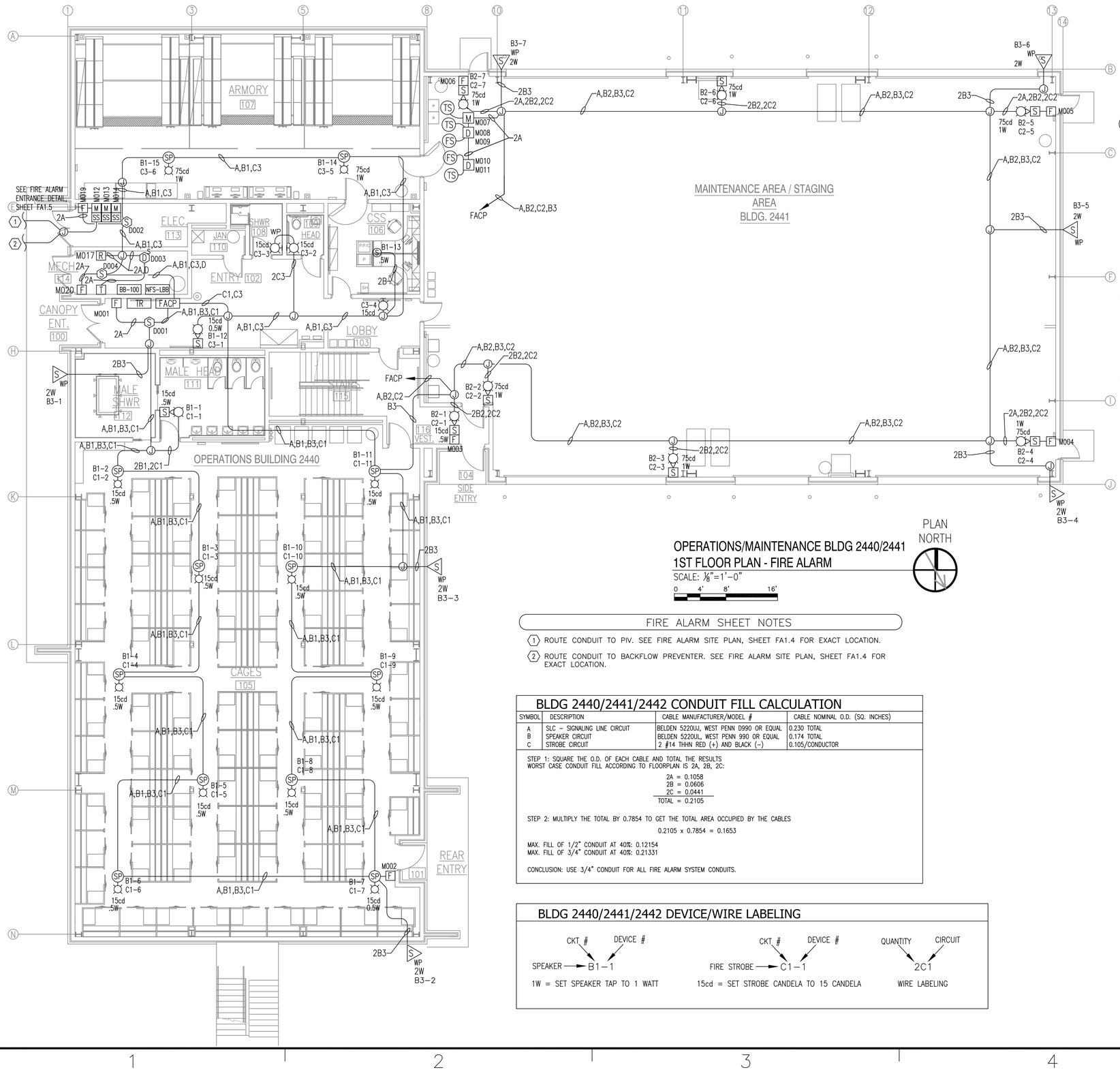

OPERATIONS/MAINTENANCE BLDG 2440/2441
1ST FLOOR PLAN - FIRE ALARM

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

0 4' 8' 16'

