

GENERAL CONTRACTOR: BOYETT CONSTRUCTION INC. willard boyett; wboyett@boyettconstruction.net 256-974-6750

THE DESIGN FIRM; ANITA DENSON (CELL.: 256-318-4690; PH.: 256-351-0435; ADENSON09@GMAIL.COM; 102 ASHWOOD DR. DECATUR, AL. 35603)

ELECTRICAL ENGINEER: CLARK RAMSEY, P.E.

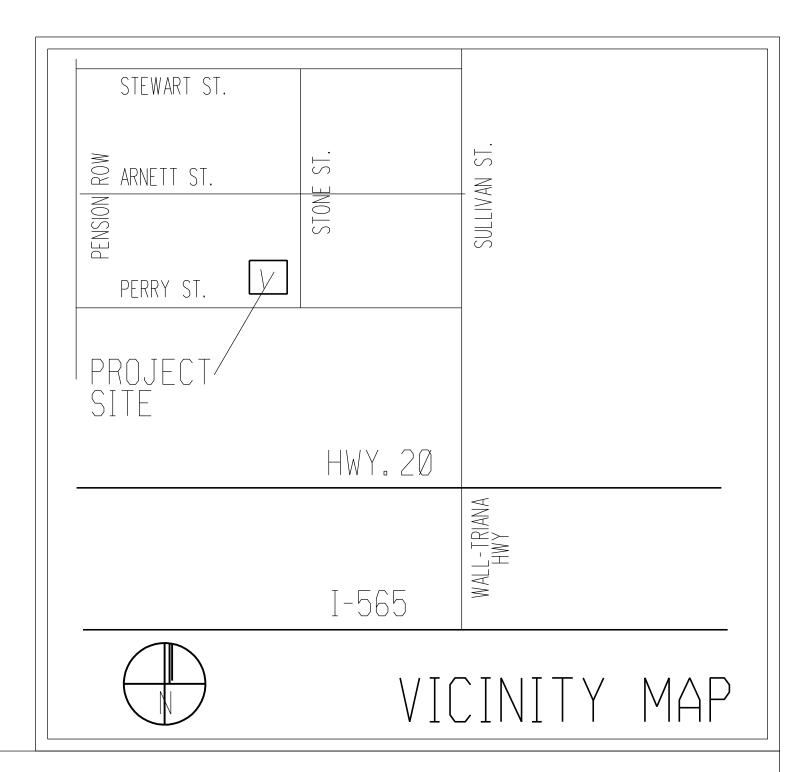
(256-684-9445); CKRAMSEY@NEHP.NET; 8409 GREEB NISS COURT; OWENS CRÓSS ROADS, AL. 35763)

MECHANICAL ENGINEER:

DAVID ALDRIDGE, P.E. (PH.: 256-651-4832); DA_1961@LIVE.COM; 1891 PAINT ROCK RD., LOT 1; NEW HOPE , AL. 3576Ø)

STRUCTURAL ENGINEER: QUALLS ENGINEERING GREG QUALLS (PH./FAX: 256-551-0407; GQUALLSENGINEERING.COM; 3311 BOB WALLACE AVE. SUITE 201; HUNTSVILLE, AL. 35805)

CIVIL ENGINEER: VICE ENGINEERING & SURVEYING HARRY C VICE, JR. (PH.: 256-612-1501; HVICE@BELLSOUTH.NET; 1506 MARKS DR.; HARTSELLE, AL. 35640)



NOTES

.THIS PROJECT IS UNDER 2009 INTERNATIONAL BUILDING CODE, 2009 INTERNATIONAL PLUMBING CODE, 2009 INTERNATIONAL MECHANICAL CODE, 2009 INTERNATIONAL FUEL GAS CODE; 2009 NATIONAL ENERGY CODE; 2005 INTERNATIONAL ELECTRIC CODE. ALABAMA IS UNDER 2011 NATIONAL ELECTRIC CODE SO THE MORE STRINGENT VERSION WILL BE COMPLIED WITH FOR THIS PROJECT (2005 OR 2011).

.THIS PROJECT CONSISTS OF THE CONSTRUCTION OF A NEW SANCTUARY BUILDING THAT SHALL BE WOOD FRAMED, PREFABRICATED ROOF TRUSSES, BRICK VENEER AND VINYL SIDING.. ALL APPLICABLE CODÉS AND ORDINANCES SHALL BE COMPLIED WITH.

.FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.

DRAWING INDEX

T1 TITLE SHEET & NOTES

A1 EXISTING AND SANCTUARY ADDTION FLOOR PLAN WITH DEMOLITION SHOWN A2 PLAN OF SANCTUARY ADDITION WITH CONNECTOR OPTION $\frac{1}{8}$ " SCALE

3/16/18: ADDED A2.1 AND A2.2 DUE TO ADDING CONNECTOR ADDITIVE ALTERNATE

A2.1 PLAN PART A (WITH CONNECTOR OPTION) $\frac{1}{4}$ "=1'-0" A2.2 PLAN PART B (WITH CONNECTOR OPTION) $\frac{1}{4}$ "=1'-0" A3 PLAN OF SANCTUARY ADDITION WITH ROOM, DOOR AND WINDOW MARKS

A4 MEZZANINE FLOOR PLAN AND SCHEULES/NOTES

A5 SOUTH AND EAST ELEVATIONS A6 NORTH AND WEST ELEVATIONS

A7 ROOF PLAN LS1 LIFE SAFETY PLAN L1 LANDSCAPE PLAN

S1 FOUNDATION PLAN & DETAILS S2 MEZZANINE FRAMING PLAN, SCHEDULES, NOTES & SECTIONS S3 ROOF FRAMING PLAN & DÉTAILS CONNECTOR OPTION STRUCTURAL DRAWINGS ADDED 3/16/18:

S1.0 CONNECTOR FOUNDATION PLAN, NOTES AND DETAILS S2.0 CONNECTOR ROOF PLAN, NOTES AND DETAILS

M1 HVAC PLAN M2 HVAC SCHEDULES AND DETAILS

P1 PLUMBING PLAN P2 PLUMBING SCHEDULES & DETAILS

E1 ELECTRICAL LEGENE & SPECIFICATIONS E2 1ST FLOOR POWER PLAN E3 1ST FLOOR LIGHTING PLAN E4 MEZZANINE POWER & LIGHTING PLAN E5 ELECTRICAL SITE PLAN

CIVIL DRAWINGS ARE AT THE END DUE TO SIZE OF SHEETS. C1 CIVIL TITLE SHEET

C2 EXISTING SITE PLAN C3 SITE PLAN C4 SITE DRAINAGE PLAN

C7 SITE UTILITÝ PLAN

E6 PHOTOMETRIC PLAN

C5 SITE GRADING PLAN C6 HYDROLOGY, HYDRAULIC AND MS4 DATA SUMMARY

C8 DETAILS C9 EROSION CONTROL- BESTMANAGEMENT PRACTICES PLAN C10 EROSION CONTROL DETAILS

CONNECTOR CIVIL DRAWINGS ADDED 1/25/18 C1.0 NEW BUILDING CONNECTOR SITE LAYOUT PLAN C2.0 NEW BUILDING CONNECTOR SITE GRADING DETAIL PLAN

ADDED STRUCTURAL AND CIVIL DRAWINGS FOR CONNECTOR OPTION.

DESIGN ASHWOO[THE 102

SANCTUARY 104 MADISON,

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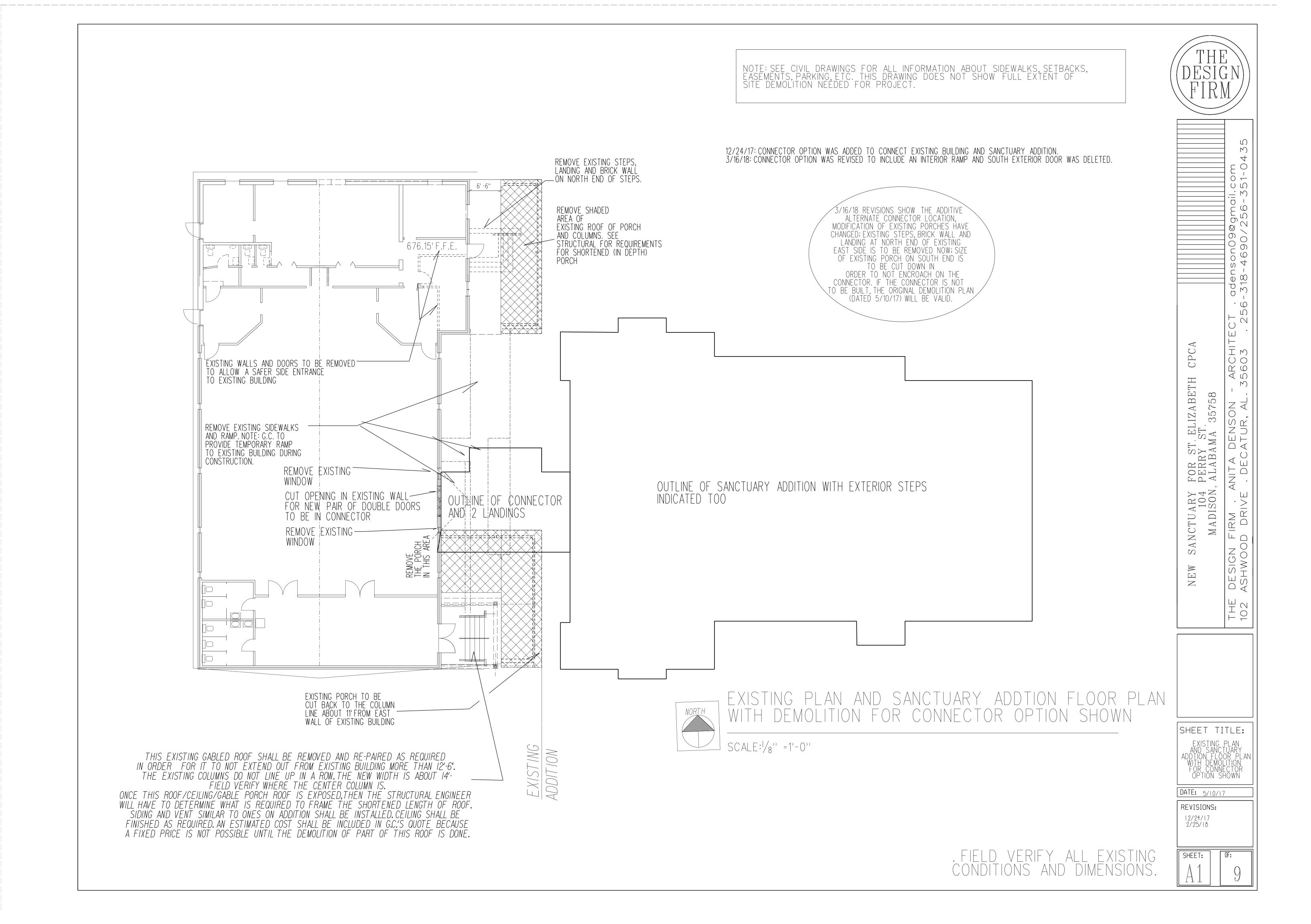
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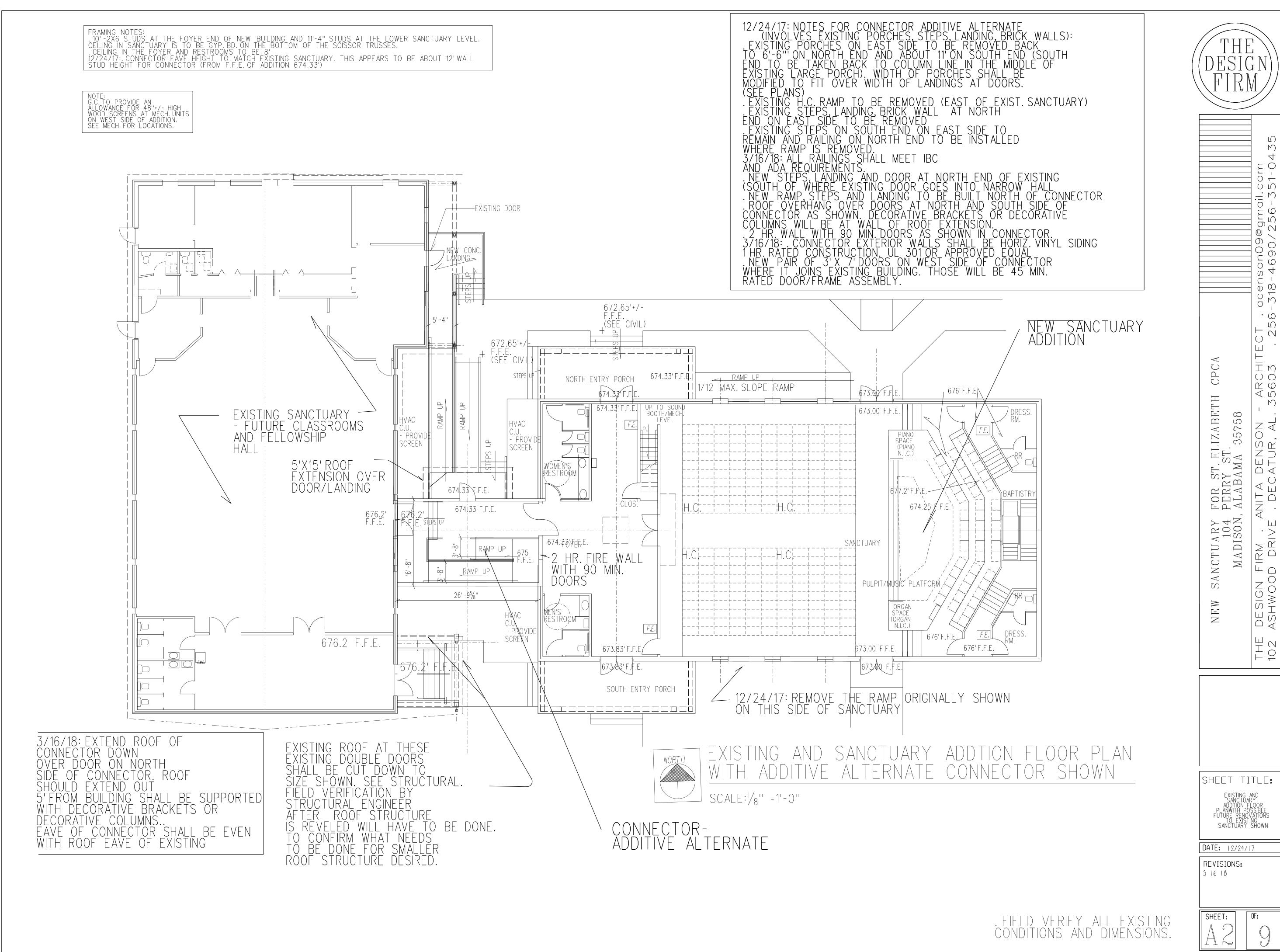
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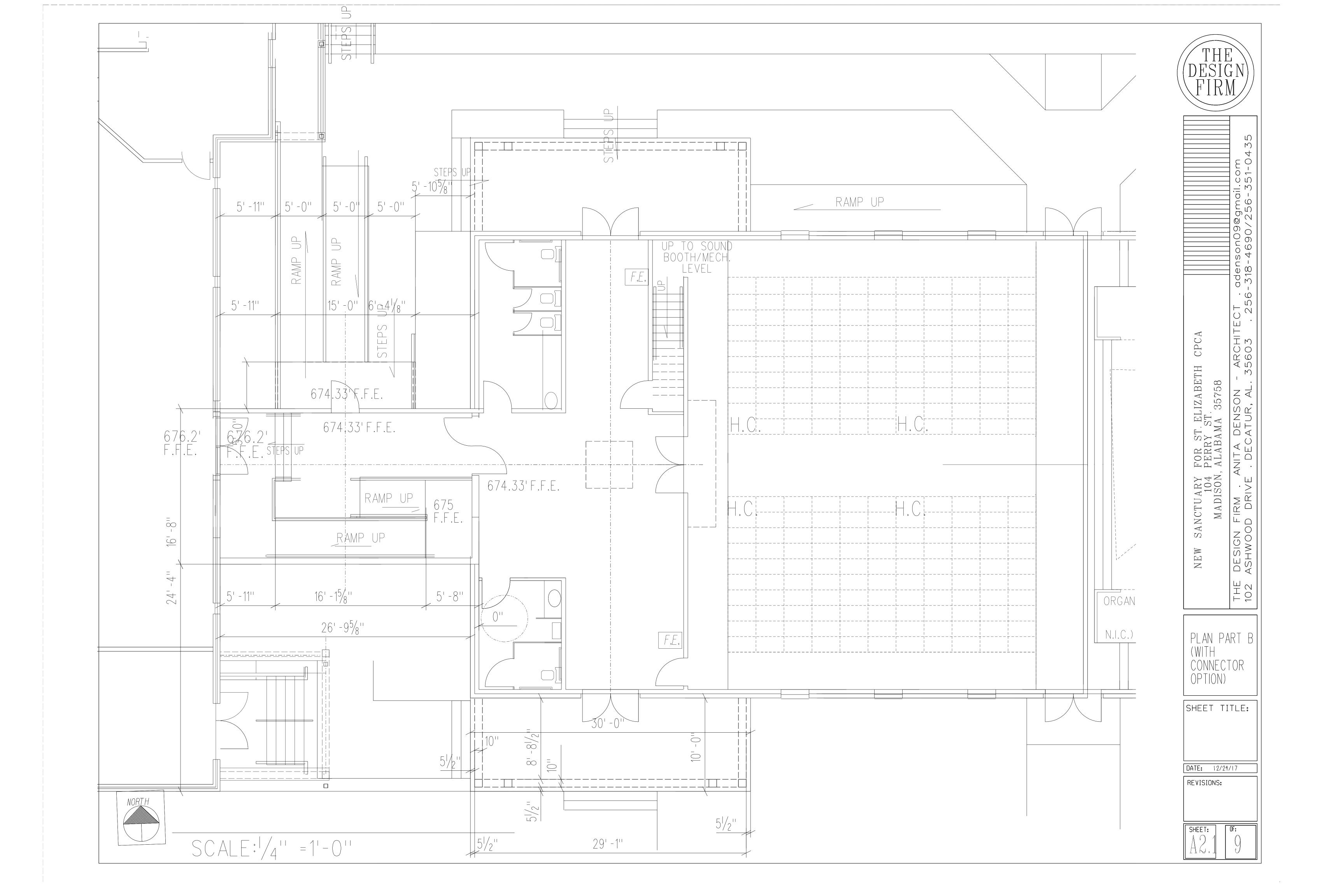
DATE: 5/10/17 REVISIONS:

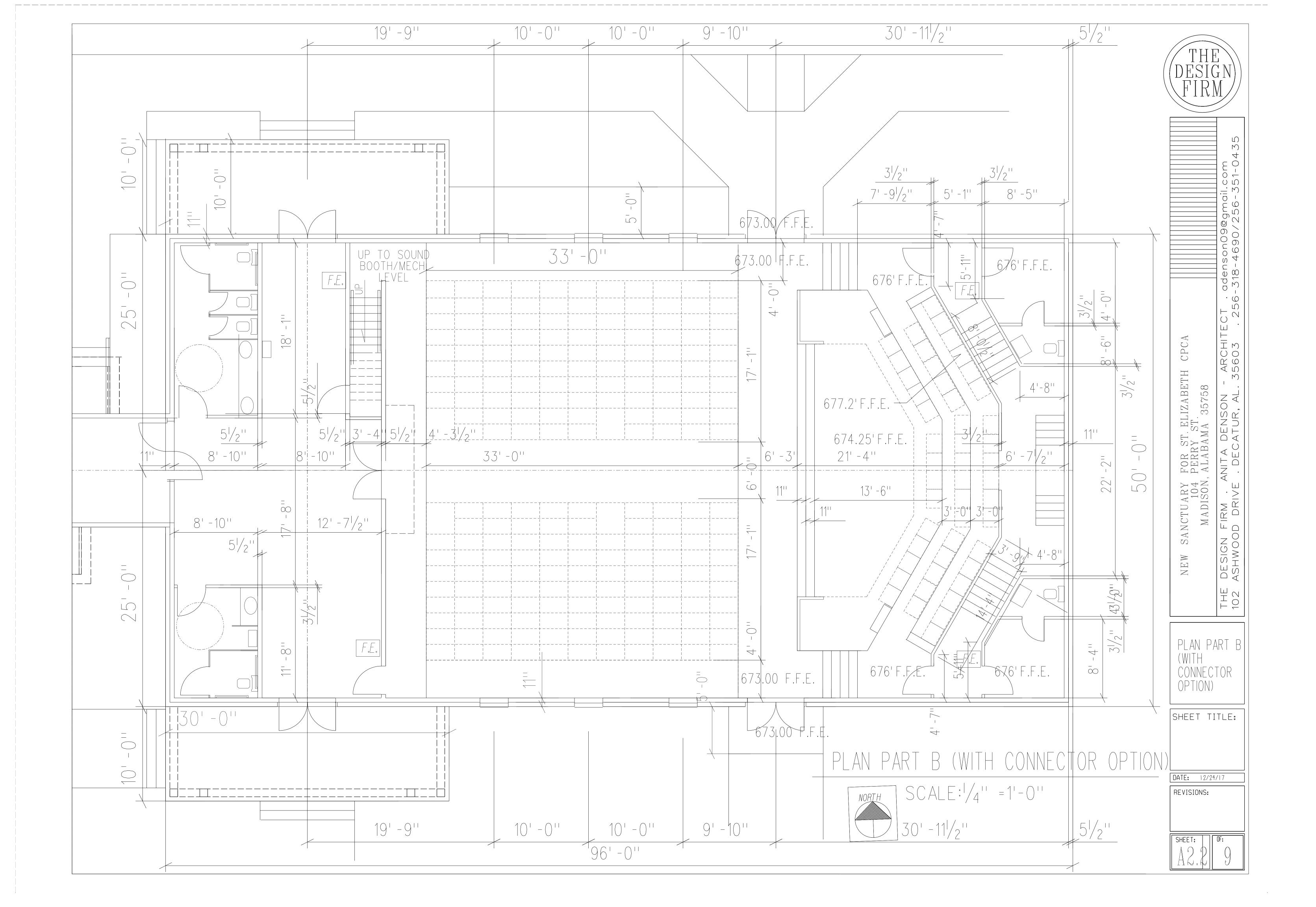
3/16/18

SHEET:









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. EXTERIOR WALLS TO HAVE R19 BATT OR BLOWN INSULATION (2X6 STUD WALLS). BRICK VENEER EXCEPT AT GABLES WHERE IT SHALL BE VINYL SIDING. INSTALL MOISTURE BARRIER ON THE OUTSIDE OF WALL SHEATHING. THERE SHALL BE 1" AIR SPACE BETWEEN WALL AND BRICK VENEER. INSTALL BRICK AS PER BRICK MASONRY INSTITUTE

CONDITIONS AND DIMENSIONS.





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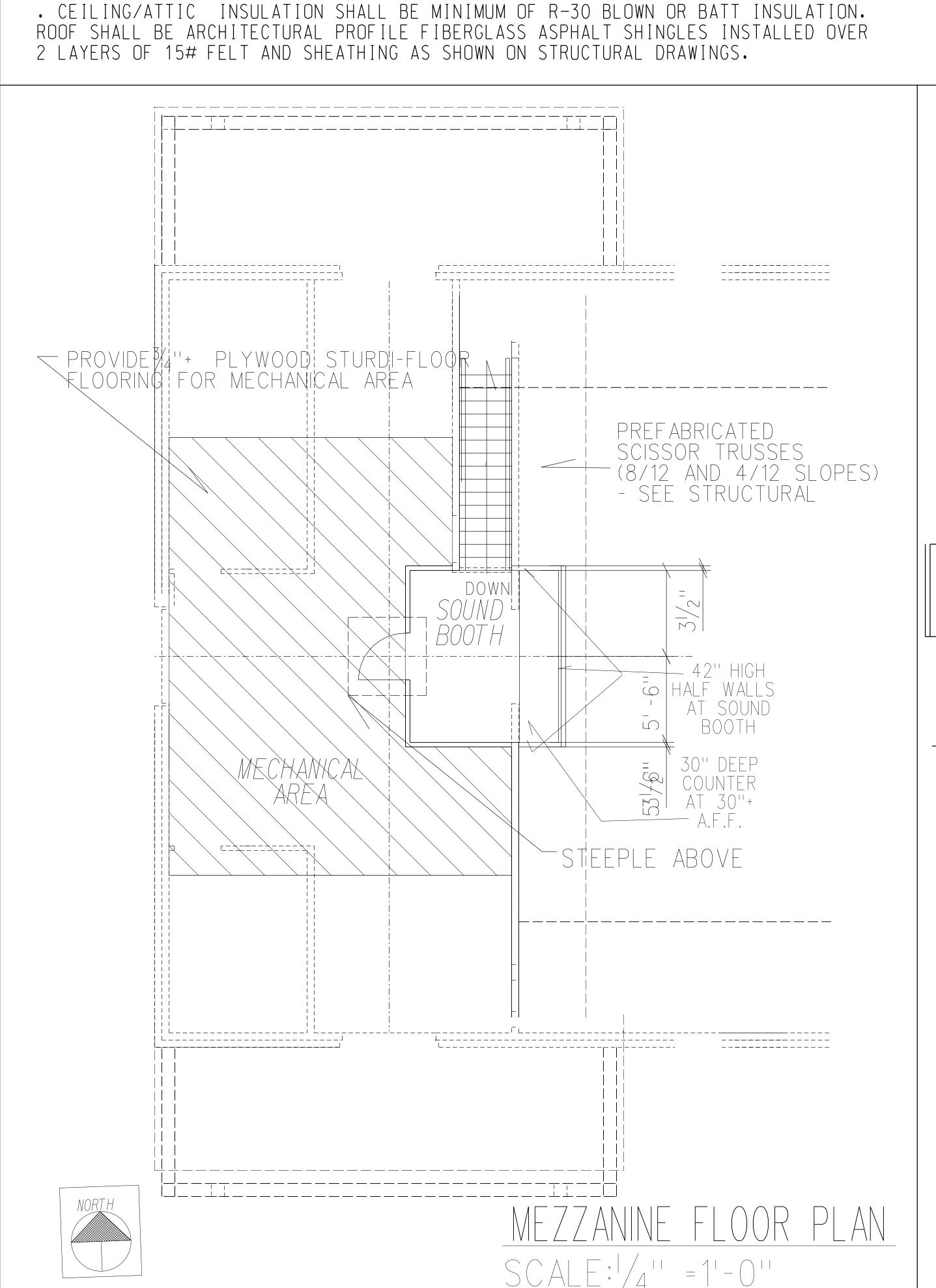
ST. ELIZABETH ?Y ST. BAMA 35758 SANCTUARY 104 MADISON,

SHEET TITLE:

DATE: 5/10/17

REVISIONS: 12/24/17 3/16/18

SHEET:



SPECIFICATIONS INCLUDING WEEP HOLES AND FLASHING WHERE REQUIRED.

DOOR/WINDOW AND FINISH SCHEDULES

DOOR SCHEDULE:

103A, 103B, 103C: PAIR OF 3'X7' 20 MIN. RATED INSULATED H.M. WITH H.M. FRAME; FULL VIEW LITE WITH TEMPERED, INSULATED

GLASS (SIZE OF WIRED GLASS OR EQUAL NOT LIMITED FOR 20 MIN. DOORS).

DOORS SHALL HAVE PANIC HARDWARE, CLOSERS, H.C. THRESHOLDS, AND WEATHERSTRIPPING.

104, 105: 3'X6'-8" INT. FLUSH WOOD DOOR AND WOOD FRAME; CLOS. LOCK (THAT CAN BE OPENED WITHOUT KEY FROM INSIDE)

107A, 107B: PAIR OF 3'X7' INSULATED H.M. WITH H.M. FRAME; FULL VIEW LITE WITH TEMPERED, INSULATED. 1'-4" HIGH TRANSOM ABOVE PAIR OF DOORS. GLASS (SIZE OF VIEW LITE TO MATCH DOORS AT FOYER). DOORS SHALL HAVE PANIC HARDWARE, CLOSERS, H.C. THRESHOLDS,

AND WEATHERSTRIPPING.

109, 110, 112, 113: 3'X6'-8" INT. FLUSH WOOD DOOR AND WOOD FRAME; PRIVACY LOCK

111A, 111B: 3'X6'-8" INT. FLUSH WOOD DOOR AND WOOD FRAME; CLOS. LOCK (THAT CAN BE OPENED WITHOUT KEY FROM INSIDE)

MECH. RM. DOOR (AT MEZZANINE): 3'X6'-8" INT. FLUSH WOOD DOOR AND WOOD FRAME; CLOS. LOCK (THAT CAN BE OPENED WITHOUT KEY FROM INSIDE)

-12/24/17: DOOR 114A: PR. 3'X7' INSUL. H.M DOOR WITH H. M. FRAME 90 MIN; 3/16/18 REVD: 114B: 3'X7' INSUL. H.M DOOR WITH VIEW LITE AND INSUL. H.M. FRAME 20 MIN. 114C: PR. 3' X 7' FULL VIEW LITE INSUL. H.M DOOR AND FRAME 45 MIN.

