

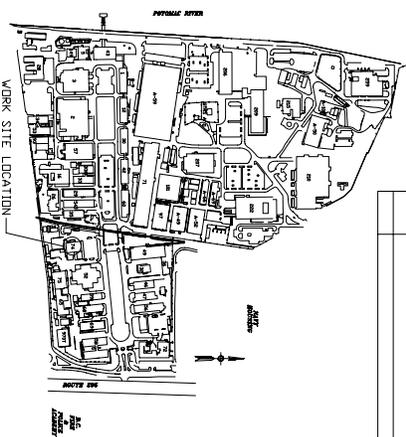
# BUILD SINGLE ROOM DRAW TOWER BUILDING 74

## NAVAL RESEARCH LABORATORY WASHINGTON, DC

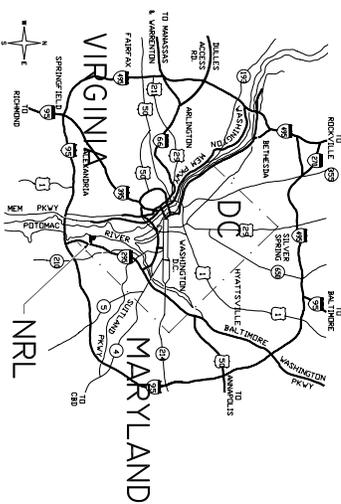
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REVISIONS		DATE	APPROVED
SYMBOL	DESCRIPTION		



### LOCATION PLAN



### VICINITY MAP

T-1

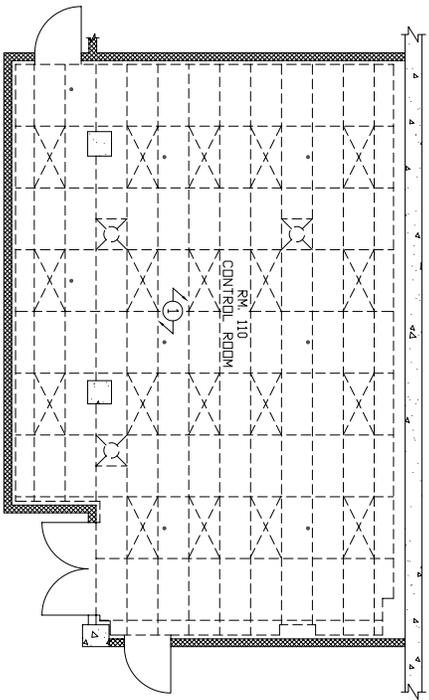
PREPARED BY KJDC	DESIGNED BY WDD KIM 12/05	CHECKED BY WDD KIM 12/05	APPROVED BY SVP/VR S. DAULAT	DATE 12/05	SCALE AS NOTED	PROJECT NO. 80091	CONTRACT NO. N62477-05-C-2126	SHEET NO. 1 OF 14
TITLE BUILD SINGLE ROOM DRAW TOWER BUILDING 74				DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVAL RESEARCH LABORATORY WASHINGTON, DC 20375-5000				
SAFETY DATA				NAVFAC NUMBER 31678439				
PROJECT NO. 80091				CONTRACT NO. N62477-05-C-2126				
SCALE AS NOTED				SHEET 1 OF 14				
FORM NO. 3253				REV. 13736				



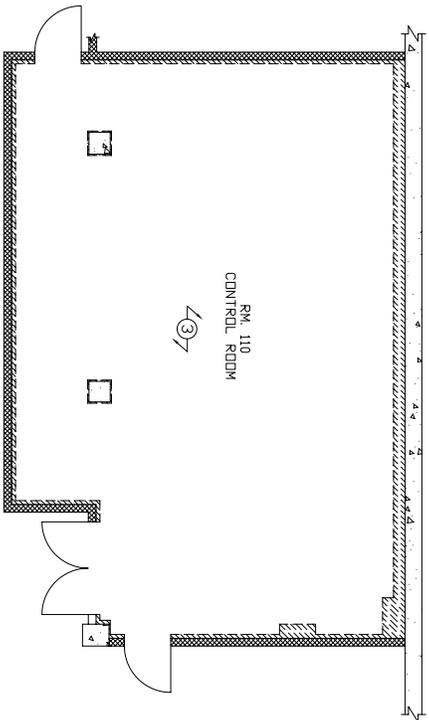
REVISIONS		
SYMBOL	DESCRIPTION	DATE APPROVED

