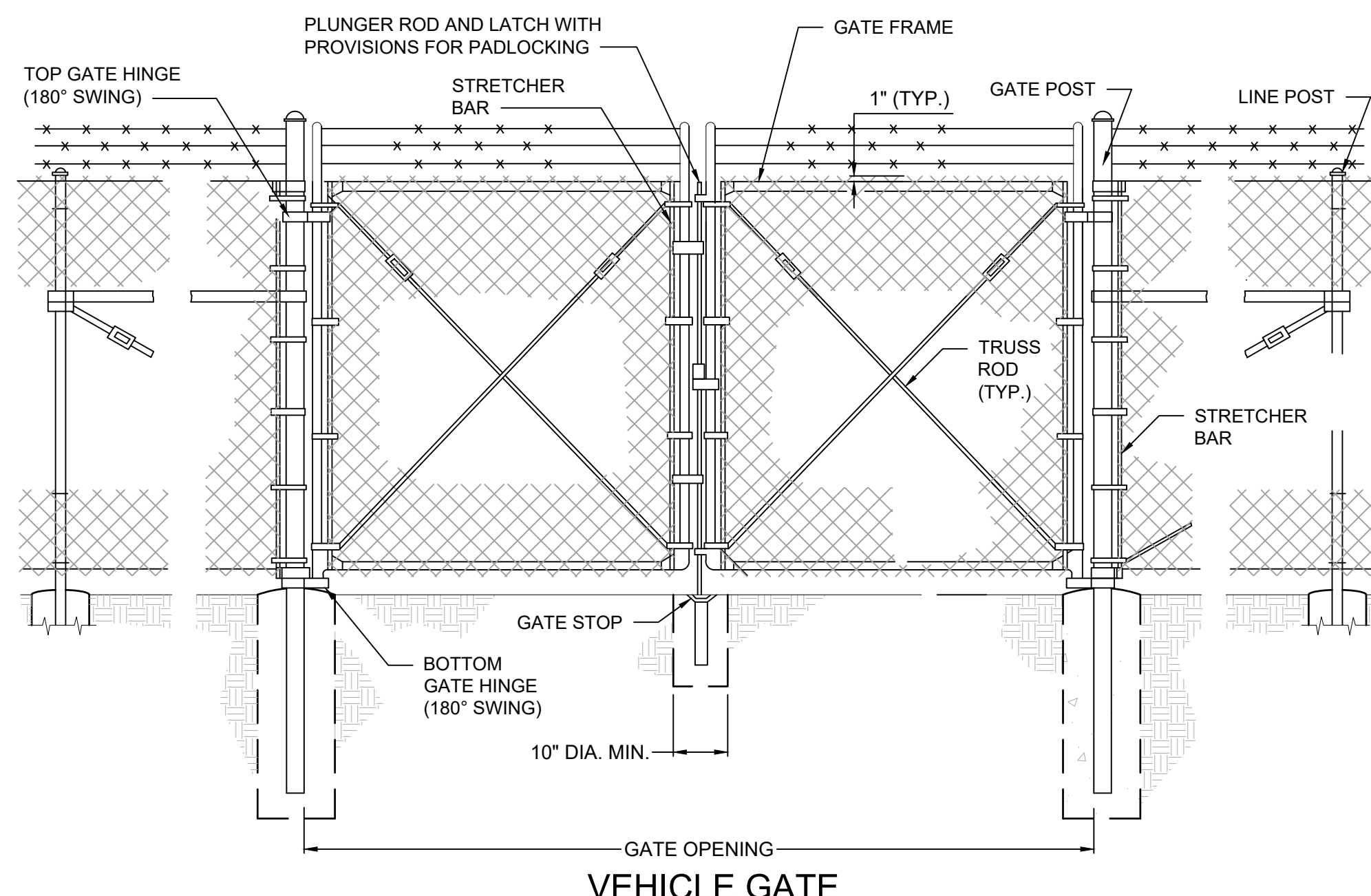
TYPE A
EXPANSION JOINT



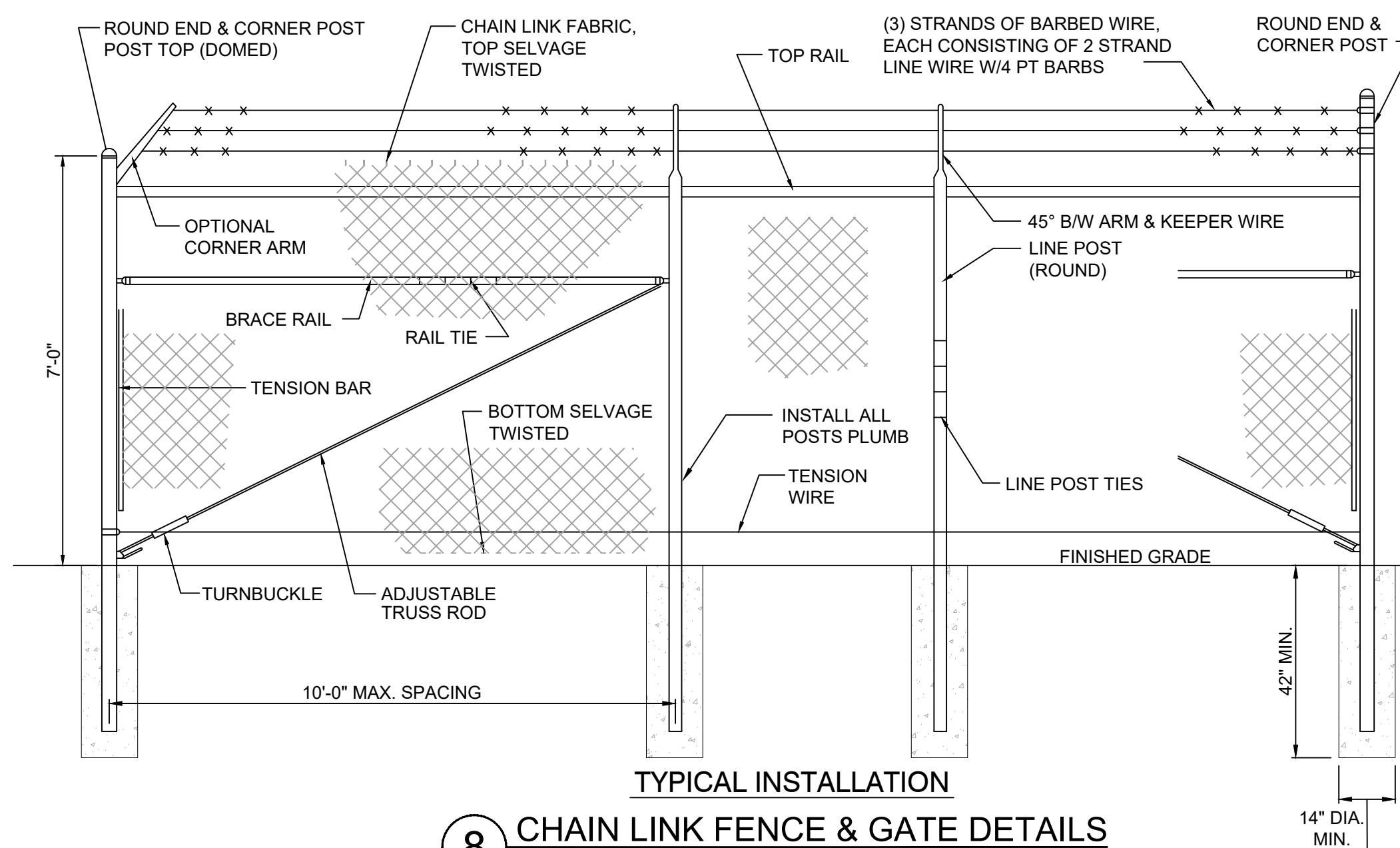
TYPE D
SAWED LONGITUDINAL OR TRANSVERSE



7 CLEANOUT DETAILS
N.T.S.



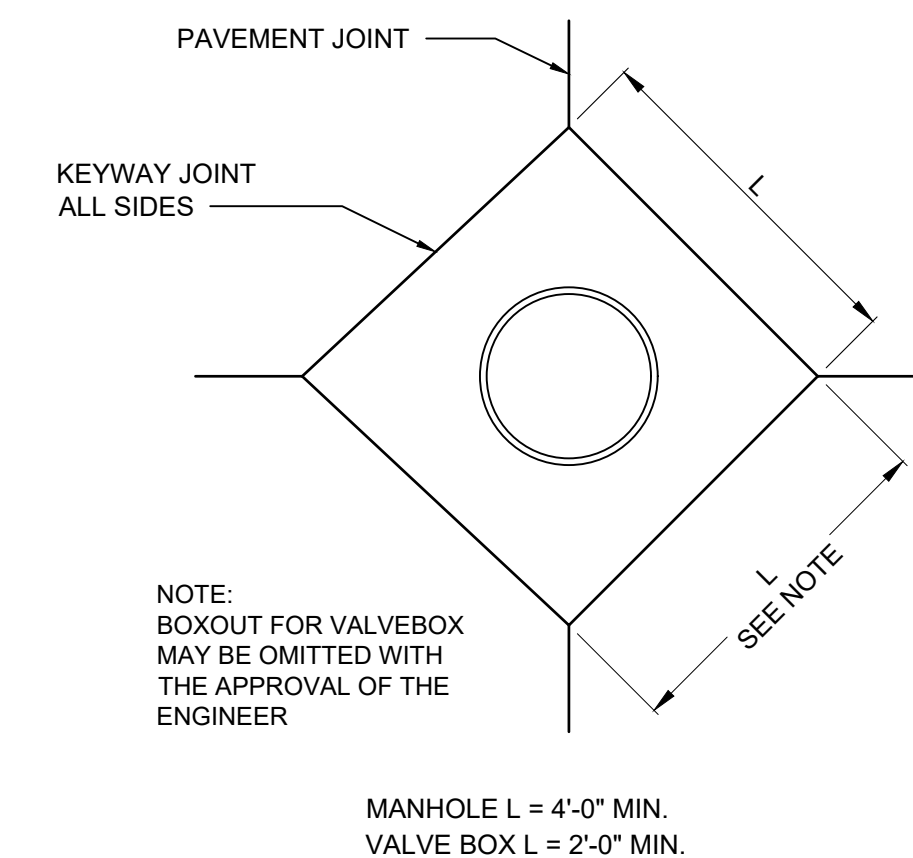
VEHICLE GATE



8 CHAIN LINK FENCE & GATE DETAILS
N.T.S.

NOTES

1. AT INLETS, MANHOLES, OR OTHER STRUCTURES TRANSVERSE JOINTS SHALL BE SHORTENED ONE OR MORE PANELS EITHER SIDE OF THE STRUCTURE TO PERMIT JOINTS TO FALL AT THE CORNERS OF THE BOXOUT. ONE OR BOTH "L" DIMENSIONS OF THE BOX OUT MAY BE ADJUSTED TO PROVIDE FOR INTERSECTION OF LONGITUDINAL JOINTS AT BOX OUT CORNERS.
2. ALL TRANSVERSE JOINTS MUST BE CONTINUOUS ACROSS PAVEMENT. EXCEPT TIED TRANSVERSE CONSTRUCTION JOINTS. EXPANSION JOINTS WILL BE REQUIRED AS SHOWN ON PLANS.
3. MAXIMUM TRANSVERSE JOINT SPACING SHALL BE 14 FEET, UNLESS OTHERWISE SPECIFIED.
4. PAVEMENT JOINTS SHALL BE SEALED WITH SELF LEVELING POLYURETHANE SEALANT.
5. DEFORMED BARS CONFORMING TO THE REQUIREMENTS OF A.A.S.H.T.O., M-31 OR M-53 GRADE 60 SHALL BE USED FOR THE TIE BARS.
6. SUPPORT PINS FOR THE TIE BARS, WHEN REQUIRED, SHALL BE OF A SIZE AND STRENGTH SUFFICIENT TO FIRMLY HOLD THE BAR IN PLACE.



TYPICAL UTILITY BOXOUT
JOINTS ALL CORNERS



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SITE # 6306
ASSET # 8136306004

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ISSUE DATE: 01/27/2023

CAD DWG FILE: C501
DRAWING BY: DCD
CHECKED BY: CSW
DESIGNED BY: DCD

SHEET TITLE:
DETAILS

SHEET NUMBER:
C501
SHEET 8 OF 36

JANUARY 27, 2023



CODY N. BASHAM - ARCHITECT
MO # A-2021000203

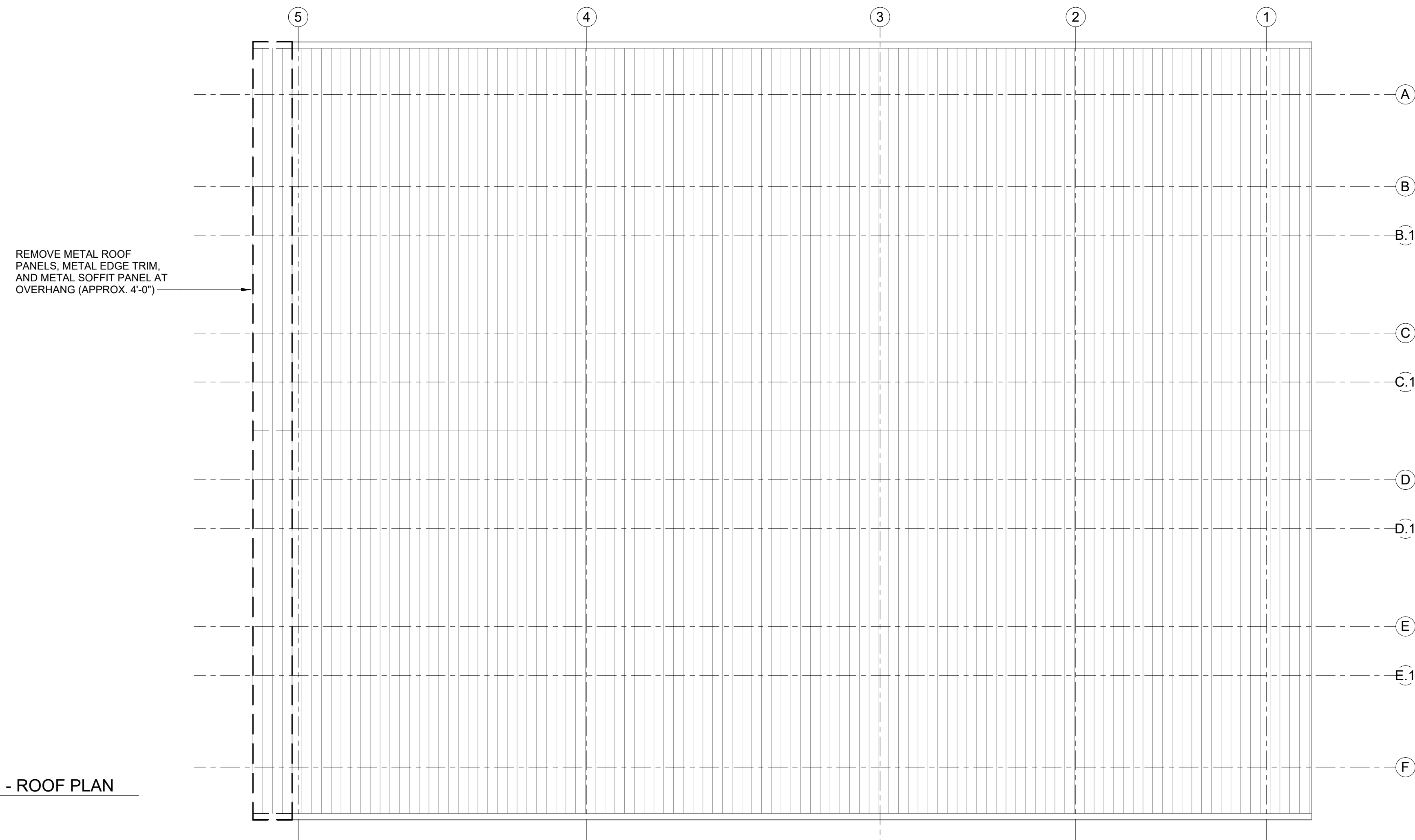
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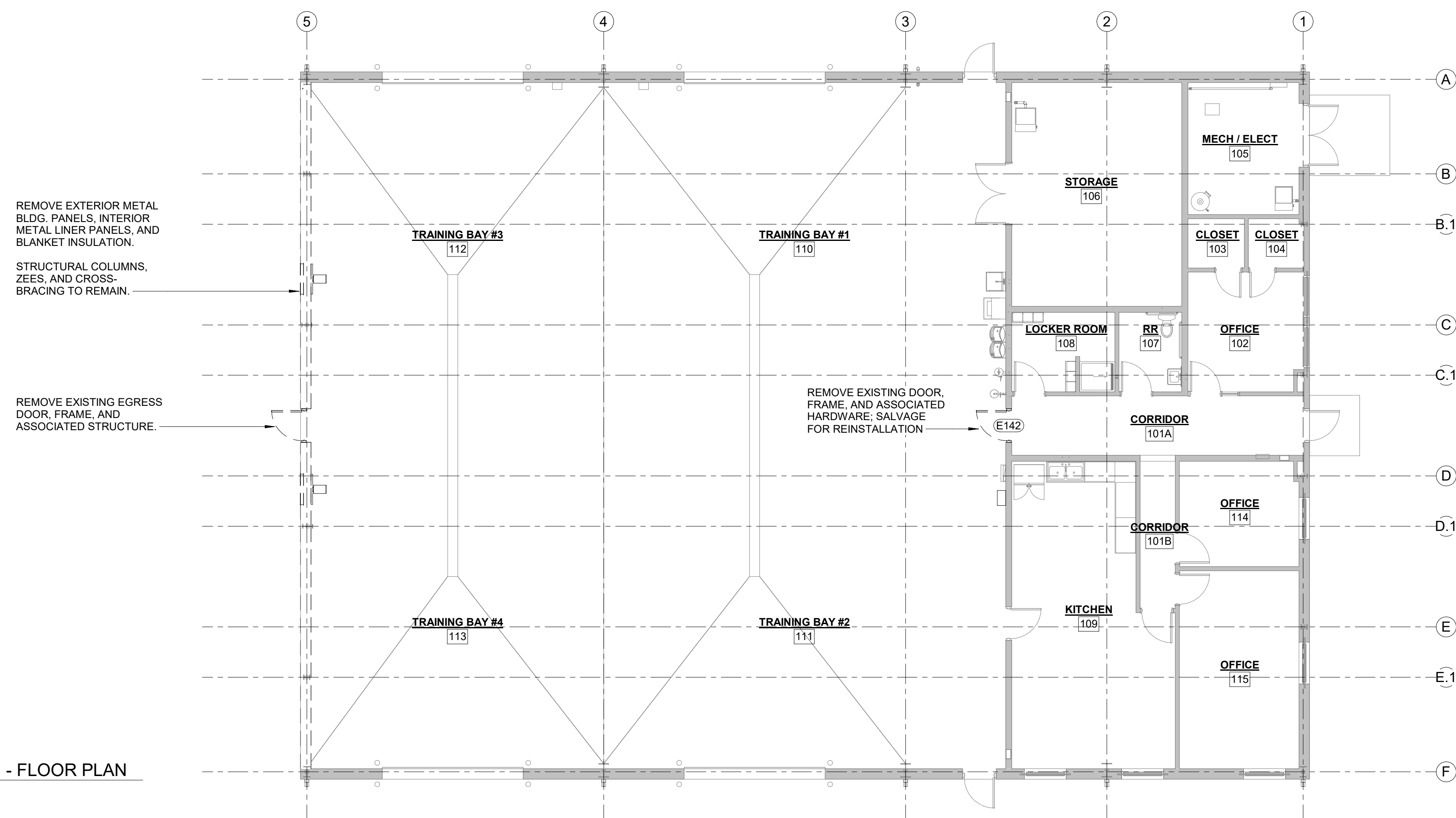
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GENERAL DEMOLITION NOTES

1. ALL MATERIALS THAT HAVE BEEN DEMOLISHED SHALL BE REMOVED AND DISPOSED OF PROPERLY. NO DEMOLISHED MATERIALS SHALL BE STOCKPILED ON SITE.
2. CONTRACTOR SHALL NOTIFY OWNER OF ANY SUSPECTED HAZARDOUS MATERIALS ENCOUNTERED DURING CONSTRUCTION ACTIVITIES.
3. THE CONTRACTOR SHALL MAKE A PERSONAL INSPECTION OF THE SITE AND INCLUDE ALL WORK REQUIRED BY THE DRAWINGS. NOTIFY THE ARCHITECT IN WRITING OF ANY INCONSISTENCIES IN THE DRAWINGS.
4. PROTECT OWNER'S PROPERTY AND PERSONS AT ALL TIMES. THIS INCLUDES ALL ITEMS AND SERVICES NECESSARY TO DEMOLISH OR DISMANTLE AND REMOVE ALL WALLS, EQUIPMENT, PIPING AND APPURTENANCES WHICH WILL INTERFERE WITH NEW CONSTRUCTION. ALL ITEMS TO BE REMOVED SHALL BE COORDINATED WITH NEW CONSTRUCTION.
5. ANY ITEMS NOT SHOWN TO BE DEMOLISHED THAT ARE DAMAGED DURING THE COURSE OF DEMOLITION OR CONSTRUCTION SHALL BE REPAIRED/REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
6. COORDINATE ANY SYSTEMS SHUTDOWNS WHICH MAY BE REQUIRED WITH THE OWNER.
7. PRIOR TO COMMENCING DEMOLITION, THE CONTRACTOR SHALL ASCERTAIN FROM THE OWNER WHETHER OR NOT THE OWNER WISHES TO RETAIN ANY ITEMS. ANY SUCH ITEMS SHALL BE REMOVED WITH CARE SO AS TO PREVENT UNNECESSARY DAMAGE.
8. ANY ITEMS NOT TO BE RETAINED BY THE OWNER SHALL BE LEGALLY DISPOSED OF OFF SITE BY THE CONTRACTOR.
9. GENERAL CONTRACTOR SHALL PROVIDE & MAINTAIN DUST PROTECTION BETWEEN EXISTING OCCUPIED AREAS AND WORK AREAS.
10. EXISTING CONSTRUCTION SHALL BE PROTECTED.
11. EXISTING NORTH WALL SHALL NOT BE REMOVED UNTIL NEW ADDITION EXTERIOR ENVELOPE IS IN PLACE AND SECURED.



2 SELECTIVE DEMOLITION - ROOF PLAN
1/8" = 1'-0"



1 SELECTIVE DEMOLITION - FLOOR PLAN
1/8" = 1'-0"

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CONSTRUCT FIELD
MAINTENANCE SHOP
(FMS) BAY ADDITION

FORT LEONARD WOOD
READINESS CENTER

10744 FLW V, BLDG 5175
FORT LEONARD WOOD,
MO 65473

PROJECT # T2126-01
SITE # 6306
ASSET # 8136306004

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 01/27/23

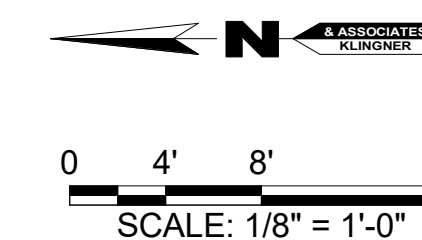
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DRAWING BY: MSG
CHECKED BY: CNB
DESIGNED BY: CNB

SHEET TITLE:
**SELECTIVE
DEMOLITION**

SHEET NUMBER:

AD101

SHEET 9 OF 36
JANUARY 27, 2023





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MO # A-2021000203

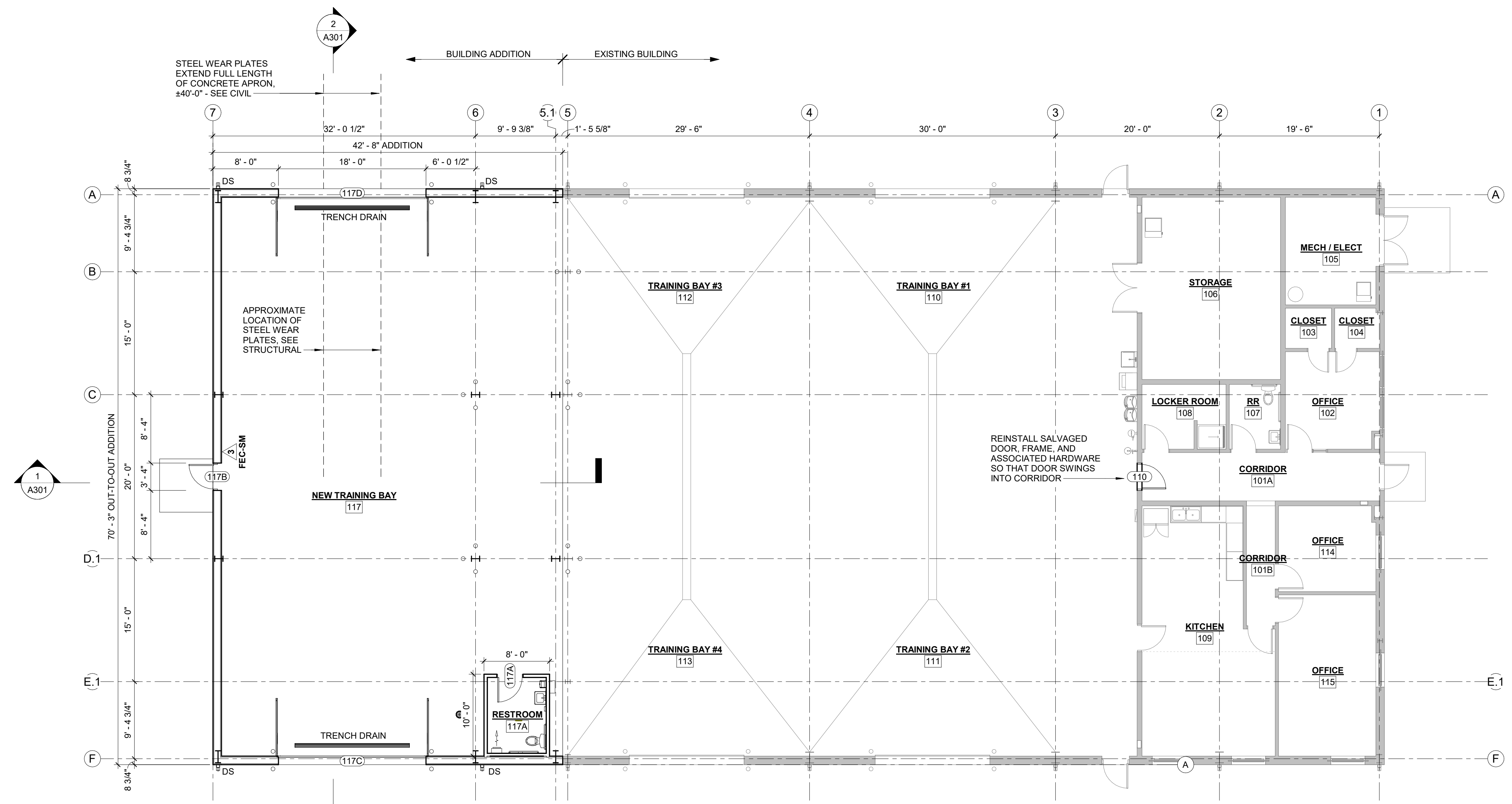
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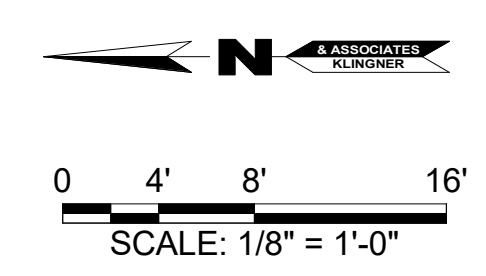
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Hannibal, MO
MISSOURI STATE CERTIFICATE OF AUTHORITY #2001010108

GENERAL NOTES

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS. REPORT TO THE ARCHITECT WITH ANY DISCREPANCIES.
2. FINISH FLOOR ELEVATION IS 1138.37' ON CIVIL PLANS = 0' - 0" ON ARCHITECTURE PLANS.
3. ADDITION CONCRETE SLAB ON GRADE IS FLAT AND DOES NOT SLOPE TO TRENCH DRAINS AT OVERHEAD DOORS.



