ALTIS SERENITY CLUBHOUSE

Hartnett County, North Carolina 28207

KENNETH C. NIEMIERSKI
Registered Architect
Reg. No. 12022
North Carolina
Newport Beach, CA
6/30/2025

DIRECTORY

OWNER :	TRI POINTE HOMES	5440 WADE PARK BLVD, SUITE 400 RALEIGH, NC 27607	
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ARCHITECT :	BASSENIAN LAGONI ARCHITECTS	2031 ORCHARD DR, SUITE 100 NEWPORT BEACH, CA 92660	
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CIVIL ENGINEER :	WITHERS RAVENEL	137 S. WILMINGTON ST., SUITE 200 RALEIGH, NC 27601	
CONTACT : E-MAIL :	KYLE FREEHART kfreehart@withersravenel.com	PH FAX	610-864-4524
LANDSCAPE ARCHITECT :	WITHERS RAVENEL	137 S. WILMINGTON ST., SUITE 200 RALEIGH, NC 27601	
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POOL DESIGNER :	SHULTZ ENGINEERING	212 N. MCDOWELL. SUITE 204 CHARLOTTE, NC 28204	
CONTACT : E-MAIL :	TAMMY ELLIS tellis@shultzeg.com	PH	864-386-1498
STRUCTURAL ENGINEER :	TYNDALL ENGINEERING	250 SHIPWASH DRIVE, SUITE 104 GARNER, NC 27529	
CONTACT : E-MAIL :	SCOTT PYRCH spyrch@tyndallengineering.com	PH FAX	919-773-1200
MECHANICAL ENGINEER :	WEST KEY CONSULTING	4008 BARRETT DRIVE, SUITE 204 RALEIGH, NC 27609	
CONTACT : E-MAIL :	DENNIS NIELD dgnield@westkeyconsulting.com	PH FAX	919-881-8020, ext 10
PLUMBING ENGINEER :	WEST KEY CONSULTING	4008 BARRETT DRIVE, SUITE 204 RALEIGH, NC 27609	
CONTACT : E-MAIL :	DENNIS NIELD dgnield@westkeyconsulting.com	PH FAX	919-881-8020, ext 10
ELECTRICAL ENGINEER :	WEST KEY CONSULTING	4008 BARRETT DRIVE, SUITE 204 RALEIGH, NC 27609	
CONTACT : E-MAIL :	DENNIS NIELD dgnield@westkeyconsulting.com	PH FAX	919-881-8020, ext 10
INTERIOR DESIGNER:	MARY COOK & ASSOCIATES	4011 N. RAVENSWOOD AVE., SUITE 112 CHICAGO, IL 60613	
CONTACT : E-MAIL :	TARA HOUSTON thouston@marycook.com	PH	773-975-9500

PROJECT DATA*

OWNER :	TRI POINTE HOMES
PROJECT ADDRESS :	325 STREAMSIDE TERRACE, FUQUAY-VARINA, NC 27526
ZONING / TAX PARCEL NO. :	PARCEL ID: 080655 0034 04 PIN: 0645-84-979.000
BUILDING CLASSIFICATION:	CLUB HOUSE A-3, POOL EQUIPMENT BLDG. U, MAIL BOX BLDG. B
FIRE SPRINKLER:	CLUB HOUSE ONLY FIRE SPRINKLERS PER NFPA 13
TYPE OF CONSTRUCTION :	TYPE V-B
CODES :	2018 NORTH CAROLINA STATE BUILDING CODE 2018 NORTH CAROLINA STATE BUILDING CODE - ENERGY CONSERVATION CODE 2018 NORTH CAROLINA STATE BUILDING CODE - MECHANICAL CODE 2018 NORTH CAROLINA STATE BUILDING CODE - PLUMBING CODE 2018 NORTH CAROLINA STATE BUILDING CODE - FUEL GAS CODE 2018 NORTH CAROLINA STATE BUILDING CODE - FIRE PREVENTION CODE 2020 NORTH CAROLINA STATE BUILDING CODE - ELECTRICAL CODE 2009 ICC/ ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES ALL LOCAL CODES, AMENDMENTS AND ORDINANCES
GOVERNING BODY :	HARTNETT COUNTY, NORTH CAROLINA

*SEE SHEETS APD.1 OR COMPLETE CODE ANALYSIS SUMMARY.

SEQUENCE OF DRAWINGS

NOTICE TO CONTRACTOR
All construction must comply with current NC Building Codes and is subject to field inspection and verification.

Reviewed for Code Compliance

04/07/2025

Harnett COUNTY NORTH CAROLINA

This building to be sprinklered. NFPA13 system

Bassenian | Lagoni
ARCHITECTURE • PLANNING • INTERIORS
2031 ORCHARD DRIVE | NEWPORT BEACH, CA 92660 T 949.553.9100 F 949.553.0548

1st PLAN CHECK
Date: 02-21-25

REVISIONS

ALTIS SERENITY CLUB HOUSE
HARTNETT COUNTY NORTH CAROLINA

tri pointe HOMES

SHEET INDEX
VICINITY MAP
PROJECT INFO

ACover

JOB NUMBER: 667-24126

PLOT DATE: 2-21-25
FILE NAME: 4128 01 ACOVER

ABBREVIATIONS

A.B.	ANCHOR BOLT
ABV.	ABOVE
A/C	AIR CONDITIONING
ACOUS.	ACOUSTICAL
ADJ.	ADJACENT
ADJ.	ADJUSTABLE
AL.	ALUMINUM
ALT.	ALTERNATE
AMP.	AMPERAGE
AVG.	AVERAGE
AWNG.	AWNING
BD.	BOARD
BLDG.	BUILDING
BLK'G.	BLOCKING
BLT-IN	BUILT-IN
BM.	BEAM
B.N.	BOUNDARY NAILING
BRG.	BEARING
B.S.	BAR SINK
CABT.	CABINET
CALC.	CALCULATIONS
CMBR.	CAMBER
C.H.C.	CEILING HEIGHT CHANGE
C.I.	CAST IRON
C.J.	CEILING JOIST
℄	CENTER LINE
CLG.	CEILING
CLR.	CLEAR
CNTR.	COUNTER
CNTRTP.	COUNTER TOP
C.O.	CASED OPENING
CONC.	CONCRETE
CONTS.	CONTINUOUS
CPT.	CARPET
C.R.	CURTAIN ROD
CSMT.WDW.	CASEMENT WINDOW
C.T.	CERAMIC TILE
CULT.	CULTURED
D.	DRYER
DBL.	DOUBLE
D.F.	DOUGLAS FIR
DIA. OR Ø	DIAMETER
DIAG.	DIAGONAL
DIM.	DIMENSION
DISP.	DISPOSAL
DP.	DEEP
DR.	DOOR
DRP.	DROP
D.S.	DOWNSPOUT
DTL.	DETAIL
D.W.	DISHWASHER
DWG.	DRAWING
DWR.	DRAWER
EA.	EACH
ELECT.	ELECTRICAL
ELEV.	ELEVATION
E.N.	EDGE NAILING
EQ.	EQUAL
EXH.	EXHAUST
EXT.	EXTERIOR
E.W.	EACH WAY
FAU	FORCED AIR UNIT
F.D.	FINISHED DIMENSION
F.G.	FINISH GRADE
F.G.	FIXED GLASS
F.G.	FUEL GAS
FIN.	FINISH
FIN.FLR.	FINISH FLOOR
F.J.	FLOOR JOIST
FL.	FLUSH
FLUOR.	FLUORESCENT
F.M.C.	FLOOR MATERIAL CHANGE
F.N.	FIELD NAILING
FND.	FOUNDATION
F.O.C.	FACE OF CURB
F.O.H.C.	FREE OF HEART CENTERS
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUDS
FR.DR.	FRENCH DOOR
FTG.	FOOTING
GA.	GAUGE
GALV.	GALVANIZED
G.B.	GYPSUM BOARD
G.D.	GARBAGE DISPOSAL
G.D.O.	GARAGE DOOR OPERATOR
G.F.I.	GROUND-FAULT CIRCUIT-INTERRUPTER
G.I.	GALVANIZED IRON
GL.	GLASS
GRD.	GRADE
GRND.	GROUND
GYP.	GYPSUM
G.L.B.	GLUED-LAMINATED BEAM
G.T.	GIRDER TRUSS

H.C.	HOLLOW CORE
H.D.	HOLD DOWN ANCHOR
H.D.F.	HIGH DENSITY FOAM
HDR.	HEADER
HGT. OR HT.	HEIGHT
HNGR.	HANGER
INSUL.	INSULATION
INT.	INTERIOR
LAV.	LAVATORY
LAM.	LAMINATED
L.F.	LINEAL FEET/FOOT
L.L.	LOG LIGHTER
LUM.	LUMINOUS
LVR.	LOUVER
MAR.	MARBLE
MAS.	MASONRY
MAX.	MAXIMUM
M.B.	MACHINE BOLT
M.C.	MEDICINE CABINET
M.D.F.	MEDIUM DENSITY FIBERBOARD
M.D.O.	MEDIUM DENSITY OVERLAY
MFR.	MANUFACTURER
MIN.	MINIMUM
MIR.	MIRROR
M=L	MICRO LAM
M.O.	MASONRY OPENING
MTD.	MOUNTED
MTL.	METAL
N.G.	NATURAL GRADE
N.I.C.	NOT IN CONTRACT
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O/	OVER
O.A.	OVERALL
OBS.	OBSCURE
O.C. OR O/C	ON CENTER
O.H.	OVERHEAD
OPG.	OPENING
OSA	OUTSIDE AIR
O.S.B.	ORIENTED STRAND BOARD
P.B.	PUSH BUTTON
P.C.	PORTLAND CEMENT
P.C.	PULL CHAIN
P.C.F.	POUNDS PER CUBIC FOOT
PCE.	PIECE
PH.	PHONE
PLT.	PLATE
PLAS.	PLASTER
PLYWD.	PLYWOOD
PR.	PAIR
PSF	POUNDS/SQUARE FOOT
PSI	POUNDS/SQUARE INCH
P=L	PARALLAM
P.T.D.F.	PRESSURE TREATED DOUGLAS FIR
PVC	POLY VINYL CHLORIDE
R.	RISER
RAD. OR R.	RADIAL/RADIUS
R.A.G.	RETURN AIR GRILLE
RECPT.	RECEPTACLE
REF.	REFERENCE
REFER.	REFRIGERATOR
REINF.	REINFORCING
RE/S	RE-SAWN
REQ'D	REQUIRED
REV.	REVERSE
REV.	REVISION/REVISE
R.J.	ROOF JOIST
RND.	ROUND
RO-IN	ROUGH-IN
R.O.	ROUGH OPENING
RO/S	ROUGH SAWN
R.R.	ROOF RAFTER
RWD.	REDWOOD

S.	SINK
S.C.	SOLID CORE
SCH.	SCHEDULE
SCRND.	SCREENED
SEC.	SECOND
SECT.	SECTION
SEL.	SELECT
SEL.STR.	SELECT STRUCTURAL
SER.	SERVICE
S.H.	SINGLE HUNG
SHT.	SHEET
SHTHG.	SHEATHING
SHWR.	SHOWER
SL.	SLIDING
SPL.	SPLASH
SPN.	SILL PLATE NAILING
S & P	SHELF & POLE
S.S.	SERVICE SINK
STD.	STANDARD
S.V.	SHEET VINYL
STRUCT.	STRUCTURAL
SW.	SWITCH
T.	TREAD
T & B	TOP & BOTTOM
T.C.	TRASH COMPACTOR
TEMP.GL.	TEMPERED GLASS
T & G	TONGUE & GROOVE
TJI	TRUSS JOIST
T.O.C.	TOP OF CURB
T.O.M.	TOP OF MASONRY
T.O.S.	TOP OF SLAB
T.O.T.C.	TOP OF TOP CHORD
T.O.W.	TOP OF WALL
T.V.	TELEVISION
UNFIN.	UNFINISHED
U.	URINAL
U.N.O.	UNLESS NOTED OTHERWISE
VAN.	VANITY
VEN.	VENEER
VERT.	VERTICAL
V.G.	VERTICAL GRAIN
V.B.	VAPOR BARRIER
V.P.	VAPORPROOF
W.	WASHER
W/	WITH
W.C.	WATER CLOSET
WD.	WOOD
WDW.	WINDOW
W.H.	WATER HEATER
W/O	WITHOUT
W.P.	WEATHER PROOF
W/R	WARDROBE
WT.	WEIGHT

