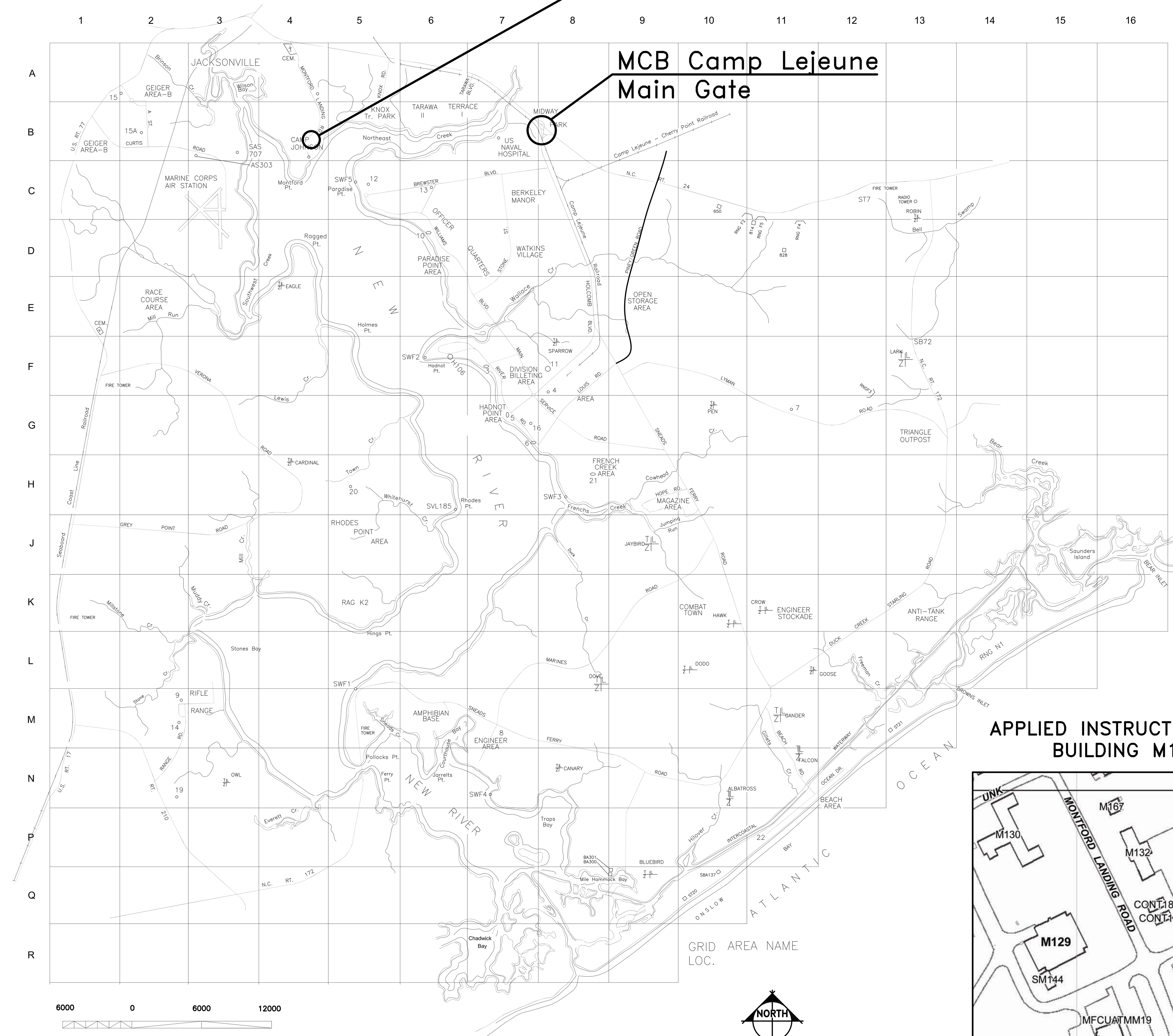
ADDITIONS OF HEADS TO BUILDING M112

MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

INDEX OF DRAWINGS

SYM	REVISIONS	DATE	APPROVED

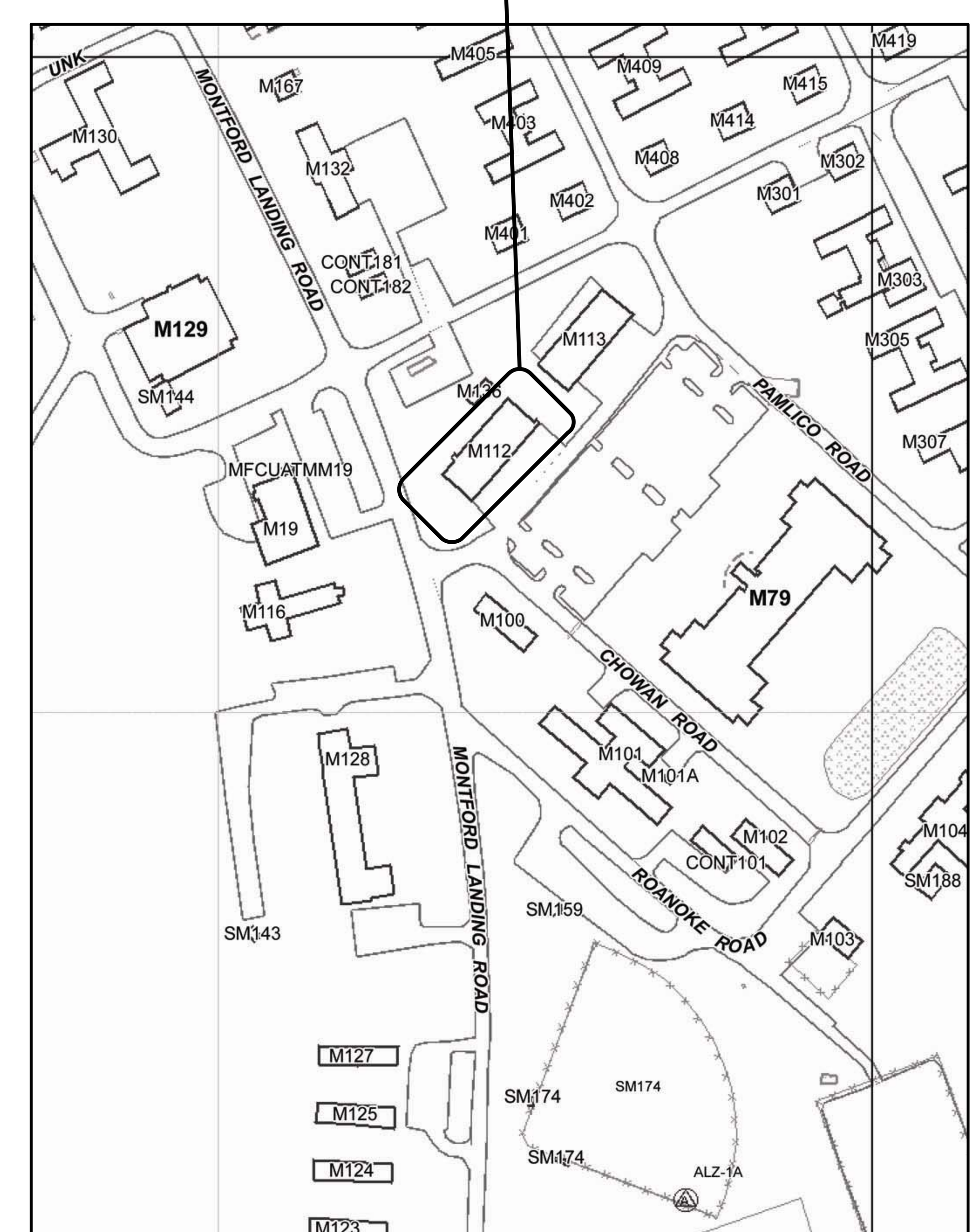


LOCATION MAP – U. S. MARINE CORPS BASE – CAMP LEJEUNE, N.C.

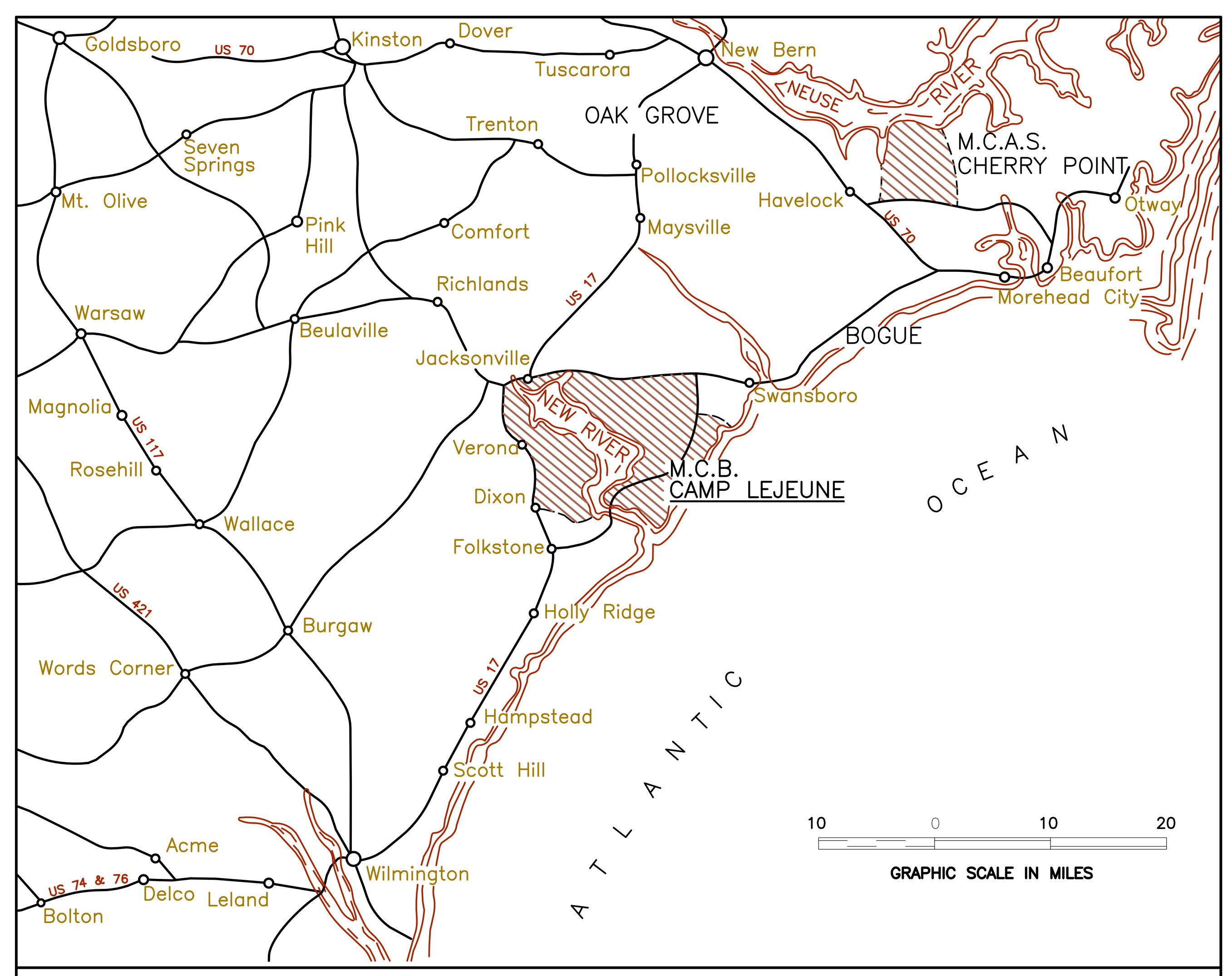
MAP SCALE: NTS

GRID LOC.	AREA NAME
C3	AIR STATION
M6	AMPHIBIAN BASE
K13	ANTI-TANK RANGE
N11	BEACH
C7	BERKELEY MANOR
K10	COMBAT TOWN
M7	ENGINEER AREA
K11	ENGINEER STOCKADE
H8	FRENCH CREEK
A2	GEIGER "A"
B1	GEIGER "B"
G7	HADNOT POINT AREA
B5	KNOX TRAILER PARK
H9	MAGAZINE AREA
B8	MIDWAY PARK
B4	MONTFORD POINT
E8	OPEN STORAGE AREA
D6	PARADISE POINT AREA
E2	RACE COURSE AREA
J5	RHODES POINT AREA
M3	RIFLE RANGE
A6	TARAWA TERRACE I & II
G13	TRIANGLE OUTPOST
D7	WATKINS VILLAGE
B7	US NAVAL HOSPITAL

APPLIED INSTRUCTION BUILDING M112



SITE MAP N.T.S.



VICINITY MAP – CAMP LEJEUNE, N.C.

ARCHITECTURAL SYMBOLS LEGEND

NORTH INDICATOR	INTERIOR ELEVATION REFERENCE; LETTER INDICATES ELEVATION; ARROW INDICATES DIRECTION OF VIEW; NUMBER INDICATES ELEVATION VIEW; SHEET WHERE ELEVATION IS DRAWN; SHEET FROM WHICH ELEVATION IS TAKEN
COLUMN REFERENCE GRID	X'-X" A.F.F. — INDICATES LEVEL LINE, CONTROL POINT, OR DATUM
KEY NOTE DESIGNATION; RE: KEY NOTE LEGEND	DOOR DESIGNATION MARK; - SEE DOOR SCHEDULE
ELEVATION REFERENCE; ARROW INDICATES DIRECTION OF VIEW; LETTER INDICATES ELEVATION; SHEET WHERE ELEVATION IS DRAWN; SHEET FROM WHICH ELEVATION IS TAKEN	WINDOW DESIGNATION MARK; - SEE DOOR SCHEDULE
	PARTITION TYPE DESIGNATION; - SEE DOOR SCHEDULE
	REVISION DESIGNATION; MOST CURRENT REVISION SHOWN CLOUDED ON DRAWING; RE: REVISION LIST IN TITLE BLOCK
LARGE SCALE PLAN OR DETAIL REFERENCE; INDICATES AREA DETAILED OR ENLARGED; LETTER INDICATES DETAIL; SHEET WHERE DETAIL IS DRAWN; SHEET FROM WHICH DETAIL IS TAKEN	GENERAL NOTE DESIGNATION; RE: GENERAL NOTE LEGEND
	11'-5" — CLG. HT. AT DESIGNATED LOCATION;
BUILDING SECTION OR SECTIONAL DETAIL REFERENCE; ARROW INDICATES DIRECTION OF VIEW; LETTER INDICATES SECTION; SHEET WHERE SECTION IS DRAWN; SHEET FROM WHICH SECTION IS TAKEN; ARROW INDICATES DIRECTION OF VIEW	ROOM NAME DESIGNATION: ROOM NAME; XXX — ROOM NUMBER; XX SF — SQUARE FOOTAGE

ARCHITECTURAL ABBREVIATIONS

APC	ACOUSTICAL PANEL CEILING
ADJ.	ADJACENT
AFF	ABOVE FINISHED FLOOR
AL.	ALUMINUM
ALT.	ALTERNATE
ATTN.	ATTENUATION
BD.	BOARD
BIT.	BITUMINOUS
BLKG.	BLOCKING
BLKT.	BLANKET
BM.	BEAM
BOP	BOTTOM OF PLATE
CAB.	CABINET
CB	CATCH BASIN
℄	CENTERLINE
CLG.HT.	CEILING HEIGHT
CJ	CONTROL JOINT
CLR.	CLEAR
CLG.	CEILING
CMU	CONCRETE MASONRY UNIT
COL.	COLUMN
CONC.	CONCRETE
CONSTR.	CONSTRUCTION
CONT.	CONTINUOUS
CONTR.	CONTRACTOR
CT	CERAMIC TILE
DWG.	DRAWING
EA.	EACH
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
ELEC.	ELECTRICAL
ENCL.	ENCLOSURE
EOS	EDGE OF SLAB
EQ.C.	EQUIPMENT CONTRACTOR
EWC	ELECTRIC WATER COOLER
EXIST.	EXISTING
EXPD.	EXPOSED
EXP.JT.	EXPANSION JOINT
EXT.	EXTERIOR
F.D.	FLOOR DRAIN
FDN.	FOUNDATION
F.E.	FIRE EXTINGUISHER
FFE	FINISHED FLOOR ELEVATION
FL.	FLOOR
FT	FIRE RETARDANT TREATED
FTG.	FOOTING
FUR.	FURRING
GA.	GAUGE
GALV.	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GL.	GLASS
GYP.BD.	GYPSUM BOARD
HDW	HARDWARE
HM	HOLLOW METAL
HP	HIGH POINT
HT.	HEIGHT
HVAC	HEATING,VENTILATION, AIR CONDITIONING
INT.	INTERIOR
INSUL.	INSULATION
INV.	INVERT
JT.	JOINT
LAV.	LAVATORY
LP	LOW POINT
MANUF.	MANUFACTURER
MC	MECHANICAL CONTRACTOR
MH.	MANHOLE
MECH.	MECHANICAL
MIN.	MINIMUM
MO.	MASONRY OPENING
MTD.	MOUNTED
MTL.	METAL
NIC	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
OC	ON CENTER
OH.	OVERHANG
OHD.	OVERHEAD
OPNG.	OPENING
PART.	PARTITION
P.E.M.B.	PRE-ENGINEERED METAL BLDG.
PC	PLUMBING CONTRACTOR
PL.	PLATE
P.	PAINTED
REF.	REFRIGERATOR
REQD.	REQUIRED
RM.	ROOM
RO.	ROUGH OPENING
SF	SQUARE FEET
SIM.	SIMILAR
SPECS.	SPECIFICATIONS
S.S.	STAINLESS STEEL
STD.	STANDARD
STL.	STEEL
STRUCT.	STRUCTURE/STRUCTURAL
SUSP.	SUSPENDED
TC	TOP CURB
TG	TOP GRATE
TEMP.	TEMPERED
THK.	THICK
TJ	TOP OF JOIST
TOM	TOP OF MASONRY
TOP	TOP OF PLATE
TOS	TOP OF SLAB
TOW	TOP OF WALL
TYP.	TYPICAL
T/S	TOP OF STEEL
TS	TUBE STEEL
VERT.	VERTICAL
VIF	VERIFY IN FIELD
WD.	WOOD
WDW.	WINDOW
WWF	WELDED WIRE FABRIC
W/	WITH

T-1

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DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND

MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	M. SKOPAK
DR.	M. SKOPAK
CHK.	B.WALKER
SUBMITTED BY:	J.WALKER
DESIGN DIR.	B. MARSHBURN
APPROVED: PWO OR OICC	DATE
SATISFACTORY TO:	DATE

ADDITIONS OF HEADS
TO BUILDING M112
TITLE SHEET, INDEX OF DRAWINGS, SITEMAP

SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
F		60010132
		CONST. CONTR. NO. N40085-12-B-0019

SCALE: NOTED | SPEC. 12-0019 | SHEET 1 OF 11

JERRY LEE WALKER — REGISTERED ARCHITECT — 6181 — 6-4-12 — NORTH CAROLINA — NEW BERN, NC

CODE ANALYSIS – INTERNATIONAL BUILDING CODE

OCCUPANCY CLASSIFICATION
1. LOW-HAZARD STORAGE GROUP (S-2)

TYPE OF CONSTRUCTION
TYPE V-B
NO OCCUPANCY SEPARATION REQUIRED PER TABLE 508.3.3 2009 IBC

ALLOWABLE HEIGHT CALCULATION (TYPE V-B CONSTR.)
1. GROUP S-2
   - 1.1 ALLOWABLE HEIGHT CALCULATION-STORIES
     - 1.1.1 ALLOWABLE TABULAR HEIGHT: ONE STORY (TABLE 503)
     - 1.1.2 HEIGHT INCREASE-SPRINKLER: N/A (SECTION 504.2)
     - 1.1.3 TOTAL ALLOWABLE HEIGHT: ONE STORY
   - 1.2 ALLOWABLE HEIGHT CALCULATION-FEET
     - 1.2.1 ALLOWABLE TABULAR HEIGHT: 40 FEET (TABLE 503)
     - 1.2.2 HEIGHT INCREASE SPRINKLER: N/A (SECTION 504.2)
     - 1.2.3 TOTAL ALLOWABLE HEIGHT: 40 FEET

ALLOWABLE AREA CALCULATION (TYPE V-B CONSTR.)
1. GROUP S-2
   - 1.1 ALLOWABLE AREA CALCULATION
     - 1.1.1 TABULAR AREA PER FLOOR: 13,500 SF (TABLE 503)
     - 1.1.2 AREA INCREASE-SPRINKLER: N/A SF (SECT. 506.3)
     - 1.1.3 AREA INCREASE-FRONTAGE: 11%, 1,485 SF (SECT. 506.2)
     - 1.1.4 TOTAL ALLOWABLE AREA: 14,985 SF (SECT. 506.1)

DETAILED ALLOWABLE AREA CALCULATION
1. Aa = Al + [(Al X If) / 100 + (Al X Is) / 100]
2. Al = ALLOWABLE TABULAR AREA PER FLOOR (SF)
3. If = AREA INCREASE DUE TO FRONTAGE
4. Is = AREA INCREASE DUE TO SPRINKLER PROTECTION
5. If = 100[F / P – 0.25] X W / 30

WHERE:
6. If = AREA INCREASE DUE TO FRONTAGE
7. F = BUILDING PERIMETER WHICH FRONTS ON A PUBLIC WAY OR OPEN SPACE HAVING 20 FEET OPEN MINIMUM (FT)
8. P = PERIMETER OF ENTIRE BUILDING (FT)
9. W = WIDTH OF PUBLIC WAY OR OPEN SPACE (FT)

