

	REVISIONS		
М.		DATE	APPROVED

### **GENERAL NOTES:**

- 1. THE WAREHOUSE PORTION OF THE FACILITY IS SEPARATED BY A 2-HOUR FIRE WALL IN ACCORDANCE WITH IBC 503.1, ALLOWING THE WAREHOUSE TO BE CONSIDERED A SEPARATE BUILDING FROM THE MAINTENANCE SHOP.
- 2. PER UFC 3-600-01 4-44.2.1.1 SPRINKLER SYSTEMS CAN BE OMITTED IN WAREHOUSES
  AND STORAGE OCCUPANCIES LESS THAN 5,000 SQ. FT. IF APPROVED BY DFPE. THE PLANNING
  SECTION OF UFC 3-600-01 1-12.12.1 IS USED TO DETERMINE THE NEED FOR A SPRINKLER SYSTEM AND LOOKS
  AT FIVE CRITERIA: 1) IS THE COMMODITY CRITICAL TO OPERATIONS; 2) DOES IT POSE A SEVERE FIRE HAZARD;
  3) IS IT OF HIGH MONETARY VALUE; 4) DOES IT POSE AN ENVIRONMENTAL OR HEALTH RISK; 5) DOES THE
  FACILITY EXPOSE IMPORTANT STRUCTURES.
- 1) THE COMMODITY STORED IS MOSTLY WOOD AND GENERAL CARPENTRY MATERIALS AND TOOLS USED FOR FACILITY MAINTENANCE. THESE ARE NOT CRITICAL MATERIALS TO THE OPERATIONS OF THE MARINE CORPS' MISSION.
- 2) THESE COMMODITIES ARE LESS OF A FIRE HAZARD THAN THE CORPS' MINIMUM DESIGN REQUIREMENT OF CLASS IV COMMODITIES PER 3-600-01 4-44.2.3.1. NFPA 13 TABLE A 20.3. LISTS WOOD AS A CLASS III COMMODITY.
- 3) WOOD AND GENERAL CARPENTRY MATERIALS AND TOOLS WOULD NOT BE CONSIDERED OF HIGH MONETARY VALUE IN COMPARISON TO OTHER ITEMS STORED ELSEWHERE TO SUPPORT THE MARINE CORPS MISSION.
- 4) THE COMMODITIES STORED ARE NOT CONSIDERED TOXIC IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE AND DO NOT POSE AN ENVIRONMENTAL OR HEALTH RISK.
- 5) THE BUILDING IS +/- 100 FT. FROM THE NEAREST STRUCTURES. PER NFPA 80A TABLE 4.3.7.3 CALCULATIONS, A SEPARATION DISTANCE OF 27.5 FT. IS REQUIRED. THE EXISTING SEPARATION EXCEEDS THIS DISTANCE BY 40%. THEREFORE NO EXPOSURE HAZARD EXISTS TO THE SURROUNDING STRUCTURES.

100 FT. / 17.25 FT. = 5.8

GUIDE # = 1.3 (MODERATE FIRE LOAD WITH 14% UNPROTECTED OPENINGS)

(1.3 X 17.25 FT.) + 5 FT. = 27.5 FT.

3. PER UFC 3-600-01 3-3.1.1, NFPA 101 42.3.4.1.2 AND UFC 4-010-01 1-7, NEITHER A FIRE ALARM NOR MASS NOTIFICATION SYSTEM ARE REQUIRED. BOTH BUILDINGS ARE LESS THAN 10,000 SQ. FT., HOUSE ORDINARY HAZARD CONTENTS AND ARE NOT ROUTINELY INHABITED BY 11 OR MORE PERSONNEL.

### MAINTENANCE SHOP CODE ANALYSIS:

OCCUPANCY CLASSIFICATION:

MODERATE HAZARD STORAGE OCCUPANCY "S-1"

CONSTRUCTION TYPE: V-B NON-RATED NON-COMBUSTIBLE CONSTRUCTION

STRUCTURAL FRAME: 0 HR. RATED

BEARING WALLS: 0 HR. RATED

NON-BEARING WALLS: 0 HR. RATED, INTERIOR 0 HR. RATED, EXTERIOR

FLOOR: 0 HR. RATED

ROOF: 0 HR. RATED

FIRE SUPPRESSION: NOT SPRINKLERED ALLOWABLE AREA (S-1) S-1

BASE <u>17,500</u> TOTAL/FLOOR: 17,500

ACTUAL AREA (S.F. ±): 2,480

EXITS (ACTUAL/REQUIRED):

USE/ROOM

SHOP

STORAGE

ALLOWABLE & ACTUAL EGRESS DISTANCES (FT.):

TRAVEL DISTANCE 200 78
COMMON PATH 50 22
DEAD END CORRIDOR 50 10

BUILDING HEIGHT (ACTUAL / ALLOWABLE): STORIES: 1 / 2 (BASED ON SPRINKLERED V-B CONSTRUCTION)

FEET: 18 ± / 55 (BASED ON SPRINKLERED V-B CONSTRUCTION)

LEVEL1: 3 / 2 (BASED ON 8 OCCUPANTS)

EXITS SERVING INDIVIDUAL ROOMS ARE NOT INCLUDED.

MAINTENAN	NCE SHOP O	CCUPANT LC	DAD
	1		1

SF/PERSON

150

**TOTAL** 

LOAD

AREA

1245

1235

## WAREHOUSE CODE ANALYSIS:

OCCUPANCY CLASSIFICATION:

MODERATE HAZARD STORAGE OCCUPANCY "S-1"

CONSTRUCTION TYPE: V-B NON-RATED NON-COMBUSTIBLE CONSTRUCTION

STRUCTURAL FRAME: 0 HR. RATED

BEARING WALLS: 0 HR. RATED

NON-BEARING WALLS: 0 HR. RATED, INTERIOR 0 HR. RATED, EXTERIOR

FLOOR: 0 HR. RATED

ROOF: 0 HR. RATED

FIRE SUPPRESSION: NOT SPRINKLERED

ALLOWABLE AREA (S-1) S-1

BASE 17,500

TOTAL/FLOOR: 17,500

ACTUAL AREA (S.F. ±): 3,168

USE/ROOM

ALLOWABLE & ACTUAL EGRESS DISTANCES (FT.):

TRAVEL DISTANCE 200 67
COMMON PATH 50 NA
DEAD END CORRIDOR 50 NA

BUILDING HEIGHT (ACTUAL / ALLOWABLE): STORIES: 1 / 2 (BASED ON SPRINKLERED V-B CONSTRUCTION) FEET: 18 + / 55 (BASED ON SPRINKLERED V-B CONSTRUCTION)

EXITS (ACTUAL/REQUIRED): LEVEL1: 2 / 2 (BASED ON 7 OCCUPANTS)

## CATION:

FE FIRE EXTINGUISHER

FEC FIRE EXTINGUISHER CABINET

EGRESS ELEMENT (DOOR, STAIR, ETC.)

DOOR

XXX

EGRESS WIDTH (CLEAR)

**LEGEND** 

XXX EXIT WIDTH PER PERSON (IN.)

XXX

CAPACITY (PEOPLE)

ACTUAL (PEOPLE)

TRAVEL DISTANCE TO AN EXIT

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

EXIT SIGNS

DIRECTION ARROWLIGHTED / SIDE FACE

LIGITIED / OIDE I / K

2 HOUR FIRE WALL

#### BASED ON:

2018 NFPA 101 LIFE SAFETY CODE 2015 INTERNATIONAL BUILDING CODE

2018 NFPA 10 PORTABLE FIRE EXTINGUISHER

2017 NFPA 70 NATIONAL ELECTRICAL CODE
2019 NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS
2017 NFPA 80A RECOMMENDED PRACTICE FOR PROTECTION OF BUILDING FROM

EXTERIOR FIRE EXPOSURE

UFC 3-600-01 FIRE PROTECTION ENGINEERING FOR FACILITIES 25-3-2018

UFC 1-200-01 DoD BUILDING CODE (GENERAL BUILDING REQM'TS) 20-6-2016

UFC 4-010-01 MINIMUM ANTITERRORISM STANDARDS 12-12-2019

 STORAGE
 3186
 500
 7

 TOTAL
 7

WAREHOUSE OCCUPANT LOAD:

SF/PERSON

LOAD

AREA

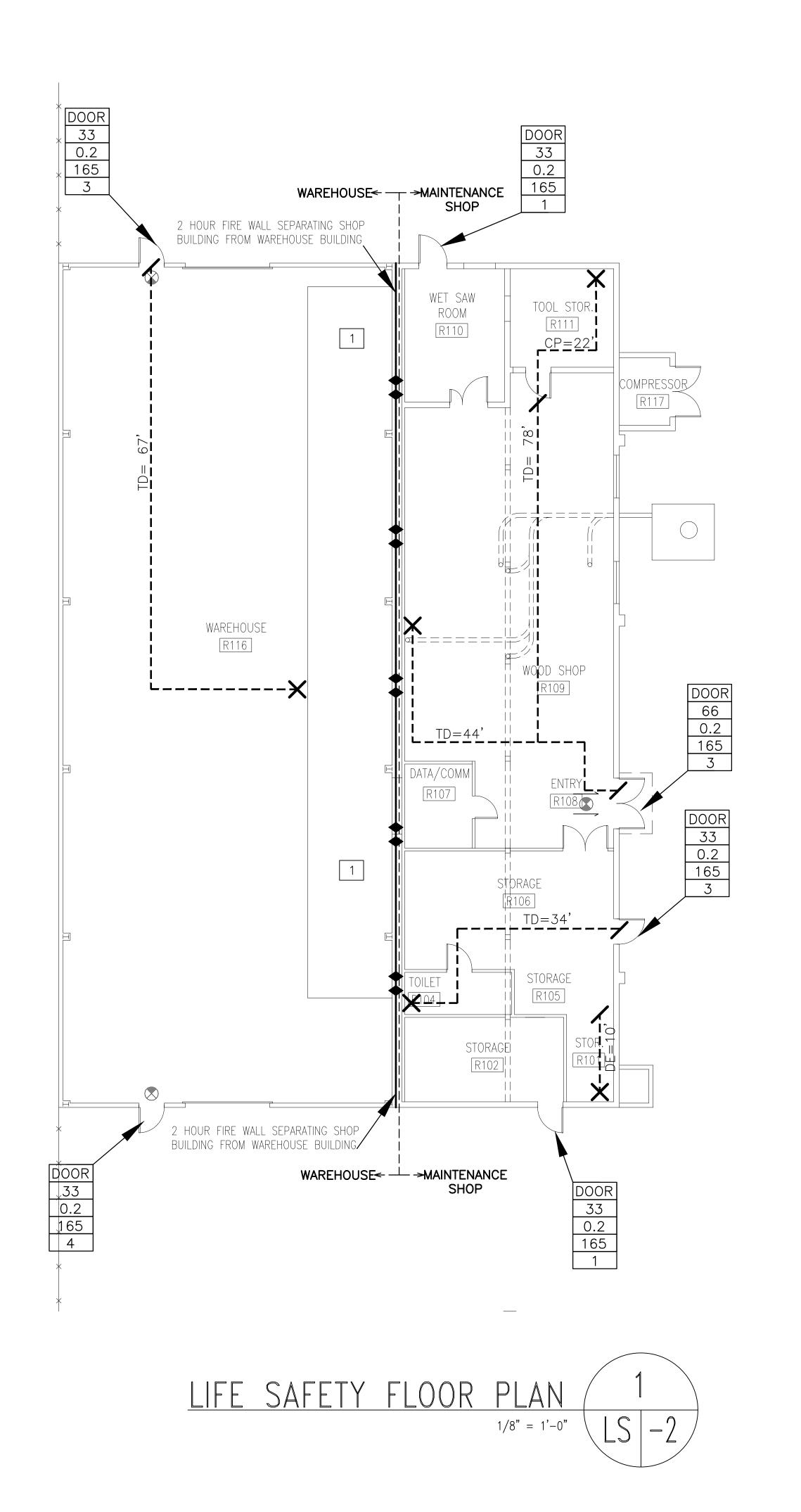
LIFE SAFETY ANALYSIS AND LEGEND Lovett Consultants TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518

MARINE CORPS BASE Fire Protection & Building Code Specialists

NC Firm License No: F-0296

AUG Firm License No: F-0296 CAMP LEJEUNE, NORTH CAROLINA DES. Jennifer L. Lovett INTERIOR/EXTERIOR DR. Adam N. Pienkny REPAIRS BLDG. AS124 CHK. Gregorio M. Mesa CAMP LEJEUNE, NORTH CAROLINA DESIGN DIR. DATE | SIZE | CODE IDENT. NO. | NAVFAC DRAWING NO. 60024410 const. contr. no. N40085-17-B-0075 SATISFACTORY TO: | SCALE: NOTED | SPEC. 05-17-0075 SHEET 2 OF 34 07/27/2018

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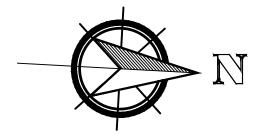
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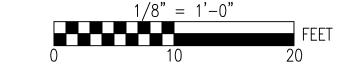
## SHEET NOTES:

1. REFERENCE LS-1 FOR CODE ANALYSIS AND LEGEND.

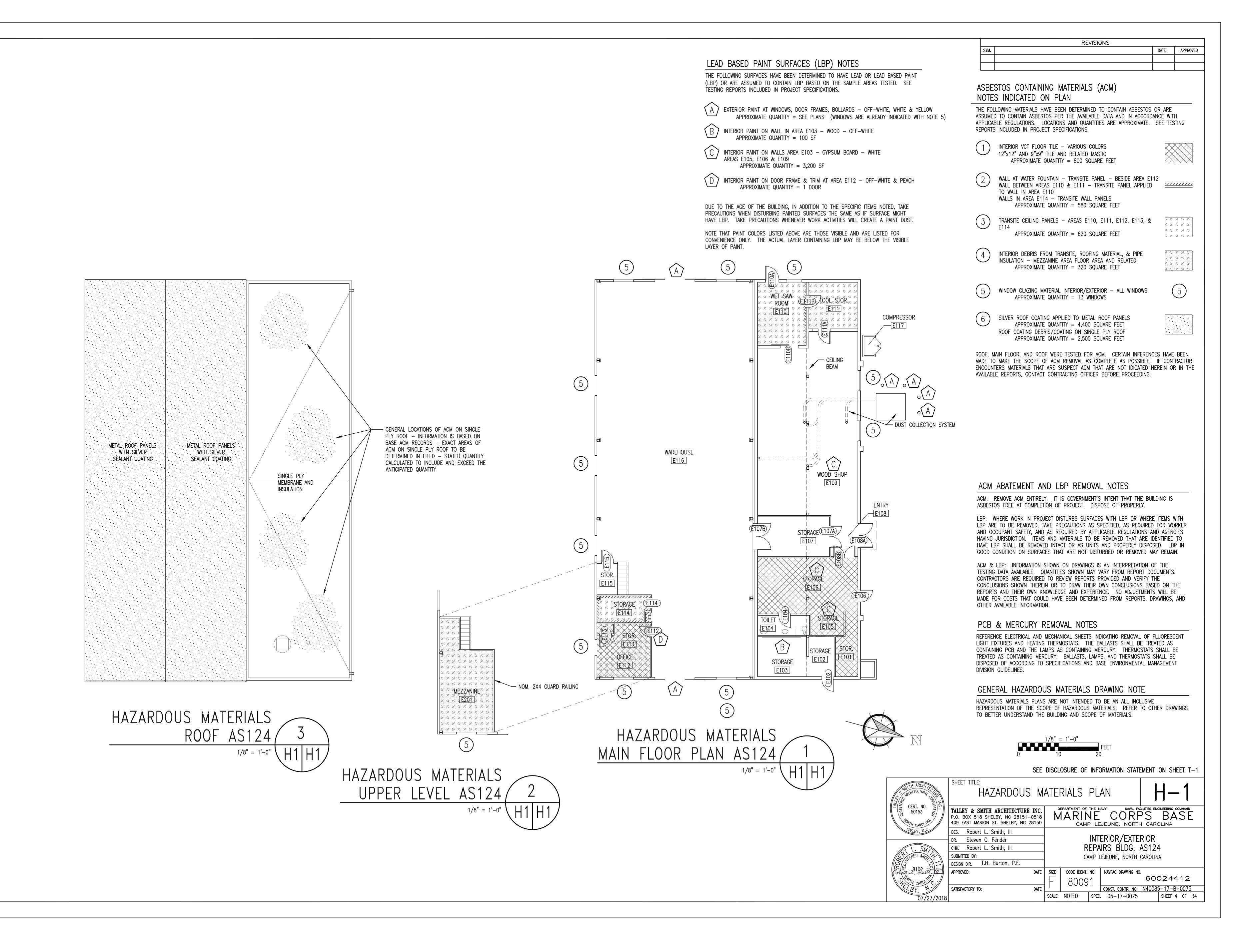
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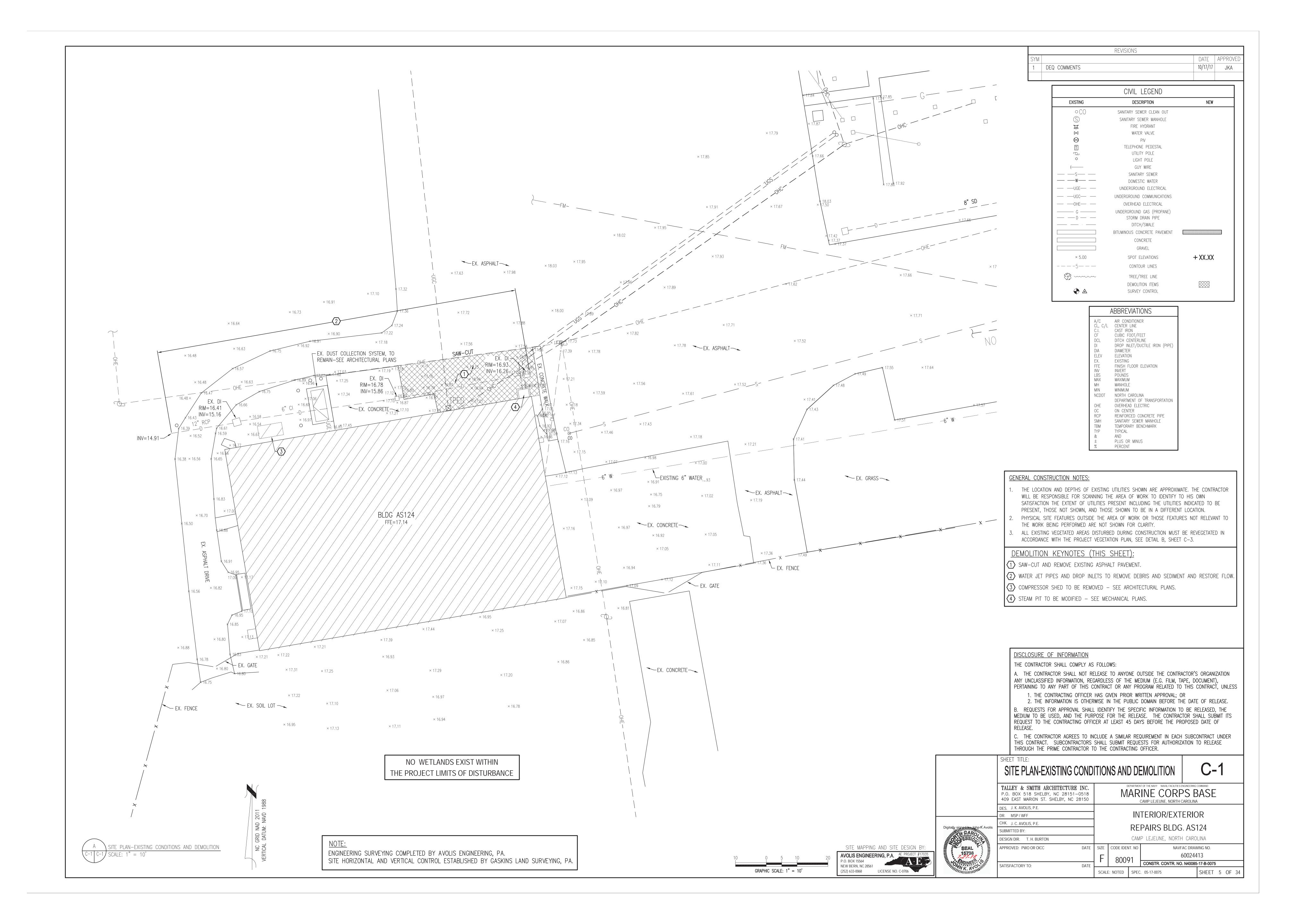
SHELF STORAGE

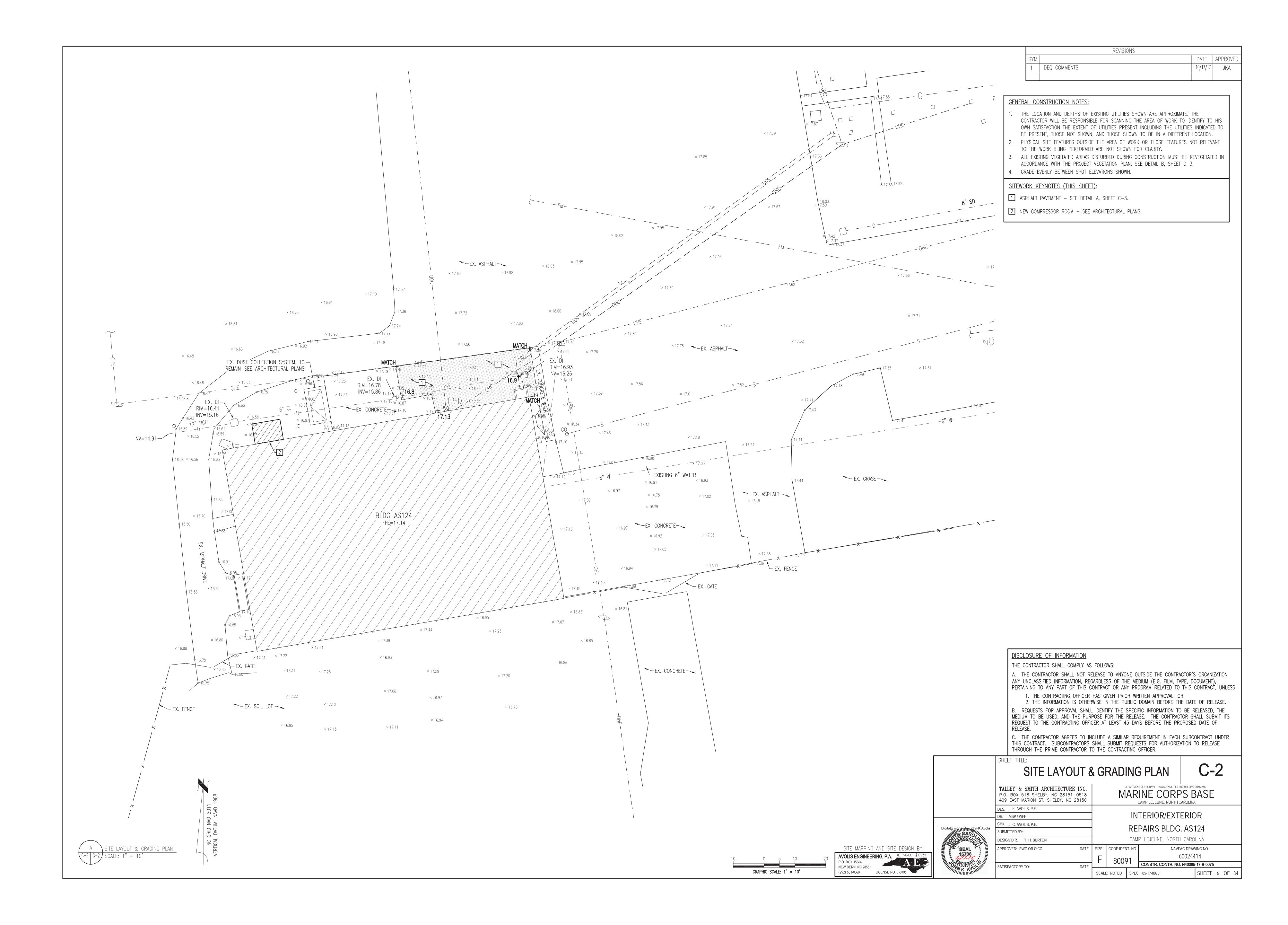




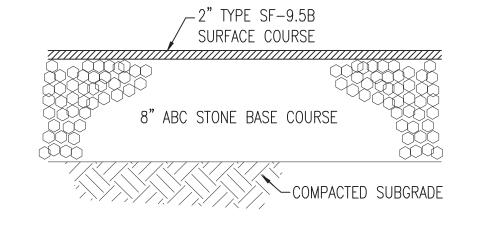
Lovett Consultants	LIFE SAFETY	FLOOR PLAN LS-2
4455 Morris Park Dr. Suite H Mint Hill, NC 28227 Ph. 704.545.8383 Fax 704.545.2483 Fire Protection & Building Code Specialists NC Firm License No: F-0296	TALLEY & SMITH ARCHITECTURE INC. P.O. BOX 518 SHELBY, NC 28151-0518 409 EAST MARION ST. SHELBY, NC 28150	DEPARTMENT OF THE NAVY  NAVAL FACILITIES ENGINEERING COMMAND  MARINE CORPS BASE  CAMP LEJEUNE, NORTH CAROLINA
CAROMINITALISMENT OF SEAL SEAL SEAL SEAL SEAL SEAL SEAL SEAL	DES. Jennifer L. Lovett DR. Adam N. Pienkny CHK. Gregorio M. Mesa SUBMITTED BY: DESIGN DIR.	INTERIOR/EXTERIOR REPAIRS BLDG. AS124 CAMP LEJEUNE, NORTH CAROLINA
040804 MANUAL MOINEER LANDER L. 06/27/2018	APPROVED: DATE  SATISFACTORY TO: DATE	SIZE   CODE IDENT. NO.   NAVFAC DRAWING NO.     60024411







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TEMPORARY VEGETATIVE SEEDING (PRIOR TO ESTABLISHING PERMANENT VEGETATION) AFTER COMPLETION OF GRADING ACTIVITIES AND THE

CONSTRUCTION OF SWALES, ALL EXPOSED AREAS SHALL BE SEEDED TO THE FOLLOWING SPECIFICATIONS:

FERTILIZER 1/2-TON PER ACRE

RYE GRAIN 50 LBS PER ACRE

TALL FESCUE 100 LBS PER ACRE

SUPPLEMENTAL SEED MAY THROUGH AUGUST:

CENTIPEDE 5 LBS PER ACRE <u>PROCEDURE</u>

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

TO BLOWING AND WASHING. THE CONTRACTOR SHALL GUARANTEE A FULL STAND OF GRASS OVER THE ENTIRE DISTURBED AREA. IF NECESSARY THE CONTRACTOR WILL WET DOWN THE AREAS TO ASSIST IN SEED GERMINATION OR AID IN GROWTH IN TIMES OF EXCESSIVELY DRY WEATHER. A STAND OF GRASS WILL BE CONSIDERED ACCEPTABLE WHEN THE ENTIRE STAND OF GRASS IS AT LEAST FOUR INCHES HIGH AND HAS

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

PERMANENT VEGETATION

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

<u>SPECIAL SEEDING NOTE:</u>

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



DISCLOSURE OF INFORMATION

THE CONTRACTOR SHALL COMPLY AS FOLLOWS:

A. THE CONTRACTOR SHALL NOT RELEASE TO ANYONE OUTSIDE THE CONTRACTOR'S ORGANIZATION ANY UNCLASSIFIED INFORMATION, REGARDLESS OF THE MEDIUM (E.G. FILM, TAPE, DOCUMENT), PERTAINING TO ANY PART OF THIS CONTRACT OR ANY PROGRAM RELATED TO THIS CONTRACT, UNLESS

1. THE CONTRACTING OFFICER HAS GIVEN PRIOR WRITTEN APPROVAL; OR 2. THE INFORMATION IS OTHERWISE IN THE PUBLIC DOMAIN BEFORE THE DATE OF RELEASE. B. REQUESTS FOR APPROVAL SHALL IDENTIFY THE SPECIFIC INFORMATION TO BE RELEASED, THE MEDIUM TO BE USED, AND THE PURPOSE FOR THE RELEASE. THE CONTRACTOR SHALL SUBMIT ITS REQUEST TO THE CONTRACTING OFFICER AT LEAST 45 DAYS BEFORE THE PROPOSED DATE OF

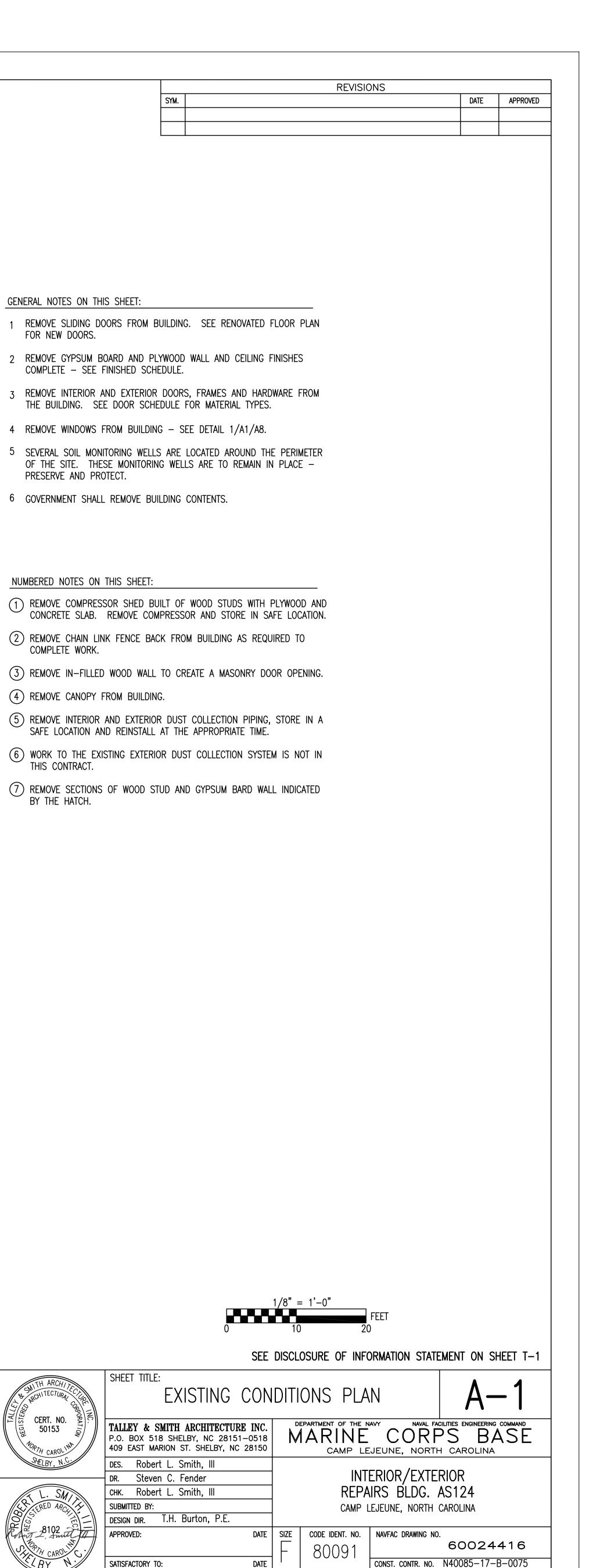
C. THE CONTRACTOR AGREES TO INCLUDE A SIMILAR REQUIREMENT IN EACH SUBCONTRACT UNDER THIS CONTRACT. SUBCONTRACTORS SHALL SUBMIT REQUESTS FOR AUTHORIZATION TO RELEASE THROUGH THE PRIME CONTRACTOR TO THE CONTRACTING OFFICER.

 $C_3$ **DETAILS U-3** DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND

MARINE CORPS BASE

CAMP LEJEUNE, NORTH CAROLINA TALLEY & SMITH ARCHITECTURE INC. P.O. BOX 518 SHELBY, NC 28151-0518 409 EAST MARION ST. SHELBY, NC 28150 DES. J. K. AVOLIS, P.E. INTERIOR/EXTERIOR DR. MSP/WFF CHK. J. C. AVOLIS, P.E. REPAIRS BLDG. AS124 CAMP LEJEUNE, NORTH CAROLINA DESIGN DIR. T. H. BURTON APPROVED: PWO OR OICC DATE | SIZE | CODE IDENT. NO NAVFAC DRAWING NO. 60024415 CONSTR. CONTR. NO. N40085-17-B-0075 SATISFACTORY TO: SHEET 7 OF 3 SCALE: NOTED | SPEC. 05-17-0075





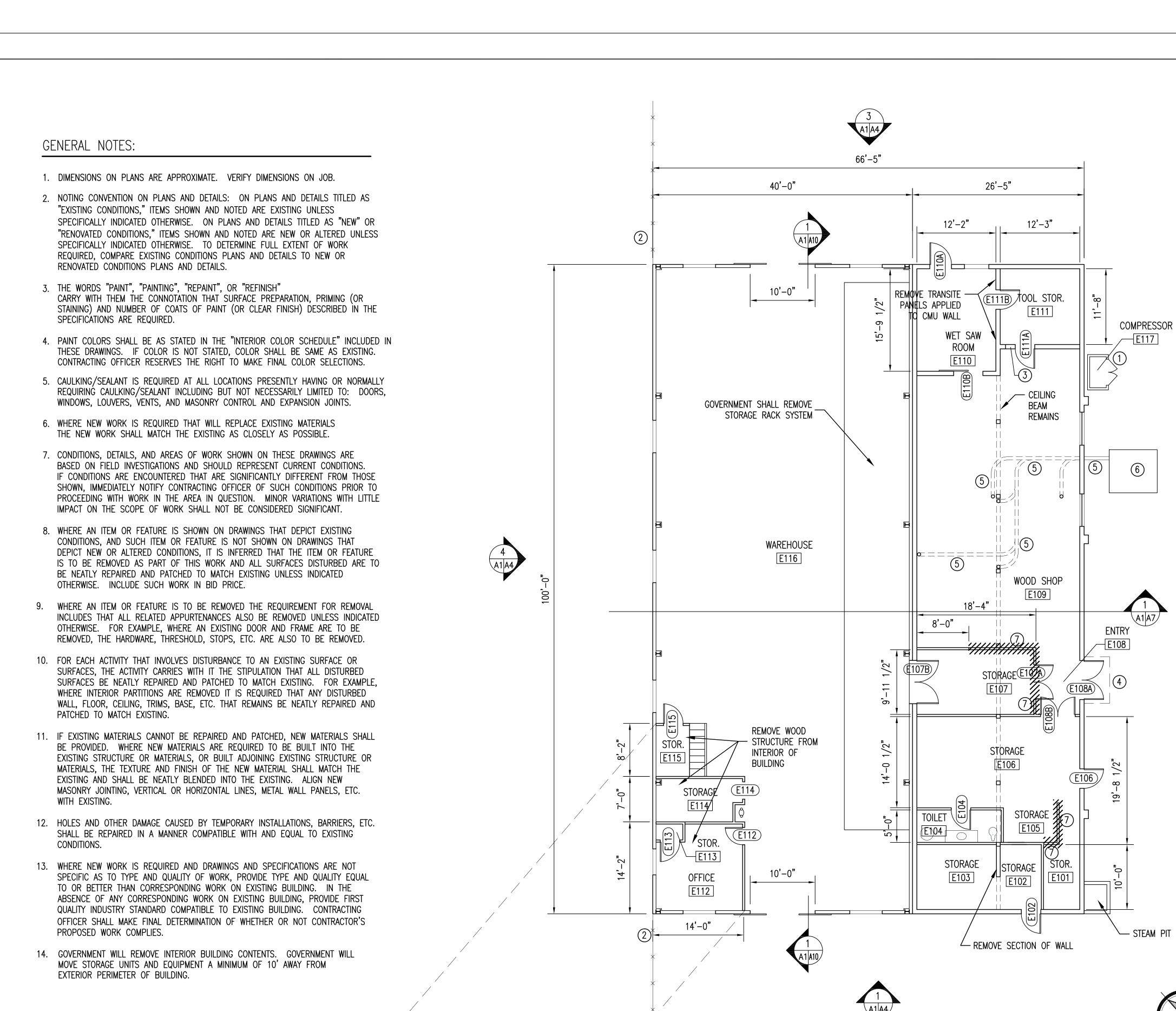
| SCALE: NOTED | SPEC. 05-17-0075

STEAM PIT - CLEAN DEBRIS

EXISTING CONDITIONS

FLOOR PLAN AS124

1/8" = 1'-0"

