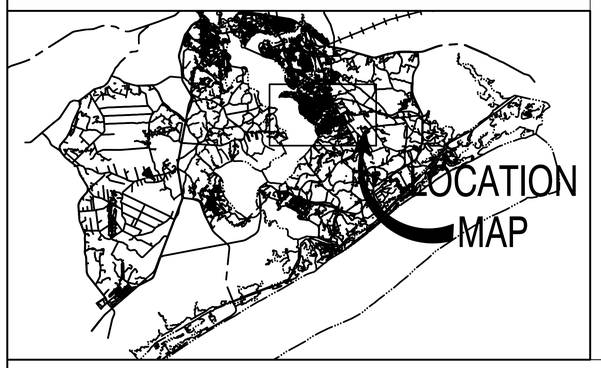
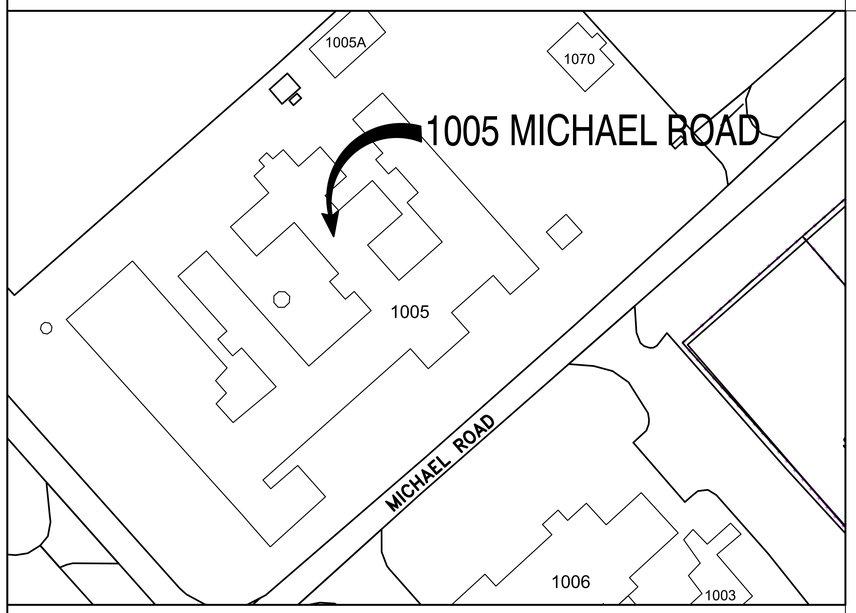
21-0019
DESIGN WING RELOCATION
BUILDING 1005

MARINE CORPS BASE, CAMP LEJEUNE, N.C.

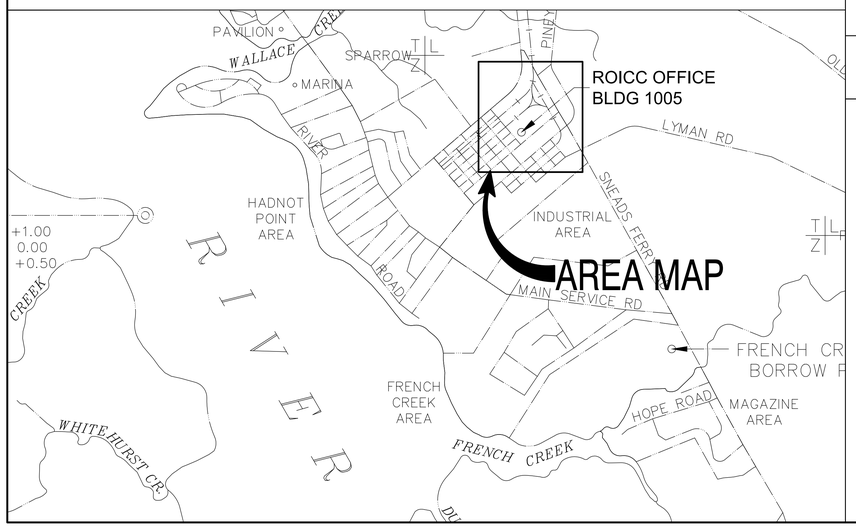
VICINITY MAP



LOCATION MAP



AREA MAP



GENERAL NOTES

GENERAL NOTES:

1. THESE DRAWINGS INDICATES GENERAL CONDITIONS WITH INFORMATION COMPILED FROM FIELD OBSERVATION. CONSTRUCTION AND MATERIALS INDICATED ARE GENERAL IN NATURE AND ARE NOT INTENDED TO FULLY DESCRIBE THE EXISTING CONSTRUCTION PRESENT. THE CONTRACTOR IS RESPONSIBLE TO INSPECT ALL FACILITIES TO BE DEMOLISHED TO HIS OWN SATISFACTION AND INCLUDE ALL NECESSARY COSTS TO COMPLETELY REMOVE EACH FACILITY AS DESCRIBED. CONTRACTOR SHALL BE RESPONSIBLE FOR ACTUAL FIELD VERIFICATION PRIOR TO BIDDING, ORDERING MATERIALS AND DURING EVERY STEP OF CONSTRUCTION FOR EXISTING SURFACES, DIMENSIONS AND CONDITIONS. NUMBER OF ITEMS AND LOCATIONS SHOWN ARE APPROXIMATE, CONTRACTOR MUST VERIFY ALL CONDITIONS AND INCLUDE IN SCOPE OF WORK ACCORDINGLY.
2. PRIOR TO STARTING DEMOLITION ON ANY STRUCTURES OR UTILITIES, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS OF ANY STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL DEVELOP A PLAN OF DEMOLITION THAT ENSURES ALL ACTIVITIES ARE COMPLETED IN A SAFE MANNER. PROVIDE ANY TEMPORARY SHORING, SHEETING OR SUPPORT REQUIRED TO COMPLETE WORK IN A SAFE MANNER.
3. COMPLETELY REMOVE ALL STRUCTURE AND UTILITIES INDICATED, BOTH ABOVE GROUND AND BELOW GROUND.
4. WHERE ROADS, SIDEWALKS, ETC ARE INDICATED TO BE CUT AND PATCHED, EACH SHALL BE REMOVED AND REPLACED ALONG NEAT SAWCUT LINES, AND TO THE NEAREST JOINT WHERE IT EXISTS.
5. THIS AREA OF WORK IS LOCATED WITHIN RESTRICTED AREAS. ACCESS TO THIS AREA SHALL BE COORDINATED WITH THE CONTRACTING OFFICER.
6. REPAIR AND REFINISH AREAS DAMAGED OR DISTURBED BY NEW WORK TO BE PROVIDED UNDER THIS CONTRACT.
7. DIMENSIONS PROVIDED ON EXISTING ITEMS ARE PROVIDED TO AID THE CONTRACTOR UNDERSTAND THE SCOPE OF WORK. FIELD VERIFY ALL CONDITIONS. ALL THE DIMENSIONS SHOWN ARE APPROXIMATE ONLY.
8. METHOD OF REMOVAL OF ANY BUILDING COMPONENT SHALL BE APPROVED BY THE CO CONTRACTING REPRESENTATIVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT REMOVAL OF EXISTING COMPONENTS DO NOT AFFECT ADJACENT OCCUPIED AREAS.
9. DEMOLITION OPERATIONS SHALL BE COMPLETED IN COMPLIANCE WITH ALL STATE AND FEDERAL REGULATIONS AND AS SPECIFIED.
10. ALL CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS, AND GOVERNMENT REQUIREMENTS
11. THE NOTATION (TYP) INDICATES THAT THE CONDITION OCCURS IN MORE THAN ONE PLACE INCLUDING ALL SIMILAR CONDITIONS NOT INDIVIDUALLY NOTED.
12. COORDINATE STAGING AREA, SITE ACCESS, TOILET USE WITH THE CO CONTRACTING REPRESENTATIVE.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY.
14. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE AS SOON AS PRACTICABLE.
15. CONTRACTOR SHALL MINIMIZE DUST, SEDIMENT AND DEBRIS FROM EXITING THE CONSTRUCTION SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS. CONTRACTOR SHALL DISPOSE OF DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCE AND STATUTES.
16. BURNING WILL NOT BE ALLOWED ON THE PROJECT SITE UNLESS AUTHORIZED IN WRITING BY THE CONTRACTING OFFICER.
17. ADJACENT STRUCTURES AND UTILITIES MUST REMAIN IN OPERATION DURING DEMOLITION ACTIVITIES. EXISTING ROADS SHALL REMAIN OPEN AND ACCESSIBLE BY VEHICULAR AND PEDESTRIAN TRAFFIC. IF ROADWAY CLOSURE IS REQUIRED, APPROVAL SHALL BE SECURED FROM THE CONTRACTING OFFICER. THE CONTRACTOR SHALL PROVIDE BARRICADES, LIGHTS, SIGNAGE AND OTHER PROTECTIVE DEVICES IN ACCORDANCE
18. CONTRACTOR'S PERSONNEL MUST WEAR IDENTIFICATION AT ALL TIMES.
19. COORDINATE POWER OUTAGES WITH THE GOVERNMENT. MAINTAIN EXISTING ELECTRICAL SYSTEMS IN SERVICE. DISABLE SYSTEMS ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM THE CONTRACTING OFFICER AT LEAST 5 DAYS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION.
20. DO NOT PENETRATE THE FLOOR SLAB.

UFC CRITERIA

UNIFIED FACILITIES CRITERIA NOTES:

INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

1. UFC 1-200-01 DOD, GENERAL BUILDING REQUIREMENTS. 26FEB24
2. UFC 4-010-01 DOD, MINIMUM ANTITERRORISM STANDARDS FOR BUILDINGS. 24MAY24
3. INTERNATIONAL BUILDING CODE (IBC). 2021
4. LIFE SAFETY CODE, NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 101). 2024
5. ARCHITECTURAL BARRIERS ACT (ABA).
6. AMERICANS WITH DISABILITIES ACT (ADA).
7. ICC/ANSI A117.1.
8. ALL APPLICABLE DESIGN CRITERIA (DOD).
9. NFPA 10 PORTABLE FIRE EXTINGUISHERS. 2022
10. NFPA 72 FIRE ALARM AND SIGNALING CODE. 2022
11. NFPA FIRE DOORS AND OTHER OPENINGS PROTECTIVES.

DRAWING INDEX

NAVFAC #	SHEET #	SHEET NAME	NAVFAC #	SHEET #	SHEET NAME
60036648	T-1	TITLE SHEET, AREA MAPS	60036673	M001	
60036649	LS101	LIFE SAFETY PLAN	60036674	M101	MECHANICAL DUCT DEMO PLAN
60036650	A101	DEMOLITION PLAN	60036675	M102	MECHANICAL PIPING DEMO PLAN
60036651	A102	RENOVATION PLAN	60036676	M103	MECHANICAL SUPPLY DUCT PLAN
60036652	A103	REFLECTED CEILING PLAN	60036677	M104	MECHANICAL RETURN DUCT PLAN
60036653	A104	FURNITURE PLAN	60036678	M105	MECHANICAL PIPING PLAN
60036654	A105	FINISH PLAN	60036679	M501	MECHANICAL DETAILS
60036655	A202	SCHEDULES	60036680	M601	MECHANICAL SCHEDULE
60036656	A203	INTERIOR ELEVATIONS	60036681	M602	HVAC SCHEDULES
60036657	A204	INTERIOR ELEVATION WINDOWS	60036682	M801	MECHANICAL CONTROLS SEQUENCE
60036658	A401	BUILDING SECTION	60036683	M802	MECHANICAL CONTROLS SCHEMATIC
60036659	A402	BUILDING SECTION			
60036660	A501	WALL TYPES			
60036661	E101	ELECTRICAL LEGEND, ABBREVIATIONS, NOTES, DETAILS			
60036662	E102	DEMOLITION NOTES, PLANS, RISER			
60036663	E103	LIGHTING PLAN			
60036664	E104	POWER PLAN			
60036665	E105	SCHEDULES & LIGHTING PLATES			
60036666	E106	DETAILS			
60036667	E107	AUDIOVISUAL PLAN			
60036668	FP101	FLOOR PLAN – FP DEMOLITION			
60036669	P001				
60036670	P101	PLUMBING DEMO PLAN			
60036671	P102	PLUMBING PLAN			
60036672	P501	PLUMBING DETAILS			

CONSTRUCTION DOCUMENTS | T-1

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

DES.	K.ROOT
DR.	K.ROOT
CHK.	K.ROOT
SUBMITTED BY:	K.ROOT
DESIGN DIR.	J. FRANKLIN ORR
APPROVED: PWO OR OICC:	DATE:
SATISFACTORY TO:	DATE:

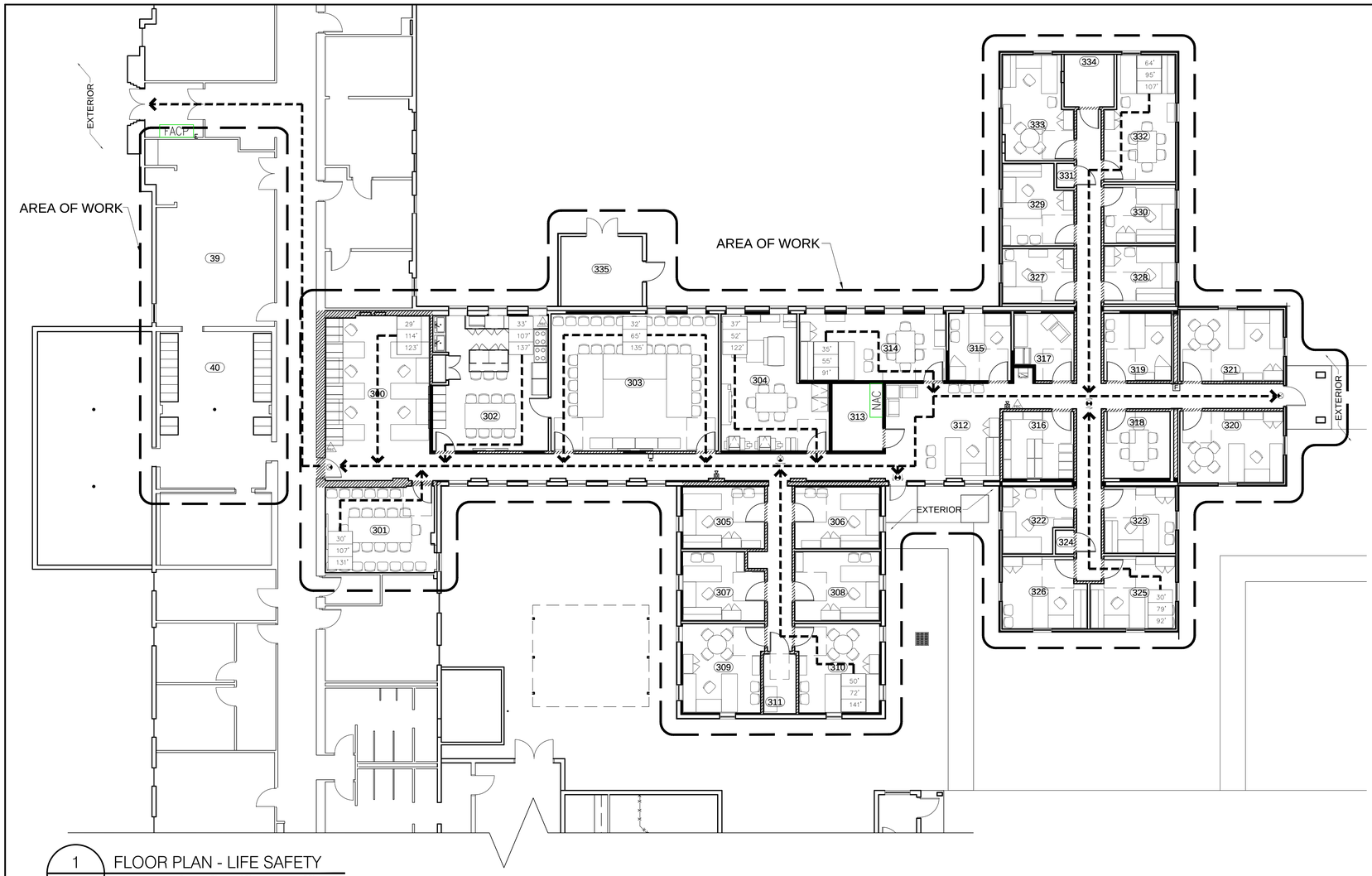
DESIGN WING RELOCATION
BUILDING 1005

TITLE SHEET ABREVIATIONS, AREA MAPS LEGEND

SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
E1	80091	60036648

CONST. CONTR. NO.:

SCALE: NOTED | SPEC NO.: SPEC NO | SHEET: 1 OF 36



1 A102 FLOOR PLAN - LIFE SAFETY

1/8" = 1'-0" 0 5' 10' 20'

LIFE SAFETY PLAN LEGEND

FEC	FIRE EXTINGUISHER - WALL MTD
TD= XX'	TRAVEL DISTANCE TO AN EXIT
CP= XX'	COMMON PATH
	1 HOUR RATED FIRE BARRIER
	CP - COMMON PATH TD1 - TRAVEL DISTANCE 1 TD2 - TRAVEL DISTANCE 2
	CEILING MOUNTED EXIT SIGN
	WALL MOUNTED LIGHTED EXIT SIGN
	EXIT SIGN - DIRECTION ARROW
	EXIT SIGN - LIGHTED/ SIDE FACE

OCCUPANCY CLASSIFICATION:
1. BUSINESS OCCUPANCY (B)

TYPE OF CONSTRUCTION
1. TYPE V–B, NONRATED, COMBUSTIBLE.
2. NOT SPRINKLERED

STRUCTURAL FIRE RESISTANCE RATINGS
1. BEARING AND NONBEARING EXTERIOR WALLS WITH 10' OR MORE FIRE SEPARATION DISTANCE:
   0 – HOUR (TABLE 601 / TABLE 602)
2. BEARING WALLS – INTERIOR:
   0 – HOUR (TABLE 601)
3. NONBEARING WALLS – INTERIOR:
   0 – HOUR (TABLE 601)
4. STRUCTURAL FRAME:
   0 – HOUR (TABLE 601)
5. FLOOR CONSTRUCTION:
   0 – HOUR (TABLE 601)
6. ROOF CONSTRUCTION:
   0 – HOUR (TABLE 601)

BASED ON:
2021 NFPA 101 LIFE SAFETY CODE
2018 INTERNATIONAL BUILDING CODE
2022 NFPA 10 STANDARD FOR PORTABLE FIRE EXTINGUISHERS
2020 NFPA 70 NATIONAL ELECTRICAL CODE
2022 NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE
2021 NFPA 90A STANDARD FOR THE INSTALLATION OF AIR–CONDITIONING & VENTILATION SYSTEMS

ALLOWABLE AREA (S.F.): B

BASE	9,000
SPRINKLERS	0%
YARDS	75%
TOTAL/FLOOR:	15,750

ACTUAL TOTAL AREA (S.F. ±): 6,941 < 15,750

ALLOWABLE & ACTUAL EGRESS DISTANCES (FT.):

	ALLOWABLE	ACTUAL
• TRAVEL DISTANCE	150	141
• COMMON PATH	75	64
• DEAD END CORRIDOR	20	NA

BUILDING HEIGHT (ACTUAL / ALLOWABLE):
STORIES: 1 / 2 (BASED ON B OCCUPANCY, V–B CONSTRUCTION)
FEET: 20 ± / 40 (BASED ON V–B CONSTRUCTION)

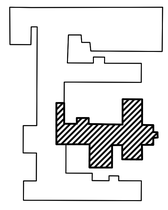
EXITS:
- REQUIRED: 2 (BASED ON 124 OCCUPANTS)
- ACTUAL: 3

OCCUPANT LOAD:
TOTAL OCCUPANT LOAD FOR THE RENOVATED AREA AS SHOWN IS 124 OCCUPANTS.

FIRE EXTINGUISHER TABLE

TYPE	RATING	HAZARD	QTY	ROOM #	ROOM NAME
MULTIPURPOSE DRY CHEMICAL	4A:80B:C	CLASS A/B/C	1	300	FLEX SPACE
			1	302	KITCHEN
			1	312	ADMIN/CIRCULATION
		TOTAL	3		

PLAN NORTH
TRUE NORTH



CONSTRUCTON DOCUMENTS | LS-101

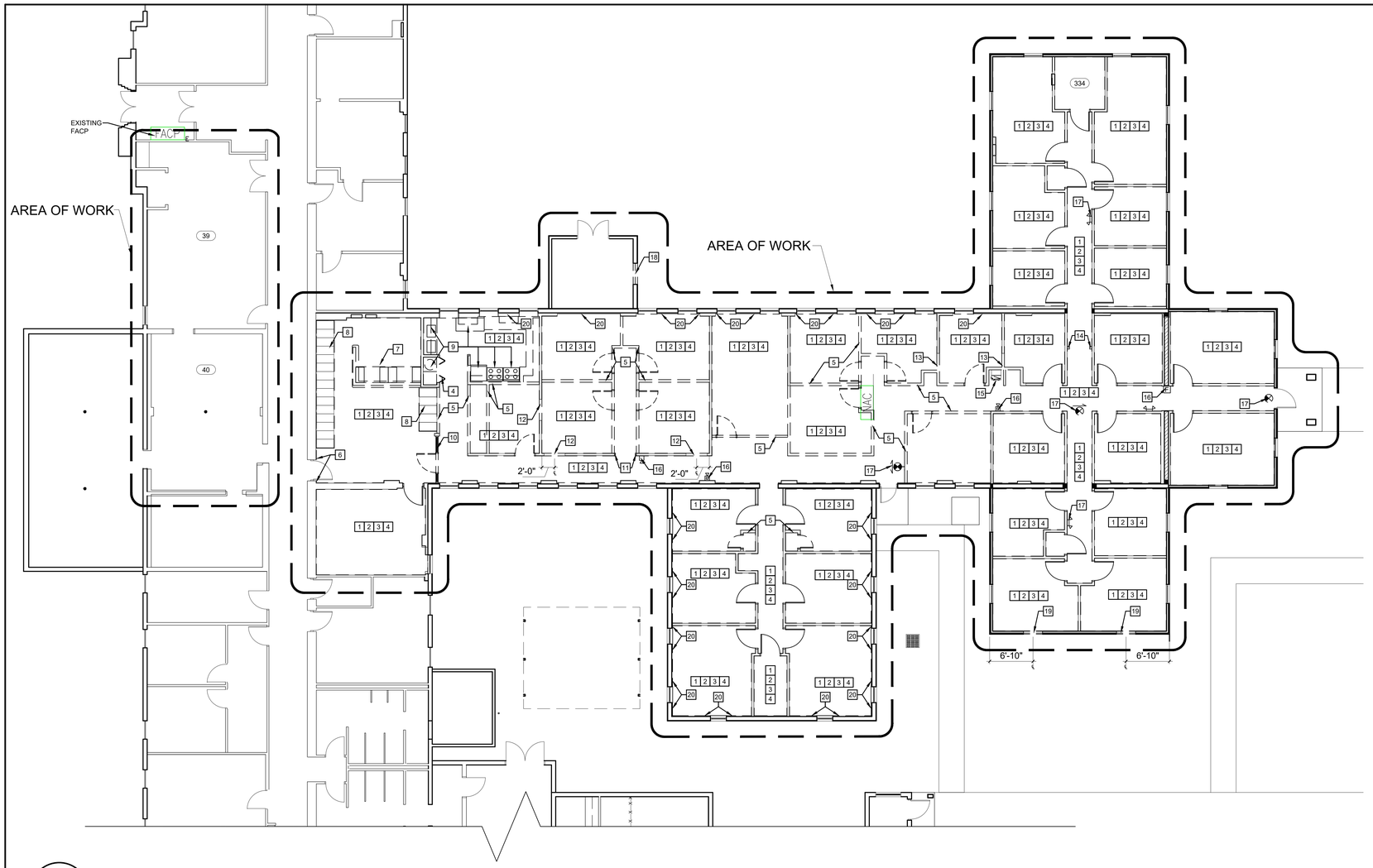
DEPARTMENT OF THE NAVY NAVAL FACILITIES SYSTEMS ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	K. ROOT
DR.	K. ROOT / S. CONTRERAS
CHK.	K. ROOT
SUBMITTED BY:	K. ROOT
DESIGN DIR.	J. FRANKLIN ORR
APPROVED: PWO OR OICC: DATE:	
PWO or OICC	
SATISFACTORY TO: DATE:	

DESIGN WING RELOCATION
BUILDING 1005

FLOOR PLAN - LIFE SAFETY

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036650
CONST. CONTR. NO. 21-0019
SCALE: NOTED | SPEC. NA | SHEET: 2 OF 36



1 A101 FLOOR PLAN - DEMOLITION

1/8" = 1'-0" 0 5' 10' 20'

DEMOLITION LEGEND

	EXISTING TO REMAIN ELEMENTS SHOWN SOLID
	DEMOLISHED ELEMENTS SHOWN DASHED

DEMOLITION KEYNOTES

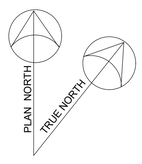
01	DEMO EXISTING CEILINGS AND COMPONENTS INCLUDING BUT NOT LIMITED TO SUSPENDED ACT, GWB CEILING, LIGHTING, EXHAUST FANS, ALL ASSOCIATED SWITCHES/WIRING/CIRCUITS, PLASTIC SHEETING, INSULATION, AND ALL BOARDS AND COMPONENTS FASTENED TO JOISTS AND UNDERSIDE OF TRUSSES. TYPICAL (EXCLUDING RM 39 & 40).
02	DEMO EXISTING GYPSUM WALL BOARD AND INSULATION, TYPICAL (EXCLUDING ROOM 39 & 40) SEE PARTITION SCHEDULE
03	DEMO EXISTING FLOORING, WALL BASE, WINDOW SILLS, WINDOW CASING, AND CHAIR RAIL WHERE OCCURS. TYPICAL (EXCLUDING RM 39 &40).
04	DEMO EXISTING DOOR, FRAME, AND CASING, TYPICAL (EXCLUDING RM 39 &40).
05	DEMO EXISTING STUD WALL .
06	DEMO EXISTING DOOR CASING. PRESERVE AND PROTECT EXISTING DOOR AND FRAME TO REMAIN.
07	DEMO EXISTING LOW WALL AND CASEWORK.
08	DEMO EXISTING COUNTERTOP. REMOVE, PRESERVE, AND PROTECT EXISTING MAILBOXES TO BE REINSTALLED IN RM 40.
09	DEMO EXISTING CASEWORK, COUNTERTOPS, AND SHELVING. REMOVE APPLIANCES IN KITCHEN.
10	DEMO EXISTING DOOR AND STOREFRONT SYSTEM.
11	DEMO EXISTING CASED OPENING.
12	REMOVE EXISTING SECTION OF WALL AND PREPARE TO INSTALL NEW DOOR. SEE DOOR SCHEDULE.
13	DEMO EXISTING SECTION OF WALL THAT TERMINATES AT CEILING GRID SYSTEM.
14	DEMO WING WALLS
15	REMOVE EXISTING WATER FOUNTAIN.
16	REMOVE, PRESERVE, AND PROTECT ALL FIRE ALARM DEVICES, NOTIFICATION AND PULL SYSTEM FOR REINSTALLATION. SEE FP101 & ELEC DRAWINGS FOR MORE INFO.
17	DEMO EXISTING EXIT SIGNS AND EMERGENCY LIGHTING. SEE ELEC DWGS FOR MORE INFO
18	CONTRACTOR TO DEMO WALL MATERIAL AT EXISTING LOUVER AS REQUIRED FOR NEW DOOR WITH SHORING AS NEEDED. SEE DOOR SCHEDULE FOR NEW LINTELS.
19	DEMO EXISTING SECTION OF EXTERIOR WALL AND PREPARE TO INSTALL NEW WINDOW. SEE WINDOW SCHEDULE. (BID OPTION A)
20	DEMO EXISTING STUDS AT EXTERIOR WALL. PROVIDE TEMPORARY REINFORCEMENT AS NEEDED DURING CONSTRUCTION.

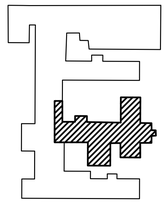
DEMOLITION GENERAL NOTES

1. GENERAL CONTRACTOR SHALL VERIFY JOB CONDITIONS PRIOR TO DEMOLITION AND SHALL REPORT ANY DISCREPANCIES TO GOVERNMENT PRIOR TO WORK PROCEEDING.
2. ALL DEMOLITION WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE BASE RULES AND REGULATIONS.
3. ALL ITEMS EXISTING TO REMAIN, SHALL BE PROTECTED DURING DEMOLITION. ANY DAMAGE TO THESE ITEMS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
4. CONTRACTOR SHALL DEMOLISH ALL ITEMS AS INDICATED ON THE PLAN. CONTRACTOR SHALL COORDINATE WITH THE GOVERNMENT REGARDING ALL ITEMS FOR DEMOLITION NOT IMPLIED OR SPECIFIED ON THE DRAWINGS.
5. CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO MAINTAIN FREE ACCESS OF OWNERS, AUTHORIZED TENANTS, AND AUTHORIZED SERVICE PERSONNEL THROUGH THE AREAS INVOLVED.
6. AREA OF WORK SHALL BE KEPT CLEAR AND FREE OF DEBRIS.
7. REPAIR ALL SURFACES DAMAGED BY DEMOLITION THAT WOULD NOT OTHERWISE BE REPAIRED BY THE RENOVATION. SURFACES MUST BE REPAIRED TO MATCH ADJACENT MATERIALS AND APPEARANCE.
8. CONTRACTOR SHALL PROPERLY DISPOSE OF REMAINING FURNITURE IDENTIFIED AS "UNSERVICEABLE" BY TAKING ITEMS TO DRMO. ANY REMAINING ITEMS (I.E. REFRIGERATORS, MICROWAVES, ETC.) IS THE RESPONSIBILITY OF THE CONTRACTOR TO DISPOSE OF OFF-SITE.
9. PROPERLY ABATE AND DISPOSE OF ALL LEAD AND ASBESTOS MATERIAL IN PROJECT AREA. ASSUME ANY LOCATIONS WITH EXISTING FLOOR MATERIAL AND THE SINKS IN THE AREA OF WORK HAVE ASBESTOS. REMOVAL AND DISPOSAL OF ASBESTOS MATERIALS SHOULD BE IN COMPLIANCE WITH SPEC SECTION 02 82 16
10. DO NOT DISTURB THE VIMS SYSTEM

FIRE ALARM DEMOLITION PLAN NOTES

1. THE FIRE ALARM SYSTEM FOR THE BUILDING MUST REMAIN OPERATIONAL. THE MAIN FIRE ALARM CONTROL PANEL IS SIMPLEX 4010 ADDRESSABLE PANEL AND LOCATED AS INDICATED ON THIS SHEET. THE EXISTING SYSTEM UTILIZES A DACT FOR FIRE ALARM REPORTING.
2. BEFORE PROCEEDING WITH ANY WORK RELATED TO THIS PROJECT, THE EXISTING SYSTEM MUST BE TESTED AND VERIFIED THAT ALL SYSTEMS COMPONENTS ARE IN GOOD WORKING CONDITIONS. ANY NON-FUNCTIONING COMPONENTS MUST BE REPORTED TO THE GOVERNMENT FOR FURTHER DIRECTION.
3. DEMOLISH THE EXISTING FIRE ALARM SYSTEM COMPONENTS INCLUDING WIRING, CONDUIT, AND JUNCTION BOXES COMPLETELY WITH THE EXCEPTION OF EXISTING NOTIFICATION APPLIANCES AND PULL STATIONS. TURN OVER REMOVED EXISTING DEVICES WITHIN THE RENOVATION AREA TO THE GOVERNMENT.
4. MAKE CONTINUOUS THE EXISTING INIATING DEVICE CURCUIT(S), NAC CURCUIT(S), OR SIGNALING LINE CURCUIT(S) THAT SERVE AREA OUTSIDE THE RENOVATION AREA IF AFFECTED BY DEMOLITION OF WORK WITHIN RENOVATED AREA.





CONSTRUCTION DOCUMENTS A-101

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

DES.	K.ROOT
DR.	K.ROOT / S. CONTRERAS
CHK.	K.ROOT
SUBMITTED BY:	K.ROOT
DESIGN DIR.	J.FRANKLIN ORR
APPROVED: PWO OR OICC: DATE:	
SATISFACTORY TO: DATE:	

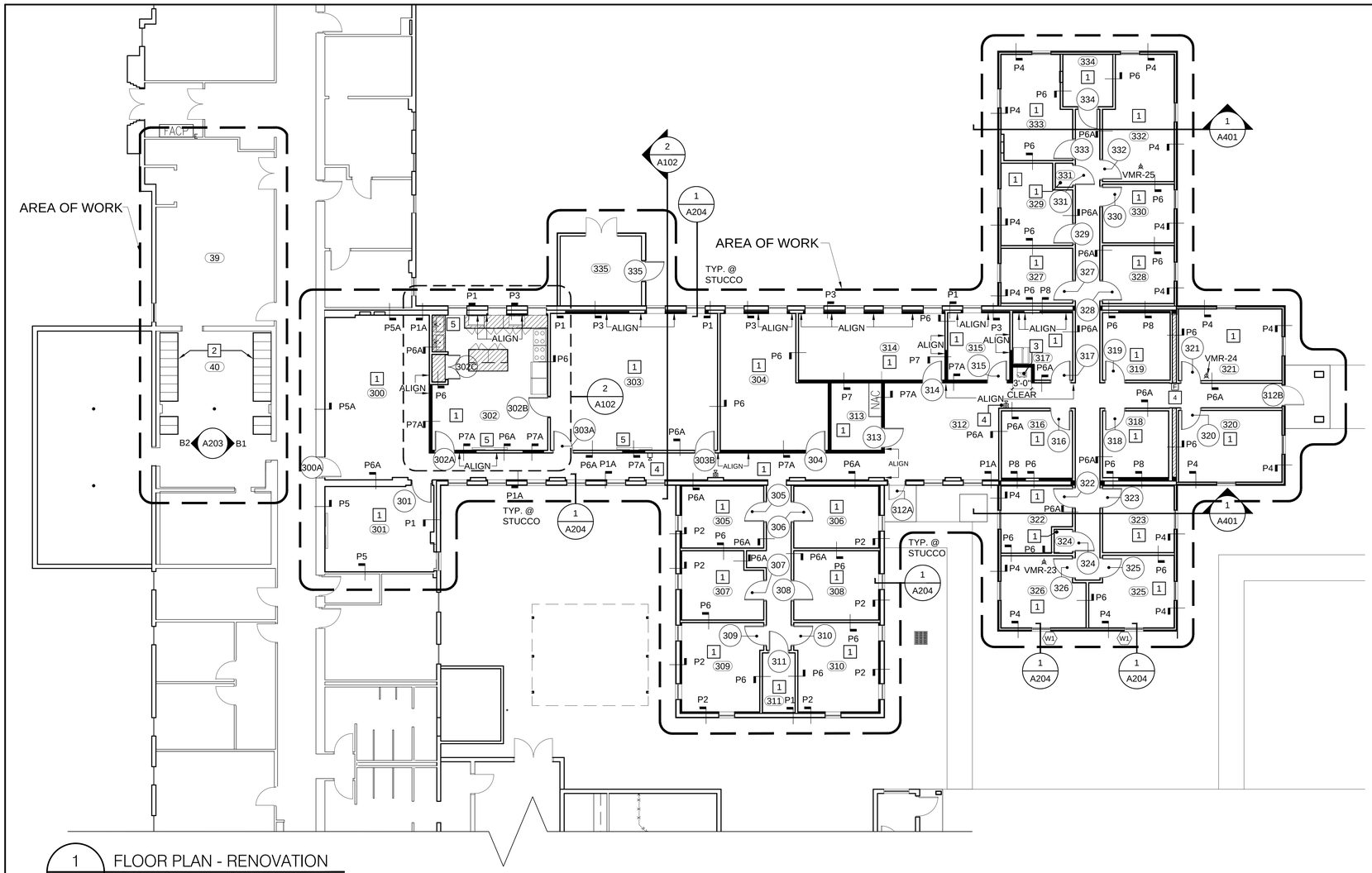
DESIGN WING RELOCATION
BUILDING 1005

FLOOR PLAN - DEMOLITION

SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
E1	80091	60036650

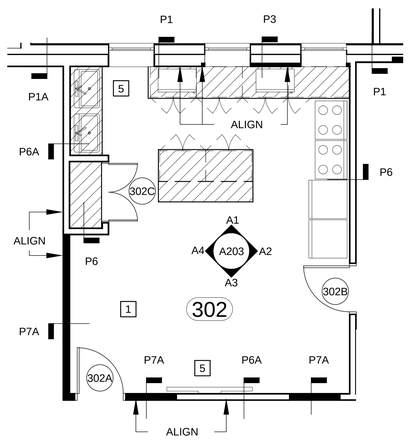
CONST. CONTR. NO. 21-0019

SCALE: NOTED SPEC. NA SHEET: 3 OF 36



1 A102 FLOOR PLAN - RENOVATION

1/8" = 1'-0" 0 5' 10' 20'



2 A102 FLOOR PLAN - RENOVATION

1/4" = 1'-0" 0 5' 10'

RENOVATION LEGEND

	EXISTING BASE BLDG. DEMISSING WALLS, CORE WALLS, PERIMETER WALLS, & COLUMN ENCLOSURE TO REMAIN.
P#	NEW WALL. SEE PARTITION SCHEDULE ON SHEET A501
###	ROOM NUMBER
#	NEW DOOR- SEE DOOR SCHEDULE ON SHEET A201
	HATCH INDICATES NEW MILLWORK. SEE SHEET A203 FOR INT. ELEV + DETAILS
W#	NEW WINDOW. SEE WINDOW SCHEDULE ON SHEET A202
	TV. N.I.C.

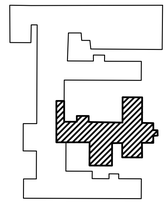
GENERAL NOTES

1. REFER TO SHEET A-102 FOR ARCHITECTURAL GENERAL NOTES AND ANNOTATION LEGEND.
2. CONTRACTOR SHALL MAINTAIN ALL NECESSARY PERMITS FROM ALL AGENCIES HAVING JURISDICTION BEFORE THE START OF WORK.
3. CONTRACTOR IS RESPONSIBLE TO OBTAIN AND MAINTAIN ALL BUILDING AND BASE STANDARDS WHERE APPLICABLE.
4. ALL WORK TO BE OF FIREPROOF CONSTRUCTION AND MEET ALL APPLICABLE CODE.
5. CONTRACTOR TO SEAL ALL PENETRATIONS WITH SPECIFIED FIRE STOPPING.
6. WHERE FIRE RATED PARTITIONS INTERSECT WITH LESSER RATED PARTITION OR NON-RATED PARTITIONS, THE HIGHER RATED PARTITION IS TO CONTINUE THROUGH THE INTERSECTION TO MAINTAIN THE HIGHER RATING.
7. REFER TO ELECTRICAL, MECHANICAL, AND TELECOMM SHEET FOR EQUIPMENT LOCATIONS AND REQUIREMENTS.
8. ALL DIMENSIONS SHOWN ARE TO FACE OF WALL (LEFT TO RIGHT, BOTTOM TO TOP) TYPICAL UNLESS NOTED OTHERWISE.
9. DIMENSIONS MARKED AS "CLEAR" DICTATES THE CLEAR DIMENSION FROM FINISH TO FINISH.
10. ROUGH CARPENTRY SHALL INCLUDE ALL NAILERS, BLOCKING, ETC. AS REQUIRED FOR THE WORK OF OTHER TRADES.
11. ALL METAL STUDS TO BE AT 16" O.C. U.O.N. AND ARE TO BE SECURED FROM FLOOR SLAB ABOVE.
12. OFFSET PARTITIONS AT DUCTS AS REQUIRED AND CONTINUE TO SLAB ABOVE MAINTAINING PARTITION TYPES AND RATINGS WHERE APPLICABLE.
13. CONTRACTOR TO PROVIDE SHOP DRAWINGS TO OWNER FOR APPROVAL OF ALL MILLWORK, CASEWORK, AND GLASS COMPONENTS (SEE SPECS FOR ADDITIONAL REQUIREMENTS).
14. ALL DOORS TO BE INSTALLED 4" FROM HINGE SIDE OF WALL-TYPICAL UNLESS NOTED OR DIMENSIONED OTHERWISE.
15. ANY CRACKS WITHIN THE FLOOR SLAB SHALL BE SEALED.
16. ALL VMR'S COVERS SHALL BE REMOVED, STORED OFF SITE, AND REINSTALLED IN THE SAME LOCATION ON TOP OF FINISH FLOORING.