A: 3'X4'-8" VINYL WINDOW WITH INSULATED GLASS AND KRINKLE GLASS 3/16/18: OWNER WANTS ARCHED TRANSOMS. THIS WILL BE ADD BY G.C.

FINISHES:

103, 104, 105, 3/16/18: ADDED 114: V.C.T. WITH RUBBER BASE. ((3/16/18 NOTE: WAS C.T. WITH WD. BASE BUT THAT WAS NOT IN PRICE BY G.C.). PAINTED GYP. BD. WALLS AND CEILINGS. SEE LS1 FOR 1 HR. RATED WALLS. 106: V.C.T WITH RUBBER BASE; WALLS AND CEILINGS: 1 HR. RATED ASSEMBLY GYP. BD. 107, 108: CARPET; PAINTED GYP. BD. WALLS WITH WOOD TRIM (G.C. TO HAVE ALLOWANCE FOR TRIMWORK); GYP. BD. CEILING (AT BOTTOM OF SCISSOR TRUSSES) 109, 110, 111, 112, 113: V.C.T WITH RUBBER TREADS ON STEPS; RUBBER BASE; GYP. BD. WALLS AND CEILINGS. CEILINGS IN RMS. 109, 110, 112, 113 TO BE 8'. 111 CEILING TO BE BOTTOM OF SCISSOR TRUSSES SOUND BOOTH: CARPET; PAINTED GYP. BD. WALLS; CEILING TO BE GYP. BD. AT BOTTOM OF SCISSOR TRUSSES

CEILINGS:

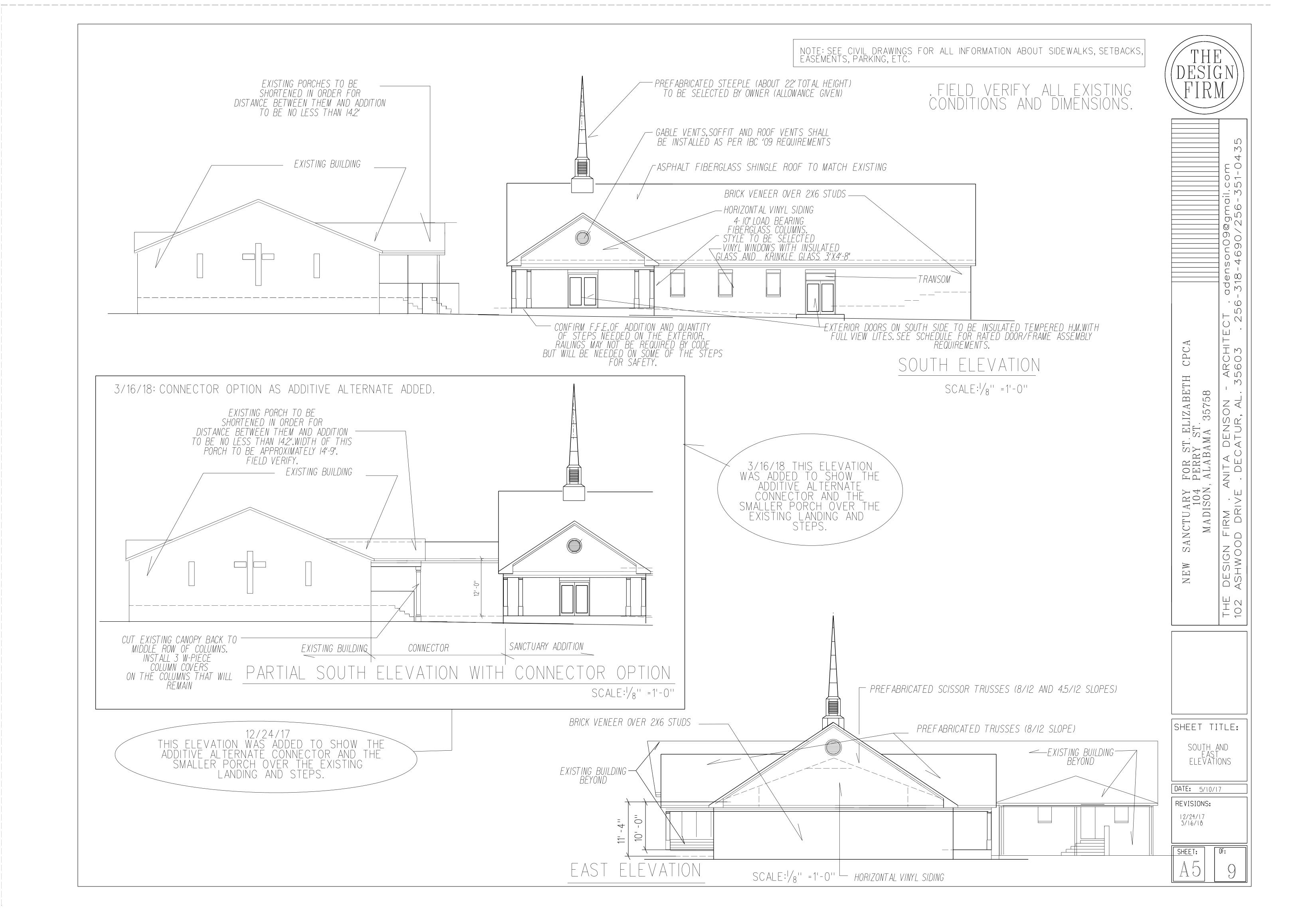
.CEILINGS IN FOYER & RESTROOMS TO BE 8' GYP. BD. . CLOSET 106 SHALL HAVE 1 HR. FIRE RATED ASSEMBLY

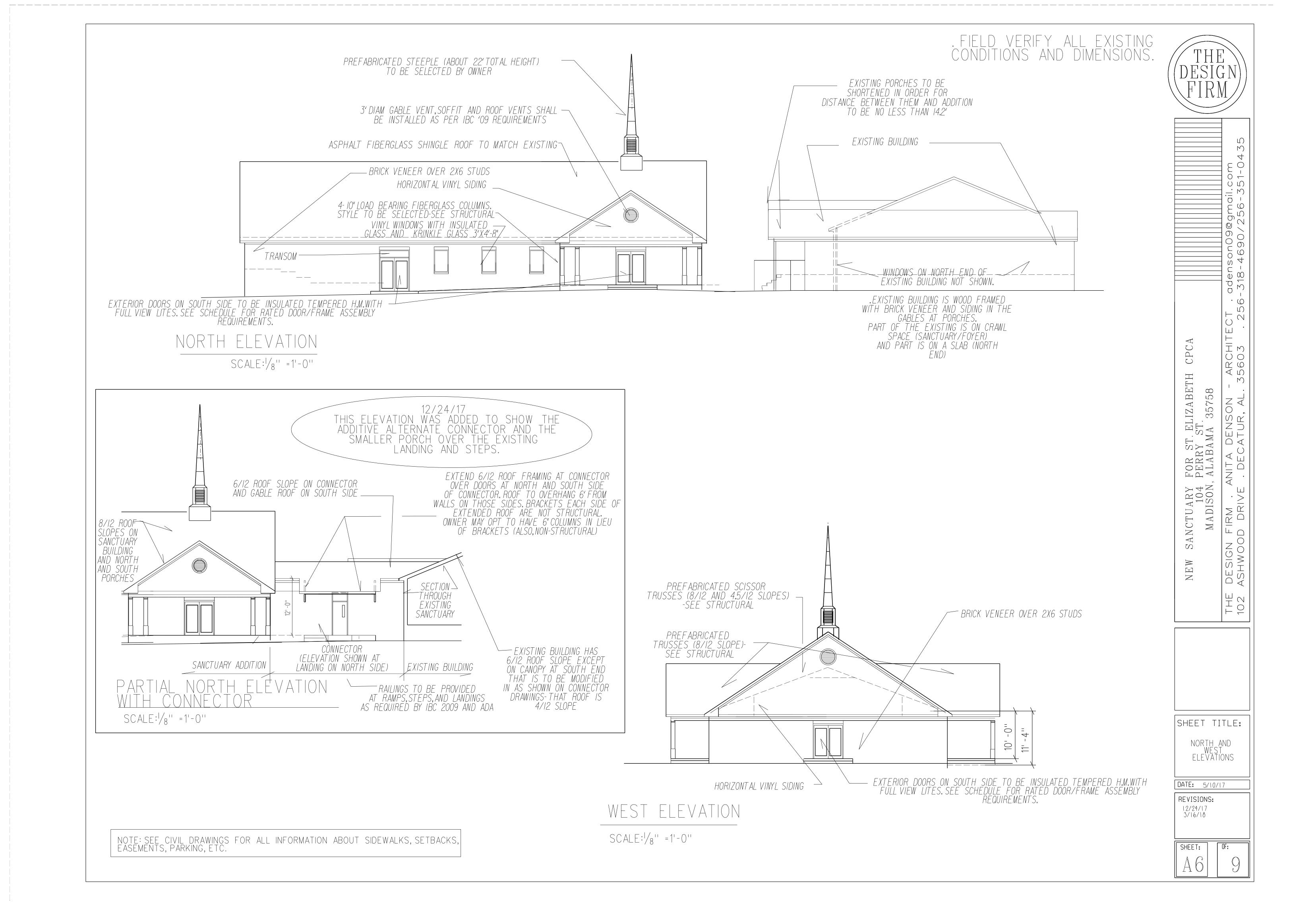
AS CEILING EXCEPT FOR FIRERATINGS AT NORTH,

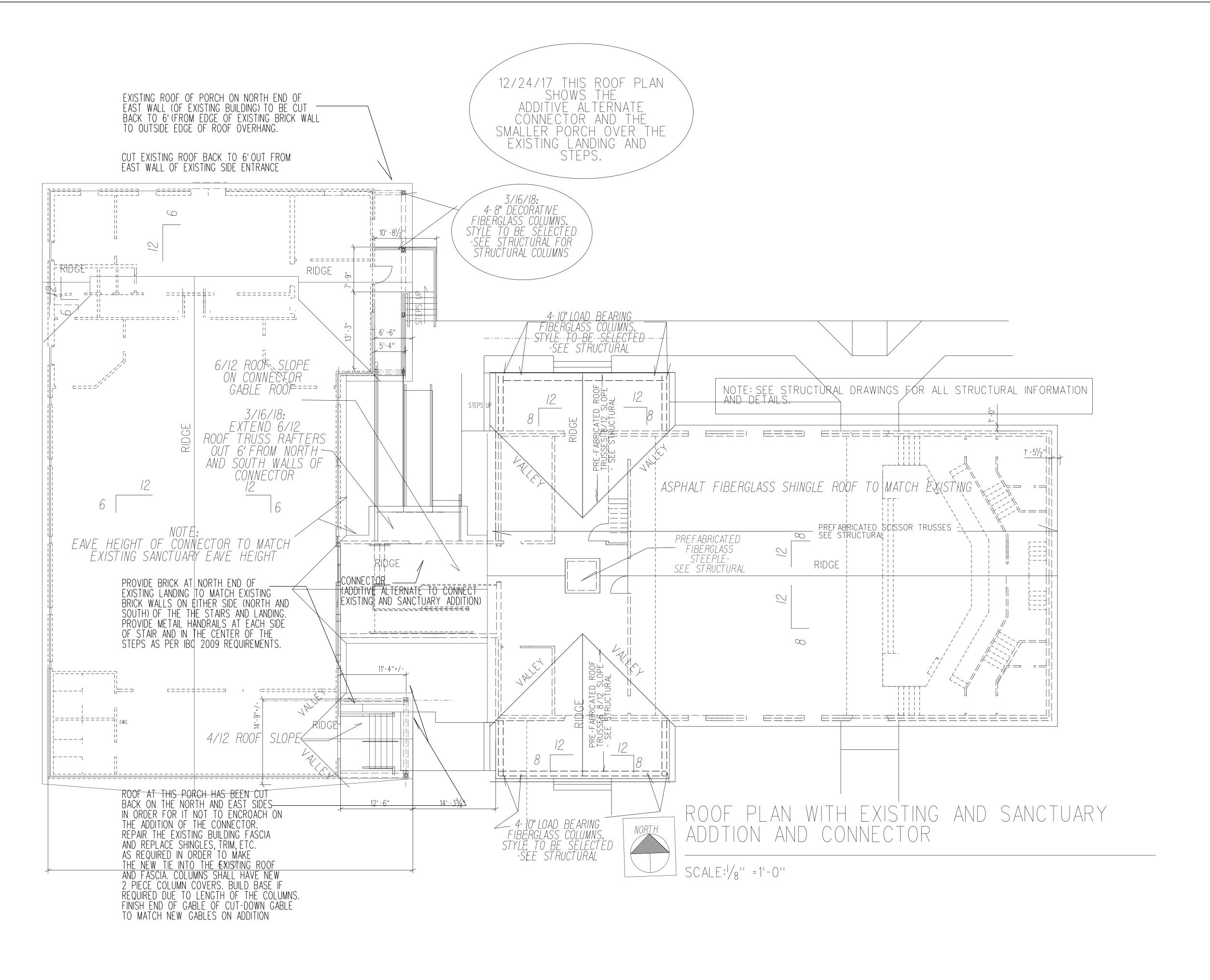
SOUTH AND WEST SIDES THAT ARE REQUIRED.

WALLS AND CEILINGS (2 LAYERS OF 5/8" TYPE "X" GYP BD. WITH 7/8" METAL FURRING STRIPS BETWEEN LAYERS. SEAL ĂLL JOINTS AS PER MANUF.'S SPECS. . CEILING IN SANCTUARY TO BE GYP. BD. AT BOTTOM OF SCISSOR TRUSSES.

MECH. RM. AT MEZZANINE: PLYWOOD FLOOR; UNFINSHED WALLS







THE DESIGN FIRM

NEW SANCTUARY FOR ST. ELIZABETH CPCA 104 PERRY ST. MADISON, ALABAMA 35758

SHEET TITLE:

ROOF PLAN WITH
EXISTING AND
SANCTUARY
ADDTION AND
CONNECTOR

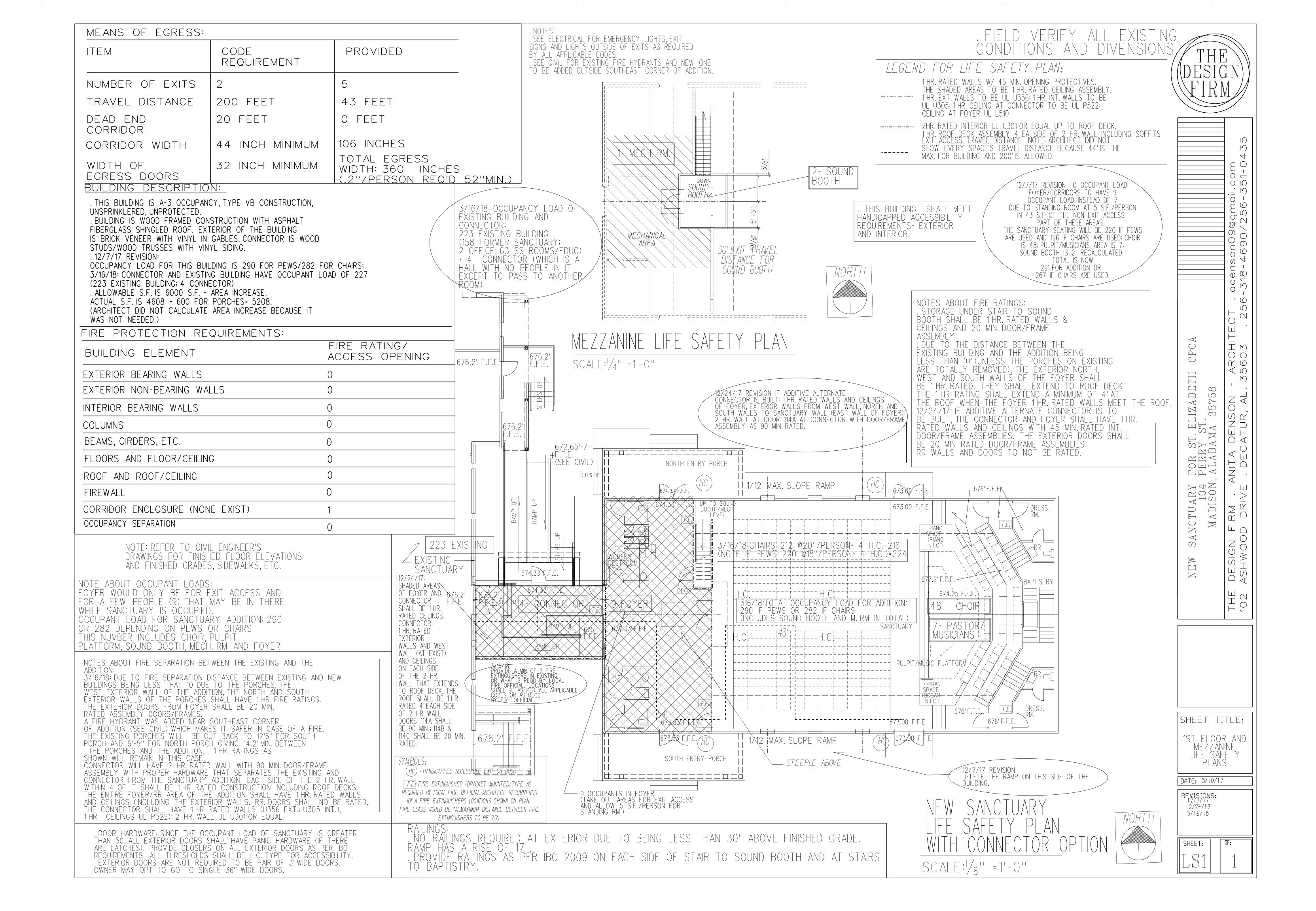
OF:

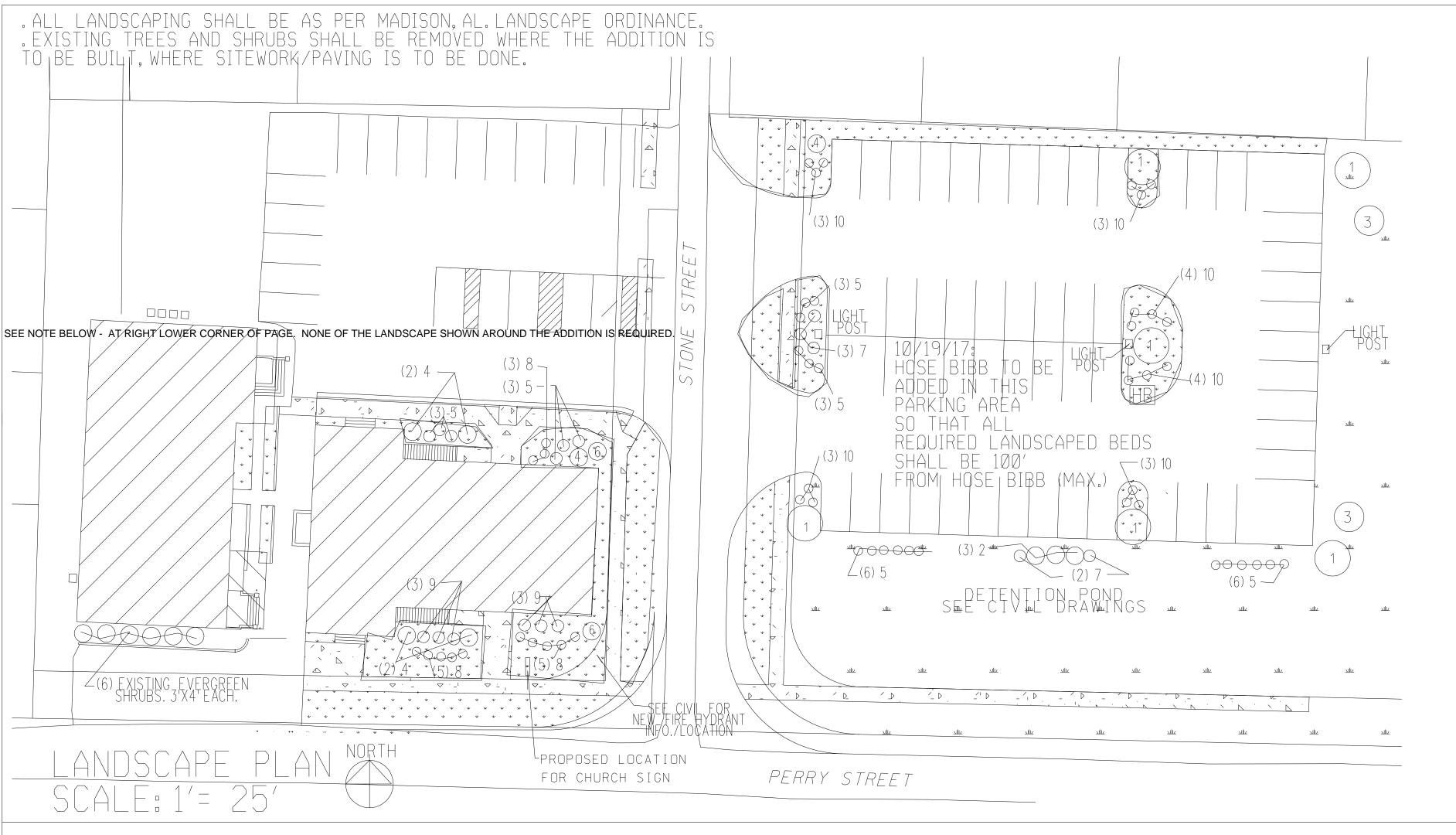
DATE: 12/24/17

REVISIONS: 12/24/17 23/16/18

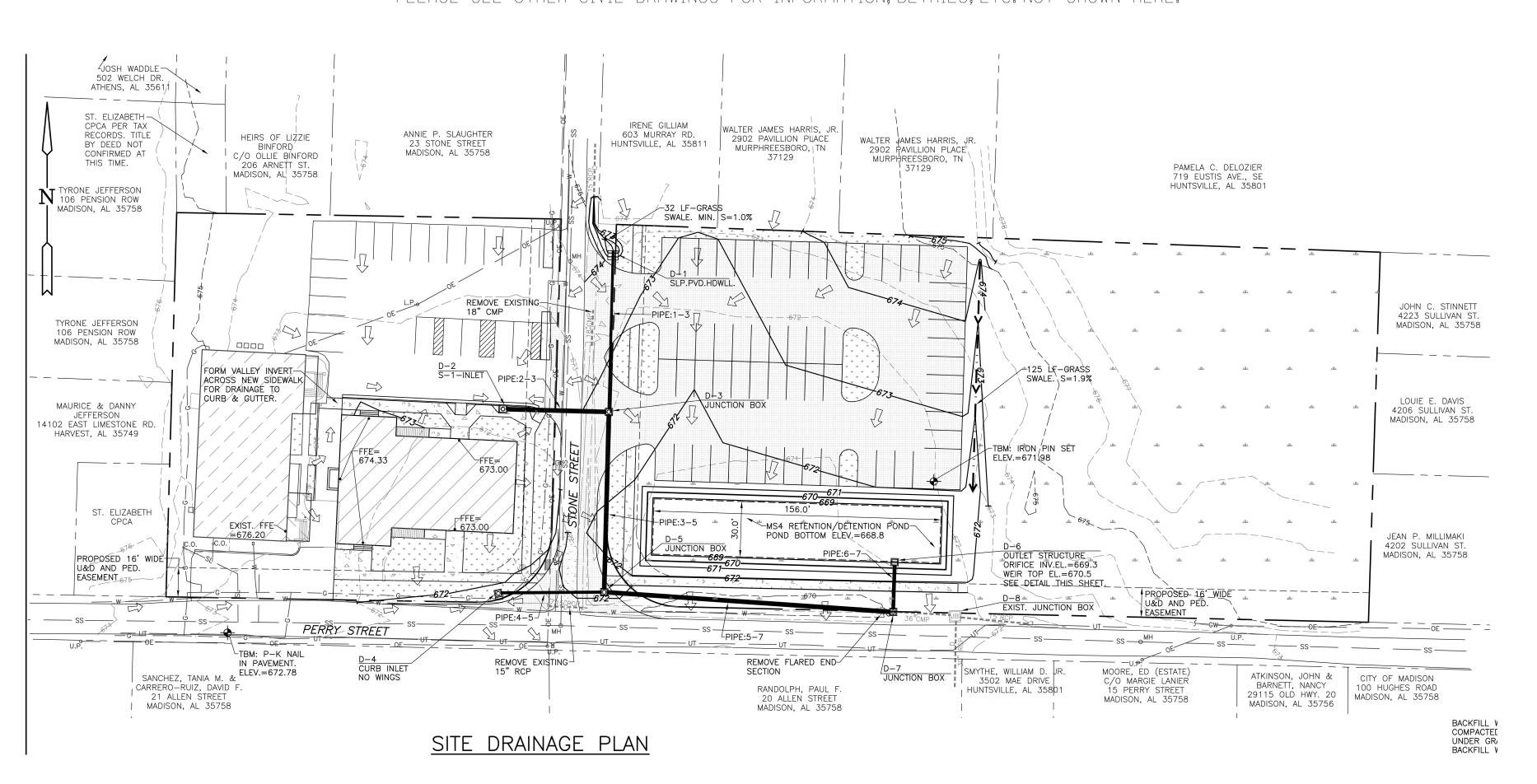
SHEET:

.FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS.





LANDSCAPE DRAWING WAS PREPARED BY THE DESIGN FIRM. CIVIL INFORMATION IS FROM THE CIVIL ENGINEER'S DRAWINGS. PLEASE SEE OTHER CIVIL DRAWINGS FOR INFORMATION, DETAILS, ETC. NOT SHOWN HERE.



.OWNER CONTACT: MR. FRANKLIN FLETCHER ¹³/₃₂ BUILDING COMM. CHAIRMAN

fdfletcher2@me.com Cell: 256-656-1921; Home: 256-772-9418 .GENERAL CONTRACTOR: BOYETT CONSTRUCTION INC. willard boyett; wboyett@boyettconstruction.net 256-974-6750
. ARCHITECT:

DESIGN FIRM; ANITA DENSON

(CELL.: 256-318-4690; PH.: 256-351-0435; ADENSON09@GMAIL.COM; 102 ASHWOOD DR. DECATUR, AL. 35603)

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PLANT LIST: (MADISON IS ZONE 7B)

1 - LITTLE GEM MAGNOLIA; QTY:6; SIZE 1½" CALIPER; 5 GAL

(MAGNOLIA GRANDIFLORA 'LITTLE GEM')

2 - HOLLY 'DWARF BURFORD'; QTY: 3; SIZE 2 GAL. (5X5E)

ILEX CORNUTA 'DWARF BURFORD'

3 - PURPLE-LEAF SAND CHERRY; QTY: 2; SIZE 2 GAL. (12X6)

PRUNUS X CISTENA

4 - KOREAN BOXWOOD WINTERGREEN; QTY: 5; SIZE 2 GAL

RUXUS MICROPHYLLA KOREANA WINTERGREEN - THESE

BUXUS MICROPHYLLA KOREANA WINTERGREEN - THESE

ARE WEST OF STONE ST. AND NOT REQUIRED.

5 - SOFT TOUCH COMPACT HOLLY; QTY: 12; 1 GAL. (3X3 E)

ILEX CRENATA 'SOFT TOUCH'

6 - EMERALD GREEN ARBORTAE (THUJA); QTY: 2; 5 GAL. (15X4E)

THUJA OCCIDENTALIS 'SMARAGD'; THESE

ARE WEST OF STONE ST. AND NOT REQUIRED.

7 - DWARF YEDDA HAWTHORN; QTY: 5; 1 GAL. (5X5E)

RHAPHIOLEPIS LIMBELLATA 'MINOR'

RHAPHIOLEPIS UMBELLATA 'MINOR' 8 - HELLERI HOLLY; QTY:19 ; 1 GAL (3X4E)

ILEX CRENATA HELLERI; THESE

ARE WEST OF STONE ST. AND NOT REQUIRED.

9 - GOLDEN GLOBE DWARF ARBORVITAE; QTY: 6; 3 GAL (4X4E)

THUJA OCCIDENTALIS 'GOLDEN GLOBE'; THESE

ARE WEST OF STONE ST. AND NOT REQUIRED.

10 - DWARF YAUPON OR SCHILLINGS HOLLY; QTY: 20; 1 GAL. (3'X4'E)

ILEX VOMITORIA 'STOKE'S DWARF'

SITE LANDSCAPING CALCULATIONS:

ZONING: R2 TOTAL PARKING SPACES: 56

(NOTE: THERE ARE 19 WEST OF STONE STREET BUT THAT IS LESS THAN 6000 S.F. SO NO LANDSCAPE REQUIREMENTS.)

INTERIOR LANDSCAPING: 55 PARKING SPACES X 18 / 200 = 5 TREES; SHRUBS= 5 TREES X 4= 20 SHRUBS

PERIMETER LANDSCAPING: 156 LF /50= 3 TREES;

SHRUBS = TREES X 6= 20 SHRUBS

TOTAL REQUIRED SHRUBS: 39; TOTAL TREES: 8

TOTAL PROVIDED (EAST OF STONE STREET): 40 SHRUBS; 8 TREES

.INSTALLATION SHALL BE DONE IN ACCORDANCE WITH

.SHRUBS WEST OF STONE STREET ARE OPTIONAL. REQUIREMENTS AS TO WHAT IS REQUIRED FOR

.G.C. SHALL PROVIDE AN ALLOWANCE FOR LANDSCAPING WEST OF STONE STREET FOR SHRUBS AROUND THE NEW AND EXISTING BUILDINGS.