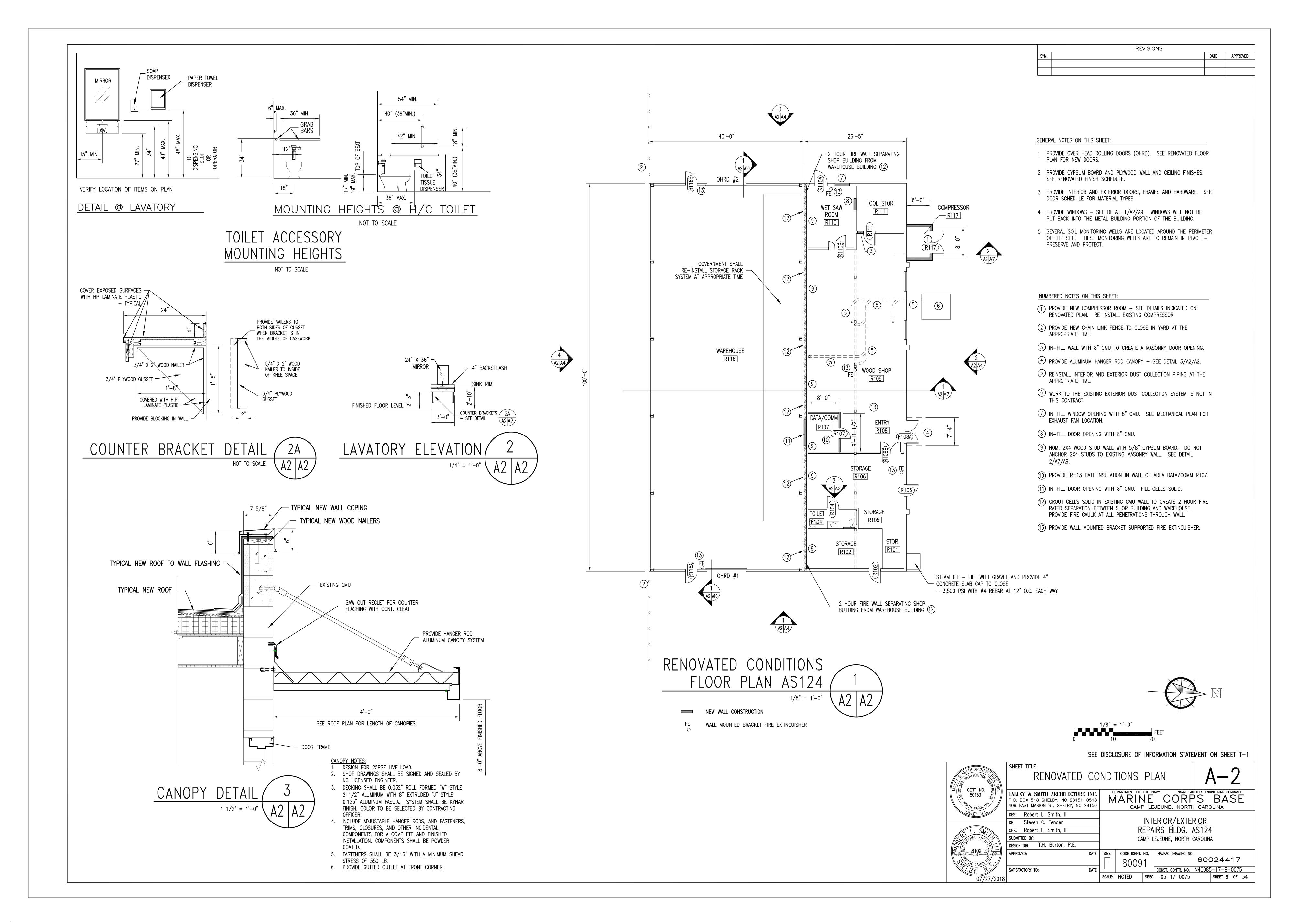


— NOM. 2X4 GUARD RAILING

MEZZANINE E201

14**'**-0"

EXISTING CONDITIONS MEZZANINE FLOOR PLAN AS124



DOOM	DOOM		<u> </u>				L DACI	_	SE WALL					CEILING CEILING			LOCULA	10	TPEMAPKS		
	ROOM NAME	FLO	)K				BASI	<u>-</u>		WAL	.L 				CEIL	ING		HT.	NG	REMARKS	ROOM NO.
		CONCRETE	12" X 12" VCT	2" X 2" CERAMIC TILE	9" X 9" VCT	PLYWOOD	NONE	WOOD		СМU	GYPSUM BOARD	METAL BUILDING STRUCTURE	Transite panels		PLYWOOD	METAL BUILDING STRUCTURE	TRANSITE PANELS			EXISTING CONDITIONS FINISH NOTE:  REMOVE EXISTING APPLIED FINISHES THROUGHOUT THE BUILDING. EXISTING MASONRY WALLS REMAIN UNLESS INDICATED OTHERWISE.	
E101	STORAGE	•	•				•	•		•	•				•			8'-9"	一		E101
	STORAGE	•					•	•		•	•				•			8'-9"			E102
	STORAGE	•					•	•		•	•				•			8'-9"			E103
	TOILET			•				•			•				•			8'-9"			E104
E105	STORAGE		•					•			•				•			8'-9"			E105
E106	STORAGE		•					•			•				•			8'-9"			E106
E107	STORAGE	•						•			•				•			8'-9"			E107
E108	ENTRY	•					•	•		•	•				•			8'-9"			E108
E109	WOOD SHOP	•					•	•		•	•				•			8'-9"			E109
E110	STORAGE	•						•		•			•				•	8'-9"			E110
E111	TOOL STORAGE	•						•		•							•	8'-9"			E111
	OFFICE		•					•			•		•				•	8'-9"			E112
	STORAGE				•			•			•						•	8'-9"			E113
	STORAGE	•						•			•		•				•	8'-9"			E114
E115	STORAGE	•					•				•				•			8'-9"			E115
E116	WAREHOUSE	•					•					•				•					E116
F004	A 4F77 A A HA IF																				F004
E201	MEZZANINE					•	•					•				•					E201

REN	OVATED FI	NISH	SC	HEDULE I	BUILD	DING AS41	41				100	) <del>-</del>	_ S	EE THOR C	HIS S' ORRE	YMB( SPON	OL ON FLO	OOR PLANS OM NUMBER	
ROOM NO.	ROOM NAME	FLO	OR		BASE		WAL	L				CEILI	ING				CEILING HT.	REMARKS	ROOM NO.
		CONCRETE CLEANED & SEALED	RESINOUS EPOXY FLOORING		4" COVED RUBBER	NONE	CMU (PAINTED)	WATER RESISTANT GYPSUM BRD	3/4" T & G PLYWOOD	METAL BUILDING STRUCTURE		1/2" PLYWOOD WITH BATTENS	METAL BUILDING STRUCTURE					RENOVATED CONDITIONS FINISH NOTE:  PROVIDE APPLIED FINISHES AS INDICATED IN RENOVATED FINISH SCHEDULE. COMPARE EXISTING AND RENOVATED CONDITIONS PLANS FOR NEW WALLS. PAINT ALL GYPSUM, CMU AND PLYWOOD FINISHES.	
R101	STORAGE	•			•		•	•				•					8'-9"		R101
	STORAGE	•			•		•	•				•					8'-9"		R102
R104	TOILET		•		•			•				•					8'-9"		R104
R105	STORAGE	•			•				•			•					8'-9"		R105
R106	STORAGE	•			•			•				•					8'-9"		R106
R107	DATA/COMM	•			•			•				•					8'-9"		R107
	ENTRY	•			•		•		•			•					8'-9"		R108
R109	WOOD SHOP	•			•		•		•			•					8'-9"		R109
	STORAGE	•			•		•					•					8'-9"		R110
R111	TOOL STORAGE	•			•		•					•					8'-9"		R111
R116	WAREHOUSE	•				•				•			•						R116

SEE INTERIOR CONDITIONS NEW COLOR SCHEDULE ON SHEET A3 FOR MORE FINISH INFORMATION.

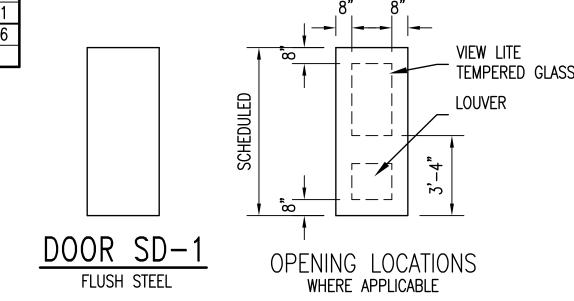
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DOOR NO.	DOOR SIZE	DOOR TYPE	GLASS PANEL	LOUVER OR UC	HDW.	FIRE RATING	MASONRY OPENING WHERE APPLICABLE	FRAME TYPE	FRAME DEPTH	FRAME POSITION	THRESH DETAIL	LINTEL	REMARKS	DOOR NO.
E102	2-8 X 6-8	SD	18" X 24"	_	_	_	3'-0" X 6'-11"	SDF	6"	-	_	-	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E102
E104	3-0 X 6-8	WD	_	_	-	_	-	_	_	_	_	_	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E104
E106	3-4 X 6-8	SD	_	_	-	_	3'-8" X 6'-10"	SDF	6"	_	_	_	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E106
E107A	PR 2-8 X 7-0	WD	_	_	-	_	-	_	_	_	_	_	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E107A
E107B	PR 4-0 X 7-0	WD	_	_	_	_	8'-8" X 7'-2"	SDF	6"	_	_	_	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E107E
E108A	PR 3-0 X 7-0	SD	18" X 24"	-	_	_	6'-4" X 7'-2"	SDF	6"	_	_	_	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E108A
E108B	PR 2-8 X 6-8	WD	_	_	Ī <b>-</b>	_	_	_	_	_	_	_	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E108E
E110A	3-6 X 7-0	SD	_	_	Ī <b>-</b>	_	3'-10" X 7'-2"	SDF	6"	_	_	_	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E110A
E110B	4-6 X 6-8	_	_	_	_	_	4'-6" X 6'-8"	_	_	_	_	_	REMOVE ROLLING DOOR, & HARDWARE COMPLETE	E110E
E111A	3-0 X 6-8	WD	_	_	<u> </u>	_	3'-4" X 6'-10"	_	_	_	_	_	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E111A
E111B	3-0 X 6-8	WD	_	<b>-</b>	<u> </u>	_	3'-4" X 6'-10"	_	_	_	_	_	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E111E
E112	2-8 X 6-8	WD	_	_	_	_	-	_	_	_	_	_	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E112
E113	2-8 X 6-8	WD	<b> </b>	_	_	_	_	_	_	_	_	_	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E113
E114	2-8 X 6-8	WD	<b> </b>	_	_	_	_	_	_	_	_	_	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E114
E115	2-8 X 6-8	WD	_	_	_	_	_	_	_	_	_	_	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E115
_	_	_	_	_	T -	_	_	_	_	_	_	_	_	

DOOR NO.	DOOR SIZE	DOOR TYPE	GLASS PANEL	LOUVER OR UC	HDW. NO.	FIRE RATING	MASONRY OPENING WHERE APPLICABLE	FRAME TYPE	FRAME DEPTH	FRAME POSITION	THRESH DETAIL	LINTEL	REMARKS	DOOR NO.
R102	2-8 X 6-8	SD-1	_	_	1	_	3'-0" X 6'-11"	SDF-2	6"	1	NOTE 3	_	PROVIDE DOOR, FRAME, AND HARDWARE	R102
R104	3-0 X 6-8	SD-1	_	_	4	_	-	SDF-2	6"	2	NOTE 1	_	PROVIDE DOOR, K.D. FRAME, AND HARDWARE	R104
_	_	_	_	_	-	_	_	_	_	_	_	-	_	_
R106	3-4 X 6-8	SD-1	_	_	1	_	3'-8" X 6'-10"	SDF-2	6"	1	NOTE 3	_	PROVIDE DOOR, FRAME, AND HARDWARE	R106
R107	3-0 X 7-0	SD-1	_	_	5	_	-	SDF-1	6"	2	NONE	_	PROVIDE DOOR, K.D. FRAME, AND HARDWARE	R107A
R108A	PR 3-0 X 7-0	SD-1	3" X 33"	_	2	_	6'-4" X 7'-2"	SDF-1	6"	1	NOTE 3	_	PROVIDE DOOR, FRAME, AND HARDWARE	R108A
R108B	PR 2-8 X 6-8	SD-1	_	_	6	_	_	SDF-1	6"	2	NONE	_	PROVIDE DOOR, K.D. FRAME, AND HARDWARE	R108B
R110A	3-6 X 7-0	SD-1	_	_	1	_	3'-10" X 7'-2"	SDF-2	6"	1	NOTE 3	_	PROVIDE DOOR, FRAME, AND HARDWARE	R110A
R110B	NOTE 2	SD-1	_	<b>—</b>	6	_	4'-6" X 6'-8"	SDF-2	6"	1	NONE	_	PROVIDE DOOR, FRAME, AND HARDWARE	R110B
R111	3-0 X 6-8	SD-1	_	_	7	_	3'-4" X 6'-10"	SDF-2	6"	1	NONE	-	PROVIDE DOOR, FRAME, AND HARDWARE	R111A
R116A	3-0 X 7-0	SD-1	_	<u> </u>	1	_	-	SDF-2	6"	NOTE 4	NOTE 3	_	PROVIDE DOOR, FRAME, AND HARDWARE	R116A
R116B	3-0 X 7-0	SD-1	_	_	1	_	_	SDF-2	6"	NOTE 4	NOTE 3	-	PROVIDE DOOR, FRAME, AND HARDWARE	R116B
R117	PR 3-0 X 7-0	SD-1	_	_	3	_	6'-4" X 7'-2"	SDF-1	6"	1	NOTE 3	-	PROVIDE DOOR, FRAME, AND HARDWARE	R117
_	_	_	_	_	_	_	_	_	1_	_	_	_	_	$\neg \neg$

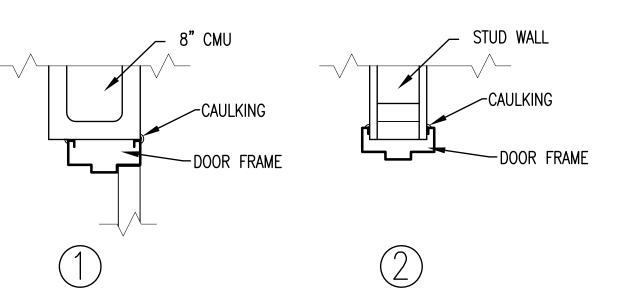
#### NUMBERED NOTES ON SCHEDULE:

- 1. PROVIDE 4" ALUMINUM SADDLE THRESHOLD AT DOOR LOCATIONS WHERE FLOOR FINISHES CHANGE.
- 2. PROVIDE UN-EVEN PAIR OF DOORS: 3-0 ACTIVE AND 1-6 INACTIVE X 6-6 TALL
- 3. PROVIDE 4" ALUMINUM SADDLE THRESH AND HOODED DOOR BOTTOM ON EXTERIOR DOORS.
- 4. PROVIDE METAL BUILDING DOOR FRAME KIT.
- BLAST RESISTANCE NOTE: BUILDING IS EXEMPT FROM MINIMUM ANTITERRORISM STANDARDS. BLAST RESISTANT DOORS AND WINDOWS ARE NOT REQUIRED.

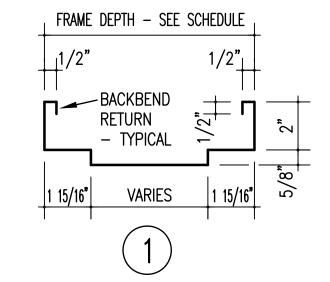


DOOR TYPES

1/4" = 1'-0"



DOOR FRAME POSITIONING DETAILS 1 1/2" = 1'-0"



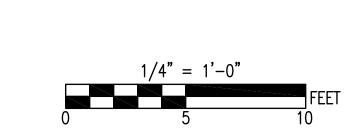
FRAME SECTIONS 3" = 1'-0" NOTE THAT BACKBEND RETURNS ARE REQUIRED ON ALL FRAMES.

	NTERIOR COLOR SCHEDUL GE" PROVIDE NEW FINISH OR FINISH WO	FOLIAL	S INDICATED IN THIS SCHEDULE A MANUFACTURERS TO THOSE SCHE	RE BASED ON BASE COLOR SCHEME "A".  DULED ARE ACCEPTABLE.
FLOOR	BASE	WALLS	CEILING	STEEL DOORS & FRAMES
EPOXY FLOOR FINISH  - STONE HARD, STONTEC, SANTA CRUZ	4" COVED RUBBER IN PAINTED AREAS  - ARMSTRONG, 60, JET BLACK	PAINT GYPSUM BOARD, PLYWOOD AND MASONRY WALLS WALL - S-W, SW-7004, SNOWBOUND (EGGSHELL)  TRIM - S-W, SW-7003, TOQUE WHITE (SEMI GLOSS)  STEEL BUILDING STRUCTURE WALL - S-W, SW-7004, SNOWBOUND (SEMI GLOSS)	PLYWOOD (PAINT)  - S-W, #7009, PEARLY WHITE, EGGSHELL  EXPOSED STRUCTURE  - S-W, SW-7004, SNOWBOUND (SEMI GLOSS)	INTERIOR, AND INTERIOR PORTION OF EXTERIOR, DOORS AND FRAMES  S-W, SW - 7003, TOQUE WHITE (SEMI GLOSS) OR SW - 6005, FOLKSTONE

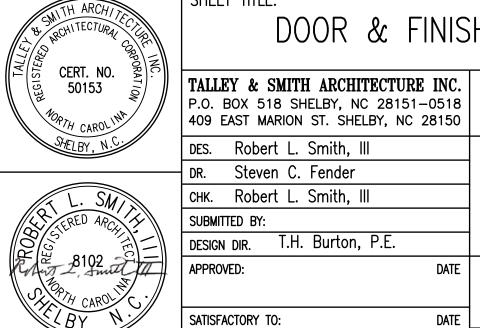
EXTERIOR COLORS SHALL BE IN ACCORDANCE WITH "BEAP" REQUIREMENTS. CONTRACTOR CAN OBTAIN BEAP FROM CONTRACTING OFFICER.

1/4" = 1'-0" SDF = STEEL DOOR FRAME

FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS.



SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1



DOOR & FINISH SCHEDULES TALLEY & SMITH ARCHITECTURE INC.

A-JDEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING COMMAND

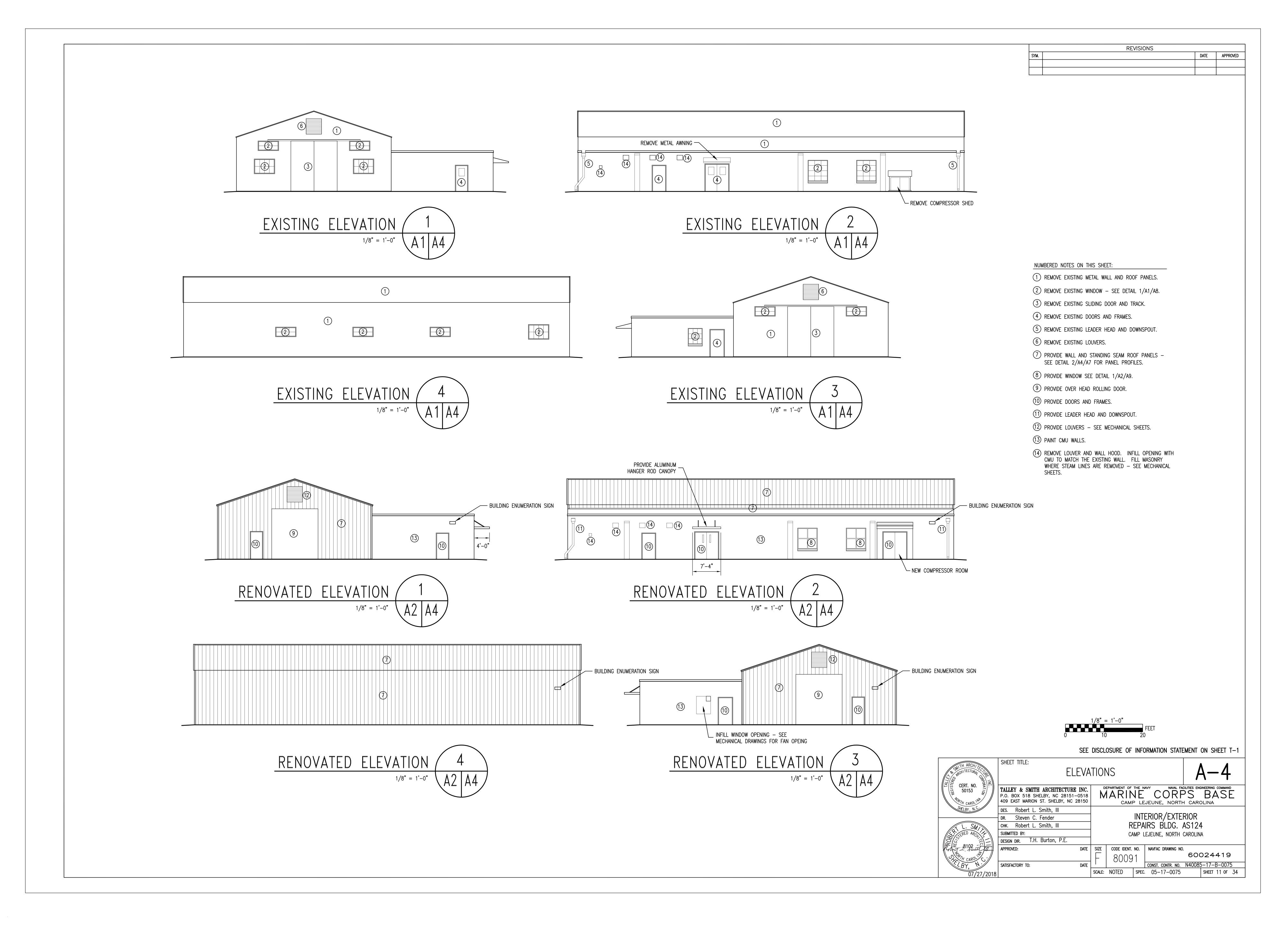
NAVAL FACILITIES ENGINEERING COMMAND

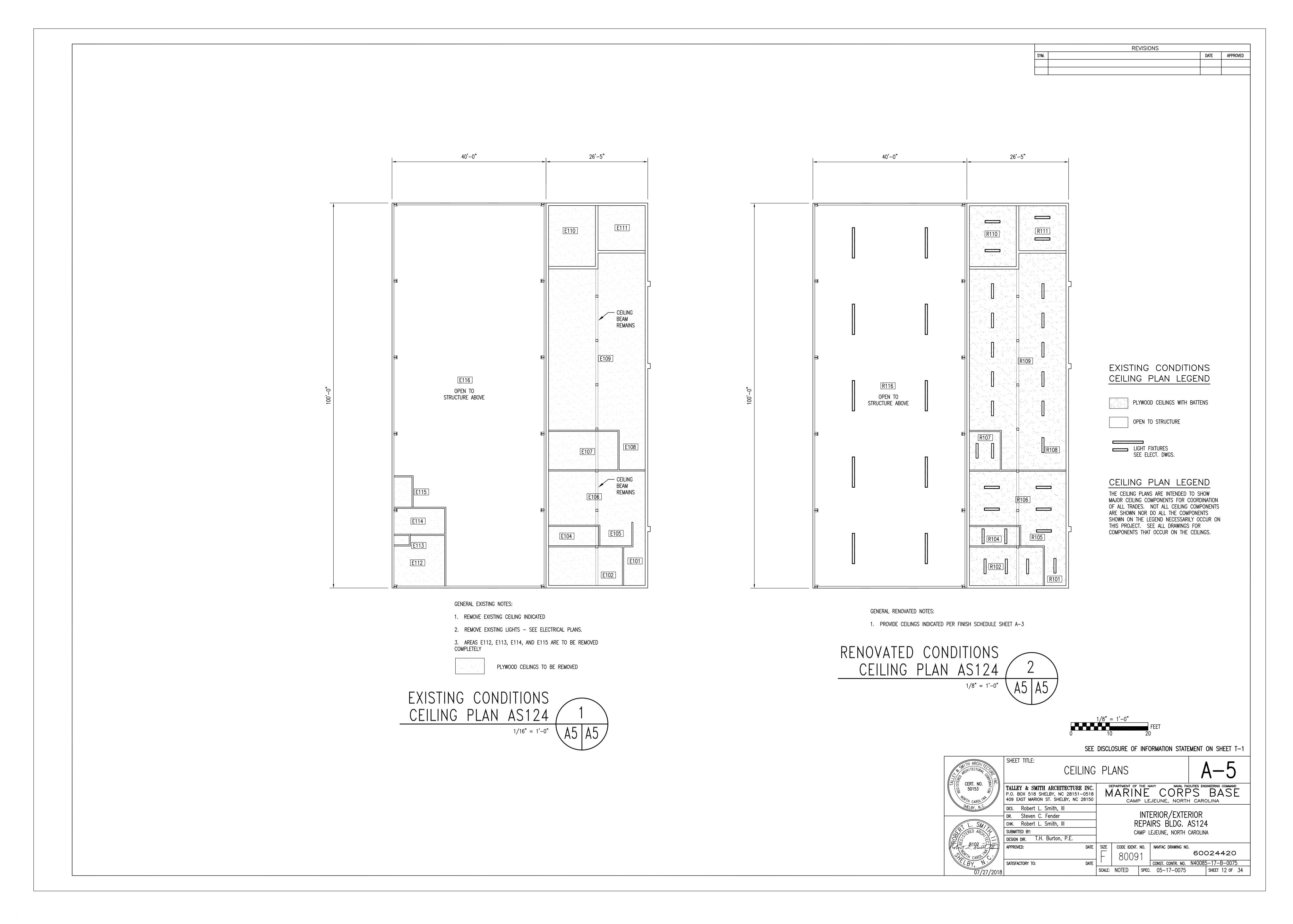
CAMP LEJEUNE, NORTH CAROLINA

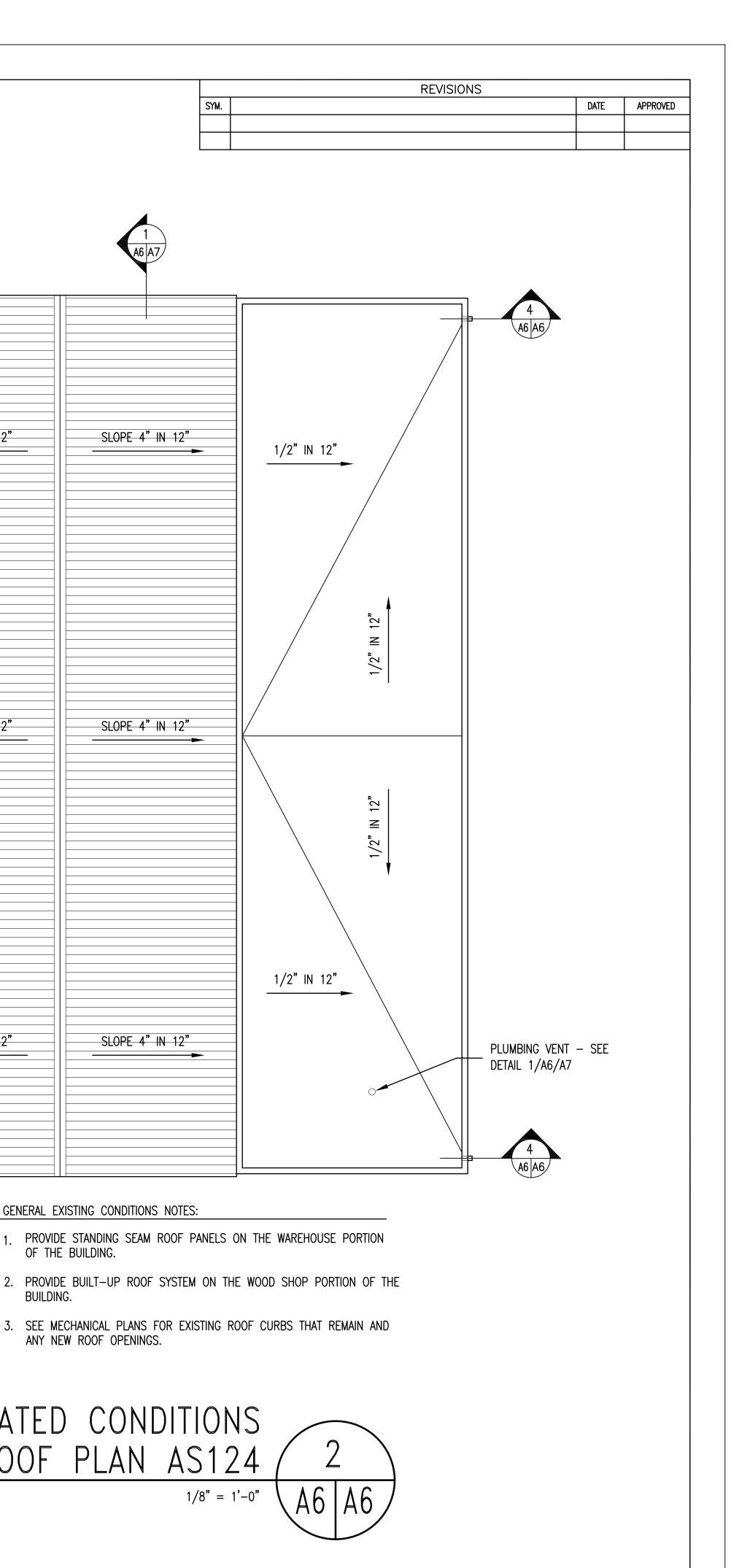
DES. Robert L. Smith, III CHK. Robert L. Smith, III DESIGN DIR. T.H. Burton, P.E.

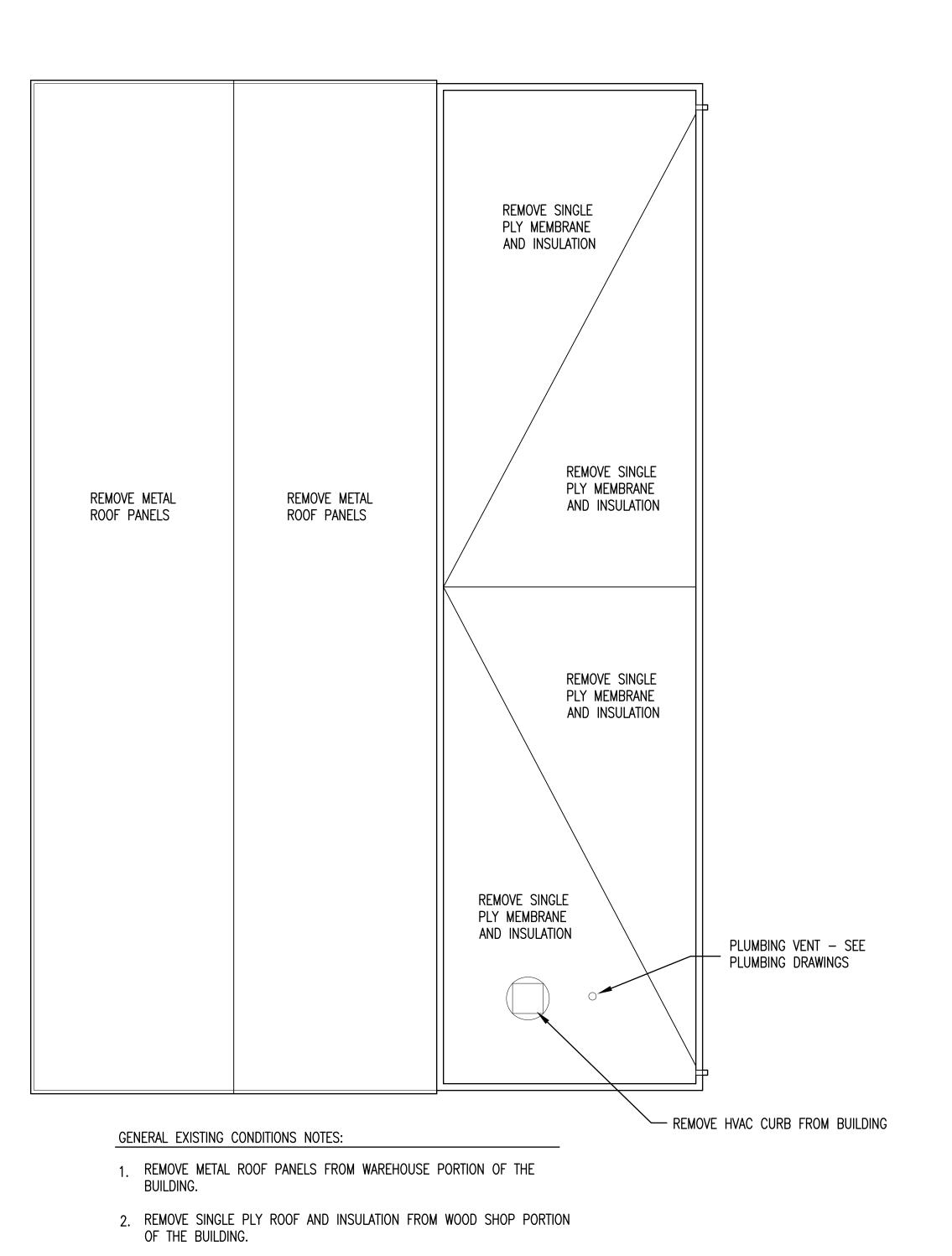
INTERIOR/EXTERIOR REPAIRS BLDG. AS124 CAMP LEJEUNE, NORTH CAROLINA

DATE SIZE CODE IDENT. NO. NAVFAC DRAWING NO. 60024418 CONST. CONTR. NO. N40085-17-B-0075 SCALE: NOTED SPEC. 05-17-0075 SHEET 10 OF 34









EXISTING CONDITIONS ROOF PLAN AS124 TYPICAL NEW WALL COPING — - TYPICAL NEW WOOD NAILERS POPEN TOP TO LEADER HEAD EXISTING .05 ALUMINUM SCUPPER LINER  $\sim$ SCUPPER LINER BEYOND .032 ALUMINUM SCUPPER LINER TO FIT SNUG INSIDE EXISTING SCUPPER OPENING TYPICAL NEW ROOF — \_ TURN EDGES DOWN TO STIFFEN `─ .05 ALUMINUM LEADER HEAD PLYWOOD SCUPPER BOTTOM -NEW WOOD ROOF DECK — \_\_ EXTEND LEADER HEAD METAL \_\_\_/
INTO TOP OF DOWNSPOUT 2'-0" SQUARE SUMP .032 ALUMINUM AT EACH SCUPPER DOWNSPOUT (SUMP DEPTH AS REQUIRED) RENOVATED DETAIL SECTION, TYPICAL NEW LEADER HEAD

GENERAL EXISTING CONDITIONS NOTES:

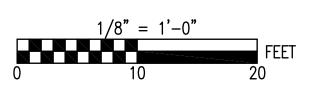
SLOPE 4" IN 12"

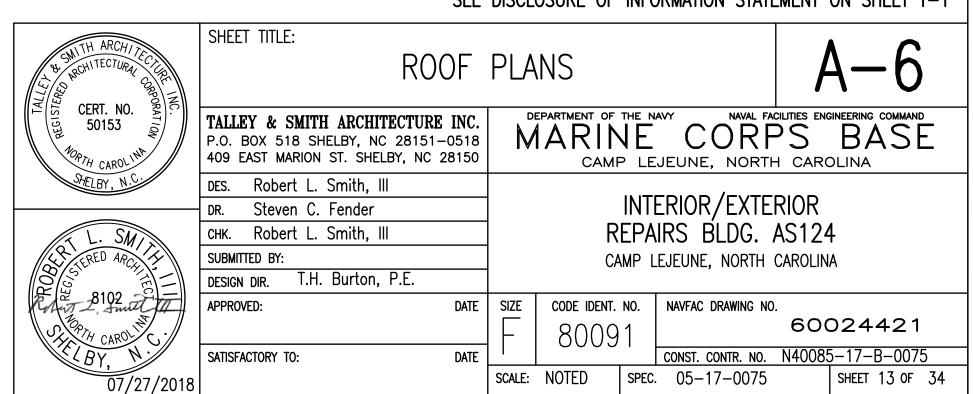
SLOPE 4" IN 12"

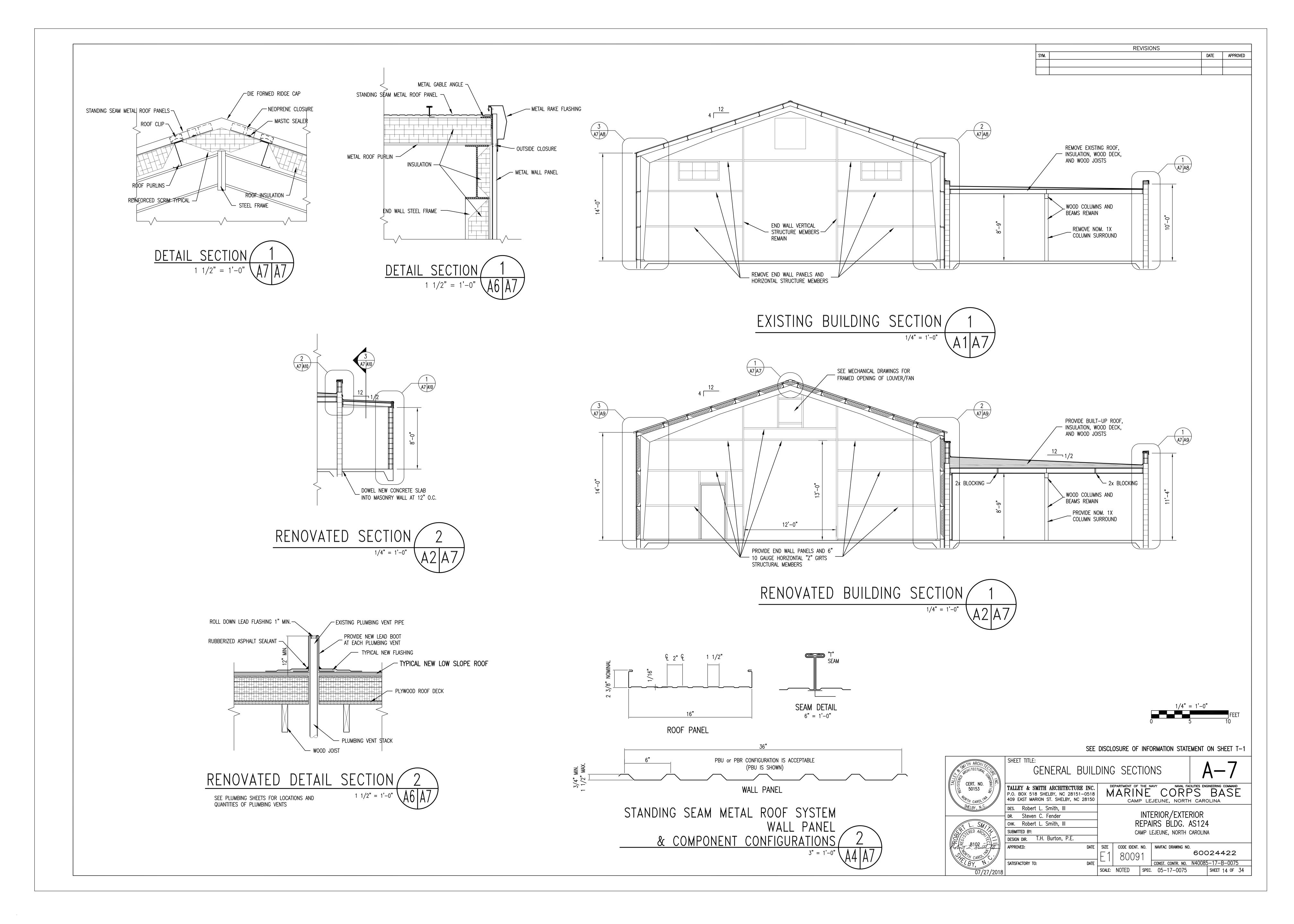
SLOPE 4" IN 12"

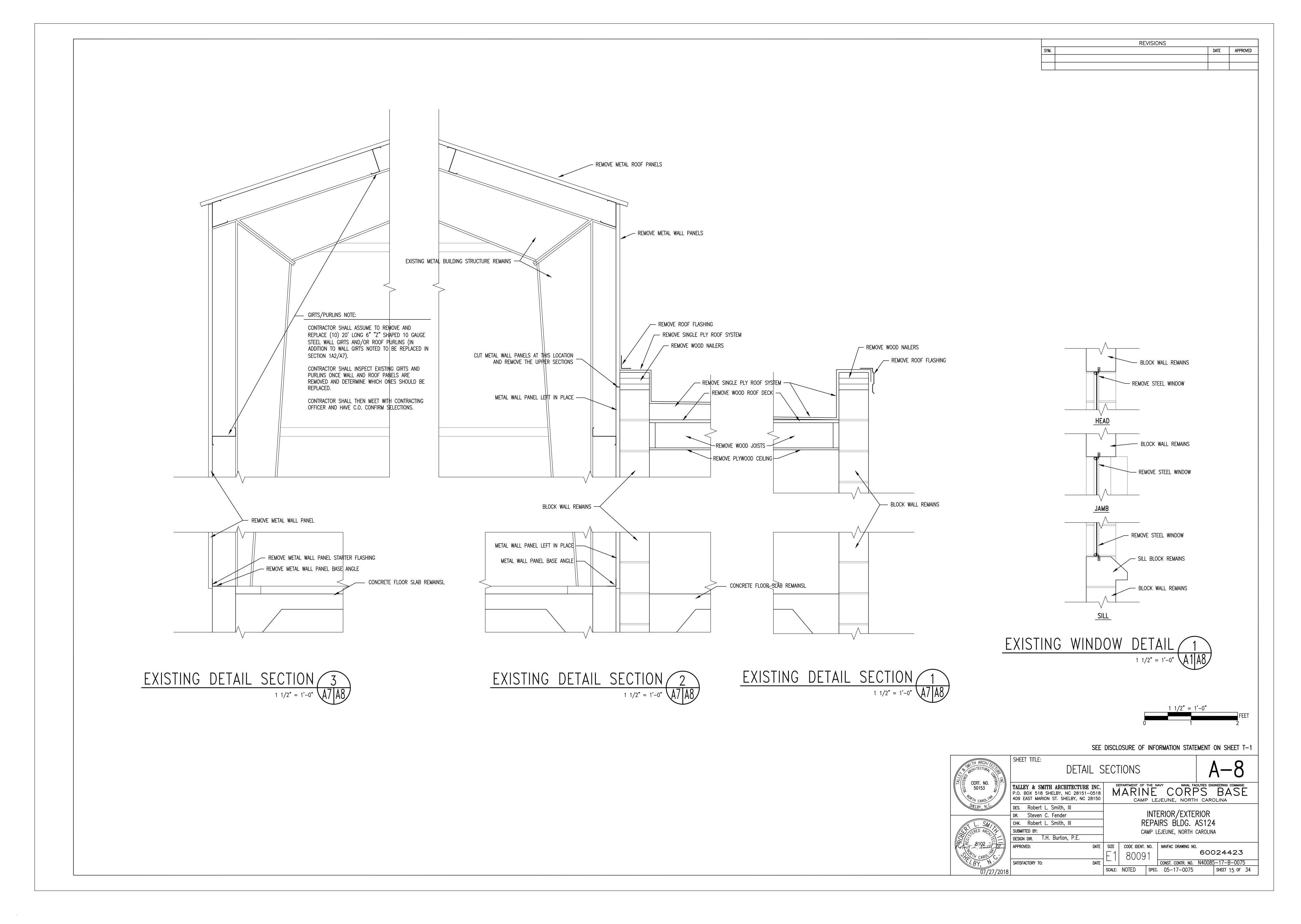
- 2. PROVIDE BUILT-UP ROOF SYSTEM ON THE WOOD SHOP PORTION OF THE
- 3. SEE MECHANICAL PLANS FOR EXISTING ROOF CURBS THAT REMAIN AND ANY NEW ROOF OPENINGS.