RENOVATION KEYNOTES

1	NEW GYPSUM BOARD & INSULATION. TYP. SEE PARTITION SCHEDULE ON SHEET A501
2	RELOCATED MAILBOXES
3	NEW DRINKING FOUNTAIN
4	REINSTALL FIRE ALARM DEVICES, NOTIFICATION, AND PULL SYSTEM SEE ELEC. DWGS
5	CONTRACTOR TO PROVIDE BLOCKING IN ALL NEW PARTITIONS AS REQ'D FOR OVERHEAD CABINETRY, TV MOUNTS, ETC.

PLAN NORTH
TRUE NORTH



CONSTRUCTON DOCUMENTS | A-102

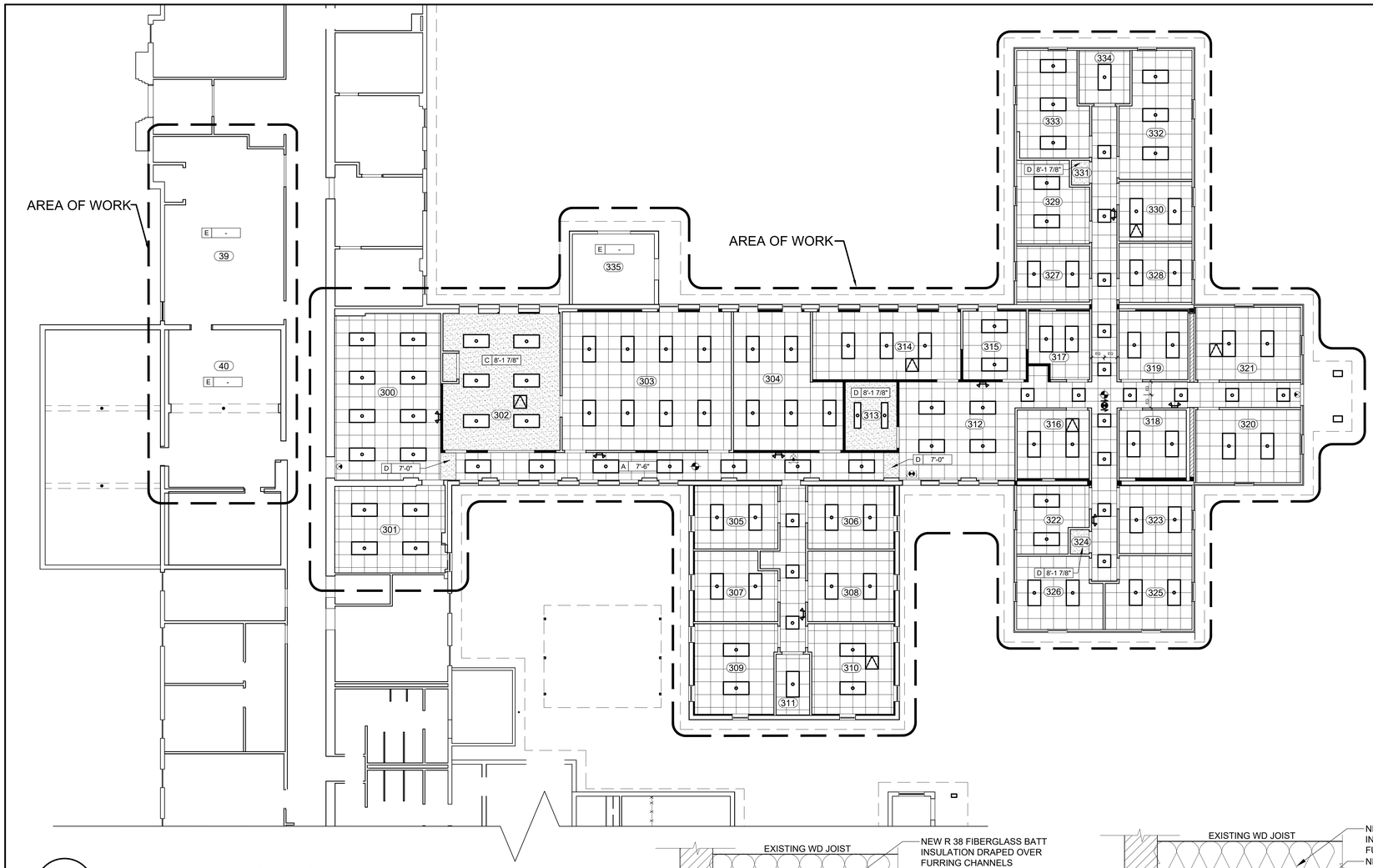
DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DESIGN WING RELOCATION
BUILDING 1005

FLOOR PLAN - RENOVATION

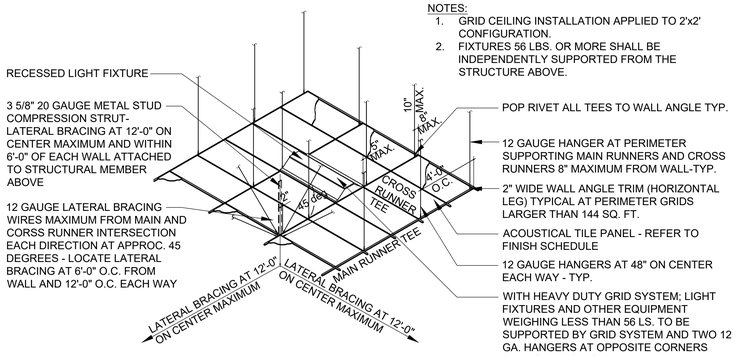
DES.	K. ROOT
DR.	K. ROOT / S. CONTRERAS
CHK.	K. ROOT
SUBMITTED BY:	K. ROOT
DESIGN DIR.	J. FRANKLIN ORR
APPROVED: PWO OR OICC: DATE:	
SATISFACTORY TO: DATE:	

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036651
CONST. CONTR. NO. 21-0019
SCALE: NOTED | SPEC. NA | SHEET: 4 OF 36



1 A103 PLAN - REFLECTED CEILING

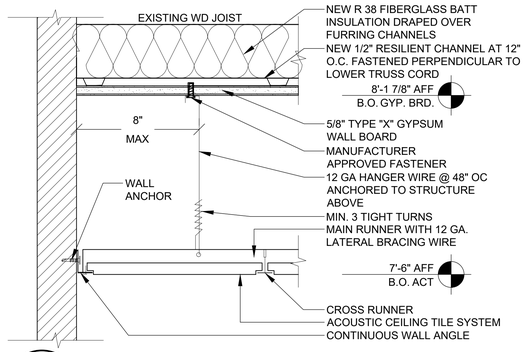
1/8" = 1'-0" 0 5' 10' 20'



NOTES:
1. GRID CEILING INSTALLATION APPLIED TO 2'x2' CONFIGURATION.
2. FIXTURES 56 LBS. OR MORE SHALL BE INDEPENDENTLY SUPPORTED FROM THE STRUCTURE ABOVE.

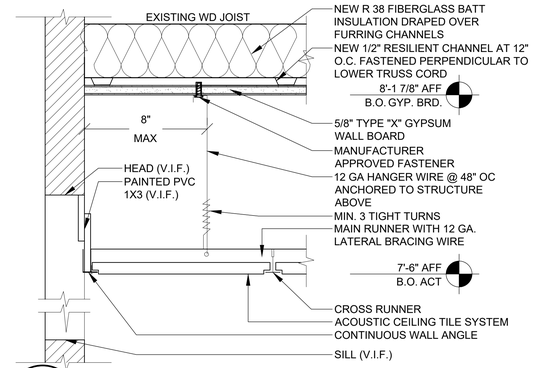
2 A103 TYPICAL HUNG CEILING DETAIL

N.T.S.



3 A103 TYP. SUSPENDED ACT CEILING

3" = 1'-0" 0 3" 6" 1'



4 A103 SUSPENDED ACT CEILING @ WINDOW

3" = 1'-0" 0 3" 6" 1'

REFLECTED CEILING PLAN LEGEND

	NEW HUNG CEILING ASSEMBLY
	NEW GWB CEILING
X X'-X"	CEILING TAG (TYPE, HEIGHT)
	NEW LED LIGHT FIXTURE- SEE ELECTRICAL DWGS. TYPE: 24" X 48"
	NEW LED LIGHT FIXTURE- SEE ELECTRICAL DWGS. TYPE: 24" X 24"
	NEW LED PENDANT LIGHT FIXTURE - SEE ELECTRICAL DWGS.
	NEW CEILING MTD. EXIT SIGN NOTE: ARROW INDICATES DIRECTIONAL SYMBOL
	STARTING POINT FOR CEILING GRID
	EMERGENCY LIGHT
	ACCESS PANEL IN GYP. CLG ABOVE. SEE DETAIL 5/A-103

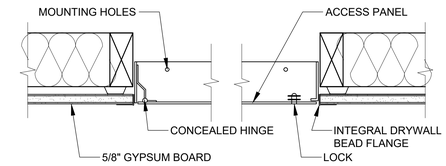
RCP GENERAL NOTES

1. ALL NEW LIGHT FIXTURES ARE TO BE LOCATED AS INDICATED IN DRAWING.
2. LIGHT FIXTURES SHALL BE CONTROLLED BY LIGHT SWITCH LOCATED IN SAME ROOM UNLESS OTHERWISE NOTED (SEE ELECTRICAL DWGS).
3. CONTRACTOR TO INSTALL ALL NEW AIR SUPPLY AND RETURN DIFFUSERS W/ WHITE FINISH U.O.N.
4. CONTRACTOR TO PROVIDE ALL EXIT, EMERGENCY AND NIGHT LIGHTS AS WELL AS, LIFE SAFETY EQUIPMENT AND SMOKE/HEAT DETECTORS AS REQUIRED TO COMPLY WITH APPLICABLE CODES (SEE FP DWGS).
5. INSTALL LIGHT FIXTURES IN STRICT CONFORMANCE WITH MANUFACTURERS SPECIFICATIONS AND INSTRUCTIONS.
6. ALL SWITCHES SHALL BE INSTALLED 48" A.F.F. WITH CENTER LINE OF FIRST SIDE, 6" FROM ADJACENT DOOR BUCK OR ADJACENT WALL INTERSECTION UNLESS OTHERWISE NOTED. WHERE MORE THAN ONE SWITCH OCCURS IN THE SAME LOCATION THEY SHALL BE INSTALLED IN GANG TYPE BOX UNDER ONE COVER PLATE UNLESS OTHERWISE NOTED.
7. ALL LIGHT SWITCHES TO BE LEVITON TYPE.
8. CONTRACTOR TO PROVIDE ALL THERMOSTATS AS REQ. FOR NEW & EXISTING HVAC SYSTEM. (SEE MECHANICAL DWGS).
9. CONTRACTOR TO PROVIDE NEW ACOUSTICAL HUNG CEILING SYSTEM THROUGHOUT UON. GRID TO BE INSTALLED WITH EQUAL TILE SIZES AT PERPENDICULAR WALL CONDITIONS.
10. CONTRACTOR TO INSTALL 1" MINI BLINDS @ ALL EXTERIOR WINDOWS. MANUFACTUER AND COLOR TBD.
11. CONTRACTOR TO INSTALL UL ASSEMBLY P533. 1/A503 AT UNDERSIDE OF EXISTING WD TRUSSES IN ALL INTERIOR AREA OF WORK.
12. CONTRACTOR TO INSTALL RATED ACCESS DOORS SPACED AS PER MECH. DWG. IN ABOVE REF ULP53 CEILING ASSEMBLY.

RCP CEILING TYPES

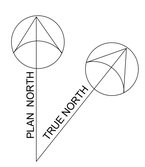
A	2' X 2' ACOUSTICAL CEILING TILE W/ 15/16" EXPOSED TEE CEILING GRID, TYP. W/ 5/8" TYPE "X" GYPSUM BOARD CEILING ABOVE @ 8'-1 7/8" AFF
B	5/8" GYPSUM BOARD W/ 5/8" TYPE "X" GYPSUM BOARD CEILING ABOVE @ 8'-1 7/8" AFF
C	5/8" MOISTURE RESISTANT TYPE "X" GYPSUM BOARD
D	5/8" TYPE "X" GYPSUM BOARD
E	EXISTING CEILING TO REMAIN

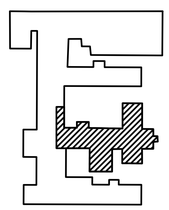
NOTE: ACCESS PANEL MUST BE FIRE-RATED



5 A103 CEILING ACCESS PANEL

3" = 1'-0" 0 3" 6" 1'





CONSTRUCTION DOCUMENTS | A-103

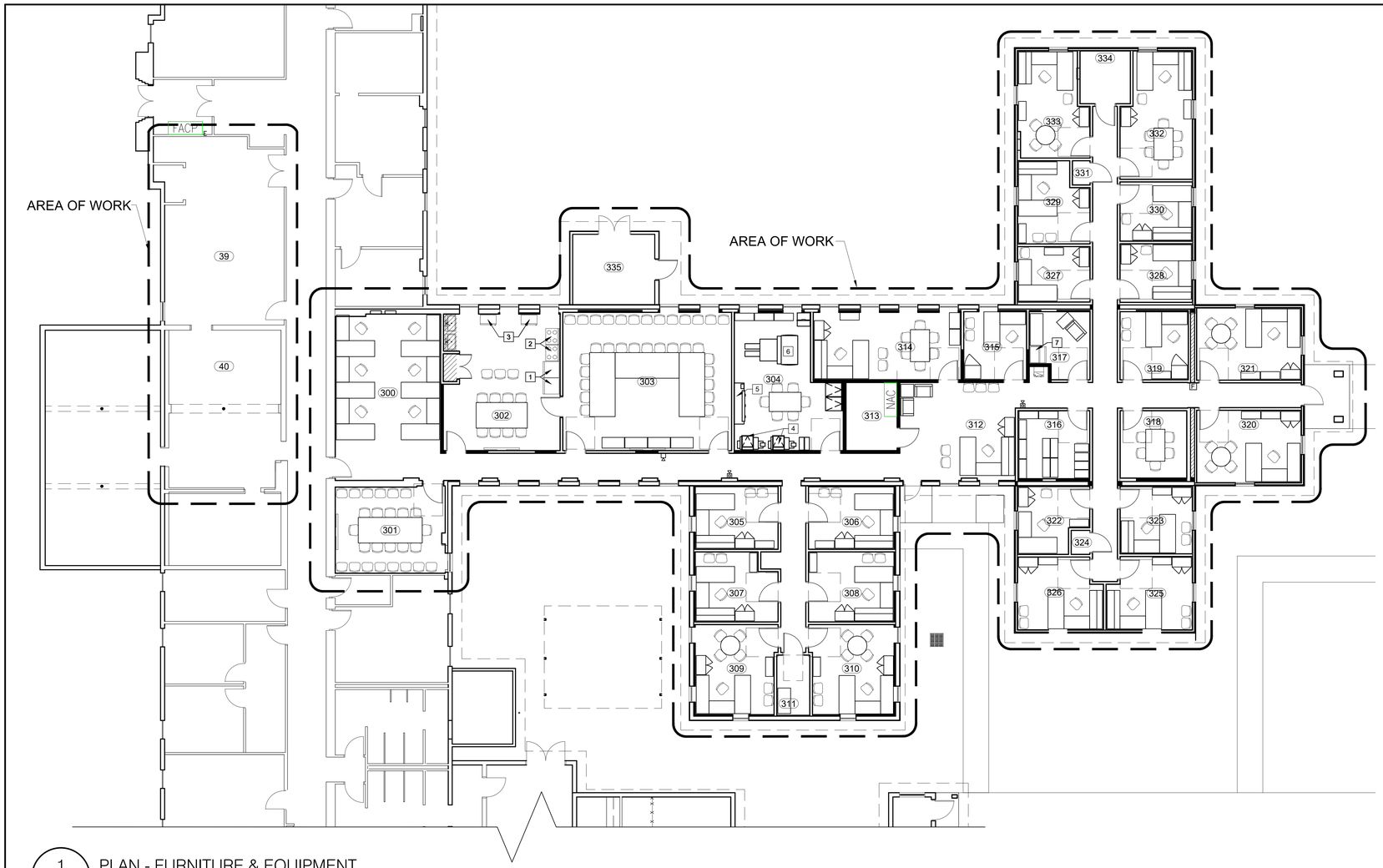
DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DESIGN WING RELOCATION
BUILDING 1005

REFLECTED CEILING PLAN

DES.	K. ROOT
DR.	K. ROOT / S. CONTRERAS
CHK.	K. ROOT
SUBMITTED BY:	K. ROOT
DESIGN DIR.	J. FRANKLIN ORR
APPROVED: PWO OR OICC:	DATE:
SATISFACTORY TO:	DATE:

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036652
CONST. CONTR. NO. 21-0019
SCALE: NOTED | SPEC. NA | SHEET: 5 OF 36



1 A104 PLAN - FURNITURE & EQUIPMENT

1/8" = 1'-0" 0 5' 10' 20'

FF&E GENERAL NOTES

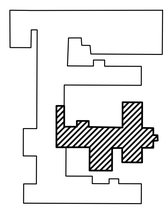
1. FURNITURE IS NOT IN CONTRACT. UON. SHOWN FOR REFERENCE PURPOSES ONLY.
2. ALL ELECTRICAL AND TELEPHONE OUTLETS SHALL BE MOUNTED AS SPECIFIED BY ENGINEER. SEE ELECTRICAL DWGS.
4. SEE ELECTRICAL DWGS. FOR ELECTRICAL AND DATA RECEPTACLES.

FF&E KEYNOTES

1	NEW REFRIDGERATOR BY OTHERS - NIC FOR BASIS OF DESIGN: FRIDGIDAIRE FRTD202AS AMPS@120VOLTS = 3 MIN - CIRCUIT R'Q'D = 15 AMPS
2	NEW STOVE BY OTHERS - NIC FOR BASIS OF DESIGN: GE JBS86SP/EP - KW RATING 240V 15.6 - 208V 11.7 - BREAKER SIZE 40 AMPS
3	NEW COUNTERTOP MICROWAVE BY OTHERS - NIC FOR BASIS OF DESIGN: GE JES1145DL/DM/SH 950 WATTS
4	PRINTER BY OTHERS - NIC
5	PLOTTER BY OTHERS - NIC
6	KIP PLOTTER BY OTHERS - NIC
7	NEW REFRIGERATOR BY OTHERS - NIC FOR BASIS OF DESIGN: MICRO FRIDGE 10.1 CU.FT MICRO FRIDGE COMBINATION UNIT

PLAN NORTH

TRUE NORTH



CONSTRUCTION DOCUMENTS | A-104

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

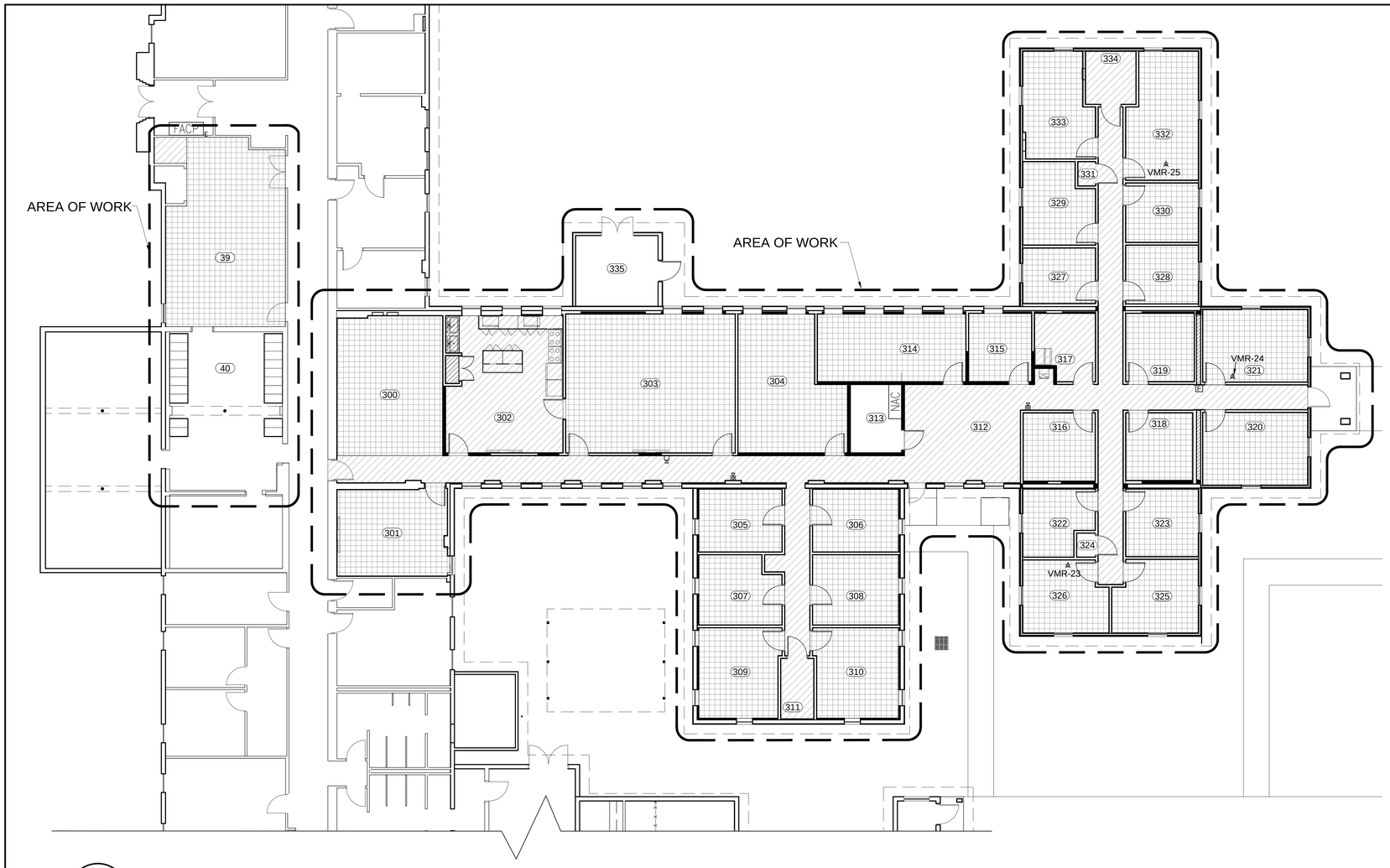
DESIGN WING RELOCATION
BUILDING 1005

FLOOR PLAN - FURNITURE

DES.	K. ROOT
DR.	K. ROOT / S. CONTRERAS
CHK.	K. ROOT
SUBMITTED BY:	K. ROOT
DESIGN DIR.	J. FRANKLIN ORR
APPROVED: PWO OR OICC:	DATE:
SATISFACTORY TO:	DATE:

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036653 | CONST. CONTR. NO. 21-0019

SCALE: NOTED | SPEC. NA | SHEET: 6 OF 36



1 A105 FLOOR PLAN - REFLECTED CEILING

1/8" = 1'-0" 0 5' 10' 20'

ROOM FINISH SCHEDULE

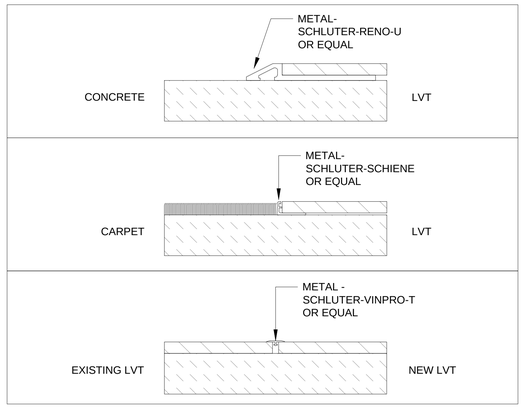
ROOM NUMBER	ROOM NAME	FLOOR	BASE	WALLS (PLAN NORTH)				CEILING	NOTES
				NORTH	EAST	SOUTH	WEST		
39	RECORDS ROOM	LVP-1/ CPT-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	-	
40	DESIGN PLAN ROOM	-	-	-	-	-	-	-	
300	FLEX SPACE	LVP-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	ACT	
301	M CONFERENCE	CPT-1	RB-1	PNT-1	PNT-1	PNT-3	PNT-1	ACT	
302	KITCHEN	LVP-1	RB-1	PNT-1	PNT-1	PNT-3	PNT-1	GWB	
303	LG CONFERENCE	CPT-1	RB-1	PNT-3	PNT-1	PNT-1	PNT-1	ACT	
304	PLOTTER	CPT-1	RB-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT	
305, 307, 309	OFFICE	CPT-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-2	ACT	
306, 308, 310	OFFICE	CPT-1	RB-1	PNT-1	PNT-2	PNT-1	PNT-1	ACT	
311	CLOSET	LVP-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	ACT	
312	ADMIN/CIRCULATION	LVP-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	ACT	
313	TELECOM	SC-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	GWB	SPEC COMPLIANT FIRE RATED BACKBOARD ALONG ALL WALLS
314, 315	OFFICE	CPT-1	RB-1	PNT-2	PNT-1	PNT-1	PNT-1	ACT	
316	STORAGE	CPT-1	RB-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT	
317	MULTI-PURPOSE ROOM	LVP-1	RB-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT	
318	PRINTER	CPT-1	RB-1	PNT-2	PNT-2	PNT-2	PNT-2	ACT	
319, 321	OFFICE	CPT-1	RB-1	PNT-2	PNT-1	PNT-1	PNT-1	ACT	
320	OFFICE	CPT-1	RB-1	PNT-1	PNT-1	PNT-2	PNT-1	ACT	
322, 326	OFFICE	CPT-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-2	ACT	
324	MECHANICAL	-	-	-	-	-	-	GWB	
323, 325	OFFICE	CPT-1	RB-1	PNT-1	PNT-2	PNT-1	PNT-1	ACT	
327, 329, 333	OFFICE	CPT-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-2	ACT	
331	MECHANICAL	-	-	-	-	-	-	GWB	
328, 330, 332	OFFICE	CPT-1	RB-1	PNT-1	PNT-2	PNT-1	PNT-1	ACT	
334	STORAGE	LVP-1	RB-1	PNT-1	PNT-1	PNT-1	PNT-1	ACT	
335	MECHANICAL	-	-	-	-	-	-	-	
NOTE: RM 40, 324, 331, 334 & 335 EXISTING FINISHES TO REMAIN.									

FINISH LEGEND

	MARK	MATERIAL	BASIS OF DESIGN	NOTES
	CPT-1	CARPET TILE	MANUFACTURER: TARKETT COLOR: COROLLARY 11577, BOUNTY 39408 SIZE: 24" x 24"	-INSTALLATION METHOD: VERTICAL ASHLER
	LVT-1	LUXURY VINYL TILE	MANUFACTURER: TARKETT COLOR: MELANGE PEME, SILTSTONE 11187 QU SIZE: 18" x 18"	-INSTALLATION METHOD: VERTICAL ASHLER
	SC-1	SEALED CONCRETE		
	PNT-1	WALL PAINT	MANUFACTURER: SHERWIN WILLIAMS COLOR: SW 7008 ALABASTER	EGGSHELL FINISH
	PNT-2	WALL PAINT - ACCENT COLOR 01	MANUFACTURER: SHERWIN WILLIAMS COLOR: SW 6192 COASTAL PLAIN	EGGSHELL FINISH
	PNT-3	WALL PAINT - ACCENT COLOR 02	MANUFACTURER: SHERWIN WILLIAMS COLOR: SW 7616 BREEZY	EGGSHELL FINISH
	RB-1	RUBBER WALL BASE	MANUFACTURER: TARKETT COLOR: TRADITIONAL WALL BASE, 29 MOON ROCK WG SIZE: 4"	
		METAL DOOR FRAME	MANUFACTURER: SHERWIN WILLIAMS COLOR: SW7047 PORPOISE	SATIN FINISH
	HDW-1	DRAWER PULLS	MANUFACTURER: AMEROCK	STAINLESS STEEL FINISH
	SS-1	COUNTER TOPS	MANUFACTURER: AVONITE	9017 SAVOR
	PL-1	PLASTIC LAMINATE CASEWORK	MANUFACTURER: FORMICA	8829 GRAPHITE TWILL

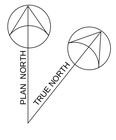
GENERAL NOTES

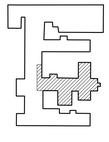
1. ALL VMR'S COVERS SHALL BE REMOVED, STORED OFF SITE, AND REINSTALLED IN THE SAME LOCATION ON TOP OF FINISH FLOORING.



2 A105 INTERIOR FINISH DETAIL - TYPICAL FLOOR TRANSITIONS

6" = 1'-0" 0 1" 2" 3" 6"





CONSTRUCTION DOCUMENTS | A-105

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DESIGN WING RELOCATION
BUILDING 1005

FINISH PLAN

DES.	K. ROOT
DR.	K. ROOT / S. CONTRERAS
CHK.	K. ROOT
SUBMITTED BY:	K. ROOT
DESIGN DIR.	J. FRANKLIN ORR
APPROVED: PWO OR OICC:	DATE:
SATISFACTORY TO:	DATE:

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036654 | CONST. CONTR. NO. 21-0019

SCALE: NOTED | SPEC. NA | SHEET: 7 OF 36

DOOR SCHEDULE

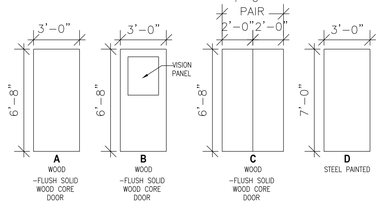
NOTE: CONTRACTOR SHALL FIELD VERIFY ALL DOOR AND FRAME DIMENSIONS IN FIELD PRIOR TO ORDERING UNITS. SEE PLAN LOCATIONS FOR SPECIFIC HANDING AND ORIENTATION.

DOOR DATA					FRAME DATA				SIGNAGE		
NUM.	TYPE	SIZE	THK.	MAT.	TYPE	MAT.	HEAD	JAMB	TYPE	HARDWARE	REMARKS
300	–	–	–	–	–	–	1/A201	2/A201	A	HW-1	EXISTING DOOR TO REMAIN.
301	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (FLOOR MOUNTED)
302A	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (FLOOR MOUNTED)
302B	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-2	
302C	C	2'-0"x6'-8"	1-3/4"	WOOD	F2	WOOD	3/A201	4/A201	–	–	SEE ROOM FINISH SCHEDULE FOR HARDWARE
303A	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M..	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
303B	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
304	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
305	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
306	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
307	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
308	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
309	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
310	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
311	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	B	HW-2	
312A	–	–	–	–	–	–	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
312B	–	–	–	–	–	–	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
313	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	B	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
314	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
315	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
316	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
317	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
318	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
319	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
320	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
321	B	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
322	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
323	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
324	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	B	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
325	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
326	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
327	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
328	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
329	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
330	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
331	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	B	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
332	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
333	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	A	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
334	A	3'-0"x6'-8"	1-3/4"	WOOD	F1	H.M.	1/A201	2/A201	B	HW-1	20 MIN. RATED DOOR & FRAME W/ CLOSER, EM HOLD OPEN (WALL MOUNTED)
335	D	3'-0"x7'-0"	1-3/4"	STEEL	F3	STEEL	5/A201	5/A201	B	HW-3	

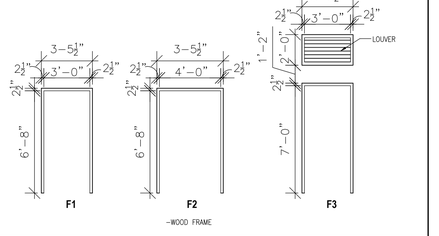
DOOR AND FRAME TYPES

CONTRACTOR SHALL FIELD VERIFY DIMENSIONS PRIOR TO INSTALLATION.

DOOR TYPES



FRAME TYPES



DOOR SCHEDULE NOTES

1. ALL H.M. FRAMES TO BE WELDED.
2. DOORS AND FRAMES IN 1 HR RATED WALLS TO BE 20 MIN. RATED. DOORS IN 1 HR RATED TO HAVE CLOSERS.
3. INSTALL NEW LINTEL AT ALL NEW AND WIDENED DOORWAYS. NEW LINTEL TO BE DESIGNED AND ENGINEERED BY LICENSED N.C. STRUCTURAL ENGINEER.
4. REMOVE EXISTING MASONRY AS REQUIRED FOR NEW 3'–0"X 6'–8" DOOR AND FRAME. PROVIDE NEW LINTEL.

DOOR HARDWARE SCHEDULE

HARDWARE SETS

HW–1

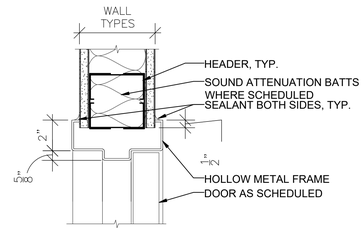
3 ea.	Hinges	A8112	652
1 ea.	Lockset	F84 Grade 1	626
1 ea.	Closer	C02021 w/ stop arm	689
3 ea.	Silencers	L03011	Grey
1 ea.	Wall Stop	L22102	630
1 ea.	EM Hold Open	EM 500 G	12

HW–2

3 ea.	Hinges	A8112	652
1 ea.	Lockset	F84 Grade 1	626
3 ea.	Silencers	L03011	Grey
1 ea.	Wall Stop	L22102	630

HW–3

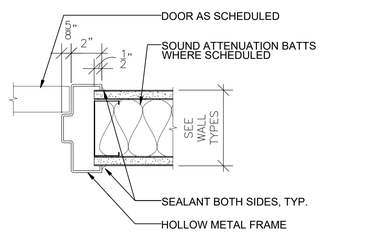
3 ea.	Hinges	A5111 NRP	630
1 ea.	Rim Exit Device	Type 1 Function 08 Grade 1	630
1 ea.	Closer	C02021 w/ stop arm	689
1 ea.	Cipher Lockset	F84 Grade 1	626
1 ea.	Threshold	J32130	AL
1 ea.	Weatherstripping	R3Y165	AL
1 ea.	Door Sweep	R3Y435	AL



NOTE: REFER TO WALL TYPES FOR WALL FINISHES AND FINISH THICKNESS, TYP. DETERMINE FRAME THROAT DIMENSION

1 A201 TYP. INTERIOR HM DOOR HEAD

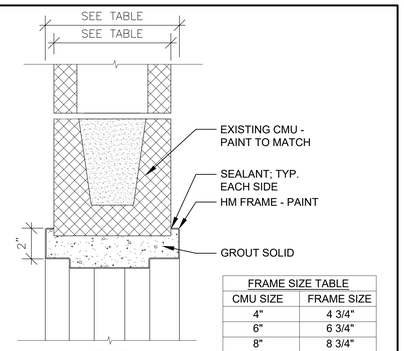
3" = 1'-0" 0 3" 6" 1'



NOTE: REFER TO WALL TYPES FOR WALL FINISHES AND FINISH THICKNESS, TYP. DETERMINE FRAME THROAT DIMENSION

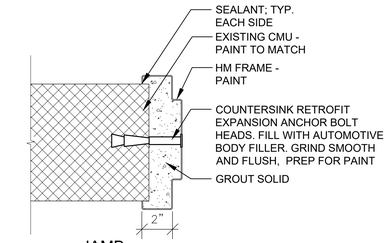
2 A201 TYP. INTERIOR HM DOOR JAMB

3" = 1'-0" 0 3" 6" 1'



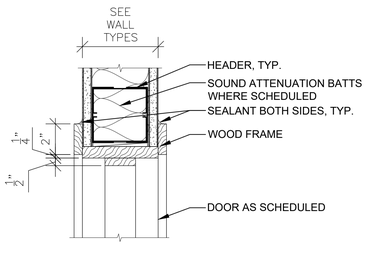
HEAD

FRAME SIZE TABLE	
CMU SIZE	FRAME SIZE
4"	4 3/4"
6"	6 3/4"
8"	8 3/4"
12"	10 3/4"



JAMB

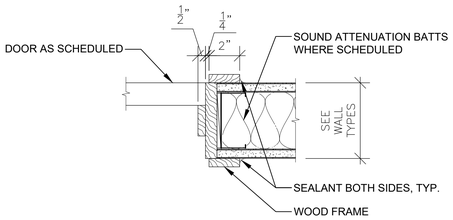
- PREPARED MASONRY (WELDED-ON ANCHOR).
- COUNTERSUNK ¾' FLAT HEAD BOLT WITH ⅜" EXPANSION SHIELDS.
- JAMB SHOULD BE 4" FROM ADJACENT WALL UNLESS OTHERWISE NOTED.



