

PLUMBING ABBREVIATIONS

EQUIPMENT DESIGNATION	DESCRIPTION	EQUIPMENT DESIGNATION	DESCRIPTION
AD	AREA DRAIN	HWR	HOT WATER RECIRCULATION
AFFF	AQUEOUS FILM FORMING FOAM	HWRP	HOT WATER RECIRCULATION PUMP
ALT	ALTERNATE	ID	INDIRECT DRAIN
AP	ACCESS PANEL	IE	INVERT ELEVATION
AV	ACID VENT	MB	MOP BASIN
AW	ACID WASTE	NC	NORMALLY CLOSED
BV	BALL VALVE	NO	NORMALLY OPEN
CA	COMPRESSED AIR	OB	OUTLET BOX
CD	CONDENSATE DRAIN	PD	SUMP PUMP DISCHARGE
CKV	CHECK VALVE	PRV	PRESSURE REDUCING VALVE
CO	CLEANOUT	PWW	PROCESS WASTE WATER
CP	CIRCULATING PUMP	RD	ROOF DRAIN
CW	DOMESTIC COLD WATER	RHB	RECESSED HOSE BIBB
D	DRAIN	SS	SANITARY SEWER
DN	DOWN	TW	TEPID WATER
DFU	DRAINAGE FIXTURE UNIT	SSD	SUB-SOIL DRAIN TILE
DT	DRAIN TILE	SSK	SERVICE SINK
DWH	DOMESTIC WATER HEATER	ST	STORM SEWER
ES	EMERGENCY SHOWER	SWST	SOLAR WATER STORAGE TANK
FCO	FLOOR CLEANOUT	TP	TRAP PRIMER
FLR	FLOOR	TPRV	TEMPERATURE & PRESSURE RELIEF VALVE
FS	FLOOR SINK	UR	URINAL
FD	FLOOR DRAIN	V	VENT
FV	FLUSH VALVE	VTR	VENT THRU ROOF
G	NATURAL GAS (2 PSI MAX)	VLV	VALVE
GLV	GLOBE VALVE	VS	VENT STACK
GV	GATE VALVE	W	DOMESTIC WATER SERVICE
HB	HOSE BIBB	WCO	WALL CLEANOUT
HD	HUB DRAIN	WHA	WATER HAMMER ARRESTOR
TW	TEPID WATER	WH	WALL HYDRANT
TWR	TEPID WATER RETURN	WS	WASTE STACK
HW	DOMESTIC HOT WATER	YCO	YARD CLEANOUT

PLUMBING LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
----	DOMESTIC COLD WATER	X	ANCHOR
—D—	DRAIN LINE	— — —	REDUCED PRESSURE BACKFLOW PREVENTER
—G—	LOW PRESSURE GAS	—▶—	FLUID FLOW DIRECTION
----	DOMESTIC HOT WATER SUPPLY	○	PIPE RISER UP
----	DOMESTIC HOT WATER RECIRCULATION	G	PIPE TURNING DOWN
—IW—	INDIRECT WASTE	┌	CAPPED PIPE/OUTLET
—ST—	STORM DRAIN	┐	PLUGGED PIPE/OUTLET
—SSD—	SUB-SOIL DRAIN	⦿	EMERGENCY SHOWER / EYEWASH
----	SANITARY SEWER / WASTE	— — —	UNION
----	VENT LINE	— — —	HOSE BIBB
—■—	PIPING BELOW FLOOR	— — —	RECESSED HOSE BIBB
—SWR—	WATER HAMMER ARRESTER	⊠	FLOOR SINK
—SWS—	SOLAR WATER RETURN	⊙	FLOOR DRAIN
—SWS—	SOLAR WATER SUPPLY	— — —	WALL CLEANOUT
—▲—	ANGLE VALVE	⊙	FLOOR CLEANOUT
— — —	PRESSURE REDUCING VALVE	— — —	WALL HYDRANT
— — —	PRESSURE RELIEF OR SAFETY VALVE	— — —	GAS SHUT-OFF COCK
— — —	OUTSIDE SCREW AND YOKE	— — —	BALANCING VALVE
— — —	CIRCULATING PUMP	— — —	FLOW CONTROL VALVE (GPM)
— — —	THERMOMETER	— — —	BALL VALVE
— — —	MIXING VALVE (THERMOSTATIC)	— — —	BUTTERFLY VALVE
— — —	COMPRESSED AIR HOSE REEL	— — —	GATE VALVE
—TW—	TEPID WATER	— — —	STRAINER
—TWR—	TEPID WATER RETURN	— — —	CHECK VALVE
*****	PIPING OR EQUIPMENT TO BE REMOVED	— — —	GLOBE VALVE
⊖	CENTERLINE	⊖	VACUUM HOSE REEL
		—SWS—	SOLAR WATER SUPPLY
		—SWR—	SOLAR WATER RETURN
		⊙	NEW CONNECTION
		⊙	P-TRAP

GENERAL NOTES

1. INSTALL PLUMBING WORK IN ACCORDANCE WITH CONTRACT SPECIFICATIONS, AND APPLICABLE LOCAL CODES. COORDINATE WORK WITH ARCHITECTURAL FEATURES AND COORDINATE WORK SUCH THAT INTERFERENCES BETWEEN PIPING, DUCTWORK, EQUIPMENT, ELECTRICAL AND BUILDING STRUCTURE WILL BE AVOIDED.
2. ALL SYMBOLS AND ABBREVIATIONS ARE NOT NECESSARILY USED ON THIS PROJECT.
3. COORDINATE NEW PLUMBING EQUIPMENT AND PIPING WITH ALL DISCIPLINES.
4. MAINTAIN ALL FIRE RATED ASSEMBLIES.