ROOM/AREA ABBREVIATIONS

BA.	BATH
BDRM.	BEDROOM
BRM.	BROOM
CLO.	CLOSET
DIN.	DINING
ENT.	ENTRY
FAM.	FAMILY
GAR.	GARAGE
KIT.	KITCHEN
LAU.	LAUNDRY
LIB.	LIBRARY
LIN.	LINEN
LIV.	LIVING
M.BA.	MASTER BATH
M.BR.	MASTER BEDROOM
M.DR.	MASTER DRESSING
PAN.	PANTRY
PDR.	POWDER ROOM
RTR.	RETREAT
SER.	SERVICE
STO.	STORAGE
W/R	WARDROBE
W.I.C	WALK-IN CLOSET

CODE ABBREVIATIONS

I.B.C.	INTERNATIONAL BUILDING CODE
I.R.C.	INTERNATIONAL RESIDENTIAL CODE
I.M.C.	INTERNATIONAL MECHANICAL CODE
I.P.C.	INTERNATIONAL PLUMBING CODE
N.E.C.	INTERNATIONAL ELECTRICAL CODE
I.C.C.	INTERNATIONAL CODE CONFERENCE

SYMBOLS

ARCHITECTURAL

▬	WOOD OR METAL STUD WALL (IN PLAN).
▨	WOOD OR STUD WALL. THERMAL OR SOUND INSULATED.
▧	BRICK OR CONCRETE BLOCK WALL OR VENEER.
░	PRE-CAST OR POURED-IN-PLACE CONCRETE WALL.
▤	WOOD, FINISH, 3/8" OR LARGER SCALE DETAIL.
⊠	WOOD, ROUGH, CONTINUOUS MEMBER, 3/8" OR LARGER SCALE DETAIL.
◿	WOOD, ROUGH, NON-CONTINUOUS MEMBER, 3/8" OR LARGER SCALE DETAIL.
∿	MINERAL WOOL OR FIBERGLASS BATT INSULATION.
⌐	DIFFERENTIAL IN FLOOR LEVELS OR FINISH SURFACE

GENERAL NOTES

(2018 INTERNATIONAL CODES)

DIVISION 1
GENERAL REQUIREMENTS

WORK PERFORMED SHALL COMPLY WITH THE FOLLOWING:
1. THESE GENERAL NOTES UNLESS OTHERWISE NOTED ON PLANS OR SPECIFICATIONS.
2. BUILDING CODE, APPLICABLE EDITION.
3. ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES, ORDINANCES, LAWS, REGULATIONS AND PROTECTIVE COVENANTS GOVERNING THE SITE OF WORK.
4. STANDARD SPECIFICATIONS OF ASTM.
5. IN CASE OF CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.
6. 'OR EQUAL' THE CONTRACTOR SHALL SUBMIT FOR THE ARCHITECTS AND BUILDERS APPROVAL ALL MATERIALS OR EQUIPMENT WHICH IS CONSIDERED 'OR EQUAL' TO THAT SPECIFIED.

ON SITE VERIFICATION OF ALL DIMENSIONS AND CONDITIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SUB-CONTRACTORS. NOTED DIMENSIONS TAKE PRECEDENT OVER SCALE. EACH CONTRACTOR OR SUB-CONTRACTOR SHALL REPORT TO PROJECT SUPERINTENDENT ALL CONDITIONS WHICH PREVENT THE PROPER EXECUTION OF THEIR WORK.

CLIENT'S ARCHITECT AND PROJECT SUPERINTENDENT TO BE NOTIFIED IMMEDIATELY BY CONTRACTOR OR SUB-CONTRACTOR SHOULD ANY DISCREPANCY OR OTHER QUESTION ARISE PERTAINING TO THE WORKING DRAWINGS AND / OR SPECIFICATIONS. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY ERRORS, DISCREPANCIES, OR OMISSIONS WHICH THE CONTRACTOR FAILED TO NOTIFY THE ARCHITECT OF BEFORE CONSTRUCTION AND / OR FABRICATION OF THE WORK.

SUB-CONTRACTOR SHALL INSURE THAT ALL WORK IS DONE IN A PROFESSIONAL WORKMANLIKE MANNER BY SKILLED MECHANICS AND SHALL REPLACE ANY MATERIALS OR ITEMS DAMAGED BY SUBCONTRACTORS PERFORMANCE. SUB-CONTRACTORS AND SUPPLIERS ARE HEREBY NOTIFIED THAT THEY ARE TO CONFER AND COOPERATE FULLY WITH EACH OTHER DURING THE COURSE OF CONSTRUCTION TO DETERMINE THE EXACT EXTENT AND OVERLAP OF EACH OTHERS' WORK AND TO SUCCESSFULLY COMPLETE THE EXECUTION OF THE WORK. ALL SUB-CONTRACTOR WORKMANSHIP WILL BE OF QUALITY TO PASS INSPECTIONS BY LOCAL AUTHORITIES, LENDING INSTITUTIONS, ARCHITECT OR BUILDER. ANY ONE OR ALL OF THE ABOVE MENTIONED INSPECTORS MAY INSPECT WORKMANSHIP AT ANY TIME, AND ANY CORRECTIONS NEEDED TO ENHANCE THE QUALITY OF BUILDING WILL BE DONE IMMEDIATELY. EACH SUB-CONTRACTOR, UNLESS SPECIFICALLY EXEMPTED BY THE TERMS OF HIS SUB-CONTRACT AGREEMENT, SHALL BE RESPONSIBLE FOR CLEANING UP AND REMOVING FROM THE JOB SITE ALL TRASH AND DEBRIS NOT LEFT BY OTHER SUB-CONTRACTORS. BUILDER WILL DETERMINE HOW SOON AFTER SUBCONTRACTOR COMPLETES EACH PHASE OF HIS WORK THAT TRASH AND DEBRIS WILL BE REMOVED FROM THE SITE.

STRUCTURAL ENGINEERING:
1. REFER TO THE CURRENT CALCULATIONS FOR ANY QUESTION REGARDING LUMBER GRADES, BEAM AND HEADER SIZES, FOOTING ~~AND SHEAR~~ REQUIREMENTS. 1
2. NO DEVIATIONS FROM STRUCTURAL DETAILS SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER. APPROVAL BY CITY INSPECTOR DOES NOT CONSTITUTE AUTHORITY TO DEVIATE FROM PLANS OR SPECIFICATIONS.

SOILS ENGINEERING:
1. REFER TO THE CURRENT SOILS REPORT FOR ANY QUESTIONS REGARDING SOIL REQUIREMENTS. (SEE COVER SHEET)

DIVISION 2
SITE WORK

1. ALL FOOTINGS SHALL REST ON FIRM NATURAL SOIL OR APPROVED (REFER TO SOILS REPORT).
2. REFER TO THE CURRENT CIVIL ENGINEERS GRADING AND PLOT PLANS.
3. REFER TO THE CURRENT LANDSCAPE ARCHITECTS GRADING AND CONSTRUCTION DOCUMENTS.
4. ALL FINISH GRADES TO DRAIN AWAY FROM THE BUILDING FOOTINGS.

DIVISION 3
CONCRETE

MATERIALS
1. CONCRETE STOOPS TO BE MACHINE MIXED AND PLACED IN ACCORDANCE WITH **I.B.C. SECTION 1906**. CONCRETE TO REACH A STRENGTH OF 2500 P.S.I. MINIMUM IN 28 DAYS. REFER TO STRUCTURAL ENGINEERS PLANS, SPECIFICATIONS AND CALCULATIONS FOR ALL OTHER STRUCTURAL CONCRETE REQUIREMENTS.

CONSTRUCTION
1. TOP OF CONCRETE SLABS TO BE MINIMUM 8" ABOVE FINISH GRADE.
2. REINFORCING BARS SHALL CONFORM TO **ASTM A-615-60** AND APPLICABLE I.B.C. STANDARDS. REFER TO STRUCTURAL ENGINEERS DRAWINGS.
3. SILL FASTENING - VERIFY WITH STRUCTURAL ENGINEERS DRAWINGS.

   EXTERIOR NON-BEARING AND EXTERIOR BEARING WALLS:
   5/8 INCH DIAMETER BY 10 INCH ANCHOR BOLTS WITH 3 INCHES BY 3 INCHES BY .229 INCH THICK PLATE WASHERS, 7 INCHES INTO CONCRETE SPACED NOT MORE THAN 6 FEET APART. THERE SHALL BE A MINIMUM OF TWO BOLTS PER PIECE WITH ONE BOLT LOCATED NOT MORE THAN 12 INCHES OR LESS THAN SEVEN BOLT DIAMETERS FROM EACH END OF THE PIECE UNLESS OTHERWISE NOTED ON PLANS OR STRUCTURAL ENGINEERS CALCULATIONS.

   INTERIOR BEARING WALLS:
   APPROVED 3/8 INCH DIAMETER SHOT PINS WITH 2 INCH DIAMETER CADMIUM WASHERS, 4 FEET ON CENTER MAXIMUM, 6 INCHES FROM CORNERS AND SPLICES UNLESS OTHERWISE NOTED ON PLANS OR STRUCTURAL ENGINEERS CALCULATIONS.

   INTERIOR NON-BEARING WALLS:
   APPROVED SHOT PINS WITH CADMIUM WASHERS, 4 FEET O/C MAXIMUM, 6 INCHES FROM CORNERS AND SPLICES UNLESS OTHERWISE NOTED ON PLANS OR STRUCTURAL ENGINEERS CALCULATIONS.
4. UNLESS OTHERWISE NOTED OR SHOWN ON PLANS, THE MINIMUM CLEAR DISTANCE OF THE REINFORCEMENT TO THE FACE OF THE CONCRETE SHALL BE:

   SLAB ON GRADE..............................2 INCHES
   CONCRETE AGAINST EARTH:
   FORMED...2 INCHES
   WITHOUT FORM....................................3 INCHES
5. FOUNDATION (WIDTHS AND DEPTHS) AND REINFORCING AS SHOWN ON PLANS ARE SUPERSEDED BY ANY LOCAL CODES OR ORDINANCES WHICH REQUIRE INCREASES OF THE SAME.
6. ALL LOAD BEARING FOOTINGS SHALL BE TO LEVEL UNDISTURBED SOIL TO DEPTH SHOWN ON DRAWINGS AND SHALL CONFORM WITH THE SOILS REPORT. REPORT ATTACHED AS PART OF PLANS.
7. PIPES MAY PASS THROUGH STRUCTURAL CONCRETE IN SLEEVES, BUT SHALL NOT BE EMBEDDED THEREIN. PIPES OR DUCTS EXCEEDING ONE-THIRD THE SLAB OR WALL THICKNESS SHALL NOT BE PLACED IN THE STRUCTURAL CONCRETE UNLESS SPECIFICALLY DETAILED.
8. DO NOT PLACE CONCRETE UNTIL ALL REINFORCEMENT, CONDUIT OUTLET BOXES, ANCHORS, HANGERS, SLEEVES, BOLTS OR OTHER EMBEDDED MATERIALS AND ITEMS ARE SECURELY AND PROPERLY FASTENED IN THEIR PROPER PLACES AND POSITION. SUB-CONTRACTOR SHALL VERIFY INSTALLATION OF HOLD-DOWN AND ANCHOR BOLTS, PA STRAPS AND OTHER ANCHORAGE MATERIAL AND ITEMS PRIOR TO PLACEMENT OF CONCRETE.
9. POST-TENSION SLABS, IF APPLICABLE:

   POST-TENSION LOADS FROM STRUCTURE ABOVE TO BE SUPPLIED TO POST-TENSION ENGINEER PRIOR TO POST-TENSION DESIGN. ANCHOR BOLTS AND OTHER HARDWARE TO BE SHOWN ON POST-TENSION PLANS TO AVOID MIS-LOCATION OF HARDWARE, AND POSSIBLE FIELD FIXES, WHICH MAY CUT TENDONS.

