

ALLIED HEALTH BUILDING for Cleveland Community College Shelby, North Carolina

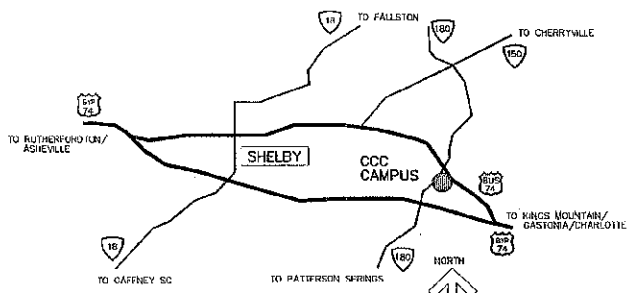
DESIGN TEAM:

LANDSCAPE ARCHITECT:
FRED B. BLACKLEY, ASLA
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STRUCTURAL ENGINEER:
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HICKORY, NORTH CAROLINA 28603
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PLUMBING & MECHANICAL ENGINEER:
MCKNIGHT - SMITH - WARD - GRIFFIN ENGINEERS, INC.
P.O. BOX 248828
CHARLOTTE, NORTH CAROLINA 28224
PH (704) 827-2122

ELECTRICAL ENGINEER:
HOLLADAY - COLEMAN & ASSOCIATES
5900 BOWNE STREET
COLUMBIA, SOUTH CAROLINA
PH (803) 254-4814
FAX (803) 254-4910



SHELBY & VICINITY
N.T.S.

APPENDIX B BUILDING CODE SUMMARY

NAME OF PROJECT:	ALLIED HEALTH BUILDING
ADDRESS:	137 SOUTH POST ROAD, SHELBY, NC
PROPOSED USE:	COMMUNITY CLASSROOM BUILDING
OWNER/AUTHORIZED AGENT:	DR. STEVE THORNBURG
OWNED BY:	<input type="checkbox"/> COUNTY <input type="checkbox"/> PRIVATE <input type="checkbox"/> STATE
CODE ENFORCEMENT JURISDICTION:	<input type="checkbox"/> CITY <input type="checkbox"/> COUNTY

LEAD DESIGN PROFESSIONAL:	ROGER HOLLADAY, AIA
DESIGNER:	FIRM: HOLLADAY HAMRICK & PATTERSON ARCHITECTS, P.A. NAME: ROGER HOLLADAY LICENSE#: NC 4878 TELEPHONE #: (704) 487-8578
ARCHITECTURAL:	HOLLADAY HAMRICK & PATTERSON ARCHITECTS, P.A. NAME: ROGER HOLLADAY LICENSE#: NC 4878 TELEPHONE #: (704) 487-8578
ELECTRICAL:	HOLLADAY COLEMAN & ASSOCIATES NAME: REV. COLEMAN LICENSE#: NC 3026 TELEPHONE #: (803) 254-4814
FIRE ALARM:	HOLLADAY COLEMAN & ASSOCIATES NAME: REV. COLEMAN LICENSE#: NC 3026 TELEPHONE #: (803) 254-4814
PLUMBING:	MCKNIGHT SMITH WARD GRIFFIN ENGINEERS NAME: STEVE THORNBURG LICENSE#: NC 17261 TELEPHONE #: (704) 827-2122
MECHANICAL:	MCKNIGHT SMITH WARD GRIFFIN ENGINEERS NAME: STEVE THORNBURG LICENSE#: NC 17261 TELEPHONE #: (704) 827-2122
SPRINKLER - STANDPIPE:	MCKNIGHT SMITH WARD GRIFFIN ENGINEERS NAME: STEVE THORNBURG LICENSE#: NC 17261 TELEPHONE #: (704) 827-2122
STRUCTURAL:	TAYLOR & VIOLA STRUCTURAL ENGINEERS NAME: TAYLOR & VIOLA LICENSE#: NC 12850 TELEPHONE #: (704) 325-6531
PAINT WALLS > 5' HIGH:	TAYLOR & VIOLA STRUCTURAL ENGINEERS NAME: TAYLOR & VIOLA LICENSE#: NC 12850 TELEPHONE #: (704) 325-6531
LANDSCAPE:	FRED B. BLACKLEY NAME: FRED B. BLACKLEY LICENSE#: NC 445 TELEPHONE #: (704) 484-1731
OTHER:	