NOTE: REFER TO WALL TYPES FOR WALL FINISHES AND FINISH THICKNESS, TYP. DETERMINE FRAME THROAT DIMENSION

3 A201 INTERIOR DOOR HEAD

3" = 1'-0" 0 3" 6" 1'



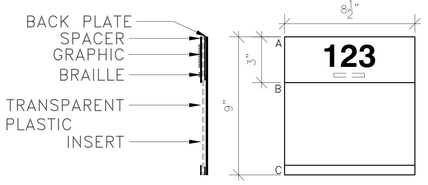
NOTE: REFER TO WALL TYPES FOR WALL FINISHES AND FINISH THICKNESS, TYP. DETERMINE FRAME THROAT DIMENSION

4 A201 INTERIOR DOOR JAMB

3" = 1'-0" 0 3" 6" 1'

5 A201 TYP. EXT. DOOR HEAD & JAMB

3" = 1'-0" 0 3" 6" 1'

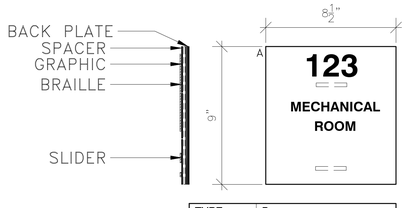


TYPE	A
STANDARD	SSTD1
LOCATION	TYP ROOM
BRAILLE	YES
MC LOGO	YES
INSERT A	COPY SIZE: 1.5"
INSERT B	PAPER INSERT 6X8.5
INSERT C	BLANK - 5/8" H.
INSERT D	
INSERT E	

COORDINATE ROOM NUMBER & NAME W/ FLOOR PLAN

6 A201 SIGN TYPE 'A'

3" = 1'-0" 0 3" 6" 1'

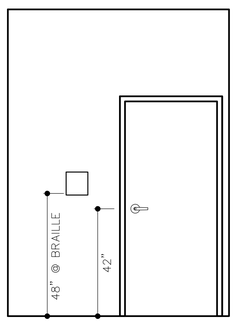


TYPE	B
STANDARD	SSTD1
LOCATION	(SEE SCHEDULE)
BRAILLE	YES
MC LOGO	NO
INSERT A	COPY SIZE: 5/8"
INSERT B	
INSERT C	
INSERT D	
INSERT E	

COORDINATE ROOM NUMBER & NAME W/ FLOOR PLAN

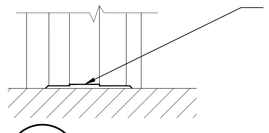
6 A201 SIGN TYPE 'B'

3" = 1'-0" 0 3" 6" 1'



8 A201 SIGNAGE LOCATION

NTS



- STAINLESS STEEL THRESHOLD (PROFILE ARBITRARY) - ADA ACCESSIBLE CODE COMPLIANT CONDITIONS
- PROVIDE URETHANE PRE-STRIPPING
- SET THRESHOLD IN CONTINUOUS BED OF SEALANT
- SEALANT TO EXTEND 8" UP FULL WIDTH OF JAMBS

9 A201 TYP. EXT. DOOR THRESHOLD

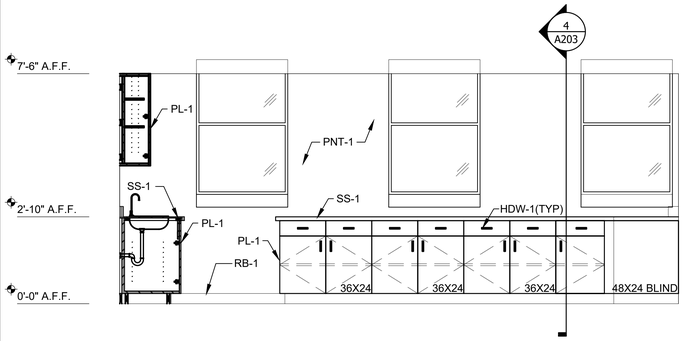
3" = 1'-0" 0 3" 6" 1'

CONSTRUCTION DOCUMENTS | A-202

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

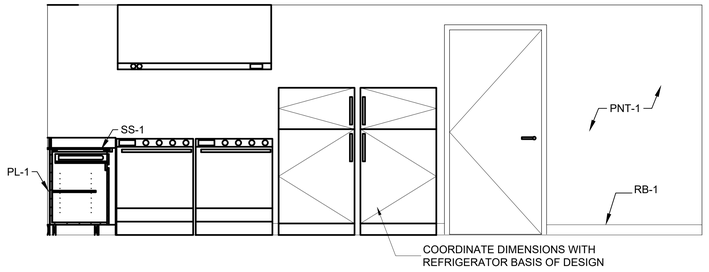
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. K.ROOT	DESIGN WING RELOCATION BUILDING 1005
DR. K.ROOT	
CHK. K.ROOT	
SUBMITTED BY: K.ROOT	SCHEDULES - DOOR, WINDOW & SIGNAGE
DESIGN DIR. J. FRANKLIN ORR	
APPROVED: PWO OR OICC: DATE:	SIZE E1 · CODE IDENT. NO 80091 · NAVFAC DRAWING NO. 60036655
SATISFACTORY TO: DATE:	CONST. CONTR. NO. 21-0019
	SCALE: NOTED · SPEC. NA · SHEET: 8 OF 36



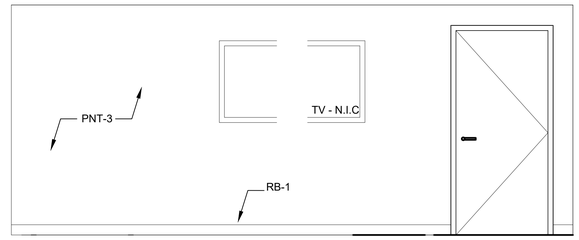
A1 A203 NORTH KITCHEN ELEVATION

1/2" = 1'-0" 0 1' 5'



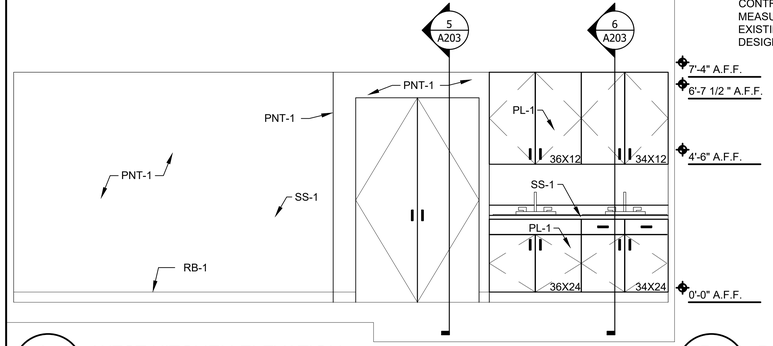
A2 A203 EAST KITCHEN ELEVATION

1/2" = 1'-0" 0 1' 5'



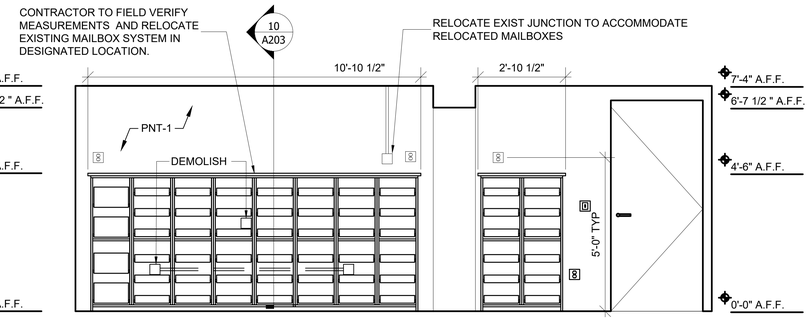
A3 A203 SOUTH KITCHEN ELEVATION

1/2" = 1'-0" 0 1' 5'



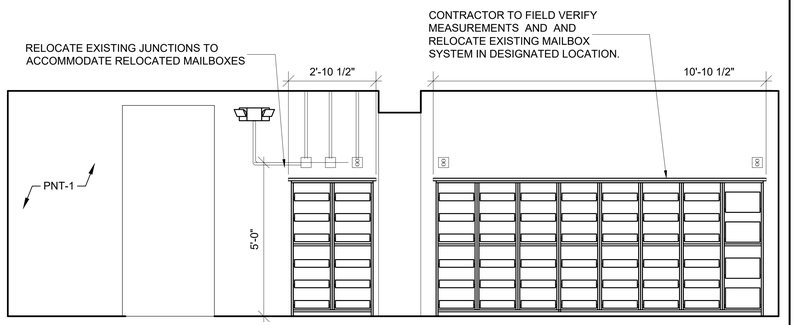
A4 A203 WEST KITCHEN ELEVATION

1/2" = 1'-0" 0 1' 5'



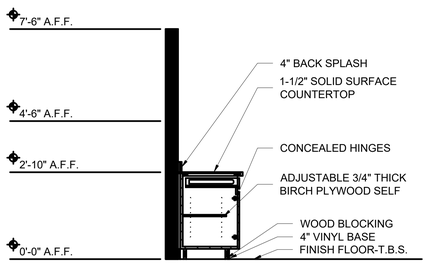
B1 A203 DRAWERS ELEVATION

1/2" = 1'-0" 0 1' 5'



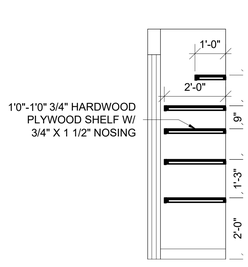
B2 A203 MAILBOX ELEVATION

1/2" = 1'-0" 0 1' 5'



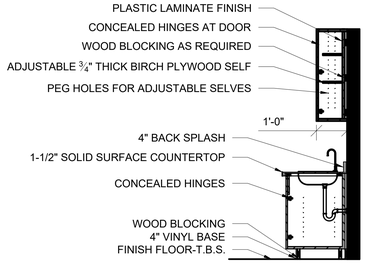
1 A203 KITCHEN MILLWORK SECTION

1/2" = 1'-0" 0 1' 5'



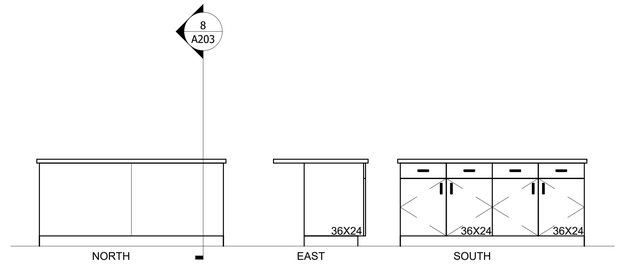
2 A203 KITCHEN MILLWORK SECTION

1/2" = 1'-0" 0 1' 5'



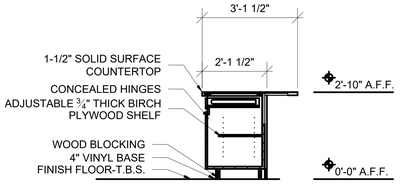
3 A203 KITCHEN MILLWORK SECTION

1/2" = 1'-0" 0 1' 5'



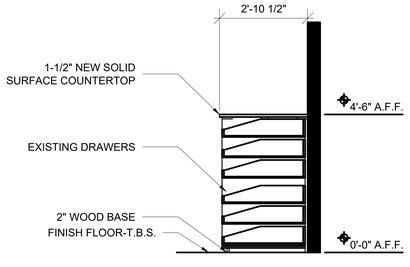
4 A203 ISLAND ELEVATIONS

1/2" = 1'-0" 0 1' 5'



5 A203 ISLAND SECTION

1/2" = 1'-0" 0 1' 5'



6 A203 SECTION - DRAWERS

1/2" = 1'-0" 0 1' 5'

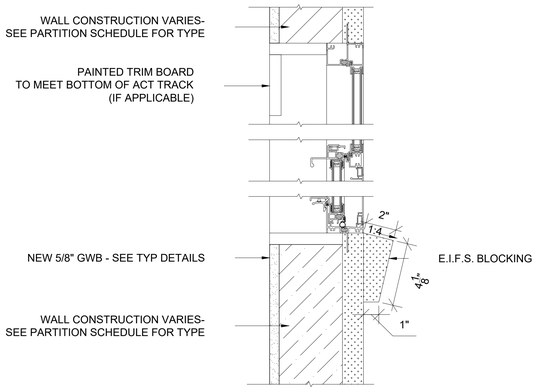
CONSTRUCTION DOCUMENTS	A-203

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

MARINE CORPS BASE

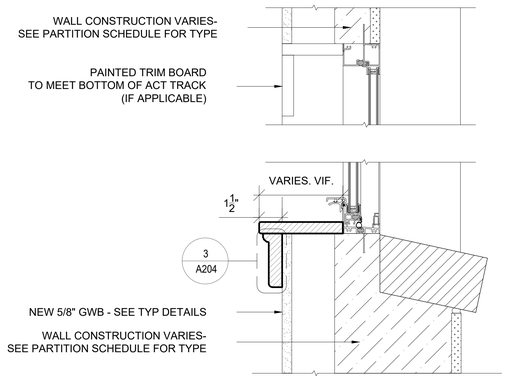
CAMP LEJEUNE, NORTH CAROLINA

DES. K. ROOT	DESIGN WING RELOCATION BUILDING 1005
DR. K. ROOT / S. CONTRERAS	
CHK. K. ROOT	
SUBMITTED BY: K. ROOT	ELEVATIONS - INTERIOR
DESIGN DIR. J. FRANKLIN ORR	
APPROVED: PWO OR OICC: DATE:	SIZE E1 · CODE IDENT. NO 80091 · NAVFAC DRAWING NO. 60036656
SATISFACTORY TO: DATE:	CONST. CONTR. NO. 21-0019
	SCALE: NOTED · SPEC. NA · SHEET: 9 OF 36



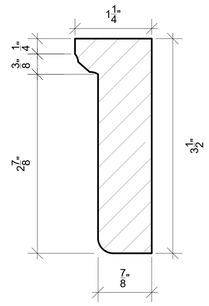
1 A204 E.F.I.S. WINDOW FRAMING DETAIL

3" = 1'-0"



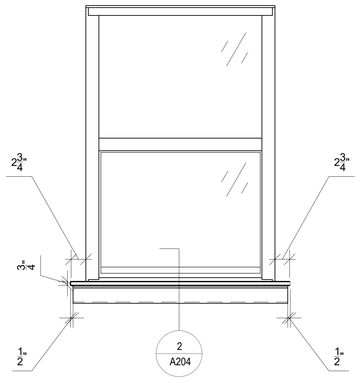
2 A204 MASONRY/STUCCO WINDOW SILL DETAIL

3" = 1'-0"



3 A204 SILL TRIM DETAIL SECTION TYP

1" = 1'-0"



4 A204 SILL DETAIL ELEVATION TYP

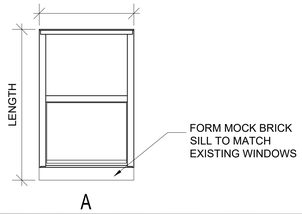
1" = 1'-0"

WINDOW SCHEDULE

MARK	#	WIDTH	HEIGHT	GLAZ.	MAT.	FRAME	HEAD	JAMB	SILL	COATING	REMARKS
A	2	-	-	CLEAR	ALUM.	PRE-FIN.	1/A201	2/A201	0	PVDF	MATCH EXISTING WINDOW, R.O. 36" X 54 1/2"

WINDOW TYPES

CONTRACTOR SHALL FIELD VERIFY DIMENSIONS PRIOR TO INSTALLATION.



A

NOTE: CONTRACTOR SHALL FIELD VERIFY ALL WINDOW AND FRAME DIMENSIONS IN FIELD PRIOR TO ORDERING UNITS. SEE PLAN AND WINDOW DETAILS.

CONSTRUCTION DOCUMENTS | A-204

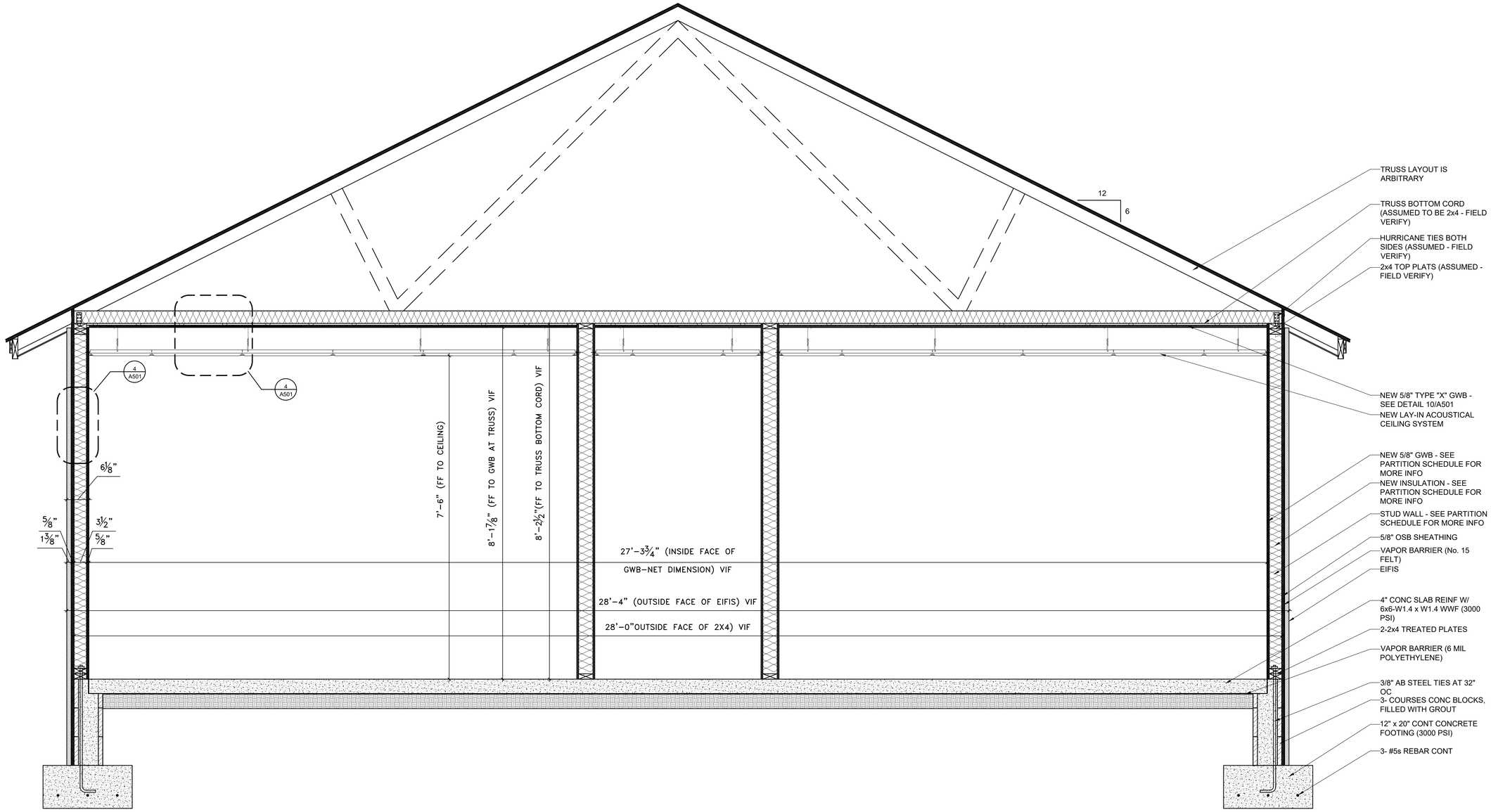
DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. K. ROOT
DR. K. ROOT / S. CONTRERAS
CHK. K. ROOT
SUBMITTED BY: K. ROOT
DESIGN DIR. J. FRANKLIN ORR
APPROVED: PWO OR OICC: DATE:
SATISFACTORY TO: DATE:

DESIGN WING RELOCATION
BUILDING 1005

ELEVATIONS - INTERIOR

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036657
CONST. CONTR. NO. 21-0019
SCALE: NOTED | SPEC. NA | SHEET: 10 OF 36



1 A401 BUILDING SECTION @EIFS

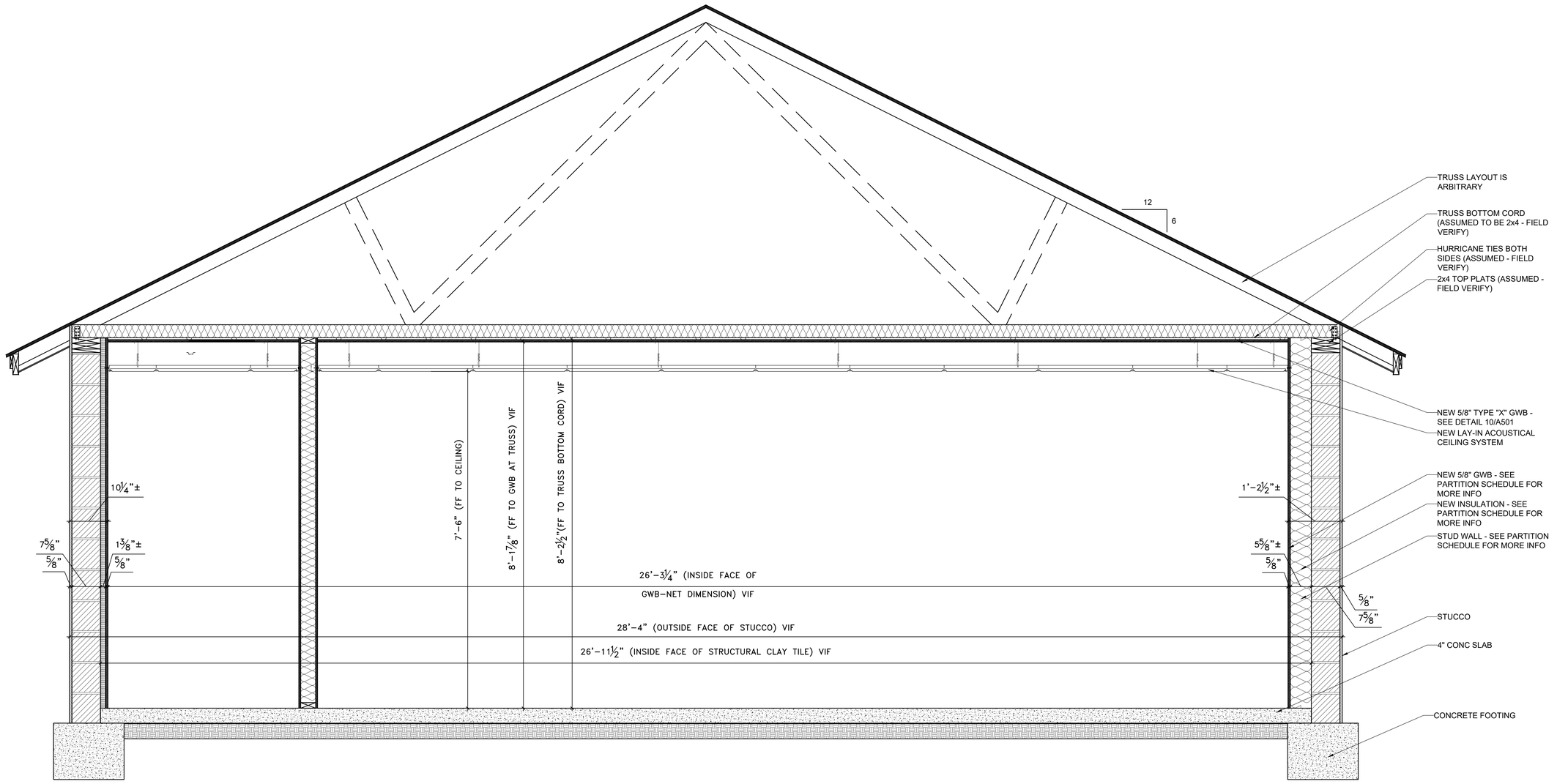
1" = 1'-0" 0 6" 1' 2'

CONSTRUCTION DOCUMENTS | A-401

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. K.ROOT	DESIGN WING RELOCATION BUILDING 1005
DR. K.ROOT	
CHK. K.ROOT	
SUBMITTED BY: K.ROOT	BUILDING SECTION
DESIGN DIR. J. FRANKLIN ORR	
APPROVED: PWO OR OICC: DATE:	SIZE E1 · CODE IDENT. NO 80091 · NAVFAC DRAWING NO. 60036658
SATISFACTORY TO: DATE:	CONST. CONTR. NO. 21-0019
	SCALE: NOTED · SPEC. NA · SHEET: 11 OF 36



1 / A402 BUILDING SECTION @ STUCCO

1" = 1'-0" 0 6" 1' 2'

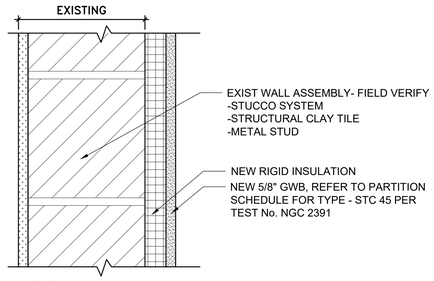
CONSTRUCTION DOCUMENTS			A-402
	DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA		
DES. K.ROOT DR. K.ROOT CHK. K.ROOT SUBMITTED BY: K.ROOT DESIGN DIR. J. FRANKLIN ORR APPROVED: PWO OR OICC: DATE: SATISFACTORY TO: DATE:	DESIGN WING RELOCATION BUILDING 1005 BUILDING SECTION		
	SIZE E1	CODE IDENT. NO 80091	NAVFAC DRAWING NO. 60036659 CONST. CONTR. NO. 21-0019
	SCALE: NOTED	SPEC. NA	SHEET: 12 OF 36

WALL PARTITION NOTES

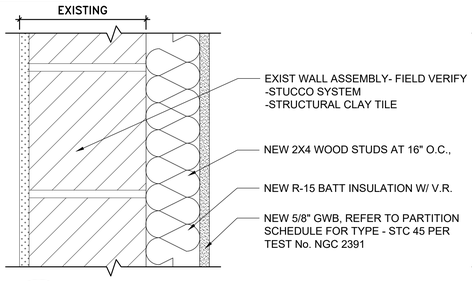
1. FOR SMOKE AND FIRE RATED PARTITION SEAL AROUND ALL OPENINGS AND PENETRATIONS WITH FIRE/SMOKE RETARDANT SEALANT. REFER TO OTHER DOCUMENTS FOR THE APPROPRIATE U.L. DESIGN
2. STC WALL RATING: AS INDICATED IN WALL TYPE DETAILS
3. ALL WALLS MUST BE SEALED AROUND ALL OPENINGS AND PENETRATIONS WITH SEALANT OR ACOUSTIC BATT INSULATION, OR SELF-EXPANDING INSULATION
4. ALL PARTITIONS MUST BE FROM FINISH FLOOR TO UNDERSIDE OF THE TYPE X GWB OF THE UL ROOF ASSEMBLY. REFER TO OTHER DOCUMENTS FOR THE UL DESIGN
5. LEVEL 5 FINISH REQUIRED THROUGHOUT
6. COORDINATE ALL INTERIOR FINISHES WITH INTERIOR DESIGN SHEETS TO VERIFY EXTENTS OF FINISHES, COLORS AND PREPARATION OF WALL TO RECEIVE FINISH.
7. DO NOT ALLOW G.W.B. TO TOUCH CONC. SLAB - STOP G.W.B. 1/4" ABOVE FLOOR SLAB AND FILL JOINT WITH SEALANT OR REQUIRED ACOUSTIC TREATMENT. USE FIRE RETARDANT SEALANT WHEN PARTITION IS FIRE AND/OR SMOKE RATED.
8. THE GAUGE OF METAL STUDS IS TO BE DETERMINED BY THE MANUFACTURER'S REQUIREMENTS FOR THE INSTALLED LENGTH, U.L. RATING ASSEMBLIES, AND PROJECT CONDITIONS UNLESS OTHERWISE NOTED. STUDS SHALL CONFORM TO ASTM C 645. APPROXIMATELY 25 GAUGE MINIMUM ROLL FORMED, ELECTRO-GALVANIZED OR HOT-DIPPED GALVANIZED STEEL CHANNELS IN REQUIRED WIDTHS, HAVING NOT LESS THAN 1-1/4 INCH WIDE FLANGES, PIERCED WEBS AND SECTION PROPERTIES EQUAL TO OR EXCEEDING U.S. GYPSUM METAL STUDS. IF STUD HEIGHT EXCEEDS MANUFACTURER'S RECOMMENDATIONS FOR INDICATED SIZE, SPACING OR SURFACE MATERIAL, PROVIDE HEAVIER GAUGE STUDS IN CONFORMANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. PROVIDE 20 GAUGE STUDS AT PARTITIONS RECEIVING TILE FINISH. PROVIDE DOUBLE STUDS, 20 GAUGE EACH, AT EACH SIDE OF DOOR OPENINGS, AND AT EACH SIDE OF PARTITION OPENINGS EXCEEDING 32 INCHES IN WIDTH. SCREW FASTEN STUDS TOGETHER WITH 6 INCH LONG PIECES OF CHANNEL RUNNERS AT 1/4 POINTS OF FLOOR TO CEILING HEIGHT. FOUR (4) SCREWS MINIMUM. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
9. ALL WALL TYPE DETAILS ARE NOT TO SCALE.
10. ALL EXPOSED G.W.B. SHALL BE PAINTED UNLESS OTHERWISE NOTED OR FINISHED WITH OTHER MATERIAL. SEE FINISH SCHEDULE AND PLANS.
11. ALL GYPSUM WALL BOARD MATERIAL IS TO BE REGULAR TYPE 5/8" THICK U.O.N. SEE OTHER DOCUMENTS FOR OTHER THICKNESS AND TYPE 'X' (FIRE RATED) GWB CONDITIONS.
12. ALL SMOKE-STOP PARTITIONS, HORIZONTAL EXIT PARTITIONS, EXIST ENCLOSURES, AND FIRE RATED WALLS SHALL BE EFFECTIVELY AND PERMANENTLY IDENTIFIED WITH SIGNS OR STENCILING ABOVE ANY DECORATIVE CEILING AND/OR CONCEALED SPACE WITH LETTERS A MINIMUM OF TWELVE (12") HIGH ON CONTRASTING BACKGROUND SPACED A MINIMUM OF ONE PER WALL OR BARRIER. THE TYPE OR HOURLY RATING SHALL BE INCLUDED AT ALL SIGN CONDITIONS. SUGGESTED WORDING: "(RATING TYPE AND HOUR) RATED BARRIER - PROTECT ALL OPENINGS". PROVIDE DESIGNATION AT 20'-0" O.C. MIN. CONTRACTOR TO COORDINATE WITH BUILDING INSPECTOR TO CONFIRM TYPE, LANGUAGE, SIZE AND LOCATION OF ALL DESIGNATIONS.
13. ALL VERTICAL PIPING EXPOSED IN ROOMS SHALL BE FURRED WITH SAME MATERIAL AS ADJACENT WALLS, WITH EXCEPTIONS FOR MECHANICAL, ELECTRICAL AND DATA/TELEPHONE ROOMS UNLESS OTHERWISE DESIGNATED.
14. FIRE RATED GYPSUM WALL BOARD SHALL BE USED IN ALL FIRE RATED AND SMOKE BARRIER AND SMOKE PARTITIONS, INCLUSIVE OF MOISTURE AND IMPACT RESISTANT PANELS. REFER TO LIFE SAFETY PLANS FOR SPECIFIC PARTITION LOCATIONS.
15. ALL EXTERIOR AND INTERIOR BEARING AND NONBEARING EXTERIOR WALLS SHALL BE PROTECTED IN ACCORDANCE WITH IBC CHAPTER 6 TABLE 601 AND CHAPTER 7 TABLE 704.8 REQUIREMENTS FOR DESIGNATED TYPE OF CONSTRUCTION.
16. STC RATED ASSEMBLIES TO BE PROVIDED WITH PRODUCT SUBMISSION FOR PARTITION MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, A.N.S.I. AND USGBC LEED NC (CURRENT EDITION) REQUIREMENTS.

PARTITION SCHEDULE – WALL TYPES

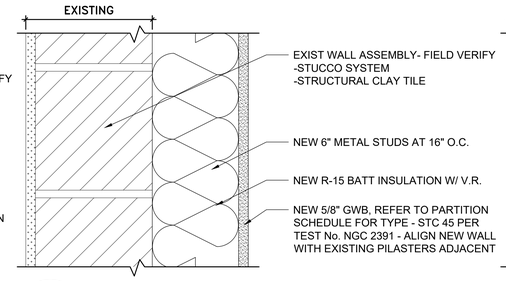
No.	LOCATION	REG GWB	ABUSE RESIST GWB	TYPE X GWB	SOUND REDUCING GWB	MOIST. RESIST. GWB	STUDS	INSULATION
P1	INTERIOR SIDE OF EXISTING EXTERIOR STUCCO WALL	5/8" ROOM SIDE			AT CONFERENCE ROOMS	AT BREAK ROOM	EXISTING METAL	1 1/2" RIGID INSULATION
P1A	INTERIOR SIDE OF EXISTING EXTERIOR STUCCO WALL		5/8" CORRIDOR SIDE	5/8" CORRIDOR			EXISTING METAL	1 1/2" RIGID INSULATION
P2	FURRED OUT ON INTERIOR SIDE OF EXISTING EXTERIOR STUCCO WALL	5/8" ROOM SIDE					2X4 WOOD	3 1/2" BATT INSULATION
P3	FURRED OUT ON INTERIOR SIDE OF EXISTING EXTERIOR STUCCO WALL	5/8" ROOM SIDE			AT CONFERENCE ROOMS	AT BREAK ROOM	6" METAL	MIN. 3 1/2" BATT INSULATION
P4	INTERIOR SIDE OF EXISTING EXTERIOR EIFIS WALL	5/8" ROOM SIDE					EXISTING WOOD	3 1/2" BATT INSULATION
P5	SEE A102	5/8" ROOM SIDE			AT CONFERENCE ROOMS		EXISTING	BATT INSULATION
P5A	SEE A102			5/8" ROOM SIDE			EXISTING	BATT INSULATION
P6	SEE A102	5/8" ROOM SIDE			AT CONF. & MOTHER'S RM	AT BREAK ROOM	EXISTING	BATT INSULATION
P6A	SEE A102		5/8" CORRIDOR SIDE	5/8" CORRIDOR & ROOM SIDE	AT CONF. & MOTHER'S RM	AT BREAK ROOM	EXISTING	BATT INSULATION
P7	SEE A102	5/8" ROOM SIDE			AT CONF. & MOTHER'S RM	AT BREAK ROOM	2X4 WOOD OR 3 5/8" METAL	3 1/2" FIBER GLASS MATTS
P7A	SEE A102		5/8" CORRIDOR SIDE	5/8" CORRIDOR & ROOM SIDE	AT CONF. & MOTHER'S RM	AT BREAK ROOM	2X4 WOOD OR 3 5/8" METAL	3 1/2" FIBERGLASS MATTS
P8	SEE A102	5/8" ROOM SIDE					2X4 WOOD OR 3 5/8" METAL	BATT INSULATION



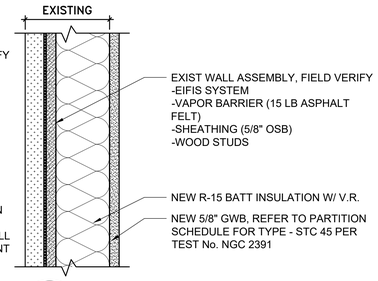
1 A501 P1, P1A
NTS (SEE SCHEDULE ABOVE)



2 A501 P2
NTS (SEE SCHEDULE ABOVE)



3 A501 P3
NTS (SEE SCHEDULE ABOVE)



4 A501 P4
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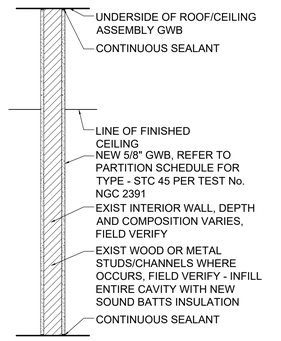
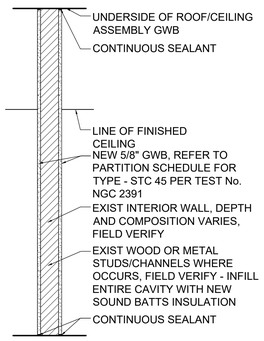
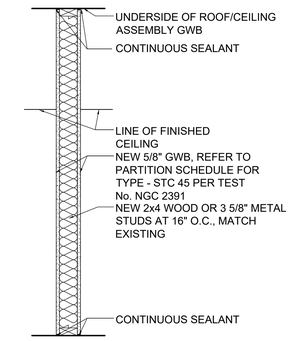


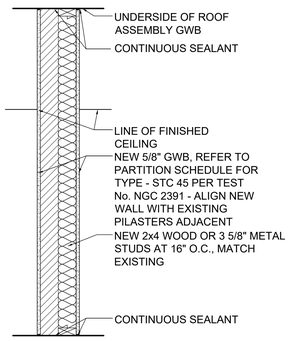
5 A501 P5, P5A
NTS (SEE SCHEDULE ABOVE)



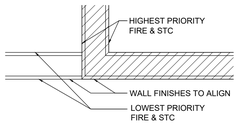
6 A501 P6, P6A
NTS (SEE SCHEDULE ABOVE)



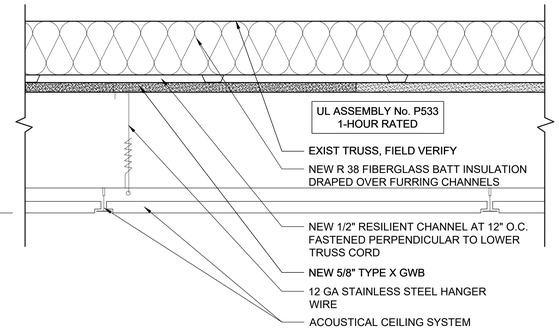
7 A501 P7, P7A
NTS (SEE SCHEDULE ABOVE)



8 A501 P8
NTS (SEE SCHEDULE ABOVE)



9 A501 RATING/STC PRIORITIES
NTS



MIN 7'–6" TO F.F.