BUILDING FRONTAGE CALCULATION
1. F = 154 FT
2. P = 428 FT
3. W = 30 FT
4. If = 100 [154 /428 – 0.25] X 30 / 30 = 11%

SUM OF RATIOS OF EACH OCCUPANCY

GROUP S-2	=	9,265 SF ACTUAL AREA
GROUP S-2	=	14,985 SF ALLOWABLE AREA
RATIO	=	9,265 / 14,985 = 0.62
TOTAL	=	0.62 < 1.0
COMPLIANT	=	YES

CODE ANALYSIS – GENERAL

BASIC BUILDING DESCRIPTION

1. FIRST FLOOR – 9,265 SF
2. BUILDING HEIGHT – APPROX. 19'-0"

APPLICATION CODES

1. 2009 EDITION OF THE INTERNATIONAL BUILDING CODE
2. 2009 EDITION OF THE INTERNATIONAL FIRE CODE
3. NFPA 70, NATIONAL ELECTRICAL CODE – 2008 EDITION
4. NFPA 72, NATIONAL FIRE ALARM CODE – 2010 EDITION
5. NFPA 101, LIFE SAFETY CODE – 2009 EDITION
6. UNIFIED FACILITIES CRITERIA (UFC)

LEGEND

FE FIRE EXTINGUISHER

LIGHTED EXIT SIGN

EXIT NO. 1	
(1)	(4)
(2)	(5)
(3)	(6)

(1) DOOR(S) CLEAR WIDTH (INCHES)
(2) DOOR(S) OCCUPANT LOAD FACTOR (INCHES/PERSON)
(3) DOOR(S) OCCUPANT LOAD CAPACITY (PERSONS)
(4) STAIR CLEAR WIDTH (INCHES)
(5) STAIR OCCUPANT LOAD FACTOR (INCHES/PERSON)
(6) STAIR OCCUPANT LOAD CAPACITY (PERSONS)

TD= XX' TRAVEL DISTANCE TO AN EXIT

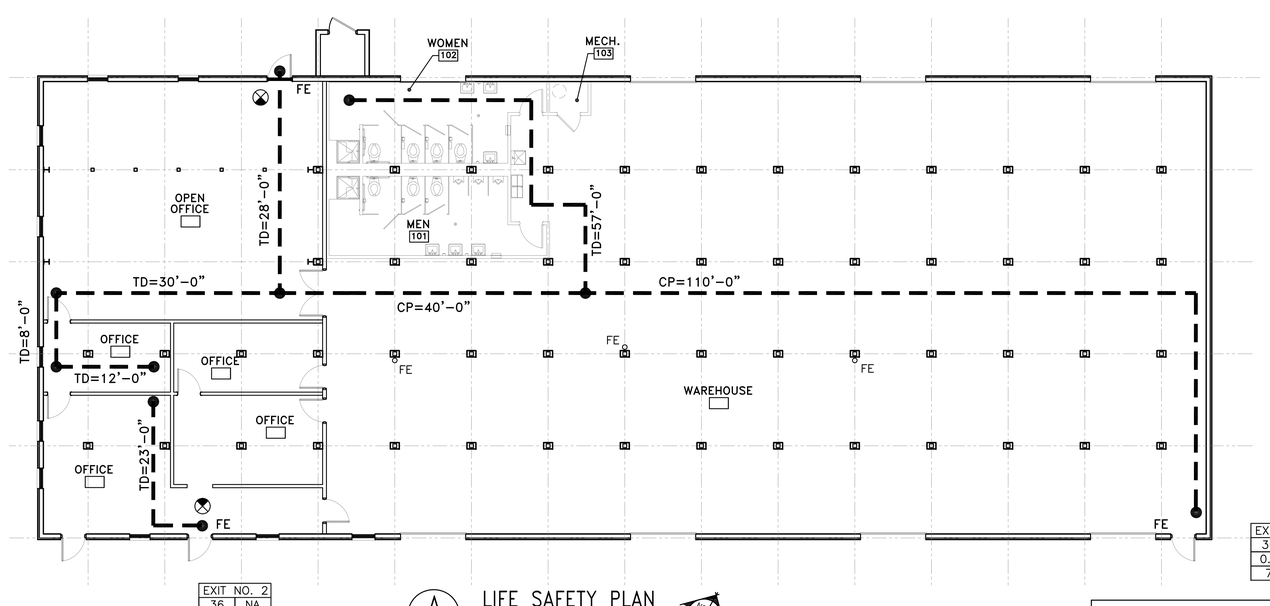
CP= XX' COMMON PATH TO POINT WHERE TWO PATHS OF EGRESS AVAILABLE

NOTES

1. BUILDING NOT REQUIRED TO HAVE FIRE ALARM SYSTEM PER NFPA 101, SECTION 42.3.4.1.1 AND 42.3.4.1.2.

SYM	REVISIONS	DATE	APPROVED

EXIT NO. 1	
36	NA
0.2	NA
18	NA



EXIT NO. 2	
36	NA
0.2	NA
11	NA

EXIT NO. 3	
36	NA
0.2	NA
7	NA

GRAPHIC SCALE
0 1 2 3 4 5 6 7 8 9 10 20
Scale: 1/8"=1'-0"

A LS 1 — LIFE SAFETY PLAN 1/8" = 1'-0" — LS 1

NORTH

NUMBER AND ARRANGEMENT OF EXITS

FLOOR,ROOM OR SPACE DESIGNATION	MINIMUM NUMBER OF EXITS		TRAVEL DISTANCE		ARRANGEMENT MEANS OF EGRESS	
	REQUIRED (LSC 39.2.4.3)	SHOWN ON PLAN	ALLOWABLE TRAVEL DISTANCE (LSC 39.2.4.3(2))	ACTUAL TRAVEL DISTANCE SHOWN ON PLANS	REQUIRED DISTANCE BETWEEN EXIT DOORS	ACTUAL DISTANCE SHOWN ON PLANS
STORAGE (S-2)	2	3	NL	180'	65'-0"	60'-0"

EXIT WIDTH

USE GROUP OR SPACE DESCRIPTION	(a) AREA[1] sq.ft.	(b) AREA[1] PER OCCUPANT (LSC TBL 7.3.1.2)	CALCULATED OCCUPANT LOAD	(c) EGRESS WIDTH PER OCCUPANT (LSC TBL 7.3.3.1)		EXIT WIDTH (in)[2,3,4,5,6] REQUIRED WIDTH (LSC SECTION 7.3.4.1) (a/b) x c		ACTUAL WIDTH SHOWN ON PLANS	
				STAIR	LEVEL	STAIR	LEVEL	STAIR	LEVEL
STORAGE (S-2)	9,265 SF	500 GROSS	14	-	0.2	-	36	-	72

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ADDITIONS OF HEADS
TO BUILDING M112
LIFE SAFETY PLAN & CODE ANALYSIS

SIZE F | CODE IDENT. NO | NAVFAC DRAWING NO. 60010133
CONST. CONTR. NO. N40085-12-B-0019
SCALE: NOTED | SPEC. 12-0019 | SHEET 2 OF 11

LS-1

SYM	REVISIONS	DATE APPROVED

CIVIL LEGEND

EXISTING	DESCRIPTION	NEW
C/T	COMMUNICATION MANHOLE	
E	ELECTRIC MANHOLE	
D	STORM MANHOLE	
SCO	SANITARY SEWER CLEAN OUT	
S	SEWER MAHOLE	
	DROP INLET & INLET PROTECTION	
	FIRE HYDRANT	
	WATER VALVE	
	PIV	
	TELEPHONE PEDESTAL	
	UTILITY POLE	
	LIGHT POLE	
	GUY WIRE	
	SURVEY CONTROL POINT	
— S —	SANITARY SEWER	S
— D —	STORM SEWER	
— W —	DOMESTIC WATER	W
— OHE —	OVERHEAD ELECTRICAL	
— UGE —	UNDERGROUND ELECTRICAL	
— G —	GAS	
— T —	UNDERGROUND TELEPHONE	
— ST —	UNDERGROUND STEAM	
	DITCH/SWALE	
	BITUMINOUS CONCRETE PAVEMENT	
	CONCRETE	
	GRAVEL	
	TEMPORARY BENCHMARK	
× 5.00	SPOT ELEVATIONS	
— 5 —	CONTOUR LINES	
	TREE	
	SIGN	
— x — x —	FENCE	
	SILT FENCE	
	DEMOLITION ITEMS	
	SOURCE/DESTINATION UNKNOWN	

ABBREVIATIONS

A/C	AIR CONDITIONER
CL C/L	CENTER LINE
CI	CAST IRON
DCL	DITCH CENTERLINE
DI	DROP INLET
ELEV	ELEVATION
FFE	FINISH FLOORE ELEVATION
INV	INVERT
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
NCDOT	NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
OHE	OVERHEAD ELECTRIC
OC	ON CENTER
RCP	REINFORCED CONCRETE PIPE
TBM	TEMPORARY BENCHMARK
TYP	TYPICAL
&	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-2.

NEW WORK ITEMS:

1. PAVEMENT CUT & PATCH – SEE DETAIL A, SHEET C-2.
2. NEW 6" x 2" SERVICE SADDLE & VALVE – SEE DETAIL C, SHEET C-2 AND SPECIFICATIONS.
3. THRUST BLOCK – SEE DETAIL D, SHEET C-2.
4. NEW SEWER CLEAN OUT – SEE DETAIL E, SHEET C-2.
5. PROVIDE ALL TRENCHING IN ACCORDANCE WITH DETAIL F, SHEET C-2.
6. CONNECT 6" PVC TO EXISTING MANHOLE.
7. EXERCISE CARE WHEN EXCAVATING AROUND UTILITY POLE. PROVIDE TEMPOARARY SUPPORT DURING CONSTRUCTION.
8. EXISTING WATER SERVICE TO BE CAPPED AT BOTH ENDS AND ABANDONED IN PLACE.
9. TERMINATE NEW 2" DOMESTIC WATER 5' OUTSIDE OF BUILDING. SEE PLUMBING PLANS, SHEET P-1 FOR CONTINUATION.
10. TERMINATE NEW 6" SEWER 5' OUTSIDE OF BUILDING. SEE PLUMBING PLANS, SHEET P-1 FOR CONTINUATION.

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

GRAPHIC SCALE: 1" = 20'

C-1

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AE PROJECT # 13034

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DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND

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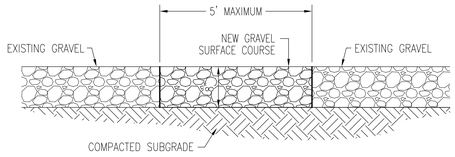
ADDITIONS OF HEADS TO BUILDING M112

SITE PLAN

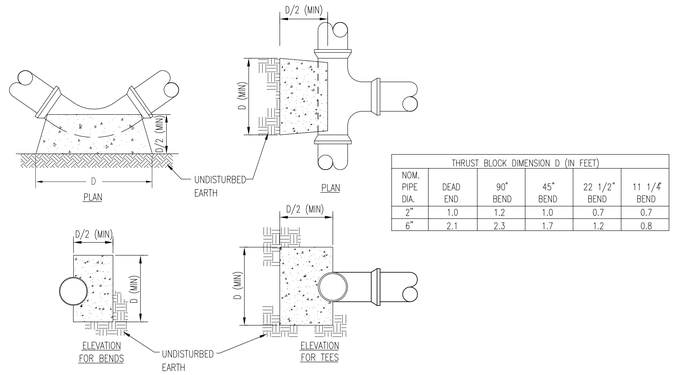
SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
F		60010134
		CONST. CONTR. NO. N40085-12-B-0019
SCALE: NOTED	SPEC. 05-12-0019	SHEET 3 OF 11

SYM	REVISIONS	DATE APPROVED



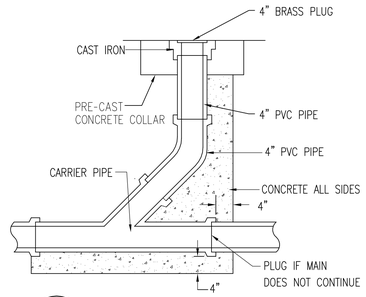
TYPICAL REPAIR OF GRAVEL CUT

A C-1 C-2 CUT & PATCH NOT TO SCALE



THRUST BLOCK DIMENSION D (IN FEET)					
NOM. PIPE DIA.	DEAD END	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
2"	1.0	1.2	1.0	0.7	0.7
6"	2.1	2.3	1.7	1.2	0.8

D C-1 C-2 THRUST BLOCK NOT TO SCALE



E C-1 C-2 SEWER CLEANOUT NOT TO SCALE

TEMPORARY VEGETATIVE SEEDING (PRIOR TO ESTABLISHING PERMANENT VEGETATION)

AFTER COMPLETION OF GRADING ACTIVITIES AND THE CONSTRUCTION OF SWALES, ALL EXPOSED AREAS SHALL BE SEEDED 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

SUPPLEMENTAL SEED

MAY THROUGH AUGUST:

CENTIPEDE	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 SOWN 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 ACHIEVED AT LEAST 95% COVERAGE OF DISTURBED AREAS. RESEEDING WILL BE REQUIRED AS NECESSARY BY THE CONTRACTOR TO OBTAIN THE SPECIFIED STAND OF GRASS.

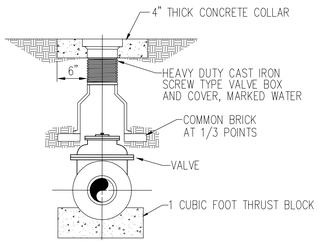
PERMANENT VEGETATION

ALL DISTURBED AREAS NOT COVERED WITH BUILDINGS, PAVEMENTS, OR OTHER IMPERMEABLE SURFACES SHALL BE SODDED AS THE FINAL/PERMANENT VEGETATION.

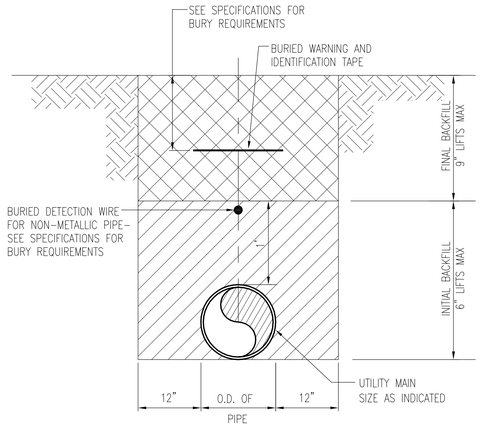
SPECIAL SEEDING NOTE:

CUT & FILL SLOPES WILL, WITHIN 7 CALENDAR DAYS DAYS OF COMPLETION OF ANY PHASE OF GRADING, BE PLANTED AND PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION.

B C-1 C-2 VEGETATION PLAN NOT TO SCALE



C C-1 C-2 VALVE AND VALVE BOX NOT TO SCALE



PIPE TRENCH WITHOUT BEDDING

F C-1 C-2 PIPE TRENCH SECTION NOT TO SCALE

C-2

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AE PROJECT # 12034

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DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND

MARINE CORPS BASE

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DESIGN DIR.	B. MARSHBURN
APPROVED: PWO OR OICC	DATE
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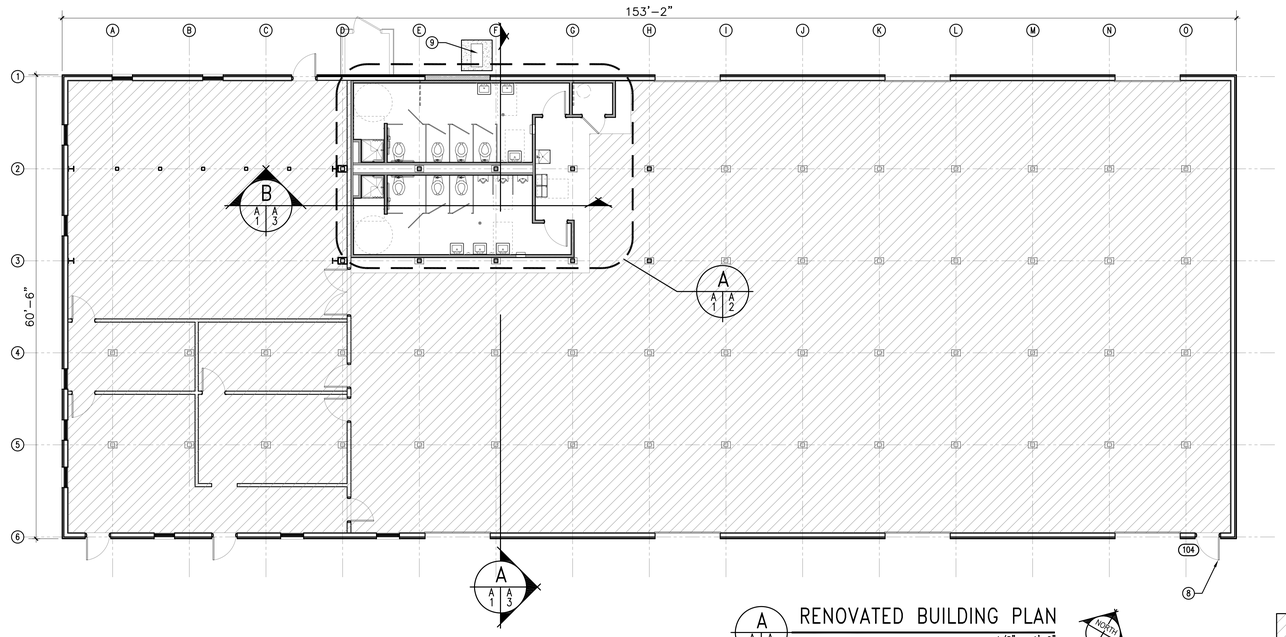
ADDITIONS OF HEADS TO BUILDING M112

SITE DETAILS

SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
F		60010135

CONST. CONTR. NO. N40085-12-B-0019

SCALE: NOTED | SPEC. 12-0019 | SHEET 4 OF 11



A1 A1 RENOVATED BUILDING PLAN
1/8" = 1'-0"

NORTH

NOT IN SCOPE OF WORK

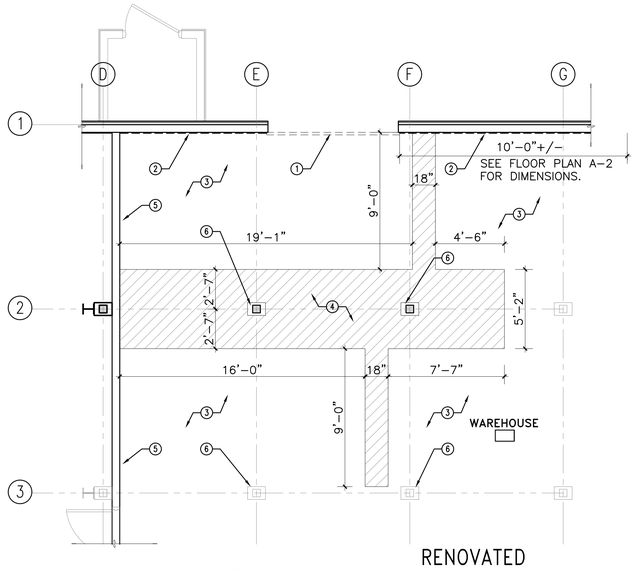
SYM	REVISIONS	DATE APPROVED

GENERAL NOTES

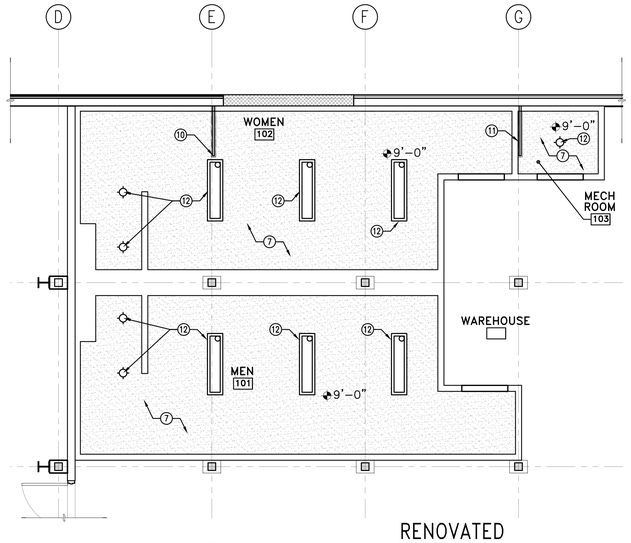
1. CONTRACTOR TO FIELD VERIFY ALL EXISTING DIMENSIONS BEFORE COMMENCING WORK.
2. SEE PLUMBING, MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL NOTES.
3. INSTALL NEW ELECTRICAL WIRING, BOXES, RECEPTACLES, SWITCHES, AND COVERS PER ELECTRICAL DRAWINGS.
4. CONTRACTOR TO PROVIDE BRACING FOR WALL HUNG TOILETS, URINALS, AND SINKS.