YEAR EDITION OF CODE:	2003 IBC		
<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> RENOVATION (EXISTING BLDG.)	<input type="checkbox"/> UPFIT	<input type="checkbox"/> ALTERATION

BUILDING DATA:

CONSTRUCTION TYPE: I-A I-B II-A II-B III-A III-B IV-A IV-B

MIXED CONSTRUCTION: NO YES TYPES _____

SPRINKLERS: YES NO NFPA 13 NFPA 13R NFPA 13D

STANDPIPES: YES CLASS I II III IV V VI VII

FIRE DISTRICT: NO YES

BUILDING HEIGHT: 27 FEET 2 NUMBER OF STORIES UNLIMITED PER

MEZZANINE: NO YES

HIGH RISE: NO YES CENTRAL REFERENCE SHEETS (IF PROVIDED)

FLOOR	GROSS BUILDING AREA:		UNHEATED (SQ FT)
	EXISTING (SQ FT)	NEW (SQ FT)	
6TH FLOOR			
5TH FLOOR			
4TH FLOOR			
3RD FLOOR	17,303		
2ND FLOOR	14,092		350
MEZZANINE			2,355
1ST FLOOR	17,688		
BASEMENT			
TOTAL	49,393		2,715

ALLOWABLE AREA

PRIMARY OCCUPANCY: ASSEMBLY A-1 A-2 A-3 A-4 A-5 BUSINESS EDUCATIONAL FACTORY-INDUSTRIAL F-1 F-2 HIGH HAZARD H-1 H-2 H-3 H-4 H-5 INSTITUTIONAL I-1 I-2 I-3 I-4 I-5 I-6 I-7 I-8 I-9 I-10 I-11 I-12 I-13 I-14 I-15 I-16 I-17 I-18 I-19 I-20 I-21 I-22 I-23 I-24 I-25 I-26 I-27 I-28 I-29 I-30 I-31 I-32 I-33 I-34 I-35 I-36 I-37 I-38 I-39 I-40 I-41 I-42 I-43 I-44 I-45 I-46 I-47 I-48 I-49 I-50 I-51 I-52 I-53 I-54 I-55 I-56 I-57 I-58 I-59 I-60 I-61 I-62 I-63 I-64 I-65 I-66 I-67 I-68 I-69 I-70 I-71 I-72 I-73 I-74 I-75 I-76 I-77 I-78 I-79 I-80 I-81 I-82 I-83 I-84 I-85 I-86 I-87 I-88 I-89 I-90 I-91 I-92 I-93 I-94 I-95 I-96 I-97 I-98 I-99 I-100

SECONDARY OCCUPANCY: USE CONDITION I-1 I-2 I-3 I-4 I-5 I-6 I-7 I-8 I-9 I-10 I-11 I-12 I-13 I-14 I-15 I-16 I-17 I-18 I-19 I-20 I-21 I-22 I-23 I-24 I-25 I-26 I-27 I-28 I-29 I-30 I-31 I-32 I-33 I-34 I-35 I-36 I-37 I-38 I-39 I-40 I-41 I-42 I-43 I-44 I-45 I-46 I-47 I-48 I-49 I-50 I-51 I-52 I-53 I-54 I-55 I-56 I-57 I-58 I-59 I-60 I-61 I-62 I-63 I-64 I-65 I-66 I-67 I-68 I-69 I-70 I-71 I-72 I-73 I-74 I-75 I-76 I-77 I-78 I-79 I-80 I-81 I-82 I-83 I-84 I-85 I-86 I-87 I-88 I-89 I-90 I-91 I-92 I-93 I-94 I-95 I-96 I-97 I-98 I-99 I-100

SPECIAL OCCUPANCY: 508.2 508.3 508.4 508.5 508.6 508.7 508.8

MIXED OCCUPANCY: NO YES SEPARATION: _____ HR. EXCEPTION: _____

NON-SEPARATED MIXED OCCUPANCY (303.1.5 EXCEPTION)

THE REQUIRED TYPE OF CONSTRUCTION FOR THE BUILDING SHALL BE DETERMINED BY APPLYING THE HEIGHT AND AREA LIMITATIONS FOR EACH OF THE APPLICABLE OCCUPANCIES TO THE ENTIRE BUILDING. THE MOST RESTRICTIVE TYPE OF CONSTRUCTION, SO DETERMINED, SHALL APPLY TO THE ENTIRE BUILDING.