DIVISION 4
MASONRY

1. ALL MASONRY SHALL BE REINFORCED GROUTED MASONRY. GROUT SOLID ALL CELLS WHICH CONTAIN REBAR, BOLTS, ETC. GROUT SOLID ALL CELLS BELOW GRADE.
2. MORTAR SHALL BE TYPE 'S' MIXED IN THE PROPORTIONS OF 1 PART PORTLAND CEMENT TO 1/2 TO 1/4 PARTS LIME PUTTY TO 2 1/4 TO 3 TIMES THE SUM OF THE CEMENT PLUS LIME PUTTY PARTS OF SAND.
3. GROUT SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 2000 P.S.I. AND SHALL BE MIXED IN PROPORTIONS OF 1 PART PORTLAND CEMENT TO 1/10 PART LIME PUTTY TO 2 TO 3 PARTS SAND TO A MAXIMUM OF 2 PARTS GRAVEL.
4. AGGREGATES FOR MORTAR AND GROUT SHALL BE NATURAL SAND AND ROCK CONFORMING TO **ASTM C-144 (MORTAR) AND C-404 (GROUT).**
5. CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO **ASTM C-150**, TYPE I OR II, LOW ALKALI.
6. ALL CONCRETE BLOCK SHALL CONFORM TO **ASTM C90**, GRADE N-1.
7. ALL BRICK SHALL CONFORM TO **ASTM C62**, GRADE MW.
8. ALL REINFORCEMENT, BOLTS, ETC. SHALL HAVE A MINIMUM GROUT COVERAGE OF 3/4 INCH. ALL BRICK SHALL HAVE A MINIMUM OF 2-1/2 INCHES GROUT SPACE.
9. SEE THE ARCHITECTURAL DRAWINGS FOR TYPE OF UNITS, LAYING PATTERN AND JOINT DETAILS. UNLESS SPECIFICALLY SHOWN OTHERWISE, ALL CONCRETE BLOCK AND BRICK SHALL BE LAID IN RUNNING BOND.
10. SET BOLT, ANCHORS, REGLETS, SLEEVES, INSERTS OR OTHER ITEMS NECESSARY FOR THE ATTACHMENT OF SUBSEQUENT WORK.
11. WHEN ABSOLUTELY NECESSARY FOR CONSTRUCTION PURPOSES TO STOP OFF LONGITUDINAL RUNS OF MASONRY, STOP OFF ONLY BY RACKING BACK ONE HALF UNIT LENGTH IN EACH COURSE. TOOTHING SHALL NOT BE PERMITTED.

DIVISION 5
METALS

MATERIALS
1. STRUCTURAL STEEL AND MISCELLANEOUS IRON SHALL CONFORM TO **ASTM A-36.**
2. BOLTS, NUTS AND SCREWS SHALL CONFORM TO **ASTM A-307** GRADE 'A'.
3. WELDING RODS SHALL CONFORM TO **AWS** FOR INTENDED USE.
4. STEEL PLATES SHALL CONFORM TO **ASTM A-282**, GRADE 'A'.
5. STEEL TUBING SHALL CONFORM TO **ASTM A-501.**
6. DRYER VENT TO OUTSIDE AIR PER MANUFACTURER'S SPECIFICATIONS AND LOCAL JURISDICTIONAL REQUIREMENTS.

REINFORCING STEEL: (REFER TO STRUCTURAL ENGINEERS PLANS)
1. REINFORCING STEEL SHALL CONFORM TO **ASTM A-615**, GRADE 40 FOR SIZES #3 AND #4 AND GRADE 60 FOR SIZES #5 OR LARGER.
2. WELDED FABRIC (MESH) SHALL CONFORM TO THE LATEST REVISED **ASTM A-185.** SMOOTH WIRE FABRIC SHALL CONFORM TO ASTM A-85, YIELD STRENGTH 60 KSI. WELDING RODS SHALL CONFORM TO AWS FOR INTENDED USE.
3. WELDING OF REINFORCING STEEL SHALL CONFORM TO AWS D12-1 USING LOW HYDROGEN ELECTRODES.
4. ALL BARS IN MASONRY SHALL BE LAPPED WITH A MINIMUM OF 40 BAR DIAMS. (2'-0" MINIMUM) AT ALL SPLICES UNLESS NOTED OTHERWISE.
5. ALL BARS IN CONCRETE SHALL BE LAPPED A MINIMUM OF 36 BAR DIAMS. (2'-0" MINIMUM) AT ALL SPLICES UNLESS NOTED OTHERWISE.
6. SPLICES OF HORIZONTAL REBAR IN WALLS AND FOOTINGS SHALL BE STAGGERED 4'-0" MINIMUM.
7. DOWELS FOR WALLS AND COLUMNS SHALL BE THE SAME SIZE AND SPACING AS THE WALL / COLUMN REINFORCING UNLESS NOTED OTHERWISE.
8. ALL BENDING OF REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF THE INTERNATIONAL BUILDING CODE.

DIVISION 6
CARPENTRY

LUMBER
GRADES -
1. ALL LUMBER SHALL BE MARKED AND CONFORM WITH THE STANDARD GRADING AND DRESSING RULES P.S. 20-70 OF THE WEST COAST LUMBER INSPECTION BUREAU.
2. STUDS, JOISTS, RAFTERS, FOUNDATION PLATES, OR SILL, PLANKING 2 INCHES OR MORE IN DEPTH, BEAMS, STRINGERS, POSTS, STRUCTURAL SHEATHING AND SIMILAR LOAD-BEARING MEMBERS SHALL BE OF AT LEAST THE MINIMUM GRADE SET FORTH IN THE INTERNATIONAL BUILDING CODE, APPLICABLE EDITION; THE CURRENT STRUCTURAL ENGINEERS CALCULATIONS AND PLANS.
3. ALL EXPOSED BEAMS 4X OR LARGER ARE TO BE FOHC.
4. SIZES NOTED AND REFERENCED ARE NOMINAL SIZES. SEE PLANS FOR NET SIZE WHEN SPECIFIED.

GLUED LAMINATED LUMBER:
1. ALL FABRICATION AND WORKMANSHIP SHALL CONFORM TO THE CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR STRUCTURAL GLUED LAMINATED DOUGLAS FIR (COAST REGION) LUMBER BY THE WEST COAST LUMBERMEN'S ASSOCIATION AND THE CURRENT EDITION OF TIMBER CONSTRUCTION.
2. ALL GLUED LAMINATED MEMBERS SHALL BE DOUGLAS FIR, COMBINATION 24F WITH WATERPROOF RESORCINAL OR PHENOLRESORCINAL GLUE CONFORMING TO FEDERAL SPECIFICATION MIL-A-397-B. CORE LAMINATIONS MAY BE HEM FIR. USE COMBINATION 24F-V4 OR 24F-V5 FOR SIMPLY SUPPORTED BEAMS AND COMBINATION 24F-V8 OR 24F-V10 FOR CANTILEVERED BEAMS.
3. FINISH OF THE MEMBERS SHALL BE INDUSTRIAL APPEARANCE GRADE IN CONFORMANCE WITH THE STANDARD APPEARANCE GRADES OF THE A.I.T.C
4. A CERTIFICATE OF INSPECTION FOR EACH GLU-LAM BEAM FROM AN APPROVED TESTING AGENCY SHALL BE SUBMITTED TO AND APPROVED BY THE LOCAL BUILDING DEPARTMENT AND BY THE ENGINEER PRIOR TO ERECTION.

PROTECTION AGAINST DECAY AND TERMITES:
1. WOOD EMBEDDED IN THE GROUND OR IN DIRECT CONTACT WITH THE EARTH AND USED FOR THE SUPPORT OF PERMANENT STRUCTURES SHALL BE TREATED WOOD.
2. WOOD JOISTS OR THE BOTTOM OF WOOD FLOORS CLOSER THAN 18 INCHES, OR WOOD GIRDERS CLOSER THAN 12 INCHES TO THE GROUND UNDER-FLOOR AREAS AND THEIR SUPPORTS, SHALL BE TREATED WOOD OR ALL HEART-WOOD OF APPROVED NATURALLY DURABLE SPECIES AS LISTED IN THE INTERNATIONAL BUILDING CODE, APPLICABLE EDITION.

PLATES, SILLS AND SLEEPERS:
1. ALL FOUNDATION PLATES OR SILLS AND SLEEPERS ON A CONCRETE OR MASONRY SLAB, WHICH IS IN DIRECT CONTACT WITH EARTH, AND SILLS WHICH REST ON CONCRETE OR MASONRY FOUNDATIONS, SHALL BE PRESSURE TREATED WOOD OR FOUNDATION REDWOOD, ALL MARKED OR BRANDED BY AN APPROVED AGENCY.

COLUMNS AND POSTS:
1. POSTS OR COLUMNS SUPPORTING PERMANENT STRUCTURES AND SUPPORTED BY A CONCRETE OR MASONRY SLAB OR FOOTING THAT IS IN DIRECT CONTACT WITH THE EARTH SHALL BE OF NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD.

   EXCEPTIONS: POSTS OR COLUMNS THAT ARE EITHER EXPOSED TO THE WEATHER OR LOCATED IN BASEMENTS OR CELLARS, SUPPORTED BY CONCRETE PIERS OR METAL PEDESTALS PROJECTED AT LEAST 1 INCH ABOVE THE SLAB OR DECK AND 6 INCHES ABOVE EXPOSED EARTH.
2. POSTS OR COLUMNS IN ENCLOSED CRAWL SPACES OR UNEXCAVATED AREAS LOCATED WITHIN THE PERIPHERY OF THE BUILDING, SUPPORTED BY A CONCRETE PIER OR METAL PEDESTAL AT A HEIGHT GREATER THAN 8 INCHES FROM EXPOSED GROUND.

WOOD AND EARTH SEPARATION:
1. WOOD FRAMING MEMBERS, INCLUDING WOOD SHEATHING, THAT REST ON EXTERIOR FOUNDATION WALLS AND ARE LESS THAN 8 INCHES FROM EXPOSED EARTH SHALL BE OF NATURALLY DURABLE OR PRESERVATIVE-TREATED WOOD.