**GENERAL NOTES:**  
**REMOVAL**

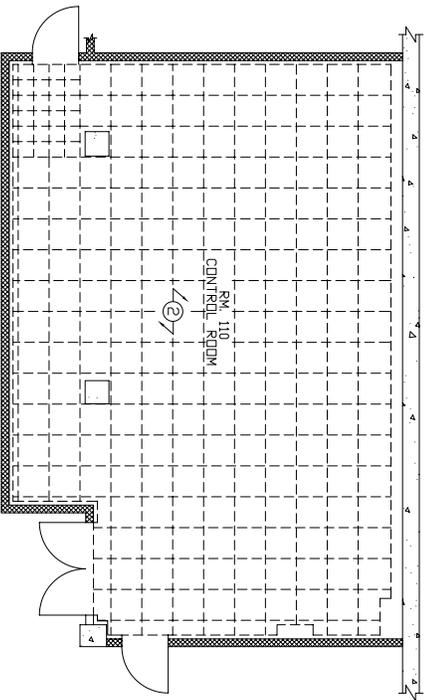
- ① REMOVE AND DISPOSE OF 24" X 48" SUSPENDED CEILING AND 12" X 12" GLED CEILING TILES.
- ② REMOVE AND DISPOSE OF 24" X 24" RAISED FLOOR PANELS AND COMPONENTS.
- ③ REMOVE AND DISPOSE OF FURRED DRIVEWALL PARTITIONS.



SUSPENDED CEILING REMOVAL PLAN  
NOT TO SCALE



FURRED PARTITIONED WALLS REMOVAL PLAN  
NOT TO SCALE



RAISED FLOORING REMOVAL PLAN  
NOT TO SCALE

- LEGEND:**
- FURRED WALL REMOVAL
  - DENOTES CEILING/RAISED FLOORING REMOVAL
  - EXISTING CMU WALLS
  - EXISTING CONCRETE WALLS



PREPARED BY	J. NELSON	DESIGN	J. NELSON
CHECKED BY	J. NELSON	DRAWN BY	J. NELSON
APPROVED BY	S. BAULAT	CHECKED BY	S. BAULAT
SIGNATURE		DATE	
PROJECT NO.	80091	SCALE	1/4" = 1'
PROJECT NAME	BUILD SINGLE ROOM DRAW TOWER	SHEET NO.	3 OF 14
PROJECT LOCATION	(ARCHITECTURAL)	DATE	
PROJECT ADDRESS	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND	PROJECT NO.	31678441
PROJECT CITY	NAVY RESEARCH LABORATORY	PROJECT NAME	NAVY RESEARCH LABORATORY
PROJECT STATE	WASHINGTON, DC 20375-5000	PROJECT ADDRESS	NAVY RESEARCH LABORATORY
PROJECT ZIP		PROJECT CITY	WASHINGTON, DC
PROJECT PHONE		PROJECT STATE	DC
PROJECT FAX		PROJECT ZIP	20375-5000
PROJECT EMAIL		PROJECT PHONE	
PROJECT WEBSITE		PROJECT FAX	
PROJECT URL		PROJECT EMAIL	
PROJECT COMMENTS		PROJECT WEBSITE	
PROJECT NOTES		PROJECT URL	