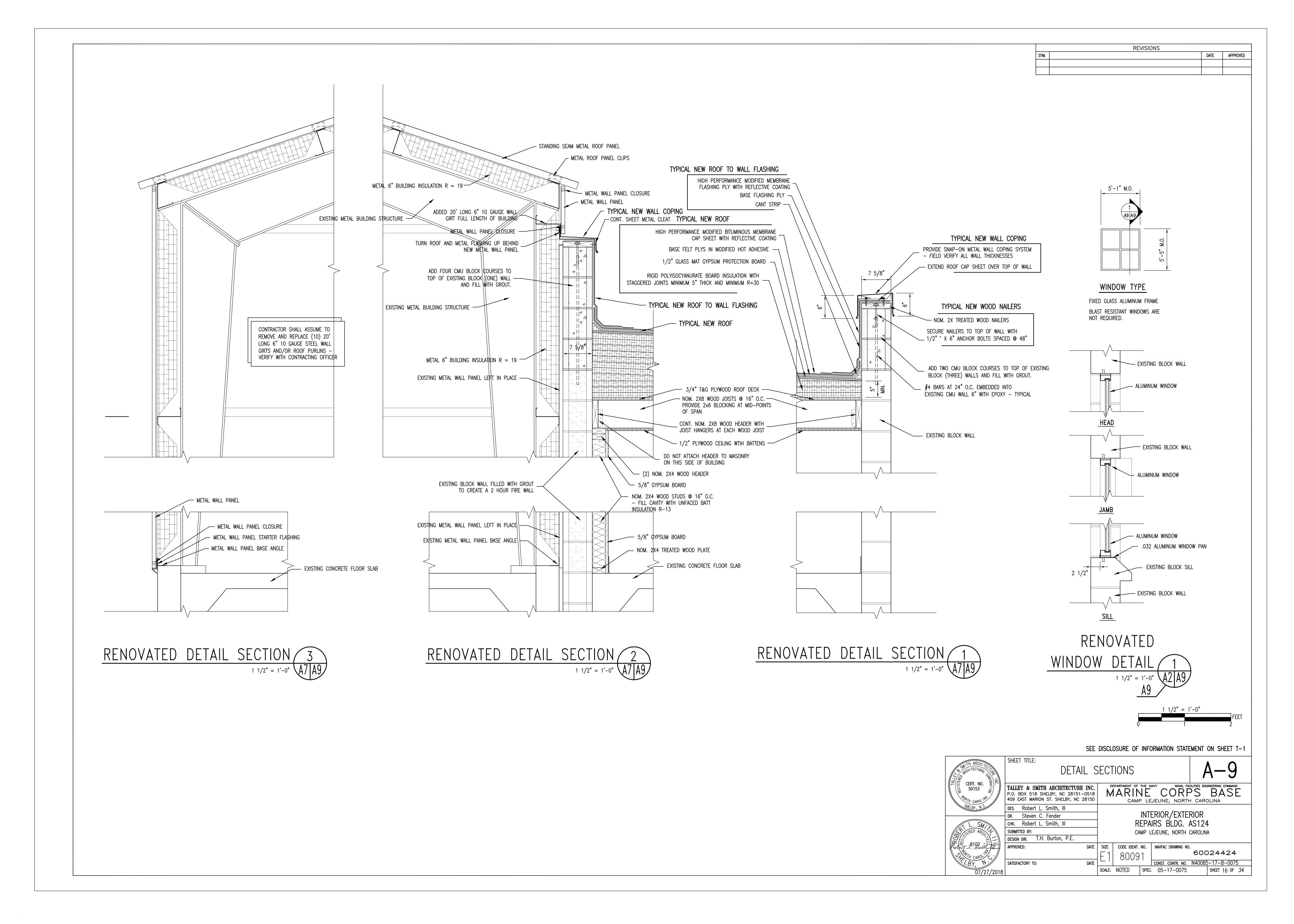


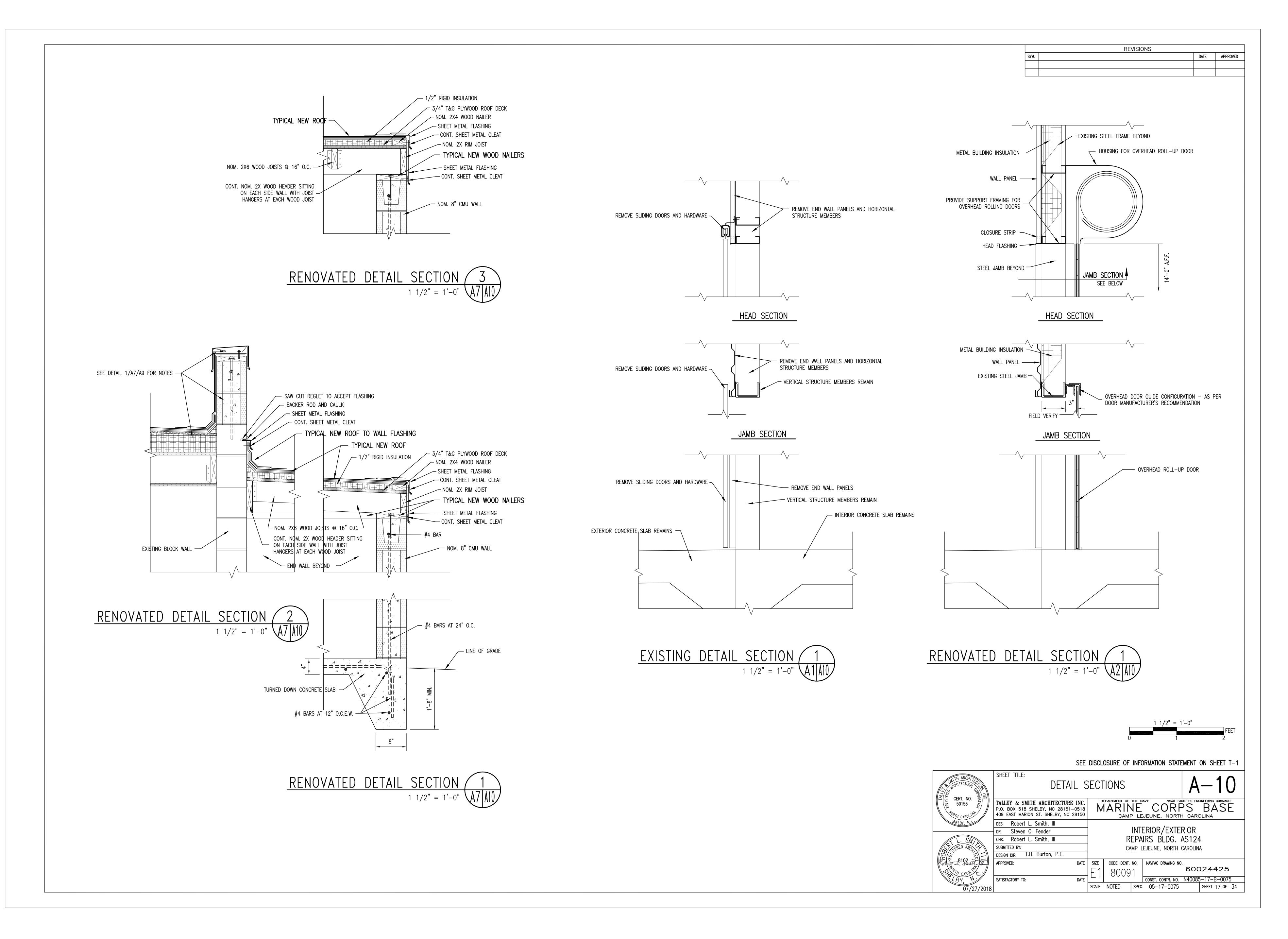












PLUMBING LEGE	ND
CA	COMPRESSED AIR PIPING
	DOMESTIC COLD WATER PIPING
NG	GAS PIPING (NAT. OR LP)
	SANITARY VENT PIPING
	SANITARY WASTE PIPING
	BACKFLOW PREVENTION DEVICE
	BALL VALVE
	EXTENT OF DEMOLITION
FD <b>@</b> c	FLOOR DRAIN
<b>Ø</b>	GAS-REGULATOR VALVE
<b>▶⊙</b> ⊹	SHUTOFF VALVE IN RISER
GCOO	GRADE CLEANOUT
	HOSE BIBB
——————— WF	WALL FAUCET
<del></del>	PIPE ELBOW
C+	PIPE ELBOW DOWN
	PIPE ELBOW UP
—-—- <del>  </del> -—	PIPE TEE
	PIPE TEE DOWN
	PIPE TEE UP
1	DEMOLITION KEYED NOTE TAG
1	NEW WORK KEYED NOTE
	POINT OF CONNECTION - NEW TO EXISTING
	PRESSURE REDUCING VALVE
WCOIL	WALL CLEANOUT
SA	WATER HAMMER ARRESTOR

	FIXTURE		DESCRIPTION	NOTES	PIPE SIZ	Έ		
CODE					DCW	DHW	WASTE	VENT
		BOWL	16.5" HIGH BOWL, ELONGATED, V.C., 2-1/8" TRAPWAY; TOP SPUD					
WC1	FLUSH VALVE WATER CLOSET, FLOOR MTD., 1.6GPF	FLUSH VALVE	11.5" HIGH, 1.6GPF	3	1"	-	4"	2"
	TEOGRAMID., 1.0011	SEAT	OFLC w/ SELF-SUSTAINING S.S. CHECK HINGE; HEIGHT 17-19" AFF					
		BOWL	20x17 VITREOUS CHINA					
LAV1	COUNTERTOP LAVATORY,	FAUCET	4" CENTERSET, SINGLE LEVER HANDLE, SOLID BRASS CONSTRUCTION, CERAMIC CARTRIDGE, HIGH TEMP LIMIT STOP	1,2,4	1/2"	1/2"	2"	0"
LAVT	0.5GPM	DRAIN	GRID STRAINER	1,2,4	1/2"	1/2"	2"	2"
		MIXING VALVE	LEAD FREE THERMOSTATIC MIXING VALVE - SETPOINT = 90°F INSTALL ON HOT WATER SUPPLY, ASSE 1070					
EWH1	TANKLESS ELECTRIC WATER HEATER	FIXT	WALL MOUNTED TANKLESS WATER HEATER, 2,5kW, 208V/1PH		1/2"	1/2"	-	-
GCO	GRADE CLEANOUT	FIXT	C.I. BODY, RECESSED BRONZE PLUG.		-	-	MATCH	-
WCO	WALL CLEANOUT	FIXT	ROUND S/S ACCESS COVER & SCREW, RECESS BRONZE THRD. PLUG		-	-	матсн	-
FD1	FLOOR DRAIN	FIXT	ADJUSTABLE, SCH. 40 HUB CONNECTION, ABS/PVC BASE ADAPTOR, NICKEL BRONZE CONDENSATE FUNNEL		-	-	МАТСН	-
HB1	INTERIOR HOSE BIBB	FIXT	POLISHED CHROME, VACUUM BREAKER, WHEEL HANDLE, 3/4" HOSE THREAD		1/2"	-	-	1-
WF1	EXTERIOR WALL FAUCET	FIXT	POWDER COATED, 3/4"HOSE THREAD, ANTI-SIPHON		3/4"	-	-	-
DCV	BACKFLOW PREVENTER	FIXT	DOUBLE CHECK VALVE, LEAD FREE		MATCH			

**IPLUMBING LOADS** 

WASTE (DRAINAGE FIXTURE UNITS)

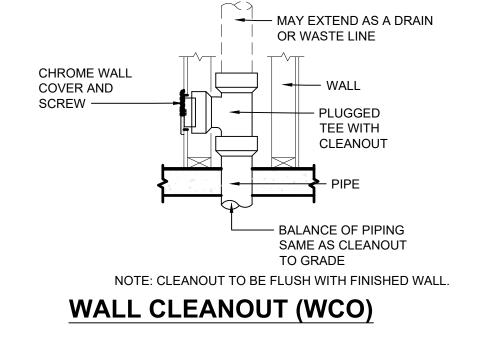
B. Iron Pipe — Nom 6 in. (152 mm) diam (or smaller) cast or ductile iron pipe.

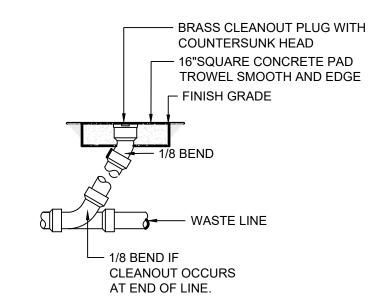
respectively.

applied at the concrete/pipe interface on the top surface of floor and on both surfaces of wall.

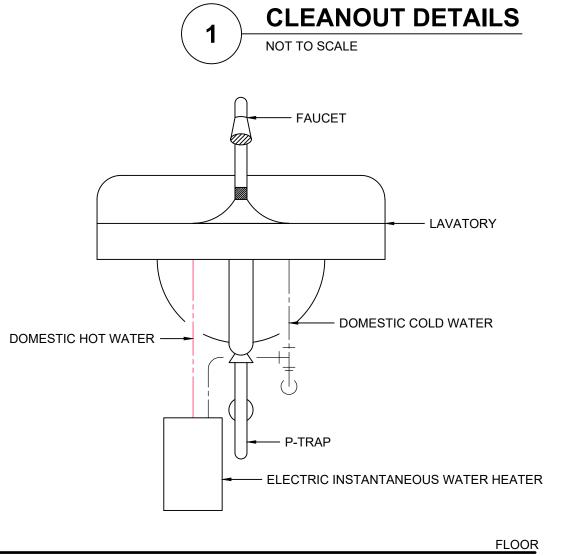
GAS LC	AD SCHEDULE			
FIXTURE TAG	DESCRIPTION	BTUH RATING	QUANTITY	TOTAL
GUH01	GAS-FIRED UNIT HEATER	30,000	1	30,000
GUH02	GAS-FIRED UNIT HEATER	30,000	1	30,000
GUH03	GAS-FIRED UNIT HEATER	30,000	1	30,000
GUH04	GAS-FIRED UNIT HEATER	30,000	1	30,000
GUH05	GAS-FIRED UNIT HEATER	30,000	1	30,000
GUH06	GAS-FIRED UNIT HEATER	30,000	1	30,000
GUH07	GAS-FIRED UNIT HEATER	30,000	1	30,000
GUH08	GAS-FIRED UNIT HEATER	30,000	1	30,000
GUH09	GAS-FIRED UNIT HEATER	30,000	1	30,000
GUH10	GAS-FIRED UNIT HEATER	30,000	1	30,000
TOTAL LOAD			•	300,000
BUILDING SER	VICE GAS PRESSURE			2 ps

3. TRIP LEVER OR FLUSH HANDLE TO BE LOCATED ON WIDE SIDE OF STALL OR TOILET ROOM.

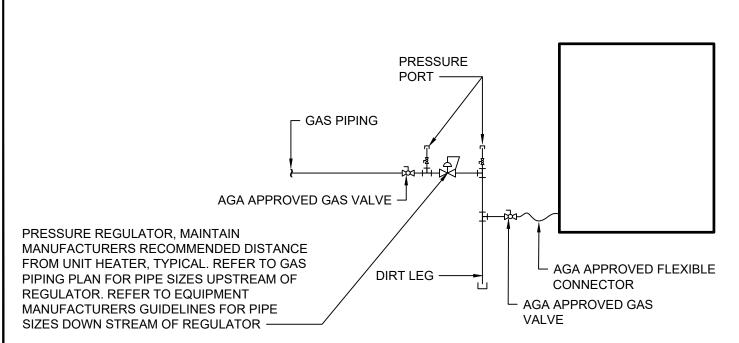




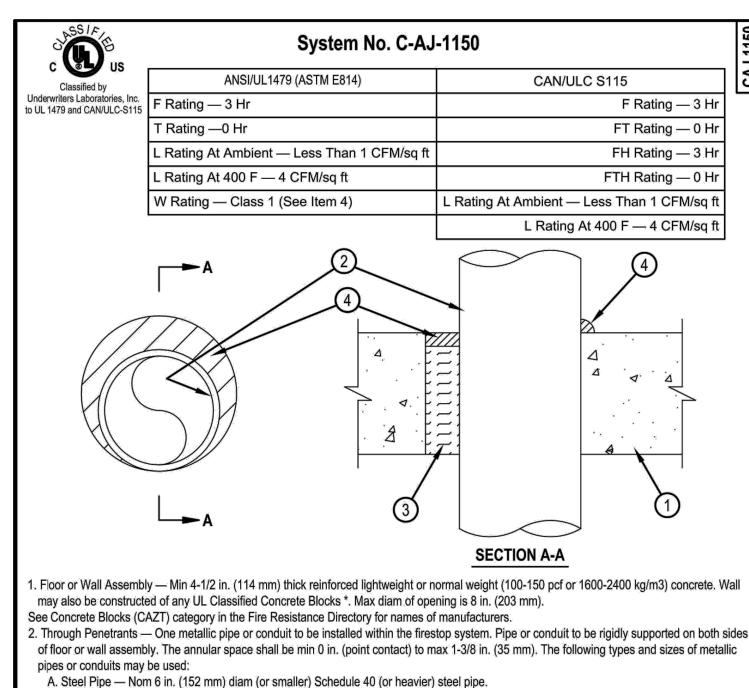
**GRADE CLEANOUT (GCO)** 





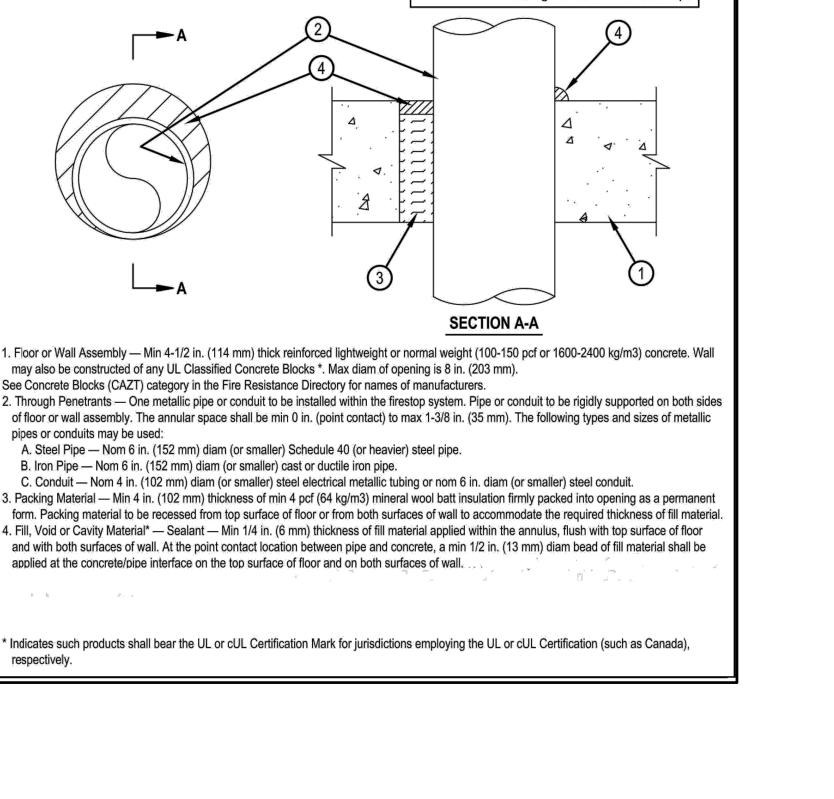






20 GPM

## 4. PROVIDE 1/2" IPS X 3/8" OD ANGLE BRASS STOP(S) WITH RIGID COPPER RISERS. ALL EXPOSED PIPING SHALL BE CHROME PLATED. PLUMBING ABBREVIATIONS BRONZE CLEANOUT DOMESTIC COLD WATER DOMESTIC HOT WATER ELECTRIC WATER HEATER FLOOR DRAIN GRADE CLEANOUT GALLONS PER FLUSH HOSE BIBB LAVATORY NATURAL GAS OPEN FRONT LESS COVER WATER HAMMER ARRESTOR VACUUM BREAKER VENT THROUGH ROOF WATER CLOSET WALL CLEANOUT WALL FAUCET

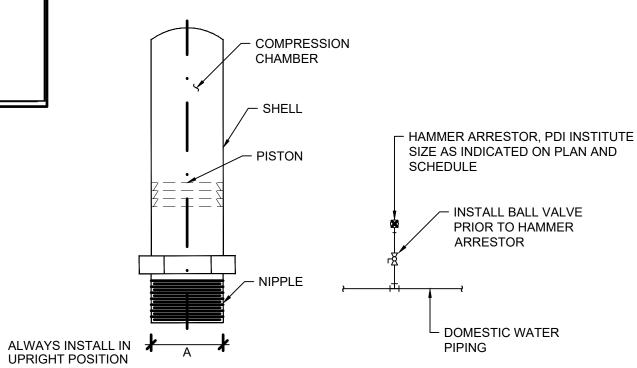


### PLUMBING GENERAL NOTES

- SCOPE OF WORK: THESE DRAWINGS AND ACCOMPANYING SPECIFICATIONS DESCRIBE SCOPE OF WORK REQUIRED FOR PLUMBING SYSTEMS. LABOR AND MATERIAL SHALL BE PROVIDED AS REQUIRED FOR A COMPLETE, WORKMANLIKE INSTALLATION OF ALL SYSTEMS SHOWN ON DIAGRAMMATIC DRAWINGS AND/OR AS SPECIFIED HEREIN.
- . CONTRACTOR: THE WORD "CONTRACTOR", "PLUMBING CONTRACTOR", AND "P.C." AS USED HEREIN SHALL MEAN THE PLUMBING INSTALLER UNLESS OTHERWISE QUALIFIED.
- . DRAWINGS: DRAWINGS ARE DIAGRAMMATIC AND MAY NOT COMPLETELY DESCRIBE EVERY DETAIL OF THE INSTALLATION. HOWEVER, CONTRACTOR IS RESPONSIBLE FOR FURNISHING COMPLETE SYSTEMS INCLUDING ALL REQUIRED EQUIPMENT AND ACCESSORIES TO OBTAIN FULLY FUNCTIONING PLUMBING SYSTEMS.
- 4. CODE COMPLIANCE: COMPLY WITH THE LATEST EDITIONS OF THE FOLLOWING STANDARDS AND CODES, INSOFAR AS THEY APPLY:
- INTERNATIONAL PLUMBING CODE
- . SUPERVISION: PROVIDE SKILLED SUPERINTENDENTS TO SUPERVISE THE WORK FROM THE BEGINNING TO COMPLETION AND FINAL INSPECTION.
- PROGRESS OF WORK: PERFORM WORK IN ACCORDANCE WITH SCHEDULE AND REQUIREMENTS OF THE CONTRACT. UNDER NO CIRCUMSTANCES SHALL THIS CONTRACTOR DELAY THE OVERALL PROJECT SCHEDULE.
- COORDINATION: COORDINATE PLUMBING WORK WITH THE WORK OF OTHER TRADES. LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE UNLESS SPECIFICALLY DIMENSIONED. ARRANGE PLUMBING SO AS NOT TO INTERFERE WITH THE WORK OF OTHER TRADES. VERIFY ACTUAL BUILDING STRUCTURE PRIOR TO DUCT FABRICATION AND ADJUST LAYOUT AS REQUIRED. INCLUDE ALL OFFSETS IN DUCTS, FITTINGS, PIPING, ETC. AS REQUIRED TO PROPERLY INSTALL EQUIPMENT.
- E. EQUIPMENT LOCATIONS: DETERMINE EXACT EQUIPMENT AND MATERIALS LOCATIONS TO PROVIDE BEST ARRANGEMENT AND TO FACILITATE PROPER MAINTENANCE AND SERVICING OF EQUIPMENT.
- 9. LISTING AND LABELING: ALL EQUIPMENT SHALL BE LABELED OR LISTED BY UL OR OTHER APPROVED TESTING AGENCY WHERE REQUIRED.
- O. RECORD DRAWINGS: MAINTAIN ONE SET OF "RED-LINED" RECORD DRAWINGS ON SITE AT ALL TIMES
- 1. BUILDINGS AND CONSTRUCTION:
- A. BUILDING LAYOUT INDICATED IS DEVELOPED FROM EXISTING RECORD DOCUMENTS AND LIMITED FIELD VERIFICATION FOR THE PURPOSES OF DESCRIBING THE WORK. VERIFY ALL EXISTING CONDITIONS AND ADJUST WORK AS REQUIRED TO SUIT ACTUAL FIELD CONDITIONS.
- B. PERFORM ALL WORK IN ACCORDANCE WITH SAFETY REGULATIONS.
- C. DO NOT CUT ANY STRUCTURAL MEMBERS WITHOUT EXPRESS WRITTEN INSTRUCTIONS FROM CONTRACTING OFFICER. PROVIDE CUTTING AND PATCHING FOR EXISTING FINISHES AS REQUIRED.
- D. COORDINATE INSTALLATION OF NEW PLUMBING SYSTEMS WITH EXISTING BUILDING SYSTEMS. ADJUST ARRANGEMENTS AS REQUIRED TO ACCOMMODATE INTERFERENCES.

### PLUMBING DEMOLITION NOTES

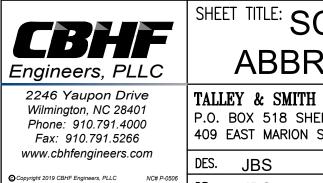
- THE PLUMBING CONTRACTOR SHALL REVIEW THE DRAWINGS AND SPECIFICATIONS FOR DEMOLITION REQUIREMENTS AND LAYOUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER. REMOVE ALL FIXTURES. EQUIPMENT. PIPING, SUPPORTS, ACCESSORIES, ETC. MADE OBSOLETE BY THESE ALTERATIONS AS SHOWN IN THE PLUMBING DRAWINGS. ALL ITEMS TO BE REMOVED OR MODIFIED MAY NOT BE SHOWN, HOWEVER, THIS CONTRACTOR SHALL REMOVE ANY PLUMBING WORK AS REQUIRED BY THE CONSTRUCTION OR AS DIRECTED BY THE CONTRACTING OFFICER. SURVEY THE AFFECTED AREAS BEFORE SUBMITTING A BID.
- ALL EXISTING PLUMBING FIXTURES, EQUIPMENT AND PIPING SHALL REMAIN UNLESS SPECIFICALLY NOTED TO BE REMOVED.
- THESE DRAWINGS ARE COMPILED BY THE CONTRACTING OFFICER FROM LIMITED FIELD VERIFICATION OF EXISTING CONDITIONS FOR THE PURPOSE OF INDICATING THE WORK REQUIRED AND ARE BELIEVED TO BE CORRECT NOTWITHSTANDING, THE PLUMBING CONTRACTOR SHALL VERIFY ALL PIPING, FIXTURE LOCATIONS, DIMENSIONS, MATERIALS AND ALL FIELD CONDITIONS AFFECTING HIS WORK.
- WHERE PLUMBING SYSTEMS PASS THROUGH THE DEMOLITION AREAS TO SERVE OTHER PORTIONS OF THE PREMISES. THEY SHALL REMAIN OR BE SUITABLY RELOCATED AND THE SYSTEM RESTORED TO NORMAL OPERATION. ADVISE THE CONTRACTING OFFICER IMMEDIATELY IF SUCH CONDITIONS ARE UNCOVERED BEFORE PROCEEDING WITH ADDITIONAL WORK.
- PROTECT ALL EXISTING LIFE SAFETY SYSTEMS, FIRE ALARM AND PUBLIC ADDRESS SYSTEMS AND MAINTAIN THEM IN OPERATION THROUGHOUT THE PROGRESS OF THE WORK. NOTIFY THE OWNER AND CONTRACTING OFFICER IN WRITING WHEN SHUTDOWNS ARE REQUIRED PRIOR TO ANY OUTAGE OF SERVICE. WHERE THE DURATION OF A PROPOSED OUTAGE CANNOT BE TOLERATED BY THE CONTRACTING OFFICER, PROVIDE TEMPORARY CONNECTIONS AS REQUIRED TO MAINTAIN SERVICE.
- SURVEY THE EFFECTED AREAS BEFORE SUBMITTING A BID AS ALL EXISTING CONDITIONS CANNOT BE COMPLETELY <u>DEPICTED ON THE DRAWINGS AND SOME UNUSUAL CONDITIONS MAY EXIST.</u>



JOSAM NO.	P.D.I. SYMBOL	FIXTURE UNIT RATING	A SIZE
7501-S	Α	1-11	1/2
7502-S	В	12-32	3/4
7503-S	С	33-60	1
7504-S	D	61-113	1 1/4
7505-S	E	114-154	1 1/2
7506-S	F	155-330	2







SHEET TITLE: SCHEDULE, LEGEND, LOADS ABBREVIATIONS AND DETAILS TALLEY & SMITH ARCHITECTURE INC.

> CHK. DMH SUBMITTED BY: APPROVED:

JULY 27, 2018

MARINE CORPS BASE P.O. BOX 518 SHELBY, NC 28151-0518 409 EAST MARION ST. SHELBY, NC 28150 CAMP LEJEUNE, NORTH CAROLINA

REVISIONS

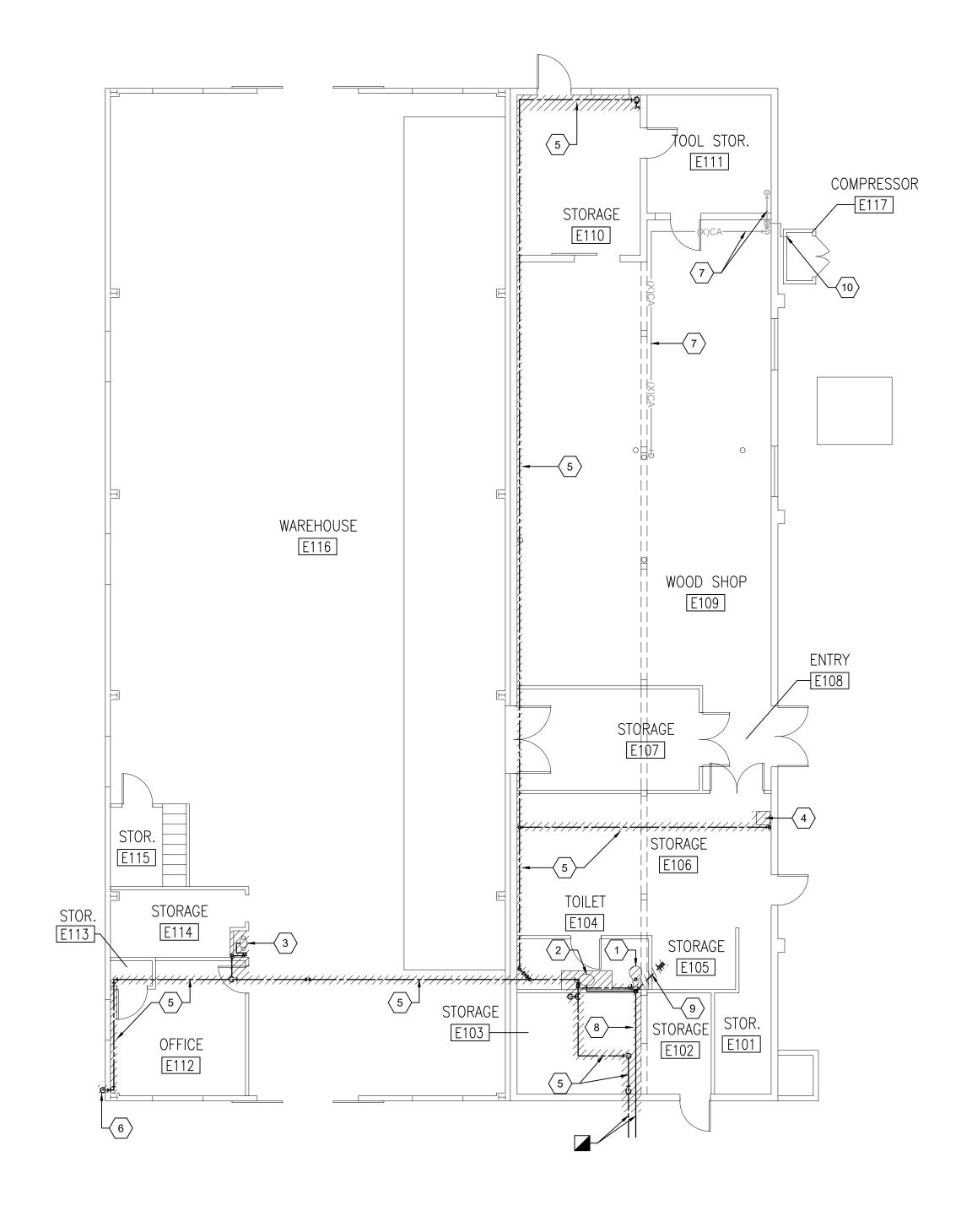
DATE APPROVED

SYM.

