

DETAIL/SECTION INDICATOR

DETAIL/SECTION NUMBER

SHEET ON WHICH DETAIL/
SECTION IS DEPICTED

N N E STEAM CONSTRUCTION FACILITY NNO

CODE I.D. NO. 80091

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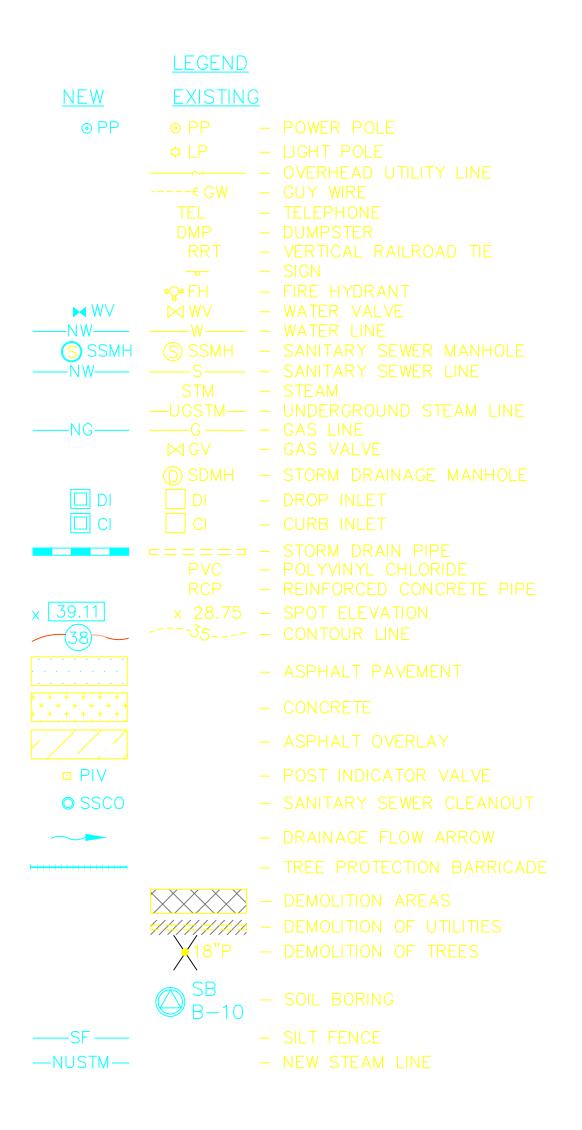
SPEC. NO.06-00-0397

CONSTRN. CONTR. NO. N62467-00-C-0397

NAVFAC DRAWING NO. 5385551

SHEET 6 OF

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## TREE LEGEND

• - TREE SYMBOL

C - CEDAR

PALM - PALM

P - PINE

SG — SWEET GUI

O - OAK

PO – PIN OAK

TO - TURKEY OAK

WO - WATER OAK

(TRIP) — TRIPLE TREE

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## BID ITEMS (CIVIL)

### BID ITEM 0002:

INCLUDES THE DEMOLITION AND WORK NECESSARY TO CONSTRUCT THE NEW 80 SPACE PARKING AREA. ALL NEW WORK ASSOCIATED WITH THIS

PARKING AREA IS INCLUDED.

### BID ITEM 0003:

INCLUDES THE DEMOLITION AND WORK NECESSARY
TO CONSTRUCT THE NEW 13 SPACE PARKING AREA
AND CONNECTOR STREET (JOHNSON STREET.)
ALL NEW WORK ASSOCIATED WITH THIS PARKING
AREA AND CONNECTOR STREET IS INCLUDED.

### BID ITEM 0004:

INCLUDES THE DEMOLITION AND WORK NECESSARY TO CONSTRUCT THE NEW ENTRY DRIVE & WALKS. ALL NEW WORK ASSOCIATED WITH THESE ITEMS IS INCLUDED.

### EROSION CONTROL NOTES

1) IF NECESSARY, SLOPES WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS, IN ADDITION TO HYDROSEEDING, IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION, TEMPORARY BERMS MAY BE NEEDED DAILY UNTIL THE SLOPE IS BROUGHT TO GRADE.

2) STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, UNLESS ACTIVITY IN THAT PORTION OF THE SITE WILL RESUME WITHIN TWENTY-ONE (21) DAYS.

3) ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED EVERY SEVEN (7) DAYS OF AFTER EACH RAINFALL OCCURRENCE THAT EXCEEDS ONE-HALF (0.5) INCH. DAMAGED OF INEFFECTIVE DEVICES SHALL BE REPAIRED OF REPLACED, AS NECESSARY.

H) PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL Boil Erosion During Utility Construction, all disturbed areas shall be cleaned, Graded and stabilized with grassing immediately after the utility installation.

5) ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORAR CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.

THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO HE PAVED ROADWAY FROM CONSTRUCTION AREAS, THE CONTRACTOR SHALL DAILY REMOVE JD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.

7) CONTRACTOR SHALL INSTALL CHECK DAMS (SILT FENCING, OR RIP RAP AS REQUIRED) ON ANY TEMPORARY DRAINAGE DITCHES, SWALES USED DURING CONSTRUCTION.

8) ALL DISTURBED AREAS NOT SHOWN AS SODDED OR LANDSCAPED SHALL BE SEEDED PE SCOOT STANDARD SPECIFICATIONS.

### GENERAL CONSTRUCTION SEQUENCING

- 1.) PROVIDE & INSTALL SILT FENCING & TEMPORAR CONSTRUCTION ACCESS.
- 2.) COMPLETE DEMOLITION OF PAVEMENTS & LITHITIES
- 3.) COMPLETE NEW STEAM LINES.
- 4.) GRADING FOR NEW BUILDING & PARKIN
- 5.) COMPLETE NEW STORM DRAINAGE AND PROTECT WITH INLET PROTECTIONS
- 6.) COMPLETE BUILDING AND PARKING
- 7.) FINAL GRADING AND LANDSCAPING.
- 8.) REMOVE TEMPORARY EROSION CONTROL MEASURES AND REMOVE ANY ACCUMULATED SEDIMENTATION FROM SITE AND ALL INLETS,

SUMTER, S.C.

Rev.

DRAWING REVISIONS

Rev.

Description

Prep By Date Appryd.

ASBUILT

SUPY

SUBMITTED BY (FIRM MEMBER-TITLE):

PARTINE 15 JUNE 2001

TECHNICAL BRANCH

ING FACILITY

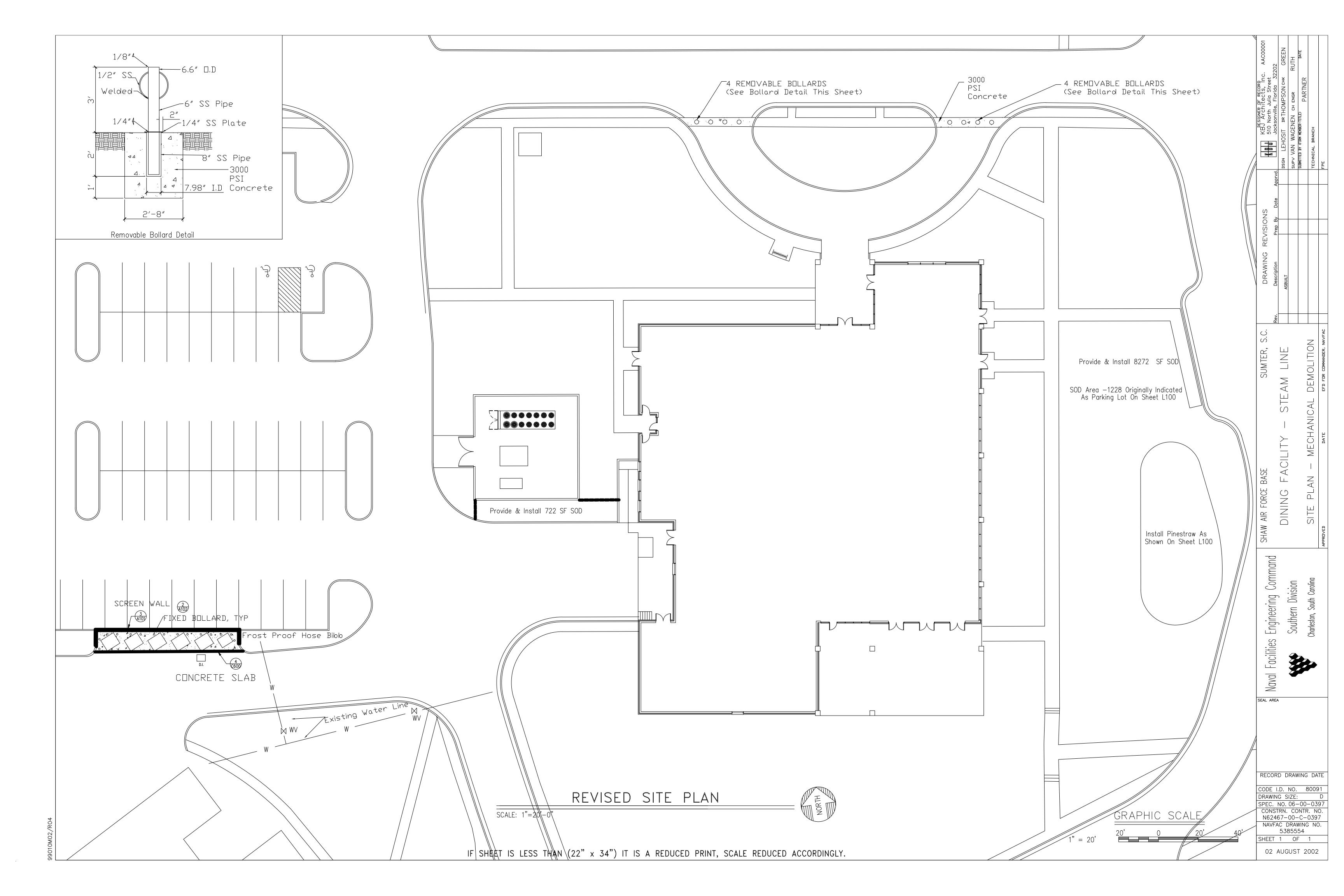
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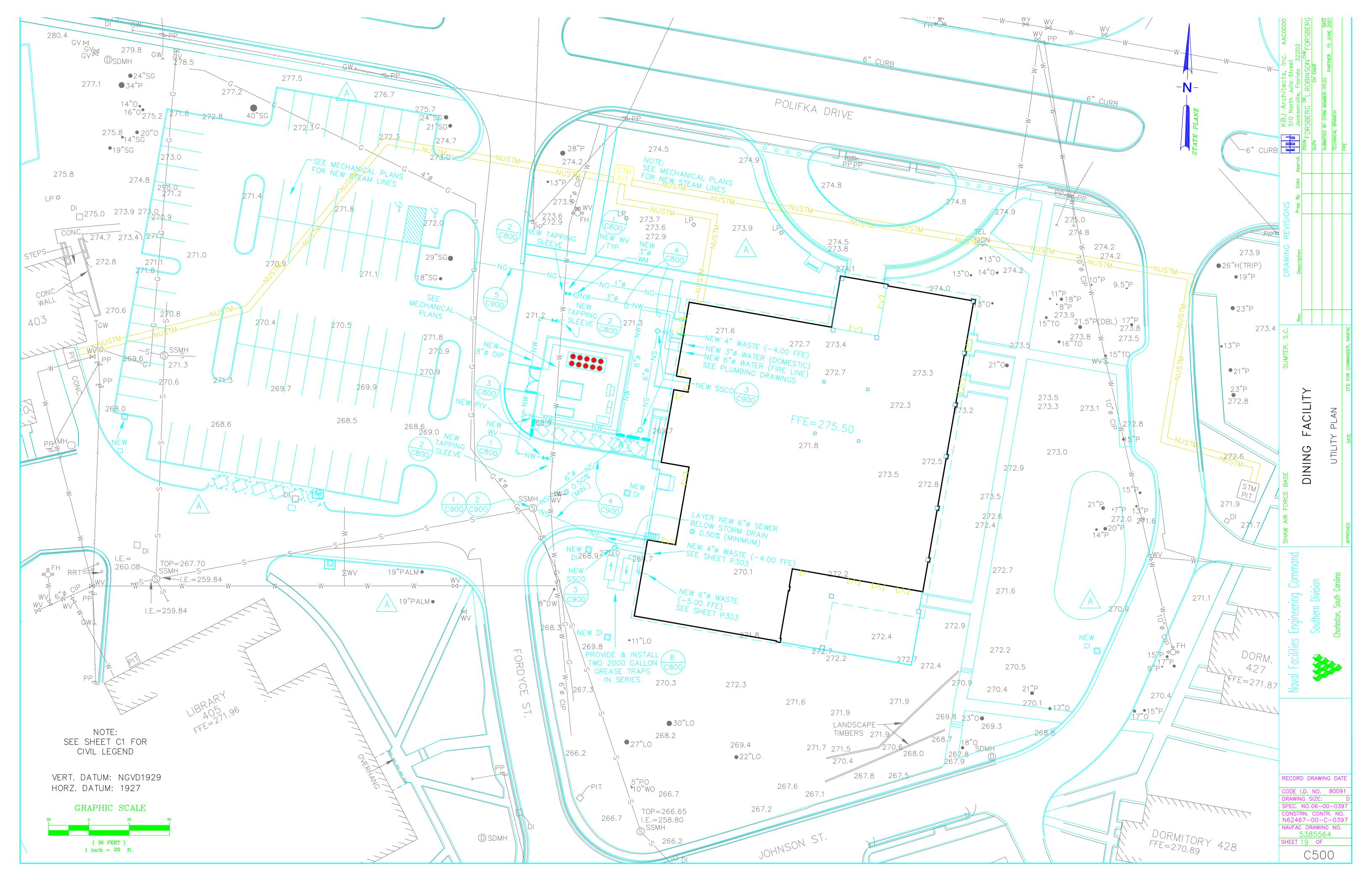
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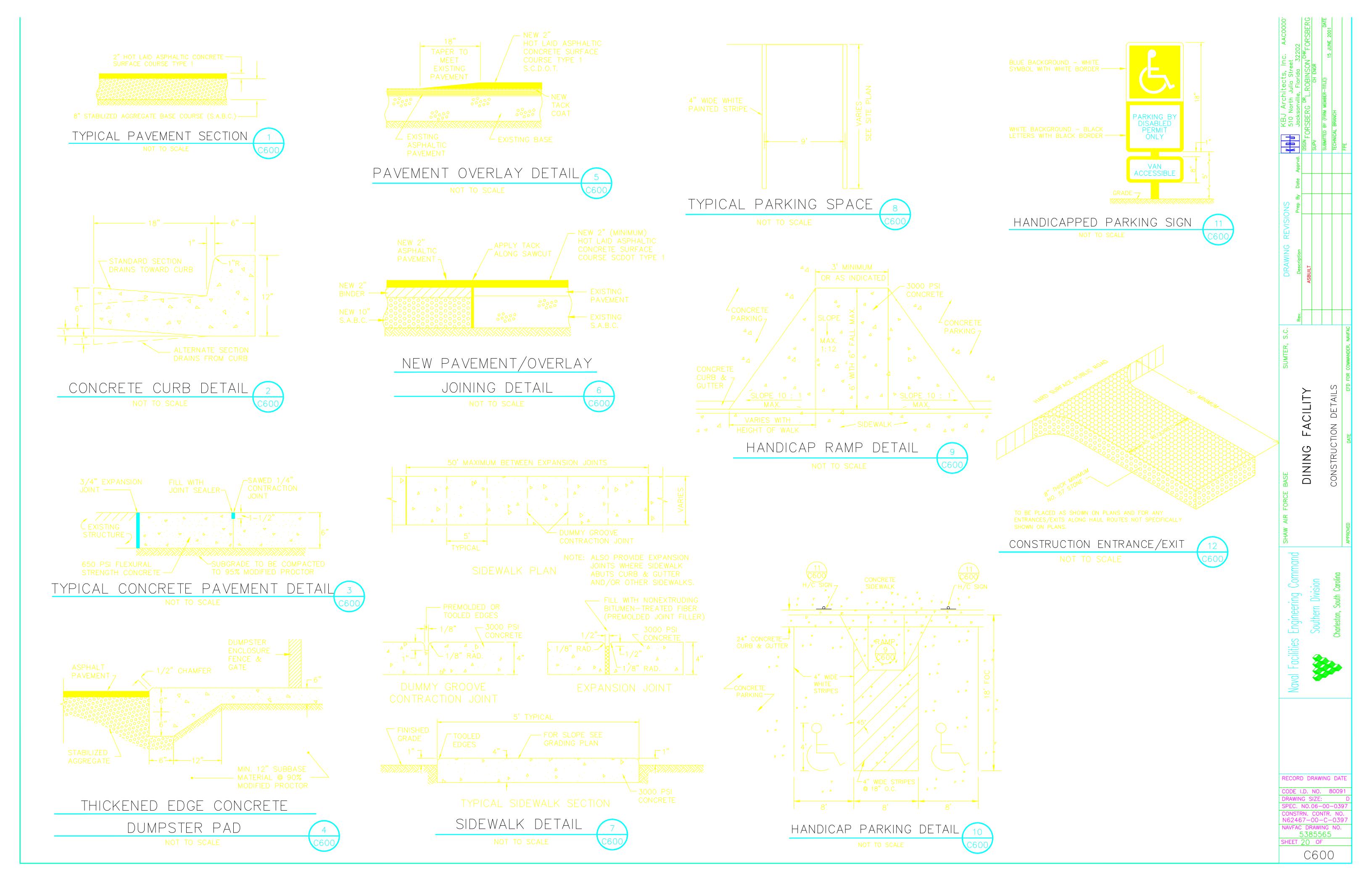
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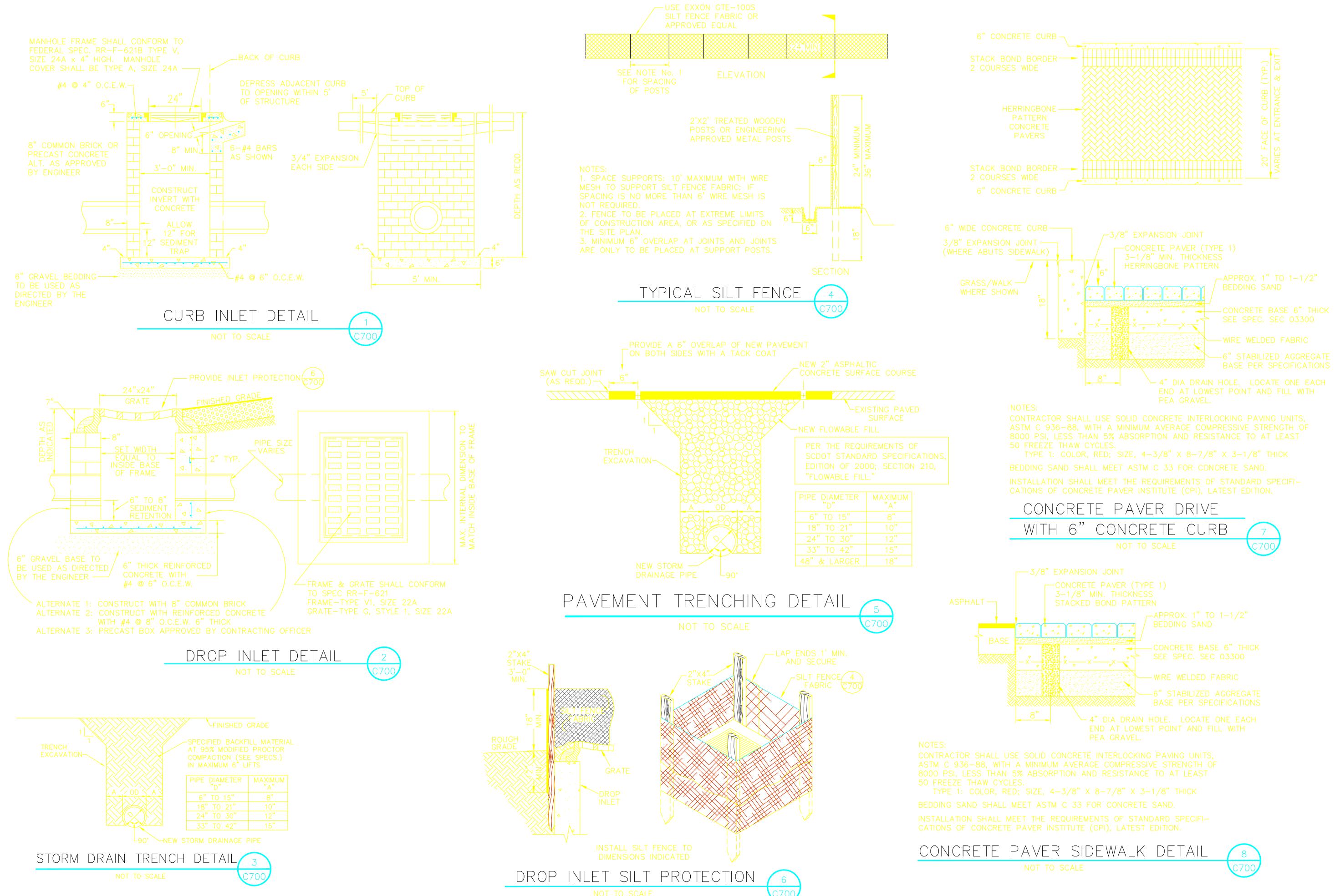
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DRAWING SIZE:
SPEC. NO.06-00-0397
CONSTRN. CONTR. NO. N62467-00-C-0397
NAVFAC DRAWING NO. 5385560
SHEET 15 OF









DRAWING REVISIONS

Description Prep By Date Apprvd. SGN FORSBERG DR. ROBINSON CHK FORSBE SUBMITTED BY (FIRM MEMBER-TITLE): 15 JUNE 2001

TECHNICAL BRANCH

TECHNICAL BRANCH

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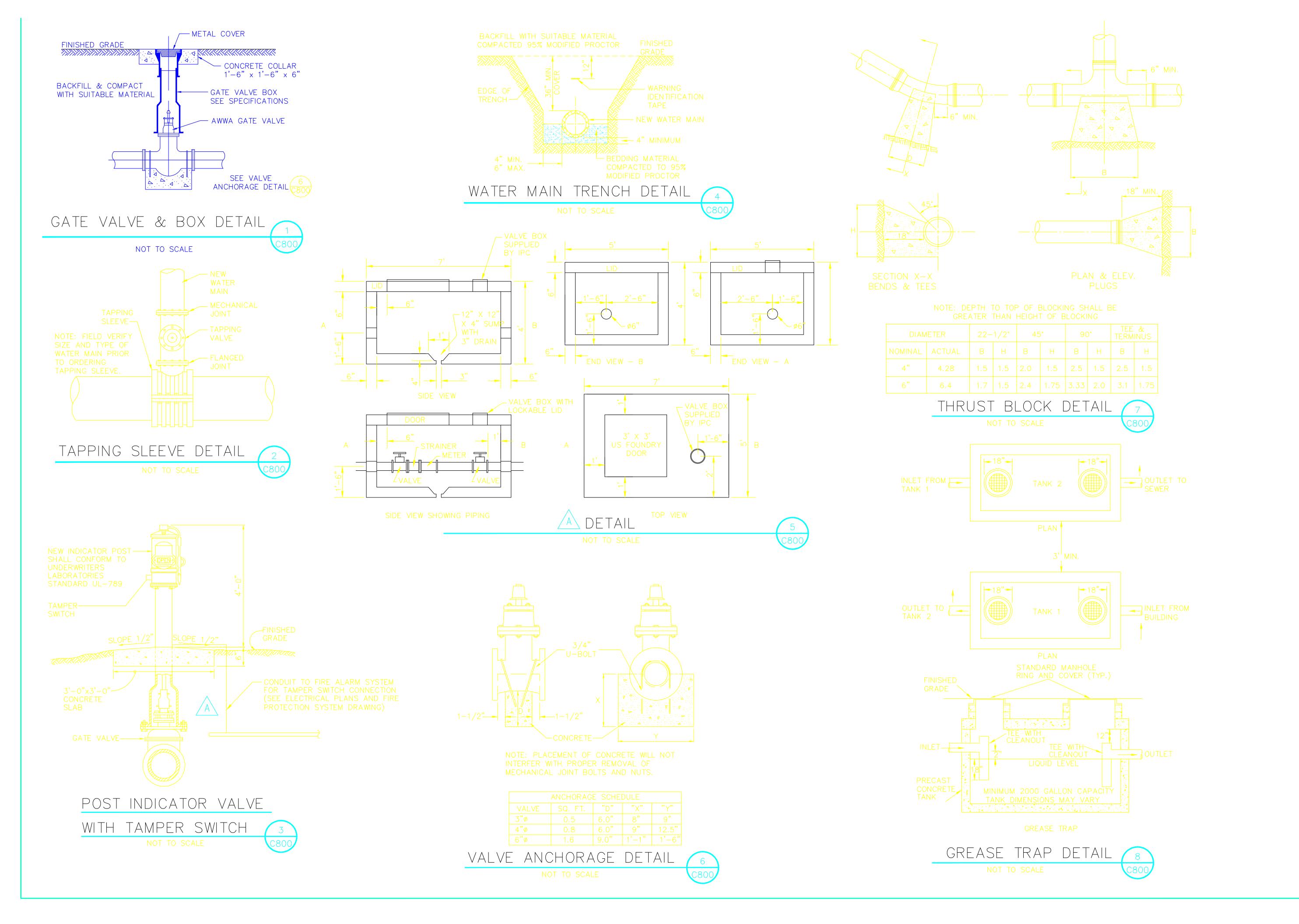
thern Division

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SPEC. NO.06-00-039
CONSTRN. CONTR. NO. N62467-00-C-039
NAVFAC DRAWING NO. 5385566



R, S.C.

Rev.

DRAWING REVISIONS

Rev.

Description

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RB 12/12/03

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SUBMITTED BY (FIRM MEMBER-TITLE):

SUBMITTED BY (FIRM MEMBER-TITLE):

TECHNICAL BRANCH

TECHNICAL BRANCH

DINING FACILITY
CONSTRUCTION DETAILS

N N O

> Southern Division harleston, South Carolina

laval Facilities Eng

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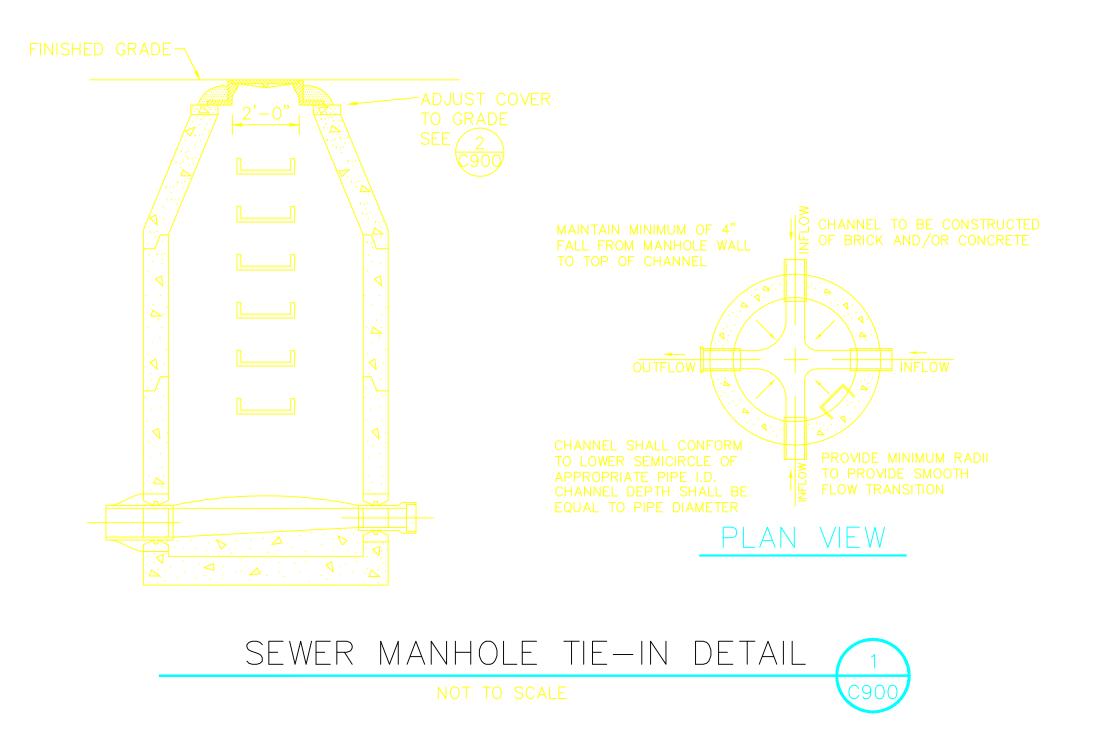
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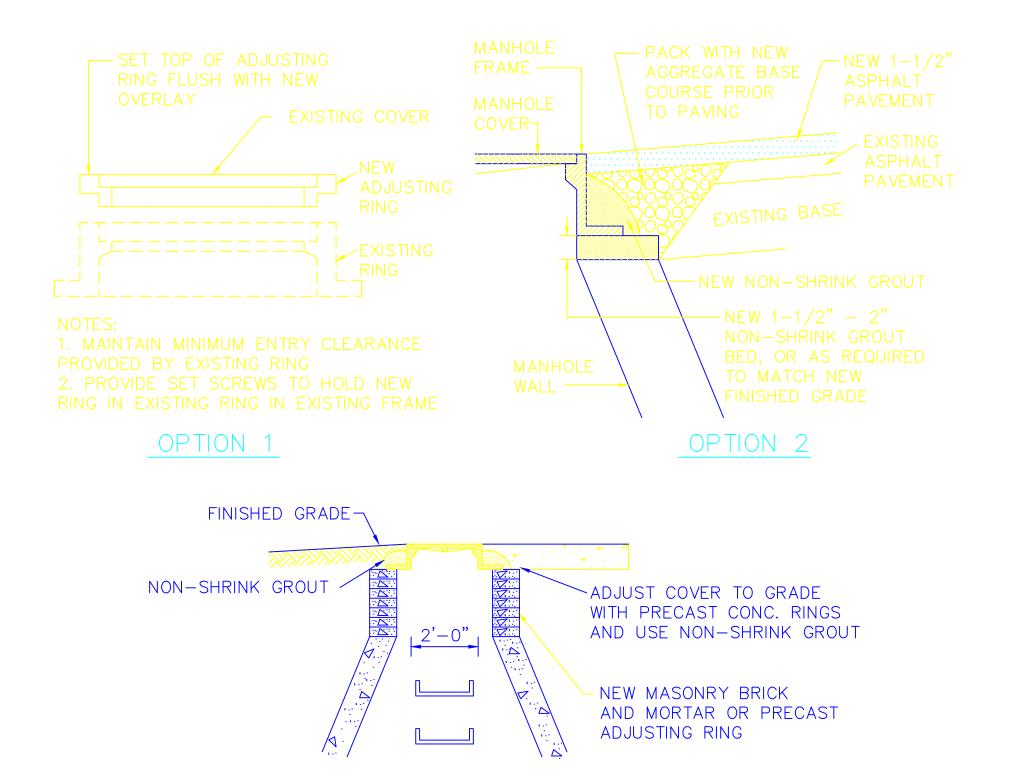
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CONSTRN. CONTR. NO. N62467-00-C-039

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SHEET 22 OF

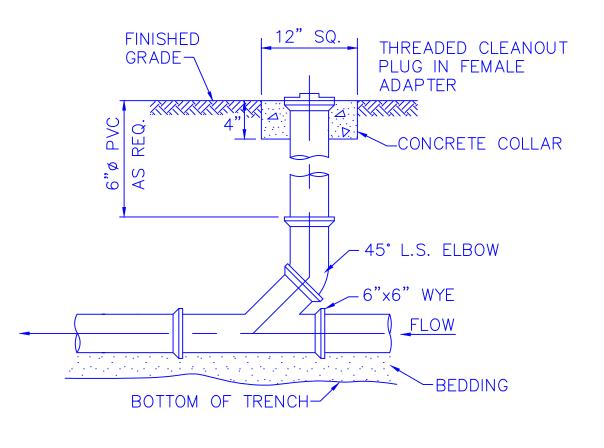




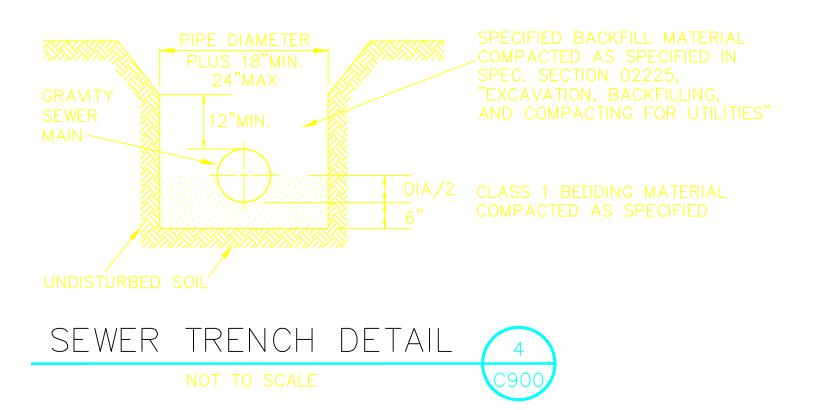
NOTE: REMOVE EXISTING MANHOLE FRAME AND COVER AND ADJUST TOP ELEVATION OF MANHOLE BY INSTALLING MASONRY BRICK AND MORTAR OR PRECAST ADJUSTING RING. RESET EXISTING FRAME IN BED OF GROUT AND REINSTALL EXISTING COVER. REPLACE ANY MANHOLE FRAME AND COVERS THAT DO NOT MEET H-20 LOAD RATING WITH NEW CASTINGS THAT DO MEET H-20 PER FEDERAL SPEC. RR-F-621.

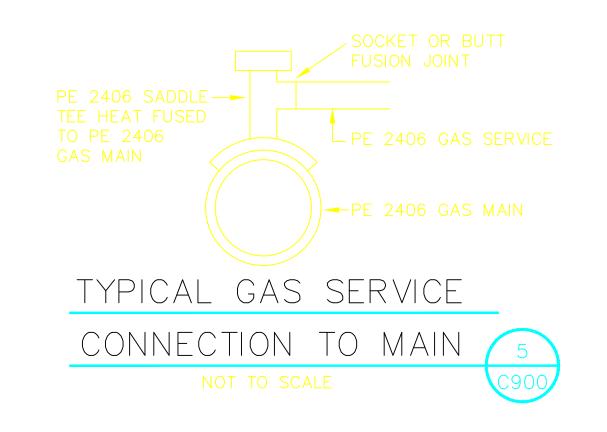
OPTION 3



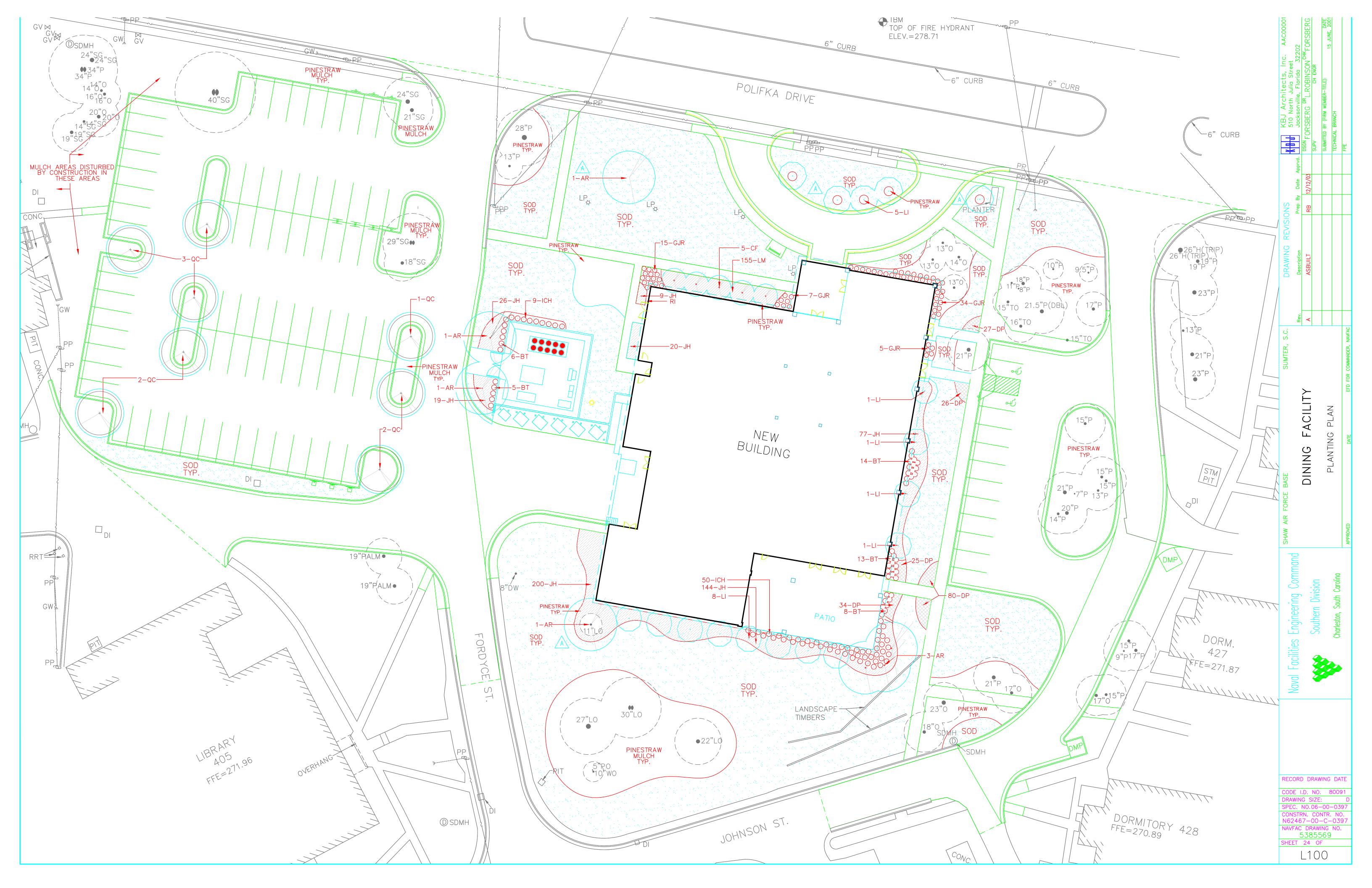


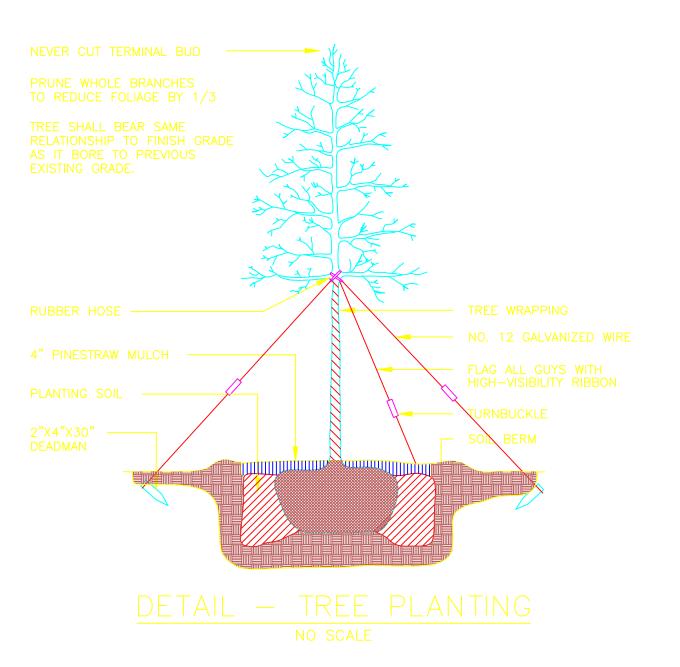


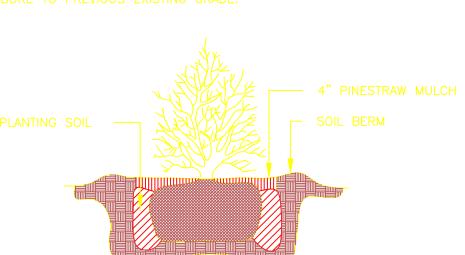




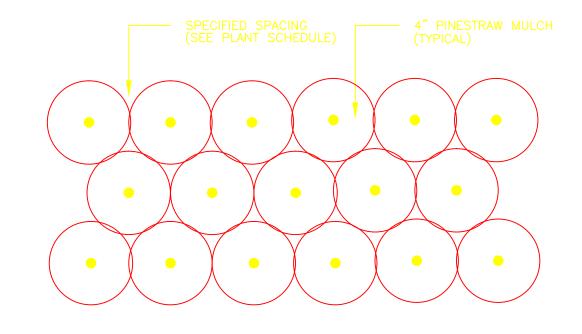
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CONSTRN. CONTR. NO. N62467-00-C-0397
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	PLANT SCHEDULE (BASE BID)					
	BOTANICAL NAME	COMMON NAME	QUANTITY		SPACING	REMARKS
AR	ACER RUBRUM	RED MAPLE		9'-10'	REFER TO PLAN	WELL-BRANCHED,B&B
	CORNUS FLORIDA			4'-5'	***	WELL BRANCHED, SP, B&B
	LAGERSTROEMIA INDICA 'NATCHEZ'	NATCHEZ CRAPE MYRTLE	17	7'-8'	"	SINGLE TRUNK, B&B
QC	QUERCUS COCCINEA			9'-10'	"	WELL BRANCHED,B&B
	BERBERIS THUNBERGI 'ATROPURPUREA'		46		,,	
	JUNIPERUS HORIZONTALIS		351	#1 GAL. POTS	***	
	LIRIOPE MUSCARI		155		,,	
	ILEX CRENATA 'HELLERI'				"	
	GARDENIA JASMINOIDES 'RADICANS'	DWARF GARDENIA	61	#1 GAL. POTS	,,	
	GROUNDCOVERS					
	EREMOCHLOA OPHIUROIDES	CENTIPEDE GRASS				AS SHOWN
	DIANTHUS PLUMARIUS		192			
	MULCH					
						4" THICK (LONG NEEDLE STRAW)

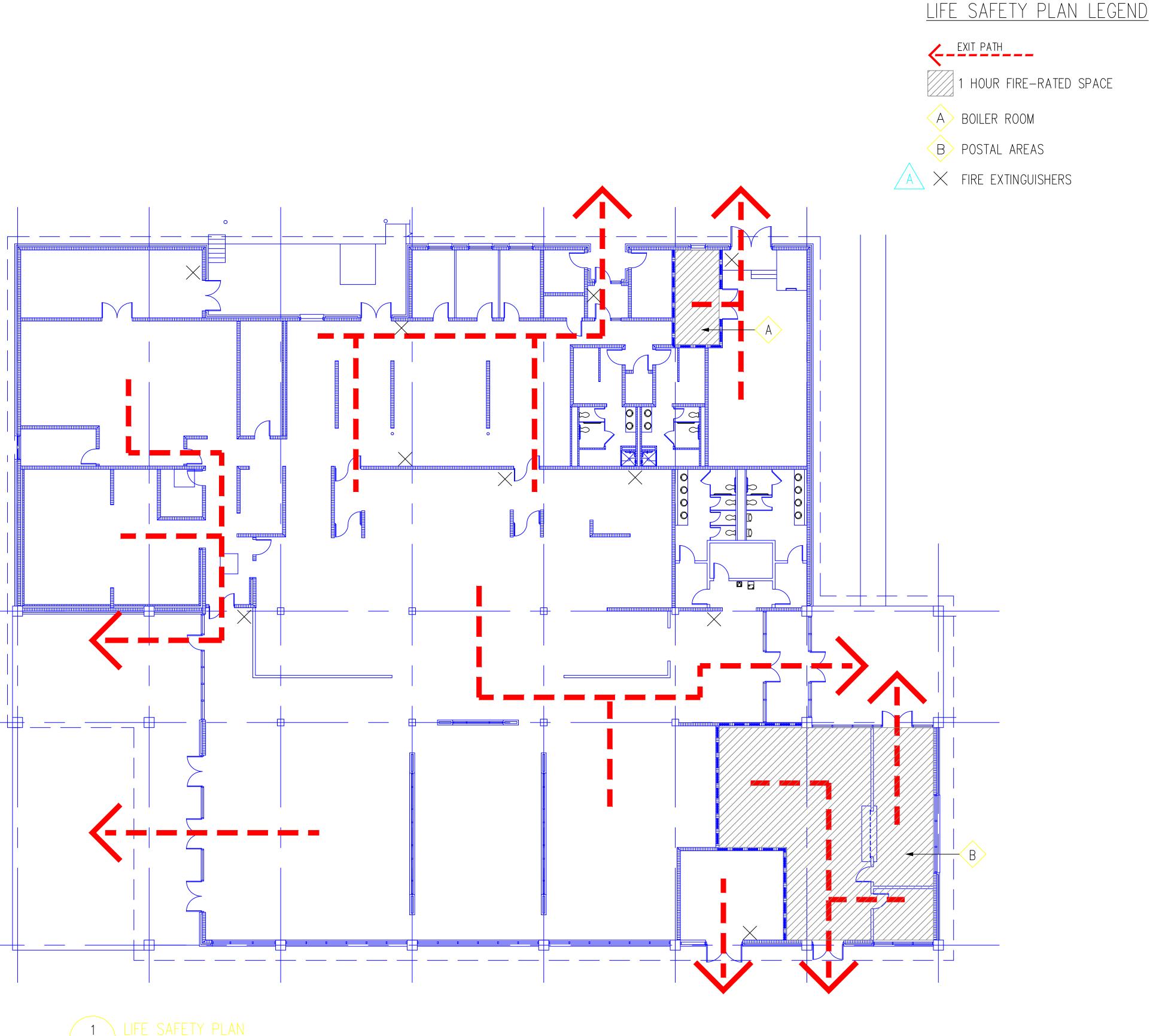
FACILITY SCHEDULE

DINING

RECORD DRAWING DATE

CODE I.D. NO. 80091 N62467-00-C-039 5385570

SHEET 25 OF L200



A000 SCALE: 3/16" = 1'-0"

BASIS OF REVIEW

MILHBK 1008C - GENERAL UNIFORM BUILDING CODE (UBC) LIFE SAFETY CODE (NFPA 101), 2000

# OCCUPANCY CLASSIFICATION / LOAD

MIXED USE

GROUP B

GROUP A.3 ASSEMBLY, DIVISION 3 (UBC), CLASS C (NFPA) OCCUPANT LOAD LESS THAN 300 BUT GREATER

THAN 50, WITHOUT A LEGITIMATE STAGE

BUSINESS (NFPA,UBC) OFFICES, INCLUDES ACCESSORY ASSEMBLY WITH OCCUPANT LOAD LESS THAN 50

# BUILDING DATA

BUILDING AREA = 21,204 GSF STRUCTURAL ELEMENTS, WALLS, AND PARTITIONS - NON-COMBUSTIBLE NO GENERAL RESISTANCE REQUIRED FULLY SPRINKLERED

# EGRESS REQUIREMENTS

MINIMUM WIDTH OF ANY CORRIDOR OR PASSAGEWAY SHALL BE 44" MAXIMUM DEAD END CORRIDOR = 50' MAXIMUM COMMON PATH OF TRAVEL = 100' MAXIMUM TRAVEL DISTANCE TO AN EXIT = 300' MINIMUM CLEAR DOOR OPENING = 32"

## FIRE PROTECTION

MIXED OCCUPANCIES -

ASSEMBLY, CLASS C -NO RESISTANCE REQUIRED IF ASSEMBLY ROOM

SERVED BY CORRIDOR OR LOBBY HAVING AT LEAST 50% OF EXIT CAPACITY

DISCHARGING DIRECTLY OUTSIDE

SEPARATE OCCUPANCIES BY ONE HOUR FIRE RESISTANT WALLS AS REQUIRED BY TABLE 3-B,

UNIFORM BUILDING CODE

# SQUARE FOOTAGE SUMMARY

SF AT 100% SF AT 50% TOTAL

20,009 GSF 1,195 GSF 21,204 GSF

0 2' 4' 8'