1 FLOOR PLAN
1/8" = 1'-0"



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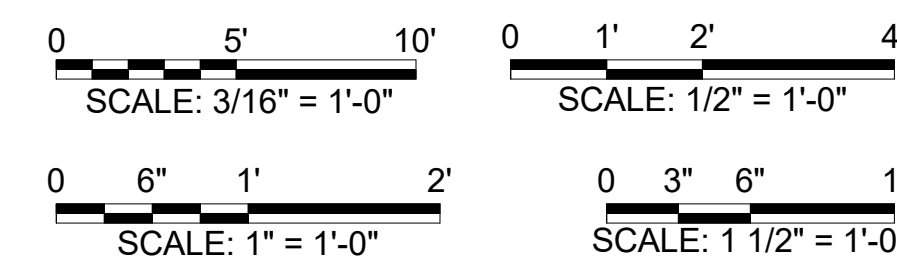
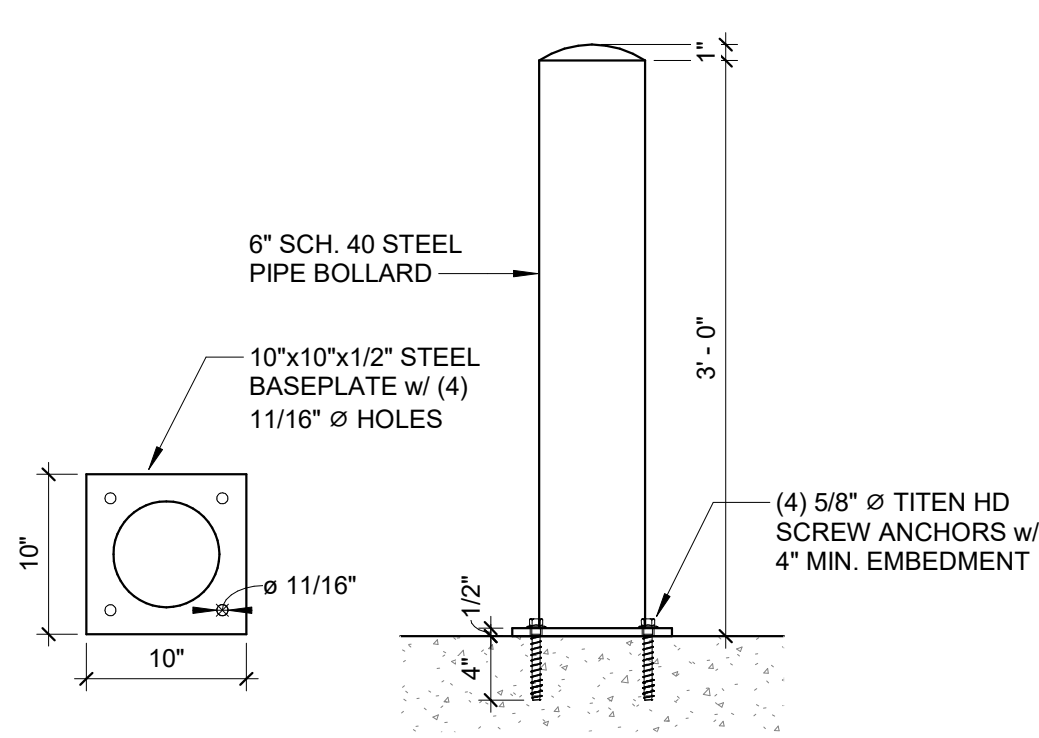
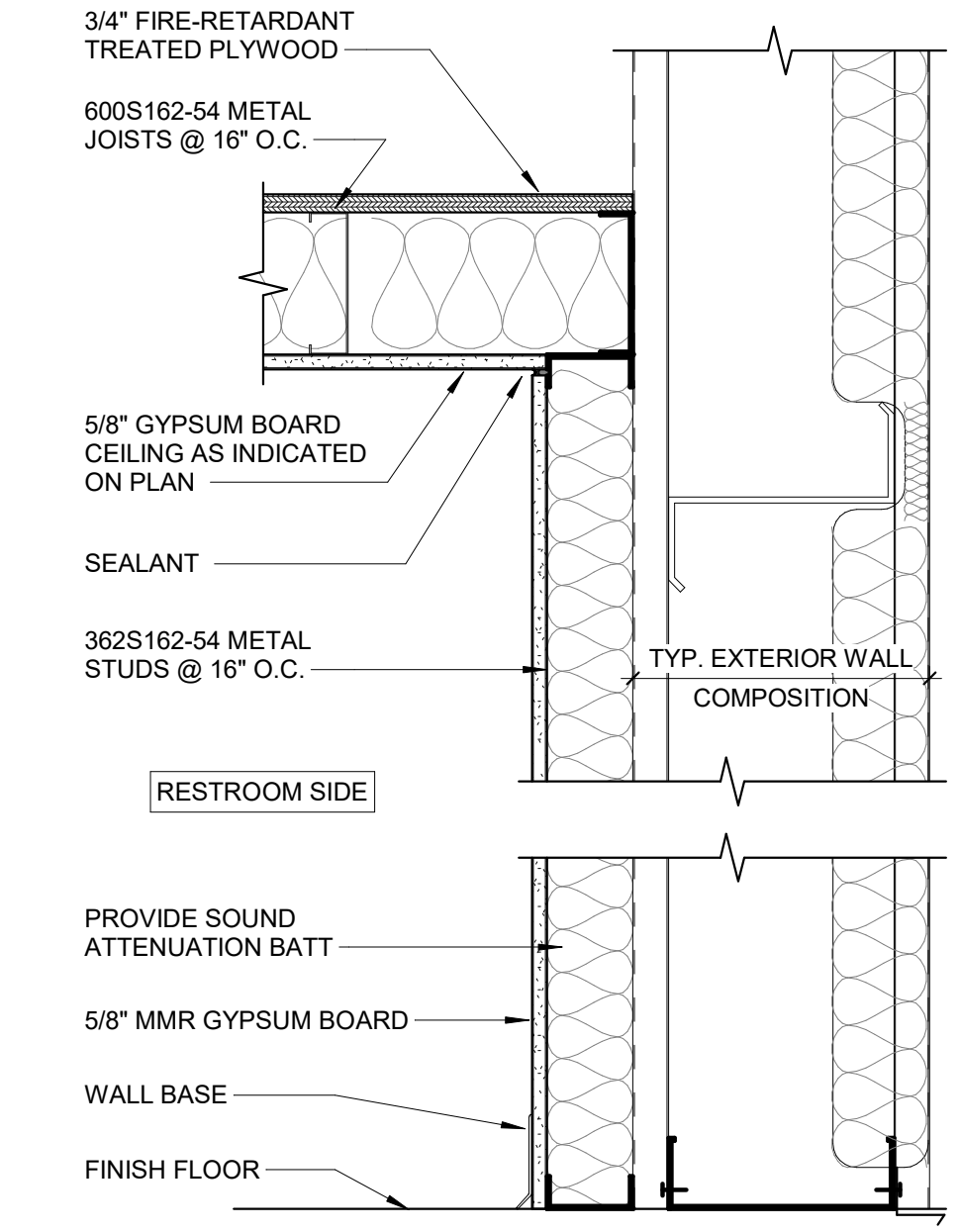
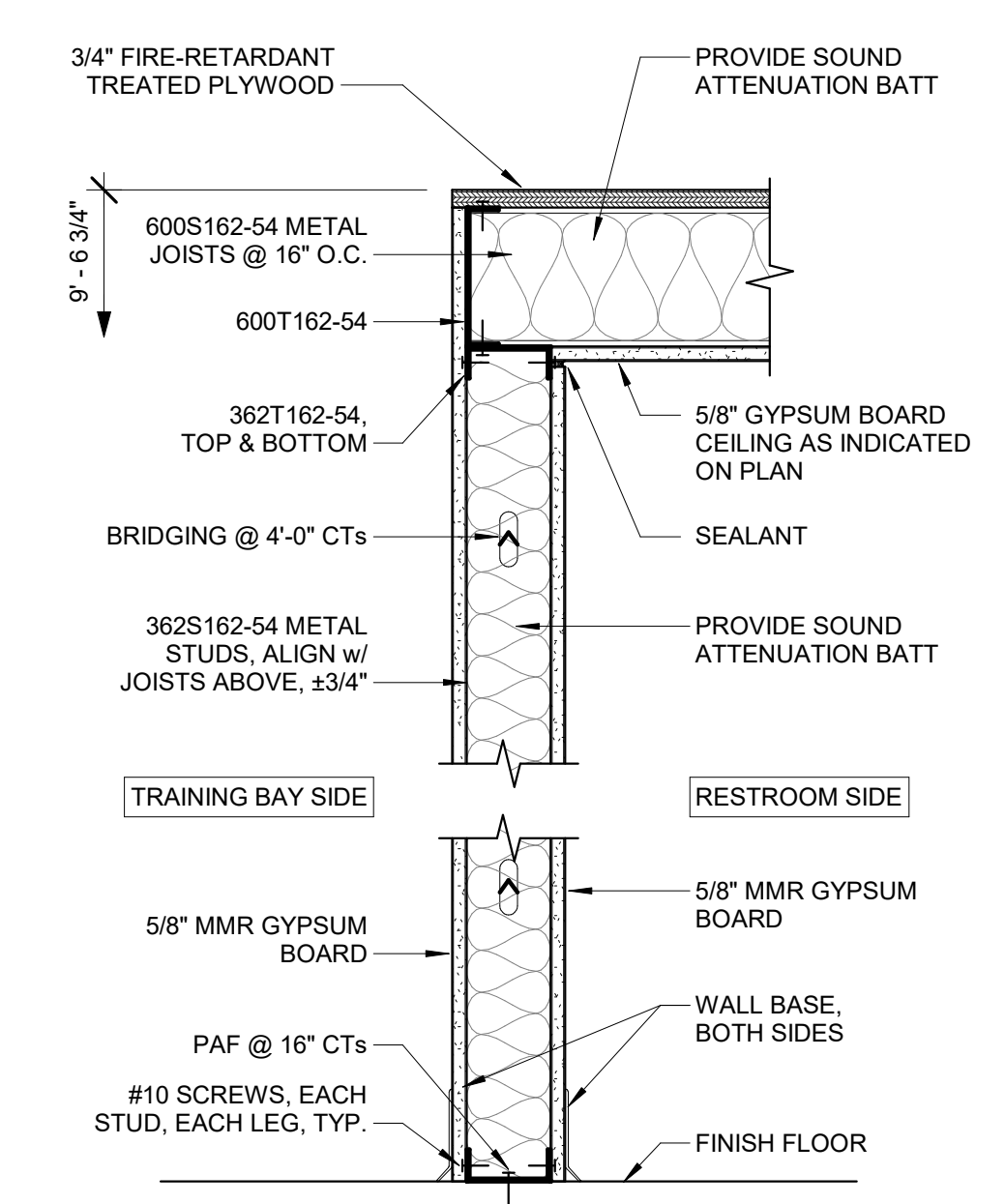
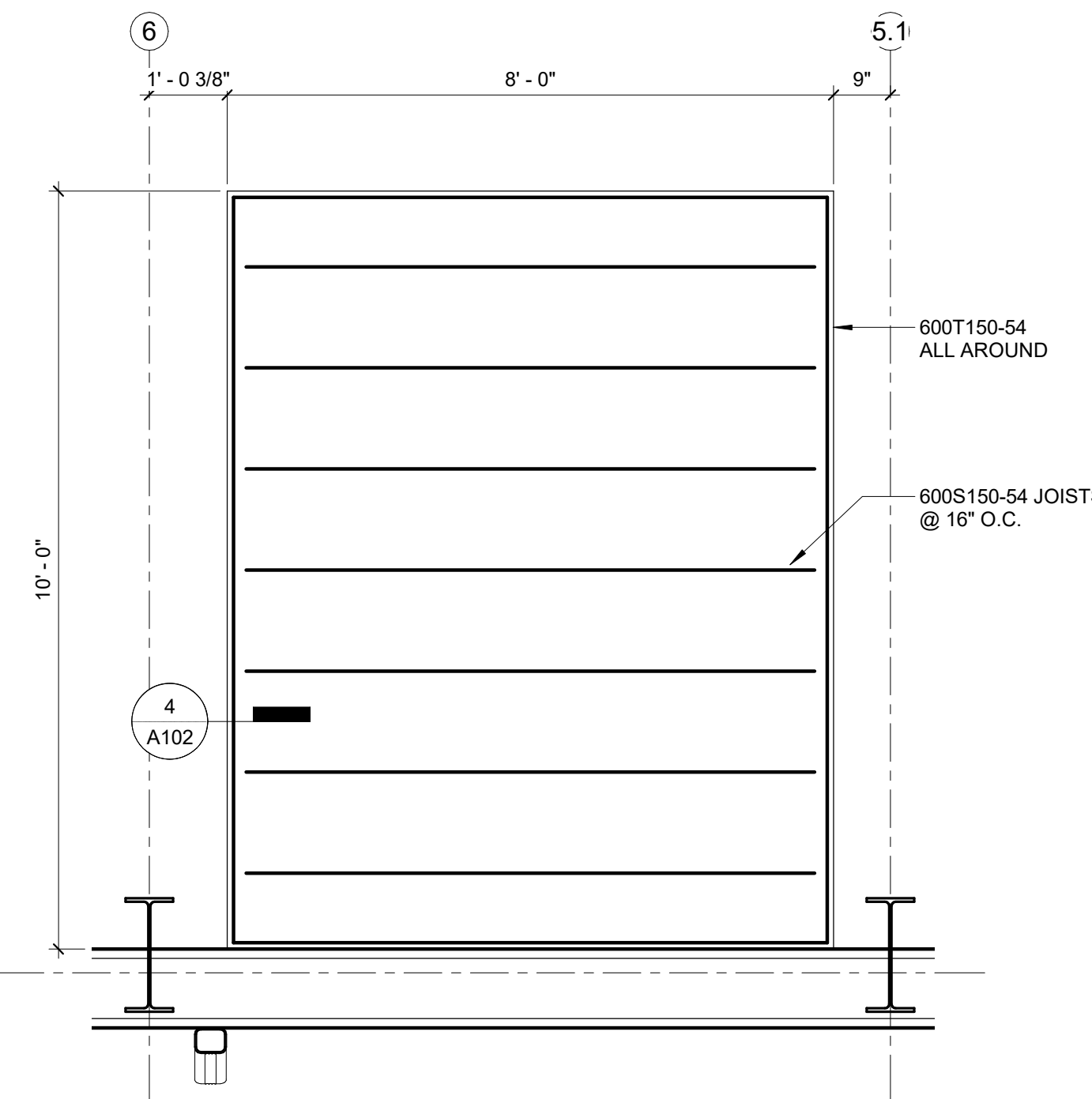
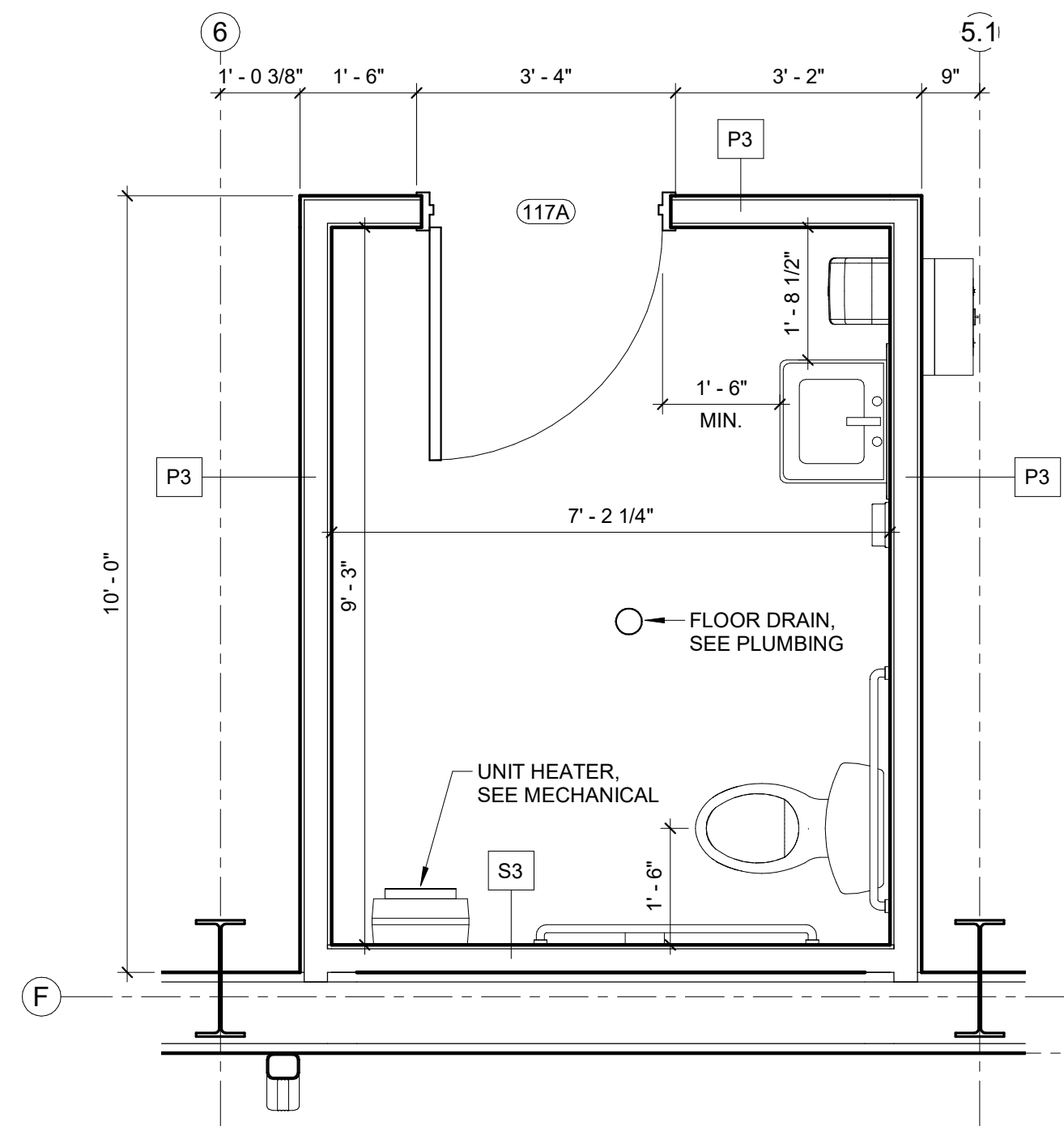
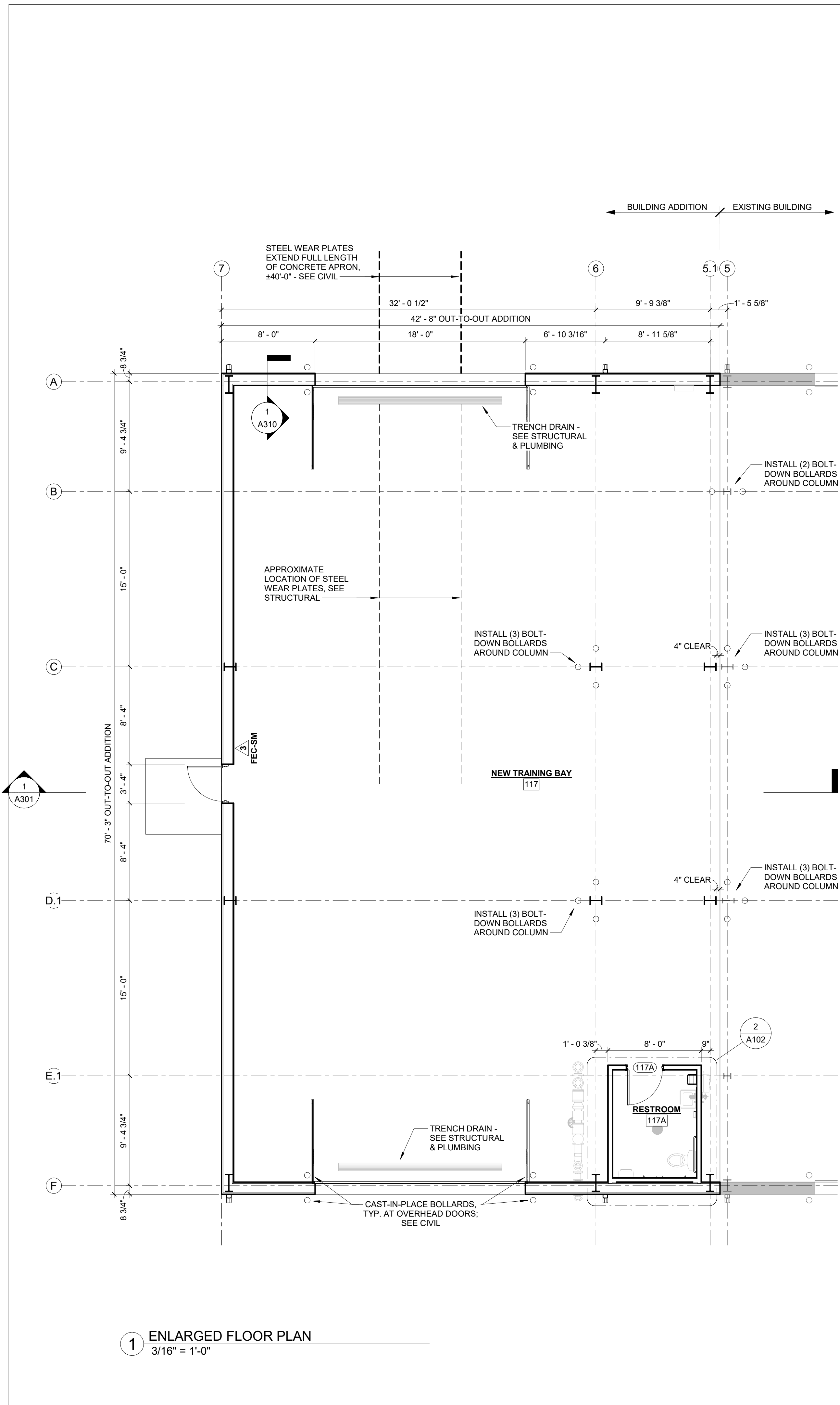
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DRAWING BY: MSG
CHECKED BY: CNB
DESIGNED BY: CNB

SHEET TITLE:
FLOOR PLAN

SHEET NUMBER:

A101

SHEET 10 OF 36
JANUARY 27, 2023



STATE OF MISSOURI
MICHAEL L. PARSON,
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CODY N. BASHAM - ARCHITECT
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MO 65473

PROJECT # T2126-01
SITE # 6306
ASSET # 8136306004

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 01/27/23

CAD DWG FILE: A102
DRAWING BY: MSG
CHECKED BY: CNB
DESIGNED BY: CNB

SHEET TITLE:
ENLARGED FLOOR PLAN

SHEET NUMBER:
A102
SHEET 11 OF 36
JANUARY 27, 2023

WALL FINISH SCHEDULE			
TAG	MANUFACTURER	PRODUCT DESCRIPTION	REMARKS
FRP-1	NUDO	BASIS OF DESIGN PRODUCT - FIBER - LITE LINER PANEL; PRODUCT # LP-F9; COLOR: WHITE; SURFACE: PEBBLED	RESTROOMS - BELOW 48"
PNT-0	SHERWIN WILLIAMS	BASIS OF DESIGN: PRO INDUSTRIAL WATERBORNE ACRYLIC DRYFALL; COLOR: TBD; FINISH: EGGSHELL	DRYFALL PAINT AT EXPOSED CEILING & STRUCTURE
PNT-1	SHERWIN WILLIAMS	BASIS OF DESIGN: PROMAR 200 ZERO VOC; COLOR: TBD; FINISH: EGGSHELL	FIELD PAINT; RESTROOM - ABOVE 48"
PNT-2	SHERWIN WILLIAMS	BASIS OF DESIGN: PRO INDUSTRIAL ACRYLIC; COLOR: TBD; FINISH: SEMIGLOSS	DOORS AND DOOR FRAMES

WALL BASE SCHEDULE			
TAG	MANUFACTURER	PRODUCT DESCRIPTION	REMARKS
RES-1	JOHNSONITE	BASIS OF DESIGN: 4" RUBBER COVE BASE; COLOR: PEBBLE 32	

FLOORING SCHEDULE			
TAG	MANUFACTURER	PRODUCT DESCRIPTION	REMARKS
SC-1	BASIS OF DESIGN: PROSOCO	BASIS OF DESIGN: CONSOLIDECK LS; CREAM FINISH - SATIN/HONED	PROVIDE FOR SLAB AT NEW TRAINING BAY AND RESTROOM.

MISCELLANEOUS INTERIOR FINISH SCHEDULE			
TAG	MANUFACTURER	PRODUCT DESCRIPTION	REMARKS
CG-1	INPRO	BASIS OF DESIGN PRODUCT: 150F FLUSH MOUNT CORNER GUARD; COLOR: PEPPERDUST 0119; WING SIZE: 3"; HEIGHT: 9"	

GENERAL NOTES - INTERIOR

1. BASIS-OF-DESIGN PRODUCT: WHERE SPECIFICATIONS OR DRAWINGS NAME A PRODUCT AND MANUFACTURER, PROVIDE THE SPECIFIED PRODUCT/MANUFACTURER OR APPROVED EQUIVALENTS AS INDICATED. DRAWINGS AND SPECIFICATIONS INDICATE SIZES, PROFILES, DIMENSIONS, AND OTHER CHARACTERISTICS THAT ARE BASED ON THE PRODUCT NAMED. INSTALL PRODUCT COMPLETE WITH ALL REQUIRED ACCESSORIES IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS, INSTRUCTION AND DETAILS.
2. ALL CONTRACTORS TO FIELD VERIFY ALL CONDITIONS AND DIMENSIONS.
3. ALL FLOOR TRANSITIONS THAT CHANGE MATERIALS TO RECEIVE TRANSITION STRIP.
4. ALL FLOOR FINISHES TO EXTEND BENEATH CASEWORK.
5. DISSIMILAR FLOOR MATERIALS SHALL MEET UNDER CENTER OF DOOR LEAF WHEN IN CLOSED POSITION, UNLESS OTHERWISE NOTED OR SHOWN.
6. REMARKS COLUMN ON ROOM AND PRODUCT FINISH SCHEDULE INDICATES GENERAL COMMENTS ONLY. SEE INTERIOR FINISH PLANS AND SPECIFICATIONS FOR LOCATIONS AND DETAILS.
7. ALL WALLS SHALL BE PNT-1, UNLESS OTHERWISE NOTED OR SHOWN.
8. ALL METAL DOORS AND DOOR FRAMES SHALL BE PNT-2, UNLESS OTHERWISE NOTED OR SHOWN.
9. ALL WALL BASE SHALL BE RES-1, UNLESS OTHERWISE NOTED OR SHOWN.

INTERIOR FINISH LEGEND

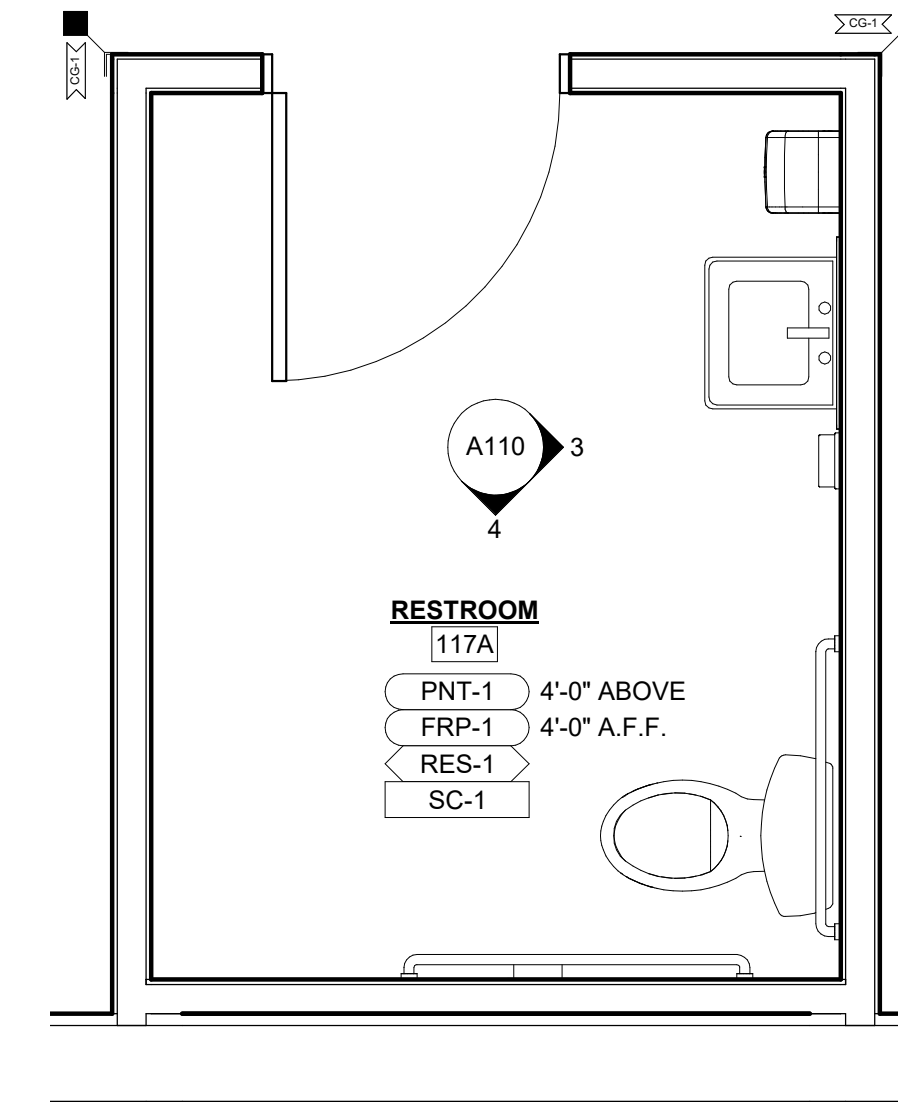
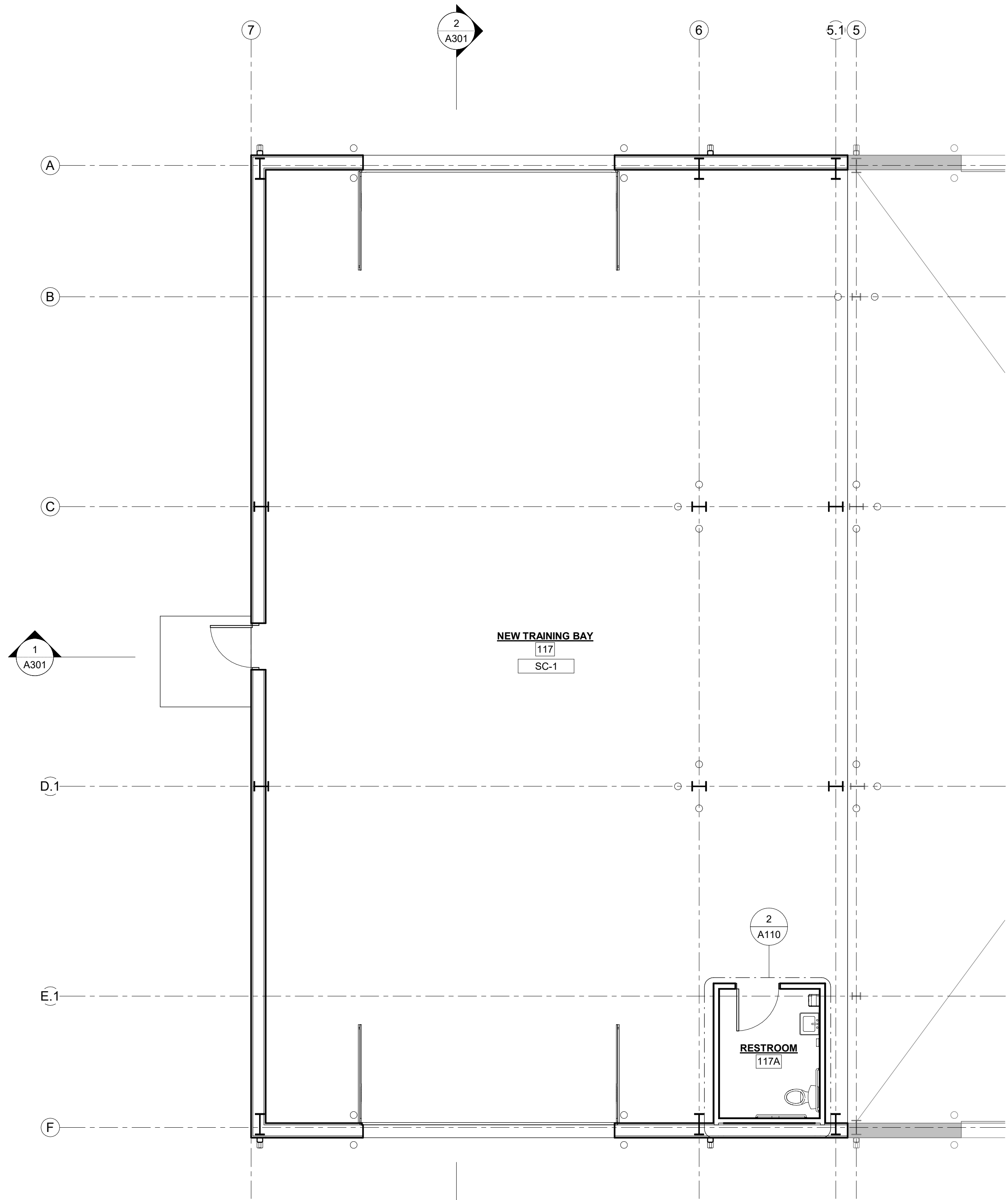
AB	ALUMINUM WALL BASE	LVT	LUXURY VINYL TILE
ACP	ACOUSTICAL CEILING PANELS	NS	NATURAL STONE
AP	ACOUSTICAL WALL PANEL	PT	PORCELAIN FLOOR TILE
ALUM	ALUMINUM	POR	PORCELAIN TILE WALL BASE
BBT	BIOBASED TILE	PNT	PAINT
BL	WINDOW ROLLER BLIND	PLAM	PLASTIC LAMINATE
CC	CUBICLE CURTAIN	PLY	PLYWOOD
CCT	CUBICLE CURTAIN TRACK	QTZ	QUARTZ COUNTERTOP
CG	CORNER GUARD	RES	RESILIENT WALL BASE
CJ	CONTROL JOINT	RPS	RESIN PANEL SYSTEM
CMU	CONCRETE MASONRY UNIT	RS	RIGID SHEET
CPT	CARPET	SC	SEALED CONCRETE
CS	CULTURED STONE	SCF	SPECIAL CONCRETE FINISH
CT	EPOXY PAINT	SS	SOLID SURFACE
EPOXY	EPOXY PAINT	SSTL	STAINLESS STEEL
EPX	FLUID APPLIED FLOORING	STC	STAINED CONCRETE
E/S/C	EXPOSED STRUCTURE/COLUMNS	SV	SHEET VINYL
E/S/B	EXPOSED STRUCTURE/BEAMS	SVT	SOLID VINYL TILE
EXIST	EXISTING	TS	TRANSITION STRIP
EW	END WALL PROTECTOR	VCT	VINYL COMPOSITION TILE
FRP	FIBERGLASS REINFORCED PANELS	VET	VINYL ENHANCED TILE
GLS	GLASS	VWC	VINYL WALL COVERING
GLT	GLASS TILE	WD	WOOD
GWT	GLAZED WALL TILE	WLK	WALK-OFF CARPET
GYB	GYPSUM WALL BOARD	WPS	WOOD PANEL SYSTEM
LIN	LINOLEUM	WWB	WOOD WALL BASE

INTERIOR SYMBOL LEGEND

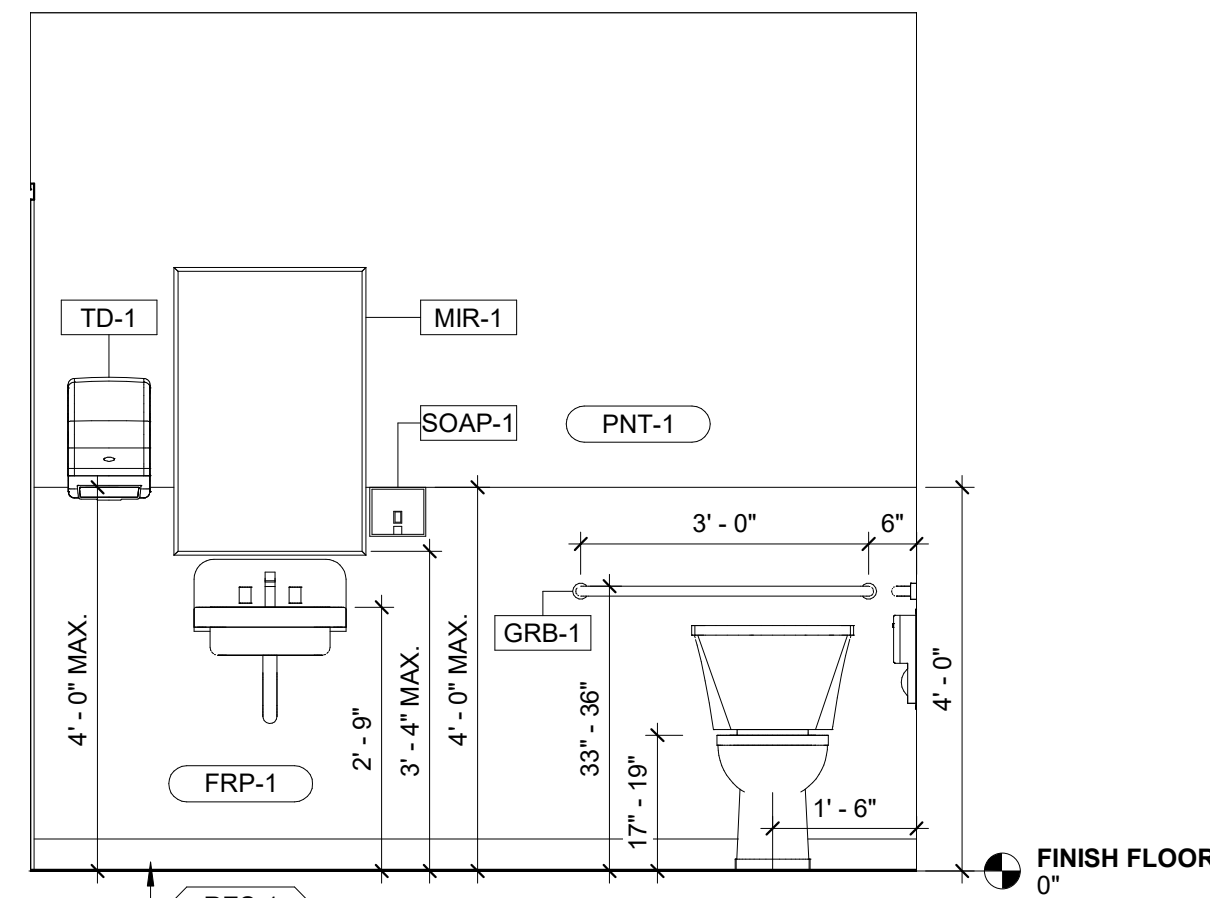
	WALL FINISH TAG
	ACCENT WALL FINISH
	WALL BASE TAG
	FLOOR FINISH TAG
	FLOOR MATERIAL TRANSITION
	ALIGN TRANSITION WITH ADJACENT ITEM
	PATTERN/LINEAR DIRECTION
	CASEWORK COUNTER/TRANSITION TOP FINISH
	CASEWORK BASE AND UPPER CABINET FINISH
	CORNER GUARD
	END WALL GUARD
	WINDOW ROLLER SHADE
	WINDOW DRAPES
	WINDOW TREATMENT TAG
	SIGNAGE DETAIL TAG
	MISCELLANEOUS FINISH TAG

SPECIALTY EQUIPMENT SCHEDULE				
TAG	BASIS OF DESIGN	MANUFACTURER	MODEL	COUNT
GRB-1	BOBRICK WASHROOM EQUIPMENT, INC.		B-5806 STRAIGHT GRAB BAR	2
MIR-1	BOBRICK WASHROOM EQUIPMENT, INC.		B-165 2436 MIRROR	1
SOAP-1	BY OTHERS		SOAP DISPENSER	1
TD-1	BY OTHERS		PAPER TOWEL DISPENSER	1
TPH-1	BY OTHERS		TOILET TISSUE DISPENSER	1

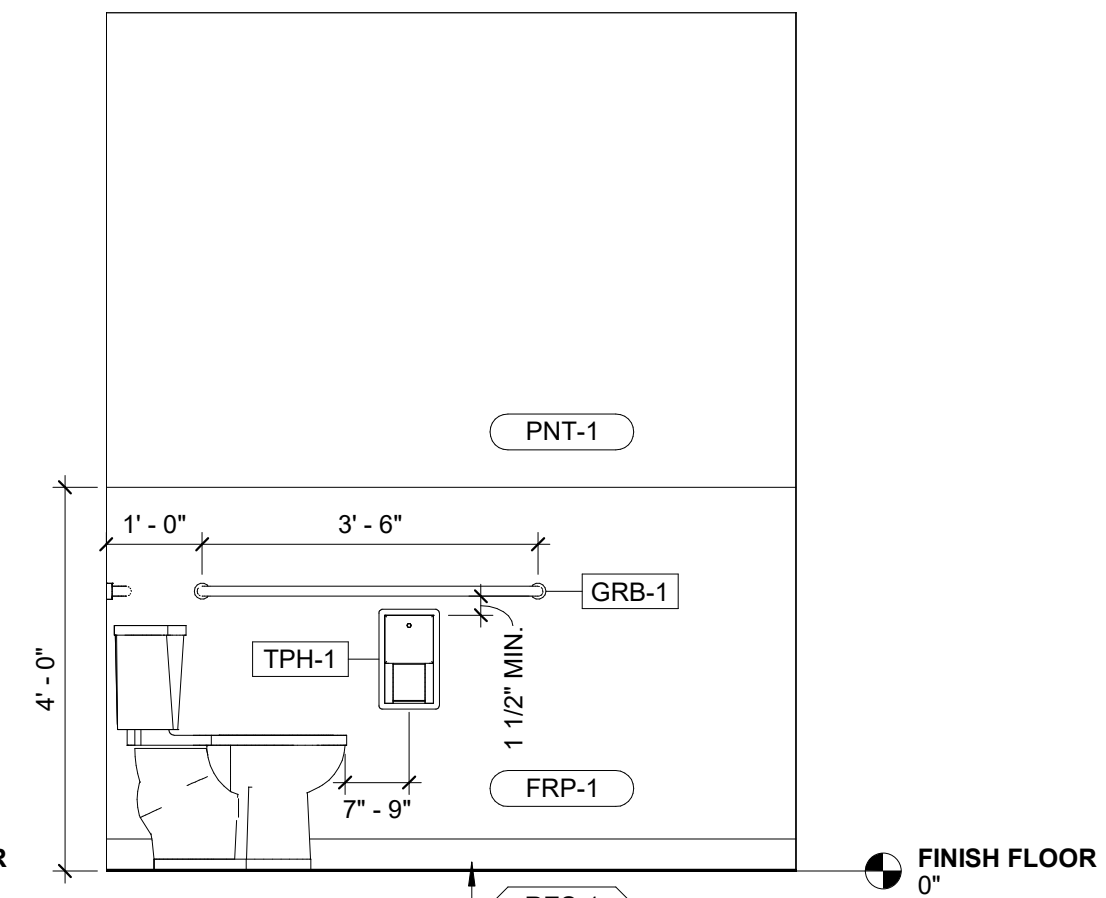
NOTE: OWNER WILL SUPPLY AND CONTRACTOR SHALL INSTALL THE SOAP DISPENSER, PAPER TOWEL DISPENSER, AND TOILET TISSUE DISPENSER.