DATE
DESCRIPTION
SYM
DATE



JACOBS
501 NORTH BROADWAY ST. LOUIS, MISSOURI 63102
TEL 314-335-4000 FAX 314-335-5012

APPROVED
FOR COMMANDER NAVFAC DWG
ACTIVITY
B. COREY MELTON, TRAINING DIRECTOR SWOS
SATISFACTORY TD 6/18/15
DES CAC DRW JPB CHK MCB
PH/DM RS / JMS
BRANCH MANAGER
CHIEF ENG/ARCH DWG
FIRE PROTECTION

DEPARTMENT OF THE NAVY
NAVFAC MID-ATLANTIC
GREAT LAKES NAVAL STATION
GREAT LAKES, ILLINOIS
RENOVATE SWOSU FIREFIGHTING TRAINER (BUILDING 510)
PLUMBING NOTES SYMBOLS AND ABBREVIATIONS

SCALE: AS NOTED
PROJECT NO: 1310337
CONSTR. CONTR. NO: N40085-15-R-8720
NAVFAC DRAWING NO: 12689600
SHEET 38 OF 86
P-001

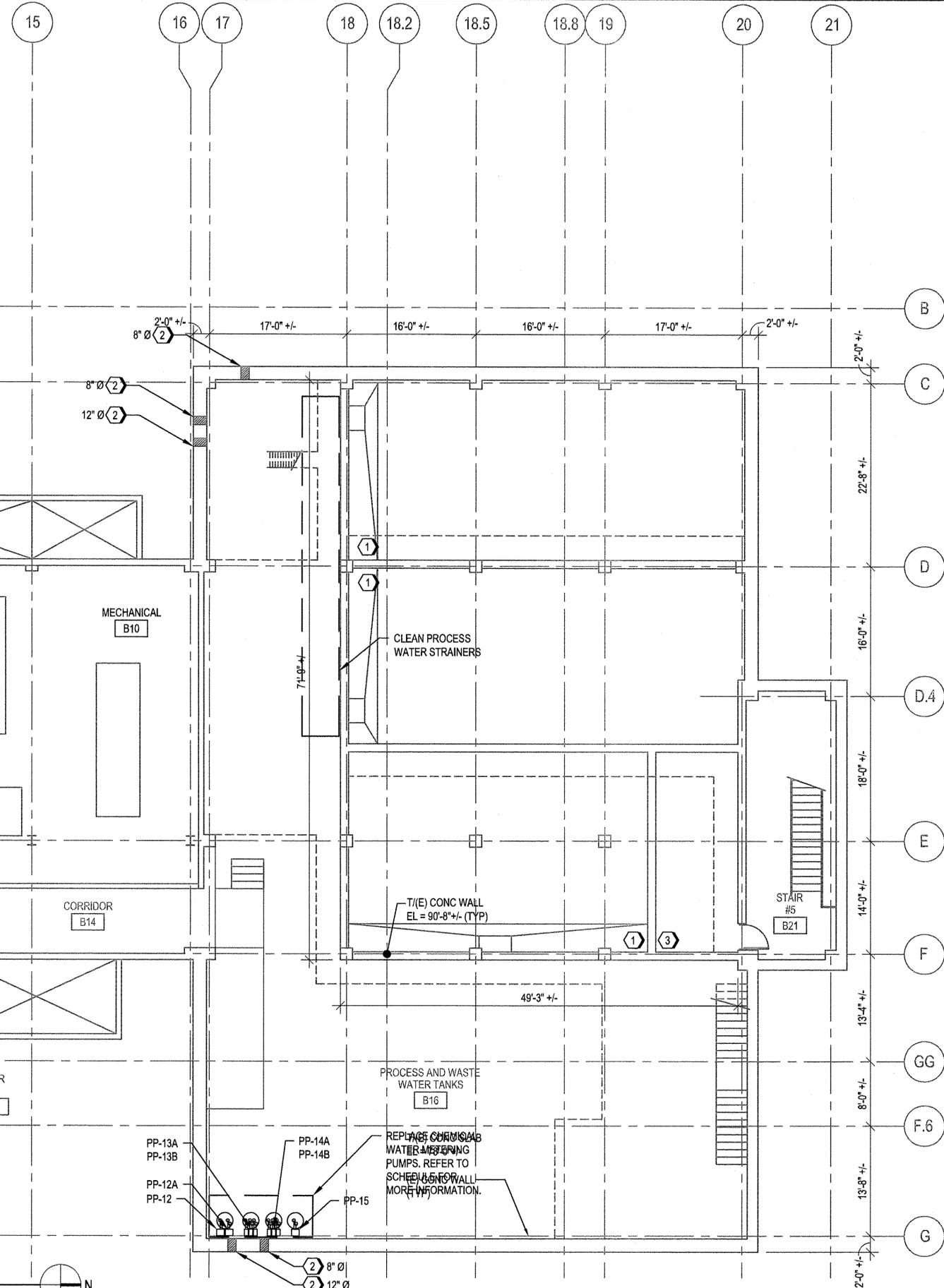
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2

3

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5



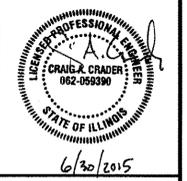
GENERAL NOTES

- FOR PLUMBING SYMBOLS, ABBREVIATION AND GENERAL NOTES REFER TO DRAWING P-001.

KEYED NOTES

- ① REPLACE WATER LEVEL SENSORS LOCATED IN WATER TANK.
- ② REPLACE PIPE PENETRATION SEALS. REFER TO DETAIL C4 ON PLUMBING SCHEDULES AND DETAILS.
- ③ REPLACE MECHANICAL WATER LEVEL SENSORS FOR FIRE WATER TANK.

REV	DESCRIPTION	DATE



JACOBS
 501 NORTH BROADWAY ST. LOUIS, MISSOURI 63102
 TEL 314-335-4000 FAX 314-335-5012

APPROVED

FOR COMMANDER NAVFAC DWG

ACTIVITY

D. COREY MELTON,
 TRAINING DIRECTOR SWOS

SATISFACTORY TO: 6/19/15

DES: CAC DRW: JPB CHK: MCB

PH/DM: RS / JMS

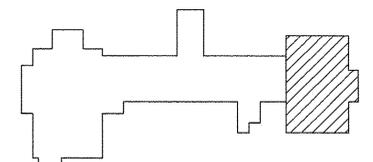
BRANCH MANAGER

CHIEF ENG/ARCH: DWG

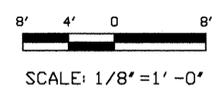
FIRE PROTECTION

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 NAVFAC MID-ATLANTIC
 GREAT LAKES NAVAL STATION
 GREAT LAKES, ILLINOIS
 RENOVATE SWOSU FIREFIGHTING TRAINER
 (BUILDING 510)
 PLUMBING
 PARTIAL BASEMENT FLOOR PLAN