SEPARATED MIXED OCCUPANCY (303.1.5.2) - SEE BELOW FOR AREA CALCULATIONS FOR EACH STORY. THE AREA OF THE OCCUPANCY SHALL BE SUCH THAT THE SUM OF THE RATIOS OF THE ACTUAL FLOOR AREA OF EACH USE DIVIDED BY THE ALLOWABLE FLOOR AREA FOR EACH USE SHALL NOT EXCEED 1.

ACTUAL AREA OF OCCUPANCY A + ACTUAL AREA OF OCCUPANCY B ≤ 1 ALLOWABLE AREA OF OCCUPANCY A + ALLOWABLE AREA OF OCCUPANCY B

STORY NO.	DESCRIPTION AND USE	(A) FLOOR AREA PER STORY (ACTUAL)	(B) TABLE 503.3 AREA	(C) AREA FOR OPEN SPACE INCREASE*	(D) AREA FOR SPRINKLER INCREASE*	(E) ALLOWABLE AREA OR UNLIMITED	(F) MAXIMUM BUILDING AREA
1	BUSINESS	17,989	23,000	NA	46,000	60,000	
2	BUSINESS	14,092	23,000	NA	46,000	60,000	
3	BUSINESS	17,303	23,000	NA	46,000	60,000	276,000

* OPEN SPACE AREA INCREASES FROM SECTION 503.2 ARE COMPUTED THUS:
 A. PERMETER WHICH FRONTS A PUBLIC WAY OR OPEN SPACE HAVING 20 FEET MINIMUM WIDTH = _____ (F)
 B. TOTAL BUILDING PERIMETER = _____ (P)
 C. RATIO (F/P) = _____ (F/P)
 D. W = MINIMUM WIDTH OF PUBLIC WAY = _____ (W)
 E. PERCENT OF FRONTAGE INCREASE = 100 (F/P - 0.20) + W/20 _____ (R)
 * THE SPRINKLER INCREASE PER SECTION 503.3 IS AS FOLLOWS:
 A. MULTI-STORY BUILDING = 200 PERCENT
 B. SINGLE STORY BUILDING = 300 PERCENT
 * UNLIMITED AREA APPLICABLE UNDER CONDITIONS OF SECTIONS GROUP F, P, U, S, A-4 (507.1, 507.2, 507.3, 507.5) GROUP A MOTION PICTURE (507.6), WALLS (402.6), AND 1-2 AIRPORT PAINT HANGARS (507.6).
 * MAXIMUM BUILDING AREA = TOTAL NUMBER OF STORIES IN THE BUILDING X E BUT NOT GREATER THAN 3 X E.
 * THE MAXIMUM AREA OF PARKING GARAGES MUST COMPLY WITH 408.3.5. THE MAXIMUM AREA OF AIR TRAFFIC CONTROL TOWERS MUST COMPLY WITH 412.1.2.

ALLOWABLE HEIGHT

TYPE OF CONSTRUCTION	ALLOWABLE HEIGHT (TABLE 503)	INCREASE FOR SPRINKLERS	TYPE ON PLANS	CODE REFERENCE
TYPE OF CONSTRUCTION	TYPE	INCREASE	TYPE	CODE REFERENCE
BUILDING HEIGHT IN FEET	FEET	1 1/2" = 1 1/2" x 20" = 75"	4-0	47
BUILDING HEIGHT IN STORES	STORES	4 STORES + 1 = 5	3	

