

OZARKA COLLEGE NEW TECH. BLDG.

PROJECT NO: 24-55

218 COLLEGE DRIVE
MELBOURNE, ARKANSAS 72556

FEBRUARY 21, 2025



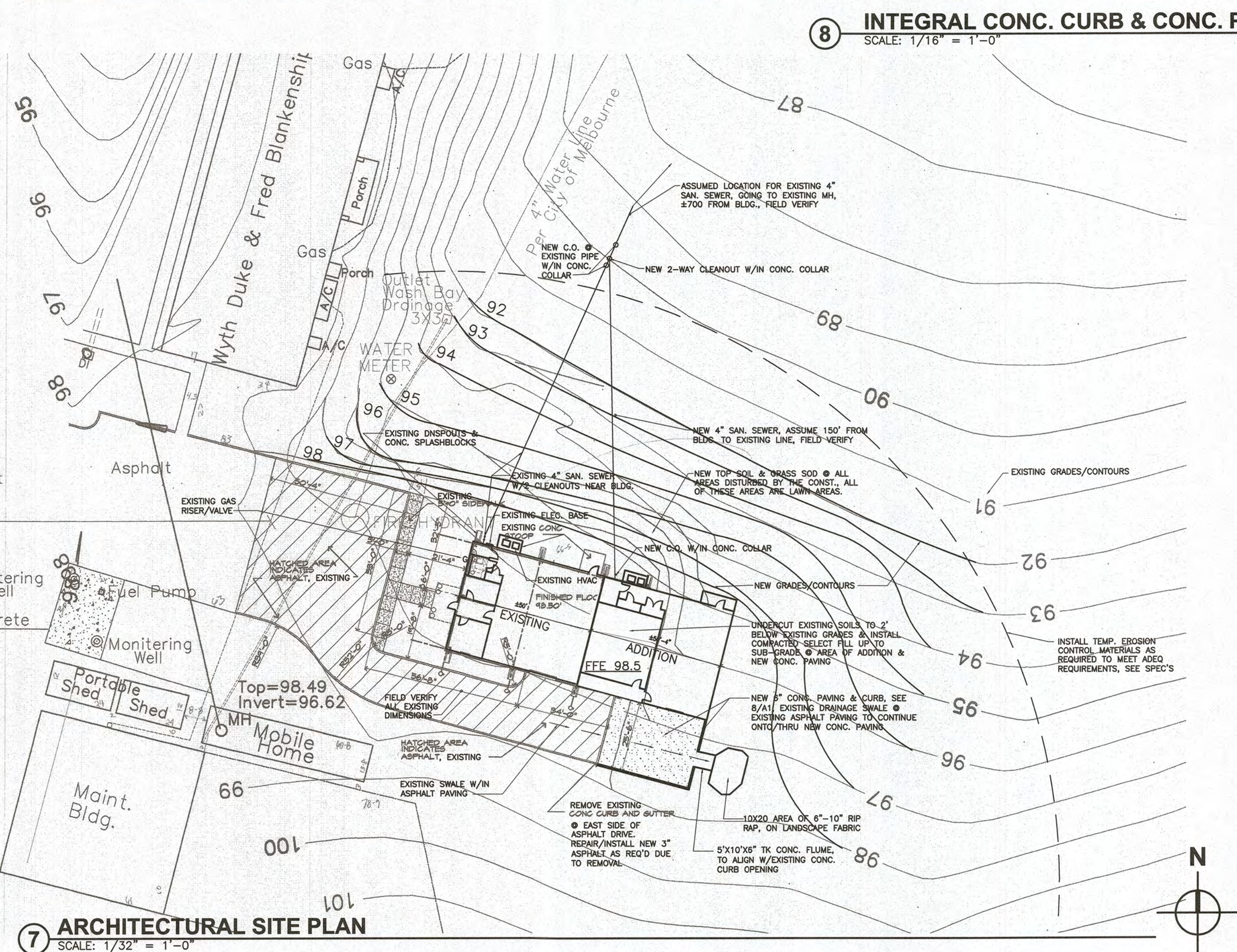
ARCHITECTURE PLUS, INC.

907 SOUTH 21st STREET, FORT SMITH, ARKANSAS 72901 TEL:(479)783-6395 FAX:(479)783-0935

ARCHITECT



6 LOCATION - MELBOURNE, ARKANSAS
SCALE: NTS



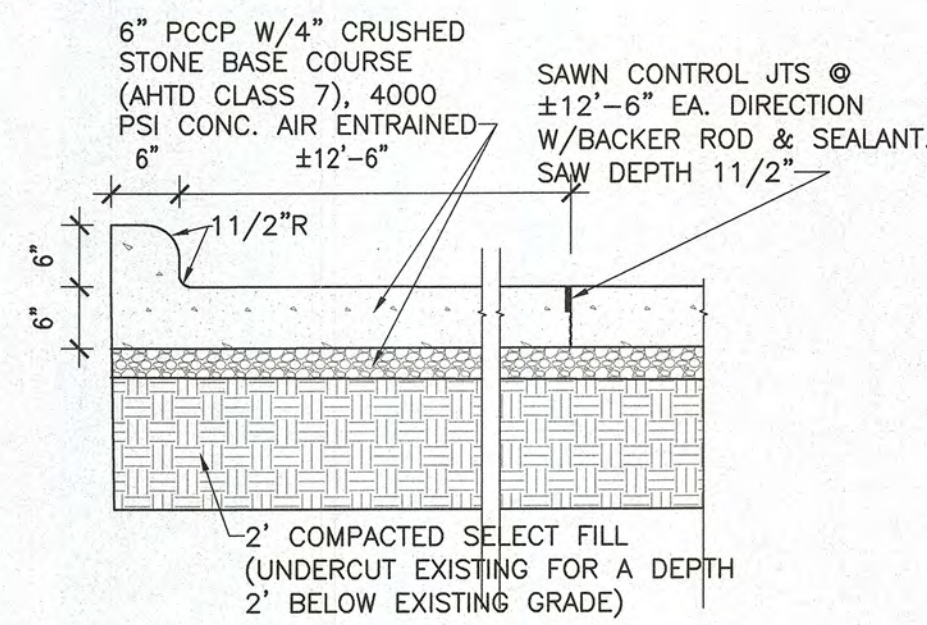
7 ARCHITECTURAL SITE PLAN
SCALE: 1/32" = 1'-0"

INDEX TO DRAWINGS

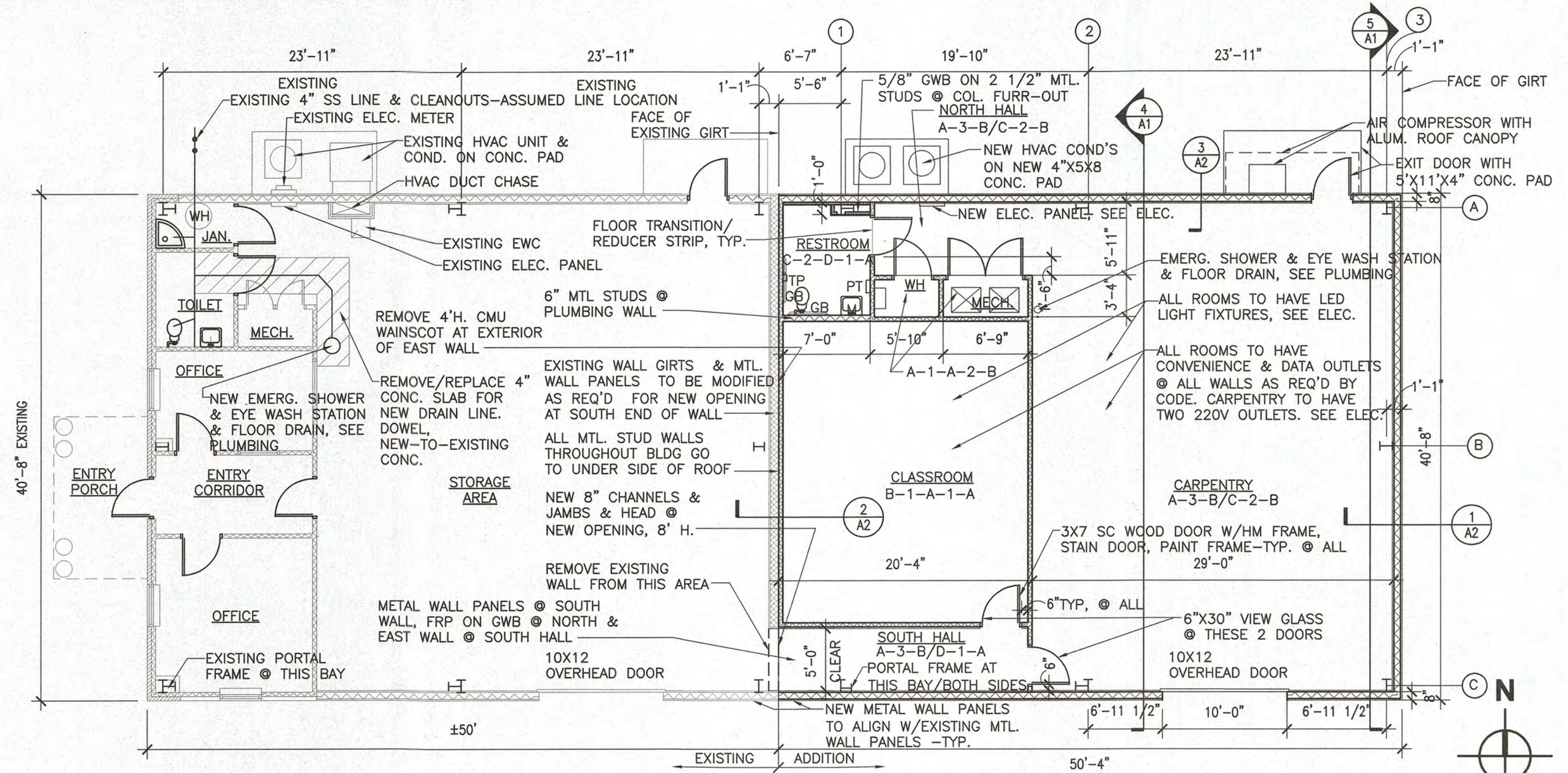
ARCHITECTURAL
A1 FLOOR PLAN, ELEVATIONS, BUILDING SECTIONS, LOCATION, & SITE PLAN
A2 BUILDING & WALL SECTIONS
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S1 FOUNDATION PLAN/FRAMING PLAN
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"I HEREBY CERTIFY THAT THESE PLANS AND SPECIFICATIONS HAVE BEEN PREPARED BY ME, OR UNDER MY SUPERVISION. I FURTHER CERTIFY THAT TO THE BEST OF MY KNOWLEDGE THESE PLANS AND SPECIFICATIONS ARE AS REQUIRED BY LAW IN ACCORDANCE WITH THE ARKANSAS FIRE PREVENTION CODE FOR THE STATE OF ARKANSAS (AFPC, 2021, V.2).

Michael G. Johnson, Principal, Architecture Plus, Inc.



8 INTEGRAL CONC. CURB & CONC. PAVING
SCALE: 1/16" = 1'-0"



1 EXISTING FLOOR PLAN OF MAINTENANCE BLDG. WITH ADDITION FOR NEW TECH. BLDG.
SCALE: 1/8" = 1'-0"

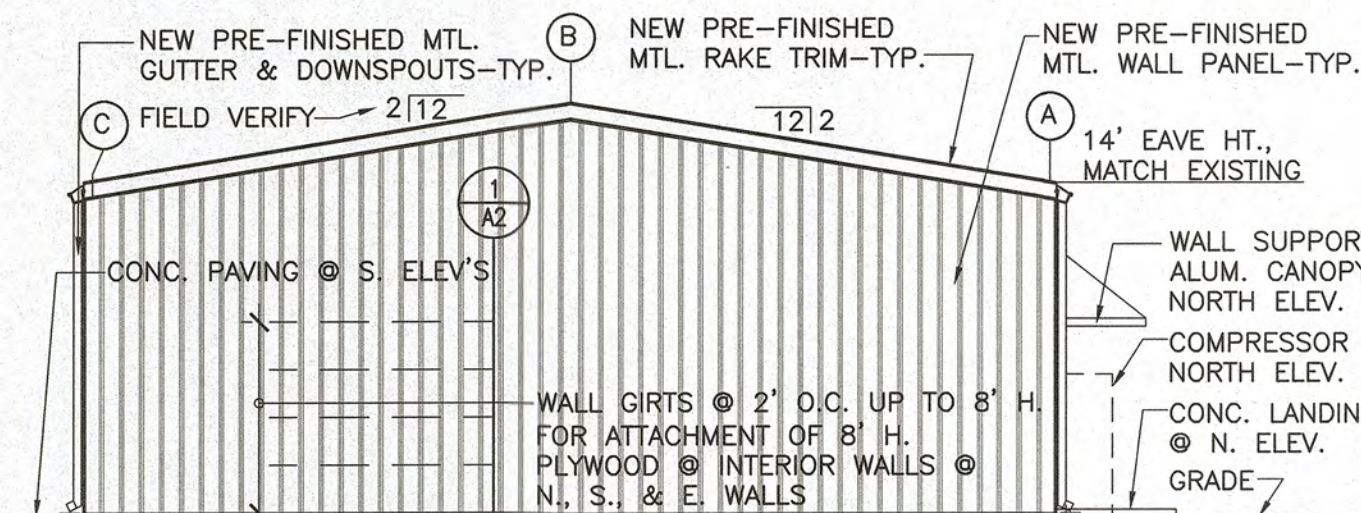
ROOM FINISH SCHEDULE

FLOOR	BASE	WALLS	CEILING	HEIGHT
A SEALED CONC. (SC)	1 4" COVED RUBBER	A GWB-PAINT	1 ACOUSTIC TILE SYSTEM	A 9'-0"
B LUXURY VINYL TILE	2 4" EPOXY/POLYMER	B METAL WALL PANELS	2 VINYL FACED INSUL. (OPEN TO ROOF UNDERSIDE)	B OPEN
C EPOXY/POLYMER	3 4" POLYMER LUMBER	C 8'H. 1/2" PLYWOOD		
		D FRP ON GWB		

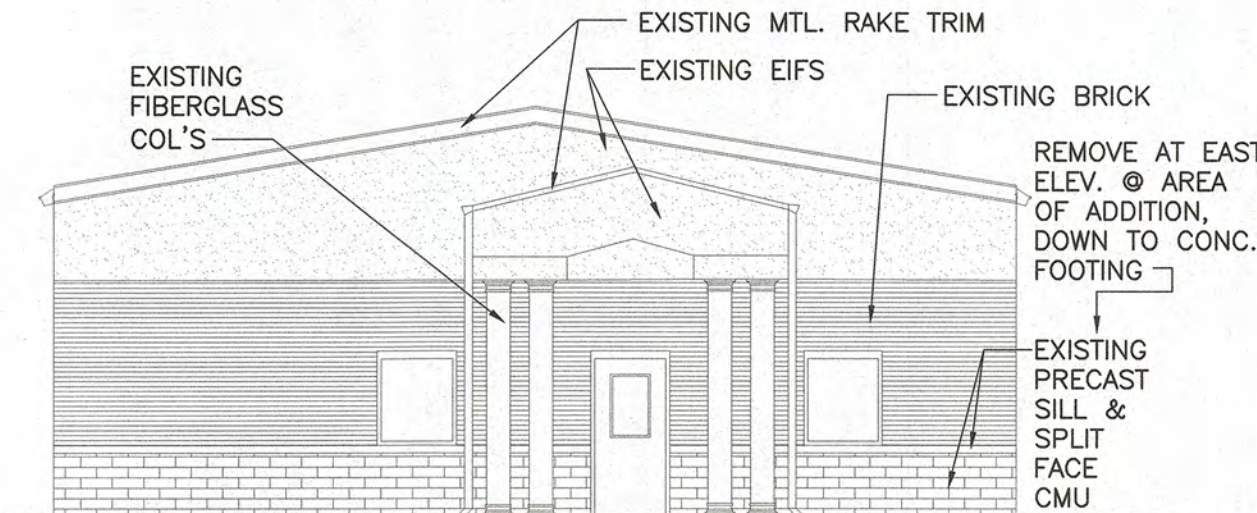
BASE-WALLS-CEILING FLOOR-A1/A1/A1-CEILING HEIGHT
"A/B" DENOTES TWO FINISH CONDITIONS W/IN THE ROOM, FOR A SPECIFIED LOCATION SUCH AS "WALLS".

ELEVATION NOTES

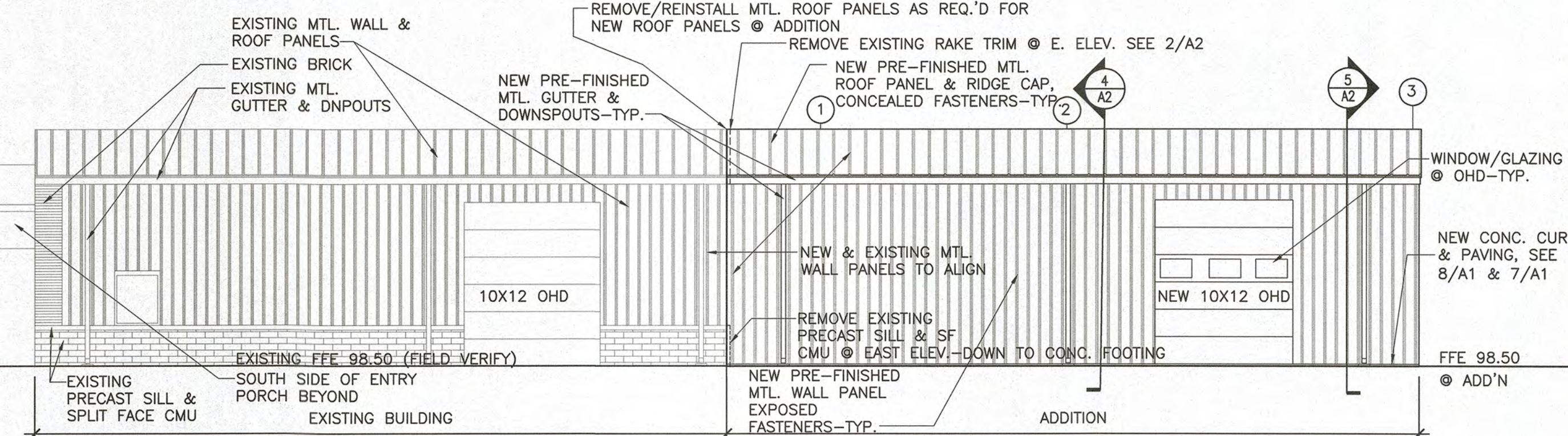
NOTE 1.) MTL. ROOF & WALL PANELS, RAKE TRIM, RIDGE CAP, GUTTERS/DNSPTS TO MATCH EXISTING-TYP. @ ALL ELEV'S OF ADDITION



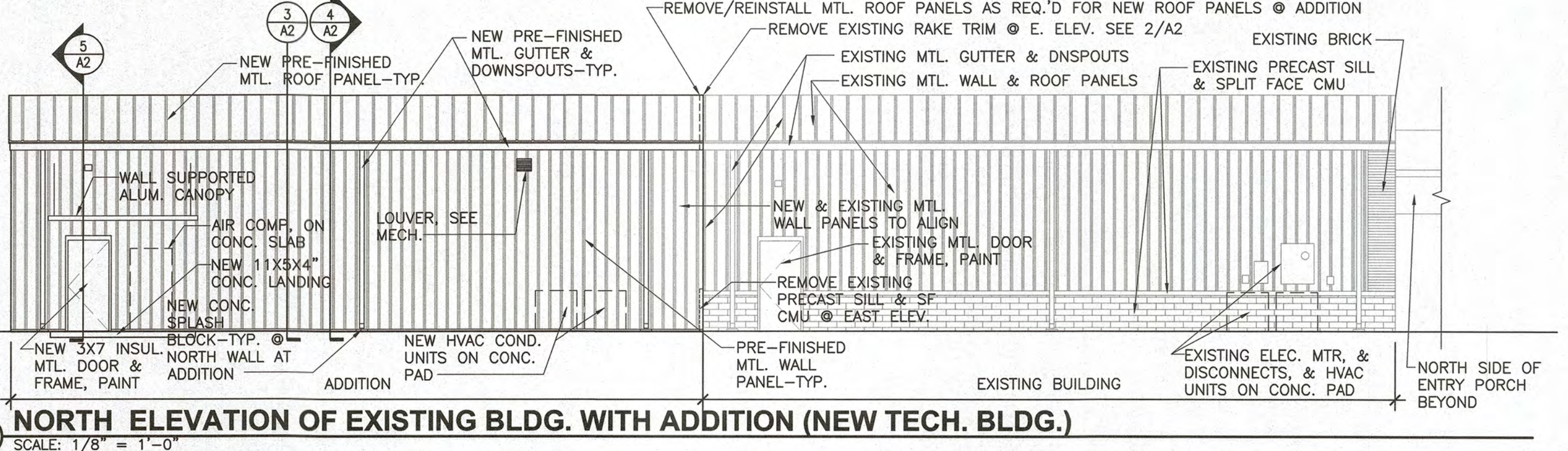
2 EAST ELEVATION OF NEW TECH. BLDG.
SCALE: 1/8" = 1'-0"



3 WEST ELEVATION OF EXISTING BLDG. (NO WORK)
SCALE: 1/8" = 1'-0"



4 SOUTH ELEVATION OF EXISTING BLDG. WITH ADDITION (NEW TECH. BLDG.)
SCALE: 1/8" = 1'-0"



5 NORTH ELEVATION OF EXISTING BLDG. WITH ADDITION (NEW TECH. BLDG.)
SCALE: 1/8" = 1'-0"



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907 South 21st Street, Fort Smith, Arkansas 479/783-6395