2 RESTROOM FINISH PLAN
1/2" = 1'-0"

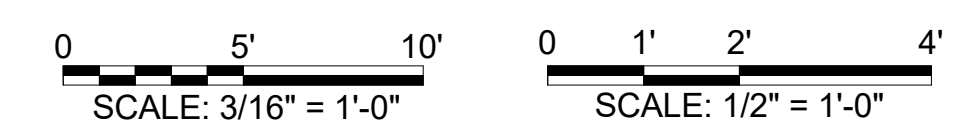


3 RESTROOM - SOUTH
1/2" = 1'-0"



4 RESTROOM - WEST
1/2" = 1'-0"

1 MAIN LEVEL - FINISH PLAN
3/16" = 1'-0"



STATE OF MISSOURI
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MO 65473

PROJECT # T2126-01
SITE # 6306
ASSET # 8136306004

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DATE:
ISSUE DATE: 01/27/23

CAD DWG FILE: A110
DRAWING BY: MSG
CHECKED BY: CNB
DESIGNED BY: CNB

SHEET TITLE:
**INTERIOR FINISH
PLAN**

SHEET NUMBER:
A110

SHEET 12 OF 36
JANUARY 27, 2023



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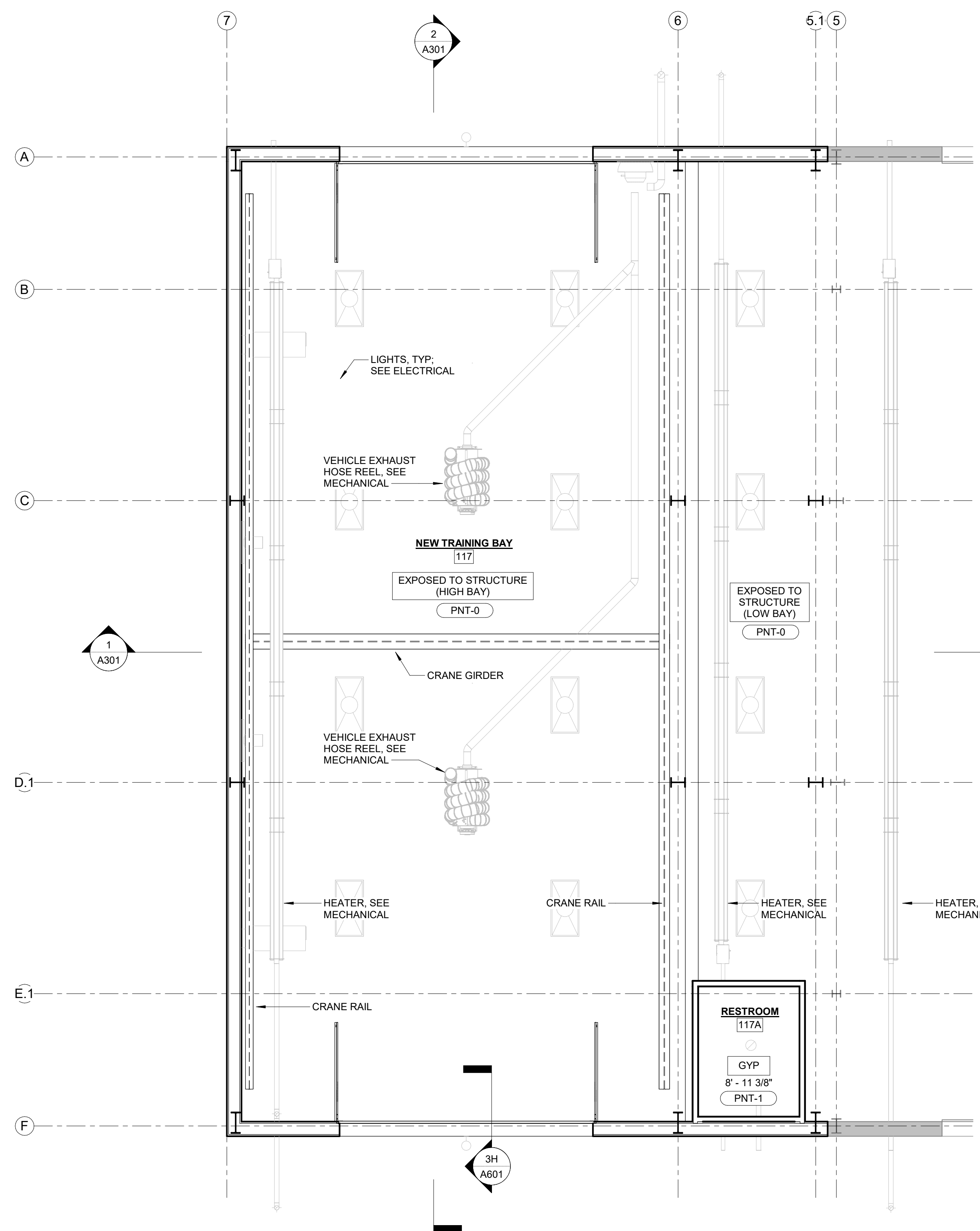
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**REFLECTED
CEILING PLAN**

SHEET NUMBER:

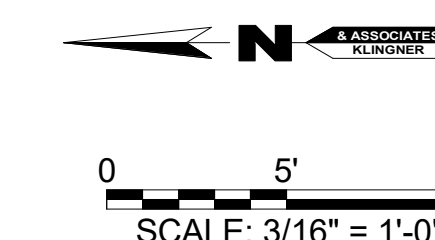
A120

SHEET 13 OF 36
JANUARY 27, 2023



1 REFLECTED CEILING PLAN
3/16" = 1'-0"

NOTES:
1. OVERHEAD CRANE COMPONENTS ARE PART OF ALTERNATE BID NO. 1
2. VEHICLE EXHAUST SYSTEM COMPONENTS ARE PART OF ALTERNATE BID NO. 2





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DESIGNED BY: CNB

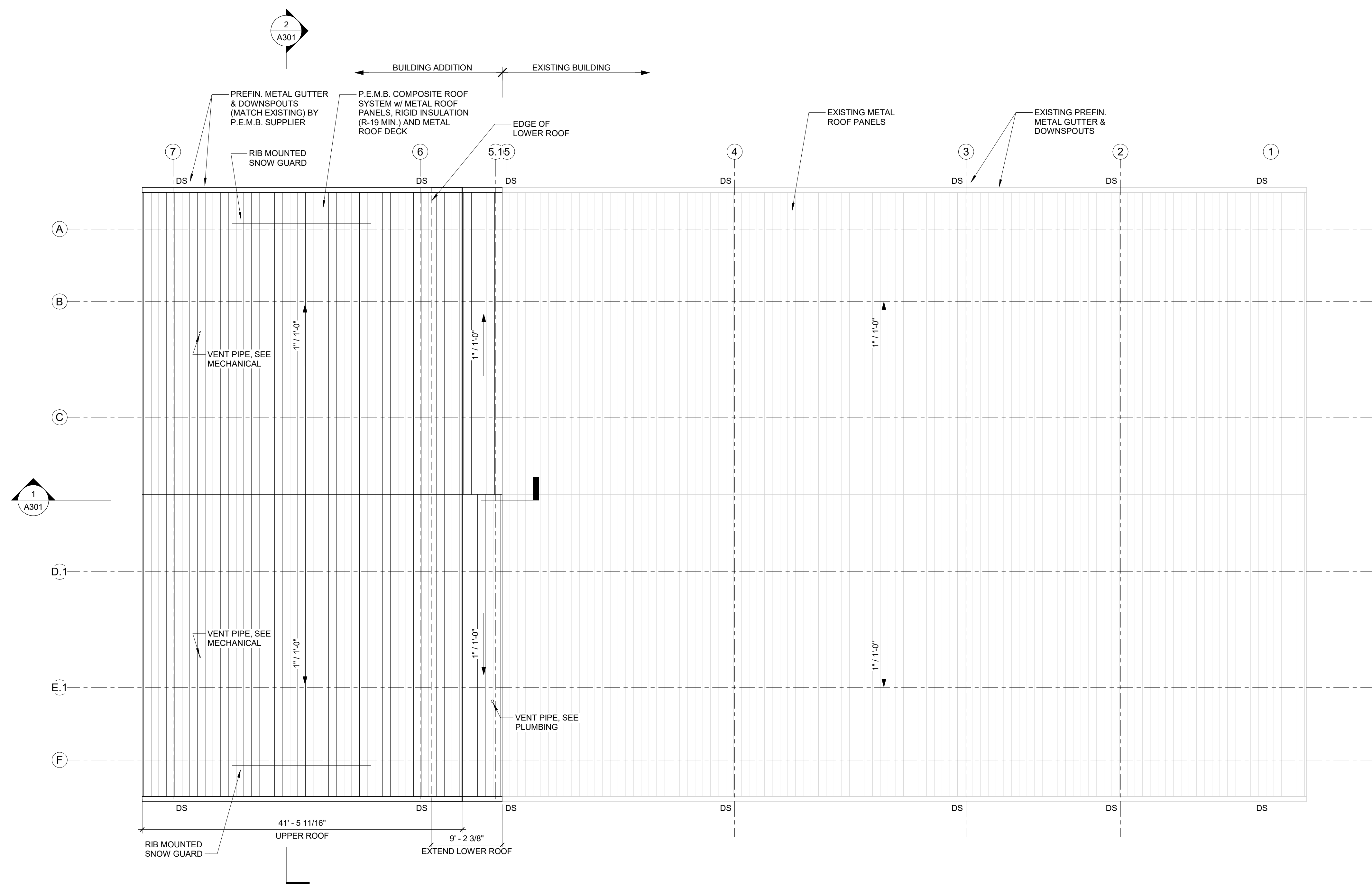
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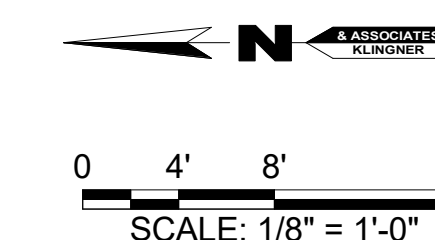
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A130

SHEET 14 OF 36
JANUARY 27, 2023



1 ROOF PLAN
1/8" = 1'-0"





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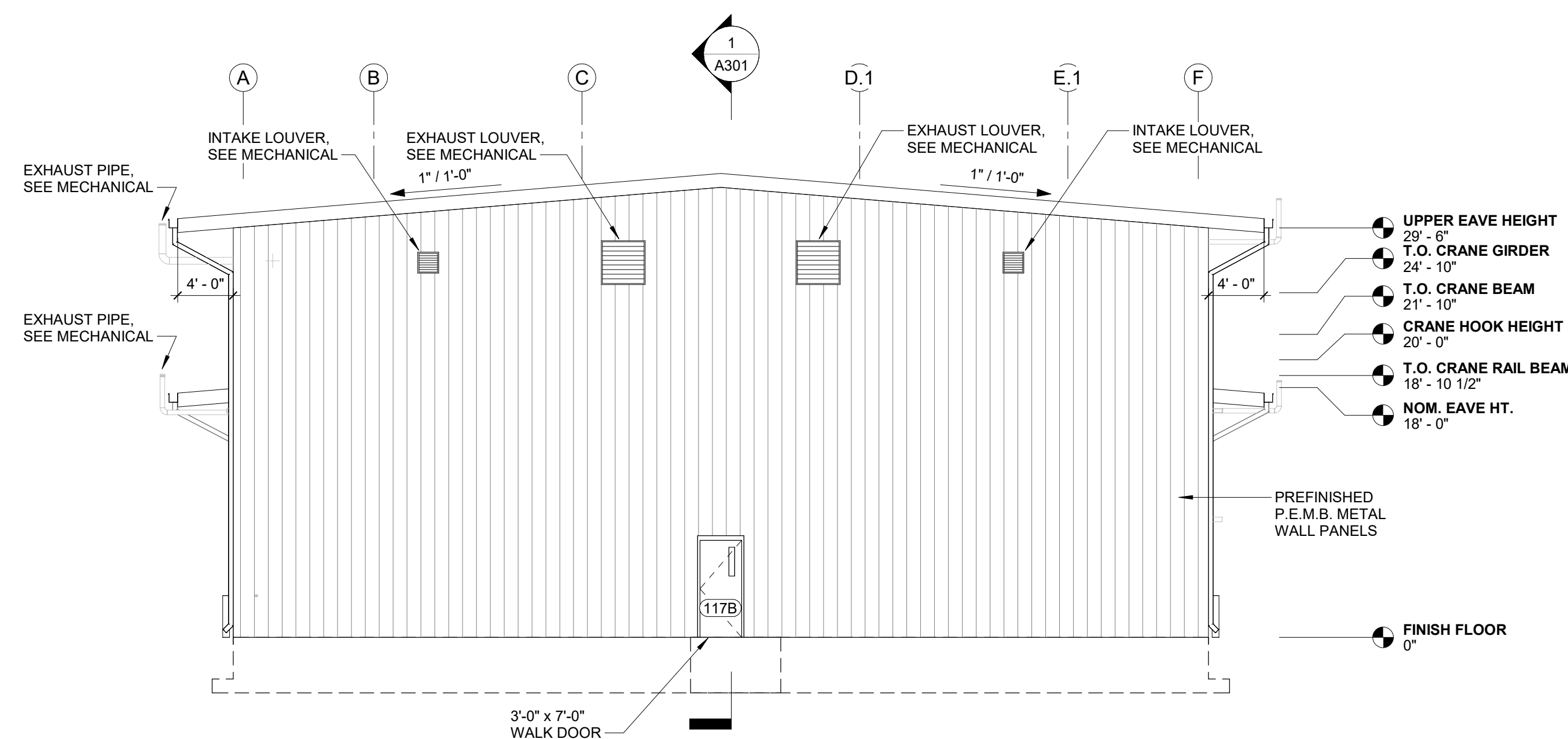
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DESIGNED BY: CNB

SHEET TITLE:
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ELEVATIONS**

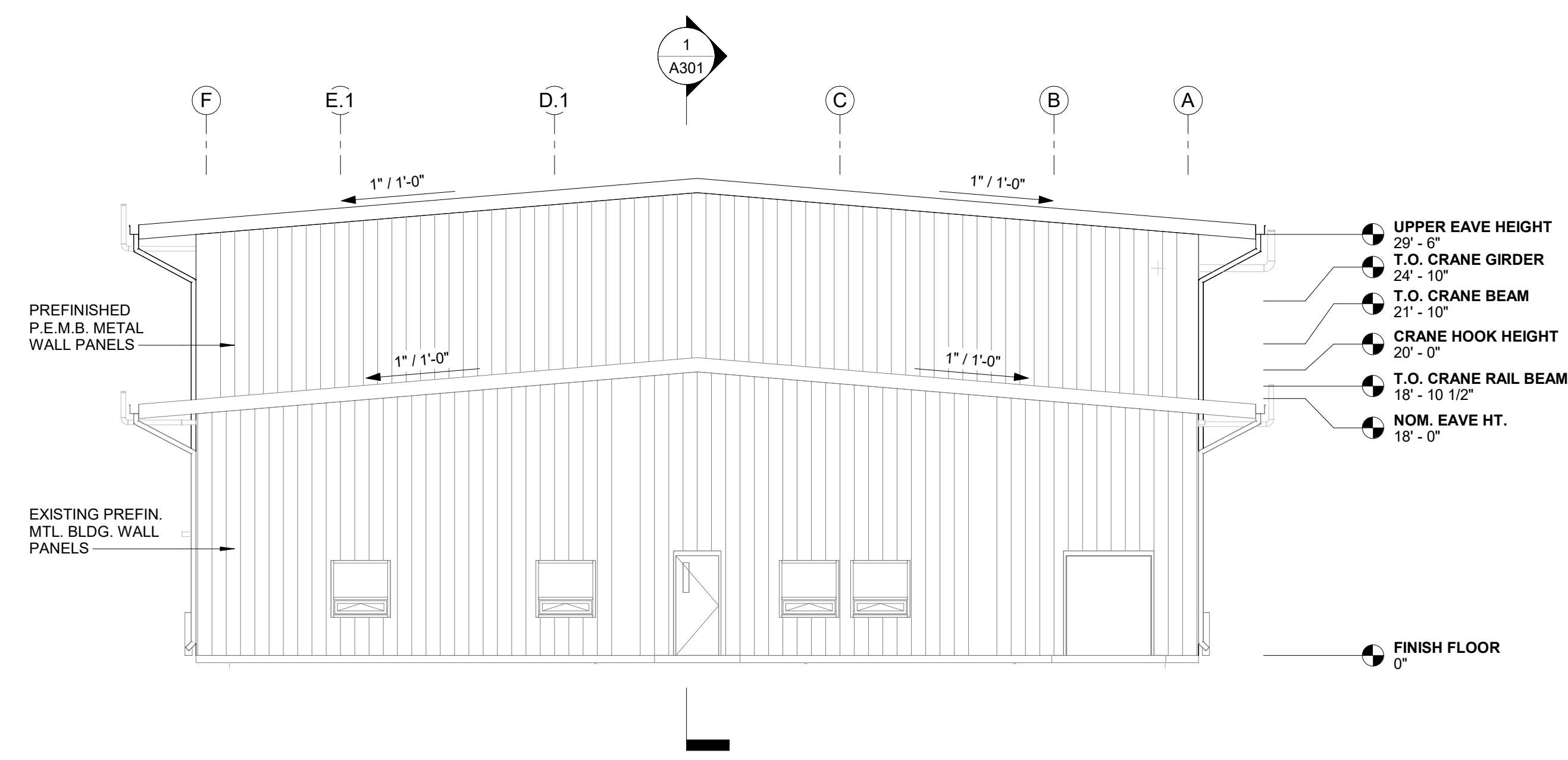
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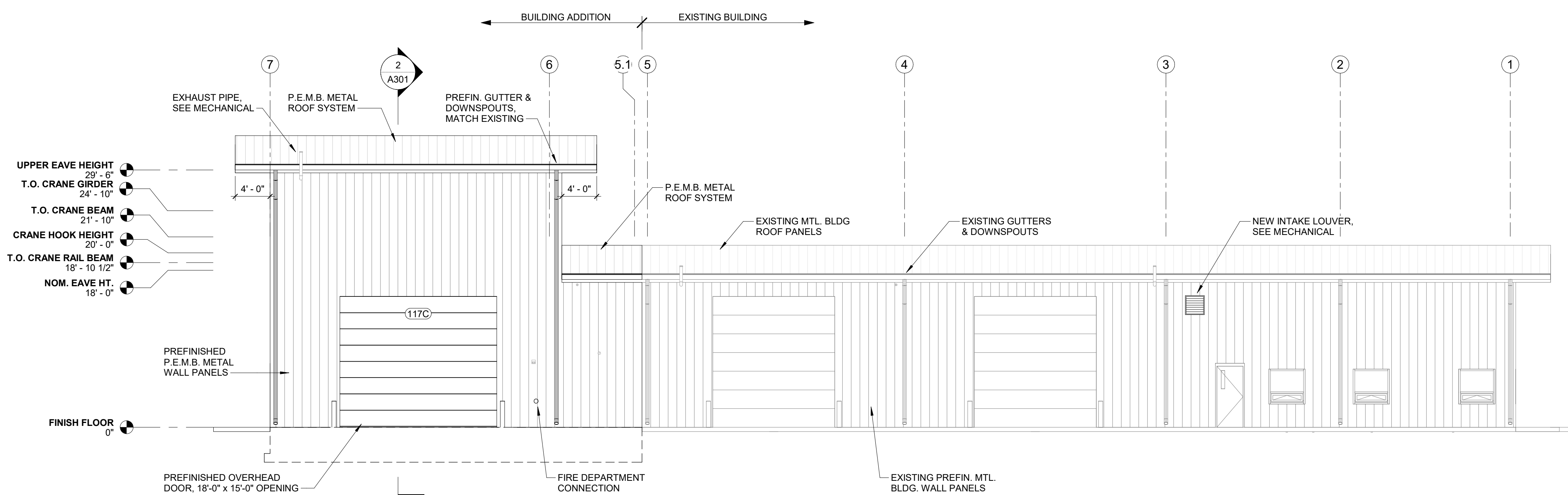
SHEET 15 OF 36
JANUARY 27, 2023



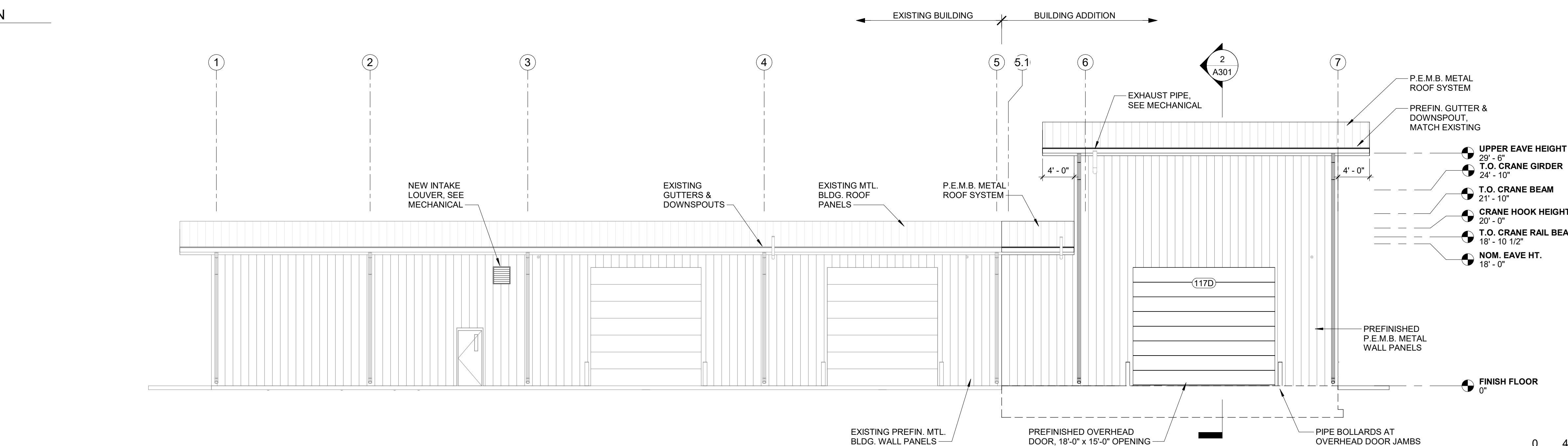
4 NORTH ELEVATION
1/8" = 1'-0"



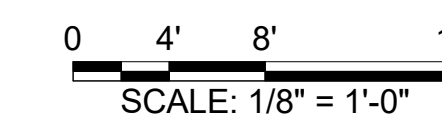
3 SOUTH ELEVATION
1/8" = 1'-0"



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



2 EAST ELEVATION
1/8" = 1'-0"



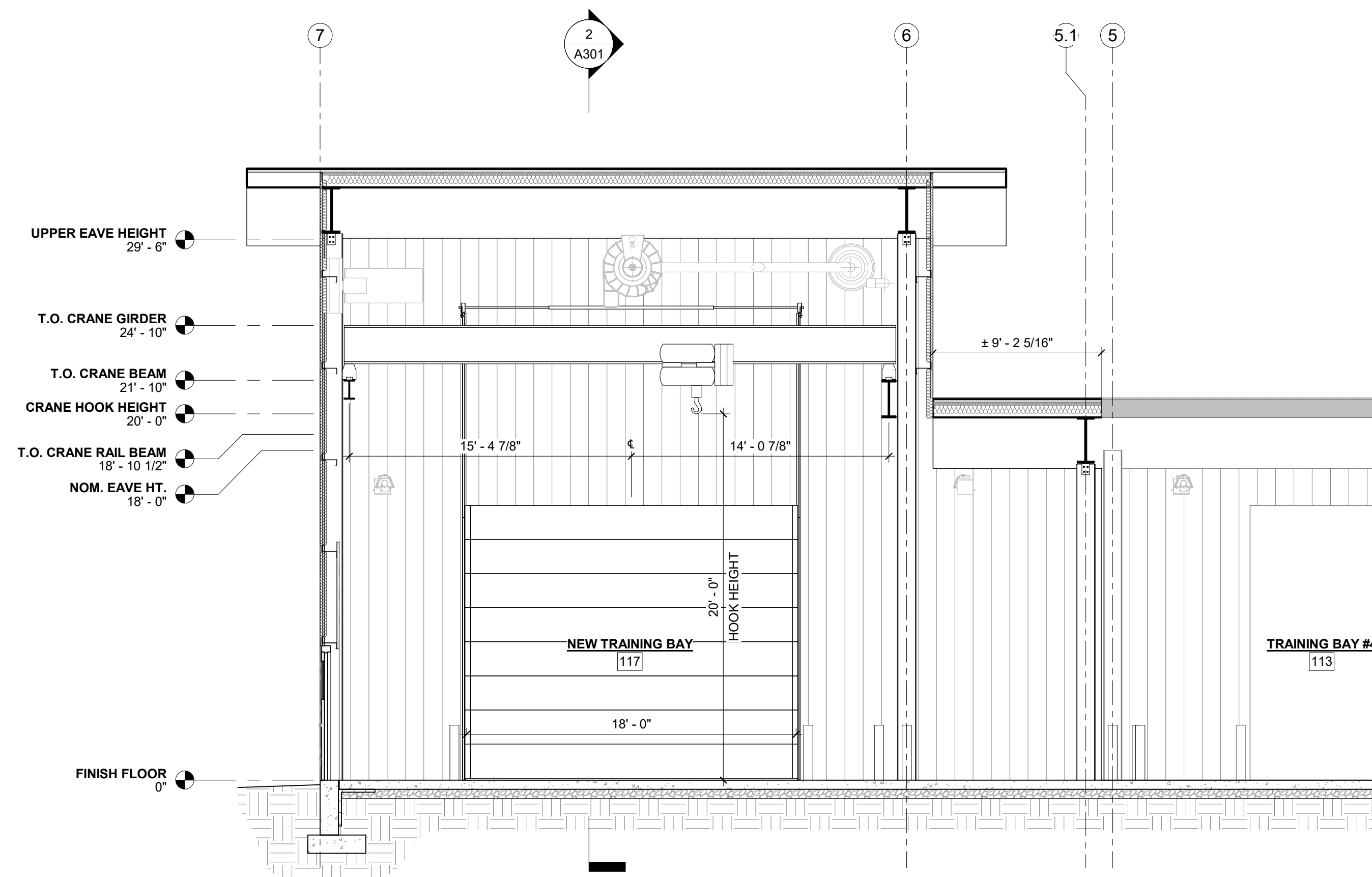


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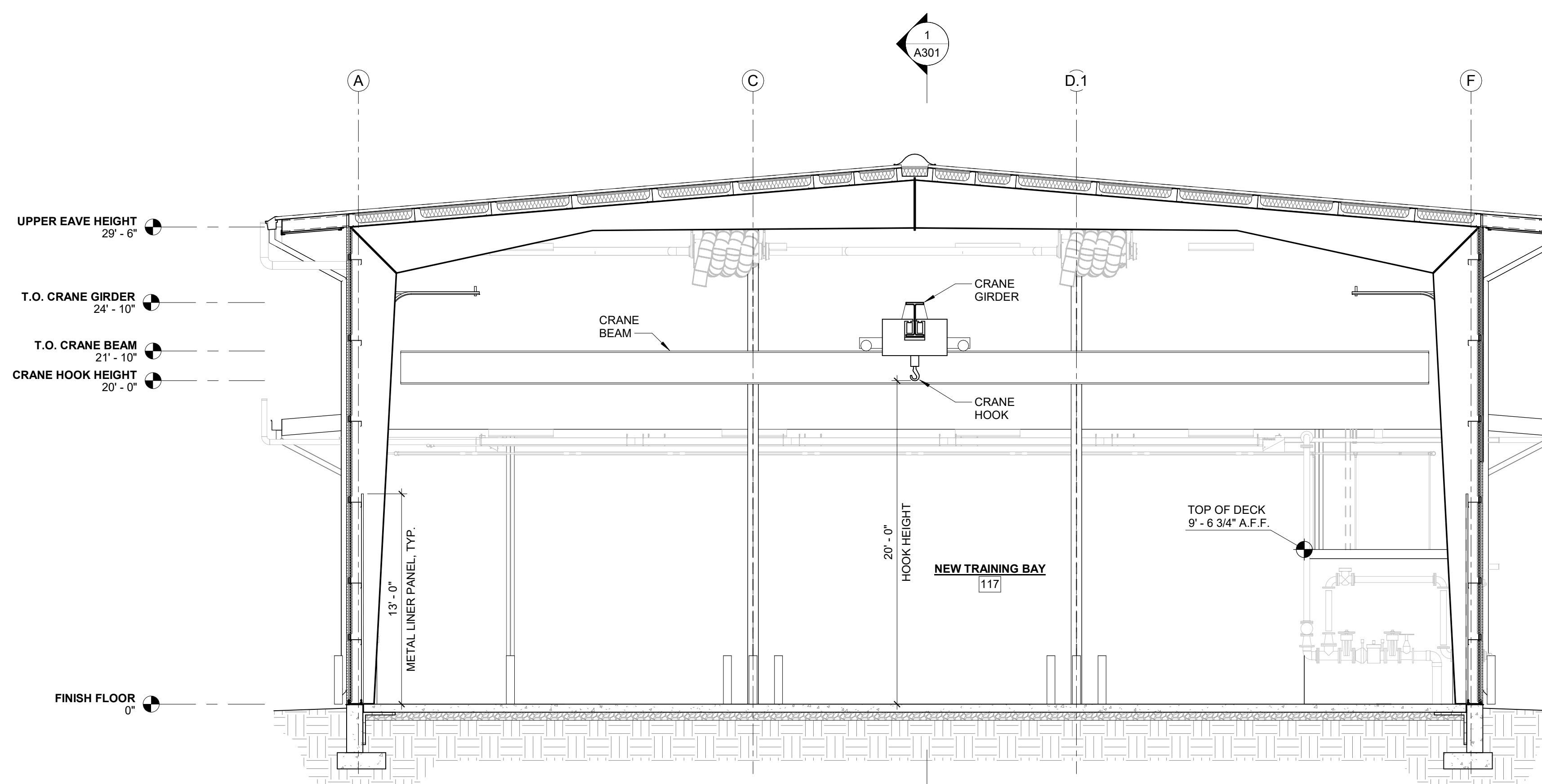
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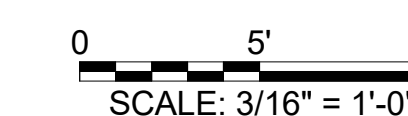


1 ADDITION TRANSVERSE SECTION
3/16" = 1'-0"



2 ADDITION LONGITUDINAL SECTION
3/16" = 1'-0"

NOTE: OVERHEAD CRANE COMPONENTS ARE PART OF ALTERNATE BID NO. 1



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DATE: _____
REVISION: _____
DATE: _____
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CAD DWG FILE: A301
DRAWING BY: MSG
CHECKED BY: CNB
DESIGNED BY: CNB

SHEET TITLE:
**BUILDING
SECTIONS**

SHEET NUMBER:

A301

SHEET 16 OF 36
JANUARY 27, 2023



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MO # A-2021000203

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OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES
MANAGEMENT,
DESIGN AND CONSTRUCTION

CONSTRUCT FIELD
MAINTENANCE SHOP
(FMS) BAY ADDITION

FORT LEONARD WOOD
READINESS CENTER

10744 FLW V, BLDG 5175
FORT LEONARD WOOD,
MO 65473

PROJECT # T2126-01
SITE # 6306
ASSET # 8136306004

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 01/27/23

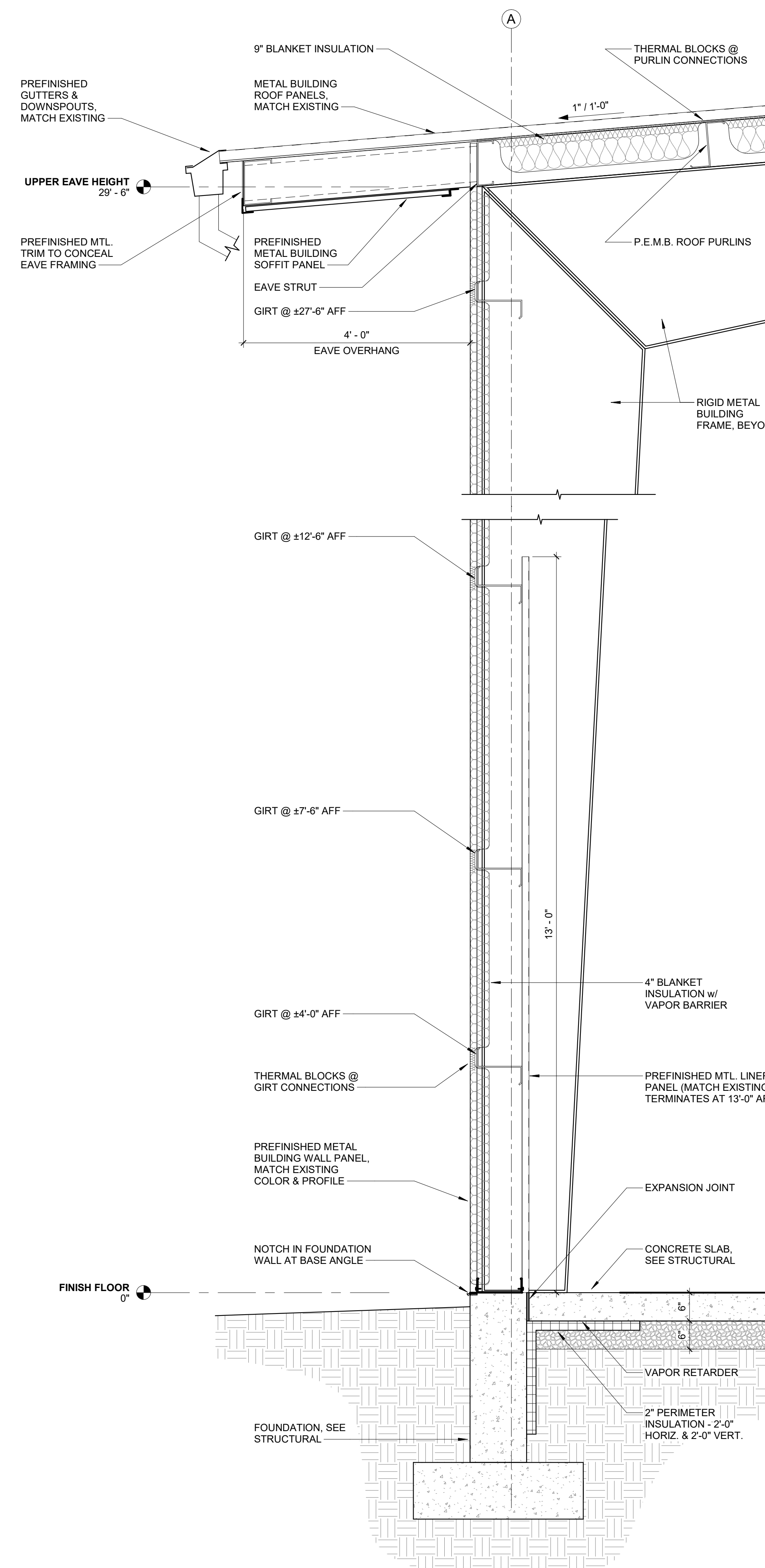
CAD DWG FILE: A310
DRAWING BY: MSG
CHECKED BY: CNB
DESIGNED BY: CNB

SHEET TITLE:
WALL SECTIONS

SHEET NUMBER:

A310

SHEET 17 OF 36
JANUARY 27, 2023



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

0 1' 2'
SCALE: 3/4" = 1'-0"

DOOR AND FRAME SCHEDULE

DOOR NUMBER	SIZE	TYPE	FINISH	FRAME		DETAILS			HARDWARE GROUP	DOOR NUMBER	REMARKS
				TYPE	FINISH	HEAD	JAMB				
110	3'-0"	EXISTING	--	EXISTING	--	--	--	--	EXISTING	110	ROTATE 180° & REINSTALL EXISTING DOOR & FRAME
117A	3'-0"	HM-F	PNT-2	A	PNT-2	1H	1J	1	117A		
117B	3'-0"	HM-NL	PNT-2	A	PNT-2	2H	2J	2	117B		INSULATED
117C	18'-2"	SECT	PREFINISHED	--	--	3H	3J	--	117C		
117D	18'-2"	SECT	PREFINISHED	--	--	3H	3J	--	117D		

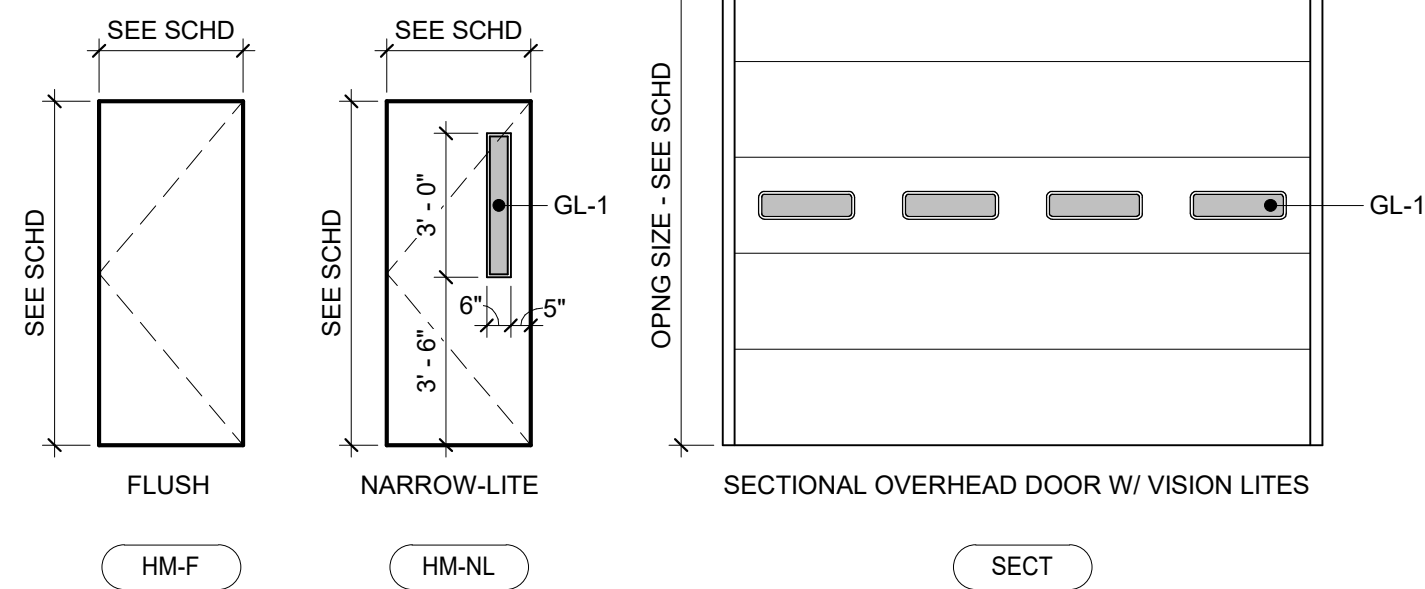
DOOR LEGEND

- F FLUSH
- GL-1 1" INSULATED CLEAR GLAZING UNIT
- HM HOLLOW METAL
- NL NARROW LITE
- PNT-2 SEE SHEET A110
- SECT SECTIONAL OVERHEAD DOOR w/ VISION LITES

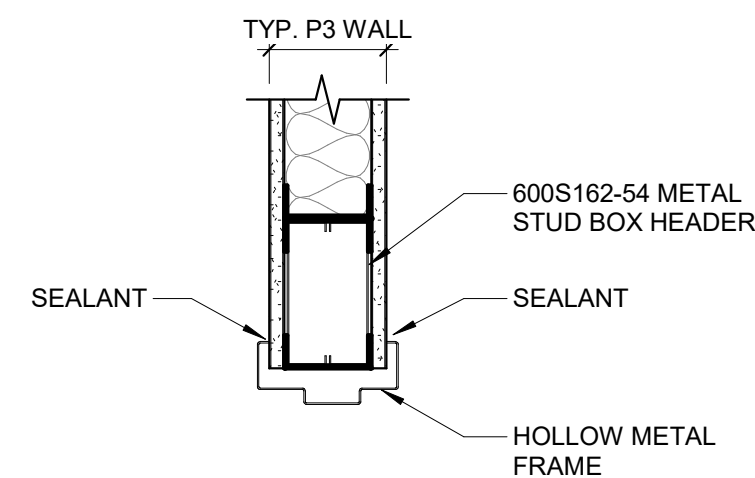
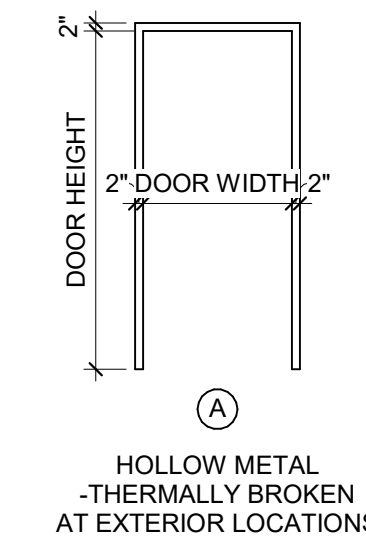
GENERAL DOOR NOTES

- DOOR HARDWARE SHALL BE COORDINATED BY THE CONTRACTOR AND APPROVED BY THE OWNER. THE CONTRACTOR SHALL COORDINATE ALL KEYING REQUIREMENTS.
- HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST TO OPERATE.
- THE CONTRACTOR SHALL VERIFY ALL DOOR OPENING SIZES, FRAME SIZES, AND WALL WIDTHS PRIOR TO PLACING ORDER.
- DOOR CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM.
- THE FORCE FOR PUSHING OR PULLING OPEN A DOOR OTHER THAN FIRE DOORS SHALL BE AS FOLLOWS:
A) INTERIOR HINGED DOORS AND GATES= 5LBS MAXIMUM.
B) SLIDING OR FOLDING DOORS= 5LBS MAXIMUM.
- ALL GLASS BELOW THE HEIGHT OF 7 FEET ABOVE THE FINISHED FLOOR SHALL BE TEMPERED GLASS. ALL GLASS ADJACENT TO DOORS SHALL BE TEMPERED.
- FIRE RATED LABELS ON DOORS AND FRAMES SHALL NOT BE PAINTED OVER.
- CONTRACTOR SHALL COORDINATE KEYING WITH THE OWNER.