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING	DETAIL AND SHEET	DESIGN FOR RATED SUMMARY	DESIGN FOR PENETRATION	DESIGN FOR RAISED JOINTS
STRUCTURAL FRAME INCLUDING COLUMNS, GIRDERS, TRUSSES	0	0				
BEARING WALLS	2-30	0	1/A5.1			
EXTERIOR						
NORTH						
EAST						
WEST						
SOUTH			SM 1/A5.1			
INTERIOR						
NONBEARING WALLS AND PARTITIONS	2-30	0				
EXTERIOR						
NORTH						
EAST			2/A5.2			
WEST			2/A5.1			
SOUTH						
INTERIOR						
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS	0	0	1/A5.1			
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS	0	0	1/A5.1			
SHAFTS - ELEV	1	1	2/A5.3	WDS		
SHAFTS - OTHER	1	1	2/A5.4	WDS SYSTEM A		
CORRIDOR SEPARATION	NA	NA				
PARTY WALL SEPARATION	NA	NA				
SMOKE BARRIER SEPARATION	NA	NA				
TENANT SEPARATION	NA	NA				

LIFE SAFETY SYSTEM REQUIREMENTS

EMERGENCY LIGHTING:	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES
EXIT SIGNS:	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES
FIRE ALARM:	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES
SMOKE DETECTION SYSTEMS:	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES
PANIC HARDWARE:	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES

LATERAL DESIGN CONTROL: EARTHQUAKE _____ WIND _____

SOIL BEARING CAPACITIES: FIELD TEST (PROVIDE COPY OF TEST REPORT) _____ PSF PRESUMPTIVE BEARING CAPACITY _____ PSF PILE: NO., TYPE, AND CAPACITY _____

DRAWING INDEX

- ARCHITECTURAL**
- CS1.1 COVER SHEET, BUILDING CODE SUMMARY
 - LS1.1 LIFE SAFETY PLANS
 - LS1.2 UL ASSEMBLIES
 - LS1.3 UL ASSEMBLIES, DETAILS
 - L1A PARTIAL SITE PLAN
 - L1B PARTIAL SITE PLAN
 - L2A PARTIAL GRADING PLAN
 - L2B PARTIAL GRADING PLAN
 - L3A PARTIAL EROSION CONTROL PLAN
 - L3B PARTIAL EROSION CONTROL PLAN
 - L4A PARTIAL LANDSCAPE PLAN
 - L4B PARTIAL LANDSCAPE PLAN
 - L5A DETAILS
 - L5B NOTES, DETAILS
 - L6A DETAILS
 - L6B DETAILS
 - C1.1 SITE SEWER AND WATER
 - A1.1 FIRST FLOOR PLAN
 - A1.2 SECOND FLOOR PLAN
 - A1.3 THIRD FLOOR PLAN
 - A1.4 RETAINING WALL PLAN
 - A1.5 ENLARGED PLANS
 - A2.1 FINISH SCHEDULE
 - A2.2 DOOR SCHEDULE
 - A3.1 BUILDING ELEVATIONS
 - A3.2 BUILDING ELEVATIONS
 - A4.1 BUILDING SECTIONS
 - A4.2 BUILDING SECTIONS
 - A5.1 SECTIONS
 - A5.2 SECTIONS
 - A5.3 SECTIONS, DETAILS
 - A5.4 SECTIONS, DETAILS
 - A5.5 SECTIONS
 - A5.6 SECTIONS
 - A5.7 SECTIONS, DETAILS
 - A5.8 SECTIONS, DETAILS
 - A5.9 LOBBY STAIR PLANS, SECTIONS
 - A5.10 ELEVATOR PLANS, SECTIONS
 - A5.11 SECTIONS
 - A5.12 STAIR PLANS, DETAILS
 - A6.1 FIRST FLOOR REFLECTED CEILING PLAN
 - A6.2 SECOND FLOOR REFLECTED CEILING PLAN

- A6.3 THIRD FLOOR REFLECTED CEILING PLAN
- A7.1 ROOF PLAN, DETAILS
- A8.1 CABINET ELEVATIONS
- A8.2 CABINET DETAILS
- A9.1 LAB EQUIPMENT PLAN
- A9.2 ENLARGED LAB PLANS, ELEVATIONS
- A9.3 ENLARGED LAB PLANS, ELEVATIONS
- A9.4 ENLARGED LAB PLANS, ELEVATIONS
- A9.5 ENLARGED LAB PLANS, ELEVATIONS
- A9.6 ENLARGED LAB PLANS, ELEVATIONS
- A9.7 ENLARGED LAB PLANS, ELEVATIONS