DATE: 08/25/2010

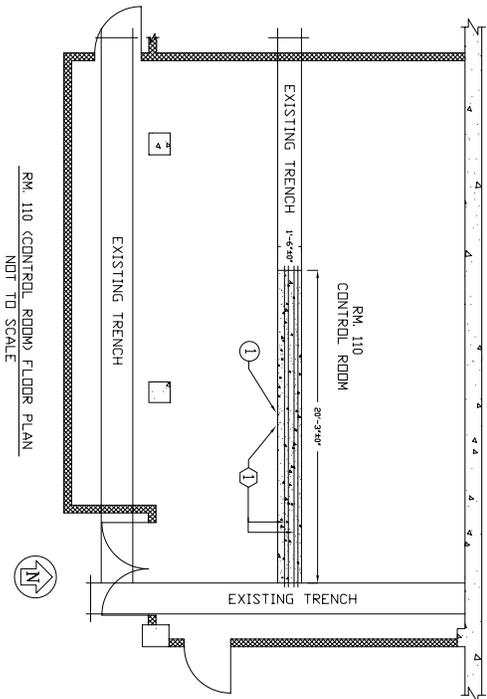
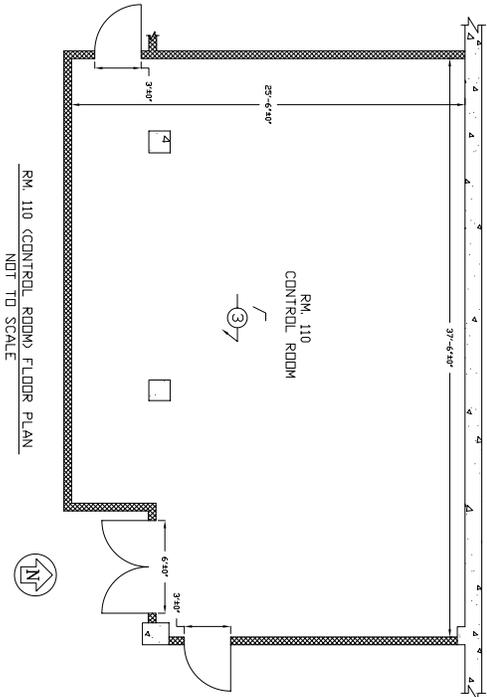
BY: J. NELSON

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REVISIONS		
NUMBER	DESCRIPTION	DATE

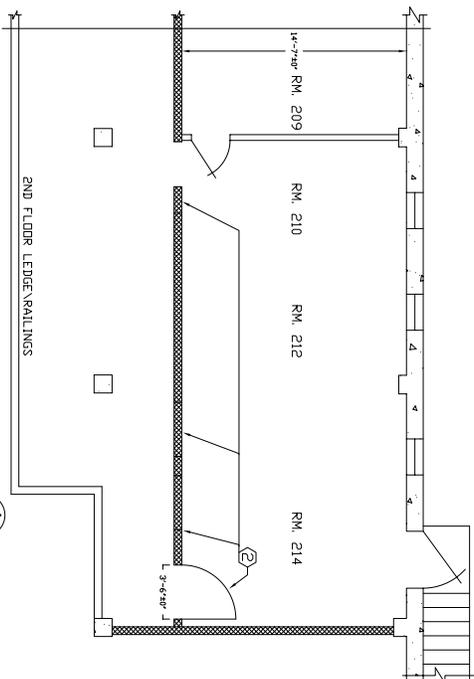
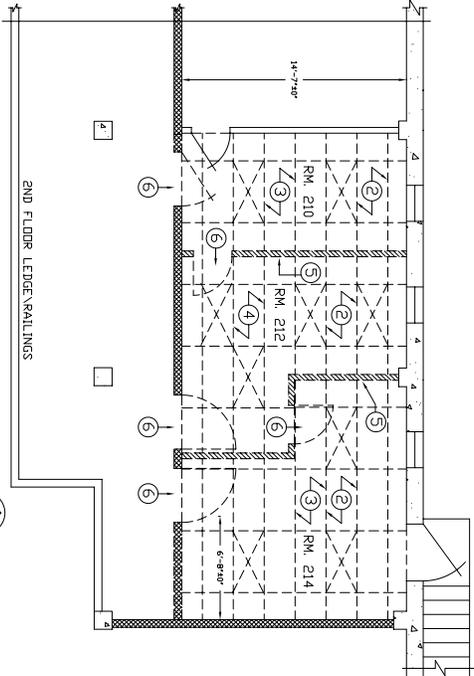
GENERAL NOTES:

- REMOVAL
- REMOVE AND DISPOSE OF STEEL PLATES IN RM. 110.
  - REMOVE AND DISPOSE OF 24" X 48" SUSPENDED CEILINGS AND 12" X 12" GLUED CEILING TILES IN RMS. 210, 212 AND 214.
  - REMOVE AND DISPOSE OF GLUE-DOWN CARPETING IN RMS. RMS. 210 AND 214.
  - REMOVE AND DISPOSE OF 12" X 12" FLOOR TILES IN RM. 212.
  - REMOVE AND DISPOSE OF DRYWALL PARTITIONS IN RMS. 212 AND 214.
  - REMOVE METAL DOOR FRAMES, DOORS AND SECTIONS OF CMU WALLS TO RMS. 210, 212 AND 214.



NEW WORK

- INSTALL (2) 3" ROUND PVC PIPE SLEEVES IN TRENCH, CAPPED OFF ON BOTH ENDS OF REMAINING TRENCHES AND FILL-IN FLOOR TRENCH WITH CONCRETE AND FINISH FLUSH WITH EXISTING FLOOR IN RM. 110.
- FILL-IN SECTIONS OF CMU AND INSTALL NEW METAL DOOR FRAME, METAL DOOR AND HARDWARE.
- ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH CODE 6370 THROUGH THE RDCIC OFFICE AT NNL.



LEGEND:

- FURRED WALL REMOVAL
- DEMOLISH CEILING/RAISED FLOORING REMOVAL
- EXISTING CMU WALLS
- EXISTING CONCRETE WALLS
- CONCRETE FILLED TRENCH
- NEW DRYWALL TOWER WALLS

RMS. 212 AND 214 FLOOR PLAN  
NOT TO SCALE

RMS. 212 AND 214 FLOOR PLAN  
NOT TO SCALE

GRAPHIC SCALE



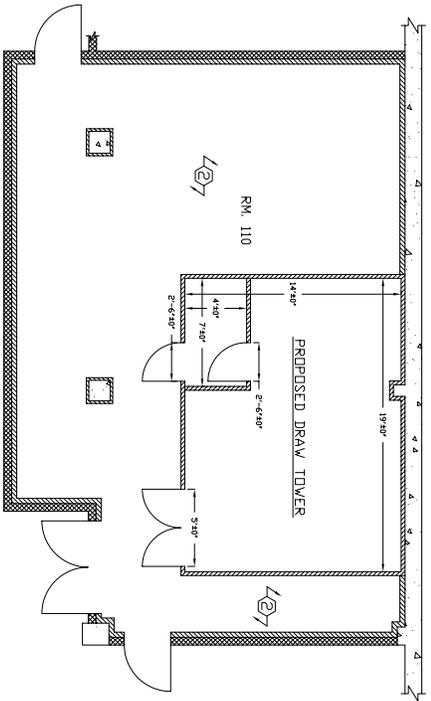
PREPARED BY RDCIC	DESIGN BY J. NELSON	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND WASHINGTON, DC 20350-5000
CHECKED BY S. BAULAT	DRAWN BY J. NELSON	
SAFETY OFF		
PROJECT NO. 80091	DATE 11/12/20	ARCHITECTURAL BUILD SINGLE ROOM DRAW TOWER
SCALE 1/4" = 1'	CONTRACT NO. N62477-06-C-2126	WORK NUMBER 31678442
	SHEET 21-06-21261	4 OF 14
RF NO. 3253	RM 0124	13736