DIVISION 6
CARPENTRY (CONTINUED)

FOUNDATION VENTILATION:
UNDER-FLOOR AREAS SHALL BE VENTILATED BY AN APPROVED MECHANICAL MEANS OR BY OPENINGS INTO THE UNDER-FLOOR AREA WALLS. SUCH OPENINGS SHALL HAVE A NET AREA OF NOT LESS THAN 1 SQUARE FOOT FOR EACH 150 SQUARE FEET OF UNDER-FLOOR AREA. OPENINGS SHALL BE LOCATED AS CLOSE TO CORNERS AS PRACTICAL. OPENINGS SHALL BE LOCATED AS CLOSE TO CORNERS AS PRACTICAL AND SHALL PROVIDE CROSS VENTILATION. THE REQUIRED AREA OF SUCH OPENINGS SHALL BE APPROXIMATELY EQUALLY DISTRIBUTED ALONG THE LENGTH OF AT LEAST TWO OPPOSITE SIDES. THEY SHALL BE COVERED WITH CORROSION-RESISTANT WIRE MESH WITH MESH OPENINGS OF 1/4 INCH IN DIMENSION.

ROOF SHEATHING:
1. 1x4 OR 1x6 SPACED:

   WITH 1x6 SHIPLAP STARTER BOARD AT ALL EXPOSED EAVES (RESAWN FACE DOWN) SHALL BE STANDARD, 3 COMMON NO. 2, OR CONSTRUCTION COMMON GRADES AND SHALL BE SPACED NOT TO EXCEED 6 INCHES CLEAR NOR MORE THAN THE NOMINAL WIDTH OF THE SHEATHING BOARD.
2. PLYWOOD SHEATHING IS TO BE CONTINUOUS OVER TWO OR MORE SPANS AND IS TO BE MINIMUM 1/2 INCH THICK AND HAVE PANEL IDENTIFICATION INDEX AS REQUIRED FOR RAFTER SPACING (SEE PLANS):

   ALL PLYWOOD SHALL BE STRUCTURAL I AND II STANDARD SHEATHING, AND C-C GRADES ONLY, WITH EDGES BLOCKED OR UNBLOCKED AS REQUIRED FOR SPAN.
3. EACH SHEET OF PLYWOOD SHALL BE IDENTIFIED BY A REGISTERED STAMP OR BRAND OF THE AMERICAN PLYWOOD ASSOCIATION.

FLOOR SHEATHING:
1. PLYWOOD COMBINATION SUB-FLOOR UNDERLAYMENT SHEATHING CONTINUOUS OVER TWO OR MORE SPANS SHALL BE MINIMUM 5/8 INCH THICK TONGUE AND GROVE AND HAVE A PANEL IDENTIFICATION INDEX AS REQUIRED FOR THE FLOOR JOIST SPACING (SEE PLANS) AND SHALL BE UNDERLAYMENT GRADE, C-C (PLUGGED) AND ALL GRADES OF SANDED EXTERIOR TYPE PLYWOOD IN GROUP SPECIES OF 1, 2, OR 3.
2. GLUE FOR FLOOR SHEATHING SHALL CONFORM TO AMERICAN PLYWOOD ASSOCIATION SPEC. AFG-01.
3. EACH SHEET OF PLYWOOD SHALL BE IDENTIFIED BY A REGISTERED STAMP OR BRAND OF THE AMERICAN PLYWOOD ASSOCIATION.

FRAMING PRACTICES:
WORKMANSHIP -
ALL MEMBERS SHALL BE FRAMED, ANCHORED, TIED AND BRACED SO AS TO DEVELOP THE STRENGTH AND RIGIDITY NECESSARY FOR THE PURPOSES FOR WHICH THEY ARE USED.

BEAMS AND GIRDERS:
1. THE ENDS OF BEAMS OR GIRDERS SUPPORTED ON MASONRY OR CONCRETE SHALL HAVE NOT LESS THAN 3 INCHES OF BEARING.
2. ALL BEAMS OR GIRDERS SUPPORTED ON WOOD SHALL HAVE FULL BEARING AND BEARING SHALL BE COMPRISED OF ONE (1) SOLID SUPPORT OR A BUILT-UP SUPPORT CONSTRUCTED IN AN APPROVED MANNER UNLESS OTHERWISE SPECIFIED ON PLANS.
3. PROVIDE 2X4 TEMPORARY BRACING TO ALL BEAMS PROJECTING 3 FEET BEYOND BUILDING LINE TO PREVENT WARPAGE.

FLOOR JOISTS:
1. BEARING: EXCEPT WHERE JOISTS ARE SUPPORTED ON A 1-INCH BY 4-INCH RIBBON STRIP AND NAILED TO THE ADJOINING STUD, THE ENDS OF EACH JOIST SHALL HAVE NOT LESS THAN 1-1/2 INCHES OF BEARING ON WOOD OR METAL, NOR LESS THAN 3 INCHES ON MASONRY.
2. BLOCKING: JOISTS SHALL BE SUPPORTED LATERALLY AT THE ENDS AND AT EACH SUPPORT BY SOLID BLOCKING EXCEPT WHERE THE ENDS OF JOISTS ARE NAILED TO A HEADER, BAND OR RIM JOIST OR TO AN ADJOINING STUD OR BY OTHER APPROVED MEANS. SOLID BLOCKING SHALL BE NOT LESS THAN 2 INCHES NOMINAL IN THICKNESS AND THE FULL DEPTH OF JOIST.
3. NOTCHES AND HOLES: NOTCHES ON THE ENDS OF JOISTS SHALL NOT EXCEED ONE-FORTH OF THE JOIST DEPTH. HOLES BORED IN JOISTS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF THE JOIST, AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED ONE THIRD THE DEPTH OF THE JOIST. NOTCHES IN THE TOP OR BOTTOM OF JOISTS SHALL NOT EXCEED ONE SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN.
4. LAPS: JOISTS FRAMING FROM OPPOSITE SIDES OF A BEAM, GIRDER OR PARTITION SHALL BE LAPPED AT LEAST 4 INCHES OR THE OPPOSING JOISTS SHALL BE TIED TOGETHER IN AN APPROVED MANNER.
5. FRAMING ANCHORS: JOISTS FRAMING INTO THE SIDE OF A WOOD GIRDER OR PARTITION SHALL BE SUPPORTED BY FRAMING ANCHORS OR ON LEDGER STRIPS NOT LESS THAN 2 INCHES BY 2 INCHES.
6. FRAMING AROUND OPENINGS: TRIMMER AND HEADER JOISTS WHEN FRAMED AROUND OPENINGS SHALL BE DOUBLED, OR OF LUMBER OF EQUIVALENT CROSS SECTION, WHEN THE SPAN OF THE HEADER EXCEEDS 4 FEET. THE ENDS OF HEADER JOISTS MORE THAN 6 FEET LONG SHALL BE SUPPORTED BY FRAMING ANCHORS OR JOIST HANGERS UNLESS BEARING ON A BEAM, PARTITION OR WALL. TAIL JOISTS OVER 12 FEET LONG SHALL BE SUPPORTED AT HEADER BY FRAMING ANCHORS OR ON LEDGER STRIPS NOT LESS THAN 2 INCHES BY 2 INCHES.
7. SUPPORTING BEARING PARTITIONS: BEARING PARTITIONS PERPENDICULAR TO JOISTS SHALL NOT BE OFFSET FROM THE SUPPORTING GIRDERS, WALLS OR PARTITIONS MORE SUPPORTING GIRDERS, WALLS OR PARTITIONS MORE THAN THE JOIST DEPTH. JOISTS UNDER AND PARALLEL TO BEARING PARTITIONS SHALL BE DOUBLED.

ROOF AND CEILING FRAMING:
1. FRAMING RAFTERS SHALL BE FRAMED DIRECTLY OPPOSITE EACH OTHER AT THE RIDGE. THERE SHALL BE A RIDGE BOARD AT LEAST 2 INCHES AT THE RIDGE. THERE SHALL BE A RIDGE BOARD AT LEAST 2 INCHES NOMINAL THICKNESS AT ALL RIDGES AND NOT LESS IN DEPTH THAN THE CUT END OF THE RAFTER. AT ALL VALLEYS AND HIPS THERE SHALL BE A SINGLE VALLEY OR HIP RAFTER NOT LESS THAN 2 INCHES NOMINAL THICKNESS AND NOT LESS IN DEPTH THAN THE CUT END OF THE RAFTERS.
2. RAFTERS SHALL BE NAILED TO ADJACENT CEILING JOISTS TO FORM A CONTINUOUS TIE BETWEEN EXTERIOR WALLS WHEN SUCH JOISTS ARE PARALLEL TO THE RAFTERS. WHERE NOT PARALLEL, RAFTERS SHALL BE TIED TO 1 INCH BY 4 INCH (NOMINAL) MINIMUM SIZE CROSS TIES. RAFTER TIES SHALL BE SPACED NOT MORE THAN 4 FEET ON CENTER.
3. PURLINS TO SUPPORT ROOF LOADS MAY BE INSTALLED TO REDUCE THE SPAN OF RAFTERS WITHIN ALLOWABLE LIMITS AND SHALL BE SUPPORTED BY STRUTS TO BEARING WALLS. THE MAXIMUM SPAN OF 2 INCH BY 4 INCH PURLINS SHALL BE 4 FEET. THE MAXIMUM SPAN OF THE 2 INCH BY 6 INCH PURLIN SHALL BE 6 FEET BUT IN NO CASE SHALL THE PURLIN BE SMALLER THAN THE SUPPORTED RAFTER. STRUTS SHALL NOT BE SMALLER THAN 2 INCH BY 4 INCH MEMBERS. THE UNBRACED LENGTH OF STRUTS SHALL NOT EXCEED 8 FEET AND THE MINIMUM SLOPE OF THE STRUTS SHALL BE NOT LESS THAN 45 DEGREES FROM THE HORIZONTAL.
4. WOOD TRUSSES, IF APPLICABLE
   - A. MANUFACTURER SHALL SUPPLY TO THE ARCHITECT / ENGINEER AND THE BUILDING DEPARTMENT CALCULATIONS AND SHOP DRAWINGS FOR APPROVAL OF DESIGN LOADS, CONFIGURATION (2 OR 3 POINT BEARING), AND SHEAR TRANSFER, LOADS, PRIOR TO FABRICATION. ALL CALCULATIONS AND SHOP DRAWINGS SHALL BE SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE WHEREIN THE PROJECT IS TO BE BUILT. IT SHALL BE THE RESPONSIBILITY OF THE MANUFACTURER TO OBTAIN BUILDING DEPARTMENT APPROVAL OF CALCULATIONS AND SHOP DRAWINGS PRIOR TO FABRICATION.
   - B. TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST LOCAL BUILDING CODE FOR ALL LOADS IMPOSED, INCLUDING LATERAL LOADS AND MECHANICAL EQUIPMENT LOADS.
   - C. ALL CONNECTORS SHALL BE ICBO APPROVED AND OF ADEQUATE STRENGTH TO RESIST STRESSES DUE TO THE LOADINGS INVOLVED.
   - D. DEAD LOAD DEFLECTIONS SHALL BE LIMITED TO L/240.
   - E. CROSS BRIDGING AND/OR BRACING SHALL BE PROVIDED AND DETAILED AS REQUIRED TO ADEQUATELY BRACE ALL TRUSSES. SEE STRUCTURAL CALCULATIONS.