- STRUCTURAL**
- S1.0 DESIGN LOADS, SCHEDULES, NOTES
 - S1.1 FOUNDATION PLAN
 - S1.2 SECOND FLOOR FRAMING PLAN
 - S1.3 THIRD FLOOR FRAMING PLAN
 - S1.4 ROOF FRAMING PLAN
 - S1.5 RETAINING WALL PLAN
 - S2.1 CMU REINFORCING
 - S2.2 BRACE ELEVATIONS, DETAILS
 - S7.1 FOUNDATION SECTIONS
 - S7.2 FLOOR SECTIONS
 - S7.3 ROOF SECTIONS
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 - S7.5 SECTIONS, DETAILS
 - S7.6 SECTIONS
 - S7.7 SECTIONS
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 - S7.9 SECTIONS
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- FIRE PROTECTION**
- FP1.1 FIRST FLOOR PLAN
 - FP1.2 SECOND FLOOR PLAN
 - FP1.3 THIRD FLOOR PLAN
 - FP1.4 DETAILS

- PLUMBING**
- P1.1 FIRST FLOOR PLAN
 - P1.2 SECOND FLOOR PLAN
 - P1.3 THIRD FLOOR PLAN

PLUMBING FIXTURE REQUIREMENTS

OCCUPANCY BUSINESS	WATERCLOSETS		URINALS	LAVATORIES		SHOWERS/ TUBS	REGULAR	ACCESSIBLE
	REQUIRED	MALE FEMALE		MALE	FEMALE			
FIRST FLOOR	4	7	4	4	4		1	1
SECOND FLOOR	3	5	4	3	3		1	1
THIRD FLOOR	2	4	4	3	3		1	1

ACCESSIBLE PARKING

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES		# OF ACCESSIBLE SPACES PROVIDED		TOTAL # ACCESSIBLE PROVIDED
	REQUIRED	PROVIDED	REGULAR WITH 5' ACCESSIBLE	ACCESSIBLE	
TOTAL	264	350	8	8	8

SPECIAL APPROVALS

SPECIAL APPROVAL (LOCAL JURISDICTION, DEPARTMENT OF INSURANCE, SDOO, ICC, ETC., DESCRIBE BELOW)

ENERGY SUMMARY

ENERGY REQUIREMENTS: THE FOLLOWING DATA SHALL BE CONSIDERED MINIMUM AND ANY SPECIAL ATTRIBUTE REQUIRED TO MEET THE ENERGY CODE SHALL ALSO BE PROVIDED. EACH DESIGNER SHALL FURNISH THE REQUIRED PORTIONS OF THE PROJECT INFORMATION FOR THE PLAN DATA SHEET. IF ENERGY COST BUDGET METHOD, STATE THE ANNUAL ENERGY COST BUDGET VS ALLOWABLE ANNUAL ENERGY COST BUDGET.

THERMAL ENVELOPE:

METHOD OF COMPLIANCE: PRESCRIPTIVE PERFORMANCE ENERGY COST BUDGET

ROOF CEILING ASSEMBLY: (EACH ASSEMBLY)
 DESCRIPTION OF ASSEMBLY: _____
 U-VALUE OF TOTAL ASSEMBLY: _____
 U-VALUE OF INSULATION: _____
 R-VALUE OF INSULATION: _____
 SKYLIGHTS IN EACH ASSEMBLY: _____ YES NO
 U-VALUE OF SKYLIGHT: _____
 TOTAL SQUARE FOOTAGE OF SKYLIGHTS IN EACH ASSEMBLY: _____ SQ. FT.