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

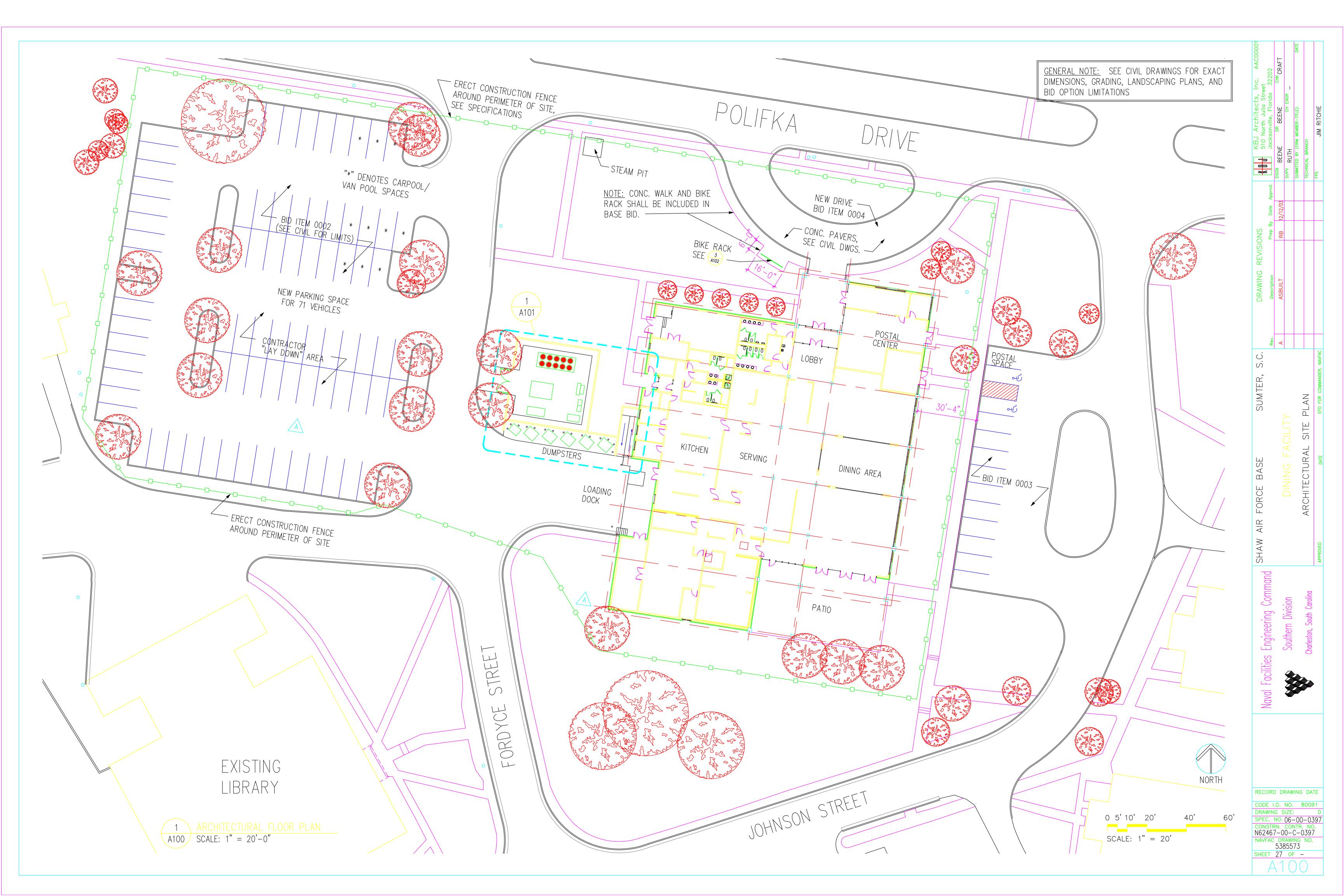
BA SHAW AIR FORCE

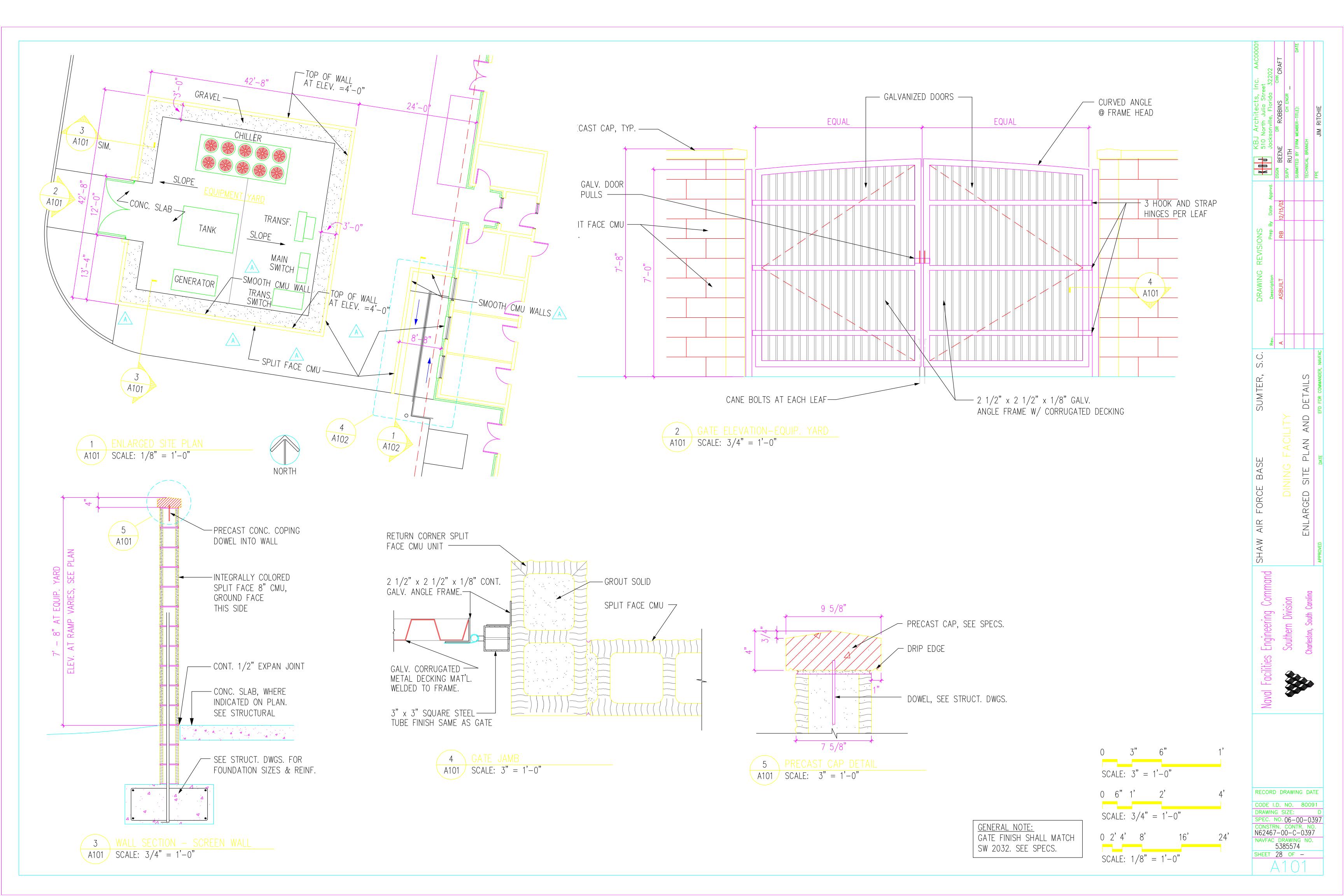
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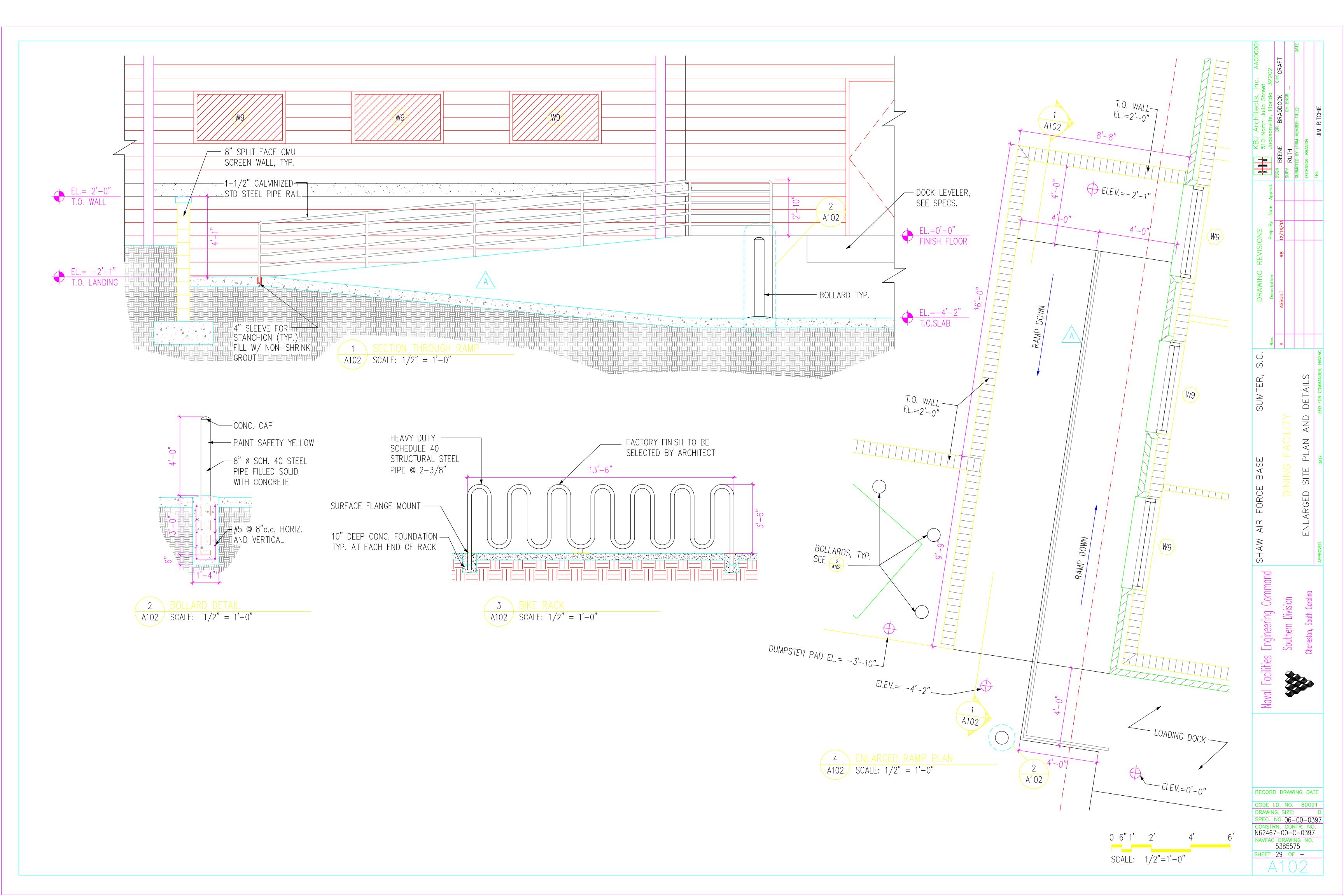
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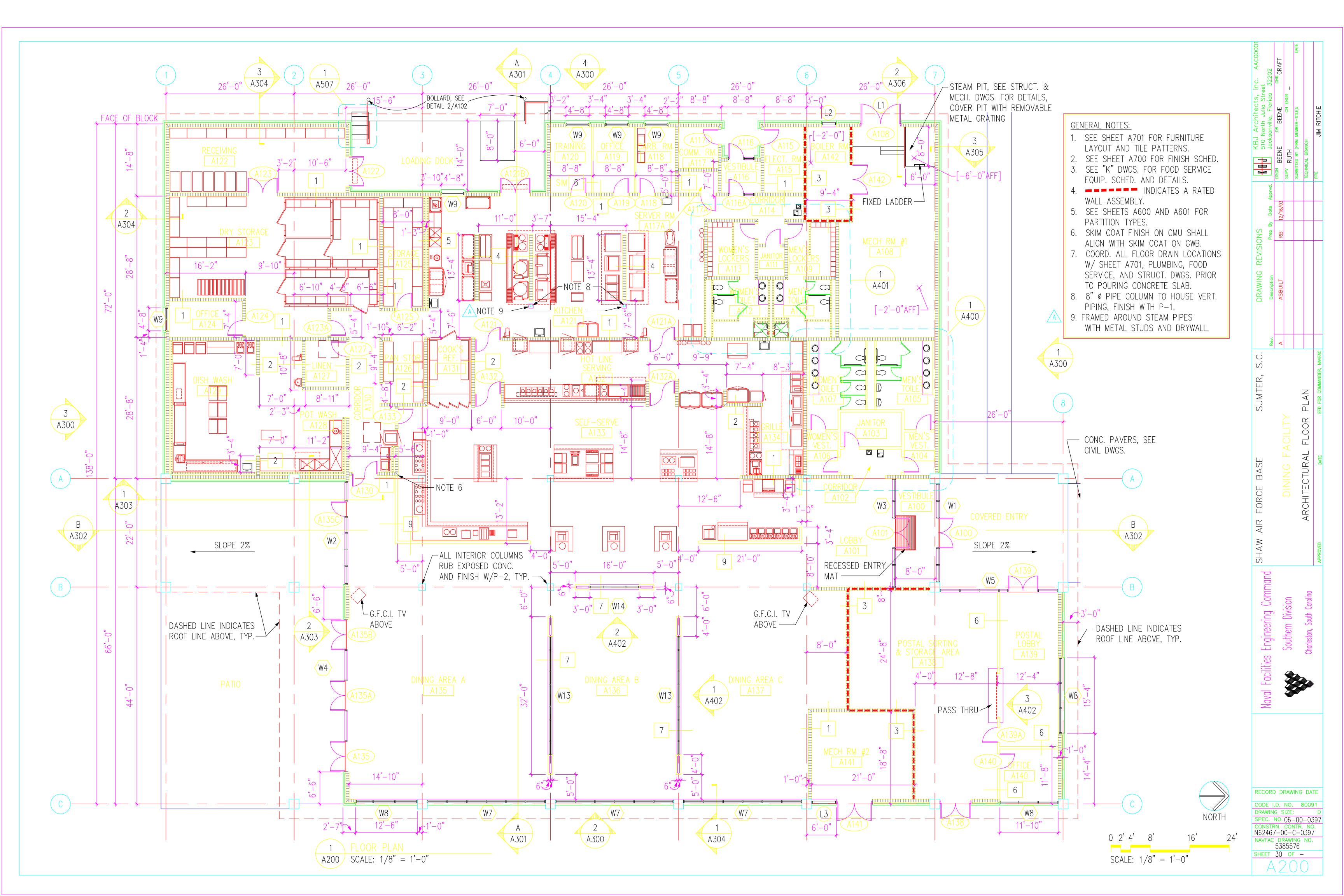
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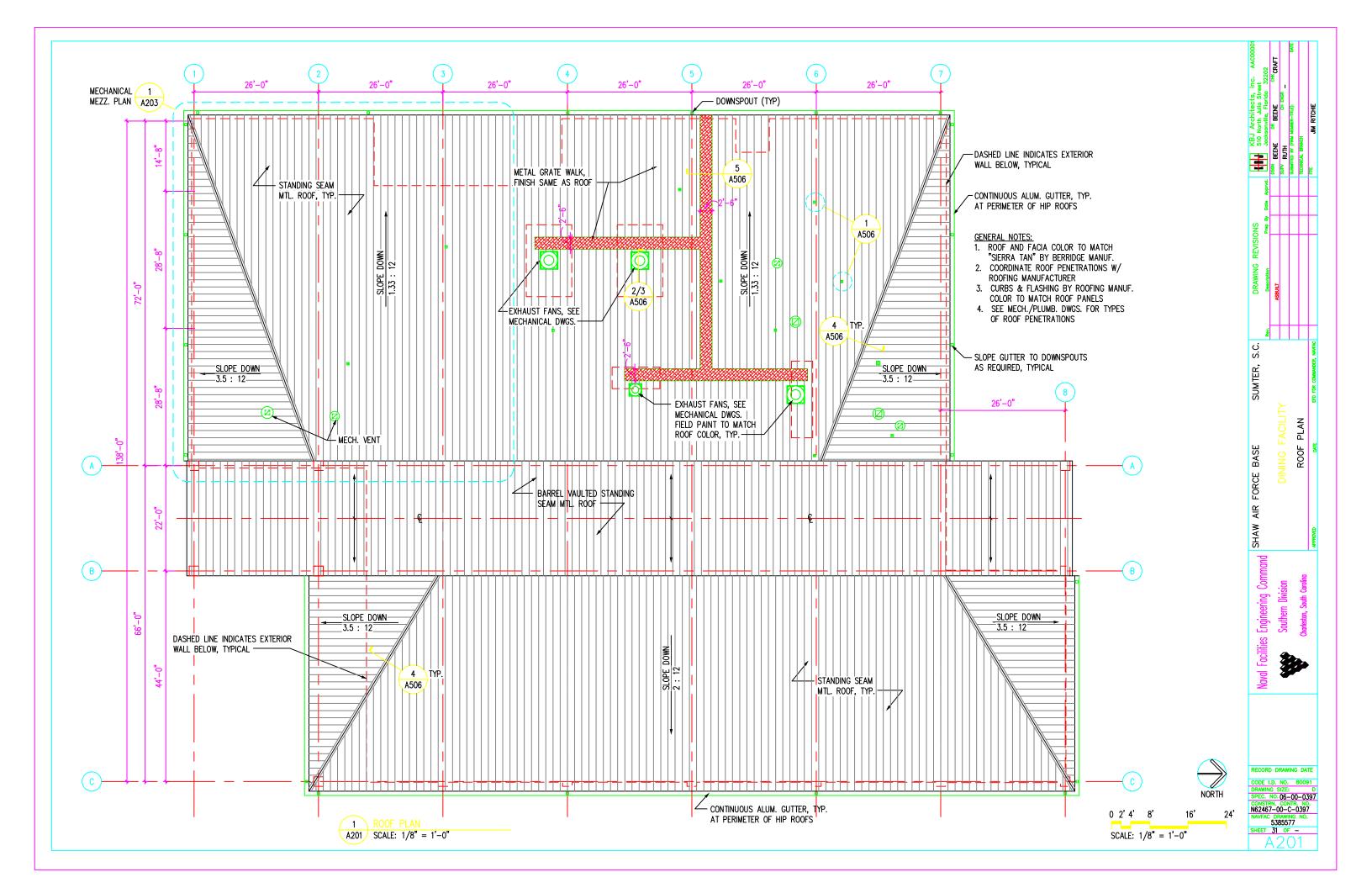
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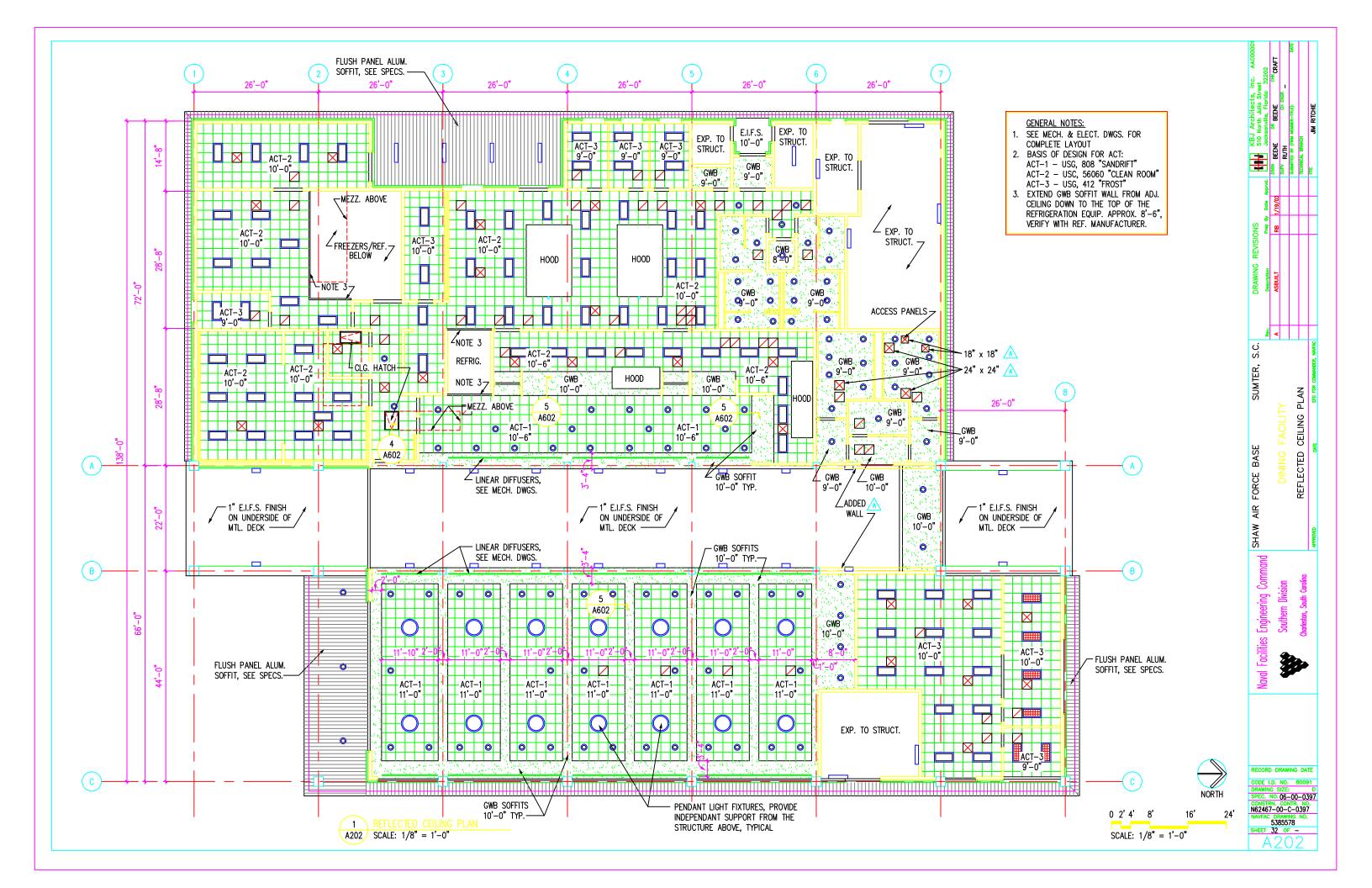


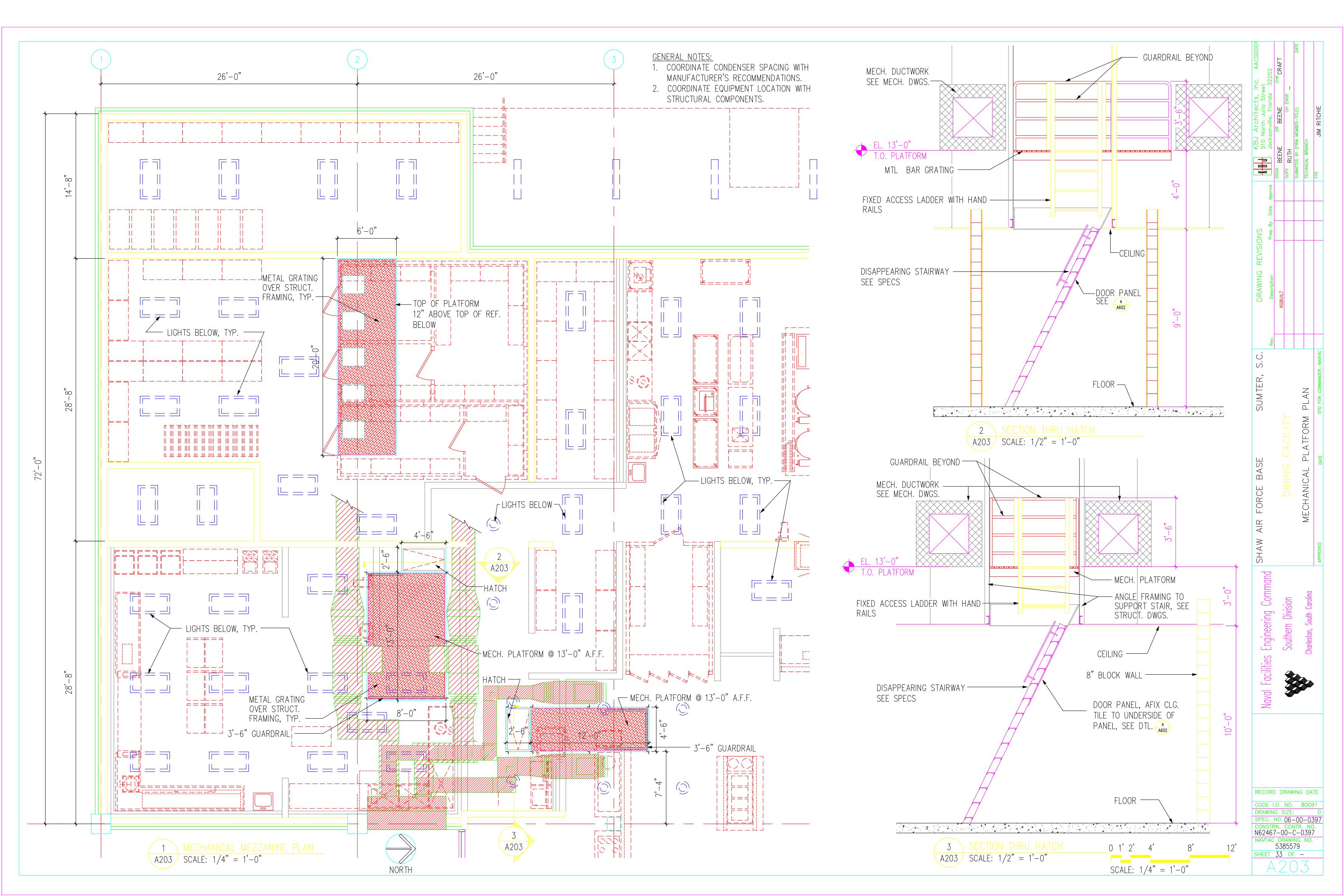




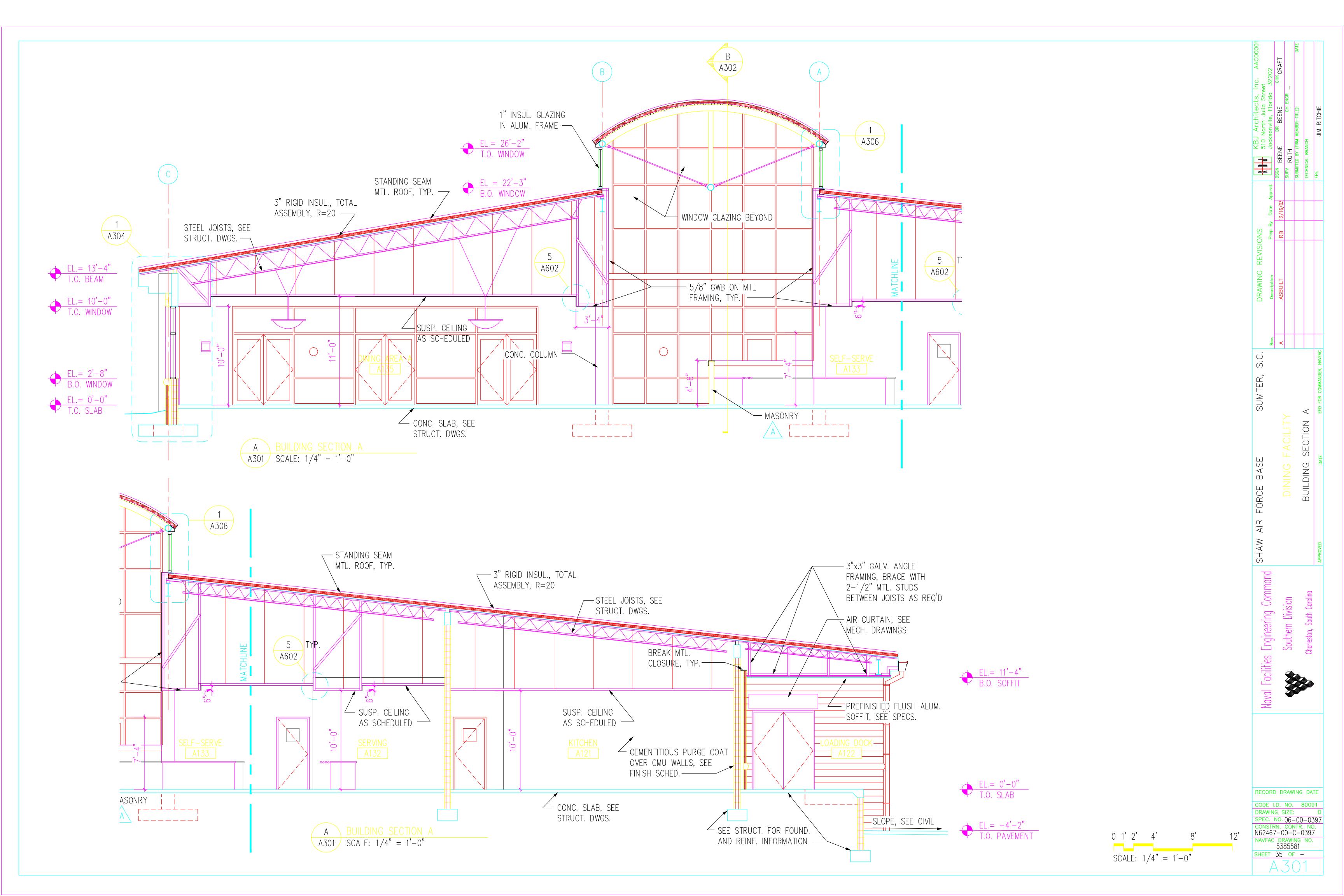


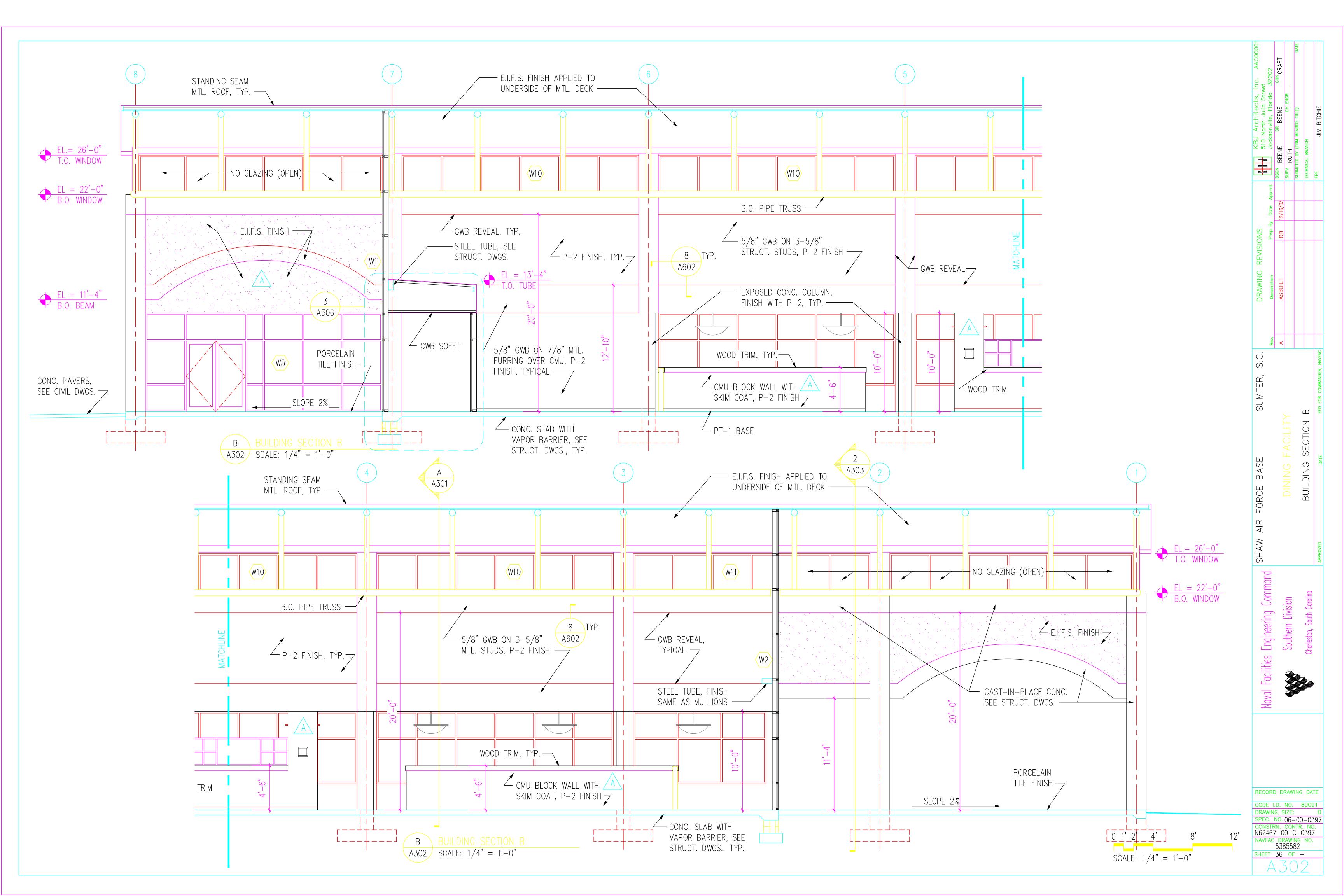


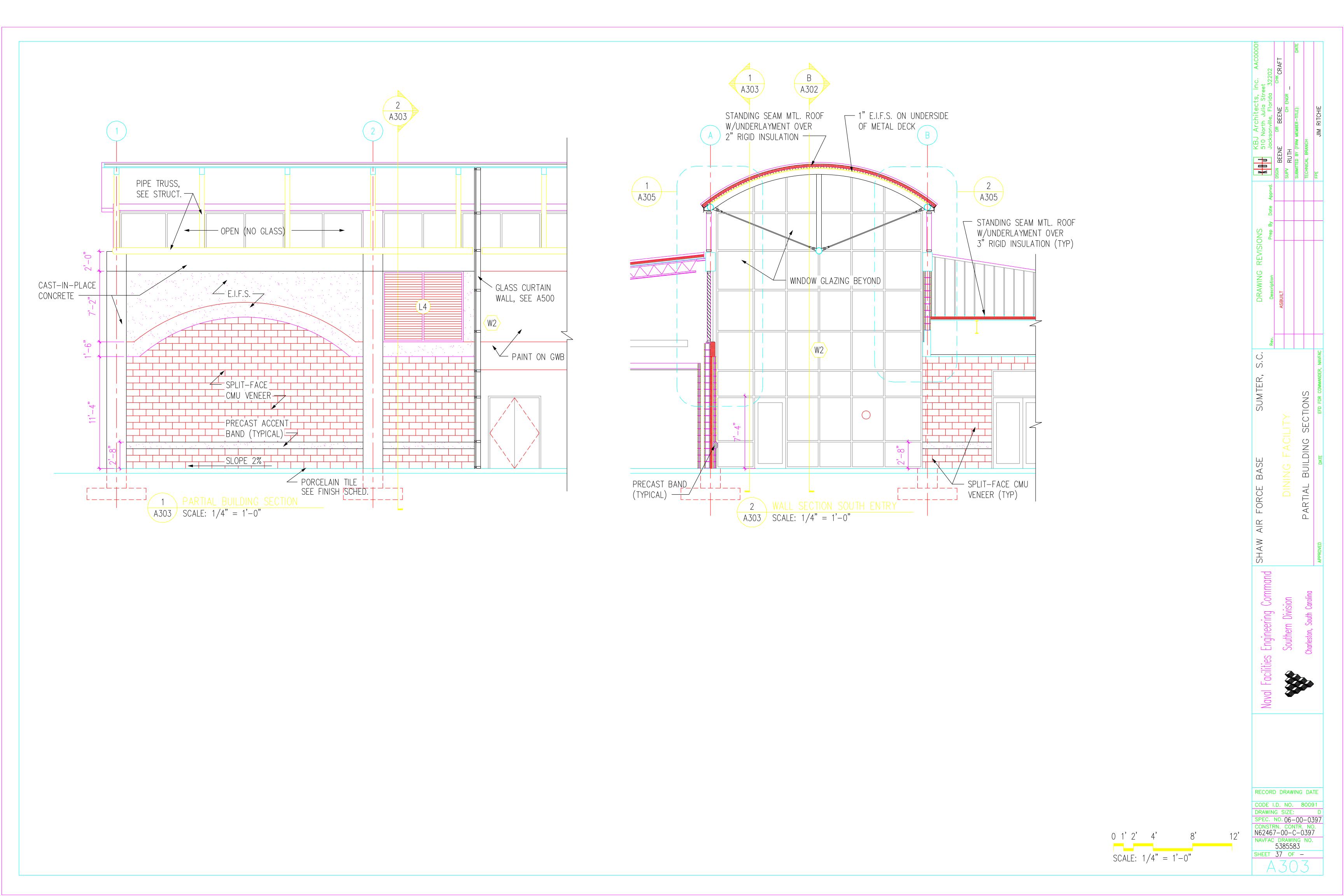


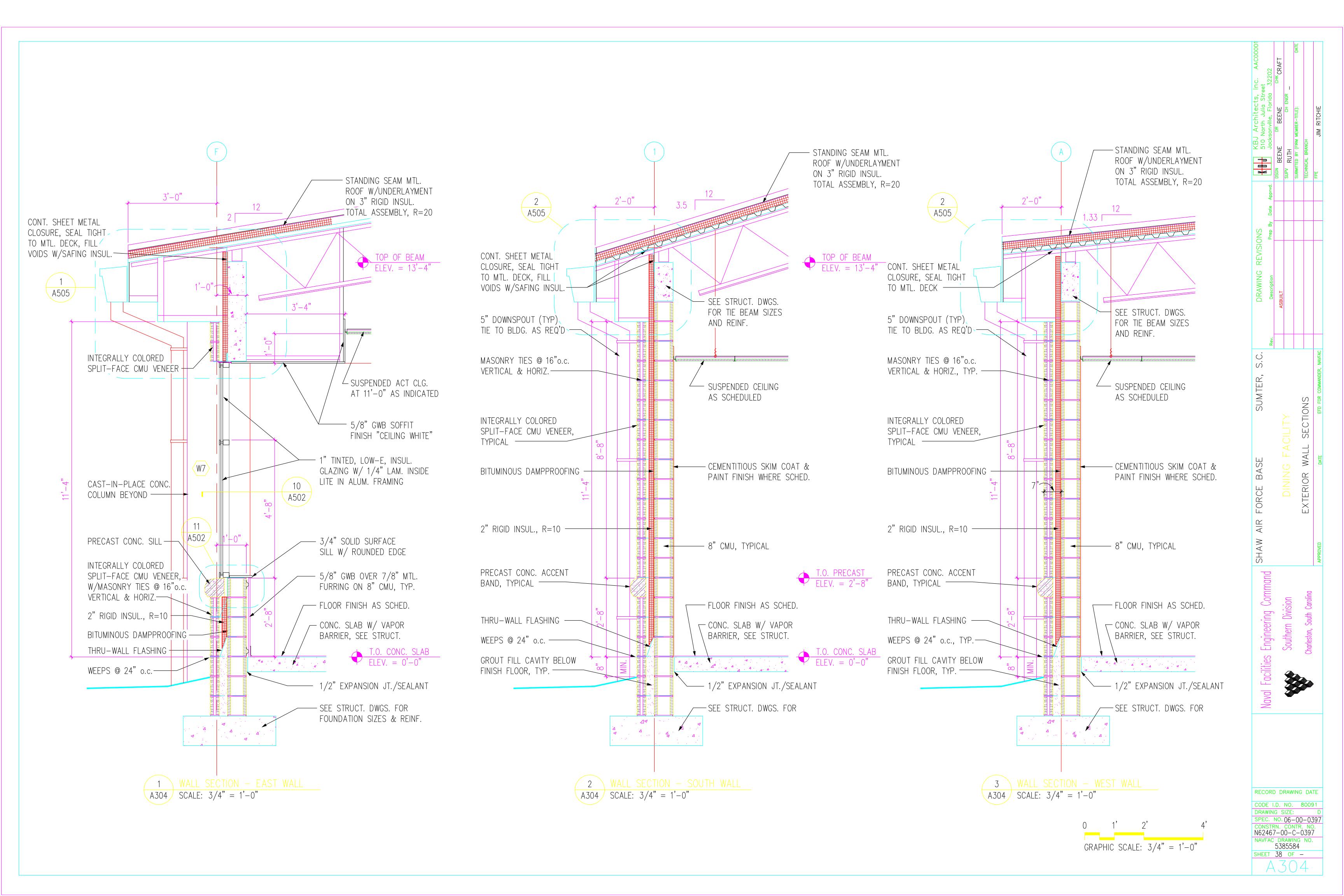


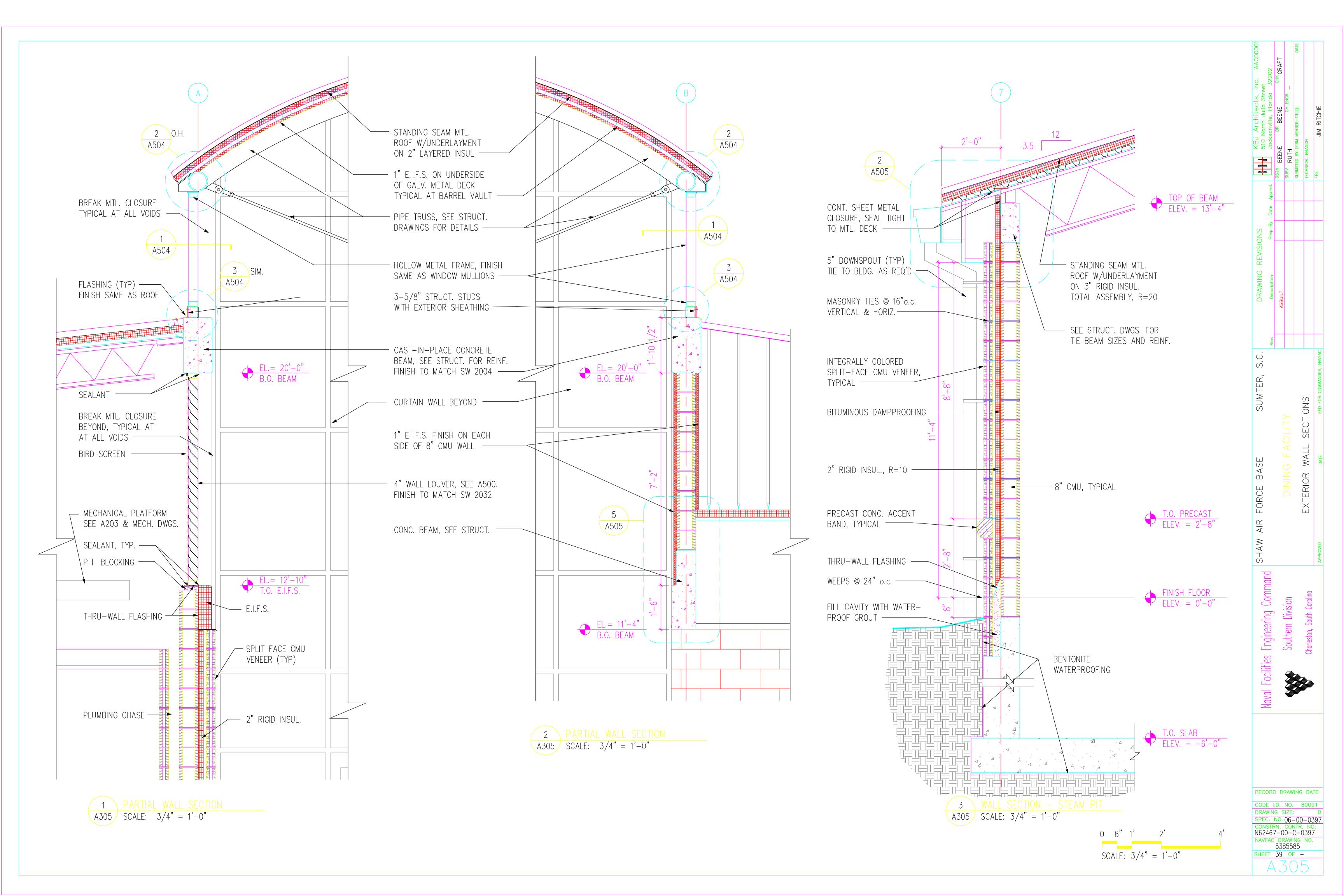


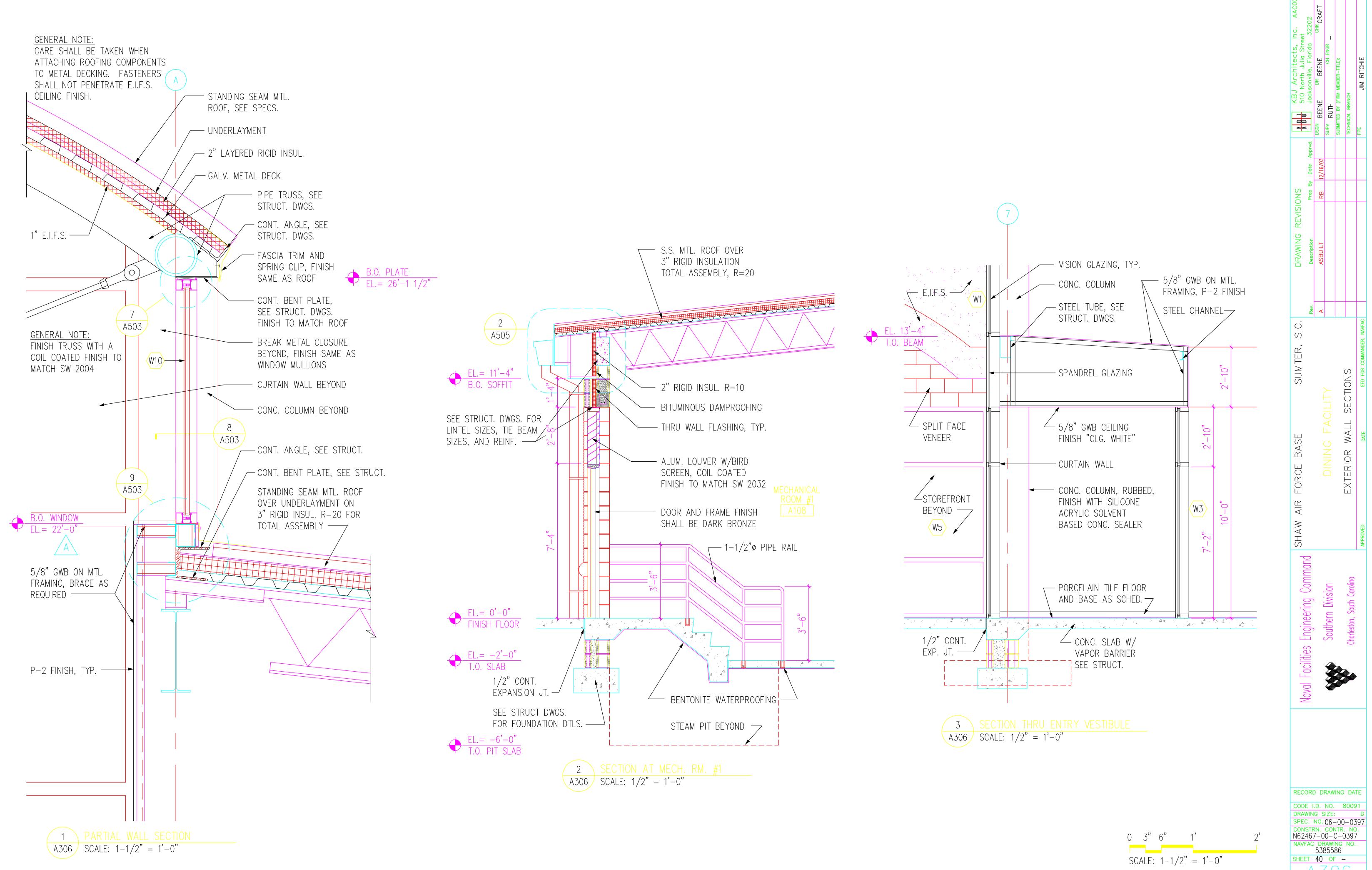




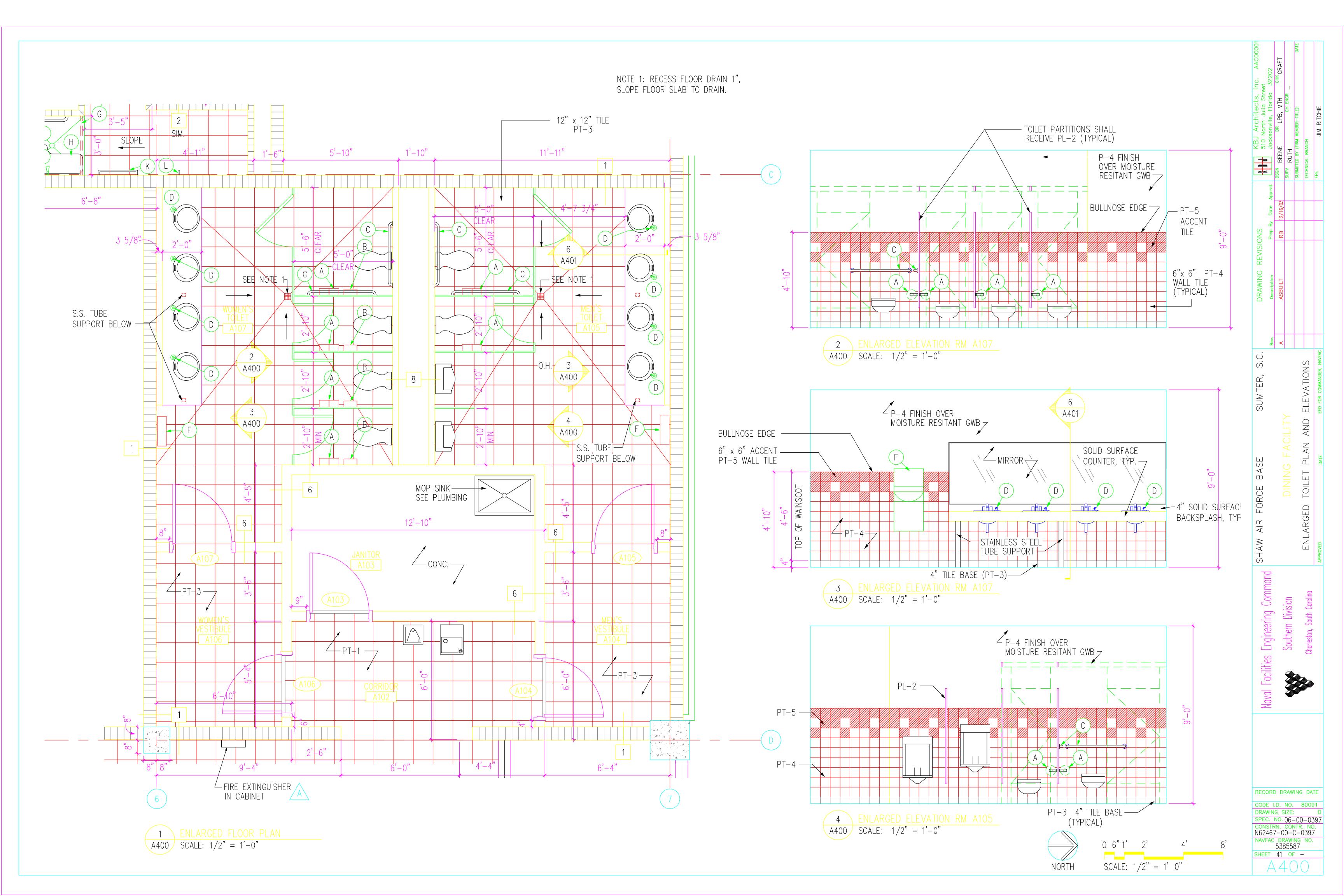


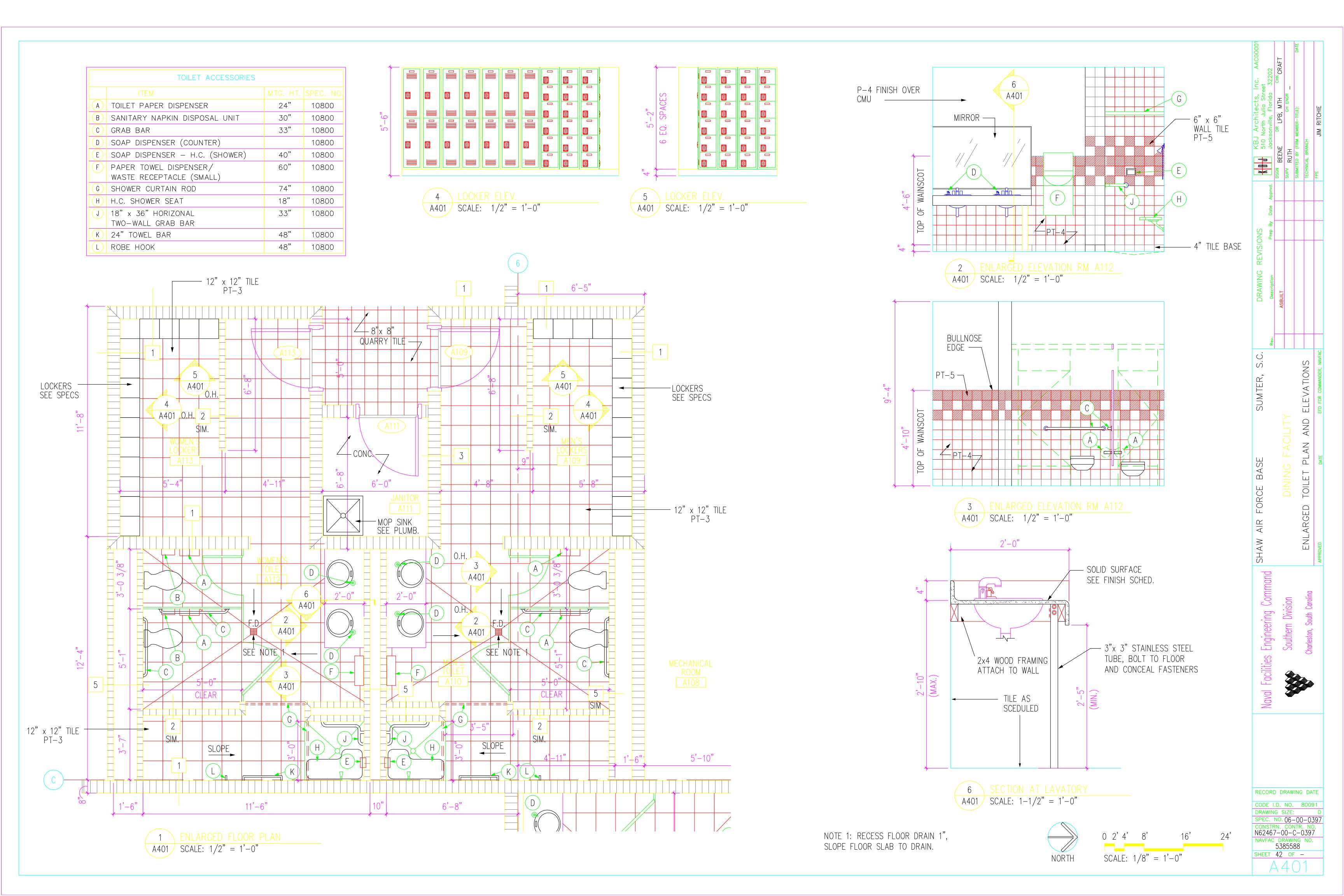


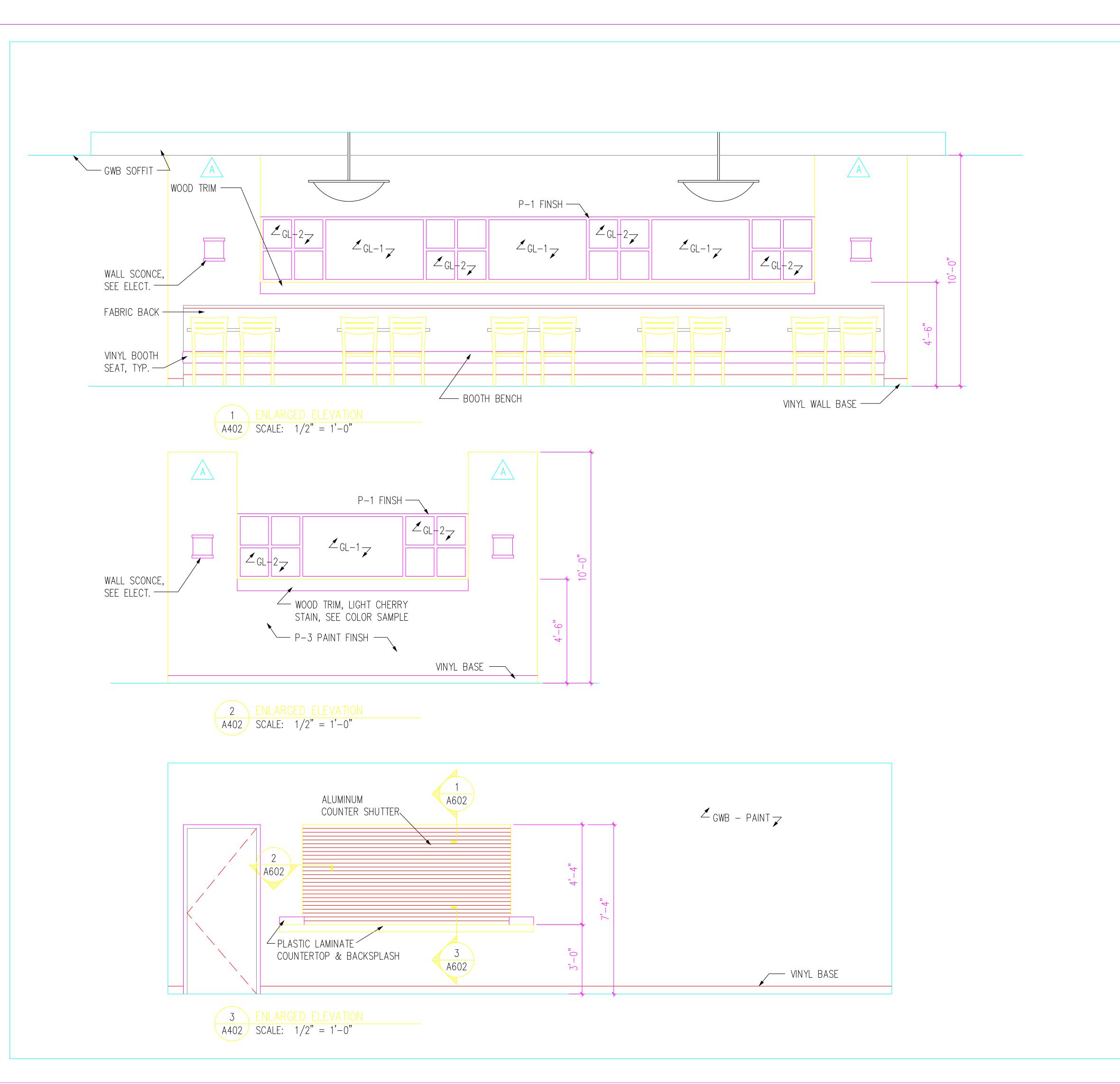


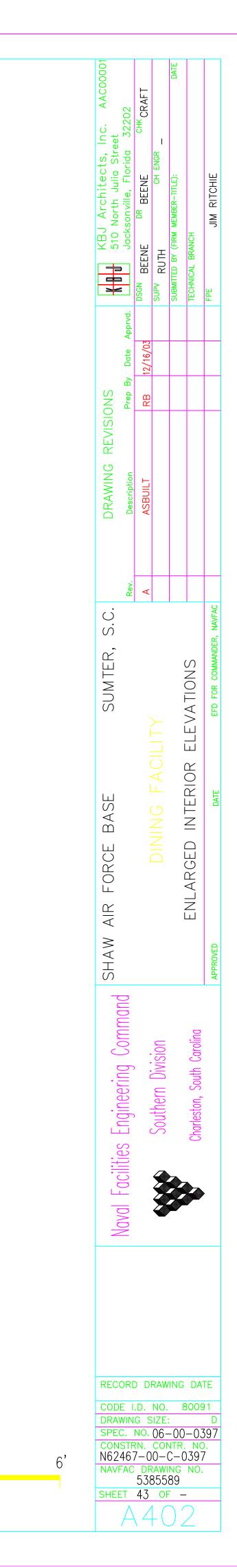


A 3 0 6









0 6" 1' 2'  $4^{-1}$  SCALE: 1/2" = 1'-0"

				WINDO	W SCHE	DULE				
			FRAME							
MARK	WIDTH	HEIGHT	GLAZING	TYPE	MATERIAL	HEAD	JAMB	SILL	HEIGHT A.F.F. (B.O. WINDOW)	REMARKS
WI	20'-0"	VARIES	1" INSUL. & 1/4" SPANDREL	CURTAIN WALL SYSTEM	ALUM	B/A302	7/A502	3/A306	0'-0"	ALSO SEE 8/S202
W2	20"-11"	VARIES	1" INSUL. GLASS	CURTAIN WALL SYSTEM	ALUM	B/A302	2/A503 SM.	3/A306 SIM.	0'-0"	ALSO SEE 7/S202
W3	22"-2"	10"-0"	1/4" CLEAR GLASS	CURTAIN WALL SYSTEM	ALUM	3/A306	7/A502 SM.	3/A306	0'-0"	-
W4	31'-0"	10"-0"	1" INSUL. GLASS	STOREFRONT SYSTEM	ALUM	9/A502	2/A503 SIM.	-	0'-0"	-
<b>W</b> 5	24'-0"	10"-0"	1" INSUL. GLASS	STOREFRONT SYSTEM	ALUM	1/A503	10/A502 SIM.	-	0'-0"	-
<b>W</b> 6	5'-4"	7-4"	1" INSUL. GLASS	STOREFRONT SYSTEM	ALUM	1/A503 SIM.	2/A503 SIM.	-	0'-0"	-
<b>W</b> 7	24'-0"	7-4"	1" INSUL. GLASS	STOREFRONT SYSTEM	ALUM	9/A502	10/A502	11/A502	2'-8"	-
WB	VARIES	7-4"	1" INSUL. GLASS	STOREFRONT SYSTEM	ALUM	9/A502	10/A502&2/A503	11/A502	2'-8"	-
W9	4'-8"	2'-8"	1" INSUL. GLASS	FIXED	ALUM	1/A503	2/A503	3/A503	4'-8"	-
WIO	24'-0"	3'-10"	1" INSUL. GLASS	STOREFRONT SYSTEM	ALUM	7/A503	8/A503	9/A503	22'-3"	-
WI1	24'-0"	3'-10"	1" INSUL. & OPEN	STOREFRONT SYSTEM	ALUM	7/A503	8/A503	9/A503	22'-3"	-
W12	24'-0"	3'-10"	OPEN (NO GLASS)	FIXED	HM	7/A503 SIM.	8/503 SM.	9/A503 SIM.	22'-3"	HOLLOW TUBE FRAME
WI3	24'-0"	2'-10"	GL-1 & GL-2	FIXED	HM	-	-	-	4'-6"	SEE FINISH SCHEDULE
W14	10'-0"	2'-10"	GL-1 & GL-2	FIXED	HM	-	-	-	4'-6"	SEE FINISH SCHEDULE

NOTE FOR ALL INSUL GLAZING.

1º INSUL GLAZING: 1/4º CLEAR LAMINATED INSIDE LIGHT;
1/4º GREEN TINT, LOW-E QUISDE LIGHT; TOTAL ASSEMBLY
SHALL HAVE A MAXMUM .32 SHADING COEFFICIENT, TYP.

LOUVER SCHEDULE									
OPENING		FRAME TYPE							
TYPE	WIDTH	HEIGHT	MATERIAL	HEAD	JAMB	SILL	HEIGHT A.F.F. (BTM. OF LOUVER)	REMARKS	
L1	8-4"	2'-10"	ALUM.	4/A503	5/A503	2/A306	7'-2"	-	
L2	3'-0"	4'-8"	ALUM.	4/A503	5/A503	6/A503	2'-8"	-	
L3	5'-0°	7-4"	ALUM.	9/A502 SM.	10/A502 SIM.	11/A502 SIM.	2'-8"	-	
L4	8'-2°	7-2°	ALUM.	1/A305	-	1/A305	12°-10°	-	

GENERAL NOTES:

1. OPDINIG SIZES ARE FOR PRICING PURPOSES ONLY, CONTRACTOR SHALL VERRY AND COORDINATE MINDOWS AND LOUVERS WITH FIELD CONDITIONS PRICE TO PURCHASING.

2. ALL MINIOR MILLIONS SHALL HAVE A COLL COATED FINISH AND SHALL BE "DARK BRONZE" IN COLOR.

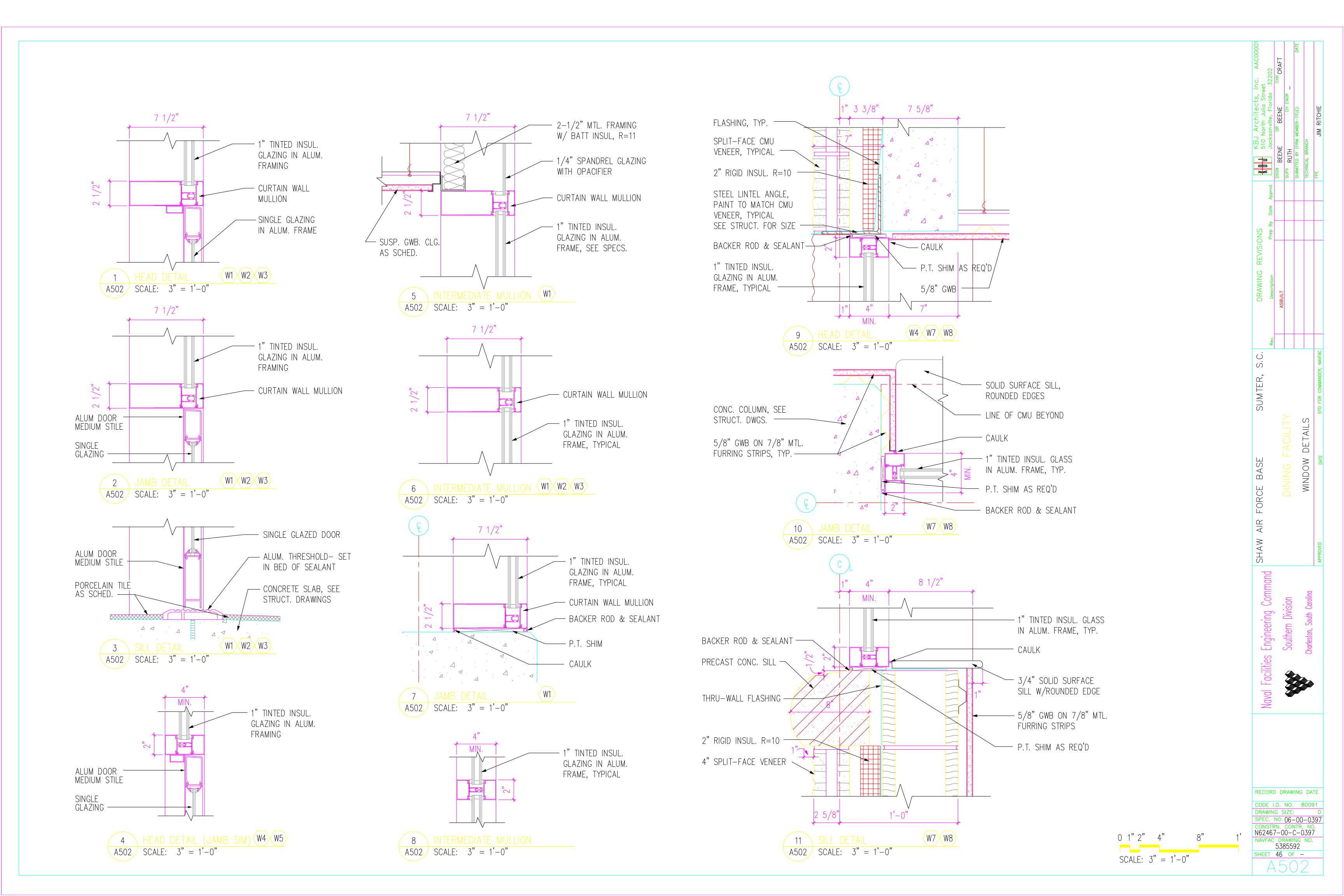
3. ALL LOUVERS AND FRAMES SHALL HAVE A COLL COATED FINISH AND SHALL MATCH SHERRINH—MILLIAMS SW2032 IN COLOR.