DIVISION 6
CARPENTRY (CONTINUED)

WALL FRAMING:
1. SIZE: STUDS IN EXTERIOR WALLS AND INTERIOR BEARING WALLS OF BUILDINGS NOT MORE THAN TWO STORIES IN HEIGHT SHALL BE NOT LESS THAN 2 INCHES BY 4 INCHES IN SIZE. FOR THREE-STORY BUILDINGS SUCH STUDS SHALL BE NOT LESS THAN 3 INCHES BY 4 INCHES OR 2 INCHES BY 6 INCHES TO THE BOTTOM OF THE SECOND FLOOR JOISTS, AND 2 INCHES BY 4 INCHES FOR THE TWO UPPER STORIES. INTERIOR NONBEARING PARTITIONS MAY BE FRAMED WITH 2 INCH BY 4 INCH STUDS.
2. HEIGHT: UNLESS SUPPORTED LATERALLY BY ADEQUATE FRAMING, THE MAXIMUM ALLOWABLE HEIGHT FOR STUDS SHALL BE 14 FEET FOR 2 INCH BY 4 INCH AND 3 INCH BY 4 INCH STUDS, AND 20 FEET FOR 2 INCH BY 6 INCH. REFER TO ENGINEERS CALCULATIONS FOR ANY 'BALLOON FRAMED' BEARING WALLS MORE THAN 10 FEET IN HEIGHT.
3. SPACING: STUDS SUPPORTING FLOORS AND CEILING OR RAFTERS SHALL BE SPACED NOT MORE THAN 16 INCHES.
4. CRIPPLE WALLS SHALL BE FRAMED ON STUDS NOT LESS IN SIZE THAN THE STUDDING ABOVE OR SHALL BE FRAMED OF SOLID BLOCKING. WHEN EXCEEDING 4 FEET IN HEIGHT, SUCH WALLS SHALL BE FRAMED OF STUDS HAVING THE SIZE REQUIRED FOR AN ADDITIONAL STORY.
5. HEADERS: ALL OPENINGS 4 FEET WIDE OR LESS IN BEARING WALLS SHALL BE PROVIDED WITH HEADERS CONSISTING OF EITHER TWO PIECES OF 2 INCH FRAMING LUMBER PLACED ON EDGE AND SECURELY FASTENED TOGETHER OR 4 INCH LUMBER OF EQUIVALENT CROSS SECTION. ALL OPENINGS MORE THAN 4 FEET WIDE SHALL BE PROVIDED WITH HEADERS OR LINTELS. EACH END OF A LINTEL OR HEADER SHALL HAVE A LENGTH OF BEARING OF NOT LESS THAN 1-1/2 INCHES FOR THE FULL WIDTH OF THE LINTEL. SEE FRAMING PLAN FOR SIZE.
6. PIPES IN WALLS: STUD PARTITIONS CONTAINING PLUMBING, HEATING, OR OTHER PIPES SHALL BE SO FRAMED AND THE JOISTS UNDERNEATH SO SPACED AS TO GIVE PROPER CLEARANCE FOR THE PIPING. WHERE A PARTITION CONTAINING SUCH PIPING RUNS PARALLEL TO THE FLOOR JOISTS, THE JOISTS UNDERNEATH SUCH PARTITIONS SHALL BE DOUBLED AND SPACED TO PERMIT THE PASSAGE OF SUCH PIPES AND SHALL BE BRIDGED. WHERE PLUMBING, HEATING OR OTHER PIPES ARE PLACED IN OR PARTLY IN A PARTITION, NECESSITATING THE CUTTING OF THE SOLES OR PLATES, A METAL TIE NOT LESS THAN 16 GALV. GAGE AND 1-1/2 INCHES WIDE SHALL BE FASTENED TO EACH PLATE ACROSS AND TO EACH SIDE OF THE OPENING WITH NOT LESS THAN SIX 16D NAILS.
7. BRIDGING: ALL STUD PARTITIONS OR WALLS WITH STUDS HAVING A HEIGHT-TO-AT-LEAST-THICKNESS RATIO EXCEEDING 50 SHALL HAVE BRIDGING NOT LESS THAN 2 INCHES IN THICKNESS AND OF THE SAME WIDTH AS THE STUDS FITTED SNUGLY AND NAILED THERETO TO PROVIDE ADEQUATE LATERAL SUPPORT.
8. CUTTING AND NOTCHING EXTERIOR WALLS AND BEARING PARTITIONS: ANY WOOD STUD MAY BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. CUTTING OR NOTCHING OF STUDS TO A DEPTH NOT GREATER THAN 40 PERCENT OF THE WIDTH OF THE STUD IS PERMITTED IN NONBEARING PARTITIONS SUPPORTING NO LOADS OTHER THAN THE WEIGHT OF THE PARTITIONS.
9. JOISTS, BEAMS, AND GIRDERS: USE LONGEST PRACTICABLE LENGTHS, PLACE WITH CROWN SIDE UP. WHERE MEMBERS CANTILEVER, PLACE CROWN SIDE DOWN.
10. BORED HOLES: A HOLE NOT GREATER IN DIAMETER THAN 40 PERCENT OF THE STUD WIDTH MAY BE BORED IN ANY WOOD STUD. BORED HOLES NOT GREATER THAN 60 PERCENT OF THE WIDTH OF THE STUD ARE PERMITTED IN NONBEARING PARTITIONS OR IN ANY WALL WHERE EACH STUD IS DOUBLED, PROVIDED NOT MORE THAN TWO SUCH SUCCESSIVE DOUBLE STUDS ARE SO BORED. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8 INCH TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF THE STUD AS A CUT OR NOTCH.
11. ROUGH WINDOW SILLS OVER 8 FEET IN LENGTH SHALL BE DOUBLED.
12. BLOCKING TO BE PROVIDED AT ALL HANDRAILS.
13. ALL BOLTS SHALL BE RETIGHTENED PRIOR TO THE APPLICATION OF SHEATHING, PLASTER, ETC.

FIRE BLOCKS AND DRAFT STOPS:
IN COMBUSTIBLE CONSTRUCTION, FIRE BLOCKING AND DRAFT STOPPING SHALL BE INSTALLED TO CUT OFF ALL CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND SHALL FORM AN EFFECTIVE BARRIER BETWEEN FLOORS, BETWEEN A TOP STORY AND ROOF OR ATTIC SPACE, AND SHALL SUBDIVIDE ATTIC SPACES, CONCEALED ROOF SPACES AND FLOOR - CEILING ASSEMBLIES. THE INTEGRITY OF ALL FIRE BLOCKS AND DRAFT STOPS SHALL BE MAINTAINED.

FIRE BLOCKS SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS:
1. IN CONCEALED SPACES OF STUD WALLS AND PARTITIONS, INCLUDING FURRED SPACES, AT FURRED SPACES, AT THE CEILING AND FLOOR LEVELS AND AT 10 FOOT INTERVALS BOTH VERTICAL AND HORIZONTAL.

   EXCEPTION: FIRE BLOCKS MAY BE OMITTED AT FLOOR AND CEILING LEVELS WHEN APPROVED SMOKE-ACTUATED FIRE DAMPERS ARE INSTALLED AT THESE LEVELS.
2. AT ALL INTERCONNECTIONS BETWEEN CONCEALED VERTICAL AND HORIZONTAL SPACES SUCH AS OCCUR AT SOFFITS, DROP CEILINGS AND COVE CEILINGS.
3. IN CONCEALED SPACES BETWEEN STAIR STRINGERS AT THE TOP AND BOTTOM OF THE RUN AND BETWEEN STUDS ALONG AND IN LINE WITH THE RUN OF STAIRS IF THE WALLS UNDER THE STAIRS ARE UNFINISHED.
4. IN OPENINGS AROUND VENTS, PIPES, DUCTS, CHIMNEYS, FIREPLACES AND SIMILAR OPENINGS WHICH AFFORD A PASSAGE FOR FIRE AT CEILING AND FLOOR LEVELS, WITH NON-COMBUSTIBLE MATERIALS.
5. AT OPENINGS BETWEEN ATTIC SPACES AND CHIMNEY CHASES FOR FACTORY BUILT CHIMNEYS.

FIRE BLOCK CONSTRUCTION:
1. EXCEPT AS PROVIDED IN ITEM 4 ABOVE, FIRE BLOCKING SHALL CONSIST OF 2 INCHES NOMINAL LUMBER OR TWO THICKNESSES OF 1 INCH NOMINAL LUMBER WITH BROKEN LAP JOINTS OR ONE THICKNESS OF 23/32 INCH WOOD STRUCTURAL PANEL WITH JOINTS BACKED BY 23/32 INCH WOOD STRUCTURAL PANEL, OR ONE THICKNESS OF 3/4 INCH TYPE 2-M PARTICLE BOARD WITH JOINTS BACKED BY 3/4 INCH TYPE 2-M PARTICLE BOARD.
2. FIRE BLOCKS MAY ALSO BE OF GYPSUM BOARD, GLASS FIBER, MINERAL FIBER OR OTHER APPROVED MATERIALS SECURELY FASTENED IN PLACE.
3. WALLS HAVING PARALLEL OR STAGGERED STUDS FOR SOUND TRANSMISSION CONTROL SHALL HAVE FIRE BLOCKS OF MINERAL FIBRE OR GLASS FIBRE OTHER APPROVED NON-RIGID OTHER APPROVED NON-RIGID MATERIAL.

DRAFT STOPS WHERE REQUIRED SHALL BE PROVIDED IN THE FOLLOWING LOCATIONS:
FLOOR-CEILING ASSEMBLIES.
1. SINGLE-FAMILY DWELLING. WHEN THERE IS USABLE SPACE ABOVE AND BELOW THE CONCEALED SPACE OF A FLOOR-CEILING ASSEMBLY IN A SINGLE-FAMILY DWELLING, DRAFT STOPS SHALL BE INSTALLED SO THAT THE AREA OF THE CONCEALED SPACE DOES NOT EXCEED 1,000 SQUARE FEET. DRAFT STOPPING SHALL DIVIDE THE CONCEALED SPACE INTO APPROXIMATELY EQUAL AREAS.
2. TWO OR MORE DWELLING UNITS. DRAFT STOPS SHALL BE INSTALLED IN FLOOR-CEILING ASSEMBLIES OF BUILDINGS HAVING MORE THAN ONE DWELLING UNIT. SUCH DRAFT STOPS SHALL BE IN LINE WITH WALLS SEPARATING INDIVIDUAL DWELLING UNITS AND FROM OTHER AREAS. DRAFT STOPS SHALL BE INSTALLED IN THE ATTICS, MANSARDS, OVERHANGS, FALSE FRONTS SET OUT FROM WALLS AND SIMILAR CONCEALED SPACES OF BUILDINGS CONTAINING MORE THAN ONE DWELLING UNIT.

DRAFT STOP CONSTRUCTION:
1. DRAFT STOPPING MATERIALS SHALL NOT BE LESS THAN 1/2 INCH GYPSUM BOARD, 3/8 INCH WOOD STRUCTURAL PANEL, TYPE 2-M PARTICLE BOARD OR OTHER APPROVED MATERIALS ADEQUATELY SUPPORTED.

ALL STAIRWAYS, LANDINGS, GUARDS AND HANDRAILS:
1. SHALL COMPLY FULLY WITH **I.B.C. SECTION 1009, 1011, 1012 AND 1014**. REQUIRED HANDRAILS AT STAIRWAYS SHALL BE CONTINUOUS THE FULL LENGTH OF THE STAIRS AND MAY BE INTERRUPTED ONLY AT A LANDING AS DEFINED IN **I.B.C. 1014.4**

TEMPORARY WALL BRACING:
1. FRAMER IS RESPONSIBLE FOR INSTALLING TEMPORARY WALL BRACING TO ADEQUATELY SUPPORT FRAMING DURING CONSTRUCTION. THIS BRACING TO REMAIN IN PLACE UNTIL STRUCTURAL INTEGRITY HAS BEEN ACHIEVED.