10/19/17 REVISIONS: CLARIFICATIONS WERE MADE AS TO INTERIOR AND PERIMETER

BIBB(S) WILL BE ADDED SO THAT THERE WILL BE A HOSE BIBB WITHIN 100' OF EACH LANDSCAPED AREA. .NOTES WERE ADDED ALSO.



FOR ST. ELIZABETH PERRY ST. , ALABAMA 35758

NCTUARY 104 MADISON, S \Box \geq



SHEET TITLE:

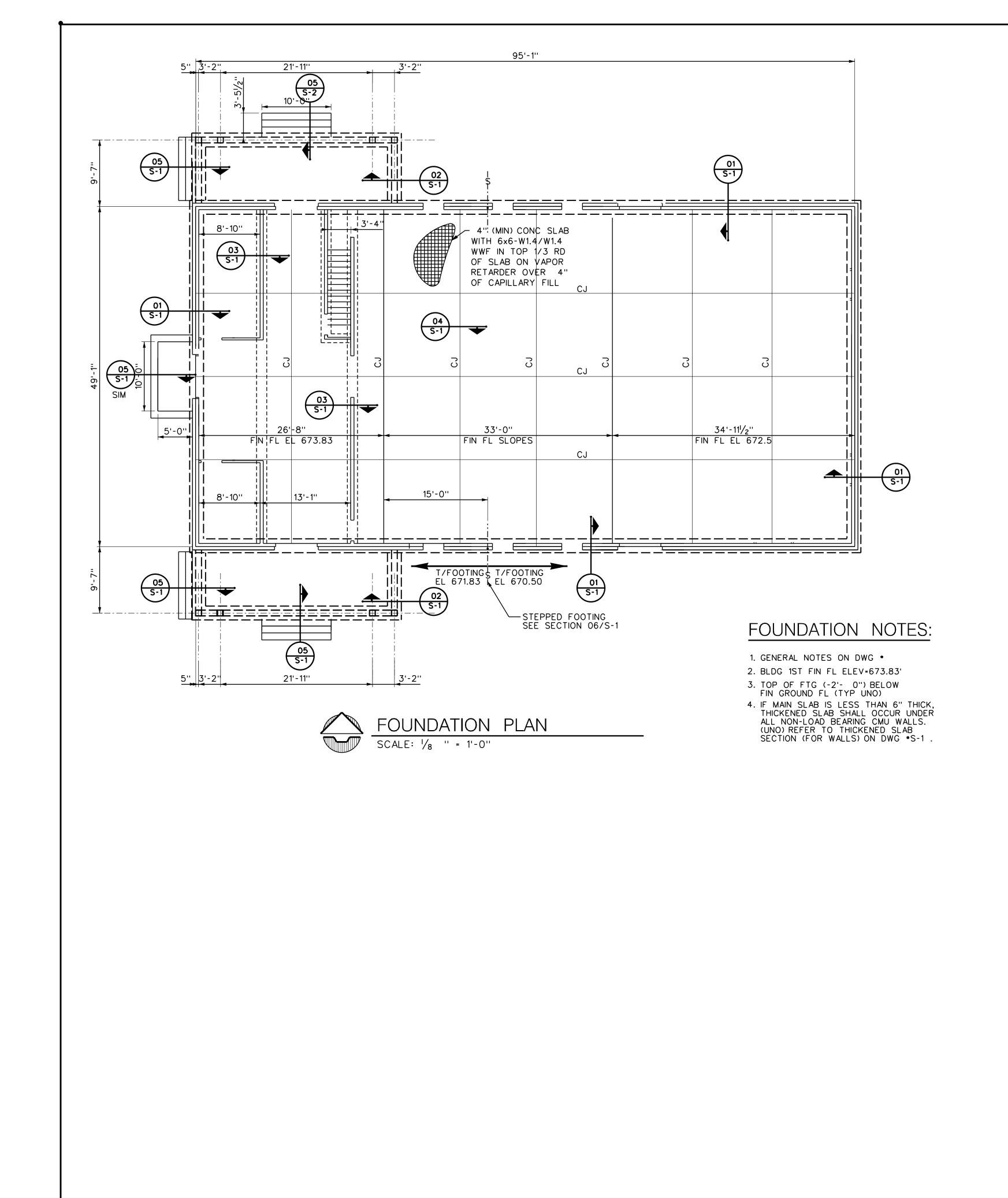
LANDSCAPE PLAN

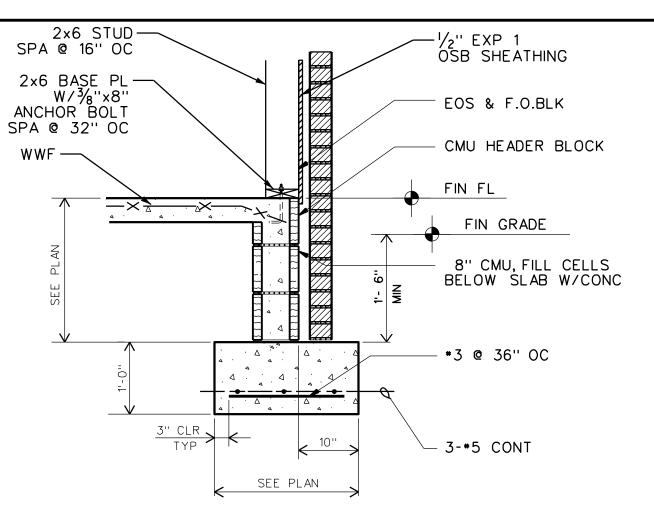
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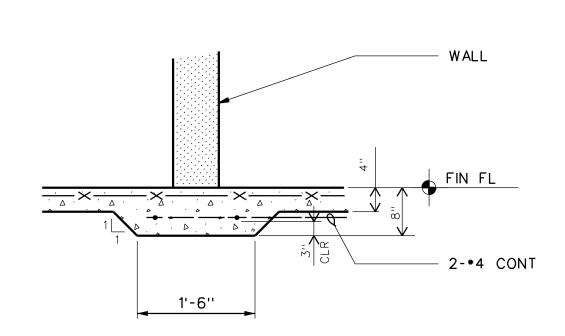
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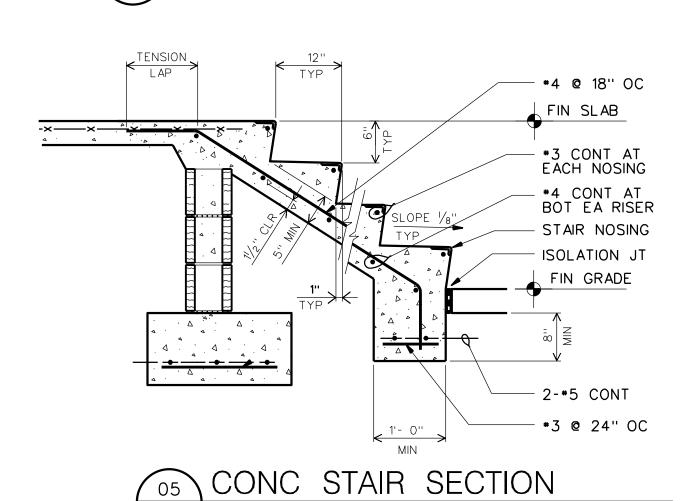


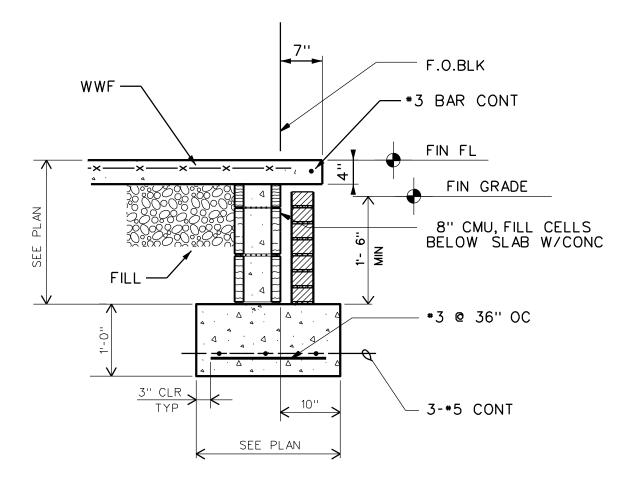


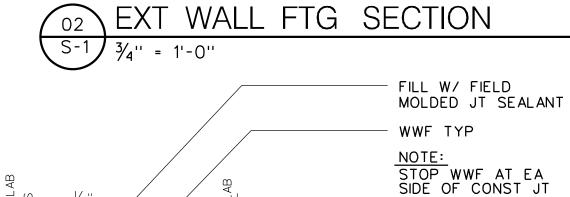
EXT WALL FTG SECTION

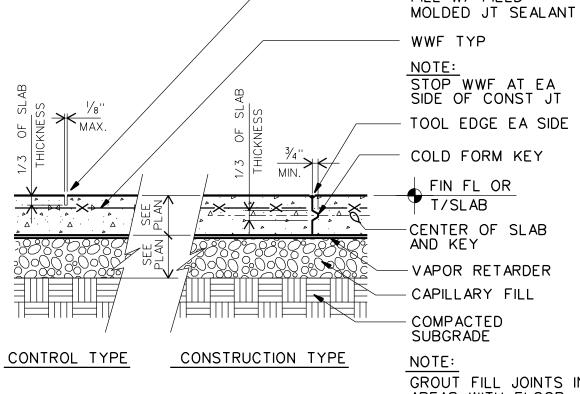


THICKENED SLAB SECTION (FOR WALLS)

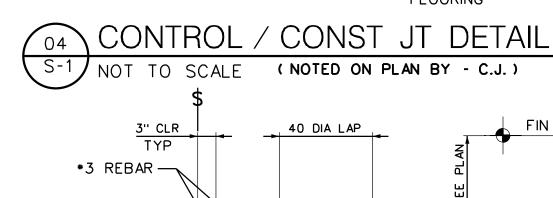


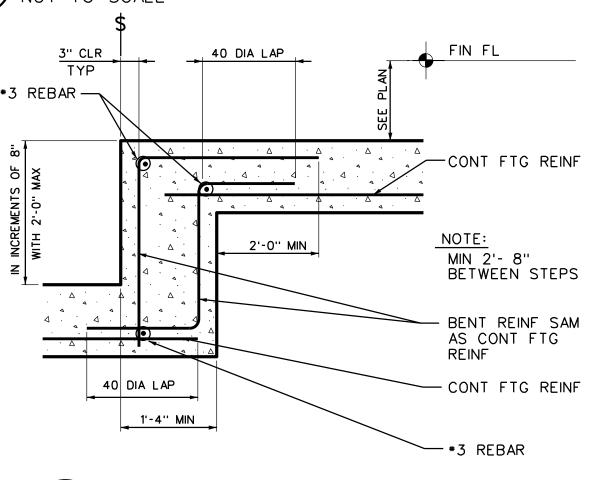






GROUT FILL JOINTS IN AREAS WITH FLOOR NOTE:
TYPE TO BE DETERMINED BY CONTRACTOR TILE OR RESILIENT FLOORING





STEPPED FTG SECTION S-1 NOT TO SCALE (NOTED ON PLAN BY - \$)

> JOB NO. DRAWN JGQ CHECKED JGQ REVIEWED

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REVISIONS

APR 18, 2016 S-1

DATE

APR 18, 2016

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Suite 20 35805 351-0407

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CPST. ELIZABETH RY ST. BAMA 35758 OR SYERRY TUARY 104 ADISON, NCTU

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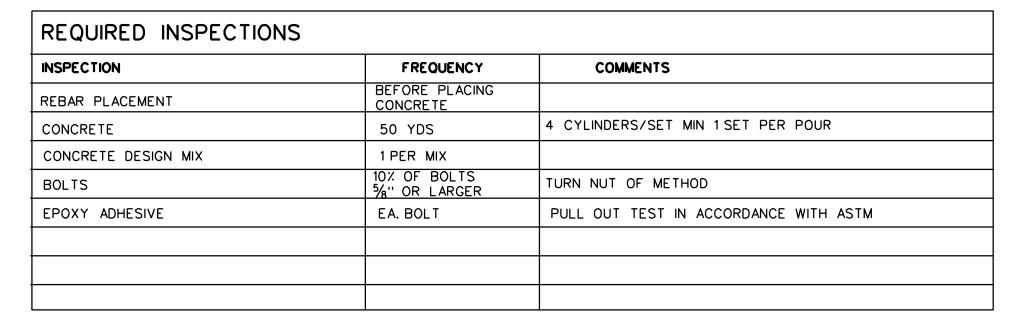
NOTE *2: STEEL LINTELS ARE TO BE

6.1 VISUAL GRADE SAWN LUMBER SHALL CONFORM TO NATIONAL SPECIFICATIONS FOR KILN DRIED NO. 2 SOUTHERN PINE WITH ALLOWABLE STRESS VALUES OF

6.2 PROVIDE BRIDGING IN FLOOR AND ROOF IN ACCORDANCE WITH APPLICABLE CODES

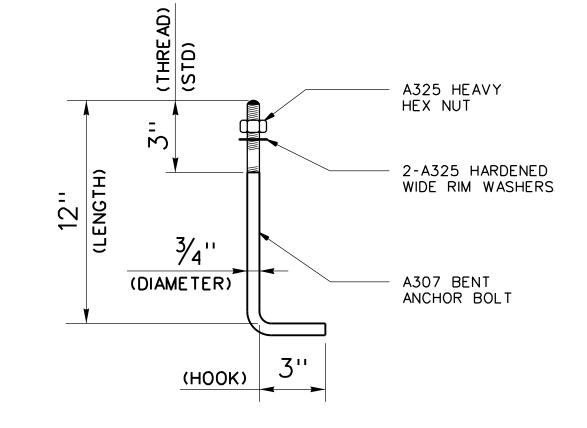
AS RECOMMENDED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION. 6.4 MAKE ALL CUTS TRUE AND SQUARE FOR FULL BEARING AT STRUCTURAL JOINTS. SPECIFIED SPACING, EDGE AND END DISTANCES.

ARE FOR SIMPSON STRONG-TIE CONNECTORS. NAIL AS PER MANUFACTURER'S

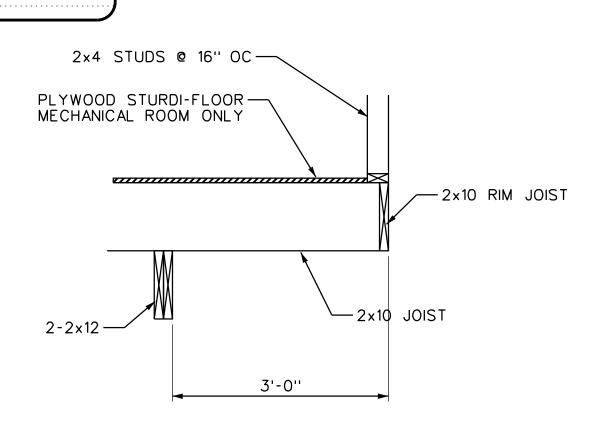


HEADER SCHEDULE LINTEL SCHEDULE

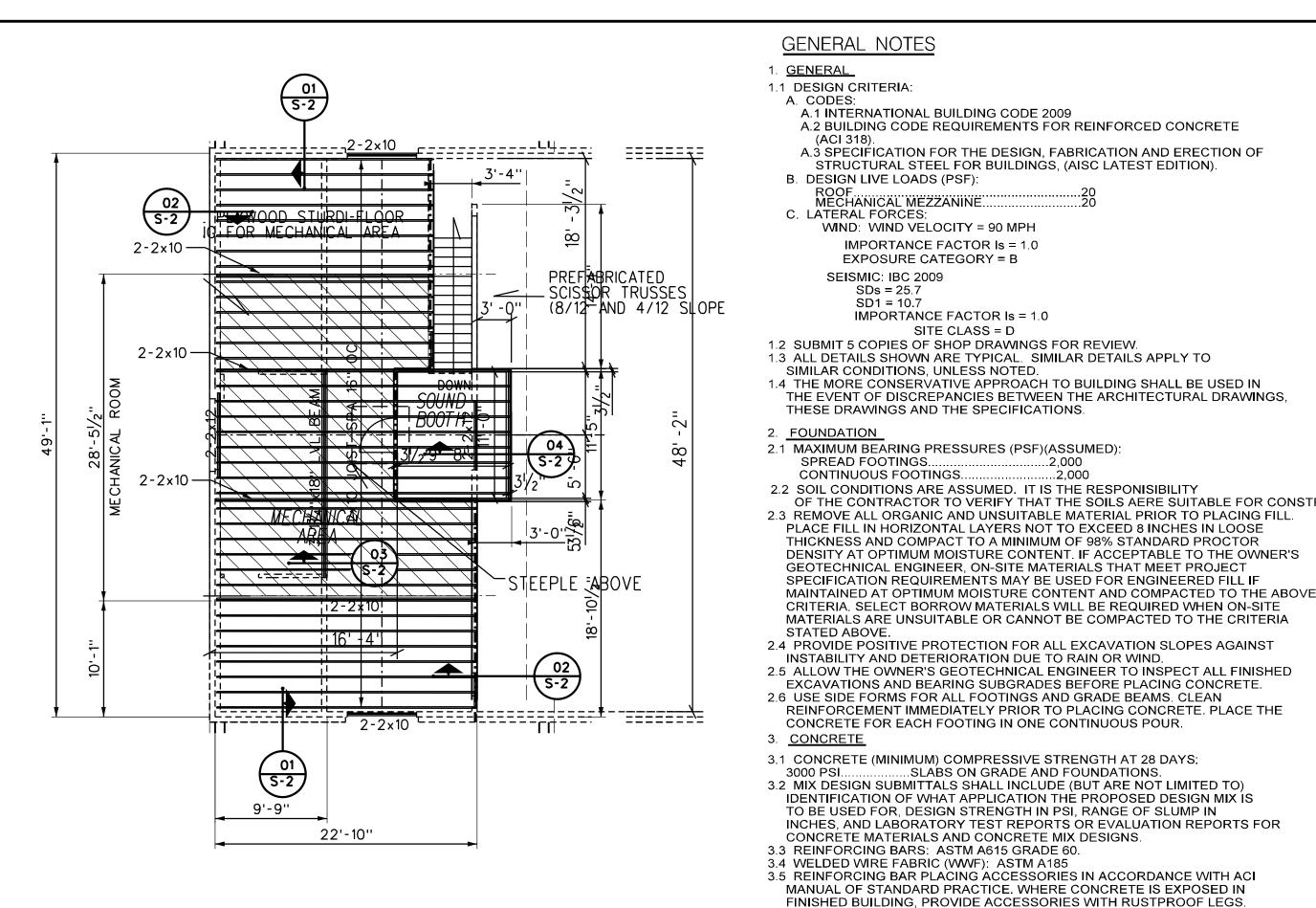
MASONRY OPENING WIDTH		STEEL LINTEL	MK•		NING OTH	WOOD SIZE
MIN	MAX	ANGLE FOR EA 4" WALL THICKNESS		MIN	MAX	
IVIIIV				2'-0''	6'-0''	3-2×8
	2'-0''	L 3 ¹ / ₂ ×3× ¹ / ₄		6'-0"	10'-0''	3-2×12
2'-0''	3'-6''	L 3½×3×¼			1.5 5	
3'-6''	5'-0''	L 3 ¹ / ₂ ×3×5/ ₁₆				
5'-0''	6'-6''	L 4×3 ¹ / ₂ × ¹ / ₄		<u>ורטיי</u>	 	
6'-6"	8'-0''	L 5×3 ¹ / ₂ × ¹ / ₄				DTES:
8'-0''	10'-0''	L 6x3 ¹ /2x ⁵ / ₁₆	N.O.11		CH END	IINIMUM 8'' BEARING
10'-0''	12'-0''	L 6×4×3/8				MAY REQUIRE PLYWOOI H WALL THICKNESS.
SCH	HEDUL	E NOTES:				
NO.T.E		VE A MINIMUM 8'' BEARING				



ANCHOR BOLT DETAIL 01 NO SCALE



O4 SECTION



MEZZANINE FRAMING PLAN SCALE: 1/8 " = 1'-0"

2×6

SECTION

SCALE: $\frac{3}{4}$ " = 1'-0"

5.1 WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TRUSS PLATE INSTITUTE (TPI) AS FOLLOWS (BUT NOT LIMITED TO); TPI-85 - "DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES"

5.2 ALL TRUSSES SHALL BE DESIGNED AND SEALED BY A QUALIFIED ENGINEER REGISTERED IN THE STATE OF ALABAMA. ALL DESIGN CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW

5.3 STRESS GRADE SAWN LUMBER SHALL CONFORM TO NATIONAL SPECIFICATIONS FOR KILN DRIED NO.2 SOUTHERN PINE WITH ALLOWABLE STRESS VALUES OF 1300 PSI

5.5 CONTRACTOR SHALL NOTE THAT THE FRAMING IS NON-SELF SUPPORTING

6.3 DESIGN AND DETAILING OF CONNECTIONS SHALL CONFORM TO THE NATIONAL

DESIGN AND SPECIFICATIONS FOR STRESS GRADE LUMBER AND ITS FASTENINGS 6.5 BOLT HOLES AND PLATES TO BE PLACED AS SHOWN ON THE DETAILS. PROVIDE

6.6 CONNECT ALL FRAMING SECURELY TOGETHER WITH NAILS, SPIKES OR FRAMING

6.7 ALL METAL CONNECTOR AND ANCHOR DESIGNATIONS SHOWN ON THE DRAWINGS

S STUD @ 16" OC — 2x6 BASE PL —		
2×10 JOIST 2-2×10 RIM JOIST 2×6 STUD © 16" OC EXP 1 SHEATHING	2x6 STUDS @ 16" OC PLYWOOD STURDI-FLOOR MECHANICAL ROOM ONLY 2x10 RIM JOIST 2x10 JOIST 2-2x6 CAP PL 2x6 STUD FRAMING	PLYWOOD STURDI-FLOOR MECHANICAL ROOM ONLY SIMPSON JB210Z HANGER 2×10 JOIST 3-13/4×18 LVL BEAM

A.1 INTERNATIONAL BUILDING CODE 2009

WIND: WIND VELOCITY = 90 MPH

EXPOSURE CATEGORY = B

IMPORTANCE FACTOR Is = 1.0

IMPORTANCE FACTOR Is = 1.0

SITE CLASS = D

ROOF MECHANICAL MEZZANINE.

SEISMIC: IBC 2009

SDs = 25.7

SD1 = 10.7

SPREAD FOOTINGS... CONTINUOUS FOOTINGS...

NOTED.

FOOTINGS.

OTHER CONCRETE......

A.2 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE

STRUCTURAL STEEL FOR BUILDINGS, (AISC LATEST EDITION).

A.3 SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF

OF THE CONTRACTOR TO VERIFY THAT THE SOILS AERE SUITABLE FOR CONSTRUCTION

....SLABS ON GRADE AND FOUNDATIONS.

3.6 DETAIL REINFORCING IN ACCORDANCE WITH ACI 315. REINFORCING

MINIMUM OF 30 BAR DIAMETERS BUT NOT LESS THAN 1'-6", UNLESS

3.10 CONCRETING OPERATIONS SHALL COMPLY WITH ACI STANDARDS.

3.7 LAP SPLICE ALL REINFORCING EXCEPT NO. 14 AND NO. 18 BARS A

3.8 CONCRETE COVERAGE OF REINFORCEMENT:

3.9 EARTH SUPPORTED SLABS: SEE DRAWINGS

CONCRETE EXPOSED TO EARTH OR WEATHER ... 2"

SHALL NOT BE WELDED UNLESS NOTED OR APPROVED BY THE ENGINEER.

..3" BOTTOM & SIDES

O2 SECTION $\frac{S-2}{SCALE}$: $\frac{3}{4}$ " = 1'-0"

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

FIN FLR EL 10'-0" AFF

 $\frac{1}{3}$ SCALE: $\frac{3}{4}$ " = 1'-0"

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APR 18, 2016

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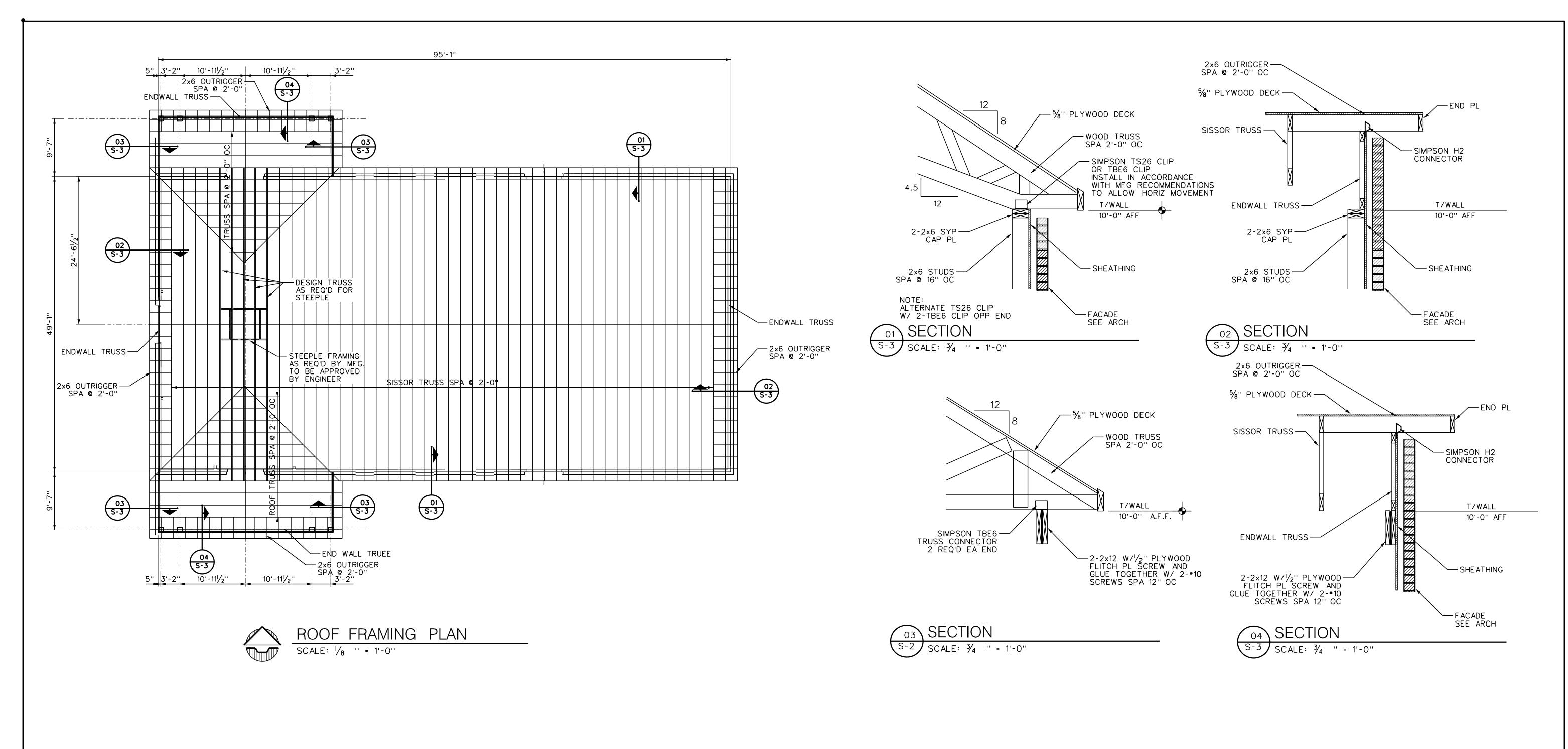
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JOB NO. DRAWN JGQ CHECKED JGQ REVIEWED

REVISIONS

DATE APR 18, 2016

S-2



Oualls
Engineering
3311 Bob Wallace Ave Suite 20.
Huntsville, Alabama 35805
Telephone (256) 551-0407