**FLOOR PLAN, ELEVATIONS,
LOCATION, & SITE PLAN**

REVISIONS:

PROJECT: 24-55

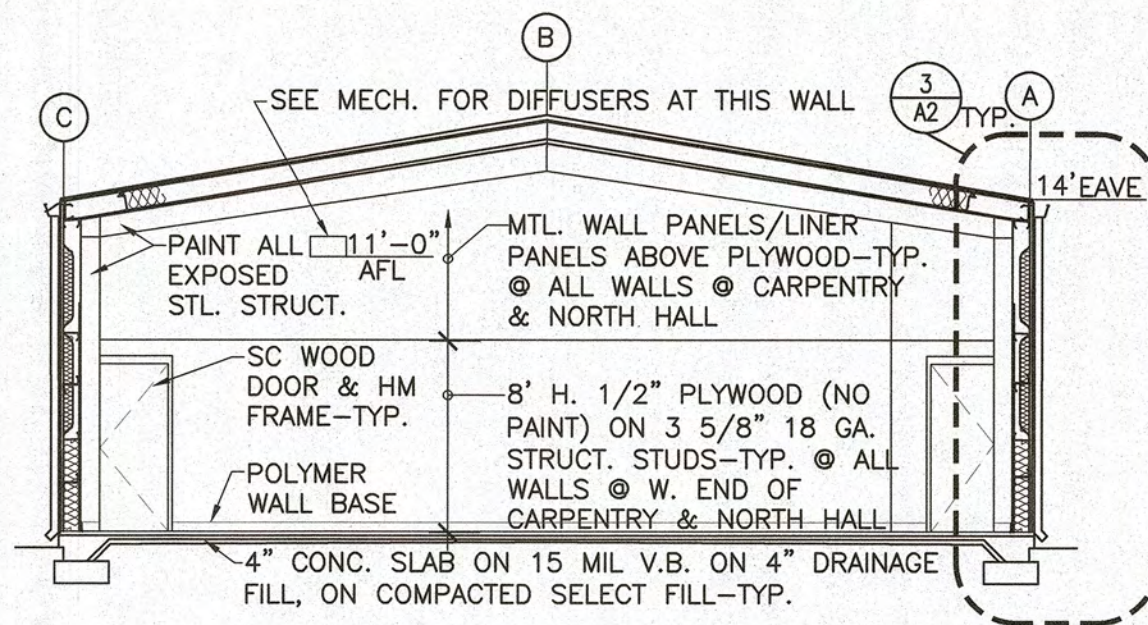
DATE: 02-21-2025

A1

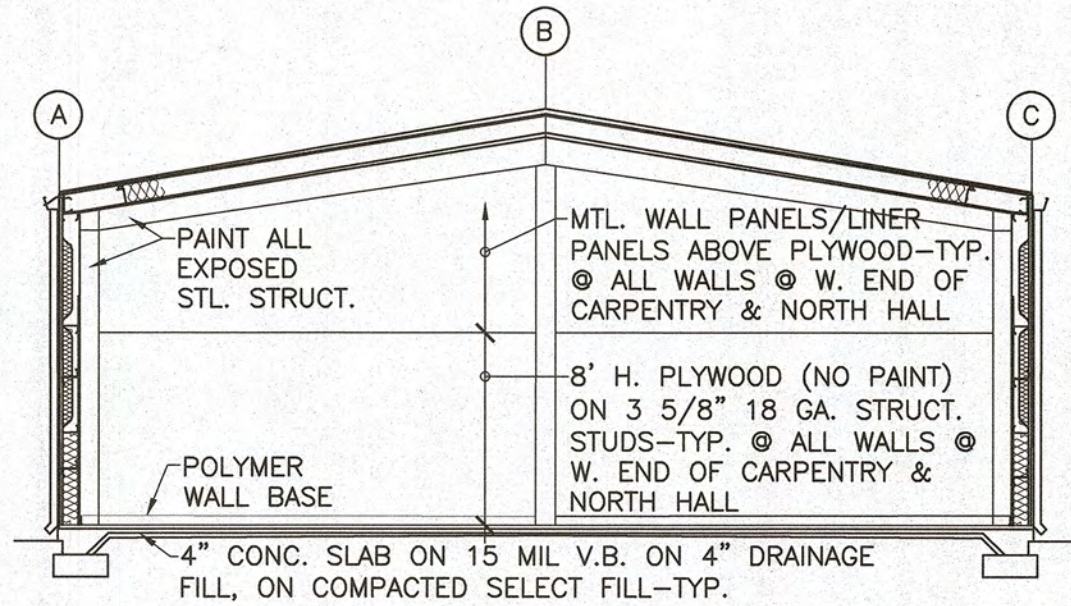


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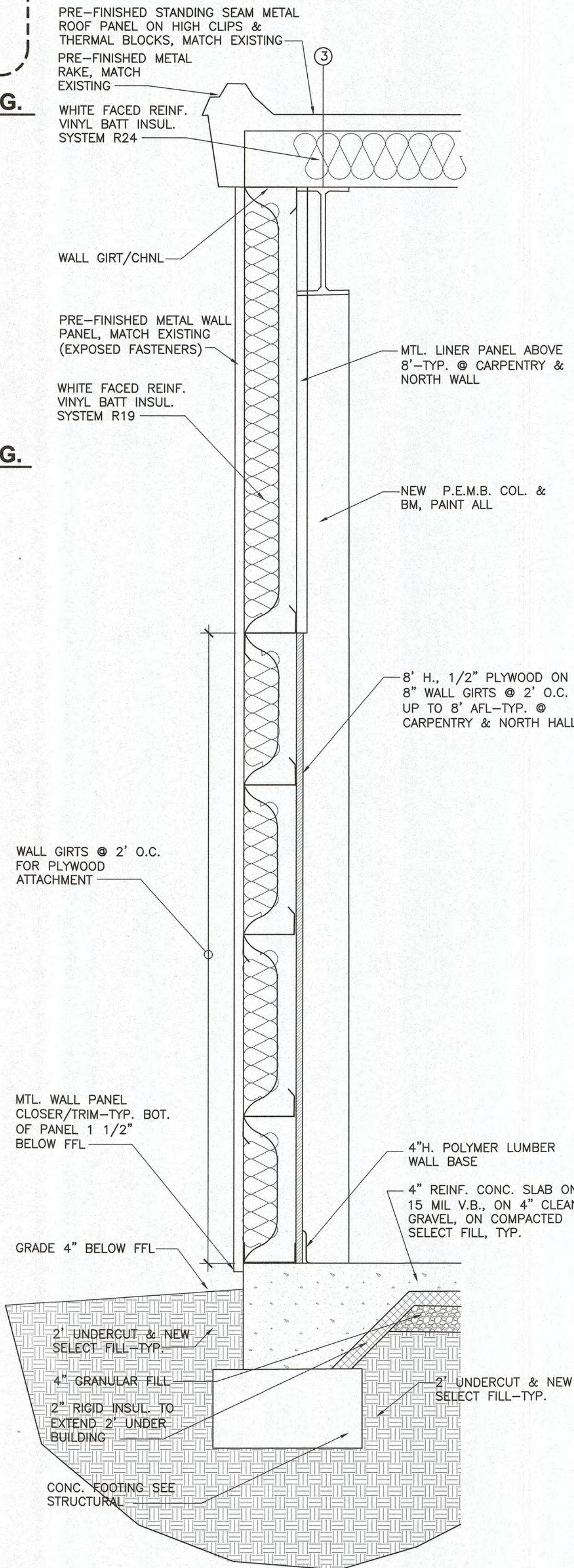
Architecture Plus, Inc. * February 24, 2025 @ 9:21am * File located @ P:\2024\24-55 Ozarka College - Maintenance Shop - Melbourne, Ar\Architectural\24-55 - Drawings updated.dwg * Created by: Kendra@archplusinc.net



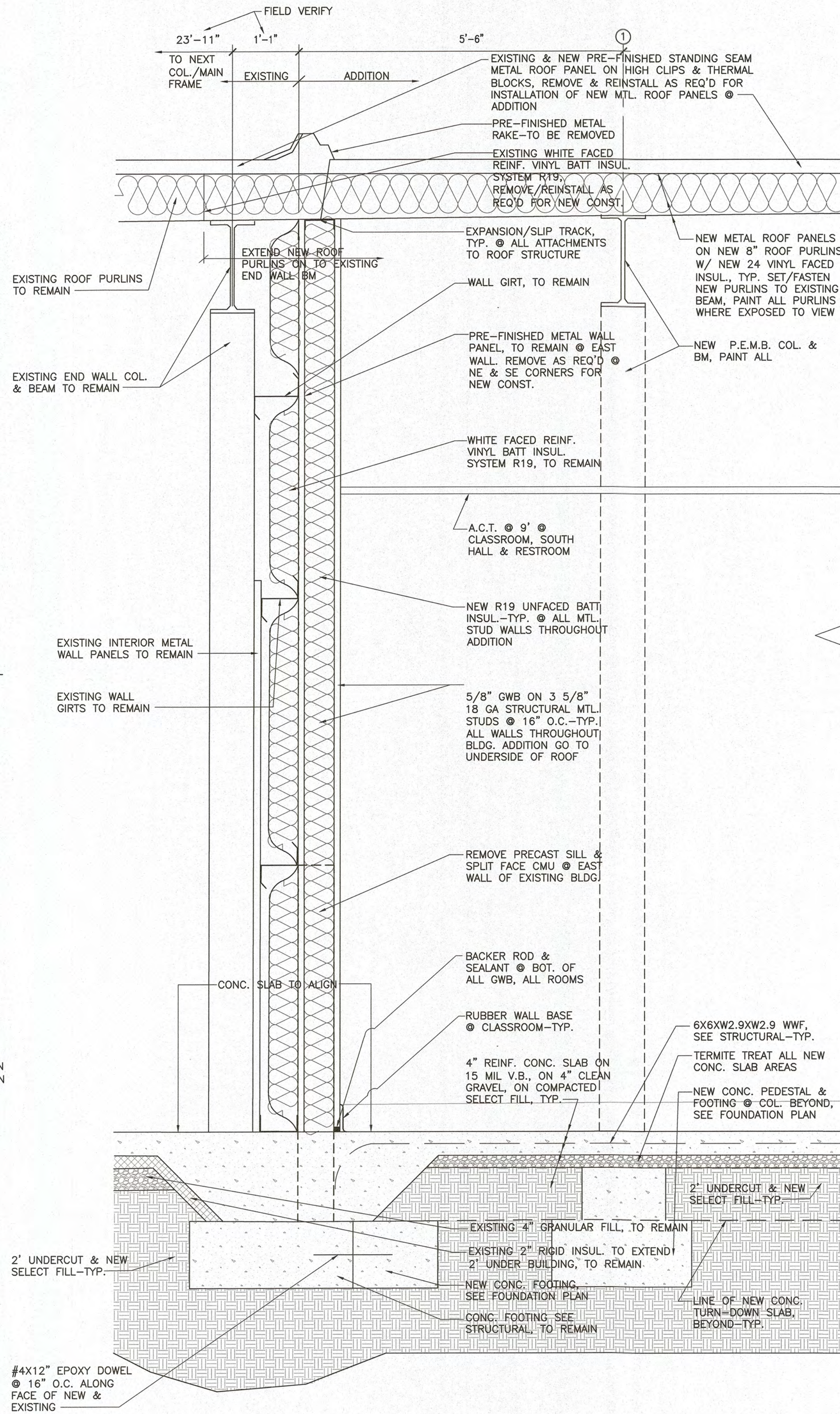
4 BUILDING SECTION OF NEW TECH. BLDG.
SCALE: 1/8" = 1'-0"



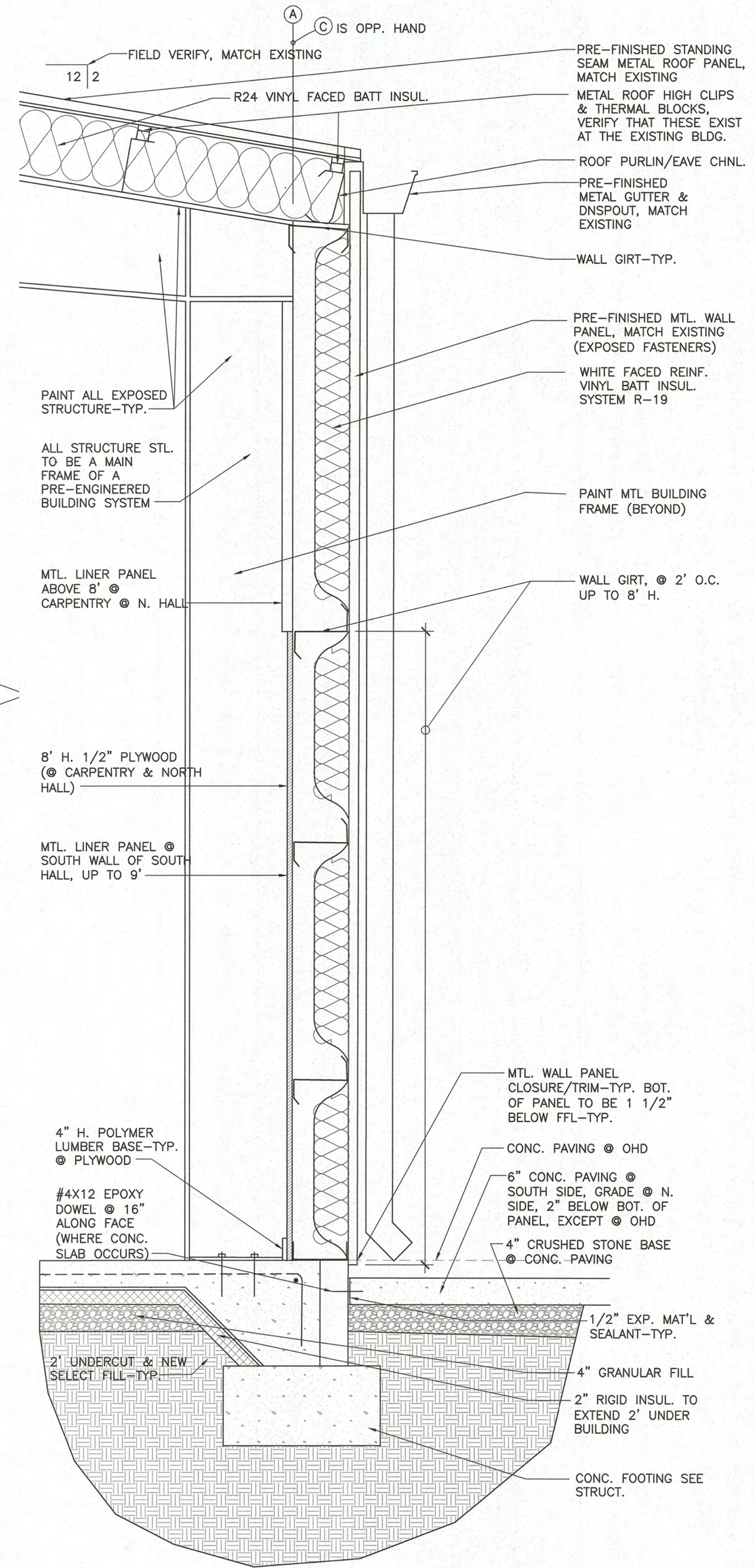
5 BUILDING SECTION OF NEW TECH. BLDG.
SCALE: 1/8" = 1'-0"



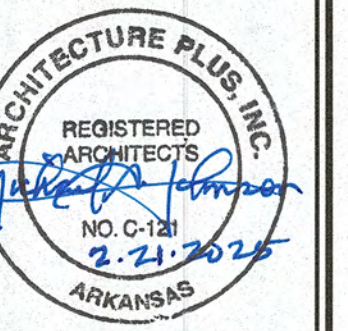
1 SECTION @ END
NTS



2 SECTION @ EXISTING - TO - ADDITION
NTS



3 SECTION @ SIDE-TYP.
NTS



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BUILDING & WALL SECTIONS

REVISIONS:

PROJECT: 24-55

DATE: 02-21-2025

A2



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GENERAL STRUCTURAL NOTES

DESIGN PARAMETERS:

- Design Codes - (All latest editions unless noted):
 - International Building Code (IBC 2020)
 - American Society of Civil Engineers (ASCE 7-98)
Minimum Design Loads for Buildings and Other Structures
- Foundation
 - Footings on natural soils or compacted structural fill are designed for an assumed maximum soil bearing pressure of 2,000 psf for continuous footings and 2,000 psf for individual footings.
 - If the soil is of questionable bearing value, the Engineer or Architect shall be notified immediately.
 - After footing excavations are completed and before placing concrete, the excavated areas shall be inspected and approved by the Owner selected independent testing laboratory.
 - The Soils Engineer is the sole judge of suitability of underlying material to support foundations and shall approve bearing material before foundation installation. See specifications.
 - Coefficient of horizontal friction between concrete and soil = 0.35
 - Minimum depth from exterior ground surface to bottom of foundations = 24 inches
 - Prepare site and place fill in accordance with the recommendations in the PROJECT MANUAL (PM). Observe construction recommendations noted in the PM. All fill material shall be in accordance with PM.

- Roof Load:
 - Roof Dead Loads Actual
 - Roof Live Load 20 psf (Unreducible)
 - Collateral Load 6 psf

- Floor Load:
 - Floor Live Load 50 psf

- Wind Load:
 - Wind Loads (IBC 2020)
 - Wind Speed 90 mph
 - Wind Exposure Category C
 - Wind Use Factor 1.0

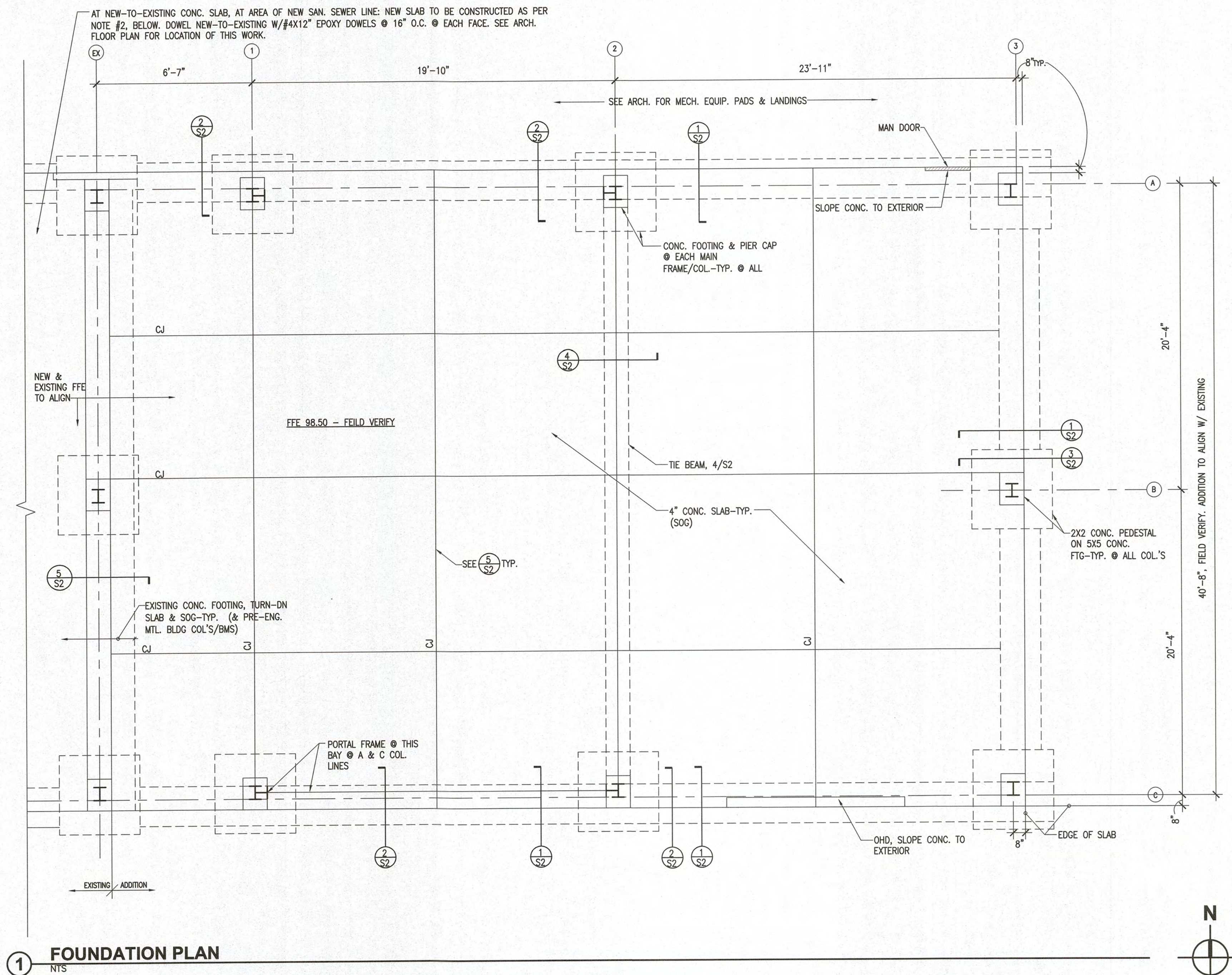
- Snow Load:
 - Snow Load (IBC 2020)
 - Ground Snow Load 15 psf
 - Exposure Coefficient C_e 0.90
 - Thermal Factor C_t 1
 - Importance Factor for Snow I_s 1
 - Roof Slope Factor C_s 1
 - Roof Snow Load $P_f = 13.5$ psf.