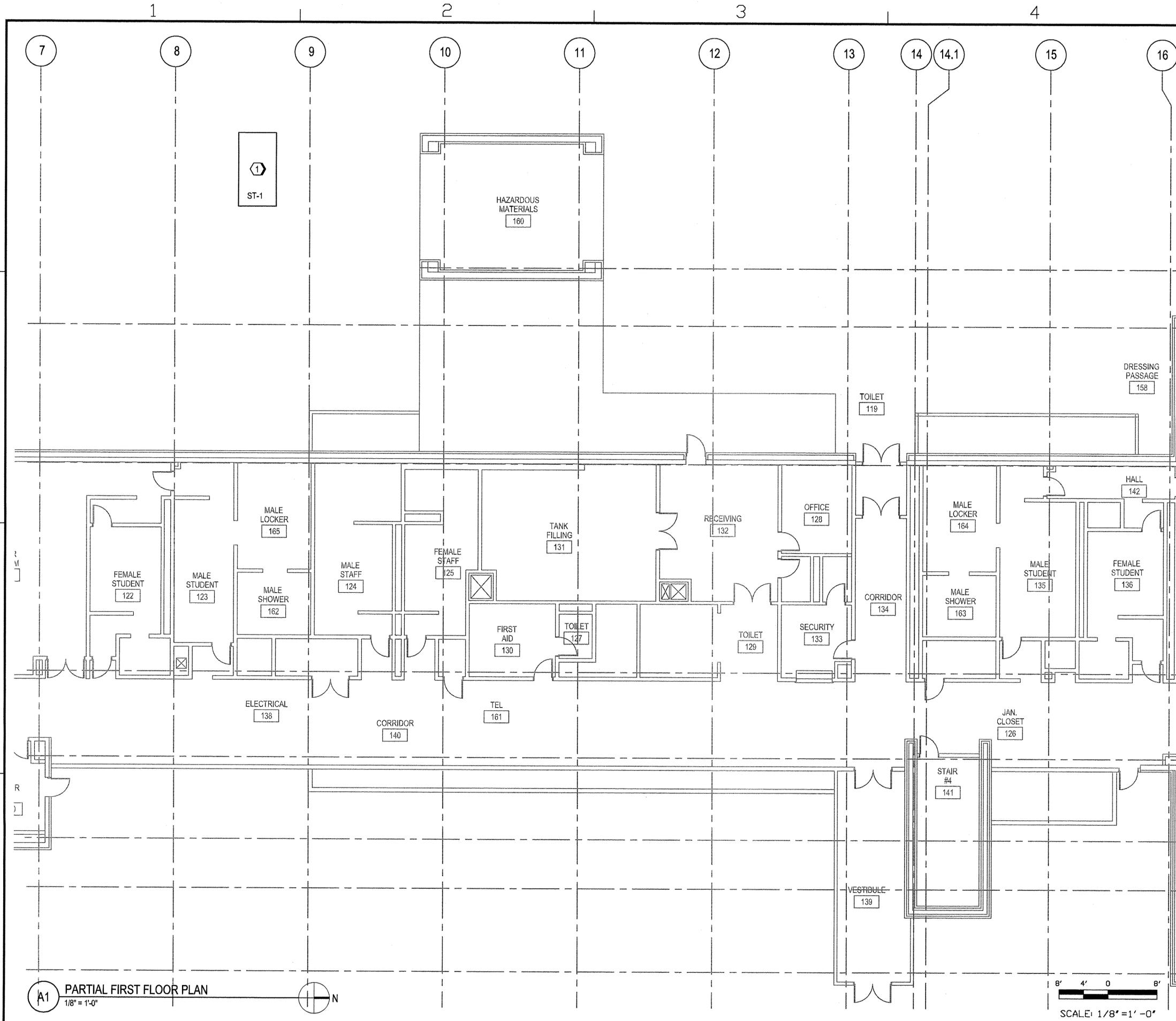
KEY PLAN



A1 PARTIAL BASEMENT FLOOR PLAN
 1/8" = 1'-0"



SCALE:	AS NOTED
PROJECT NO.:	1310337
CONSTR. CONTR. NO.:	N40085-15-R-8720
NAVFAC DRAWING NO.:	12689601
SHEET	39 OF 86
P-101	

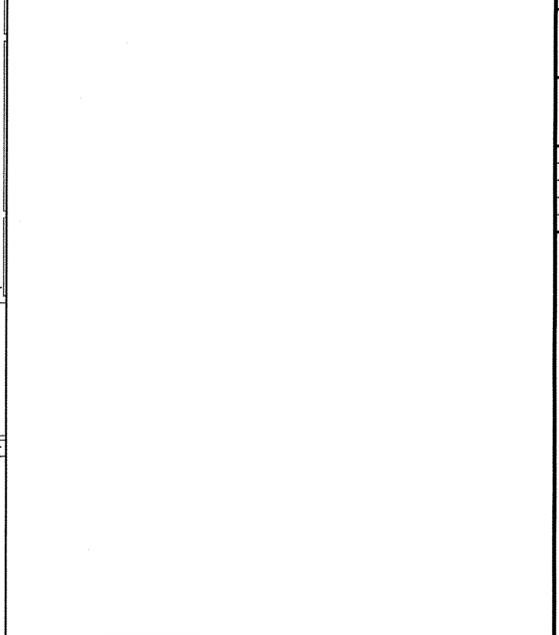


GENERAL NOTES

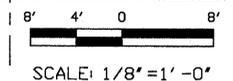
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KEYED NOTES