CONSTRUCTION NOTES

MARK	DESCRIPTION
1	DEMOLISH AND REMOVE EXISTING 8'x8' OVERHEAD COILING DOOR. RELEASE DOOR TO GOVERNMENT. PREPARE OPENING FOR NEW FINISH TO MATCH EXISTING.
2	DEMOLISH AND REMOVE EXISTING HARDBOARD FINISH, AS INDICATED, TO EXISTING WOOD STUDS. PREPARE FOR NEW WALL, SEE FLOOR PLAN A-2.
3	EXISTING CONCRETE FLOOR TO REMAIN. PREPARE FOR NEW FLOOR FINISH, SEE NEW FLOOR PLAN AND FINISH SCHEDULE.
4	SAWCUT, DEMOLISH, AND REMOVE CONCRETE (APPROX. 2 CY) TO INSTALL NEW PLUMBING LINES. SEE PLUMBING DRAWINGS. CONTRACTOR TO VERIFY QUANTITIES IN THE FIELD.
5	EXISTING WOOD STUD WALL TO REMAIN.
6	EXISTING 6" x 6" WOOD STRUCTURAL COLUMN AND CONCRETE BASE TO REMAIN.
7	5/8" GYPSUM BOARD, FINISH AND PAINT, SEE FINISH SCHEDULE FOR ADDITIONAL NOTES.
8	DEMOLISH AND REMOVE EXISTING 2x4 WOOD STUD AND VINYL SIDING FOR NEW 3'-0"x7'-0" HOLLOW METAL FRAME AND EXTERIOR INSULATED STEEL DOOR.
9	INSTALL NEW 4'X4'X4" CONCRETE SLAB WITH TURN DOWN EDGE FOR NEW CONDENSOR UNIT, SEE MECHANICAL FOR ADDITIONAL NOTES.
10	EXISTING STRUCTURAL MEMBER TO REMAIN. PAINT TO MATCH NEW ADJACENT WALL, SEE FINISH SCHEDULE FOR ADDITIONAL NOTES.
11	STRUCTURAL MEMBER TO REMAIN.
12	INSTALL NEW LIGHTING. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL NOTES.



B A1 A1 RENOVATED REFLECTED CEILING PLAN
1/4" = 1'-0"



C A1 A1 RENOVATED REFLECTED CEILING PLAN
1/4" = 1'-0"

GRAPHIC SCALE

0 1 2 3 4 5 6 7 8 10 20
Scale: 1/8"=1'-0"

0 1 2 3 4 5 10
Scale: 1/4"=1'-0"

A-1

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WALKER the GROUP ARCHITECTURE

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND

MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	M. SKOPAK
DR.	M. SKOPAK
CHK.	B.WALKER
SUBMITTED BY:	J.WALKER
DESIGN DIR.	B. MARSHBURN
APPROVED: PWO OR OICC	DATE
SATISFACTORY TO:	DATE

ADDITIONS OF HEADS
TO BUILDING M112
BUILDING PLAN, DEMOLITION PLAN, AND REFLECTED CEILING PLAN

SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
F		60010136

CONST. CONTR. NO. N40085-12-B-0019

SCALE: NOTED | SPEC. 12-0019 | SHEET 5 OF 11

HENRY LEE WALKER REGISTERED ARCHITECT NORTH CAROLINA NEW BERN, NC 6161 6.1.12

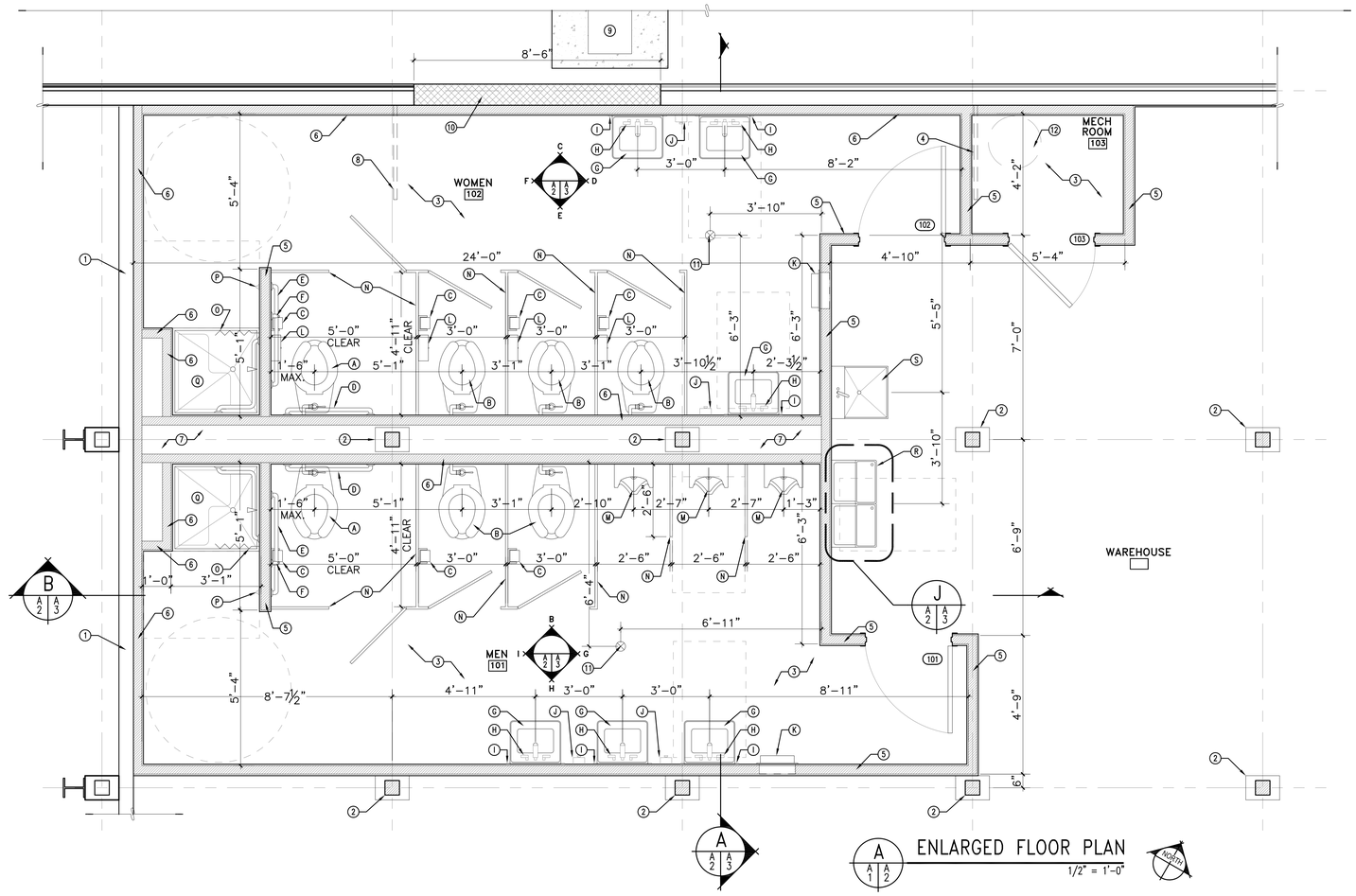
SYM	REVISIONS	DATE APPROVED

GENERAL NOTES

1. CONTRACTOR TO FIELD VERIFY ALL EXISTING DIMENSIONS BEFORE COMMENCING WORK.
2. SEE PLUMBING, MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL NOTES.
3. INSTALL NEW ELECTRICAL WIRING, BOXES, RECEPTACLES, SWITCHES, AND COVERS PER ELECTRICAL DRAWINGS.
4. CONTRACTOR TO PROVIDE BRACING FOR WALL HUNG TOILETS, URINALS, AND SINKS.

CONSTRUCTION NOTES

MARK	DESCRIPTION
①	EXISTING WOOD STUD WALL TO REMAIN.
②	EXISTING 6" x 6" WOOD STRUCTURAL COLUMN AND CONCRETE BASE TO REMAIN.
③	EXISTING CONCRETE FLOOR TO REMAIN. PREPARE AND INSTALL NEW EPOXY COATING FLOOR FINISH, SEE FINISH SCHEDULE.
④	STRUCTURAL MEMBER TO REMAIN.
⑤	2x4 WOOD STUDS @ 16" OC WITH 5/8" GYPSUM BOARD EACH SIDE AND R-13 BATT INSULATION BETWEEN STUDS, FINISH AND PAINT.
⑥	2x4 WOOD STUDS @ 16" OC WITH 5/8" GYPSUM BOARD ONE SIDE AND BATT INSULATION BETWEEN STUDS, FINISH AND PAINT.
⑦	CONTRACTOR TO PLACE NEW 3000# CONCRETE 4" THICK TO FILL EXCAVATED PLUMBING TRENCH, SEE DEMOLITION PLAN. FINISH CONCRETE TO MATCH EXISTING.
⑧	EXISTING STRUCTURAL MEMBER TO REMAIN. PAINT TO MATCH NEW ADJACENT WALL.
⑨	INSTALL NEW 4'X4'X4" CONCRETE SLAB WITH TURN DOWN EDGE FOR NEW CONDENSOR UNIT, SEE MECHANICAL FOR ADDITIONAL NOTES.
⑩	INFILL OPENING WITH 2x6 WOOD STUDS @ 16" O.C. WITH R-19 BATT INSULATION BETWEEN STUDS. PROVIDE 1/2" PLYWOOD SHEATHING AND INSTALL EXTERIOR VINYL LAP SIDING TO MATCH EXISTING. INSTALL 5/8" GYP. BD. ON INTERIOR, FINISH AND PAINT. PROVIDE PRESSURE TREATED LUMBER AT BOTTOM PLATE.
⑪	INSTALL NEW FLOOR DRAIN, SEE PLUMBING.
⑫	NEW WATER HEATER. SEE MECHANICAL FOR ADDITIONAL NOTES.



A1 A2 — ENLARGED FLOOR PLAN — 1/2" = 1'-0"

TOILET ACCESSORIES SCHEDULE

MARK	DESCRIPTION	MOUNTING INSTRUCTIONS
Ⓐ	FLUSH VALVE ADA TOILET	1'-5" TO 1'-7" A.F.F. TO RIM, ℄ TO BE 18" FROM SIDE WALL
Ⓑ	FLUSH VALVE TOILET	1'-5" TO 1'-7" A.F.F. TO RIM
Ⓒ	SURFACE-MOUNTED TOILET TISSUE DISP.	22" A.F.F. TO CENTER, 36" FROM REAR WALL
Ⓓ	36" GRAB BAR	33"-36" A.F.F. TO CENTER, 6" MAX. FROM CORNER
Ⓔ	42" GRAB BAR	33"-36" A.F.F. TO CENTER, 12" MAX. FROM CORNER
Ⓕ	18" GRAB BAR	BOTTOM OF BAR @ 39"-41" A.F.F. W/ ℄ 39"-41" FROM REAR WALL
Ⓖ	WALL-HUNG SINK	34" A.F.F. TO RIM
Ⓗ	LEVER ACTION FAUCET	MOUNT PER SINK TYPE
Ⓘ	STAINLESS STEEL CHANNEL FRAMED MIRROR (24X36)	40" A.F.F. TO TOP OF BACKSPLASH
Ⓙ	WALL-MOUNTED SOAP DISPENSER	48" A.F.F. TO DISP. SPOUT
Ⓚ	SEMI-RECESSED TOWEL DISP./ WASTE RECEPTACLE	48" A.F.F., MAX. TO DISP.
Ⓛ	SURFACE-MOUNTED SANITARY NAPKIN DISPOSAL	MOUNT 15" A.F.F. MIN 7"-9" FROM TOILET TISSUE DISP.
Ⓜ	WALL-MOUNTED URINAL	17 A.F.F., MAX. TO RIM
Ⓝ	TOILET PARTITION / URINAL SCREEN	CLEAR WIDTH AS SHOWN ON PLAN.
Ⓞ	SHOWER ROD AND CURTAIN	74" A.F.F. TO CENTER OF ROD
Ⓟ	CLOTHES HOOK	48" A.F.F. TO CENTER
Ⓠ	36x36 ACCESSIBLE SHOWER UNIT WITH SEAT	½" MAX. HIGH CURB/THRESHOLD. SEE INT. ELEV. FOR MOUNTING HT.
Ⓡ	ELECTRIC WATER COOLER	REFER TO DETAIL 'J' ON SHEET A-3.
Ⓢ	UTILITY SINK	SEE PLUMBING

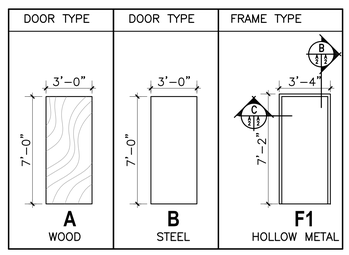
DOOR SCHEDULE

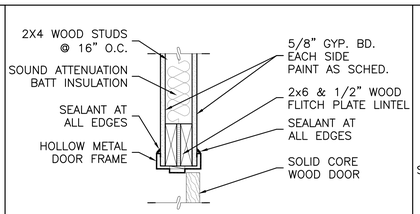
NOTE: CONTRACTOR SHALL FIELD VERIFY ALL DOOR AND FRAME DIMENSIONS IN FIELD PRIOR TO ORDERING UNITS. SEE PLAN LOCATIONS FOR SPECIFIC HANDLING AND ORIENTATION.

DOOR DATA					FRAME DATA		DETAILS				
NUM.	TYPE	SIZE	THK.	MATRL.	TYPE	MATRL.	HEAD	JAMB	SILL	HARDWARE	REMARKS
101	A	3'-0"x7'-0"	1-3/4"	WD.	F1	H.M.	B/A-2	C/A-2	–	3	
102	A	3'-0"x7'-0"	1-3/4"	WD.	F1	H.M.	B/A-2	C/A-2	–	3	
103	A	3'-0"x7'-0"	1-3/4"	WD.	F1	H.M.	B/A-2	C/A-2	–	1	
104	B	3'-0"x7'-0"	1-3/4"	STL	F1	H.M.	B/A-2	C/A-2	–	2	EXTERIOR INSULATED STEEL DOOR

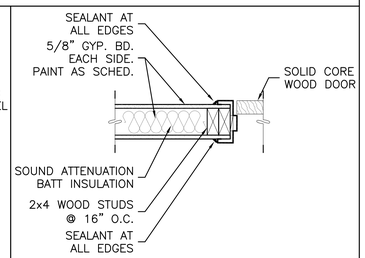
FINISH SCHEDULE

ROOM	FLOOR	BASE	WALL	CEILING
101 MEN	EPOXY COATING	D/A-2	GYP. BD., PAINT / TILE	GYP. BD., PAINT
102 WOMEN	EPOXY COATING	D/A-2	GYP. BD., PAINT / TILE	GYP. BD., PAINT
103 MECH. ROOM	EPOXY COATING	D/A-2	GYP. BD., PAINT	GYP. BD., PAINT

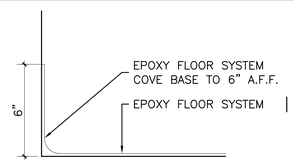




B A2 A2 — HEAD DETAIL — 1-1/2" = 1'-0"



C A2 A2 — JAMB DETAIL — 1-1/2" = 1'-0"



D A2 A2 — BASE DETAIL — 3" = 1'-0"

GRAPHIC SCALE

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

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

Scale: 3"=1'-0"

A-2

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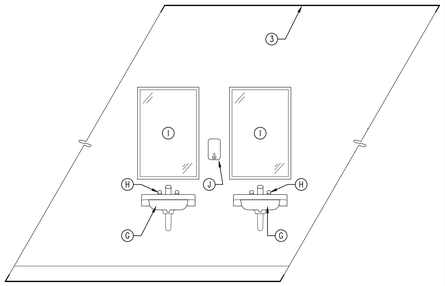
DESIGN DIR.	B. MARSHBURN
APPROVED: PWO OR OICC	DATE
SATISFACTORY TO:	DATE

ADDITIONS OF HEADS
TO BUILDING M112
ENLARGED PLAN, DETAILS, AND SCHEDULES

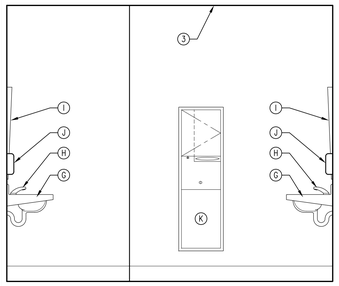
SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
F		60010137

CONST. CONTR. NO. N40085-12-B-0019

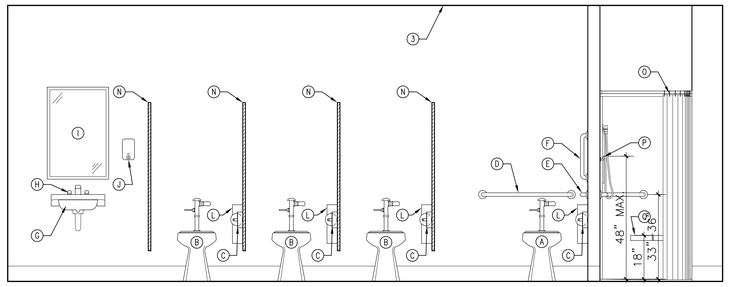
SCALE: NOTED | SPEC. 12-0019 | SHEET 6 OF 11



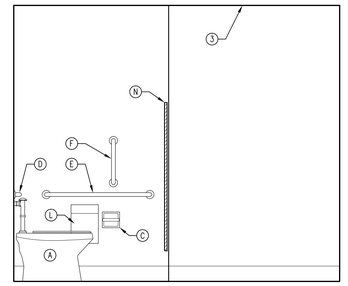
C INTERIOR ELEVATION
A/2 A/3
1/2" = 1'-0"



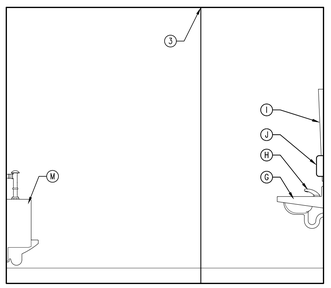
D INTERIOR ELEVATION
A/2 A/3
1/2" = 1'-0"



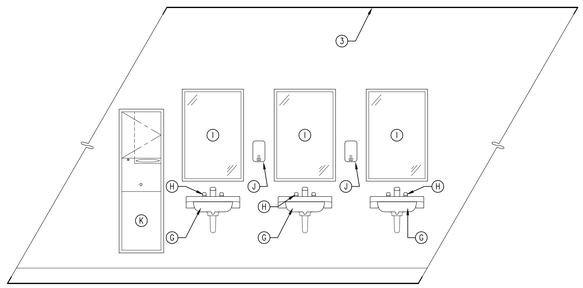
E INTERIOR ELEVATION
A/2 A/3
1/2" = 1'-0"



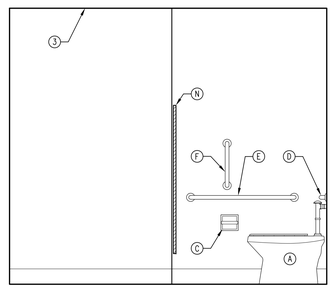
F INTERIOR ELEVATION
A/2 A/3
1/2" = 1'-0"



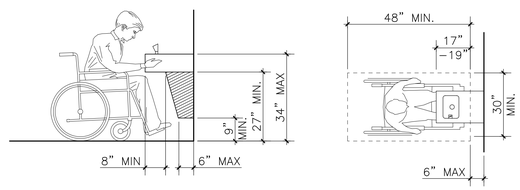
G INTERIOR ELEVATION
A/2 A/3
1/2" = 1'-0"



H INTERIOR ELEVATION
A/2 A/3
1/2" = 1'-0"



I INTERIOR ELEVATION
A/2 A/3
1/2" = 1'-0"



J EWC DETAIL
A/2 A/3
1/2" = 1'-0"

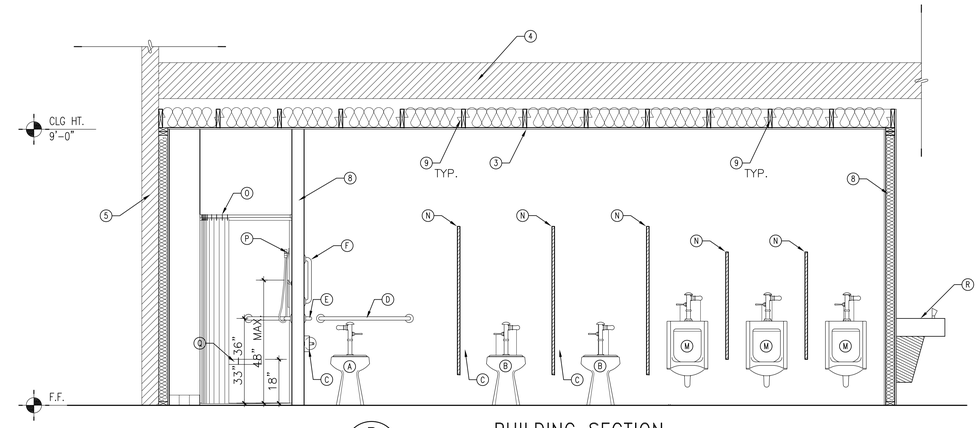
SYM	REVISIONS	DATE APPROVED

GENERAL NOTES

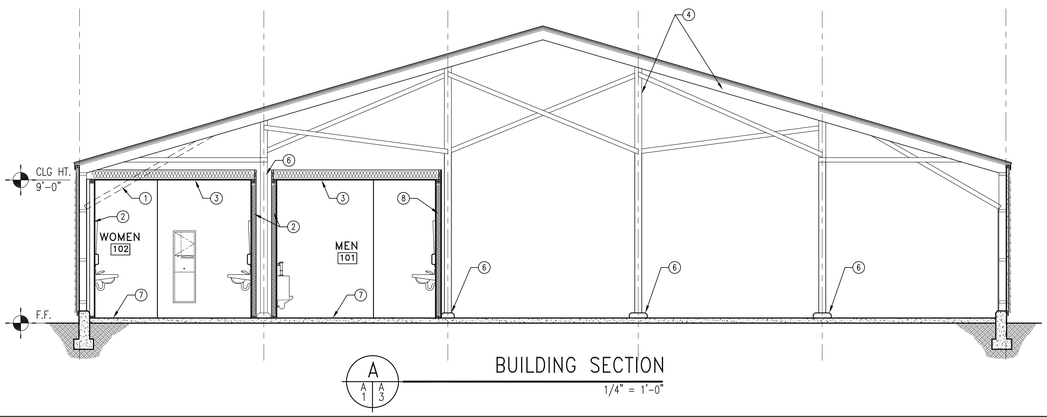
1. CONTRACTOR TO FIELD VERIFY ALL EXISTING DIMENSIONS BEFORE COMMENCING WORK.
2. SEE PLUMBING, MECHANICAL AND ELECTRICAL PLANS FOR ADDITIONAL NOTES.
3. INSTALL NEW ELECTRICAL WIRING, BOXES, RECEPTACLES, SWITCHES, AND COVERS PER ELECTRICAL DRAWINGS.
4. CONTRACTOR TO PROVIDE BRACING FOR WALL HUNG TOILETS, URINALS, AND SINKS.