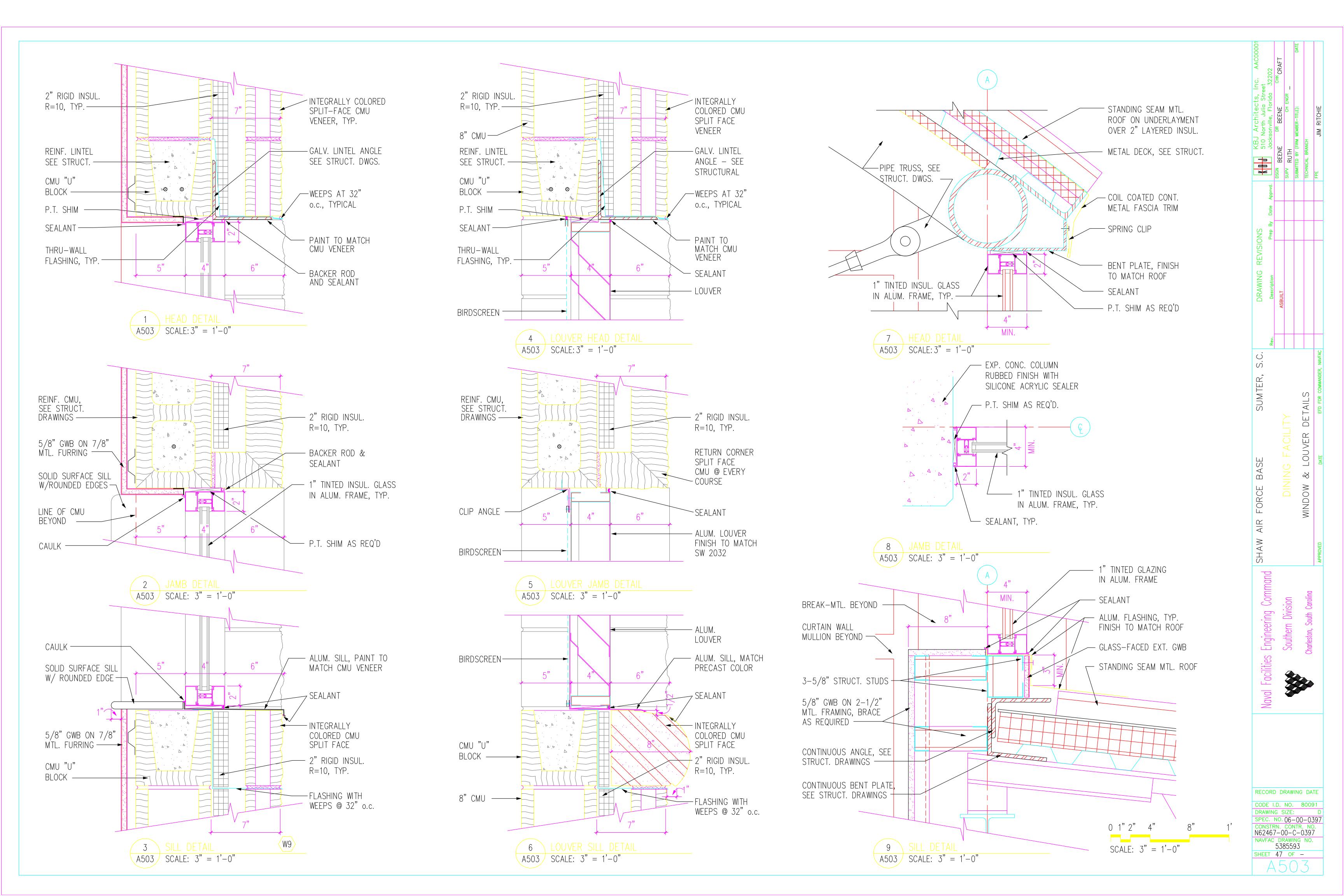
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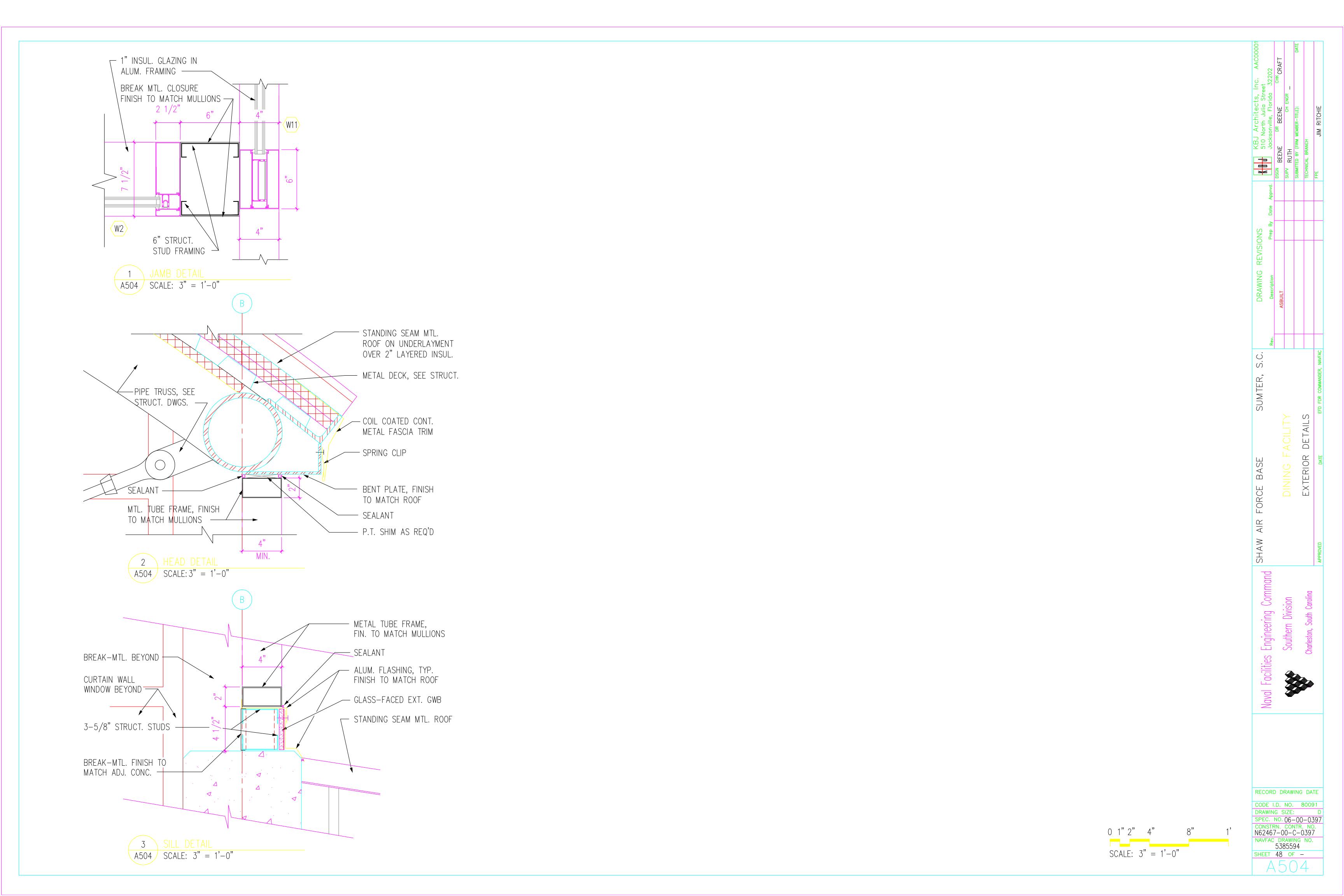
SHAW AIR FORCE BASE

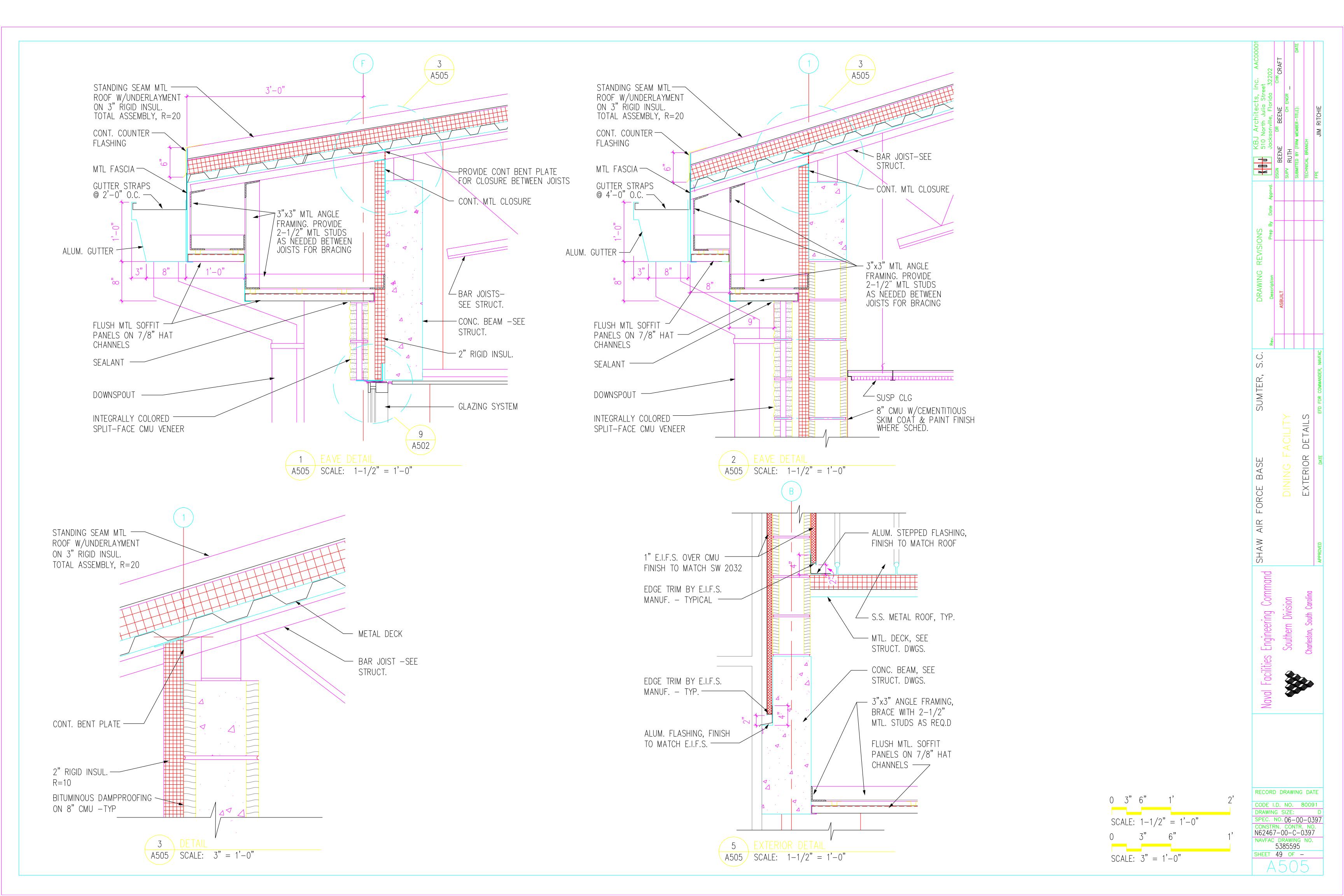
WINDOW & LOUVER SCHEDULES

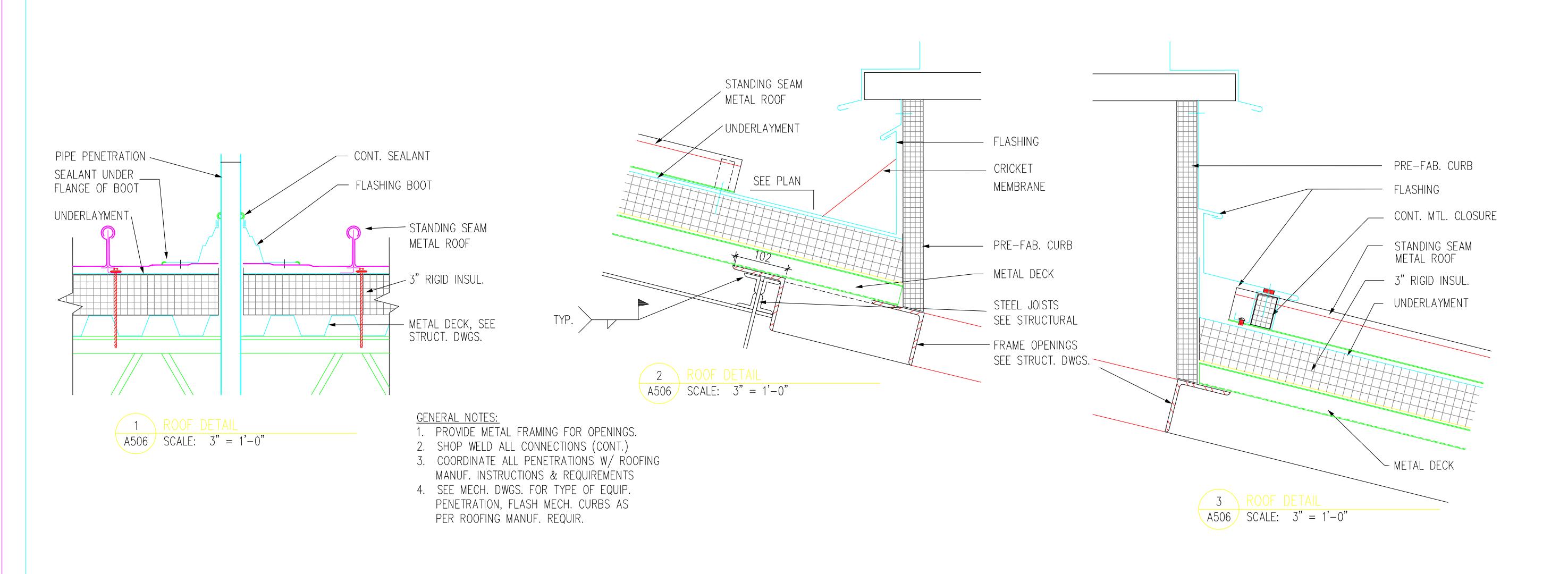


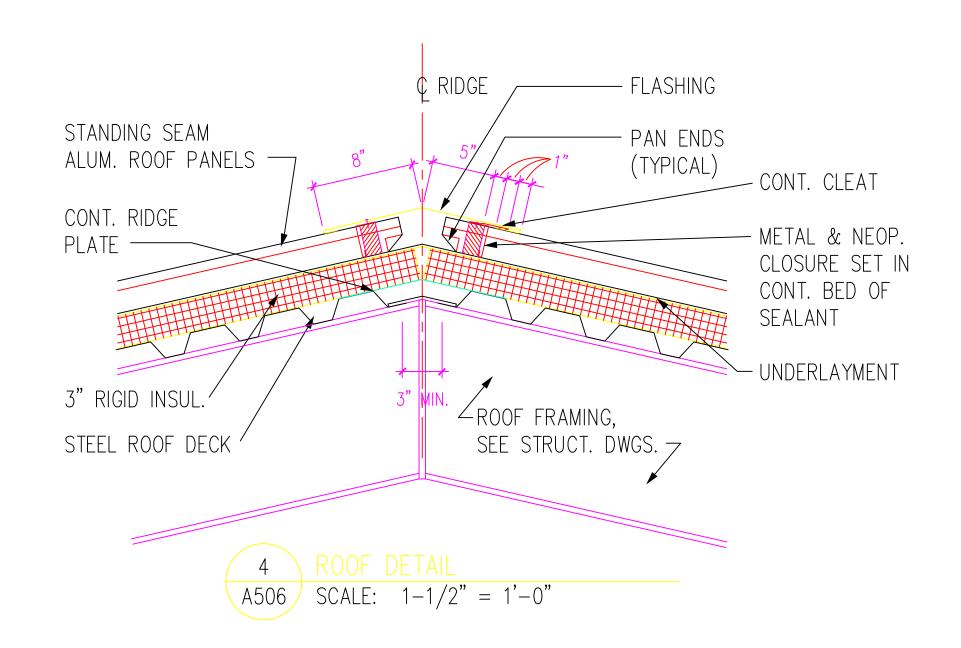


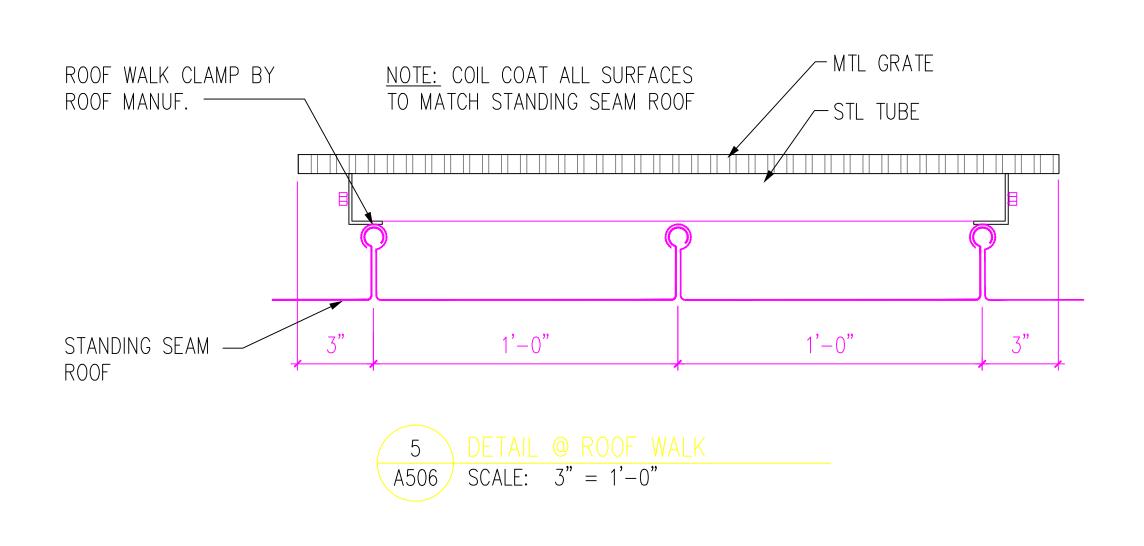


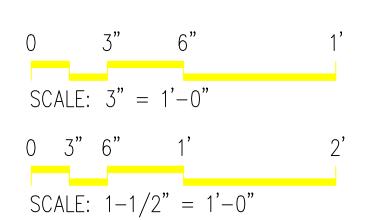












RECORD DRAWING DATE

CODE I.D. NO. 80091

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SPEC. NO. 06-00-0397

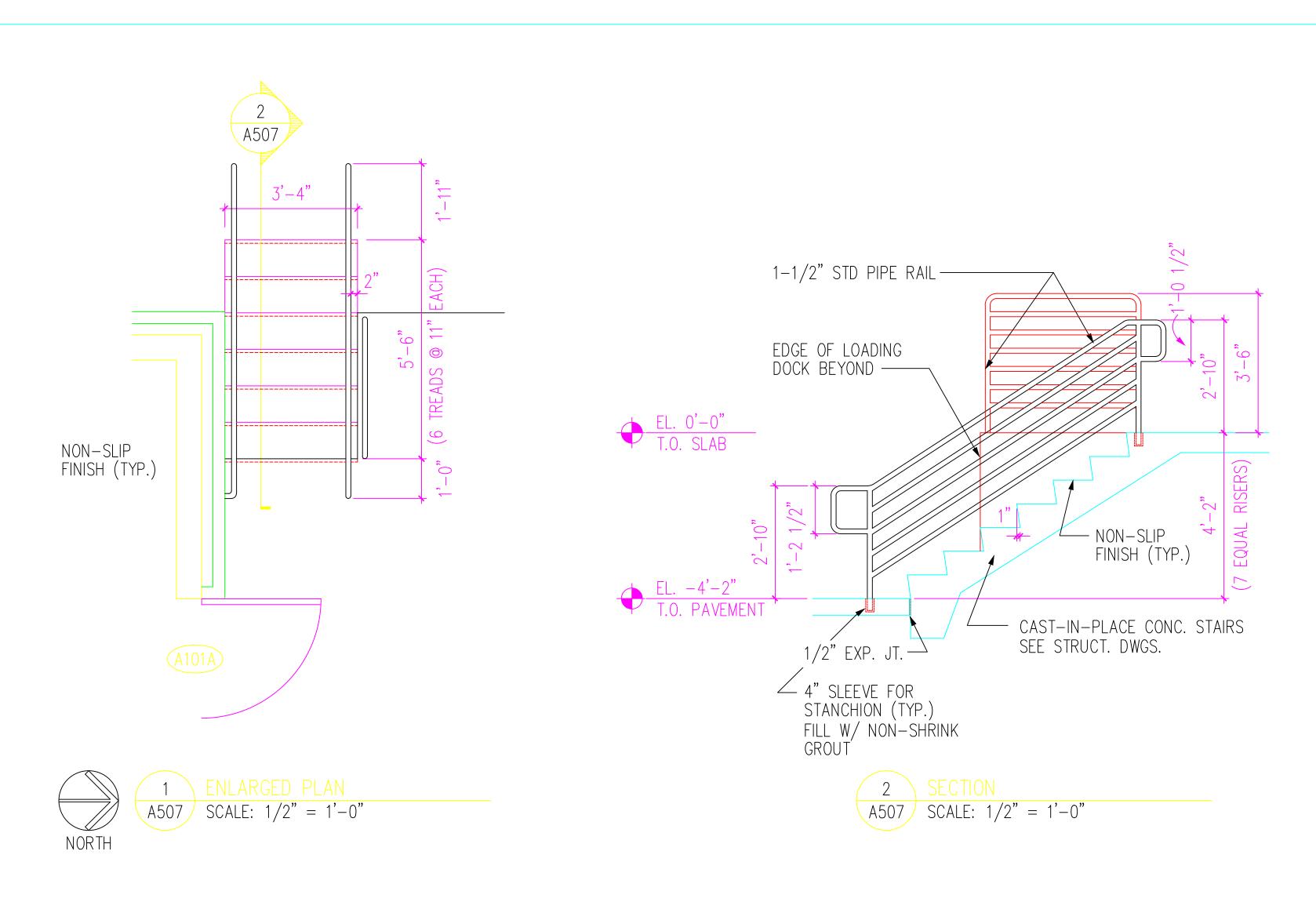
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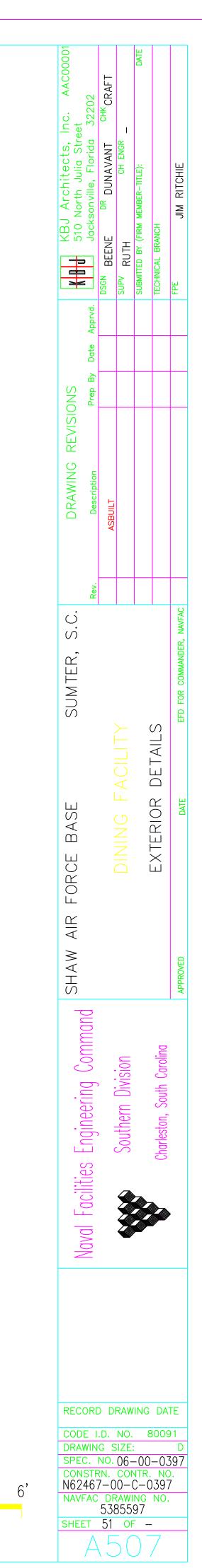
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SHEET 50 OF -

SHAW AIR FORCE BAS

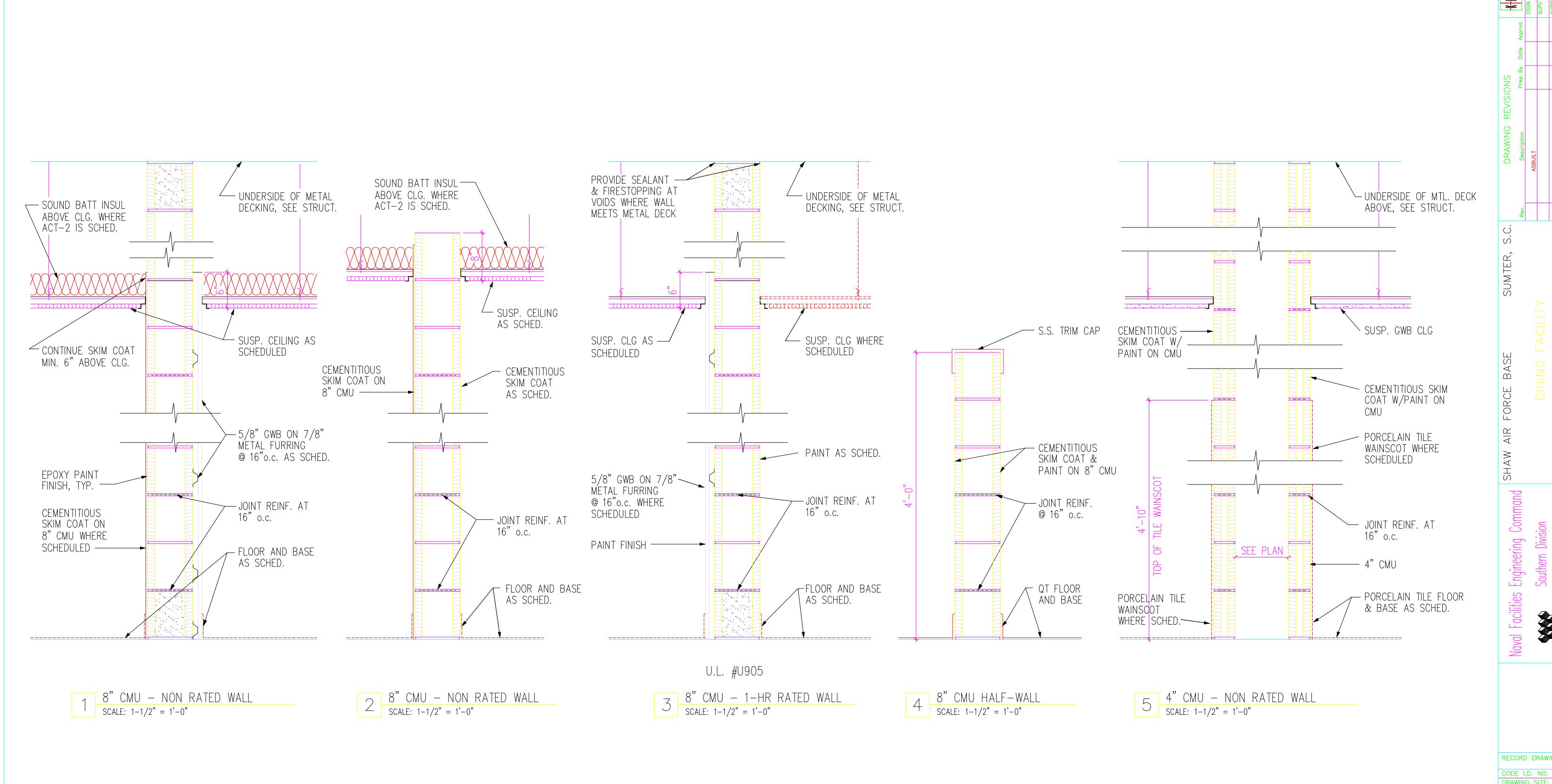
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0 1' 2' 4'

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



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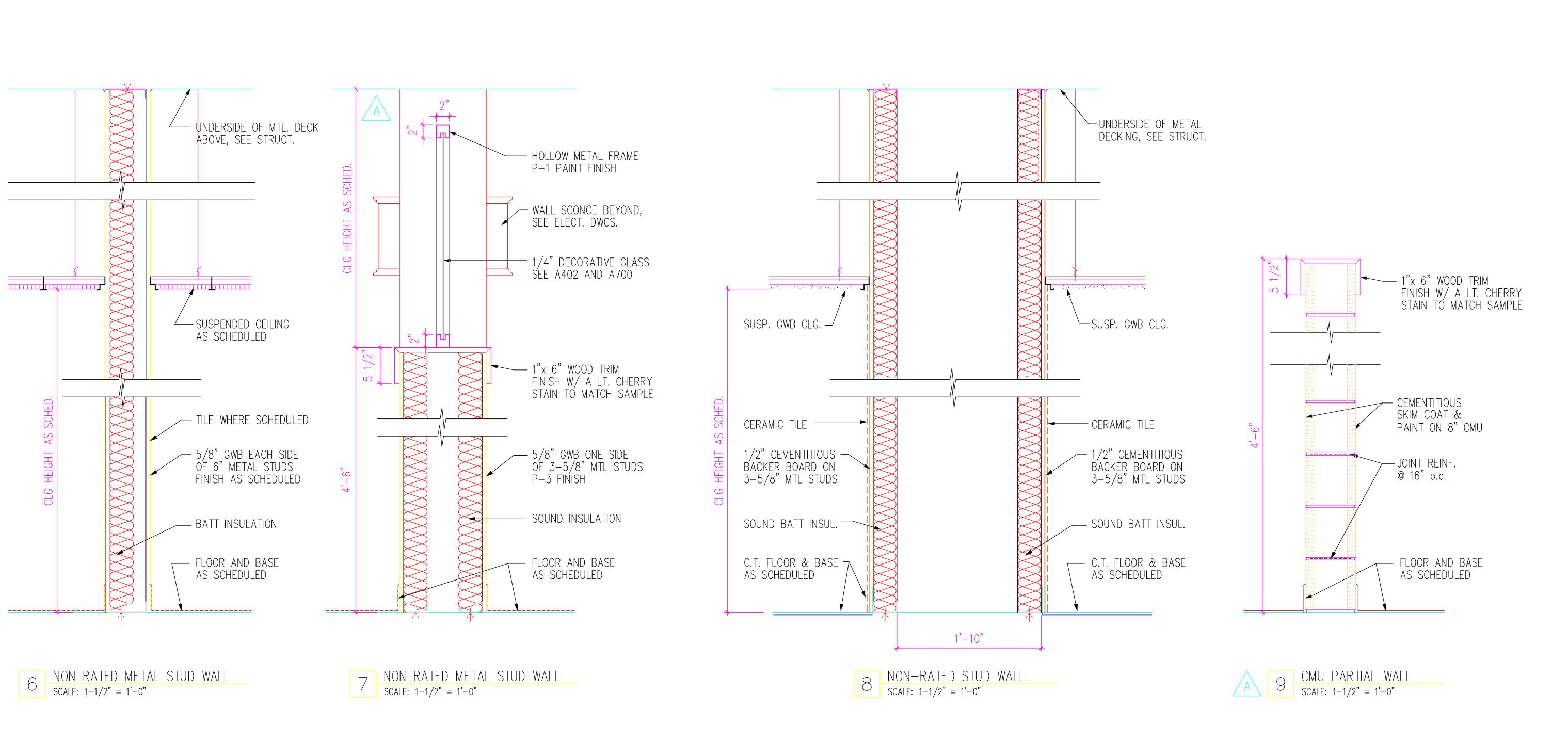
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SHEET 53 OF —

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SCALE:  $1 \frac{1}{2} = 1' - 0''$ 

INTERIOR



SHAW AIR FORCE BAS INTERIOR RECORD DRAWING DATE

CODE I.D. NO. 80091

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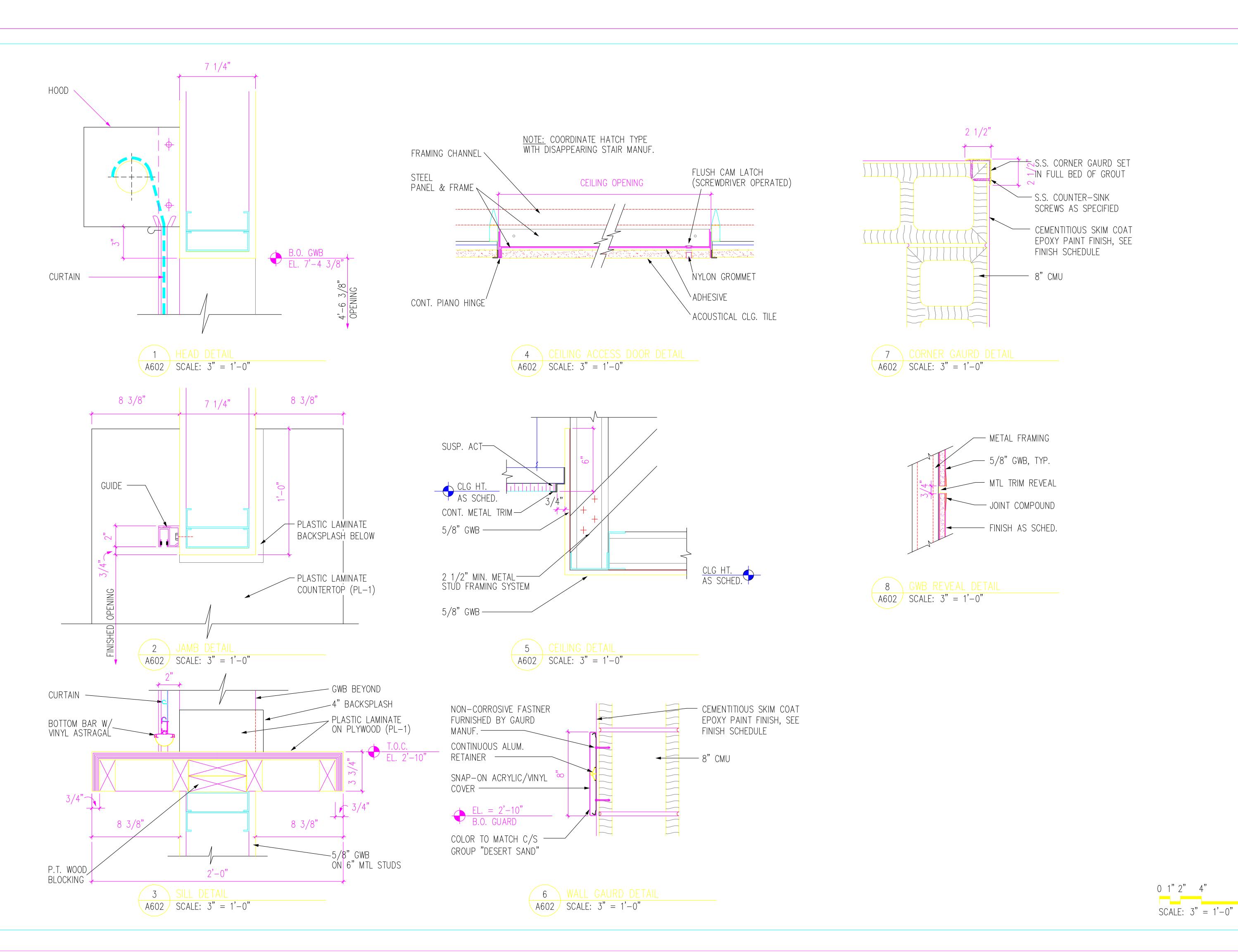
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SHEET 54 OF —

0 2" 4" 8" 16" 2'

SCALE:  $1 \frac{1}{2} = \overline{1'-0}$ 



INTERIC SHAW AIR FORCE BAS es Engineering Command

RECORD DRAWING DATE

CODE I.D. NO. 80091

DRAWING SIZE: D

SPEC. NO. 06-00-0397

CONSTRN. CONTR. NO. N62467-00-C-0397

NAVFAC DRAWING NO. 5385601

SHEET 55 OF -

A602

#### FINISH ABBREVIATIONS ACT ACOUSTICAL CEILING TILE GWB GYPSUM WALL BOARD CMU CONCRETE MASONRY UNIT PAINT CONC CONCRETE PLASTIC LAMINATE CPT CARPET PORCELAIN TILE EXPOSED TO STRUCTURE EXP QT QUARRY TILE GROUT VΒ VINYL BASE DECORATIVE GLASS GI VINYL COMPOSITION TILE FINISH KEY ACOUSTICAL CEILING TILE ACT-1 - USG, 808 "SANDRIFT" 2'x2' PANELS SUSPENSION SYSTEM: "CENTRICITEE" ACT-2 - USG, 56060 "CLEAN ROOM CLIMAPLUS" 2'x2' PANELS SUSPENSION SYSTEM: "DX" ACT-3 - USG, 412 "FROST" 2'x2' PANELS SUSPENSION SYSTEM: "DX" PORCELAIN TILE PT-1 - CAESAR, LE GROTTE - "POSTUMIA" (12"x12") PT-2 - CAESAR, LE GROTTE - "CASTRO" (12"x12") PT-3 - CROSSVILLE PORCELAIN STONE, A233 (UPS) "SAND BISQUE" 12"x12" & 3"x3" (SHOWERS ONLY) PT-4 - CROSSVILLE PORCELAIN STONE, A215 (PO) "EMPRESS WHITE" (6"x6") PT-5 - CROSSVILLE CERAMIC STONE, A876 (PO) "TRUFFLE" (6"x6") ALL PORCELAIN FLOOR AND WALL TILE SHALL BE SET WITH PORTLAND CEMENT MORTAR AND GROUT, SEE AMENDMENT #3. CPT - COLLINS & AIKMAN, MONK'S CLOTH CARPET TILE- 94801 "CRACKLE" OT — METROPOLITAN CERAMICS, QUARRY BASICS, 505 "PLAZA GRAY" (8"x8") ALL QUARRY TILE SHALL BE SET WITH EPOXY MORTAR AND GROUT, SEE SPECIFICATIONS. (AMENDMENT #3) GROUT G-1 - DALTILE #386 "OYSTER GRAY" (FOR USE WITH WALL TILE) G-2 - DALTILE #335 "WINTER GRAY" (USE WITH PT-3) G-3 - DALTILE #185 "NEW TAUPE" (USE WITH PT-1, PT-2, AND QT) PAINT NINI P-1 - ICI #133 "NEW ENCLAND GREEN" (INTERIOR DOORS AND FRAMES) P-2 - ICI #489 "UNICORN MHITE" (TYPICAL WALL FINISH) P-3 - ICI #488 "CASTLE ROCK" (DINING AREA ACCENT) P-4 - ICI #1155 "SUMMER PORCH" (ACCENT WALL COLOR) DECORATIVE GLASS GL-1 - RUDY ART CLASS STUDIO #05067 GL-2 - RUDY ART CLASS STUDIO #105013 PLASTIC LAMINATE PL-1 - FORMICA, 7709-58 "JUTE GUAZE" (TABLE TOPS) PL-2 - FORMICA, 7347-58 "PASTEL CRAYON" (TOLET PARTITIONS & COUNTERS) PL-3 - PIONITE, AW812 "WHITE TUNDRA" (SERVING COUNTER MILLWORK) PL-4 - PIONITE, SG211 "IGNOT GRAY" (SERVING COUNTER TOE-KICK) SOLID SURFACE SABLESTONE, "EURO GREY" (TOILET ROOM COUNTERS) LIZ JORDAN-HILL/ ARCHITEX INTERNATIONAL, NORWEGIAN WOODS "PINE" NAUGAHYDE, NEOCHROME II, NEO 5 "AQUA DARK"

VB - JOHNSONITE WALL BASE, 63 - "BURNT UMBER"

VCT - MANNINGTON COMMERCIAL, 125 "SILVER PINE"

NOTE: MANUFACTURERS ARE LISTED FOR REFERENCE, AND BIDDING PURPOSES

ONLY. MATERIALS ARE SELECTED FOR COLOR, TEXTURE, AND PERFORM— ANCE. EQUAL AND COMPARABLE ITEMS WILL BE CONSIDERED.

VINYL COMPOSITION TILE

	FINISH SCHEDULE													
		SPACE WALLS CEILING												
MARK	DESIGNATION	FLOOR	BASE	MAT.	FIN.	MAT.	AST FIN.	SO MAT.	UTH FIN.	MAT.	ST FIN.	MATERIAL	HEIGHT	REMARKS
A100	VESTIBULE	PT-1/PT-2	PT-1	GLAZING	P-1	GWB	P-2	GLAZING	P-1	GWB	P-2	GWB	10'-0"	NOTE 6
A101	LOBBY	PT-1/PT-2	PT-1	GLAZING	P-1	GWB	P-2	GWB	P-2	GWB	P-2	EXP/EFIS	-	
A102	CORRIDOR	PT-1	PT-1	GWB	P-2	GWB	P-2	GWB	P-2	GWB	P-2	GWB	10'-0"	NOTE 6
A103	JANITOR	SEALED CONC.	VB	GWB	P-4	GWB	P-4	GWB	P-4	GWB	P-4	GWB	9'-0"	
A104	MEN'S VESTIBULE	PT-3	PT-3	GWB/CMU		GWB	PT-4/P-4	GWB	PT-4/P-4		PT-4/P-4		9'-0"	NOTE 4 & 6
A105	MEN'S TOILET	PT-3	PT-3	GWB/CMU		GWB	PT-4/P-4	GWB		GWB/CMU	_	GWB	9'-0"	NOTE 4 & 6
A106	WOMEN'S VESTIBULE	PT-3	PT-3		PT-4/P-4	GWB	PT-4/P-4	_			PT-4/P-4	GWB	9'-0"	NOTE 4 & 6
A107	WOMEN'S TOILET	PT-3	PT-3		PT-4/P-4	GWB	PT-4/P-4		PT-4/P-4		PT-4/P-4		9'-0"	NOTE 4 & 6
A108	MECHANICAL ROOM #1	SEALED CONC.	-	CMU	P-2	CMU	P-2	CMU	P-2	CMU	P-2	EXP	-	
A109	MEN'S LOCKER	PT-3	PT-3	CMU	P-2	CMU	P-2	CMU	P-2	CMU	P-2	GWB	9'-0"	NOTE 6
A110	MEN'S TOILET JANITOR	PT-3	PT-3		PT-4/P-4	CMU	PT-4/P-4	CMU	PT-4/P-4		PT-4/P-4		9'-0"	NOTE 6
A111	WOMEN'S TOILET	SEALED CONC.	VB	CMU	P-4	CMU	P-4	CMU	P-4	CMU	P-4	GWB	8'-0"	NOTE 6
A112	WOMEN'S LOCKER	PT-3	PT-3		PT-4/P-4	CMU	PT-4/P-4	CMU	PT-4/P-4		PT-4/P-4	GWB	9'-0"	NOTE 6
A113		PT-3	PT-3	CMU	P-2	CMU	P-2	CMU	P-2	CMU	P-2	GWB	9'-0"	NOTE 6
A114	CORRIDOR	QT	QT	CMU	P-4	CMU	P-4	-	-	CMU	P-4	ACT-2	10'-0"	NOTES 3 & 4
A115	ELECTRICAL ROOM	SEALED CONC.	-	CMU	P-2	CMU	P-2	CMU	P-2	CMU	P-2	EXP		
A116	VESTIBULE	QT	QT	CMU	P-2	CMU	P-2	CMU	P-2	CMU	P-2	GWB	9'-0"	NOTE 4 & 6
A117	COMMUNICATIONS ROOM	SEALED CONC.	-	CMU	P-2	CMU	P-2	CMU	P-2	CMU	P-2	EXP	-	
A117A	SERVER CLOSET	VCT	VB	CMU	P-2	CMU	P-2	CMU	P-2	CMU	P-2	GWB	9'-0"	NOTE 6
A118	CARB. ROOM	VCT	VB	GWB	P-2	GWB	P-2	GWB	P-2	GWB	P-4	ACT-3	9'-0"	NOTE 2
A119	OFFICE	VCT	VB	GWB	P-2	GWB	P-2	GWB	P-2	GWB	P-4	ACT-3	9'-0"	NOTE 2
A120	TRAINING KITCHEN	VCT	VB	GWB	P-2	GWB	P-2	GWB	P-2	GWB	P-4	ACT-3	9'-0"	NOTE 2
A121	RECEIVING	QT CELLED COMO	QT	CMU	P-4	CMU	P-4	CMU	P-4	CMU	P-4	ACT-2	10'-0"	NOTES 3, 4, & 5
A122		SEALED CONC.	VB	CMU	P-2	CMU	P-4	CMU	P-4	CMU	P-2	ACT-2	10'-0"	NOTE 3
A123	DRY STORAGE OFFICE	SEALED CONC.	VB	CMU	P-2	CMU	P-4	CMU	P-4 P-4	CMU	P-2	ACT-2	10'-0" 9'-0"	NOTE 3
A124		VCT	VB	GWB	P-2	GWB	P-2	GWB		GWB	P-2	ACT-3		NOTE 2
A125	STORAGE PAN STORAGE	VCT	VB	CMU	P-2	CMU	P-2	CMU	P-2	CMU	P-2	ACT-3	10'-0"	NOTE 2
A126		QT	QT	CMU	P-4	CMU	P-4	CMU	P-4	CMU	P-4	ACT-2	10'-0"	NOTES 3 & 4
A127	LINEN POT WASH	VCT	VB OT	CMU	P-2	CMU	P-2	CMU	P-2	CMU	P-2	ACT-3	9'-0"	NOTES 2 & 4
A128		QT	QT	CMU	P-4	CMU	P-4	CMU	P-4	CMU	P-4	ACT-2	10'-0"	NOTES 3, 4, & 5
A129	DISH WASH CORRIDOR	QT QT	QT QT	CMU	P-4 P-4	CMU	P-4 P-4	CMU	P-4 P-4	CMU	P-4 P-4	ACT-2 ACT-2	10'-0" 10'-0"	NOTES 3 & 4
A130	COOK'S REFRIGERATOR	SEALED CONC.	- IS	CMU	P-4 P-4	CMU	P-4 -	- CMU	P-4	CMU	P-4 -	AC1-2 EXP	9'-0"	NOTES 3, 4, & 5
A131	HOT LINE SERVING AREA		- ОТ	- CMU		CMU	-	- CMU	P-4 P-2	- CMU			10'-0"/10'-6"	NOTEC 1 7 4 4 0
A132 A133	SELF-SERVE	QT PT-1/PT-2	QI PT-1	-	-	GWB	P-2	CMU	P-2 P-2	CMU	P-2 -	GWB/ACT-2 GWB/ACT-1	10'-0"/10'-6"	NOTES 1, 3, 4 & 6
A134	GRILLE	QT	QT	CMU	P-2	CMU	P-2	- CMU	P-2	CMU	P-2	GWB/ACT-1	10'-0"/10'-6"	NOTES 1, 2, 4 & 6
A135	DINING AREA A	CPT	VB	GWB	P-3	GWB	P-2	- GWB	P-2	CMU/GWB	P-2 P-2	ACT-1/GWB	11'-0"/10'-0"	NOTES 1, 3, 4 & 6 NOTES 1, 2, 4 & 6
	DINING AREA B	CPT	VB	GWB	P-3	GWB	P-2	GWB	P-2	CMU/GWB	P-2 P-3	ACT-1/GWB	11'-0'/10'-0"	NOTES 1, 2, 4 & 6
A136	DINING AREA C	CPT	VB VB	GWB		GWB	P-2	GWB	P-3	_		-	11'-0'/10'-0"	
A137	POSTAL SORTING/STORAGE	VCT	VB VB	GWB	P-3 P-2	GWB	P-2	CMU	P-3	CMU/GMR	P-2/P-3 P-2	ACT-1/GWB ACT-3	10'-0"	NOTES 1, 2, 4 & 6 NOTE 2
A138 A139	POSTAL LOBBY	VCT	VB VB	GWB	P-2 P-2	GWB	P-2	GWB	P-2	GWB	P-2 P-2	ACT-3	10'-0"	NOTE 2
A139 A140	OFFICE	VCT	VB VB	GWB	P-4	GWB	P-4	GWB	P-4 P-2	GWB	P-2 P-2	ACT-3	9'-0"	NOTE 2
A141	MECHANICAL ROOM #2	SEALED CONC.	- VIS	CMU	P-4 P-2	CMU	P-4 P-2	CMU	P-2	CMU	P-2 P-2	EXP	9-0	NUIL 2
A141	MEGNANICAL ROOM #2	SEALED CONC.	-	CMU	P-2	CMU	P-2	CMU	P-2	CMU	P-2	EXP	-	
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- 1. CEILING HEIGHT VARIES , SEE PLAN.
- 2. USE CEILING SUSPENSION SYSTEM: USG "CENTRICITEE" WITH ACT-1 AND ACT-3.
  3. USE CEILING SUSPENSION SYSTEM: USG "AX" WITH ACT-2.

- 4. APPLY A CEMENTITIOUS PURGE COAT OVER CMU WALLS, EPOXY PAINT FINISH.
  5. MOUNT STANLESS STEEL WALL ARRAP ALONG A WHEREVER FIXED EQUIP. IS NOT PRESENT.
  6. ALL COME CELINGS AND SOFFITS SHALL RECIEVE "CELING WHITE" PAINT FINISH.

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SCHEDULE

FINISH

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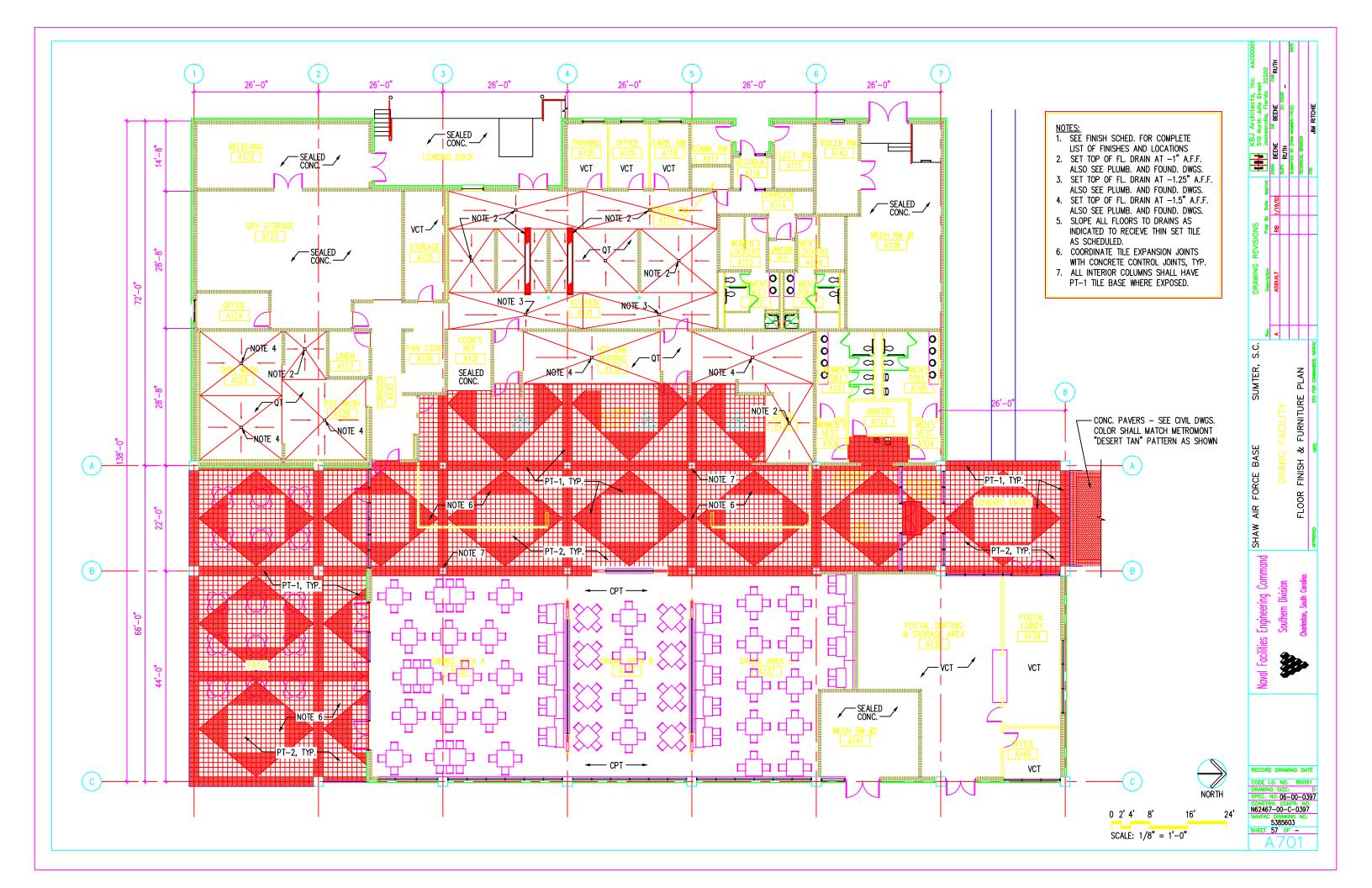
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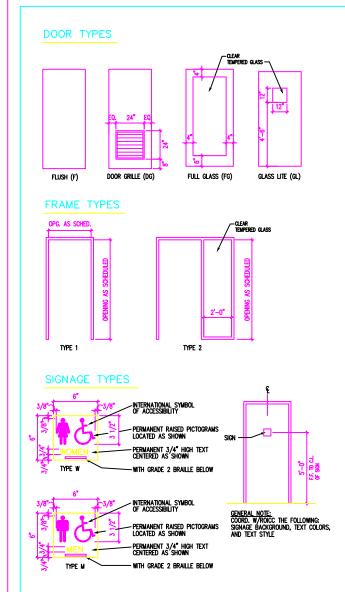
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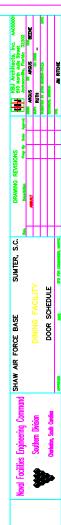
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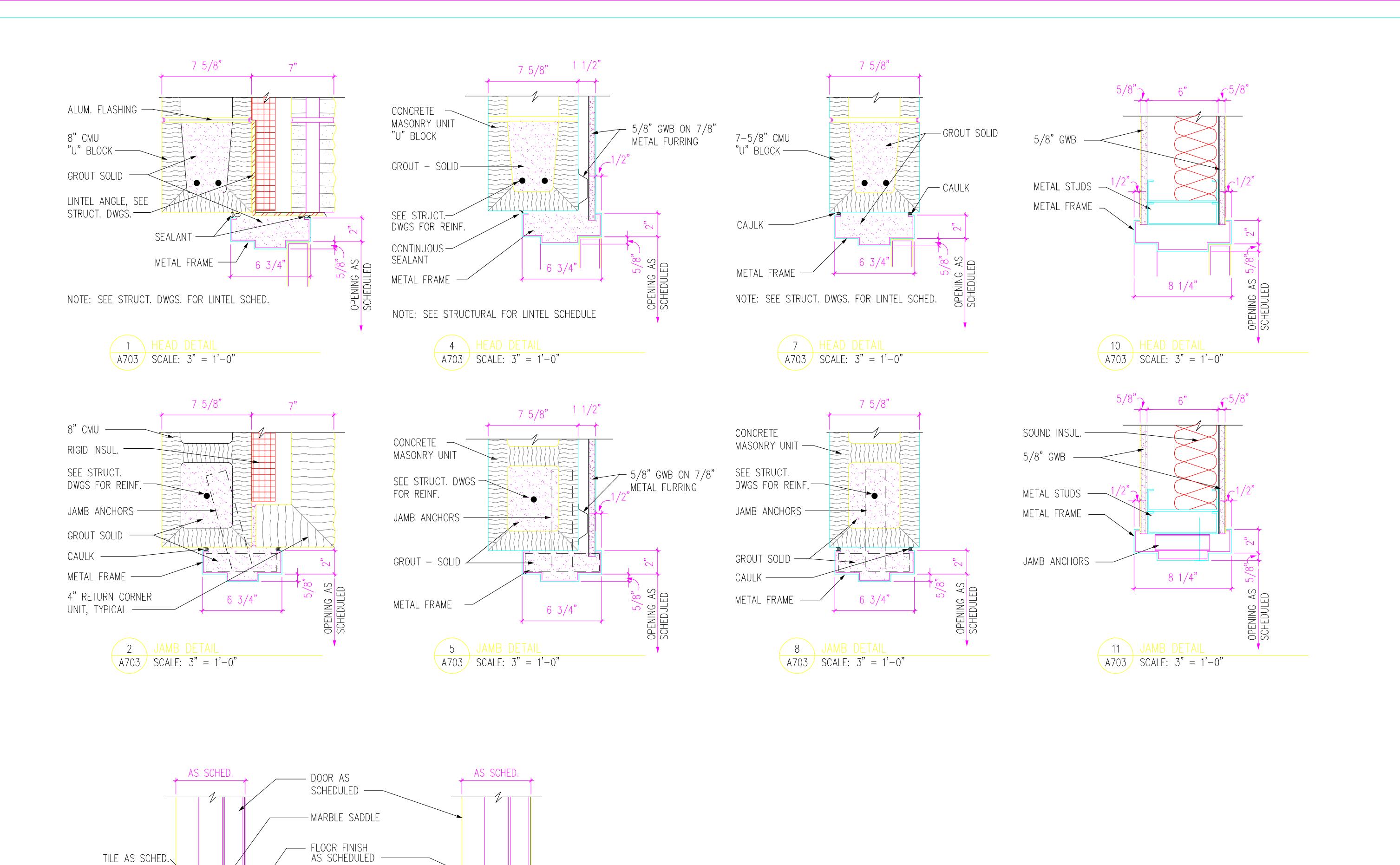




								DOOR	SCHEE	ULE				
D	oor open	NING			DOOR				FRAME			HARD-		
MARK	WIDTH			TYPE	MATERIAL	# OF LEAVES		MATERIAL	HEAD	JAMB	SILL	WARE GROUP		
A100	6'-0"	7'-2"	1-3/4"	FG	ALUM/GL	2	1	ALUM	1/A502	2/A502	3/A502	1	POWER ASSIST ENTRY	_
A101	6'-0"	7-2	1-3/4"	FG	ALUM/GL	2	1	ALUM	1/A502	2/A502	3/A502	101	POWER ASSIST ENTRY	_
A103	3'-0"	7'-2"	1-3/4"	F	MTL	1	1	НМ	10/A703	11/A703	3/A703	103	-	-
A104	3'-0"	7'-2"	1-3/4"	F	MTL	1	1	НМ	10/A703	11/A703	3/A703	102	SIGNAGE TYPE M	-
A105	3'-0"	7'-2"	1-3/4"	F	MTL	1	1	НМ	10/A703	11/A703	6/A703	102	-	-
A106	3'-0"	7'-2"	1-3/4"	F	MTL	1	1	HM	10/A703	11/A703	3/A703	102	SIGNAGE TYPE W	-
A107	3'-0"	7'-2"	1-3/4"	F	MTL	1	1	HM	10/A703	11/A703	6/A703	102	-	_
A108	8'-0"	7'-2"	1-3/4"	F	MTL	2	1	НМ	1/A703	2/A703		4	-	-
A109	3'-0"	7'-2"	1-3/4"	F	MTL	1	1	HM	7/A703	8/A703	3/A703	103	SIGNAGE TYPE M	-
A111	3'-0"	7'-2"	1-3/4"	F	MTL	1	1	HM	7/A703	8/A703	3/A703	102	-	-
A113	3'-0"	7'-2"	1-3/4"	F	MTL	1	1	HM	7/A703	8/A703	3/A703	102	SIGNAGE TYPE W	-
A115	3'-0"	7'-2"	1-3/4"	F	MTL	1	1	HM	1/A703	2/A703		5	-	-
A116	3'-0"	7'-2"	1-3/4"	FG	MTL	1	2	HM	1/A703	2/A703		6	-	-
A116A	3'-0"	7'-2"	1-3/4"	FG	MTL	1	2	HM	7/A703	8/A703	6/A703	107	-	-
A117	3'-0"	7'-2"	1-3/4"	F	MTL	1	1	HM	1/A703	2/A703	·	5	-	-
A117A	3'-0"	7'-2"	1-3/4"	DG	MTL	1	1	HM	7/A703	8/A703	3/A703	103	-	-
A118	3'-0"	7'-2"	1-3/4"	FG	MTL	1	1	нм	4/A703	5/A703	3/A703	104	-	-
A119	3'-0"	7'-2"	1-3/4"	FG	MTL	1	1	нм	4/A703	5/A703	3/A703	104	-	-
A120	3'-0"	7'-2"	1-3/4"	FG	MTL	1	1	нм	4/A703	5/A703	3/A703	104	-	-
A121	5'-0"	7'-2"	1-3/4"	GL	MTL	2	1	НМ	7/A703	8/A703	6/A703	106	-	-
A121A	5'-0"	7'-2"	1-3/4"	GL	MTL	2	1	нм	7/A703	8/A703	6/A703	106	-	-
A121B	6'-0"	7'-10"	1-3/4"	GL	MTL	2	1	нм	1/A703	2/A703	,	7	-	-
A122	6'-0"	7'-10"	1-3/4"	GL	MTL	2	1	нм	1/A703	2/A703		7	-	-
A123	6'-0"	7'-10"	1-3/4"	GL	MTL	2	1	нм	7/A703	8/A703	6/A703	108	-	-
A123A	3'-0"	7'-2"	1-3/4"	GL	MTL	1	1	HM	7/A703	8/A703	3/A703	105	-	-
A124	3'-0"	7'-2"	1-3/4"	FG	MTL	1	1	HM	4/A703	5/A703	6/A703	104	-	-
A125	3'-0"	7'-2"	1-3/4"	F	MTL	1	1	HM	7/A703	8/A703	3/A703	103	-	-
A127	3'-0"	7-2	1-3/4"	F	MTL	1	1	HM	4/A703	5/A703	3/A703	104	-	-
A130	5'-0"	7-2"	1-3/4"	GL	MTL	2	1	HM	4/A703	5/A703	3/A703	106	-	-
A132	5'-0"	7'-2"	1-3/4"	GL	MTL	2	1	HM	7/A703	8/A703	3/A703	106	-	-
A132A	5'-0"	7'-2"	1-3/4"	GL	MTL	2	1	HM	7/A703	8/A703	3/A703	106	-	-
A133	3'-0"	7'-2"	1-3/4"	GL	MTL	1	1	HM	7/A703	8/A703	3/A703	105	-	-
A135	6'-0"	7'-2"	1-3/4"	FG	ALUM/GL	2	1	ALUM	4/A502	4/A502	3/A502	2	-	-
A135A	6'-0"	7'-2"	1-3/4"	FG	ALUM/GL	2	1	ALUM	4/A502	4/A502	3/A502	2	-	-
A135B	6'-0"	7'-2"	1-3/4"	FG	ALUM/GL	2	1	ALUM	4/A502	4/A502	3/A502	2	-	-
A135C	3'-3"	7'-2"	1-3/4"	FG	ALUM/GL	1	1	ALUM	1/A502	2/A502	3/A502	3	COORD. WIDTH W/CURTAIN WALL MANUF.	-
A138	6'-0"	7'-2"	1-3/4"	F	MTL	2	1	HM	1/A703	2/A703	.,	4	-	-
A139	6'-0"	7'-2"	1-3/4"	FG	ALUM/GL	2	1	ALUM	4/A502	4/A502	3/A502	1	-	-
A139A	3'-0"	7'-2"	1-3/4"	F	MTL	1	1	HM	10/A703	11/A703	6/A703	105	-	-
A140	3'-0"	7'-2"	1-3/4"	F	MTL	1	1	HM	10/A703	11/A703	6/A703	104	-	-
A141	7'-0"	7'-2"	1-3/4"	F	MTL	2	1	HM	1/A703	2/A703	-,	4	-	-
A142	6'-0"	7'-2"	1-3/4"	F	MTL	2	1	HM	7/A703	8/A703	6/A703	108	_	В
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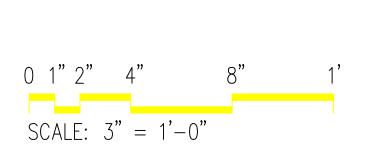
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NAFFIC PRIVATE P



6 SILL DETAIL
A703 SCALE: 3" = 1'-0"

1 3/4"

3 SILL DETAIL
A703 SCALE: 3" = 1'-0"



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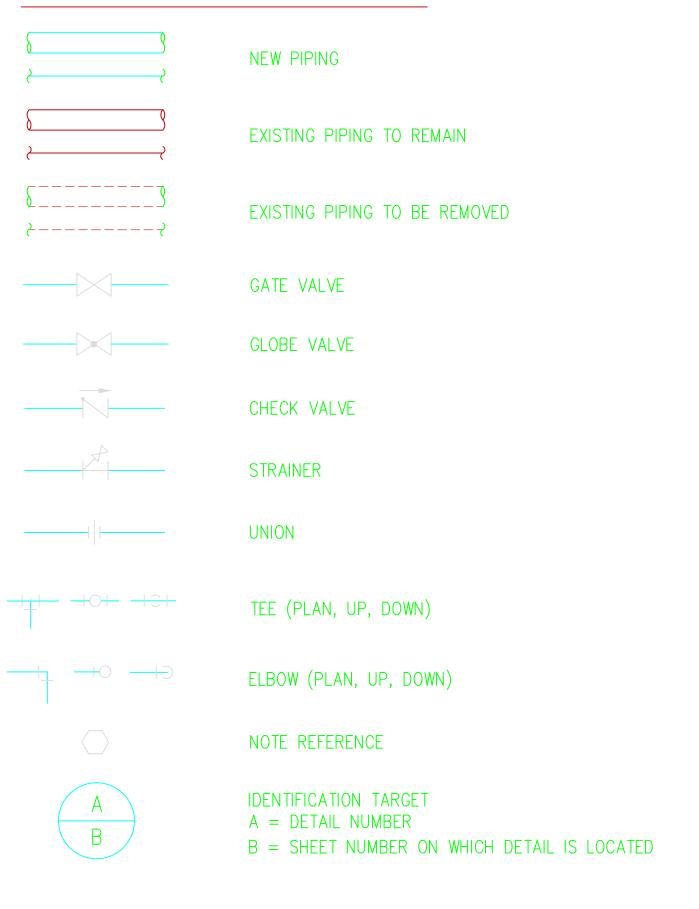
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SHEET 59 OF -

DOOR

ies Engineering Command SHAW AIR FORCE BAS

## MECHANICAL LEGEND



## GENERAL NOTES FOR STEAM SYSTEM

1. REFER TO THE STEAM SYSTEM PHASING NOTES.

- 2. REMOVAL OF PIPING SYSTEMS SHALL INCLUDE ALL CASINGS, INSULATION, SUPPORTS, EXPANSION LOOPS, AND CONCRETE ANCHORS.
- 3. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING THIS PROJECT. ANY DISCREPANCIES FOUND SHALL BE BROUGHT TO THE CONTRACTING OFFICER'S ATTENTION IMMEDIATELY.
- 4. THE NEW UNDERGROUND STEAM AND PUMPED CONDENSATE SYSTEMS ARE FACTORY FABRICATED DRAINABLE, DRYABLE, AND TESTABLE TYPE HEAT DISTRIBUTION SYSTEMS. EXCEPT FOR FIELD JOINTS, FIELD FABRICATED PIPING AND INSULATION ARE NOT ACCEPTABLE FOR THESE PIPING SYSTEMS. THE DESIGN BASIS SYSTEM FOR THIS UNDERGROUND PIPING IS THE INSUL-800 HIGH TEMP CONDUIT BY ROVANCO.
- 5. WHERE THE NEW UNDERGROUND STEAM AND CONDENSATE SYSTEMS ARE REQUIRED TO CROSS EXISTING UTILITIES, THE EXISTING SYSTEMS SHALL BE HAND EXCAVATED. SHOULD THERE BE AN ELEVATION CONFLICT, IT SHALL BE BROUGHT TO THE CONTRACTING OFFICER'S ATTENTION IMMEDIATELY.
- 6. UNDERGROUND SYSTEM FIELD JOINTS SHALL BE IN ACCORDANCE WITH DETAIL 5/M7.
- 7. UNDERGROUND SYSTEM ANCHOR DETAILS SHALL BE IN ACCORDANCE WITH DETAIL 2/M7.
- 8. UNDERGROUND SYSTEM ELBOWS SHALL BE IN ACCORDANCE WITH DETAIL 1/M7.