BLDG 2440/2441/2442 FIRE ALARM GENERAL NOTES

1. FIRE ALARM CABINET SHALL NOT BE BE USED AS TERMINAL CABINET. ALL JUNCTIONS AT FACP ARE TO BE MADE ON TERMINAL STRIPS IN SEPARATE TERMINAL CABINET OR WIRING TROUGH.
2. THE ONLY 120 VAC CIRCUIT ALLOWED IN FACP IS FOR SYSTEM PRIMARY POWER. DO NOT RUN 120 VAC CIRCUITS IN SAME CONDUIT AS FIRE ALARM CONDUCTORS.
3. DO NOT INSTALL SMOKE DETECTORS WITHIN 3 FEET OF A SUPPLY AIR VENT.
4. NO CONDUITS SHALL NOT PENETRATE BOTTOM OF FIRE ALARM CABINET, UNLESS SPECIFICALLY NOTED OTHERWISE.
5. TO AVOID CONTAMINATION AND DUST ACCUMULATION IN THE SMOKE DETECTORS, IT IS RECOMMENDED THAT THE SMOKE DETECTORS NOT BE INSTALLED IN BASES OR DUCT HOUSINGS, UNTIL AFTER CONSTRUCTION IS COMPLETE AND AREA HAS BEEN CLEANED. SUPPLIER IS NOT RESPONSIBLE FOR DUST ACCUMULATION IN SMOKE DETECTORS AND WILL NOT WARRANTEE DEVICES THAT HAVE NOT BEEN PROPERLY MAINTAINED. WHEN DETECTORS MUST BE INSTALLED, PROTECTIVE COVERS SHALL BE INSTALLED OVER EACH DETECTOR AND MUST BE REMOVED AT SYSTEM CERTIFICATION.
6. ALL WIRIING SHALL BE IN METALLIC CONDUIT. ALL CONDUITS SHALL BE 3/4" MINIMUM.
7. CIRCUIT ROUTING AS SHOWN ON PLANS IS A SUGGESTED MEAN OF ROUTING CONDUCTORS. FIELD CHANGES AND MODIFICATION MAY BE NECESSARY DUE TO INTERFERENCE WITH OTHER TRADES OR BUILDING CONSTRUCTION. MINOR MODIFICATIONS TO THESE DRAWINGS NEED TO BE NOTED ON DRAWINGS AND BROUGHT TO ATTENTION OF ACCI TECHNICIAN AT SYSTEM START UP. IF MAJOR MODIFICATIONS ARE REQUIRED, PLEASE CONSULT WITH ACCI BEFORE PROCEEDING. POWER CALCULATION ARE CRITICAL AND MODIFICATION WITHOUT PRIOR APPROVAL MAY RESULT IN A SYSTEM THAT WILL NOT OPERATE PROPERLY.
8. FIELD ELECTRICIAN TO PROVIDE COMPLETE SET OF RED LINED SHOP DRAWINGS TO ACCI TECHNICIAN BEFORE START UP OF SYSTEM. AS-BUILT DRAWING TO INCLUDE ALL MODIFICATIONS TO SHOP DRAWINGS, INCLUDING CONDUIT ROUTING.
9. ALL WIRE RUNS SHALL BE SPLICE FREE.ALL WIRING TERMINATIONS SHALL BE MADE ON TERMINAL STRIPS. WIRE NUTS AND CRIMP CONNECTIONS ARE NOT ALLOWED.
10. ALL FIRE ALARM CONDUCTORS SHALL BE PERMANANTLY IDENTIFIED.
11. FIRE ALARM JUNCTION BOXES IN UNFINISHED AREAS SHALL HAVE THE COVER PAINTED RED. JUNCTION BOXES IN FINISHED AREAS SHALL HAVE "FIRE ALARM" ON THE INSIDE OF THE JUNCTION BOX COVERS AND 3/4" WIDE RED BANDS PAINTED ON THE CONDUIT AT 10' SPACING AND ON EACH SIDE OF FLOOR, WALL, AND CEILING PENETRATIONS.