CONSTRUCTION NOTES

MARK	DESCRIPTION
1	EXISTING STRUCTURAL MEMBER TO REMAIN. PAINT TO MATCH NEW ADJACENT WALL.
2	2x4 WOOD STUDS @ 16" OC WITH 5/8" GYPSUM BOARD ONE SIDE AND BATT INSULATION BETWEEN STUDS, FINISH AND PAINT.
3	FINISH AND PAINT MOISTURE RESISTANT 5/8" GYPSUM BOARD ON UNDERSIDE OF 2x8 CEILING JOISTS @ 24" O.C. WITH R-19 INSULATION, FINISH AND PAINT.
4	EXISTING WOOD STRUCTURE TO REMAIN.
5	EXISTING WOOD STUD WALL TO REMAIN.
6	EXISTING 6"x6" WOOD STRUCTURAL COLUMN AND CONCRETE BASE TO REMAIN.
7	CONTRACTOR TO INSTALL NEW EPOXY FLOOR COATING SEE FINISH SCHEDULE.
8	2x4 WOOD STUDS @ 16" OC WITH 5/8" GYPSUM BOARD EACH SIDE AND R-13 BATT INSULATION BETWEEN STUDS, FINISH AND PAINT.
9	2X8 WOOD CEILING JOIST @ 24' O.C., BEAR ON 2X4 WOOD STUD.



B BUILDING SECTION
A/1 A/3
1/2" = 1'-0"



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

TOILET ACCESSORIES SCHEDULE

MARK	DESCRIPTION	MOUNTING INSTRUCTIONS
A	FLUSH VALVE ADA TOILET	1'-5" TO 1'-7" A.F.F. TO RIM, ℄ TO BE 18" FROM SIDE WALL
B	FLUSH VALVE TOILET	1'-5" TO 1'-7" A.F.F. TO RIM
C	SURFACE-MOUNTED TOILET TISSUE DISP.	22" A.F.F. TO CENTER, 36" FROM REAR WALL
D	36" GRAB BAR	33"-36" A.F.F. TO CENTER, 6" MAX. FROM CORNER
E	42" GRAB BAR	33"-36" A.F.F. TO CENTER, 12" MAX. FROM CORNER
F	18" GRAB BAR	BOTTOM OF BAR @ 39"-41" A.F.F. W/ ℄ 39"-41" FROM REAR WALL
G	WALL-HUNG SINK	34" A.F.F. TO RIM
H	LEVER ACTION FAUCET	MOUNT PER SINK TYPE
I	STAINLESS STEEL CHANNEL FRAMED MIRROR (24X36)	40" A.F.F. TO TOP OF BACKSPLASH
J	WALL-MOUNTED SOAP DISPENSER	48" A.F.F. TO DISP. SPOUT
K	SEMI-RECESSED TOWEL DISP./ WASTE RECEPTACLE	48" A.F.F., MAX. TO DISP.
L	SURFACE-MOUNTED SANITARY NAPKIN DISPOSAL	MOUNT 15" A.F.F. MIN 7"-9" FROM TOILET TISSUE DISP.
M	WALL-MOUNTED URINAL	17 A.F.F., MAX. TO RIM
N	TOILET PARTITION / URINAL SCREEN	CLEAR WIDTH AS SHOWN ON PLAN.
O	SHOWER ROD AND CURTAIN	74" A.F.F. TO CENTER OF ROD
P	CLOTHES HOOK	48" A.F.F. TO CENTER
Q	36x36 ACCESSIBLE SHOWER UNIT WITH SEAT	½" MAX. HIGH CURB/THRESHOLD. SEE INT. ELEV. FOR MOUNTING HT.
R	ELECTRIC WATER COOLER	REFER TO DETAIL 'J' ON SHEET A-3.
S	UTILITY SINK	SEE PLUMBING

GRAPHIC SCALE

0 1 2 3 4 5 10
Scale: 1/4"=1'-0"

0 3/8 1 2 3 4 5 6
Scale: 1/2"=1'-0"

A-3

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APPROVED: PWO OR OICC	DATE
SATISFACTORY TO:	DATE

ADDITIONS OF HEADS
TO BUILDING M112
SECTIONS AND INTERIOR ELEVATIONS

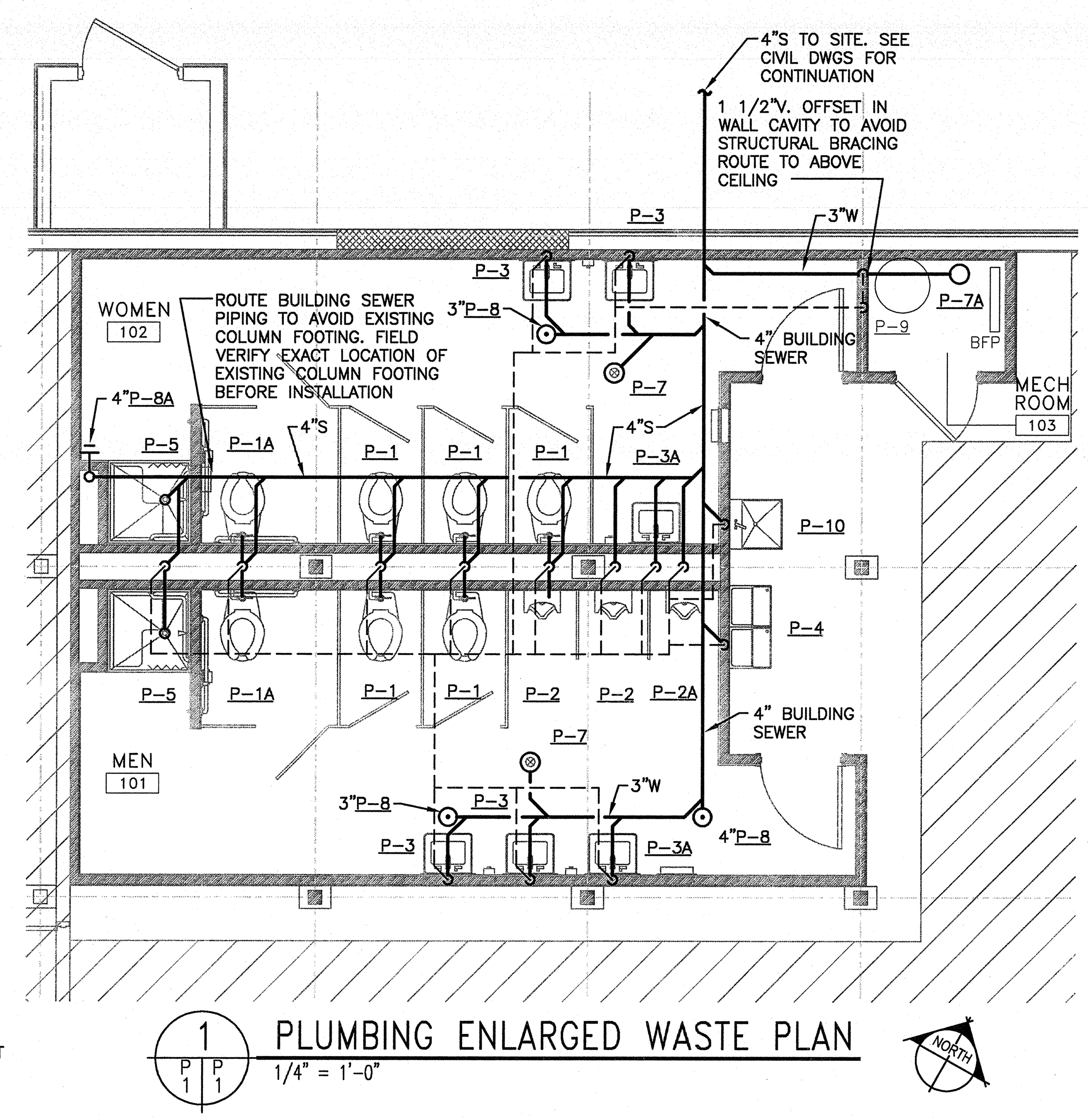
SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
F		60010138
		CONST. CONTR. NO. N40085-12-B-0019
SCALE: NOTED	SPEC. 12-0019	SHEET 7 OF 11

PLUMBING SYMBOLS LEGEND

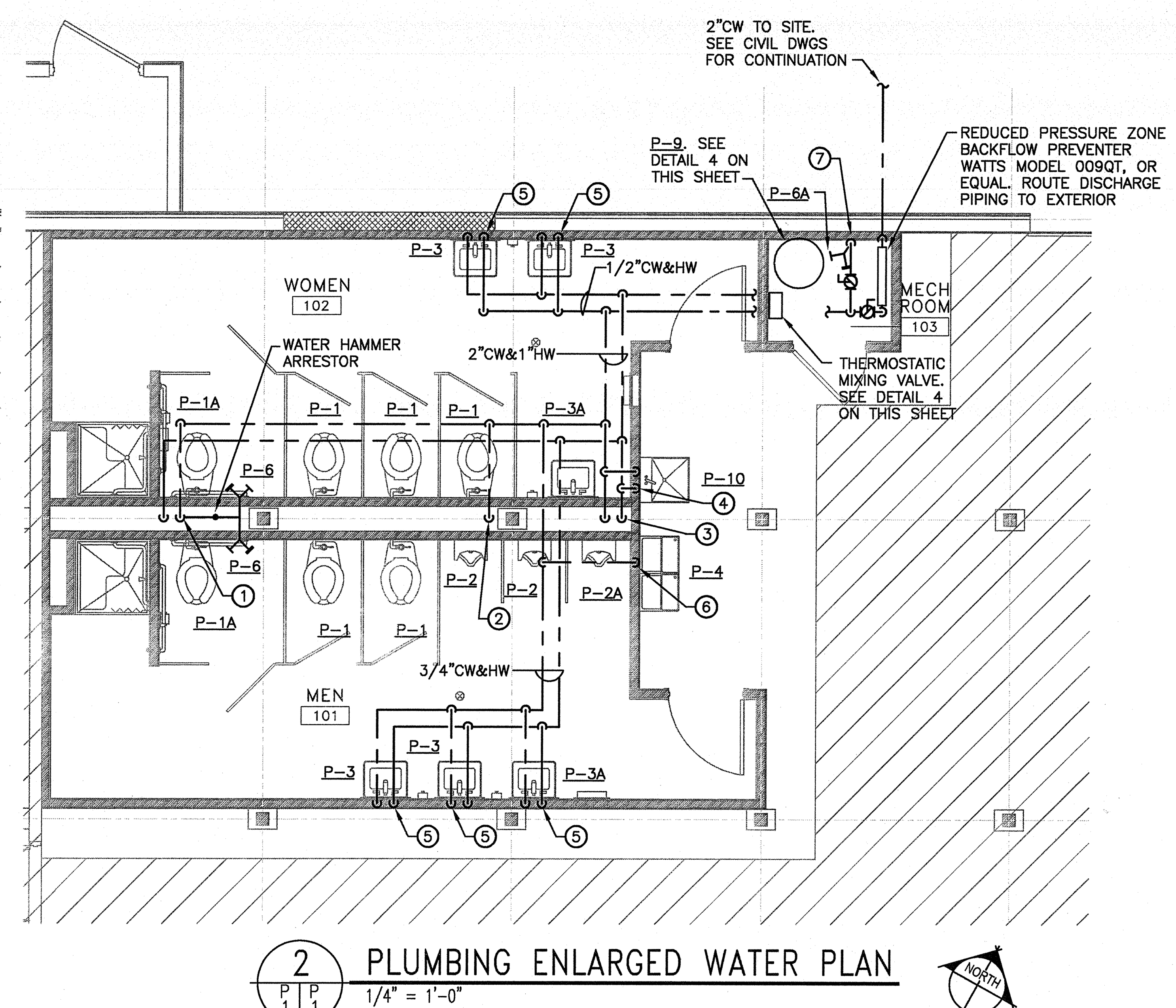
Symbol	Abbreviation	Description
	HW	HOT WATER PIPING
	CW	COLD WATER PIPING
	W	SANITARY WASTE PIPING
	S	SANITARY SOIL PIPING
	V	SANITARY VENT PIPING
	FCO	FLOOR CLEANOUT
		DIRECTION OF FLOW IN PIPE
		BALL VALVE
		HOSE BIBB/WALL HYDRANT
	VTR	VENT THRU ROOF
		PIPE TURNED UP
		PIPE TURNED DOWN
		TEE DOWN
		TEE UP
	FD	FLOOR DRAIN

GENERAL PLUMBING NOTES

1. NOT ALL SYMBOLS AND ABBREVIATIONS SHOWN ON THIS DRAWING MAY BE USED ON THIS PROJECT.
2. UNLESS OTHERWISE NOTED ON DRAWINGS, ALL 1 1/2" & 2" SANITARY WASTE AND VENT PIPING SHALL BE RUN AT 1/4" PER FT SLOPE. ALL SANITARY WASTE AND VENT PIPING 3" AND LARGER SHALL BE RUN AT 1/8" PER FT SLOPE. ALL STORM DRAINAGE PIPING SHALL BE RUN AT 1/8" PER FT SLOPE.
3. THE DESIGN/DETAIL/SCHEDULE SHOWN IS BASED ON MANUFACTURER & MODEL SPECIFIED AND IS INTENDED ONLY TO SHOW THE GENERAL SIZE, CONFIGURATION, LOCATION, CONNECTIONS, AND/OR SUPPORT FOR EQUIPMENT OR SYSTEMS SPECIFIED WITH RELATION TO THE OTHER BUILDING SYSTEMS.
4. IN FINISHED AREAS, INSTALL ALL PIPING AT THE MAXIMUM ELEVATION POSSIBLE. PROVIDE ALL FITTINGS, TRANSITIONS AND MATERIALS REQUIRED TO ACHIEVE MAXIMUM ELEVATION. COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO THE START OF WORK TO AVOID CONFLICTS.
5. CONTRACTOR SHALL FURNISH ALL DISCONNECTS REQUIRED FOR PLUMBING EQUIPMENT.
6. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL MANUFACTURER SUBSTITUTIONS OF MECHANICAL EQUIPMENT. SUBMIT A DESCRIPTION OF ANY/ALL CHANGES REQUIRED BY THE SUBSTITUTION, INCLUDING ELECTRICAL AND PLUMBING CONNECTIONS, SIZES, WEIGHTS, AND CLEARANCES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL COST ASSOCIATED WITH THE SUBSTITUTION.
7. THE CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL CODES AND REGULATIONS. THE CONTRACTOR SHALL INFORM THE GOVERNMENT OF ANY CONFLICTS AS SOON AS THEY ARE DETECTED.
8. ANY SUPPORT WHICH IS HUNG FROM ANY JOIST SHALL BE HUNG FROM THE PANEL POINT OF THE JOIST. NOTE: DO NOT SUPPORT PIPING AND/OR DUCTWORK FROM BAR JOIST BRIDGING.
9. THESE DRAWINGS ARE NECESSARILY DIAGRAMMATIC IN NATURE. NOT ALL FITTINGS, OFFSETS, VENTS, OR DRAINS ARE SHOWN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING AND INCLUDE ALL FITTINGS, OFFSETS, VENTS, AND DRAINS AS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONING SYSTEM.



1 PLUMBING ENLARGED WASTE PLAN
1/4" = 1'-0"



2 PLUMBING ENLARGED WATER PLAN
1/4" = 1'-0"

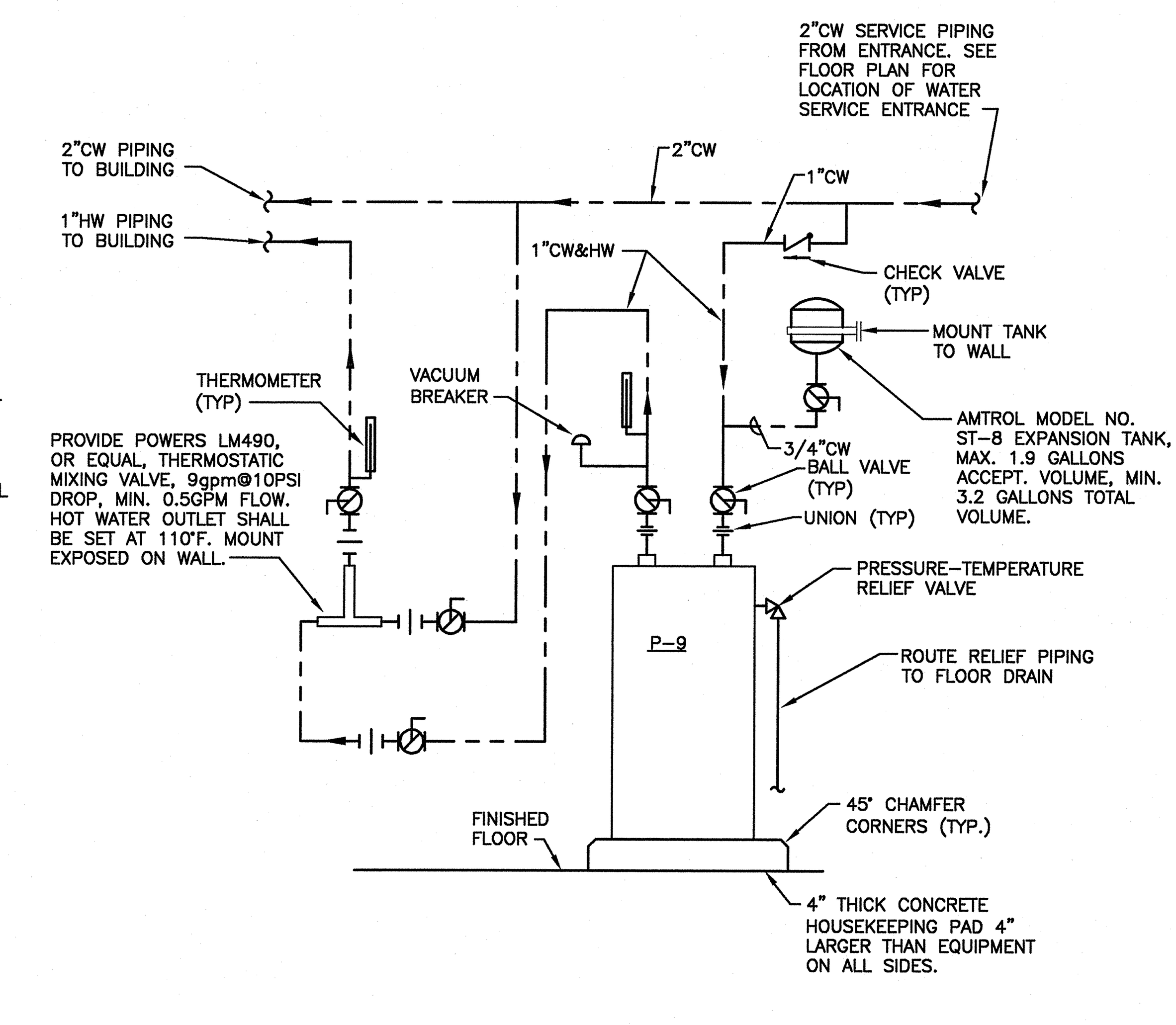
SYM	REVISIONS	DATE APPROVED

GENERAL NOTES

1. PLUMBING CONTRACTOR SHALL SAWCUT EXISTING FLOOR SLAB TO INSTALL ALL PIPING BELOW SLAB.

KEYED NOTES

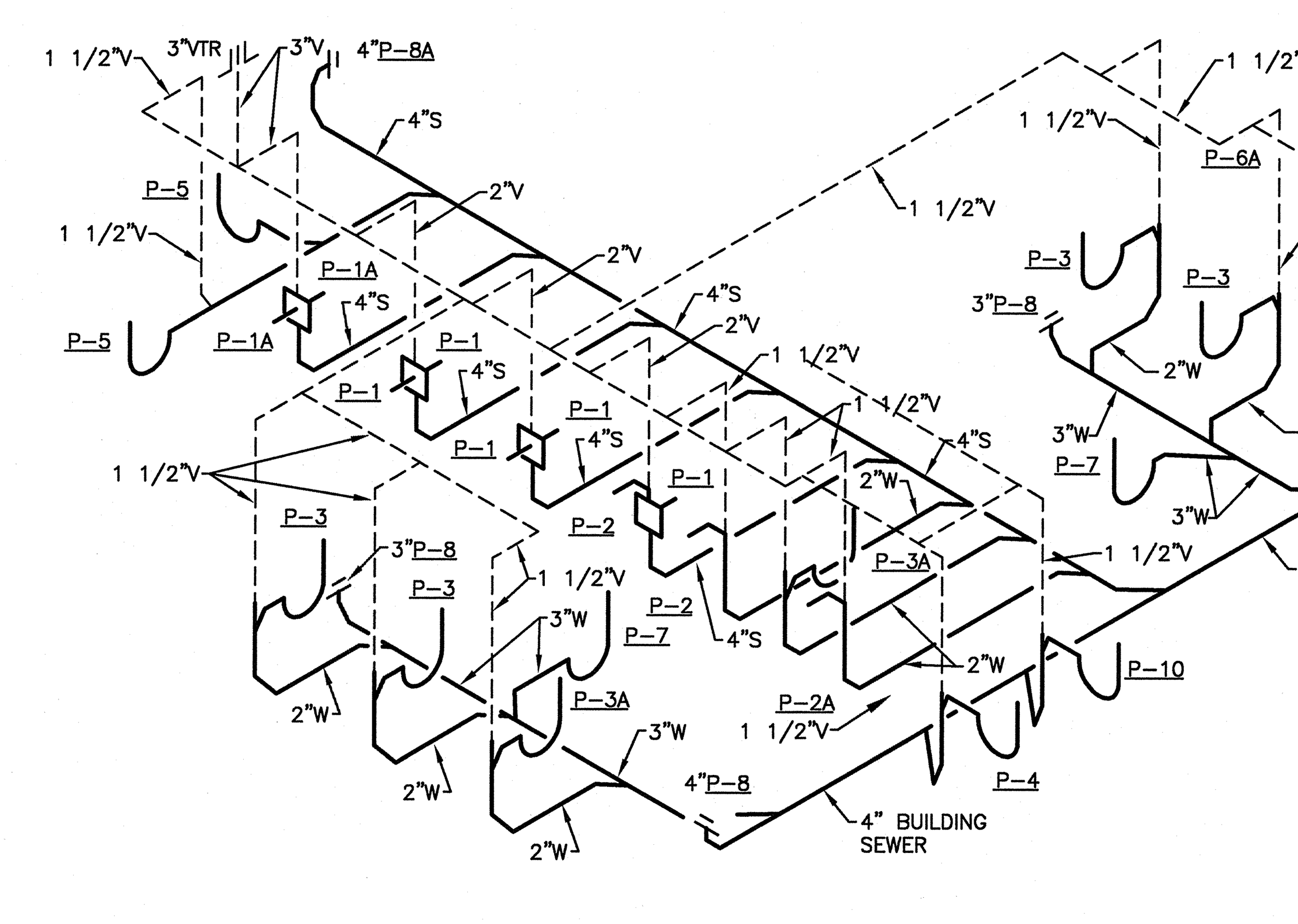
MARK	DESCRIPTION
1	1 1/2"CW&1/2"HW DOWN. PROVIDE PIPING MANIFOLD TO SERVE FIXTURES. ROUTE 1"CW TO EACH WATER CLOSET, 1/2"CW TO EACH HOSE BIBB, & 1/2"CW&HW TO EACH SHOWER VALVE.
2	2"CW DOWN. PROVIDE PIPING MANIFOLD TO SERVE FIXTURES. ROUTE 1"CW TO EACH WATER CLOSET & 3/4"CW TO URINAL.
3	1 1/2"CW&1/2"HW DOWN. PROVIDE PIPING MANIFOLD TO SERVE FIXTURES. ROUTE 3/4"CW TO EACH URINAL & 1/2"CW&HW TO LAVATORY.
4	1/2"CW&HW DOWN TO UTILITY SINK.
5	1/2"CW&HW DOWN TO LAVATORY.
6	1/2"CW DOWN TO WATER COOLER.
7	1/2"CW DOWN TO HOSE BIBB.