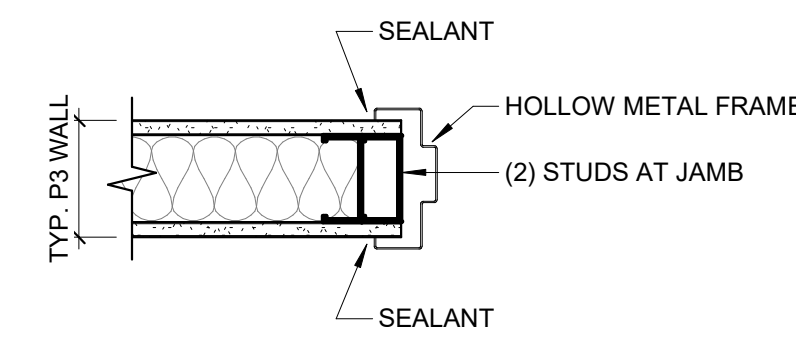
DOOR TYPES



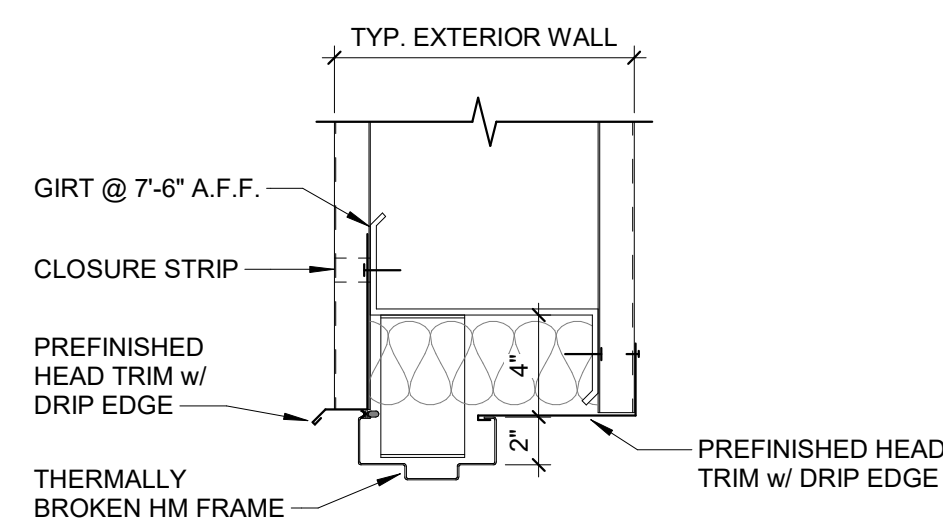
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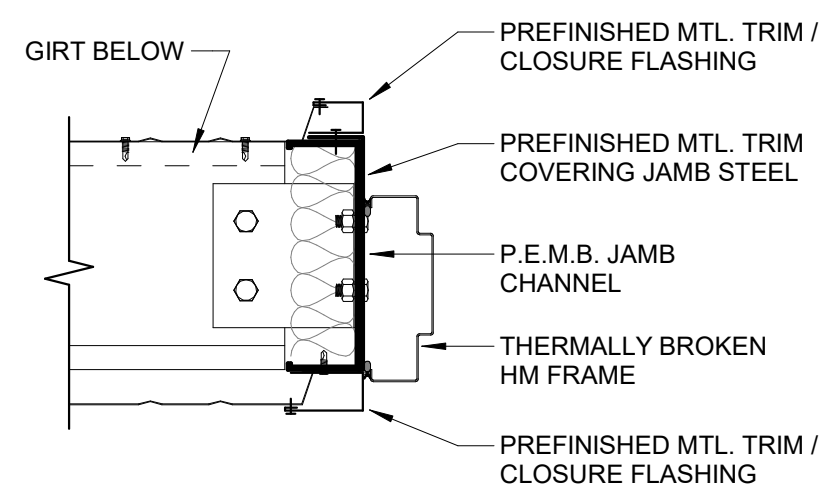
1H METAL STUD HEAD DETAIL - 3 5/8"
1 1/2" = 1'-0"



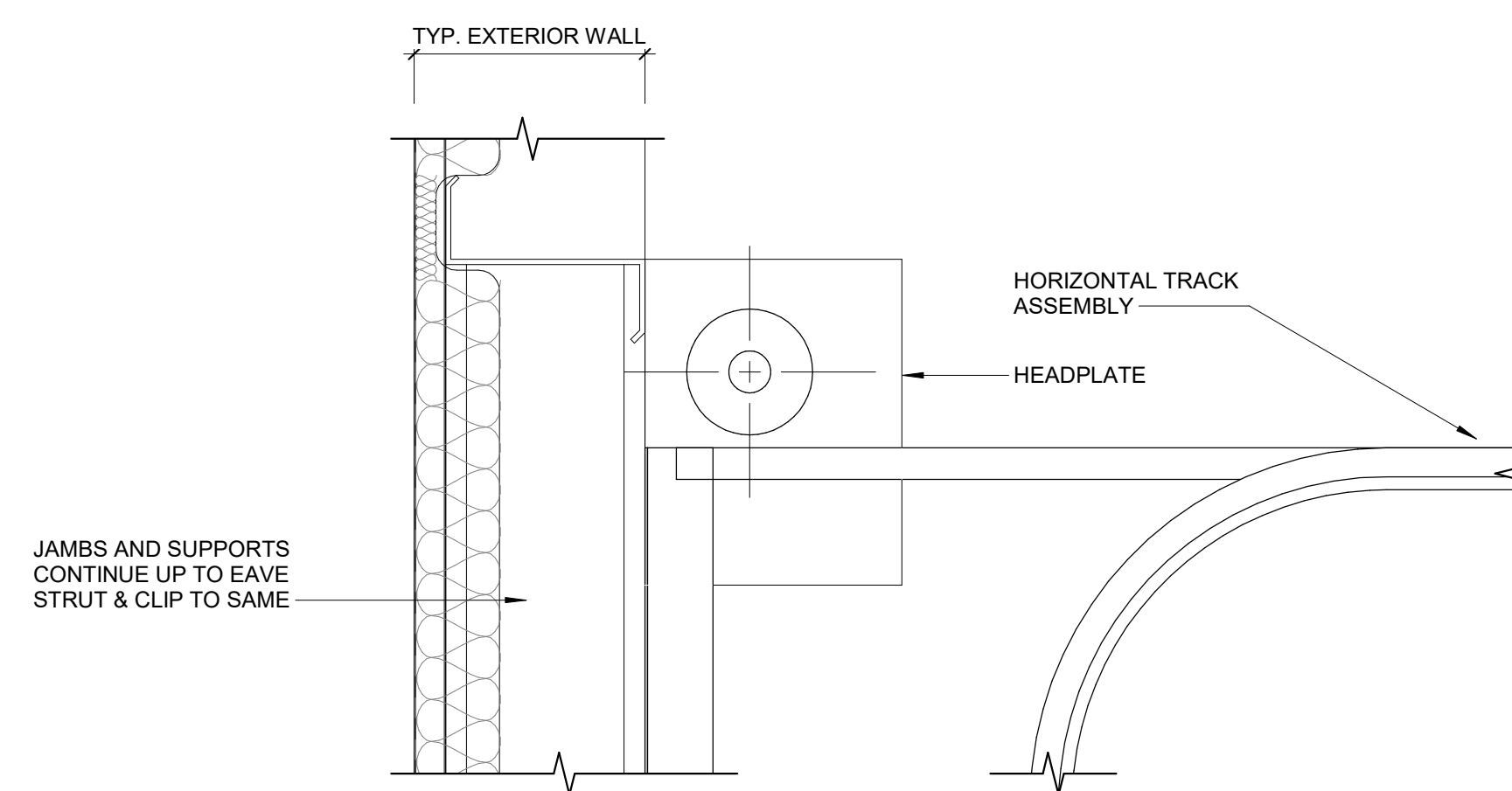
1J METAL STUD JAMB DETAIL - 3 5/8"
1 1/2" = 1'-0"



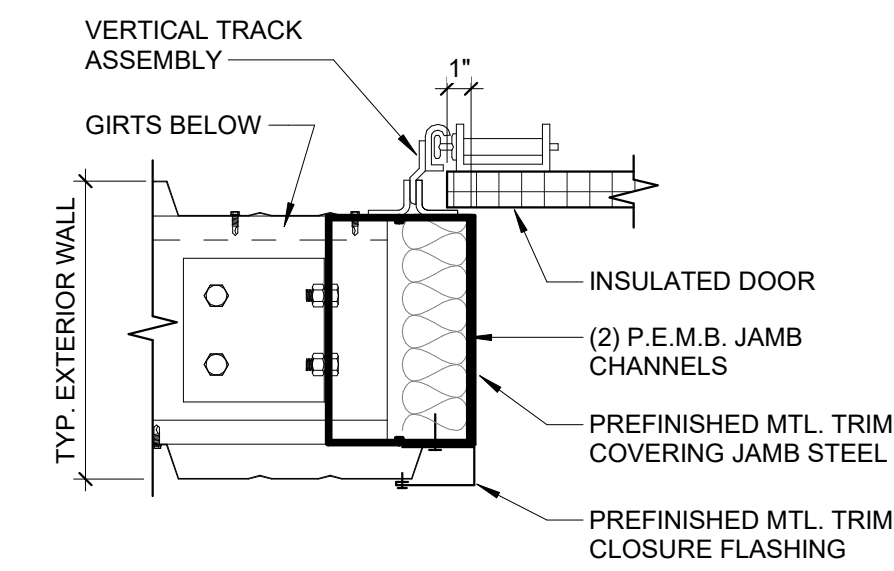
2H EXTERIOR WALL HEAD DETAIL
1 1/2" = 1'-0"



2J EXTERIOR WALL JAMB DETAIL
1 1/2" = 1'-0"



3H SECTIONAL DOOR HEAD DETAIL
1 1/2" = 1'-0"



3J SECTIONAL DOOR JAMB DETAIL
1 1/2" = 1'-0"

DOOR HARDWARE SCHEDULE

DOOR HARDWARE SET NO. 1 - DOORS: 117A

ITEM	MANUFACTURER	FINISH
1 1/2 PAIR BUTT HINGE - BALL BARRING FULL MORTISE HEAVY WEIGHT	IVES - 5 KNUCKLE 5" 5BB1HW	US32D
1 PRIVACY FUNCTION LATCHSET - HEAVY DUTY	BEST - 9K SERIES	US32D
1 CLOSER - HIGH TRAFFIC	LCN - 4040XP	ALUMINUM
1 WALL STOP - CONVEX	ROCKWOOD - 406	US32D

DOOR HARDWARE SET NO. 2 - DOORS: 117B

ITEM	MANUFACTURER	FINISH
1 1/2 PAIR BUTT HINGE - BALL BARRING FULL MORTISE HEAVY WEIGHT	IVES - 5 KNUCKLE 5" 5BB1HW	US32D
1 EXIT DEVICE	VON DUPRIN - 98-L-NL-06	626
1 RIM CYLINDER	BEST - 1E72 IC RIM CYLINDER	626
1 MORTISE CYLINDER	BEST - 1E74 IC MORTISE CYLINDER	626
1 CLOSER - HIGH TRAFFIC	LCN - 4040XP	ALUMINUM
1 WALL STOP - CONVEX	ROCKWOOD - 406	US32D
1 GASKETING	ZERO - 50AA-S	AA
1 DOOR SWEEP	ZERO - 39A	A
1 THRESHOLD	ZERO - 65A-223	A

STATE OF MISSOURI
MICHAEL L. PARSON,
GOVERNOR



CODY N. BASHAM - ARCHITECT
MO # A-2021000203

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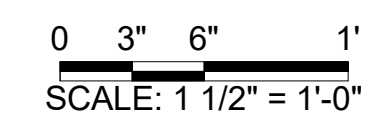
CAD DWG FILE: A601
DRAWING BY: MSG
CHECKED BY: CNB
DESIGNED BY: CNB

SHEET TITLE:
DOOR SCHEDULE & DETAILS

SHEET NUMBER:

A601

SHEET 18 OF 36
JANUARY 27, 2023



DESIGN CRITERIA

1. BUILDING CODES:
 - A. IBC 2021
 - B. ASCE 7-16
2. DESIGN LOADS:
 - A. Occupancy Category II
 - B. Platform above restroom
 - a. Dead Load = 15 psf
 - b. Live Load = 125 psf
 - C. Dead Loads
 - a. Roof = Self weight
 - b. Colateral = 5 psf
 - D. Live Loads
 - a. Roof = 20 psf
 - E. Bridge Crane = 15 ton rated capacity
 - F. Roof Snow Load
 - a. Ground Snow Load, $P_g = 25$ psf
 - b. Flat Roof Snow Load, $P_f = 20$ psf
 - c. Snow Load Importance, $I_s = 1.0$
 - d. Snow Exposure Factor, $C_e = 1.0$
 - e. Roof Thermal Factor, $C_t = 1.1$
 - f. Min. Snow Load, $P_m = 20$ psf
 - g. Drifting on lower roof. (See Special Loading Diagram for Drift Loads)
 - G. Wind Loading - Analytical Procedure
 - a. Basic Wind Speed, $V_{10} = 107$ mph
 - b. Risk Category = II
 - c. Exposure Category = C
 - d. Directional Factor, $K_d = 0.85$
 - e. Topographical Factor, $K_z = 1.0$
 - f. Internal pressure Coefficient, $GC_p = \pm 0.18$ (Enclosed)
 - g. Components and Cladding Design per ASCE 7-10
 - Net Uplift for Purlin Design $(0.6D+0.6W) = 16$ psf
 - H. Seismic Loading
 - a. Risk Category = II
 - b. Importance Factor, $I_s = 1$
 - c. Site Class D
 - d. $S_{sa} = 0.217$ ($S_s = 25\%$)
 - e. $S_{SI} = 0.139$ ($S_I = 13.9\%$)
 - f. Seismic Response Coefficient, $C_s = 0.05$
 - g. Seismic Design Category C
 - h. Design Coefficients and Factors for Seismic Force-Resisting Systems
 - Resisting System - Steel Ordinary Moment Frames.
 1. Response Coefficient, $R = 3.5$
 2. Deflection Amplification Factor, $C_d = 3$
 3. System Overstrength Factor, $\Omega_s = 3$
 - i. Component Design per ASCE 7-10
 - j. Seismic Base Shear = $W \times C_s$
 - k. $C_s = 0.07$

BUILDING PAD PREPARATION

1. All building pad preparation shall follow the recommendations of the geotechnical report, unless otherwise noted.
2. All trees, brush, roots, topsoil, rubble, organically contaminated or otherwise objectionable materials encountered are to be removed from the structural areas of the site.
3. Subgrade sectors which will exist in cut and those which are to support fill structures are to be proof rolled. Areas exhibiting instability are to be undercut and back filled on a lift-by-lift basis with each lift carefully compacted.
4. If unstable subgrade sectors cannot be stabilized by excavation and recompaction, then crushed stone or similar coarse aggregate material shall be rolled into the subgrade until a firm subgrade reaction is achieved.
5. The proposed engineered fill materials are to be placed in lifts not exceeding eight (8) inches in loose measured thickness.
6. Each lift is to be compacted as follows:
 - a. Slab-on-grade: Minimum of 95% maximum density by ASTM D698

FOUNDATION

1. The contractor shall familiarize themselves with the survey and the geotechnical investigation report before starting construction. All foundation work shall be in accordance with the recommendation of the geotechnical report by Geotechnics dated Feb. 2, 2022, except where noted otherwise on drawings or specifications
2. A soils testing laboratory shall be retained by the owner for project construction review to insure conformance with the construction documents during the excavation, back fill, and foundation phases of the project.
3. Foundation design is based on:
 - a. 2500 psf bearing pressure for isolated column footings.
 - b. 2000 psf bearing pressure for continuous wall footings.
4. All fill material shall be free of organic contaminations and other deleterious matter.
5. All soil surrounding and under footings shall be protected from frost action and freezing during the course of construction.
6. Notify structural engineer of any unusual soil conditions that are in variance with the geotechnical report.
7. Footing excavations should be made to the required lines and grades as rapidly as possible. Footing excavations be left open for a minimum of time to prevent disturbance to the foundation soils. Foot traffic should be prevented on the base of the footing excavations if disturbance is noted. Hand cleaning, if required and setting of reinforcing steel should then be accomplished from the sides of the excavation.

SPECIAL STRUCTURAL INSPECTIONS AND TESTING (NOT BY CONTRACTOR)

1. Owner will engage a qualified testing and inspecting agency to perform field special structural inspections and testing in accordance with the applicable International Building Code and to submit reports. See specifications.
2. Special inspection and testing reports shall be furnished to owner, structural engineer, and contractor.
3. The special inspector shall submit a final report stating that the structural work was, to the best of the special inspector's knowledge, performed in accordance with the construction documents.
4. Special inspections shall conform to Chapter 17 of the International Building Code, IBC, 2021. Special inspections include:
 - a. Steel Construction - 1705.3
 - b. Concrete Construction - Table 1705.4
 - c. Soils - Table 1705.7

GENERAL

1. The structure is designed to be self-supporting and stable after the building is fully completed. It is solely the contractor's responsibility to determine erection procedure and sequence and insure the safety of the construction personnel, public, building and its components parts, and adjacent buildings and properties. This includes the addition of whatever temporary or permanent shoring, bracing, needling, underpinning, or sheet piling, etc. that may be necessary to brace new construction, adjacent buildings, so that the structure is braced for wind, seismic, gravity, construction loads, etc. and that no horizontal or vertical settlement or any damage occurs to the adjacent existing structure. Temporary supports shall be maintained in place until permanent supports and/or shoring and bracing are installed.
2. Fall protection support from perimeter columns or walls shall be provided in accordance with OSHA requirements as required. Such material shall remain the contractor's property after the completion of the project.
3. It is the contractor's responsibility to enforce all applicable safety codes and regulations during all phases of construction.
4. The contractor shall perform all construction for the project in a manner and sequence that are based on accepted industry standards that recognize the interaction of the components that comprise the structure, without causing distress, unanticipated movements or irregular load paths as a result of the construction means and methods employed.
5. Construction loads shall not exceed design live loads. The contractor shall be responsible for all design required to support construction equipment used in constructing this project. Shoring and reshoring is the responsibility of the contractor.
6. Principal openings through the framing are shown on these drawings. The general contractor shall examine the structural and mechanical drawings for the required openings and shall verify size and location of all openings with the mechanical contractor. Providing all openings required by the mechanical, electrical, plumbing, or other trades shall be part of the general contract, whether or not shown in the structural drawings. Any deviation from the openings shown on the structural drawings shall be brought to the engineer's attention for review.
7. All contractors are required to examine the drawings and specifications carefully, visit the site and fully inform themselves as to all existing conditions and limitations, prior to agreeing to perform the work. Failure to visit the site and familiarize themselves with the existing conditions and limitations will in no way relieve the contractor from furnishing any materials or performing any work in accordance with drawings and specifications without additional cost to the owner. Details labeled "Typical Details" on drawings apply to situations occurring on the project that are the same or similar to those specifically details. Such details apply whether or not details are referenced at each location. Notify engineer of clarification regarding applicability of "Typical Details".
8. Work these drawings with architectural, civil, mechanical, and electrical drawings.
9. Do not scale drawings.
10. Should any of the general notes conflict with any details or instructions on plans, the strictest provision shall govern.
11. Shop drawings and submittals:
 - a. These drawings shall be checked and coordinated with other materials and contracts by the general contractor and shop drawings and submittals shall bear the contractor's review stamp with the checker's initials before being submitted to the architect for approval.
 - b. When the fabricator has been authorized to use the architect and engineer's drawings as erection drawings, the fabricator must remove all title blocks, professional seals and any other reference to the architect and engineer from that erection drawing. The fabricator's name and title shall be placed on the erection drawing.

CAST-IN-PLACE CONCRETE

1. All concrete construction shall conform to ACI 301, "Specification for Structural Concrete" and ACI 302, "Guide for Concrete Floor and Slab Construction", ACI 305 "Specification for Hot Weather Concrete" and ACI 308, "Standard Specification for Cold Weather Concrete", unless noted otherwise for the year referenced in the building code noted.
2. All detailing, fabrication and placing of reinforcing bars, unless otherwise noted, shall conform to ACI 318, "Building Code Requirements for Structural Concrete", ACI 117, "Specification for Tolerances for Concrete Construction and Materials", and the latest ACI detailing manual.
3. All pipe sleeve openings through concrete slabs shall be formed with standard steel pipe.
4. No electrical conduit shall be placed above the welded wire fabric or top reinforcing of slab.
5. All aluminum in contact with concrete or dissimilar metals shall be coated with two coats of coal tar epoxy, approved by the engineer, unless otherwise noted.
6. Concrete shall be discharged at the site within 1 1/2 hours after water has been added to the cement and aggregates. Addition of water to the mix at the project site will not be permitted. All water must be added at the batch plant. Slump may be adjusted only through the use of additional water reducing admixtures or high range water reducing admixture.
7. All concrete shall be placed without horizontal construction joints, except where specifically noted.
8. All exposed edges of concrete members shall be chamfered 3/4" unless shown otherwise.
9. See architectural drawings for concrete finishes, masonry anchors, and for miscellaneous embedded plates, bolts, anchors, angles, etc.
10. The placement of sleeves, outlet boxes, box-outs, anchors, etc., for the mechanical, electrical and plumbing trades is the responsibility of the trade involved; however, any box-outs not covered by typical details in structural drawings shall be submitted for approval.
11. Reinforcing bars shall conform to ASTM A615, Grade 60, No tack welding of reinforcing in the field will be permitted.
12. Reinforcing bars for welded applications shall conform to ASTM A706, 60 ksi yield strength.
13. Welded wire fabric reinforcing shall conform to ASTM A185 and be furnished in flat sheets and installed on chairs.
14. Wire bar supports shall be furnished for all reinforcing within slabs, inclusive of welded wire fabric. Bottom bars in slabs-on-grade may be supported by other suitable supports. Reinforcing shall be properly positioned prior to concrete placement and may not be re-positioned once concrete operations have begun. Wire bar and other types of supports shall be in accordance with the concrete reinforcing steel institute manual of standard practice.
15. Reinforcement shall be continuous through all construction joints unless otherwise noted on drawings.
16. All hooks shown on drawings shall be standard hooks, unless otherwise noted.
17. Where continuous bars are called for, they shall run continuously around corners and be lapped at necessary splices. Lap lengths shall be as given in the splice and development table.
18. Provide additional reinforcing at the side and corners of all openings in concrete in accordance with typical details. Minimum additional requirements are as follows:
 - a. (2)-#5 top and bottom in slabs
 - b. (2)-#5 each face in walls
 - c. (2)-#5 x 4'-0" long diagonally each corner of opening
19. Extend bars a minimum of 2'-0" beyond openings, hook where extension is not possible.
20. In reinforced concrete walls, grade beams and trench footing provide corner dowels of same size and spacing as horizontal reinforcing. Dowels shall lap with horizontal reinforcing in each direction.
21. The following minimum concrete cover shall be provided for reinforcement, unless otherwise noted:
 - a. Earth formed and cast directly against soil - 3"
 - b. Cast against forms but exposed to earth and weather
 - #6 and Larger - 2"
 - #5 and Smaller - 1 1/2"
 - c. Slabs and walls not exposed to earth or weather - 3/4"
 - d. Others - 2"
22. All structural concrete shall have a 4000 psi minimum compressive strength at age 28 days.
23. SPLICE LENGTHS:

Bar Size	Min. Lap
#3	1'-3"
#4	1'-7"
#5	2'-0"
#6	2'-6"
#7	3'-6"
#8	4'-0"
#9	4'-6"
#10	5'-0"
- a. When lapping two different size bars, use the lap dimension of the smaller bar or the anchorage dimension of the larger bar, use whichever dimension is larger.
24. See Civil Drawings for concrete washout requirements.

BUILDING PILASTERS

1. Verify building column base plates will fit on concrete pilasters prior to pilaster construction and rebar fabrication. Provide PEMB anchor bolt and base plate plan to EOR. EOR will verify pilaster size and make necessary adjustments.

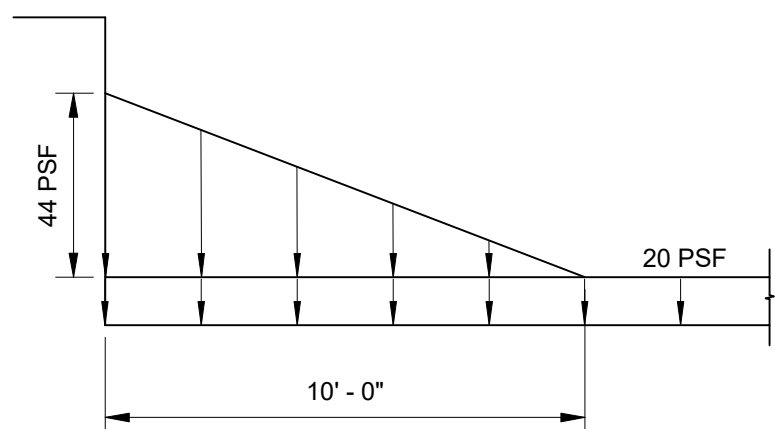
SPECIAL INSPECTIONS - STEEL TABLE		
ITEM	VERIFICATION AND INSPECTION	INSPECTION FREQUENCY
High Strength Bolts	Verify identification markings conform to ASTM standards specified in the Construction Documents.	Periodic
	Verify Bearing-Type Connections bolts, nuts, washers, paint, installation, and lightening conform to their respective standards.	Periodic
	Verify Slip Critical-Type Connections mating surfaces and tightening to the requirements of the Contract Documents.	Periodic
Welds	Verify Welder and Welding Inspector Qualifications and verify use of proper WPS's	Periodic
	Verify identification markings of Weld Filler Materials for field installed welds conform with AWS Specifications and the Construction Documents.	Periodic
	Inspection of field installed Single Pass fillet welds not greater than 5/16".	Periodic
Structural Steel Framing	Inspection of field installed Complete and Partial Joint Penetration groove welds and single or multipass fillet welds greater than 5/16".	N/A (Continuous)
	Verification of Non-Destructive Testing (Ultrasonic Testing, U.T.) of field installed Complete Joint Penetration Welds of Moment Connections according to Construction Document requirements.	N/A (Periodic)
	Verify identification markings conform to ASTM standards specified in the Construction Documents.	Periodic
Metal Decking	Inspection of Steel Framing for compliance with Construction Documents for member sizes and locations, bracing, stiffeners, and connections in accordance with the quality assurance inspection requirements of AISC 360.	Periodic
	Verify identification markings conform to ASTM standards specified in the Construction Documents. Inspection shall be done when deck is exposed.	Periodic
Open Web Steel Joists	Inspection of puddle welding, screw attachments, mechanical deck fastener attachments, and sidelap fastening of Roof and Floor decking.	Periodic
	Inspection of Joist and Joist Girders for welded or bolted end connections, horizontal and diagonal bridging in accordance with SJI specifications, and inspection of bridging that differs from SJI specifications.	Periodic

SPECIAL INSPECTIONS - CONCRETE TABLE		
ITEM	VERIFICATION AND INSPECTION	INSPECTION FREQUENCY
Reinforcement	Inspection of reinforcement and placement for conformance with the Construction Documents and inspection that bars are free from materials that could prevent bond, are adequately lapped, spliced, tied, and supported. Inspector shall be given a minimum 24 hour notice.	Periodic
	Verify maintainability of rebar other than ASTM A706 and Inspection of Single Pass Fillet Welds not greater than 5/16".	Periodic
Anchor Installation	Inspection of all other rebar welds.	Continuous
	Inspection of Cast-in-Place Anchors and Bolts.	Periodic
Mix Design	Inspection of Post-Installed adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	Continuous
	Inspection of Post-Installed mechanical and adhesive anchors not otherwise specified.	Periodic
Sampling and Testing	Verify use of required mix design(s).	Periodic
Concrete Placement	Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of concrete.	Continuous (Testing)
	Inspection of concrete placement for proper application techniques (excludes isolated concrete spread footings and slab-on-grade).	Continuous
	Verify maintenance of specified curing temperature and techniques.	Periodic
	Inspection of formwork for shape, location, and dimensions of the concrete member being formed.	Periodic

SPECIAL INSPECTIONS - SOILS TABLE		
ITEM	VERIFICATION AND INSPECTION	INSPECTION FREQUENCY
Soil Bearing Capacity	Verify materials below shallow foundation are adequate to achieve the design bearing capacity.	Periodic
Excavation	Verify excavations are extended to proper depth and have reached proper material.	Periodic
Materials	Perform classification and testing of compacted fill materials.	Periodic
	Verify use of proper materials, densities and lift thickness during placement and compaction of compacted fill in accordance with the Geotechnical Report.	Continuous
Sampling and Testing	Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	Periodic

SPECIAL INSPECTIONS - WIND RESISTANCE TABLE		
ITEM	VERIFICATION AND INSPECTION	INSPECTION FREQUENCY
Cold-Formed Steel Light-Frame Construction	Inspection of screw attachment, bolts, anchoring and other fastening of elements of the main windforce-resisting system, including shear walls, braces, diaphragms, collectors (drag struts) and hold downs.	Periodic
	Inspection of field installed welding of elements of the main windforce-resisting system.	Periodic

SPECIAL INSPECTIONS - FLOWABLE FILL		
ITEM	VERIFICATION AND INSPECTION	INSPECTION FREQUENCY
Mix Design	Verify use of required mix design(s).	Periodic
Flowable Fill	Locations where flowable fill is required shall be inspected to confirm depth, observe trench, document site conditions at time of flowable fill placement. Inspector shall be given a minimum 24 hour notice.	Periodic

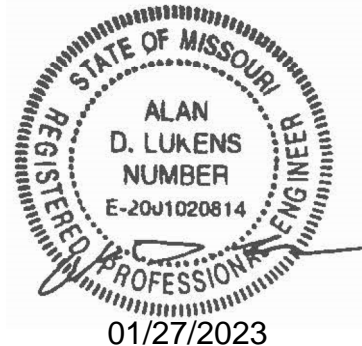


2 SNOW ON LOWER ROOF WITH DRIFT
NTS

ABBREVIATIONS

&	AND	LG	LONG
AB	ANCHOR BOLT	LL	LIVE LOAD
ALT	ALTERNATE	LLH	LONG LEG HORIZONTAL
ARCH	ARCHITECT	LLV	LONG LEG VERTICAL
@	AT	LONG	LONGITUDINAL
		LWC	LIGHT WEIGHT CONCRETE
BLDG	BUILDING		
BM	BEAM	MAX	MAXIMUM
BO	BOTTOM OF	MECH	MECHANICAL
BOT	BOTTOM	MIN	MINIMUM
BRG	BEARING		
BRDG	BRIDGING	NO (#)	NUMBER
BYD	BEYOND	NTS	NOT TO SCALE
CJP	CAST IN PLACE CONSTRUCTION JOINT	OC	ON CENTER
CJ	CONSTRUCTION JOINT	OH	OVERHEAD
CL (C)	CENTERLINE	OPNG	OPENING
CLR	CLEAR	OPP	OPPOSITE
CMU	CONCRETE MASONRY UNIT		
COL	COLUMN	PAR	PARALLEL
CONC	CONCRETE	PEMB	PRE-ENGINEERED METAL BUILDING
CTR	CENTER	PERP	PERPENDICULAR
		PL (P)	PLATE
DBL	DOUBLE	PSF	POUNDS PER SQUARE FOOT
DIA (D)	DIAMETER	PT	PRESSURE TREATED
DIAPH	DIAPHRAGM		
DL	DEAD LOAD	REINF	REINFORCING
DWLS	DOWELS	RO	ROUGH OPENING
		RTU	ROOF TOP UNIT
EA	EACH		
EF	EACH FACE	SCH	SCHEDULE
ELEV (EL)	ELEVATION	SIM	SIMILAR
EMBED	EMBEDMENT	SL (\$)	STEEL LINE
EOR	ENGINEER OF RECORD	STAGG	STAGGERED
EW	EACH WAY	STD	STANDARD
EX	EXISTING	STIFF	STIFFENER
FB	FIELD BEND	TBR	TO BE REMOVED
FDN	FOUNDATION	THK	THICK
FF	FINISHED FLOOR	THRU	THROUGH
FLR	FLOOR	TO	TOP OF
FTG	FOOTING	TOF	TOP OF FOOTING
FV	FIELD VERIFY	TOS	TOP OF STEEL
		TOW	TOP OF WALL
GA	GUAGE	TRANS	TRANSVERSE
GALV	GALVANIZED	TYP	TYPICAL
HDG	HOT DIP GALVANIZED	UNO	UNLESS OTHERWISE NOTED
HDR	HEADER		
HGR	HANGER	VERT	VERTICAL
HORIZ	HORIZONTAL		
HS	HEADED STUD	W/	WITH
HSS	HOLLOW STRUCTURAL SECTION	WF	WIDE FLANGE
HT	HEIGHT	W/O	WITHOUT
		WP	WORKING POINT
ID	INSIDE DIAMETER	WWF	WELDED WIRE FABRIC
JST	JOIST		

STATE OF MISSOURI
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OFFICE OF ADMINISTRATION
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MANAGEMENT,
DESIGN AND CONSTRUCTION

CONSTRUCT FIELD
MAINTENANCE SHOP
(FMS) BAY ADDITION

FORT LEONARD WOOD
READINESS CENTER

10744 FLW V, BLDG 5175
FORT LEONARD WOOD,
MO 65473

PROJECT # T2126-01
SITE # 6306
ASSET # 8136306004

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 01/27/2023

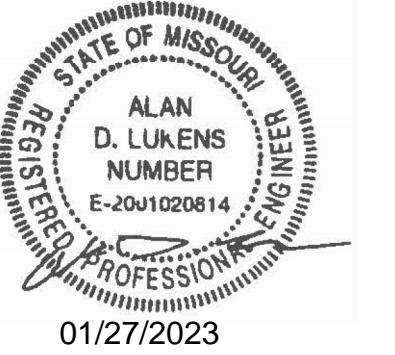
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DRAWING BY: FTP
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DESIGNED BY: ADL/FTP

SHEET TITLE:
**STRUCTURAL
NOTES**

SHEET NUMBER:

S001
SHEET 19 OF 36

JANUARY 27, 2023



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REVISION: _____
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CAD DWG FILE: S101
DRAWING BY: FTP
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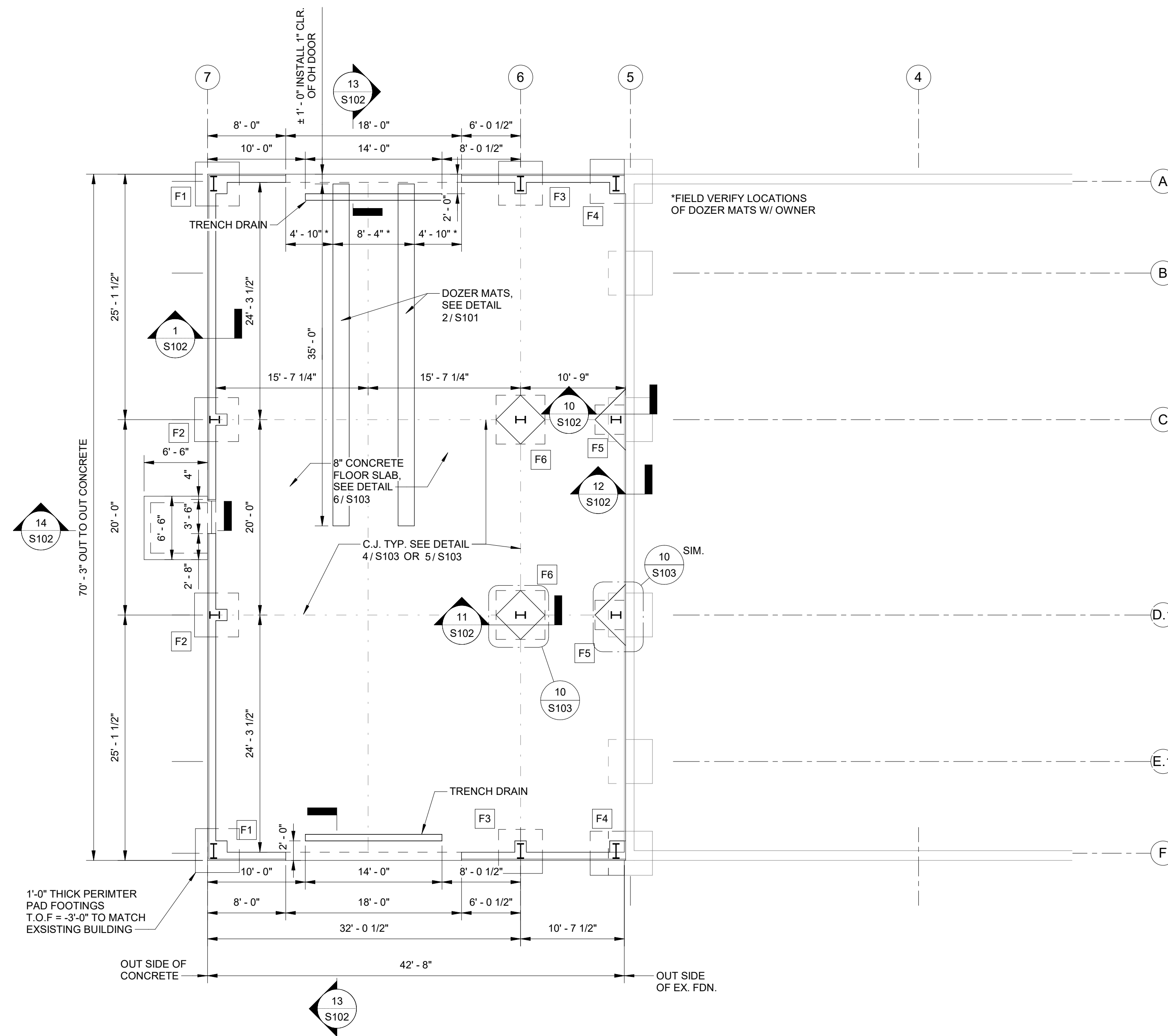
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**FOUNDATION
PLAN**

SHEET NUMBER:

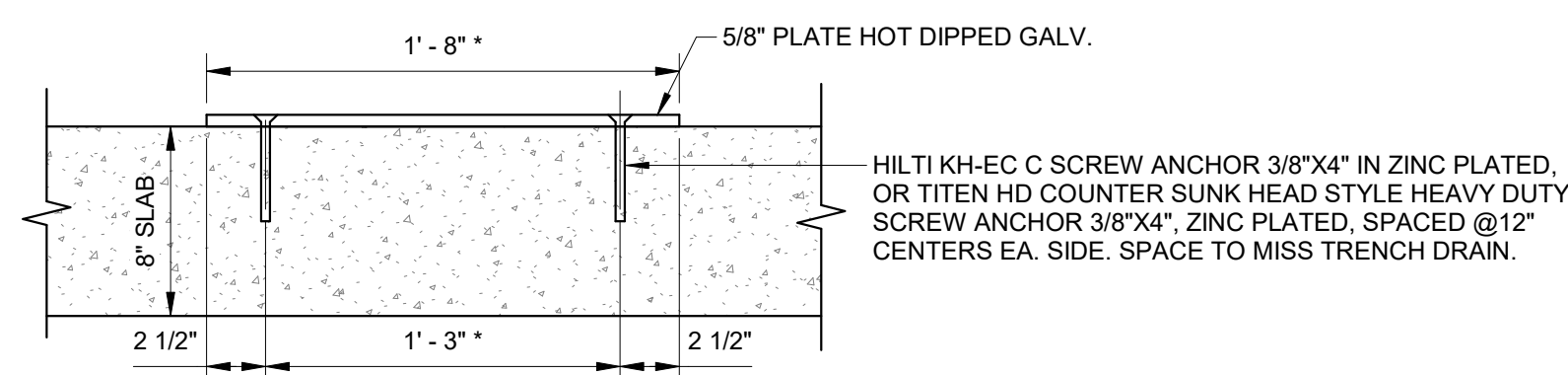
S101
SHEET 20 OF 36

JANUARY 27, 2023

FOUNDATION SCHEDULE						
Mark	Length	Width	Thickness	Ei at Top	Rebar Type	Comments
F1	4'-6"	4'-6"	1'-2"	-3'-0"		
F2	4'-6"	4'-6"	1'-2"	-3'-0"		
F3	4'-6"	4'-6"	1'-2"	-3'-0"		
F4	4'-6"	3'-6"	2'-0"	-2'-0"		
F5	3'-0"	3'-0"	2'-2"	-0'-10"		
F6	5'-0"	5'-0"	1'-6"	-0'-10"		

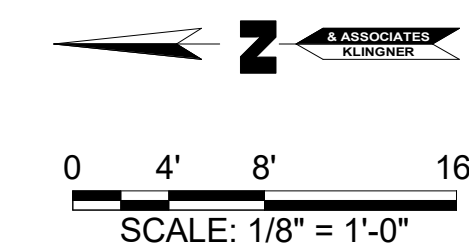


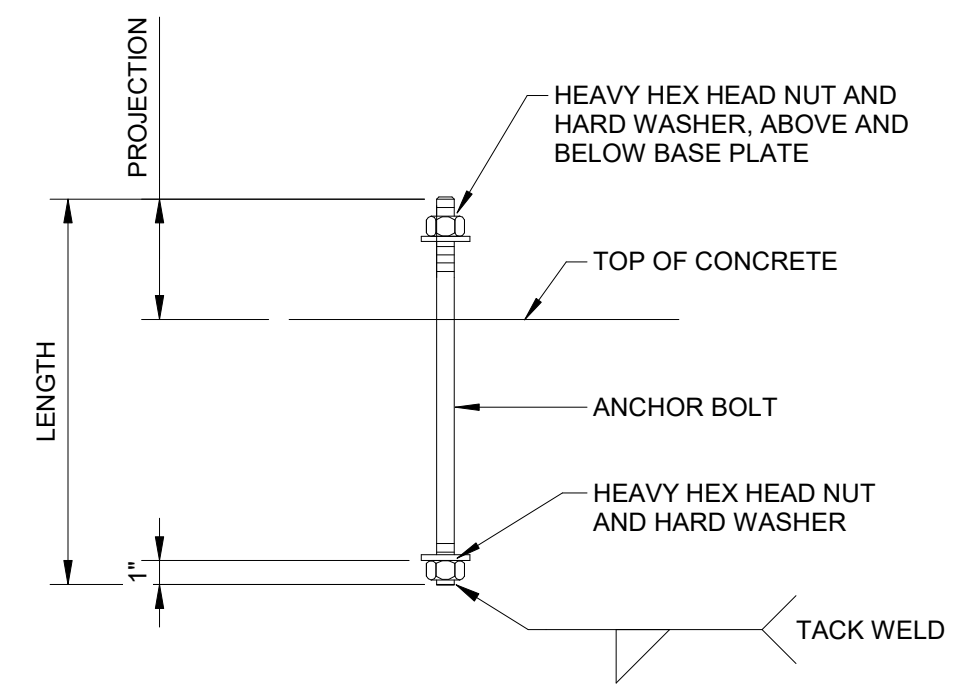
1 SLAB & FOUNDATION PLAN
1/8" = 1'-0"



*VERIFY W/ OWNER PRIOR TO FABRICATION.