I hereby certify that the structural plans submitted herewith are designed with the structural load carrying elements to resist the anticipated forces of the designated seismic zone in which the structure is located in accordance with ARKANSAS ACT 1100, 1991

Spectral Response Acceleration Coefficients	$S_s = 0.577$ / $S_d_s = 0.45$ $S_1 = 0.206$ / $S_d_1 = 0.219$
Site Class	C
Seismic Design Category	D
Basic Structural System	Moment Resisting Frame System & Building Frame System
Seismic Force Resisting System	Ordinary Steel Moment Frames Ordinary Steel Concentrically Braced Frame
Response Modification Factor	$R = 4.0$, $R = 5.0$
Deflection Amplification Factor	$C_d = 3.5$, $C_d = 4.5$
Analysis Procedure	Equivalent Lateral Force Procedure

GENERAL INFORMATION:

- All columns shall be centered on grid lines unless noted otherwise.
- All column footings shall be centered on columns unless noted otherwise.
- All wall footings shall be centered on walls unless noted otherwise.
- Unless otherwise noted or detailed, concrete pads for mechanical equipment shall be 4" thick (minimum) and reinforced with #3 @ 12" oc each way centered.
- Substitution of expansion anchors for embedded anchors shall not be permitted, Unless Approved by Architect.
- Contractor is responsible for coordinating weights, size, and location of actual mechanical units ordered.
- Unless Directed Otherwise By Geotechnical Engineer all fill material under structure shall be sandy clay or clayey sand exhibiting a liquid limit less than 35. Fill material shall be placed in loose lifts not to exceed 8" and compacted to a density of not less than 95% of Modified Proctor Maximum Dry Density (ASTM D-1557) at or slightly wet of optimum moisture content. In place moisture and density of each lift shall be determined by in-situ field tests prior to placing additional fill.
- Permanent stability of the building and components is not provided until the erection is completed as shown on the contract drawings. Erection stability and temporary supports required for construction including guys, braces, and shoring are the responsibility of the contractor.



FOUNDATION PLAN

NTS

- NOTE:
- ASSUMED FINISH FLOOR EL=100.00' (REF 0'-0" AFF)
 - TYPICAL FLOOR SLAB ON GRADE (SOG)-
4" NORMAL WT CONCRETE ON 15 MIL VAPOR BARRIER
ON 4" GRANULAR FILL REINF. W/ 6X6-W2.9X2.9
PLACE WWF ON CHAIRS AND CUT REINF. AT CONTROL
JOINTS. SEE DETAIL 6/S-2



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REVISIONS:

PROJECT: 24-55

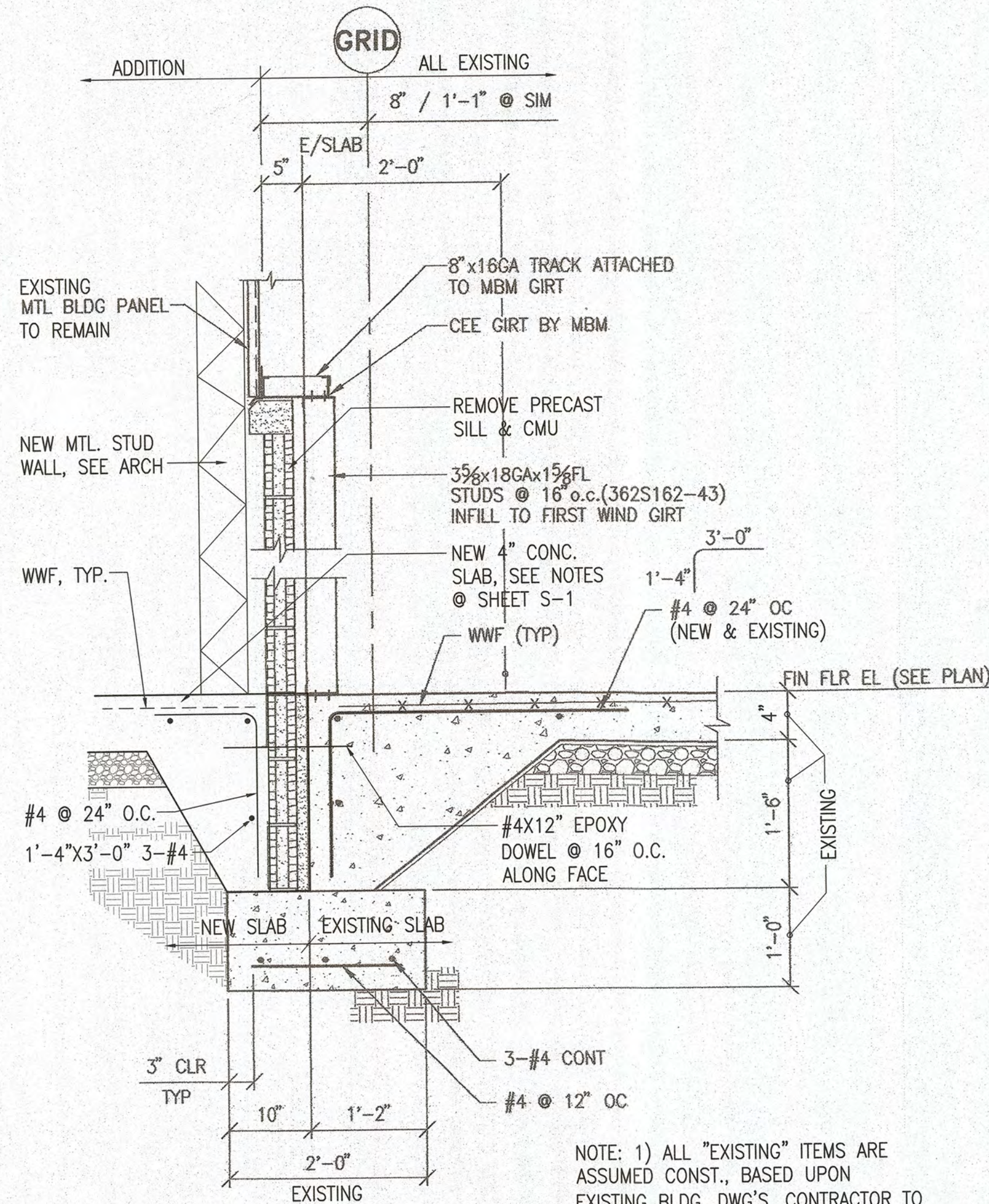
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S-1

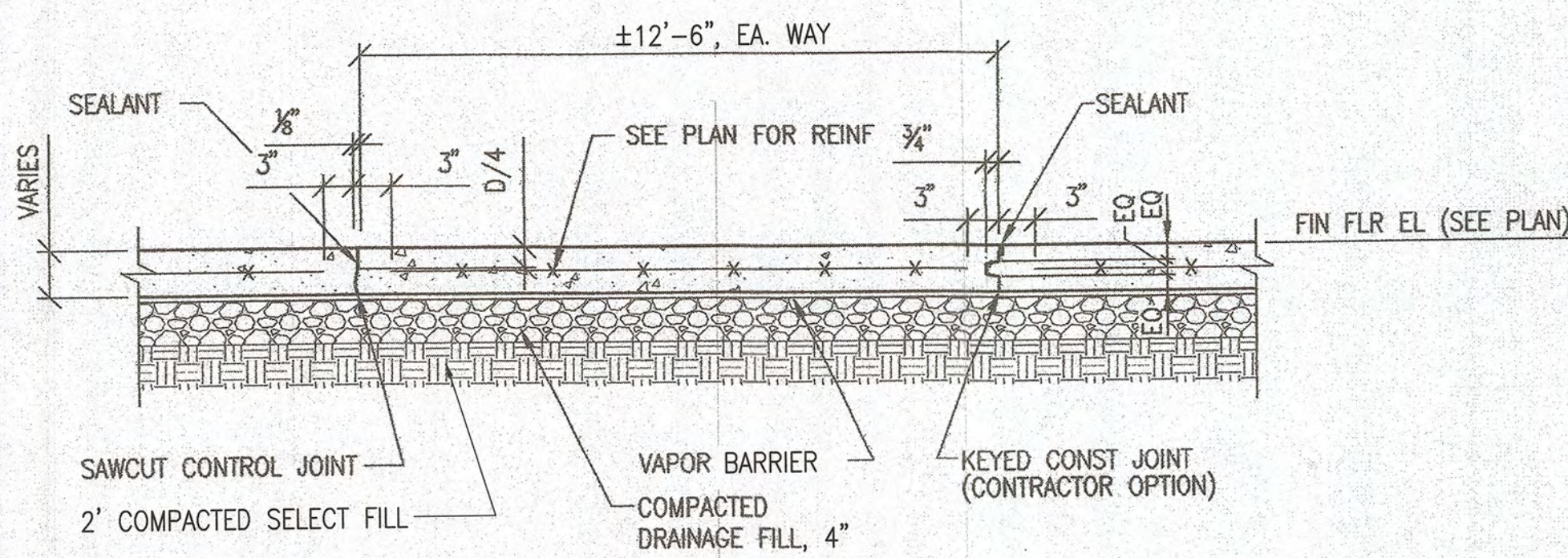


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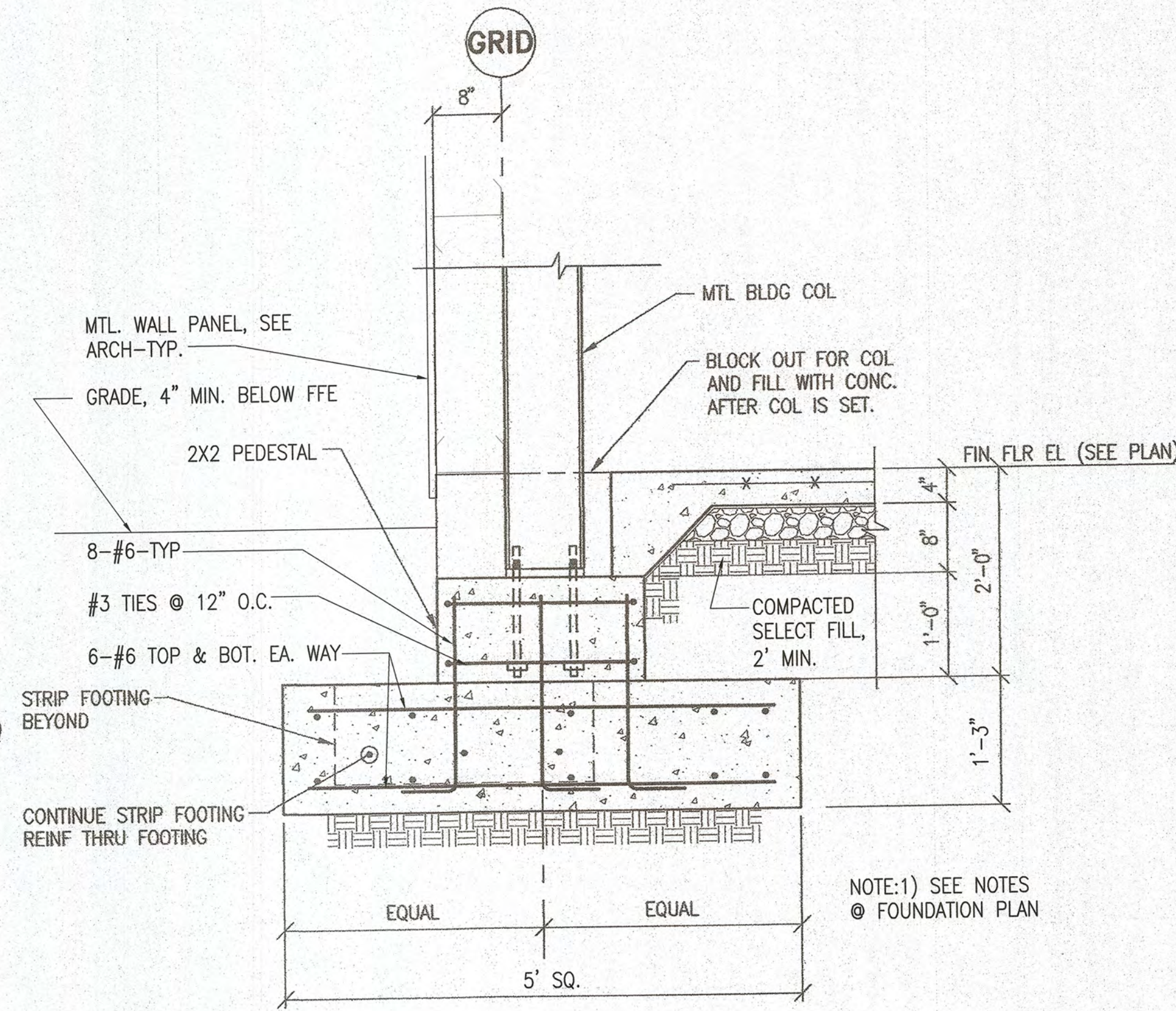
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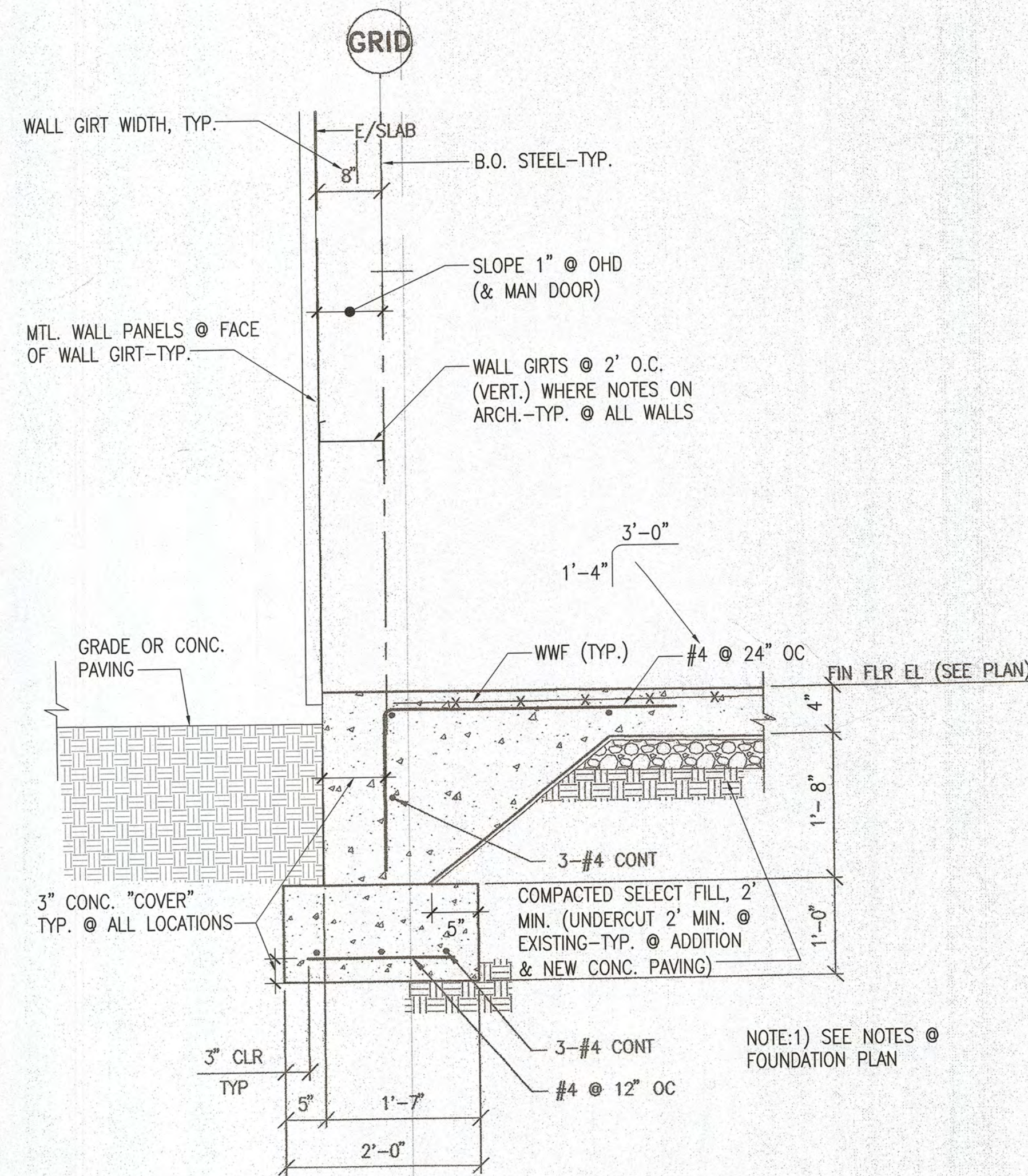
5 SECTION
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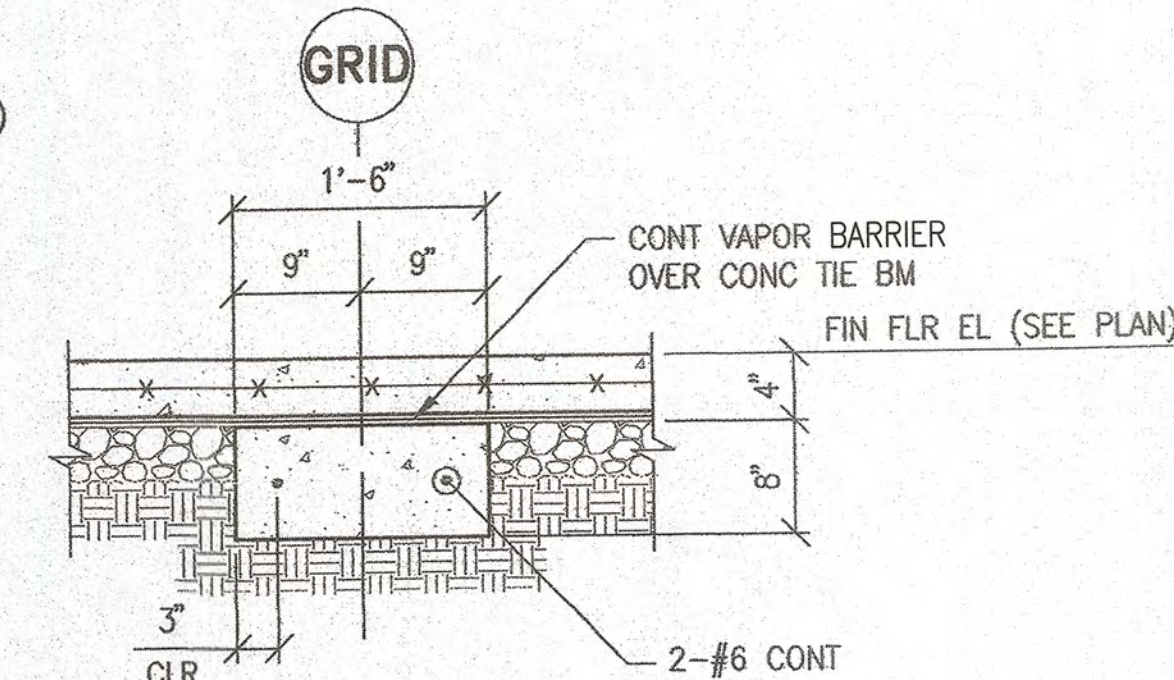
6 DETAIL - SOG CONTROL JOINT (CJ)
NTS



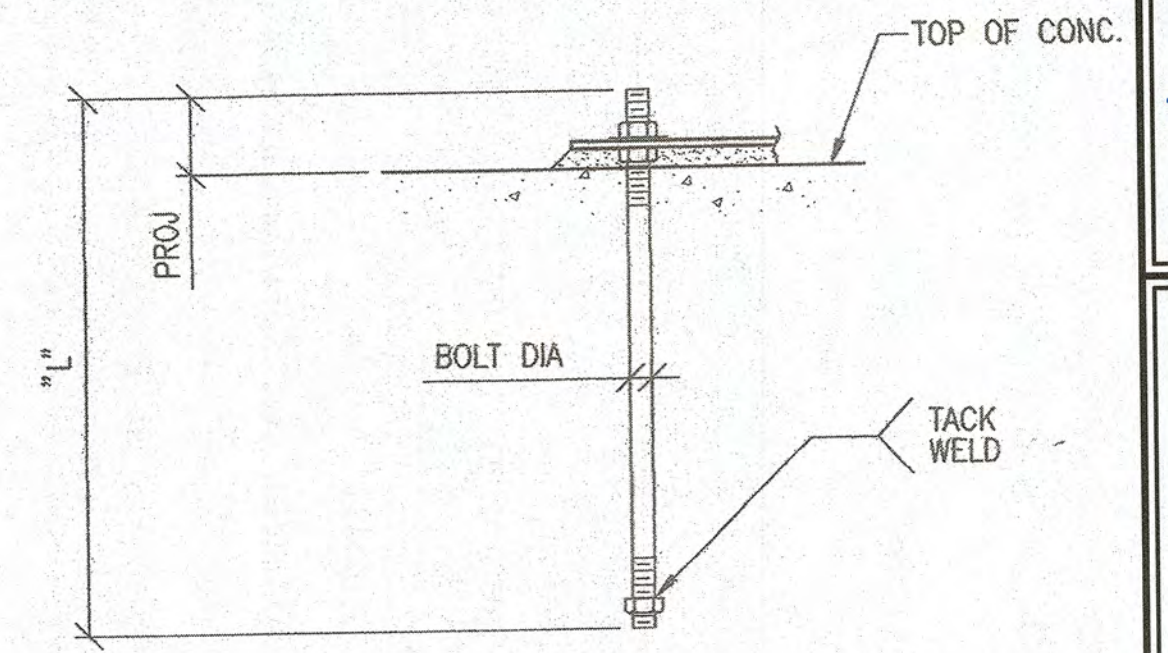
3 SECTION @ END WALL
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1 TYPICAL SECTION
NTS