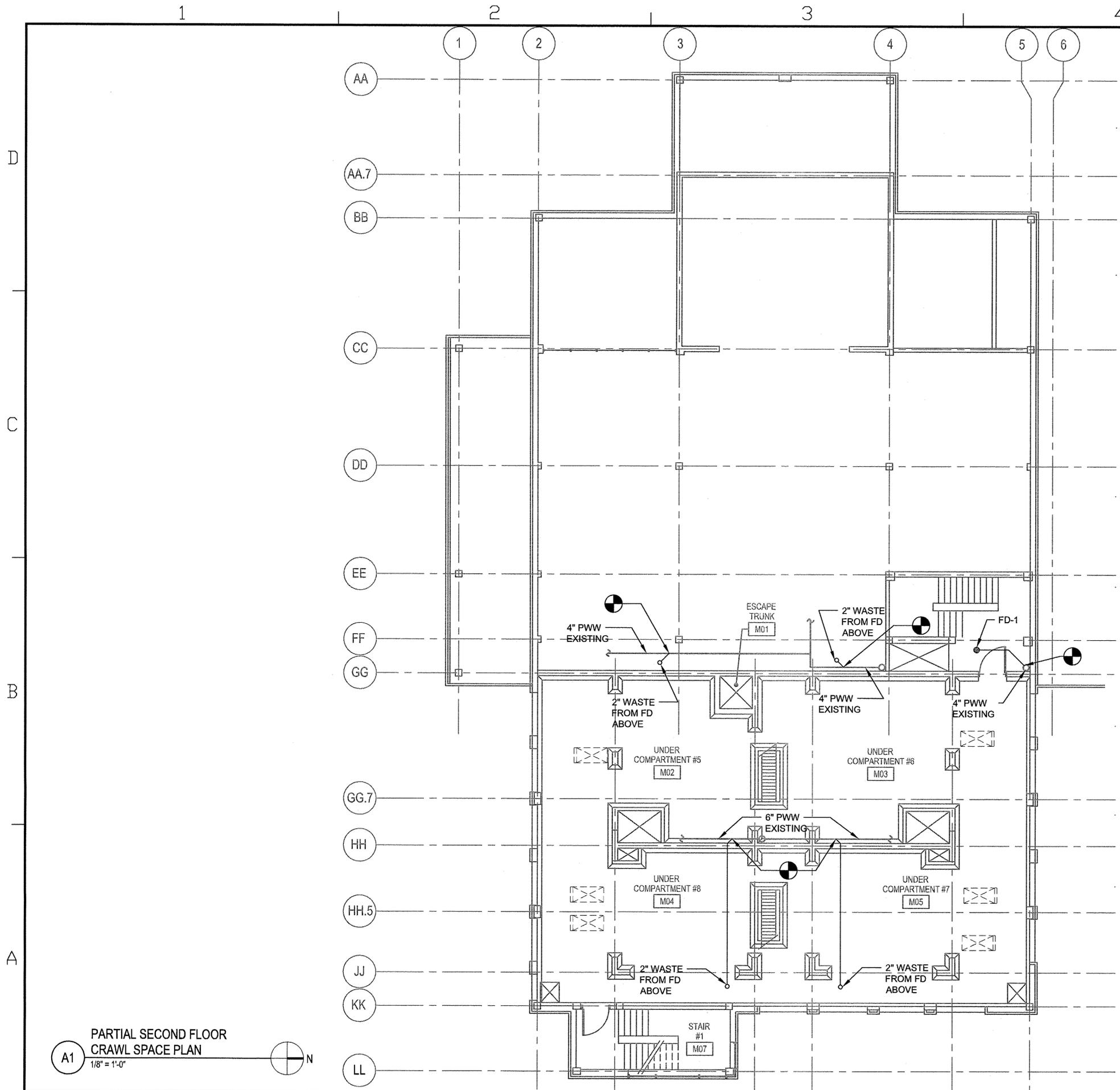
① REPLACE EXISTING CARBON DIOXIDE SYSTEM (STORAGE TANK, TANK, CO₂ COMPRESSOR AND CONTROLS) WITH NEW SYSTEM, REFER TO SCHEDULE. PROVIDE 1" SCHEDULE 80 STAINLESS STEEL PIPE TO EXISTING PIPES, WITH 1" TO 2" TRANSITIONS AT UNIT. INSULATE LINES FROM SYSTEM TO GRADE. ALL PIPING AND CONTROLS TO BE INSTALLED PER MANUFACTURERS INSTRUCTIONS.



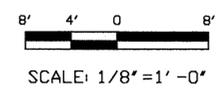
A1 PARTIAL FIRST FLOOR PLAN
1/8" = 1'-0"



DATE	
REVISION	
SYMBOL	
6/30/2015	
JACOBS 501 NORTH BROADWAY ST. LOUIS, MISSOURI 63102 TEL 314-335-4000 FAX 314-335-5012	
APPROVED	
FOR COMMANDER NAVFAC	DWG
ACTIVITY	
B. COREY MELTON, TRAINING DIRECTOR SWDS	
SATISFACTORY TO 6/18/15	
DES	CC DRW JPB CHK MCB
PN/DW	RS / JMS
BRANCH MANAGER	
CHIEF ENG/ARCH DWG	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY	NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND	GREAT LAKES, ILLINOIS
RENOVATE SWOSU FIREFIGHTING TRAINER (BUILDING 510)	
PLUMBING PARTIAL FIRST FLOOR PLAN	
SCALE:	AS NOTED
PROJECT NO.:	1310337
CONSTR. CONTR. NO.:	N40085-15-R-8720
NAVFAC DRAWING NO.:	12689602
SHEET	40 OF 86
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PARTIAL SECOND FLOOR CRAWL SPACE PLAN
 1/8" = 1'-0"