APR 18, 2016

SANCTUARY FOR ST. ELIZABETH CPC. 104 PERRY ST. MADISON, ALABAMA 35758

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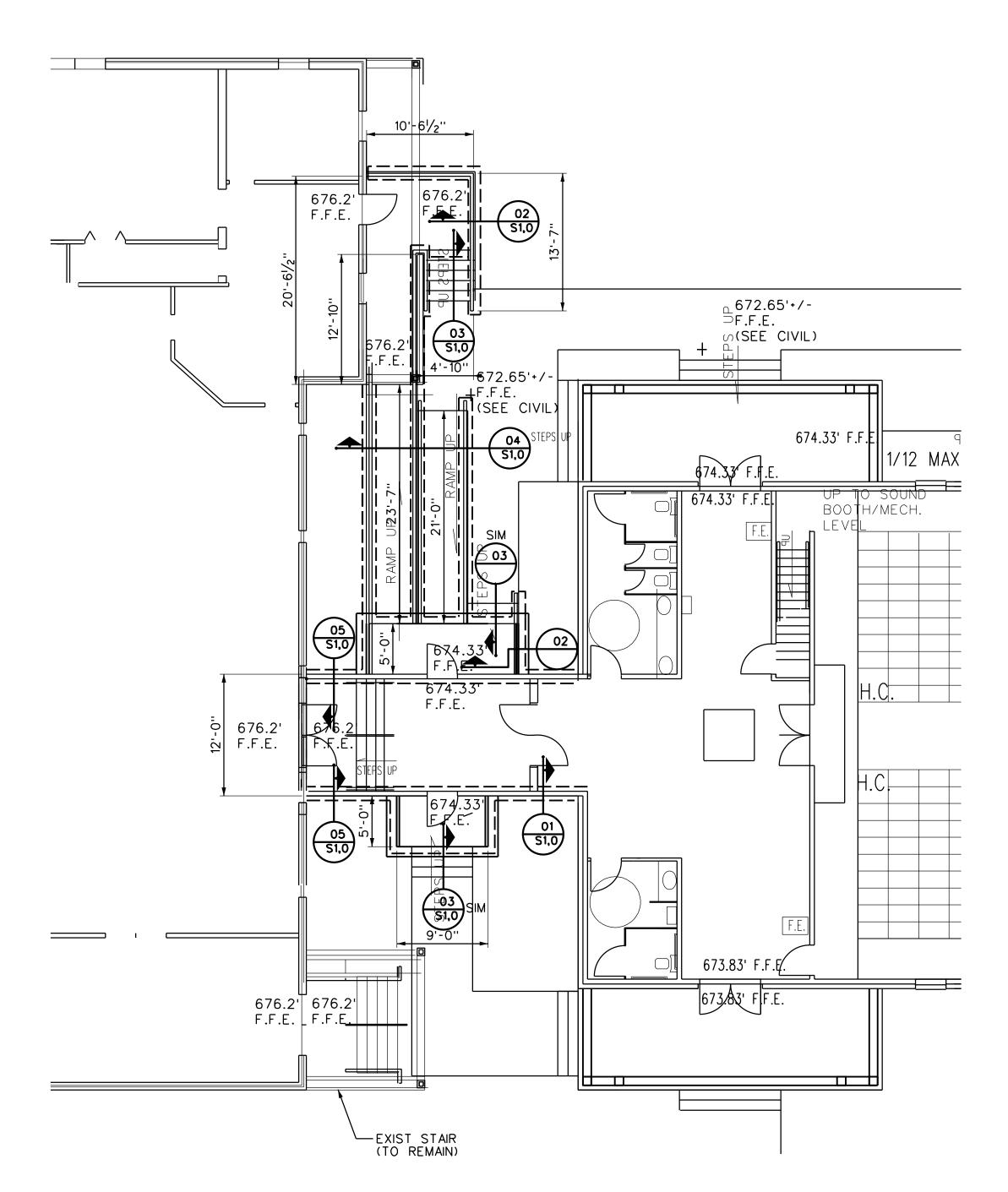
JOB NO. 1607 DRAWN JGQ

JGQ
CHECKED
JGQ
REVIEWED

APR 18, 2016

S-3 of

OF



FOUNDATION NOTES:

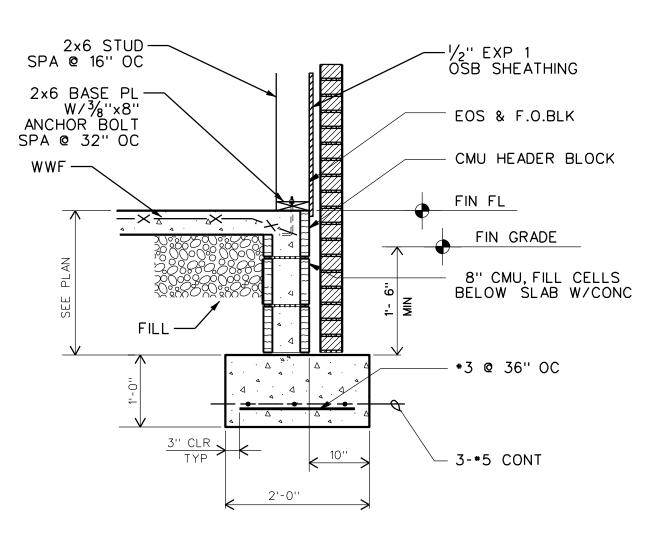
1. GENERAL NOTES ON DWG *S2.0 2. BLDG 1ST FIN FL ELEV=673.83 TOP OF FTG (-2'- 0") BELOW FIN GROUND FL (TYP UNO)

FOUNDATON PLAN

- CMU HEADER BLOCK WWF — FIN FL SCALE: 1/8 " = 1'-0" FIN GRADE 12" CMU-FILL CELLS W/ CONC

05 SECTION

2'-0''



O1 SECTION

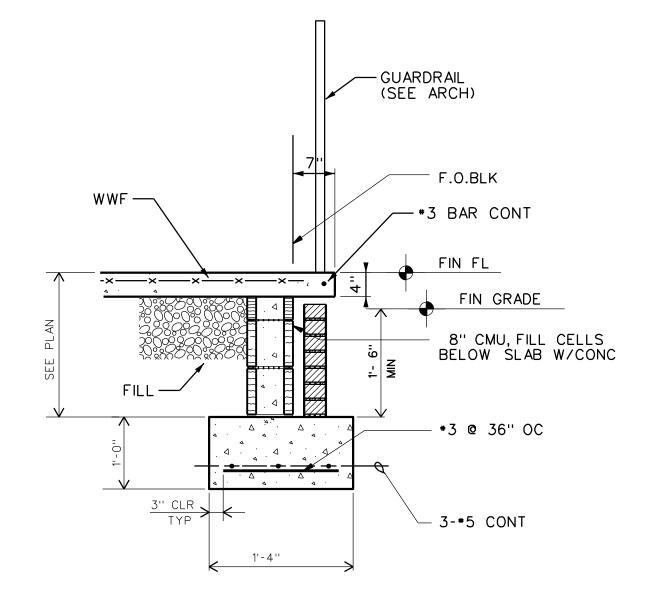
1'-4''

2×4 STUD — SPA @ 16" OC

2x6 BASE PL-W/³/8"x8" ANCHOR BOLT SPA @ 32" OC

TYP X

O4 CONC STAIR SECTION



O2 SECTION 51.0 $\frac{3}{4}$ " = 1'-0"

- *****4 @ 18'' OC

- *3 CONT AT EACH NOSING

*4 CONT AT BOT EA RISER

STAIR NOSING ISOLATION JT FIN GRADE

- *****3 @ 24" OC

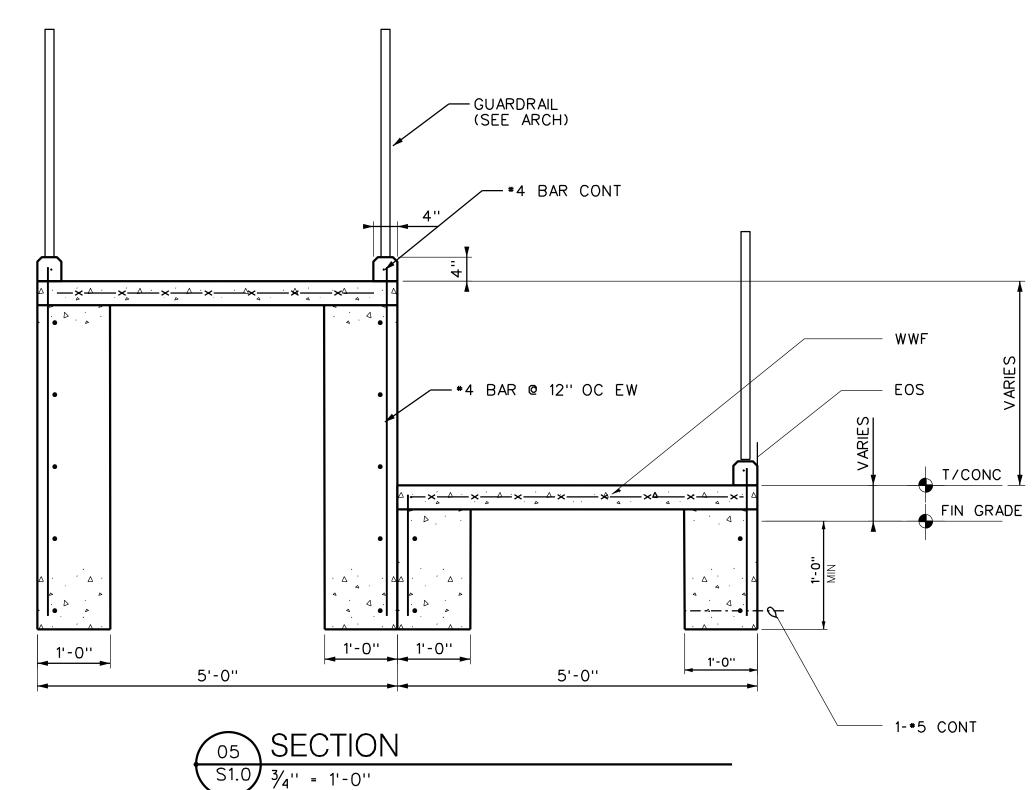
-1/2" EXP 1 OSB SHEATHING

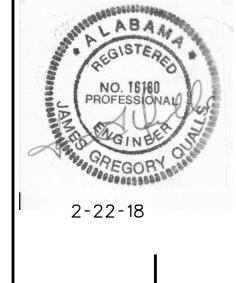
EOS & F.O.BLK

- *****3 @ 36" OC

_ 3-*5 CONT

FIN SLAB





0

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llace Ave Alabama (256) 5

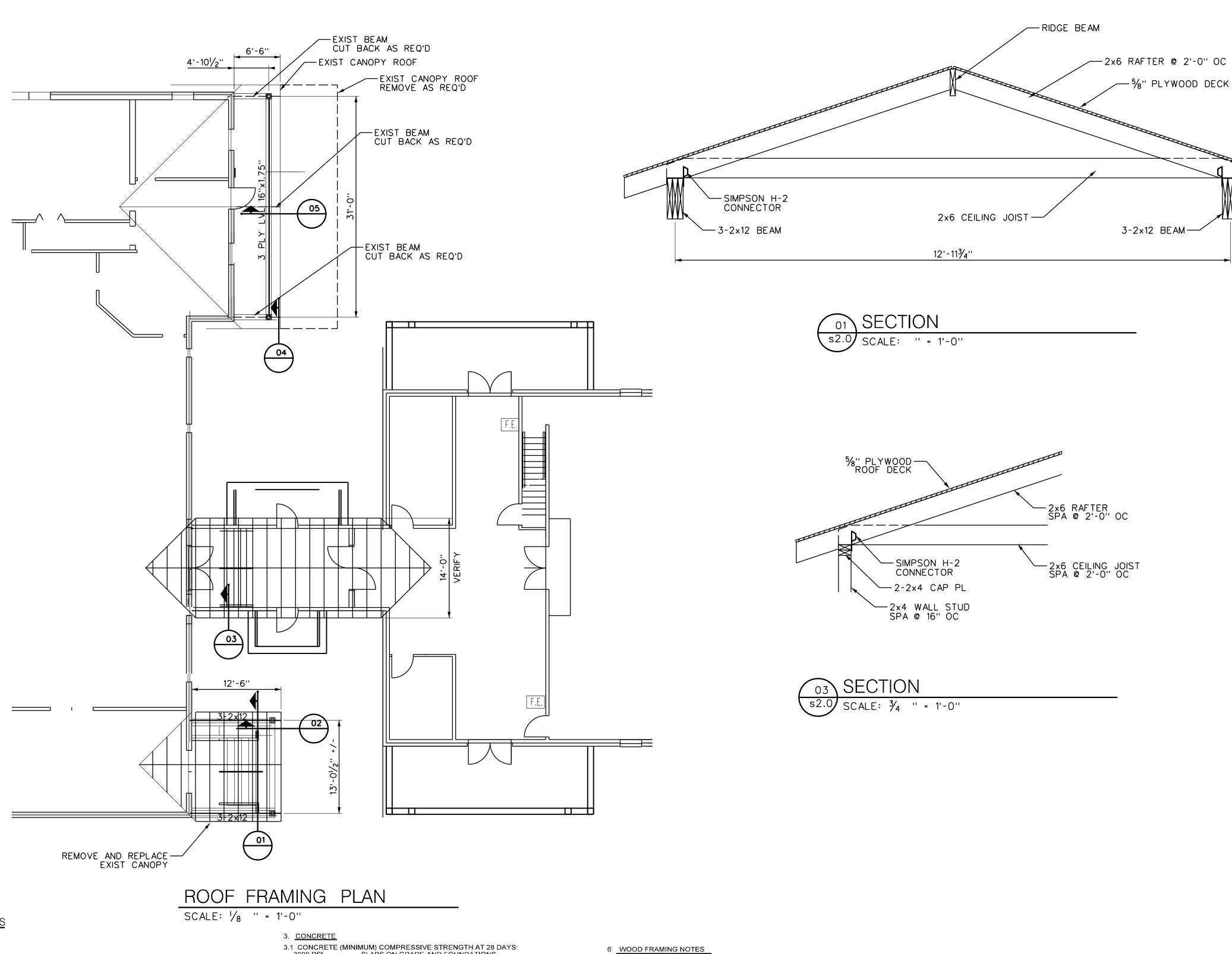
FOR A 758 CONNECTING CORRIDOR ST. ELIZABETH CPC MADISON, ALABAMA 35

> REVISIONS JOB NO. DRAWN JGQ CHECKED

JGQ REVIEWED DATE

FEB 22, 2018

S1.0



GENERAL NOTES

- 1. <u>GENERAL</u> 1.1 DESIGN CRITERIA:
- A. CODES:
 A 1 INTERNATIONAL BUIL
- A.1 INTERNATIONAL BUILDING CODE 2009
 A.2 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE
- A.3 SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, (AISC LATEST EDITION).
- B. DESIGN LIVE LOADS (PSF):
- ROOF MECHANICAL MEZZANINE..... C. LATERAL FORCES: WIND: WIND VELOCITY = 90 MPH
- IMPORTANCE FACTOR IS = 1.0
- EXPOSURE CATEGORY = B SEISMIC: IBC 2009
- SDs = 25.7 SD1 = 10.7
- IMPORTANCE FACTOR Is = 1.0

 SITE CLASS = D
- 1.2 SUBMIT 5 COPIES OF SHOP DRAWINGS FOR REVIEW.1.3 ALL DETAILS SHOWN ARE TYPICAL. SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS, UNLESS NOTED.
- 1.4 THE MORE CONSERVATIVE APPROACH TO BUILDING SHALL BE USED IN THE EVENT OF DISCREPANCIES BETWEEN THE ARCHITECTURAL DRAWINGS, THESE DRAWINGS AND THE SPECIFICATIONS.

2.1 MAXIMUM BEARING PRESSURES (PSF)(ASSUMED):

- 2.2 SOIL CONDITIONS ARE ASSUMED. IT IS THE RESPONISIBILITY
 OF THE CONTRACTOR TO VERIFY THAT THE SOILS AERE SUITABLE FOR CONSTRUCTION
 2.3 REMOVE ALL ORGANIC AND UNSUITABLE MATERIAL PRIOR TO PLACING FILL.
 PLACE FILL IN HORIZONTAL LAYERS NOT TO EXCEED 8 INCHES IN LOOSE
 THICKNESS AND COMPACT TO A MINIMUM OF 98% STANDARD PROCTOR
 DENSITY AT OPTIMUM MOISTURE CONTENT. IF ACCEPTABLE TO THE OWNER'S
 GEOTECHNICAL ENGINEER, ON-SITE MATERIALS THAT MEET PROJECT
 SPECIFICATION REQUIREMENTS MAY BE USED FOR ENGINEERED FILL IF
 MAINTAINED AT OPTIMUM MOISTURE CONTENT AND COMPACTED TO THE ABOVE
 CRITERIA. SELECT BORROW MATERIALS WILL BE REQUIRED WHEN ON-SITE
- MATERIALS ARE UNSUITABLE OR CANNOT BE COMPACTED TO THE CRITERIA STATED ABOVE.

 2.4 PROVIDE POSITIVE PROTECTION FOR ALL EXCAVATION SLOPES AGAINST INSTABILITY AND DETERIORATION DUE TO RAIN OR WIND.
- 2.5 ALLOW THE OWNER'S GEOTECHNICAL ENGINEER TO INSPECT ALL FINISHED EXCAVATIONS AND BEARING SUBGRADES BEFORE PLACING CONCRETE.

 2.6 USE SIDE FORMS FOR ALL FOOTINGS AND GRADE BEAMS. CLEAN REINFORCEMENT IMMEDIATELY PRIOR TO PLACING CONCRETE. PLACE THE

CONCRETE FOR EACH FOOTING IN ONE CONTINUOUS POUR.

- 3.1 CONCRETE (MINIMUM) COMPRESSIVE STRENGTH AT 28 DAYS:
 3000 PSI......SLABS ON GRADE AND FOUNDATIONS.
 3.2 MIX DESIGN SUBMITTALS SHALL INCLUDE (BUT ARE NOT LIMITED TO)
 IDENTIFICATION OF WHAT APPLICATION THE PROPOSED DESIGN MIX IS
- TO BE USED FOR, DESIGN STRENGTH IN PSI, RANGE OF SLUMP IN INCHES, AND LABORATORY TEST REPORTS OR EVALUATION REPORTS FOR CONCRETE MATERIALS AND CONCRETE MIX DESIGNS.

 3.3 REINFORCING BARS: ASTM A615 GRADE 60.

 3.4 WELDED WIRE FABRIC (WWF): ASTM A185
- 3.4 WELDED WIRE FABRIC (WWF): AS IM A 185
 3.5 REINFORCING BAR PLACING ACCESSORIES IN ACCORDANCE WITH ACI
 MANUAL OF STANDARD PRACTICE. WHERE CONCRETE IS EXPOSED IN
- FINISHED BUILDING, PROVIDE ACCESSORIES WITH RUSTPROOF LEGS.
 3.6 DETAIL REINFORCING IN ACCORDANCE WITH ACI 315. REINFORCING
 SHALL NOT BE WELDED UNLESS NOTED OR APPROVED BY THE ENGINEER.
- 3.7 LAP SPLICE ALL REINFORCING EXCEPT NO. 14 AND NO. 18 BARS A MINIMUM OF 30 BAR DIAMETERS BUT NOT LESS THAN 1'-6", UNLESS
- 3.8 CONCRETE COVERAGE OF REINFORCEMENT:
 FOOTINGS3" BOTTOM & SIDES
 CONCRETE EXPOSED TO EARTH OR WEATHER...2"

OTHER CONCRETE.......1 1/2 " 3.9 EARTH SUPPORTED SLABS: SEE DRAWINGS 3.10 CONCRETING OPERATIONS SHALL COMPLY WITH ACI STANDARDS.

- 5 WOOD TRUSSES
- 5.1 WOOD TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE TRUSS PLATE INSTITUTE (TPI) AS FOLLOWS (BUT NOT LIMITED TO);
 TPI-85 "DESIGN SPECIFICATION FOR METAL PLATE CONNECTED WOOD TRUSSES"
 PCT-80 "DESIGN SPECIFICATION FOR METAL PLATE CONNECTED
- PARALLEL CHORD WOOD TRUSSES"
 HIB-91 "COMMENTARY AND RECOMMENDATIONS FOR HANDLING,
 INSTALLING & BRACING METAL PLATE CONNECTED
 WOOD TRUSSES"
- 5.2 ALL TRUSSES SHALL BE DESIGNED AND SEALED BY A QUALIFIED ENGINEER REGISTERED IN THE STATE OF ALABAMA. ALL DESIGN CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW BEFORE MANUFACTURE.
- 5.3 STRESS GRADE SAWN LUMBER SHALL CONFORM TO NATIONAL SPECIFICATIONS FOR KILN DRIED NO.2 SOUTHERN PINE WITH ALLOWABLE STRESS VALUES OF 1300 PSI IN BENDING AND A MODULUS OF ELASTICITY OF 1600 PSI.

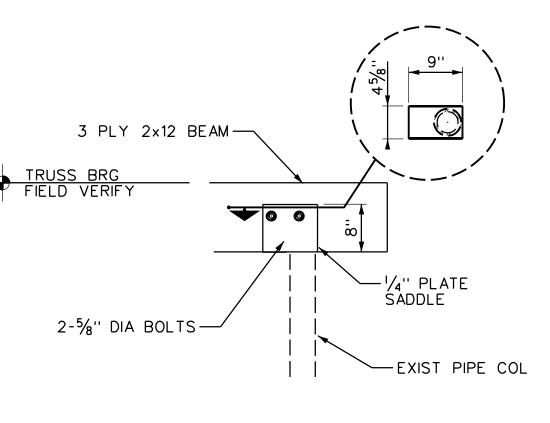
TOP CHORD DEAD LOAD......10 PSF

TOP CHORD LIVE LOAD.....20 PSF

5.4 ROOF TRUSSES SHALL BE DESIGNED FOR THE FOLLOWING LOADS:

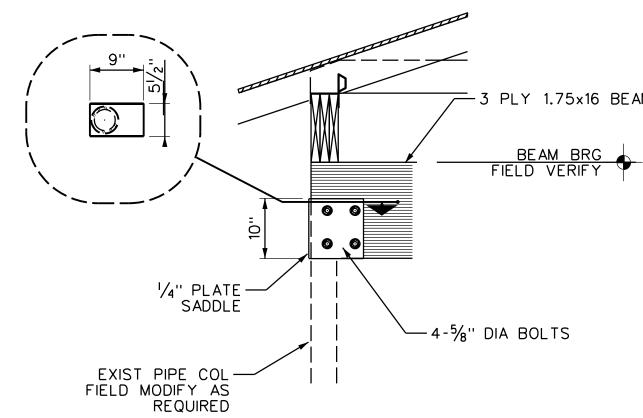
- 6.1 VISUAL GRADE SAWN LUMBER SHALL CONFORM TO NATIONAL SPECIFICATIONS FOR KILN DRIED NO. 2 SOUTHERN PINE WITH ALLOWABLE STRESS VALUES OF
- 1300 PSI IN BENDING AND A MODULUS OF ELASTICITY OF 1600 KSI.
 6.2 PROVIDE BRIDGING IN FLOOR AND ROOF IN ACCORDANCE WITH APPLICABLE CODES AND AS SHOWN ON THE DRAWINGS.
 6.3 DESIGN AND DETAILING OF CONNECTIONS SHALL CONFORM TO THE NATIONAL
- DESIGN AND SPECIFICATIONS FOR STRESS GRADE LUMBER AND ITS FASTENINGS AS RECOMMENDED BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.
 6.4 MAKE ALL CUTS TRUE AND SQUARE FOR FULL BEARING AT STRUCTURAL JOINTS.
 6.5 BOLT HOLES AND PLATES TO BE PLACED AS SHOWN ON THE DETAILS. PROVIDE
- SPECIFIED SPACING, EDGE AND END DISTANCES.
 6.6 CONNECT ALL FRAMING SECURELY TOGETHER WITH NAILS, SPIKES OR FRAMING
- 6.7 ALL METAL CONNECTOR AND ANCHOR DESIGNATIONS SHOWN ON THE DRAWINGS ARE FOR SIMPSON STRONG-TIE CONNECTORS. NAIL AS PER MANUFACTURER'S

INSPECTION	FREQUENCY	COMMENTS
REBAR PLACEMENT	BEFORE PLACING CONCRETE	
CONCRETE	50 YDS	4 CYLINDERS/SET MIN 1 SET PER POUR
CONCRETE DESIGN MIX	1 PER MIX	
BOLTS	10% OF BOLTS 5%" OR LARGER	TURN NUT OF METHOD
EPOXY ADHESIVE	EA. BOLT	PULL OUT TEST IN ACCORDANCE WITH ASTM

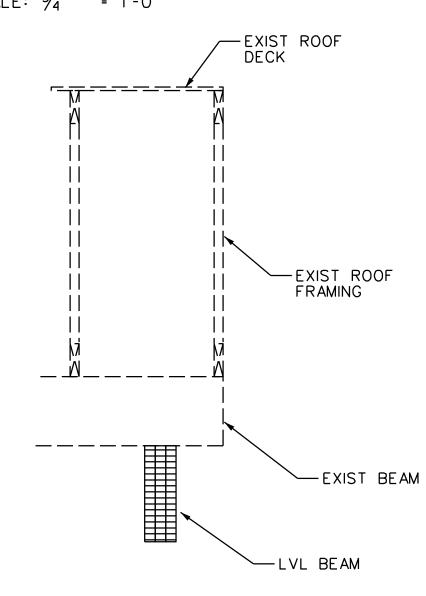


O2 SECTION

s2.0 SCALE: 3/4 " = 1'-0"



O4 SECTION



SECTION SECTION

Engine Ave Suite 20
Huntsville, Alabama 35805
Telephone (256) 551-0407

NO. 16180
PROFESSIONAL

AGAINGE

AGAING

2-22-18

CONNECTING CORRIDOR FOR ST. ELIZABETH CPCA MADISON, ALABAMA 35758

REVISIONS

JOB NO. 1802 DRAWN

DRAWN

JGQ

CHECKED

JGQ

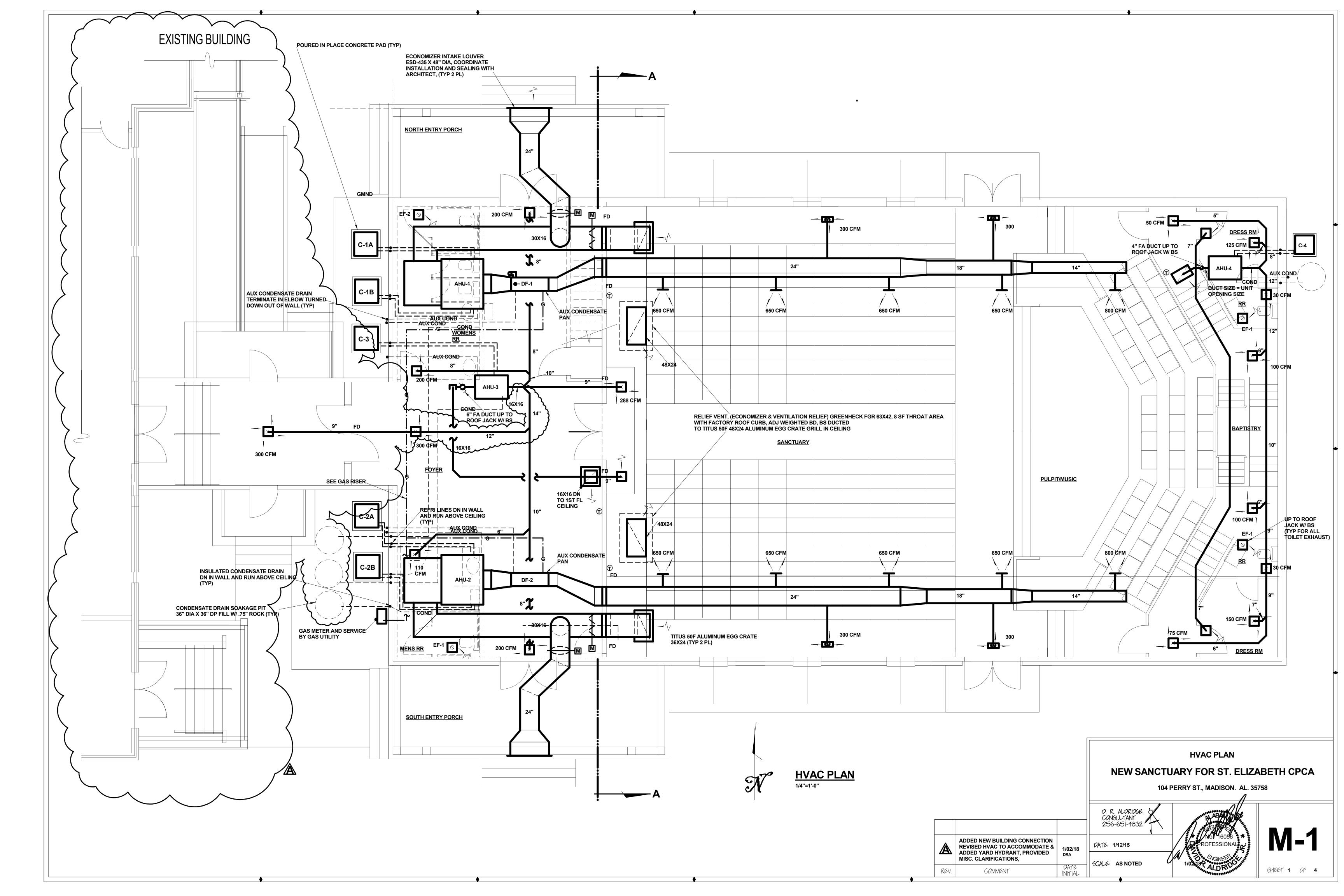
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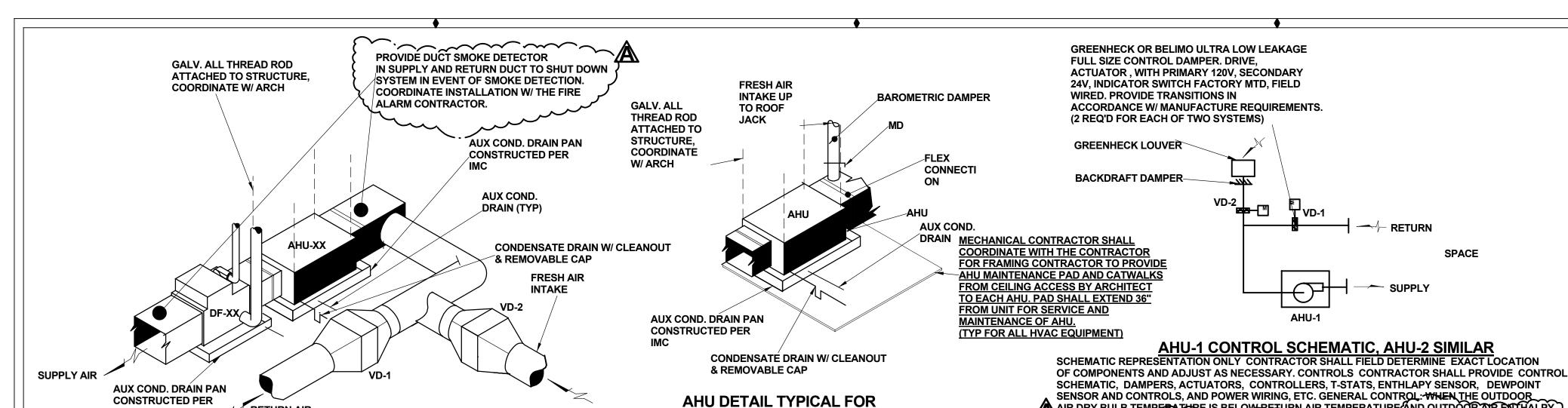
DATE FEB 22, 2018

S2.0

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OF





AHU-3 AND AHU-4

MANUFACTURER

AIR HANDLER

VOLTAGE/PH

NOMINAL CFM

FRESH AIR

AUX HEAT

VOLTAGE/PH

UNIT

MCA

LRA

MOP

MARK

MODEL

NOTES:

CONDENSER

VOLTAGE/PH

WITH CODE FOR ALL AHUS).