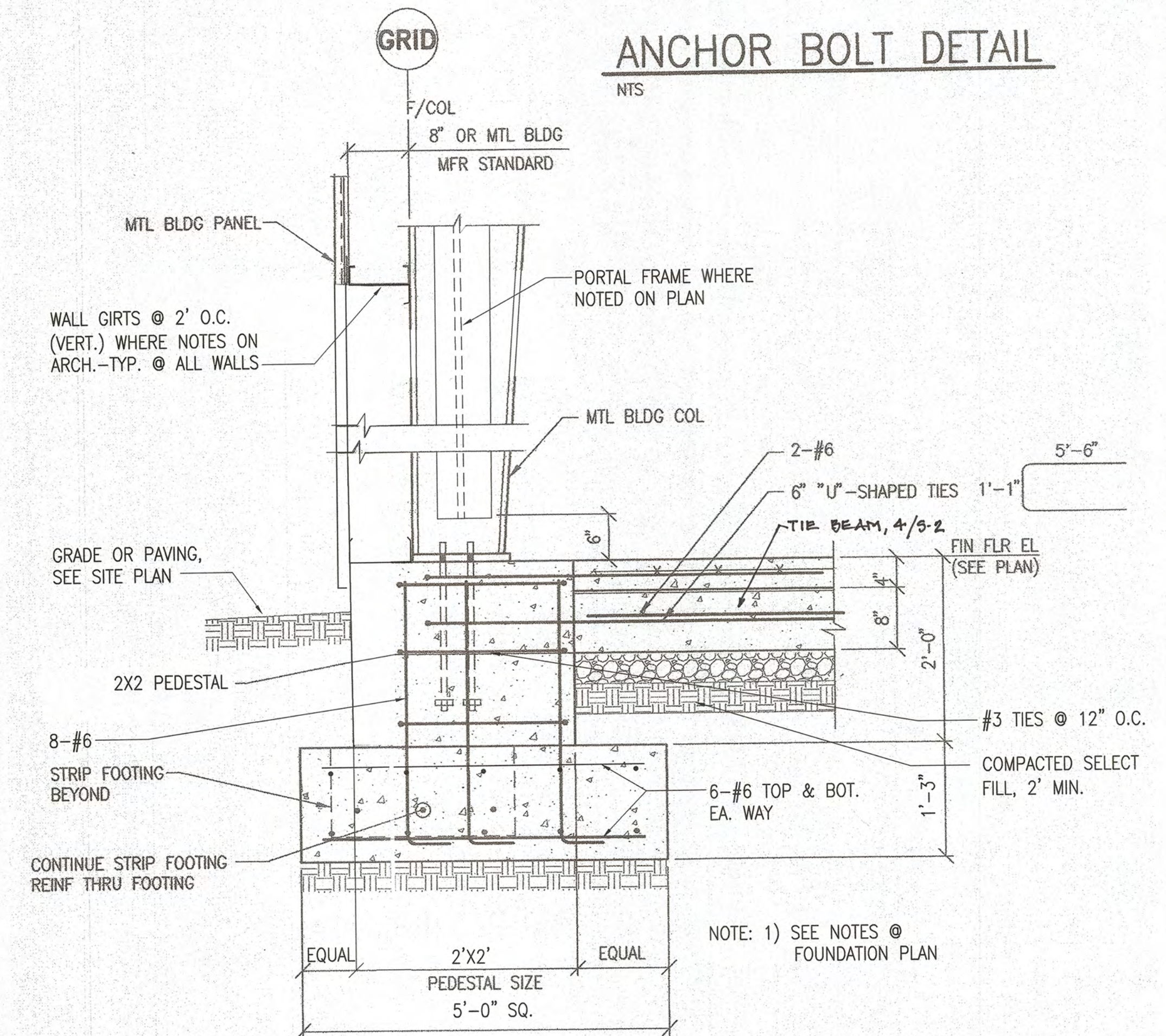


4 SECTION @ TIE BEAM
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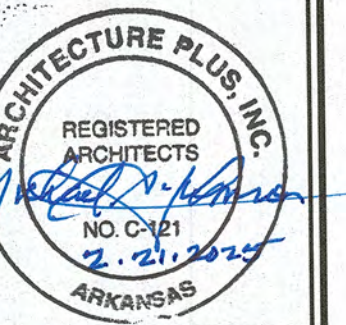


BOLT DIA	"L"	PROJ
3/4"	1'-1"	4"
1"	1'-4"	4"
1 1/4"	1'-5"	5"
1 1/2"	1'-10"	5 1/2"

- ANCHOR BOLT NOTES:
1. OMIT NON SHRINK GROUT ON PRE-ENGINEERED METAL BUILDINGS AND WHERE NOTED ON DRAWINGS.
 2. AT CONTRACTORS OPTION LEVELING NUT UNDER BASE PLATE MAY BE OMITTED WHERE STEEL SHIM PACKS ARE USED.
 3. USE A307 HEADED BOLTS OR A36 THREADED ROD w/ NUT AT BOTTOM.



2 SECTION @ MAINFRAME
NTS



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FOUNDATION/FRAMING DETAILS

REVISIONS:

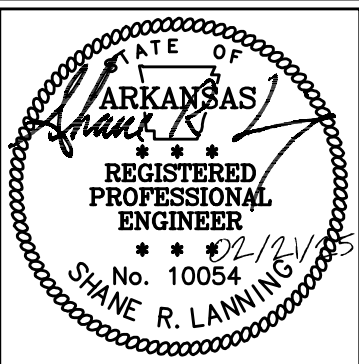
PROJECT: 24-55

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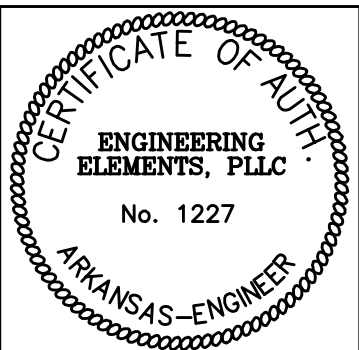
S-2



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ARCHITECTURE PLUS, INC.
907 South 21st Street Fort Smith, Arkansas 479/783-8395
Engineering Elements, PLLC
2458 East Joyce Boulevard, Suite 1, Fayetteville, AR 72703
Phone: 479-695-1333

PLUMBING PLANS

REVISIONS:

PROJECT: 24-55

DATE: 02-21-2025

P1.1



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FIXTURE SCHEDULE

TAG	MFGR/MODEL	DESCRIPTION	ELECTRICAL
HWC-1	AMERICAN STANDARD MADERA 3043.001	ADA FLOOR MOUNTED FLUSH VALVE VITREOUS CHINA ELONGATED-RIM, WITH SLOAN REGAL FLUSHOMETER 111. AMERICAN STANDARD SEAT 5901.100	
HL-1	AMERICAN STANDARD LUCERNE 0355.012	ADA WALL MOUNTED 20"x18" HOLES 4" O.C., WITH KOHLER K-15182 SINGLE HANDLE FAUCET. PROVIDE LAVSHIELD EQUAL TO TRUEBRO IPS CORP. LAVATORY PROTECTIVE ENCLOSURES TO COVER TRAPS, TAILPIECE AND ANGLE STOPS.	
ES-1	GUARDIAN GBF1994	ADA COMPLIANT EYE/FACE WASH AND SHOWER SAFETY STATION. PROVIDE THERMOSTATIC MIXING VALVE IN STAINLESS STEEL CABINET 66042-1R6.	
FD-1	JR SMITH 2005	FLOOR DRAIN. CAST IRON BODY, NICKEL BRONZE STRAINER, SQUARE. PROVIDE JR SMITH QUAD CLOSE TRAP SEAL 2692.	
FPHB-1	JR SMITH 5509QT	FREEZE PROOF HOSE BIBB WALL HYDRANT WITH VACUUM BREAKER STAINLESS STEEL BOX.	
TWCO-1	JR SMITH 4239	TWO WAY CLEAN OUT. CAST IRON BODY, ROUND, WITH CAST IRON TOP, BRONZE PLUG. SEE PLAN FOR SIZES.	
WCO-1	JR SMITH 4530 SERIES	WALL CLEAN OUT. BRONZE PLUG WITH STAINLESS STEEL REMOVABLE COVER. SEE PLAN FOR SIZES.	

GENERAL PLUMBING NOTES

- CAREFULLY EXAMINE SITE & ARCHITECTURAL PLANS TO BE THOROUGHLY FAMILIAR WITH ALL EXISTING CONDITIONS. VERIFY & COORD EXACT LOC OF ALL EQUIP, FIXTURES, PIPING, ETC WITH ALL OTHER TRADES. REVIEW ARCH ELEVATIONS & DWGS FOR EXACT DIMS.
- PROVIDE ALL ESSENTIAL MAT'L'S FOR COMPLETION OF PLUMBING WORK TO MAKE THE SYSTEM READY FOR OPERATION, INCLUDING ALL WORK & MATERIALS NOT DIRECTLY SHOWN ON DWGS & SPECS, BUT NECESSARY FOR PROPER OPERATION.
- ALL WORK SHALL COMPLY WITH APPLICABLE PLUMBING CODES, REQUIREMENTS OF THE STATE HEALTH DEPARTMENT AND LOCAL ORDINANCES.
- PLUMBING SUPPLY & DRAIN PLANS ARE DIAGRAMMATICAL IN NATURE. REGARDLESS OF HOW SHOWN ON THE PLANS, CONTRACTOR TO INSTALL ALL PIPING IN A CONCEALED LOCATION UNLESS OTHERWISE DIRECTED. THE FINAL LAYOUT SHALL BE GOVERNED BY ACTUAL FIELD CONDITIONS WITH ALL MEASUREMENTS VERIFIED AT THE SITE & COORDINATED WITH OTHER DISCIPLINES. DURING CONSTRUCTION, ANY CONFLICT BETWEEN ARCHITECT'S INTENT & THE CONTRACTOR'S INTERPRETATION OF PLUMBING PLANS SHALL BE RESOLVED SO AS TO MAINTAIN THE ARCHITECT'S AESTHETIC EXPECTATIONS OF THE PROJECT.
- INSTALL WATER HAMMER ARRESTOR AT ALL QUICK-CLOSING VALVES & AT END OF EACH BRANCH ON HOT & COLD WATER PIPING. ALSO, PROVIDE AN ARRESTOR AT EACH BATTERY OF WATER CLOSETS & AT OTHER FIXTURES OR EQUIPMENT AS DIRECTED BY MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- PROVIDE ISOLATION VALVES TO SERVE EACH SET OF COLD & HOT WATER RISERS. PROVIDE ISOLATION VALVES TO SERVE EACH SET OF TOILET ROOMS & AT ALL EQUIPMENT. PROVIDE THERMOSTATIC MIXING VALVES SET TO 110° AT EACH PUBLIC HAND WASHING FIXTURE THAT REQUIRES HOT WATER. PROVIDE SHUT-OFF STOPS FOR EACH PLUMBING FIXTURE INSTALLED. AN ACCESS PANEL SHALL BE PROVIDED AS REQUIRED TO ALLOW ACCESS TO ALL VALVES INSTALLED IN A CONCEALED LOCATION. AVOID INSTALLING ANY MAINTENANCE ITEMS ABOVE HARD CEILINGS UNLESS ACCESS IS PROVIDED.
- ROUTE WATER PIPING AND SERVE EACH PLUMBING FIXTURE FROM WITHIN THE WALLS WHEREVER POSSIBLE. UNLESS OTHERWISE NOTED, WATER PIPING SHOWN ON PLANS ARE FOR CLARIFICATION ONLY.
- MOUNT ALL FLUSH CONTROLS FOR HANDICAPPED WATER CLOSETS ON THE OPEN SIDE OF TOILET AREAS.
- THE MINIMUM SIZE FLOOR DRAIN ON THIS PROJECT SHALL BE 2" UNLESS NOTED OTHERWISE ON THE DWGS. ALL DRAIN & VENT PIPING INSTALLED BELOW SLAB SHALL BE A MINIMUM 2".
- THE MINIMUM SLOPE FOR UP TO 2-1/2" DRAIN PIPING SHALL BE 1/4" & 3" TO 6" SHALL BE 1/8".
- PROVIDE A CLEAN OUT AT ALL DEAD ENDS AND CHANGES IN DIRECTION GREATER THAN 45° FOR SANITARY DRAINAGE.
- MAKE PROVISIONS TO INSTALL ALL VENT THROUGH ROOF (VTR) ON THE BACK SIDE OF ALL ROOF RIDGES. THE OPEN VENT TERMINAL SHALL NOT BE LOCATED DIRECTLY BENEATH ANY DOOR, OPERABLE WINDOW, OR OTHER AIR INTAKE OPENING OF THE BUILDING OR AN ADJACENT BUILDING; ANY SUCH VENT TERMINAL SHALL NOT BE WITHIN 10' HORIZONTALLY OF SUCH AN OPENING UNLESS IT IS 3' OR MORE ABOVE THE TOP OF SUCH OPENING. COORD WITH OTHER TRADES. OFFSET AS REQ'D.
- CONTRACTOR TO REVIEW ALL PLAN SHEETS FOR FIXTURE TAGS.

ROUGH-IN & MOUNTING HEIGHT SCHEDULE

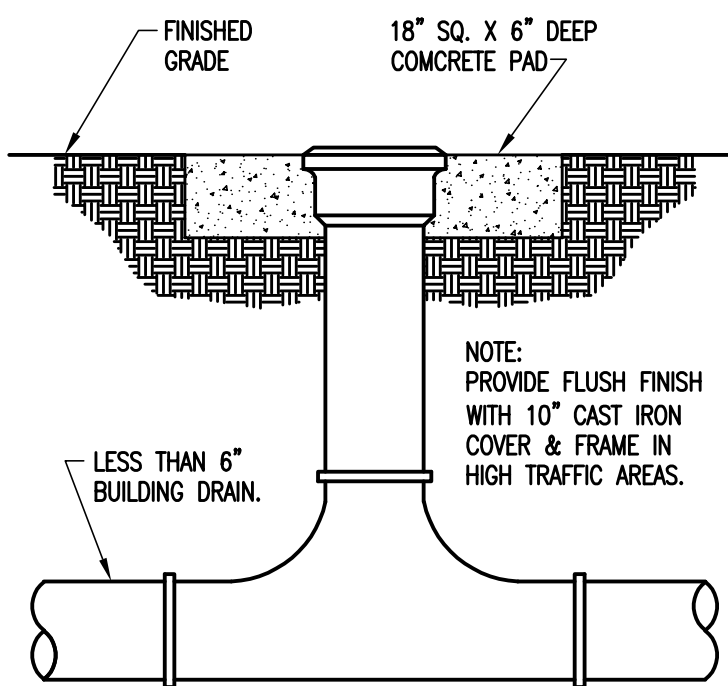
FIXTURE	WASTE	VENT	COLD WATER	HOT WATER	INSTALLATION HEIGHT
WATER CLOSETS (FLUSH VALVES)	3"	2"	1"	-----	STD 15" TO TOP OF SEAT ADA 17" TO TOP OF SEAT
LAVATORIES & SMALL SINKS	1 1/2"	1 1/2"	1/2"	1/2"	STD 31" TO TOP OF RIM ADA 34" TO TOP OF RIM
NOTE	ALL DRAIN AND VENT LINES BELOW SLAB SHALL BE 2" OR LARGER.				

MATERIALS SCHEDULE

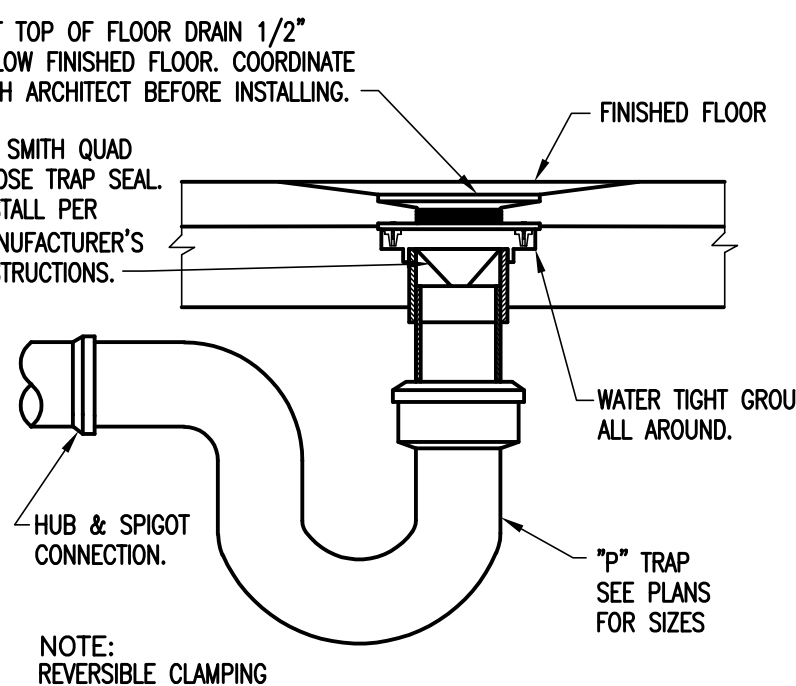
SERVICE	MATERIAL DESCRIPTION
UNDERGROUND SANITARY SEWER AND VENT PIPING INSIDE AND OUTSIDE BUILDING.	SCHEDULE 40 PVC PIPE AND FITTINGS.
ABOVE GROUND SANITARY SEWER AND VENT	SCHEDULE 40 PVC PIPE AND FITTINGS.
ABOVE GROUND DOMESTIC WATER	TYPE "L" COPPER WITH WROUGHT COPPER FITTINGS AND 95-5 LEAD FREE SOLDER. SIL-FOS JOINTS ABOVE SLAB ARE NOT ALLOWED.
ABOVE GROUND GAS	SCHEDULE 40 BLACK STEEL WITH MALLEABLE IRON FITTINGS OR WELDED JOINTS WITH BUTT WELD FITTINGS. IF EXPOSED TO THE ATMOSPHERE EXERTING A CORROSIVE ACTION, METALLIC PIPING AND FITTINGS COATED WITH A CORROSION-RESISTANT MATERIAL SHALL BE USED.
COMPRESSED AIR	TYPE "K" OR "L" SEAMLESS COPPER TUBE. ASTM B88 WITH WROUGHT COOPER SOLDER JOINT FITTINGS AND UNIONS PER ASME B16.22. LEAD FREE SOLDER FILLER PER ASTM B32 WITH WATER FLUSHABLE FLUX PER ASTM B813. OR ASTM A-S3 SEAMLESS GALVANIZED STEEL. THREADED FITTINGS SUITABLE FOR 300 PSIG.

INSULATION SCHEDULE

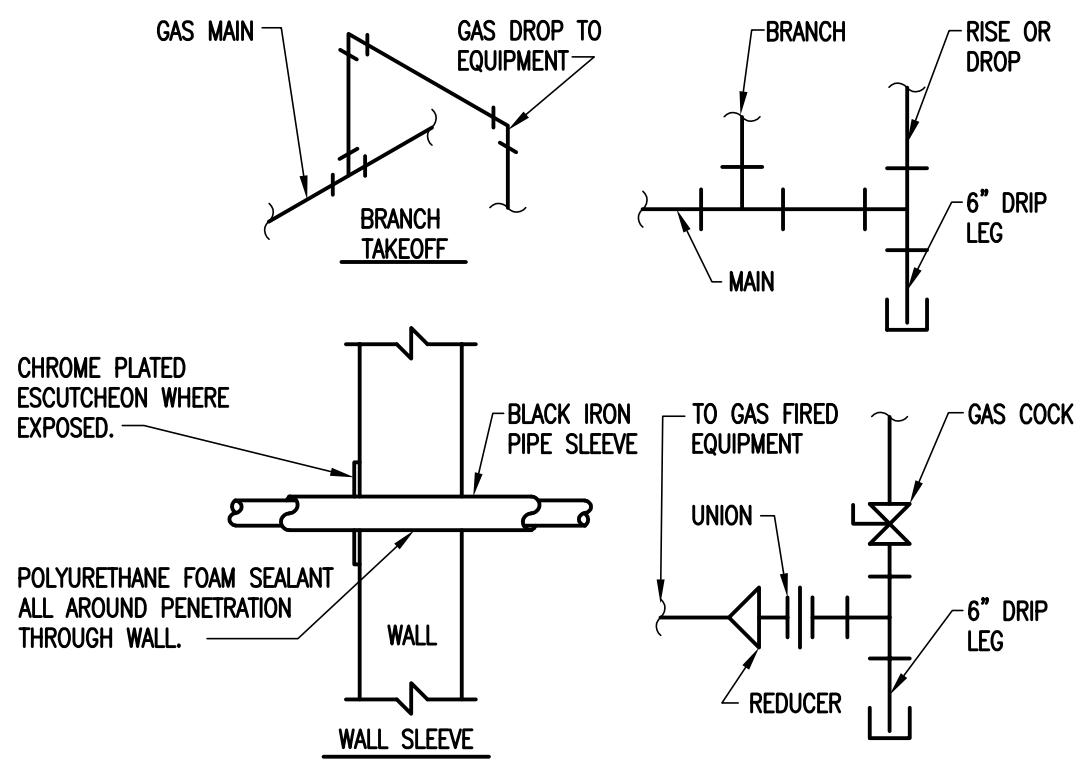
DESCRIPTION	TYPE	THICKNESS
DOMESTIC COLD AND HOT WATER PIPING (NON-RECIRCULATING).	FIBERGLASS	1/2"
WATER COOLERS TRAPS, ADA LAVATORY AND SINK TRAPS, TAILPIECES, HOT AND COLD WATER SUPPLIES.	ANTIMICROBIAL VINYL EQUAL TO TRUEBRO BRAND LAV-GUARD	1/8"



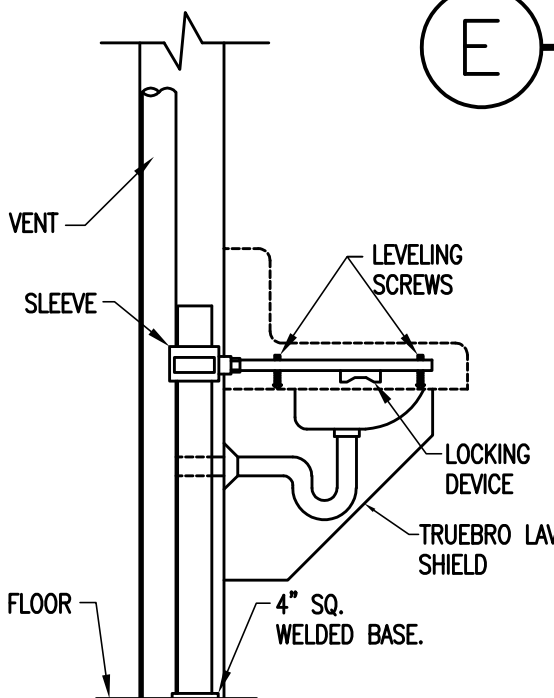
E TWO-WAY CLEAN OUT
N.T.S.