4 WATER HEATER DETAIL
N.T.S.

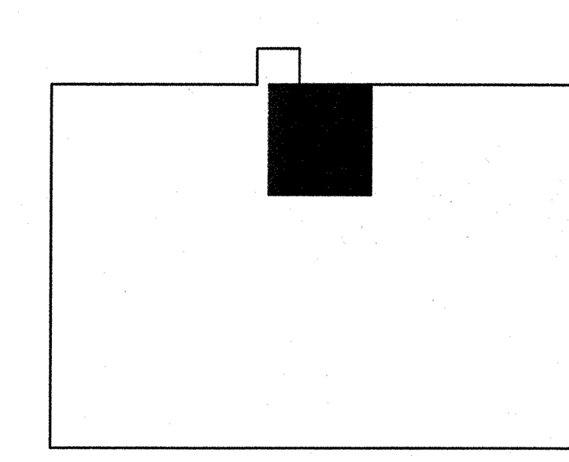
PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	MANUFACTURER	DESCRIPTION (MODEL)	ROUGH-IN SIZES WASTE	VENT	C.W.	H.W.	REMARKS
P-1	WATER CLOSET	AMERICAN STANDARD OR EQUAL	MODEL 2257.001, OR EQUAL, ELONGATED, 1.28 GPF, VITREOUS CHINA, WALL MOUNTED, COLOR WHITE	4"	2"	1"	–	PROVIDE SLOAN MODEL 111-1.28, OR EQUAL, 1.28GPF, MANUAL FLUSH VALVE. PROVIDE CHURCH NO. 9500NSSC SEAT – COLOR WHITE AND SELF-SUSTAINING CHECK HINGES, OR EQUAL.
P-1A	WATER CLOSET (ADA)	AMERICAN STANDARD OR EQUAL	MODEL 2257.001, OR EQUAL, ELONGATED, 1.28 GPF, VITREOUS CHINA, WALL MOUNTED, COLOR WHITE	4"	2"	1"	–	PROVIDE SLOAN MODEL 111-1.28, OR EQUAL, 1.28GPF, MANUAL FLUSH VALVE. PROVIDE CHURCH NO. 9500NSSC SEAT – COLOR WHITE AND SELF-SUSTAINING CHECK HINGES, OR EQUAL. MOUNT FLUSH VALVE HANDLE ON WIDE SIDE OF STALL. MOUNT TO MEET ADA REQUIREMENTS.
P-2	URINAL	AMERICAN STANDARD OR EQUAL	MODEL 6590.005, OR EQUAL, WALL HUNG, 0.5GPF, VITREOUS CHINA, 3/4" TOP SPUD, COLOR WHITE	2"	1 1/2"	3/4"	–	PROVIDE SLOAN MODEL 186-0.5, OR EQUAL, 0.5GPF, MANUAL FLUSH VALVE.
P-2A	URINAL (ADA)	AMERICAN STANDARD OR EQUAL	MODEL 6590.005, OR EQUAL, WALL HUNG, 0.5GPF, VITREOUS CHINA, 3/4" TOP SPUD, COLOR WHITE	2"	1 1/2"	3/4"	–	PROVIDE SLOAN MODEL 186-0.5, OR EQUAL, 0.5GPF, MANUAL FLUSH VALVE. MOUNT TO MEET ADA REQUIREMENTS.
P-3	WALL HUNG LAVATORY	AMERICAN STANDARD OR EQUAL	MODEL 4867.004, OR EQUAL – 19"x17" WALL HUNG, WHITE ENAMELED CAST IRON, COLOR WHITE, 4" CENTERSET	2"	1 1/2"	1/2"	1/2"	PROVIDE MCGUIRE 8902 P-TRAP, OR EQUAL, MCGUIRE 167 SERIES, OR EQUAL, MCGUIRE 155A STRAINER, OR EQUAL, AND DELTA 22C151 SINGLE LEVER FAUCET WITH 0.5GPM AERATOR, OR EQUAL.
P-3A	WALL HUNG LAVATORY (ADA)	AMERICAN STANDARD OR EQUAL	MODEL 4867.004, OR EQUAL – 19"x17" WALL HUNG, WHITE ENAMELED CAST IRON, COLOR WHITE, 4" CENTERSET	2"	1 1/2"	1/2"	1/2"	PROVIDE MCGUIRE 8902 P-TRAP, OR EQUAL, MCGUIRE 167 SERIES, OR EQUAL, MCGUIRE 155A STRAINER, OR EQUAL, AND DELTA 22C151 SINGLE LEVER FAUCET WITH 0.5GPM AERATOR, OR EQUAL. PROVIDE MCGUIRE PW2000, OR EQUAL, INSULATION KIT FOR P-TRAP AND SUPPLIES. MOUNT TO MEET ADA REQUIREMENTS.
P-4	2-LEVEL WATER COOLER	ELKAY OR EQUAL	MODEL EZSTL8C, OR EQUAL – WALL HUNG, 2-LEVEL, WHEELCHAIR ACCESS, 8GPH	2"	1 1/2"	1/2"	–	PROVIDE MCGUIRE 8902 P-TRAP, OR EQUAL, AND MCGUIRE 166 SUPPLY, OR EQUAL. FOUNTAIN IS 115V/60HZ. PROVIDE WITH LKAPREZL APRON, OR EQUAL.
P-5	FIBERGLASS SHOWER UNIT	AQUA GLASS OR EQUAL	MODEL 833941AL, PREFABRICATED FIBERGLASS SHOWER UNIT, 36"x36" WITH FOLDUP SEAT	2"	1 1/2"	1/2"	1/2"	PROVIDE WITH 2" TUB DRAIN KIT WITH STRAINER AND SYMMONS TEMPTROL 96-500-B30-L-V PRESSURE-BALANCING MIXING VALVE WITH INTEGRAL STOPS, LEVER HANDLE, 1.5GPM CHROME PLATED BRASS SHOWER HEAD, DIVERTER VALVE, AND HAND HELD SHOWER WITH 30" SLIDE BAR. MOUNT BASIN RECESSED IN TOPPING SLAB. PROVIDE CHROME CURTAIN ROD. INSTALL SHOWER UNIT RECESSED IN TOPPING SLAB TO MEET ADA REQUIREMENTS.
P-6	HOSE BIBB	WOODFORD OR EQUAL	ANTI-CONT., RECESSED WALL FAUCET	–	–	1/2"	–	PROVIDE WITH LOOSE TEE KEY AND CHROME FINISH
P-6A	HOSE BIBB	WOODFORD OR EQUAL	ANTI-CONT., EXPOSED WALL FAUCET	–	–	1/2"	–	PROVIDE WITH LOOSE TEE KEY AND CHROME FINISH
P-7	FLOOR DRAIN RESTROOMS	ZURN OR EQUAL	DURACOAT CAST IRON BODY WITH BOTTOM OUTLET MEMBRANE CLAMP AND ADJUSTABLE COLLAR WIT HSEEPAGE SLOTS.	3"	1 1/2"	–	–	PROVIDE WITH DEEP SEAL P-TRAP, TYPE "S" SQUARE STRAINER AND TRAPGUARD INSERT TO PREVENT SEWER GASES FROM ESCAPING DRAIN.
P-7A	FLOOR DRAIN MECHANICAL ROOM	ZURN OR EQUAL	DURACOAT CAST IRON BODY WITH BOTTOM OUTLET MEMBRANE CLAMP AND ADJUSTABLE COLLAR WIT HSEEPAGE SLOTS.	3"	1 1/2"	–	–	PROVIDE WITH DEEP SEAL P-TRAP, TYPE "I" STRAINER WITH LIP AND TRAPGUARD INSERT TO PREVENT SEWER GASES FROM ESCAPING DRAIN.
P-8	FLOOR CLEANOUT	ZURN OR EQUAL	DURACOAT CAST IRON, ADJUSTABLE WITH GAS AND WATERTIGHT THREADED PLUG	SEE PLAN	–	–	–	PROVIDE WITH NICKEL BRONZE TOP.
P-8A	WALL CLEANOUT	ZURN OR EQUAL	STAINLESS STEEL ACCESS COVER AND BRONZE PLUG	SEE PLAN	–	–	–	–
P-9	ELECTRIC WATER HEATER	A.O.SMITH OR EQUAL	MODEL DEN-66, OR EQUAL, GLASS LINED STORAGE TANK WITH INTERNAL HEATING ELEMENT	–	–	1"	1"	208V, 1PH, 4.5KW NON-SIMULTANEOUS OPERATION ELEMENT. SET HEATER TO STORE WATER AT TEMPERATURE OF 140°F. FURNISH DISCONNECT MATCHED FOR UNIT. ROUTE RELIEF PIPING TO FLOOR DRAIN. PROVIDE THERMOSTATIC MIXING VALVE TO REDUCE TEMPERATURE FROM 140°F TO 110°F.
P-10	UTILITY SINK	FIAT OR EQUAL	COLOR WHITE, PLASTIC, FREE STANDING SINK, SINGLE COMPARTMENT, FOUR LEGS	2"	1 1/2"	1/2"	1/2"	PROVIDE MCGUIRE 8912 P-TRAP, OR EQUAL, MCGUIRE 167 SERIES, OR EQUAL, AND FIAT A-1 FAUCET, OR EQUAL.



3 PLUMBING WASTE ISOMETRIC RISER DIAGRAM
1/4" = 1'-0"

GRAPHIC SCALE
0 1 2 3 4 5 10
Scale: 1/4"=1'-0"



KEY PLAN

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WALKER the GROUP ARCHITECTURE Incorporated

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030137 MANFRED H. RADTKE
Manfred H. Radtke, P.E. 6-1-12

DES.	C. HERRON
DR.	C. HERRON
CHK.	M. RADTKE
SUBMITTED BY:	M. RADTKE
DESIGN DIR.	B. MARSHBURN
APPROVED: PWO OR OICC	DATE
SATISFACTORY TO:	DATE

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND

MARINE CORPS BASE

CAMP LEJEUNE, NORTH CAROLINA

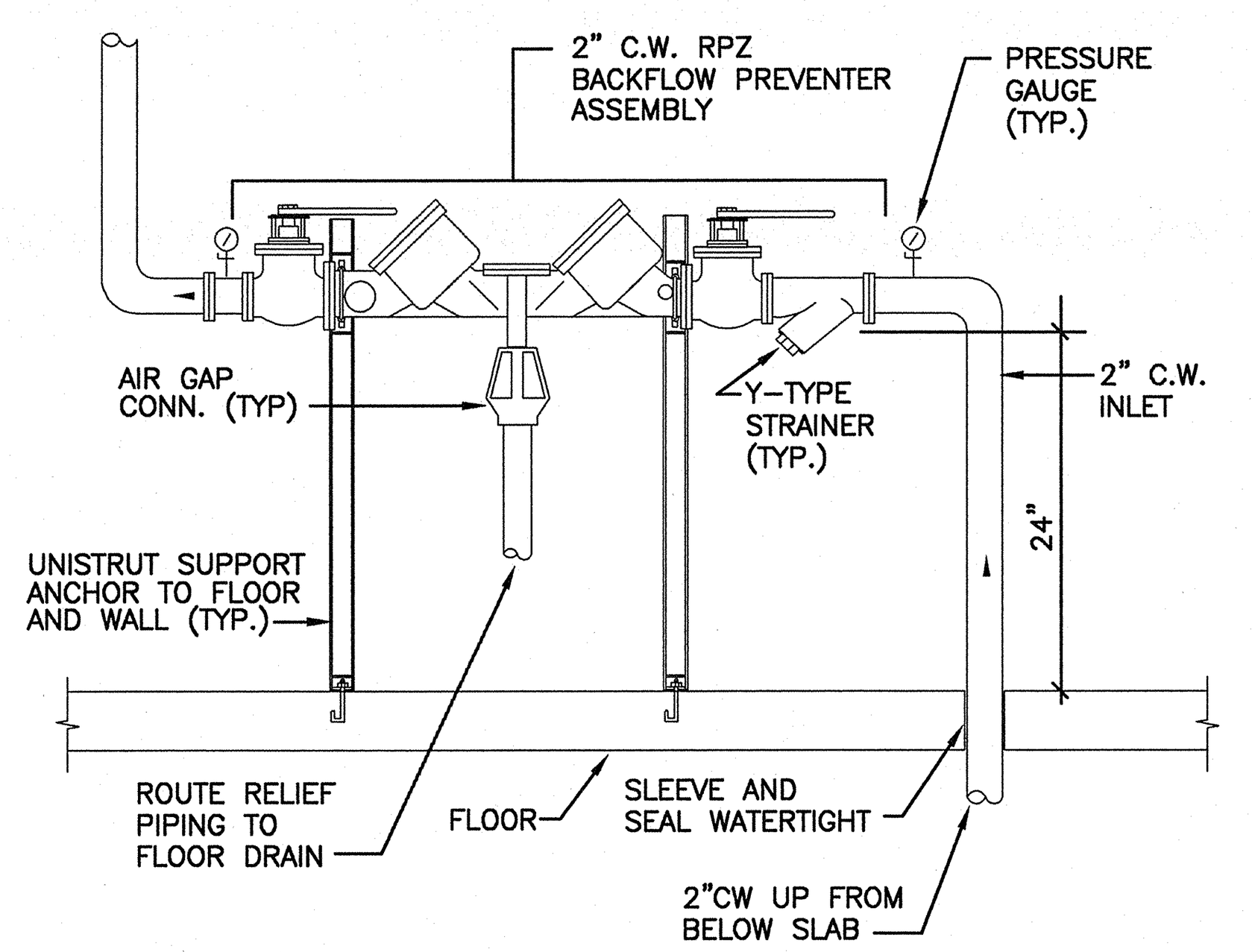
ADDITIONS OF HEADS TO BUILDING M112

PLUMBING WASTE & WATER FLOOR PLANS

P-1

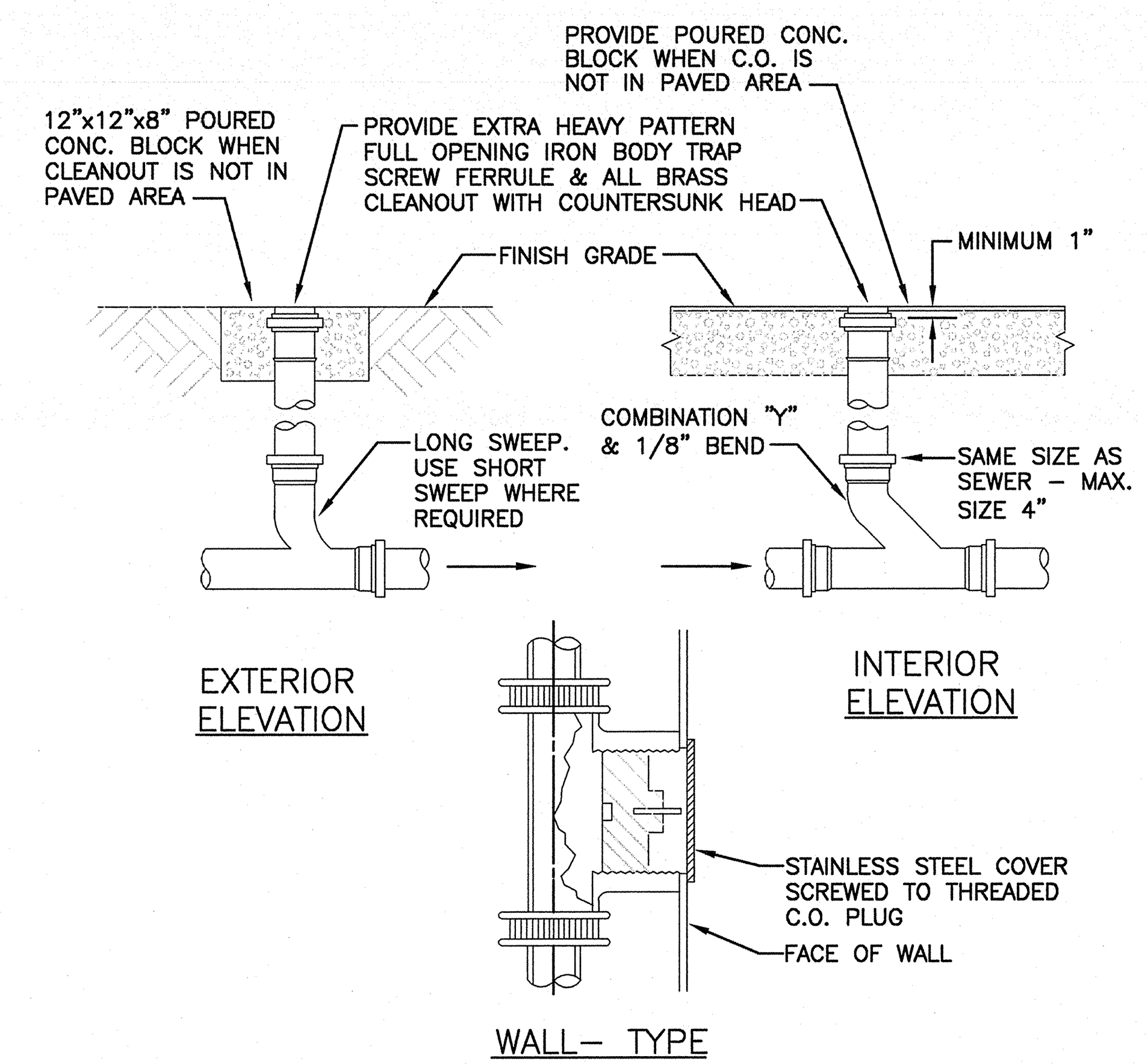
SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
F		60010139
		CONST. CONTR. NO. N40085-12-B-0019
SCALE: NOTED	SPEC. 12-0019	SHEET 8 OF 11