AND CONTROL TO ALL EQUIPMENT, ETC.

AHU-1 AND AHU-2

SOFFIT WALL

COORDINATE W/

PARTIAL SECTION A-A

ARCHITECT PRIOR TO **PURCHASE, FABRICATION**

AND INSTALLATION

MCA/MCB

NOMINAL WEIGHT

'NOMINAL TOT BTUH

MARK

MODEL

SEER/EER/HSPF/COP

AHU-1 DETAIL, AHU-2 SIMILAR NTS CONTRACTOR SHALL FIELD VERIFY FIT AND RE-ORIENT AS NECESSARY PRIOR O PURCHASE FBRICATION AND/OR INSTALLATION. RETANGULAR DUCT OF SAME CAPACITY MAY BE USED IN LIEU OF ROUND DUCT

GENERAL SEQUENCE OF OPERATION

GENERAL: THE HVAC CONTRACTOR SHALL COORDINATE WITH THE CONTROLS CONTRACTOR AND EQUIPMENT MANUFACTURER TO ENSURE CONTROLS, CONTROLS INTERFACE SYSTEMS AND COMPONENTS ARE COMPATIBLE. THE CONTRACTOR/MANUFACTURER SHALL PROVIDE THE LOGIC, MATERIALS, EQUIPMENT, AND LABOR TO SUPPORT THE GENERAL SEQUENCE OF OPERATION AND INSTALL ALL CONTROLS, MONITORING DEVICES, WIRING, DAMPERS, DAMPER MOTORS, ETC. REQUIRED TO PROVIDE FULLY FUNCTIONAL AND QUIET SYSTEMS. CONTROLS CONTRACTOR SHALL COORDINATE WITH THE ENGINEER PRIOR TO PURCHASE, FABRICATION AND/OR INSTALLATION.

RETURN AIR

HVAC SYSTEMS 1 AND 2, INTERGRATED ECONOMIZER CYCLE

THE INTERGRATED ECONOMIZER IS ONLY ALLOWED TO OPERATE WHEN THE AMBIENT CONDITIONS ARE SUITED FOR MEETING THE COOLING REQUIREMENT. PROVIDE A TWO STAGE T-STAT FOR HVAC SYSTEM WITH THE T-STAT'S FIRST STAGE CONTROLING THE ECONOMIZER AND THE SECOND STAGE CONTROLLING THE REFRIGERATION SYSTEM. THE SUPPLY FAN RUNS CONTINEOUSLY FOR THIS OPERATION. IF THE AMBIENT CONDITIONS ARE NOT CONDUCEIVE TO ECONOMIZER OPERATION MAINTAINING THE INSIDE DESIGN TEMPERATURE OF 75 DEG DBT AND 50% RH, THE SECOND STAGE AUTOMATICALLY CONTROLS THE REFRIGERANT COOLING CYCLE AS A SUPPLEMENT. WHEN THE ECONOMIZER IS IN OPERATION BUT NOT COMPLETELY SATISFYING THE COOLING LOAD, THE SECOND STAGE SHALL OPERATE THE REFRIGERATION SYSTEM TO COME ON AND ASSIST THE ECONOMIZER DURING THE COOLING CYCLE.

DURING THE COOLING CYCLE, WHEN THE OUTSIDE T STAT SENSES A TEMPERATURE EQUAL TO OR LOWER THAN THE RETURN AIR TEMERATURE (ADJUSTABLE SET POINT) AND A 26 BTU/LB ENTHALPY (ADJUSTABLE SET POINT) OR LESS, VD-1, SHALL MODULATE TO ITS MAXIMUM CLOSED POSITION, CONCURRENTLY WITH VD-2 MODULATING TO ITS OPEN POSITION PROVIDING, COORDINATED DAMPER OPERATIONS MAINTAINING A CONSTANT SUPPLY AIR ALL TIMES. UPON SENSING THE INDOOR THERMOSTATIC SETPOINT, THE DAMPERS SHALL MODULATE TO THEIR NORMAL POSITION WITH VD-2 SET TO ITS MINIMUM POSITION FOR THE VENTILATION REQUIREMENT OF 788 CFM, VD-2.

GRILL, DIFFUS	DEK SUNE	DULE
<u>SUPPLY</u>	CFM	SUPPLY
MANUFACTURER/MO	RANGE	SIZE
CEILING		
TITUS/250AA	25-120	6X6
TITUS/250AA	121-155	8X6
TITUS/250AA	156210	8X8
TITUS/250AA	211-310	10X10
TITUS/250AA	311-435	12X12
TITUS/250AA	436-580	14X14
SIDE WALL		
TITUS/272FS	600-850	30X6
<u>RETURN</u>	CFM	RETURN
MANUFACTURER/MO	RANGE	SIZE
TITUS/50F	0-329	10X10
TITUS/50F	330-479	14X10
TITUS/50F	480-599	14X14
TITUS/50F	1200-1800	20X20
TITUS/50F	3000-4000	LOCATION
		& SIZE NOTED ON

GRILL DIFFUSER SCHEDULE

DRAWINGS

EXHAUST FAN SCHEDULE

MARK DF-2 **MARK** TRANE **MANUFACTURER TRANE MANUFACTURE GREENHECK** GMND010AEF1000 GMND010AEF1000 MODEL (OR EQ.) **INPUT BTUH** 100000 100000 MODEL SP-A125 WEIGHT 161 CFM/Hp or WATTS/EST, S.P. 127/22.2W/.125" WG **ELECTRICAL** 115V/1PH/60HZ 115V/1PH/60HZ V/PH/HZ/AMPS 120/1/60/.19 NOTE; CEILING REMARKS 1. PROVIDE SEPARATED COMBUSTION. ENSURE

FRESH AIR DUCT INTAKES A MIMIMUM OF 10' FROM FLUE EXHAUST. 2. PROVIDE AND INSTALL MAXITROL GAS REGULATIOS

DUCT FURNACE SCHEDULE

VENTED TO THE OUTSIDE. 3. PROVIDE LABOR AND MATERIALS VENT PER MANUFACTURERS RECOMMENDATIONS AND IAW

NFPA 54.

GREENHECK (OR EQ.) SP-A200 224/54.7W/.25" WG 120/1/60/.47 CEILING NOTES:

1. EF 1 & 2 OPERATE WITH LIGHT SWITCH. 2. PROVIDE BACKDRAFT DAMPER, FACTORY ROOF CURB FOR EF-3. PROVIDE T-STAT FOR CONTROL OF EF-3 TO ENERGIZE WHEN THE TEMPERATURE RISES TO 98 DEG AND SHUT OFF AT 85 DEGREES MOUNT T-STAT OPPOSITE SIDE OF UNIT HEATER.

3. COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

1. The drawings are intended to represent the scope of work for the mechanical task to be performed. Elements and components not included on the drawings, but are necessary and deemed essential for the proper operation and function of the mechanical systems, or required for compliance with applicable codes, shall be provided and installed at no additional cost to the owner, architect and/or engineers. The contractor shall provide and install his equipment and install and connect equipment and fixtures furnished by others. The contractor shall visit the site, investigate the site conditions, review the mechanical and architectural documentation and satisfy himself that the work can be accomplished as intended. If discrepancies occur within the design documentation and/or the site conditions, the contractor shall suggest, based on his expertise, solutions for the documentation for the architect to review prior to submission of his proposal. Acceptance by the contractor of the design documentation as evidenced by the acceptance of the contractor's proposal by the owner shall indicate that the work can be accomplished in accordance with the documentation. Except for unforeseen items, the construction cost and documentation resulting from changes incurred as a result on unintentional omissions by the architectural design/construction documentation after award shall be the contractor's responsibility. The does not alleviate the contractor from providing successfully inspected, fully functional systems. The contractor shall verify all equipment requirements and submit to the architect for approval prior to purchase, fabrication and/or installation. The contractor shall remove all debris from the site on a daily basis.

2. The contractor shall coordinate his installation with all disciplines prior to executing his installation. The contractor shall adhere to the 2009 International codes, and local

HVAC Notes:

TRANE

IEAT PUMP/AUX HEAT

14.25/12/8.5/3.8

AHU-4

TAM4A0A18S11+TDR

208-230/1

120

600

53

18000

BAYEAAC04

3.84@240V, 1PH

208-240

0.33

23

C-4

4TWR5018G1

208-230/1

AIR DRY BULB TEMPERATURE IS BELOW RETURN AIR TEMPERATURE AND OUTDOOR AIR ENTHALPY)
S BELOW 26 BTU/LB, THE OUTDOOR AIR DAMPER WILL BE CONTROLLED TO MAINTAIN THE
DISTCHARGE AIR TEMPERATURE SETPOINT. JE THE OUTDOOR AIR DAMPER REACHES 100% OPEN

AND THE SPACE TEMPERATURE SETPOINT CANNOT BE MAINTAINED USING OUTDOOR AIR ALONE.

THE HVAC COMPRESSOR SHALL ACTIVATE (INTERGRATED COMPRESSOR) WHILE THE OUTDOOR

DAMPER IS HELD 100% OPEN. WHEN THE OUTDOOR AIR DRY BULB TEMPERATUER IS ABOVE THE RETURN AIR TEMPERATURE OR OUTDOOR AIR ENTHALPY IS ABOVE 26 BTU/LB, THE OUTDOOR AIR

HEAT PUMP/AUX HEAT

14.5/12/8.5/3.4

AHU-3

GAM5A0C48M41SA

208-230/1

1600

48500

BAYHTR158BRKC

7.68@240V, 1PH

208-240

0.75

48

C-3

4TWR4048

208-230/1

26/45

DAMPER WILL BE CONTROLLED TO MINIMUM POSITION

TRANE

STRAIGHT COOL

13/11/8.5/3.5

AHU-1

TWE120E

208-230/1

133

4000

788

120000

208-230/1

8.5-7.7

57.4-57.4

C-1A & C-1B

4TTR3060D1000A

200-230/1

35/60

TIMER AND NIGHT SET BACK WITH LOCKING COVERS FOR EXCH SYSTEM.

1. THE CONTRACTOR SHALL VERIFY ALL ELECTRICAL REQUIREMENTS FOR THE

HVAC SCHEDULE

TRANE

STRAIGHT COOL

13/11/8.5/3.5

AHU-2

TWE120E

208-230/1

133

4000

788

120000

208-230/1

8.5-7.7

57.4-57.4

C-2A & C-2B

4TTR3060D1000A

200-230/1

35/60

ARE NOT LIMITED TO BUT INCLUDE THE ACTUAL VALUES LISTED ON THE EQUIPMENT NAME PLATES SUCH AS FLA, RLA, LRA,

PENETRATIONS AND DIFFUSERS AND TO PROVIDE SERVICE ACCESS AND CATWALKS (WHERE APPLICABLE IN ACCORDANCE

5. STATIC PRESSURES ARE ESTIMATED. THE CONTRACTOR SHALL DETERMINE THE STATIC PRESSURES REQUIRED FOR HIS

6. THE CONTRACTOR SHALL PROVIDE AND INSTALL A SMOKE DETECTOR IN THE SUPPLY AND RETURN DUCT SYSTEM FOR

7. THE CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR THE REQUIREMENTS FOR PROVIDING POWER

SYSTEM AND PROVIDE BLOWER MOTOR HPs AS REQUIRED TO DEVELOP THE EXTERNAL STATIC PRESSURE REQUIRED.

<u>THE ELECTRICAL CONTRACTOR PRIOR TO PURCHASE, FABRICATION AND/OR INSTALLATION. THESE REQUIREMENTS</u>

3. THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT, ELECTRICAL AND CEILING CONTRACTOR TO LOCATE

2. THE CONTRACTOR SHALL PROVIDE AND INSTALL ON/OFF/AUTOMATIC T-STAT WITH 7 DAY PROGRAMMABLE

4. CONTRACTOR SHALL PROVIDE COIL GUARDS AND COMPRESSOR HARD START KITS AS MANUF. BY TRANE.

1.The contractor shall, inclusive off but not limited install HVAC systems, duct distribution, grills, T-stats, condensate drains, gas systems, etc. as indicated on the drawings documentation. All condensate lines above grade and refrigerant suction shall be insulated lines. Condensate lines shall have a P-trap with a removable cleanout at the

2. The contractor shall investigate the existing site conditions and design documentation and verify the design can be accomplished as indicated. The contractor shall verify space available for his system, and coordinate with the architect soffits, drop ceiling, chases, and floor roof and wall penetration requirements and adjust exact location of ductwork to miss all interferences. All duct dimensions are clear inside dimensions. Coverings and linings including adhesives used shall have a flame spread index of not more than 25 and a smoke developed index not more than 50, when tested in accordance with ASTM E 84, using the specimen preparation and mounting procedures of ASTM E 2231. Duct coverings and lining shall not glow, smolder or smoke when tested in accordance with ASTMc411 at temperature to which they are exposed in service. The test temperature shall be 250 deg. F. or greater.

External duct insulation and factory insulated flexible duct shall be legibly printed or identified at intervals not greater than 36 inches with the name of the manufacturer, the thermal resistance R-value at the specified installed thickness and the flame spread and smoke developed indexes of the composite materials. All duct insulation product R

values shall be based on insulation only, excluding air films, vapor retarders, or other duct components, and shall be based on tested C values at 75 deg. F. mean temperature at the installed thickness, in accordance recognized industry procedures.

resistance fuel burning heater in the duct system. Metal nosing or sleeves shall be installed over exposed liner edges that face opposite the direction of air flow.

Duct linings shall be interrupted at a minimum of 6" up and down stream of electric

Where duct liner is interrupted a duct covering or equal or greater thermal performance shall be installed.

Service openings shall not be concealed by duct coverings unless the exact location is properly identified.

Vapor retarders for cooling on duct that are externally insulated shall have a maximum permeance of .05 perm or aluminum foil having a minimum thickness of 2 mils. Vapor retarders shall be continuous at all joints and seams and shall be sealed.

Internal insulation materials and exposed to airstream in ducts shall be shown to be durable when tested in accordance with UL 181. Exposed internal insulation that is not impermeable to water shall be used in lined ducts or plenums from the exit of a cooling coil to the down stream end of the drain pan.

External duct insulation and factory-insulated flexible duct shall be legibly printed or identified at intervals not greater than 36 inches (9 14 mm) with the name of the manufacturer; the thermal resistance R-value at the specified installed thickness; and the flame spread and smoke-developed indexes of the composite materials. All duct insulation product R-values shall be based on insulation only, excluding air films, vapor retarders, or other duct components, and shall be based on tested C-values at 75°F (24°C) mean temperature at the installed thickness, in accordance with recognized industry procedures. No more then 4' of insulated flex duct is allowed on any one terminal.

Duct sizes indicated may be revised as necessary to clear obstacles upon approval of engineer. Changes in duct sizes shall be indicated on the shop drawings submitted for approval as requested in the general notes section. Duct shall be galvanized sheet metal with gauges conforming to requirements per SMACNA except where otherwise allowed here-in subject to approval by authorities having jurisdiction.

Interior round and rectangular supply duct and fresh air duct in unconditioned spaces shall be externally insulated with a vapor barrier and shall have a minimum resistance value of R-8.

Interior round and rectangular return and toilet exhaust fan duct in unconditioned spaces shall be externally insulated with a vapor barrier and shall have a minimum resistance

value of R-4. Single wall round duct shall be slip with crimped ends. Joints shall be fastened with no less then 4 self-tapping sheet metal screws equally spaced around the perimeter then taped to form a seal. All duct joints (longitudinal and transverse joints, seams and connections) shall be sealed with welds, gaskets, mastics or tapes. Tapes and mastics shall be listed and labeled in accordance with UL 181A and UL 181B, (standard duct tape is not permitted). Insulation shall be properly sealed. Insulation joints shall be stapled

3. T-stats shall be on/off/automatic heat/cool with night set back and 7 day programmable timer. Each T-stat shall have a key operated locking cover.

4. The mechanical contractor shall verify and coordinate the requirements as indicated in scheduled notes with the equipment provider, and the electrical contractor. The mechanical contractor shall coordinate the requirements with the architect for above ceiling equipment service platforms, catwalks and ceiling access to HVAC equipment for maintenance and repair prior to purchase, fabrication and installation

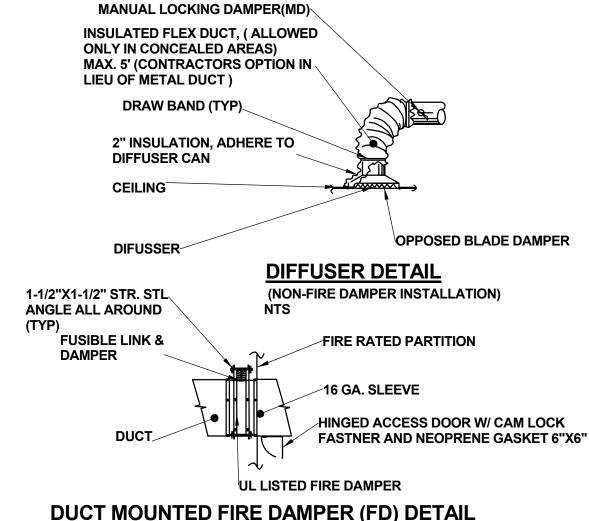
5. All terminal devices shall be as indicated with supply directions shown and as manufactured by Titus or approved equal. All supply terminals shall have opposed blade dampers. A manual locking damper shall be provided as indicated in each branch duct at the terminal device or at the branch takeoff. No stamped terminal devices are acceptable unless specifically called out for on the drawings.

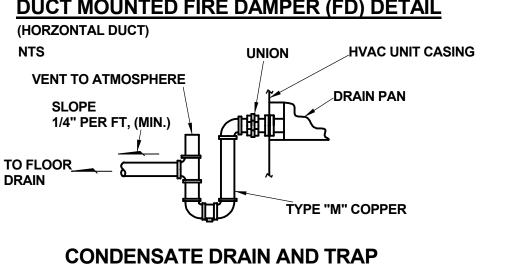
6. The contractor shall verify that all fresh air intakes are a minimum of 10' from any exhaust fans roof jacks, exhaust fans, and plumbing vents prior to purchase, fabrication and installation.

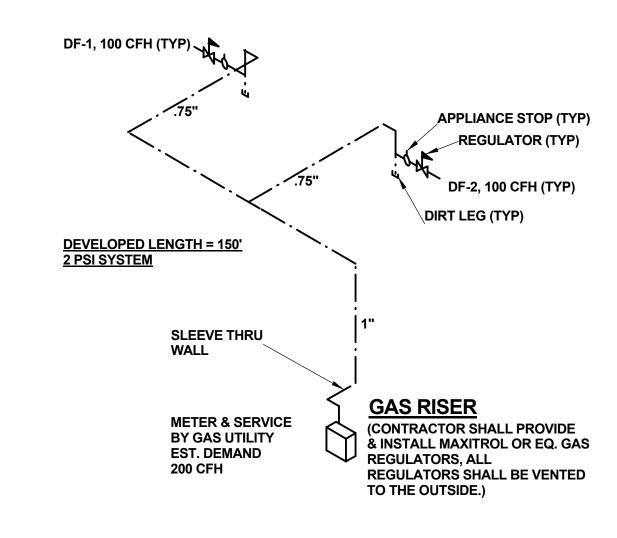
7. Static pressures are approximate and for estimating purposes only. The contractor shall calculate the static pressures imposed on the equipment required for his system and provide and installed blower motors as required to accommodate these requirements.

8. The contractor shall provide and install filters for each unit and provide 2 additional sets of replacement filters to the owner upon completion. Filters shall be Class I or Class II filters in accordance with the IMC. The contractor shall provide 2 sets of maintenance manuals for each piece of equipment installed and train the owner on the use of the of the controls and systems upon completion. The contractor shall provide a one-year parts and labor warranty for all equipment for a period of a year from with an additional four-year warranty for all compressors.

9. Gas piping components, piping materials, and installation shall be in accordance with requirements on the local gas utility serving the facility. Natural gas piping, above grade shall be seamless schedule 40 black steel pipe conforming to ASTM A53 or A120 screwed. Fittings shall be per ASME B16.3, malleable iron or ASTM A234, forged steel screwed type. Installation shall be in strict accordance with local gas utility, IGC and NFPA 54 (The most stringent of the three). The contractor shall provide and install pressure regulators as required. Valves and components shall be in accordance with the local gas utility, IGC and NFPA 54 (The most stringent of the three). The contractor shall provide cathodic protection in accordance with the gas utility. The contractor shall provide all gas regulators as required.







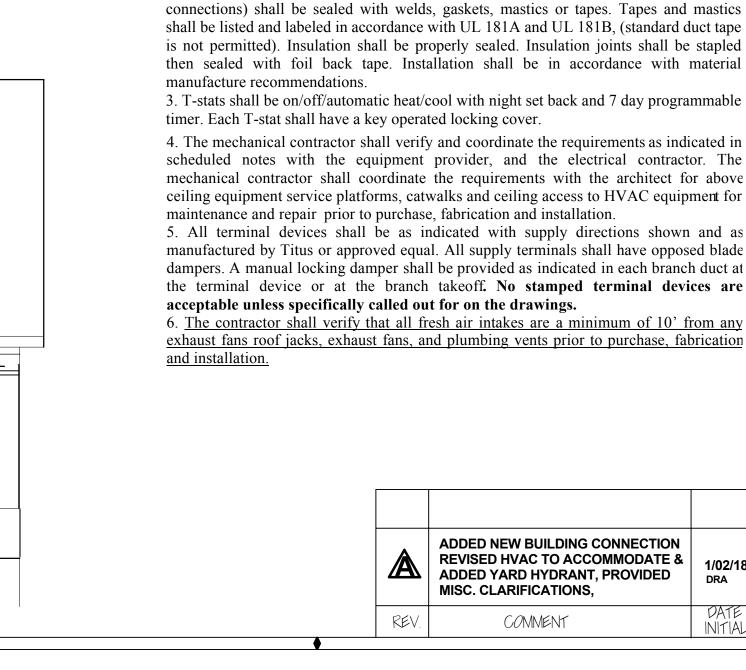


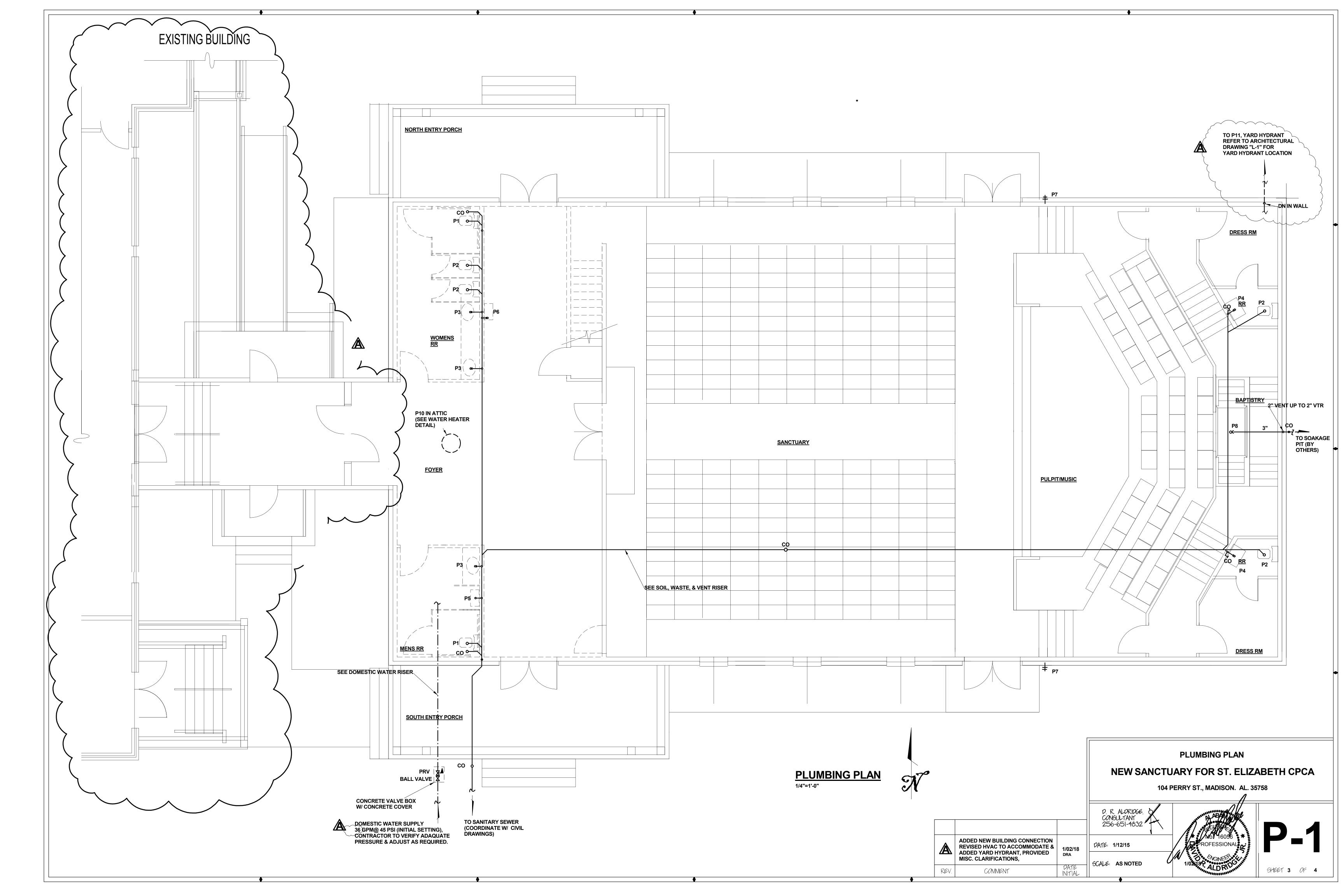
HVAC SCHEDULES & DETAILS

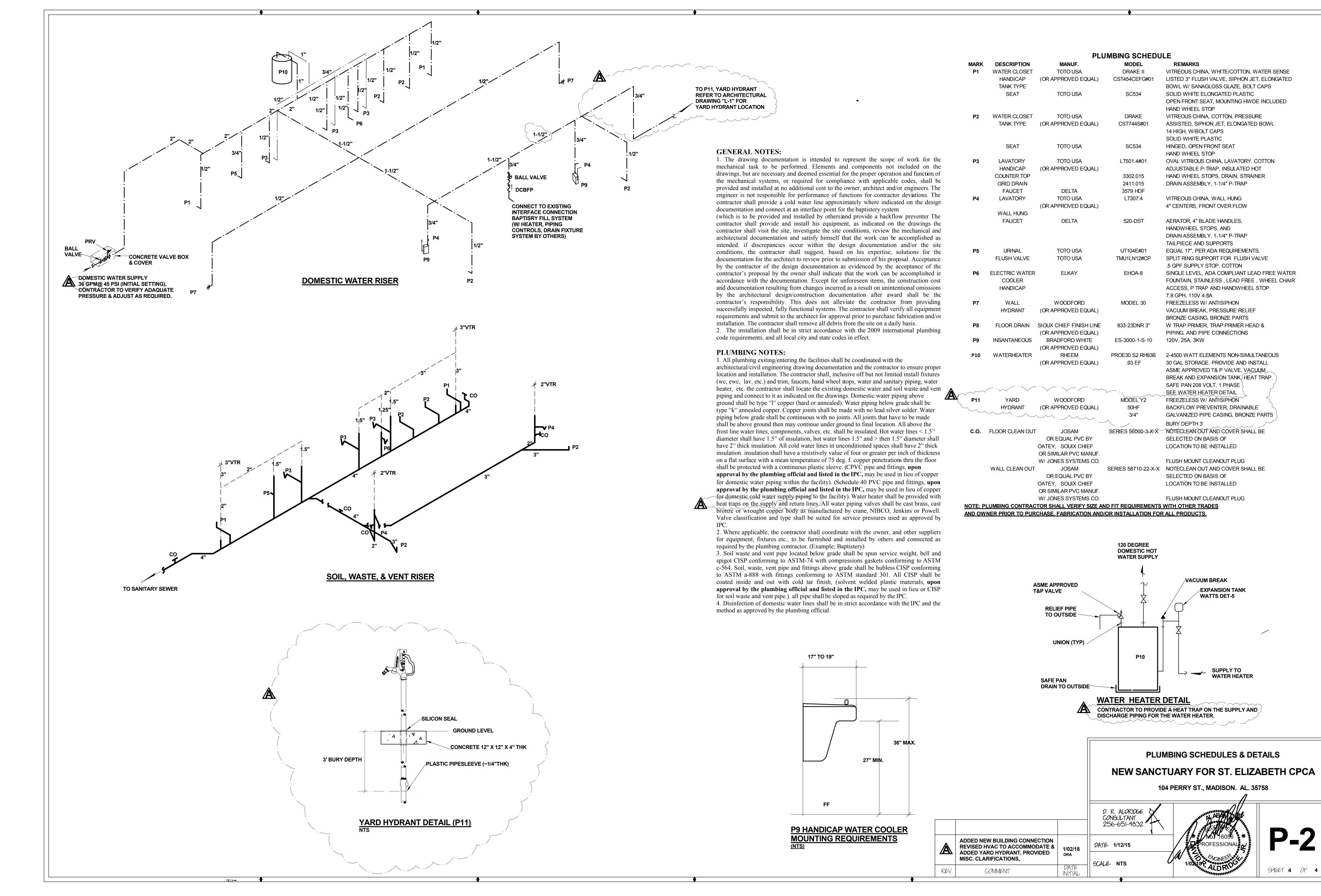
104 PERRY ST., MADISON. AL. 35758

D. R. ALDRIDGE, CONSULTANT 256-651-4832 ADDED NEW BUILDING CONNECTION DATE: 1/12/15 REVISED HVAC TO ACCOMMODATE & 1/02/18 ADDED YARD HYDRANT, PROVIDED MISC. CLARIFICATIONS. SCALE: AS NOTED COMMENT

M-2 SHEET 2 OF 4







POWER PLAN LEGEND



BRANCH CIRCUIT CONCEALED IN CEILING OR WALL. HOME RUN TO PANELBOARD AND 20A, SINGLE POLE BREAKER UNO. CIRCUIT NUMBER SHOWN ADJACENT TO HOME RUN.