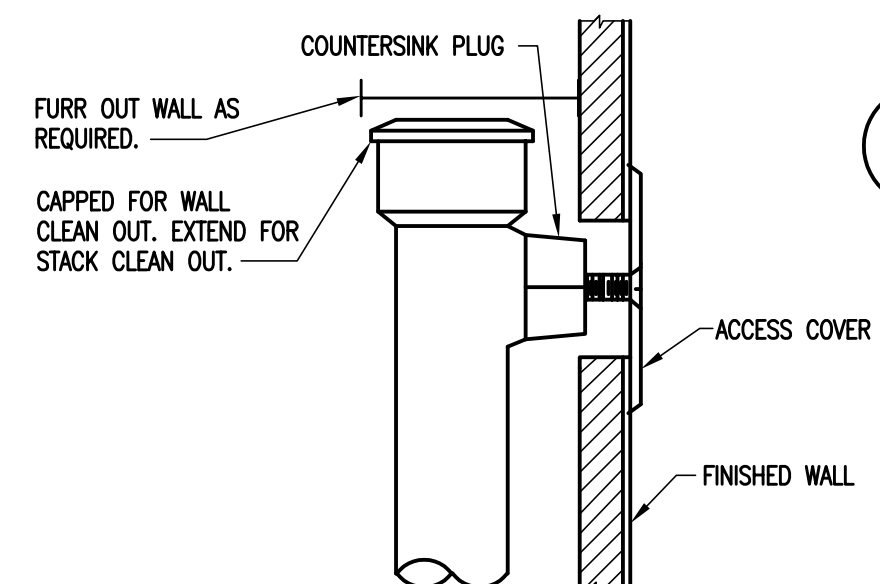
D FLOOR DRAIN
N.T.S.



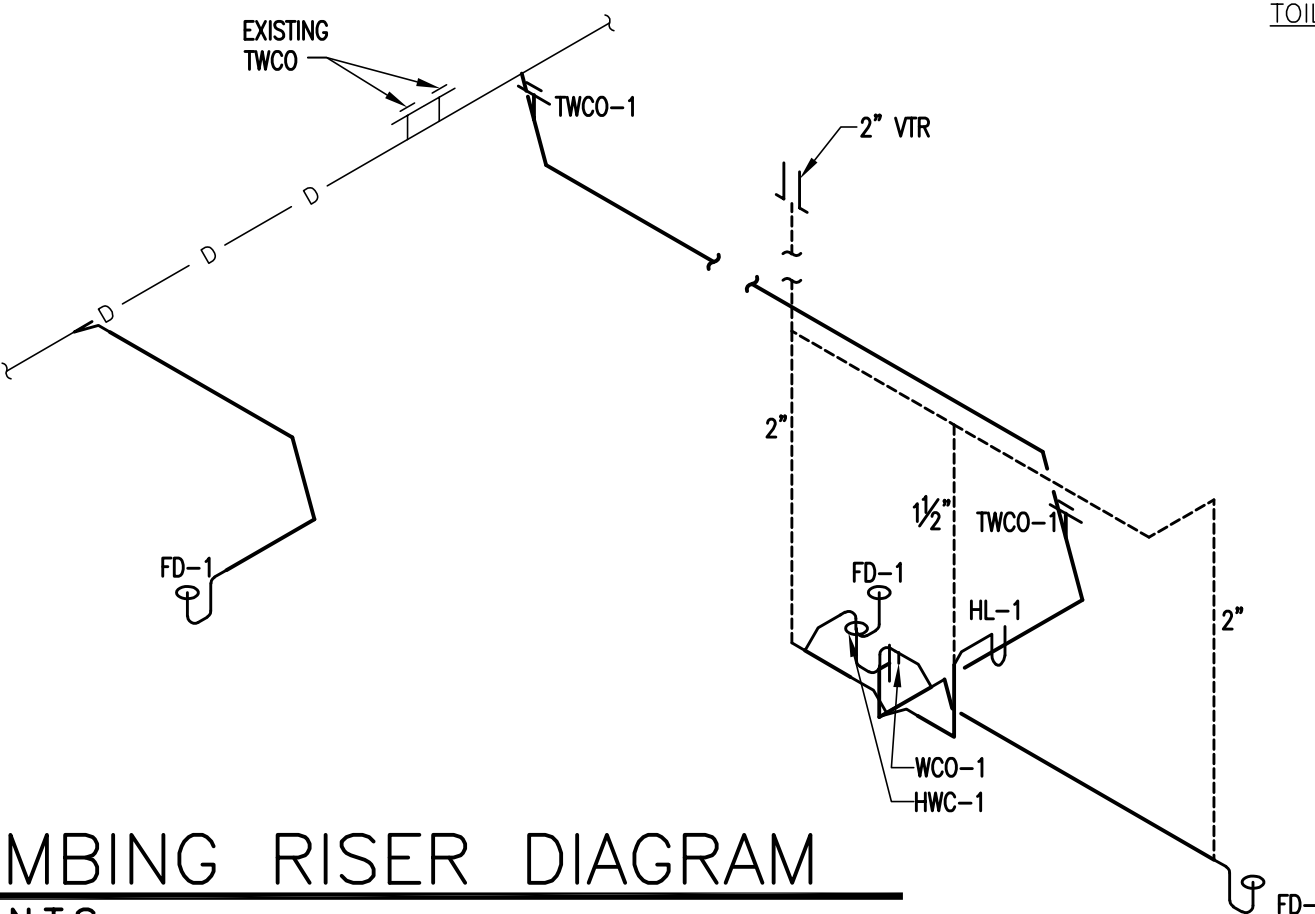
H GAS PIPING
N.T.S.



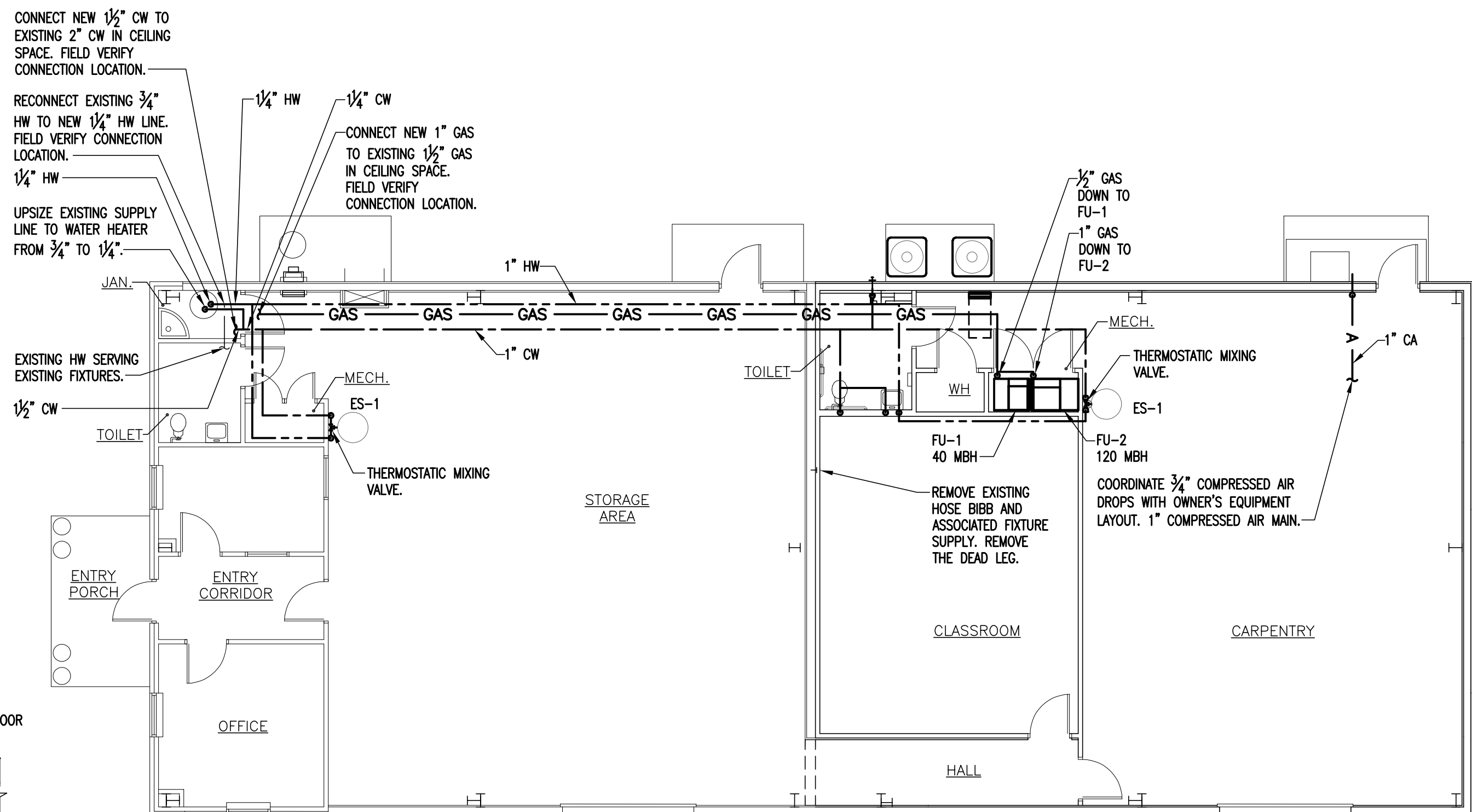
F LAVATORY SUPPORT
N.T.S.



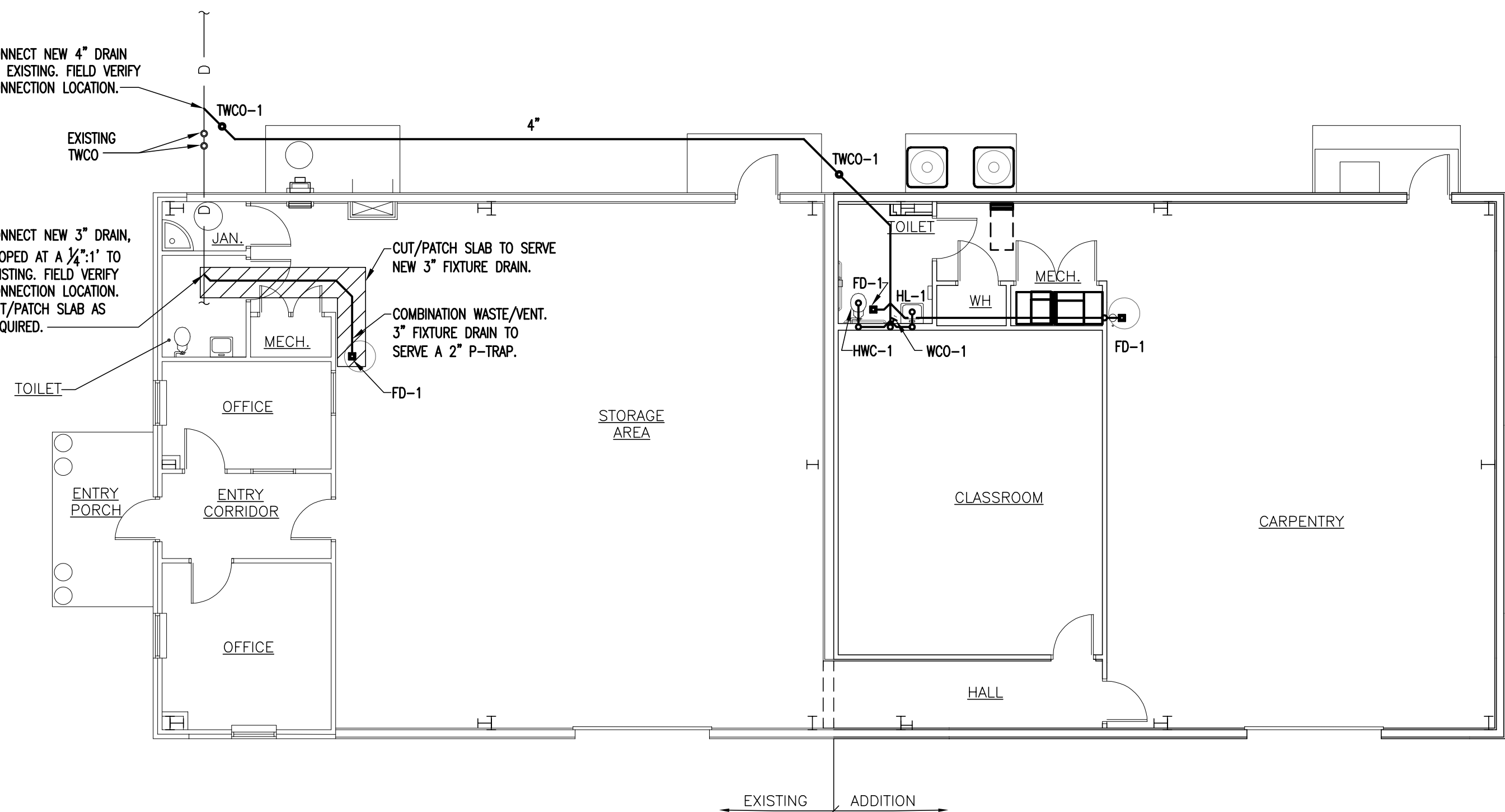
G WALL CLEAN OUT
N.T.S.



C PLUMBING RISER DIAGRAM
SCALE: N.T.S.



B PLUMBING SUPPLY PLAN
SCALE: 1/8" = 1'-0"



A PLUMBING DRAIN PLAN
SCALE: 1/8" = 1'-0"

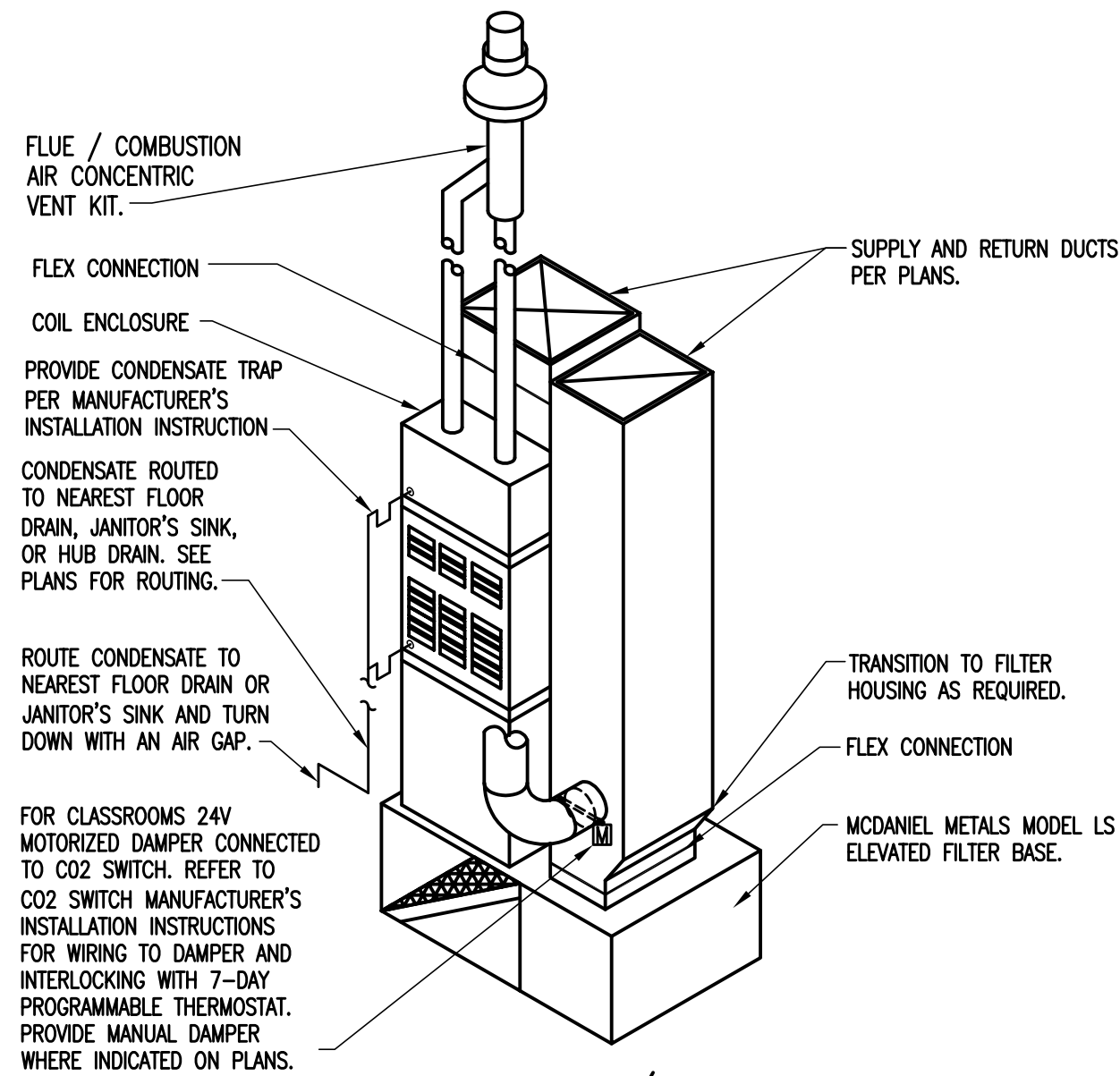
GAS-FIRED FURNACE SCHEDULE																			
TAG	MANU./ MODEL	DESCRIPTION	SPLIT UNIT	AREA SERVED	NOM. TONS	COOL CFM	HEAT CFM	OA CFM	E.S.P.	COIL EAT/LAT	HEAT EAT/LAT	HEAT MBH IN	HEAT MBH OUT	VOLTS/ PHASE	FAN HP	WEIGHT	CONTROL TYPE	ACCESSORIES	COMMENTS
FU-1	DAIKIN/DC96VC0403B	UPFLOW FURNACE, VARIABLE SPEED 96% GAS FIRED	CU-1	SEE PLANS	2	800	800	120	0.5"	80/55	65/109	40	38.4	120/1	1/2	116	7-DAY PROGRAMMABLE THERMOSTAT WITH 2-STAGE CONTROL	CONCENTRIC VENT, TX VALVE, CO2 SWITCH EQUAL TO A HONEYWELL C7232A1016, LABOR SAVER FILTER BASE WITH 2" MERV 13 FILTER	PROVIDE 24V ACTUATOR FOR OUTSIDE AIR DAMPER.
FU-2	DAIKIN/DM96VC1205DN	UPFLOW FURNACE, VARIABLE SPEED 96% GAS FIRED	CU-2	SEE PLANS	5	2000	2000	300	0.5"	80/55	65/118	120	115.2	120/1	1	156	7-DAY PROGRAMMABLE THERMOSTAT WITH 2-STAGE CONTROL	CONCENTRIC VENT, TX VALVE, CO2 SWITCH EQUAL TO A HONEYWELL C7232A1016, LABOR SAVER FILTER BASE WITH 2" MERV 13 FILTER	PROVIDE 24V ACTUATOR FOR OUTSIDE AIR DAMPER.

CONDENSING UNIT SCHEDULE											
TAG	MANUFACTURER/ MODEL	DESCRIPTION	INDOOR UNIT	NOM. TONS	SEER2	VOLTS/ PHASE	FLA	MCA	MOCP	WEIGHT	COMMENTS
CU-1	DAIKIN/DX7TCA2410	2 STAGE CONDENSING UNIT	FU-1	2	16.5	208/1	12.8	15.3	25	214	
CU-2	DAIKIN/DX7TCA6010	2 STAGE CONDENSING UNIT	FU-2	5	15.2	208/1	26.5	32.4	50	283	
ACCESSORIES											
a. PROVIDE 4" CONCRETE PAD. b. HARD START KIT. c. HAIL GUARD.											