REF #49885

## STEAM SYSTEM PHASING NOTES

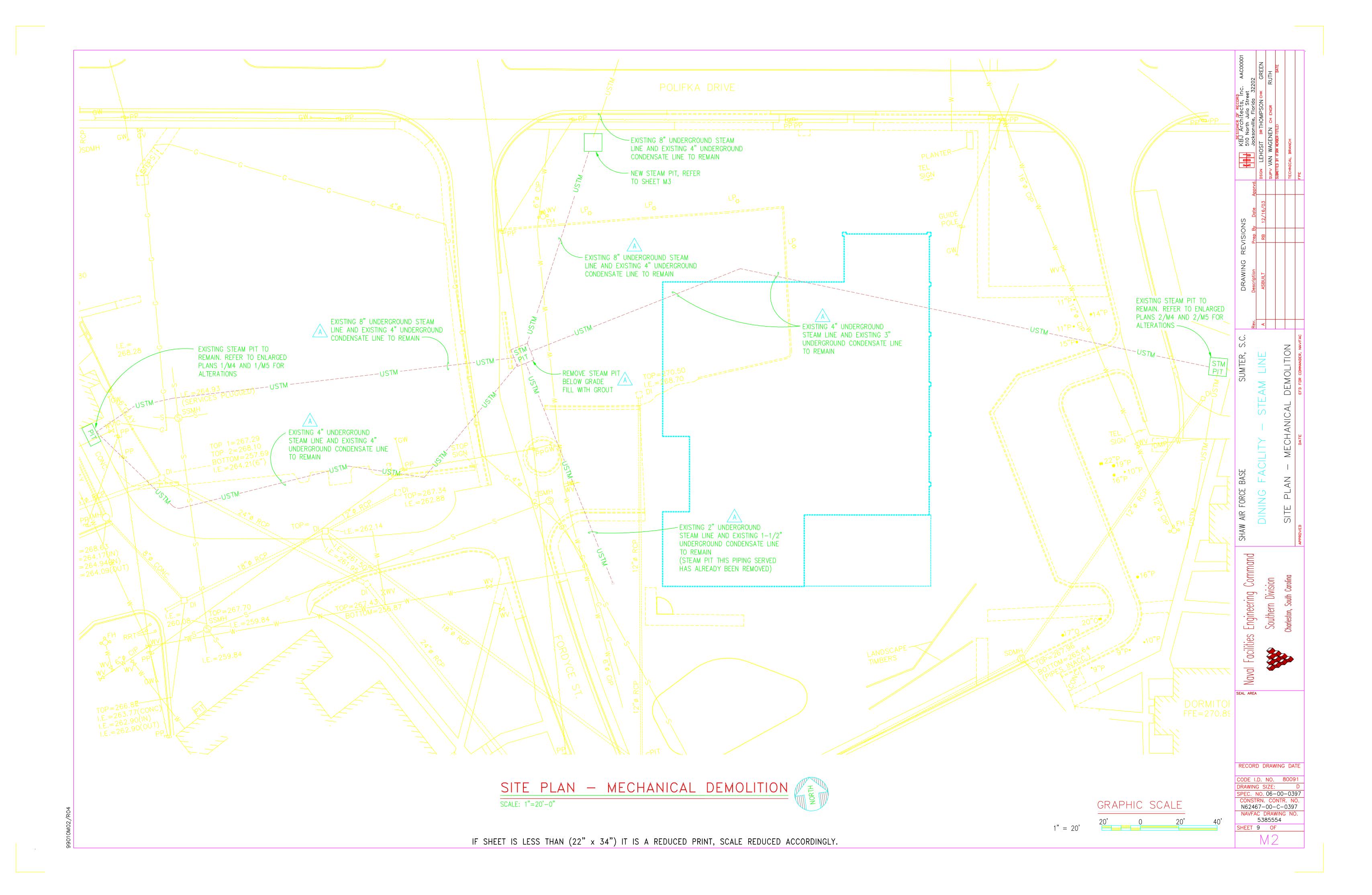
- 1. EXCEPT FOR SHORT OUTAGES, THE EXISTING STEAM SYSTEM MUST REMAIN IN SERVICE. THE CONTRACTOR SHALL PREFABRICATE AS MUCH PIPING AS POSSIBLE TO KEEP THE DOWNTIMES TO A MINIMUM. THE DESIRE WOULD BE TO HAVE ONLY ONE SYSTEM OUTAGE DUE TO THE DIFFICULTIES INVOLVED IN SHUTTING DOWN AND STARTING UP THE STEAM SYSTEM. THE CONTRACTOR SHALL DETERMINE THE REQUIRED DURATION OF THE OUTAGE.
- 2. ANY STEAM SYSTEM OUTAGES SHALL BE COORDINATED WITH THE CONTRACTING OFFICER. THE CONTRACTOR SHALL PROVIDE AT LEAST TWO WEEKS NOTICE OF ANY ANTICIPATED SHUTDOWN.
- 3. NO SHUTDOWN WILL BE ALLOWED TO COMMENCE UNTIL ALL OF THE MATERIAL REQUIRED TO TAKE THE SYSTEM OUT OF SERVICE AND RETURN THE SYSTEM TO SERVICE IS ON THE SITE.
- 4. ALL OF THE NEW PIPING THAT CAN POSSIBLY BE INSTALLED WITHOUT DISTURBING THE EXISTING SYSTEM SHALL BE INSTALLED PRIOR TO ANY SHUTDOWN.
- 5. THE MOST DIFFICULT PHASING CHALLENGE WILL BE AT THE PIT ADJACENT TO THE STEAM PLANT. SOME EXISTING PIPING WILL HAVE TO BE REMOVED IN ORDER TO FACILITATE THE INSTALLATION OF THE NEW STEAM AND PUMPED CONDENSATE PIPING. THERE WILL BE DEMOLITION AND NEW WORK THAT HAS TO OCCUR BOTH INSIDE AND OUTSIDE OF THE PIT. THE CONTRACTOR SHALL CAREFULLY EXCAVATE AROUND ALL OF THE PIPING OUTSIDE OF THIS PIT TO THE POINT OF CONNECTION TO THE NEW PIPING THAT HAS BEEN ABLE TO BE INSTALLED WITHOUT DISTURBING THE EXISTING SYSTEM OPERATION. THEN AS MUCH WORK AS POSSIBLE SHALL BE PREFABRICATED IN ORDER TO REDUCE THE SYSTEM OUTAGE.
- 6. THE NEW STEAM PIT WILL HAVE TO BE BUILT AROUND THE EXISTING UNDERGROUND STEAM AND CONDENSATE PIPING, I.E. INITIALLY WHEN THE PIT IS FABRICATED AND BEFORE ANY NEW PIPING HAS BEEN INSTALLED IN AND AROUND IT, THE EXISTING PIPING WILL JUST RUN THROUGH IT. AT THE TIME OF THE SYSTEM OUTAGE, THE EXISTING PIPING WILL BE CUT AND CONNECTIONS MADE TO THE NEW PIPING. THE REMAINDER OF THE EXISTING STEAM AND CONDENSATE PIPING WILL THEN BE REMOVED FROM THE STEAM PIT AND THE OPENINGS IN THE PIT WALL SHALL BE PATCHED WITH CONCRETE.
- 7. AT THE EXISTING STEAM PIT SERVING THE BARRACKS AT THE EAST END OF THE SITE, THE NEW UNDERGROUND PIPING SHALL BE BROUGHT INTO THE PIT AND TERMINATED AT THE FLANGED CONNECTION IN THE PIT. THE PIPING FROM THESE FLANGED CONNECTIONS TO THE EXISTING SYSTEM CONNECTIONS SHALL BE PREFABRICATED. THEN DURING THE SYSTEM OUTAGE, THE EXISTING PIPING SHALL BE REMOVED AND THE NEW PIPING CONNECTIONS INSTALLED.
- 8. ALL EXISTING UNDERGROUND PIPING AND THE EXISTING STEAM PITS TAKEN OUT OF SERVICE CAN BE REMOVED AFTER THE NEW SYSTEM IS COMPLETE AND IN SERVICE.

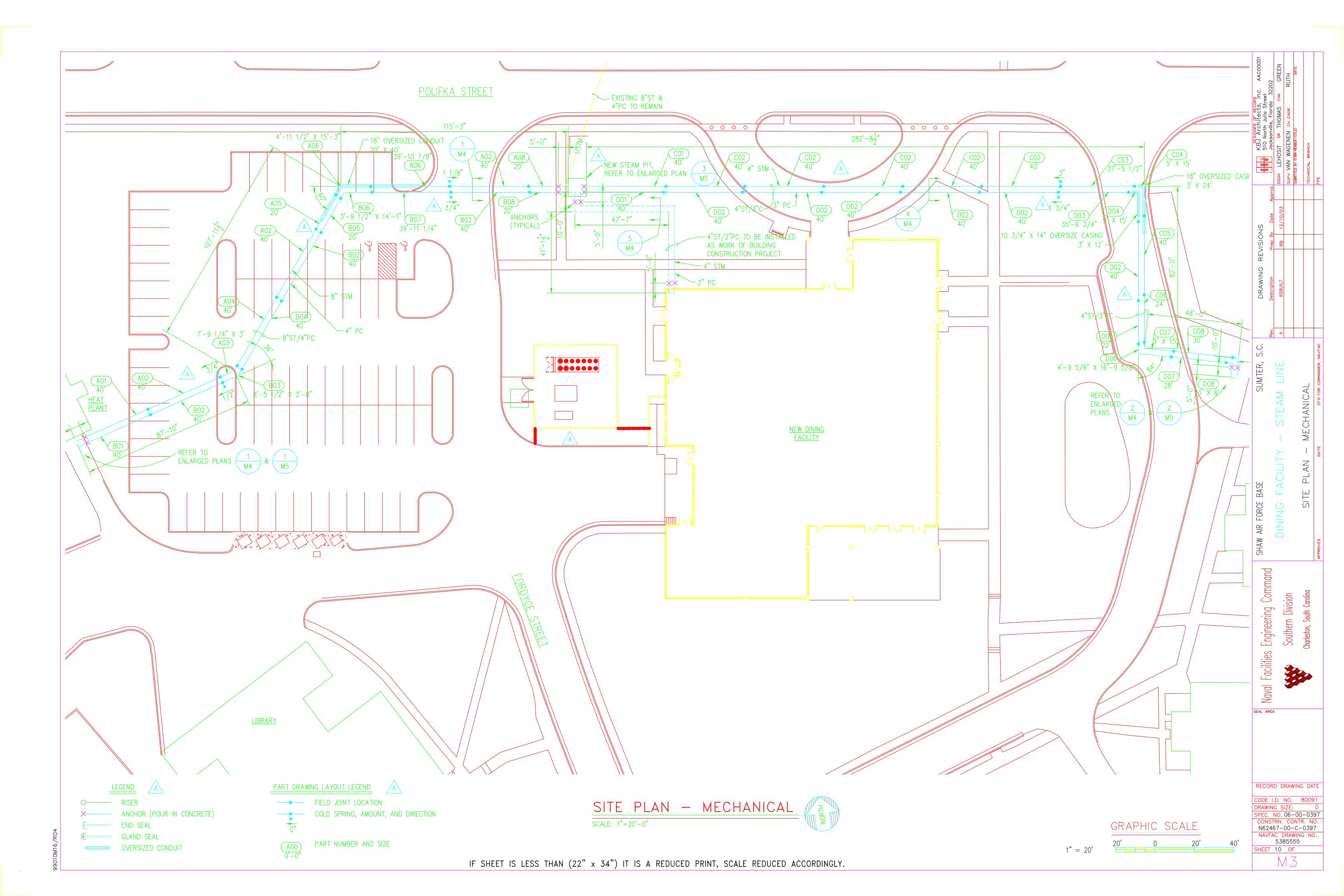
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aciiilles Eudineeliiid command		Rev.	Description Prep By Date Apprvd.		202
	- YLING FACILITY -	STEAM LINE	ASBUILT	DSGN/AN WAGENENR THOMAS CHK LEHOSIT	LEHOSIT
Southern Division				SUPV VAN WAGENEN CH ENGR	RUTH
				SUBMITTED BY (FIRM MEMBER-TITLE)	DATE
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RECORD DRAWING DATE

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## NOTES

EXISTING STEAM PIT AT PLANT - DEMOLITION

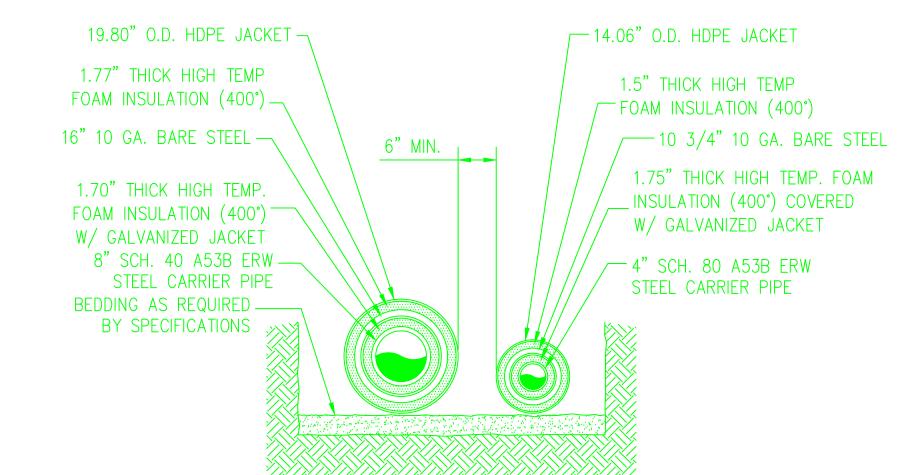
WALL OF

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

STEAM PLANT

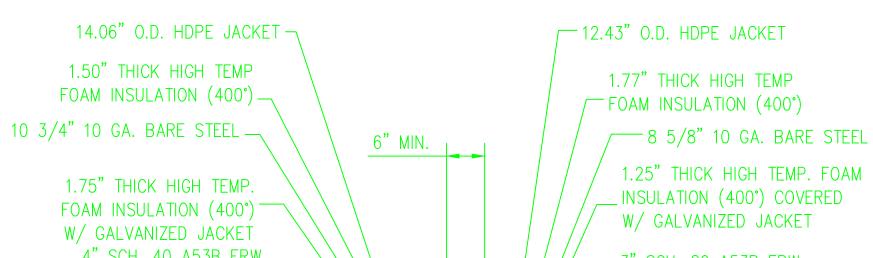
- CUT EXISTING 4" STEAM LINE AT THIS POINT AND WELD A NEW CAP ON THE PIPING TO REMAIN.
- REMOVE EXISTING 4" STEAM LINE IN MANHOLE ENTIRELY INCLUDING ALL ASSOCIATED INSULATION AND SUPPORTS.
- 3 CUT EXISTING 8" STEAM LINE AT THIS POINT AND PREPARE END OF PIPING FOR CONNECTION OF NEW PIPING.
- REMOVE EXISTING 8" STEAM PIPING FROM CUT POINT IN NOTE 3 TO EXIT OF MANHOLE TO EAST INCLUDING ALL ASSOCIATED INSULATION AND SUPPORTS.
- CUT EXISTING 4" CONDENSATE LINE AT THIS POINT AND PREPARE END OF PIPING FOR CONNECTION OF NEW PIPING.
- REMOVE EXISTING 4" CONDENSATE PIPING FROM CUT POINT IN NOTE 5 TO EXIT OF MANHOLE TO EAST INCLUDING ALL ASSOCIATED INSULATION AND SUPPORTS.
- REMOVE EXISTING 2" CONDENSATE PIPING FROM ENTRY INTO MANHOLE TO 4" CONDENSATE PIPING THAT IS BEING REMOVED.
- REMOVE 3/4" DRIP LEG CONDENSATE PIPING CONNECTION INCLUDING ALL VALVES, TRAPS, AND SUPPORTS. REFER TO NOTE 9.

- 3/4" DRIP LEGS ARE CONNECTED TO 4" CONDENSATE PIPING AT THIS POINT. REMOVE 3/4" CONDENSATE PIPING FROM THIS POINT BACK TO THE DRIP LEG CONNECTIONS INCLUDING ALL VALVES, TRAPS, AND SUPPORTS. REFER TO NOTE 8.
- EXISTING CONCRETE PIT. PIT HAS A REMOVABLE SOLID STEEL COVER.
- REMOVE EXISTING 4" STEAM AND 4" CONDENSATE PIPING ENTIRELY. REFER TO SHEET M101. PIPING SYSTEMS OUTSIDE THE PIT ARE OF THE DRAINABLE, DRYABLE, TESTABLE CONDUIT TYPE. PENETRATIONS OF THE PIT WALL SHALL BE REMOVED ENTIRELY AND THEN THE WALL SHALL BE PATCHED WITH CONCRETE OF THE SAME THICKNESS AS THE EXISTING WALL.
- REMOVE EXISTING 8" STEAM AND 4" CONDENSATE PIPING ENTIRELY. REFER TO SHEET M101. PIPING SYSTEMS OUTSIDE THE PIT ARE OF THE DRAINABLE, DRYABLE, TESTABLE CONDUIT TYPE. PENETRATIONS OF THE PIT WALL SHALL BE REMOVED ENTIRELY AND THEN THE WALL SHALL BE PATCHED WITH CONCRETE OF THE SAME THICKNESS AS THE EXISTING WALL.
- EXISTING 4" CONDENSATE PIPING TO REMAIN TO THE CUT POINT DESCRIBED IN NOTE 5.
- EXISTING 8" STEAM PIPING TO REMAIN TO THE CUT POINT DESCRIBED IN NOTE 3.



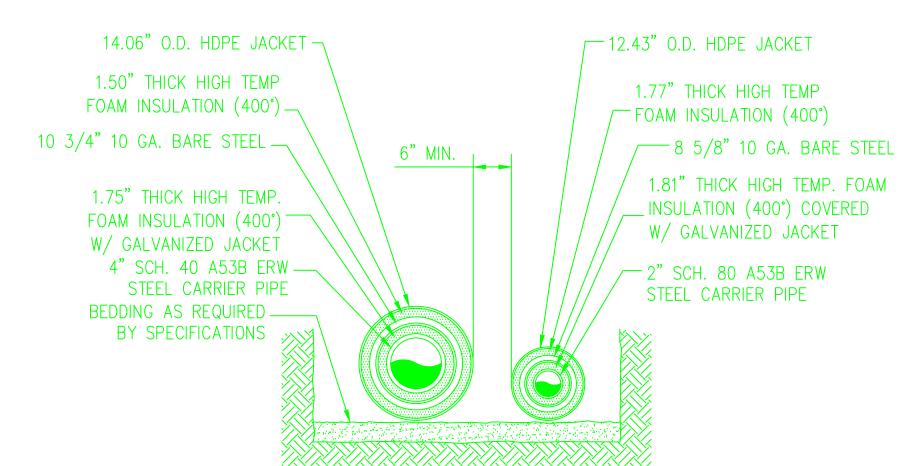


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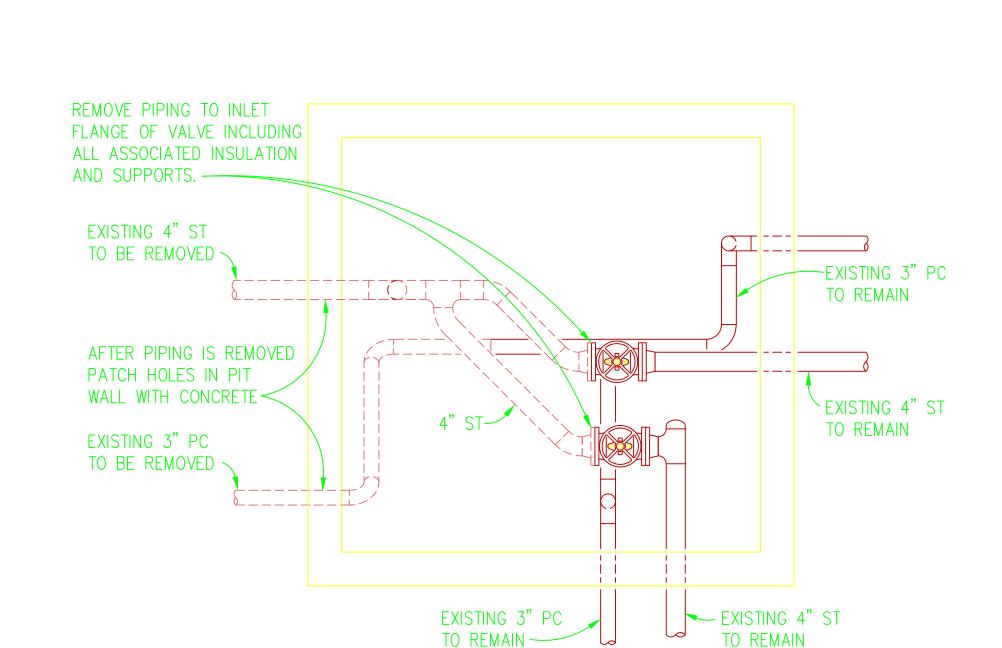


4" SCH. 40 A53B ERW — — 3" SCH. 80 A53B ERW STEEL CARRIER PIPE STEEL CARRIER PIPE BEDDING AS REQUIRED — BY SPECIFICATIONS



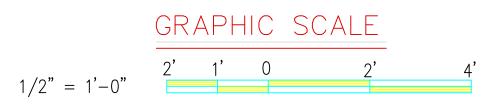


TYPICAL TRENCH CROSS SECTION SCALE: NTS

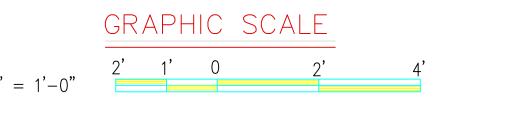


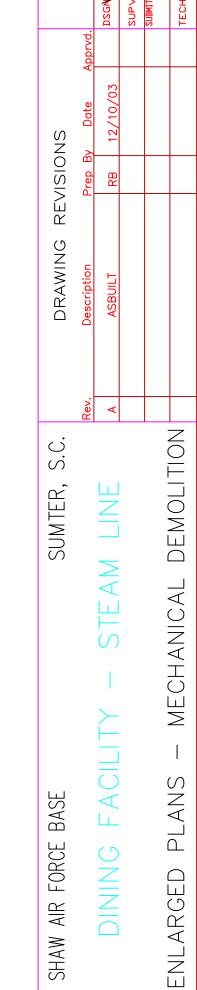
EXISTING STEAM PIT AT BARRACKS - DEMOLITION

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









SEAL AREA

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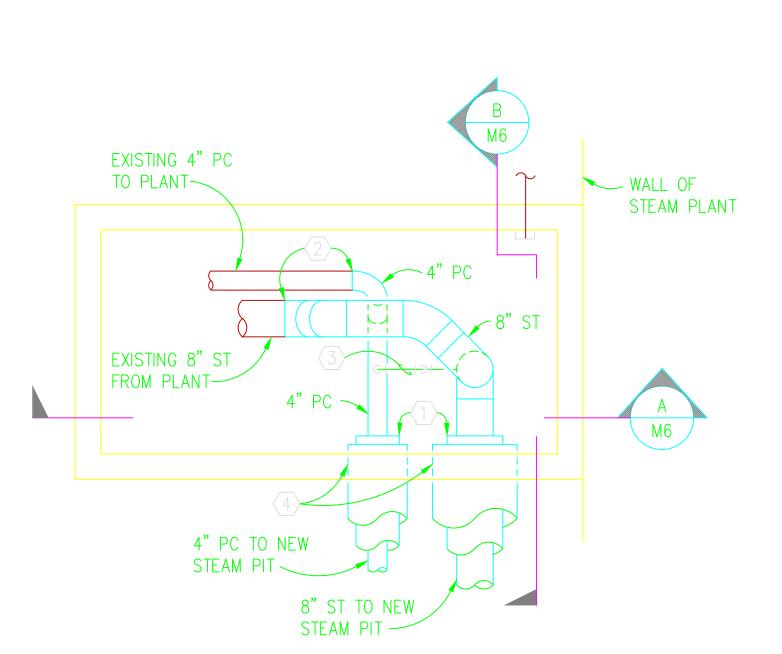
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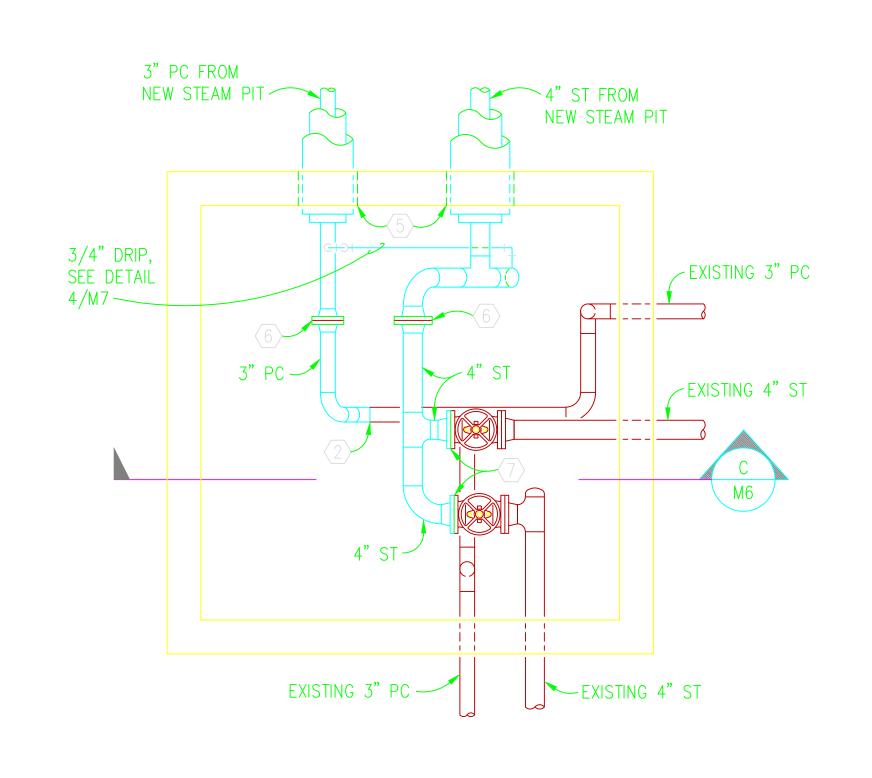
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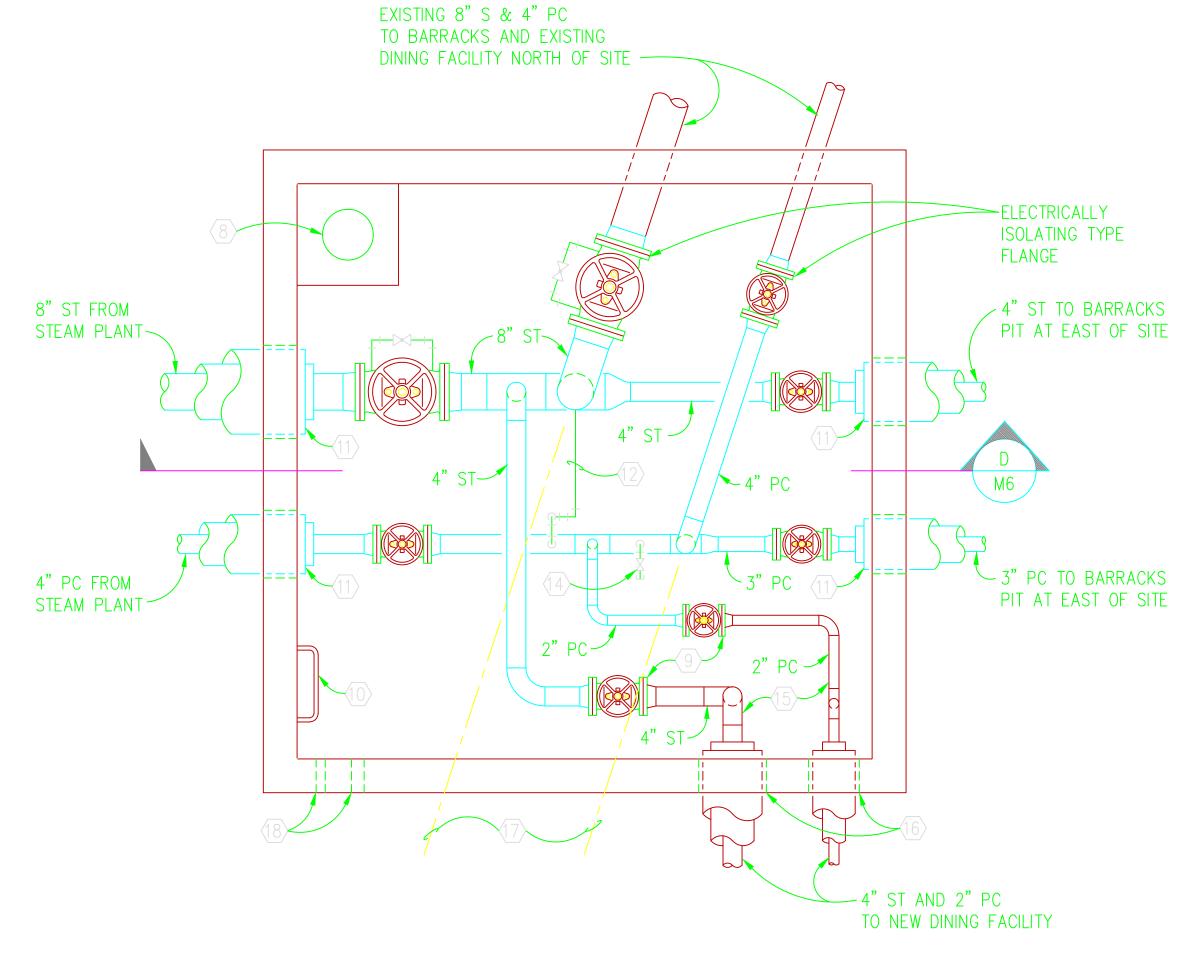
PUMPED CODENSATE

STEAM FROM PLANT~

TO PLANT-

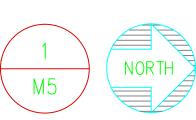






EXISTING STEAM PIT AT PLANT

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



EXISTING STEAM PIT AT BARRACKS

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



NEW STEAM PIT

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

M5

## STEAM PITS PLAN NOTES

- 1) FOR END SEALS SEE DETAIL 3/M7.
- 2 CONNECT NEW PIPING TO EXISTING PIPING AT THIS POINT.
- 3 3/4" DRIP LEG, REFER TO DETAIL 4/M7.
- AFTER EXISTING PIPING IS REMOVED, GROUT NEW SLEEVES IN PLACE FOR NEW PIPING.
- 5 INSTALL NEW SLEEVES IN WALL OF PIT FOR NEW PIPING.
- FLANGED CONNECTION TO FACILITATE A SHORTER SYSTEM OUTAGE. THESE FLANGES SHALL BE OF THE ELECTRICALLY ISOLATING TYPE.
- CONNECT NEW PIPING TO FLANGED INLET OF THE EXISTING VALVE.

- FUTURE SUMP PUMP TO BE INSTALLED AS WORK OF THE DINING FACILITY BUILDING PROJECT.
- 9 PROVIDE A BLIND FLANGE ON THE END OF THE VALVE FOR FUTURE CONNECTION OF THE NEW DINING FACILITY.
- 10 LADDER
- 11) FOR END SEALS, REFER TO DETAIL 3/M7.
- $\sqrt{2}$  3/4" DRIP LEG, REFER TO DETAIL 4/M7.
- 3/4" GLOBE VALVE BYPASS ON VALVE.
- 3/4" VALVED AND CAPPED CONNECTION FOR FUTURE DRIP LEG CONNECTION.

- FUTURE PIPING TO BE INSTALLED AS WORK OF THE NEW DINING FACILITY PROJECT.
- INSTALL SLEEVES FOR THE FUTURE PIPING. PROVIDE TEMPORARY PLUGS IN THEM. THE SLEEVE FOR THE STEAM PIPING SHALL BE 16" DIAMETER AND THE SLEEVE FOR THE PUMPED CONDENSATE SHALL BE 12" DIAMETER.
- EXISTING PIPING TO REMAIN UNTIL THE SYSTEM OUTAGE DURING WHICH THE NEW PIPING CONNECTIONS WILL BE MADE.
- INSTALL SLEEVES FOR THE FUTURE SUMP PUMP ELECTRICAL CONNECTION AND DISCHARGE PIPE. THE ELECTRICAL CONNECTION SLEEVE SHALL BE 1" DIAMETER AND THE DISCHARGE PIPING SLEEVE SHALL BE 3" DIAMETER.

REF #49888

1/2" = 1'-0" GRAPHIC SCALE

2' 1' 0 2' 4'

S

SHAW AIR FORCE BASE

Naval Facilities Engineering Command

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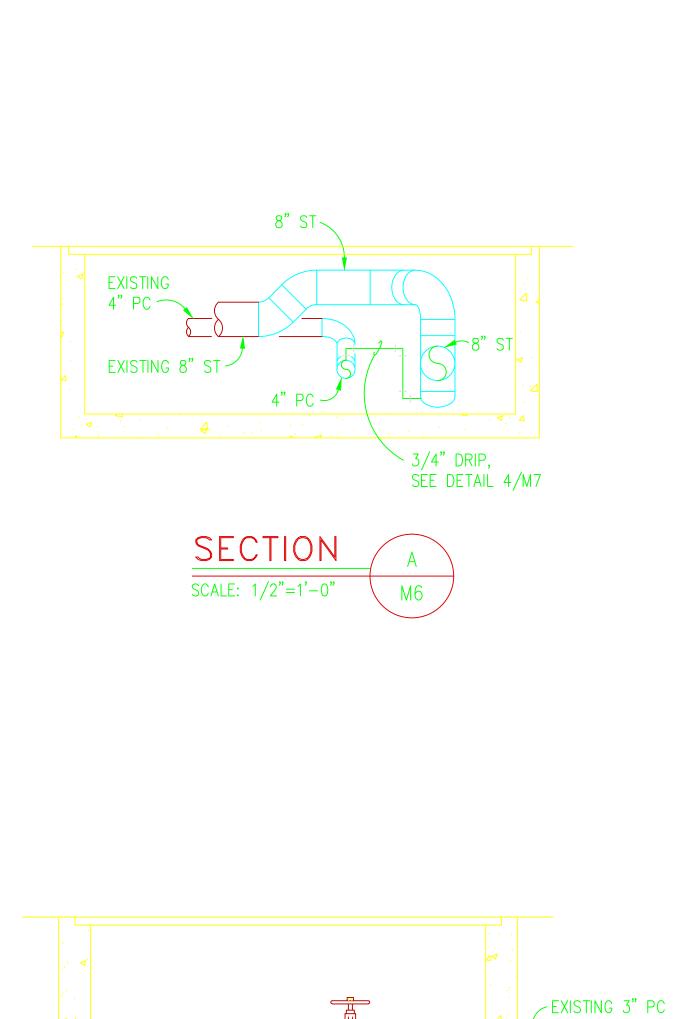
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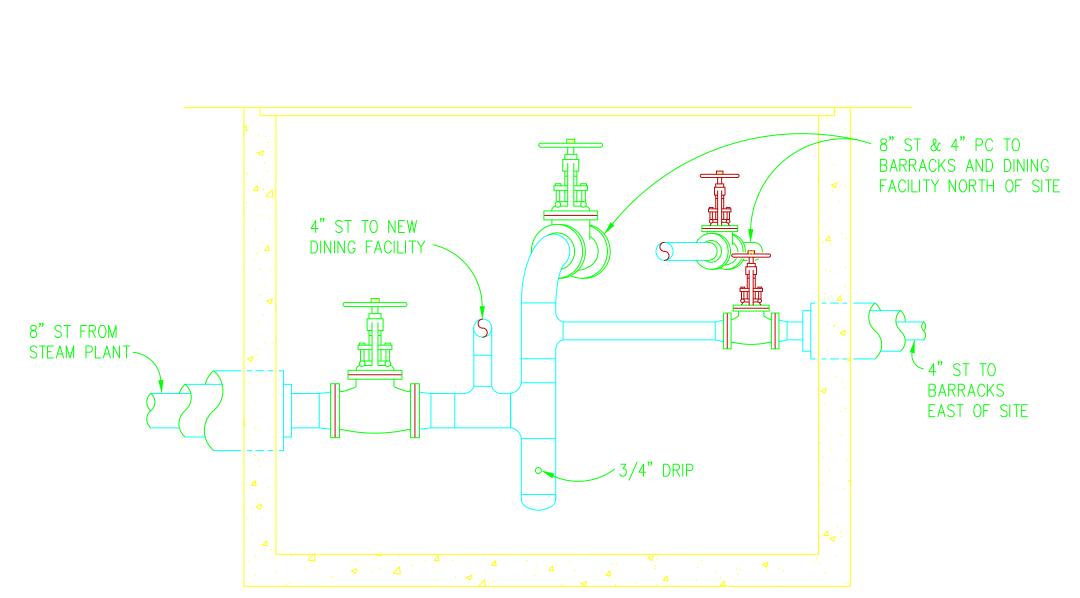
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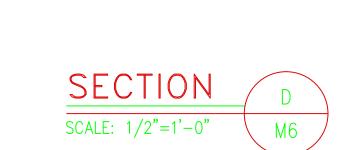
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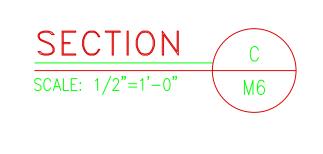
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SHEET 12 OF -





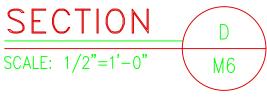


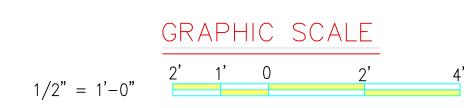


EXISTING 3" PC

3/4" DRIP, SEE DETAIL

EXISTING 4" ST





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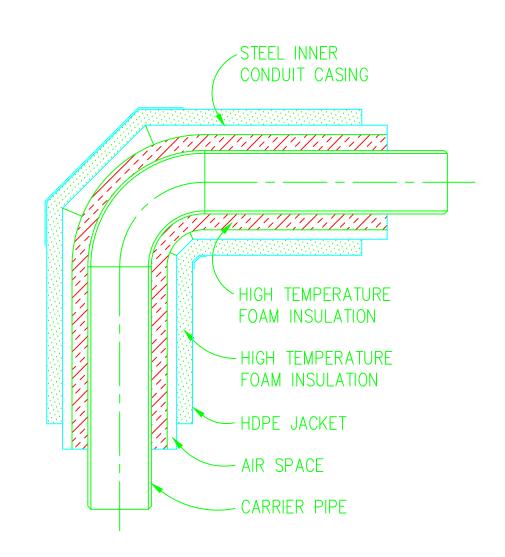
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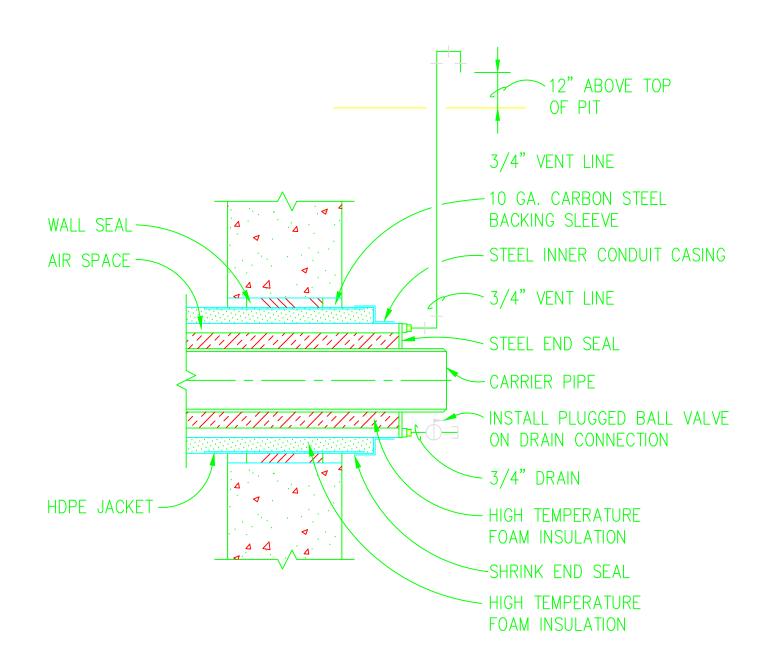
SHEET 13 OF -M6

Naval Facilities Engineering Command
Southern Division
Charleston, South Carolina

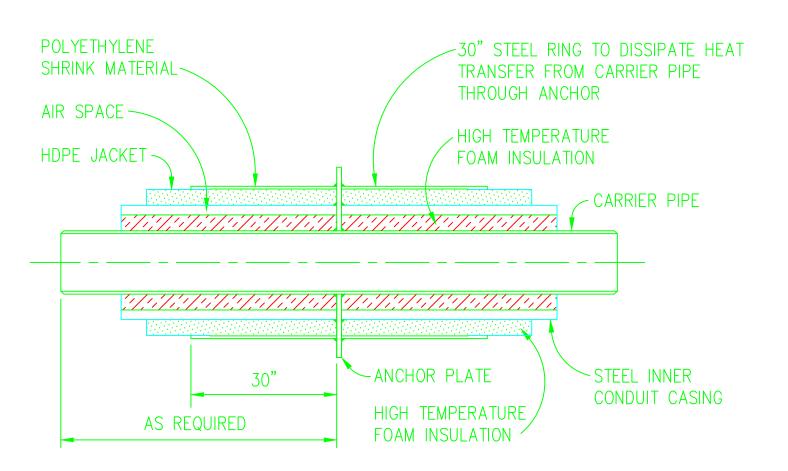
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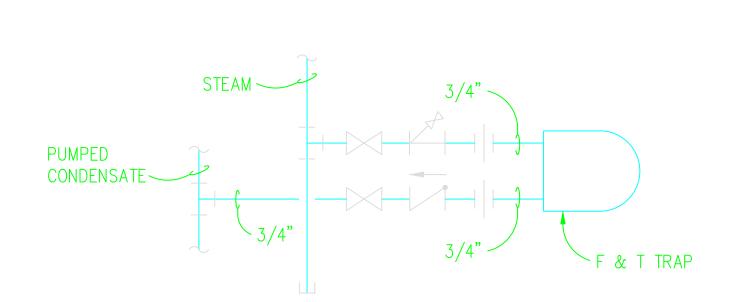




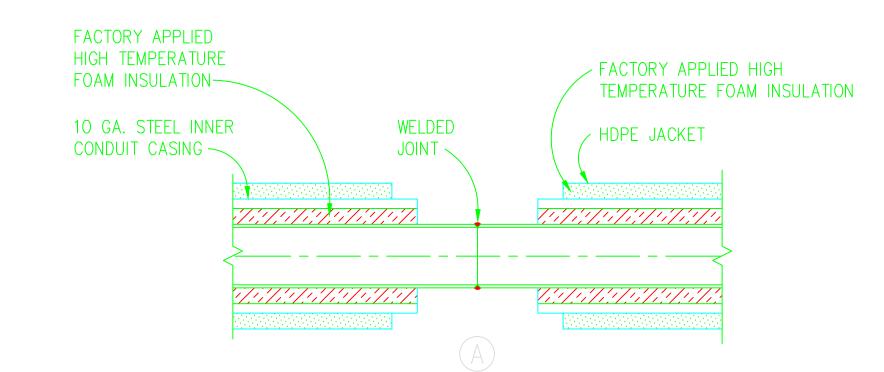


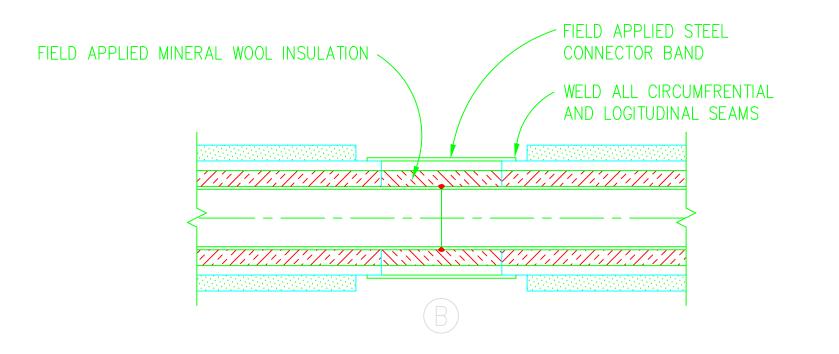


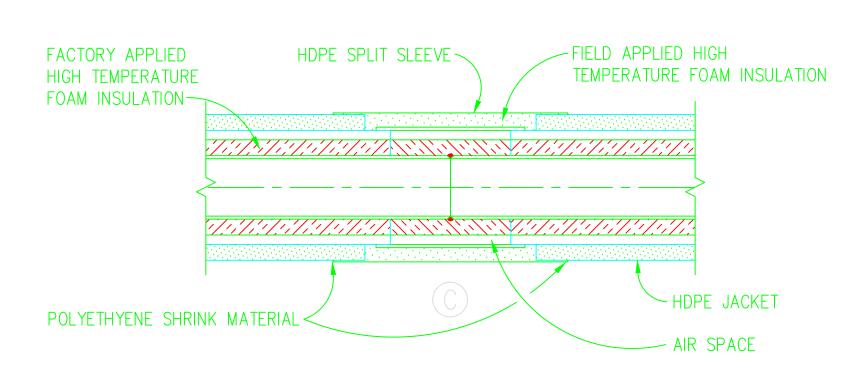




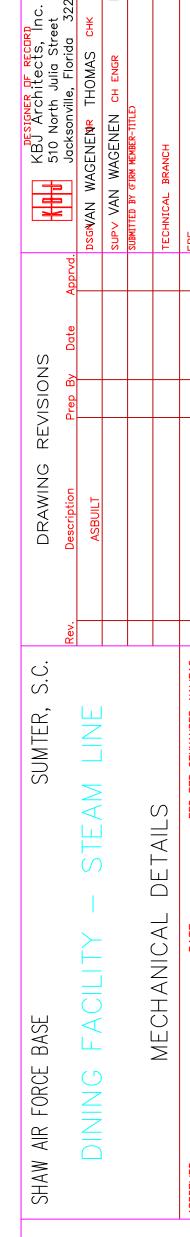












# MECHANICAL LEGEND

UPPLY DUCT, SECTION.  ETURN OR EXHAUST DUCT, SECTION.  UPPLY DUCT, SECTION (ROUND).  ECTANGULAR DUCTWORK, FIRST DIMENSION IS THAT OF IDE SHOWN.  COUSTICALLY LINED RECTANGULAR DUCTWORK.  INSULATED FLEXIBLE ROUND DUCT, SAME SIZE AS IFFUSER INLET UNLESS NOTED OTHERWISE.  OUND DUCTWORK.  LBOW WITH TURNING VANES PLAN, UP, DOWN).  ECTANGULAR BRANCH DUCT CONNECTION.	SIZE "CFM  SIZE "CR"  CFM  SIZE "SR"  CFM  SIZE "WR"  CFM  SIZE "WG"	CEILING MOUNTED RETURN AIR REGISTER GRID CORE. REFER TO DETAIL 3/M601.  CEILING MOUNTED RETURN OR EXHAUST 1/2" X 1/2" X 1/2" GRID CORE NOMINAL SIZE 24" X 24". SIMILAR TO DETAIL 3/M601.  CEILING MOUNTED RETURN OR EXHAUST 1/2" X 1/2" X 1/2" GRID CORE, NOMIN SIMILAR TO DETAIL 3/M601.  WALL MOUNTED SUPPLY AIR REGISTER.
UPPLY DUCT, SECTION (ROUND).  ECTANGULAR DUCTWORK, FIRST DIMENSION IS THAT OF IDE SHOWN.  COUSTICALLY LINED RECTANGULAR DUCTWORK.  INSULATED FLEXIBLE ROUND DUCT, SAME SIZE AS IFFUSER INLET UNLESS NOTED OTHERWISE.  FOUND DUCTWORK.  LBOW WITH TURNING VANES PLAN, UP, DOWN).	SIZE "WR"  CFM  SIZE "WG"	CEILING MOUNTED RETURN OR EXHAUST 1/2" X 1/2" X 1/2" GRID CORE NOMINAL SIZE 24" X 24". SIMILAR TO ECILING MOUNTED RETURN OR EXHAUST 1/2" X 1/2" X 1/2" GRID CORE, NOMIN SIMILAR TO DETAIL 3/M601.  WALL MOUNTED SUPPLY AIR REGISTER.  WALL MOUNTED RETURN OR EXHAUST A
ECTANGULAR DUCTWORK, FIRST DIMENSION IS THAT OF IDE SHOWN.  COUSTICALLY LINED RECTANGULAR DUCTWORK.  INSULATED FLEXIBLE ROUND DUCT, SAME SIZE AS IFFUSER INLET UNLESS NOTED OTHERWISE.  FOUND DUCTWORK.  LBOW WITH TURNING VANES PLAN, UP, DOWN).	SIZE "WR"  CFM  SIZE "WG"	CEILING MOUNTED RETURN OR EXHAUST 1/2" X 1/2" X 1/2" GRID CORE NOMINAL SIZE 24" X 24". SIMILAR TO ECILING MOUNTED RETURN OR EXHAUST 1/2" X 1/2" X 1/2" GRID CORE, NOMIN SIMILAR TO DETAIL 3/M601.  WALL MOUNTED SUPPLY AIR REGISTER.  WALL MOUNTED RETURN OR EXHAUST A
COUSTICALLY LINED RECTANGULAR DUCTWORK.  NSULATED FLEXIBLE ROUND DUCT, SAME SIZE AS INFRUSER INLET UNLESS NOTED OTHERWISE.  COUND DUCTWORK.  LBOW WITH TURNING VANES PLAN, UP, DOWN).	SIZE "WR"  CFM  SIZE "WG"	1/2" X 1/2" X 1/2" GRID CORE NOMINAL SIZE 24" X 24". SIMILAR TO DE  CEILING MOUNTED RETURN OR EXHAUST 1/2" X 1/2" X 1/2" GRID CORE, NOMIN SIMILAR TO DETAIL 3/M601.  WALL MOUNTED SUPPLY AIR REGISTER.  WALL MOUNTED RETURN OR EXHAUST A
NSULATED FLEXIBLE ROUND DUCT, SAME SIZE AS IFFUSER INLET UNLESS NOTED OTHERWISE.  COUND DUCTWORK.  LBOW WITH TURNING VANES PLAN, UP, DOWN).	SIZE "WR"  CFM  SIZE "WG"	CEILING MOUNTED RETURN OR EXHAUST 1/2" X 1/2" X 1/2" GRID CORE, NOMIN SIMILAR TO DETAIL 3/M601.  WALL MOUNTED SUPPLY AIR REGISTER.  WALL MOUNTED RETURN OR EXHAUST A
OUND DUCTWORK.  LBOW WITH TURNING VANES PLAN, UP, DOWN).	SIZE "WR"  CFM  SIZE "WG"	1/2" X 1/2" X 1/2" GRID CORE, NOMIN SIMILAR TO DETAIL 3/M601.  WALL MOUNTED SUPPLY AIR REGISTER.  WALL MOUNTED RETURN OR EXHAUST A
LBOW WITH TURNING VANES PLAN, UP, DOWN).	SIZE "WR"  CFM  SIZE "WG"	WALL MOUNTED RETURN OR EXHAUST A
PLAN, UP, DOWN).	CFM SIZE "WG"	
		WALL MOUNTED DETUDN OD EVILALIOT A
ECTANGULAR BRANCH DUCT CONNECTION.		WALL MOUNTED RETURN OR EXHAUST A
	CHWS	CHILLED WATER SUPPLY PIPING.
CONICAL FITTING WITH DAMPER ON BRANCH CONNECTION TO RECTANGULAR MAIN		CHILLED WATER RETURN PIPING.
PROVIDE DAMPER IN LOW PRESSURE DUCTWORK ONLY).	HWS	HOT WATER SUPPLY PIPING.
5° CONICAL LATERAL FITTING IN ROUND DUCTWORK.	——————————————————————————————————————	HOT WATER RETURN PIPING.
ONICAL TEE FITTING IN ROUND DUCTWORK.	S	STEAM PIPING.
UCT OFFSETS UP IN DIRECTION INDICATED.	C	STEAM CONDENSATE PIPING.
	<del>- _ -    -  -  -  -  -  -  -  -  -  -  -  -</del>	TEE (PLAN, UP, DOWN).
UCT OFFSETS DOWN IN DIRECTION INDICATED.	<del></del>	ELBOW (PLAN, UP, DOWN).
PPOSED BLADE VOLUME DAMPER (OBVD).	——————————————————————————————————————	SELF BALANCING HOSE KIT.
LEXIBLE DUCT CONNECTION.		GATE VALVE.
		GLOBE VALVE.
IRE DAMPER WITH ACCESS PANEL.		TWO WAY MOTORIZED CONTROL VALVE.
IOTORIZED DAMPER.		THREE WAY MOTORIZED CONTROL VALVE
JR MONITOR DAMPER		PRESSURE REDUCING VALVE.
UCT MOUNTED SMOKE DETECTOR PROVIDED AND WIRED BY		FLOW CONTROL VALVE.
LECTRICAL CONTRACTOR AND INSTALLED IN DUCT BY IECHANICAL CONTRACTOR. REFER TO SPECIFICATIONS FOR CONTROL REQUIREMENTS.		TRIPLE DUTY VALVE.
EILING MOUNTED ARCHITECTURAL FACE PANEL SUPPLY AIR IFFUSER, NOMINAL 24" X 24" FRAME, 360° AIR PATTERN. EFER TO DETAIL 1/M601.		SUCTION DIFFUSER WITH STRAINER.
EILING MOUNTED LOUVER FACE SUPPLY AIR DIFFUSER, FOUR— /AY THROW UNLESS INDICATED OTHERWISE. EFER TO DETAIL 2/M601.		
EILING MOUNTED ARCHITECTURAL FACE PANEL SUPPLY AIR IFFUSER, NOMINAL 12" X 12" FRAME, 360° AIR PATTERN.  IMILAR TO DETAIL 1/M601.		
SET OF THE TOTAL STATE OF THE S	DINIECTION TO RECTANGULAR MAIN PROVIDE DAMPER IN LOW PRESSURE DUCTWORK ONLY).  5' CONICAL LATERAL FITTING IN ROUND DUCTWORK.  DICT OFFSETS UP IN DIRECTION INDICATED.  JUST OFFSETS DOWN IN DIRECTION INDICATED.  PPOSED BLADE VOLUME DAMPER (OBVD).  LEXIBLE DUCT CONNECTION.  RE DAMPER WITH ACCESS PANEL.  OTORIZED DAMPER.  R MONITOR DAMPER  JUST MOUNTED SMOKE DETECTOR PROVIDED AND WIRED BY LECTRICAL CONTRACTOR AND INSTALLED IN DUCT BY ECHANICAL CONTRACTOR. REFER TO SPECIFICATIONS FOR DINTROL REQUIREMENTS.  EILING MOUNTED ARCHITECTURAL FACE PANEL SUPPLY AIR FFUSER, NOMINAL 24" X 24" FRAME, 360' AIR PATTERN.  EFFER TO DETAIL 1/M601.  EILING MOUNTED LOUVER FACE SUPPLY AIR DIFFUSER, FOURAY THROW UNLESS INDICATED OTHERWISE.  EFFER TO DETAIL 2/M601.	ONICAL FITTING WITH DAMPER ON BRANCH ONNECTION TO RECTANGULAR MAIN PROVIDE DAMPER IN LOW PRESSURE DUDTWORK ONLY).  HWS  5° CONICAL LATERAL FITTING IN ROUND DUCTWORK.  HWR  DICAL TEE FITTING IN ROUND DUCTWORK.  S  C  C  C  C  UCT OFFSETS UP IN DIRECTION INDICATED.  JUST OFFSETS DOWN IN DIRECTION INDICATED.  PPOSED BLADE VOLUME DAMPER (OBVD).  EXIBLE DUCT CONNECTION.  RE DAMPER WITH ACCESS PANEL.  CITORIZED DAMPER.  R MONITOR DAMPER  JUST MOUNTED SMOKE DETECTOR PROVIDED AND WIRED BY ECTRICAL CONTRACTOR AND INSTALLED IN DUCT BY COLINATION. STORE TO SPECIFICATIONS FOR ONTROL Zet'X Zet' "RAME, 360" AIR PATIERN.  FEREN TO DETAL 1/M601.  SELING MOUNTED LOUVER FACE SUPPLY AIR DIFFUSER, FOUR—EXYTHROW ULESS INDICATED OTHERWISE.  FEREN TO DETAL 2/M601.