KENNETH C. NIEMERSKI
Reg. No. 12022
6/30/2025

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1st PLAN CHECK
Date: 02-21-25

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CLUB HOUSE
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NORTH CAROLINA

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GENERAL NOTES
(2018 INTERNATIONAL CODE)

AGN.1

JOB NUMBER: 667-24126

PLOT DATE: 2-20-25
FILE NAME: 4126_02 AGN-IBC-2018

GENERAL NOTES

(2018 INTERNATIONAL CODES)

DIVISION 6
CARPENTRY
(CONTINUED)

ATTIC VENTILATION:

ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF FRAMING MEMBERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN AND SNOW. BLOCKING AND BRIDGING SHALL BE ARRANGED SO AS NOT TO INTERFERE WITH THE MOVEMENT OF AIR. A MINIMUM OF 1 INCH OF AIRSPACE SHALL BE PROVIDED BETWEEN THE INSULATION AND THE ROOF SHEATHING. NET FREE VENTILATION AREA SHALL COMPLY WITH **I.B.C. 1203.2**

1. NET FREE VENTING AREA PROVIDED BY EACH VENT IS BASED ON ASSUMED VENT SIZE AND FREE AREAS. FIELD VERIFY THAT THE MINIMUM "REQUIRED VENTING" AS LISTED IN THE ATTIC VENT CALCULATIONS IS PROVIDED WHEN THE FREE VENTING FOR INDIVIDUAL VENTS IS DIFFERENT THAN THOSE LISTED IN THE ATTIC VENT CALCULATIONS.
2. ALL VENT OPENINGS SHALL BE COVERED WITH CORROSION-RESISTANT WIRE CLOTH SCREENING, HARDWARE CLOTH, PERFORATED VINYL OR SIMILAR MATERIAL THAT WILL PREVENT THE ENTRY OF BIRDS, SQUIRRELS RODENTS, SNAKES AND OTHER SIMILAR CREATURES. THE OPENINGS THEREIN SHALL SHALL BE A MINIMUM OF 1/16 INCH AND SHALL NOT EXCEED 1/4 INCH.
3. FRAMER SHALL BE RESPONSIBLE FOR COORDINATING W/ TRUSS MANUFACTURER TO ACCOMMODATE ALL ATTIC VENTS.
4. ALL VENTS SHALL BE INSTALLED SO AS TO MAKE THEM WEATHER-PROOF AND WALL MOUNTED LOUVERS SHALL BE SEALED AND FLASHED IN THE SAME MANNER PRESCRIBED FOR WINDOW INSTALLATIONS.
5. PROVIDE APPROVED INSULATION DAMS (BAFFLES) WHERE VENT BLOCKS ARE USED BETWEEN ROOF FRAMING MEMBERS TO PREVENT VENT HOLES FROM BEING BLOCKED BY INSULATION.

DIVISION 7
THERMAL & MOISTURE PROTECTION

FLASHING AND COUNTERFLASHING:

1. EXTERIOR OPENINGS EXPOSED TO THE WEATHER SHALL BE FLASHED IN SUCH A MANNER AS TO MAKE THEM WEATHERPROOF. FLASHING AND COUNTERFLASHING SHALL BE PROVIDED AT THE JUNCTION OF THE ROOF AND VERTICAL SURFACES (WALLS, ETC.).

   ALL PARAPETS SHALL BE PROVIDED WITH COPING OF APPROVED MATERIALS. ALL FLASHING, COUNTERFLASHING AND COPING, WHEN OF METAL, SHALL BE OF NOT LESS THAN NO. 26 U.S. GAUGE CORROSION-RESISTANT METAL.

ROOF VALLEY FLASHING SHALL BE PROVIDED FOR SHINGLES AS FOLLOWS:

1. ASPHALT SHINGLES: THE ROOF VALLEY FLASHING SHALL BE THE SAME AS REQUIRED FOR WOOD SHINGLES OR SHALL BE OF LACED ASPHALT SHINGLES APPLIED IN AN APPROVED MANNER WITH AN UNDERLAYMENT OF NOT LESS THAN TYPE 15 FELT EXTENDING 18 INCHES FROM THE CENTER LINE EACH WAY, OR SHALL BE OF TWO LAYERS OF 90-POUND MINERAL SURFACED CAP SHEET CEMENTED TOGETHER WITH THE BOTTOM LAYER NOT LESS THAN 12 INCHES WIDE LAID FACE DOWN AND THE TOP LAYER NOT LESS THAN 24 INCHES WIDE LAID FACE UP.
2. SLATE SHINGLES, AND CLAY AND CONCRETE TILE: THE ROOF VALLEY FLASHING SHALL BE PROVIDED OF NOT LESS THAN NO. 26 GALVANIZED SHEET GAUGE CORROSION-RESISTANT METAL APPLIED OVER AN UNDERLAYMENT OF NOT LESS THAN 30# A.S.T.M. FELT. THE METAL SHALL EXTEND AT LEAST 12 INCHES FROM THE CENTERLINE EACH WAY AND SHALL HAVE A SPLASH DIVERTER RIB NOT LESS THAN 4 INCHES.

   FLASH AND COUNTERFLASH AT ALL ROOF TO WALL CONDITIONS. G.I. FLASH AND CAULK WOOD BEAMS AND OUTLOOKERS PROJECTED THROUGH EXTERIOR WALLS OR ROOF SURFACES. WHERE EXPOSED TO WEATHER, FLASH ALL HORIZONTAL WOOD TRIM BUTTING TO EXTERIOR FINISH.

SKYLIGHTS:

1. SKYLIGHTS ARE TO BE CONSTRUCTED AND INSTALLED AS PER MANUFACTURERS SPECIFICATIONS AND **I.B.C. 2405**

WATERPROOFING WEATHER-EXPOSED AREAS:

BALCONIES, LANDINGS, EXTERIOR STAIRWAYS, OCCUPIED ROOFS AND SIMILAR SURFACES EXPOSED TO THE WEATHER AND SEALED UNDERNEATH SHALL BE WATERPROOFED AND SLOPED A MINIMUM OF 1/4 UNIT VERTICAL IN 12 UNITS HORIZONTAL (2% SLOPE) FOR DRAINAGE.

DAMPROOFING FOUNDATION WALLS:

1. UNLESS OTHERWISE APPROVED BY THE BUILDING OFFICIAL FOUNDATION WALLS ENCLOSING A BASEMENT BELOW FINISHED GRADE SHALL BE DAMPPROOFED OUTSIDE BY APPROVED METHODS AND MATERIALS.

INSULATION:
SEE ENERGY COMPLIANCE CALCULATIONS FOR ENERGY EFFICIENCY REQUIREMENTS.

1. THE FOLLOWING OPENINGS IN THE BUILDING ENVELOPE MUST BE CAULKED, SEALED CAULKED, SEALED OR WEATHERSTRIPPED:
   - EXTERIOR JOINTS AROUND WINDOW AND DOOR FRAMES, BETWEEN WALL PANELS, WALL SOLE PLATES AND FLOORS;
   - OPENINGS FOR PLUMBING, ELECTRICAL AND GAS LINES IN EXTERIOR AND INTERIOR WALLS, CEILINGS AND FLOORS;
   - OPENINGS IN THE ATTIC FLOOR (SUCH AS WHERE CEILING PANELS MEET INTERIOR AND EXTERIOR WALLS AND MASONRY FIREPLACES);
   - AND ALL OTHER SUCH OPENING IN THE BUILDING ENVELOPE.

ALTERNATIVE APPROVED TECHNIQUES MAY BE USED TO MEET THE STANDARD CAULKING REQUIREMENTS FOR EXTERIOR WALLS, INCLUDING BUT NOT LIMITED TO, CONTINUOUS STUCCO, CAULKING OR TAPING OF ALL JOINTS BETWEEN WALL COMPONENTS (E.G., BETWEEN SLATS IN WOOD SLAT WALLS), BUILDING WRAPS, OR RIGID WALL INSULATION.

2. BUILDER AND INSULATION INSTALLER ARE TO PROVIDE A CERTIFICATE OF INSULATION AND POST IN THE BUILDING IN A CONSPICUOUS LOCATION.
3. SEE PLANS FOR PARTY WALL CONDITIONS.

DIVISION 7
THERMAL & MOISTURE PROTECTION
(CONTINUED)

EXTERIOR WALL COVERINGS:

1. WEATHER RESISTIVE BARRIER -
   PROVIDE ONE (1) LAYER 60 MINUTE GRADE 'D' PAPER MINIMUM UNDER ALL EXTERIOR FINISHES. (2 LAYERS OVER WOOD BASE SHEATHING BEHIND EXTERIOR PLASTER).

MATERIALS:

1. ALL EXTERIOR MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE **INTERNATIONAL BUILDING CODE**, APPLICABLE EDITION, STATE AND LOCAL CODES.
2. SIDING: SOLID WOOD SIDING SHALL HAVE AN AVERAGE THICKNESS OF 3/8 INCH UNLESS PLACED OVER SHEATHING PERMITTED BY I.B.C. SIDING PATTERNS KNOWN AS RUSTIC, DROP SIDING OR SHIPLAP SHALL HAVE AN AVERAGE THICKNESS IN PLACE OF NOT LESS THAN 19/32 INCH AND SHALL HAVE A MINIMUM THICKNESS OF NOT LESS THAN 3/8 INCH. BEVEL SIDING SHALL HAVE A MINIMUM THICKNESS MEASURED AT THE BUTT SECTION OF NOT LESS THAN 7/16 INCH AND A TIP THICKNESS OF NOT LESS THAN 3/16 INCH. ALL WEATHERBOARDING OR SIDING SHALL BE SECURELY NAILED TO EACH STUD WITH NOT LESS THAN ONE NAIL OR 15/32 INCH WOOD STRUCTURAL PANEL SHEATHING OR 1/2 INCH PARTICLE BOARD SHEATHING WITH NOT LESS THAN ONE LINE OF NAILS SPACED NOT MORE THAN 24 INCHES ON CENTER IN EACH PIECE OF THE WEATHERBOARDING OR SIDING.
3. WHERE HARDBOARD SIDING IS USED FOR COVERING THE OUTSIDE OF EXTERIOR WALLS, IT SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE, APPLICABLE EDITION, STATE AND LOCAL CODES. LAP SIDING SHALL BE INSTALLED HORIZONTALLY AND APPLIED TO SHEATHED OR UNSHEATHED WALLS. CORNER BRACING SHALL BE INSTALLED TO CONFORM WITH **I.B.C. REQUIREMENTS**.
4. VINYL SIDING MAY BE INSTALLED ON EXTERIOR WALLS ACCORDING TO THE REQUIREMENTS OF **I.B.C. SECTION 1405.14** AND SHALL BE SECURED TO THE BUILDING SO AS TO PROVIDE WEATHER PROTECTION FOR THE EXTERIOR WALLS.
5. GRADE 'D' PAPER SHALL BE INSTALLED UNDER LAP SIDING. ALL FASTENERS USED FOR THE ATTACHMENT OF SIDING SHALL BE OF A CORROSION-RESISTANT TYPE. NAIL SIZE AND SPACING SHALL MEET I.B.C. REQUIREMENTS AND SHALL PENETRATE FRAMING 1-1/2". LAP SIDING SHALL OVERLAP 1 INCH MINIMUM AND BE NAILED THROUGH BOTH COURSES AND INTO FRAMING MEMBERS WITH NAILS LOCATED 1/2 INCH FROM BOTTOM OF THE OVERLAPPED COURSE, OR TO MANUFACTURERS SPECIFICATIONS.

ASPHALT COMPOSITION SHINGLES:

1. ASPHALT COMPOSITION SHINGLES TO BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS AND **I.B.C. 1507.2.** WEIGHT, COLOR, AND MATERIAL TO BE APPROVED BY ARCHITECT AND/OR OWNER.

CLAY TILE / CONCRETE TILE:

1. ROOF TILE SHALL BE INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS AND **I.B.C. 1507.3.** COLOR AND SHAPE TO BE APPROVED BY ARCHITECT AND/OR OWNER.
2. PROVIDE NAILING AND WIND CLIPS PER MANUFACTURER'S PUBLISHED INSTALLATION PROCEDURES.