BRANCH CIRCUIT CONCEALED BELOW FLOOR OR UNDERGROUND.



(3) #12 AND (1) #12(G) IN 3/4" CONDUIT, OR PER NATIONAL ELECTRIC CODE. FOR MORE THAN (3) CONDUCTORS, HAS MARKS INDICATE THE NUMBER OF CONDUCTORS REQUIRED. LARGE HASH INDICATES NEUTRAL CONDUCTOR 120V, 20A, 3-WIRE DUPLEX RECEPTACLE--MOUNT 18" AFF, UNO. WP



INTERRUPTER.

INDICATES WEATHER PROOF ENCLOSURE, GFI INDICATES GROUND FAULT

GFI

120V, 20A, 3-WIRE DUPLEX RECEPTACLE--MOUNT 18" ABOVE COUNTER UNO. GFI INDICATES GROUND FAULT INTERRUPTER.

 \Rightarrow

120V, 20A, 3-WIRE QUADPLEX RECEPTACLE--MOUNT 18" AFF, UNO.

POLES / NEMA ENCLOSURE TYPE. MOUNT 48" AFF, UNO.

JUNCTION BOX TO EQUIPMENT INSTALLED BY OWNER.

JUNCTION BOX. SIZE PER NATIONAL ELECTRICAL CODE OR AS INDICATED ON DRAWINGS. COORDINATE FIELD WIRING REQUIREMENTS FROM

NON-FUSED DISCONNECT. SEE EQUIPMENT SCHEDULE FOR AMPS / # OF

POWER PANEL. SEE PANEL SCHEDULES FOR MORE INFORMATION.



TELEPHONE/DATA OUTLET BOX. PROVIDE OUTLET BOX RECESSED IN WALL WITH BLANK FACE PLATE FLUSH WITH WALL. INSTALL 3/4" CONDUIT FROM OUTLET BOX TO 18" ABOVE CEILING. PROVIDE CONDUIT WITH PLASTIC INSULATED BUSING. MOUNT 18" AFF. UNO.



TELEVISION CABLE OUTLET BOX. PROVIDE OUTLET BOX RECESSED IN WALL WITH BLANK FACE PLATE FLUSH WITH WALL. INSTALL 3/4" CONDUIT FROM OUTLET BOX TO 18" ABOVE CEILING. PROVIDE CONDUIT WITH INSULATED BUSING. MOUNT 18" AFF. UNO.



2-GANG COMPARTMENT FLOOR BOX FOR DATA AND 120V, 20A, 3-WIRE DUPLEX RECEPTACLE. PROVIDE SEPARATE CONDUIT FOR POWER AND DATA. DATA CONDUIT SHALL BE ROUTED TO NEAREST WALL, STUBBED UP WALL 18" INTO CEILING SPACE ABOVE WALL, AND PROVIDED WITH INSULATED BUSHING ON OPEN END.

LIGHTING PLAN LEGEND



BRANCH CIRCUIT CONCEALED IN CEILING OR WALL. HOME RUN TO PANELBOARD AND 20A, SINGLE POLE BREAKER UNO. CIRCUIT NUMBER SHOWN ADJACENT TO HOME RUN.



(3) #12 AND (1) #12(G) IN 3/4" CONDUIT, OR PER NATIONAL ELECTRIC CODE. FOR MORE THAN (3) CONDUCTORS, HAS MARKS INDICATE THE NUMBER OF CONDUCTORS REQUIRED. LARGE HASH INDICATES NEUTRAL CONDUCTOR



120V, 20A, SINGLE-POLE SWITCH--MOUNT 48" AFF, UNO.

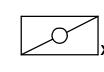


120V, 20A, 3-WAY SWITCH--MOUNT 48" AFF, UNO.



120V, 20A, DIMMER SWITCH--MOUNT 48" AFF, UNO.

IN FIXTURE SCHEDULE.



2' X 4' SURFACE MOUNTED FLUORESCENT LIGHTING FIXTURE, X DENOTES FIXTURE MARK INDICATED IN FIXTURE SCHEDULE.



2' X 4' SURFACE MOUNTED FLUORESCENT LIGHTING FIXTURE WITH EMERGENCY BATTERY PACK, X DENOTES FIXTURE MARK INDICATED IN FIXTURE SCHEDULE.



SURFACE MOUNTED LIGHT FIXTURE X DENOTES FIXTURE MARK INDICATED IN FIXTURE SCHEDULE.



120 V, WALL MOUNTED 1" X 4' FLUORESCENT LIGHTING FIXTURE WITH ACRYLIC LENS. X INDICATES FIXTURE MARK IN LIGHTING FIXTURE SCHEDULE.



RECESSED CAN DOWN LIGHT FIXTURE. X INDICATES FIXTURE MARK IN LIGHTING FIXTURE SCHEDULE.



WALL MOUNTED EXIT SIGN / EMERGENCY LIGHT BATTERY PACK COMBO UNIT, DARKENED AREA INDICATES LIGHTED FACE, X DENOTES FIXTURE MARK INDICATED IN FIXTURE SCHEDULE.

PENDANT MOUNTED LIGHT FIXTURE X DENOTES FIXTURE MARK INDICATED



EMERGENCY LIGHT UNIT WITH SELF CONTAINED SEALED BATTERY. X DENOTES FIXTURE MARK INDICATED IN FIXTURE SCHEDULE.



ARCHITECTURAL WALL SCONCE. X DENOTES FIXTURE MARK INDICATED IN FIXTURE SCHEDULE.



POLE MOUNTED PARKING AREA LIGHT. X DENOTES FIXTURE MARK INDICATED IN FIXTURE SCHEDULE.



LIGHTING CONTACTOR. SEE LIGHTING CONTROL DIAGRAMS FOR MORE INFORMATION.



EXHAUST FAN. COORDINATE WIRING REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

ELECTRICAL SPECIFICATIONS

PART 1 - GENERAL

1.1 GENERAL

THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO REPRESENT THE SCOPE OF WORK FOR THE ELECTRICAL TASK TO BE PERFORMED. ELEMENTS AND COMPONENTS NOT INCLUDED ON THE DRAWINGS, BUT ARE NECESSARY AND DEEMED ESSENTIAL FOR THE PROPER OPERATION AND FUNCTION OF THE ELECTRICAL SYSTEMS, OR REQUIRED FOR COMPLIANCE WITH APPLICABLE CODES, SHALL BE PROVIDED AND INSTALLED AT NO ADDITIONAL COST TO THE OWNER, ARCHITECT, AND/OR ENGINEERS. THE CONTRACTOR SHALL PROVIDE AND INSTALL HIS EQUIPMENT AND INSTALL AND CONNECT EQUIPMENT AND FIXTURES FURNISHED BY OTHERS.

2 SCOPE OF WORK

FURNISH AND INSTALL ALL MATERIALS AND EQUIPMENT AND PROVIDE ALL LABOR REQUIRED AND NECESSARY TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND ALL OTHER WORK NOT SPECIFICALLY STATED, BUT REASONABLY INFERRED FOR A COMPLETE AND USEABLE SYSTEM. THE CONTRACTOR SHALL VERIFY ALL EQUIPMENT REQUIREMENTS AND SUBMIT TO THE ARCHITECT FOR APPROVAL PRIOR TO PURCHASE, FABRICATION, AND/OR INSTALLATION. THE SCOPE OF WORK SHALL INCLUDE TESTING TO REASONABLY SHOW THAT THE SYSTEM COMPONENTS MEET THE SPECIFIED REQUIREMENTS. THIS PROJECT INCLUDES NEW ELECTRICAL SERVICE, GENERAL POWER, INTERIOR LIGHTING, AND EXTERIOR LIGHTING. THE CONTRACTOR SHALL PROVIDE THE ROUGH-IN OF THE CONDUIT SYSTEM AND OUTLET BOXES FOR THE COMMUNICATION SYSTEM.

1.3 INSPECTION OF SITE

THE CONTRACTOR SHALL INSPECT THE SITE OF THE NEW CONSTRUCTION AND PREMISES OF THE EXISTING BUILDING AND SHALL COMPARE CONDITIONS THEREIN WITH WORK SHOWN ON THE DRAWINGS. HE SHALL BECOME THOROUGHLY FAMILIAR WITH CONDITIONS WHICH WILL AFFECT HIS WORK. AS NO ALLOWANCE IS TO BE MADE FOR LACK OF KNOWLEDGE CONCERNING SUCH CONDITIONS AFTER THE CONTRACT IS SIGNED. HE SHALL REPORT IMMEDIATELY TO THE OWNER ANY DISCREPANCIES WHICH HIS INSPECTION MAY REVEAL DURING THE BIDDING PERIOD IN ORDER THAT MISUNDERSTANDINGS AT A LATER DATE MAY BE PREVENTED. THE CONTRACTOR SHALL SUGGEST, BASED ON HIS EXPERTISE, SOLUTION FOR THE DOCUMENTATION FOR THE ARCHITECT TO REVIEW PRIOR TO SUBMISSION OF HIS PROPOSAL. ACCEPTANCE BY THE CONTRACTOR OF THE DESIGN DOCUMENTATION AS EVIDENCED BY THE ACCEPTANCE OF THE CONTRACTOR'S PROPOSAL BY THE OWNER SHALL INDICATE THAT THE WORK CAN BE ACCOMPLISHED IN ACCORDANCE WITH THE DOCUMENTATION. EXCEPT FOR UNFORESEEN ITEMS. THE CONSTRUCTION COST AND DOCUMENTATION RESULTING FROM CHANGES INCURRED AS A RESULT ON UNINTENTIONAL OMISSIONS BY THE ARCHITECTURAL DESIGN/CONSTRUCTION DOCUMENTATION AFTER AWARD SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THIS DOES NOT ALLEVIATE THE CONTRACTOR FROM PROVIDING SUCCESSFULLY INSPECTED, FULLY FUNCTIONAL SYSTEMS.

1.4 CODES, PERMITS, AND INSPECTIONS

WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST PUBLISHED NATIONAL ELECTRIC CODE, NATIONAL ELECTRIC SAFETY CODE, STATE OF ALABAMA BUILDING CODES, AND OTHER NATIONAL, LOCAL, AND STATE LAWS, ORDINANCES RULES, AND REGULATIONS RELATING TO THE WORK. WHERE THE DRAWINGS OR SPECIFICATIONS EXCEED THESE REQUIREMENTS, THE SPECIFICATIONS SHALL GOVERN. IN NO CASE SHALL WORK BE INSTALLED CONTRARY TO OR BELOW THE MINIMUM LEGAL STANDARDS. THE CONTRACT SHALL INCLUDE PAYMENT OF PERMIT AND INSPECTION FEES REQUIRED FOR INSTALLATION OF THE ELECTRICAL WORK. ALSO INCLUDE THAT PORTION OF THE BUILDING PERMIT FOR WORK PERTAINING TO THIS BRANCH, WHERE APPLICABLE. WORK SHALL BE INSPECTED AND APPROVED BY THE INSPECTION AGENCY HAVING JURISDICTION AND A CERTIFICATE OF APPROVAL SHALL BE DELIVERED TO THE OWNER.

1.5 GUARANTEE

THIS CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP AND MATERIALS INSTALLED UNDER THIS CONTRACT FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. MATERIALS OR WORKMANSHIP PROVING TO BE DEFECTIVE DURING THIS PERIOD SHALL BE REPLACED BY THIS CONTRACTOR WITHOUT COST TO THE OWNER.

1.6 EQUIPMENT SELECTION AND APPROVAL

THE SELECTION OF MATERIALS AND EQUIPMENT TO BE FURNISHED UNDER THIS CONTRACT SHALL BE IN STRICT ACCORDANCE WITH THESE SPECIFICATIONS. WHERE TRADE NAMES, BRANDS, OR MANUFACTURER OF EQUIPMENT OR MATERIALS ARE LISTED IN THE SPECIFICATIONS, THE WORDS "OR APPROVED EQUAL" SHALL BE UNDERSTOOD TO APPEAR THEREAFTER. APPROVAL OF EQUALITY IS REQUIRED BY THE OWNER.

1.7 SHOP DRAWINGS

THE CONTRACTOR SHALL SUBMIT 3 SETS OF SHOP DRAWINGS, WHICH SHALL INCLUDE EQUIPMENT FURNISHED AS APPLICABLE TO HIS DISCIPLINE. THE SHOP DRAWINGS SHALL INCLUDE BUT NOT BE LIMITED TO SERVICE ENTRANCE EQUIPMENT, POWER PANELS OR LOAD CENTERS, LIGHT FIXTURES, AND OUTLET DEVICES.

1.8 LOCATION COORDINATION

COORDINATE WORK WITH OTHER TRADES TO AVOID CONFLICT AND TO PROVIDE CORRECT ROUGH-IN AND CONNECTION FOR EQUIPMENT FURNISHED UNDER OTHER TRADES THAT REQUIRE ELECTRICAL CONNECTIONS. VERIFY EQUIPMENT DIMENSIONS AND REQUIREMENTS WITH PROVISIONS SPECIFIED UNDER THIS SECTION.

1.9 PROTECTION OF EQUIPMENT

THIS CONTRACTOR SHALL BE ENTIRELY RESPONSIBLE FOR THE PROTECTION OF HIS MATERIALS AND EQUIPMENT DURING ALL STAGES OF CONSTRUCTION, BOTH BEFORE AND AFTER INSTALLATION, UNTIL THE WORK IS ACCEPTED BY THE OWNER.

1.10 SITE CLEANUP

AFTER ALL OTHER WORK HAS BEEN ACCOMPLISHED, CLEAN ALL EXPOSED CONDUIT, FIXTURES, EQUIPMENT, AND SUPPORT. TOUCH UP PAINT ON ANY EQUIPMENT SCRAPED, SCRATCHED OR DAMAGED DURING CONSTRUCTION. LEAVE ALL AREAS INVOLVING ELECTRICAL WORK IN A CONDITION SATISFACTORY TO THE OWNER. REMOVE ALL CRATES, CARDBOARD, PACKING MATERIAL, WASTE MATERIAL, AND OTHER DEBRIS LEFT OVER FROM CONSTRUCTION. ALL DEBRIS SHOULD BE REMOVED FROM THE SITE ON A DAILY BASIS.

1.11 BUILDING SERVICE

THE CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS WITH AND MEET ALL REQUIREMENTS OF PUBLIC SERVICE TO OBTAIN THE 400 AMP 120/240 VOLT, SINGLE PHASE, THREE WIRE ELECTRIC SERVICE FOR THE BUILDING. THE OWNER SHALL PROVIDE TO THE ELECTRICAL CONTRACTOR A SINGLE POINT OF CONTACT TO ENSURE COORDINATION OF ALL ELECTRICAL SERVICE REQUIREMENTS.

1.12 TEMPORARY SERVICE FOR CONSTRUCTION

THIS CONTRACTOR SHALL MAKE APPLICATION TO THE USER FOR TEMPORARY ELECTRIC SERVICE. THIS SERVICE SHALL BE USED UNTIL THE NEW SERVICE IS ENERGIZED. THE CONTRACTOR SHALL FURNISH, INSTALL, AND PAY FOR ALL NECESSARY WIRE, METERING, POLES, SWITCHES, RECEPTACLES, LIGHTS, AND ACCESSORIES TO PROVIDE A TEMPORARY ELECTRIC SERVICE. THE CONTRACTORS ON THE PROJECT REQUIRING EXTENSION CORDS SHALL PROVIDE THEIR OWN CORDS AND PLUGS UP TO CAPACITY OF 20 AMPERES. THIS CONTRACTOR SHALL MAINTAIN THE TEMPORARY LIGHT AND POWER SYSTEM FOR THE DURATION OF THE WORK AND SHALL REMOVE IT FROM THE SITE WHEN DIRECTED. TEMPORARY WIRING AND EQUIPMENT SHALL REMAIN THE PROPERTY OF THIS CONTRACTOR. THE COMPLETE TEMPORARY SERVICE SHALL COMPLY WITH OSHA REQUIREMENTS.

PART 2 - PRODUCTS

2.1 MATERIAL APPROVAL

ALL MATERIALS MUST BE NEW AND BEAR U.L. LABEL. MATERIALS THAT ARE NOT COVERED BY UL TESTING STANDARDS SHALL BE TESTED AND APPROVED BY AN INDEPENDENT TESTING LABORATORY OF A GOVERNMENTAL AGENCY APPROVED BY THE AUTHORITY HAVING JURISDICTION.

2.2 WIRES AND CABLES

CONDUCTORS FOR 600V SYSTEMS AND BELOW SHALL BE STRANDED COPPER. THE MINIMUM WIRE SIZE SHALL BE #12 AWG. WIRE AMPACITY SHALL BE EQUAL TO OR GREATER THAN THE OVERCURRENT PROTECTIVE DEVICE SERVING THAT CIRCUIT. WIRE SIZE SHALL BE INCREASED TO COMPENSATE FOR VOLTAGE DROP BASED ON PHYSICAL ROUTING OF CABLE. INSULATION SHALL BE THWN FOR WET LOCATIONS AND THHN FOR DRY LOCATIONS.

2.3 JUNCTION AND PULL BOXES

BOXES SHALL BE CODE GAUGE, CONSTRUCTED OF GALVANIZED STEEL WITH SCREWED COVERS. JUNCTION BOXES AND PULL BOXES SHALL BE SO LOCATED AS TO BE ACCESSIBLE. WHERE A NATURAL MEANS OF ACCESS IS NOT AVAILABLE, HINGED METAL ACCESS COVERS MATCHING THE CEILING FINISH SHALL BE PROVIDED BY THIS CONTRACTOR. ACCESS COVERS SHALL BE FLUSH TYPE WITH HINGED DOOR AND RIGID FRAME, WITH SCREWDRIVER LOCK. A REMOVABLE PAN OR LAY-IN CEILING SHALL BE CONSIDERED AS ADEQUATE MEANS OF ACCESS TO BOXES. ACCESS PANEL SHALL BE MILCOR "M" OR "DIV" OR APPROVED EQUAL.

2.4 OUTLET BOXES

CONDUIT BOXES SHALL BE CAST ALUMINUM, GALVANIZED OR CADMIUM PLATED STEEL AS MANUFACTURED BY STEEL CITY, APPLETON, CROUSE HINDS, RUSSELL & STOLL, OR RACO. FIXTURE OUTLET BOXES SHALL BE A STANDARD 4" X 2" DEEP, OCTAGONAL OR SQUARE WITH 3/8" FIXTURE STUDS. DEVICE OUTLET BOXES SHALL BE NOMINAL 2" X 4" WHERE TWO WIRES TERMINATE. WHERE WIRING IS CONTINUOUS AND MORE THAN TWO ENTER, BOXES SHALL BE 4" SQUARE. PROVIDE SINGLE GANG PLASTER RING EXTENSIONS FOR 4" SQUARE BOXES WHERE INSTALLED IN PLASTERED WALLS. DEVICE OUTLET BOXES LOCATED IN MASONRY WALLS SHALL BE 4" SQUARE AND HAVE SQUARE CORNERS WITH NO EXTERNAL EARS.

OUTLET AND DEVICE BOXES SHALL BE RIGIDLY ATTACHED TO THE CEILING OR WALL CONSTRUCTION BY MEANS OF STEEL STRAPS SECURED TO STUDS OR CHANNELS BY MEANS OF SCREWS, BOLTS, OR WIRE. BOXES SHALL BE ALIGNED TRUE TO BUILDING LINES. MOUNTING HEIGHTS AND DIMENSIONS SHALL BE CONSIDERED TO BE AT THE CENTER LINE OF THE BOX. OUTLET AND DEVICE BOXES SHALL NOT BE MOUNTED BACK TO BACK IN COMMON WALLS. WATER TIGHT JUNCTION BOXES, BONDING JUMPERS, ETC., SHALL BE PROVIDED WHEREVER THE CONSTRUCTION DICTATES SUCH DEVICES.

FLOOR BOXES SHALL BE CAST METAL OR FORMED STEEL. FLOOR BOXES SHALL BE FULLY ADJUSTABLE OR SEMI-ADJUSTABLE AND SHALL COMPLY WITH NEMA OS 1. ACCEPTABLE MANUFACTURES ARE WIREMOLD CO., WALKER, INC. OR HUBBELL. FLUSH COVER TYPE COMBINATION FITTING SHALL BE BRASS OR ALUMINUM. THE FITTING SHALL BE AESTHETICALLY COMPATIBLE WITH THE ADJACENT FLOOR FINISH AND SHOULD BE APPROVED BY ARCHITECT. USE CAST FLOOR BOXES FOR INSTALLATIONS IN SLAB ON GRADE; FORMED STEEL BOXES ARE ACCEPTABLE FOR OTHER INSTALLATIONS. INSTALL BOXES AND FITTINGS TO PRESERVE FIRE RESISTANCE RATING OF SLABS AND OTHER ELEMENTS, USING MATERIALS AND METHODS.

2.5 WIRING DEVICES

ALL WIRING DEVICES OF ANY ONE GENERAL TYPE SHALL BE OF THE SAME MANUFACTURER AND SHALL MATCH THROUGHOUT. WIRING DEVICES SHALL BE AS MANUFACTURED BY HUBBELL, GE, LEVITION, P & S, OR BRYANT. COVER PLATES SHALL BE AS MANUFACTURED BY ARROW HART, SIERRA, LEVITON, OR MULLBURRY. THE COLOR SHALL BE IVORY UNLESS SPECIFIED OTHER WISE BY ARCHITECT.

WHERE INDICATED, PROVIDE SPECIFICATION GRADE, DUPLEX RECEPTACLES, GROUND-FAULT CIRCUIT INTERRUPTERS; GROUND TYPE, UL-RATED CLASS A GROUP 1, 20 AMPERES RATING, 120 VOLTS. THE COLOR SHALL BE IVORY UNLESS SPECIFIED OTHERWISE BY ARCHITECT. SWITCHES SHALL BE FLUSH WALL TYPE. TWO, THREE AND FOUR-WAY 120-VOLT SWITCHES SHALL BE SPECIFICATION GRADE, TOGGLE HANDLE, WITH TOTALLY ENCLOSED CASE, RATED 20 AMPERE, TUNGSTEN, 60 HERTZ AND CONTAIN SWITCHING ARRANGEMENT INDICATED ON DRAWINGS. ALL LIGHT SWITCHES SHALL HAVE A COVER TO PREVENT INCIDENTAL CONTACT. THE COLOR SHALL BE IVORY UNLESS SPECIFIED OTHER WISE BY ARCHITECT.

2.6 WIRE CONNECTORS

CONNECTIONS SHALL BE MADE USING PRESSURE TYPE TERMINALS. WHERE CONNECTIONS OF STRANDED WIRE ARE TO BE MADE TO DEVICES OR EQUIPMENT UNDER SCREW HEADS ONLY, INSTALL INSULATED CRIMP TYPE SPADE CLIPS ON THE WIRE ENDS BEFORE THE CONNECTIONS ARE MADE. CONNECTORS SHALL CONTAIN ONLY ONE WIRE UNLESS THEY ARE APPROVED FOR MULTIPLE CONDUCTORS.

2.7 PANELBOARD

PANELBOARDS SHALL BE AS MANUFACTURED BY SQUARE D, GE, SIEMENS, OR CUTLER HAMMER. PROVIDE PANELBOARDS AS INDICATED ON SCHEDULES WITH THE FOLLOWING FEATURES: HARD-DRAWN COPPER BUS, MECHANICAL-TYPE MAIN AND NEUTRAL LUGS, NEUTRAL BUS RATED 100 PERCENT OF PHASE BUS, GROUND BUS BONDED TO ENCLOSURE, BOLT-ON MOLDED-CASE THERMAL-MAGNETIC BREAKERS. PROVIDE A PHENOLIC NAMEPLATE ON THE VISIBLE FACE INDICATING THE PANEL NAME IN 3/8" LETTERS. PROVIDE A TYPE WRITTEN PANEL DIRECTORY THAT IS FULLY VISIBLE WHEN THE PANEL DOOR IS OPEN. THE PANEL DIRECTLY SHALL INDICATE THE LOADS SERVED BY ALL CIRCUIT BREAKERS INSTALLED IN THE PANELBOARD, THE SOURCE OF POWER TO THE PANELBOARD, THE SIZE OF THE PANEL BOARD, SIZE OF THE MAIN BREAKER IF INSTALLED, VOLTAGE, PHASE, AND NUMBER OF WIRES SERVING THE PANELBOARD.

2.8 WARNING SIGNS

PROVIDE WARNING SIGNS FOR FLASH PROTECTION IN ACCORDANCE WITH NFPA 70E AND NEMA Z535.4 FOR PANELBOARDS, CIRCUIT BREAKER ENCLOSURES, LOAD CENTERS, AND ANY OTHER ELECTRICAL EQUIPMENT THAT ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED. PROVIDE FIELD INSTALLED SIGNS TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS WHEN WARNING SIGNS ARE NOT PROVIDED BY THE MANUFACTURER. PROVIDE MARKING THAT IS CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT. SERVICING, OR MAINTENANCE OF THE EQUIPMENT.

2.9 RACEWAYS

ALL DISTRIBUTION AND SERVICE WIRING SHALL BE RUN IN CONDUIT, IN MASONRY WALLS, ON EXPOSED SURFACES, IN POURED CONCRETE, AND WHERE UNDERGROUND. CONDUIT MAY BE RIGID GALVANIZED OR PLATED STEEL, INTERMEDIATE GRADE STEEL (IMC), RIGID ALUMINUM, GALVANIZED, OR PLATED THINWALL ELECTRIC METALLIC TUBING OR TYPE EPC-40 RIGID POLYVINYL CHLORIDE (PVC), SUBJECT TO THE FOLLOWING CONDITIONS. CONDUIT SHALL CONFORM TO ANSI AND NEMA REQUIREMENTS AND EACH LENGTH SHALL BE UL LABELED. DO NOT USE ALUMINUM IN POURED CONCRETE OR UNDERGROUND, EMT IS NOT APPROVED FOR INSTALLATION UNDERGROUND OR EXPOSED TO WEATHER. EXPOSED CONDUITS IN EQUIPMENT ROOMS, STORAGE ROOMS, JANITOR ROOMS, AND SIMILAR SPACES MAY BE EMT, IMC, OR RIGID.