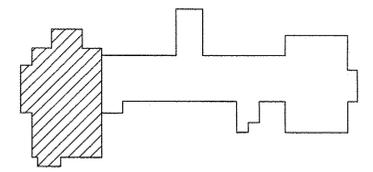


GENERAL NOTES

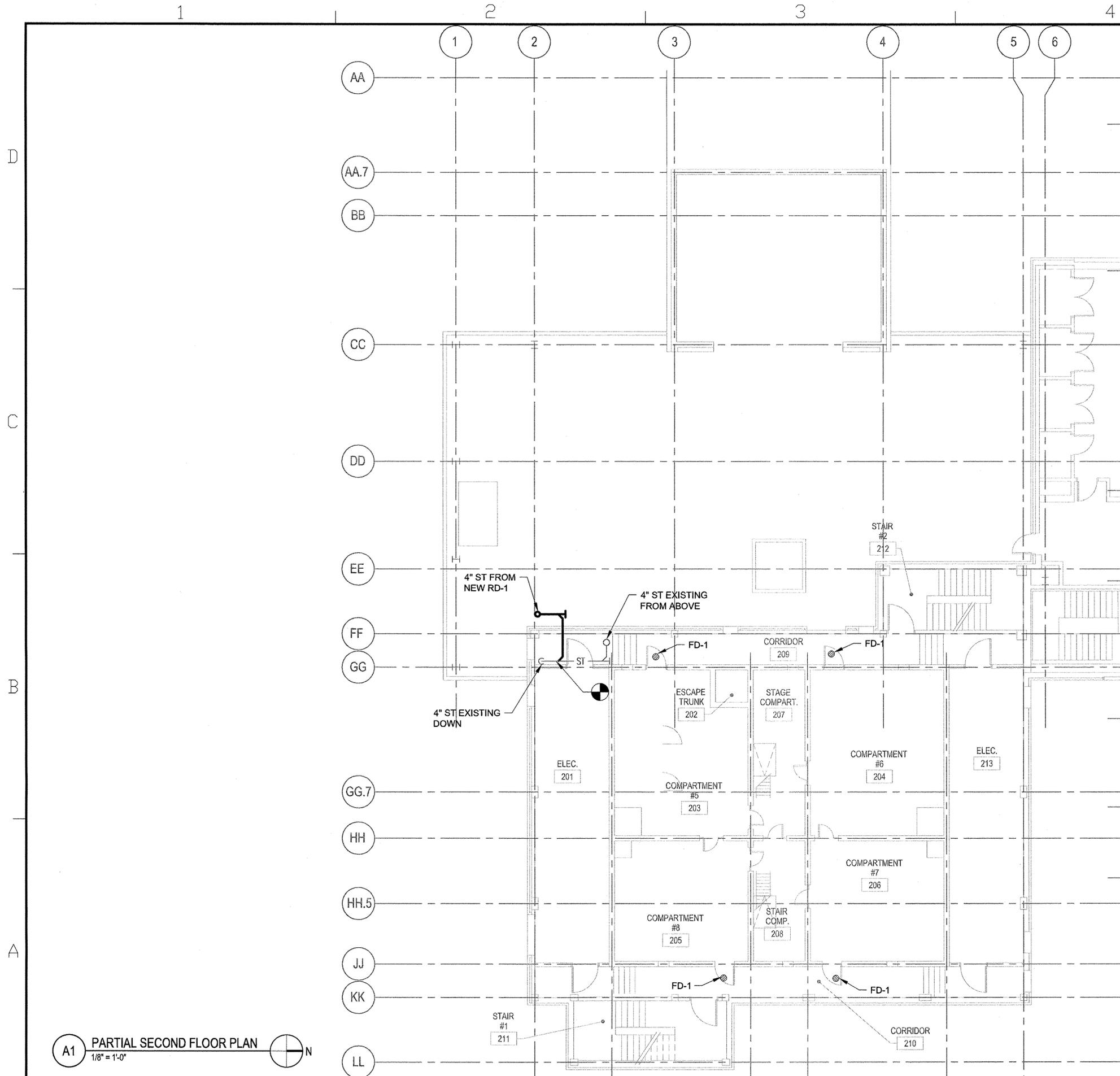
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KEYED NOTES

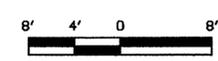
KEY PLAN



DATE	
DESCRIPTION	
SYN	
JACOBS 501 NORTH BROADWAY ST. LOUIS, MISSOURI 63102 TEL 314-335-4000 FAX 314-335-5012	
APPROVED	
FOR COMMANDER NAVFAC DWG	
ACTIVITY	
D. COREY MELTON, TRAINING DIRECTOR SWOS	
SATISFACTORY TO: 6/18/15	
DES	CC
DRW	JPB
CHK	MB
MB	
PM/DM	RS / JMS
BRANCH MANAGER	
CHIEF ENG/ARCH DWG	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY	NAVFAC MID-ATLANTIC
NAVAL FACILITIES ENGINEERING COMMAND	GREAT LAKES, ILLINOIS
GREAT LAKES NAVAL STATION	RENOVATE SWOSU FIREFIGHTING TRAINER (BUILDING 510)
	PLUMBING
	PARTIAL SECOND FLOOR CRAWL SPACE PLAN
SCALE:	AS NOTED
PROJECT NO.:	1310337
CONSTR. CONTR. NO.:	N40085-15-R-8720
NAVFAC DRAWING NO.:	12689603
SHEET	41 OF 86
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A1 PARTIAL SECOND FLOOR PLAN
1/8" = 1'-0"



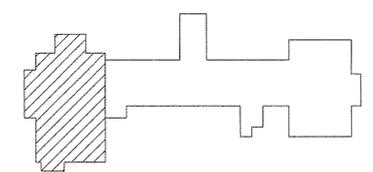
SCALE: 1/8" = 1'-0"