10 A501 ROOF/CEILING ASSEMBLY - 1 HR RATED
NTS

NOTES:
1. DETAILS ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR TO ENGAGE A N.C. LICENSED STRUCTURAL ENGINEER TO PROVIDE SIGNED AND SEALED DESIGN FOR A502 DETAILS AND NOTED ELSEWHERE ON DRAWING.
2. FIELD VERIFY: THE CONTRACTOR MUST FIELD VERIFY ALL THE CONDITIONS SHOWN. THESE DETAILS ARE BASED ON DATA FROM THE 1984 ORIGINAL CONSTRUCTION DOCUMENTS. REFER TO SOLICITATION FOR OTHER INFORMATION.
3. HAZARDOUS MATERIALS: REFER TO SPECIFICATIONS FOR INSTRUCTIONS IN CASE HAZARDOUS MATERIALS ARE ENCOUNTERED. ACCORDING TO THE 1961 INFORMATION THE EXISTING SHEATHING/INSULATION CONTAINS ASBESTOS
4. PHASING: COORDINATE WITH THE ROICC TO MINIMIZE THE TENANT'S OPERATIONS. BUILDING FUNCTION MUST REMAIN OPERATIONAL AT ALL TIMES
5. ROOF WORK: ALL ROOF WORK MUST BE COORDINATED WITH THE ROICC. BUILDING STRUCTURE MUST BE KEPT WATER TIGHT AT ALL TIMES
6. SHOP DRAWINGS: IT IS THE CONTRACTOR'S RESPONSIBILITY TO DEVELOP SHOP DRAWINGS IN SUFFICIENT DETAILS TO COMPLY WITH ALL CODES AND STANDARDS. THE SECTIONS AND DETAILS PROVIDED IN THESE DOCUMENTS ARE GENERIC IN NATURE AND NOT THE FINAL CONFIGURATION. THE SHOP DRAWINGS MUST CONTAIN ALL THE NECESSARY CALCULATIONS TO DETERMINE APPROPRIATE MATERIALS, LOADS, CODE COMPLIANCE REQUIREMENTS, ETC.
7. FLASHING: FLASHING SHOP DRAWINGS: PROVIDE FULLY DEVELOPED FLASHING FOR EACH CONDITION. GENERIC FLASHING WILL BE REJECTED. FLASHING MUST HAVE THE ACTUAL ITEM TO BE INSTALLED (FOR EXAMPLE: WINDOWS, ROOF, CANT, WALL PENETRATIONS, ETC.). SHOP DRAWINGS WITH STATEMENTS SUCH AS "FLASHING BY OTHERS" WILL BE REJECTED. THE FLASHING MUST BE DONE BY EITHER THE PARTICULAR ITEM VENDOR OR BY FLASHING SUBCONTRACTOR SHOWING THE ACTUAL ITEM SELECTED FOR THIS PROJECT
8. BUILDING ENVELOPE: COMPLY WITH ASHRAE 90.1 FOR THE REQUIRED U AND R-VALUES
9. EXTERIOR COLORS: ALL EXTERIOR COLORS MUST BE APPROVED BY THE LATEST EDITION OF THE BASE EXTERIOR ARCHITECTURAL PLAN (BEAP). PROVIDE ACTUAL SAMPLES OF MATERIALS ONLY, PHOTOCOPIES OR COLOR WHEELS WILL NOT BE ACCEPTED. COORDINATE WITH THE ROICC

CONSTRUCTION DOCUMENTS | A–501

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

DESIGN WING RELOCATION
BUILDING 1005

PARTITION TYPES

DES.	K. ROOT
DR.	K. ROOT / S. CONTRERAS
CHK.	K. ROOT
SUBMITTED BY:	K. ROOT
DESIGN DIR.	J. FRANKLIN ORR
APPROVED: PWO OR OICC:	DATE:
SATISFACTORY TO:	DATE:

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036660
CONST. CONTR. NO. 21–0019
SCALE: NOTED | SPEC. NA | SHEET: 13 OF 36

ELECTRICAL LEGEND

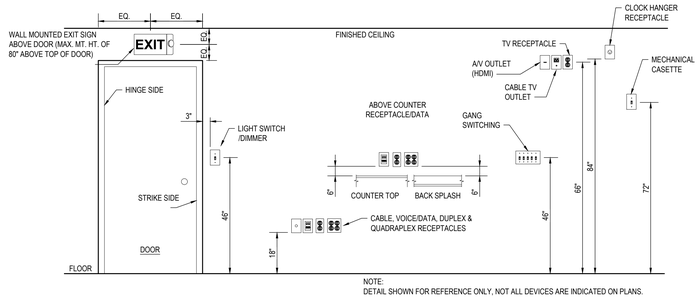
SYMBOL	DESCRIPTION
	PANELBOARD, SIZE AND TYPE AS INDICATED
	LUMINAIRE, SIZE AND TYPE AS INDICATED (2X4)
	LUMINAIRE, SIZE AND TYPE AS INDICATED (2X2)
	LUMINAIRE, DOWNLIGHT, SIZE AND TYPE AS INDICATED
	SWITCHED LEG, MINIMUM 2-#12,1-#12 EGC IN 1/2 C.
	NON-SWITCHED LEG, MINIMUM 2-#12,1-#12 EGC IN 1/2 C.
S_X	WALL SWITCH, LOW VOLTAGE, SEE OCC. SENSOR DIAGRAM. 46" AFF UNLESS OTHERWISE NOTED. ASSOCIATED LOW VOLTAGE WIRING IS NOT SHOWN ON DRAWINGS FOR CLARITY. X = TYPE: 3 = 3 WAY SWITCH LV = LOW VOLTAGE, COMPATIBLE WITH LIGHTING CONTROL SYSTEM. FUNCTION AND CONFIGURATION AS INDICATED IN OCC. SENSOR DIAGRAM. LV4=LOW VOLTAGE 4 BUTTON KEYPAD WITH RAISE AND LOWER
	COMMUNICATION OUTLET; SEE DETAILS
$_{TV}$	CABLE TV OUTLET; SEE DETAILS
	EMERGENCY LIGHTING UNIT, 2-HEAD WITH BATTERY BACK-UP, WALL MOUNTED, CONNECT TO NON-SWITCHED LEG. SEE DETAIL NL-26 & LUMINAIRE SCHEDULE.
	RECEPTACLE, DUPLEX, 120VAC, 20A, UNLESS OTHERWISE NOTED. SEE MOUNTING HEIGHT DETAIL THIS SHEET. GF - GROUND FAULT CIRCUIT INTERRUPTER, 120VAC, 20A TV - COORDINATE LOCATION WITH AV DRAWINGS
	EMERGENCY EXIT LIGHTING; SEE LIGHTING FIXTURE SCHEDULE
	COMMUNICATION OUTLET, IN FLOOR, FLUSH MOUNTED, RECESSED INTO EXISTING SLAB W/ FLOOR BOX
	RECEPTACLE, DUPLEX, IN FLOOR, RECESSED IN SLAB W/ FLOOR BOX
AV	AUDIO VISUAL CONNECTION, HDMI, FLUSH MOUNTED IN WALLS OR RECESSED IN FLOOR SLAB W/ FLOOR BOX
	CEILING MOUNTED, LOW VOLTAGE, DUAL TECH, OCCUPANCY SENSOR, WITH POWER/RELAY PACK MOUNTED ABOVE DROP CEILING, DIMMABLE AS INDICATED. PROVIDE ACCESS PANELS FOR ANY MOUNTING ABOVE DRYWALL CEILINGS.
	CEILING MOUNTED, LOW VOLTAGE, DUAL TECH, COORIDOR OCCUPANCY SENSOR, WITH POWER/RELAY PACK MOUNTED ABOVE DROP CEILING, DIMMABLE AS INDICATED. PROVIDE ACCESS PANELS FOR ANY MOUNTING ABOVE DRYWALL CEILINGS.
	CEILING MOUNTED, LOW VOLTAGE, DUAL TECH, VACANCY SENSOR, WITH POWER/RELAY PACK MOUNTED ABOVE DROP CEILING, DIMMABLE AS INDICATED. PROVIDE ACCESS PANELS FOR ANY MOUNTING ABOVE DRYWALL CEILINGS.
LCP	LIGHTING CONTROL PANEL
WAP	FUTURE WIRELESS ACCESS POINT LOCATED ABOVE ACCESSIBLE CEILING SPACE. PROVIDE SINGLE GANG BOX, (2) DATA DROPS, AND PULL STRING.
	DISCONNECT, SIZE AND TYPE AS INDICATED

GENERAL NOTES

1. ALL ELECTRICAL WORK MUST BE IN FULL COMPLIANCE WITH NFPA 70 THE NORTH CAROLINA STATE BUILDING CODE, ALL LOCAL CODES AND ORDINANCES AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.
2. ALL EQUIPMENT PROVIDED BY THE CONTRACTOR MUST BE LISTED AND LABELED BY A NATIONALLY-RECOGNIZED TESTING AGENCY, ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION, FOR THE CONDITIONS OF INSTALLATION. ALL MATERIAL, EQUIPMENT AND DEVICES MUST BE NEW CURRENT PRODUCTS OF MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF SUCH PRODUCTS. EQUIPMENT MUST BE SUITABLE FOR ITS APPLICATION (E.G. WHEN INSTALLED OUTDOORS, IT MUST BE WEATHERPROOF, ETC.)
3. THE CONTRACTOR MUST REVIEW ALL DRAWINGS AND SPECIFICATIONS FOR WORK REQUIREMENTS, THE AMOUNT OF SPACE AVAILABLE FOR ELECTRICAL EQUIPMENT, AND LAYOUT HIS WORK IN A COMPATIBLE AND FUNCTIONAL MANNER.
4. UNLESS SPECIFICALLY NOTED OTHERWISE, SYSTEMS PROVIDED OR INSTALLED BY THE CONTRACTOR MUST BE COMPLETE AND FULLY-FUNCTIONING AFTER INSTALLATION. INCIDENTAL COMPONENTS MAY NOT BE SHOWN, AND ALL WORK WHICH MAY BE REASONABLY IMPLIED AS BEING INCIDENTAL TO THIS WORK, BUT REQUIRED FOR THE PROPER OPERATION OF THE EQUIPMENT OR SYSTEM MUST BE PROVIDED BY THE CONTRACTOR AND INCLUDED IN THE BID. ADDITIONAL CIRCUITS MUST BE INSTALLED WHEREVER NEEDED TO CONFORM TO THE SPECIFIC REQUIREMENTS OF EQUIPMENT.
5. TEMPORARY POWER CONNECTIONS AS REQUIRED MUST BE PROVIDED BY THE CONTRACTOR AND INCLUDED IN THE BID. ALL TEMPORARY EQUIPMENT WIRING MUST BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. THE CONTRACTOR MUST PROVIDE DETAILS, METHODS, MATERIALS, ETC. FOR REVIEW PRIOR TO MAKING TEMPORARY CONNECTIONS. FURNISH AND INSTALL ALL EQUIPMENT AND MATERIALS INCLUDING CONTROL EQUIPMENT, MOTOR STARTERS, BRANCH AND FEEDER CIRCUIT BREAKERS, PANELBOARDS, TRANSFORMERS, ETC. FOR TEMPORARY POWER. COORDINATE WITH THE UTILITY PROVIDER AS REQUIRED.
6. THE WORK MUST INCLUDE COMPLETE TESTING OF ALL EQUIPMENT AND WIRING AT THE COMPLETION OF WORK AND ANY MINOR CORRECTIONS, CHANGES OR ADJUSTMENTS NECESSARY FOR THE PROPER FUNCTIONING OF THE SYSTEM AND EQUIPMENT.
7. ALL ELECTRICAL EQUIPMENT MUST, AT ALL TIMES DURING CONSTRUCTION, BE ADEQUATELY PROTECTED AGAINST MECHANICAL INJURY, OR DAMAGE BY WATER AND/OR THE ELEMENTS. ELECTRICAL EQUIPMENT MUST NOT BE STORED OUT OF DOORS, BUT MUST BE STORED IN DRY PERMANENT SHELTERS. IF AN APPARATUS HAS BEEN DAMAGED, OR HAS BEEN SUBJECT TO POSSIBLE INJURY BY WATER OR THE ELEMENTS, SUCH DAMAGE MUST BE REPLACED AT NO ADDITIONAL COST.
8. DO NOT SCALE ELECTRICAL DRAWINGS. CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS.
9. CIRCUIT LAYOUTS ARE NOT INTENDED TO SHOW THE NUMBER OF FITTINGS, OR OTHER INSTALLATION DETAILS. UNLESS NOTED OTHERWISE, THE EXACT ROUTING OF FEEDER AND BRANCH CIRCUIT RACEWAYS AND CABLES IS THE RESPONSIBILITY OF THE CONTRACTOR. RISER AND GENERAL CIRCUIT ARRANGEMENTS ARE SHOWN SCHEMATICALLY/DIAGRAMMATICALLY ONLY. THE CONTRACTOR MUST ROUTE CONDUITS AS REQUIRED BY THE CONDITIONS OF THE INSTALLATION.
10. DEVICE LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. ADJUST EXACT LOCATIONS AS REQUIRED TO SERVE THE INTENDED PURPOSE AND TO AVOID CONFLICTS AND INTERFERENCES WITH OTHER TRADES. IF NOT SHOWN ON THE ARCHITECTURAL DRAWINGS OR DIMENSIONED ON THE ELECTRICAL DRAWINGS, VERIFY EXACT LOCATION WITH THE GOVERNMENT PRIOR TO ROUGH-IN.
11. CONDUIT TERMINATING IN PRESSED STEEL BOXES MUST HAVE DOUBLE LOCKNUTS AND INSULATED BUSHINGS. CONDUITS TERMINATING IN GASKETED ENCLOSURES MUST BE TERMINATED WITH GROUNDING TYPE CONDUIT HUBS.
12. BRANCH CIRCUIT HOMERUNS SHOWN ON DRAWINGS INDICATE PHASE CONDUCTORS, NEUTRAL, EQUIPMENT GROUND CONDUCTORS AS REQUIRED. ADDITIONAL CONDUCTORS REQUIRED FOR CONTROL MUST BE INCLUDED EVEN IF NOT EXPLICITLY SHOWN.
13. SEAL ALL CONDUIT OPENINGS THROUGH EXTERIOR BUILDING WALLS AND ROOF WATERTIGHT.
14. IN WET LOCATIONS AND EXTERIOR, ALL WIRING DEVICES MUST BE WEATHER-RESISTANT LISTED WITH WEATHERPROOF WHILE IN USE COVER.
15. RACEWAYS PENETRATING FLOORS, CEILINGS OR WALLS MUST BE PROPERLY SEALED SMOKETIGHT.
16. ALL RACEWAYS MUST BE CONCEALED WHERE POSSIBLE.
17. INSTALL EXPOSED RACEWAYS PARALLEL TO OR AT RIGHT ANGLES TO NEARBY SURFACES OR STRUCTURAL MEMBERS, AND FOLLOW THE SURFACE CONTOURS AS MUCH AS POSSIBLE. NO DIAGONAL RUNS WILL BE ALLOWED. ALL CONDUITS MUST BE RUN STRAIGHT WITH QUALITY WORKMANSHIP-LIKE MANNER. RUN PARALLEL OR BANKED RACEWAYS TOGETHER ON COMMON SUPPORTS WHERE PRACTICAL. MAKE BENDS IN PARALLEL OR BANKED RUNS FROM SAME CENTERLINE TO MAKE BENDS PARALLEL.
18. PATCHING OF WATERPROOFED SURFACES MUST RENDER THE AREA OF THE PATCHING COMPLETELY WATERPROOF.
19. ALL MOTORS AND OTHER VIBRATING EQUIPMENT MUST BE CONNECTED TO THE CONDUIT SYSTEM BY MEANS OF A SHORT SECTION (18 INCH MINIMUM) OF FLEXIBLE CONDUIT UNLESS OTHERWISE INDICATED. AN EQUIPMENT GROUNDING CONDUCTOR MUST BE INSTALLED INSIDE THE FLEXIBLE CONDUIT AND TERMINATE AT THE LOAD END WITH AN APPROVED GROUNDING CLAMP OR LUG.
20. SURFACE MOUNTED PANELBOARDS, JUNCTION, OUTLET AND PULL BOXES, RACEWAYS, ETC., INSTALLED ON EXTERIOR SURFACES OR INSIDE ON EXTERIOR WALLS MUST BE SUPPORTED BY SPACERS TO PROVIDE A MINIMUM 1/4" MINIMUM CLEARANCE BETWEEN THE WALL AND EQUIPMENT.
21. TYPED PANELBOARD DIRECTORIES INSTALLED IN THE PANELBOARD DOOR POCKET MUST REFLECT FINAL CONDITIONS AND ACTUAL ROOM NAMES AND NUMBERS IN ADDITION TO THE GENERAL DESCRIPTION SHOWN ON THE PANEL SCHEDULES ON THE DRAWINGS.
22. THE CONTRACTOR MUST VERIFY, PRIOR TO INSTALLATION OF CONDUCTORS OR CONDUIT FEEDING ANY EQUIPMENT, THE ELECTRICAL EQUIPMENT IS RATED FOR USE WITH 75 DEGREE C. WIRING. IF ANY EQUIPMENT IS RATED FOR USE WITH LESS THAN 75 DEGREE C. CONDUCTORS, THE CONTRACTOR MUST NOTIFY THE GOVERNMENT IMMEDIATELY FOR EVALUATION/CORRECTION.
23. DO NOT PULL CONDUCTORS UNTIL THE CONDUIT SYSTEM IS COMPLETE IN EVERY DETAIL. IN THE CASE OF CONCEALED WORK, "COMPLETE" MEANS UNTIL ALL ROUGH PLASTERING OR MASONRY HAS BEEN COMPLETED.
24. WHERE SIZE IS NOT SHOWN ON THE DRAWINGS, BRANCH CIRCUITS MUST CONSIST OF #12 OR #10 AWG MINIMUM PHASE, NEUTRAL AND EQUIPMENT GROUND CONDUCTORS IN 3/4" MINIMUM RACEWAY.
25. USE #10 AWG CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS WITH A TOTAL INSTALLED LENGTH GREATER THAN 75 FEET AND/OR BRANCH CIRCUIT HOMERUNS LONGER THAN 50 FEET, I.E.; #12 AWG INCREASED TO #10 AWG FOR RECEPTACLE BRANCH CIRCUITS OVER 75 FEET TOTAL LENGTH (INCLUDING THE HOMERUN SEGMENT) AND HOMERUNS OVER 50 FEET. IF 277 VOLT CIRCUITS ARE SHOWN, USE #10 AWG CONDUCTORS FOR 20 AMPERE, 277 VOLT BRANCH CIRCUITS WITH TOTAL INSTALLED LENGTH GREATER THAN 200 FEET AND/OR BRANCH CIRCUIT HOMERUNS LONGER THAN 125 FEET, I.E.; #12 AWG INCREASED TO #10 AWG FOR RECEPTACLE BRANCH CIRCUITS OVER 75 FEET TOTAL LENGTH (INCLUDING THE HOMERUN SEGMENT) AND HOMERUNS OVER 50 FEET.
26. KEEP CONDUCTOR SPLICES TO A MINIMUM. INSTALL SPLICES AND TAPES THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATINGS THAN CONDUCTORS BEING SPLICED. USE SPLICE AND TAP CONNECTORS COMPATIBLE WITH CONDUCTOR MATERIAL. INSTALL CONDUCTORS AT EACH OUTLET WITH AT LEAST 6 INCHES OF SLACK. CONNECT OUTLETS AND COMPONENTS TO WIRING AND TO GROUND AS INDICATED AND INSTRUCTED BY THE MANUFACTURER.
27. DO NOT SPLICE BRANCH CIRCUIT HOMERUNS WITHOUT THE PERMISSION OF THE GOVERNMENT. HOMERUNS MUST BE CONTINUOUS FROM THE LAST OUTLET BOX TO THE SERVING PANELBOARD.
28. DO NOT COMBINE BRANCH CIRCUIT HOMERUNS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS.
29. INSTALL WIRING DEVICES AT HEIGHTS AS SHOWN ON THE DRAWINGS.
30. PROTECT ALL EXISTING POWER, COMMUNICATIONS, DATA, LIFE SAFETY SYSTEMS, FIRE ALARM AND PUBLIC ADDRESS SYSTEMS AND MAINTAIN THEM IN OPERATION THROUGHOUT THE PROGRESS OF THE WORK. NOTIFY THE GOVERNMENT IF SHUTDOWNS ARE REQUIRED PRIOR TO ANY OUTAGE OF SERVICE. WHERE THE DURATION OF A PROPOSED OUTAGE CANNOT BE TOLERATED BY THE GOVERNMENT, PROVIDE TEMPORARY CONNECTIONS AS REQUIRED TO MAINTAIN SERVICE.
31. PROVIDE GROUND FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL IN ACCORDANCE WITH THE NEC INCLUDING EXTERIOR RECEPTACLES AND RECEPTACLES IN AREAS SUBJECT TO POSSIBLE WET CONDITIONS.
32. COORDINATE LOCATIONS OF MECHANICAL EQUIPMENT WITH THE RESPECTIVE CONTRACTOR, VENDORS AND THE GOVERNMENT BEFORE ROUGH-IN. ADJUST LIGHTING FIXTURES, RECEPTACLES AND ELECTRICAL EQUIPMENT TO ACCOMMODATE THIS EQUIPMENT. ADVISE THE GOVERNMENT OF CONFLICTS BEFORE ROUGH-IN.
33. BEFORE COMMENCING WORK OR ORDERING MATERIALS, THE CONTRACTOR MUST COORDINATE WITH OTHER TRADES AND VERIFY THE NAMEPLATE RATINGS OF ALL EQUIPMENT (MOTORS, HEATERS, COMPRESSORS, ETC.) AND ADJUST THE RATINGS OF THE ELECTRICAL EQUIPMENT (SWITCHES, FUSES, CIRCUIT BREAKERS, FEEDERS, ETC.) AS APPROPRIATE TO SERVE THIS EQUIPMENT.
34. ENERGIZE EQUIPMENT ONLY AFTER OBTAINING PERMISSION FROM THE CONTRACTOR PROVIDING THE EQUIPMENT.
35. UNLESS SPECIFICALLY NOTED OTHERWISE, THE CONTRACTOR MUST MAKE FINAL CONNECTIONS TO ALL UTILIZATION EQUIPMENT SHOWN ON THE DRAWINGS. VERIFY THE TYPE OF FINAL CONNECTION AND PROVIDE APPROPRIATE WIRING METHOD. THE CONTRACTOR MUST COORDINATE WITH THE MECHANICAL TRADE, PRIOR TO ORDERING OR INSTALLATION OF ANY EQUIPMENT, TO VERIFY MECHANICAL EQUIPMENT REQUIREMENTS ARE PROVIDED IN THE ELECTRICAL DESIGN. THE CONTRACTOR WILL NOT BE COMPENSATED FOR COSTS ASSOCIATED WITH CHANGING THE ELECTRICAL SYSTEMS TO MATCH UTILIZATION EQUIPMENT, EVEN IF THE ELECTRICAL WORK IS INSTALLED PER THE ELECTRICAL DRAWINGS.
36. THE CONTRACTOR MUST COORDINATE ALL EQUIPMENT TERMINATIONS, PLUGS AND CORDSETS WITH VENDOR EQUIPMENT AND VERIFY ALL DEVICE LOCATIONS FOR SPECIALITY EQUIPMENT WITH CASEWORK PRIOR TO ROUGH-IN.
37. INSTALLATION INFORMATION PACKED WITH DEVICES AND EQUIPMENT MUST BE RETAINED FOR INCLUSION IN THE OPERATIONS AND MAINTENANCE MANUALS.
38. THE CONTRACTOR MUST VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING ELECTRICAL SYSTEMS AND THE EXISTING BUILDING. THE SUBMISSION OF THE PROPOSAL BY THE CONTRACTOR SHALL BE CONSIDERED EVIDENCE THAT HE OR HIS REPRESENTATIVE HAS VISITED THE SITE AND BUILDINGS AND NOTED THE LOCATION AND CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED AND THAT HE TAKES FULL RESPONSIBILITY OF ALL FACTORS GOVERNING HIS WORK. NO EXTRAS WILL BE CONSIDERED BECAUSE OF ADDITIONAL WORK NECESSITATED BY EXISTING JOB CONDITIONS THAT ARE NOT INDICATED ON THE DRAWINGS.
39. ELECTRICAL DEVICES OR COMPONENTS INDICATED MUST BE PROVIDED WITH CONDUCTORS, CONDUIT, BACKBOXES, MOUNTING BRACKETS, AND ALL RELATED INCIDENTAL MATERIALS REQUIRED FOR FULLY FUNCTIONAL AND CODE COMPLIANT INSTALLATION.
40. SAFETY
    A. COMPLY WITH OSHA AND NEC ARC FLASH PROTECTION REQUIREMENTS.
    B. FOR EQUIPMENT BEING REMOVED AND REPLACED, THE CONTRACTOR SHALL DE-ENERGIZE THE EQUIPMENT AND MAKE IT SAFE PRIOR TO REMOVAL AND COMPLY WITH OSHA REQUIREMENTS FOR LOCKING-OUT AND TAGGING EQUIPMENT TO PREVENT INADVERTENT RE-ENERGIZING.

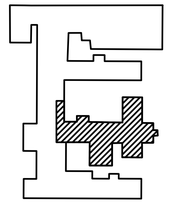
ABBREVIATIONS

A, AMP	AMPERE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BOF	BOTTOM OF FIXTURE
BRKR	BREAKER
C, CND	CONDUIT
CAB	CABINET
CAT	CATALOG
CL	CHLORINE
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CLG	CEILING
CP	CONTROL PANEL
CR	CONTROL RELAY, CORROSION RESISTANT
CS	CONTROL SWITCH
CV	CONTROL VALVE
CT	CURRENT TRANSFORMER
CU	COPPER
EF	EXHAUST FAN
EMER	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EPRF	EXPLOSION PROOF
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FLA	FULL LOAD AMPS
FLUOR	FLUORESCENT
FLR	FLOOR
FWE	FURNISHED WITH EQUIPMENT
GEN	GENERATOR
G, GND	GROUND
GFCI	GROUND FAULT CURRENT INTERRUPTER
HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTO
HP	HORSE POWER
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HTR	HEATER
HV	HIGH VOLTAGE
Hz	HERTZ
IMC	INTERMEDIATE METALLIC CONDUIT
INCAND	INCANDESCENT
JB	JUNCTION BOX
K	THOUSAND
KCMIL	THOUSAND CIRCULAR MILLS
KVA	KILOVOLT AMPERE
KW	KILOWATTS
KWH	KILOWATT-HOURS
LP	LIGHTING PANEL, LIGHT POLE
LTG	LIGHTING
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	MANHOLE
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
N / NEUT	NEUTRAL
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
P	POLE
PA	PUBLIC ADDRESS
PB	PULL BOX, PUSH-BUTTON
PF	POWER FACTOR
PH	PHASE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANEL
P	POWER PANEL, POWER POLE
PPE	PORTABLE POWER EQUIPMENT CABLE
PT	POTENTIAL TRANSFORMER
PWR	POWER
RECPT, RCP	RECEPTACLE
REQD	REQUIRED
RGS	RIGID GALVANIZED STEEL CONDUIT
RM	ROOM
RTU	REMOTE TELEMETRY UNIT
DCM	DC MOTOR DRIVE
SH	SHEET
SPD	SURGE PROTECTION DEVICE
SPEC	SPECIFICATION
SS	SELECTOR SWITCH
SST	STAINLESS STEEL
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCH GEAR
TEL	TELEPHONE
TPS	TWISTED PAIR SHIELDED
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
TYP	TYPICAL
UGND	UNDERGROUND
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UTIL	UTILITY
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
W	WIRE, WATT
WH	WATT-HOUR
WP	WEATHERPROOF
WTE	WEATHERPROOF TELEPHONE ENCLOSURE
XFMR	TRANSFORMER
X/R	EXISTING RELOCATED



NOTE:
DETAIL SHOWN FOR REFERENCE ONLY, NOT ALL DEVICES ARE INDICATED ON PLANS.

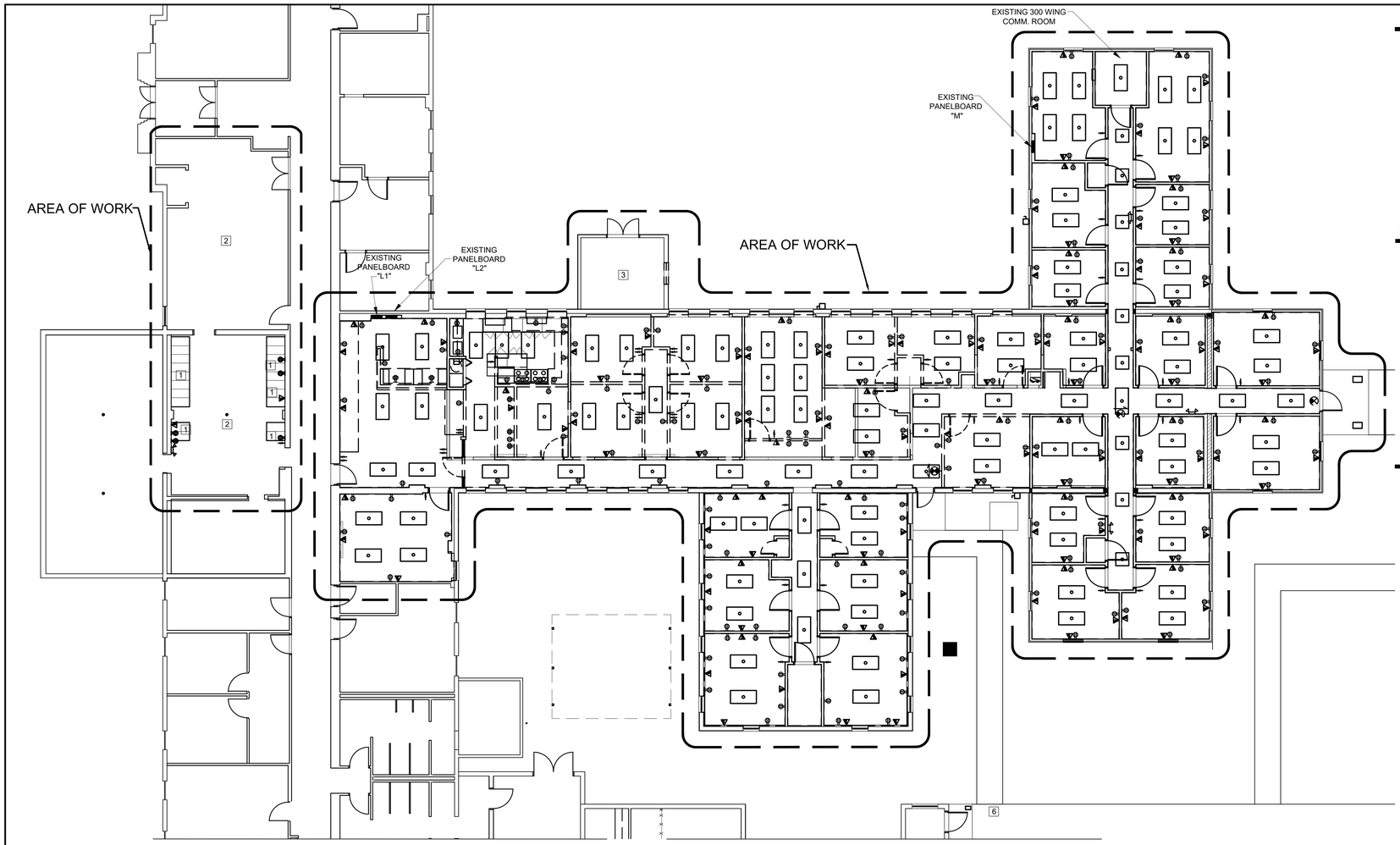
ELECTRICAL DEVICES MOUNTING HEIGHT



CONSTRUCTION DOCUMENTS | E-101

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

DES. K. BROWN	DESIGN WING RELOCATION BUILDING 1005
DR. K. BROWN	
CHK. K. BROWN	
SUBMITTED BY: K. ROOT	LEGEND, NOTES, AND ABBREVIATIONS
DESIGN DIR. F. ORR	
APPROVED: PWO OR OICC: DATE:	SIZE E1 · CODE IDENT. NO 80091 · NAVFAC DRAWING NO. 60036661
SATISFACTORY TO: DATE:	CONST. CONTR. NO. 21-0019
	SCALE: NOTED · SPEC. NA · SHEET: 14 OF 36



ELECTRICAL DEMOLITION PLAN

0 5' 10' 20' 40'

GENERAL NOTES

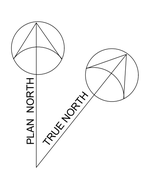
1. THE CONTRACTOR MUST REVIEW THE ELECTRICAL DRAWINGS AND SPECIFICATIONS AND CARRY OUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER. SURVEY THE AFFECTED AREAS AS ALL EXISTING CONDITIONS ARE NOT COMPLETELY DEPICTED ON THE DRAWINGS AND SOME UNUSUAL CONDITIONS EXIST.
2. EXISTING ELECTRICAL EQUIPMENT AND DEVICES MUST REMAIN UNLESS SPECIFICALLY NOTED TO BE REMOVED.
3. COORDINATE POWER OUTAGES WITH THE GOVERNMENT. MAINTAIN EXISTING ELECTRICAL SYSTEMS IN SERVICE. DISABLE SYSTEMS ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM THE CONTRACTING OFFICER AT LEAST 5 DAYS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION.
4. WHERE THE DURATION OF A PROPOSED OUTAGE CANNOT BE TOLERATED BY THE GOVERNMENT, PROVIDE TEMPORARY CONNECTIONS AS REQUIRED TO MAINTAIN SERVICE.
5. MAINTAIN ACCESS TO EXISTING ELECTRICAL INSTALLATIONS WHICH REMAIN ACTIVE.
6. THE CONTRACTOR MUST FIELD VERIFY ALL CIRCUITS, WIRING, CONDUIT, DIMENSIONS, POINTS OF ACCESS AND ALL FIELD CONDITIONS AFFECTING HIS WORK. BEGINNING WORK MEANS THE CONTRACTOR ACCEPTS EXISTING CONDITIONS.
7. PLAN IS A GENERAL REPRESENTATION OF EXISTING CONDITIONS. PLAN DOES NOT REFLECT ALL COMPONENTS OR CONFIGURATIONS. WORK DESCRIBED HERE-IN SHALL BE APPLIED TO ACTUAL FIELD CONDITIONS. DRAWINGS, AS A REPRESENTATION FOR EXISTING CONDITIONS, HAVE BEEN SIMPLIFIED FOR CLARITY.
8. ROUTING OF CONDUIT AND CIRCUITS ARE AT THE DISCRETION OF THE CONTRACTOR. ROUTING SHALL ALIGN WITH GENERALLY ACCEPTED GOOD PRACTICE AND INDUSTRY STANDARDS.
9. CONDUIT AND CIRCUITS ROUTING SHALL BE PROVIDED TO AVOID INTERFERENCE WITH EXISTING UTILITY SYSTEMS.
10. DO NOT SCALE ELECTRICAL DRAWINGS.

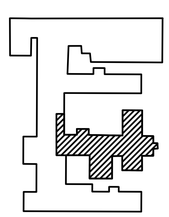
DEMOLITION NOTES

1. RECEPTACLES: DEMOLISH RECEPTACLES, COMPLETE. (UNO)
2. COMMUNICATION OUTLETS: DEMOLISH OUTLETS, COMPLETE. (UNO). COMMUNICATION OUTLET HOMERUNS ARE IN CONDUIT BACK TO THE 300 WING TELECOM CLOSET OR THE MAIN TELECOM CLOSET.
3. LUMINAIRES AND SWITCHING: DEMOLISH LUMINAIRES & SWITCHES, COMPLETE. (UNO). DEMOLISH EMERGENCY LIGHTING AND EXIT SIGNS.
4. OTHER: DEMOLISH UNUSED BACKBOXES, LEGACY DEVICES, BASEBOARD HEATING CONNECTIONS. DEMOLISH ELECTRICAL IN THE AREA OF WORK THAT WILL NO LONGER BE UTILIZED AFTER RENOVATION.
5. HVAC: REMOVE DISCONNECTS, CIRCUITS, CONDUITS, AND RELATED ELECTRICAL SERVING HVAC IDENTIFIED TO BE REMOVED, COMPLETE. SEE MECHANICAL SHEETS FOR LOCATIONS AND DETAILS.
6. MASS NOTICATION SYSTEM: REMOVE, PRESERVE,AND SAFELY STORE MASS NOTIFICATION SYSTEM SPEAKERS & CONNECTIONS FOR REINSTALL.
7. DEMOLISH PANELBOARDS L1, L2, AND M. DEMOLISH FEEDERS SERVING L1, L2, AND M. PROTECT CIRCUITS AND FEEDERS ORIGINATING FROM PANELS L1, L2, AND M THAT SERVE LOADS & SUBPANELS OUTSIDE OF THE AREA OF WORK. THESE CIRCUITS & FEEDERS MUST BE RE-FED FROM NEW PANELBOARD(S) LA, LB, AND LC.
8. CIRCUITS PASSING THROUGH THE AREA OF WORK MUST BE MAINTAINED. REROUTE WHERE NECESSARY.
9. DEMOLISH COMMUNICATION BACKBOARD(S).
10. EXISTING FIBER OPTIC LINE IN THE 300 WING MUST BE PRESERVED. THIS CIRCUIT WILL BE INTERCEPTED BY BASE COMM. PRIOR TO CONSTRUCTION AND DEPLOYED IN THE VICINITY OF THE 300 WING NEW COMMUNICATION ROOM. BEFORE DEMOLITION COORDINATE WITH BASE TELEPHONE TO HAVE FIBER PULLED OUT OF THE WORK ZONE AREA. PRESERVE AND PROTECT PULLED BACK FIBER BECAUSE IT WILL BE USED FOR NEW COMM. ROOM.
11. DEMOLISH WATER HEATER CONNECTION.

KEYED NOTES

1. RAISE THE MOUNTING HEIGHT OF EXISTING RECEPTACLES, COMM OUTLETS, CONDUITS, JUNCTION BOXES TO A MINIMUM HEIGHT OF 55" A.F.F. TO ACCOMODATE WALL MOUNTED FURNITURE. SEE ARCHITECTURAL SHEETS FOR ADDITIONAL DETAILS.
2. DO NOT DEMOLISH ANY ELECTRICAL IN THIS SPACE.
3. DEMOLISH ELECTRICAL CONNECTIONS TO MECHANICAL/HVAC EQUIPMENT SCHEDULED FOR DEMO. SEE MECHANICAL SHEETS FOR DETAILS. RELOCATE, REPOSITION, OR RECONFIGURE ELECTRICAL IN THIS SPACE TO ACCOMMODATE NEW MECHANICAL EQUIPMENT AND SPACE REQUIREMENTS. EXISTING GENERAL ELECTRICAL IN THIS SPACE IS TO REMAIN AND BE REUTILIZED.

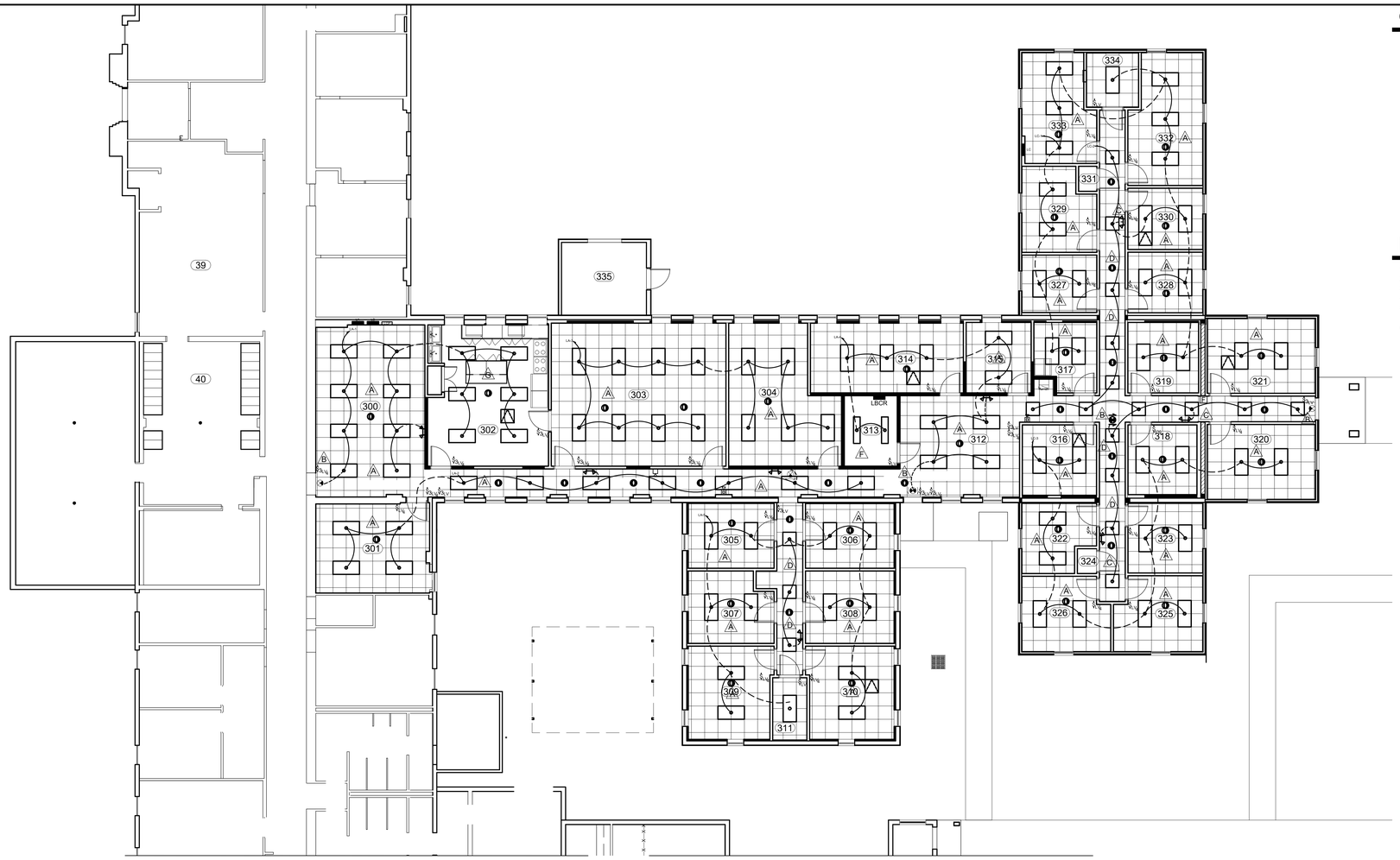




CONSTRUCTION DOCUMENTS | E-102

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

DES. K. BROWN	DESIGN WING RELOCATION BUILDING 1005
DR. K. BROWN	
CHK. K. BROWN	
SUBMITTED BY: K. ROOT	DEMOLITION PLAN
DESIGN DIR. F. ORR	
APPROVED: PWO OR OICC: DATE:	SIZE E1 · CODE IDENT. NO 80091 · NAVFAC DRAWING NO. 60036662
SATISFACTORY TO: DATE:	CONST. CONTR. NO. 21-0019
	SCALE: NOTED · SPEC. NA · SHEET: 15 OF 36



LIGHTING PLAN

0 5' 10' 20' 40'

GENERAL NOTES

1. THE CONTRACTOR MUST REVIEW THE ELECTRICAL DRAWINGS AND SPECIFICATIONS AND CARRY OUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER. SURVEY THE AFFECTED AREAS AS ALL EXISTING CONDITIONS ARE NOT COMPLETELY DEPICTED ON THE DRAWINGS AND SOME UNUSUAL CONDITIONS EXIST.
2. EXISTING ELECTRICAL EQUIPMENT AND DEVICES MUST REMAIN UNLESS SPECIFICALLY NOTED TO BE REMOVED.
3. COORDINATE POWER OUTAGES WITH THE GOVERNMENT. MAINTAIN EXISTING ELECTRICAL SYSTEMS IN SERVICE. DISABLE SYSTEMS ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM THE CONTRACTING OFFICER AT LEAST 5 DAYS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION.
4. WHERE THE DURATION OF A PROPOSED OUTAGE CANNOT BE TOLERATED BY THE GOVERNMENT, PROVIDE TEMPORARY CONNECTIONS AS REQUIRED TO MAINTAIN SERVICE.
5. THE CONTRACTOR MUST FIELD VERIFY ALL CIRCUITS, WIRING, CONDUIT, DIMENSIONS, POINTS OF ACCESS AND ALL FIELD CONDITIONS AFFECTING HIS WORK. BEGINNING WORK MEANS THE CONTRACTOR ACCEPTS EXISTING CONDITIONS.
6. PLAN IS A GENERAL REPRESENTATION OF EXISTING CONDITIONS. PLAN DOES NOT REFLECT ALL COMPONENTS OR CONFIGURATIONS. WORK DESCRIBED HERE-IN SHALL BE APPLIED TO ACTUAL FIELD CONDITIONS. DRAWINGS, AS A REPRESENTATION FOR EXISTING CONDITIONS, HAVE BEEN SIMPLIFIED FOR CLARITY.
7. ROUTING OF CONDUIT AND CIRCUITS ARE AT THE DISCRETION OF THE CONTRACTOR. ROUTING SHALL ALIGN WITH GENERALLY ACCEPTED GOOD PRACTICE AND INDUSTRY STANDARDS.
8. CONDUIT AND CIRCUITS ROUTING SHALL BE PROVIDED TO AVOID INTERFERENCE WITH EXISTING SYSTEMS.
9. DO NOT SCALE ELECTRICAL DRAWINGS.
10. LOW VOLTAGE WIRING IS NOT SHOWN FOR CLARITY. LUMINAIRE CIRCUITS ARE SHOWN AS DIAGRAMMATIC ONLY INDICATING CIRCUITS AND SWITCHED/NON-SWITCHED LEGS.