CFM	LINEAR SLOT CEILING MOUNTED SUPPLY AIR DIFFUSER		BALL VALVE FOR PIPING 2—INCHES AND SMALLER, BUTTERFLY VALVE FOR PIPING 2—1/2 INCHES AND LARGER.
SIZE "CR"	CEILING MOUNTED RETURN AIR REGISTER 1/2" X 1/2" 1/2" GRID CORE. REFER TO DETAIL 3/M601.		CHECK VALVE.
D	CEILING MOUNTED RETURN OR EXHAUST AIR GRILLE, 1/2" X 1/2" X 1/2" GRID CORE NOMINAL SIZE 24" X 24". SIMILAR TO DETAIL 3/M601.		STRAINER.  BALANCE VALVE WITH INTEGRAL TAPS FOR CONNECTION OF DIFFERENTIAL PRESSURE METER. VALVE SHALL HAVE NAMEPLATE INDICATING WATER FLOW RATE VERSUS
SIZE "SP"	CEILING MOUNTED RETURN OR EXHAUST AIR REGISTER 1/2" X 1/2" X 1/2" GRID CORE, NOMINAL SIZE 12" X 12". SIMILAR TO DETAIL 3/M601.	A	VALVE PRESSURE DROP.  AUTOMATIC FLOW CONTROL VALVE WITH INTEGRAL TEMPERATURE AND PRESSURE TEST PORTS.
SIZE "SR"  CFM	WALL MOUNTED SUPPLY AIR REGISTER.		UNION.
SIZE "WR"  CFM	WALL MOUNTED RETURN OR EXHAUST AIR REGISTER.		THERMOMETER WELL.
SIZE "WG"  CFM	WALL MOUNTED RETURN OR EXHAUST AIR GRILLE.		THERMOMETER.
—— CHWS ———	CHILLED WATER SUPPLY PIPING.	<b>⊘</b> X	PRESSURE GAUGE WITH GAUGE COCK.
CHWR	CHILLED WATER RETURN PIPING.		FLEXIBLE CONNECTION.
—— HWS ———	HOT WATER SUPPLY PIPING.		PRESSURE RELIEF VALVE.
—— HWR ———	HOT WATER RETURN PIPING.	AFF	ABOVE FINISHED FLOOR.
S	STEAM PIPING.		WALL MOUNTED DDC SENSOR CONTROLLER, MOUNT 5'-0" ABOVE FINISHED FLOOR.
C	STEAM CONDENSATE PIPING.	UNIT SERVED	WALL MOUNTED THERMOSTAT, MOUNT 5'-0" ABOVE FINISHED FLOOR.
<del>- +0+ +2+</del>	TEE (PLAN, UP, DOWN).		NOTE REFERENCE.
<del></del>	ELBOW (PLAN, UP, DOWN).	SIZE	DOOR GRILLE.
	SELF BALANCING HOSE KIT.	FS	FLOW SENSOR.
	GATE VALVE.  GLOBE VALVE.	FT	FLOW RATE TRANSFER ASSEMBLY.
	TWO WAY MOTORIZED CONTROL VALVE.	A B	IDENTIFICATION TARGET.  A = DETAIL NUMBER.  B = SHEET NUMBER ON WHICH DETAIL IS LOCATED.
	THREE WAY MOTORIZED CONTROL VALVE.		
	PRESSURE REDUCING VALVE.		PIPE ANCHOR.  AUTO AIR VENT.
	FLOW CONTROL VALVE.		
	TRIPLE DUTY VALVE.		

	BALL VALVE FOR PIPING 2—INCHES AND SMALLER, BUTTERFLY VALVE FOR PIPING 2—1/2 INCHES AND LARGER.  CHECK VALVE.	KBJ Archi 510 North	_  ç		SUPY VAIN WAGEINEIN CH ENGR SUBMITTED BY (FIRM MEMBER-TITLE)		BRANCH	
	BALANCE VALVE WITH INTEGRAL TAPS FOR CONNECTION OF DIFFERENTIAL PRESSURE METER. VALVE SHALL HAVE NAMEPLATE INDICATING WATER FLOW RATE VERSUS VALVE PRESSURE DROP.	S	Date Apprvd. To		SUBMITTED BY		TECHNICAL	E PE
	AUTOMATIC FLOW CONTROL VALVE WITH INTEGRAL TEMPERATURE AND PRESSURE TEST PORTS.  UNION.  THERMOMETER WELL.	DRAWING REVISIONS	Description Prep By	ASBUILI				
	THERMOMETER.  PRESSURE GAUGE WITH GAUGE COCK.  FLEXIBLE CONNECTION.	SUMTER, S.C.	Rev.					CDMMANDER, NAVFAC
	PRESSURE RELIEF VALVE.  ABOVE FINISHED FLOOR.  WALL MOUNTED DDC SENSOR CONTROLLER, MOUNT 5'-0"		> <u>L</u> = C < <u>L</u> C :				MECHANICAL LEGEND	DATE EFD FOR
T VED	ABOVE FINISHED FLOOR.  WALL MOUNTED THERMOSTAT, MOUNT 5'-0" ABOVE FINISHED FLOOR.  NOTE REFERENCE.  DOOR GRILLE.	SHAW AIR FORCE BASE						APPROVED
	FLOW SENSOR.  FLOW RATE TRANSFER ASSEMBLY.  IDENTIFICATION TARGET. A = DETAIL NUMBER. B = SHEET NUMBER ON WHICH DETAIL IS LOCATED.  PIPE ANCHOR.	Mayal Facilities Fnaineering Command	Mayar I admind Englindumy dominana	Couthorn Division	JUNISIUII DIVISIUII		Charleston, South Carolina	AR .
	AUTO AIR VENT.	RECO CODE DRAW SPEC CON N6:	DRD I.D. ING NO STRN 2467 FAC 55	N( SIZ . 0 N. ( '-0 DR 385	0. E: 6-( CON 0-( AWI 563.	80 00- NTR. C-0	009 -039 N0	1 D 97 O.

# PACKAGED AIR COOLED CHILLER SCHEDULE AIR HANDLING UNIT SCHEDULE

PLAN DESIGNATION	C-1
DESIGN BASIS CAPACITY, TONS	133
MINIMUM ACCEPTABLE CAPACITY, TONS	125
LEAVING WATER TEMPERATURE (°F)	44
WATER FLOW RATE, GPM	212
MAXIMUM WATER PRESSURE DROP, FT. W.G.	10
CONDENSER ENTERING AIR TEMPERATURE (°F)	95
TOTAL COMPRESSOR, KW	154.4
MINIMUM UNIT EER (COMPRESSORS, FAN AND CONTROLS)	9.5
STEPS OF CAPACITY (% LOAD)	VARIABLE FROM 100-10%
MINIMUM NUMBER OF COMPRESSORS	2
REFRIGERANT TYPE (HCFC)	R22
ELECTRICAL DATA	
VOLTS/PHASE/HERTZ	208/3/60
COMPRESSORS DATA	
NO. 1 RLA/LRA	280/1689
NO. 2 RLA/LRA	280/1689
TYPE OF STARTING	WYE DELTA CLOSED TRANSITION
FAN MOTOR FLA	QTY 10 @ 6.5 EA.
DESIGN BASIS MINIMUM CIRCUIT AMPS	702
MAXIMUM OVERCURRENT PROTECTION (AMPS)	800
CONTROL CIRCUIT, KW	0.75
COOLER HEATER CIRCUIT PROTECTION, AMPS	15

- 3. PROVIDE CRANKCASE HEATER POWERED BY CONTROL CIRCUIT.
- 4. PROVIDE 115 VOLT EVAPORATOR HEATER.

### REF# 49089

PLAN DESIGNATION	AHU-1	AHU-2
FAN DATA		
SUPPLY CFM	14,900	11,300
OUTSIDE AIR CFM (PRE-CONDITIONED)	6,230	5,100
STATIC PRESSURES IN. W.G.		
EXTERNAL	2.00	2.00
FILTERS	0.45	0.45
SUPPLY FAN	0.13	0.19
COOLING COIL AND MULTIZONE DAMPERS	0.64	0.79
MIXING BOX	0.10	0.05
TOTAL	3.32	3.48
RPM, DESIGN/MAXIMUM	654/700	828/900
MAXIMUM BRAKE HORSEPOWER	13.2	11.5
MINIMUM MOTOR HORSEPOWER	15	15
MOTOR VOLTAGE/PHASE/HERTZ	208/3/60	208/3/60
CHILLED WATER COOLING COIL DATA		
COIL AIRFLOW (CFM)	14,900	11,300
FACE VELOCITY, DESIGN/MAX. (FPM)	436/500	464/500
TOTAL CAPACITY (BTUH)	312,600	247,700
SENSIBLE CAPACITY (BTUH)	281,500	200,000
ENTERING AIR TEMP., °F (DB/WB)	70.2/60.0	69.1/60.4
LEAVING AIR TEMP., °F (DB/WB)	53.0/52.5	53.0/52.63
ROWS/FINS PER FOOT	4/139	6/98
ENTERING WATER TEMP. °F	44	44
LEAVING WATER TEMP. °F	58	58
WATER PRESSURE DROP, DESIGN/MAX. (FT. W.G.) CHILLED WATER FLOW (GPM) UNIT CONFIGURATION	4.6/10 44.7 1	4.45/10 35.38 1

#### AIR HANDLING UNIT CONFIGURATION

1. MULTIZONE AIR HANDLING UNIT WITH THE FOLLOWING COMPONENTS IN THE DIRECTION OF AIRFLOW: MIXING BOX: FILTER SECTION FOR 4" THICK 65% FILTER; FAN SECTION; MULTIZONE-BYPASS SECTION.

#### AIR HANDLING UNIT NOTES

- 1. MAXIMUM FILTER FACE VELOCITY SHALL NOT EXCEED 500 FEET PER MINUTE.
- 2. SCHEDULED EXTERNAL STATIC PRESSURE INCLUDES LOSSES FOR SUPPLY AND RETURN AIR DISTRIBUTION SYSTEMS ONLY AND DOES NOT INCLUDE LOSSES FOR COILS, CASINGS, FILTER, ETC.

3. PROVIDE 6 INCH HIGH BASE RAILS UNDER ENTIRE LENGTH OF UNIT.

#### REF# 49075

# COIL MODULE SCHEDULE

PLAN DESIGNATION	CM-1	CM-2
COOLING COIL DATA		
COIL AIRFLOW (CFM)	6,230	5,100
FACE VELOCITY, DESIGN/MAX. (FPM)	438/450	415/450
TOTAL CAPACITY (BTUH)	471,900	386,300
SENSIBLE CAPACITY (BTUH)	263,300	215,600
ENTERING AIR TEMP., °F (DB/WB)	92.0/76.0	92.0/76.0
LEAVING AIR TEMP., *F (DB/WB)	54.0/53.9	54.0/53.9
ENTERING WATER TEMP. °F	44	44
LEAVING WATER TEMP. F	58	58
MAXIMUM AIR PRESSURE DROP (IN.WG.)	0.80	0.74
WATER PRESSURE DROP, DESIGN/MAX. (FT. W.G.)	11/12	8/12
NUMBER OF ROWS/FINS PER FT.	6/166	6/166
CHILLED WATER FLOW (GPM)	67.42	55.19
HEATING COIL DATA (PRE-HEAT POSITION)		
COIL AIRFLOW (CFM)	6,230	5,100
FACE VELOCITY, DESIGN/MAX. (FPM)	516/540	453/500
HEATING CAPACITY (BTUH)	201,850	165,240
ENTERING AIR TEMP., °F (DB/WB)	25	25
LEAVING AIR TEMP., °F (DB/WB)	55	55
ENTERING WATER TEMP. °F	180	180
LEAVING WATER TEMP. F	150	150
MAXIMUM AIR PRESSURE DROP (IN.WG.)	0.1	0.1
WATER PRESSURE DROP, DESIGN/MAX. (FT. W.G.)	0.8/3.0	0.51/3.0
HOT WATER FLOW (GPM)	13.45	11
NUMBER OF ROWS/FINS PER FT.	1/80	1/80
CONFIGURATION	1	1

#### **CONFIGURATION**

1. COMPONENTS IN THE DIRECTION OF AIRFLOW: FLAT FILTER SECTION, HOT WATER COIL, CHILLED WATER COIL.

2.MAXIMUM FILTER FACE VELOCITY SHALL NOT EXCEED 500 FPM. FILTER AIR PRESSURE DROP SHALL NOT EXCEED 0.30 IN. W.C.

REF# 49046

RECORD DRAWING DATE CODE I.D. NO. 80091

DRAWING SIZE: D

SPEC. NO. 06-00-0397

CONSTRN. CONTR. NO. N62467-00-C-0397

NAVFAC DRAWING NO. 5385634 SHEET 88 OF M002

## EXHAUST FAN SCHEDULE

PLAN DESIGNATION	EF-1	EF-2	EF-3	EF-4	EF-5	EF-6	EF-7	EF-8	EF-9	EF-10
CFM	750	1,000	840	200	90	1,100	4,000	2500	7500	7500
EXT. STATIC PRESS. (IN.W.G.)	0.5	0.75	0.375	0.25	0.25	0.375	2.00	2.00	2.00	2.00
FAN RPM	1711	1411	1066	1063	1401	1259	1109	1561	975	975
FAN BREAKHORSEPOWER	0.18	0.23	0.102	74.86W	47.17W	0.17	2.31	1.37	4.41	4.41
MOTOR HORSEPOWER	0.25	0.33	0.17	0.04	0.05	0.25	3.00	1.50	5.00	5.00
ELECTRICAL DATA (V/PH/HZ)	115/1	115/1	115/1	115/1	115/1	115/1	208/3/60	208/3/60	208/3/60	208/3/60
FAN TYPE	1	1	2	2	2	2	3	3	3	3
SOUND RATING (MAX. SONES)	10.7	11.2	6.2	4.6	3.5	8.9	18	18	20	20
ACCESSORIES	1,2,3,4,6	1,2,3,4,6	1,2,3,4,6	1,2,3,4,5	1,2,3,4,5	1,2,3,4,6	1,3,6	1,3,6	1,3,6	1,3,6

#### FAN TYPE:

- 1. ROOF MOUNTED UPBLAST CENTRIFUGAL EXHAUST VENTILATOR.
- 2. ROOF MOUNTED DOWNBLAST CENTRIFUGAL EXHAUST VENTILATOR.
- 3. ROOF MOUNTED UPBLAST CENTRIFUGAL EXHAUST VENTILATOR, UL762 GREASE HOOD EXHAUST FAN.

## ACCESSORIES:

- 1. FACTORY MOUNTED DISCONNECT
- 2. BACKDRAFT DAMPER
- 3. ROOF CURB SPECIFICALLY MATCHED TO THE ROOF TYPE AND SLOPE
- 4. BIRDSCREEN
- 5. DIRECT DRIVE
- 6. BELT DRIVE

#### NOTES:

- 1. FAN BREAKHORSEPOWER INCLUDES DRIVE LOSSES.
- 2. ROOF MOUNTED FANS SHALL BE PAINTED TO MATCH THE ROOF COLOR.

REF# 49104

## DESIGN CONDITIONS

UTDOOR	<b>TEMPERATURES</b>

 SUMMER, DB/WB (°F)
 92.0/76.0

 WINTER, DB (°F)
 25

INDOOR TEMPERATURES

 SUMMER, DB/WB (°F)
 77.0/64.0

 WINTER, DB (°F)
 68

REF# 50611

# STEAM-TO-WATER HEAT EXCHANGER SCHEDULE

DESIGNATION TYPE SHELL & TUBE MECH ROOM LOCATION TUBESIDE WATER DATA FLOW RATE (GPM) 109 ENTERING WATER TEMP. (°F) 150 LEAVING WATER TEMP. (°F) 180 PRESSURE DROP (FT. W.G.) 0.90 SHELLSIDE STEAM DATA 1662.2 STEAM LBS. PER HOUR STEAM PRESSURE (PSIG)

REF# 50610

## AIR CURTAIN FAN SCHEDULE

PLAN DESIGNATION	ACF-1	ACF-2
QUANTITY	1	1
LENGTH (INCHES)	72	72
AVERAGE CFM AT NOZZLE (HIGH/LOW)	4920/3645	4920/3645
MOTOR HORSEPOWER/QTY OF MOTORS	1/2-TWO	1/2-TWO
MOTOR AMPS (TOTAL)	10.4	10.4
ELECTRICAL CHARACTERISTICS	120V/1PH	120V/1PH

#### AIR CURTAIN FAN NOTES:

- 1. PROVIDE AIR CURTAINS WITH A SINGLE POINT
- POWER CONNECTION.
- 2. AIR CURTAIN FANS SHALL PROVIDE
- INSECT CONTROL AND THERMAL PROTECTION.
- 3. PROVIDE AN INSTANT ON/OFF MICRO SWITCH FOR EACH DOOR.

REF# 49102

## PUMP SCHEDULE

PLAN DESIGNATION	P-1	P-1	P-3	P-3
FLOW RATE, (GPM)	212	212	109	109
TOTAL DYNAMIC HEAD, (FT. W.G.)	75	75	51	51
RPM	1,750	1,750	1,750	1,750
EFFICIENCY, (%)	75	75	60	60
MAXIMUM BRAKEHORSEPOWER	7.6	7.6	3.4	3.4
MOTOR HORSEPOWER	10	10	5	5
ELECTRICAL, (VOLT/PHASE)	208/3	208/3	208/3	208/3
PUMP TYPE	1	1	2	2

PUMP TYPE:

- 1. CENTRIFUGAL PUMP, END SUCTION, BASE MOUNTED.
- 2. CENTRIFUGAL PUMP, CLOSE COUPLED, IN-LINE MOUNTED.

REF# 49103

## SUMP PUMP SCHEDULE

PLAN DESIGNATION	SP-1
WATER FLOW RATE, GPM	15
TOTAL DYNAMIC HEAD, (FT. W.G.)	23
NET POSITIVE SUCTION HEAD, FT. W.G.	3
MOTOR HORSEPOWER	1/3
ELECTRICAL DATA	115/1/60

#### NOTES:

- 1. UNIT SHALL BE SUITABLE FOR CONTINUOUS OPERATION AT 200 DEGREES F.
- 2. UNIT SHALL BE CORD AND PLUG CONNECTED.
- 3. PROVIDE MERCURY FLOAT SWITCH LEVEL CONTROL.

REF# 50123

TER, S.C.

Rev. Description Prep By Date Appryd. Supv VAN WAGENEN CH ENGRE BUTTE SUBMITTED BY GTRM MEMBER-TITLE)

Rev. Description Prep By Date Appryd. Supv VAN WAGENEN CH ENGR RUTH SUBMITTED BY GTRM MEMBER-TITLE)

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Rev. Description Prep By Date Appryd. Supv VAN WAGENEN CH ENGR RUTH SUBMITTED BY GTRM WAGENEN CH

DINING FACILITY
MECHANICAL SCHEDULES

Naval Facilities Engineering Command
Southern Division

# DUCT MOUNTED HOT WATER COIL SCHEDULE

PLAN DESIGNATION	HWC-S-1	HWC-S-2	HWC-S-3	HWC-S-4	HWC-1-1	HWC-1-2	HWC - 1 - 3	HWC-1-4	HWC-1-5	HWC-1-6	HWC-1-7	HWC-1-8	HWC-1-9
SERVICE	HOOD 35	HOOD 47	HOOD 91	HOOD 94	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 10
AIR QUANTITY CFM	2,800	1,750	5,250	5,250	2,470	2,120	1,545	430	3,950	2,055	335	955	600
ENTERING AIR TEMPERATURE, (°F)	25.0	25.0	25.0	25.0	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8	61.8
LEAVING AIR TEMPERATURE, (°F)	68.0	68.0	68.0	68.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0	80.0
MINIMUM HEATING CAPACITY, (BTUH)	130,570	81,610	244,830	244,830	48,550	41,671	30,369	8,452	77,641	40,393	6,585	18,771	11,794
MAXIMUM AIR PRESSURE DROP, (IN. WG)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
ENTERING WATER TEMPERATURE, (°F)	180	180	180	180	180	180	180	180	180	180	180	180	180
LEAVING WATER TEMPERATURE, (°F)	150	150	150	150	150	150	150	150	150	150	150	150	150
WATER FLOW RATE, (GPM)	8.7	5.4	16.3	16.3	3.2	2.8	2.0	0.75	5.2	2.7	0.75	1.3	0.79
MAXIMUM WATER PRESSURE DROP, (FT.)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

## DUCT MOUNTED HOT WATER COIL SCHEDULE

PLAN DESIGNATION	HWC-2-1	HWC-2-2	HWC-2-3	HWC-2-4	HWC-2-5	HWC-2-6	HWC-2-7	HWC-2-8	HWC-2-9	HWC-2-10
SERVICE	ZONE 1	ZONE 2	ZONE 3	ZONE 4	ZONE 5	ZONE 6	ZONE 7	ZONE 8	ZONE 9	ZONE 10
AIR QUANTITY CFM	140	1,905	345	370	625	1,695	1,000	880	960	3,380
ENTERING AIR TEMPERATURE, (°F)	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2
LEAVING AIR TEMPERATURE, (°F)	80.0	80.0	80.0	80.0	80.0	80.0	87.0	80.0	80.0	80.0
MINIMUM HEATING CAPACITY, (BTUH)	2,843	38,679	7,005	7,512	12,690	34,415	27,864	17,868	19,492	68,628
MAXIMUM AIR PRESSURE DROP, (IN. WG)	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
ENTERING WATER TEMPERATURE, (°F)	180	180	180	180	180	180	180	180	180	180
LEAVING WATER TEMPERATURE, (°F)	150	150	150	150	150	150	150	150	150	150
WATER FLOW RATE, (GPM)	0.75	2.6	0.75	0.75	0.85	2.3	1.9	1.2	1.3	4.6
MAXIMUM WATER PRESSURE DROP, (FT.)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0

HOT WATER COIL NOTES:

1. ALL COILS ARE DUCT MOUNTED. COORDINATE DIMENSIONS (HEIGTH AND WIDTH) OF HOT WATER COIL

WITH ADJACENT DUCTWORK. REFER TO MECHANICAL FLOOR PLANS FOR SIZE OF DUCTWORK.

REF# 50121

## SUPPLY FAN SCHEDULE

PLAN DESIGNATION	SF-1	SF-2	SF-3	SF-4
CFM	2,800	1,750	5,250	5,250
EXT. STATIC PRESS. (IN.W.G.)	1.5	1.5	1.5	1.5
FAN RPM	1347	1357	1117	1117
FAN BREAKHORSEPOWER	1.30	0.90	2.60	2.60
MOTOR HORSEPOWER	1.50	1.00	3.00	3.00
ELECTRICAL DATA (V/PH/HZ)	208/3/60	208/3/60	208/3/60	208/3/60
FAN TYPE	1	1	1	1
SOUND RATING (MAX. SONES)	18	16	23	23
FILTER AREA (SQ.FT.)	15.6	14.5	27.1	27.1
ACCESSORIES	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4

#### FAN TYPE

1. HIGH PRESSURE CENTRIFUGAL SQUARE INLINE FAN.

## <u>ACCESSORIES</u>

- 1. FACTORY MOUNTED DISCONNECT.
- 2. BELT DRIVE.
- 3. MOTOR AND DRIVE COVER.
- 4. ANGLED FILTER BOX TO HOLD TWO INCH THICK FILTERS.

1. FAN BREAKHORSEPOWER INCLUDES DRIVE LOSSES.

REF# 49104

## CONDENSATE RETURN PUMP SCHEDULE

DESIGNATION	CRP-1
TYPE	DUPLEX
RECEIVER TYPE	CAST IRON
RECEIVER VOLUME (GALLONS)	45
FLOW RATE (GPM)	18
TOTAL DYNAMIC HEAD (PSI)	40
PUMP MOTOR HORSEPOWER EACH	3/4
VOLTAGE/PHASE	208/3
ACCESSORIES	1, 2, 3, 4

#### **ACCESSORIES**

- 1. SIGHT GLASS
- 2. ALTERNATOR
- 3. FLOAT SWITCH
- 4. PREWIRED CONTROL PANEL WITH STARTERS AND DISCONNECT SWITCHES.

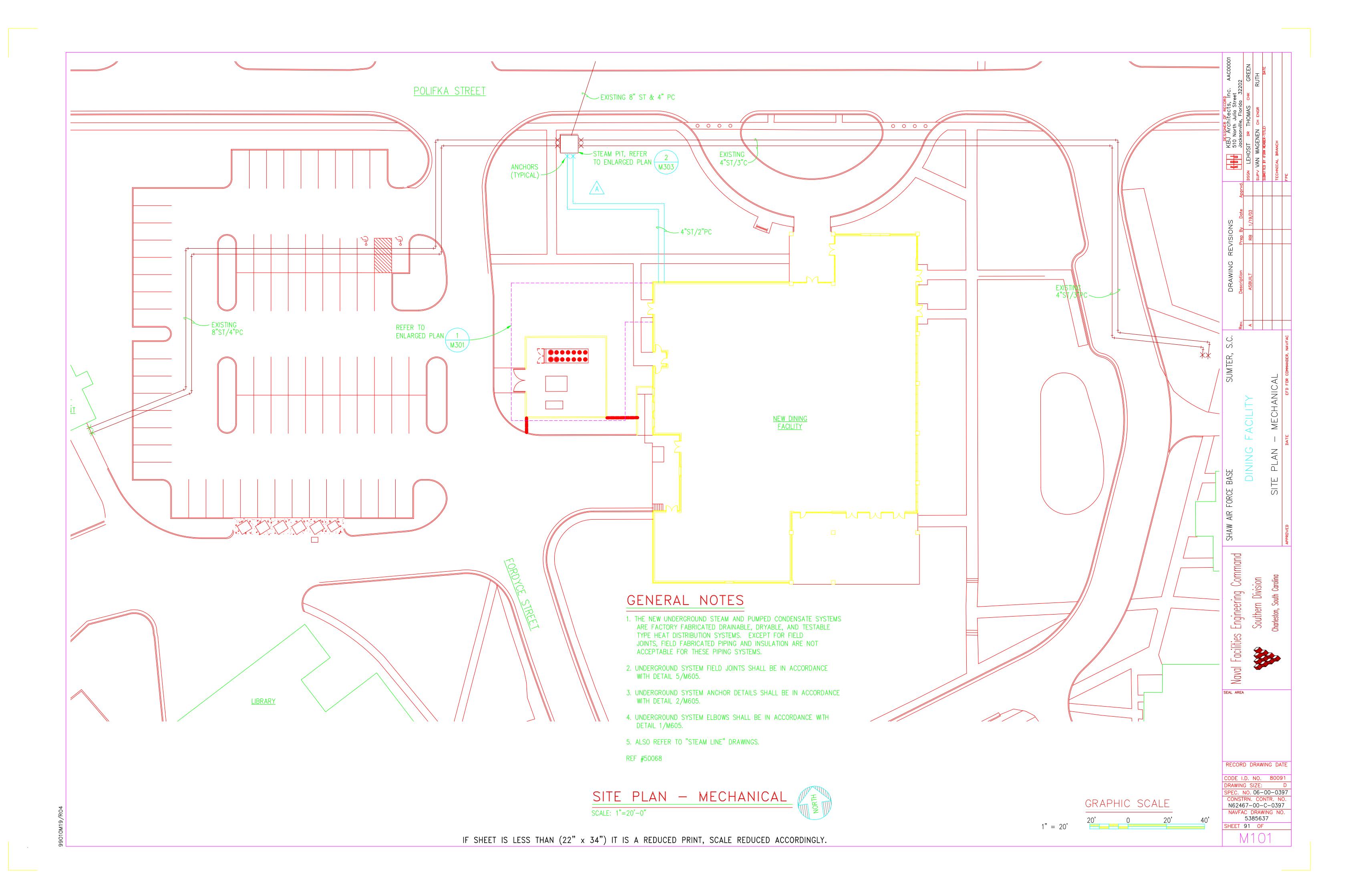
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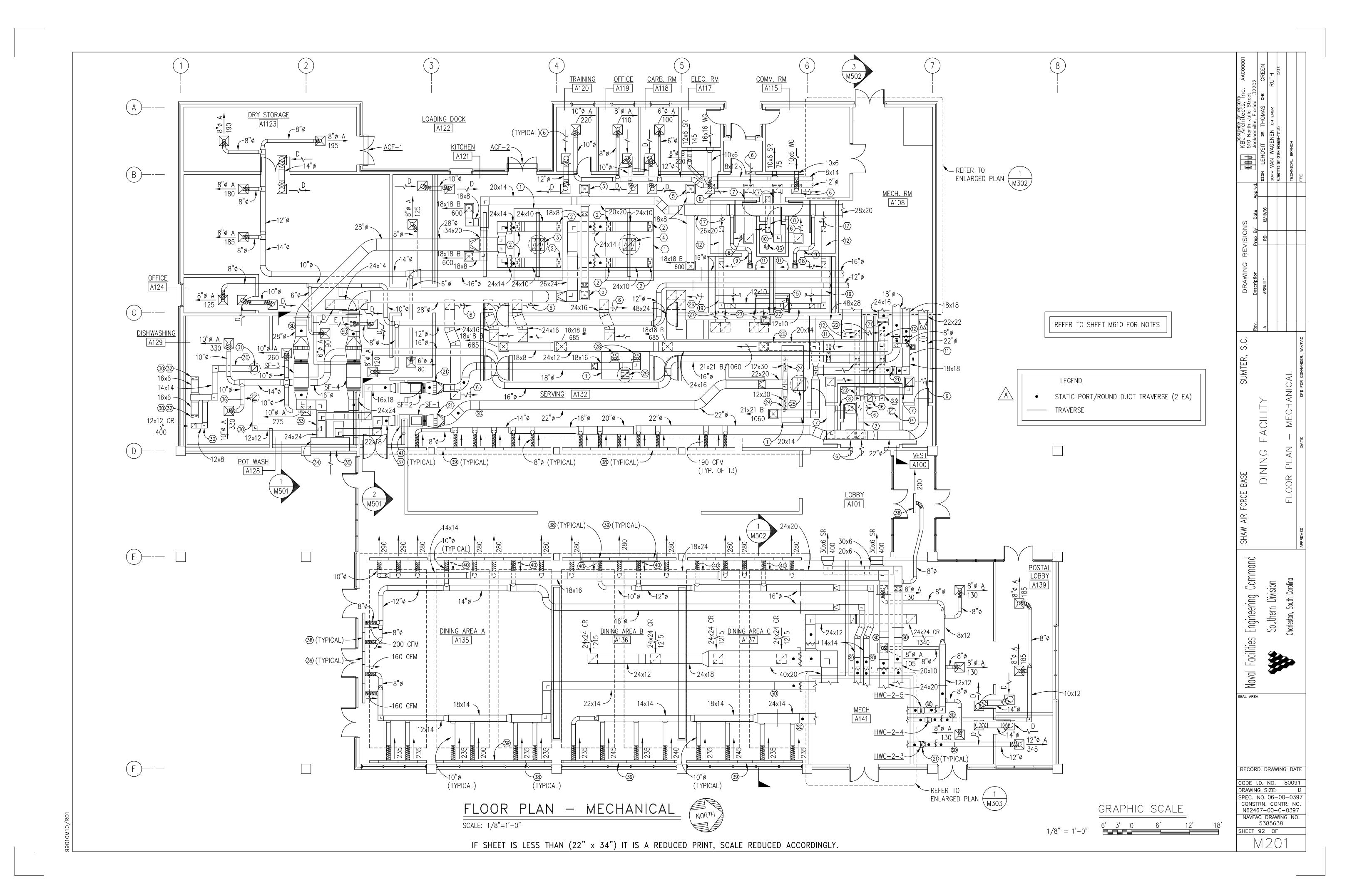
## GENERAL NOTES

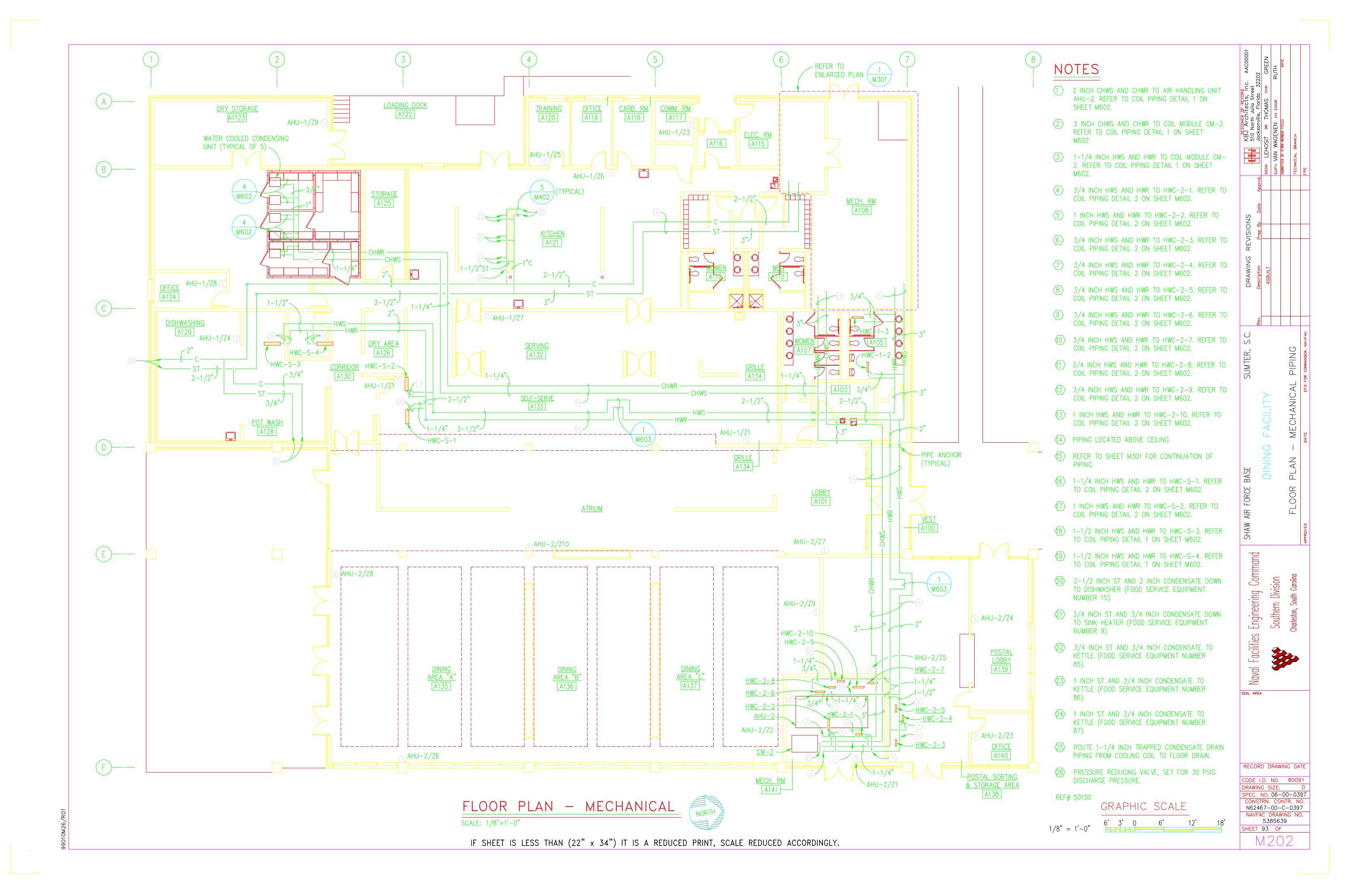
- 1. PRIOR TO ORDERING OR FABRICATING ANY NEW EQUIPMENT, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CLEARANCES. EQUIPMENT LOCATIONS AND CONNECTION SIZES SHALL BE DERIVED FROM THE MANUFACTURERS CERTIFIED DRAWINGS FOR THE SPECIFIC EQUIPMENT THAT WILL ACTUALLY BE FURNISHED AND INSTALLED FOR THIS PROJECT. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE CONTRACTING OFFICER'S ATTENTION IMMEDIATELY.
- 2. ALL DUCTWORK DIMENSIONS ARE INSIDE CLEAR DIMENSIONS
- 3. ALL DUCTWORK SHALL BE ROUTED CONCEALED ABOVE CEILINGS EXCEPT FOR EXPOSED DUCTWORK LOCATED IN MECHANICAL ROOMS OR WHERE NOTED OTHERWISE.
- 4. CONNECTIONS TO EXHAUST FANS: TRANSITION FROM DUCT SIZE INDICATED ON PLAN TO THE FULL SIZE OF THE FAN INLET AND OUTLET AT CONNECTION TO THE FAN.
- 5. AN AIR BALANCING DAMPER MAY BE OMITTED FROM A SUPPLY DIFFUSER WHEN AN ACCESSIBLE BALANCING DAMPER IS PROVIDED IN THE BRANCH DUCT SERVING THE DIFFUSER.
- 6. FLEXIBLE DUCTWORK SHALL BE THE SAME SIZE AS THE NECK OF THE SUPPLY AIR DIFFUSER WHICH IT SERVES.
- 7. PROVIDE 4" HIGH REINFORCED CONCRETE HOUSEKEEPING PADS UNDER ALL FLOOR MOUNTED MECHANICAL EQUIPMENT.
- 8. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL EQUIPMENT TO PROVIDE ADEQUATE SERVICE CLEARANCE.
- 9. ALL EQUIPMENT, PIPING, AND DUCTWORK SHALL BE SEISMICALLY RESTRAINED IN ACCORDANCE WITH THE LATEST EDITION OF THE U.S. ARMY CORPS OF ENGINEERS TECHNICAL INSTRUCTIONS TI 809-04 "SEISMIC DESIGN FOR BUILDINGS". PROVIDE SUBMITTAL DATA FOR SEISMIC CALCULATIONS AND RESTRAINTS.

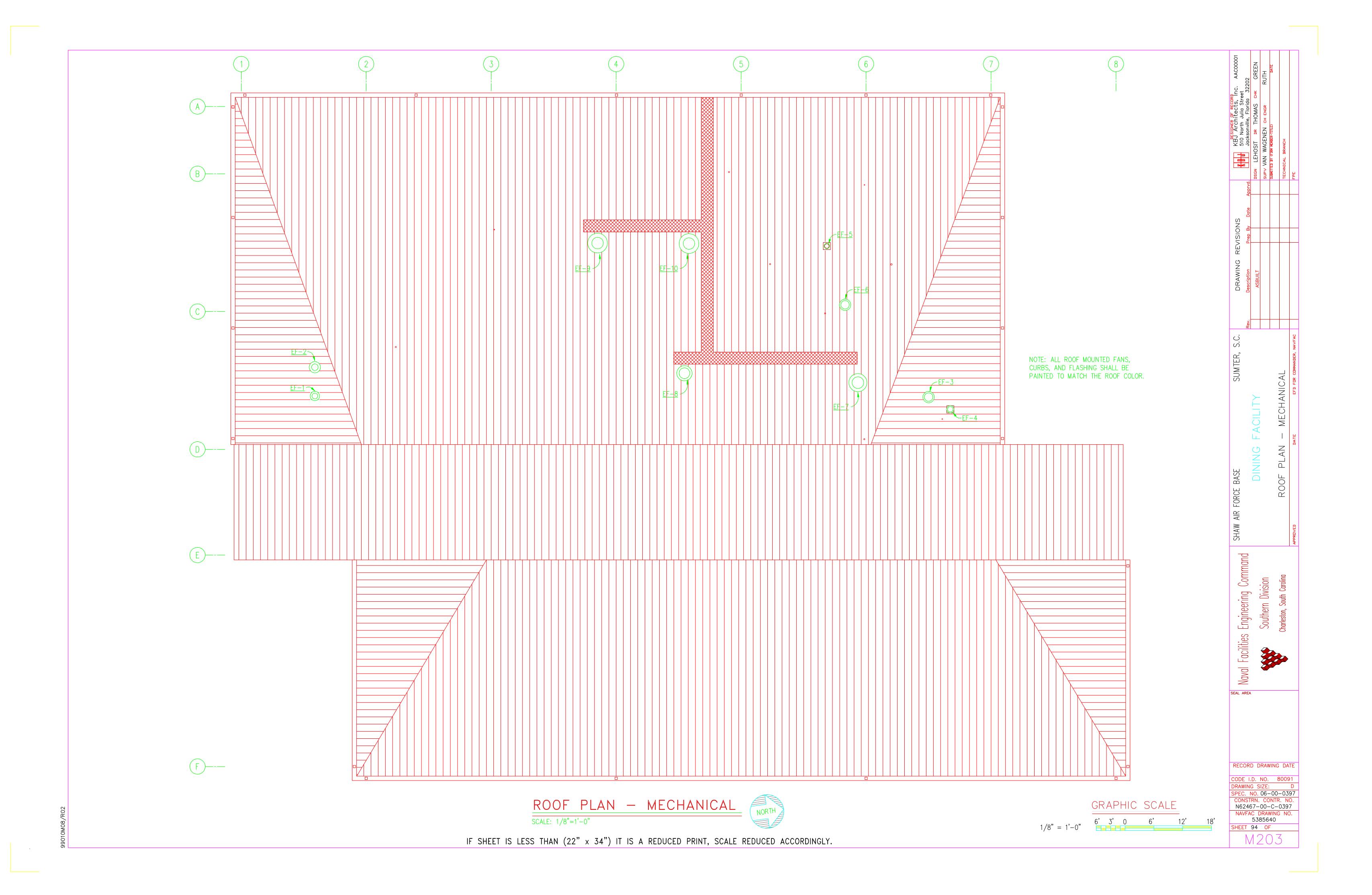
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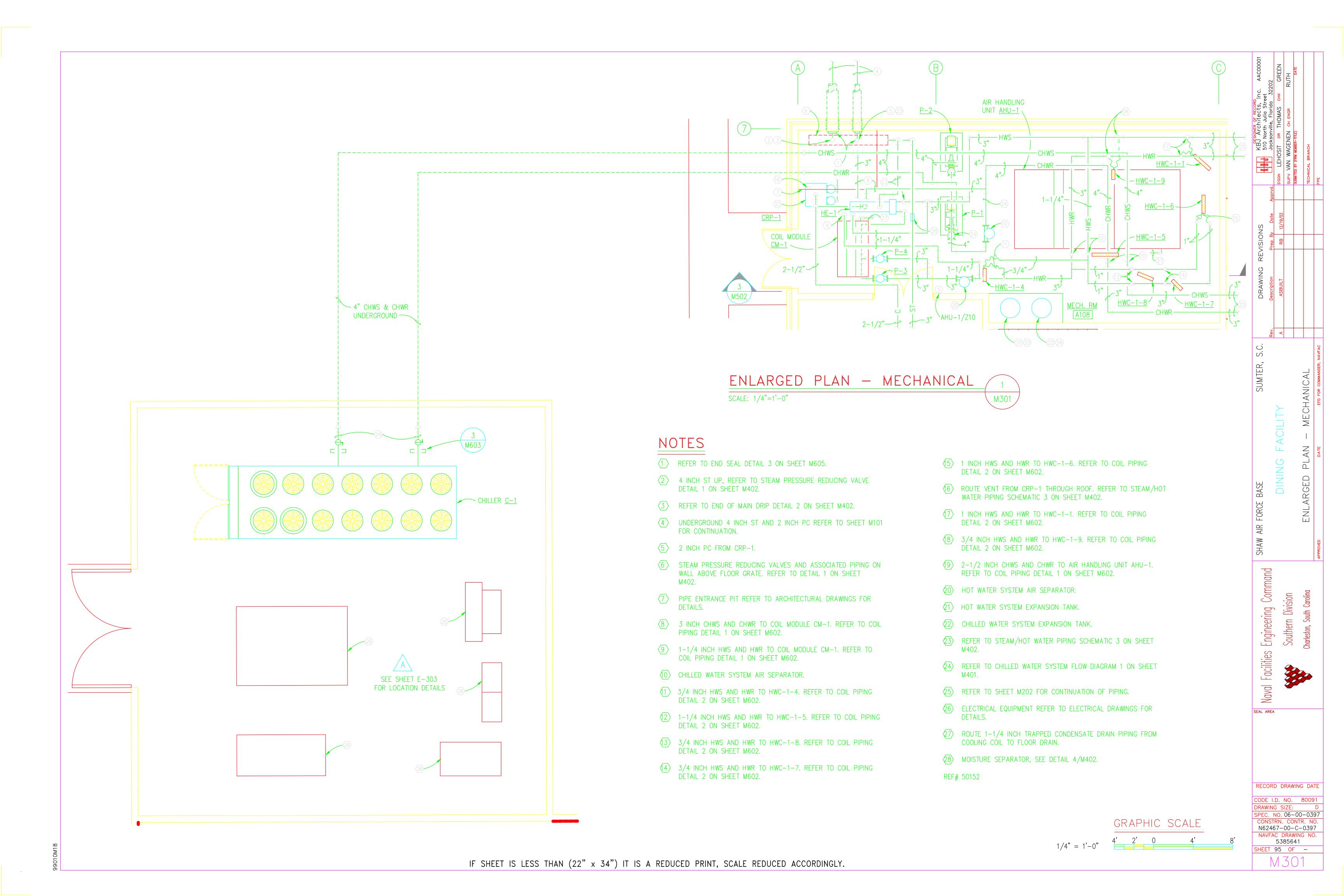
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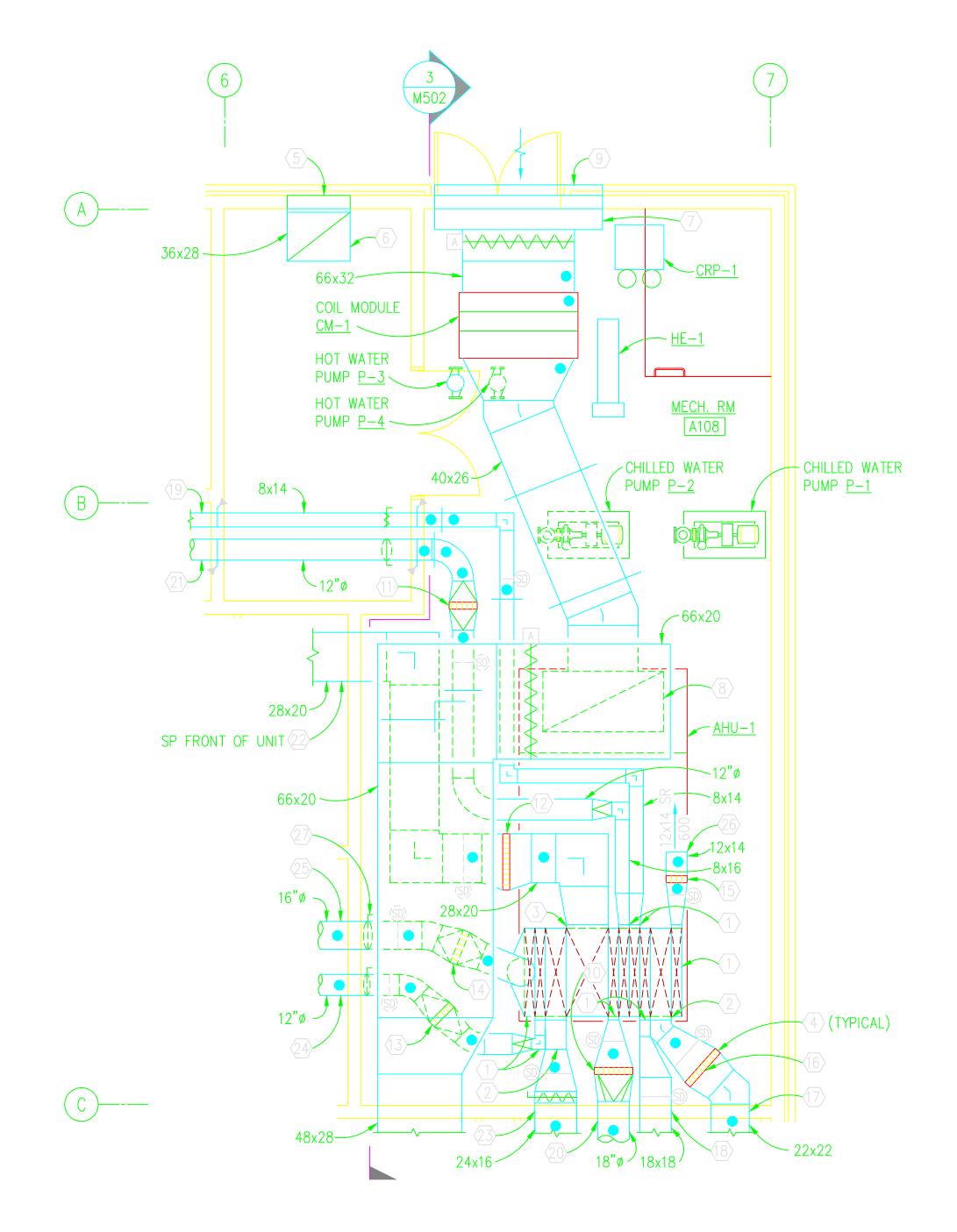
















#### <u>LEGEND</u>

• STATIC PORT/ROUND DUCT TRAVERSE (2 EA)

TRAVERSE

## NOTES

- 1 6X50 SUPPLY.
- $\langle 2 \rangle$  12X50 SUPPLY.
- $\overline{3}$  24X50 SUPPLY.
- DUCT MOUNTED HOT WATER COIL, REFER TO SHEET M202 FOR PIPING (TYPICAL).
- 5 36X56 WALL LOUVER.
- ON UPPER HALF OF WALL LOUVER PROVIDE 36X28 ELBOW TURNED UP AND EXTEND 36X28 TO WITHIN 12 INCHES OF CEILING, TERMINATE WITH OPEN END. ON LOWER HALF OF WALL LOUVER PROVIDE 36X28 ELBOW TURNED DOWN AND EXTEND 36X28 TO WITHIN 12 INCHES OF FLOOR, TERMINATE WITH OPEN END.
- 7 12 INCH DEEP PLENUM BEHIND WALL LOUVER.
- 8 69x34 RETURN AIR DUCTWORK DOWN TO AHU-1 MIXING BOX.
- 96"X32" WALL LOUVER.
- $\bigcirc$  DUCT MOUNTED HOT WATER COIL HWC-1-3.
- 1 DUCT MOUNTED HOT WATER COIL HWC-1-4.
- DUCT MOUNTED HOT WATER COIL HWC-1-5.
- 13 DUCT MOUNTED HOT WATER COIL HWC-1-7.
- DUCT MOUNTED HOT WATER COIL HWC-1-8.
- 5 DUCT MOUNTED HOT WATER COIL HWC-1-9.
- DUCT MOUNTED HOT WATER COIL HWC-1-1.
- AHU-1 ZONE 1, BALANCE FOR 2470 CFM.
- (8) AHU-1 ZONE 2, BALANCE FOR 2120 CFM.
- (9) AHU-1 ZONE 3, BALANCE FOR 440 CFM.
- 20 AHU−1 ZONE 4, BALANCE FOR 1545 CFM.
- AHU−1 ZONE 5, BALANCE FOR 430 CFM.
- 22 AHU-1 ZONE 6, BALANCE FOR 3950 CFM.
- AHU-1 ZONE 7, BALANCE FOR 2055 CFM.
- AHU-1 ZONE 8, BALANCE FOR 335 CFM.
- △5 AHU−1 ZONE 9, BALANCE FOR 955 CFM.
- 26 AHU-1 ZONE 10, BALANCE FOR 600 CFM.
- ZONE BALANCING DAMPER (TYPICAL).