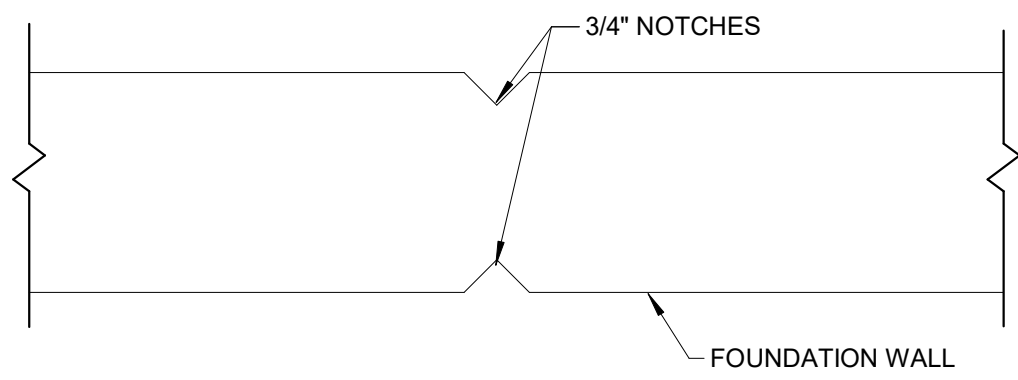
2 DOZER MAT DETIAL
1 1/2" = 1'-0"





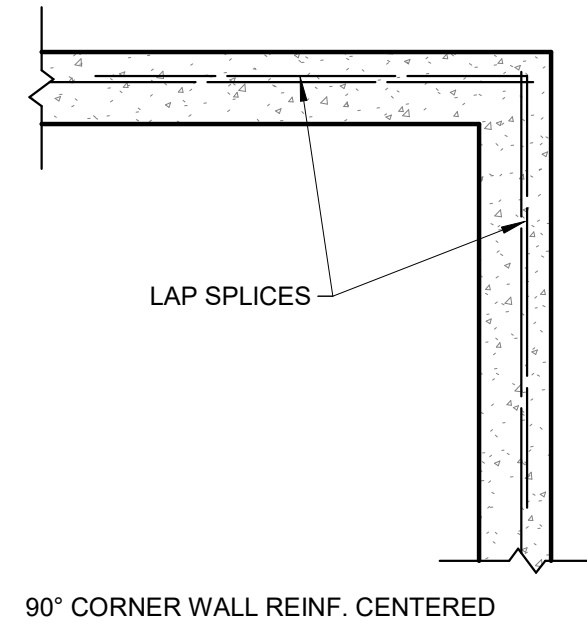
SIZE BY MANUFACTURER	LENGTH	PROJECTION
	18"	3"

1 ANCHOR BOLT
1 1/2" = 1'-0"

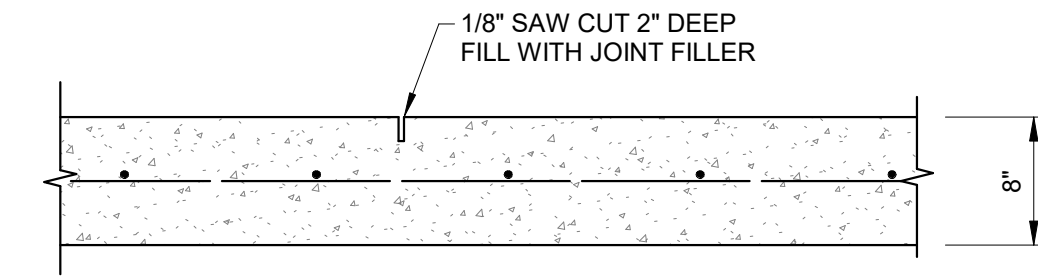


NOTES:
PLACE CJ AT 30'-0" CENTERS OR LESS.
PLACE CJ AT EDGE OF DOOR OPENINGS.

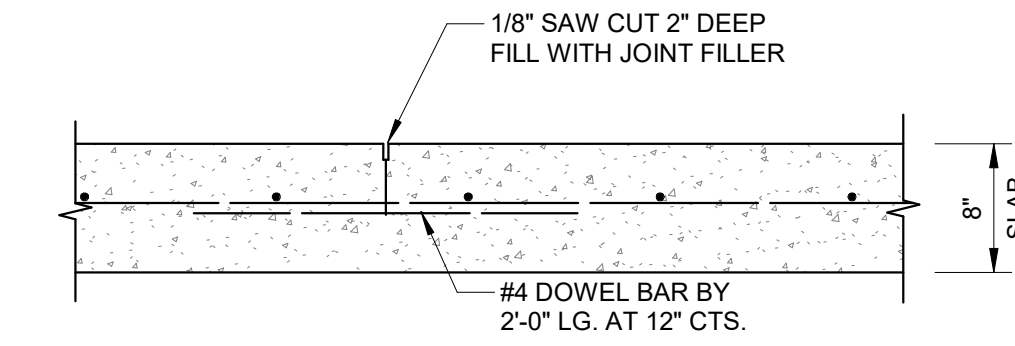
2 CONTROL JOINT DETAIL
1" = 1'-0"



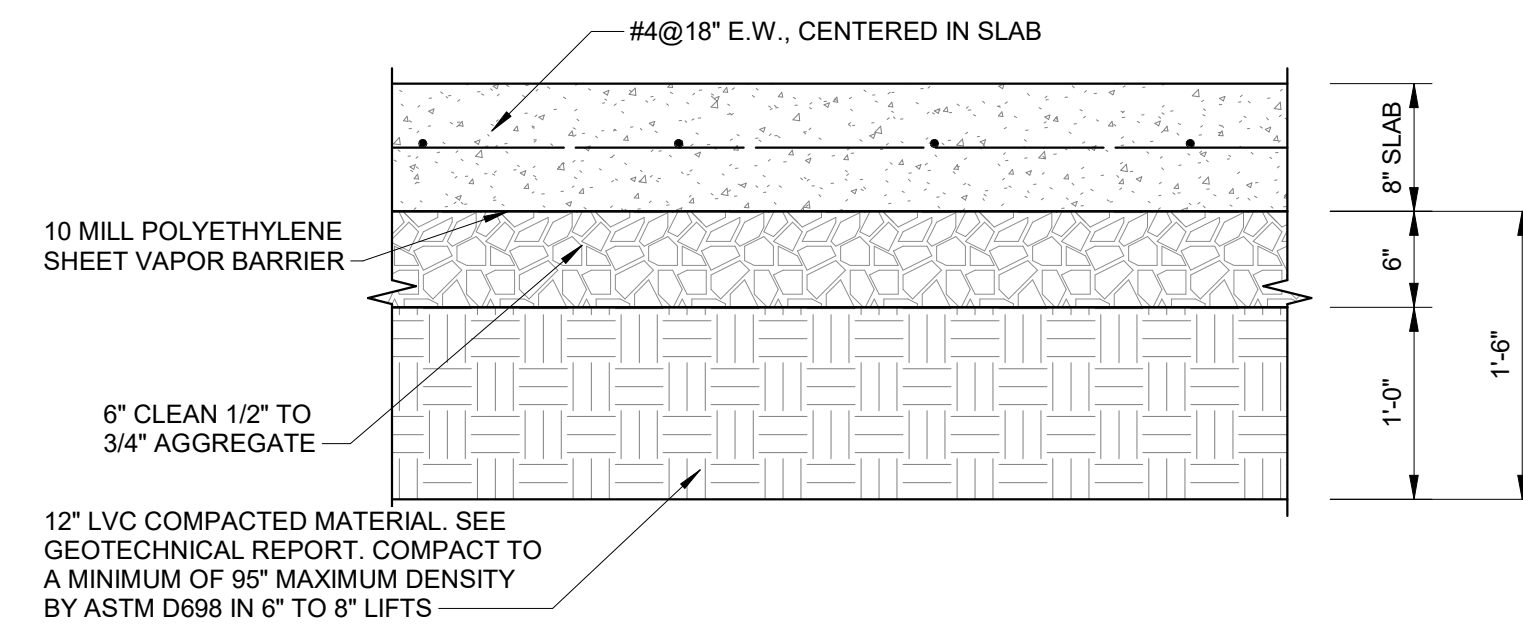
3 CORNER REINFORCING DETAILS
3/4" = 1'-0"



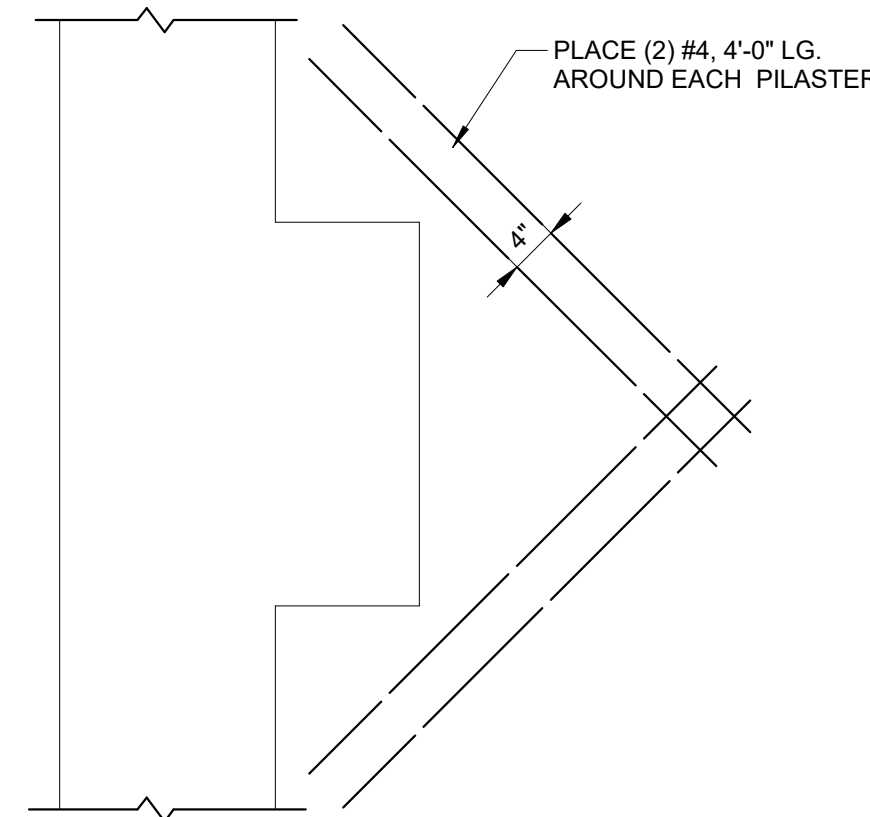
4 FLOOR SLAB CONTRACTION JOINT
1" = 1'-0"



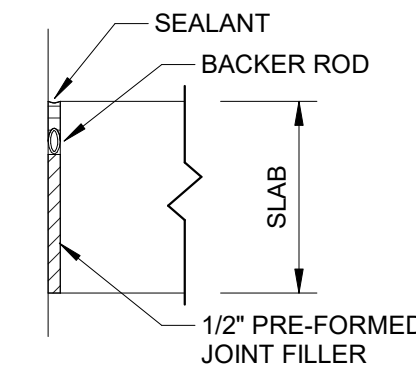
5 FLOOR SLAB CONSTRUCTION JOINT
1" = 1'-0"



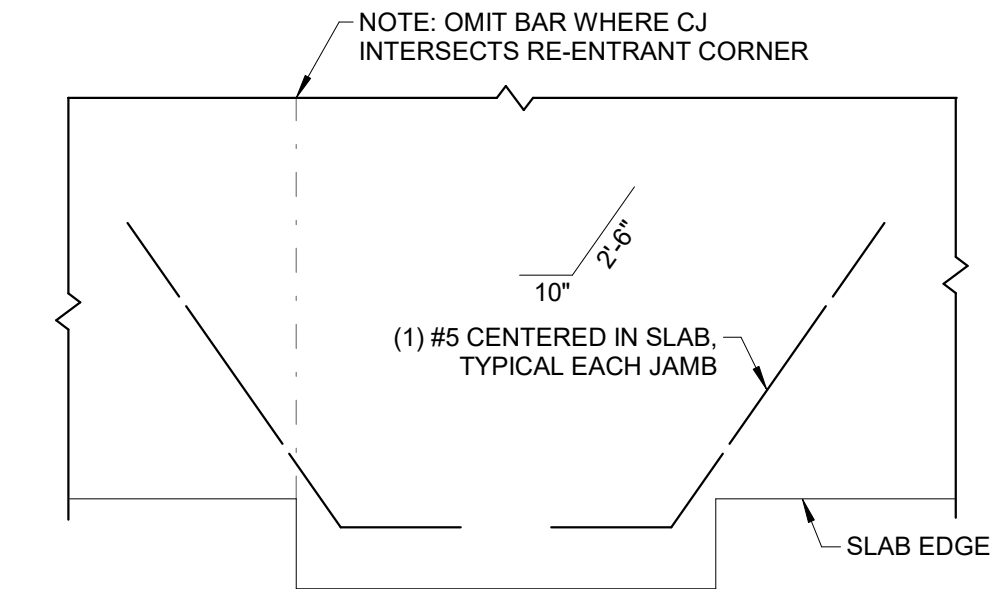
6 8" SLAB SECTION
1" = 1'-0"



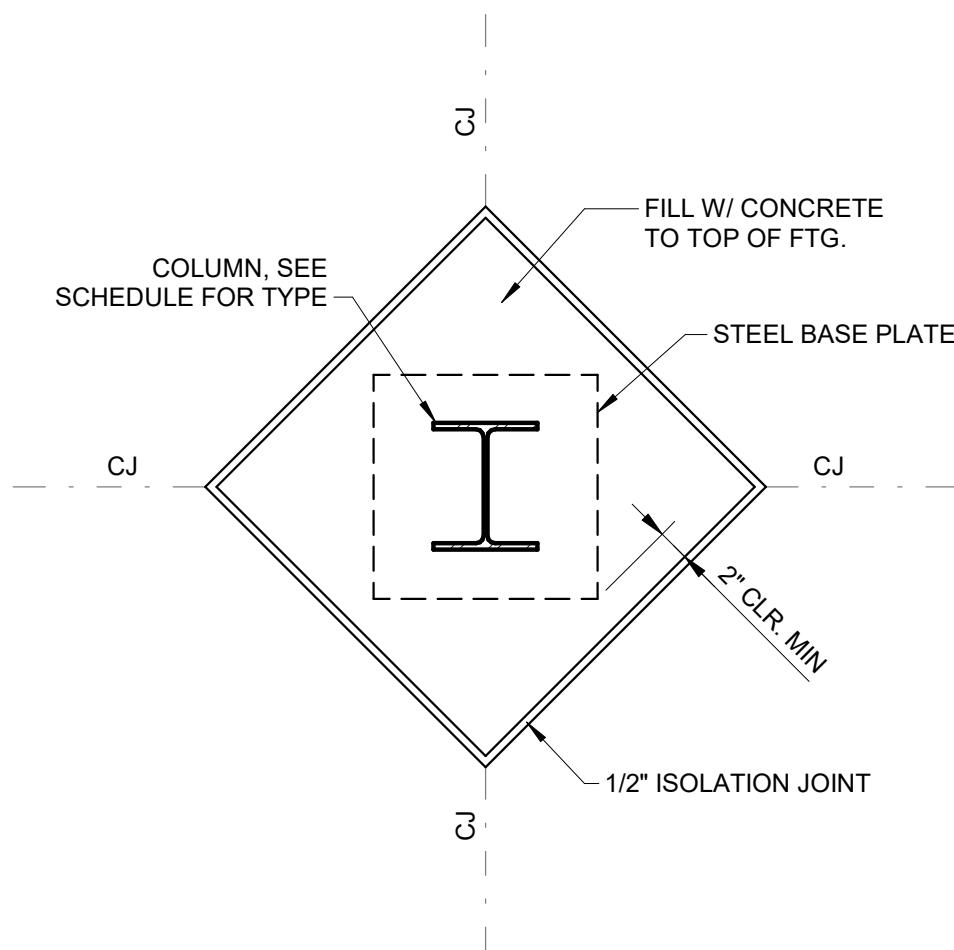
7 ADDITIONAL SLAB REINF. AT PILASTERS
3/4" = 1'-0"



8 EXPANSION JOINT-SLAB TO WALL
1 1/2" = 1'-0"

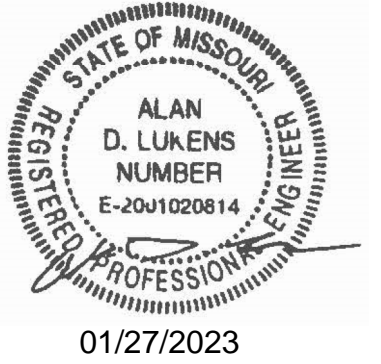


9 REINF AT DOOR OPENING
3/4" = 1'-0"



10 ISOLATION JOINT AT COLUMN
1" = 1'-0"

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ADDITION

FORT LEONARD WOOD
READINESS CENTER

10744 FLW V, BLDG 5175
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PROJECT # T2126-01
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ASSET # 8136306004

REVISION: _____
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ISSUE DATE: 01/27/2023

CAD DWG FILE: S103
DRAWING BY: FTP
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DESIGNED BY: ADL/FTP

SHEET TITLE:
**FOUNDATION
DETAILS**

SHEET NUMBER:

S103
SHEET 22 OF 36

JANUARY 27, 2023

ELECTRICAL SYMBOLS	
	SINGLE RECEPTACLE
	STANDARD DUPLEX RECEPTACLE
	EMERGENCY POWER DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE WITH ISOLATED GROUND
	DUPLEX RECEPTACLE INSTALLED ABOVE COUNTER
	DUPLEX RECEPTACLE INSTALLED AT DISTANCE ABOVE FINISHED FLOOR
	DUPLEX RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER
	DUPLEX CEILING RECEPTACLE
	DUPLEX GFCI RECEPTACLE WITH WEATHERPROOF ENCLOSURE
	DUPLEX GFCI RECEPTACLE WITH DUPLEX USB CHARGER
	USB CHARGER OUTLET QUANTITY INDICATED
	FOURPLEX RECEPTACLE
	FOURPLEX EMERGENCY RECEPTACLE
	208/240 VOLT 2-POLE RECEPTACLE
	FLOOR RECEPTACLE (FOURPLEX SHOWN)
	SPECIAL RECEPTACLE
	RECEPTACLE ON DROP CORD (DUPLEX SHOWN)
	RECEPTACLE ON CORD REEL (DUPLEX SHOWN)
	SINGLE POLE SWITCH
	3-WAY SWITCH
	4-WAY SWITCH
	DIMMER SWITCH
	KEYED SWITCH
	TIMER SWITCH
	OCCUPANCY SENSOR SWITCH
	VACANCY SENSOR SWITCH
	LOW VOLTAGE SWITCH
	LOW VOLTAGE SWITCH WITH DIMMING
	FAN SPEED CONTROL SWITCH
	MOTOR HORSEPOWER RATED SWITCH
	HAND/OFF/AUTO SWITCH
	LIGHTING CONTROL POWER PACK
	LIGHTING CONTROL ROOM CONTROLLER
	WALL MOUNT OCCUPANCY SENSOR AT DISTANCE ABOVE FINISHED FLOOR (SENSOR TYPE UNSPECIFIED)
	WALL MOUNT OCCUPANCY SENSOR PASSIVE INFRARED
	WALL MOUNT OCCUPANCY SENSOR PASSIVE INFRARED
	WALL MOUNT OCCUPANCY DUAL TECHNOLOGY
	CEILING MOUNT OCCUPANCY SENSOR
	LIGHT LEVEL SENSOR (TYPE DENOTED)
	PHOTOCELL LIGHT LEVEL SENSOR
	TIME CLOCK
	JUNCTION BOX WALL MOUNTED A DISTANCE ABOVE FINISHED FLOOR
	JUNCTION BOX CEILING MOUNTED
	JUNCTION BOX RECESSED IN FLOOR
	CONDUIT PULL BOX
	SAFETY DISCONNECT SWITCH (FUSED)
	SAFETY DISCONNECT SWITCH (NON-FUSED)
	CIRCUIT BREAKER PANEL
	MOTOR (SEE SCHEDULE)
	HAND OR HAIR DRYER (TYPE NOTED)
	LOW VOLTAGE POWER CIRCUIT
	LINE VOLTAGE POWER CIRCUIT
	2" EMT CONDUIT SIZE AND TYPE
	SURFACE MOUNTED RACEWAY
	CONDUIT TRANSITION UP
	CONDUIT TRANSITION DOWN
	BRANCH CIRCUIT HOME RUN
	UNDERGROUND ELECTRICAL
	UNDERGROUND HIGH VOLTAGE ELECTRICAL
	UNDERGROUND TELEPHONE
	UNDERGROUND COMMUNICATIONS
	UNDERGROUND CABLE TELEVISION (CATV OR CCTV)
	UNDERGROUND FIBER OPTIC
	OVERHEAD ELECTRIC
	OVERHEAD TELEPHONE
	DATA RACK
	CABLE TRAY
	DATA RECEPTACLE
	PHONE RECEPTACLE
	DUAL DATA/PHONE RECEPTACLE
	MULTIPLE DATA/PHONE RECEPTACLE
	WIRELESS ACCESS POINT
	CABLE TELEVISION OUTLET
	THERMOSTAT
	REMOTE TEMPERATURE SENSOR
	HUMIDISTAT
	CARBON DIOXIDE SENSOR
	CARBON MONOXIDE SENSOR
	FIRE ALARM HORN/STROBE (WALL MOUNTED)
	FIRE ALARM STROBE (WALL MOUNTED)
	FIRE ALARM PULL STATION (WALL MOUNTED)
	FIRE ALARM SPEAKER STROBE (WALL MOUNTED)
	FIRE ALARM SPEAKER HORN/STROBE (CEILING MOUNTED)
	FIRE ALARM SPEAKER (CEILING MOUNTED)
	FIRE ALARM SPEAKER STROBE (CEILING MOUNTED)
	FIRE ALARM CEILING MOUNT SMOKE DETECTOR
	FIRE ALARM CEILING MOUNT HEAT DETECTOR
	FIRE ALARM DUCT MOUNTED SMOKE DETECTOR
	FIRE ALARM SHUT DOWN RELAY
	FIRE ALARM DOOR CLOSER
	FIRE ALARM DOOR CLOSER (WALL MOUNTED)
	FIRE ALARM DOOR CLOSER (FLOOR MOUNTED)
	FIRE ALARM DOOR FLOW SWITCH
	FIRE ALARM CONTROL PANEL
	FIRE ALARM REMOTE ANNUNCIATOR PANEL
	ACCESS CONTROL CARD READER
	ACCESS CONTROL DOOR CONTACT
	ACCESS CONTROL ELECTRIC STRIKE
	ACCESS CONTROL ELECTRIC LATCH
	ACCESS CONTROL POWER SUPPLY
	SECURITY CAMERA (FIXED)
	SECURITY CAMERA (PAN/TILT/zoom)
	MASS NOTIFICATION SPEAKER (CEILING MOUNTED)
	MASS NOTIFICATION SPEAKER (WALL MOUNTED)
	MASS NOTIFICATION TRUMPET SPEAKER (WALL MOUNTED)
	CONNECT TO EXISTING

GENERAL ELECTRICAL NOTES:

1. APPLICABLE STANDARDS: NFPA-70, NFPA-101, STATE BUILDING CODES, AND THE OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) OF 1971 AND ALL AMENDMENTS THERETO; EQUIPMENT, DEVICES, APPARATUS, SYSTEMS, AND INSTALLATIONS SHALL BE ENTIRELY SUITABLE AND SAFE FOR EACH INTENDED APPLICATION AND BE IN FULL COMPLIANCE WITH APPLICABLE STANDARDS, REQUIREMENTS, RULES, REGULATIONS, CODES, STATUTES, ORDINANCES, ETC., OF MUNICIPAL, COUNTY, AND STATE GOVERNMENTS, OWNER'S INSURANCE COMPANY, LOCAL UTILITIES, AND LABOR REGULATIONS. NOTHING CONTAINED IN THESE PLANS AND SPECIFICATIONS SHALL BE CONSTRUED TO CONFLICT WITH THESE LAWS, CODES, AND ORDINANCES.
2. DRAWINGS ARE SCHEMATIC AND SHOW APPROXIMATE LOCATIONS OF ELECTRICAL EQUIPMENT. EXACT LOCATIONS SHALL BE COORDINATED BY THE CONTRACTOR AND VERIFIED IN THE FIELD PRIOR TO ROUGH-IN.
3. INSTALLATIONS WHICH INCLUDE ELECTRICAL FIXTURES, DEVICES, CONDUIT, SWITCHES, PANELS, HANGERS, WIRE, CABLE, STANDARDS, ETC., MUST BE ENTIRELY SUITABLE FOR TEMPERATURES, HUMIDITY, DAMP AREAS, VOLTAGE, FREQUENCY, AND ALL INSTALLATION CONDITIONS ENCOUNTERED.
4. INSTALLATION MUST BE ENTIRELY SAFE IN EVERY RESPECT, AND MUST NOT CREATE ANY CONDITIONS OF ANY KIND WHICH WILL BE HARMFUL TO ANY OCCUPANT OF THE BUILDING. IF CONTRACTOR BELIEVES THAT INSTALLATION WILL NOT BE SAFE FOR ALL PEOPLE, HE/SHE SHALL SO REPORT IN WRITING TO ENGINEER BEFORE ANY EQUIPMENT IS PURCHASED OR WORK IS INSTALLED, GIVING EXACT RECOMMENDATIONS, AND REASONS FOR THEM.
5. GROUNDING: ALL GROUNDING SHALL BE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC).
6. INSTALLATION OF ELECTRICAL DEVICES SHALL BE COORDINATED WITH OTHER TRADES AS NECESSARY TO PREVENT ANY CONFLICTS DURING CONSTRUCTION.
7. WHERE PHONE/DATA OUTLET LOCATIONS ARE INDICATED INSTALL 1" EMT FROM OUTLET BOX (4"x4"x1 1/2" MIN.) BACK TO THE ELECTRICAL PANEL.
8. WHERE THERMOSTAT LOCATIONS ARE SHOWN, THE CONTRACTOR SHALL PROVIDE A SURFACE MOUNTED BOX AND CONDUIT TO THE EQUIPMENT LOCATION.
9. LIGHTING: FURNISH AND INSTALL ALL LIGHTING FIXTURES COMPLETE WITH LAMPS IN ACCORDANCE WITH THE LIGHTING FIXTURE SCHEDULE SHOWN ON THE DRAWINGS. ALL UNITS SHALL BE COMPLETE WITH SUSPENSION ACCESSORIES, CANOPIES, SOCKETS, LOUVERS, FRAMES, AND ROUGH-IN BOXES, WIRED AND ASSEMBLES TO FURNISH A COMPLETE WORKABLE SYSTEM.
10. CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS, ACCESSORIES, TOOLS, EQUIPMENT, TRANSPORTATION, LABOR, SERVICES AND OPERATIONS NECESSARY FOR A COMPLETE ELECTRICAL SYSTEM.
11. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ARRANGE FOR ALL INSPECTIONS REQUIRED BY STATE OR LOCAL AUTHORITIES.
12. MATERIALS MUST BE NEW, IN FIRST CLASS CONDITION.
13. CONDUIT SHALL BE SEPARATELY HUNG AND ANCHORED, FREE TO EXPAND AND CONTRACT QUIETLY, WITHOUT IMPOSING STRAINS ON STRUCTURE, DEVICES, AND EQUIPMENT. CONDUIT SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES.
14. CONTRACTOR SHALL PERFORM EXCAVATION REQUIRED TO INSTALL HIS WORK.

HVAC SYMBOLS

	16"x8"	SQUARE DUCT SIZE TAG (WIDTH x HEIGHT)
	(E)	EXISTING DUCT TAG
		DUCT BEING DEMOLISHED
	SA	SUPPLY AIR
	OA	OUTSIDE AIR
	RA	RETURN AIR
	EA	EXHAUST AIR
		AIR INLET/OUTLET
		TYPE (SEE SCHEDULE)
	500	GRILLES, REGISTERS, AND DIFFUSERS TAG CFM
	AHU-8	MECHANICAL EQUIPMENT
	CO2	TEMPERATURE & HUMIDITY SENSOR
	CO	TEMPERATURE SENSOR
	NO2	THERMOSTAT
	HS	MANUAL SWITCH
	H	SENSOR
		MANUAL BALANCING DAMPER
		FIRE DAMPER
		SMOKE DAMPER
		MOTORIZED DAMPER
		BACKDRAFT DAMPER
		COMBINATION FIRE/SMOKE DAMPER
		CONNECT TO EXISTING

GENERAL PLUMBING NOTES:

1. ALL WORK SHALL COMPLY WITH APPLICABLE LOCAL, STATE, AND NATIONAL CODES AND REGULATIONS.
2. CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS, ACCESSORIES, TOOLS, EQUIPMENT, TRANSPORTATION, LABOR, SERVICES AND OPERATIONS NECESSARY FOR A COMPLETE PLUMBING SYSTEM INCLUDING FIXTURES, SANITARY SEWERS, CLEANOUTS, WATER SUPPLY PIPING, AND NATURAL GAS PIPING.
3. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ARRANGE FOR ALL INSPECTIONS REQUIRED BY STATE OR LOCAL AUTHORITIES.
4. MATERIALS MUST BE NEW, IN FIRST CLASS CONDITION.
5. PIPE INSTALLATION SHALL BE COORDINATED WITH OTHER TRADES.
6. PIPING SHALL BE SEPARATELY HUNG AND ANCHORED, FREE TO EXPAND AND CONTRACT QUIETLY, WITHOUT IMPOSING STRAINS ON STRUCTURE, PIPING, VALVES, DEVICES, AND EQUIPMENT. PIPING SHALL BE RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES.
7. CONNECTIONS BETWEEN DISSIMILAR METALS SHALL BE SEPARATED BY DIELECTRIC COUPLINGS
8. CONTRACTOR SHALL PERFORM EXCAVATION REQUIRED TO INSTALL HIS WORK.
9. PROVIDE BALL VALVE ON PIPES TO EACH GROUP OF FIXTURES OR TO EACH PIECE OF EQUIPMENT.
10. PLUMBING CONTRACTOR SHALL INSTALL GAS PIPING TO WITHIN 2' OF EACH APPLIANCE AND TERMINATE WITH A GAS COCK. HVAC CONTRACTOR TO MAKE FINAL CONNECTION.
11. LOCATE ALL SHUT-OFFS, CLEANOUTS, AND OTHER DEVICES REQUIRING ACCESS IN AN EASILY ACCESSIBLE AREA.
12. DRAWINGS ARE SCHEMATIC AND SHOW APPROXIMATE LOCATIONS OF PIPING. EXACT LOCATIONS SHALL BE COORDINATED BY THE CONTRACTOR AND VERIFIED IN THE FIELD PRIOR TO ROUGH-IN.

PLUMBING AND PIPING SYMBOLS

	2"	PIPE SIZE TAG (DIAMETER)
		ABOVE GROUND PIPING
		BELOW GROUND PIPING
	1/8" / 12" SLOPE INV. ELEV.-5' - 0 127/128"	PIPE INVERT ELEVATION TAG
	(E)	EXISTING PIPE TAG
		PIPING BEING DEMOLISHED
	G	NATURAL GAS
	CA	COMPRESSED AIR
	CD	CONDENSATE DRAINAGE
	CW	DOMESTIC COLD WATER
	HW	DOMESTIC HOT WATER
	HW-C	DOMESTIC HOT WATER-CIRCULATING
	GV	GREASE VENT
	GW	GREASE WASTE
	-V	SANITARY VENT
	SS	SANITARY SEWER
	SD	STORM DRAINAGE
	OSD	STORM DRAINAGE-OVERFLOW
		PIPE DROP
		PIPE RISE
		PIPE TEE
		CAP
		PLUG
		REDUCING 45 DEGREE TEE
		45 DEGREE TEE
		DOMESTIC WATER METER
		FLOW MEASURING AND BALANCING DEVICE
		BALL VALVE
		CHECK VALVE
		THREE WAY VALVE
		MOTORIZED CONTROL VALVE
		THREE WAY MOTORIZED CONTROL VALVE
		PRESSURE REDUCING VALVE
		BUTTERFLY VALVE
		CONNECT TO EXISTING

**STATE OF MISSOURI
MICHAEL L. PARSON,
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**MATTHEW H. BRIDGES - ENGINEER
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**FORT LEONARD WOOD
READINESS CENTER**

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FORT LEONARD WOOD,
MO 65473**

PROJECT # T2126-01
SITE # 6306
ASSET # 8136306004

REVISION: _____
DATE: _____
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ISSUE DATE: 01/27/23

CAD DWG FILE: MEP001
DRAWING BY: MHB
CHECKED BY: JJN
DESIGNED BY: MHB

**SHEET TITLE:
MEP SYMBOLS
LIST**

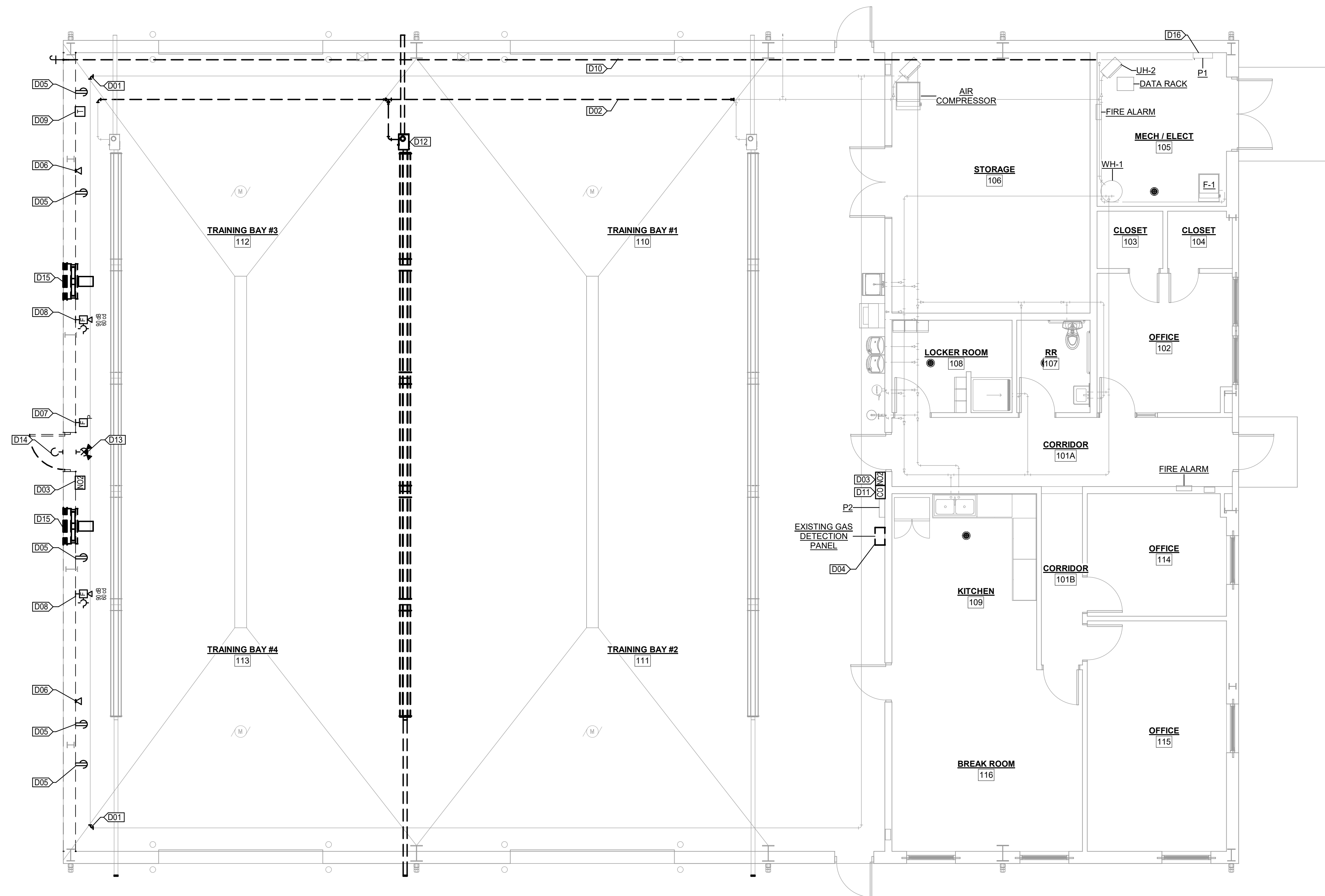
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SHEET 23 OF 36

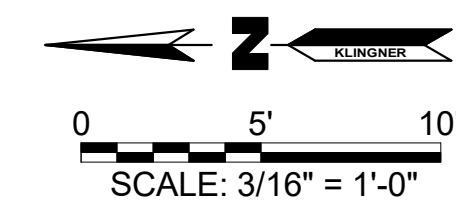
JANUARY 27, 2023

GENERAL DEMOLITION NOTES:
 1. REROUTE EXISTING COMPRESSED AIR DROP CONNECTIONS ON THE WALL TO BE DEMOLISHED TO AN EXISTING AND TO REMAIN STRUCTURAL SUPPORT COLUMN.