EXTERIOR WALLS: (EACH ASSEMBLY)
 DESCRIPTION OF ASSEMBLY: _____
 SUBSTRATE: _____
 U-VALUE OF TOTAL ASSEMBLY: _____
 U-VALUE OF INSULATION: _____
 R-VALUE OF INSULATION: _____
 OPENINGS (WINDOWS/DOORS WITH GLAZING): _____ YES NO
 U-VALUE OF ASSEMBLY: _____
 SHADING COEFFICIENT: _____
 PROJECTION FACTOR: _____
 LOW E REQUIRED, IF APPLICABLE: _____ YES NO
 DOOR R VALUES: _____

FLOORS ADJACENT TO UNCOND. SPACE: (EACH ASSEMBLY)
 DESCRIPTION OF ASSEMBLY: _____
 U-VALUE OF TOTAL ASSEMBLY: _____
 R-VALUE OF INSULATION: _____
 OPENINGS (WINDOWS/DOORS WITH GLAZING): _____ YES NO
 U-VALUE OF ASSEMBLY: _____
 LOW E REQUIRED, IF APPLICABLE: _____ YES NO
 DOOR R VALUES: _____

WALLS BELOW GRADE: (EACH ASSEMBLY)
 DESCRIPTION OF ASSEMBLY: _____
 U-VALUE OF TOTAL ASSEMBLY: _____
 R-VALUE OF INSULATION: _____
 HEAT OUTPUT OF UNIT: _____
 COOLING OUTPUT OF UNIT: _____
 TOTAL BOILER OUTPUT: _____
 IF OVERSIZED, STATE REASON: _____ YES NO

FLOORS OVER UNCOND. SPACE: (EACH ASSEMBLY)
 DESCRIPTION OF ASSEMBLY: _____
 U-VALUE OF TOTAL ASSEMBLY: _____
 R-VALUE OF INSULATION: _____
 HEAT OUTPUT OF UNIT: _____
 COOLING OUTPUT OF UNIT: _____
 TOTAL CHILLER OUTPUT: _____
 IF OVERSIZED, STATE REASON: _____ YES NO

- P2.1 ENLARGED SCIENCE PLANS
- P2.2 ENLARGED SCIENCE PLANS
- P2.3 ENLARGED TOILET PLANS
- P3.1 SCHEDULES, DETAILS

- MECHANICAL**
- M1.1 MECHANICAL FIRST FLOOR PLAN
 - M1.2 FIRST FLOOR PLAN PIPING/BALANCING
 - M1.3 MECHANICAL SECOND FLOOR PLAN
 - M1.4 SECOND FLOOR PLAN PIPING/BALANCING
 - M1.5 MECHANICAL THIRD FLOOR PLAN
 - M1.6 THIRD FLOOR PLAN PIPING/BALANCING
 - M1.7 ENLARGED MECHANICAL ROOM PLANS
 - M1.8 ROOF PLAN
 - M3.1 DETAILS
 - M3.2 DETAILS
 - M3.3 DETAILS
 - M4.1 SCHEDULES
 - M4.2 SCHEDULES
 - M4.3 SCHEDULES
- MP1.1 DETAILS

- ELECTRICAL**
- E1.01 SYMBOLS, DESIGNER STATEMENT
 - E1.02 POWER RISER DIAGRAM, DETAILS
 - E1.03 PANELS
 - E1.04 PANELS
 - E2.01 ELECTRICAL SITE PLAN
 - E3.01 FIRST FLOOR LIGHTING PLAN
 - E3.02 SECOND FLOOR LIGHTING PLAN
 - E3.03 THIRD FLOOR LIGHTING PLAN
 - E4.01 FIRST FLOOR EMERGENCY LIGHTING PLAN
 - E4.02 SECOND FLOOR EMERGENCY LIGHTING PLAN
 - E4.03 THIRD FLOOR EMERGENCY LIGHTING PLAN
 - E5.01 FIRST FLOOR POWER PLAN
 - E5.02 SECOND FLOOR POWER PLAN
 - E5.03 THIRD FLOOR POWER PLAN
 - E5.04 ROOF ELECTRICAL PLAN
 - E6.01 FIRST FLOOR COMMUNICATIONS PLAN
 - E6.02 SECOND FLOOR COMMUNICATIONS PLAN
 - E6.03 THIRD FLOOR COMMUNICATIONS PLAN
 - E6.04 FIRE ALARM MATRIX