NEW WORK NOTES

1. PROVIDE LIGHTING PLAN.
2. PROVIDE NEW LUMINAIRES AND LIGHTING CIRCUITS. SEE LUMINAIRE SCHEDULE FOR DETAILS.
3. PROVIDE NEW OCCUPANCY & VACANCY SENSORS, POWER PACKS, AND SWITCHES. SEE OCCUPANCY SENSOR DIAGRAM FOR DETAILS.
4. PROVIDE NEW LIGHTING CONTROL PANEL(S) TO CONTROL LIGHTING IN THE AREA OF WORK.
5. LIGHTING CONTROL WIRING IS NOT SHOWN FOR CLARITY. LUMINAIRE CIRCUITS SHOWN ARE DIAGRAMMATIC ONLY INDICATING CIRCUITS AND SWITCHED/NON-SWITCHED LEGS. BRANCH CIRCUITS ARE MINIMUM 2-#12, 1-#12 EGC IN $\frac{3}{4}$"C.
6. PROVIDE EMERGENCY LIGHTING & EXIT SIGNS. THESE LIGHTS AND SIGNS MUST BE DIRECT WIRED AND NOT SUPPLIED BY A SWITCH. SEE LIGHTING PLATES & DETAILS.

CONSTRUCTION DOCUMENTS | E-103

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

DES. K. BROWN	DESIGN WING RELOCATION BUILDING 1005
DR. K. BROWN	
CHK. K. BROWN	
SUBMITTED BY: K. ROOT	LIGHTING PLAN
DESIGN DIR. F. ORR	
APPROVED: PWO OR OICC: DATE:	SIZE E1 · CODE IDENT. NO 80091 · NAVFAC DRAWING NO. 60036663
SATISFACTORY TO: DATE:	CONST. CONTR. NO. 21-0019
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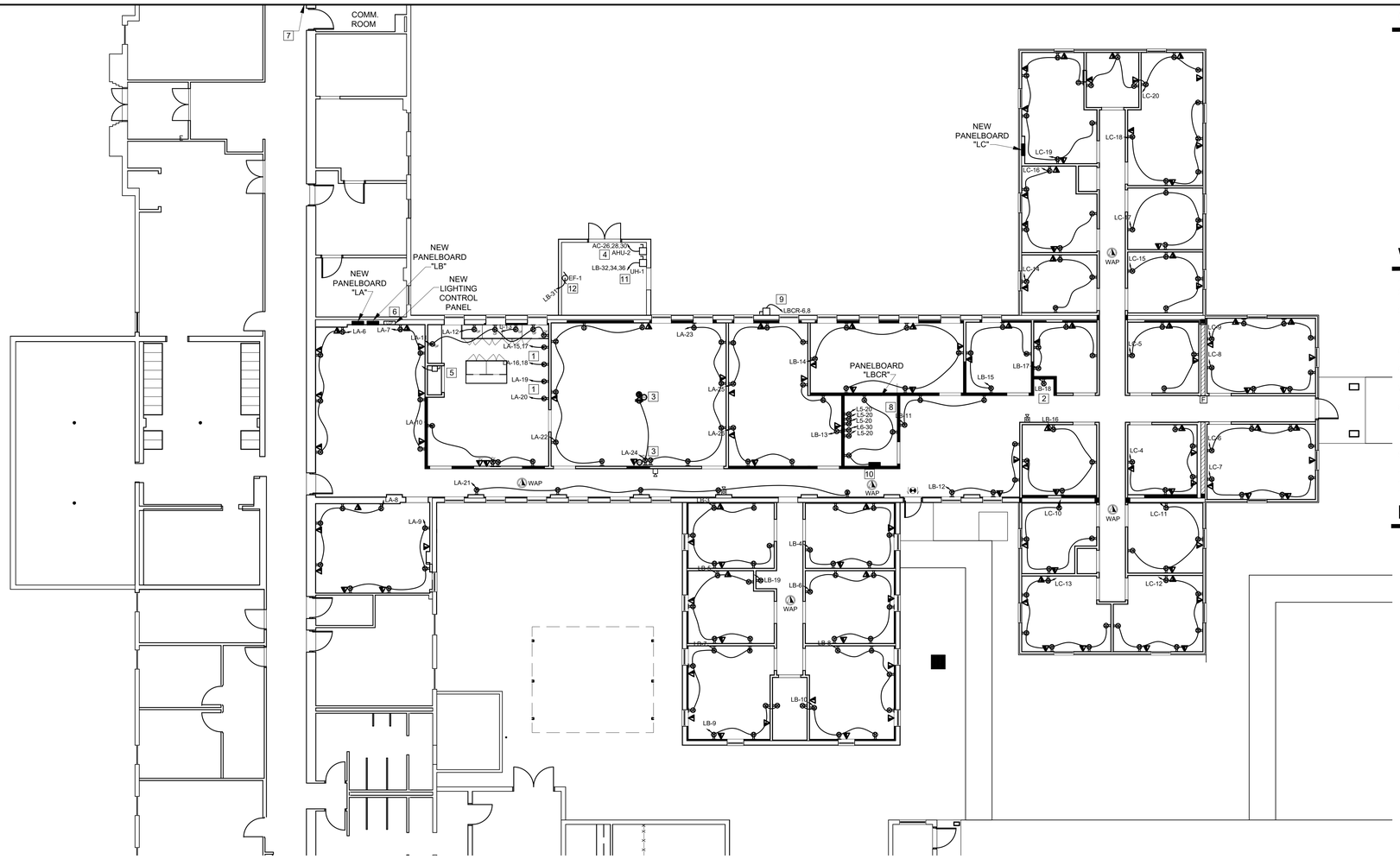


POWER AND COMMUNICATION PLAN

0 5' 10' 20' 40'

GENERAL NOTES

1. THE CONTRACTOR MUST REVIEW THE ELECTRICAL DRAWINGS AND SPECIFICATIONS AND CARRY OUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER. SURVEY THE AFFECTED AREAS AS ALL EXISTING CONDITIONS ARE NOT COMPLETELY DEPICTED ON THE DRAWINGS AND SOME UNUSUAL CONDITIONS EXIST.
2. EXISTING ELECTRICAL EQUIPMENT AND DEVICES MUST REMAIN UNLESS SPECIFICALLY NOTED TO BE REMOVED.
3. COORDINATE POWER OUTAGES WITH THE GOVERNMENT. MAINTAIN EXISTING ELECTRICAL SYSTEMS IN SERVICE. DISABLE SYSTEMS ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM THE CONTRACTING OFFICER AT LEAST 5 DAYS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION.
4. WHERE THE DURATION OF A PROPOSED OUTAGE CANNOT BE TOLERATED BY THE GOVERNMENT, PROVIDE TEMPORARY CONNECTIONS AS REQUIRED TO MAINTAIN SERVICE.
5. THE CONTRACTOR MUST FIELD VERIFY ALL CIRCUITS, WIRING, CONDUIT, DIMENSIONS, POINTS OF ACCESS AND ALL FIELD CONDITIONS AFFECTING HIS WORK. BEGINNING WORK MEANS THE CONTRACTOR ACCEPTS EXISTING CONDITIONS.
6. PLAN IS A GENERAL REPRESENTATION OF EXISTING CONDITIONS. PLAN DOES NOT REFLECT ALL COMPONENTS OR CONFIGURATIONS. WORK DESCRIBED HERE-IN SHALL BE APPLIED TO ACTUAL FIELD CONDITIONS. DRAWINGS, AS A REPRESENTATION FOR EXISTING CONDITIONS, HAVE BEEN SIMPLIFIED FOR CLARITY.
7. ROUTING OF CONDUIT AND CIRCUITS ARE AT THE DISCRETION OF THE CONTRACTOR. ROUTING SHALL ALIGN WITH GENERALLY ACCEPTED GOOD PRACTICE AND INDUSTRY STANDARDS. ALL CIRCUITS AND CONDUITS MUST BE CONCEALED IN WALLS OR ABOVE DROP CEILINGS.
8. CONDUIT AND CIRCUITS ROUTING SHALL BE PROVIDED TO AVOID INTERFERENCE WITH EXISTING SYSTEMS.
4. BRANCH CIRCUITS ARE MINIMUM 2-#12, 1-#12 EGC IN ¾"C. INCREASE TO #10 CONDUCTOR TO ACCOUNT FOR VOLTAGE DROP FOR RUNS OVER 80'. LOW VOLTAGE WIRING IS NOT SHOWN FOR CLARITY. LUMINAIRE CIRCUITS SHOWN ARE DIAGRAMMATIC ONLY INDICATING CIRCUITS AND SWITCHED/NON-SWITCHED LEGS.
5. DO NOT SCALE ELECTRICAL DRAWINGS.

WORK NOTES

1. PROVIDE NEW POWER AND COMMUNICATION PLAN.
2. PROVIDE NEW PANELBOARDS LA, LB, LC, & LBCR TO SERVE THE 300 WING. PROVIDE BREAKERS AND GROUNDING FOR EACH PANELBOARD AS REQUIRED. SEE PANELBOARD SCHEDULES AND RISER DIAGRAM FOR DETAILS.
3. PROVIDE CONNECTIONS TO MECHANICAL EQUIPMENT. SEE MECHANICAL SHEETS FOR ADDITIONAL DETAILS. PROVIDE NEW CONNECTIONS FOR VAVS.
4. PROVIDE NEW RECEPTACLES (MINIMUM 2-#12, 1-#12 EGC IN ¾" C). PROVIDE LABELS ON EACH RECEPTACLE COVER PLATE INDICATING THE SERVING PANELBOARD AND CIRCUIT NUMBER.
5. PROVIDE NEW COMMUNICATION OUTLET(S), BACKBOX(ES), AND CONDUIT(S). EXTEND CONDUIT 18" INTO THE SPACE BETWEEN THE DROP CEILING AND THE HARD CEILING. CAT6 HOMERUNS & CABLETRAY WILL BE PROVIDED AND INSTALLED LATER BY THE GOVERMENT.
6. PROVIDE NEW COMMUNICATION ROOM AND PARTIAL COMMUNICATION SYSTEM TO SERVE THE 300 WING. PROVIDE SETUP AS INDICATED ON COMMUNICATION RISER DIAGRAM.
7. PROVIDE CIRCUIT FOR ELECTROMAGNETIC DOOR HOLDER. PROVIDE 24V CIRCUIT AS RECOMMENDED BY MANUFACTURER. BASIS OF DESIGN FOR DOOR HOLDER IS DORMAKABA EM 500A. SEE ARCHITECTURAL SHEETS FOR ADDITIONAL INFORMATION.
8. FEEDERS AND CIRCUITS (ORIGINATING FROM EXISTING PANELS L1, L2, AND M) THAT SUPPLY POWER TO SPACES OUTSIDE THE AREA OF WORK MUST BE TRANSFERRED TO NEW PANELBOARDS LA, LB, OR LC. THESE CIRCUITS ARE NOT IDENTIFIED ON PLANS. PROVIDE NEW BREAKERS IN PANELBOARD LA, LB, OR LC TO SERVE THESE MISCELLANEOUS LOADS. RECONNECT SUB PANELS "S", "H", OR OTHERS IDENTIFIED, TO NEW PANELBOARDS. PROVIDE NEW CIRCUITS OR FEEDERS WHERE EXISTING CAN NOT BE REUSED & MATCH EXISTING ELECTRICAL CHARACTERISTICS. SEE POWER RISER DIAGRAM FOR DETAILS.
9. EXTEND AND CONNECT EXISTING VAPOR INTRUSION MITIGATION SYSTEM CIRCUITS TO NEW PANELBOARD SPACE. MATCH EXISTING CONFIGURATION.
10. EXTEND AND CONNECT EXISTING EXTERIOR LIGHTING CIRCUITS TO NEW PANELBOARD SPACE.
11. EXTEND AND CONNECT EXISTING VAPOR INTRUSION MITIGATION SYSTEM CIRCUITS TO NEW PANELBOARDS SPACE.
12. EXTEND AND CONNECT ANY OTHER UNIDENTIFIED CIRCUITS, NOT SCHEDULED FOR DEMOLITION, TO NEW PANELBOARD SPACE.

KEYED NOTES

1. PROVIDE DEDICATED CIRCUIT CONNECTIONS FOR REFRIGERATOR(S), STOVE(S), MICROWAVE(S), AND EXHAUST FAN(S). COORDINATE LOCATIONS WITH ARCHITECTURAL PLAN. SEE BASIS OF DESIGN FOR EQUIPMENT ON SHEET A-104. MIN. (2-#12, 1-#12 EGC, IN ¾"C) FOR 15A/20A APPLIANCES. (TYP.) MIN. (3-#8, #12 EGC IN 1" C.) FOR 40A/2 APPLIANCE(S) (TYP.).
2. PROVIDE DEDICATED CIRCUIT TO BF-1 BOTTLE FILLING STATION MIN. (2-#12, 1-#12 EGC IN 1/.2"C). EXTEND AND CONNECT. PROVIDE NEW BREAKER AND CIRCUIT FOR CONNECTION IN PANEL LC.
3. PROVIDE NEW CONFERENCE ROOM MEDIA A/V PLAN. SEE CONFERENCE ROOM MEDIA ELEVATION & DETAIL. PROVIDE RECEPTACLES, A/V CONNECTIONS, TELECOM OUTLETS, & CABLE TV OUTLET. PROVIDE HDMI CONNECTION FROM WALL TO CENTER OF FLOOR. FLOOR CONNECTIONS MUST BE RAN FLUSH IN SLAB. CREATE CHANNEL IN EXISTING SLAB BUT DO NOT FULLY PENETRATE. ENVIRONMENTAL AND VAPOR MITIGATION REQUIREMENTS PROHIBIT FULL PENETRATION OF THE SLAB. RESEAL CHANNEL AND RELATED CRACKS.
4. PROVIDE NEW CONDUCTORS IN CONDUIT FROM PANEL AC (#26,28,30) TO NEW MECHANICAL UNIT AHU-2. PROVIDE NEW DISCONNECT (60A/3/3R) AND NEW 60A/3 BREAKER TO SUPPLY AHU-2. REMOVE EXISTING 50A/3 BREAKER FROM PANEL AC & PROVIDE NEW 60A/2 BREAKER. CONDUCTORS MUST BE MINIMUM (3 - #4, 1 - #4 N, 1-#8 EGC IN 2" C.). EXISTING PANELBOARD AC IS LOCATED IN THE MAIN ELECTRICAL ROOM CENTRALLY LOCATED IN THE BUILDING. PROVIDE CONNECTION IS ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.
5. PROVIDE NEW CONNECTION TO WATER HEATER WH-1. EXTEND AND CONNECT MIN. (3-#10, 1-#10 EGC IN ¾" CONDUIT). PROVIDE NEW 30A/3/3R DISCONNECT NEXT TO WATER HEATER. PROVIDE NEW 30A/2 BREAKER TO FEED NEW WATER HEATER CIRCUIT.
6. PROVIDE CIRCUIT CONNECTION TO LIGHTING CONTROL PANEL IN ACCORDANCE MANUFACTURER RECOMMENDATIONS.
7. APPROXIMATE LOCATION OF PANEL AC.
8. PROVIDE NEW CIRCUIT TO FIRE ALARM NAC PANEL. PROVIDE SURGE SUPPRESSION DEVICE AS REQUIRED. SEE ARCHITECTURAL SHEETS FOR DETAILS.
9. PROVIDE NEW CONDUCTORS IN CONDUIT MIN. (3-#10, 1-#10 EGC) FROM PANEL LBCR TO NEW MECHANICAL UNIT SS-1. PROVIDE NEW 30A/3/3R DISCONNECT FOR SS-1. PROVIDE CIRCUIT CONNECTION IN COORDINATION WITH MANUFACTURER RECOMMENDATIONS. SEE MECHANICAL SHEETS FOR DETAILS.
10. PROVIDE NEW CONDUIT FOR COMMUNICATION FIBER, TO MATCH EXISTING COMM. ROOM CONDUIT SIZING. SEE DETAILS ON COMMUNICATION RISER DIAGRAM.
11. PROVIDE NEW CONNECTION FOR UH-1. PROVIDE NEW 30A/3/3R DISCONNECT (3-#10,1-#10 EGC IN 1" C).
12. PROVIDE NEW CONNECTION FOR EF-1 (2-#12, 1-#12 EGC IN ¾"C).

CONSTRUCTION DOCUMENTS | E-104

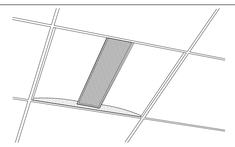
DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DESIGN WING RELOCATION
BUILDING 1005

POWER AND COMMUNICATION PLAN

DES.	K. BROWN
DR.	K. BROWN
CHK.	K. BROWN
SUBMITTED BY:	K. ROOT
DESIGN DIR.	F. ORR
APPROVED: PWO OR OICC:	DATE:
SATISFACTORY TO:	DATE:

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036664
CONST. CONTR. NO. 21-0019
SCALE: NOTED | SPEC. NA | SHEET: 17 OF 36



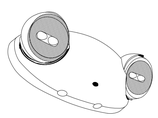
NOTE: THIS SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.

LUMINAIRE REQUIREMENTS:

1. HOUSING - HEAVY GAUGE COLD ROLLED STEEL OR DIE CAST ALUMINUM. SIZE SHOWN AS INDICATED IN LUMINAIRE SCHEDULE.
2. OPTICS - FROSTED ACRYLIC OR POLYCARBONATE LENS WITH DIE FORMED COLD ROLLED SHEET STEEL REFLECTORS.
3. LIGHT SOURCE - SOLID STATE LEDS, 3500K CCT UON, MINIMUM 80 CRI UON, AND MINIMUM EFFICACY OF 100 LUMENS/WATT UON. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE.
4. DRIVER - REPLACEABLE, INTEGRAL, HIGH-EFFICIENCY DIMMABLE DRIVER WITH MINIMUM 0.9 PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, AND < 20% THD. ON/OFF CONTROL AND FULLY DIMMABLE DOWN TO 10% MINIMUM OR AS INDICATED IN LUMINAIRE SCHEDULE.
5. CERTIFICATION - UL LISTED FOR DRY OR DAMP LOCATION, ROHS COMPLIANT. DLC QUALIFIED. COMPLIES WITH IES LM79, LM80 AND TM21 TESTING STANDARDS.
6. MOUNTING - RECESSED IN HARD OR ACOUSTICAL TILE CEILING.
7. OPTIONS - EMERGENCY BATTERY BACK-UP, INTEGRAL OCCUPANCY/VACANCY SENSOR, VARIOUS SIZE AND OUTPUT OPTIONS, SURFACE-MOUNTING KIT.

DIRECT/INDIRECT LED LUMINAIRE

REVISED: NOVEMBER 2020 | LIGHTING PLATE: NL-1



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LUMINAIRE REQUIREMENTS:

1. HOUSING - HIGH-IMPACT, UV-STABILIZED, INJECTION-MOLDED THERMOPLASTIC HOUSING.
2. LIGHT SOURCE - SOLID STATE LEDS.
3. DRIVER - INTEGRAL, HIGH-EFFICIENCY DRIVER WITH MINIMUM 0.9 PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, AND < 20% THD. ON/OFF CONTROL AND BATTERY BACKUP INTEGRAL TO UNIT.
4. CERTIFICATION - NFPA 101. UL LISTED FOR DAMP OR WET LOCATION, ROHS COMPLIANT. COMPLIES WITH IES LM79, LM80 AND TM21 TESTING STANDARDS.
5. MOUNTING - WALL SURFACE MOUNTED.
6. OPTIONS - WHITE OR BLACK FINISH.

LED EMERGENCY LIGHTING UNIT (ELU)

REVISED: NOVEMBER 2020 | LIGHTING PLATE: NL-26

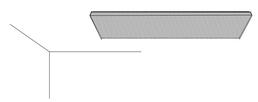
NOTE: THIS SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.

LUMINAIRE REQUIREMENTS:

1. HOUSING - EXTRUDED ALUMINUM WITH CLEAR ACRYLIC EDGE-LIT PANEL.
2. LIGHT SOURCE - SOLID STATE LEDS.
3. DRIVER - INTEGRAL, HIGH-EFFICIENCY DRIVER WITH MINIMUM 0.9 PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, AND < 20% THD.
4. CERTIFICATION - NFPA 101, UL LISTED FOR DAMP OR WET LOCATION, AND ROHS COMPLIANT.
5. MOUNTING - SURFACE MOUNTED ON CEILING AND/OR WALL.
6. OPTIONS - RED OR GREEN LETTERING, ONE- OR TWO-SIDED. BATTERY BACKUP.

EDGE-LIT EXIT SIGN

REVISED: NOVEMBER 2020 | LIGHTING PLATE: NL-27



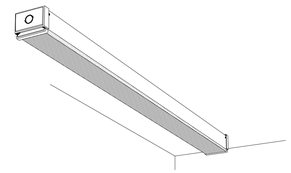
NOTE: THIS SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.

LUMINAIRE REQUIREMENTS:

1. HOUSING - DIE-FORMED, COLD ROLLED STEEL, WITH REINFORCEMENT RIBS FOR RIGIDITY; ENDCAPS SAME MATERIAL AS HOUSING, SECURED TABS, SCREWS, OR RIVETS. SIZE AS INDICATED IN LUMINAIRE SCHEDULE.
2. OPTICS - ACRYLIC OR POLYCARBONATE LENS AS INDICATED IN LUMINAIRE SCHEDULE.
3. LIGHT SOURCE - SOLID STATE LEDS, 3500K CCT UON, MINIMUM 80 CRI UON, AND MINIMUM EFFICACY OF 110 LUMENS/WATT UON. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE.
4. DRIVER - REPLACEABLE, INTEGRAL, HIGH-EFFICIENCY DRIVER WITH MINIMUM 0.9 PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, AND < 20% THD. ON/OFF CONTROL AND FULLY DIMMABLE DOWN TO 10% MINIMUM OR AS INDICATED IN LUMINAIRE SCHEDULE.
5. CERTIFICATION - UL LISTED FOR DRY OR DAMP LOCATION, ROHS COMPLIANT, DLC QUALIFIED. COMPLIES WITH IES LM79, LM80 AND TM21 TESTING STANDARDS.
6. MOUNTING - SURFACE MOUNTED.
7. OPTIONS - EMERGENCY BATTERY BACK-UP, INTEGRAL OCCUPANCY/VACANCY SENSOR, VARIOUS SIZE AND OUTPUT OPTIONS.

SURFACE LED WRAPAROUND

REVISED: NOVEMBER 2020 | LIGHTING PLATE: NL-3



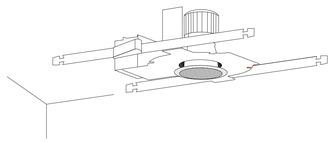
NOTE: THIS SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.

LUMINAIRE REQUIREMENTS:

1. HOUSING - EXTRUDED ALUMINUM OR WELDED STEEL HOUSING WITH SNAP-ON END CAPS. SIZE AS INDICATED IN LUMINAIRE SCHEDULE.
2. OPTICS - DIFFUSE ACRYLIC LENS.
3. LIGHT SOURCE - SOLID STATE LEDS, 3500K CCT UON, MINIMUM 80 CRI UON, AND MINIMUM EFFICACY OF 90 LUMENS/WATT UON. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE.
4. DRIVER - REPLACEABLE, INTEGRAL, HIGH-EFFICIENCY DIMMABLE DRIVER WITH MINIMUM 0.9 PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, AND < 20% THD. ON/OFF CONTROL AND FULLY DIMMABLE DOWN TO 10% MINIMUM OR AS INDICATED IN LUMINAIRE SCHEDULE.
5. CERTIFICATION - UL LISTED FOR DAMP OR WET LOCATION, ROHS COMPLIANT. DLC QUALIFIED. COMPLIES WITH IES LM79, LM80 AND TM21 TESTING STANDARDS.
6. MOUNTING - PENDANT, STEM, OR SURFACE MOUNTED WITH STAINLESS STEEL MOUNTING HARDWARE.
7. OPTIONS - INTEGRAL OCCUPANCY SENSOR, EMERGENCY BATTERY BACK-UP, VARIOUS PROFILE DIMENSIONS AND RUN LENGTHS, AND VARIOUS CLEAR OR FROSTED POLYCARBONATE LENSES.

LED INDUSTRIAL LIGHT

REVISED: NOVEMBER 2020 | LIGHTING PLATE: NL-23



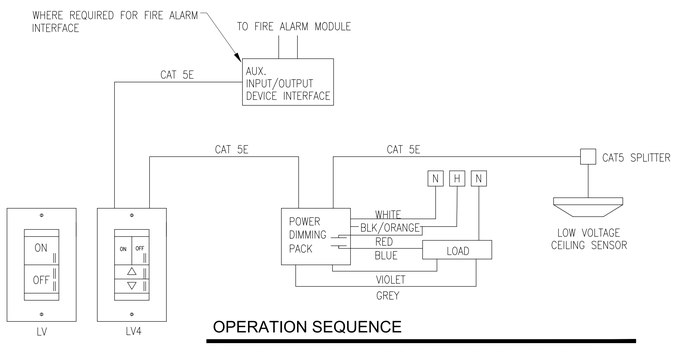
NOTE: THIS SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.

LUMINAIRE REQUIREMENTS:

1. HOUSING - COLD-ROLLED STEEL OR DIE CAST ALUMINUM, WITH HEAT SINK. APERTURE SIZE AND SHAPE AS INDICATED IN LUMINAIRE SCHEDULE.
2. LIGHT SOURCE - SOLID STATE LEDS, 3500K CCT UON, MINIMUM 80 CRI UON, AND MINIMUM EFFICACY OF 70 LUMENS/WATT UON. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE.
3. DRIVER - REPLACEABLE, INTEGRAL, HIGH-EFFICIENCY DIMMABLE DRIVER WITH MINIMUM 0.9 PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, AND < 20% THD. ON/OFF CONTROL AND FULLY DIMMABLE DOWN TO 10% MINIMUM OR AS INDICATED IN LUMINAIRE SCHEDULE.
4. CERTIFICATION - UL LISTED FOR DRY OR DAMP LOCATION, ROHS COMPLIANT. COMPLIES WITH IES LM79, LM80 AND TM21 TESTING STANDARDS.
5. MOUNTING - RECESSED IN HARD OR ACOUSTICAL TILE CEILING. PROVIDE T-BAR HANGERS FOR INSTALLATION IN ACOUSTICAL TILE CEILINGS OR TABS WHEN MOUNTING IN HARD CEILINGS.
6. OPTIONS - EMERGENCY BATTERY BACK-UP, VARIOUS ACRYLIC OR POLYCARBONATE LENSES, REFLECTORS, LOUVERS AND TRIMS. VARIOUS BEAM ANGLES. IC RATED HOUSING.

FIXED RECESSED DOWNLIGHT

REVISED: NOVEMBER 2020 | LIGHTING PLATE: NL-12



OPERATION SEQUENCE

1. LIGHT FIXTURE MUST CONTINUOUSLY DIM/BRIGHTEN BASED UPON INPUT FROM THE DIMMER.
2. AFTER 15 MINUTES OF NO OCCUPANCY, LIGHT FIXTURE MUST TURN OFF.

CEILING OCCUPANCY/VACANCY SENSOR DIMMING DIAGRAM

LIGHTING FIXTURE SCHEDULE

MARK	DESCRIPTION	SIZE/APERATURE	VOLTS	LAMPS	WATTS	COLOR
A	NL-1, DIRECT/INDIRECT TROFFER, RECESSED, DIMMABLE	2x4	120V	LED 3500K 4000 LUMENS	33	WHITE
B	NL-27, EXIT SIGN, EDGE LIT PROVIDE 90 MIN. BACKUP BATTERY PACK.	12"W X 8"H X 2"D	120V	LED	5	WHITE
C	NL-26, EMERGENCY FIXTURE PROVIDE 90 MIN. BACKUP BATTERY PACK.	12.5"W X 3.75"D X 3.75"H	120V	LED 3500K 640 LUMENS	4	WHITE
D	NL-1, DIRECT/INDIRECT TROFFER, RECESSED	2X2	120V	LED 3500K 3000 LUMEN	22	WHITE
E	NL-12, FIXED RECESSED DOWNLIGHT	6" RECESSED	120V	LED 3500K 1500 LUMEN	15	WHITE
F	NL-23, LED INDUSTRIAL STRIP LIGHT, PENDANT MOUNT, W/ 90 MINUTE BACKUP BATTERY	4' STRIP	120V	LED 3500K 4000 LUMEN	40	WHITE
G	NL-3, SURFACE LED WRAPAROUND	2x4	120V	LED 3500K 4000 LUMENS	33	WHITE

CONSTRUCTION DOCUMENTS | E-105

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

DESIGN WING RELOCATION
BUILDING 1005

PLATES, DETAILS, AND SCHEDULES

DES.	K.BROWN
DR.	K.BROWN
CHK.	K.BROWN
SUBMITTED BY:	K.ROOT
DESIGN DIR.	F. ORR
APPROVED: PWO OR OICC:	DATE:
SATISFACTORY TO:	DATE:

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036665 | CONST. CONTR. NO. 21-0019
SCALE: NOTED | SPEC. NA | SHEET: 18 OF 36

NEW PANELBOARD: LA

LOAD SERVED	WIRE SIZE	TRIP POLE	CKT NO.	VA/PHASE A	VA/PHASE B	VA/PHASE C	CKT NO.	TRIP POLE	WIRE SIZE	LOAD SERVED
LIGHTING-RM-300&302	#12	20A/1	1	1200			2	20A/1	#12	LIGHTING-RM-301&HALLWAY
LIGHTING-RM-303&304	#12	20A/1	3		560		4	20A/1	#12	LGHT_CNTRL_PNL
X	#12	20A/1	5			760	6	20A/1	#12	RM-300-RECEPT-A
RM-300-RECEPT-B	#12	20A/1	7	1440			8	20A/1	#12	RM-301-RECEPT-A
RM-301-RECEPT-B	#12	20A/1	9		1440		10	20A/1	#12	RM-302-RECEPT-A
RM-302-RECEPT-B	#12	20A/1	11			1670	12	20A/1	#12	RM-302-MICROWAVE-A
RM-302-MICROWAVE-B	#12	20A/1	13	950			14	20A/1	#12	--
RM-302-STOVE-A	#8	40A/2	15		3100		16	40A/2	#8	RM-302-STOVE-B
			17			3100	18			
RM-302-REFRIGERATOR-A	#12	20A/1	19	3600			20	20A/1	#12	RM-302-REFRIGERATOR-B
COORIDOR-RECEPT	#12	20A/1	21		1980		22	20A/1	#12	RM-303-RECEPT-A
RM-303-RECEPT-B	#12	20A/1	23			1420	24	20A/1	#12	RM-303-AV-RECEPT
RM-304-RECEPT-A	#12	20A/1	25	1440			26	20A/1	#12	RM-304-RECEPT-B
RM-302-HW-HEATER	#10	30A/2	27		2250		28	20A/1	#12	SPARE
			29			2250	30	20A/1	#12	SPARE
FACP-NAC	#12	20A/1	31	500			32	20A/1	#12	SPARE
MW1-EXHAUST	#12	20A/1	33		2000		34	20A/1	#12	MW2-EXHAUST
VAV1-3	#12	20A/1	35			500	36	20A/1	#12	VAV3-6
SPARE	#10	30A/1	37				38	20A/1	#12	SPARE
SPARE	#12	20A/1	39				40	20A/1	#12	SPARE
SPARE	#12	20A/1	41				42	20A/1	#12	SPARE
				9,130	11,300	9,700				TOTAL VOLT/AMPS
				77	95	82				CONNECTED AMPS

☐ SURFACE ☒ FLUSH | 208Y/120 VOLT RMS | AIC 22,000 | 250 AMP | 3 ø 4 WIRE | LOAD X | MFG X | ☒ WITH MAIN LUG ONLY ☐ WITH _____ MAIN BREAKER

1. HVAC EQUIPMENT SHALL USE TYPE HACR BREAKERS.

NEW PANELBOARD: LB

LOAD SERVED	WIRE SIZE	TRIP POLE	CKT NO.	VA/PHASE A	VA/PHASE B	VA/PHASE C	CKT NO.	TRIP POLE	WIRE SIZE	LOAD SERVED
RM-312->315-LIGHTING	#12	20A/1	1	1080			2	20A/1	#12	RM-305->310-LIGHTING
RM-305-RECEPTACLES	#12	20A/1	3		2160		4	20A/1	#12	RM-306-RECEPTACLES
RM-307-RECEPTACLES	#12	20A/1	5			1360	6	20A/1	#12	RM-308-RECEPTACLES
RM-309-RECEPTACLES	#12	20A/1	7	1440			8	20A/1	#12	RM-310-RECEPTACLES
RM-309-RECEPTACLES-A	#12	20A/1	9		1440		10	20A/1	#12	RM-310-RECEPTACLES-B
RM-312-RECEPTACLES-A	#12	20A/1	11			1440	12	20A/1	#12	RM-312-RECEPTACLES-B
RM-313-RECEPTACLES	#12	20A/1	13	2160			14	20A/1	#12	RM-314-RECEPTACLES
RM-315-RECEPTACLES	#12	20A/1	15		1440		16	20A/1	#12	RM-316-RECEPTACLES
RM-317-RECEPTACLES	#12	20A/1	17			720	18	20A/1	#12	BOTTLE-FILLING-STATION
RM-307-COOR-REFRIG.	#12	20A/1	19	1800			20	20A/1	#12	SPARE
VAV6-9	#12	20A/1	21		1000		22	20A/1	#12	VAV9-12
SPARE	#12	20A/1	23				24	20A/1	#12	SPARE
EXST_SUBPANEL	#1	100A/3	25	5,000			26			
			27		5,000		28	70A/3	#2	EXST_SUBPANEL
			29			5,000	30			
MECH-RM-EF-1	#12	20A/1	31	2000			32			
SPARE	#12	20A/1	33		1700		34	30A/3	#10	MECH-RM-UH-1
SPARE	#12	20A/1	35			1700	36			
SPARE		100A/3	37				38			
			39				40	100/3	#1	PANEL_LBCR
			41				42			
				13,480	12,740	10,220				TOTAL VOLT/AMPS
				113	104	86				CONNECTED AMPS

☐ SURFACE ☒ FLUSH | 208Y/120 VOLT RMS | AIC 22,000 | 250 AMP | 3 ø 4 WIRE | LOAD X | MFG X | ☒ WITH MAIN LUG ONLY ☐ WITH _____ MAIN BREAKER

1. HVAC EQUIPMENT SHALL USE TYPE HACR BREAKERS.

NEW PANELBOARD: LC

LOAD SERVED	WIRE SIZE	TRIP POLE	CKT NO.	KVA/PHASE A	KVA/PHASE B	KVA/PHASE C	CKT NO.	TRIP POLE	WIRE SIZE	LOAD SERVED
LIGHTING-316->333-A	#12	20A/1	1	1270			2	20A/1	#12	LIGHTING-HALLWAY
LIGHTING-316->333-B	#12	20A/1	3		1460		4	20A/1	#12	RM-318-RECEPTACLES
RM-319-RECEPTACLES	#12	20A/1	5			1440	6	20A/1	#12	RM-320-RECEPTACLES-A
RM-320-RECEPTACLES-B	#12	20A/1	7	1440			8	20A/1	#12	RM-321-RECEPTACLES-A
RM-321-RECEPTACLES-B	#12	20A/1	9		1440		10	20A/1	#12	RM-322-RECEPTACLES
RM-323-RECEPTACLES	#12	20A/1	11			1800	12	20A/1	#12	RM-325-RECEPTACLES
RM-326-RECEPTACLES	#12	20A/1	13	1800			14	20A/1	#12	RM-327-RECEPTACLES
RM-328-RECEPTACLES	#12	20A/1	15		1620		16	20A/1	#12	RM-329-RECEPTACLES
RM-330-RECEPTACLES	#12	20A/1	17			1440	18	20A/1	#12	RM-332-RECEPTACLES-A
RM-333-RECEPTACLES	#12	20A/1	19	1800			20	20A/1	#12	RM-332-RECEPTACLES-B
RM-334-L5-20	#12	20A/1	21		720		22	20A/1	#12	RM-334-L5-20
RM-334-L6-30	#10	30A/1	23			720	24	20A/1	#12	RM-334-RECEPTACLES
VAV-12-15	#12	20A/1	25	1000			26	20A/1	#12	VAV-15-18
VAV-18-20	#12	20A/1	27		500		28	20A/1	#12	SPARE
SPARE	#12	20A/1	29				30	20A/1	#12	SPARE
SPARE	#12	20A/1	31				32	20A/1	#12	SPARE
SPARE	#12	20A/1	33				34	20A/1	#12	SPARE
SPARE	#12	20A/1	35				36	20A/1	#12	SPARE
SPARE	#12	20A/1	37				38	20A/1	#12	SPARE
SPARE	#12	20A/1	39				40	20A/1	#12	SPARE
SPARE	#12	20A/1	41				42	20A/1	#12	SPARE
				7,310	5,740	5,400				TOTAL VOLT/AMPS
				61	48	45				CONNECTED AMPS

☐ SURFACE ☒ FLUSH | 208Y/120 VOLT RMS | AIC 22,000 | 250 AMP | 3 ø 4 WIRE | LOAD X | MFG X | ☒ WITH MAIN LUG ONLY ☐ WITH _____ MAIN BREAKER

1. HVAC EQUIPMENT SHALL USE TYPE HACR BREAKERS.

EXISTING SWITCHBOARD: SDP

LOAD SERVED	WIRE SIZE	TRIP POLE	CKT NO.	KVA/PHASE A	KVA/PHASE B	KVA/PHASE C	CKT NO.	TRIP POLE	WIRE SIZE	LOAD SERVED
PANEL_AC		200A/3	1				2	150A/3		PANEL_P
			3				4			
			5				6			
PANEL_E1_E2		150A/3	7				8	200A/3		PANEL_M
			9				10			
			11				12			
PANEL_L1_L2		250A/3	13				14	225A/3		PANEL_UNK
			15				16			
			17				18			
PANEL_AD		100A/3	19				20	100A/3		PANEL_UNK2
			21				22			
			23				24			
SPARE		100A/3	25				26	100A/3		PANEL_02P
			27				28			
			29				30			
ROOM_40_SUBPANEL		100A/2	31				32	100A/3		PANEL_EM
			32				34			
			35				36			
SPACE			37				38			
			39				40			SERVICE_DISC
			41				42			