GENERAL NOTES

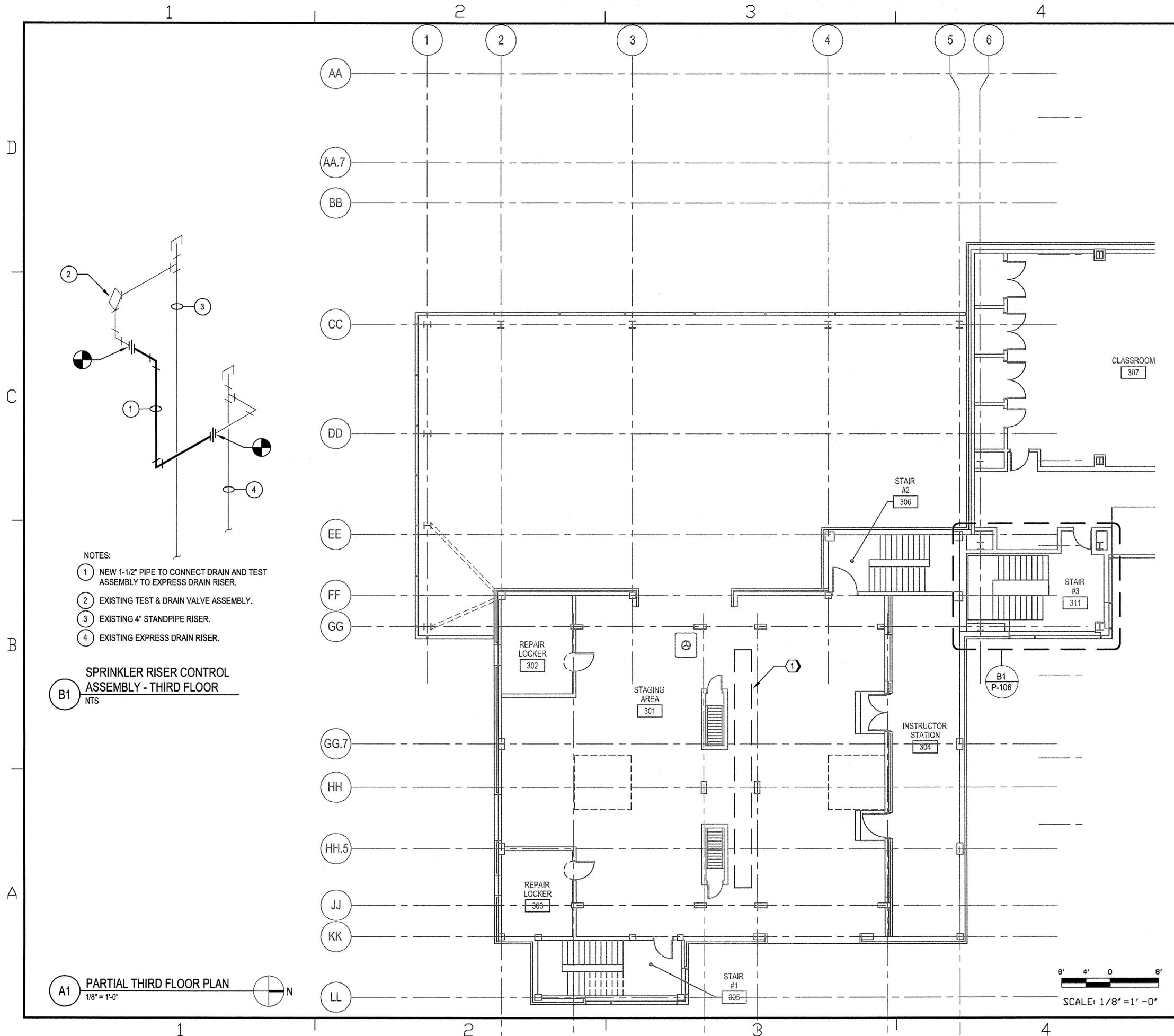
- FOR PLUMBING SYMBOLS, ABBREVIATION AND GENERAL NOTES REFER TO DRAWING P-001.

KEYED NOTES

KEY PLAN



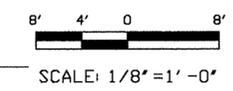
DATE	
SYMBOL DESCRIPTION	
JACOBS 501 NORTH BROADWAY ST. LOUIS, MISSOURI 63102 TEL. 314-335-4000 FAX 314-335-5012	
APPROVED	
FOR COMMANDER NAVFAC DWG	
ACTIVITY	
D. COREY MELTON, TRAINING DIRECTOR SWDS	
SATISFACTORY TO: 6/10/15	
DES: CC DRW: JPB CHK: MCB	
PM/DM: RS / JMS	
BRANCH MANAGER	
CHIEF ENG/ARCH: DWG	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING COMMAND
GREAT LAKES NAVAL STATION	NAVFAC MID-ATLANTIC
RENOVATE SWOSU FIREFIGHTING TRAINER (BUILDING 510)	GREAT LAKES, ILLINOIS
PLUMBING	PARTIAL SECOND FLOOR PLAN
SCALE: AS NOTED	
PROJECT NO: 1310337	
CONSTR. CONTR. NO: N40085-15-R-8720	
NAVFAC DRAWING NO: 12689604	
SHEET 42 OF 88	
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- NOTES:
- ① NEW 1-1/2" PIPE TO CONNECT DRAIN AND TEST ASSEMBLY TO EXPRESS DRAIN RISER.
 - ② EXISTING TEST & DRAIN VALVE ASSEMBLY.
 - ③ EXISTING 4" STANDPIPE RISER.
 - ④ EXISTING EXPRESS DRAIN RISER.

B1 SPRINKLER RISER CONTROL ASSEMBLY - THIRD FLOOR
NTS

A1 PARTIAL THIRD FLOOR PLAN
1/8" = 1'-0"



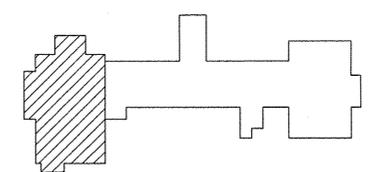
GENERAL NOTES

- 1. FOR PLUMBING SYMBOLS, ABBREVIATION AND GENERAL NOTES REFER TO DRAWING P-001.