FLEXIBLE METAL CONDUIT EQUAL TO GREENFIELD MAY BE USED FOR CONNECTIONS TO LIGHTING FIXTURES, WITH LENGTH LIMITED TO 6 FT., HORIZONTAL RUNS THROUGH STUD WALLS, IN NARROW MOVABLE PARTITIONS WHERE OTHER RACEWAYS ARE NOT PRACTICABLE WHEN SO APPROVED BY THE OWNER OR ENGINEER, AND CONNECTIONS TO MOTORS OR CONTROLS ON DYNAMIC EQUIPMENT. NOTE THAT FLEXIBLE MOTOR CONNECTIONS IN WET, DAMP, DUSTY, OR OUTSIDE LOCATIONS SHALL BE WATER AND DUST TIGHT TYPE FITTINGS APPROVED FOR WET LOCATIONS.

CONDUIT SHALL BE 3/4" DIAMETER OR LARGER EXCEPT 1/2" SIZE MAY BE USED WHERE FLEXIBLE CONDUIT IS ALLOWED, FOR SWITCH LEGS, AND WHEN CONDUIT CARRIES CONTROL WIRING ONLY

2.10 LIGHT FIXTURES

PROVIDE LIGHT FIXTURES AS SHOWN IN LIGHTING FIXTURE SCHEDULE. PROVIDE LAMPS IN EACH FIXTURE. ONLY THE NUMBER OF LAMPS REQUIRED TO PROVIDE TEMPORARY LIGHTING SHALL BE INSTALLED AT THE TIME FIXTURES ARE INSTALLED AND TESTED. REMAINING LAMPS SHALL BE INSTALLED NOT MORE THAN TEN (10) DAYS PRIOR TO FINAL ACCEPTANCE OF THE PROJECT BY THE OWNER. LAMPS SHALL BE OPERATING AT THE TIME OF FINAL ACCEPTANCE AND DEFECTIVE LAMPS SHALL BE REPLACED BY THIS CONTRACTOR. LAMPS SHALL BE MANUFACTURED BY G.E., WESTINGHOUSE, OR SYLVANIA.

PART 3 - EXECUTION

3.1 GENERAL

ELECTRIC SYSTEM LAYOUTS INDICATED ON THE DRAWINGS ARE DIAGRAMMATIC, BUT SHALL BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION AND WORK OF OTHER TRADES WILL ALLOW. COORDINATE LOCATIONS OF ELECTRICAL EQUIPMENT, DEVICES, OUTLETS, FIXTURES, ETC., WITH ARCHITECTURAL PLANS, ELEVATIONS, AND REFLECTED CEILING PLANS PRIOR TO ROUGH-IN WORK. ALL HOME RUNS ARE INDICATED AS STARTING FORM THE DEVICE NEAREST THE PANEL AND CONTINUING IN THE GENERAL DIRECTION OF THE PANEL. OBTAIN PRIOR APPROVAL FROM ARCHITECT AND CONFORM TO ALL STRUCTURAL REQUIREMENTS WHEN CUTTING OR BORING OF THE STRUCTURE OR STRUCTURAL MEMBERS IS REQUIRED. CONDUITS LEAVING OR ENTERING THE BUILDING SHALL BE SEALED PER THE NATIONAL ELECTRICAL CODE TO PREVENT THE ENTRANCE OF MOISTER.

3.2 ELECTRICAL GROUNDING

THE ENTIRE ELECTRICAL SYSTEM SHALL BE GROUNDED IN ACCORDANCE WITH NEC REQUIREMENTS. CONDUITS AND ASSOCIATED FITTINGS AND TERMINATIONS SHALL BE MADE MECHANICALLY TIGHT TO PROVIDE A CONTINUOUS ELECTRICAL PATH TO GROUND AND SHALL BE SAFELY GROUNDED AT ALL EQUIPMENT BY BONDING ALL METALLIC CONDUIT TO THE EQUIPMENT ENCLOSURES WITH LOCKNUTS CUTTING THROUGH PAIN ON ENCLOSURES. BOND ALL CONDUITS ENTERING SERVICE ENTRANCE SWITCHBOARD WITH A GROUND WIRE CONNECTING THE GROUNDING TYPE BUSHINGS TO THE EQUIPMENT GROUND BAR. GROUND CONDUCTORS SHALL IDENTIFIED BY GREEN INSULATION OR BY PAINTING GREEN AT ALL ACCESSIBLE LOCATIONS AND SHALL BE CONNECTED WITH APPROVED CONNECTORS AND TERMINATORS TO BOXES, DEVICES, EQUIPMENT, ETC., AND TO GROUND BARS IN PANELS. THE BUILDING NEUTRAL SHALL BE INDENTIFIED THROUGHOUT WITH WHITE CONDUCTORS.

3.3 RACEWAY AND CABLE INSTALLATION

CONDUIT SHALL BE RUN CONCEALED UNLESS OTHERWISE INDICATED OR SPECIAL PERMISSION GRANTED FROM THE OWNER. WHERE CONDUIT IS EXPOSED, IT SHALL BE RUN PARALLEL OR PERPENDICULAR TO THE BUILDING LINES. BENDS AND OFFSETS SHALL BE AVOIDED WHERE POSSIBLE. WHEN REQUIRED, RADII FOR CONDUITS SHALL NOT BE LESS THAN STIPULATED BY CODE. TERMINATIONS OF ALL CONDUITS SHALL BE SECURED BY LOCKNUTS AND APPROVED BUSHINGS TIGHTENED UP TO SECURE ELECTRICAL AS WELL AS MECHANICAL INTEGRITY OF THE CONDUIT NETWORK. FASTEN CONDUIT SECURELY TO THE BUILDING STRUCTURE THROUGHOUT BY MEANS OF HEAVY DUTY STRAP HANGERS AND CLAMPS ATTACHED TO THE BASIC BUILDING STRUCTURE. SMALLER BRANCH CIRCUIT CONDUIT MAY BE SECURED BY MEANS OF GALVANIZED METAL CLAMPS AND SCREWS ATTACHED TO CONCRETE OR JOISTS. WIRE SHALL NOT BE USED FOR SUSPENDING CONDUIT. VERTICAL CONDUIT RUN SHALL BE SUPPORTED WITH CLAMPS AT EACH FLOOR LEVEL TO PREVENT BOTH LATERAL AND VERTICAL SHIFTING.

OPEN ENDS OF CONDUIT STUBS SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SPECIAL CARE SHALL BE TAKEN TO PREVENT DAMAGE TO THE CONDUIT DURING CONCRETE POURING. EMPTY CONDUIT INSTALLATION FOR USE BY OTHERS SUCH AS TELEPHONE OR FUTURE SYSTEMS, ETC., SHALL BE COMPLETE WITH PULL WIRE. A MANDREL SHALL BE PULLED THROUGH EACH FEEDER CONDUIT TO ASSURE AGAINST FOREIGN OBJECTS REMAINING INSIDE.

3.4 EQUIPMENT SUPPORTS

PROVIDE STRUCTURAL STEEL FRAMEWORK AND HANGING RODS WITH BRACES AND ACCESSORIES WHERE SHOWN OR WHERE REQUIRED TO HOLD EQUIPMENT IN FINAL POSITION. PROVIDE STEEL STRAPS AND FRAMES TO SUPPORT WALL MOUNTED EQUIPMENT WHERE THE NORMAL WALL STRENGTH MAY BE INADEQUATE. ELECTRICAL DEVICES, MOTORS STARTERS, DISCONNECT SWITCHES, ETC. SHALL BE SUPPORTED INDEPENDENT OF AND ISOLATED FROM EQUIPMENT VIBRATION.

3.5 EXCAVATION AND BACKFILL

THE CONTRACTOR SHALL PROVIDE EXCAVATION AS FOLLOWS FOR THE UNDERGROUND SERVICES FOR THIS PROJECT. TRENCHES SHALL BE OPENED IN STRAIGHT LINES AND BOTTOM OUT AT LEAST 4" BELOW CONDUITS OR DUCTS AND LEVELED WITH COMPACTED GRANULAR MATERIAL. UNLESS OTHERWISE INDICATED, THE MINIMUM DEPTH SHALL BE AS DEFINED BY THE NATIONAL ELECTRICAL CODE AND SHALL BE MAINTAINED BETWEEN TOP OF LARGEST CONDUIT OR DUCT AND FINISH GRADES. THE CONTRACTOR SHALL REMOVE ROCKS, DEBRIS, ETC., IN THE LINE OF THE EXCAVATION AND SHALL REMOVE SAME ITEMS FROM PROJECT SITE. THE CONTRACTOR SHALL CUT ANY INTERFERING TREES, REMOVE ALL STUMPS, ROCKS, ETC., IN THE LINE OF THE EXCAVATION. APPROVAL OF THE OWNER SHALL BE OBTAINED BEFORE ANY TREE IS REMOVED. ANY SHRUBBERY IN LINE OF EXCAVATION SHALL BE REMOVED WITH A BALL OF DIRT AND REPLACED AT COMPLETION OF EXCAVATION. WHERE EXCAVATION CROSSES EXISTING LAWNS, CONTRACTOR SHALL REMOVE SOD, PROPERLY STORE AND REPLACE SOD AT COMPLETION OF EXCAVATION. CARE SHALL BE EXERCISED DURING THE WORK TO SEE THAT NO UNNECESSARY DAMAGE OCCURS, IN THE OPINION OF THE OWNER, THE CONTRACTOR SHALL BE REQUIRED TO RECONDITION LAWNS AT HIS OWN EXPENSE. WHERE EXISTING SIDEWALKS, DRIVES, AND ROADWAYS MUST BE CUT, THEY SHALL BE SAW-CUT IN STRAIGHT LINES AT EXISTING EXPANSION JOINT OR CONTROL JOINT AND SHALL PRESENT A NEAT APPEARANCE WHEN RE-LAID AND SHALL MATCH EXISTING WORK. THE CONTRACTOR SHALL LOCATE EXISTING ELECTRIC FEEDERS, GAS LINES. WATER LINES. SANITARY LINES. AND ANY OTHER EXISTING UNDERGROUND SERVICE LINES BEFORE THE EXCAVATION IS STARTED. ALL RESPECTIVE SERVICE LINES SHALL BE STAKED AND THE TRENCH SHALL BE OPENED BY HAND AT THE LOCATIONS OF THE ABOVE SERVICES.

BACKFILLING INCLUDED IN THE ELECTRICAL CONTRACT SHALL INCLUDE TRENCHES WHICH ARE EXCAVATED UNDER THIS CONTRACT. BACKFILLING SHALL BE CAREFULLY PERFORMED AND THE SURFACE RESTORED TO ITS ORIGINAL LEVEL AS NEARLY AS POSSIBLE. THE TRENCHES SHALL BI BACKFILLED WITH THE EXCAVATED MATERIAL. FREE FROM LARGE CLODS OR STONES. EXCEPT BACKFILL OVER SERVICES IN PAVED, OR OTHER HARD GRADED MATERIAL TO PREVENT UNDUE SETTLEMENT. ALSO, THE INTERIOR TRENCHES SHALL BE BACKFILLED WITH GRADED GRAVEL. ALL EXCESS EXCAVATED MATERIAL SHALL BE REMOVED. ALL TRENCHES SHALL BE MECHANICALLY COMPACTED IN LAYERS NOT OVER 6" DEEP. WATER SETTLING WILL BE PERMITTED ONLY AS AN AID TO MECHANICAL COMPACT. WHEREVER THE TRENCHES HAVE NOT BEEN PROPERLY FILLED OR SETTLEMENT OCCURS, THEY SHALL BE REFILLED, COMPACTED, SMOOTHED OFF, AND FINALLY MADE TO CONFORM TO THE ORIGINAL SURFACE OF THE GROUND. PAVING, SIDEWALKS, CURBS, SODDED, AND OTHER FINISHED SURFACES WHICH ARE BROKEN AND REMOVED BY THIS CONTRACTOR IN ORDER TO INSTALL THE UTILITIES. SHALL BE REPLACED BY THIS CONTRACTOR AT HIS EXPENSE. EQUAL TO ITS ORIGINAL CONDITION. THIS REQUIREMENT IS NOT APPLICABLE IN AREAS WHERE THE GENERAL CONTRACTOR OR THE SITE CONTRACTOR ARE OBLIGATED TO FURNISH NEW SURFACES. BACKFILL AND SURFACE REPAIR OF ROADWAY SHALL BE IN ACCORDANCE WITH GOVERNING AGENCY RULES AND REGULATIONS AND ANY FEES FOR CROSSING THE ROADWAY SHALL BE INCLUDED IN THIS CONTRACT SO THAT NO ADDITIONAL COST WILL ACCRUE TO THE OWNER. BACKFILL UNDER BUILDING WALLS OR FOOTERS SHALL BE CONCRETE OF SAME STRENGTH AS WALLS OR FOOTERS.

3.6 RECORD DRAWINGS

THIS CONTRACTOR SHALL KEEP AN ACCURATE RECORD OF ANY DEVIATIONS OF CONSEQUENCE FROM THE CONTRACT DRAWINGS AND SPECIFICATIONS. HE SHALL NEATLY AND CORRECTLY ENTER, IN COLORED PENCIL, ANY DEVIATIONS ON DRAWINGS AFFECTED AND SHALL KEEP THESE DRAWINGS AVAILABLE FOR INSPECTION. AT COMPLETION OF THE JOB, AND BEFORE FINAL APPROVAL, THE CORRECTED SET OF DRAWINGS SHALL BE DELIVERED TO THE OWNER.

3.7 TESTS AND MAINTENANCE INSTRUCTIONS

FINAL INSPECTION AND OPERATIONAL TESTS OF ALL EQUIPMENT AND SYSTEMS SHALL BE MADE IN THE PRESENCE OF THE OWNER OR HIS AUTHORIZED REPRESENTATIVE. TESTS SHALL BE MADE UNDER CONDITIONS SIMULATING AS NEARLY AS PRACTICABLE THOSE WHICH ARE OBTAINED IN OPERATION, AND SHALL SHOW CONCLUSIVELY THAT THE REQUIREMENTS OF THE SPECIFICATIONS HAVE BEEN FULFILLED. THIS CONTRACTOR SHALL MEGGER TEST FEEDERS OR BRANCH CIRCUITS AS REQUIRED OR DESIRED BY THE OWNER. DATA TAKEN DURING SUCH TESTS SHALL BE SUBMITTED TO THE OWNER, TYPEWRITTEN, AND IN FOLDER FORM. INSTRUMENTS REQUIRED FOR TESTS SHALL BE FURNISHED BY THIS CONTRACTOR. SPECIAL SYSTEMS SHALL BE CHECKED OUT AND DETERMINED TO BE COMPLETE AND FUNCTIONING IN A MANNER AS REQUIRED BY THE SPECIFICATIONS AND DRAWINGS.

NEW SANCTUARY FOR ST. ELIZABETH CPCA

104 PERRY ST, MADISON, AL 35758

DRAWN: J. HALEY

REVIEWED: C. RAMGEY
256-684-9445

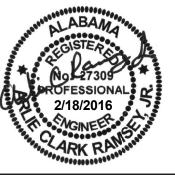
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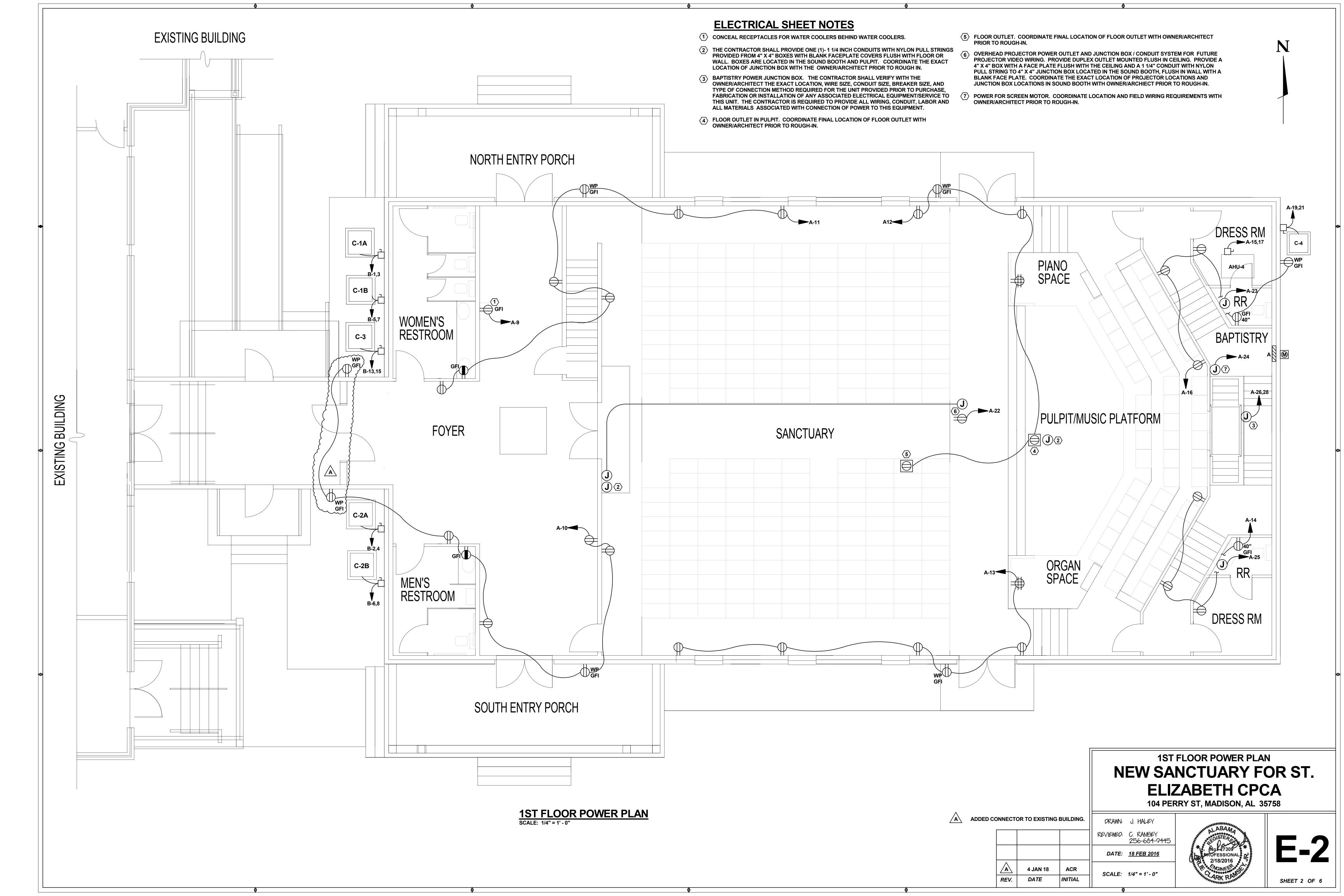
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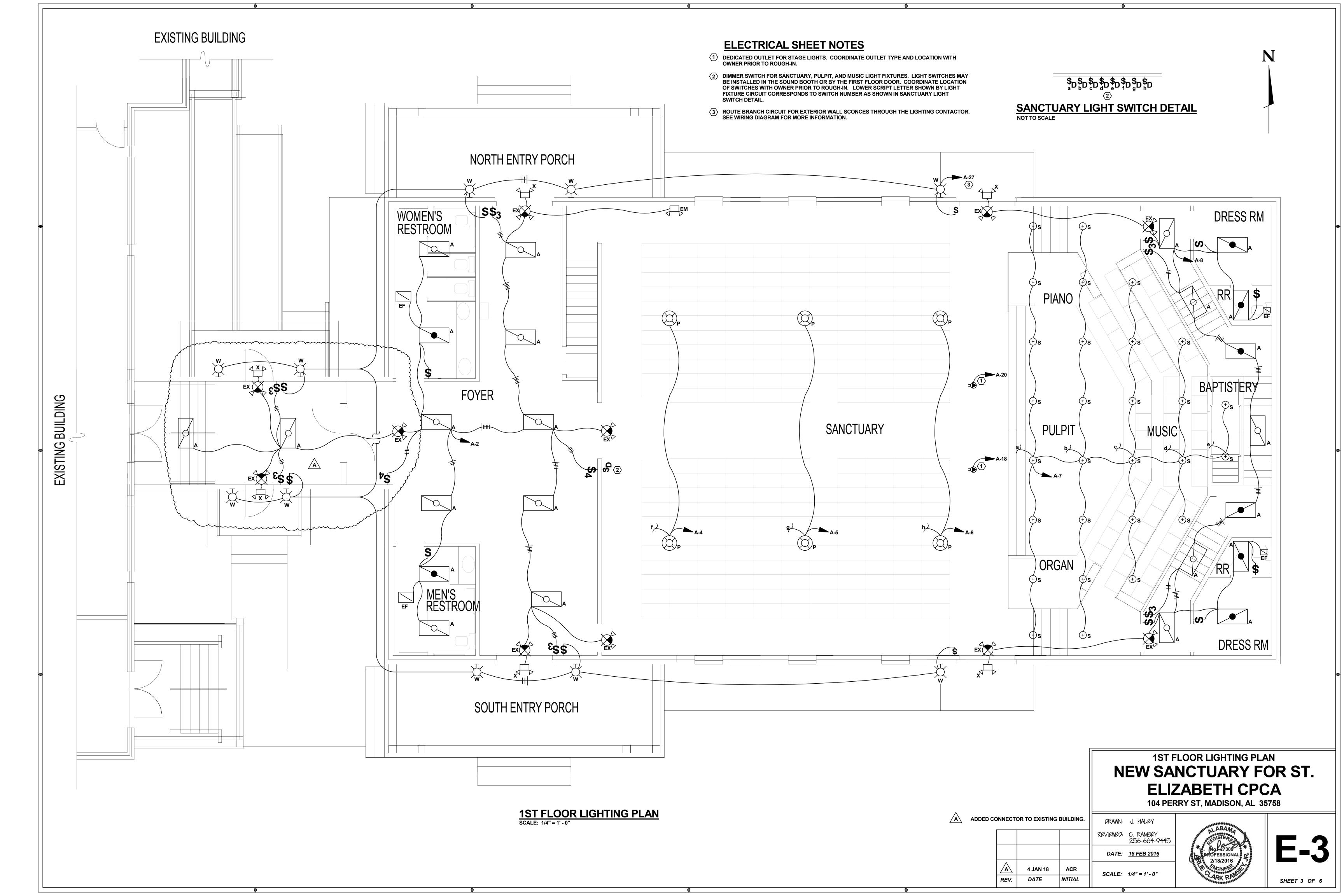
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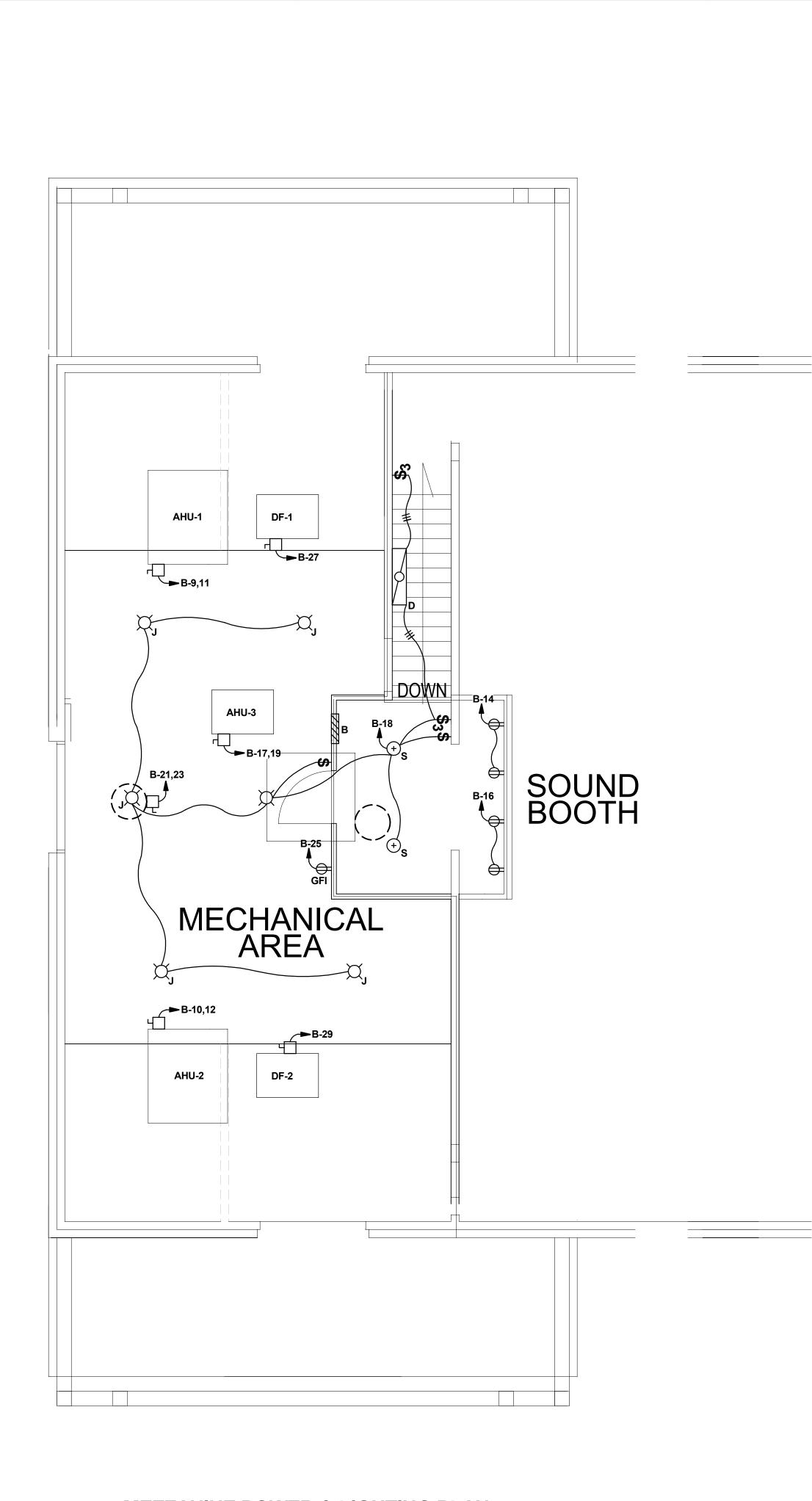
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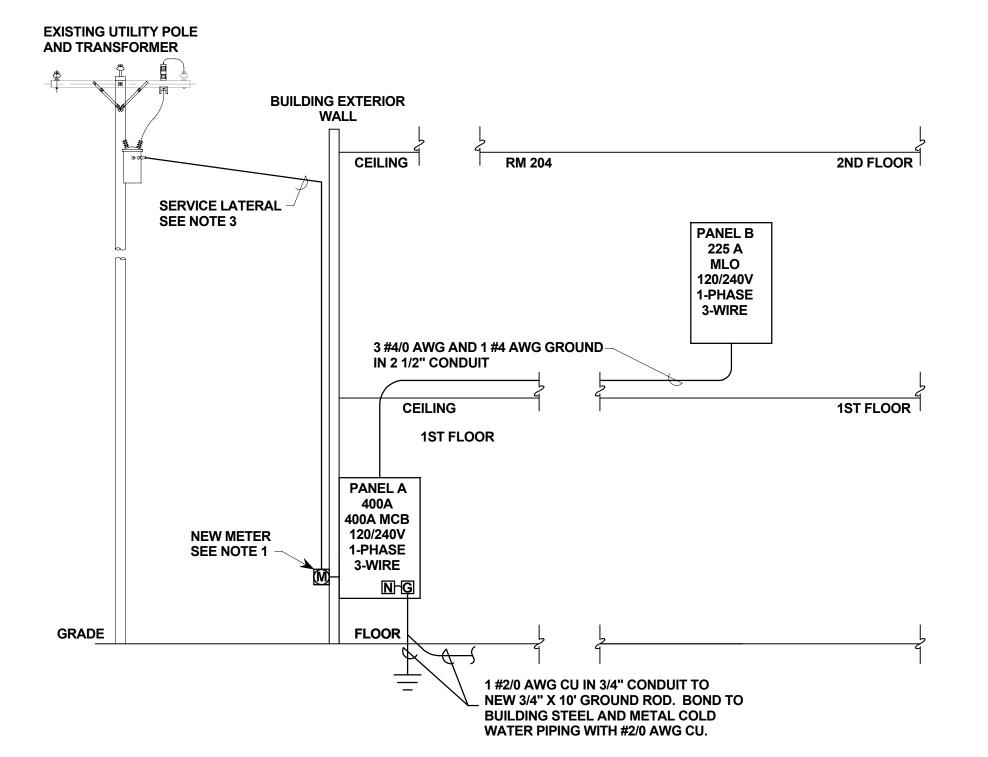
SHEET 1 OF 6







