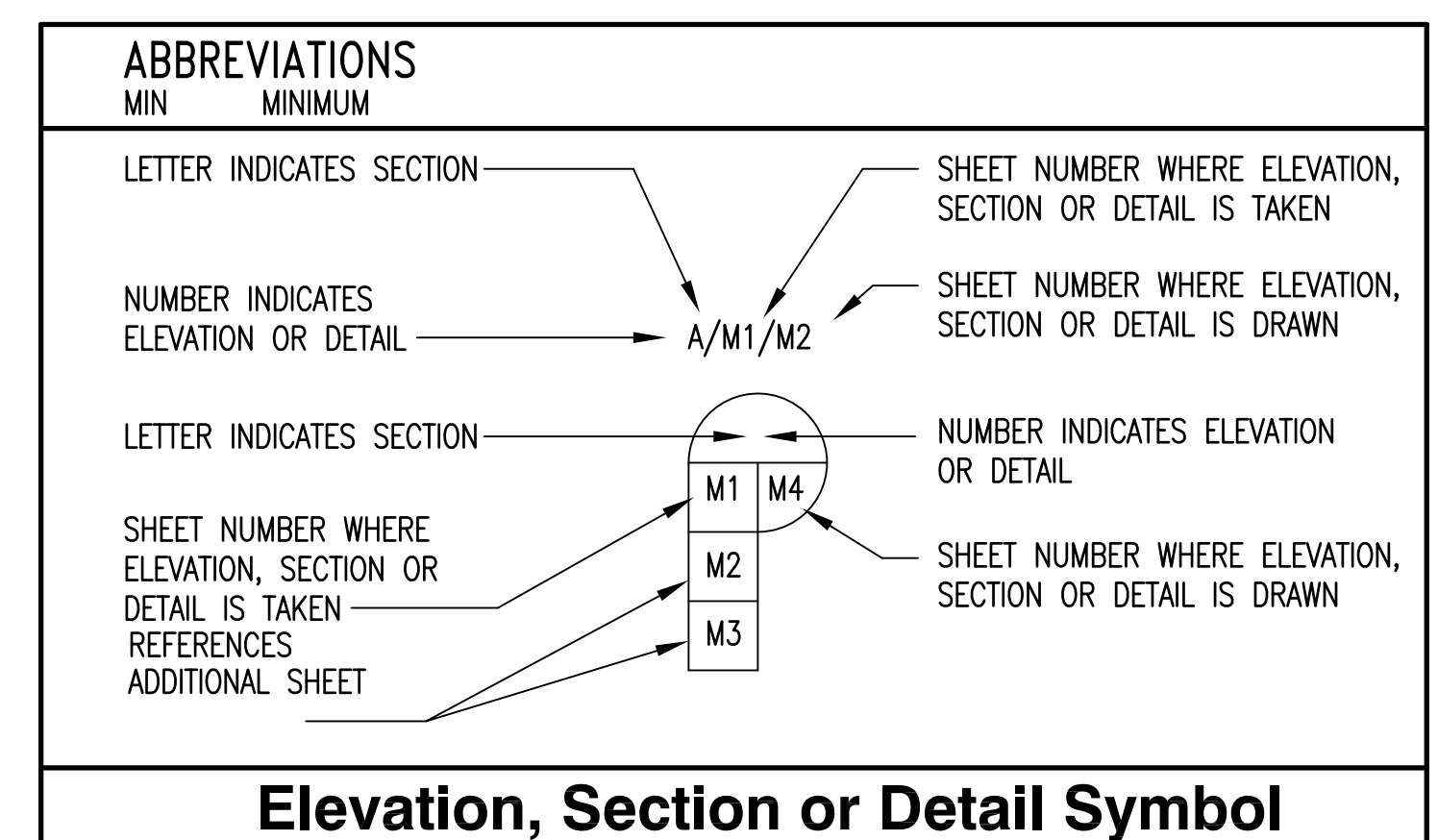
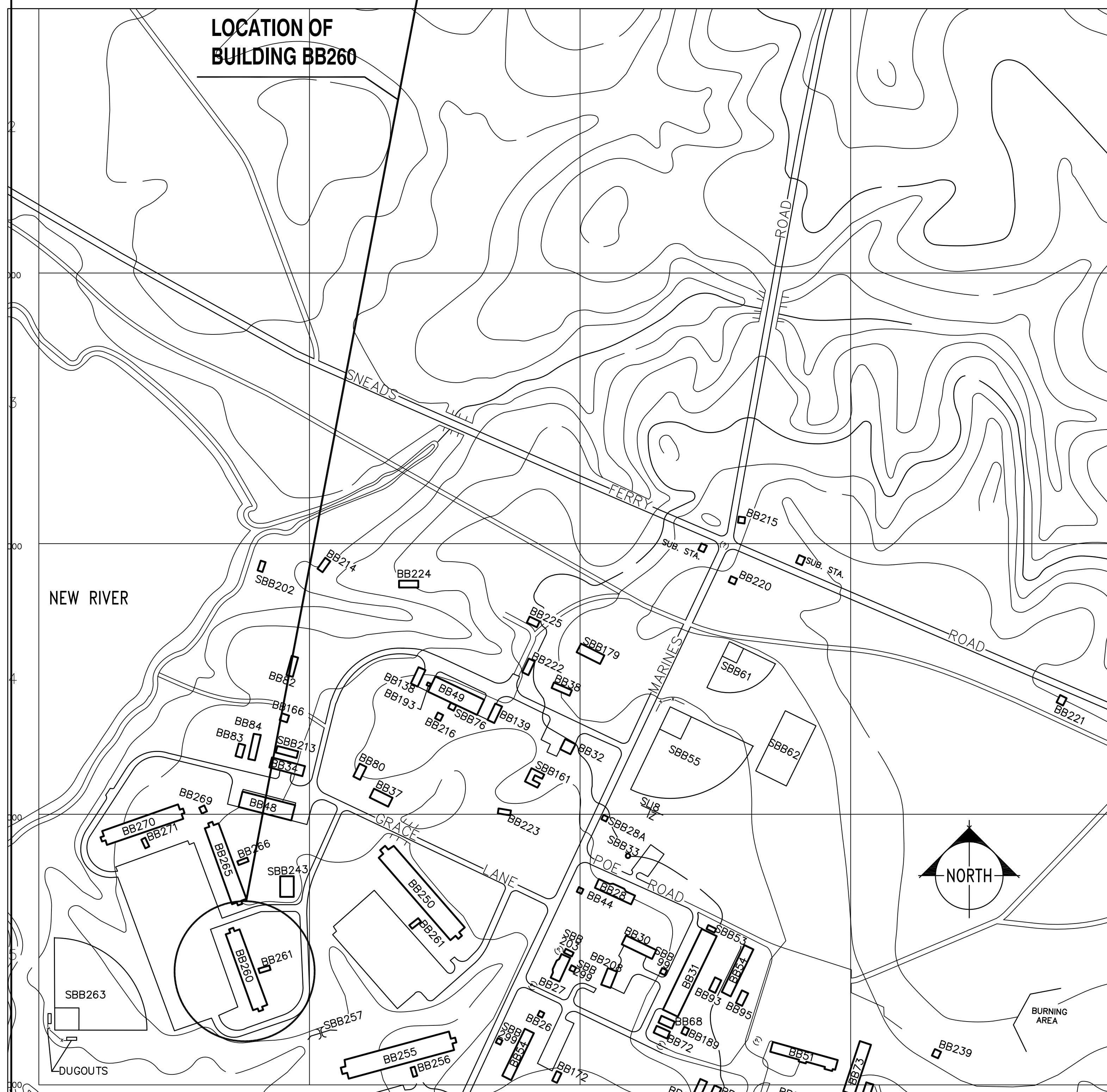


# REPAIR BEQ BUILDING BB260

## MARINE CORPS BASE CAMP LEJEUNE N.C.

SHEET #	NAVFAC #	PLATE #	SHEET TITLE
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65A OF 72	60007630A	E-402	ENLARGED ELECTRICAL NEW WORK PLANS
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# G-001

DES. DLG

DR. DLG

CHK. RTB

SUBMITTED BY:

DESIGN DIR.

APPROVED: PWO OR OICC

SATISFACTORY TO:

MAUNÉ BELANGIA FAULKENBERRY ARCHITECTS, PA

REPAIR BEQ BUILDING BB260

MCB, CLNC

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND

**MARINE CORPS BASE**

CAMP LEJEUNE, NORTH CAROLINA

TITLE SHEET

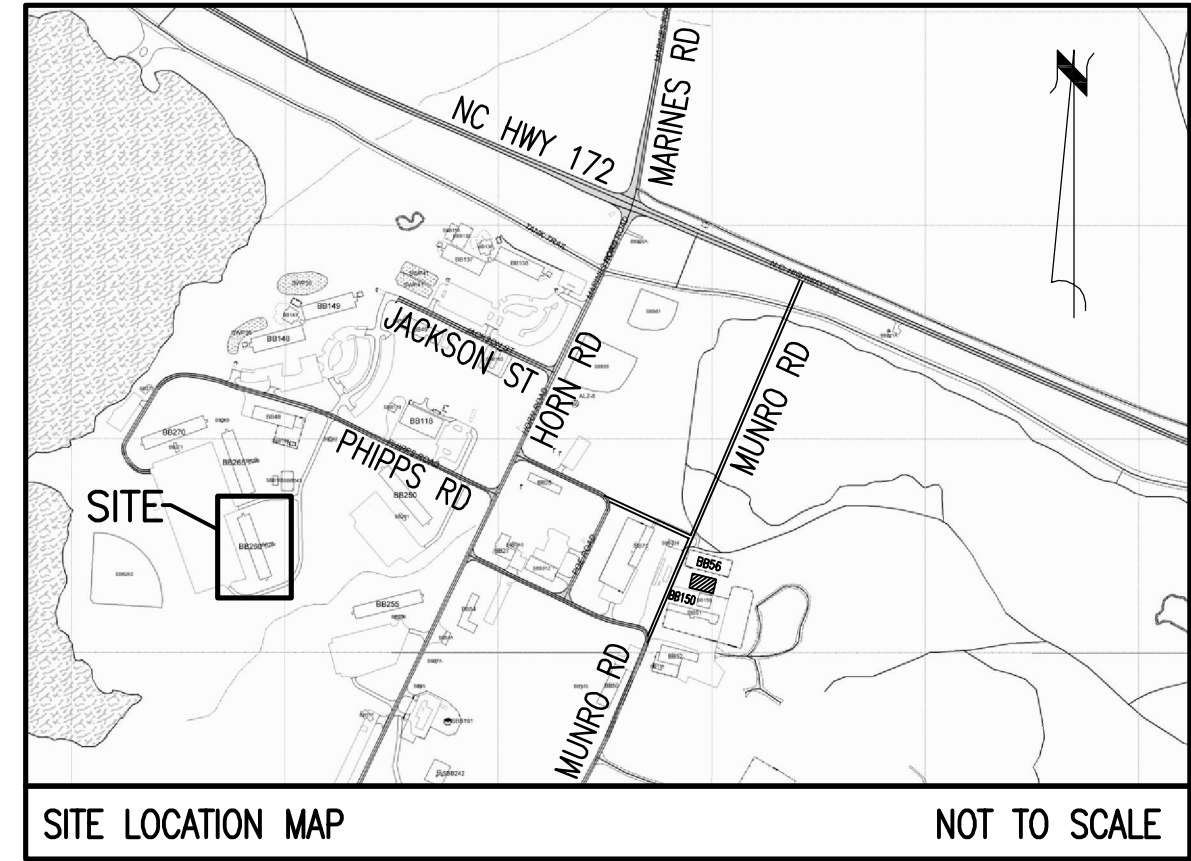
NAVFAC DRAWING NO. **60007566**

CONST. CONTR. NO. N40085-10-B-0031

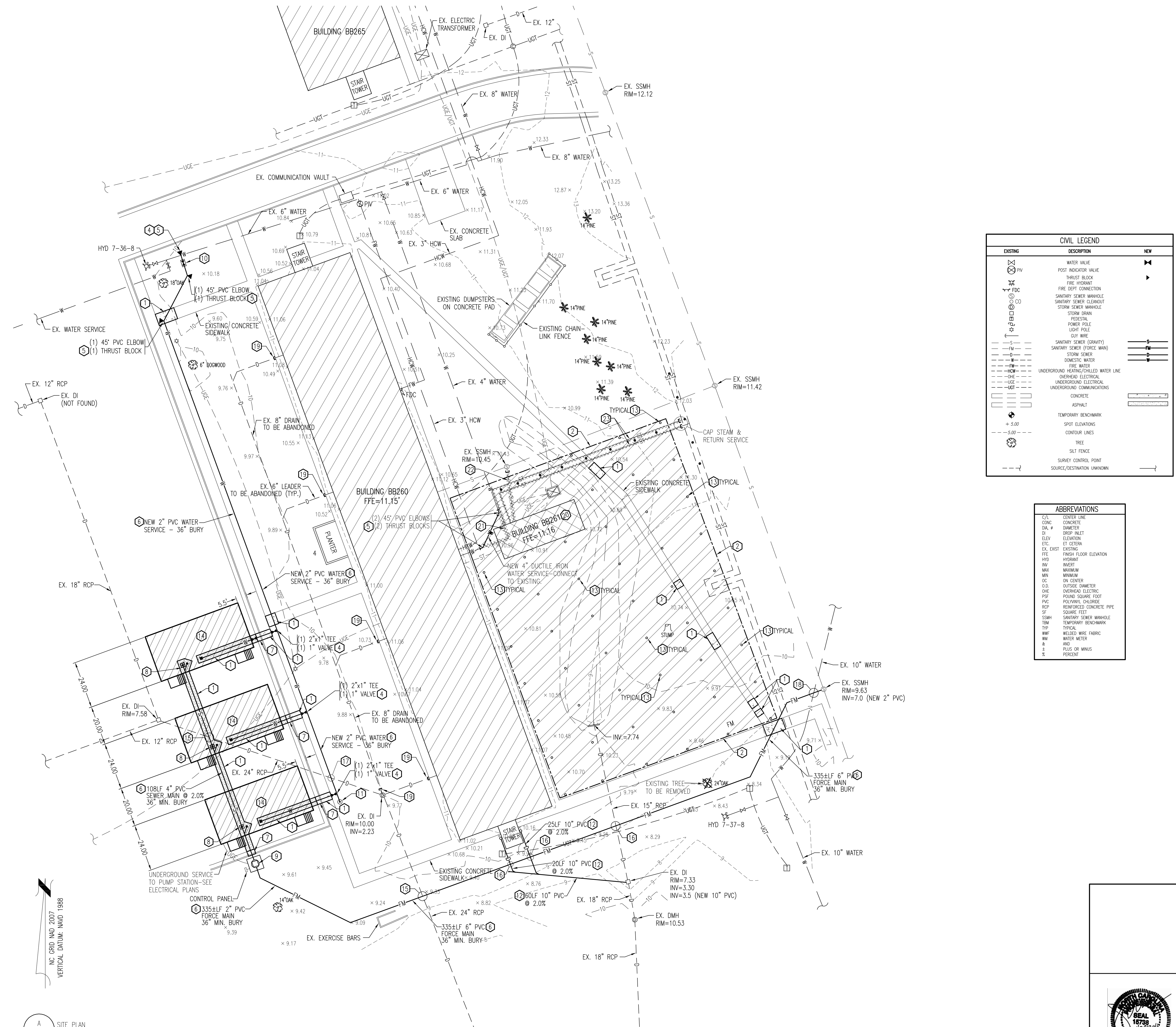
SCALE: AS NOTED SPEC. 05-10-0031 SHEET 01 OF 72

**Elevation, Section or Detail Symbol**

REVISIONS		
SYM	DATE	APPROVED



SITE LOCATION MAP NOT TO SCALE



CIVIL LEGEND		
EXISTING	DESCRIPTION	NEW
	WATER VALVE	
	THRUST BLOCK	
	FIRE DEPT CONNECTION	
	SANITARY SEWER CLEANOUT	
	STORM SEWER MANHOLE	
	POWER POLE	
	LIGHT POLE	
	SANITARY SEWER (GRAVITY)	
	STORM SEWER	
	DOMESTIC WATER	
	FIRE WATER	
	UNDERGROUD HEATING/COOLED WATER LINE	
	OVERHEAD ELECTRICAL	
	UNDERGROUD ELECTRICAL	
	UNDERGROUD COMMUNICATIONS	
	CONCRETE	
	ASPHALT	
	TEMPORARY BENCHMARK	
	SPOT ELEVATIONS	
	CONTOUR LINES	
	TREE	
	SALT FENCE	
	SURVEY CONTROL POINT	
	SOURCE/DESTINATION UNKNOWN	

ABBREVIATIONS	
C/L	CENTER LINE
CONC	CONCRETE
DAL #	DIAMETER
DI	DROP INLET
ELEV	ELEVATION
ETC	ET CETERA
EX EXIST	EXISTING
FTE	FINISH FLOOR ELEVATION
HYD	HYDRANT
INV	INVERT
MAX	MAXIMUM
MIN	MINIMUM
OC	ON CENTER
O.D.	OUTSIDE DIAMETER
OHE	OVERHEAD ELECTRIC
PSF	POUND SQUARE FOOT
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
SF	SQUARE FEET
SSMH	SANITARY SEWER MANHOLE
TBM	TEMPORARY BENCHMARK
TYP	TYPICAL
WWF	WELDED WIRE FABRIC
WM	WATER METER
&	AND
±	PLUS OR MINUS
%	PERCENT

**GENERAL CONSTRUCTION NOTES:**

1. THE LOCATION AND DEPTHS OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SCANNING THE AREA OF WORK TO IDENTIFY TO HIS OWN SATISFACTION THE EXTENT OF UTILITIES PRESENT INCLUDING THE UTILITIES INDICATED TO BE PRESENT, THOSE NOT SHOWN, AND THOSE SHOWN TO BE IN A DIFFERENT LOCATION.
2. PHYSICAL SITE FEATURES OUTSIDE THE AREA OF WORK OR THOSE FEATURES NOT RELEVANT TO THE WORK BEING PERFORMED ARE NOT SHOWN FOR CLARITY.
3. ALL EXISTING VEGETATED AREAS DISTURBED DURING CONSTRUCTION SHALL BE REVEGETATED IN ACCORDANCE WITH THE PROJECT VEGETATION PLAN, SEE DETAIL B, SHEET C-501.

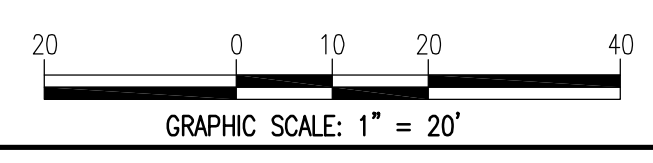
- NEW WORK ITEMS:**
- 1 PAVEMENT CUT & PATCH - SEE DETAIL A, SHEET C-501.
  - 2 FINE GRADE AND COMPACT GEOTHERMAL WELL AREA TO REMOVE SURFACE IRREGULARITIES AND CREATE POSITIVE DRAINAGE. REESTABLISH VEGETATION ON ALL DISTURBED AREAS IN ACCORDANCE WITH PROJECT VEGETATION PLAN. SEE DETAIL B, SHEET C-501
  - 3 NEW 6" x 2" TAPPING SADDLE & VALVE - SEE DETAIL C, SHEET C-501 AND SPECIFICATIONS.
  - 4 NEW VALVE - SEE DETAIL C, SHEET C-501.
  - 5 THRUST BLOCK - SEE DETAIL D, SHEET C-501.
  - 6 PROVIDE ALL TRENCHING IN ACCORDANCE WITH DETAIL E, SHEET C-501.
  - 7 NEW CONCRETE CURB & GUTTER. SEE DETAIL F, SHEET C-501.
  - 8 NEW SEWER CLEAN OUT - SEE DETAIL G, SHEET C-501.
  - 9 NEW SEWER LIFT STATION - SEE DETAIL H, SHEET C-501.
  - 10 NEW BACKFLOW PREVENTER & ENCLOSURE. SEE DETAIL B, SHEET C-502 AND SPECIFICATIONS.
  - 11 NEW 2" BLOWOFF - SEE DETAIL J, SHEET C-501.
  - 12 NEW 10" PVC ROOF LEADER. PROVIDE 10" 90° ELBOW TO CONNECT TO 10" PVC DOWNSPOUT. CONNECT TO EXISTING DROP INLET. SEE ARCHITECTURAL PLANS FOR EXACT LOCATION.
  - 13 GEOTHERMAL WELLS. SEE SHEET MS-101.
  - 14 NEW 24'x50' TEMPORARY OFFICE. SEE DETAIL A, SHEET C-502 AND SPECIFICATIONS.
  - 15 ROUTE SEWER SERVICE ABOVE EXISTING STORM DRAIN.
  - 16 ROUTE SEWER SERVICE BELOW EXISTING STORM DRAIN.
  - 17 ROUTE WATER SERVICE ABOVE EXISTING STORM DRAIN.
  - 18 ROUTE SEWER SERVICE BELOW EXISTING WATER MAIN.
  - 19 EXCAVATE EXISTING ROOF LEADER. DISCONNECT AND CAP. PLUG LINE AT EXISTING MANHOLE.
  - 20 EXISTING MECHANICAL BUILDING & FOUNDATION TO BE DEMOLISHED. FILL & GRADE DISTURBED AREA TO BE LEVEL WITH SURROUNDING GRADE AND TO DRAIN. REVEGETATE DISTURBED AREA IN ACCORDANCE WITH PROJECT VEGETATION PLAN. SEE DETAIL B, SHEET C-501. SEE SITE ELECTRIC PLAN & MECHANICAL PLANS FOR ADDITIONAL DEMOLITION WORK THIS AREA.
  - 21 EXISTING 4" WATER SERVICE TO BE REMOVED THIS AREA.
  - 22 EXISTING SEWER SERVICE TO BE REMOVED THIS AREA. CAP SERVICE AT MANHOLE.
  - 23 EXISTING OVERHEAD 2" STEAM, 1-1/2" RETURN SERVICE, & CONCRETE SUPPORT POLES TO BE REMOVED. CAP EXISTING STEAM & RETURN SERVICE AT MAIN WHERE INDICATED.

**SPECIAL SEEDING NOTE:**

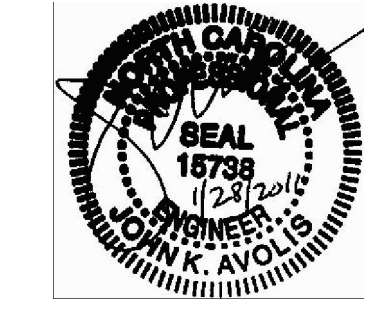
THE ANGLE FOR GRADED SLOPES AND FILL SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, WITHIN 21 CALENDAR DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION. ADDITIONALLY, WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS FROM THE COMPLETION OF THE PROJECT (WHICHEVER IS SHORTER), PERMANENT GROUND COVER SHALL BE ESTABLISHED.

NC GRID NAD 2007  
VERTICAL DATUM: NAVD 1988

A SITE PLAN  
C-101-C-101 SCALE: 1" = 20'

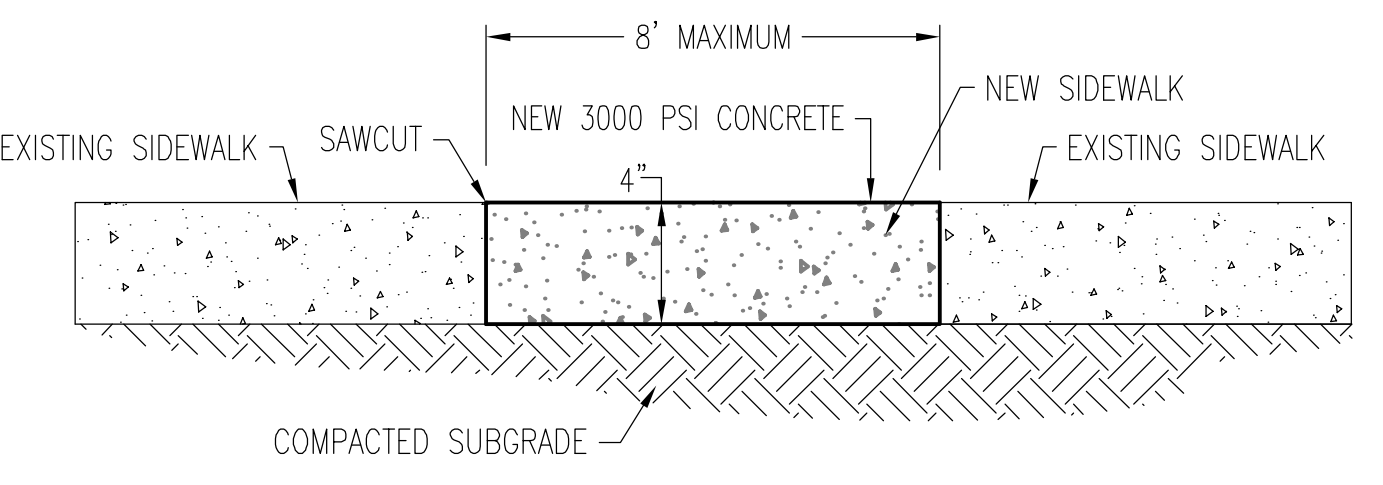
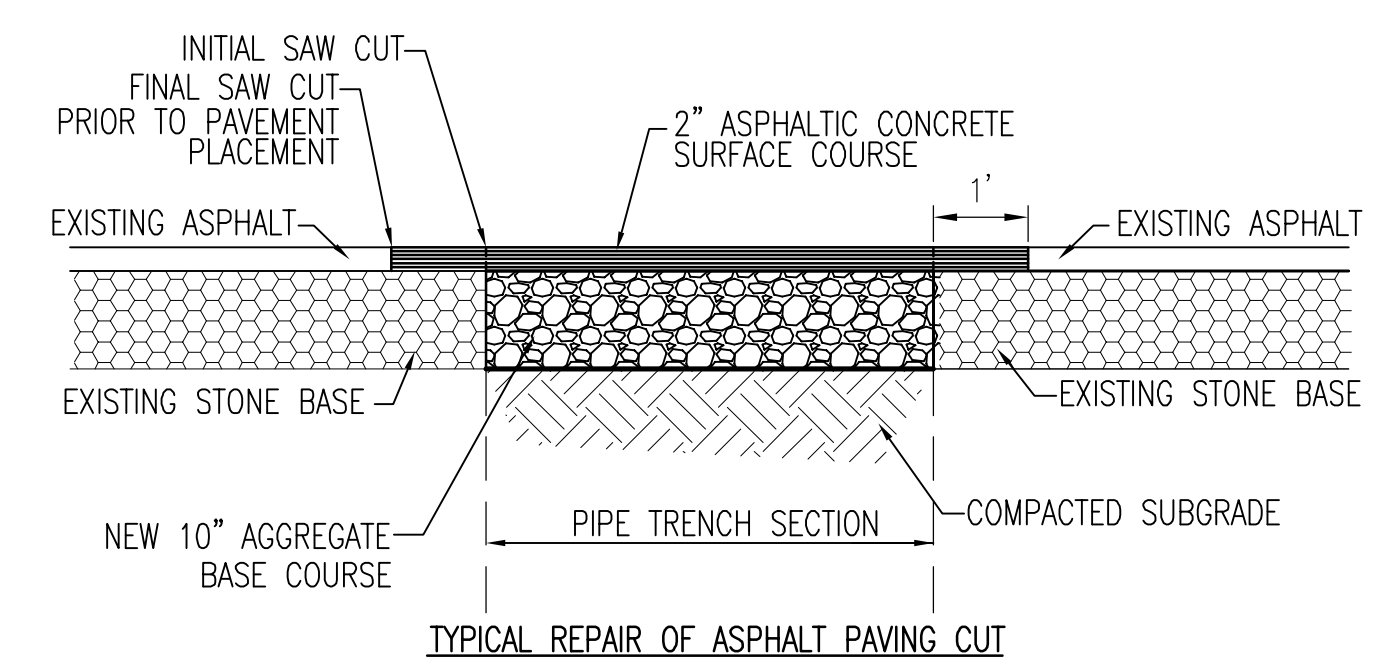


AVOLIS ENGINEERING, P.A.  
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NEW BERN, NC 28561  
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MAINE <b>BELANGIA          FAULKENBERRY          ARCHITECTS PA</b> <small>317-C POLLOCK STREET NEW BERN, NC</small>	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> <small>CAMP LEJEUNE, NORTH CAROLINA</small>		<h1>C-101</h1>
	<b>REPAIR BEQ BUILDING BB260</b>		
	<b>SITE PLAN</b>		
	DES. J.K. AVOLIS, P.E. DR. MSP/WFF CHK. J.C. AVOLIS, P.E. SUBMITTED BY: DESIGN DIR.	DATE: <b>F 80091</b> APPROVED: PWO OR OICC	

REVISIONS		
SYM	DATE	APPROVED



NOTE: REMOVE CONCRETE SIDEWALK AT JOINTS WHEN JOINTS ARE LOCATED WITHIN 5 FEET OF AREA OF WORK. CONCRETE FINISH & JOINT PATTERN SHALL MATCH EXISTING.

**A CUT & PATCH**  
C-101C-501 NOT TO SCALE

**VEGETATIVE SEEDING:**  
AFTER COMPLETION OF GRADING ACTIVITIES AND THE CONSTRUCTION OF SWALES, ALL EXPOSED AREAS SHALL BE SEED TO THE FOLLOWING SPECIFICATIONS:

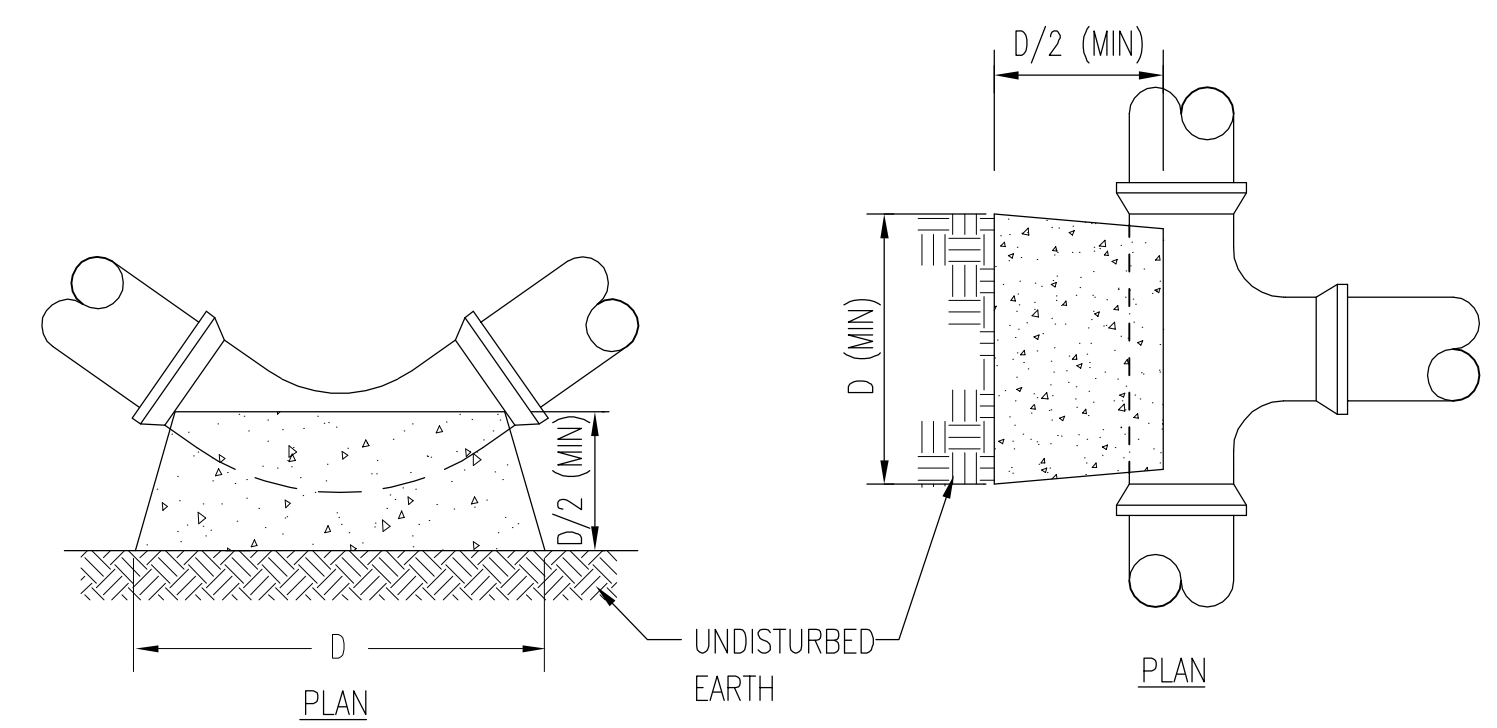
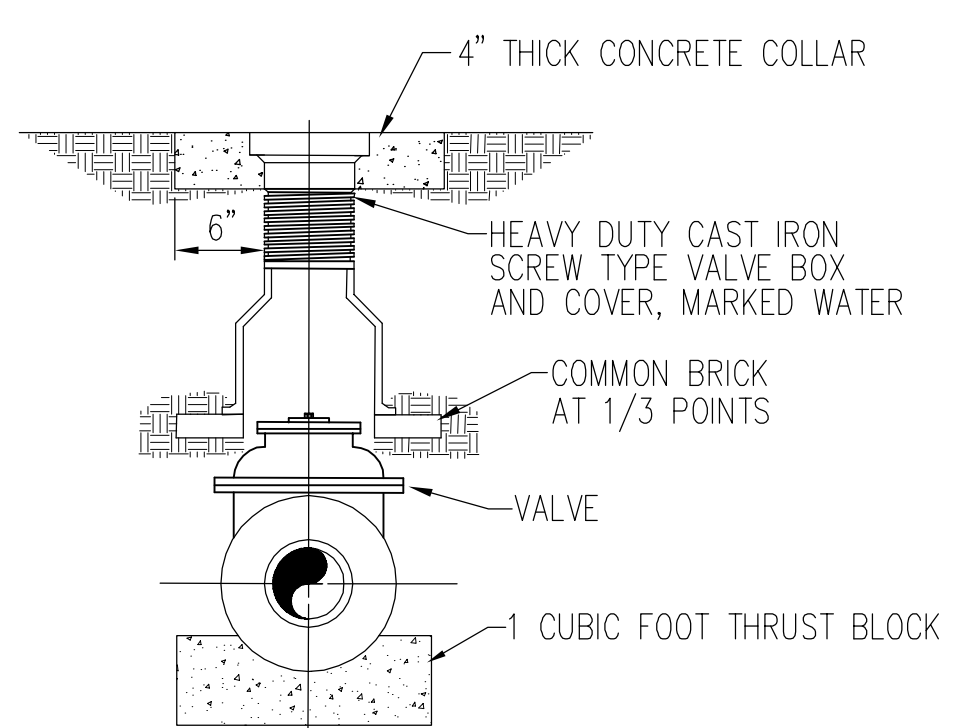
SEED BED	
LIME	1-1/2 TON PER ACRE
FERTILIZER	1/2-TON PER ACRE
SEED	
RYE GRAIN	50 LBS PER ACRE
TALL FESCUE	100 LBS PER ACRE
MAY THROUGH AUGUST:	
CENTPEDE	5 LBS PER ACRE

**PROCEDURE:**  
STRAW MULCH SHALL BE APPLIED AT A RATE WHICH WILL INSURE APPROXIMATELY 75% COVERAGE OF THE SEEDED AREA. THE STRAW AND SOON SEED WILL BE LIGHTLY DISCED INTO THE BED TO GIVE IT FURTHER RESISTANCE TO BLOWING AND WASHING.

THE CONTRACTOR SHALL GUARANTEE A FULL STAND OF GRASS OVER THE ENTIRE DISTURBED AREA. IF NECESSARY THE CONTRACTOR WILL WET DOWN THE AREAS TO ASSIST IN SEED GERMINATION OR AID IN GROWTH IN TIMES OF EXCESSIVELY DRY WEATHER. A STAND OF GRASS WILL BE CONSIDERED ACCEPTABLE WHEN THE ENTIRE STAND OF GRASS IS AT LEAST FOUR INCHES HIGH AND HAS ADHERED AT LEAST 95% COVERAGE OF DISTURBED AREAS. RESEEDING WILL BE REQUIRED AS NECESSARY BY THE CONTRACTOR TO OBTAIN THE SPECIFIED STAND OF GRASS.

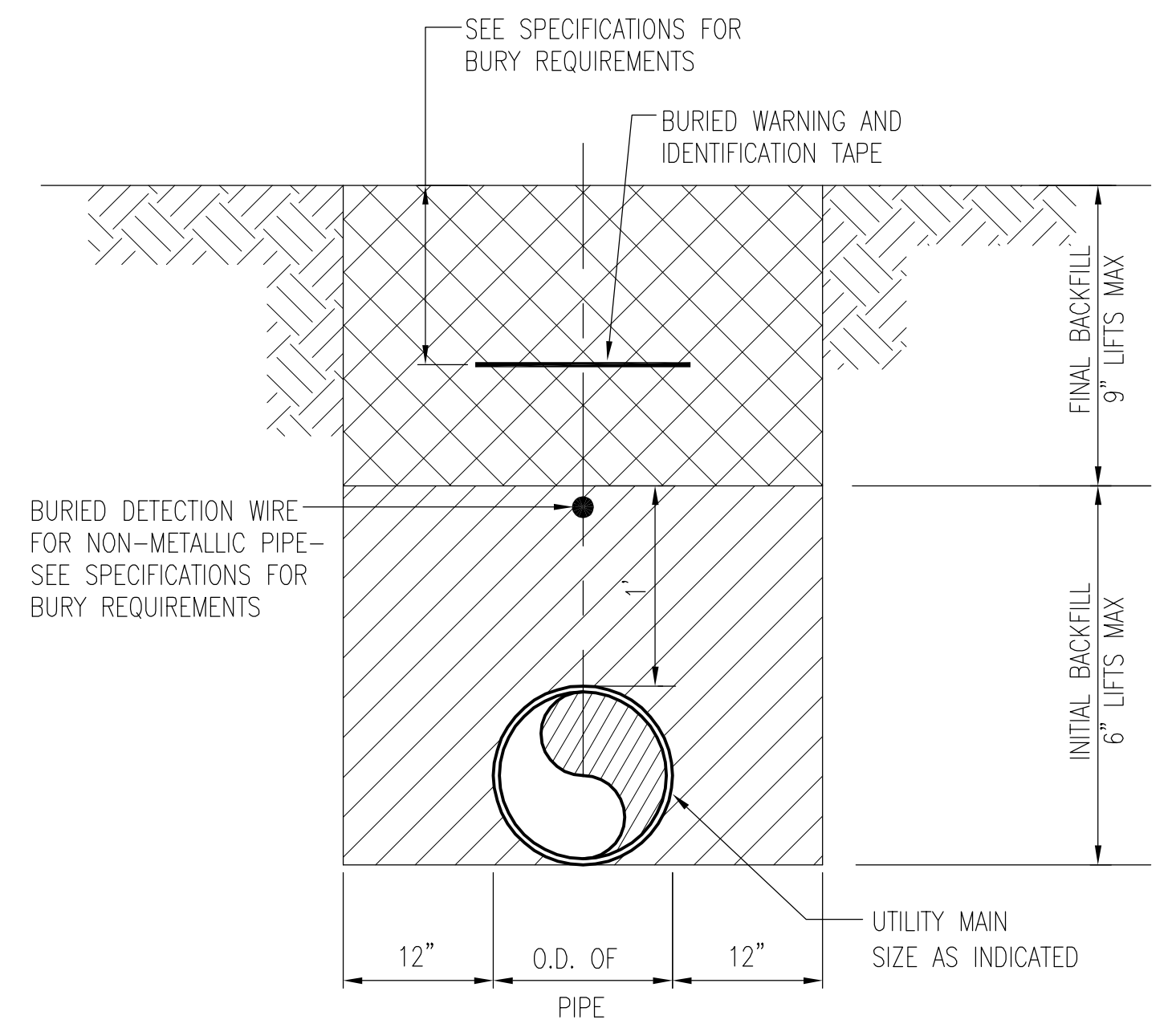
**SPECIAL SEEDING NOTE:**  
THE ANGLE FOR GRADED SLOPES AND FILL SHALL BE NO GREATER THAN THE ANGLE THAT CAN BE RETAINED BY VEGETATIVE COVER OR OTHER ADEQUATE EROSION CONTROL DEVICES OR STRUCTURES. IN ANY EVENT, SLOPES LEFT EXPOSED WILL, WITHIN 21 CALENDAR DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED OR OTHERWISE PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION. ADDITIONALLY, WITHIN 15 WORKING DAYS OR 90 CALENDAR DAYS FROM THE COMPLETION OF THE PROJECT (WHICHEVER IS SHORTER), PERMANENT GROUND COVER SHALL BE ESTABLISHED.

**B VEGETATION PLAN**  
C-101C-501 NOT TO SCALE

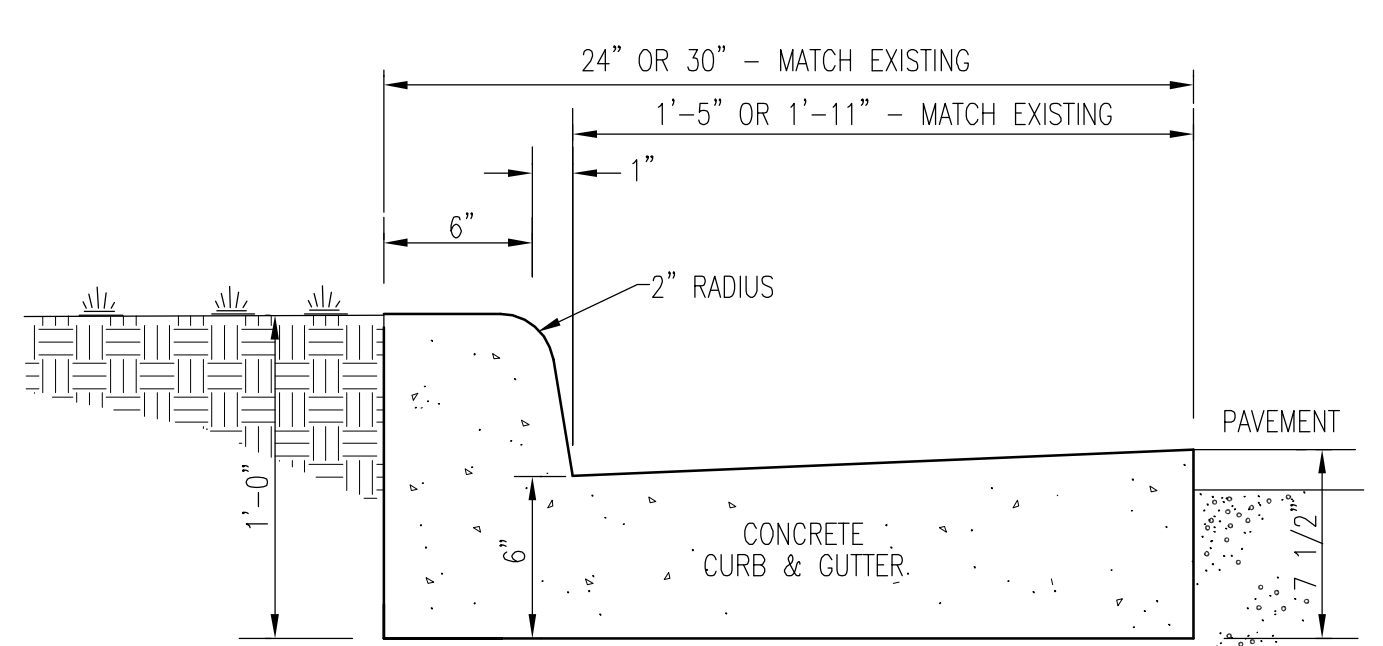


NOM. PIPE DIA.	THRUST BLOCK DIMENSION D (IN FEET)				
	DEAD END	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
2"-4"	1.3	1.6	1.2	0.9	0.8

**D THRUST BLOCK**  
C-101C-501 NOT TO SCALE

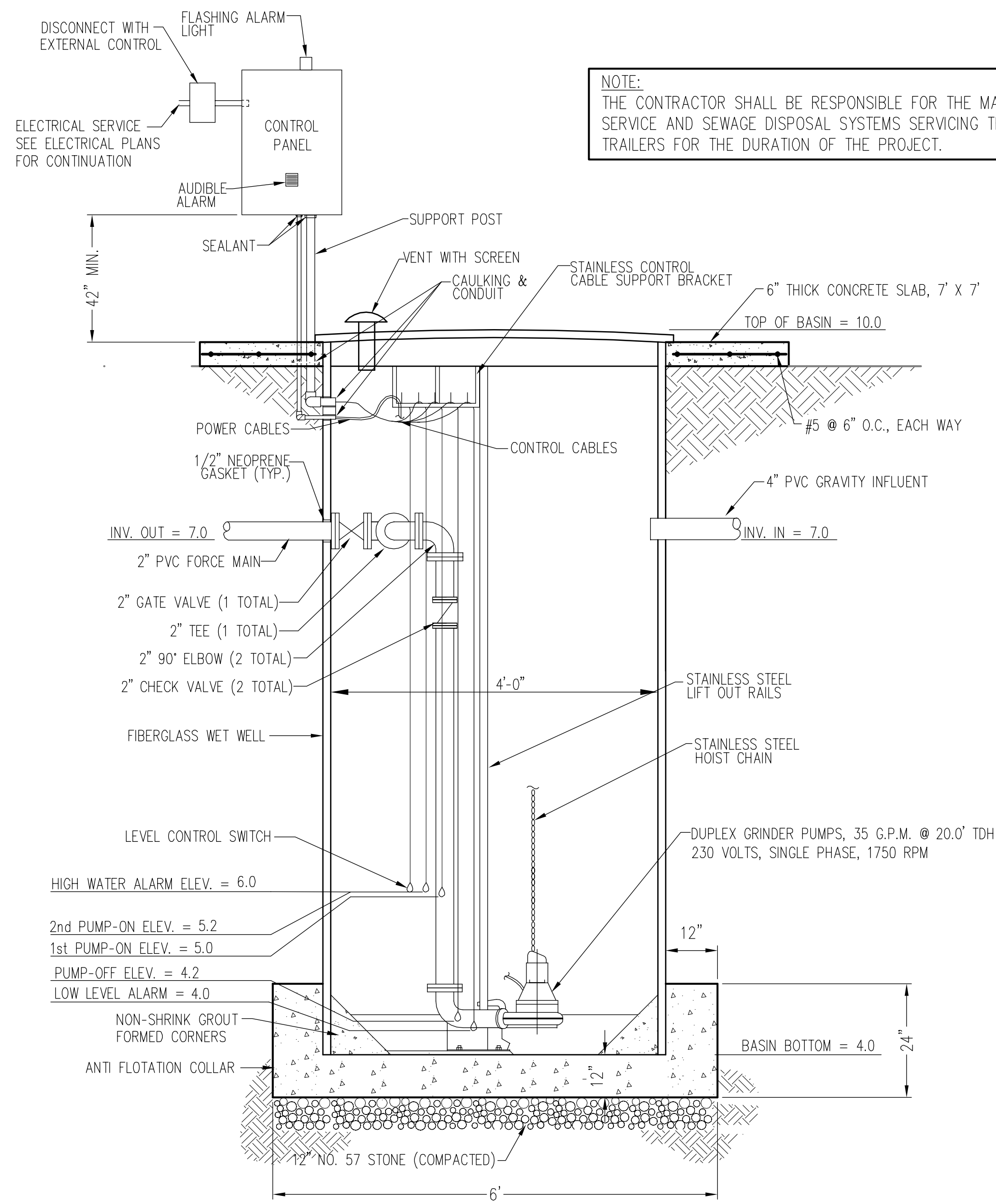
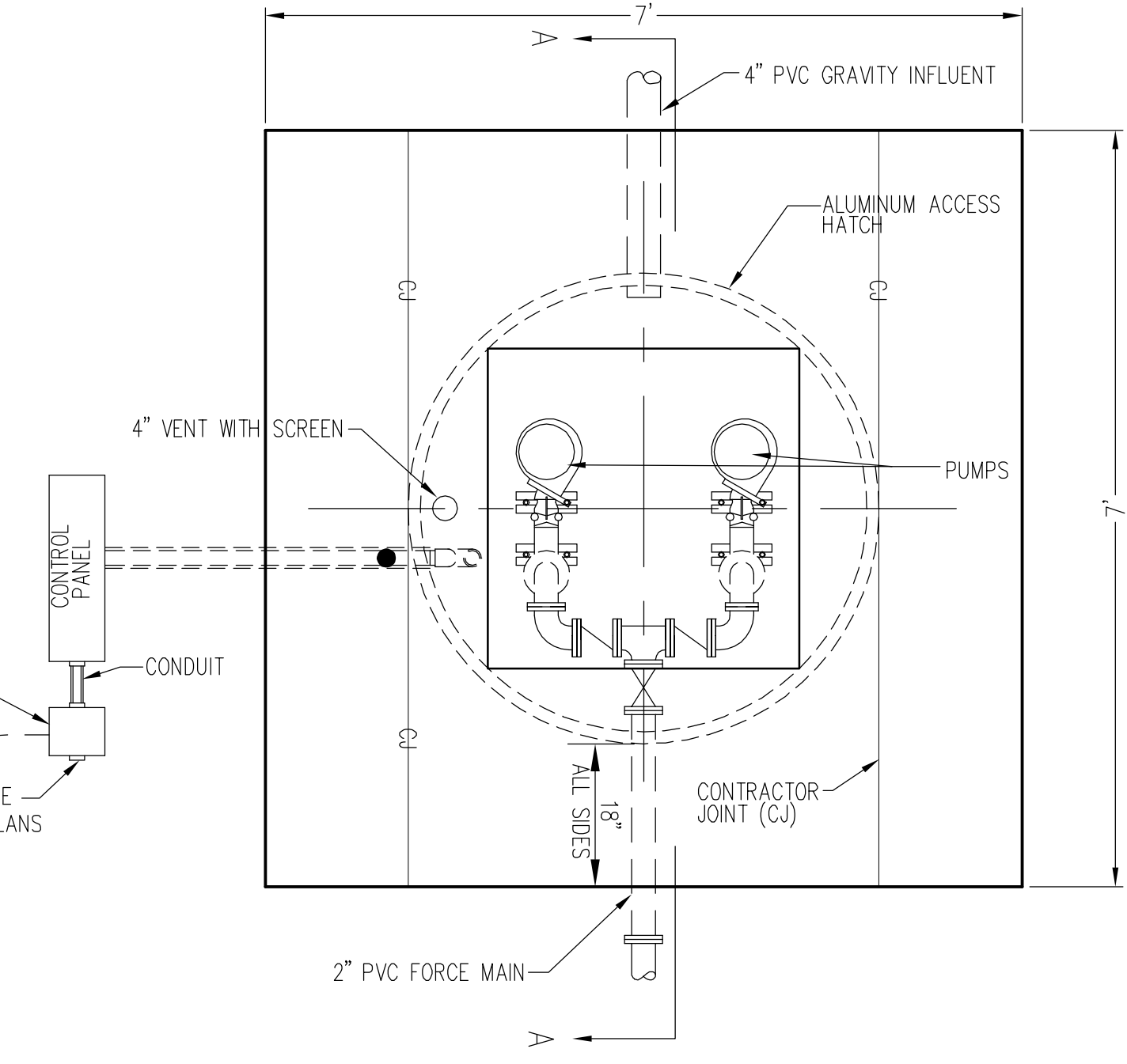
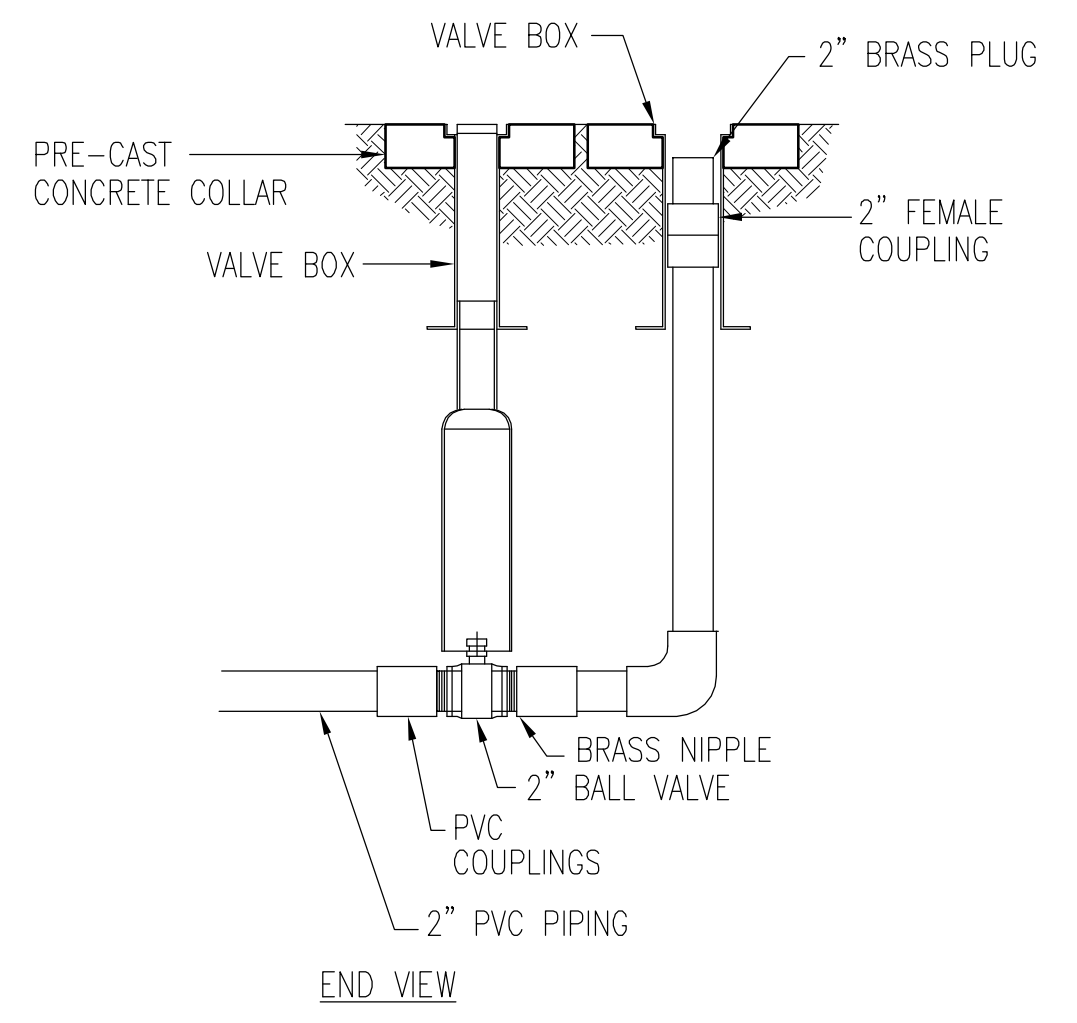
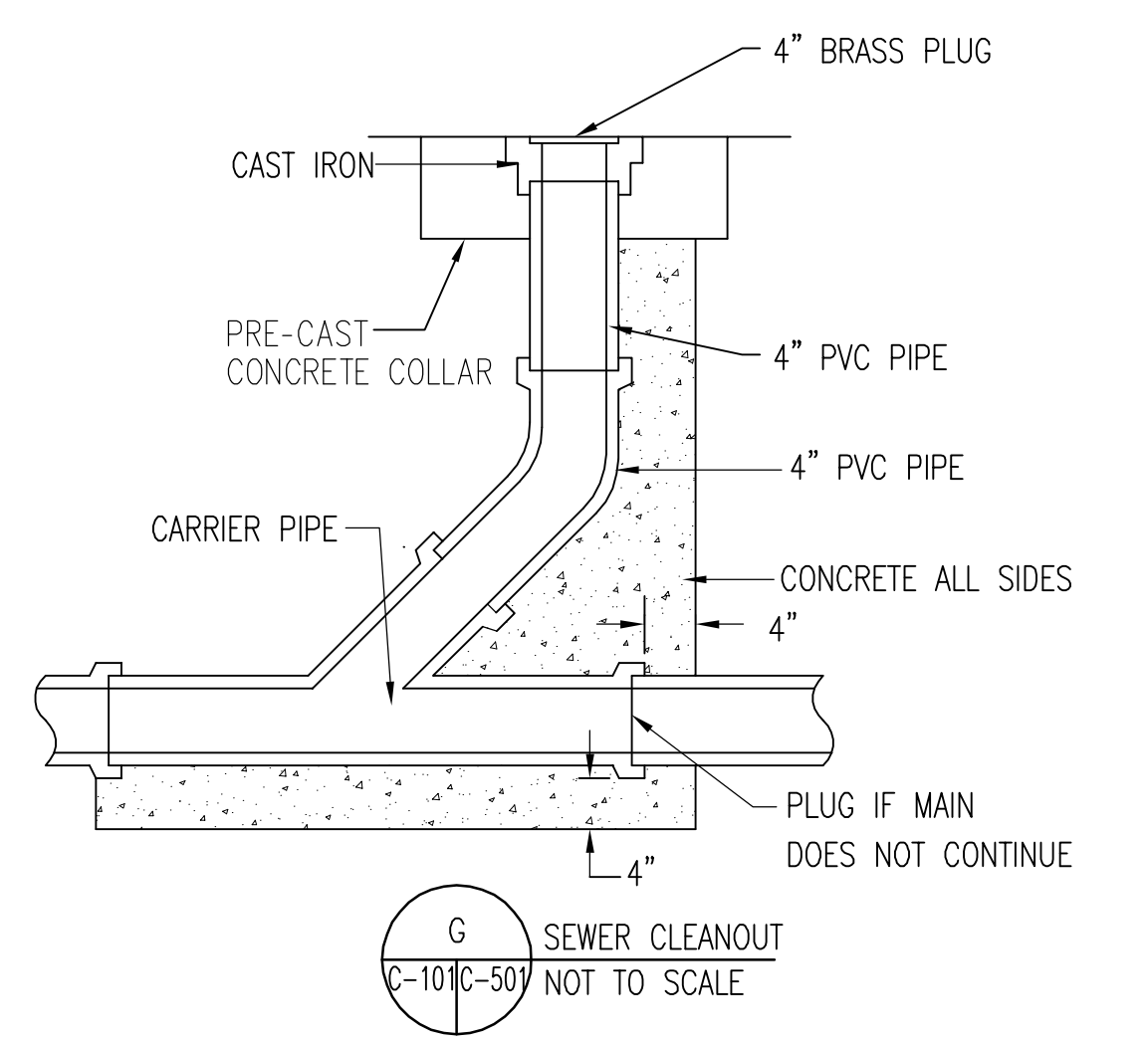


**E PIPE TRENCH SECTION**  
C-101C-501 NOT TO SCALE



NOTES:  
1. CONTRACTION JOINTS SHALL BE PLACED 10'-0" O.C. TO A MINIMUM DEPTH OF 1'-1/2".  
2. CONTRACTION JOINTS SHALL BE FILLED COMPLETELY WITH A JOINT FILLER SUITABLE FOR THE APPLICATION.  
3. EXPANSION JOINTS SHALL BE PLACED 80' O.C. AND ADJACENT TO ALL FIXED OBJECTS (WALLS, WALKS, ETC.)  
4. PROVIDE AT ELEVATIONS SHOWN. SLOPE CURB & GUTTER EVENLY BETWEEN SPOT ELEVATIONS.

**F CURB AND GUTTER**  
C-101C-501 NOT TO SCALE

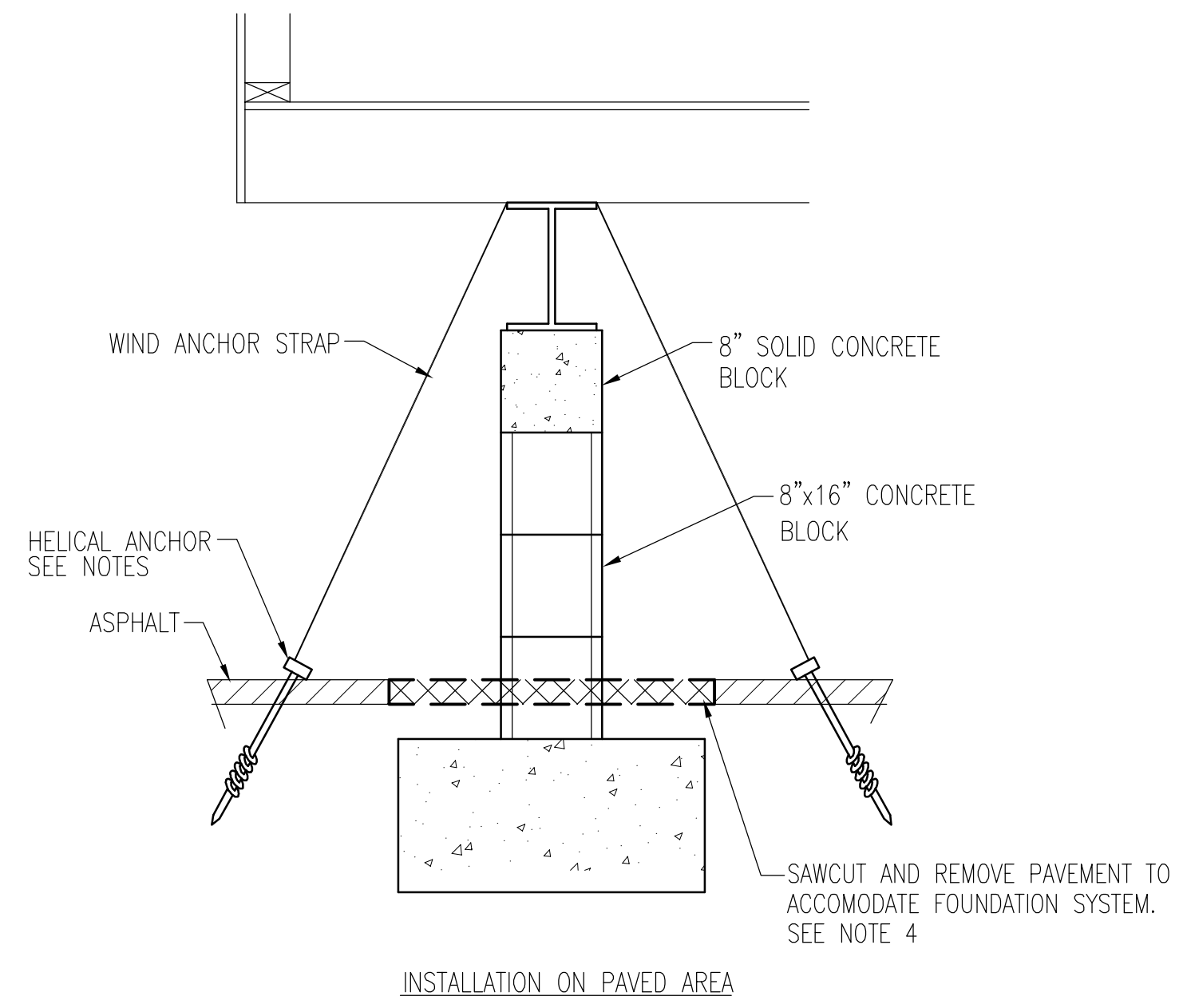
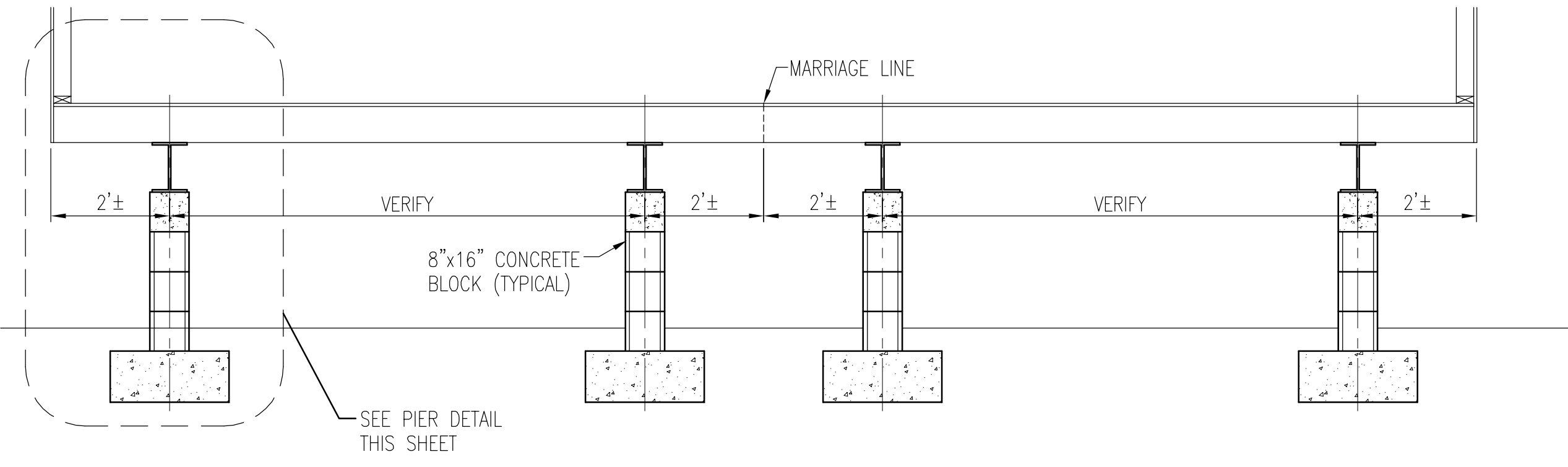
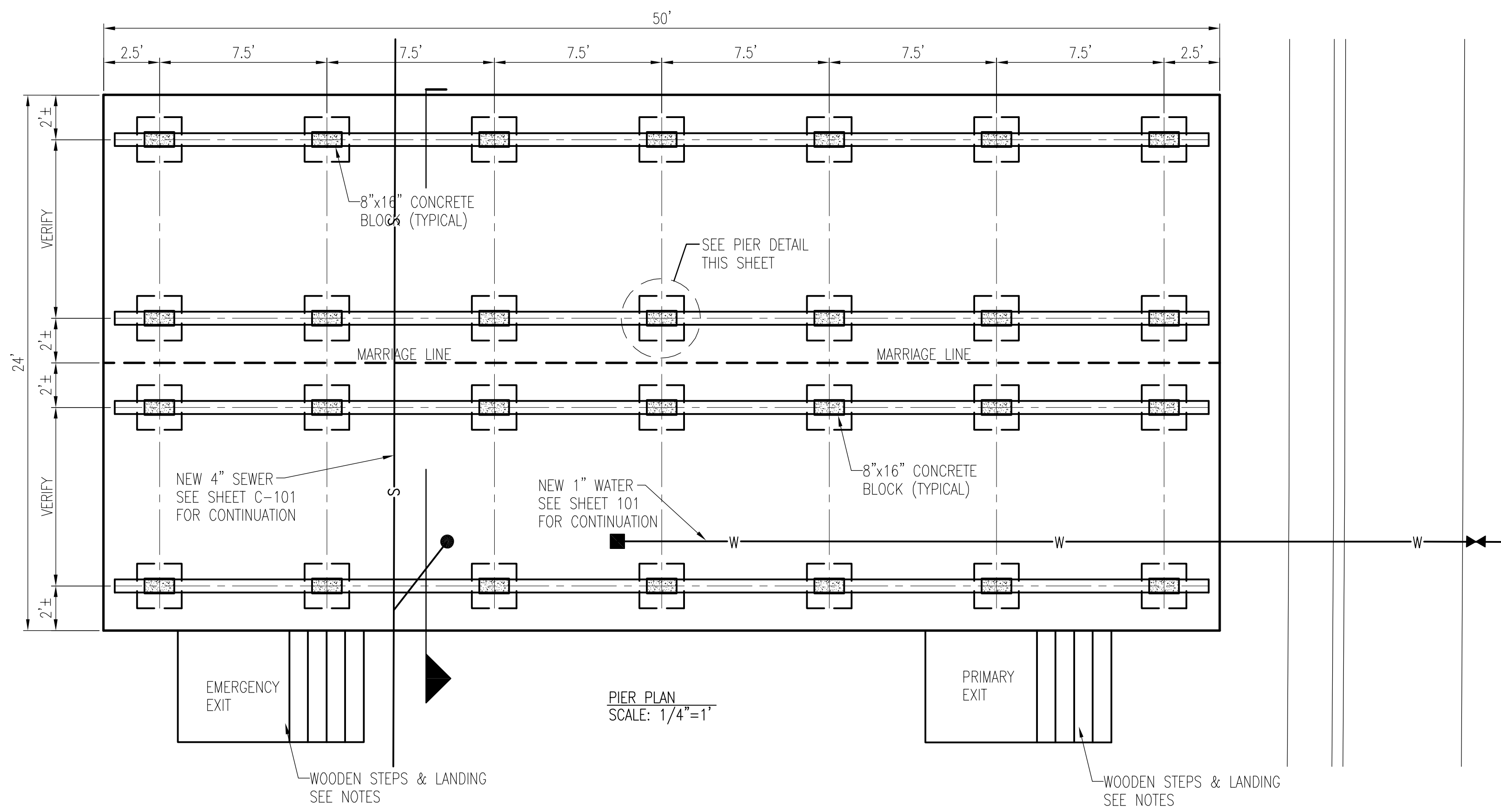


**H LIFT STATION**  
C-101C-501 NOT TO SCALE

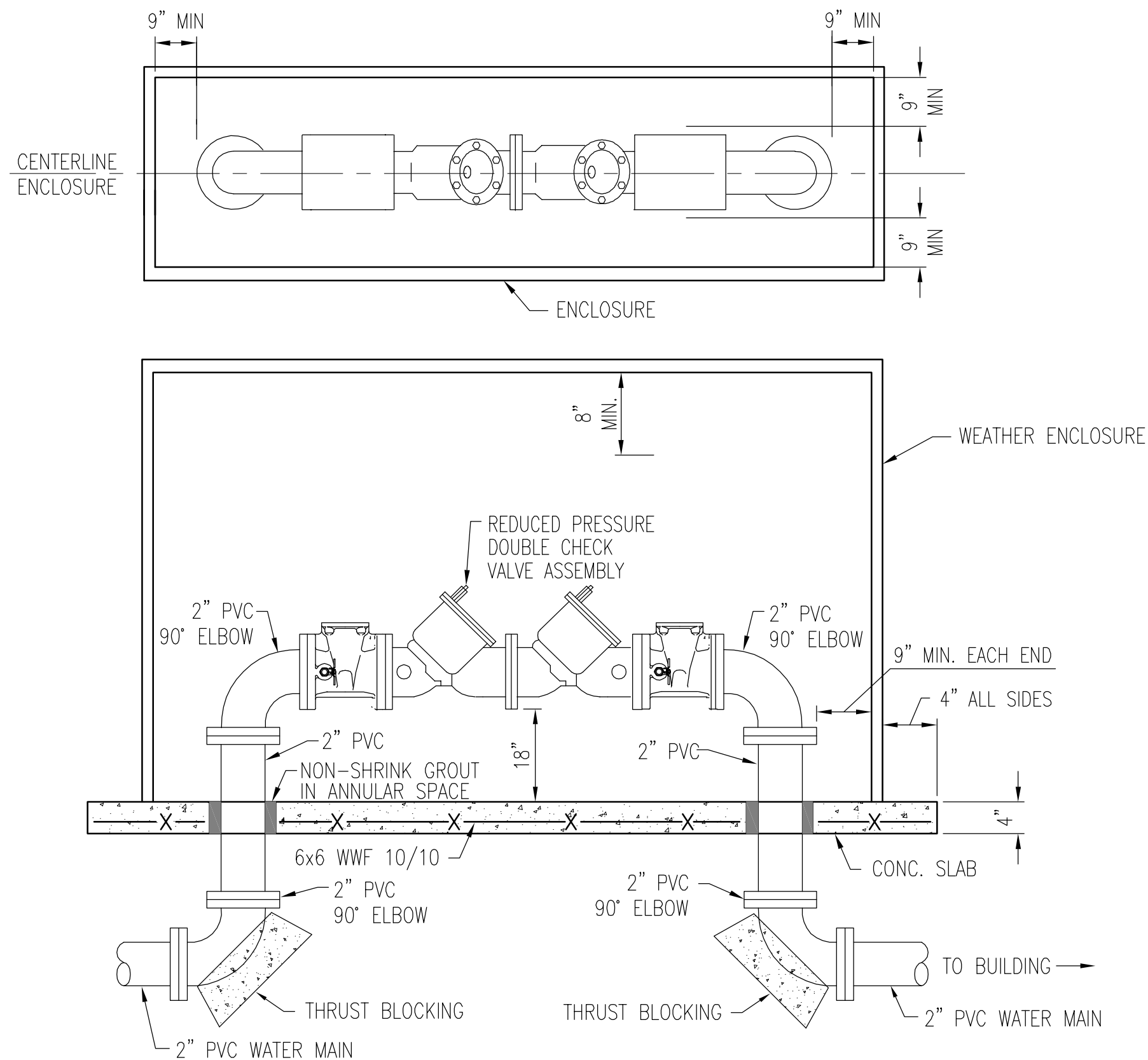
NOTE: THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE WATER SERVICE AND SEWAGE DISPOSAL SYSTEMS SERVICING THE TEMPORARY TRAILERS FOR THE DURATION OF THE PROJECT.

 DES. J.K. AVOLIS, P.E. DR. MSP/WFF CHK. J.C. AVOLIS, P.E. SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC SATISFACTORY TO:		<b>C-501</b>	
		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA <b>REPAIR BEQ BUILDING BB260</b>	
AVOLIS ENGINEERING, P.A. P.O. BOX 15684 NEW BERN, NC 28561 PH (252) 633-0088, FAX (252) 633-6507		NAVFAC DRAWING NO. 60007568 CONST. CONTR. NO. N40085-10-B-0031 SPEC. 05-10-0031	
SHEET 3 OF 72		SCALE:	

REVISIONS		
SYM	DATE	APPROVED



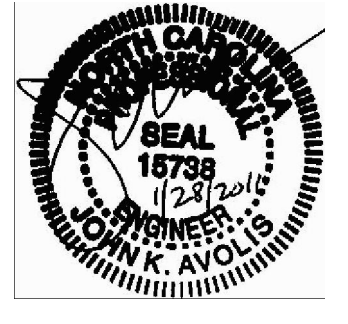
- NOTES:**
1. ALL TEMPORARY OFFICE TRAILERS INSTALLED ON THIS PROJECT SHALL BE APPROVED FOR INSTALLATION WITHIN A 130MPH (3-SECOND GUST) WIND ZONE.
  2. THE FOUNDATION REQUIREMENTS DEPICTED HEREON ARE APPROXIMATE. THE CONTRACTOR SHALL PROVIDE A FOUNDATION PIER PLAN, FOOTING DETAILS, AND STRAPPING PLANS AND DETAILS FOR THE MOBILE OFFICE STRUCTURES SELECTED. THIS INFORMATION SHALL BE PREPARED BY A NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER AND SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR APPROVAL PRIOR TO ERECTION.
  3. THE CONTRACTOR SHALL PROVIDE A 5'x5' ELEVATED WOOD LANDING AND STEPS FOR ACCESS TO EACH DOOR OF EACH OFFICE UNIT. ADDITIONALLY, ONE HANDICAP ACCESSIBLE RAMP AND ACCESS WAY SHALL BE PROVIDED TO ONE OFFICE TRAILER AS DESIGNATED BY THE CONTRACTING OFFICER. THE STAIRS AND RAMP SHALL BE DESIGNED BY A NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER AND SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR APPROVAL PRIOR TO CONSTRUCTION.
  4. UPON REMOVAL OF TEMPORARY OFFICE TRAILERS, ALL SURFACES DISTURBED SHALL BE RETURNED TO ITS ORIGINAL CONDITIONS.



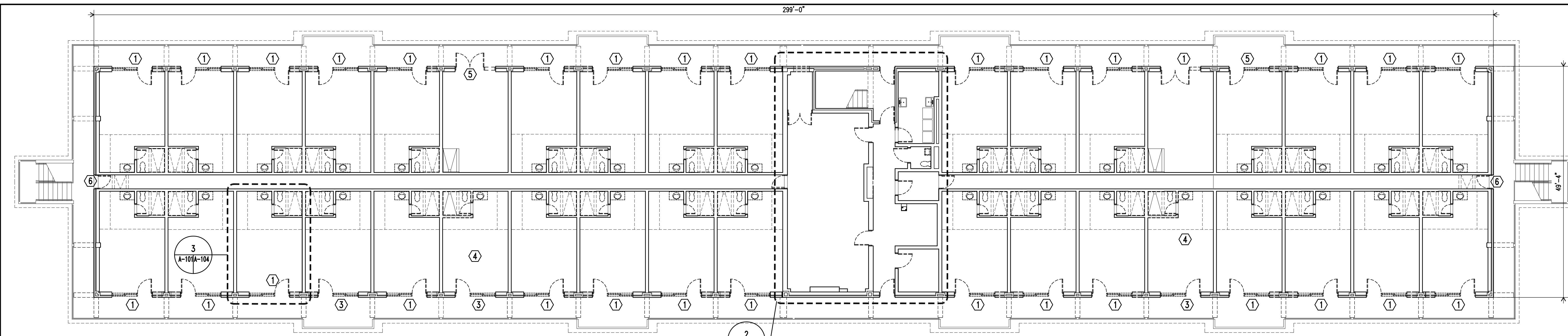
A TEMPORARY OFFICE - FOUNDATION PLAN, SECTION, AND DETAILS  
C-101-C-502

B DOUBLE CHECK VALVE ASSEMBLY & ENCLOSURE  
C-101-C-502 NOT TO SCALE

AE PROJECT # 10065  
AVOLIS ENGINEERING, P.A.  
P.O. BOX 15664  
NEW BERN, NC 28561  
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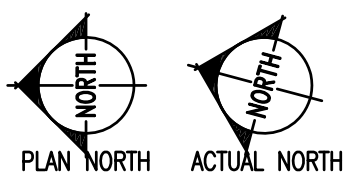


<b>C-502</b>		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
		<b>REPAIR BEQ BUILDING BB260</b>	
MAUNE BELANGIA FAULKENBERRY ARCHITECTS PA 317-C POLLOCK STREET NEW BERN, NC		<b>TEMPORARY OFFICE DETAILS</b>	
DES. J.K. AVOLIS, P.E. DR. MSP/WFF CHK. J.C. AVOLIS, P.E. SUBMITTED BY: DESIGN DIR.		APPROVED: PWO OR OICC DATE: _____ SIZE: F 80091 NAVFAC DRAWING NO. 60007569 CONST. CONTR. NO. N40085-10-B-0031	
Satisfactory To: _____ DATE: _____		SCALE: SPEC. 05-10-0031 SHEET 4 OF 72	



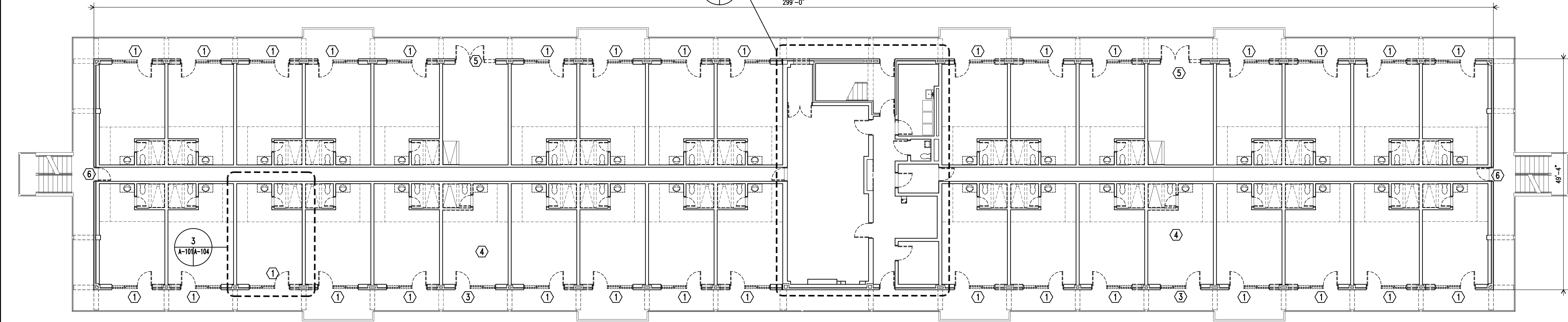
**THIRD FLOOR PLAN**

Scale: 3/32" = 1'-0"



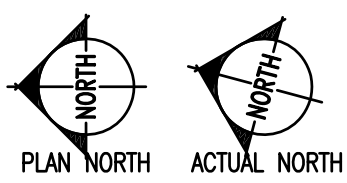
3  
A-101A-104  
DEMOLITION

2  
A-101A-104



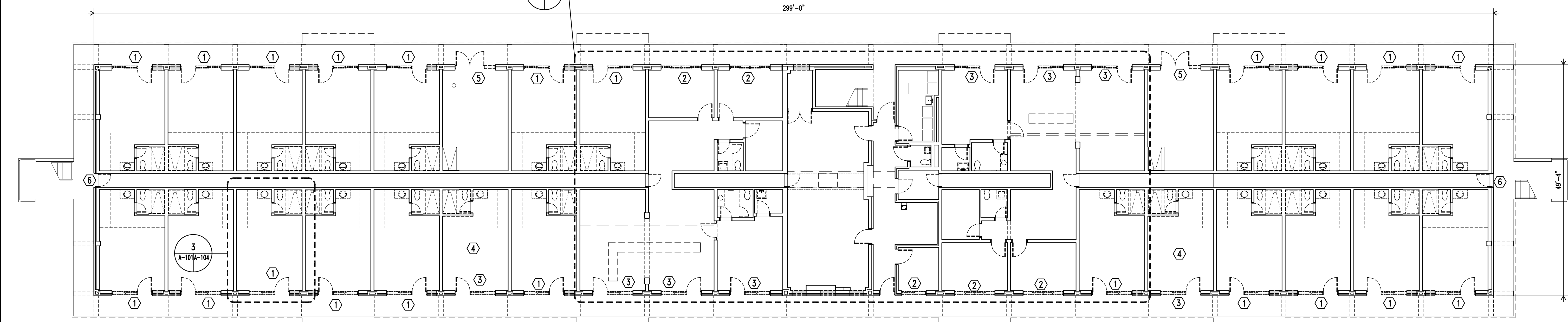
**SECOND FLOOR PLAN**

Scale: 3/32" = 1'-0"



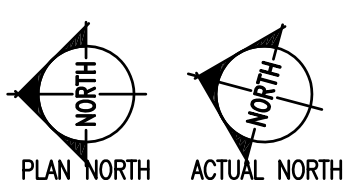
2  
A-101A-101  
DEMOLITION

1  
A-101A-105



**FIRST FLOOR PLAN**

Scale: 3/32" = 1'-0"



1  
A-101A-101  
DEMOLITION

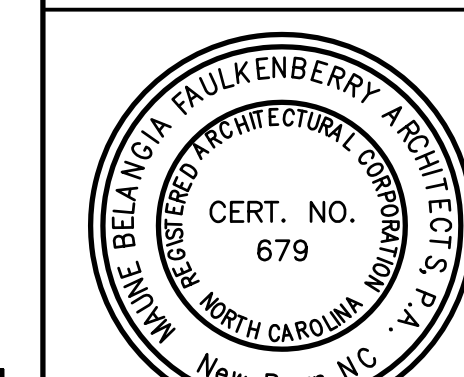
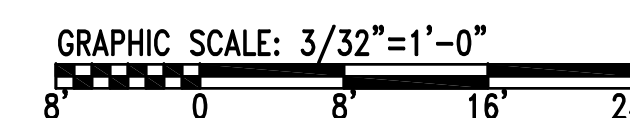
**GENERAL NOTES**

- SEE ENLARGED DEMOLITION PLANS AS DENOTED FOR SPECIFIC DEMOLITION SCOPE OF WORK AT INDICATED AREAS.
- ASBESTOS MATERIAL AND LEAD-BASED PAINT TESTING HAS BEEN PERFORMED ON EXISTING AREAS OF WORK. SEE THE SPECIFICATION FOR ASBESTOS MATERIAL AND LEAD-BASED PAINT REPORT RESULTS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROPRIATE STANDARD OF CARE REGARDING THE HANDLING OF ANY MATERIALS FOUND TO BE HAZARDOUS AND THE PROTECTION OF PERSONS FROM EXPOSURE.
- ALL MATERIALS ARE TO BE CONSIDERED NEW UNLESS SPECIFICALLY REFERRED TO AS "EXISTING".
- THE CONTRACTOR SHALL PHOTOGRAPH, TAG, RECORD THE LOCATION OF, REMOVE FROM THE BUILDING, AND STORE EACH PIECE OF FURNITURE. THE CONTRACTOR SHALL PROVIDE AN ELECTRONIC COPY OF THE FURNITURE CONDITION PICTURES AND FURNITURE LOCATIONS TO THE GOVERNMENT ON CD. TYPICAL SLEEPING ROOM INCLUDES BUT IS NOT LIMITED TO: (3) METAL WARDROBES, (3) METAL RACKS, (3) MATTRESSES, (3) DESKS, (3) DESK CHAIRS, (3) NIGHT TABLES, AND (3) LAMPS, REFRIGERATOR, MICROWAVE, (2) MIRRORS, RUGS, DRAPERIES, AND COMFORTERS. THE CONTRACTOR SHALL PROTECT EACH ITEM REMOVED FROM DAMAGE. THE CONTRACTOR SHALL PLACE ALL ITEMS REMOVED BACK IN THE BUILDING WITH EXCEPTION OF THE WARDROBES AND MIRRORS AND MATTRESSES, RUGS, DRAPERIES, AND COMFORTERS PRIOR TO PROJECT COMPLETION. CONTRACTOR SHALL DISPOSE OF ALL MATTRESSES AT A PERMITTED SOLID WASTE LANDFILL. CONTRACTOR WILL COORDINATE WITH BASE RECYCLING (452-4214) FOR TRANSPORTATION OF ALL AREA RUGS, DRAPERIES, AND COMFORTERS TO BLDG. 982 (PINEY GREEN ROAD) FOR RECYCLING. THE CONTRACTOR SHALL OFFER THE WARDROBES AND MIRRORS TO THE GOVERNMENT. IF THE GOVERNMENT REFUSES THE WARDROBES AND MIRRORS, THE CONTRACTOR SHALL DISPOSE OF THE WARDROBES AND MIRRORS.
- THE CONTRACTOR IS TO PROVIDE OPENINGS IN MECHANICAL ROOM FLOORS FOR NEW VERTICAL DUCTWORK. SEE SHEETS MH-102 FOR MECHANICAL RISER.
- WHERE DUCTWORK, PIPING, OR WIRING IS REMOVED, PATCH ALL HOLES IN WALLS AND CEILING WITH LIKE MATERIAL.

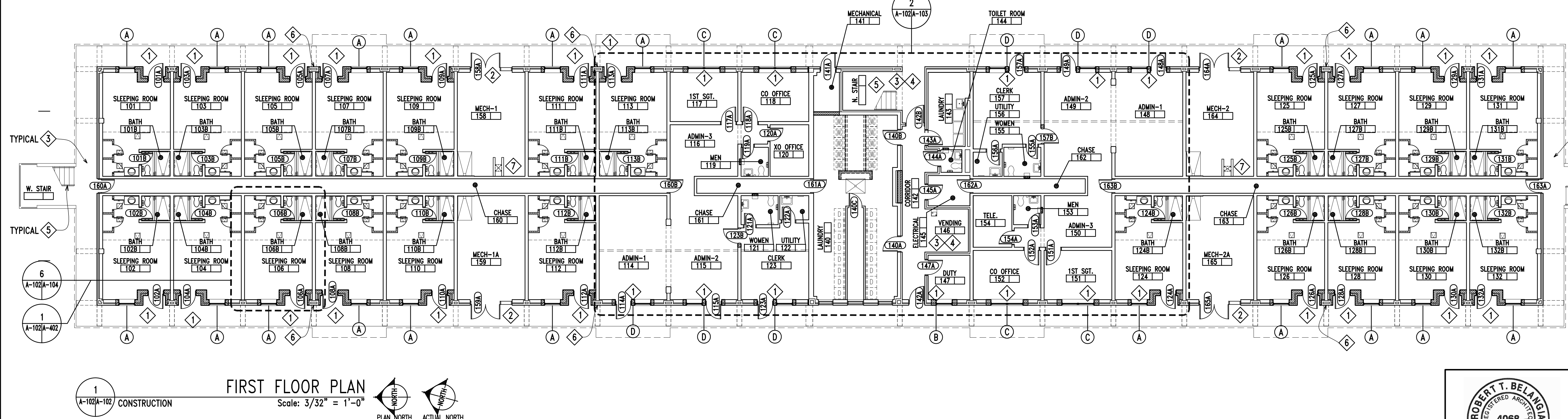
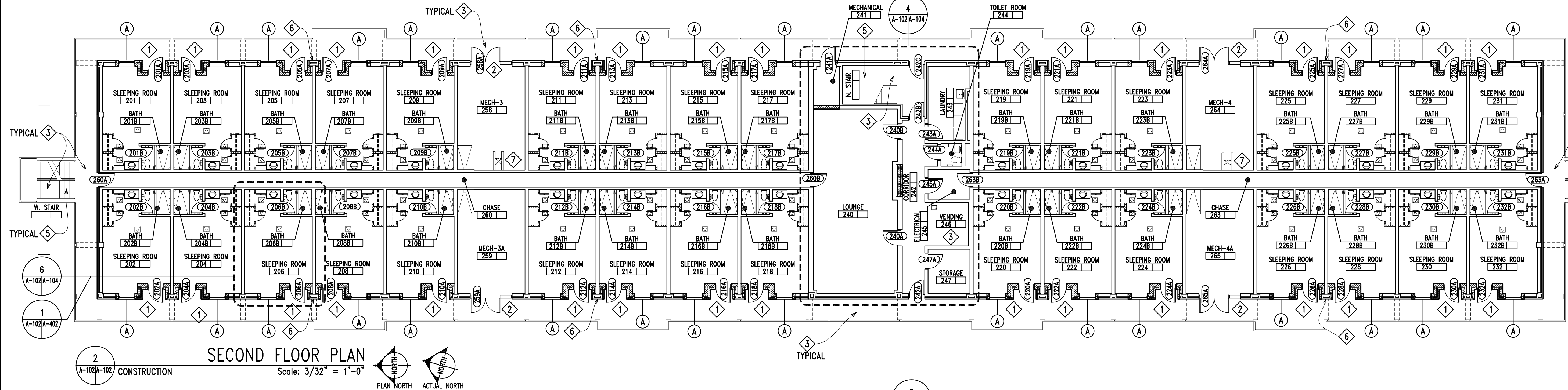
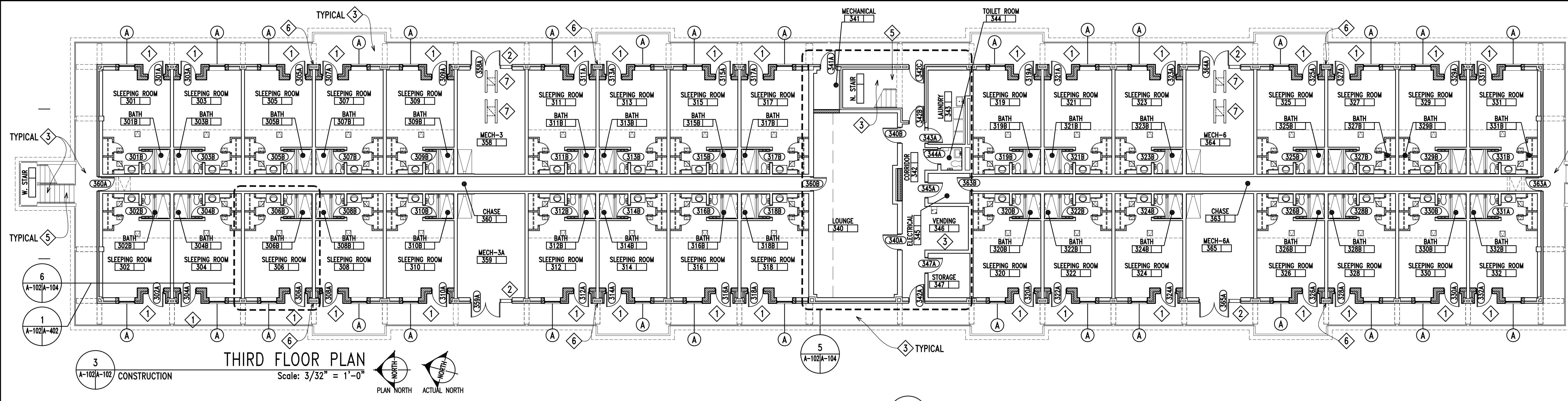
**DEMOLITION NOTES**

APPLY TO THIS SHEET ONLY

- REMOVE PORTION OF EXISTING CONCRETE MASONRY AND BRICK MASONRY VENEER WALL, AND EXISTING ALUMINUM WINDOWS AND STEEL FRAMING (AND EXTERIOR DOORS WHERE THEY EXIST) WITHIN EXISTING 8'-8" WIDE x 8'-8" HIGH MASONRY OPENING AS INDICATED TO PERMIT INSTALLATION OF NEW INFILL CONSTRUCTION. FOR SLEEPING ROOMS, SEE ENLARGED DEMOLITION PLAN 3/A-104.
- REMOVE EXISTING ALUMINUM WINDOWS AND STEEL FRAMING WITHIN EXISTING 8'-8" WIDE x 8'-8" HIGH MASONRY OPENING, TO PERMIT INSTALLATION OF NEW INFILL CONSTRUCTION.
- REMOVE EXISTING ALUMINUM WINDOWS AND STEEL FRAMING AND EXTERIOR DOOR WITHIN EXISTING 8'-8" WIDE x 8'-8" HIGH MASONRY OPENING, TO PERMIT INSTALLATION OF NEW DOORS AND FRAME. COORDINATE WITH CONSTRUCTION PLAN.
- REMOVE ALL COMPONENTS OF THE INTERIOR OF EXISTING SLEEPING ROOM IN ORDER TO CONVERT IT TO A MECHANICAL ROOM, INCLUDING BUT NOT LIMITED TO EXISTING BATHROOM WALLS, FLOOR FINISHES, ACCESSORIES, VANITY CABINETS, PLUMBING FIXTURE, EXISTING SHOWER CURBING, ETC. EXCEPT FOR FLOOR DRAIN AND SHOWER FLOOR (TO BE USED AS CONDENSATE DRAIN BY NEW EQUIPMENT).
- REMOVE EXISTING DOOR AND FRAME, INCLUDING LOUVERED SIDELITE PANEL AND SOLID PANEL TRANSOM, IN PREPARATION FOR INSTALLATION OF NEW DOOR AND FRAME. SEE CONSTRUCTION PLAN AND DOOR SCHEDULE.
- REMOVE EXISTING DOOR AND FRAME, INCLUDING TRANSOM, IN PREPARATION FOR INSTALLATION OF NEW DOOR AND FRAME. SEE CONSTRUCTION PLAN AND DOOR SCHEDULE.

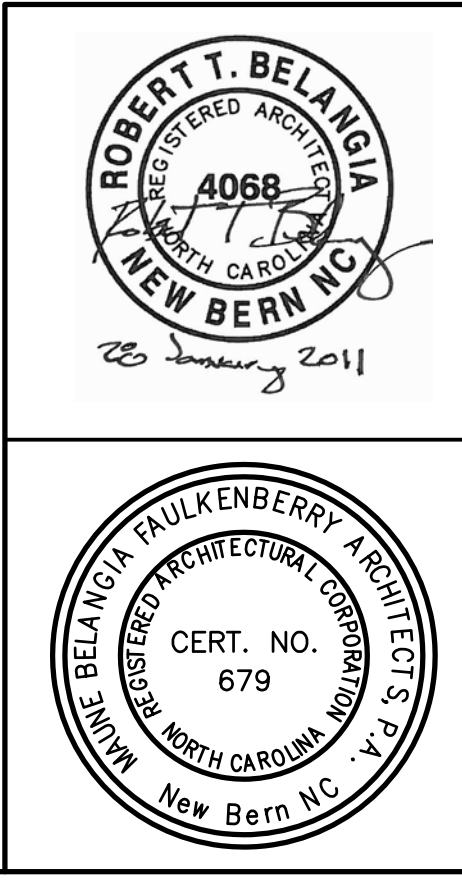


		<b>A-101</b>	
DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC SATISFACTORY TO:		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA <b>REPAIR BEQ BUILDING BB260</b> MCB, CLNC	
MFA NO. 1021 NAVFAC DRAWING NO. <b>60007570</b> CONSTRUCTION NO. N4085-10-B-0031		COMPREHENSIVE FLOOR PLANS: DEMOLITION NAVFAC DRAWING NO. <b>60007570</b> CONSTRUCTION NO. N4085-10-B-0031	
DATE: _____ DATE: _____		SIZE: <b>F 80091</b> SCALE: AS NOTED SPEC. 05-10-0031 SHEET 05 OF 72	

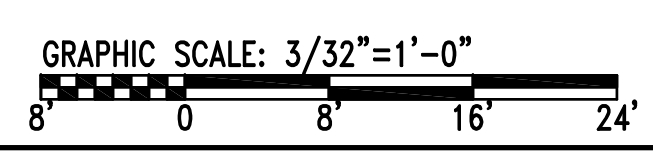


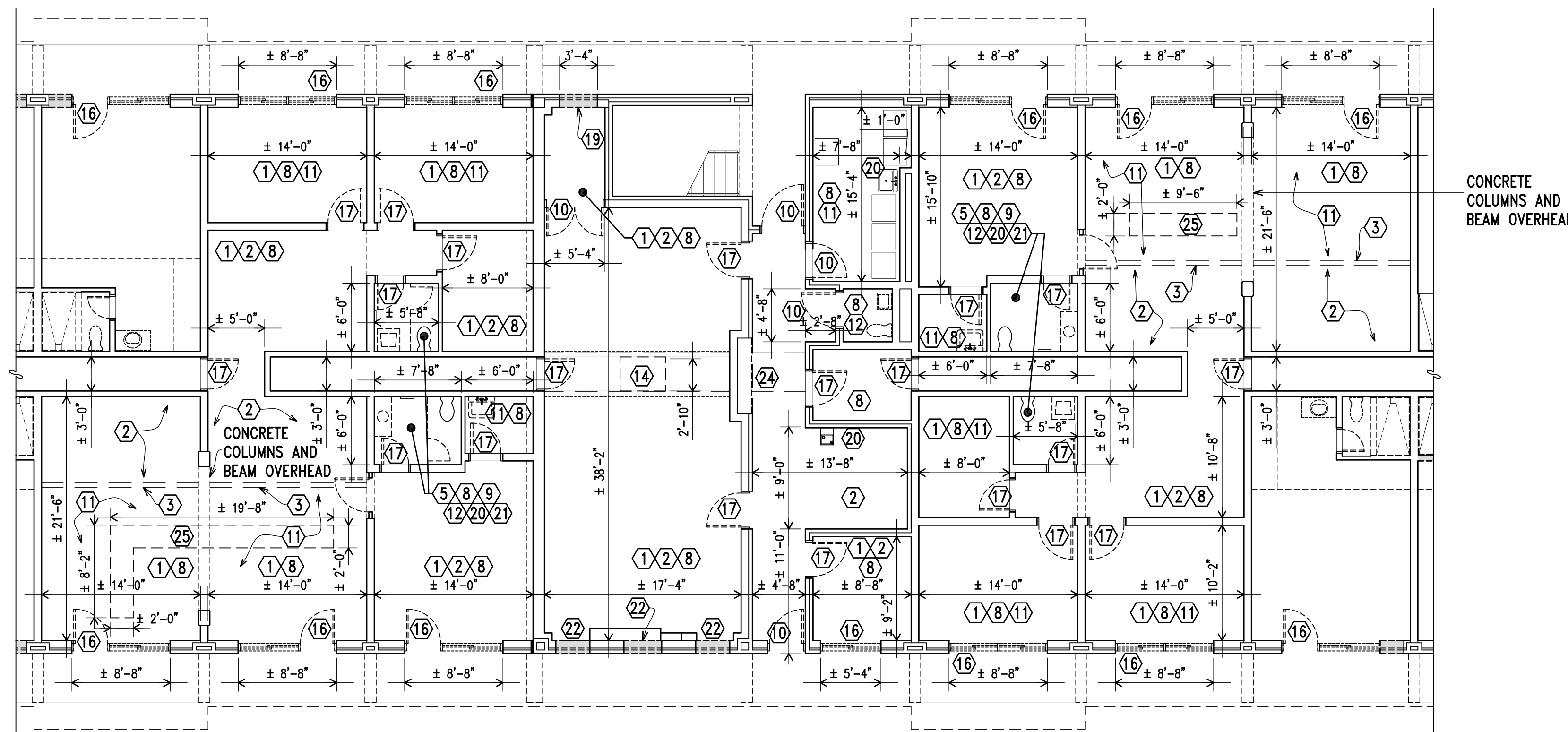
- ### GENERAL NOTES
- SEE REFLECTED CEILING PLAN A-105 FOR AREAS TO RECEIVE NEW CEILING FINISHES, MATERIALS, HEIGHTS, ETC. SEE FINISH SCHEDULE SHEET A-602 FOR ALL MATERIAL AND COLOR SELECTIONS, AS PER FINISH DESIGNATIONS FOR EACH IDENTIFIED ROOM ON THE CONSTRUCTION PLAN. WHERE DOORS ARE INDICATED AS NUMBERED IN THE CONSTRUCTION PLAN, REFER TO THE DOOR SCHEDULE SHEET A-601 FOR NEW DOOR DESCRIPTIONS.
    - ROOM NAME: OFFICE 101-151
    - ROOM NUMBER: 101-151
    - NEW DOOR DESIGNATION: SEE DOOR SCHEDULE
    - ROOM FINISH DESIGNATION: SEE FINISH SCHEDULE
  - SEE ENLARGED CONSTRUCTION PLANS AS DENOTED FOR SPECIFIC CONSTRUCTION SCOPE OF WORK AT INDICATED AREAS.
  - ASBESTOS MATERIAL AND LEAD-BASED PAINT TESTING HAS BEEN PERFORMED ON EXISTING AREAS OF WORK. SEE THE SPECIFICATION FOR ASBESTOS MATERIAL AND LEAD-BASED PAINT REPORT RESULTS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROPRIATE STANDARD OF CARE REGARDING THE HANDLING OF ANY MATERIALS FOUND TO BE HAZARDOUS AND THE PROTECTION OF PERSONS FROM EXPOSURE.
  - ALL MATERIALS ARE TO BE CONSIDERED NEW UNLESS SPECIFICALLY REFERRED TO AS "EXISTING".
  - SEE LS-001 LIFE SAFETY CODE COMPLIANCE SUMMARY AND LS-101 LIFE SAFETY PLAN FOR LOCATIONS AND HOURLY RATINGS OF FIRE RATED WALLS.
  - DOOR DESIGNATORS (NUMBERS) FOR SLEEPING ROOM CLOSET DOORS ARE NOT SHOWN FOR CLARITY. FOR EACH SLEEPING ROOM, CLOSET DOORS ARE DENOTED AS DOORS "C" AND "D", AS IN 101C AND 101D, ETC.
  - WHERE PIPES, CONDUITS, DUCTS OR OTHER UTILITIES ARE REMOVED AND NOT REPLACED, PROVIDE MATERIALS TO FILL THE OPENING(S) WHICH ARE THE SAME AS ADJACENT CONSTRUCTION. SEE FIRE PROTECTION DRAWINGS FOR FIRE-RATED CONSTRUCTION.
    - (A) INDICATES TYPE OF INFILL CONSTRUCTION REQUIRED. SEE PLAN AND ELEVATION DETAILS SHEET A-401

- ### CONSTRUCTION NOTES
- APPLY TO THIS SHEET ONLY
- PROVIDE NEW INFILL CONSTRUCTION WHERE EXISTING CONSTRUCTION HAS BEEN REMOVED. SEE DETAIL PLANS AND ELEVATIONS OF EACH TYPE OF INFILL CONSTRUCTION TO BE PROVIDED ON SHEET A-401. SEE TYPE INDICATED (A,B,C,D) AT EACH LOCATION ON COMPREHENSIVE CONSTRUCTION PLANS THIS SHEET.
  - PROVIDE NEW DOORS AND FRAME AS SCHEDULED AT EXISTING MECHANICAL ROOMS AND WHERE EXISTING SLEEPING ROOM IS TO BE CONVERTED TO MECHANICAL ROOM.
  - POWERWASH ALL EXISTING CONCRETE WALKING SURFACES, ENTIRE BUILDING, INCLUDING STAIR RISERS AND TREADS, AND PREPARE SURFACES FOR SEALER, STANDARD RESINOUS FLOORING WHERE INDICATED, AND/OR RETROFIT STAIR TREAD INSTALLATION.
  - SCRUB AND RINSE ALL EXISTING INTERIOR BRICK MASONRY WITH BIODEGRADABLE CLEANER TO REMOVE BIOLOGICAL DEPOSITS AND DIRT.
  - PROVIDE RETROFIT STAIR TREAD INSTALLATION AT EACH STAIR NOSING/TREAD, SEE DETAIL 5/A-302.
  - LOCATION OF EXISTING 2'-0" WIDE BRICK MASONRY PIER WITHIN THE EXISTING EXTERIOR WALL (ALL OTHER PILLASTERS 1'-4" WIDE) ADJACENT TO NEW WORK FOR SLEEPING ROOM ENTRY. SEE 9/A-401
  - LOCATION OF NEW DUCT PENETRATION THROUGH CONCRETE PLANK CONSTRUCTION ABOVE: SEE DETAIL 10/A-403 FOR STRUCTURAL SUPPORT. SEE MECHANICAL DRAWINGS FOR ALL LOCATIONS OF NEW PENETRATIONS

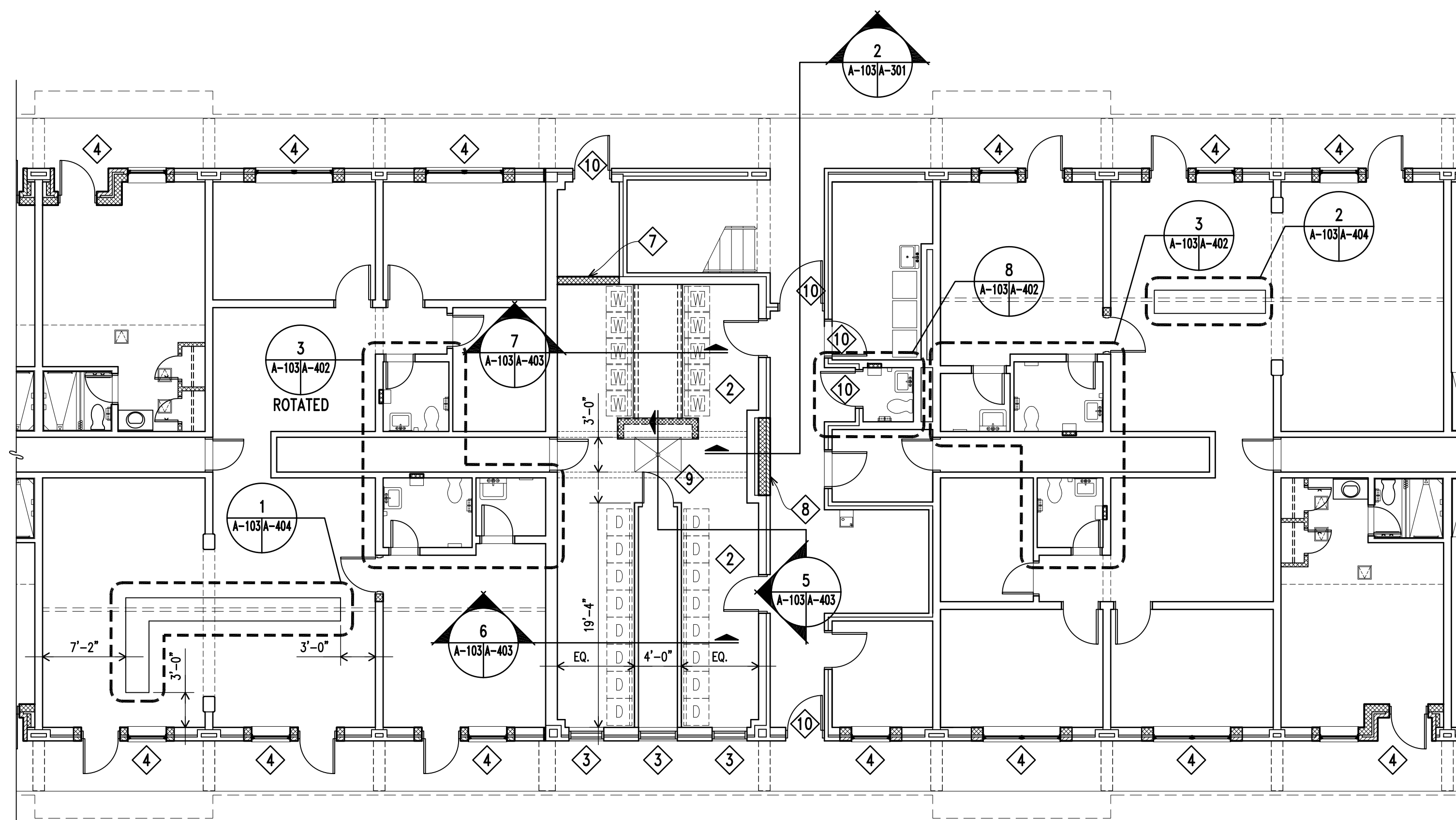


		<b>A-102</b>	
DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC DATE:		<b>REPAIR BEQ BUILDING BB260</b> <b>MCB, CLNC</b>	
SATISFACTORY TO: DATE:		COMPREHENSIVE FLOOR PLANS: CONSTRUCTION NAVFAC DRAWING NO. <b>60007571</b> CONST. CONTR. NO. N40685-10-B-0031 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 06 OF 72	





1  
A-103A-103 DEMOLITION  
CENTRAL CORE & ADMINISTRATIVE AREA: 1ST FLOOR  
Scale: 1/8" = 1'-0"  
PLAN NORTH ACTUAL NORTH



2  
A-103A-103 CONSTRUCTION  
CENTRAL CORE & ADMINISTRATIVE AREA: 1ST FLOOR  
Scale: 1/8" = 1'-0"  
PLAN NORTH ACTUAL NORTH

NOTE: SEE COMPREHENSIVE CONSTRUCTION FLOOR PLANS SHEET A-102 FOR ALL ROOM NAMES/NUMBERS, FINISH DESIGNATIONS, AND DOOR NUMBERS.

**GENERAL NOTES**

- EXISTING DOOR FRAMES THAT ARE TO REMAIN ARE STEEL. CLEAN AND PREPARE (BOTH SIDES) OF ALL FRAMES FOR NEW PAINT FINISHES. PAINT ALL DOOR FRAMES. EXISTING WINDOWS ARE ALUMINUM AND ARE MOUNTED IN STEEL FRAMES (FRAME TYPES A, B, C, D). EXISTING INTERIOR WALLS ARE PAINTED CONCRETE MASONRY UNLESS NOTED OTHERWISE.
- PROVIDE NEW FINISHES FOR ALL SPACES AS DESCRIBED IN THE ROOM FINISH SCHEDULE. SEE COMPREHENSIVE CONSTRUCTION FLOOR PLANS SHEET A-102 FOR ALL ROOM NAMES, DOOR NUMBERS, AND ROOM FINISH DESIGNATIONS FOR ALL ROOMS. ALL DOORS ON THE COMPREHENSIVE CONSTRUCTION FLOOR PLANS THAT ARE DESIGNATED A DOOR NUMBER ARE DOORS TO BE REPLACED. SEE DOOR SCHEDULE SHEET A-601 FOR SPECIFIC INFORMATION, INCLUDING IF A NEW FRAME IS TO BE INSTALLED.
- SEE LS-001 LIFE SAFETY CODE COMPLIANCE SUMMARY AND LS-101 LIFE SAFETY PLAN FOR LOCATIONS AND HOURLY RATINGS OF FIRE RATED WALLS AND LOCATIONS OF NEW FIRE EXTINGUISHERS.
- FOR ALL RESTROOMS, SEE ENLARGED PLANS AND ELEVATIONS SHEET A-402 FOR ALL ACCESSORIES AND DELINEATION OF FINISHES.

**DEMOLITION NOTES**

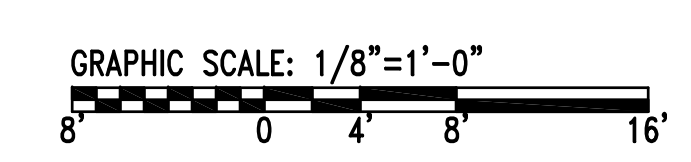
APPLY TO SHEETS A-103 & A-104 ONLY

- REMOVE EXISTING RESILIENT TILE. CLEAN AND PREPARE EXISTING CONCRETE SLAB FOR NEW FLOOR FINISHES.
- REMOVE EXISTING 2'x2' ACOUSTICAL CEILING AND SUSPENSION SYSTEM INCLUDING BUT NOT LIMITED TO: ACOUSTICAL CEILING TILES, SUSPENSION SYSTEM, WIRES, HANGERS, ETC.
- REMOVE EXISTING GYPSUM BOARD AND METAL STUD BULKHEAD AT 7'-4" HIGH.
- REMOVE EXISTING CARPET - CLEAN AND PREPARE EXISTING CONCRETE SLAB FOR NEW FLOOR FINISH. (NOT USED THIS SHEET)
- REMOVE EXISTING THIN SET CERAMIC TILE FLOORING. PREPARE EXISTING CONCRETE SLAB FOR NEW FLOOR FINISH. REMOVE EXISTING MARBLE THRESHOLDS.
- REMOVE EXISTING CERAMIC TILE, CEMENT MORTAR BED AND SHOWER PAN MEMBRANE, INCLUDING EXISTING SHOWER CURBING. PREPARE EXISTING CONCRETE SLAB FOR NEW FLOOR FINISH. SEE A-402 FOR DEMOLITION DETAILS. (NOT USED THIS SHEET)
- REMOVE EXISTING THIN SET CERAMIC TILE FROM THE EXISTING CONCRETE MASONRY WALLS. PREPARE EXISTING WALLS FOR NEW WALL FINISH. (NOT USED THIS SHEET)
- CLEAN AND PREPARE EXISTING PAINTED CONCRETE MASONRY WALLS FOR NEW PAINT FINISHES.
- REMOVE EXISTING PAINTED GYPSUM BOARD CEILING.
- REMOVE EXISTING STEEL DOOR AND FRAME, IN PREPARATION FOR INSTALLATION OF NEW STEEL DOOR AND FRAME AND/OR INFILL CONSTRUCTION.
- CLEAN AND PREPARE EXISTING PAINTED (TEXTURED) PRECAST CONCRETE PLANK CEILING FOR NEW FINISHES.
- REMOVE EXISTING TOILET ACCESSORIES INCLUDING BUT NOT LIMITED TO: TOILET TISSUE DISPENSER, INTEGRAL TOWEL DISPENSER / TRASH RECEPTACLE, TOWEL BARS, SOAP DISPENSER, SHOWER ROD AND SHOWER CURTAIN.
- COMPLETELY REMOVE EXISTING GYPSUM BOARD SOFFIT AND BULKHEAD INCLUDING ALL METAL SUPPORT FRAMING. INCLUDING RESTROOM CEILING. (NOT USED THIS SHEET)
- REMOVE PORTION OF EXISTING CONCRETE FLOOR SLAB TO ACCOMMODATE NEW AREA OF SLOPED FLOORING AT DRAIN. COORDINATE SIZE WITH CONSTRUCTION PLAN.
- REMOVE EXISTING WOOD VANITY CABINET INCLUDING BUT NOT LIMITED TO PORCELAIN SINK, FAUCET, OR WALL HUNG PORCELAIN SINK, AND WALL MOUNTED MIRROR ABOVE. (NOT USED THIS SHEET)
- REMOVE EXISTING STEEL FRAMED DOOR/WINDOW OR WINDOW ASSEMBLY FROM EXISTING MASONRY OPENING. INCLUDED IN STEEL FRAME IS THE FOLLOWING: ALUMINUM WINDOW, BLIND, DRAPES, METAL INFILL PANEL, AND DOOR WHERE SHOWN, 8'-8" HIGH X WIDTH SHOWN IN PLAN. PREPARE REMAINING MASONRY OPENING FOR NEW INFILL CONSTRUCTION AS INDICATED.
- REMOVE EXISTING STEEL DOOR INCLUDING HINGES AND HARDWARE. WIREBRUSH, CLEAN AND PAINT BOTH SIDES OF EXISTING FRAME AND PREPARE FRAME FOR INSTALLATION OF NEW DOOR.
- NOT USED.
- REMOVE PORTION OF CONCRETE MASONRY AND BRICK MASONRY WALL ± 8'-8" TO PERMIT CONSTRUCTION OF NEW ENTRY. REMOVE MORTAR BED FROM SLAB AND PREPARE SLAB FOR NEW FINISHES. (TYPICAL). (NOT USED THIS SHEET)
- REMOVE EXISTING PLUMBING FIXTURES IN PREPARATION FOR INSTALLATION OF NEW: SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
- REMOVE EXISTING TOILET PARTITION AND PATCH ANY REMAINING HOLES IN EXISTING CONCRETE MASONRY WALLS.
- REMOVE PORTION OF CONCRETE MASONRY AND BRICK MASONRY WALL TO ACCOMMODATE NEW LOUVER. SEE MECHANICAL DRAWINGS FOR SIZES.
- NOT USED.
- REMOVE EXISTING MAILBOXES INDICATED ON DEMOLITION PLAN. PREPARE REMAINING WALL FOR NEW CONCRETE MASONRY AND/OR CONCRETE AND BRICK MASONRY INFILL.
- REMOVE EXISTING PLYWOOD CABINETRY.

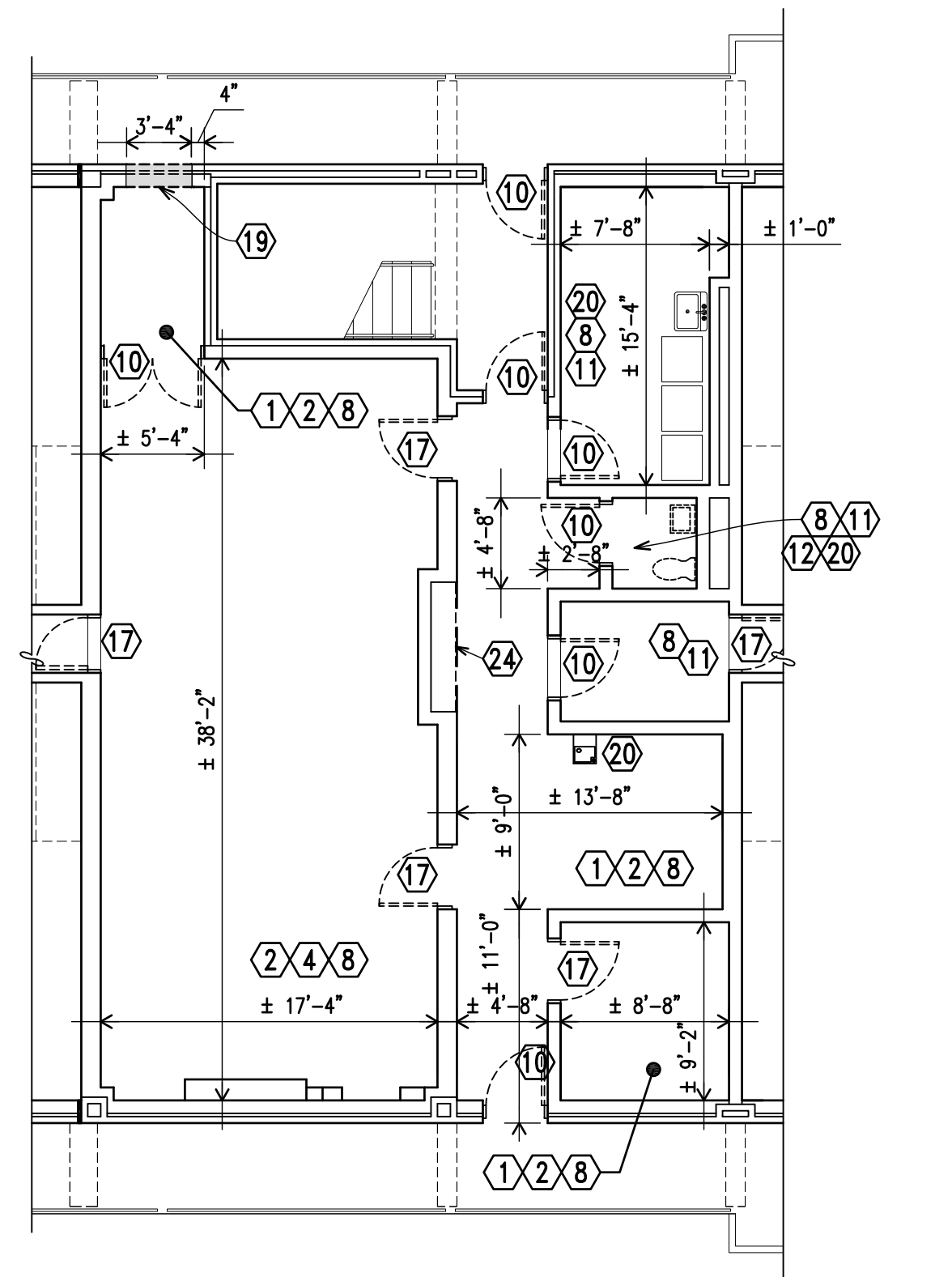
**CONSTRUCTION NOTES**

APPLY TO SHEETS A-103 & A-104 ONLY

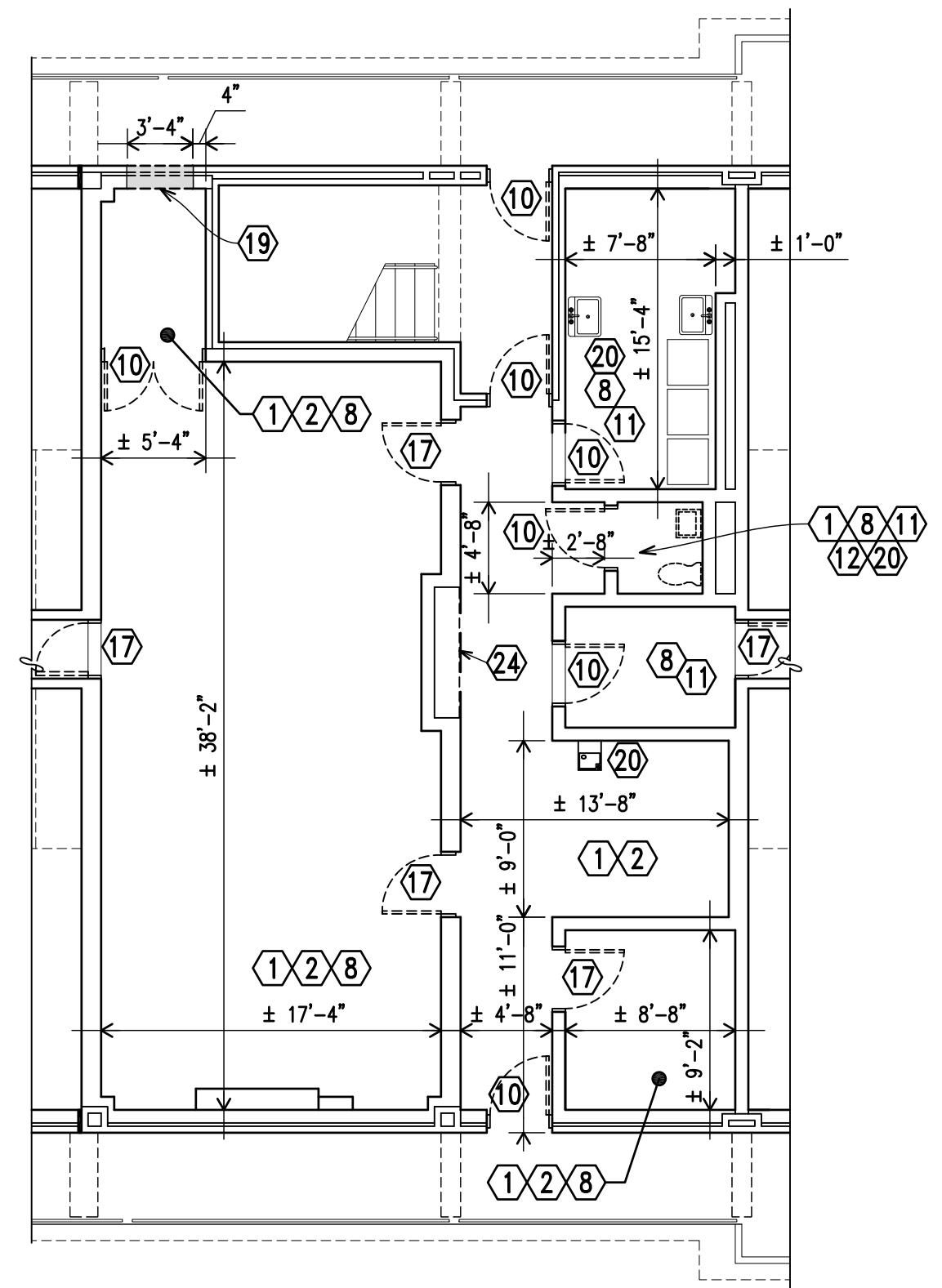
- PROVIDE NEW 36" WIDE HARDWOOD PLYWOOD STAIN GRADE VANITY WITH SOLID SURFACE COUNTERTOP AND PORCELAIN DROP-IN BOWL. (NOT USED THIS SHEET)
- WASHERS AND DRYERS ARE NOT IN CONTRACT.
- PROVIDE NEW CONCRETE MASONRY AND BRICK MASONRY TO FORM FINISHED JAMBS AT NEW LOUVER OPENINGS. PROVIDE NEW LOUVERS IN NEW MASONRY OPENINGS AS SHOWN IN THE MECHANICAL DRAWINGS. PROVIDE 3"x3"x1/4" GALVANIZED STEEL LINTEL, BEARING MINIMUM 8" EACH SIDE AT ALL NEW LOUVER OPENINGS.
- PROVIDE NEW INFILL CONSTRUCTION WHERE EXISTING CONSTRUCTION HAS BEEN REMOVED. SEE COMPREHENSIVE CONSTRUCTION PLANS SHEET A-102 FOR ALL LOCATIONS AND TYPE OF INFILL CONSTRUCTION TO BE PROVIDED.
- PROVIDE NEW SHOWER CURBING IN PREVIOUS LOCATION, SEE DETAIL 3/A-403. (NOT USED THIS SHEET)
- NEW SOFFIT AND BULKHEAD IN INDICATED AREA OF SLEEPING ROOM, AND NEW GYPSUM BOARD CEILING IN RESTROOM AND SHOWER. SEE FRAMING PLAN 2/A-402, AND SECTIONS AND ELEVATIONS 4/A-402 AND 5/A-402 FOR COMPOSITION. (NOT USED THIS SHEET)
- NEW 8" CONCRETE MASONRY WALL, INFILL WHERE EXISTING DOOR AND FRAME HAVE BEEN REMOVED. INFILL UP TO THE EXISTING MASONRY LINTEL AT 6'-8" A.F.F. X THE WIDTH OF THE PREVIOUS OPENING.
- NEW 12" CONCRETE MASONRY AND/OR CONCRETE AND BRICK MASONRY INFILL WHERE EXISTING MAIL BOXES HAVE BEEN REMOVED. SEE DETAILS 2/A-301 AND 3/A-301.
- PROVIDE NEW CONCRETE SLAB INFILL WHERE EXISTING SLAB HAS BEEN REMOVED. SEE DETAIL 5/A-403.
- PROVIDE NEW STEEL DOOR AND FRAME IN NEW MASONRY OPENING OR WHERE EXISTING HAS BEEN REMOVED. SEE COMPREHENSIVE CONSTRUCTION PLANS SHEET A-102 FOR DOOR DESIGNATIONS. SEE DOOR DETAILS FOR LINTEL REQUIREMENTS AT NEW MASONRY OPENINGS.



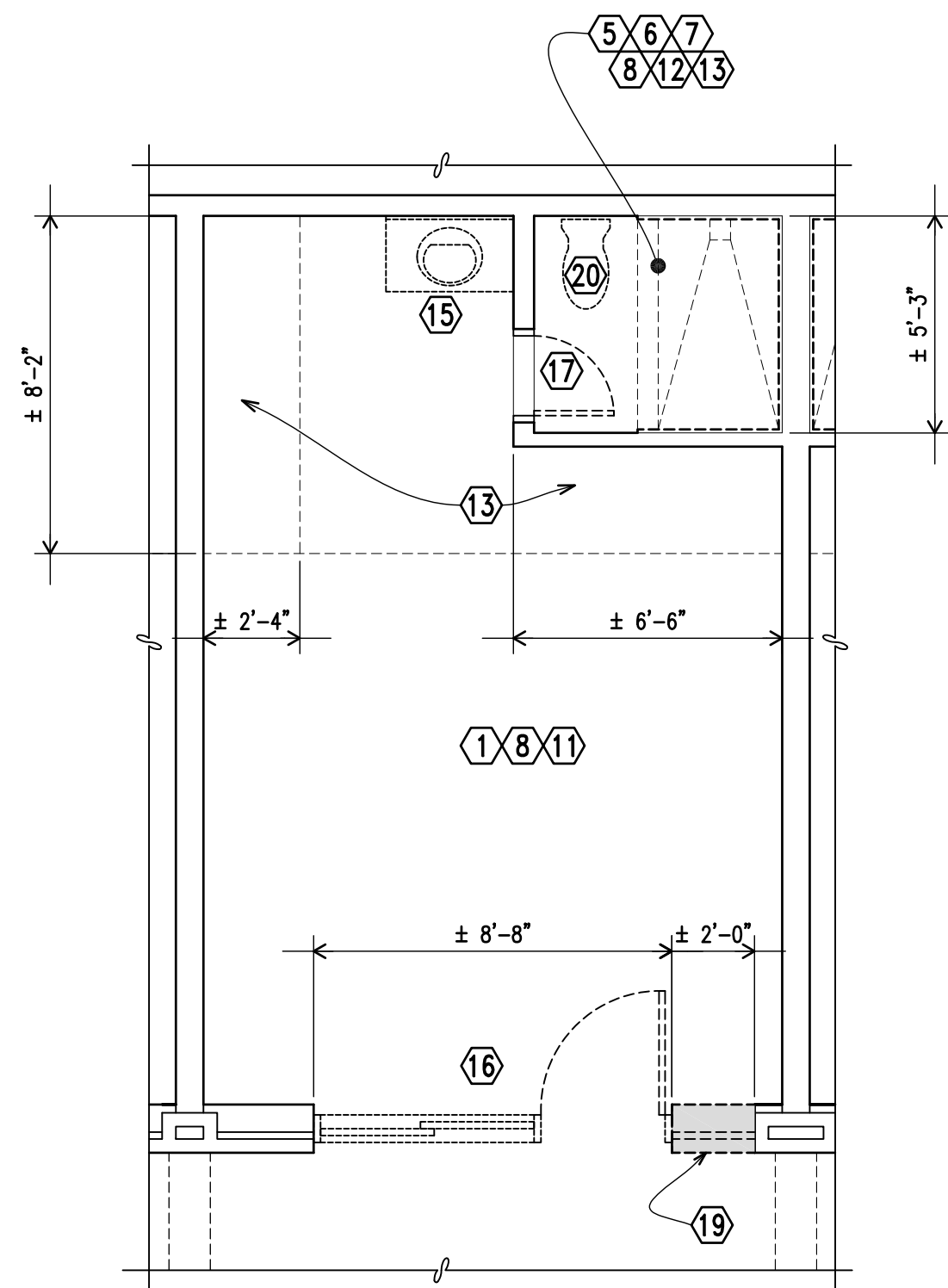
		A-103	
		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC DATE:		REPAIR BEQ BUILDING BB260 MCB, CLNC	
SATISFACTORY TO: DATE:		ENLARGED PLAN AREAS NAVFAC DRAWING NO. <b>60007572</b> CONST. CONTR. NO. N4085-10-B-0031 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 07 OF 72	



1 CENTRAL CORE: 2ND FLOOR  
A-103A-104 DEMOLITION Scale: 1/8" = 1'-0"  
PLAN NORTH ACTUAL NORTH

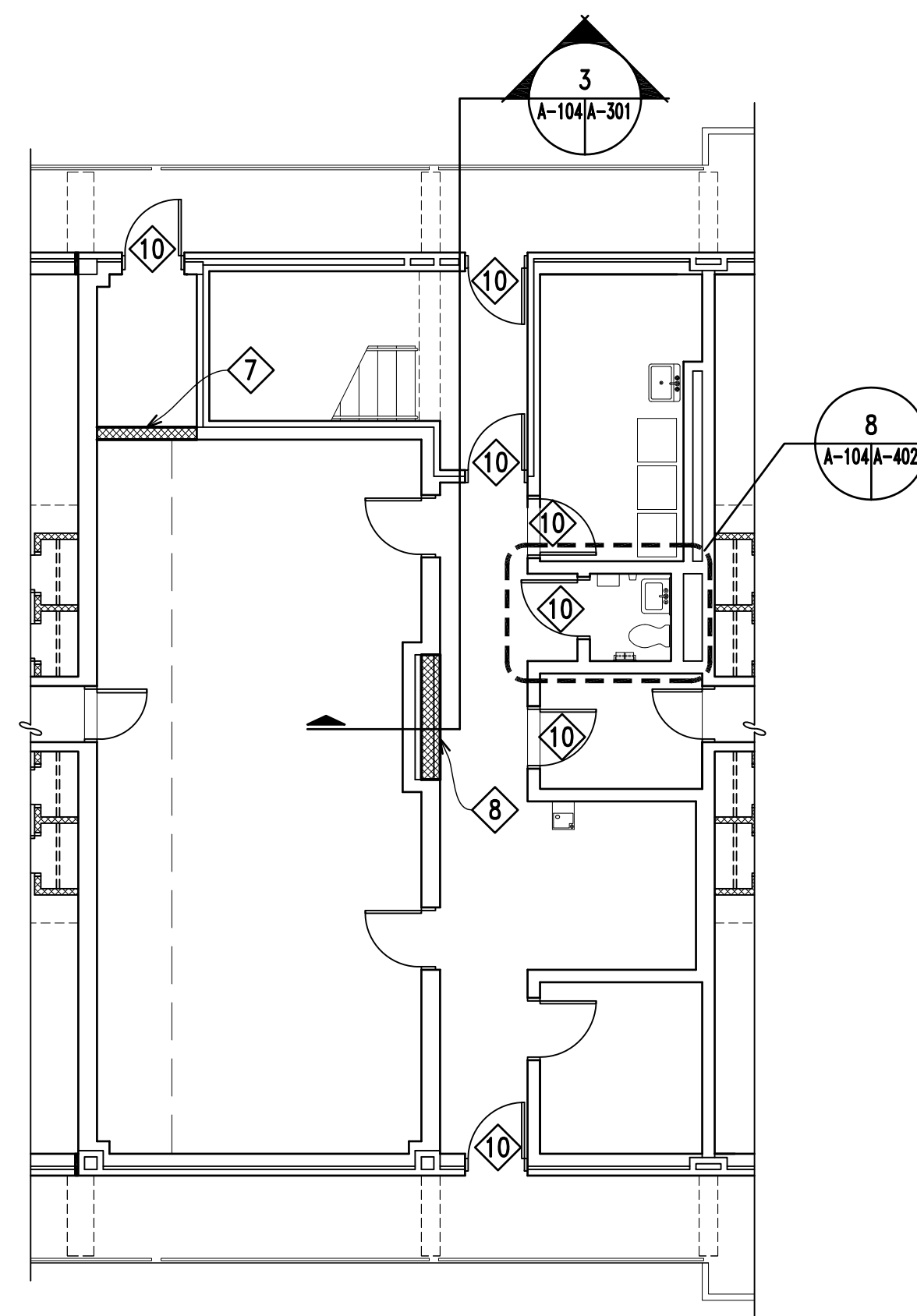


2 CENTRAL CORE: 3RD FLOOR  
A-103A-104 DEMOLITION Scale: 1/8" = 1'-0"  
PLAN NORTH ACTUAL NORTH



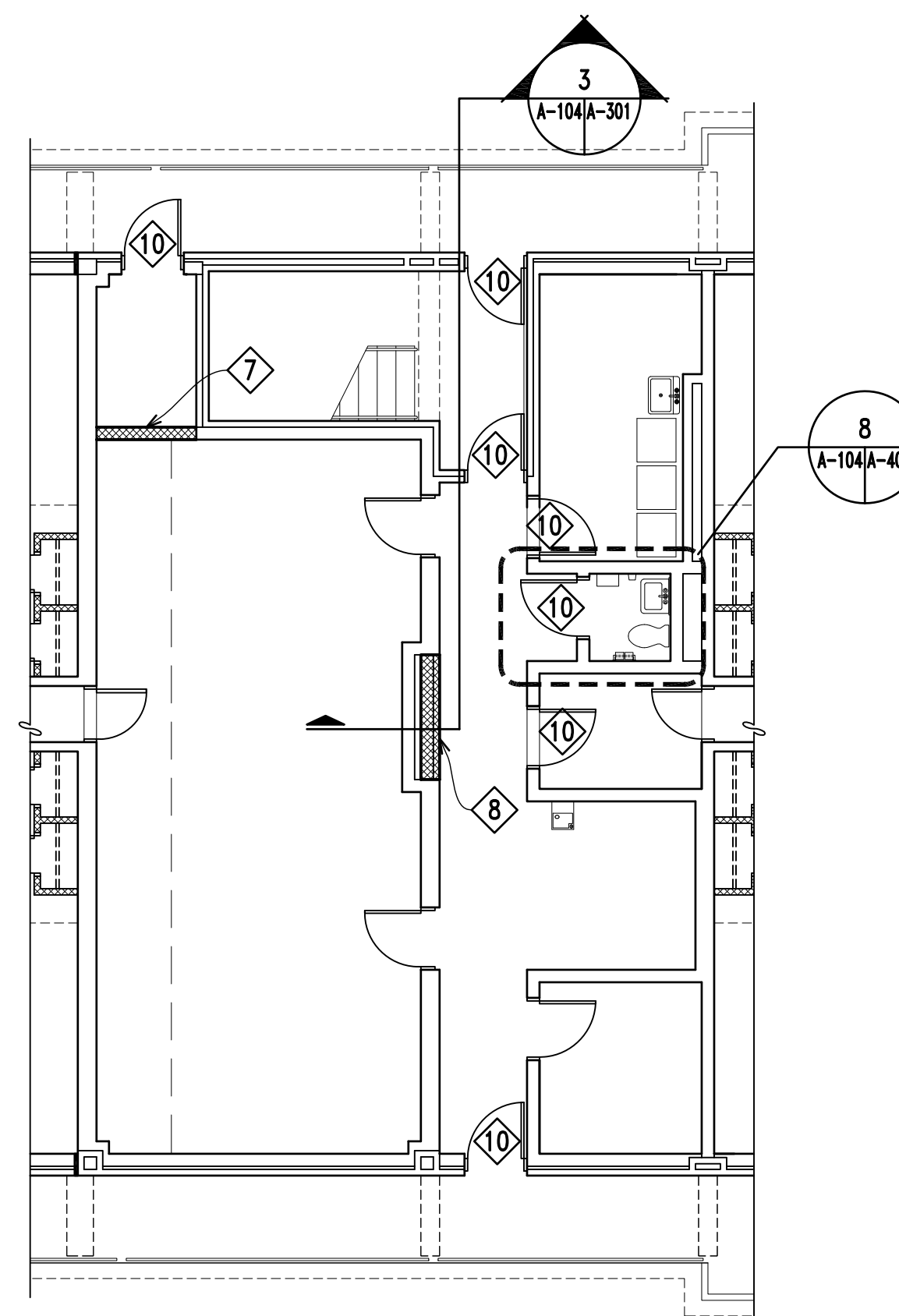
3 SLEEPING ROOM  
A-103A-104 DEMOLITION Scale: 1/4" = 1'-0"  
PLAN NORTH ACTUAL NORTH

SLEEPING ROOMS ON EACH FLOOR ARE IDENTICAL BUT IN SOME CASES, REVERSED.