SYM	REVISIONS	DATE	APPROVED



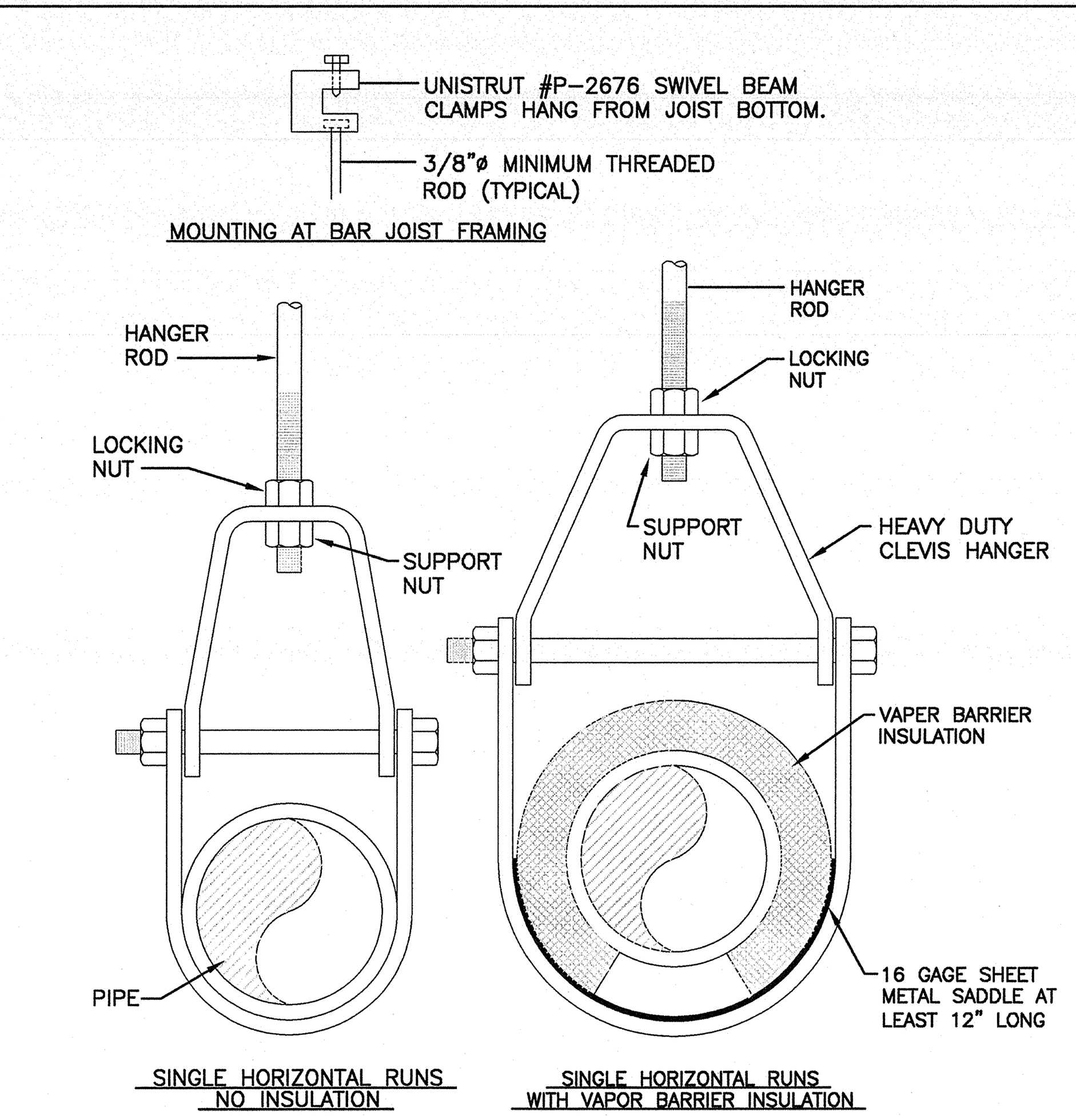
1 BACKFLOW PREVENTER DETAIL

SCALE: NONE



2 TYPICAL CLEANOUT DETAIL

SCALE: NONE

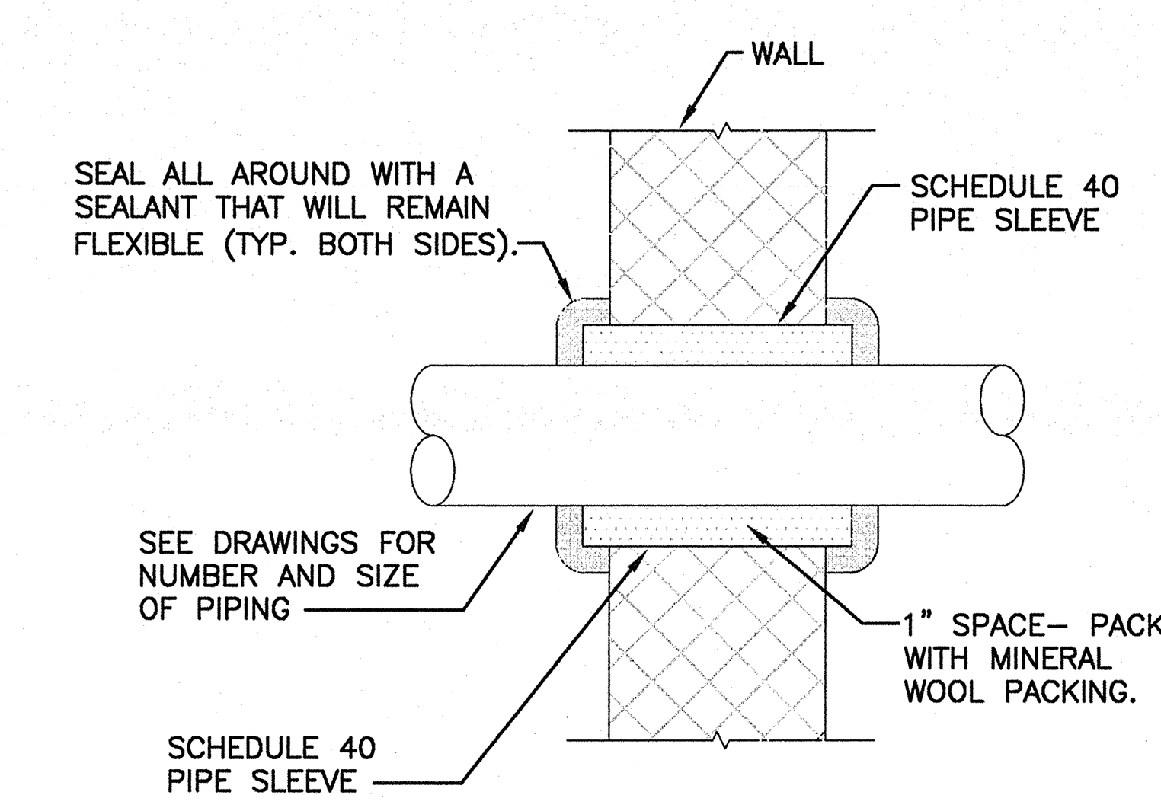


NOTE:

1. FOR PIPES 2" AND LARGER, PROVIDE PRESSURE TREATED WOOD BLOCKING AT HANGERS TO PREVENT CRUSHING OF INSULATION.
2. DO NOT SUPPORT PIPING FROM BAR JOIST BRIDGING.

3 CLEVIS HANGER DETAIL

SCALE: NONE



NOTES:

1. THE VOID BETWEEN FIBROUS PACKING AND SLEEVE SHALL BE FILLED WITH CAULKING MATERIAL.
2. SEE FLOOR PLANS FOR LOCATION OF ALL RATED WALLS.
3. CHROME ESCUTCHEONS TO BE PROVIDED FOR ALL EXPOSED PENETRATIONS.

4 NON-RATED PIPING SLEEVE DETAIL

SCALE: NONE

Dewberry
Dewberry & Davis, Inc.

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WALKER GROUP ARCHITECTURE

NORTH CAROLINA SEAL 030137 ENGINEER MANFRED H. RADTKE P.E.
6-1-12

P-2

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND

MARINE CORPS BASE

CAMP LEJEUNE, NORTH CAROLINA

DES.	CPH
DR.	CPH
CHK.	MHR
SUBMITTED BY:	MHR
DESIGN DIR.	B. MARSHBURN
APPROVED: PWO OR OICC	DATE
SATISFACTORY TO:	DATE

ADDITIONS OF HEADS

TO BUILDING M112

PLUMBING DETAILS

SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
F		60010140
		CONST. CONTR. NO. N40085-12-B-0019
SCALE: NOTED	SPEC. 12-0019	SHEET 9 OF 11

SYM	REVISIONS	DATE	APPROVED

GENERAL NOTES

1. ALL MECHANICAL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES AND REGULATIONS, IN ADDITION TO DOD/USMC POLICIES. THE CONTRACTOR SHALL INFORM THE GOVERNMENT OF ANY CONFLICTS AS SOON AS THEY ARE DETECTED.

DEMOLITION NOTES

MARK	DESCRIPTION
1	REMOVE EXISTING UNIT HEATER AND ALL ASSOCIATED SUPPORTS AND PIPING.
2	EXISTING THERMOSTAT SHALL REMAIN. REMOVE EXISTING WIRING FOR UNIT HEATER. REFER TO ELECTRICAL PLANS.
3	REMOVE EXISTING ABANDONED DUST COLLECTION BRANCHES. CAP AT MAIN.

NEW WORK NOTES

MARK	DESCRIPTION
1	ROUTE REFRIGERANT PIPING TO CONDENSING UNIT ON PAD, CU-01. LOCATION OF PIPE TO BE COORDINATED IN FIELD. REFRIGERANT PIPING TO BE SIZED PER MANUFACTURER'S RECOMMENDATIONS.
2	ROUTE CONDENSATE THRU EXTERIOR WALL. TERMINATE MAXIMUM 6" ABOVE FINISHED GRADE. PROVIDE CONCRETE SPLASH BLOCK AT CONDENSATE DISCHARGE.
3	NEW CONDENSING UNIT. INSTALL CONDENSING UNIT PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE CONCRETE PAD. CONTRACTOR SHALL USE 3,000 PSI CONCRETE. PAD SHALL BE 4" ABOVE FINISHED GRADE.
4	ROUTE 12x12 DUCT UP TO ROOF. PROVIDE GOOSENECK AT DUCT TERMINATION. SEE DETAIL M3 THIS SHEET.
5	ROUTE 12x12 DUCT UP TO ROOF. PROVIDE EXHAUST HOOD AND BACKDRAFT DAMPER AT ROOF OPENING.

AIR-TO-AIR ENERGY RECOVERY UNIT

MARK	MANUFACTURER/MODEL	SUPPLY FAN			EXHAUST FAN			WHEEL PERFORMANCE, WINTER				WHEEL PERFORMANCE, SUMMER				ELECTRICAL DATA			NOTES
								SUPPLY		EXHAUST		SUPPLY		EXHAUST					
		CFM	ESP (IN.)	H.P.	CFM	ESP (IN.)	H.P.	EAT DB (°F)	LAT DB (°F)	EAT DB/WB (°F)	LAT DB/WB (°F)	EAT DB/WB (°F)	LAT DB/WB (°F)	EAT DB/WB (°F)	LAT DB/WB (°F)	MOCP (AMPS)	MCA (AMPS)	VOLTS/ PHASE	
ERU-1	GREENHECK / MINIVENT	700	0.50	1/3	800	0.60	1/3	23	59.9	70/53	37.7/32.4	93/78	78.9/66.7	75/62	87.4/74.2	25	18.3	115/1	1,2,3,4

NOTES:
1. PROVIDE WITH FACTORY VIBRATION ISOLATORS FOR SUSPENDED MOUNTING, UNIT MOUNTED DISCONNECT SWITCH, AND SINGLE POINT POWER CONNECTION.
2. PROVIDE WITH 2" THROW-AWAY FILTERS.
3. PROVIDE WITH ROOF HOOD MODEL GRS FOR EXHAUST DUCT.
4. PROVIDE WITH TIME CLOCK. UNIT SHALL BE CONTROLLED VIA TIME-OF-DAY SCHEDULE.

AIR DISTRIBUTION SCHEDULE

MARK	MANUFACTURER / MODEL	NECK (IN)	FACE (INxIN)	MATERIAL	FINISH	DAMPER	SERVICE	NC RATING	NOTES
A	PRICE / 630	6x6	8x8	ALUMINUM	BAKED ENAMEL	N	EXHAUST	<30	1,2,3
B	PRICE / APDDR	10x8	24x24	ALUMINUM	BAKED ENAMEL	N	EXHAUST	<30	1,2,3
C	PRICE / APDDR	10x10	24x24	ALUMINUM	BAKED ENAMEL	N	EXHAUST	<30	1,2,3
D	PRICE / ASCD	SEE NOTE 1	24x24	ALUMINUM	BAKED ENAMEL	N	SUPPLY	<30	1,2,3

NOTES:
1. COORDINATE NECK SIZE WITH DUCT CONNECTION ON FLOORPLAN.
2. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLAN FOR MOUNTING REQUIREMENTS.
3. PROVIDE PRICE, METALAIRE, NAILOR OR EQUAL. EQUIVALENT SHALL HAVE SAME LOUVER STYLE AND THROW DIRECTIONS AS BASIS OF DESIGN.

HEAT PUMP SCHEDULE

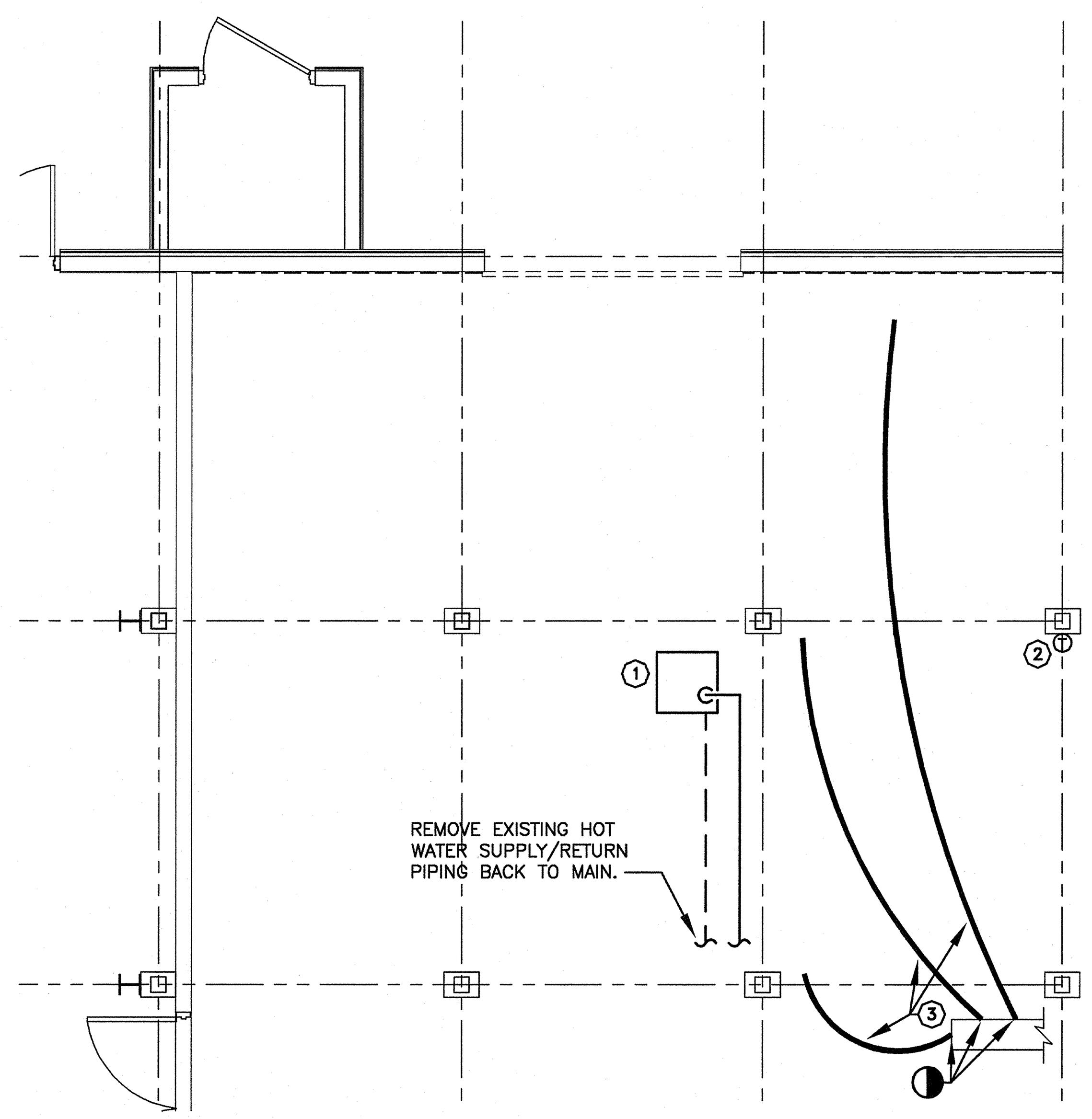
MARK	MANUFACTURER / MODEL	EVAPORATOR COIL		AMBIENT	M.C.A.	MIN. SEER	VOLTS/ PHASE	NOTES
		COOLING BTUH	HEATING BTUH					
CU-01	MITSUBISHI / MXZ	22	25	95°F	15	17.5	208/1	1,2

NOTES:
1. PROVIDE MITSUBISHI, DAIKIN, OR EQUAL. EQUIVALENT CONDENSING UNIT SHALL HAVE CAPABILITY OF SERVING AT LEAST 2 INDOOR UNITS SIMULTANEOUSLY.
2. PROVIDE WITH DISCONNECT.

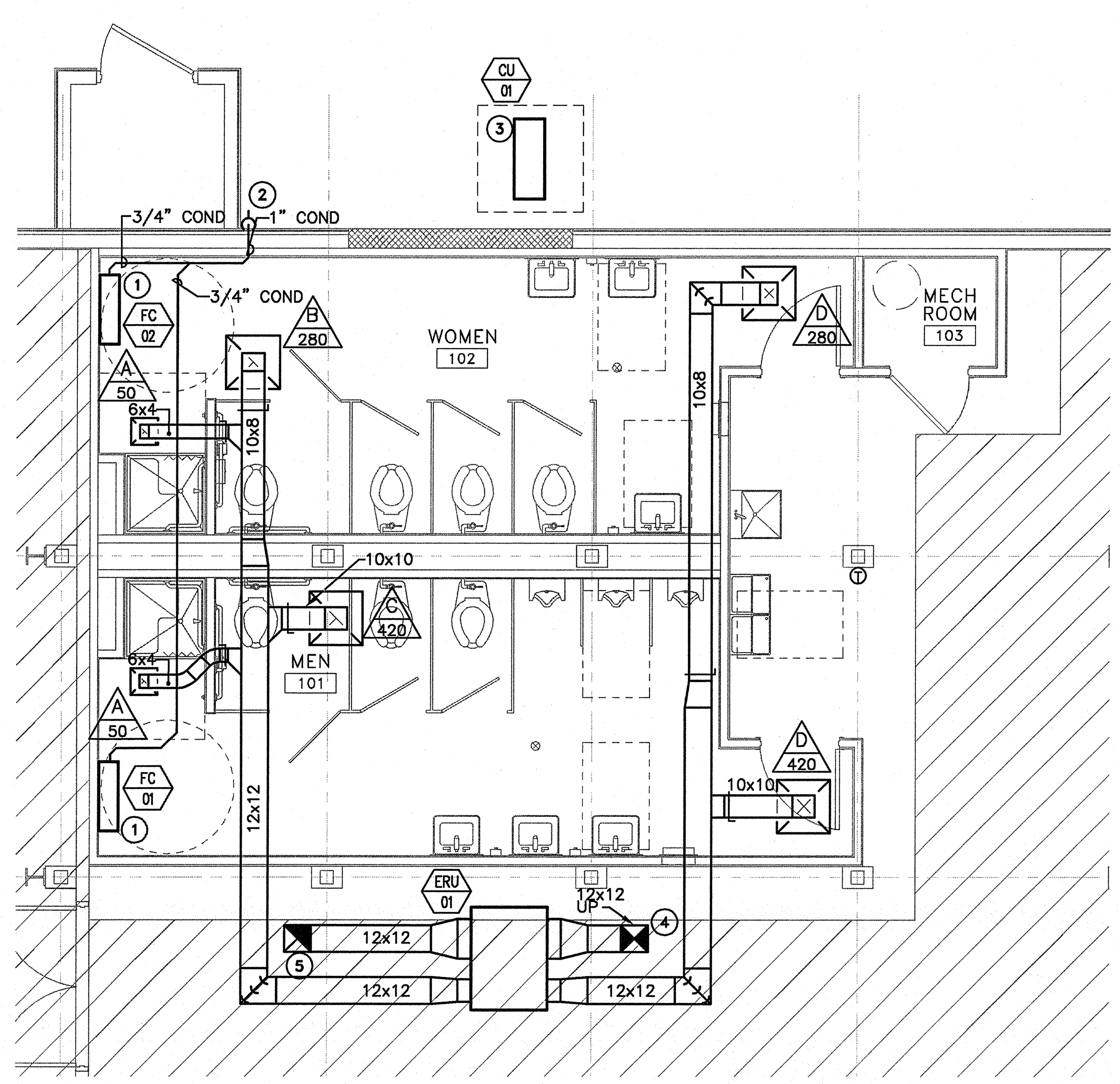
DX HEAT PUMP FAN COIL SCHEDULE

MARK	MANUFACTURER / MODEL	FAN				COOLING				HEATING	NOTES
		S.A. CFM	OA	FLA	VOLTS/ PHASE	TC MBH	SEER	EDB °F	EWB °F	MBH AT 47°F	
FC-01	MITSUBISHI / MSZ	235	N/A	0.76	208/1	12	14.5	80	67	13.6	1,2,3,4,5,6
FC-02	MITSUBISHI / MSZ	235	N/A	0.76	208/1	6	14.5	80	67	7.2	1,2,3,4,5,6

NOTES:
1. SUPPLY CFMS ARE BASED ON MEDIUM SPEED FAN SETTING.
2. OUTDOOR SECTION OF CONDENSING UNIT IS 208V-1~. SEE CONDENSING UNIT SCHEDULE.
3. PROVIDE THE FOLLOWING UNIT MFG. OPTIONS: FUSED DISCONNECT
4. SIZE REFRIGERANT PIPING AS REQUIRED BY UNIT MFG.
5. PROVIDE MITSUBISHI, DAIKIN, OR EQUAL.
6. PROVIDE WITH CONDENSATE PUMP.