REF# 50155

GRAPHIC SCALE

6' 3' 0 6' 12' 18'

Naval Facilities Engineering Command

RECORD DRAWING DATE

CODE I.D. NO. 80091

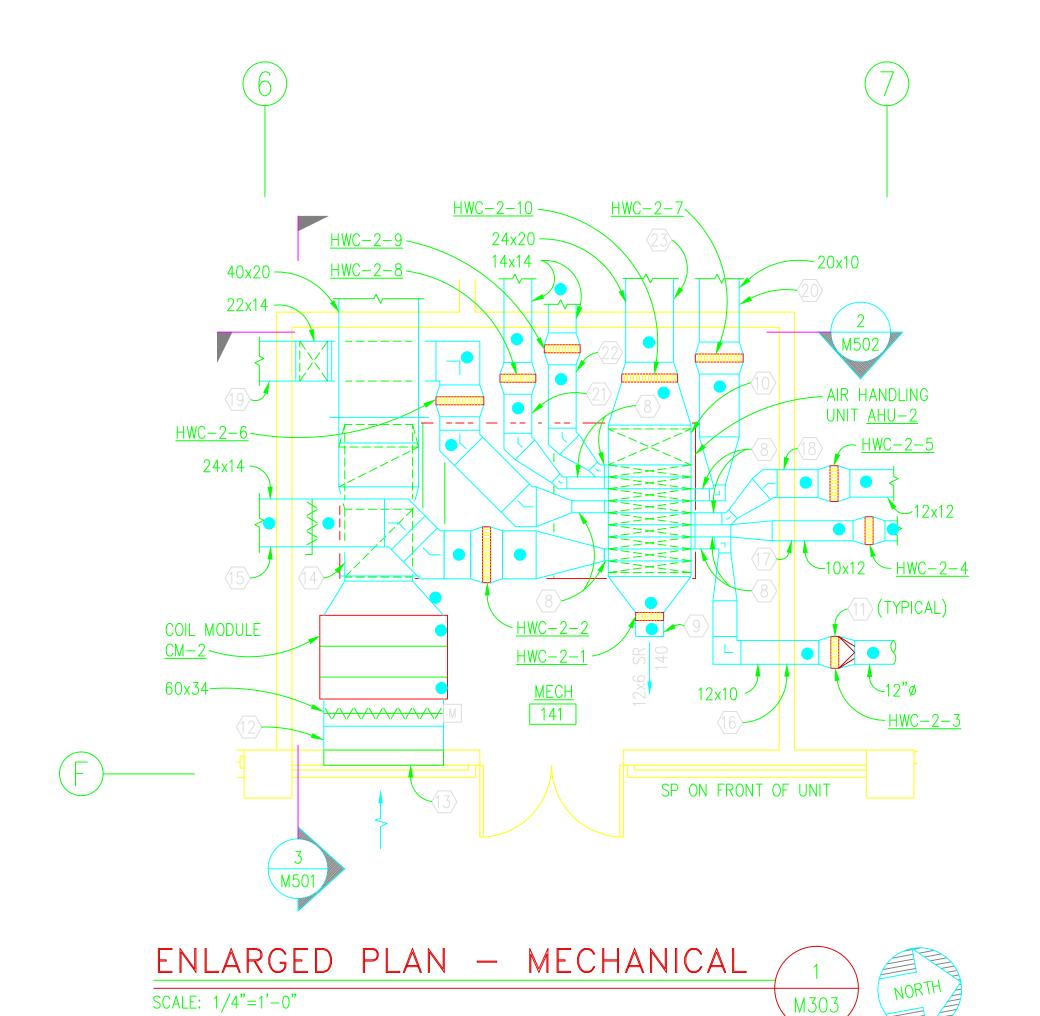
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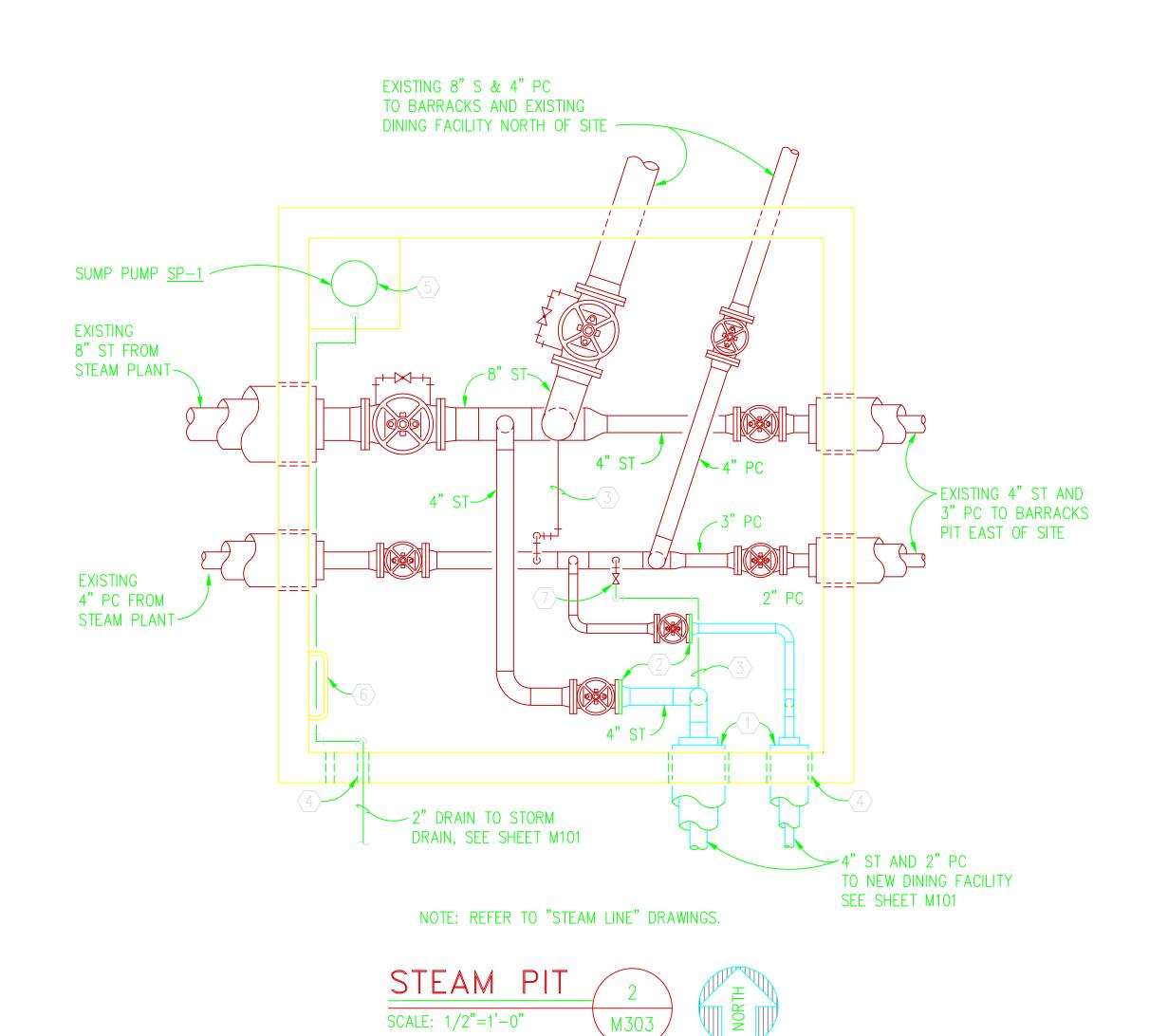
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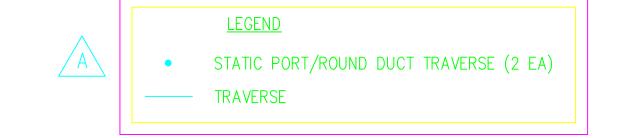
SHEET 96 OF

M302

EC. NO. 06-00-0397 DNSTRN. CONTR. NO.







## NOTES

- 1 FOR END SEALS, REFER TO DETAIL 3/MM605.
- REMOVE EXISTING BLIND FLANGE ON VALVE OUTLET AND CONNECT NEW PIPING TO FLANGED OUTLET OF THE EXISTING VALVE.
- 3 3/4" DRIP LEG, REFER TO DETAIL 4/MM605.
- USE EXISTING SLEEVES IN WALL OF PIT FOR NEW PIPING.
- (5) INSTALL SUMP PUMP IN EXISTING SUMP. PROVIDE A UNION, CHECK VALVE, AND BALL VALVE ON DISCHARGE OF PUMP.
- 6 EXISTING LADDER FOR ACCESS INTO PIT.
- CONNECT NEW DRIP LEG TO EXISTING 3/4" VALVED AND CAPPED CONNECTION.
- $\langle 8 \rangle$  6X42 SUPPLY.
- 9 AHU-2 ZONE 1, BALANCE FOR 140 CFM.
- (0) 24X42 SUPPLY.
- 1 DUCT MOUNTED HOT WATER COIL, REFER TO SHEET M202 FOR PIPING (TYPICAL).
- 12 12 INCH DEEP PLENUM BEHIND WALL LOUVER.
- (3) WALL LOUVER REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.
- 34X34 OUTSIDE AIR DUCTWORK DOWN TO AHU-2 MIXING BOX.
- (5) AHU-2 ZONE 2, BALANCE FOR 1905 CFM.

ARGED

Naval Facilities Engineering Command

RECORD DRAWING DATE

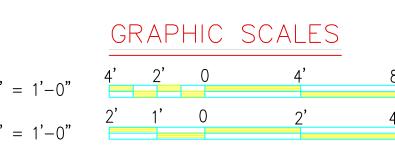
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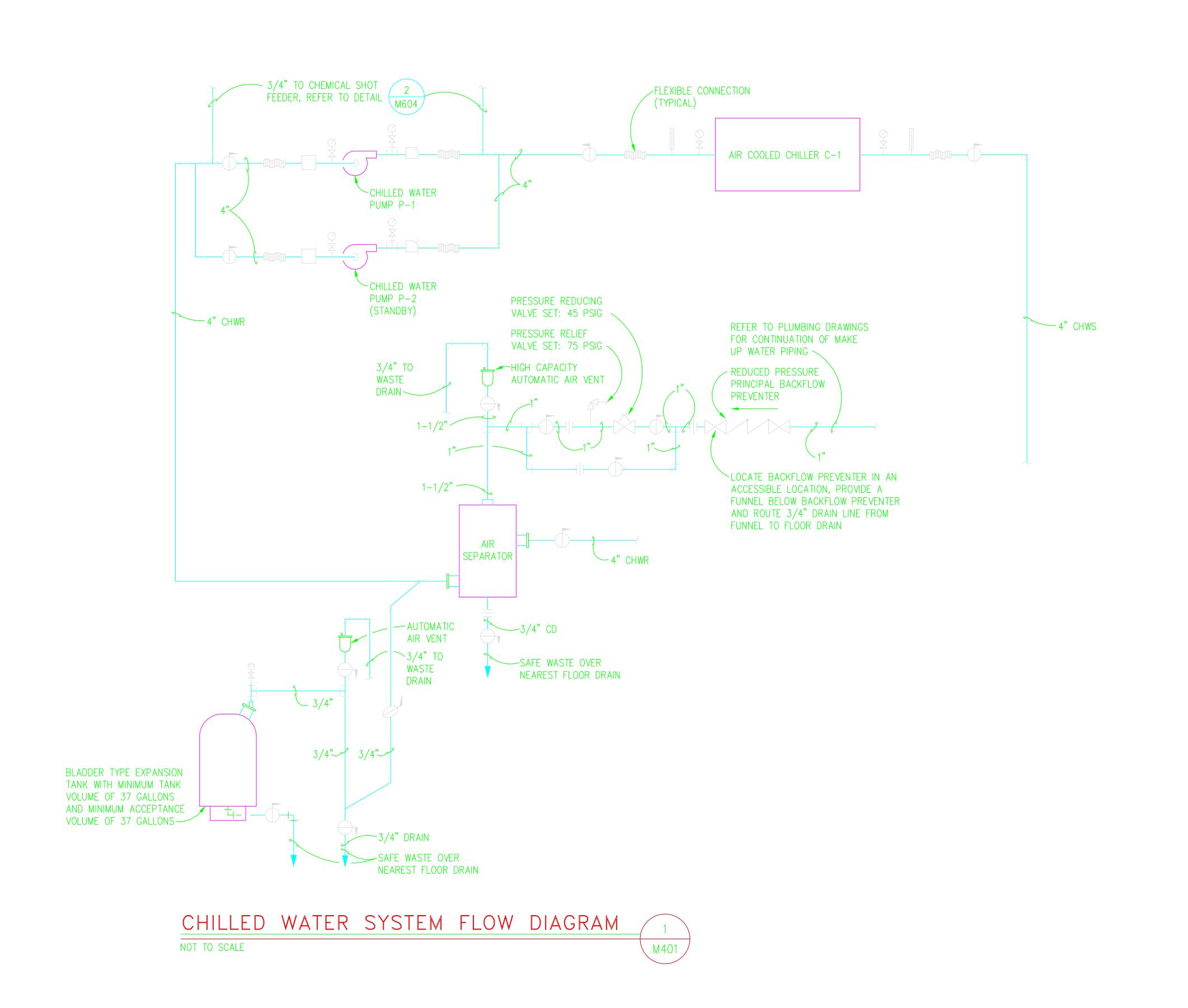
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SPEC. NO. 06-00-0397
CONSTRN. CONTR. NO. N62467-00-C-0397
NAVFAC DRAWING NO. 5385643
SHEET 97 OF

M303

- 6 AHU-2 ZONE 3, BALANCE FOR 345 CFM.
- (7) AHU-2 ZONE 4, BALANCE FOR 370 CFM.
- (8) AHU-2 ZONE 5, BALANCE FOR 625 CFM.
- (9) AHU-2 ZONE 6, BALANCE FOR 1695 CFM.
- AHU-2 ZONE 7, BALANCE FOR 1000 CFM.
- 21> AHU-2 ZONE 8, BALANCE FOR 880 CFM.
- AHU-2 ZONE 9, BALANCE FOR 960 CFM.
- AHU-2 ZONE 10, BALANCE FOR 3380 CFM.

REF# 50069





SHAW AIR FORCE BASE Naval Facilities Engineering Command

RECORD DRAWING DATE

CODE I.D. NO. 80091

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SPEC. NO. 06-00-0397

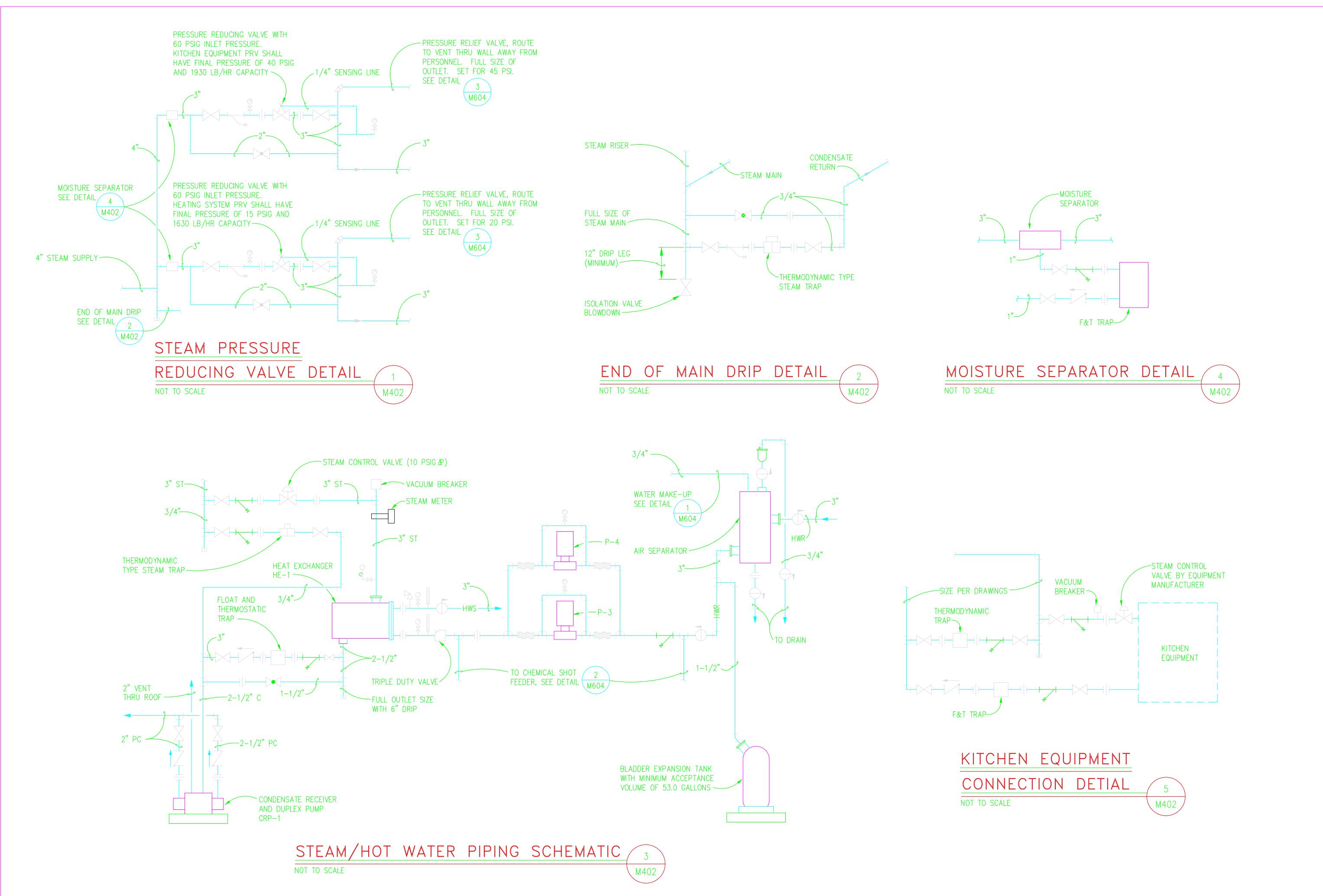
CONSTRN. CONTR. NO. N62467-00-C-0397

NAVFAC DRAWING NO. 5385644

M401

SHEET 98 OF

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Naval Facilities Engineering Command

RECORD DRAWING DATE

CODE I.D. NO. 80091

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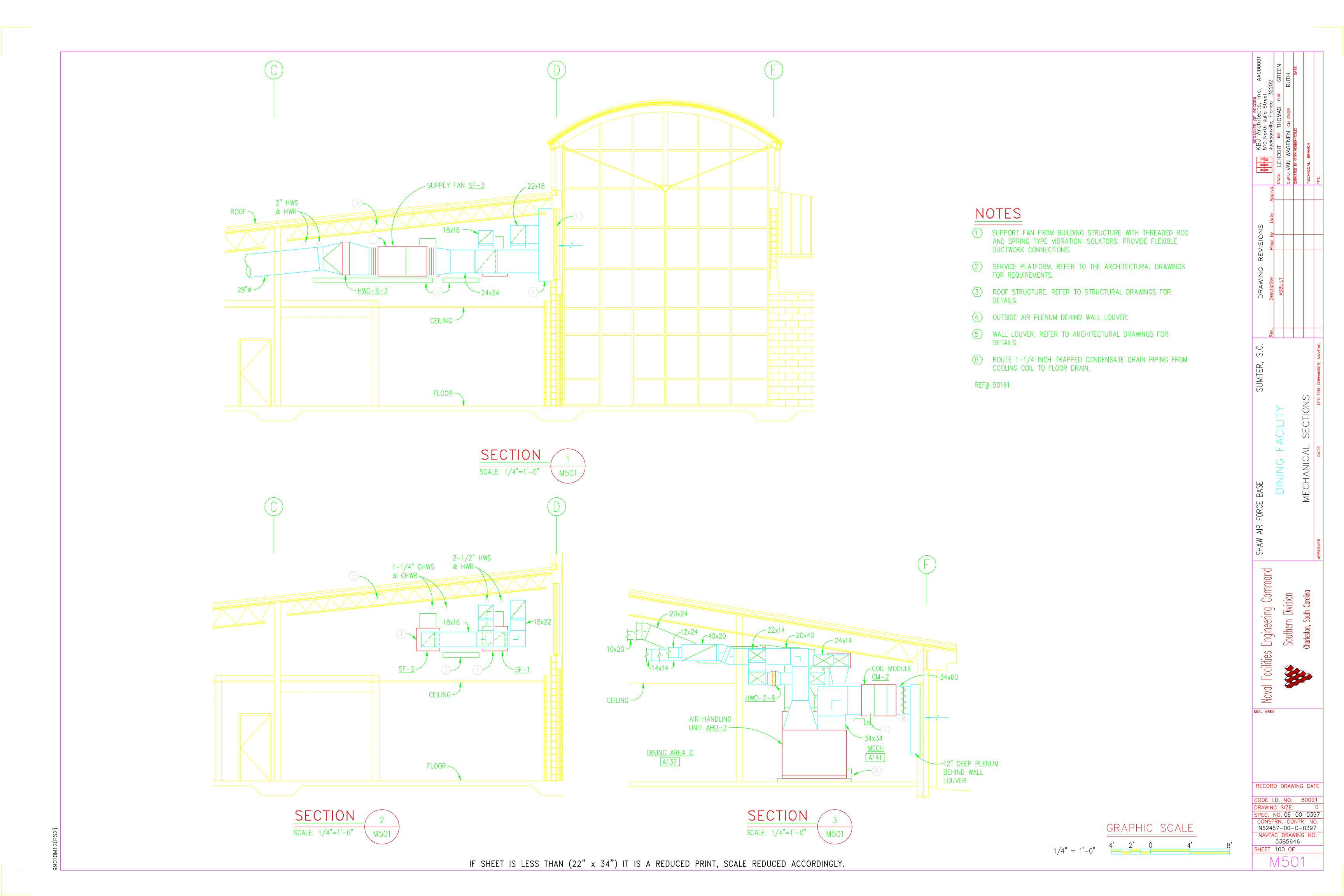
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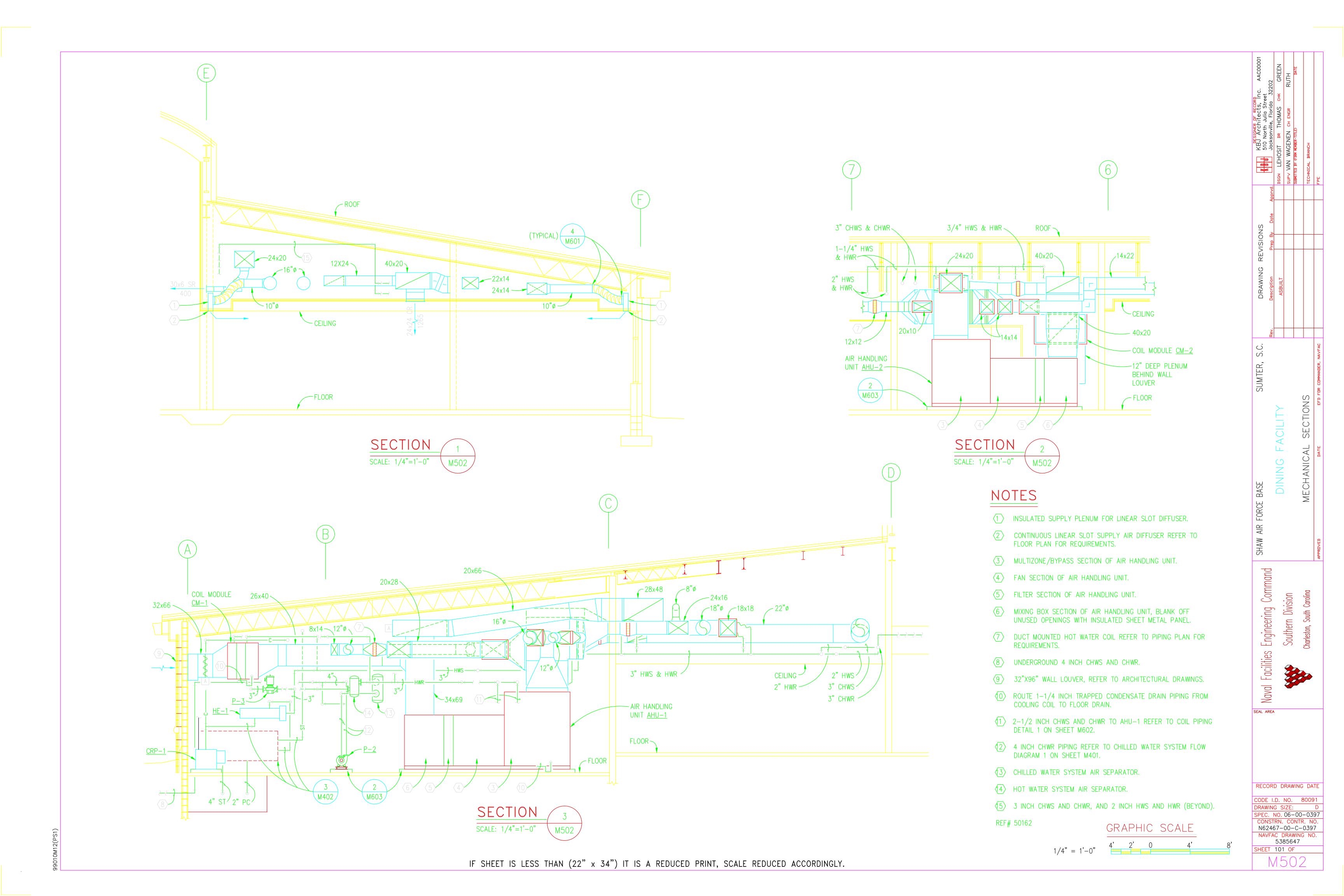
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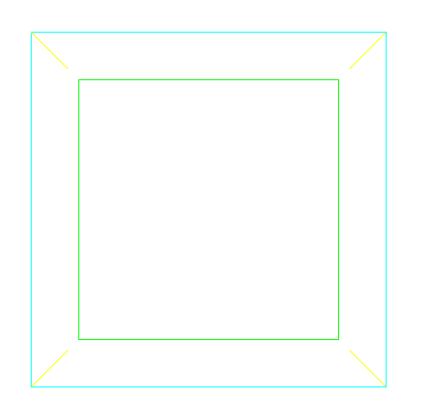
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M402

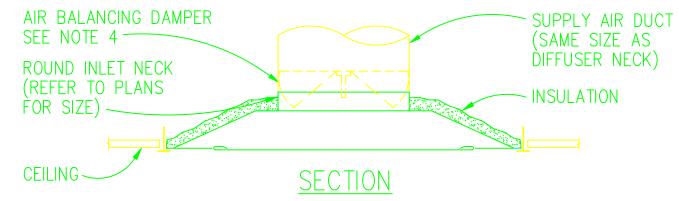
SHEET 99 OF







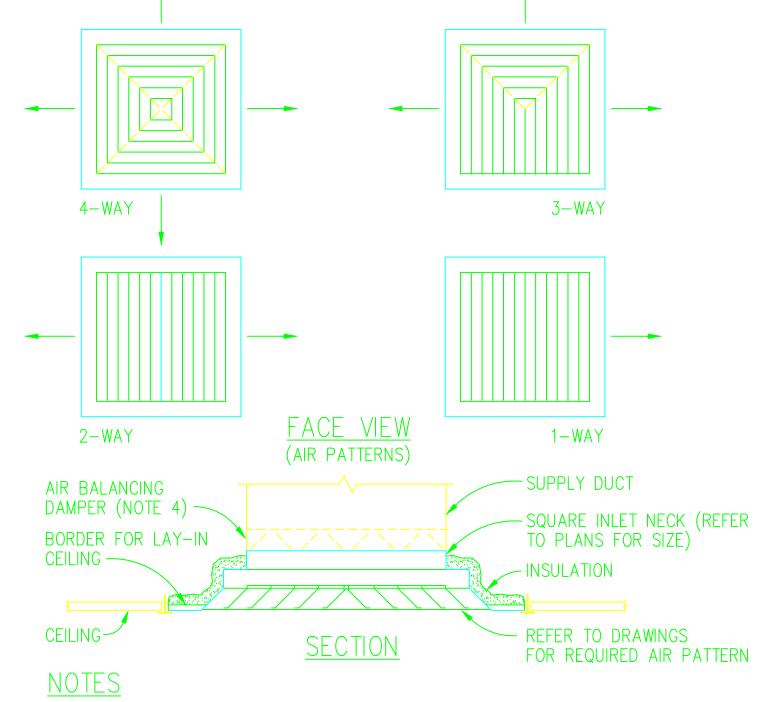
## FACE VIEW



## <u>NOTES</u>

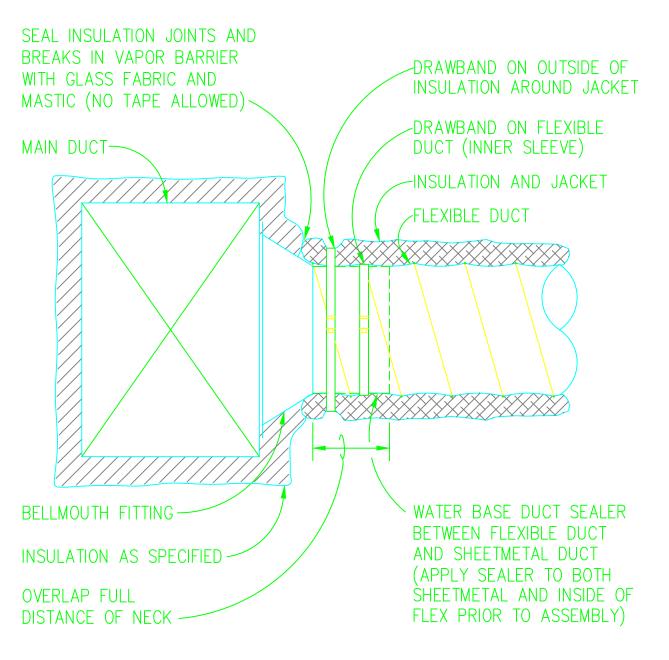
- 1. FULL FACE WITH LAY-IN FRAME FOR 24"x 24" CEILING MODULE.
- 2. REMOVABLE FACE PANEL FOR ACCESS TO BALANCING DAMPER.
- 3. DISCHARGE SHALL BE UNIFORM 360° HORIZONTAL PATTERN.
- 4. AN AIR BALANCING DAMPER MAY BE OMITTED FROM A SUPPLY DIFFUSER WHEN AN ACCESSIBLE BALANCING DAMPER IS PROVIDED IN THE BRANCH DUCT SERVING THE DIFFUSER.
- 5. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT CEILING SYSTEM DETAILS.





- 1. LAY-IN PANEL MOUNTED FOR 24"x 24" CEILING MODULE.
- 2. REMOVABLE CORE.
- 3. AIR BALANCING DAMPER ADJUSTABLE FROM DIFFUSER FACE.
- 4. AN AIR BALANCING DAMPER MAY BE OMITTED FROM A SUPPLY DIFFUSER WHEN AN ACCESSIBLE BALANCING DAMPER IS PROVIDED IN THE BRANCH DUCT SERVING THE DIFFUSER.
- 5. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT CEILING SYSTEM DETAILS.



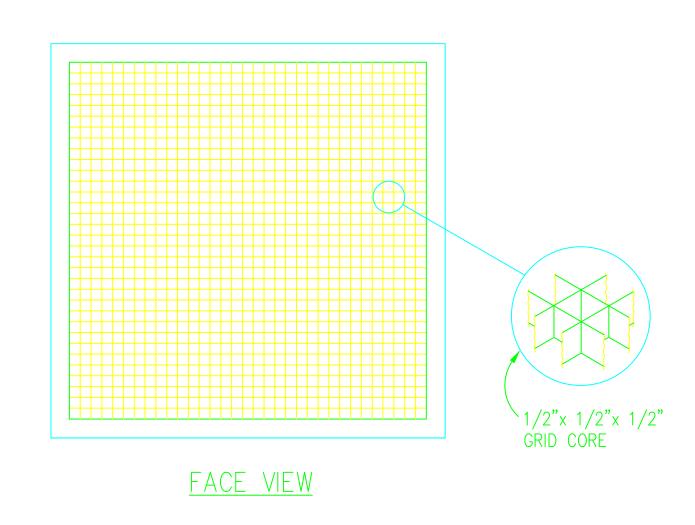


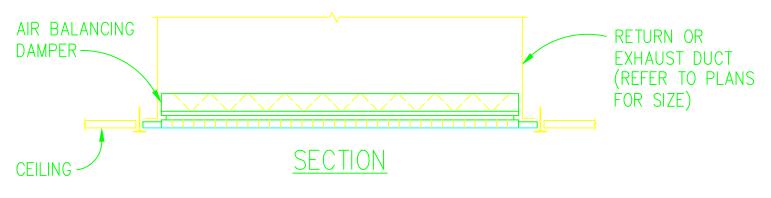
### NOTES

- 1. TYPICAL FOR: CONNECTION TO MAIN DUCT AND DIFFUSERS.
- 2. FLEXIBLE DUCT LENGTH SHALL BE 4'-0" MAXIMUM.

FLEXIBLE DUCT TERMINATION DETAIL NOT TO SCALE







## <u>NOTES</u>

- 1. FULL FACE WITH LAY-IN FRAME.
- 2. VOLUME DAMPER ADJUSTABLE WITHOUT REMOVING GRID CORE.
- 3. SIZE VARIES, REFER TO PLANS.
- 4. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT CEILING SYSTEM DETAILS.
- 5. TYPR "D" GRILLE SIMILAR EXCEPT PROVIDE WITHOUT BALANCING DAMPER, PROVIDE WITH 24" x 24" FRAME FOR LAY-IN CEILING.
- 6. TYPE "E" REGISTER SIMILAR EXCEPT PROVIDE WITH 12" x 12" FRAME.



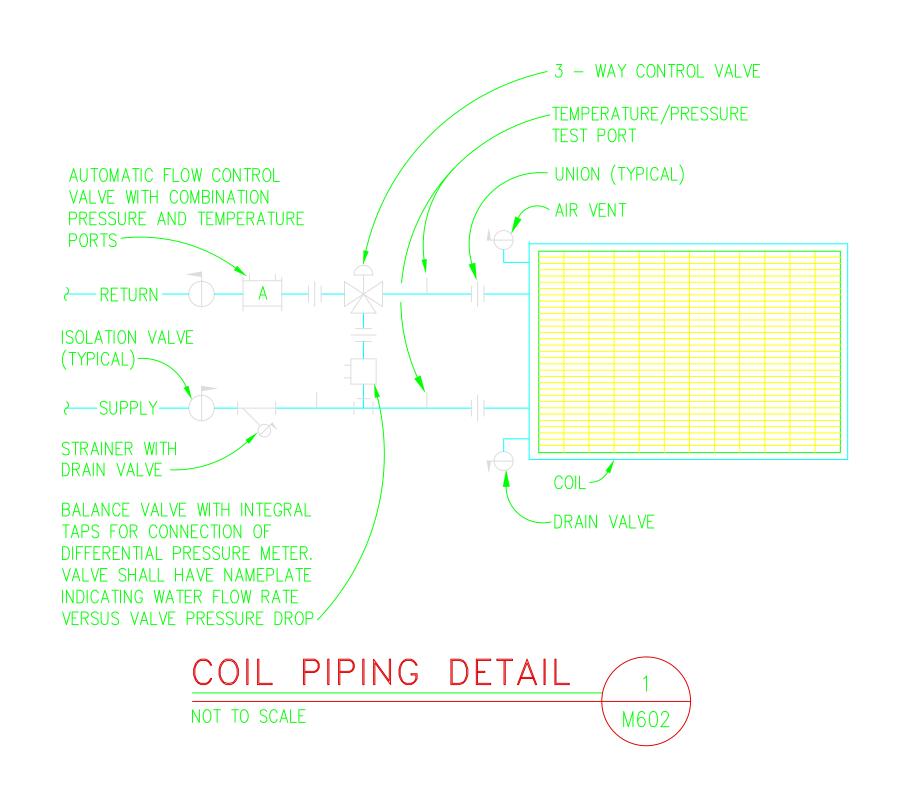
Naval Facilities Engineering Command

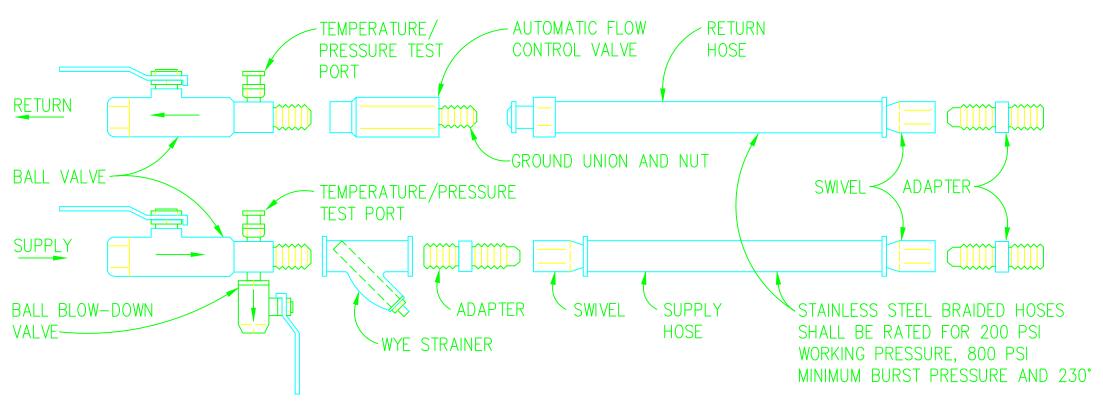
RECORD DRAWING DATE CODE I.D. NO. 80091

DRAWING SIZE: D

SPEC. NO. 06-00-0397

CONSTRN. CONTR. NO. N62467-00-C-0397 NAVFAC DRAWING NO. 5385648 SHEET 102 OF M601

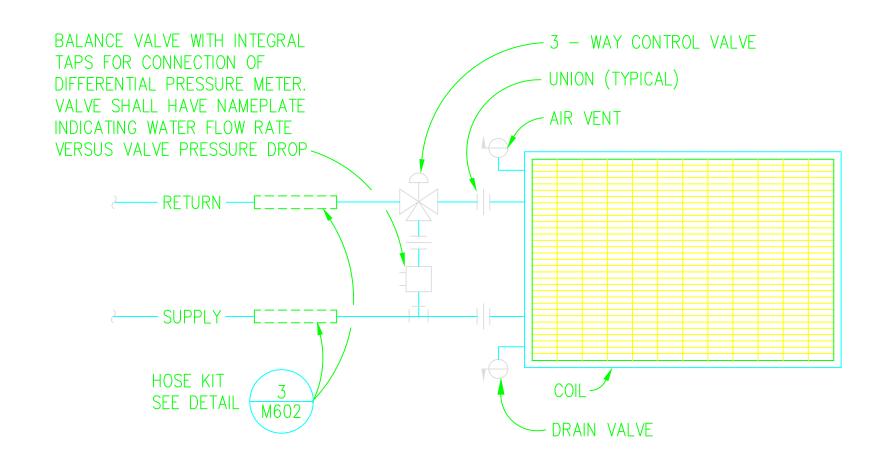




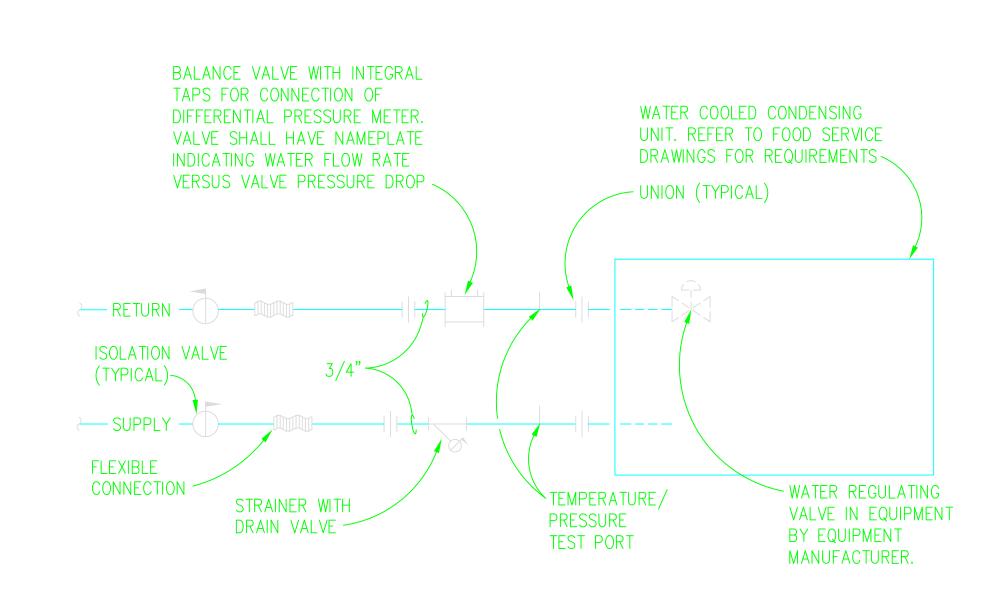
## SELF-BALANCING HOSE KIT SIZING SCHEDULE

<u>NOTES</u>	HOSE SIZE	MAXIMUM FLOW RATE (GPM)
1. PROVIDE PERMANENT TAG FOR AUTOMATIC FLOW CONTROL VALVE.	1/2"	2.0
2. REFER TO COIL SCHEDULE FOR FLOW RATES.	3/4"	5.75
3. MAXIMUM PRESSURE DROP THRU HOSE KIT SHALL NOT EXCEED 5 P.S.I.	1 1/4"	9.0 14.75











RECORD DRAWING DATE

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SPEC. NO. 06-00-0397

CONSTRN. CONTR. NO. N62467-00-C-0397

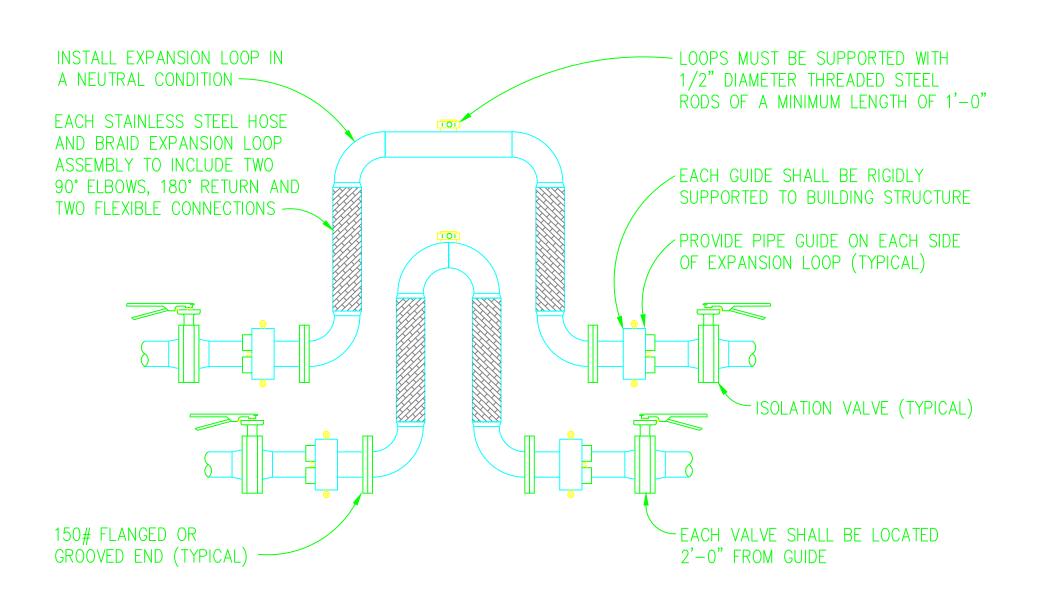
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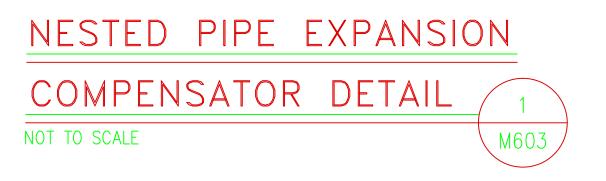
SHEET 103 OF

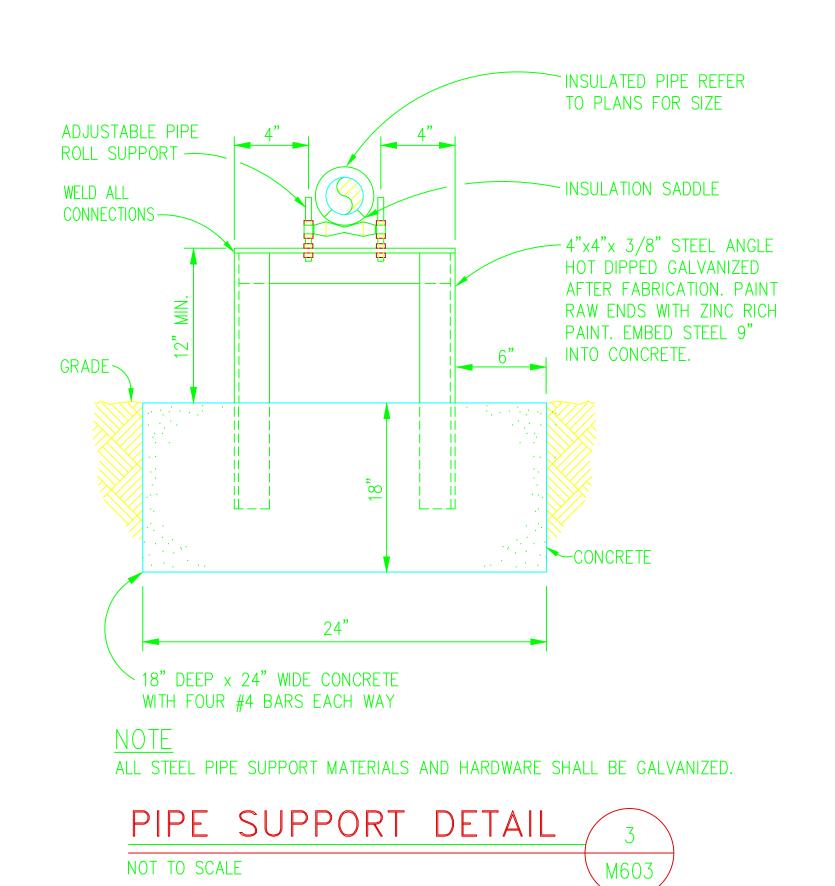
MECHANICAL

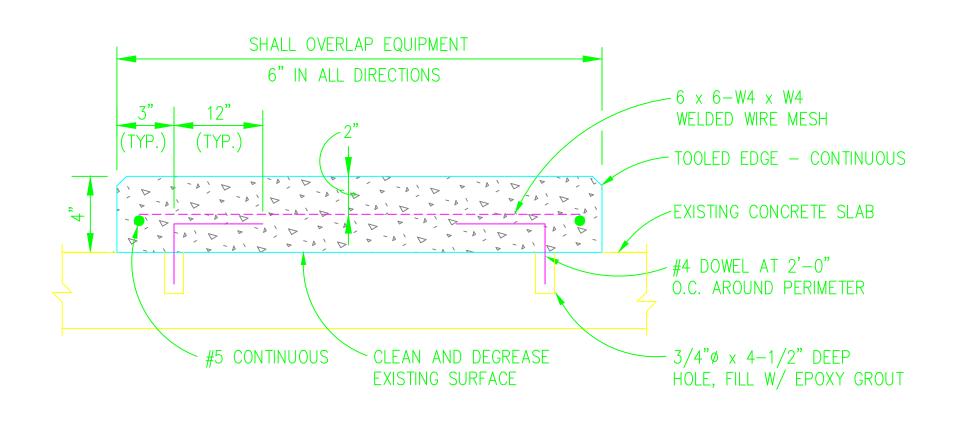
SHAW AIR FORCE BASE

Naval Facilities Engineering Command









NOTE

FOR EQUIPMENT INSIDE BUILDING.



RECORD DRAWING PAGE

SEAL AREA

SOUTHERN DIVISION

SEAL AREA

SOUTH CAROLING

Charleston, South Caroling

MECHANICAL

MECHANICAL

APPROVED

APPROVED

DATE

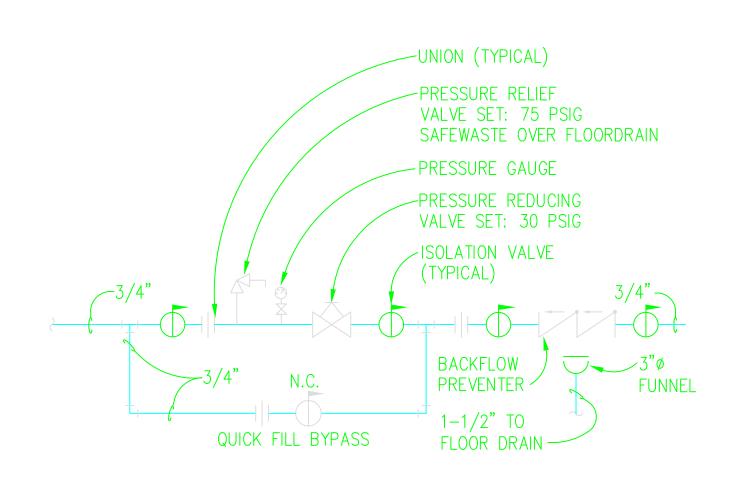
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SHEET 104 OF

APPROVED

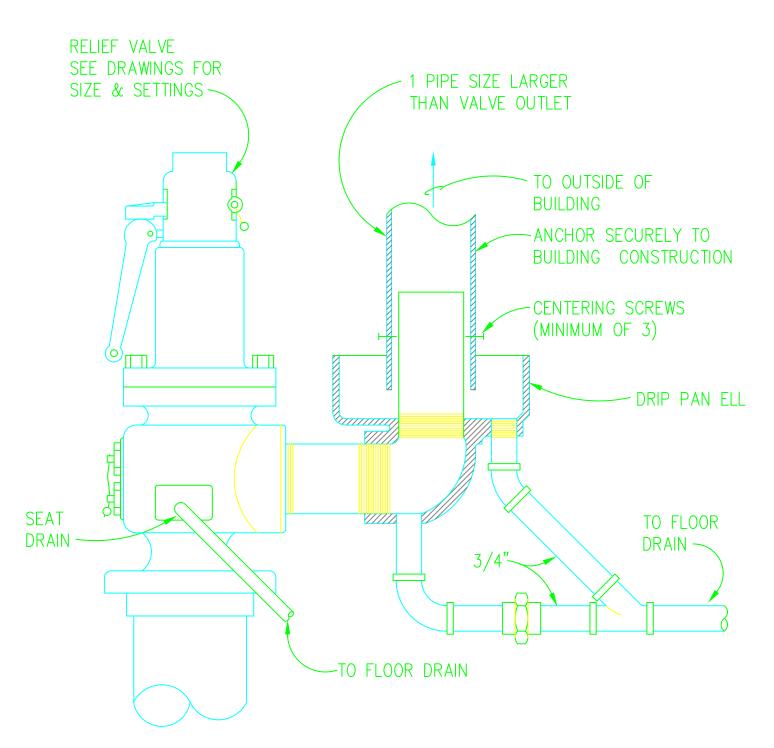
DATE



MAKE-UP WATER ASSEMBLY DETAIL

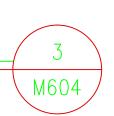
NOT TO SCALE

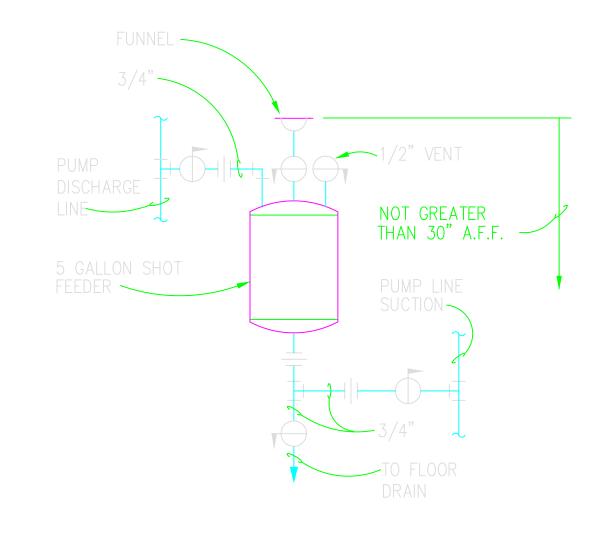
M604



RELIEF VALVE PIPING DETAIL

NOT TO SCALE





CHEMICAL SHOT FEEDER DETAIL 2
NOT TO SCALE

M604

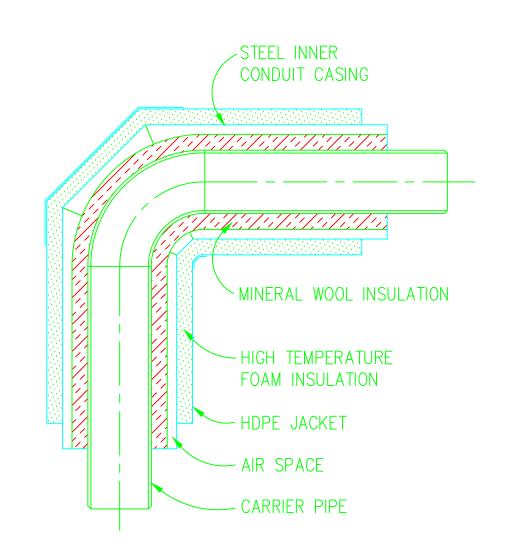
MECHANICAL SHAW AIR FORCE BASE Naval Facilities Engineering Command RECORD DRAWING DATE CODE I.D. NO. 80091

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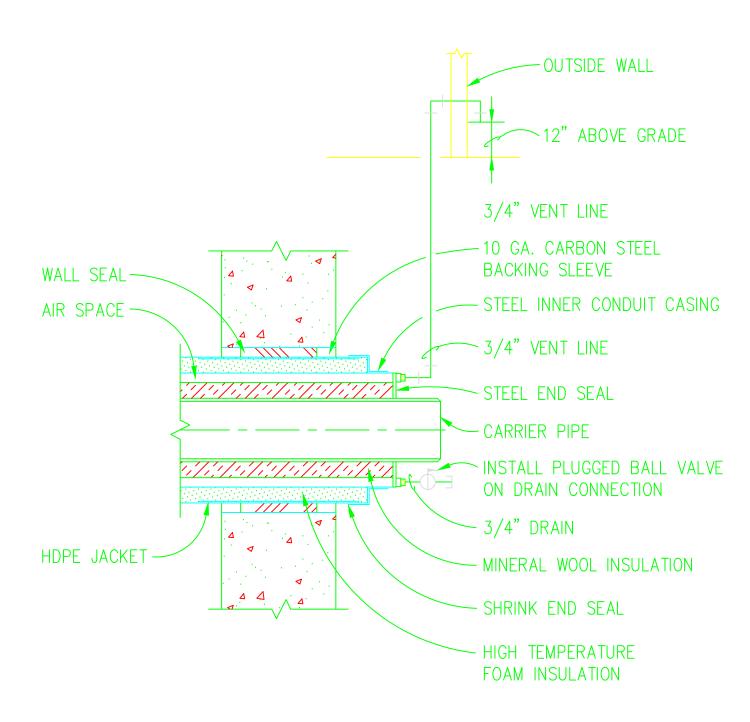
SPEC. NO. 06-00-0397

CONSTRN. CONTR. NO. N62467-00-C-0397

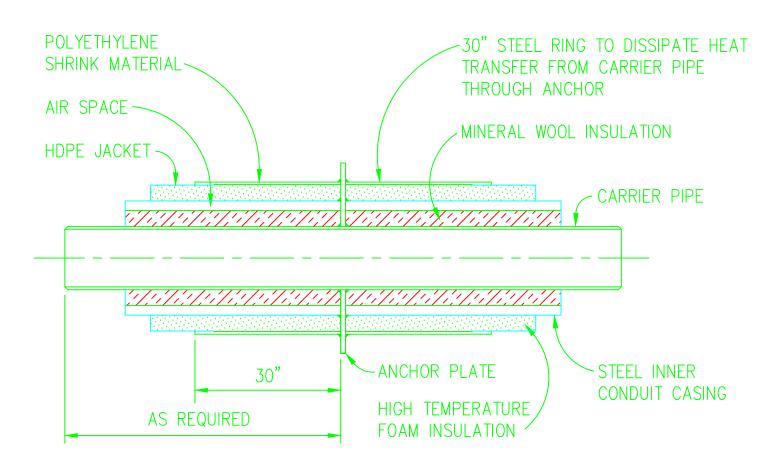
NAVFAC DRAWING NO. 5385651 SHEET 105 OF



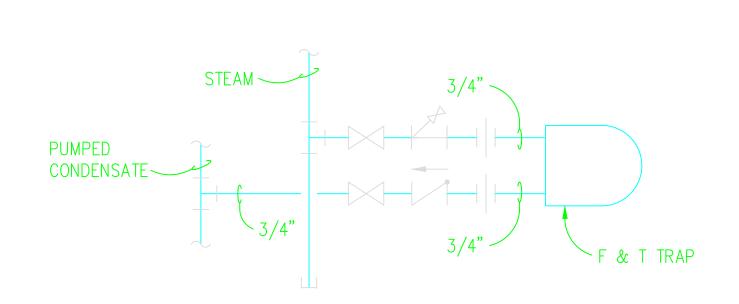




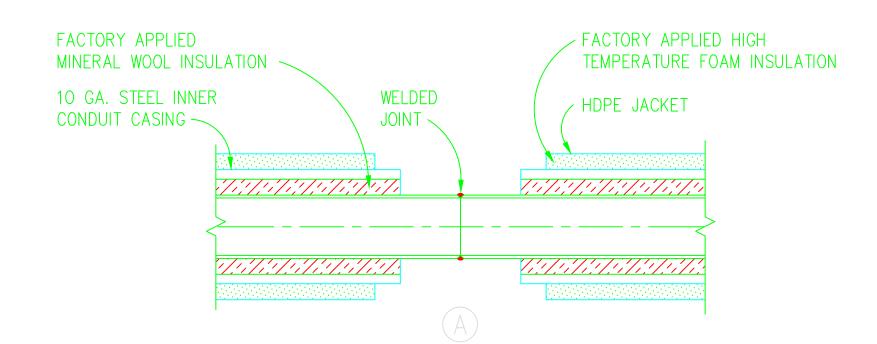


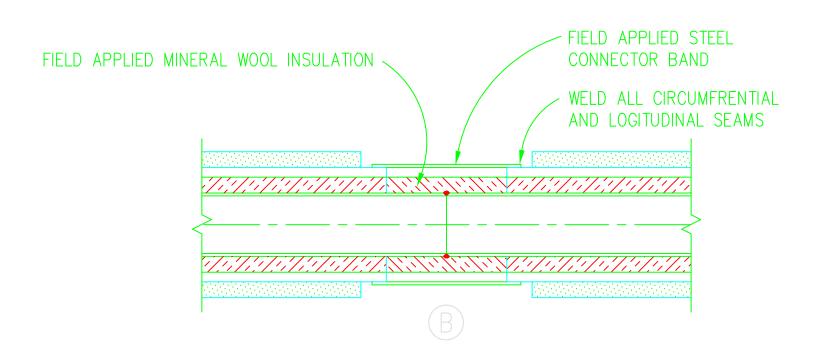


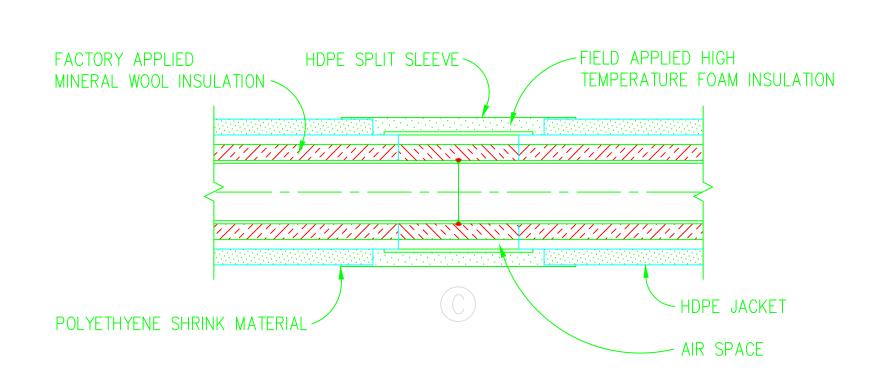














MECHANICAL SHAW AIR FORCE BASE Naval Facilities Engineering Command
Southern Division
Charleston, South Carolina RECORD DRAWING DATE CODE I.D. NO. 80091

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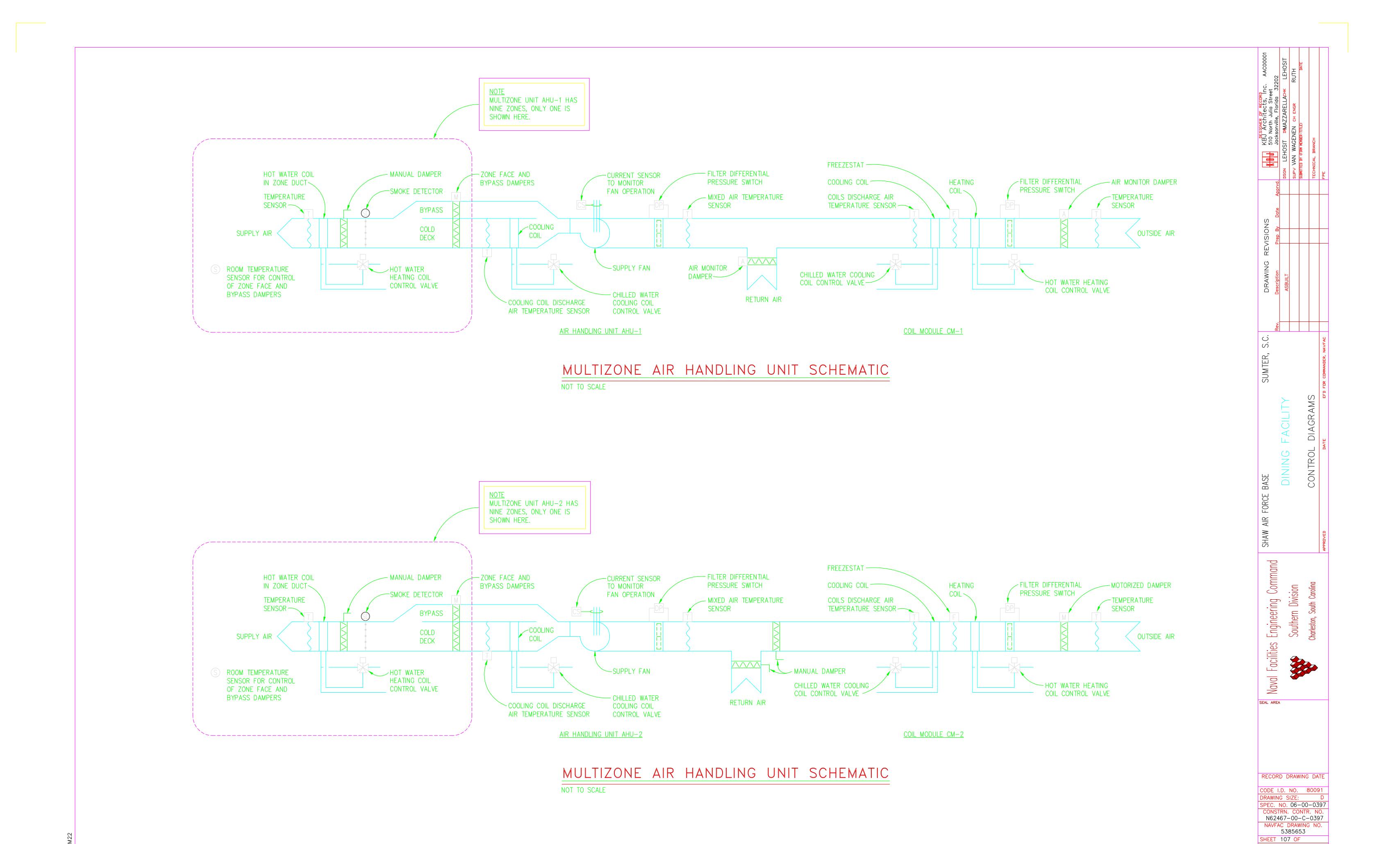
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CONSTRN. CONTR. NO. N62467-00-C-0397

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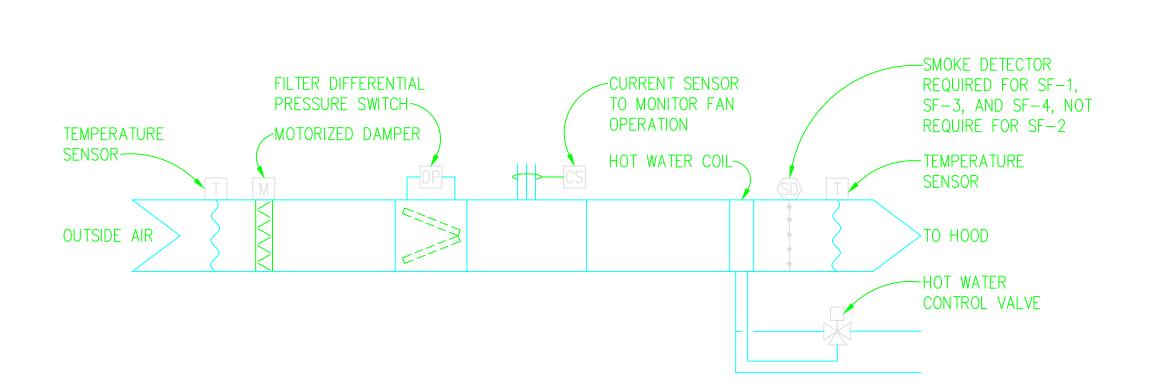
SHEET 106 OF -

M605



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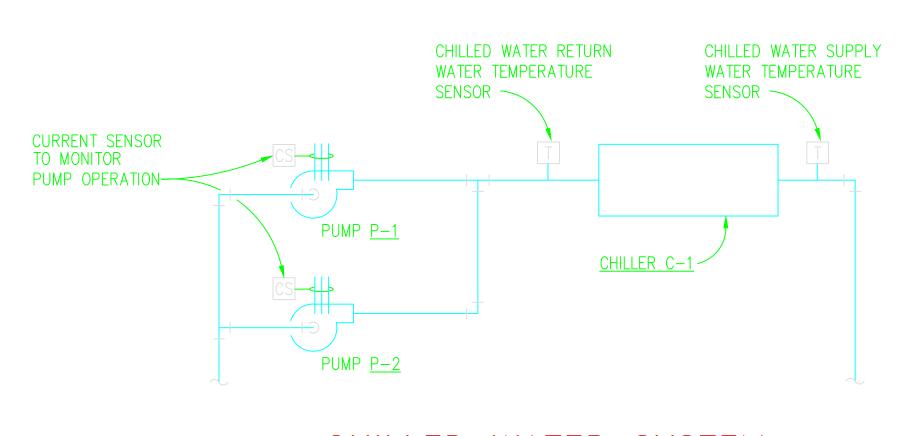
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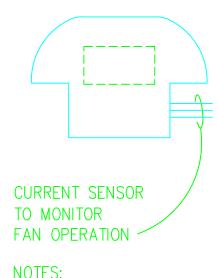
NOTE: TYPICAL FOR SF-1, SF-2, SF-3, AND SF-4.