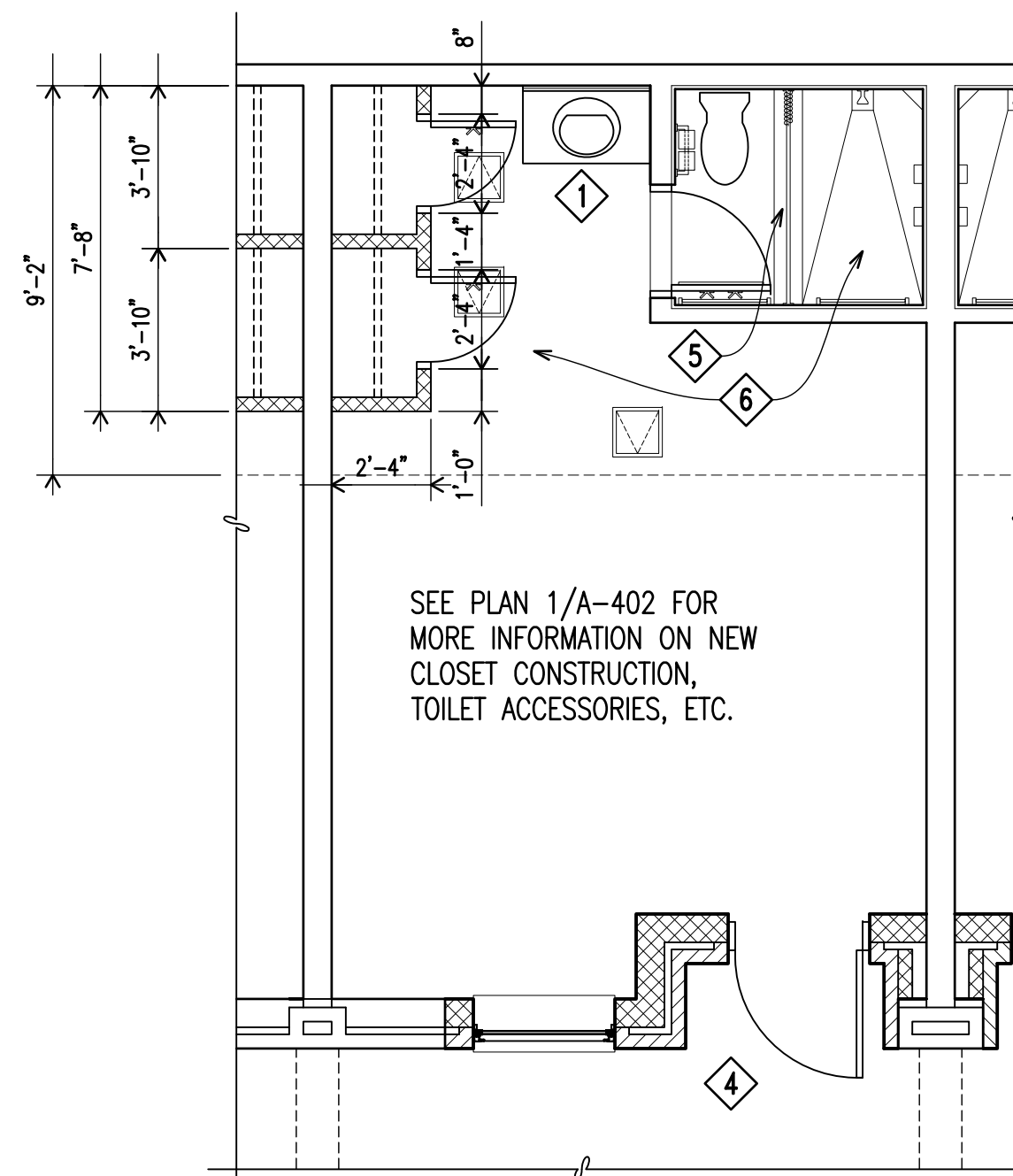
4 CENTRAL CORE: 2ND FLOOR  
A-102A-104 CONSTRUCTION Scale: 1/8" = 1'-0"  
PLAN NORTH ACTUAL NORTH

NOTE: SEE COMPREHENSIVE CONSTRUCTION FLOOR PLANS SHEET A-102 FOR ALL ROOM NAMES/NUMBERS, FINISH DESIGNATIONS, AND DOOR NUMBERS.



5 CENTRAL CORE: 3RD FLOOR  
A-102A-104 CONSTRUCTION Scale: 1/8" = 1'-0"  
PLAN NORTH ACTUAL NORTH

NOTE: SEE COMPREHENSIVE CONSTRUCTION FLOOR PLANS SHEET A-102 FOR ALL ROOM NAMES/NUMBERS, FINISH DESIGNATIONS, AND DOOR NUMBERS.



6 SLEEPING ROOM  
A-102A-104 CONSTRUCTION Scale: 1/4" = 1'-0"  
PLAN NORTH ACTUAL NORTH

NOTE: SEE COMPREHENSIVE CONSTRUCTION FLOOR PLANS SHEET A-102 FOR ALL ROOM NAMES/NUMBERS, FINISH DESIGNATIONS, AND DOOR NUMBERS.  
SLEEPING ROOMS ON EACH FLOOR ARE IDENTICAL BUT IN SOME CASES, REVERSED.  
SEE PLAN 1/A-402 FOR TYPICAL ACCESSORIES.

GENERAL NOTES

- EXISTING DOOR FRAMES THAT ARE TO REMAIN ARE STEEL. CLEAN AND PREPARE (BOTH SIDES) OF ALL FRAMES FOR NEW PAINT FINISHES. PAINT ALL DOOR FRAMES. EXISTING WINDOWS ARE ALUMINUM AND ARE MOUNTED IN STEEL FRAMES (FRAME TYPES A, B, C, D). EXISTING INTERIOR WALLS ARE PAINTED CONCRETE MASONRY UNLESS NOTED OTHERWISE.
- PROVIDE NEW FINISHES FOR ALL SPACES AS DESCRIBED IN THE ROOM FINISH SCHEDULE. SEE COMPREHENSIVE CONSTRUCTION FLOOR PLANS SHEET A-102 FOR ALL ROOM NAMES, DOOR NUMBERS, AND ROOM FINISH DESIGNATIONS FOR ALL ROOMS. ALL DOORS ON THE COMPREHENSIVE CONSTRUCTION FLOOR PLANS THAT ARE DESIGNATED A DOOR NUMBER ARE DOORS TO BE REPLACED. SEE DOOR SCHEDULE SHEET A-601 FOR SPECIFIC INFORMATION, INCLUDING IF A NEW FRAME IS TO BE INSTALLED.
- SEE LS-001 LIFE SAFETY CODE COMPLIANCE SUMMARY AND LS-101 LIFE SAFETY PLAN FOR LOCATIONS AND HOURLY RATINGS OF FIRE RATED WALLS AND LOCATIONS OF NEW FIRE EXTINGUISHERS.
- FOR ALL RESTROOMS, SEE ENLARGED PLANS AND ELEVATIONS SHEET A-402 FOR ALL ACCESSORIES AND DELINEATION OF FINISHES.

DEMOLITION NOTES

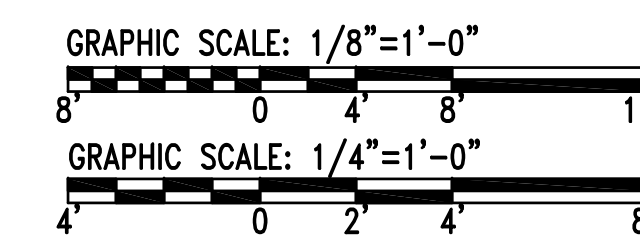
APPLY TO SHEETS A-103 & A-104 ONLY

- REMOVE EXISTING RESILIENT TILE. CLEAN AND PREPARE EXISTING CONCRETE SLAB FOR NEW FLOOR FINISHES.
- REMOVE EXISTING 2'X2' ACOUSTICAL CEILING AND SUSPENSION SYSTEM INCLUDING BUT NOT LIMITED TO: ACOUSTICAL CEILING TILES, SUSPENSION SYSTEM, WIRES, HANGI ETC.
- REMOVE EXISTING GYPSUM BOARD AND METAL STUD BULKHEAD AT 7'-4" HIGH. (NOT USED THIS SHEET)
- REMOVE EXISTING CARPET - CLEAN AND PREPARE EXISTING CONCRETE SLAB FOR NEW FLOOR FINISH.
- REMOVE EXISTING THIN SET CERAMIC TILE FLOORING. PREPARE EXISTING CONCRETE SLAB FOR NEW FLOOR FINISH. REMOVE EXISTING MARBLE THRESHOLDS.
- REMOVE EXISTING CERAMIC TILE, CEMENT MORTAR BED AND SHOWER PAN MEMBRANE, INCLUDING EXISTING SHOWER CURBING. PREPARE EXISTING CONCRETE SLAB FOR FLOOR FINISH. SEE A-402 FOR DEMOLITION DETAILS.
- REMOVE EXISTING THIN SET CERAMIC TILE FROM THE EXISTING CONCRETE MASONRY WALLS. PREPARE EXISTING WALLS FOR NEW WALL FINISH.
- CLEAN AND PREPARE EXISTING PAINTED CONCRETE MASONRY WALLS FOR NEW PAINT FINISHES.
- REMOVE EXISTING PAINTED GYPSUM BOARD CEILING. (NOT USED THIS SHEET)
- REMOVE EXISTING STEEL DOOR AND FRAME, IN PREPARATION FOR INSTALLATION OF NEW STEEL DOOR AND FRAME AND/OR INFILL CONSTRUCTION.
- CLEAN AND PREPARE EXISTING PAINTED (TEXTURED) PRECAST CONCRETE PLANK CEILING FOR NEW FINISHES.
- REMOVE EXISTING TOILET ACCESSORIES INCLUDING BUT NOT LIMITED TO: TOILET TISSUE DISPENSER, INTEGRAL TOWEL DISPENSER / TRASH RECEPTACLE, TOWEL BARS, S/D DISPENSER, SHOWER ROD AND SHOWER CURTAIN.
- COMPLETELY REMOVE EXISTING GYPSUM BOARD SOFFIT AND BULKHEAD INCLUDING ALL METAL SUPPORT FRAMING, INCLUDING RESTROOM CEILING.
- REMOVE PORTION OF EXISTING CONCRETE FLOOR SLAB TO ACCOMMODATE NEW AREA OF SLOPED FLOORING AT DRAIN. COORDINATE SIZE WITH CONSTRUCTION PLAN.(NOT USED THIS SHEET)
- REMOVE EXISTING WOOD VANITY CABINET INCLUDING BUT NOT LIMITED TO PORCELAIN SINK, FAUCET, OR WALL HUNG PORCELAIN SINK, AND WALL MOUNTED MIRROR ABOVE.
- REMOVE EXISTING STEEL FRAMED DOOR/WINDOW OR WINDOW ASSEMBLY FROM EXISTING MASONRY OPENING. IN STEEL FRAME IS THE FOLLOWING: ALUMINUM WINDOW, BLIND, DRAPES, METAL INFILL PANEL, AND DOOR WHERE SHOWN, 8'-8" HIGH X WIDTH SHOWN IN PLAN. PREPARE REMAINING MASONRY OPENING FOR NEW INF CONSTRUCTION AS INDICATED.
- REMOVE EXISTING STEEL DOOR INCLUDING HINGES AND HARDWARE. WIREBRUSH, CLEAN AND PAINT BOTH SIDES OF EXISTING FRAME AND PREPARE FRAME FOR INSTALLA OF NEW DOOR.
- NOT USED.
- REMOVE PORTION OF CONCRETE MASONRY AND BRICK MASONRY WALL ± 8'-8" TO PERMIT CONSTRUCTION OF NEW ENTRY. REMOVE MORTAR BED FROM SLAB AND PREPARE SLAB FOR NEW FINISHES. (TYPICAL).
- REMOVE EXISTING PLUMBING FIXTURES IN PREPARATION FOR INSTALLATION OF NEW: SEE PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
- REMOVE EXISTING TOILET PARTITION AND PATCH ANY REMAINING HOLES IN EXISTING CONCRETE MASONRY WALLS.(NOT USED THIS SHEET)
- REMOVE PORTION OF CONCRETE MASONRY AND BRICK MASONRY WALL TO ACCOMMODATE NEW LOUVER. SEE MECHANICAL DRAWINGS FOR SIZES. (NOT USED THIS SHEET)
- NOT USED
- REMOVE EXISTING MAILBOXES INDICATED ON DEMOLITION PLAN. PREPARE REMAINING WALL FOR NEW CONCRETE MASONRY AND/OR CONCRETE AND BRICK MASONRY INF
- REMOVE EXISTING PLYWOOD CABINETRY.(NOT USED THIS SHEET)

CONSTRUCTION NOTES

APPLY TO SHEETS A-103 & A-104 ONLY

- PROVIDE NEW 36" WIDE HARDWOOD PLYWOOD STAIN GRADE VANITY WITH SOLID SURFACE COUNTERTOP AND PORCELAIN DROP-IN BOWL.
- WASHERS AND DRYERS ARE NOT IN CONTRACT. (NOT USED THIS SHEET)
- PROVIDE NEW CONCRETE MASONRY AND BRICK MASONRY TO FORM FINISHED JAMBS AT NEW LOUVER OPENINGS. PROVIDE NEW LOUVERS IN NEW MASONRY OPENINGS AS SHOWN IN THE MECHANICAL DRAWINGS. PROVIDE 3"x3"x1/4" GALVANIZED STEEL LINTEL, BEARING MINIMUM 8" EACH SIDE AT ALL NEW LOUVER OPENINGS.(NOT USED THIS SHEET)
- PROVIDE NEW INFILL CONSTRUCTION WHERE EXISTING CONSTRUCTION HAS BEEN REMOVED. SEE COMPREHENSIVE CONSTRUCTION PLANS SHEET A-102 FOR ALL LOCATIONS AND TYPE OF INFILL CONSTRUCTION TO BE PROVIDED.
- PROVIDE NEW SHOWER CURBING IN PREVIOUS LOCATION, SEE DETAIL 3/A-403.
- NEW SOFFIT AND BULKHEAD IN INDICATED AREA OF SLEEPING ROOM, AND NEW GYPSUM BOARD CEILING IN RESTROOM AND SHOWER. SEE FRAMING PLAN 2/A-402, AND SECTIONS AND ELEVATIONS 4/A-402 AND 5/A-402 FOR COMPOSITION.
- NEW 8" CONCRETE MASONRY WALL, INFILL WHERE EXISTING DOOR AND FRAME HAVE BEEN REMOVED. INFILL UP TO THE EXISTING MASONRY LINTEL AT 6'-8" A.F.F. x THE WIDTH OF THE PREVIOUS OPENING.
- NEW 12" CONCRETE MASONRY AND/OR CONCRETE AND BRICK MASONRY INFILL WHERE EXISTING MAIL BOXES HAVE BEEN REMOVED. SEE DETAILS 2/A-301 AND 3/A-301.
- PROVIDE NEW CONCRETE SLAB INFILL WHERE EXISTING SLAB HAS BEEN REMOVED. SEE DETAIL 5/A-403.(NOT USED THIS SHEET)
- PROVIDE NEW STEEL DOOR AND FRAME IN NEW MASONRY OPENING OR WHERE EXISTING HAS BEEN REMOVED. SEE COMPREHENSIVE CONSTRUCTION PLANS SHEET A-102 FOR DOOR DESIGNATIONS. SEE DOOR DETAILS FOR LINTEL REQUIREMENTS AT NEW MASONRY OPENINGS.



		A-104	
		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR.		REPAIR BEQ BUILDING BB260 MCB, CLNC	
APPROVED: PWO OR OICC SATISFACTORY TO:		ENLARGED PLAN AREAS NAVFAC DRAWING NO. <b>60007573</b> CONST. CONTR. NO. N40685-10-B-0031 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 08 OF 72	



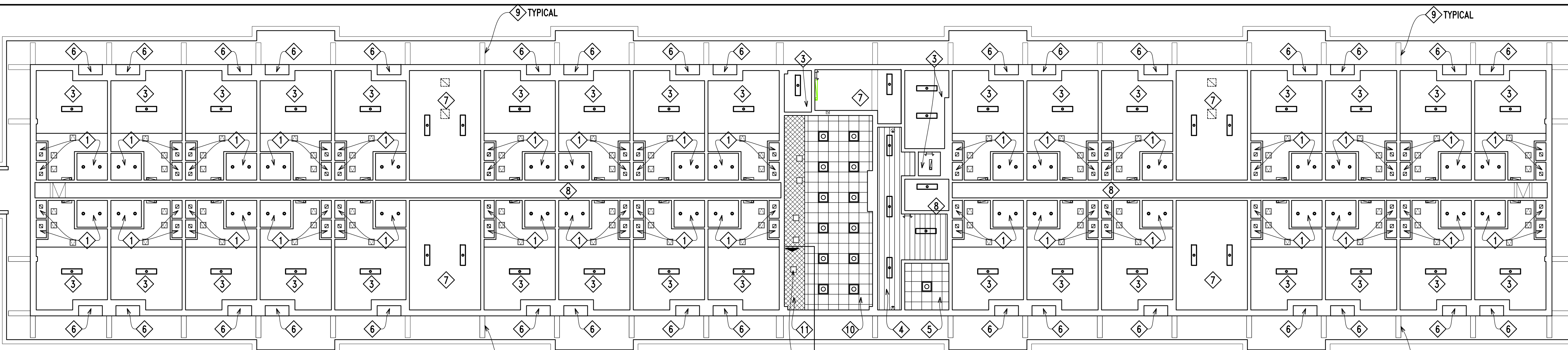
**GENERAL NOTES**

- COORDINATE WITH DEMOLITION AND CONSTRUCTION PLANS AND NOTATION ON SHEETS A-101, A-102, A-103 AND A-104.
- COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS.
- PROVIDE (3) 12" X 12" 1-HOUR FIRE RATED FLUSH MOUNTED CEILING ACCESS PANELS IN THE GYPSUM SOFFIT OF EACH SLEEPING ROOM. COORDINATE FINAL LOCATION WITH MECHANICAL ITEMS ABOVE.

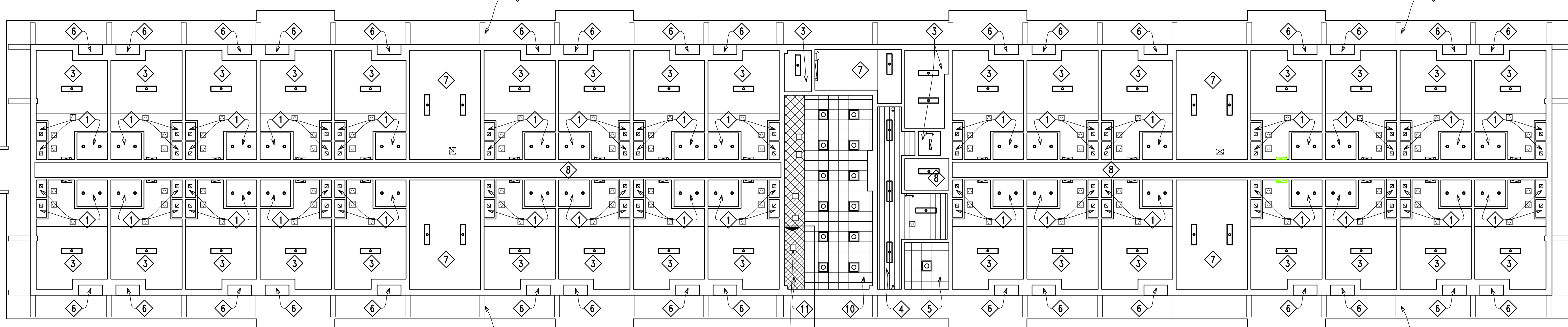
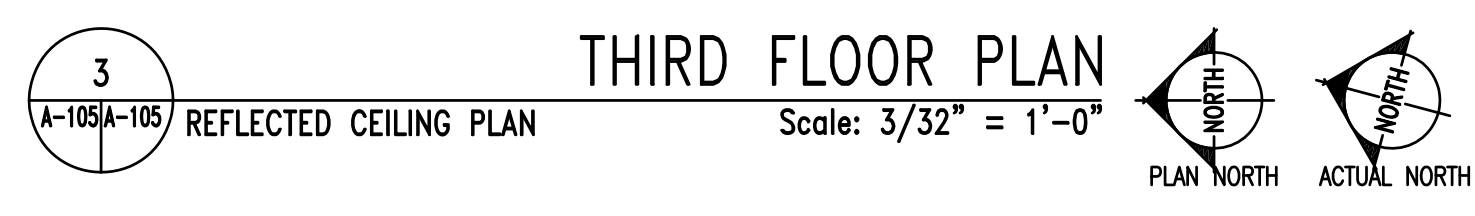
**CONSTRUCTION NOTES**

APPLY TO THIS SHEET ONLY

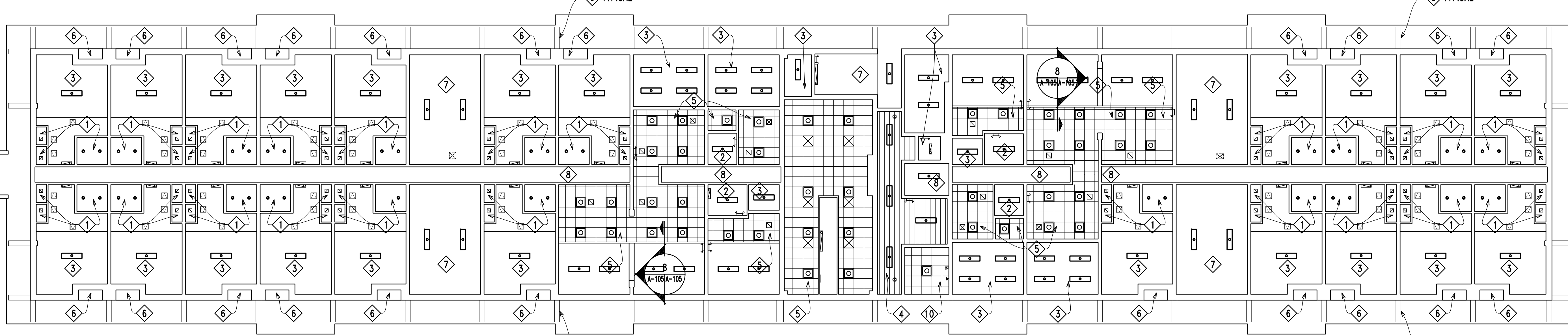
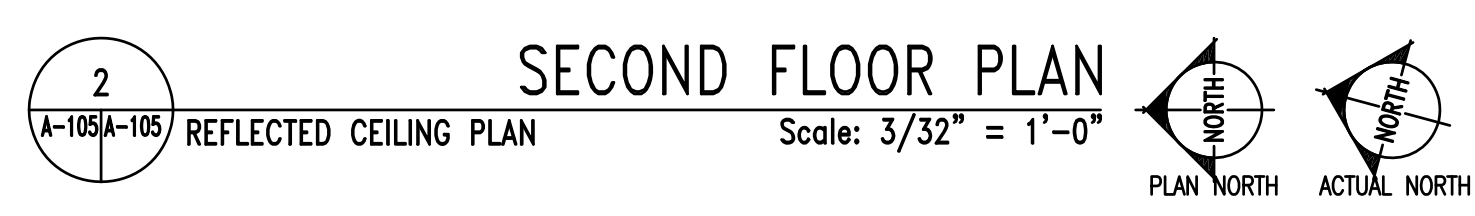
- PROVIDE NEW 5/8" ABUSE-RESISTANT FIBERGLASS MATT FACED GYPSUM BOARD CEILING AND BULKHEAD (TYPICAL EACH SLEEPING ROOM, INCLUDING BATHROOM/SHOWER AND VANITY/CLOSET AREA). SEE SOFFIT FRAMING PLAN DETAIL 2/A-402 FOR REQUIRED STRUCTURE AND SECTION 9/A-402 FOR COMPOSITION. CEILING SHALL BE AT ±6'-11" TYPICAL, BULKHEAD SHALL BE ±1'-11" TALL X ±14'-0" WIDE (TYPICAL SLEEPING ROOM WIDTH). SOFFIT AND BULKHEAD IS 30 MINUTE FIRE RATED AND ALL EXPOSED SURFACES SHALL BE PAINTED.
- PROVIDE NEW 5/8" ABUSE-RESISTANT FIBERGLASS MATT FACED GYPSUM BOARD CEILING. CEILING SHALL BE AT ±6'-11" TYPICAL. CEILING SURFACE SHALL BE PAINTED.
- EXISTING CONCRETE PLANK CEILING TO REMAIN. CLEAN AND PREPARE EXISTING SURFACE AND PROVIDE NEW PAINT APPLICATION.
- PROVIDE NEW FLUSH PROFILE METAL PANEL CEILING AT 7'-8" A.F.F. IN AREAS INDICATED. SEE DETAIL 6/A-105 FOR SUPPORT ASSEMBLY REQUIRED.
- PROVIDE NEW SUSPENDED ACOUSTICAL TILE CEILING AT 7'-0" A.F.F.
- CLEAN AND PREPARE EXISTING AND NEW CONCRETE CEILING SURFACES FOR CONCRETE SKIM COAT APPLICATION, INCLUDING: UNDERSIDE OF EXISTING CONCRETE PLANKS (FORMERLY SLEEPING ROOM CEILING), UNDERSIDE OF EXISTING CONCRETE SLAB ADJACENT TO CONCRETE PLANK (WHERE EXISTING BOND BEAM HAS BEEN REMOVED), AND NEW CONCRETE SLAB INFILL (WHERE EXISTING BRICK MASONRY HAS BEEN REMOVED). PROVIDE TEXTURED CONCRETE SKIM COAT APPLICATION OVER ALL SURFACES TO MATCH TEXTURE OF EXISTING CONCRETE PLANKS.
- UNDERSIDE OF EXISTING CONCRETE PLANKS (UNPAINTED) TO REMAIN AS IS, NO CEILING WORK.
- EXISTING MECHANICAL CHASE OR VESTIBULE TO MECHANICAL CHASE, NO CEILING WORK.
- PROVIDE CONCRETE PATCHING AT SPALLING SURFACES OF EXISTING REINFORCED CONCRETE PROJECTED BALCONY SUPPORTS. SPECIFIC AREAS FOR REPAIR ARE NOT IDENTIFIED, BUT SPALLING REPAIRS ARE TYPICALLY REQUIRED AT THE UPPER EDGES OF THE SUPPORT (WHERE THE PLANKS ABOVE BEAR ON THEM) AND AT THE CHAMFERED EDGES OF THE CASTING. MANY AREAS OF SPALLING HAVE RESULTED IN EXPOSED REINFORCING. SEE DETAIL 4/A-105 FOR TYPICAL REPAIR PROCEDURE AND PHOTOGRAPHS OF TYPICAL CONDITIONS TO BE FOUND THIS SHEET. APPROXIMATELY (110) SPALLED AREAS HAVE BEEN FOUND FOR REPAIR.
- PROVIDE NEW SUSPENDED ACOUSTICAL TILE CEILING AT 8'-0" A.F.F.
- PROVIDE NEW 5/8" ABUSE-RESISTANT FIBERGLASS MATT FACED GYPSUM BOARD CEILING AND BULKHEAD (TYPICAL SECOND AND THIRD FLOOR LOUNGES). SEE SOFFIT DETAIL 7/A-105. CEILING SHALL BE AT ±6'-10" TYPICAL, BULKHEAD SHALL BE ±1'-8" TALL X ±38'-2" LONG X ±4'-0" WIDE (TYPICAL LOUNGE LENGTH). ALL EXPOSED SURFACES SHALL BE PAINTED.



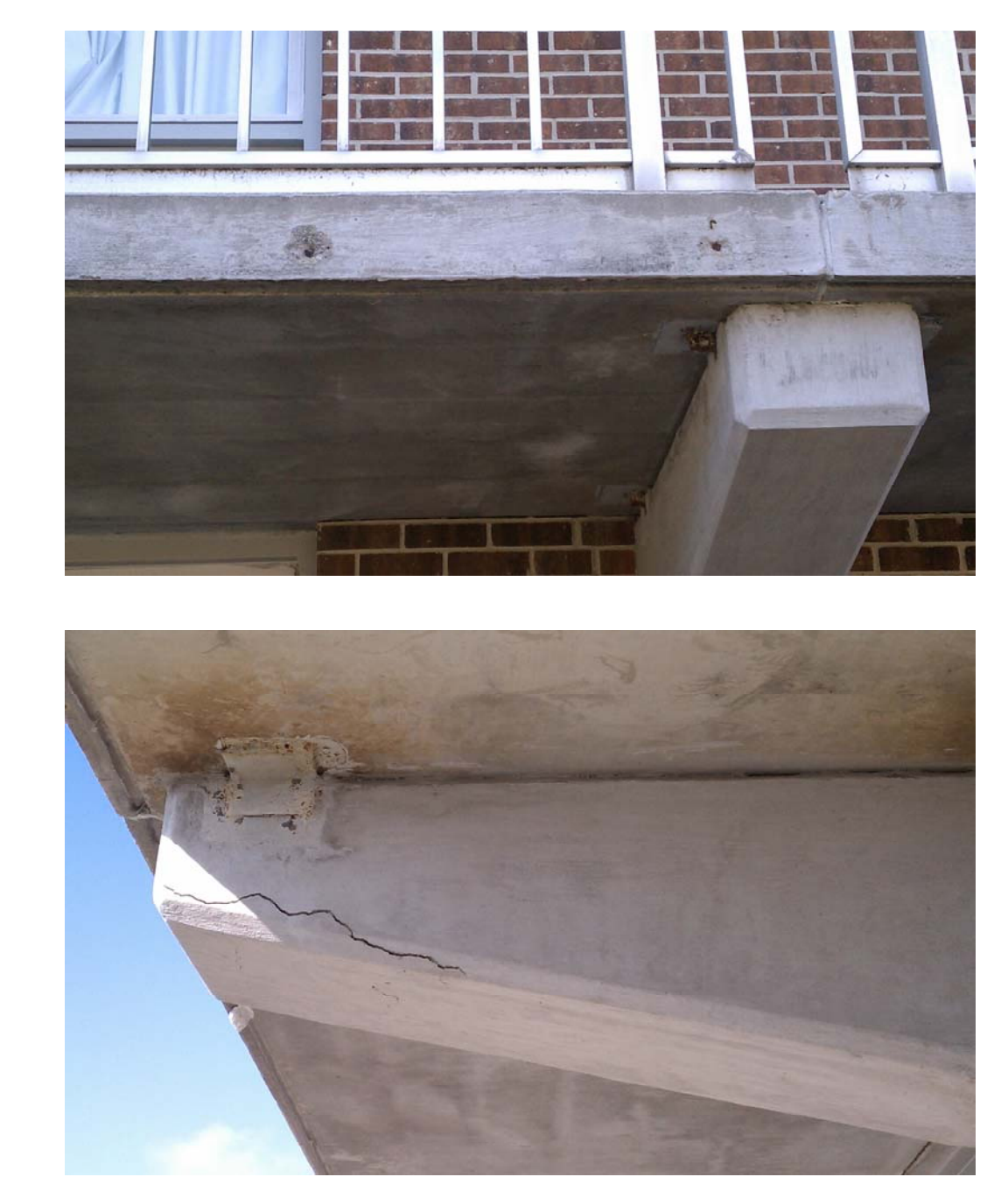
**THIRD FLOOR PLAN**  
REFLECTED CEILING PLAN  
Scale: 3/32" = 1'-0"



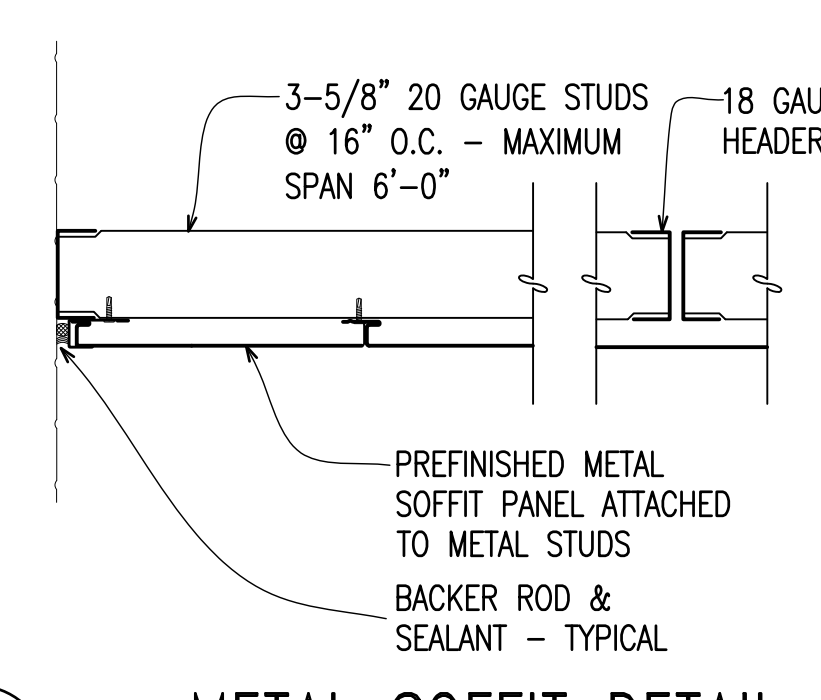
**SECOND FLOOR PLAN**  
REFLECTED CEILING PLAN  
Scale: 3/32" = 1'-0"



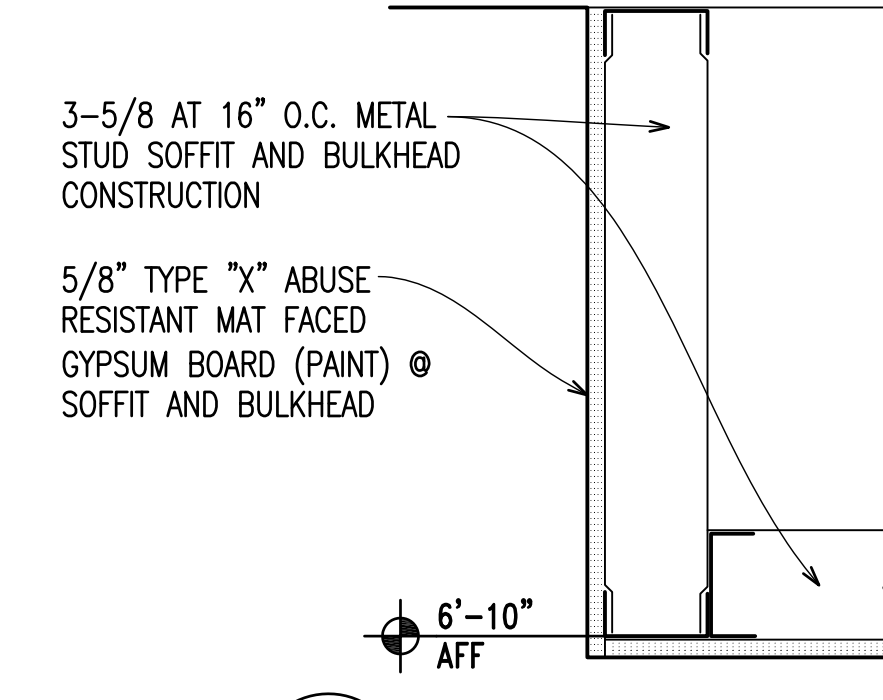
**FIRST FLOOR PLAN**  
REFLECTED CEILING PLAN  
Scale: 3/32" = 1'-0"



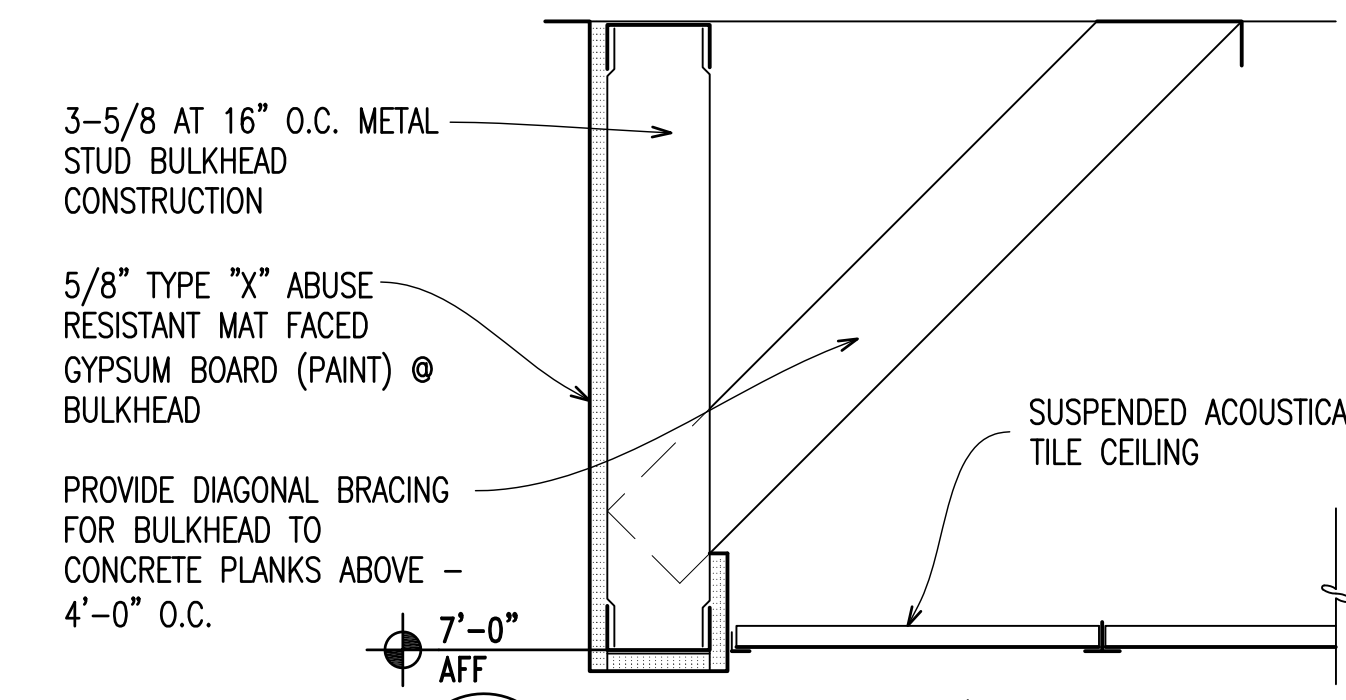
**CONCRETE SPALL REPAIR**  
TYPICAL CONDITIONS



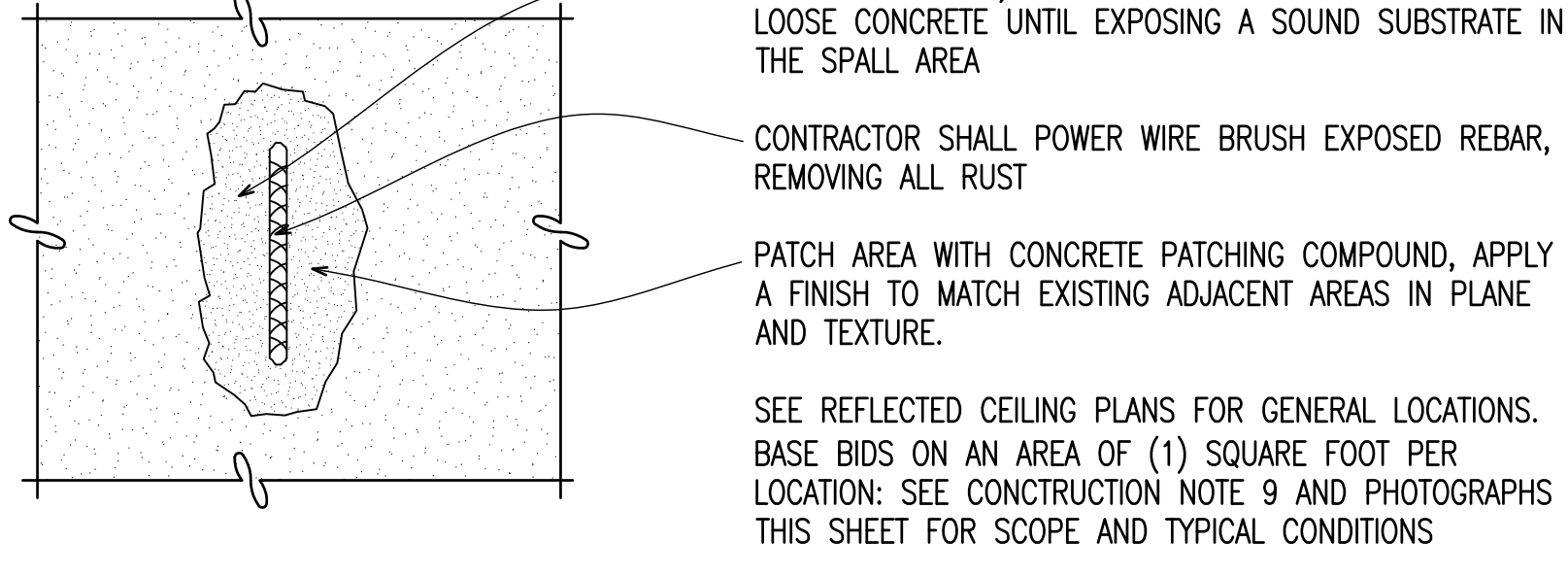
**METAL SOFFIT DETAIL**  
Scale: 1-1/2" = 1'-0"



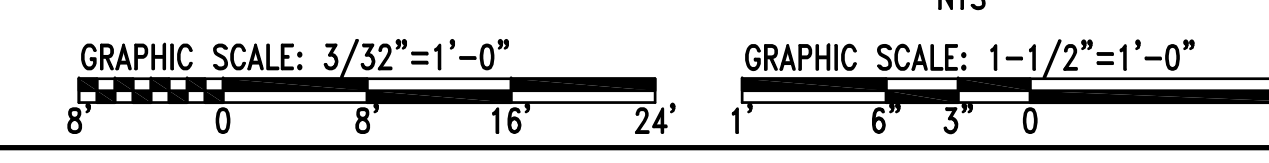
**GYPSUM SOFFIT DETAIL**  
Scale: 1-1/2" = 1'-0"



**GYPSUM BULKHEAD DETAIL**  
Scale: 1-1/2" = 1'-0"



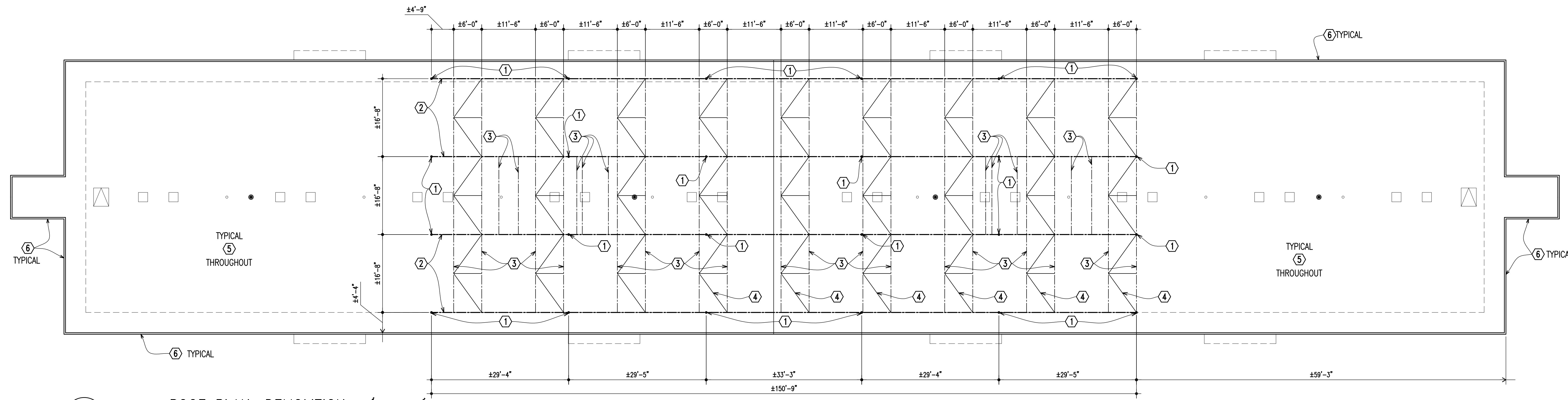
**TYPICAL CONCRETE SPALL REPAIR**  
NTS



**ROBERT T. BELANGIA**  
REGISTERED ARCHITECT  
NEW BERN, NC  
A068  
January 2011

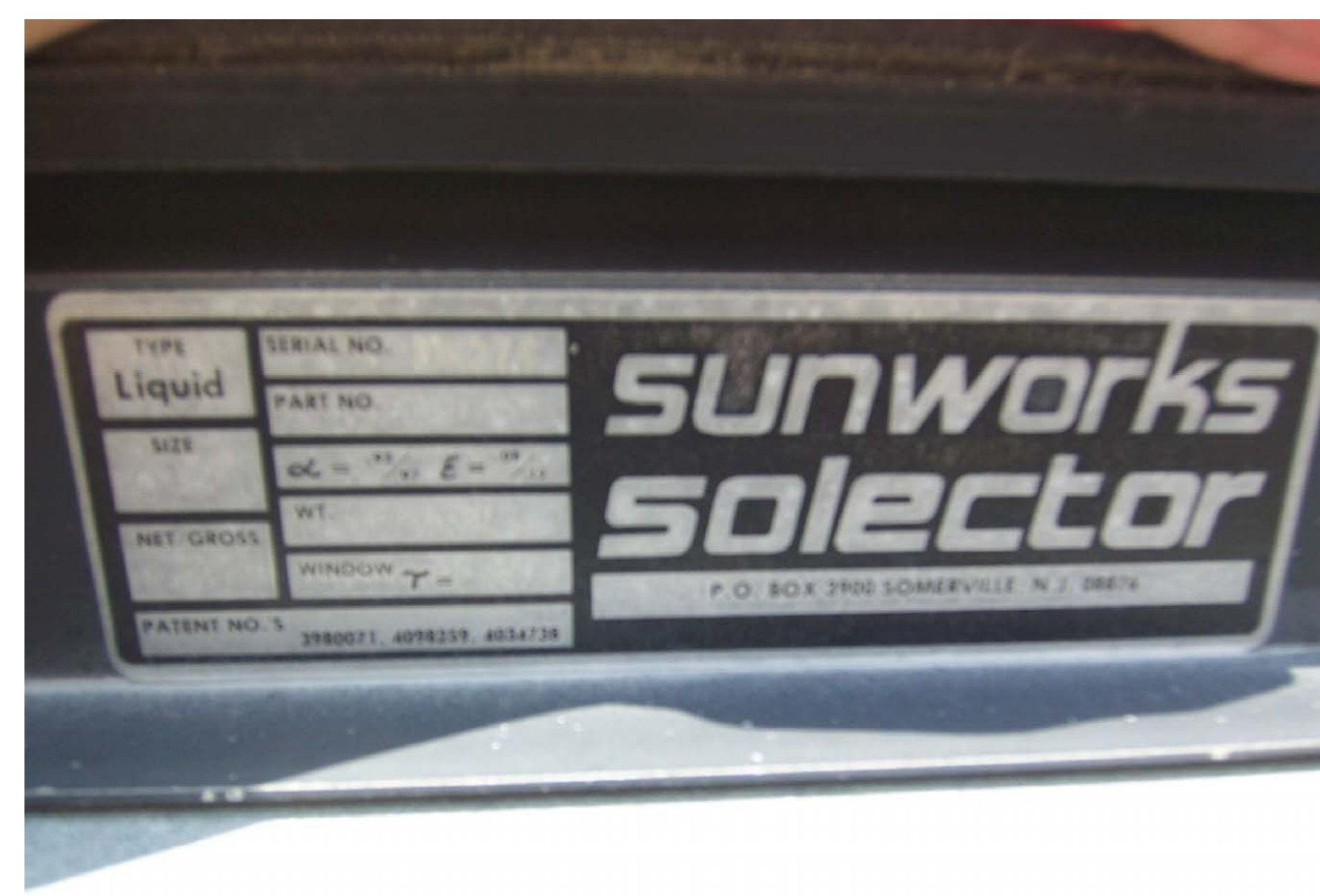
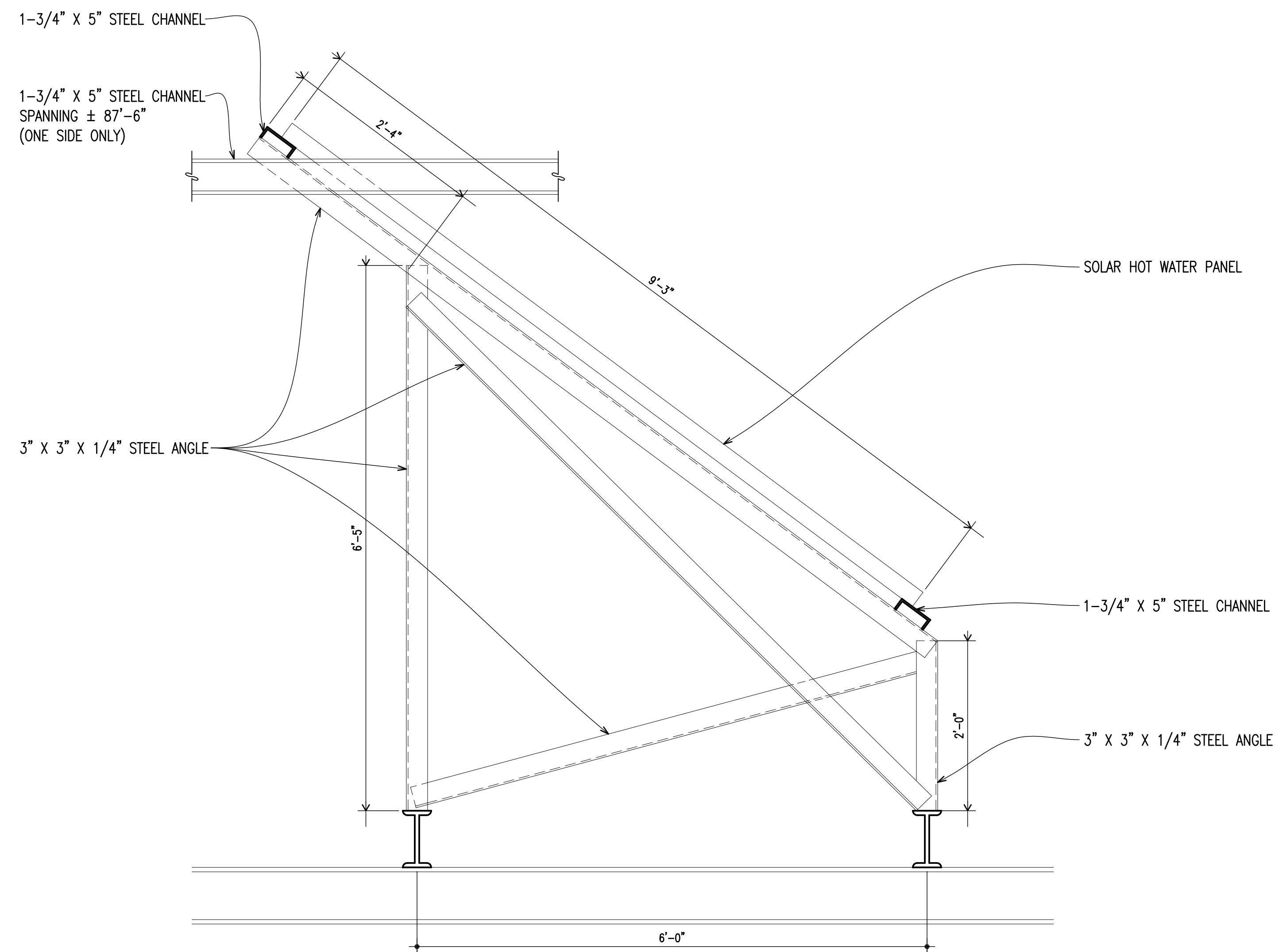
**ROBERT T. BELANGIA**  
REGISTERED ARCHITECT  
NEW BERN, NC  
A068  
January 2011

<p><b>A-105</b></p>	
<p>DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC SATISFACTORY TO:</p>	<p>MAUNE BELANGIA FAULKENBERRY ARCHITECTS, PA 1000 W. MARKET ST. SUITE 200 NEW BERN, NC 28558 WWW.BELANGIAFAULKENBERRY.COM</p>
<p>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA</p>	
<p><b>REPAIR BEQ BUILDING BB260</b> MCB, CLNC</p>	
<p>COMPREHENSIVE FLOOR PLANS: REFLECTED CEILING PLANS NAVFAC DRAWING NO. <b>60007574</b> CONSTR. CONTR. NO. N4085-10-B-0031</p>	
<p>DATE: <b>F 80091</b></p>	<p>DATE: <b>6/10/11</b></p>
<p>SCALE: AS NOTED</p>	<p>SPEC. 05-10-0031</p>
<p>SHEET 09 OF 72</p>	

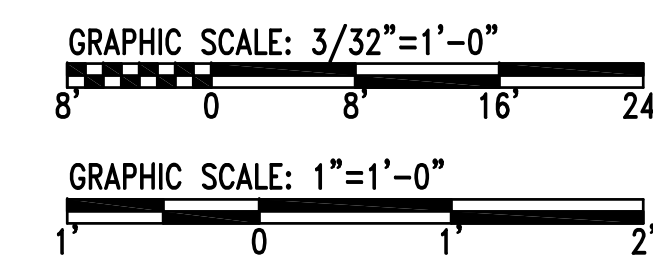


- DEMOLITION NOTES**
- ① REMOVE EXISTING 4" DIAMETER STEEL PIPE (TYPICAL OF 24)
  - ② REMOVE EXISTING 4" X 12" WIDE FLANGE STEEL BEAMS
  - ③ REMOVE EXISTING 4" X 8" WIDE FLANGE STEEL BEAMS INCLUDING STEEL ANGLE TRUSS MEMBERS.
  - ④ REMOVE EXISTING 16 SOLAR HOT WATER PANELS AND STEEL ANGLE SUPPORT. SEE DETAIL 2/A-106
  - ⑤ REMOVE ENTIRE EXISTING BUILT-UP ROOFING SYSTEM AND INSULATION DOWN TO CONCRETE TOPPING SLAB, INCLUDING EXISTING ±2" RIGID INSULATION BOARD, MULTIPLE ASPHALT ROOFING PLIES AND STONE BALLAST. PROVIDE SPRAY APPLIED ROOFING TO CONCRETE TOPPING SLAB TO PROTECT BUILDING DURING ERECTION OF NEW TRUSSED ROOF.
  - ⑥ REMOVE EXISTING PARAPET CAP, ENTIRE PERIMETER. SEE DETAIL 3/A-107.

**1**  
A-106A-106  
**ROOF PLAN: DEMOLITION**  
Scale: 3/32" = 1'-0"  
PLAN NORTH ACTUAL NORTH

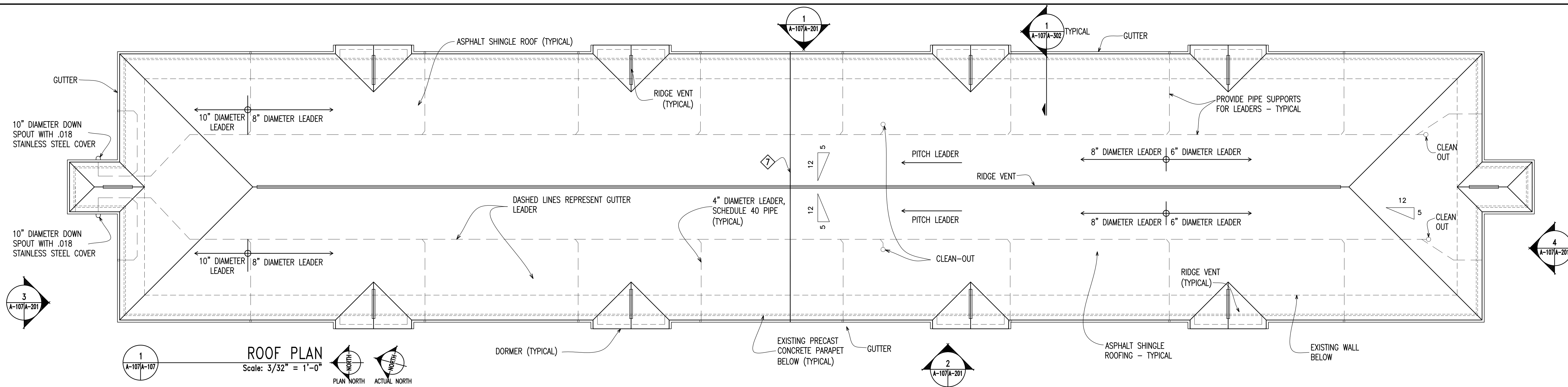


**3**  
A-106A-106  
**SOLAR HOT WATER PANEL IMAGES**  
NTS



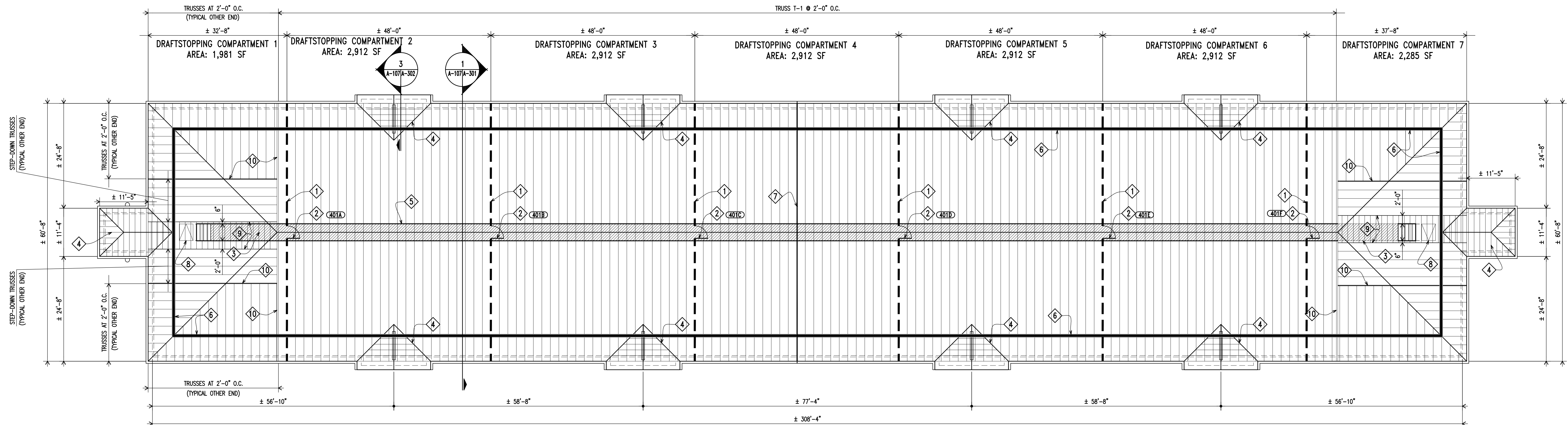
**2**  
A-106A-106  
**SOLAR HOT WATER PANEL STRUCTURE**  
Scale: 1" = 1'-0"

	<b>A-106</b>	
	MAUNE BELANGIA FAULKENBERRY ARCHITECTS, PA DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
REPAIR BEQ BUILDING BB260 MCB, CLNC	ROOF PLAN: DEMOLITION NAVFAC DRAWING NO. 60007575 CONST. CONTR. NO. N40685-10-B-0031	
DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC SATISFACTORY TO:	DATE DATE DATE	SIZE <b>F 80091</b> SCALE: AS NOTED



**ROOF PLAN**  
Scale: 3/32" = 1'-0"

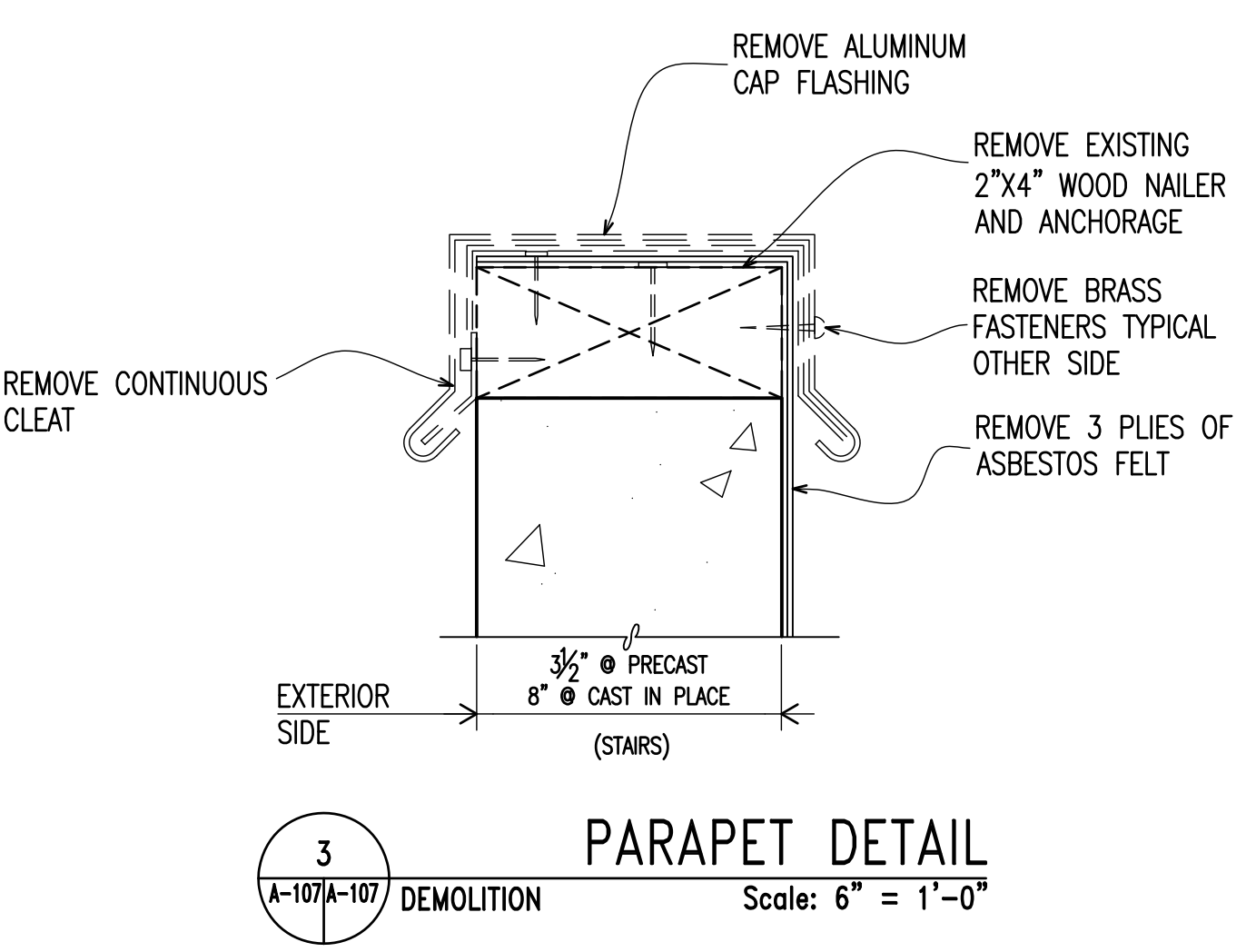
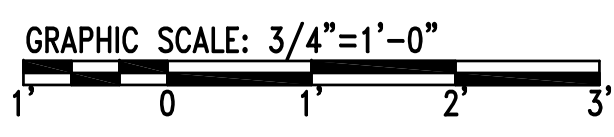
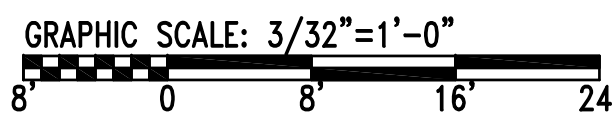
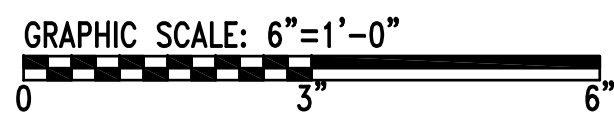
- KEYED NOTES:**
- 1 DRAFTSTOP - SEE DETAIL 4/A-301
  - 2 DRAFTSTOPPING DOOR. SEE A-601 DOOR SCHEDULE SHEET.
  - 3 NEW 22-1/2" WIDE WOOD STAIR WITH 2X12 TREADS AND STRINGERS - BETWEEN TRUSSES
  - 4 2X6 FRAMING @ 16" O.C. (TYPICAL)
  - 5 LINE OF CATWALK IN TRUSSES SEE 1/A-301
  - 6 WOOD STUD KNEE WALL - SEE DETAIL 1/A-302
  - 7 ROOF EXPANSION JOINT: PROVIDE DOUBLE TRUSS AT JOINT: SEE DETAIL 5/A-201
  - 8 REMOVE EXISTING HATCH AND PROVIDE NEW 2 HR RATED ATTIC ACCESS HATCH IN EXISTING OPENING - SEE 4/A-107
  - 9 SPACE TRUSSES AT 6'-5" TO PERMIT INSTALLATION OF FUTURE ROOF HATCH. PROVIDE 2X6 PURLINS @ 16" O.C.
  - 10 GIRDER TRUSS



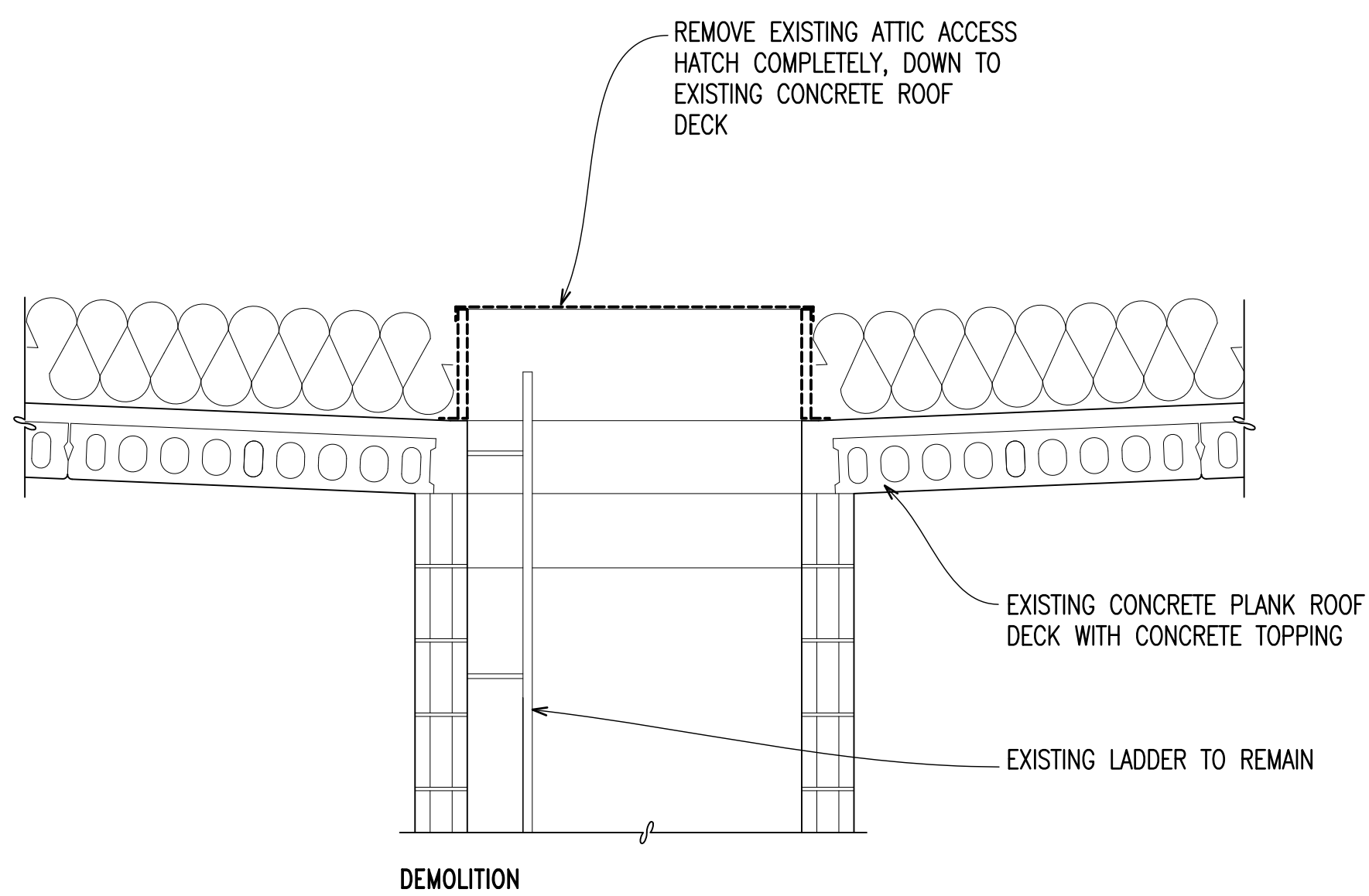
**ROOF FRAMING PLAN**  
Scale: 3/32" = 1'-0"

**PRE-FABRICATED WOOD TRUSS NOTES:**

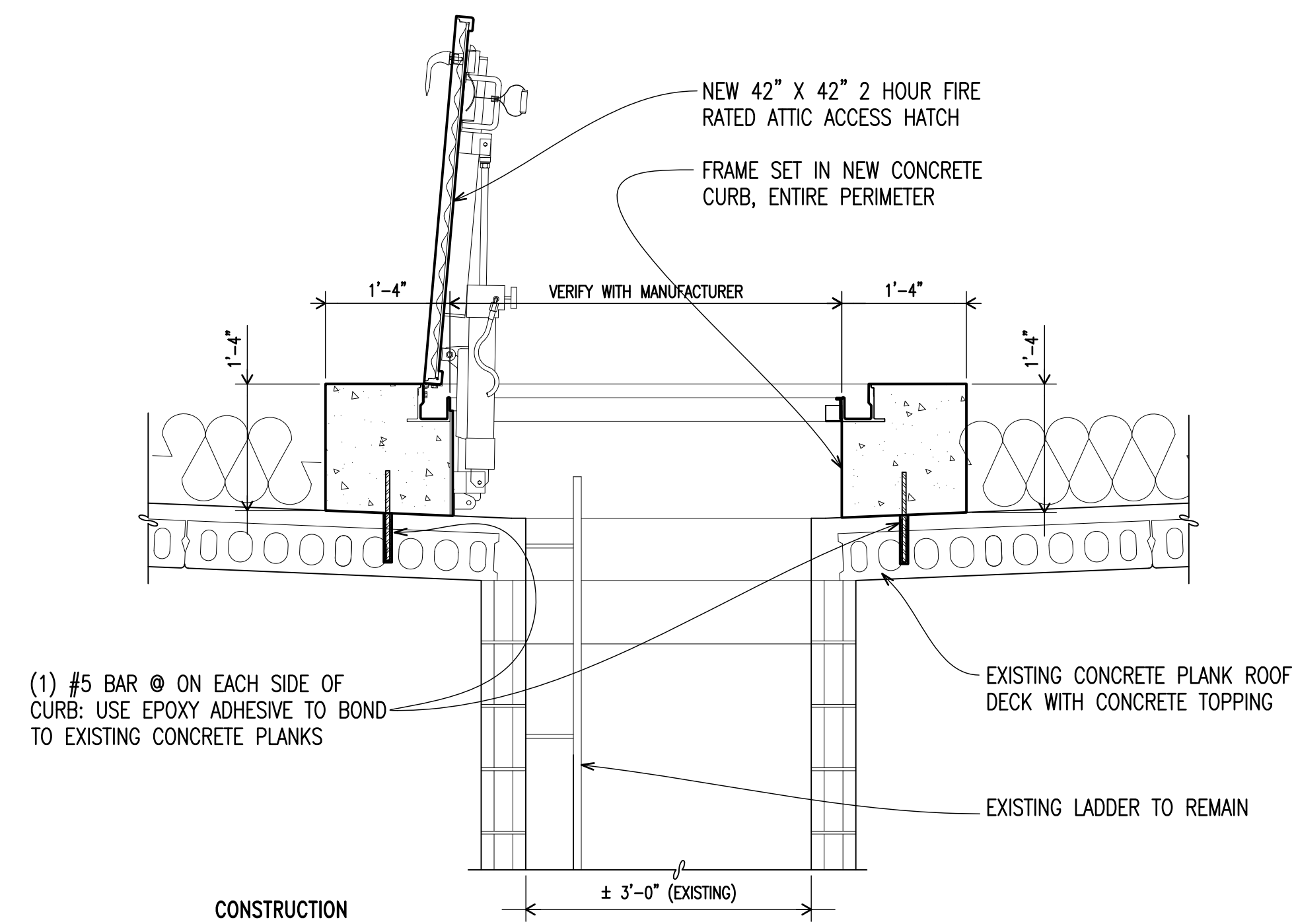
1. PRE-FABRICATED WOOD TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING UNIFORMLY DISTRIBUTED LOADS:  
TOP CHORD DEAD LOAD = 10 PSF  
BOTTOM CHORD DEAD LOAD = 5 PSF  
TOP CHORD LIVE LOAD = 20 PSF  
CATWALK LIVE LOAD = 40 PSF  
TOP CHORD UPLIFT = 10 PSF
2. TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING DEFLECTION CRITERIA:  
SPAN / TOTAL LOAD DEFLECTION = 240  
SPAN / LIVE LOAD DEFLECTION = 360
3. TRUSSES SHALL BE DESIGNED FOR PROFILES AND SPANS AS SHOWN ON PLAN, SECTIONS, AND ELEVATIONS.
4. TRUSS MANUFACTURER SHALL ADVISE ARCHITECT OF ANY DISCREPANCIES PRIOR TO PREPARATION OF TRUSS SHOP DRAWINGS.



**PARAPET DETAIL**  
Scale: 6" = 1'-0"

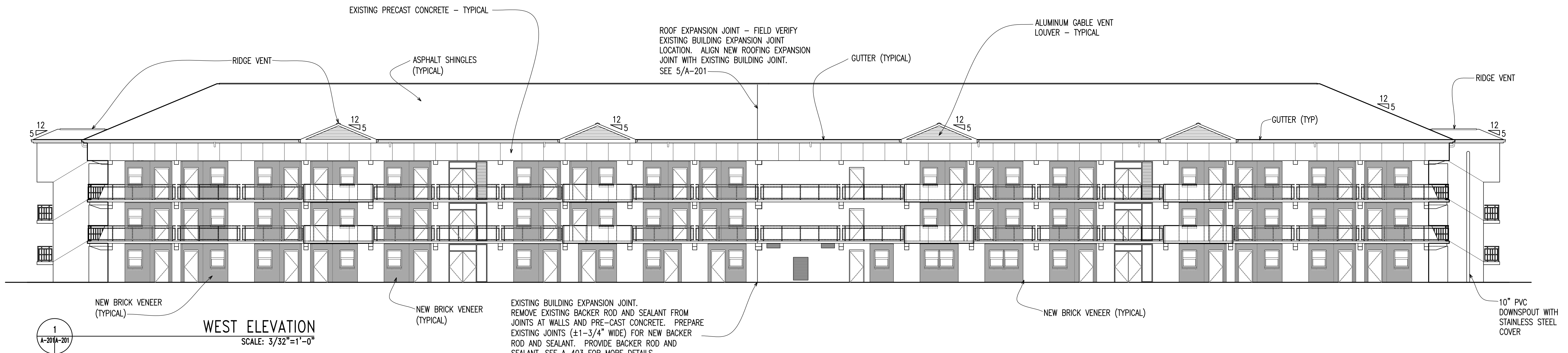


**ATTIC ACCESS HATCH**  
Scale: 3/4" = 1'-0"

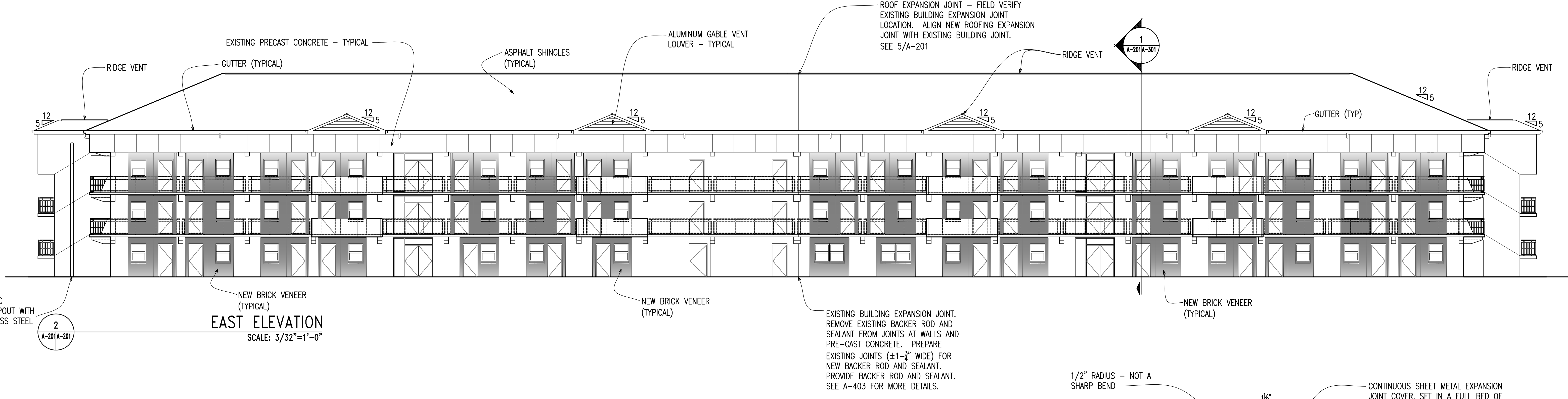


**DETAIL SECTION**  
Scale: 3/4" = 1'-0"

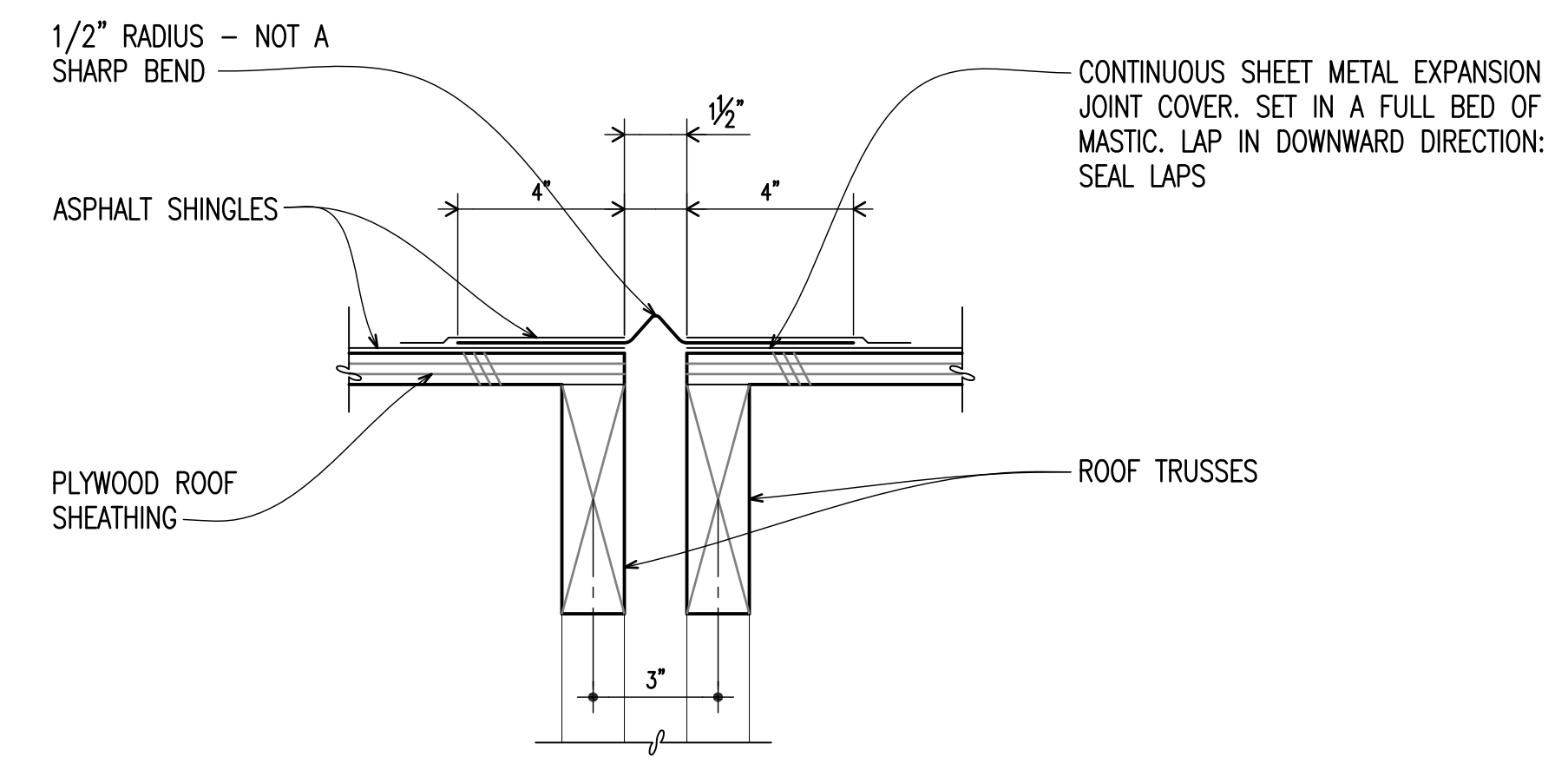
	<b>A-107</b>	
	MAUNE BELANGIA FAULKENBERRY ARCHITECTS, PA 1100 W. MARKET STREET, SUITE 200, NEW BERN, NC 28562 TEL: 252-639-1100 FAX: 252-639-1101 WWW.BELANGIAFAULKENBERRY.COM	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	<b>REPAIR BEQ BUILDING BB260</b> <b>MCB, CLNC</b>	
DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC	DATE: _____ DATE: _____ DATE: _____	ROOF PLAN AND ROOF HATCH DETAILS NAVFAC DRAWING NO. <b>60007576</b> CONSTR. CONTR. NO. N40685-10-B-0031 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 11 OF 72



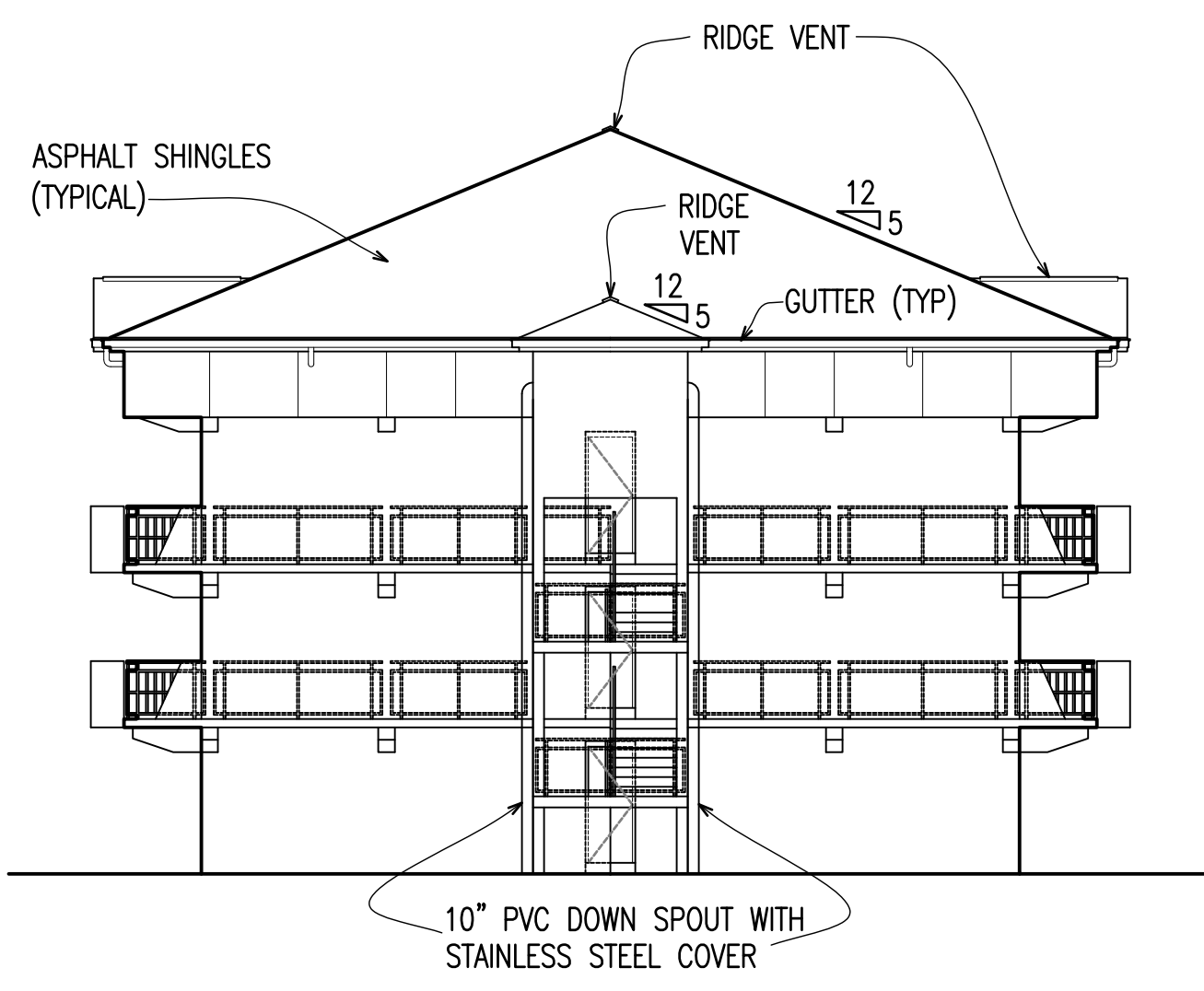
1  
A-201A-201  
**WEST ELEVATION**  
SCALE: 3/32"=1'-0"



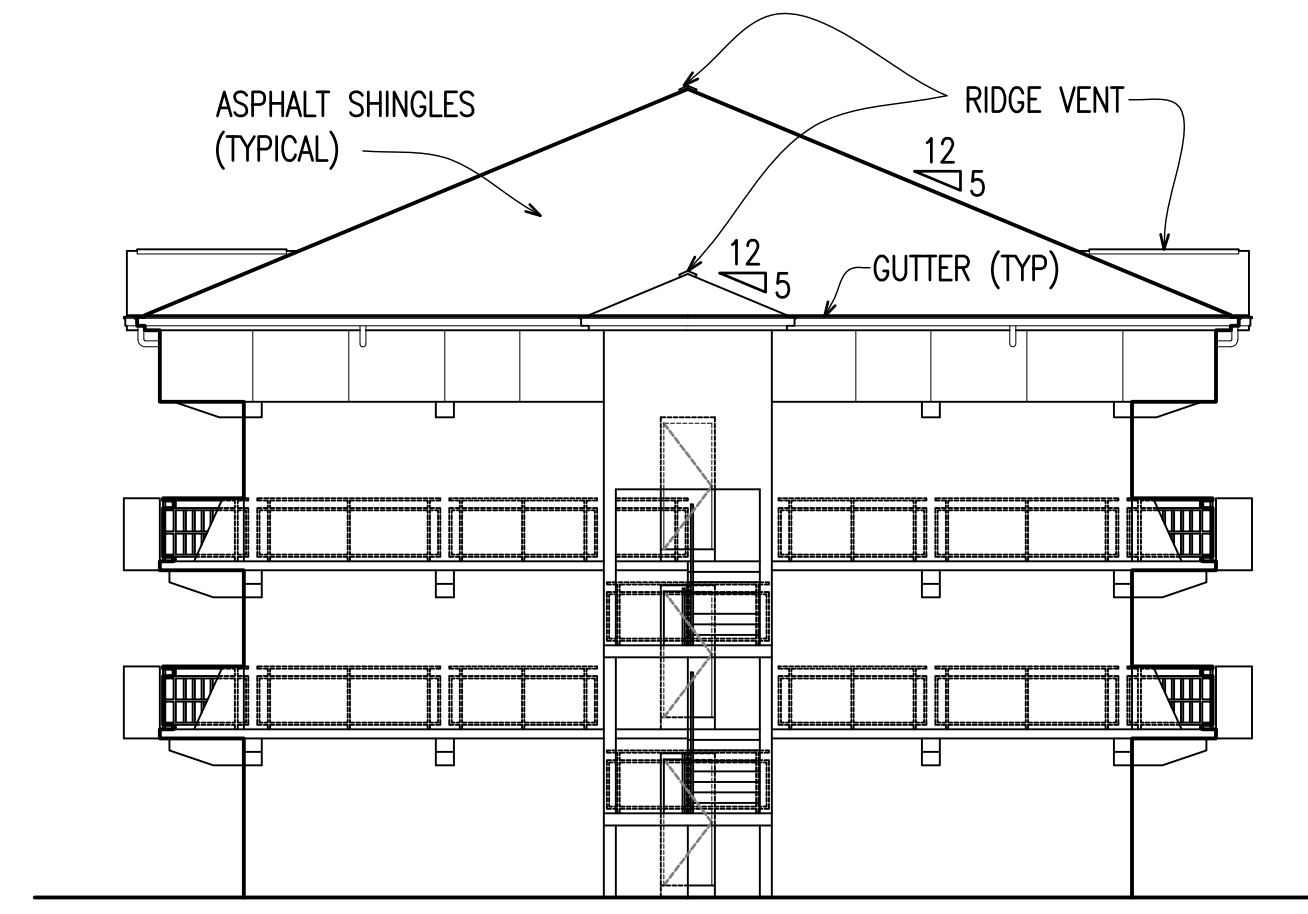
2  
A-201A-201  
**EAST ELEVATION**  
SCALE: 3/32"=1'-0"



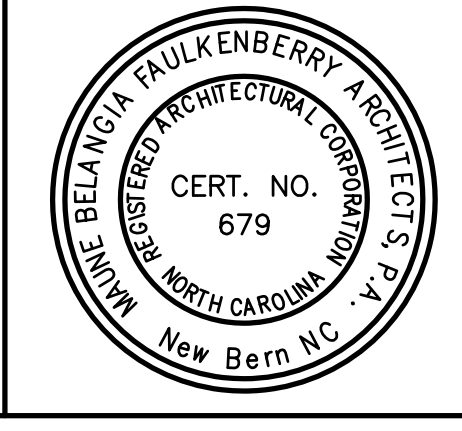
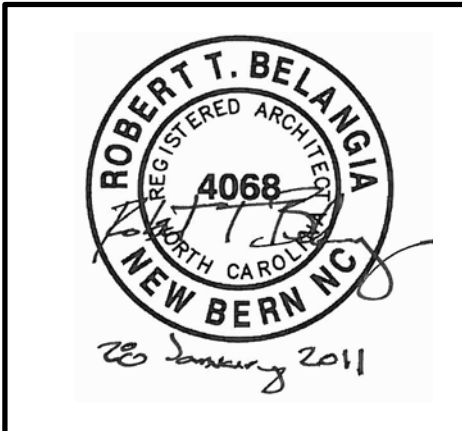
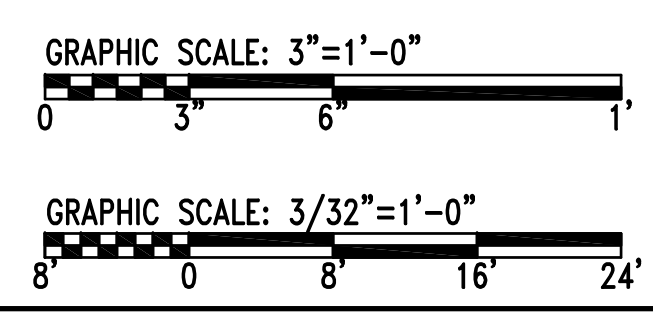
5  
A-201A-201  
**EXPANSION JOINT**  
CONSTRUCTION JOINT SCALE: 3"=1'-0"




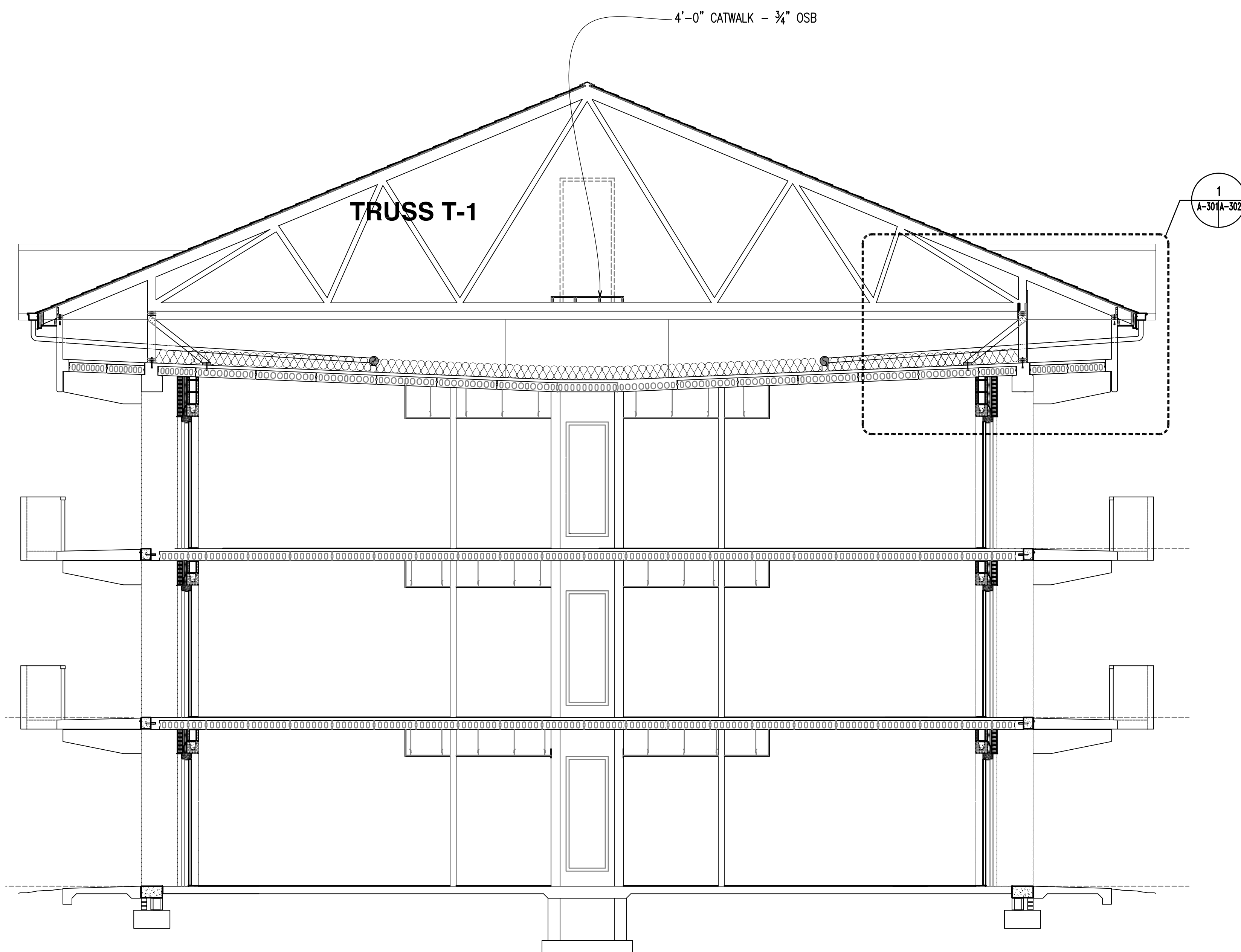
3  
A-201A-201  
**NORTH ELEVATION**  
SCALE: 3/32"=1'-0"



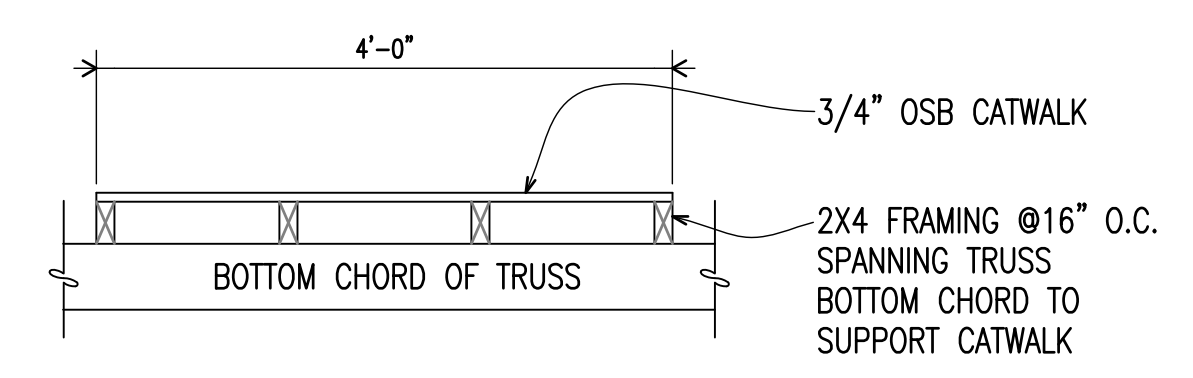
4  
A-201A-201  
**SOUTH ELEVATION**  
SCALE: 3/32"=1'-0"



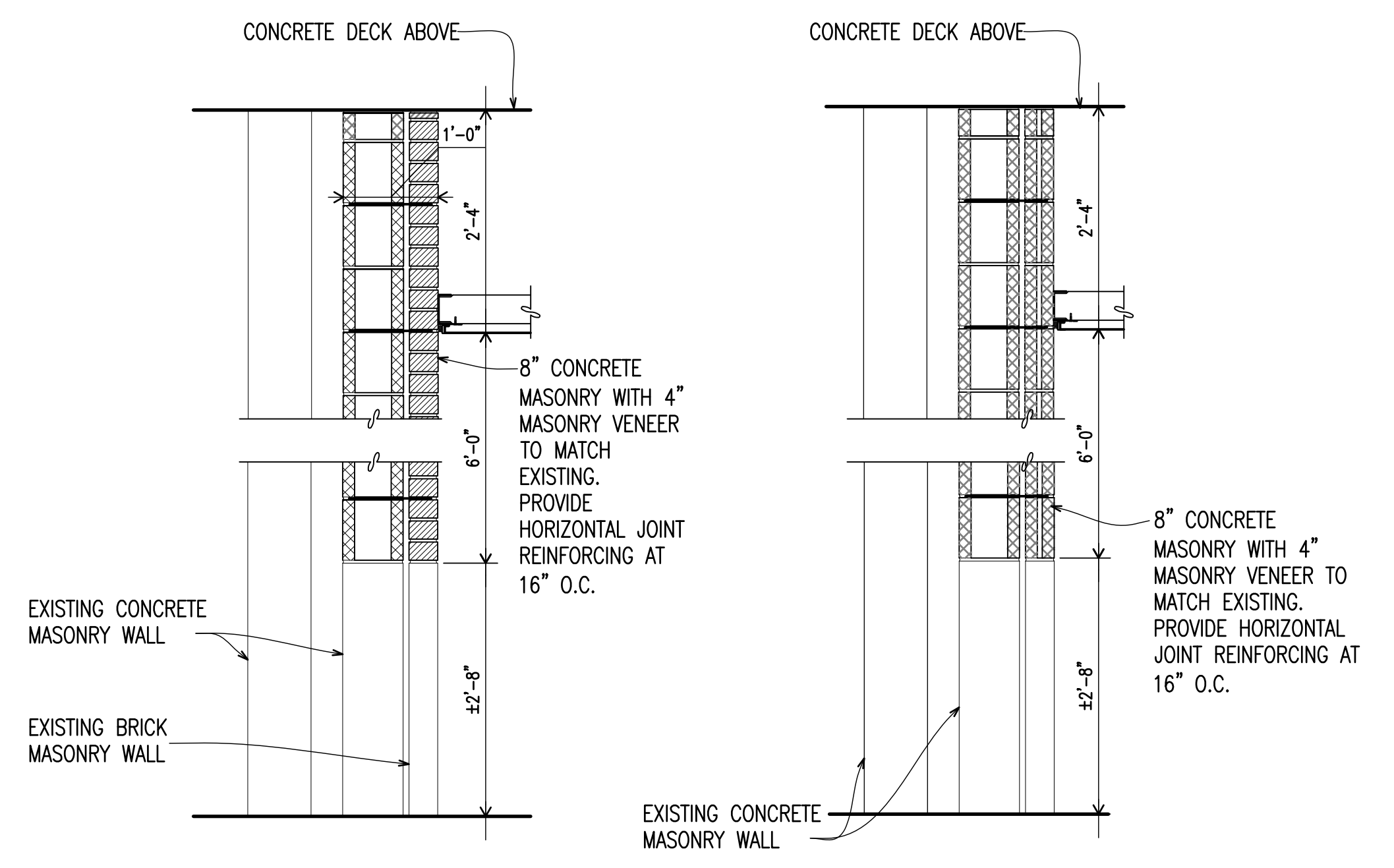
		<b>A-201</b>	
DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC SATISFACTORY TO:	DATE DATE DATE	SIZE <b>F 80091</b>	IDENT NO. <b>60007577</b>
REPAIR BEQ BUILDING BB260 MCB, CLNC		EXTERIOR ELEVATIONS NAVFAC DRAWING NO. <b>60007577</b> CONST. CONTR. NO. N40685-10-B-0031 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 12 OF 72	



1 TYPICAL TRANSVERSE SECTION  
Scale: 1/4" = 1'-0"

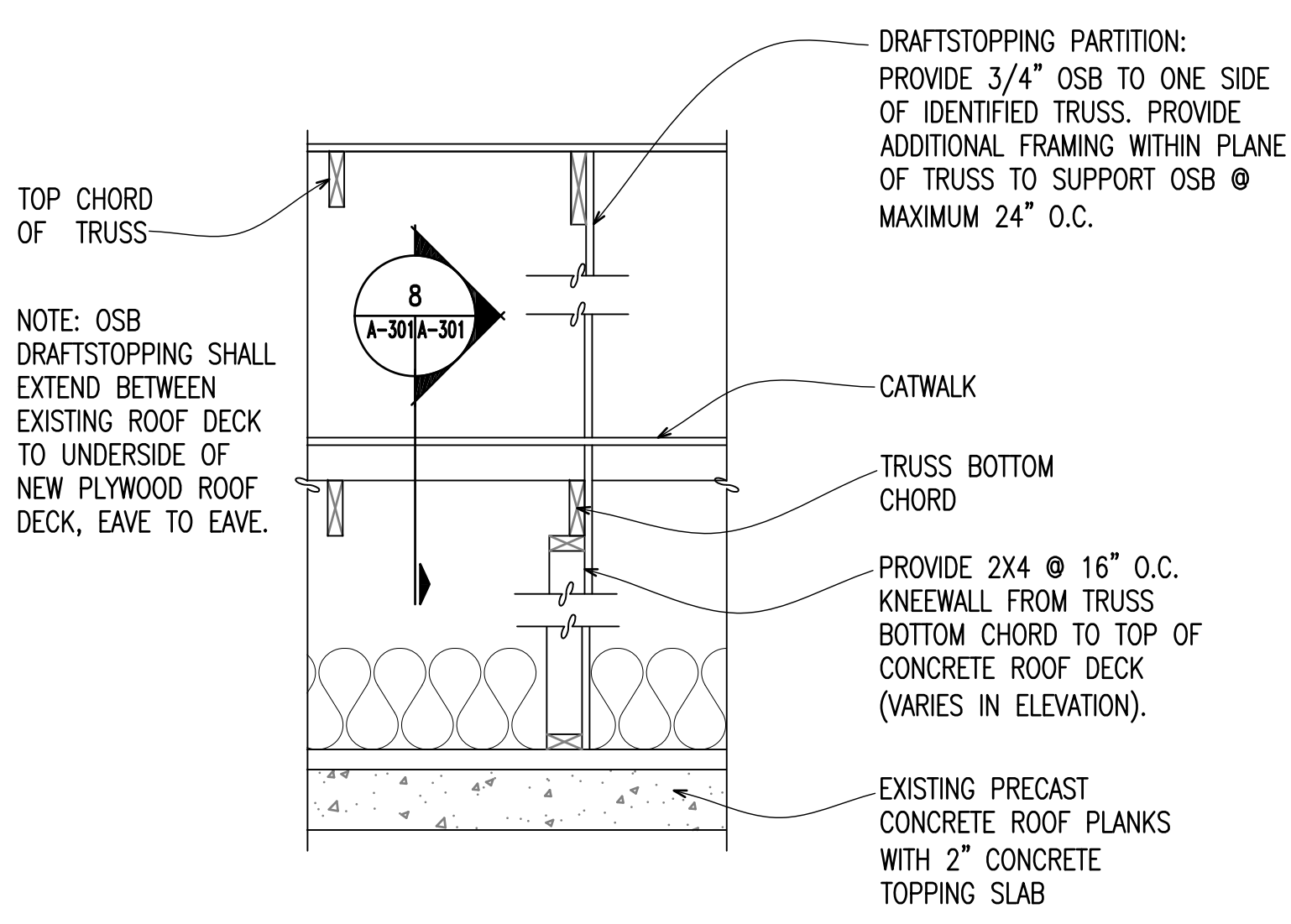


8 CATWALK  
Scale: 3/4" = 1'-0"

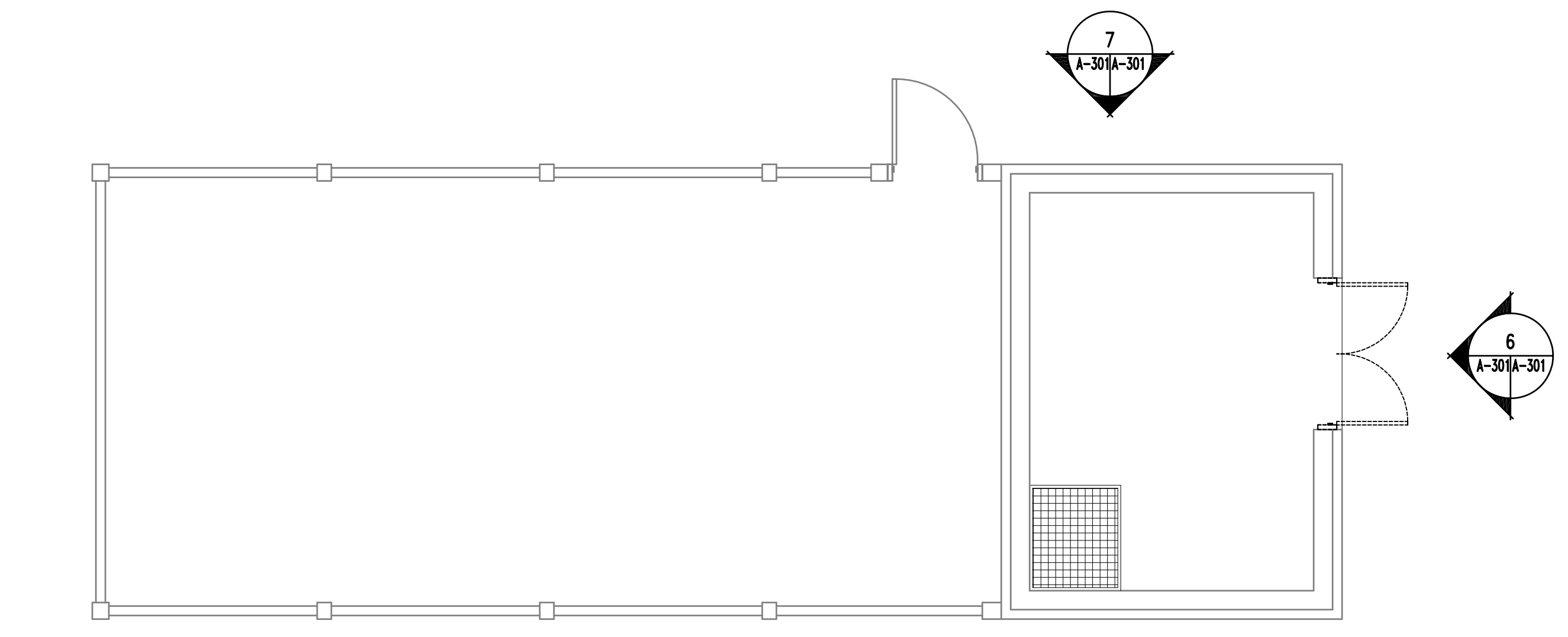


2 WALL INFILL FIRST FLOOR  
Scale: 3/4" = 1'-0"

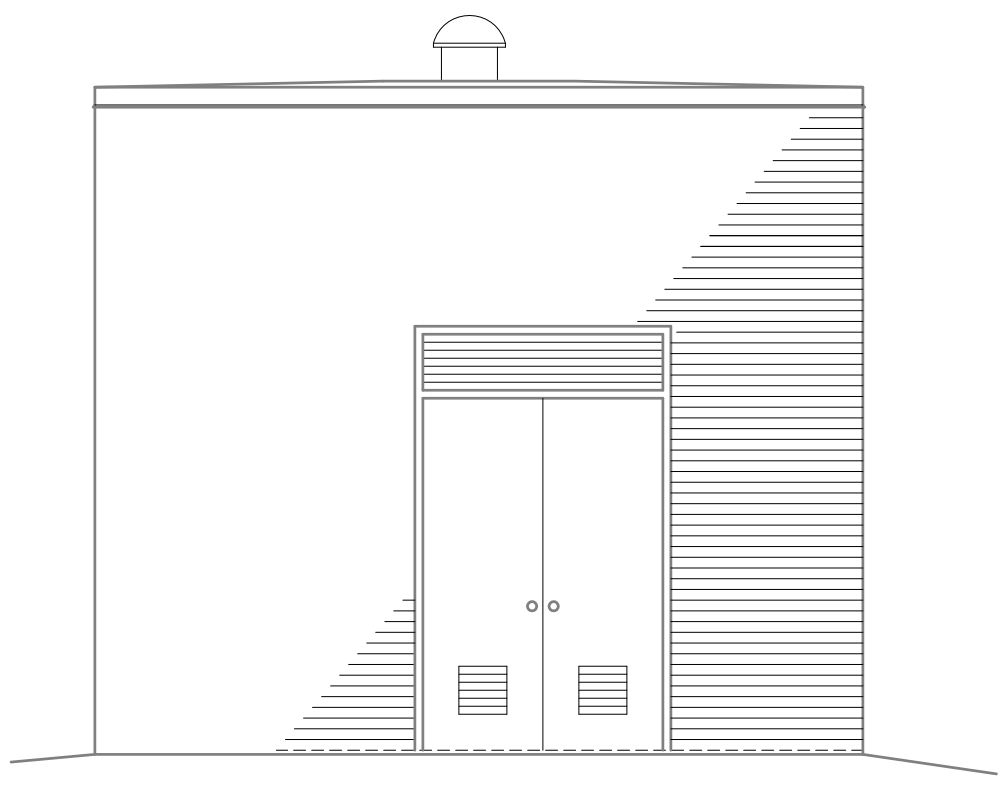
3 WALL INFILL SECOND & THIRD FLOORS  
Scale: 3/4" = 1'-0"



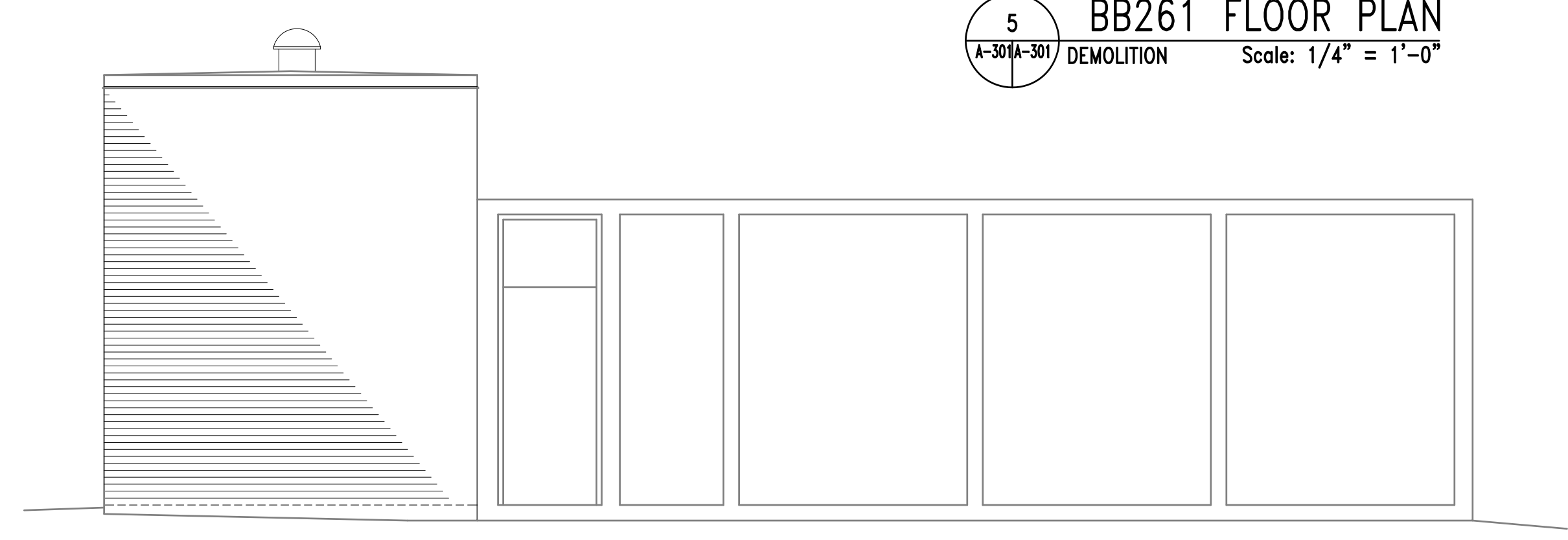
4 SECTION AT DRAFTSTOP  
Scale: 3/4" = 1'-0"



5 BB261 FLOOR PLAN  
Scale: 1/4" = 1'-0"



6 WEST ELEVATION  
Scale: 1/4" = 1'-0"



7 SOUTH ELEVATION  
Scale: 1/4" = 1'-0"



8 EXTERIOR IMAGE  
Scale: N.T.S.



9 EXTERIOR IMAGE  
Scale: N.T.S.



11 EXTERIOR IMAGE  
Scale: N.T.S.



10 EXTERIOR IMAGE  
Scale: N.T.S.

**DEMOLITION NOTES**

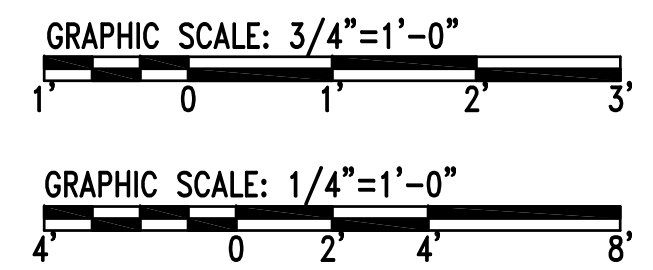
THIS BUILDING, BB261, IS BEING RETIRED AS A MECHANICAL BUILDING.

REMOVE EXISTING BUILDING IN ITS ENTIRETY, INCLUDING BUT NOT LIMITED TO: STRUCTURAL, FOUNDATION, PLUMBING, MECHANICAL, ELECTRICAL, SPRINKLER, AND COMMUNICATION SYSTEMS. REMOVE ALL PLUMBING MECHANICAL AND ELECTRICAL EQUIPMENT LOCATED OUTSIDE OF THE BUILDING. SEE PLUMBING, MECHANICAL, ELECTRICAL, AND CIVIL DRAWINGS FOR FURTHER INFORMATION REGARDING UTILITY DEMOLITION.

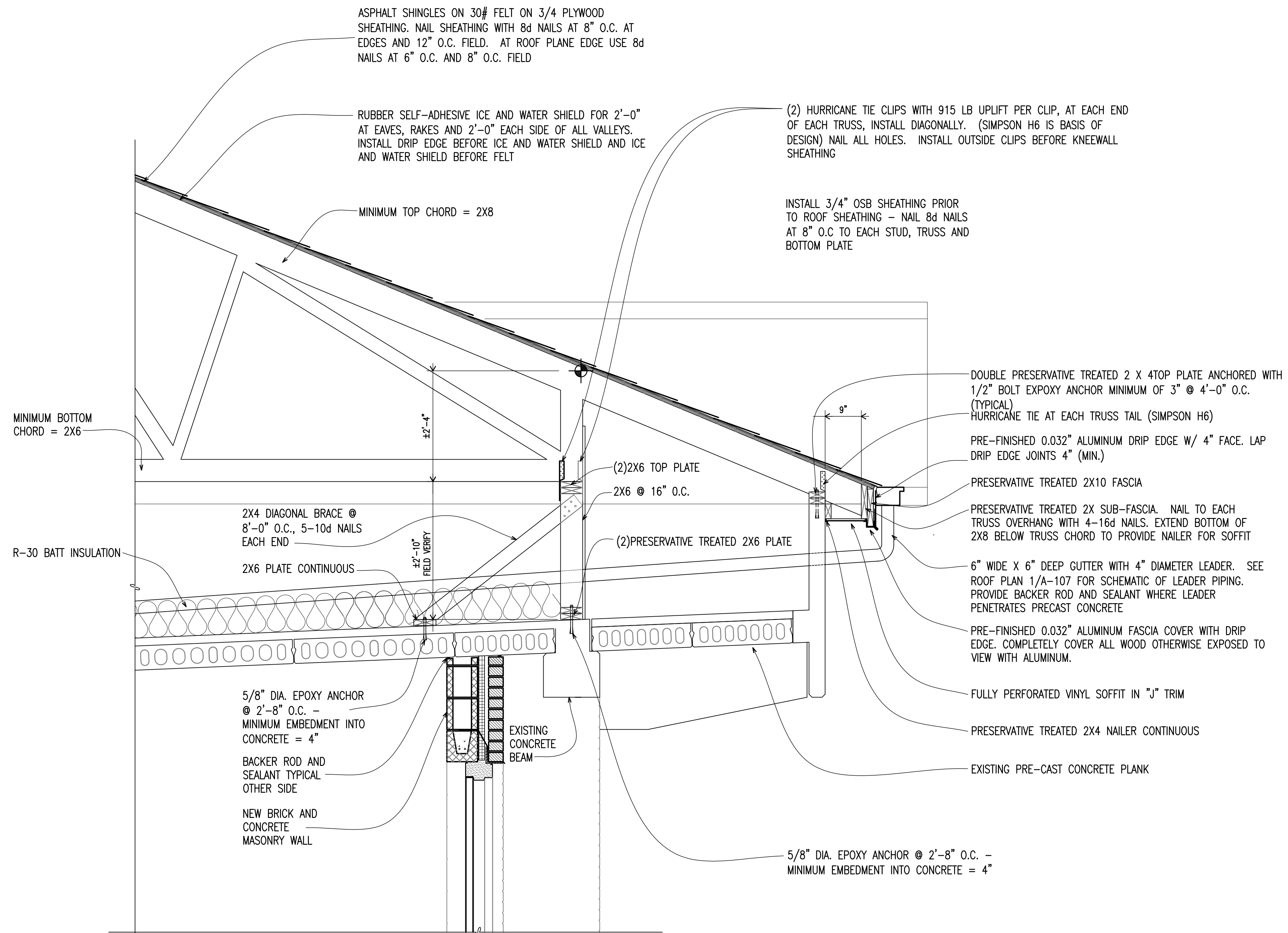
EXTERIOR WALLS SURROUNDING MECHANICAL EQUIPMENT ROOM CONSIST OF BRICK VENEER WITH CONCRETE MASONRY BACKUP ON A CAST-IN-PLACE CONCRETE FOUNDATION WALL. THE FLOOR SYSTEM IS A CONCRETE SLAB. THE ROOF STRUCTURE CONSISTS OF A CONCRETE SLAB. EXTERIOR WALLS SURROUNDING THE "YARD" CONSIST OF CONCRETE POSTS CANTILEVERED FROM A CONCRETE SLAB WITH A SINGLE WYTHE BRICK INFILL. THE FLOOR SYSTEM IS A CONCRETE SLAB. NO ROOF IS PRESENT OVER THIS PORTION OF THE BUILDING.

ASBESTOS MATERIAL AND LEAD-BASED PAINT TESTING HAS BEEN PERFORMED ON EXISTING AREAS OF WORK. SEE THE SPECIFICATION FOR ASBESTOS MATERIAL AND LEAD-BASED PAINT REPORT RESULTS. CONTRACTOR SHALL BE RESPONSIBLE FOR THE APPROPRIATE STANDARD OF CARE REGARDING THE HANDLING OF ANY MATERIALS FOUND TO BE HAZARDOUS AND THE PROTECTION OF PERSONS FROM EXPOSURE. LIGHT FIXTURE BALLASTS, FLOURESCENT TUBES, HID LAMPS AND HVAC THERMOSTATS SHALL BE REMOVED AND TREATED AS HAZARDOUS MATERIALS.

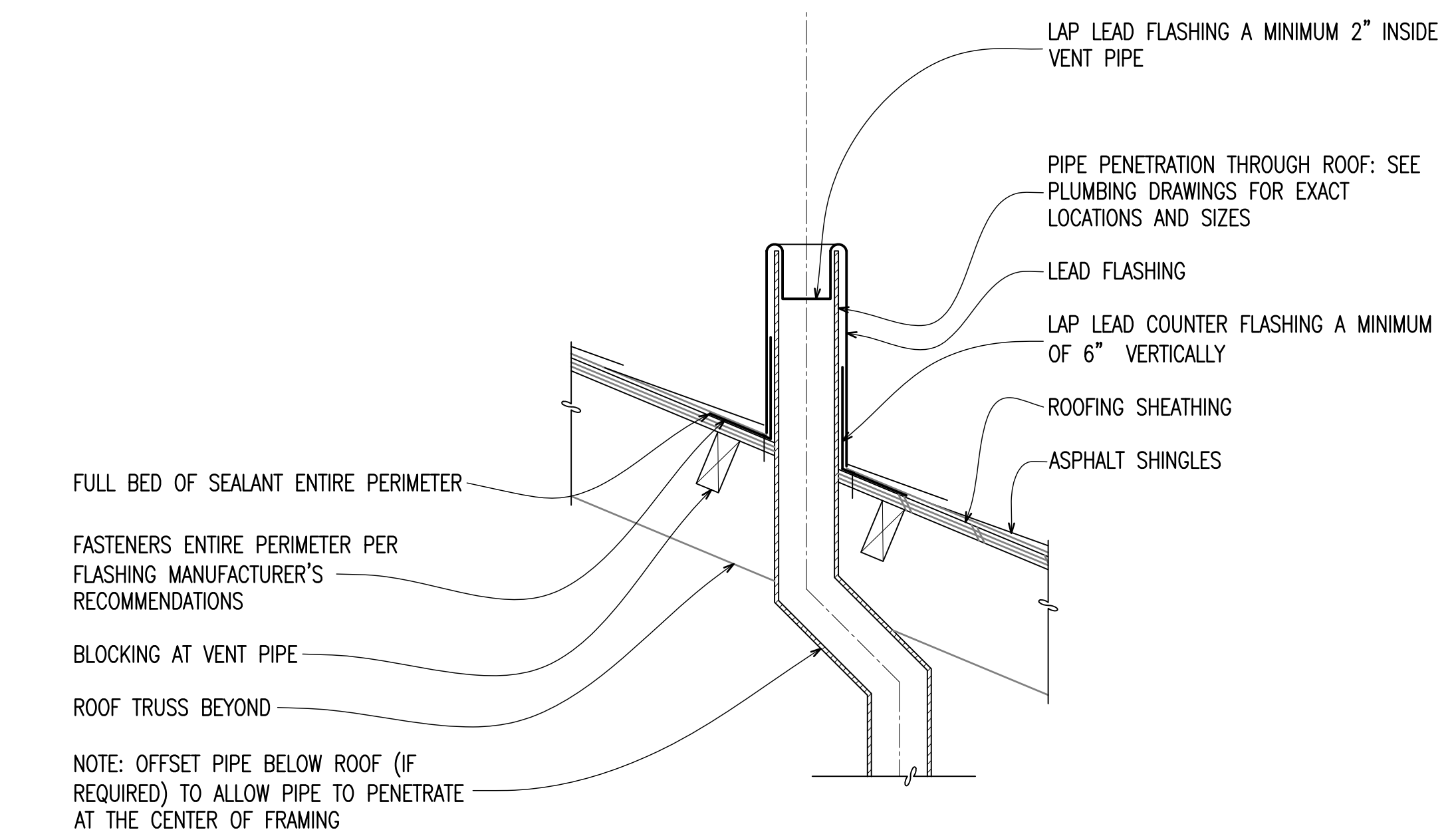
SEE PHOTOGRAPHS THIS SHEET SHOWING TYPICAL EXISTING CONDITIONS. PHOTOGRAPHS ARE REPRESENTATIVE OF SOME, BUT NOT NECESSARILY ALL OF THE TYPICAL EXISTING CONDITIONS TO BE FOUND.