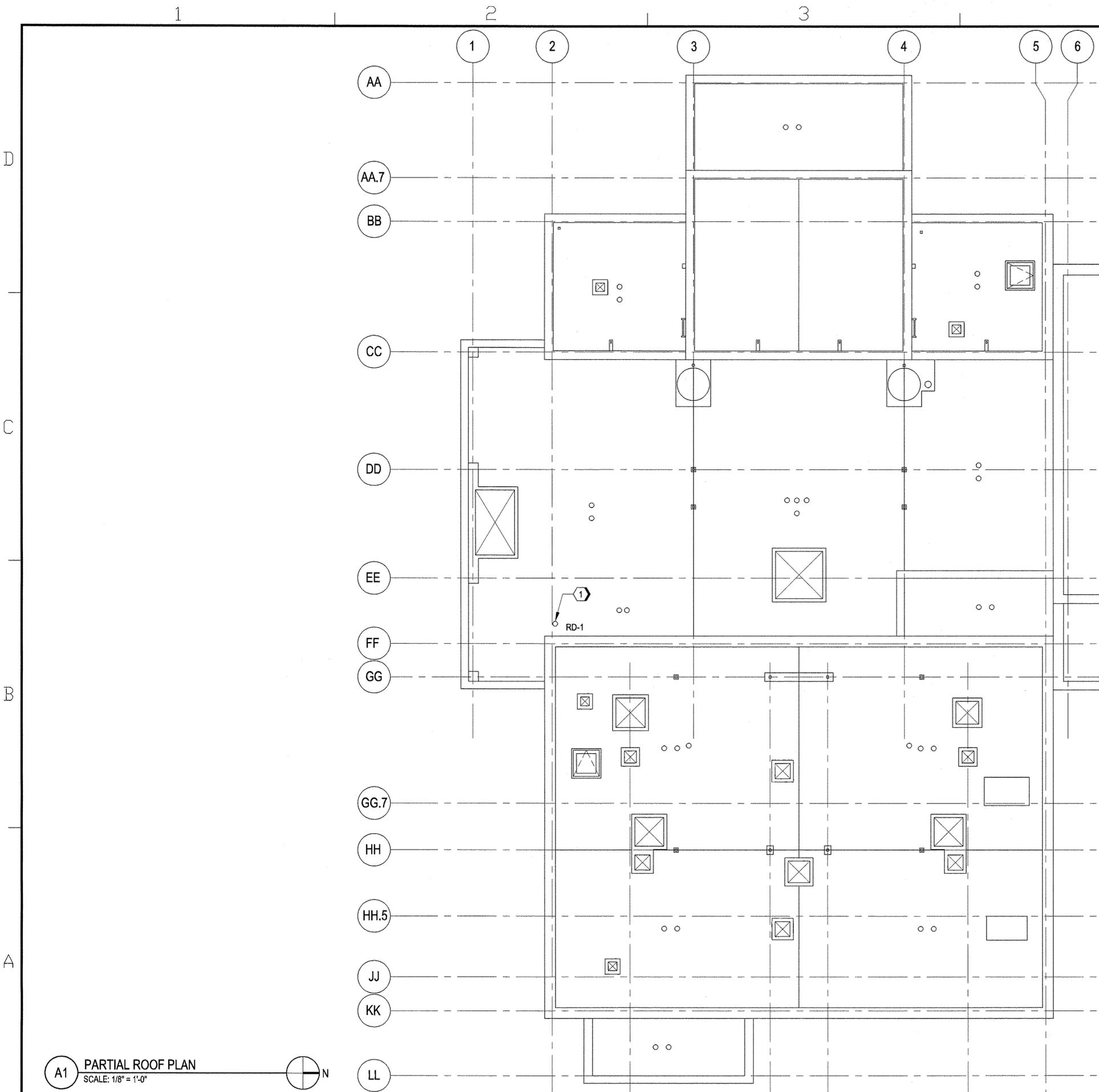
KEYED NOTES

- ① CLEAN DIRT AND DEBRIS FROM EXISTING TRENCH DRAIN BELOW STEEL GRATING. FLUSH WITH FRESH WATER.

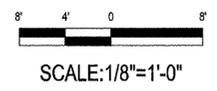
KEY PLAN



	DATE
	DESCRIPTION
	SYN
6/30/2015	
JACOBS 501 NORTH BROADWAY ST. LOUIS, MISSOURI 63102 TEL. 314-335-4000 FAX 314-335-5012	
APPROVED	
FOR COMMANDER NAVFAC DWG	
ACTIVITY	
D. COREY MELTON, TRAINING DIRECTOR SVGS	
SATISFACTORY TD 6/18/15	
DES CC DRW JPB CHK MCB	
PW/EM RS / JMS	
BRANCH MANAGER	
CHIEF ENG/ARCH DWG	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY NAVFAC MID-ATLANTIC GREAT LAKES, ILLINOIS	GREAT LAKES, ILLINOIS RENOVATE SWOSU FIREFIGHTING TRAINER (BUILDING 510) PLUMBING PARTIAL THIRD FLOOR PLAN
SCALE: AS NOTED	
EPROJCT NO: 1310337	
CONSTR. CONTR. NO: N40085-15-R-8720	
NAVFAC DRAWING NO: 12689605	
SHEET 43 OF 86	
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A1 PARTIAL ROOF PLAN
SCALE: 1/8" = 1'-0"



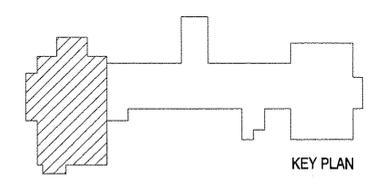
GENERAL NOTES

- FOR PLUMBING SYMBOLS, ABBREVIATION AND GENERAL NOTES REFER TO DRAWING P-001.

KEYED NOTES

- NEW ROOF DRAIN.

KEY PLAN



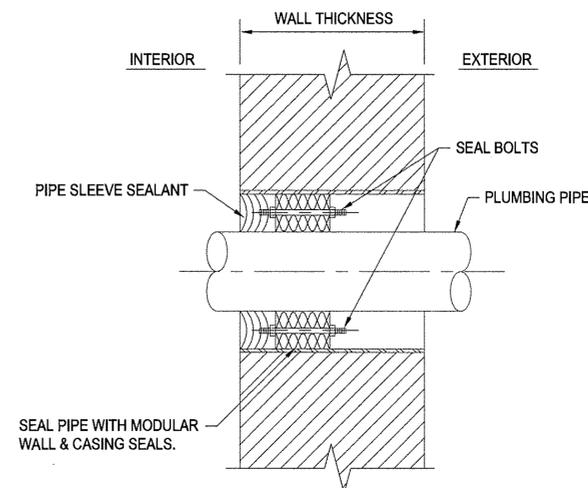
DATE	
SYN	DESCRIPTION
501 NORTH BROADWAY ST. LOUIS, MISSOURI 63102 TEL 314-335-4000 FAX 314-335-5012	
APPROVED	
FOR COMMANDER NAVFAC DWG	
ACTIVITY	
B. COREY MELTON, TRAINING DIRECTOR SWDS	
SATISFACTORY TO 6/18/15	
BES	CC DRW JB CHK MB
PM/EM	RS / JMS
BRANCH MANAGER	
CHIEF ENG/ARCH DWG	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY	NAVFAC MID-ATLANTIC
GREAT LAKES NAVAL STATION	GREAT LAKES, ILLINOIS
RENOVATE SWOSU FIREFIGHTING TRAINER (BUILDING 510)	PLUMBING PARTIAL ROOF PLAN
SCALE: 1/8" = 1'-0"	
EPROJCT NO: 1310337	
CONSTR. CONTR. NO. N40085-15-R-8720	
NAVFAC DRAWING NO. 12689606	
SHEET 44 OF 86	
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FIXTURE CONNECTION SCHEDULE						
SYMBOL	FIXTURE	MINIMUM CONNECTION SIZE				DESCRIPTION
		W	V	CW	HW	
FD-1	EQUIPMENT DRAIN	2"	-	-	-	CAST IRON BODY AND FLASHING COLLAR WITH 6" DIAMETER CAST IRON BAR GRATE AND 2" DISCHARGE.
RD-1	ROOF DRAIN	4"	-	-	-	15 1/2" DIAMETER LOW PROFILE CAST IRON DOME ROOF DRAIN WITH 4" DISCHARGE.