### KITCHEN HOOD SYPPLY FANS

NOT TO SCALE



CHILLED WATER SYSTEM

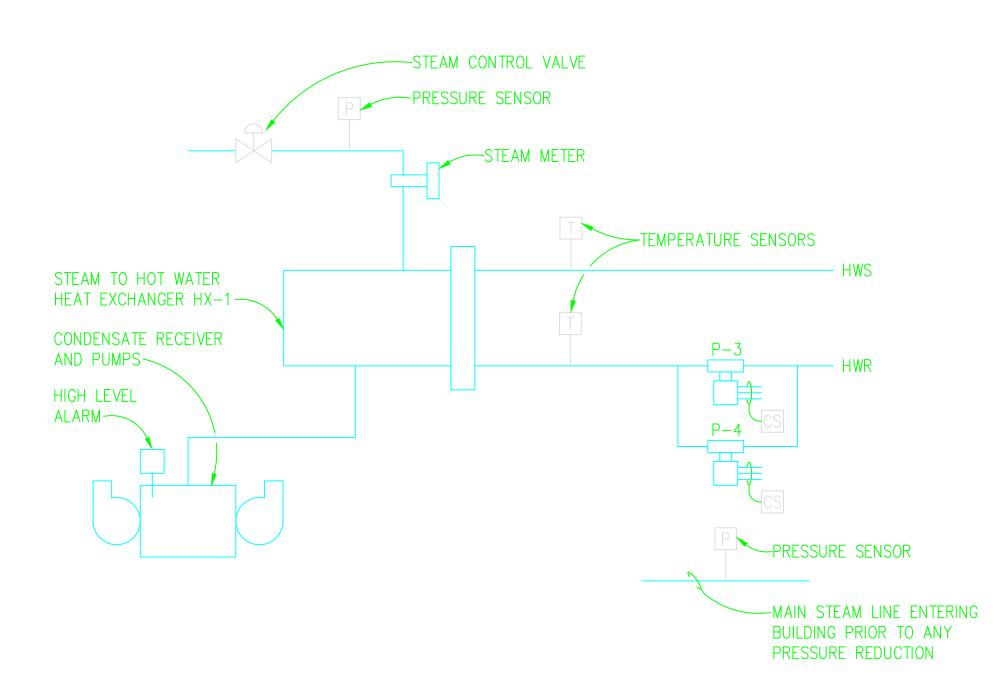


NOTES: 1. TYPICAL FOR TEN.

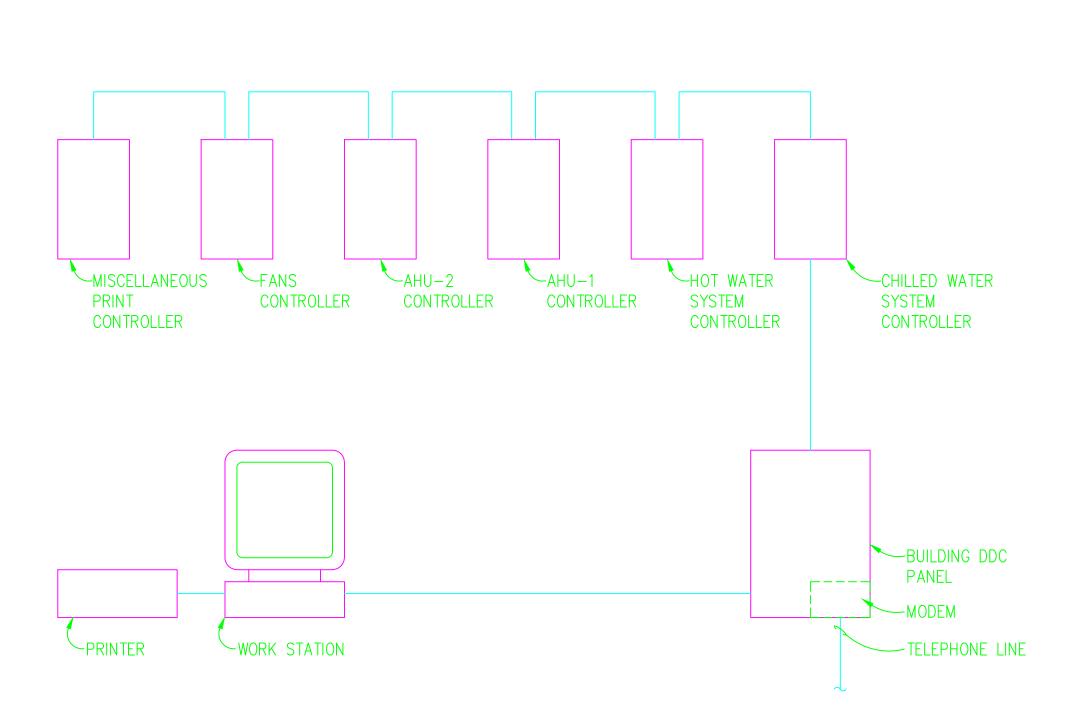
EXHAUST FAN

2. SOME FANS ARE UPBLAST TYPE.

CONTROL SCHEMATICS
NOT TO SCALE



STEAM/HOT WATER SYSTEM SCHEMATIC
NOT TO SCALE



DDC SYSTEM ARCHITECTURE

NOT TO SCALE

RECORD DRAWING DATE

CODE I.D. NO. 80091

DRAWING SIZE: D

SPEC. NO. 06-00-0397

CONSTRN. CONTR. NO. N62467-00-C-0397

NAVFAC DRAWING NO. 5385654

SHEET 108 OF

Naval Facilities Engineering Command

SEAL AREA

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		INPUTS	LOG	OUTPUTS	BINARY SYSTEM FEATURES  INPUTS OUTPUTS ALARMS PROGRAMS					AMS			iner of Ri rchitec rth Julia nville, Flor AAZARE			
SYSTEM POINT DESCRIPTION	TEMPERATURE PRESSURE RELATIVE HUMIDITY KW	KWH BTUH GPM % OPEN	CFM PERCENT PERCENT LOAD FLOW, LBS/HR	STEAM USE, LB 4120 MA (DDC) SET POINT ADJ	ON/OFF STATUS FILTER STATUS STATUS OPEN/CLOSED	NO. OF STARTS VIBRATION	START/STOP OPEN/CLOSE LOCK OUT ENABLE/DISABLE	RESET HIGH ANALOG LOW ANALOG	HIGH BINARY LOW BINARY COMM FAIL SENSOR FAII	FLOW FAIL  LATCHING ALARM (PROOF)  FEEDBACK	TIMED SCHEDULING  OPTIMAL START/STOP  DEMAND LIMITING	PIAGNOSTICS RESET EVENT INTERLOCKING DDC CONTROL	ALARM INSTRUCTIONS  MAINTENANCE INSTR.  NIGHT SET/UP/BACK  NIGHT PURGF	TOTALIZING TENANT BILLING GRAPHICS SCREEN	NOTES	ONS  By Date Approd.  By Date Approd.
ILLER					X		X			)	Κ	X	XX	XX	MONITOR POINTS FROM CHILLER CONTROL PANEL	REV O
HWS HWR	X							X X X X	X					X X X		4WING
CHILLED WATER PUMPS					X		X		X	X	X	X	XX		P-1 AND P-2	DRA Descrip
EAM/HOT WATER SYSTEM	V							\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					XX	XX		
HWS HWR	X							X X X	X					X X X		e,
HOT WATER PUMPS STEAM	X		X	X	X		X		X	X	X	X	XX	X X X	P-3 AND P-4	<u>دا</u> ا
STEAM CONTROL VALVE		X		X					X				VV	XX		, S
CONDENSATE RECEIVER HIGH LEVEL									٨				XX	XX		MTE
JLTIZONE AIR HANDLING UNIT OUTSIDE AIR	X							XX	X		X	X	XX	XX	AHU-1	S
DA AIR MONITOR DAMPER		X	X	X	X		X		V				VV	XX		_
TILTER HOT WATER CONTROL VALVE		X		X	^ X		X		^				XX	XX	CM-1 CM-1	
REEZESTAT CHILLED WATER CONTROL VALVE	X	X		X					X X				XX		CM-1 CM-1	A C
COILS DISCHARGE AIR RA AIR MONITOR DAMPER	X	V	X	X	Y		Y	XX	X						CM-1	
MIXED AIR	X		^	^	^		/\	XX	X					XX		
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SUPPLY FAN ZONE ROOM	Y				X	X	X	XX		X			XX	XX		FOF
ZONE HOT WATER CONTROL VALVE	^	X		X										XX	ONE FOR EACH ZONE	W AIF
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DA DAMPER	//	X			X		X	^ ^						XX		l Ü
TILTER HOT WATER CONTROL VALVE		X		X	X		X		X					XX	CM-2 CM-2	ing Com
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COILS DISCHARGE AIR	X			X				X X						XX	CM-2	gineer
MIXED AIR FILTER	X				X			XX	X				XX	X X X		
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COOLING COIL DISCHARGE AIR	X	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		X				XX						XX		
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ZONE SUPPLY AIR ZONE ROOM	X							X X X X							ONE FOR EACH ZONE ONE FOR EACH ZONE	SEAL AREA
TCHEN HOOD SUPPLY FANS												V				
OUTSIDE AIR	X							XX	X			X		XX		
OUTSIDE AIR DAMPER FILTER		X			X		X		X				XX	X X X		
FAN HOT WATER CONTROL VALVE		X		X	X		X			)	X	X		X X X X		
DISCHARGE AIR	X			X			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	XX	X					XX		RECORD DRA
HAUST FANS					X	X	X			X	X	X	XX	XX	TYPICAL FOR 10	CODE I.D. NO DRAWING SIZE SPEC. NO. OF
TEAM PIT HIGH WATER LEVEL									X				XX	XX		SPEC. NO. 06 CONSTRN. CO N62467-00

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#### SEQUENCE OF OPERATION

- 1. SCHEDULING OF EQUIPMENT: THE DDC CONTROL SYSTEM SHALL START AND STOP EACH ITEM OF EQUIPMENT ON A PRESET, USER DEFINED SCHEDULE. THE USER SHALL HAVE THE ABILITY TO SCHEDULE THE OPERATION OF EACH ITEM OF EQUIPMENT.
- 2. COOLING SYSTEM: THE CHILLED WATER SYSTEM SHALL BE ENABLED AND DISABLED BY THE DDC CONTROL SYSTEM. ANYTIME THERE IS A NEED FOR COOLING, WHEN SIGNALED BY THE DDC CONTROL SYSTEM, CHILLED WATER PUMP P-1 OR P-2 SHALL BE STARTED AND ONCE FLOW IS PROVEN, THE CHILLER C-1 SHALL BE ALLOWED TO START. EITHER P-1 OR P-2 SHALL BE ABLE TO SERVE AS THE LEAD PUMP WITH THE SECOND PUMP SERVING AS STANDBY. THE LEAD-LAG FUNCTION OF THE PUMPS MAY EITHER BE ALTERNATED ON A TIMED OR MANUAL BASIS AS DESIRED BY THE USER. CHILLER C-1 SHALL RUN UNDER ITS OWN PACKAGED CONTROLS AND MAINTAIN A CHILLED WATER SUPPLY TEMPERATURE OF 44°F (ADJUSTABLE).
- 3. HEATING SYSTEM: THE STEAM/HOT WATER SYSTEM SHALL BE ENABLED AND DISABLED BY THE DDC CONTROL SYSTEM. ANYTIME THERE IS A NEED FOR COOLING, WHEN SIGNALED BY THE DDC CONTROL SYSTEM, HOT WATER PUMP P-3 OR P-4 SHALL BE STARTED. EITHER P-3 OR P-4 SHALL BE ABLE TO SERVE AS THE LEAD PUMP WITH THE SECOND PUMP SERVING AS STANDBY. THE BUILDING WILL BE HEATED UTILIZING HOT WATER PRODUCED BY A STEAM TO HOT WATER HEAT EXCHANGER. (STEAM WILL BE PROVIDED FROM THE BASE STEAM SYSTEM.) THE STEAM CONTROL VALVE SHALL BE MODULATED TO MAINTAIN A HOT WATER SUPPLY TEMPERATURE AS DEFINED BY THE FOLLOWING RESET SCHEDULE. ALL TEMPERATURES SHALL BE ADJUSTABLE. THE RESET SCHEDULE SHALL BE LINEAR BETWEEN THE FOLLOWING TWO POINTS: PROVIDE 180°F HOT WATER SUPPLY TEMPERATURE WHEN THE OUTSIDE AIR TEMPERATURE IS 25°F AND PROVIDE 120°F HOT WATER SUPPLY TEMPERATURE WHEN THE OUTSIDE AIR TEMPERATURE IS 60°F.
- 4. KITCHEN HOOD SUPPLY FANS: THE KITCHEN HOOD SUPPLY FANS SHALL BE INTERLOCKED WITH THEIR RESPECTIVE KITCHEN HOOD EXHAUST FAN, I.E. SF-1/EF-7, SF-2/EF-8, SF-3/EF-9, AND SF-4/EF-10. THE FANS WILL BE ENERGIZED AT THE HOOD CONTROL PANELS. THE OUTSIDE AIR DAMPER SHALL BE OPENED AND PROVED OPEN PRIOR TO THE FANS BEING ALLOWED TO START. WHEN OPERATING A DISCHARGE AIR CONTROLLER SHALL MODULATE THE HOT WATER CONTROL VALVE TO MAINTAIN A DISCHARGE AIR TEMPERATURE OF 68°F (ADJUSTABLE). SHOULD THE SMOKE DETECTOR IN THE DISCHARGE OF SF-1, SF-3 AND SF-4 SENSE SMOKE, THE FIRE ALARM SYSTEM SHALL BE SIGNALED AND THE FAN MAY BE SHUTDOWN THROUGH A FIRE ALARM SHUTDOWN RELAY.
- 5. EXHAUST FANS (OTHER THAN KITCHEN HOOD EXHAUST FANS): THESE FANS SHALL RUN CONTINUOUSLY WHEN AHU-1 AND AHUI-2 ARE OPERATING. (IT IS EXPECTED THAT THESE FANS WILL RUN CONTINUOUSLY.)
- 6. MULTIZONE AIR HANDLING UNIT AHU-1 AND OUTSIDE AIR COIL MODULE CM-1: WHEN SIGNALED BY THE DDC CONTROL SYSTEM, THE FAN SHALL START. EACH ZONE SHALL HAVE A SPACE TEMPERATURE SENSOR. THE SPACE TEMPERATURE SENSORS SHALL MODULATE MULTIZONE DAMPERS TO MAINTAIN SPACE TEMPERATURE SETPOINTS OF 76°F (ADJUSTABLE) FOR COOLING AND 68°F (ADJUSTABLE) FOR HEATING. SHOULD ZONE SPACE TEMPERATURE FALL TO A POINT WHERE HEATING IS REQUIRED, THE MULTIZONE DAMPERS SHALL OPEN TO FULL BYPASS POSITION AND THE HOT WATER VALVE ON THE DUCT MOUNTED COIL SHALL BE MODULATED TO MAINTAIN SPACE TEMPERATURE OF 68°F (ADJUSTABLE) FOR HEATING. THE CHILLED WATER VALVE SHALL BE MODULATED TO MAINTAIN A COLD DECK TEMPERATURE OF 53°F (ADJUSTABLE). SHOULD ALL OF THE ZONES BE IN THE FULL BYPASS POSITION, I.E. ALL ZONE SPACE TEMPERATURES LESS THAN 68°F, THE CHILLED WATER VALVE SHALL BE IN THE BYPASS POSITION. SMOKE DETECTORS IN EACH ZONE SUPPLY DUCT SHALL SIGNAL THE FIRE ALARM SYSTEM IF THEY SENSE SMOKE. THE UNIT SHALL BE SHUTDOWN THROUGH A FIRE ALARM SHUTDOWN RELAY BY THE FIRE ALARM SYSTEM. ANYTIME THAT THE CONTROLS FOR AHU-1 ARE ENERGIZED, THE CONTROLS FOR OUTSIDE AIR COIL MODULE CM-1 SHALL ALSO BE ENERGIZED. THE OUTSIDE AIR MONITOR DAMPER SHALL BE OPENED. THE UNIT CONTROLLER SHALL MAINTAIN AN OUTSIDE AIR MODULE DISCHARGE AIR TEMPERATURE OF 55°F (ADJUSTABLE) BY MODULATING THE HOT WATER VALVE AND THE CHILLED WATER VALVE. (COOLING AND HEATING SHALL NOT OCCUR SIMULTANEOUSLY.) A MANUAL RESET LOW-LIMIT THERMOSTAT (SET 35°F) WITH A 20 FOOT ELEMENT FOR EACH 16 SQUARE FEET OF COIL AREA SHALL CLOSE THE OUTSIDE AIR MONITOR DAMPER AND FULLY OPEN THE RETURN AIR MONITOR DAMPER WHEN TRIPPED. THIS THERMOSTAT SHALL BE DOWNSTREAM OF THE HEATING COIL. OTHER THAN AS DESCRIBED ABOVE FOR A FREEZE SITUATION, THE OUTSIDE AIR AND RETURN AIR MONITOR DAMPERS SHALL BE CONTROLLED AS FOLLOWS. THE REQUIRED AIRFLOW RATES WILL VARY AS THE QUANTITY OF KITCHEN HOOD SUPPLY/EXHAUST FANS ARE ENERGIZED AND DEENERGIZED. WHEN ALL KITCHEN HOOD FANS, I.E. SF-1/EF-7, SF-2/EF-8, SF-3/EF-9, AND SF-4/EF-10ARE OPERATING, THE OUTSIDE AIRFLOW RATE SHALL BE 6,230 CFM AND THE RETURN AIRFLOW RATE SHALL BE 8,670 CFM. SHOULD ALL THE KITCHEN HOOD FANS BE OFF, THE OUTSIDE AIRFLOW RATE SHALL BE O CFM AND THE RETURN AIRFLOW RATE SHALL BE 14,900 CFM. FOR ANY KITCHEN HOOD FANS OPERATION BETWEEN THE TWO EXTREMES DESCRIBED ABOVE, THE FOLLOWING AIR FLOW RATES SHALL BE ADDED TO THE RETURN AIRFLOW RATE AND SUBTRACTED FROM THE OUTSIDE AIRFLOW RATE AS SUPPLY/EXHAUST FAN COMBINATIONS ARE DEENERGIZED: SF-1/EF-7: 1,200 CFM, SF-2/EF-8: 750 CFM, SF-3/EF-9: 2,250 CFM, AND SF-4/EF-10: 2,250 CFM. THE RETURN AIRFLOW RATE SHALL BE DECREASED AND THE OUTSIDE AIRFLOW RATE SHALL BE INCREASED AS SUPPLY/EXHAUST FAN COMBINATIONS ARE

7. MULTIZONE AIR HANDLING UNIT AHU-2 AND OUTSIDE AIR COIL MODULE CM-2: WHEN SIGNALED BY THE DDC CONTROL SYSTEM, THE FAN SHALL START. EACH ZONE SHALL HAVE A SPACE TEMPERATURE SENSOR. THE SPACE TEMPERATURE SENSORS SHALL MODULATE MULTIZONE DAMPERS TO MAINTAIN SPACE TEMPERATURE SETPOINTS OF 76°F (ADJUSTABLE) FOR COOLING AND 68°F (ADJUSTABLE) FOR HEATING. SHOULD ZONE SPACE TEMPERATURE FALL TO A POINT WHERE HEATING IS REQUIRED, THE MULTIZONE DAMPERS SHALL OPEN TO FULL BYPASS POSITION AND THE HOT WATER VALVE ON THE DUCT MOUNTED COIL SHALL BE MODULATED TO MAINTAIN SPACE TEMPERATURE OF 68°F (ADJUSTABLE) FOR HEATING. THE CHILLED WATER VALVE SHALL BE MODULATED TO MAINTAIN A COLD DECK TEMPERATURE OF 53°F (ADJUSTABLE). SHOULD ALL OF THE ZONES BE IN THE FULL BYPASS POSITION, I.E. ALL ZONE SPACE TEMPERATURES LESS THAN 68°F, THE CHILLED WATER VALVE SHALL BE IN THE BYPASS POSITION. SMOKE DETECTORS IN EACH ZONE SUPPLY DUCT SHALL SIGNAL THE FIRE ALARM SYSTEM IF THEY SENSE SMOKE. THE UNIT SHALL BE SHUTDOWN THROUGH A FIRE ALARM SHUTDOWN RELAY BY THE FIRE ALARM SYSTEM. ANYTIME THAT THE CONTROLS FOR AHU-2 ARE ENERGIZED, THE CONTROLS FOR OUTSIDE AIR COIL MODULE CM-2 SHALL ALSO BE ENERGIZED. THE OUTSIDE AIR DAMPER SHALL BE OPENED. THE UNIT CONTROLLER SHALL MAINTAIN AN OUTSIDE AIR MODULE DISCHARGE AIR TEMPERATURE OF 54°F (ADJUSTABLE) BY MODULATING THE HOT WATER VALVE AND THE CHILLED WATER VALVE. (COOLING AND HEATING SHALL NOT OCCUR SIMULTANEOUSLY.) A MANUAL RESET LOW-LIMIT THERMOSTAT (SET 35°F) WITH A 20 FOOT ELEMENT FOR EACH 16 SQUARE FEET OF COIL AREA SHALL CLOSE THE OUTSIDE AIR DAMPER WHEN TRIPPED. THIS THERMOSTAT SHALL BE DOWNSTREAM OF THE HEATING COIL.

REF #50097



99010M25

#### NOTES FOR SHEET M201:

- (1) KITCHEN VENTILATION HOOD.
- (2) 24X10 SUPPLY DUCTWORK TO HOOD (TYPICAL).
- TWO 30X10 DOWN TO EXHAUST CONNECTIONS ON HOOD AND UP TO EXHAUST FAN EF-9 ON ROOF.
- TWO 30X10 DOWN TO EXHAUST CONNECTIONS ON HOOD AND UP TO EXHAUST FAN EF-10 ON ROOF.
- (5) CEILING MOUNTED SUPPLY AIR DIFFUSER 18X18 B, BALANCE FOR 600 CFM.
- 6 24X24 CEILING MOUNTED AIR TRANSFER GRILLE TYPE D WITH 6 INCH DEEP PLENUM BEHIND GRILLE (TYPICAL).
- 7 18X10 AIR TRANSFER DUCTWORK.
- (8) 12X8 AIR TRANSFER DUCTWORK.
- (9) 8 INCH ROUND SUPPLY AIR DUCTWORK.
- 12X12 CEILING MOUNTED AIR TRANSFER GRILLE WITH 6 INCH DEEP PLENUM BEHIND GRILLE.
- (1) CEILING MOUNTED SUPPLY AIR DIFFUSER, 8 INCH ROUND "C", BALANCE FOR 175 CFM.
- 12X6 EXHAUST DUCTWORK.
- 12X12 CR WITH 6 INCH DEEP PLENUM BEHIND REGISTER BALANCE FOR 90 CFM. ROUTE 6X6 EXHAUST DUCTWORK UP TO ROOF MOUNTED EXHAUST FAN EF-5.
- 12X12 CR WITH 6 INCH DEEP PLENUM BEHIND REGISTER, BALANCE FOR 200 CFM. ROUTE 8X8 EXHAUST DUCTWORK UP TO ROOF MOUNTED EXHAUST FAN EF-4.
- (5) 16X12 EXHAUST DUCTWORK UP TO ROOF MOUNTED FAN EF-6.
- (6) 14X12 EXHAUST DUCTWORK UP TO ROOF MOUNTED FAN EF-3.
- 12X12 CR BALANCE FOR 150 CFM.
- (8) 12X12 CR BALANCE FOR 200 CFM (TYPICAL OF FOUR).
- 12X8 EXHAUST DUCTWORK.
- 20 20X14 SUPPLY DUCTWORK.
- DUCT MOUNTED HOT WATER COIL (TYPICAL).
- 22 12X12 CR, BALANCE FOR 210 CFM (TYPICAL OF FOUR).
- 23 12X10 EXHAUST DUCTWORK.
- 24 12X30 SUPPLY DUCTWORK TO HOOD.

- 25 32X10 EXHAUST DUCTWORK DOWN TO CONNECTION TO HOOD AND
- 26 24X24 CR CEILING MOUNTED RETURN AIR REGISTER (TYPICAL
- 27 24X24 CR CEILING MOUNTED RETURN AIR REGISTER. BALANCE RETURN AIR FOR 4005 CFM (TOTAL FOR ALL FOUR REGISTERS).
- 28 10X18 SUPPLY DUCTWORK TO HOOD.
- 29 10X20 EXHAUST DUCTWORK DOWN TO CONNECTION TO HOOD AND UP TO ROOF MOUNTED EXHAUST FAN EF-8.
- WELDED STAINLESS STEEL EXHAUST DUCTWORK.
- 31 14X14 EXHAUST DUCTWORK UP TO ROOF MOUNTED EXHAUST FAN EF−2.
- 32 16X6 DOWN TO EXHAUST CONNECTION ON DISHWASHER. PROVIDE
- (34) 18 INCH DEEP PLENUM BEHIND WALL LOUVER.
- WALL LOUVER, REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.
- (37) HANG FAN FROM BUILDING STRUCTURE WITH THREADED RODS AND SPRING TYPE VIBRATION ISOLATORS. PROVIDE FLEXIBLE DUCT CONNECTIONS. BOTTOM OF FAN SHALL BE 13'-2" ABOVE FINISHED FLOOR.
- INCH LONG ACTIVE SUPPLY SECTIONS AS INDICATED. PROVIDE EXTRUDED ALUMINUM DIFFUSER WITH: THREE 3/4 INCH SLOTS, EACH SLOT SHALL HAVE INDIVIDUAL DIRECTION AND VOLUME CONTROL, CONCEALED FASTENERS, 1-1/8 INCH BORDER, AND ALIGNMENT PINS. BLANK-OFF NON-ACTIVE SECTIONS OF DIFFUSER WITH INSULATED SHEET METAL CAP. PROVIDE INSULATED SUPPLY AIR PLENUM FOR ACTIVE (SUPPLY) SECTIONS OF DIFFUSER. COORDINATE OVERALL DIFFUSER LENGTH WITH ARCHITECTURAL REFLECTED CEILING PLANS.
- (39) NON-ACTIVE SECTION OF CONTINUOUS LINEAR SLOT DIFFUSER SHALL MATCH ADJACENT ACTIVE (DUCTED) SECTIONS. REFER TO
- (40) BALANCE DIFFUSER TO SUPPLY 240 CFM.
- 41) PROVIDE 4 INCH ROUND CLOTHES DRYER EXHAUST DUCTWORK UP THROUGH ROOF. TERMINATE EXHAUST DUCT 18 INCHES ABOVE ROOF WITH 90 DEGREE ELBOW. PROVIDE WALL TYPE CLOTHES DRYER VENT OUTLET WITH INTEGRAL BACKDRAFT DAMPER ON END OF 4 INCH ELBOW. PROVIDE INLINE TYPE CENTRIFUGAL BOOSTER FAN IN 4 INCH EXHAUST DUCTWORK. FAN SHALL BE U.L. RATED FOR INSTALLATION IN A CLOTHES DRYER EXHAUST DUCT. FAN SHALL EXHAUST 150 CFM. ELECTRICAL CHARACTERISTICS SHALL BE 120 VOLTS/1 PHASE. FAN SHALL BE ACTIVATED BY AN INTEGRAL PRESSURE SENSOR SWITCH. INSTALL FAN IN AN ACCESSIBLE LOCATION ABOVE CEILING. JOIN CLOTHES DRYER EXHAUST DUCT SECTIONS WITHOUT SCREWS. PAINT EXHAUST DUCTWORK EXPOSED ABOVE ROOF TO

REF# 49110

UP TO ROOF MOUNTED EXHAUST FAN EF-7.

OF FOUR). BALANCE RETURN AIR FOR 4200 CFM (TOTAL FOR ALL FOUR REGISTERS).

BALANCING DAMPER WITH LOCKING QUADRANT IN VERTICAL.

33 12X12 DOWN TO CONNECTION TO EXHAUST HOOD.

 $\langle \overline{36} \rangle$  12X12 UP TO ROOF MOUNTED EXHAUST FAN EF-1.

(38) CEILING MOUNTED CONTINUOUS LINEAR SLOT DIFFUSER WITH 48

ABOVE NOTE 38 FOR ADDITIONAL REQUIREMENTS.

MATCH COLOR OF ROOF.

SEAL AREA

Engineering Command

RECORD DRAWING DATE CODE I.D. NO. 80091

DRAWING SIZE: SPEC. NO. 06-00-0397 CONSTRN. CONTR. NO. N62467-00-C-0397 NAVFAC DRAWING NO. 5385657 SHEET 111 OF -

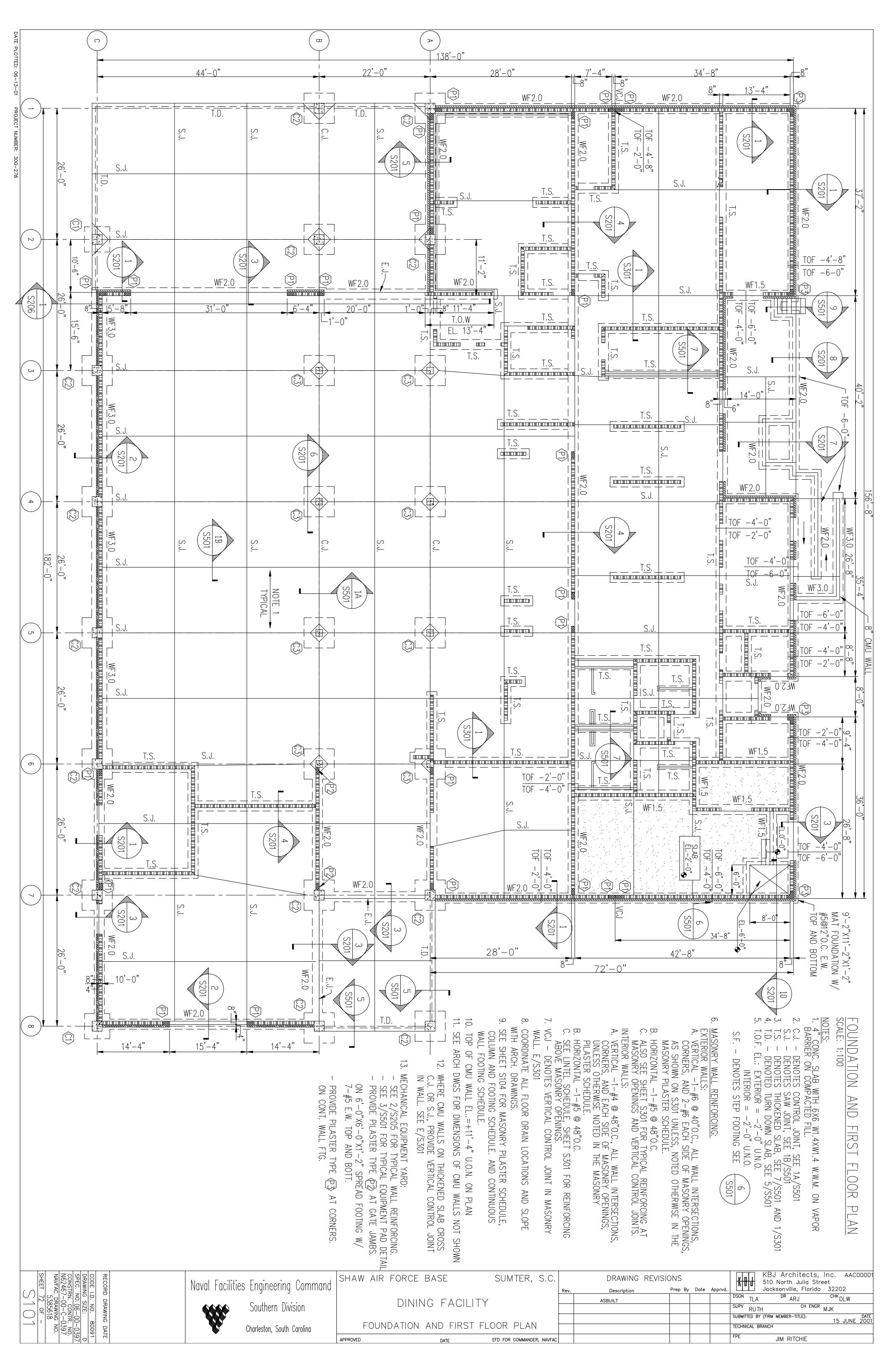
200.2. 200.1. FOUNDATIONS LOADS AND CRITERIA 300.2. 300.1. GENERAL 300.12. 300.5. 300.4. 300.3. REINFORCED CONCRETE 510.4. 510.2. 510.1. 510.3. 350.1. 350.3. 350.2. STRUCTURAL CONCRETE LIVE LOADS: #300-NO BACKFILLING AGAINST FOUNDATION WALLS SHALL BE PERMITTED UNTIL SUPPORTING STRUCTURAL ELEMENTS HAVE BEEN PLACED AND HAVE BECOME CAPABLE OF FURNISHING THE NECESSARY SUPPORT FOR THE WALLS. PROVIDE TEMPORARY SHORING WHERE REQUIRED.

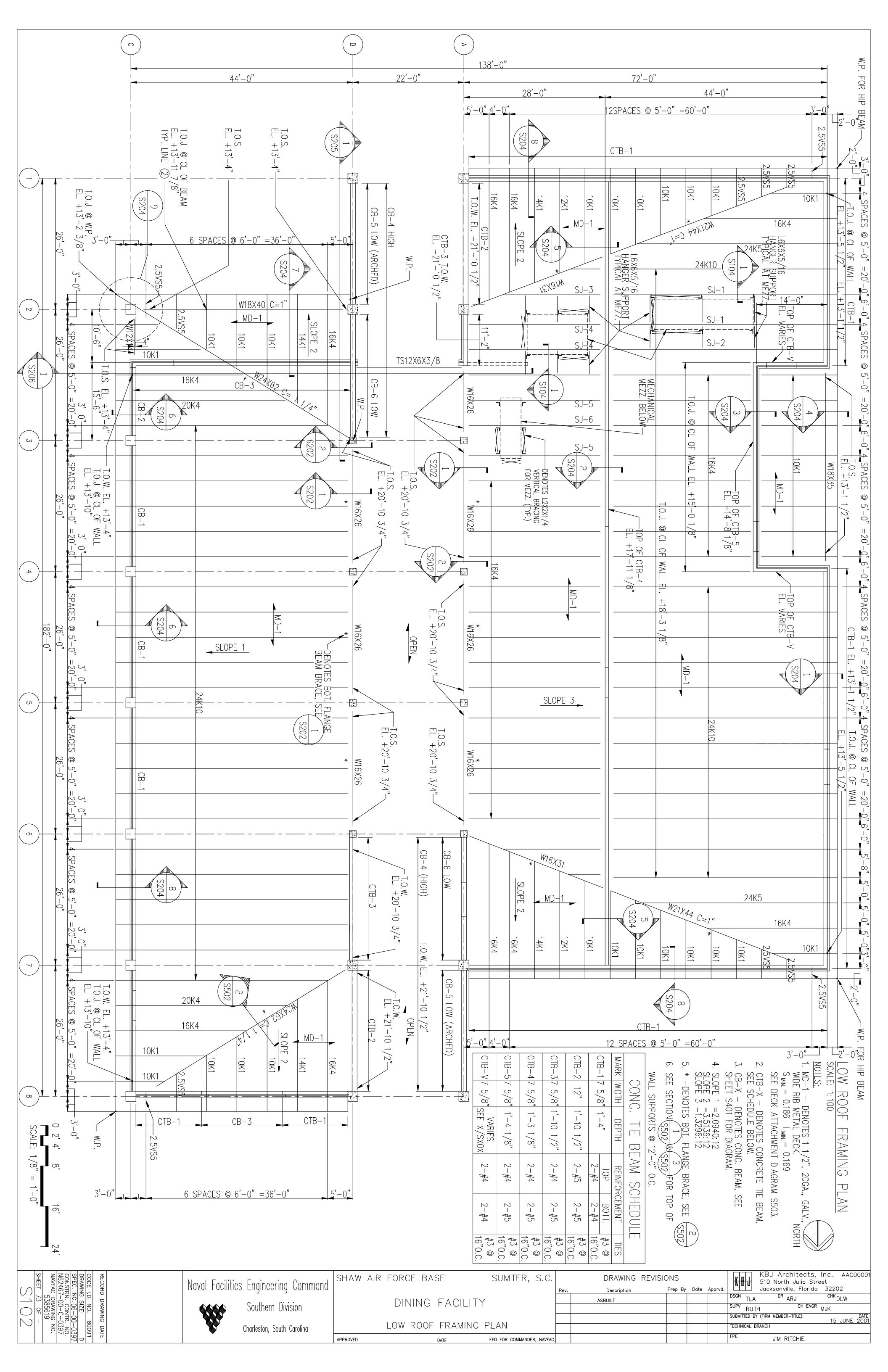
CONTRACTOR SHALL USE EXTREME CAUTION DURING

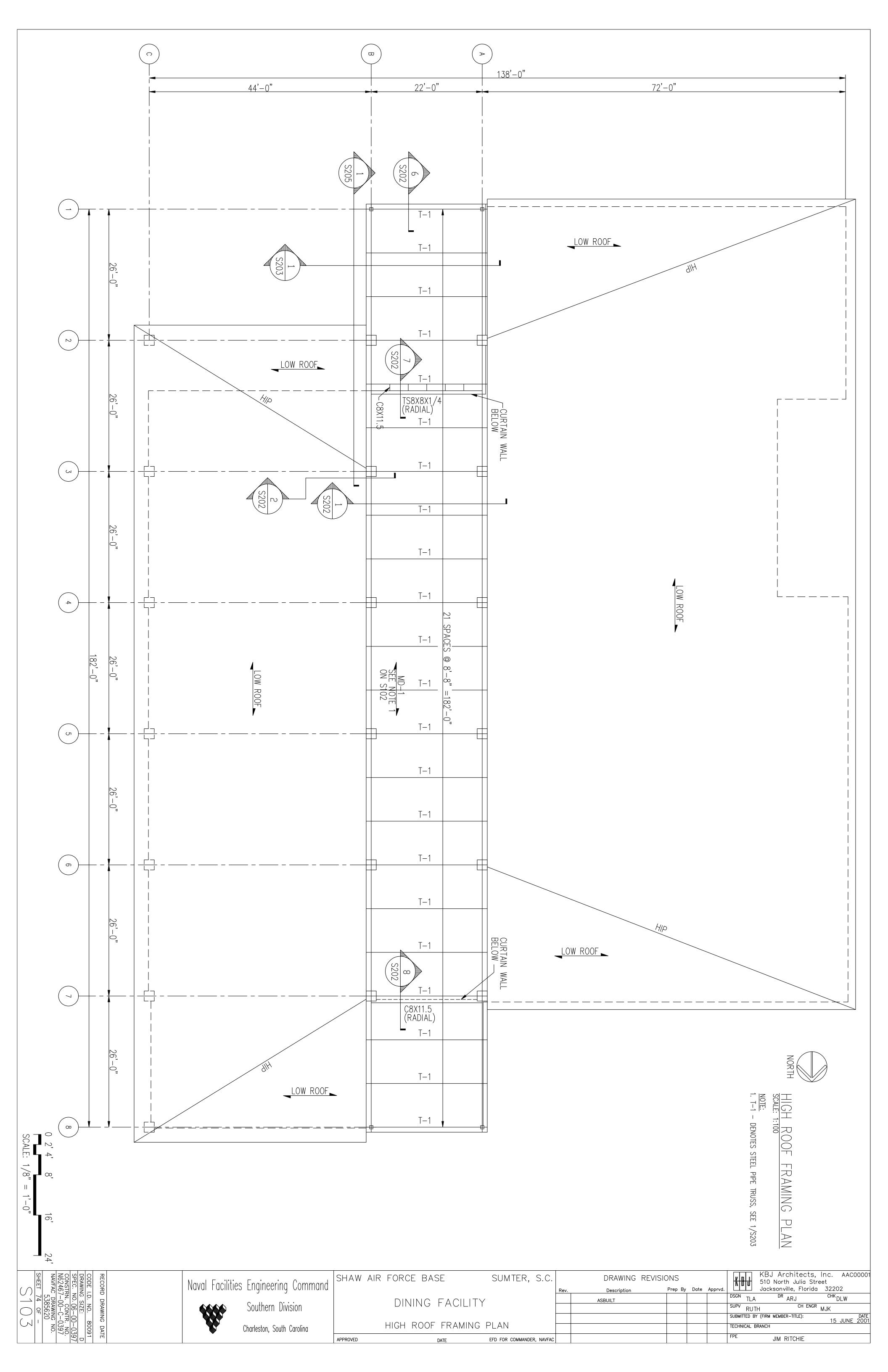
BACKFILLING TO PREVENT DAMAGE TO FOUNDATION WALLS. THE USE OF ALL TAKE MINIMUM COVER FOR CAST-IN-PLACE CONCRETE REINF., U 318, DEWATERING AS NECESSARY. EXCAVATIONS REMAIN DRY DURING CONSTRUCTION. PROVIDE FOR 품 HEAVY EQUIPMENT FOR BACKFILLING IS NOT RECOMMENDED. CONTRACTOR SHALL VERIFY DIMENSIONS AND LOCATIONS OF PIPE SLEEVES, ETC., AS REQUIRED FOR MECHANICAL TRADES CONCRETE IS PLACED. REINFORCEMENT WALLS . ALL MINIMUM F'c REQUIRED AT 28 DAYS: F00TINGS CONFORMING TO ASTM C33. ALL REINFORCED CONCRETE WORK SHALL BE IN CONFORMANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (A 318, 99) AND SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301, LATEST EDITION) OF THE AMERICAN CONCRETE INSTITUTE. GRADE GALVANIZED STRUCTURAL STEEL

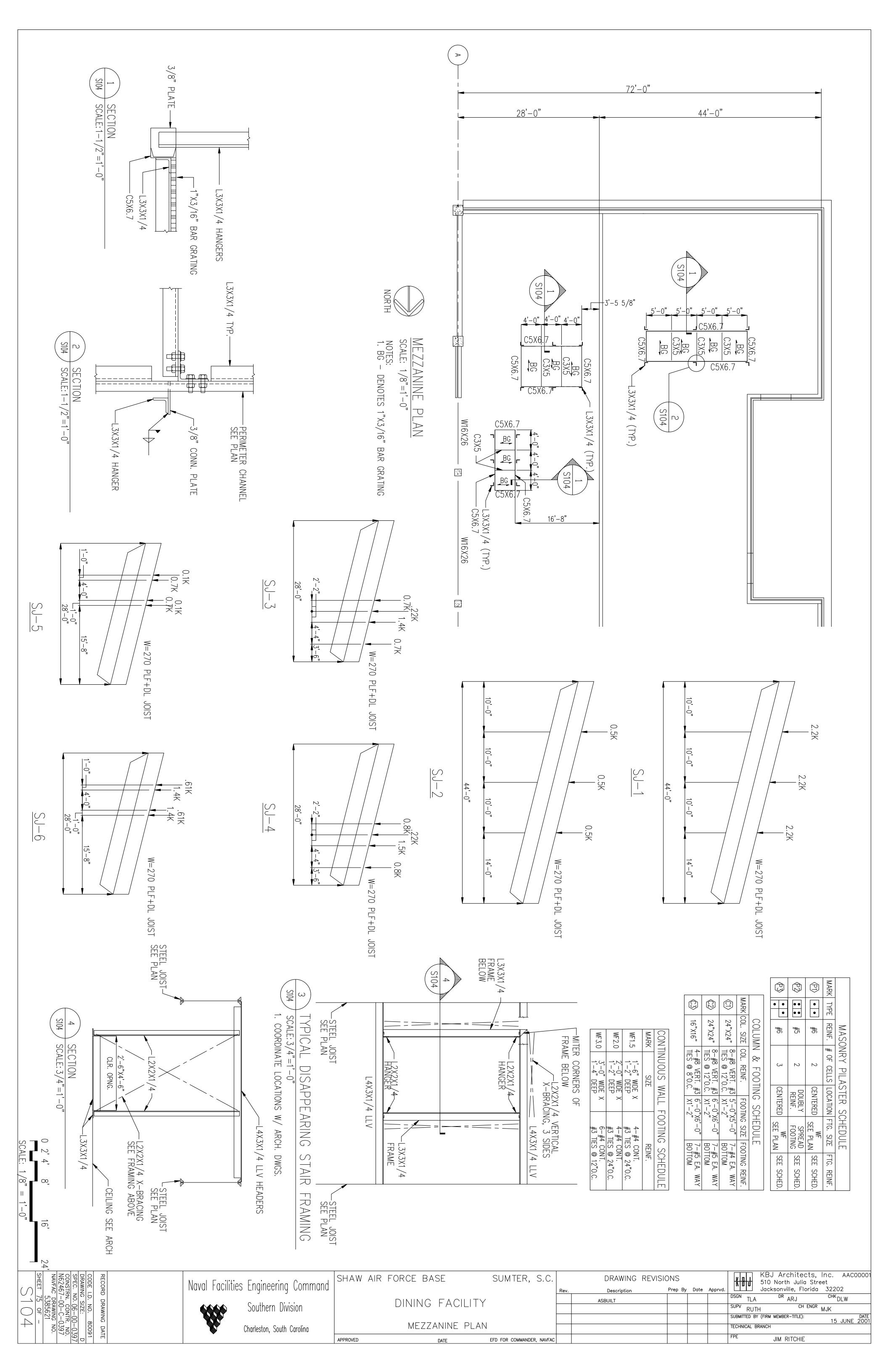
a. STRUCTURAL SHAPES AND FA

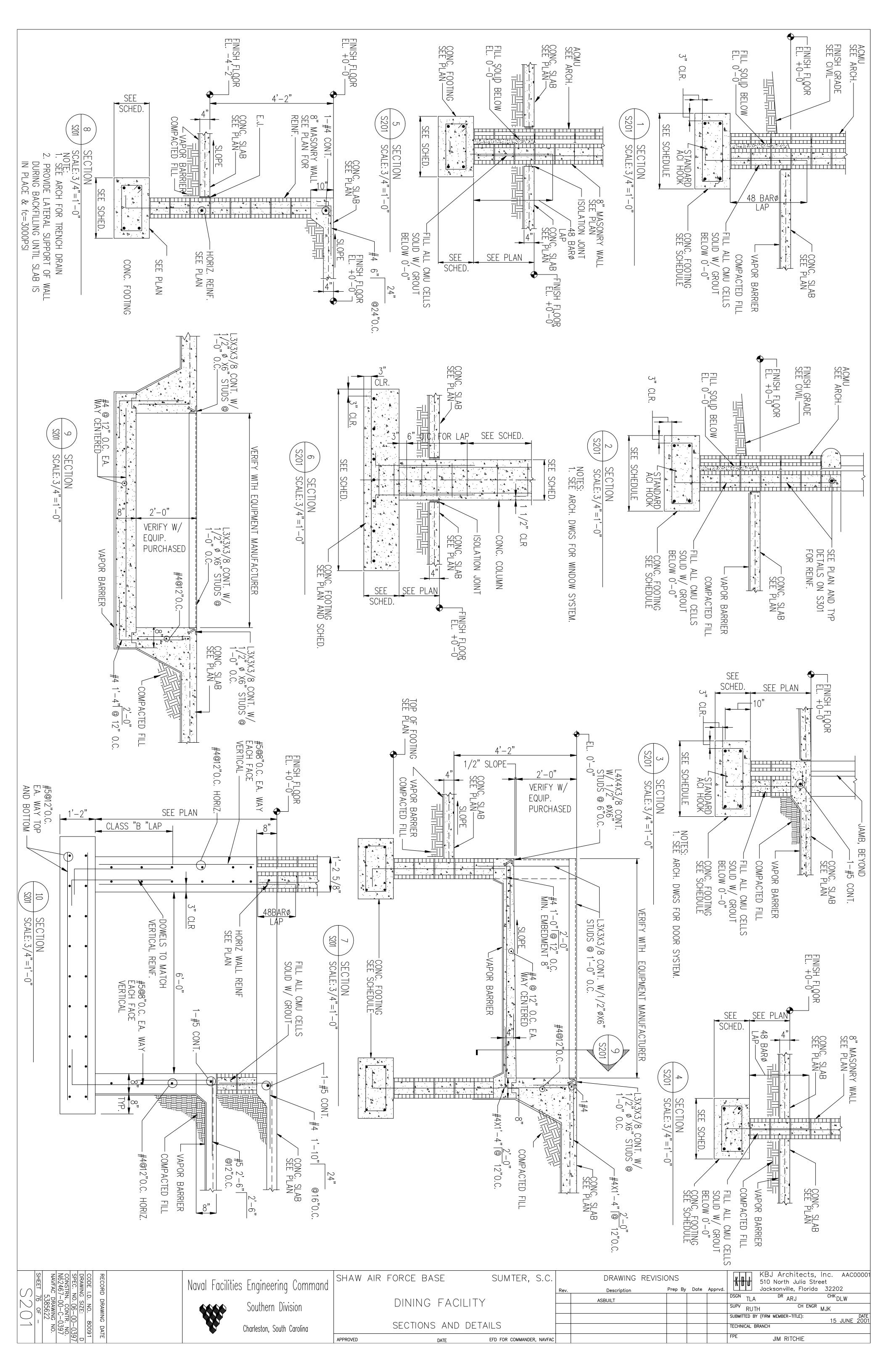
b. BOLTS, FASTENERS AND HAP ALL WELDING SHALL BE IN ACCORDANCE WITH THE STRUCTURAL WELDING CODE, AWS D1.1, LATEST EDITION, OF THE AMERICAN WELDING SOCIETY. ELECTRODES SHALL BE E70XX FOR MANUAL ARC WELDING ALL STRUCTURAL STEEL WORK SHALL BE IN ACCORDANCE WITH "LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS" (1993 EDITION) OF THE AISC. ALL HEADED CONCRETE ANCHORS SHALL BE NELSON 3/4 X 4" INCH H4L ANCHORS WITH FLUXED ENDS AS MANUF/NELSON STUD WELDING COMPANY, UNLESS THE SIZE IS NOTHERWISE ON THE STRUCTURAL DRAWINGS. WELDING CODE ANSI/AWS D1.1-00 OF THE AMERICAN WELDING SOCIETY AND THE RECOMMENDATIONS OF THE NELSON STUD WELDING COMPANY. ALL WELDS SHALL BE MADE IN ACCORDANCE WITH STRUCTURAL MATERIAL WHICH CONFORMS AND F7X—EXXX FOR SUBMERGED STRUCTURAL BAR GRATING. DEFORMED BARS . CONCRETE SHALL BE NORMAL WEIGHT CONCRETE (144 PCF +) WITH CEMENT CONFORMING TO ASTM C150, TYPE I. MAXIMUM AGGREGATE SHALL BE 1-1/2" FOR FOOTINGS AND 3/4" FOR WALLS, W SHAPES ONLY . ALL OTHER MISC. CONTRACTOR SHALL OBSERVE WATER CONDITIONS AT THE SITE AN THE NECESSARY PRECAUTIONS TO INSURE THAT THE FOUNDATION RUCTURAL NOTES -278 STEAM LINE ANCHORS HEADED CONCRETE ANCHORS SHALL STEEL OF STEEL E SHOWN ON I 1.5; ANGLE, PLATE, CHANNELS, 10 ASTM A108 FOR LOW CARBON ARC WELDING. f'C BE MANUFACTURED FROM 40 PSF THE SIZE IS NOTED 4000 PSI AS MANUFACTURED BY ASTM S, ETC . .ASTM A615, .ASTM A123 .ASTM A153 A992 ASTM A36. UNLESS INCH DIAMETER BEFORE +) WITH GRADE SLOTS, (ACI 60 STEEL 3'-0" 610.3. 610.2. 610.1. #5 DOWELS @ 12"0.C. — FOR REINF.  $\sqsubseteq$ 8" CONC. SEE 3"CLR: GRATE Ĭ¥. -9<sup>3</sup>-4" STEEL FLOOR G S | \_ STEEL ALL STEEL FLOOR GRATE SHALL BE CAPABLE OF SUPPORTING A 40 PSF SUPERIMPOSED LOAD AT THE INDICATED SPANS. THE DEFLECTION OF THE STEEL GRATE FLOOR UNDER THE ABOVE LOAD OR A 200# CONCENTRATED LOAD AT MIDSPAN SHALL NOT EXCEED L/240 SUPPORTING STRUCTURE CONNECTION DETAILS, WALL FLOORING NOTES: 1. 11/2"X1/ 2-4'-0"/ STEEL GRATE FLOORING SHALL BE SCALE: 1/4" PLAN ALL STEEL SHALL  $\mathbb{Q}_{\omega}$ SCALE: SECTION GRATE MANUFACTURER SHALL SUBMIT SHOP DRAWINGS A MINIMUM THE PROPOSED JOINT LOCATIONS, NOTE /8" BAR PANELS 5'-8" AND GRADE OF STEEL. 5-0" DEEP 11'-4" GRATING SHALL BE PANELIZED INTO AND 1-3'-4" PANEL. BE HOT DIP GALVANIZED. W12X19 ING SHALL BE SECURELY FASTENED TO THE AT A SPACING NOT EXCEEDING 24" O.C. 2'-6" SQUARE 9" NOTE 1  $\dot{\infty}$ -#4 @ 10"0.C. EW BOTTOM -13'-4"X13'-4" MAT W/ #4 @ 12"O.C. EW #OP & BOTT. -8" CONC. WALLS 2" LEDGE TYP. - MAT FOOTING W/ #4 @ 12"O.C. EW TOP & BOTT. 2#4 HIGHEST FINISH GRADE CONTINUOUS WATERSTOP -#5 @ 12"0.C. VERTICAL 3/4" CHAMFER TYP. SCALE: WALL 4|3 9'-4" DETAIL WALL REINF SEE ( 3'-0" CORNER BAR. MATCH HORIZ. WALL REINF. INSIDE PIT 36" LAP -0° <del>)</del>FOR SECTION -11/2" CLR. ADDITIONAL ... HORIZ.. REINF.-3@12"=3'-0' 5@12"=5'-0' 8" SCALE: PIPE NOTES:
1. FOR 20" & 14" DIA. SLEEVES, STOP INTERSECTING BARS AND PROVIDE ADDITIONAL #5 BARS AND DOUBLE VERT. AND HORIZ. REINF. EACH SIDE OF SLEEVE AS SHOWN ABOVE. LOACTE SLEEVE SUCH THAT ONLY ONE BAR IN EACH DIRECTION IS INTERRUPTED. 11/2" CLR. -#4 @ 12"O.C. EW T & B 1 1/2"X 1/8" STEEL BAR GRATING L2X2X1,/4 CONJ. W/1/2, DIA.X3 STUDS @ 24,0.C. FOR 12" & 10" DIA. SLEEVES, BARS, SUCH THAT 1 1/2" CLR ₩ • SLEEVE 1'-0" 5#7 HORIZ. 5#6 HORIZ 2#5 Į≓ Į HORIZ. DETAIL ADDITIONAL VERT. REINF. DIAMETER EMBED 3/4" TYP. -OCATE VERTICAL IS MAINTAINED. CHAMFER #1 1 1/2"X1/8" STEEL BAR GRATING — WALL, REINF.@ 12, O.C. #5X4'-0" 4 PLACES 11/2 TYP. & HORIZONTAL  $\frac{\text{SECTION}}{\text{SCALE: } \frac{3}{4}" = 1"}$  $\frac{\text{SECTION}}{\text{SCALE: } \frac{3}{4}" = 1"}$ CLR. NOTES: ALL PLATES 1/2" THICK ALL STUDS 3/4"X4" EMBEDDED SCALE: 11/2" = W12X19 CONCRETE WALL SEE (FOR REINF. 1 1/2"X1/8" STEEL BAR GRATING 3/8" CONN. PLATE 3-3/4" DIA. A325 BOLTS (SLOT HOLES ONE END) W12X19 R =1'-0" 10" # KBJ Architects, Inc. AAC0000 510 North Julia Street SUMTER, S.C SHAW AIR FORCE BASE DRAWING REVISIONS RECORD DRAWING DATE Naval Facilities Engineering Command Jacksonville, Florida 32202 Prep By Date Apprvd. Description DSGN DR ARJ TLA DININIG FACILITY **ASBUILT** Southern Division SUPV RUTH CH ENGR MJK SUBMITTED BY (FIRM MEMBER-TITLE) DATE 15 JUNE 2001 CONCRETE BEAM DIAGRAMS Charleston, South Carolina TECHNICAL BRANCH EFD FOR COMMANDER, NAVFAC JIM RITCHIE APPROVED DATE