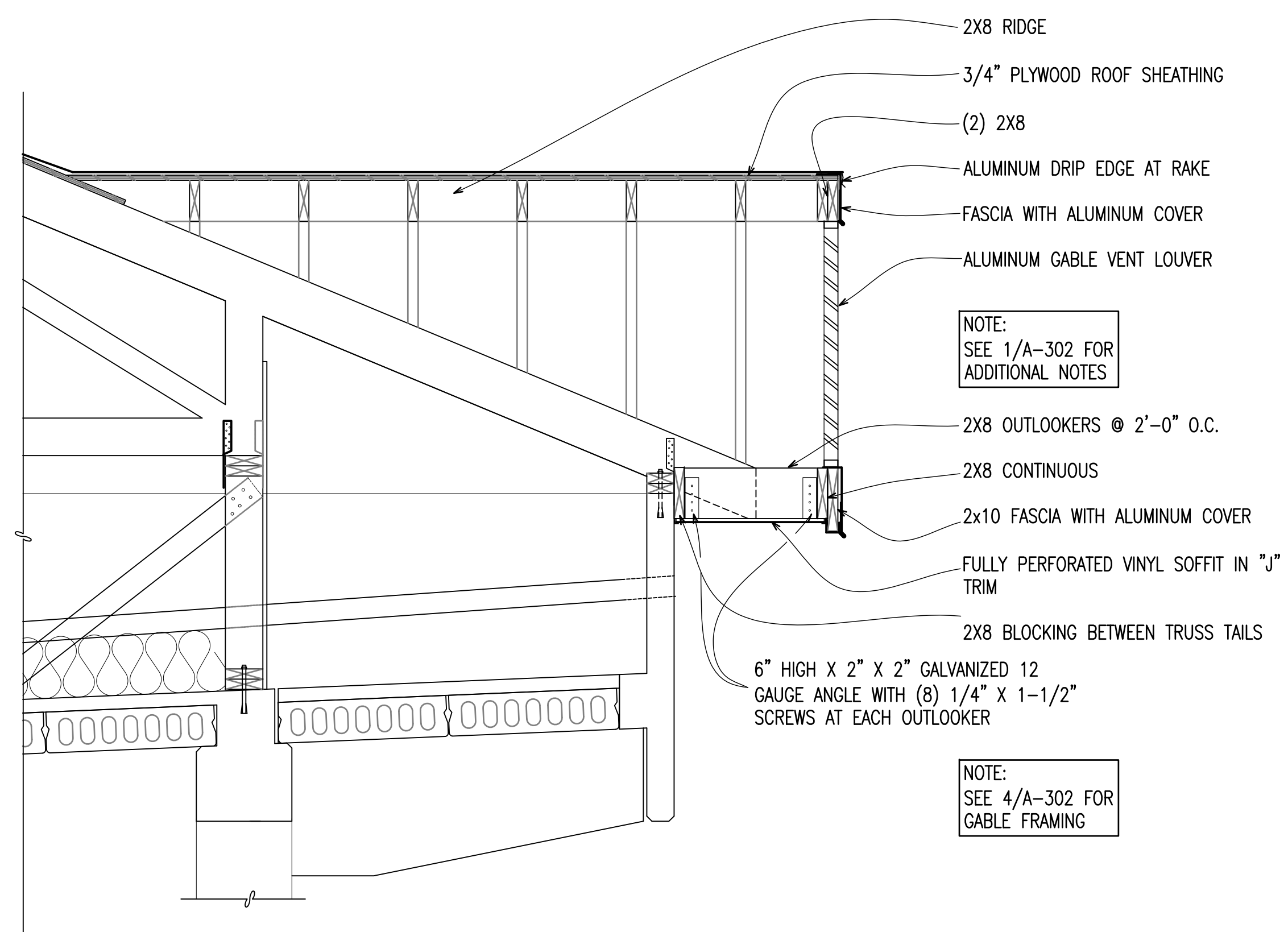
		<b>A-301</b>	
MAUNE BELANGIA FAULKENBERRY ARCHITECTS, PA 1000 W. HARRIS ST. SUITE 200 WASHINGTON, NC 27587 WWW.BELANGIAARCHITECTS.COM		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC DATE:		REPAIR BEQ BUILDING BB260 MCB, CLNC	
SATISFACTORY TO: DATE:		BUILDING SECTION & DETAILS NAVFAC DRAWING NO. 60007578 CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 13 OF 72	



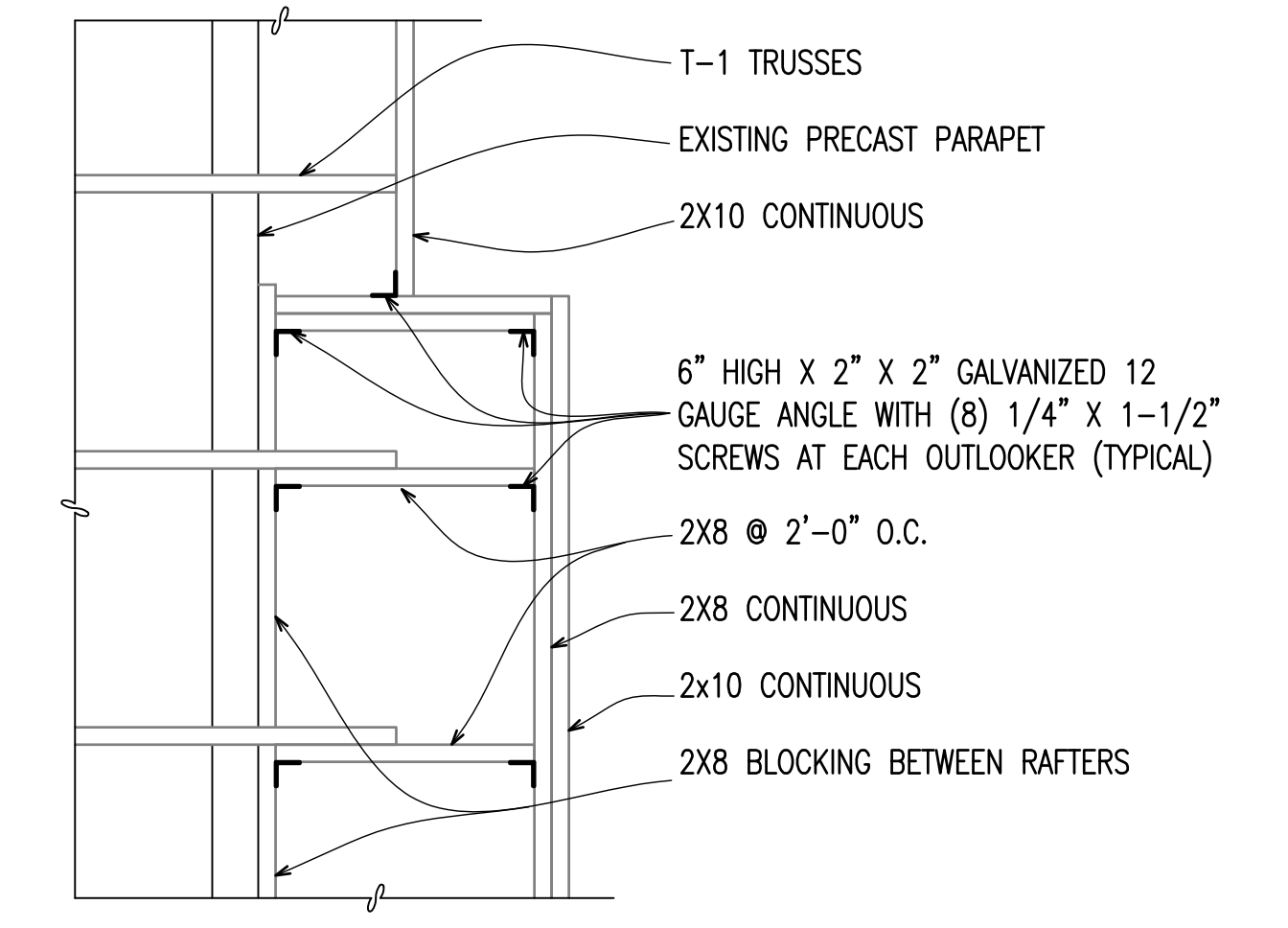
**1 TRUSS BEARING SECTION**  
 Scale: 3/4" = 1'-0"



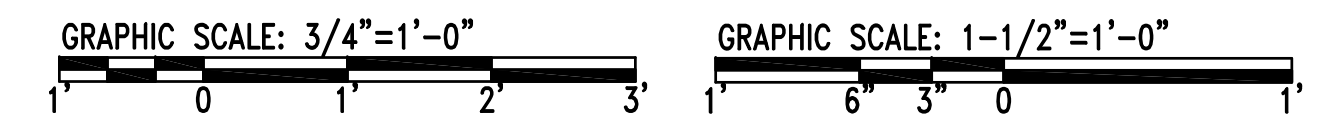
**2 THROUGH THE ROOF VENT**  
 Scale: 1-1/2" = 1'-0"



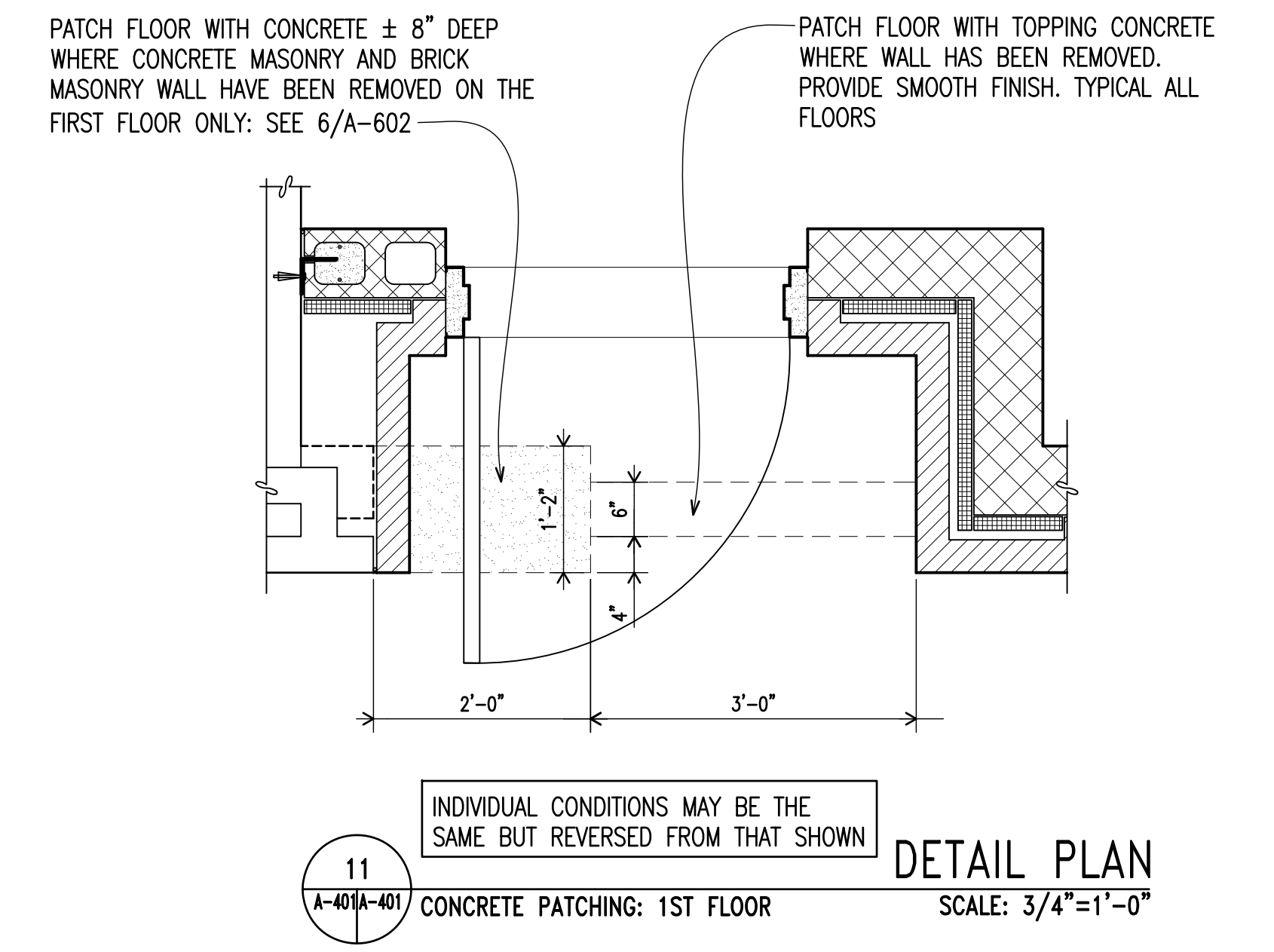
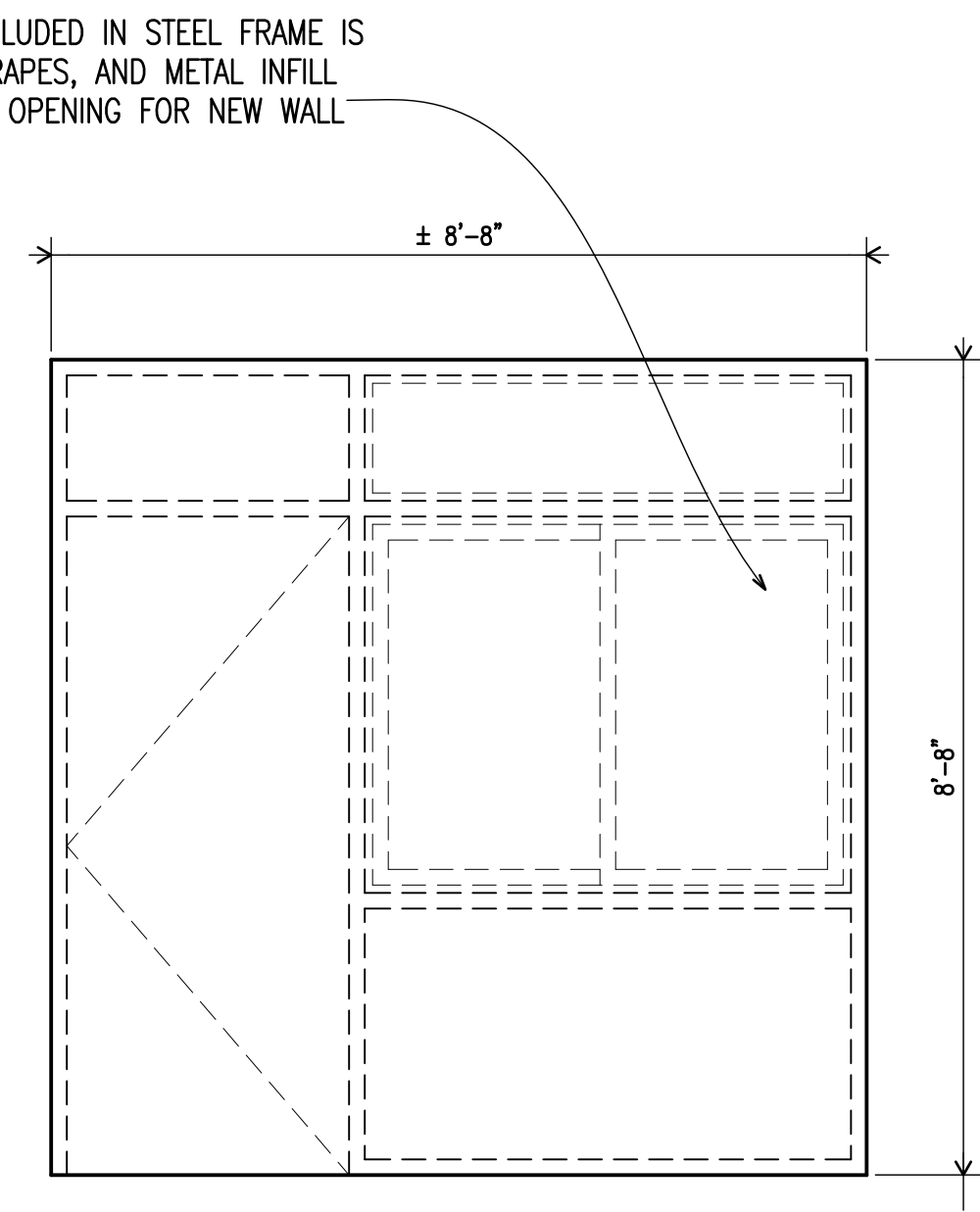
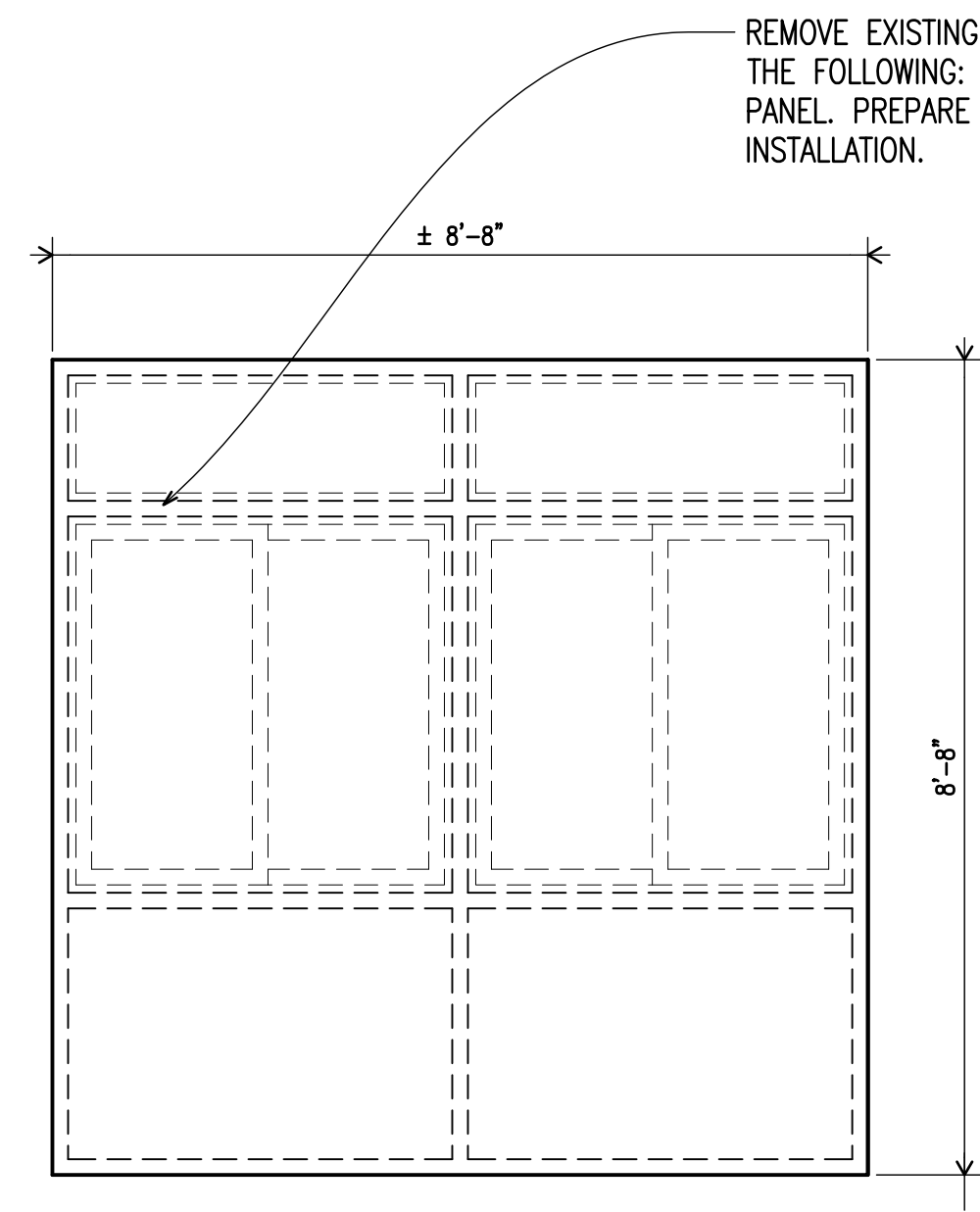
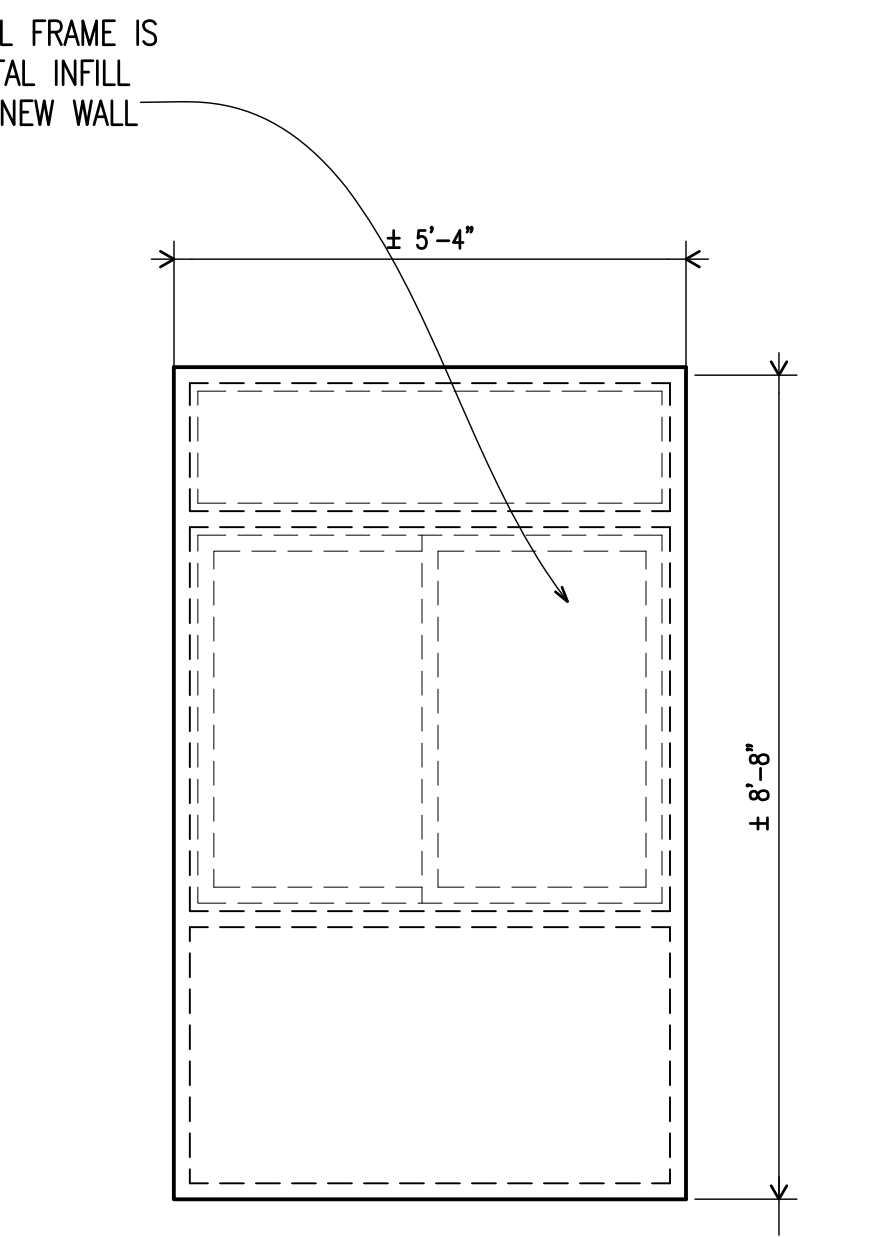
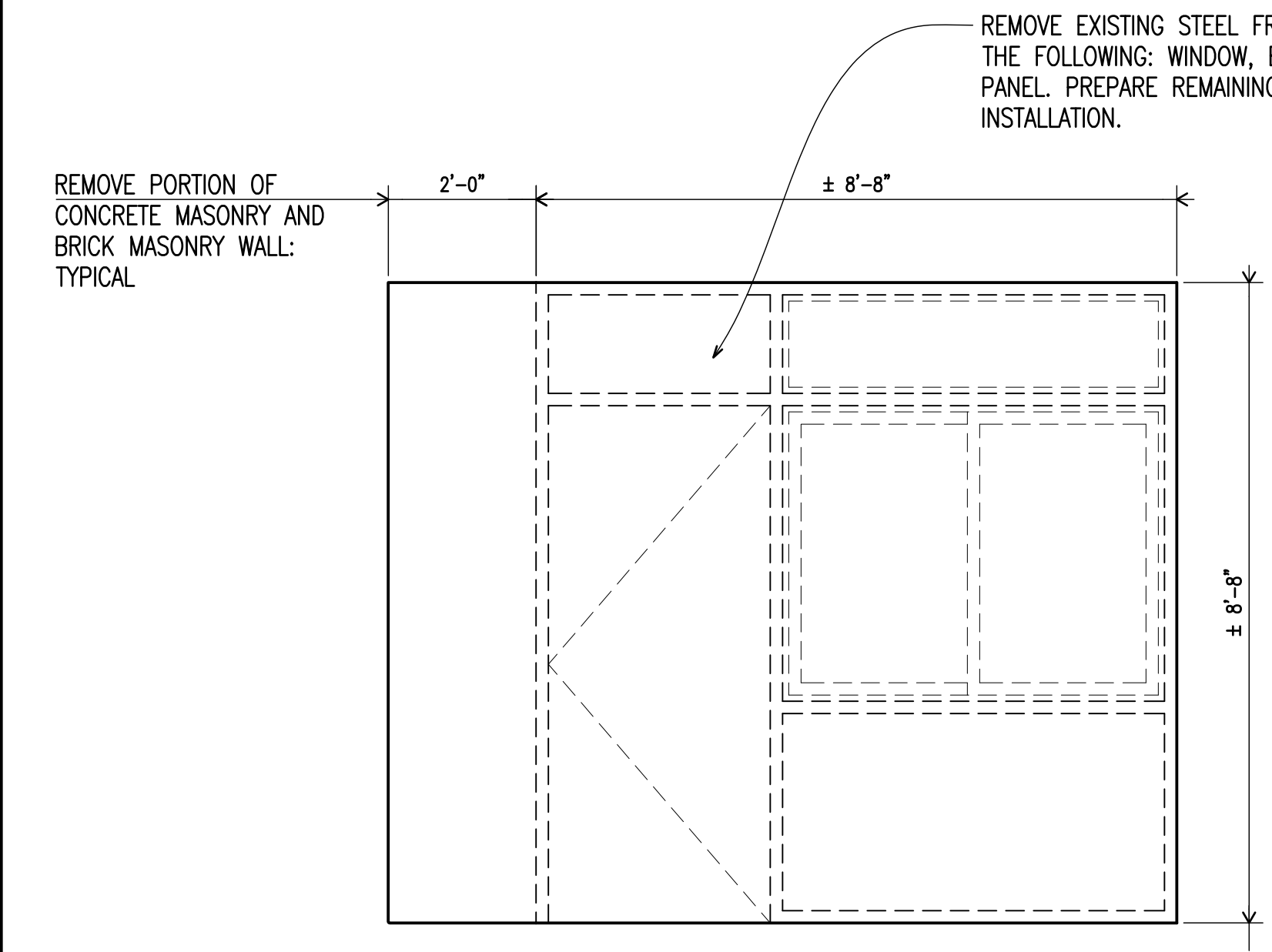
**3 SECTION AT GABLE**  
 Scale: 3/4" = 1'-0"



**4 FRAMING AT GABLE**  
 Scale: 3/4" = 1'-0"



	<b>A-302</b>	
	MAUNE BELANGIA FAULKENBERRY ARCHITECTS, PA DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR.	<b>REPAIR BEQ BUILDING BB260</b> <b>MCB, CLNC</b>	
APPROVED: PWO OR OICC SATISFACTORY TO:	DATE: <b>F 80091</b> DATE:	SECTION DETAILS NAVFAC DRAWING NO. <b>60007579</b> CONST. CONTR. NO. N40685-10-B-0031 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 14 OF 72

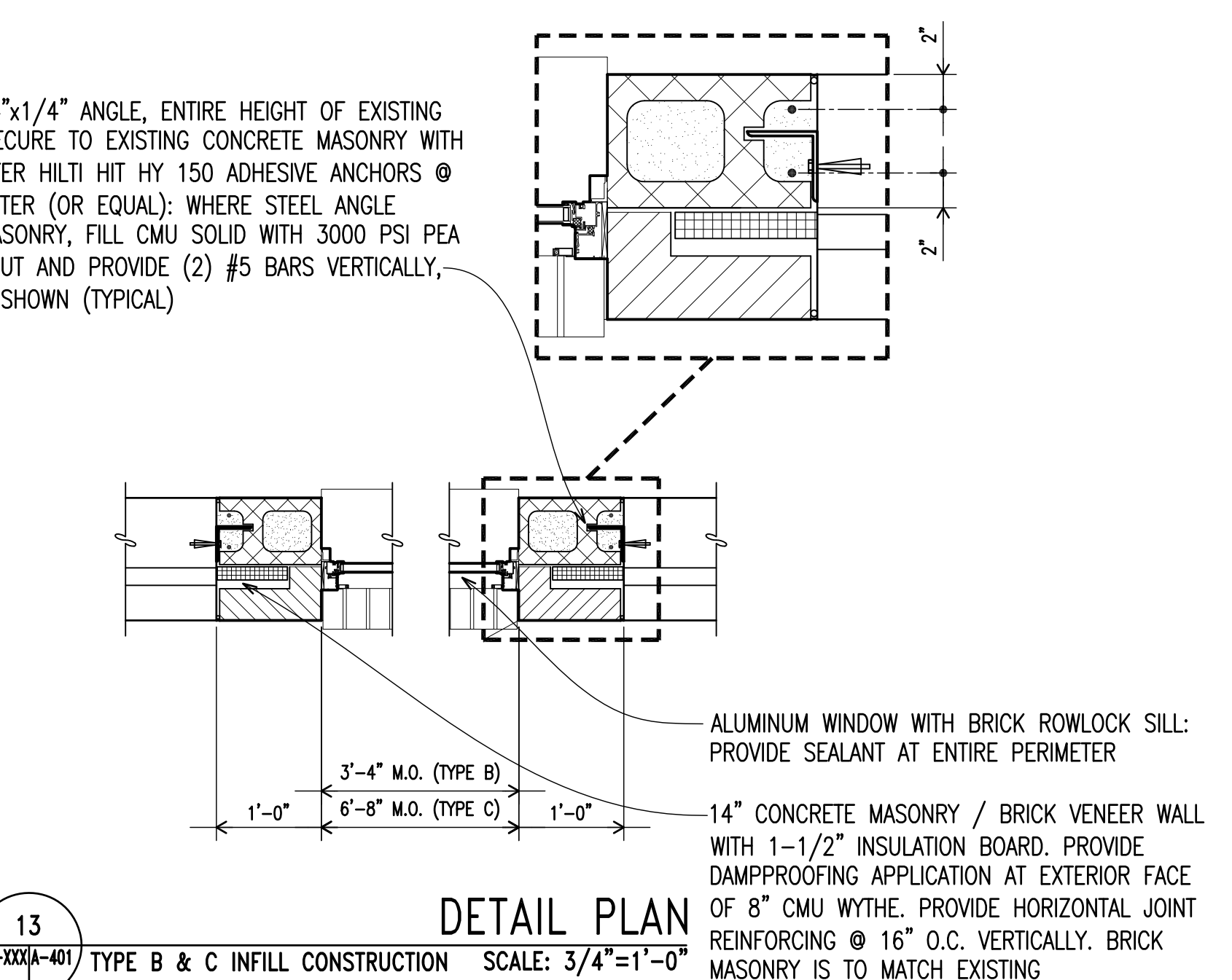
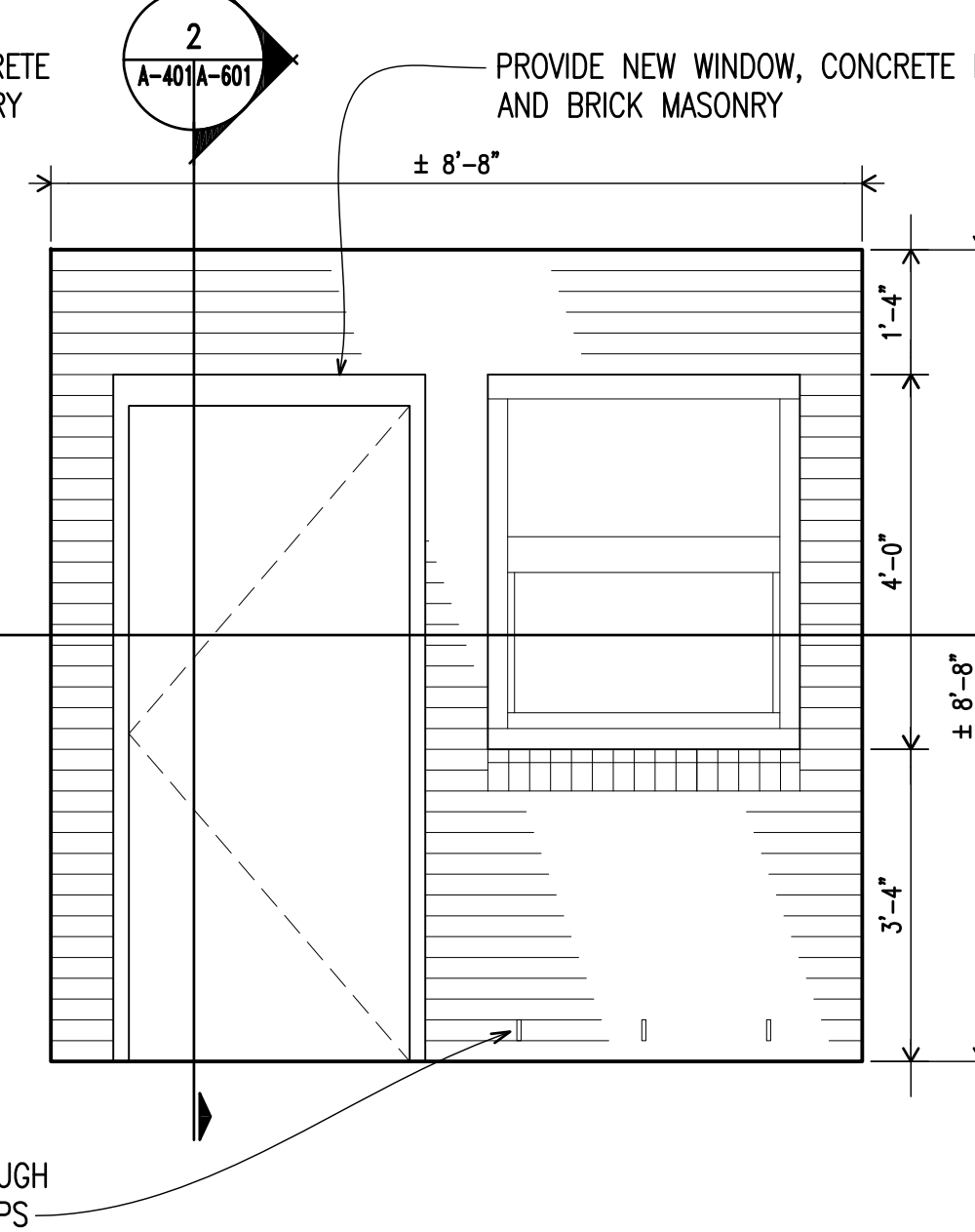
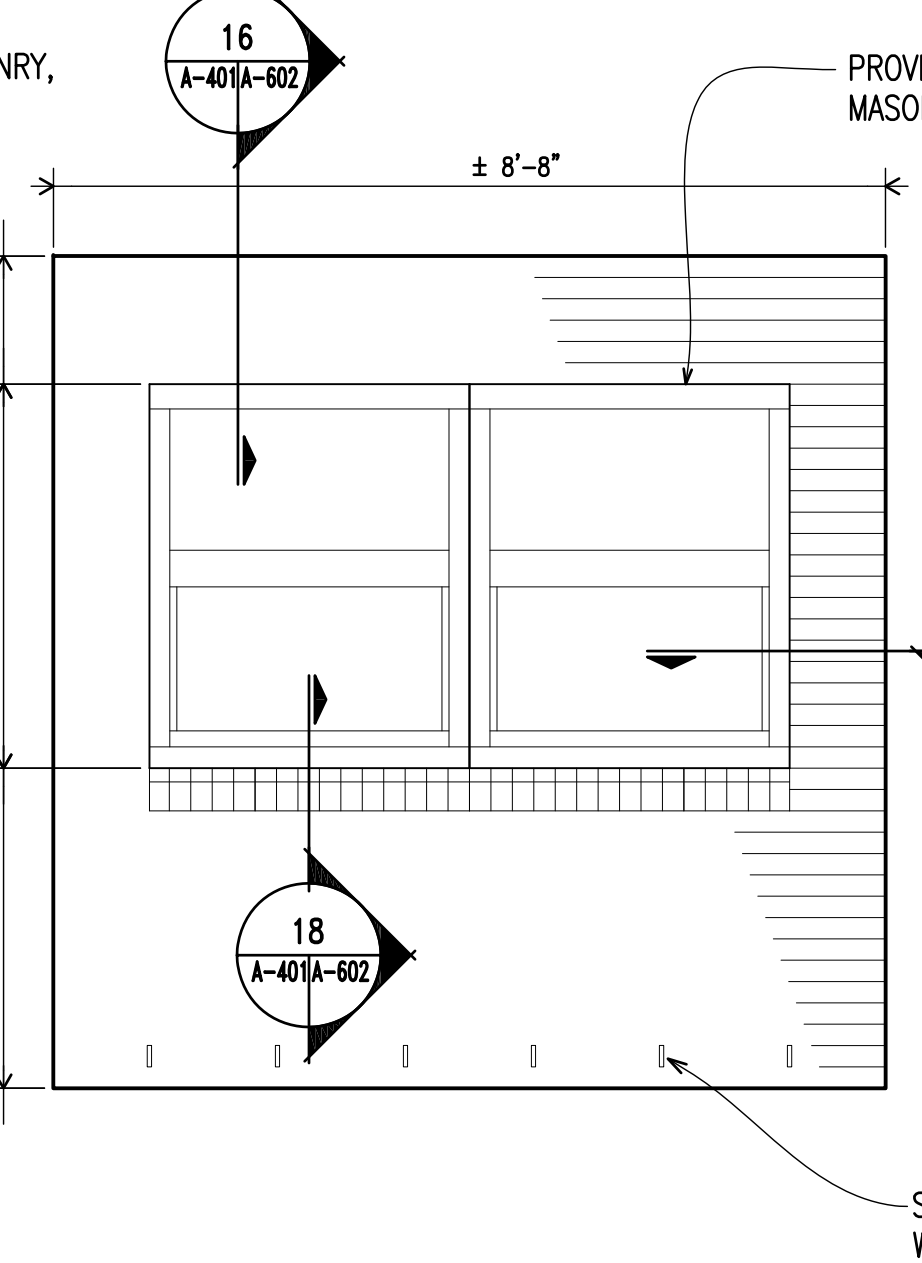
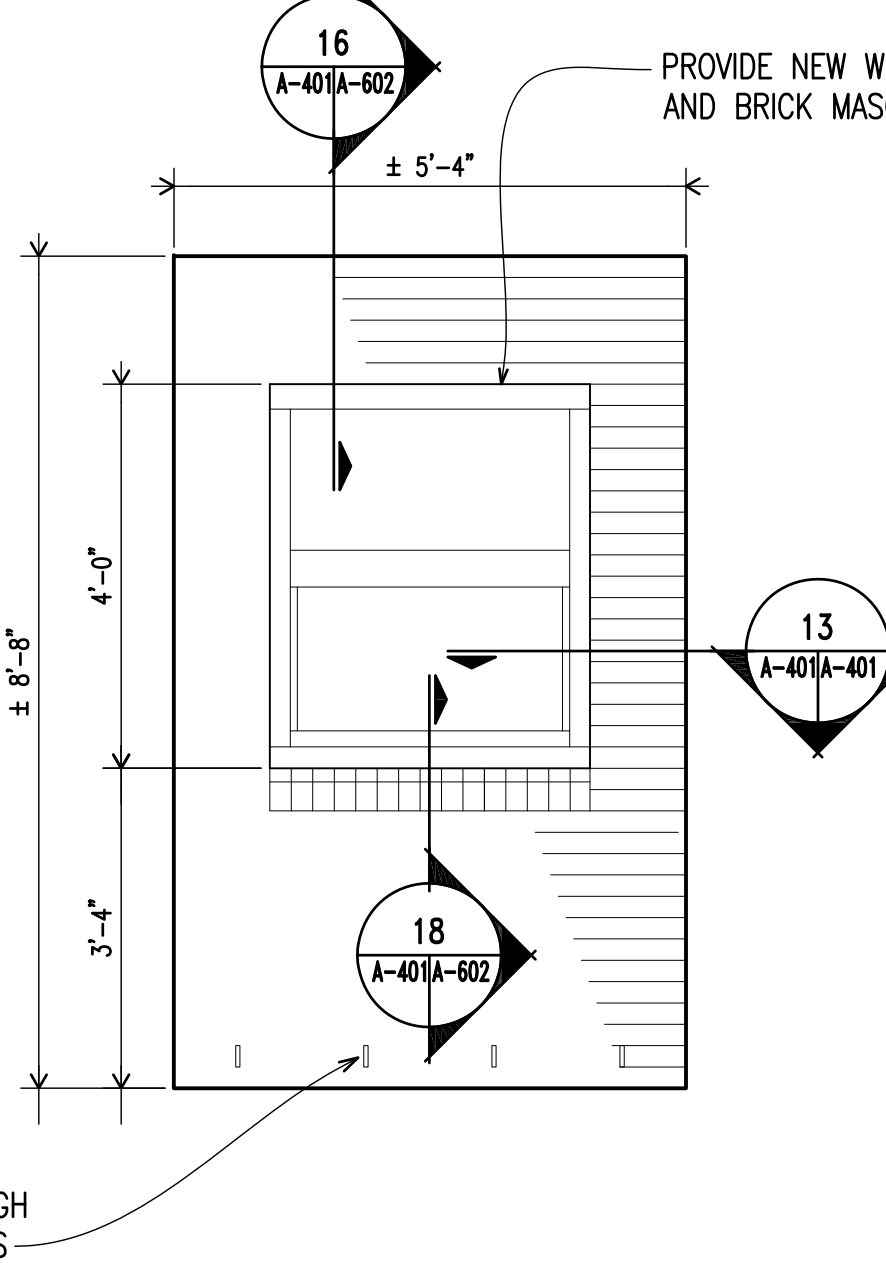
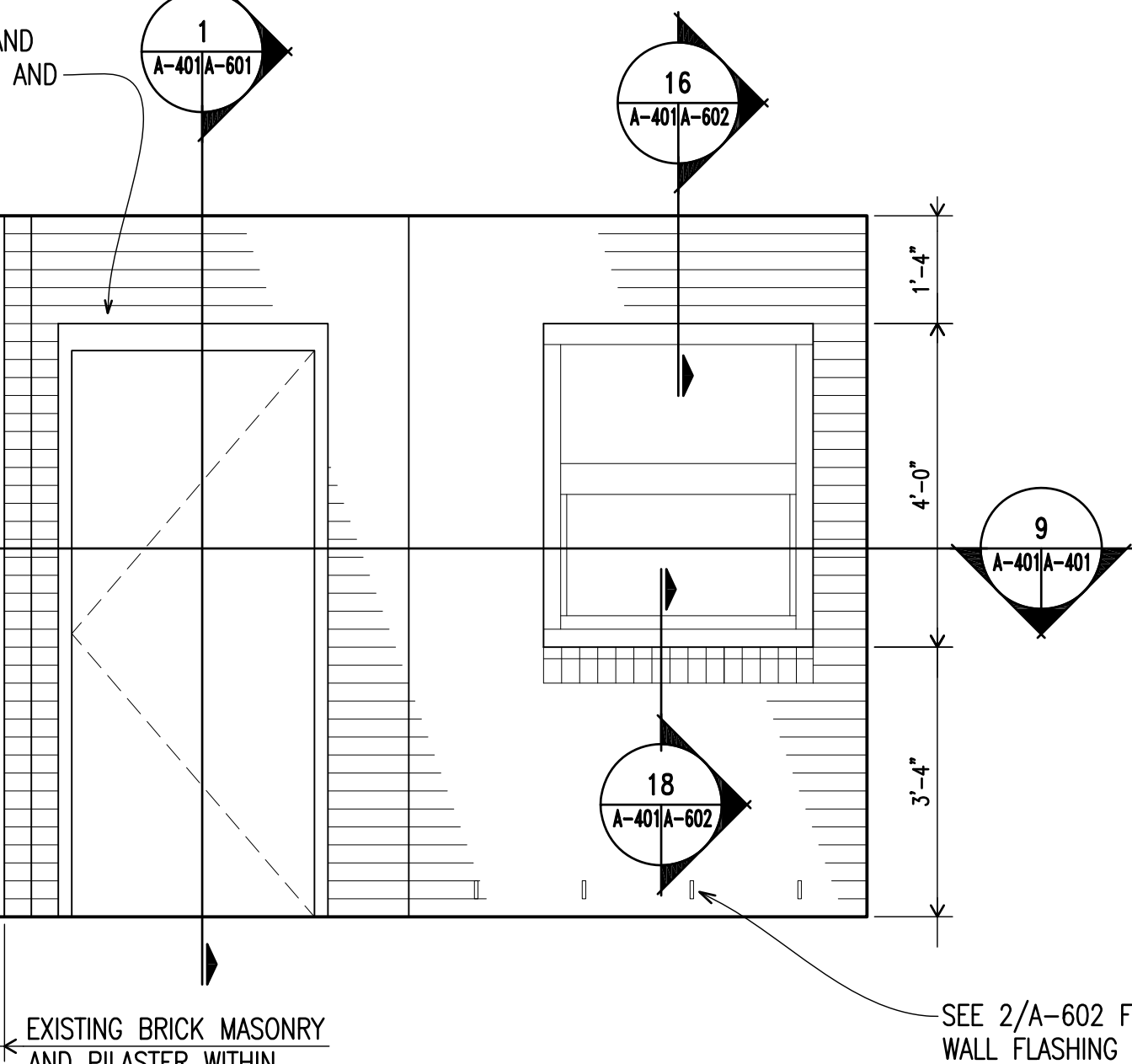
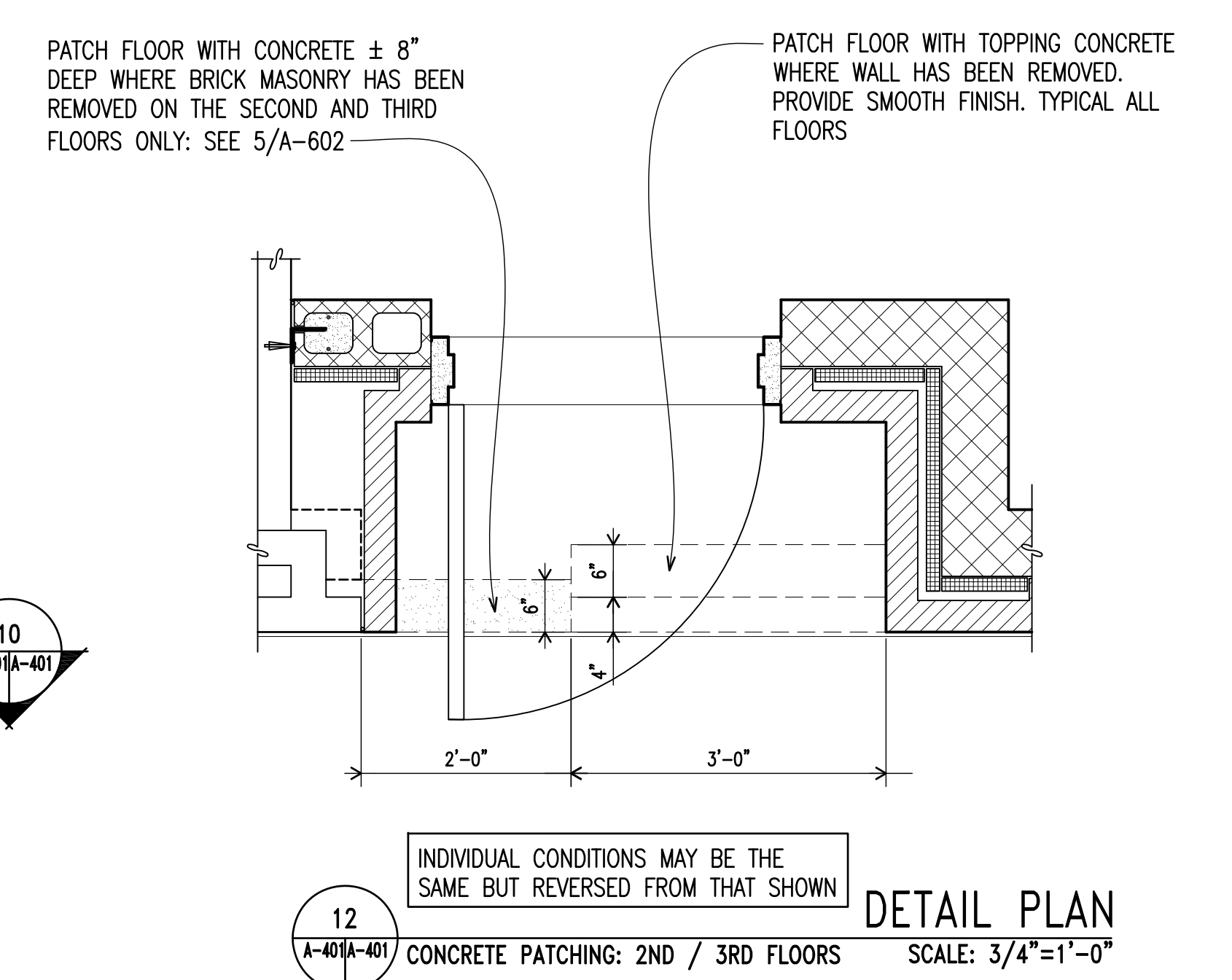


**1 TYPE A - ELEVATION**  
 DEMOLITION Scale: 1/2" = 1'-0"  
 INDIVIDUAL CONDITIONS MAY BE THE SAME BUT REVERSED FROM THAT SHOWN

**2 TYPE B - ELEVATION**  
 DEMOLITION Scale: 1/2" = 1'-0"  
 INDIVIDUAL CONDITIONS MAY BE THE SAME BUT REVERSED FROM THAT SHOWN

**3 TYPE C - ELEVATION**  
 DEMOLITION Scale: 1/2" = 1'-0"  
 INDIVIDUAL CONDITIONS MAY BE THE SAME BUT REVERSED FROM THAT SHOWN

**4 TYPE D - ELEVATION**  
 DEMOLITION Scale: 1/2" = 1'-0"  
 INDIVIDUAL CONDITIONS MAY BE THE SAME BUT REVERSED FROM THAT SHOWN

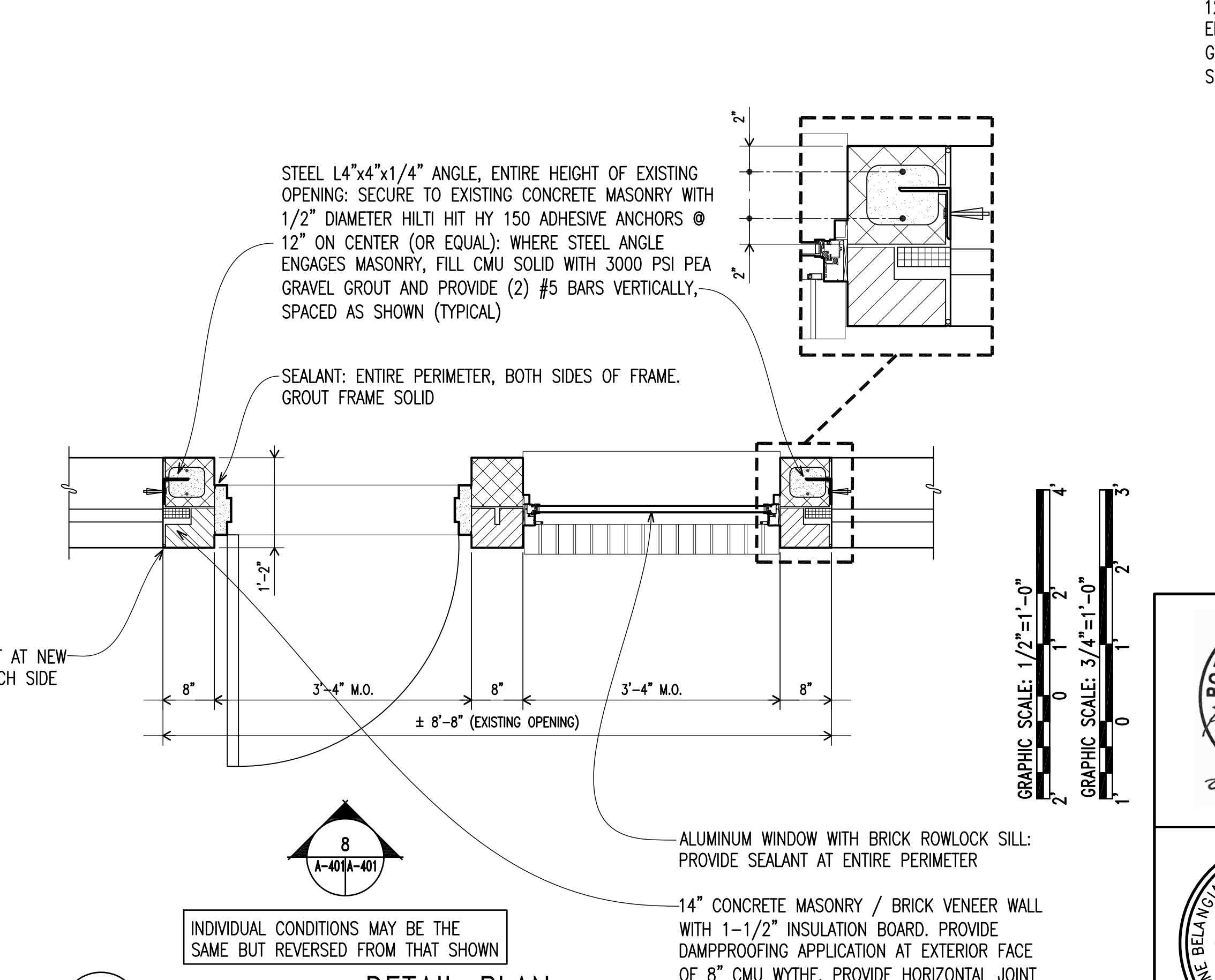
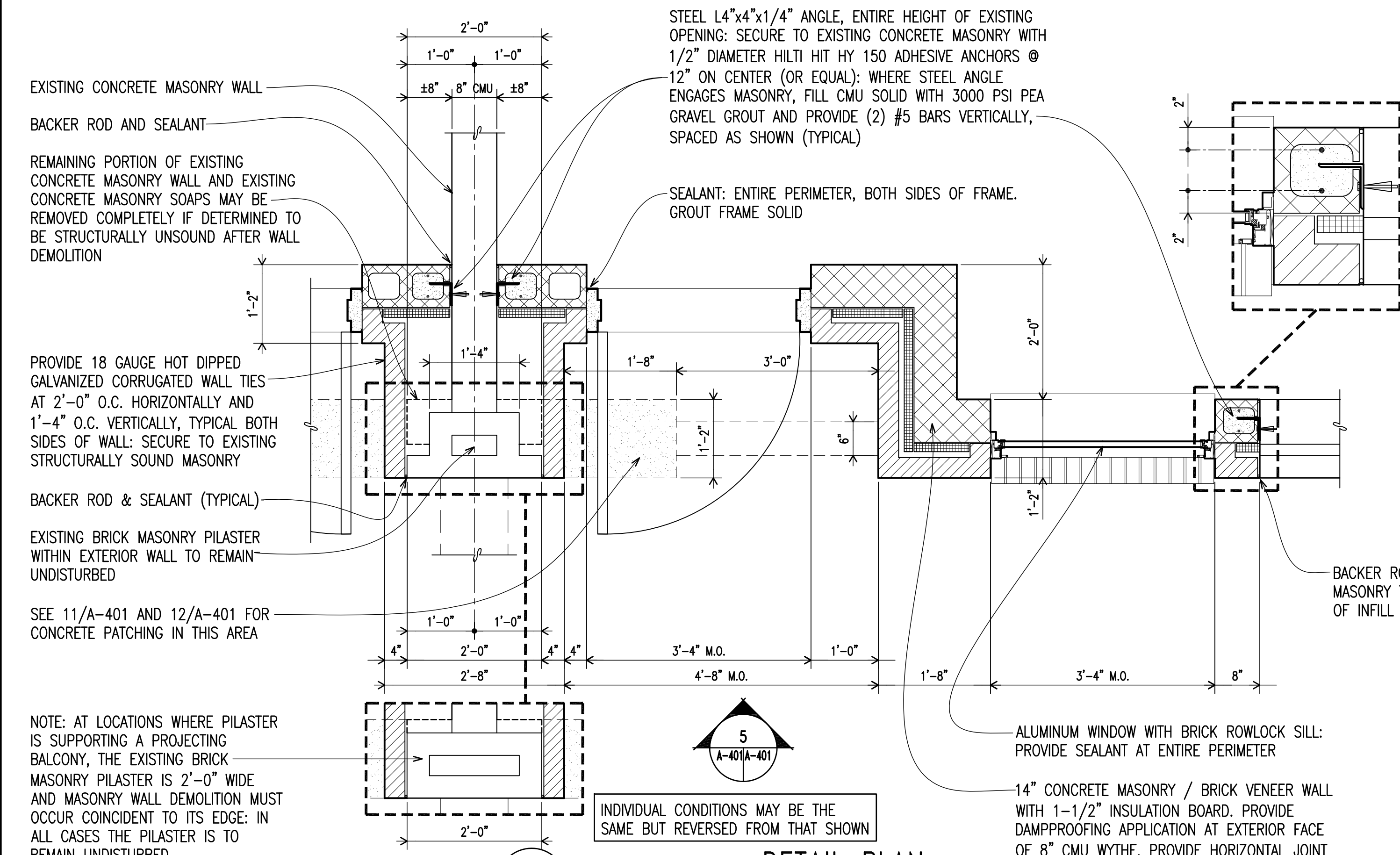


**5 TYPE A - ELEVATION**  
 CONSTRUCTION Scale: 1/2" = 1'-0"  
 INDIVIDUAL CONDITIONS MAY BE THE SAME BUT REVERSED FROM THAT SHOWN

**6 TYPE B - ELEVATION**  
 CONSTRUCTION Scale: 1/2" = 1'-0"  
 INDIVIDUAL CONDITIONS MAY BE THE SAME BUT REVERSED FROM THAT SHOWN

**7 TYPE C - ELEVATION**  
 CONSTRUCTION Scale: 1/2" = 1'-0"  
 INDIVIDUAL CONDITIONS MAY BE THE SAME BUT REVERSED FROM THAT SHOWN

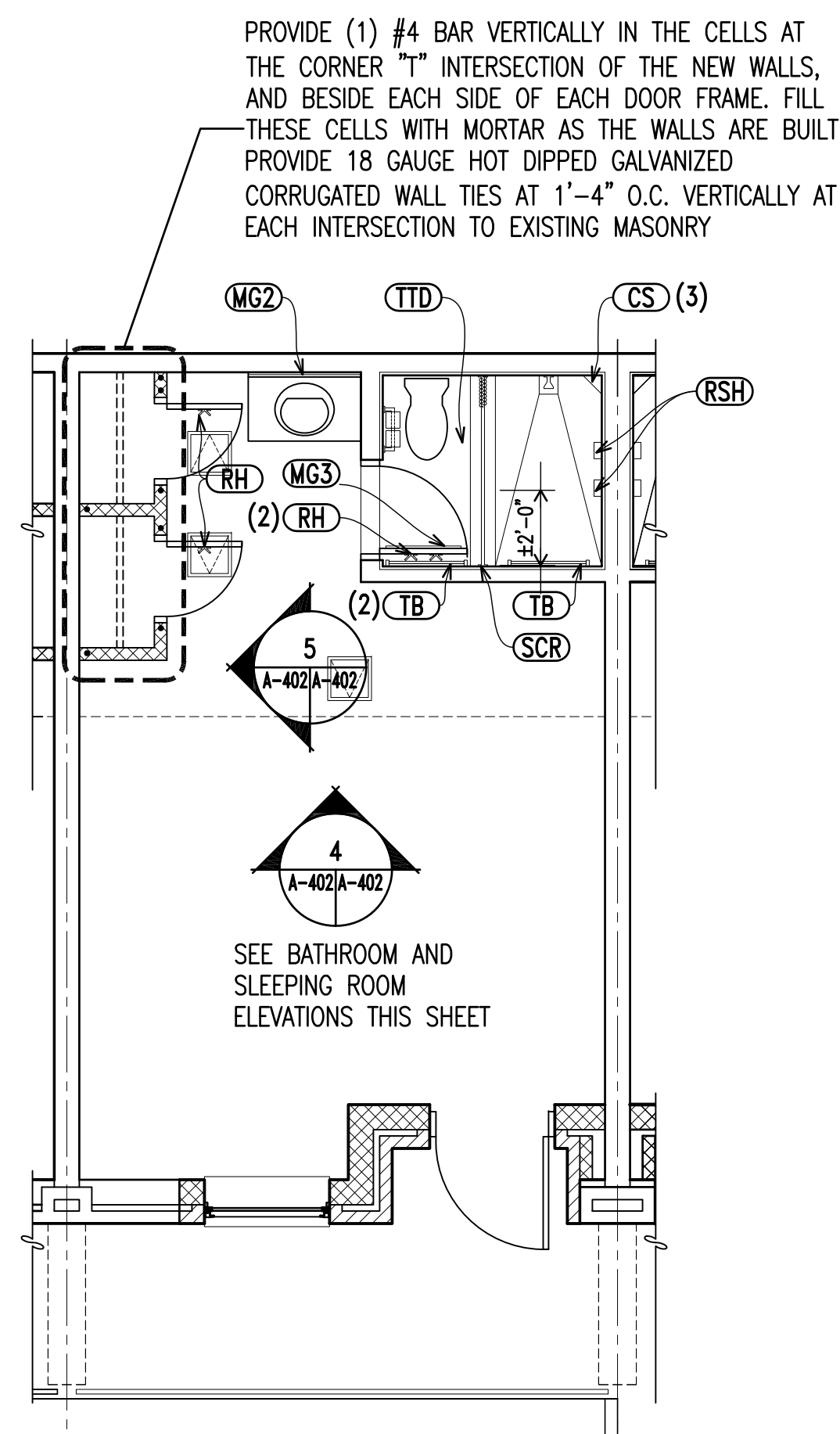
**8 TYPE D - ELEVATION**  
 CONSTRUCTION Scale: 1/2" = 1'-0"  
 INDIVIDUAL CONDITIONS MAY BE THE SAME BUT REVERSED FROM THAT SHOWN



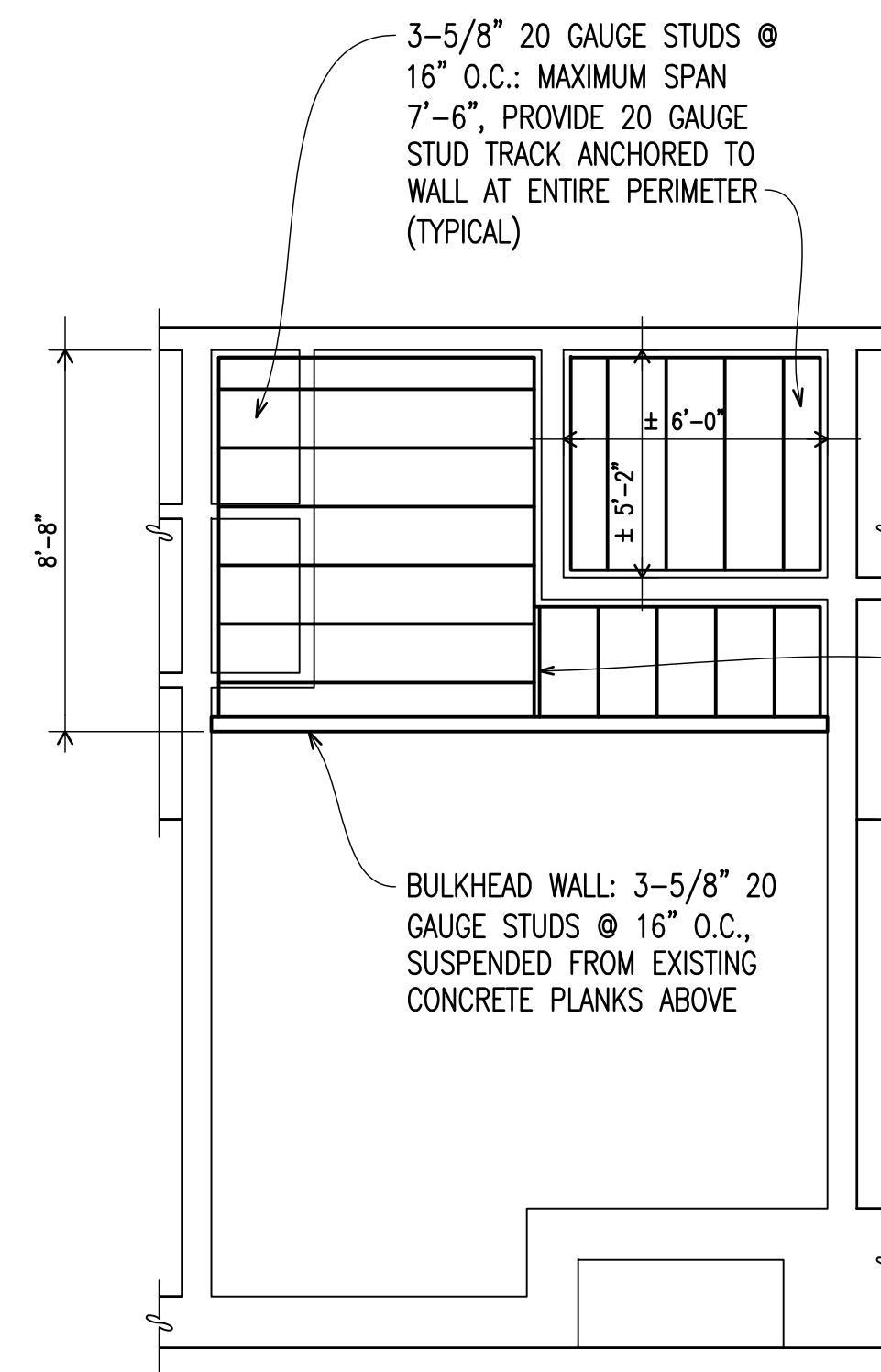
**9 TYPE A INFILL CONSTRUCTION** SCALE: 3/4"=1'-0"

**10 TYPE D INFILL CONSTRUCTION** SCALE: 3/4"=1'-0"

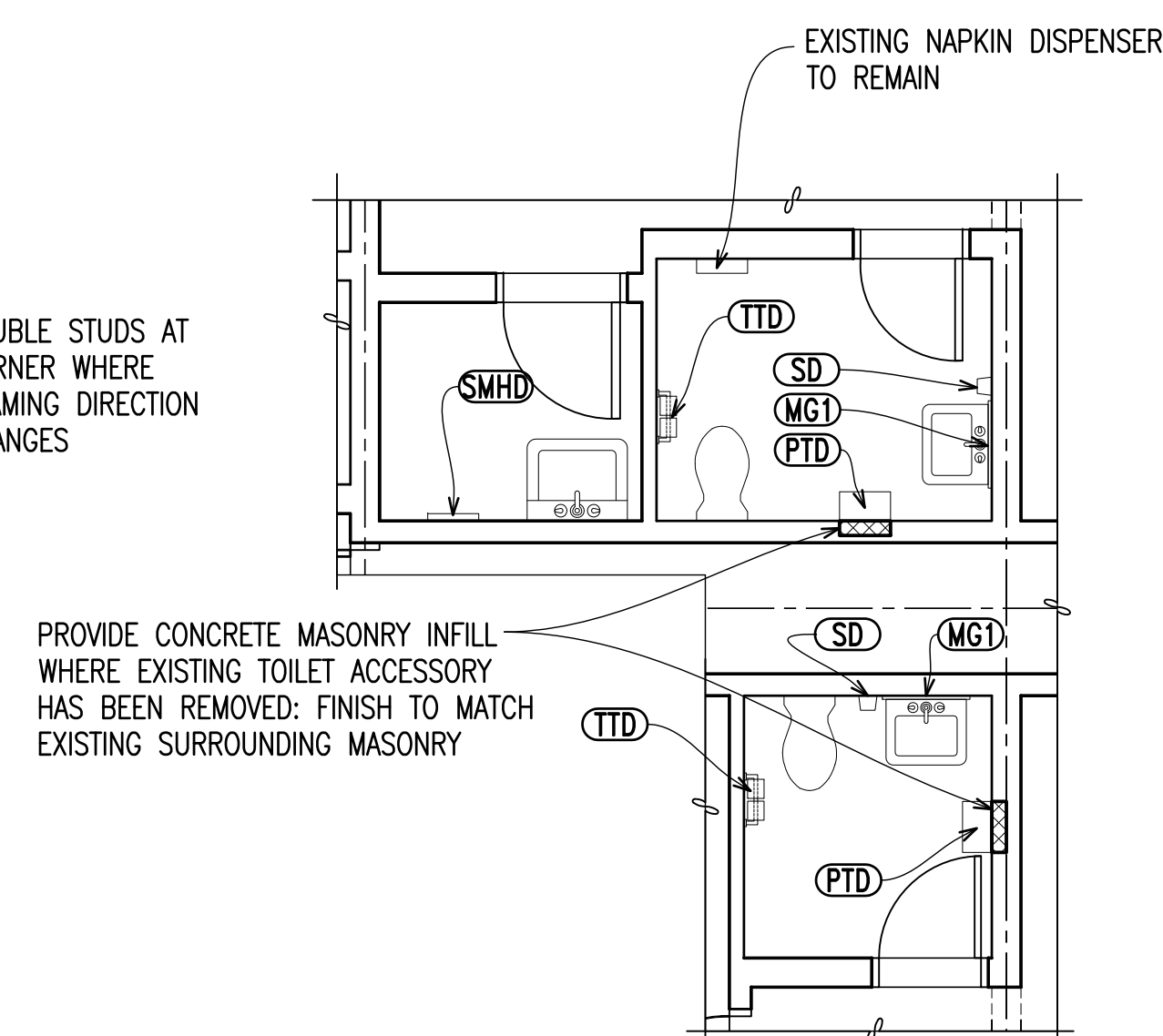
	<b>A-401</b>	
	MAUNE BELANGIA FAULKENBERRY ARCHITECTS, PA	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	<b>REPAIR BEQ BUILDING BB260</b> <b>MCB, CLNC</b>	
DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR. APPROVED: PWR OR OICC SATISFACTORY TO:	DATE: _____ DATE: _____	SIZE: F CODE: 80091 IDENT NO: 60007580 NAVFAC DRAWING NO. CONST. CONTR. NO. N40685-10-B-0031 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 15 OF 72



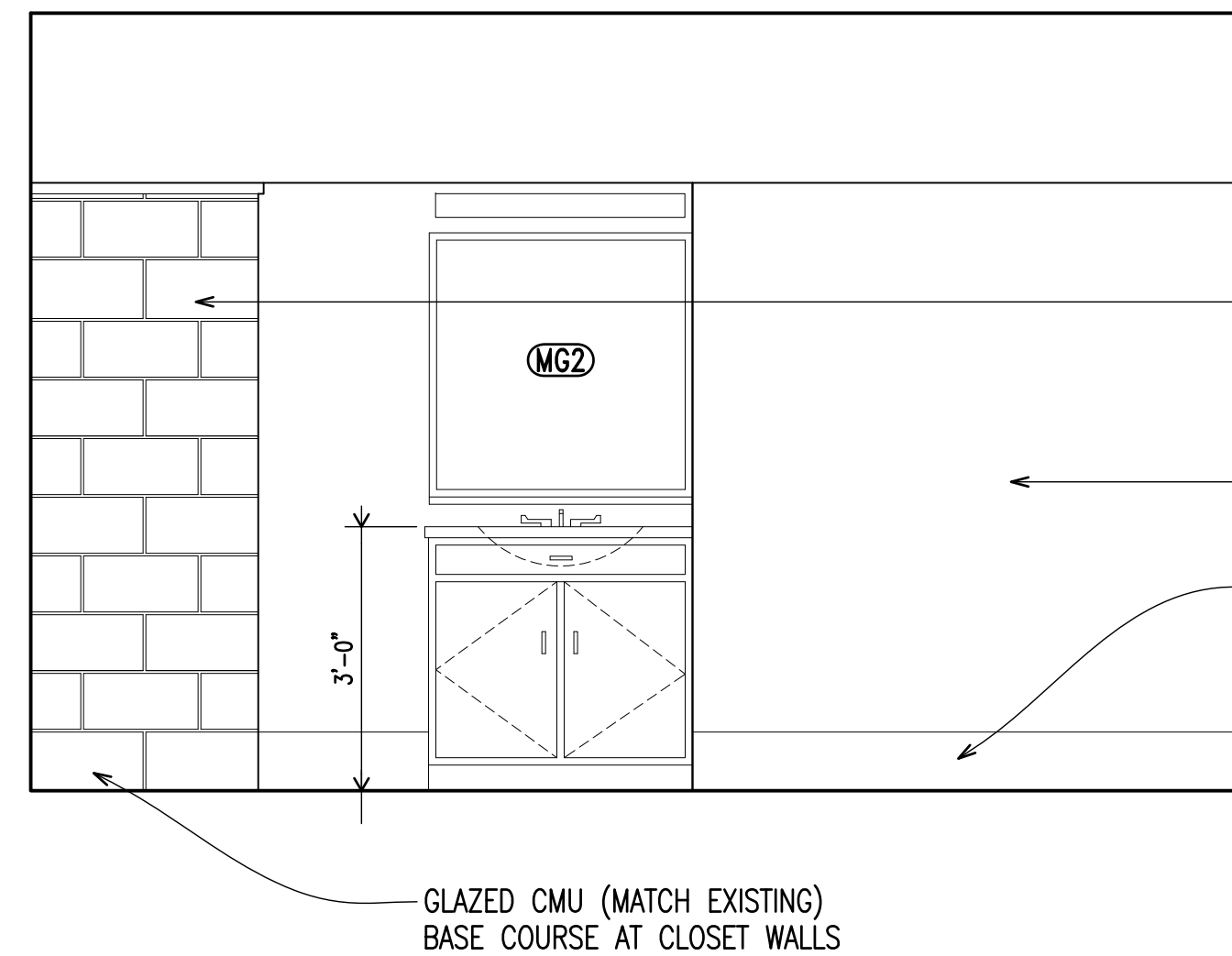
1 ENLARGED PLAN  
TYPICAL SLEEPING ROOM ACCESSORIES Scale: 1/4" = 1'-0"



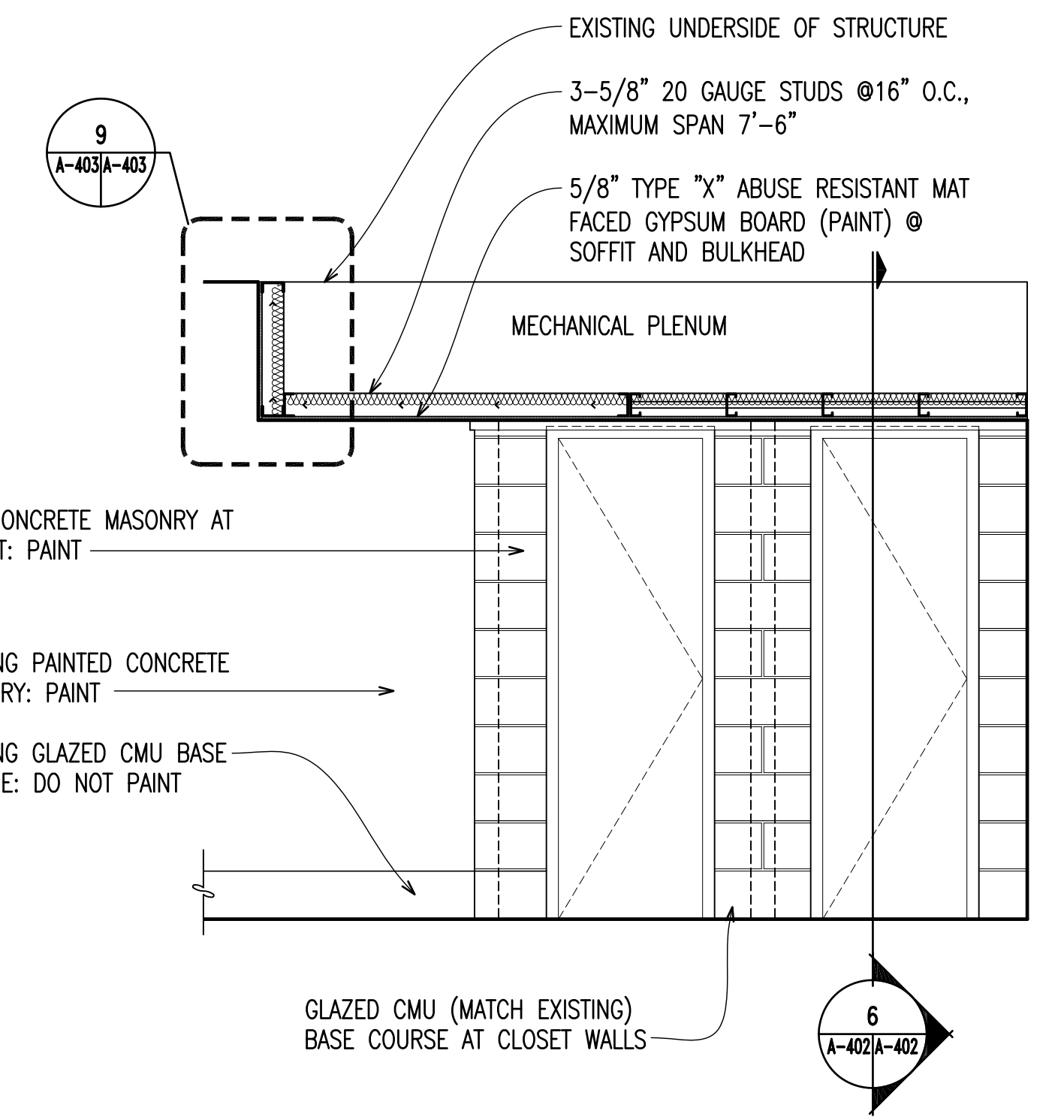
2 ENLARGED PLAN  
SOFFIT FRAMING PLAN Scale: 1/4" = 1'-0"



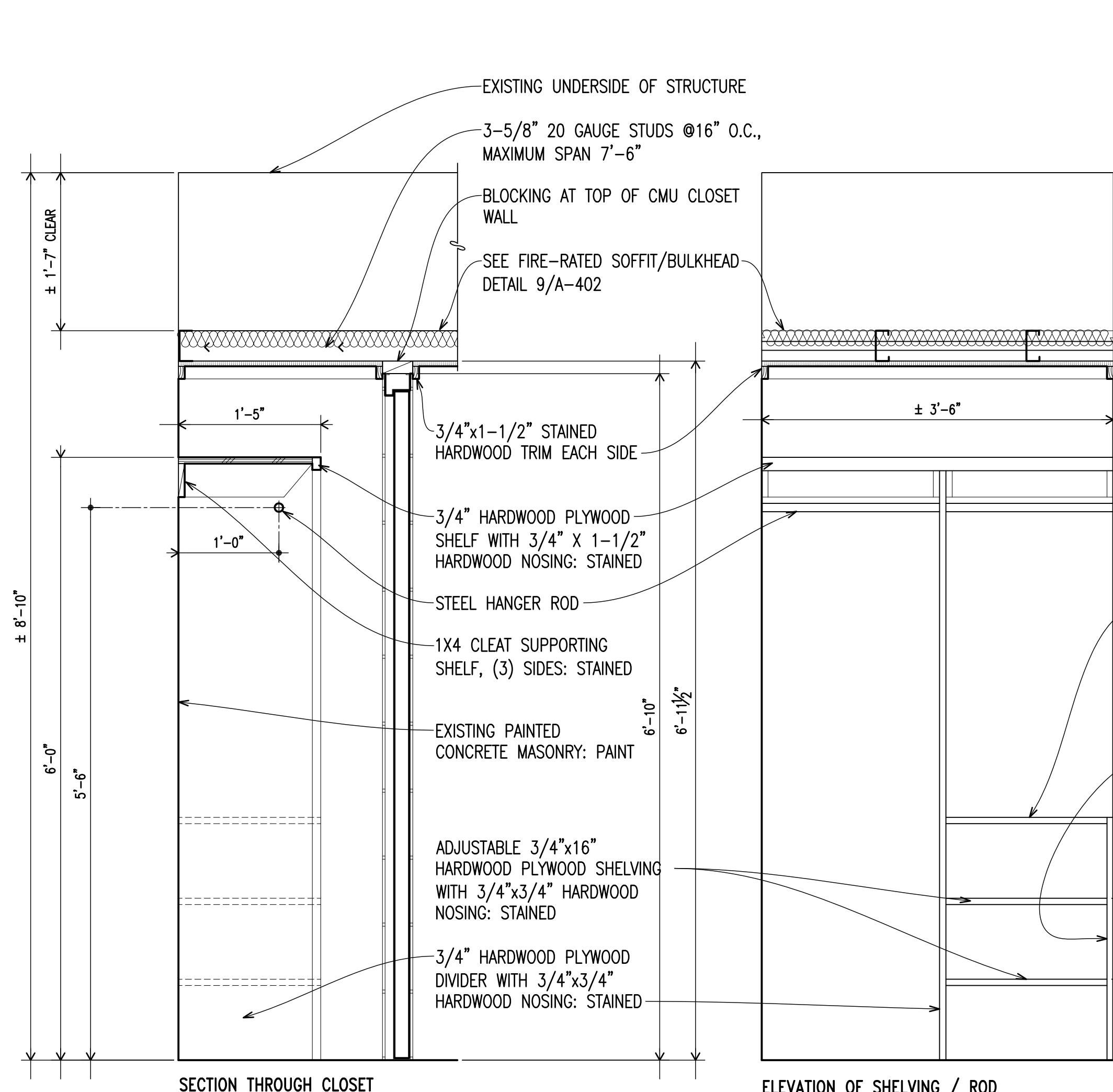
3 ENLARGED PLAN  
TYPICAL OFFICE RESTROOM CLUSTER Scale: 1/4" = 1'-0"



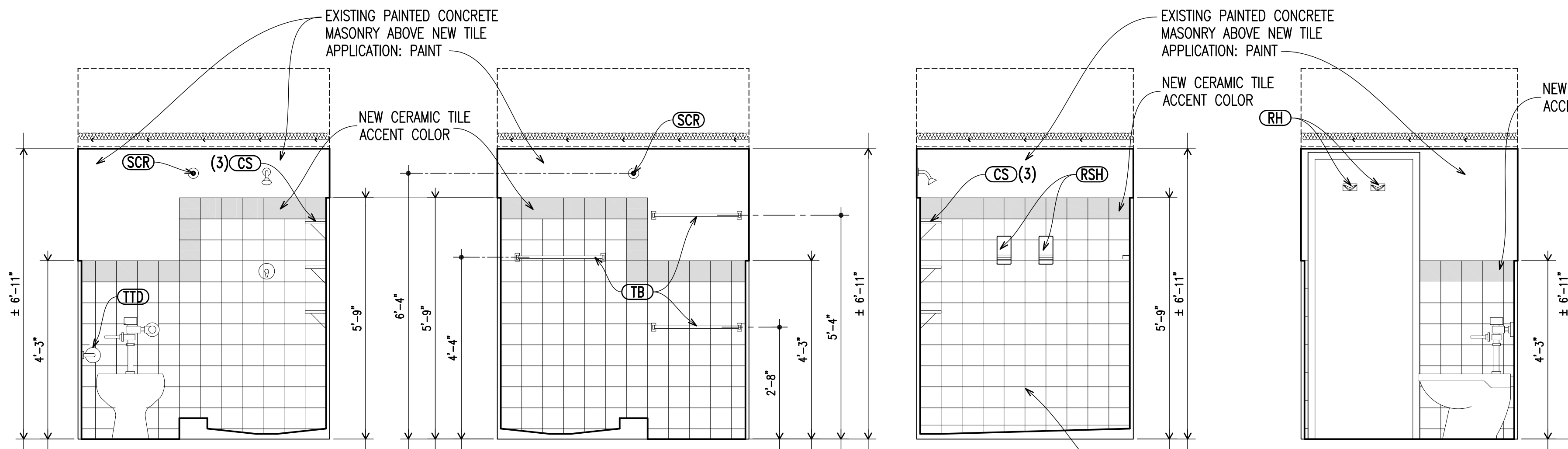
4 SLEEPING ROOM ELEVATION  
CLOSET / VANITY AREA Scale: 1/2" = 1'-0"



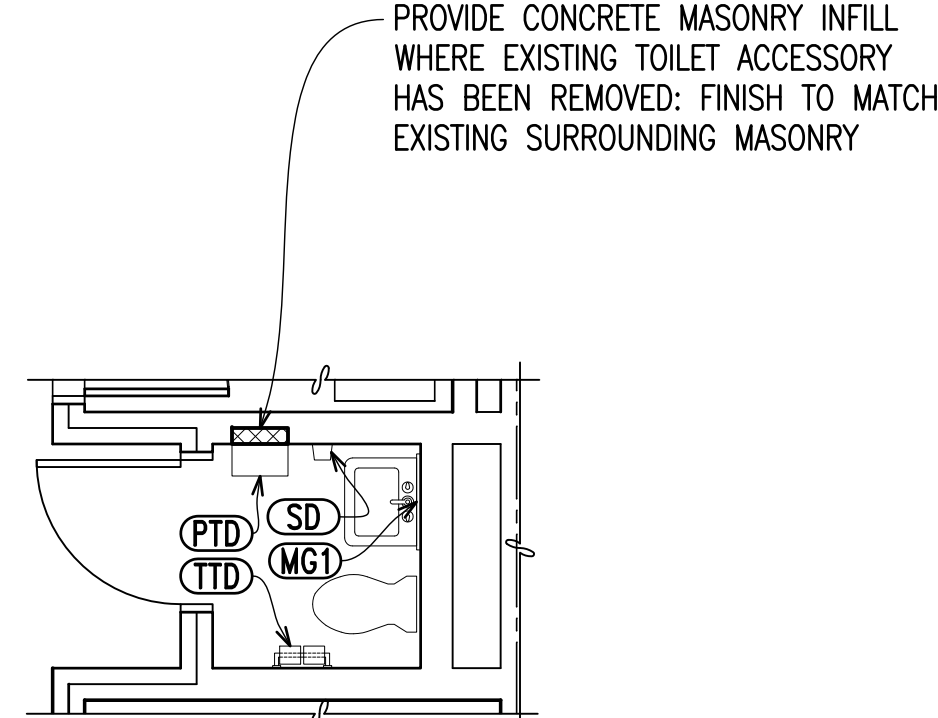
5 SLEEPING ROOM ELEVATION  
CLOSET Scale: 1/2" = 1'-0"



6 SECTION / ELEVATION  
CLOSET Scale: 1" = 1'-0"



7 BATHROOM ELEVATIONS  
SLEEPING ROOM BATHROOMS Scale: 1/2" = 1'-0"

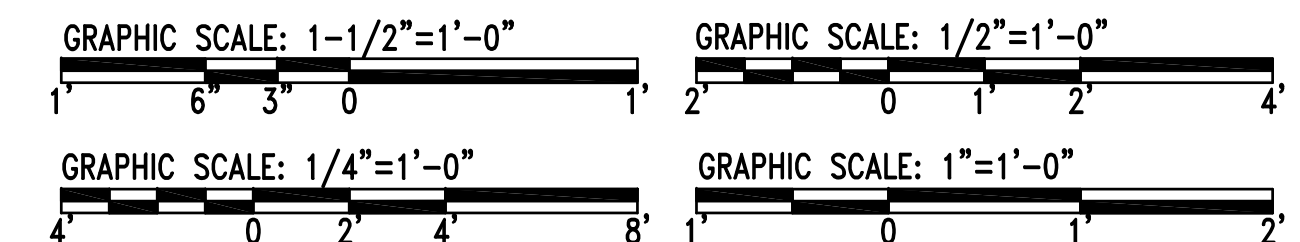


8 ENLARGED PLAN  
HEAD Scale: 1/4" = 1'-0"

TOILET ACCESSORY SCHEDULE

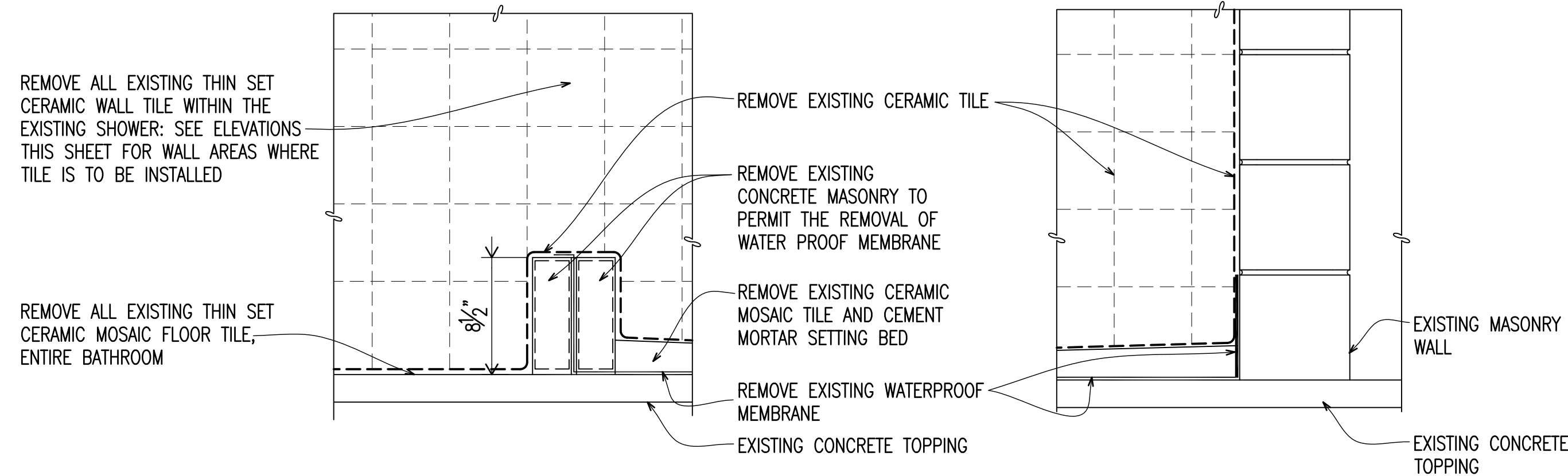
MARK	DESCRIPTION
(CS)	SOLID POLYMER CORNER SHELF
(TTD)	WALL MOUNTED TOILET TISSUE DISPENSER
(RSH)	CERAMIC TILE RECESSED SOAP HOLDER
(SD)	WALL MOUNTED SOAP DISPENSER
(SCR)	SHOWER ROD
(SC)	SHOWER CURTAIN WITH HOOKS: WIDTH OF OPENING +/- 2'-0"
(RH)	DOUBLE ROBE HOOK: MOUNT ON THE BACK OF THE DOOR
(TB)	TOWEL BAR: 24"
(MG1)	WALL MOUNTED MIRROR: 24" x 36"
(MG2)	WALL MOUNTED MIRROR: 36" x 36"
(MG3)	DOOR MOUNTED 17" x 60" MIRROR
(PTD)	PAPER TOWEL DISPENSER
(SMHD)	SHELF / MOP HOLDER / HOOKS

9 SOFFIT/BULKHEAD  
30 MINUTE FIRE RATED Scale: 1-1/2" = 1'-0"



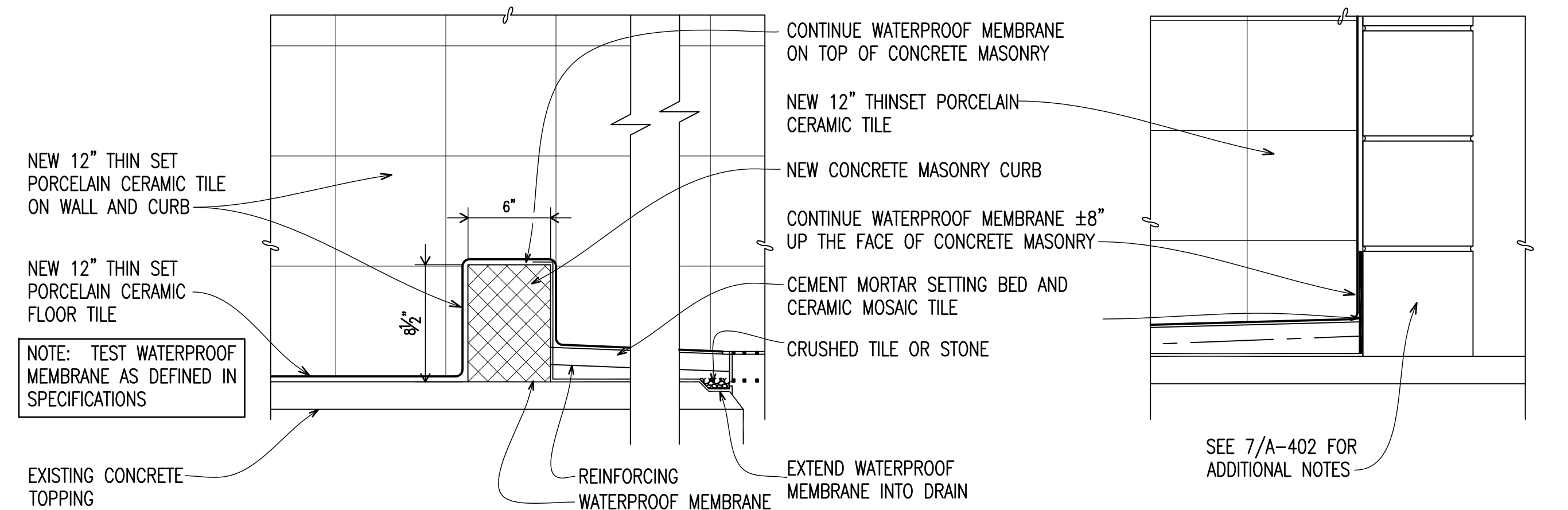
		<p><b>A-402</b></p>	
		<p>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA</p>	
<p>REPAIR BEQ BUILDING BB260 MCB, CLNC</p>		<p>DETAILS</p>	
<p>DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR.</p>		<p>DATE: 10/20/11</p>	
<p>APPROVED: PWO OR OICC</p>		<p>DATE: 10/20/11</p>	
<p>SATISFACTORY TO:</p>		<p>DATE:</p>	
<p>SCALE: AS NOTED</p>		<p>SPEC: 05-10-0031</p>	
<p>NAVAC DRAWING NO. 60007581</p>		<p>CONTR. NO. N40085-10-B-0031</p>	
<p>SIZE: F 80091</p>		<p>SHEET 16 OF 72</p>	





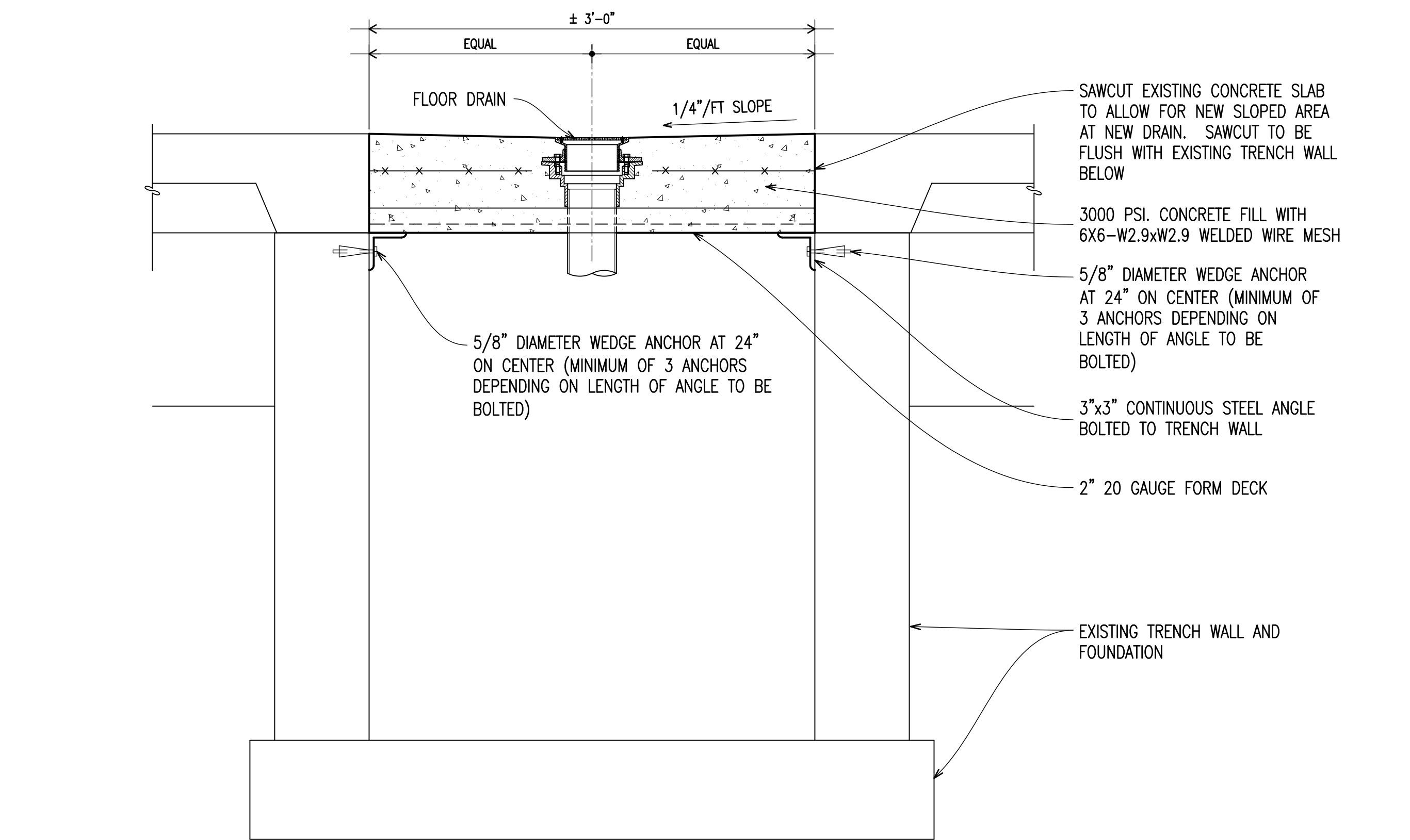
1  
A-104(A)-403 DEMOLITION  
SHOWER CURB  
Scale: 1-1/2" = 1'-0"

2  
A-104(A)-403 DEMOLITION  
SHOWER WALL  
Scale: 1-1/2" = 1'-0"

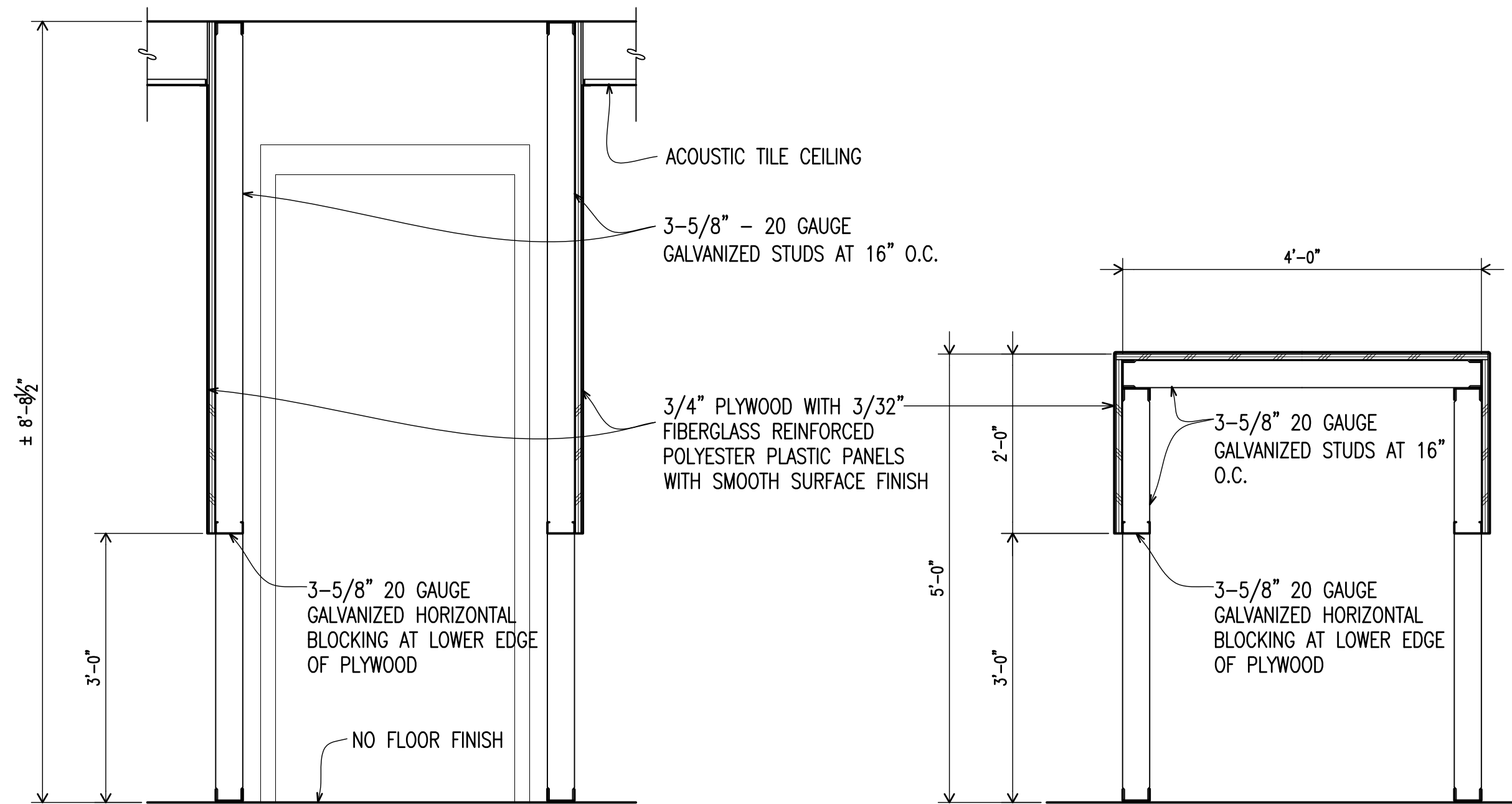


3  
A-104(A)-403 CONSTRUCTION  
SHOWER CURB  
Scale: 1-1/2" = 1'-0"

4  
A-104(A)-403 CONSTRUCTION  
SHOWER WALL  
Scale: 1-1/2" = 1'-0"

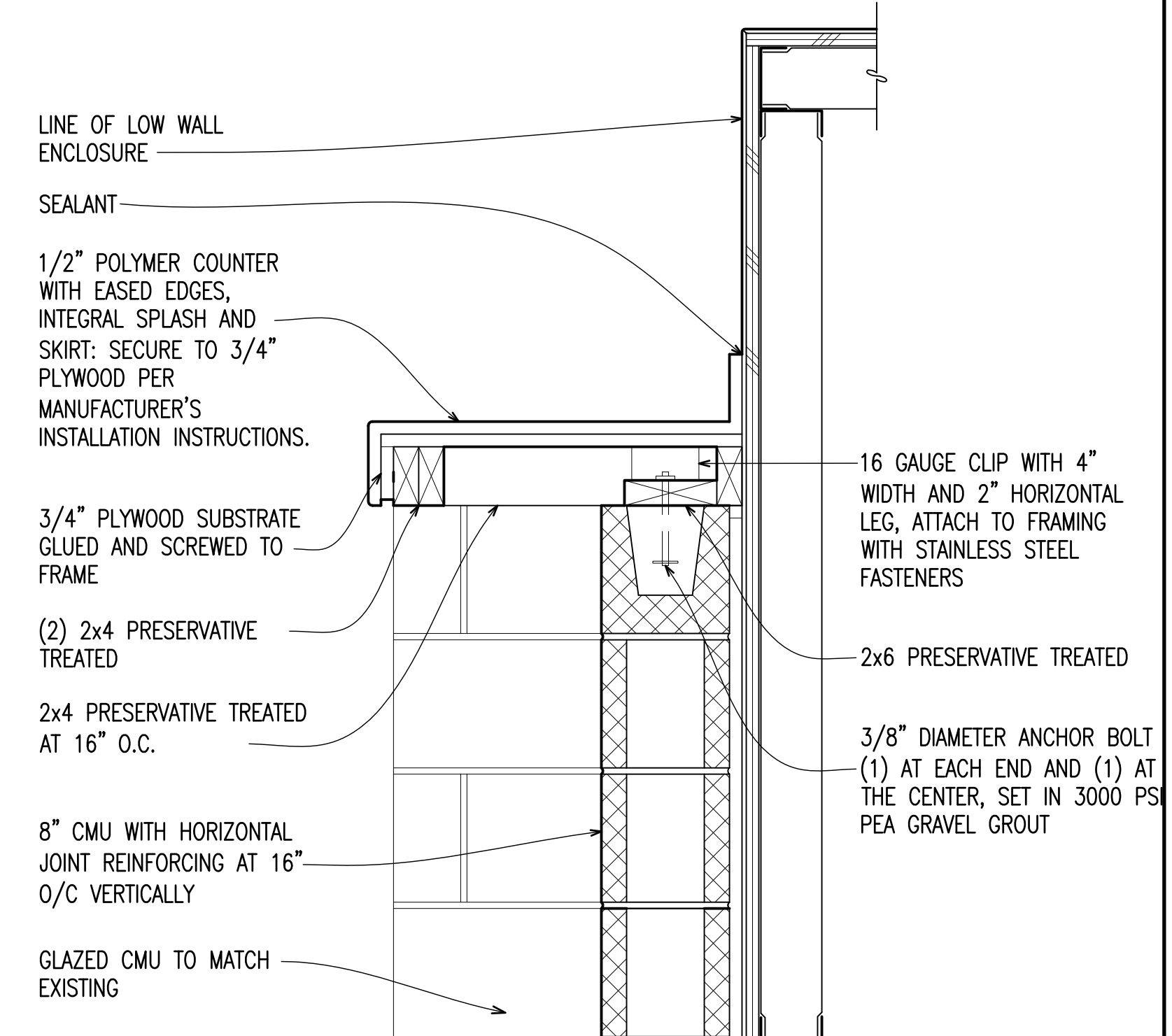


5  
A-103(A)-403 LAUNDRY ROOM  
CONC. FLOOR SLAB PATCH & FLOOR DRAIN  
Scale: 1-1/2" = 1'-0"

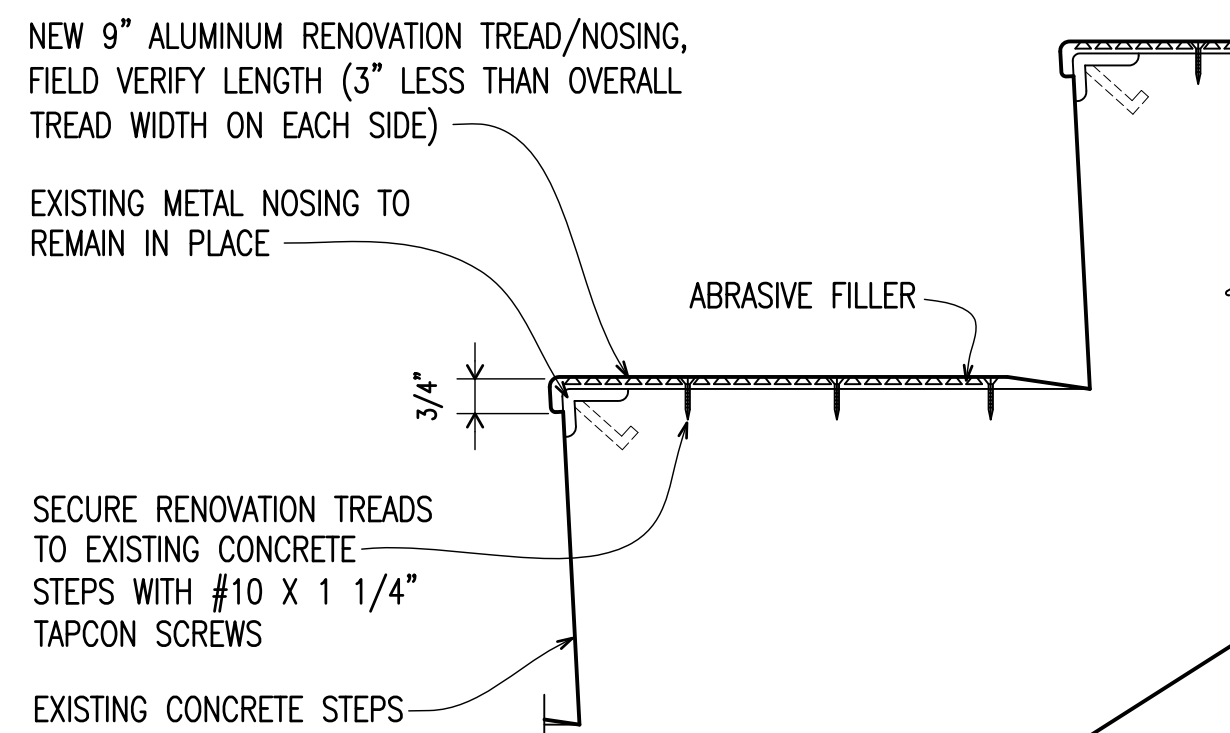


6  
A-103(A)-403 LAUNDRY ROOM  
SECTION THRU DRYER AREA  
Scale: 3/4" = 1'-0"

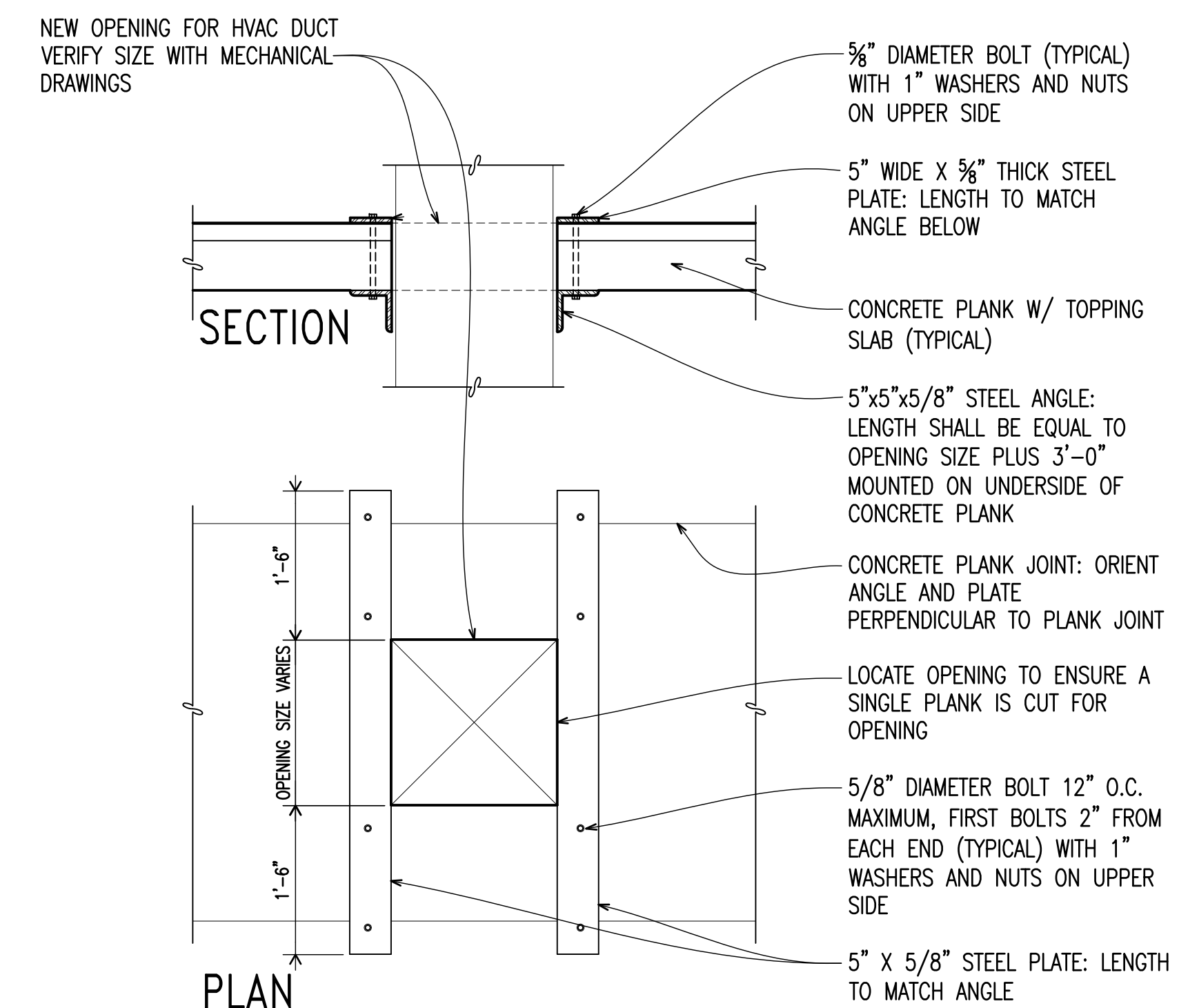
7  
A-103(A)-403 LAUNDRY ROOM  
SECTION THRU WASHER AREA  
Scale: 3/4" = 1'-0"



8  
A-103(A)-403 LAUNDRY ROOM  
SECTION THRU CLOTHES FOLDING TABLE  
Scale: 1-1/2" = 1'-0"



9  
A-102(A)-403  
STAIR TREAD SECTION  
Scale: 3" = 1'-0"



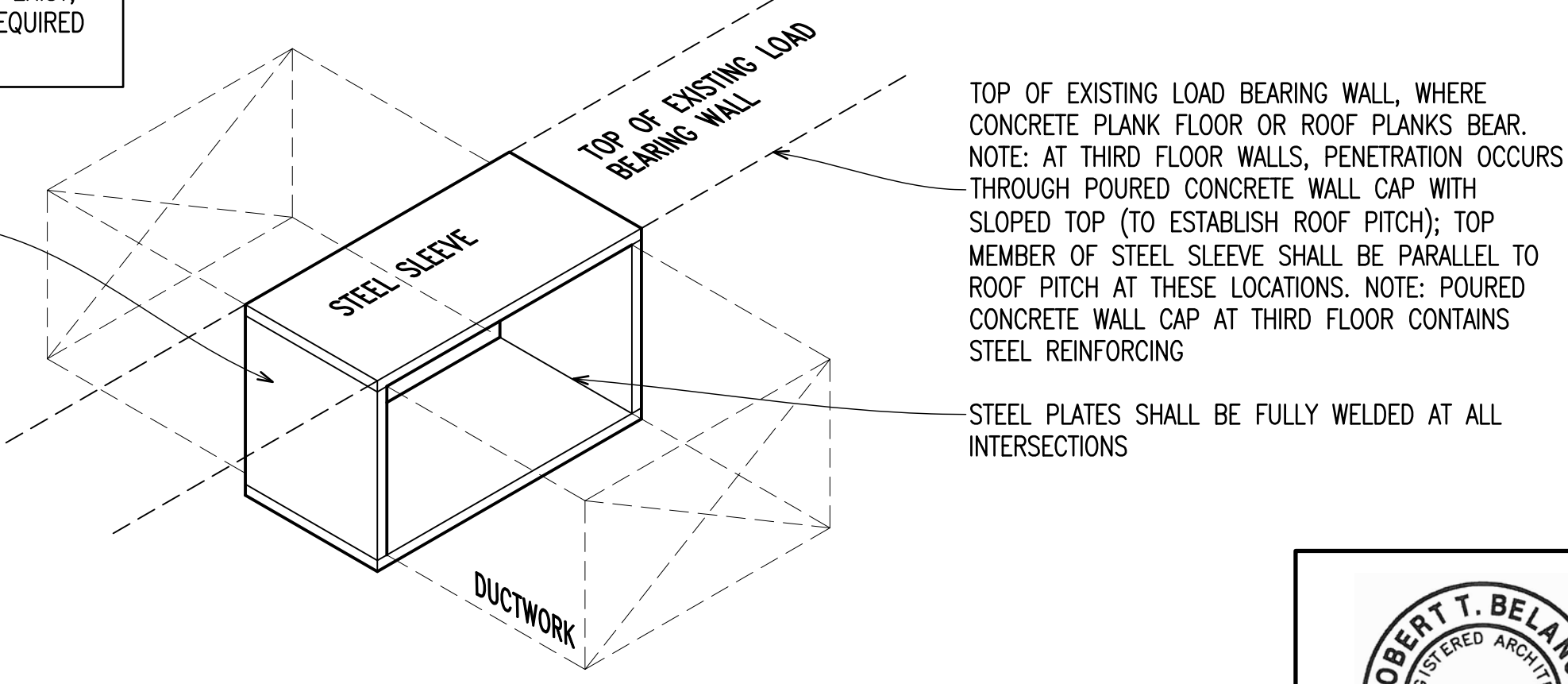
10  
A-102(A)-403 AT MECHANICAL PENETRATIONS OUTSIDE OF MECH. CHASE  
HVAC FLOOR OPENING DETAIL  
Scale: 3/4" = 1'-0"

CONTRACTOR SHALL PROVIDE WELDED STEEL PLATE DUCT SLEEVES AT ALL LOCATIONS WHERE DUCTWORK PASSES THROUGH LOAD BEARING WALLS. AT MOST LOCATIONS, PENETRATIONS THROUGH WALLS EXIST, AND EXISTING PENETRATIONS SHALL BE ENLARGED WHERE REQUIRED TO ACCOMMODATE NEW DUCTWORK SIZES

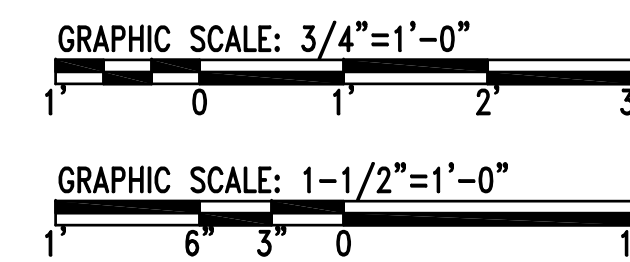
DUCT SLEEVES SHALL BE CONSTRUCTED OF 1/2" STEEL PLATE, WELDED IN A RECTANGULAR 4 SIDED SLEEVE AS SHOWN, SIZED TO ACCOMMODATE SPECIFIC DUCTS AS SPECIFIED ON THE MECHANICAL PLANS, INCLUDING DUCT INSULATION WHERE IT IS CALLED FOR

WHERE DUCT SLEEVES EXIST, REMOVE EXISTING DUCT SLEEVES AND PROVIDE NEW DUCT SLEEVES AS DETAILED

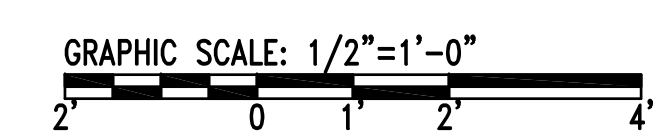
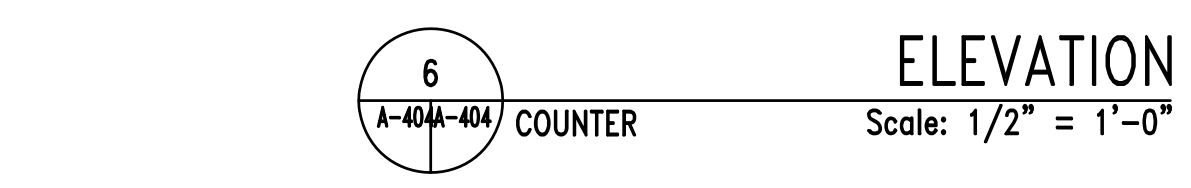
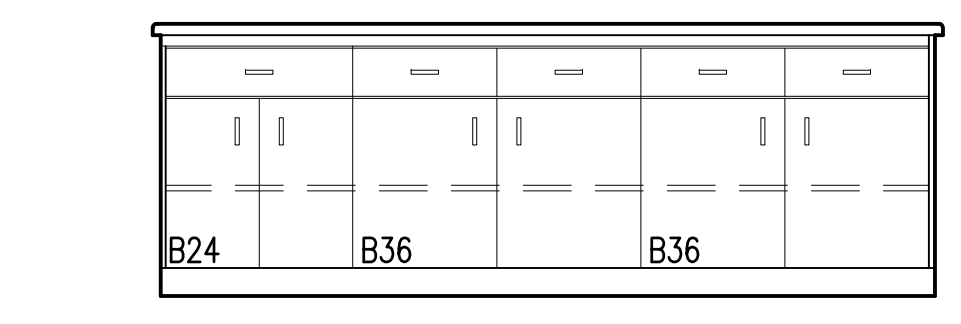
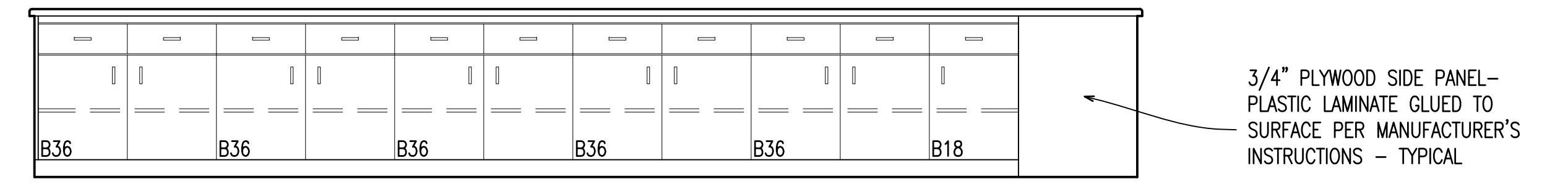
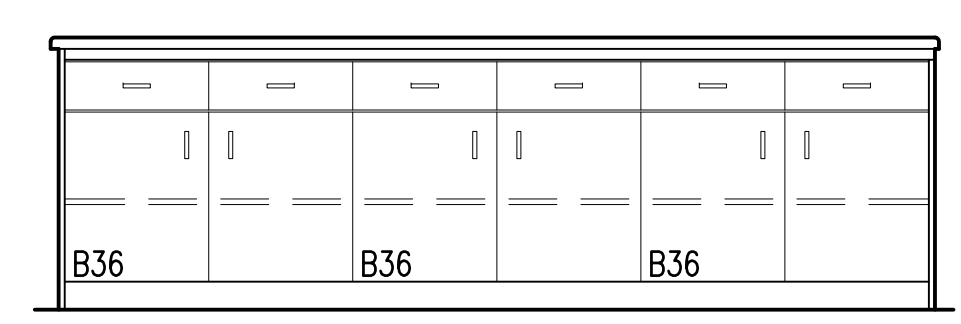
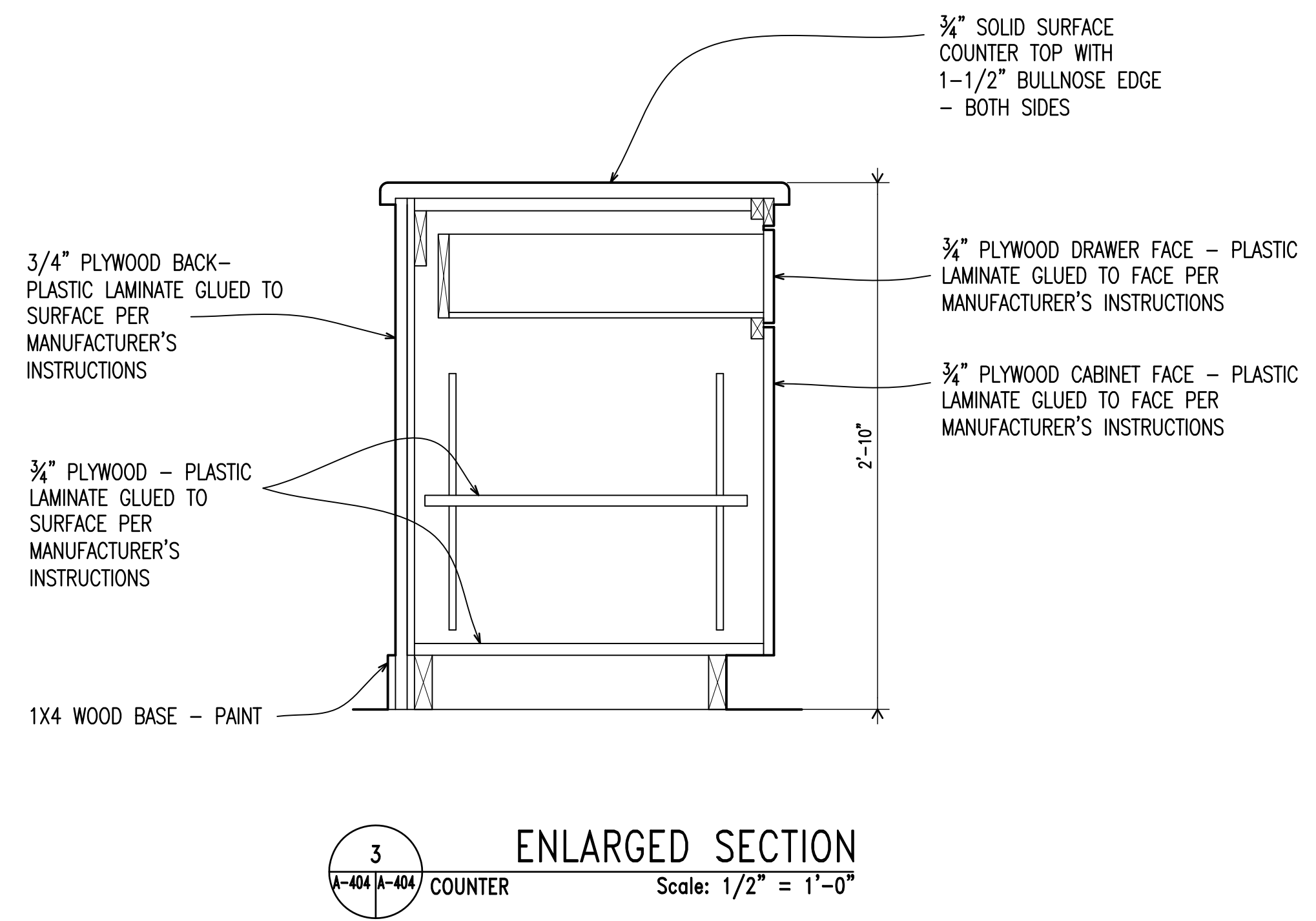
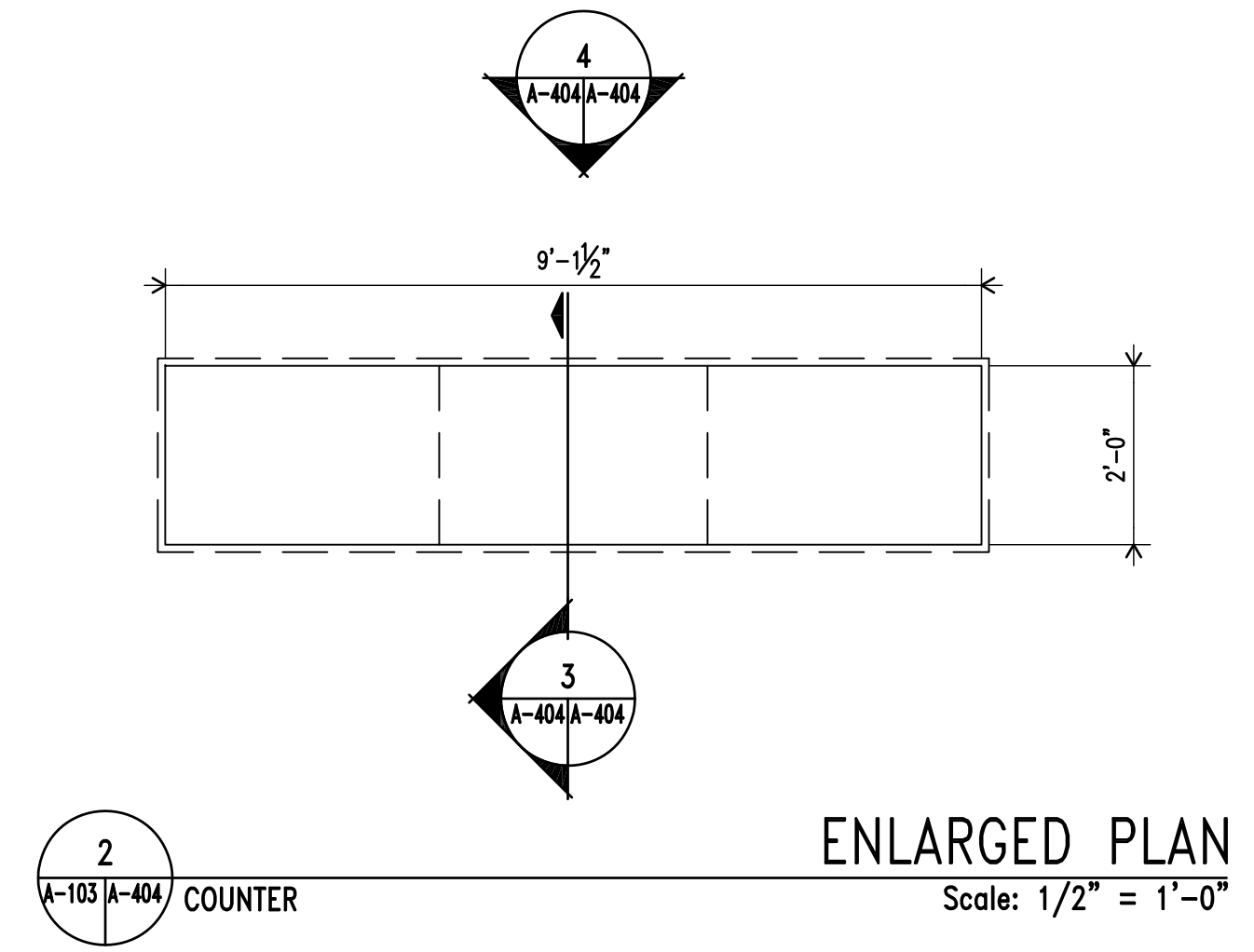
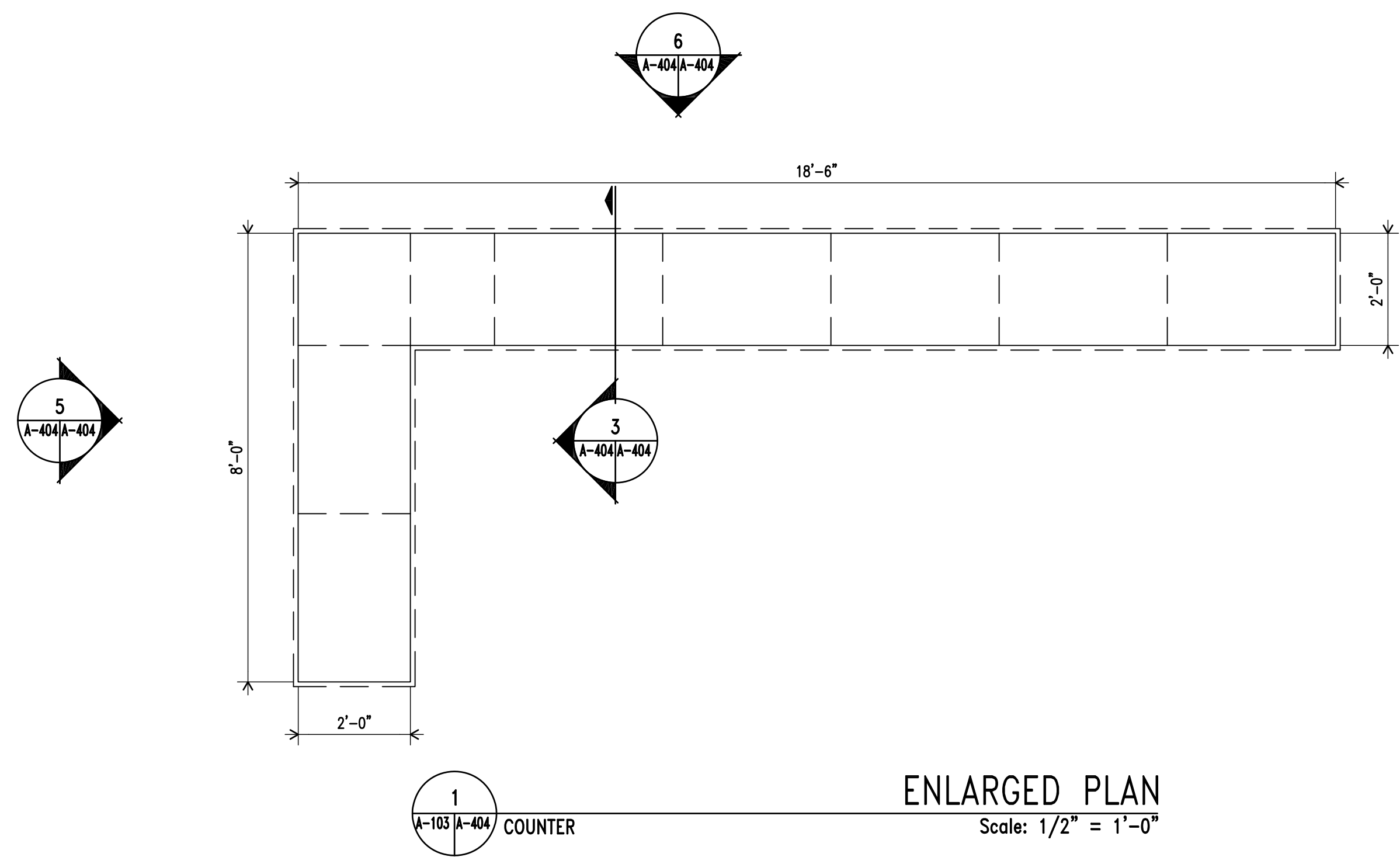
NOTE: SLEEVES ARE ONLY REQUIRED WHERE DUCTS PENETRATE LOAD BEARING WALLS. ALL 8" CONCRETE MASONRY WALLS AND 6" CONCRETE MASONRY MECHANICAL CHASE WALLS SHALL BE CONSIDERED TO BE LOAD BEARING, ALL OTHER WALLS SHALL BE CONSIDERED TO BE NON-LOAD BEARING



11  
A-403(A)-403  
DUCT SLEEVE DETAIL  
Scale: 1-1/2" = 1'-0"

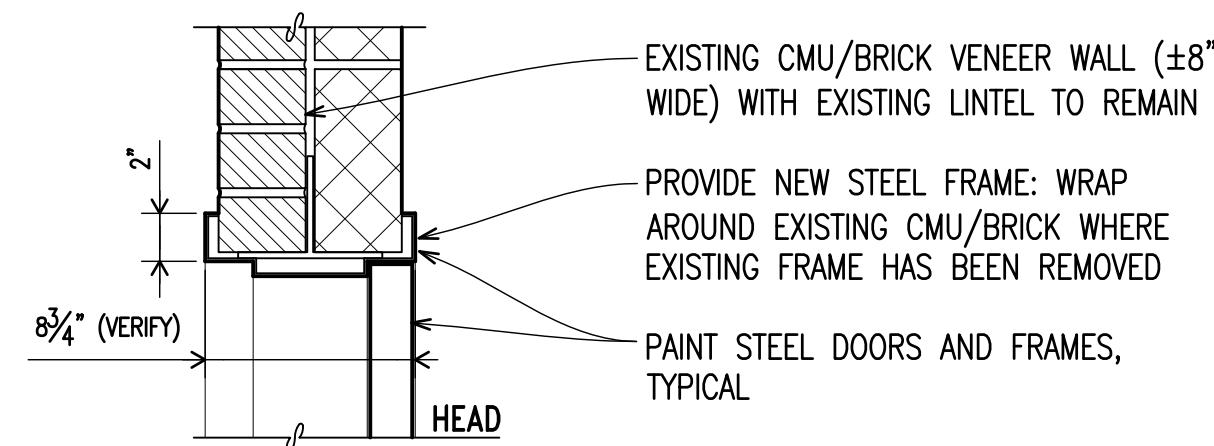


		<b>A-403</b>	
		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC DATE:		REPAIR BEQ BUILDING BB260 MCB, CLNC	
SATISFACTORY TO: DATE:		DETAILS NAVFAC DRAWING NO. <b>60007582</b> CONSTR. CONTR. NO. N4085-10-B-0031 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 17 OF 72	



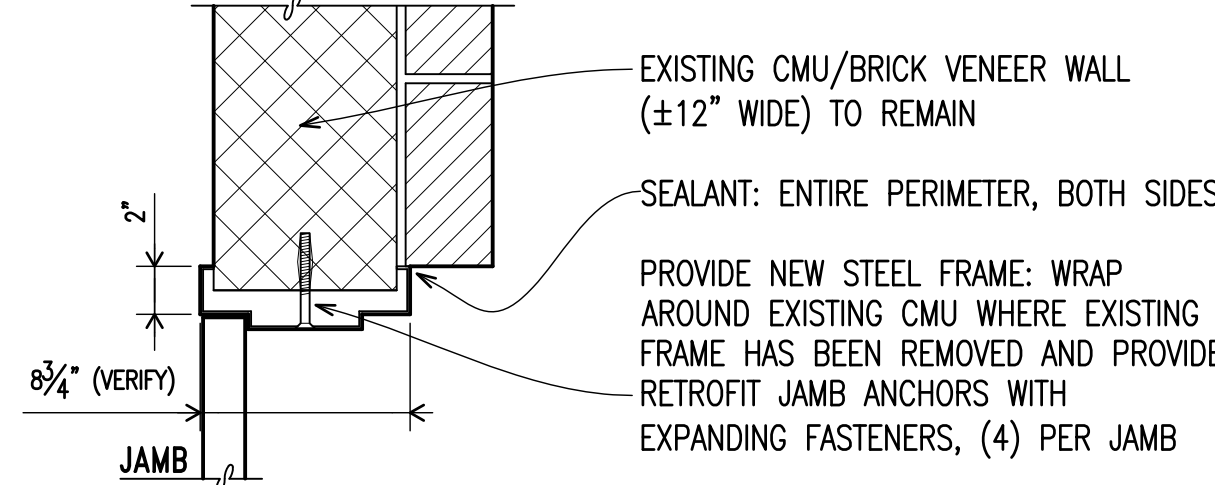
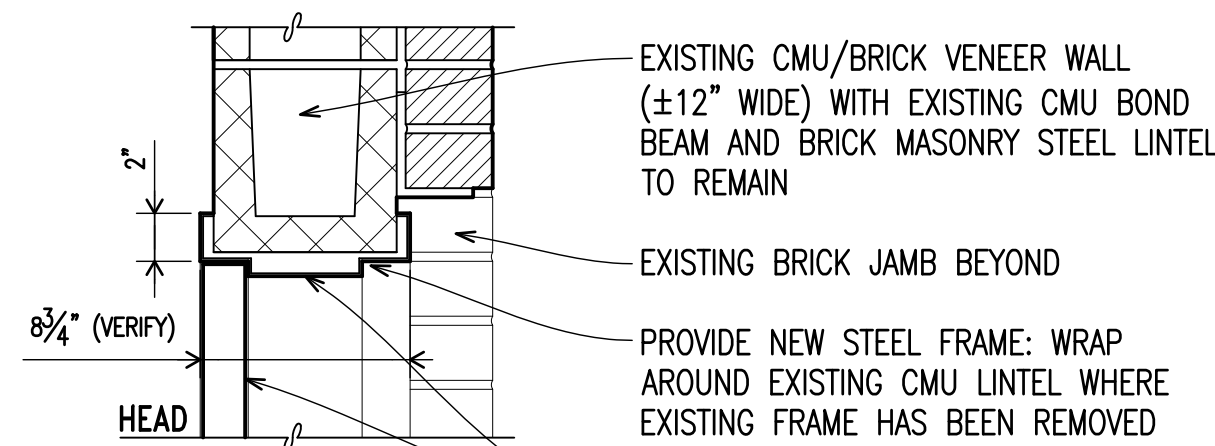
		<b>A-404</b>	
		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR.		<b>REPAIR BEQ BUILDING BB260</b> <b>MCB, CLNC</b>	
APPROVED: PWO OR OICC Satisfactory To:		DATE:	NAVFAC DRAWING NO. <b>60007583</b> CONST. CONTR. NO. N40685-10-B-0031
MEFA NO. 1021		SIZE: <b>F 80091</b>	DETAILS
SCALE: AS NOTED		SPEC. 05-10-0031	SHEET 18 OF 72



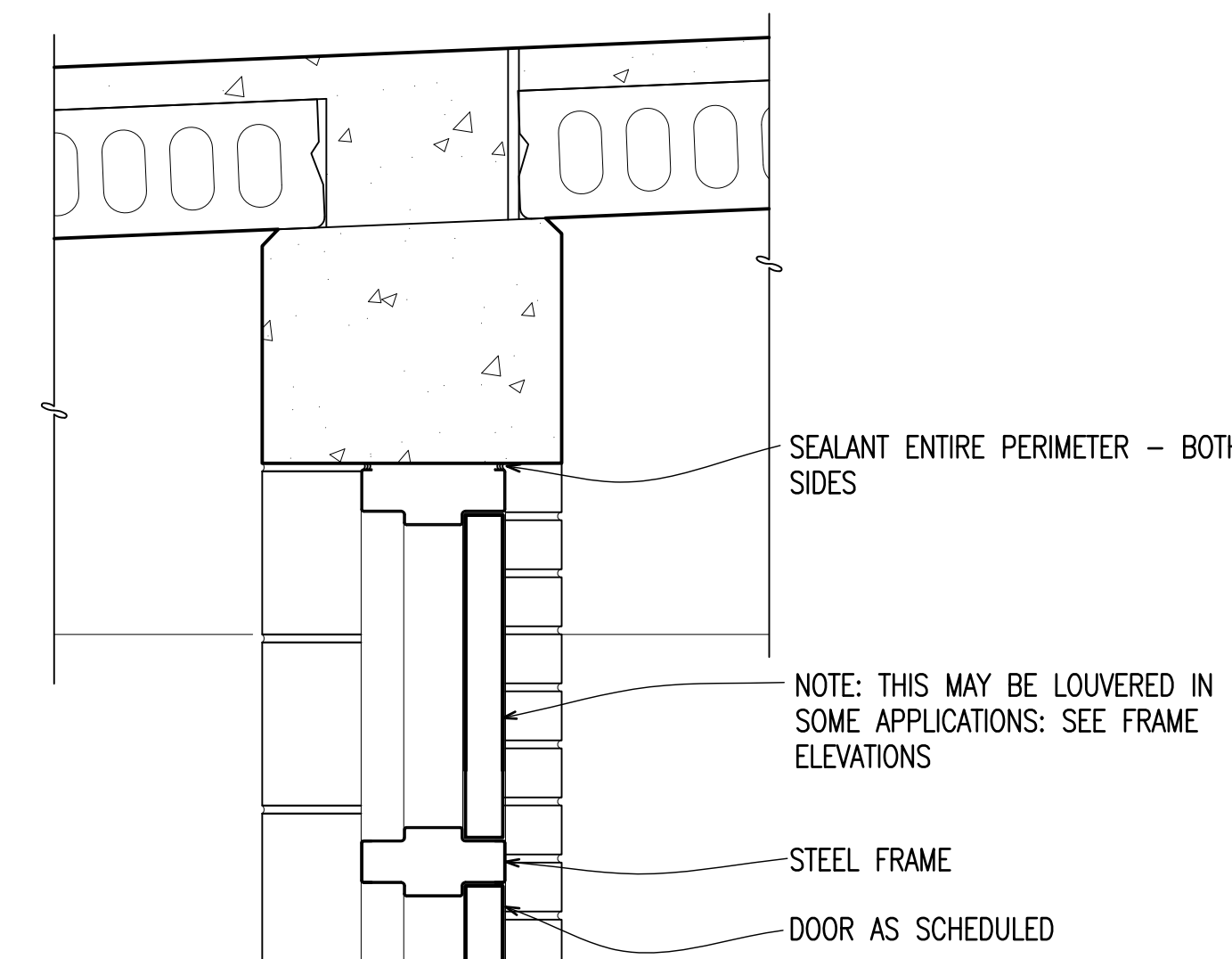
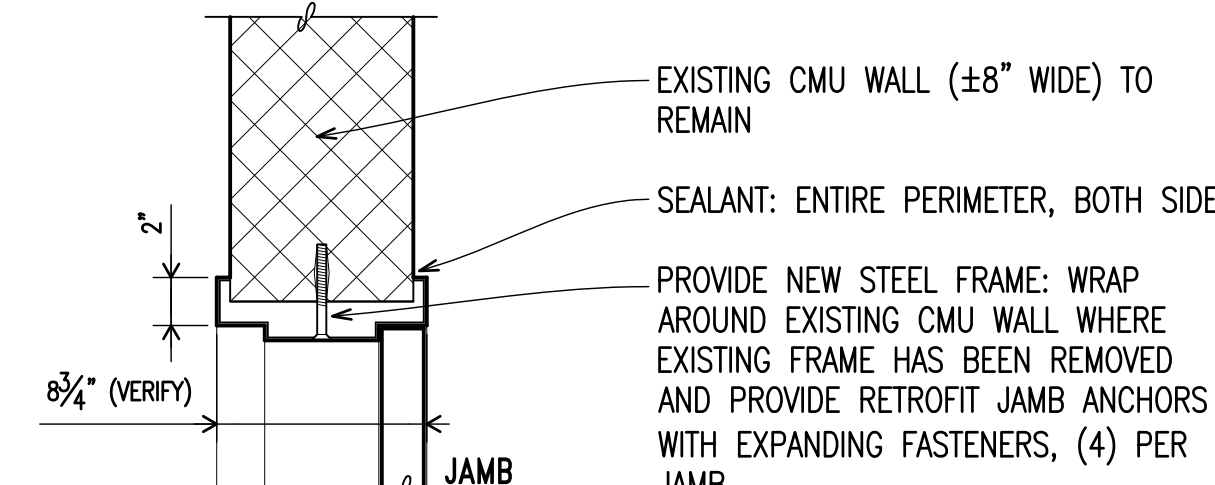
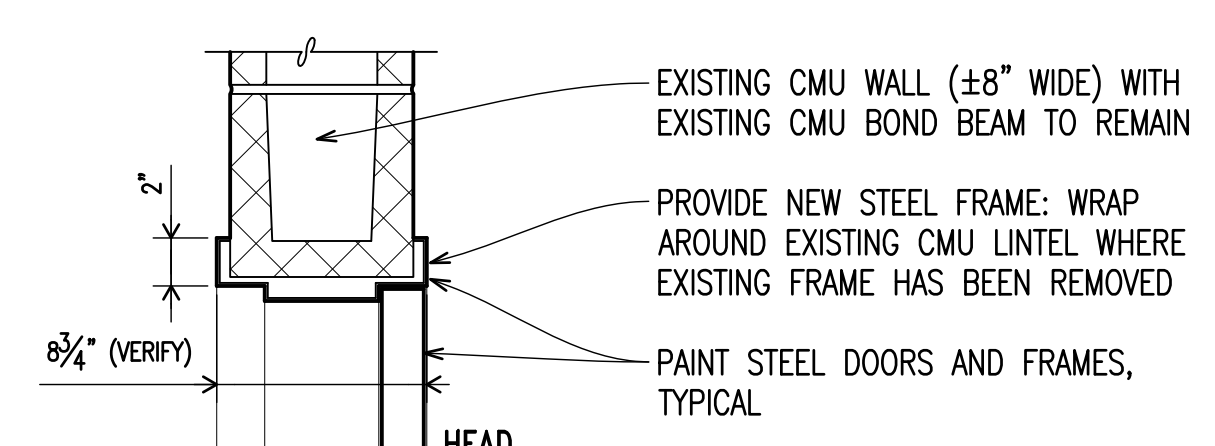


NOTE: DOOR POSITION IN FRAME MAY BE REVERSED

NOTE: AT SOME LOCATIONS THE WALL IS COMPOSED OF BRICK MASONRY ON EACH SIDE



NOTE: WALLS AT SECOND AND THIRD FLOORS ARE CMU WITHOUT BRICK MASONRY.