M M1 MECHANICAL DEMOLITION PLAN 1/4" = 1'-0"



M M2 MECHANICAL NEW WORK PLAN 1/4" = 1'-0"

LEGENDS AND NOMENCLATURE

DIFFUSER TYPE / CFM VALUE

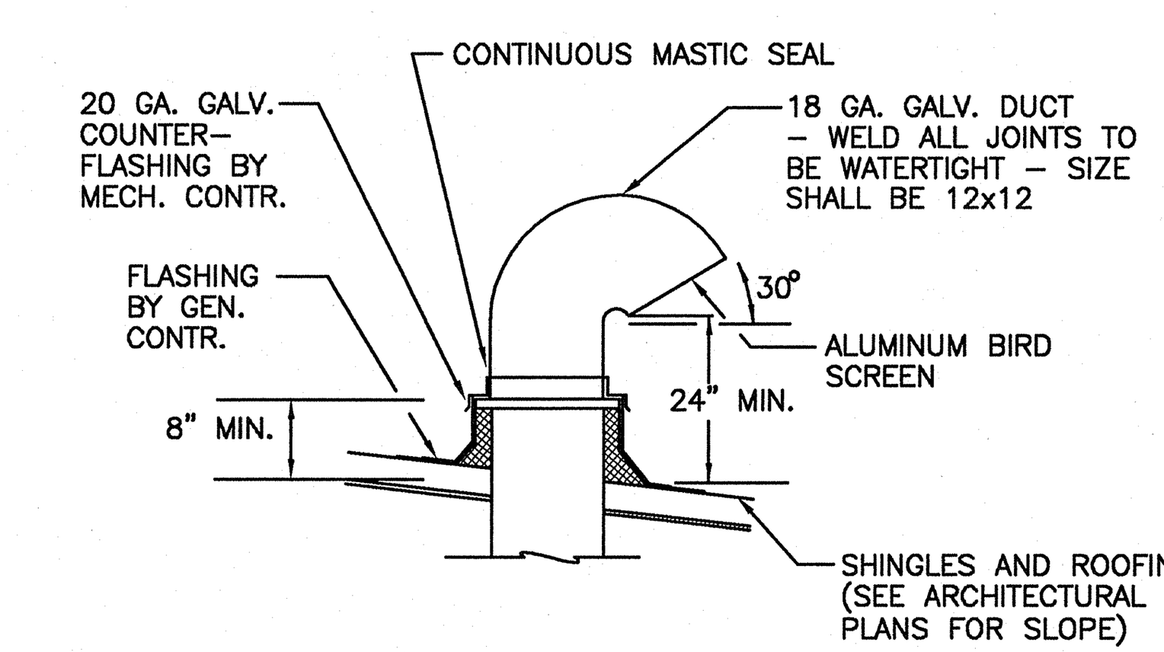
SUPPLY AIR DIFFUSER - SEE AIR DISTRIBUTION SCHEDULE

RETURN/EXHAUST AIR GRILLE - SEE AIR DISTRIBUTION SCHEDULE

FC-1
- \# : NUMBER OF UNIT
- FC = FAN COIL
- ERU = ENERGY RECOVERY UNIT

VOLUME DAMPER

DISCONNECT



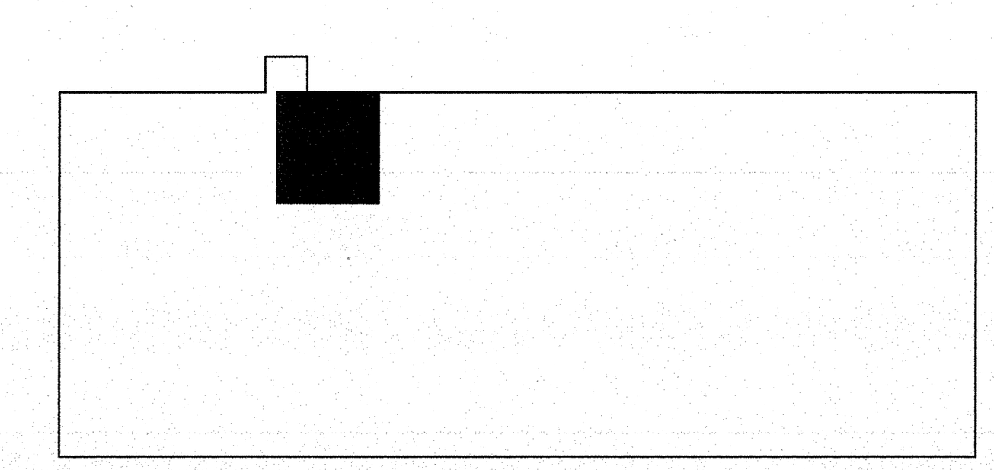
NOTES:
1. VERIFY ROOF CURB WITH ROOFING MANUFACTURER PRIOR TO INSTALLATION.

M M3 GOOSENECK DETAIL NTS

GRAPHIC SCALE

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

Scale: 1/4"=1'-0"



KEY PLAN

M-1

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DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND

MARINE CORPS BASE

CAMP LEJEUNE, NORTH CAROLINA

SEAL 030137 — NORTH CAROLINA PROFESSIONAL ENGINEER — MANFRED H. RADTKE — 6-1-12

DES.	R. POINTER
DR.	R. POINTER
CHK.	M. RADTKE
SUBMITTED BY:	M. RADTKE
DESIGN DIR.	B. MARSHBURN
APPROVED: PWO OR OICC	DATE
SATISFACTORY TO:	DATE

ADDITIONS OF HEADS

TO BUILDING M112

MECHANICAL PLAN

SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
F		60010141
		CONST. CONTR. NO. N40085-12-B-0019

SCALE: NOTED — SPEC. 12-0019 — SHEET 10 OF 11

LEGENDS AND NOMENCLATURE

WALL MOUNTED	CEILING MOUNTED	ITEM DESCRIPTION
		LIGHT FIXTURES (USE LETTER DESIGNATION ADJACENT TO LIGHT FIXTURE AND LIGHT FIXTURE SCHEDULE TO DETERMINE THE EXACT TYPE OF FIXTURE AND OTHER CHARACTERISTICS)
		EMERGENCY LIGHT – CIRCUIT SUCH THAT FIXTURE OPERATES AT FULL OUTPUT 24 HOURS A DAY.
		SINGLE–POLE WALL SWITCH (SEE NOTE #1)
		SINGLE–POLE DIGITAL ADJUSTABLE TIMER SWITCH (SEE NOTE #1)
		CEILING MOUNT OCCUPANCY SENSOR – DUAL TECHNOLOGY TYPE, LINE VOLTAGE, RECESSED, 360° COVERAGE
		DUPLEX RECEPTACLE (SEE NOTE #2)
		DUPLEX RECEPTACLE (SEE NOTE #1)
		JUNCTION BOX
		EQUIPMENT CONNECTION
		DISCONNECT SWITCH – FURNISHED BY DIVISION 23 INSTALLED BY DIVISION 26
		120/208V SURFACE MOUNTED PANELBOARD
		120/208V FLUSH MOUNTED PANELBOARD
		POINT OF DISCONNECT
		SWITCHED CIRCUITS
		UNSWITCHED CIRCUITS
		ARROWHEADS INDICATE HOMERUN CIRCUITS UNLESS OTHERWISE NOTED ON THE DRAWINGS

LEGEND NOTES:

1. MOUNT AT 48" AFF TO TOP – U.O.N. – ADJUST TO MATCH MASONRY COURSES IF APPLICABLE. MOUNT ALL BOXES TRUE AND PLUMB.
2. MOUNT AT 20" AFF TO TOP – U.O.N. – ADJUST TO MATCH MASONRY COURSES IF APPLICABLE. MOUNT ALL BOXES TRUE AND PLUMB.
3. PROVIDE 3/4" C. TO ABOVE CEILING FROM ALL WALL MOUNTED BOXES U.O.N.

ABBREVIATIONS

A	AMPS
ACT	ACOUSTICAL CEILING TILE
AFF	ABOVE FINISHED FLOOR
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
(E)	EXISTING
ECB	ENLCOSED CIRCUIT BREAKER
EF	EXHAUST FAN
G	GROUNDING CONDUCTOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MLO	MAIN LUGS ONLY
NF	NON–FUSED
NTS	NOT TO SCALE
RECEPT.	RECEPTACLE
RL	RELOCATE(D) EQUIPMENT
RM	REMOVE(D) EQUIPMENT
SE	SERVICE ENTRANCE RATED
UON	UNLESS OTHERWISE NOTED
V	VOLTS
WH	WATER HEATER
WP	WEATHER PROOF
XFMR	TRANSFORMER

ELECTRICAL SYSTEMS AND EQUIPMENT
METHOD OF COMPLIANCE

Prescriptive: [X] **Performance:** [ ] **Energy Cost Budget:** [ ]

Lighting Schedule

Lamp type required in fixture – see lighting fixture schedule
Number of lamps in fixture – see lighting fixture schedule
Ballast type used in fixture – electronic
Number of ballasts in fixture – see lighting fixture schedule

Building:
total interior wattage specified vs. allowed
Specified : 0.48 KW
Allowed : 0.49 KW
total exterior wattage specified vs. allowed
Specified : N/A KW
Allowed : N/A KW

Designer Statement
To the best of my knowledge and belief, the design of this building complies with the electrical system and equipment requirements of North Carolina State Building Code, Section 805 of the Energy Conservation Code

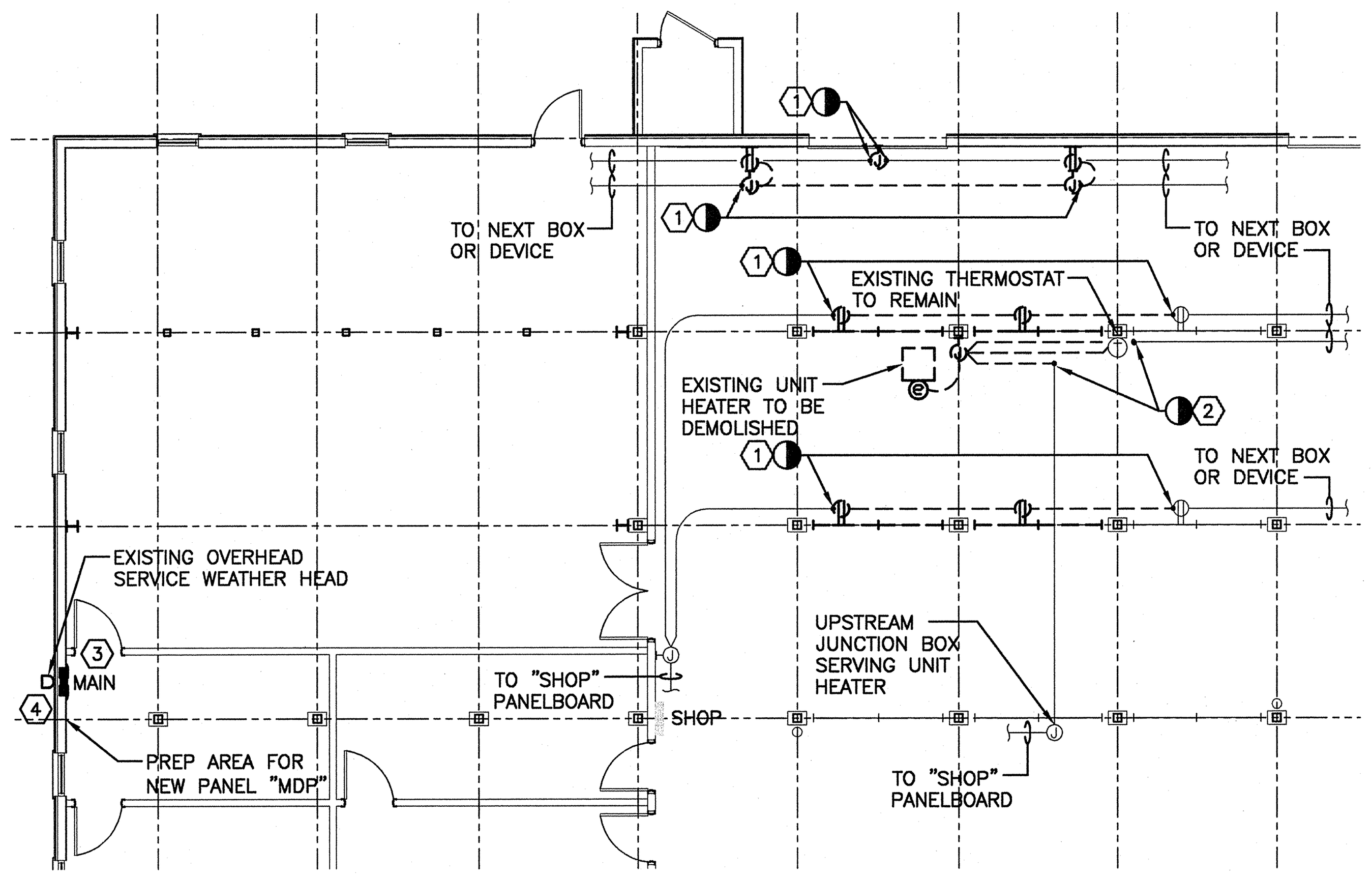
SIGNED:
NAME: STEPHEN P. WEBB, P.E.
TITLE: Electrical Engineer

LOAD SERVED	VA/PHASE A	VA/PHASE B	VA/PHASE C	CB	P	CKT	CKT	P	CB	VA/PHASE A	VA/PHASE B	VA/PHASE C	LOAD SERVED
LIGHTS 101,102,103	480			20	1	1	2	2	20	1440			CU-01, FC-01, & FC-02
RECEPT. 101		900		20	1	3	4				1440		(2 #10, #10G, 3/4"C)
RECEPT. 102, 103, EXT.			900	20	1	5	6	2	30			2250	WATER HEATER
CONDENSATE PUMPS	200			20	1	7	8			2250			(2 #10, #10G, 3/4"C)
SPARE				20	1	9	10	1	30		2105		ERU-1 (2 #10, #10G, 3/4"C)
SPARE				20	1	11	12	1	20			800	EWC
SPARE				20	1	13	14	1	20				SPARE
SPARE				20	1	15	16	1	20				SPARE
SPARE				20	1	17	18	1	20				SPARE

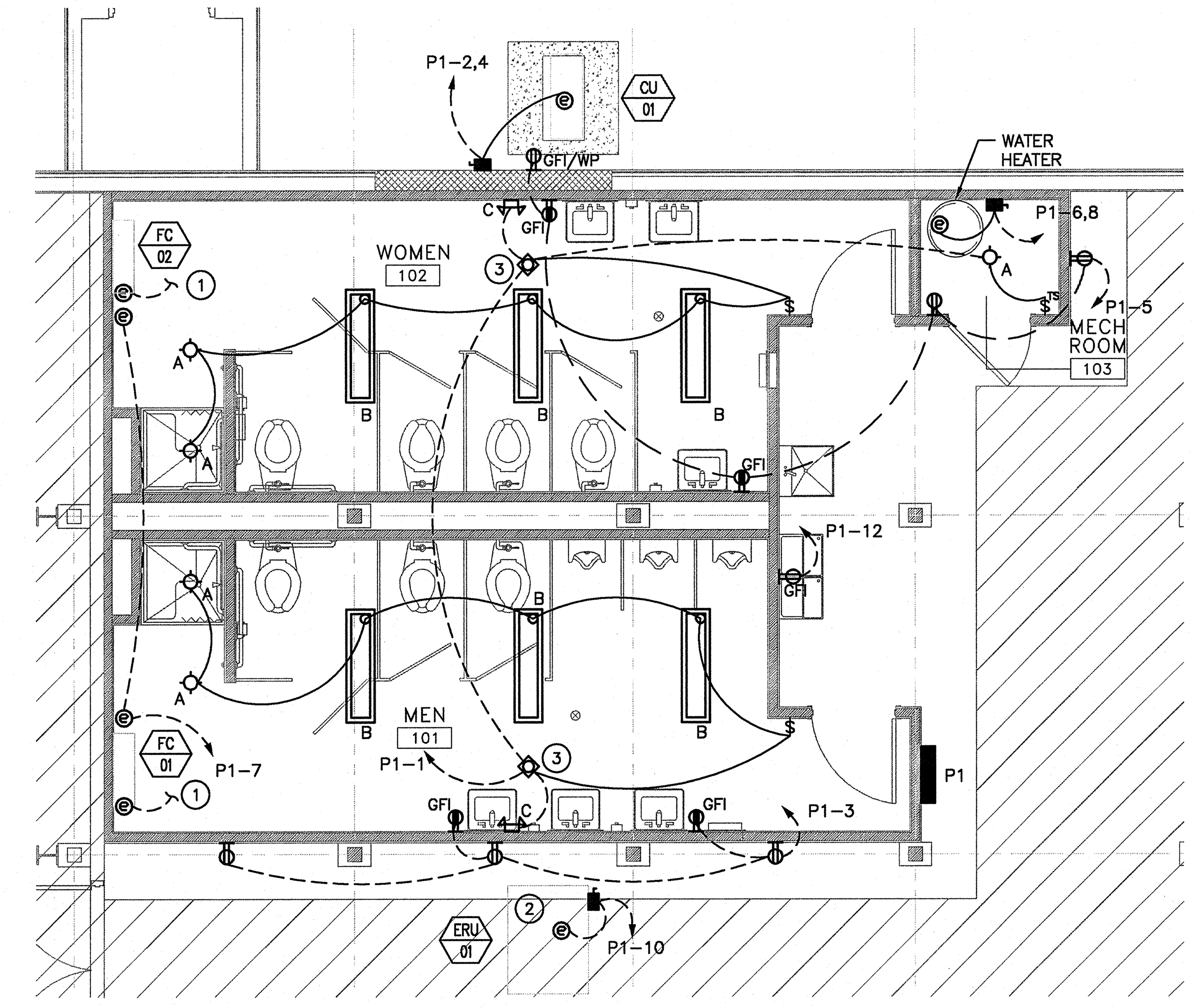
VOLTAGE RATING	120/208	MAIN BREAKER?	YES	TOTAL LOAD (VA)	4370	4445	3950	PANEL DESIGNATION P1
# OF PHASES	3	BREAKER RATING	100A	DEMAND FACTOR			1.00	NOTES:
# OF WIRES	4	BUS RATING	100A	DEMAND LOAD (VA)	4370	4445	3950	
MOUNTING?	SURFACE	NEUTRAL RATING	100%	DEMAND AMPS	36	37	33	
SE RATED?	NO	MINIMUM KAIC	10					

LOAD SERVED	VA/PHASE A	VA/PHASE B	VA/PHASE C	CB	P	CKT	CKT	P	CB	VA/PHASE A	VA/PHASE B	VA/PHASE C	LOAD SERVED
	4370					1	2						
PANEL P1		4445		100	3	3	4	3	100				*PANEL "SHOP"
(SEE RISER)			3950			5	6						
*OFFICE RECEPT				20	1	7	8						
*(NOT LABLED)				20	1	9	10	3	60				*LOAD CENTER
*(NOT LABLED)				25	1	11	12						
*OFFICE & STORAGE ROOM				20	1	13	14	1	20				*CLASSROOM LEFT SIDE
*CLASSROOM FRONT				20	1	15	16	1	20				*CLASSROOM RIGHT SIDE
(NOT LABLED)				20	1	17	18	1	20				SPARE
SPACE						19	20	1	25				*(NOT LABELED)
SPARE				20	1	21	22	1	20				*(NOT LABELED)
						23	24	1	20				*COMPUTER REC
SPARE				100	3	25	26	1	20				*COMPUTER REC
						27	28	1	20				*COMPUTER REC
						29	30	1	20				*COMPUTER REC
*HEAT/AC UNIT				60	3	31	32						SPACE
						33	34						SPACE
SPACE						35	36						SPACE
SPACE						37	38						SPACE
SPACE						39	40						SPACE
SPACE						41	42						SPACE

VOLTAGE RATING	120/208	MAIN BREAKER?	YES	TOTAL LOAD (VA)	4370	4445	3950	PANEL DESIGNATION MDP
# OF PHASES	3	BREAKER RATING	225A	DEMAND FACTOR			1.00	NOTES:
# OF WIRES	4	BUS RATING	225A	DEMAND LOAD (VA)	4370	4445	3950	*EXISTING LOAD TO BE
MOUNTING?	SURFACE	NEUTRAL RATING	100%	DEMAND AMPS	36	37	33	RECONNECTED IN EXISTING
SE RATED?	YES	MINIMUM KAIC	18					"MAIN" PANEL CAN



A ELECTRICAL DEMOLITION PLAN
1/8" = 1'-0"



B ELECTRICAL NEW WORK PLAN
1/4" = 1'-0"

LOAD SUMMARY

EXISTING LOADS	QTY	LOAD	UNIT	TOTAL	UNIT
LIGHTING	68	59	W	4012	WATTS
RECEPTACLES	44	180	W	7920	WATTS
COMPUTERS	40	250	W	10000	WATTS
DUST COLLECTION (3HP)	2	3970	W	7940	WATTS
UNIT HEATERS (1/6 HP)	8	530	W	4240	WATTS
HVAC UNIT (60A @ 80%)	1	17292	W	17292	WATTS
			TOTAL LOAD	51404	WATTS
			AMPS @ 208V	142.7	AMPS
NEW SERVICE SIZE					
			ORIGINAL LOAD	142.7	AMPS
			REMOVED LOAD	5.1	AMPS
			ADDED LOAD	35.5	AMPS
			FINAL LOAD	173.0	AMPS
			NEW SERVICE PANELBOARD SIZE	225.0	AMPS