BUILT-UP ROOFING MATERIALS:

1. EACH PACKAGE OF FELTS, CEMENTS, AND BASE-, PLY-COMBINATION OR CAP SHEETS SHALL BEAR THE LABEL OF AN APPROVED TESTING LABORATORY HAVING A SERVICE FOR THE INSPECTION OF MATERIAL AND FINISHED PRODUCTS DURING MANUFACTURE FOR SUCH BUILT-UP ROOFING MATERIAL.
2. BUILT-UP ROOFING SHALL BE APPLIED TO SOLID ROOF SHEATHINGS AS SPECIFIED IN DIVISION 6 OF THESE GENERAL NOTES.
3. BASE SHEETS SHALL BE NAILED, USING NOT LESS THAN ONE NAIL PER EACH 1-1/3 SQUARE FOOT WITH NAILS OF THE TYPE REQUIRED BY THE MANUFACTURER FOR THE TYPE OF DECK. SUCCESSIVE LAYERS SHALL BE CEMENTED TO THE BASE SHEETS USING 20 POUNDS OF HOT ASPHALT FOR SOLID MOPPING (10 POUNDS FOR SPOT OR STRIP-MOPPING), OR NOT LESS THAN TWO GALLONS OF COLD BITUMINOUS COMPOUND IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED SPECIFICATIONS, OR 30 POUNDS OF HOT COAT TAR PITCH PER ROOFING SQUARE.
4. MINERAL AGGREGATE SURFACED ROOFS SHALL BE SURFACED WITH NOT LESS THAN 60 POUNDS OF HOT ASPHALT OR OTHER CEMENTING MATERIAL IN WHICH IS EMBEDDED NOT LESS THAN 400 POUNDS OF GRAVEL OR OTHER APPROVED SURFACING MATERIAL OR 300 POUNDS OF CRUSHED SLAG PER ROOFING SQUARE. COLOR TO BE APPROVED BY ARCHITECT.
5. CAP SHEETS SHALL BE CEMENTED TO THE BASE SHEETS USING NOT LESS CEMENTING MATERIAL THAN THAT SPECIFIED FOR SOLIDLY CEMENTED BASE SHEETS.

MEMBRANE WATER RESISTIVE BARRIER:

1. MEMBRANE "WATERPROOFING" SHALL BE INSTALLED TO PREPARED SURFACES BY SKILLED AND QUALIFIED MECHANICS AND SHALL CONFORM TO THE FOLLOWING:

MATERIALS:

- A. ASPHALT PRIMER: CONFORM TO ASTM D41.
- B. ASPHALT EMULSION: CONFORM TO ASTM D1187, FLINTKOTE C-13 OR EQUAL.
- C. GLASS CLOTH: CONFORM TO FS HH-C-466B, FLINTKOTE 'YELLOW JACKET' OR EQUAL.
- D. PROTECTION COURSE: CONFORM TO FS HH-I-526C, FLINTKOTE 'FLINTGLAS' OR MINIMUM 3/8 INCH THICK GYPSUM BOARD. SUMMARY OF MATERIALS PER 100 SQUARE FEET.

Asphalt emulsion primer (1-1/2 gallons)	15 lbs.
First course C-13-E (3 gallons)	30 lbs.
Second course glass fabric	1 lbs.
Third course C-13-E	30 lbs.
Fourth course C-13-E (3 gallons)	30 lbs.
Approximate total weight (wet)	106 lbs.

BALCONY AND DECK COATING:

1. ELASTOMERIC OR MEMBRANE DECK COATINGS SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS. COLOR AND FINISH AND DETAILING TO BE APPROVED BY ARCHITECT AND/OR OWNER.

EXTERIOR DECKS:

1. DECKS, BALCONIES, LANDINGS, EXTERIOR STAIRWAYS AND SIMILAR SURFACES EXPOSED TO THE WEATHER AND SEALED UNDERNEATH SHALL BE WATERPROOFED.
2. ALL EXTERIOR DECKS AND BALCONIES EXPOSED TO WEATHER SHALL BE CONSTRUCTED WITH SUFFICIENT SLOPE (MINIMUM 1/4" PER FOOT) TO ENSURE ADEQUATE DRAINAGE.
3. UNLESS DESIGNED TO DRAIN OVER DECK EDGES, DRAINS AND OVERFLOWS OF ADEQUATE SIZE SHALL BE INSTALLED AT THE LOW POINTS OF THE DECK.
4. PROVIDE MINIMUM 2 INCHES (U.N.O.) DROP FROM FINISHED INTERIOR FLOOR TO THE HIGHEST FLOOR LEVEL ON ANY ADJOINING DECK OR BALCONY.

DIVISION 8
DOORS & WINDOWS
(CONTINUED)

WINDOWS AND DOORS:

1. SEE FLOOR PLANS FOR SIZE AND TYPE. COLOR SHALL BE AS APPROVED BY ARCHITECT.
2. ALUMINUM SURFACES TO BE PLACED IN CONTACT WITH WOOD, CONCRETE OR MASONRY CONSTRUCTION, EXCEPT WHERE THE ALUMINUM IS TO BE EMBEDDED IN CONCRETE, SHALL BE GIVEN A HEAVY COAT OF AN ALKALI-RESISTANT BITUMINOUS PAINT BEFORE INSTALLATION. THE BITUMINOUS PAINT USED SHALL MEET THE REQUIREMENTS OF UNITED STATES MILITARY SPECIFICATION MIL-P-6883. THE PAINT SHALL BE APPLIED AS IT IS RECEIVED FROM THE MANUFACTURER WITHOUT THE ADDITION OF ANY THINNER.
3. ALUMINUM SURFACES TO BE EMBEDDED IN CONCRETE ORDINARILY NEED NOT BE PAINTED UNLESS CORROSIVE COMPONENTS ARE ADDED TO THE CONCRETE IS SUBJECTED FOR EXTENDED PERIODS TO EXTREMELY CORROSIVE CONDITIONS. IN SUCH CASES, ALUMINUM SURFACES SHALL BE GIVEN ONE COAT OF SUITABLE QUALITY PAINT, SUCH AS ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-645 OR EQUIVALENT, OR SHALL BE WRAPPED WITH A SUITABLE PLASTIC TAPE APPLIED IN SUCH A MANNER AS TO PROVIDE ADEQUATE PROTECTION AT THE OVERLAP.

GARAGE DOORS:

1. SPRING MUST BE CONTAINED WITH A RESTRAINT DEVICE TO ANCHOR THE SPRING OR ANY PART THEREOF IN THE EVENT IT FRACTURES.
2. ALL GARAGE DOOR OPENERS REQUIRE THE INCLUSION OF A PHOTO-ELECTRIC SENSOR, EDGE SENSOR, OR SOME OTHER SIMILAR DEVISE FOR REMOTE OPERATION.

GLASS AND GLAZING (SAFETY GLAZING):
GLAZING INSTALLED IN HAZARDOUS LOCATIONS, SUBJECT TO HUMAN IMPACT SHALL COMPLY WITH **I.B.C. 2406.4**, (SAFETY GLASS), APPLICABLE EDITION AND STATE AND LOCAL CODES. THE FOLLOWING ARE CONSIDERED AS HAZARDOUS LOCATIONS FOR THE PURPOSE OF GLAZING.

1. GLAZING IN ENTRANCE AND EXIT DOORS.
2. GLAZING IN FIXED AND SLIDING PANELS OF SLIDING DOOR ASSEMBLIES AND PANELS IN SWINGING DOORS OTHER THAN WARDROBE DOORS.
3. GLAZING IN STORM DOORS.
4. GLAZING IN ALL UNFRAMED SWINGING DOORS.
5. GLAZING IN DOORS AND ENCLOSURES FOR HOT TUBS, WHIRLPOOLS, SAUNAS, STEAM ROOMS, BATHTUBS AND SHOWERS. GLAZING IN ANY PORTION OF A BUILDING WALL ENCLOSING THESE COMPARTMENTS WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THEN 60 INCHES ABOVE A STANDING SURFACE AND DRAIN INLET.
6. GLAZING IN FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST EXPOSED EDGE OF THE GLAZING IS WITHIN A 24 INCH ARC OF EITHER VERTICAL EDGE OF THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM EXPOSED EDGE OF THE GLAZING IS LESS THEN 60 INCHES ABOVE THE WALKING SURFACE.
7. GLAZING IN FIXED PANELS WHICH HAVE A GLAZED AREA IN EXCESS OF 9 SQUARE FEET AND THE LOWEST EDGE IS LESS THAN 18 INCHES ABOVE THE FINISHED FLOOR LEVEL OR WALKING SURFACE WITHIN 36 INCHES OF SUCH GLAZING. IN LIEU OF SAFETY GLAZING, SUCH GLAZED PANELS MAY BE PROTECTED WITH A HORIZONTAL MEMBER NOT LESS THAN 1-1/2 INCHES IN WIDTH WHEN LOCATED BETWEEN 24 AND 36 INCHES ABOVE THE WALKING SURFACE.
8. GLAZING IN THE RAILING REGARDLESS OF HEIGHT ABOVE A WALKING SURFACE. THIS INCLUDES STRUCTURAL BALUSTER PANELS AND NON-STRUCTURAL IN-FILL PANELS.
9. GLAZING IN WALLS AND FENCES USED AS THE BARRIER FOR INDOOR AND OUTDOOR SWIMMING POOLS AND SPAS WHEN ALL OF THE FOLLOWING CONDITIONS ARE PRESENT:
   - 9.1. THE BOTTOM EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE THE POOL SIDE OF THE GLAZING.
   - 9.2. THE GLAZING IS WITHIN 5 FEET OF A SWIMMING POOL OR SPA DECK AREA.
10. GLAZING IN WALLS ENCLOSING A STAIRWAY LANDINGS OR WITHIN 5 FEET OF THE BOTTOM AND TOP OF STAIRWAYS WHERE THE BOTTOM EDGE OF THE GLASS IS LESS THAN 60 INCHES ABOVE A WALKING SURFACE.
11. GLAZING IN WARDROBE DOORS SHALL MEET THE IMPACT TEST REQUIREMENTS FOR SAFETY GLAZING AS SET FORTH IN C.B.C. STANDARD NO. 24-2, PART II. LAMINATED GLASS SHALL ALSO MEET THE BOIL TEST REQUIREMENTS OF THE SAME STANDARD. MIRROR PANELS SHALL BE SAFETY GLAZED TO CONFORM WITH ANSI Z97.1.
12. HINGED SHOWER DOORS SHALL OPEN OUTWARD.

WEATHER STRIPPING:

1. ALL SLIDING, SWINGING DOORS AND WINDOWS OPENING TO THE EXTERIOR OR TO UNCONDITIONED AREAS SHALL BE FULLY WEATHER STRIPPED, GASKETED OR OTHERWISE TREATED TO LIMIT AIR INFILTRATION.
2. ALL MANUFACTURED WINDOWS AND SLIDING GLASS DOORS SHALL MEET THE AIR INFILTRATION STANDARDS OF THE CURRENT AMERICAN NATIONAL STANDARDS INSTITUTE ASTM E283-73 WITH A PRESSURE DIFFERENTIAL OF 1.57 POUNDS PER SQUARE FOOT AND SHALL BE CERTIFIED AND LABELED.