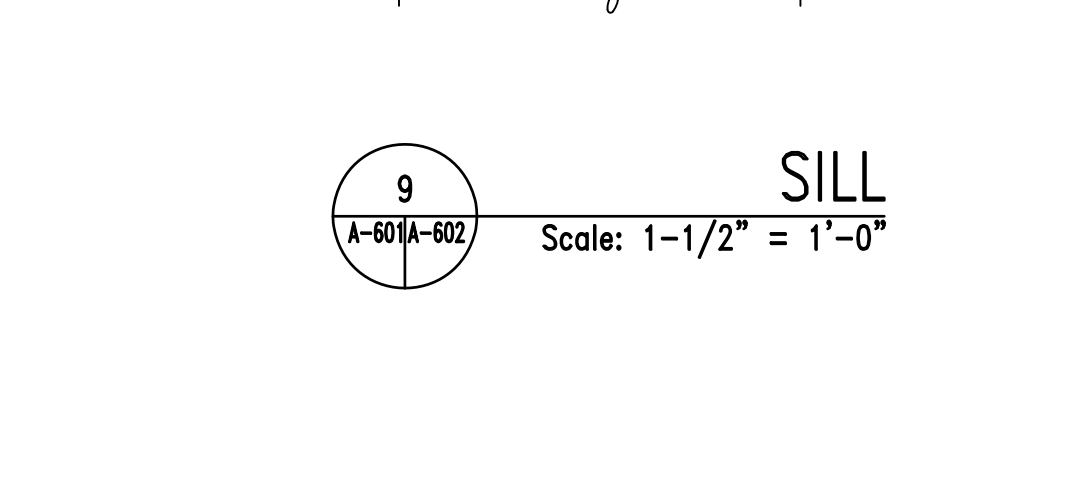
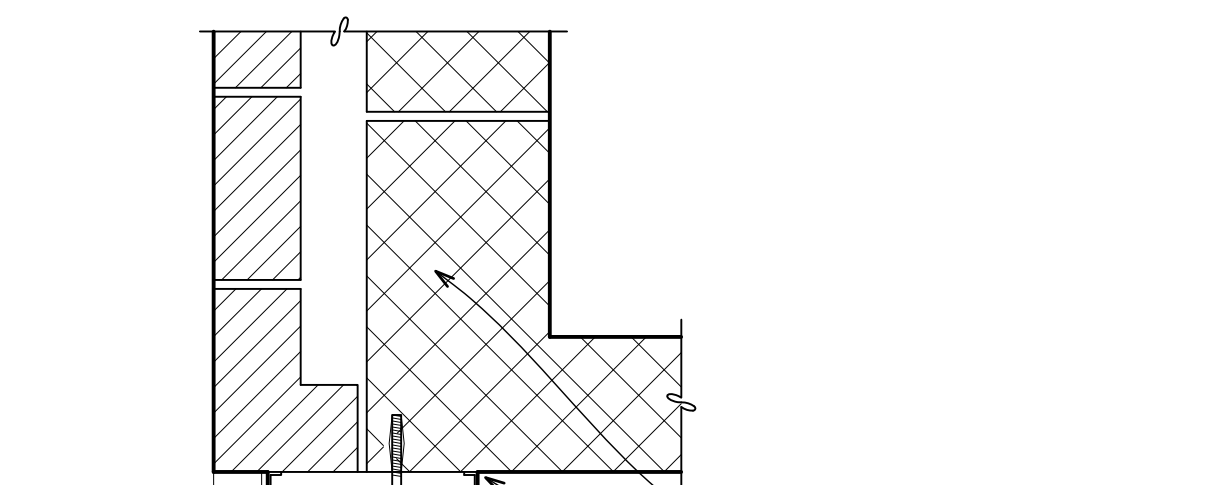
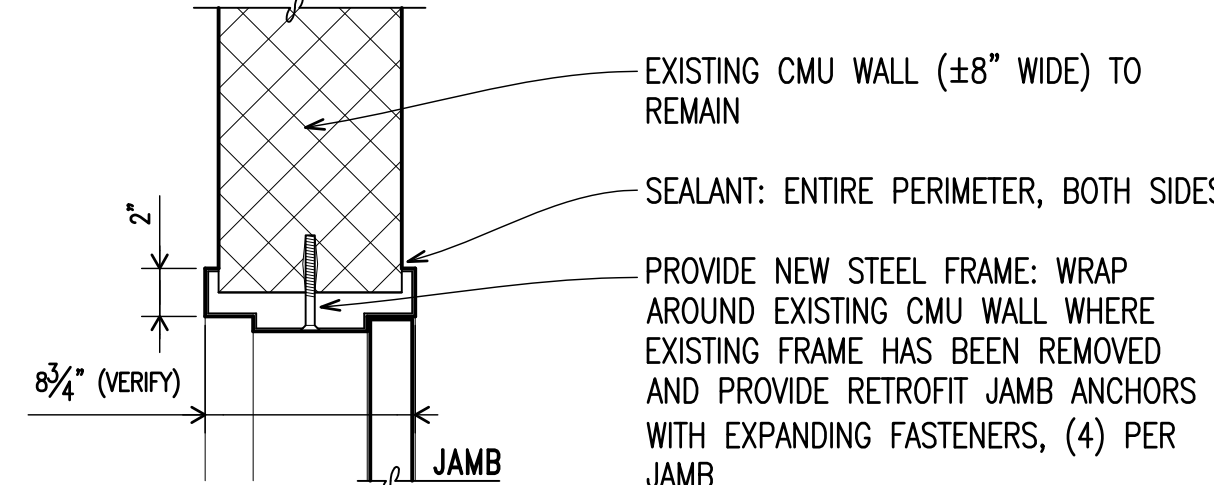
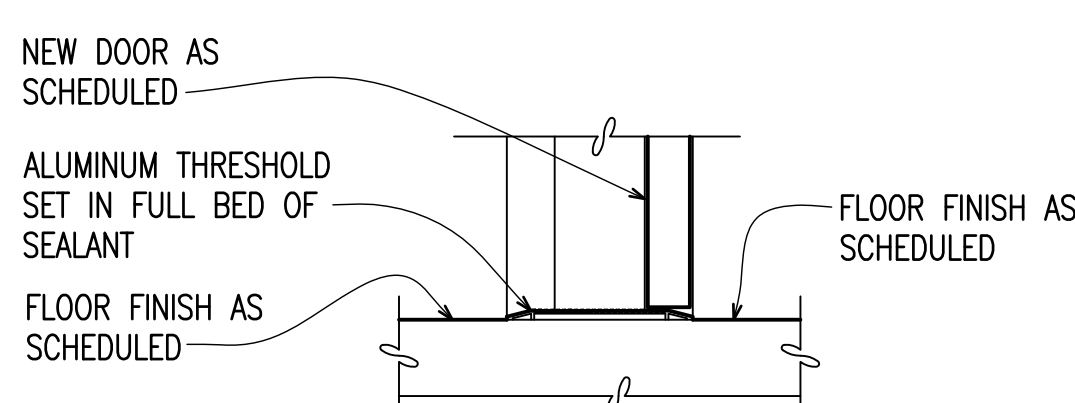
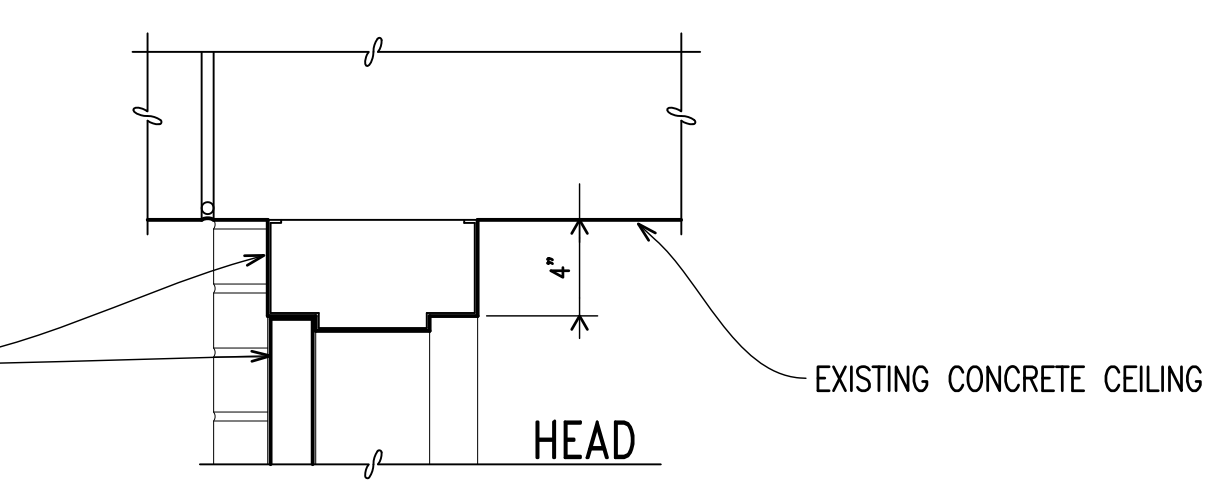
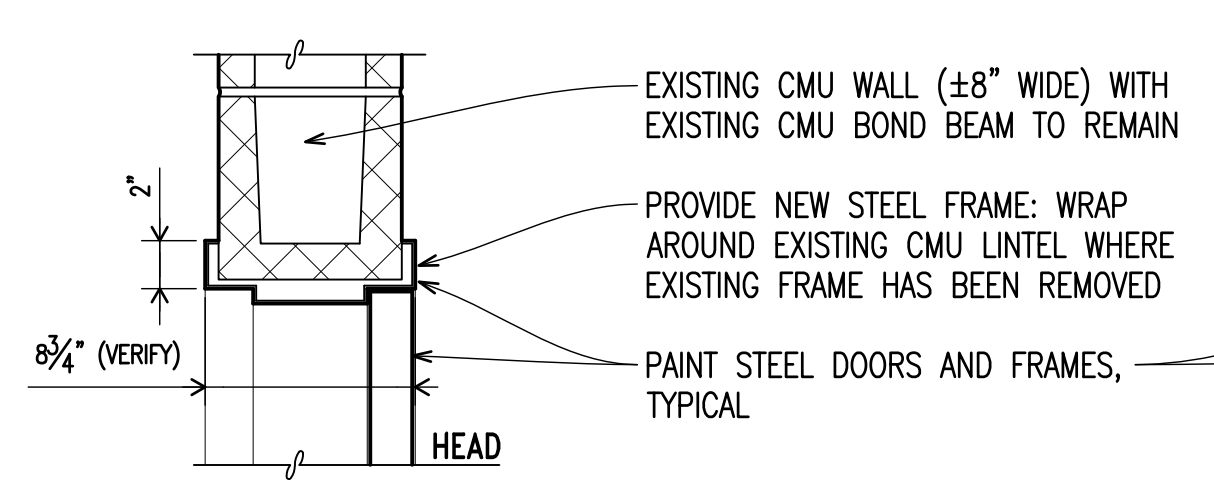


1 DOOR HEAD/JAMB  
Scale: 1-1/2" = 1'-0"

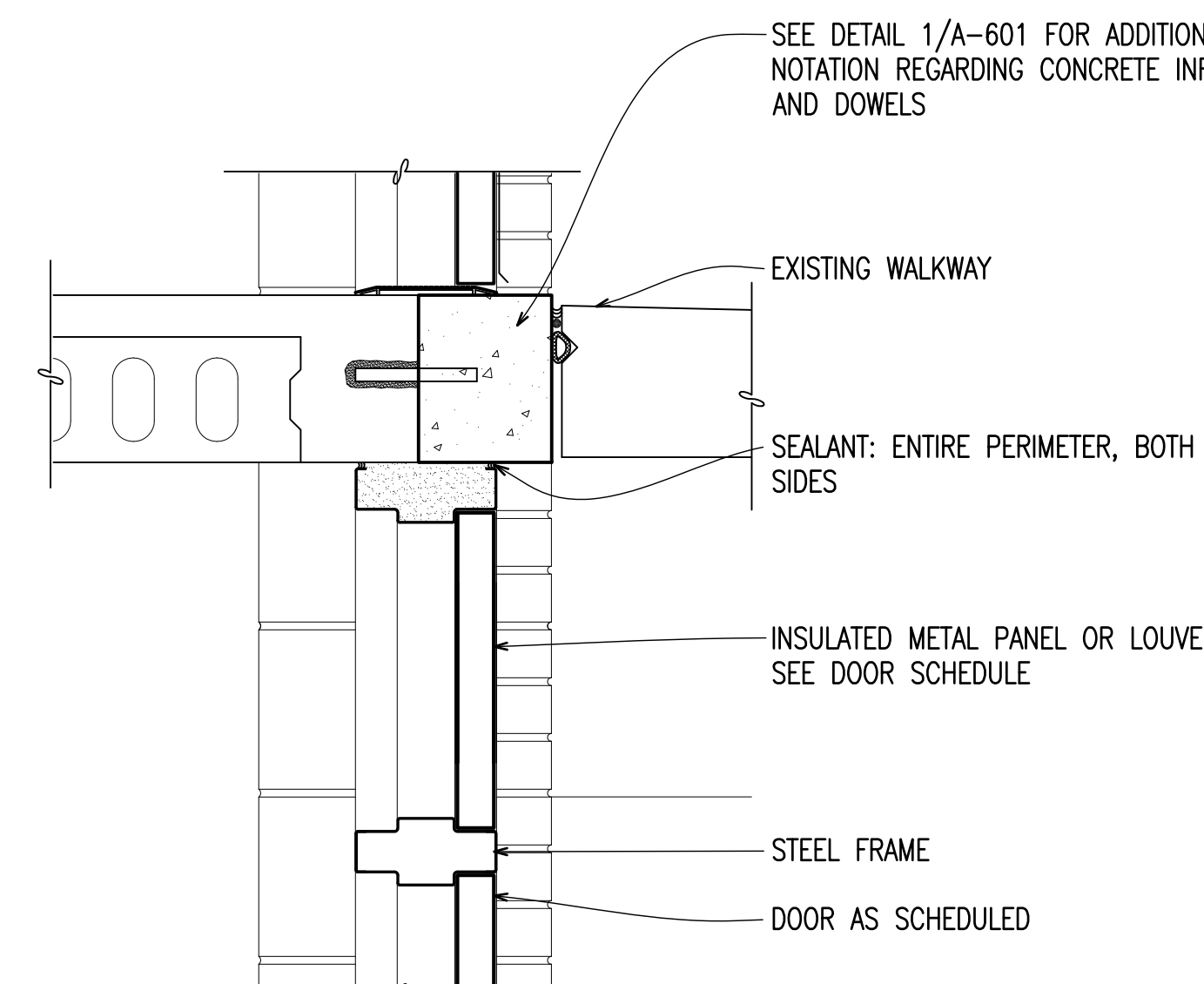
5 DOOR HEAD/JAMB  
Scale: 1-1/2" = 1'-0"

8 DOOR HEAD/JAMB  
Scale: 1-1/2" = 1'-0"

12 HEAD CONDITION  
Scale: 1-1/2" = 1'-0"



9 SILL  
Scale: 1-1/2" = 1'-0"



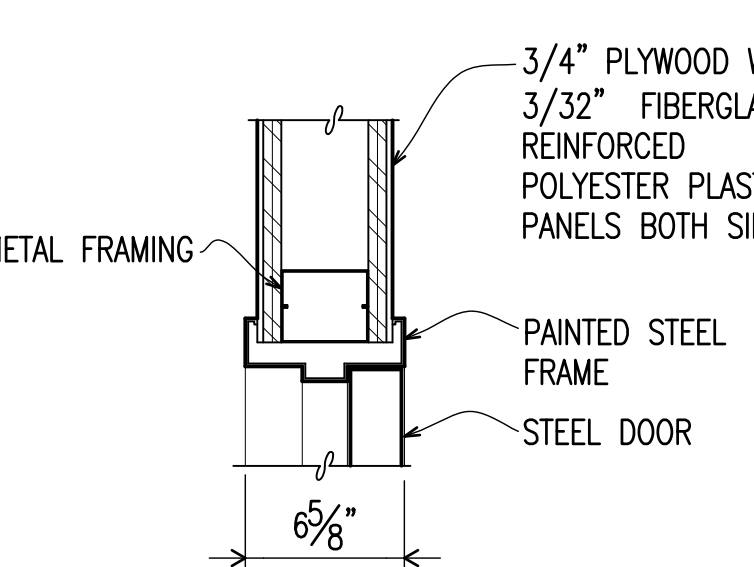
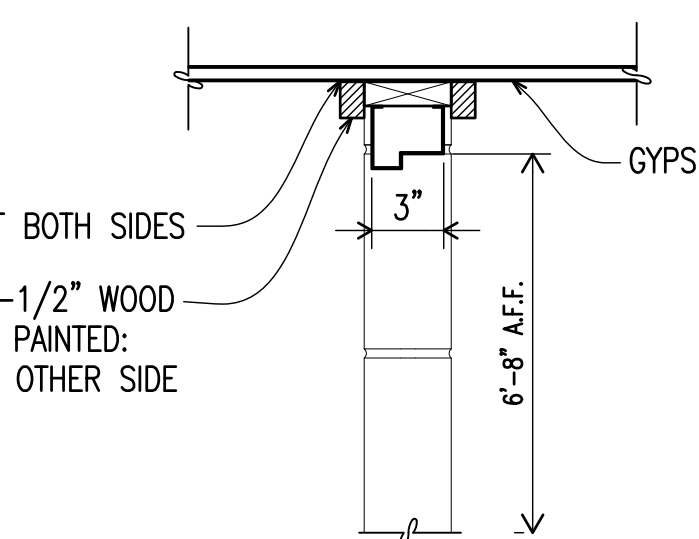
13 HEAD CONDITION  
Scale: 1-1/2" = 1'-0"

2 DOOR HEAD/JAMB/SILL  
Scale: 1-1/2" = 1'-0"

6 DOOR HEAD/JAMB/SILL  
Scale: 1-1/2" = 1'-0"

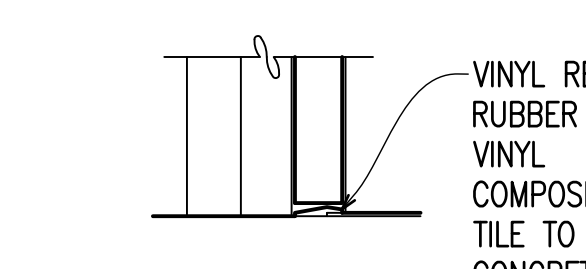
10 SILL  
Scale: 1-1/2" = 1'-0"

14 JAMB CONDITION  
Scale: 1-1/2" = 1'-0"

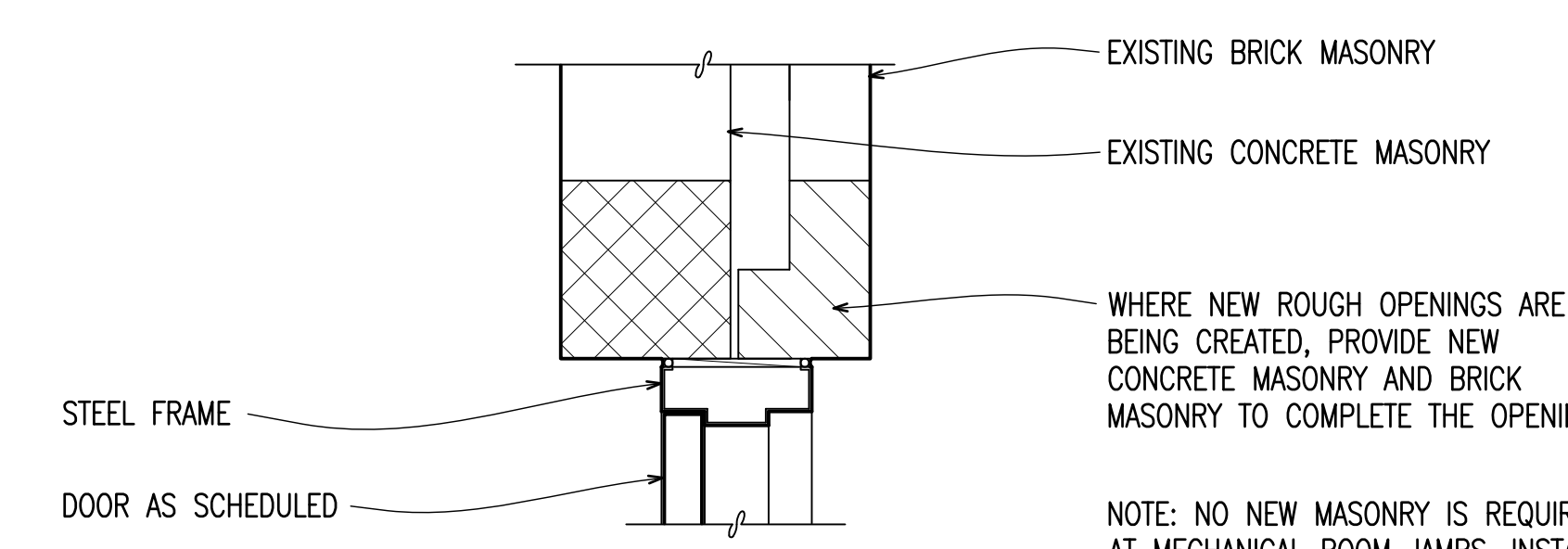


3 DOOR HEAD CONSTRUCTION  
Scale: 1-1/2" = 1'-0"

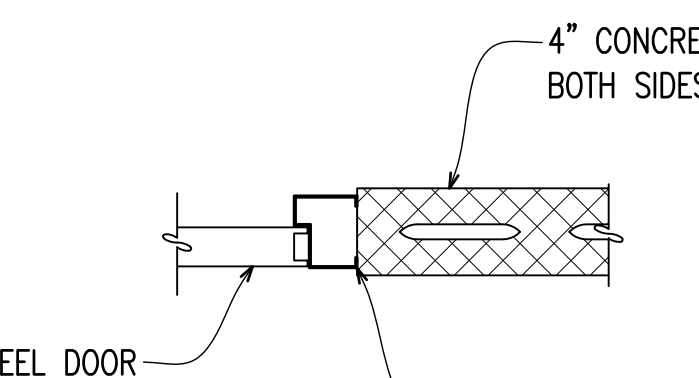
7 DOOR HEAD/JAMB CONSTRUCTION  
Scale: 1-1/2" = 1'-0"



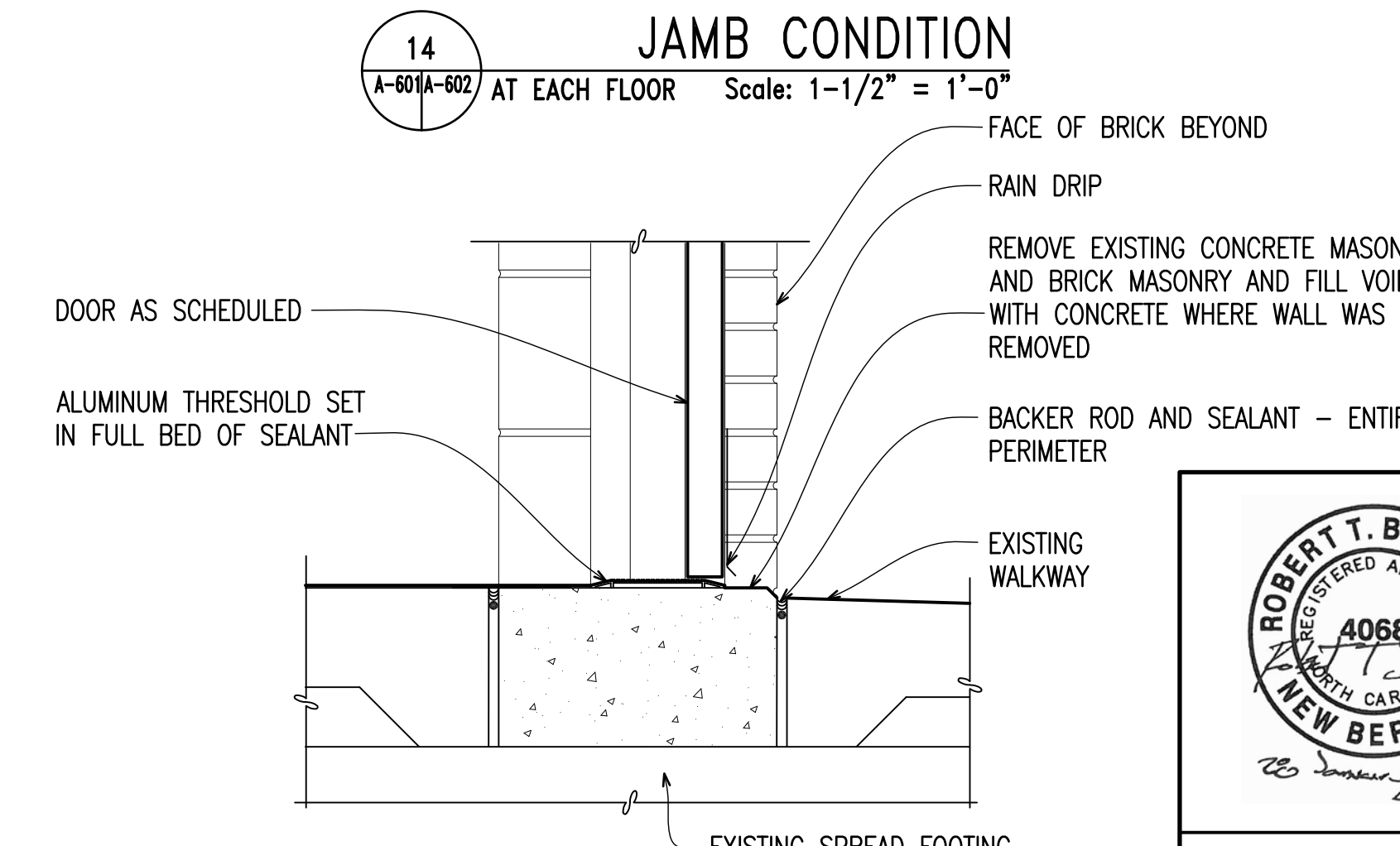
11 SILL  
Scale: 1-1/2" = 1'-0"



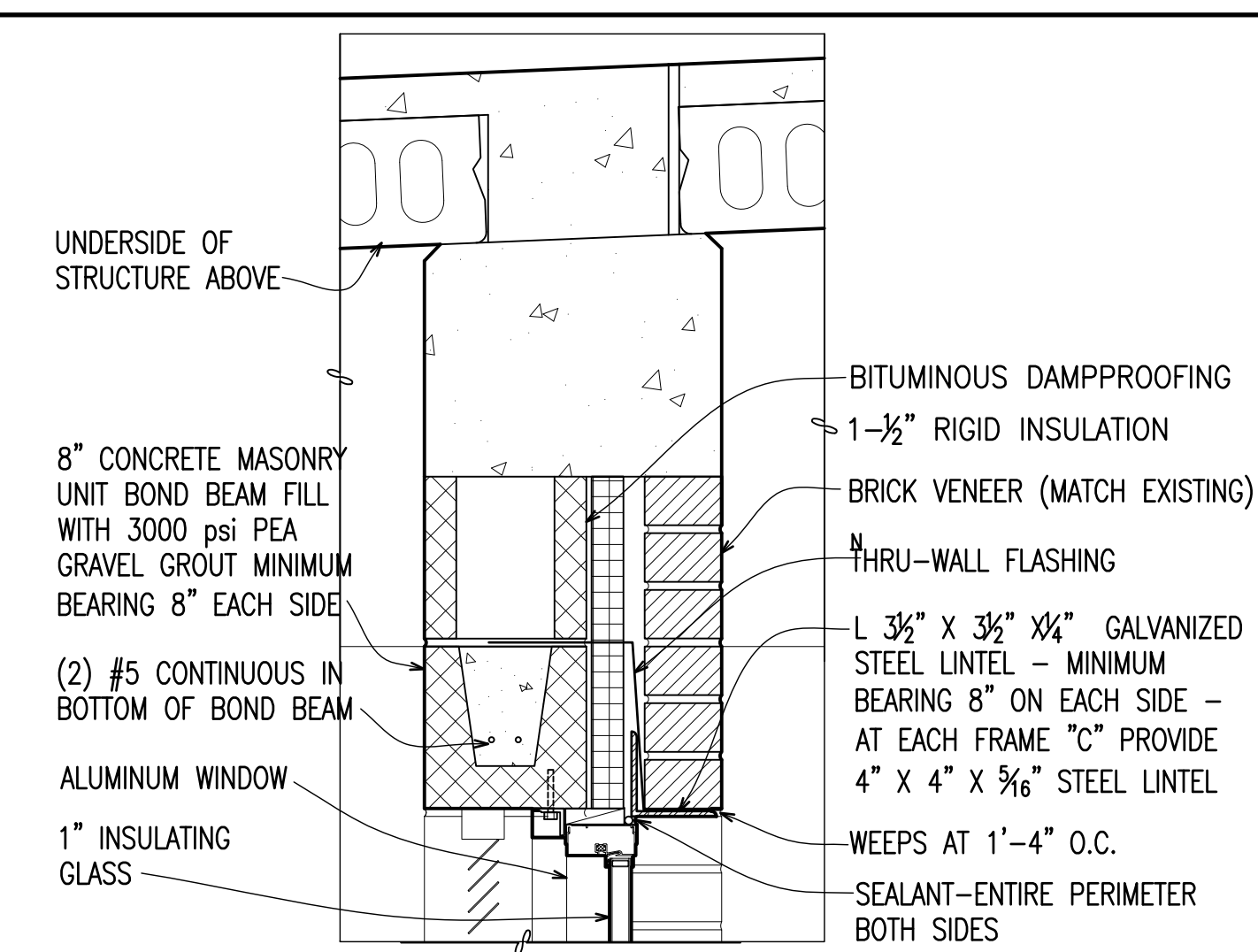
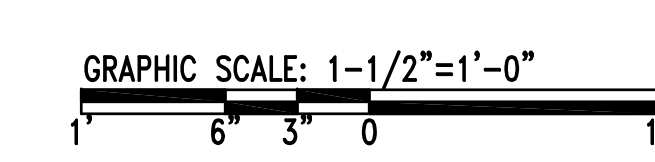
14 JAMB CONDITION  
Scale: 1-1/2" = 1'-0"



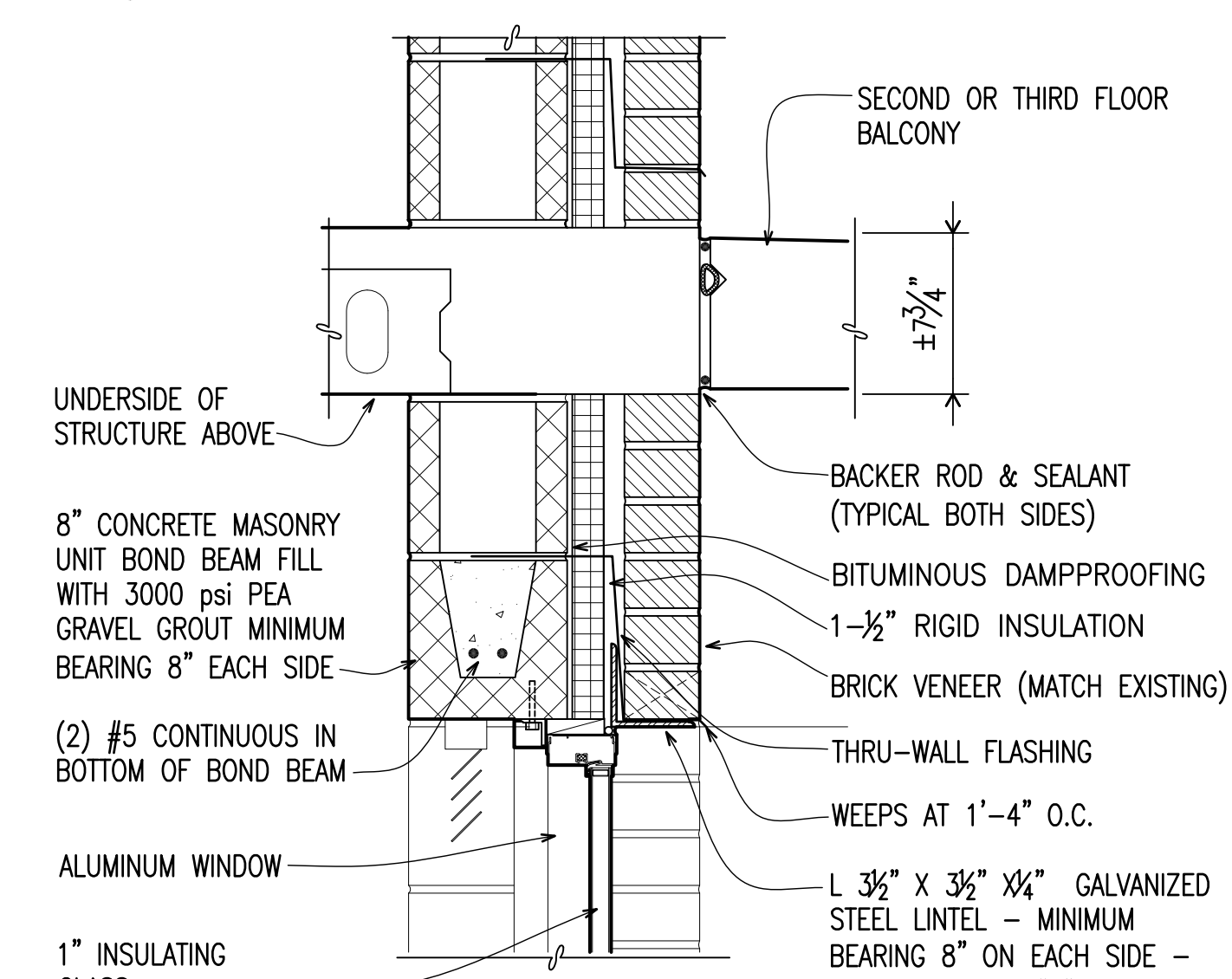
4 DOOR JAMB CONSTRUCTION  
Scale: 1-1/2" = 1'-0"



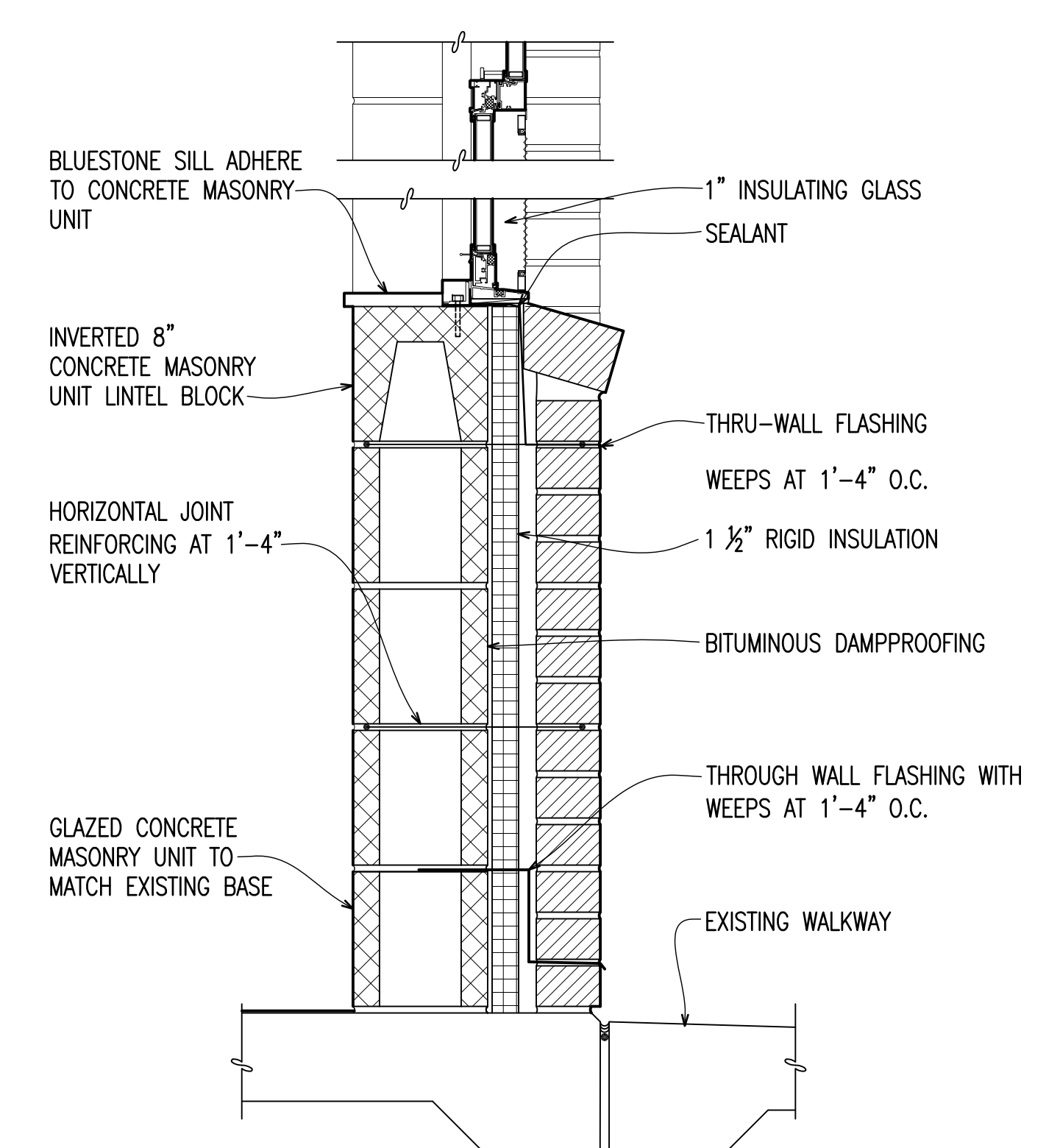
15 SILL CONDITION  
Scale: 1-1/2" = 1'-0"



16 WINDOW HEAD  
Scale: 1-1/2" = 1'-0"



17 WINDOW HEAD  
Scale: 1-1/2" = 1'-0"



18 WINDOW SILL  
Scale: 1-1/2" = 1'-0"

		A-602	
		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC SATISFACTORY TO:		REPAIR BEQ BUILDING BB260 MCB, CLNC HEAD JAMB, AND SILL DETAILS NAVFAC DRAWING NO. <b>60007585</b> CONST. CONTR. NO. N4085-10-B-031 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 20 OF 72	

**SIGNAGE SCHEDULE**

NOTE: NOT ALL ROOMS WITHIN THE BUILDING MAY BE SCHEDULED FOR SIGNAGE. SEE SIGN TYPES BELOW FOR TYPICAL MOUNTING REQUIREMENTS.

THIS PORTION TO BE COMPLETED BY ROICC DURING SIGN SUBMITTAL

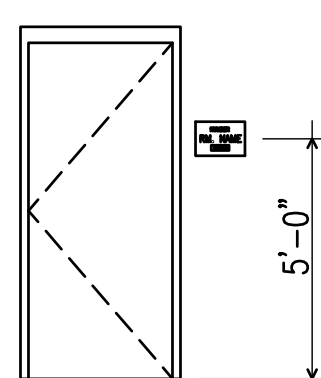
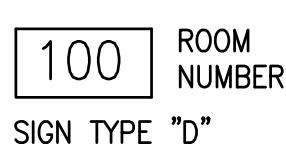
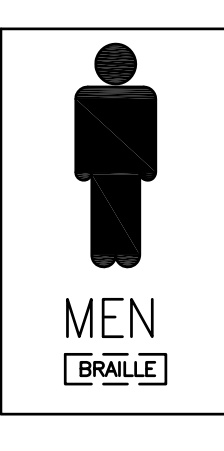
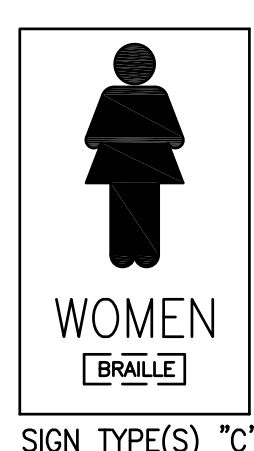
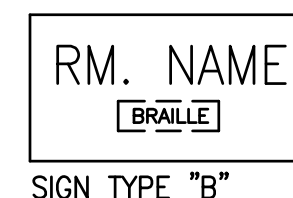
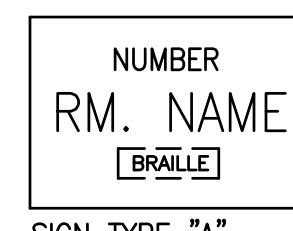
THIS PORTION TO BE COMPLETED BY ROICC DURING SIGN SUBMITTAL

ARCHITECT'S ROOM NUMBER	ARCHITECT'S ROOM NAME	ACTUAL ROOM NUMBER	ACTUAL ROOM NAME	SIGN TYPE	REMARKS	ARCHITECT'S ROOM NUMBER	ARCHITECT'S ROOM NAME	ACTUAL ROOM NUMBER	ACTUAL ROOM NAME	SIGN TYPE	REMARKS
101	SLEEPING ROOM			D		227	SLEEPING ROOM			D	
102	SLEEPING ROOM			D		228	SLEEPING ROOM			D	
103	SLEEPING ROOM			D		229	SLEEPING ROOM			D	
104	SLEEPING ROOM			D		230	SLEEPING ROOM			D	
105	SLEEPING ROOM			D		231	SLEEPING ROOM			D	
106	SLEEPING ROOM			D		232	SLEEPING ROOM			D	
107	SLEEPING ROOM			D		240	LOUNGE			B	1
108	SLEEPING ROOM			D		241	ELECTRICAL			B	
109	SLEEPING ROOM			D		243	LAUNDRY			B	
110	SLEEPING ROOM			D		244	TOILET ROOM			B	
111	SLEEPING ROOM			D		245	ELECTRICAL			B	
112	SLEEPING ROOM			D		247	STORAGE			B	
113	SLEEPING ROOM			D		258	MECHANICAL 3			B	
114	ADMINISTRATIVE 1			A		259	MECHANICAL 3A			B	
115	ADMINISTRATIVE 2			A		260	CHASE			B	1
117	1ST SGT			A		263	CHASE			B	1
118	CO OFFICE			A		264	MECHANICAL 4A			B	
119	MEN			C		265	MECHANICAL 4			B	
120	XO CHIEF			A		301	SLEEPING ROOM			D	
121	WOMEN			C		302	SLEEPING ROOM			D	
122	UTILITY			B		303	SLEEPING ROOM			D	
123	CLERK'S OFFICE			A		304	SLEEPING ROOM			D	
124	SLEEPING ROOM			D		305	SLEEPING ROOM			D	
125	SLEEPING ROOM			D		306	SLEEPING ROOM			D	
126	SLEEPING ROOM			D		307	SLEEPING ROOM			D	
127	SLEEPING ROOM			D		308	SLEEPING ROOM			D	
128	SLEEPING ROOM			D		309	SLEEPING ROOM			D	
129	SLEEPING ROOM			D		310	SLEEPING ROOM			D	
130	SLEEPING ROOM			D		311	SLEEPING ROOM			D	
131	SLEEPING ROOM			D		312	SLEEPING ROOM			D	
132	SLEEPING ROOM			D		313	SLEEPING ROOM			D	
140	LAUNDRY			B	1	314	SLEEPING ROOM			D	
141	ELECTRICAL CLOSET			B		315	SLEEPING ROOM			D	
143	LAUNDRY			B		316	SLEEPING ROOM			D	
144	TOILET ROOM			B		317	SLEEPING ROOM			D	
145	ELECTRICAL			B		318	SLEEPING ROOM			D	
147	DUTY			B		319	SLEEPING ROOM			D	
148	CLERK'S OFFICE			A		320	SLEEPING ROOM			D	
149	UTILITY			B		321	SLEEPING ROOM			D	
150	WOMEN			C		322	SLEEPING ROOM			D	
151	TELEPHONE			A		323	SLEEPING ROOM			D	
152	MEN			C		324	SLEEPING ROOM			D	
153	CO OFFICE			A		325	SLEEPING ROOM			D	
154	1ST SGT			A		326	SLEEPING ROOM			D	
156	ADMINISTRATION 2			A		327	SLEEPING ROOM			D	
157	ADMINISTRATION 1			A		328	SLEEPING ROOM			D	
158	MECHANICAL 1			B		329	SLEEPING ROOM			D	
159	MECHANICAL 1-A			B		330	SLEEPING ROOM			D	
160	CHASE			B	1	331	SLEEPING ROOM			D	
161	CHASE			B		332	SLEEPING ROOM			D	
162	CHASE			B		340	LOUNGE			B	1
163	CHASE			B	1	341	ELECTRICAL			B	
164	MECHANICAL-2A			B		343	LAUNDRY			B	
165	MECHANICAL-2			B		344	TOILET ROOM			B	
201	SLEEPING ROOM			D		345	ELECTRICAL			B	
202	SLEEPING ROOM			D		347	STORAGE			B	
203	SLEEPING ROOM			D		358	MECHANICAL 5			B	
204	SLEEPING ROOM			D		359	MECHANICAL 5A			B	
205	SLEEPING ROOM			D		360	CHASE			B	1
206	SLEEPING ROOM			D		363	CHASE			B	1
207	SLEEPING ROOM			D		364	MECHANICAL 6A			B	
208	SLEEPING ROOM			D		365	MECHANICAL 6			B	
209	SLEEPING ROOM			D							
210	SLEEPING ROOM			D							
211	SLEEPING ROOM			D							
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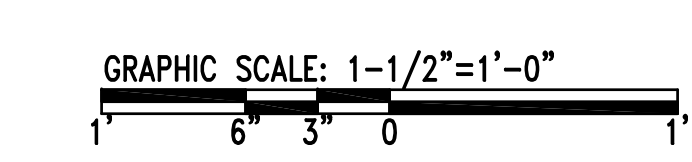
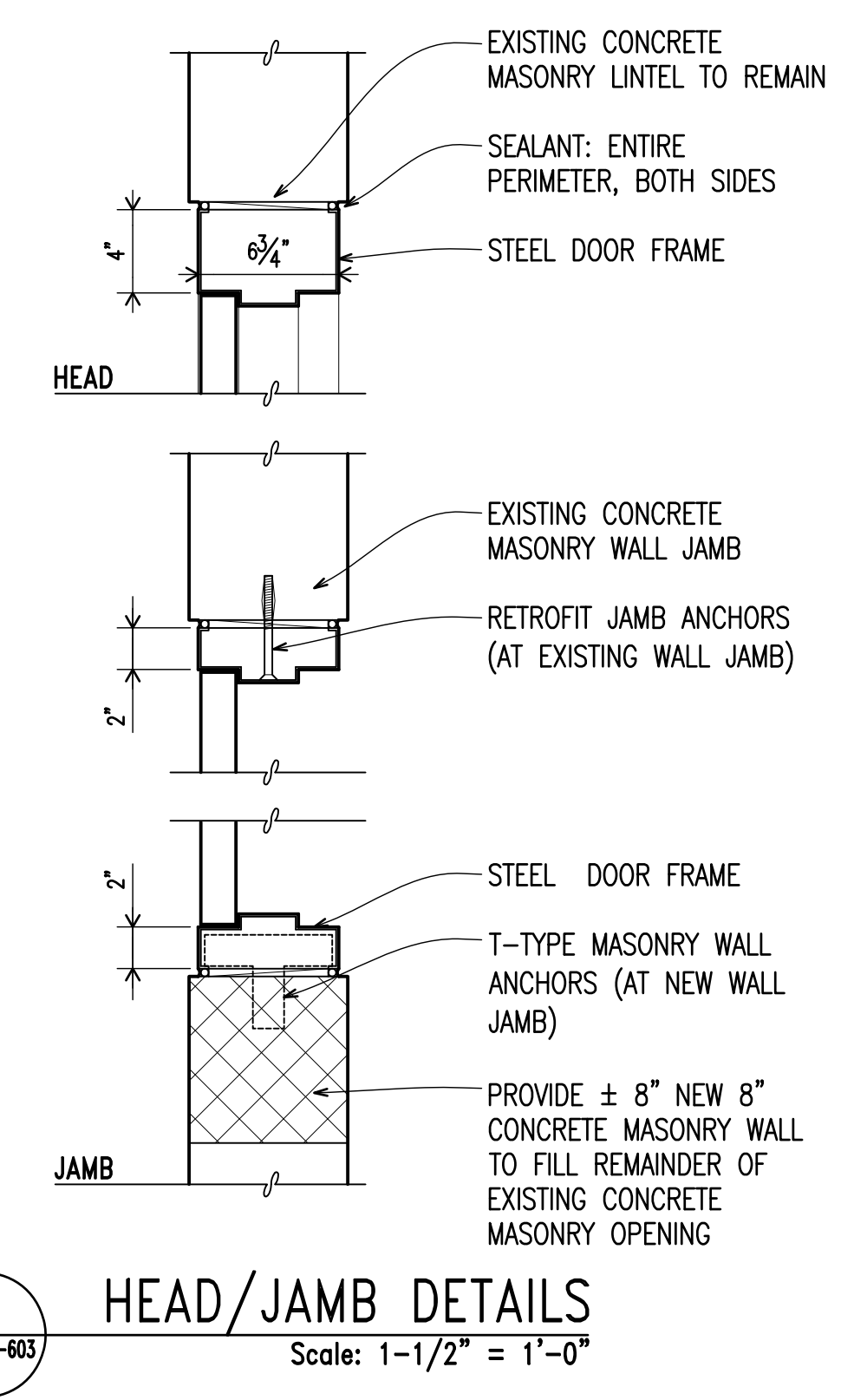
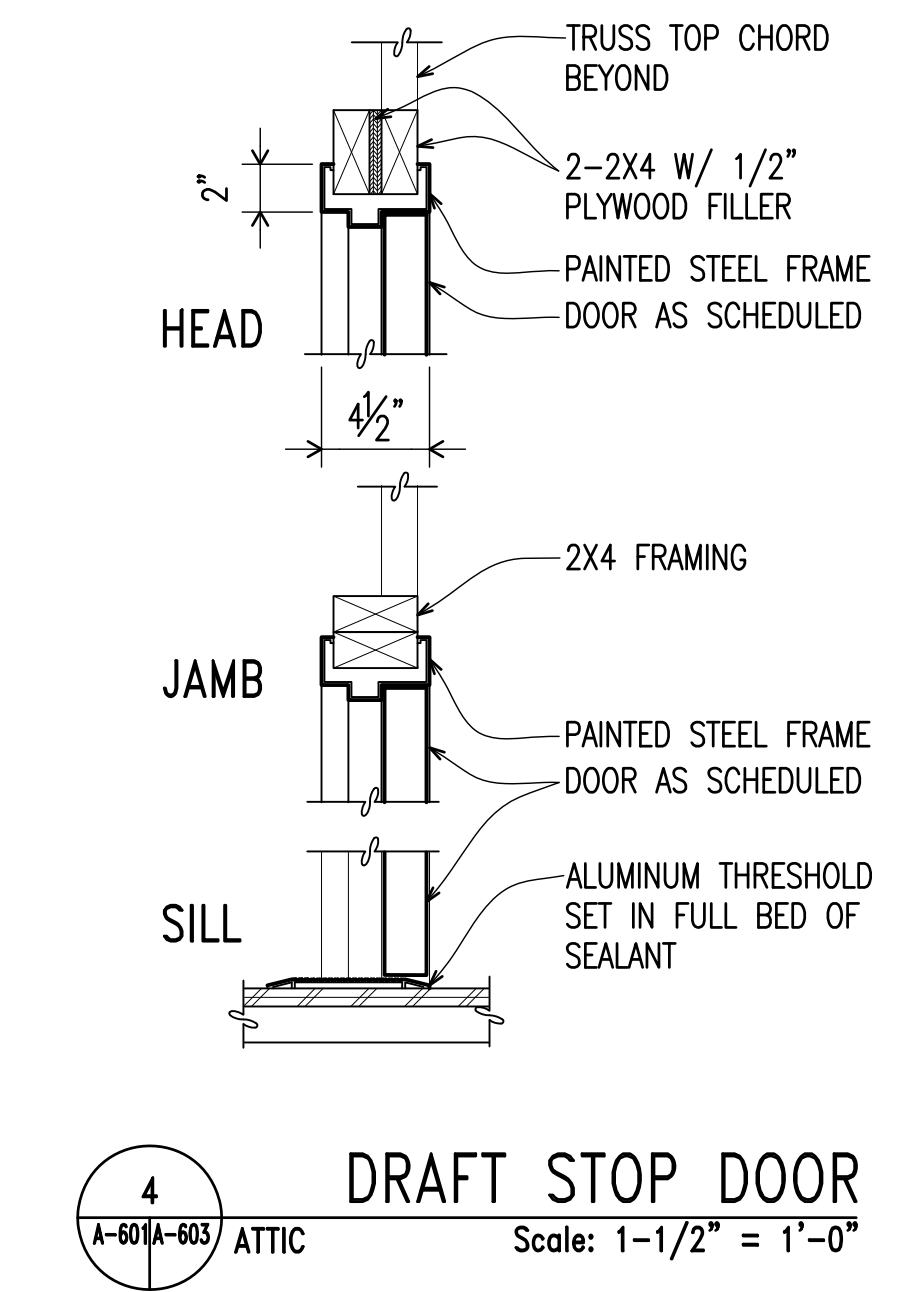
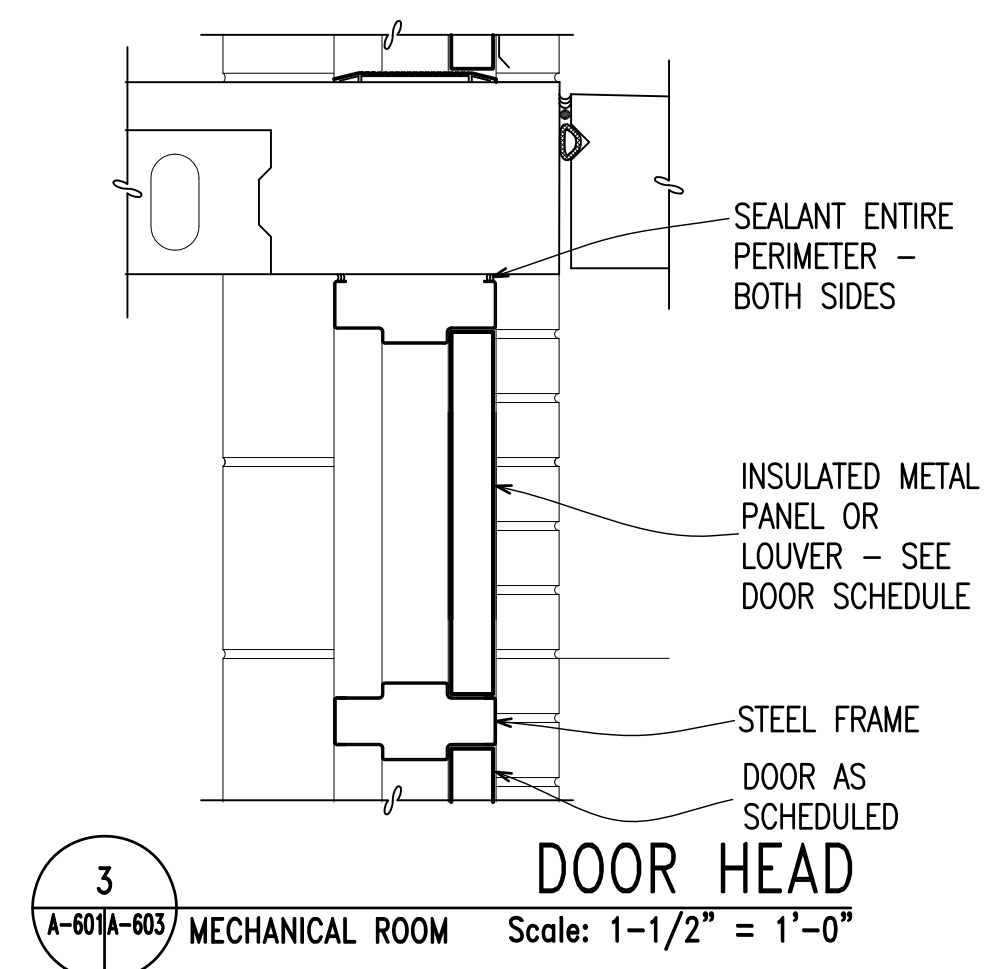
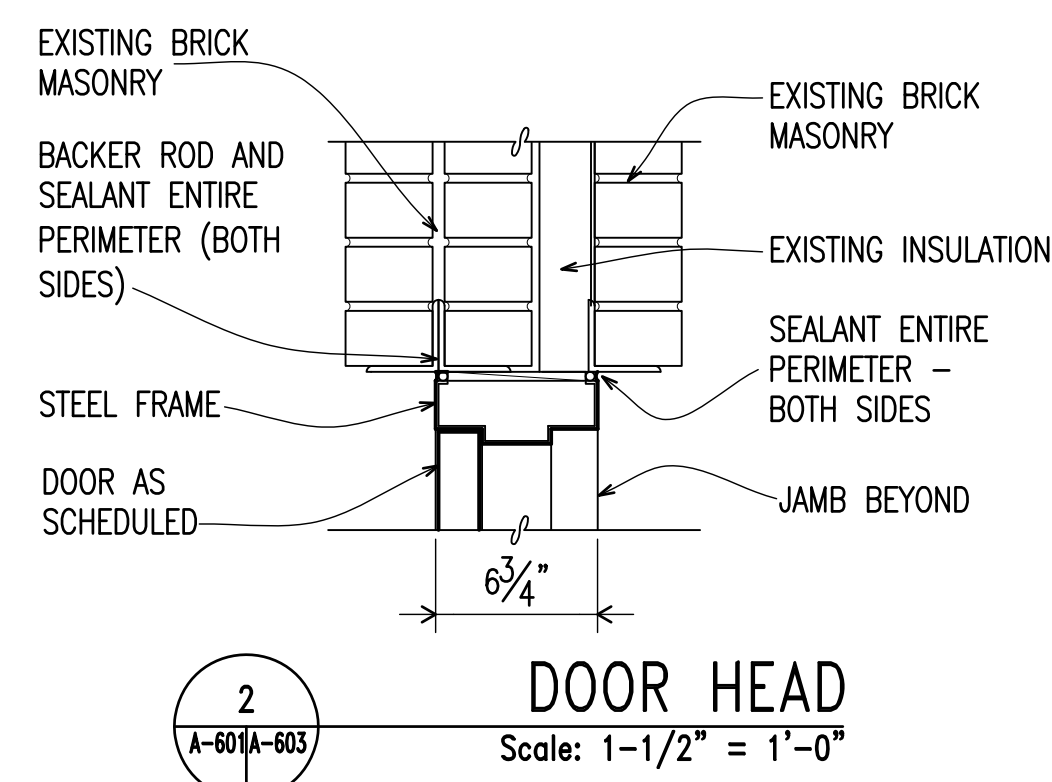
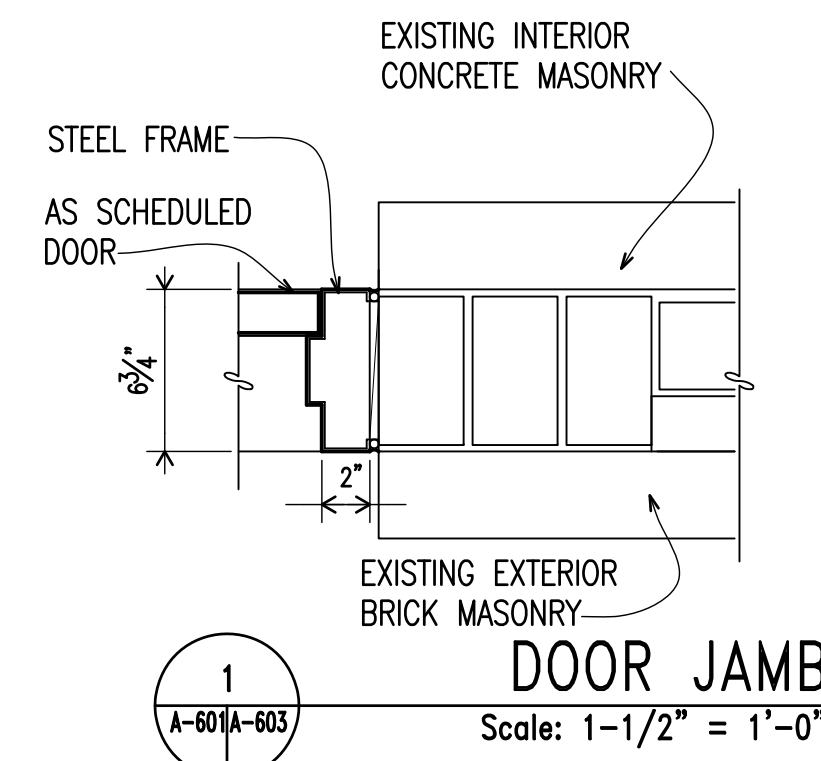
**REMARKS**

1, 2 DOORS

**SIGN TYPES**



NOTE: SIGNS SHALL CONFORM TO ALL SPECIFICATION REQUIREMENTS AND THOSE OF THE AMERICANS WITH DISABILITIES ACT. MOUNT SIGNS AS SHOWN, TO THE LATCH SIDE OF THE DOOR OF THE INTENDED SPACE



		<b>A-603</b>	
		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR.		REPAIR BEQ BUILDING BB260 MCB, CLNC	
APPROVED: PWO OR OICC SATISFACTORY TO:		SIGN SCHEDULE & DOOR DETAILS NAVFAC DRAWING NO. <b>60007586</b> CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 21 OF 72	

**ROOM FINISH SCHEDULE**

ROOM NUMBER	ROOM NAME	FLOOR		BASE		WALLS		CEILING		DOORS		MILLWORK		FINISH REMARKS
		MATERIAL	KEY	MATERIAL	KEY	MATERIAL	KEY	MATERIAL	KEY	MATERIAL	KEY	MATERIAL	KEY	
101 201 301	SLEEPING ROOM (TYPICAL ALL SLEEPING ROOMS ALL FLOORS)	RESILIENT PLANK FLOORING	RPF-1	EXISTING GLAZED CMU - CLEAN, GLAZED CMU - MATCH EXISTING	-	EXISTING PAINTED CONCRETE MASONRY, CONCRETE MASONRY	PNT-1 PNT-2	EXISTING TEXTURED PRECAST CONCRETE PANELS	PNT-5	EXTERIOR DOORS & FRAMES	PNT-4	PLASTIC LAMINATE	PL-1	SEE REFLECTED CEILING PLAN FOR LAYOUT
								5/8" ABUSE RESISTANT FIBERGLASS- MAT FACED GYPSUM BOARD SOFFIT		INTERIOR DOORS & FRAMES	PNT-3	SOLID SURFACE	SS-1	
101B 201B 301B	SLEEPING ROOM TOILET ROOMS (TYPICAL ALL TOILET ROOMS IN SLEEPING ROOMS ALL FLOORS)	PORCELAIN TILE	PT-1 GRT-1	PORCELAIN TILE	PT-1 GRT-1	EXISTING PAINTED CONCRETE MASONRY, PORCELAIN TILE	PNT-1 PT-1 PT-2 GRT-1	5/8" ABUSE RESISTANT FIBERGLASS- MAT FACED GYPSUM BOARD SOFFIT	PNT-5	INTERIOR DOORS & FRAMES	PNT-3	-	-	SEE REFLECTED CEILING PLAN FOR LAYOUT, SEE 7/A-402 FOR PORCELAIN TILE WAINSCOT
158 160	MECHANICAL ROOMS AND CHASES (TYPICAL ALL MECHANICAL ROOMS AND CHASES ALL FLOORS)	EXISTING CONCRETE	-	-	-	EXISTING UNPAINTED CONCRETE MASONRY, EXISTING PAINTED CONCRETE MASONRY, CONCRETE MASONRY	-	EXISTING UNPAINTED PRECAST CONCRETE PLANKS	-	EXTERIOR DOORS & FRAMES	PNT-4	-	-	-
140	LAUNDRY	STANDARD RESINOUS FLOORING	SRF-1	EXISTING GLAZED CMU - CLEAN, GLAZED CMU - MATCH EXISTING	-	EXISTING PAINTED CONCRETE MASONRY, CONCRETE MASONRY	PNT-1 PNT-2	ACOUSTICAL CEILINGS	AC-1	INTERIOR DOORS & FRAMES	PNT-3	FIBERGLASS REINFORCED POLYESTER PLASTIC PANELS	FRP-1	SEE REFLECTED CEILING PLAN FOR LAYOUT
												SOLID SURFACE	SS-1	
142 146	CORRIDOR AND VENDING	STANDARD RESINOUS FLOORING	SRF-1	EXISTING GLAZED CMU - CLEAN	-	EXISTING BRICK MASONRY - CLEAN, BRICK MASONRY - MATCH EXISTING	-	METAL CEILING PANEL	MCP-1	INTERIOR DOORS & FRAMES	PNT-3	-	-	SEE REFLECTED CEILING PLAN FOR LAYOUT
										EXTERIOR DOORS & FRAMES	PNT-4	-	-	
242 246 342 346	CORRIDOR AND VENDING	STANDARD RESINOUS FLOORING	SRF-1	EXISTING GLAZED CMU - CLEAN	-	EXISTING PAINTED CONCRETE MASONRY, CONCRETE MASONRY	PNT-1	METAL CEILING PANEL	MCP-1	INTERIOR DOORS & FRAMES	PNT-3	-	-	SEE REFLECTED CEILING PLAN FOR LAYOUT
										EXTERIOR DOORS & FRAMES	PNT-4	-	-	
-	NORTH STAIRS	STANDARD RESINOUS FLOORING	SRF-1	-	-	EXISTING BRICK MASONRY - CLEAN	-	-	-	EXTERIOR DOORS & FRAMES	PNT-4	-	-	STANDARD RESINOUS FLOORING ON STAIR LANDINGS ONLY, ALUMINUM RENOVATION TREAD ON TREADS
143 243 343	LAUNDRY	STANDARD RESINOUS FLOORING	SRF-1	EXISTING GLAZED CMU - CLEAN	-	EXISTING PAINTED CONCRETE MASONRY	PNT-1 PNT-2	EXISTING PRECAST CONCRETE PLANKS	PNT-5	INTERIOR DOORS & FRAMES	PNT-3	-	-	SEE REFLECTED CEILING PLAN FOR LAYOUT
144 244 344	TOILET ROOMS	STANDARD RESINOUS FLOORING	SRF-1	EXISTING GLAZED CMU - CLEAN	-	EXISTING PAINTED CONCRETE MASONRY	PNT-2	EXISTING PRECAST CONCRETE PLANKS	PNT-5	INTERIOR DOORS & FRAMES	PNT-3	-	-	SEE REFLECTED CEILING PLAN FOR LAYOUT
145 245 345	ELECTRICAL ROOMS	EXISTING CONCRETE	-	EXISTING GLAZED CMU - CLEAN	-	EXISTING UNPAINTED CONCRETE MASONRY	-	EXISTING UNPAINTED PRECAST CONCRETE PANELS	-	INTERIOR DOORS & FRAMES	PNT-3	-	-	-
147 247 347	DUTY AND STORAGE ROOMS	STANDARD RESINOUS FLOORING	SRF-1	EXISTING GLAZED CMU - CLEAN	-	EXISTING PAINTED CONCRETE MASONRY	PNT-1	ACOUSTICAL CEILINGS	AC-1	INTERIOR DOORS & FRAMES	PNT-3	-	-	SEE REFLECTED CEILING PLAN FOR LAYOUT
240 340	LOUNGES	STANDARD RESINOUS FLOORING	SRF-1	EXISTING GLAZED CMU - CLEAN	-	EXISTING PAINTED CONCRETE MASONRY, CONCRETE MASONRY	PNT-1 PNT-2	ACOUSTICAL CEILINGS	AC-1	INTERIOR DOORS & FRAMES	PNT-3	-	-	SEE REFLECTED CEILING PLAN FOR LAYOUT
114, 115, 116, 120, 123, 148, 149, 150, 154, 157	ADMINISTRATION ROOMS, CLERK, XO OFFICE AND TELEPHONE	STANDARD RESINOUS FLOORING	SRF-1	EXISTING GLAZED CMU - CLEAN, PAINT 8" HIGH BLACK STRIPE AT BASE OF CONCRETE COLUMNS ONLY	-	EXISTING PAINTED CONCRETE MASONRY	PNT-1	ACOUSTICAL CEILINGS	AC-1	INTERIOR DOORS & FRAMES	PNT-3	PLASTIC LAMINATE	PL-1	SEE REFLECTED CEILING PLAN FOR LAYOUT
										EXTERIOR DOORS & FRAMES	PNT-4	SOLID SURFACE	SS-1	
117, 118, 151, 152	SGT. AND CO OFFICES	STANDARD RESINOUS FLOORING	SRF-1	EXISTING GLAZED CMU - CLEAN, GLAZED CMU - MATCH EXISTING	-	EXISTING PAINTED CONCRETE MASONRY	PNT-1	EXISTING PRECAST CONCRETE PLANKS	PNT-5	INTERIOR DOORS & FRAMES	PNT-3	-	-	SEE REFLECTED CEILING PLAN FOR LAYOUT
119, 121, 153, 155	MEN'S AND WOMEN'S TOILET ROOMS	STANDARD RESINOUS FLOORING	SRF-1	EXISTING GLAZED CMU - CLEAN	-	EXISTING PAINTED CONCRETE MASONRY	PNT-1	5/8" ABUSE RESISTANT FIBERGLASS- MAT FACED GYPSUM BOARD SOFFIT	PNT-5	INTERIOR DOORS & FRAMES	PNT-3	-	-	SEE REFLECTED CEILING PLAN FOR LAYOUT
122 156	UTILITY ROOMS	STANDARD RESINOUS FLOORING	SRF-1	EXISTING GLAZED CMU - CLEAN	-	EXISTING PAINTED CONCRETE MASONRY	PNT-1	EXISTING PRECAST CONCRETE PLANKS	PNT-5	INTERIOR DOORS & FRAMES	PNT-3	-	-	SEE REFLECTED CEILING PLAN FOR LAYOUT

<b>FINISH KEY</b>				
ALL DOORS AND DOOR FRAMES ARE TO BE PAINTED. NAMES INDICATED FOR COLORS, TEXTURES AND PATTERNS OF MATERIALS ARE FOR THE PURPOSE OF SELECTION ONLY. OTHER MANUFACTURER'S MATERIALS MAY BE ACCEPTABLE PROVIDED MATERIALS CLOSELY APPROXIMATE COLORS, TEXTURES AND PATTERNS INDICATED AND CONFORM TO ALL SPECIFICATION REQUIREMENTS.				
COLOR PALETTE "A"				
KEY	FINISH	MANUFACTURER	STYLE	COLOR
SRF-1	STANDARD RESINOUS FLOORING	TENNANT	DECORATIVE QUARTZ EPOXY	CUSTOM BLEND: 50% TAN, 25% BUFF, 25% BROWN
RPF-1	RESILIENT PLANK FLOORING	TOLI LIGHTWOOD	4" WIDE PLANKS	RUSTIC CHERRYWOOD 7681E
RB-1	NOT USED			
PT-1	PORCELAIN TILE - FIELD COLOR	FLORIDA TILE	FORMATIONS THROUGH-BODY; FLOORS & WALLS - 6"x6", SHOWER FLOOR - 2"x2" MOSAIC TILE	BOULDER 25282
PT-2	PORCELAIN TILE - ACCENT COLOR	FLORIDA TILE	FORMATIONS THROUGH-BODY	DARK PEBBLE 25296
GRT-1	GROUT FOR PORCELAIN	MAPEI	GROUT COLOR	42 - MOCHA
PNT-1	PAINT - FIELD COLOR	GLIDDEN PROFESSIONAL	SEE SPECIFICATIONS FOR FINISH	IVORY FRESCO #30YY 81/123
PNT-2	PAINT - ACCENT COLOR	GLIDDEN PROFESSIONAL	SEE SPECIFICATIONS FOR FINISH	SICILIAN SUMMER #30YR 12/292
	LOCATIONS: • SLEEPING ROOMS - ACCENT COLOR ON WALL WITH CLOSETS, INCLUDING CLOSET WALLS • CORRIDOR TOILET ROOMS (ROOMS 144, 244 & 344) - ACCENT COLOR ALL WALLS • LAUNDRY ROOMS - ACCENT COLOR ON CONCRETE MASONRY WALL OPPOSITE ENTRANCE DOOR(S) • LOUNGES - ACCENT COLOR ON WALL OPPOSITE ENTRANCE DOORS			
PNT-3	PAINT	GLIDDEN PROFESSIONAL	SEE SPECIFICATIONS FOR FINISH	LIGHT CHOCOLAT #90YR 16/129
PNT-4	PAINT	GLIDDEN PROFESSIONAL	SEE SPECIFICATIONS FOR FINISH	RED BRICK #50YR 09/244
PNT-5	PAINT	GLIDDEN PROFESSIONAL	SEE SPECIFICATIONS FOR FINISH	CRISP LINEN #61YY 89/040
PL-1	PLASTIC LAMINATE	WILSONART		NATURAL ROCA 4834-38
SS-1	SOLID SURFACE	CORIAN		OAT
MCP-1	METAL CEILING PANEL	FABRAL	12" DECOR FLUSH	SURREY BEIGE V21
AC-1	ACOUSTICAL CEILINGS	ARMSTRONG	ULTIMA BEVELED TEGULAR, 2'X2'	WHITE
FRP-1	FIBERGLASS REINFORCED POLYESTER PLASTIC PANELS	MARLITE	SMOOTH SURFACE	S 118G ALMOND

		<h1>A-604</h1>
DES. DLG DR. DLG CHK. RTB SUBMITTED BY: DESIGN DIR.	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	REPAIR BEQ BUILDING BB260 MCB, CLNC
NAVFAC DRAWING NO. <b>60007587</b>	ROOM FINISH SCHEDULE	SCALE: AS NOTED   SPEC. 05-10-0031   SHEET 22 OF 72

**CODE COMPLIANCE SUMMARY:**

- GENERAL**  
THE BARRACKS BUILDING IS A THREE-STORY STRUCTURE. THE BUILDING IS USED FOR INCIDENTAL AND BUSINESS USE WITH INCIDENTAL MECHANICAL AND STORAGE AREAS.
- APPLICABLE CODES:**
  - NFPA 101 – LIFE SAFETY CODE [LSC], 2009 EDITION
  - INTERNATIONAL BUILDING CODE [IBC], 2009 EDITION
  - UFC 3-600-01 – FIRE PROTECTION ENGINEERING FOR FACILITIES, 26 SEPTEMBER 2006, CHANGE 1, 14 JULY 2009
  - UFC 3-600-10N – FIRE PROTECTION ENGINEERING, AUGUST 2007
  - UFC 4-010-01 – DOD MINIMUM ANTITERRORISM STANDARDS FOR BUILDINGS, 8 OCTOBER 2003, CHANGE 1, 22 JANUARY 2007
  - UFC 4-021-01 – MASS NOTIFICATION SYSTEMS, CHANGE 1, JANUARY 2010
  - UFC 4-721-10 – NAVY AND MARINE CORPS BACHELOR HOUSING, CHANGE 3, 3 FEBRUARY 2010.
- USE GROUP/OCCUPANCY:**  
GROUP R-2: RESIDENTIAL, B: BUSINESS [IBC 310 & 304, LSC 3.3.178.3]  
HOTELS AND DORMITORIES [LSC 3.3.178.13]
- FIRE PROTECTION SYSTEMS:**  
NFPA 13 AUTOMATIC SPRINKLER SYSTEM [UFC 3-600-01, 4-2.2]  
FIRE ALARM EVACUATION SYSTEM [UFC 3-600-01, 5-3.1]  
MASS NOTIFICATION SYSTEM [UFC 4-010-01, UFC 4-021-01]
- CONSTRUCTION TYPE:** TYPE IIB, WITH A TYPE V ROOF, SEPARATED BY 2-HOUR FIRE RESISTANCE RATED CONSTRUCTION IN ACCORDANCE WITH UFC 3-600-01, SECTION 2-1.3, EXCEPTION.
- ALLOWABLE AREA & HEIGHT:**  
BASIC AREA [IBC TABLE 503] 16,000 SQ. FT.  
BASIC ALLOWABLE STORIES/HEIGHT: 4 ST./55 FT.
- ACTUAL AREA & HEIGHT:**  
TOTAL FOOTPRINT FLOOR AREA 14,400 SQ. FT.  
TOTAL BUILDING HEIGHT 3 STORIES
- FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS:**  
TYPE IIB CONSTRUCTION [IBC TABLE 601]  
STRUCTURAL FRAME,  
INCL. COLUMNS, GIRDERS & TRUSSES 0 HR  
BEARING WALLS, INTERIOR 0 HR  
BEARING WALLS, EXTERIOR 0 HR  
NON-BEARING WALLS, INTERIOR & EXTERIOR 0 HR  
FLOOR CONSTRUCTION 0 HR  
ROOF CONSTRUCTION [c] 0 HR  
[c] TYPE V ROOFS ARE PERMITTED TO BE CONSTRUCTED ON BUILDINGS OF TYPE II CONSTRUCTION WHERE THEY ARE SEPARATED FROM ALL OTHER AREAS OF THE BUILDING BY HORIZONTAL 2-HOUR CONCRETE FIRE RESISTANCE RATED CONSTRUCTION [UFC 3-600-01, SEC. 2-1.3].
- INTERIOR WALL & CEILING FINISH:**  
[LSC 10.2, LSC 28.3.3.2 AND 38.3.3]  
EXIT ENCLOSURES: MINIMUM CLASS B  
ACCESS CORRIDORS: MINIMUM CLASS C  
CLASSIFIED IN ACCORDANCE WITH ASTM E 84, AS FOLLOWS:  
CLASS A: FLAME SPREAD 0-25; SMOKE-DEVELOPED 0-450  
CLASS B: FLAME SPREAD 26-75; SMOKE-DEVELOPED 0-450  
CLASS C: FLAME SPREAD 76-200; SMOKE-DEVELOPED 0-450  
DROP-OUT CEILINGS (FOAM-GRID PANELS) ARE NOT PERMITTED [UFC 3-600-01, 2-6.1.1].
- FLOOR FINISH:**  
[LSC 10.2, LSC 28.3.3.3 AND 38.3.3.3]  
EXITS AND EXIT ACCESS CORRIDORS: NO REQUIREMENT  
INTERIOR FLOOR FINISH SHALL BE DETERMINED BY NFPA 253 STANDARD METHOD OF TEST FOR CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS USING A RADIANT HEAT ENERGY SOURCE AND CLASSIFIED AS FOLLOWS:  
CLASS I: CRITICAL RADIANT FLUX NOT LESS THAN 0.45 W/CM2  
CLASS II: CRITICAL RADIANT FLUX NOT LESS THAN 0.22 W/CM2
- UNIT SEPARATION**  
EACH SLEEPING ROOM SHALL BE SEPARATED FROM OTHER SLEEPING ROOMS BY WALLS AND FLOORS CONSTRUCTED AS FIRE BARRIERS HAVING A FIRE RESISTANCE RATING OF NOT LESS THAN 1/2 HOUR [LSC 28.3.7.2].  
  
DOORS THAT OPEN ON TO EXTERIOR EXIT ACCESS BALCONIES SHALL BE SELF-CLOSING AND SELF-LATCHING. [LSC 28.3.6.2.3].
- EXTERIOR WAYS OF EXIT ACCESS**  
EXTERIOR EXIT ACCESS BALCONIES REQUIRE NO SEPARATION FROM THE INTERIOR OF THE BUILDING WHEN DEAD ENDS ON THE EXTERIOR EXIT ACCESS DO NOT EXCEED 20 FT. [LSC 7.5.3.3].
- OUTSIDE STAIRS**  
OUTSIDE STAIRS SERVING AN EXIT ACCESS BALCONY THAT HAS TWO REMOTE OUTSIDE STAIRWAYS SHALL BE PERMITTED TO BE UNPROTECTED [LSC 7.2.2.6.3.1(1)].
- HAZARDOUS AREAS**  
LAUNDRY ROOMS OVER 100 SQ. FT. WILL BE SEPARATED FROM OTHER AREAS BY 1-HOUR FIRE-RESISTANCE RATED CONSTRUCTION AND SPRINKLERS [LSC TABLE 28.3.2.2.2]. LAUNDRY ROOMS ≤ 100 SQ. FT WILL BE PROVIDED WITH SPRINKLERS [LSC TABLE 28.3.2.2.2].  
  
STORAGE ROOMS OVER 100 SQ. FT. WILL BE SEPARATED FROM OTHER AREAS BY PARTITIONS THAT RESIST PASSAGE OF SMOKE [LSC TABLE 28.3.2.2.2].
- MEANS OF EGRESS:**  
OCCUPANT LOAD FACTORS [LSC TABLE 7.3.1.2]  
RESIDENTIAL USE: 200 SQ. FT./PERSON  
BUSINESS USE: 100 SQ. FT./PERSON  
ASSEMBLY USE: 15 SQ. FT./PERSON  
  
CAPACITY OF EXITS: [LSC TABLE 7.3.3.1]:  
LEVEL COMPONENTS (WIDTH/PERSON) 0.2 IN (5 MM)/PERSON  
STAIRS (WIDTH/PERSON) 0.3 IN (7.6 MM)/PERSON
- ADDITIONAL LIFE SAFETY CRITERIA:**  
EMERGENCY LIGHTING SYSTEMS  
SHALL BE PROVIDED IN ACCORDANCE WITH LSC 7.9 [LSC 28.2.9.1 AND 38.2.9.1].  
MEANS OF EGRESS  
SHALL BE PROVIDED WITH SIGNS IN ACCORDANCE WITH LSC 7.10 [LSC 28.2.10 AND 38.2.10].  
SIGNS MUST HAVE LETTERING ON AN OPAQUE BACKGROUND. INTERNALLY ILLUMINATED SIGNS MUST BE LIGHT EMITTING DIODE (LED) TYPE, ELECTROLUMINESCENCE (LEC), OR COLD CATHODE TYPE. INCANDESCENT FIXTURES ARE NOT PERMITTED. RADIOLUMINOUS EXIT SIGNS ARE NOT PERMITTED [UFC 3-600-01, 2-5.2].  
PORTABLE FIRE EXTINGUISHERS  
NEW PORTABLE FIRE EXTINGUISHERS WILL BE PROVIDED IN THE BUSINESS OCCUPANCY [LSC 38.3.5.8] AREAS ON THE FIRST FLOOR, AND IN THE MECHANICAL ROOMS AND LAUNDRY ROOMS. PORTABLE FIRE EXTINGUISHERS ARE NOT REQUIRED IN SPRINKLERED HOTEL AND DORMITORIES OCCUPANCIES [LSC 28.3.5.8]. FIRE EXTINGUISHERS MUST BE PROVIDED IN SEMI-RECESSED ENCLOSED CABINETS WITH THE EXCEPTION THAT FIRE EXTINGUISHER CABINETS ARE NOT REQUIRED IN THE MECHANICAL ROOMS [UFC 3-600-01, 4-9.1].

- FIRE DEPARTMENT (EMERGENCY) VEHICLE ACCESS:  
  
RESIDENTIAL BUILDINGS SHALL BE PROVIDED WITH ALL-WEATHER GROUND ACCESS TO 3 SIDES OF THE BUILDING WITH A MINIMUM OF 2 SIDES HAVING ACCESS TO SLEEPING ROOMS TO ALLOW EMERGENCY VEHICLES UNIMPEDED ACCESS TO THE BUILDING. ALL-WEATHER GROUND ACCESS MUST BE PAVED, START FROM THE ROAD, AND TERMINATE NO FARTHER THAN 33 FT. FROM THE BUILDING. [UFC 3-600-01, 2-10.1]  
  
ALL FORCE PROTECTION EQUIPMENT, SUCH AS BOLLARDS OR GATES, MUST NOT REQUIRE MORE THAN ONE PERSON TO REMOVE OR OPEN. ACCESS MAY REQUIRE FIRE APPARATUS TO DRIVE OVER A CURB. ANY LOCKING DEVICE CONTROLLING VEHICLE ACCESS MUST BE UNDER CONTROL OF THE FIRE DEPARTMENT OR 24-HOUR SECURITY PERSONNEL LOCATED AT THE FACILITY. DIMENSIONS OF FIRE LANES AND TURNAROUNDS SHALL COMPLY WITH NFPA 1, UNIFORM FIRE CODE. [UFC 3-600-01, 2-10.2]  
  
ALL FIRE DEPARTMENT CONNECTIONS SHALL BE PROVIDED WITH SUITABLE ALL-WEATHER GROUND ACCESS SURFACE FOR PUMPER APPARATUS WITHIN 150 FT. [UFC 3-600-01, 2-10.4].

**BB260 OCCUPANT LOAD SUMMARY:**

Occupant Load Summary First Floor					
Area	Occupancy Use	Approx. Area (sq ft)	No. of Sleeping Rooms	Occupant Load Factor (sq ft/person)	Occupant Load (persons)
Sleeping Room	Residential	290 sq ft per sleeping room	22	200	44
Mechanical Rooms	Incidental	2085	-	300	7
Remaining Residential Areas (Laundry, Vending, etc.)	Residential	1080	-	100	11
Offices	Business	3270	-	100	33
<b>Total</b>		<b>12815</b>	<b>-</b>	<b>-</b>	<b>95</b>

Occupant Load Summary Second Floor					
Area	Occupancy Use	Approx. Area (sq ft)	No. of Sleeping Rooms	Occupant Load Factor (sq ft/person)	Occupant Load (persons)
Sleeping Rooms	Residential	290 sq ft per sleeping room	32	200	64
Mechanical Rooms	Incidental	2160	-	300	8
Lounge	Assembly	660	-	15	44
Remaining Residential Areas (Laundry, Vending, etc.)	Residential	412	-	100	5
<b>Total</b>		<b>12512</b>	<b>-</b>	<b>-</b>	<b>121</b>

Occupant Load Summary Third Floor					
Area	Occupancy Use	Approx. Area (sq ft)	No. of Sleeping Rooms	Occupant Load Factor (sq ft/person)	Occupant Load (persons)
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<b>Total</b>		<b>12512</b>	<b>-</b>	<b>-</b>	<b>121</b>

**LEGEND:**

- OCCUPANT LOAD USING EXITS  
REQUIRED EXIT WIDTH (IN.)  
PROVIDED EXIT WIDTH (IN.)
- EXIT SIGN
- NEW WALL MOUNTED FIRE EXTINGUISHER (2A-10B-C)
- SEMI RECESSED CABINET WITH FIRE EXTINGUISHER (2A-10B-C)
- FIRE ALARM/AUTONOMOUS CONTROL UNIT
- TRAVEL DISTANCE (FT.)
- 1/2 HOUR FIRE RESISTANCE RATING
- 1 HOUR FIRE RESISTANCE RATING

**BB260 EGRESS CAPACITY SUMMARY:**

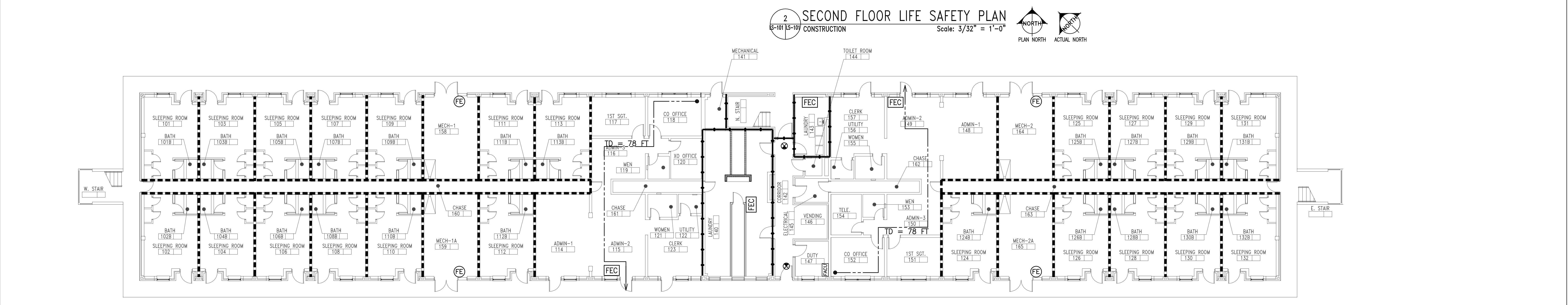
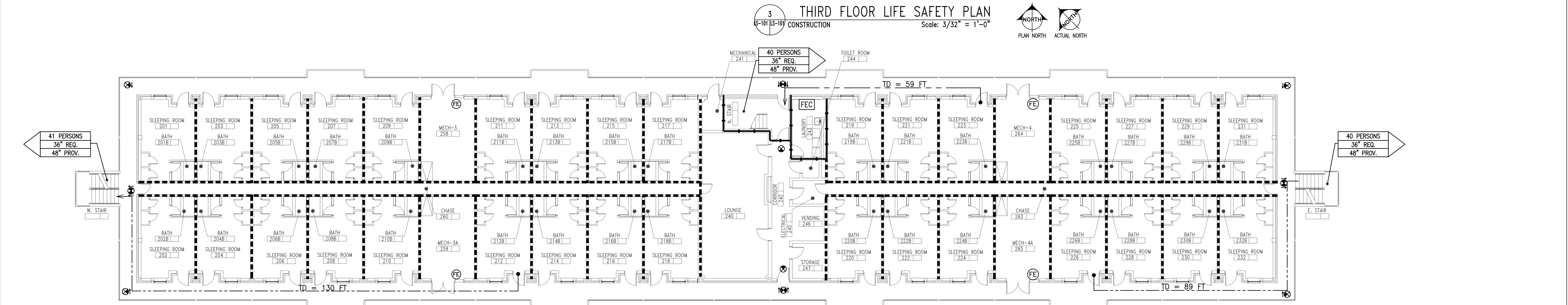
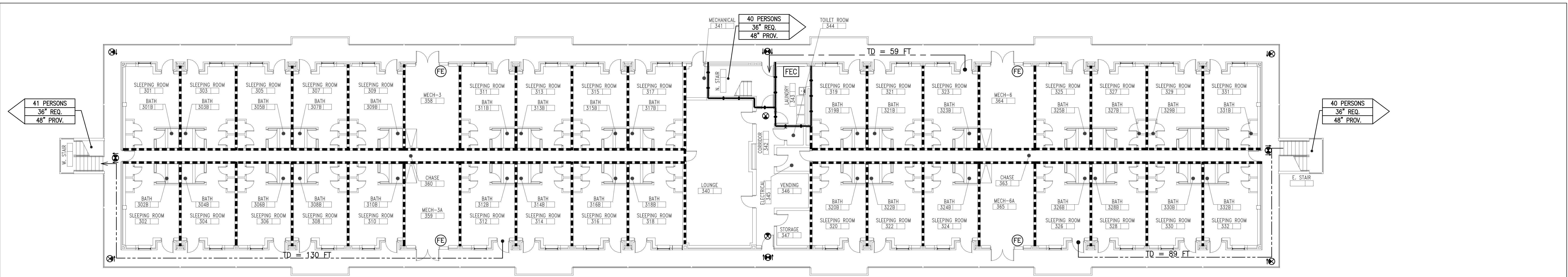
Egress Capacity Summary Second Floor				
Egress Component	Door Clear Width (in.)	Stair Width (in.)	Available Capacity [a,b] (persons)	Required Egress Capacity
East Stair	-	48	160	40
Middle Stair	32	48	160	40
West Stair	-	48	160	41
<b>Total</b>	<b>-</b>	<b>144</b>	<b>480</b>	<b>121</b>

- Egress capacity based on 0.2 in. clear width per person for doors, ramps, and level components [LSC Table 7.3.3.1].
- Egress capacity based on 0.3 in. clear width per person for stairs [LSC Table 7.3.3.1].

Egress Capacity Summary Third Floor				
Egress Component	Door Clear Width (in.)	Stair Width (in.)	Available Capacity [a,b] (persons)	Required Egress Capacity
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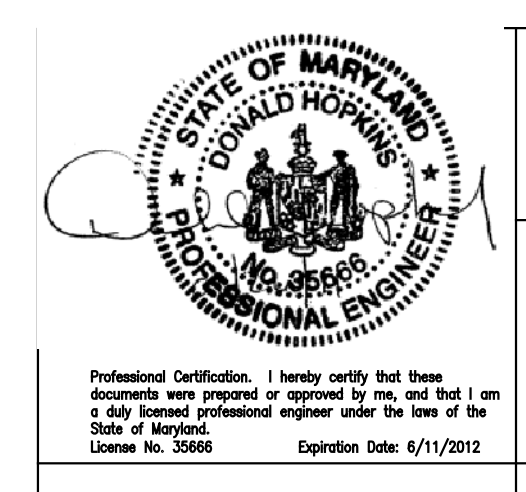
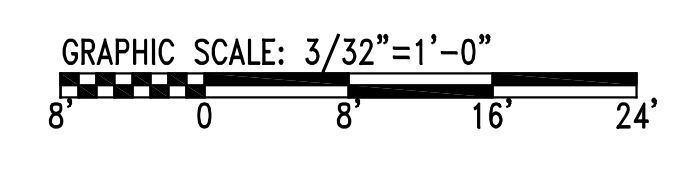
	<p><b>LS-001</b></p>	
	<p>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA</p>	
<p>MAUNE BELANGIA FAULKENBERRY ARCHITECTS, PA</p>	<p>REPAIR BEQ BUILDING BB260 MCB, CLNC</p>	
<p>DES. CLS DR. CLS CHK. DHJ SUBMITTED BY: DESIGN DIR.</p>	<p>LIFE SAFETY CODE SUMMARY</p>	
<p>APPROVED: PWO OR OICC DATE</p>	<p>SIZE CODE IDENT NO <b>F 80091</b></p>	<p>NAVFAC DRAWING NO. <b>60007588</b></p>
<p>SATISFACTORY TO: DATE</p>	<p>CONST. CONTR. NO. N40085-10-B-0031 SHEET 23 OF 72</p>	



TRAVEL DISTANCE, COMMON PATH, AND DEAD END LIMITS [a] (by occupancy)  
 [LSC Table A.7.6]

Occupancy	Travel Distance (ft)	Travel Distance from Room door (ft)	Travel Distance within a Room (ft)	Common Path of Travel (ft)	Dead-end (ft)
Hotels and Dormitories	325	200	125	50	50
Business	300	n/a	n/a	100	50

a. Based on requirements for fully sprinklered buildings.  
 n/a - Not Applicable.



**LS-101**

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND  
**MARINE CORPS BASE**  
 CAMP LEJEUNE, NORTH CAROLINA

REPAIR BEQ BUILDING BB260  
 MCB, CLNC

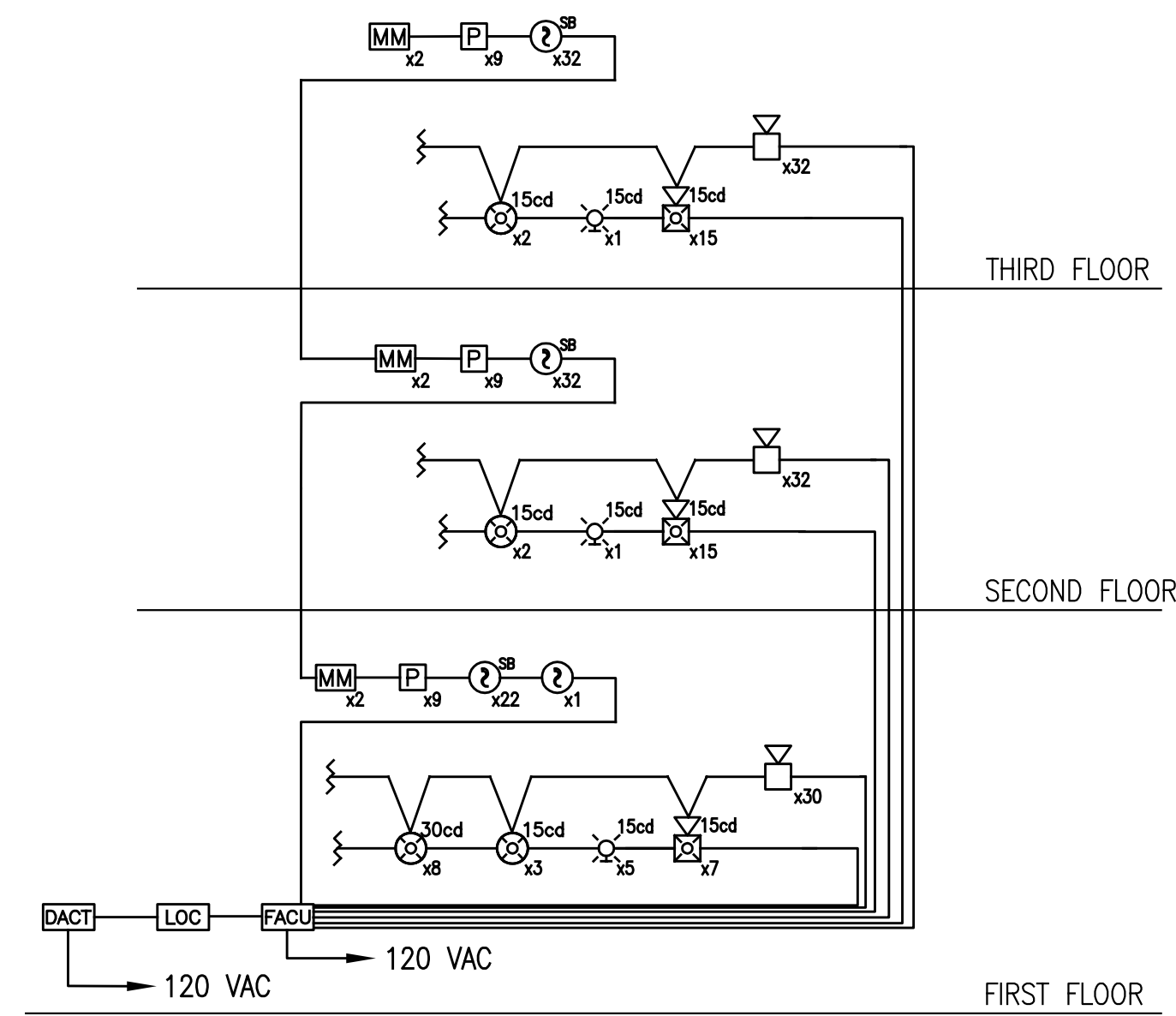
DES. CLS  
 DR. CLS  
 CHK. DHJ  
 SUBMITTED BY:  
 DESIGN DIR.  
 APPROVED: PWO OR OICC DATE  
 SATISFACTORY TO: DATE

LIFE SAFETY FLOOR PLANS  
 NAVFAC DRAWING NO. 60007589  
 CONST. CONTR. NO. N40085-10-B-0031  
 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 24 OF 72



**GENERAL NOTES:**

1. PROVIDE A COMPLETE AND OPERATIONAL ANALOG ADDRESSABLE FIRE ALARM SYSTEM FOR THE BUILDING. THE FIRE ALARM SYSTEM SHALL BE A VOICE EVACUATION SYSTEM AND SHALL ALSO PROVIDE MASS NOTIFICATION FOR THE BUILDING.
2. APPLICABLE CODES:  
 NFPA 72, NATIONAL FIRE ALARM CODE, 2010 EDITION  
 NFPA 70, NATIONAL ELECTRIC CODE, 2008 EDITION  
 UFC 3-600-01, FIRE PROTECTION ENGINEERING FOR FACILITIES, 26 SEPTEMBER 2006, CHANGE 1, 14 JULY 2009  
 UFC 3-600-10N, FIRE PROTECTION ENGINEERING, AUGUST 2007  
 UFC 4-021-01, MASS NOTIFICATION SYSTEMS, CHANGE 1, JANUARY 2010
3. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION. IF CONFLICTS OCCUR BETWEEN THE SPECIFICATION AND NFPA 72 THE MOST STRINGENT REQUIREMENT SHALL APPLY.
4. FIRE ALARM INITIATING DEVICE CIRCUITS LEAVING THE BUILDING SHALL BE PROVIDED WITH SURGE PROTECTION LISTED IN ACCORDANCE WITH UL 1449 AND SATISFYING THE REQUIREMENTS OF IEEE C62.41.
5. ALL EXPOSED FIRE ALARM WIRING SHALL BE INSTALLED IN METAL RACEWAY. DO NOT INSTALL ANY OTHER WIRING IN FIRE ALARM RACEWAY.
6. NOTIFICATION APPLIANCES THAT ARE WALL MOUNTED SHALL BE INSTALLED 80-INCHES - 96-INCHES ABOVE THE FINISHED FLOOR OR 6-INCHES BELOW THE CEILING, WHICHEVER IS LOWER.
7. MANUAL FIRE ALARM STATIONS SHALL BE MOUNTED 4- FEET ABOVE THE FINISHED FLOOR.
8. VISUAL NOTIFICATION APPLIANCES SHALL BE SYNCHRONIZED WHEN IN THE SAME FIELD OF VIEW WITH A FLASH RATE BETWEEN 1 HZ AND 2 HZ.
9. AUDIBLE DEVICES SHALL PROVIDE A CIS SCORE GREATER THAN 0.7 IN EACH AREA WHERE BUILDING OCCUPANTS ARE NORMALLY FOUND.
10. THE DRAWINGS ARE CONCEPTUAL IN NATURE AND DO NOT SHOW THE EXACT LOCATION OF COMPONENTS NOR SHOW ALL SYSTEM COMPONENTS. THE INSTALLING CONTRACTOR SHALL PROVIDE ADDITIONAL COMPONENTS FOR A PROPERLY INSTALLED AND FUNCTIONAL SYSTEM.
11. IN ADDITION TO SHOP DRAWINGS, CONTRACTOR SHALL SUBMIT CATALOG CUT SHEETS, ADDRESSABLE CIRCUIT LOADING, NOTIFICATION APPLIANCE CIRCUIT LOADING, WATTAGE CALCULATIONS, BATTERY CALCULATIONS, CURRENT DRAW AND VOLTAGE DROP CALCULATIONS AND SAMPLES AS REQUIRED BY NFPA 72, OWNER, AND ARCHITECT REQUIREMENTS.
12. CHANGES IN THE LOCATIONS OF EQUIPMENT FROM THOSE SHOWN ON APPROVED SHOP DRAWINGS SHALL BE IDENTIFIED AND APPROVED IN WRITING PRIOR TO INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECTIFYING UNAUTHORIZED NONCOMPLIANT CHANGES AT NO ADDITIONAL CHARGE TO THE OWNER.
13. THE CONTRACTOR SHALL PREPARE "AS-BUILT" DRAWINGS IN ELECTRONIC FORMAT, REFLECTING ACCURATE FIELD CONDITIONS.



**1 CONCEPTUAL FIRE ALARM RISER**

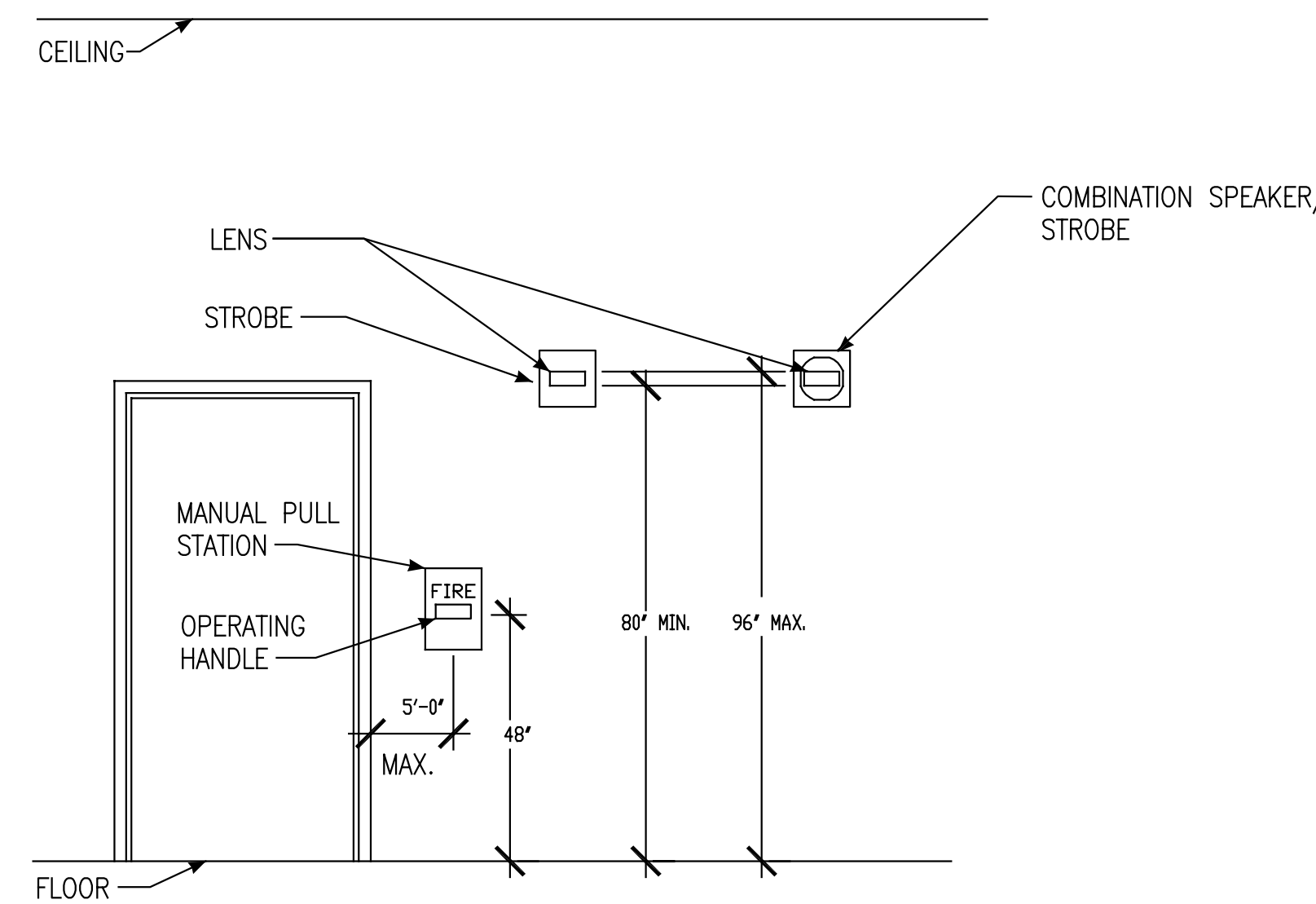
FA-001 FA-007  
 SCALE = N.T.S.  
 NOTE: FIRE ALARM RISER IS A SCHEMATIC REPRESENTATION OF DESIGN INTENT, AND DOES NOT INDICATE ALL DEVICES, DEVICE TYPES, APPLIANCES OR CIRCUITS.

**MASS NOTIFICATION NOTES:**

1. MASS NOTIFICATION TO BE PROVIDED VIA FIRE ALARM SPEAKER SYSTEM AND STROBE LIGHTS.
2. ALL STROBE LOCATIONS SHOWN ON DRAWINGS INDICATE APPROXIMATE LOCATION OF REQUIRED VISUAL NOTIFICATION FOR BOTH FIRE ALARM AND MASS NOTIFICATION SYSTEMS. COMBINATION FIRE ALARM AND MASS NOTIFICATION VISUAL APPLIANCES ARE RECOMMENDED.

**FIRE ALARM DEMOLITION NOTES:**

1. DEMOLITION DRAWINGS WERE CREATED FROM FIELD SURVEYS AND MAY NOT SHOW ALL EXISTING DEVICES. WHERE DEVICES ARE LOCATED IN THE FIELD WHICH ARE NOT INDICATED ON THE DEMOLITION DRAWINGS, THE DEVICES AND ASSOCIATED WIRING AND CONDUIT SHALL BE DEMOLISHED.
2. ALL EXISTING SYSTEMS AND EQUIPMENT BEING REPLACED OR THEIR OPERATION ABANDONED SHALL BE REMOVED IMMEDIATELY AFTER THE NEW FIRE ALARM SYSTEM IS ACCEPTED BY THE OWNER.
3. EXISTING FIRE PROTECTION SYSTEMS SHALL NOT BE TAKEN OUT OF SERVICE WITHOUT PRIOR WRITTEN APPROVAL FROM THE OWNER UNLESS OTHERWISE NOTED. IF SUCH SYSTEMS ARE TAKEN OUT OF SERVICE, THE CONTRACTOR SHALL PROVIDE ALTERNATIVE PROTECTION ACCEPTABLE TO THE OWNER. UNTIL THOSE SYSTEMS ARE REPLACED OR RESTORED TO SERVICE. THE CONTRACTOR SHALL ASSURE THAT THE SYSTEM IS OPERATIONAL AT THE END OF EACH WORK DAY.
4. WHEN FIRE DETECTION AND ALARM SYSTEM DEVICES ARE OUT OF SERVICE, THEY SHALL BE CLEARLY TAGGED "OUT OF SERVICE."
5. EXISTING CONCEALED CONDUITS, JUNCTION AND BACK BOXES SHALL HAVE ALL CONDUCTORS REMOVED AND BE ABANDONED IN PLACE.
6. EXISTING DEVICE BACK BOXES INSTALLED RECESSED IN MASONRY WALLS SHALL BE ABANDONED IN PLACE AND PROVIDED WITH STAINLESS STEEL BLANK COVER PLATES. AS AN ALTERNATE METHOD AND AT THE OWNER'S DISCRETION, THE CONTRACTOR MAY REUSE EXISTING BACK BOXES AT THESE LOCATIONS. PRIOR WRITTEN APPROVAL MUST BE GRANTED BY THE OWNER.
7. EXISTING DEVICE BACK BOXES INSTALLED (RECESSED OR SURFACE) ON G/WB OR PLASTER COVERED WALLS SHALL BE REMOVED. PATCH AND FINISH HOLE TO MATCH SURROUNDING SURFACES. EXISTING DEVICE BACK BOXES INSTALLED RECESSED IN WALLS WITH DECORATIVE WALL COVERINGS SHALL BE ABANDONED IN PLACE AND PROVIDED WITH A STAINLESS STEEL BLANK COVER PLATE. AS AN ALTERNATE METHOD AND AT THE OWNER'S DISCRETION, THE CONTRACTOR MAY REUSE EXISTING BACK BOXES AT THESE LOCATIONS. PRIOR WRITTEN APPROVAL MUST BE GRANTED BY THE OWNER.
8. WHERE EXISTING EQUIPMENT CABINETS ARE REMOVED, THE WALL SURFACE SHALL BE PATCHED AND FINISHED TO MATCH SURROUNDING SURFACES.
9. WHERE EXISTING DUCT SMOKE DETECTORS ARE REMOVED, PATCH AND RE-INSULATE DUCTWORK TO MATCH EXISTING. COORDINATE THE REMOVAL OF ALL DUCT SMOKE DETECTORS WITH BUILDING AUTOMATION SYSTEMS CONTRACTOR.



**2 TYPICAL MOUNTING HEIGHTS FOR WALL MOUNTED DEVICES**

FA-001 FA-107  
 SCALE = N.T.S.

**LEGEND:**

- FACU FIRE ALARM CONTROL/AUTONOMOUS UNIT
- LOC LOCAL OPERATING CONSOLE
- DACT DIGITAL ALARM COMMUNICATOR TRANSMITTER
- MM MONITOR MODULE
- PS MANUAL PULL STATION
- SD SMOKE DETECTOR (SUBSCRIPT INDICATES SOUNDER BASE)
- WS WALL MOUNTED SPEAKER/STROBE (SUBSCRIPT INDICATES DESIGN INTENSITY)
- WS WALL MOUNTED SPEAKER
- CS CEILING MOUNTED SPEAKER/STROBE (SUBSCRIPT INDICATES DESIGN INTENSITY)
- TS TAMPER SWITCH
- WFS WATER FLOW SWITCH
- WS WALL MOUNTED STROBE (SUBSCRIPT INDICATES DESIGN INTENSITY)
- WP WEATHER PROOF
- ELR END OF LINE RESISTOR
- / SLASH INDICATES TO BE DEMOLISHED DEVICE

FIRE ALARM INPUT	OPERATION									
	ACTIVATE AUDIBLE FA EVACUATION THROUGHOUT BUILDINGS	ACTIVATE AUDIO CIRCUITS AND PRODUCE TONE MESSAGE	ACTIVATE VISUAL "ALERT" STROBES THROUGHOUT BUILDINGS	DISABLE NON-EMERGENCY LIVE PAGING MESSAGE	ALARM CONDITION AT FACU	SUPERVISORY CONDITION AT FACU	MNS SUPERVISORY CONDITION AT FACU	TROUBLE CONDITION AT FACU	TRANSMIT SIGNAL TO REMOTE STATION	ACTIVATE SOUNDER BASE
MANUAL PULL STATION	•	•	•							
AUTOMATIC SPRINKLER FLOW SWITCH	•	•	•							
SMOKE DETECTOR WITHIN DWELLING UNIT				•						
SYSTEM SMOKE DETECTOR	•	•								
AUTOMATIC SPRINKLER SYSTEM TAMPER SWITCH					•					
FACU CIRCUIT FAULT (OPEN, GROUND, SHORT)						•				
OTHER TROUBLE CONDITION							•			
PRIMARY AC POWER LOSS								•		
<b>MASS NOTIFICATION INPUT</b>										
ACULOC EMERGENCY LIVE PAGING <sup>1</sup>		•	•							
ACULOC EMERGENCY PRE-RECORDED MESSAGE SELECT <sup>1,2</sup>		•	•							
ACULOC NON-EMERGENCY PRE-RECORDED MESSAGE SELECT <sup>2</sup>		•								
ACULOC PRE-RECORDED "ALL CLEAR" <sup>1</sup>		•								
NON-EMERGENCY LIVE PAGING		•								

GENERAL: CONTRACTORS SHALL ENSURE MNS AND FA PRIORITIES ARE PROGRAMMED IN ACCORDANCE WITH UFC 4-021-01  
<sup>1</sup> EMERGENCY MNS MESSAGES (LIVE & PRE-RECORDED) SHALL TEMPORARILY OVERRIDE FIRE ALARM AUDIBLE EVACUATION AND DISABLE STROBES.  
<sup>2</sup> PRE-RECORDED MNS MESSAGES SHALL REPEAT FOR 10 MINS OR UNTIL MANUALLY RESET.  
<sup>3</sup> SUPERVISORY CONDITION ONLY OCCURS WHEN MNS SYSTEM IS OVERRIDING FIRE ALARM EVACUATION (ALARM CONDITION)

**3 SEQUENCE OF OPERATIONS**

FA-001 FA-007

**FA-001**

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND  
**MARINE CORPS BASE**  
 CAMP LEJEUNE, NORTH CAROLINA

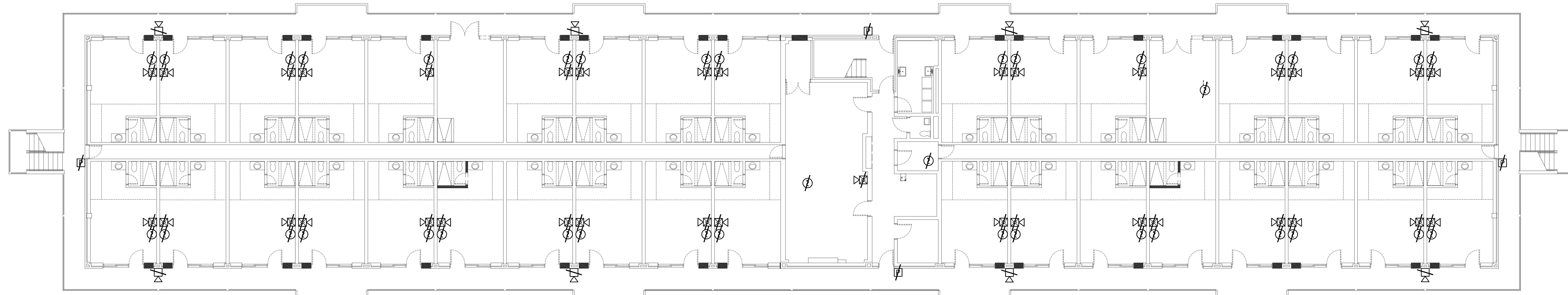
**REPAIR BEQ BUILDING BB260**  
**MCB, CLNC**

GENERAL FIRE ALARM NOTES AND LEGEND

DES. CLS  
 DR. CLS  
 CHK. DHJ  
 SUBMITTED BY:  
 DESIGN DIR.  
 APPROVED: PWO OR OICC DATE SIZE CODE IDENT NO. NAVFAC DRAWING NO.  
 SATISFACTORY TO: DATE F 80091 60007590  
 CONST. CONTR. NO. N40085-10-B-0031  
 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 25 OF 72

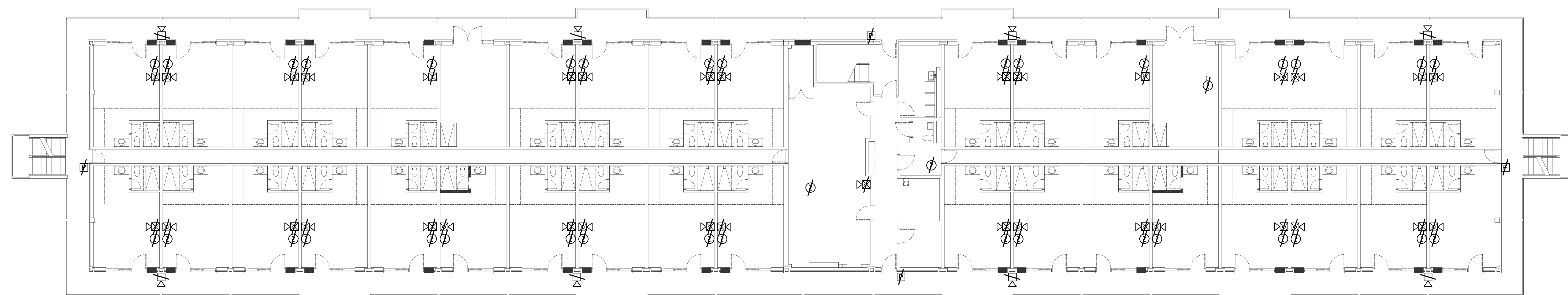
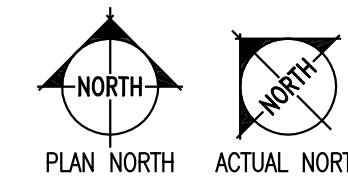
**GENERAL NOTES**

1. THE EXISTING FIRE ALARM/MASS NOTIFICATION SYSTEM IS TO BE DEMOLISHED, INCLUDING ALL CONTROL PANELS, WIRING, INITIATING DEVICES AND NOTIFICATION APPLIANCES.
2. FURNISH AND INSTALL A NEW FIRE ALARM/MASS NOTIFICATION SYSTEM.
3. PROVIDE SMOKE DETECTION IN ACCORDANCE WITH NFPA 72 SECTION 10.15 OVER ALL HEAD-END EQUIPMENT.
4. THE FIRE ALARM/MASS NOTIFICATION LAYOUT IS TYPICAL FOR ALL SLEEPING ROOMS.
5. THE FIRE ALARM DEMOLITION LAYOUT IS TYPICAL FOR ALL SLEEPING ROOMS.



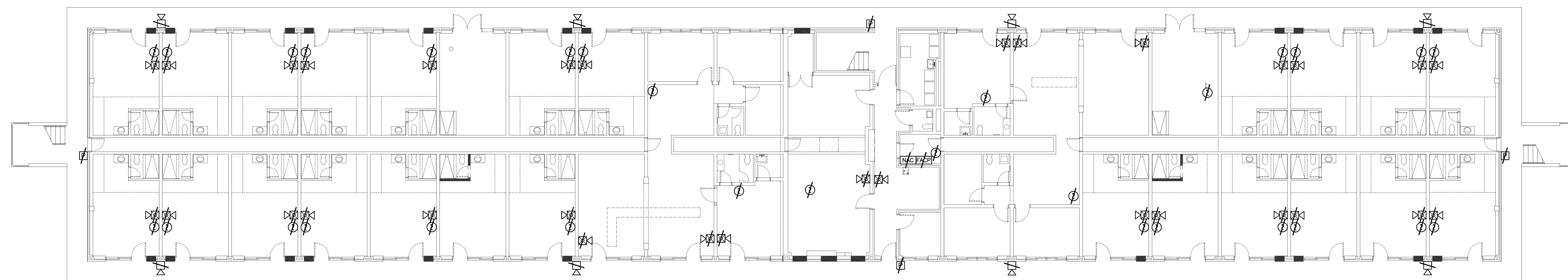
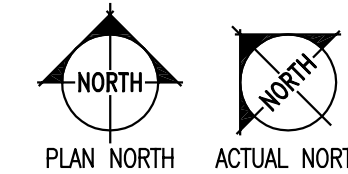
**3 THIRD FLOOR FIRE ALARM DEMOLITION PLAN**  
FAD-10/FAD-10<sup>1</sup> DEMOLITION

Scale: 3/32" = 1'-0"



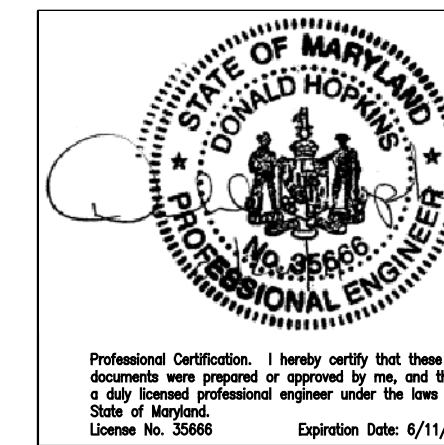
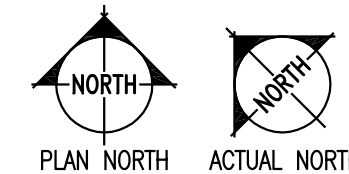
**2 SECOND FLOOR FIRE ALARM DEMOLITION PLAN**  
FAD-10/FAD-10<sup>1</sup> DEMOLITION

Scale: 3/32" = 1'-0"



**1 FIRST FLOOR FIRE ALARM DEMOLITION PLAN**  
FAD-10/FAD-10<sup>1</sup> DEMOLITION

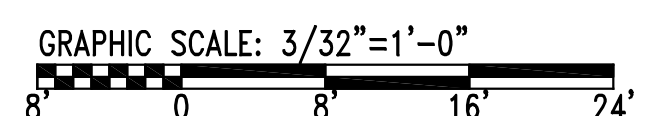
Scale: 3/32" = 1'-0"

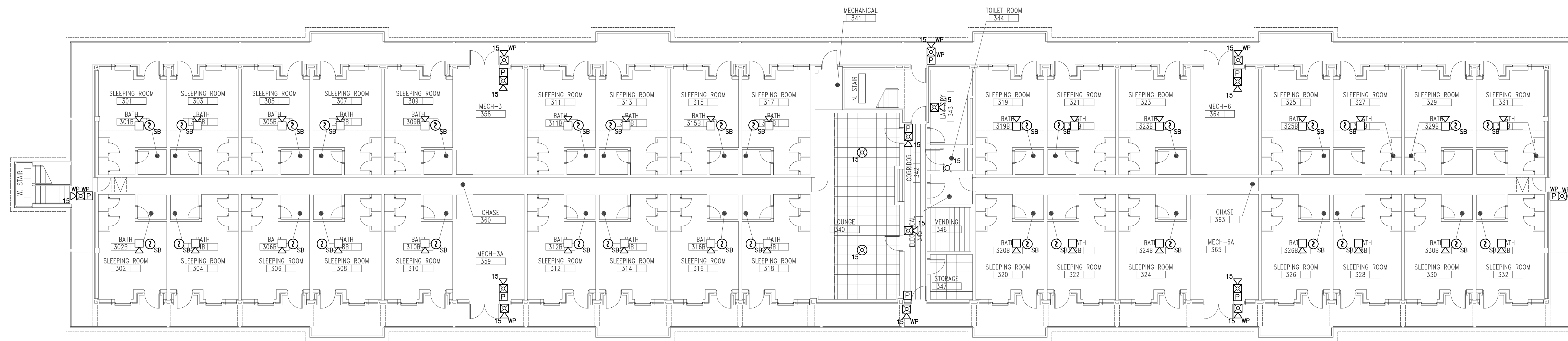


DES. CLS  
 DR. CLS  
 CHK. DHJ  
 SUBMITTED BY:  
 DESIGN DIR.  
 APPROVED: PWO OR OICC  
 SATISFACTORY TO:

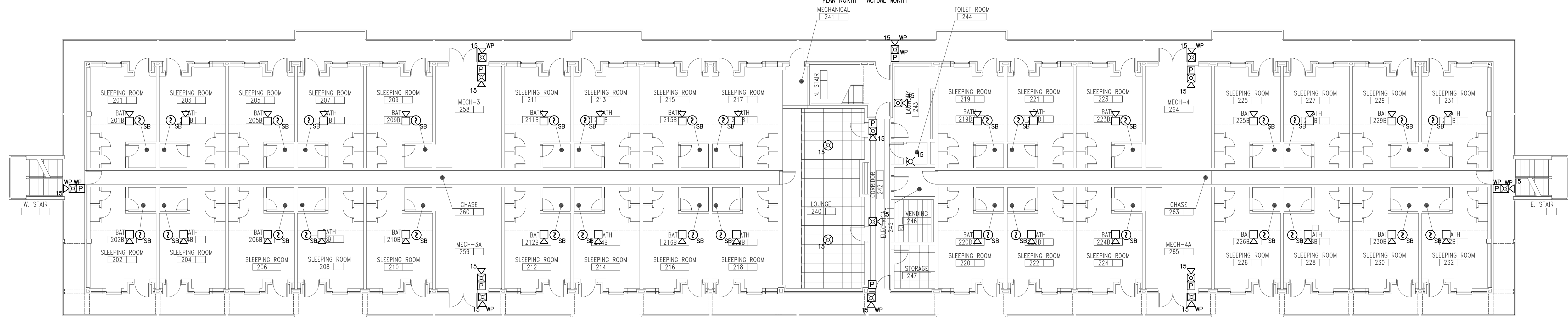
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND  
**MARINE CORPS BASE**  
 CAMP LEJEUNE, NORTH CAROLINA  
**REPAIR BEQ BUILDING BB260**  
 MCB, CLNC  
 FIRE ALARM DEMO FLOOR PLANS  
 NAVFAC DRAWING NO. **60007591**  
 CONST. CONTR. NO. N40085-10-B-0031  
 DATE: **F 80091**  
 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 26 OF 72

**FAD-101**

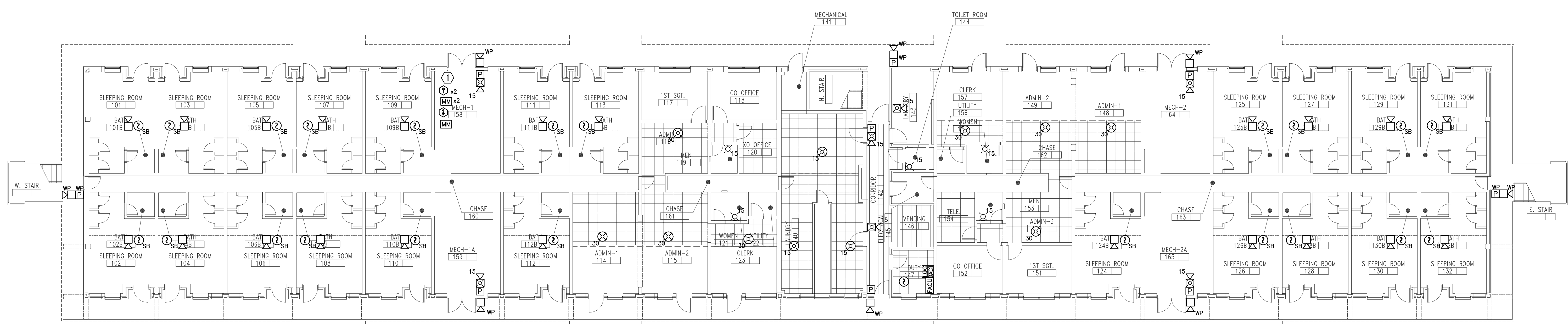




**3 THIRD FLOOR FIRE ALARM PLAN**  
 FA-10FA-101 CONSTRUCTION Scale: 3/32" = 1'-0"  
 PLAN NORTH ACTUAL NORTH



**2 SECOND FLOOR FIRE ALARM PLAN**  
 FA-10FA-101 CONSTRUCTION Scale: 3/32" = 1'-0"  
 PLAN NORTH ACTUAL NORTH



**1 FIRST FLOOR FIRE ALARM PLAN**  
 FA-10FA-101 CONSTRUCTION Scale: 3/32" = 1'-0"  
 PLAN NORTH ACTUAL NORTH

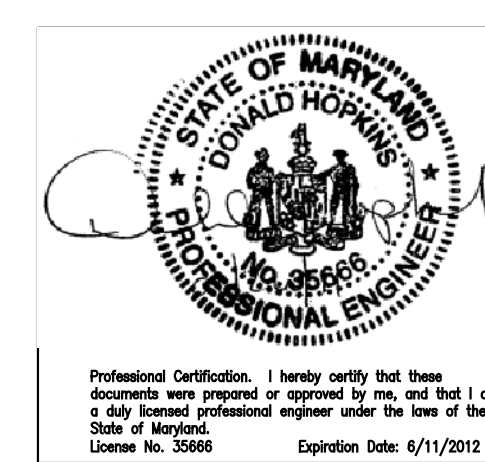
**GENERAL NOTES**

1. THE EXISTING FIRE ALARM/MASS NOTIFICATION SYSTEM IS TO BE DEMOLISHED, INCLUDING ALL CONTROL PANELS, WIRING, INITIATING DEVICES AND NOTIFICATION APPLIANCES.
2. FURNISH AND INSTALL A NEW FIRE ALARM/MASS NOTIFICATION SYSTEM.
3. PROVIDE SMOKE DETECTION IN ACCORDANCE WITH NFPA 72 SECTION 10.15 OVER ALL HEAD-END EQUIPMENT.
4. THE FIRE ALARM/MASS NOTIFICATION LAYOUT IS TYPICAL FOR ALL SLEEPING ROOMS.
5. THE FIRE ALARM DEMOLITION LAYOUT IS TYPICAL FOR ALL SLEEPING ROOMS.

**SHEET NOTES**

1. PROVIDE MONITOR MODULES FOR WET-PIPE SPRINKLER SYSTEM FLOW AND TAMPER SWITCHES.

GRAPHIC SCALE: 3/32"=1'-0"  
 0 8 16 24



DES. CLS  
 DR. CLS  
 CHK. DHJ  
 SUBMITTED BY:  
 DESIGN DIR.  
 APPROVED: PWO OR OICC  
 SATISFACTORY TO:

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND  
**MARINE CORPS BASE**  
 CAMP LEJEUNE, NORTH CAROLINA  
**REPAIR BEQ BUILDING BB260**  
 MCB, CLNC  
 FIRE ALARM FLOOR PLANS  
 NAVFAC DRAWING NO. **60007592**  
 CONST. CONTR. NO. N40085-10-B-0031  
 SHEET 27 OF 72

**FA-101**

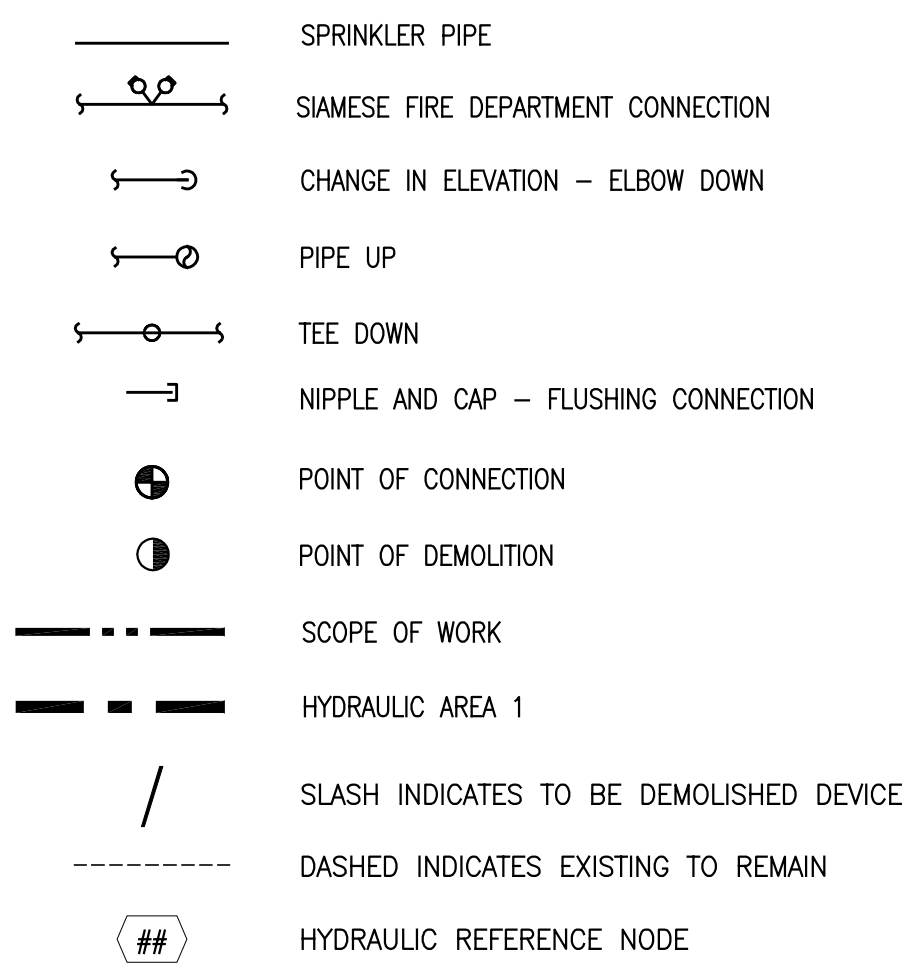
**SCOPE OF WORK:**

BB260 IS PROVIDED THROUGHOUT WITH AN AUTOMATIC WET-PIPE SPRINKLER SYSTEM. THE SCOPE OF WORK INCLUDES MODIFYING THE EXISTING AUTOMATIC WET-PIPE SPRINKLER SYSTEM IN THE AREAS INDICATED ON F-101.

**GENERAL NOTES:**

1. APPLICABLE CODES:  
NFPA 13, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS, 2010 EDITION  
UFC 3-600-01, FIRE PROTECTION ENGINEERING FOR FACILITIES, 14 JULY 2009  
UFC 3-600-10N, FIRE PROTECTION ENGINEERING, AUGUST 2007
2. SPRINKLER SYSTEM SHALL BE HYDRAULICALLY CALCULATED BASED ON MODIFICATIONS TO SYSTEM LAYOUT AND NFPA 13 CRITERIA FOR THE HYDRAULICALLY MOST DEMANDING AREA. CALCULATIONS SHALL BEGIN AT THE LOCATION OF THE WATER FLOW TEST. ALLOW 12 PSI PRESSURE LOSS IN CALCULATION FOR BACKFLOW PREVENTER.
3. ONLY LISTED AND APPROVED NEW SPRINKLERS SHALL BE EMPLOYED IN THE INSTALLATION OF THE SPRINKLER SYSTEM.
4. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE NOT INTENDED TO SHOW THE EXACT LOCATIONS OF COMPONENTS, NOR SHOW ALL SYSTEM COMPONENTS. ALL PIPE SIZES AND COMPONENTS INDICATED ON DRAWINGS ARE APPROXIMATE AND ARE PROVIDED FOR SUGGESTION PURPOSES ONLY. CONTRACTOR SHALL PROVIDE ADDITIONAL OFFSETS OR FITTINGS REQUIRED FOR PROPER INSTALLATION, COORDINATION WITH OTHER TRADES, AND/OR TO MAINTAIN PROPER CLEARANCES. CONTRACTOR SHALL ALSO VERIFY STRUCTURAL, MECHANICAL, AND ELECTRICAL INSTALLATIONS AND DRAWINGS TO AVOID OBSTRUCTIONS OR INTERFERENCE WITH FIRE PROTECTION PIPING AND SPRINKLERS.
5. EXPOSED PIPING SHALL NOT BE PERMITTED, UNLESS SPECIFICALLY APPROVED IN WRITING BY THE OWNERS REPRESENTATIVE (EXCEPT IN AREAS WITH NO FINISHED CEILING).
6. ADEQUATE CLEARANCE, AS DEFINED BY NFPA 13, SHALL BE PROVIDED BETWEEN SPRINKLERS AND HEAT GENERATING DEVICES.
7. ALL PENETRATIONS THROUGH FIRE RESISTANCE RATED ASSEMBLIES SHALL BE SEALED WITH AN UNDERWRITERS LABORATORIES (UL) LISTED FIRE STOPPING SYSTEM.
8. ALL CORE DRILLING SHALL BE COORDINATED WITH STRUCTURAL ENGINEER.
9. ENTIRE SYSTEM SHALL BE FLUSHED AND HYDROSTATICALLY TESTED @ 200 PSI FOR 2 HOURS AS PER NFPA 13.
10. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
11. THE COMPONENTS OF HANGER ASSEMBLIES THAT DIRECTLY ATTACH TO THE PIPE OR TO THE BUILDING SHALL BE LISTED.
12. SPRINKLER CONTRACTOR SHALL COORDINATE WITH FIRE ALARM CONTRACTOR FOR CONNECTION TO FIRE ALARM SYSTEM AND TRANSMISSION TO CENTRAL STATION.
13. SPRINKLERS NEED NOT BE PROVIDED FOR OPEN BALCONIES AND OPEN EXTERIOR STAIRS.
14. DO NOT ROUTE SPRINKLER SYSTEM PIPING OVER ELECTRICAL PANELS.
15. IN ALL AREAS WITH DROP CEILINGS, SPRINKLERS SHALL BE LOCATED IN THE CENTER OF THE CEILING TILE.

**LEGEND:**



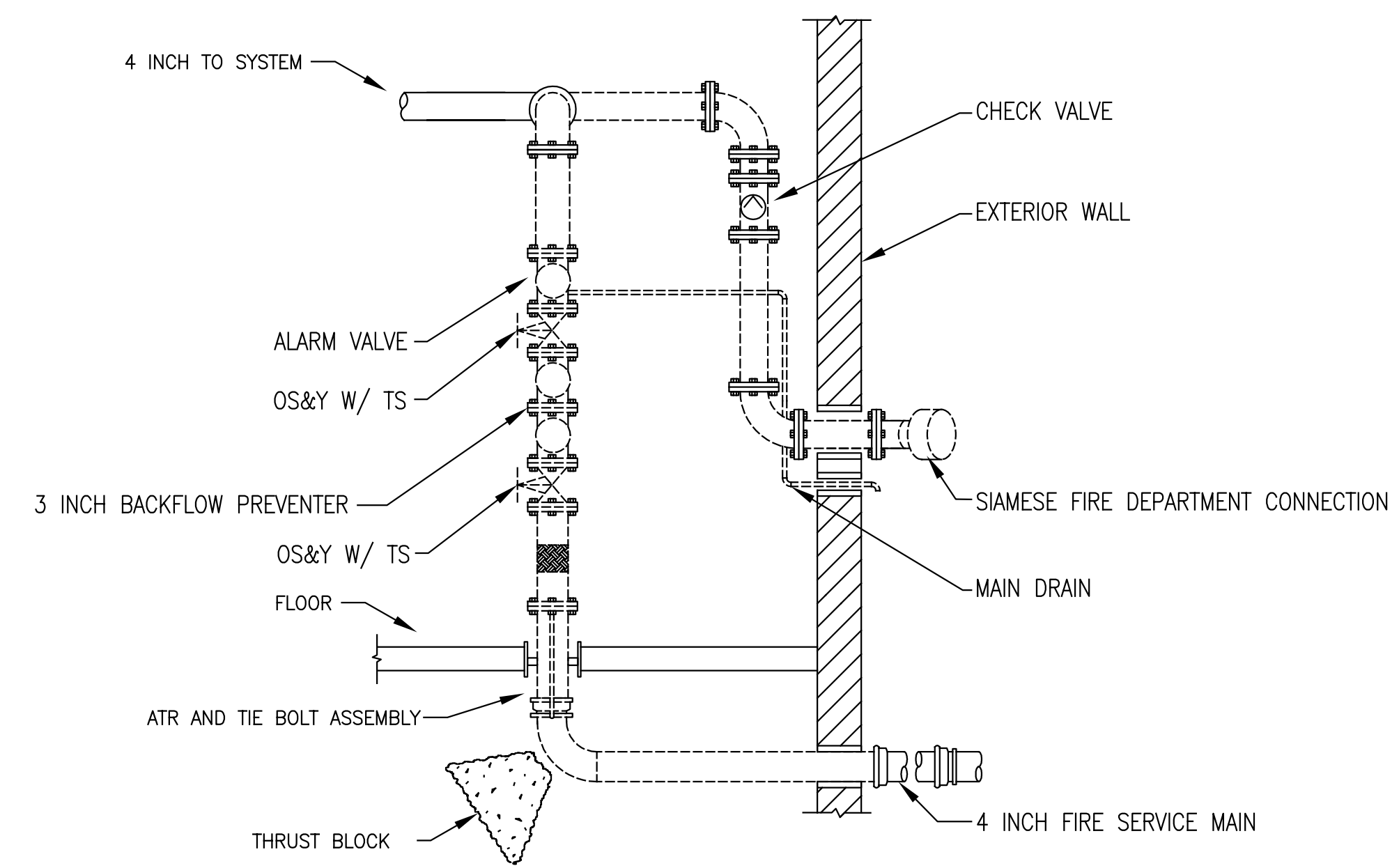
**SPRINKLER LEGEND:**

SYM	POSITION	FINISH	TEMP	K	INPT
▲	RES. SW	CHROME	155	4.2	1/2"
◀	SW	CHROME	155	5.6	1/2"
■	RES. CONCEALED PEND.	CHROME	160	4.20	1/2"
○	UPR.	CHROME	165	5.60	1/2"
⊙	PEND.	CHROME	165	5.60	1/2"
◀	DRY SW	CHROME	200	5.60	1/2"

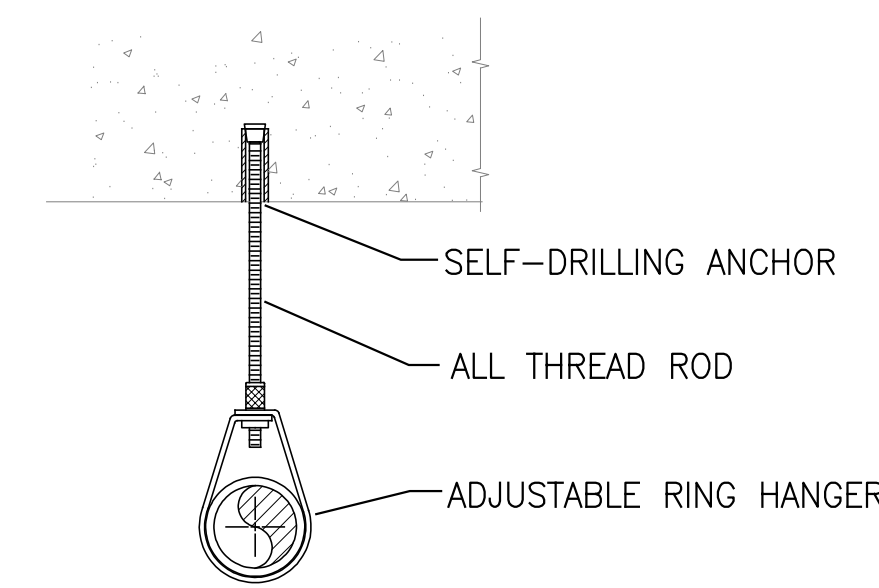
**OCCUPANCY HAZARD LEGEND:**

ALL AREAS ARE LIGHT HAZARD UNLESS NOTED OTHERWISE. A MINIMUM DENSITY OF 0.10 GPM/SQ.FT. WITH A DESIGN AREA OF 3,000 SQ.FT. AND A HOSE ALLOWANCE OF 100 GPM SHALL BE USED.

(OH1) ORDINARY HAZARD GROUP 1 OCCUPANCY. A MINIMUM DESIGN DENSITY OF 0.15 gpm/ft<sup>2</sup>, WITH A DESIGN AREA OF 3,000 ft<sup>2</sup> AND A HOSE ALLOWANCE OF 500 gpm SHALL BE USED.



**2 EXISTING WATER SERVICE ENTRANCE PIPING DETAIL**  
SCALE = N.T.S.

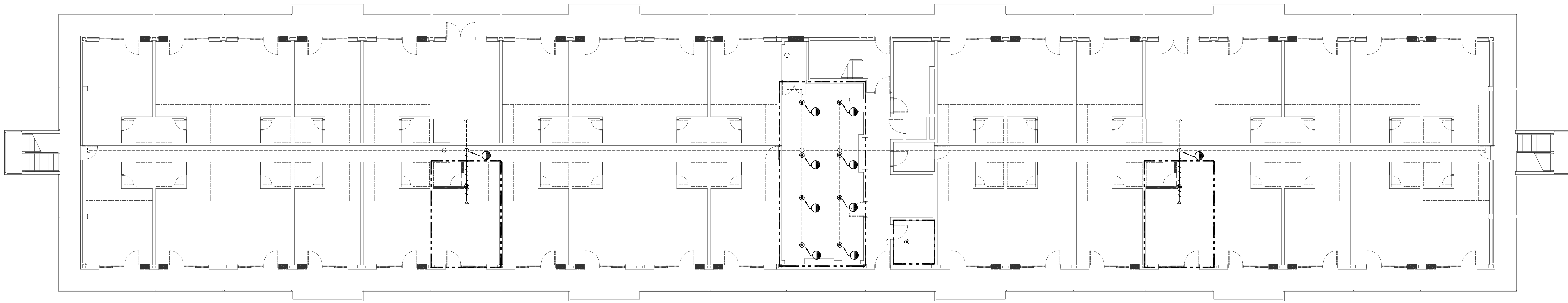


**3 CONCRETE HANGER DETAIL**  
SCALE = N.T.S.

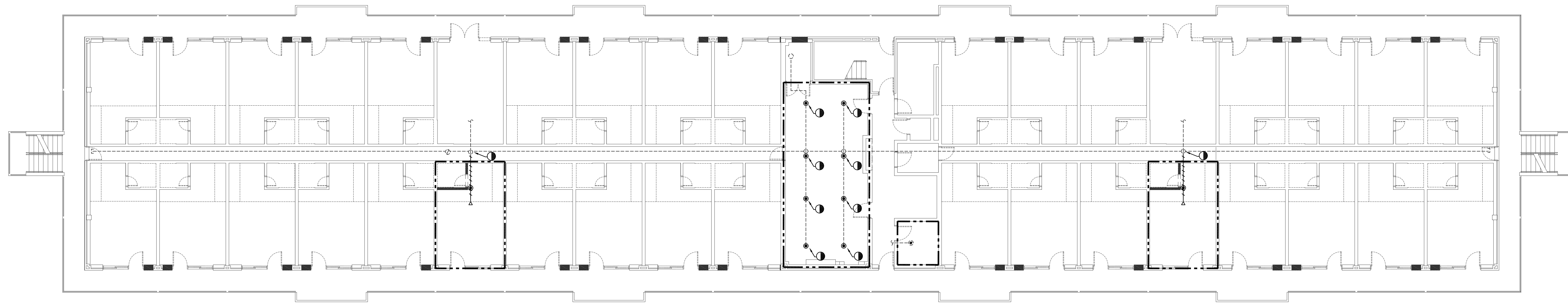
STATIC PRESSURE PSI	RESIDUAL PRESSURE PSI	FLOW RATE GPM	DATE TESTED	TEST HYDRANT	FLOW HYDRANT
45.0	40.0	969	8/24/10 1500 HRS	7-30-8 (GRACE LANE)	7-29-8 (GRACE LANE)

**1 WATER SUPPLY INFORMATION**

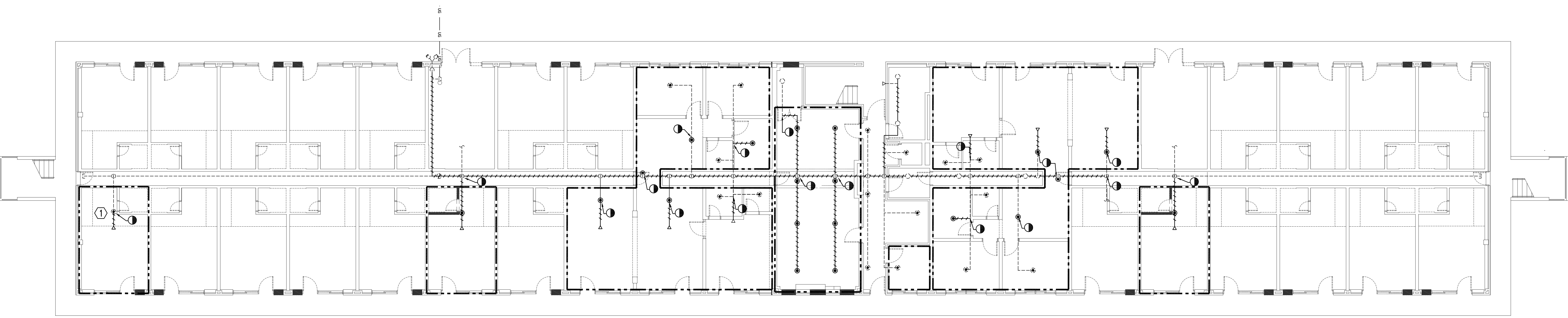
	<b>F-001</b>	
	MAUNE BELANGIA FAULKENBERRY ARCHITECTS, PA DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA <b>REPAIR BEQ BUILDING BB260</b> MCB, CLNC	NAVFAC DRAWING NO. <b>60007593</b> CONST. CONTR. NO. N40085-10-B-0031
DES. CLS DR. CLS CHK. DHJ SUBMITTED BY: DESIGN DIR.	APPROVED: PWO OR OICC DATE SATISFACTORY TO: DATE	GENERAL SPRINKLER NOTES AND LEGEND F 80091 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 28 OF 72



3 THIRD FLOOR SPRINKLER DEMOLITION PLAN  
 FD-101 DEMOLITION Scale: 3/32" = 1'-0"  
 PLAN NORTH ACTUAL NORTH



2 SECOND FLOOR SPRINKLER DEMOLITION PLAN  
 FD-101 DEMOLITION Scale: 3/32" = 1'-0"  
 PLAN NORTH ACTUAL NORTH



1 FIRST FLOOR SPRINKLER DEMOLITION PLAN  
 FD-101 DEMOLITION Scale: 3/32" = 1'-0"  
 PLAN NORTH ACTUAL NORTH

- GENERAL NOTES**
1. THE EXISTING PIPING AND SPRINKLER LAYOUT IS SHOWN FOR ILLUSTRATION PURPOSES. CONTRACTOR TO FIELD VERIFY PIPING AND SPRINKLER LAYOUT.
  2. REPLACE THE 2 1/2 - INCH MAIN AS INDICATED ON FLOOR PLANS AND RECONNECT AT OUTLETS.
  3. REVISE SPRINKLER LAYOUT IN AREAS IDENTIFIED TO COMPLY WITH SPRINKLER COVERAGE REQUIREMENTS OF NFPA 13 AND NFPA 13R.
- SHEET NOTES**
- ① DEMOLITION SPRINKLER LAYOUT IS TYPICAL FOR ALL SLEEPING ROOMS. DEMO THE SPRINKLER BRANCHLINE BACK TO THE EXISTING PENDENT SPRINKLER WITHIN THE SLEEPING ROOM.