MEZZANINE POWER & LIGHTING PLAN



RISER DIAGRAM

PANELBOARD SUPPLIED FROM:					BAPTIST BOTTOI		MAIN C	KT BKR:	400 A 400 A		•	PHASE:	120/240 VOLTS 1	
MOUNTED:	SURFAC	Έ					ASYM A.I.C MIN.: 10 K			WIRE: 3				
		_		VA/ P	HASE	Ī	VA/ PHASE			1				
LOAD SERVED	NO. POLES	TRIP AMPS	WIRE SIZE	Α	В	CKT NO.	CKT NO.	А	В	WIRE SIZE	TRIP AMPS	NO. POLES	LOAD SERVED	
PANEL "B"				22373		1	2	861		12	20	1	LTS LOBBY, RSTRMS	
TANCE D					21677	3	4		1116	12	20	1	LTS REAR SANCT	
LTS MID SANCT	1	20	12	1116		5	6	1116		12	20	1	LTS FRONT SANCT	
LTS PULPIT, CHIOR	1	20	12		1344	7	8		740	12	20	1	LTS BAPT, DR,CORR	
LOBBY WTR FOUNT	1	20	12	528		9	10	1260		12	20	1	RECP LOBBY	
RECP LOBBY, SANCT	1	20	12		1260	11	12		1260	12	20	1	RECP SANCT, PULPIT	
RECP SANCT, PULPIT	1	20	12	1260		13	14	720		12	20	1	RECP BAPT,CORR, DR	
** AHU-4	2	2	25	12		2070	15	16		900	12	20	1	RECP BAPT,CORR, DR
AПU-4	2	23	12	2070		17	18	1800		12	20	1	STAGE LIGHTS	
** C-4	0	45	12		817	19	20		1800	12	20	1	STAGE LIGHTS	
	2	15	12	817		21	22	180		12	20	1	OVERHEAD PROJECTOR	
P9 WATER HEATER	1	35	8		3000	23	24		1518				SCREEN MOTOR	
P9 WATER HEATER	1	35	8	3000		25	26	2750		40	20	0	DADTIOTOV ***	
LTS BUILDING EXTERIOF	1	20	12		1612	27	28		2750	10	30	2	BAPTISTRY ***	
PARKING LOT POLE	0	00	40	912		29	30	1200		12	20	1	BUILDING SIGN	
LIGHTS	2	20	10		912	31	32							
						33	34							
						35	36							
						37	38							
						39	40							
						41	42							
			•	32076	32692		-	9887	10084		-			
ABBREVIATIONS: RECP-RECEPTACLE, LT	ΓS-LIGH¹	TS, MLO	-MAN L	.UG ONL	Υ							PHASE A: PHASE B:	·	
										TOTA	N CONIN	NECTED:	04 720	

	SUPPLIED FROM:	UTILITY			FEED:	воттог	М	MAIN C	KT BKR:	225 A MLO			PHASE:	1
	MOUNTED:	RECESS	ED		ASYM A.I.C MIN.: 10 K					WIRE: 3				
					VA/ PHASE			VA/ PHASE		٦				
	LOAD SERVED	NO. POLES	TRIP AMPS	WIRE SIZE	Α	В	CKT NO.	CKT NO.	А	В	WIRE SIZE	TRIP AMPS	NO. POLES	LOAD SERVED
** C	C-1A	2	60	4	3197	3197	3	2	3197	3197	4	60	2	C-2A **
** C	C-1B	2	60	4	3197		5	6	3197		4	60	2	C-2B **
					955	3197	7	8	955	3197				
** A	.HU-1	2	15	12	900	955	9	10 12	900	955	12	15	2	AHU-2 **
** 0	~~~~~	~~~	45		2392		\ ₁₃	14	360		12	20	1	RECP SOUND BOOTH
** C	,-3	2	45	6		2392	1)5	16		360	12	20	1	RECP SOUND BOOTH
** A	.HU-3	2	50	6	4416	4416	7 ا ر 19 کر	18 20	516		12	20	1	LTS MECH, SOUND BTH
~~~					2250	ستنتد	21	22						
WA	TER HEATER P10	2	30	10		2250	23	24						
RE	CP MECH	1	20	12	180		25	26						
							27	28						
							29	30						
							31	32						
							33	34						
							35	36						
							37	38						
							39 41	40						
					16587	16407	41	42	9995	7700				
	BREVIATIONS: C-RECEPTACLE, LG	ST-LIGHTS	S, MLO-N	/IAIN LU		16407	I		8225	7709	ТОТ	AL VA F	PHASE A: PHASE B:	24,115

POWER RISER DIAGRAM NOTES:

- 1. METER BASE SPECIFIED BY UTILITY COMPANY AND INSTALLED BY CONTRACTOR. GROUND METER BASE IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS. CONTRACTOR SHALL PROVIDE ALL COMPONENTS REQUIRED BY THE UTILITY COMPANY.
- 2. NEW SERVICE LATERAL WITH 2 PARALLEL SETS OF # 1/0 TRIPLEX ALUMINUM SERVICE DROP CONDUCTORS. INSTALL SERVICE LATERAL CONDUCTORS IN A NEW WEATHERHEAD CONNECTED TO NEW METER. WEATHERHEAD AND SERVICE INSTALLATION SHALL BE PER UTILITY COMPANY REQUIREMENTS. CONTRACTOR SHALL COORDINATE THE CONNECTION TO THE UTILITY TRANSFORMER WITH THE UTILITY COMPANY. ALL OTHER CONDUCTORS SHALL BE COPPER UNLESS OTHERWISE NOTED.
- 4. ARRANGE WITH THE LOCAL UTILITY COMPANY FOR A 400 AMP, 120/240 VOLT, SINGLE PHASE, THREE WIRE ELECTRICAL SERVICE TO BE BROUGHT TO THE BUILDING, AND COORDINATE COMPLETE REQUIREMENTS FOR CONNECTION TO UTILITY POWER PRIOR TO PURCHASE FABRICATIONS AND INSTALLATION OF SERVICE EQUIPMENT AND WIRING. VERIFY WITH UTILITY COMPANY THAT LOCATIONS, ARRANGEMENT, UTILITY COMPANY VOLTAGE, PHASE, METERING REQUIRED. AND CONNECTIONS TO UTILITY SERVICE ARE IN ACCORDANCE WITH THEIR REGULATIONS AND REQUIREMENTS. IF THEIR REQUIREMENTS ARE AT A VARIANCE WITH THESE DRAWINGS, CONTRACTOR SHALL INCLUDE ALL COSTS NECESSARY TO MEET THE UTILITY REQUIREMENTS WITHOUT EXTRA COST TO THE OWNER AFTER BIDS ARE ACCEPTED.
- 5. PROVIDE SERVICE DISCONNECT ON BUILDING EXTERIOR IF REQUIRED BY AUTHORITY HAVING JURISDICTION.

	BUILDING AREA		4640 SQ FT	
	RECEPTACLE LOAD		7.188 KVA	
	FIXED MULTI-OUTLET ASSEMBLIES			
	RECEPTACLE LOAD DEMAND FACTOR	FIRST 10 KVA @ 100%	7.188 KVA	
		REMAINDER @ 50%		
		TOTAL	7.188 KVA	
1	TOTAL RECEPTACLE LOAD			7.188 KVA
	GENERAL LIGHTING LOAD 1 VA	PER SQFT	6.809 KVA	
	SIGN/OUTLINE LIGHTING		1.2 KVA	
	SHOW/TRACK LIGHTING		3.6 KVA	
	EXTERIOR LIGHTING		3.6 KVA	
2	TOTAL LIGHTING			15.2 KVA
3	APPLIANCE LOADS @ 100% (NO. UNITS O	F EQUIPMENT 7 - 65%)		0.0 KVA
4	NONCOINCIDENT LOADS	•		33.9 KVA
5	MOTOR LOADS			33.5 KVA
6	LARGEST MOTOR @ 125%			0.0 KVA
		то	TAL SERVICE LOAD	90 KVA
		90 KV 240 VC		374 A
			SERVICE LOAD	374 A
			FUTURE & SPARE	5 %
				393 A
		MINUMUM OFFICE OVERO	IDDENT DECILIDED	400 A
		MINIMUM SERVICE OVERC	UNNERT NEGUINED	700 A

QUIPMENT MARK	EQUIPMENT NAME	VOLTAGE	PHASE	EQUIPMENT DISCONNECT	CONDUCTORS NUMBER/SIZE	EQUIPMENT GROUND	CONDUIT SIZE
AHU-1	AIR HANDLING UNIT	240	1	30/2/NF/1	2 / #12	12	3/4
AHU-2	AIR HANDLING UNIT	240	1	30/2/NF/1	2 / #12	12	3/4
AHU-3	AIR HANDLING UNIT	240	1 {	60/2/NF/1	2 / #6	10	3/4
AHU-4	AIR HANDLING UNIT	240	1	30/2/NF/1	2 / #12	10	3/4
DF-1	DUCT FURNACE	120	1	30/1/NF/1	2 / #12	12	3/4
DF-1	DUCT FURNACE	120	1	30/1/NF/1	2 / #12	12	3/4
C-1A	CONDENSING UNIT	240	1	60/2/NF/3R	2 / #4	10	3/4
C-1B	CONDENSING UNIT	240	1	60/2/NF/3R	2 / #4	10	3/4
C-2A	CONDENSING UNIT	240	1	60/2/NF/3R	2 / #4	10	3/4
C-2B	CONDENSING UNIT	240	1	60/2/NF/3R	2 / #4	10	3/4
C-3	CONDENSING UNIT	240	1 {	60/2/NF/3R	2 / #6	10	3/4
C-4	CONDENSING UNIT	240	1	30/2/NF/3R	2 / #12	12	3/4
P6	WATER COOLER	120	1	REC	2 / #12	12	3/4
P8	INSTANTANEOUS HEATER			СВ			
P10	WATER HEATER	240	1	30/2/NF/1	2 / #10	10	3/4

NON-FUSED (NF), D = NEMA RATING

HVAC & PLUMBING ELECTRICAL SCHEDULE IS BASED ON THE UNITS PROVIDED IN THE MECHANICAL DRAWINGS. CONTRACTOR SHALL VERIFY THE UNITS PURCHASED BY THE MECHANICAL CONTRACTOR MATCH THESE PLANS. IF DIFFERENT UNITS ARE PURCHASED, THE CONTRACTOR SHALL PROVIDE OVERCURRENT PROTECTION AND BRANCH CIRCUITS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND NEC.

> **MEZZANINE POWER & LIGHTING PLAN NEW SANCTUARY FOR ST. ELIZABETH CPCA**

> > 104 PERRY ST, MADISON, AL 35758

A ADDED CONNECTOR TO EXISTING BUILDING.

REV.

4 JAN 18

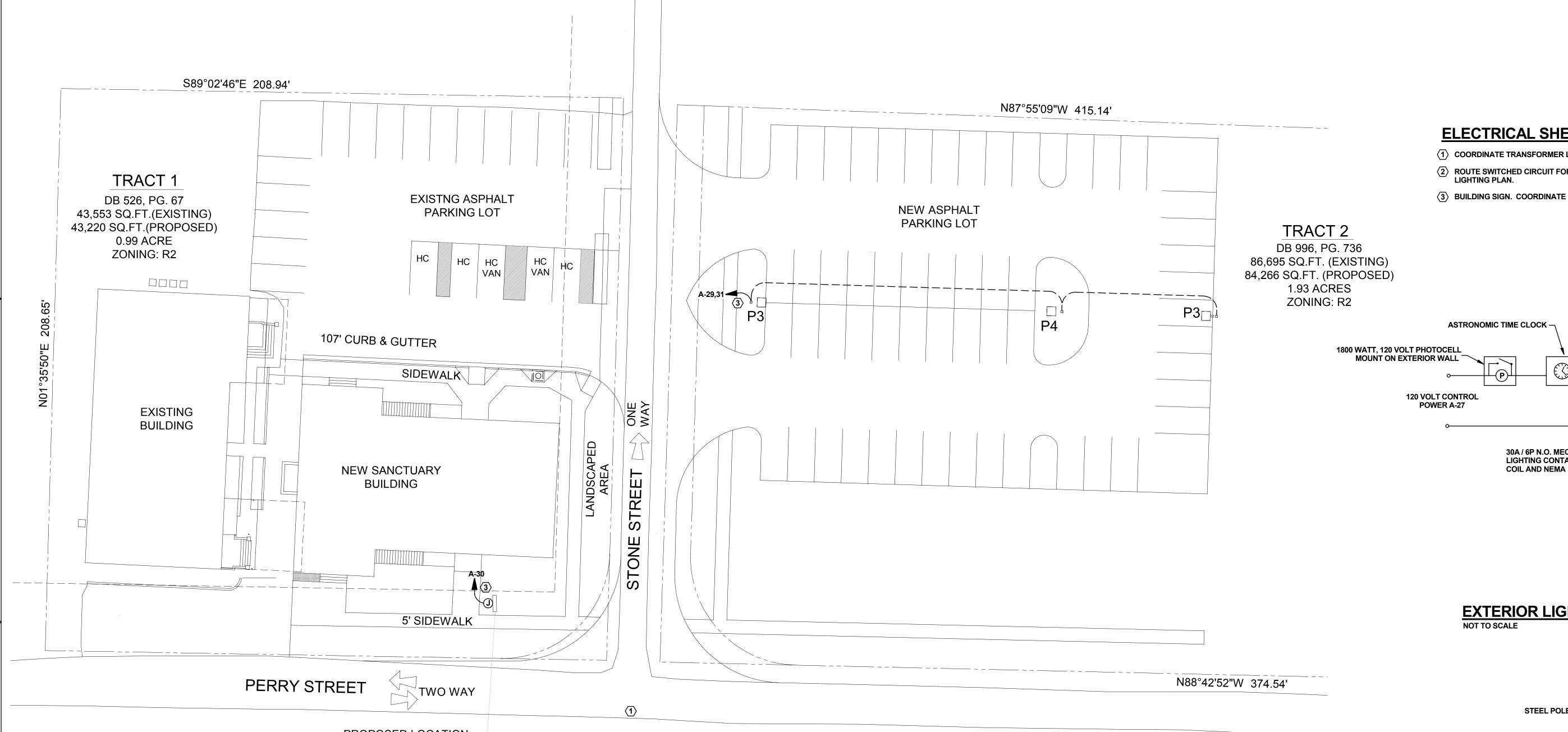
INITIAL

REVIEWED: C. RAMSEY 256-684-9445 DATE: <u>18 FEB 2016</u>

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



SHEET 4 OF 6



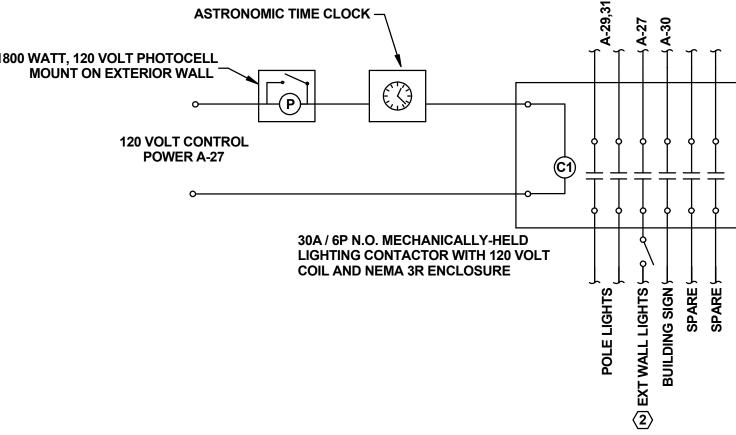
PROPOSED LOCATION FOR CHURCH SIGN

ELECTRICAL SITE PLAN SCALE: 1" = 20' - 0"

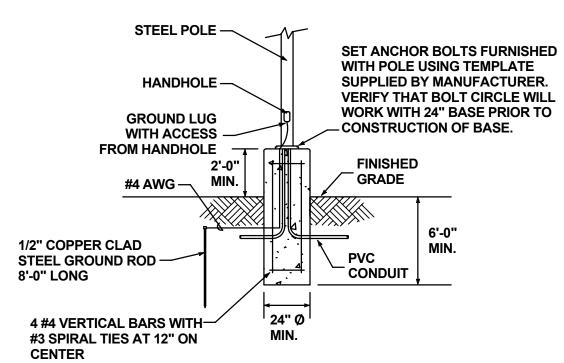
				FIXTUR	E SCH	IEDULE	
FIXTURE	FIXTURE			LAMP	VOLTAGE	MOUNTING	REMARKS
DESIGNATION	TYPE OR EQUIVALENT	TYPE	NO.	DESCRIPTION	VOLTAGE	WOONTING	REWARNS
А	LITHONIA 2M 2 32 A12 120 GEB10IS	FL	2	F32T8/2900 LM	120V	SURFACE	MODULAR FLUORESCENT FIXTURE, ACRYLIC LENS, INSTANT START, ENERGY EFF ELECTRONIC BALLAST,
D	LITHONIA WP 2 32 120 2/1 GEB10IS EL	FL	2	F32T8/2900 LM	120V	WALL	WALL MOUNTED FLUORESCENT FXTURE FOR STAIRWELL WITH EMERGENCY BATTERY PACK
EX	LITHONIA LHQM LED R	LED	2	1.5W WHITE LED	120V	WALL 7'-6"	EXIT SIGN / TWO LAMP HEAD LED EMERGENCY LIGHTING COMBINATION UNIT
ЕМ	LITHONIA ELM2 LED	LED	2	1.5W WHITE LED	120V	WALL 7'-6"	TWO LAMP HEAD LED EMERGENCY LIGHTING UNIT
J	-	INC	1	60 WATT A19	120V	ATTIC TRUSS	CERAMIC LAMP HOLDER WITH A 60 WATT INCANDESCENT LAMP. MOUNT FIXTURES TO ATTIC TRUSSES. FIELD MOUNT SUCH THAT FIXTURE WILL NOT BE DAMAGED WHEN PERSONNEL ACCESS ATTIC OR MAINTAIN HVAC EQUIPMENT.
S	LITHONIA 42 TRT 8B3W 120 ADEZ	CFL	1	TRT 42W LAMPS	120V	RECESSED	COMPACT FLUORESCENT DOWN LIGHTING, BAFFLE VERTICAL TRIPLE-TUBE, 1 LAMP, 802AZ HOUSING WITH DIMMABLE BALLAST. FIXTURES INSTALLED ON A SLOPE CEILING
Р	-	INC	-	480 WATT MAX	120V	PENDANT	DECORATIVE PENDANT MOUNT FIXTURE TO BE SPECIFIED BY THE OWNER/CONTRACTOR. MAXIMUM FIXTURE WATTAGE 480 WATTS
P3	LUMARK PREVAIL PRVS-A60-UNV-T3	LED	2	4000K, 70 CRI	240V	POLE 30' - 0"	PREVAIL AREA LUMINARE, TYPE T3 OPTICS. PROVIDE WITH A 28' SQUARE POLE, MOUNT ON 2' CONCRETE BASE.
P4	LUMARK PREVAIL PRVS-A60-UNV-T4	LED	2	4000K, 70 CRI	240V	POLE 30' - 0"	PREVAIL AREA LUMINARE, TYPE T4 OPTICS. PROVIDE WITH A 28' SQUARE POLE, MOUNT ON 2' CONCRETE BASE.
W	SELECTED BY OWNER	-	1	100 WATT MAX	120V	WALL	ARCHITECTURAL WALL SCONCE. FIXTURE SHALL BE UL LISTED FOR WET LOCATION. FIXTURE SHALL BE SELECTED BY OWNER/ARCHITECT.
х	LITHONIA AFN W EXT	XENON	2	6 WATT XENON	120V	WALL	ARCHITECTURAL EMERGENCY LIGHTING UNIT

ELECTRICAL SHEET KEYED NOTES

- (1) COORDINATE TRANSFORMER LOCATION WITH UTILITY COMPANY.
- (2) ROUTE SWITCHED CIRCUIT FOR EXTERIOR LIGHTS THROUGH LIGHTING CONTACTOR. SEE LIGHTING PLAN.
- 3 BUILDING SIGN. COORDINATE LOCATION WITH OWNER PRIOR TO ROUGH-IN.



EXTERIOR LIGHTING CONTROL DIAGRAM



NOTE: AREA POLE LIGHT HEIGHT IS 28'-0"

AREA LIGHT POLE BASE DETAIL NOT TO SCALE

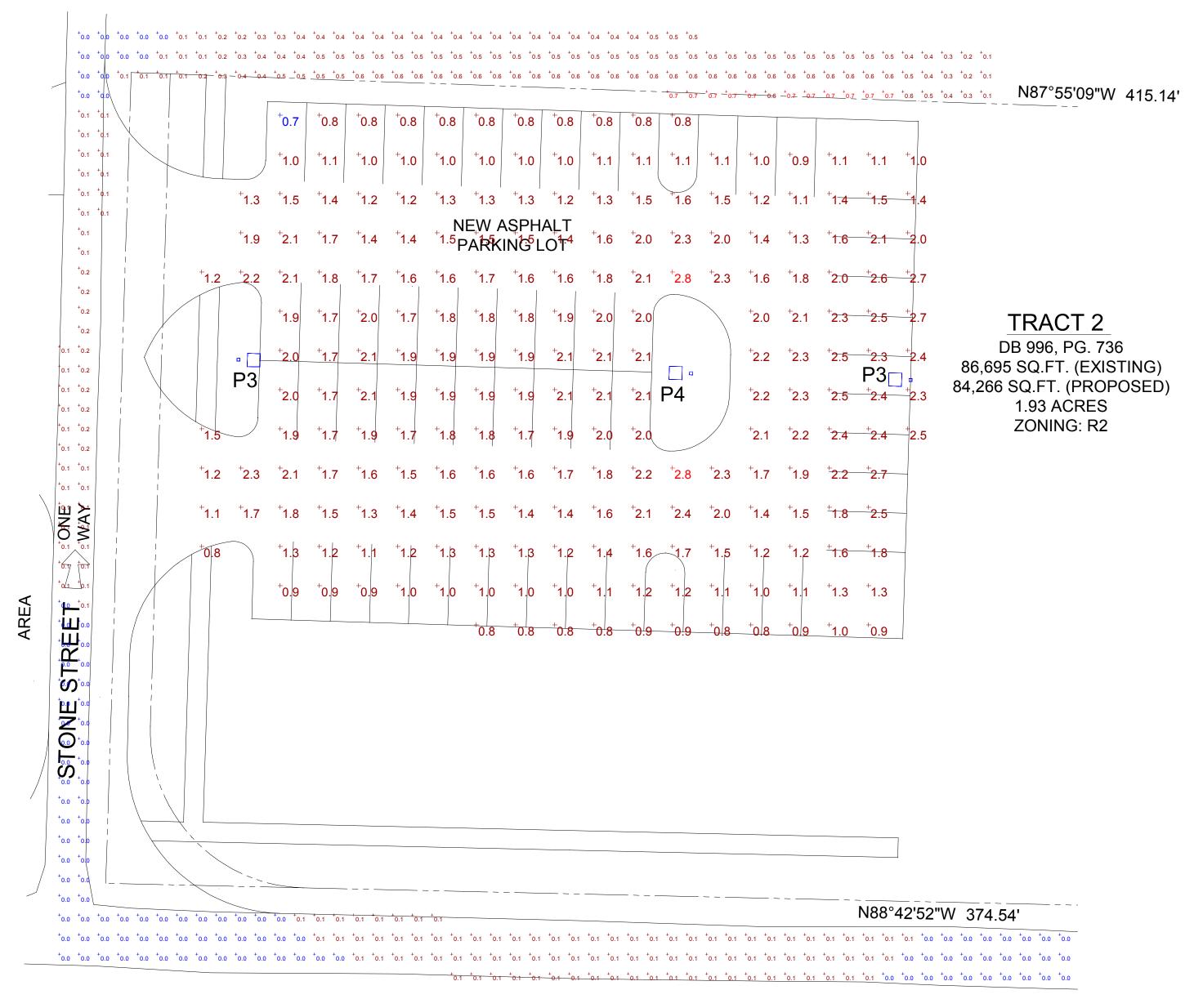
ELECTRICAL SITE PLAN NEW SANCTUARY FOR ST. ELIZABETH CPCA

104 PERRY ST, MADISON, AL 35758

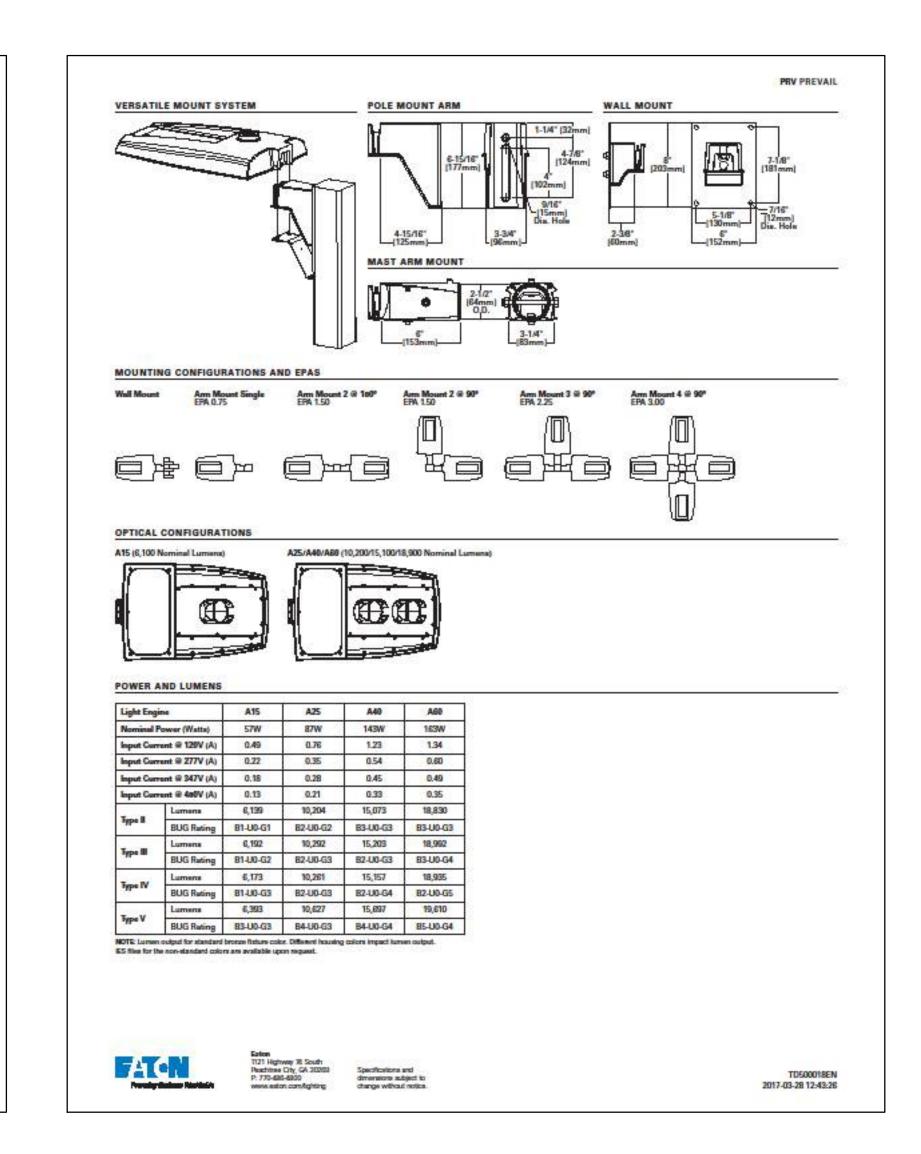
DRAWN: J. HALEY REVIEWED: C. RAMSEY 256-684-9445 DATE: 6 MAY 2017 SCALE: 1" = 20' - 0" REV. DATE INITIAL



SHEET 5 OF 6







PHOTOMETRIC PLAN

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
		1	EATON - LUMARK	PRV-A60-D-UNV-T3-DP	PREVAIL AREA AND ROADWAY	LED	2	PRV-A60-D-UNV-	9767	0.95	163
			(FORMER		LUMINAIRE (2) 70 CRI, 4000K			T3-DP.ies			
			COOPER		LEDS, HIGH OUTPUT AND TYPE						
			LIGHTING)		III OPTICS, DARK PLATINUM						
					PAINTED FINISH ABSOLUTE						
	P3				PHOTOMETRY IS BASED ON						
					CALIBRATION FACTORS						
					CREATED USING LAB LUMEN						
					STANDARDS IN						
					GONIOPHOTOMETER WITH TEST						
					DISTANCE OF 28.75 FEET						
		2	EATON - LUMARK	PRV-A60-D-UNV-T4-DP	PREVAIL AREA AND ROADWAY	LED	2	PRV-A60-D-UNV-	9735	0.95	163
			(FORMER		LUMINAIRE (2) 70 CRI, 4000K			T4-DP.ies			
			COOPER		LEDS, HIGH OUTPUT AND TYPE						
			LIGHTING)		IV OPTICS, DARK PLATINUM						
					PAINTED FINISH ABSOLUTE						
	P4				PHOTOMETRY IS BASED ON						
					CALIBRATION FACTORS						
					CREATED USING LAB LUMEN						
					STANDARDS IN						
					GONIOPHOTOMETER WITH TEST						
					DISTANCE OF 28.75 FEET						

Statistics										
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min				
New Parking Area	+	1.6 fc	2.8 fc	0.7 fc	4.0:1	2.3:1				
Spil	+	0.2 fc	0.7 fc	0.0 fc	N/A	N/A				

NEW SA	HOTOMETRIC PLAN NCTUARY F ZABETH CPO RRY ST, MADISON, AL 3	CA	
DRAWN: C. RAMGEY REVIEWED: C. RAMGEY 256-684-9445	ALABAMA SOLO STER		

SHEET 6 OF 6

DATE: <u>6 MAY 2017</u>

SCALE: 1" = 20' - 0"

INITIAL

REV.