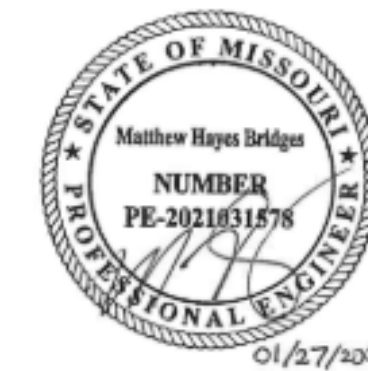
VALUE	DESCRIPTION
D01	DEMOLISH EXISTING COMPRESSED AIR PIPING ELBOW WHERE SHOWN.
D02	DEMOLISH EXISTING LIQUID PROPANE PIPING WHERE SHOWN.
D03	REMOVE EXISTING NO2 SENSOR.
D04	REMOVE EXISTING MSA C485 ZGARD CONTROLLER.
D05	RELOCATE EXISTING 120V OUTLET TO AN EXISTING SUPPORT COLUMN TO REMAIN.
D06	RELOCATE EXISTING WALL MOUNTED DATA CONNECTION TO AN EXISTING SUPPORT COLUMN TO REMAIN.
D07	RELOCATE EXISTING FIRE ALARM PULL STATION TO AN EXISTING SUPPORT COLUMN TO REMAIN.
D08	RELOCATE EXISTING FIRE ALARM HORN AND STROBE TO AN EXISTING SUPPORT COLUMN TO REMAIN.
D09	DEMOLISH EXISTING THERMOSTAT. DEMOLISH ELECTRICAL FEEDER BACK TO SOURCE.
D10	DEMOLISH EXISTING DOMESTIC COLD WATER PIPING WHERE SHOWN.
D11	REMOVE EXISTING CO SENSOR.
D12	ROTATE EXISTING RADIANT TUBE HEATER. REFER TO P102 AND M101 FOR MORE DETAILS.
D13	DEMOLISH EXISTING EMERGENCY EXIT SIGN. DEMOLISH ELECTRICAL FEEDER BACK TO SOURCE.
D14	DEMOLISH EXISTING WALL MOUNTED EXTERIOR LIGHT FIXTURE. DEMOLISH ELECTRICAL FEEDER BACK TO SOURCE.
D15	DEMOLISH EXISTING EXHAUST FAN, LOUVER, AND ASSOCIATED DUCTWORK. DISCONNECT ELECTRICAL FEEDERS AND DEMOLISH BACK TO ELECTRICAL PANEL P-1. DEMOLISH BREAKER IN ELECTRICAL PANEL P-1 FOR ASSOCIATED EXHAUST FAN.
D16	REMOVE 20 AMP SPARE IN BREAKER SLOT 37.



1 DEMOLITION FLOOR PLAN
 3/16" = 1'-0"



STATE OF MISSOURI
 MICHAEL L. PARSON,
 GOVERNOR



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 DESIGN AND CONSTRUCTION

CONSTRUCT FIELD
 MAINTENANCE SHOP
 (FMS) BAY ADDITION
 FORT LEONARD WOOD
 READINESS CENTER

10744 FLW V, BLDG 5175
 FORT LEONARD WOOD,
 MO 65473

PROJECT # T2126-01
 SITE # 6306
 ASSET # 8136306004

REVISION: _____
 DATE: _____
 REVISION: _____
 DATE: _____
 REVISION: _____
 DATE: _____
 ISSUE DATE: 01/27/23

CAD DWG FILE: D101
 DRAWING BY: MHB
 CHECKED BY: JJN
 DESIGNED BY: MHB

SHEET TITLE:
**DEMOLITION
 FLOOR PLAN**

SHEET NUMBER:

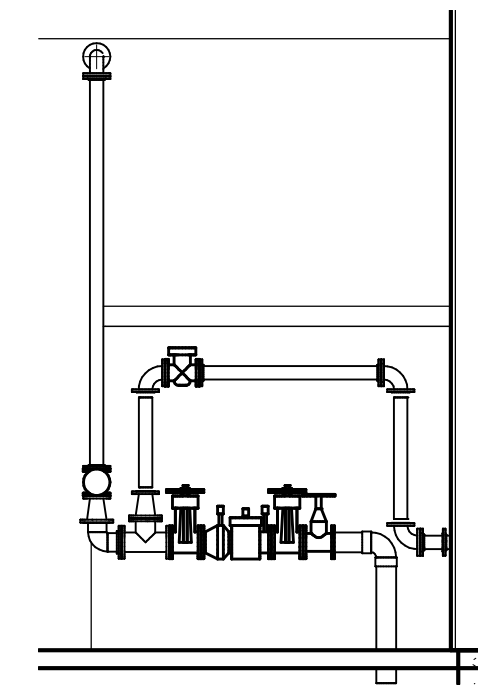
D101
 SHEET 24 OF 36

JANUARY 27, 2023

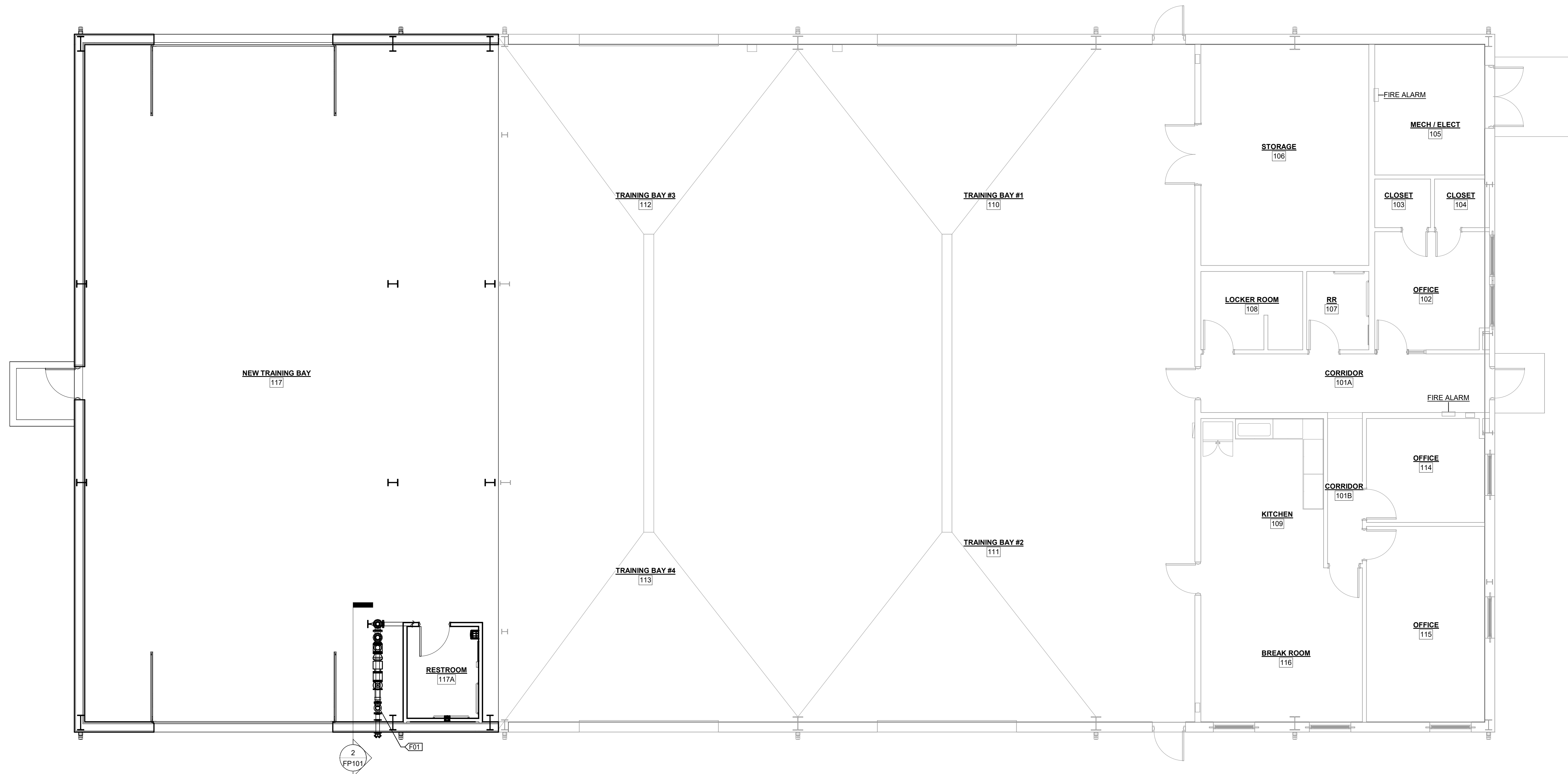
FIRE SUPPRESSION SYSTEM SUMMARY					
ROOM #	ROOM NAME	AREA (SF)	OCCUPANCY HAZARD TYPE (NFPA 13)	MINIMUM REQUIRED DENSITY (GPM/SF)	SYSTEM NAME
101A	CORRIDOR	171	LIGHT HAZARD	0.1	WET RISER #1
101B	CORRIDOR	51	LIGHT HAZARD	0.1	WET RISER #1
102	OFFICE	135	LIGHT HAZARD	0.1	WET RISER #1
103	CLOSET	27	LIGHT HAZARD	0.1	WET RISER #1
104	CLOSET	27	LIGHT HAZARD	0.1	WET RISER #1
105	MECH/ELECT	145	ORDINARY HAZARD GROUP 1	0.1	WET RISER #1
106	STORAGE	376	ORDINARY HAZARD GROUP 1	0.1	WET RISER #1
107	RR	49	LIGHT HAZARD	0.1	WET RISER #1
108	LOCKER ROOM	79	LIGHT HAZARD	0.1	WET RISER #1
109	KITCHEN	230	ORDINARY HAZARD GROUP 1	0.1	WET RISER #1
110	TRAINING BAY #1	1,362	ORDINARY HAZARD GROUP 1	0.1	WET RISER #1
111	TRAINING BAY #2	1,361	ORDINARY HAZARD GROUP 1	0.1	WET RISER #1
112	TRAINING BAY #3	1,027	ORDINARY HAZARD GROUP 1	0.1	WET RISER #1
113	TRAINING BAY #4	1,027	ORDINARY HAZARD GROUP 1	0.1	WET RISER #1
114	OFFICE	123	LIGHT HAZARD	0.1	WET RISER #1
115	OFFICE	234	LIGHT HAZARD	0.1	WET RISER #1
116	BREAKROOM	207	ORDINARY HAZARD GROUP 1	0.1	WET RISER #1
117	NEW TRAINING BAY	2,837	ORDINARY HAZARD GROUP 1	0.1	WET RISER #1

FIRE SUPPRESSION NOTES:
 1. A WATER-BASED FIRE SUPPRESSION SYSTEM FOR THE EXISTING FACILITY AND NEW ADDITION TO BE INSTALLED.

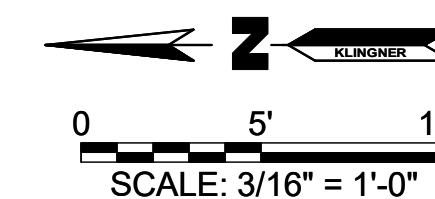
KEYNOTE LEGEND	
VALUE	DESCRIPTION
F01	SEE C101 FOR CONTINUATION.



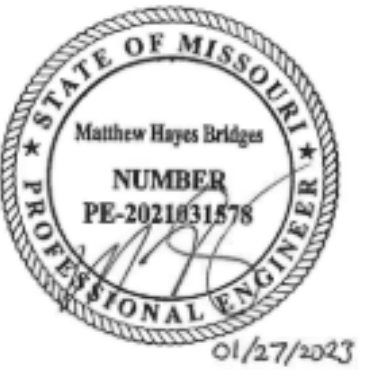
② FIRE SUPPRESSION SERVICE ENTRANCE
NTS



① FIRE SUPPRESSION FLOOR PLAN
3/16" = 1'-0"



STATE OF MISSOURI
MICHAEL L. PARSON,
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MAINTENANCE SHOP
(FMS) BAY ADDITION

FORT LEONARD WOOD
READINESS CENTER

10744 FLW V, BLDG 5175
FORT LEONARD WOOD,
MO 65473

PROJECT # T2126-01
SITE # 6306
ASSET # 8136306004

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 01/27/23

CAD DWG FILE: FP101
DRAWING BY: MHB
CHECKED BY: JJJ
DESIGNED BY: MHB

SHEET TITLE:

**FIRE
SUPPRESSION
PLAN**

SHEET NUMBER:

FP101
SHEET 25 OF 36

JANUARY 27, 2023



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DATE: _____

ISSUE DATE: 01/27/23

CAD DWG FILE: P101
DRAWING BY: MHB
CHECKED BY: JJJ
DESIGNED BY: MHB

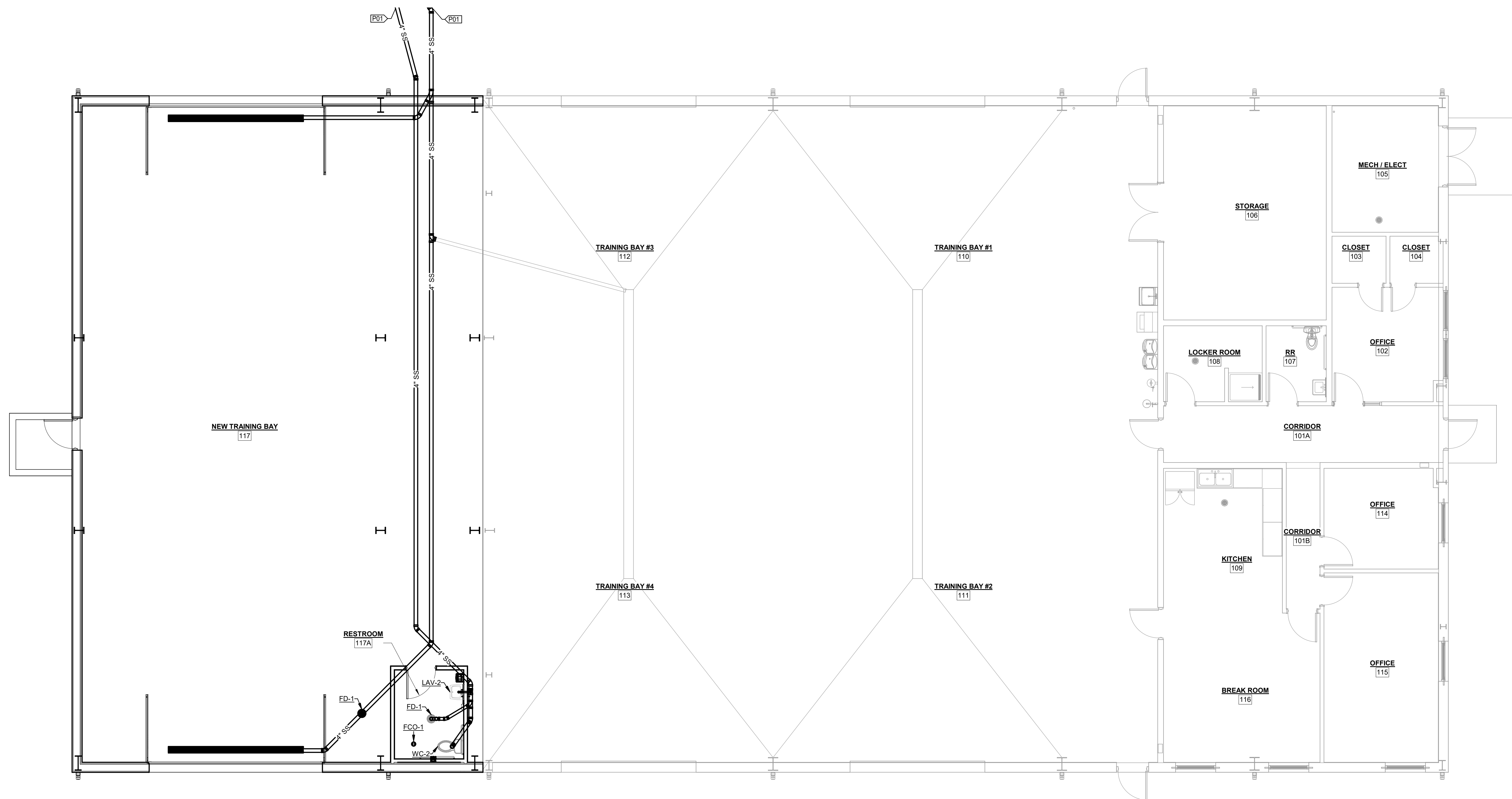
SHEET TITLE:
**BELOW FLOOR
PLUMBING PLAN**

SHEET NUMBER:

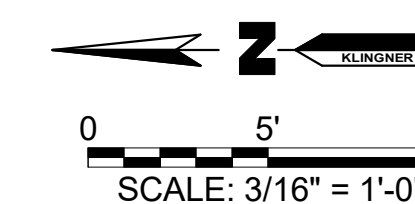
P101
SHEET 26 OF 36

JANUARY 27, 2023

KEYNOTE LEGEND	
VALUE	DESCRIPTION
P01	SEE C101 FOR CONTINUATION.



1 BELOW FLOOR PLUMBING PLAN
3/16" = 1'-0"





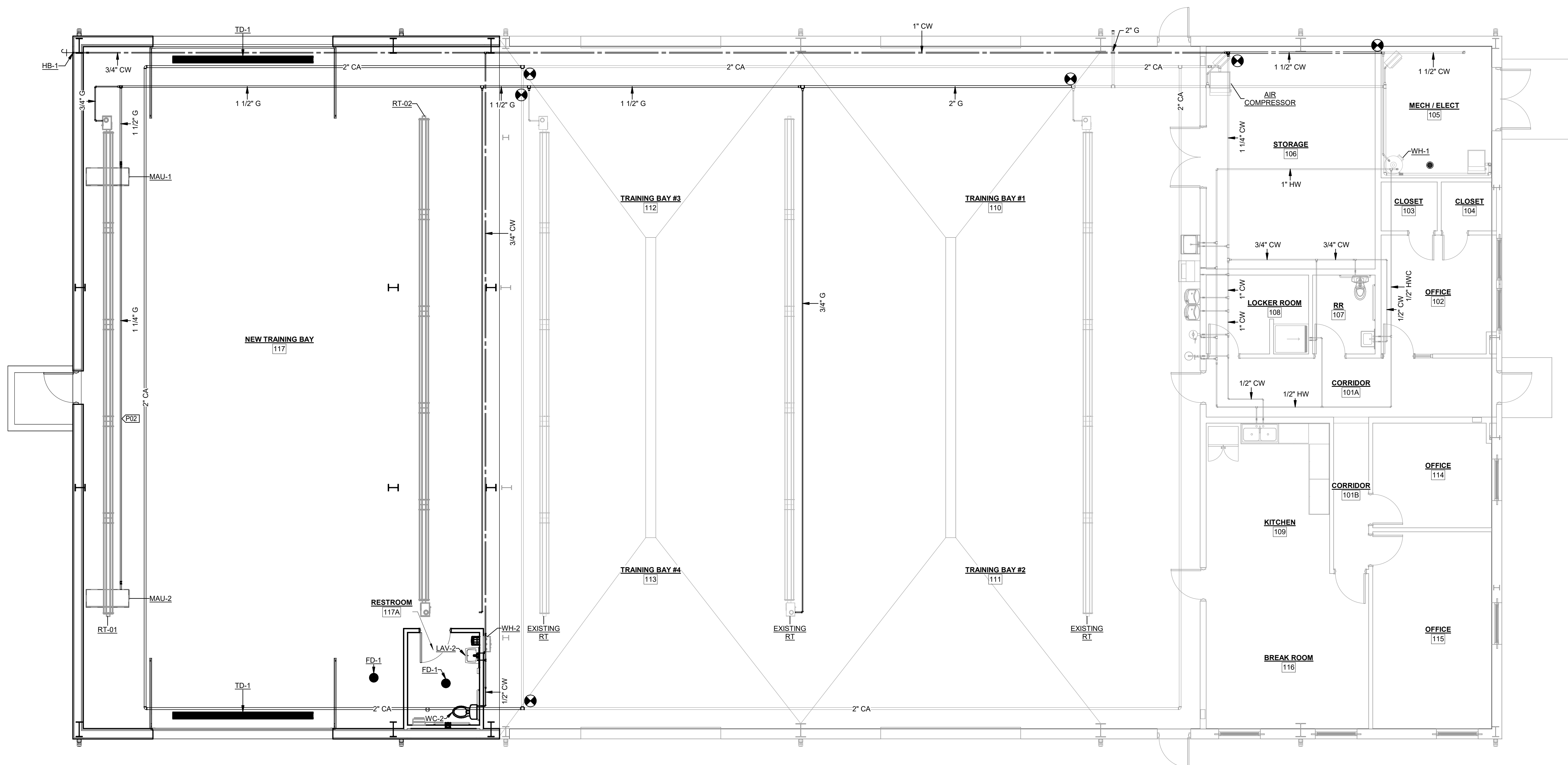
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VALUE	DESCRIPTION
P02	THIS WORK IS PART OF ALTERNATE BID NO. 2. ROUTE NATURAL GAS PIPING TO MAU-2.



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MO 65473

PROJECT # T2126-01
SITE # 6306
ASSET # 8136306004

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 01/27/23

CAD DWG FILE: P102
DRAWING BY: MHB
CHECKED BY: JJJ
DESIGNED BY: MHB

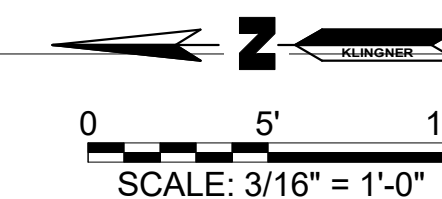
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**ABOVE FLOOR
PLUMBING PLAN**

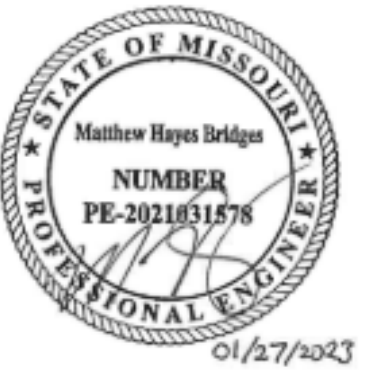
SHEET NUMBER:

P102
SHEET 27 OF 36

JANUARY 27, 2023

1 ABOVE FLOOR PLUMBING PLAN
3/16" = 1'-0"





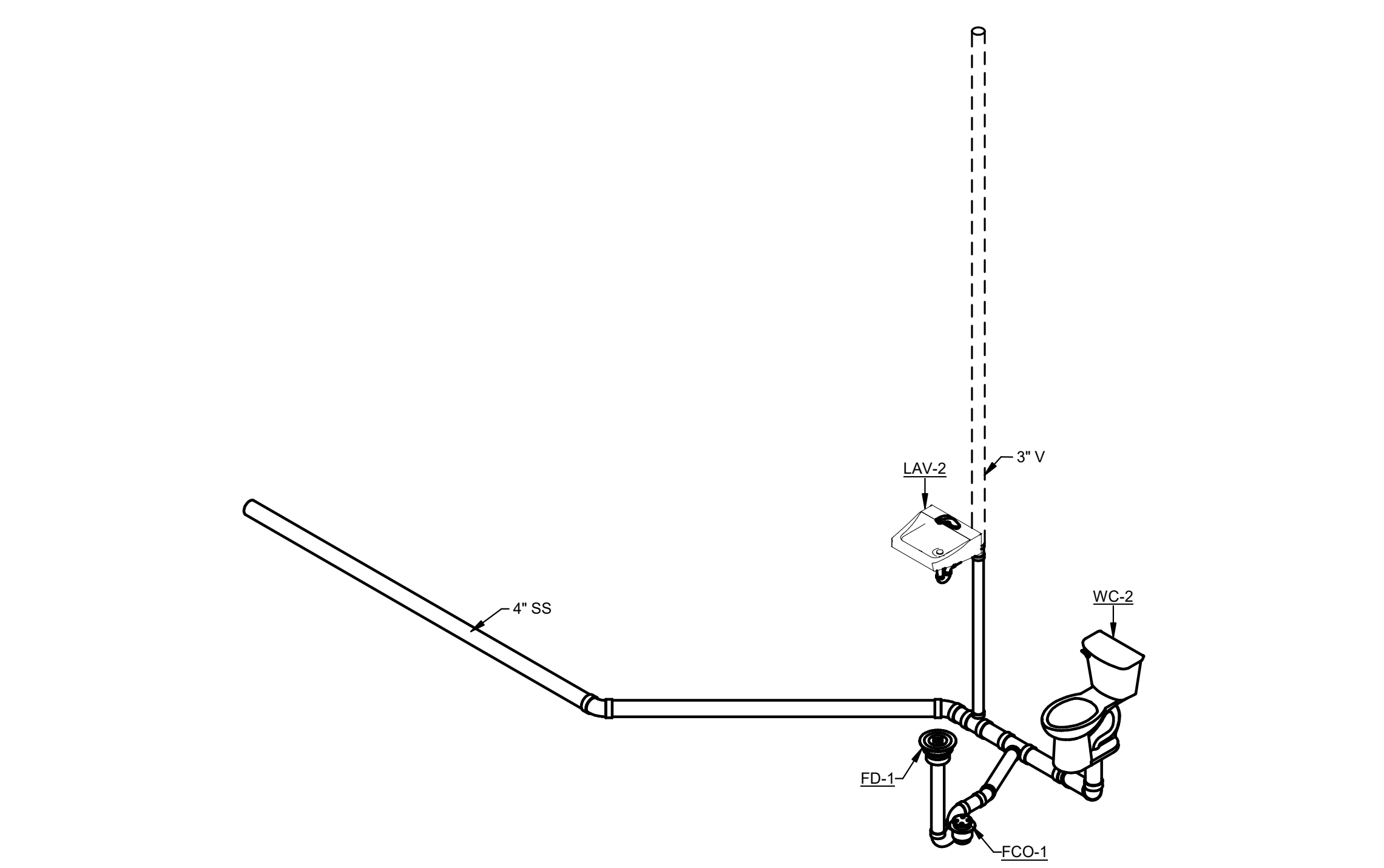
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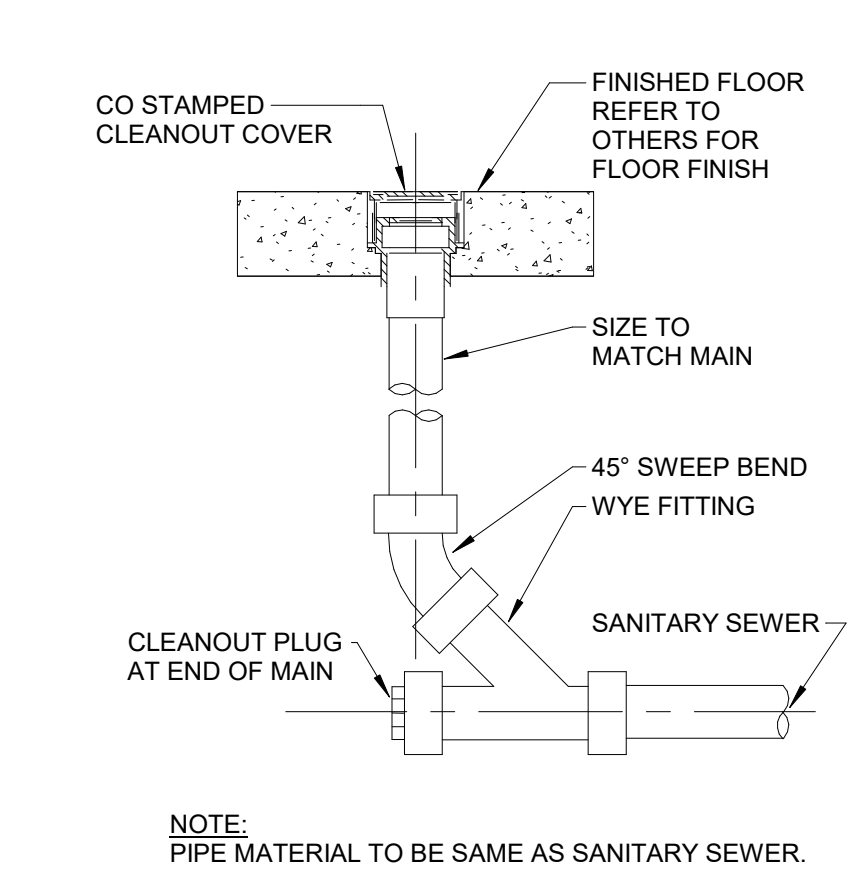
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PLUMBING FIXTURE SCHEDULE														
TAG	ADA	DESCRIPTION	ROUGH IN PIPE SIZE				BASIS OF DESIGN		FIXTURE REMARKS	BASIS OF DESIGN FIXTURE ACCESSORIES				
			CW	HW	SS	V	MAKE	MODEL		TYPE	DESCRIPTION	MAKE	MODEL	ACCESSORY REMARKS
FCO-1	Yes	ADJUSTABLE, CAST IRON BODY W/ POLISHED NICKEL BROZE TOP & BRONZE PLUG	0"	0"	0"	0"	ZURN JAY R SMITH MIFAB	ZN-1400-BP-SG-SM 40215 C1220-1	COORDINATE FINISH ELEVATION WITH GENERAL CONTRACTOR					
FD-1	No	POLISHED NICKEL BRONZE STRAINER, CAST IRON BODY, PROVIDE WITH DEEP SEAL TRAP & 5" DIA. TYPE B STRAINER	0"	0"	3"	2"	SILOX CHIEF JOSAM ZURN	860-4-P-U FD-370 FD2360						
HB-1	No	EXTERIOR FROSTPROOF, ANTI-SIPHON, AUTOMATIC DRAINING, W/ LOOSE KEY	3/4"	0"	0"	0"	WOODFORD JAY R SMITH WATTS	MODEL 67 5619 HY-420						
LAV-2	Yes	WALL MOUNT LAVATORY, 19"W X 17"D, VITREOUS CHINA WITH FAUJET HOLES ON 4" CENTERS	1/2"	1/2"	1 1/4"	1 1/4"	AMERICAN STANDARD GERBER KOHLER	DECLYN 0321.075 12-314-98 K-1728		FAUCET	4" CENTERS, SELF CLOSING METERING TYPE W/ SEPARATE HOT & COLD WATER CONTROL AND 0.5 GPM FLOW CONTROL	CHICAGO FAUCET GERBER TSBRASS WADE JAY R SMITH ZURN LEONARD BRADLEY WATTS	802-VE2805-665ABCP 44-340 B-0831 520 0700 Z1231 TA-300-LF W/ TA-300-LF-STSTL-REC S19-2000 ETV200	PROVIDE POINT OF USE THERMOSTATIC MIXING VALVE SET TO 104F.
TD-1	Yes	6" WIDE HIGH DENSITY POLYETHYLENE PRE-SLOPPED COMPOSITE DRAIN SYSTEM WITH EXTRA HEAVY DUTY FRAME AND HEAVY DUTY CAST IRON GRATE	0"	0"	4"	2"	ZURN JR SMITH SWIFT DRAIN	Z-886-HD ENVIRO-FLO II MODEL 600						
WC-2	Yes	FLOOR MOUNTED VITREOUS CHINA, PRESSURE-ASSISTED SIPHON ACTION, ELONGATED BOWL, LOW CONSUMPTION W/ CLOSE COUPLED TANK	1/2"	0"	4"	2"	AMERICAN STANDARD GERBER KOHLER	CADET 2467.100 EF-21-318 K-3519	16-1/2" FLOOR TO RIM	SEAT	ELONGATED HEAVY DUTY, SOLID PLASTIC, OPEN FRONT, WITH LIFT OFF HINGE SYSTEM	BEMIS KOHLER AMERICAN STANDARD	2155CTJ K-4666-CA 5901.100	

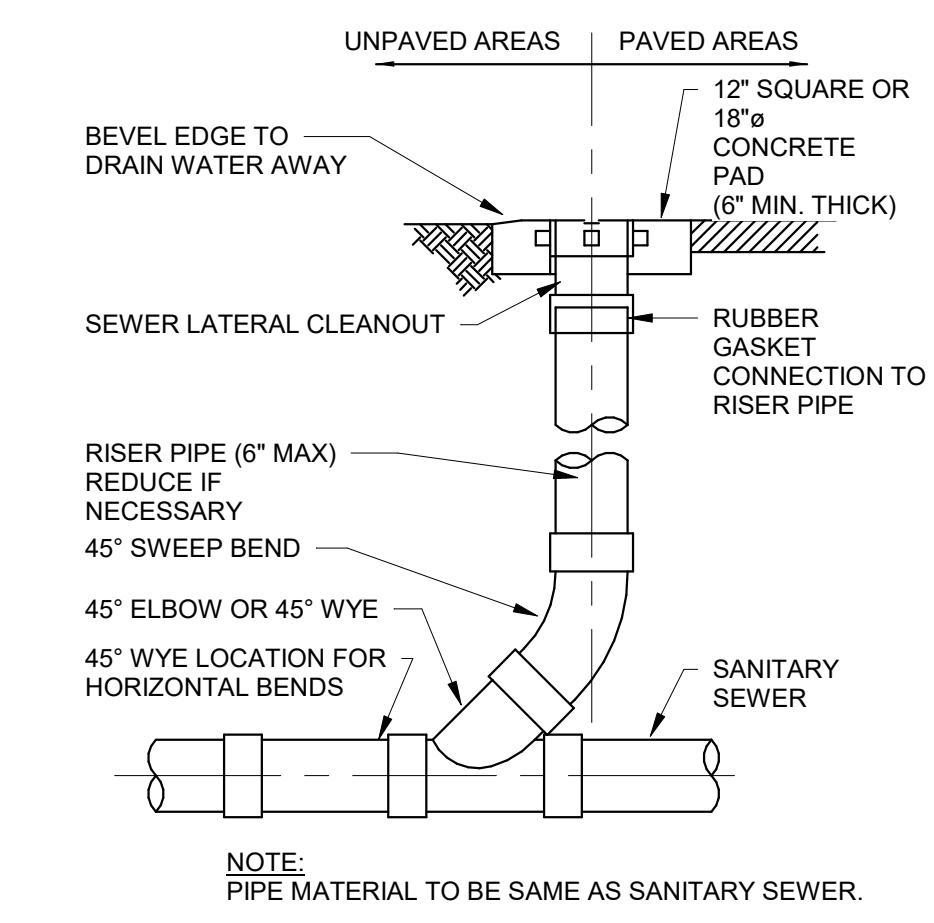
WATER HEATER SCHEDULE											
TAG	DESCRIPTION	HEATING CAPACITY (KW)	RATINGS		ELECTRICAL				BASIS OF DESIGN		REMARKS
			MAX. PRESSURE (PSI)	MAX. TEMPERATURE (DEG. F)	VOLTAGE	POLES	FLA	MOP	MAKE	MODEL	
WH-2	POINT-OF-USE WATER HEATER	4.0	150	140	208	1	20	20	EEMAX AO SMITH CHRONOMITE LABS	SPEX4208 RPVA-40X M20L/208HTR 104F-1	



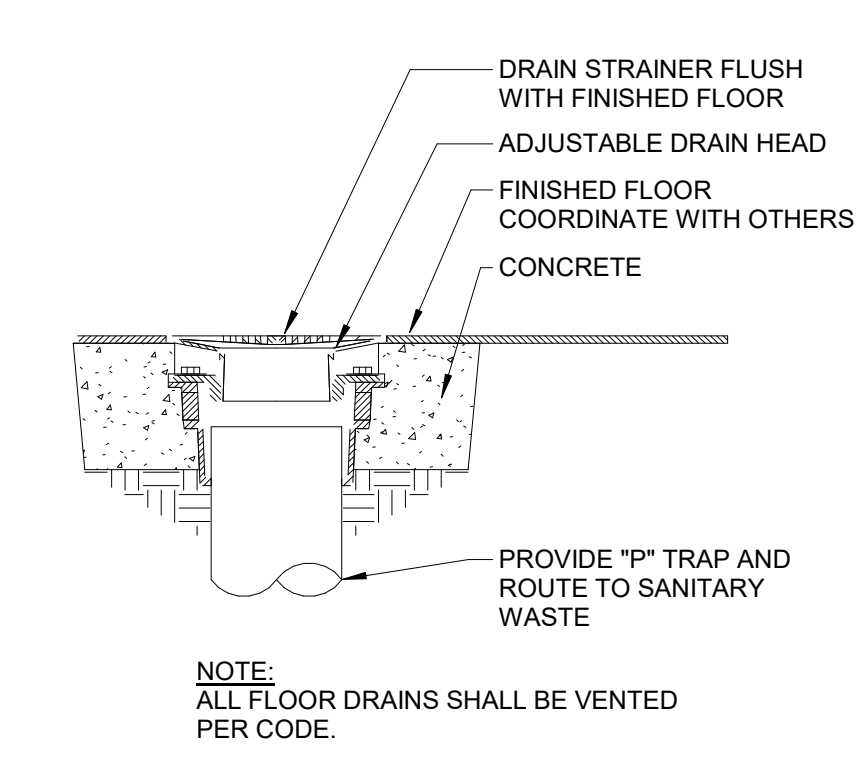
5 ISOMETRIC - WASTE AND VENT PLUMBING
NTS