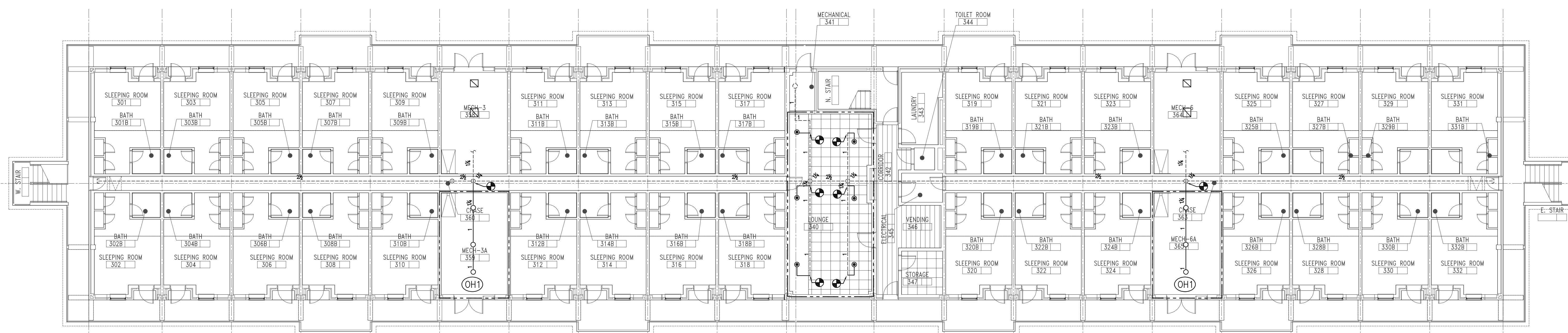
	<b>PRE-FINAL SUBMITTAL</b>		<b>FD-101</b>
	01.06.2011		
MAUNE BELANGIA FAULKENBERRY ARCHITECTS, P.A.	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA		REPAIR BEQ BUILDING BB260 MCB, CLNC
	DES. CLS DR. CLS CHK. DHJ SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC DATE:		
SATISFACTORY TO: DATE:		SIZE CODE IDENT NO <b>F 80091</b>	CONST. CONTR. NO. 140265-10-B-0031 SPEC. 05-10-0031 SHEET 19 OF 72

**GENERAL NOTES**

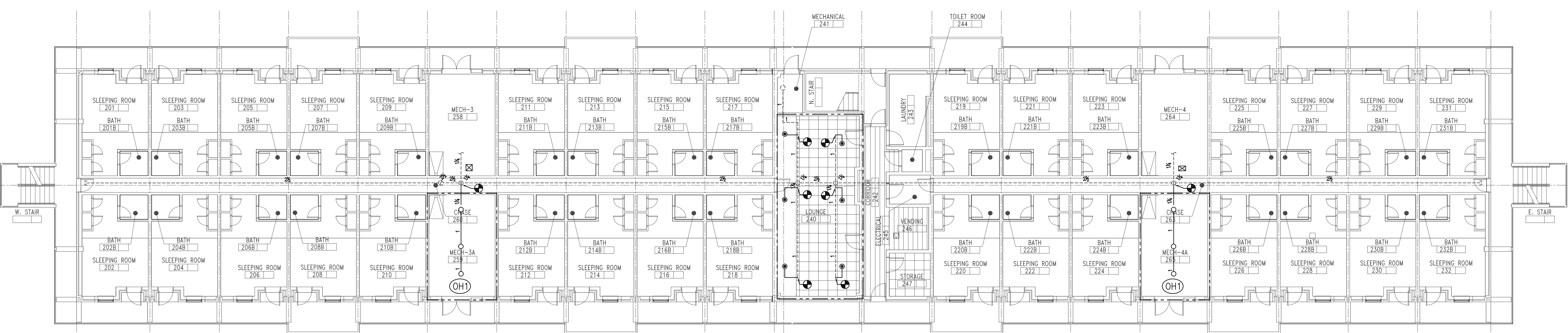
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2. REPLACE THE 2 1/2 - INCH MAIN AS INDICATED ON FLOOR PLANS AND RECONNECT AT OUTLETS.
3. REVISE SPRINKLER LAYOUT IN AREAS IDENTIFIED TO COMPLY WITH SPRINKLER COVERAGE REQUIREMENTS OF NFPA 13 AND NFPA 13R.

**SHEET NOTES**

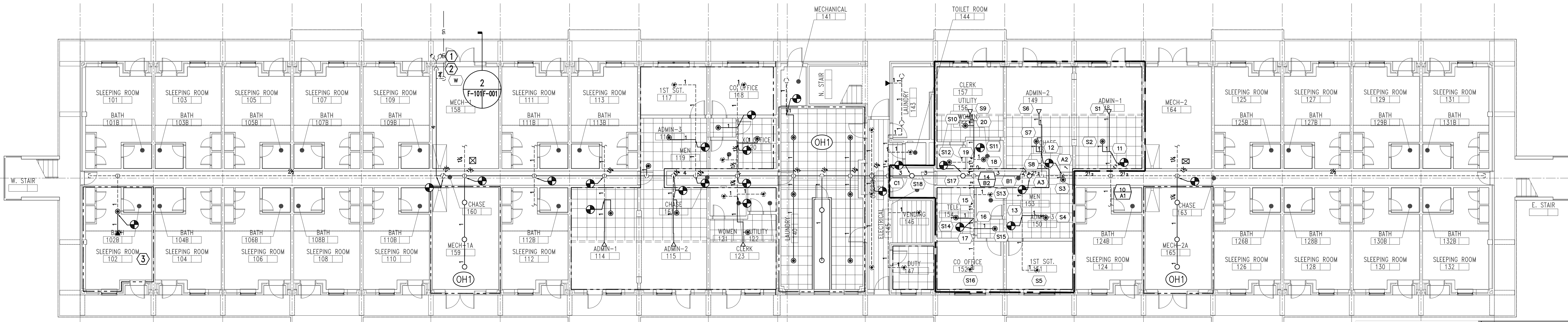
1. EXISTING SMOKE FIRE DEPARTMENT CONNECTION. CHECK VALVE IN VERTICAL.
2. EXISTING BACKFLOW PREVENTER ASSEMBLY IN VERTICAL. SEE DETAIL ON SHEET F001.
3. REVISED SPRINKLER LAYOUT IS TYPICAL FOR ALL SLEEPING ROOMS. RELOCATE EXISTING SIDEWALL SPRINKLER TO ACCOMMODATE NEW SOFFIT LOCATION AND REPLACE EXISTING PENDENT SPRINKLER.



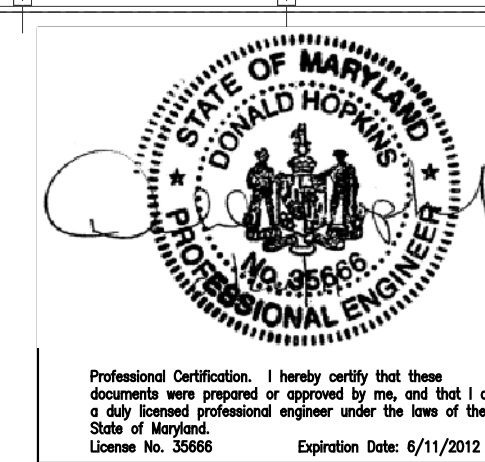
**3 THIRD FLOOR SPRINKLER PLAN**  
 F-101F-101 CONSTRUCTION Scale: 3/32" = 1'-0"  
 PLAN NORTH ACTUAL NORTH



**2 SECOND FLOOR SPRINKLER PLAN**  
 F-101F-101 CONSTRUCTION Scale: 3/32" = 1'-0"  
 PLAN NORTH ACTUAL NORTH



**1 FIRST FLOOR SPRINKLER PLAN**  
 F-101F-101 CONSTRUCTION Scale: 3/32" = 1'-0"  
 PLAN NORTH ACTUAL NORTH

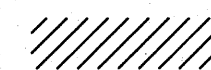
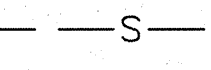
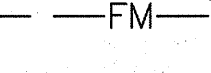

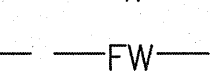
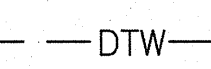
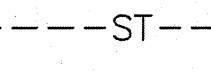
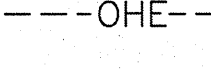
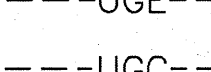

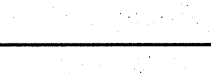
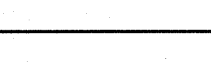
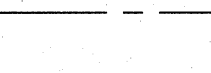

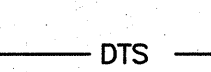
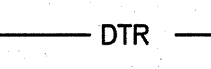



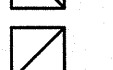
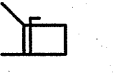

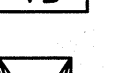

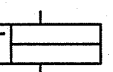




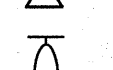

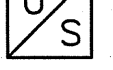

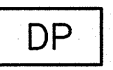



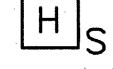
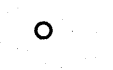

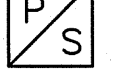











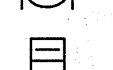
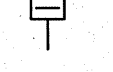






DES. CLS  
 DR. CLS  
 CHK. DHJ  
 SUBMITTED BY:  
 DESIGN DIR.  
 APPROVED: PWO OR OICC DATE  
 SATISFACTORY TO: DATE

MAUNE BELANGIA FAULKENBERRY ARCHITECTS, PA.  
 DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND  
**MARINE CORPS BASE**  
 CAMP LEJEUNE, NORTH CAROLINA  
**REPAIR BEQ BUILDING BB260**  
 MCB, CLNC  
 SPRINKLER FLOOR PLANS  
 NAVFAC DRAWING NO. 60007595  
 CONST. CONTR. NO. N40085-10-B-0031  
 SCALE: AS NOTED SPEC. 05-10-0031 SHEET 30 OF 72

**F-101**

**LEGEND**

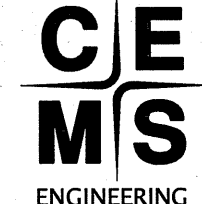
	MECHANICAL TO BE REMOVED	DTR	DUAL TEMPERATURE RETURN
	SANITARY SEWER (GRAVITY)	DTS	DUAL TEMPERATURE SUPPLY
	SANITARY SEWER (FORCE MAIN)	PRV	PRESSURE RELIEF VALVE
	STORM SEWER	U.G.	UNDERGROUND
	DOMESTIC WATER	EXP.	EXPANSION
	FIRE WATER	P	PUMP
	DUAL TEMPERATURE WATER	TYP.	TYPICAL
	UNDERGROUND STEAM	FCU	FAN COIL UNIT
	OVERHEAD ELECTRICAL	FPB	FAN POWERED BOX
	UNDERGROUND ELECTRICAL	UH	UNIT HEATER
	UNDERGROUND CABLE	EF	EXHAUST FAN
	UNDERGROUND COMMUNICATIONS	DDC	DIRECT DIGITAL CONTROL
	GEOTHERMAL WATER SUPPLY	SBC	SUPERVISORY BUILDING CONTROLLER
	GEOTHERMAL WATER RETURN	DHP	DOMESTIC GEOTHERMAL HEAT PUMP
	COLD WATER, CW	VFD	VARIABLE FREQUENCY DRIVE
	HOT WATER, HW	HP	GEOTHERMAL HEAT PUMP
	HOT WATER RECIRCULATING, HWR	OAU	OUTDOOR AIR UNIT
	DUAL TEMPERATURE WATER SUPPLY	EMCS	EMERGENCY MONITORING AND CONTROLS SYSTEM
	DUAL TEMPERATURE WATER RETURN	PPC	PUMP PLANT CONTROLLER
	GEOTHERMAL WELL	GSM	GEOTHERMAL SMART WATER METER
	SIDEWALL SUPPLY GRILLE	DSM	DOMESTIC SMART WATER METER
	SUPPLY DUCT	TCU	TERMINAL CONTROL UNIT
	EXHAUST DUCT/VENT	ECM	ELECTRONICALLY COMMUTATED MOTOR
	RETURN DUCT/GRILLE	SBC	SUPERVISORY BUILDING CONTROLLER
	45° TAKE OFF	CW	DOMESTIC COLD WATER
	FLEXIBLE DUCT	HW	DOMESTIC HOT WATER
	MANUAL VOLUME DAMPER	HWR	HOT WATER RECIRCULATION
	SQUARE TO ROUND TRANSITION	HGRH	HOT GAS REHEAT
	SOFFIT	OAT	OUTDOOR AIR TEMPERATURE SENSOR
	TEMPERATURE SENSOR	MOD	MOTOR OPERATED DAMPER
	PUMP	JCI	JOHNSON CONTROLS INTERFACE
	TRIPLE DUTY VALVE	FD	FIRE DAMPER
	SLOW ACTING 2-WAY CONTROL VALVE	(E)	EXISTING
	SLOW ACTING 3-WAY CONTROL VALVE		POINT OF CONNECTION BETWEEN NEW AND EXISTING
	VARIABLE FREQUENCY DRIVE BYPASS		POINT OF DISCONNECTION BETWEEN EXISTING TO REMAIN AND EXISTING TO BE REMOVED
	UNIT START/STOP		EXISTING PLUMBING VENT
	SUPPLY AIR TEMPERATURE SENSOR		
	DIFFERENTIAL PRESSURE SENSOR		
	TEMPERATURE SENSOR		
	HUMIDITY SENSOR		
	DUCT TEMPERATURE SENSOR		
	PUMP START/STOP		
	AUTOMATIC THERMOSTATIC MIXING VALVE		
	GATE VALVE		
	MOTOR OPERATED DAMPER		
	THERMOSTAT		
	SLOW ACTING CONTROL VALVE		
	AUTOMATIC THERMOSTATIC MIXING VALVE		
	CHECK VALVE		
	TEMPERATURE & PRESSURE RELIEF VALVE		
	CIRCULATING PUMP		
	TEMPERATURE CONTROL PROBE		
	FULL PORT BALL VALVE		
	TEMPERATURE GAGE		
	SLOW ACTING DDC CONTROL VALVE		

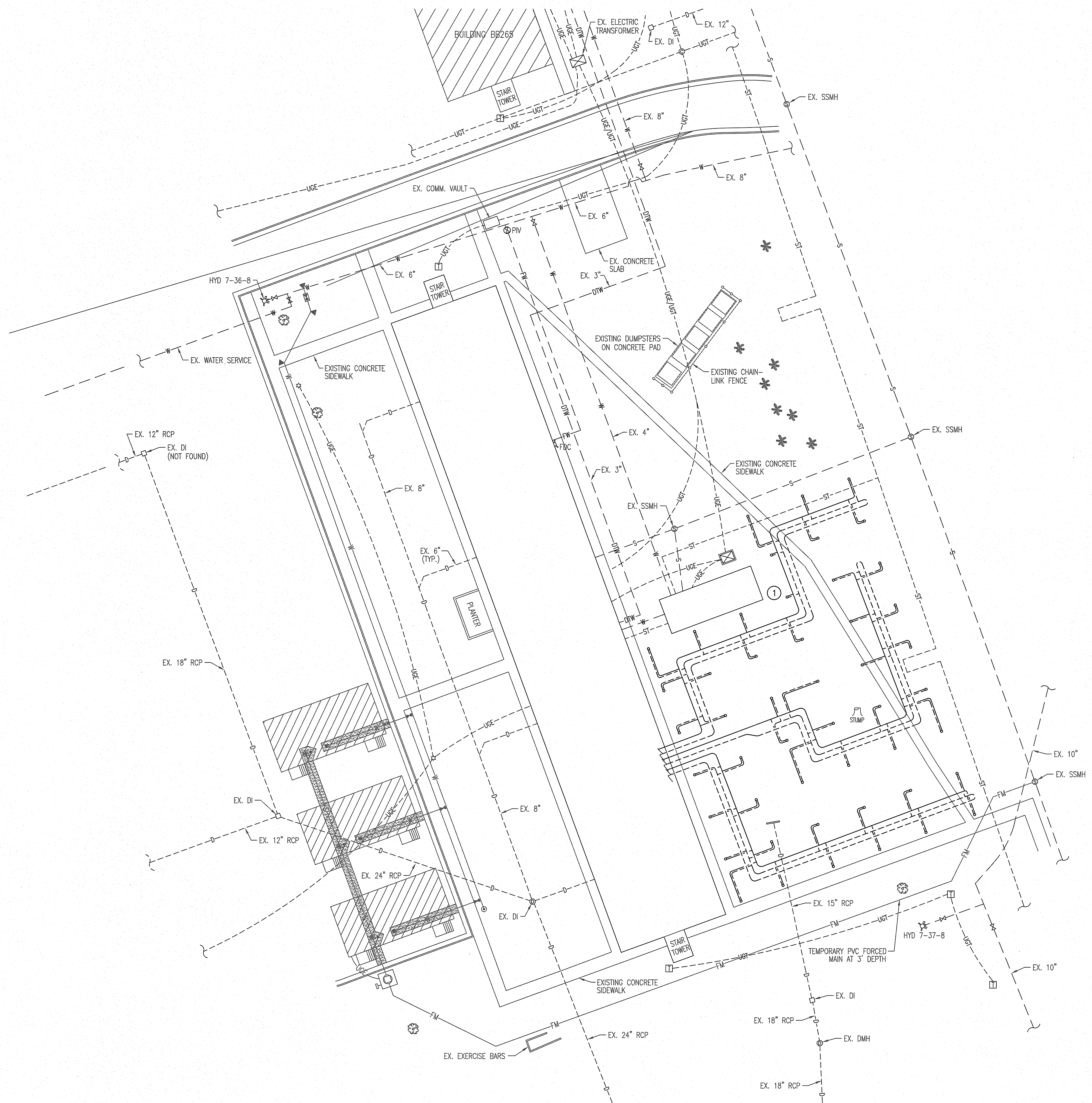
**GENERAL NEW WORK NOTES:**

- DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE NOT TO BE SCALED FOR DIMENSIONS, UNLESS DIMENSIONED.
- COORDINATE LOCATION OF MECHANICAL WORK WITH OTHER TRADES TO AVOID CONFLICTS AND INTERFERENCES.
- ALL EQUIPMENT, PIPE AND DUCTWORK SHALL BE SUPPORTED FROM BUILDING STRUCTURE ABOVE, UNLESS OTHERWISE NOTED.
- DUCTWORK SHALL BE GALVANIZED STEEL FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS.
- DUCT SIZES INDICATED ARE NET FREE INSIDE DIMENSIONS.

**GENERAL DEMOLITION NOTES:**

- REMOVAL OF EQUIPMENT, DUCTWORK, PIPING, ETC. IS TO INCLUDE ALL ASSOCIATED HANGERS, SUPPORTS, BRACKETS, CONTROLS, AIR DEVICES, EQUIPMENT FOUNDATION/MOUNTING PADS AND APPURTENANCES PHYSICALLY ATTACHED AT THE COMMENCEMENT OF DEMOLITION, UNLESS NOTED OTHERWISE.
- CONCEALED/BURIED PIPING MAY BE ABANDONED IN PLACE SO LONG AS IT DOES NOT INTERFERE WITH NEW WORK, UNLESS NOTED OTHERWISE.
- ALL EQUIPMENT REMOVED, NOT INDICATED TO BE REUSED SHALL BECOME THE PROPERTY OF THE CONTRACTOR, UNLESS NOTED OTHERWISE, AND SHALL BE TRANSPORTED BY THE CONTRACTOR OFF SITE.
- EXISTING EQUIPMENT INDICATED TO BE REUSED SHALL BE CLEANED AND SERVICED PRIOR TO REUSE.
- WHERE EQUIPMENT, DUCTWORK OR PIPING IS REMOVED AND NOT REPLACED, PATCH AND FINISH AREAS TO MATCH ADJACENT SURFACES.
- SEE ENLARGED PLANS FOR EQUIPMENT REMOVAL.
- ALL DUAL TEMPERATURE PIPING IN BUILDING TO BE REMOVED.

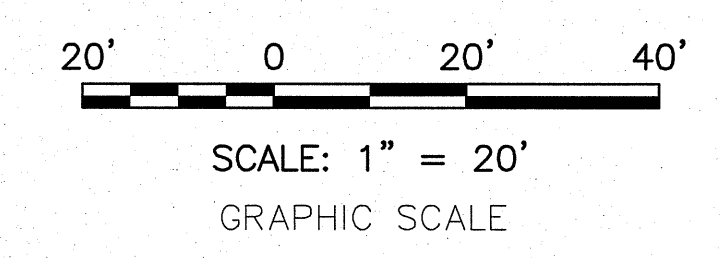
		<b>M-001</b>	
 <p>CEMS Engineering, Inc. 3509 Iron Horse Drive Ladson, SC 29456 (781)433-3607 (781)433-4509 www.cemsgroup.com ©2005 Project #001582 Project Manager: R. Avlar</p>		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
		REPAIR BEQ BUILDING BB260	
DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY:		MECHANICAL LEGEND AND GENERAL NOTES NAVFAC DRAWING NO.	
DESIGN DIR. APPROVED: PWO OR OICC		DATE	SIZE CODE IDENT NO.
SATISFACTORY TO:		DATE	80091
		SCALE: NOTED	SPEC. 10-B-0031
		SHEET	31 OF 72



- GENERAL NOTES:**
1. MARK ALL EXISTING SITE UTILITIES IN AREAS WHERE NEW WORK IS CONDUCTED. WELL DRILLER TO COORDINATE WELL LOCATIONS WITH EXISTING UTILITIES SHOWN ON THIS DRAWING AND FOUND IN THE FIELD.
  2. NO PARKING OF VEHICLES OR STORAGE OF MATERIALS, EQUIPMENT, AND SUPPLIES SHALL OCCUR UNDER, WITHIN, OR AROUND ANY TREE CANOPIES. IF THESE SPACES MUST BE USED, TREES IN THE LAYDOWN AREAS MUST BE PROTECTED.
  3. CONTRACTOR TO ROUTE PIPING AROUND TREES AND BUSHES.
  4. SEE SHEET M-502 FOR PIPE SIZING AND ROUTING DETAILS FOR GEOTHERMAL WATER SUPPLY AND RETURN LINES. WELLS TO BE SPACED AS SHOWN ON THIS SHEET.

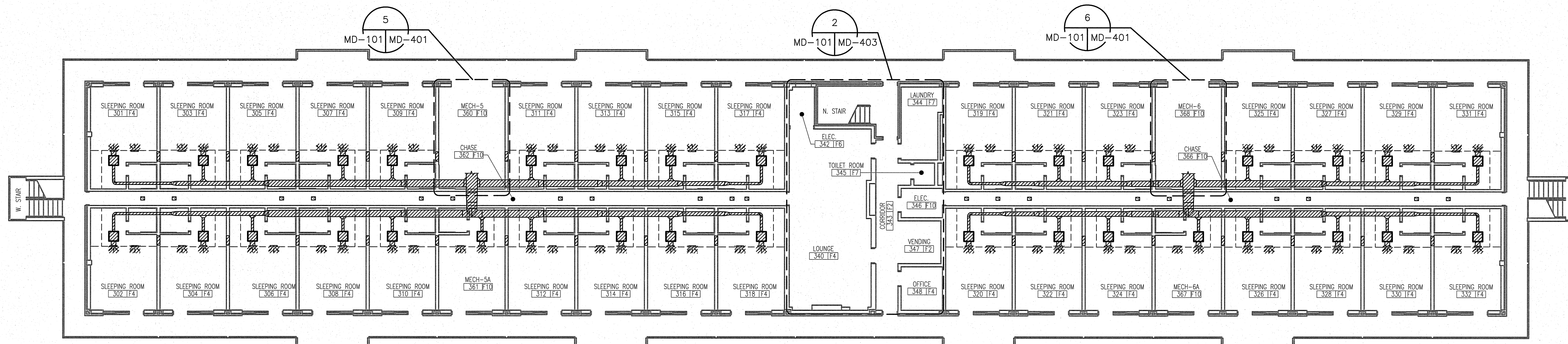
- NEW WORK KEYNOTES:**
- ① GEOTHERMAL TEST BORE TO BE USED IN WELL FIELD.

**MECHANICAL SITE PLAN**  
SCALE: 1" = 20'-0"

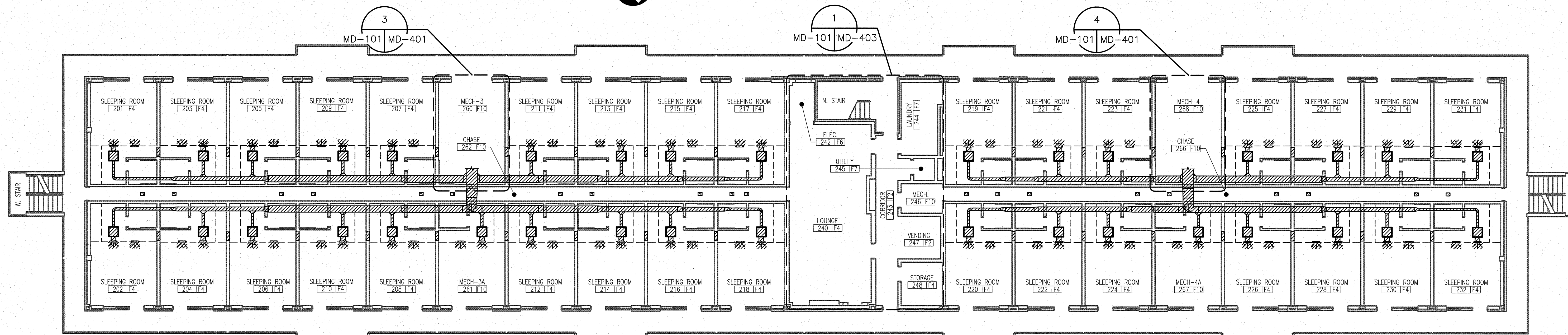


		<b>MS-101</b>	
 <small>CEMS Engineering, Inc. 3020 Iron Horse Drive Ladson, SC 29456 (781) 875-2637 www.cemsgroup.com CEMS Project #061582 Project Manager: R. Alvar</small>	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA		
	DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR.		
	APPROVED: PWO OR OICC DATE:		MECHANICAL SITE PLAN NAVFAC DRAWING NO. <b>60007597</b>
	SATISFACTORY TO: DATE:		SIZE CODE IDENT NO. <b>F 80091</b> CONST. CONTR. NO. N40085-10-B-0031 SCALE: SPEC. 10-B-0031 SHEET 32 OF 72

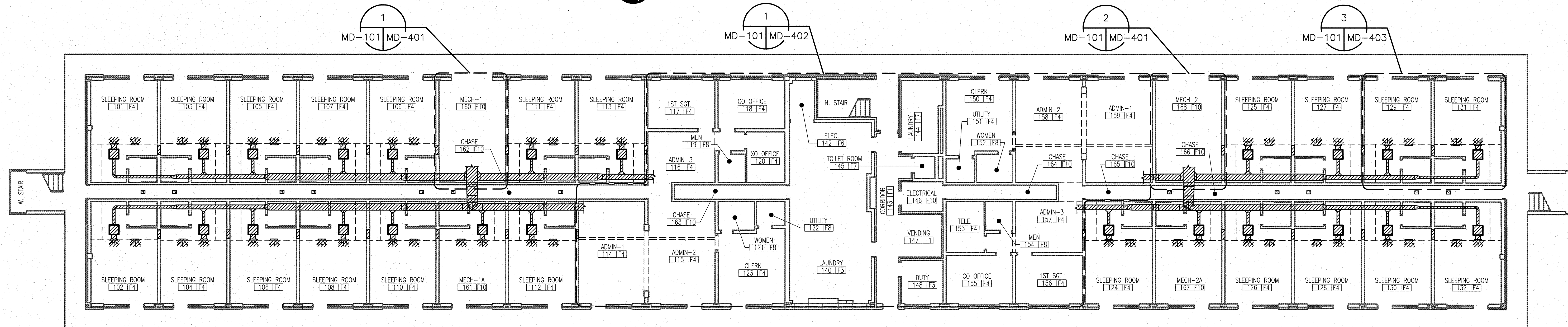




**THIRD FLOOR MECHANICAL DEMOLITION PLAN**  
SCALE: 3/32" = 1'-0"

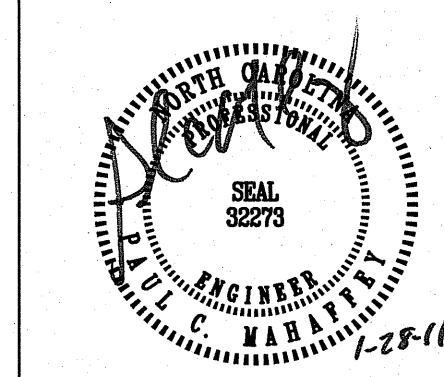
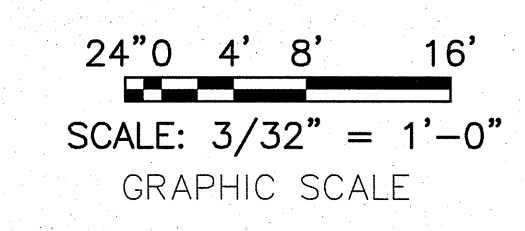


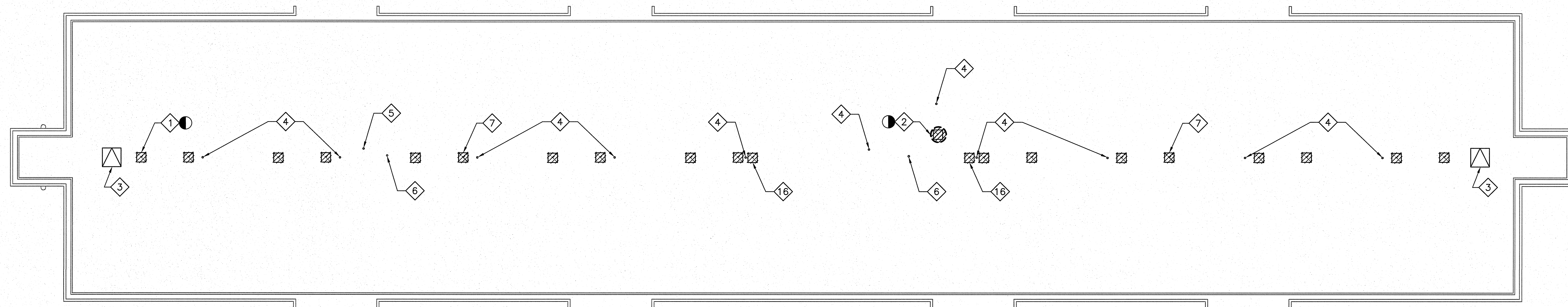
**SECOND FLOOR MECHANICAL DEMOLITION PLAN**  
SCALE: 3/32" = 1'-0"



**FIRST FLOOR MECHANICAL DEMOLITION PLAN**  
SCALE: 3/32" = 1'-0"

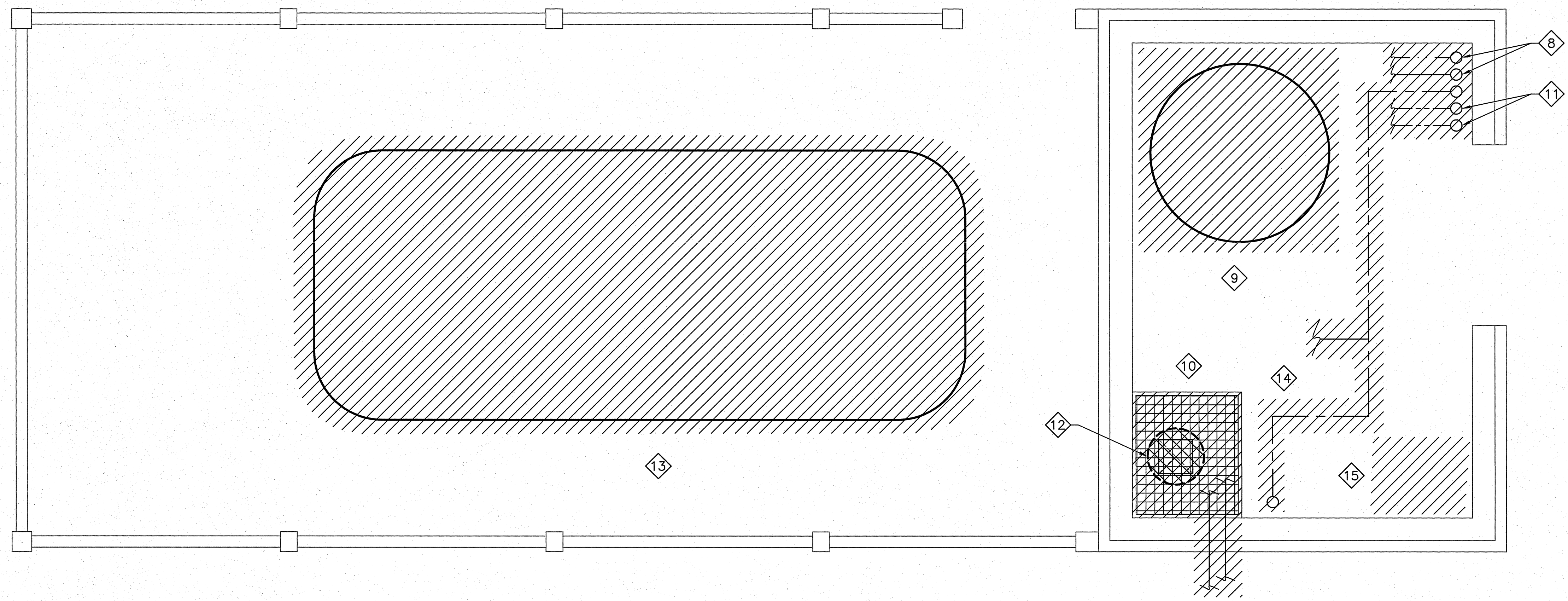
<b>MD-101</b>	
	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA
	REPAIR BEQ BUILDING BB260
DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC	MECHANICAL DEMOLITION PLANS NAVFAC DRAWING NO. <b>60007598</b>
SATISFACTORY TO:	DATE: <b>F 80091</b> SCALE: AS NOTED SPEC. 10-B-0031



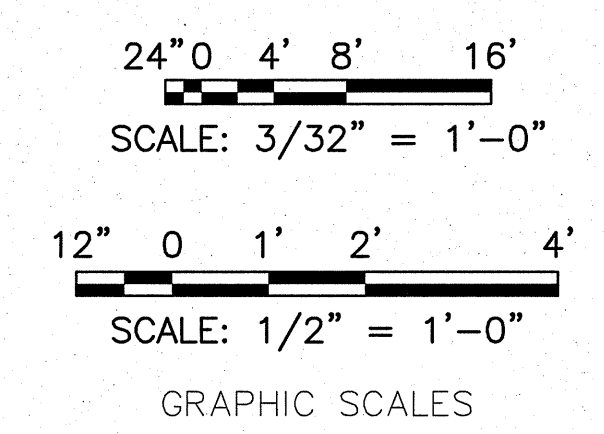


**ROOF MECHANICAL DEMOLITION PLAN**  
SCALE: 3/32" = 1'-0"

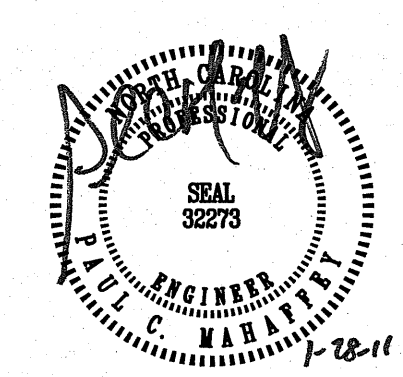
- DEMOLITION KEYNOTES:**
- 1 REMOVE EXISTING CURB MOUNTED RELIEF VENT. EXISTING CURB AND 12x12 EXHAUST DUCT TO REMAIN. TYPICAL FOR 16.
  - 2 EXISTING ROOF EXHAUST FAN TO BE REMOVED. EXISTING CURB AND 10x10 EXHAUST DUCT DOWN TO REMAIN.
  - 3 SEE ARCHITECTURAL DRAWINGS FOR ROOF HATCH SCOPE OF WORK.
  - 4 EXISTING 4" VENT THRU ROOF TO BE EXTENDED UP THRU NEW ROOF - SEE DETAIL ON SHEET P-001.
  - 5 REMOVE WATER SPIGOT AND CAP DOMESTIC WATER PIPE FLUSH TO EXISTING ROOF.
  - 6 EXISTING SOLAR HOT WATER PIPING TO BE REMOVED. SEE ARCHITECTURAL DRAWINGS FOR PATCHING DETAILS.
  - 7 REMOVE EXISTING CURB MOUNTED RELIEF VENT. EXISTING CURB AND DUCT TO REMAIN. CAP EXHAUST DUCT AT CURB.
  - 8 ALL DOMESTIC HW & HWR PIPING TO BE REMOVED AND CAPPED BELOW GRADE.
  - 9 STEAM HOT WATER HEATER/TANK AND ALL ASSOCIATED PIPING, CONTROLS AND DEVICES TO BE REMOVED.
  - 10 REMOVE ALL STEAM PIPING, DEVICES, RELATED CONTROLS AND PUMPS.
  - 11 ALL SOLAR HW SUPPLY AND RETURN PIPING TO BE REMOVED AND CAPPED BELOW GRADE. REMOVE ALL RELATED SOLAR HOT WATER PUMPS, DEVICES, AND CONTROLS.
  - 12 REMOVE ROOF MOUNTED EXHAUST FAN AND ALL ASSOCIATED WIRING AND CONTROLS IN THEIR ENTIRETY.
  - 13 REMOVE 6,000 GALLON SOLAR HOT WATER STORAGE TANK AND ALL RELATED PIPING AND CONTROLS.
  - 14 ALL CW SUPPLY PIPING TO BE REMOVED.
  - 15 REMOVE CHEMICAL FEED SYSTEM AND ALL ASSOCIATED WIRING AND CONTROLS.
  - 16 REMOVE EXISTING CURB MOUNTED RELIEF VENT AND PERMANENTLY CAP.

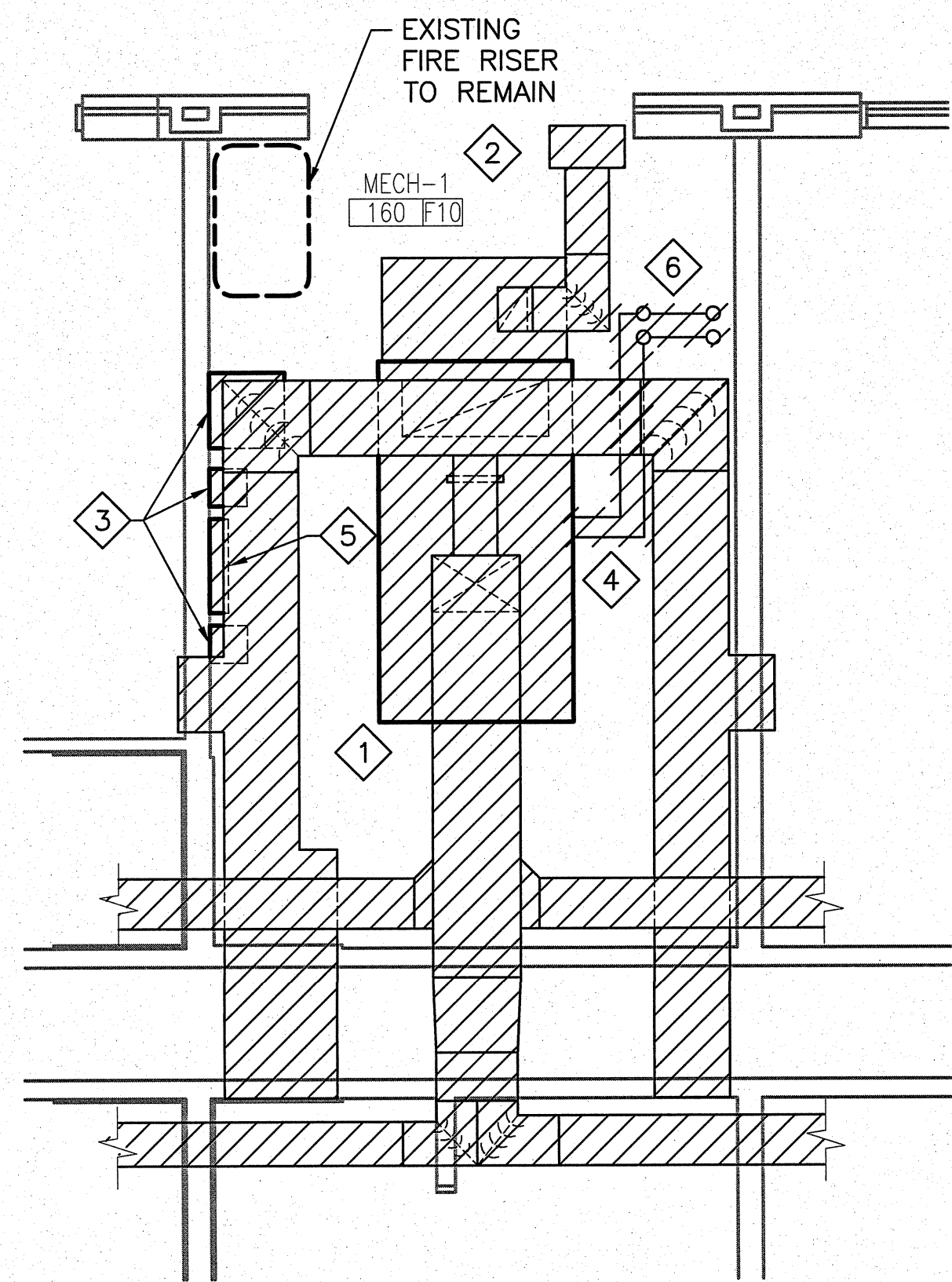


**BUILDING BB261 MECHANICAL DEMOLITION PLAN**  
SCALE: 1/2" = 1'-0"

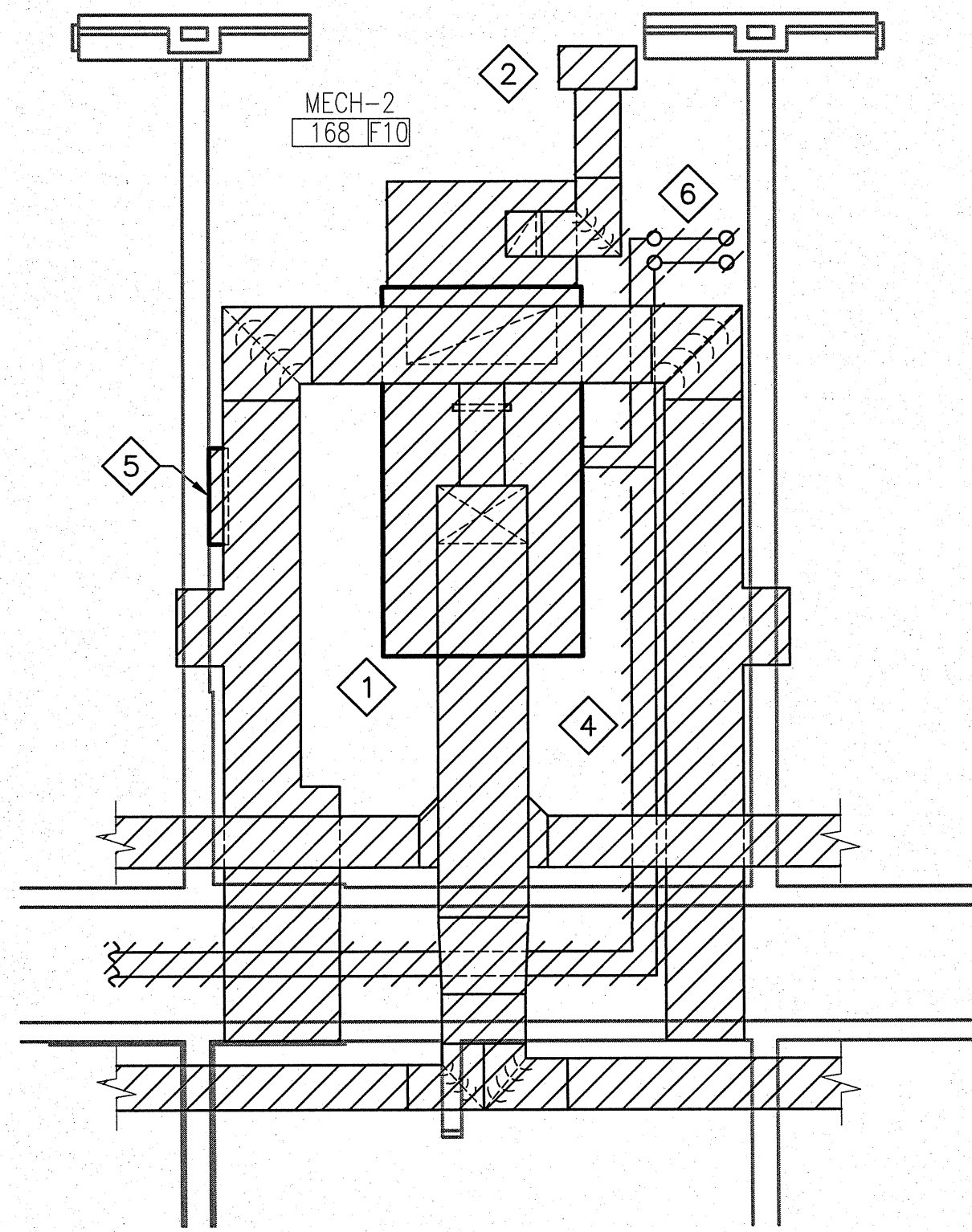


		<b>MD-102</b>	
 <small>CEMS Engineering, Inc. 3508 Iron Horse Drive Ladson, SC 29456 (704) 875-2637 (704) 875-4909 www.cemsgroup.com CEMS Project #011552 Project Manager: R. Alvar</small>	<small>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND</small> <b>MARINE CORPS BASE</b> <small>CAMP LEJEUNE, NORTH CAROLINA</small>		
	<b>REPAIR BEQ</b> <b>BUILDING BB260</b>		
<small>DES. J. CARR</small> <small>DR. J. BARNES</small> <small>CHK. P. MAHAFFEY</small> <small>SUBMITTED BY:</small> <small>DESIGN DIR.</small> <small>APPROVED: PWO OR OICC</small>		<small>ROOF &amp; BUILDING BB261 MECHANICAL DEMOLITION PLANS</small> <small>NAVFAC DRAWING NO.</small> <b>60007599</b>	
<small>SATISFACTORY TO:</small>		<small>DATE</small> <b>F 80091</b> <small>CONST. CONTR. NO. N40085-10-B-0031</small>	
		<small>SCALE: AS NOTED SPEC. 10-B-0031</small> <b>SHEET 34 OF 72</b>	

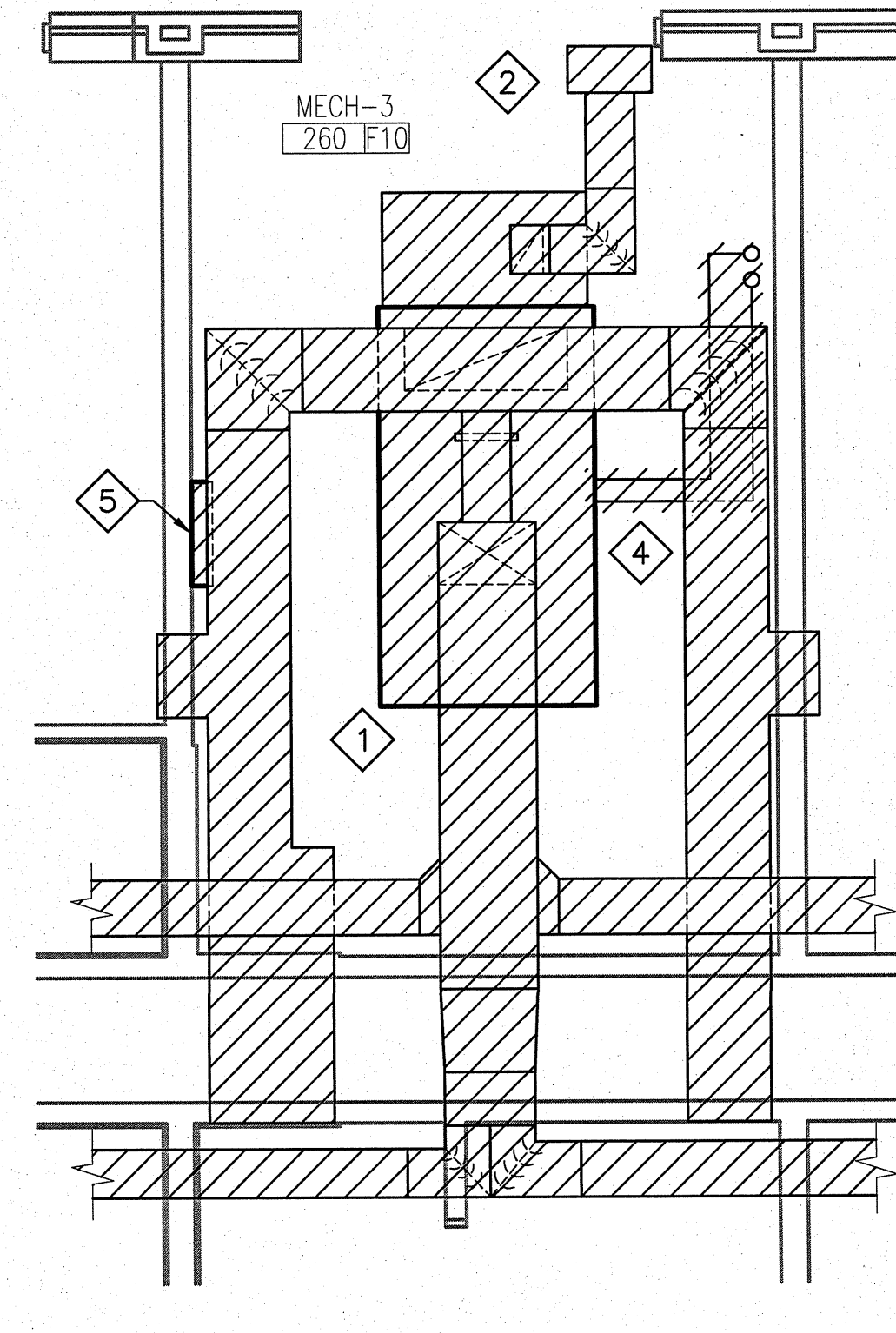




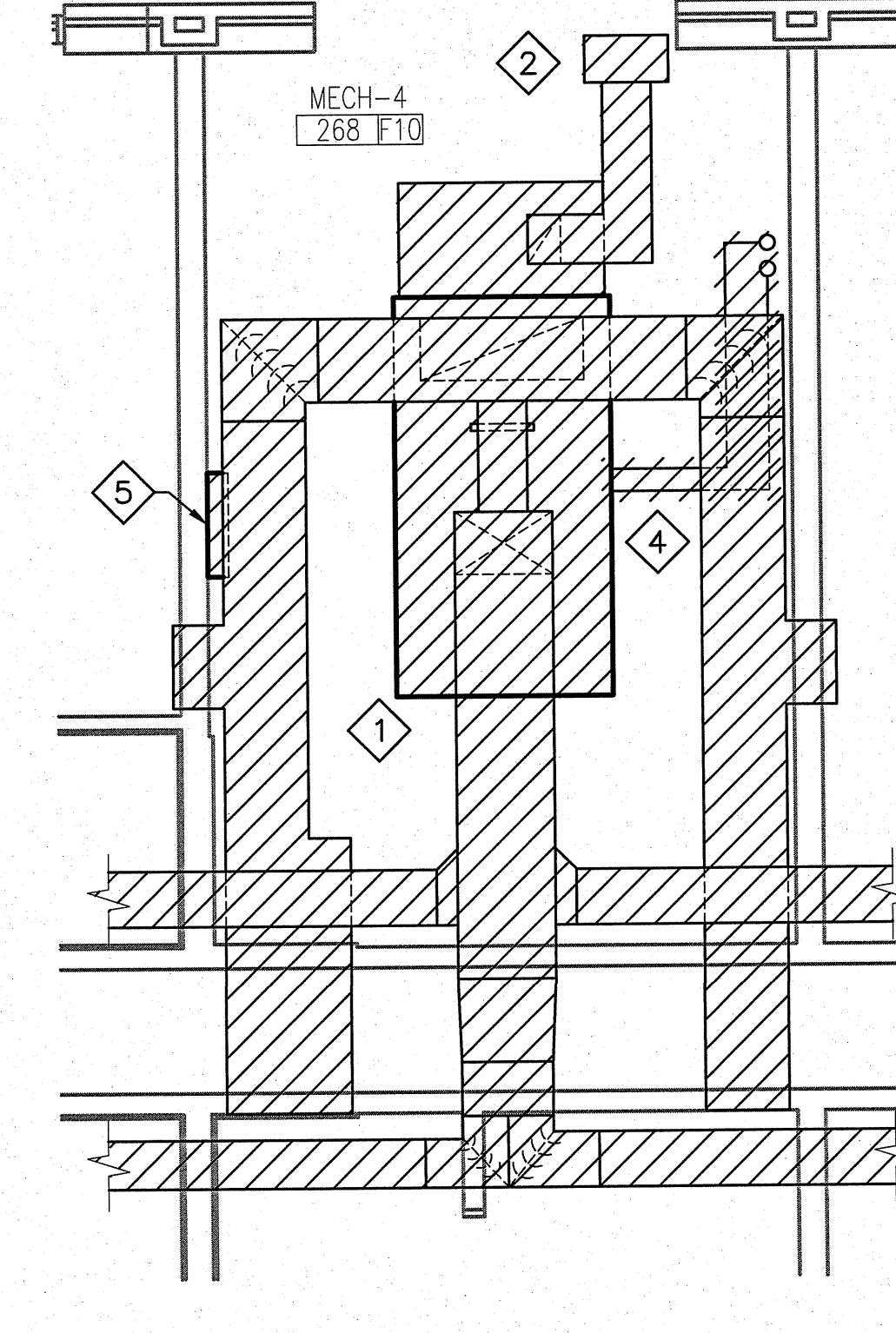
1 ENLARGED MECHANICAL DEMOLITION PLAN  
MD-101 MD-401 SCALE: 1/4" = 1'-0"



2 ENLARGED MECHANICAL DEMOLITION PLAN  
MD-101 MD-401 SCALE: 1/4" = 1'-0"



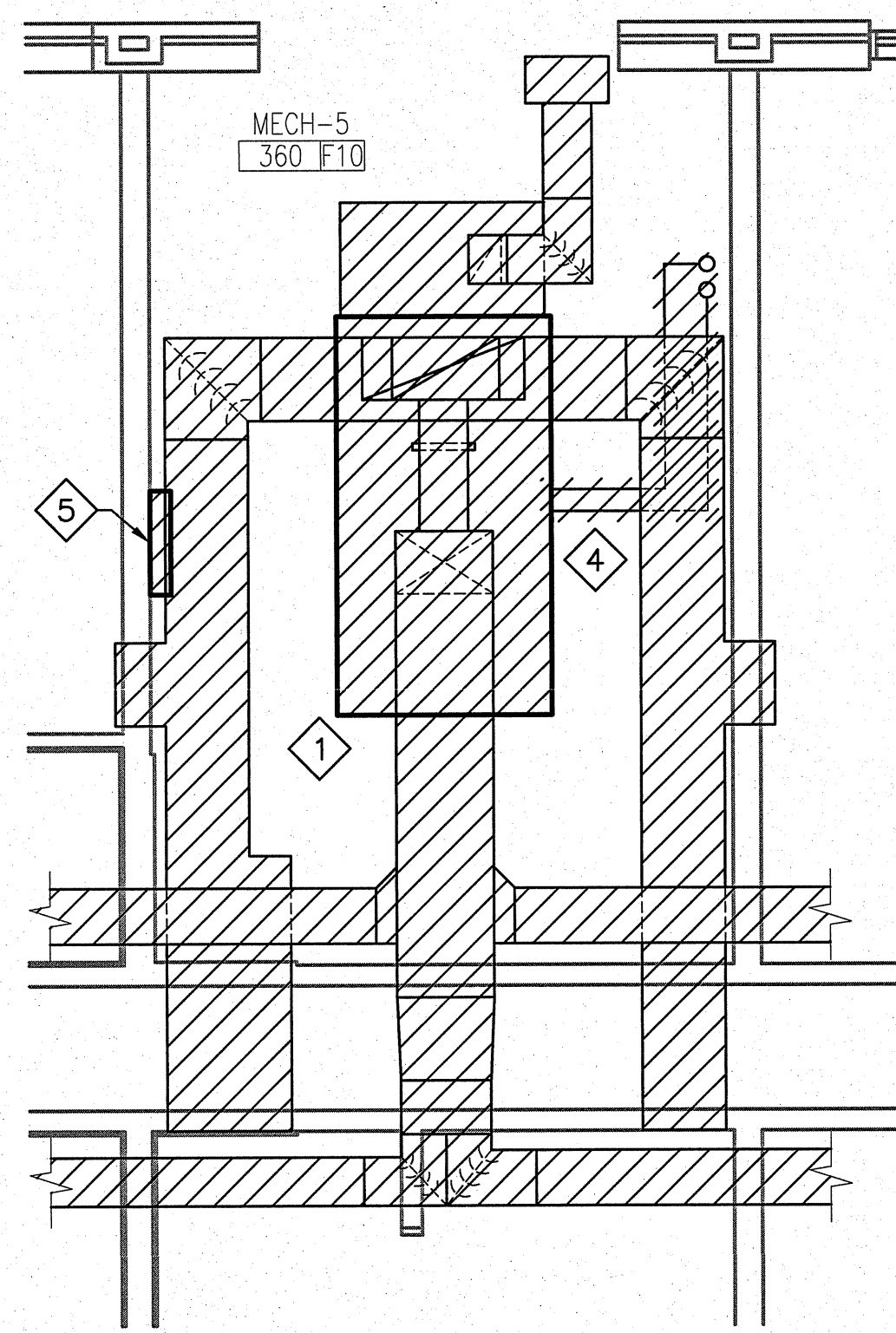
3 ENLARGED MECHANICAL DEMOLITION PLAN  
MD-101 MD-401 SCALE: 1/4" = 1'-0"



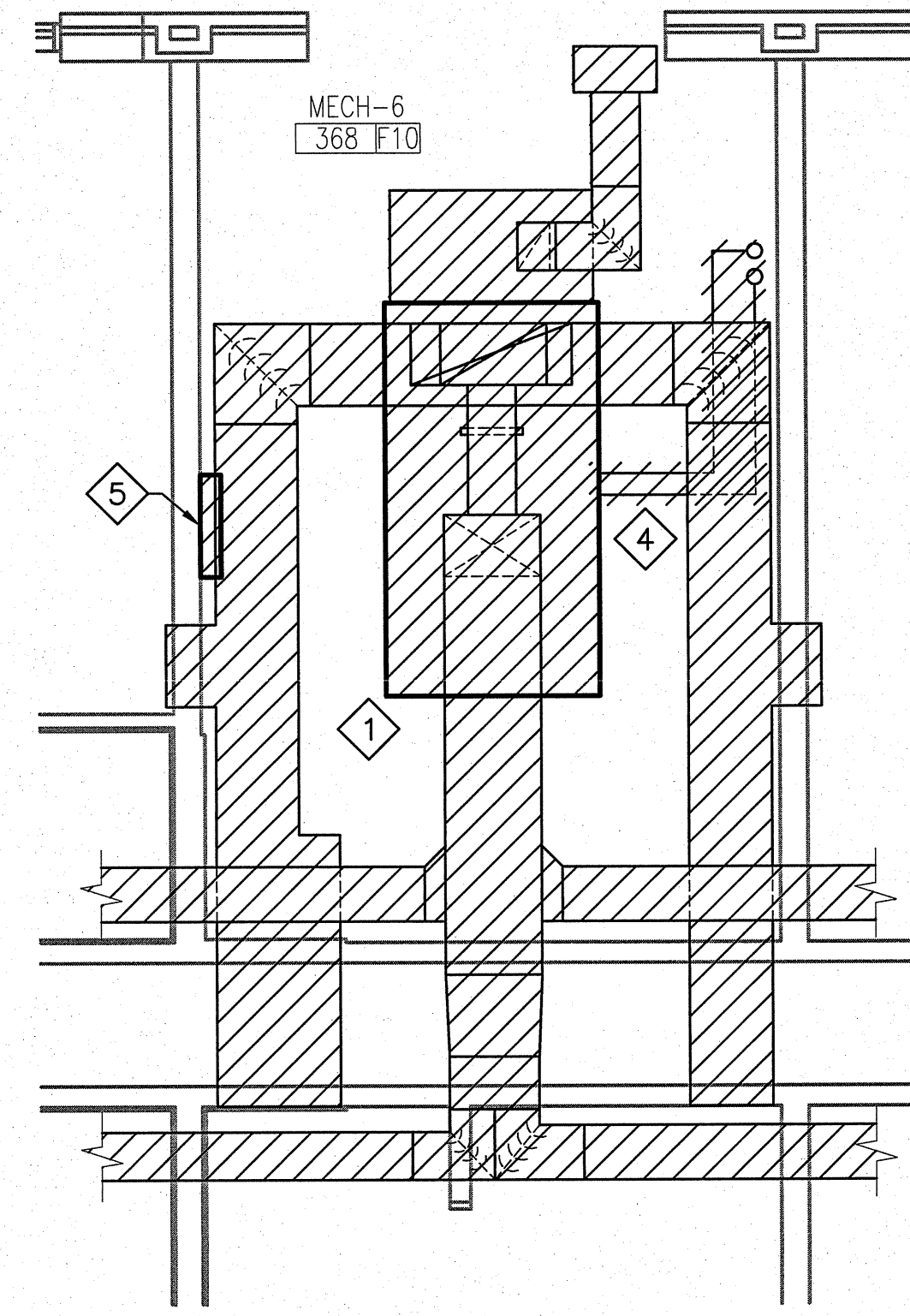
4 ENLARGED MECHANICAL DEMOLITION PLAN  
MD-101 MD-401 SCALE: 1/4" = 1'-0"

**DEMOLITION KEYNOTES:**

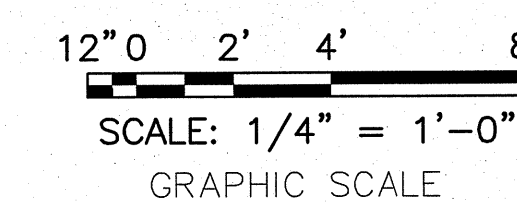
- 1 REMOVE AIR HANDLER, DUCTWORK, CONTROLS, AND EQUIPMENT PAD IN THEIR ENTIRETY.
- 2 PROVIDE 1" INSULATED SHEET METAL CAP ON BACK OF OUTSIDE AIR LOUVER.
- 3 REMOVE AIR COMPRESSOR, AIR DRYER AND ALL ASSOCIATED CONTROL AIR TUBING.
- 4 REMOVE DUAL TEMPERATURE PIPING AND ALL ASSOCIATED DEVICES AND VALVES WITHIN MECHANICAL ROOM.
- 5 REMOVE AHU CONTROLS AND ALL WIRING, AND TUBING.
- 6 DISCONNECT AND PERMANENTLY CAP DUAL TEMPERATURE PIPING FLUSH WITH FLOOR. REMOVE ALL DUAL TEMPERATURE PIPING AND ALL ASSOCIATED DEVICES AND VALVES WITHIN MECHANICAL ROOM.



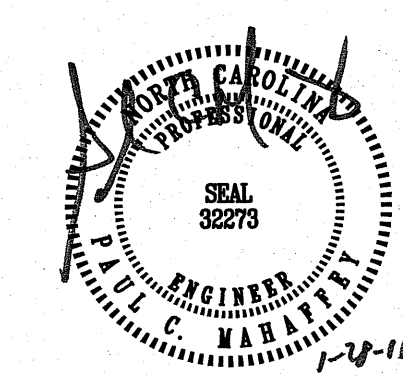
5 ENLARGED MECHANICAL DEMOLITION PLAN  
MD-101 MD-401 SCALE: 1/4" = 1'-0"

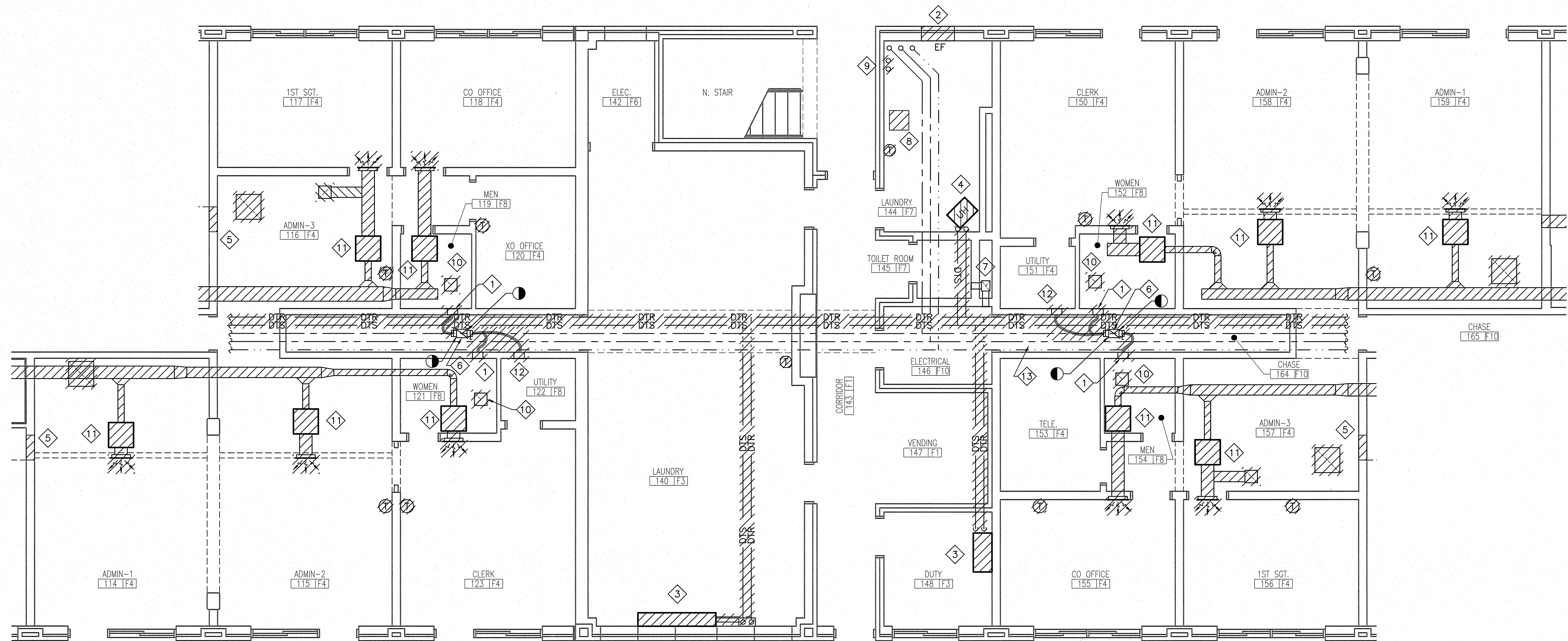



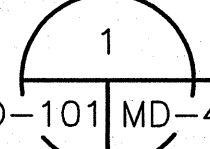
6 ENLARGED MECHANICAL DEMOLITION PLAN  
MD-101 MD-401 SCALE: 1/4" = 1'-0"



<b>MD-401</b>	
 CEMS Engineering, Inc. 3509 Iron Horse Drive Ladsen, SC 29456 (794) 875-3637 (794) 875-4509 www.cemsgroup.com CEMS Project #00162 Project Manager: R. Awar	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA
	REPAIR BEQ BUILDING BB260 ENLARGED MECHANICAL DEMOLITION PLANS NAVFAC DRAWING NO. <b>60007600</b>
DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC DATE SATISFACTORY TO: DATE	SIZE CODE IDENT NO. <b>F 80091</b> CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 10-B-0031 SHEET 35 OF 72

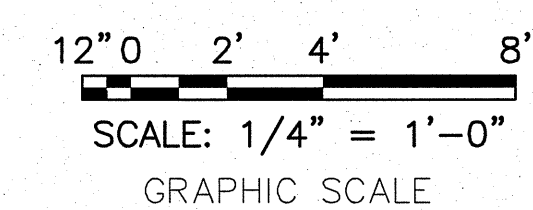





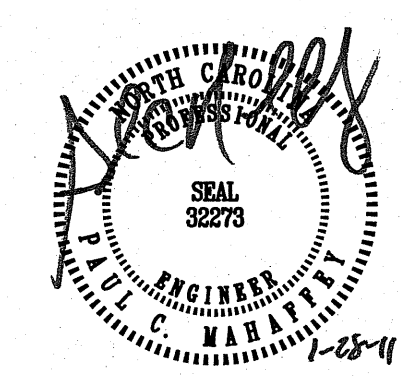


**ENLARGED FIRST FLOOR MECHANICAL DEMOLITION PLAN**  
 MD-101 MD-402 SCALE: 1/4" = 1'-0"

**DEMOLITION KEYNOTES:**

- ① REMOVE EXISTING WALL MOUNTED EXHAUST FAN AND RELATED 4"Ø FLEX DUCT. REMOVE FLEX DUCT BACK TO EXISTING EXHAUST RISER. SEE RISER DIAGRAM ON SHEET M-603. PATCH EXISTING WALL OPENING.
- ② REMOVE EXHAUST FAN AND LOUVER.
- ③ REMOVE EXISTING FAN COIL UNIT, CONTROL WIRING, THERMOSTAT, AND RELATED PNEUMATIC CONTROLS.
- ④ REMOVE UNIT HEATER, THERMOSTAT, CONTROL WIRING, AND PIPING. PATCH WALL AND FLOOR TO MATCH EXISTING.
- ⑤ REMOVE ALL TRANSFER GRILLES. PATCH TO MATCH EXISTING.
- ⑥ EXISTING EXHAUST RISER TO REMAIN.
- ⑦ EXHAUST GRILLES AND RISER TO REMAIN.
- ⑧ REMOVE ICE MACHINE, CAP SUPPLY AND WASTE PIPING FLUSH TO WALL.
- ⑨ REMOVE ALL SOLAR HOT WATER PIPING. CAP SUPPLY AND RETURN PIPING FLUSH WITH FLOOR.
- ⑩ REMOVE EXHAUST FAN AND ALL ASSOCIATED DUCTWORK AND WIRING.
- ⑪ REMOVE EXISTING FAN POWERED BOX, CONTROL WIRING, THERMOSTAT, DUCTWORK, AND RELATED PNEUMATIC CONTROLS.
- ⑫ REMOVE EXISTING WALL MOUNTED EXHAUST FAN AND RELATED 4"Ø FLEX DUCT. REMOVE FLEX DUCT BACK TO EXISTING EXHAUST RISER. SEE RISER DIAGRAM ON SHEET M-603. REUSE EXISTING WALL OPENING.
- ⑬ REMOVE SUMP PUMP IN CHASE.

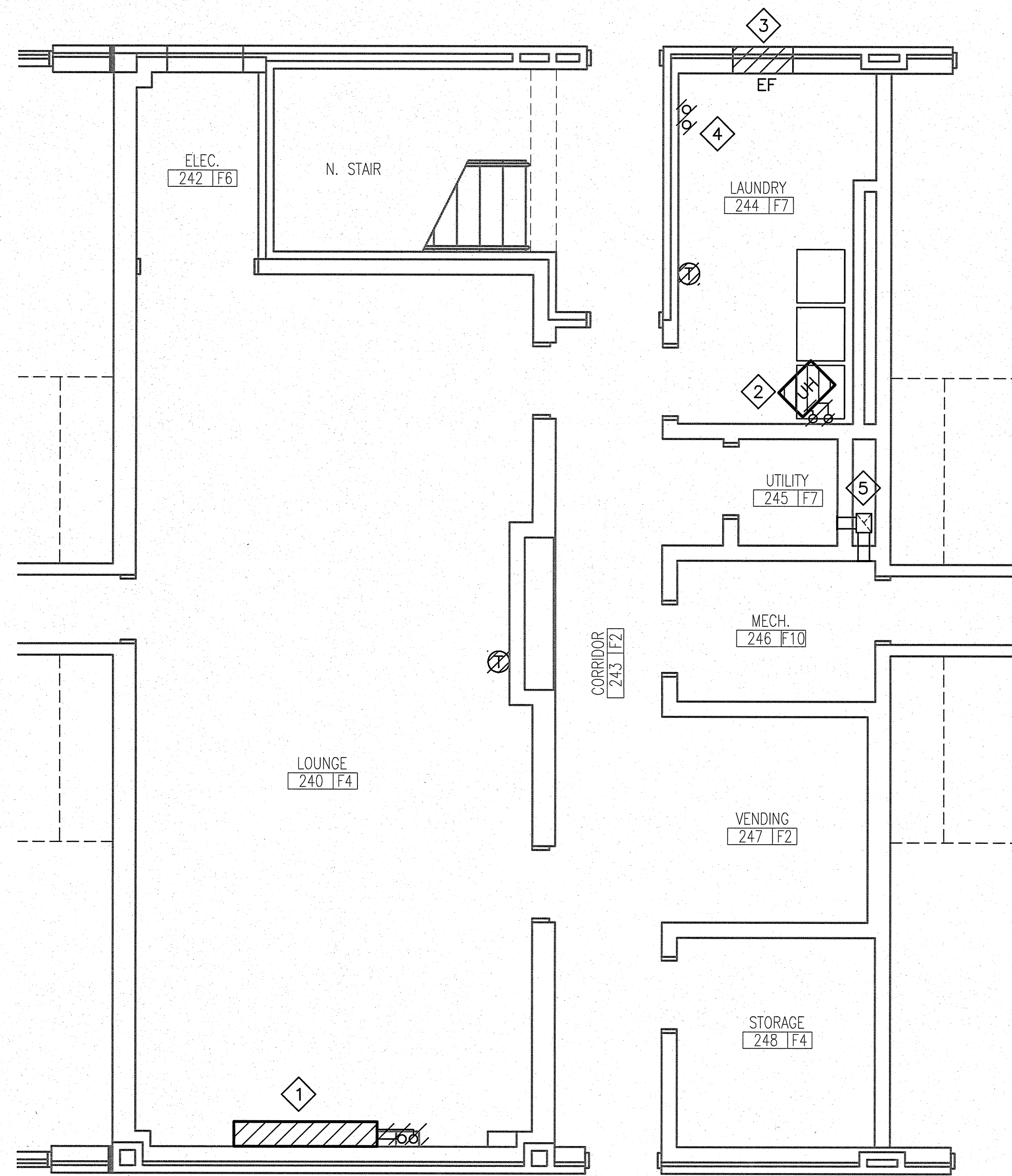


		<b>MD-402</b>	
 CEMS Engineering, Inc. 3309 Iron Horse Drive Ladson, SC 29456 (781) 475-2607 (781) 475-4999 www.cemsgroup.com CEMS Project #001552 Project Manager: R. Avar	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA		
	REPAIR BEQ BUILDING BB260 ENLARGED FIRST FLOOR MECHANICAL DEMOLITION PLAN		
DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC	DATE:	SIZE CODE IDENT NO: <b>F 80091</b>	NAVFAC DRAWING NO. <b>60007601</b> CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 10-B-0031
SATISFACTORY TO:		DATE:	SHEET 36 OF 72

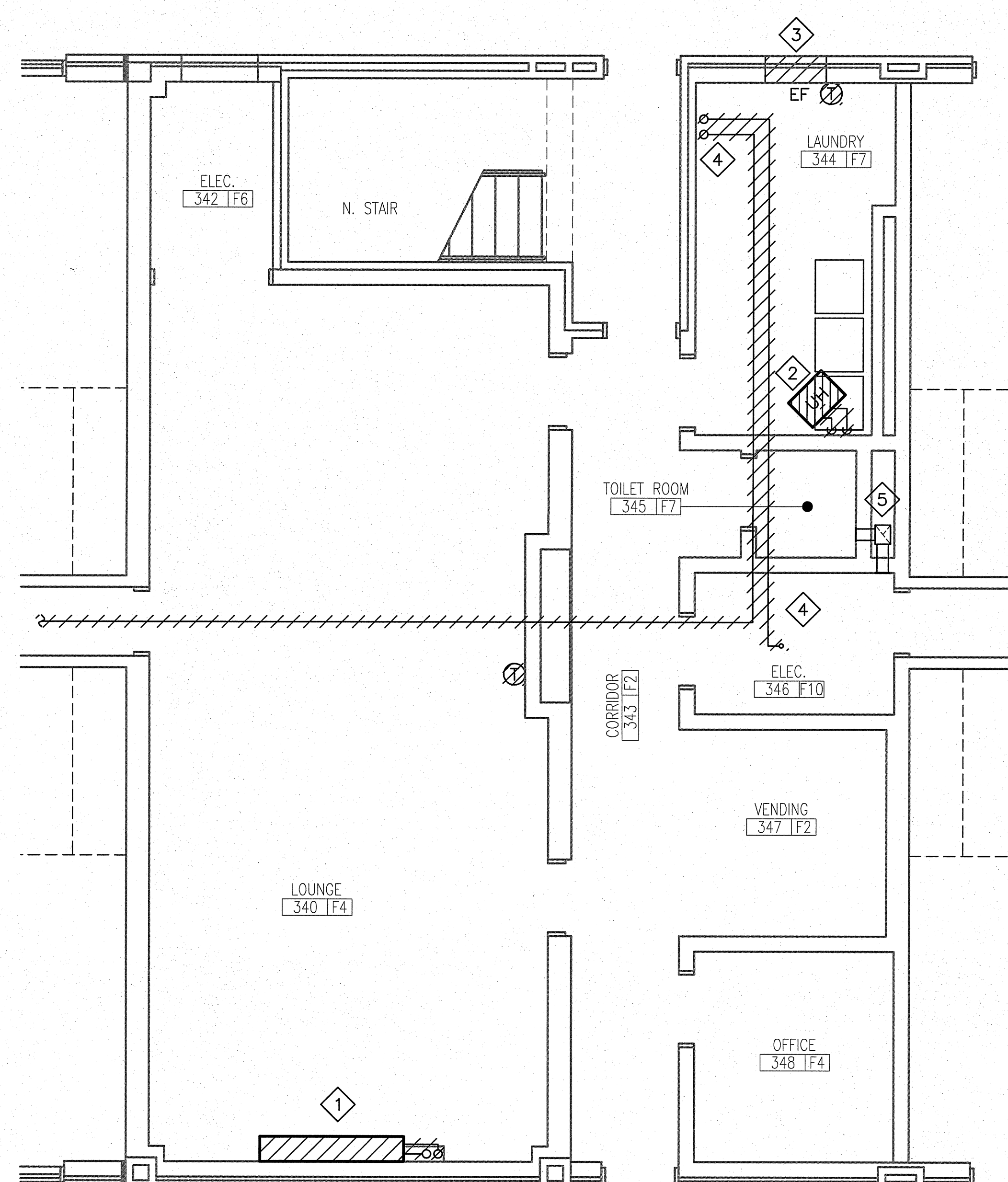


**DEMOLITION KEYNOTES:**

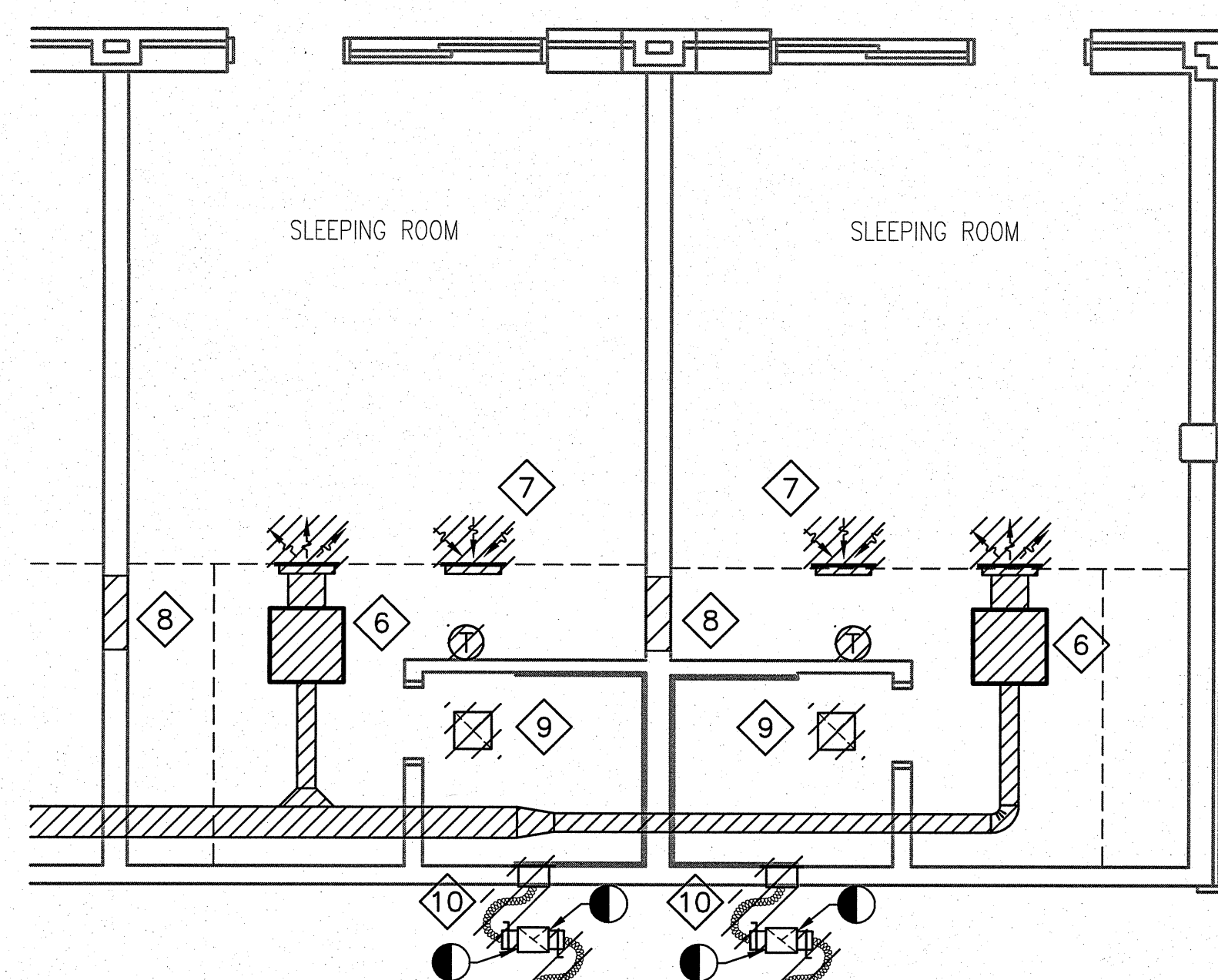
- 1 REMOVE EXISTING FAN COIL UNIT, CONTROL WIRING, THERMOSTAT, AND RELATED PNEUMATIC CONTROLS.
- 2 REMOVE UNIT HEATER, THERMOSTAT, CONTROL WIRING, AND PIPING. PATCH WALL AND FLOOR TO MATCH EXISTING.
- 3 REMOVE EXHAUST FAN AND LOUVER.
- 4 REMOVE ALL SOLAR HOT WATER PIPING. PATCH FLOOR AND ROOF TO MATCH EXISTING.
- 5 EXHAUST GRILLES AND RISER TO REMAIN.
- 6 REMOVE FAN POWERED BOX, CONTROL WIRING, THERMOSTAT, DUCTWORK, AND RELATED PNEUMATIC CONTROLS.
- 7 REMOVE RETURN GRILLE.
- 8 REMOVE TRANSFER GRILLE AND ALL DUCTWORK. PATCH TO MATCH EXISTING.
- 9 REMOVE EXHAUST FAN AND DUCTWORK.
- 10 REMOVE EXISTING WALL MOUNTED EXHAUST FAN AND RELATED 4"Ø FLEX DUCT. REMOVE FLEX DUCT BACK TO EXISTING EXHAUST RISER. SEE RISER DIAGRAM ON SHEET M-603. PATCH WALL OPENING TO MATCH EXISTING.



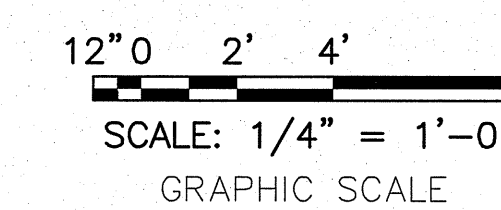
1 ENLARGED SECOND FLOOR MECHANICAL DEMOLITION PLAN  
MD-101 MD-403 SCALE: 1/4" = 1'-0"



2 ENLARGED THIRD FLOOR MECHANICAL DEMOLITION PLAN  
MD-101 MD-403 SCALE: 1/4" = 1'-0"



3 TYPICAL ENLARGED MECHANICAL DEMOLITION PLAN  
MD-101 MD-403 SCALE: 1/4" = 1'-0"



**MD-403**

**C/E M/S**  
ENGINEERING

C/E M/S Engineering, Inc.  
2008 Iron Horse Drive  
Ladson, SC 29456  
(754) 875-2657  
(754) 875-4909  
www.cemseengineering.com  
CEMS Project #001592  
Project Manager: R. Alvar

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND  
**MARINE CORPS BASE**  
CAMP LEJEUNE, NORTH CAROLINA

DES. J. CARR  
DR. J. BARNES  
CHK. P. MAHAFFEY  
SUBMITTED BY:

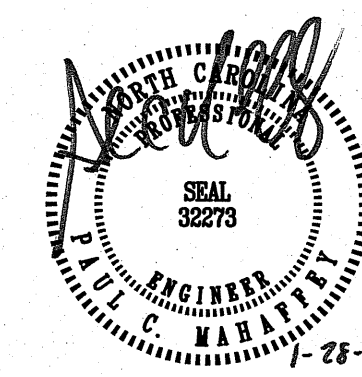
REPAIR BEQ  
BUILDING BB260

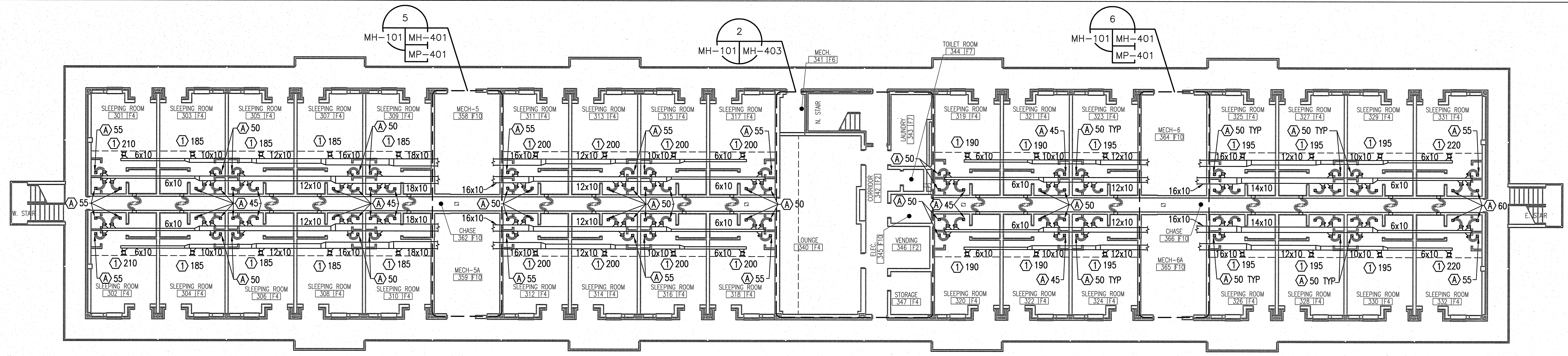
DESIGN DIR.  
APPROVED: PWO OR OICC

ENLARGED MECHANICAL DEMOLITION PLANS  
NAVFAC DRAWING NO.

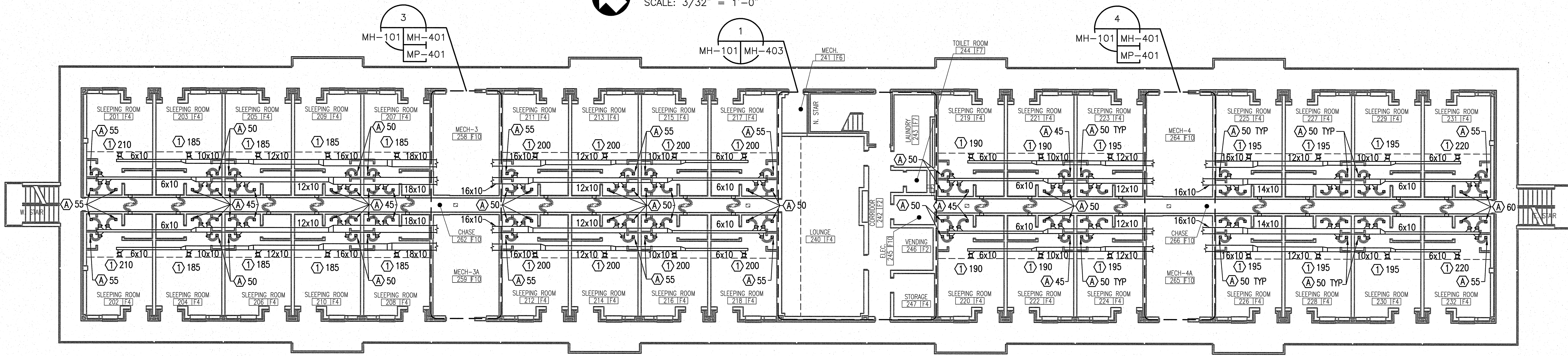
SATISFACTORY TO:

DATE: F 80091  
CONST. CONTR. NO. N40085-10-B-0031

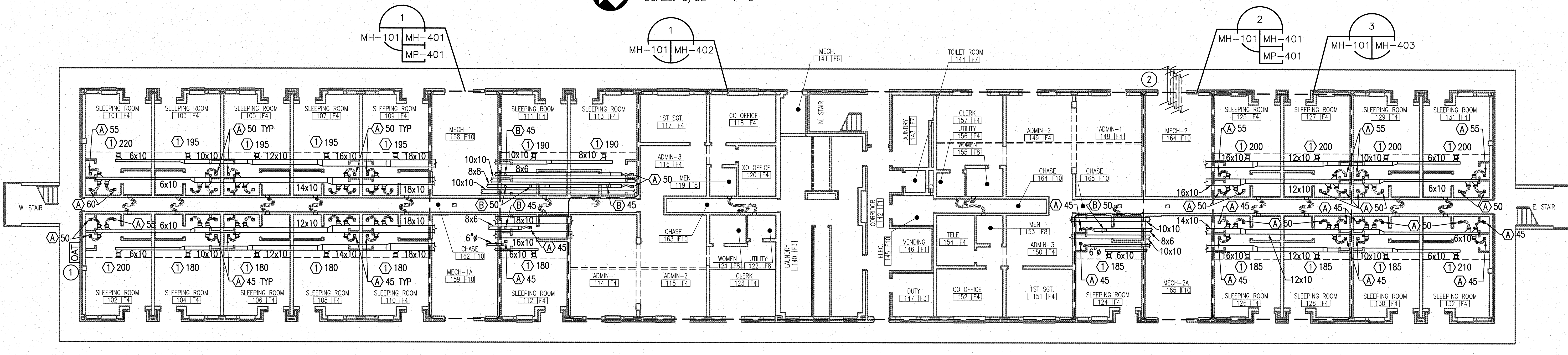




**THIRD FLOOR MECHANICAL NEW WORK PLAN**  
SCALE: 3/32" = 1'-0"

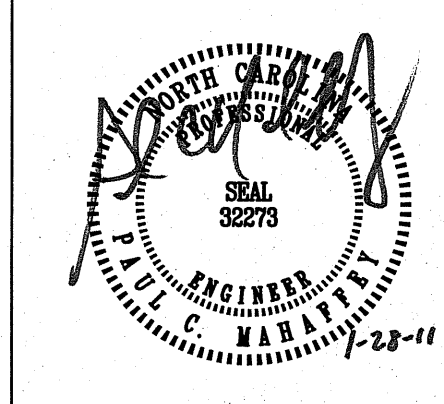
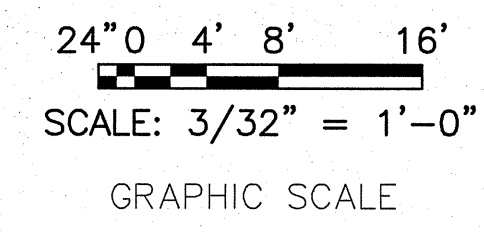


**SECOND FLOOR MECHANICAL NEW WORK PLAN**  
SCALE: 3/32" = 1'-0"

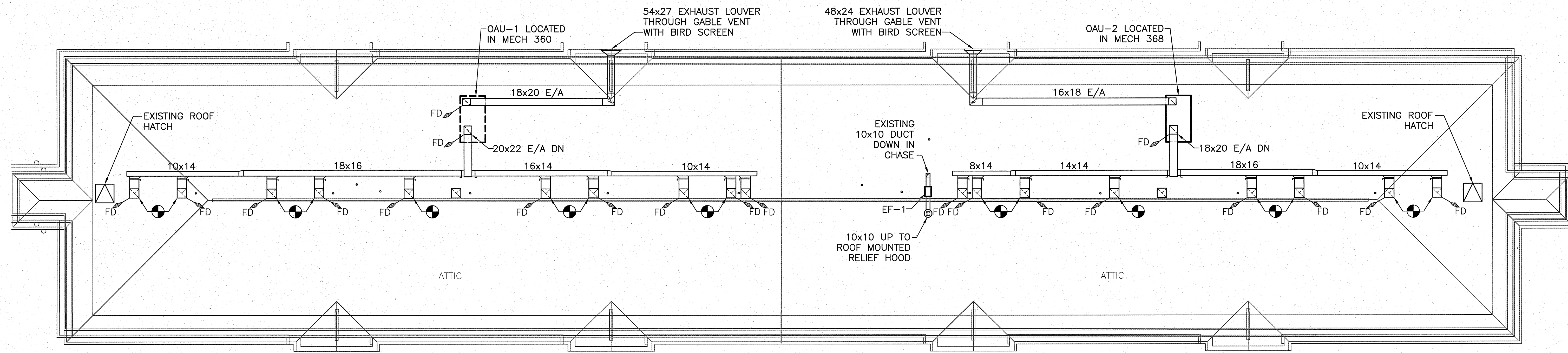


**FIRST FLOOR MECHANICAL NEW WORK PLAN**  
SCALE: 3/32" = 1'-0"

- KEYNOTES:**
- 1 PROVIDE AND INSTALL OUTDOOR AIR TEMPERATURE SENSOR IN WEATHERPROOF ENCLOSURE. PROVIDE AND INSTALL SHIELDS TO SHADE SENSOR FROM DIRECT SUNLIGHT.
  - 2 SEE SHEET MS-101 FOR GEOTHERMAL WELL FIELD PIPING CONTINUATION.

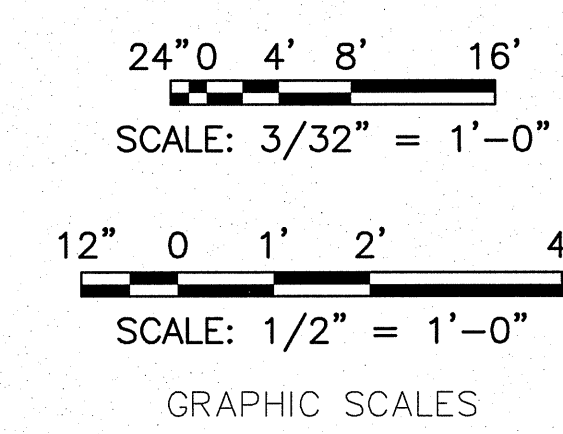


<b>MH-101</b>	
<p>CEMS Engineering, Inc. 2008 Iron Horse Drive Ladson, SC 29455 (704) 875-2637 www.cemsengineering.com CEMS Project #081582 Project Manager: R. Alvar</p>	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA
	REPAIR BEQ BUILDING BB260
DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC SATISFACTORY TO:	MECHANICAL NEW WORK PLANS NAVFAC DRAWING NO. <b>60007603</b> CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED   SPEC. 10-B-0031   SHEET 38 OF 72

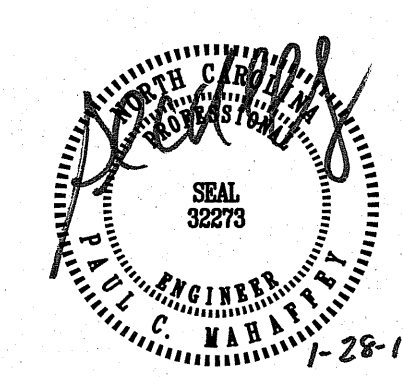


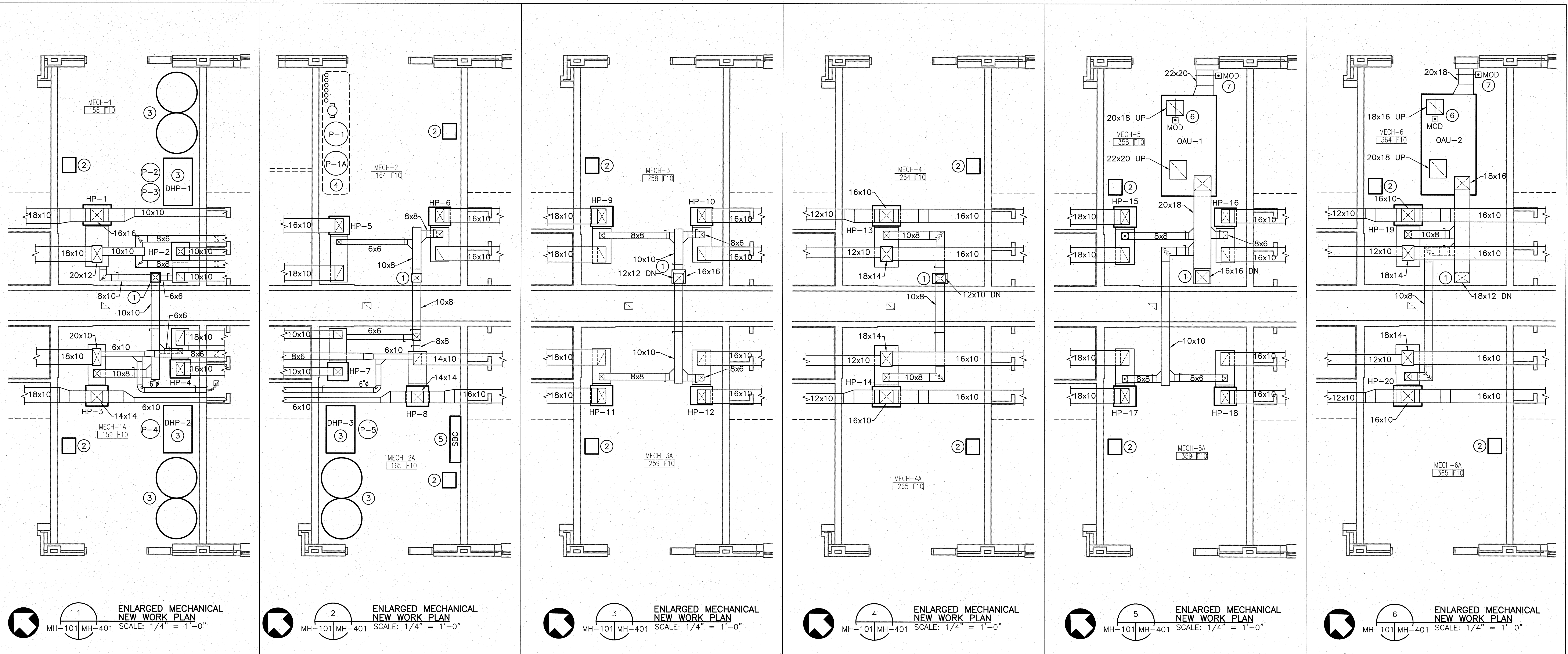
**GENERAL NOTE:**  
 1. EXTEND ALL NEW AND EXISTING PLUMBING VENTS THRU NEW ROOF. SEE DETAIL ON SHEET P-001.

**ATTIC MECHANICAL NEW WORK PLAN**  
 SCALE: 3/32" = 1'-0"



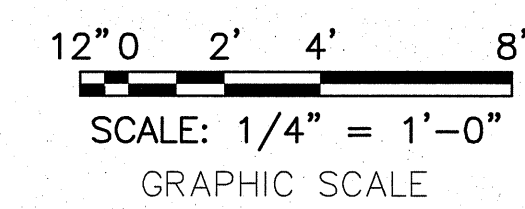
		<b>MH-102</b>	
<b>CEMS</b> <small>ENGINEERING</small>	<small>CEMS Engineering, Inc.          3309 Iron Horse Drive          Ladson, SC 29459          (P)843.876.2607          (F)843.876.4509          www.cemsgroup.com          ©2005 Project #001582          Project Manager: R. Aker</small>		
	<small>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND          MARINE CORPS BASE          CAMP LEJEUNE, NORTH CAROLINA</small>		
<small>DES. J. CARR          DR. J. BARNES          CHK. P. MAHAFFEY          SUBMITTED BY:          DESIGN DIR.</small>		<b>REPAIR BEQ          BUILDING BB260</b>	
<small>APPROVED: PWO OR OICC</small>		<small>ATTIC MECHANICAL NEW WORK PLAN</small>	
<small>SATISFACTORY TO:</small>		<small>DATE: SIZE CODE IDENT NO. NAVFAC DRAWING NO.</small> <b>F 80091 60007604</b>	
<small>SCALE: AS NOTED</small>		<small>CONST. CONTR. NO. N40085-10-B-0031</small> <small>SHEET 39 OF 72</small>	



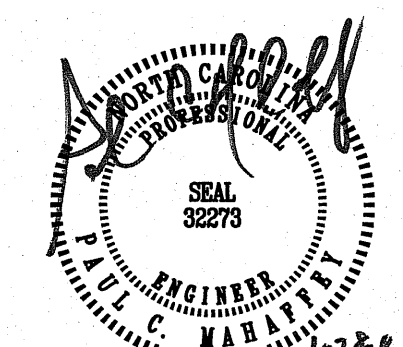


**NEW WORK KEYNOTES:**

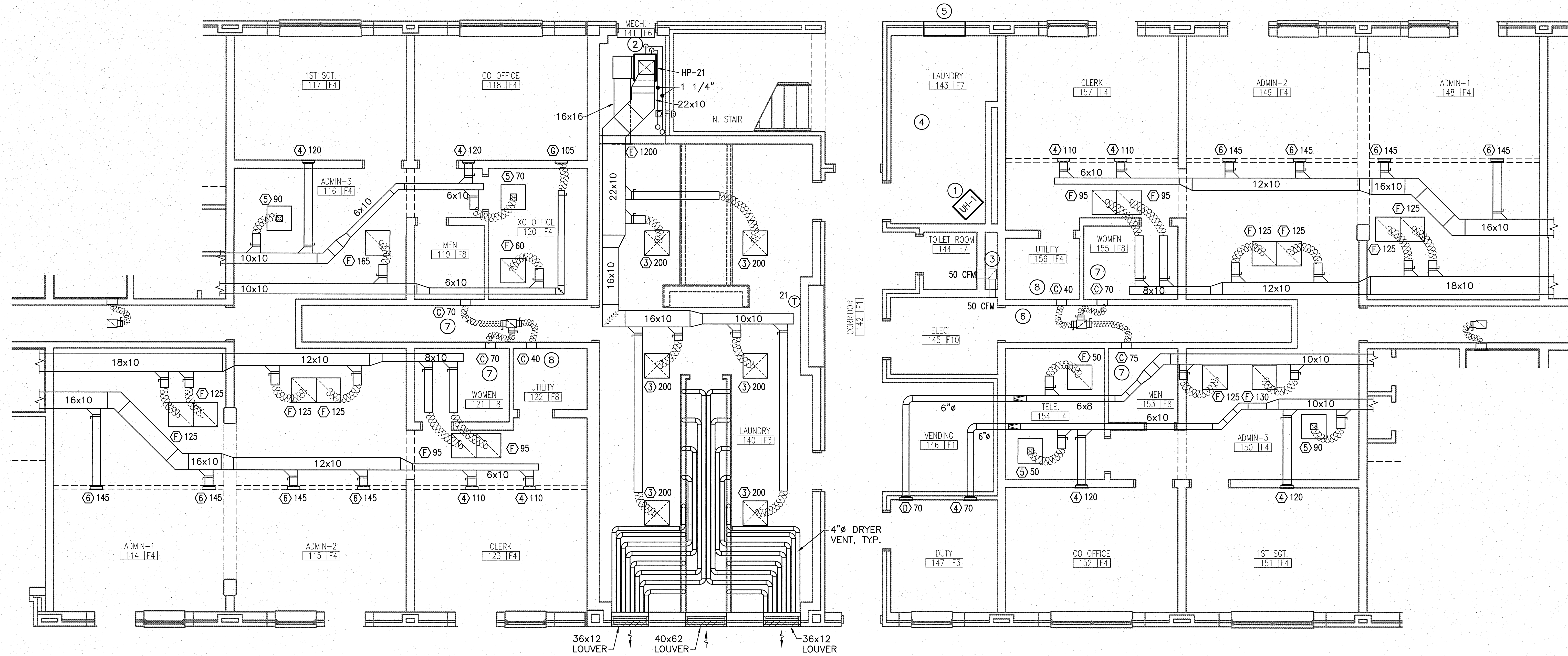
- ① NEW OUTSIDE AIR DUCT DOWN WITH FIRE DAMPER AT EACH FLOOR. SEE ISOMETRIC DIAGRAMS SHEET M-603. SEE ARCHITECTURAL DRAWINGS FOR OPENING DETAILS.
- ② PROVIDE DEHUMIDIFIER IN EACH MECHANICAL ROOM (6 TOTAL). DEHUMIDIFIER SHALL REMOVE MINIMUM 50 PINTS/DAY, BE ENERGY STAR QUALIFIED, AND HARD PIPED TO FLOOR DRAIN. DEHUMIDIFIER SHALL OPERATE DOWN TO 55°F ROOM TEMPERATURE.
- ③ SEE SHEET M-502 FOR DOMESTIC HOT WATER GEOTHERMAL HEAT PUMP AND HOT WATER STORAGE TANK DETAILS.
- ④ SEE SHEET M-501 FOR GEOTHERMAL PUMP DETAIL. SEE SHEET M-502 FOR HEADER PIPING DETAIL.
- ⑤ INSTALL SUPERVISORY BUILDING CONTROLLER.
- ⑥ MOTOR OPERATED DAMPER TO BE INSTALLED IN VERTICAL SECTION OF EXHAUST DUCT.
- ⑦ MOTOR OPERATED DAMPER TO BE INSTALLED IN HORIZONTAL SECTION OF OUTSIDE AIR DUCT.



<b>MH-401</b>	
 <b>CEMS</b> ENGINEERING	CEMS Engineering, Inc. 3959 Iron Horse Drive Ladsen, SC 29456 (P)843.675.3637 (F)843.675.4999 www.cemsengineering.com CEMS Project #081552 Project Manager: R. Avar
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
REPAIR BEQ BUILDING BB260	
ENLARGED MECHANICAL NEW WORK PLAN	
DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC	DATE: _____ DATE: _____ DATE: _____ DATE: _____
SATISFACTORY TO:	SIZE CODE IDENT NO. <b>F 80091</b> NAVFAC DRAWING NO. <b>60007605</b> CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 10-B-0031
SHEET 40 OF 72	



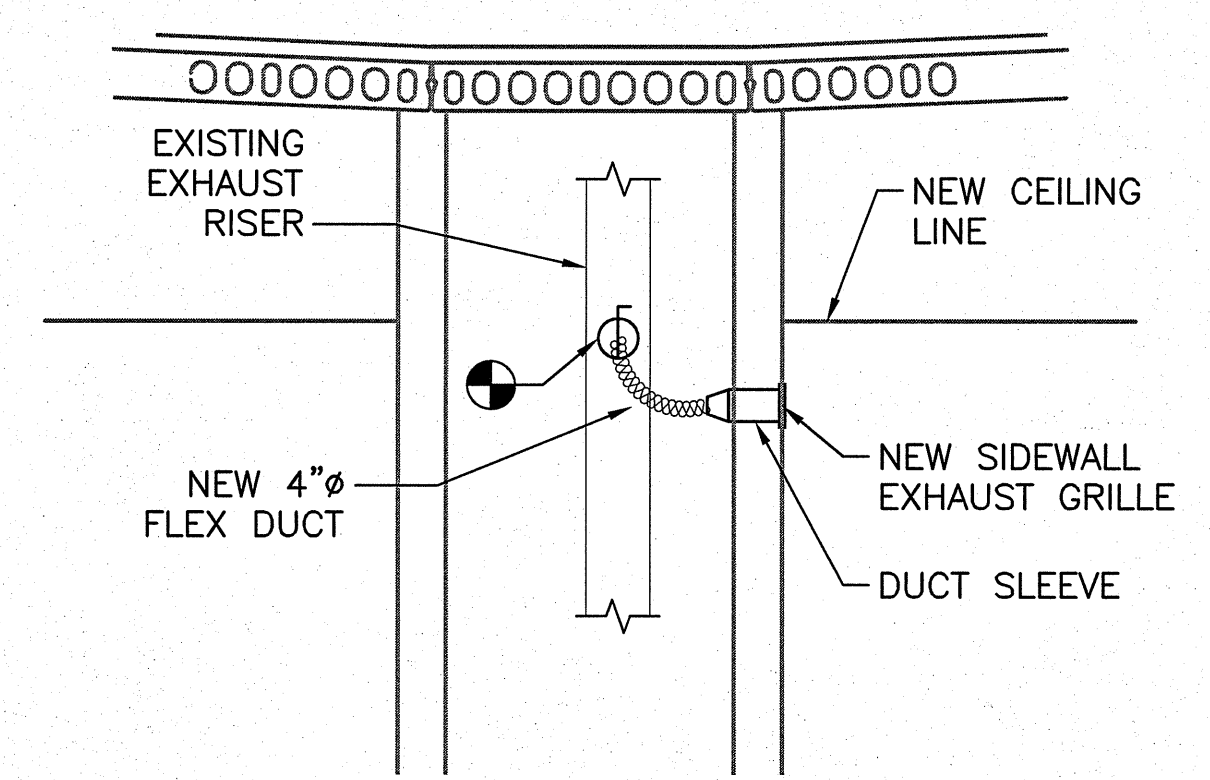




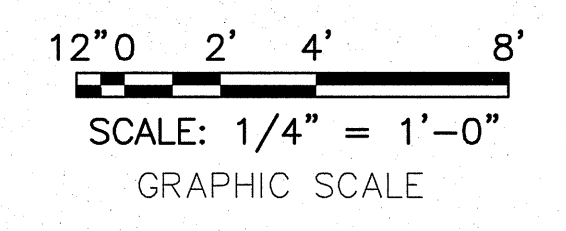
**ENLARGED FIRST FLOOR MECHANICAL NEW WORK PLAN**  
 MH-101/MH-402 SCALE: 1/4" = 1'-0"

**NEW WORK KEYNOTES:**

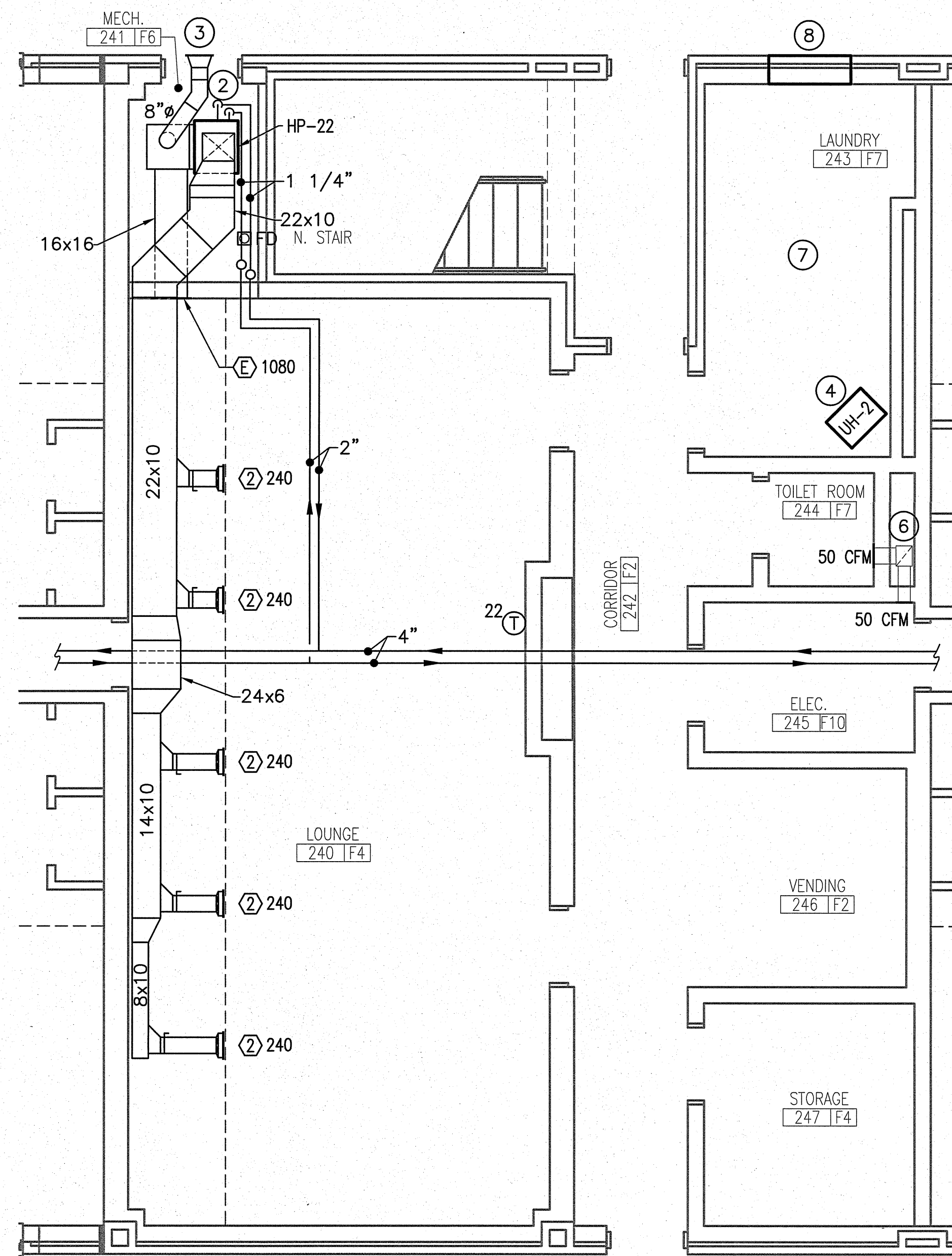
- 1 PROVIDE AND INSTALL NEW UNIT HEATER. UNIT HEATER TO ENERGIZE WHEN ROOM TEMPERATURE DROPS BELOW 65°F.
- 2 ROUTE CONDENSATE TO FLOOR DRAIN.
- 3 EXISTING EXHAUST RISER AND GRILLES.
- 4 PVC DRYER VENTS TO BE REPLACED WITH FLEXIBLE METAL DRYER DUCTS.
- 5 PROVIDE AND INSTALL 34"x17" MAKE-UP AIR LOUVER WITH INSECT SCREEN. INTAKE LOUVER SHALL BE INSTALLED AT MAXIMUM HEIGHT IN ROOM. LOUVER TO BE EQUIVALENT TO GREENHECK BVF MODEL LOUVERS.
- 6 PROVIDE AND INSTALL NEW PLUG IN 0.4 HP 115/1/60 SUMP PUMP IN CHASE SUMP. CONNECT TO RECEPTACLE IN ELECTRICAL 146 AS SHOWN ON E-403.
- 7 PROVIDE AND INSTALL NEW SIDEWALL EXHAUST GRILLES IN NEW OPENING BENEATH CEILING LINE.
- 8 PROVIDE AND INSTALL NEW SIDEWALL EXHAUST GRILLES IN EXISTING OPENING.



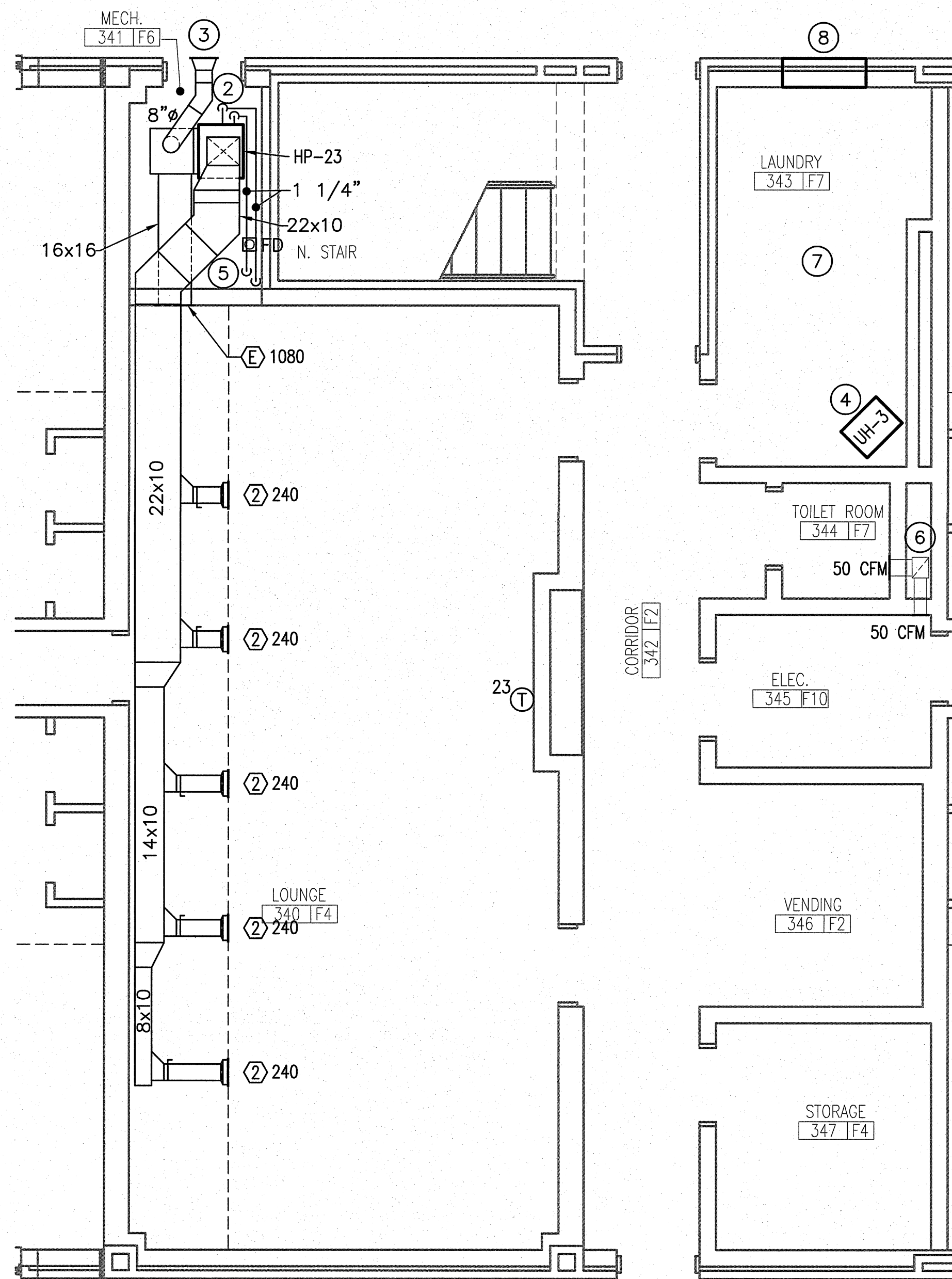
**TYPICAL SIDEWALL EXHAUST GRILLE DETAIL**  
SCALE: NOT TO SCALE



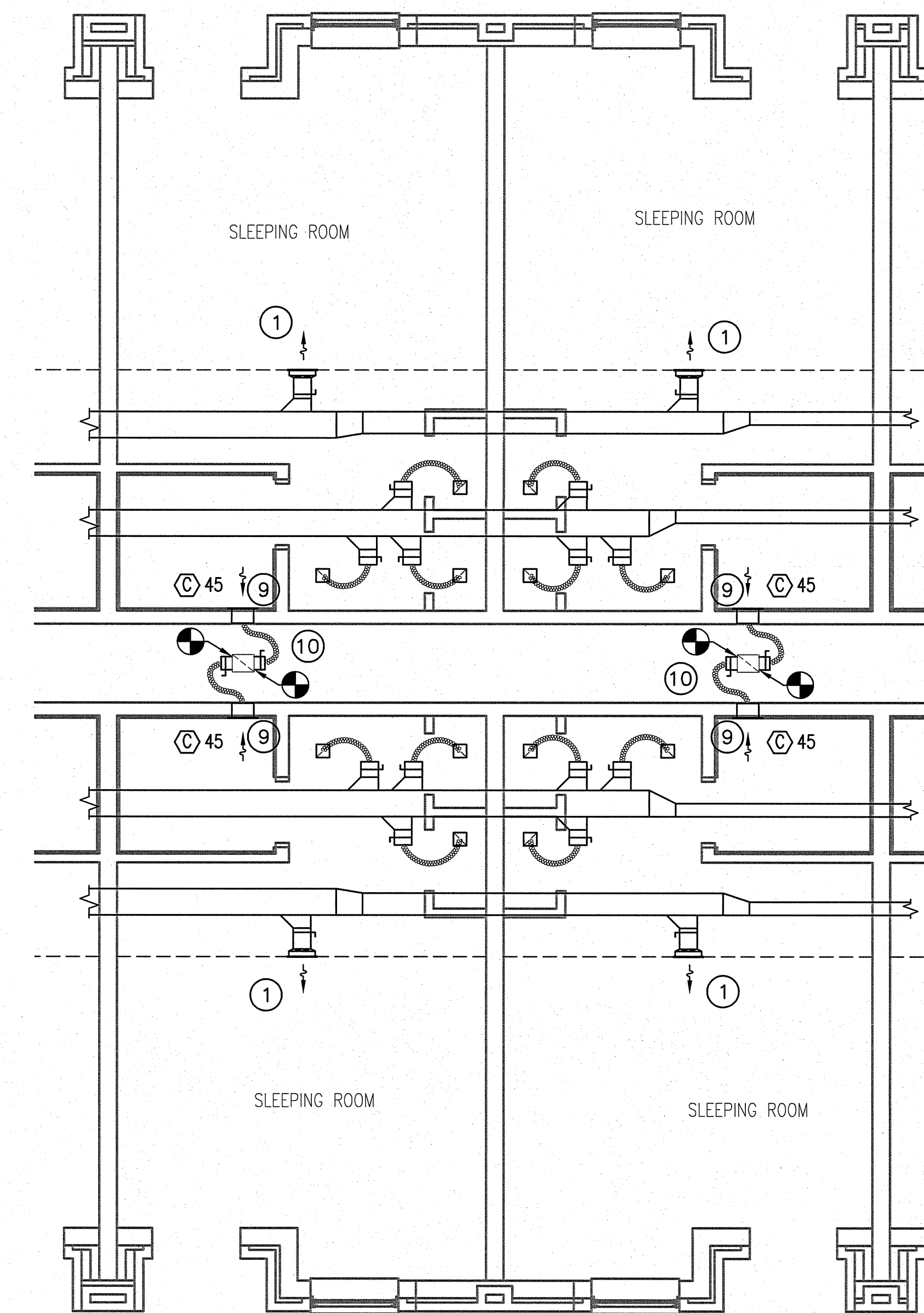
<b>MH-402</b>	
<b>CEMS</b> ENGINEERING	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA
DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC	REPAIR BEQ BUILDING BB260 ENLARGED FIRST FLOOR MECHANICAL NEW WORK PLAN NAVFAC DRAWING NO. <b>60007606</b> CONST. CONTR. NO. N40085-10-B-0031 SHEET 41 OF 72
	DATE: <b>F 80091</b> SATISFACTORY TO: _____ DATE: _____ SCALE: AS NOTED SPEC. 10-B-0031



1 ENLARGED SECOND FLOOR MECHANICAL NEW WORK PLAN  
 MH-101/MH-403 SCALE: 1/4" = 1'-0"



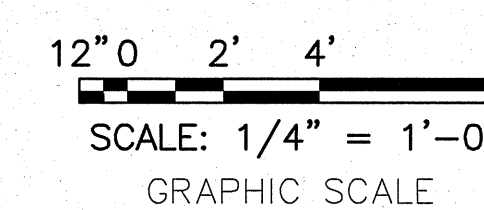
2 ENLARGED THIRD FLOOR MECHANICAL NEW WORK PLAN  
 MH-101/MH-403 SCALE: 1/4" = 1'-0"



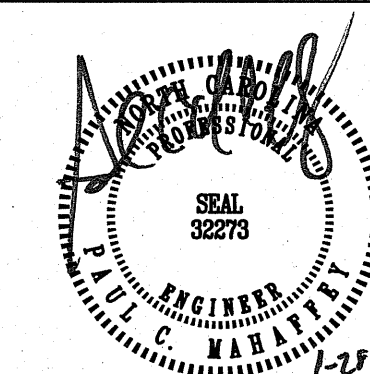
3 TYPICAL ENLARGED SLEEPING ROOM NEW WORK PLAN  
 MH-101/MH-403 SCALE: 1/4" = 1'-0"

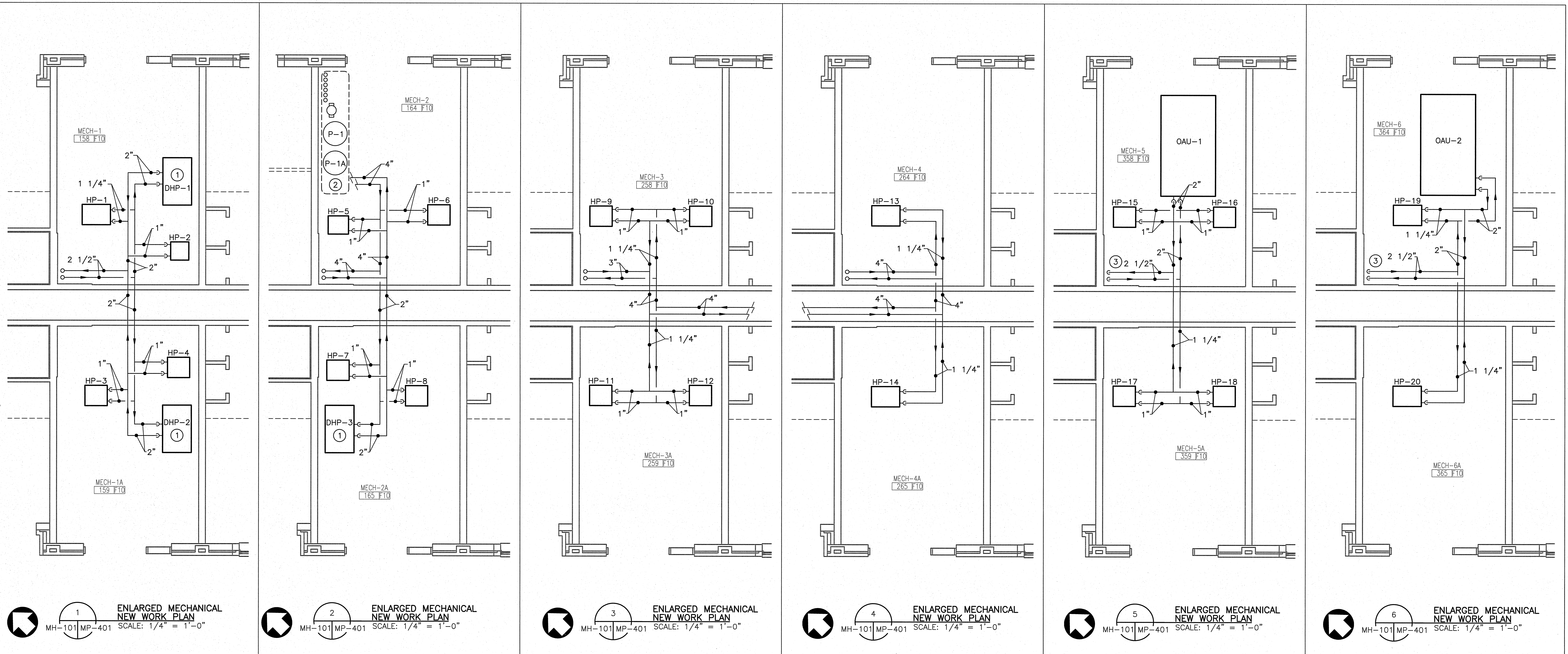
**NEW WORK KEYNOTES:**

- 1 SEE SHEET MH-101 FOR SPECIFIC GRILLE CALL OUTS, CFMS, AND DUCT SIZING.
- 2 ROUTE CONDENSATE TO FLOOR DRAIN.
- 3 PROVIDE AND INSTALL NEW OUTDOOR AIR DUCT AND LOUVER, LOUVER TO BE 12x12.
- 4 PROVIDE AND INSTALL NEW UNIT HEATER. UNIT HEATER TO ENERGIZE WHEN ROOM TEMPERATURE DROPS BELOW 65°F.
- 5 PROVIDE AND INSTALL AUTOMATIC AIR VENTS TO GEOTHERMAL WATER SUPPLY INLET AND OUTLET PIPING DIRECTLY ABOVE ELBOWS AT THE HIGHEST POINT.
- 6 EXISTING EXHAUST RISER AND GRILLES.
- 7 PVC DRYER DUCTS TO BE REPLACED WITH FLEXIBLE METAL DRYER DUCTS.
- 8 INSTALL 34"x17" MAKE-UP AIR LOUVER WITH INSECT SCREEN. INTAKE LOUVER SHALL BE INSTALLED AT MAXIMUM HEIGHT IN ROOM. LOUVER TO BE EQUIVALENT TO GREENHECK BVF MODEL LOUVERS.
- 9 PROVIDE AND INSTALL NEW FLEX DUCT TO RISER AND NEW EXHAUST GRILLE IN NEW OPENING BELOW NEW CEILING LINE. SEE RISER DIAGRAM SHEET M-603.
- 10 ALL EXISTING EXHAUST RISER DUCTWORK TO BE RESEALED.



		<b>MH-403</b>	
 CEMS Engineering, Inc. 2508 Iron Horse Drive Ladsen, SC 29456 (P) 843.675.2637 (F) 843.675.4909 www.cemsgroup.com CEMS Project #181582 Project Manager: R. Alver	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA		
	REPAIR BEQ BUILDING BB260		
DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR.		ENLARGED MECHANICAL NEW WORK PLANS NAVFAC DRAWING NO.	
APPROVED: PWO OR OICC		DATE SIZE CODE IDENT NO.	
SATISFACTORY TO:		DATE DATE F 80091 60007607	
		CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 10-B-0031 SHEET 42 OF 72	



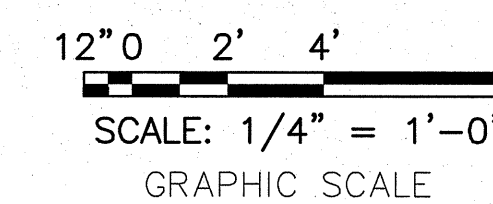


**GENERAL NEW WORK NOTE:**

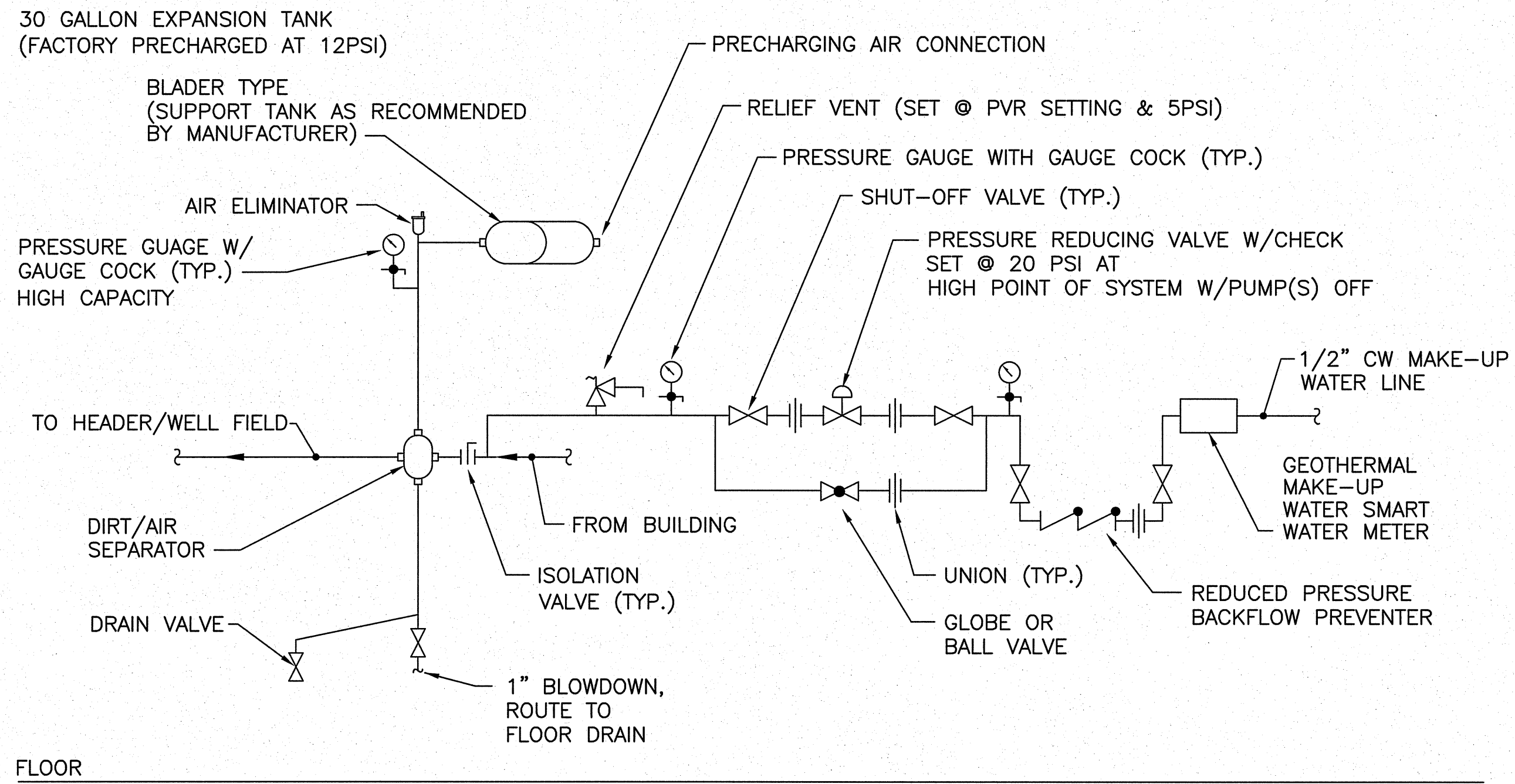
1. ALL GEOTHERMAL WATER PIPING IN BUILDING TO BE INSULATED PER SPECIFICATIONS.

**NEW WORK KEYNOTES:**

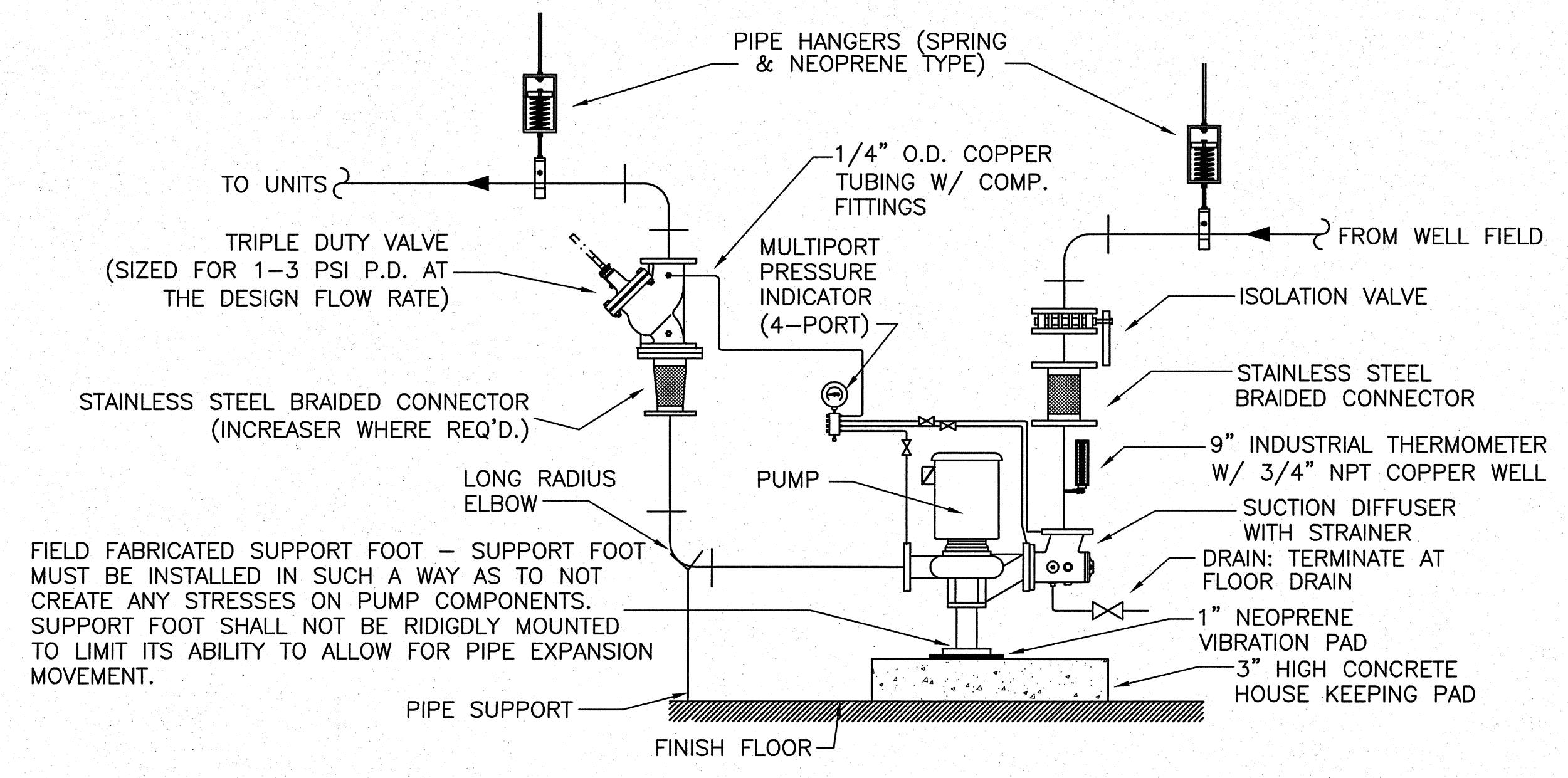
- 1 SEE SHEET M-502 FOR DOMESTIC HOT WATER GEOTHERMAL HEAT PUMP AND HOT WATER STORAGE TANK DETAILS.
- 2 SEE SHEET M-501 FOR GEOTHERMAL PUMP DETAIL AND FOR EXPANSION TANK/DIRT AND AIR SEPARATOR DETAIL. SEE SHEET M-502 FOR HEADER PIPING DETAIL.
- 3 INSTALL AUTOMATIC AIR VENTS TO GEOTHERMAL SUPPLY INLET AND OUTLET PIPING AT HIGHEST POINT IN ROOM. SEE SHEET M-603 FOR RISER DIAGRAM.