LIGHT FIXTURE SCHEDULE

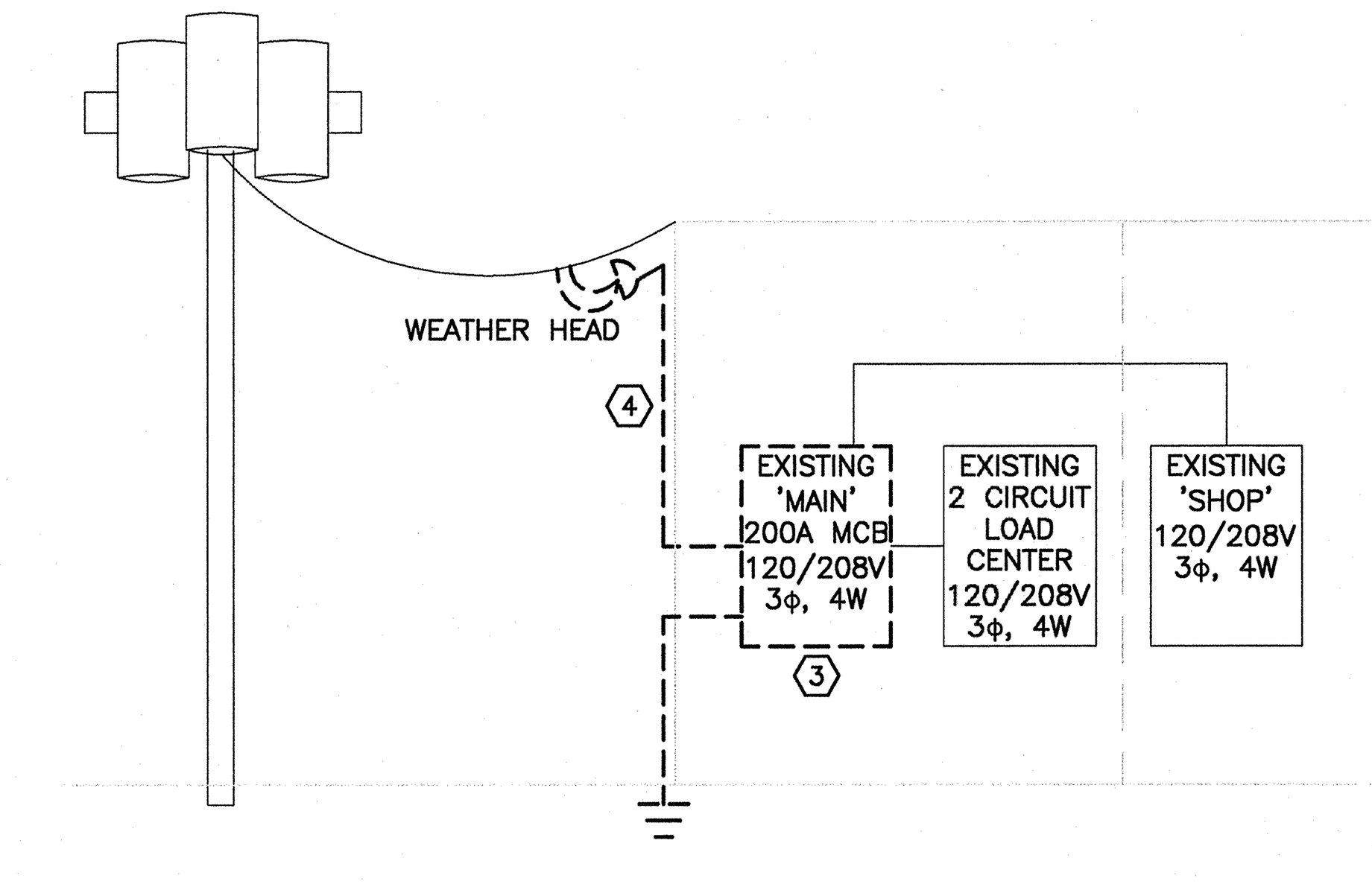
TYPE	DESCRIPTION	SIZE	MOUNTING	MANUFACTURER	LAMP	# OF BALLASTS	NOTES	VOLTAGE	VA
A	6" LENSED HORIZONTAL RECESSED DOWNLIGHT, COMPACT FLUORESCENT, GLASS LENS, PLASTIC FLANGE, IC RATED, WET LOCATION	12 1/2" WIDE 13 1/4" LONG 7" HIGH (MAX)	RECESSED IN CEILING	LITHONIA #LIF6-2/13DTT-MVOLT-F6LF73PF OR APPROVED EQUAL	2-G.E. F13DBX/841 OR APPROVED EQUAL BY SYLVANIA OR PHILLIPS	1	1,2	120/277	30
B	SURFACE 1X4 FLUORESCENT FIXTURE, EFFICIENT HIGH ANGLE DISTRIBUTION, SERVICABLE FROM BELOW	1' WIDE 4' LONG 4" HIGH	SURFACE MOUNT ON CEILING	LITHONIA #ST8-232-GEB10IS OR APPROVED EQUAL	2-G.E. F32T8/SPX41 OR APPROVED EQUAL BY SYLVANIA OR PHILLIPS	1	1,2	120/277	55
C	EMERGENCY LIGHTING UNIT LEAD CALCIUM BATTERY, LOW PROFILE (2) 6V, 6 WATT HEADS, SELF DIAGNOSTICS	11 1/8" WIDE 5 1/4" DEEP 5 3/4" HIGH	WALL MOUNT AT 96" AFF	McPHILBEN #CTX6H OR APPROVED EQUAL	2-G.E. 6V/6W HALOGEN OR APPROVED EQUAL BY SYLVANIA OR PHILLIPS	N/A	-	120/277	10

GENERAL NOTES

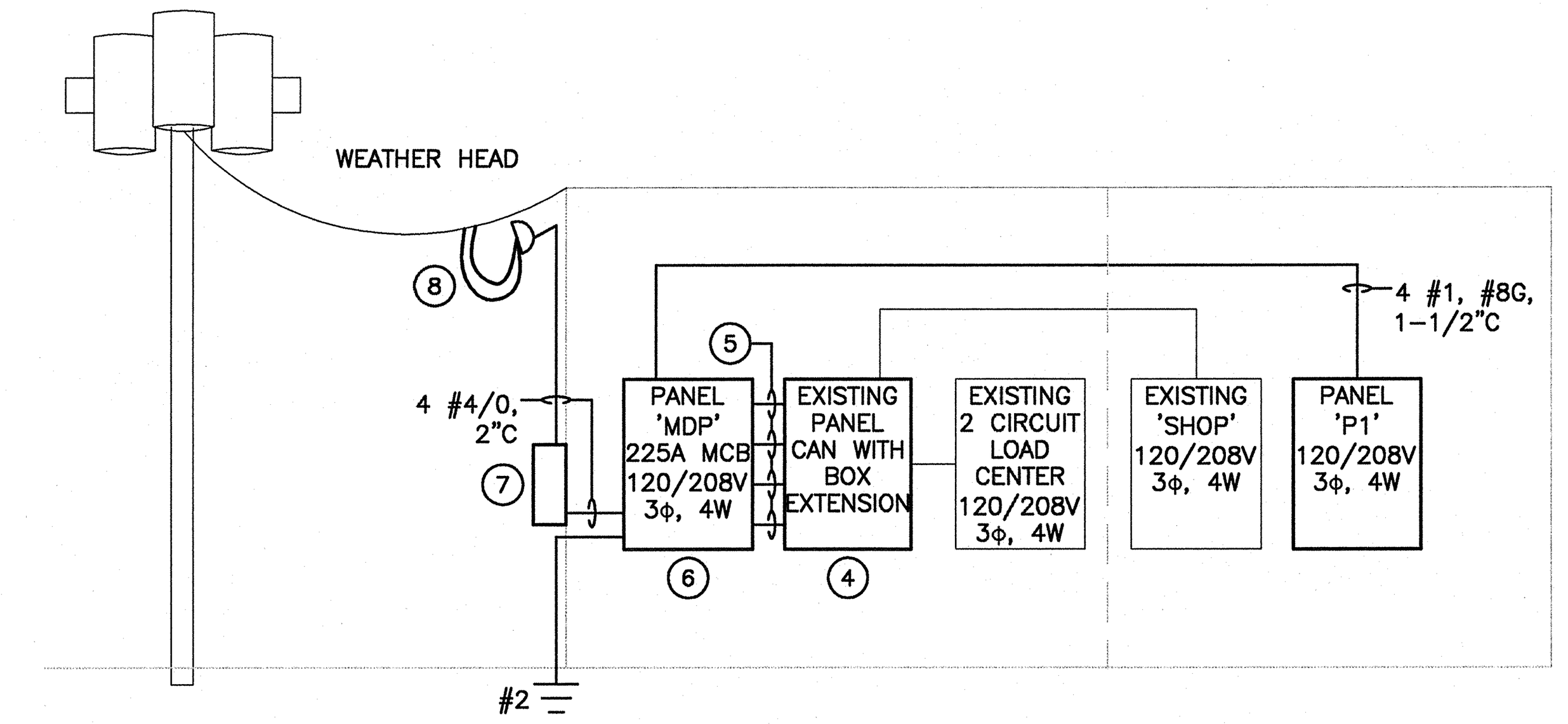
1. CONTRACTOR SHALL COORDINATE FIXTURE MOUNTING STYLE (GRID VERSUS GYP-BOARD) WITH ARCHITECTURAL REFLECTED CEILING PLANS.
2. ALL INDUSTRIAL FLUORESCENT FIXTURES WHERE INSTALLED IN MECHANICAL SPACES SHALL BE COORDINATED WITH ALL TRADES TO AVOID CONFLICTS WITH MECHANICAL, PLUMBING, PIPING, DUCTWORK, ETC.
3. ALL FIXTURES WITH DOUBLE-ENDED FLUORESCENT LAMPS, FIXTURES WHERE THE BALLAST IS ACCESSIBLE WITHOUT REMOVING FIXTURE, AND OTHER FIXTURES REQUIRED BY NEC 410.73(G) SHALL BE PROVIDED WITH A PLUG-STYLE DISCONNECTING MEANS WITHIN 12" AND VISUAL SITE OF EACH BALLAST. PLUG-STYLE DISCONNECTING MEANS SHALL BE FACTORY INSTALLED BY MANUFACTURER AND UL LISTED ASSEMBLY.

KEYED NOTES

1. PROVIDE HIGH FREQUENCY ELECTRONIC RAPID-START BALLAST WITH MAX. 10% HARMONIC DISTORTION.
2. USE ONE OF THE FOLLOWING BALLAST MANUFACTURERS: ADVANCE, UNIVERSAL, G.E., OR SYLVANIA.



C ELECTRICAL DEMOLITION RISER DIAGRAM
NTS



D ELECTRICAL NEW WORK RISER DIAGRAM
NTS

SYM	REVISIONS	DATE APPROVED

GENERAL NOTES

1. THESE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND DO NOT SHOW ALL DETAILS REQUIRED FOR THE COMPLETE SYSTEM. THEY SHOULD HOWEVER BE FOLLOWED AS CLOSELY AS POSSIBLE IN THE GENERAL ARRANGEMENT AND LOCATION OF EQUIPMENT. ALL DIMENSIONS SHALL BE CHECKED AT THE BUILDING AND ALL STRUCTURAL AND FINISH CONDITIONS INVESTIGATED. THE CONTRACTOR SHALL ARRANGE HIS WORK TO MEET THESE CONDITIONS AND PROVIDE SUCH EQUIPMENT AND ACCESSORIES AS MAY BE REQUIRED.
2. ALL EXISTING SYSTEMS ARE OPERATIONAL AT THE START OF CONSTRUCTION. CONTRACTORS SHALL MAINTAIN SYSTEMS INCLUDING THE LIGHTING AND POWER SYSTEMS DURING CONSTRUCTION. CONTRACTOR SHALL MAKE ANY REQUIRED TEMPORARY CONNECTS TO MAINTAIN EXISTING SYSTEM.
3. PROTECT EXISTING ELECTRICAL EQUIPMENT AND INSTALLATIONS INDICATED TO REMAIN. IF DAMAGED OR DISTURBED IN THE COURSE OF THE WORK, REMOVE DAMAGED PORTIONS AND INSTALL NEW PRODUCTS OF EQUAL CAPACITY, QUALITY AND FUNCTIONALITY.
4. ALL CIRCUITS SHALL BE 2#12 WITH #12G UNLESS OTHERWISE NOTED ON PLANS, PANEL SCHEDULES, AND SPECIFICATIONS.

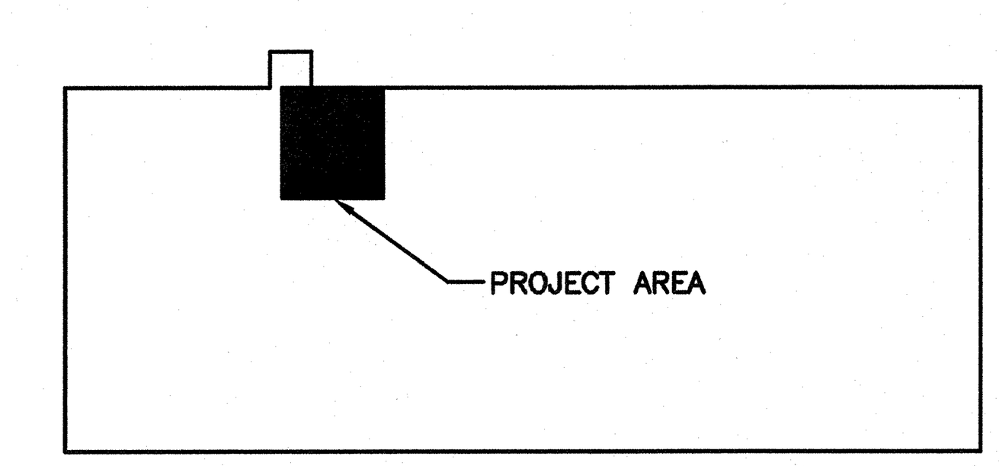
NEW WORK NOTES

MARK	DESCRIPTION
1	PROVIDE 2 #12, #12G FROM OUTDOOR UNIT TO POWER INDOOR UNIT.
2	ENERGY RECOVERY UNIT IS INSTALLED AT A HEIGHT THAT IS ABOVE THE NEW BATHROOM CEILING STRUCTURE. IT IS LOCATED ADJACENT TO THE NEW SPACE FOR EASE OF ACCESS FOR MAINTENANCE. REFER TO ARCHITECTURAL AND MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
3	PROVIDE LINE VOLTAGE OCCUPANCY SENSOR FOR BATHROOM LIGHTING. WIRE SENSOR AHEAD OF LOCAL SWITCHING.
4	PROVIDE SURFACE MOUNTED BOX EXTENSION OVER EXISTING RECESSED PANEL CAN. EXTENSION DEPTH WILL BE SAME AS NEW SURFACE MOUNTED PANEL "MDP". PROVIDE WITH SCREW–ON COVER, PAINT TO MATCH WALL. PROVIDE TERMINAL STRIPS FOR ALL EXISTING BRANCH CIRCUIT AND DISTRIBUTION FEEDER WIRING ON BACK OF EXISTING PANEL CAN. TERMINATE EXISTING WIRING AND LABEL TERMINAL STRIPS WITH EXISTING CIRCUIT NUMBERS. PROVIDE SEPARATE NEUTRAL AND GROUND TERMINAL STRIPS.
5	PROVIDE CONDUIT NIPPLES BETWEEN BOX EXTENSION AND NEW PANEL "MDP". SIZE AND QUANTITY AS REQUIRED FOR RECONNECTION OF ALL NEW AND EXISTING LOADS.
6	PROVIDE NEW MAIN DISTRIBUTION PANEL 'MDP' ADJACENT TO NEW BOX EXTENSION. NEW BREAKER CONFIGURATION MATCHES EXISTING CONFIGURATION IN DEMOLISHED MAIN PANEL, UNLESS OTHERWISE NOTED. FOR RECONNECTION OF EXISTING LOADS, PROVIDE NEW BRANCH CIRCUIT AND DISTRIBUTION FEEDER WIRING FROM NEW BREAKERS TO TERMINAL STRIPS WITH THEIR RESPECTIVE CIRCUIT NUMBER. WIRING SIZE SHALL MATCH EXISTING WIRING RETAINED DURING DEMOLITION.
7	PROVIDE 24" X 24" X 8" NEMA 4X, LOCKABLE, STAINLESS STEEL PULL BOX ON EXTERIOR WALL IMMEDIATELY BEHIND NEW PANEL "MDP". PROVIDE CONDUIT NIPPLE THRU EXTERIOR WALL FOR NEW SERVICE FEEDER.
8	PROVIDE NEW VERTICAL CONDUIT RISER AND WEATHER HEAD ON EXTERIOR OF BUILDING. WEATHER HEAD SHALL BE INSTALLED AT A HEIGHT SUCH THAT IT IS ADJACENT TO THE EXISTING GUY WIRE SUPPORTING THE EXISTING OVERHEAD AERIAL CONDUCTORS RETAINED DURING DEMOLITION. PROVIDE SERVICE FEEDER CONDUCTORS WITH SUFFICIENT LENGTH FOR A DRIP LOOP ON ALL CONDUCTORS AFTER TERMINATIONS HAVE BEEN MADE TO THE EXISTING OVERHEAD CONDUCTORS. SEAL ALL BUILDING PENETRATIONS AND THE WEATHER HEAD AFTER FEEDER IS INSTALLED.

DEMOLITION NOTES

MARK	DESCRIPTION
1	DEMOLISH ALL EXISTING JUNCTION BOXES, RECEPTACLES, LIGHT FIXTURES, CONDUIT, AND BRANCH CIRCUIT WIRING BETWEEN THE POINTS SHOWN. REMOVE WIRING BACK TO NEAREST UPSTREAM AND DOWNSTREAM JUNCTION BOXES. INTENT OF DEMOLITION WORK IS TO REMOVE ALL ELECTRICAL BOXES AND DEVICES THAT WILL BE MADE INACCESSIBLE BY THE CONSTRUCTION OF THE NEW RESTROOMS AND TO MAINTAIN SERVICE TO ALL WIRING DEVICES NOT AFFECTED BY PROJECT. UPDATE PANEL SCHEDULE TO REFLECT NEW AND REMOVED LOADS. CONTRACTOR SHALL PROVIDE NEW CONDUIT BETWEEN BETWEEN THE TWO POINTS OF DEMOLITION. CONTRACTOR SHALL PROVIDE NEW BRANCH CIRCUIT WIRING BETWEEN JUNCTION BOXES (UPSTREAM AND DOWNSTREAM) TO MAINTAIN SERVICE TO REMAINING WIRING DEVICES. NEW WIRING AND CONDUIT SHALL BE SIZED TO MATCH EXISTING. ASSUME 2 #12, #12G, 3/4"C FOR BIDDING PURPOSES. DO NOT INSTALL ANY NEW BOXES ABOVE NEW RESTROOM AREA AS THIS LOCATION IS INACCESSIBLE.
2	EXISTING UNIT HEATER TO BE DEMOLISHED. EXISTING LINE VOLTAGE THERMOSTAT TO REMAIN. DEMOLISH ALL EXISTING JUNCTION BOXES, CONDUIT, AND BRANCH CIRCUIT WIRING BETWEEN THE POINTS SHOWN. RETAIN SUFFICIENT WIRING FOR RECONNECTION. AT THERMOSTAT, RETAIN VERTICAL PORTION OF CONDUIT AND WIRING ON COLUMN. REMOVE UPSTREAM WIRING TO NEAREST UPSTREAM JUNCTION BOX. INSTALL NEW JUNCTION BOX ON COLUMN ABOVE THERMOSTAT TO INTERCEPT EXISTING THERMOSTAT AND DOWNSTREAM CONDUITS AND WIRING RETAINED DURING DEMOLITION. EXTEND EXISTING UPSTREAM CONDUIT TO NEW JUNCTION BOX LOCATION. PROVIDE NEW WIRING FROM NEAREST EXISTING UPSTREAM JUNCTION BOX TO NEW JUNCTION BOX. NUMBER OF WIRES AND WIRE SIZES TO MATCH EXISTING. CONNECT NEW AND EXISTING WIRING RETAINED DURING DEMOLITION SO THAT EXISTING LINE VOLTAGE THERMOSTAT CONTROLS THE REMAINING UNIT HEATERS. REFER TO MECHANICAL PLAN FOR ADDITIONAL INFORMATION.
3	DEMOLISH EXISTING MAIN PANELBOARD INTERIOR AND COVER. RETAIN EXISTING PANEL CAN. CLEAN, REPAINT, AND SEAL EXISTING PANEL CAN. RETAIN EXISTING BRANCH CIRCUIT WIRING AND DISTRIBUTION FEEDERS FOR RECONNECTION. LABEL ALL WIRING FOR RECONNECTION (CIRCUIT #, ETC.).
4	DEMOLISH EXISTING OVERHEAD SERVICE RISER, WEATHER HEAD, THRU–WALL CONDUIT NIPPLE. DEMOLISH EXISTING SERVICE FEEDER WIRING IN RISER. PROVIDE GASKETED KNOCK–OUT SEAL FOR NIPPLE OPENING IN BACK OF CAN. RETAIN EXISTING OVERHEAD AERIAL CONDUCTORS AND SUPPORT WIRING FOR RECONNECTION.

GRAPHIC SCALES
Scale: 1/8"=1'-0"
Scale: 1/4"=1'-0"



KEY PLAN

E–1

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

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 030485 STEPHEN P. WEBB

DES.	M. YOUNTS
DR.	K. FORRESTER
CHK.	S. WEBB
SUBMITTED BY:	S. WEBB
DESIGN DIR.	B. MARSHBURN
APPROVED: PWO OR OICC	DATE
SATISFACTORY TO:	DATE

ADDITIONS OF HEADS
TO BUILDING M112
ELECTRICAL PLAN

SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
F		60010142
		CONST. CONTR. NO. N40085–12–B–0019

SCALE: NOTED SPEC. 12–0019 SHEET 11 OF 11