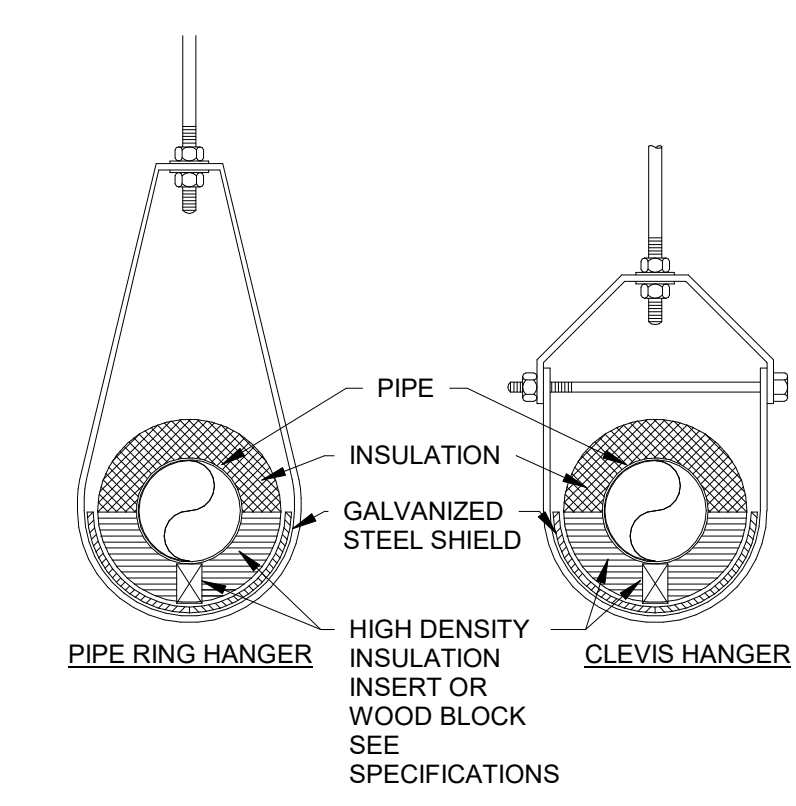
1 INTERIOR CLEANOUT DETAIL
NTS



2 EXTERIOR CLEANOUT DETAIL
NTS



3 FLOOR DRAIN DETAIL
NTS



4 INSULATED PIPE AT HANGER DETAIL
NTS

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PROJECT # T2126-01
SITE # 6306
ASSET # 8136306004

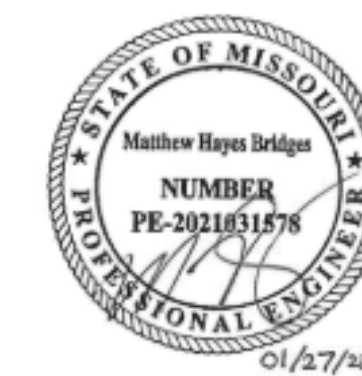
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 01/27/23

CAD DWG FILE: P601
DRAWING BY: MHB
CHECKED BY: JJJ
DESIGNED BY: MHB

SHEET TITLE:
**PLUMBING
SCHEDULES AND
DETAILS**

SHEET NUMBER:
P601
SHEET 28 OF 36

JANUARY 27, 2023



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ASSET # 8136306004

REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
REVISION: _____
DATE: _____
ISSUE DATE: 01/27/23

CAD DWG FILE: M101
DRAWING BY: MHB
CHECKED BY: JJJ
DESIGNED BY: MHB

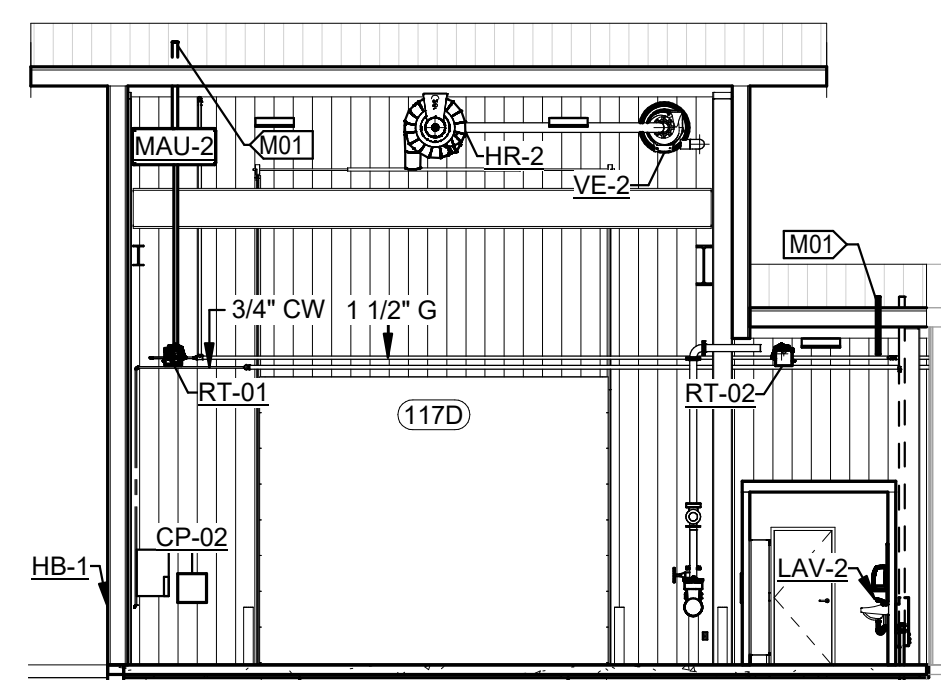
SHEET TITLE:
**MECHANICAL
FLOOR PLAN**

SHEET NUMBER:

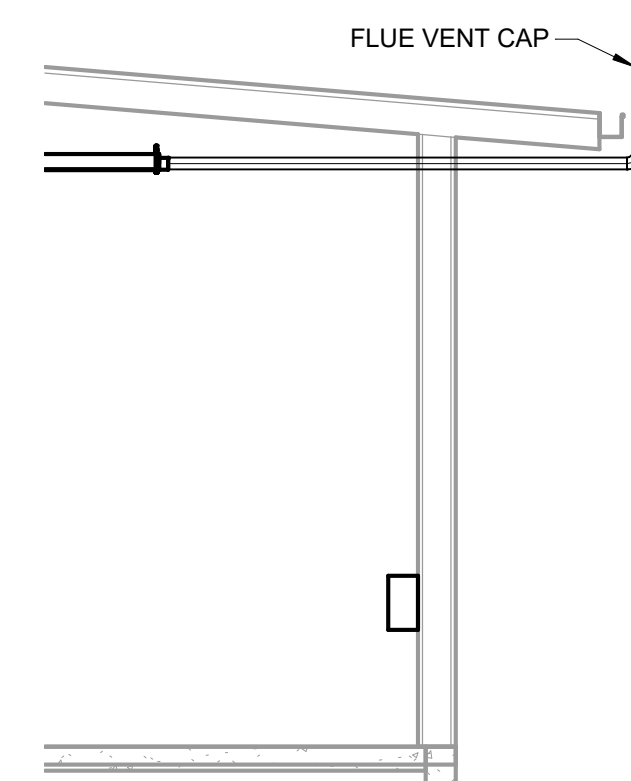
M101
SHEET 29 OF 36

JANUARY 27, 2023

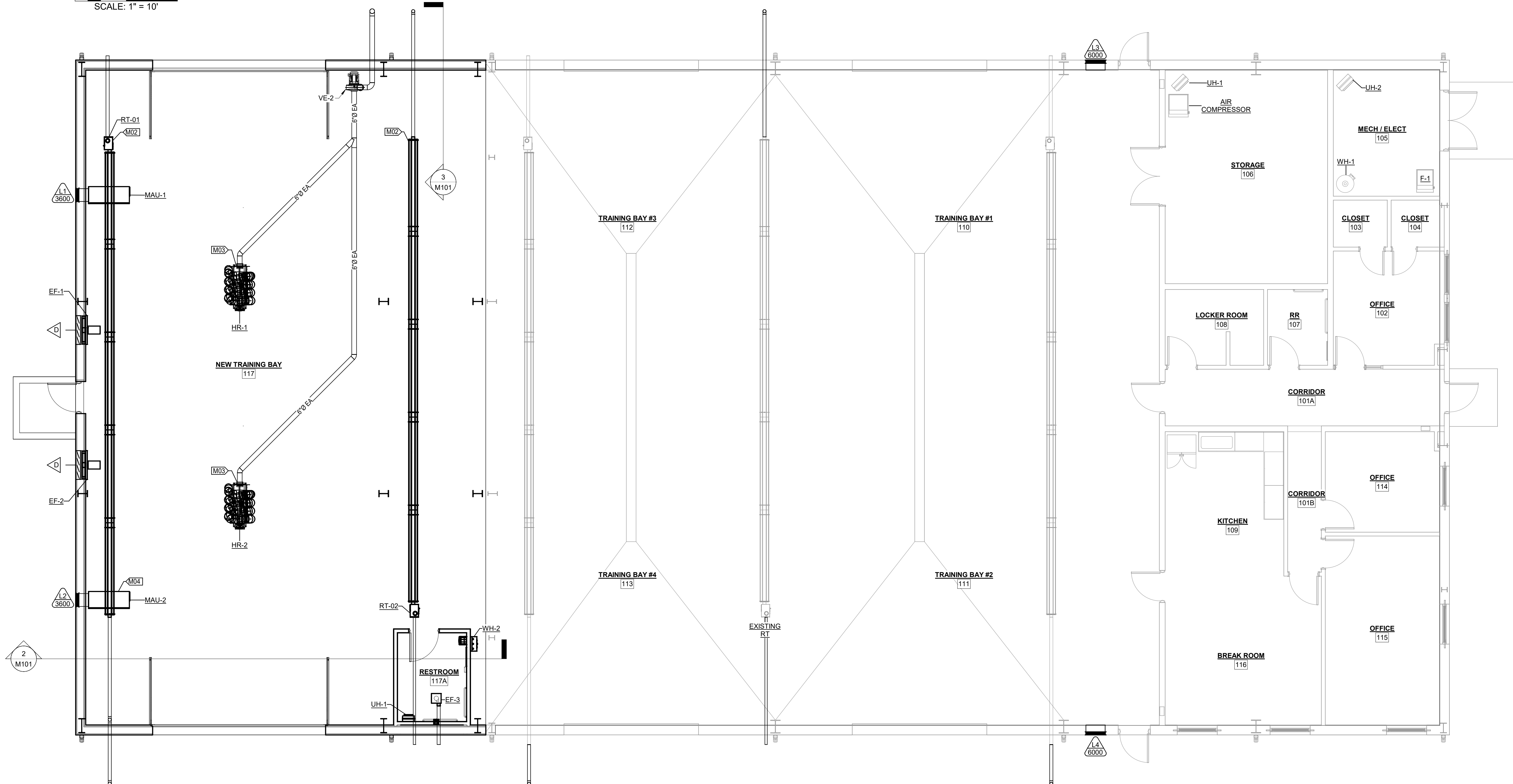
VALUE	DESCRIPTION
M01	ALL FLUE VENTS TO BE ROUTED THROUGH THE ROOF. PROVIDE ALL BOOTS, SEALANTS, AND ANY OTHER REQUIRED COMPONENTS TO MAKE WATER TIGHT.
M02	SUSPEND RADIANT TUBE HEATERS PER MANUFACTURERS WRITTEN INSTRUCTIONS.
M03	THIS WORK IS PART OF ALTERNATE BID NO. 2. SUSPEND VEHICLE EXHAUST HOSE REEL PER MANUFACTURERS WRITTEN INSTRUCTIONS.
M04	THIS WORK IS PART OF ALTERNATE BID NO. 2.



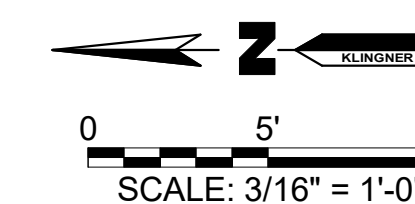
2 MECHANICAL SYSTEMS ELEVATION
1" = 10'-0"
0 10' 20'
SCALE: 1" = 10'

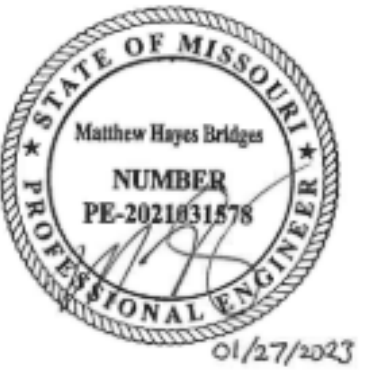


3 RADIANT HEATER EXHAUST
3/16" = 1'-0"



1 MECHANICAL FLOOR PLAN
3/16" = 1'-0"





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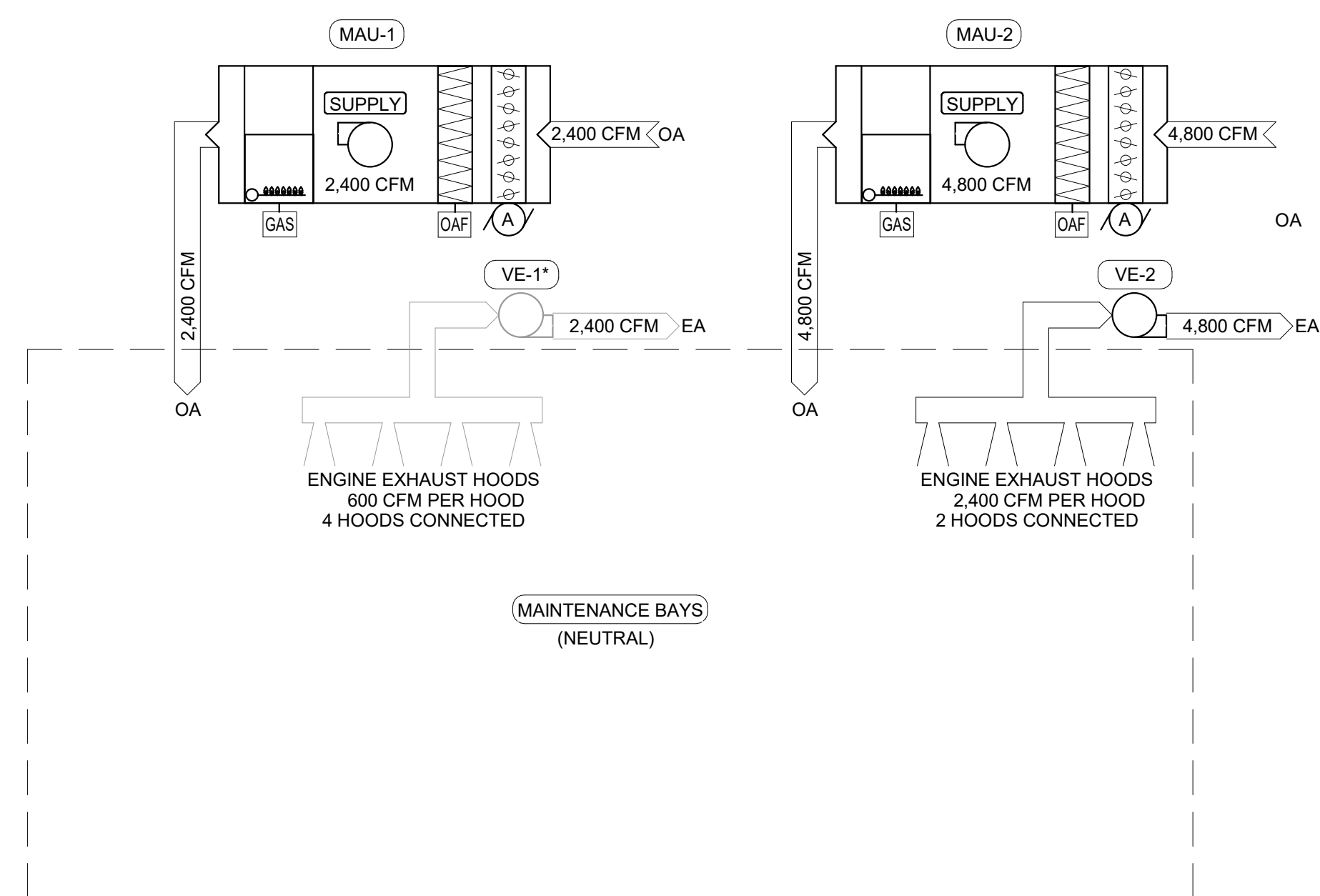
CAD DWG FILE: M401
DRAWING BY: MHB
CHECKED BY: JJN
DESIGNED BY: MHB

SHEET TITLE:
**AIRFLOW
SCHEMATICS**

SHEET NUMBER:

M401
SHEET 30 OF 36

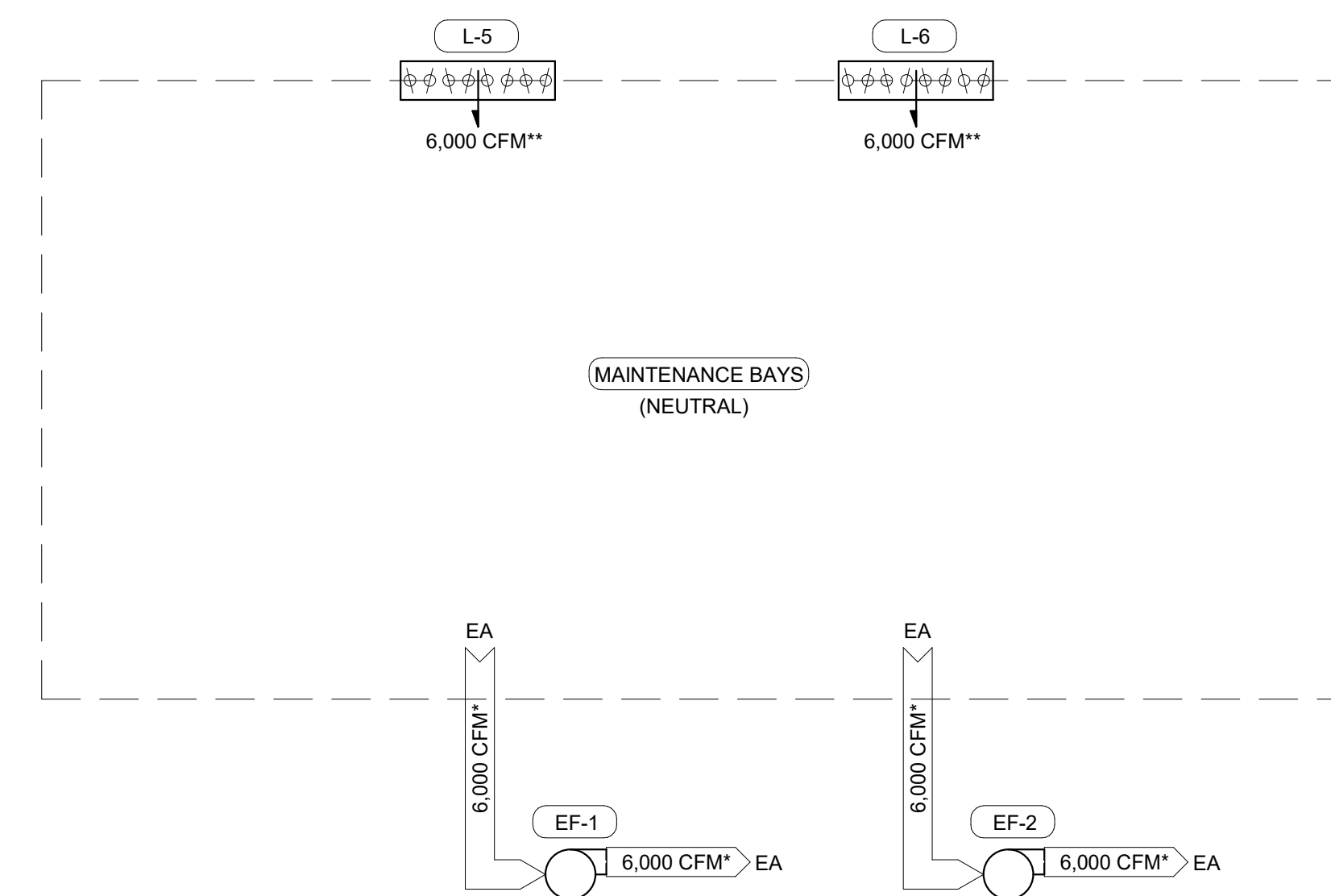
JANUARY 27, 2023



*VE-1 IS EXISTING

VEHICLE EXHAUST AIRFLOW SCHEMATIC

VENTILATION DESIGN CRITERIA SUMMARY						
WALL R-VALUE	ROOF R-VALUE	FLOOR R-VALUE	WINDOW R-VALUE	FLOOR AREA (SQ.FT)	INTERNAL HEAT GAIN (W/SF)	VENTILATION AIRFLOW (CFM)
9.8	29	15	N/A	7,614	0.28	6000



*EXHAUST FANS SHALL ONLY OPERATE WHEN THE SPACE TEMPERATURE IS ABOVE SETPOINT.

**LOUVERS SHALL ONLY BE OPEN WHEN THE SPACE TEMPERATURE IS ABOVE SETPOINT.

SPECIAL NOTE: GAS DETECTION SYSTEM SHALL ENABLE EF-1 AND EF-2 AND ASSOCIATED LOUVERS WHEN DETECTED GAS IS ABOVE MAXIMUM LIMITS.

VENTILATION AIRFLOW SCHEMATIC



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ARCHITECTURE

MAKE-UP AIR UNIT SCHEDULE																
MARK	BASIS OF DESIGN			AIRFLOW		HEATING				ELECTRICAL					NOTES	
	MANUFACTURER	MODEL	MAXIMUM CFM	ESP (IN WG)	MINIMUM CFM	HEATING TYPE	TURNDOWN	INPUT CAPACITY (BTU/HR)	ENTERING AIR (DEG. F)	LEAVING AIR (DEG. F)	VOLTAGE	PHASE	HZ	MCA		MOCP
MAU-1	AAON	RN	2,400	0.25	600	LP	1.4:1	260,000	0	80	208	3	60	11	15	1
MAU-2	AAON	RN	4,800	0.25	2,400	LP	1.4:1	530,000	0	80	208	3	60	11	15	1.2

NOTES:
1. REFER TO MODULAR INDOOR CENTRAL STATION AIR HANDLING UNITS SPECIFICATION 237313 FOR APPROVED ALTERNATE VENDORS.
2. ALTERNATE NO. 2.

EXHAUST FAN SCHEDULE													
MARK	DESCRIPTION	BASIS OF DESIGN		AIRFLOW				ELECTRICAL					NOTES
		MANUFACTURER	MODEL	CFM	ESP (IN WG)	HP	RPM	VOLTAGE	PHASE	HZ	BREAKER SIZE		
EF-1	DIRECT DRIVE, WALL MOUNTED, PROPELLER EXHAUST FAN	GREENHECK	AER	6,000	0.37	1	860	208	3	60	20	20	1,2
EF-2	DIRECT DRIVE, WALL MOUNTED, PROPELLER EXHAUST FAN	GREENHECK	AER	6,000	0.37	1	860	208	3	60	20	20	1,2
VE-2	PRESSURE BLOWER VEHICLE EXHAUST FAN	CAR-MON	CMB-30	4,800	5.0	7.5	2065	208	3	60	30	30	3,4,5
EF-3	CEILING MOUNTED EXHAUST FAN	GREENHECK	SP-AP	75	0.1	1/32	840	115	1	60	20	20	2

NOTES:
1. FAN SHALL BE SUITABLE FOR VENTILATING SPACES CONTAINING FLAMMABLE OR EXPLOSIVE VAPORS, GASES OR DUST.
2. REFER TO CENTRIFUGAL HVAC FANS SPECIFICATION 233416 FOR APPROVED ALTERNATE VENDORS.
3. ALTERNATE NO. 2. MOUNT ON 2" X 2" X 1/8" ANGLE STEEL FRAME UTILIZING VIBRATION ISOLATORS.
4. ALTERNATE NO. 2. VEHICLE EXHAUST CONTROL PANEL TO BE PROVIDED BY VEHICLE EXHAUST SYSTEM EQUIPMENT VENDOR. PROVIDE WITH DISCONNECT SWITCH, MOTOR STARTER, ON/OFF PUSHBUTTON, AND INTERNAL RELAY TO ENABLE ASSOCIATED MAKE-UP AIR SYSTEM.
5. ALTERNATE NO. 2. REFER TO VEHICLE EXHAUST EXTRACTION SYSTEMS SPECIFICATION 111133 FOR APPROVED ALTERNATE VENDORS.

LOUVER SCHEDULE														
TAG	DESCRIPTION	FUNCTION	AIRFLOW	WIDTH	HEIGHT	FRAME DEPTH	FREE AREA	MAX. P.D.	MAX. VELOCITY	MATERIAL	FINISH	BASIS OF DESIGN		REMARKS
												MAKE	MODEL	
L1	ACTUATED	OUTDOOR AIR INTAKE	3600 CFM	1' - 6"	1' - 6"	0' - 4"	0.8 SF	0.18 in-wg	500 FPM	ALUMINUM	BAKED ENAMEL	RUSKIN	ELF375X	INCLUDED EXTENDED SILL AND END DAMS, INSECT SCREEN. COORDINATE LOUVER COLOR WITH ARCHITECT. NOTE 1.
L2	ACTUATED	OUTDOOR AIR INTAKE	3600 CFM	1' - 6"	1' - 6"	0' - 4"	0.8 SF	0.18 in-wg	500 FPM	ALUMINUM	BAKED ENAMEL	RUSKIN	ELF375X	ALTERNATE NO. 2. INCLUDED EXTENDED SILL AND END DAMS, INSECT SCREEN. COORDINATE LOUVER COLOR WITH ARCHITECT. NOTE 1.
L3	ACTUATED	OUTDOOR AIR INTAKE	6000 CFM	2' - 2"	2' - 2"	0' - 4"	1.7 SF	0.18 in-wg	500 FPM	ALUMINUM	BAKED ENAMEL	RUSKIN	ELF375X	INCLUDED EXTENDED SILL AND END DAMS, INSECT SCREEN. COORDINATE LOUVER COLOR WITH ARCHITECT. NOTE 1.
L4	ACTUATED	OUTDOOR AIR INTAKE	6000 CFM	2' - 2"	2' - 2"	0' - 4"	1.7 SF	0.18 in-wg	500 FPM	ALUMINUM	BAKED ENAMEL	RUSKIN	ELF375X	INCLUDED EXTENDED SILL AND END DAMS, INSECT SCREEN. COORDINATE LOUVER COLOR WITH ARCHITECT. NOTE 1.

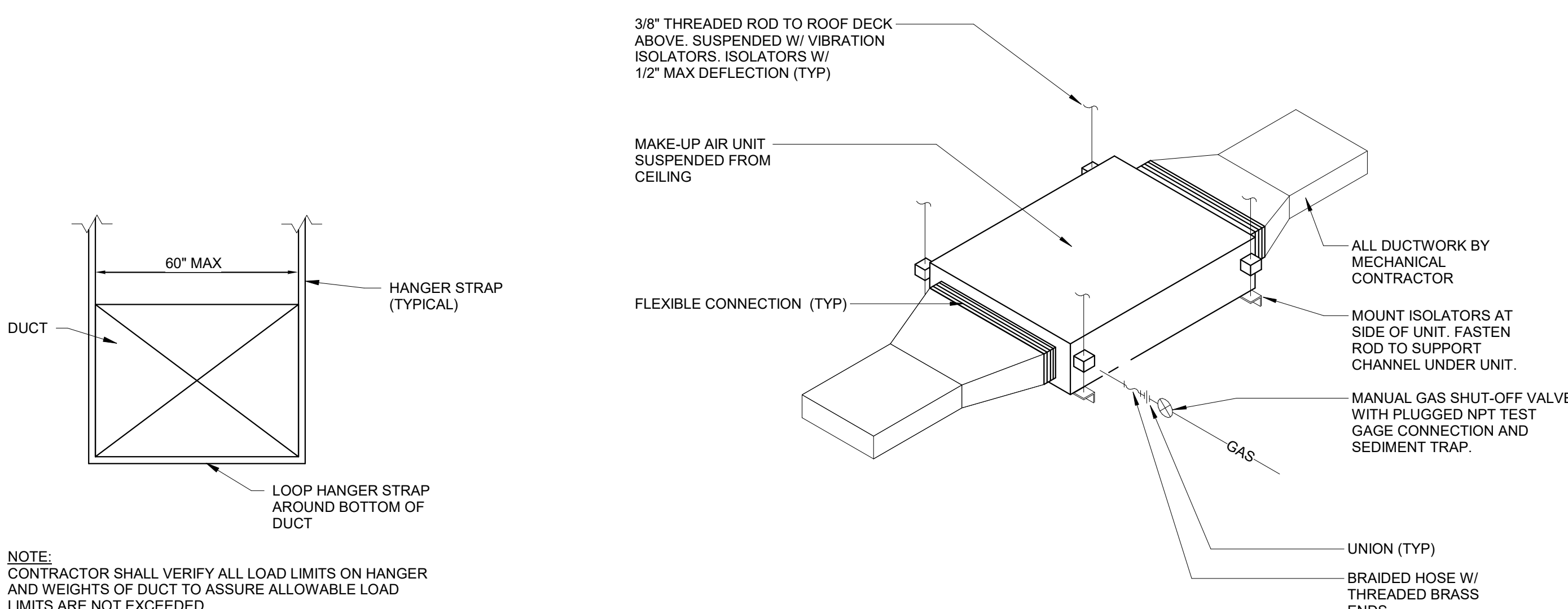
NOTES:
1. REFER TO LOUVERS SPECIFICATION 239100 FOR APPROVED ALTERNATE VENDORS.

RADIANT TUBE HEATER SCHEDULE											
MARK	DESCRIPTION	MANUFACTURER	MODEL	INPUT HEATING CAPACITY (BTU/HR)	HEATING TYPE	TUBE LENGTH (FT)	VOLTAGE	PHASE	FLA	BREAKER SIZE	NOTES
RT-01	INFRARED RADIANT TUBE HEATER	SCHWANK	S100	110,000	LP	50	120 V	1	2 A	20 A	1,2,3
RT-02	INFRARED RADIANT TUBE HEATER	SCHWANK	S100	110,000	LP	50	120 V	1	2 A	20 A	1,2,3

NOTES:
1. REFER TO FUEL-FIRED HEATERS SPECIFICATION 235500 FOR APPROVED ALTERNATE VENDORS.
2. PROVIDE ALL HANGERS, SUPPORTS, FLUE VENTS, TURBULATORS, AND ANY OTHER ACCESSORIES REQUIRED FOR PROPER INSTALLATION.
3. PROVIDE A SINGLE WALL MOUNTED 24V THERMOSTAT TO CONTROL BOTH RADIANT TUBE HEATERS.

WALL HEATER SCHEDULE								
MARK	MANUFACTURER	MODEL	CAPACITY (KW)	VOLTAGE	PHASE	HZ	FLA	NOTES
UH-1	QMARK	CWH	1.5	208	1	60	7.3	1,2

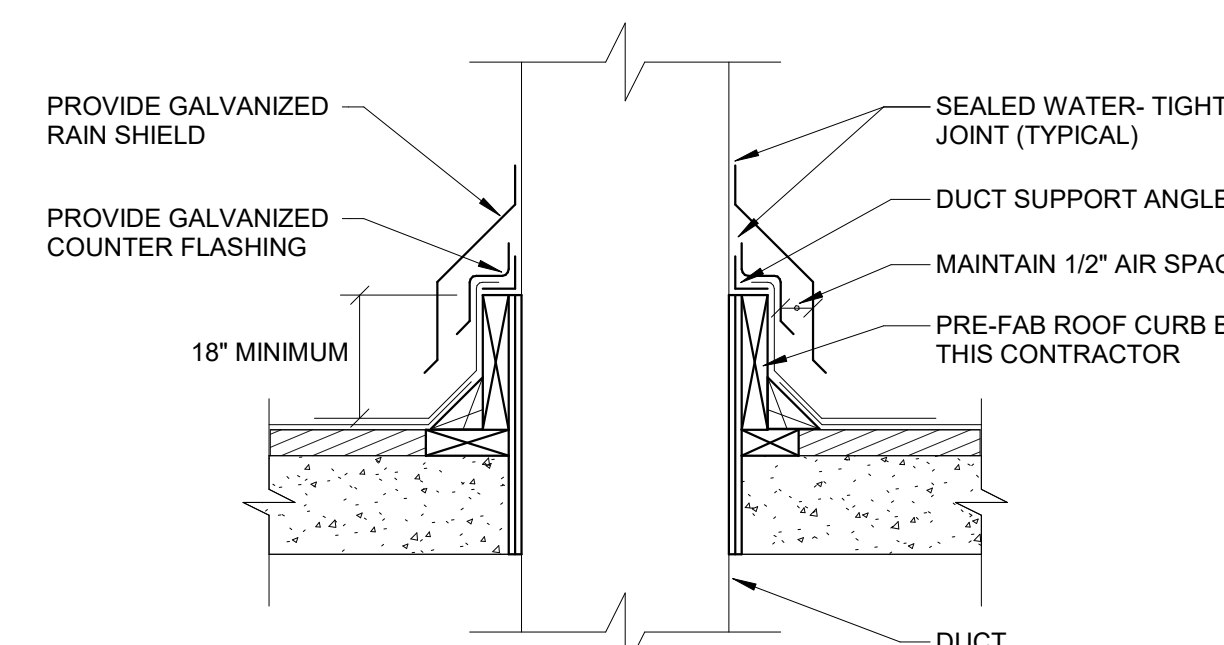
NOTES:
1. PROVIDE WITH INTEGRAL THERMOSTAT AND SURFACE MOUNTING FRAME.
2. REFER TO UNIT HEATERS SPECIFICATION 238239 FOR APPROVED ALTERNATE VENDORS.