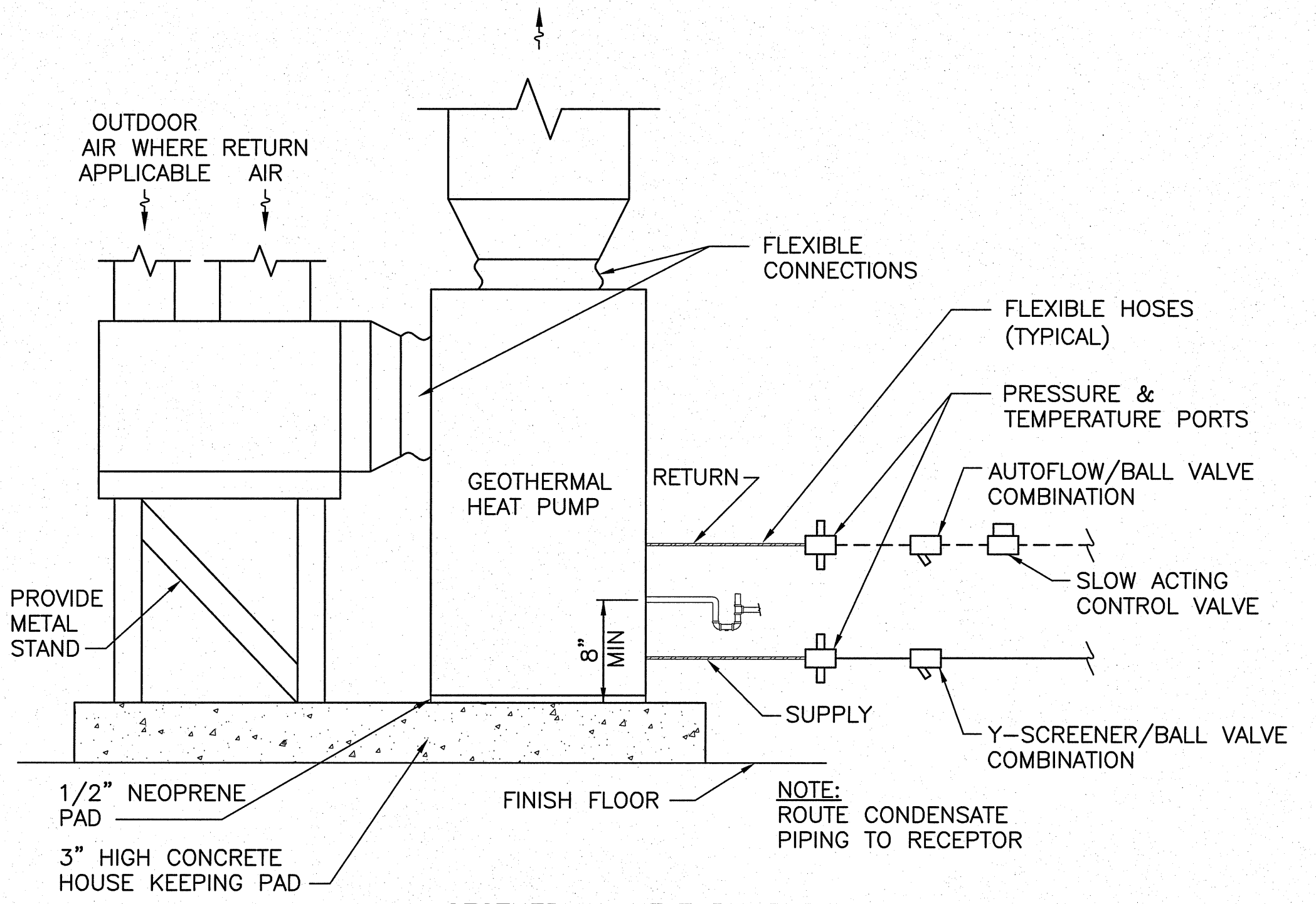
<b>MP-401</b>	
<p>CEMS Engineering, Inc. 3000 Iron Horse Drive Ladson, SC 29458 (704) 875-2607 (704) 875-4509 www.cemsenengineering.com CEMS Project #081502 Project Manager: R. Alvar</p>	<p>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA</p>
	<p>REPAIR BEQ BUILDING BB260</p>
<p>DESIGN DIR. APPROVED: PWO OR OICC DATE SATISFACTORY TO: DATE</p>	<p>ENLARGED MECHANICAL PIPING NEW WORK PLANS NAVFAC DRAWING NO. <b>60007608</b> CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 10-B-0031 SHEET 43 OF 72</p>



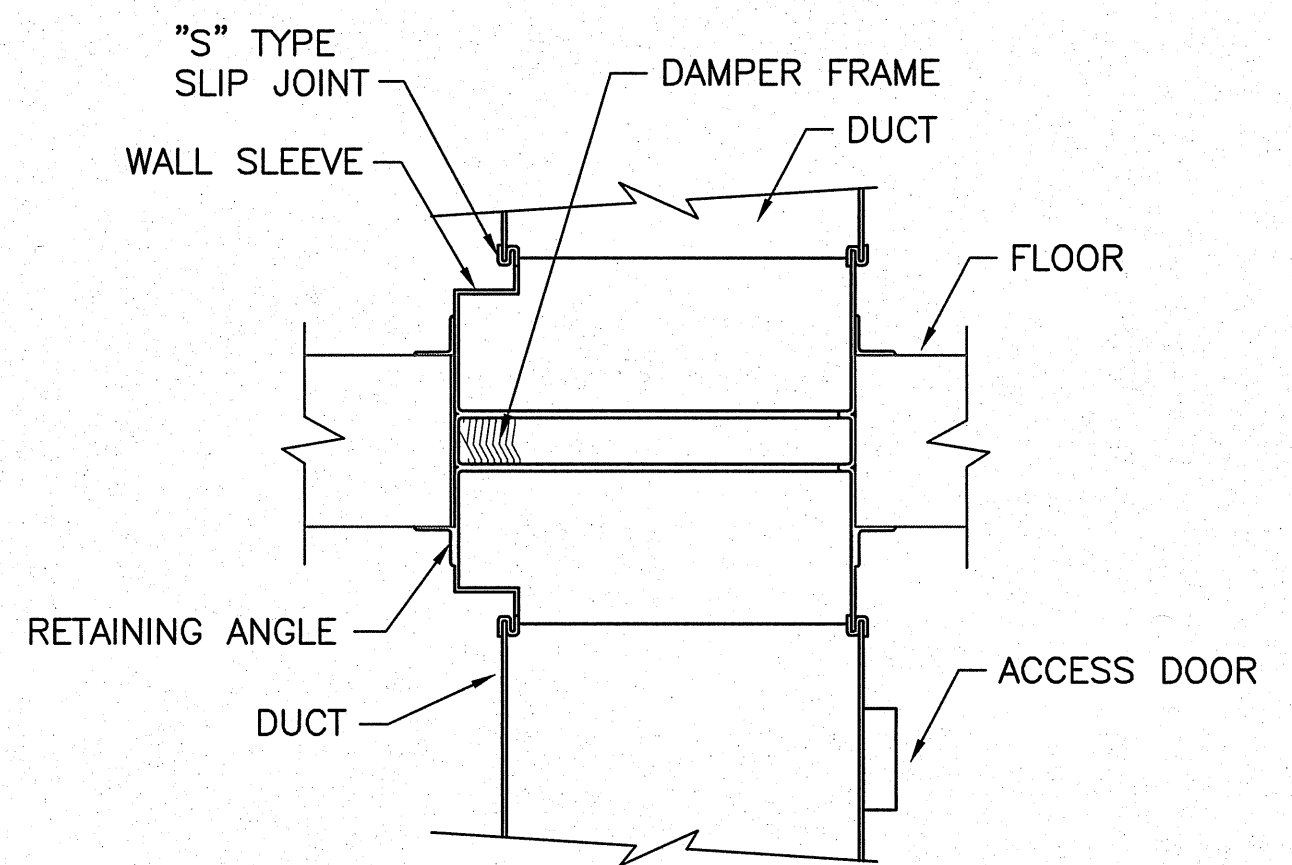
**EXPANSION TANK/DIRT AND AIR SEPARATOR DETAIL**  
SCALE: NOT TO SCALE



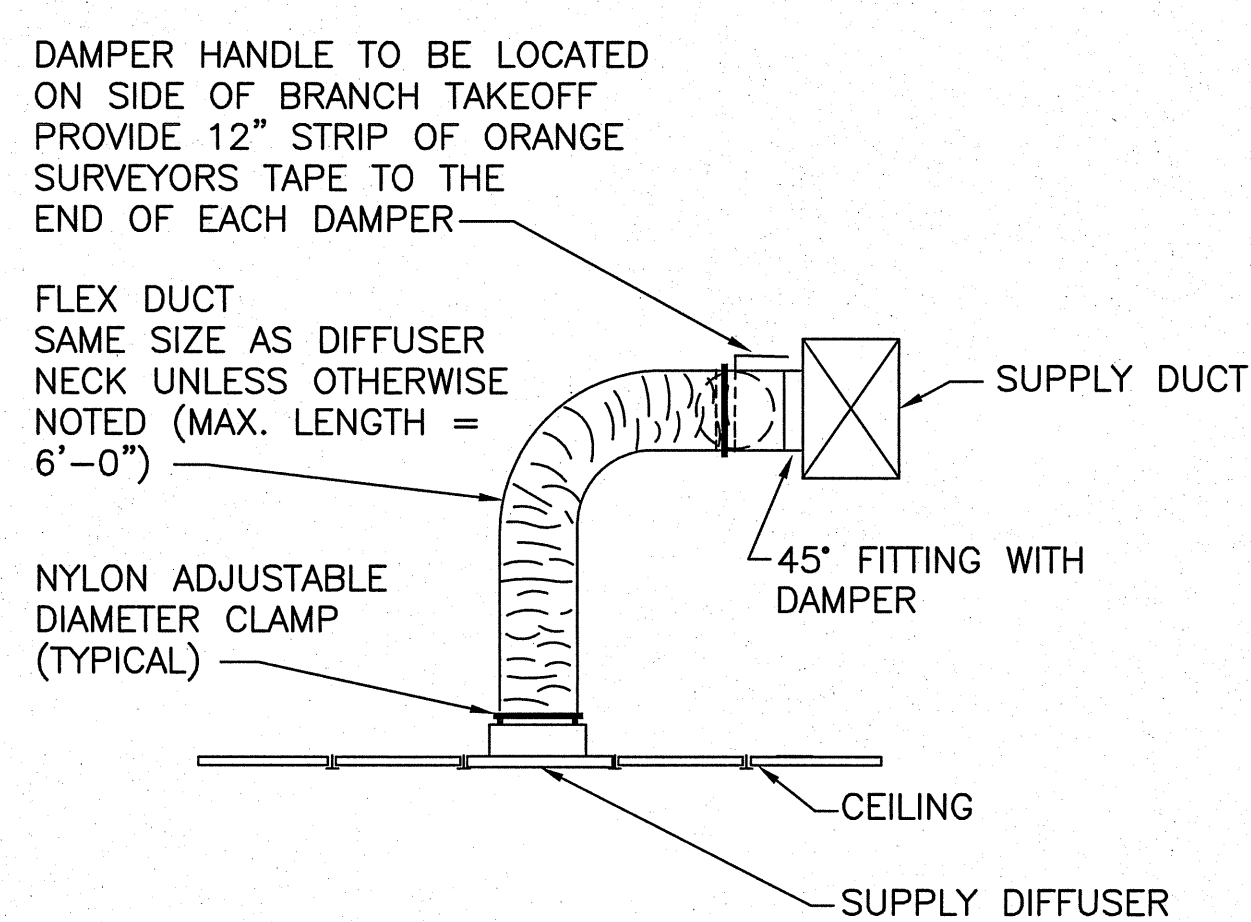
**GEOHERMAL PUMP DETAIL**  
SCALE: NOT TO SCALE



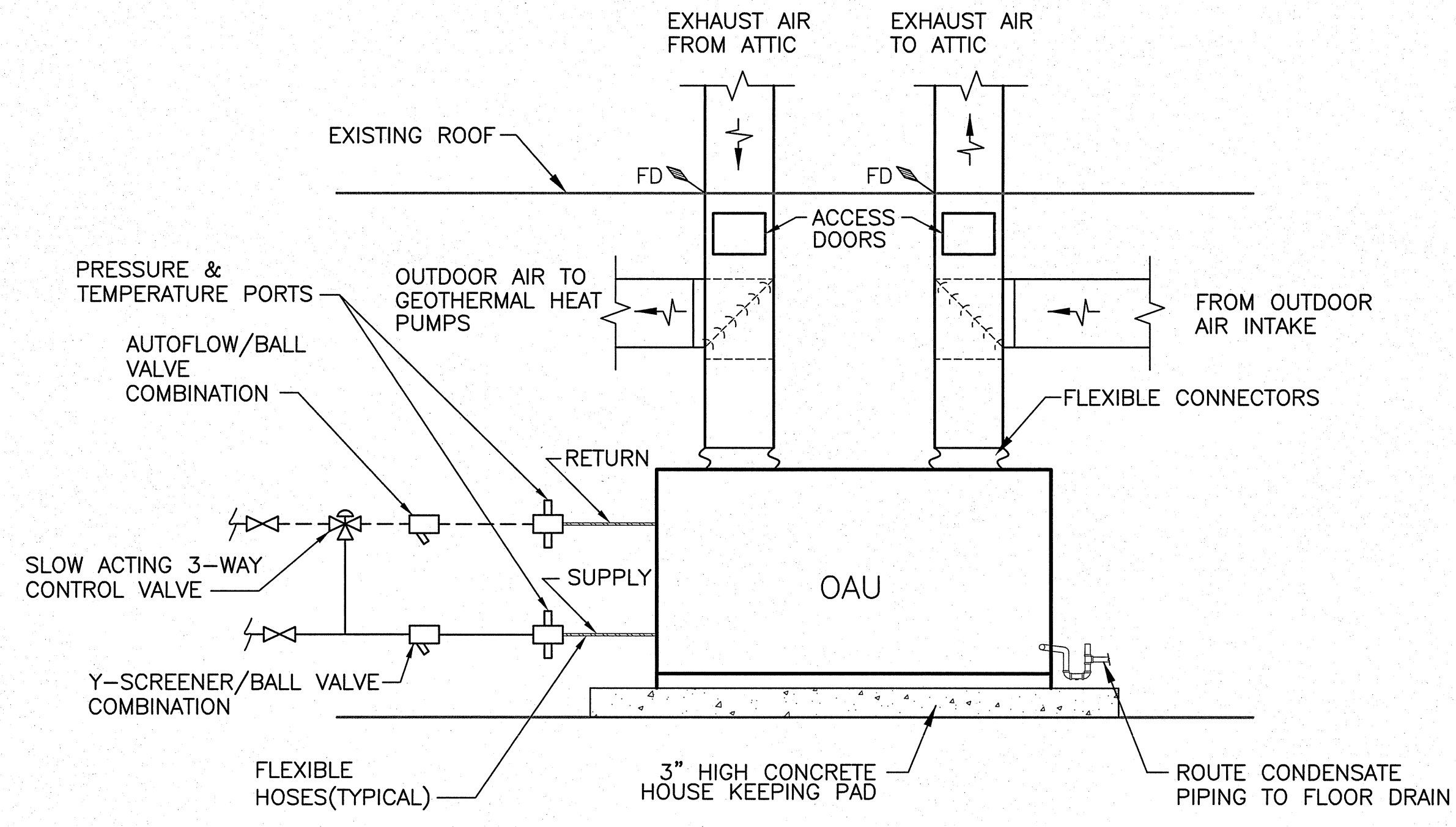
**GEOHERMAL HEAT PUMP PIPING DETAIL**  
SCALE: NOT TO SCALE



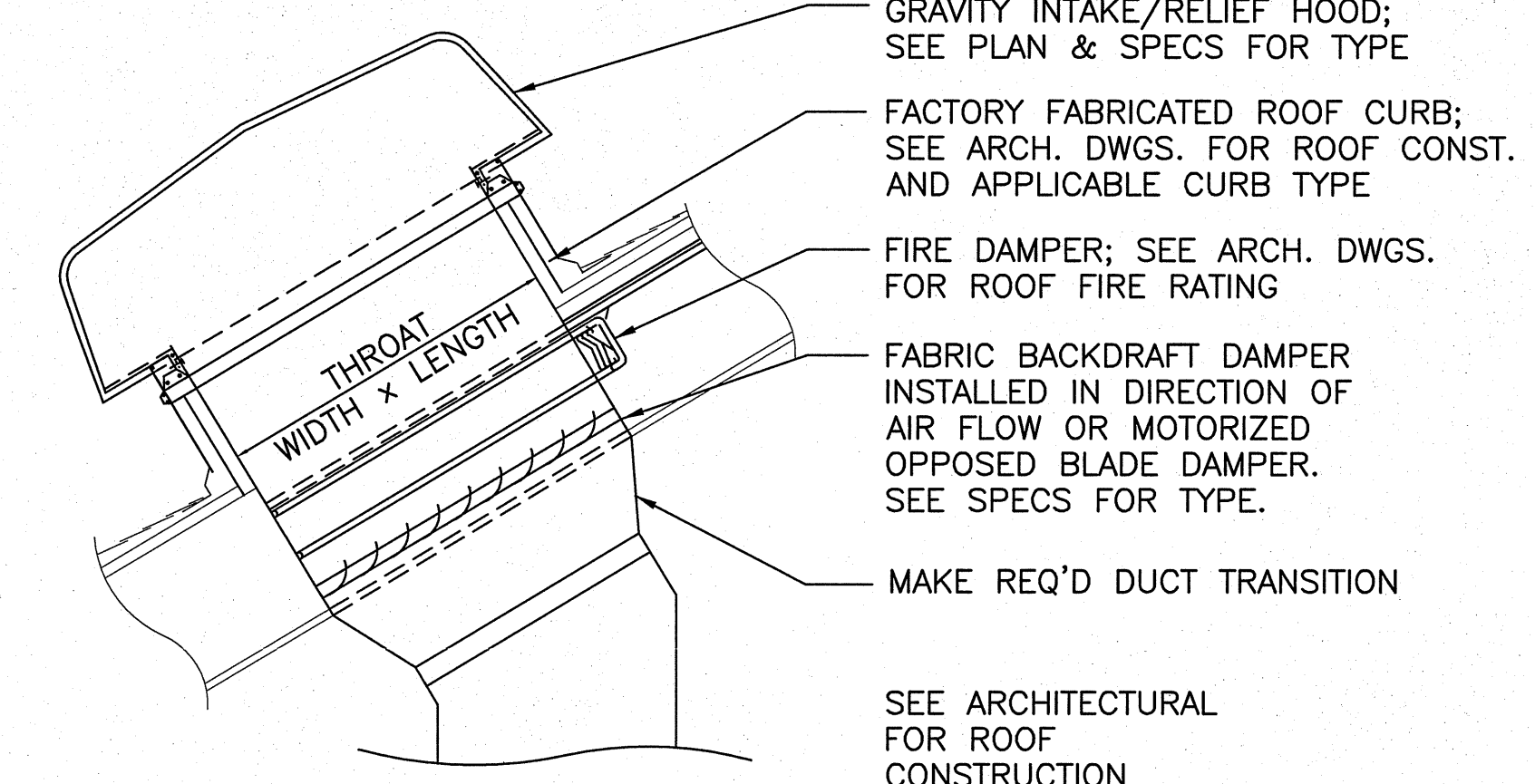
**HORIZONTAL FIRE DAMPER DETAIL**  
SCALE: NOT TO SCALE



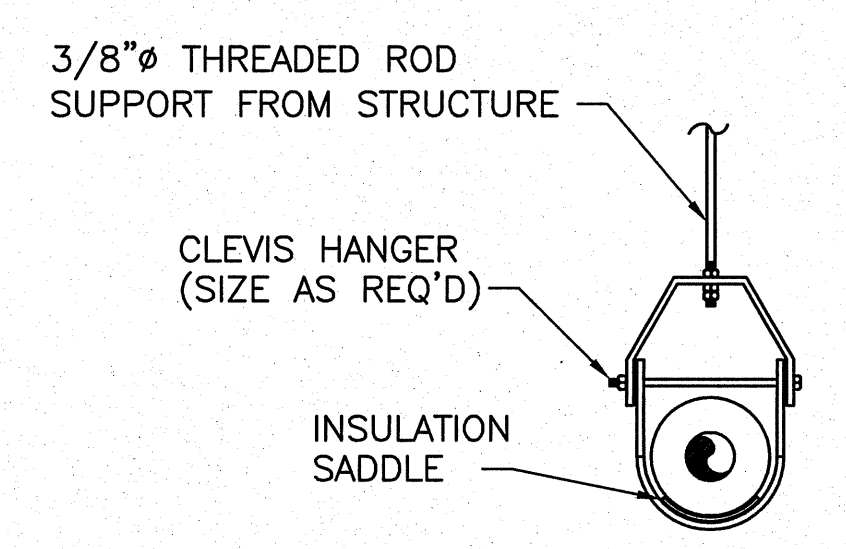
**TYPICAL FLEX DUCT DIFFUSER DETAIL**  
SCALE: NOT TO SCALE



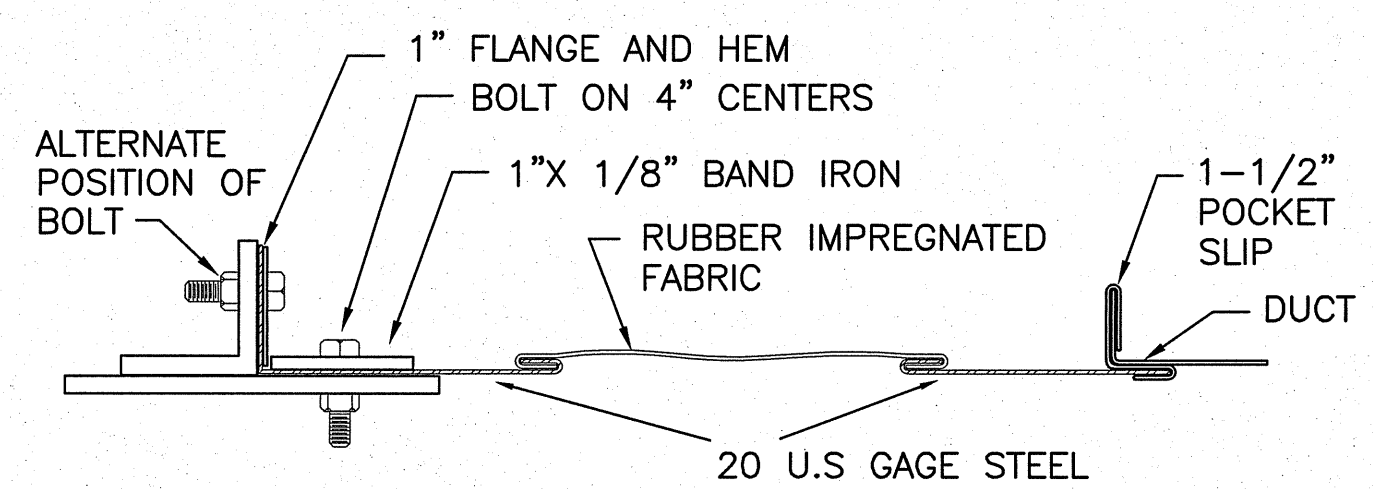
**GEOHERMAL OUTSIDE AIR UNIT DETAIL**  
SCALE: NOT TO SCALE



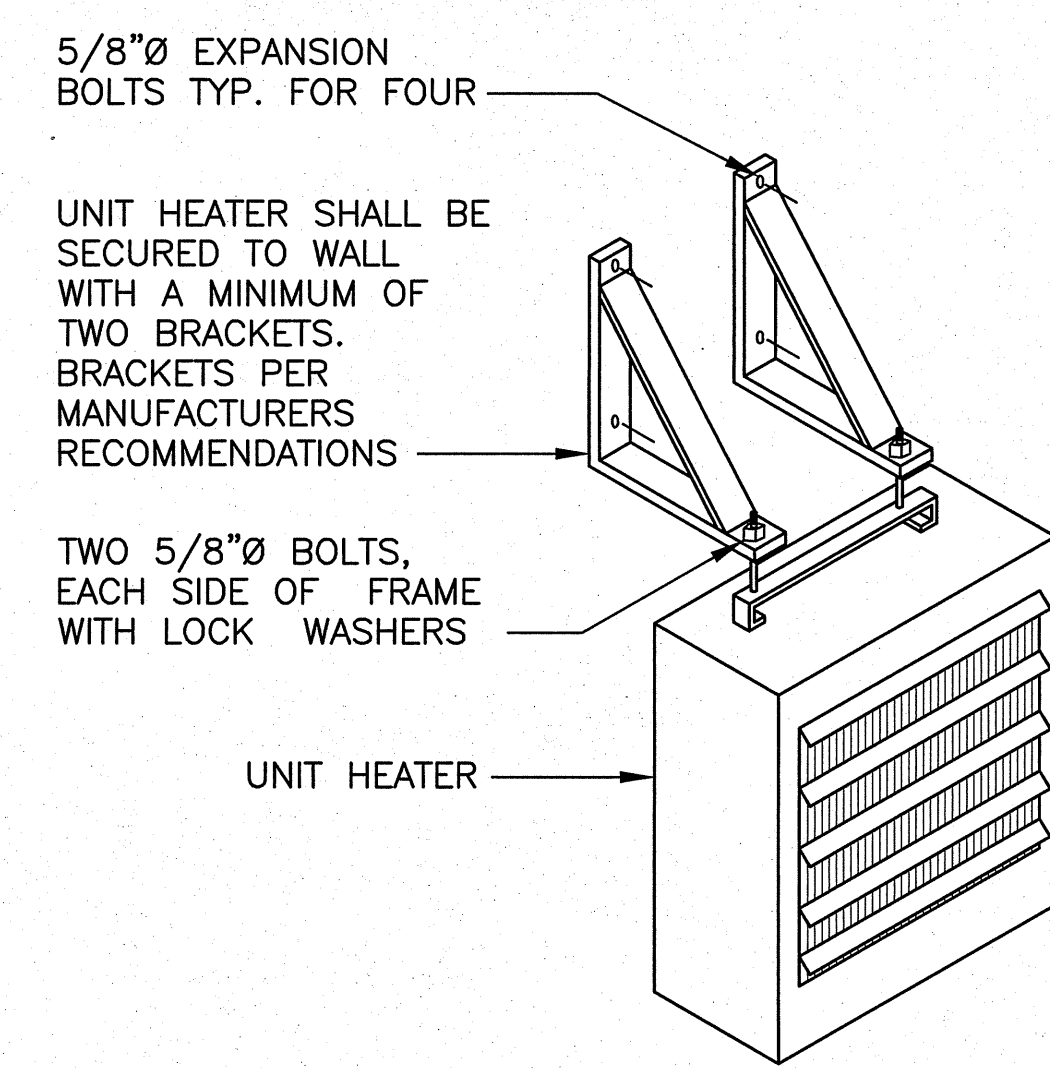
**GRAVITY INTAKE/RELIEF HOOD DETAIL**  
SCALE: NOT TO SCALE



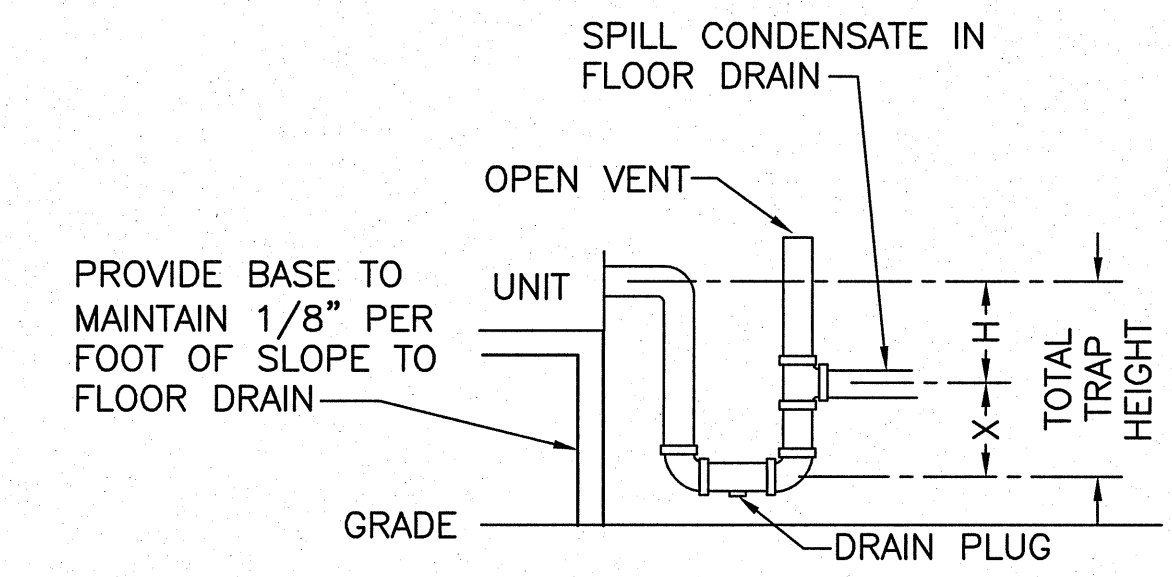
**TYPICAL PIPE SUPPORT DETAIL**  
SCALE: NOT TO SCALE



**TYPICAL FLEXIBLE CONNECTION**  
SCALE: NOT TO SCALE



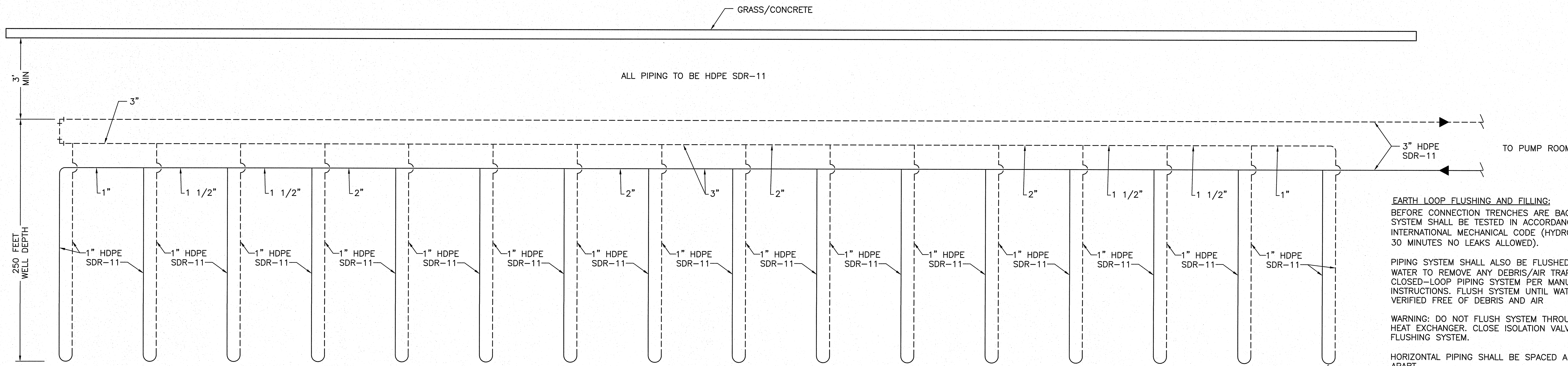
**ELECTRIC UNIT HEATER**  
SCALE: NOT TO SCALE



**TYPICAL CONDENSATE DRAIN DETAIL**  
SCALE: NOT TO SCALE

$X = 1/2 H$   
 $H = \text{MIN. } 3" \text{ PLUS CASING S.P.}$   
 $D = \text{PIPE DIAMETER}$   
 $\text{TOTAL TRAP HEIGHT} = X + H + 1.5D$

<b>M-501</b>	
<p>CEMS Engineering, Inc. 2508 Iron Horse Drive Ladson, SC 29456 (704) 475-2637 (704) 475-4509 www.cemsgroup.com CEMS Project #001552 Project Manager: R. Alvar</p>	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA
	REPAIR BEQ BUILDING BB260
DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR IOCC DATE:	MECHANICAL DETAILS NAVFAC DRAWING NO. <b>60007609</b> F 80091 CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 10-B-0031 SHEET 44 OF 72



**WELL FIELD/PIPE ROUTING DETAIL (TYPICAL)**  
SCALE: NOT TO SCALE

**EARTH LOOP FLUSHING AND FILLING:**  
BEFORE CONNECTION TRENCHES ARE BACKFILLED, THE LOOP SYSTEM SHALL BE TESTED IN ACCORDANCE WITH INTERNATIONAL MECHANICAL CODE (HYDRO TO 100 PSI FOR 30 MINUTES NO LEAKS ALLOWED).

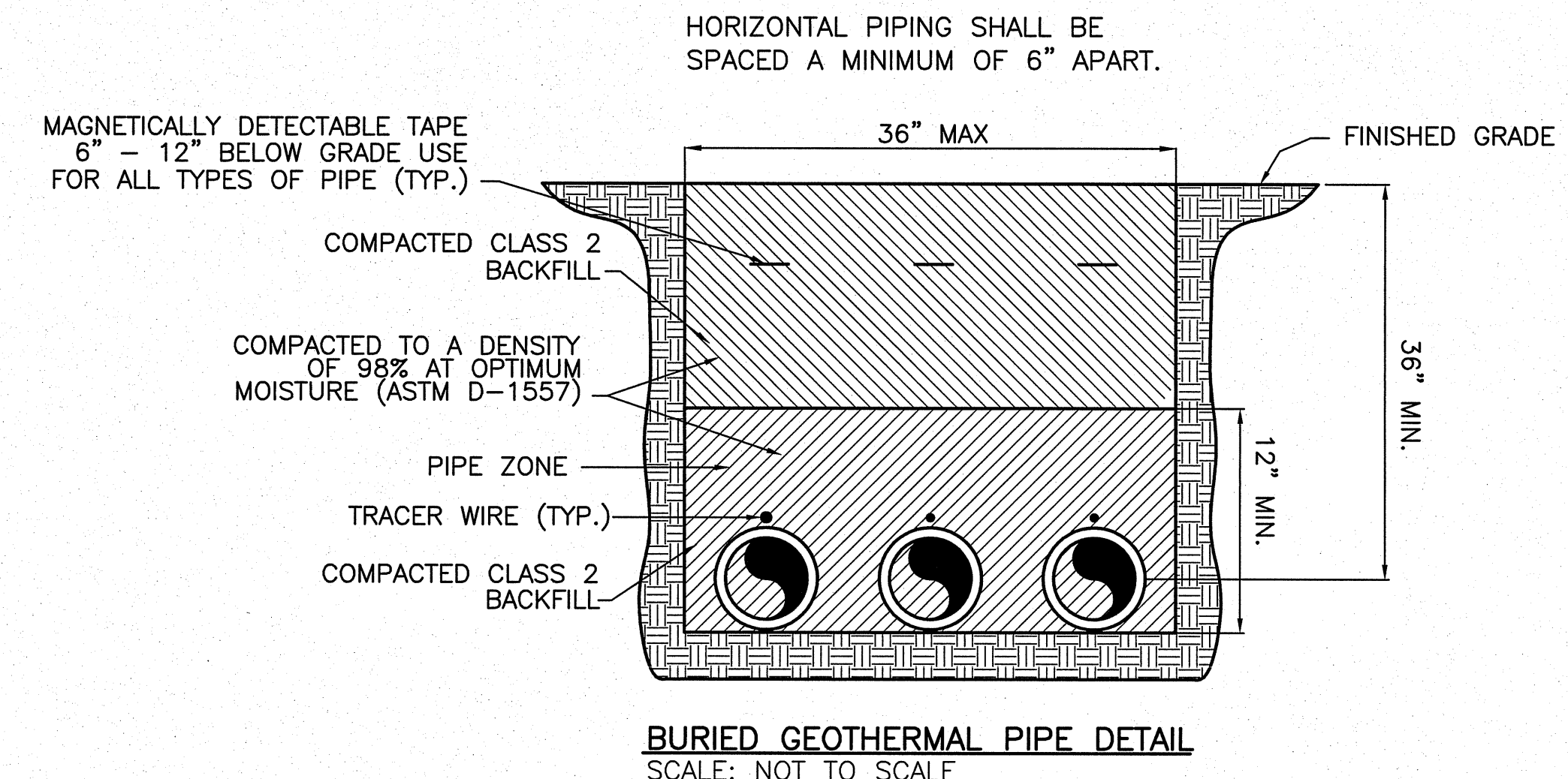
PIPING SYSTEM SHALL ALSO BE FLUSHED/PURGED WITH WATER TO REMOVE ANY DEBRIS/AIR TRAPPED IN THE CLOSED-LOOP PIPING SYSTEM PER MANUFACTURER'S INSTRUCTIONS. FLUSH SYSTEM UNTIL WATER CLARITY CAN BE VERIFIED FREE OF DEBRIS AND AIR

WARNING: DO NOT FLUSH SYSTEM THROUGH HEAT PUMP HEAT EXCHANGER. CLOSE ISOLATION VALVES BEFORE FLUSHING SYSTEM.

HORIZONTAL PIPING SHALL BE SPACED A MINIMUM OF 6" APART.

SEE SHEET MS-101 FOR WELL SPACING.

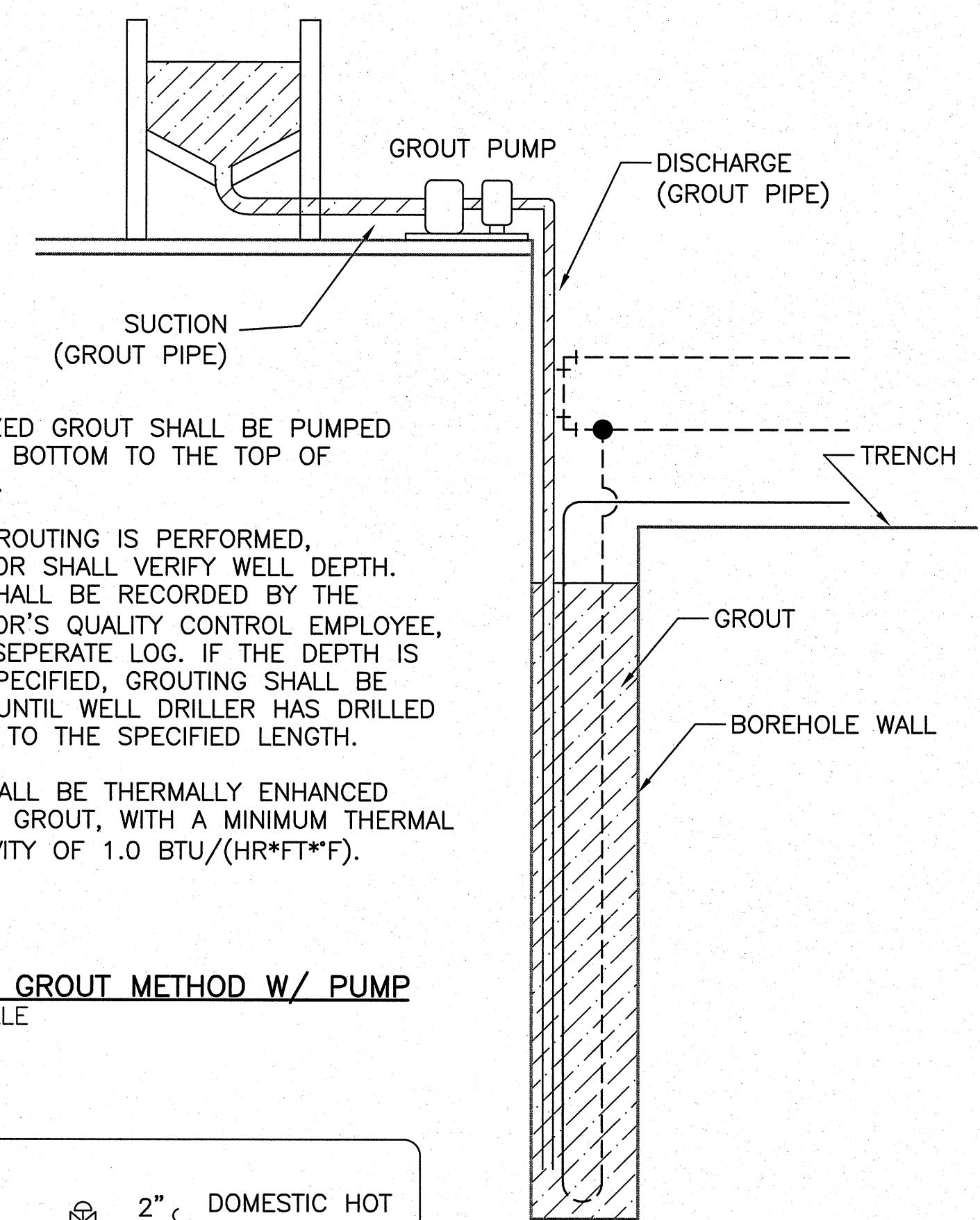
WELL FIELD AND BUILDING SYSTEM PURGING OF DEBRIS AND AIR WILL REQUIRE A MINIMUM FLOW RATE OF 140 GPM AT 66 FT OF HEAD. WELL FIELD AND BUILDING TO BE PURGED SEPARATELY. PURGING OF BUILDING WILL REQUIRE 2 PHASES, EACH PHASE WILL REQUIRE ONE OUTSIDE AIR UNIT BYPASS VALVE OPEN WITH ALL OTHERS CLOSED. PURGING OF WELL FIELD WILL REQUIRE ISOLATING WELL FIELD BRANCHES AT THE VALVE HEADER. PURGE EACH BRANCH SEPARATELY.



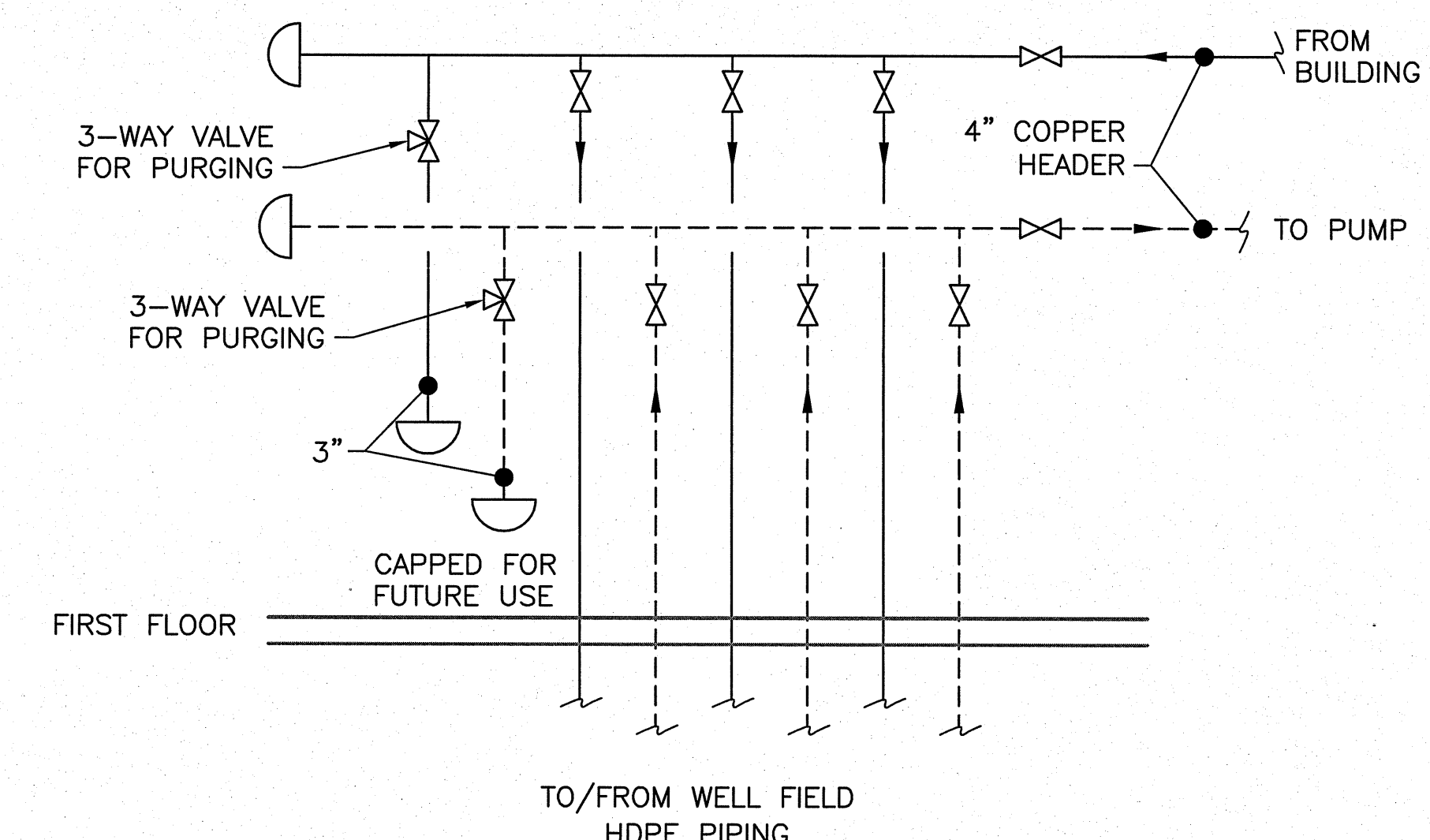
**BURIED GEOTHERMAL PIPE DETAIL**  
SCALE: NOT TO SCALE

**NOTES:**

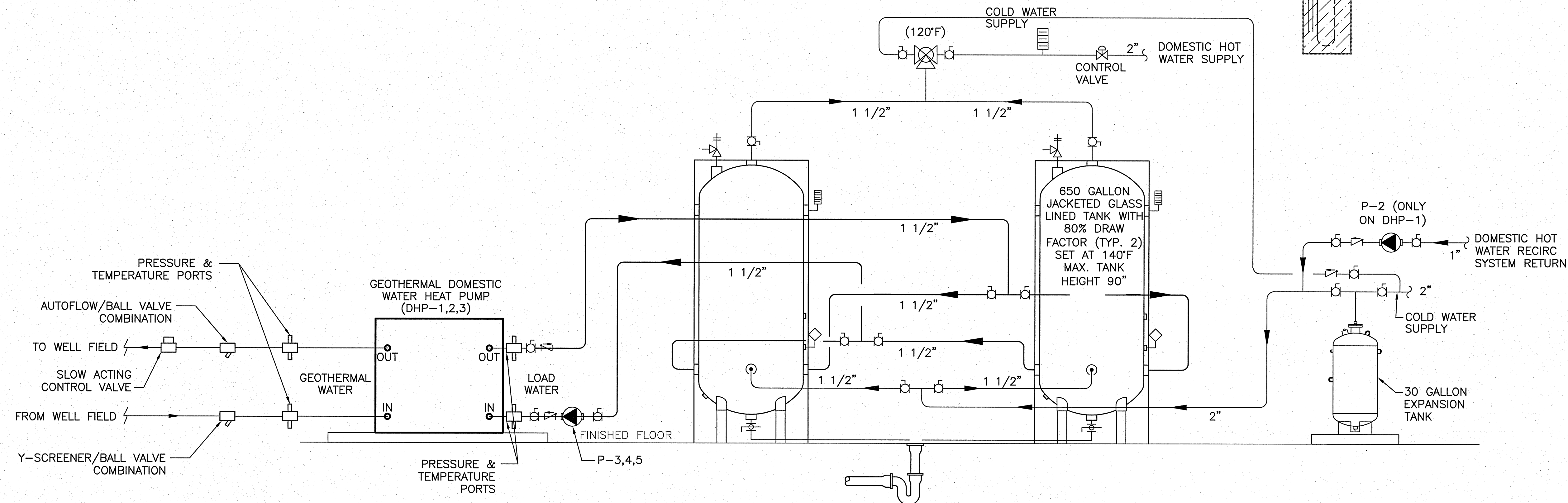
- 1 PRESSURIZED GROUT SHALL BE PUMPED FROM THE BOTTOM TO THE TOP OF BOREHOLE.
- 2 BEFORE GROUTING IS PERFORMED, CONTRACTOR SHALL VERIFY WELL DEPTH. DEPTHS SHALL BE RECORDED BY THE CONTRACTOR'S QUALITY CONTROL EMPLOYEE, KEPT AS SEPERATE LOG. IF THE DEPTH IS NOT AS SPECIFIED, GROUTING SHALL BE STOPPED UNTIL WELL DRILLER HAS DRILLED THE WELL TO THE SPECIFIED LENGTH.
- 3 GROUT SHALL BE THERMALLY ENHANCED BENTONITE GROUT, WITH A MINIMUM THERMAL CONDUCTIVITY OF 1.0 BTU/(HR\*FT\*F).



**WELL FIELD PIPE GROUT METHOD W/ PUMP**  
SCALE: NOT TO SCALE

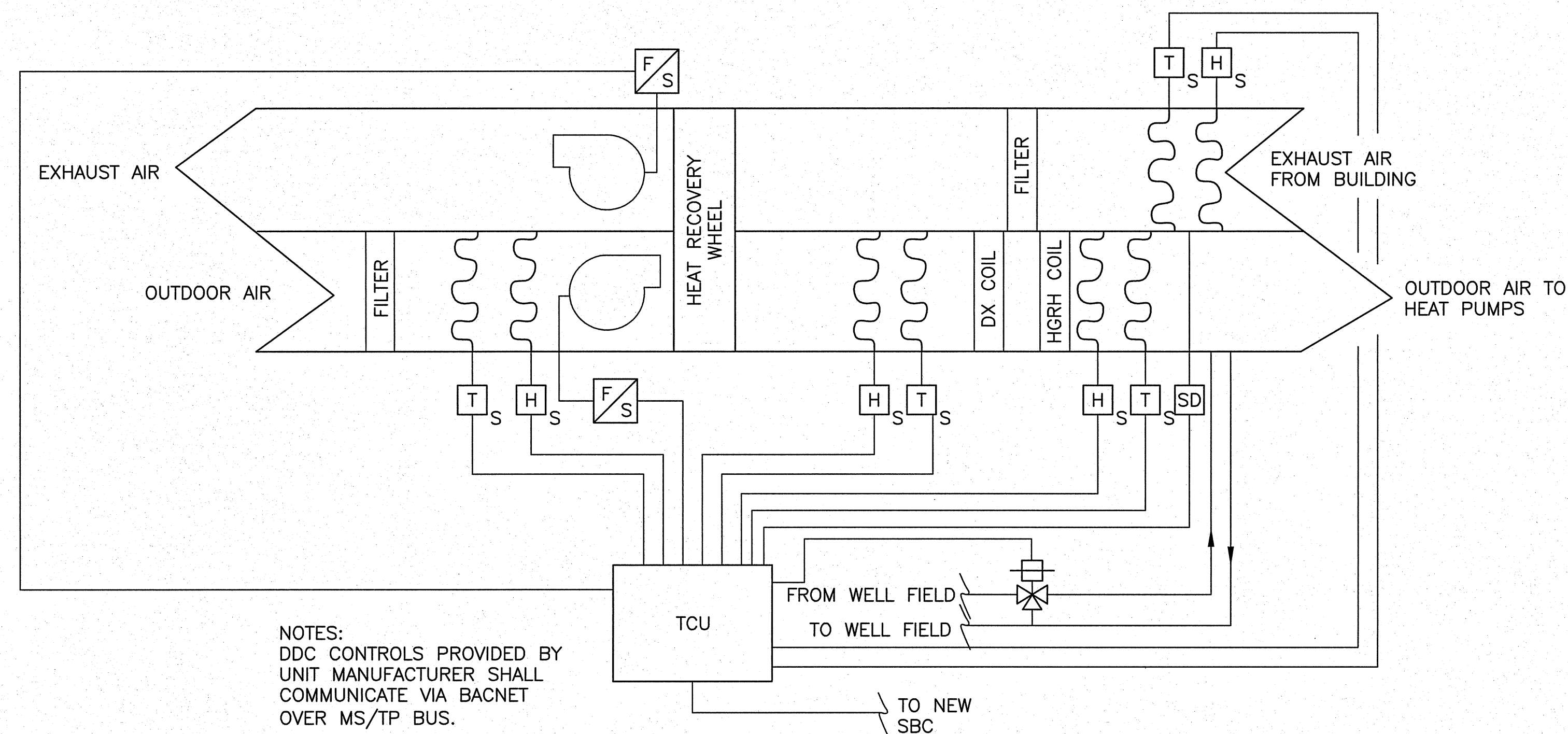


**HEADER PIPING DETAIL**  
SCALE: NOT TO SCALE



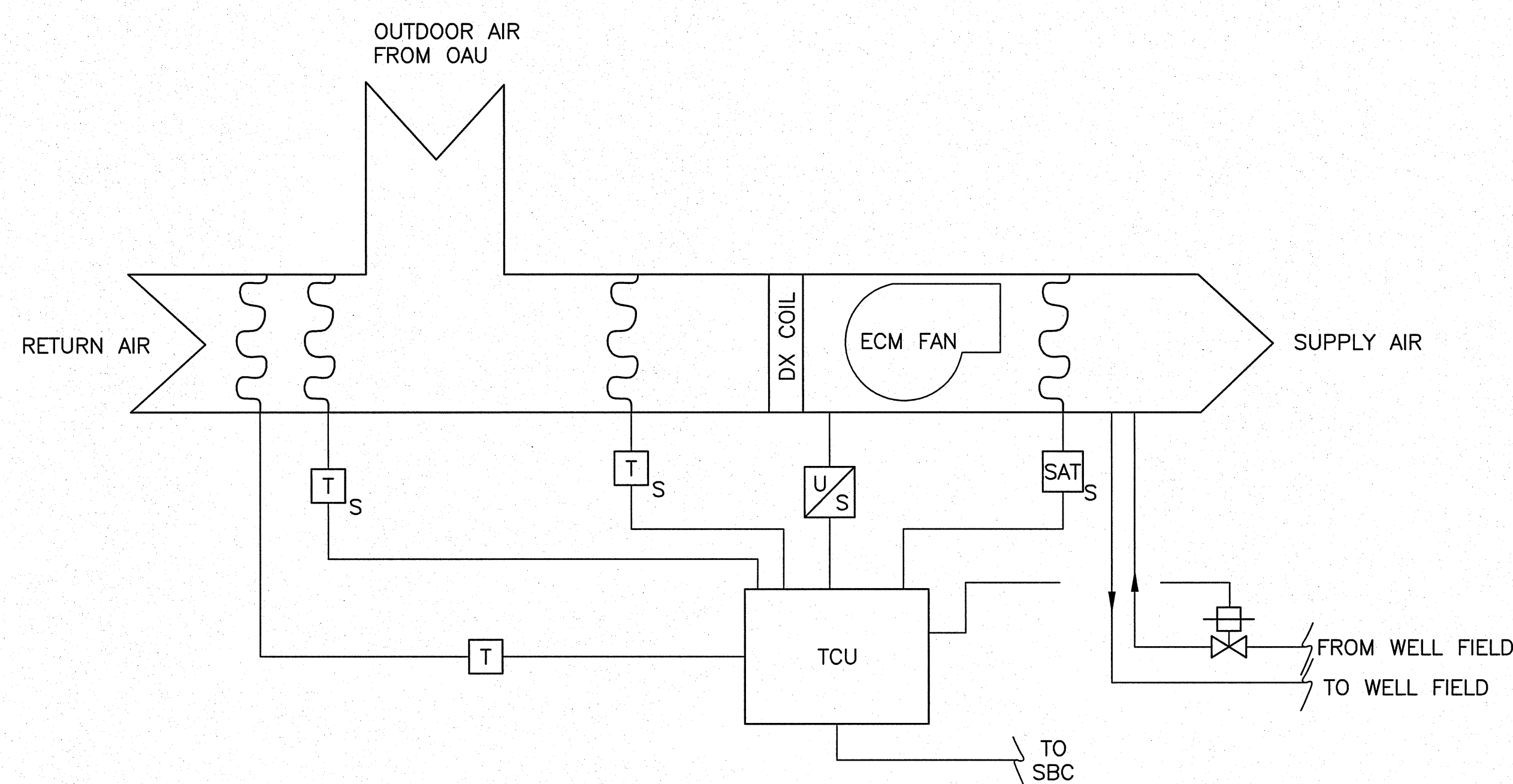
**DOMESTIC GEOTHERMAL HEAT PUMP AND HOT WATER STORAGE TANK PIPING DIAGRAM**  
SCALE: NOT TO SCALE

		<b>M-502</b> DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR.	APPROVED: PWO OR OICC SATISFACTORY TO:	DATE DATE	SIZE CODE IDENT NO. <b>F 80091</b> NAVFAC DRAWING NO. <b>60007610</b> CONST. CONTR. NO. N40085-10-B-0031
MECHANICAL DETAILS		SHEET 45 OF 72	

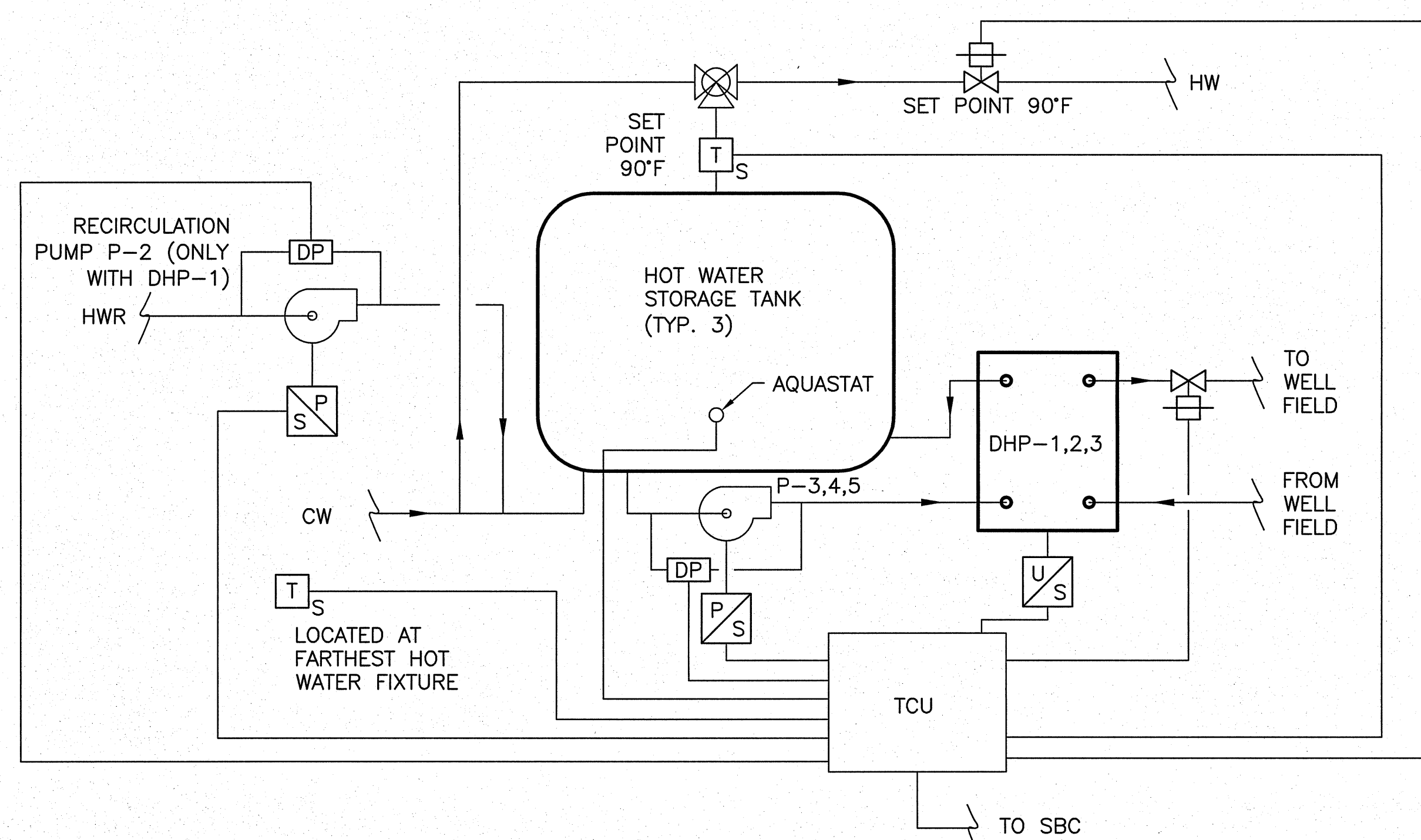


NOTES:  
DDC CONTROLS PROVIDED BY  
UNIT MANUFACTURER SHALL  
COMMUNICATE VIA BACNET  
OVER MS/TP BUS.

**OUTDOOR AIR UNIT (OAU TYPICAL) CONTROL DIAGRAM**  
SCALE: NOT TO SCALE



**GEOTHERMAL HEAT PUMP (HP TYPICAL) CONTROL DIAGRAM**  
SCALE: NOT TO SCALE



**DOMESTIC GEOTHERMAL WATER SOURCE HEAT PUMP CONTROL DIAGRAM**  
SCALE: NOT TO SCALE

**SEQUENCE OF OPERATION:**

BUILDING CONSISTS OF LOCALIZED COOLING/HEATING SYSTEMS CONSISTING OF GEOTHERMAL HEAT PUMPS (HP). DOMESTIC HOT WATER WILL BE GENERATED VIA A WATER TO WATER GEOTHERMAL HEAT PUMP (DHP). EACH HP, OAU, AND DHP WILL BE CONNECTED TO A COMMON GEOTHERMAL WELL FIELD.

**OUTDOOR AIR UNIT (GEOTHERMAL HEAT PUMP) SEQUENCE OF OPERATION:**

A PROGRAMMABLE CONTROLLER CAPABLE OF STANDALONE OPERATION WILL CONTROL THE OUTDOOR AIR UNIT (OAU), SUBJECT TO OCCUPANCY SCHEDULES AND OCCUPANCY OVERRIDES THROUGH THE SUPERVISORY BUILDING CONTROLLER (SBC).

GENERAL: THE OAU CONSISTS OF A BUILT-UP FAN HOUSING, A HEATING/COOLING COIL WITH HOT GAS REHEAT AND A HEAT RECOVERY WHEEL PRETREATING OUTDOOR AIR CONTROLLED THROUGH THE DDC SYSTEM.

THE SEQUENCE OF OPERATION SHALL BE INITIATED BY THE DDC SYSTEM SCHEDULE.

IN THE OCCUPIED MODE, THE UNIT FANS AND HEAT RECOVERY WHEEL SHALL RUN CONTINUOUSLY.

IN THE UNOCCUPIED MODE THE UNIT SHALL BE DE-ENERGIZED.

3-WAY CONTROL VALVE: UPON A CALL FOR HEATING OR COOLING, THE 3-WAY CONTROL VALVE SHALL PROVIDE THE SCHEDULED FLOW RATE TO THE RESPECTIVE OAU. IN THE EVENT THAT HEATING OR COOLING IS NOT NEEDED, THE 3-WAY CONTROL VALVE SHALL ACT AS A GEOTHERMAL WATER BYPASS.

HEATING MODE: UNIT SHALL HEAT AIR TO 65°F. UNIT SHALL BE IN HEATING MODE WHEN OUTDOOR AIR IS 50°F OR BELOW.

COOLING MODE: UNIT SHALL COOL AIR TO 53°F TO DEHUMIDIFY, FOLLOWED BY HOT GAS REHEAT TO DISCHARGE OUTDOOR AIR AT 65°F. UNIT SHALL BE IN COOLING MODE WHEN OUTDOOR AIR IS 65°F OR ABOVE.

SAFETIES: UPON AN ALARM SIGNAL FROM THE SUPERVISORY BUILDING CONTROLLER (SBC) THE UNIT SHALL DE-ENERGIZE.

WHEN OPERATING STATUS OF UNIT IS NOT PROVEN THE CONTROLLER SHALL DE-ENERGIZE THE UNIT AND AN ALARM SHALL BE DISPLAYED AT THE OPERATOR'S WORKSTATION.

**GEOTHERMAL HEAT PUMP (HP) SEQUENCE OF OPERATION:**

A PROGRAMMABLE CONTROLLER CAPABLE OF STANDALONE OPERATION WILL CONTROL THE GEOTHERMAL WATER SOURCE HEAT PUMP (HP), SUBJECT TO OCCUPANCY SCHEDULES AND OCCUPANCY OVERRIDES THROUGH THE SUPERVISORY BUILDING CONTROLLER (SBC).

THE SEQUENCE OF OPERATION SHALL BE INITIATED BY THE DDC SYSTEM SCHEDULE.

IN THE OCCUPIED MODE THE UNIT SHALL MAINTAIN 75°F IN COOLING MODE AND 70°F IN HEATING MODE. THE UNIT SHALL PROVIDE 53°F DISCHARGE AIR TEMPERATURE IN COOLING AND 85°F IN HEATING. HP-1,3,6,8,9-20 SHALL BE PROVIDED WITH A RETURN DUCT MOUNTED THERMISTOR UPSTREAM OF THE INTRODUCTION OF OUTSIDE AIR. SPACE TEMPERATURE SHALL BE CONTROLLED BY THE SBC, EACH HP SHALL CONTINUALLY CIRCULATE AIR AT THE SPECIFIED MIN CFM ON SHEET M-604. HP-2,4,5,7,21,22,23 SPACE TEMPERATURE SHALL BE CONTROLLED BY THE SBC, THERMOSTATS IN SPACES TO PROVIDE 2 HOUR TEMPORARY OVERRIDE CAPABILITIES. UPON A CALL FOR HEATING OR COOLING, THE FAN SPEED SHALL BE CONTROLLED BY THE UNIT, THE CORRESPONDING SLOW ACTING CONTROL VALVE SHALL OPEN AND THE UNIT SHALL BE FULLY OPERATIONAL PER THE UNITS INTERNAL CONTROLS. WHEN THE SPACE TEMPERATURE IS SATISFIED THE COMPRESSOR SHALL DE-ENERGIZE AND THE SPECIFIED MIN CFMS SHALL BE MAINTAINED FOR CIRCULATION.

IN UNOCCUPIED MODE THE UNIT SHALL MAINTAIN 80°F IN COOLING MODE AND 60°F IN HEATING MODE.

SAFETIES: UPON AN ALARM SIGNAL FROM THE SUPERVISORY BUILDING CONTROLLER (SBC) THE UNIT SHALL DE-ENERGIZE.

WHEN OPERATING STATUS OF UNIT IS NOT PROVEN THE CONTROLLER SHALL DE-ENERGIZE THE UNIT AND AN ALARM SHALL BE DISPLAYED AT THE OPERATOR'S WORKSTATION.

**DOMESTIC WATER TO WATER GEOTHERMAL HEAT PUMP SYSTEM (DHP-1,2,3, PUMPS P-3,4,5 AND P-2 RECIRC PUMP) SEQUENCE OF OPERATION:**

OCCUPIED MODE: DOMESTIC HOT WATER STORAGE TANKS SHALL MAINTAIN A TANK TEMPERATURE OF 140°F. IF TANK TEMPERATURE FALLS BELOW 135°F THE RESPECTIVE SLOW ACTING CONTROL VALVE SHALL BE OPENED AND THE RESPECTIVE DHP AND PUMP FOR EACH HOT WATER STORAGE TANK SHALL BE ENERGIZED. WHEN TANK TEMPERATURE REACHES 145°F THE RESPECTIVE DHP AND PUMP SHALL BE DE-ENERGIZED AND THE RESPECTIVE SLOW ACTING CONTROL VALVE SHALL BE CLOSED.

UNOCCUPIED MODE: ALL DHPs, ASSOCIATED PUMPS, AND RECIRCULATION PUMP SHALL BE DE-ENERGIZED.

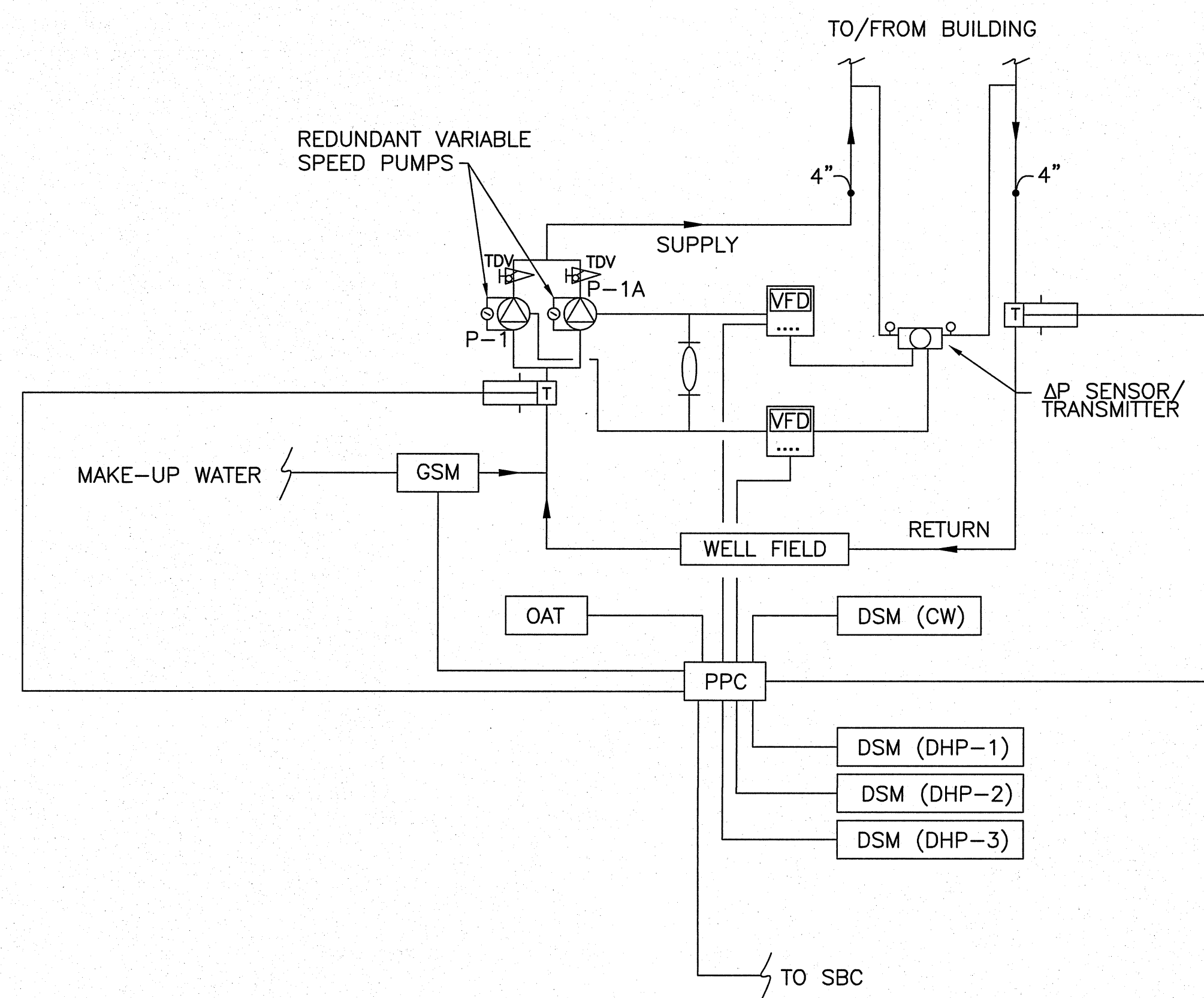
RECIRCULATION PUMP: RECIRCULATION PUMP(P-2) SHALL BE ENERGIZED IN OCCUPIED MODE IF THE TEMPERATURE SENSOR LOCATED AT THE FARTHEST HOT WATER RECEIVING FIXTURE INDICATES HOT WATER TEMPERATURES BELOW 105°F. IN THE EVENT THAT THE RECIRCULATION PUMP IS ENERGIZED THE PUMP SHALL RUN FOR 3 MINUTES BEFORE DE-ENERGIZING.

IN THE EVENT THAT THE TANK LEAVING WATER TEMPERATURE FROM A GIVEN HOT WATER TANK SYSTEM IS DETECTED BELOW 90°F THE ASSOCIATED 2-WAY CONTROL VALVE ON THE HOT WATER SUPPLY LINE SHALL BE CLOSED UNTIL TEMPERATURES ABOVE 100°F ARE PROVEN AT THE ASSOCIATED TEMPERATURE SENSOR.

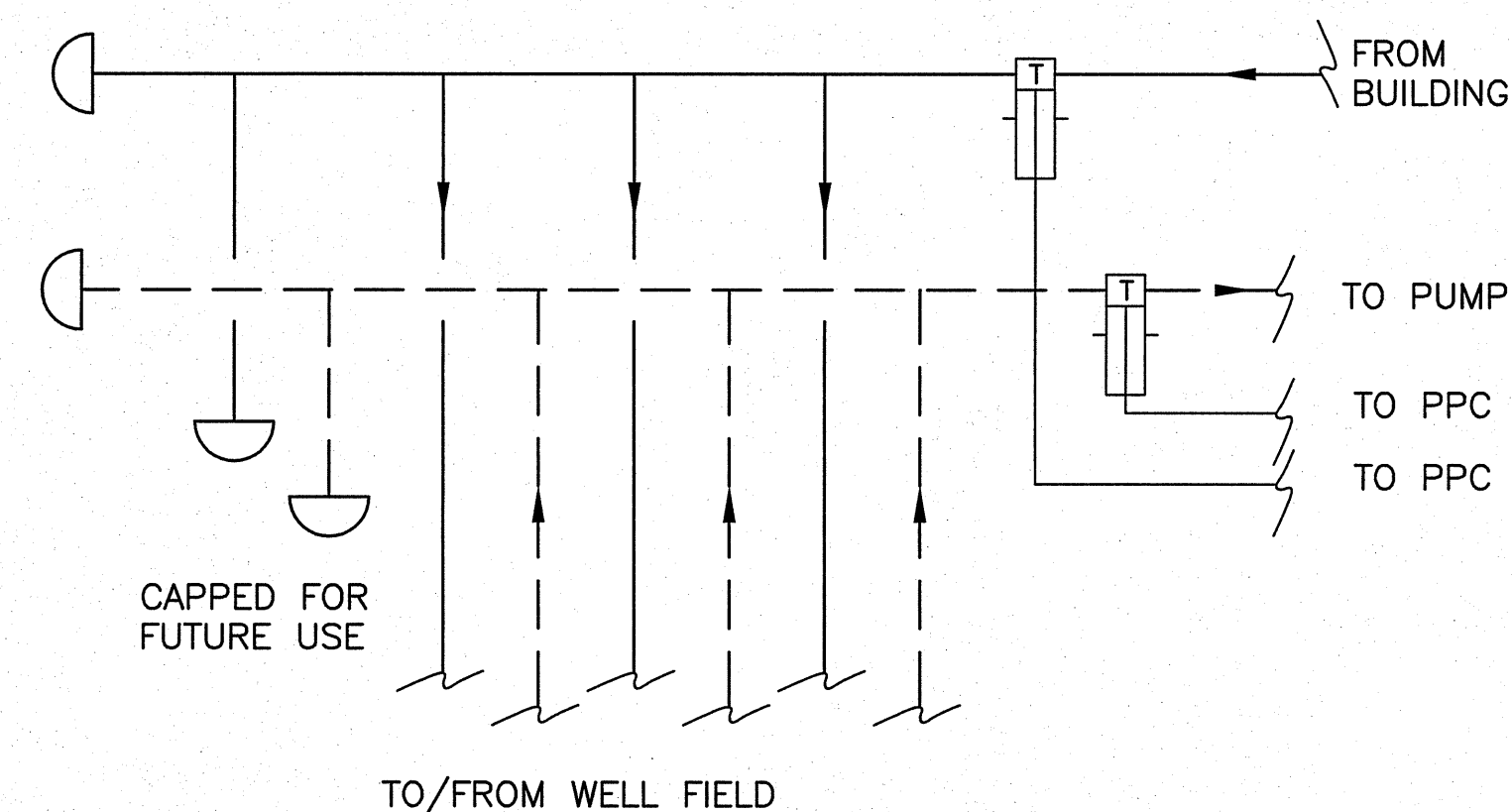
SUPERVISORY BUILDING CONTROLLER SHALL INTERFACE WITH EQUIPMENT FOR STARTING/STOPPING DHPs, PUMPS, ALL EQUIPMENT AND FOR MONITORING HARDWARE INPUTS.

PROVIDE HOT WATER PUMPS WITH A HAND-OFF-AUTO SWITCH. IN THE "HAND" POSITION, THE PUMPS SHALL BE CONTROLLED MANUALLY.

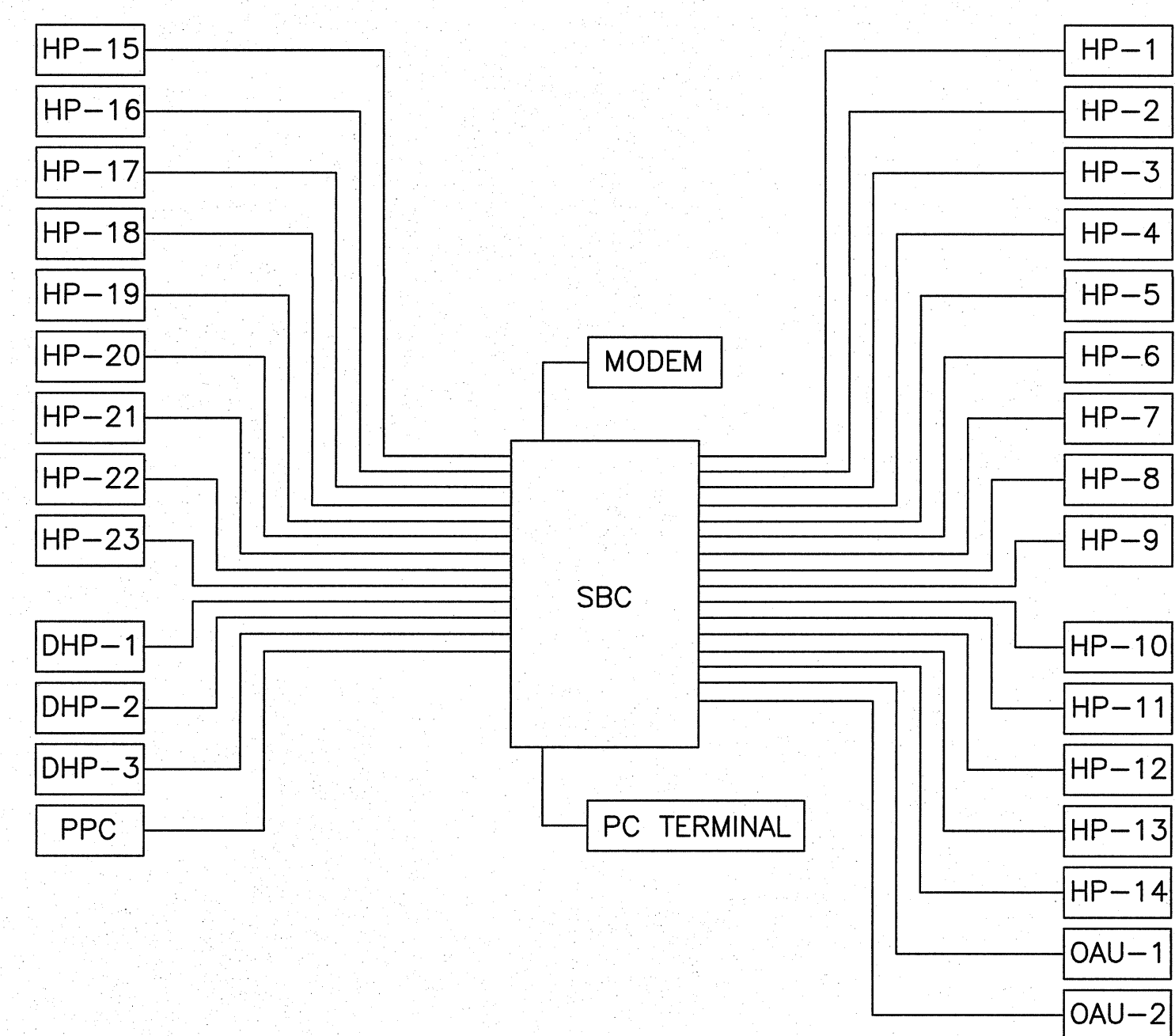
<b>M-601</b>	
<p>ENGINEERING</p>	<p>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA</p>
<p>DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC</p>	<p>REPAIR BEQ BUILDING BB260</p> <p>CONTROL DRAWINGS AND SEQUENCE OF OPERATION NAVAFAC DRAWING NO. <b>60007611</b></p>
<p>SATISFACTORY TO:</p>	<p>DATE: <b>F 80091</b> SCALE: AS NOTED SPEC. 10-B-0031 SHEET 46 OF 72</p>



**GEOTHERMAL VARIABLE SPEED SYSTEM CONTROL DIAGRAM**  
SCALE: NOT TO SCALE



**GEOTHERMAL HEADER CONTROL DIAGRAM**  
SCALE: NOT TO SCALE



**SYSTEM NETWORK**  
SCALE: NOT TO SCALE

**GEOTHERMAL WATER SYSTEM (VARIABLE SPEED PUMPS P-1/P-1A) SEQUENCE OF OPERATION:**

UPON A CALL FOR COOLING OR HEATING FROM ANY HP, DHP, OR OAU, THE GEOTHERMAL WATER SYSTEM SHALL BE ENABLED FOR OPERATION. THE PRIMARY SYSTEM LEAD PUMP SHALL START AND RUN CONTINUOUSLY. THE HEAT PUMPS ARE INTERLOCKED WITH THE PUMPS AND SHALL NOT START UNTIL FLOW IS PROVEN. UPON FAILURE OF THE LEAD PUMP, THE LAG PUMP SHALL START UNTIL THE FAILURE IS RESOLVED. LEAD OPERATION SHALL SWITCH WEEKLY AS TO EQUALIZE RUNTIME.

THE VARIABLE SPEED DRIVE PUMPS RESPOND TO A DIFFERENTIAL PRESSURE SENSOR/TRANSMITTER WHICH IS SENSING ACROSS TYPICAL SUPPLY-RETURN BRANCH. UPON AN INCREASE IN DIFFERENTIAL PRESSURE THE CONTROLLER WILL OPERATE THE PUMPS AT A LOWER SPEED TO MAINTAIN THE ADJUSTABLE SETPOINT. UPON A DECREASE IN DIFFERENTIAL PRESSURE THE CONTROLLER WILL OPERATE THE PUMPS AT A HIGHER SPEED TO MAINTAIN THE ADJUSTABLE SETPOINT. THE DIFFERENTIAL PRESSURE SENSOR SHALL BE LOCATED AT THE LAST PIPING CIRCUIT TO MAXIMIZE PUMP SAVINGS.

PROVIDE PUMPS WITH A HAND-OFF-AUTO SWITCH. IN THE "HAND" POSITION, THE PUMPS SHALL BE CONTROLLED MANUALLY. PUMPS SHALL BE PROVIDED WITH AN ALTERNATOR TO PROMOTE EVEN WEAR (PUMPS SHALL NOT OPERATE IN PARALLEL).

GEOTHERMAL WATER SUPPLY AND RETURN TEMPERATURES TO BE MONITORED. TEMPERATURE SENSORS SHOULD BE INSTALLED IN THE GEOTHERMAL WATER LINES IN MECHANICAL ROOM 168. ONE SENSOR TO BE LOCATED IN THE GEOTHERMAL SUPPLY LINE AFTER GROUPING IN VALVE HEADER AND BEFORE ENTERING THE PUMP. AN ADDITIONAL SENSOR SHALL BE PLACED IN THE GEOTHERMAL RETURN LINE BEFORE SPLITTING AT THE VALVE HEADER. TEMPERATURES TO BE RECORDED CONTINUOUSLY AT 5 MINUTE INTERVALS.

UPON DETECTION OF WATER FLOW THROUGH THE GEOTHERMAL MAKE-UP WATER SMART WATER METER AN ALARM SHALL BE DISPLAYED AT THE OPERATORS DESK, INDICATING A LEAK IN THE GEOTHERMAL SYSTEM.

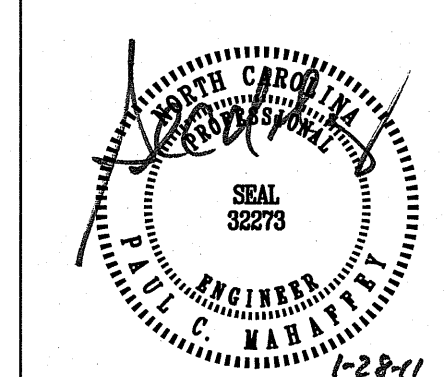
**EMERGENCY SHUT DOWN:**

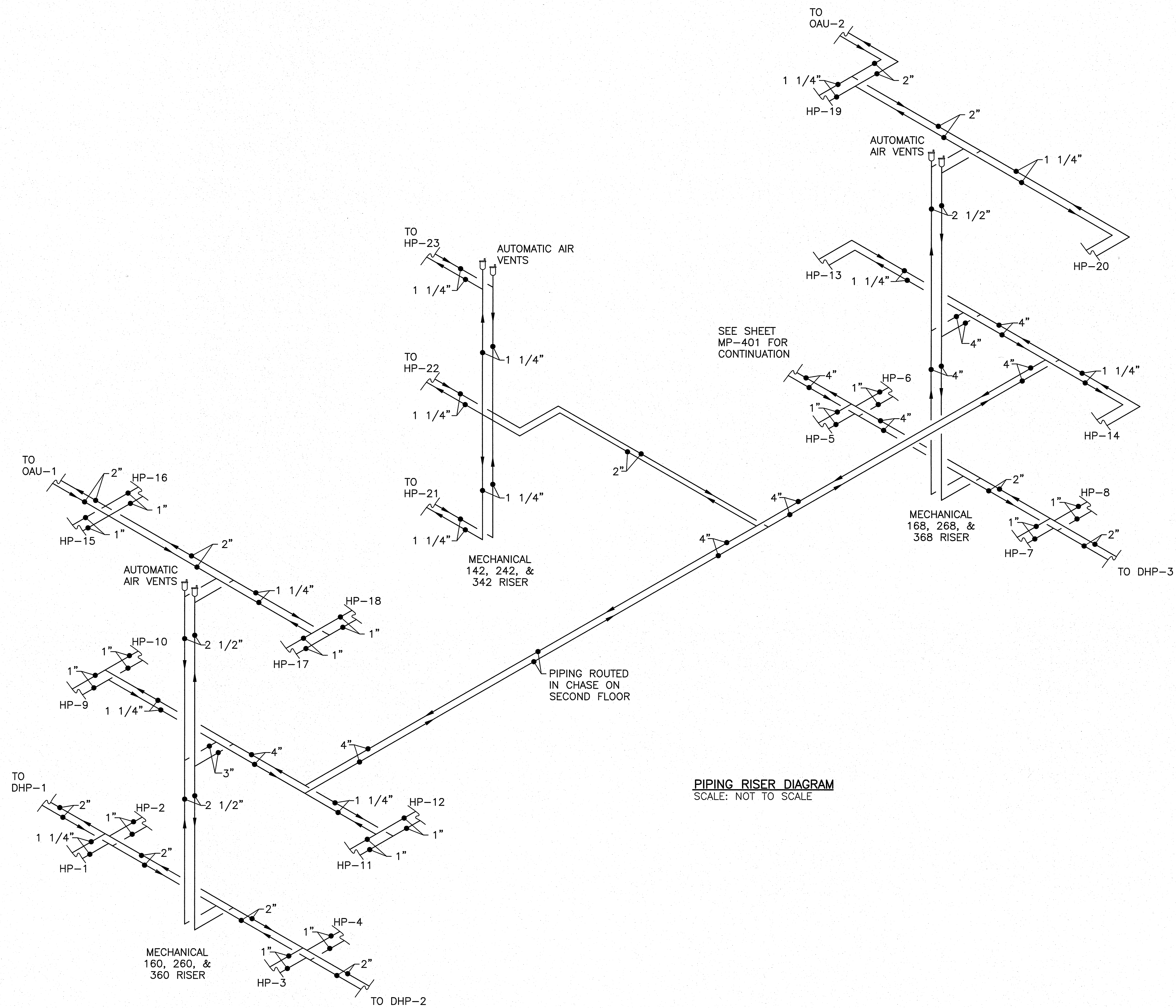
A MOMENTARY SWITCH WITH COVER IN THE DUTY ROOM OR AN EMERGENCY SHUTDOWN CALL FROM THE SBC SHALL DE-ENERGIZE ALL HEAT PUMPS, OUTDOOR AIR UNITS, AND DOMESTIC WATER HEAT PUMPS, AND THE MOTOR OPERATED DAMPERS ON OUTDOOR AIR AND EXHAUST DUCTS IN MECHANICAL ROOMS 360 AND 368 SHALL BE CLOSED. THIS SHALL REQUIRE A RESET AT THE SUPERVISORY CONTROLLER OR A REMOTE RESET FROM THE EMCS SYSTEM.

**SUPERVISORY BUILDING CONTROLLER:**

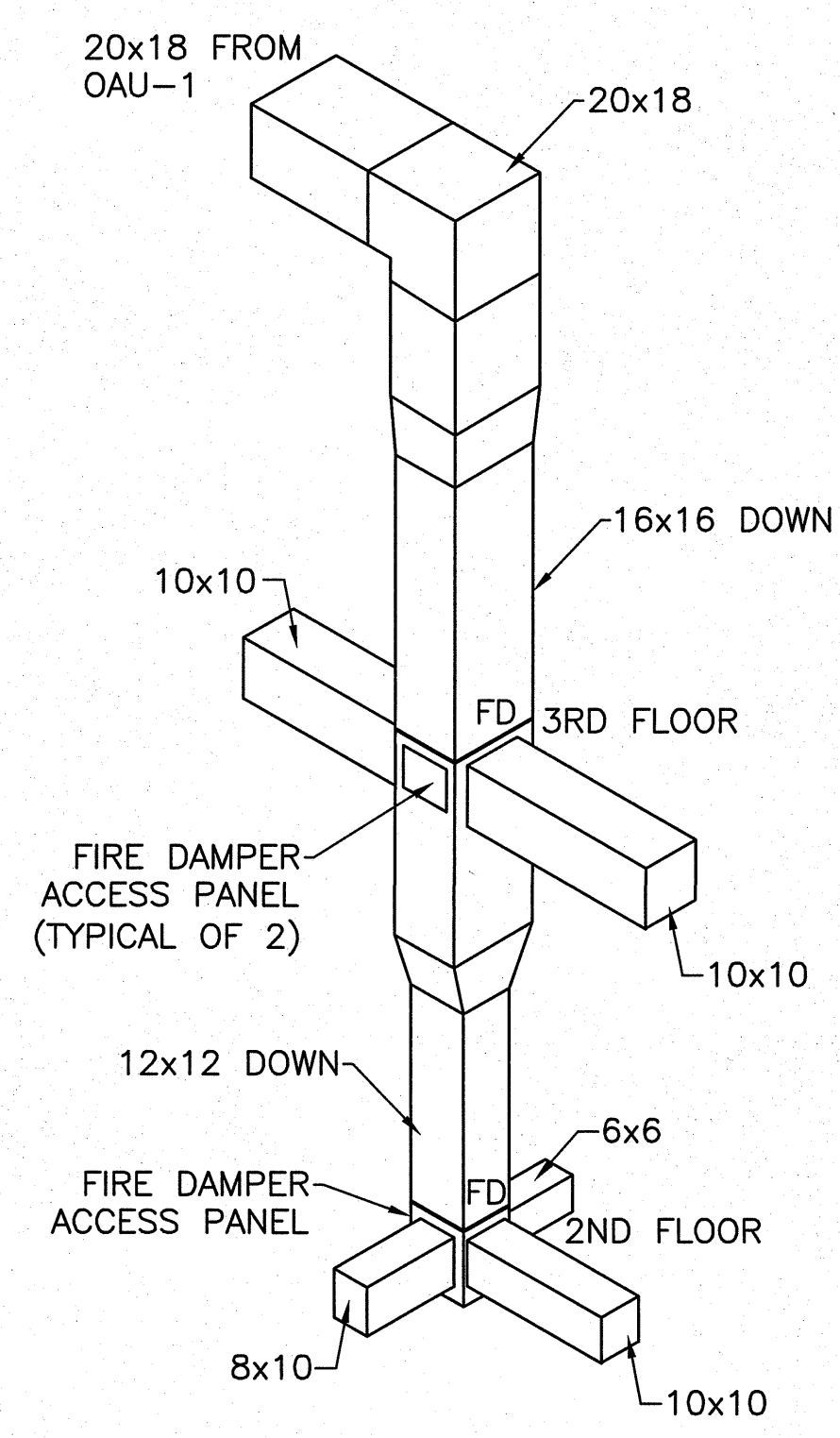
SUPERVISORY BUILDING CONTROLLER SHALL COMMUNICATE WITH JCI BASE WIDE MONITORING SYSTEM.

<b>M-602</b>	
 <b>CEMS</b> ENGINEERING	GEMS Engineering, Inc. 3509 Iron Horse Drive Ladsen, SC 29456 (704) 433-3637 (704) 433-4598 www.gemsengineering.com GEMS Project #191562 Project Manager: R. Aivar
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
REPAIR BEQ BUILDING BB260	
CONTROL DRAWINGS AND SEQUENCE OF OPERATION	
DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR.	APPROVED: PWO OR OICC DATE: _____ Satisfactory TO: DATE: _____
APPROVED: PWO OR OICC DATE: _____ Satisfactory TO: DATE: _____	NAVFAC DRAWING NO. <b>60007612</b> CONST. CONTR. NO. N40085-10-B-0031 SCALE: NOTED SPEC. 10-B-0031 SHEET 47 OF 72

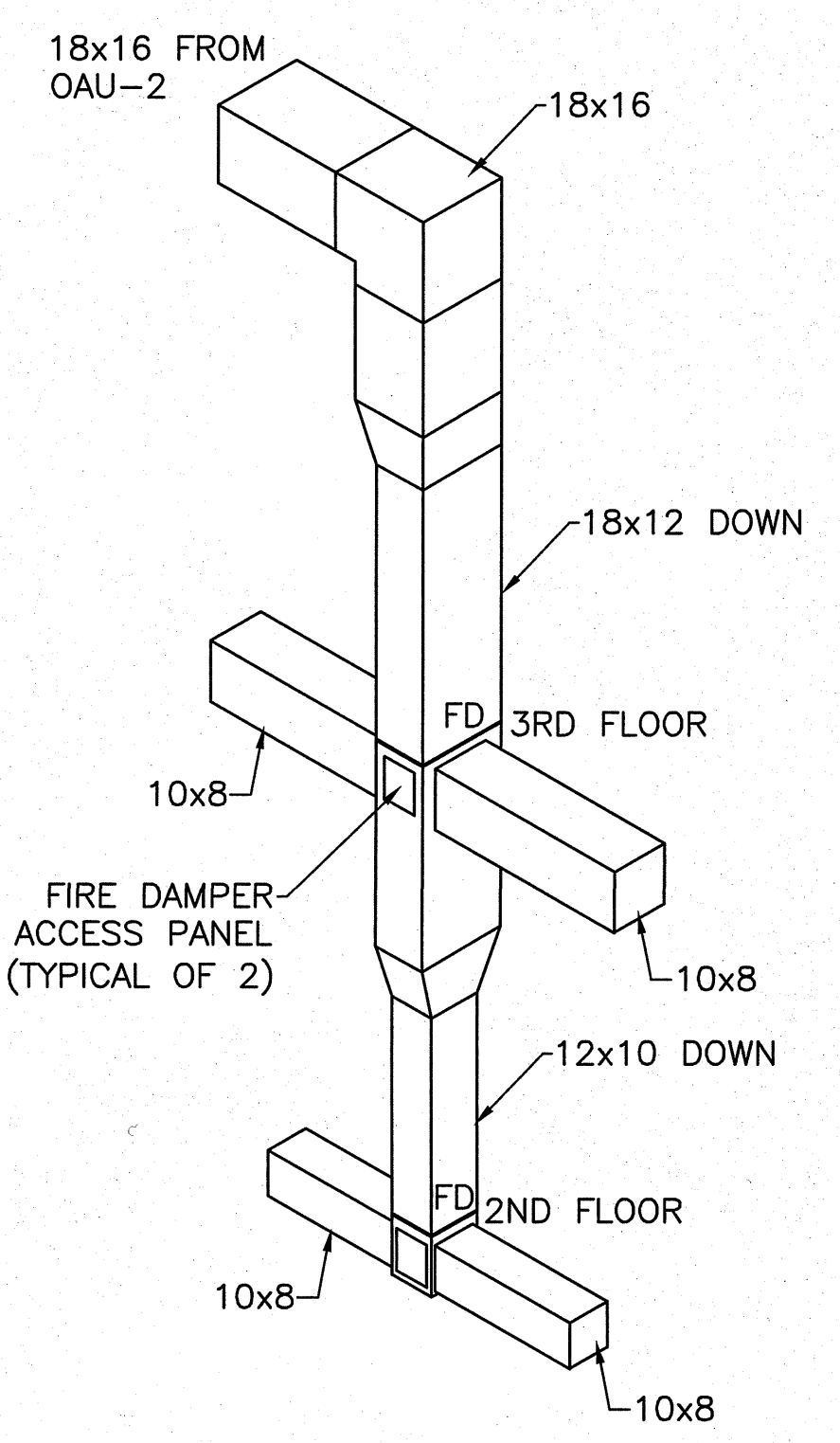




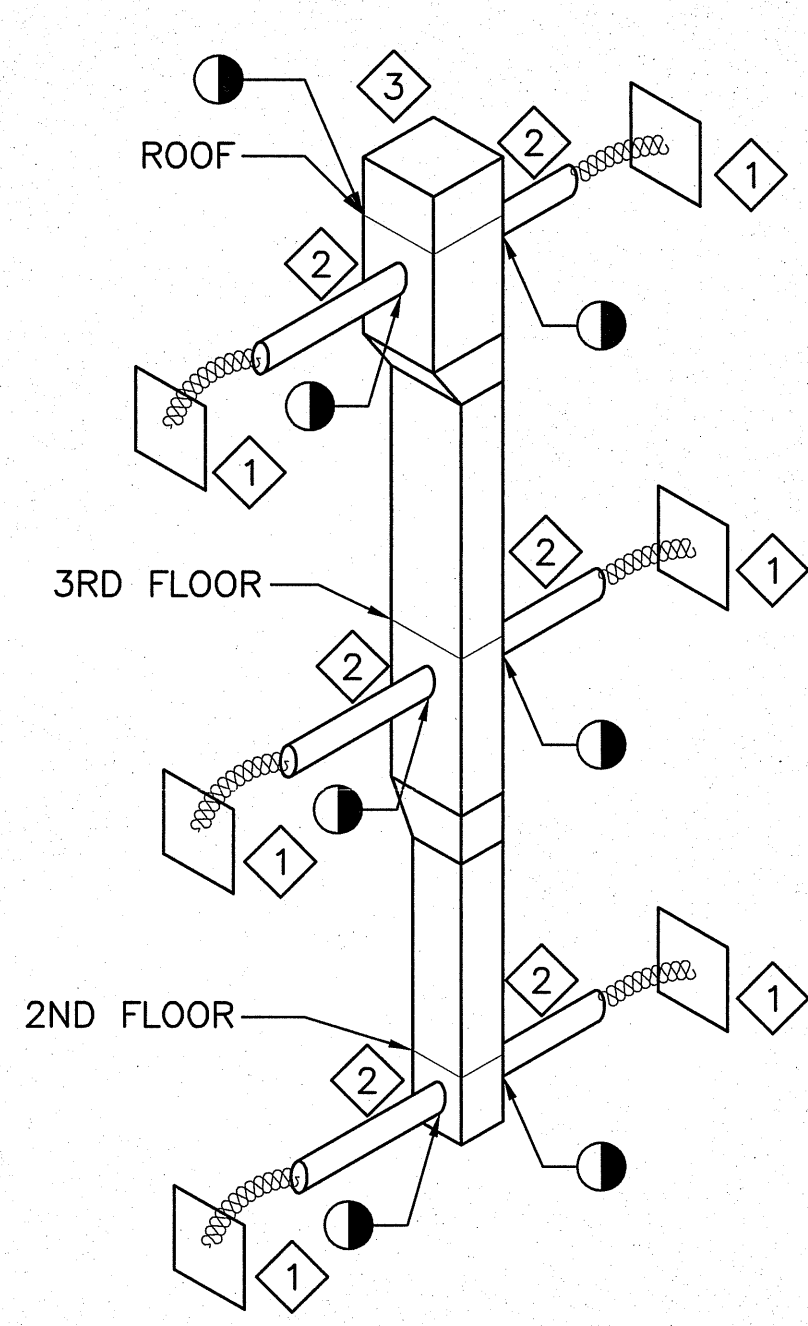
**PIPING RISER DIAGRAM**  
SCALE: NOT TO SCALE



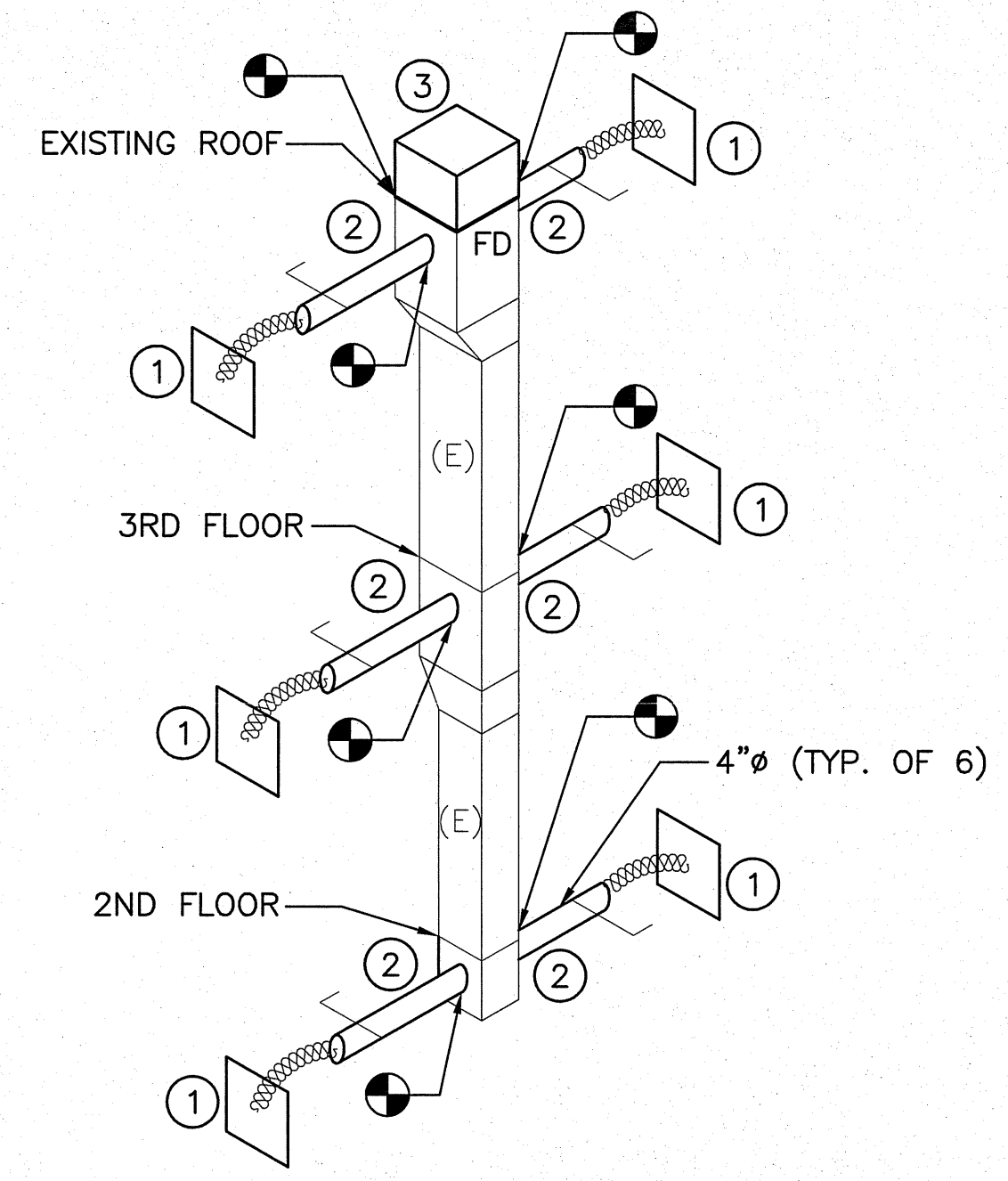
**OUTDOOR AIR RISER (OAU-1)**  
SCALE: NOT TO SCALE



**OUTDOOR AIR RISER (OAU-2)**  
SCALE: NOT TO SCALE



**TYPICAL EXHAUST RISER DIAGRAM - DEMOLITION**  
SCALE: NOT TO SCALE

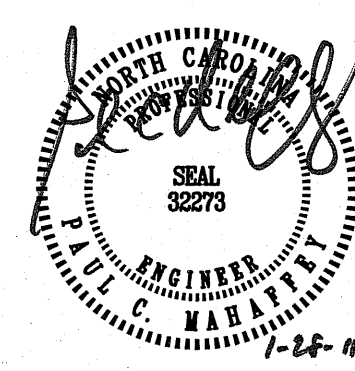


**TYPICAL EXHAUST RISER DIAGRAM - NEW WORK**  
SCALE: NOT TO SCALE

- DEMOLITION KEYNOTES:**
- ① REMOVE EXISTING SIDEWALL EXHAUST GRILLE, PATCH HOLE ABOVE CEILING LINE TO MATCH EXISTING.
  - ② REMOVE EXISTING FLEX DUCT BACK TO EXISTING RISER.
  - ③ CUT DOWN EXISTING EXHAUST RISER AS NEEDED FOR INSTALLATION OF NEW FIRE DAMPER AT THE EXISTING ROOF LINE.

- NEW WORK KEYNOTES:**
- ① PROVIDE AND INSTALL NEW SIDEWALL EXHAUST GRILLE BELOW CEILING LINE.
  - ② CONNECT NEW DUCT TO EXISTING RISER.
  - ③ PROVIDE AND INSTALL FIRE DAMPER AT EXISTING ROOF LINE AND EXTEND NEW EXHAUST DUCT INTO ATTIC. SEE SHEET MH-102 FOR CONTINUATION.

<b>M-603</b>	
<b>CEMS</b> ENGINEERING	<small>CEMS Engineering, Inc. 3095 Iron Horse Drive Ladson, SC 29456 (704) 875-3637 (704) 875-4599 www.cemsengineering.com CEMS Project #001582 Project Manager: R. Alvar</small>
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
<b>REPAIR BEQ</b> <b>BUILDING BB260</b> <small>MECHANICAL DEMOLITION AND NEW WORK ISOMETRIC RISER DIAGRAMS</small>	
DES. J. CARR	DR. J. BARNES
CHK. P. MAHAFFEY	SUBMITTED BY:
DESIGN DIR.	APPROVED: PWO OR OICC
DATE	DATE
SIZE	CODE
IDENT NO.	NAVFAC DRAWING NO.
F 80091	60007613
SATISFACTORY TO:	DATE
SCALE: NONE	SPEC. 10-B-0031
SHEET 48 OF 72	







**LEGEND**

	TO BE REMOVED
	COLD WATER, CW
	HOT WATER, HW
	HOT WATER RECIRCULATING, HWR
	WASTE, W
	VENT, V
	BRANCH ISOLATION VALVE
	WALL CLEANOUT
	PIPE TURNING UP
	PIPE TURNING DOWN
	VENT THROUGH ROOF
	FLOOR DRAIN W/ TRAP PRIMER
	WATER HAMMER ARRESTOR
	POINT OF CONNECTION BETWEEN NEW AND EXISTING
	POINT OF DISCONNECTION BETWEEN EXISTING TO REMAIN AND EXISTING TO BE REMOVED
	PLUMBING FIXTURE DESIGNATION
	DOWN
	TYPICAL
	EXISTING
	WALL FAUCET
	DRAIN WASTE VENT
	FLOOR DRAIN
	WALL CLEANOUT

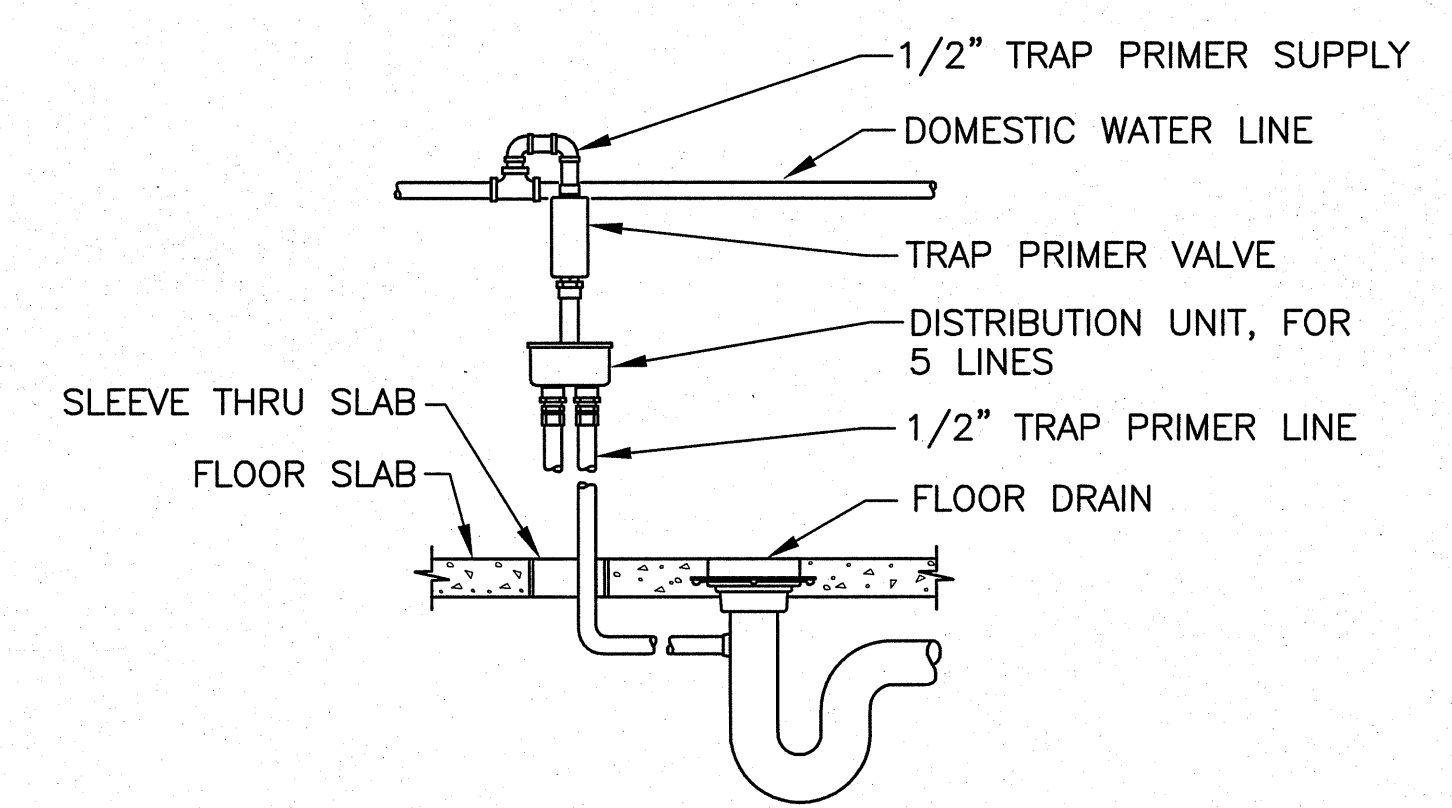
- GENERAL NEW WORK NOTES:**
- LABOR, EQUIPMENT AND MATERIALS ARE TO BE PROVIDED TO COMPLETE THE PLUMBING WORK INDICATED ON THESE DRAWINGS AS REQUIRED BY LOCAL CODE AND ORDINANCES.
  - THE WORK SHALL INCLUDE WASTE, VENT, DOMESTIC COLD & HOT WATER PIPING, AS INDICATED ON THESE DRAWINGS. ALSO, THE HOOKUP OF FIXTURES SCHEDULED AND INSULATION OF PIPING SHALL BE INCLUDED.
  - ITEMS, SUCH AS FITTINGS, ETC. NOT MENTIONED BUT UNDERSTOOD TO BE NECESSARY TO COMPLETE THE PLUMBING SYSTEM SHALL BE INCLUDED.
  - SOIL, WASTE, VENT AND WATER PIPING MATERIALS MUST MEET OR EXCEED LOCAL CODES.
  - CLEAN OUTS FOR SOIL AND WASTE LINES AS SHOWN ON THE DRAWING MUST BE PROVIDED AND MEET OR EXCEED LOCAL CODES.
  - STUBS FOR THE DRAINAGE SYSTEM MUST BE CAPPED UNTIL FINISHED WORK IS INSTALLED.
  - WATER HAMMER ARRESTERS MUST BE PROVIDED IN ACCORDANCE WITH INTERNATIONAL PLUMBING CODES AND LOCAL ORDINANCES.
  - TRAP PRIMER VALVES SHALL BE LOCATED BELOW THE FIXTURE INDICATED. PRIMER LINES TO FLOOR DRAINS SHALL BE ROUTED DOWN INSIDE WALL AND BELOW SLAB. SEE FLOOR PLANS AND RISER DIAGRAMS.
  - LOCATE PLUMBING FIXTURES PER ARCHITECTURAL DRAWINGS. PIPING IS SHOWN IN GENERAL LOCATION. EXACT LOCATION WILL BE DETERMINED BY JOB CONDITIONS.
  - INSTALLATION SHALL BE PER PLANS AND SPECIFICATIONS AND NORTH CAROLINA PLUMBING CODE. SEE SPECIFICATIONS FOR PRODUCT AND INSTALLATION REQUIREMENTS.
  - COORDINATE LOCATION OF PLUMBING WORK WITH OTHER TRADES TO AVOID CONFLICTS AND INTERFERENCES.
  - ALL EQUIPMENT, AND PIPE ABOVE CEILING SHALL BE SUPPORTED FROM BUILDING STRUCTURE ABOVE, UNLESS OTHERWISE NOTED.
  - FLOOR DRAINS SHALL BE DEEP SEAL TRAP TYPE WITH 3/8" TRAP PRIMER CONNECTION TO NEAREST CW SOURCE.

**PLUMBING FIXTURE SCHEDULE**

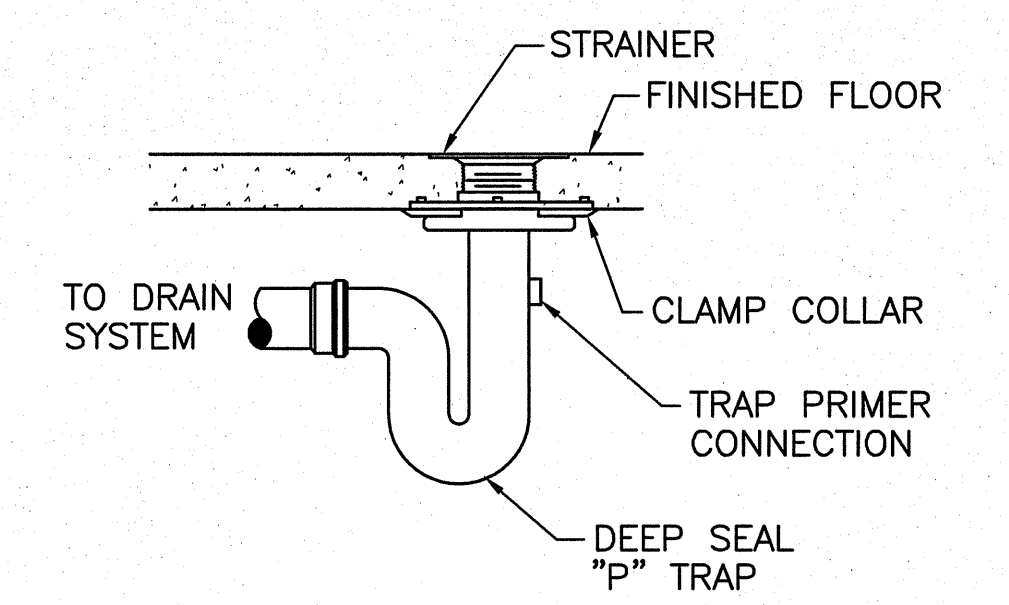
SYMBOL	FIXTURE	PIPE SIZES				REMARKS
		C W	H W	DRAIN	VENT	
P1	DUAL FLUSH WATER CLOSET (FLUSH VALVE)	1"	--	3"	2"	SEE SPECIFICATIONS
P2	LAVATORY (COUNTER TOP)	1/2"	1/2"	1 1/4"	1 1/4"	SEE SPECIFICATIONS
P3	SHOWER	1/2"	1/2"	2"	2"	SEE SPECIFICATIONS
P4	LAVATORY (WALL HUNG)	1/2"	1/2"	1 1/4"	1 1/4"	SEE SPECIFICATIONS
P5	WASHER BOX	1/2"	1/2"	1 1/4"	1 1/4"	SEE SPECIFICATIONS
P6	WATER COOLER	1/2"	--	1 1/4"	1 1/4"	SEE SPECIFICATIONS
P7	SERVICE SINK	1/2"	1/2"	2"	2"	SEE SPECIFICATIONS
FD	FLOOR DRAIN	1/2"	--	2"	1 1/2"	SEE SPECIFICATIONS
WCO	WALL CLEAN OUT	--	--	4"	--	SEE SPECIFICATIONS
WF	WALL FAUCET	3/4"	--	--	--	SEE SPECIFICATIONS

**HAMMER ARRESTOR SCHEDULE**

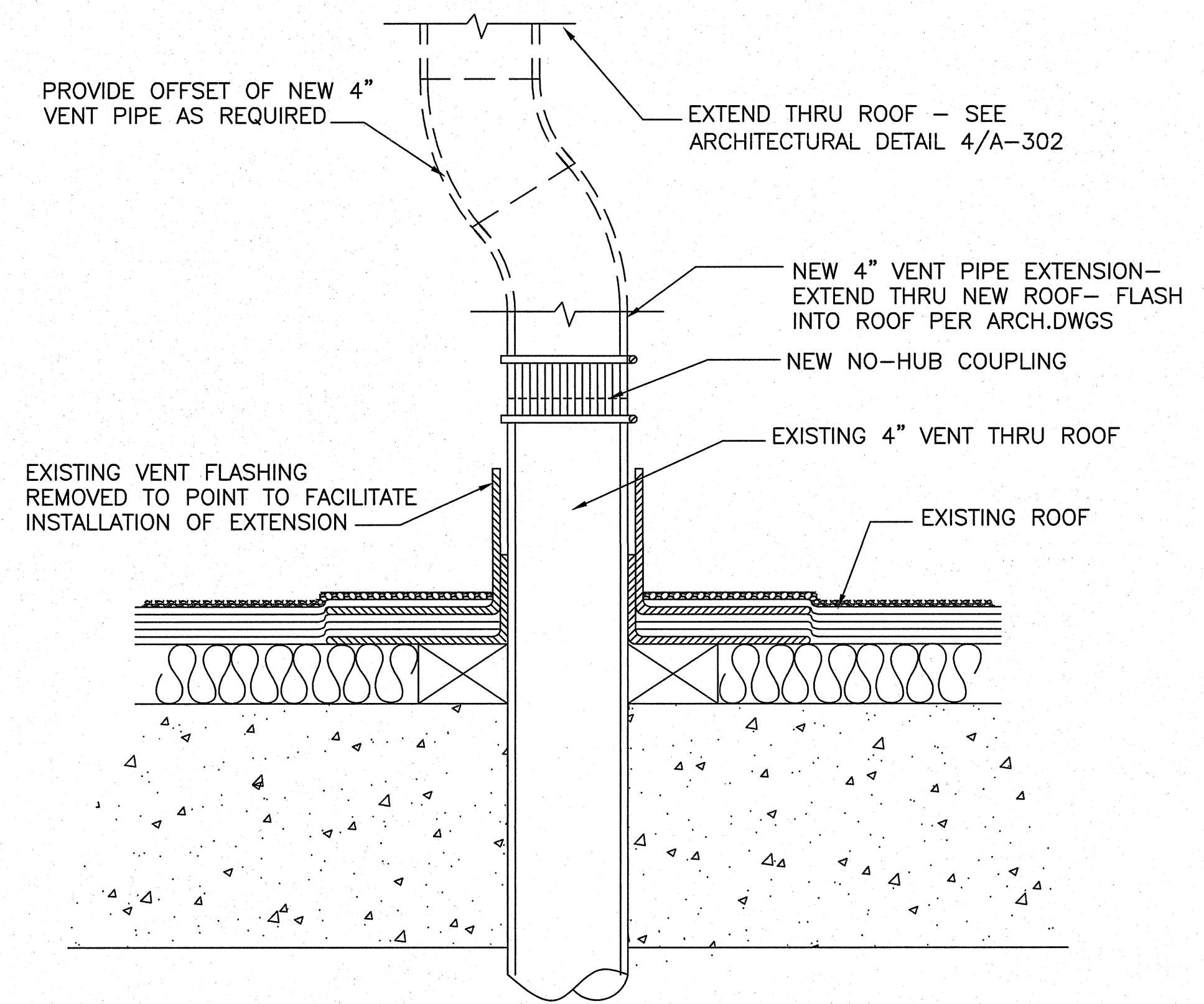
ITEM	PDI UNIT	FIXTURE UNIT	MANUFACTURER
HA	B	12-32	JOSAM 75000 OR EQUIVALENT, ZURN, SMITH



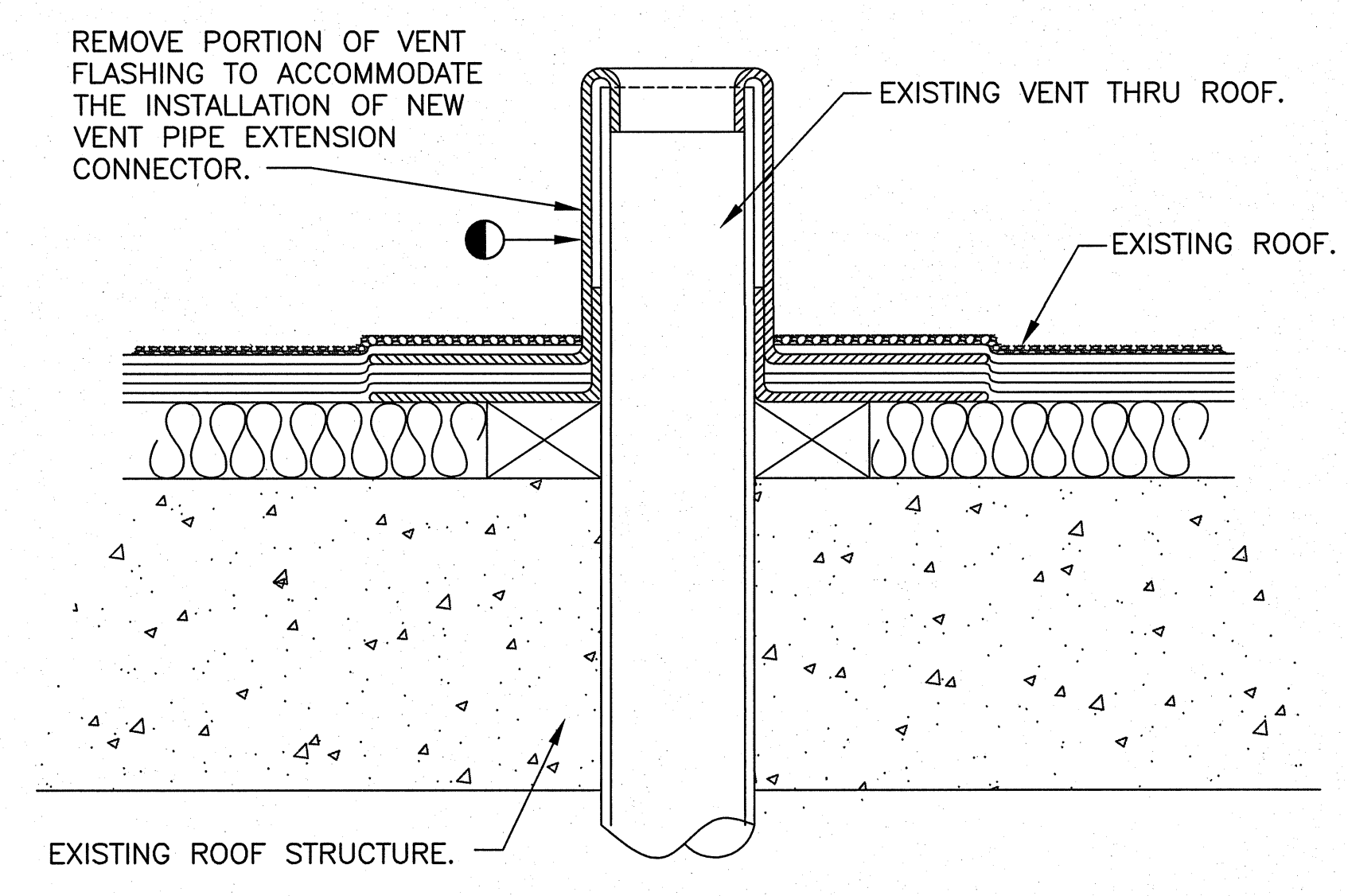
**TRAP SEAL PRIMER DETAIL**  
SCALE: NOT TO SCALE



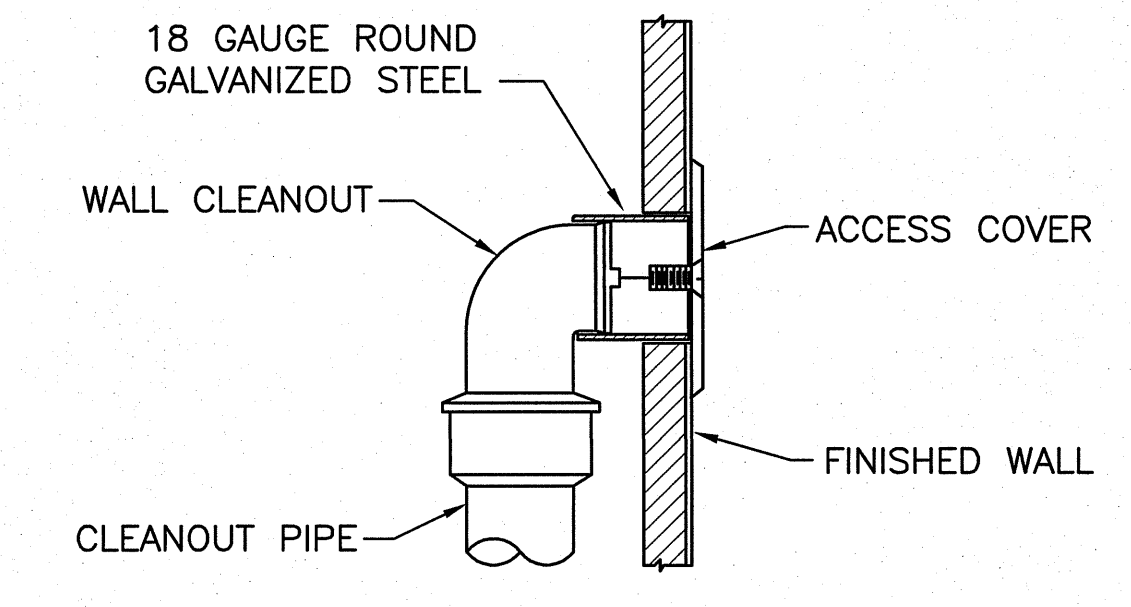
**TYPICAL FLOOR DRAIN DETAIL**  
SCALE: NOT TO SCALE



**EXISTING VENT EXTENSION DETAIL**  
SCALE: NOT TO SCALE



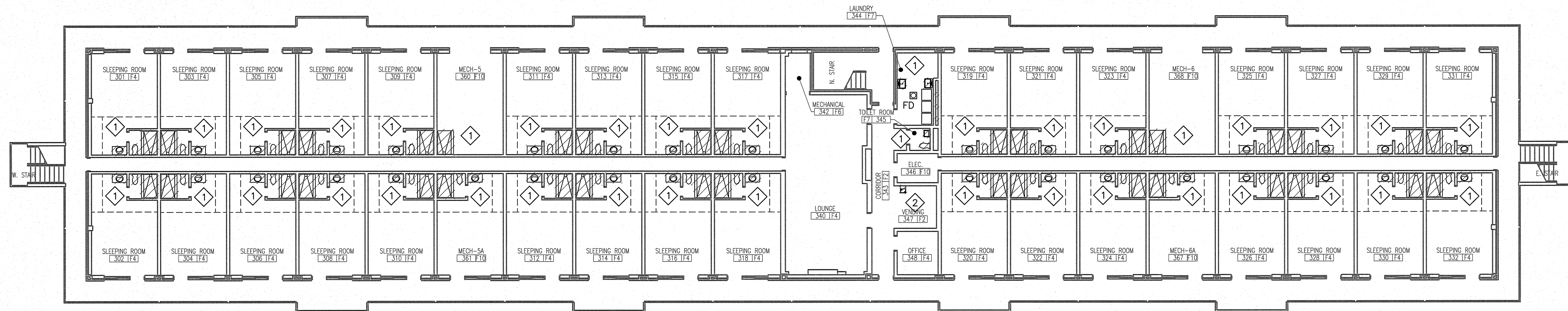
**EXISTING VENT THRU ROOF DETAIL**  
SCALE: NOT TO SCALE



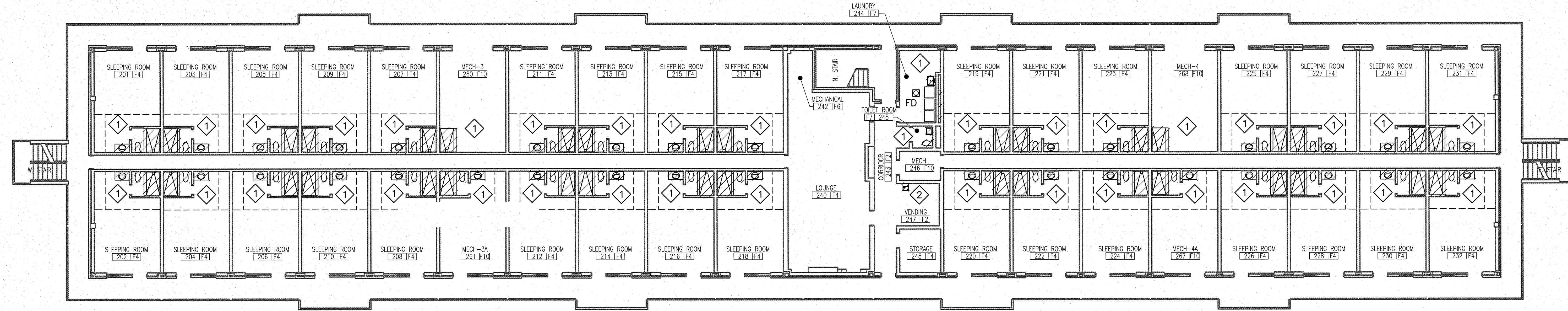
**WALL CLEANOUT DETAIL**  
SCALE: NOT TO SCALE

NOTE: CONTRACTOR SHALL HAVE THE OPTION OF PROVIDING NEW VENT EXTENSION PIPING TO MATCH EXISTING PIPE MATERIAL OR PROVIDING NEW PVC (SCHED 40) EXTENSION. THE NEW NO-HUB COUPLING SHALL PROVIDE A TIGHT SEAL BETWEEN EXISTING STEEL VENT AND NEW STEEL VENT EXTENSION.

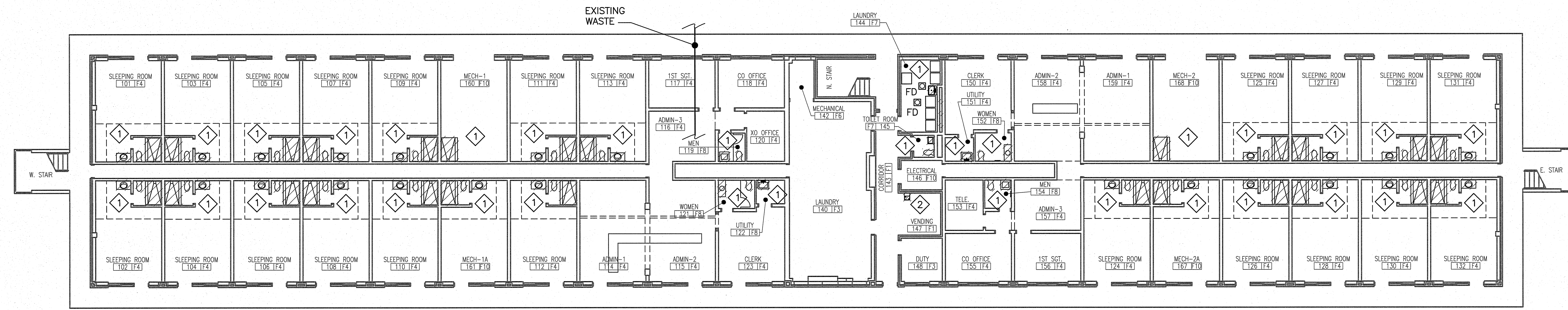
 CEMS Engineering, Inc. 3009 Iron Horse Drive Lenoir, NC 24645 (843) 875-3637 (843) 875-4539 www.cemsengineering.com CEMS Project #081502 Project Manager: R. Auer		<b>P-001</b>	
		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. J. GARR	REPAIR BEQ		
DR. J. BARNES	BUILDING BB260		
CHK. P. MAHAFFEY	PLUMBING LEGEND, DETAILS, & SCHEDULES		
SUBMITTED BY:	APPROVED: PWO OR OICC	DATE	NAVIFAC DRAWING NO.
DESIGN DIR.	DATE	SIZE CODE IDENT NO.	60007615
SATISFACTORY TO:	DATE	CONST. CONTR. NO. N40085-10-B-0031	SCALE: AS NOTED SPEC. 10-B-0031
		SHEET 50 OF 72	



**THIRD FLOOR PLUMBING DEMOLITION PLAN**  
SCALE: 3/32" = 1'-0"



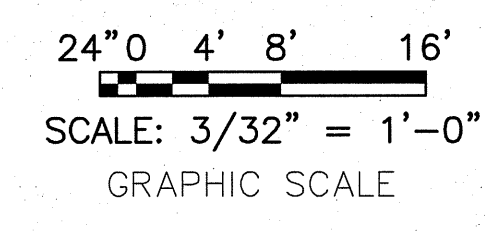
**SECOND FLOOR PLUMBING DEMOLITION PLAN**  
SCALE: 3/32" = 1'-0"



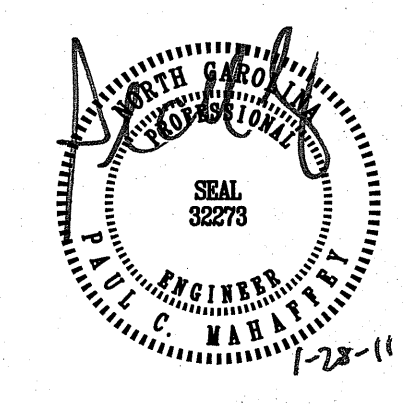
**FIRST FLOOR PLUMBING DEMOLITION PLAN**  
SCALE: 3/32" = 1'-0"

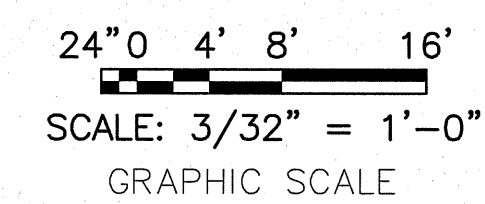
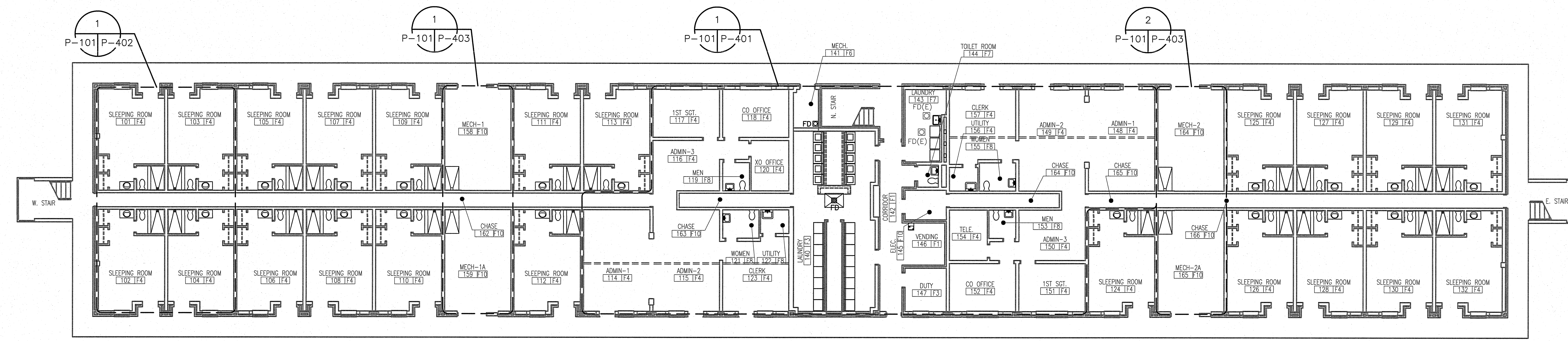
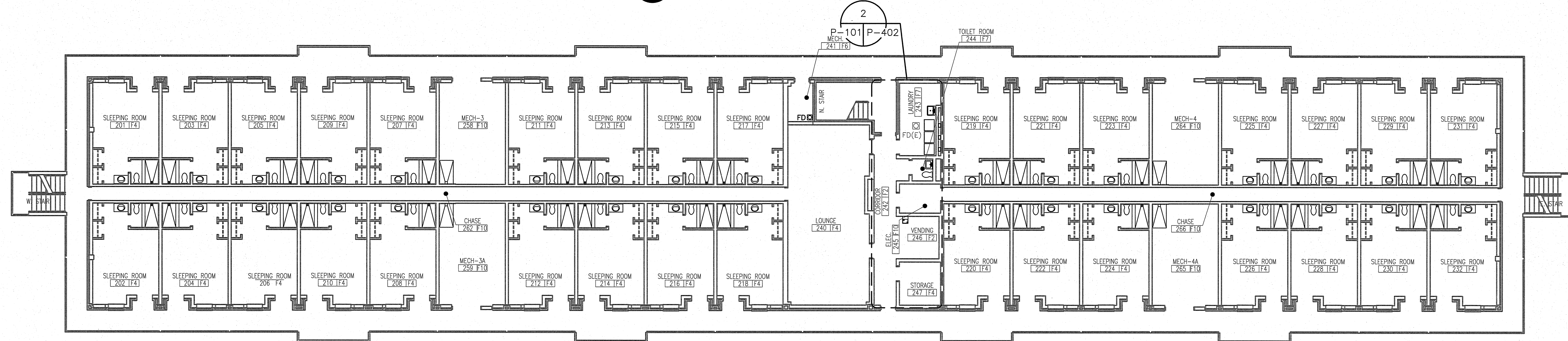
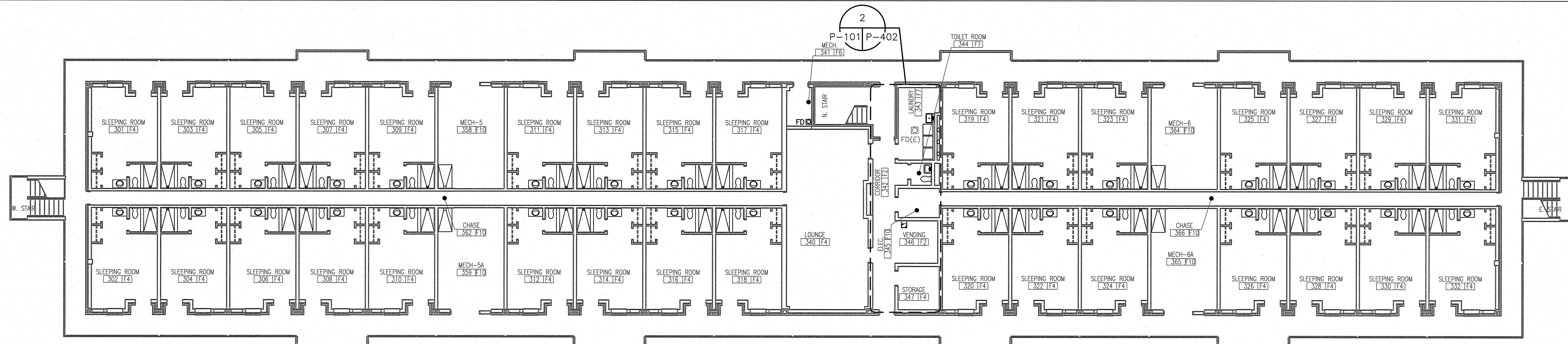
- GENERAL DEMOLITION NOTES:**
1. LOCATIONS OF EQUIPMENT, PIPING, ETC. IS DIAGRAMMATIC ONLY AND IS NOT INTENDED TO SHOW EXACT LOCATION.
  2. WHERE EQUIPMENT OR PIPING IS REMOVED AND NOT REPLACED, PATCH AND FINISH AREAS TO MATCH ADJACENT SURFACES.
  3. WHERE FIXTURES ARE REMOVED AND NOT REPLACED, CAP SUPPLY AND DWV PIPING, PATCH AND FINISH AREAS TO MATCH ADJACENT SURFACES.

- DEMOLITION KEYNOTES:**
- ◆ REMOVE ALL EXISTING PLUMBING FIXTURES. SUPPLY AND DWV PIPING TO REMAIN FOR REUSE IN NEW WORK.
  - ◆ REMOVE EXISTING WATER COOLER. SUPPLY AND DWV PIPING TO REMAIN FOR REUSE IN NEW WORK.