INTERIOR/EXTERIOR REPAIRS BLDG. AS124 CAMP LEJEUNE, NORTH CAROLINA DESIGN DIR. THBURTON, PE DATE | SIZE | CODE IDENT. NO. | NAVFAC DRAWING NO.

60024426 CONST. CONTR. NO. N40085-17-D-0859 SATISFACTORY TO: SCALE: NOTED | SPEC. 05-17-0075 SHEET 180F 34

REVISIONS DATE APPROVED





- (1) REMOVE AND PROPERLY DISPOSE OF (X) WATER CLOSET, FLUSH VALVE AND ASSOCIATED PIPING.
- $\langle$  2  $\rangle$  REMOVE AND PROPERLY DISPOSE OF (X) LAVATORY, FAUCET, TRIM AND ASSOCIATED PIPING.
- $\langle$  3  $\rangle$  REMOVE AND PROPERLY DISPOSE OF (X) EYEWASH/ SAFETY SHOWER ASSOCIATED PIPING.
- $\langle$  4  $\rangle$  REMOVE AND PROPERLY DISPOSE OF (X) WATER COOLER, TRIM AND ASSOCIATED PIPING. (5) REMOVE AND PROPERLY DISPOSE OF (X) DCW PIPING, VALVES AND ACCESSORIES COMPLETE.
- $\langle 6 \rangle$  CUT AND CAP (X) PIPING AT GRADE.
- (7) (X) COMPRESSED AIR PIPING TO BE PROTECTED AND REMAIN IN PLACE
- 8 REMOVE AND PROPERLY DISPOSE OF (X) SANITARY SEWER PIPING. CONTRACTOR TO VERIFY LOCATION OF PIPING.
- 9 REMOVE AND PROPERLY DISPOSE OF (X) VENT PIPING AND VENT THRU ROOF.
- $\langle 10 \rangle$  DISCONNECT (X) COMPRESSED AIR PIPING AT (X) AIR COMPRESSOR TO BE REMOVED DURING CONSTRUCTION.



SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET G-1 PLUMBING DEMOLITION FLOOR PLAN

MITH ARCHITECTURE INC.
B SHELBY, NC 28151-0518
RION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY

MARINE CORPS BASE

CAMP LEJEUNE, NORTH CAROLINA

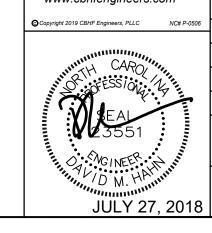
**D\_**2

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150 SUBMITTED BY:

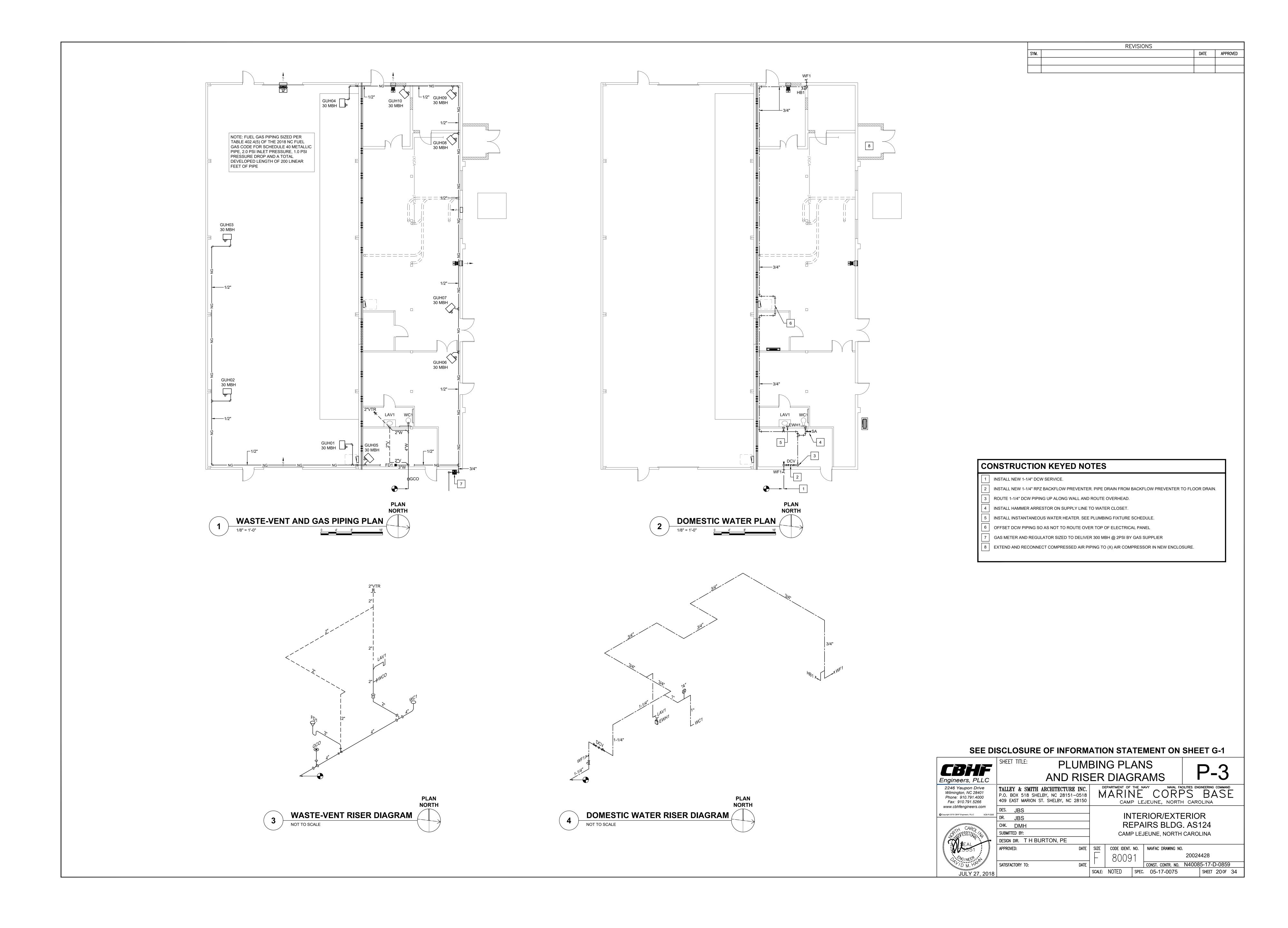
INTERIOR/EXTERIOR REPAIRS BLDG. AS124 DESIGN DIR. THBURTON, PE

CAMP LEJEUNE, NORTH CAROLINA DATE SIZE CODE IDENT. NO. NAVFAC DRAWING NO.

60024427 CONST. CONTR. NO. N40085-17-D-0859 SCALE: NOTED SPEC. 05-17-0075



WWW.cbhfengineers.com
DES. JBS
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NC# P-0506
DR. JBS APPROVED: SATISFACTORY TO: JULY 27, 2018



ABBREVIATIONS	ADDDE MATION	Izrou	ADDDEV//ATION
TERM ABOVE FINISHED FLOOR	ABBREVIATION	TERM	ABBREVIATION
ABOVE FINISHED FLOOR  ABOVE GROUND	AFF AG	INDOOR UNIT IRON PIPE SIZE	IDU IPS
ABOVE SEA LEVEL	ASL	KILOVOLT-AMP	KVA
ACROSS THE LINE AIR ADMITTANCE VALVE	ACL AAV	KILOWATT KILOWATT HOUR	KWH
AIR CONDITION(-ING, -ED)	AIR COND	LEAVING AIR TEMPERATURE	LAT
AIR-HANDLING UNIT	AHU OH AH	LEAVING WATER TEMPERATURE	LWT
AIR FLOW MEASURING STATION  AMBIENT	AFMA AMB	LENGTH LINEAR FEET	LG LF
AMERICAN NATIONAL STANDARDS INSTITUTE	ANSI	LOW-PRESSURE STEAM	LPS
AMPERE (AMP, AMPS)	AMP	MAXIMUM	MAX
ANALOG INPUT ANALOG OUTPUT	AI AO	MAXIMUM OVERCURRENT PROTECTION  MEDIUM-PRESSURE STEAM	MOCP MPS
AND	& &	MILES PER HOUR	MPH
APPARATUS DEW POINT	ADP	MINIMUM	MIN.
APPROXIMATE	APPROX	MINIMUM CIRCUIT AMPERES	MCA
ARCHITECT ATMOSPHERE	ARCH ATM	MINUTE  MANUFACTURER	MIN MFR
AVERAGE	AVG	MOTOR CONTROL CENTER	MCC
BRAKE HORSEPOWER	BHP	NOISE CRITERIA	NC NDLV
BROWN & SHARPE WIRE GAGE BRITISH THERMAL UNIT	B&S BTU	NON-STANDARD PART LOAD NORMALLY OPEN	NPLV NO
BRITISH THERMAL UNIT PER HOUR	BTUH	NORMALLY CLOSED	NC
1000 BRITISH THERMAL UNIT	MBH	NOT APPLICABLE	N/A
BUILDING BUILDING AUTOMATION SYSTEM	BLDG BAS	NOT IN CONTRACT  NOT TO SCALE	NIC NTS
CELSIUS	°C	NUMBER	NO
CHILLED WATER RETURN	CHWR	ON CENTER	OC
CHILLED WATER SUPPLY COEFFICIENT, VALVE FLOW	CHWS CV	OUNCE OUTDOOR UNIT	OZ ODU
COEFFICIENT OF PERFORMANCE FACTOR	COP	OUTSIDE AIR	OA
COMPRESSOR	COMP	PACKAGE UNIT	PU
CONCRETE CONDENS(-ER, -ING, -ATION)	CONC	PACKAGE TERMINAL AIR CONDITIONER PARTS PER MILLION	PTAC PPM
CONNECTION	CONN	PERCENT	%
CONTINUATION	CONT	PHASE	PH
COOLING LOAD CUBIC FEET	CLG LOAD CU FT	POUNDS POUNDS PER SQUARE FOOT	LBS PSF
CUBIC INCH	CU IN	POWER VENTILATOR	PV
CUBIC FEET PER MINUTE	CFM	PRESSURE	PRESS
CFM, STANDARD CONDITIONS DECIBEL	SCFM DB	PRESSURE REDUCING VALVE PRESSURE SAFETY VALVE	PRV PSV
DEGREE	DEG OR °	QUANTITY	QTY
DEDICATED OUTDOOR AIR SYSTEM	DOAS	RATED LOAD AMPS	RLA
DEGREES FAHRENHEIT DETAIL	DEG. F	RECIRCULATE  REDUCED PRESSURE BACKFLOW PREVENTER	RECIRC RPZ
DEW-POINT TEMPERATURE	DPT	REFRIGERANT (12, 22, ETC.)	R22, R410
DIAMETER	DIA	REFRIGERANT LIQUID	RL
DIAMETER, INSIDE DIAMETER, OUTSIDE	ID OD	REFRIGERANT SUCTION REQUIRED	RS REQD OR REQ'D
DIFFERENCE OR DELTA	DIFF	RELATIVE HUMIDITY	RH
DIGITAL INPUT	DI	RETURN AIR	RA
DIGITAL OUTPUT  DOMESTIC HOT WATER	DO DHW	REVOLUTIONS PER MINUTE REVOLUTIONS PER SECOND	RPM RPS
DOMESTIC HOT WATER  DOMESTIC HOT WATER RECIRCULATION	DHWR	ROOF VENTILATOR	RV
DRY-BULB TEMPERATURE	DBT	ROOF TOP UNIT	RTU
DUCTLESS SPLIT SYSTEM AIR HANDLER DUCTLESS SPLIT SYSTEM HEAT PUMP	DAH DHP	SAFETY FACTOR	SF
ENERGY EFFICIENCY RATING	ERR	SEASONAL ENERGY EFFICIENCY RATIO SECOND	SEER S
EFFICIENCY	EFF	SHADING COEFFICIENT	SC
ELECTRIC UNIT HEATER	EUH	SPECIFICATION	SPEC
ELEVATION ENTERING	EL ENT	SQUARE STANDARD	SQ STD
ENTERING WATER TEMPERATURE	EWT	STATIC PRESSURE	SP
ENTERING AIR TEMPERATURE	EAT	SUPPLY	SPLY
EXISTING  EXTERNAL AMBIENT TEMPERATURE	(X) EAT	SUPPLY AIR TEMPERATURE	SA TEMP
EXTERNAL STATIC PRESSURE	ESP	TEMPERATURE DIFFERENCE	TD
EXHAUST AIR	EA EVE	THERMOSTAT	T STAT
FACE VELOCITY  FAHRENHEIT	FVEL °F	TONS OF REFRIGERATION  TO BE DETERMINED	TONS TBD
FEET PER MINUTE	FPM	TOP OF STEEL	TOS
FEET PER SECOND	FPS	TOTAL DYNAMIC HEAD	TDH
FLOOR FOOT OR FEET	FLR FT	TYPICAL U-FACTOR	TYP U
FULL LOAD AMPS	FLA	UNDER GROUND	UG
GAGE OR GAUGE	GA	UNLESS OTHERWISE NOTED	UON
GALLONS  GALLONS PER HOUR	GAL GPH	UNIT HEATER - ELECTRIC  VARIABLE AIR VOLUME	UH VAV
GALLONS PER MINUTE	GPM	VARIABLE FREQUENCY DRIVE	VFD
GALLONS PER DAY	GPD	VELOCITY	VEL
GAS UNIT HEATER GRAINS	GUH GR	VENTILATION, VENT VENT THRU ROOF	VENT VTR
HEAD	HD	VERTICAL	VERT
HEAT EXCHANGER	HX	VOLT	V
HEATING AND VENTILATION UNIT HEATING, VENTILATION AND AIR CONDITIONING	HV HVAC	VOLT AMPERE VOLUME	VA VOL
HEIGHT	HGT	WATER PRESSURE DROP	WPD
HERTZ	HZ	WATER GAUGE	WG
HIGH DENSITY POLYPROPYLENE	HDPE	WATT-HOUR	W
HIGH-PRESSURE STEAM HORSEPOWER, HEAT PUMP	HPS HP	WATT-HOUR WITH	WH W/
HOT WATER COIL	HWC	WEIGHT	WT
HOUR(S)	HR	WET BULB	WB
HUMIDITY, RELATIVE	RH IPLV	YARD YEAR	YD YR
NIE(3RAIEI) PARI I DADI VALUES		<b>.</b> . <b></b>	1 1 1 3
INTEGRATED PART LOAD VALUES INCH	IN.		

Œ	EMERGENCY GAS SHUT OFF
	THERMOSTAT/TEMP SENSOR
 	DUCT SMOKE DETECTOR
HWS	HEATING HOT WATER SUPPLY
HWR	HEATING HOT WATER RETURN
	CHILLED WATER SUPPLY CHILLED WATER RETURN
R	REFRIGERANT PIPING
	CONDENSATE PIPING
CTS	CHEMICAL FEED SUPPLY CHEMICAL FEED RETURN
	EXISTING 1-HR RATED WALL
<b>*</b>	- LAISTING 1-III NATED WALL
	FIRE DAMPER
	COMBINATION FIRE SMOKE DAMPER
	VOLUME DAMPER
M—	MOTORIZED DAMPER
<del>Ľ</del>	CIRCUIT SETTER
Å	2-WAY CONTROL VALVE
Ŵ	3-WAY CONTROL VALVE
∠¹ or ⟨	ELBOW SIDE
<b>2</b> + or <b>2</b>	ELBOW UP
C+ or	ELBOW DOWN
→ or △	45 DEGREE ELBOW SIDE
	45 DEGREE ELBOW DOWN
)+ or ∑	45 DEGREE ELBOW UP
	TEE SIDE
⊢ or ☐	
⊖ or □	TEE BRANCH DOWN
H <b>→</b> or <b>□</b>	TEE END UP
or 📮	PUMP SIDE
	PUMP END
<del></del>	
	BUTTERFLY VALVE SIDE
$\bowtie$	GATE VALVE SIDE
or M	BALL VALVE SIDE
or 🖳	CHECK VALVE SIDE
Ø or ₺	TRIPLE DUTY VAVLE
$\Box$	WELD NECK FLANGE SIDE
	WELD NECK FLANGE END
	SLIP ON FLANGE SIDE
	SLIP ON FLANGE END

#### **MECHANICAL DEMOLITION NOTES**

- 1. THE MECHANICAL CONTRACTOR SHALL REVIEW THE DRAWINGS AND SPECIFICATIONS FOR DEMOLITION REQUIREMENTS AND LAYOUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER, REMOVE ALL EQUIPMENT, DUCTWORK, SUPPORTS, CONTROLS, ACCESSORIES, ETC..., AND MECHANICAL ITEMS MADE OBSOLETE BY THESE ALTERATIONS AS SHOWN IN THE MECHANICAL DRAWINGS. ALL ITEMS TO BE REMOVED OR MODIFIED MAY NOT BE SHOWN, HOWEVER, THIS CONTRACTOR SHALL REMOVE ANY MECHANICAL WORK AS REQUIRED BY THE CONSTRUCTION.
- 2. PREPARE A DEMOLITION PLAN AND SUBMIT PROPOSED DEMOLITION, AND REMOVAL PROCEDURES FOR APPROVAL BEFORE WORK IS STARTED. PLAN SHALL BE APPROVED BY CONTRACTING OFFICER PRIOR TO WORK BEGINNING. DO NOT BEGIN DEMOLITION UNTIL AUTHORIZATION IS RECEIVED FROM THE CONTRACTING OFFICER.
- 3. BEFORE BEGINNING ANY DEMOLITION WORK, SURVEY THE SITE AND EXAMINE THE DRAWINGS AND SPECIFICATIONS TO DETERMINE THE EXTENT OF THE WORK. RECORD EXISTING CONDITIONS IN THE PRESENCE OF THE CONTRACTING OFFICER SHOWING THE CONDITION OF STRUCTURES AND OTHER FACILITIES ADJACENT TO AREAS OF ALTERATION OR REMOVAL. PHOTOGRAPHS SIZED 4 INCH WILL BE ACCEPTABLE AS A RECORD OF EXISTING CONDITIONS. INCLUDE IN THE RECORD THE ELEVATION OF THE TOP OF FOUNDATION WALLS, FINISH FLOOR ELEVATIONS, POSSIBLE CONFLICTING ELECTRICAL CONDUITS, PLUMBING LINES, ALARMS SYSTEMS, THE LOCATION AND EXTENT OF EXISTING CRACKS AND OTHER DAMAGE AND DESCRIPTION OF SURFACE CONDITIONS THAT EXIST PRIOR TO BEFORE STARTING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND DOCUMENT ALL REQUIRED OUTAGES WHICH WILL BE REQUIRED DURING THE COURSE OF WORK, AND TO NOTE THESE OUTAGES ON THE RECORD DOCUMENT. SUBMIT SURVEY RESULTS.
- 4. EXCEPT FOR SALVAGED ITEMS, AND FOR MATERIALS OR EQUIPMENT SCHEDULED FOR SALVAGE, ALL MATERIALS AND EQUIPMENT REMOVED AND NOT REUSED OR SALVAGED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM GOVERNMENT PROPERTY. TITLE TO MATERIALS RESULTING FROM DEMOLITION AND DECONSTRUCTION, AND MATERIALS AND EQUIPMENT TO BE REMOVED, IS VESTED IN THE CONTRACTOR UPON APPROVAL BY THE CONTRACTING OFFICER OF THE CONTRACTOR'S DEMOLITION, DECONSTRUCTION, AND REMOVAL PROCEDURES, AND AUTHORIZATION BY THE CONTRACTING OFFICER TO BEGIN DEMOLITION AND DECONSTRUCTION. THE GOVERNMENT WILL NOT BE RESPONSIBLE FOR THE CONDITION OR LOSS OF, OR DAMAGE TO, SUCH PROPERTY AFTER CONTRACT AWARD. SHOWING FOR SALE OR SELLING MATERIALS AND EQUIPMENT ON SITE IS PROHIBITED.
- 5. THESE DRAWINGS ARE COMPILED BY THE ENGINEER FROM THE OWNER'S RECORD DRAWINGS AND LIMITED FIELD VERIFICATION OF EXISTING CONDITIONS FOR THE PURPOSE OF INDICATING THE WORK REQUIRED AND ARE BELIEVED TO BE CORRECT. NOTWITHSTANDING, THE CONTRACTOR SHALL VERIFY ALL DUCTWORK, EQUIPMENT LOCATIONS, DIMENSIONS AND ALL FIELD CONDITIONS AFFECTING HIS WORK.
- 6. WHERE MECHANICAL SYSTEMS PASS THROUGH THE DEMOLITION AREAS TO SERVE OTHER PORTIONS OF THE PREMISES, THEY SHALL REMAIN OR BE SUITABLY RELOCATED AND THE SYSTEM RESTORED TO NORMAL OPERATION. ADVISE THE CONTRACTING OFFICER IMMEDIATELY IF SUCH CONDITIONS ARE UNCOVERED BEFORE PROCEEDING WITH ADDITIONAL WORK.
- 7. DO NOT INTERRUPT EXISTING UTILITIES SERVING OCCUPIED OR USED FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY THE CONTRACTING OFFICER. DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED AND USED BY THE GOVERNMENT EXCEPT WHEN APPROVED IN WRITING AND THEN ONLY AFTER TEMPORARY UTILITY SERVICES HAVE BEEN APPROVED AND PROVIDED. DO NOT BEGIN DEMOLITION OR DECONSTRUCTION WORK UNTIL ALL UTILITY DISCONNECTIONS HAVE BEEN MADE. SHUT OFF AND CAP UTILITIES FOR FUTURE USE, AS INDICATED. TEMPORARY SERVICES INCLUDING BUILDING HEAT AND HEATING OF DOMESTIC WATER SHALL BE REQUIRED WHEN ANY INTERRUPTION OF SUCH SERVICES EXCEEDS 12 HOURS EXCEPT WHEN AUTHORIZED IN WRITING BY THE CONTRACTOR OFFICER.

GAS-FIRED UNIT HEATER SCHEDULE																		
DRAWING CODE	FUEL	TYPE			GAS			FLUE	MIN. AIRFLOW	MOTOR		VOLTAGE	FLA	MCA	MOCP	MAX. MTG.	NOTES	ACCESSORIES
		FAN	COMBUSTION / CONTROL	VENTING	INPUT (BTUH)	OUTPUT (BTUH)	EFF.(%)	OUTLET (IN)	(CFM)	HP	RPM	(V/PH/HZ)	(AMPS)	(AMPS)	(AMPS)	HEIGHT (FT.)		
GUH01-10	NATURAL GAS	GAS PROPELLER ENCLOSED / SINGLE STAGE POWERED 30,000 24,600 80 3 505 1/15 1550 120/1/60 3.7 4.625 15 10.0 1,2 A,B																
NOTES:	1. REFER TO SPEC	IFICATIONS FO	R FUTHER INFORMATION.															
	2. VENT IN ACCOR	DANCE WITH BU	JILDING CODE AND MANUFACTUR	RER'S INSTRU	CTIONS.													
ACCESSORIES:	A. SINGLE STAGE TERMOSTAT.																	
	B. AGA APPROVED	REGULATOR, 2	PSI TO 12".															

DRAWING	TYPE	FRAME	DESCRIPTION	MATERIAL	LOUVER	SIZE (W x H)	FRAME	SERVICE	AIRFLOW	PERFORMANCI	E RATINGS	NOTES	ACCESSORIES
CODE					DEPTH				(CFM)	FREE AREA	WATER PENETRATION		
					(IN.)	(IN.)				(SF)	(OZ./SF)		
L1	FIXED	EXTERIOR FLANGE	HORIZONTAL, WIND-DRIVEN-RAIN-RESISTAN	TALUMINUM	5	16 X 16	STANDARD	INTAKE	175	0.83	-	1,2	A,
L2	FIXED	EXTERIOR FLANGE	HORIZONTAL, WIND-DRIVEN-RAIN-RESISTAN	TALUMINUM	5	16 X 16	STANDARD	EXHAUST	175	0.83	-	1,2	A,
L3	FIXED	EXTERIOR FLANGE	HORIZONTAL, WIND-DRIVEN-RAIN-RESISTAN	TALUMINUM	5	32 X 32	FLANGED	EXHAUST	1,200	2.72	-	1,2	A,
L4	FIXED	EXTERIOR FLANGE	HORIZONTAL, WIND-DRIVEN-RAIN-RESISTAN	TALUMINUM	5	32 X 32	FLANGED	INTAKE	1,200	2.72	-	1,2	A,
L5	FIXED	EXTERIOR FLANGE	HORIZONTAL, WIND-DRIVEN-RAIN-RESISTAN	TALUMINUM	5	16 X 16	STANDARD	EXHAUST	175	0.83	-	1,2	A,
L6	FIXED	EXTERIOR FLANGE	HORIZONTAL, WIND-DRIVEN-RAIN-RESISTAN	TALUMINUM	5	16 X 16	STANDARD	EXHAUST	75	0.83	-	1,2	A,
NOTES:	1. REFE	ER TO SPECIFICATION	089100 - METAL WALL LOUVERS FOR ADDITION	NAL INFORMATIO	N.	•				•		•	
	2 EINIIG	SH AS SELECTED BY A	RCHITECT FROM MANUFACTURER'S FULL RA		ND GLOSS								

DRAWING CODE		ARI HEATING		MIN	INDOOR UNIT				OUTDOOR (	JNIT			REFRIGERANT	PIPING	NOTES	ACCESSORIES
	80/67/95	70/47	SEER	R HSPF	FAN ELECTRICAL W		WEIGHT			MAXIMUM MAXIMUM HEIGHT		1				
	TOTAL MIN.	TOTAL			SA MIN-MAX	VOLTAGE	MCA	1	VOLTAGE	MCA	MOCP		LENGTH (FT.)	DIFFERENTIAL (FT.)		
(IDU / ODU)	(MBH) (MBH)	(MBH)			(CFM)	(V/PH/HZ)	(AMPS)	(LBS)	(V/PH/HZ)	(AMPS)	(AMPS)	(LBS)				
DAH01 / DHP01	10.00 9.00	10.90	17.0	9.0	170-399	208/1/60	1.4	22	208/1/60	12	15	73	65	40		1 A,B,0
NOTES:	1. REFER TO S	PECIFICATIONS	FOR F	URTHER	INFORMATION	l.		•	•	•	•	•			•	<u> </u>
ACCESSORIES:	A. ELECTRICAL	CONTRACTOR	R TO PR	OVIDE C	ONDUIT AND C	CONDUCTOR	FROM O	UTDOOR (	JNIT TO INDO	OR UNIT						
	B. SEACOAST	COATING PROT	ECTION	ON OU	TDOOR UNIT.											
	C. CONCRETE	PAD.														
	D. WIRED WAL	L-MOUNTED RE	MOTE (	CONTRO	LLER WITH VA	NDAL PROOF	ENCLOS	SURE.								

DRAWING	FAN TYPE	SERVICE	CAPACITI	ES			ELECTRIC	AL		SONES	WEIGHT	NOTES	ACCESSORIES
CODE			AIRFLOW (CFM)	ESP (IN. WG.)	DRIVE ARRANGEMENT	MOTOR RPM	MOTOR TYPE	MOTOR	V/PH/HZ		(LBS.)		
PV01	PROPELLER FAN	EXHAUST	1,200	0.25	DIRECT	1,076	ECM	1/2 HP	120/1/60	10.4	64	1,2	A,B,C
PV02	PROPELLER FAN	EXHAUST	175	0.20	DIRECT	1,550	ECM	1/4 HP	120/1/60	6.3	25	1,2	A,B,C
PV03	PROPELLER FAN	EXHAUST	175	0.20	DIRECT	1,550	ECM	1/4 HP	120/1/60	6.3	25	1,2	A,B,C
PV04	IN-LINE CENTRIFUGAL FAN	EXHAUST	75	0.25	DIRECT	950	ECM	0.62A	120/1/60	4.6	30	1,2	E
NOTES:	1. REFER TO SPECIFICATION FOR F	URTHER INFORM	ATION.	•		•	•	•		•	•	•	
	2. MOUNT AT ELEVATION INDICATE	D ON ARCHITECT	URAL DRA	WINGS.									
ACCESSORI	ES:A. BIRDSCREEN.												
	B. ON/OFF SWITCH LOCATED PER E	ELECTRICAL PLAN	IS.										
	C. WALL HOUSING FOR INTAKE SCF	REEN FAN BACKI	ORAFT DAI	MPER SPE	CIEIED WITH LOUV	FR AND I	OUVER						

DRAWING CODE	TYPE	SERVICE	NECK	BRANCH	MODULE	MATERIAL	FINISH	MOUNTING	NOTES	ACCESSORIES
			SIZE (IN.)	CONN.	SIZE					
				SIZE	(IN.)					
				(IN.)					1	
EG01	FIXED FACE GRILLE	EXHAUST	10X10	6"Ø	10X10	ALUMINUM	WHITE	WALL SURFACE	1,2	
NOTES:	1. REFER TO SPECIFICATIONS FOR	FURTHER INFOR	RMATION.							
	2. DUCT BRANCH CONNECTION SIZ	ZE TO BE EQUAL	TO THE NEC	K SIZE OF	DIFFUSE	R UNLESS NO	OTED OTH	IERWISE ON PLANS.		
ACCESSORIES:	A. CONCEALED MOUNTING BRACKE	ET.								

#### SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET G-1

2246 Yaupon Drive Wilmington, NC 28401 Phone: 910.791.4000 Fax: 910.791.5266 www.cbhfengineers.com DES. RWC

JULY 27, 2018

SHEET TITLE: MECHANICAL NOTES SCHEDULES, ABBREVIATIONS AND LEGEND

MECHANICAL NOTES

SCHEDULES, ABBREVIATIONS AND LEGEND

M-1 MARINE CORPS BASE P.O. BOX 518 SHELBY, NC 28151-0518 409 EAST MARION ST. SHELBY, NC 28150 CAMP LEJEUNE, NORTH CAROLINA

REVISIONS

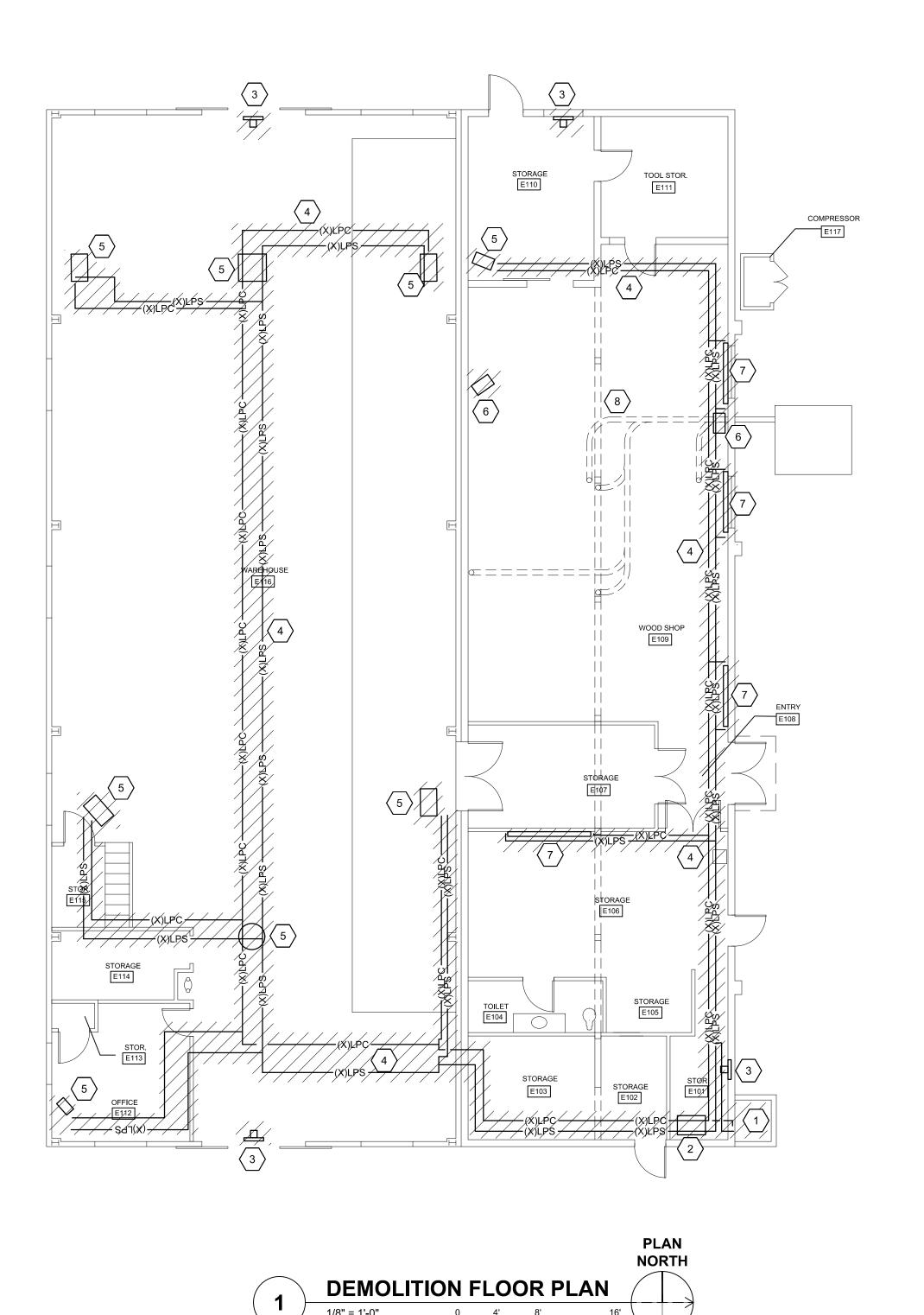
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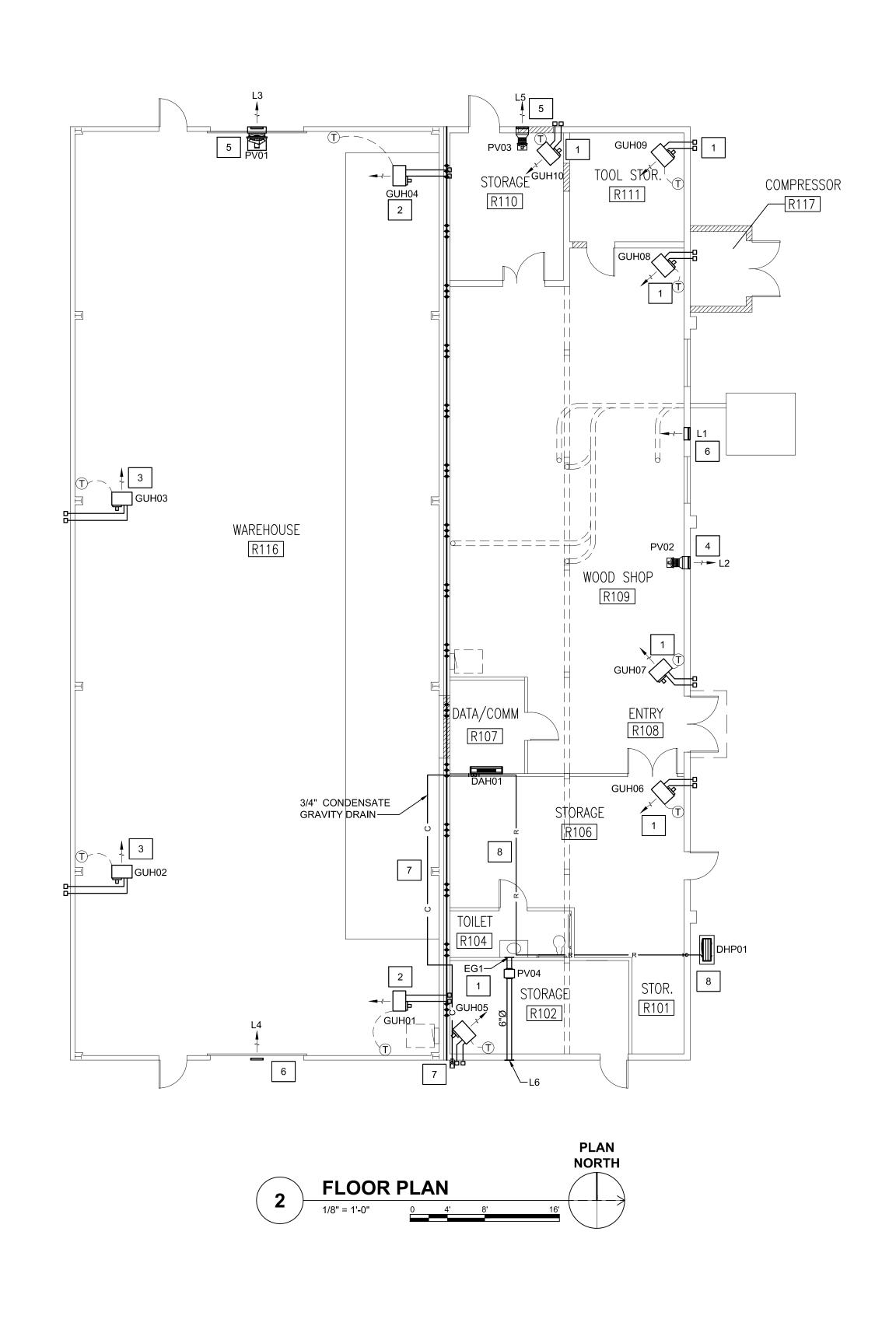
SUBMITTED BY: SEAL 23551 APPROVED:

SATISFACTORY TO:

INTERIOR/EXTERIOR REPAIRS BLDG. AS124 CAMP LEJEUNE, NORTH CAROLINA DESIGN DIR. THBURTON, PE

DATE | SIZE | CODE IDENT. NO. | NAVFAC DRAWING NO. 60024429 CONST. CONTR. NO. N40085-17-D-0859 SCALE: NOTED | SPEC. 05-17-0075

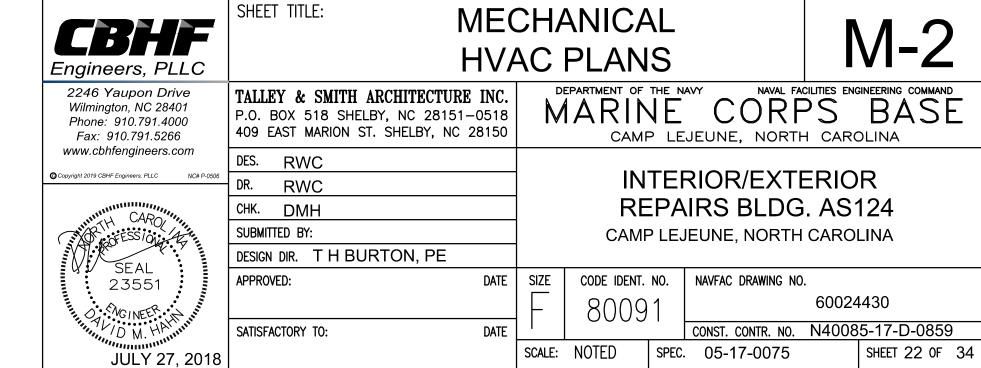


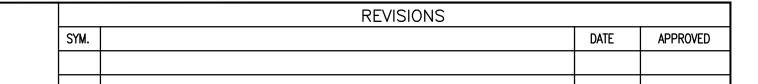


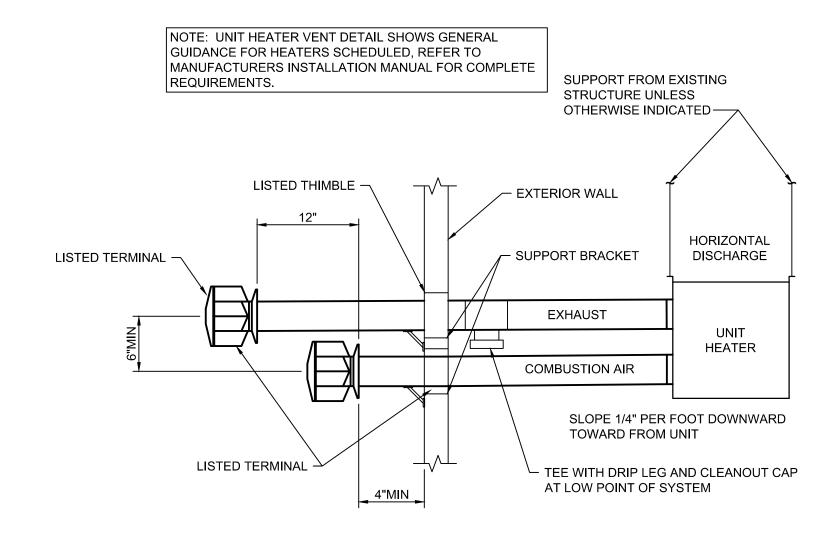
SYM.		DATE	APPR
			<u> </u>
D	EMOLITION KEYED NOTES		
1	DEMOLISH EXISTING STEAM PIT CONCRETE PIT, PIPING AND EQUIPMENT SURROUNDING CONDITIONS.	. FILL AND M	IATCH
2	DEMOLISH EXISTING CONDENSATE RECEIVER AND EXISTING STEAM AND PIPING.	CONDENSA	ATE
$\langle 3 \rangle$	DEMOLISH EXISTING EXHAUST FAN AND LOUVER.		
$\langle 4 \rangle$	DEMOLISH EXISTING STEAM AND CONDENSATE PIPING.		
$\langle 5 \rangle$	DEMOLISH EXISTING STEAM UNIT HEATER, PIPING AND SUPPORTS.		
$\left\langle 6\right\rangle$	DEMOLISH EXISTING ELECTRIC UNIT HEATER AND SUPPORTS.		
$\overline{7}$	DEMOLISH EXISTING RADIATOR HEATER, PIPING AND SUPPORTS.		
$\left\langle 8\right\rangle$	EXISTING DUST COLLECTION DUCTWORK. SYSTEM TO BE REMOVED DUR CONSTRUCTION. REFER TO ARCHITECTURAL PLANS.	ING	
_			
С	ONSTRUCTION KEYED NOTES		
1	MOUNT UNIT HEATER AS HIGH AS STRUCTURE ALLOWS FOLLOWING MAN RECOMMENDATIONS. ALIGN AS SHOWN. ROUTE UNIT INTAKE / EXHAUST ADJACENT WALL. SEE DETAIL: 1/M-3.		RS
2	MOUNT UNIT HEATER BELOW BUILDING TRUSSES. ALIGN AS SHOWN. ROLEXHAUST THROUGH ADJACENT WALL ABOVE LOWER ROOF. SEE DETAIL:		TAKE /
3	MOUNT UNIT HEATER BELOW BUILDING TRUSSES. ALIGN AS SHOWN. ROLEXHAUST THROUGH ADJACENT WALL. SEE DETAIL: 1/M-3.	JTE UNIT IN	TAKE /
4	MOUNT EXHAUST FAN AS HIGH AS AS STRUCTURE ALLOWS FOLLOWING RECOMMENDATIONS. SEE DETAIL: 2/M-3.	MANUFACTU	JRES
5	MOUNT EXHAUST FAN OPENING SHOWN ON ARCHITECTURAL PLANS AND SEE DETAIL: 2/M-3.	) ELEVATION	NS.
6	MOUNT AS HIGH AS POSSIBLE. MODIFY STRUCTURE AS REQUIRED TO MATIGHT.	NKE WEATHE	≣R
7	GRAVITY DRAIN CONDENSATE PIPING EXPOSED ALONG WALL AND DISCHBLOCK	IARGE TO PI	LASH
8	ROUTE REFRIGERANT PIPING CONCEALED FROM INDOOR UNIT TO OUTD WALLS AND ABOVE CEILINGS.	OOR UNIT (II	N

REVISIONS

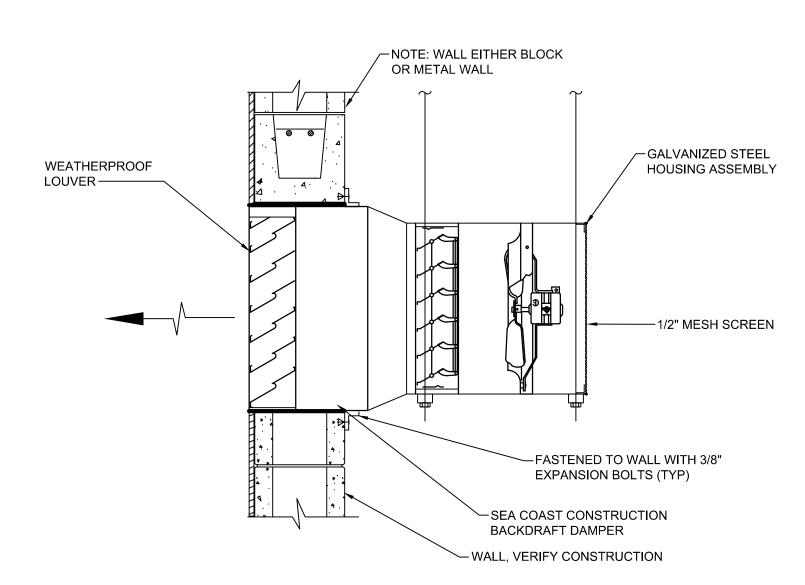
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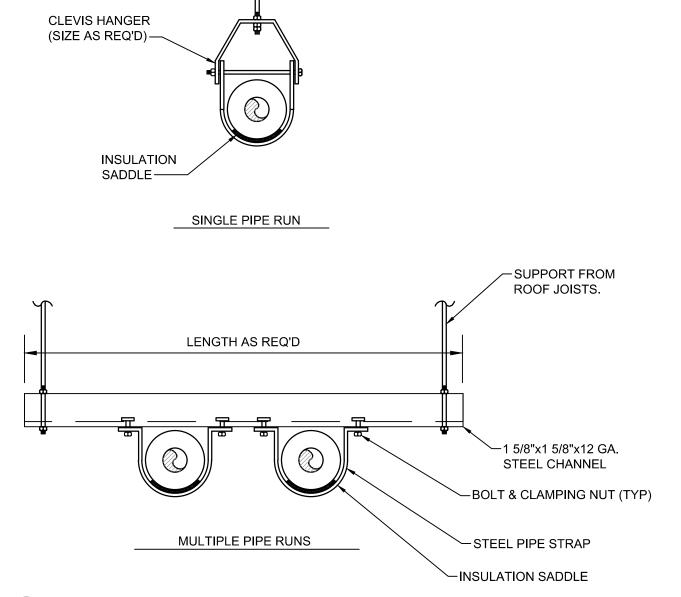
**GAS FIRED UNIT HEATER VENT DETAIL** 



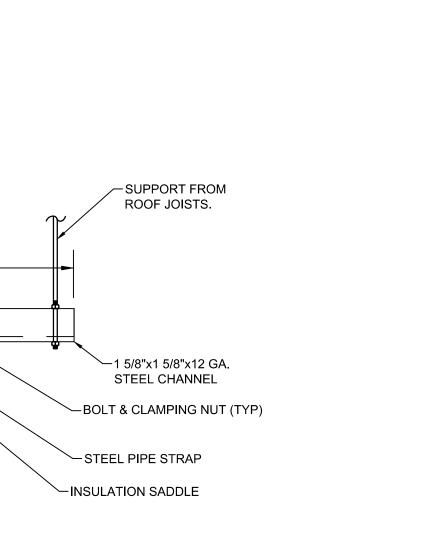
**EXHAUST FAN/LOUVER DETAIL** 

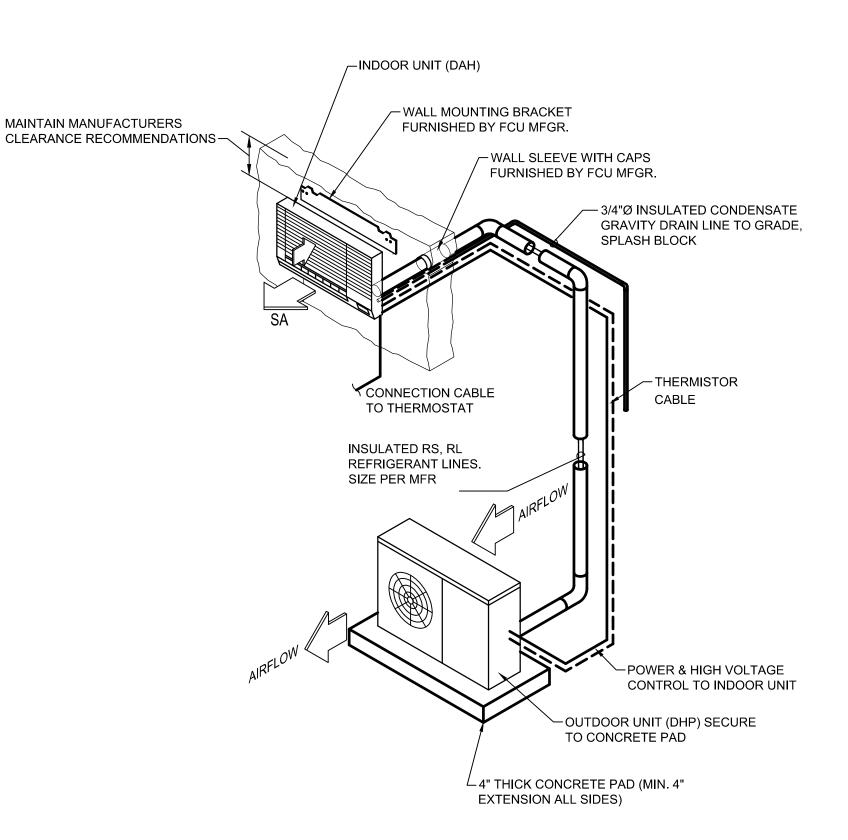
PIPE SUPPORT DETAIL

NOT TO SCALE

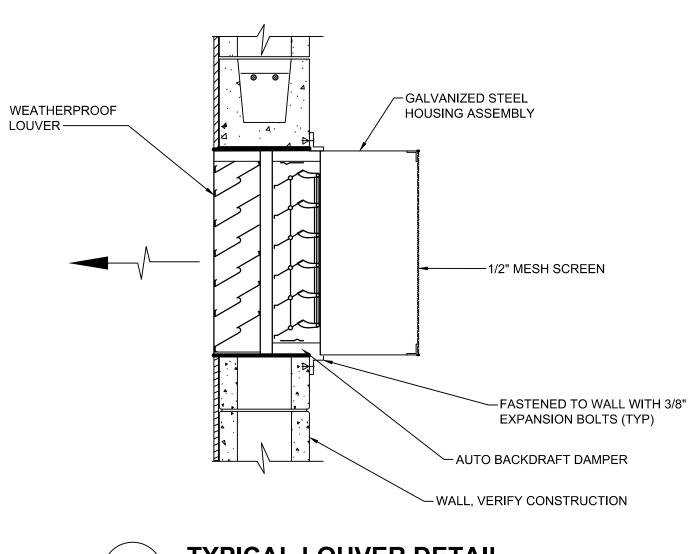


∕ 3/8"Ø THREADED ROD

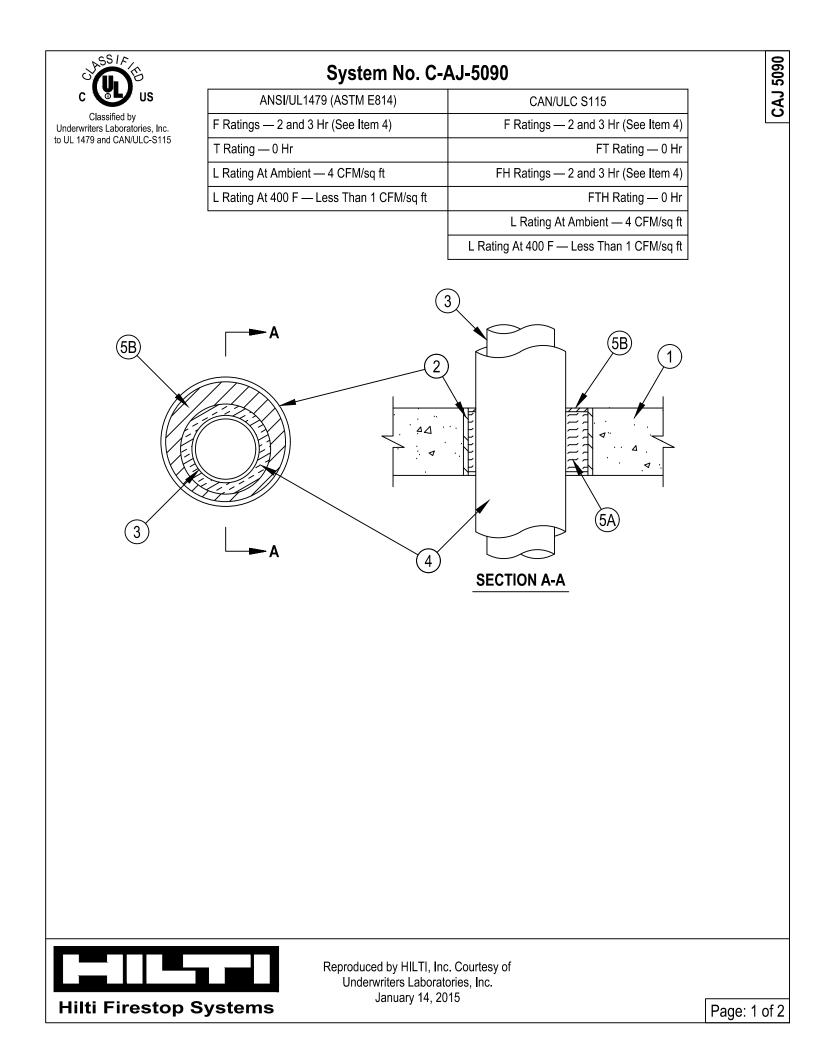


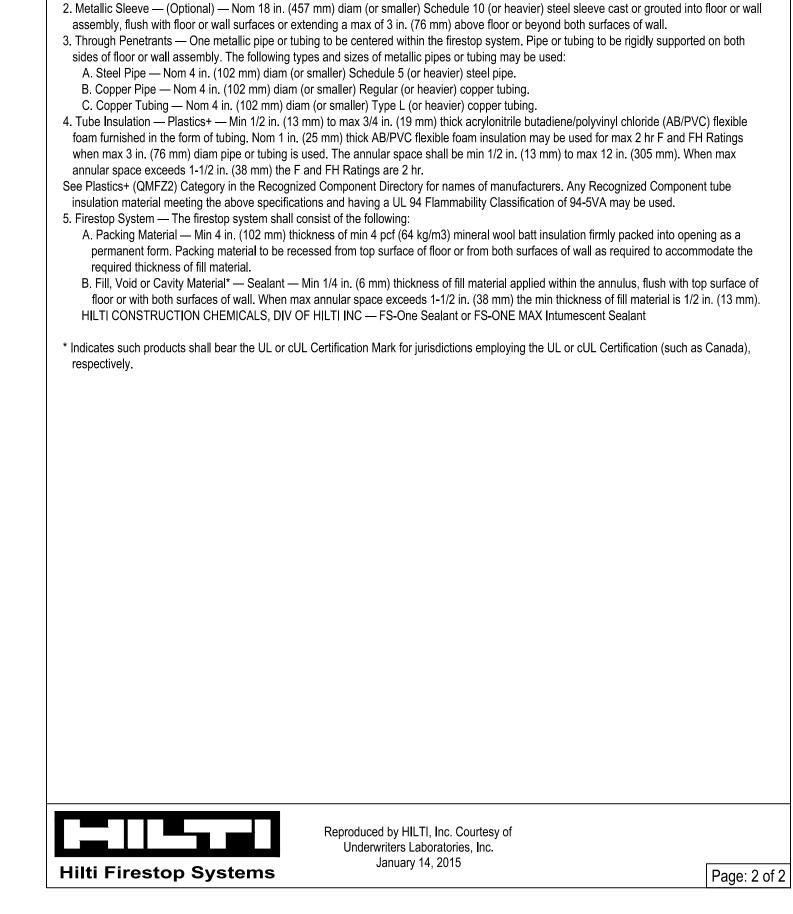


**DUCTLESS HEAT PUMP UNIT DETAIL** 



TYPICAL LOUVER DETAIL



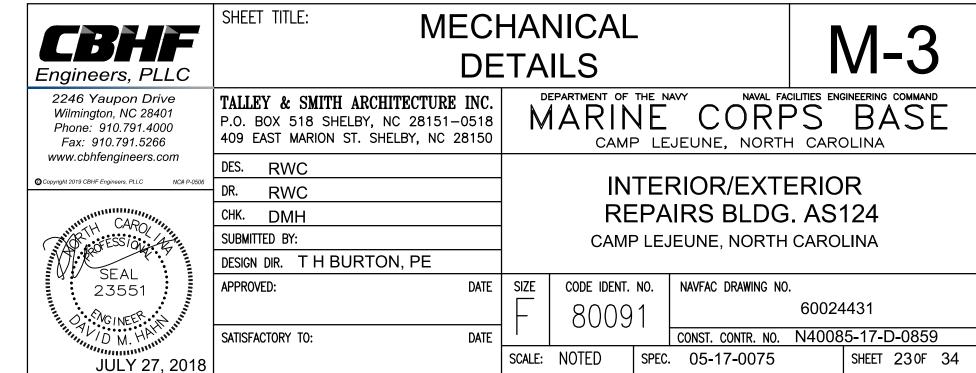


1. Floor or Wall Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf

See Concrete Blocks (CAZT) Category in the Fire Resistance Directory for names of manufacturers.

or 1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks\*. Max diam of opening is 18 in. (457 mm).



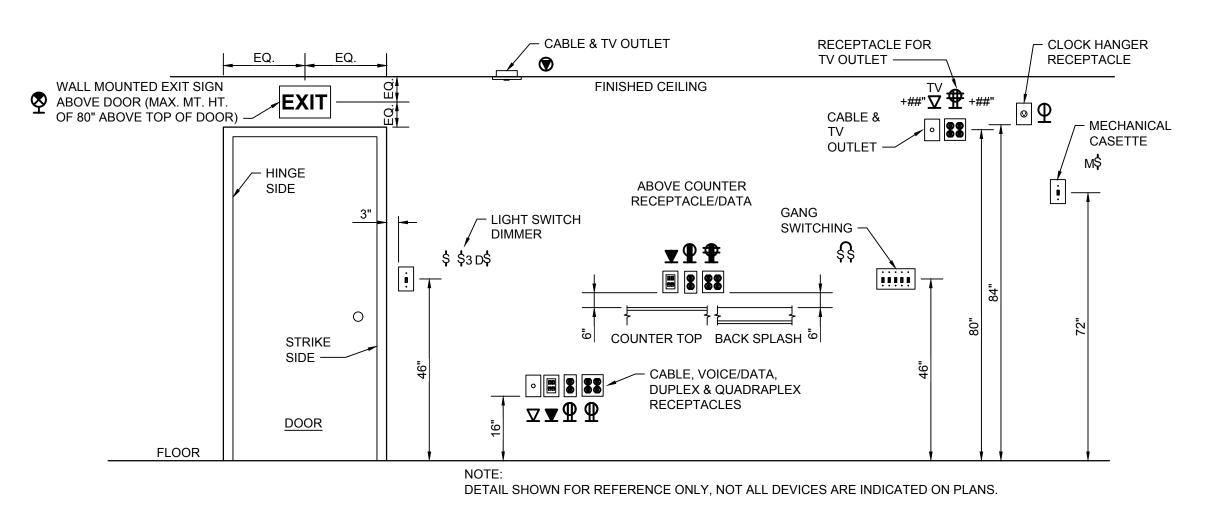


	REVISIONS		
SYM.		DATE	APPROVED

ELECTRIC	CAL LEGEND	ELECTRIC	CAL LEGEND
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
0	4FT OR 8FT LIGHT FIXTURE, RECESSED OR SURFACE MOUNTED LETTER INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)	오	RECESSED SINGLE/DOUBLE GANG BOX WITH BLANK COVER PLATE, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED
<u> </u>	4FT OR 8FT CHANNEL LIGHT FIXTURE, SUSPENDED OR SURFACE MOUNTED LETTER INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)	Φ	RECEPTACLE, DUPLEX, 120VAC, 20A, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED. (SEE ELECTRICAL MOUNTING HEIGHT DETAIL)  WP - LISTED WEATHER-RESISTANT TYPE DEVICE WITH WEATHERPROOF, EXTRA DUTY, WHILE IN USE COVER  GFI - GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A, MOUNTED 24" AFF
ā	WALL MOUNTED LIGHT FIXTURE LETTER INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)	•	RECEPTACLE, DUPLEX, 120VAC, 20A, MOUNTED 6" ABOVE COUNTER TOP OR BACK SPLASH. +##" - INDICATES MOUNTING HEIGHT OF DEVICE IN INCHES AFF (IF GIVEN) (SEE
	POWER & SWITCH LEG		ELECTRICAL MOUNTING HEIGHT DETAIL)
	UNSWITCHED LEG		
	CONDUIT, HOME RUN TO PANEL BOARD	<b>±</b>	RECEPTACLE, QUADPLEX, 120VAC, 20A MOUNTED 16"AFF UNLESS OTHERWISE NOTED (SEE ELECTRICAL MOUNTING HEIGHT DETAIL)  WP - LISTED WEATHER-RESISTANT TYPE DEVICE WITH WEATHERPROOF, EXTRA DUTY, WHILE IN USE COVER
⊗	EXIT SIGN, SINGLE FACE, CEILING, ARROW INDICATES DIRECTION. LETTER INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)		GFI - GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A, MOUNTED 24" AFF
4_}	EMERGENCY LIGHTING UNIT, 2-HEAD WITH BATTERY BACK-UP, WALL MOUNTED, "NOT SWITCHED" INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)	9	RECEPTACLE-TWIST LOCK, 20A, WALL MOUNTED 16" AFF, SIZE AND CONFIGURATION AS INDICATED ON DRAWING
<b>@</b>	PHOTOCELL, REMOTE MOUNTED, 120V, 10 SECOND TIME DELAY, UL WET LOCATION, RATED FOR 1500 W @ 120 VAC (FOR USE WITH LAMP SOURCE(S) SHOWN	30A/3/4X W/ 30AF	DISCONNECT SWITCH, FUSED, HEAVY (GENERAL) DUTY, SIZE AS INDICATED ON DRAWINGS ##A = DISCONNECT SIZE / # = NUMBER OF POLES / # = NEMA RATING, /##AF = FUSE SIZE
\$	SWITCH, SINGLE POLE, 120/277VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED (SEE ELECTRICAL MOUNTING HEIGHT DETAIL). LOWER CASE LETTER INDICATES FIXTURE SWITCHING (WHEN INDICATED)		
\$3	3-WAY SWITCH, SINGLE POLE 120/277 VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED	#AMP HMCP (#HP) NEMA #	COMBINATION STARTER WITH CIRCUIT BREAKER DISCONNECT, FULL VOLTAGE, SIZE AS INDICATED ON DRAWINGS
<b>©</b>	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, 360° COVERAGE	м\$##	MANUAL MOTOR STARTER, ELECTRICAL CONTRACTOR SHALL COORDINATE POLES AND SIZE WITH EQUIPMENT ## = AMPERAGE RATING WHEN INDICATED ON DRAWING
о\$	WALL MOUNTED OCCUPANCY SENSOR, SINGLE BUTTON ON/OFF CONTROL, 180° COVERAGE, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.	0	3 BUTTON - ON/OFF/STOP PUSHBUTTON CONTROLLER
o <sub>M</sub>	WALL MOUNTED DATA RACK	208/120V	PANELBOARD, SURFACE OR RECESSED MOUNTED AS SHOWN. SIZE, RATINGS, AND MOUNTING AS INDICATED ON PANEL SCHEDULE. CONTRACTOR IS RESPONSIBLE FOR REQUIRED CLEARANCE IN FRONT OF ELECTRICAL PANEL. SEE NEC TABLE 110.26 WORKING SPACES FOR ADDITIONAL CLEARANCE CONDITIONS.
	3/4"x4'x8' FIRE RATED PLYWOOD		WORKING SPACES FOR ADDITIONAL CLEARANCE CONDITIONS.
		<b></b>	3 HOUR RATED FIRE WALL
<b>▼</b>	COMBINATION DATA/TELEPHONE OUTLET, PROVIDE 1 1/4" CONDUIT FROM ROOM R107 TO SURFACE MOUNTED 5 SQUARE BOX. PROVIDE (QTY) 4 - CAT 6A CABLES, COMPLETE FROM EACH DROP TO ROOM R107 DATA RACK.		GROUND BAR - 'TMGB' INDICATES TELECOMMUNICATIONS GROUND BAR - 'EGB' INDICATES ELECTRICAL GROUND BAR
WAP <b>X</b>	WIRELESS ACCESS POINT, PROVIDE 1" CONDUIT FROM ROOM R107 TO SURFACE MOUNTED 5 SQUARE BOX. PROVIDE (QTY)1 - CAT 6A CABLE, COMPLETE FROM DATA RACK IN ROOM R107 TO DEVICE LOCATION. GOVERNMENT MUST PROVIDE SURGE PROTECTOR AND WAP DEVICE, THE ELECTRICAL CONTRACTOR MUST INSTALL.		HATCHING INDICATES ITEMS TO BE DEMOLISHED. REMOVE DEVICE, EQUIPMENT, FIXTURE INDICATED, CIRCUIT, AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED.

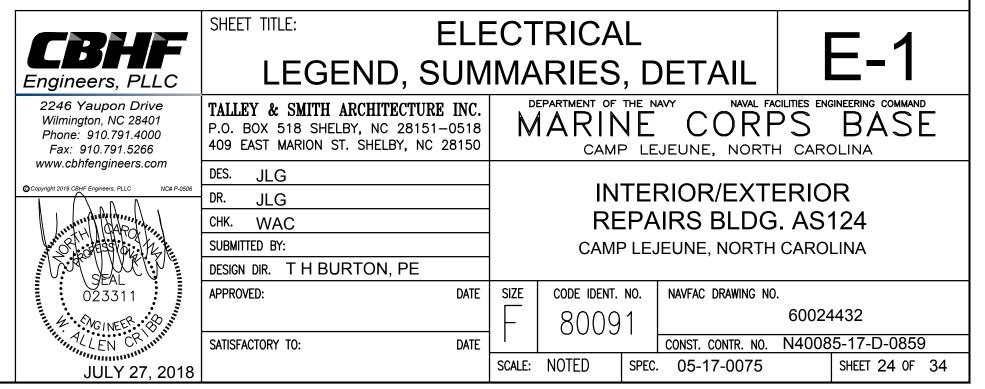
ABBREVIAT	IONS:
A, AMP	AMPERE
AFF	ABOVE FINISHED FLOOR
AFG AHU	ABOVE FINISHED GRADE AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
ATS AWG	AUTOMATIC TRANSFER SWITCH AMERICAN WIRE GAUGE
BOF	BOTTOM OF FIXTURE
BRKR C, CND	BREAKER CONDUIT
CAB	CABINET
CAT CL	CATALOG CHLORINE
CB	CIRCUIT BREAKER
CCTV CKT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

VOLTAGE VOLTAGE	PHASE
208	3
ARGEST MOTOR APPROX. AMPS	24 AMPS
ARGEST MOTOR APPROX. AMPS x .25	6 AMPS
IVAC	
GUHs(10)	3,996 VA
EXHAUST FANS(4)	2,188 VA
DHP01/DAHO1	1,997 VA
SUB-TOTAL HVAC DEMAND	8,181 VA
SUB-TOTAL HVAC DEMAND	23 AMPS
EQUIPMENT	
EWH01	2,500 VA
DUST COLLECTOR	8,719 VA
COMPRESSOR	6,017 VA
0" TABLE SAW	2,400 VA
ΓABLE SAW	7,206 VA
RADIAL ARM SAW	7,926 VA
JOINTER	5,404 VA
DRILL PRESS	1,800 VA
BAND SAW	1,152 VA
MITER SAW	1,152 VA
WET SAW	1,800 VA
SANDER	1,080 VA
BENCH GRINDER	600 VA
SUB-TOTAL EQUIPMENT DEMAND	45,255 VA
SUB-TOTAL EQUIPMENT DEMAND	126 AMPS
ADD FOR LARGEST MOTOR	6 AMPS
OTAL EQUIPMENT DEMAND	132 AMPS
LIGHTING	
LIGHTS (INTERIOR, BASED ON NEC 220.12)	5,912 VA
LIGHTS (EXTERIOR)	364 VA
BIGN	1,200 VA
FOTAL LIGHTING LOAD	7,476 VA
LIGHTING LOAD x 1.25	9,345 VA
OTAL DEMAND FOR LIGHTING	26 AMPS
RECEPTACLES	
RECEPTACLES	11,340 VA
FIRST 10000VA	10,000 VA
REMAINDER @ 50%	670 VA
FOTAL DEMAND FOR RECEPTACLE/POWER PANELS	10,670 VA
TOTAL DEMAND FOR RECEPTACLE/POWER PANELS	30 AMPS
TOTAL DEMAND BUILDING AMPS	210 AMPS
TOTAL DEMAND BUILDING AMPS	75,613 VA
FOTAL BUILDING CONNECTED LOAD	72,252 VA



1 ELECTRICAL DEVICES - MOUNTING HEIGHT DETAIL

NOT TO SCALE



#### GENERAL NOTES

- ALL ELECTRICAL WORK SHALL 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.
- ALL EQUIPMENT PROVIDED BY THE CONTRACTOR SHALL 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 SHALL BE NEW CURRENT PRODUCTS OF MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF SUCH PRODUCTS. EQUIPMENT SHALL BE SUITABLE FOR ITS APPLICATION (E.G. WHEN INSTALLED OUTDOORS, IT SHALL BE WEATHERPROOF, ETC.)
- THE CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS FOR WORK REQUIREMENTS, THE AMOUNT OF SPACE AVAILABLE FOR ELECTRICAL EQUIPMENT, AND LAYOUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER.
- 4. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THOROUGHLY FAMILIARIZING HIMSELF WITH ANY CONTRACTUAL REQUIREMENTS AS MAY BE SET FORTH IN THE OTHER DIVISIONS OF THE PROJECT SPECIFICATIONS.
- UNLESS SPECIFICALLY NOTED OTHERWISE, SYSTEMS PROVIDED OR INSTALLED BY THE CONTRACTOR SHALL 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, SHALL BE PROVIDED BY THE CONTRACTOR AND INCLUDED IN THE BID. ADDITIONAL CIRCUITS SHALL BE INSTALLED WHEREVER NEEDED TO CONFORM TO THE SPECIFIC REQUIREMENTS OF EQUIPMENT.
- TEMPORARY POWER CONNECTIONS AS REQUIRED SHALL BE PROVIDED BY THE CONTRACTOR AND INCLUDED IN THE BID. ALL TEMPORARY EQUIPMENT WIRING SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. THE CONTRACTOR SHALL 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 ELECTRICAL UTILITY COMPANY AS REQUIRED.
- THE WORK SHALL 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.
- 8. ALL EQUIPMENT SHOWN DOTTED OR DASHED IS BY OTHERS OR IS EXISTING, AS NOTED.
- 9. ALL ELECTRICAL EQUIPMENT SHALL, AT ALL TIMES DURING CONSTRUCTION, BE ADEQUATELY PROTECTED AGAINST MECHANICAL INJURY, OR DAMAGE BY WATER AND/OR THE ELEMENTS. ELECTRICAL EQUIPMENT SHALL NOT BE STORED OUT OF DOORS, BUT SHALL 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 SHALL BE REPLACED AT NO ADDITIONAL COST.
- 10. DO NOT SCALE ELECTRICAL DRAWINGS. REFER TO THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
- 11. 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 SHALL ROUTE CONDUITS AS REQUIRED BY THE CONDITIONS OF THE INSTALLATION.
- 12. UNLESS DIMENSIONED, 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. EXACT DEVICE LOCATIONS SHALL BE AS INDICATED ON THE ARCHITECTURAL DRAWINGS OR AS DIMENSIONED. IF NOT SHOWN ON THE ARCHITECTURAL DRAWINGS OR DIMENSIONED ON THE ELECTRICAL DRAWINGS, VERIFY EXACT LOCATION WITH THE CONTRACTING OFFICER PRIOR TO ROUGH-IN.
- 13. CONDUIT TERMINATING IN PRESSED STEEL BOXES SHALL HAVE DOUBLE LOCKNUTS AND INSULATED BUSHINGS. CONDUITS TERMINATING IN GASKETED ENCLOSURES SHALL BE TERMINATED WITH GROUNDING TYPE CONDUIT HUBS.
- 14. BRANCH CIRCUIT HOMERUNS SHOWN ON DRAWINGS INDICATE PHASE CONDUCTORS, NEUTRAL, EQUIPMENT GROUND CONDUCTORS AS REQUIRED. ADDITIONAL CONDUCTORS REQUIRED FOR CONTROL SHALL BE INCLUDED EVEN IF NOT EXPLICITLY SHOWN.
- 15. SEAL ALL CONDUIT OPENINGS THROUGH EXTERIOR BUILDING WALLS WATERTIGHT.
- 16. IN WET LOCATIONS AND EXTERIOR, ALL WIRING DEVICES SHALL BE WEATHER-RESISTANT LISTED WITH WEATHERPROOF WHILE IN USE COVER. LIGHTING FIXTURES SHALL BE APPROPRIATELY RATED AND LISTED FOR THE ENVIRONMENT ITO BE INSTALLED IN.
- 17. RACEWAYS PENETRATING FLOORS, CEILINGS OR WALLS SHALL BE PROPERLY SEALED SMOKETIGHT
- 18. ALL RACEWAYS SHALL BE CONCEALED WHERE POSSIBLE IF APPLICABLE, MATCH EXISTING RACEWAY INSTALLATION METHODS AND ROUTINGS AT OR NEAR EXISTING FACILITIES.
- 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 SHALL BE RUN STRAIGHT AND TRUE. RUN PARALLEL OR BANKED RACEWAYS TOGETHER ON COMMON SUPPORTS WHERE PRACTICAL. MAKE BENDS IN PARALLEL OR BANKED RUNS FROM SAME CENTERLINE TO MAKE BENDS
- 20. PATCHING OF WATERPROOFED SURFACES SHALL RENDER THE AREA OF THE PATCHING COMPLETELY WATERPROOF.
- 21. ALL MOTORS, DRY TYPE TRANSFORMERS AND OTHER VIBRATING EQUIPMENT SHALL 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 SHALL BE INSTALLED INSIDE THE FLEXIBLE CONDUIT AND TERMINATE AT THE LOAD END WITH AN APPROVED GROUNDING CLAMP OR LUG
- 22. SURFACE MOUNTED PANELBOARDS, JUNCTION, OUTLET AND PULL BOXES, RACEWAYS, ETC., INSTALLED ON EXTERIOR SURFACES OR INSIDE ON EXTERIOR WALLS SHALL BE SUPPORTED BY SPACERS TO PROVIDE A 1/4" MINIMUM CLEARANCE BETWEEN THE WALL AND EQUIPMENT.
- 23. CEILING MOUNTED DEVICES INSTALLED IN ACOUSTICAL TILE CEILING AREAS SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE WITH RODS OF SUFFICIENT SIZE TO PREVENT VERTICAL MOVEMENT OF THE OUTLET BOX. BRIDGES ALONE ARE NOT ADEQUATE UNLESS SPECIFICALLY APPROVED. CEILING MOUNTED EXIT LIGHT FIXTURES SHALL BE INSTALLED LEVEL. DO NOT SUPPORT DEVICES FROM ACOUSTICAL CEILING TILE.
- 24. PROVIDE ADHESIVE BACKED RECEPTACLE DEVICE PLATE LABELS IDENTIFYING THE CIRCUIT FEEDING THE DEVICE. LABELS SHALL INDICATE PANEL AND CIRCUIT NUMBER. ALSO PROVIDE IDENTIFICATION FOR MULTI-WIRE BRANCH CIRCUIT PHASE CONDUCTORS IN PANELBOARD.
- 25. FINAL TYPED PANELBOARD DIRECTORIES INSTALLED IN THE PANELBOARD DOOR POCKET SHALL INCLUDE FINAL ACTUAL ROOM NAMES AND NUMBERS IN ADDITION TO THE GENERAL DESCRIPTION SHOWN ON THE PANEL SCHEDULES ON THE DRAWINGS.
- 26. CONDUCTOR SIZING IS BASED ON 75 DEGREE C. COPPER NEC RATINGS, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL 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 SHALL NOTIFY THE CONTRACTING OFFICER IMMEDIATELY FOR EVALUATION/CORRECTION.
- 27. 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.
- 28. WHERE SIZE IS NOT SHOWN ON THE DRAWINGS, BRANCH CIRCUITS SHALL CONSIST OF #12 OR #10 AWG MINIMUM PHASE, NEUTRAL AND EQUIPMENT GROUND CONDUCTORS IN 3/4" MINIMUM RACEWAY.
- 29. 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 AWG HOMERUN SEGMENT) AND HOMERUNS OVER 50 FEET.
- 30. COMMON NEUTRAL CONDUCTORS OF MULTIWIRE RECEPTACLE BRANCH CIRCUIT HOMERUNS SHALL BE #10 AWG MINIMUM.
- 31. 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.
- 32. DO NOT SPLICE BRANCH CIRCUIT HOMERUNS WITHOUT THE PERMISSION OF THE CONTRACTING OFFICER. HOMERUNS SHALL BE CONTINUOUS FROM THE LAST OUTLET BOX TO THE SERVING PANELBOARD.
- 33. DO NOT COMBINE BRANCH CIRCUIT HOMERUNS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS.