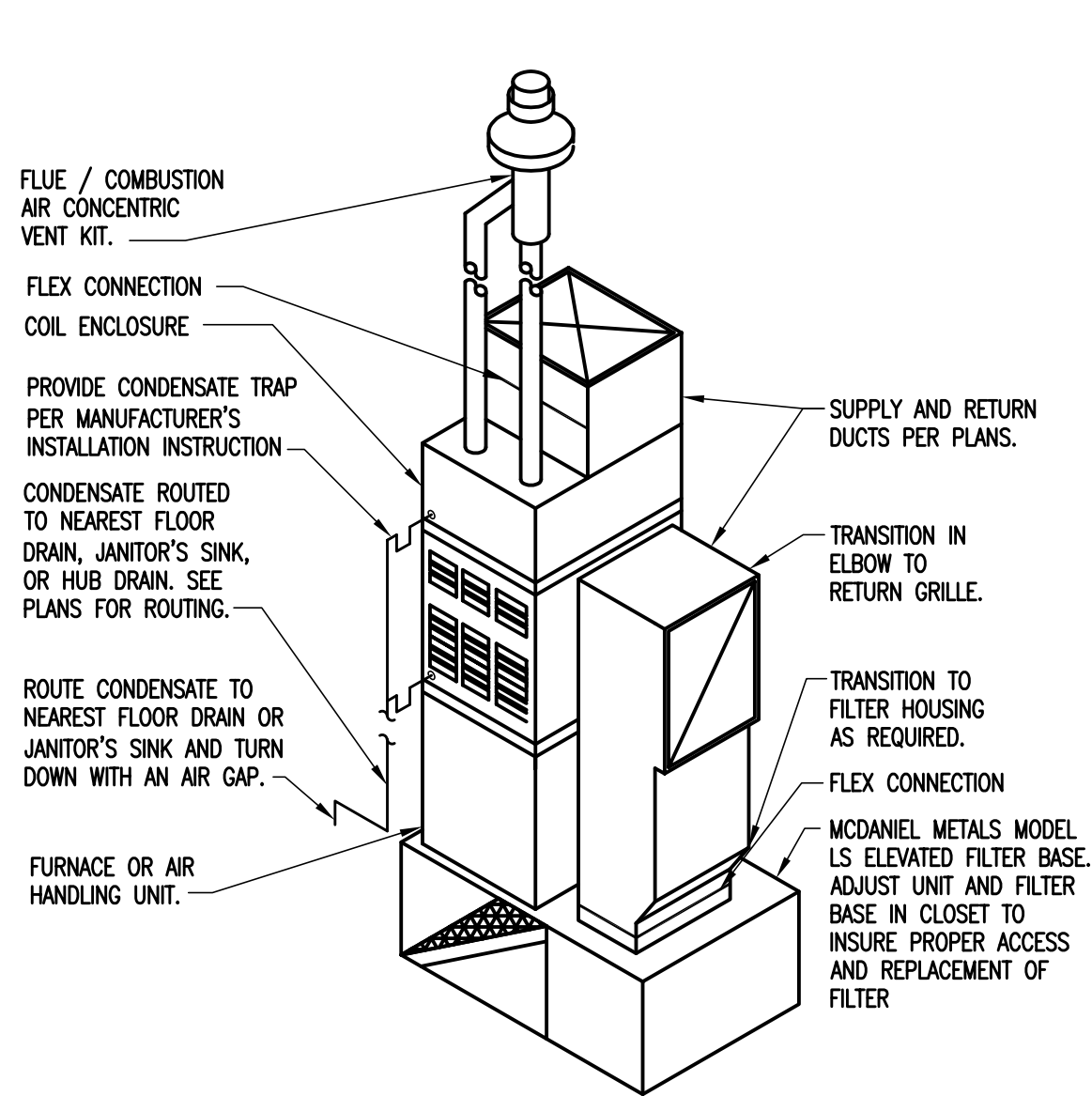
FAN SCHEDULE											
TAG	DESCRIPTION	MANU. MODEL	DRIVE	AREA SERVED	CFM, SP	TS, RPM	HP, WATTS	VOLT, PHASE	SONES	WT (LBS)	CONTROL
EF-1	EXHAUST FAN, CEILING MOUNTED	ACME L0100	DIRECT	TOILET	70 /25	1064 542	1/29 HP	120 1	1	18.6	SWITCHED WITH LIGHTS
FAN ACCESSORIES											
a. PROVIDE VIBRATION ISOLATING MOUNTING KIT AND ALL REQUIRED MOUNTING ACCESSORIES. b. PROVIDE BACKDRAFT DAMPER FOR ALL FANS c. FACTORY MOUNTED NEMA 1 (INDOORS) OR NEMA 3R (OUTDOORS) DISCONNECT SWITCH. d. PROVIDE INSECT SCREEN. e. PROVIDE FACTORY INSTALLED FAN SPEED CONTROLLER. f. PROVIDE ALUMINUM GRILLE CEILING MOUNTED FANS. g. PROVIDE WALL CAP EQUAL TO ACME'S MODEL 643											

MECHANICAL INSULATION SCHEDULE		
DESCRIPTION	TYPE	THICKNESS
RECTANGULAR SUPPLY, RETURN AND OUTSIDE AIR DUCTS	DUCT WRAP	2"
ROUND SUPPLY AIR DUCTS, RESTROOM EXHAUST DUCTS, OUTSIDE AIR DUCTS	DUCT WRAP	2"
SUPPLY CEILING DIFFUSERS AND GRILLES	DUCT WRAP	2"
REFRIGERANT PIPING, COPPER CONDENSATE DRAIN PIPING, CONDENSER WATER PIPING	ELASTOMERIC	1/2"

MECHANICAL DUCTWORK SCHEDULE	
DESCRIPTION	DUCT TYPE
RESTROOM EXHAUST DUCTS	ROUND OR RECTANGULAR DUCT WITH DUCT WRAP INSULATION
LOW PRESSURE SUPPLY AND RETURN RECTANGULAR DUCTS	RECTANGULAR WITH 2" WRAP
LOW PRESSURE ROUND RUNOUTS TO SUPPLY DIFFUSERS AND RETURN GRILLES	ROUND DUCT WITH WRAP INSULATION

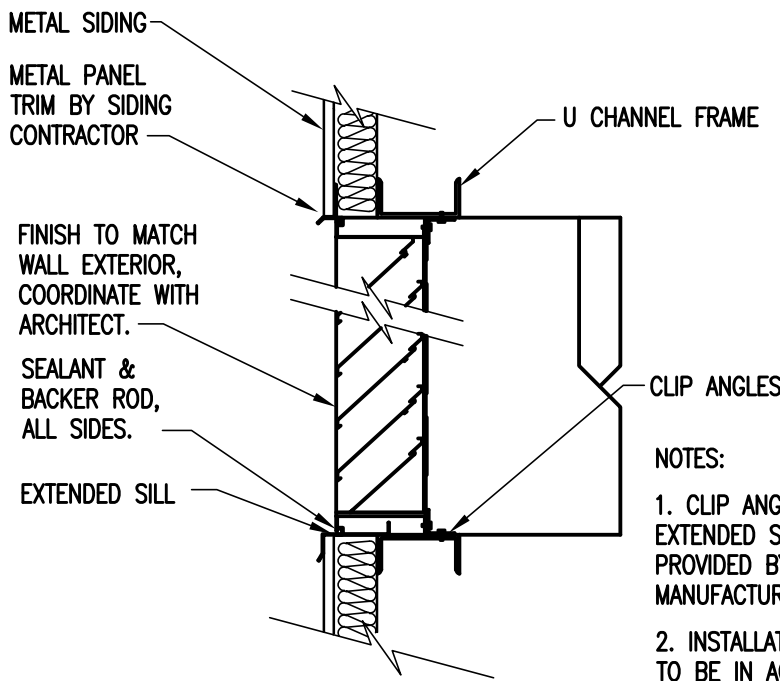


G FILTER HOUSING/FURNACE SUPPORT DETAIL – FU-1
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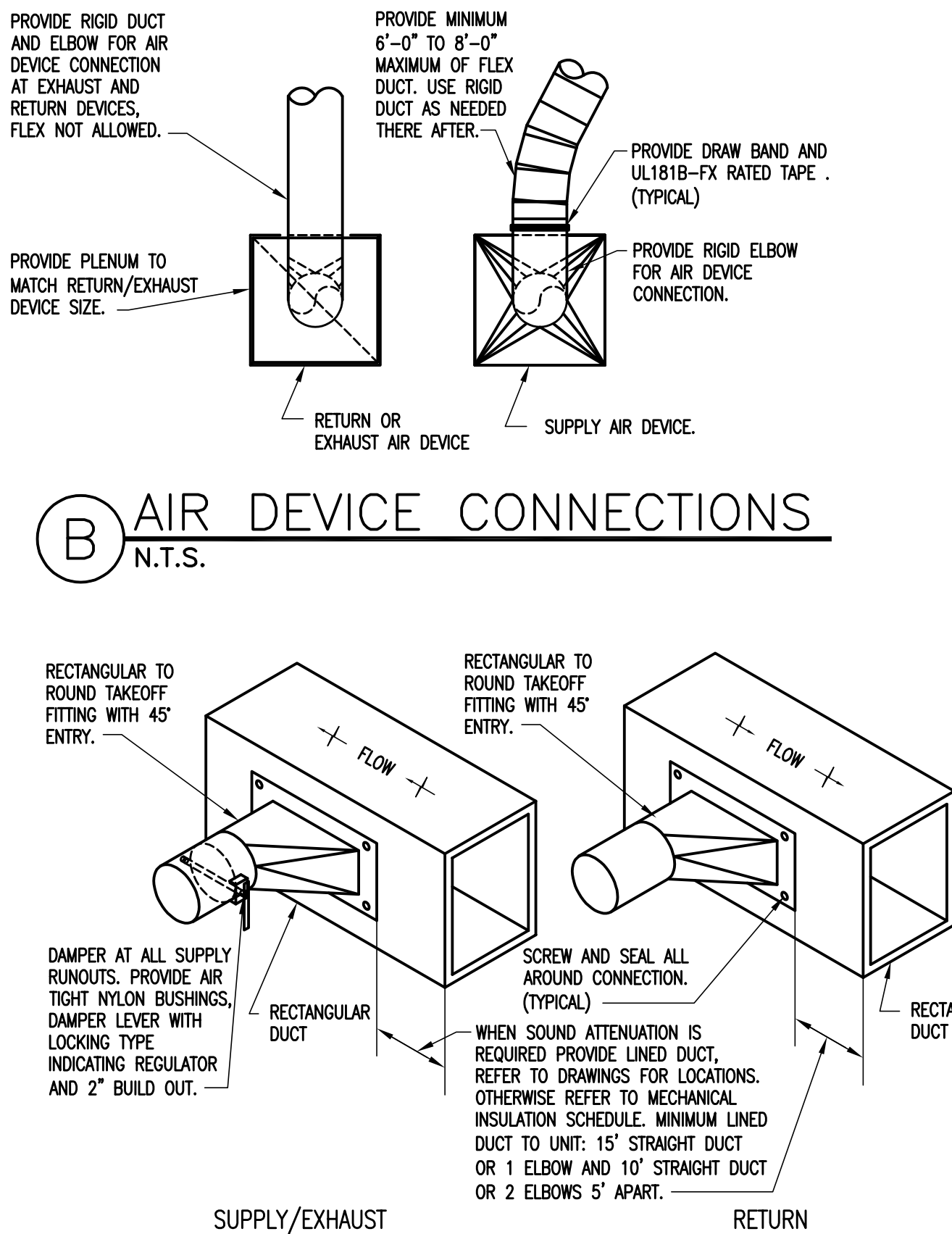
F FILTER HOUSING/FURNACE SUPPORT DETAIL – FU-2
N.T.S.

AIR DEVICE SCHEDULE						
TAG	MANUFACT. MODEL	DESCRIPTION	SIZE	NECK	MATERIAL FINISH	COMMENTS
CD-1	NAILOR RNS	CEILING DIFFUSER, SQUARE CONES	22X22 FACE 24X24 FRAME	6"	STEEL, WHITE	LAY-IN, UP TO 110 CFM
CD-2	NAILOR RNS	CEILING DIFFUSER, SQUARE CONES	22X22 FACE 24X24 FRAME	10"	STEEL, WHITE	LAY-IN, UP TO 375 CFM
SD-1	NAILOR 61DH	SUPPLY GRILLE, DOUBLE DEFLECTION, 3/4" SPACING BLADES PARALLEL TO LONG DIM.	18X12 FACE 19-3/4"X13-3/4" FRAME	18"X12"	STEEL, PRIMER COAT	SURFACE MOUNT, UP TO 700 CFM
RG-1	NAILOR 51EC	RETURN GRILLE, EGGRATE 1/8X1/2 CORE	20X20 FACE 22X22 FRAME	20"X20"	ALUMINUM, WHITE	SURFACE MOUNTED, UP TO 1600 CFM
RG-2	NAILOR 5130H-HD	RETURN GRILLE, HEAVY DUTY, 30° DEFLECTION, 1/4" BARS ON 1/2"	24X44 FACE 25-5/8"X25-5/8" FRAME	24"X44"	ALUMINUM, PRIMER COAT	LAY-IN, UP TO 2000 CFM
L-1	NAILOR 1606DHP	6" LOUVER, DRAINABLE BLADES, BOX FRAME, EXTEND SILL, AND CLIP ANGLES	12X12 FRAME	12"X12"	ALUMINUM, COLOR BY ARCHITECT	SIDEWALL, UP TO 200 CFM

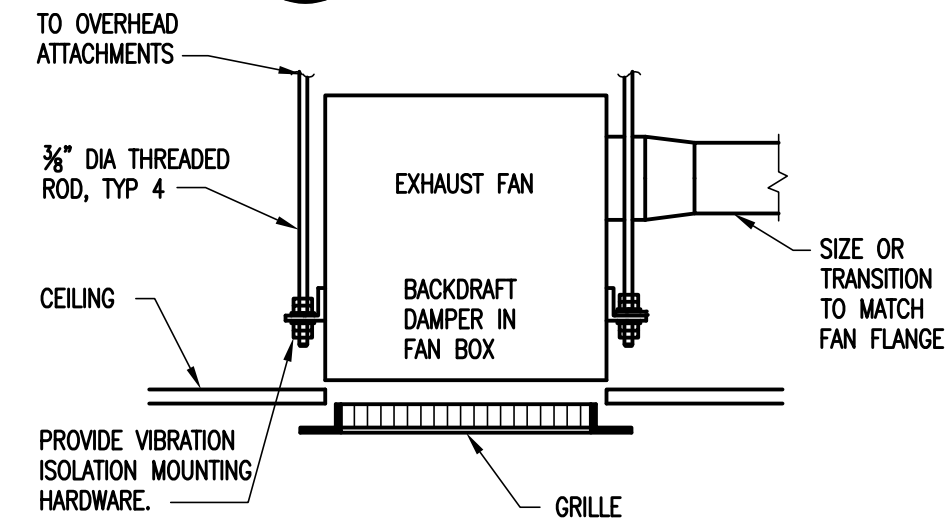


E LOUVER DETAIL
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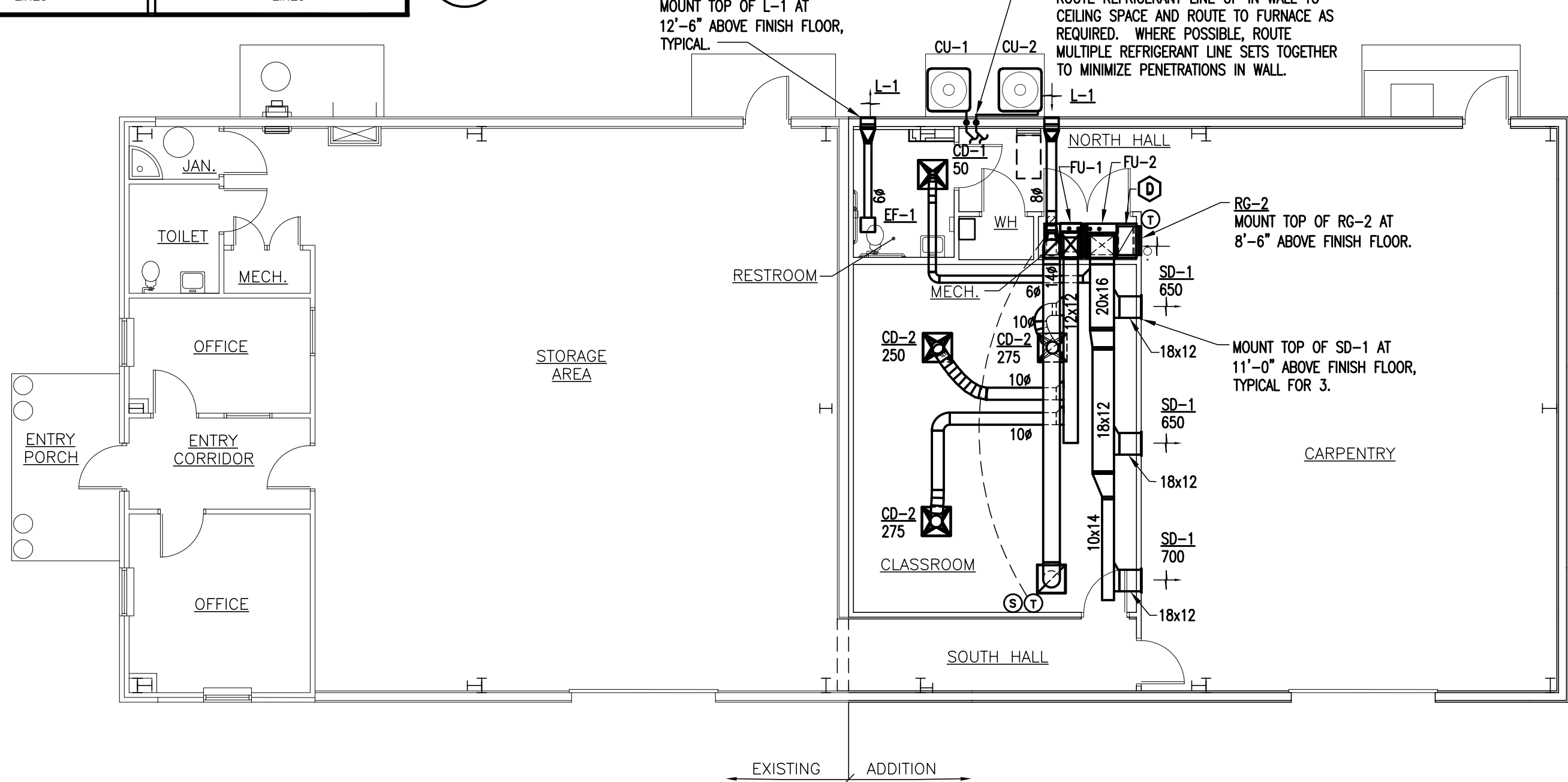
MECHANICAL LEGEND			
12X12-	DUCT RISER, FIRST DIMENSION IS SIDE POINTED TO		DUCT DETECTOR
	CEILING DIFFUSER		AIR DEVICE TAG
	RETURN GRILLE		AIRFLOW ARROW
	EXHAUST GRILLE		THERMOSTAT, MOUNT AT 48" AFF
	ROUND DUCT SECTION		CO2 SENSOR, MOUNT AT 48" AFF
	CONDENSATE LINES		DUCT, FIRST DIMENSION IS SIDE SHOWN
	REFRIGERANT LINES		20X20



C DUCT TAPS
N.T.S.



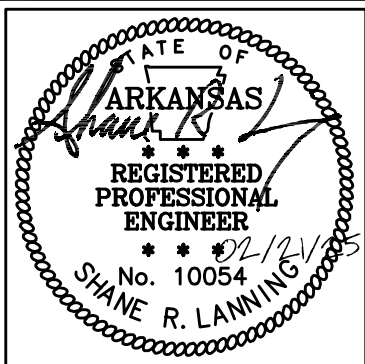
D CEILING EXHAUST FAN
N.T.S.