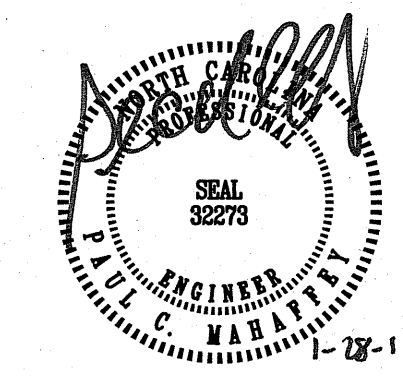


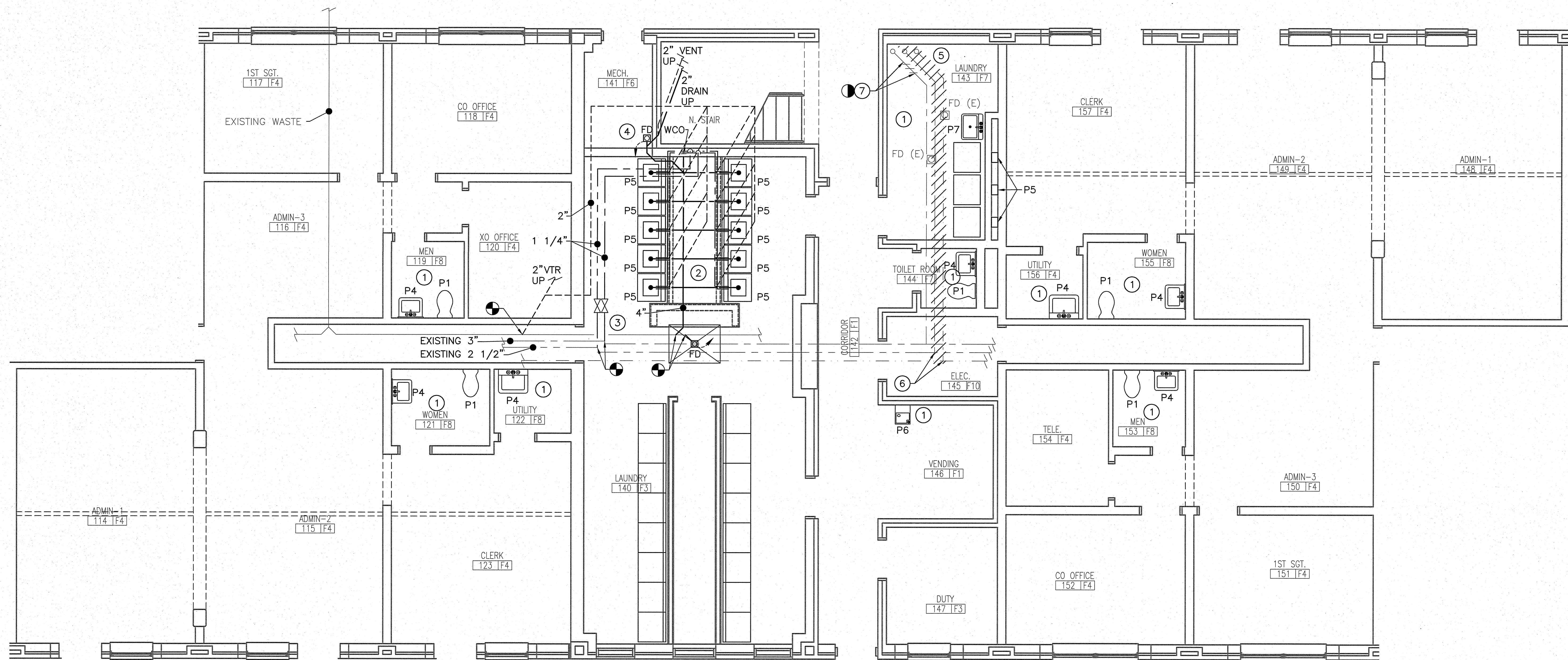
<b>PD-101</b>	
 <b>CEMS</b> ENGINEERING	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA
	REPAIR BEQ BUILDING BB260
DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR.	PLUMBING DEMOLITION PLANS NAVFAC DRAWING NO.
APPROVED: PWO OR OICC	DATE: <b>F 80091</b> SIZE CODE IDENT NO: <b>60007616</b>
SATISFACTORY TO:	DATE: <b>F 80091</b> CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 10-B-0031 SHEET 51 OF 72





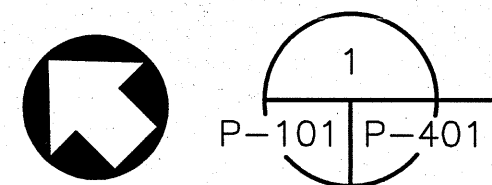
<b>P-101</b>	
<b>CEMS</b> ENGINEERING <small>GEMS Engineering, Inc.          8800 Iron Horse Drive          Lorton, VA 22078          (703) 441-8800          (703) 441-8801          www.gemsengineering.com          GEMS Project #001812          Project Manager: R. Aivar</small>	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA
	REPAIR BEQ BUILDING BB260 PLUMBING NEW WORK PLANS
DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC	DATE: _____ DATE: _____ DATE: _____ DATE: _____ DATE: _____ DATE: _____
SATISFACTORY TO:	NAVFAC DRAWING NO. <b>60007617</b> CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 10-B-0031 SHEET 52 OF 72

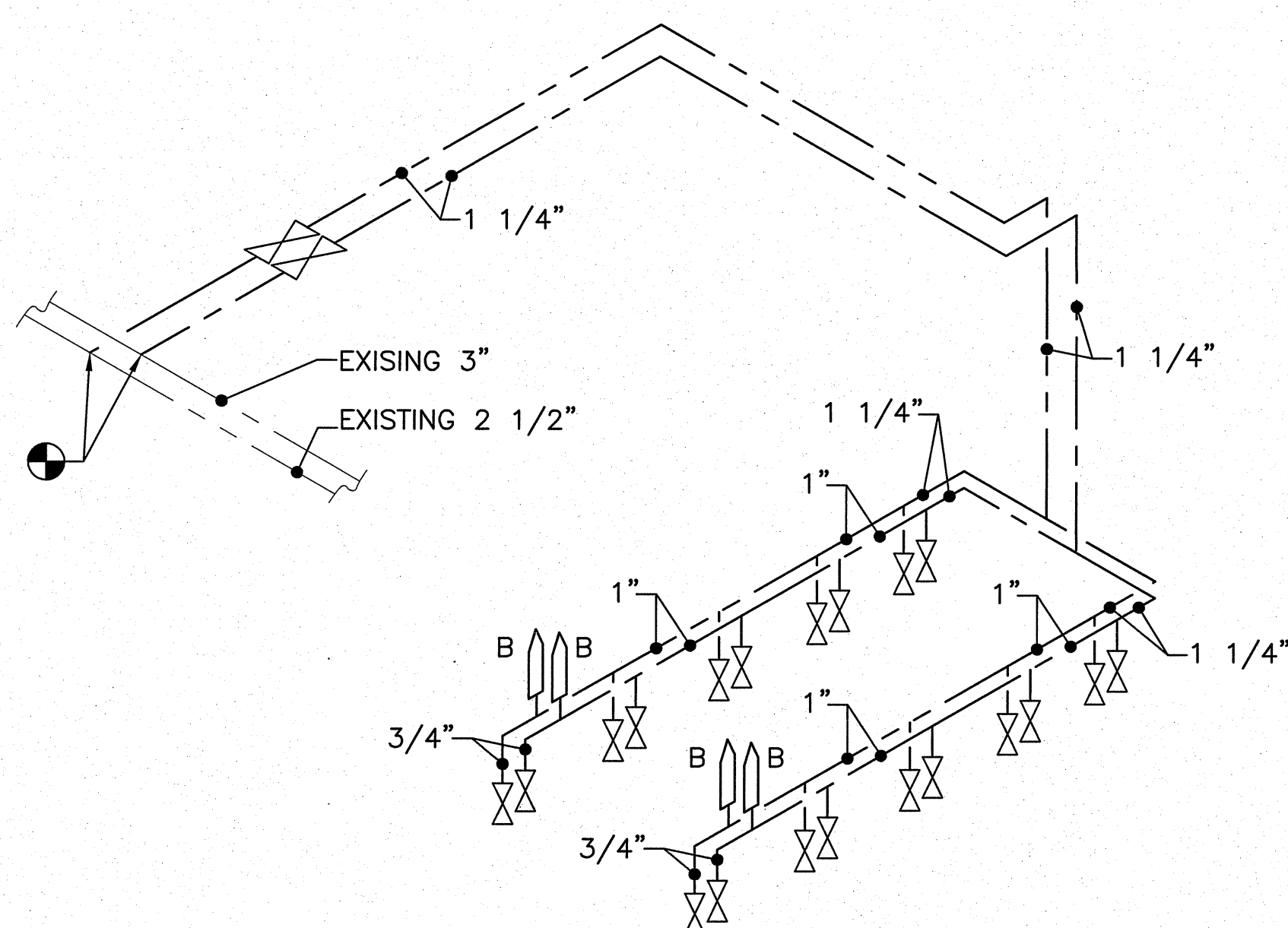




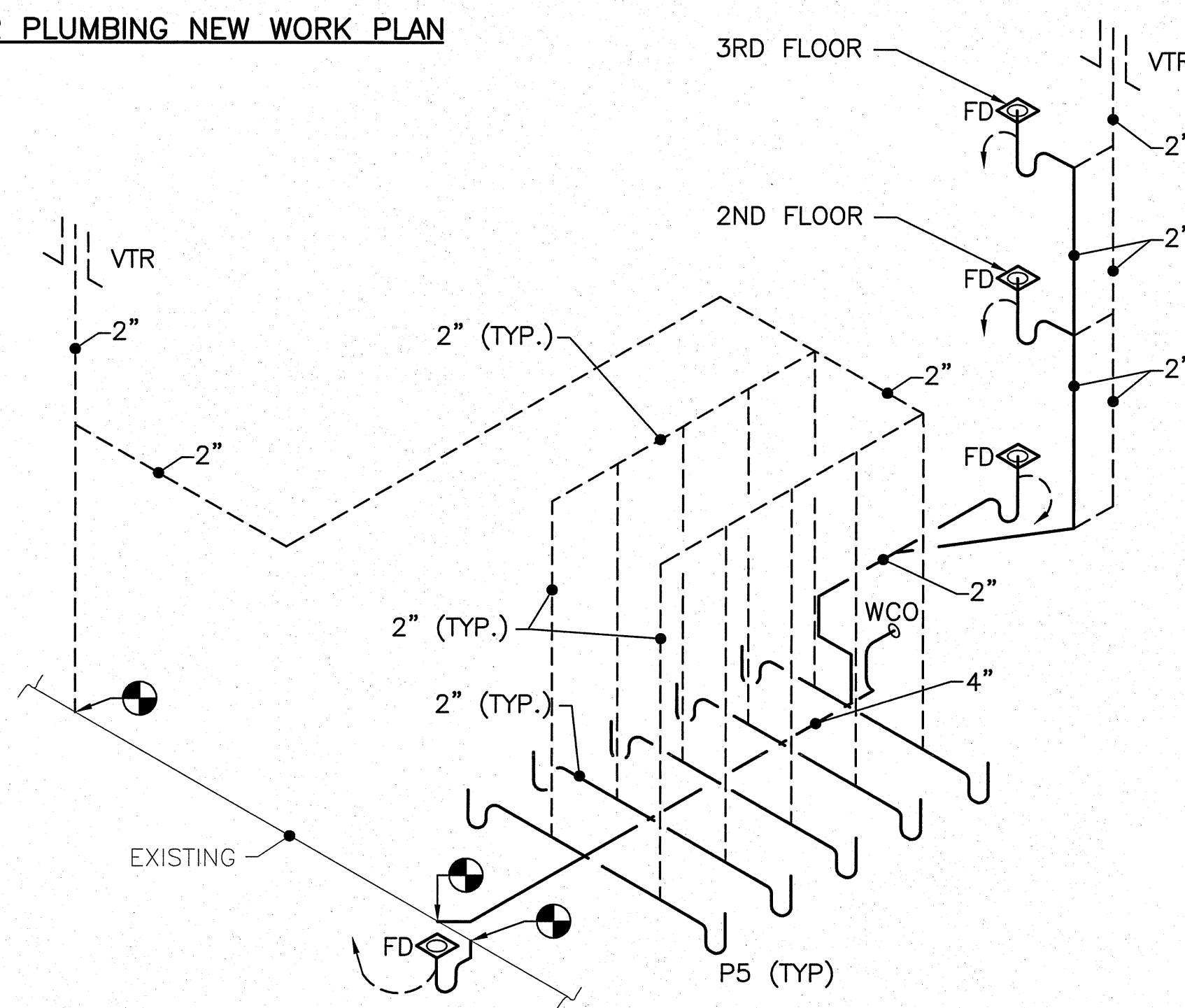
**NEW WORK KEYNOTES:**

- ① PROVIDE AND INSTALL NEW PLUMBING FIXTURES. CONNECT NEW FIXTURES TO EXISTING DWV AND SUPPLY PIPING.
- ② REMOVE SLAB AS NECESSARY FOR INSTALLATION OF NEW WASTE PIPING. CONTRACTOR SHALL VERIFY LOCATION AND FLOW DIRECTION OF EXISTING WASTE BEFORE INSTALLATION OF NEW.
- ③ EXISTING COLD AND HOT WATER SUPPLY LINES OVER ALL COMMON AREAS TO BE RE-INSULATED. NEW COLD AND HOT WATER SUPPLY LINES OVER ALL COMMON AREAS TO BE INSULATED.
- ④ SEE ISOMETRIC DWV PLAN ON THIS SHEET FOR IDENTICAL FLOOR DRAINS INSTALLED IN ROOMS 242 AND 342.
- ⑤ DOMESTIC HOT WATER AND DOMESTIC HOT WATER RECIRC TO BE CAPPED FLUSH TO FLOOR.
- ⑥ DOMESTIC HOT WATER AND DOMESTIC HOT WATER RECIRC PIPING TO BE CAPPED.
- ⑦ EXISTING DOMESTIC WATER SUPPLY TO THE BUILDING SHALL BE PROVIDED WITH NEW SMART WATER METER TO REPORT BACK TO SUPERVISORY BUILDING CONTROLLER.

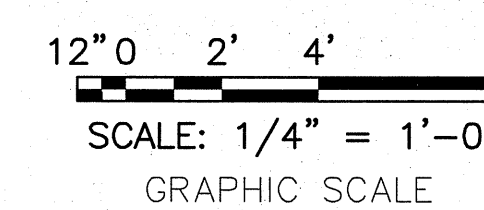

**ENLARGED FIRST FLOOR PLUMBING NEW WORK PLAN**  
 SCALE: 1/4" = 1'-0"

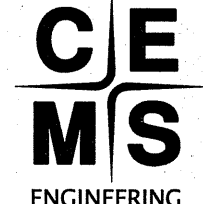


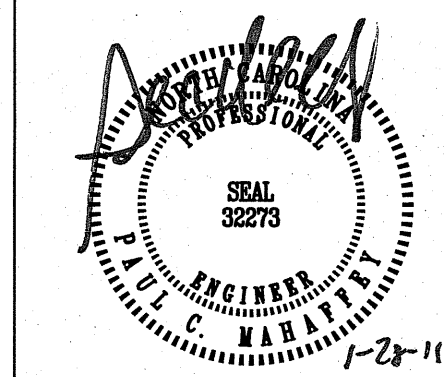
**FIRST FLOOR LAUNDRY PLUMBING SUPPLY NEW WORK PLAN**  
SCALE: NOT TO SCALE

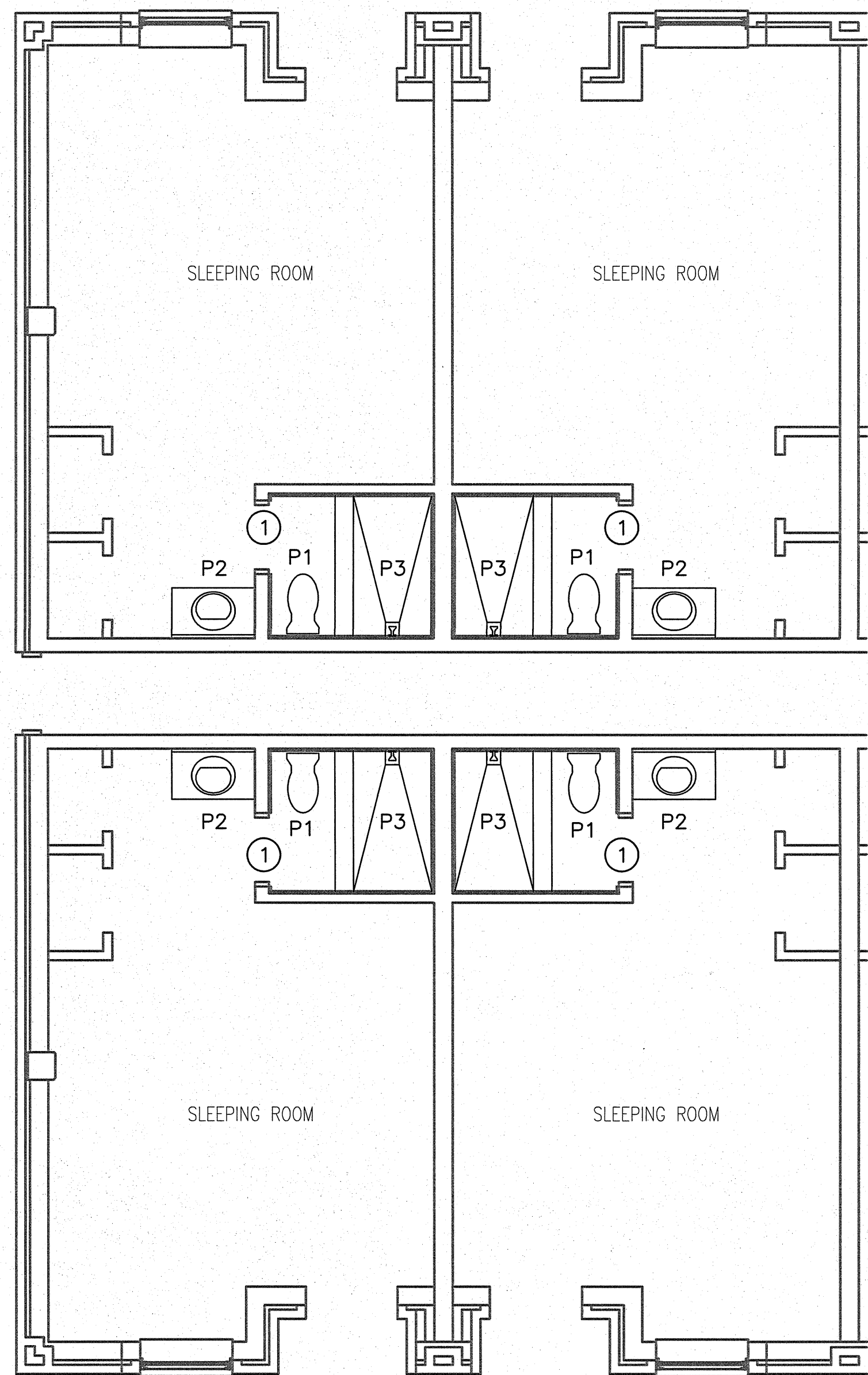



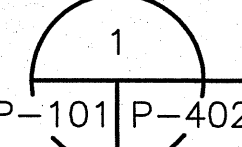
**FIRST FLOOR LAUNDRY PLUMBING DWV NEW WORK PLAN**  
SCALE: NOT TO SCALE

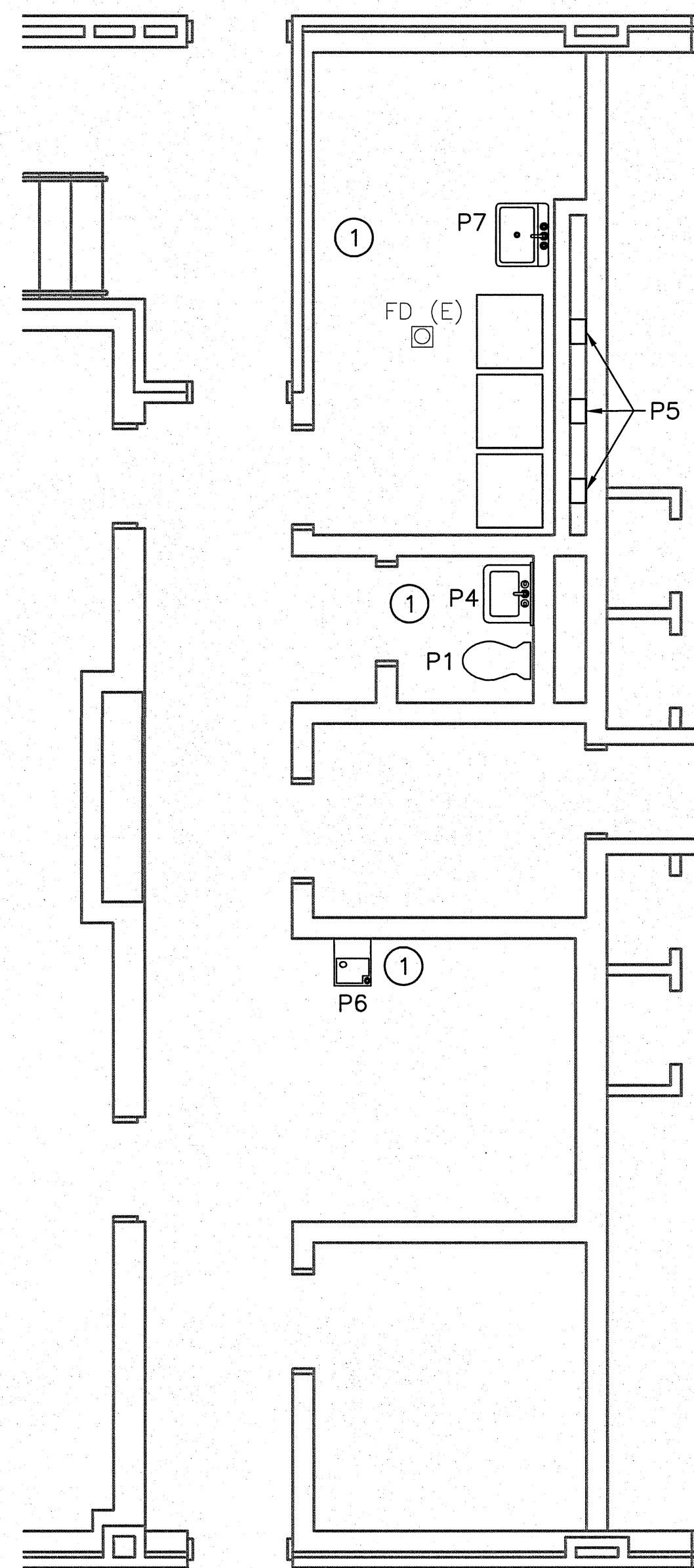



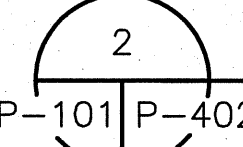
<b>P-401</b>	
 <p>CEMS Engineering, Inc. 3559 Iron Horse Drive Ladson, SC 29456 (704) 875-3657 (704) 875-4009 www.cemsengineering.com CEMS Project #MR1502 Project Manager: R. Alvar</p>	<p>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA</p>
<p>DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC SATISFACTORY TO:</p>	<p>REPAIR BEQ BUILDING BB260 ENLARGED FIRST FLOOR PLUMBING SUPPLY AND DWV NEW WORK PLANS</p> <p>NAVAFAC DRAWING NO. <b>60007618</b></p> <p>DATE: <b>F 80091</b> CONSTR. CONTR. NO. N40085-10-B-0031</p>
<p>SCALE: AS NOTED SPEC. 10-B-0031 SHEET 53 OF 72</p>	



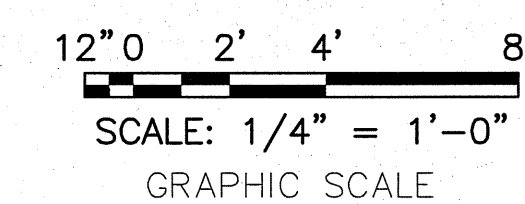


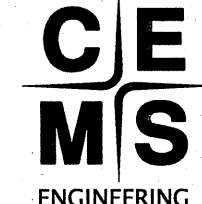


**ENLARGED PLUMBING NEW WORK PLAN**  
 SCALE: 1/4" = 1'-0"

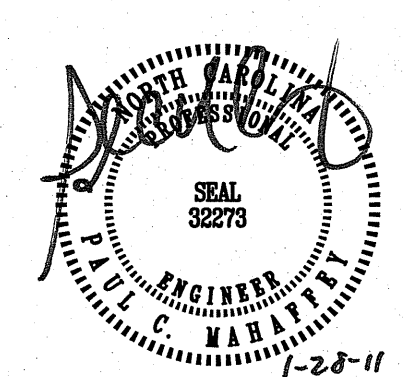


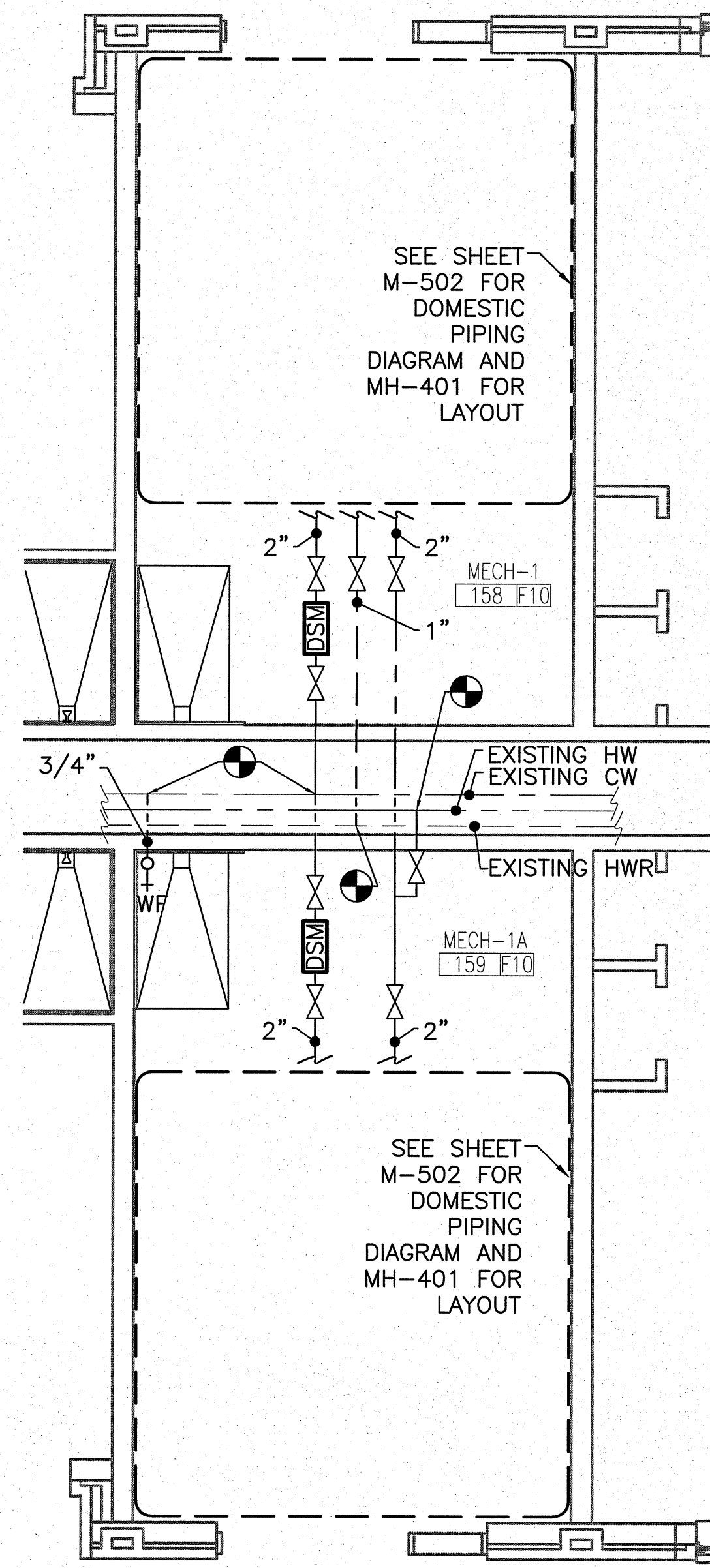


**ENLARGED SECOND & THIRD FLOOR PLUMBING NEW WORK PLAN**  
 SCALE: 1/4" = 1'-0"

**NEW WORK KEYNOTES:**  
 ① PROVIDE AND INSTALL NEW PLUMBING FIXTURES. REUSE EXISTING DWV PIPING.

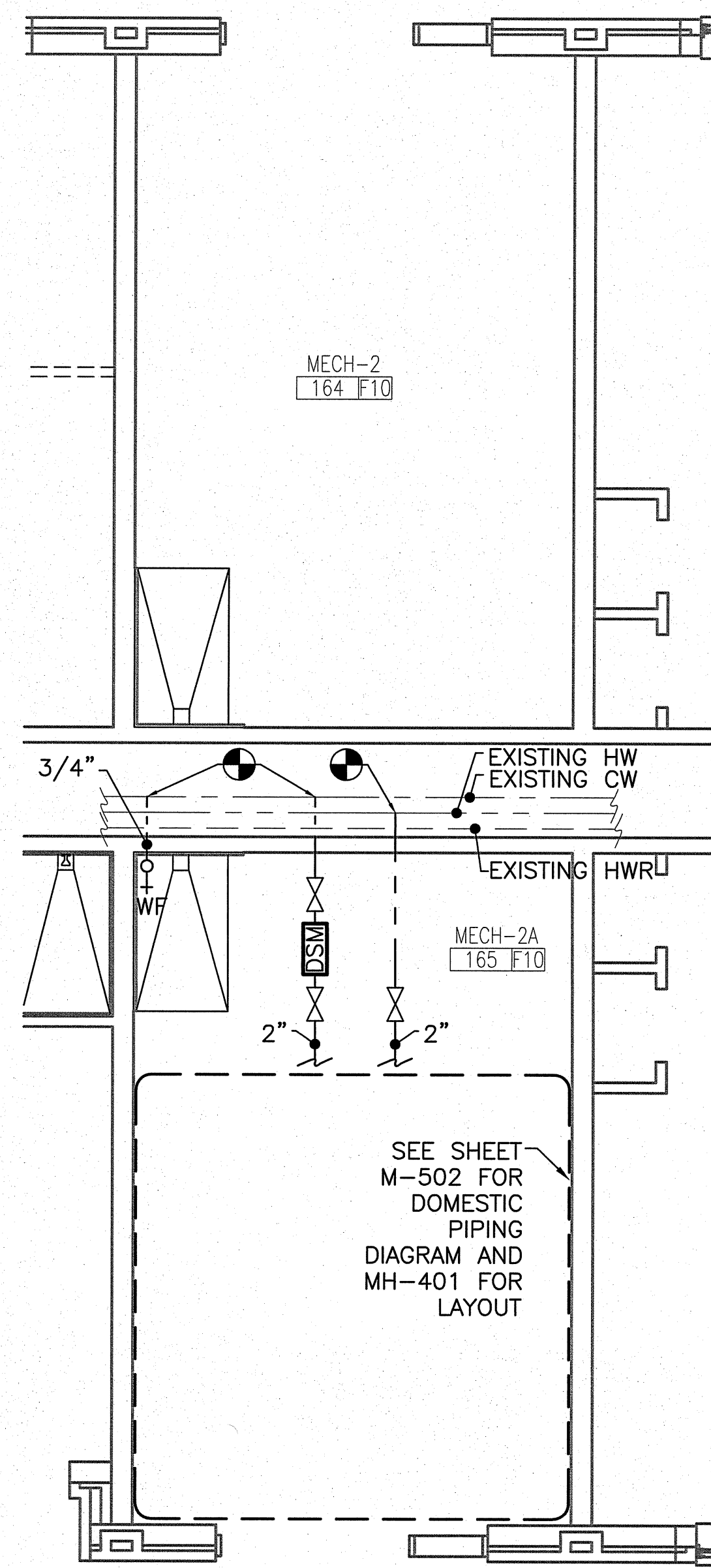


		<b>P-402</b>	
 <small>CEMS Engineering, Inc.          3309 Iron Horse Drive          Ladson, SC 29456          (P) 843.875.2637          (F) 843.875.4599          www.cemsgengineering.com          CEMS Project #101512          Project Manager: R. Avar</small>	<small>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND</small> <b>MARINE CORPS BASE</b> <small>CAMP LEJEUNE, NORTH CAROLINA</small>		
	REPAIR BEQ BUILDING BB260 ENLARGED PLUMBING NEW WORK PLANS		
<small>DES. J. CARR          DR. J. BARNES          CHK. P. MAHAFFEY          SUBMITTED BY:          DESIGN DIR.</small>	<small>APPROVED: PWO OR OICC</small>	<small>DATE</small>	<small>SIZE CODE IDENT NO.</small> <b>F 80091</b> <small>DATE</small>
<small>SATISFACTORY TO:</small>		<small>CONST. CONTR. NO. N40085-10-B-0031</small>	<small>NAVFAC DRAWING NO.</small> <b>60007619</b> <small>SCALE: AS NOTED SPEC. 10-B-0031 SHEET 54 OF 72</small>

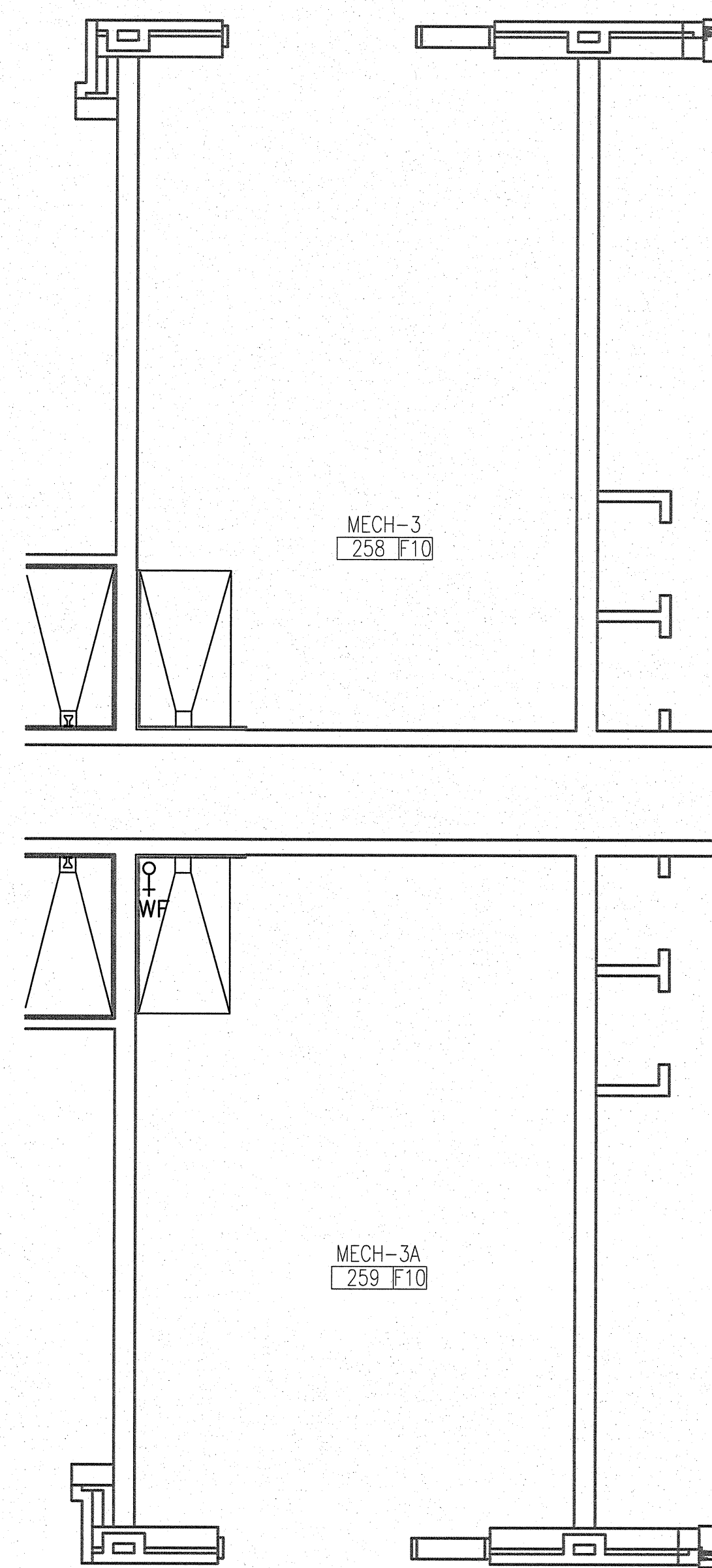




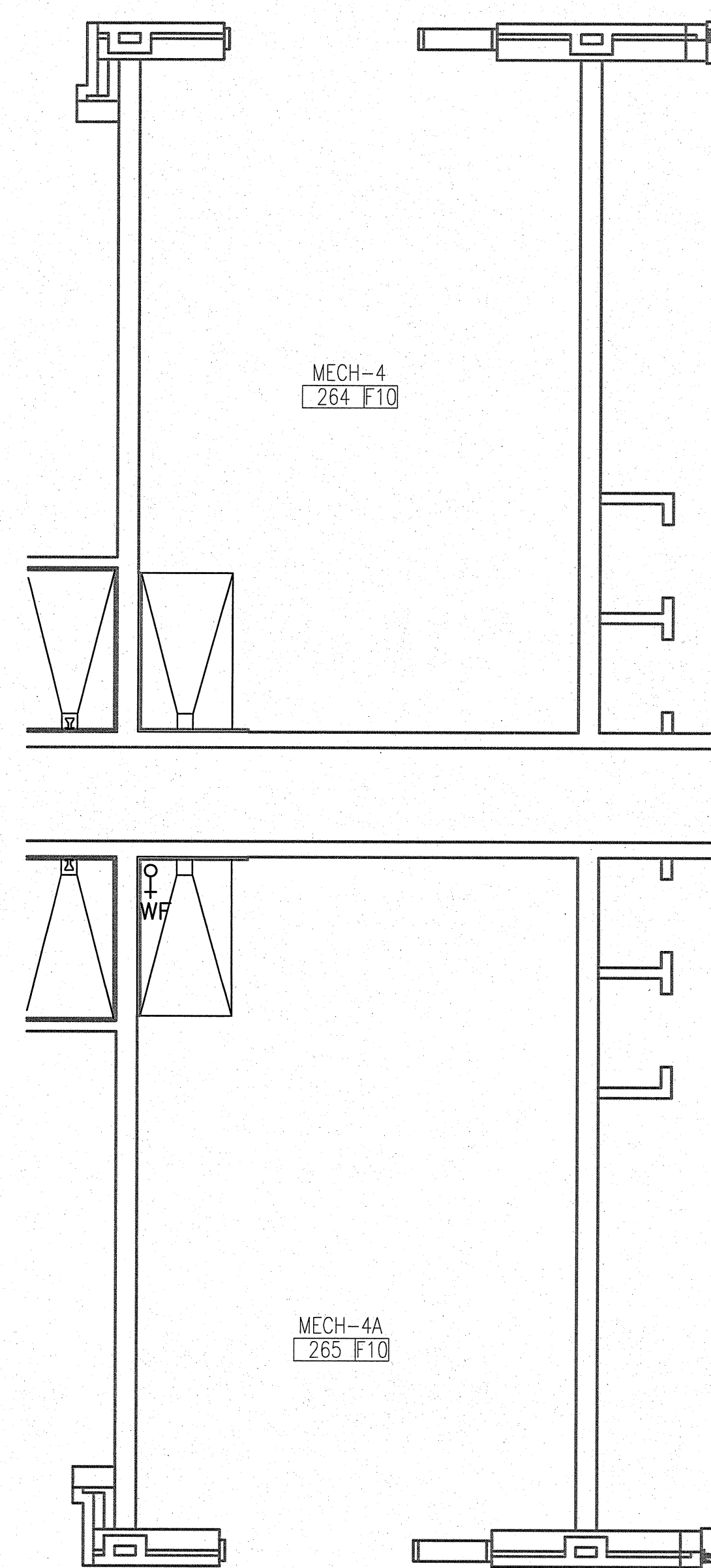
1 ENLARGED PLUMBING NEW WORK PLAN  
P-101 P-403 SCALE: 1/4" = 1'-0"



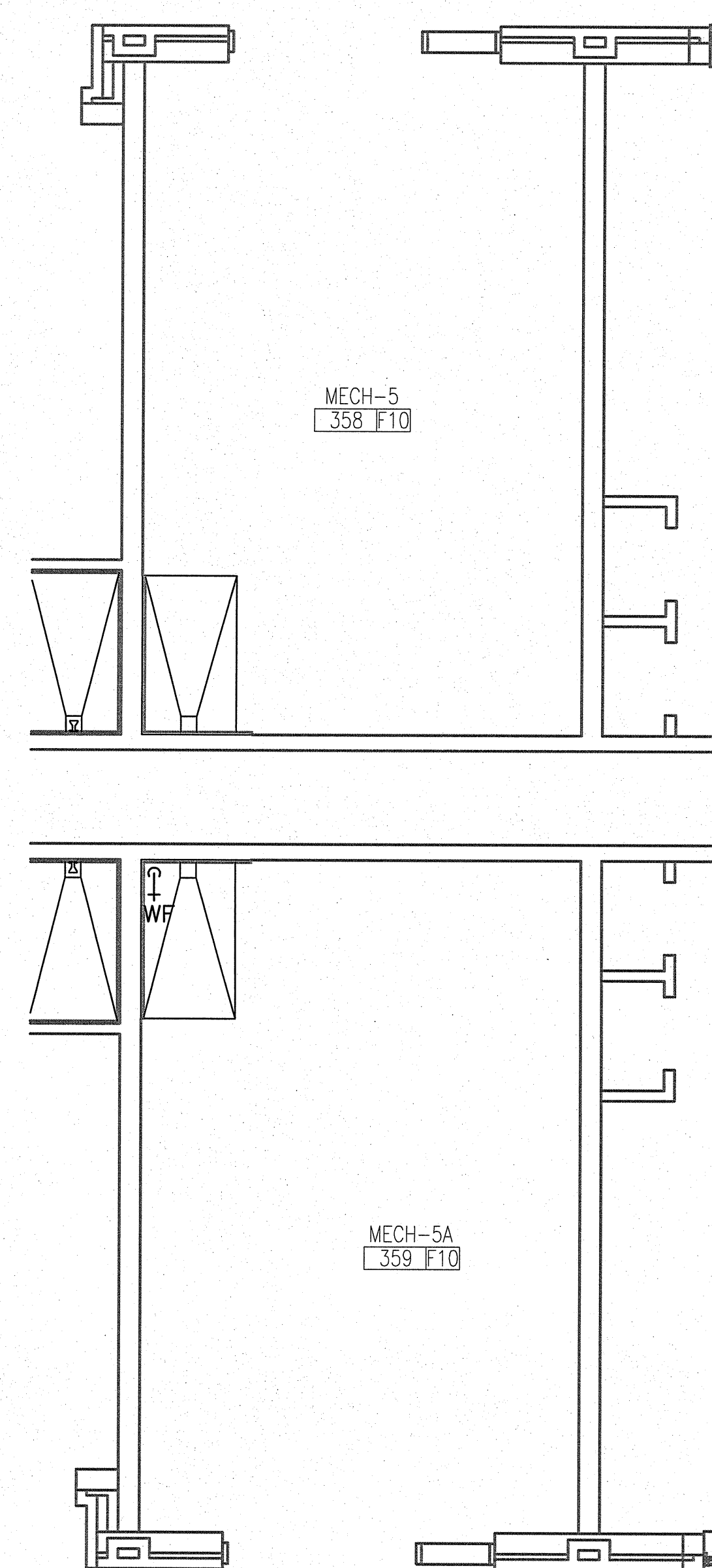
2 ENLARGED PLUMBING NEW WORK PLAN  
P-101 P-403 SCALE: 1/4" = 1'-0"



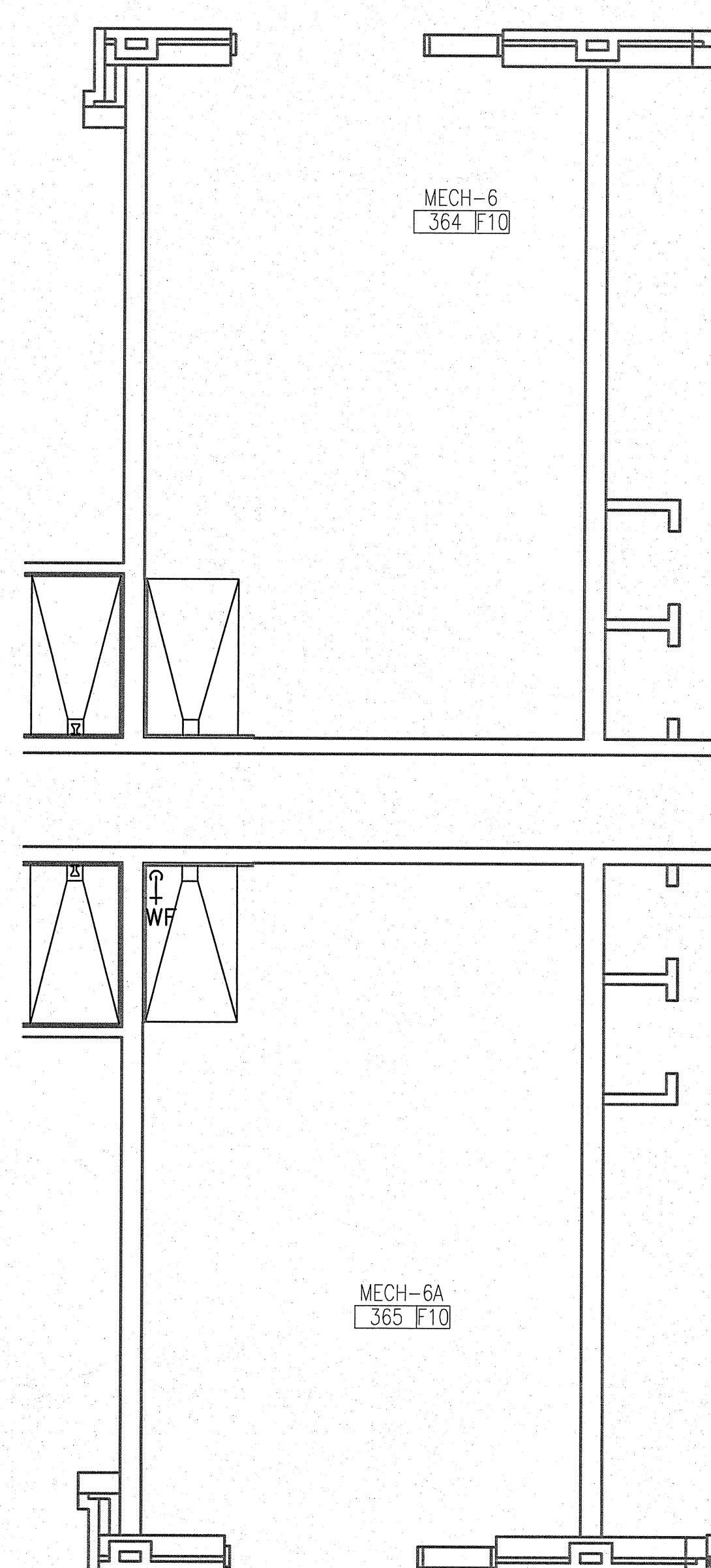
3 ENLARGED PLUMBING NEW WORK PLAN  
P-101 P-403 SCALE: 1/4" = 1'-0"



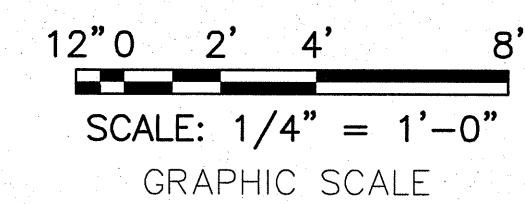
4 ENLARGED PLUMBING NEW WORK PLAN  
P-101 P-403 SCALE: 1/4" = 1'-0"



5 ENLARGED PLUMBING NEW WORK PLAN  
P-101 P-403 SCALE: 1/4" = 1'-0"



6 ENLARGED PLUMBING NEW WORK PLAN  
P-101 P-403 SCALE: 1/4" = 1'-0"



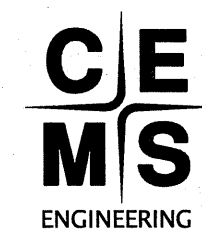
<p>CEMS Engineering, Inc. 3000 Iron Horse Drive Ladson, SC 29456 (P) 843.875.2657 (F) 843.875.4000 www.cemsenengineering.com CEMS Project #001682 Project Manager: R. Alvar</p>		<b>P-403</b>	
		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. J. CARR DR. J. BARNES CHK. P. MAHAFFEY SUBMITTED BY: DESIGN DIR.		REPAIR BEQ BUILDING BB260	
APPROVED: PWO OR OICC DATE:		ENLARGED PLUMBING NEW WORK PLANS NAVFAC DRAWING NO. <b>60007620</b>	
SATISFACTORY TO:		F 80091	CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 10-B-0031
		SHEET 55 OF 72	

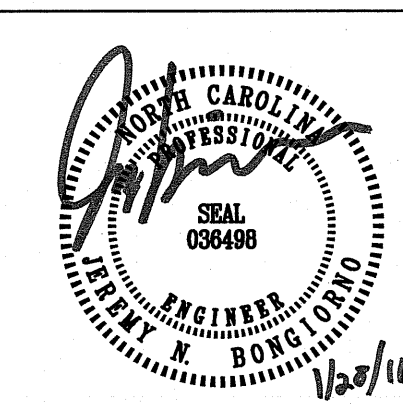
**LEGEND**

- ⊕ JUNCTION BOX (WITH OR WITHOUT EQUIPMENT CONNECTION)
- ⊕ RECEPTACLE, 20AMP, 120 VOLT ('G' - INDICATES A GROUND FAULT RECEPTACLE. 'W' - INDICATES RAIN TIGHT WHILE IN USE)
- ⊗ DRYER RECEPTACLE, 125/250V NEMA 14-30R
- ⊕ RECEPTACLE, 20AMP, 120 VOLT MOUNTED AT 48" AFF. ('G' - INDICATES A GROUND FAULT RECEPTACLE)
- ⊕ SWITCH, 20AMP ('P'-SWITCH WITH PILOT LAMP "ON" WHEN OFF; '3'-THREEWAY; 'OS'-SWITCH EQUIPPED WITH OCCUPANCY SENSOR, 'm'-MOTOR RATED SWITCH)
- ⊕ OS CEILING MOUNTED OCCUPANCY SENSOR
- ⊕ DISCONNECT, NON-FUSED
- ⊕ DISCONNECT, FUSED
- ⊕ MOTOR STARTER
- ▼ PHONE/DATA OUTLET
- ⊕ EXHAUST FAN
- ⊕ FAN POWERED BOX
- ⊕ WALL MOUNTED LIGHT FIXTURE WITH MARK, SEE FIXTURE SCHEDULE
- ⊕ FLOURESCENT LIGHT FIXTURE, SEE FIXTURE SCHEDULE
- ⊕ WALL MOUNTED LIGHT FIXTURE, SEE FIXTURE SCHEDULE
- ⊕ EXIT LIGHT, LED, BATTERY BACK-UP (DARKENED SECTION IS FACE SIDE)
- ⊕ UNIT HEATER
- ⊕ LIGHTING CONTROL
- ⊕ TWO HEAD EMERGENCY LIGHT FIXTURE, SEE FIXTURE SCHEDULE
- UGP-- UNDERGROUND ELECTRICAL

**GENERAL ELECTRICAL NOTES (APPLIES TO ALL DRAWINGS):**

1. DEMOLITION PLANS ARE DIAGRAMMATIC AND MAY NOT REPRESENT ALL ITEMS TO BE REMOVED.
2. ALL CABLE TV, INTERCOM, TELEPHONE CONDUIT, CONDUCTORS AND CABINETS ASSOCIATED WITH BEQ ROOMS TO REMAIN IN PLACE. PRESERVE AND PROTECT ALL COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES ASSOCIATED WITH BEQ ROOMS. GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR REPAIRS NEEDED TO THE COMMUNICATIONS. COORDINATE WITH LOCAL TELEPHONE SERVICE PROVIDER REGARDING ANY BEQ ROOM PHONE LINE MOVES, ADDITIONS, OR CHANGES. COORDINATE WITH BASE TELEPHONE REGARDING PHONE LINES IN COMMON AREAS AND OFFICES. ALL REPAIRS SHALL BE DONE BY A QUALIFIED COMMUNICATIONS SUBCONTRACTOR. CONTACT BASE TELEPHONE FOR ANY QUESTIONS AT 910-451-9439 OR 910-451-4760.
3. ALL ELECTRICAL WORK IS TO BE DONE IN ACCORDANCE WITH THE CURRENT EDITION OF NFPA 70: NATIONAL ELECTRICAL CODE.
4. MATERIALS ARE TO BE NEW AND CONFORM TO THE STANDARDS OF THE UNDERWRITER'S LABORATORIES, INC. (U.L.) AND THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA).
5. CONTRACTOR SHALL CONSIDER VOLTAGE DROP WHEN DETERMINING THE EXACT ROUTING OF BRANCH CIRCUIT AND FEEDER WIRING. ADJUST WIRE AND CONDUIT SIZE AS NECESSARY TO PREVENT A VOLTAGE DROP EXCEEDING 3% AT THE FURTHEST DEVICE LOCATION.
6. ALL PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS AND SMOKE PARTITIONS SHALL BE SEALED WITH AN APPROVED FIRE PROOFING SEALANT OR U.L. LISTED PENETRATION DEVICE.
7. ELECTRICAL DRAWING IS GENERALLY DIAGRAMMATIC. COORDINATE WORK WITH ALL TRADES PRIOR TO START OF CONSTRUCTION. BRANCH CIRCUIT CONDUIT ROUTING SHALL BE COORDINATED IN THE FIELD BY THE CONTRACTOR TO MEET SPECIFICATIONS, CODE REQUIREMENTS, AND TO PROVIDE A NEAT, WORKMAN LIKE, FULLY OPERATIONAL SYSTEM.
8. PROVIDE A TYPED SCHEDULE IN PANELBOARDS CLEARLY DESCRIBING THE LOCATION AND TYPE OF LOAD BEING SERVED FOR ALL CIRCUITS.
9. CONTRACTOR IS TO BE AWARE OF ALL RULES, REGULATIONS, AND CODES REQUIRED FOR SUCCESSFUL COMPLETION OF CONSTRUCTION.
10. PROVIDE NECESSARY ACCESSORIES WITH LIGHT FIXTURES TO MATCH CEILING FINISH TYPE.
11. FIXTURE MOUNTING REQUIREMENTS TO BE COORDINATED WITH ARCHITECTURAL CEILING PLAN.
12. UNLESS NOTED OTHERWISE ALL ITEMS SHOWN ON NEW WORK SHEETS IS TO BE NEW AND INSTALLED.
13. CONTRACTOR TO VERIFY EXISTING CONDITIONS PRIOR TO START OF WORK.
14. IT IS PERMISSIBLE TO RE-USE EXISTING UTILITY BOXES, CONDUIT, AND CONDUCTORS WHERE POSSIBLE FOR NEW DEVICES AND EQUIPMENT. ALL ITEMS BEING RE-USED MUST BE FREE OF DAMAGE OR DETERIORATION.

<b>E-001</b>	
 <p>CEMS Engineering, Inc. 3509 Iron Horse Drive Ladson, SC 29456 (704) 443-8737 (704) 443-8738 www.cemsengineering.com CEMS Project #08158Z Project Manager: R. Alvar</p>	<p>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA</p> <p style="text-align: center;"><b>REPAIR BEQ</b> <b>BUILDING BB260</b></p>
<p>DES. R. ALVAR DR. C. COOPER CHK. J. BONGIORNO SUBMITTED BY: DESIGN DIR.</p>	<p>ELECTRICAL LEGEND AND GENERAL NOTES</p> <p>APPROVED: PWO OR OICC DATE SIZE CODE IDENT NO. NAVFAC DRAWING NO. F 80091 60007621</p> <p>SATISFACTORY TO: DATE CONST. CONTR. NO. N40085-10-B-0031 SCALE: NONE SPEC. 10-B-0031 SHEET 56 OF 72</p>





**GENERAL NOTES:**

1. SEE RISER DIAGRAM ON SHEET E-603 FOR WIRING REQUIREMENTS.
2. COORDINATE TRAILER COMMUNICATION REQUIREMENTS, TO INCLUDE BUT NOT LIMITED TO NUMBER OF CONDUITS AND DROPS, WITH BASE TELEPHONE COMMUNICATIONS DIVISION AT 910-451-9439 OR 910-451-4760.
3. PROVIDE ALL COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES ASSOCIATED WITH OFFICE AREAS AND AREAS SERVICED BY BASE TELEPHONE SYSTEM PER CAMP LEJEUNE COMMUNICATIONS SPECIFICATION 27 10 00. ALL WORK SHALL BE DONE BY A QUALIFIED COMMUNICATIONS SUBCONTRACTOR. CONTACT BASE TELEPHONE REGARDING ANY COMMUNICATIONS QUESTIONS AT 910-451-9439 OR 910-451-4760.

**DEMOLITION KEY NOTES:**

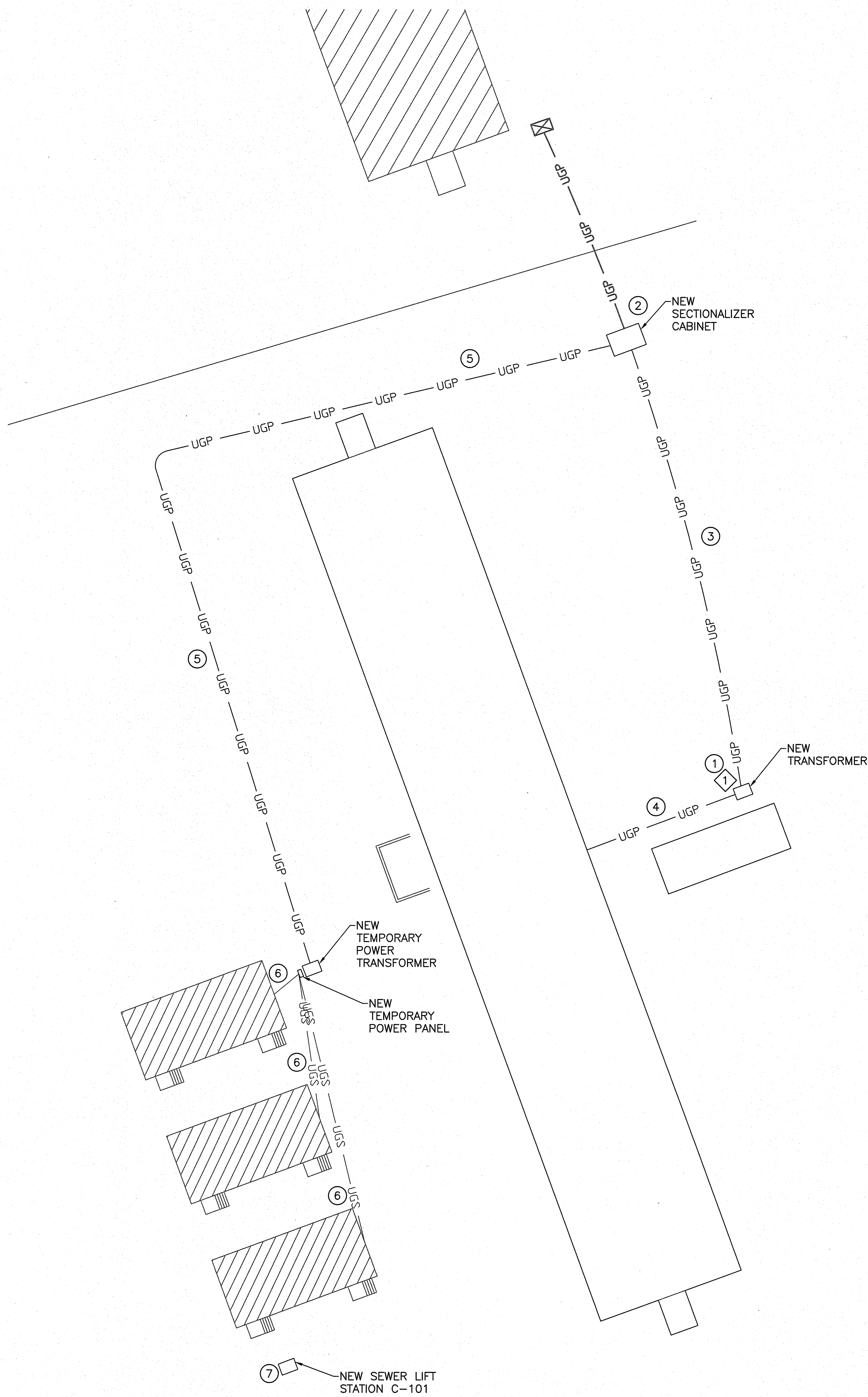
- ① DISCONNECT AND PRESERVE EXISTING PRIMARY CONDUCTORS FEEDING EXISTING TRANSFORMER. IDENTIFY AND TAG CABLES FOR RE-USE. REMOVE EXISTING PAD-MOUNTED TRANSFORMER AND PAD COMPLETE. REMOVE EXISTING SERVICE FEEDER, CONDUITS AND DISCONNECTS TO BUILDINGS BB260 AND BB261 COMPLETE.

**NEW WORK KEYNOTES:**

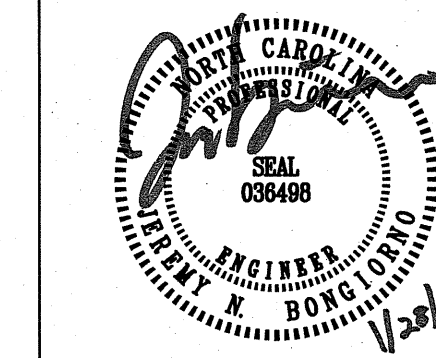
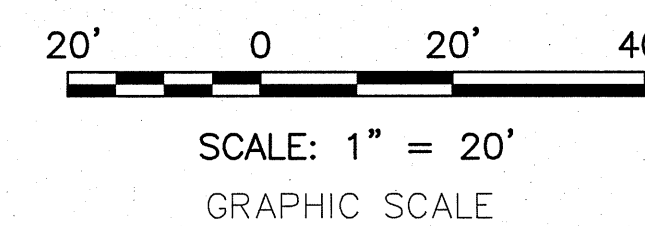
- ① INSTALL NEW 750KVA, 12.47KV-208Y/120V PAD-MOUNTED TRANSFORMER WITH NEW CONCRETE PAD.
- ② INTERCEPT EXISTING UNDERGROUND PRIMARY. PROVIDE NEW SECTIONALIZER CABINET AT LOCATION INDICATED. RE-USE PRESERVED PRIMARY CONDUCTORS FOR CONNECTION TO SECTIONALIZER CABINET. SEE SECTIONALIZER CABINET DETAIL ON SHEET E-603.
- ③ PROVIDE NEW UNDERGROUND PRIMARY CONDUCTORS TO NEW SERVICE TRANSFORMER FOR BUILDING BB260.
- ④ INSTALL NEW UNDERGROUND SERVICE TO BB260.
- ⑤ INSTALL NEW UNDERGROUND PRIMARY POWER FROM NEW SECTIONALIZER CABINET TO NEW TEMPORARY POWER SINGLE PHASE TRANSFORMER. SEE RISER DIAGRAM ON SHEET E-603 FOR WIRING REQUIREMENTS.
- ⑥ INSTALL NEW TEMPORARY SECONDARY SERVICE TO EACH TRAILER. SEE RISER DIAGRAM ON SHEET E-603 FOR WIRING REQUIREMENTS.
- ⑦ GRINDER PUMPS IN SEWER LIFT STATION TO BE FED FROM TRAILER TEMPORARY POWER PANEL. SEE SHEET E-602.

**EQUIPMENT SCHEDULE**

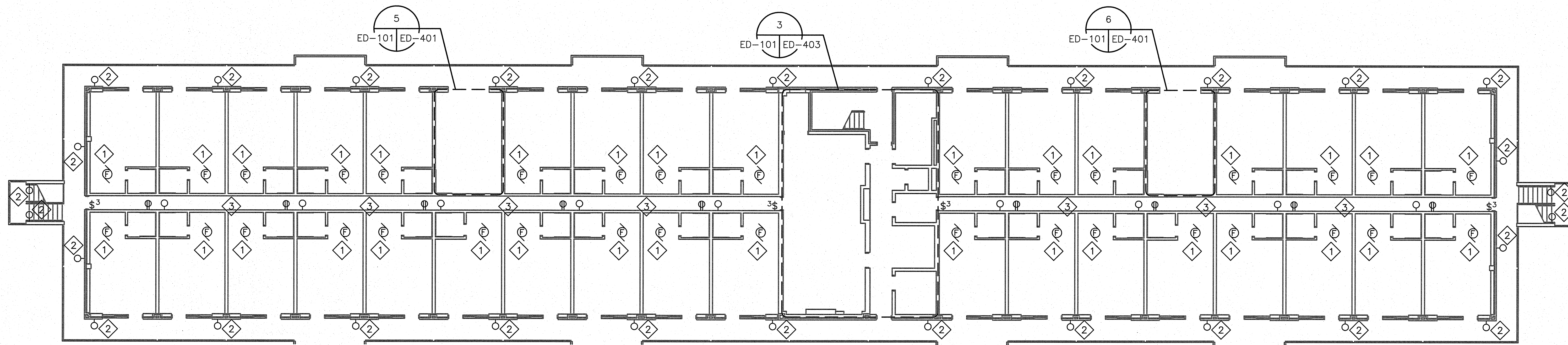
EQUIPMENT	FEEDER	DISCONNECT
GRINDER PUMPS	2#10, #10N, #10G, 1/2" C	VIA CONTROL PANEL



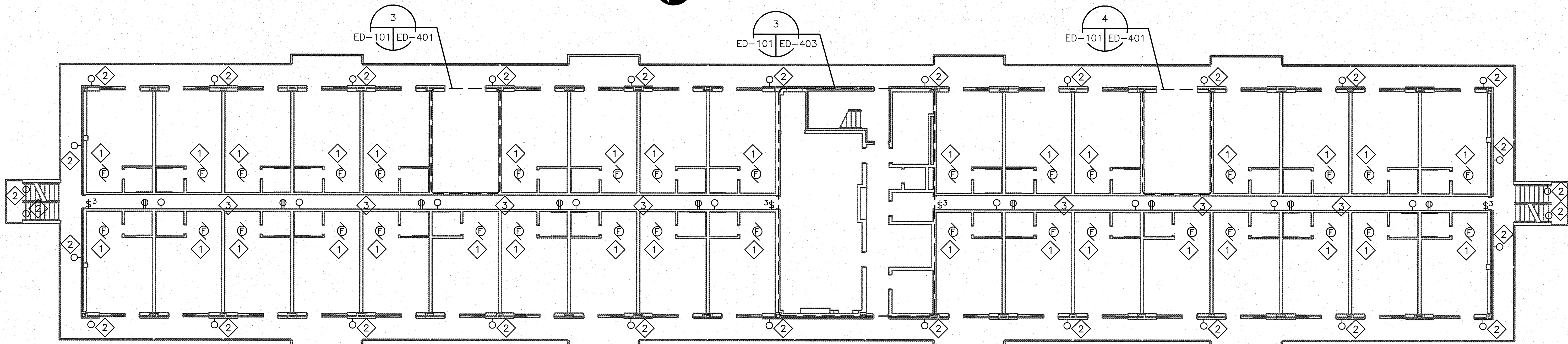
**SITE ELECTRICAL DEMOLITION & NEW WORK PLAN**  
SCALE: 1" = 20'



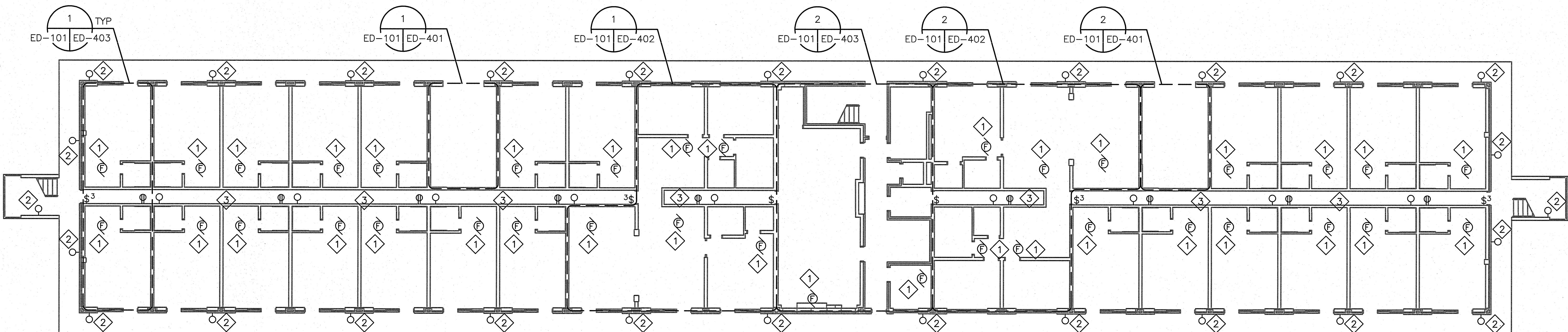
 CEMS Engineering, Inc. 3059 Iron Horse Drive Lenoir, NC 24505 (784) 675-3837 (784) 675-4509 www.cemsengineering.com CEMS Project #08158Z Project Manager: R. Alvar		<b>ES-101</b>	
		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. R. ALVAR DR. R. ALVAR CHK. J. BONGIORNO SUBMITTED BY:		REPAIR BEQ BUILDING BB260	
DESIGN DIR. APPROVED: PWO OR OICC DATE		SITE ELECTRICAL DEMOLITION & NEW WORK PLAN NAVFAC DRAWING NO.	
SATISFACTORY TO: DATE		F 80091 60007622	
		CONST. CONTR. NO. N40085-10-B-0031 SCALE: SPEC. 10-B-0031 SHEET 57 OF 72	



**THIRD FLOOR ELECTRICAL DEMOLITION PLAN**  
SCALE: 3/32" = 1'-0"



**SECOND FLOOR ELECTRICAL DEMOLITION PLAN**  
SCALE: 3/32" = 1'-0"

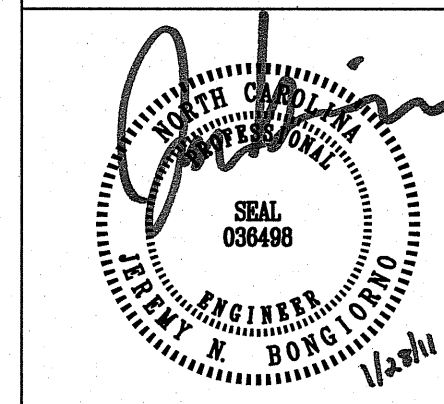


**FIRST FLOOR ELECTRICAL DEMOLITION PLAN**  
SCALE: 3/32" = 1'-0"

- DEMOLITION KEYNOTES:**
- 1 DISCONNECT POWER TO EXISTING FAN COIL UNIT TO BE REMOVED. REMOVE ASSOCIATED CONDUCTORS AND EXPOSED CONDUIT BACK TO SOURCE PANELBOARD.
  - 2 REMOVE ALL EXTERIOR FIXTURES AND ASSOCIATED CONDUCTORS, BOXES AND CONDUIT TO REMAIN FOR RE-USE WHERE POSSIBLE.
  - 3 REMOVE INTERIOR CHASE LIGHT FIXTURES, SWITCHES, RECEPTACLES, AND DEVICE PLATES, BOXES AND CONDUIT TO REMAIN FOR RE-USE WHERE POSSIBLE.

- GENERAL NOTES:**
1. REMOVE ALL ELECTRICAL PANELBOARDS AND ALL ASSOCIATED CONDUCTORS AND EXPOSED CONDUIT.
  2. ALL CABLE TV, INTERCOM, TELEPHONE CONDUIT, CONDUCTORS AND CABINETS ASSOCIATED WITH BEQ ROOMS TO REMAIN IN PLACE. PRESERVE AND PROTECT ALL ASSOCIATED COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES. GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR REPAIRS NEEDED TO THE COMMUNICATIONS. COORDINATE WITH LOCAL TELEPHONE SERVICE PROVIDER REGARDING ANY BEQ ROOM PHONE LINE MOVES, ADDITIONS, OR CHANGES. ALL REPAIRS SHALL BE DONE BY A QUALIFIED COMMUNICATIONS SUBCONTRACTOR. CONTACT BASE TELEPHONE REGARDING ANY COMMUNICATIONS QUESTIONS AT 910-451-9439 OR 910-451-4760.
  3. DEMOLITION PLAN IS DIAGRAMMATIC AND MAY NOT REPRESENT ALL ITEMS TO BE REMOVED.
  4. REMOVE ALL EXIT AND EMERGENCY FIXTURES. EXISTING CONDUIT TO REMAIN FOR CONNECTION TO NEW EXIT AND EMERGENCY FIXTURES WHERE POSSIBLE.
  5. REMOVE ALL COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES ASSOCIATED WITH OFFICE AREAS AND AREAS SERVICED BY BASE TELEPHONE SYSTEM. CONTACT BASE TELEPHONE REGARDING ANY COMMUNICATIONS QUESTIONS AT 910-451-9439 OR 910-451-4760.

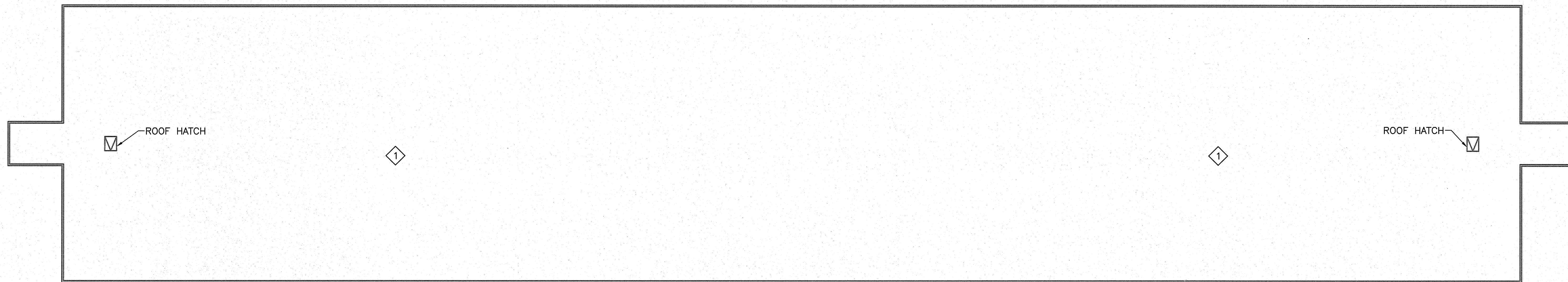
24" 0' 4' 8' 16'  
SCALE: 3/32" = 1'-0"  
GRAPHIC SCALE



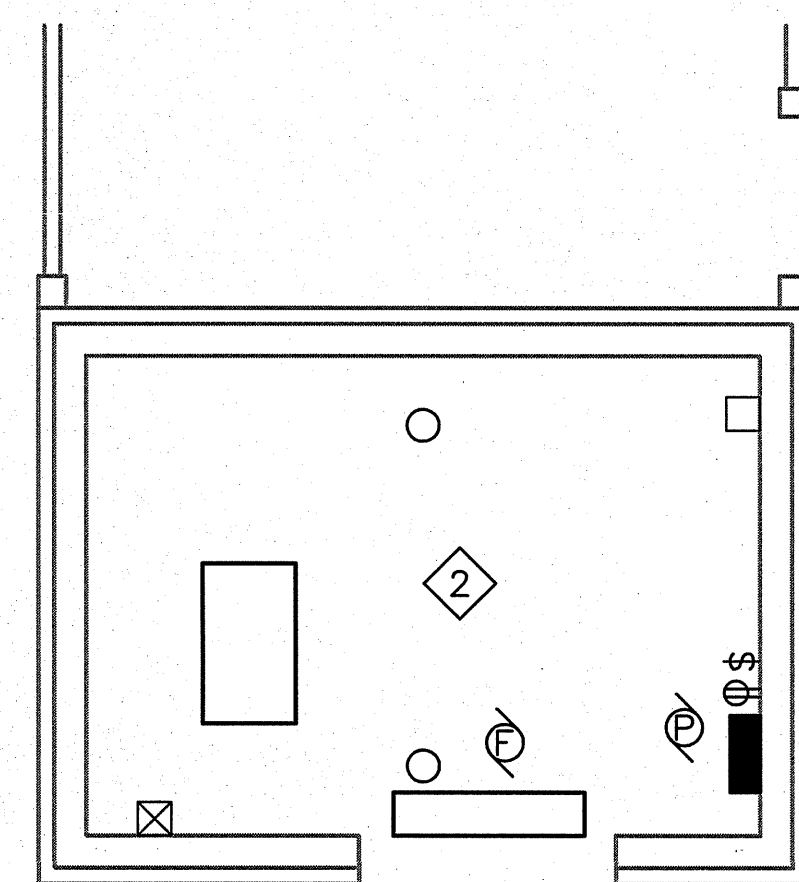
<b>ED-101</b>	
 CEMS Engineering, Inc. 3009 Iron Horse Drive Lenoir, NC 28645 (919) 443-8715, 3637 (919) 443-8715, 4509 www.cemsengineering.com CEMS Project #081582 Project Manager R. Alvar	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA
	REPAIR BEQ BUILDING BB260
DES. R. ALVAR DR. C. COOPER CHK. J. BONGIORNO SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC DATE:	ELECTRICAL DEMOLITION PLANS NAVFAC DRAWING NO. <b>60007623</b> F 80091 CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 10-B-0031 SHEET 58 OF 72
SATISFACTORY TO: DATE:	

**DEMOLITION KEYNOTES:**

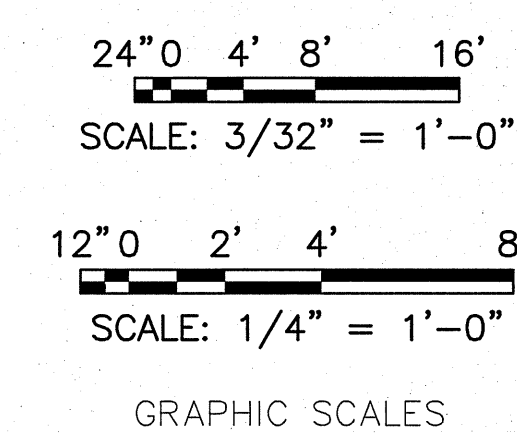
- ① REMOVE ALL DEVICES, CONDUIT, AND FEEDERS ASSOCIATED WITH EXISTING SOLAR HOT WATER SYSTEM COMPLETE. SOME ASSOCIATED EQUIPMENT TO BE REMOVED, INCLUDING PUMP DISCONNECTS, ARE LOCATED IN MECHANICAL BUILDING BB261.
- ② REMOVE ALL ELECTRICAL EQUIPMENT IN BUILDING BB261 COMPLETE.



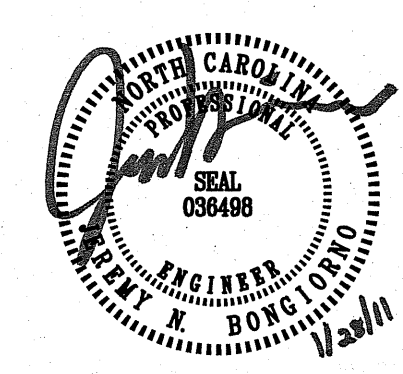
**ATTIC ELECTRICAL DEMOLITION PLAN**  
SCALE: 3/32" = 1'-0"

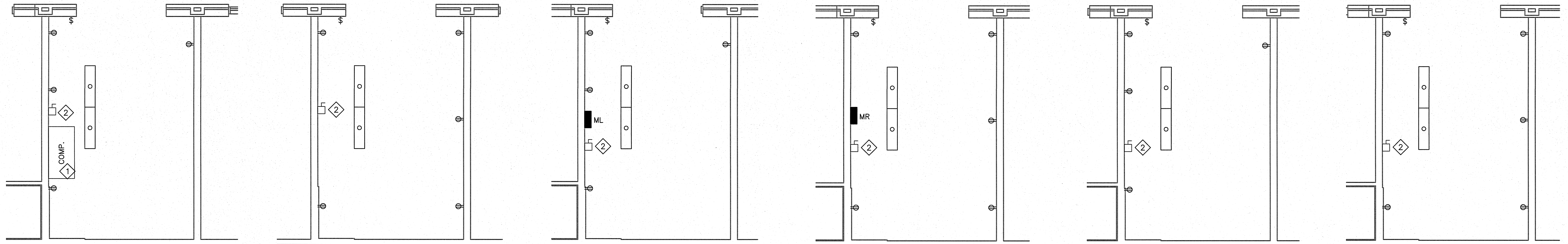


**BUILDING BB261 ELECTRICAL DEMOLITION PLAN**  
SCALE: 1/4" = 1'-0"



		<b>ED-102</b>	
<b>CE MS</b> ENGINEERING <small>CEMS Engineering, Inc. 3099 Iron Horse Drive Ladson, SC 29496 (704) 443-8715, 3637 (704) 443-8715, 4509 www.cemsengineering.com CEMS Project #081582 Project Manager: R. Alvar</small>	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA		
	REPAIR BEQ BUILDING BB260		
DES. R. ALVAR DR. C. COOPER CHK. J. BONGIORNO SUBMITTED BY: DESIGN DIR.	ATTIC & BUILDING BB261 ELECTRICAL DEMOLITION PLANS APPROVED: PWO OR OICC DATE SIZE CODE IDENT NO. NAVFAC DRAWING NO. Satisfactory TO: DATE <b>F 80091</b> <b>60007624</b> <small>SCALE: AS NOTED SPEC. 10-B-0031 SHEET 59 OF 72</small>		





1 ENLARGED ELECTRICAL DEMOLITION PLAN  
ED-101 ED-401 SCALE: 1/4" = 1'-0"

2 ENLARGED ELECTRICAL DEMOLITION PLAN  
ED-101 ED-401 SCALE: 1/4" = 1'-0"

3 ENLARGED ELECTRICAL DEMOLITION PLAN  
ED-101 ED-401 SCALE: 1/4" = 1'-0"

4 ENLARGED ELECTRICAL DEMOLITION PLAN  
ED-101 ED-401 SCALE: 1/4" = 1'-0"

5 ENLARGED ELECTRICAL DEMOLITION PLAN  
ED-101 ED-401 SCALE: 1/4" = 1'-0"

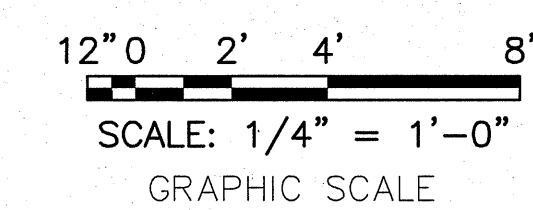
6 ENLARGED ELECTRICAL DEMOLITION PLAN  
ED-101 ED-401 SCALE: 1/4" = 1'-0"

**DEMOLITION KEYNOTES:**

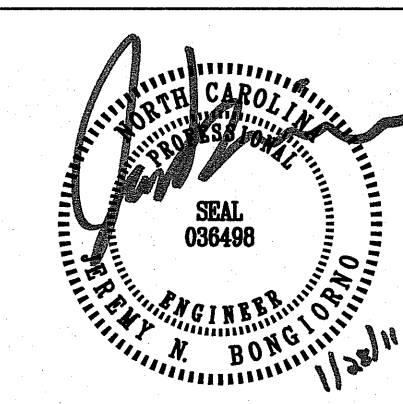
- 1 REMOVE DISCONNECT, CONDUIT, AND CONDUCTORS FOR EXISTING COMPRESSOR BACK TO PANEL.
- 2 REMOVE DISCONNECT SWITCH, CONTROLLER, CONDUIT, AND CONDUCTORS FOR EXISTING AIR HANDLER BACK TO PANEL.

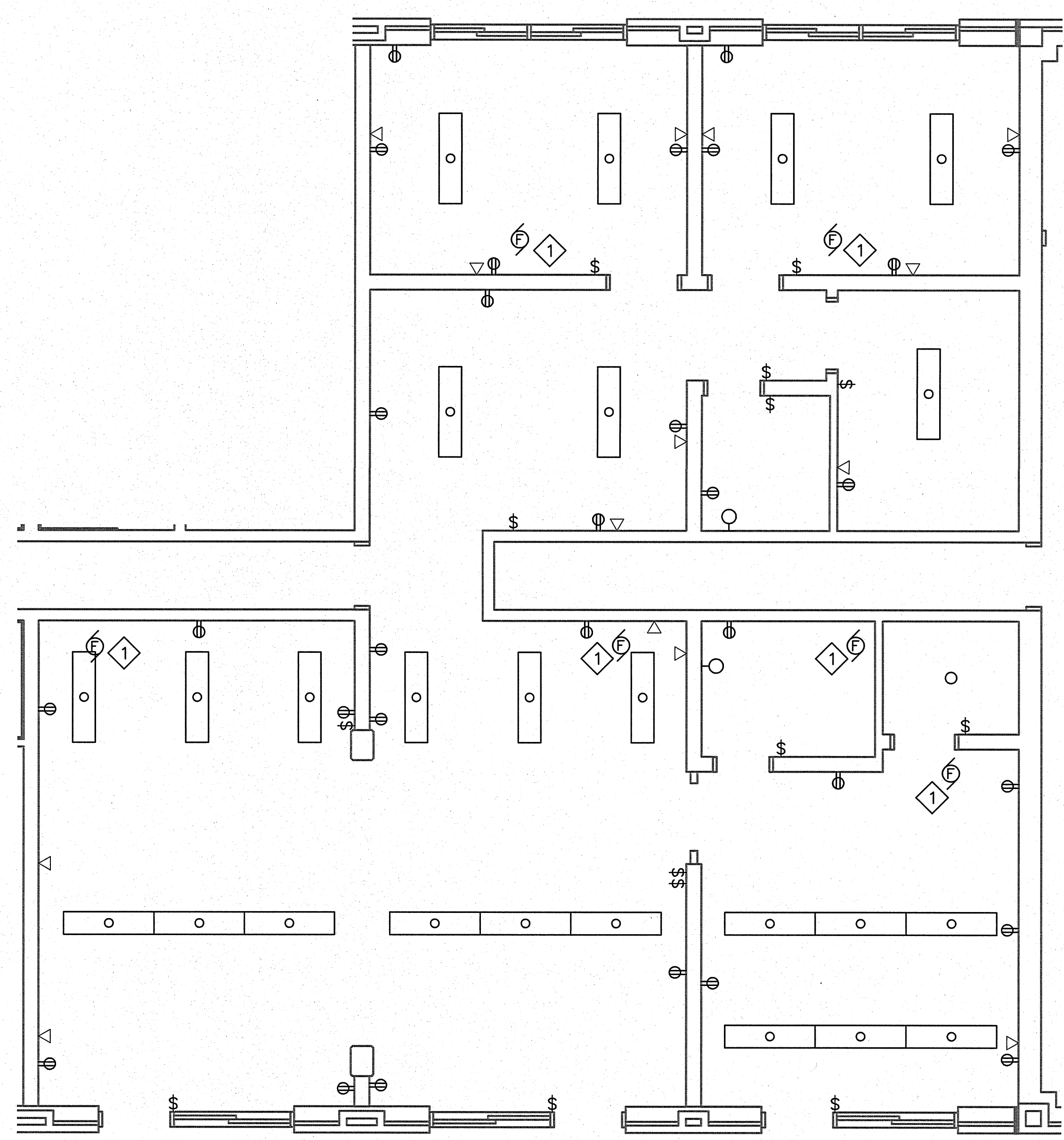
**GENERAL NOTES:**

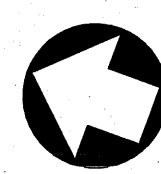
1. ALL CABLE TV, INTERCOM, TELEPHONE CONDUIT, CONDUCTORS AND CABINETS ASSOCIATED WITH BEQ ROOMS TO REMAIN IN PLACE. PRESERVE AND PROTECT ALL ASSOCIATED COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES. GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR REPAIRS NEEDED TO THE COMMUNICATIONS. COORDINATE WITH LOCAL TELEPHONE SERVICE PROVIDER REGARDING ANY BEQ ROOM PHONE LINE MOVES, ADDITIONS, OR CHANGES. ALL REPAIRS SHALL BE DONE BY A QUALIFIED COMMUNICATIONS SUBCONTRACTOR. CONTACT BASE TELEPHONE REGARDING ANY COMMUNICATIONS QUESTIONS AT 910-451-9439 OR 910-451-4760.
2. REMOVE ALL COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES ASSOCIATED WITH OFFICE AREAS AND AREAS SERVICED BY BASE TELEPHONE SYSTEM. CONTACT BASE TELEPHONE REGARDING ANY COMMUNICATIONS QUESTIONS AT 910-451-9439 OR 910-451-4760.
3. REMOVE ALL LIGHT FIXTURES, RECEPTACLES, SWITCHES, DEVICE PLATES AND ALL ASSOCIATED CONDUCTORS AND EXPOSED CONDUIT. JUNCTION BOXES AND CONCEALED CONDUIT MAY REMAIN FOR CONNECTION TO NEW FIXTURES AND DEVICES WHERE POSSIBLE.
4. REMOVE ALL EXISTING PANELBOARDS, ASSOCIATED CONDUCTORS, AND EXPOSED CONDUIT COMPLETE.
5. DISCONNECT ALL EXISTING DDC AND VFD CONTROLS. REMOVE ALL ASSOCIATED CONDUCTORS AND EXPOSED CONDUIT COMPLETE.

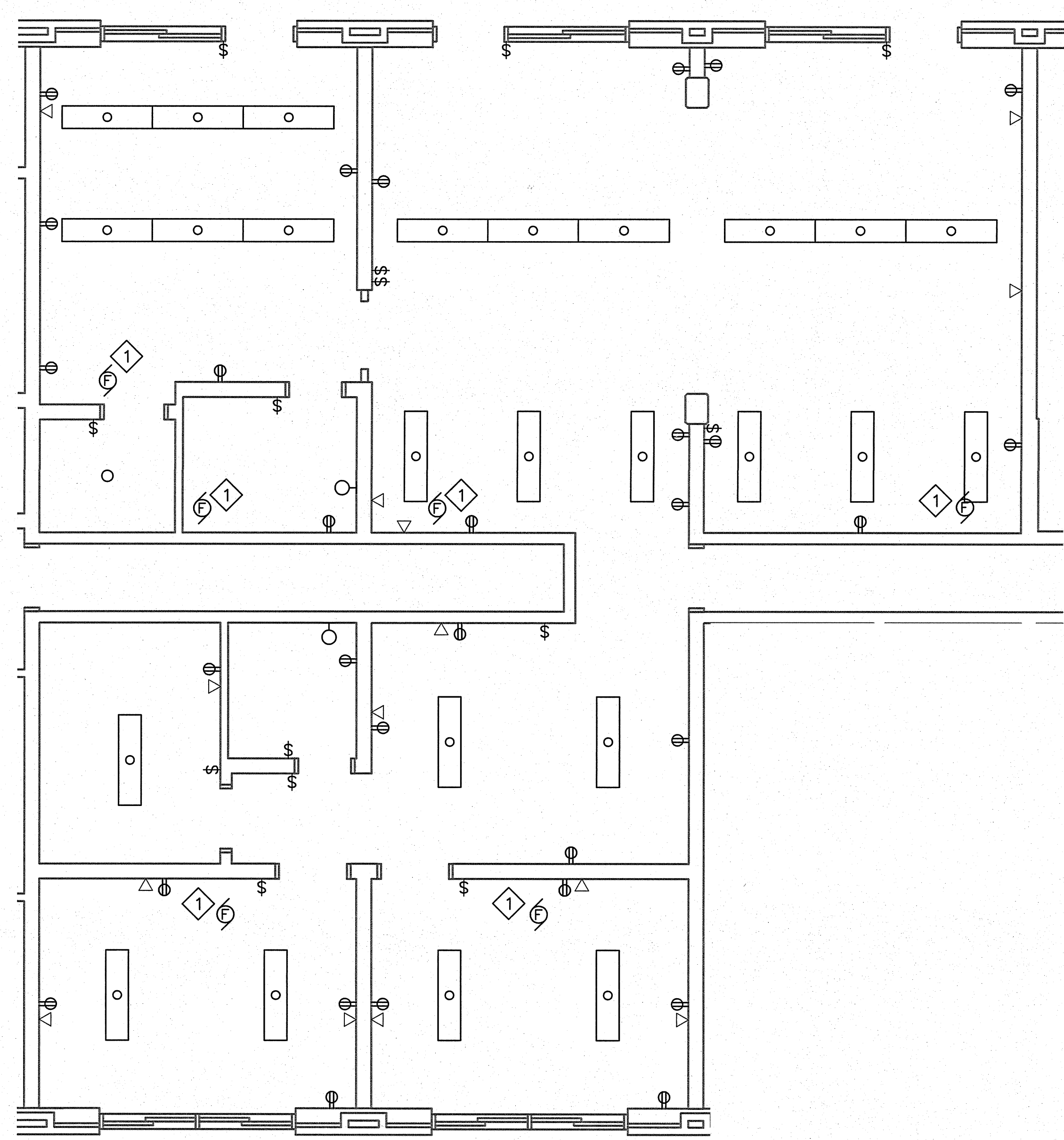


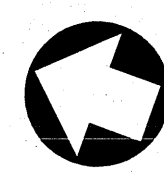
		<b>ED-401</b>	
<b>C E M S</b> ENGINEERING	<small>CEMS Engineering, Inc. 5059 Iron Horse Drive Lafayette, SC 29046 (704)433-8737 (704)433-8738 www.cemsengineering.com CEMS Project #08158Z Project Manager: R. Alvar</small>		
	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA		
DES. R. ALVAR DR. C. COOPER CHK. J. BONGIORNO SUBMITTED BY: DESIGN DIR.		REPAIR BEQ BUILDING BB260	
APPROVED: PWO OR OICC DATE:		ENLARGED ELECTRICAL DEMOLITION PLANS NAVFAC DRAWING NO. 60007625 IDENT NO. 80091	
SATISFACTORY TO: DATE:		CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 10-B-0031 SHEET 60 OF 72	






1 ENLARGED FIRST FLOOR ELECTRICAL DEMOLITION PLAN  
 ED-101 ED-402 SCALE: 1/4" = 1'-0"

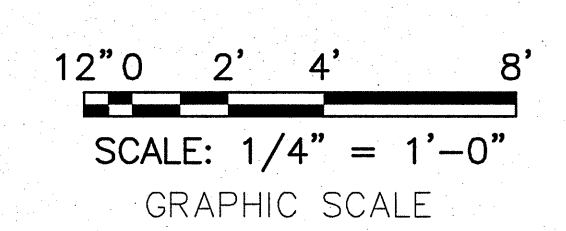


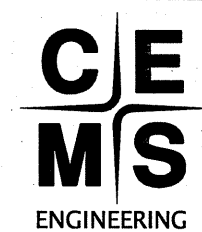

2 ENLARGED FIRST FLOOR ELECTRICAL DEMOLITION PLAN  
 ED-101 ED-402 SCALE: 1/4" = 1'-0"

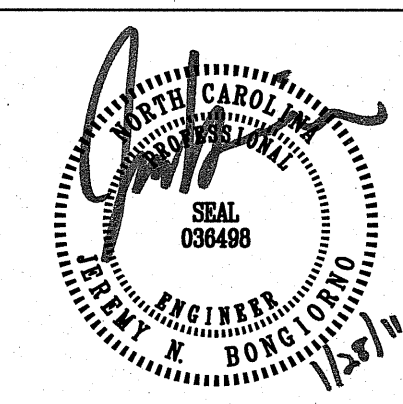
**DEMOLITION KEYNOTES:**

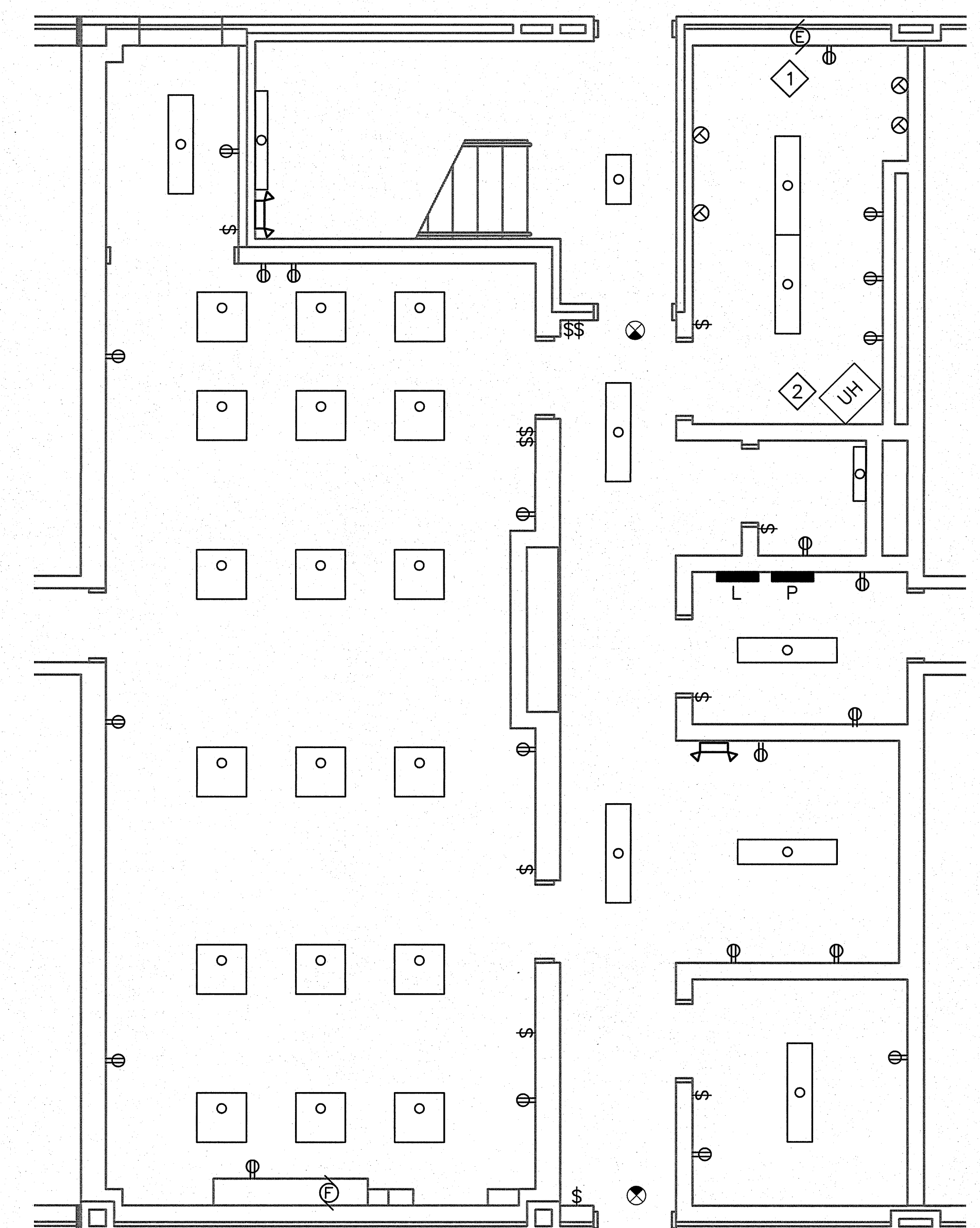
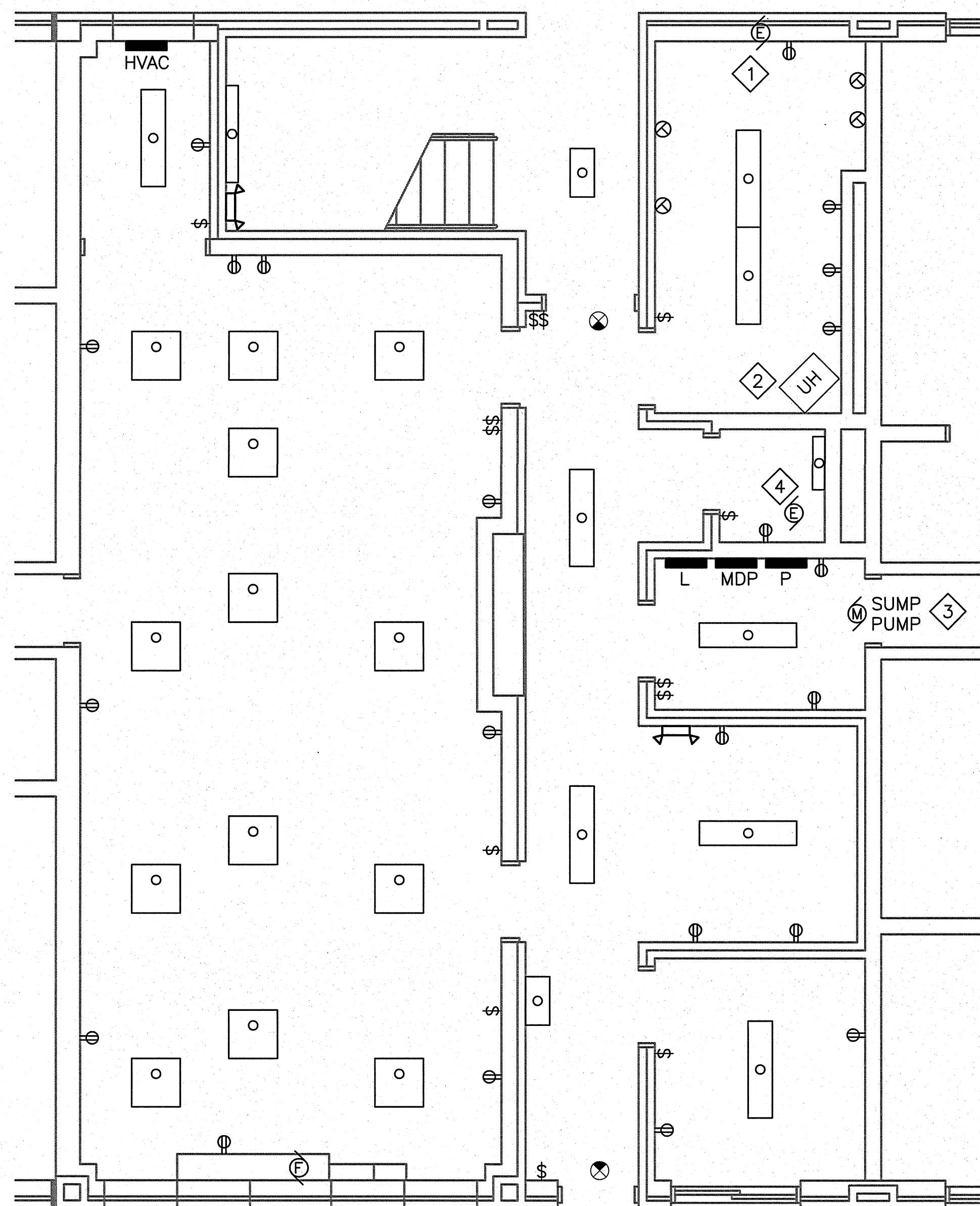
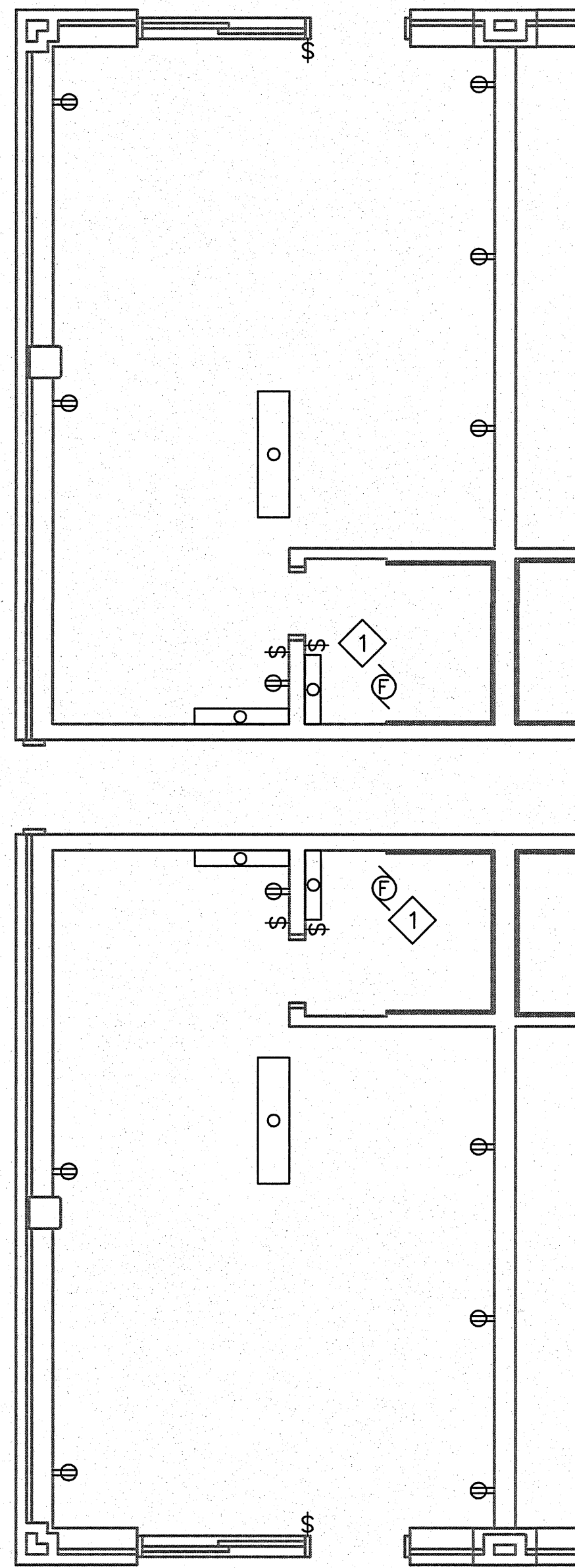
1. DISCONNECT POWER TO FAN COIL UNIT TO BE REMOVED. REMOVE ASSOCIATED CONDUIT AND CONDUCTORS BACK TO PANEL.

- GENERAL NOTES:**
1. DEMOLITION PLAN IS DIAGRAMMATIC AND MAY NOT REPRESENT ALL ITEMS TO BE REMOVED.
  2. REMOVE ALL ELECTRICAL PANELBOARDS AND ALL ASSOCIATED CONDUCTORS AND EXPOSED CONDUIT COMPLETE.
  3. REMOVE ALL LIGHT FIXTURES, RECEPTACLES, SWITCHES, DEVICE PLATES AND ALL ASSOCIATED CONDUCTORS AND EXPOSED CONDUIT. JUNCTION BOXES AND CONCEALED CONDUIT MAY REMAIN FOR CONNECTION TO NEW FIXTURES AND DEVICES WHERE POSSIBLE.
  4. REPLACE ALL COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES ASSOCIATED WITH COMMON AREAS AND OFFICES. COORDINATE WITH BASE TELEPHONE REGARDING PHONE LINES IN COMMON AREAS AND OFFICES. ALL WORK SHALL BE DONE BY A QUALIFIED COMMUNICATIONS SUBCONTRACTOR. CONTACT BASE TELEPHONE FOR ANY QUESTIONS AT 910-451-9439 OR 910-451-4760.
  5. REMOVE ALL EXIT AND EMERGENCY FIXTURES. REMOVE ALL ASSOCIATED CONDUIT AND CONDUCTORS BACK TO EXISTING PANELBOARD. JUNCTION BOXES AND CONCEALED CONDUIT MAY REMAIN FOR CONNECTION TO NEW EXIT AND EMERGENCY FIXTURES WHERE PRACTICAL.



<b>ED-402</b>	
 <p>CEMS Engineering, Inc.          3609 Iron Horse Drive          Landon, SC 29495          (P) 843.875.3637          (F) 843.875.4509          www.cemsgroup.com          CEMS Project #081582          Project Manager: R. Arvar</p>	<p>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND  <b>MARINE CORPS BASE</b>          CAMP LEJEUNE, NORTH CAROLINA</p> <p style="text-align: center;"><b>REPAIR BEQ</b>  <b>BUILDING BB260</b></p>
<p>DES. R. ALVAR          DR. C. COOPER          CHK. J. BONGIORNO          SUBMITTED BY:          DESIGN DIR.</p>	<p style="text-align: center;">ENLARGED ELECTRICAL DEMOLITION PLANS</p> <p>APPROVED: PWO OR OICC DATE SIZE CODE IDENT NO. NAVFAC DRAWING NO.  <b>F 80091 60007626</b></p>
<p>SATISFACTORY TO: DATE</p>	<p>CONST. CONTR. NO. N40085-10-B-0031          SCALE: AS NOTED SPEC. 10-B-0031 SHEET 61 OF 72</p>





1 TYPICAL ENLARGED ROOM DEMOLITION PLAN  
ED-101 ED-403 SCALE: 1/4" = 1'-0"

2 ENLARGED FIRST FLOOR ELECTRICAL DEMOLITION PLAN  
ED-101 ED-403 SCALE: 1/4" = 1'-0"

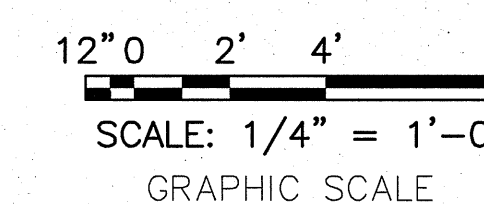
3 ENLARGED SECOND/THIRD FLOOR ELECTRICAL DEMOLITION PLAN  
ED-101 ED-403 SCALE: 1/4" = 1'-0"

**DEMOLITION KEYNOTES:**

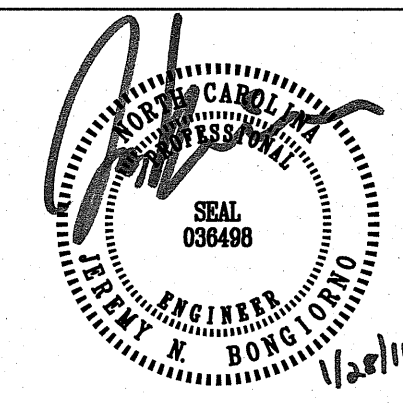
- 1 DISCONNECT POWER TO EXHAUST FAN TO BE REMOVED. REMOVE ASSOCIATED SWITCH, CONDUCTORS AND EXPOSED CONDUIT BACK TO PANELBOARD.
- 2 DISCONNECT POWER TO EXISTING UNIT HEATER. REMOVE ASSOCIATED DISCONNECTS, CONDUCTORS, AND EXPOSED CONDUIT BACK TO PANELBOARD.
- 3 DISCONNECT POWER TO EXISTING SUMP PUMP. REMOVE ASSOCIATED CONTROLS, DISCONNECT, CONDUCTORS, AND EXPOSED CONDUIT COMPLETE.
- 4 DISCONNECT POWER TO EXHAUST FAN LOCATED ON ROOF. REMOVE ASSOCIATED SWITCH IN ADJACENT ELECTRICAL ROOM, CONDUCTORS, AND EXPOSED CONDUIT COMPLETE.

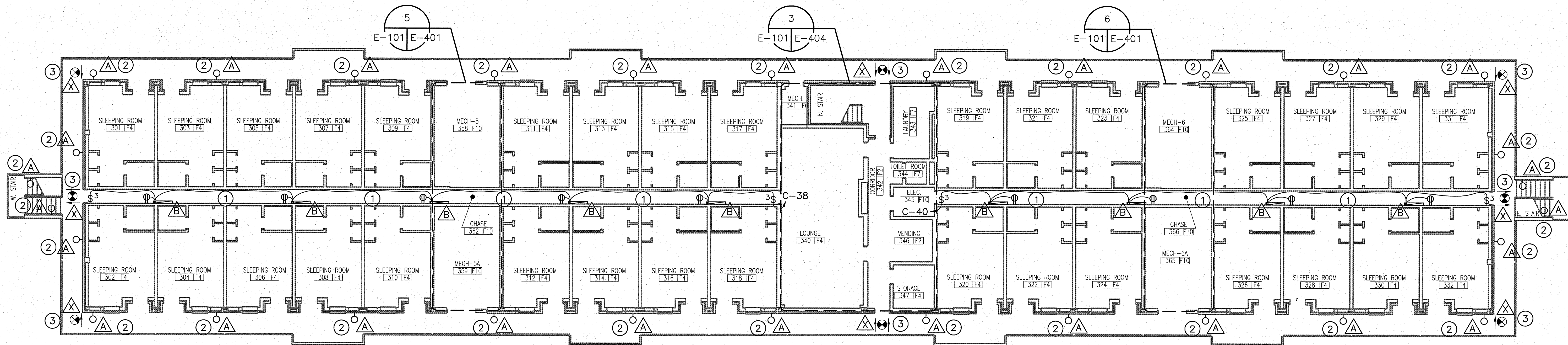
**GENERAL NOTES:**

1. DEMOLITION PLAN IS DIAGRAMMATIC AND MAY NOT REPRESENT ALL ITEMS TO BE REMOVED.
2. REMOVE ALL ELECTRICAL PANELBOARDS AND ALL ASSOCIATED CONDUCTORS AND EXPOSED CONDUIT COMPLETE.
3. REMOVE ALL LIGHT FIXTURES, RECEPTACLES, SWITCHES, DEVICE PLATES AND ALL ASSOCIATED CONDUCTORS AND EXPOSED CONDUIT. JUNCTION BOXES AND CONCEALED CONDUIT MAY REMAIN FOR CONNECTION TO NEW FIXTURES AND DEVICES WHERE POSSIBLE.
4. ALL CABLE TV, INTERCOM, TELEPHONE CONDUIT, CONDUCTORS AND CABINETS ASSOCIATED WITH BEQ ROOMS TO REMAIN IN PLACE. PRESERVE AND PROTECT ALL ASSOCIATED COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES. GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR REPAIRS NEEDED TO THE COMMUNICATIONS. COORDINATE WITH LOCAL TELEPHONE SERVICE PROVIDER REGARDING ANY BEQ ROOM PHONE LINE MOVES, ADDITIONS, OR CHANGES. ALL REPAIRS SHALL BE DONE BY A QUALIFIED COMMUNICATIONS SUBCONTRACTOR. CONTACT BASE TELEPHONE REGARDING ANY COMMUNICATIONS QUESTIONS AT 910-451-9439 OR 910-451-4760.
5. REMOVE ALL COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES ASSOCIATED WITH OFFICE AREAS AND AREAS SERVICED BY BASE TELEPHONE SYSTEM. CONTACT BASE TELEPHONE REGARDING ANY COMMUNICATIONS QUESTIONS AT 910-451-9439 OR 910-451-4760.

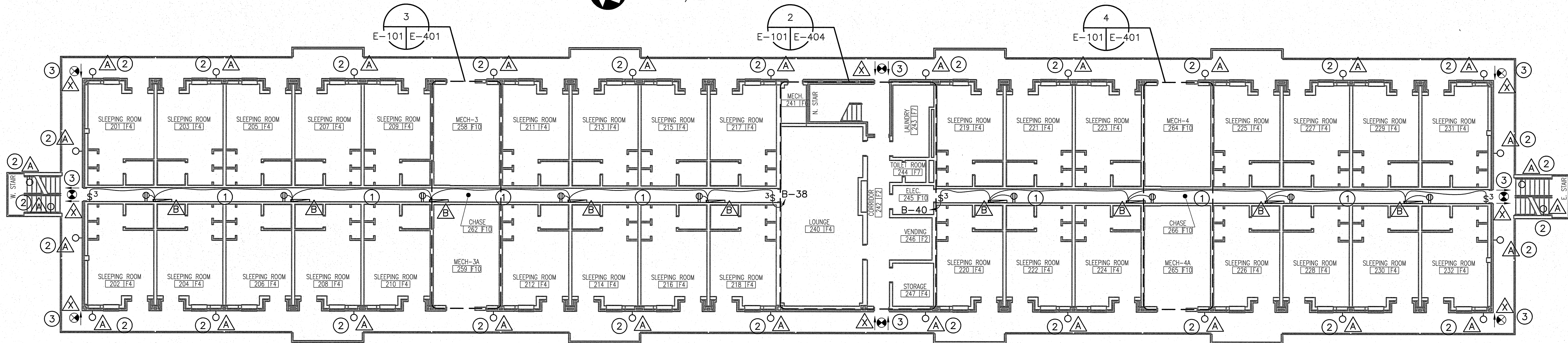


		<b>ED-403</b>	
 <b>CEMS</b> ENGINEERING	<small>CEMS Engineering, Inc.          3059 Iron Horse Drive          Lenoir, NC 28645          (754) 875-3837          (754) 875-4509          www.cemsengineering.com          CEMS Project #08158Z          Project Manager: R. Alvar</small>		
	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA		
DES. R. ALVAR DR. C. COOPER CHK. J. BONGIORNO SUBMITTED BY: DESIGN DIR.		<b>REPAIR BEQ</b> <b>BUILDING BB260</b>	
APPROVED: PWO OR OICC DATE:		ENLARGED ELECTRICAL DEMOLITION PLANS NAVFAC DRAWING NO.	
SATISFACTORY TO: DATE:		<b>F 80091</b> <b>60007627</b>	
		<small>CONST. CONTR. NO. N40085-10-B-0031</small>	
		<small>SCALE: AS NOTED SPEC. 10-B-0031 SHEET 62 OF 72</small>	

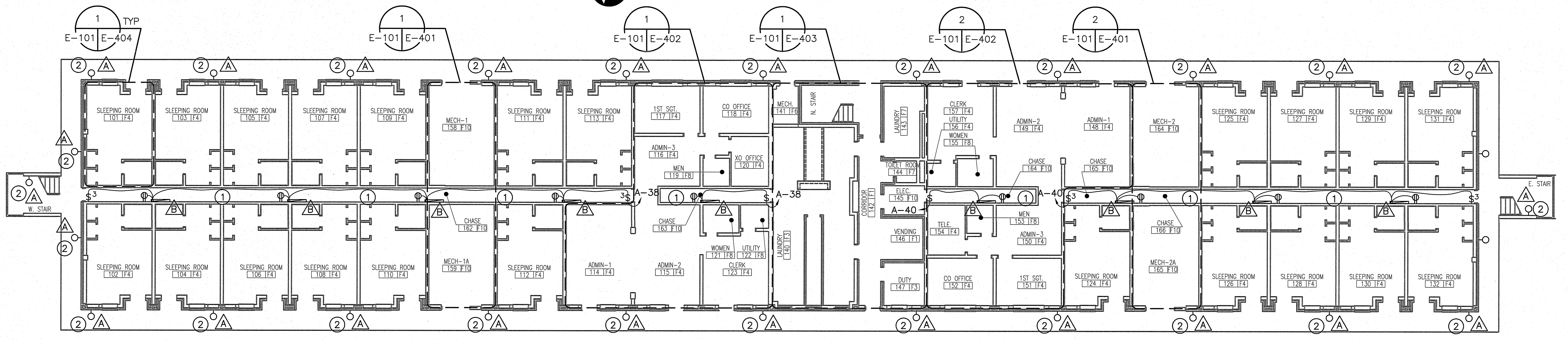




**THIRD FLOOR ELECTRICAL NEW WORK PLAN**  
SCALE: 3/32" = 1'-0"



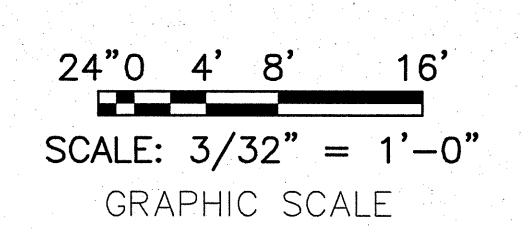
**SECOND FLOOR ELECTRICAL NEW WORK PLAN**  
SCALE: 3/32" = 1'-0"



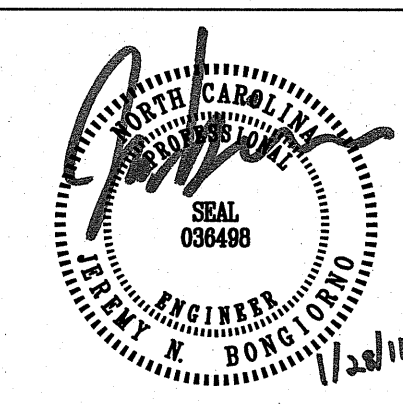
**FIRST FLOOR ELECTRICAL NEW WORK PLAN**  
SCALE: 3/32" = 1'-0"

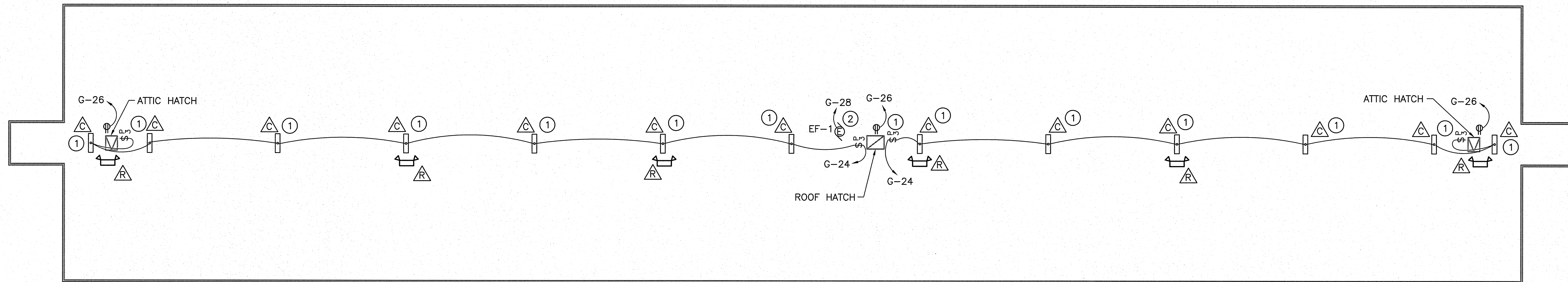
- GENERAL NOTES:**
- SEE SHEET E-501 FOR LIGHTING FIXTURE SCHEDULE.
  - IT IS PERMISSIBLE TO RE-USE EXISTING UTILITY BOXES, CONDUIT, AND CONDUCTORS WHERE POSSIBLE FOR NEW DEVICES AND EQUIPMENT. ALL ITEMS BEING RE-USED MUST BE FREE OF DAMAGE OR DETERIORATION.
  - PROVIDE ALL COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES ASSOCIATED WITH OFFICE AREAS AND AREAS SERVICED BY BASE TELEPHONE SYSTEM PER CAMP LEJUNE COMMUNICATIONS SPECIFICATION 27 10 00. ALL WORK SHALL BE DONE BY A QUALIFIED COMMUNICATIONS SUBCONTRACTOR. CONTACT BASE TELEPHONE REGARDING ANY COMMUNICATIONS QUESTIONS AT 910-451-9439 OR 910-451-4760.
  - ALL 'R' AND 'X' TYPE FIXTURES ARE TO BE FED FROM UNSWITCHED LEG OF NEAREST LIGHTING CIRCUIT.

- NEW WORK KEYNOTES:**
- TYPICAL FOR ALL FLOORS, INSTALL NEW 'B' FIXTURES, RECEPTACLES, SWITCHES, AND DEVICE PLATES IN UTILITY CHASES. RE-USE EXISTING JUNCTION BOXES AND CONDUIT WHERE PRACTICAL.
  - INSTALL NEW EXTERIOR FIXTURE 'A' AT EXISTING BOX LOCATIONS. FIXTURE 'A' ON 1ST, 2ND, AND 3RD FLOORS TO BE FED FROM CIRCUITS D-4, F-4, AND G-4 RESPECTIVELY VIA TIMECLOCK/PHOTOCELL.
  - INSTALL NEW EXIT SIGNS ON EXTERIOR OF SECOND & THIRD FLOORS. RUN CONDUIT ON BOTTOM OF UPPER SLAB.



<b>E-101</b>	
 <b>CEMS</b> ENGINEERING	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJUNE, NORTH CAROLINA
	REPAIR BEQ BUILDING BB260
DES. R. ALVAR DR. R. ALVAR CHK. J. BONGIORNO SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC	ELECTRICAL NEW WORK PLANS NAVFAC DRAWING NO. <b>60007628</b> CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 10-B-0031 SHEET 63 OF 72
APPROVED: PWO OR OICC DATE: _____ SATISFACTORY TO: _____ DATE: _____	F 80091 DATE: _____



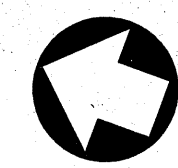


**NEW WORK KEYNOTES:**

- ① INSTALL NEW FIXTURES, SWITCHES, CONDUIT AND 2#12, 1#12G, 1/2" C CIRCUIT IN ATTIC. ATTACH FIXTURES TO TRUSSES ABOVE WALKWAY OPENING. ATTACH SWITCH TO ROOF FRAME ADJACENT TO ROOF AND ATTIC HATCHES.
- ② INSTALL NEW RECEPTACLES, UTILITY BOX, CONDUIT AND 2#12, 1#12G, 1/2" C CIRCUIT TO RECEPTACLE.
- ③ EF-1 PROVIDED WITH INTEGRAL DISCONNECT.

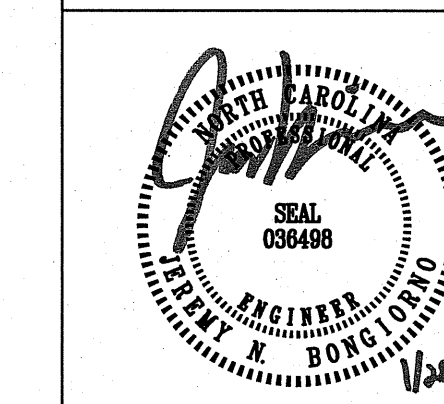
**GENERAL NOTES:**

1. SEE SHEET E-501 FOR LIGHTING FIXTURE SCHEDULE.
2. TYPE 'R' FIXTURES TO BE FED FROM UNSWITCHED LEG OF NEAREST LIGHTING CIRCUIT.
3. ALL NEW AND EXISTING PENETRATIONS ARE TO BE FIRE STOPPED TO MEET 2 HOUR RATING.