FIRE ALARM SHEET NOTES

(1) ROUTE CONDUIT TO PIV. SEE FIRE ALARM SITE PLAN, SHEET FA1.4 FOR EXACT LOCATION.

(2) ROUTE CONDUIT TO BACKFLOW PREVENTER. SEE FIRE ALARM SITE PLAN, SHEET FA1.4 FOR EXACT LOCATION.

BLDG 2440/2441/2442 CONDUIT FILL CALCULATION

SYMBOL	DESCRIPTION	CABLE MANUFACTURER/MODEL #	CABLE NOMINAL O.D. (SQ. INCHES)
A	SLC – SIGNALING LINE CIRCUIT	BELDEN 5220UU, WEST PENN D990 OR EQUAL	0.230 TOTAL
B	SPEAKER CIRCUIT	BELDEN 5220UL, WEST PENN 990 OR EQUAL	0.174 TOTAL
C	STROBE CIRCUIT	2 #14 THHN RED (+) AND BLACK (–)	0.105/CONDUCTOR

STEP 1: SQUARE THE O.D. OF EACH CABLE AND TOTAL THE RESULTS
WORST CASE CONDUIT FILL ACCORDING TO FLOORPLAN IS 2A, 2B, 2C:

2A = 0.1058
2B = 0.0606
2C = 0.0441
TOTAL = 0.2105

STEP 2: MULTIPLY THE TOTAL BY 0.7854 TO GET THE TOTAL AREA OCCUPIED BY THE CABLES

0.2105 x 0.7854 = 0.1653

MAX. FILL OF 1/2" CONDUIT AT 40%: 0.12154
MAX. FILL OF 3/4" CONDUIT AT 40%: 0.21331

CONCLUSION: USE 3/4" CONDUIT FOR ALL FIRE ALARM SYSTEM CONDUITS.

BLDG 2440/2441/2442 DEVICE/WIRE LABELING

SPEAKER → CKT # B1 – DEVICE # 1
1W = SET SPEAKER TAP TO 1 WATT

FIRE STROBE → CKT # C1 – DEVICE # 1
15cd = SET STROBE CANDELA TO 15 CANDELA

QUANTITY 2 CIRCUIT 1
WIRE LABELING

NICET CERTIFICATION
LARRY K. COOK
LEVEL IV / CERTIFICATION #75228
FIRE ALARM PROTECTION / FIRE ALARM SYS
EXPIRATION DATE: MARCH 01,2011

AS-BUILT
6-4-2010

APPR	DATE	DESCRIPTION	SYM
	2/26/2010	REVISED PER URS AND NAVFAC COMMENTS	

NAVFAC

SEAL

DES: | DRW:
REVIEWED BY: R. WILTSE
PM/DM: T. ARTRIP
CHIEF ENG/ARCH: P. DAMMON

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION JACKSONVILLE
IPT SOUTH ATLANTIC
JOHN C. STENNIS SPACE CENTER
MISSISSIPPI

SOF RIVERINE AND COMBATANT CRAFT OPERATIONS FACILITY

BLDG 2440 1ST FLOOR PLAN - FIRE ALARM

CODE ID. NO. N4412	SIZE D
SCALE:	1/8"=1'-0"
MAXIMO NO.	######
STA. PROJ. NO.	P-210
WORK ORDER NO.	510247
CONSTR. CONTR. NO.	N62467-05-D-0096
NAVFAC DRAWING NO.	######-##-#-####
SHEET	XXX OF XXX

FA1.1

DRAWFORM REVISION: 01 JAN 2009

REVDATE: FILE NAME: C:\Schlafly ENGR\08010 SOF Riverine\Drawings\Elec\5-As-builts\ACC\10-06-04\FAS Drawings as-builts.dwg LAYOUT NAME: FA1.1 PLOTTED: Wednesday, June 09, 2010 - 1:04pm