A2

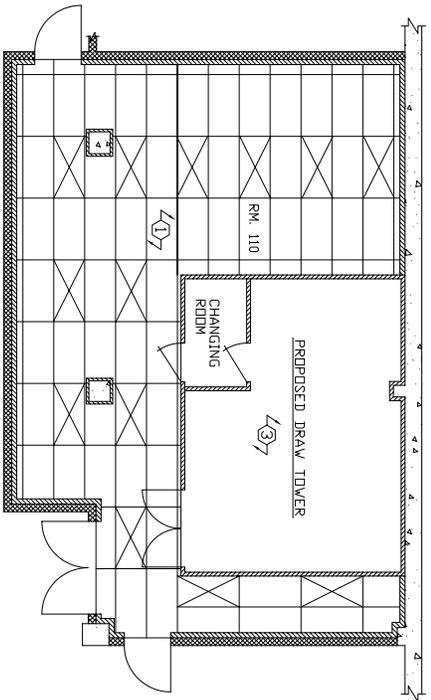
REVISIONS		DATE	APPROVED
SYMBOL	DESCRIPTION		

GENERAL NOTES:  
NEW WORK

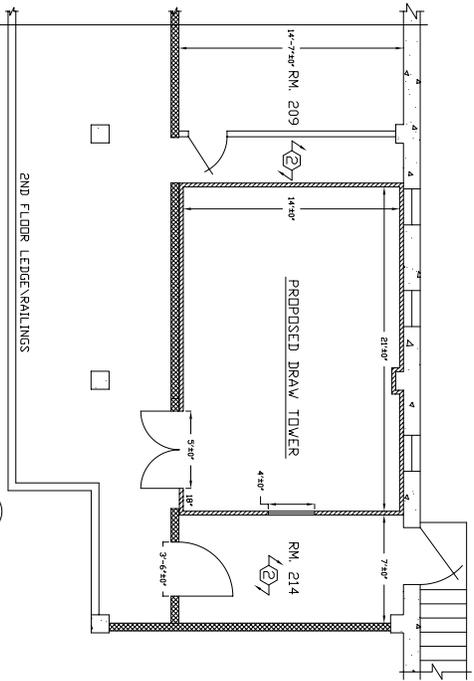
- ① PROVIDE NEW 24" X 48" SUSPENDED CEILING SYSTEMS AT 8' FT. HEIGHT IN RMS. 110, 210 AND 214 WHERE SHOWN.
- ② PROVIDE NEW 12" X 12" VINYL COMPOSITION FLOOR TILES AND 4" VINYL COVE BASE AT NEW DRYWALL PARTITIONS AND WHERE INDICATED.
- ③ PROVIDE NEW SEAMLESS FLOORS WITH TIGHTLOCK COVE BASE.



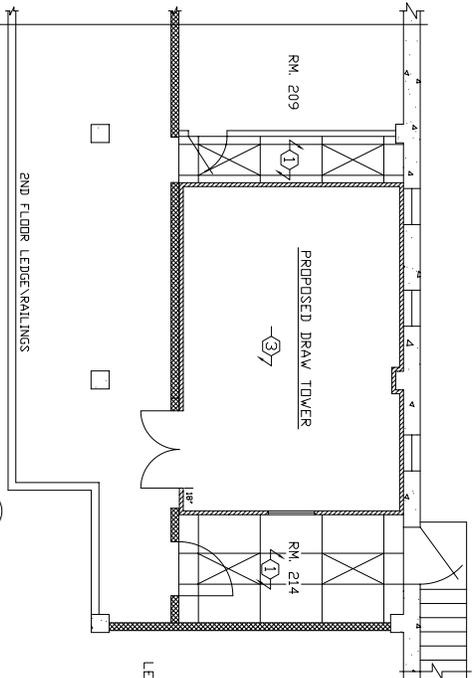
NEW FIRST FLOOR DRAW TOWER (FLOOR PLAN)  
NOT TO SCALE



NEW FIRST FLOOR CEILING LAYOUT  
NOT TO SCALE



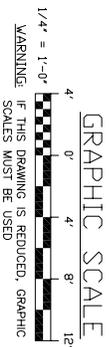
NEW SECOND FLOOR DRAW TOWER (FLOOR PLAN)  
NOT TO SCALE



NEW SECOND FLOOR CEILING LAYOUT  
NOT TO SCALE

LEGEND:

- [Pattern] EXISTING CMU WALLS
- [Pattern] EXISTING CONCRETE WALLS
- [Pattern] CONCRETE FILLED TRENCH
- [Pattern] NEW DRAW TOWER WALLS
- [Pattern] NEW FURRED DRYWALL PARTITIONS



WARNING: IF THIS DRAWING IS REDUCED, GRAPHIC SCALES MUST BE USED

PREPARED BY	J. NELSON	DESIGN	J. NELSON
CHECKED BY	J. NELSON	DRAWN BY	J. NELSON
APPROVED BY	S. BAULAT	SAFETY OFF.	
PROJECT NO.	80091	DATE	FEB 1987
CONTRACT NO.		CONTRACT VALUE	
SCALE	1/4" = 1' - 0"	SHEET	5 OF 12
DATE		PROJECT	BUILDING 74 (ARCHITECTURAL)
			NAVY FACILITIES ENGINEERING COMMAND
			NAVAL RESEARCH LABORATORY
			WASHINGTON, DC 20375-5000
DATE	FEB 1987	PROJECT	BUILDING 74 (ARCHITECTURAL)
			NAVY FACILITIES ENGINEERING COMMAND
			NAVAL RESEARCH LABORATORY
			WASHINGTON, DC 20375-5000

DATE: FEB 1987

PROJECT: BUILDING 74 (ARCHITECTURAL)

NAVY FACILITIES ENGINEERING COMMAND

NAVAL RESEARCH LABORATORY

WASHINGTON, DC 20375-5000

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

SHEET: 5 OF 12

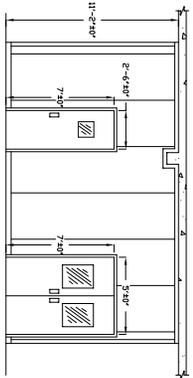
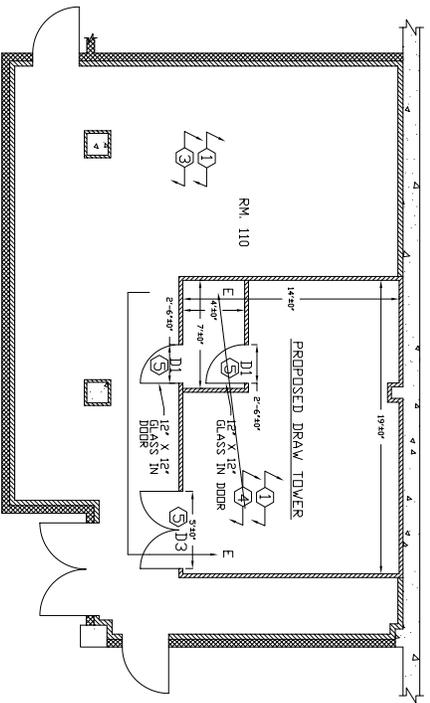
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PROJECT: BUILDING 74 (ARCHITECTURAL)

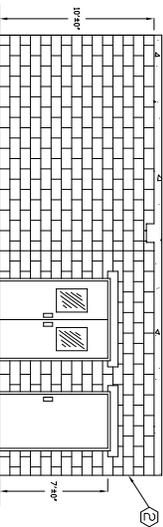
NAVY FACILITIES ENGINEERING COMMAND

NAVAL RESEARCH LABORATORY

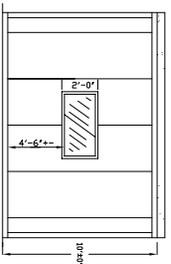
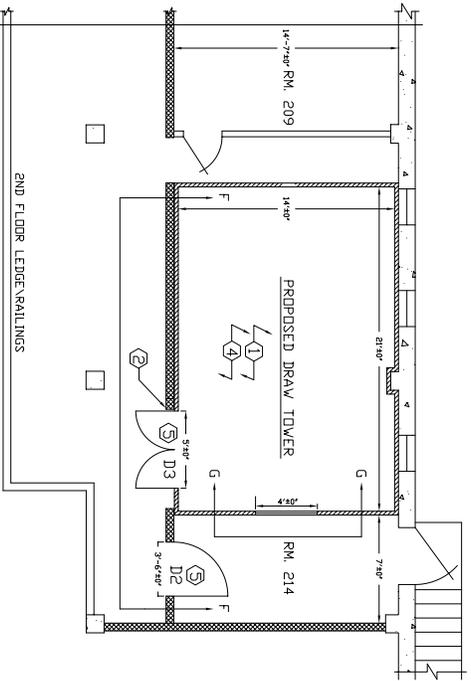
WASHINGTON, DC 20375-5000