☒ SURFACE ☐ FLUSH | 208Y/120 VOLT RMS | AIC 42,000 | 800 AMP | 3 ø 4 WIRE | LOAD X | MFG SIEMENS | ☐ WITH MAIN LUG ONLY ☐ WITH MAIN BREAKER

EXISTING PANELBOARD: AC

LOAD SERVED	WIRE SIZE	TRIP POLE	CKT NO.	KVA/PHASE A	KVA/PHASE B	KVA/PHASE C	CKT NO.	TRIP POLE	WIRE SIZE	LOAD SERVED
MECH_EF	#12	20A/1	1				2	20A/1	#12	MECH_EF
MECH_EF	#12	20A/1	3				4	20A/1	#12	MECH_EF
MECH_RM_LIGHT_RECPT	#10	20A/1	5				6	20A/1	#12	LIGHT_RECEPTS
LIGHTS_RECPTS	#12	20A/1	7				8	20A/1	#12	LIGHTS_RECPT
X	#12	20A/1	9				10	20A/1	#12	
X	#12	20A/1	11				12	20A/1	#12	AHU#5
X	#12	20A/1	13				14	20A/1	#12	
X	#12	20A/1	15				16	20A/1	#12	DDC_PANEL
AHU	#12	20A/1	17				18	20A/1	#12	X
AHU	#12	20A/1	19				20	20A/1	#12	X
HP_STRIP	#10	25A/2	21				22	60A/2	#12	VAULT_AC
			23				24			
AHU#6	#12	20A/3	25				26			
			27				28	50A/3	#12	AHU#2
			29				30			
			31				32			
AHU#4	#12	30A/3	33				34	30A/3	#12	
			35				36			

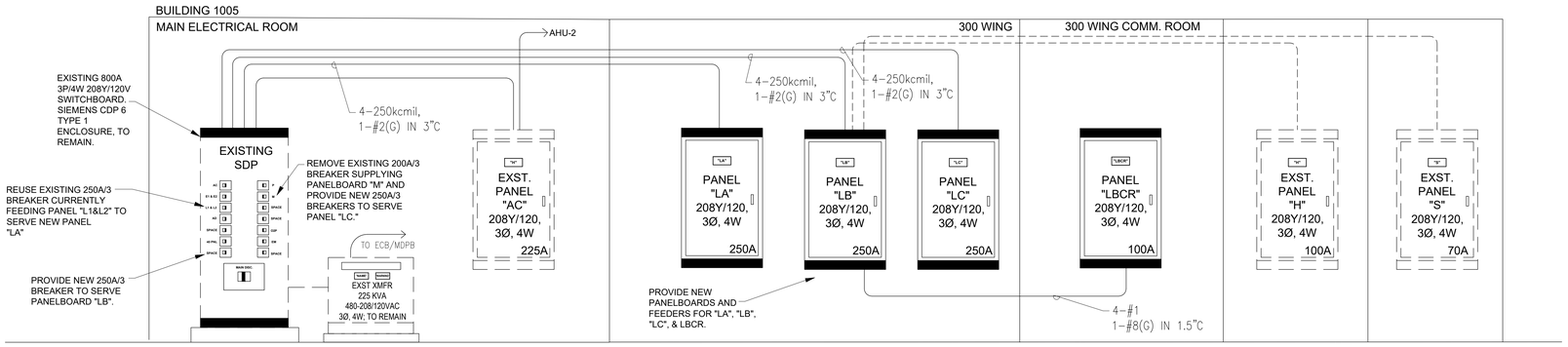
☒ SURFACE ☐ FLUSH | 208Y/120 VOLT RMS | AIC 22,000 | 225 AMP | 3 ø 4 WIRE | LOAD X | MFG X | ☒ WITH MAIN LUG ONLY ☐ WITH _____ MAIN BREAKER

NEW PANELBOARD: LBCR

LOAD SERVED	WIRE SIZE	TRIP POLE	CKT NO.	KVA/PHASE A	KVA/PHASE B	KVA/PHASE C	CKT NO.	TRIP POLE	WIRE SIZE	LOAD SERVED
L5-20	#12	20A/1	1	1800			2	20A/1	#12	L5-20
L5-20	#12	20A/1	3		1800		4	20A/1	#12	L5-20
L6-30	#10	30A/1	5			3180	6	20A/1	#12	RECEPTACLES
SPARE	#12	20A/1	7	2912			8	30A/2	#10	SS-1
SPARE	#12	20A/1	9		2912		10			
SPARE	#12	20A/1	11				12	20A/1	#12	SPARE
SPARE	#12	20A/1	13				14	20A/1	#12	SPARE
SPARE	#12	20A/1	15				16	20A/1	#12	SPARE
BLANK	#12	20A/1	17				18	20A/1	#12	BLANK
BLANK	#12	20A/1	19				20	20A/1	#12	BLANK
BLANK	#12	20A/1	21				22	20A/1	#12	BLANK
BLANK	#10	30A/1	23				24	20A/1	#12	BLANK
BLANK	#12	20A/1	25				26	20A/1	#12	BLANK
BLANK	#12	20A/1	27				28	20A/1	#12	BLANK
BLANK	#12	20A/1	29				30	20A/1	#12	BLANK
				4,712	4,712	3,180				TOTAL VOLT/AMPS
				40	40	27				CONNECTED AMPS

☐ SURFACE ☐ FLUSH | 208Y/120 VOLT RMS | AIC 22,000 | 100 AMP | 3 ø 4 WIRE | LOAD X | MFG X | ☒ WITH MAIN LUG ONLY ☐ WITH _____ MAIN BREAKER

1. HVAC EQUIPMENT SHALL USE TYPE HACR BREAKERS.



ELECTRICAL RISER DIAGRAM (PARTIAL)

SCALE: NTS

CONSTRUCTION DOCUMENTS | E-106

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

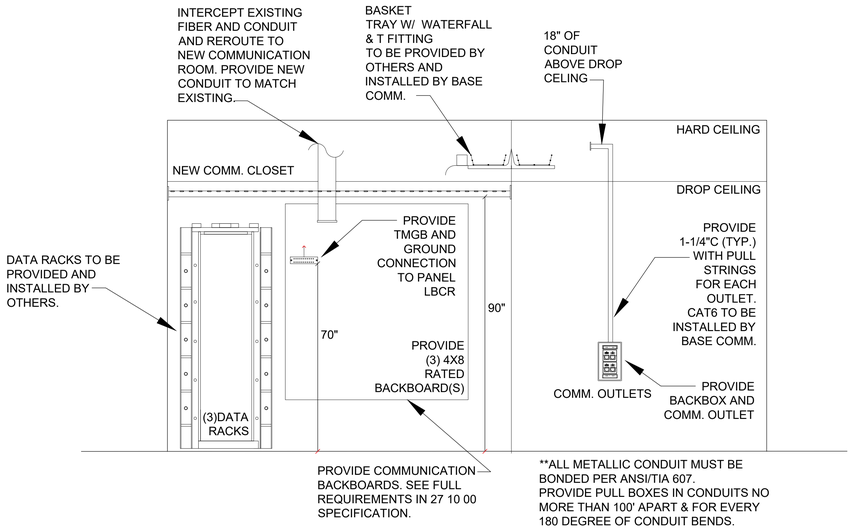
DES.	K.BROWN
DR.	K.BROWN
CHK.	K.BROWN
SUBMITTED BY:	K.ROOT
DESIGN DIR.	F. ORR
APPROVED: PWO OR OICC:	DATE:
SATISFACTORY TO:	DATE:

DESIGN WING RELOCATION
BUIDLING 1005

PLATES, DETAILS, AND SCHEDULES

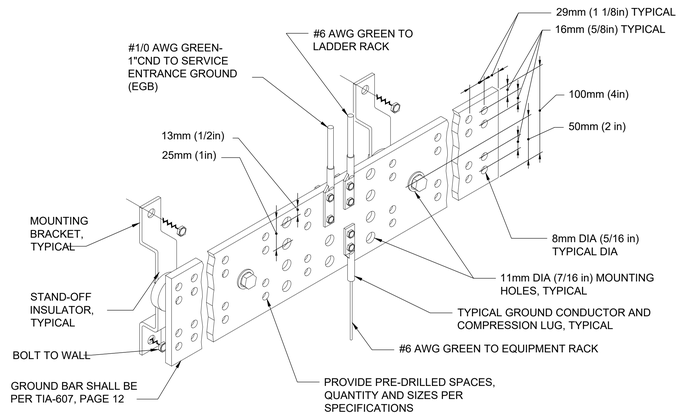
SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036666 | CONST. CONTR. NO. 21-0019

SCALE: NOTED | SPEC. NA | SHEET: 19 OF 36

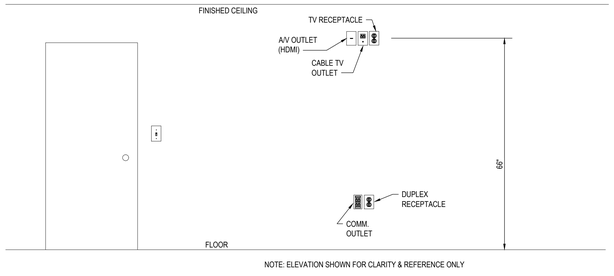


COMMUNICATION RISER DIAGRAM

SCALE: NTS

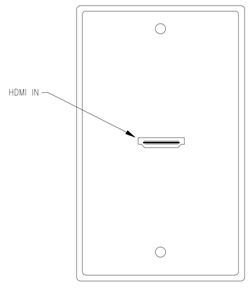


TELECOMMUNICATION GROUND BAR (TMGB) DETAIL

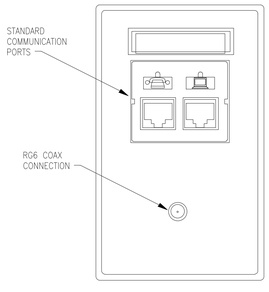


NOTE: ELEVATION SHOWN FOR CLARITY & REFERENCE ONLY

CONFERENCE ROOM MEDIA ELEVATION

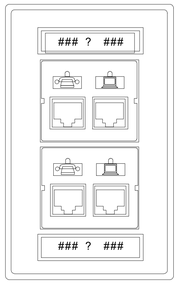


A/V OUTLET DETAIL



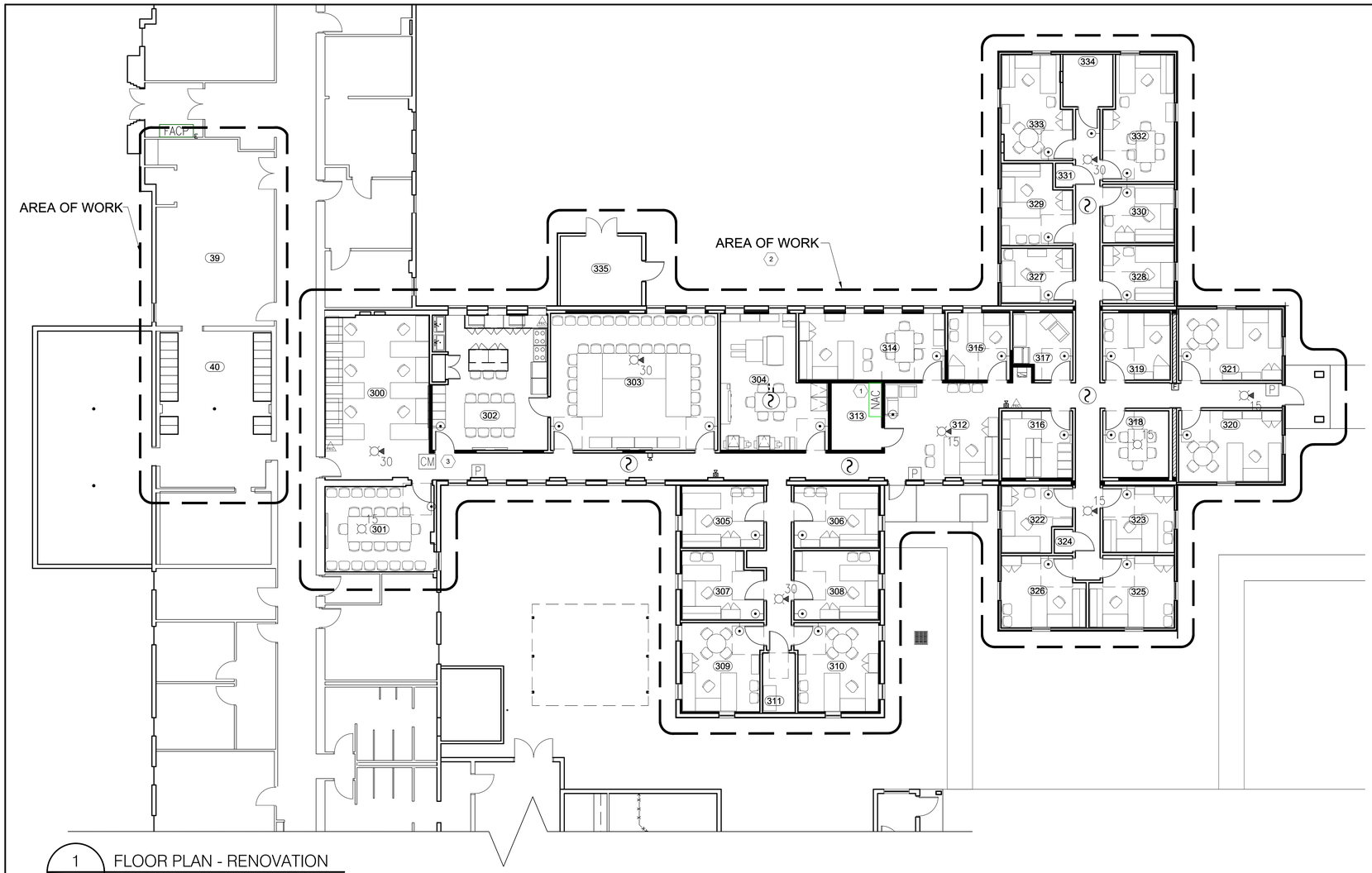
PROVIDE RG6/COAX CABLING TO COMM. ROOM COILED FOR FUTURE USE BY OTHERS

CABLE TV OUTLET DETAIL



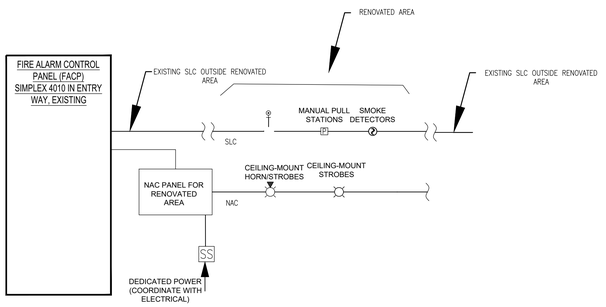
COMM. OUTLET DETAIL

CONSTRUCTION DOCUMENTS	E-107
DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND MARINE CORPS BASE CAMP LEJEUNE, NORTH CAROLINA	
DES. K.BROWN DR. K.BROWN CHK. K.BROWN SUBMITTED BY: K.ROOT DESIGN DIR. F. ORR	DESIGN WING RELOCATION BUILDING 1005 PLATES, DETAILS, AND SCHEDULES
APPROVED: PWO OR OICC: DATE: SATISFACTORY TO: DATE:	SIZE E1 · CODE IDENT. NO 80091 · NAVFAC DRAWING NO. 60036667 CONST. CONTR. NO. 21-0019 SCALE: NOTED · SPEC. NA · SHEET: 20 OF 36



1 FP101 FLOOR PLAN - RENOVATION

1/8" = 1'-0" 0 5' 10' 20'



2 FP101 FIRE ALARM SYSTEM RISER DIAGRAM

NTS

FIRE PROTECTION PLAN LEGEND

FAMN E	FIRE ALARM CONTROL PANEL (EXISTING)
NAC	SUPPLEMENTARY NOTIFICATION APPLIANCE CIRCUIT PANEL
CM	CONTROL MODULE
XX	CEILING-MOUNTED SPEAKER/STROBE (XX INDICATES CANDELA)
XX	CEILING-MOUNTED STROBE (XX INDICATES CANDELA)
	PHOTOELECTRIC SMOKE DETECTOR
	PHOTOELECTRIC DUCT SMOKE DETECTOR
	MAGNETIC WALL MTD DOOR HOLD-OPEN W/ WALL MTD HT MANUAL RELEASE BUTTON
	MAGNETIC FLOOR MTD FOOR HOLD-OPEN W/ WALL MTD HT RELEASE BUTTON
P	FIRE ALARM PULL STATION
FEC	FIRE EXTINGUISHER - WALL MTD

FIRE PROTECTION KEYNOTES

1	PROVIDE A SUPPLEMENTARY NOTIFICATION APPLIANCE CIRCUIT PANEL TO SERVE ALL NOTIFICATION DEVICES IN THE RENOVATED AREA.
2	MODIFY EXISTING SLC CIRCUIT TO CONNECT ALL ADDRESSABLE DEVICES IN THE RENOVATED AREA INCLUDING DOOR HOLDERS RELAY MODULES, SMOKE DETECTORS, AND PULL STATIONS
3	PROVIDE A CONTROL MODULE TO OVERRIDE LIGHTING (OCCUPANCY SENSOR) CONTROLLER UPON FIRE ALARM. COORDINATE WITH ELECTRICAL TO DETERMINE THE NUMBER OF MODULES REQUIRED.

FIRE PROTECTION GENERAL NOTES

1. ALL DUCT PENETRATIONS THROUGH WALLS SHALL BE OF THE APPROPRIATE FIRE RATINGS.

FIRE ALARM OPERATIONS MATRIX FOR RENOVATED AREA

		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
		ACTUATE COMMON FIRE ALARM SIGNAL INDICATOR	ACTUATE AUDIBLE FIRE ALARM SIGNAL	ACTUATE COMMON SUPERVISORY ALARM SIGNAL	ACTUATE AUDIBLE SUPERVISORY ALARM SIGNAL	ACTUATE COMMON TROUBLE SIGNAL INDICATOR	ACTUATE AUDIBLE TROUBLE SIGNAL	INDICATE FIRE ALARM, DESCRIPTION OF DEVICE ADDRESS & DEVICE LOCATION AT THE FACP	INDICATE SUPERVISORY ALARM, DESCRIPTION OF DEVICE, DEVICE ADDRESS & DEVICE LOCATION AT THE FACP	INDICATE TROUBLE CONDITION, DESCRIPTION OF TYPE & SOURCE AT THE FACP	TRANSMIT FIRE ALARM TO BASE FIRE DISPATCH	TRANSMIT SUPERVISORY ALARM TO BASE FIRE DISPATCH	TRANSMIT TROUBLE CONDITION SIGNAL TO THE BASE FIRE DISPATCH	ACTUATE FIRE ALARM HORNS AND STROBES	RELEASE DOOR HOLDERS	OVERRIDE OCCUPANCY SENSORS TO TURN ON EGRESS LIGHTING
MANUAL PULL STATION	1	X	X					X			X			X	X	X
SMOKE DETECTOR	2	X	X					X			X			X	X	X
DUCT SMOKE DETECTOR	3								X			X				
OPEN CIRCUIT/GROUND FAULT	4					X	X			X			X			
NOTIFICATION APPLIANCE CIRCUIT SHORT	5					X	X			X			X			
SIGNALING LINE CIRCUIT SHORT	6					X	X			X			X			

PLAN NORTH

TRUE NORTH

CONSTRUCTON DOCUMENTS | FP-101

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	K. ROOT
DR.	K. ROOT / S. CONTRERAS
CHK.	K. ROOT
SUBMITTED BY:	K. ROOT
DESIGN DIR.	J. FRANKLIN ORR
APPROVED: PWO OR OICC:	DATE:
SATISFACTORY TO:	DATE:

DESIGN WING RELOCATION
BUILDING 1005

FLOOR PLAN - FIRE PROTECTION

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036668

CONST. CONTR. NO. 21-0019

SCALE: NOTED | SPEC. NA | SHEET: 21 OF 36

REVISIONS			
SYM		DATE	APPROVED

GENERAL NOTES (ALL PLUMBING SHEETS):

1. NOT ALL WORK IS EXPLICITLY SHOWN ON THE DRAWINGS. MAKE ALL NECESSARY MINOR CORRECTIONS AND ADJUSTMENTS TO DELIVER A FULLY FUNCTIONAL AND COMPLETE SYSTEM.
2. ALL PIPE 4" AND BELOW SHALL BE TYPE L COPPER UNLESS OTHERWISE INDICATED.
3. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES FOR ALL EQUIPMENT.
4. PROVIDE 14 DAYS ADVANCE NOTICE FOR ALL OUTAGES. OUTAGES MAY ONLY OCCUR BETWEEN 1700–0700 OR ON WEEKENDS.
5. ANY MODIFICATIONS REQUIRED AS A RESULT OF DEVIATION FROM SCHEDULED EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
6. LABEL ALL PIPES AND COMPONENTS/EQUIPMENT WITH PERMANENT LABELS. LABEL ALL PIPES PER ASME A13.1.
7. EQUIPMENT PAD SIZES MAY VARY FROM DRAWINGS. PAD SIZES ARE DEPENDANT ON INSTALLED EQUIPMENT.
8. FIELD ROUTE ALL PIPING AS NECESSARY.

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	PIPE SIZE				REMARKS
		HW	CW	W	V	
S–1	KITCHEN SINK	3/4"	3/4"	4"	1–1/2"	UNDERMOUNTED STAINLESS STEEL DEEP DOUBLE BOWL. FAUCET: 2.0 GPM DECK MOUNTED GOOSE NECK SPOUT AND MANUAL WRIST BLADES. PROVIDE BALL VALVES FOR HOT AND COLD WATER CONNECTIONS TO EACH FIXTURE.
WH–1	WATER HEATER	3/4"	3/4"	–	–	PROVIDE 30 GALLON ELECTRIC WATER HEATER, 240V/1P OPERATION, WITH DUAL 4500 WATT ELEMENTS, EXPANSION TANK, ASME T&P RELIEF VALVE, AND DRAIN VALVE. WATER HEATER SHALL HAVE REPLACEABLE ANODES. WATER HEATER CONTROLS SHALL HAVE AN ADJUSTABLE RANGE FROM 90 TO 160 °F.
HB–1	HOSE BIB	–	3/4"	–	–	PROVIDE OUTDOOR WALL MOUNTED MILD CLIMATE BRASS HOSE BIB. HOSE BIB SHALL NOT REQUIRE THE USE OF KEY OR TOOL TO OPERATE.
ET–1	EXPANSION TANK	–	–	–	–	PROVIDE 4.5 GALLON DIAPHRAGM EXPANSION TANK SUITABLE FOR POTABLE WATER.
IB–1	ICE MAKER BOX	–	1/2"	–	–	PROVIDE NSF 61 LOW LEAD ICE MAKER BOX WITH COPPER CONNECTION. ICE MAKER BOX TO HAVE QUARTER TURN VALVE AND WATER HAMMER ARRESTOR. INSTALL AT 18" ABOVE FINISHED FLOOR.

PLUMBING LEGEND

SYMBOL	DESCRIPTION
	EXTENT OF DEMOLITION
	POINT OF CONNECTION
	BALL VALVE
Ⓟ	PRESSURE GAUGE
	TEMPERATURE GAUGE
	PT PORT
	UNION
	CIRCUIT SETTER
	STRAINER

PLUMBING PIPE LEGEND

LINE	DESCRIPTION
—·—·—·—·—	DOMESTIC COLD WATER PIPE
—··—··—··—	DOMESTIC HOT WATER PIPE
———————	SANITARY WASTE PIPE

CONSTRUCTION DOCUMENTS P001

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

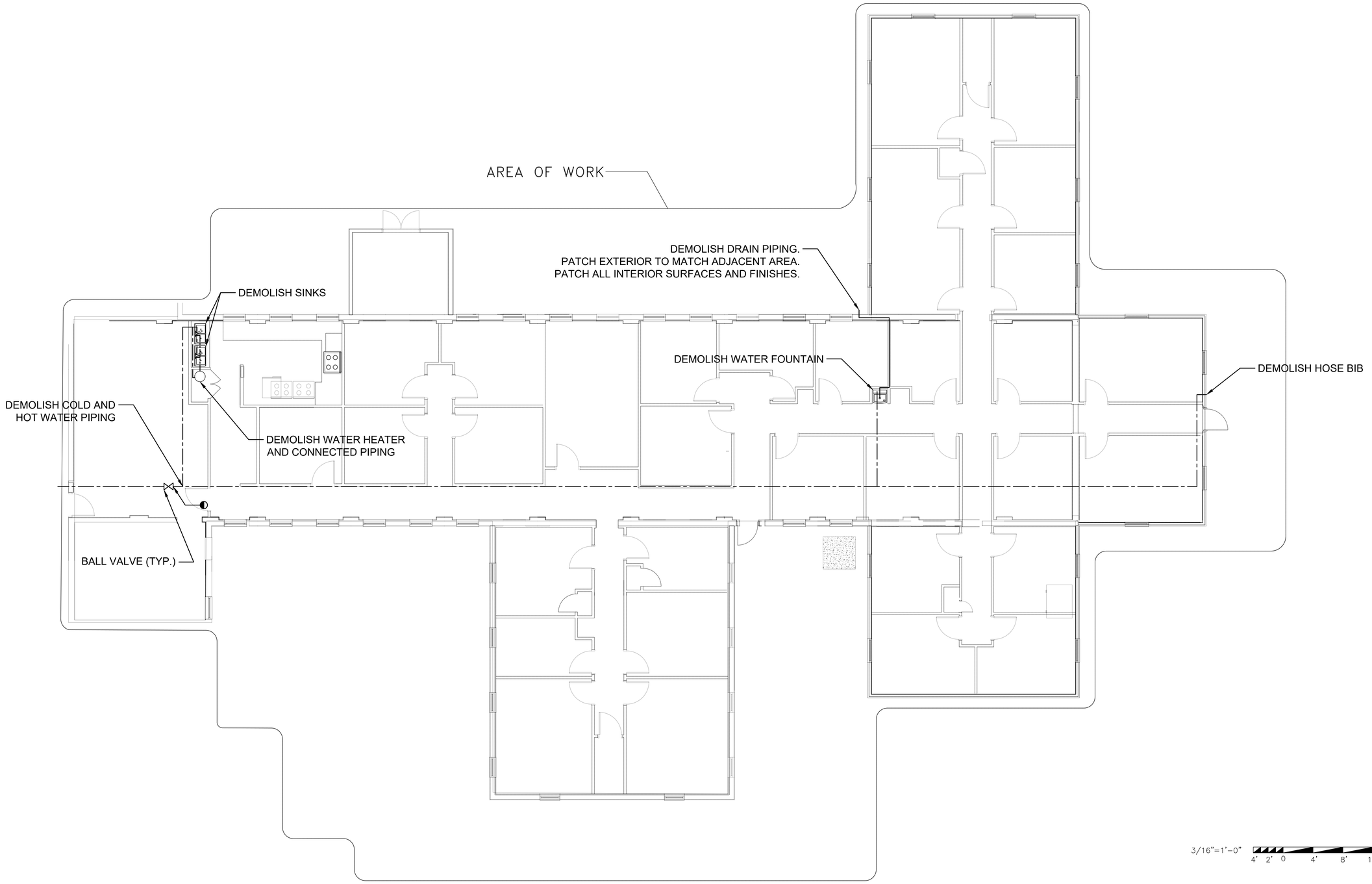
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DESIGN WING RELOCATION
BUILDING 1005

DES. C MAAS
DR. C MAAS
CHK. C MAAS
SUBMITTED BY: K ROOT
DESIGN DIR. J F ORR PE
APPROVED: PWO OR OICC DATE
NA
SATISFACTORY TO: DATE

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036669
CONST. CONTR. 21–0019
SCALE: NOTED | SPEC. 05–21–0019 | SHEET 22 OF 36

REVISIONS			
SYM		DATE	APPROVED



PLUMBING DEMO PLAN
SCALE: 3/16" = 1'-0"

3/16"=1'-0"
4' 2' 0 4' 8' 12' 16' 20'

CONSTRUCTION DOCUMENTS P101

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

DES. J BELY
DR. J BELY
CHK. C MAAS
SUBMITTED BY: K ROOT
DESIGN DIR. J F ORR PE
APPROVED: PWO OR OICC DATE
NA
SATISFACTORY TO: DATE

DESIGN WING RELOCATION
BUILDING 1005

PLUMBING – PIPING DEMO

SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
E1	80091	60036670
		CONST. CONTR. 21-0019

SCALE: NOTED | SPEC. 05-21-0019 | SHEET 23 OF 36

REVISIONS			
SYM		DATE	APPROVED

3/16"=1'-0"

4' 2' 0 4' 8' 12' 16' 20'

PLUMBING PLAN
SCALE: 3/16" = 1'-0"

CONSTRUCTION DOCUMENTS P102

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

DES. J BELY
DR. J BELY
CHK. C MAAS
SUBMITTED BY: K ROOT
DESIGN DIR. J F ORR PE
APPROVED: PWO OR OICC DATE
NA
SATISFACTORY TO: DATE

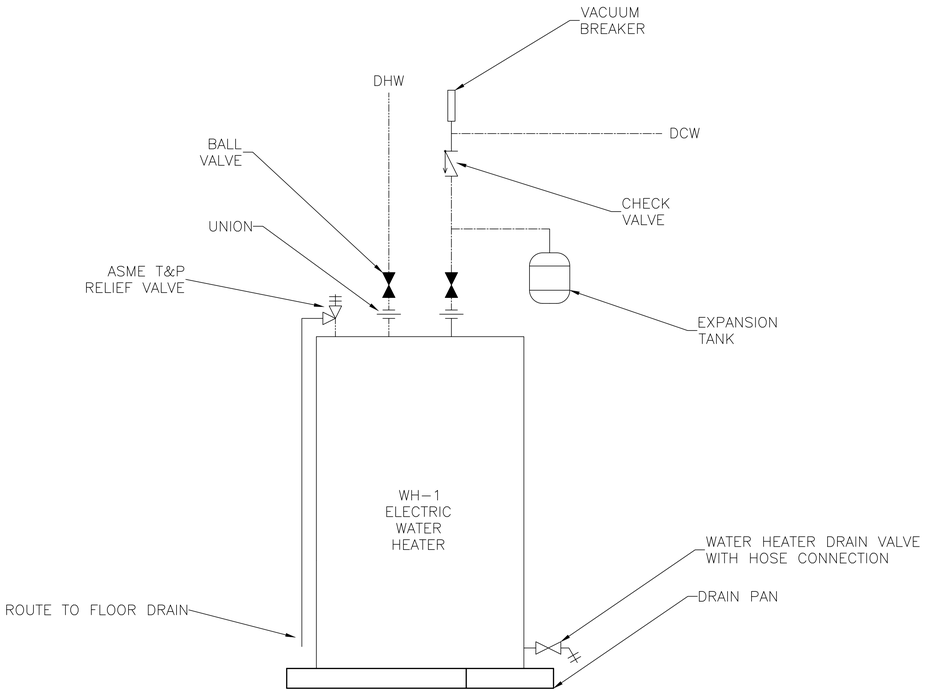
DESIGN WING RELOCATION
BUILDING 1005

PLUMBING – NEW PIPING

SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
E1	80091	60036671
		CONST. CONTR. 21-0019

SCALE: NOTED | SPEC. 05-21-0019 | SHEET 24 OF 36

REVISIONS			
SYM		DATE	APPROVED



1 / P601 WATER HEATER DETAIL

SCALE: N.T.S.

CONSTRUCTION DOCUMENTS P501

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

DES. J BELY
DR. C MAAS
CHK. C MAAS
SUBMITTED BY: K ROOT
DESIGN DIR. J F ORR PE
APPROVED: PWO OR OICC DATE
NA
SATISFACTORY TO: DATE

DESIGN WING RELOCATION
BUILDING 1005

PLUMBING – DETAILS

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036672
CONST. CONTR. 21-0019
SCALE: NOTED | SPEC. 05-21-0019 | SHEET 25 OF 36

GENERAL NOTES (ALL MECHANICAL SHEETS):

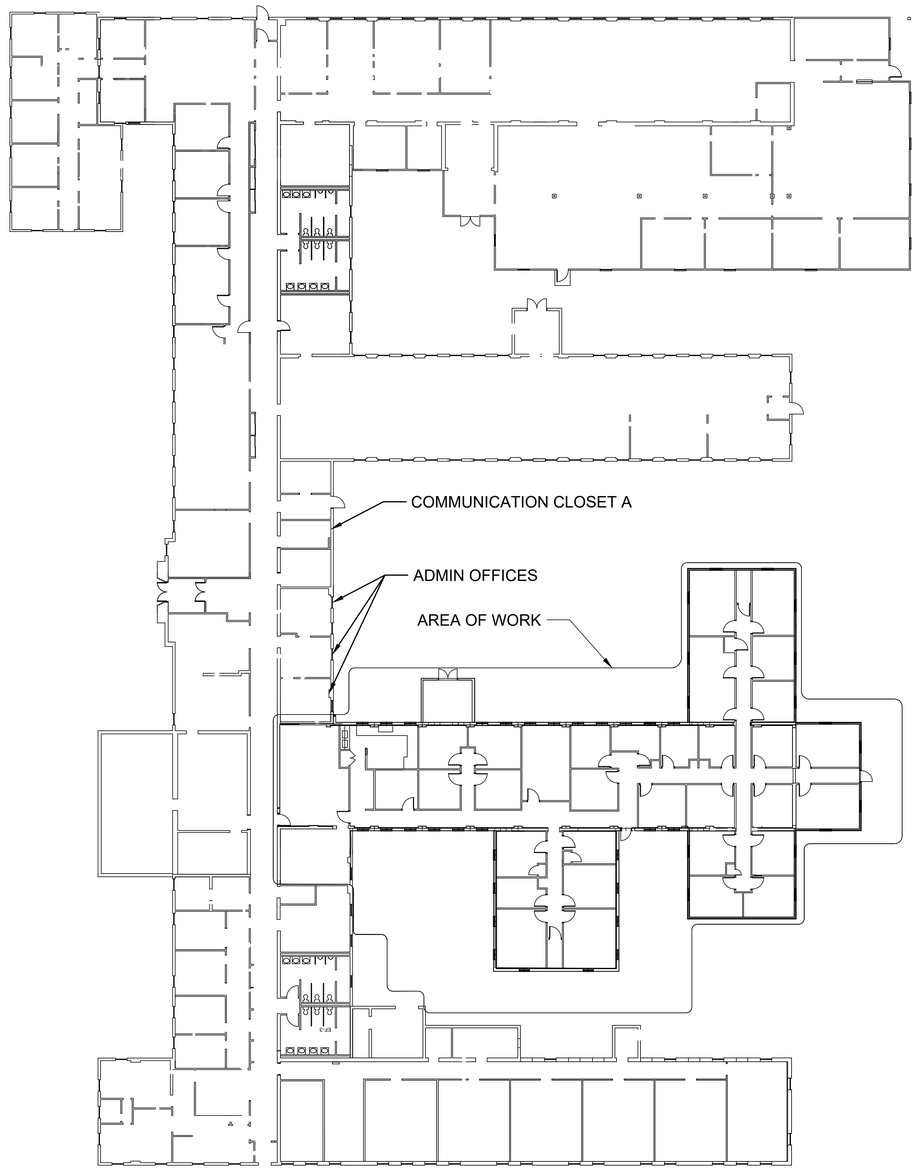
1. NOT ALL WORK IS EXPLICITLY SHOWN ON THE DRAWINGS. MAKE ALL NECESSARY MINOR CORRECTIONS AND ADJUSTMENTS TO DELIVER A FULLY FUNCTIONAL AND COMPLETE SYSTEM.
2. PROVIDE PUBLIC WORKS OPPORTUNITY TO SALVAGE ALL EXISTING DDC EQUIPMENT TO BE DEMOLISHED. PROVIDE 14 DAYS NOTICE PRIOR TO DEMOLITION.
3. TEST, ADJUST, AND BALANCE ENTIRE AIR DISTRIBUTION SYSTEM (SUPPLY, RETURN, AND OUTSIDE AIR FLOWS).
4. ALL NEW DUCT SHALL BE SEALED TO A SMACNA SEAL CLASS A.
5. WRAP NEW EXTERIOR DUCTWORK WITH 2" ELASTOMERIC INSULATION (R8) AND COVER WITH EITHER PVC, MYLAR OR ALUMINUM JACKET.
6. PROVIDE FULL RADIUS ELBOWS. IF SPACE DOES NOT ALLOW FOR INSTALLATION OF FULL RADIUS ELBOWS, PROVIDE SQUARE ELBOWS WITH TURNING VANES.
7. PROVIDE DUCTWORK SUPPORTS PER SMACNA FOR ALL NEW EXTERIOR DUCTWORK.
8. THE LOCATION OF ALL DUCT AND EQUIPMENT SHALL BE ADJUSTED TO ACCOMMODATE ANTICIPATED OR ENCOUNTERED INTERFERENCES. THESE PLANS ARE PARTIALLY DIAGRAMMATIC AND MAY NOT SHOW MINOR DETAILS AND LOCATIONS.
9. MOUNT THERMOSTATS AND/OR TEMPERATURE SENSORS 5' AFF UNLESS OTHERWISE SPECIFIED.
10. PROVIDE FLEXIBLE DUCT CONNECTORS FOR ALL AHU'S FOR BOTH SUPPLY AND RETURN DUCTS.
11. PRIMARY AIR DUCT CONNECTIONS TO VAV TERMINALS MUST MAINTAIN A STRAIGHT SECTION OF DUCT EQUAL TO A MINIMUM OF AT LEAST 6 DUCT DIAMETERS OF THE VAV INLET.
12. ALL PIPE 4" AND BELOW SHALL BE TYPE L COPPER UNLESS OTHERWISE INDICATED.
13. PROVIDE DUCTS & AIR DEVICES AS SHOWN.
14. MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES FOR ALL EQUIPMENT.
15. PROVIDE 14 DAYS ADVANCE NOTICE FOR ALL OUTAGES. OUTAGES MAY ONLY OCCUR BETWEEN 1700-0700 OR ON WEEKENDS.
16. ANY MODIFICATIONS REQUIRED AS A RESULT OF DEVIATION FROM SCHEDULED EQUIPMENT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
17. LABEL ALL PIPES AND COMPONENTS/EQUIPMENT WITH PERMANENT LABELS. LABEL ALL PIPES PER ASME A13.1.
18. EQUIPMENT PAD SIZES MAY VARY FROM DRAWINGS. PAD SIZES ARE DEPENDANT ON INSTALLED EQUIPMENT.
19. FIELD ROUTE ALL DUCT AND PIPING AS NECESSARY.
20. PATCH DUCT AS NEEDED TO MATCH NEW TAKE OFF SIZE AND/OR LOCATION. INSULATE WHERE DUCT IS PATCHED.
21. FLUSH CHILLED WATER AND HOT WATER LOOPS. ENSURE ALL ENTRAPPED AIR IS REMOVED. TREAT CHILLED WATER AND HOT WATER.
22. CLEAN ALL STRAINERS PRIOR TO TAB AND TAB VERIFICATION.

REFRIGERANT CAPTURE NOTES (ALL MECHANICAL SHEETS):

1. REMOVE AIR CONDITIONING, REFRIGERATION, AND OTHER EQUIPMENT CONTAINING REFRIGERANTS WITHOUT RELEASING CHLOROFLUOROCARBON REFRIGERANTS TO THE ATMOSPHERE IN ACCORDANCE WITH THE CLEAN AIR ACT AMENDMENT OF 1990. RECOVER ALL REFRIGERANTS PRIOR TO REMOVING AIR CONDITIONING, REFRIGERATION, AND OTHER EQUIPMENT CONTAINING REFRIGERANTS AND DISPOSE OF IN ACCORDANCE WITH THE SPECIFICATIONS. TURN IN SALVAGED CLASS I ODS REFRIGERANTS AS PRESCRIBED IN THE SPECIFICATIONS. IF R22, IDENTIFY AND THE DEMOLITION CONTRACTOR MUST ALLOW CAMP LEJEUNE (MAINTENANCE CONTRACTOR) TO RECOVER REFRIGERANT.