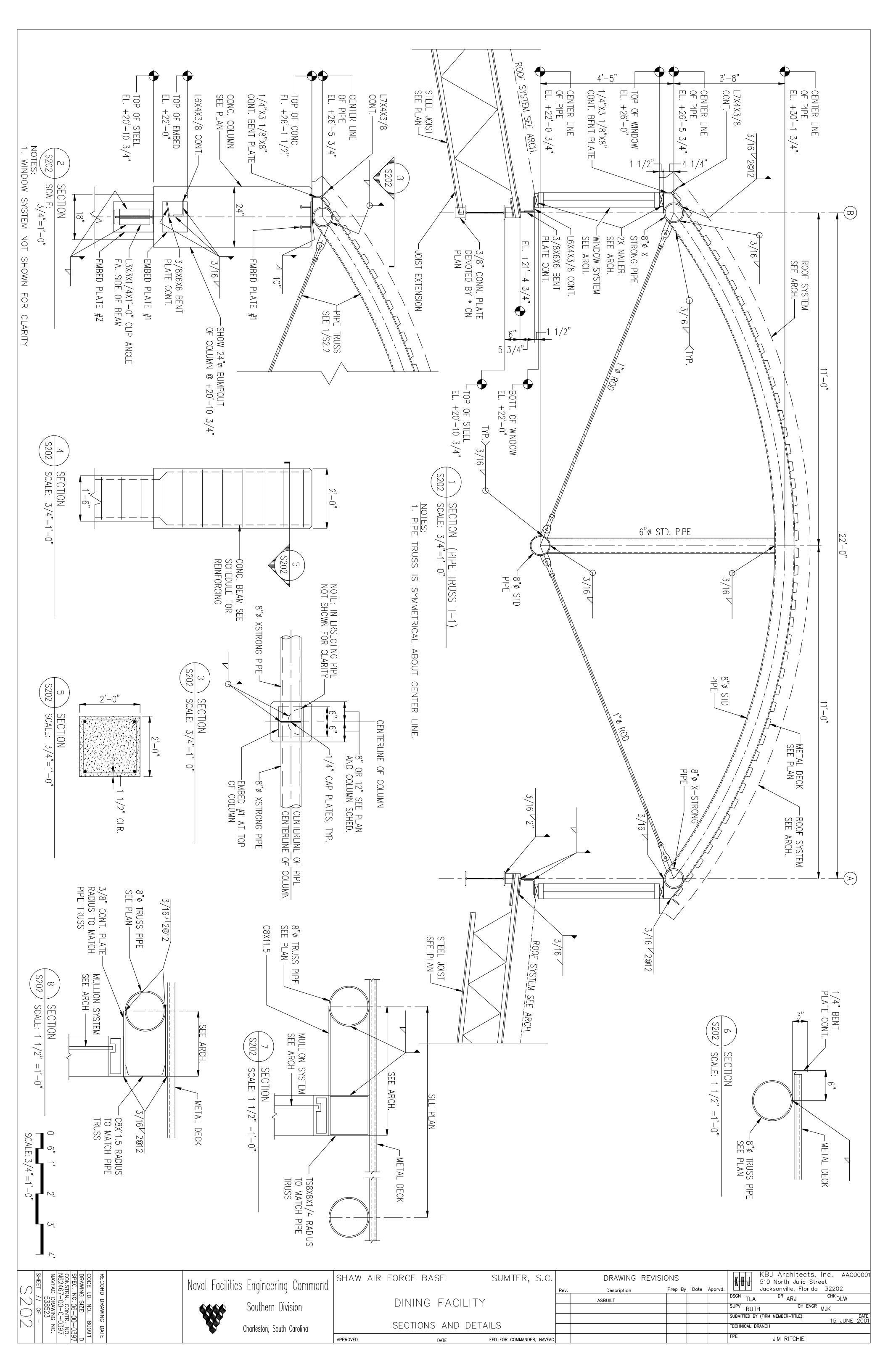


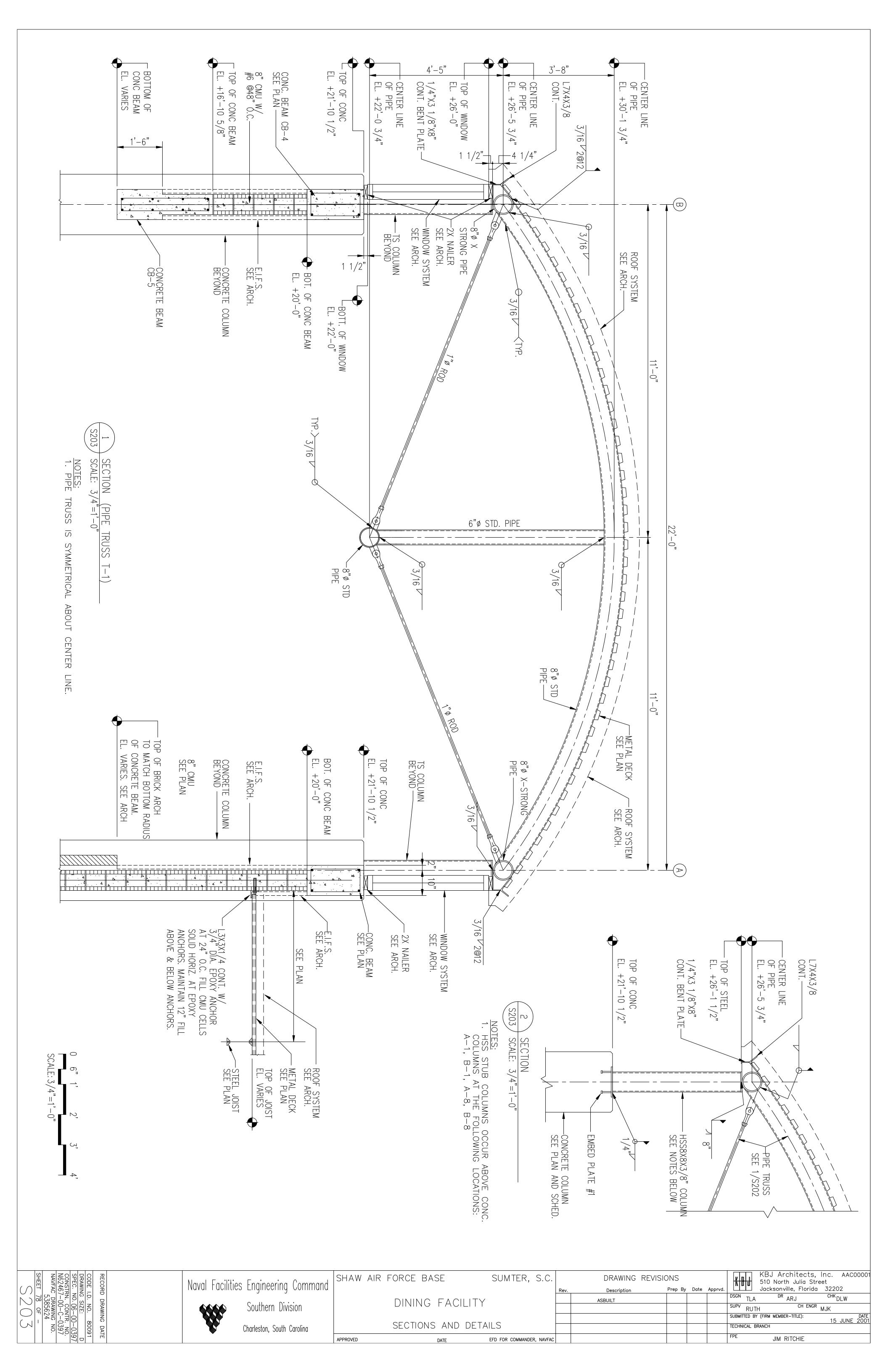


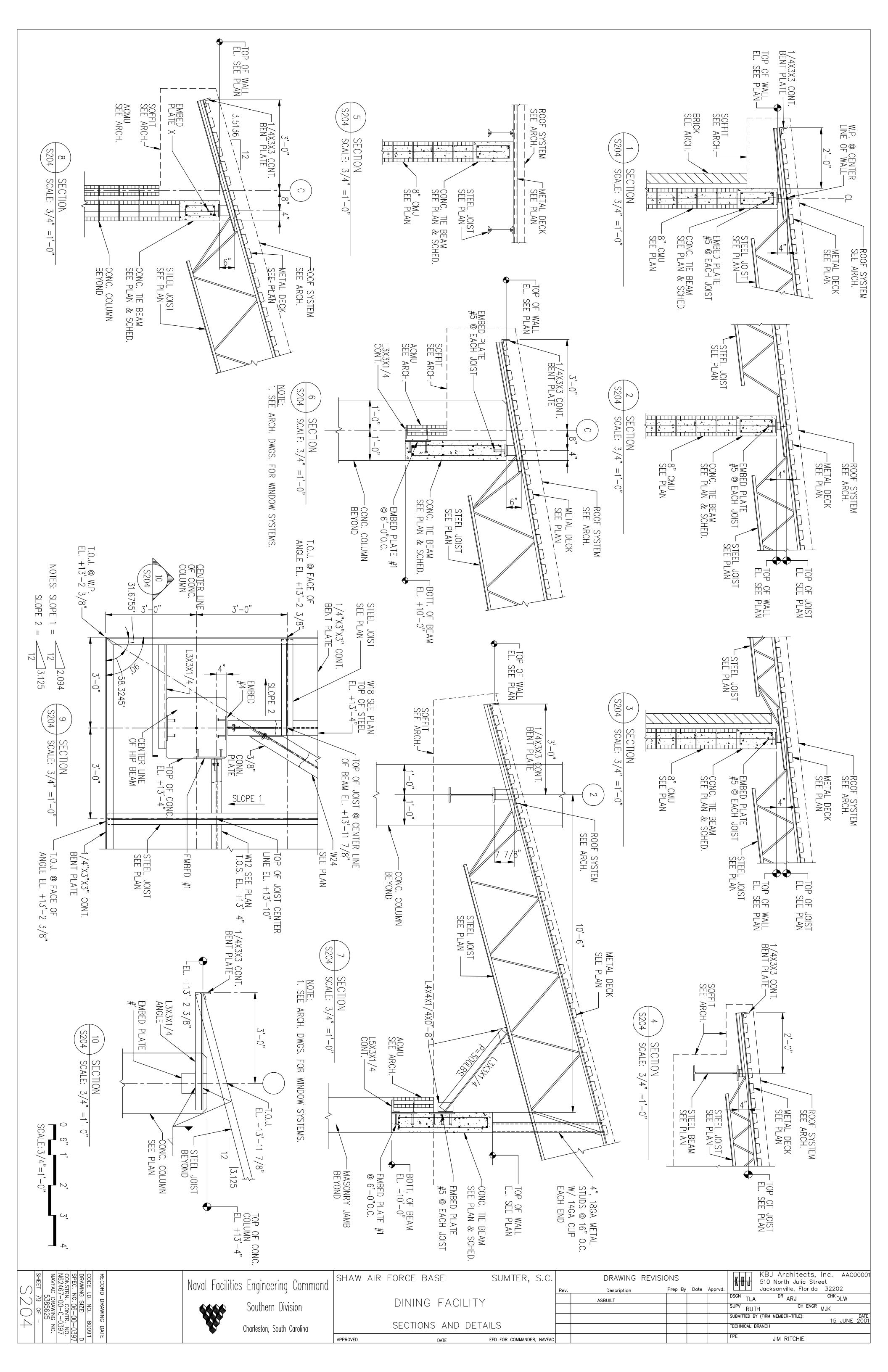


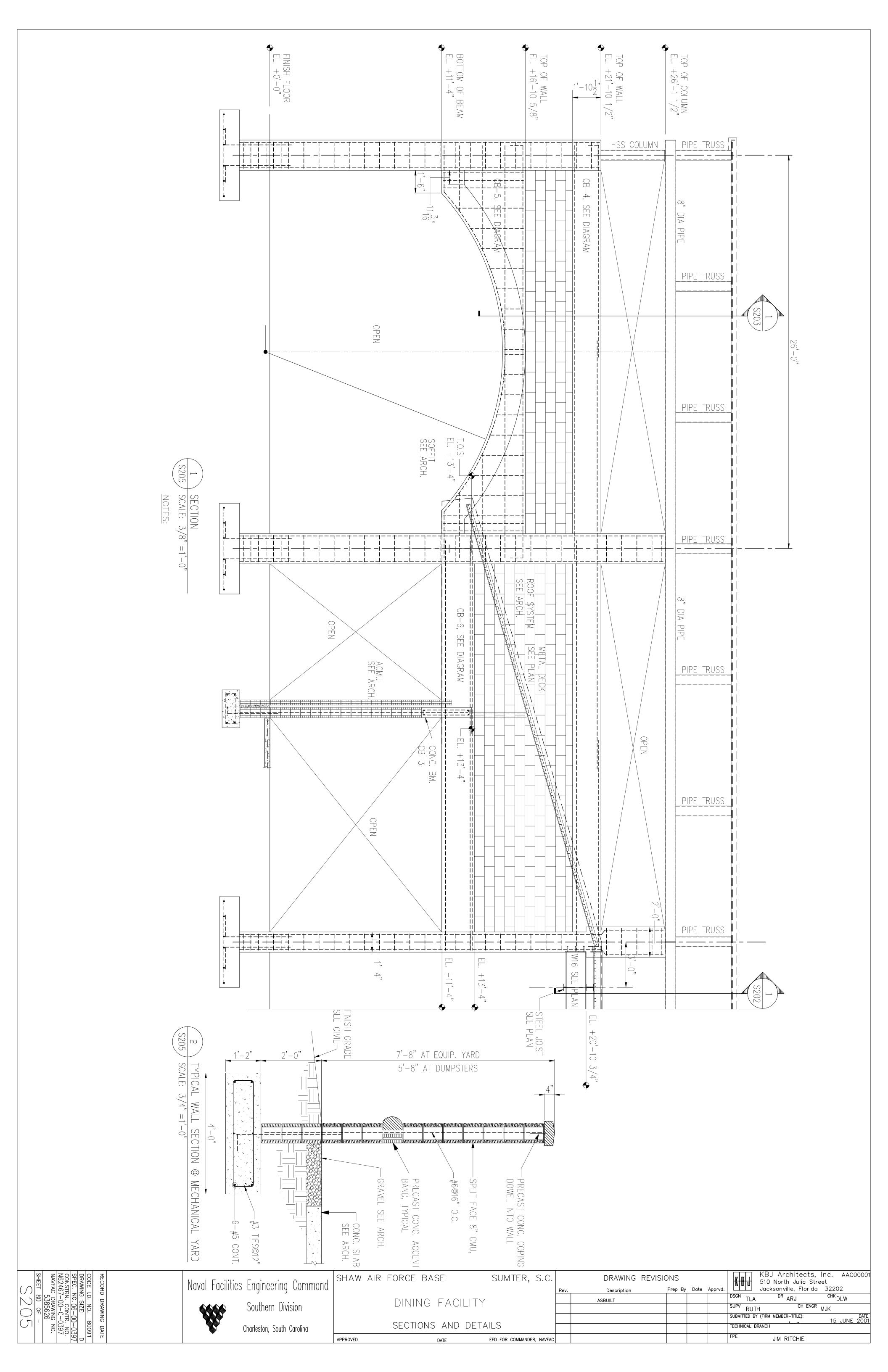


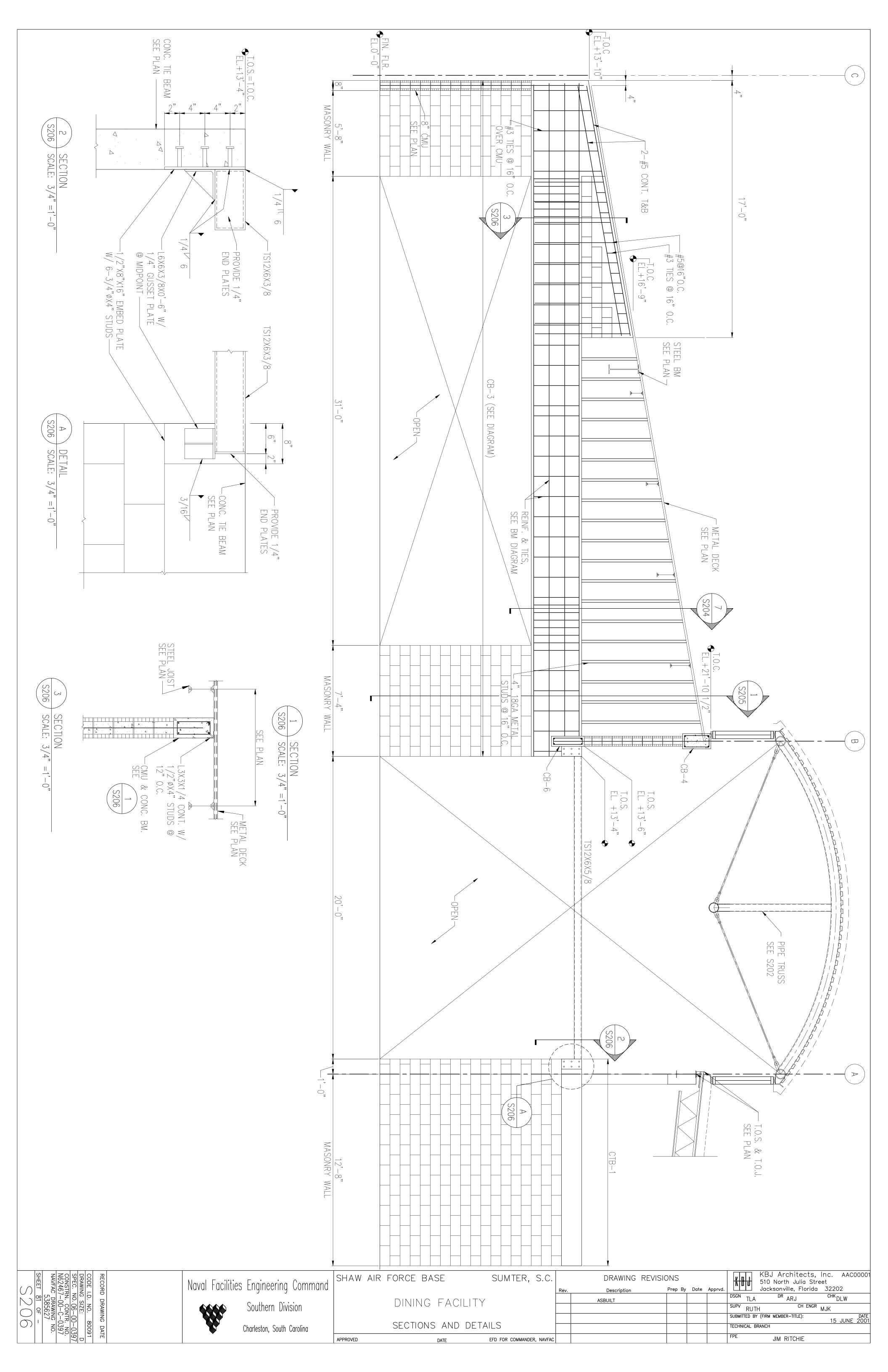


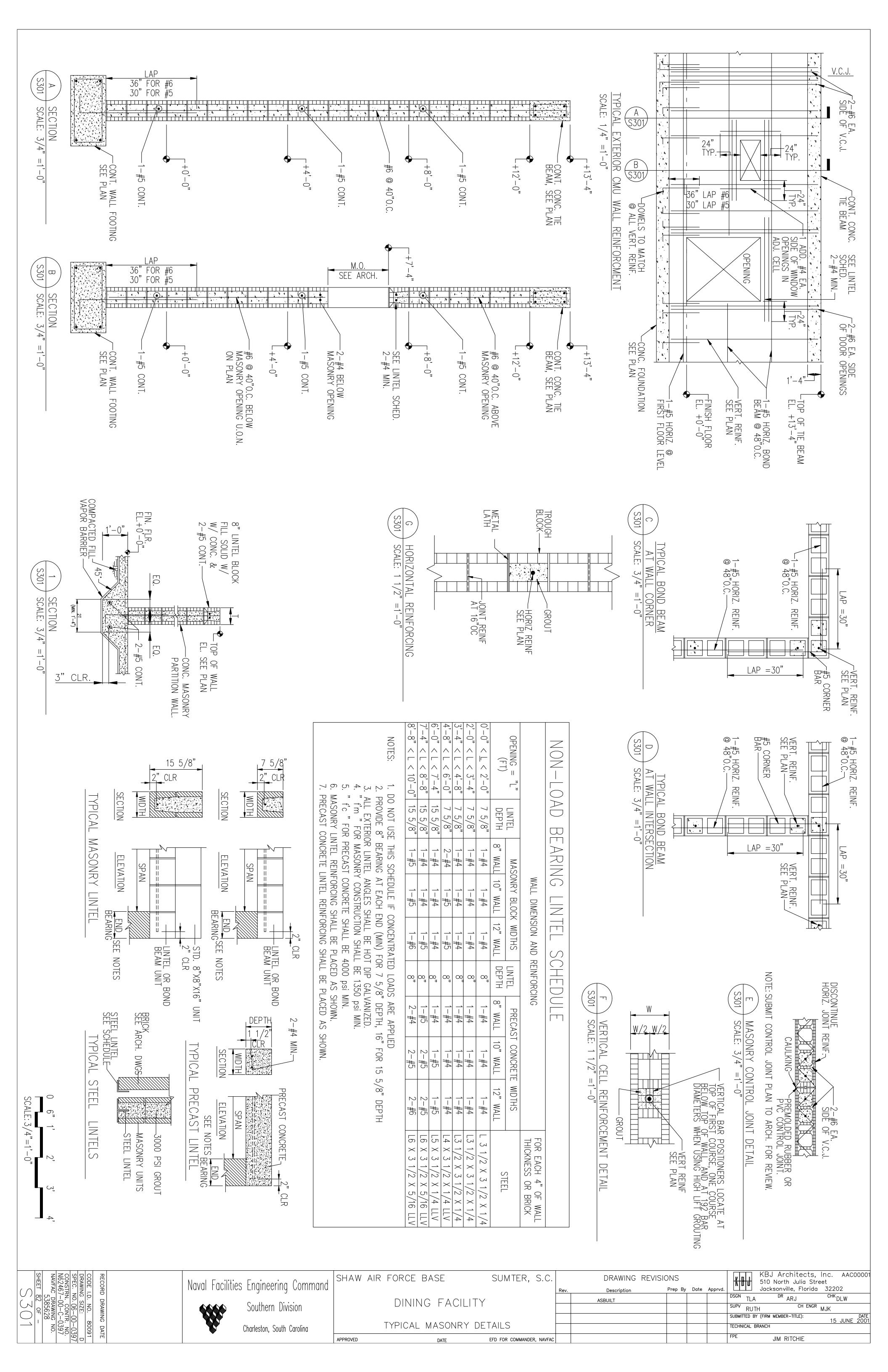


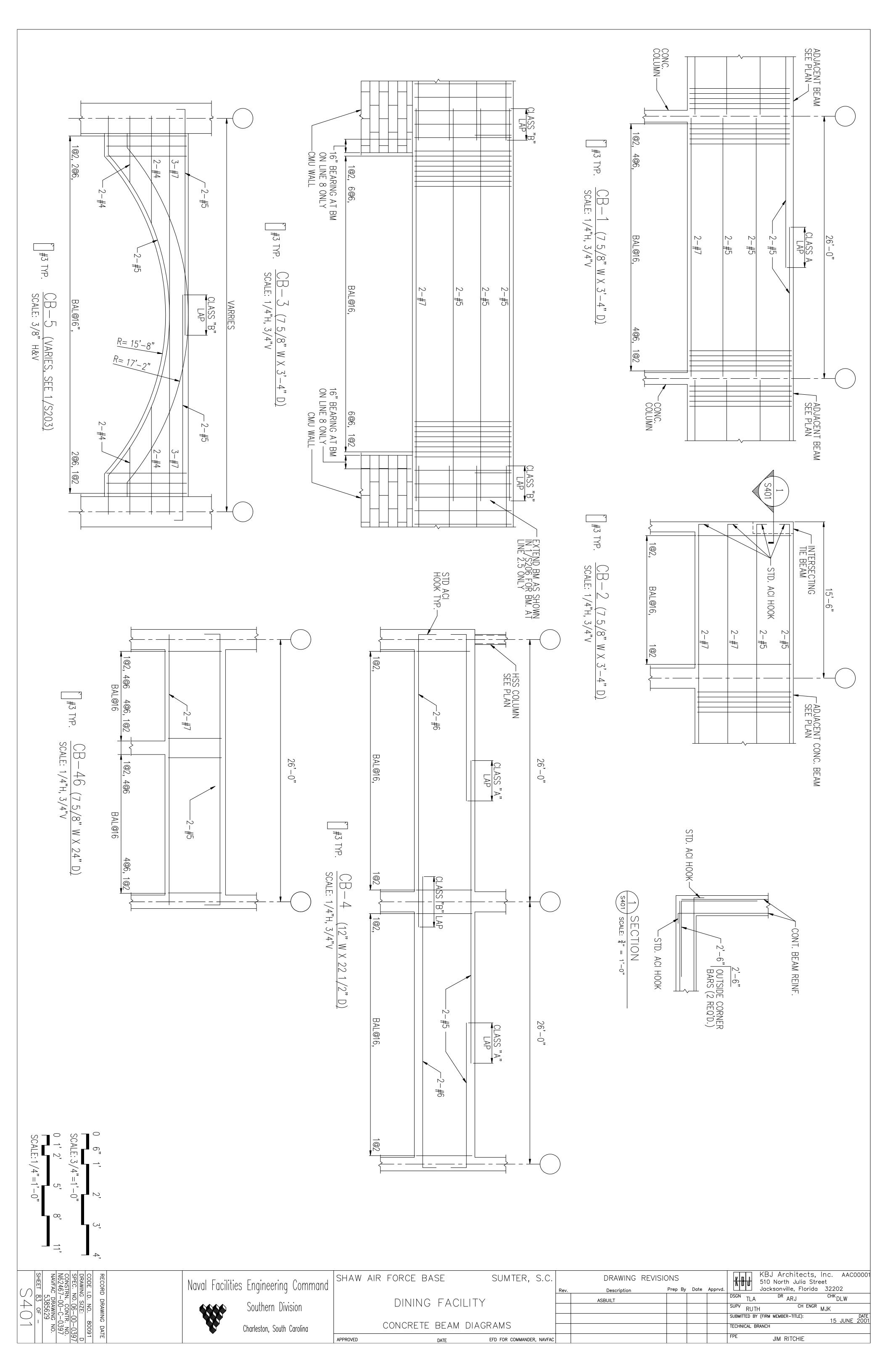


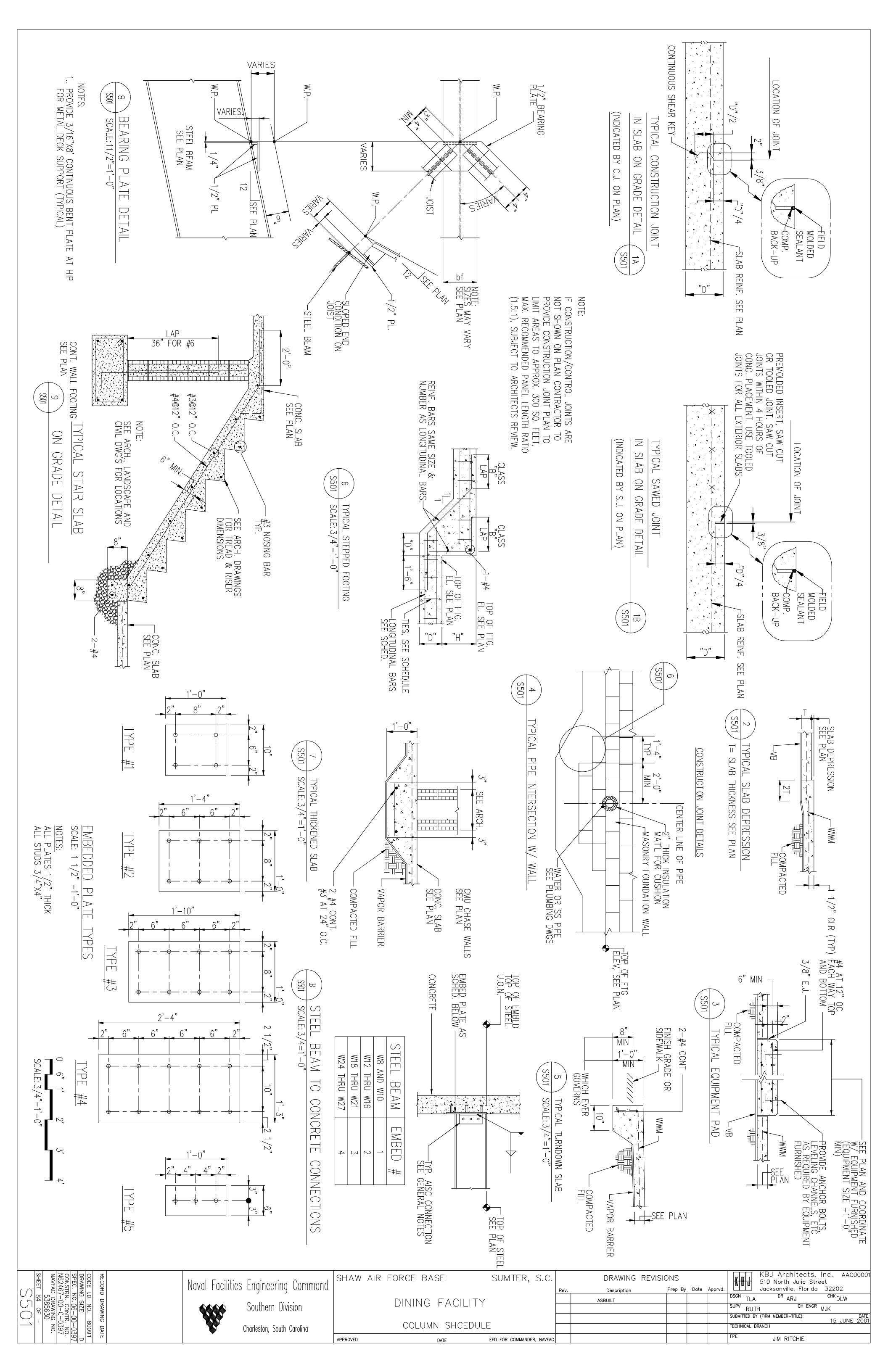












GENERAL LOADS 5 LATERAL LOADS: Ω. <u></u> 2 #300-AND CRITERIA LOADS: ROOF MECHANICAL MEZZ STRUCTURAL EARTHQUAKE LOADS (TI809-04) WIND LOADS c. р Ω. -= 1.0 **EXPOSURE** SEISMIC USE GROUP: 100 MPH (ASCE NOTES LS LIFE STANDARD OCCUPANCY SAFETY .100

**GENERAL** <u>Б</u> 0. <u>a</u>.c SITE \tag{\tau} || PERFORMANCE LEVEL: CLASSIFICATION: CLASS D

2.0;

Cd П

100.1. BEEN MADE WITHOUT THE AUTHORIZATION OF ATLANTIC ENGINEERING SERVICES AND ARE INVALID. ENGINEERING SERVICES CADD SYSTEM. ANY OTHER LETTERING, LINES OR SYMBOLS, OTHER THAN PROFESSIONAL STAMPS AND SIGNATURES, HAVE THIS DRAWING HAS BEEN PRODUCED ENTIRELY ON ATLANTIC

100.2. DIMENSIONS. ARCHITECTURAL DRAWINGS SHALL GOVERN THE WORK FOR ALL STRUCTURAL THE STRUCTURAL DRAWINGS SHALL GOVERN THE WORK FOR ALL FEATURES, UNLESS NOTED OTHERWISE. H

100.3. UNITS, ETC., TO THE STRUCTURAL ENGINEERS REVIEW AND APPROVAL THE METHOD AND FREQUENCY OF UNITS, ETC., TO THE STRUCTURAL ATTACHING MECHANICAL ELEMENTS SHALL BE SUI SUBJECT EQUIPMENT 0 Ħ Ħ

## DRAWINGS

110.1. THE CONTRACTOR SHALL NOT DIRECTLY INCORPORATE STRUCTURAL DRAWINGS, OR PORTIONS THEREOF, INTO OR ERECTION DRAWINGS TO BE SUBMITTED FOR THIS I PROJECT. 품 SHOP DRAWINGS

110.2. GENERAL COMPLIANCE WITH THE INFORMATION CONTAINED IN THE CONTRACT DOCUMENTS. COMMENTS REGARDING THESE SUBMITTALS DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE PROJECT IS CONTRACT DOCUMENTS. THE REVIEW OF SHOP DRAWINGS AND OTHER SUBMITTALS FOR FOR CONFORMANCE HIMH H DESIGN CONCEPT AND FOR ZIES.

## FOUNDATIONS

200.1. FOUNDATIONS HAVE BEEN DESIGNED AND SHALL BE ACCORDANCE WITH CRITERIA ESTABLISHED BY SOIL OF THEIR GEOTECHNICAL REPORT DATED MARCH 16 0121) SHALL BE REQUIRED IN THE AREAS OF 2001. CONSULTANTS, CONSTRUCTED IN (SCI PROJECT#  $\mathbb{N}$ 유

200.2. CAPACITY OF SHĀLL BE REQUIRED IN THE AREAS OF 2 BORINGS. (B1, AT THE CENSPREAD FOOTINGS HAVE BEEN DESIGNED TO BEAR ON UNDISTURBED SOILS OR PROPERLY COMPACTED FILL HAVING AN ALLOWABLE BEARING 2000 PSF, AS PER 200.1. AT THE CENTER

200.3. AS PER THE SCI GEOTECHNICAL REPORT, REMEDIAL SITE PREPARATION

THE BUILDING, AND B2 AT THE SOUTHWEST CORNER OF THE BUILDIN IN THESE AREAS, IT IS ANTICIPATED THAT THE WEAKER CLAYS AND SANDS RANGING FROM 4 « FEET TO 7 FEET BELOW EXISTING GRADE SHALL BE REQUIRED TO BE EXCAVATED AND REPLACED WITH COMPACTED FILL. IT IS THE CONTRACTORS RESPONSIBILITY TO (COPY OF THE REPORT AND PERFORM ALL SITE PREPARATION REQUIREMENTS OUTLINED IN THE "FOUNDATION CONSIDERATIONS" SECTION OF THIS REPORT. TO OBTAIN BUILDING).  $\supset$ 

200.4. THE WALLS. PROVIDE TEMPORARY SHUKING WHERE INCOME. THE WALL, BACKFILL BOTH SIDES SIMULTANEOUSLY WITH A GRADE DIFFERENCE NOT TO EXCEED 2'-0" AT ANY TIME. CONTRACTOR SHALL USE EXTREME CAUTION DURING BACKFILLING TO PREVENT DAMAGE TO FOUNDATION WALLS. THE USE OF HEAVY EQUIPMENT FOR BACKFILLING IS NOT RECOMMENDED. NO BACKFILLING AGAINST FOUNDATION WALLS SHALL BE PERMITTED UNTIL SUPPORTING STRUCTURAL ELEMENTS HAVE BEEN PLACED AND HAVE BECOME CAPABLE OF FURNISHING THE NECESSARY SUPPORT F FOR

> 200.5. THE CONTRACTOR SHALL OBSERVE WATER CONDITIONS AT THE SITE AND TAKE THE NECESSARY PRECAUTIONS TO INSURE THAT THE FOUNDATION EXCAVATIONS REMAIN DRY DURING CONSTRUCTION. PROVIDE FOR DEWATERING AS NECESSARY.

## REINFORCED CONCRETE

20

PSF PSF

300.1. ALL 318, LATEST EDITION) OF THE AMERICAN CONCRETE INSTITUTE. Ħ H REINFORCED CONCRETE WORK SHALL BE IN CONFORMANCE WITH "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" (ACI 301, 99) AND SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301, (ACI

MINIMUM F'c REQUIRED AT 28 Da. FOOTINGS, SLABS ON GRADE DAYS: DE f'c =

COLUMNS, BEAMS fc 4000 PSI 3000 PSI

300.3. CONFORMING ALL CONCRETE SHALL BE NORMAL WEIGHT CONCRETE (144 PCF +) WITH ALL CEMENT CONFORMING TO ASTM C150, TYPE I. MAXIMUM AGGREGATE SIZE SHALL BE 1-1/2" FOR FOOTINGS AND 3/4" FOR COLUMNS AND SLABS, TO ASTM C33.

REINFORCEMENT

300.4.

WELDED DEFORMED WIRE BARS FABRIC .ASTM A615, ASTM A185. GRADE

300.5. MINIMUM COVER FOR CAST-IN-PLACE CONCRETE REINF., LOTHERWISE SHOWN ON DRAWINGS, SHALL BE AS FOLLOWS: UNLESS

300.6. SPLICES IN REINFORCEMENT, WELDED WIRE MESH . . . . . . WHERE PERMITTED, SHALL BE AS FOLLOWS

UNLESS **OTHERS** OTHERWISE NOTED CLASS "B" TENSION, CASE "1" MINIMUM

300.7. CLASS ₩, CASE <u>"</u>1" TENSION SPLICES  $\equiv$ INCHES, SHALL BE AS FOLLOWS:

SECTION

SCALE: 3/4"=1'-0'

###### W40070

300.8. OTHERWISE IN BOTTOM SPLICES IN REINFORCEMENT TOP REINFORCEMENT SHALL BE C **OVER** BE MADE AT MIDSPAN. NOTED **SPLICES** 

300.9. OR HOOK AT DISCONTINUOUS TOP BARS IN BEAMS SHALL END. TERMINATE IN A CLASS " B" TENSION SPLICE

300.10. ALL TIES SHALL HAVE 135 DEGREE HOOKS.

300.11. OTHERWISE SHOWN ON DRAWINGS. GRADE IS POURED PROVIDE 1/2" PREMOULDED AROUND COLUMNS AND AGAINST WALLS UNLESS EXPANSION MATERIAL WHERE SLAB ON

300.12. PIPE PIPE SLEEVES, ETC., A CONCRETE IS PLACED. CONTRACTOR SHALL VERIFY - VERIFY DIMENSIONS AND LOCATIONS OF ALL SL AS REQUIRED FOR MECHANICAL TRADES BEFORE ALL SLOTS,

# CONCRETE ANCHORS

350.1. ALL NELSON × 4, OTHERWISE HEADED CONCRETE ANCHORS SHALL BE NELSON 3/4 INCH DIAMETER "INCH H4L ANCHORS WITH FLUXED ENDS AS MANUFACTURED BY SON STUD WELDING COMPANY, UNLESS THE SIZE IS NOTED ERWISE ON THE STRUCTURAL DRAWINGS.

350. MATERIAL WHICH CONFORMS ALL HEADED CONCRETE ANCHORS SHALL BE MANUFACTURED FROM TO ASTM A108 FOR LOW CARBON STEEL.

350.3. ALL WELDS SHALL BE MADE WELDING CODE ANSI/AWS D' THE RECOMMENDATIONS IN ACCORDANCE WITH STRUCTURAL .1-00 OF THE AMERICAN WELDING SOCIETY OF THE NELSON STUD WELDING COMPANY.

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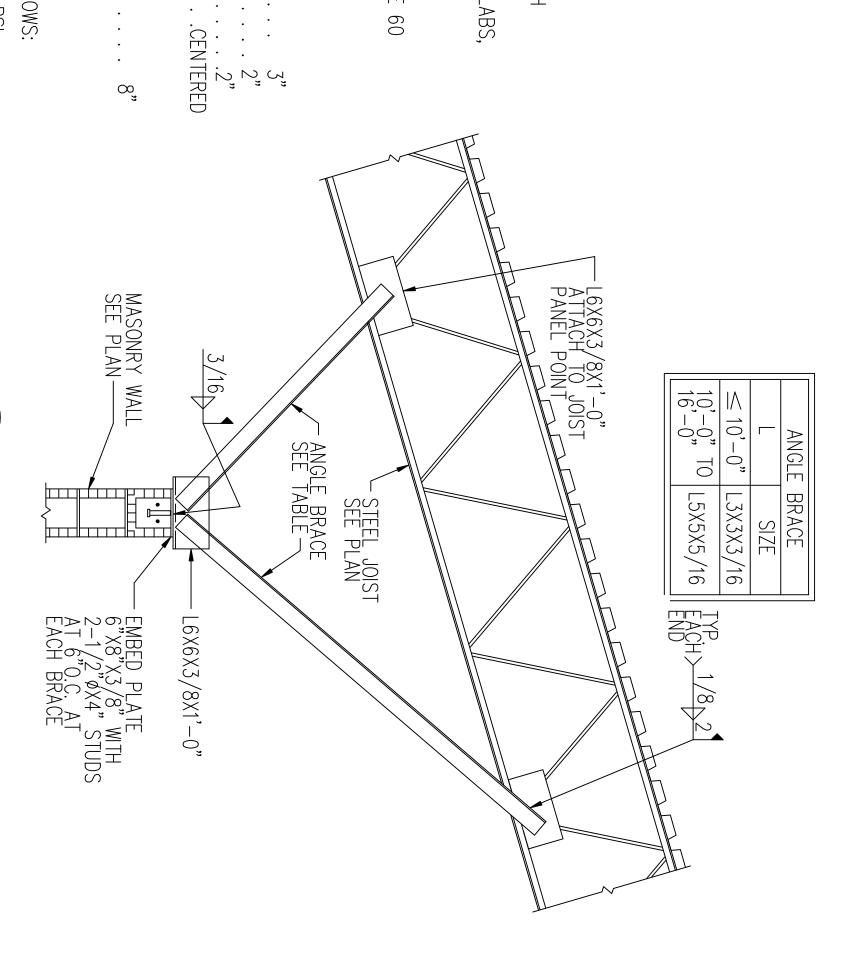
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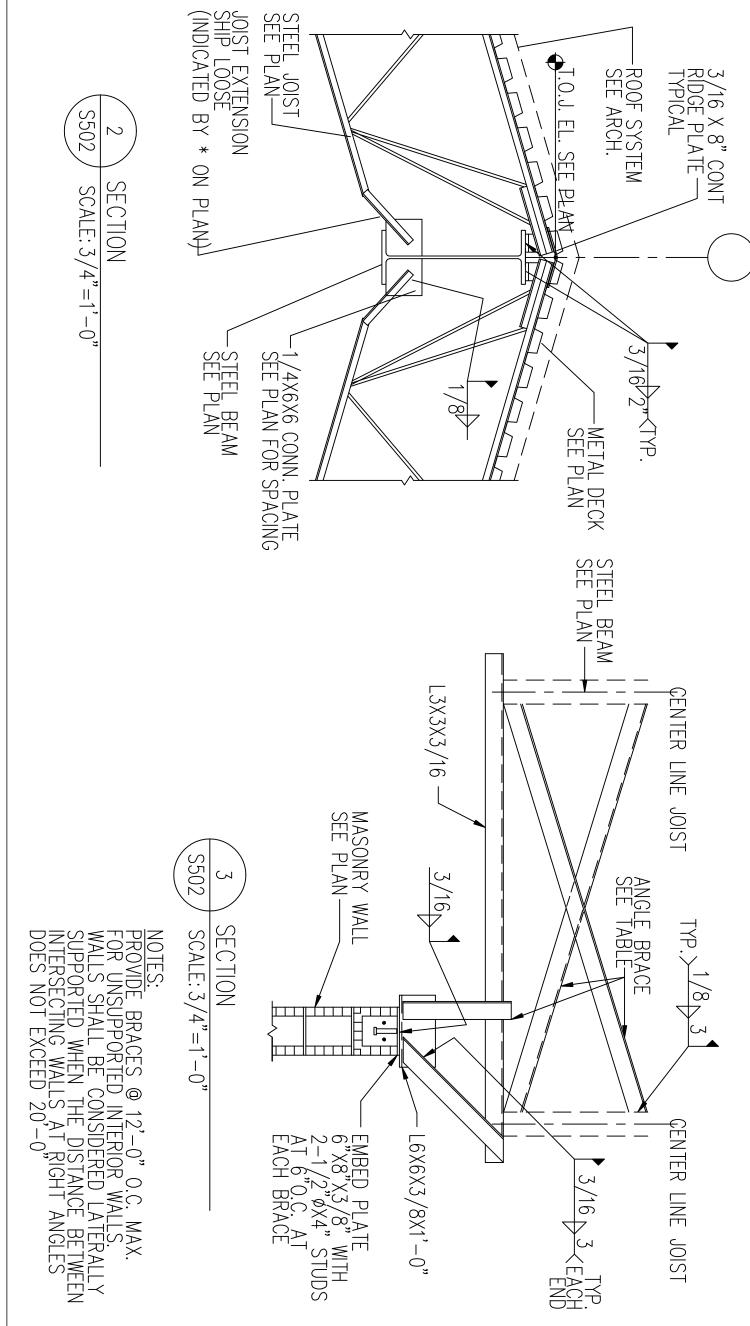
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CONSTRN. CONTR. NO. N62467-00-C-0397
NAVFAC DRAWING NO. 5386531

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### **MASONRY**

- 420.1. ALL MASONRY WORK SHALL BE IN CONFORMANCE WITH THE LATES EDITION OF "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (ACI 530) AND THE "SPECIFICATIONS FOR MASONRY STRUCTURES" (ACI 530.1) OF THE AMERICAN CONCRETE INSTITUTE. THE LATEST
- 420.2. CONSTRUCTION OF THE LATEST EDITION OF "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" (ACI 530) AND THE "SPERIFICATIONS FOR MASONRY STRUCTURES" (ACI 530.1) OF THE AMERICAN CONCRETE INSTITUTE WITH THE FOLLOWING ADDITION TO THE REQUIREMENTS OF ACI 530.1 SECTION 1.8—B: FOR ALL CONDITIONS WHEN TEMPERATURES FALL BELOW 40 DEGREES F, THE TEMPERATURE OF THE NEWLY LAID MASONRY OR NEWLY GROUTED MASONRY SHALL BE MAINTAINED ABOVE 32 DEGREES (F) FOR A MINIMUM OF 24 HOURS USING THE METHODS DESCRIBED IN ACI 530.1. ALL MASONRY CONFORMANCE WORK TO BE EXECUTED IN COLD WEATHER SHALL WORK IO BE LALVOILE
  WITH THE RECOMMENDATIONS FOR COLD WE/ WEATHER BE  $\equiv$
- 420.3. MORTAR CONFORMING TO ASTM C270, TYPE M OR S. ALL PORTLAND CEMENT SHALL CONFORM TO ASTM C150 TYPE I, LIME SHALL CONFORM TO ASTM C91.
- 420.4. GROUT . . a. F'c OF GROUT. .ASTM C476 3000 PSI MIN.
- 420.5. CONCRETE BLOCK UNITS
- HOLLOW LOAD REQUIRED 70 PROVIDE BEARING UNITS UNITS PER ASTM C90, f'm AS NOTED BELOW. TYPE N-∭, AS
- 420.6. MINIMUM 28 DAY ULTIMATE COMPRESSIVE STRENGTH OF .1500 PSI.. MASONRY
- 420.7. FULL BED AND HEAD JOINTS SHALL BE USED.
- 420.8. ALL MASONRY WALLS SHALL BE SECURELY BRACED UNTIL ROOF SYSTEM HAS BEEN INSTALLED AND HAS BECOME CA STABILIZING THE WALLS. CAPABLE ( 유
- 420.9. REINFORCED MASONRY UNITS SHALL BE FILLED SOLID WITH 3000 PSI GROUT AS SHOWN ON PLANS.
- 420.10. PROVIDE CLEAN OUT AND INSPECTION HOLES WALL AT REINFORCING IF HIGH LIFT GROUTING USED. AT BOTTOM OF (OVER 4 FEET H FEET HIGH) MASONRY
- MINIMUM LAP SPLICE FOR REINFORCING IN FILLED MASONRY CELLS SHALL BE 48 BAR DIAMETERS.
- 420.12. BRICK VENEER ANCHORS SHALL BE SPACED NOT MORE THAN 16.0"C. HORIZONTALLY OR VERTICALLY WITH ADDITIONAL ANCHORS PROVIDED WITHIN 8" OR OPENINGS AND SPACED NOT MORE THAN 16" AROUND PERIMETER. REFER TO UNIT MASONRY SPECIFICATIONS FOR THE TYPE AND INSTALLATION OF BRICK VENEER ANCHORS.

# STRUC

- 510.1. ALL STRUCTURAL STEEL WORK SHALL BE IN ACCORDANCE WITH THE "LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS" (1993 EDITION) OF THE AISC.
- 510.2 GRADE OF STEEL
- Ω.
- GALVANIZED STRUCTURAL STEEL
- .ASTM A123
- 510. STRUCTURAL SHAPES AND RODS.
- 510.4. ALL WELDING SHALL BE IN ACCORDANCE WITH THE STRUCTURAL WELDING CODE, AWS D1.1, LATEST EDITION, OF THE AMERICAN WELDIN SOCIETY. ELECTRODES SHALL BE E70XX FOR MANUAL ARC WELDING AND F7X-EXXX FOR SUBMERGED ARC WELDING. BOLTS, FASTENERS AND HARDWARE . . . .ASTM A153. AMERICAN WELDING
- 510.5. DRAWINGS ALL BEAM TO COLUMN CONNECTIONS SHALL BE DETAILED AS PERCONNECTION SCHEDULE AND DETAILS SHOWN IN THE STRUCTURAL DETAILED AS PER THE
- 510.6.
- CUTS, HOLES AND COPING, ETC. REQUIRED FOR OTHER TRADES SHALL BE SHOWN ON THE SHOP DRAWING AND MADE IN THE SHOP. CUTS OR BURNING OR HOLES IN STRUCTURAL STEEL IN THE FIELD WILL NOT BE PERMITTED.
- 510.7. RECORD FOR REVIEW AND APPROVAL. HOWEVER, THE ENGINEER SHALL BE THE SOLE JUDGE OF ACCEPTANCE AND THE CONTRACTOR'S BID SHALL ANTICIPATE THE USE OF THOSE SPECIFIED DETAILS SHOWN ON THE DRAWINGS. ALSO NOTE, THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF SUCH ALTERNATE DETAILS WHICH HE PROPOSES. ALTERNATE CONNECTION DESIGNS MAY BE USED IF SUCH DESIGNS AF SUBMITTED WITH CALCULATIONS AND DRAWINGS TO THE ENGINEER OF ARE
- 510.8. ALL STRUCTURAL STEEL WORK, EXCEPT PORTIONS OF MEMBERS TO BE WELDED OR FIREPROOFED, SHALL BE SHOP PAINTED WITH PRIME PAINT AS PER THE AISC "CODE OF STANDARD PRACTICE, 2000" EDITION, SECTION 6.5.
- 510.9. STRUCTURAL DRAWINGS. CAMBER INDICATED IS THE FINAL FIELD CAMBER, INCLUDING ALL MILL TOLERANCES, AND SHOULD NOT BE EXCEEDED. BEAMS AND GIRDERS SHALL BE CAMBERED AS SHOWN ON THE STRUCTURAL DRAWINGS. CAMBER INDICATED IS THE FINAL FIELD
- 510.10. . ALL ANCHOR BOLTS SHALL BE ASTM A307 AND A MINIMUM 3/4" DIAMETER UNLESS NOTED OTHERWISE.

### **OPEN** WEB STEEL SISIOF

525.1. ALL OPEN WEB STEEL JOISTS SHALL CONFORM TO THE "STANDARD SPECIFICATIONS AND LOAD TABLES FOR OPEN WEB STEEL JOISTS, SERIES OR LH—SERIES" OF THE STEEL JOIST INSTITUTE.

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- 525.2. SUPPORTS. NO LOADS SHALL BE APPLIED TO THE JOISTS UNTIL ALL BRIDGING HA: BRIDGING HAS
- 525.3. ALL BRIDGING SHALL BE IN ACCORDANCE WITH SJI REQUIREMENTS
- 525.4. PROVIDE EXTENDED ENDS AS INDICATED ON DRAWINGS
- 525.5. PROVIDE CAMBER PER SJI REQUIRMENTS.

# METAL

- 530.1. INSTITUTE, LATEST EDITION. ALL STEEL ROOF DECK SHALL BE IN CONFORMANCE WITH ROOF DECK SPECIFICATIONS AND LOAD TABLES" OF THE STEEL THE "STEEL DECK
- OF NOT LESS THAN 33,000 PSI. ALL STEEL ROOF DECK SHALL BE HAVE A MINIMUM, A YIELD STRENGTH
- SPANS CONTINUOUS
- 530.3.

530.2.

YPICAL

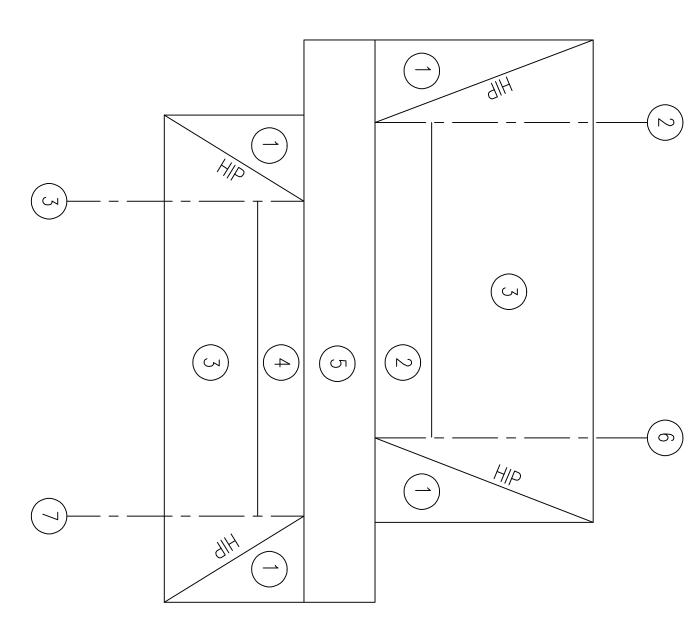
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STUOY:

- ALL DECK SHALL BE A MINIMUM OF THREE
- 530.4. DECKING CONTRACTOR SHALL COORDINATE OPENING SIZES AND LOCATIONS IN ROOF FROM ARCHITECTURAL AND MECHANICAL DRAWINGS AND PROVIDE HEADER MEMBERS IF REQUIRED AS PEFTYPICAL DETAILS. AS PER THE



## WELDING DIAGRAM

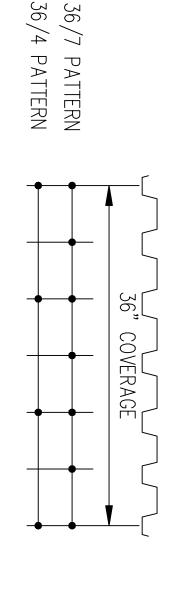
5	4	3	2	1	ZONE
36/4	36/7	36/4	36/4	36/7	PATTERN
4	7	3	6	6	NO. OF SIDELAPS
SEE PLAN	MATERIAL DECK				

### NOTE:

- 1. USE 5/8"Ø PUDDLE WELDS (MIN. FUSION AREA 5/8"X1")

- 4. WELD DECK AT PERIMETER SIDELAP FASTENERS ARE #10 TEK SCREWS SEE TYPICAL WELD PATTERNS THIS SHEET WELD DECK AT PERIMETER @ 6" O.C. (EAC (EACH CORUGATION)

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AW AIR FORCE BASE DINING FACILITY GENERAL NOTES

SUMTER, S.C. EFD FOR COMMANDER, NAVFAC DATE

KBJ Architects, Inc. AAC0000 DRAWING REVISIONS 510 North Julia Street Prep By Date Apprvd. Jacksonville, Florida 32202 Description DSGN TLA **ASBUILT** SUPV RUTH CH ENGR MJK SUBMITTED BY (FIRM MEMBER-TITLE) DATE 15 JUNE 2001 TECHNICAL BRANCH FPE JIM RITCHIE