- 34. DO NOT CHANGE CIRCUITING SHOWN WITHOUT PERMISSION OF THE CONTRACTING OFFICER.
- 35. TROUGH TAPS SHALL BE AT SWITCH AMPACITY, UNLESS NOTED OTHERWISE.
- 36. INSTALL WIRING DEVICES AT HEIGHTS AS SHOWN ON THE DRAWINGS. ALSO COORDINATE MOUNTING HEIGHTS WITH THE ARCHITECTURAL DRAWINGS AND CASEWORK DETAILS. IF CONFLICTING, ARCHITECTURAL DRAWINGS AND DETAILS SHALL GOVERN.
- 37. PROVIDE GROUND FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL IN ACCORDANCE WITH THE NEC INCLUDING ALL ELECTRIC WATER COOLERS, EXTERIOR RECEPTACLES AND RECEPTACLES IN AREAS SUBJECT TO POSSIBLE WET CONDITIONS. ALL RECEPTACLES INSTALLED WITHIN 6 FEET OF A SINK SHALL BE GFI PROTECTED. ALL RECEPTACLES IN NON-RESIDENTIAL KITCHENS SHALL BE GFI PROTECTED.
- 38. IN AREAS IN WHICH DUAL LEVEL SWITCHING IS INDICATED (TYPICALLY BY 2 OR MORE ADJACENT, GANGED SWITCHES), PROVIDE THE APPROPRIATE NUMBER OF CONDUCTORS TO FACILITATE THIS FUNCTION (AS TYPICALLY SHOWN).
- 39. CONNECT BATTERY PACK TYPE EMERGENCY AND EXIT LIGHTING FIXTURES TO UN-SWITCHED LIGHTING CIRCUIT SERVING THE SPACE LIGHTED BY THE EMERGENCY AND EXIT FIXTURES. THESE CONNECTIONS ARE INTENTIONALLY NOT SHOWN TO MAINTAIN DRAWING FOR CLARITY.
- 40. COORDINATE LIGHTING FIXTURE LOCATIONS WITH THE ARCHITECTURAL REFLECTED CEILING PLAN. IF CONFLICTS ARE NOTED, REQUEST CLARIFICATION FROM THE CONTRACTING OFFICER BEFORE PROCEEDING.
- 41. ADJACENT SWITCHES SHALL BE GANGED. INSTALL BARRIERS BETWEEN UNLIKE VOLTAGE SECTIONS.
- 42. SEPARATE NEUTRALS ARE REQUIRED FOR ALL DIMMED LIGHTING CIRCUITS.
- 43. WHERE THE DRAWINGS INDICATE A LIGHTING FIXTURE IS TO BE PROVIDED WITH SPECIAL FEATURES/SWITCHING (DIMMING, EMERGENCY BATTERY BALLAST, MULTI-LEVEL, ETC), THE CONTRACTOR SHALL PROVIDE THESE FIXTURES WITH THE APPROPRIATE BALLASTING TO ACCOMMODATE THE SPECIAL FEATURE. THE CONTRACTOR SHALL PROVIDE THE FIXTURES AS INDICATED IN THE LIGHTING FIXTURE SCHEDULE WITH MODIFICATIONS AS REQUIRED BY DRAWING
- 44. COORDINATE LOCATIONS OF PLUMBING, MECHANICAL, DATA AND TELEPHONE AND AUDIO/VISUAL EQUIPMENT. GOVERNMENT-PROVIDED TELECOMMUNICATIONS AND DATA CABLES WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. LEAVE PULL WIRES OR ROPES OF ADEQUATE TENSILE STRENGTH IN ALL EMPTY CONDUITS.
- 45. PROVIDE TELEPHONE, FIBER AND DATA SERVICE ENTRANCE CONDUIT IN SIZES AND LOCATIONS AS SHOWN ON THE DRAWINGS AND AS REQUIRED BY THE GOVERNMENT AND THE SERVICE UTILITIES. UTILITY SERVICE ENTRANCE CABLES WILL BE PROVIDED AND INSTALLED BY THE GOVERNMENT'S SERVICE UTILITIES. LEAVE PULL WIRES OR ROPES OF ADEQUATE TENSILE STRENGTH IN ALL EMPTY CONDUITS.
- 46. INSTALLATION INFORMATION PACKED WITH LIGHTING FIXTURES, DEVICES AND EQUIPMENT SHALL BE RETAINED FOR INCLUSION IN THE OPERATIONS AND MAINTENANCE MANUALS.
- 47. THE CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING NECESSARY TO INSTALL ALL EQUIPMENT AS REQUIRED AND SHALL REESTABLISH ALL FINISHES TO THEIR ORIGINAL CONDITION WHERE CUTTING AND PATCHING OCCUR. ALL CUTTING AND PATCHING SHALL BE DONE IN A THOROUGHLY WORKMANSHIP MANNER. SAW CUT CONCRETE AND MASONRY PRIOR TO BREAKING OUT SECTIONS. ALL PATCHING MATERIALS AND WORKMANSHIP SHALL BE PERFORMED BY TRADESMEN EXPERIENCED IN THAT WORK. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE RESPECTIVE SUPPLIERS AND 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.
- 48. BEFORE COMMENCING WORK OR ORDERING MATERIALS, THE CONTRACTOR SHALL 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.
- 49. ENERGIZE EQUIPMENT ONLY AFTER OBTAINING PERMISSION FROM THE CONTRACTOR PROVIDING THE EQUIPMENT.
- 50. UNLESS SPECIFICALLY NOTED OTHERWISE, THE CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL UTILIZATION EQUIPMENT SHOWN ON THE DRAWINGS. VERIFY THE TYPE OF FINAL CONNECTION AND PROVIDE APPROPRIATE WIRING METHOD. THE CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL AND PLUMBING EQUIPMENT, PRIOR TO ORDERING OR INSTALLATION OF ANY EQUIPMENT, TO VERIFY MECHANICAL AND PLUMBING 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.
- 51. THE CONTRACTOR SHALL FURNISH ALL STARTERS AND CONTROLS FOR THEIR EQUIPMENT. THE CONTRACTOR SHALL PROVIDE ALL SAFETY SWITCHES, SHALL MOUNT STARTERS AND PROVIDE WIRING AND CONNECTIONS TO LINE SIDE OF STARTERS. THE CONTRACTOR SHALL PROVIDE LOAD SIDE WIRING AND CONNECTIONS TO MECHANICAL AND PLUMBING EQUIPMENT. FOR RESISTANCE TYPE LOADS WHERE STARTERS OR CONTACTORS ARE NOT REQUIRED, THE CONTRACTOR SHALL PROVIDE ALL POWER WIRING AND CONNECTIONS COMPLETE TO EQUIPMENT. THE MECHANICAL AND PLUMBING CONTRACTORS SHALL PROVIDE ALL CONTROL WIRING AND CONNECTIONS AND DEVICES FOR THEIR EQUIPMENT.
- 52. TELECOMMUNICATIONS AND DATA CABLES WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. LEAVE PULL WIRES OR ROPES OF ADEQUATE TENSILE
- 54. THE CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING NECESSARY TO INSTALL ALL EQUIPMENT AS REQUIRED AND SHALL REESTABLISH ALL FINISHES TO THEIR ORIGINAL CONDITION WHERE CUTTING AND PATCHING OCCUR. ALL CUTTING AND PATCHING SHALL BE DONE IN A THOROUGHLY WORKMANSHIP MANNER. SAW CUT CONCRETE AND MASONRY PRIOR TO BREAKING OUT SECTIONS. ALL PATCHING MATERIALS AND WORKMANSHIP SHALL BE PERFORMED BY TRADESMEN EXPERIENCED IN THAT WORK. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE CONTRACTING OFFICER.
- 55. CORE DRILL HOLES IN EXISTING CONCRETE WALLS AS REQUIRED.
- 56. INSTALL WORK AT SUCH TIME AS TO REQUIRE THE MINIMUM AMOUNT TO CUTTING AND PATCHING.
- 57. CUT OPENINGS ONLY LARGE ENOUGH TO ALLOW EASY INSTALLATION OF THE CONDUIT.
- 58. ABANDONED POWER WIRING, RACEWAYS AND CONDUCTORS, SHALL BE REMOVED BACK TO THEIR SOURCE. THE ACCESSIBLE PORTIONS OF ABANDONED CABLES (VOICE, DATA, VIDEO, ALARM, ETC.) SHALL BE REMOVED.
- 59. THE EXISTING ELECTRICAL SYSTEMS DEPICTED ON THESE DRAWINGS HAVE BEEN COMPILED BY THE ENGINEER FROM THE GOVERNMENT'S RECORD DRAWINGS AND LIMITED FIELD VERIFICATION OF THE EXISTING CONDITIONS FOR THE PURPOSE OF INDICATING THE WORK REQUIRED AND ARE BELIEVED TO BE CORRECT. NOTWITHSTANDING, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, POINTS OF ACCESS AND FIELD CONDITIONS AFFECTING HIS WORK.
- 60. THE CONTRACTOR SHALL 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.
- 61. ALL UNUSED OUTLET BOXES SHALL BE REMOVED OR, WITH SPECIFIC APPROVAL OF THE CONTRACTING OFFICER, SHALL BE BLANKED WITH STAINLESS STEEL PLATES. ALL OPENINGS IN EXISTING WALLS AND CEILINGS MADE BY THIS CONTRACTOR SHALL BE REPAIRED TO AN EQUAL FINISH AS ADJACENT SURFACES.
- 62. PROVIDE ALL ELECTRICAL RELOCATION WORK ASSOCIATED WITH THE RELOCATING OF EQUIPMENT FOR THE EXISTING FACILITIES, INCLUDING DISCONNECTING ALL EXISTING WIRING AND CONDUITS AND PROVIDING NEW WIRING AND CONDUITS TO THE RELOCATED EQUIPMENT.
- 63. SEE "KEYED DEMOLITION NOTES" FOR ADDITIONAL REQUIREMENTS.
- 64. SAFETY
  - 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.
  - WHERE EQUIPMENT IS BEING REMOVED, BUT NOT REPLACED, REMOVE THE CONDUCTORS FEEDING THE EQUIPMENT BACK TO THE POINT WHERE THEY RECEIVE POWER. REMOVE ACCESSIBLE CONDUITS. ABANDON IN PLACE INACCESSIBLE CONDUITS. AFTER REMOVAL OF EQUIPMENT. REPAIR ANY OPENING LEFT TO MATCH SURROUNDING WALLS, CEILINGS, OR FLOORS TO THE CONTRACTING OFFICER SATISFACTION.
  - COORDINATE WITH THE OTHER TRADES, PRIOR TO BID, AND INCLUDE IN THE BASE BID THE ELECTRICAL DISCONNECTION OF ANY EQUIPMENT BEING DEMOLISHED, EVEN IF NOT EXPLICITLY SHOWN. UNLESS NOTED OTHERWISE, REMOVE ALL DEMOLISHED EQUIPMENT FROM THE PROPERTY.

#### **GENERAL DEMOLITION NOTES**

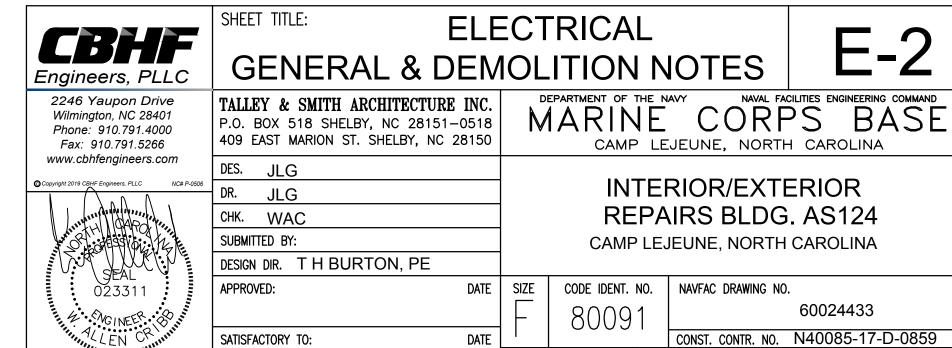
- 1. DEMOLITION SHALL BE AS DESCRIBED HEREIN AND AS SHOWN ON THE CONTRACT DRAWINGS. IDENTIFY ACTIVE UTILITIES, AND AT THE APPROPRIATE TIME, DISCONNECT AND CAP OFF SUCH UTILITIES AND PROVIDE EXPERIENCED PERSONNEL ON SITE DURING GENERAL CONTRACTOR DEMOLITION OPERATIONS TO PERFORM SUCH OPERATIONS AND RESOLVE ISSUES. REMOVE MATERIALS NOTED FOR SALVAGE AND REUSE. IDENTIFY AND MARK WIRING AND DEVICES TO REMAIN FOR THE GENERAL CONTRACTOR.
- THE CONTRACTOR SHALL REVIEW THE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR DEMOLITION REQUIREMENTS AND CARRY OUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER. REMOVE ALL WIRING DEVICES, BOXES, FIXTURES, EXPOSED ABANDONED RACEWAYS, HANGARS, ETC., AND THOSE MADE OBSOLETE BY THESE ALTERATIONS AND AS SHOWN ON THE ELECTRICAL DRAWINGS. ALL ITEMS TO BE REMOVED OR MODIFIED MAY NOT BE SHOWN, HOWEVER, THIS CONTRACTOR SHALL REMOVE ANY ELECTRICAL WORK AS REQUIRED BY THE CONSTRUCTION OR AS DIRECTED BY THE GOVERNMENT OR CONTRACTING OFFICER. SURVEY THE AFFECTED AREAS BEFORE SUBMITTING A BID AS ALL EXISTING CONDITIONS CANNOT BE COMPLETELY DEPICTED ON THE DRAWINGS AND SOME UNUSUAL CONDITIONS MAY EXIST.
- REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTION.
- 4. VERIFY FIELD MEASUREMENTS AND CIRCUITING ARRANGEMENTS ARE AS SHOWN ON DRAWINGS.
- VERIFY THAT ABANDONED WIRING AND EQUIPMENT SERVE ONLY ABANDONED FACILITIES.
- 6. DISCONNECT AND/OR DE-ENERGIZE ELECTRICAL SYSTEMS IN WALLS, FLOORS, AND CEILINGS SCHEDULED FOR REMOVAL.
- PROVIDE TEMPORARY AND/OR PERMANENT WIRING AND CONNECTIONS AS SHOWN AND/OR AS REQUIRED BY CONDITIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. WHEN WORK MUST BE PERFORMED ON ENERGIZED EQUIPMENT OR CIRCUITS, AND WHEN SUCH WORK IS SPECIFICALLY APPROVED BY THE GOVERNMENT AND PERMITTED BY REGULATORY AUTHORITIES, USE PERSONNEL EXPERIENCED IN SUCH OPERATIONS.
- EXISTING ELECTRICAL SERVICE: COORDINATE POWER OUTAGES WITH THE GOVERNMENT AND UTILITY COMPANY. MAINTAIN EXISTING SYSTEMS IN SERVICE. DISABLE SYSTEMS ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM THE GOVERNMENT AT LEAST 24 HOURS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION. MAKE TEMPORARY CONNECTIONS TO MAINTAIN SERVICE IN AREAS ADJACENT TO WORK AREA.
- CONTINUOUS SERVICE IS REQUIRED ON ALL CIRCUITS AND OUTLETS AFFECTED BY THESE CHANGES, EXCEPT WHERE THE GOVERNMENT WILL PERMIT AN OUTAGE FOR A SPECIFIC TIME. OBTAIN GOVERNMENT CONSENT BEFORE REMOVING ANY CIRCUIT FROM CONTINUOUS
- 10. ENDS OF ALL CONDUITS TO REMAIN SHALL BE TIGHTLY PLUGGED TO EXCLUDE DUST AND MOISTURE WHILE THE BUILDING IS UNDER
- 11. SECURE ALL CIRCUITS, RACEWAYS, CABLE AND CONDUCTORS THAT, AS A RESULT FROM THIS CONSTRUCTION, ARE ABANDONED OR UNUSED. REMOVE UNUSED EXPOSED CONDUIT AND WIRING BACK TO POINT OF CONCEALMENT INCLUDING ABANDONED CONDUIT ABOVE ACCESSIBLE CEILINGS. REMOVE UNUSED WIRING IN CONCEALED CONDUITS BACK TO SOURCE OR NEAREST POINT OF USAGE. BLANK ABANDONED KNOCKOUTS IN REMAINING BOXES. INSTALL BLANK PLATES FOR ALL UNUSED OUTLETS THAT WILL REMAIN AS A RESULT OF THIS CONSTRUCTION. ALL SUCH WORK SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES AND ORDINANCES.
- 12. TRACE OUT EXISTING WIRING THAT IS TO BE RELOCATED OR REMOVED AND PERFORM THE RELOCATION OR REMOVAL WORK AS REQUIRED FOR A COMPLETE OPERATING AND SAFE SYSTEM.
- RECONNECT EXISTING CIRCUITS SEPARATED AS A RESULT OF THIS CONSTRUCTION.

FROM THE PROPERTY AND IDENTIFIED IN THE ELECTRICAL DRAWINGS.

- 14. DELIVER ALL REMOVED AND SALVAGED LIGHTING FIXTURES, WIRING DEVICES, FIRE ALARM DEVICES, SPEAKERS, ETC., TO THE GOVERNMENT, OR AT THE GOVERNMENT'S OPTION, DISPOSE OF PROPERLY OFF SITE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL ENVIRONMENTAL REGULATIONS. FEES ASSOCIATED WITH DISPOSAL SHALL BE INCLUDED IN THE CONTRACTOR'S BASE BID.
- 15. COORDINATE WITH THE OTHER TRADES, PRIOR TO BID, AND INCLUDE IN THE BASE BID THE ELECTRICAL DISCONNECTION OF ANY EQUIPMENT BEING DEMOLISHED, EVEN IF NOT EXPLICITLY SHOWN. UNLESS NOTED OTHERWISE, REMOVE ALL DEMOLISHED EQUIPMENT
- THESE DRAWINGS ARE COMPILED BY THE ARCHITECT/ENGINEER FROM THE GOVERNMENT'S RECORD DRAWINGS AND LIMITED FIELD VERIFICATION OF EXISTING CONDITIONS FOR THE PURPOSE OF INDICATING THE WORK REQUIRED AND ARE BELIEVED TO BE CORRECT. NOTWITHSTANDING, THE CONTRACTOR SHALL VERIFY ALL CIRCUITS, WIRING, CONDUIT, DIMENSIONS, POINTS OF ACCESS AND ALL FIELD CONDITIONS AFFECTING HIS WORK. BEGINNING OF DEMOLITION MEANS THE CONTRACTOR ACCEPTS EXISTING CONDITIONS.
- 17. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL LAMPS CONTAINING MERCURY IN A LINED LANDFILL IN ACCORDANCE WITH NC GEN STATUTE 309.10M.
- 18. SEE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.

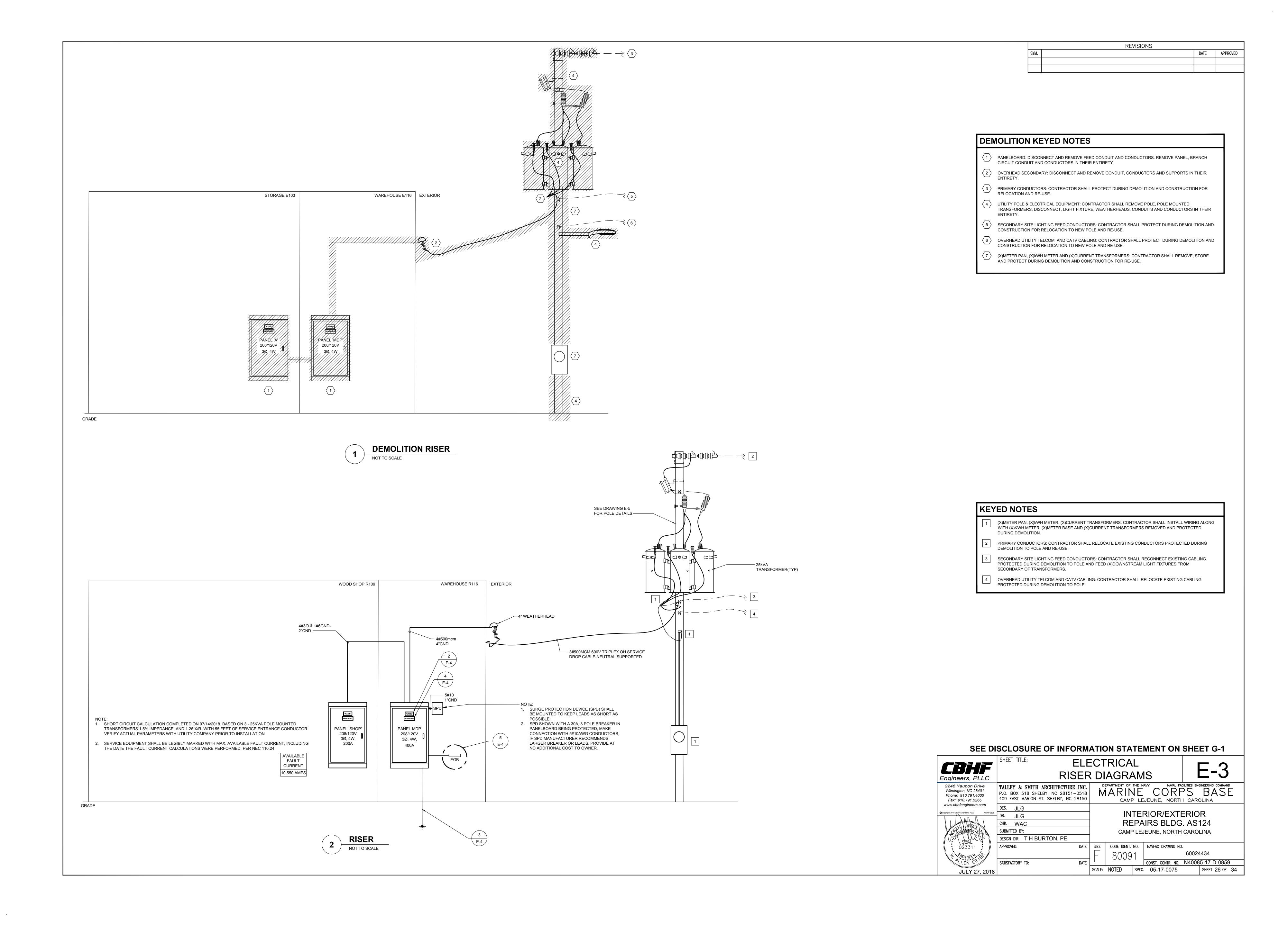
SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET G-1

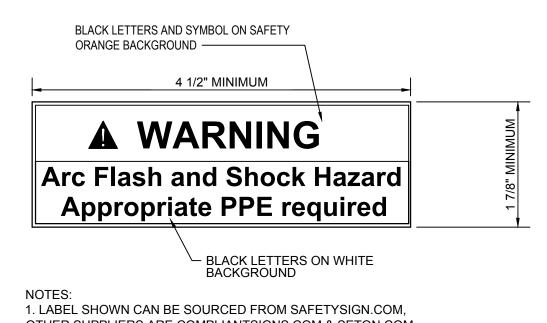
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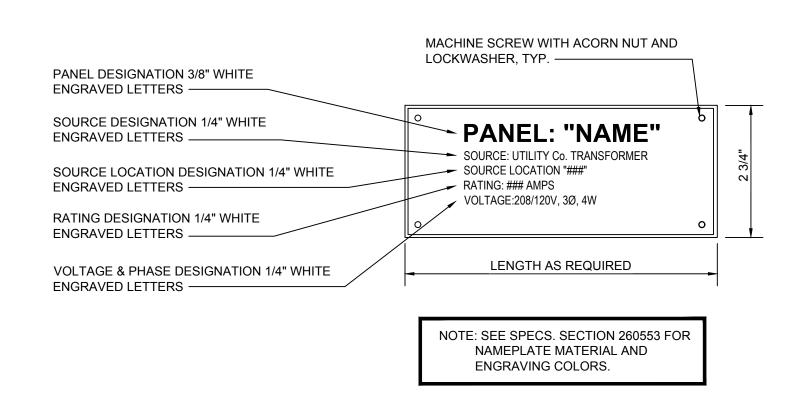
JULY 27, 2018



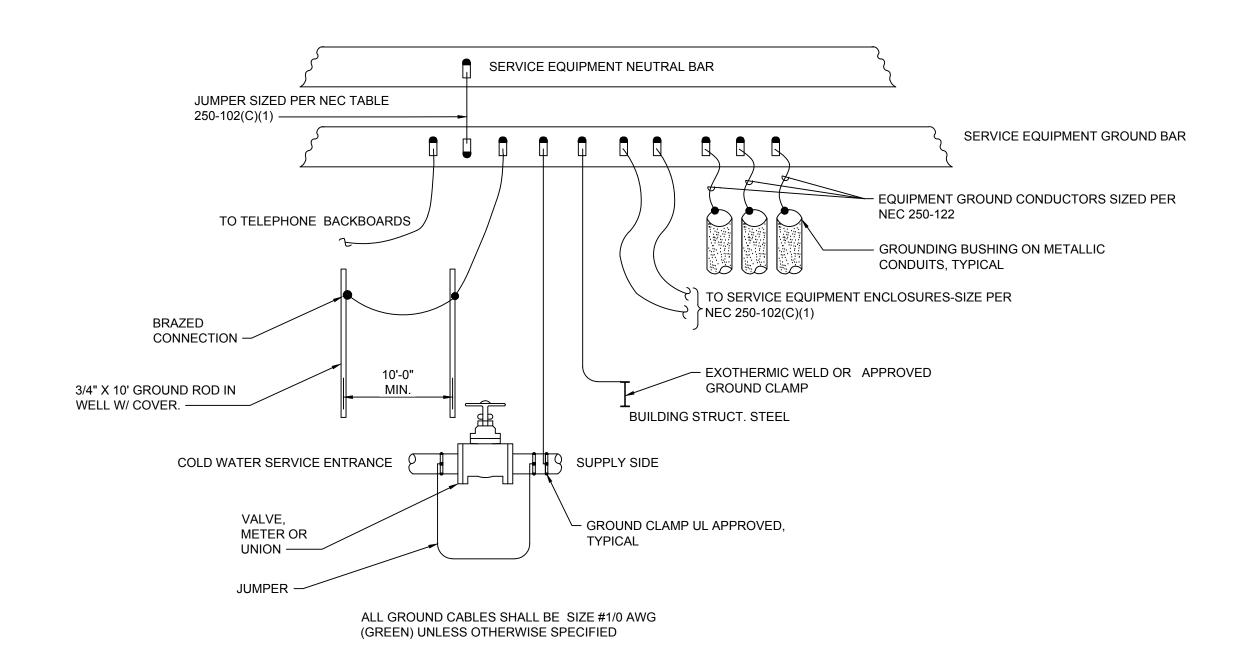


LABEL SHOWN CAN BE SOURCED FROM SAFETYSIGN.COM, OTHER SUPPLIERS ARE COMPLIANTSIGNS.COM & SETON.COM
 THIS WARNING LABEL MINIMALLY COMPLIES WITH NEC, HOWEVER IF ELECTRICAL EQUIPMENT IS LIKELY TO REQUIRE EXAMINATION OR MAINTENANCE WHILE ENERGIZED A DETAILED SHORT CIRCUIT AND ARC FLASH HAZARD ANALYSIS IS RECOMMENDED.

## 1 ELECTRICAL EQUIPMENT WARNING LABEL DETAIL NOT TO SCALE

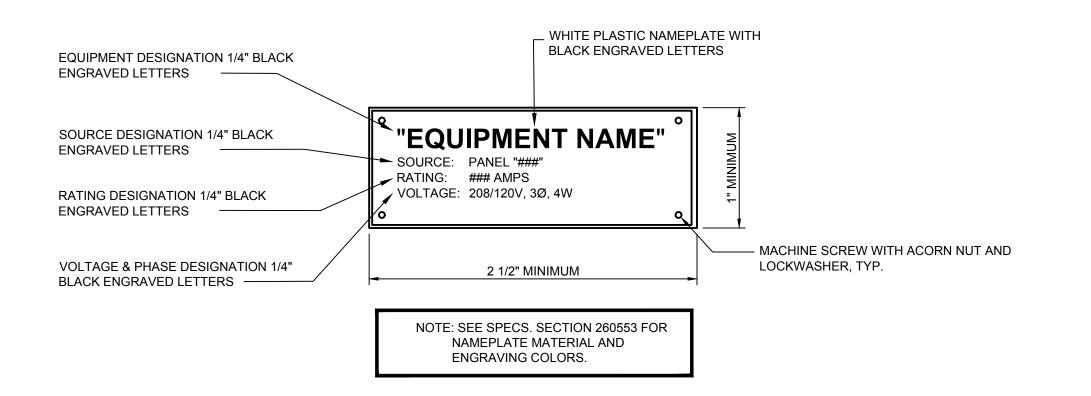


# 2 TYPICAL PANELBOARD NAMEPLATE DETAIL NOT TO SCALE

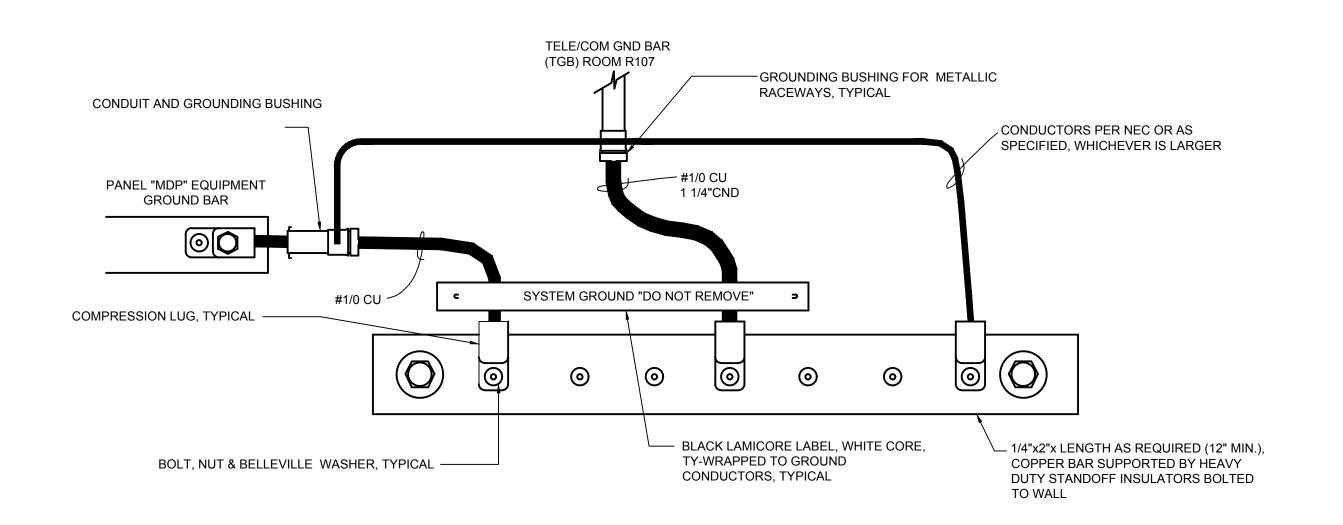


3 SERVICE GROUNDING DETAIL

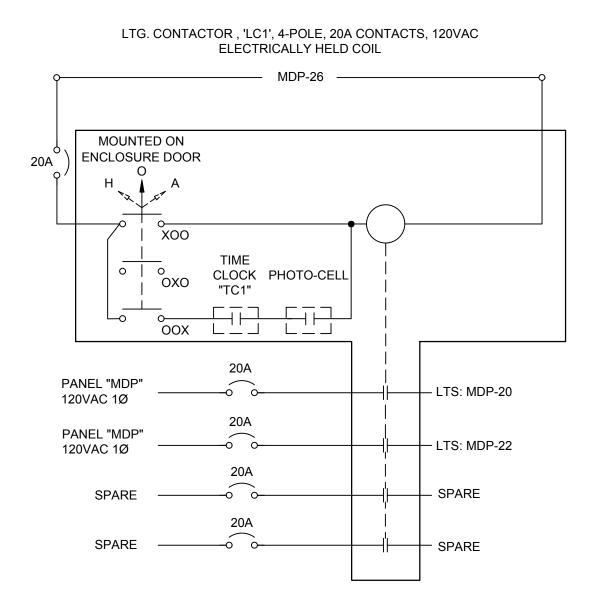
NOT TO SCALE



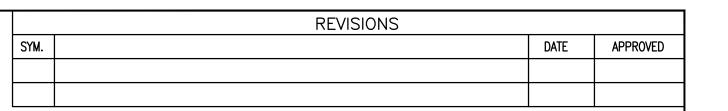
## 4 TYPICAL EQUIPMENT NAMEPLATE DETAIL NOT TO SCALE

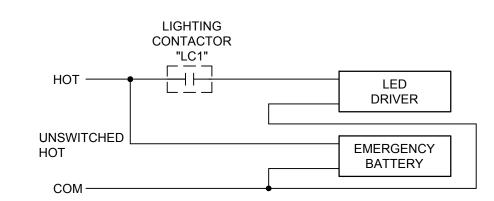










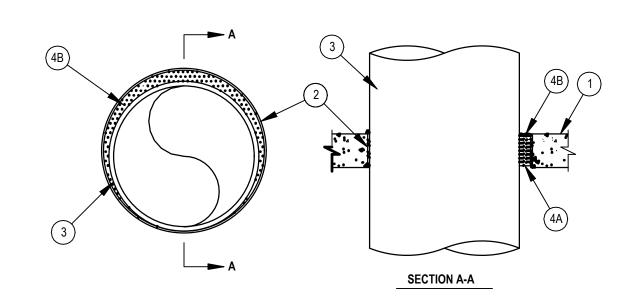


WIRING DIAGRAM - EXTERIOR FIXTURE TYPE 'D'

#### System No. C AJ 1226

January 07, 2015

ANSI / UL1479 (ASTM E814)	CAN / ULC S115
F Ratings - 3 Hr	F Ratings - 3 Hr
T Ratings - 0 Hr	FT Ratings - 0 Hr
L Ratings at Ambient - Less Than 1 CFM / sq ft	FH Ratings - 3 HR
L Ratings at 400 F - 4 CFM / sq ft	FTH Ratings - 0 Hr
	L Rating At Ambient - Less Than 1 CFM / sq ft
	L Ratings at 400 F - 4 CFM / sq ft



1. FLOOR OR WALL ASSEMBLY MIN 4-1/2 IN. THICK REINFORCED LIGHTWEIGHT OR NORMAL WEIGHT (100-150 PCF OR 1600-2400KG/M3) CONCRETE. WALL MAY ALSO BE CONSTRUCTED OF ANY UL CLASSIFIED CONCRETE BLOCKS\*. MAX DIAM OF OPENING IS 32 IN. (813 MM)

2. METALLIC SLEEVE (OPTIONAL) NOM 32 IN. (813 MM) DIAM (OR SMALLER) SCHEDULE 40 (OR HEAVIER) STEEL SLEEVE CAST OR GROUTED INTO FLOOR OR WALL ASSEMBLY, FLUSH WITH FLOOR OR WALL SURFACES OR EXTENDING A MAX OF 3 IN (76 MM) ABOVE FLOOR OR BEYOND BOTH SURFACES OF WALL.