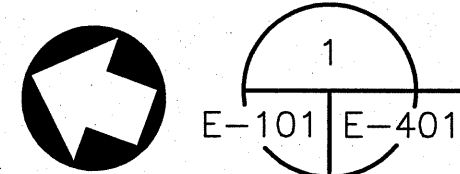
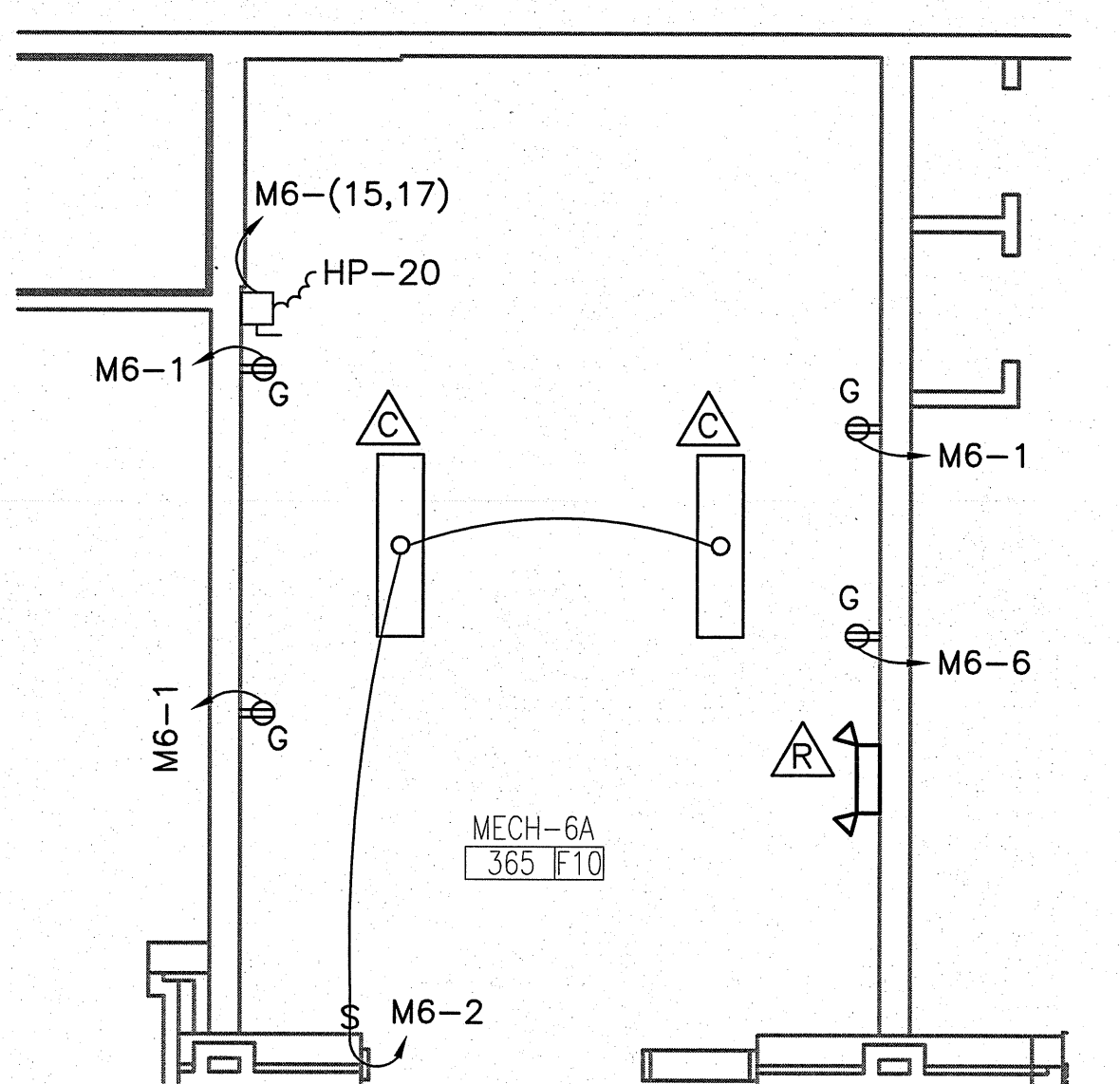
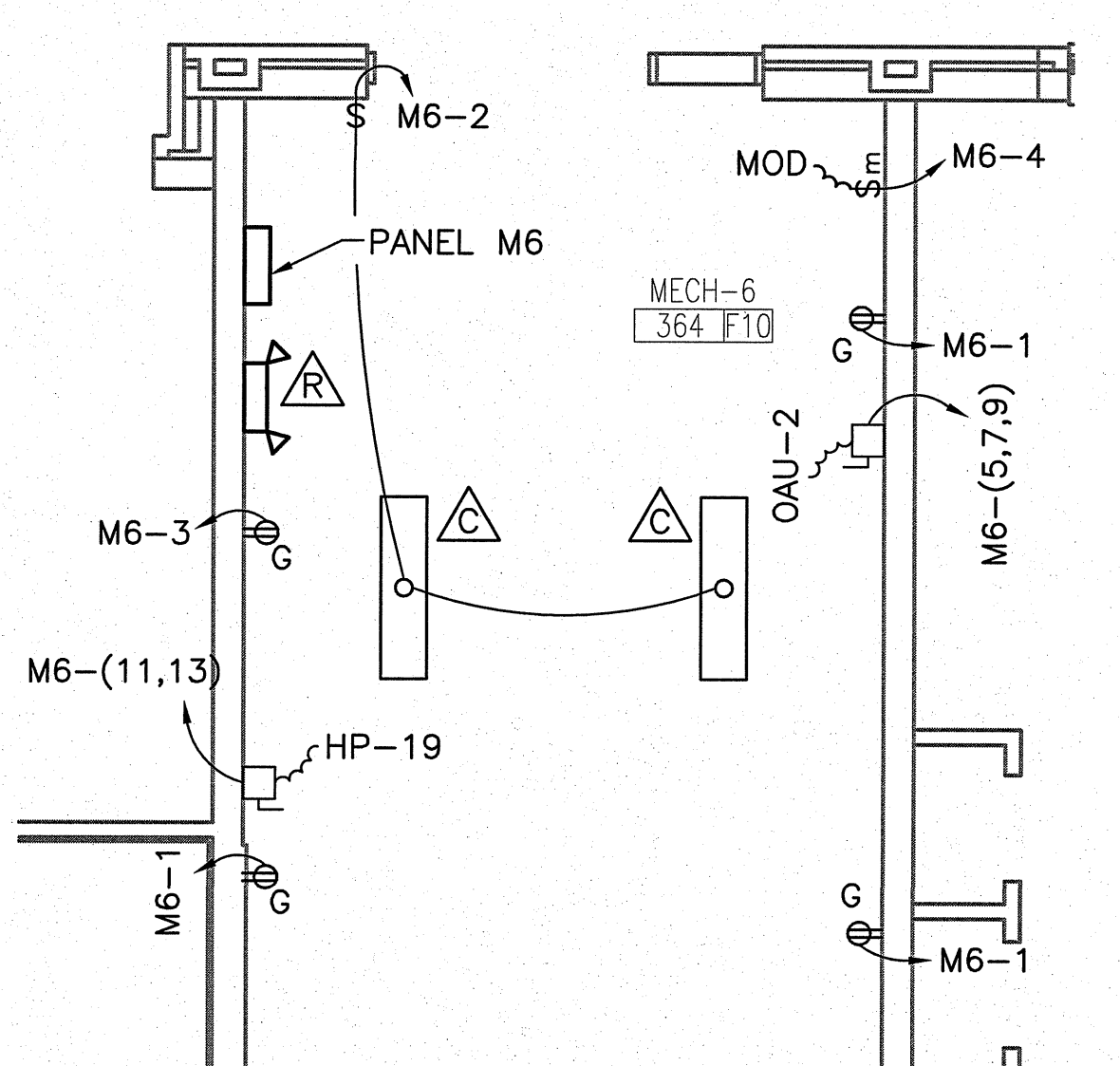
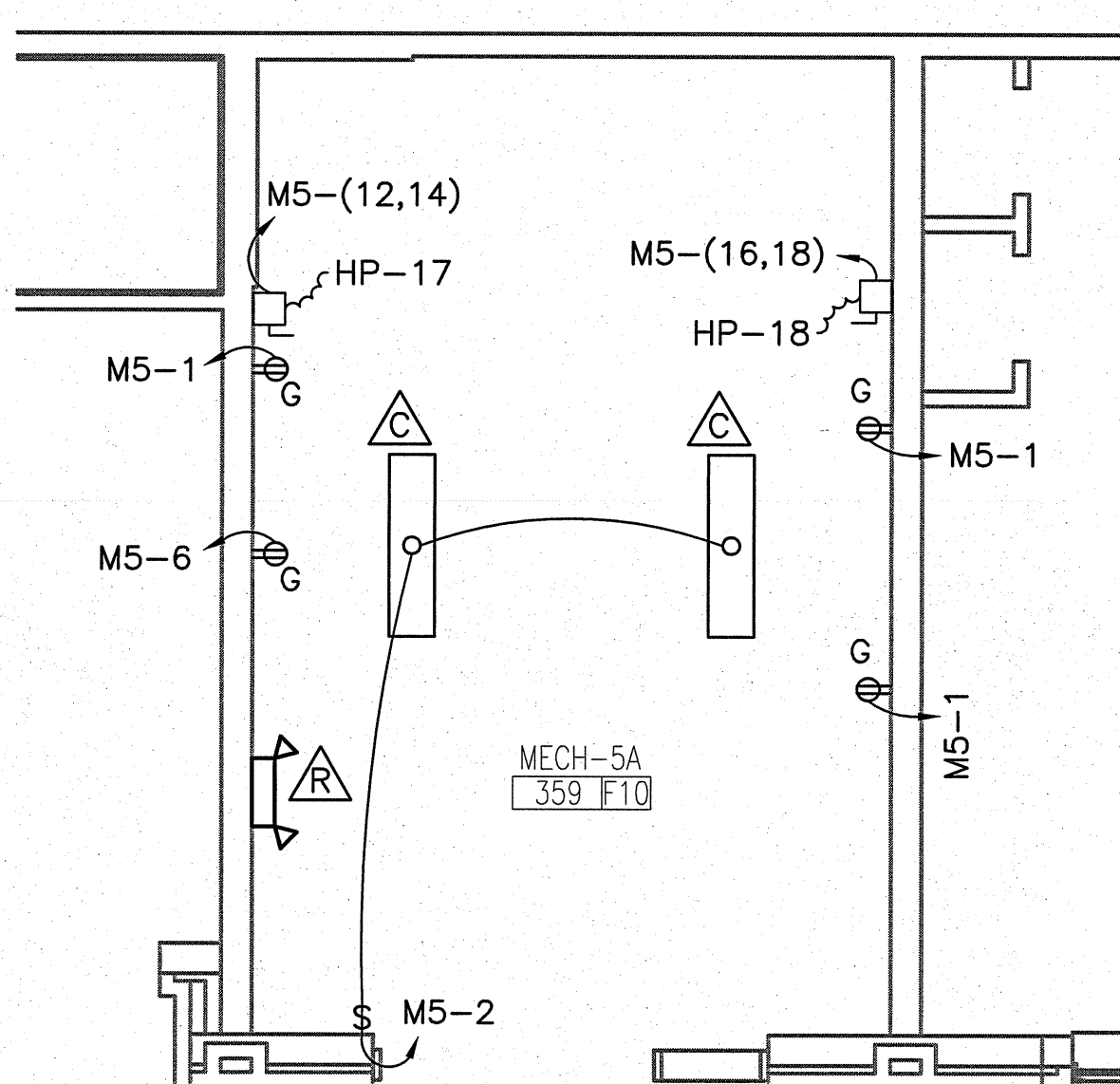
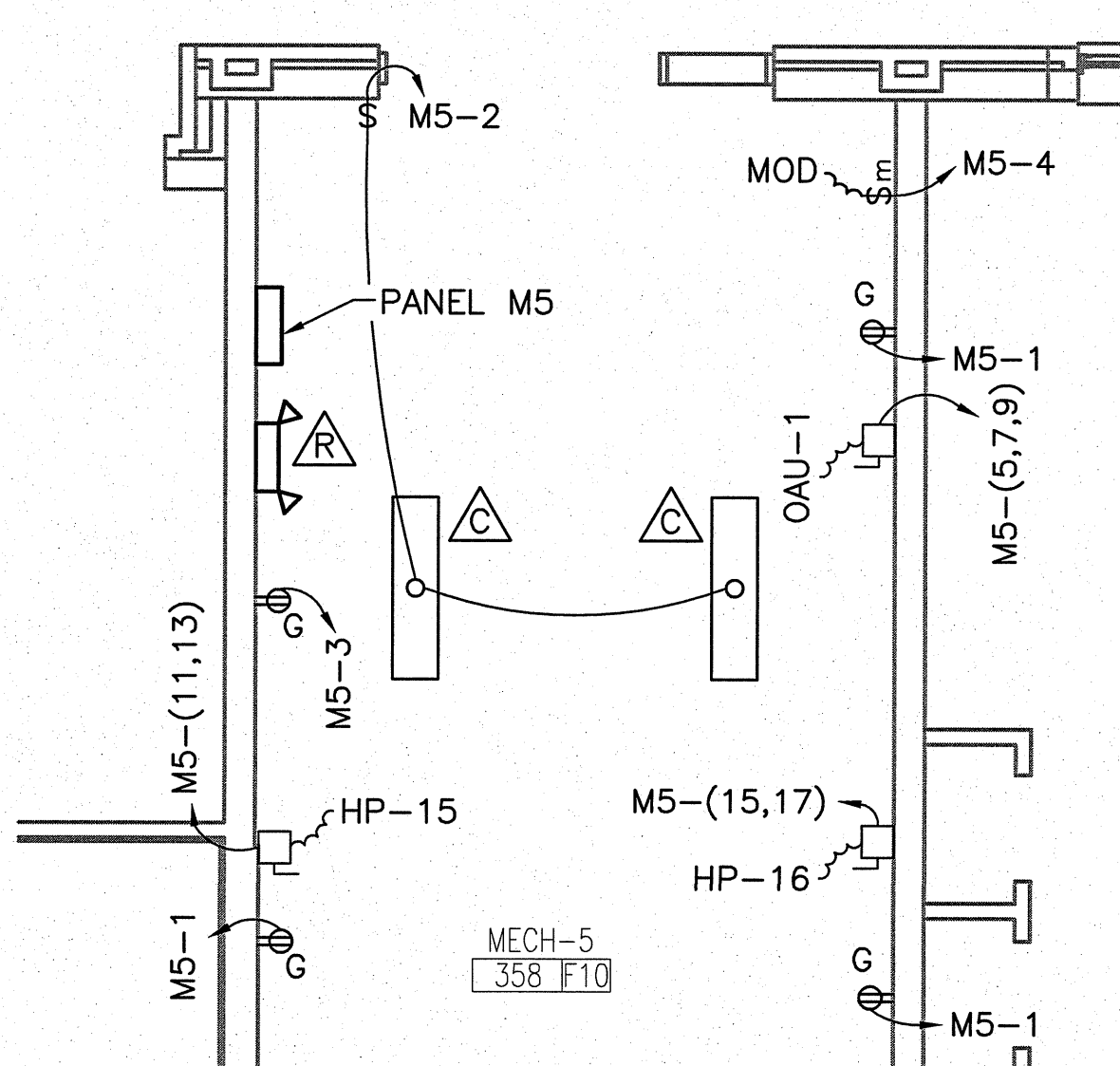
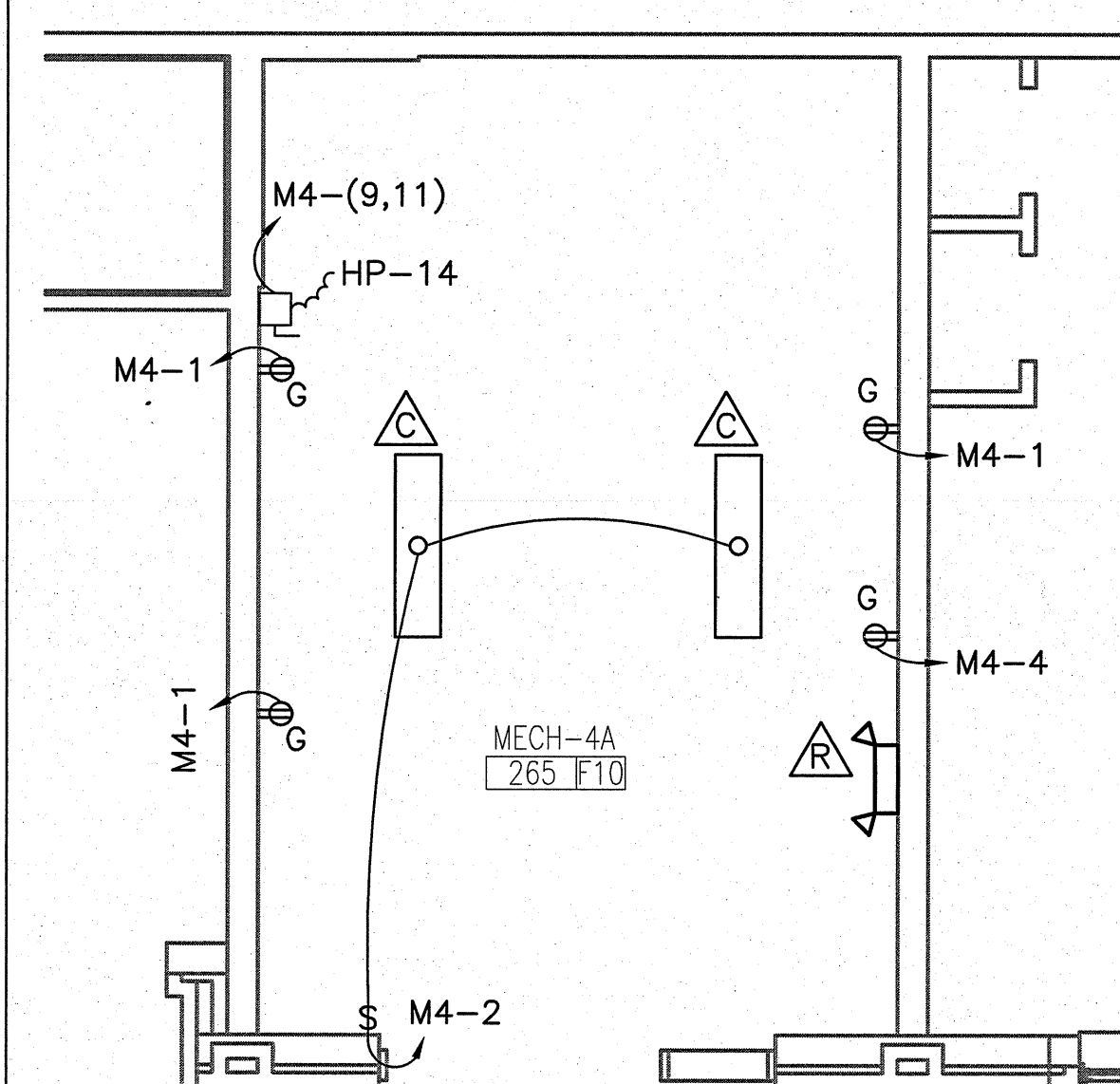
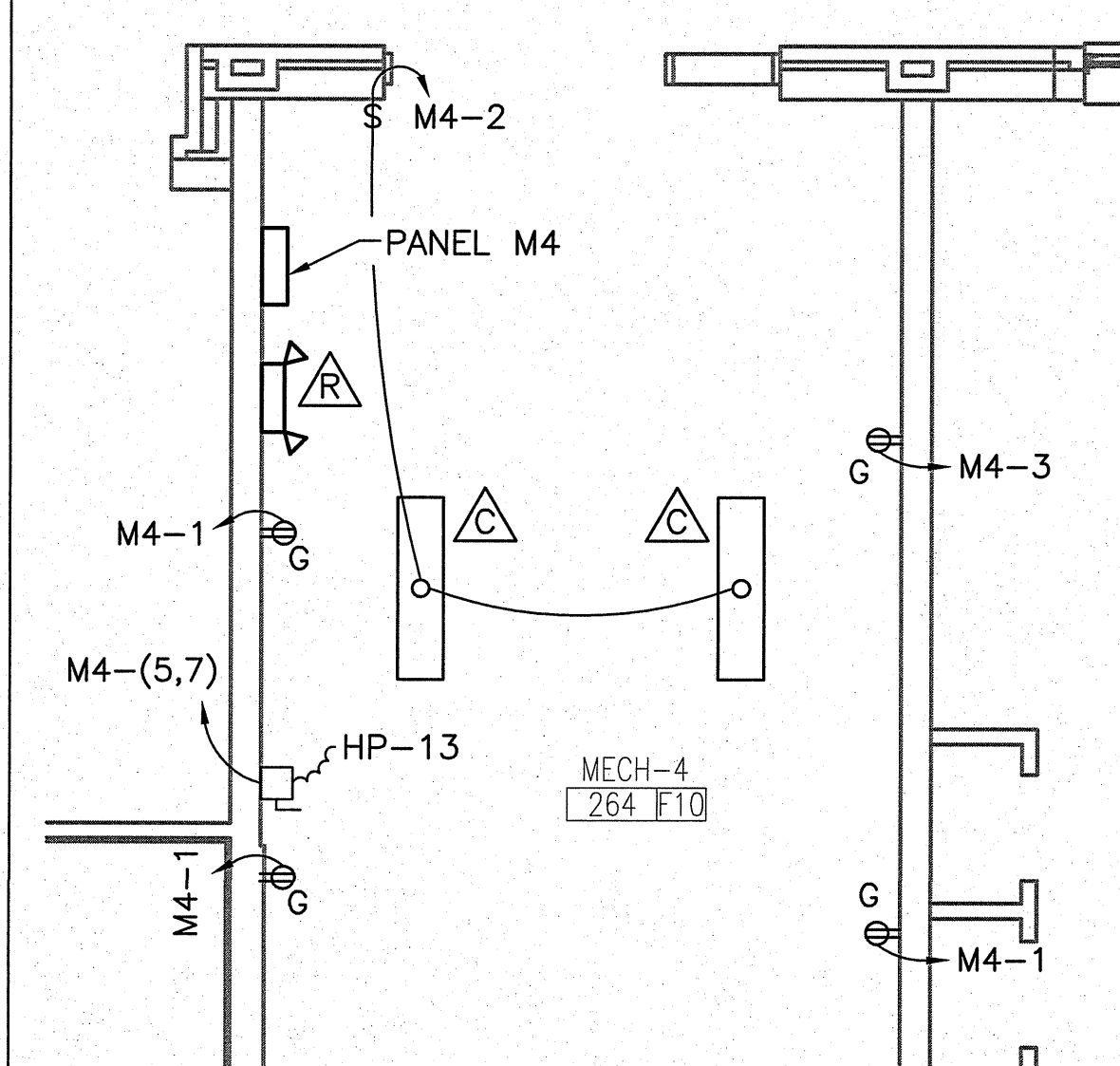
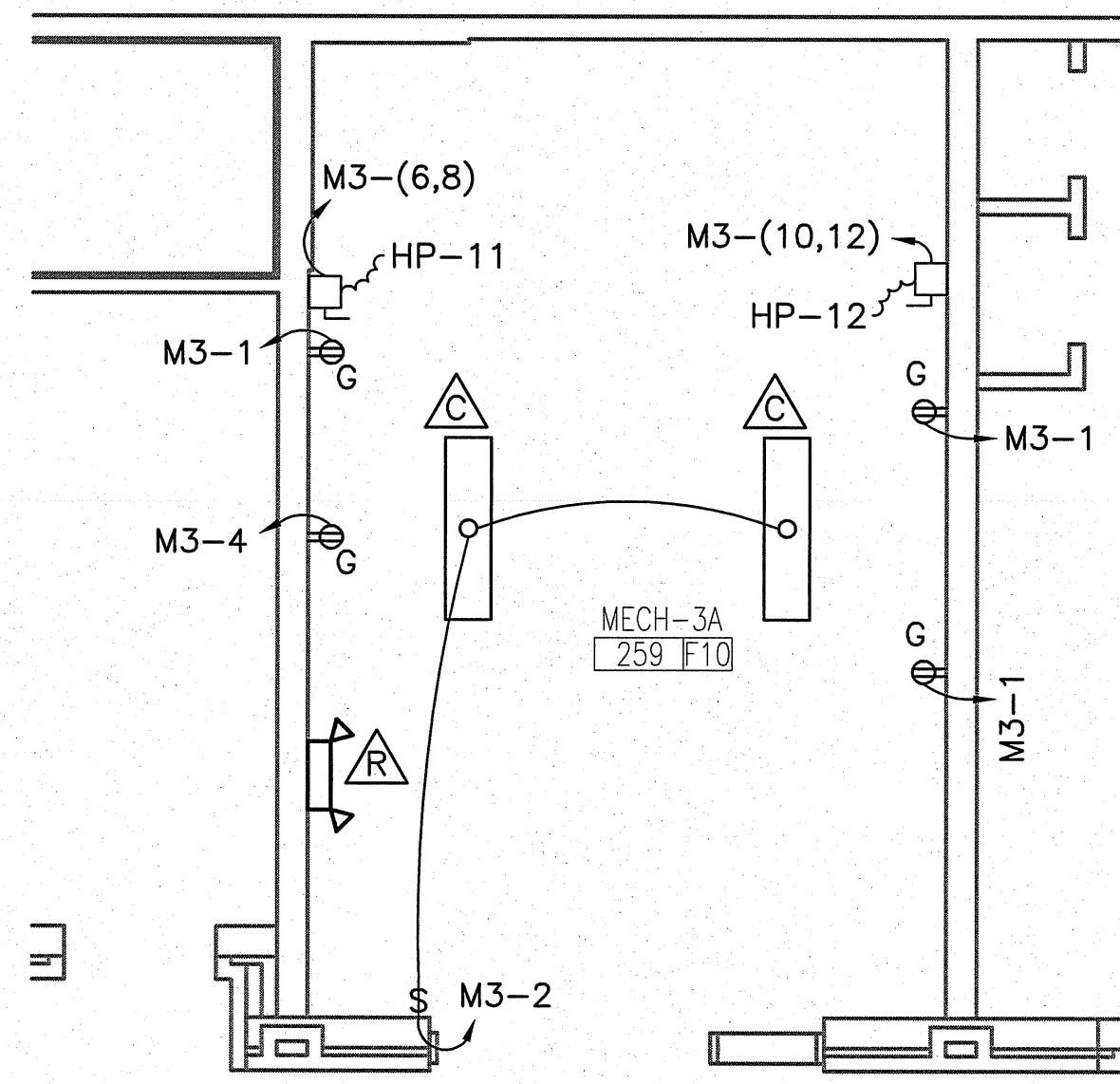
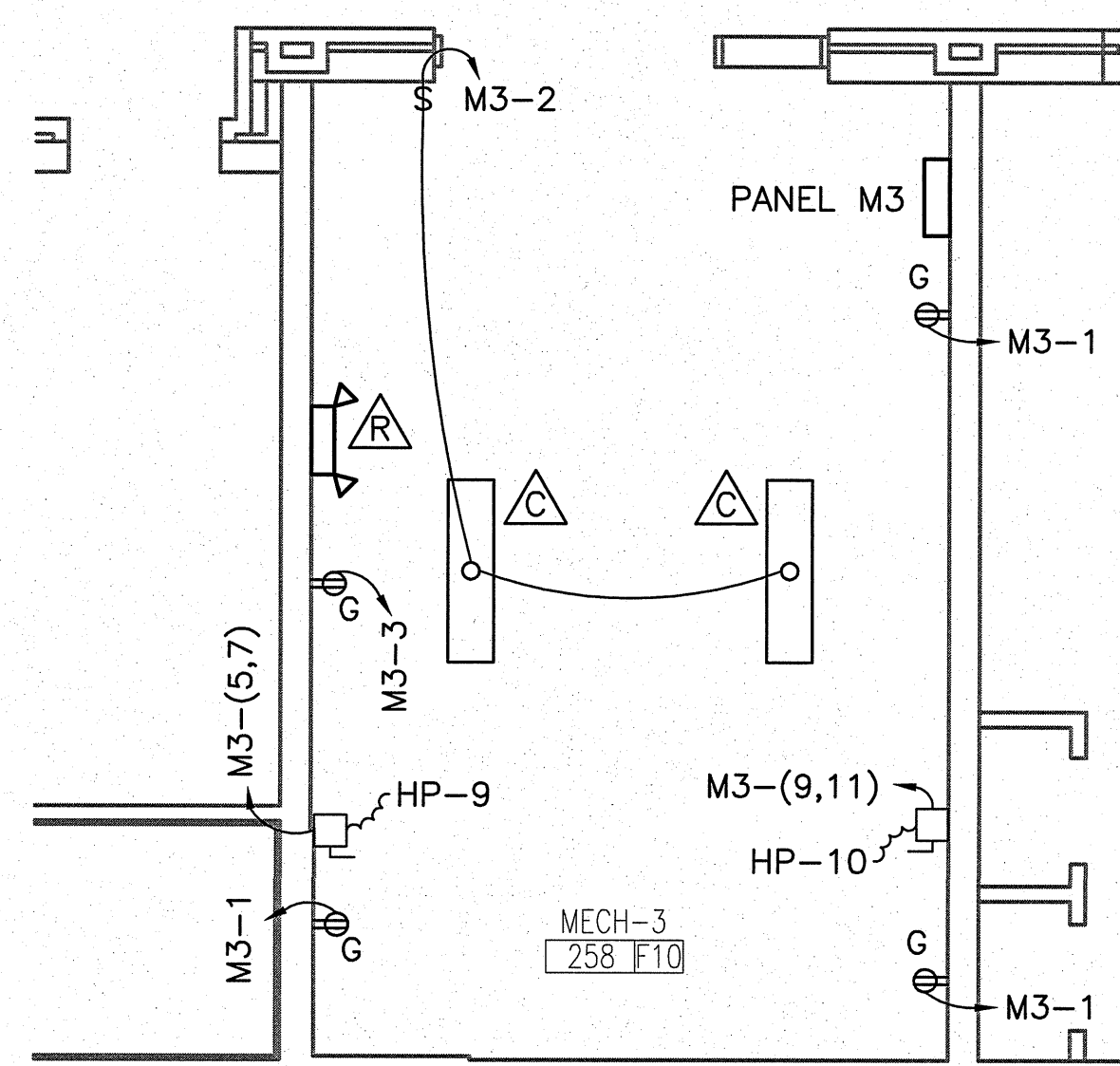
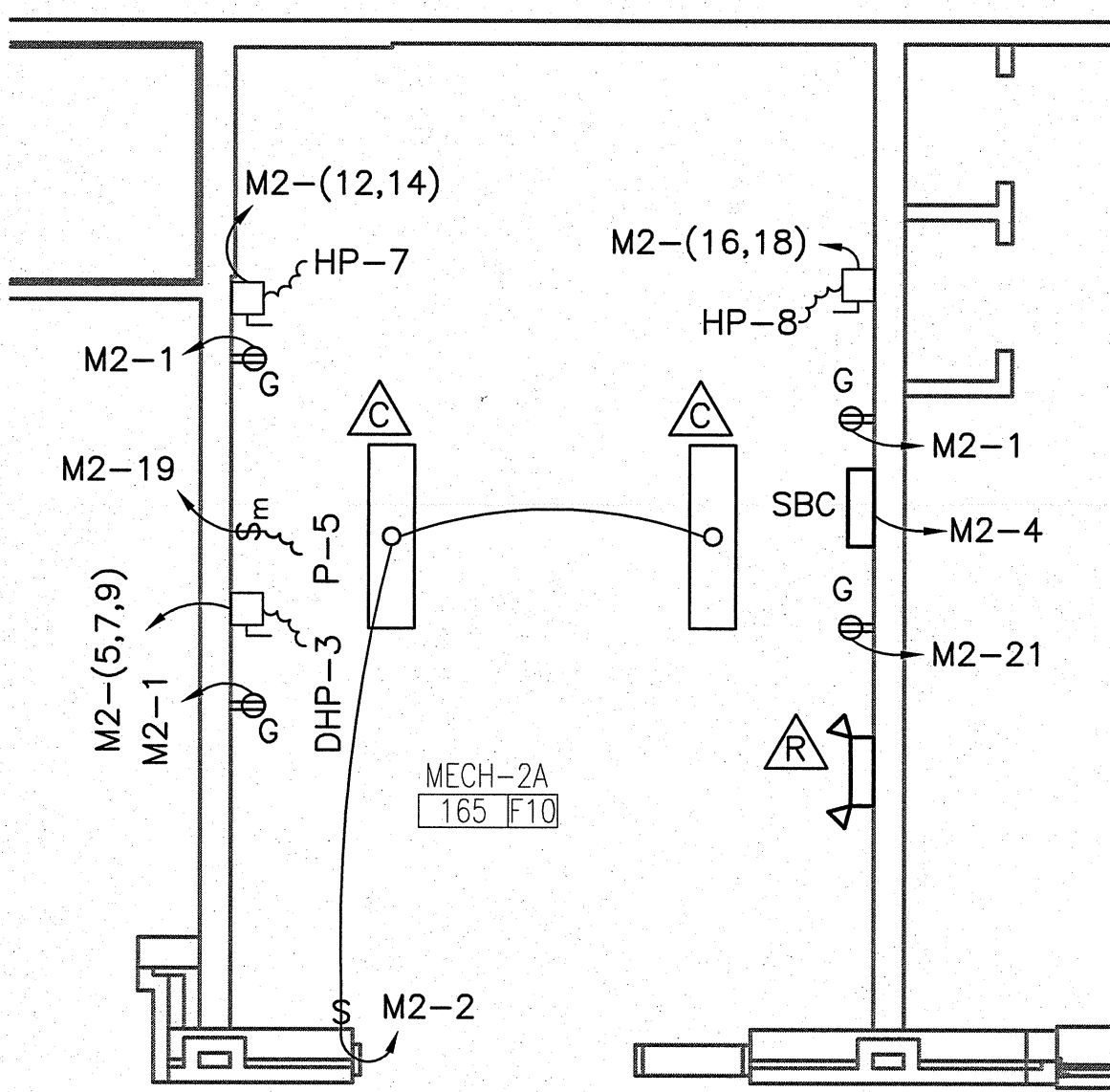
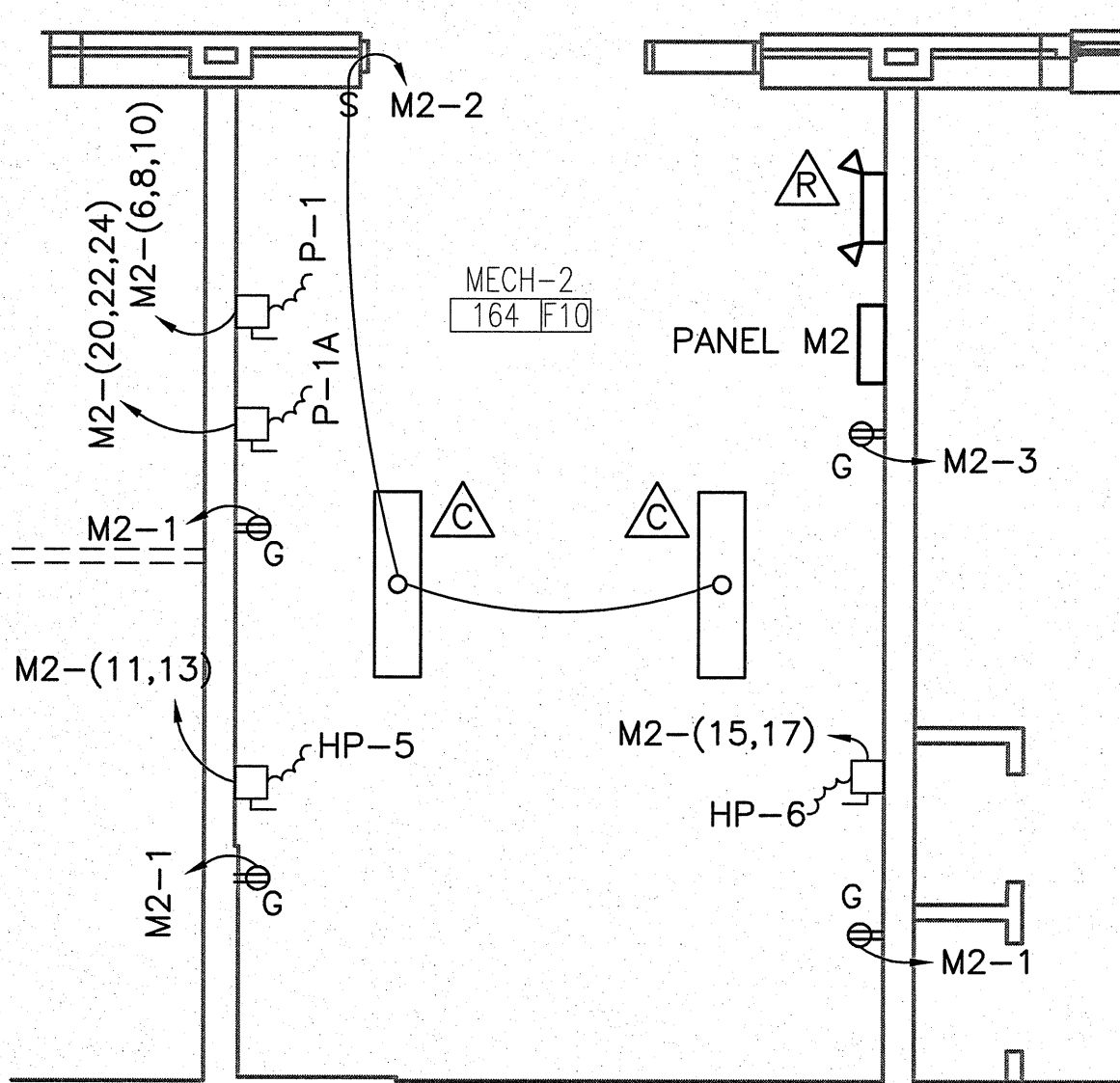
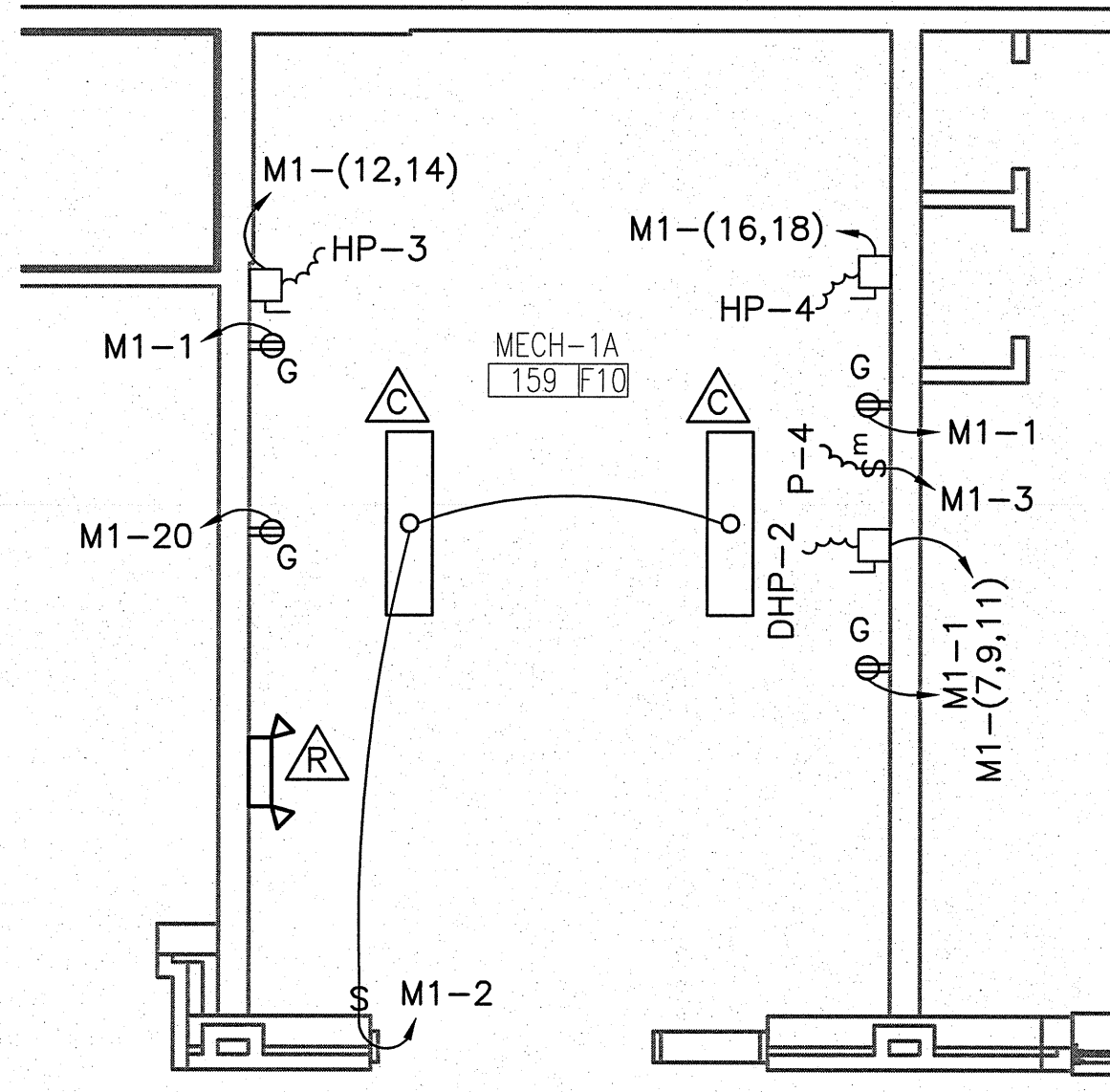
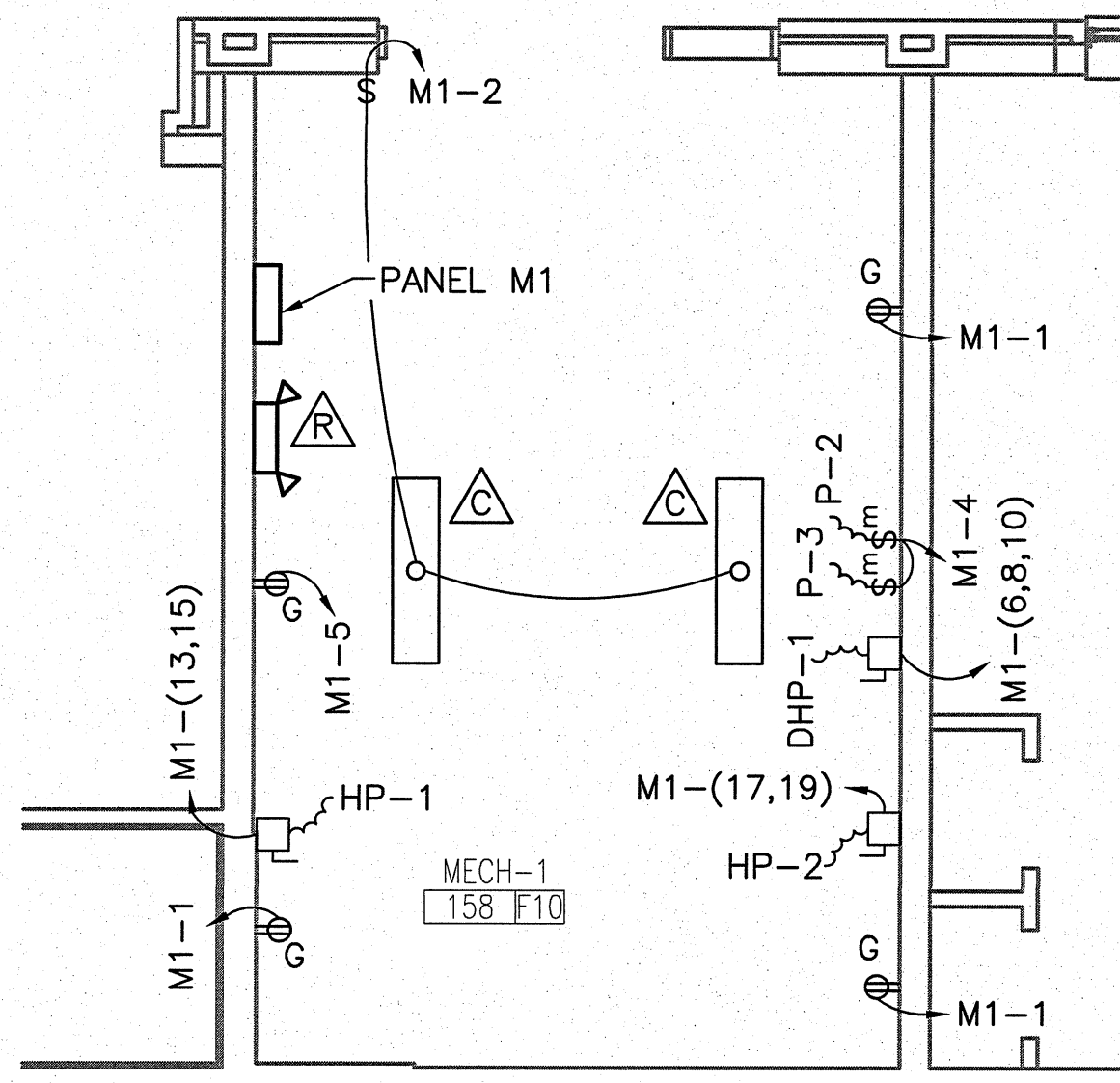
**ATTIC ELECTRICAL NEW WORK PLAN**  
SCALE: 3/32" = 1'-0"

24" 0 4' 8' 16'  
SCALE: 3/32" = 1'-0"  
GRAPHIC SCALE

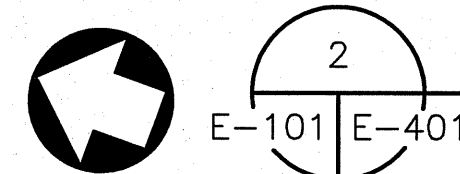


		<b>E-102</b>	
<b>C/E M/S</b> ENGINEERING	<small>CEMS Engineering, Inc. 3009 Iron Horse Drive Ladson, SC 29496 (704) 443-8793 www.cemsengineering.com CEMS Project #081582 Project Manager: R. Alvar</small>		
	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA		
DES. R. ALVAR DR. R. ALVAR CHK. J. BONGIORNO SUBMITTED BY: DESIGN DIR.		<b>REPAIR BEQ</b> <b>BUILDING BB260</b>	
APPROVED: PWO OR OICC DATE:		ATTIC ELECTRICAL NEW WORK PLAN NAVFAC DRAWING NO. <b>60007629</b>	
SATISFACTORY TO: DATE:		F 80091 CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 10-B-0031 SHEET 64 OF 72	

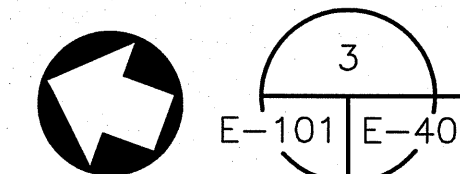




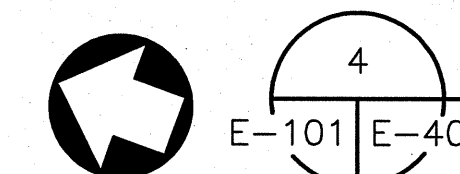
1 ENLARGED ELECTRICAL NEW WORK PLAN  
E-101 E-401 SCALE: 1/4" = 1'-0"



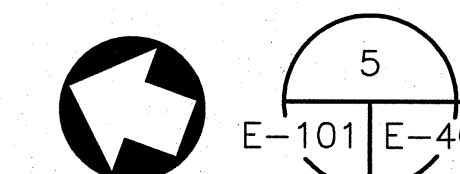
2 ENLARGED ELECTRICAL NEW WORK PLAN  
E-101 E-401 SCALE: 1/4" = 1'-0"



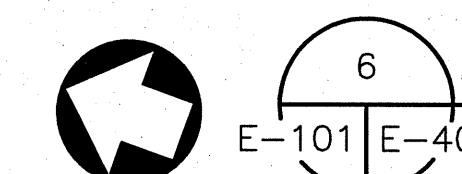
3 ENLARGED ELECTRICAL NEW WORK PLAN  
E-101 E-401 SCALE: 1/4" = 1'-0"



4 ENLARGED ELECTRICAL NEW WORK PLAN  
E-101 E-401 SCALE: 1/4" = 1'-0"



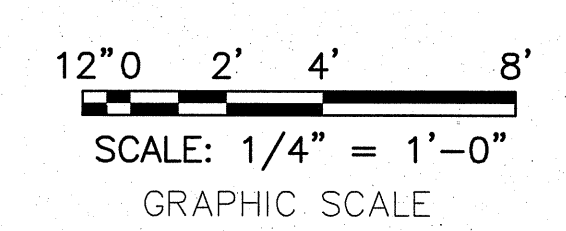
5 ENLARGED ELECTRICAL NEW WORK PLAN  
E-101 E-401 SCALE: 1/4" = 1'-0"



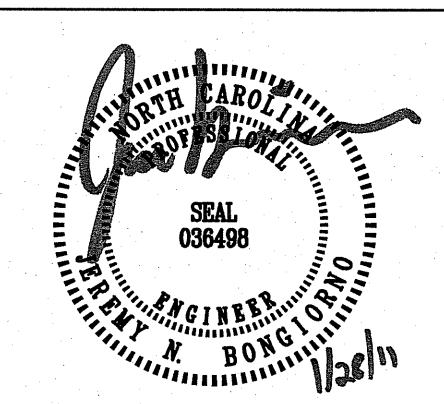
6 ENLARGED ELECTRICAL NEW WORK PLAN  
E-101 E-401 SCALE: 1/4" = 1'-0"

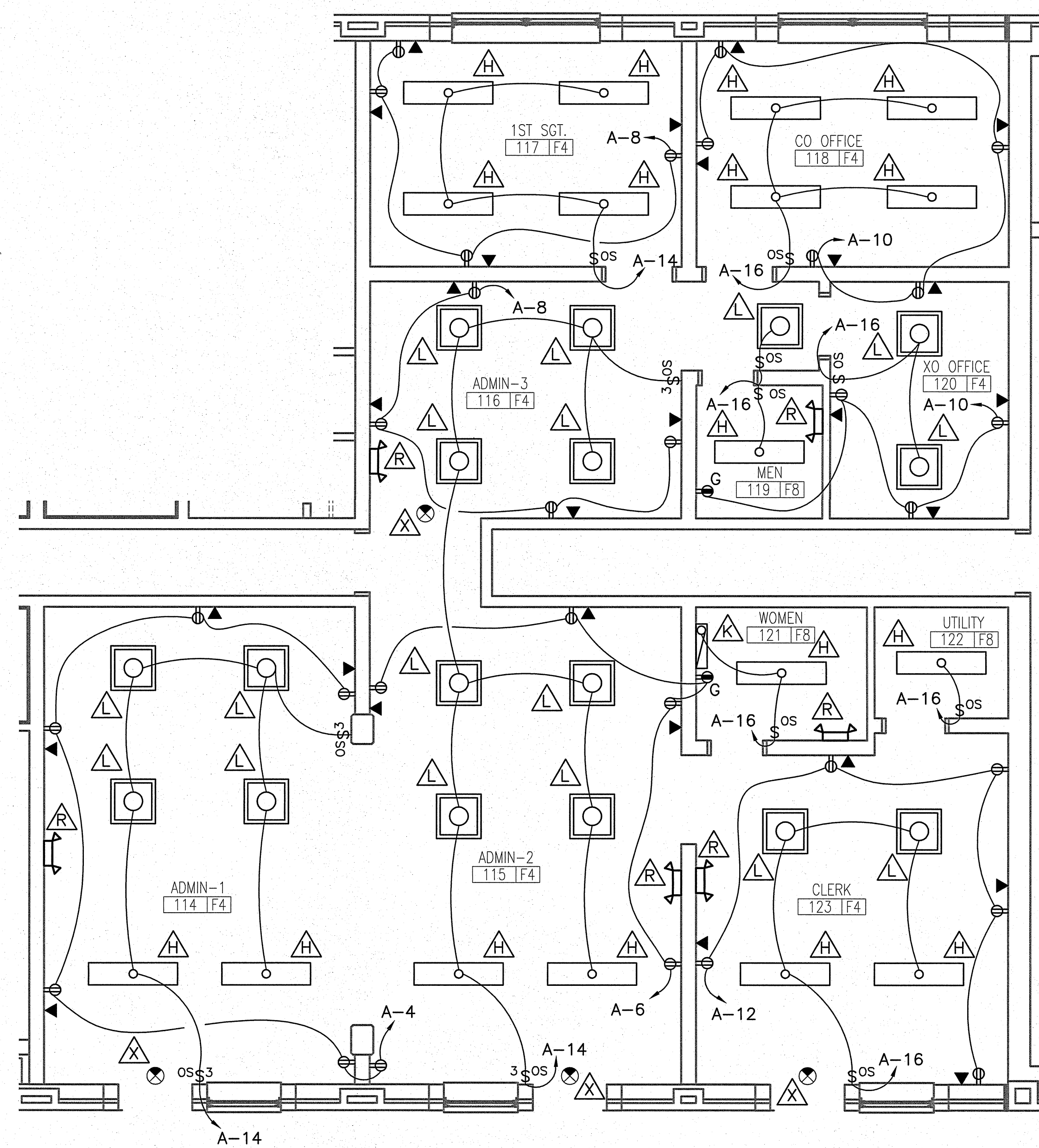
**GENERAL NOTES:**

1. SEE SHEET E-501 FOR LIGHTING FIXTURE SCHEDULE.
2. COORDINATE ELECTRICAL CONNECTIONS WITH MECHANICAL AND PLUMBING EQUIPMENT LOCATIONS.
3. ALL CABLE TV, INTERCOM, TELEPHONE CONDUIT, CONDUCTORS AND CABINETS ASSOCIATED WITH BEQ ROOMS TO REMAIN IN PLACE. PRESERVE AND PROTECT ALL ASSOCIATED COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES. GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR REPAIRS NEEDED TO THE COMMUNICATIONS. COORDINATE WITH LOCAL TELEPHONE SERVICE PROVIDER REGARDING ANY BEQ ROOM PHONE LINE MOVES, ADDITIONS, OR CHANGES. ALL REPAIRS SHALL BE DONE BY A QUALIFIED COMMUNICATIONS SUBCONTRACTOR. CONTACT BASE TELEPHONE REGARDING ANY COMMUNICATIONS QUESTIONS AT 910-451-9439 OR 910-451-4760.
4. PROVIDE ALL COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES ASSOCIATED WITH OFFICE AREAS AND AREAS SERVICED BY BASE TELEPHONE SYSTEM PER CAMP LEJEUNE COMMUNICATIONS SPECIFICATION 27 10 00. ALL WORK SHALL BE DONE BY A QUALIFIED COMMUNICATIONS SUBCONTRACTOR. CONTACT BASE TELEPHONE REGARDING ANY COMMUNICATIONS QUESTIONS AT 910-451-9439 OR 910-451-4760.
5. ALL 'R' FIXTURES TO BE FED FROM UNSWITCHED LEG OF NEAREST LIGHTING CIRCUIT.
6. REPLACE/PROVIDE ALL LIGHT FIXTURES, RECEPTACLES, SWITCHES AND DEVICE PLATES AS SHOWN.

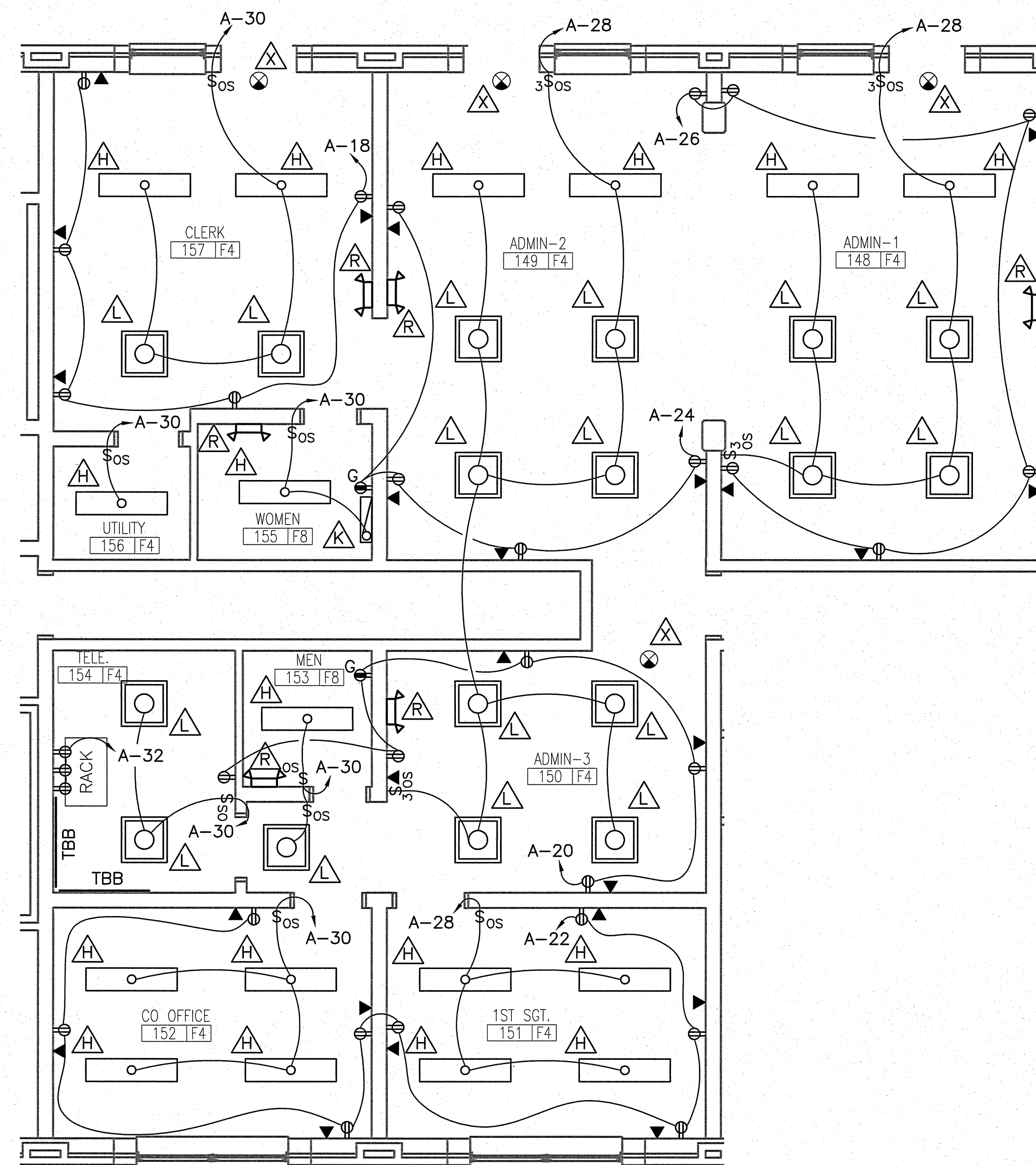


<b>E-401</b>		
<b>CE</b> <b>MS</b> ENGINEERING	CEMS Engineering, Inc. 3009 Iron Horse Drive Ladson, SC 29468 (P)843.875.3637 (F)843.875.4509 www.cemsengineering.com CEMS Project #091562 Project Manager: R. Alvar	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA
<b>REPAIR BEQ BUILDING BB260</b>		
ENLARGED ELECTRICAL NEW WORK PLANS		
DES. DR. R. ALVAR	DATE	SIZE CODE IDENT NO. NAVFAC DRAWING NO.
DR. R. ALVAR		F 80091 60007630
CHK. J. BONGIORNO		CONSTR. CONTR. NO. N40085-10-B-0031
SUBMITTED BY:		SCALE: AS NOTED SPEC. 10-B-0031 SHEET 65 OF 72
DESIGN DIR.		
APPROVED: PWO OR OICC		
SATISFACTORY TO:		





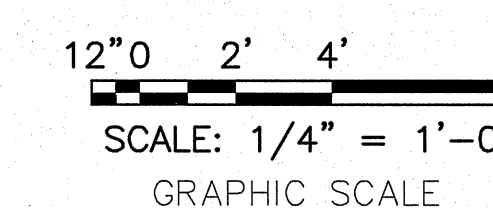
1  
E-101 | E-402  
ENLARGED FIRST FLOOR ELECTRICAL NEW WORK PLAN  
SCALE: 1/4" = 1'-0"



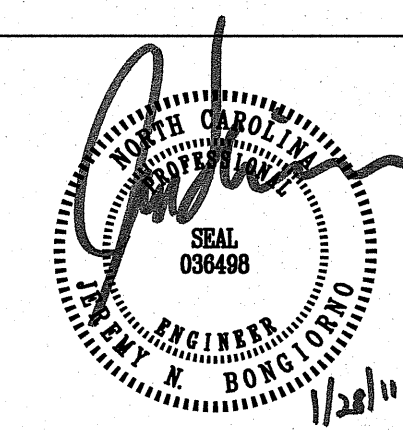
2  
E-101 | E-402  
ENLARGED FIRST FLOOR ELECTRICAL NEW WORK PLAN  
SCALE: 1/4" = 1'-0"

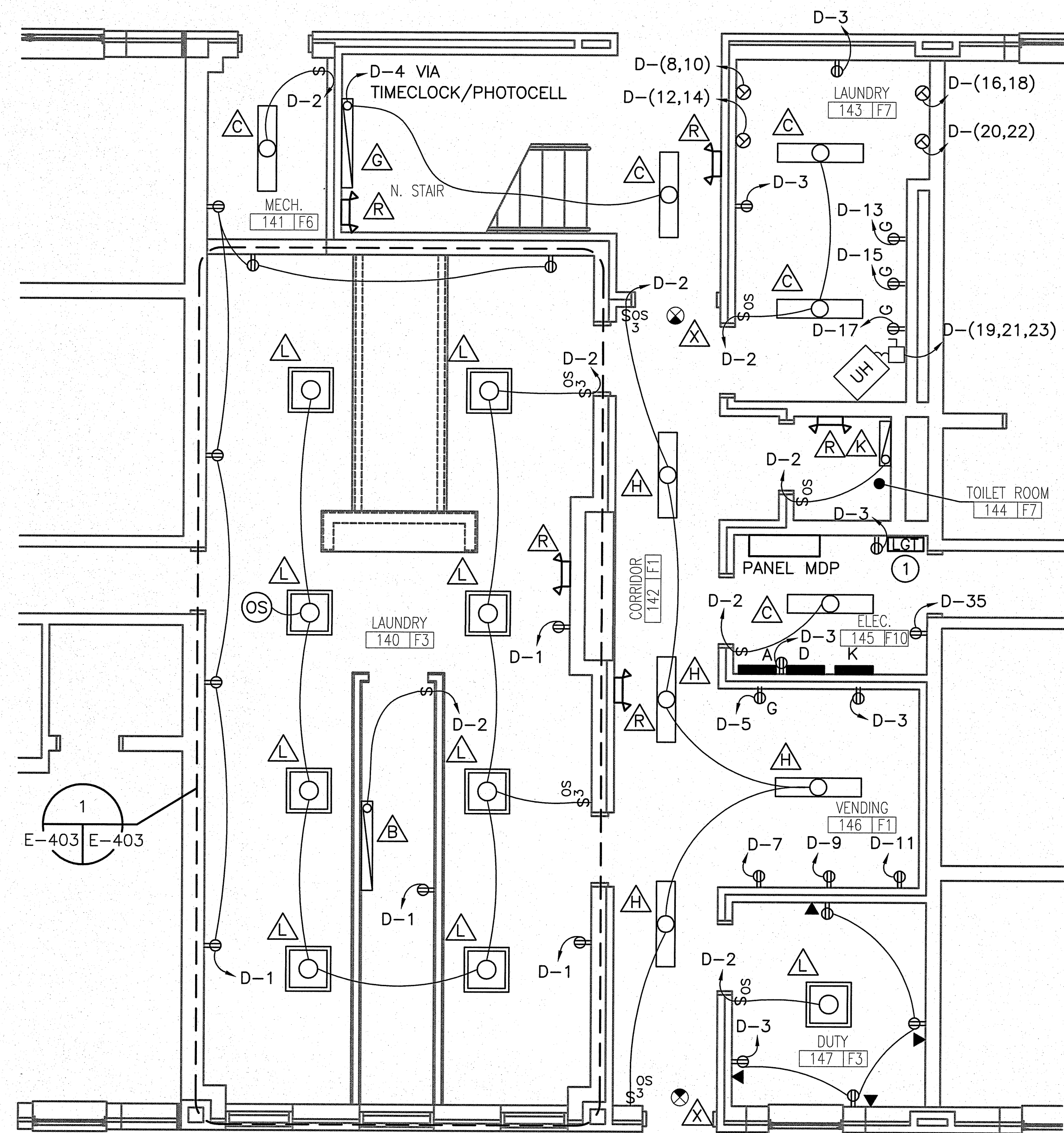
**GENERAL NOTES:**

1. REPLACE/PROVIDE ALL LIGHT FIXTURES, RECEPTACLES, SWITCHES AND DEVICE PLATES AS SHOWN.
2. SEE SHEET E-501 FOR LIGHTING FIXTURE SCHEDULE.
3. ALL 'R' AND 'X' FIXTURES TO BE FED FROM UNSWITCHED LEG OF NEAREST LIGHTING CIRCUIT.
4. PROVIDE ALL COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES ASSOCIATED WITH OFFICE AREAS AND AREAS SERVICED BY BASE TELEPHONE SYSTEM PER CAMP LEJUNE COMMUNICATIONS SPECIFICATION 27 10 00. ALL WORK SHALL BE DONE BY A QUALIFIED COMMUNICATIONS SUBCONTRACTOR. CONTACT BASE TELEPHONE REGARDING ANY COMMUNICATIONS QUESTIONS AT 910-451-9439 OR 910-451-4760.

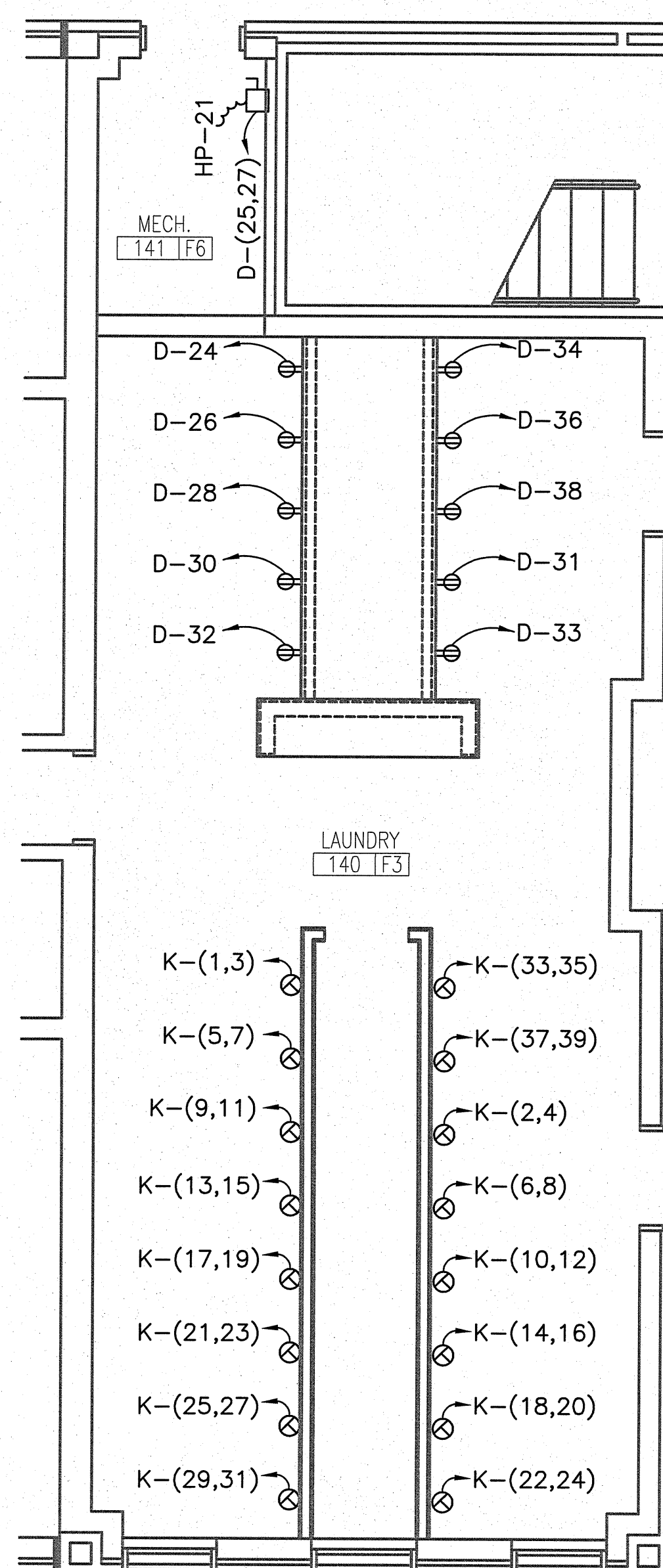


<b>E-402</b>	
 <b>CEMS</b> ENGINEERING	CEMS Engineering, Inc. 3009 Iron Horse Drive Lenoir, NC 28645 (704) 443-8715, 3637 (704) 443-8715, 4509 www.cemsgroup.com CEMS Project #081562 Project Manager: R. Alvar
	DEPARTMENT OF THE NAVY    NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJUNE, NORTH CAROLINA
DES. R. ALVAR DR. R. ALVAR CHK. J. BONGIORNO SUBMITTED BY: DESIGN DIR.	REPAIR BEQ BUILDING BB260
APPROVED: PWO OR OICC    DATE: _____ SATISFACTORY TO:    DATE: _____	ENLARGED ELECTRICAL NEW WORK PLANS NAVFAC DRAWING NO. <b>60007630A</b> F 80091 CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED    SPEC. 10-B-0031    SHEET 65A OF 72





1  
E-101 E-403 SCALE: 1/4" = 1'-0"



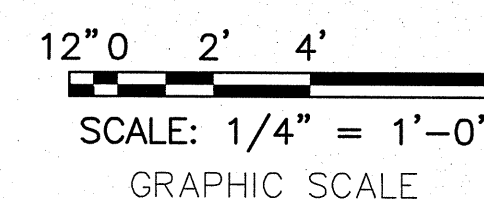
1  
E-403 E-403 SCALE: 1/4" = 1'-0"

**NEW WORK KEYNOTES:**

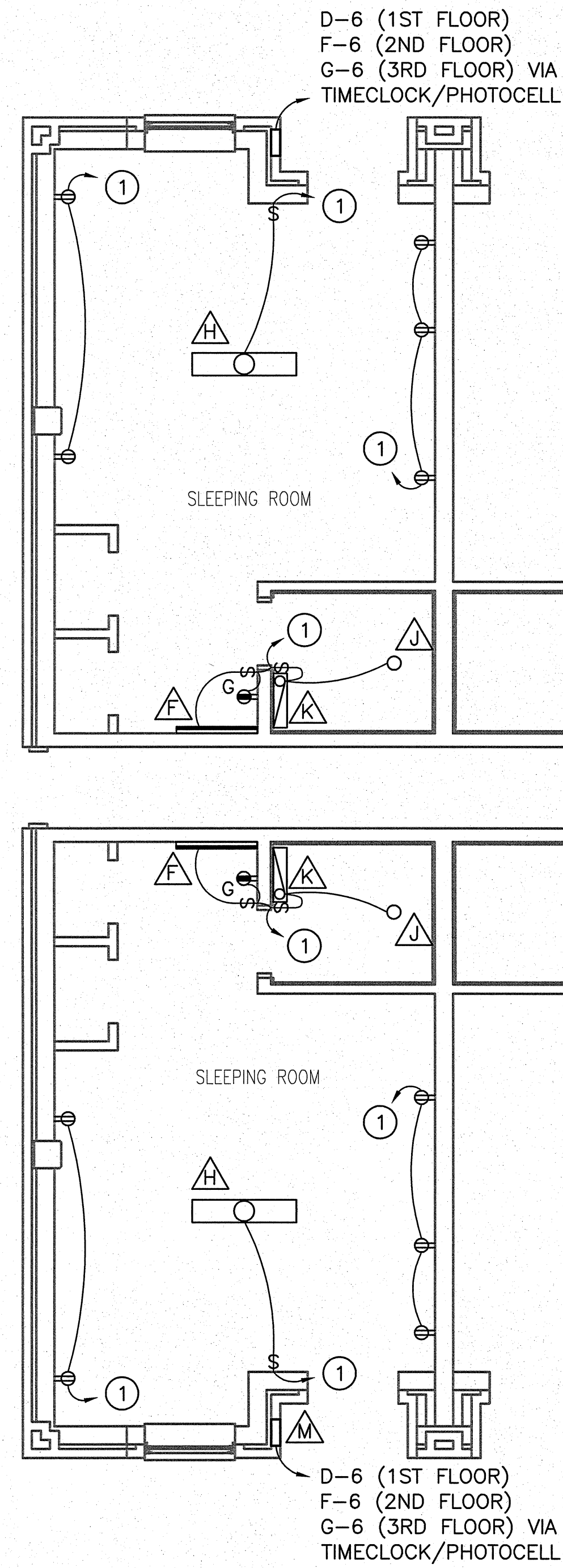
- 1. INSTALL NEW LIGHTING CONTROL PANEL WITH ELECTRONIC TIME CLOCK AND PHOTO ELECTRIC EYE CONTROL. INTEGRAL CONTACTOR TO BE 6 POLE, 20 AMP RATED, MAGNETIC LATCH HOLD.

**GENERAL NOTES:**

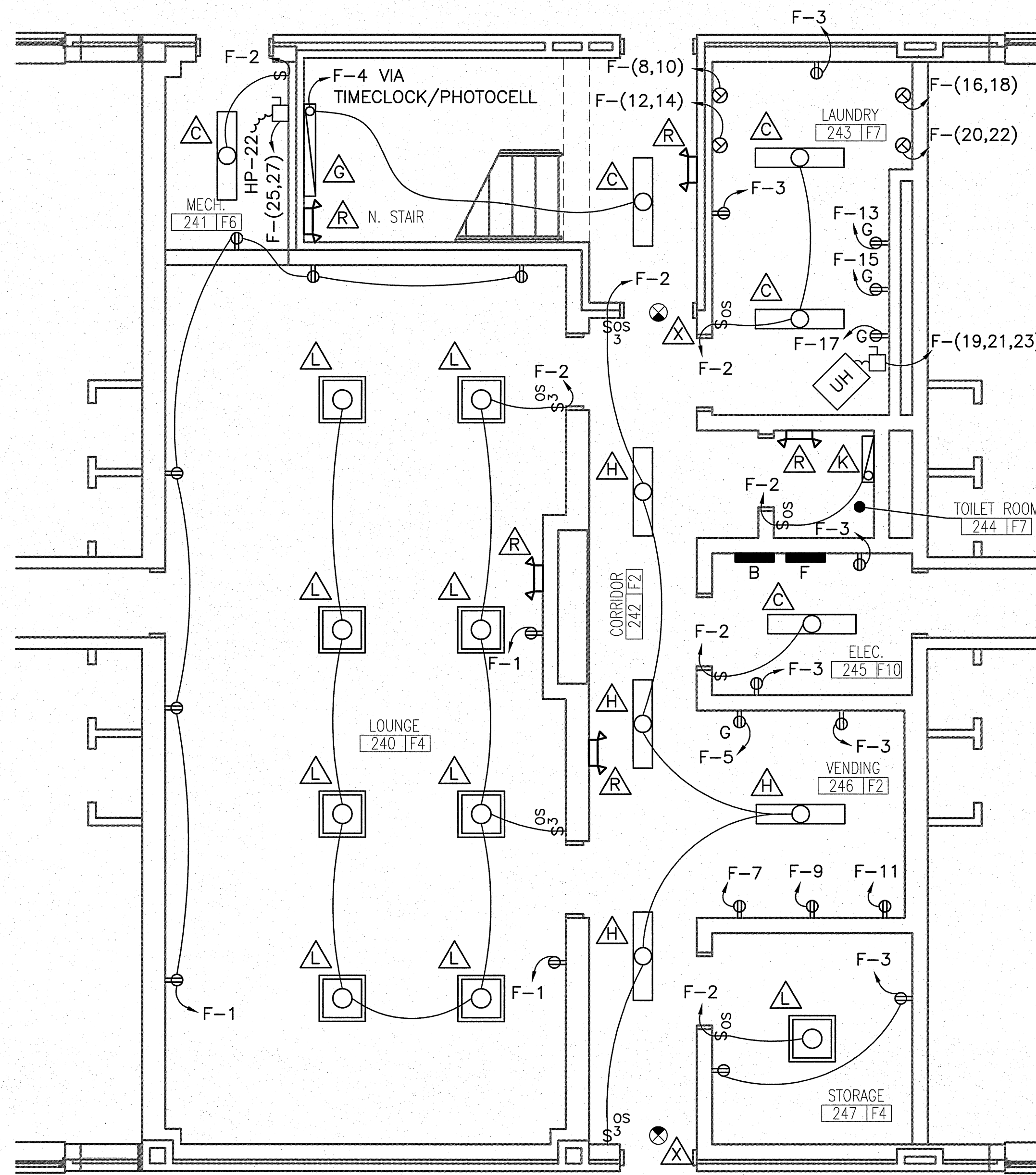
1. REPLACE/PROVIDE ALL LIGHT FIXTURES, RECEPTACLES, SWITCHES AND DEVICE PLATES AS SHOWN.
2. SEE SHEET E-501 FOR LIGHTING FIXTURE SCHEDULE.
3. ALL 'R' AND 'X' FIXTURES TO BE FED FROM UNSWITCHED LEG OF NEAREST LIGHTING CIRCUIT.
4. PROVIDE ALL COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES ASSOCIATED WITH OFFICE AREAS AND AREAS SERVICED BY BASE TELEPHONE SYSTEM PER CAMP LEJEUNE COMMUNICATIONS SPECIFICATION 27 10 00. ALL WORK SHALL BE DONE BY A QUALIFIED COMMUNICATIONS SUBCONTRACTOR. CONTACT BASE TELEPHONE REGARDING ANY COMMUNICATIONS QUESTIONS AT 910-451-9439 OR 910-451-4760.



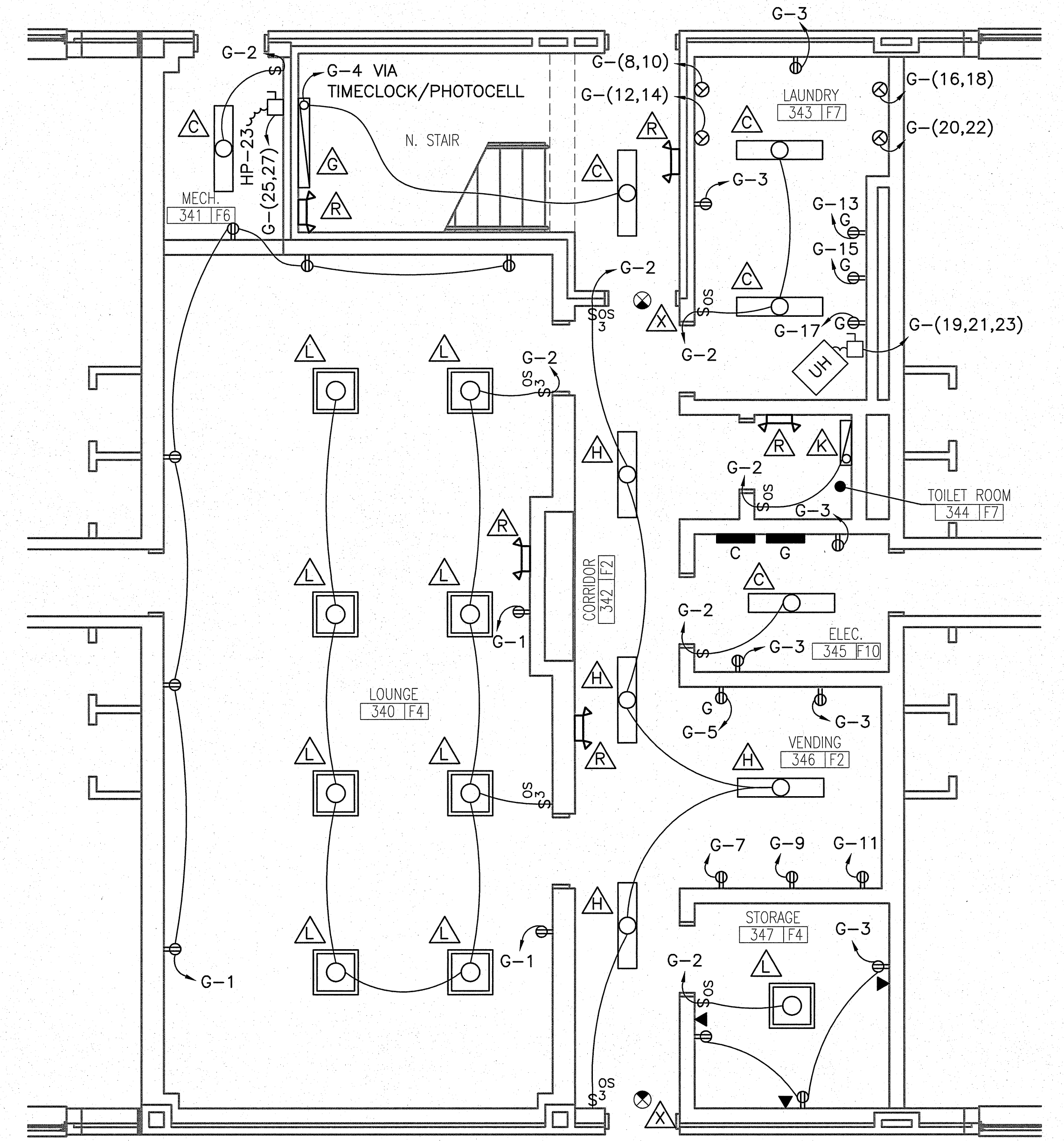
		<b>E-403</b>	
		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. R. ALVAR DR. R. ALVAR CHK. J. BONGIORNO SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC		REPAIR BEQ BUILDING BB260	
SATISFACTORY TO:		ENLARGED ELECTRICAL NEW WORK PLANS NAVFAC DRAWING NO. <b>60007631</b> CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 10-B-0031 SHEET 66 OF 72	



**1** ENLARGED ELECTRICAL NEW WORK PLAN (TYP)  
E-101 E-404 SCALE: 1/4" = 1'-0"



**2** ENLARGED SECOND FLOOR ELECTRICAL NEW WORK PLAN  
E-101 E-404 SCALE: 1/4" = 1'-0"



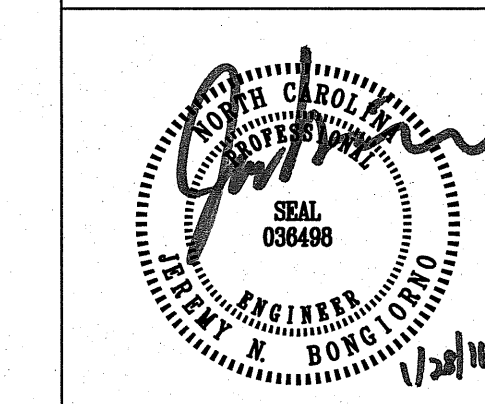
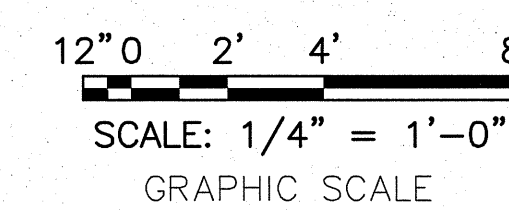
**2** ENLARGED THIRD FLOOR ELECTRICAL NEW WORK PLAN  
E-101 E-404 SCALE: 1/4" = 1'-0"

**NEW WORK KEYNOTES:**

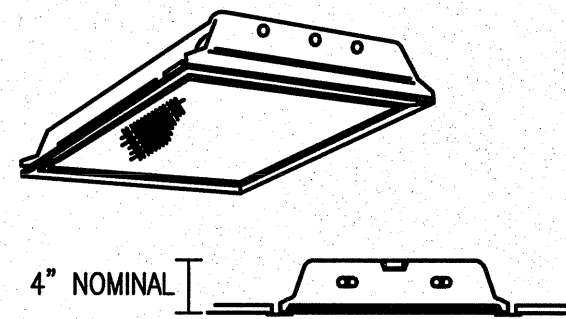
- ① SEE SHEET E-601 FOR CIRCUITING.

**GENERAL NOTES:**

- SEE SHEET E-501 FOR LIGHTING FIXTURE SCHEDULE.
- ALL 'R' AND 'X' FIXTURES TO BE FED FROM UNSWITCHED LEG OF NEAREST LIGHTING CIRCUIT.
- REPLACE/PROVIDE ALL LIGHT FIXTURES, RECEPTACLES, SWITCHES AND DEVICE PLATES AS SHOWN.
- ALL CABLE TV, INTERCOM, TELEPHONE CONDUIT CONDUCTORS AND CABINETS ASSOCIATED WITH BEQ ROOMS TO REMAIN IN PLACE PRESERVE AND PROTECT ALL COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES. GENERAL CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE OR REPAIRS NEEDED TO THE COMMUNICATIONS. COORDINATE WITH LOCAL TELEPHONE SERVICE PROVIDER REGARDING ANY BEQ ROOM PHONE LINE MOVES, ADDITIONS, OR CHANGES. ALL REPAIRS SHALL BE DONE BY A QUALIFIED COMMUNICATIONS SUBCONTRACTOR. CONTACT BASE TELEPHONE FOR ANY QUESTIONS AT 910-451-9439 OR 910-451-4760.
- PROVIDE ALL COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES ASSOCIATED WITH OFFICE AREAS AND AREAS SERVICED BY BASE TELEPHONE SYSTEM PER CAMP LEJEUNE COMMUNICATIONS SPECIFICATION 27 10 00. ALL WORK SHALL BE DONE BY A QUALIFIED COMMUNICATIONS SUBCONTRACTOR. CONTACT BASE TELEPHONE REGARDING ANY COMMUNICATIONS QUESTIONS AT 910-451-9439 OR 910-451-4760.



<b>CE M/S</b> ENGINEERING <small>CEMS Engineering, Inc. 3009 Iron Horse Drive Lafayette, SC 29498 (704) 443-8715, 3637 (704) 443-8715, 4509 www.cemsengineering.com CEMS Project #081502 Project Manager: R. Alvar</small>		<b>E-404</b>	
		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA	
DES. R. ALVAR		<b>REPAIR BEQ BUILDING BB260</b>	
DR. R. ALVAR			
CHK. J. BONGIORNO		ENLARGED ELECTRICAL NEW WORK PLANS NAVFAC DRAWING NO.	
SUBMITTED BY:			
DESIGN DIR.		<b>F 80091 60007632</b>	
APPROVED: PWO OR OICC DATE:			
SATISFACTORY TO: DATE:		CONST. CONTR. NO. N40085-10-B-0031 SCALE: AS NOTED SPEC. 10-B-0031 SHEET 67 OF 72	



**LUMINAIRE REQUIREMENTS:**

- HOUSING - DIE-FORMED, COLD-ROLLED STEEL, WITH REINFORCEMENT RIBS FOR RIGIDITY. ENDCAPS SECURED WITH TABS, SCREWS OR RIVETS. FIXTURE SHALL NOT PERMANENTLY DEFORM OUT OF "SQUARE" WHEN PICKED UP FROM ANY CORNER, DEPTH AS INDICATED UNLESS SPECIFICALLY MANUFACTURED FOR OPTIMAL USE WITH T8 LAMPS.
- FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
- LENS - 100% ACRYLIC, CLEAR PRISMATIC, PATTERN #12 WITH MINIMUM 0.125" THICKNESS.
- LAMPS - COMPACT FLUORESCENT TTS, OR LINEAR T8 TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
- BALLAST - CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR ( $\geq 95$ ), ELECTRONIC TYPE WITH SOUND RATING A. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR BALLAST OPTIONS AND SPECIFICS.
- CERTIFICATION - UL LISTED AND LABELED.
- PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:
 

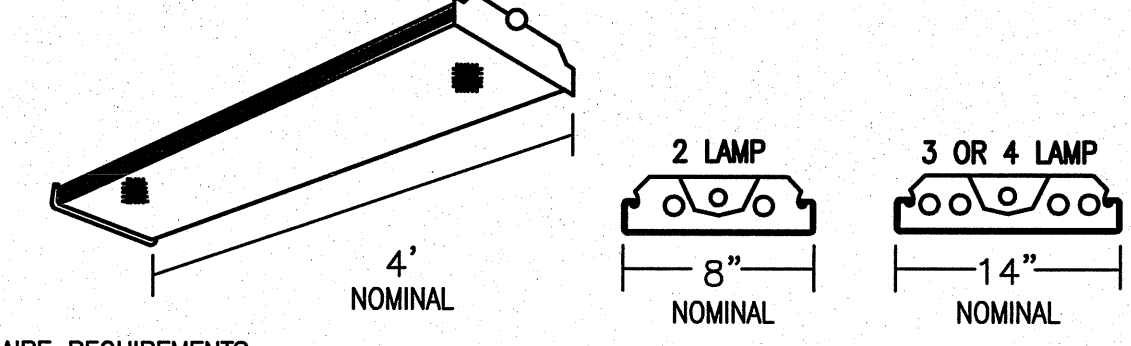
2 LAMP (F40/TTS)		3 LAMP (F40/TTS)	
RCR	CU	RCR	CU
1	72	1	66
2	64	2	59
3	58	3	53
4	52	4	47

EFFICIENCY - 67%      EFFICIENCY - 62%

8. SEE NL-7 FOR OPTIONAL REQUIREMENTS ASSOCIATED WITH THIS FIXTURE. INCLUDE ALL INFORMATION IN LIGHTING FIXTURE SCHEDULE.

PRISMATIC LENS RECESSED 2' X 2' FLUORESCENT TROFFER

REVISED: AUGUST 2004 LIGHTING PLATE: NL-3



**LUMINAIRE REQUIREMENTS:**

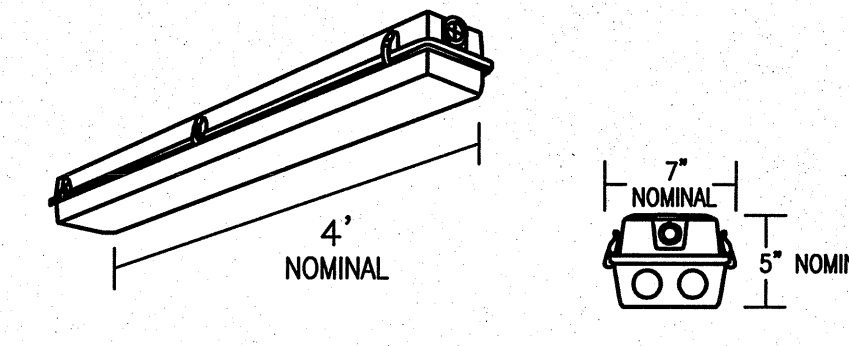
- HOUSING - DIE-FORMED, COLD-ROLLED STEEL, WITH REINFORCEMENT RIBS FOR RIGIDITY. ENDCAPS SHALL BE SAME MATERIAL AS HOUSING, SECURED WITH TABS, SCREWS OR RIVETS. FIXTURE SHALL NOT PERMANENTLY DEFORM OUT OF "SQUARE" WHEN PICKED UP FROM ANY CORNER. ABLE TO BE FED FROM TOP OR END OF FIXTURE.
- FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
- LENS - 100% ACRYLIC, CLEAR PRISMATIC, LINEAR SIDE PRISMS AND PYRAMIDAL BOTTOM PRISMS FOR BRIGHTNESS CONTROL AND MINIMAL LAMP IMAGING. RESPECTFULLY. LENS SHALL BE CAPABLE OF BEING HINGED FROM EITHER SIDE.
- LAMPS - LINEAR FLUORESCENT T8, TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
- BALLAST - CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR ( $\geq 95$ ), ELECTRONIC TYPE WITH SOUND RATING A. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR BALLAST OPTIONS AND SPECIFICS.
- CERTIFICATION - UL LISTED AND LABELED.
- PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:
 

2 LAMP (F32/T8)	
RCR	CU
1	76
2	67
3	60
4	54

EFFICIENCY - 76%

FLUORESCENT WRAPAROUND - UTILITY AREAS

REVISED: AUGUST 2004 LIGHTING PLATE: NL-11



**LUMINAIRE REQUIREMENTS:**

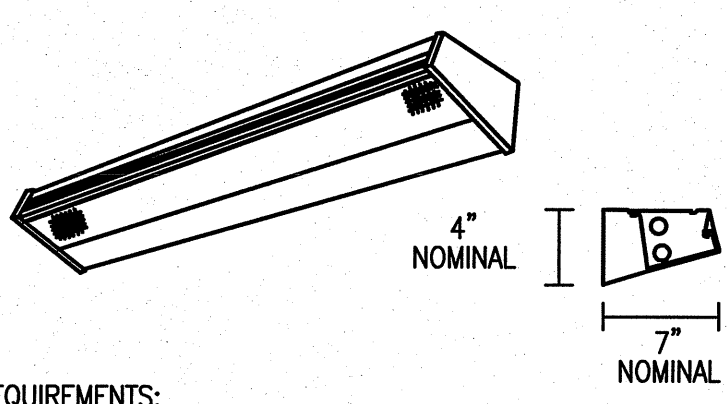
- HOUSING - ONE-PIECE, IMPACT-RESISTANT, FIBERGLASS REINFORCED POLYESTER WITH ENCLOSED COLD-ROLLED STEEL WIREWAY.
- FINISH - STEEL REFLECTOR WITH MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
- LENS - 100% CLEAR ACRYLIC/DR OPTICAL DIFFUSER. STIPPLED INTERIOR SURFACES AND SMOOTH EXTERIOR. CLOSED CELL NEOPRENE GASKET WITH CAPTIVE NONMETALLIC, SNAP-ACTION CAM LATCHES TO SECURE LENS TO HOUSING.
- LAMPS - LINEAR FLUORESCENT T8, TYPICALLY WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
- BALLAST - CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR ( $\geq 95$ ), ELECTRONIC TYPE WITH SOUND RATING A. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR BALLAST OPTIONS AND SPECIFICS.
- CERTIFICATION - UL LISTED AND LABELED. SUITABLE FOR DAMP OR WET LOCATION AS DESIGNATED IN LIGHTING FIXTURE SCHEDULE.
- PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:
 

2 LAMP (F32/T8)	
RCR	CU
1	76
2	67
3	58
4	51

EFFICIENCY - 76%

FIBERGLASS HOUSING DAMP/WET LOCATION FLUORESCENT

REVISED: AUGUST 2004 LIGHTING PLATE: NL-19

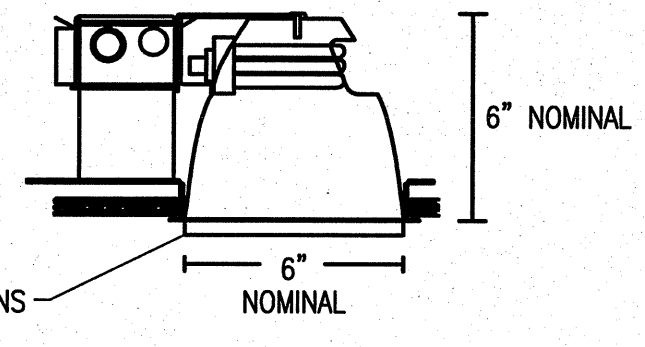


**LUMINAIRE REQUIREMENTS:**

- HOUSING - DIE-FORMED, HEAVY-GAUGE, COLD-ROLLED STEEL WITH ENDCAPS MADE FROM THE SAME MATERIAL AS HOUSING.
- FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%). BAKED WHITE ENAMEL FINISH; DARK BRONZE OR BLACK FINISH AVAILABLE. SEE LIGHTING FIXTURE SCHEDULE.
- LENS - 100% ACRYLIC, HIGH-IMPACT, CLEAR PRISMATIC DIFFUSER.
- LAMPS - LINEAR FLUORESCENT T8 TYPICALLY, WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
- BALLAST - CLASS P, THERMALLY-PROTECTED, HIGH POWER FACTOR ( $\geq 95$ ), ELECTRONIC TYPE WITH SOUND RATING A. SEE SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR BALLAST OPTIONS AND SPECIFICS.
- CERTIFICATION - UL LISTED AND LABELED.
- FIXTURE TYPES -
  - TYPE A - 2' LENGTH W/ 2-T8 FLUORESCENT LAMPS
  - TYPE B - 3' LENGTH W/ 2-T8 FLUORESCENT LAMPS
  - TYPE C - 4' LENGTH W/ 2-T8 FLUORESCENT LAMPS
- OPTIONS -
  - FIXED UP AND DOWN LIGHT SWITCHED UP AND/OR DOWN LIGHT DOWN LIGHT ONLY WITH SOLID TOP

WALL-MOUNTED FLUORESCENT

REVISED: AUGUST 2004 LIGHTING PLATE: NL-21

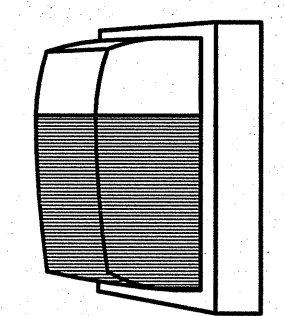


**LUMINAIRE REQUIREMENTS:**

- HOUSING - ONE-PIECE, DIE-STAMPED, COLD ROLLED STEEL OR ACRYLIC-ENAMELED ALUMINUM. PROVIDE WITH PRE-WIRED JUNCTION BOX HAVING SNAP-ON ACCESS COVER. ACCESS TO JUNCTION BOX FROM BELOW CEILING SHALL BE PROVIDED THROUGH FIXTURE AFTER REMOVAL OF REFLECTOR.
- REFLECTOR - ONE-PIECE, CLEAR, SPUN ALUMINUM, IRIDESCENCE-SUPPRESSED.
- BALLAST - CLASS P, MULTI-VOLT (120V-277V INPUT), HIGH POWER FACTOR ( $\geq 95$ ), PROGRAMMED RAPID START ELECTRONIC TYPE WITH  $\leq 10\%$  TOTAL HARMONIC DISTORTION. BALLAST SHALL BE CAPABLE OF UNIVERSALLY OPERATING 28W OR 32 WATT LAMPS.
- LAMPS - MULTI-TUBE, COMPACT FLUORESCENT WITH 4-PIN BASE. PROVIDE WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
- LENS/TRIM - \* OPTIONS INCLUDE DROPPED OR FLAT OPAL GLASS; OR FRESNEL GLASS. SEE LIGHTING FIXTURE SCHEDULE.
- CERTIFICATION - UL LISTED AND LABELED FOR DAMP LOCATIONS.

RECESSED COMPACT FLUORESCENT SHOWER LIGHT

REVISED: AUGUST 2004 LIGHTING PLATE: NL-38



**LUMINAIRE REQUIREMENTS:**

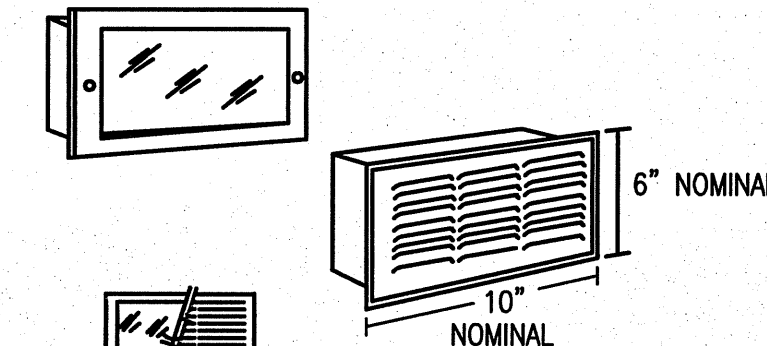
- HOUSING SHALL BE ULTRA-VIOLET & IMPACT RESISTANT POLYCARBONATE DARK BRONZE. APPROX. 10" H X 5" W X 5" D.
- PROVIDE WITH ALUMINUM OR POLYCARBONATE BACK PLATE.
- PROVIDE POLYCARBONATE ULTRA-VIOLET RESISTANT PRISMATIC LENS.
- PROVIDE HIGH POWER FACTOR ELECTRONIC BALLAST.
- PROVIDE INTERNAL GREEN GROUNDING SCREW.
- PROVIDE UL WET LABELED.
- PROVIDE MAINTENANCE FREE, SEALED NICKEL CADMIUM BATTERY. BATTERIES SUPPLIED SHALL HAVE A 5 YEAR FULL WARRANTY. BATTERY CHARGER SHALL MEET UL 924 STANDARD.
- POWER REQUIREMENTS: 120 VOLT, 0.15 AMPS, & 17 WATTS.

**LAMP REQUIREMENTS:**  
 NORMAL ILLUMINATION: 1-13 WATT COMPACT FLUORESCENT,  
 EMERGENCY ILLUMINATION: 2-4 VOLT, 4 WATT DC INCANDESCENT

EXTERIOR WALL MOUNT FLUORESCENT COMBINATION EMERGENCY LUMINAIRE

SKETCH DATE: \_\_\_\_\_ STYLE: \_\_\_\_\_ NL-26A

FIXTURE SYMBOL	SKETCH NO. & TYPE	NUMBER AND TYPE OF LAMPS	VOLTAGE	MOUNTING	NOTES
A	NL-26A	NORM 1-F13 EMRG 2-4W INCAN	120	WALL MTD.	
B	NL-19	2-F32/T8	120	WALL MTD.	(1)
C	NL-19	2-F32/T8	120	SURFACE CEILING	(1)
D	NL-21 TYPE B	2-F25/T8	120	WALL MTD.	(2)
E	NL-21 TYPE C	2-F32/T8	120	WALL MTD.	(2)
F	NL-11	2-F32/T8	120	SURFACE CEILING	
G	NL-38	1-F26/TRT	120	RECESSED CEILING	(5)
H	NL-21 TYPE A	2-F17/T8	120	WALL MTD.	(2)
I	NL-3	2-F40/TT5	120	RECESSED CEILING	
J	NL-39	2-F7/T4	120	RECESSED WALL	(3)
K	NL-67	2-12W HALOGEN	120	WALL MTD. 8'-0" AFF	
L	NL-61A	LED	120	SURFACE CEILING	(4)

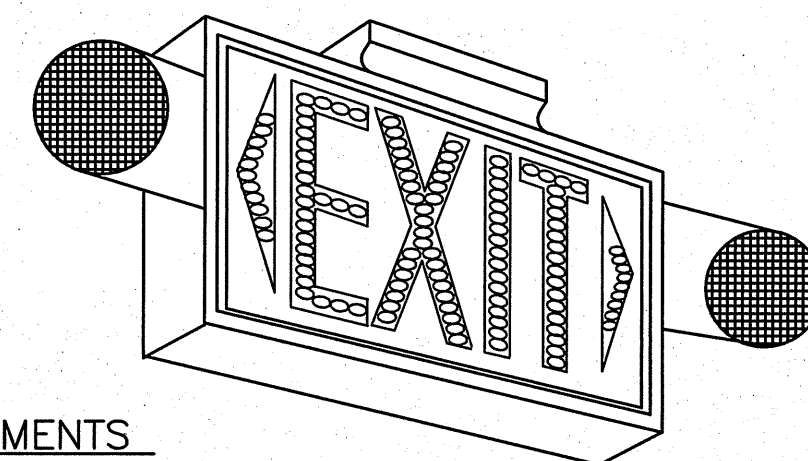


**LUMINAIRE REQUIREMENTS:**

- HOUSING - DIE-CAST ALUMINUM WITH WHITE BAKED ENAMEL FINISH.
- REFLECTOR - ONE-PIECE, SPECULAR ALUMINUM.
- FACEPLATE - DIE-CAST ALUMINUM IN LOUVERED OR OPEN LENS DESIGN. FINISH OPTIONS INCLUDE BRUSHED SATIN FINISH, BRONZE, BLACK, OR WHITE. FACEPLATE SHALL INCLUDE PRISMATIC OR DIFFUSE GLASS LENS. PROVIDE FULLY GASKETED FACEPLATE WHEN USED IN DAMP OR WET ENVIRONMENTS.
- BALLAST - CLASS P, MULTI-VOLT (120V-277V INPUT), HIGH POWER FACTOR ( $\geq 95$ ), PROGRAMMED RAPID START ELECTRONIC TYPE WITH  $\leq 10\%$  TOTAL HARMONIC DISTORTION.
- LAMPS - MULTI-TUBE, COMPACT FLUORESCENT WITH 4-PIN BASE. PROVIDE WITH WATTAGES AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
- CERTIFICATION - UL LISTED AND LABELED FOR DAMP OR WET LOCATIONS AS INDICATED.

STEP/NIGHT LIGHT

REVISED: AUGUST 2004 LIGHTING PLATE: NL-39



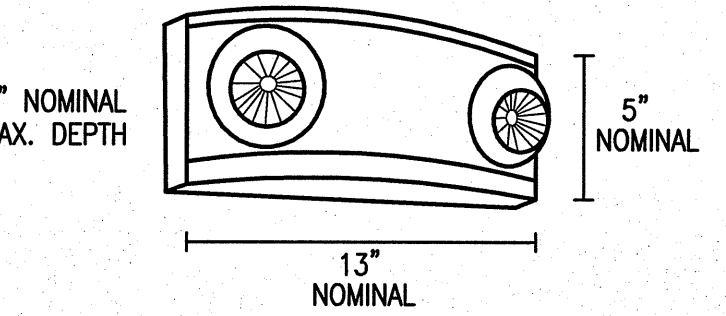
**LUMINAIRE REQUIREMENTS:**

- ALUMINUM, STEEL, THERMOPLASTIC OR POLYCARBONATE HOUSING.
- BRUSHED ALUMINUM, THERMOPLASTIC OR STEEL STENCIL WITH LETTERS 6 INCHES TALL & 3/4 INCH WIDE STROKES AND PUNCH-OUT FACE FOR LED'S OR INTERNAL LED ILLUMINATION.
- RED ILLUMINATION PROVIDED BY LIGHT EMITTING DIODES (LED). APPROXIMATELY 120 LED'S PER FACE. (NOT REQUIRED FOR INTERNALLY ILLUMINATED SIGNS.)
- CLEAR PROTECTIVE NON-BREAKABLE LENS TO PROTECT LED'S. (NOT REQUIRED FOR INTERNALLY ILLUMINATED SIGNS.)
- PROVIDE FAILURE, BROWN OUT PROTECTION & SURGE PROTECTION.
- PROVIDE NI-CAD BATTERY POWER & SOLID STATE TYPE CHARGER.
- PROVIDE UNIVERSAL ARROWS & BLANK-OFF PLATES.
- PROVIDE SINGLE OR DOUBLE FACE AS INDICATED ON PLANS.
- PROVIDE UNIVERSAL MOUNTING.
- UNITS MOUNTED EXPOSED TO THE ELEMENTS OR IN CLASSIFIED AREAS SHALL HAVE UL LABEL AS INDICATED.
- PROVIDE INTERNAL GREEN GROUNDING SCREW.
- PROVIDE TEST BUTTON IN BOTTOM OF HOUSING.
- PROVIDE INDICATOR LIGHTS IN FACE TO INDICATE WHEN UNIT IS ON NORMAL POWER OR ON BATTERY POWER.
- HOUSING SHALL HAVE A MATTED WHITE FINISHED, EXCEPT AS SPECIFIED OTHERWISE.
- LAMP HEADS (ROUND OR RECTANGULAR) AND SHALL BE FULLY ADJUSTABLE.
- SWITCHING AND CONTROLS-FULLY AUTOMATIC, 90 MINUTE OPERATION. COMPLETELY SOLID STATE WITH AUTO TRANSFER AND LOW VOLTAGE CUTOFF. TEST SWITCH AND HIGH RATE INDICATING LIGHT.

NOTES:  
 1. UNIT NOT AVAILABLE WITH WET LABEL.  
 2. UNIT IS AVAILABLE WITH DAMP LABEL.

LED EXIT SIGN

SKETCH DATE: NOV 1996 CLNC STYLE: NL-61A



**LUMINAIRE REQUIREMENTS:**

- HOUSING - UV STABLE, FLAME-RATED, HIGH-IMPACT THERMOPLASTIC IN WHITE OR BLACK TEXTURED FINISH.
- INTERNAL COMPONENTS - FULLY AUTOMATIC, SOLID STATE, CONSTANT VOLTAGE, CURRENT-LIMITED BATTERY CHARGER; MAINTENANCE-FREE LEAD-ACID BATTERY; AND BUILT-IN OVERLOAD AND LOW-VOLTAGE BATTERY PROTECTION.
- EXTERIOR HOUSING INDICATORS - LED AC-ON INDICATOR AND INTEGRAL TEST SWITCH.
- LAMP HEADS - UV STABLE, FLAME RATED POLYCARBONATE THERMOPLASTIC. MR16 HALOGEN LAMPS SHALL BE 5 WATTS, HIGH-OUTPUT OR AS INDICATED IN LIGHTING FIXTURE SCHEDULE.
- MOUNTING - DIRECTLY TO 4" OCTAGONAL OR SQUARE OUTLET BOX.
- CERTIFICATION - UL LISTED AND LABELED. COMPLIES WITH UL 924 AND NFPA 101 REQUIREMENTS. LISTED FOR DAMP LOCATIONS.
- OPTIONS - VOLTMETER, VANDAL-RESISTANT SHIELD, SELF-DIAGNOSTIC/TESTING ELECTRONICS AND WIRE GUARD.

DECORATIVE EMERGENCY LIGHTING UNIT

REVISED: AUGUST 2004 LIGHTING PLATE: NL-67

- (1) PROVIDE FIXTURE LISTED FOR DAMP LOCATIONS.  
 (2) PROVIDE DOWN LIGHT ONLY.  
 (3) PROVIDE POLYCARBONATE FRONT LENS.  
 (4) PROVIDE VANDAL-RESISTANT, WET LOCATION, EXIT SIGN WITH CAST ALUMINUM HOUSING.  
 (5) PROVIDE SHOWER RATED FIXTURE WITH 30 MINUTE (MIN.) FIRE RATED ENCLOSURE.

**GENERAL NOTE:**  
 1. 360 DEGREE PATTERN, 20 FOOT COVERAGE, 4.5" X 1.5" NOMINAL DIMENSION, CEILING MOUNTED, PUSH-BUTTON FIELD PROGRAMMABLE 30 SECONDS TO 20 MINUTES TIME DELAY, SELF CONTAINED RELAY, UL LISTED, 120 VOLT, 800W MAX LOAD, COMPARABLE TO SENSOR SWITCH MODEL "CMR-PDT". CONTINUED OCCUPANCY DETECTED FROM EITHER SOUND AND/OR MOTION ACTIVITY. SENSES IN PARTITIONED SPACES. SOUND REACTIVATION FOR SAFETY.

CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR  
 SCALE: NOT TO SCALE

**GENERAL NOTE:**  
 1. WALL-TO-WALL PATTERN, 20 FOOT COVERAGE, 4.2" X 1.8" X 1.5" NOMINAL DIMENSION, PUSH-BUTTON FIELD PROGRAMMABLE 30 SECONDS TO 20 MINUTES TIME DELAY, SELF CONTAINED RELAY, UL LISTED, 120V, 800W MAX LOAD, COMPARABLE TO SENSOR SWITCH MODEL "WSD-PDT". CONTINUED OCCUPANCY DETECTED FROM EITHER SOUND AND/OR MOTION ACTIVITY. SENSES IN PARTITIONED SPACES. SOUND REACTIVATION FOR SAFETY WITH MANUAL OVERRIDE.

WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR  
 SCALE: NOT TO SCALE

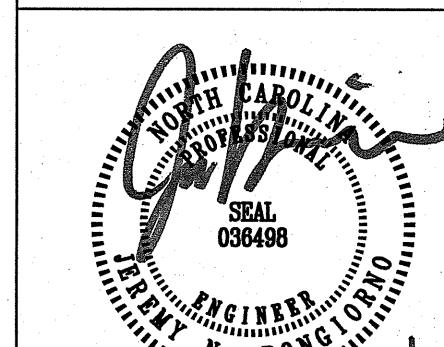
E-501

**CEMS**  
 ENGINEERING

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 www.cemsengineering.com  
 CEMS Project #011562  
 Project Manager: R. Alvar

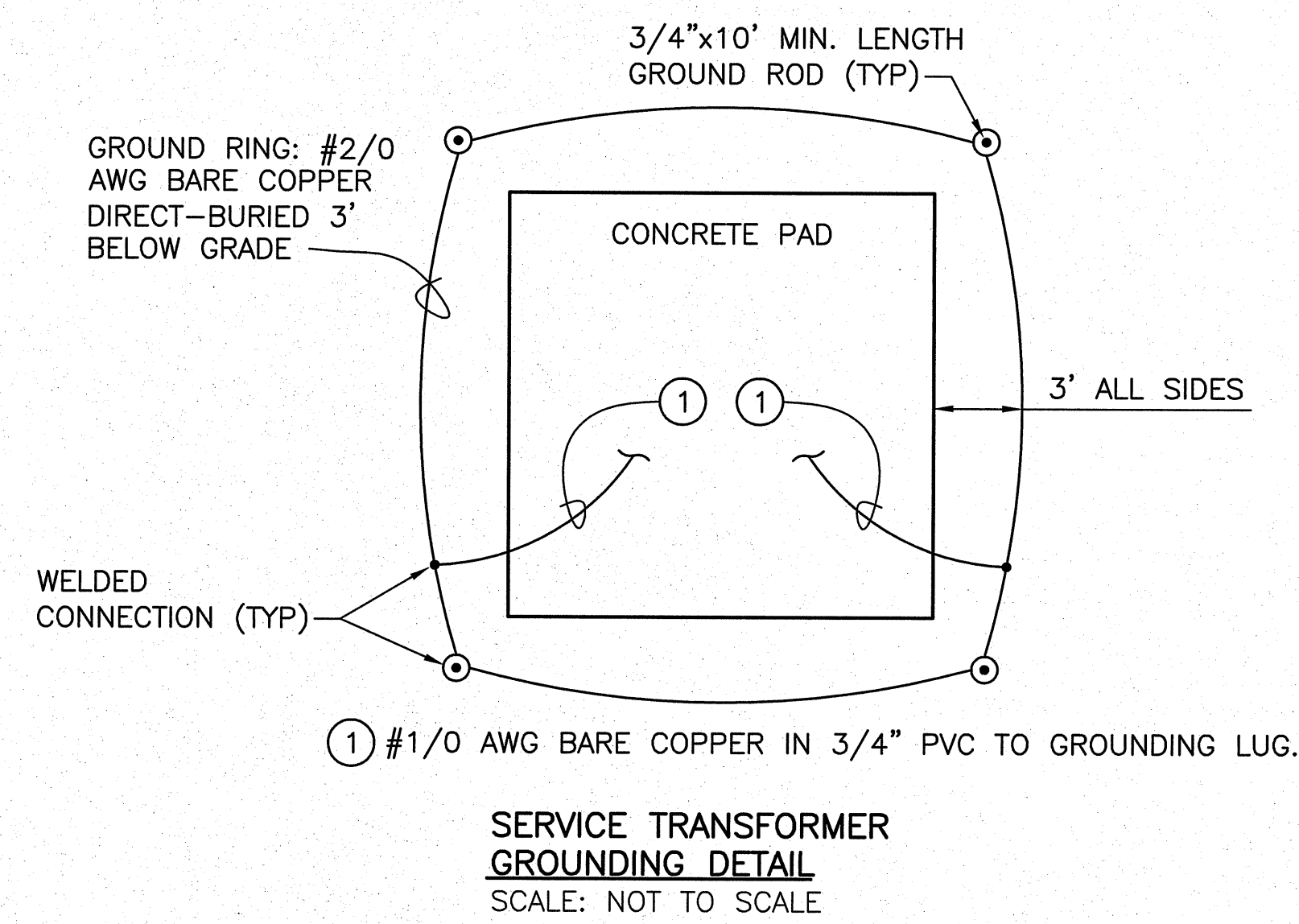
DEPARTMENT OF THE NAVY NAVFACILITIES ENGINEERING COMMAND  
**MARINE CORPS BASE**  
 CAMP LEJEUNE, NORTH CAROLINA

REPAIR BEQ  
 BUILDING BB260

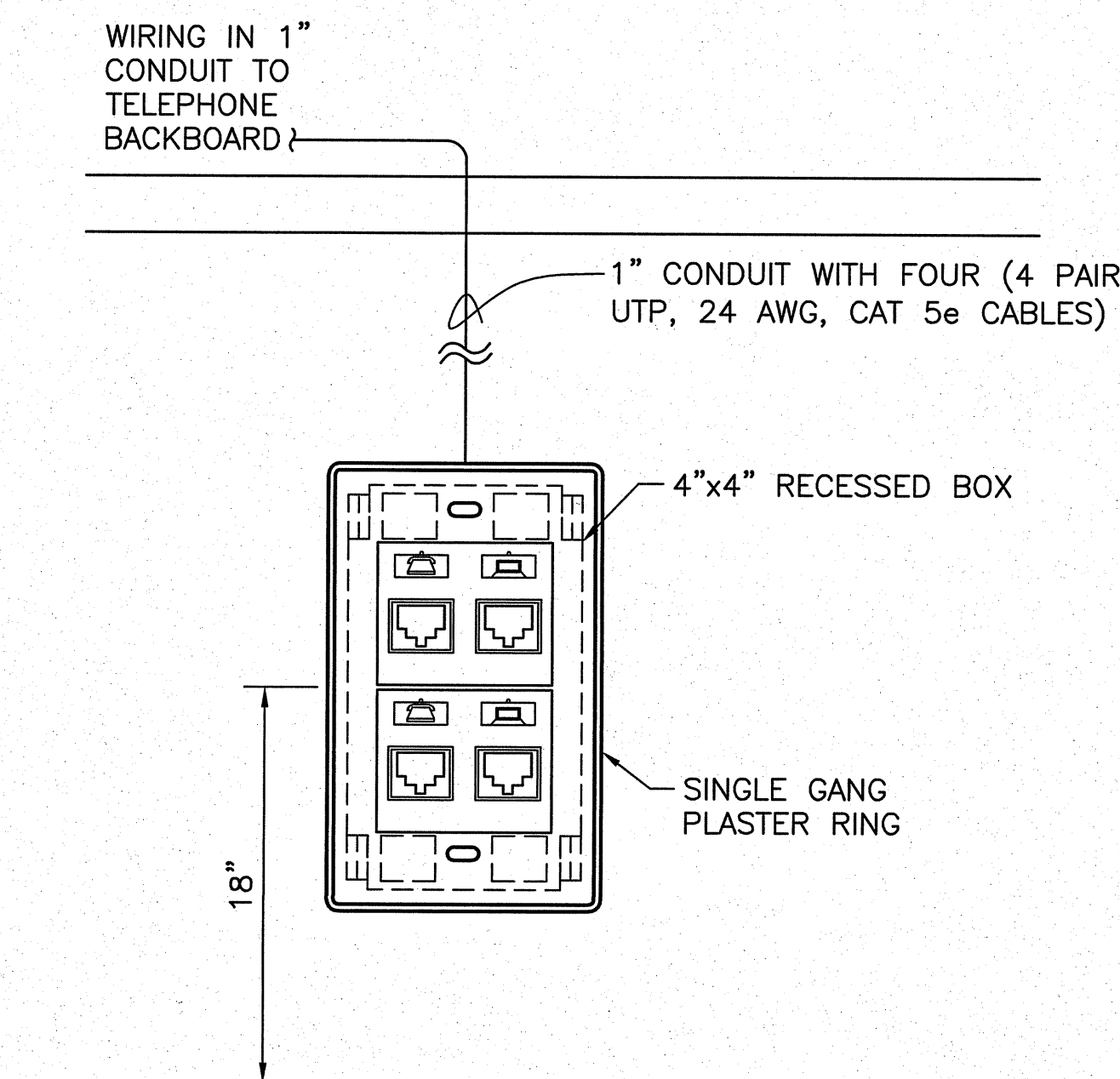


DESIGN DIR.  
 DR. R. ALVAR  
 CHK. J. BONGIORNO  
 SUBMITTED BY:  
 APPROVED: PWO OR OICC DATE: \_\_\_\_\_  
 SATISFACTORY TO: \_\_\_\_\_ DATE: \_\_\_\_\_

ELECTRICAL DETAILS  
 NAVFAC DRAWING NO. 60007633  
 CONST. CONTR. NO. N40085-10-B-0031  
 SCALE: NONE SPEC. 10-B-0031 SHEET 68 OF 72



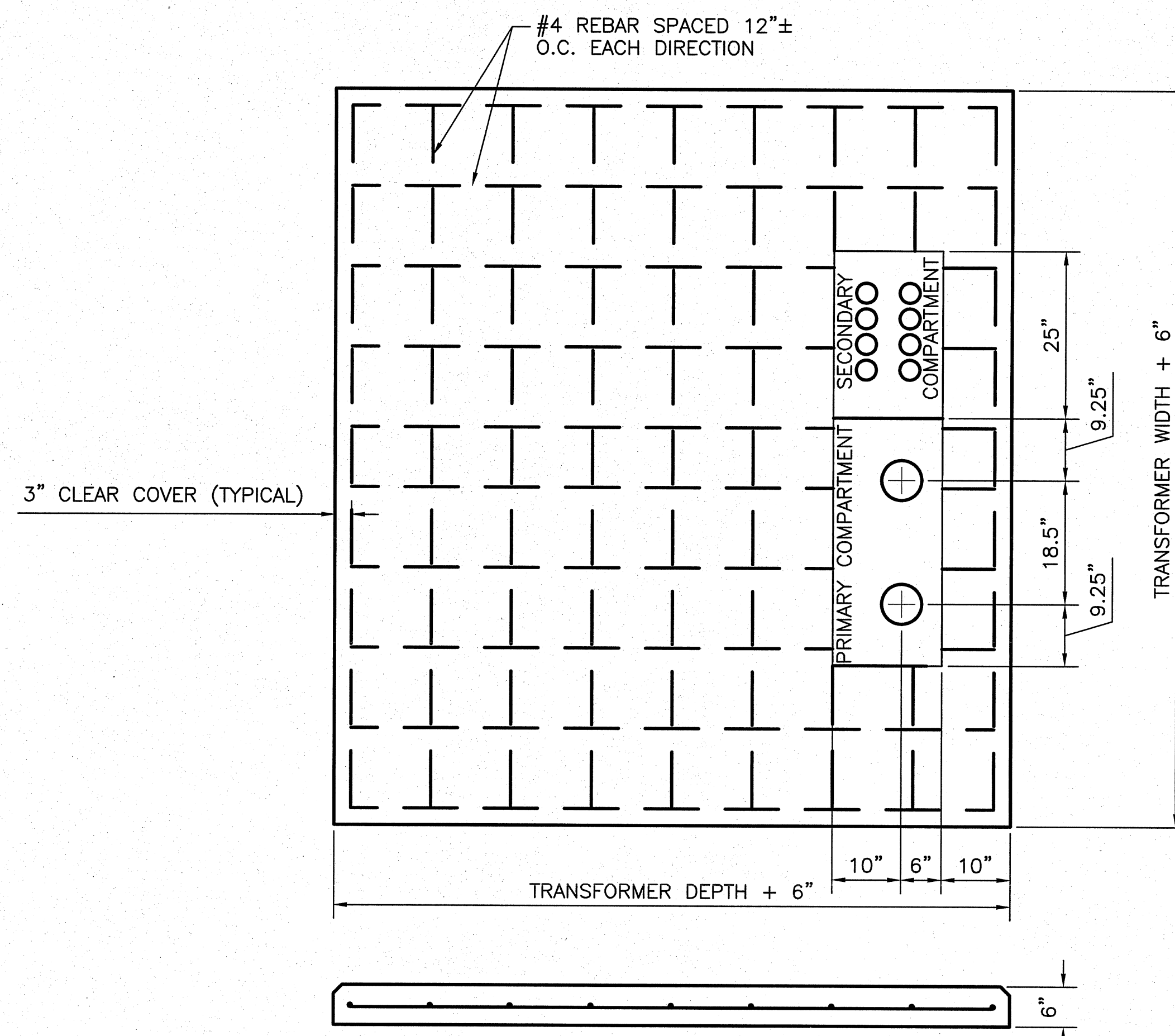
**SERVICE TRANSFORMER  
GROUNDING DETAIL**  
SCALE: NOT TO SCALE



**GENERAL NOTE:**

1. ALL OF THE TELEPHONE/DATA WIRING IS TO BE HOMERUN FROM THE OUTLET BACK TO THE BACKBOARD. TO BE DONE WITH 1" CONDUIT THE ENTIRE LENGTH.
2. PROVIDE ALL COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES ASSOCIATED WITH OFFICE AREAS AND AREAS SERVICED BY BASE TELEPHONE SYSTEM PER CAMP LEJEUNE COMMUNICATIONS SPECIFICATION 27 10 00. ALL WORK SHALL BE DONE BY A QUALIFIED COMMUNICATIONS SUBCONTRACTOR. CONTACT BASE TELEPHONE REGARDING ANY COMMUNICATIONS QUESTIONS AT 910-451-9439 OR 910-451-4760.

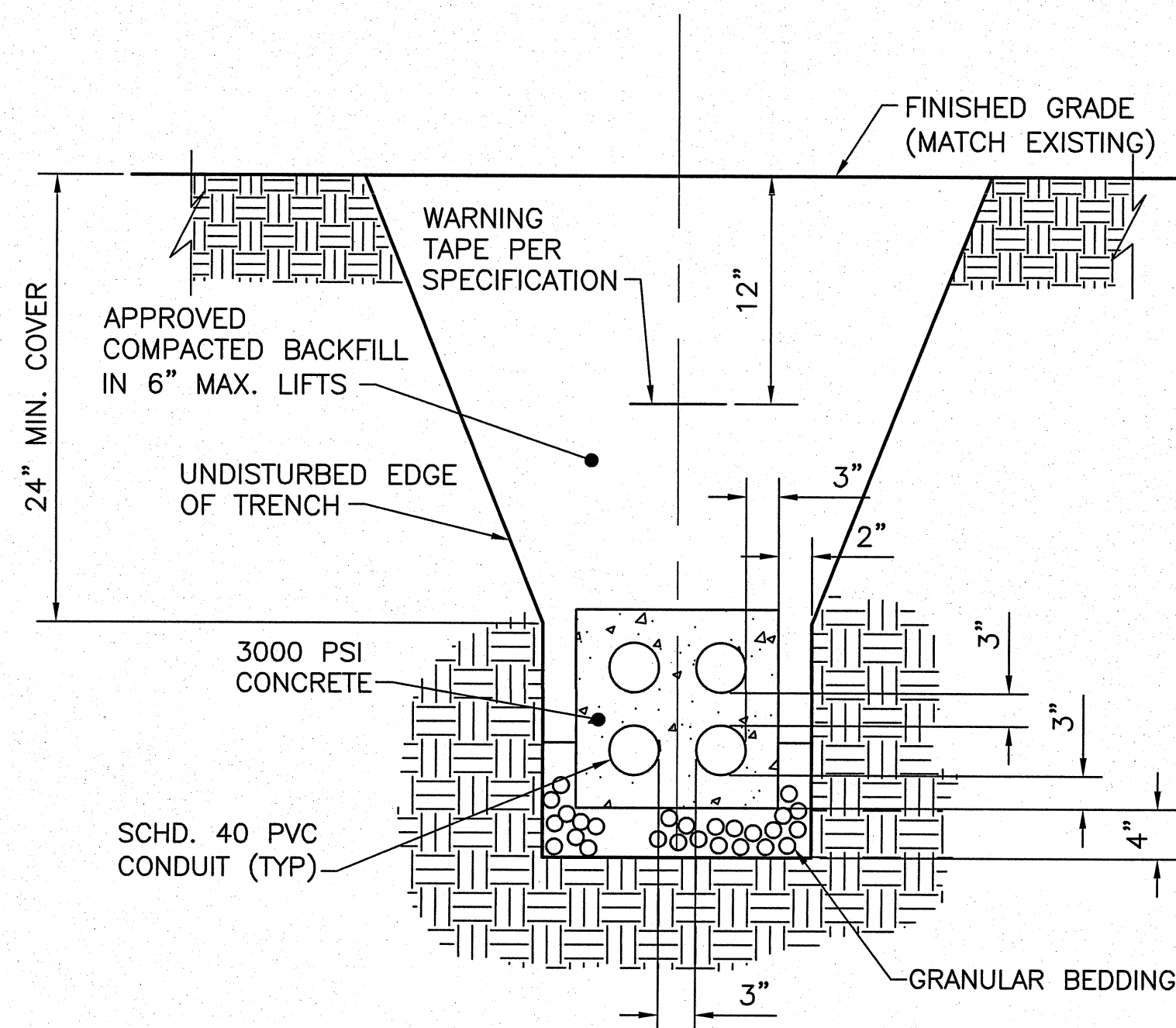
**TELEPHONE/DATA OUTLET DETAIL (TYPICAL)**  
SCALE: NOT TO SCALE



**NOTES:**

1. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI MAX. AGGREGATE SIZE 1".
2. STEEL REINFORCING BARS ARE TO BE INTERMEDIATE GRADE BILLET STEEL BARS WITH 40,000 PSI MINIMUM YIELD STRENGTH, CONFORMING TO A.S.T.M. A615 GRADE 40.
3. PROVIDE MIN. CLEARANCE FROM EDGE OF PAD, TO ANY BUILDING, PROPERTY LINE, WALL, OR ANY OTHER OBSTRUCTION IN ACCORDANCE WITH SPECIFICATIONS.
4. FINAL LOCATION OF CONCRETE PAD TO BE SPOTTED IN THE FIELD BY THE CONTRACTING OFFICER.
5. IF LOCATION IS SUBJECT TO FLOODING, PAD SHALL BE ELEVATED ABOVE WATER LEVEL.
6. LOCATION MUST HAVE HEAVY TRUCK ACCESS NOT MORE THAN 10' FROM PAD.
7. ALL CONDUITS TO EXTEND 1" ABOVE TOP OF PAD.
8. COORDINATE PAD AND COMPARTMENT OPENING DIMENSION REQUIREMENTS WITH TRANSFORMER MANUFACTURER.

**SERVICE TRANSFORMER PAD DETAIL**  
SCALE: NOT TO SCALE



**4 WAY DUCT BANK DETAIL**  
SCALE: NOT TO SCALE

		<b>E-502</b>	
	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA		
	REPAIR BEQ BUILDING BB260		
DES. R. ALVAR DR. R. ALVAR CHK. J. BONGIORNO SUBMITTED BY: DESIGN DIR. APPROVED: PWO OR OICC SATISFACTORY TO:	DATE: _____ DATE: _____ DATE: _____	SIZE: F CODE: 80091 IDENT NO: 60007634	ELECTRICAL DETAILS NAVFAC DRAWING NO. 60007634 CONST. CONTR. NO. N40085-10-B-0031 SCALE: NONE SPEC. 10-B-0031 SHEET 69 OF 72



PANEL NO. M1

VOLTAGE 120/208 PHASE 3 WIRE 4 BUS SIZE 125A MAIN CB. MLO

CKT. NO.	BRKR. SIZE	LOAD	VA	CKT. NO.	BRKR. SIZE	LOAD	VA
1	20	RCPT-158, 159	360	A 2	20	LGTS-158, 159	240
3	20	P-4	528	B 4	20	P-2, 3	1056
5	20	DEHUMIDIFIER	600	C 6			
7				A 8	60	DHP-1	11952
9	60	DHP-2	11952	B 10			
11				C 12	30	HP-3	3128
13	40	HP-1	4493	A 14			
15				B 16	30	HP-4	3128
17	15	HP-2	1115	C 18			
19				A 20	20	DEHUMIDIFIER	600
21	20	SPARE		B 22	20	SPARE	
23	20	SPARE		C 24	20	SPARE	

INTERRUPTING AMPERE CURRENT RATING FOR THIS ASSEMBLY SHALL BE 10,000 A. RMS SYM. TOTAL CONNECTED 35,102 VA TOTAL DEMAND 35,102 VA 98 AMPS

PANEL NO. M2

VOLTAGE 120/208 PHASE 3 WIRE 4 BUS SIZE 125A MAIN CB. MLO

CKT. NO.	BRKR. SIZE	LOAD	VA	CKT. NO.	BRKR. SIZE	LOAD	VA
1	20	RCPT-164, 165	360	A 2	20	LGTS-164, 165	240
3	20	DEHUMIDIFIER	600	B 4	20	SBC	600
5				C 6			
7	60	DHP-3	11952	A 8	25	P-1	6300
9				B 10			
11	30	HP-5	3128	C 12	15	HP-7	1597
13				A 14			
15	30	HP-6	3128	B 16	30	HP-8	3128
17				C 18			
19	20	P-5	528	A 20			
21	20	DEHUMIDIFIER	600	B 22	25	P-1A	6300
23	20	SPARE		C 24			

INTERRUPTING AMPERE CURRENT RATING FOR THIS ASSEMBLY SHALL BE 10,000 A. RMS SYM. TOTAL CONNECTED 38,461 VA TOTAL DEMAND 38,461 VA 107 AMPS

PANEL NO. M3

VOLTAGE 120/208 PHASE 3 WIRE 4 BUS SIZE 125A MAIN CB. MLO

CKT. NO.	BRKR. SIZE	LOAD	VA	CKT. NO.	BRKR. SIZE	LOAD	VA
1	20	RCPT-258, 259	360	A 2	20	LGTS-258, 259	240
3	20	DEHUMIDIFIER	600	B 4	20	DEHUMIDIFIER	600
5	30	HP-9	3128	C 6	30	HP-11	3128
7				A 8			
9	30	HP-10	3128	B 10	30	HP-12	3128
11				C 12			
13				A 14			
15				B 16			
17				C 18			
19	20	SPARE		A 20			
21	20	SPARE		B 22	20	SPARE	
23	20	SPARE		C 24	20	SPARE	

INTERRUPTING AMPERE CURRENT RATING FOR THIS ASSEMBLY SHALL BE 10,000 A. RMS SYM. TOTAL CONNECTED 14,312 VA TOTAL DEMAND 14,312 VA 40 AMPS

PANEL NO. M4

VOLTAGE 120/208 PHASE 3 WIRE 4 BUS SIZE 125A MAIN CB. MLO

CKT. NO.	BRKR. SIZE	LOAD	VA	CKT. NO.	BRKR. SIZE	LOAD	VA
1	20	RCPT-264, 265	360	A 2	20	LGTS-264, 265	240
3	20	DEHUMIDIFIER	600	B 4	20	DEHUMIDIFIER	600
5	40	HP-13	4493	C 6			
7				A 8			
9	40	HP-14	4493	B 10			
11				C 12			
13				A 14			
15				B 16			
17				C 18			
19	20	SPARE		A 20			
21	20	SPARE		B 22			
23	20	SPARE		C 24			

INTERRUPTING AMPERE CURRENT RATING FOR THIS ASSEMBLY SHALL BE 10,000 A. RMS SYM. TOTAL CONNECTED 10,786 VA TOTAL DEMAND 10,786 VA 30 AMPS

PANEL NO. M5

VOLTAGE 120/208 PHASE 3 WIRE 4 BUS SIZE 125A MAIN CB. MLO

CKT. NO.	BRKR. SIZE	LOAD	VA	CKT. NO.	BRKR. SIZE	LOAD	VA
1	20	RCPT-358, 359	360	A 2	20	LGTS-358, 359	240
3	20	DEHUMIDIFIER	600	B 4	20	MOD	50
5				C 6	20	DEHUMIDIFIER	600
7	60	OAU-1	13709	A 8			
9				B 10			
11	30	HP-15	4493	C 12	30	HP-17	4493
13				A 14			
15	30	HP-16	4493	B 16	30	HP-18	4493
17				C 18			
19	20	SPARE		A 20			
21	20	SPARE		B 22			
23	20	SPARE		C 24			

INTERRUPTING AMPERE CURRENT RATING FOR THIS ASSEMBLY SHALL BE 10,000 A. RMS SYM. TOTAL CONNECTED 33,531 VA TOTAL DEMAND 33,531 VA 93 AMPS

PANEL NO. M6

VOLTAGE 120/208 PHASE 3 WIRE 4 BUS SIZE 125A MAIN CB. MLO

CKT. NO.	BRKR. SIZE	LOAD	VA	CKT. NO.	BRKR. SIZE	LOAD	VA
1	20	RCPT-364, 365	360	A 2	20	LGTS-364, 365	240
3	20	DEHUMIDIFIER	600	B 4	20	MOD	50
5				C 6	20	DEHUMIDIFIER	600
7	60	OAU-2	13651	A 8			
9				B 10			
11	40	HP-19	4493	C 12			
13				A 14			
15	40	HP-20	4493	B 16			
17				C 18			
19	20	SPARE		A 20			
21	20	SPARE		B 22			
23	20	SPARE		C 24			

INTERRUPTING AMPERE CURRENT RATING FOR THIS ASSEMBLY SHALL BE 10,000 A. RMS SYM. TOTAL CONNECTED 24,487 VA TOTAL DEMAND 24,487 VA 68 AMPS

EQUIPMENT SCHEDULE

EQUIPMENT	FEEDER	DISCONNECT
HP-1, 13, 14, 19-23	2#8, #10G, 1/2°C	60/2/250V/NF/N1
HP-2, 7	2#12, #12G, 1/2°C	30/2/250V/NF/N1
HP-3-6, 8-12, 15-18	2#10, #10G, 1/2°C	30/2/250V/NF/N1
UH-1,2,3 FLOORS	3#12, #12G, 1/2°C	30/3/250V/NF/N1
DHP-1 THRU 3	3#6, #10G, 3/4°C	60/3/250V/NF/N1
OAU-1, 2	3#8, #10G, 3/4°C	60/3/250V/NF/N1
P-1, 1A	3#10, #10G, 1/2°C	30/3/250V/NF/N1
DRYER	2#12, #12G, 1/2°C	NEMA 14-30R

PANEL NO. TEMPORARY POWER NEMA 3R

VOLTAGE 120/240 PHASE 1 WIRE 3 LUG SIZE 1000A MAIN CB. 1000A

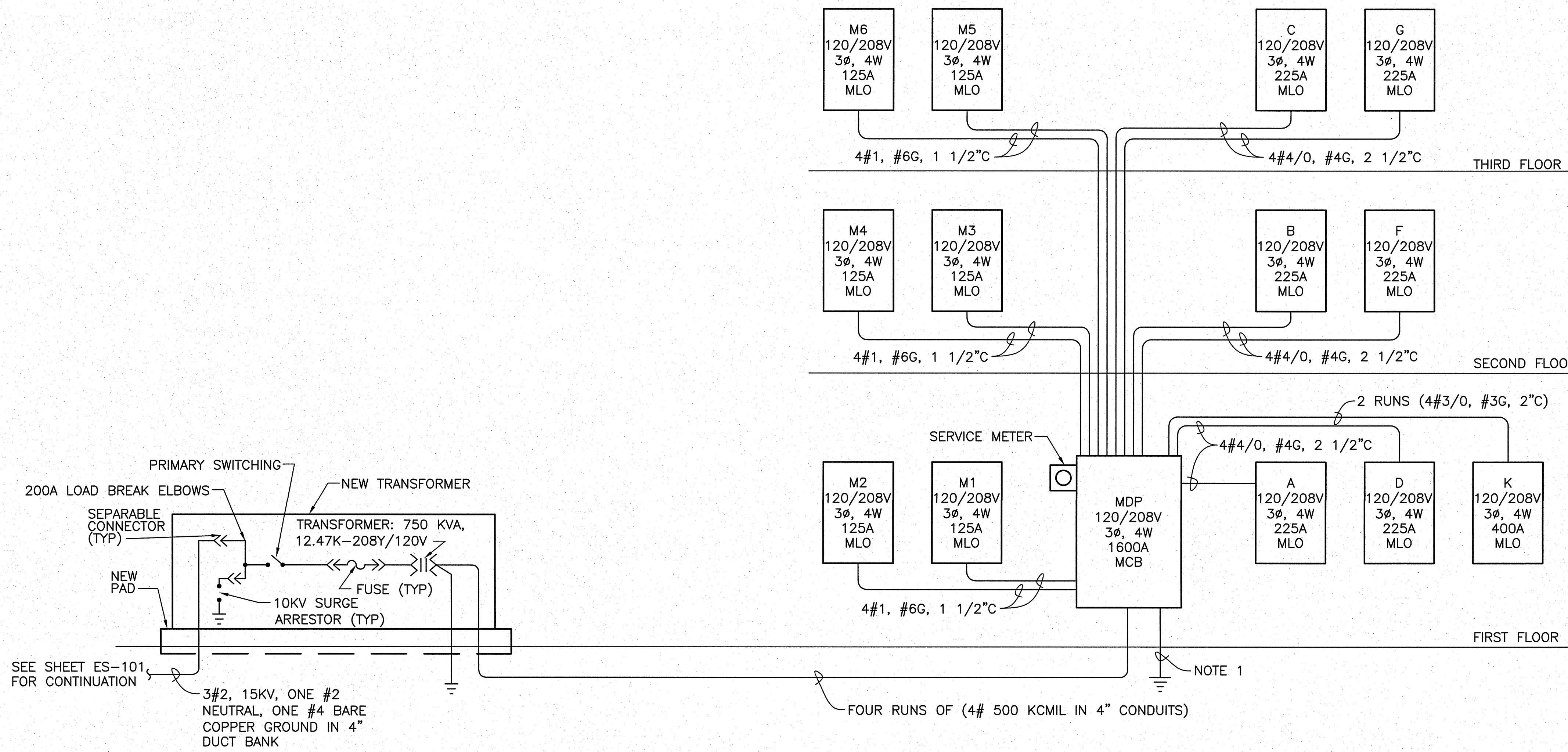
CKT. NO.	BRKR. SIZE	LOAD	VA	CKT. NO.	BRKR. SIZE	LOAD	VA
1				A 2	200	TRAILER	25000
3	200	TRAILER	25000	B 4			
5				A 6	20	GRINDER PUMPS	2880
7	200	TRAILER	25000	B 8			
9				A 10	20	GFCI RCPT	180
11	200	SPARE		B 12			
13				A 14			
15				B 16			
17				A 18			
19				B 20			

INTERRUPTING AMPERE CURRENT RATING FOR THIS ASSEMBLY SHALL BE 18,000 A. RMS SYM. TOTAL CONNECTED 78,060 VA TOTAL DEMAND 78,060 VA 325 AMPS

L - PROVIDE LOCKABLE CIRCUIT BREAKER

<b>E-602</b>	
 CEMS Engineering, Inc. 3509 Iron Horse Drive Lenoir, NC 24645 (754) 875-3837 (754) 875-4509 www.cemsgroup.com CEMS Project #081582 Project Manager: R. Alvar	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJEUNE, NORTH CAROLINA
	DES. R. ALVAR DR. R. ALVAR CHK. J. BONGIORNO SUBMITTED BY: DESIGN DIR.:
APPROVED: PWO OR OICC DATE:	ELECTRICAL PANEL SCHEDULES NAVFAC DRAWING NO.
SATISFACTORY TO: DATE:	IDENT NO. <b>60007636</b>
SCALE: NONE	CONST. CONTR. NO. N40085-10-B-0031 SHEET <b>71</b> OF 72

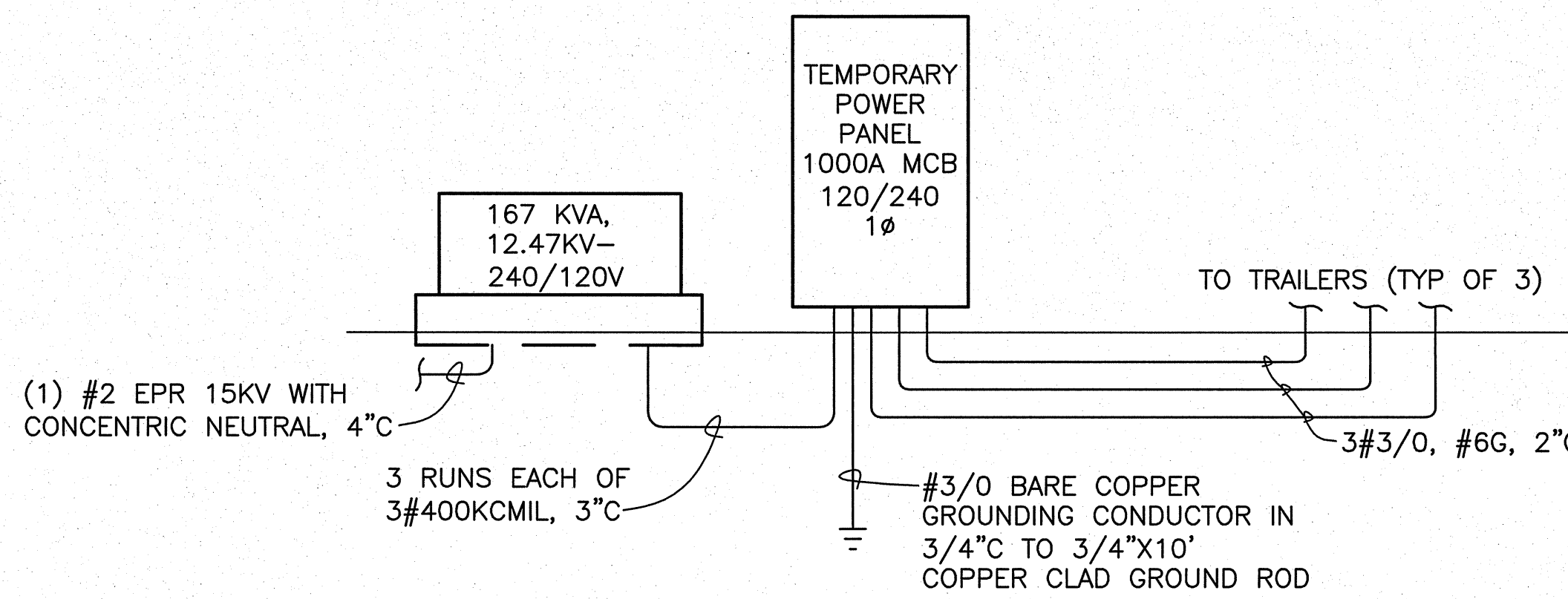




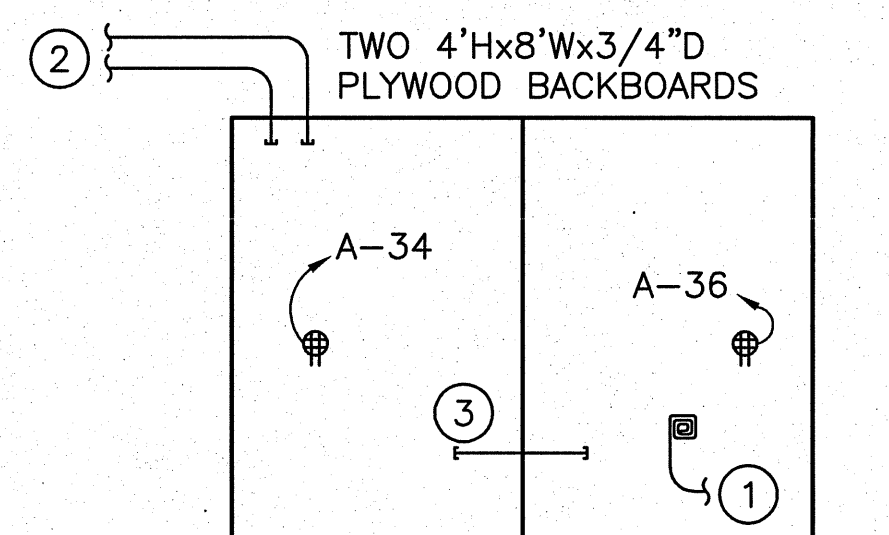
**ELECTRICAL RISER DIAGRAM**  
NO SCALE

**ELECTRICAL ONE-LINE RISER DIAGRAM GENERAL NOTES:**

1. INSTALL NEW GROUND CONDUCTOR, #3/0 BARE COPPER IN 3/4"X10" COPPER CLAD GROUND ROD.
2. TRANSFORMER TO CONTAIN BIODEGRADABLE DIELECTRIC FLUID.
3. INSTALL NEW METER AT MAIN DISTRIBUTION PANEL LOCATION. PROVIDE A SOCKET-MOUNTED ELECTRONIC PROGRAMMABLE OUTDOOR WATTHOUR METER, SURFACE MOUNTED. METER SHALL EITHER BE PROGRAMMED AT THE FACTORY OR SHALL BE PROGRAMMED IN THE FIELD. WHEN FIELD PROGRAMMING IS PERFORMED, TURN FIELD PROGRAMMING DEVICE OVER TO THE CONTRACTING OFFICER AT COMPLETION OF PROJECT. METER SHALL BE COORDINATED TO SYSTEM REQUIREMENTS.
  - A. DESIGN: PROVIDE METER DESIGNED FOR USE ON A 3-PHASE, 4-WIRE, 208Y/120 VOLT SYSTEM 3 CURRENT TRANSFORMERS. INCLUDE NECESSARY KYZ PULSE INITIATION HARDWARE FOR ENERGY MONITORING AND CONTROL SYSTEM (EMCS).
  - B. COORDINATION: PROVIDE METER COORDINATED WITH RATIOS OF CURRENT TRANSFORMERS AND TRANSFORMER SECONDARY VOLTAGE.
  - C. CLASS: 20; FORM: 9S; ACCURACY: =/- 1.0 PERCENT; FINISH: CLASS II.
  - D. COVER: POLYCARBONATE AND LOCKABLE TO PREVENT TAMPERING AND UNAUTHORIZED REMOVAL.
  - E. KILOWATT-HOUR REGISTER: 5 DIGIT ELECTRONIC PROGRAMMABLE TYPE.
  - F. DEMAND REGISTER
    - (a) PROVIDE SOLID STATE
    - (b) METER READING MULTIPLIER
      - (1) INDICATE MULTIPLIER ON THE METER FACE.
      - (c) DEMAND INTERVAL LENGTH: SHALL BE PROGRAMMED FOR 15 MINUTES WITH ROLLING DEMAND UP TO SIX SUBINTERVALS PER INTERVAL.
  - G. METER FUSING: PROVIDE A FUSE BLOCK MOUNTED IN THE SECONDARY COMPARTMENT CONTAINING ONE FUSE PER PHASE TO PROTECT THE VOLTAGE INPUT TO THE WATTHOUR METER. SIZE FUSES AS RECOMMENDED BY THE METER MANUFACTURER.
  - H. SOCKET: IEEE C12.7. PROVIDE NEMA TYPE 3R, BOX-MOUNTED SOCKET HAVING AUTOMATIC CIRCUIT-CLOSING BYPASS AND HAVING JAWS COMPATIBLE WITH REQUIREMENTS OF THE METER. COVER UNUSED HUB OPENINGS WITH BLANK HUB PLATES.



**TEMPORARY TRAILER POWER RISER DIAGRAM**  
SCALE: NOT TO SCALE



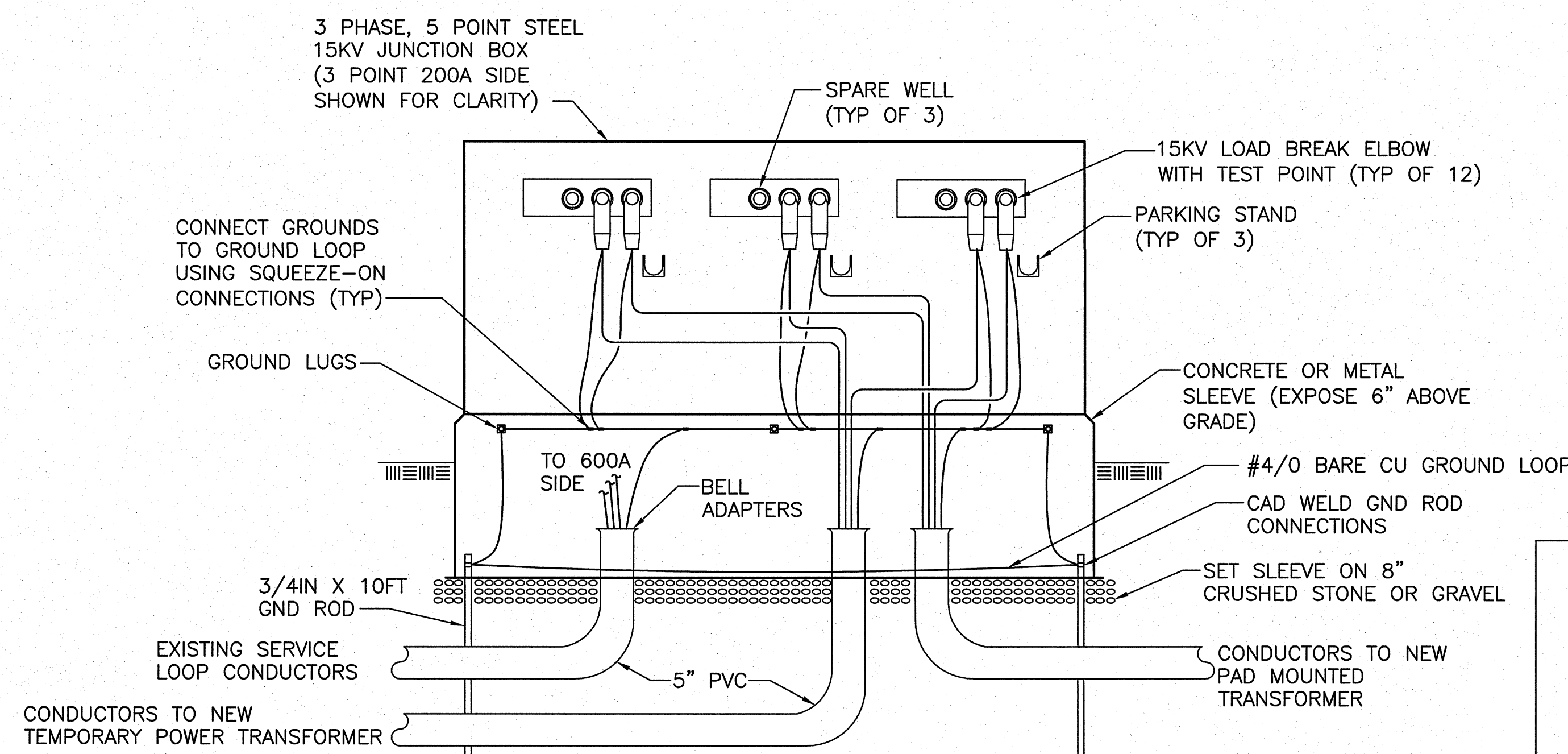
**KEYNOTES:**

- ① GROUND FOR BACKBOARD TO BE MADE WITH #6 STRANDED COPPER IN 3/4"X10" COPPER CLAD GROUND ROD.
- ② TWO 4" EMPTY CONDUITS WITH PULLSTRING TO EXISTING TELEPHONE ENTRANCE RISER POINT. CAP AND MARK FOR USE BY BASE TELEPHONE OFFICE. COORDINATE WITH BASE TELEPHONE OFFICE.
- ③ PROVIDE 1/4" X 4" X 10" COPPER BUS BAR WITH INSULATING BRACKETS AT TELEPHONE BACKBOARD.

**NOTES:**

1. COORDINATE BACKBOARD LOCATION WITH BASE TELEPHONE.
2. PROVIDE ALL COMMUNICATIONS CABLING, EQUIPMENT, AND JACK SET ASSEMBLIES ASSOCIATED WITH OFFICE AREAS AND AREAS SERVICED BY BASE TELEPHONE SYSTEM PER CAMP LEJUNE COMMUNICATIONS SPECIFICATION 27 10 00. ALL WORK SHALL BE DONE BY A QUALIFIED COMMUNICATIONS SUBCONTRACTOR. CONTACT BASE TELEPHONE REGARDING ANY COMMUNICATIONS QUESTIONS AT 910-451-9439 OR 910-451-4760.
3. PROVIDE 1" CONDUIT WITH TWO CAT 5e CABLES FROM TELECOMMUNICATIONS RACK TO FACP. COORDINATE WITH BASE TELEPHONE'S LOCATION OF RACK AND FINAL LOCATION OF FACP.

**VOICE/DATA SYSTEM RISER**  
SCALE: NOT TO SCALE



**SECTIONALIZER CABINET DETAIL**  
SCALE: NOT TO SCALE

<b>E-603</b>	
<b>CEMS</b> ENGINEERING	CEMS Engineering, Inc. 3509 Iron Horse Drive Lenoir, NC 24649 (784) 875-3637 (784) 875-4509 www.cemsgroup.com CEMS Project #01158Z Project Manager: R. Alvar
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND <b>MARINE CORPS BASE</b> CAMP LEJUNE, NORTH CAROLINA	
<b>REPAIR BEQ</b> <b>BUILDING BB260</b>	
ELECTRICAL RISER DIAGRAM	
DES. R. ALVAR	NAVYAC DRAWING NO. 60007637
DR. R. ALVAR	CONST. CONTR. NO. N40085-10-B-0031
CHK. J. BONGIORNO	SIZE CODE IDENT NO. F 80091
SUBMITTED BY:	SCALE: NONE
DESIGN DIR.	SPEC. 10-B-0031
APPROVED: PWO OR OICC	SHEET 72 OF 72
SATISFACTORY TO:	