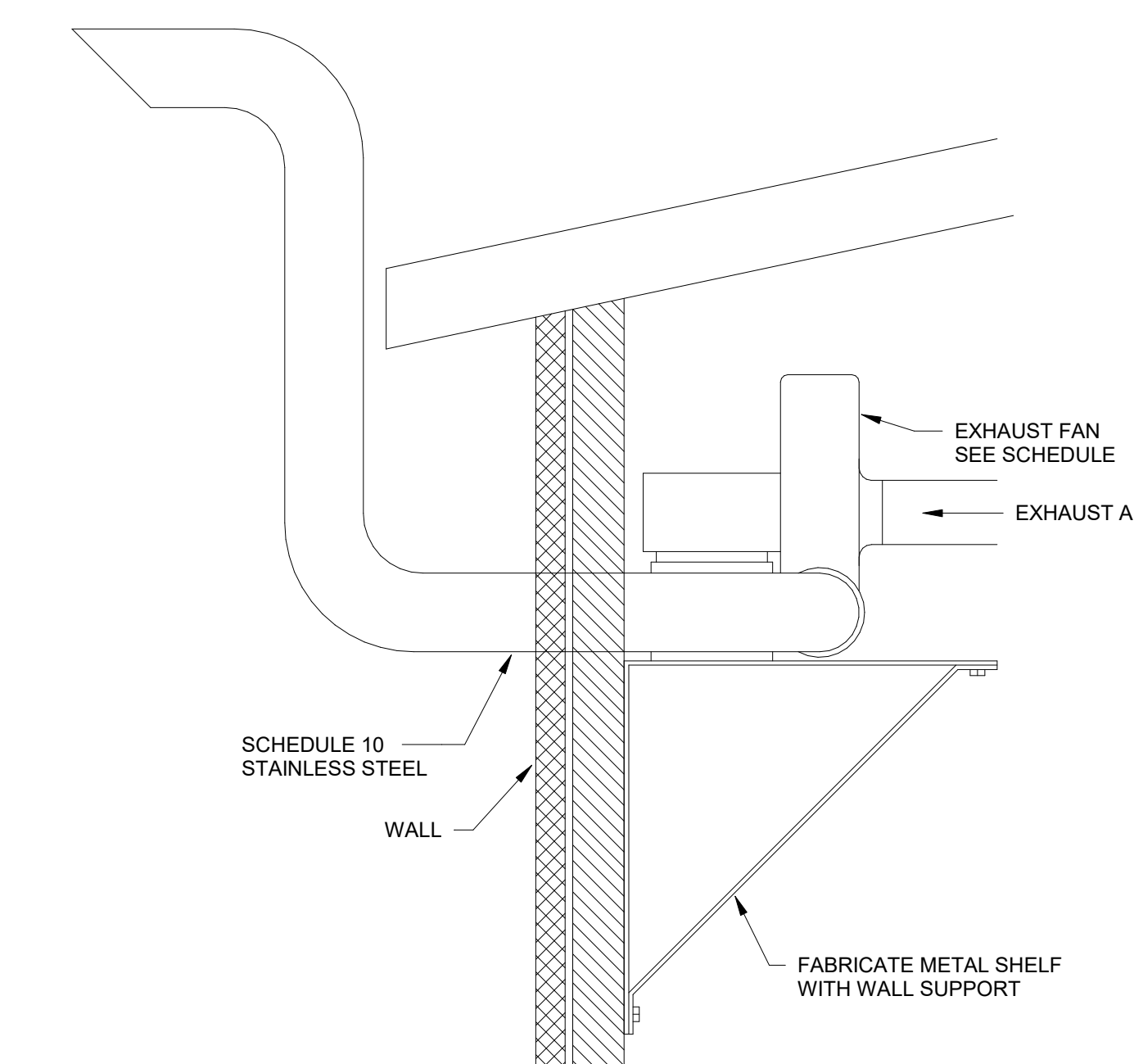
5 CEILING SUSPENDED MAKE-UP AIR UNIT DETAIL
NTS

4 STRAP HANGER DETAIL
NTS

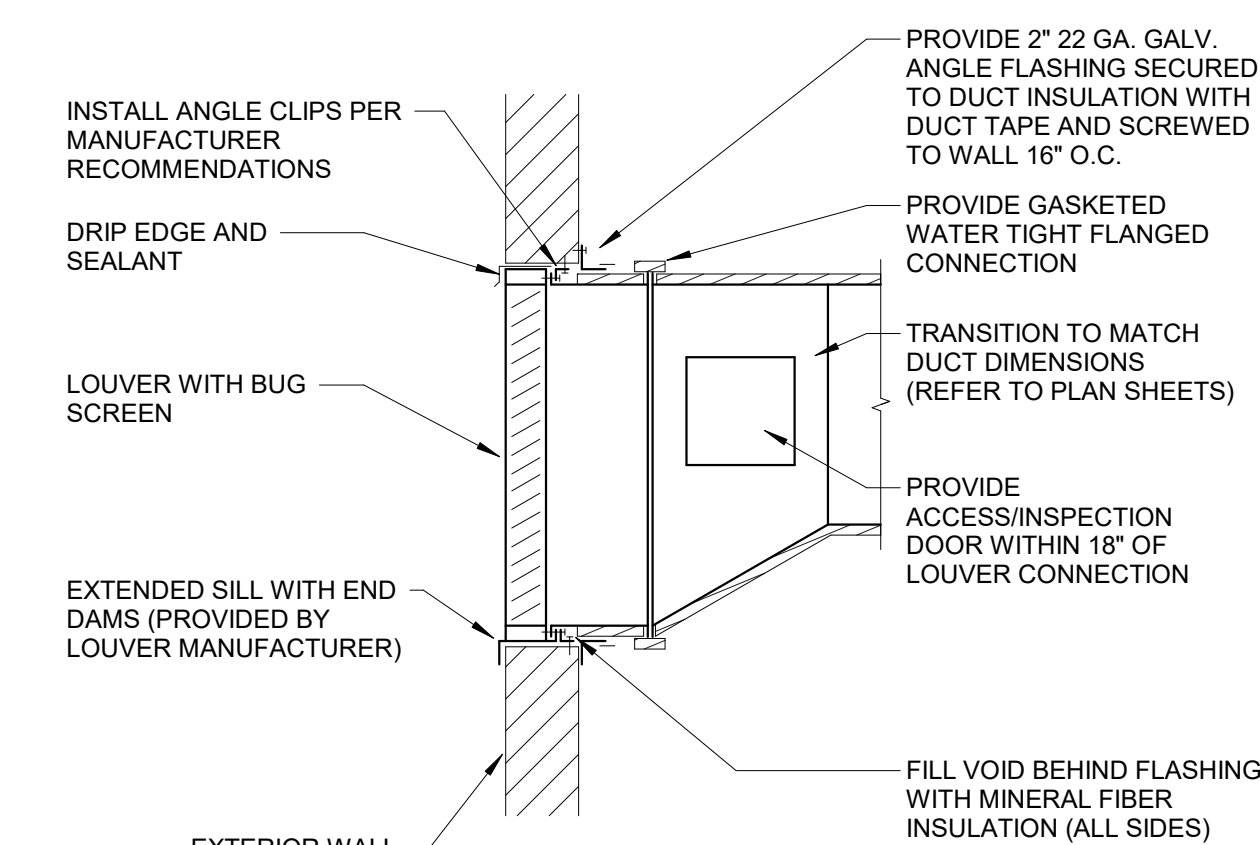
NOTE:
CONTRACTOR SHALL VERIFY ALL LOAD LIMITS ON HANGER AND WEIGHTS OF DUCT TO ASSURE ALLOWABLE LOAD LIMITS ARE NOT EXCEEDED.



2 DUCT THROUGH ROOF DETAIL
NTS

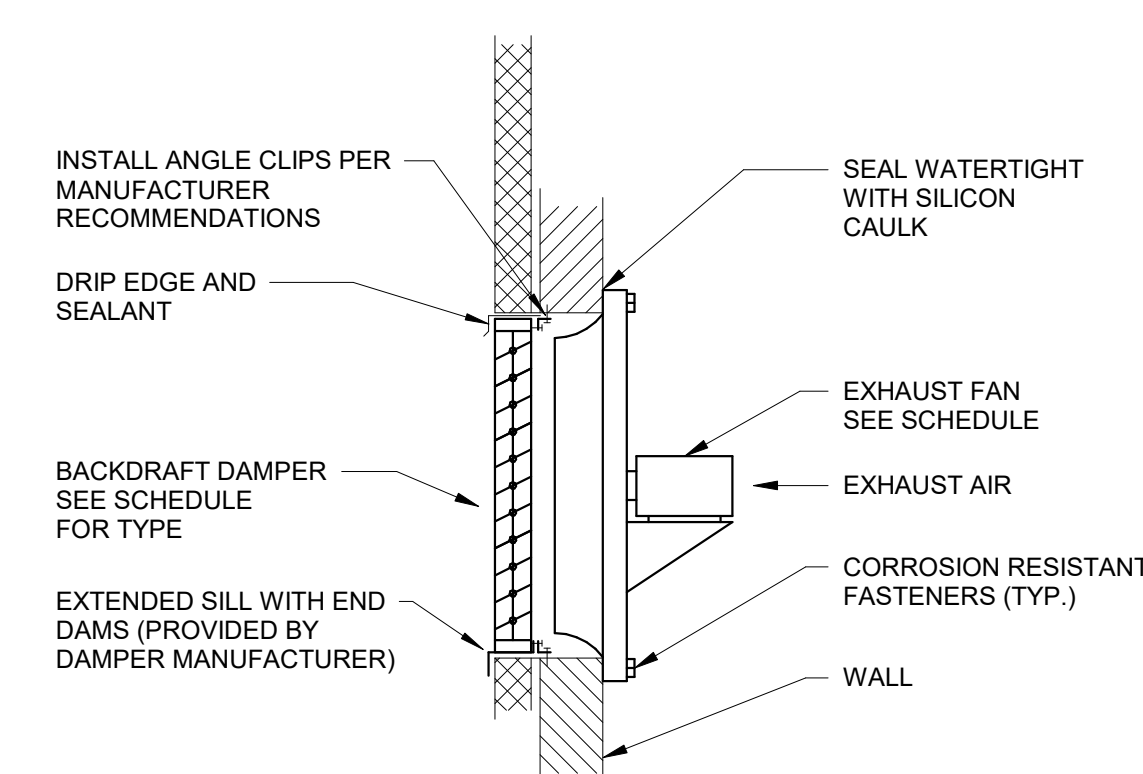


1 VEHICLE EXHAUST FAN (WALL MOUNTED)
NTS



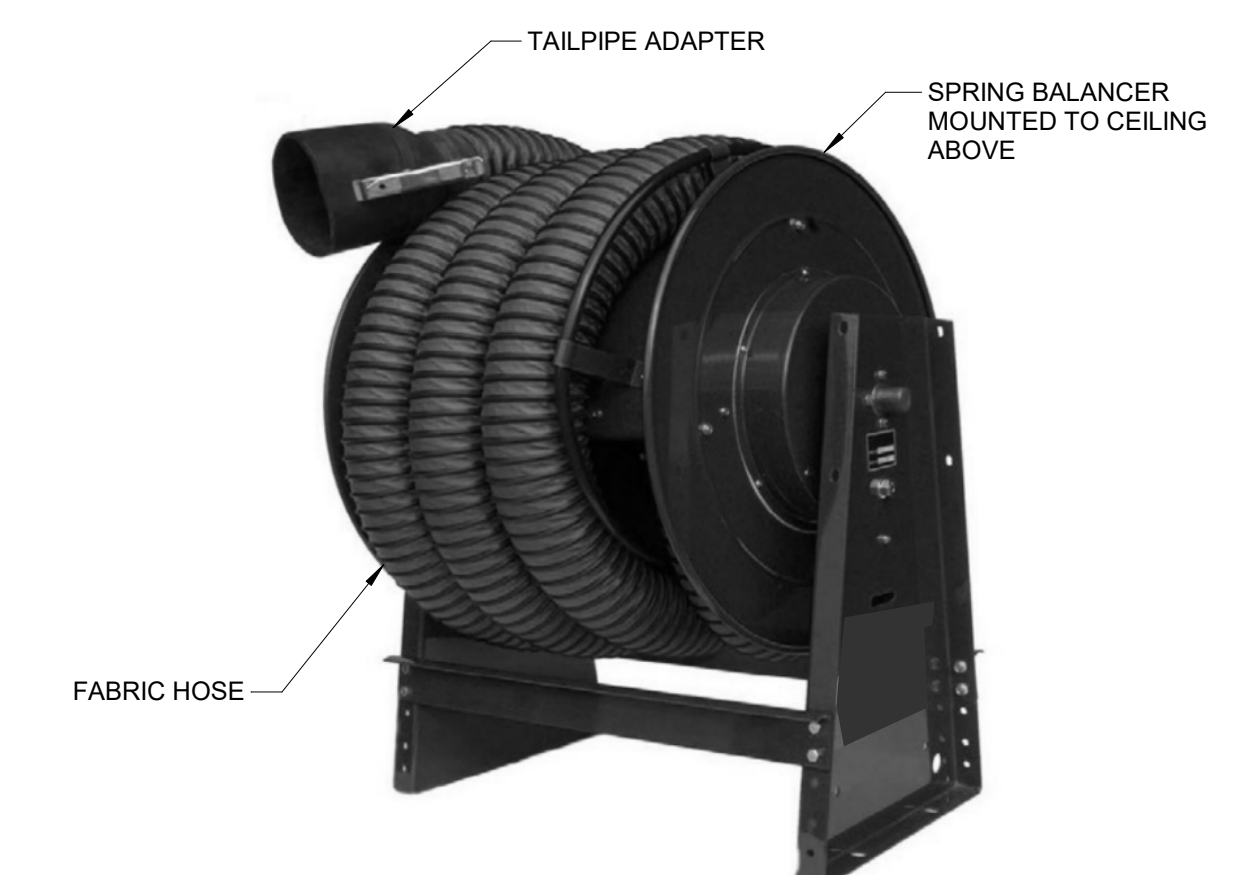
NOTES:
1. FINAL COLOR SELECTION BY ARCHITECT SELECTION FROM MANUFACTURER STANDARD COLOR OPTIONS.

3 LOUVER INSTALLATION DETAIL
NTS



NOTES:
1. MAINTAIN MANUFACTURER'S LISTED CLEARANCE REQUIREMENTS AROUND FAN FRAMEWORK PERIMETER.

6 WALL MOUNTED EXHAUST FAN DETAIL
NTS



NOTES:
1. HOSE LENGTH TO BE SUFFICIENT TO ATTACH TAILPIPE ADAPTER TO VEHICLE EXHAUST 14 FT. BELOW EXHAUST DUCT.

7 VEHICLE EXHAUST HOSE REEL DETAIL
NTS

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READINESS CENTER

10744 FLW V, BLDG 5175
FORT LEONARD WOOD,
MO 65473

PROJECT # T2126-01
SITE # 6306
ASSET # 8136306004

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DATE: _____
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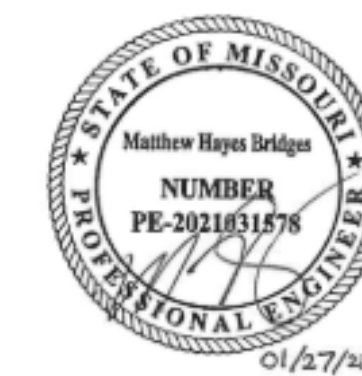
CAD DWG FILE: M601
DRAWING BY: MHB
CHECKED BY: JJJ
DESIGNED BY: MHB

SHEET TITLE:
**MECHANICAL
SCHEDULES AND
DETAILS**

SHEET NUMBER:

M601
SHEET 31 OF 36

JANUARY 27, 2023



MATTHEW H. BRIDGES - ENGINEER
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SITE # 6306
ASSET # 8136306004

REVISION: _____
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DATE: _____
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CAD DWG FILE: E101
DRAWING BY: MHB
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DESIGNED BY: MHB

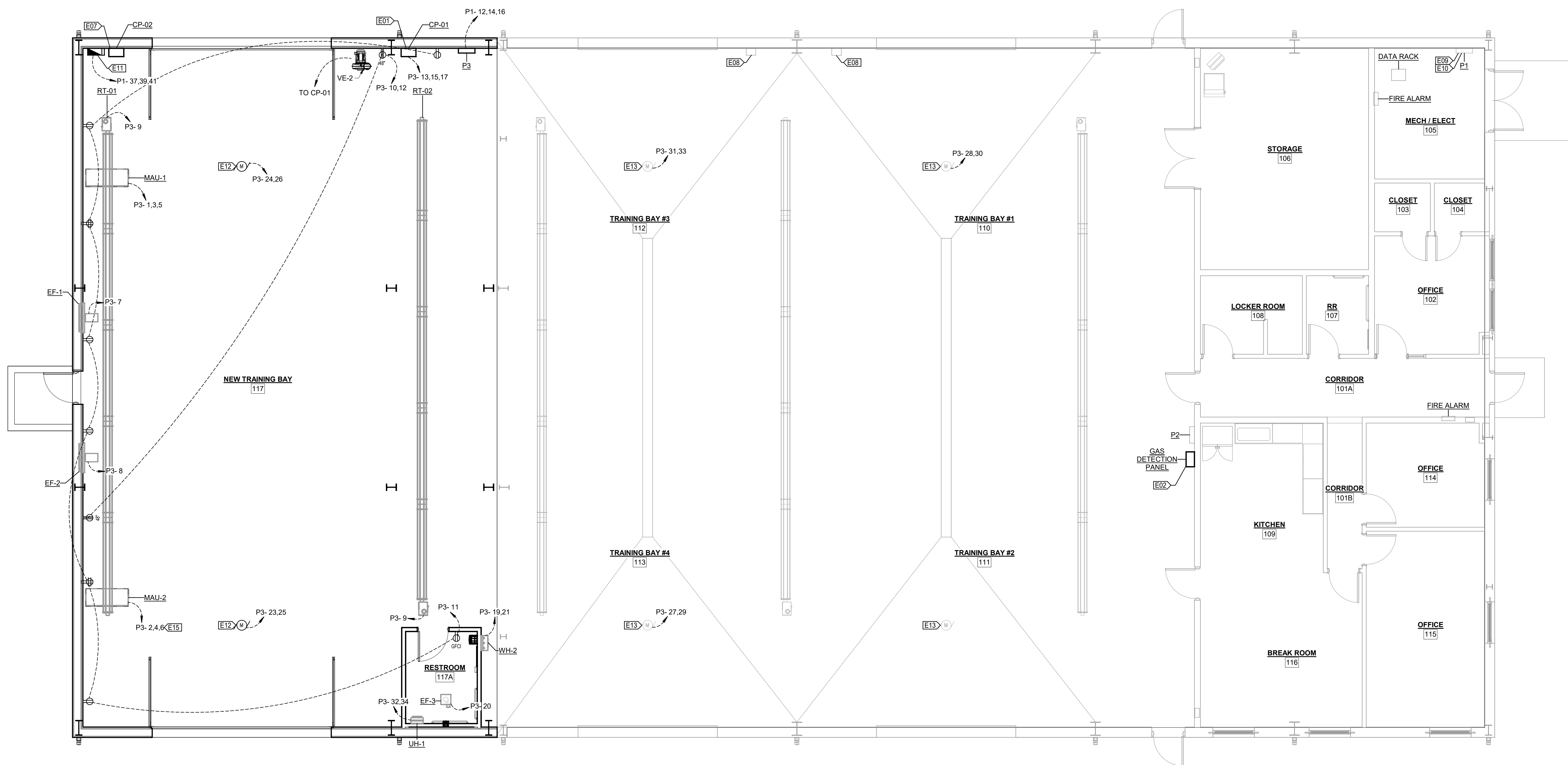
SHEET TITLE:
**ELECTRICAL
POWER PLAN**

SHEET NUMBER:

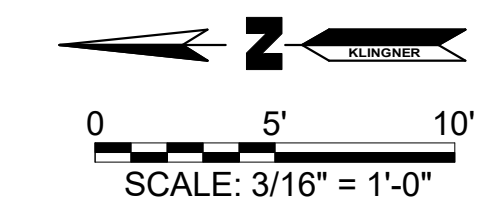
E101
SHEET 33 OF 36

JANUARY 27, 2023

VALUE	DESCRIPTION
E01	THIS WORK IS PART OF ALTERNATE BID NO. 2. VEHICLE EXHAUST CONTROL PANEL WITH DISCONNECT AND MOTOR STARTER IS TO BE PROVIDED BY VEHICLE EXHAUST SYSTEM EQUIPMENT VENDOR.
E02	PROVIDE NEW GAS DETECTION CONTROLLER. NEW GAS DETECTION CONTROLLER TO HAVE A MINIMUM OF POTENTIAL 6 INPUTS. WIRE BACK TO PANEL "P2".
E07	THIS WORK IS PART OF ALTERNATE BID NO. 1. BRIDGE CRANE CONTROL PANEL WITH MOTOR STARTERS IS TO BE PROVIDED BY OVERHEAD BRIDGE CRANE VENDOR.
E08	EXISTING VEHICLE EXHAUST SYSTEM MOTOR STARTER TO REMAIN.
E09	REMOVE THE THREE 20 AMP BREAKERS IN SLOTS 12, 14, AND 16 FROM P-1 FOR THE EXISTING GARAGE DOORS. PROVIDE AND INSTALL A 100 AMP 120/208 THREE PHASE BREAKER IN SLOTS 12, 14, AND 16 TO PROVIDE POWER TO THE NEW P-3 PANEL. ROUTE ELECTRICAL FEEDER IN CONDUIT FROM P-1 TO THE NEW P-3 PANEL. RECONNECT THE EXISTING GARAGE DOORS TO THE NEW P-3 PANEL. EXTEND FEEDERS AS REQUIRED.
E10	ADD 125 AMP, 3 POLE BREAKER IN BREAKER SLOTS 37, 39, AND 41. PROVIDE AND INSTALL A 125 AMP FEEDER TO THE NEW 200 AMP DISCONNECT FOR THE BRIDGE CRANE AS PART OF ALTERNATE BID NO. 1.
E11	THIS WORK IS PART OF ALTERNATE BID NO. 1. PROVIDE AND INSTALL NEW 200 AMP FUSIBLE DISCONNECT FOR BRIDGE CRANE CONTROL PANEL.
E12	NEW OVERHEAD GARAGE DOOR MOTOR.
E13	EXISTING OVERHEAD GARAGE DOOR MOTOR.
E15	THIS WORK IS PART OF ALTERNATE BID NO. 2.



1 ELECTRICAL POWER PLAN
3/16" = 1'-0"





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MO 65473

PROJECT # T2126-01
SITE # 6306
ASSET # 8136306004

REVISION: _____
DATE: _____
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DATE: _____
ISSUE DATE: 01/27/23

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DRAWING BY: MHB
CHECKED BY: JJJ
DESIGNED BY: MHB

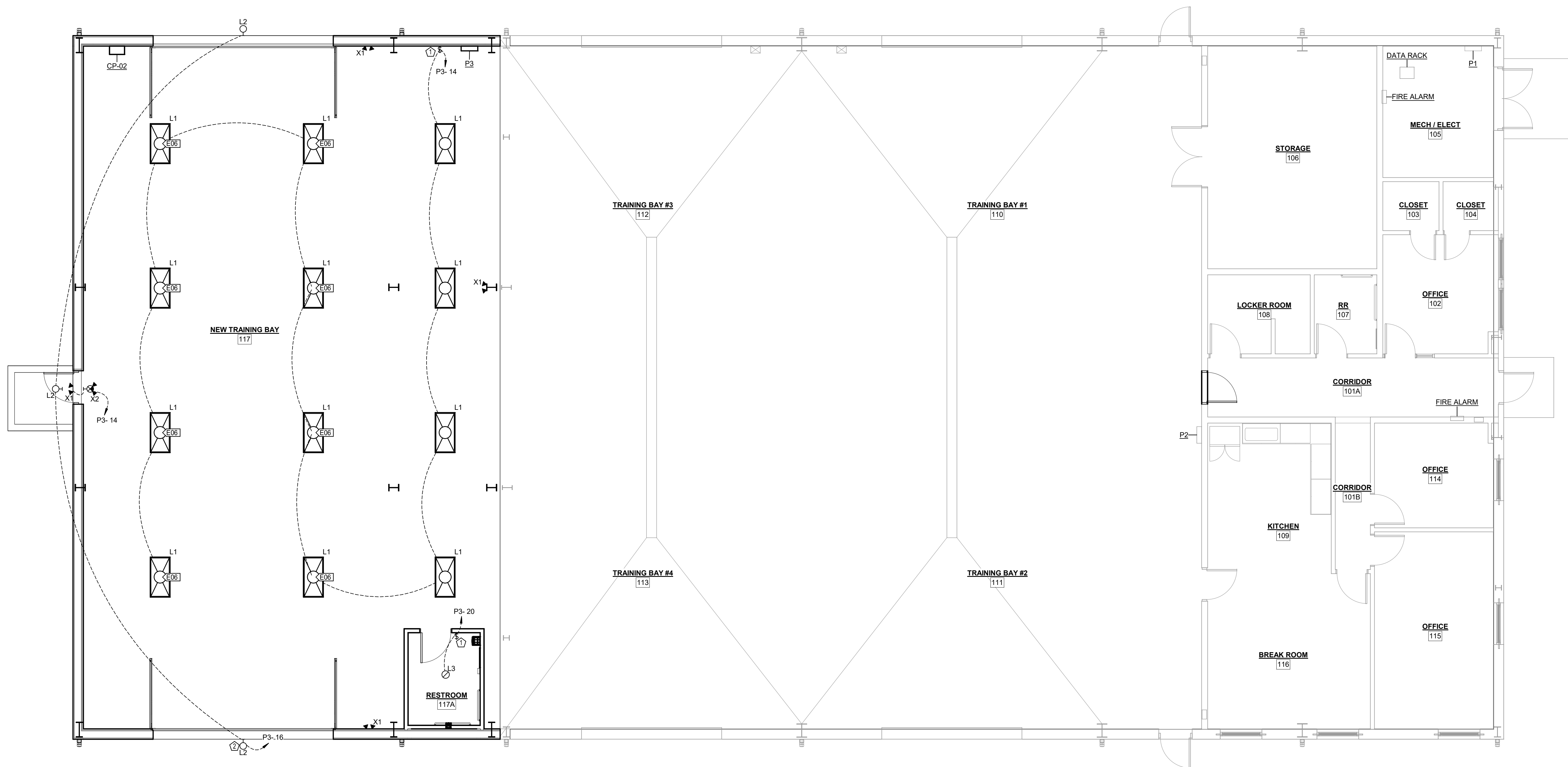
SHEET TITLE:
**ELECTRICAL
LIGHTING PLAN**

SHEET NUMBER:

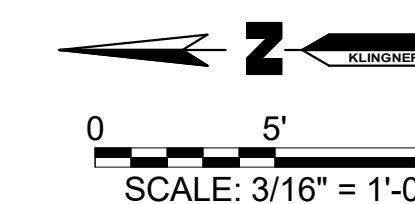
E102

SHEET 34 OF 36
JANUARY 27, 2023

VALUE	DESCRIPTION
E06	LIGHT FIXTURES TO BE INSTALLED ABOVE OVERHEAD CRANE LOCATION.



1 ELECTRICAL LIGHTING PLAN
3/16" = 1'-0"





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DATE: _____
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CAD DWG FILE: E103
DRAWING BY: MHB
CHECKED BY: JJJ
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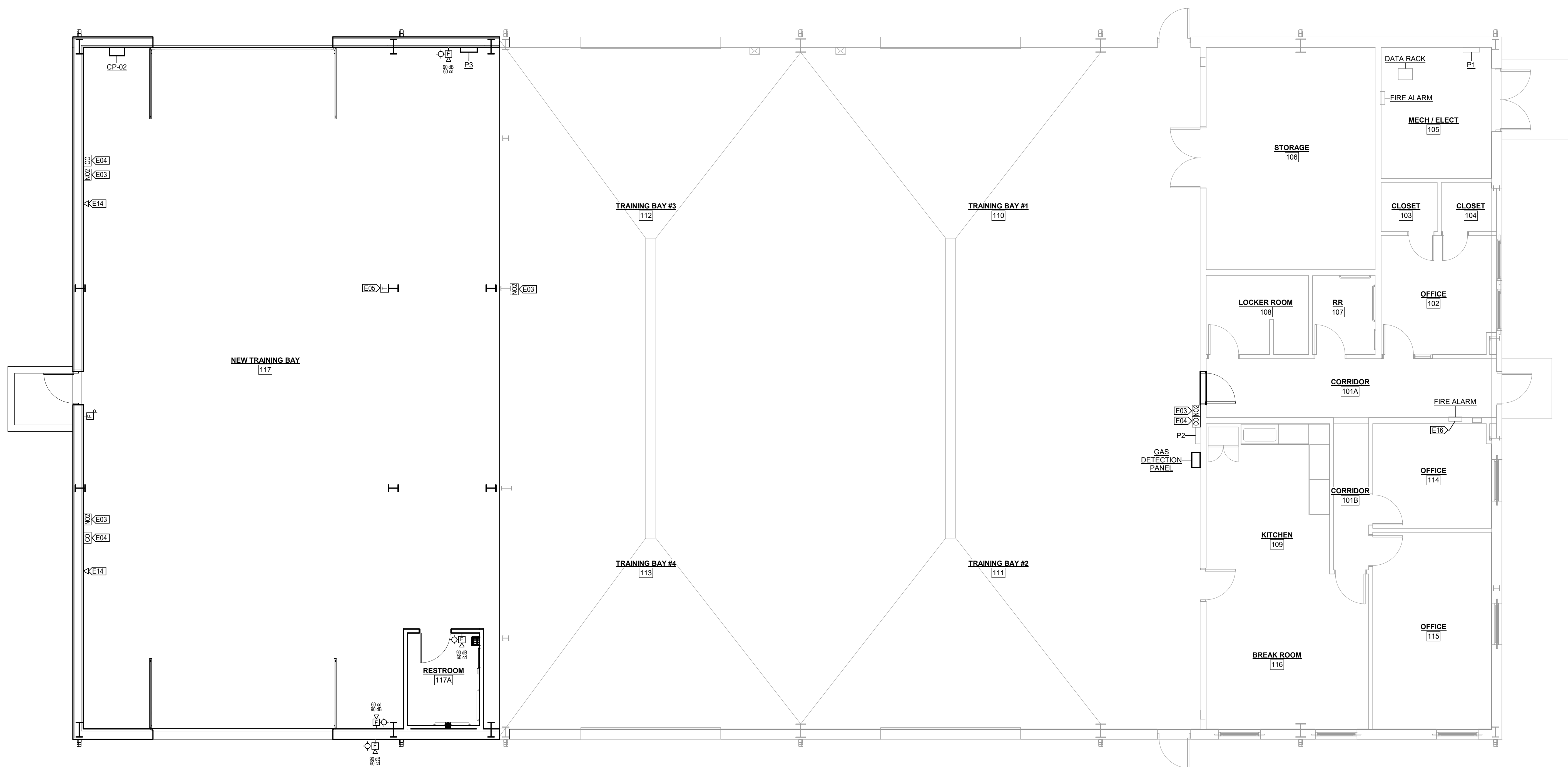
SHEET TITLE:
**ELECTRICAL LOW
VOLTAGE PLAN**

SHEET NUMBER:

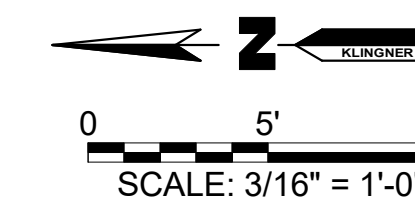
E103

SHEET 35 OF 36
JANUARY 27, 2023

VALUE	DESCRIPTION
E03	PROVIDE NEW NO2 SENSOR. CONNECT NEW NO2 SENSOR TO NEW GAS DETECTION CONTROLLER. ROUTE CABLE IN CONDUIT.
E04	PROVIDE NEW CO SENSOR AND CONNECT TO FIRE ALARM SYSTEM.
E05	NEW 24V THERMOSTAT PROVIDED BY INFRARED RADIANT TUBE HEATER MANUFACTURER.
E14	PROVIDE AND INSTALL NEW WALL MOUNTED DATA CONNECTION. INSTALL COMMUNICATION WIRE IN CONDUIT BACK TO DATA RACK. FINAL CONNECTION TO DATA RACK BY OWNER.
E16	NEW FIRE ALARM DEVICES TO BE CONNECTED TO FIRE ALARM PANEL IN CORRIDOR 101A.



1 ELECTRICAL LOW VOLTAGE PLAN
3/16" = 1'-0"





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SITE # 6306
ASSET # 8136306004

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CAD DWG FILE: E601
DRAWING BY: MHB
CHECKED BY: JJJ
DESIGNED BY: MHB

SHEET TITLE:
**ELECTRICAL
SCHEDULES AND
DETAILS**

SHEET NUMBER:

E601
SHEET 36 OF 36

JANUARY 27, 2023

BRANCH PANEL: P3													
LOCATION: NEW TRAINING BAY 117				VOLTS: 120/208				A.I.C. RATING: 10,000					
SUPPLY FROM: P1				PHASES: 3				PANEL TYPE:					
MOUNTING: Surface				WIRES: 4				MAINS RATING: 100 A					
ENCLOSURE: Type 1				ACCESSORIES:									
CKT	CIRCUIT DESCRIPTION	TRIP	POLES	A		B		C		POLES	TRIP	CIRCUIT DESCRIPTION	CKT
1				1081 VA	1081 VA								2
3	MAU-1	20 A	3			1081 VA	1081 VA			3	20 A	ALTERNATE NO. 2: MAU-2	4
5								1081 VA	1081 VA				6
7	EF-1	20 A	1	466 VA	466 VA					1	20 A	EF-2	8
9	RT-01/RT-02	20 A	1			42 VA	3744 VA			2	50 A	220V RCPT	10
11	120V RCPT	20 A	1					1440 VA	3744 VA	2	50 A	220V RCPT	12
13	ALTERNATE NO. 2: CP-01: VEHICLE EXHAUST FAN	30 A	3	204 VA	6 VA			204 VA	107 VA	1	20 A	EMERGENCY EXIT LIGHTS	14
15										1	20 A	EXTERIOR LIGHTING	16
17								204 VA	2556 VA	1	20 A	INTERIOR LIGHTING	18
19	WH-2	20 A	2	2080 VA	250 VA					1	20 A	EF-3: RESTROOM EXHAUST	20
21						2080 VA	0 VA			1	20 A	RESTROOM LIGHT	22
23	OVERHEAD DOOR WEST	20 A	2					686 VA	686 VA	2	20 A	OVERHEAD DOOR EAST	24
25				686 VA	686 VA								26
27	EXISTING GARAGE DOOR NORTHWEST	20 A	2			686 VA	686 VA			2	20 A	EXISTING GARAGE DOOR SOUTHEAST	28
29								686 VA	686 VA				30
31	EXISTING GARAGE DOOR NORTHEAST	20 A	2	686 VA	759 VA					2	20 A	UH-1: RESTROOM WALL HEATER	32
33						686 VA	759 VA						34
35	SPACE	--	--					0 VA	0 VA	--	--	SPACE	36
37	SPACE	--	--	0 VA	0 VA					--	--	SPACE	38
39	SPACE	--	--			0 VA	0 VA			--	--	SPACE	40
41	SPACE	--	--					0 VA	0 VA	--	--	SPACE	42
PHASE LOAD:				7,992 VA		10,737 VA		12,460 VA		**TOTAL LOAD: 31,171 VA			
PHASE AMPS:				67 A		93 A		107 A		**TOTAL AMPS: 87 A			

* FIELD VERIFY BREAKER SIZE WITH ACTUAL EQUIPMENT PROVIDED. COORDINATE WITH OTHER CONTRACTORS AS NECESSARY.
**TOTAL LOAD AND TOTAL AMPS DO NOT INCLUDE DEMAND FACTOR CALCULATIONS.

LIGHT FIXTURE SCHEDULE										
TAG	DESCRIPTION	MOUNT	LAMP		OUTPUT	VOLT	LOAD	BASIS OF DESIGN		REMARKS
			TYPE	COLOR TEMP.				MAKE	MODEL	
L1	HIGH BAY	SUSPENDED	LED	4000 K	30000 lm	120 V	213 VA	DAY-BRITE LITHONIA COOPER	FBX30LL40-UNV-LCA IBG 3000LM HEF ACL GND 40K 80CRI HBLD 30HE W CL 80CRI	---
L2	EXTERIOR LED WALL PACK	WALL	LED	4000 K	4400 lm	120 V	36 VA	DAY-BRITE LITHONIA COOPER	WP-50-NW-G1-PCB-8 WST4-LED WP-FC-LED10-PC	FULL CUTOFF DOOR
L3	DOWNLIGHT	RECESSED CEILING	LED	4000 K	1000 lm	120 V	14 VA	DAY-BRITE LITHONIA COOPER	MD3R069301F LDN3 40/10 L03 HLB3059401E	--
X1	EMERGENCY REMOTE HEAD	WALL	LED	4000 K	200 lm	120 V	2 VA	DAY-BRITE LITHONIA COOPER	VLT2R EU2C AF2S0LED	--
X2	EXIT/UNIT COMBO	WALL	LED	4000 K	200 lm	120 V	4 VA	DAY-BRITE LITHONIA COOPER	VLTOR3R EGR LED M6 APCH7RSQ	--

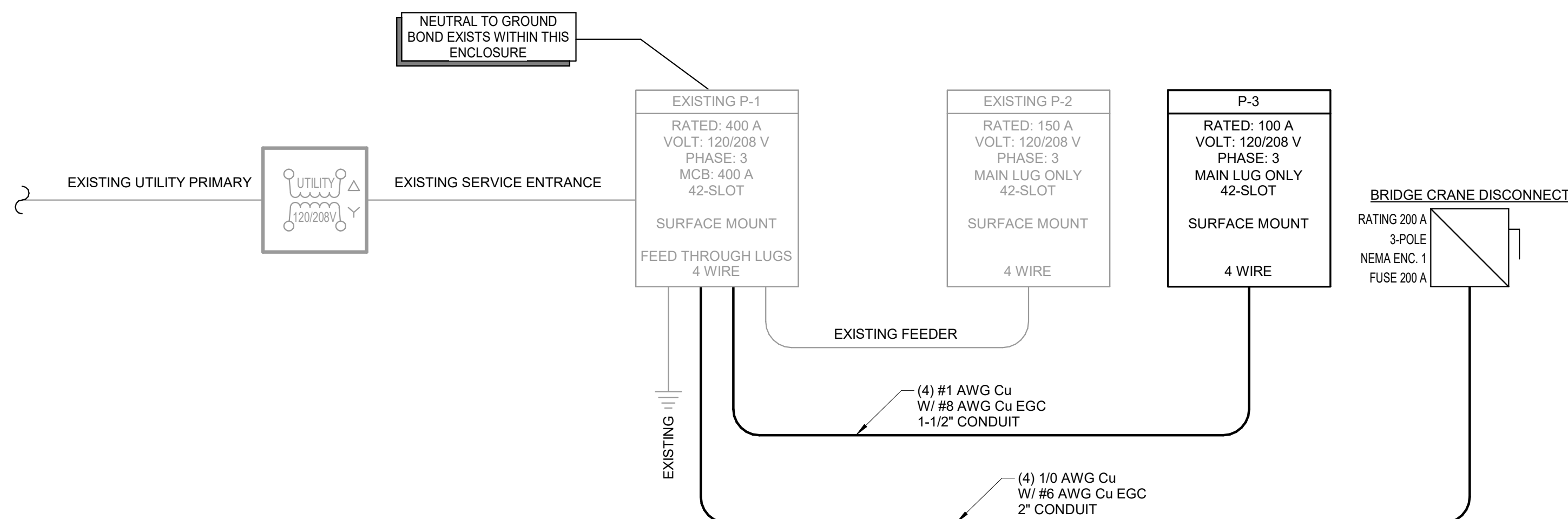
LIGHTING CONTROL MATRIX														
TAG	DEVICE/ROOM/ZONE CONTROL CAPABILITIES													
	LINE VOLTAGE	LOW VOLTAGE	MANUAL ON	MANUAL OFF	MANUAL DIMMING	SCENE SELECTION	OCC. SENSOR (ON/OFF)	VAC. SENSOR OFF	PHOTOCONTROL (ON/OFF)	PHOTOCONTROL (DIMMING)	TIMECLOCK (ON/OFF)	MOTION SENSOR	ACTIVATED BY FIRE ALARM	SEQUENCE OF OPERATION
1	X	X	X	X										1
2	X								X					2

LIGHTING CONTROL SEQUENCES OF OPERATION

- LINE VOLTAGE, MANUAL SWITCH CONTROL:
A. LIGHTING SHALL BE SWITCHED ON OR OFF BY STANDARD TOGGLE SWITCH.
- LINE VOLTAGE, PHOTOCELL CONTROL:
A. LIGHT FIXTURE SHALL BE CONTROLLED BY EXTERIOR WALL MOUNTED PHOTOCELL.

CONTRACTOR NOTES:

- COORDINATE COMPATIBILITY OF ALL LIGHTING CONTROLS AND LIGHT FIXTURE DRIVERS.
- PROVIDE ALL WIRE, DEVICES, POWER PACKS, SENSORS, ETC. AS NECESSARY TO CREATE A STAND ALONE SYSTEM THAT ACCOMPLISHES THE DESCRIBED SEQUENCE OF OPERATION.
- ALL LIGHTING CONTROLS SHALL BE HARD WIRED (WIRELESS SYSTEMS ARE NOT ACCEPTABLE) ACCEPTABLE CONTROL DEVICE MANUFACTURERS SHALL INCLUDE CRESTRON, ACUITY, WATTSOPPER, HUBBELL AND LUTRON. SUBSTITUTIONS SHALL BE ALLOWED WITH ENGINEERS PRIOR APPROVAL ONLY.
- WHERE OCCUPANCY AND/OR VACANCY SENSORS ARE SHOWN, PROVIDE SUFFICIENT QUANTITY OF SENSORS TO ENSURE COMPLETE COVERAGE OF THE ENTIRE SPACE.



1 ELECTRICAL ONE-LINE DIAGRAM
NTS