TEMPORARY HVAC NOTES (ALL MECHANICAL SHEETS):

1. CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN THREE (3) TEMPORARY HEATING AND COOLING UNITS FOR THE ADMIN OFFICES FOR THE DURATION OF CONSTRUCTION.
2. MINIMUM COOLING CAPACITY OF EACH UNIT TO BE 12,000 BTU/HR WITH 120/1 VAC POWER.
3. CONTRACTOR MUST REPLACE MALFUNCTIONING EQUIPMENT WITHIN 24 HOURS AT NO ADDITIONAL COST TO THE GOVERNMENT.



1 M001 OVERALL FLOORPLAN
SCALE: 1/16" = 1'-0"

REVISIONS			
SYM		DATE	APPROVED

MECHANICAL PIPE SYMBOLS

SYMBOL	DESCRIPTION
	2-WAY MODULATING CONTROL VALVE
	3-WAY MODULATING CONTROL VALVE
	PIPE TURNS DOWN
	PIPE TURNS UP
	BALL VALVE
	PRESSURE GAUGE
	TEMPERATURE GAUGE
	PT PORT
	UNION
	CIRCUIT SETTER
	STRAINER

MECHANICAL DUCTWORK LEGEND

LINE	DESCRIPTION
	SUPPLY DUCT TURNING UP
	SUPPLY DUCT TURNING DOWN
	RETURN DUCT TURNING UP
	RETURN DUCT TURNING DOWN
	EXHAUST DUCT TURNING UP
	EXHAUST DUCT TURNING DOWN
	TAKEOFF WITH 45° THROAT

MECHANICAL PIPE LEGEND

LINE	DESCRIPTION
	CHILLED WATER SUPPLY PIPE
	CHILLED WATER RETURN PIPE
	HEATING HOT WATER SUPPLY PIPE
	HEATING HOT WATER RETURN PIPE
	CONDENSATE PIPE
	REFRIGERANT LINE-SET PIPE

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
	CEILING SUPPLY AIR GRILLE
	CEILING RETURN AIR/TRANSFER AIR GRILLE
	CEILING EXHAUST AIR GRILLE
	EXTENT OF DEMOLITION
	POINT OF CONNECTION
E 80 (AIR TYPE / AIRFLOW (CFM))	DIFFUSER/REGISTER/GRILLE TAG
	MANUAL VOLUME DAMPER
M	MOTORIZED DAMPER
T	THERMOSTAT/TEMPERATURE SENSOR

1/16"=1'-0" 12' 6' 0 12' 24' 36' 48' 54'

CONSTRUCTION DOCUMENTS M001

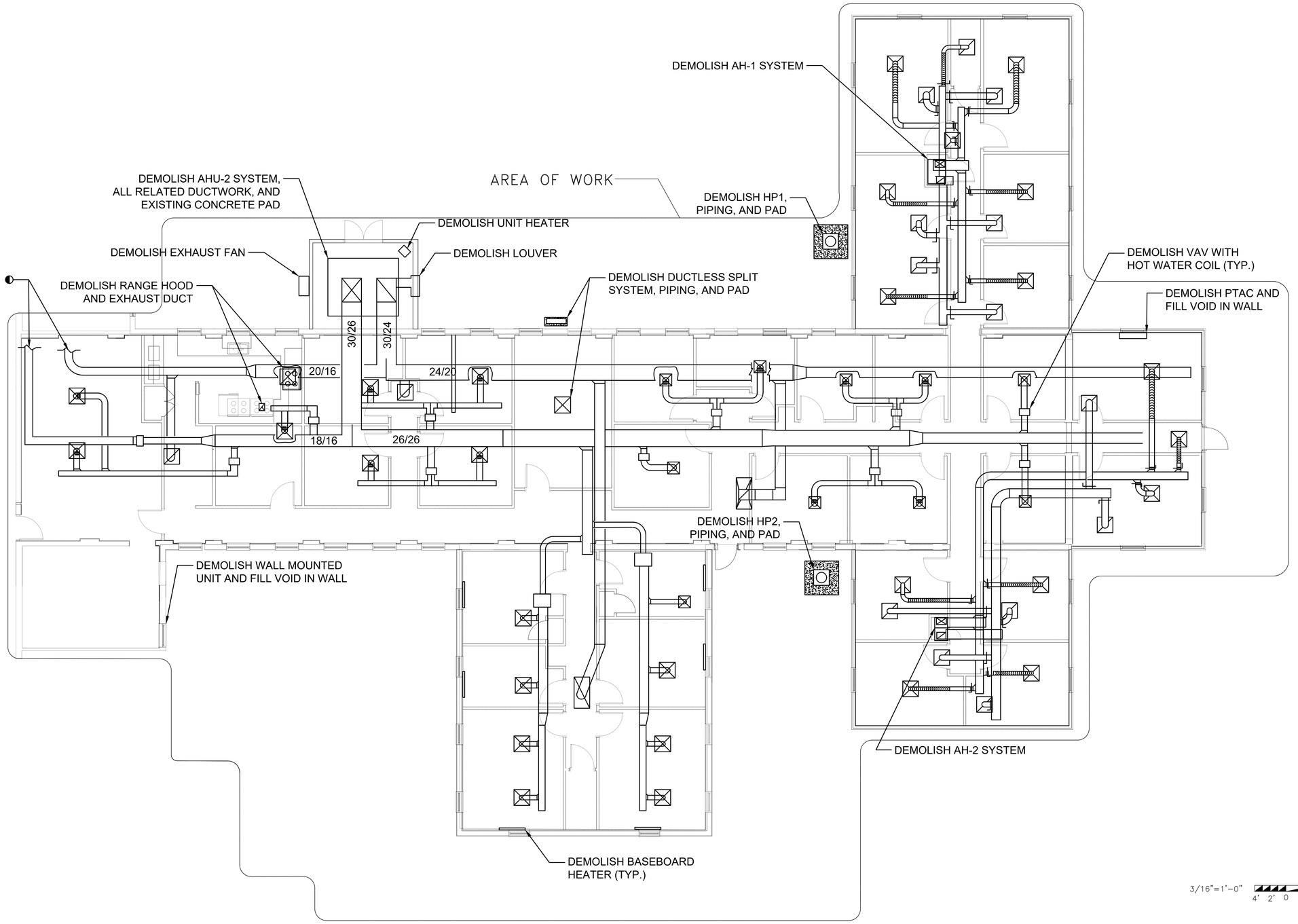
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DESIGN WING RELOCATION
BUILDING 1005

DES. J BELY
DR. C MAAS
CHK. C MAAS
SUBMITTED BY: K ROOT
DESIGN DIR. J F ORR PE
APPROVED: PWO OR OICC DATE NA
SATISFACTORY TO: DATE

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036673
CONST. CONTR. 21-0019
SCALE: NOTED | SPEC. 05-21-0019 | SHEET 26 OF 36

REVISIONS			
SYM		DATE	APPROVED



3/16"=1'-0"

4' 2' 0 4' 8' 12' 16' 20'

1 / M101 MECHANICAL DUCT DEMO PLAN

SCALE: 3/16" = 1'-0"

CONSTRUCTION DOCUMENTS M101

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

MARINE CORPS BASE

CAMP LEJEUNE, NORTH CAROLINA

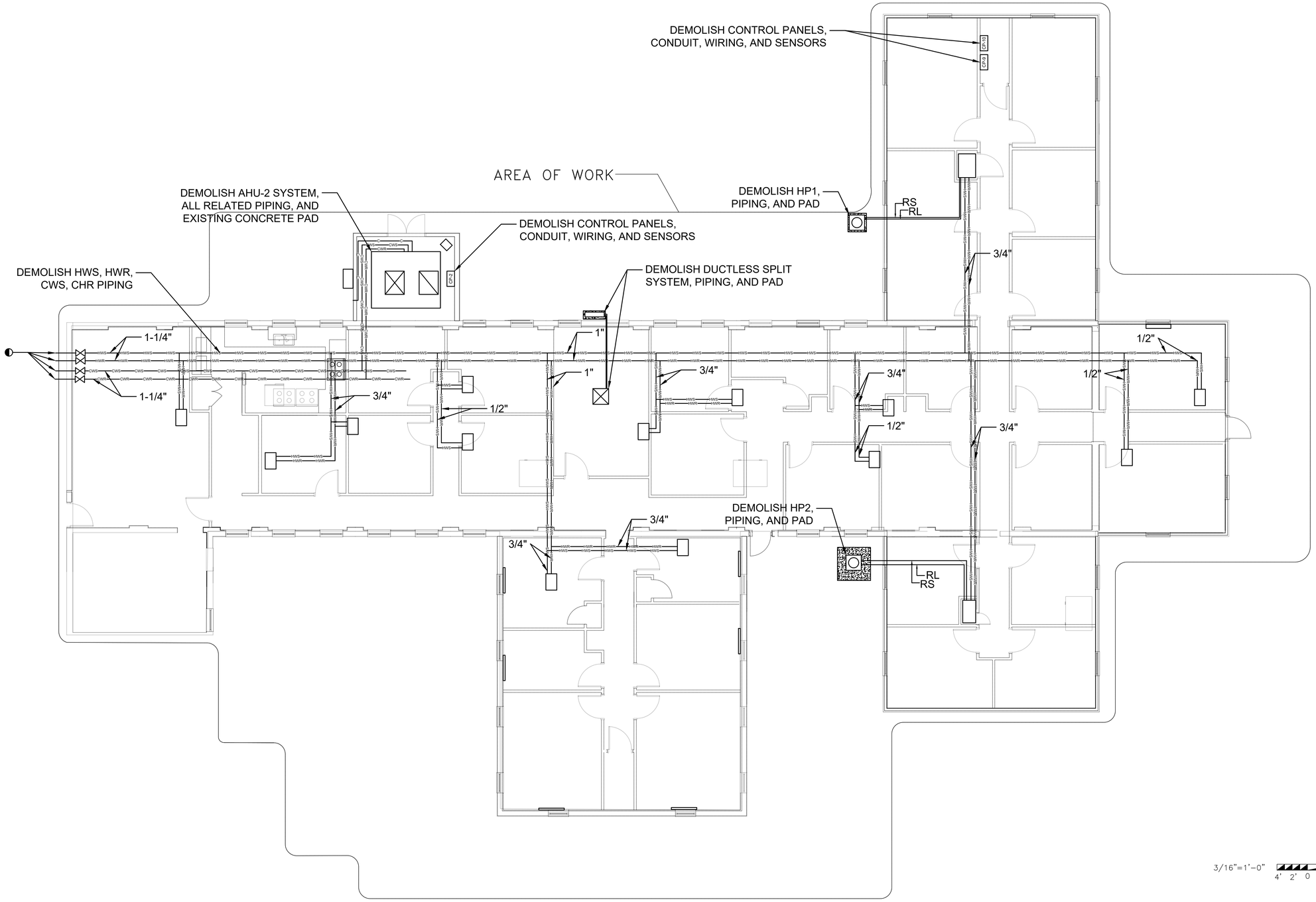
DESIGN WING RELOCATION
BUILDING 1005

MECHANICAL – HVAC DEMO

DES. J BELY	
DR. J BELY	
CHK. C MAAS	
SUBMITTED BY: K ROOT	
DESIGN DIR. J F ORR PE	
APPROVED: PWO OR OICC / DATE	NA
SATISFACTORY TO: / DATE	

SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
E1	80091	60036674
		CONST. CONTR. 21-0019
SCALE: NOTED	SPEC. 05-21-0019	SHEET 27 OF 36

REVISIONS			
SYM		DATE	APPROVED



3/16"=1'-0"

4' 2' 0 4' 8' 12' 16' 20'

1 M102 MECHANICAL PIPING DEMO PLAN

SCALE: 3/16" = 1'-0"

CONSTRUCTION DOCUMENTS M102

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

MARINE CORPS BASE

CAMP LEJEUNE, NORTH CAROLINA

DES. J BELY
DR. J BELY
CHK. C MAAS
SUBMITTED BY: K ROOT
DESIGN DIR. J F ORR PE
APPROVED: PWO OR OICC DATE NA
SATISFACTORY TO: DATE

DESIGN WING RELOCATION
BUILDING 1005

MECHANICAL – HVAC DEMO

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036675

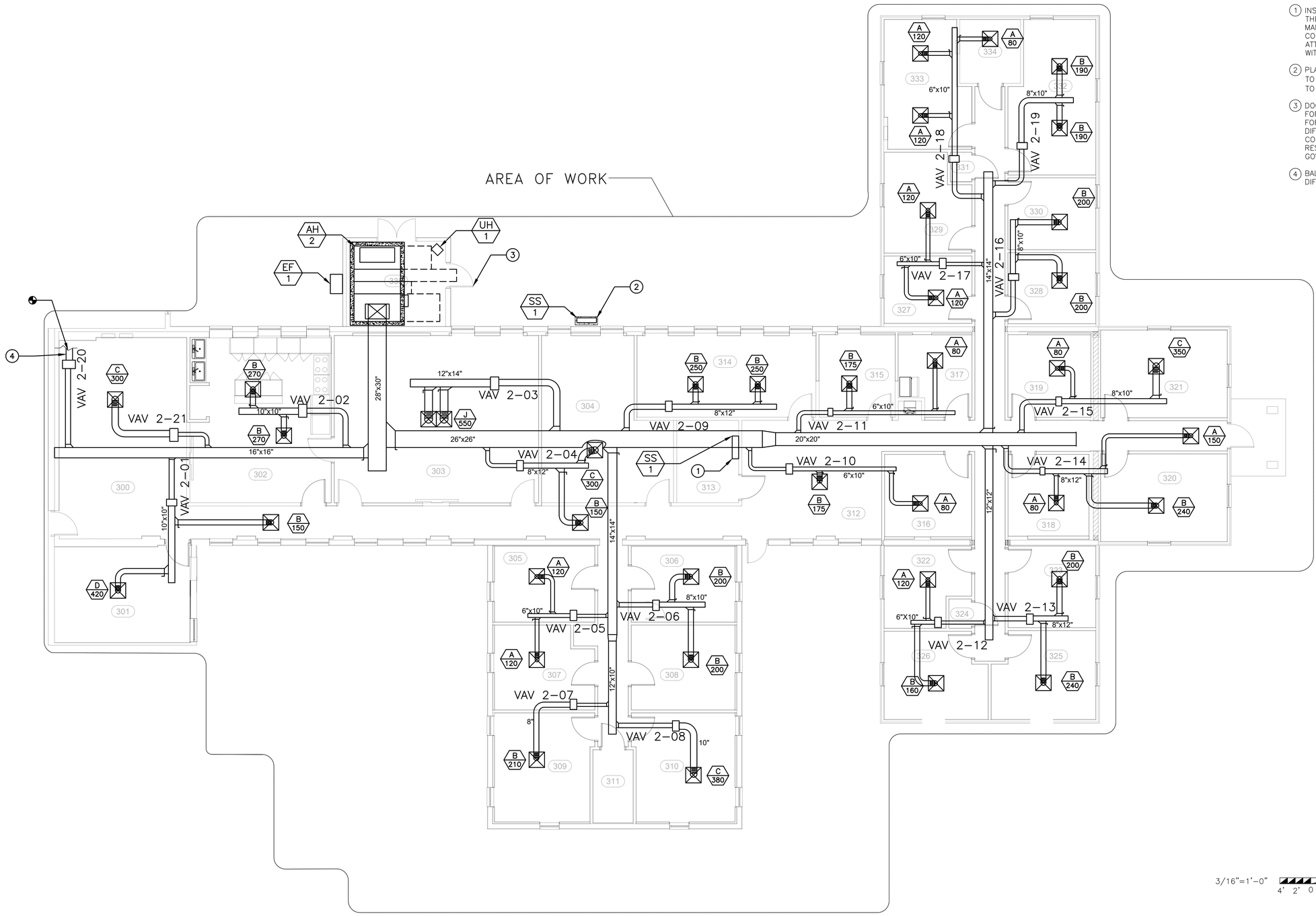
CONST. CONTR. 21-0019

SCALE: NOTED | SPEC. 05-21-0019 | SHEET 28 OF 36

REVISIONS			
SYM		DATE	APPROVED

NEW WORK KEYNOTES:

1. INSTALL SPLIT SYSTEM AS HIGH AS POSSIBLE ON THE SAME WALL AS THE DOOR. MAINTAIN ALL MANUFACTURER REQUIRED CLEARANCES. ROUTE CONDENSATE AND REFRIGERANT PIPES THROUGH ATTIC. DO NOT TRAVERSE THE TELECOM ROOM WITH ANY PIPING.
2. PLACE OUTDOOR UNIT ON CONCRETE PAD. PAD TO EXTEND 6" PAST UNIT ON ALL SIDES. PAD TO BE 6" ABOVE GRADE.
3. DOOR LOCATION MUST BE ADJUSTED TO ALLOW FOR COIL PULL. LOCATION SHOWN ON PLANS IS FOR BASIS OF DESIGN. ANY CHANGES DUE TO DIFFERENCES BETWEEN BASIS OF DESIGN AND CONTRACTOR PROCURED EQUIPMENT MUST BE RESOLVED AT NO ADDITIONAL COST TO THE GOVERNMENT.
4. BALANCE THREE EXISTING DOWNSTREAM DIFFUSERS TO 200 CFM EACH.



3/16"=1'-0"
4' 2' 0 4' 8' 12' 16' 20'

1 / M103 MECHANICAL SUPPLY DUCT PLAN
SCALE: 3/16" = 1'-0"

CONSTRUCTION DOCUMENTS M103

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

DES. J BELY
DR. J BELY
CHK. C MAAS
SUBMITTED BY: K ROOT
DESIGN DIR. J F ORR PE
APPROVED: PWO OR OICC DATE NA
SATISFACTORY TO: DATE

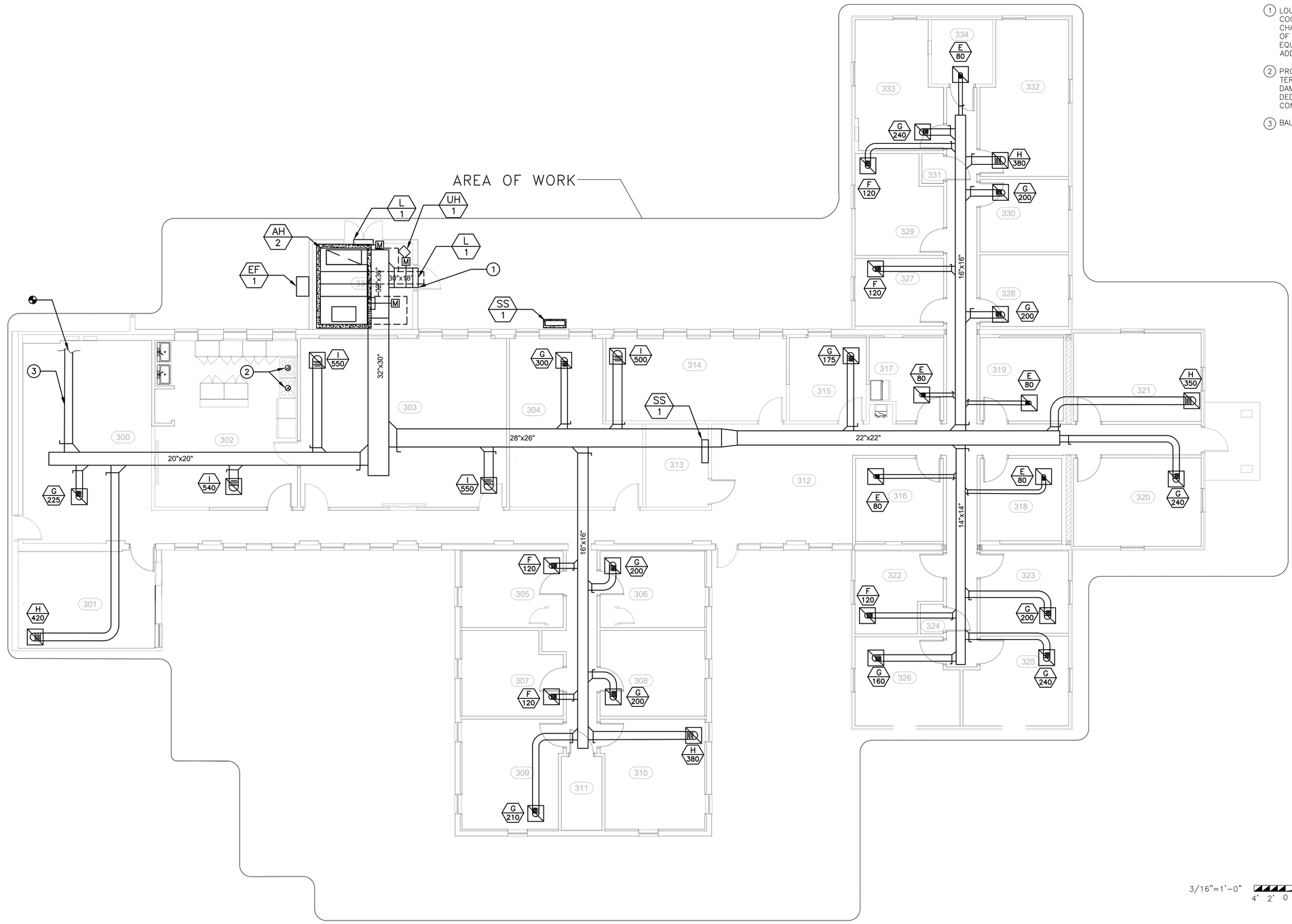
DESIGN WING RELOCATION
BUILDING 1005
MECHANICAL – HVAC SUPPLY DUCTWORK

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036676
CONST. CONTR. 21-0019
SCALE: NOTED | SPEC. 05-21-0019 | SHEET 29 OF 36

REVISIONS			
SYM		DATE	APPROVED

NEW WORK KEYNOTES:

1. LOUVER TO BE INSTALLED ABOVE DOOR. COORDINATE LOUVER LOCATION WITH DOOR. ANY CHANGES DUE TO DIFFERENCES BETWEEN BASIS OF DESIGN AND CONTRACTOR PROCURED EQUIPMENT MUST BE RESOLVED AT NO ADDITIONAL COST TO THE GOVERNMENT.
2. PROVIDE 8" ROUND EXHAUST DUCT TO ROOF. TERMINATE WITH ROOF CAP WITH BACKDRAFT DAMPER. EACH MICROWAVE SHALL HAVE ITS OWN DEDICATED EXHAUST DUCT AND ROOF CAP. COMBINING EXHAUST DUCTS IS NOT PERMITTED.
3. BALANCE EXISTING RETURN GRILLE TO 600 CFM.



3/16"=1'-0"

4' 2' 0 4' 8' 12' 16' 20'

1 / M104 MECHANICAL RETURN/EXHAUST DUCT PLAN
SCALE: 3/16" = 1'-0"

CONSTRUCTION DOCUMENTS M104

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

DES. J BELY
DR. J BELY
CHK. C MAAS
SUBMITTED BY: K ROOT
DESIGN DIR. J F ORR PE
APPROVED: PWO OR OICC DATE NA
SATISFACTORY TO: DATE

DESIGN WING RELOCATION
BUILDING 1005

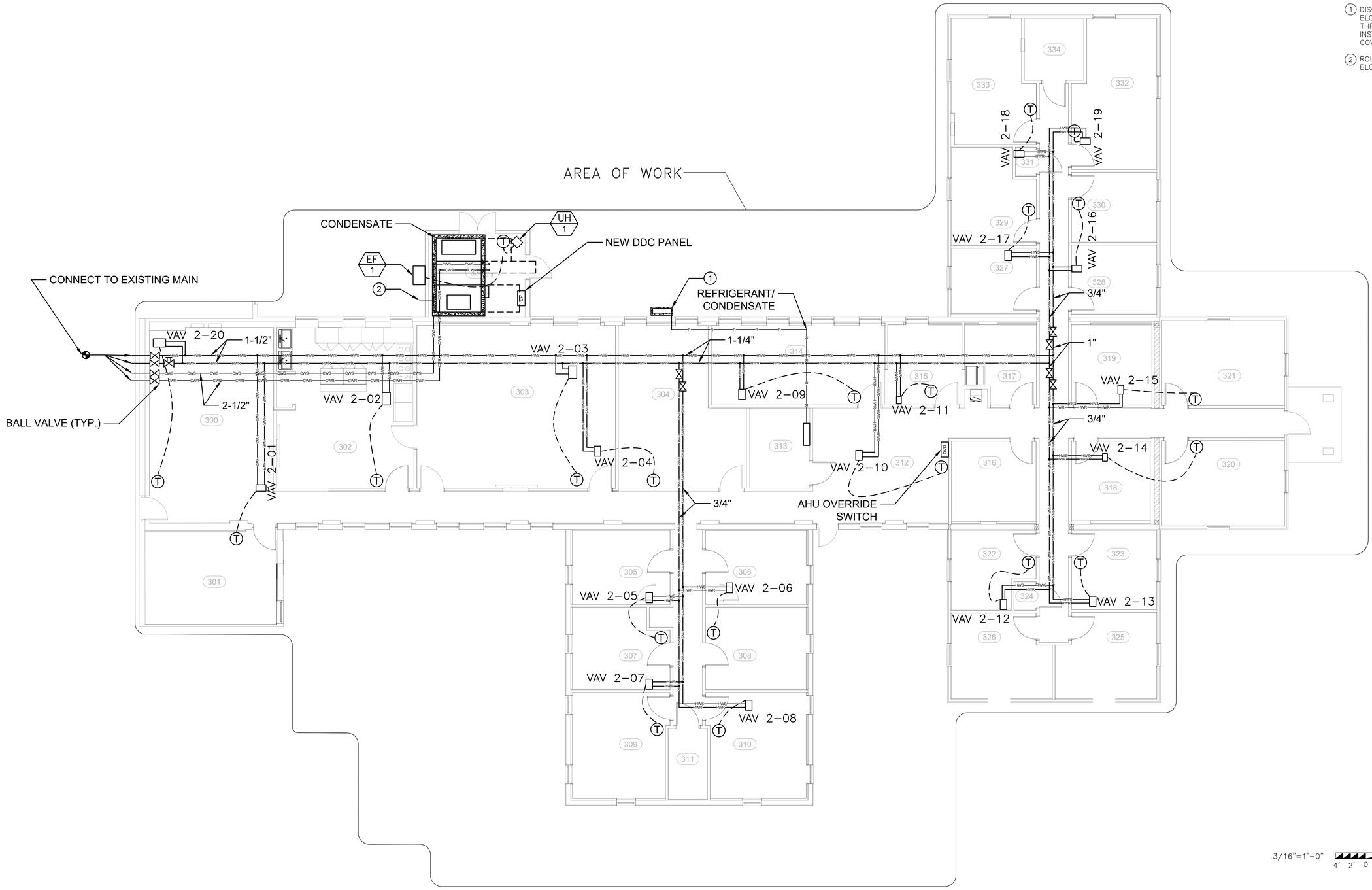
MECHANICAL – HVAC RETURN DUCTWORK

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036677
CONST. CONTR. 21-0019
SCALE: NOTED | SPEC. 05-21-0019 | SHEET 30 OF 36

REVISIONS			
SYM		DATE	APPROVED

NEW WORK KEYNOTES:

1. DISCHARGE CONDENSATE TO CONCRETE SPLASH BLOCK ON GRADE. ROUTE REFRIGERANT LINES THROUGH ATTIC AND DOWN EXTERIOR WALL. INSTALL PRE-MANUFACTURED REFRIGERANT LINE COVER OVER EXPOSED LINES.
2. ROUTE CONDENSATE TO CONCRETE SPLASH BLOCK ON GRADE.



3/16"=1'-0"

4' 2' 0 4' 8' 12' 16' 20'

1 / M105 MECHANICAL PIPING PLAN

SCALE: 3/16" = 1'-0"

CONSTRUCTION DOCUMENTS M105

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

MARINE CORPS BASE

CAMP LEJEUNE, NORTH CAROLINA

DESIGN WING RELOCATION BUILDING 1005

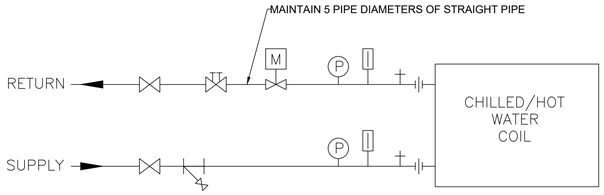
MECHANICAL – HVAC PIPING

DES.	J BELY
DR.	J BELY
CHK.	C MAAS
SUBMITTED BY:	K ROOT
DESIGN DIR.	J F ORR PE
APPROVED: PWO OR OICC	DATE NA
SATISFACTORY TO:	DATE

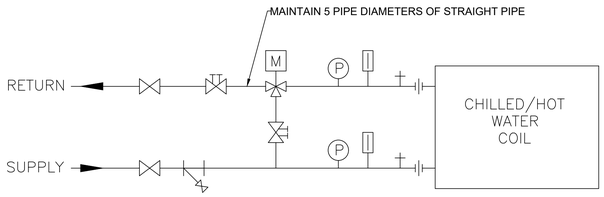
SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
E1	80091	60036678
		CONST. CONTR. 21-0019

SCALE: NOTED | SPEC. 05-21-0019 | SHEET 31 OF 36

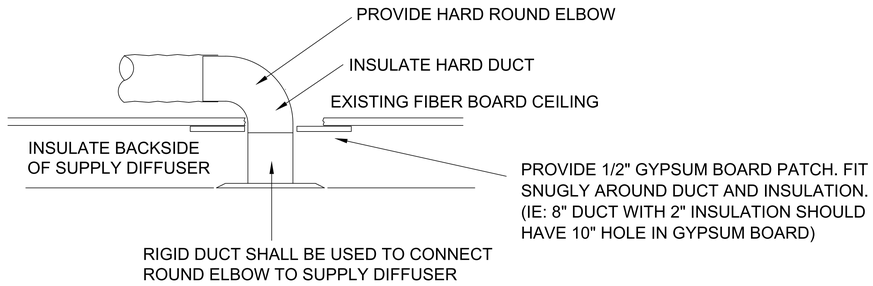
REVISIONS			
SYM		DATE	APPROVED



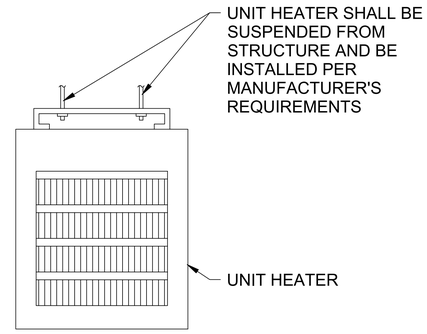
1 M501 2-WAY CHILLED/HOT WATER COIL
SCALE: N.T.S.



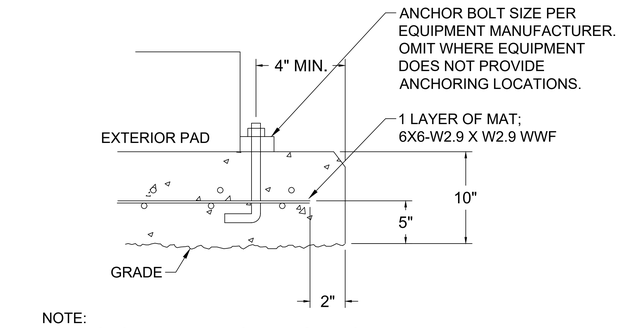
2 M501 3-WAY CHILLED/HOT WATER COIL
SCALE: N.T.S.



3 M501 TYPICAL DUCT TAKE OFF DETAIL
SCALE: N.T.S.



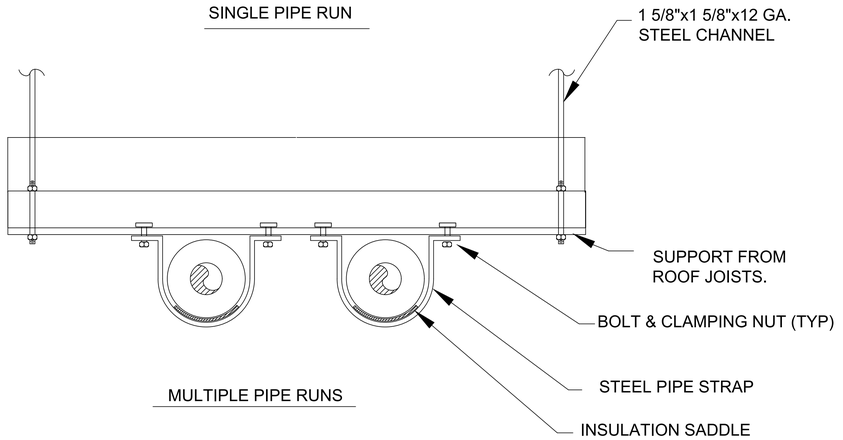
4 M501 UNIT HEATER DETAIL
SCALE: N.T.S.



NOTE:
1. MESH SHALL BE FURNISHED IN SHEETS.
2. ALL PAD EDGES SHALL BE CHAMFERED.
3. CONCRETE COMPRESSIVE STRENGTH SHALL BE 4,000 PSI AT 28 DAYS
4. ONLY ANCHOR EQUIPMENT WITH MANUFACTURER SUPPLIED ANCHOR MOUNTS
5. EXTERIOR CONCRETE PAD MUST BE MINUMUM 6" ABOVE ADJACENT GRADE.

5 M501 CONCRETE PAD DETAIL
SCALE: N.T.S.

SINGLE PIPE RUN



MULTIPLE PIPE RUNS

6 M501 TYPICAL PIPE SUPPORT DETAIL
SCALE: N.T.S.

7 M501 DUCTLESS SPLIT SYSTEM DETAIL
SCALE: N.T.S.

CONSTRUCTION DOCUMENTS M501

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

DESIGN WING RELOCATION
BUILDING 1005

MECHANICAL – HVAC DETAILS

DES. J BELY	
DR. J BELY	
CHK. C MAAS	
SUBMITTED BY: K ROOT	
DESIGN DIR. J F ORR PE	
APPROVED: PWO OR OICC / DATE	NA
SATISFACTORY TO: / DATE	

SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
E1	80091	60036679
		CONST. CONTR. 21-0019
SCALE: NOTED	SPEC. 05-21-0019	SHEET 32 OF 36

REVISIONS			
SYM		DATE	APPROVED

DUCT CONSTRUCTION AND LEAKAGE TESTING TABLE

SYSTEM	DUCT PRESSURE CLASS				SUPPLY/EXHAUST				RETURN/OUTSIDE AIR				DUCT TEST PRESSURE: INCHES OF WATER COLUMN	NOTES
	INCHES OF WATER COLUMN				ROUND/OVAL		RECTANGULAR		ROUND/OVAL		RECTANGULAR			
	SUPPLY DUCT	RETURN DUCT	EXHAUST DUCT	OUTSIDE AIR DUCT	DUCT SEAL CLASS	DUCT LEAK CLASS	DUCT SEAL CLASS	DUCT LEAK CLASS	DUCT SEAL CLASS	DUCT LEAK CLASS	DUCT SEAL CLASS	DUCT LEAK CLASS		
AIR HANDLING UNIT – VARIABLE VOLUME	4	–2	–	–1	A	3	A	6	A	3	A	6	1.0	1
VAV TERMINAL BOXES	1	–	–	–	A	3	A	6	–	–	–	–	1.0	1
EXHAUST DUCT	–	–	–1	–	A	3	A	6	–	–	–	–	1.0	1

NOTES:
1. TEST IN ACCORDANCE WITH SPECIFICATION 23 05 93 TESTING, ADJUSTING, AND BALANCING FOR HVAC AND THE PROCEDURES IN SMACNA HVAC AIR DUCT LEAKAGE TEST MANUAL

AIR HANDLING UNIT SCHEDULE

MARK	LOCATION	SUPPLY AIR		OUTSIDE AIR (CFM)	FAN DATA			COOLING COIL									NOTES
		MAX (CFM)	MIN (CFM)		ESP (IN WG)	FAN HP	ELECTRICAL (VOLTS/PH/HZ)	TOTAL (MBH)	SENSIBLE (MBH)	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	LAT WB (°F)	EWT (°F)	LWT (°F)	FLOW (GPM)	
AHU–2	MECH ROOM	8760	4375	700	2.0	10	208/3/60	251.8	200.7	76.2	64.1	55	54.46	45.0	55.0	50.4	1–11

NOTES:
1. DESIGN CONDITIONS: SUMMER 90°F/79°F – WINTER 20°F DB – ROOM 75°F/50% DB/RH
2. PROVIDE MERV 13 PLEATED MEDIA FILTERS, FOUR SETS OF EACH TYPE. PROVIDE ONE SET IN UNIT. PROVIDE ONE SET FOR INSTALLATION AFTER SYSTEM IS BALANCED AND BUILDING IS CLEANED. PROVIDE TWO SETS FOR TURN OVER TO OWNER.
3. PROVIDE WITH FAN MOTOR VARIABLE FREQUENCY DRIVE.
4. PROVIDE FLEXIBLE DUCT CONNECTORS FOR ALL AIR DUCTS.
5. PROVIDE HINGED FILTER ACCESS DOORS.
6. PROVIDE WITH FILTER SECTION SIZED FOR MAXIMUM FACE VELOCITY OF 350 FPM.
7. PROVIDE COOLING COIL WITH 3–WAY VALVE.
8. COOLING COIL SECTION SHALL BE PROVIDED WITH AN INSULATED, DOUBLE WALL, 201 STAINLESS STEEL DRAIN PAN WITH POSITIVE DRAINAGE MEETING INDOOR AIR QUALITY (IAQ) IN ACCORDANCE WITH ASHRAE 62.1.
9. PROVIDE COPPER COIL WITH ALUMINUM FINS AND STAINLESS STEEL COIL CASING.
10. UNIT PANELS SHALL BE MINIMUM 2" DOUBLE WALL FOAM R–13 CONSTRUCTION WITH ASHRAE 111 CLASS 6 CASING LEAKAGE.
11. AHU PANELS SHALL BE GALVANIZED STEEL WITH NO THROUGH METAL INTERNAL THERMAL BREAK.

SPLIT SYSTEM SCHEDULE

MARK	LOCATION	INDOOR FAN SECTION						DESCRIPTION	OUTDOOR SECTION							COOLING CAPACITY					REFRIGERANT TYPE	MINIMUM SEER	NOTES
		CFM	ESP (IN WC)	DRIVE	MCA	OPER WEIGHT (LBS)	SYMBOL		MCA	MOCP	V	ø	Hz	OPER WEIGHT (LBS)	SYMBOL	TOTAL (MBH)	SENSIBLE (MBH)	EAT DB (°F)	EAT WB (°F)	AMB (°F)			
SS–1	TELECOM	455	N/A	DIRECT	1	75	SS 1	OUTDOOR CONDENSING UNIT	11	28	208	1	60	150	CU 1	18.0	13.1	78	63	95	R–410A	13	1,2,3,4,5,6

NOTES:
1. PROVIDE FACTORY WIRED INTEGRAL WALL MOUNTED THERMOSTAT.
2. PROVIDE SEPARATE ROOM THERMOSTAT FOR DDC TEMPERATURE MONITORING.
3. OUTDOOR CONDENSING UNITS AND COILS SHALL BE COATED TO WITHSTAND 3,000 HOUR SALT SPRAY REQUIREMENTS. CAPACITIES AS LISTED IN SCHEDULE ARE TO BE MET WITH THE REQUIRED COIL COATING APPLIED AND NOT DERATED.
4. DO NOT EXCEED MANUFACTURERS LISTED MAXIMUM PIPING LENGTH REQUIREMENTS. COORDINATE ACTUAL LENGTHS REQUIRED WITH FIELD CONDITIONS.
5. PROVIDE INTEGRAL FACTORY MOUNTED CONDENSATE PUMP.
6. INDOOR UNIT POWERED BY OUTDOOR UNIT.