2A. SHEET METAL SLEEVE - (OPTIONAL) MAX 6 IN. (152 MM) DIAM, MIN 26 GA. GALV STEEL PROVIDED WITH A 26 GA GALV STEEL SQUARE FLANGE SPOT WELDED TO THE SLEEVE AT APPROX MID-HEIGHT, OR FLUSH WITH BOTTOM OF SLEEVE IN FLOORS, AND SIZED TO BE A MIN OF 2 IN. (51 MM) LARGER THAN THE SLEEVE DIAM. THE SLEEVE IS TO BE CAST IN PLACE AND MAY EXTEND A MAX OF 4 IN (102 MM) BELOW THE BOTTOM OF THE DECK AND A MAX OF 1 IN. (25 MM) ABOVE THE TOP SURFACE OF THE CONCRETE FLOOR.

2B. SHEET METAL SLEEVE - (OPTIONAL) MAX 12 IN. (305 MM) DIAM, MIN 24 GA. GALV STEEL PROVIDED WITH A 24 GA GALV STEEL SQUARE FLANGE SPOT WELDED TO THE SLEEVE AT APPROX MID-HEIGHT, OR FLUSH WITH BOTTOM OF SLEEVE IN FLOORS, AND SIZED TO BE A MIN OF 2 IN. (51 MM) LARGER THAN THE SLEEVE DIAM. THE SLEEVE IS TO BE CAST IN PLACE AND MAY EXTEND A MAX OF 4 IN (102 MM) BELOW THE BOTTOM OF THE DECK AND A MAX OF 1 IN. (25 MM) ABOVE THE TOP SURFACE OF THE CONCRETE FLOOR.

3. THROUGH-PENETRANT ONE METALLIC PIPE OR CONDUIT TO BE INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND PERIPHERY OF OPENING SHALL BE MIN 0 IN. (POINT CONTACT) TO MAX 1-7/8 IN (48 MM). PENETRANT MAY BE INSTALLED WITH CONTINUOUS POINT CONTACT. PENETRANT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES OR CONDUITS MAY BE USED:

A. STEEL PIPE NOM 30 IN. (762 MM) DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.

B. IRON PIPE NOM 30 IN. (762 MM) DIAM (OR SMALLER) CAST OR DUCTILE IRON PIPE.

C. COPPER PIPE NOM 6 IN. (152 MM) DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

D. COPPER TUBING NOM 6 IN. (152 MM) DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.

E. CONDUIT NOM 6 IN. (152 MM) DIAM (OR SMALLER) STEEL CONDUIT.

F. CONDUIT NOM 4 IN. (102 MM) DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING (EMT).

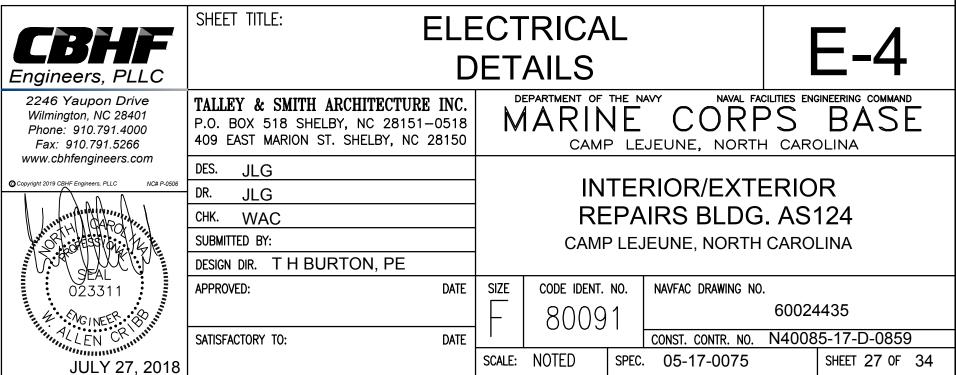
4. FIRESTOP SYSTEM THE FIRESTOP SYSTEM SHALL CONSIST OF THE FOLLOWING:
A. PACKING MATERIAL MIN 4 IN. (102 MM) THICKNESS OF MIN 4 PCF (64 KG.M3) MINERAL WOOL BATT INSULATION FIRMLY PACKED INTO OPENING AS A PERMANENT FORM. PACKING MATERIAL TO BE RECESSED FROM TOP SURFACE OF FLOOR OR FROM BOTH SURFACES OF WALL OR SLEEVE AS REQUIRED TO ACCOMMODATE THE REQUIRED THICKNESS OF FILL MATERIAL.

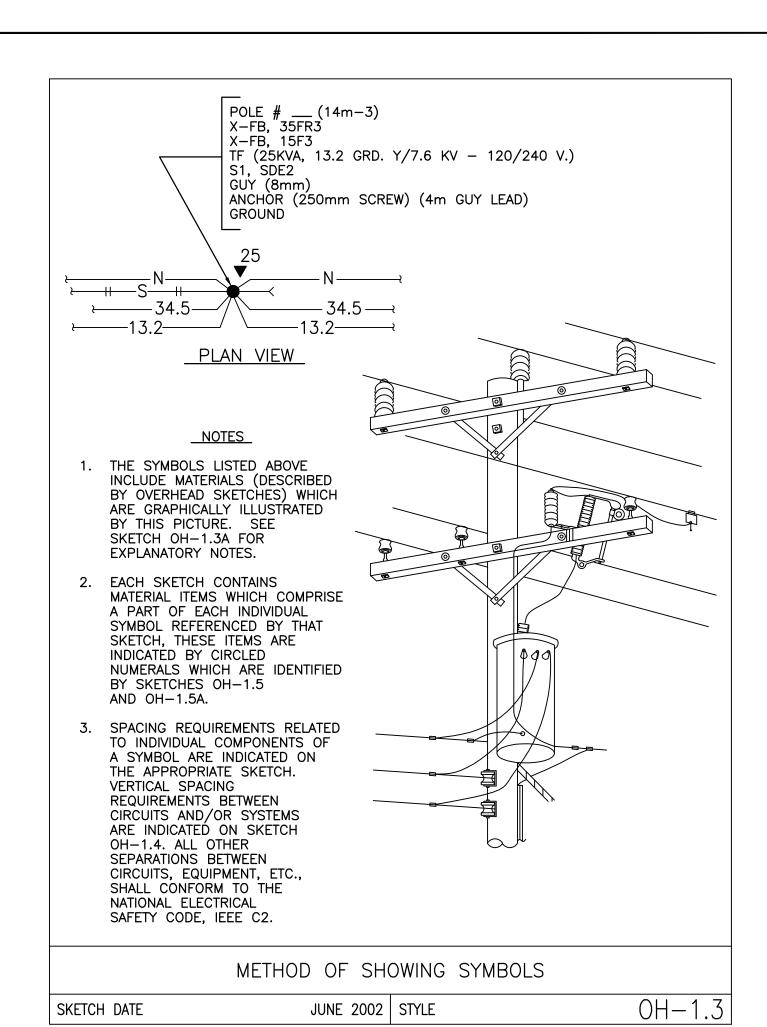
B. FILL, VOID OR CAVITY MATERIAL\* -- SEALANT MIN 1/4 IN. (6 MM) THICKNESS OF FILL MATERIAL APPLIED WITHIN THE ANNULUS, FLUSH WITH TOP SURFACE OF FLOOR OR WITH BOTH SURFACES OF WALL. AT THE POINT OR CONTINUOUS CONTACT LOCATIONS BETWEEN PIPE AND CONCRETE, A MIN 1/4 IN. (6 MM) DIAM BEAD OF FILL MATERIAL SHALL BE APPLIED AT THE CONCRETE OR SLEEVE/PIPE PENETRANT INTERFACE ON THE TOP SURFACE OF FLOOR AND ON BOTH SURFACES OF WALL.

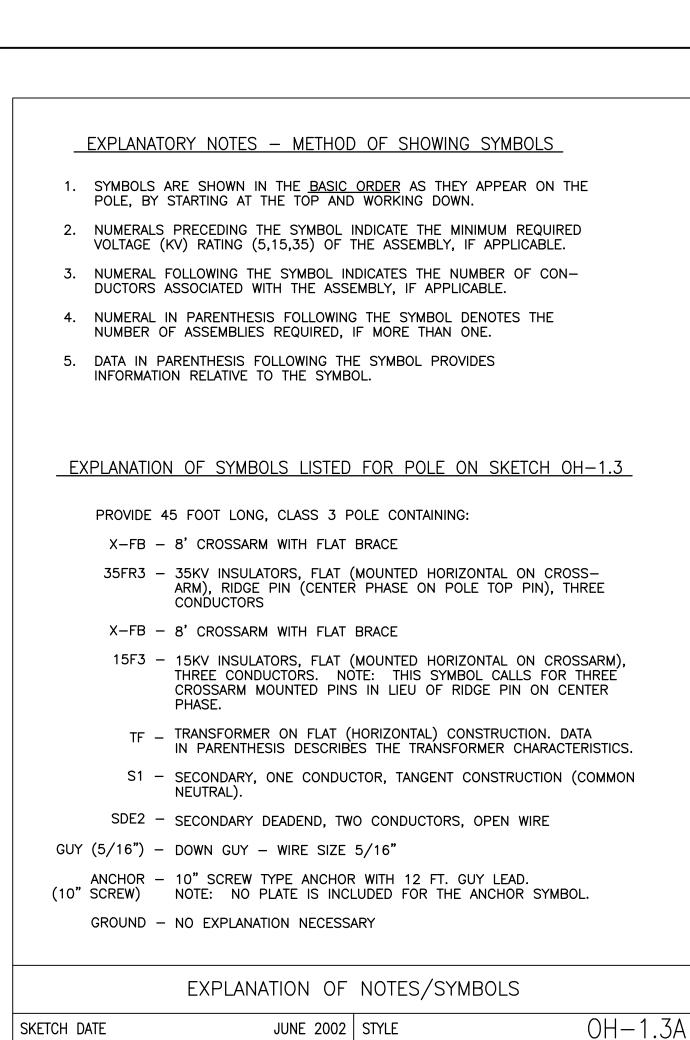
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - FS-ONE SEALANT OR FS-ONE MAX INTUMESCENT SEALANT

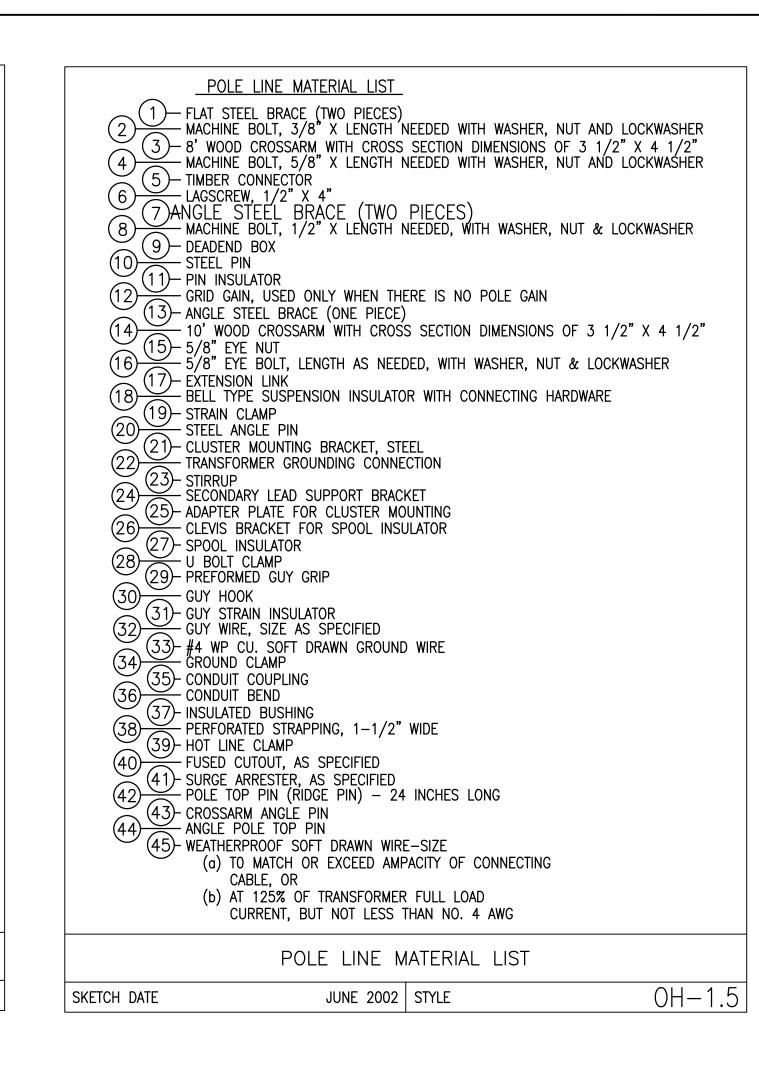
\* INDICATED SUCH PRODUCTS SHALL BEAR THE UL OR CUL CLASSIFICATION MARK FIR JURISDICTIONS EMPLOYING THE UL OR CUL CERTIFICATION (SUCH AS CANADA, RESPECTIVELY.

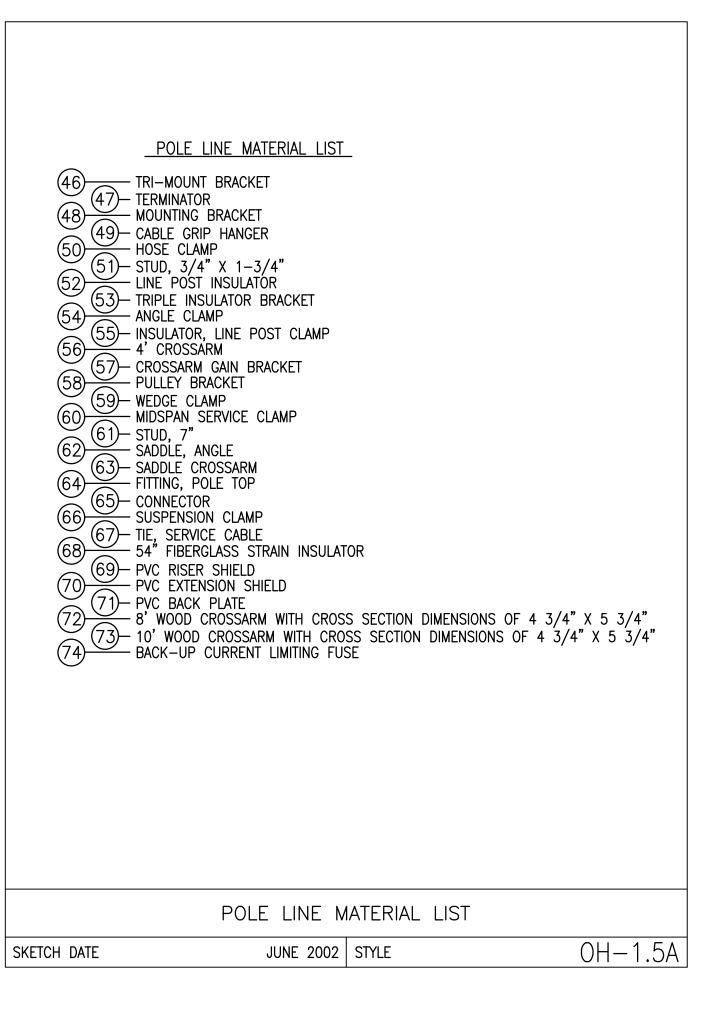
## 8 3 HOUR FIREWALL PENETRATION DETAIL NOT TO SCALE

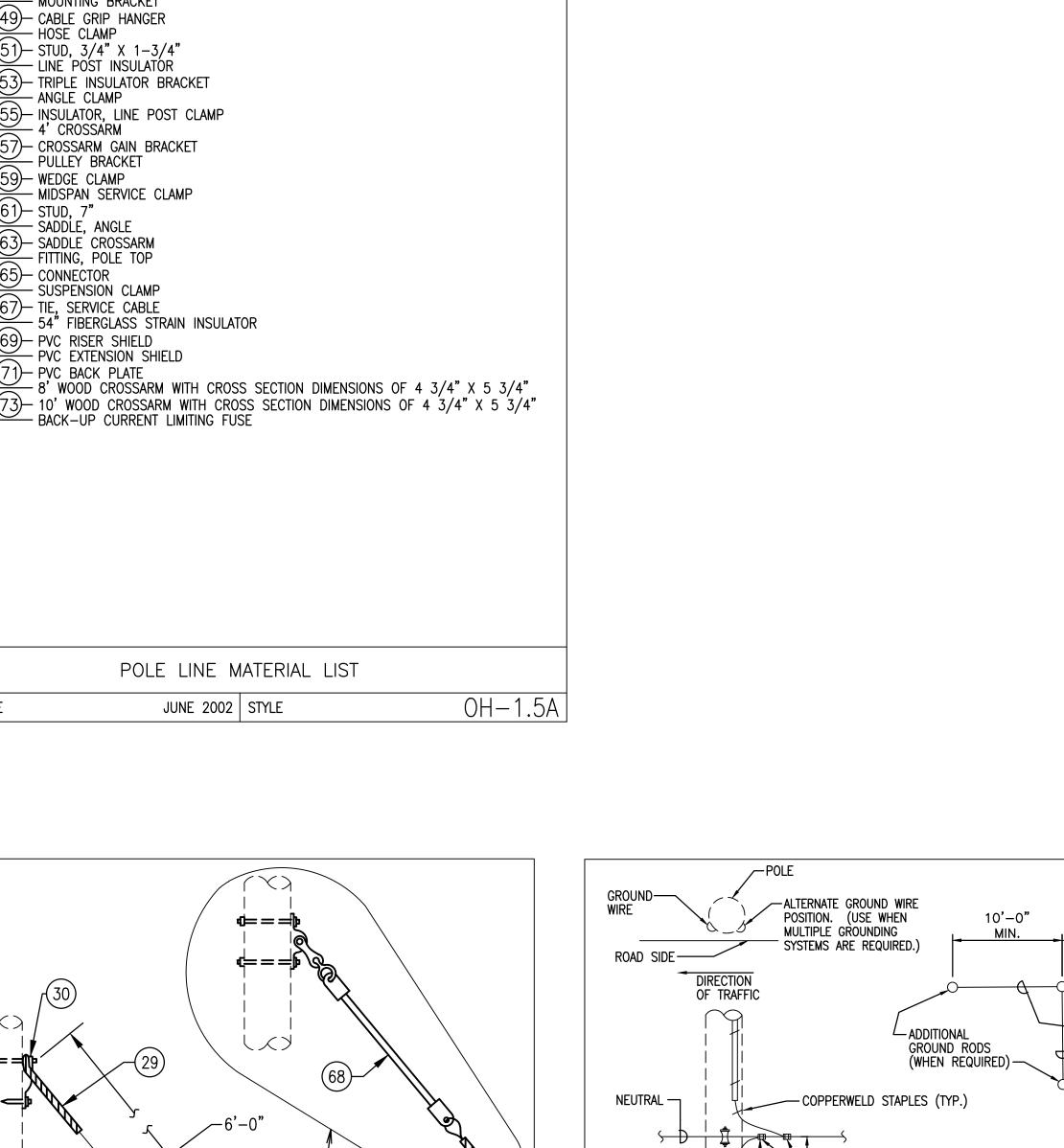




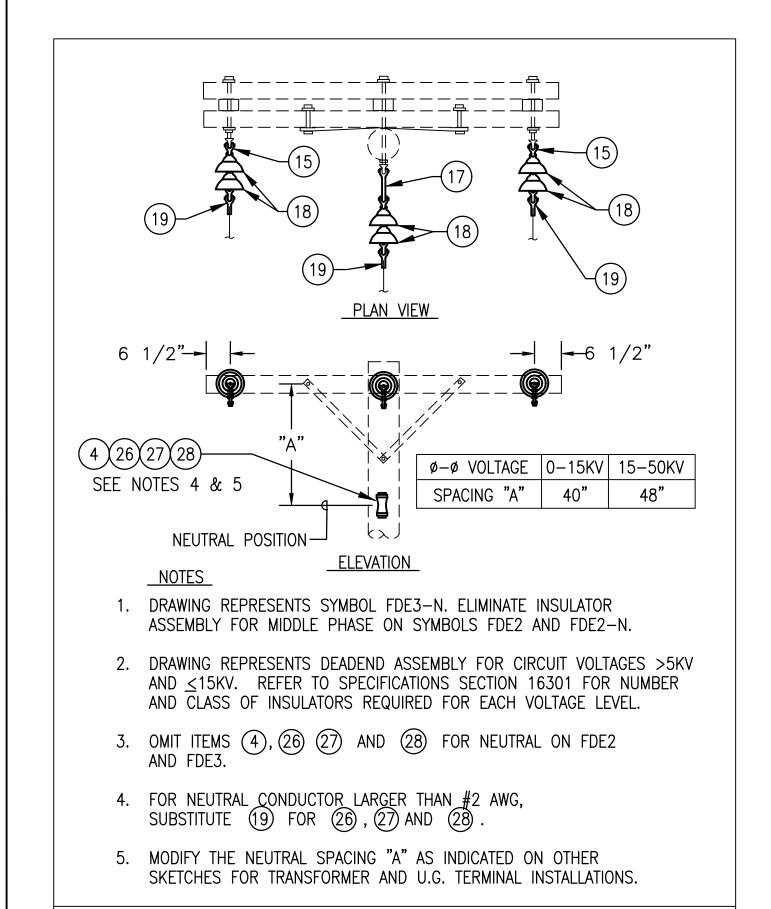








SYM.



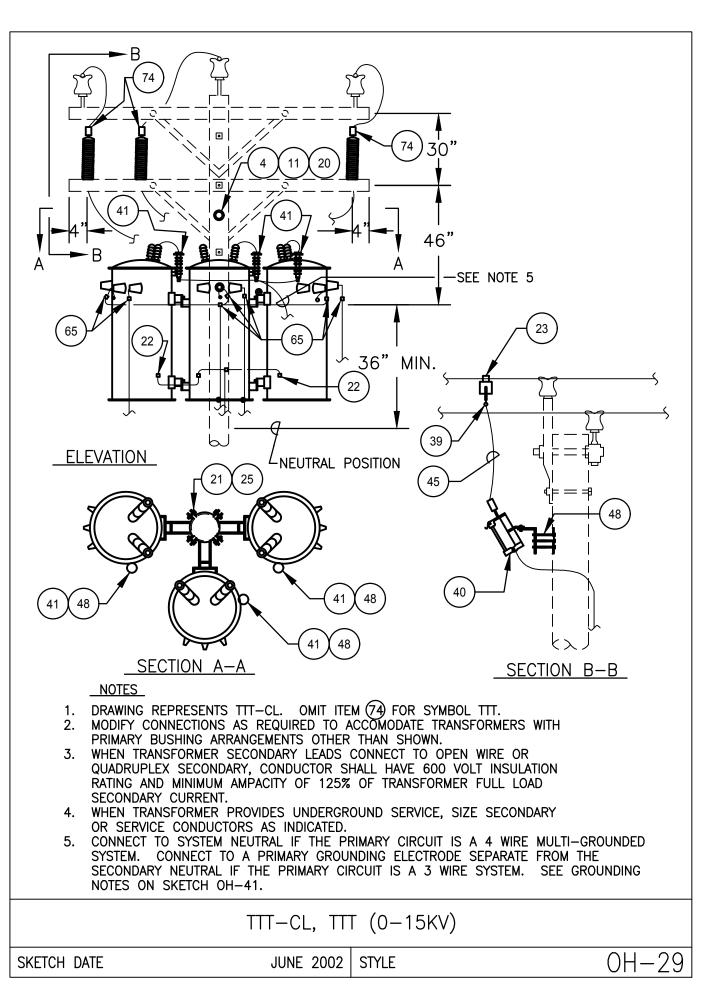
FDE3-N, FDE3, FDE2-N, FDE2

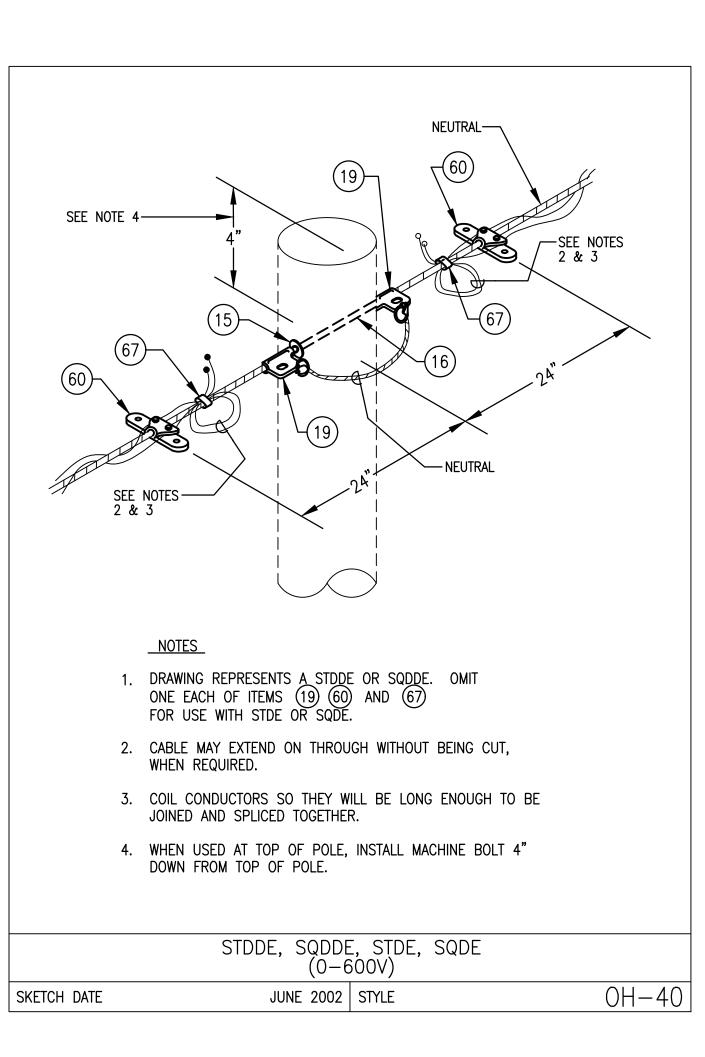
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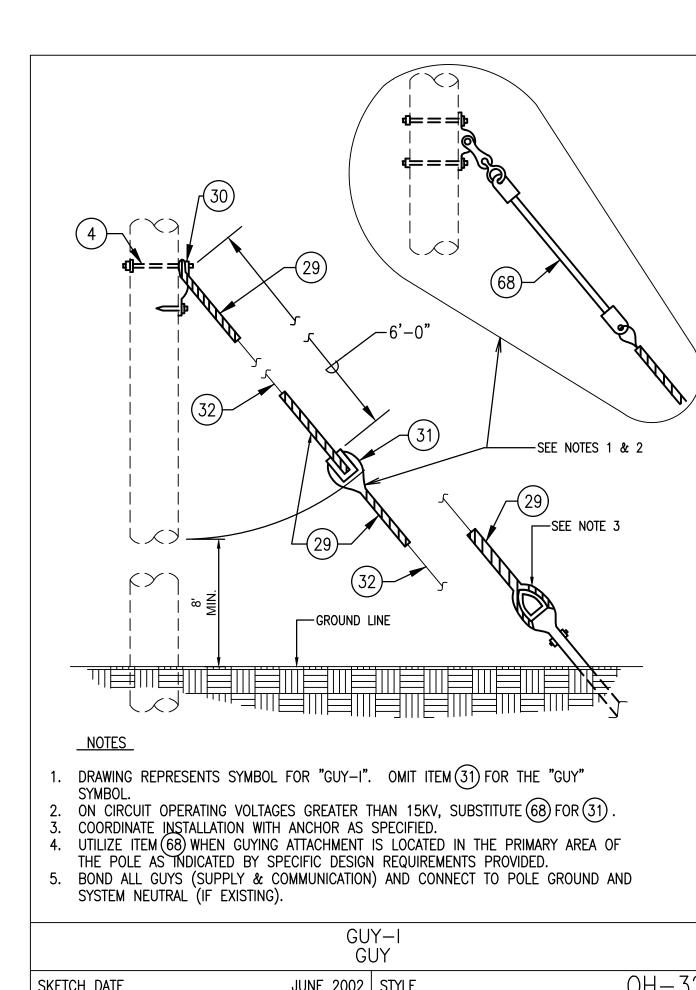
JUNE 2002 | STYLE

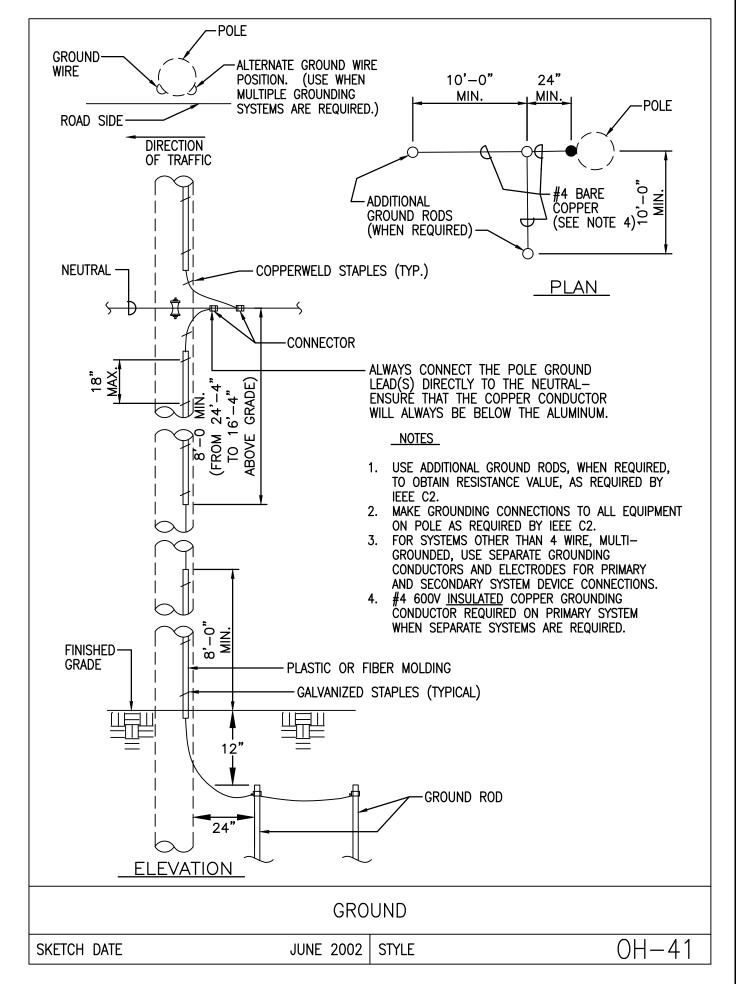
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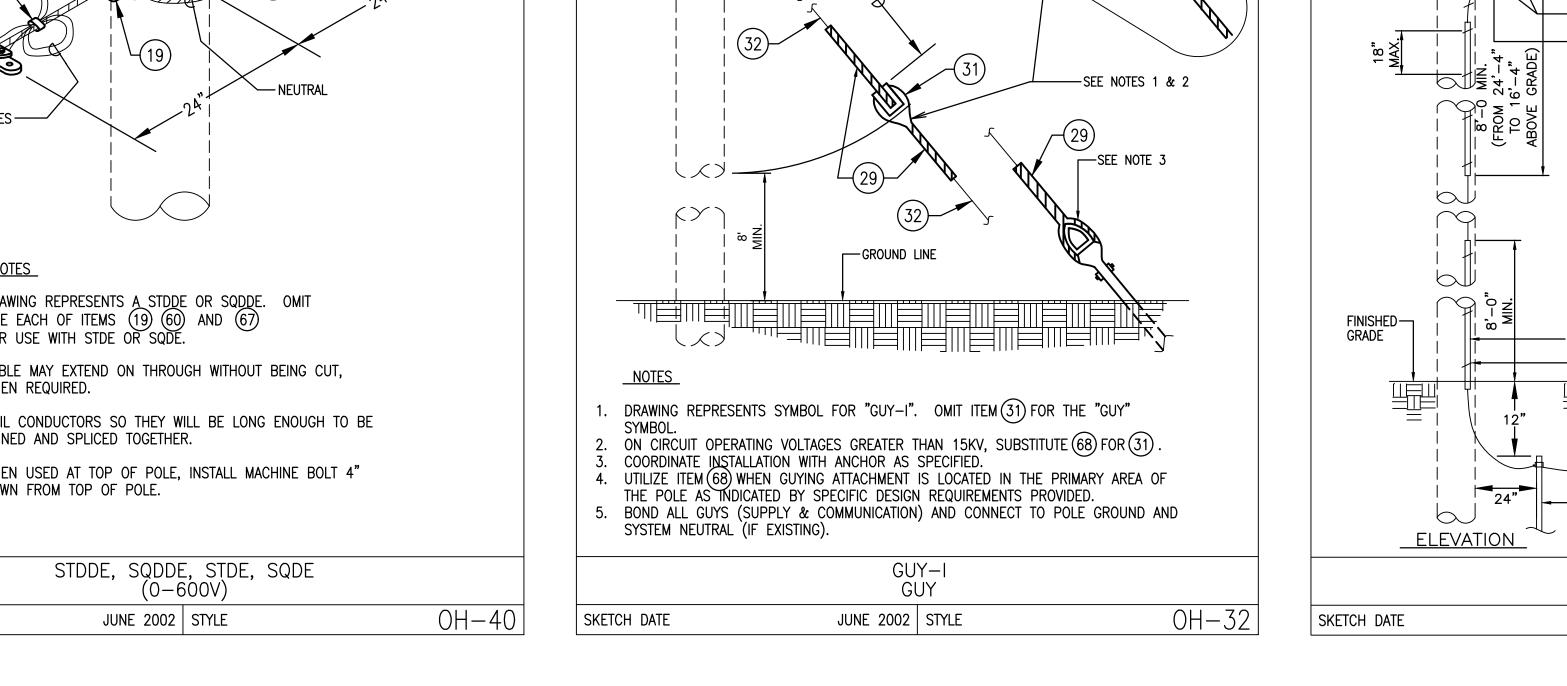


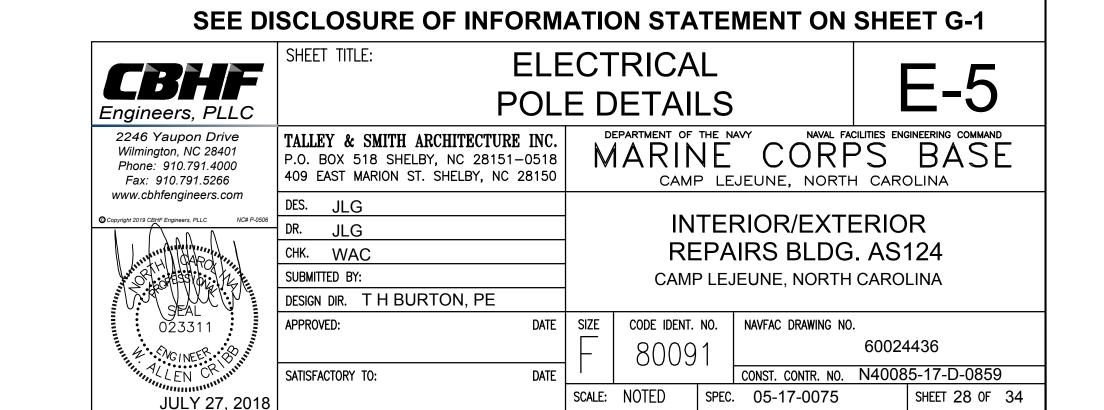


REVISIONS

DATE

APPROVED

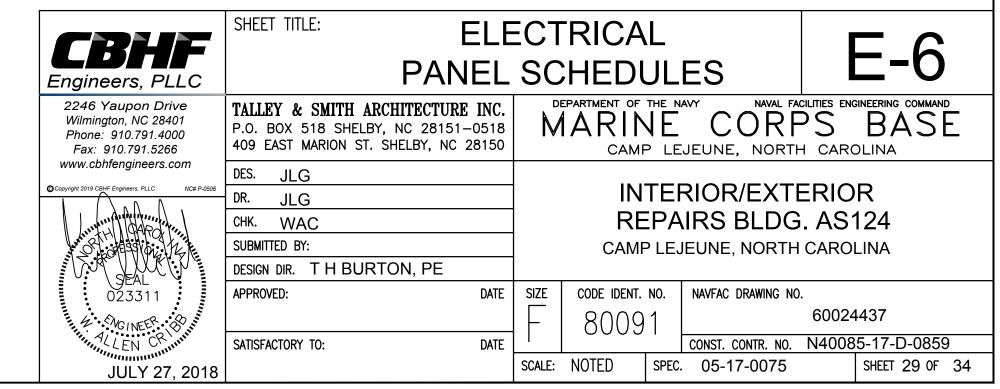




	REVISIONS		
SYM.		DATE	APPROVED

TYPE: NEMA 1 BOLT-ON DOOR-IN-DOOR WITH-IN HINGED TRIM		120 URFACE OP	V,	3	PH,	4	WIRE		PROVIDE IF CHECKED:	XX XX	EQUIP. GROUND BUS NEUTRAL BUS GUTTER TAPS
FRONT COVER	FEED. I	OF									SUB-FEED LUGS
	LOAD	CKT	CKT		_OAD VA		CKT	CKT	LOAD		
_OAD SERVED	VA	BKR	#	Α	В	С	#	BKR	VA	LOAD SERVED	
PANEL SHOP	13,013	200/3	1	13,733			2	20/1	720	RECEPTS: R116,	EXTERIOR GFI
	14,295		3		14,655		4	20/1	360	RECEPTS: R116	
	13,289		5			14,009	6	20/1	720	RECEPTS: R116	
GUH01 & GUH02	888	15/1	7	1,608			8	20/1		RECEPTS: R116	
GUH03 & GUH04	888	15/1	9		1,428		10	20/1		RECEPTS: R116,	EXTERIOR GFI
PV01	1,176	20/1	11			1,620	12	20/1	444	GUH05	
DUST COLLECTOR	2,906	40/3	13	4,912			14	30/3	2,006	COMPRESSOR	
	2,906		15		4,912		16		2,006	Ī	
	2,906		17			4,912	18		2,006		
LIGHTS: R116	1,206	20/1	19	1,366			20	20/1	160	LIGHTS: EXTERO	R
SPARE		20/1	21		172		22	20/1	172	LIGHTS: EXTERIO	)R
SPARE		20/1	23			1,200	24	20/1	1,200	SIGN	
SPARE		20/1	25	800			26	20/1	800	LC1 & TC1	
DHP01/DAH01(NOTE 2)	998	15/2	27		2,248		28	20/2	1,250	EWH1	
	998		29			2,248	30		1,250		
PV03	696	15/1	31	696			32	20/1		SPARE	
SPARE		20/1	33				34	20/1		SPARE	
SPARE		20/1	35				36	20/1		SPARE	
SPD		30/3	37				38	20/1		SPARE	
			39				40	20/1		SPARE	
			41				42	20/1		SPARE	
NOTES:				23,115	23,415	23,989	TOTAL	VOLT AMPS	400	A. BUS (COPPER	2)
. HVAC & REFRIGERATION EQUIPMENT	Γ MUST USE TYPE H	ACR BREAK	ERS.	193	195	200	CONN.	. AMPS	400	A. MAIN CIRCUIT	BREAKER
2. CONTRACTOR MUST PROVIDE COND	UIT AND CABLE FRO	OM DHP01 T	O DAH01						•		

PANEL SHOP											
TYPE: NEMA 1 BOLT-ON DOOR-IN-DOOR WITH-IN HINGED TRIM FRONT COVER	208 MOUNT: FEED:	120 SURFACE TOP	V,	3	PH,	4	WIRE		PROVIDE II CHECKED:		EQUIP. GROUND BUS NEUTRAL BUS GUTTER TAPS SUB-FEED LUGS
	LOAD	CKT	CKT		LOAD VA		CKT	CKT	LOAD		
LOAD SERVED	VA	BKR	#	Α	В	С	#	BKR	VA	LOAD SERVED	)
RECEPTS: R109	540	20/1	1	1,260			2	20/1	720	RECEPTS: R1	10, R109
RECEPTS: R109	360	20/1	3		360		4	20/1		SPARE	
RECEPTS: R109	360	20/1	5			540	6	20/1	180	RECEPT: R117	WP GFI
RECEPTS: R108, R109	540	20/1	7	1,080			8	20/1	540	RECEPTS: R10	)2
GUH08	444	15/1	9		1,344		10	20/1	900	RECEPTS: R10	)1, R106 EXTERIOR GFI
PV02	696	15/1	11			1,416	12	20/1	720	RECEPTS: R10	06
GUH09 & GUH10	888	15/1	13	3,530			14	30/3	2,642	RADIAL ARM S	SAW
GUH06 & GUH07	888	15/1	15		3,530		16		2,642		
RECEPTS: R111, EXTERIOR GFI	900	20/1	17			3,542	18		2,642		
BENCH GRINDER	600	20/1	19	2,401			20	20/3	1,801	JOINTER	
10" TABLE SAW	2,400	30/1	21		4,201		22		1,801		
BAND SAW	1,152	20/1	23			2,953	24		1,801		
SANDER	1,080	20/1	25	1,440			26	20/1	360	RECEPT: R017	,
DRILL PRESS	1,800	20/1	27		1,980		28	20/1	180	RECEPT: R107	' NEMA L5-20
MITER SAW	1,152	20/1	29			1,872	30	20/1	720	RECEPT: R107	,
TABLE SAW	2,402	30/3	31	2,762			32	20/1	360	RECEPT: R107	,
	2,402		33		2,582		34	20/1	180	RECEPT: R104	
	2,402		35			2,402	36	20/1		SPARE	
RECEPT: R109	360	20/1	37	540			38	20/2	180	RECEPT: R107	' NEMA L14-20
LIGHTS: R109,R110,R111	478	20/1	39		658		40		180	SPARE	
LIGHTS: R101,R102,R014,,R105,R016,R107	564	20/1	41			564	42	20/1		SPARE	
NOTES:				13,013	14,655	13,289	TOTA	L VOLT AMPS	200	A. BUS (COPF	PER)
1. HVAC & REFRIGERATION EQUIPMENT MUS	T USE TYPE H	ACR BREAKE	ERS.	108	122	111	CONN	I. AMPS	200	A. MAIN CIRC	JIT BREAKER
									22	KAIC MIN.	