SECTION E-E FIRST FLOOR NORTH ELEVATION  
NOT TO SCALE



SECTION F-F SECOND FLOOR NORTH ELEVATION  
NOT TO SCALE



SECTION G-G SECOND FLOOR EAST ELEVATION  
NOT TO SCALE

GENERAL NOTES:

NEW WORK

- ① PREPARE AND CLEAN CONCRETE FLOORS OF ALL ADHESIVES, OILS AND PAINTS FOR NEW FLOOR FINISHES IN RMS. 110, 210, E10 AND E14.
- ② FILL-IN SECTIONS OF CMU WALL WHERE DOORS AND DOOR FRAMES WERE REMOVED ON SECOND FLOOR. PRIME AND PAINT BOTH SIDES OF WALL TO MATCH EXISTING.
- ③ FURR OUT EXISTING CMU WALLS AND COLUMNS WITH METAL STUDS, INSULATION AND 1/2" DRYWALL WHERE SHOWN ON DRAWINGS. SPACKLE, FINISH, PRIME AND PAINT NEW DRYWALL PARTITIONS.
- ④ CONSTRUCT NEW GLASS 1000 CLEAN ROOMS ON THE FIRST AND SECOND FLOORS WHERE SHOWN ON DRAWINGS. CLEAN ROOM PARTS AND CEILING MATERIAL SHALL BE GLASS 1000 COMPATIBLE, CONTAIN 2" THICK, HIGH DENSITY FOAM (EXPANDED POLYSTYRENE ACCEPTABLE) CONSTRUCTION WITH SMOOTH 6 MIL VINYL COVERED HARDBOARD LAMINATE COVERINGS OR BETTER. FINISH COLOR SHALL BE WHITE ON BOTH SIDES. PROVIDE NEW ALUMINUM FRAMES, DOORS, WINDOWS AND HANGERS AS PER DOOR SCHEDULE.

⑤ PRIME AND PAINT NEW DOORS AND DOOR FRAMES TO MATCH EXISTING.

DOOR SCHEDULE			
DOOR NO.	DOOR TYPE	DOOR SIZE	FRAME TYPE
D1	METAL (SINGLED)	2'-6" X 7'-0" X 1 3/4"	METAL 1.2.3.5.7.10.11.12
D2	METAL (SINGLED)	3'-6" X 7'-0" X 1 3/4"	METAL 1.2.3.4.5.7.10.11.12
D3	METAL (DOUBLE)	2'-6" X 7'-0" X 1 3/4"	METAL 1.2.3.4.5.7.8.10.11.12

HARDWARE NOTES:

1. HINGES (WITH NON-REMOVABLE PINS)
2. CLOSER
3. CYLINDRICAL LEVER LOCK
4. DOOR STOP
5. DOOR SSTOP
6. FLUSH BELTS (TOP & BOTTOM)
7. KICK PLATE
8. HINGE PLATE
9. ASTRAGAL
10. THRESHOLD
11. WEATHERSTRIPS
12. AUTOMATIC DOOR BOTTOM

LEGEND:

- EXISTING CMU WALLS
- EXISTING CONCRETE WALLS
- CONCRETE FILLED TRENCH
- NEW DRAW TOWER WALLS
- NEW FURRED DRYWALL PARTITIONS