CO2 SYSTEM SCHEDULE						
SYMBOL	FIXTURE	MAXIMUM WORKING PRESSURE	PIPE CONNECTION		UNIT SIZE	NOTES
			SIZE	TYPE		
ST-1	CO2 SYSTEM TANK	350 PSIG	2"	SCHEDULE 80 STAINLESS STEEL	8'-6"Hx12'Lx6'2" W	①

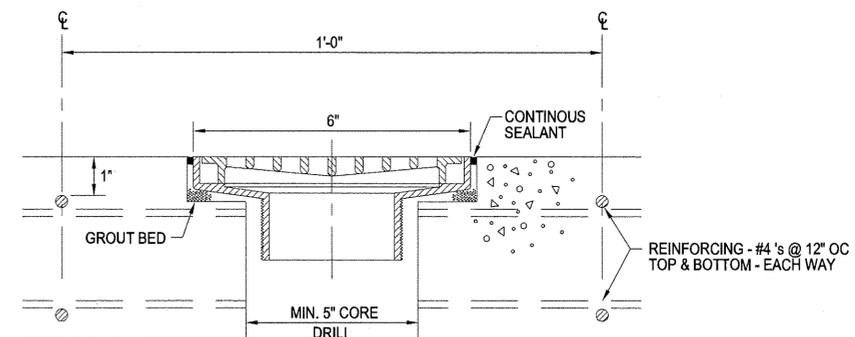
① PACKAGED SYSTEM MUST FIT ON EXISTING 8'-6" W x 12'-0" L CONCRETE EQUIPMENT PAD.

EXISTING PUMP SCHEDULE									
SYMBOL	SERVICE	LOCATION	TYPE	GPM	HEAD FT. WG.	ELECTRICAL			REMARKS
						HP	VOLT/PH/Hz	RPM	
PP-12	CHEMICAL WATER TREATMENT	DCT BASEMENT TANK ROOM B16	METERING	1	231	1/10	231	231	PROCESS WASTE WATER-FFT CT-1 (DEFOAM)
PP-12A	CHEMICAL WATER TREATMENT	DCT BASEMENT TANK ROOM B16	METERING	1	231	1/10	231	231	PROCESS WASTE WATER-FFT CT-1 (DEFOAM)
PP-13A	CHEMICAL WATER TREATMENT	DCT BASEMENT TANK ROOM B16	METERING	1	231	1/10	231	231	PROCESS WASTE WATER-FFT CT-2 (PH+)
PP-13B	CHEMICAL WATER TREATMENT	DCT BASEMENT TANK ROOM B16	METERING	1	231	1/10	231	231	PROCESS WASTE WATER-DCT CT-1 (PH+)
PP-14A	CHEMICAL WATER TREATMENT	DCT BASEMENT TANK ROOM B16	METERING	1	231	1/10	231	231	PROCESS WASTE WATER-FFT CT-3 (PH-)
PP-14B	CHEMICAL WATER TREATMENT	DCT BASEMENT TANK ROOM B16	METERING	1	231	1/10	231	231	PROCESS WASTE WATER-DCT CT-3 (PH-)
PP-15	CHEMICAL WATER TREATMENT	DCT BASEMENT TANK ROOM B16	METERING	1	231	1/10	231	231	PROCESS WATER SUPPLY #2 DCT CT-4 (HYPOCHLORINE)



NOTE: PROVIDE SEALING MATERIAL ON INTERIOR SIDE AFTER SEAL BOLTS HAVE BEEN PROPERLY TIGHTENED.

C4 PIPE SLEEVE THRU WALL DETAIL
NTS



NOTE: 1. LOCATE REINFORCING PRIOR TO CORE DRILL.
2. CHIP CONCRETE TO A DEPTH TO ALLOW FOR DRAIN BODY SEATING.
3. SET FLUSH WITH EXISTING CONCRETE.

C1 FLOOR DRAIN DETAIL
NTS

DATE	
DESCRIPTION	
SYN	
6/30/2015	
501 NORTH BROADWAY ST. LOUIS, MISSOURI 63102 TEL 314-335-4000 FAX 314-335-5012	
APPROVED	
FDR COMMANDER NAVFAC DWG	
ACTIVITY	
D. COREY MELTON, TRAINING DIRECTOR SWES	
SATISFACTORY TO: 6/18/15	
DES: CAC DRW: JPB CHK: MCB	
PM/DM: RS / JMS	
BRANCH MANAGER	
CHIEF ENGINEER/DWG	
FIRE PROTECTION	
DEPARTMENT OF THE NAVY	NAVFAC MID-ATLANTIC
GREAT LAKES NAVAL STATION	GREAT LAKES, ILLINOIS
RENOVATE SWOSU FIREFIGHTING TRAINER (BUILDING 510)	PLUMBING SCHEDULES AND DETAILS
SCALE: AS NOTED	
PROJECT NO: 1310337	
CONSTR. CONTR. NO: N40085-15-R-8720	
NAVFAC DRAWING NO: 12689607	
SHEET 45 OF 88	
P-601	