A MECHANICAL PLAN
SCALE: 1/8" = 1'-0"

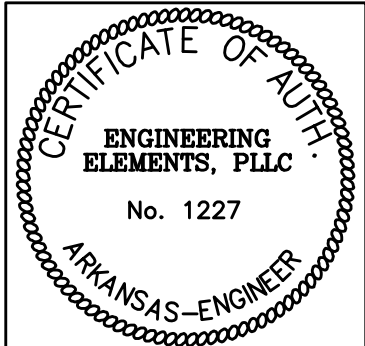
MECHANICAL NOTES

- THIS SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH ALL STATE AND LOCAL CODES AND REGULATIONS.
- PROVIDE ACCESS PANELS AT ALL CONCEALED DEVICES (DAMPERS, VALVES, ETC.) REQUIRING ACCESSIBILITY FOR OPERATION OR MAINTENANCE. COORDINATE ACCESS PANEL LOCATION WITH OTHER TRADES TO AVOID CONFLICTS. DO NOT INSTALL ANY MAINTENANCE ITEMS ABOVE HARD CEILINGS IF IT CAN BE AVOIDED. PROVIDE MINIMUM 12X12 ACCESS DOOR OR 18X18 IF PERSONNEL ACCESS IS REQUIRED.
- NO RIGID CONNECTIONS SHALL BE MADE BETWEEN SPRING MOUNTED EQUIPMENT AND THE STRUCTURE. ALL FANS SHALL BE CONNECTED TO DUCTS WITH FLEXIBLE SLEEVES AT LEAST 6" WIDE WITH SLACK. THE MECHANICAL SYSTEM SHALL OPERATE QUIETLY WITH ALL NOISE LEVELS BELOW ASHRAE RECOMMENDED GUIDELINES. PROVIDE CORRECTIVE ACTION TO REMOVE ALL OBJECTIONABLE NOISE AND VIBRATION.
- ALL DUCT RUNOUTS TO DIFFUSERS AND GRILLES SHALL CONSIST OF A 45° TAKEOFF FITTING AND VOLUME DAMPER. LOCATE THE DAMPERS IN AN ACCESSIBLE LOCATION AS FAR AS PRACTICAL FROM THE AIR DEVICE.
- ALL EQUIPMENT FURNISHED SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE ALL DRAINS, VENTS, CONNECTIONS, VIBRATION ISOLATION, ETC. TO EQUIPMENT IN ACCORDANCE WITH SAID INSTRUCTIONS. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR A COMPLETE, OPERATING SYSTEM. THIS INCLUDES ALL INCIDENTAL ITEMS, FITTINGS, HARDWARE AND CONNECTIONS NECESSARY FOR PROPER OPERATION EVEN IF THOSE ITEMS ARE NOT SPECIFICALLY INDICATED ON THE DRAWINGS.
- WHERE MOUNTING HEIGHTS ARE NOT SPECIFIED, INSTALL MECHANICAL SERVICES AND OVERHEAD EQUIPMENT TO PROVIDE MAXIMUM HEADROOM POSSIBLE.
- THESE DRAWINGS INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND ARE TO BE FOLLOWED INsofar AS POSSIBLE. THE CONTRACTOR SHALL FIELD VERIFY ALL MEASUREMENTS AND SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES TO AVOID CONFLICT OR DELAY.
- ALL DUCT SIZES SHOWN ON THESE DRAWINGS ARE THE METAL DIMENSIONS. REFER TO MECHANICAL DUCTWORK AND INSULATION SCHEDULE FOR INSULATION REQUIREMENTS.
- PIPE CONDENSATE DRAINS FROM ALL AIR HANDLING UNITS TO NEAREST FLOOR DRAIN OR JANITOR'S SINK AND TURN DOWN TO AN AIR GAP.
- ALL RUNOUT DUCT SIZES ON THE DRAWING SHALL BE THE SAME SIZE AS THE DIFFUSER NECK SIZE. REFER TO THE MECHANICAL SCHEDULE FOR ALL NECK SIZES PRIOR TO CONSTRUCTION.
- REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR THE FINAL LOCATION OF ALL CEILING MOUNTED DEVICES. MOUNTING HEIGHTS AND FINAL LOCATIONS OF ALL WALL MOUNTED DEVICES SHALL BE COORDINATED WITH ARCHITECTURAL ELEVATIONS PRIOR TO INSTALLATION.
- THIS BUILDING CONTAINS A FIRE ALARM SYSTEM. THE FIRE ALARM CONTRACTOR SHALL PROVIDE THE DUCT MOUNTED SMOKE DETECTORS FOR THE PROJECT, AND PROVIDE ALL WIRING FOR CONNECTION TO THE FIRE ALARM SYSTEM. THE MECHANICAL CONTRACTOR SHALL INSTALL THE DUCT DETECTORS IN THE DUCTWORK AND SHALL PROVIDE CONTACTS FOR THE FIRE ALARM CONTROL CONNECTION FOR UNIT SHUTDOWN IN "ALARM" MODE. INSTALL DUCT DETECTORS IN THE RETURN DUCT OF ALL AIR HANDLING UNITS SUPPLYING 2000 CFM OF AIR OR GREATER.
- UNLESS OTHERWISE NOTED, SYSTEMS SHALL BE BALANCED IN ACCORDANCE WITH INDUSTRY-ACCEPTED PROCEDURES TO WITHIN 10% OF DESIGN AIRFLOW RATES.
- ALL DEVICES TO BE INSTALLED BY THIS TRADE SHALL BE COORDINATED WITH ALL TRADES (ARCHITECTURAL, MILLWORK, MECHANICAL, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, ETC.) DURING CONSTRUCTION TO AVOID CONFLICTS AND TO PROVIDE A QUALITY PROJECT. IF YOU NOTICE ANY DISCREPANCY BETWEEN THIS WORK AND A SEPARATE TRADE, NOTIFY THE ENGINEER IMMEDIATELY FOR DIRECTION. ANY COORDINATION WORK THAT OCCURS WITHOUT APPROVAL FROM THE ENGINEER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL MOUNTING HEIGHTS SHALL BE CONFIRMED WITH ARCHITECTURAL ELEVATIONS IN EACH ROOM.
- PROVIDE A RADIUS ELBOW ON ALL RECTANGULAR FITTINGS WITH ASPECT RATIO R/H=1. IF RADIUS ELBOW IS NOT PRACTICAL OR CREATES CONFLICT, THEN INSTALL TURNING VANES IN FITTING. USE ACOUSTIC STYLE PERFORATED VANES IN DUCTS WIDER THAN 20-INCHES.



OSARKA COLLEGE
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Phone: 479-695-1333

MECHANICAL PLAN

REVISIONS:

PROJECT: 24-55

DATE: 02-21-2025

M1.1



ARCHITECTS · PLANNERS

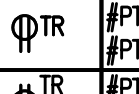


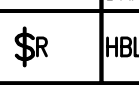

ELECTRICAL NOTES

- ELECTRICAL DRAWINGS (POWER AND LIGHTING) ARE DIAGRAMATIC AND SCHEMATIC IN NATURE. USE JUDGMENT AND CARE TO INSTALL ELECTRICAL WORK TO FUNCTION PROPERLY AND FIT WITHIN BUILDING CONSTRUCTION AND FINISHES. ALL CONDUCTORS, CONDUIT, AND MATERIALS NOT SPECIFICALLY SHOWN OR SPECIFIED, WHICH ARE REQUIRED FOR A COMPLETE OPERATING DEVICE OR SYSTEM ARE REQUIRED TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR. REFER TO ARCHITECT'S REFLECTED CEILING PLAN FOR FINAL LOCATION OF ALL LIGHT FIXTURES AND CEILING TYPES. MAKE PROVISIONS FOR INSTALLATIONS IN FIRE RATED BARRIERS AS REQUIRED.
- ELECTRICAL CONTRACTOR SHALL VERIFY LOCATION OF ALL OUTLET ROUGH-INS WITH ARCHITECT'S MILLWORK, FURNITURE LAYOUT, MANUFACTURER'S SHOP DRAWINGS, OR AS MAY BE DETERMINED AT THE PROJECT SITE. DO NOT SCALE DRAWINGS FOR EXACT LOCATION OF DEVICES. FIELD VERIFY FINAL MOUNTING HEIGHTS AND LOCATIONS AS REQUIRED BY PROJECT CONDITIONS PRIOR TO ROUGH-IN.
- ALL DEVICES TO BE INSTALLED BY THIS TRADE SHALL BE COORDINATED WITH ALL TRADES (ARCHITECTURAL, MILLWORK, MECHANICAL, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, ETC.) DURING CONSTRUCTION TO AVOID CONFLICT AND TO PROVIDE A QUALITY PROJECT. IF YOU NOTICE ANY DISCREPANCY BETWEEN THIS WORK AND A SEPARATE TRADE, NOTIFY THE ENGINEER IMMEDIATELY FOR DIRECTION. ANY COORDINATION WORK THAT OCCURS WITHOUT APPROVAL FROM THE ENGINEER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL MOUNTING HEIGHTS SHALL BE CONFIRMED WITH ARCHITECTURAL ELEVATION FOR EACH ROOM.
- ROUTE ALL CONDUITS AND WIRING ABOVE CEILINGS, IN CHASES, OR CONCEALED WITHIN BUILDING STRUCTURE. SURFACE MOUNTED RACEWAYS OR CONDUIT SHALL ONLY BE PERMITTED AT LOCATIONS SPECIFIED ON THE DRAWINGS.
- PROVIDE TWO 3/4" CONDUITS FROM EACH TELEPHONE/DATA OUTLET TO THE NEAREST ACCESSIBLE CEILING CAVITY. ALL TELEPHONE/DATA OUTLETS SHALL BE 4" SQUARE BOXES WITH SINGLE GANG PLASTER FRAME. ELECTRICAL CONTRACTOR SHALL VERIFY EXACT LOCATION AND HEIGHTS OF DEVICES PRIOR TO INSTALLATION. PROVIDE A PULL WIRE IN EACH CONDUIT AND BUSHINGS INSTALLED ON THE END OF THE CONDUIT. PROVIDE A BLANK COVER PLATE OVER ALL BOXES, COLOR TO MATCH ADJACENT ELECTRICAL OUTLETS.
- AT EACH THERMOSTAT & CO2 SENSOR LOCATION, PROVIDE ONE 4" BOX WITH A 3/4" CONDUIT TO THE NEAREST ACCESSIBLE CEILING CAVITY. VERIFY EXACT LOCATION AND MOUNTING HEIGHT OF THERMOSTAT PRIOR TO ROUGH-IN. PROVIDE A PULL WIRE IN EACH CONDUIT AND BUSHINGS INSTALLED ON EXPOSED END OF THE CONDUIT.
- COORDINATE THE ELECTRICAL REQUIREMENTS FOR ALL PLUMBING FIXTURES (CIRCULATING PUMPS, WATER HEATERS, ETC.) WITH THE PLUMBING CONTRACTOR PRIOR TO ROUGH-IN. MAKE ALL FINAL ELECTRICAL CONNECTIONS NECESSARY TO PLUMBING EQUIPMENT PROVIDED BY OTHERS.
- COORDINATE ELECTRICAL REQUIREMENTS FOR ALL HVAC EQUIPMENT WITH THE MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. LOCATE ALL FEEDERS, DISCONNECTS, SERVICE RECEPTACLES, ETC. WHERE INTERFERENCE WITH AND MAINTENANCE OF MECHANICAL EQUIPMENT WILL NOT OCCUR. MAKE ALL FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT AS REQUIRED.
- DUCT MOUNTED SMOKE DETECTORS SHALL BE INSTALLED IN DUCTWORK BY MECHANICAL CONTRACTOR. DUCT DETECTORS SHALL SHUT DOWN MECHANICAL EQUIPMENT UPON DETECTION OF SMOKE. DUCT DETECTORS SHALL BE FURNISHED AND WIRED BY THE FIRE ALARM CONTRACTOR WITH ELECTRICAL CONTRACTOR MAKING ALL FINAL CONNECTIONS. COORDINATE ALL WORK WITH MECHANICAL AND FIRE ALARM CONTRACTORS TO AVOID CONFLICTS.
- ALL EXIT LIGHT FIXTURES SHALL NOT BE SWITCHED. ALL EMERGENCY LIGHT FIXTURES SHALL HAVE A 'HOT' WIRE CONNECTION TO EMERGENCY BALLAST. PROVIDE EXIT AND EMERGENCY FIXTURES AS NECESSARY (EGRESS ROUTES, STAIRWELLS, MAIN ELECTRICAL CLOSET, OUTSIDE EXTERIOR EXIT DOORS, ETC.) ALL EXIT/EMERGENCY LIGHTS SHALL HAVE EMERGENCY BATTERY BACK-UP. AT EXTERIOR EMERGENCY LOCATIONS PROVIDE REMOTE EMERGENCY HEAD WITH INDOOR BATTERY SOURCE. MOUNT ALL EMERGENCY TEST SWITCHES IN OF EMERGENCY LIGHT FIXTURE.
- ELECTRICAL CONTRACTOR SHALL COORDINATE ALL ELECTRICAL SERVICE AND METERING REQUIREMENTS WITH THE UTILITY POWER COMPANY (CONDUITS, GROUNDING, CONCRETE PAUS, TRENCHING, ETC.). PAY ALL SERVICE FEES AS NECESSARY. ARRANGE TO PROVIDE TEMPORARY CONSTRUCTION SERVICE AS NECESSARY.
- MC CABLE MAY BE USED FOR 'LIGHTING WHIPS' OF LENGTHS LESS THAN 6'-0". MC CALBE IS NOT ALLOWED FOR USE IN WALLS TO DEVICES. EMT CONDUIT SHOULD BE USED WITHIN WALLS AND ABOVE CEILINGS TO EASE FUTURE CIRCUIT AND TECHNOLOGY UPGRADES.
- MOUNT ELECTRIC WATER COOLER RECEPTACLE BEHIND ENCLOSURE. COORDINATE WITH ELECTRICAL WATER COOLER MANUFACTURER FOR EXACT MOUNTING HEIGHT. PROVIDE A GFCI BREAKER IN PANEL TO PROTECT THIS CIRCUIT.
- COORDINATE CONFLICTS BETWEEN LIGHT FIXTURES ILLUMINATION AND OBSTRUCTIONS (SUCH AS CONDUIT, PIPING, DUCT & ETC), RIGIDLY MOUNT LIGHT FIXTURE 12" BELOW OBSTRUCTION.


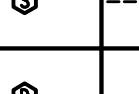


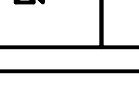
FIRE ALARM NOTES

- THE EXISTING SCHOOL CONTAINS AN EXISTING ADDRESSABLE FIRE ALARM SYSTEM. THE NEW CLASSROOM ADDITION SHALL FUNCTION AS AN EXTENSION OF THIS EXISTING SYSTEM. THE MANUFACTURER OF ALL NEW FIRE ALARM DEVICES SHALL BE THE MANUFACTURER OF THE EXISTING SYSTEM.
- CONTRACTOR SHALL, WHEN DESIGNING THE FIRE ALARM SYSTEM, VERIFY EXACT LOCATION, LAYOUT, AND SPACING OF ALL DEVICES REQUIRED PER NFPA 72, NFPA 101, APPLICABLE BUILDING CODES AND THE AMERICAN'S WITH DISABILITIES ACT.
- DESIGN AND INSTALL THE FIRE ALARM SYSTEM TO MEET ALL REQUIREMENTS OF THE LOCAL FIRE MARSHALL.
- DESIGN THE FIRE ALARM SYSTEM PER REQUIREMENTS OF NFPA 72. ALL DEFICIENCIES OF THE SYSTEM SHALL BE THE RESPONSIBILITY OF THE FIRE ALARM CONTRACTOR.
- SUBMIT SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR APPROVAL. SHOP DRAWINGS SHALL INCLUDE COMPLETE LAYOUT DRAWINGS OF ALL EQUIPMENT INDICATING RELATIONSHIP TO ADJACENT SYSTEMS (HVAC, LIGHTING, ETC) WHICH MAY CAUSE CONFLICT.
- SUBMIT COMPLETE DETAILS AND SECTIONS TO CLEARLY DEFINE AND CLARIFY THE DESIGN. INCLUDING A MATERIALS LIST DESCRIBING ALL PROPOSED MATERIALS BY MANUFACTURER NAME AND MODEL NUMBER.
- UPON COMPLETION OF SYSTEM INSTALLATION, TEST AND RE-TEST THE SYSTEM AND MAKE ALL CORRECTIONS NECESSARY.
- PROVIDE DUCT DETECTORS TO MECHANICAL CONTRACTOR FOR INSTALLATION IN DUCTWORK. MAKE ALL WIRING CONNECTIONS NECESSARY TO CONNECT TO FIRE ALARM SYSTEM.
- ALL DEVICES IN OCCUPIED AREAS SHALL BE WHITE WITH RED LETTERING.
- FIRE ALARM SYSTEMS SHALL BE OF ADDRESSABLE TYPE, INCORPORATING ACTIVATION DEVICES SUCH AS PULL STATIONS, SMOKE DETECTORS, FLOW SWITCHES, DUCT DETECTORS, ETC., AND AUDIO VISUAL DEVICES SUCH AS HORNS AND STROBES.
- STROBE DEVICES SHALL HAVE THEIR CANDELA LIGHT INTENSITY DISCHARGE CONFORMING TO THE AMERICANS WITH DISABILITIES ACT AND LOCAL CODES.
- VISUAL DEVICES SHALL BE LOCATED IN SPACES OCCUPIED BY INHABITANTS AND THE PUBLIC. AUDIBLE DEVICES SHALL BE LOCATED SO DEVICE DELIVERS SOUND LEVELS THAT ARE 15 db OVER AMBIENT NOISE LEVELS IN AREA OCCUPIED BY STUDENTS, INSTRUCTORS, OR PUBLIC.
- A MANUAL PULL STATION SHALL BE PROVIDED AT EACH EXTERIOR DOOR USED AS MEANS OF EGRESS, AND AT OTHER LOCATIONS CONFORMING TO THE NATIONAL FIRE PROTECTION ASSOCIATION, AND OTHER LOCAL CODES.
- PROVIDE AUDIBLE ALARM DEVICES IN HIGH AMBIENT NOISE AREAS SUCH AS THE COMMONS AREA.
- PROVIDE DUCT SMOKE DETECTORS WHERE REQUIRED BY NFPA 90A. COORDINATE WITH MECHANICAL DRAWINGS FOR ADDITIONAL LOCATIONS.
- THE CONTRACTOR SHALL BRING THE EXISTING FIRE ALARM SYSTEM IN THE ENTIRE BUILDING UP TO CURRENT CODE & REPLACE ALL DEVICES AS NECESSARY, INCLUDING PANEL IF NEEDED.

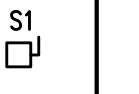
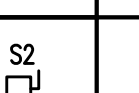
POWER DEVICE SCHEDULE

SYMBOL	MODEL NUMBER	DESCRIPTION
	#PTTR63H-GRY #PTR6ASTR	PASS & SEYMOUR TAMPER RESISTANT DUPLEX RECEPTACLE (18" AFF)
	#PTTR63H-GRY #PTR6ASTR	PASS & SEYMOUR TAMPER RESISTANT QUADPLEX RECEPTACLE (18" AFF)
	#PT2097HCTR-GRY #PTR6ASTR	PASS & SEYMOUR WEATHERPROOF TAMPER RESISTANT GFI DUPLEX RECEPTACLE WITH HUBBELL WP26E COVER (18" AFF)
	REFER TO DRAWINGS	208 VOLT, 2 POLE, NEMA RECEPTACLE WITH HUBBELL WP26E COVER FOR AIR COMPRESSOR. (18" AFF)
	HBL 1221PL	EQUIPMENT SWITCH HUBBELL SINGLE POLE LIGHT SWITCH WITH INDICATOR LIGHT WHEN 'ON' (44" AFF)

FIRE ALARM SCHEDULE

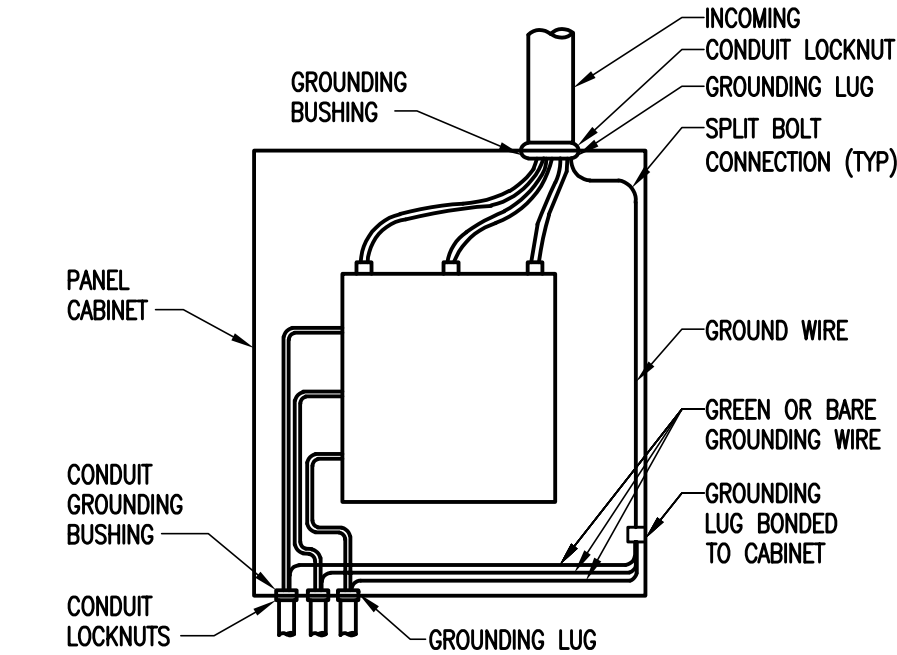
SYMBOL	MODEL NUMBER	DESCRIPTION
	----	MANUALLY ACTIVATED PULL STATION (48" TO ACTUATION LEVER)
	----	PHOTOELECTRIC SMOKE DETECTOR 'R' DENOTES RELAY BASE ASSOCIATED WITH DETECTOR / 'SB' DENOTES AUDIBLE BASE ASSOCIATED WITH DETECTOR / 'ER' DENOTES ELEVATOR RECALL
	----	PHOTOELECTRIC DUCT SMOKE DETECTOR WITH ANNUNCIATION, 'R' DENOTES RELAY BASE ASSOCIATED WITH DETECTOR / 'A' DENOTES AUDIBLE BASE ASSOCIATED WITH DETECTOR
	----	FIRE ALARM CEILING MOUNTED STROBE ONLY (90" MINIMUM TO TOP OF DEVICE)
	----	FIRE ALARM COMBINATION SPEAKER & STROBE (90" MINIMUM TO TOP OF DEVICE) NOT TO BE WITHIN 6" OF THE CEILING FROM THE TOP OF THE BOX / 'C' DENOTES CEILING MOUNT

SAFETY DISCONNECT SWITCH SCHEDULE

MARK/ SYMBOL	LOAD SERVED	VOLTS, POLE, WIRES,	SWITCH AMPS	FUSES	NEMA ENCLOSURE	NOTES
S1 	CU-1	208V 2P 3W	30A	NF	NEMA 3R	a
S2 	CU-2	208V 2P 3W	60A	NF	NEMA 3R	a

NOTES:

- HEAVY DUTY TYPE.
- VERIFY FUSE SIZE WITH EQUIPMENT MANUFACTURER'S NAMEPLATE DATA.