WARNING: IF THIS DRAWING IS REDUCED, GRAPHIC SCALES MUST BE USED

REVISIONS		
SYMBOL	DESCRIPTION	DATE

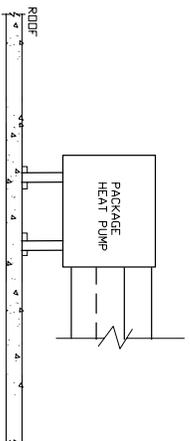
PREPARED BY KJCC	DESIGN BY J. NELSON	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NAVAL RESEARCH LABORATORY WASHINGTON, DC 20376-5000
CHECKED BY S. BAULAT	DATE 08/09/11	PROJECT BUILDING 74 (ARCHITECTURAL)
SCALE 1/4" = 1'-0"	SHEET 5 OF 12	DATE 13730







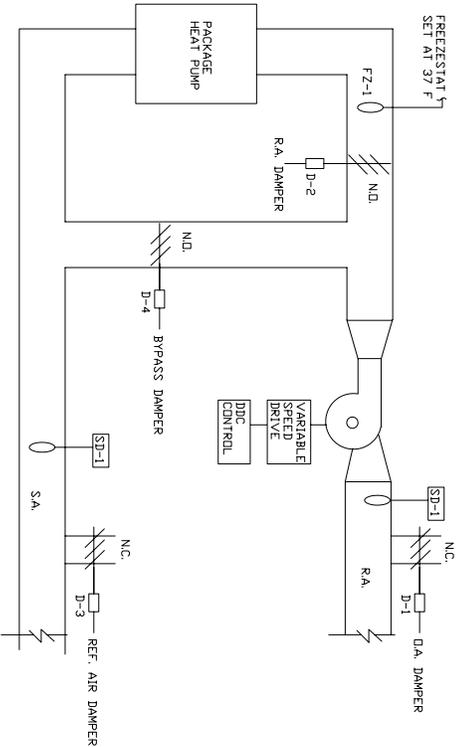
REVISIONS		
SYMBOL	DESCRIPTION	DATE



PACKAGE HEAT PUMP DETAIL  
NOT TO SCALE

HEAT PUMP SCHEDULE

TOTAL COOLING : 96,000 BTUH  
 TOTAL HEATING : 93,000 BTUH  
 CFM, ESP. : 3,600 CFM, 2.0"  
 ELECTRIC HEATER 15KW  
 VOLTAGE : 208/230-1



PACKAGE HEAT PUMP UNIT CONTROL DETAIL  
NOT TO SCALE

SEQUENCE OF OPERATION

- ① THE ROOM TEMPERATURE SHALL MAINTAIN THE ROOM SETPOINT TEMPERATURE BY MODULATING THE COIL CONTROL VALVE. RETURN AIR FAN SHALL RUN CONTINUOUSLY.
- ② DAMPER D-1 & D-3 SHALL CLOSE WHENEVER FANS IS DE-ENERGIZED.
- ③ FREEZE PROTECTION THERMOSTAT FZ-1 SHALL DE-ENERGIZE SA & RA FANS WHEN TEMPERATURE AT FZ-1 IS BELOW 37°F (ADJUSTABLE).
- ④ WHEN SMOKE IS SENSED, SMOKE DETECTOR SD-1 STOPS SA & RA FANS. FANS SHALL RESTART EXCEPT THROUGH MANUAL RESET OF SMOKE DETECTION SYSTEM.

RETURN AIR FAN SCHEDULE					
UNIT	TOTAL CFM	TYPE	ELECTRICAL	FAN DATA	NOTE
RAF	5,760	IN-LINE	230/3/60	ESP INCH	VOLUME CONTROL VFD

PREPARED BY	DATE	SCALE	NO.
DESIGN	WDD KIM 12/05	DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING COMMAND
CHECKED BY	WDD KIM 12/05	NAVAL RESEARCH LABORATORY	WASHINGTON, DC 20375-5000
SUPERVISED BY	S. DAULAT	BUILD SINGLE ROOM DRAW TOWER BUILDING 74	
SAFETY OFF		MECHANICAL	
PROJECT NO.	80091	CONTRACT NO.	31678448
SCALE AS NOTED	SPEC. 21-06-2166	SHEET	10 OF 14
DATE	NOV 2005	NO.	13736

M4