LOUVER SCHEDULE

MARK	TYPE	FRAME	DESCRIPTION	MATERIAL	DEPTH (IN.)	SIZE (W X H) (IN.)	SERVICE	AIRFLOW (CFM)	MINIMUM FREE AREA (FT^2)	S.P.LOSS (IN. H2O)	NOTES
L–1	FIXED	CHANNEL	HORIZONTAL, WIND DRIVEN RAIN RESISTANT	ALUMINUM	6	30 X 18	INTAKE	700	1.75	0.05	1–4

NOTES:
1. REFER TO SPECIFICATION 08 91 00 FOR ADDITIONAL INFORMATION.
2. COLOR AND FINISH TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLOR AND GLOSS.
3. PROVIDE WITH BIRD SCREEN OF THE SAME MATERIAL AS LOUVER.
4. LOUVER MUST BE LISTED PER AMCA 540 AND AMCA 550.

OVER RANGE MICROWAVE OVEN

MARK	TOTAL CAPACITY	EXHAUST	CABINET WIDTH	WATTS	FINISH	NOTE
MW–1	2.2 CU FT	400 CFM	30"	1000	STAINLESS STEEL	1

NOTES:
1. PROVIDE PRE–ENGINEERED WET CHEMICAL RESIDENTIAL FIRE HOOD SUPPRESSION SYSTEM WITH ELECTRIC SHUTOFF.

CONSTRUCTION DOCUMENTS M601

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

DES. J BELY
DR. J BELY
CHK. C MAAS
SUBMITTED BY: K ROOT
DESIGN DIR. J F ORR PE
APPROVED: PWO OR OICC DATE
NA
SATISFACTORY TO: DATE

DESIGN WING RELOCATION
BUILDING 1005

MECHANICAL – HVAC SCHEDULES

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036680
CONST. CONTR. 21–0019
SCALE: NOTED | SPEC. 05–21–0019 | SHEET 33 OF 36

REVISIONS			
SYM		DATE	APPROVED

VAV WITH REHEAT COIL SCHEDULE

MARK	MAX CFM	MIN CFM	INLET DIA.	MBH	EWT °F	HW SIZE	GPM	CV	CV SIZE	VALVE TYPE	NOTES
2–01	570	285	8"ø	12.6	140	1/2"	1.3	.65–.92	1/2"	2–WAY	1–2
2–02	540	270	8"ø	11.9	140	1/2"	1.2	.6–.85	1/2"	2–WAY	1–2
2–03	1100	550	10"ø	24.2	140	3/4"	2.4	1.2–1.7	1/2"	2–WAY	1–2
2–04	450	225	7"ø	9.9	140	1/2"	1.0	.5–.7	1/2"	2–WAY	1–2
2–05	240	120	5"ø	5.3	140	1/2"	.5	.26–.37	1/2"	2–WAY	1–2
2–06	400	200	7"ø	8.8	140	1/2"	.9	.44–.62	1/2"	2–WAY	1–2
2–07	210	105	5"ø	4.6	140	1/2"	.5	.23–.33	1/2"	2–WAY	1–2
2–08	380	190	6"ø	8.4	140	1/2"	.8	.42–.6	1/2"	3–WAY	1–2
2–09	500	250	7"ø	11	140	1/2"	1.1	.55–.78	1/2"	2–WAY	1–2
2–10	255	125	5"ø	5.5	140	1/2"	.6	.28–.39	1/2"	2–WAY	1–2
2–11	255	125	5"ø	5.5	140	1/2"	.6	.28–.39	1/2"	2–WAY	1–2
2–12	280	140	5"ø	6.2	140	1/2"	.6	.31–.44	1/2"	2–WAY	1–2
2–13	440	220	7"ø	9.7	140	1/2"	1.0	.49–.69	1/2"	3–WAY	1–2
2–14	470	235	7"ø	10.4	140	1/2"	1.0	.52–.73	1/2"	2–WAY	1–2
2–15	430	215	7"ø	9.5	140	1/2"	1.0	.48–.67	1/2"	2–WAY	1–2
2–16	400	200	7"ø	8.8	140	1/2"	.9	.44–.62	1/2"	2–WAY	1–2
2–17	240	120	5"ø	5.3	140	1/2"	.5	.26–.37	1/2"	2–WAY	1–2
2–18	320	160	6"ø	7.0	140	1/2"	.7	.35–.50	1/2"	2–WAY	1–2
2–19	380	190	6"ø	8.4	140	1/2"	.8	.42–.60	1/2"	3–WAY	1–2
2–20	600	300	8"ø	13.2	140	1/2"	1.3	.66–.93	1/2"	2–WAY	1–2
2–21	300	150	6"ø	6.6	140	1/2"	.7	.36–.51	1/2"	2–WAY	1–2

NOTES:
1. PROVIDE 120 VAC TO 24 VAC TRANSFORMER TO POWER UNITS ALONG WITH WIRING FROM TRANSFORMER TO UNITS.
2. COIL CONNECTION AND CONTROL ENCLOSURE SHALL BE ON SAME SIDE OF THE UNIT.
3. FLEXIBLE COIL CONNECTIONS ARE NOT PERMITTED. VAV MUST BE HARD PIPED TO HOT WATER SUPPLY AND RETURN PIPING.

AIR DISTRIBUTION SCHEDULE

MARK	SERVICE	NECK	TYPE	MATERIAL	MOUNTING	NOTES
A	SUPPLY	6"ø	4–WAY LOUVERED FACE	ALUMINUM	24x24 LAY–IN	1,2
B	SUPPLY	8"ø	4–WAY LOUVERED FACE	ALUMINUM	24x24 LAY–IN	1,2
C	SUPPLY	10"ø	4–WAY LOUVERED FACE	ALUMINUM	24x24 LAY–IN	1,2
D	SUPPLY	12"ø	4–WAY LOUVERED FACE	ALUMINUM	24x24 LAY–IN	1,2
E	RETURN	6"ø	PERFORATED FACE	ALUMINUM	24x24 LAY–IN	1,2
F	RETURN	8"ø	PERFORATED FACE	ALUMINUM	24x24 LAY–IN	1,2
G	RETURN	10"ø	PERFORATED FACE	ALUMINUM	24x24 LAY–IN	1,2
H	RETURN	12"ø	PERFORATED FACE	ALUMINUM	24x24 LAY–IN	1,2
I	RETURN	14"ø	PERFORATED FACE	ALUMINUM	24x24 LAY–IN	1,2
J	SUPPLY	12"ø	3–WAY LOUVERED FACE	ALUMINUM	24x24 LAY–IN	1,2

NOTES:
1. PROVIDE WITH WHITE FINISH.
2. DO NOT PROVIDE DAMPERS IN NECKS OF DIFFUSERS. PROVIDE BALANCE DAMPERS AT DUCT TAKEOFFS.
3. RUNOUTS TO MATCH NECK SIZE.

ELECTRIC UNIT HEATER SCHEDULE

MARK	TYPE	FAN	DISCHARGE	CAPACITY (KW)	AIRFLOW (CFM)	ELECTRICAL SERVICE	WEIGHT (LBS.)	CONTROL	NOTES
UH–1	ELECTRIC	PROPELLER	HORIZONTAL	5	380	208V/3P/60HZ	40	THERMOSTAT W/ OVERRIDE	1

NOTES:
1. PROVIDE WITH ADJUSTABLE HORIZONTAL AIRFLOW DEFLECTORS.

EXHAUST FAN SCHEDULE

MARK	TYPE	SERVICE	DRIVE TYPE	AIRFLOW (CFM)	ESP (IN. H20)	MOTOR SIZE (HP)	ELECTRICAL SERVICE	FLA	CONTROL	MAX. SONES	NOTES
EF–1	CENTRIFUGAL SIDEWALL	EXHAUST	DRIVE	600	0.2	1/4	115V/1P/60HZ	3.8	THERMOSTAT W/ OVERRIDE	4	1–2

NOTES:
1. PROVIDE WITH BIRDSCREEN.
2. PROVIDE WITH GRAVITY CONTROLLED BACKDRAFT DAMPER.

CONSTRUCTION DOCUMENTS M602

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

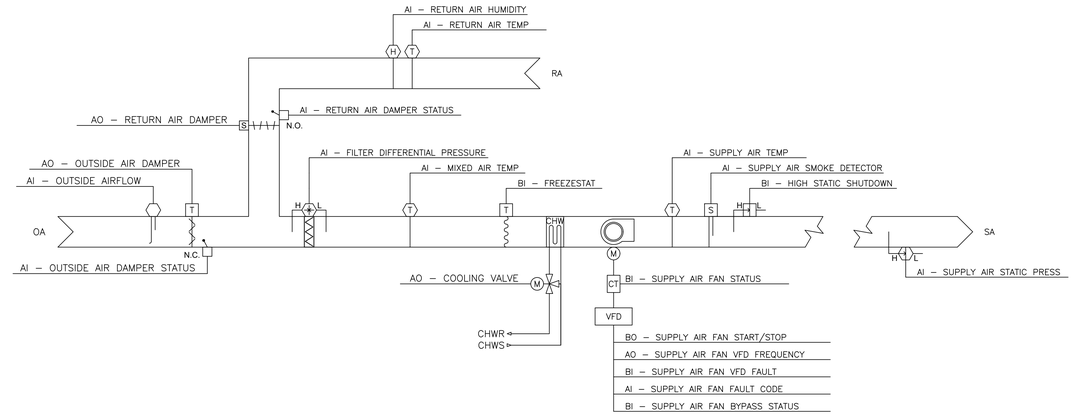
DES. J BELY
DR. J BELY
CHK. C MAAS
SUBMITTED BY: K ROOT
DESIGN DIR. J F ORR PE
APPROVED: PWO OR OICC DATE NA
SATISFACTORY TO: DATE

DESIGN WING RELOCATION
BUILDING 1005

MECHANICAL – HVAC SCHEDULES

SIZE E1 | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60036681
CONST. CONTR. 21–0019
SCALE: NOTED | SPEC. 05–21–0019 | SHEET 34 OF 36

REVISIONS			
SYM		DATE	APPROVED



1 / M801 AIR HANDLING UNIT CONTROL DIAGRAM

SCALE: N.T.S.

AIR HANDLING UNIT POINTS LIST

	HARDWARE POINTS				SOFTWARE POINTS						SHOW ON GRAPHIC
POINT NAME	AI	AO	BI	BO	AV	BV	LOOP	SCHED	TREND	ALARM	
SUPPLY AIR FAN STATUS			X						X		X
SUPPLY AIR FAN START/STOP				X					X		X
SUPPLY AIR FAN VFD FREQUENCY		X							X		X
SUPPLY AIR FAN VFD FREQUENCY SETPOINT					X				X		X
SUPPLY AIR FAN VFD FAULT			X						X	X	X
SUPPLY AIR FAN FAULT CODE	X								X		X
SUPPLY AIR FAN BYPASS STATUS			X						X		X
SUPPLY AIR SMOKE DETECTOR			X						X		X
SUPPLY AIR TEMPERATURE	X								X		X
SUPPLY AIR TEMPERATURE SETPOINT					X				X		X
HIGH STATIC SHUTDOWN			X						X	X	X
SUPPLY AIR STATIC PRESSURE	X								X		X
SUPPLY AIR STATIC PRESSURE SETPOINT					X				X		X
COOLING VALVE	X								X		X
FREEZESTAT			X						X	X	X
MIXED AIR TEMPERATURE	X								X		X
FILTER DIFFERENTIAL PRESSURE	X								X		X
OUTSIDE AIR DAMPER		X							X		X
OUTSIDE AIR DAMPER POSITION	X								X		X
OUTSIDE AIRFLOW	X								X		X
OUTSIDE AIRFLOW SETPOINT					X				X		X
RETURN AIR DAMPER		X							X		X
RETURN AIR DAMPER POSITION	X								X		X
RETURN AIR HUMIDITY	X								X		X
RETURN AIR TEMPERATURE	X								X		X
HIGH MIXED AIR TEMPERATURE										X	X
HIGH RETURN AIR HUMIDITY										X	X
HIGH RETURN AIR TEMPERATURE										X	X
HIGH SUPPLY AIR STATIC PRESSURE										X	X
HIGH SUPPLY AIR TEMPERATURE										X	X
LOW MIXED AIR TEMPERATURE										X	X
LOW RETURN AIR TEMPERATURE										X	X
LOW SUPPLY AIR STATIC PRESSURE										X	X
RETURN AIR DAMPER FAILURE										X	X
OUTSIDE AIR DAMPER FAILURE										X	X
SUPPLY FAN FAILURE										X	X
SUPPLY FAN IN HAND										X	X

VAV AHU SEQUENCE OF OPERATIONS

A. GENERAL

1. PROGRAMS AND SEQUENCES INDICATED AND IMPLIED HEREIN SHALL BE PROVIDED.
2. PROVIDE ALL I/O POINTS INDICATED ON THE CONTROL DIAGRAM AND AS REQUIRED TO ACCOMPLISH THE SEQUENCE OF OPERATION.
3. DAMPERS AND END SWITCHES SHALL BE INTERLOCKED SUCH THAT EQUIPMENT WILL OPERATE PER THE SEQUENCE BELOW IN EITHER AUTO, HAND, OR OFF ON THE VFD/MCC.
4. THE VFD/MCC HOA SWITCH SHALL BE KEPT IN THE AUTO POSITION. HAND AND OFF POSITION SHALL BE UTILIZED FOR MAINTENANCE PURPOSES ONLY.
5. ALL POINTS SHALL BE ABLE TO INTEGRATE TO ALL TRENDS TOTALIZATIONS, GRAPHICS PAGES ETC., AS APPLICABLE.
6. ALL SETTINGS AND SETPOINTS SHALL BE USER ADJUSTABLE WITHOUT REQUIRING A MODIFICATION TO THE PROGRAMMING LOGIC CODE.
7. ALL ALARMS AS INDICATED ON THE DIAGRAMS IN THE SEQUENCE OF OPERATION SHALL BE GENERATED TO THE APPROPRIATE SERVER/WORKSTATIONS.

B. START/STOP/SCHEDULING

1. THE AHU OPERATES CONTINUOUSLY WITH REMOTE CAPABILITY FOR START/STOP/SCHEDULING FUNCTIONS.
   a. PROVIDE INDIVIDUAL, USER DEFINABLE SCHEDULES FOR OCCUPIED AND UNOCCUPIED TIME PERIODS.
   b. OCCUPANCY HOURS WILL BE 0530–1800.
2. WHEN AHU IS STARTED (MANUALLY OR AUTOMATICALLY DURING WARM–UP, COOL DOWN, OCCUPIED, AND NIGHT SETBACK/SETUP MODES).
   a. FANS SHALL BE ENERGIZED AND THE RETURN AIR DAMPER (RAD) SHALL INITIALLY OPEN TO 100%.
   b. THE OUTSIDE AIR DAMPER (OAD) SHALL REMAIN CLOSED DURING THE NIGHT SETBACK/SETUP SEQUENCE. UPON COMPLETION, THE OAD SHALL OPEN TO MINIMUM POSITION AND THEN SEQUENTIALLY MODULATE THE RAD TO MAINTAIN OA SET POINT PER THE RESPECTIVE CONTROL SEQUENCE.
   c. THE VFD SHALL MODULATE TO MAINTAIN DISCHARGE STATIC PRESSURE PER THE AIRFLOW CONTROL SEQUENCE.
   d. COIL CONTROL VALVES SHALL MODULATE PER THE TEMPERATURE CONTROL SEQUENCE.
3. IF AFTER 60 SECOND DELAY (ADJ.), THE SUPPLY FAN DOES NOT PROVIDE STATUS OF ON, THE VFD SHALL INDICATE A FAULT CONDITION, THE FAN WILL BE SHUT DOWN, THE OAD CLOSED, THE RAD OPEN, AND AN ALARM WILL BE GENERATED. THE SYSTEM WILL RESTART AUTOMATICALLY WHEN FAULT CONDITIONS HAVE CLEARED.
4. WHEN AHU IS STOPPED (EITHER MANUALLY, AUTOMATICALLY DURING UNOCCUPIED MODE, OR FROM SAFETY FUNCTION):
   a. THE SUPPLY FAN SHALL BE DE–ENERGIZED, OAD CLOSED, AND RAD OPENED.
   b. THE COIL CONTROL VALVES SHALL CLOSE COMPLETELY, UNLESS REQUIRED FOR FREEZE PROTECTION SEQUENCES.

C. AIRFLOW CONTROL

1. WHEN FAN STATUS INDICATES THE SUPPLY FAN HAS STARTED, THE SUPPLY FAN SHALL MODULATE TO MAINTAIN DISCHARGE STATIC PRESSURE SETPOINT USING PID CONTROL LOOP.
   a. THE BAS SPEED SIGNAL SHALL BE A HARDWIRE CONNECTION TO THE VFD. THE STATIC PRESSURE SHALL BE MEASURED 2/3 DISTANCE DOWN THE MAIN SUPPLY DUCT. THE SENSOR SHALL BE CONNECTED DIRECTLY TO THE RESPECTIVE AHU CONTROLLER.
   b. FAN SPEED SHALL INITIALLY START AT 20% (ADJ.) AND RAMP TO MAINTAIN THE INITIAL DUCT STATIC PRESSURE OF 1.0" W.C. (ADJ).
   c. GENERATE AN ALARM AT THE BAS IF THE DISCHARGE STATIC PRESSURE EXCEEDS +/– 0.3" W.C. (ADJ.) FROM SETPOINT FOR THAN 30 MINUTES (ADJ.).
2. THE OUTSIDE AIR DAMPERS SHALL MODULATE SEQUENTIALLY WITH THE RETURN DAMPER MODULATING IN OPPOSITE ACTION TO MAINTAIN THE MINIMUM OUTSIDE AIR FLOW SETPOINT INDICATED ON AHU SCHEDULES (ADJ.) AS MEASURED BY THE OUTSIDE AIRFLOW MONITORING STATION (AFMS).

D. TEMPERATURE CONTROL

1. THE DISCHARGE TEMPERATURE SENSOR SHALL CONTROL THE COOLING VALVE TO MAINTAIN DISCHARGE AIR TEMPERATURE SETPOINT
   a. ON A RISE IN DISCHARGE AIR TEMPERATURE ABOVE SETPOINT, 54° F (ADJ.), THE COOLING COIL CONTROL VALVE WILL BE MODULATED OPEN. ON A FALL IN DISCHARGE AIR TEMPERATURE, THE REVERSE SEQUENCE SHALL OCCUR.
   b. SHOULD MIXED AIR TEMPERATURE FALL BELOW 48°F (ADJ.) FOR 5 MINUTES, A LOW LIMIT SEQUENCE SHALL BE ENABLED.
      1) IN THE OCCUPIED MODE, MODULATE THE OUTSIDE AIR AND RETURN AIR DAMPERS TO MAINTAIN MIXED AIR TEMPERATURE AT DISCHARGE AIR SETPOINT 48°F (ADJ.).
      2) IN THE UNOCCUPIED MODE, OPEN THE COOLING COIL CONTROL VALVE TO 100% AND START THE COOLING COIL CIRCULATING PUMP WITH THE CHILLER OFF.
      3) ON A RISE IN MIXED AIR TEMPERATURE ABOVE DISCHARGE AIR SETPOINT, THE LOW LIMIT SEQUENCE SHALL BE DISABLED.
   c. DURING COLD WEATHER STARTUP OF THE AIR HANDLING UNIT THE MIXED AIR LOW LIMIT SEQUENCE SHALL ALSO PREVENT NUISANCE TRIPPING OF THE LOW LIMIT TEMPERATURE THERMOSTATS.
2. GENERATE AN ALARM AT THE BAS IF THE DISCHARGE AIR TEMPERATURE EXCEEDS ±5°F (ADJ.) FROM SETPOINT FOR THAN 30 MINUTES (ADJ.).

E. SAFETY INTERLOCKS

1. THE HIGH DISCHARGE STATIC PRESSURE SAFETY LOCATED ON THE DISCHARGE OF THE SUPPLY FAN IN THE UNIT HOUSING SHALL BE SET AS SCHEDULED FOR 1" W.C. ABOVE THE TOTAL PRESSURE RATING OF THE SUPPLY FAN AS INDICATED ON THE AHU SCHEDULE. IF THE PRESSURE SETTING IS EXCEEDED, THE SAFETY WILL TRIP AND, VIA HARDWIRE INTERLOCK TO THE SUPPLY FAN'S VFD, SHUTDOWN THE FAN. THIS SAFETY SHALL OPERATE IN EITHER HAND OR AUTO ON THE VFDS AND SHALL BE RESET MANUALLY. IF THE SUPPLY FAN IS SHUT DOWN BY SAFETY, THE ASSOCIATED SUPPLY AND EXHAUST FAN(S) SHALL ALSO BE SHUT DOWN.
2. ENSURE THAT WHEN SMOKE IS DETECTED BY THE DUCT SMOKE DETECTORS, THE SUPPLY FANS VFD, VIA HARDWIRED INTERLOCK, SHALL SHUT OFF AND AN ALARM GENERATED AT THE BAS. AHU SUPPLY FAN, AND ASSOCIATED SUPPLY AND EXHAUST FANS SHALL RESTART WHEN FIRE ALARM CIRCUIT IS RESET.
3. PROVIDE A LOW TEMPERATURE THERMOSTAT (FREEZESTAT) IMMEDIATELY UPSTREAM OF THE COOLING COIL. SHUT DOWN THE UNIT VIA HARDWIRED INTERLOCK IF THE TEMPERATURE FALLS BELOW 40°F (ADJ.) AND GENERATE AN ALARM. COOLING COIL CONTROL VALVE SHALL MODULATE OPEN AND PUMPING SYSTEM SHALL BE STARTED.
4. PROVIDE ANTI–TERRORISM FORCE PROTECTION (ATFP) EMERGENCY SHUTDOWN BOTH HARDWIRED IN THE EQUIPMENT SAFETY CIRCUIT AND IN SOFTWARE FROM THE BAS. THE SHUTDOWN ACTIVATION SHALL LATCH AND REQUIRE MANUAL RESET.
   a. FURNISH AND INSTALL A TWO ACTION MANUAL PUSHBUTTON (ATFP PB) SWITCH AS SHOWN ON THE FLOOR PLANS. THE ATFP PB SWITCH SHALL BE NORMALLY CLOSED AND WILL OPEN ON ACTIVATION.
   b. THE ATFP PB SHALL SHUT DOWN ALL AIR MOVING HVAC EQUIPMENT THROUGH A DEDICATED SAFETY CIRCUIT SHUTDOWN RELAY (ATFP SDR) AT THE EQUIPMENT STARTER OR VFD.
   c. PROVIDE A DEDICATED POWER SUPPLY CIRCUIT LOOP TO ALL ATFP SDR RELAYS HARDWIRED THROUGH THE ATFP PB NORMALLY CLOSED CONTACTS.
   d. THE ATFP SDR SHALL BE NORMALLY OPEN AND SHALL BE ENERGIZED CONTINUOUSLY DURING NORMAL HVAC EQUIPMENT OPERATION. ACTIVATION OF THE ATFP PB SHALL DE–ENERGIZE THE ATFP SDR.
   e. MONITOR THE STATUS OF THE ATFP PB IN THE BAS WITH A DI INPUT POINT. PROVIDE A SOFTWARE SHUTDOWN COMMAND WITH MANUAL RESET FOR ALL AIR MOVING EQUIPMENT AND TO VAV TERMINAL UNITS AS INDICATED ELSEWHERE IN THE SEQUENCES OF OPERATION.

F. UNOCCUPIED HEATING

1. FOR AHU SYSTEMS SERVING SERIES FAN POWERED VAV UNITS, THE AHU FAN SHALL NOT RUN IN THE SETBACK MODE.
2. FOR AHU SYSTEMS SERVING VAV UNITS WITH HEATING BUT NO FAN, THE AHU FAN SHALL RUN BASED ON DEMAND FROM THE ZONES.
   a. EACH AHU CONTROLLER SHALL OBTAIN INDIVIDUAL VAV HEATING DEMAND VALUES.
   b. DURING THE UNOCCUPIED MODE, IF THE AVERAGE OF ALL ZONE HEATING DEMAND VALUES RISES ABOVE 15% (ADJ.), THE ASSOCIATED AHU SHALL START IN SETBACK MODE. AHU SHALL CONTINUE TO RUN UNTIL THE AVERAGE DEMAND VALUE FALLS BELOW 5% (ADJ.).
3. THE AHU SHALL FOLLOW NORMAL ITS STARTUP SEQUENCE EXCEPT THAT THE OUTSIDE AIR DAMPERS SHALL REMAIN CLOSED, THE RETURN AIR DAMPER SHALL REMAIN FULLY OPEN AND ASSOCIATED EXHAUST FANS SHALL REMAIN OFF.
4. ENSURE A MINIMUM RUN TIME PER SETBACK MODE EVENT OF 30 MINUTES (ADJ.) TO MINIMIZE MULTIPLE STARTS.

G. UNOCCUPIED COOLING

1. EACH AHU CONTROLLER SHALL OBTAIN INDIVIDUAL VAV COOLING DEMAND VALUES.
2. DURING UNOCCUPIED MODE, IF THE AVERAGE OF ALL ZONE COOLING DEMAND VALUES RISES ABOVE 15% (ADJ.), THE ASSOCIATED AHU SHALL START IN SETUP MODE. AHU SHALL CONTINUE TO RUN UNTIL THE AVERAGE DEMAND VALUE FALLS BELOW 5% (ADJ.).
3. THE AHU SHALL FOLLOW NORMAL ITS STARTUP SEQUENCE EXCEPT THAT THE OUTSIDE AIR DAMPERS SHALL REMAIN CLOSED, THE RETURN AIR DAMPER SHALL REMAIN FULLY OPEN AND ASSOCIATED EXHAUST FANS SHALL REMAIN OFF.
4. THE DISCHARGE AIR TEMPERATURE SETPOINT SHALL BE SET TO 54° F (ADJ.).
5. ENSURE A MINIMUM RUN TIME PER SETBACK MODE EVENT OF 30 MINUTES (ADJUSTABLE) TO MINIMIZE MULTIPLE STARTS.

H. OCCUPANT OVERRIDE

1. PROVIDE AN OCCUPANT OVERRIDE BUTTON IN THE SELECTED SPACE/AREA SERVED BY EACH AHU. A VISUAL INDICATION ON THE SENSOR SHALL PROVIDE OCCUPANT FEEDBACK WHEN THE SYSTEM IS IN THE OVERRIDE MODE.
2. WHEN THE AIR HANDLING UNIT IS IN THE UNOCCUPIED MODE, PUSHING THE OVERRIDE BUTTON WILL PLACE THE AIR HANDLING UNIT AND TERMINAL UNITS SERVED BY THE AHU INTO THE OCCUPIED MODE FOR THE PROGRAMMED DURATION (60 MINUTES, ADJUSTABLE, WITH A MAXIMUM LIMIT OF 2 HOURS).
3. AT THE END OF ANY OVERRIDE PERIOD, THE SYSTEM WILL REVERT TO THE SCHEDULED MODE IN EFFECT AT THAT TIME.
4. DAILY OVERRIDE USAGE SHALL BE CALCULATED, LOGGED AND MADE AVAILABLE FOR ENTERPRISE ENERGY REPORTING.

CONSTRUCTION DOCUMENTS M801

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

DESIGN WING RELOCATION
BUILDING 1005

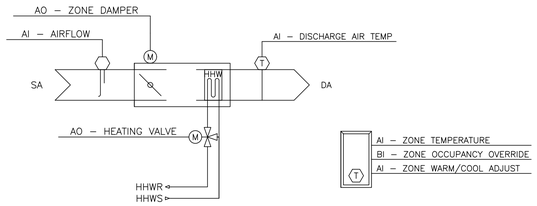
MECHANICAL – HVAC CONTROLS

DES. C MAAS	
DR. C MAAS	
CHK. R DUNCAN	
SUBMITTED BY: K ROOT	
DESIGN DIR. J F ORR PE	
APPROVED: PWO OR OICC	DATE
NA	
SATISFACTORY TO:	DATE

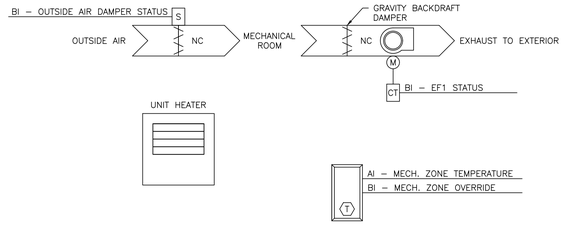
SIZE	CODE IDENT. NO	NAVFAC DRAWING NO.
E1	80091	60036682
		CONST. CONTR. 21–0019

SCALE: NOTED | SPEC. 05–21–0019 | SHEET 35 OF 36

REVISIONS			
SYM		DATE	APPROVED



1 M802 VAV CONTROL DIAGRAM
SCALE: N.T.S.



2 M802 EXHAUST FAN/UNIT HEATER CONTROL DIAGRAM
SCALE: N.T.S.

3 M802 COMM ROOM 313 TEMPERATURE
SCALE: N.T.S.

VAV POINTS LIST												
	HARDWARE POINTS				SOFTWARE POINTS							SHOW ON GRAPHIC
POINT NAME	AI	AO	BI	BO	AV	BV	LOOP	SCHED	TREND	ALARM		
ZONE TEMPERATURE	X								X			X
ZONE WARM/COOL ADJUST	X								X			X
ZONE TEMPERATURE SETPOINT					X				X			X
EFFECTIVE COOLING SETPOINT					X				X			X
EFFECTIVE HEATING SETPOINT					X				X			X
AIRFLOW	X								X			X
AIRFLOW SETPOINT					X				X			X
ZONE DAMPER		X							X			X
ZONE DAMPER SETPOINT					X				X			X
DISCHARGE AIR TEMPERATURE	X								X			X
HEATING VALVE		X							X			X
HEATING VALVE SETPOINT					X				X			X
ZONE OCCUPANCY OVERRIDE			X						X			X
HIGH ZONE TEMEPRATURE										X		X
LOW ZONE TEMPERATURE										X		X

VAV SEQUENCE OF OPERATIONS

A. SETPOINTS AND AIRFLOW SETTINGS
1. PROGRAM TEMPERATURE SETPOINTS
   a. OCCUPIED ACTIVE TEMPERATURE SETPOINT (°F) PER RESET SCHEDULE
      1) 70°F @ 50°F OUTSIDE AMBIENT
      2) 76°F @ 80°F OUTSIDE AMBIENT
      3) BETWEEN 50°F AND 80°F, RESET ADJUSTMENTS SHALL BE LINEAR
   b. UNOCCUPIED TEMPERATURE SETPOINTS (°F)
      1) 60°F HEATING
      2) 80°F COOLING
   c. THE ZONE EFFECTIVE SETPOINT SHALL BE THE OCCUPIED ZONE SETPOINT PLUS THE OCCUPANT OFFSET OF +/–2°F (ADJ.).
   d. THE OFFSET BETWEEN HEATING VALVE (HEATING), THE PRIMARY AIR DAMPER (COOLING) AND THE ZONE EFFECTIVE SETPOINT SHALL BE NO LESS THAN +/– 1F.
2. PROGRAM ALL VAV TERMINAL UNIT FLOW SET POINTS PER SCHEDULE
   a. COOLING MAXIMUM AIRFLOW SETPOINT (CFM)
   b. COOLING MINIMUM AIRFLOW SETPOINT (CFM)
   c. HEATING AIRFLOW SETPOINT (CFM)

B. OCCUPIED CONTROL SEQUENCE:
OCCUPIED AND UNOCCUPIED MODE SHALL BE DETERMINED BY THE ASSOCIATED AHU SCHEDULE. HEATING VALVE AND PRIMARY AIR DAMPER SHALL MODULATE TO MAINTAIN THE ZONE EFFECTIVE SETPOINT.
1. HEATING MODE:
   a. MODULATE THE HOT WATER RE–HEAT VALVE TO MAINTAIN ZONE EFFECTIVE TEMPERATURE SETPOINT.
2. COOLING MODE:
   a. MODULATE THE ZONE DAMPER BETWEEN SCHEDULED COOLING MINIMUM AIRFLOW AND COOLING MAXIMUM AIRFLOW TO MAINTAIN ZONE EFFECTIVE TEMPERATURE SETPOINT.

C. UNOCCUPIED CONTROL SEQUENCE:
1. VAV UNITS SHALL CONTROL TO THEIR UNOCCUPIED HEATING OR COOLING SETPOINTS DURING UNOCCUPIED PERIODS.
2. THE AHU WILL START ONLY DURING UNOCCUPIED COOLING MODE BASED ON ITS UNOCCUPIED SEQUENCE.
3. UNOCCUPIED HEATING MODE:
   a. ON A DROP IN ZONE TEMPERATURE BELOW THE UNOCCUPIED SETPOINT THE TERMINAL UNIT SHALL BE ENERGIZED, AND THE HOT WATER REHEAT VALVE SHALL BE SET TO 100% OPEN.
   b. ON A RISE IN ZONE TEMPERATURE 5 DEG F (ADJ.) ABOVE THE UNOCCUPIED SETPOINT, THE VALVE SHALL CLOSE, AND THE FAN SHALL BE DE–ENERGIZED.
4. UNOCCUPIED COOLING MODE:
   a. ON A RISE IN ZONE TEMPERATURE ABOVE THE UNOCCUPIED SETPOINT, MODULATE THE ZONE DAMPER TO MAINTAIN COOLING MAXIMUM AIRFLOW.
   b. THE HOT WATER REHEAT VALVE SHALL REMAIN CLOSED.
   c. THE AVERAGE OF ALL ZONE COOLING DEMAND VALUES DETERMINES WHEN THE ASSOCIATED AHU STARTS IN UNOCCUPIED MODE. REFER TO THE AHU SEQUENCE OF OPERATION FOR SPECIFIC SETTINGS AND PROVIDE COOLING DEMAND VALUES TO THE AHU FIELD CONTROLLER.
5. THE TIMED OVERRIDE BUTTON, IF ACTIVATED, SHALL SET ASSOCIATED VAV TEMPERATURE SETPOINTS TO THE OCCUPIED MODE FOR 2 HOURS (ADJ.).

D. DISCHARGE AIR TEMPERATURE
1. A DISCHARGE AIR TEMPERATURE SENSOR SHALL BE PROVIDED ON EACH BOX FOR MONITORING PURPOSES.

E. EMERGENCY ATFP
1. ACTIVATION OF THE EMERGENCY ATFP SWITCH SHALL, VIA SOFTWARE COMMANDS, OVERRIDE VAV UNIT OPERATION AND CLOSE THE ZONE DAMPER.

F. ALARM SETTINGS
1. GENERATE AN ALARM AT THE BAS IF THE ZONE TEMPERATURE EXCEEDS +/– 5 DEG F (ADJ.) FROM THE EFFECTIVE SETPOINT FOR MORE THAN 60 MINUTES (ADJ.).

EXHAUST FAN/UNIT HEATER POINTS LIST												
	HARDWARE POINTS				SOFTWARE POINTS							SHOW ON GRAPHIC
POINT NAME	AI	AO	BI	BO	AV	BV	LOOP	SCHED	TREND	ALARM		
MECH. ZONE TEMPERATURE	X								X	X		X
MECH. ZONE OVERRIDE			X						X			X
EF1 STATUS			X						X			X
EF1 FAILURE										X		X
UH1 STATUS			X						X			X
UH1 FAILURE										X		X
OUTSIDE AIR DAMPER STATUS			X						X			X
OUTSIDE AIR DAMPER FAILURE										X		X

EXHAUST FAN/UNIT HEATER SEQUENCE OF OPERATIONS

GENERAL:
- WHEN THE SPACE TEMPERATURE IS ABOVE 85°F (ADJUSTABLE), THE MOTORIZED OUTSIDE AIR DAMPER SHALL OPEN AND THE EXHAUST FAN SHALL ENERGIZE.
- WHEN THE SPACE TEMPERATURE IS BELOW 85°F (ADJUSTABLE), THE MOTORIZED OUTSIDE AIR DAMPER SHALL CLOSE AND THE EXHAUST FAN SHALL DE–ENERGIZE.
- WHEN THE SPACE TEMPERATURE IS BELOW 50°F (ADJUSTABLE), THE UNIT HEATER SHALL ENERGIZE.
- WHEN THE SPACE TEMPERATURE IS ABOVE 60°F (ADJUSTABLE), THE UNIT HEATER SHALL DE–ENERGIZE.

MANUAL:
- WHEN INITIATED, THE MOTORIZED OUTSIDE AIR DAMPER SHALL OPEN AND THE EXHAUST FAN SHALL RUN FOR A MAXIMUM DURATION OF 60 MINUTES (ADJUSTABLE). AFTER 60 MINUTES (ADJUSTABLE), THE MOTORIZED OUTSIDE AIR DAMPER SHALL CLOSE AND THE EXHAUST FAN SHALL DE–ENERGIZE.

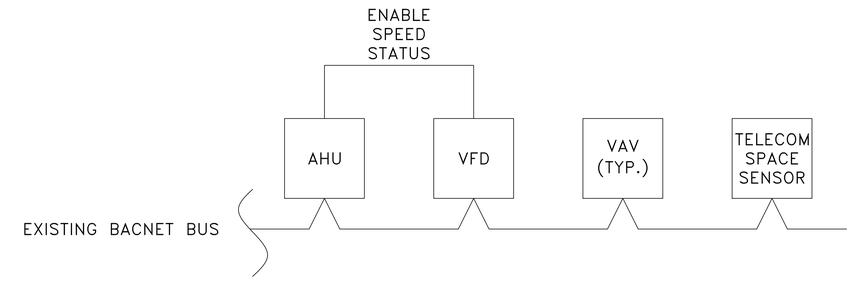
ALARMS:
- IF THE MOTORIZED OUTSIDE AIR DAMPER STATUS DOES NOT MATCH THE COMMAND AFTER 90 SECONDS (ADJUSTABLE) AFTER BEING COMMANDED OPEN, AN ALARM WILL BE GENERATED.
- IF THE UNIT HEATER STATUS DOES NOT MATCH THE COMMAND AFTER 90 SECONDS (ADJUSTABLE) AFTER BEING COMMANDED ON, AN ALARM WILL BE GENERATED.
- IF THE EXHAUST FAN STATUS DOES NOT MATCH THE COMMAND AFTER 90 SECONDS (ADJUSTABLE) AFTER BEING COMMANDED ON, AN ALARM WILL BE GENERATED.
- MECH. ZONE TEMPERATURE SHALL HAVE AN ADJUSTABLE LOW AND HIGH ALARM LIMIT.

COMMUNICATION ROOM 313 TEMPERATURE SENSOR POINTS LIST											
	HARDWARE POINTS				SOFTWARE POINTS						SHOW ON GRAPHIC
POINT NAME	AI	AO	BI	BO	AV	BV	LOOP	SCHED	TREND	ALARM	
ZONE TEMPERATURE	X								X		X
HIGH ZONE TEMPERATURE										X	X

COMMUNICATION ROOM 313 SEQUENCE OF OPERATIONS

GENERAL:
- TEMPERATURE SENSOR SHALL MONITOR THE ZONE TEMPERATURE OF THE COMMUNICATIONS ROOM.

ALARMS:
- ZONE TEMPERATURE SHALL HAVE AN ADJUSTABLE LOW HIGH ALARM LIMIT INITIALLY SET TO 80°F (ADJ.).



NOTES:
- BACNET MS/TP COMMUNICATION LOOP SHALL BE HOME RUN CONNECTION BACK TO BUILDING AUTOMATION CONTROLLER LOCATED IN COMMUNICATION CLOSET A.
- INTEGRATE NEW DDC DEVICES TO JACE BUILDING AUTOMATION CONTROLLER LOCATED IN COMMUNICATION CLOSET A.

4 M802 CONTROL SYSTEM ARCHITECTURE
SCALE: N.T.S.

CONSTRUCTION DOCUMENTS M802

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

DES. C MAAS
DR. C MAAS
CHK. R DUNCAN
SUBMITTED BY: K ROOT
DESIGN DIR. J F ORR PE
APPROVED: PWO OR OICC DATE: NA
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MECHANICAL – HVAC CONTROLS

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