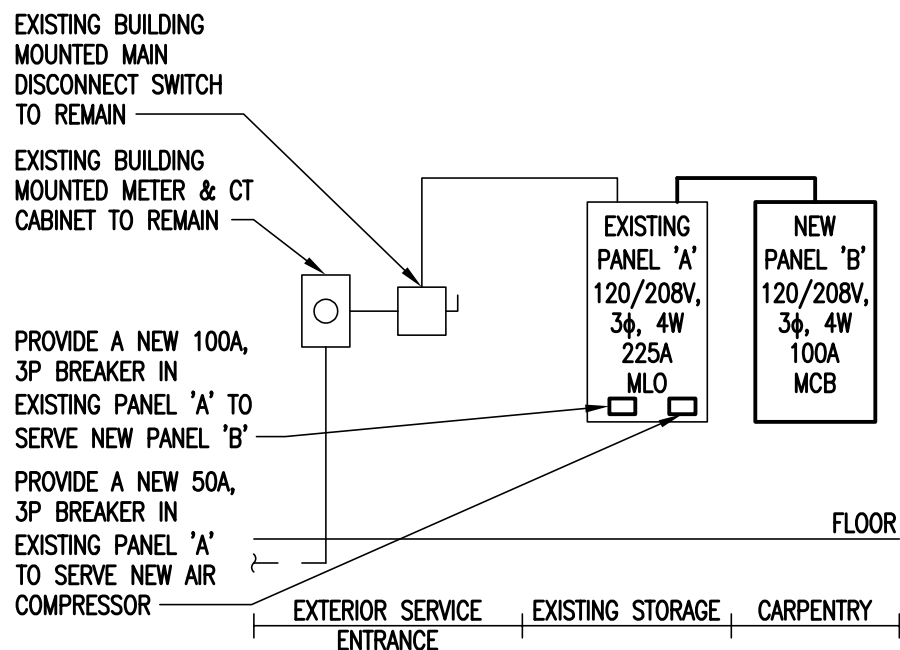


NOTES:

- ALL WIRES TO BE NEATLY LACED.
- AT THE POINT OF ATTACHMENT OF THE GROUNDING LUG TO THE CABINET, THE SURFACES SHALL BE SCRAPED FREE OF PAINT AND THOROUGHLY CLEANED TO INSURE PROPER BONDING.
- NEUTRAL CONDUCTOR NOT SHOWN FOR CLARITY.

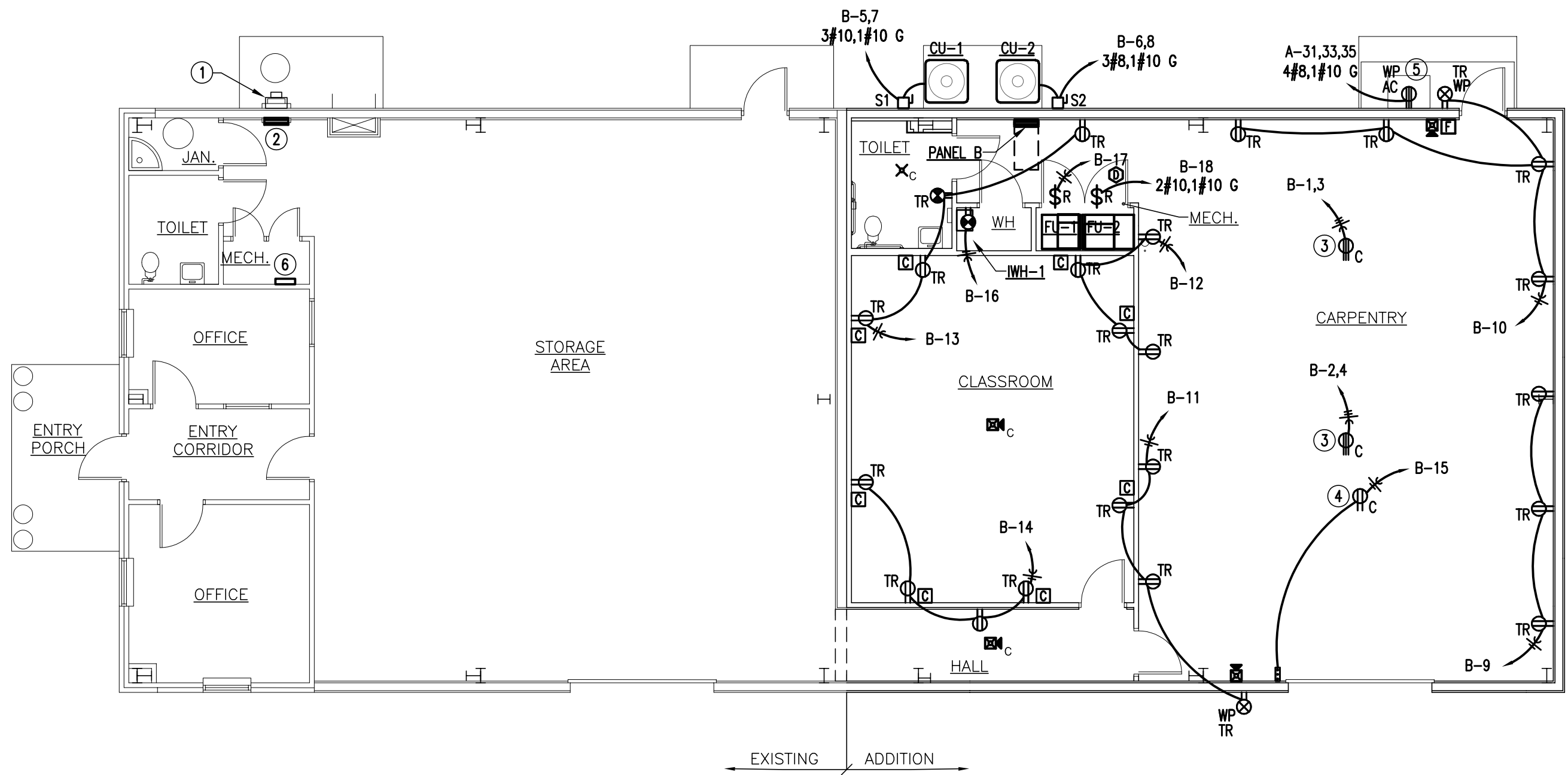
PANEL GROUNDING DETAIL

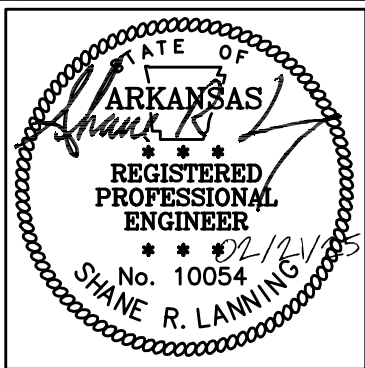
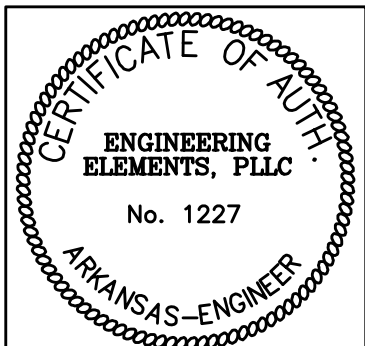
N.T.S.



ELECTRICAL RISER DIAGRAM

N.T.S.



OZARKA COLLEGE
NEW TECH. BLDG.
218 COLLEGE DRIVE
MELBOURNE, ARKANSAS 72556ARCHITECTURE PLUS, INC.
907 South 21st Street Fort Smith, Arkansas 479/783-8395
Engineering Elements, PLLC
2458 East Joyce Boulevard, Suite 1, Fayetteville, AR 72703
Phone: 479-695-1333
ELECTRICAL LIGHTING PLAN

REVISIONS:

PROJECT: 24-55

DATE: 02-21-2025

E2.1



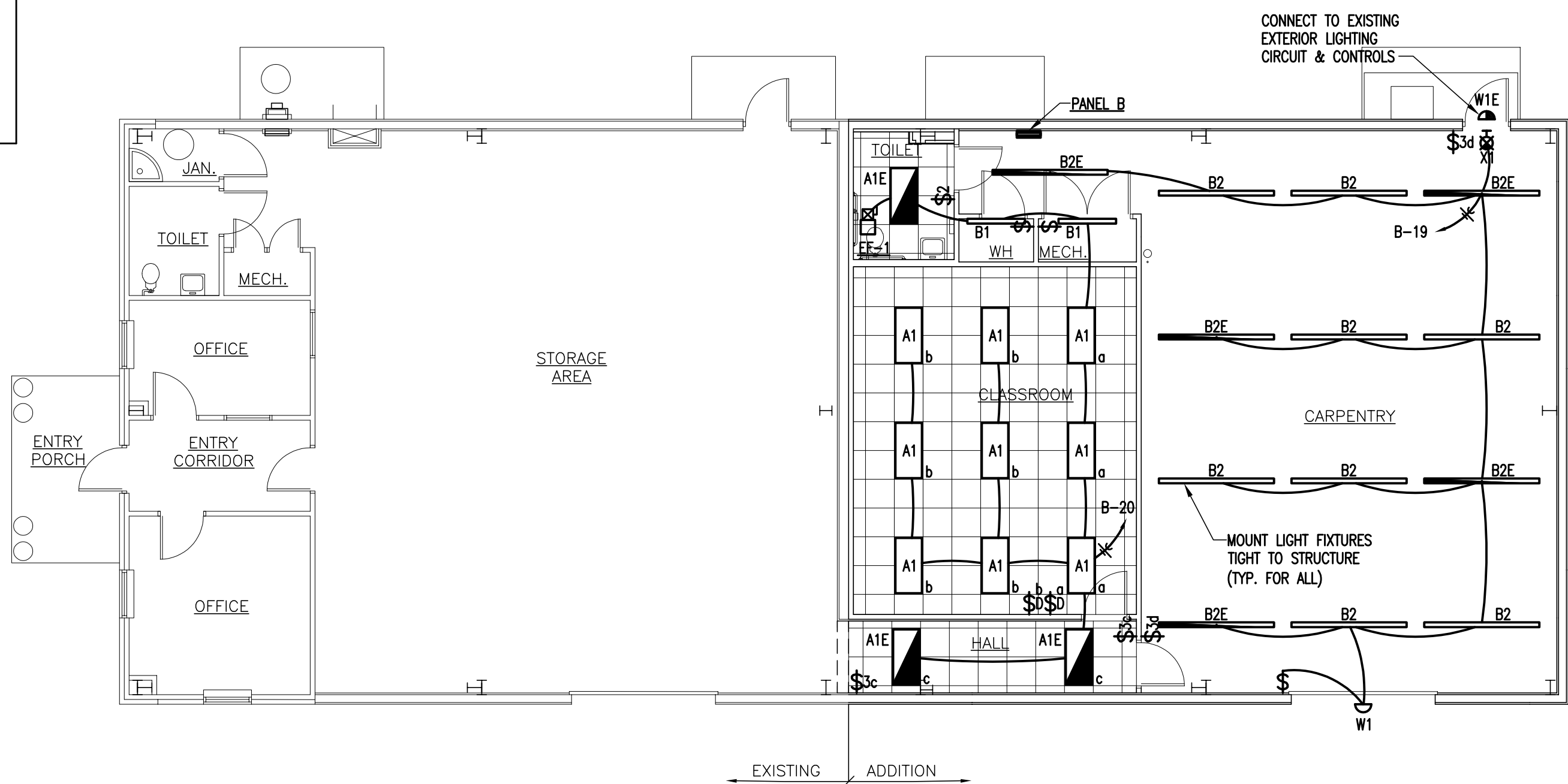
PANEL A											
VOLTAGE (L-N): 120				ENCLOSURE TYPE: -----							
VOLTAGE (L-L): 208				MOUNTING: SURFACE							
PHASES, WIRES: 3 ϕ 4 W				AIC RATING (A): 14							
MINIMUM BUS CAPACITY (A): 225 A				NOTES: -----							
MAIN O.C. DEVICE (A): 225 A											
CKT NO	DESCRIPTION	TRIP AMPS	POLE	PHASE LOADS (VA)			POLE	TRIP AMPS	DESCRIPTION	CKT NO	
				A	B	C					
1	LTG: EXISTING OFFICE	20	1	770	1200		1	20	LTG: EXISTING STORAGE	2	
3	LTG: EXISTING WASHBAY	20	1		720	420	1	20	LTG: EXISTING EXTERIOR	4	
5	REC: EXISTING TOILETS, MISC	20	1			1000	800	1	REC: EXISTING OFFICE	6	
7	REC: EXISTING OFFICE	20	1	1200	1000		1	20	REC: EXISTING STOR., WASH	8	
9	REC: EXISTING STOR., WASH	20	1		1000	1200	1	20	PWR: EXISTING O.H. DOOR	10	
11	PWR: EXISTING O.H. DOOR	20	1			1200	400	1	REC: EXISTING TELEPHONE BOARD	12	
13,15	LTG: EXISTING SITE LIGHTS	20	2	470	0		1	20	SPARE	14	
13,15	LTG: EXISTING SITE LIGHTS	20	2		470	0	1	20	SPARE	16	
17	SPARE	20	1			0	0	1	20	SPARE	18
19	SPARE	20	1	0	200		1	20	PWR: EXISTING FIRE ALARM CONTROL PANEL	20	
21	PWR: EXISTING IRH-1	15	1		200	1490	2	25	PWR: EXISTING CU-1	22,24	
23,25	PWR: EXISTING AC-1	35	2			2550	1490	2	25	PWR: EXISTING CU-1	22,24
23,25	PWR: EXISTING AC-1	35	2	2550	4060		2	50	PWR: EXISTING EH-1	26,28	
27	PWR: EXISTING FU-1	15	1		860	4060	2	50	PWR: EXISTING EH-1	26,28	
29	PWR: EXISTING EF-2	20	1			1180	10302	3	100	PANEL B	30,32,34
31,33,35	MTR: AIR COMPRESSOR	50	3	3039	6176		3	100	PANEL B	30,32,34	
31,33,35	MTR: AIR COMPRESSOR	50	3		3039	8783	3	100	PANEL B	30,32,34	
31,33,35	MTR: AIR COMPRESSOR	50	3			3039	0	1	20	SPARE	36
37	SPARE	20	1	0	0		1	20	SPARE	38	
39	SPARE	20	1		0	0	1	20	SPARE	40	
41	SPARE	20	1			0	0	1	20	SPARE	42
				CONNECTED LOAD PHASE TOTALS (VA)							
				20665			22242				21961
				CONNECTED LOAD (KVA)			DEMAND FACTOR		DEMAND LOAD (KVA)		
Mechanical				18.9			1.00		18.9		
Equipment				2.4			1.00		2.4		
Heating				0.2			1.00		0.2		
Lighting				5.6			1.00		5.6		
Motors				11.9			1.00		11.9		
Motors (Largest)				9.1			1.25		11.4		
Receptacles (0 - 10 KVA)				10.0			1.00		10.0		
Receptacles (Over 10 KVA)				6.8			0.50		3.4		
TOTAL:				64.9					63.7		
LOAD (AMPS):				180.1					176.9		
									DEMAND LOAD		
									SPARE CAPACITY 17.3 KVA		
									SPARE CAPACITY 48.1 AMPS		
									SPARE CAPACITY 21%		
									PHASE BALANCE		
									A TO B 93%		
									B TO C 99%		
									C TO A 94%		

PANEL										B									
VOLTAGE (L-N):				120				ENCLOSURE TYPE:				-----							
VOLTAGE (L-L):				208				MOUNTING:				SURFACE							
PHASES, WIRES:				3 ϕ 4 W				AIC RATING (A):				10							
MINIMUM BUS CAPACITY (A):				100 A				NOTES:				-----							
MAIN O.C. DEVICE (A):				100 A															
CKT NO	DESCRIPTION	TRIP AMPS	POLE	PHASE LOADS (VA)						POLE	TRIP AMPS	DESCRIPTION	CKT NO						
				A		B		C											
1,3	REC: CARPENTRY	20	2	1500	1500					2	20	REC: CARPENTRY	2,4						
1,3	REC: CARPENTRY	20	2		1500	1500				2	20	REC: CARPENTRY	2,4						
5,7	PWR: CU-1	25	2				1331	2756		2	50	PWR: CU-2	6,8						
5,7	PWR: CU-1	25	2	1331	2756					2	50	PWR: CU-2	6,8						
9	REC: CARPENTRY	20	1		600	1000				1	20	REC: CARPENTRY	10						
11	REC: CARPENTRY, CLASSROOM	20	1				800	800		1	20	REC: CARPENTRY, CLASSROOM	12						
13	REC: TOILET, CLASSROOM	20	1	800	800					1	20	REC: CLASSROOM	14						
15	MTR: OVERHEAD GARAGE DOOR	20	1		1176	400				1	20	REC: INH-1	16						
17	MTR: FU-1	20	1				1176	1920		1	30	MTR: FU-2	18						
19	LTG: CARPENTRY	20	1	935	680					1	20	LTG: EF-1, TOILET, CLASSROOM, HALL	20						
21	SPARE	20	1		0	0				1	20	SPARE	22						
23	SPARE	20	1				0	0		1	20	SPARE	24						
25	SPARE	20	1	0	0					1	20	SPARE	26						
27	SPARE	20	1		0	0				1	20	SPARE	28						
29	SPARE	20	1				0	0		1	20	SPARE	30						
31	SPARE	20	1	0	0					1	20	SPARE	32						
33	SPARE	20	1		0	0				1	20	SPARE	34						
35	SPARE	20	1				0	0		1	20	SPARE	36						
37	SPACE	0	1	0	0					1	0	SPACE	38						
39	SPACE	0	1		0	0				1	0	SPACE	40						
41	SPACE	0	1			0	0	0		1	0	SPACE	42						
				CONNECTED LOAD PHASE TOTALS (VA)															
				10302		6176		8783											
				CONNECTED LOAD (KVA)		DEMAND FACTOR		DEMAND LOAD (KVA)		DEMAND LOAD		26.0 KVA							
Mechanical				2.7		1.00		2.7		SPARE CAPACITY		10.0 KVA							
Lighting				1.5		1.00		1.5		SPARE CAPACITY		27.7 AMPS							
Motors				4.4		1.00		4.4		PHASE BALANCE									
Motors (Largest)				5.5		1.25		6.9		A TO B		60 %							
Receptacles (0 - 10 KVA)				10.0		1.00		10.0		B TO C		70 %							
Receptacles (Over 10 KVA)				1.2		0.50		0.6		C TO A		85 %							
TOTAL:				25.3				26.0											
LOAD (AMPS):				70.1				72.3											

LIGHT FIXTURE SCHEDULE									
MARK	DESCRIPTION	VOLTS	LOAD (VA)	LAMP TEMP	MANU.	MODEL	MOUNTING		
A1	2X4 LED TROFFER	120	40	4000	ELITE LIGHTING	24-OVHP-LED-3000L/4000L/5000L-DIM10-MVOLT-35K/40K/50K-85-V3	RECESSED		
A1E	2X4 LED TROFFER W/EMERGENCY BACKUP	120	40	4000	ELITE LIGHTING	24-OVHP-LED-3000L/4000L/5000L-DIM10-MVOLT-35K/40K/50K-85-V3-0-EMG-LED-10W	RECESSED		
B1	4" LENSED LED STRIP	120	15	4000	GE LIGHTING	ALV2-0-41-02-T-48-10-S-Q-V-Q-ST-K-Q-W	SURFACE		
B2	8" LENSED LED STRIP	120	70	4000	GE LIGHTING	ALV2-0-81-10-T-48-10-S-Q-V-Q-ST-K-Q-W	SURFACE		
B2E	8" LENSED LED STRIP W/EMERGENCY BACKUP	120	70	4000	GE LIGHTING	ALV2-0-81-10-T-48-10-S-Q-V-E-ST-K-Q-W	SURFACE		
W1	LED WALL PACK	120	20	4000	GE LIGHTING	EWLS02-0-25-AF-740-D-3-CB-BLCK	WALL		
W1E	LED WALL PACK W/EMERGENCY BACKUP	120	20	4000	GE LIGHTING	EWLS02-0-25-AF-740-D-3-CB-BLCK-EMBB	WALL		
X1	LED EXIT SIGN	120	5		ELITE LIGHTING	ELX-503-W	UNIVERSAL		

LIGHTING DEVICE SCHEDULE		
SYMBOL	MODEL NUMBER	DESCRIPTION
\$	#PT20AC1GRY	PASS & SEYMOUR SINGLE POLE SWITCH (44" AFF)
\$2	#PS20AC2GRY	PASS & SEYMOUR TWO POLE SWITCH (44" AFF)
\$3	#PT20AC3GRY	PASS & SEYMOUR 3-WAY SWITCH (44" AFF)
\$4	#PT20AC3GRY	PASS & SEYMOUR 4-WAY SWITCH (44" AFF)
\$	SWX-900	SENSORWORX2 SINGLE-RELAY, 120-277V
\$D	SWX-823-XX	SENSORWORX2 DIMMER SWITCH (44" AFF)

- NOTE:
- PROVIDE POWER PACKS ON ALL OCCUPANCY SENSORS AND DIMMED LIGHTING CIRCUITS PER MANUFACTURER TO ACHIEVE A COMPLETE DIMMED LIGHTING CIRCUIT.
 - ALL LISTED MOUNTING HEIGHTS ARE TO THE CENTER OF THE DEVICE.
 - ALL FINISHES SHALL BE SPECIFIED DURING SUBMITTAL PHASE.
 - ALL SWITCHES SHALL BE GRAY WITH STAINLESS STEEL FACEPLATES.

ELECTRICAL LIGHTING PLAN
SCALE: 1/8" = 1'-0"