MARK	DESCRIPTION	SIZE/APERATURE	VOLTS	LAMPS	WATTS	LENS	COLOR	MOUNTING HEIGHT	DRIVER	REMARKS
A	INDUSTRIAL HIGHBAY LED FIXTURE	89.5"L X 4.25"W X 3.125"H	MVOLT	LED 4000K 14,000	116	FROSTED ACRYLIC	WHITE	SUSPENDED 18' AFF	LED DRIVER	4
В	4' SUPENSION DIRECT/INDIRECT LED FIXTURE FIBERGLASS REINFORCTED HOUSING, STAINLESS HARDWARE	46.87"L X 4.25"W X 3.125"H	MVOLT	LED 4000K 2950 LUMENS	32	N/A	WHITE	8'-6" AFF	LED DRIVER	4
С	SURFACE MOUNTED LED WALL PACK, CONSTRUCTION: CAST OR EXTRUDED ALUMINUM POWDER COAT FINISH, POLYCARBONATE LED PROTECTANT COVERS	15"W X 6"D	MVOLT	LED 4000K 4500 LUMENS	21	ACRYLIC	DARK BRONZE	WALL MOUNTED ABOVE DOOR	LED DRIVER	3,5
D	SURFACE MOUNTED LED ENTRANCE LIGHT,  CONSTRUCTION: CAST ALUMINUM TOP PLATE AND OUTER RING WITH  POWDER COAT FINISH, POLYCARBONATE LED PROTECTANT COVERS	14.5"W X 12.75"H X 7"D	MVOLT	LED 4000K 1029 LUMENS	16.6	ACRYLIC	DARK BRONZE	WALL MOUNTED 7'-6" ABOVE DOOR	LED DRIVER	3,5,8
Е	2-HEAD EMERGENCY FIXTURE  CONSTRUCTION: INJECTION-MOLDED HIGH-IMPACT THERMOPLASTIC  WITH SNAP-FIT COMPONENTS, TRACK AND SWIVEL LAMP ADJUSTMENT	12.5"W X 3.75"D X 3.75"H	MVOLT	2-1.8W LED SQUARE LAMPS	10	N/A	WHITE	WALL MOUNTED 7' 6" AFF	N/A	8
X	EXIT SIGN, SINGLE FACE, 6" RED LETTERS	12"W X 8"H X 2"D	MVOLT	LED	6	N/A	WHITE	SURFACE CEILING 7'-6"AFF WHEN WALL MOUNTED		8

1. 0-10V DIMMING DRIVER

2. DAMP LOCATION 3. WET LOCATION

4. WIREGUARD 5. LED REQUIRED SURGE PROTECTION 6. HAZARDOUS LOCATION

7. DRIVER SHALL BE RATED -20 DEG C to 40 DEG C

8. 90 MIN BATTERY BACKUP - INTEGRAL

9. 90 MIN BATTERY BACKUP - EXTERNAL REMOTE MOUNTED

10. INTEGRAL PHOTOCELL

#### GENERAL NOTES:

- A. THE CONTRACTOR SHALL VERIFY THE LEAD TIME OF ALL PRODUCTS SPECIFIED IN THIS SCHEDULE AT THE TIME OF PACKAGE QUOTE.
- B. DURING THE BID PROCESS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DELIVERY/SCHEDULING ISSUES.
- C. NO SUBSTITUTIONS WILL BE ALLOWED DUE TO THE LACK OF COORDINATION OF DELIVERY DATES AND CONSTRUCTION SCHEDULE AFTER BID.
- D. ALL EXPEDITED EXPENSES SHALL BE THE RESPONSIBILITY OF THE CONTRACTORS.
- E. FIXTURES TO BE INSTALLED IN CEILINGS, INDICATE ON THE ARCHITECTURAL PLANS AS HAVING INSULATION IN CONTACT WITH THE CEILING SURFACE, SHALL BE IC RATED BY MANUFACTURER.
- F. LIGHTING FIXTURES SHALL MEET THE AESTHETICS, DESCRIPTION AND SPECIFICATIONS, SUBSTITUTIONS SHALL INCLUDE PT. BY PT. CALCULATIONS. G. LIGHTING FIXTURES, AS SPECIFIED, HAVE BEEN SO SELECTED TO ACHIEVE REQUIRED/DESIRED FOOTCANDLE LEVELS IN THEIR RESPECTIVE AREA. HENCE SPECIFIC FIXTURE CHARACTERISTICS WHICH MAY CREATE PARTICULAR ILLUMINATION RESULTS ARE ESSENTIAL. ANY DEVIATIONS FROM

SPECIFIED FIXTURES SHALL DEEM THE SUBMITTING AGENT AND CONTRACTORS RESPONSIBLE IN PROVIDINGSUCH DEVIATION FOR THE ARCHITECT/ ENGINEER AND OWNER TO MAKE AN INFORMED DECISION.

SUBSTITUTIONS ARE ACCEPTABLE AS LONG AS THEY ARE EQUAL TO THE FIXTURE SPECIFIED, UNLESS OTHERWISE NOTED

THIS INCLUDES LENS, COLORS, REFLECTORS, PHOTOMETRICS, HOUSING MATERIAL, FINISHES, ETC. ALL

ANY FIXTURE WITH THE TEXT "NL" ADJACENT TO IT SHALL INDICATE THAT THAT FIXTURE IS A NIGHT LIGHT (24HR LIGHT). THE FIXTURE SHALL BE CONNECTED TO THE UNSWITCHED HOT LEG OF THE INDICATED CIRCUIT.

ACRYLIC PRISMATIC LENSES SHALL BE 0.156" NOMINAL MINIMUM THICKNESS.

LUMINAIRE REQUIREMENTS:

3. LENS - CLEAR GLASS.

6. ELECTRICAL - 120/277V

LAMPS - LEDs.

HOUSING - CAST ALUMINUM HOUSING.

2. FINISH - THERMOSET POWDER COAT FINISH.

5. DRIVER - ELECTRONIC >90% POWER FACTOR.

7. CERTIFICATION - UL LISTED AND LABELED.

8. INTEGRAL 90 MIN BATTERY BACK-UP

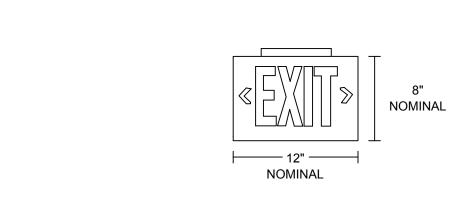
- K. ALL EXIT AND EMERGENCY FIXTURES SHALL COMPLY WITH NCSBC STANDARDS AND HAVE AUTOMATIC TESTING DEVICES.
- L. LED EMERGENCY BATTERY SHALL PROVIDE 1400 MINIMUM LUMENS OUTPUT FROM 1 LAMP FOR 90 MINUTES MINIMUM.
- M. LED MODULES SHALL BE REPLACEABLE.
- N. SEE SPECIFICATIONS SECTIONS 265100 AND 265200 FOR ADDITIONAL REQUIREMENTS.
- O. ELECTRICAL CONTRACTOR SHALL RECEIVE APPROVAL FOR ALL LIGHTING FIXTURES FROM ARCHITECT/OWNER PRIOR TO PURCHASE AND ROUGH-IN.
- P. ALL LIGHTING FIXTURES PENETRATING RATED FLOOR/CEILING ASSEMBLY SHALL BE PROVIDED WITH ACCESSORIES TO MAINTAIN ASSEMBLY FIRE RATING. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL RATINGS.

14-1/2"

FLUSH OR BACKBOX MOUNT

Q. THE ABOVE FIXTURE TYPES ARE LISTED AS THE DESIGN BASIS. THE ACTUAL FIXTURES SUBMITTED SHALL BE MANUFACTURED IN THE UNITED STATES. R. PROVIDE MANUFACTURER INSTALLED NEC 2014 ARTICLE 410.130 (G) COMPLIANT DISCONNECTING MEANS FOR ALL APPLICABLE FIXTURES.

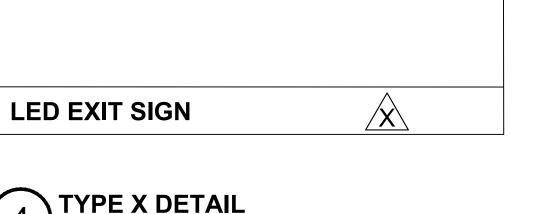




## LUMINAIRE REQUIREMENTS

- 1. HOUSING DIE-CAST ALUMINUM OR HIGH-IMPACT, UV-STABILIZED, INJECTION-MOLDED THERMOPLASTIC. SINGLE OR DOUBLE-FACED AS INDICATED.
- 2. FINISH (ON CAST ALUMINUM HOUSING ONLY) TEXTURED POWDER COAT FINISH OPTIONS INCLUDE WHITE, WHITE WITH BRUSHED ALUMINUM FACE, BLACK, OR BLACK WITH BRUSHED ALUMINUM FACE.
- 3. LETTERS/CHEVRONS MINIMUM 6" HIGH WITH 3/4" STROKE. RED OR GREEN LETTERS AS INDICATED. PROVIDE CHEVRONS AS INDICATED EITHER LEFT, RIGHT OR BOTH DIRECTIONS AS INDICATED.
- 4. EMERGENCY PACK SOLID-STATE, CONSTANT-CURRENT TYPE BATTERY CHARGER WITH
- MAINTENANCE-FREE, NICKEL-CADMIUM BATTERY, AC-ON INDICATOR LAMP AND TEST SWITCH. 5. MOUNTING - UNIVERSAL MOUNTING KIT FOR CEILING, WALL OR END-OF-FIXTURE MOUNTING.
- 6. ILLUMINATION PROVIDED BY RED, GREEN OR WHITE HIGH-OUTPUT LEDS INSIDE OF FIXTURE HOUSING.
- PROVIDE POLYSTYRENE DIFFUSER IN COLOR INDICATED WITH FREQUENCY-MATCHED SILKSCREEN COATING FOR MAXIMUM LED LIGHT OUTPUT.
- 7. CERTIFICATION UL LISTED AND CERTIFIED FOR DAMP LOCATIONS.





11. PROVIDE DIRECTION ARROWS AS INDICATED



NOMINAL

LUMINAIRE REQUIREMENTS:

COLD-ROLLED STEEL, AND END CAPS.

ON A SINGLE FULL LENGTH CHASSIS.

MAX. DEPTH

**LUMINAIRE REQUIREMENTS:** 

RANGE OF LAMP ADJUSTMENT.

2. OPTICS - TWO 1.8W LED LAMPS FOR EMERGENCY LIGHT.

NICKEL-CADMIUM BATTERY, 90 MINUTES OF EMERGENCY POWER.

DAMP LOCATION 32°F TO 122°F (0°C TO 50°C) LISTED STANDARD.

1. HOUSING - 2NOMINAL 4 1/4" X 3 1/4"RECTANGULAR HOUSING FORMED FROM

2. END CAPS - DIE-CAST END CAPS ARE MECHANICALLY ATTACHED WITH NO EXPOSED

4. LUMINAIRE LENGTH - 2' AND 4' AND 8' TANDEM LENGTHS TO ACCOMMODATE MANY FIELD

APPLICATIONS. 8' TANDEM UNIT IS TWO 4' OPTICAL ASSEMBLIES WITH A CENTER MULLION

5. SOURCE - MULTIPLE LED LUMEN PACKAGES AND THREE AVAILABLE COLOR TEMPERATURE

6. OPTICS - FROSTED ACRYLIC DIFFUSER, WIDE LIGHT DISTRIBUTION WITH GLARE CONTROL.

7. DIMMING DRIVER - SMOOTH CONTINUOUS AND FLICKER-FREE 0-10V DIMMING TO DARK

(0.1%). SYNCING FOR CONTROLS: 2mA MAX. THD:<20%. INSIGNIFICANT INRUSH CURRENT

8. ELECTRICAL - LED LIGHT ENGINE - CONSISTING OF MODULAR LED BOARDS AND EL-OLED

LED 4' & 8' SUSPENDED

DIRECT/INDIRECT FIXTURE

DIMMING DRIVER - RATED FOR 50,000 HOURS (L80) AT 25°C AMBIENT TEMPERATURE. SPECIFY 120V OR 277V. PRE-WIRED WITH 16WAG FIXTURE WIRE. PLUG-IN ELECTRICAL

FASTENERS. FLAT END CAPS STANDARD, SCULPTURED END CAPS OPTIONAL.

3. COLOR - HOUSING AND END CAPS IS WHITE, BLACK OR PAINTED ALUMINUM.

OPTIONS (3000K, 3500K, AND 4000K) - ALL WITHIN 2.5 MACADAM ELLIPSE.

AT 120 AND 277VAC. FCC CLASS A AND B TESTED FOR EMI AND RFI.

NOMINAL

1. HOUSING - INJECTION-MOLDED, FAME-RETARDANT, HIGH-IMPACT, THERMOPLASTIC HOUSING

WITH SNAP-FIT DESIGN COMPONENTS. TRACK AND SWIVEL ARRANGEMENT PERMITS FULL

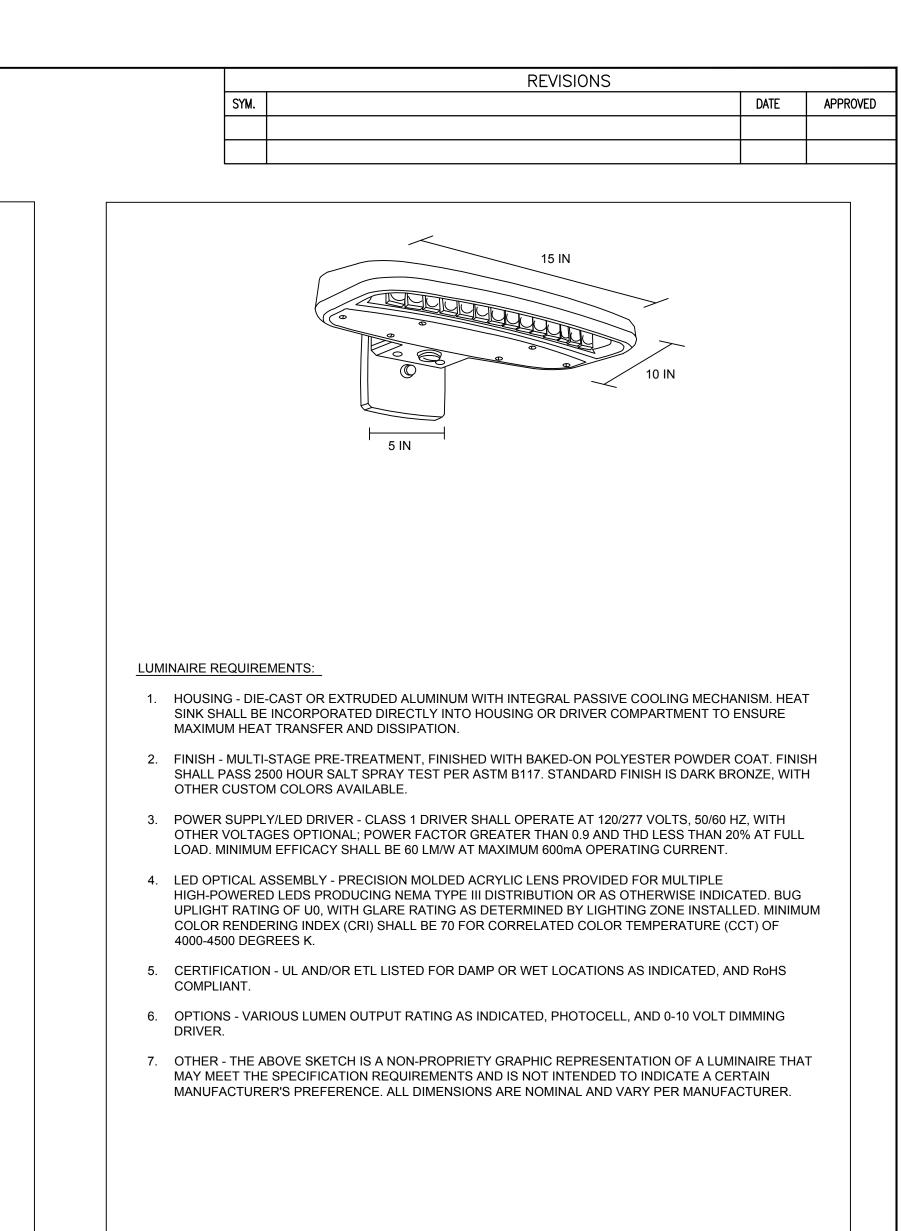
3. ELECTRICAL - DUAL-VOLTAGE INPUT 120V OR 277V AC. EMERGENCY UNIT PROVIDED WITH

TEST SWITCH, STATUS INDICATOR AND RECHARGEABLE BATTERY. MAINTENANCE-FREE

4. LISTINGS - UL LISTED. MEETS UL 924, NFPA 101, NFPA 70-NEC AND OSHA ILLUMINATION STANDARDS.

3.25" NOMINAL

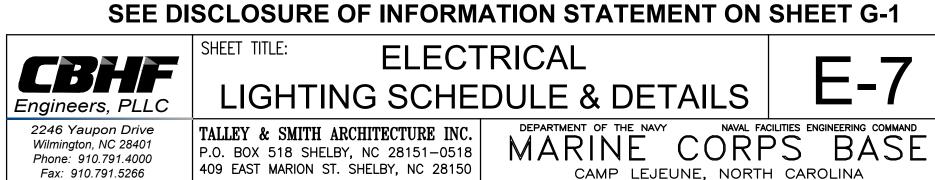
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SATISFACTORY TO:

023311

JULY 27, 2018

INTERIOR/EXTERIOR REPAIRS BLDG. AS124 CAMP LEJEUNE, NORTH CAROLINA

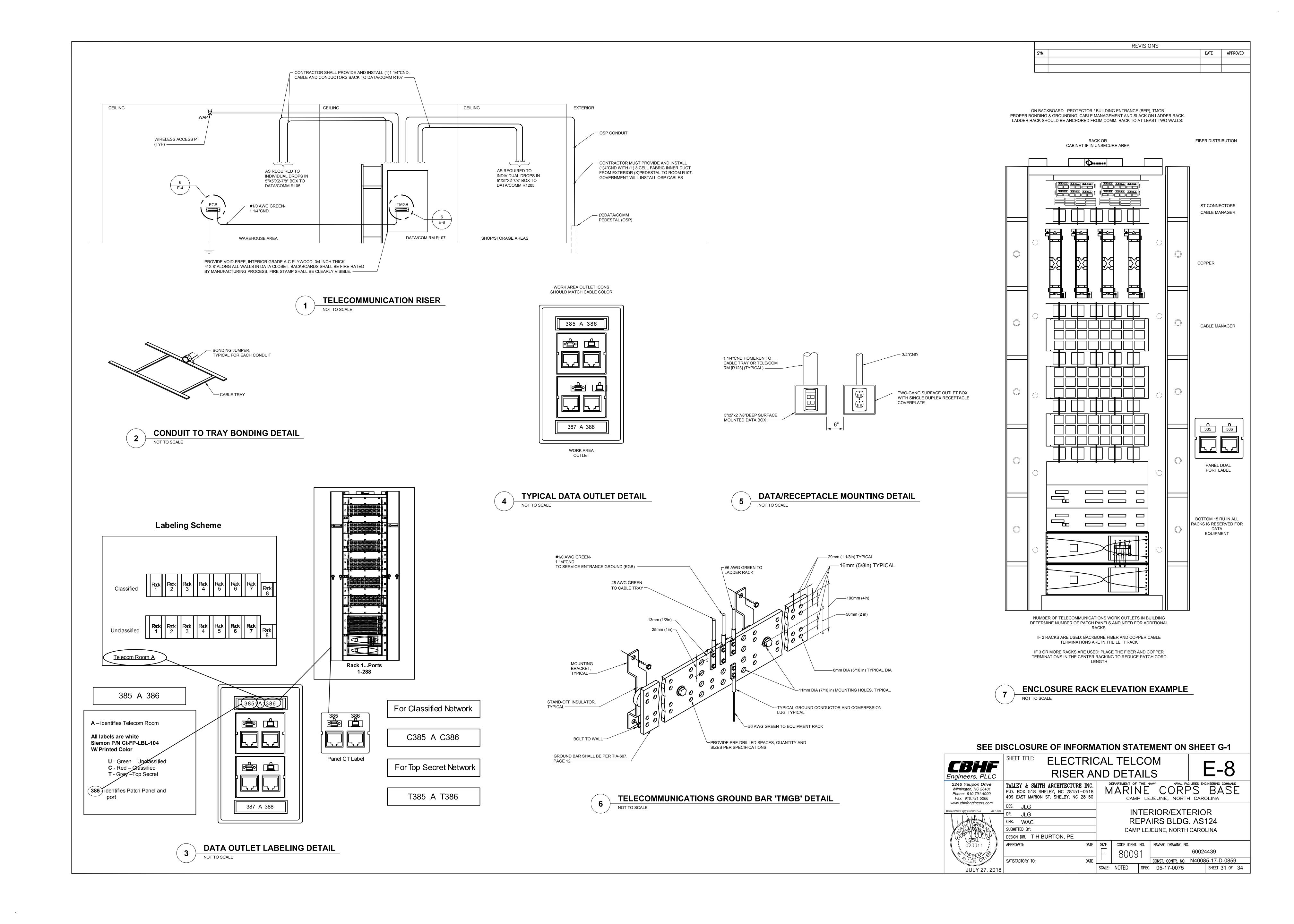
CODE IDENT. NO. NAVFAC DRAWING NO.

60024438 CONST. CONTR. NO. N40085-17-D-0859 SCALE: NOTED SPEC. 05-17-0075 SHEET 30 OF 34



LED EXTERIOR EGRESS SURFACE







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

0

4'

8'

12'

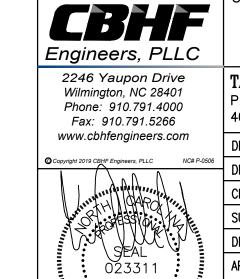
REVISIONS DATE APPROVED

#### DEMOLITION KEYED NOTES

- (1) RECEPTACLES: DEVICE, BOXES, CONDUIT AND CONDUCTORS SHALL BE REMOVED COMPLETE TO SOURCE. CONCEALED BOXES AND CONDUIT SHALL BE ABANDONED IN PLACE AND CUT FLUSH WITH WALL. BOX SHALL BE FILLED AND PATCHED TO MATCH WALL FINISH.
- (2) HEATER SWITCH: REMOVE SWITCH, BOX, CONDUIT AND CONDUCTORS COMPLETE FROM HEATER TO SOURCE IN ENTIRETY.
- PANELBOARD: DISCONNECT AND REMOVE FEED CONDUIT AND CONDUCTORS. REMOVE PANEL, BRANCH CIRCUIT CONDUIT AND CONDUCTORS IN ENTIRETY.
- (4) WOOD SHOP EQUIPMENT DISCONNECT: REMOVE DISCONNECT, CONDUIT AND CONDUCTORS COMPLETE TO EQUIPMENT AND SOURCE IN ENTIRETY.
- $\left\langle 5 \right\rangle$  COMPRESSOR DISCONNECT: REMOVE DISCONNECT, CONDUIT AND CONDUCTORS COMPLETE TO COMPRESSOR AND SOURCE IN ENTIRETY.
- 6 DUST COLLECTOR DISCONNECT SWITCH/MOTOR STARTER: REMOVE DISCONNECT/MOTOR STARTER, CONDUIT AND CONDUCTORS COMPLETE TO EQUIPMENT AND SOURCE IN ENTIRETY.
- $\overline{7}$  EXHAUST FAN SWITCH: REMOVE SWITCH, BOX, CONDUIT AND CONDUCTORS COMPLETE TO FAN AND SOURCE IN ENTIRETY.
- 8 DISCONNECT SWITCH: REMOVE DISCONNECT, CONDUIT AND CONDUCTORS COMPLETE TO EQUIPMENT AND SOURCE IN ENTIRETY.
- GABLE EXHAUST FAN: REMOVE SWITCHES, BOXES, COMPONENTS, CONDUIT AND CONDUCTORS COMPLETE TO FANS AND SOURCE IN ENTIRETY.
- LIGHT FIXTURE: REMOVE FIXTURE, BOXES, CONDUIT AND CONDUCTORS COMPLETE TO SOURCE IN
- $\langle 11 \rangle$  FIXTURE CONTROL: REMOVE CONTROL, BOXES, CONDUIT AND CONDUCTORS COMPLETE TO SOURCE IN

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET G-1

E-9



MANAY LEN CRIMIN

JULY 27, 2018

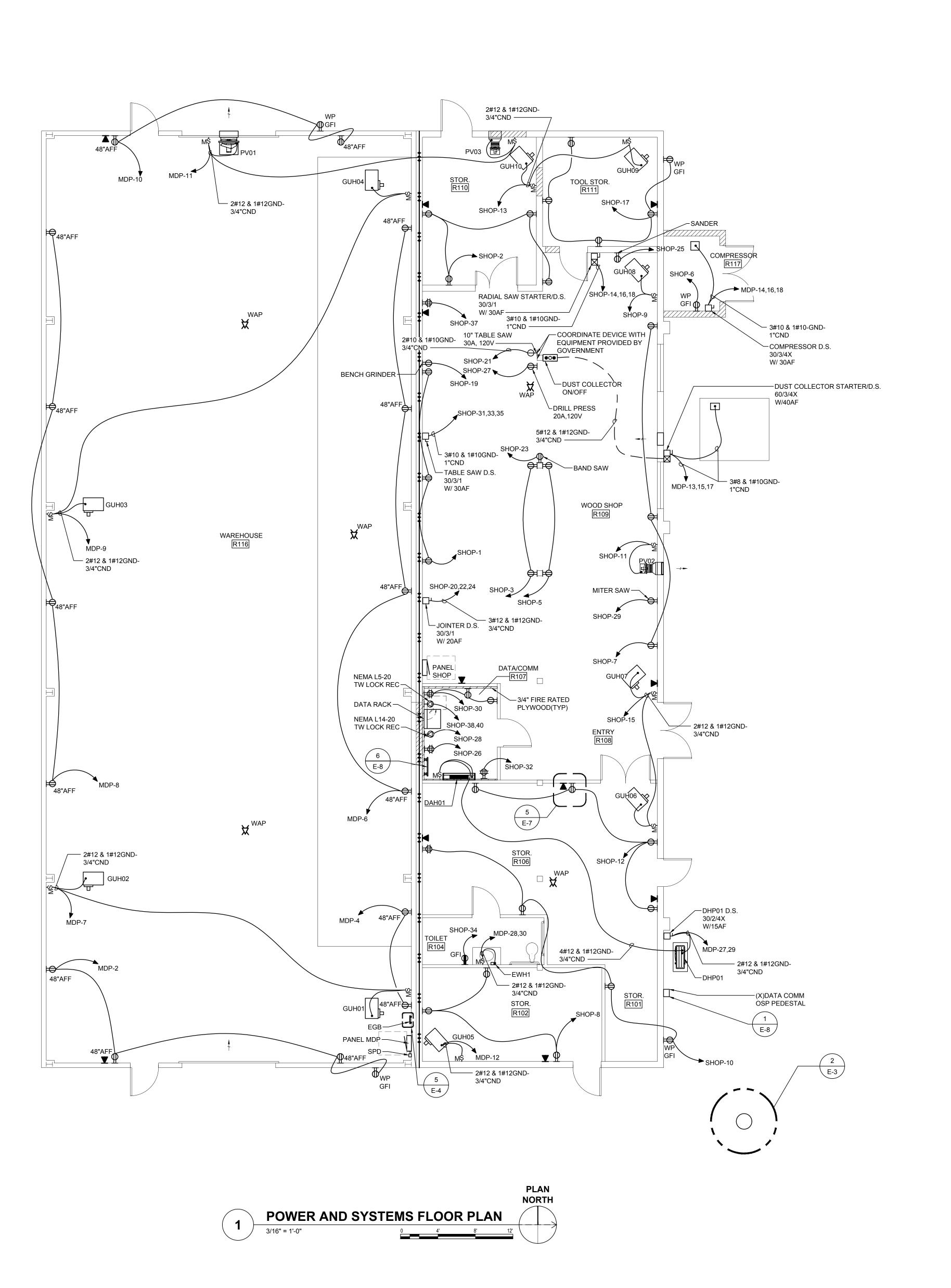
**ELECTRICAL** DEMOLITION FLOOR PLAN MARINE CORPS BASE P.O. BOX 518 SHELBY, NC 28151-0518

409 EAST MARION ST. SHELBY, NC 28150 CAMP LEJEUNE, NORTH CAROLINA DES. JLG
DR. JLG INTERIOR/EXTERIOR REPAIRS BLDG. AS124

SUBMITTED BY: DESIGN DIR. THBURTON, PE APPROVED: SATISFACTORY TO:

CAMP LEJEUNE, NORTH CAROLINA DATE SIZE CODE IDENT. NO. NAVFAC DRAWING NO. 60024440 CONST. CONTR. NO. N40085-17-D-0859

SCALE: NOTED | SPEC. 05-17-0075



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	SHEET IIII
Engineers, PLLC	POV
2246 Yaupon Drive Wilmington, NC 28401 Phone: 910.791.4000 Fax: 910.791.5266	P.O. BOX 5
www.cbhfengineers.com	DES. JLC
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JULY 27, 2018	

FOWER & SYSTEMS FLOOR PLAN

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY OF THE NAVY CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

REVISIONS

DATE APPROVED

INTERIOR/EXTERIOR

WAC

MITTED BY:

CAMP LEJEUNE, NORTH CAROLINA

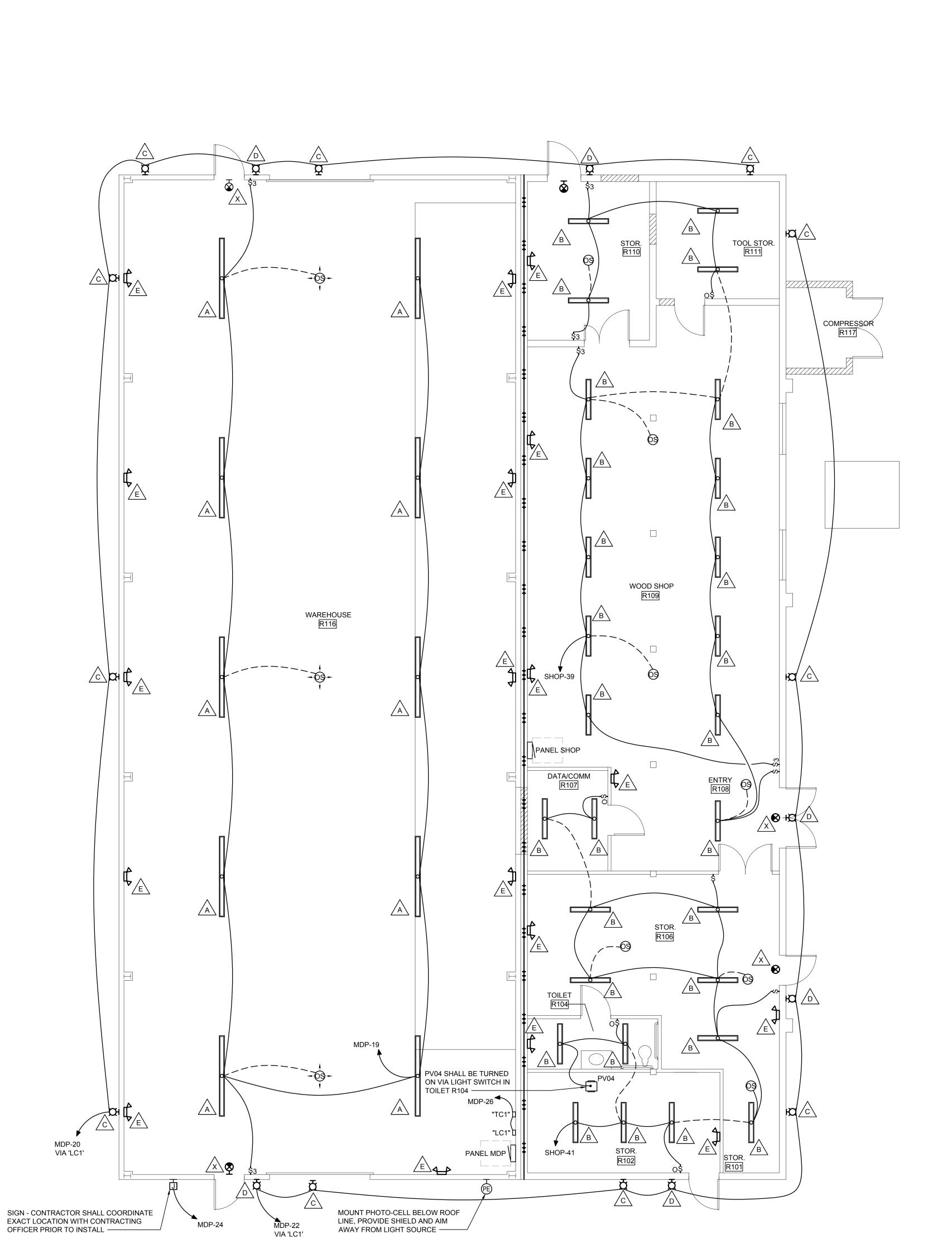
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REVISIONS

DATE APPROVED

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023311 023311	APPROVED:	DATE	SIZE	code ident. 8009		NAVFAC DRAWING NO	60024			
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