EXITS AND EMERGENCY ESCAPES:

1. BASEMENTS IN DWELLING UNITS AND EVERY SLEEPING ROOM SHALL HAVE AT LEAST ONE OPERABLE WINDOW OR DOOR APPROVED FOR EMERGENCY ESCAPE OR RESCUE WHICH SHALL OPEN DIRECTLY INTO A PUBLIC STREET, PUBLIC ALLEY, YARD OR EXIT COURT. THE UNITS SHALL BE OPERABLE FROM THE INSIDE TO PROVIDE A FULL CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS.
2. ALL ESCAPE OR RESCUE WINDOWS SHALL HAVE A MINIMUM NET CLEAR OPERABLE AREA OF 5.7 SQUARE FEET. THE MINIMUM NET CLEAR OPERABLE HEIGHT DIMENSION SHALL BE 24 INCHES. THE MINIMUM NET CLEAR OPERABLE WIDTH DIMENSION SHALL BE 20 INCHES. WHEN WINDOWS ARE PROVIDED AS A MEANS OF ESCAPE OR RESCUE THEY SHALL HAVE A FINISHED SILL HEIGHT NOT MORE THAN 44 INCHES ABOVE THE FLOOR.

DIVISION 9
FINISHES

GYPSUM WALLBOARD:

1. ALL GYPSUM WALLBOARD SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THE **I.B.C.**, APPLICABLE EDITION, STATE AND LOCAL CODES.
2. GYPSUM WALLBOARD SHALL NOT BE INSTALLED UNTIL WEATHER PROTECTION FOR INSTALLATION IS PROVIDED.
3. ALL EDGES AND ENDS OF GYPSUM WALLBOARD SHALL OCCUR ON THE FRAMING MEMBERS, EXCEPT THOSE EDGES AND ENDS WHICH ARE PERPENDICULAR TO THE FRAMING MEMBERS. ALL EDGES AND ENDS OF GYPSUM WALLBOARD SHALL BE IN MODERATE CONTACT EXCEPT IN CONCEALED SPACES WHERE FIRE-RESISTIVE CONSTRUCTION OR DIAPHRAGM ACTION IS NOT REQUIRED.
4. THE SIZE AND SPACING OF FASTENERS SHALL COMPLY WITH **I.B.C.**, APPLICABLE EDITION, STATE AND LOCAL CODES. FASTENERS SHALL BE SPACED NOT LESS THAN 3/8 INCH FROM EDGES AND ENDS OF GYPSUM WALLBOARD. FASTENERS AT THE TOP AND BOTTOM PLATES OF VERTICAL ASSEMBLIES, OR THE EDGES AND ENDS OF HORIZONTAL ASSEMBLIES PERPENDICULAR TO SUPPORTS, AND AT THE WALL LINE MAY BE OMITTED EXCEPT ON SHEAR-RESISTING ELEMENTS OR FIRE-RESISTIVE ASSEMBLIES. FASTENERS SHALL BE APPLIED IN SUCH A MANNER AS NOT TO FRACTURE THE FACE PAPER WITH THE FASTENER HEAD.

BASE FOR TILE:

1. CEMENT, FIBER-CEMENT OR GLASS MAT GYPSUM BACKERS IN COMPLIANCE WITH ASTM C 1178, C 1288 OR C 1325 AND INSTALLED IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS SHALL BE USED AS A BASE FOR WALL TILE IN TUB AND SHOWER AREAS AND WALL AND CEILING PANELS IN SHOWER AREAS.
2. WATER-RESISTANT GYPSUM BACKING BOARD SHALL BE USED AS A BASE FOR TILE IN WATER CLOSET COMPARTMENT WALLS WHEN INSTALLED IN ACCORDANCE WITH GA-216 OR ASTM C 840 AND MANUFACTURER RECOMMENDATIONS.
3. REGULAR GYPSUM WALLBOARD IS PERMITTED UNDER TILE OR WALL PANELS IN OTHER WALL AND CEILING AREAS WHEN INSTALLED IN ACCORDANCE WITH GA-216 OR ASTM C 840.
4. WATER-RESISTANT GYPSUM BACKING BOARD SHALL NOT BE USED IN THE FOLLOWING LOCATIONS:
   - A. OVER A VAPOR RETARDER IN SHOWER OR BATHTUB COMPARTMENTS.
   - B. WHERE THERE WILL BE DIRECT EXPOSURE TO WATER OR IN AREAS SUBJECT TO CONTINUOUS HIGH HUMIDITY.
   - C. ON CEILINGS WHERE FRAME SPACING EXCEEDS 12 INCHES O.C. FOR 1/2 INCH THICK WATER-RESISTANT GYPSUM BACKING BOARD AND MORE THAN 16 INCHES O.C. FOR 5/8 INCH THICK WATER-RESISTANT GYPSUM BACKING BOARD.

DIVISION 9
FINISHES
(CONTINUED)

LATH AND PLASTER:

1. ALL LATH AND PLASTER SHALL CONFORM TO LOCAL CODES AND **I.B.C.** (CHAPTER 25), APPLICABLE EDITION, STATE AND LOCAL CODES AND REQUIREMENTS.
2. COLOR AND FINISH TO BE APPROVED BY ARCHITECT AND/ OR OWNER.

RESAWN AND ROUGHSAWN LUMBER:

1. ALL ROUGHSAWN AND RESAWN SURFACES TO RECEIVE PRIME AND PAINT. COLOR AND FINISH TO BE APPROVED BY CONTRACTOR.
2. ALL WOOD EXPOSED TO WEATHER TO BE PRIMED PRIOR TO ASSEMBLY.

FLOORING, COUNTERTOPS AND PAINTING:

1. SEE FINISH SCHEDULES. COLOR AND MATERIAL TO BE APPROVED BY ARCHITECT.
2. INSTALLATION OF GROUTED TILE FLOORING IS NOT RECOMMENDED OVER WOOD FRAMED FLOOR SYSTEMS.

DIVISION 10
SPECIALTY ITEMS

INSTALLATION:

1. INSTALLATION INSTRUCTIONS FOR ALL LISTED EQUIPMENT SHALL BE PROVIDED TO THE FIELD INSPECTOR AT THE TIME OF INSPECTION.

DIVISION 11
EQUIPMENT

DIVISION 15
MECHANICAL AND PLUMBING

WATER PIPING:

1. COPPER TUBE FOR WATER PIPING SHALL HAVE A WEIGHT OF NOT LESS THAN THAT OF COPPER WATER TUBE TYPE L. EXCEPTION: TYPE M COPPER TUBING MAY BE USED FOR WATER PIPING WHEN PIPING IS ABOVE GROUND, AS PER **I.P.C.** STANDARDS.
2. NO WATER, SOIL OR WASTE PIPE SHALL BE INSTALLED OR PERMITTED OUTSIDE OF A BUILDING OR IN AN EXTERIOR WALL, UNLESS WHERE NECESSARY, ADEQUATE PROVISION IS MADE TO PROTECT SUCH PIPE FROM FREEZING.
3. PIPING SUBJECT TO UNDUE CORROSION, EROSION OR MECHANICAL DAMAGE SHALL BE PROTECTED IN AN APPROVED MANNER.

WATER HEATER:

1. WATER HEATER SHALL BE STRAPPED TO RESIST HORIZONTAL DISPLACEMENT DUE TO EARTHQUAKE MOTION. STRAPPING SHALL BE AT POINTS WITHIN THE UPPER 1/3 AND LOWER 1/3 OF ITS VERTICAL DIMENSIONS. AT THE LOWER POINT, A MAXIMUM DISTANCE OF 4 INCHES SHALL BE MAINTAINED ABOVE THE CONTROLS WITH THE STRAPPING.
2. WATER HEATER TO BE PROVIDED WITH TEMPERATURE AND PRESSURE RELIEF VALVE HAVING A FULL-SIZED DRAIN OF GALVANIZED STEEL OR HARD DRAWN COPPER TO OUTSIDE OF BUILDING WITH END OF PIPE NOT MORE THAN 2 FEET AND NOT LESS THAN 6 INCHES ABOVE THE GRADE, POINTING DOWNWARD, THE TERMINAL END BEING UNTHREADED. **(PER I.P.C.)**

GAS VENTS:

1. GAS VENTS SHALL TERMINATE NOT LESS THAN 2 FEET ABOVE THE HIGHEST POINT WHERE THEY PASS THROUGH THE ROOF AND AT LEAST 2 FEET HIGHER THAN ANY PORTION OF A BUILDING WITHIN 10 FEET.

GAS PIPING:

1. ALL PIPE USED FOR THE INSTALLATION OF ANY GAS PIPING SHALL BE STANDARD WEIGHT WROUGHT IRON OR STEEL (GALVANIZED OR BLACK), YELLOW BRASS (CONTAINING NOT MORE THAN SEVENTY-FIVE (75) PERCENT COPPER), OR INTERNALLY TINNED OR EQUIVALENTLY TREATED COPPER OF IRON PIPE SIZE.
2. ALL FITTINGS USED IN CONNECTION WITH THE ABOVE PIPING SHALL BE OF MALLEABLE IRON OR YELLOW BRASS (CONTAINING NOT MORE THAN SEVENTY-FIVE (75) PERCENT COPPER).
3. NO GAS PIPING SHALL BE INSTALLED IN OR ON THE GROUND, UNDER ANY BUILDING OR STRUCTURE. ALL EXPOSED GAS PIPING SHALL BE KEPT AT LEAST SIX (6) INCHES ABOVE GRADE OR STRUCTURE **(PER I.P.C.)**

WASTE PIPING:

1. ALL WASTE PIPING WHICH PENETRATES FIRE-RESISTIVE ASSEMBLIES SHALL COMPLY WITH THE REQUIREMENTS FOR THROUGH PENETRATIONS AND/OR MEMBRANE PENETRATIONS PER THE INTERNATIONAL BUILDING CODE, APPLICABLE EDITION, STATE & LOCAL CODES.
2. RAPID FIT WASTE AND OVERFLOW FITTINGS SHALL BE USED IN LIEU OF ACCESS PANEL AS PER **I.A.P.M.O. FILE NO. 966.**

COMBUSTION AIR VENTS:

1. COMBUSTION AIR VENTS AND DUCTS SHALL BE PROVIDED WITH MINIMUM UNOBSTRUCTED COMBUSTION AIR OPENINGS AS REQUIRED BY **I.M.C.**

COOKING APPLIANCES:

1. COOKING APPLIANCES THAT ARE DESIGNED FOR PERMANENT INSTALLATION, INCLUDING RANGES, OVENS, STOVES, BROILERS, GRILLS, FRYERS, GRIDDLES AND BARBEQUES, SHALL BE LISTED, LABELED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS. COMMERCIAL ELECTRIC COOKING APPLIANCES SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 197. HOUSEHOLD ELECTRIC RANGES SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 858. MICROWAVE COOKING APPLIANCES SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 923. OIL BURNING STOVES SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 896. SOLID-FUEL-FIRED OVENS SHALL BE LISTED AND LABELD IN ACCORDANCE WITH UL 2162. PER **I.M.C. 917.1**

GAS METERS:

1. GAS METER SHALL BE LOCATED IN A VENTILATED SPACE READILY ACCESSIBLE FOR EXAMINATION, READING, REPLACEMENT, OR NECESSARY MAINTENANCE. THE GAS METERS SHALL NOT BE PLACED WHERE THEY ARE SUBJECT TO DAMAGE.

DIVISION 16
ELECTRICAL

MATERIALS:

1. ALL MATERIALS USED FOR WIRING SHALL CONFORM TO THE APPLICABLE EDITION OF THE NATIONAL ELECTRICAL CODE.

WORKMANSHIP:

1. ALL WORK SHALL BE IN ACCORDANCE WITH ALL CODES, RULES AND REGULATIONS OF GOVERNING AGENCIES AND SHALL COMPLY WITH THE REQUIREMENTS OF THE SERVING POWER AND TELEPHONE COMPANIES.

INSTALLATION:

1. ALL EQUIPMENT INSTALLED OUTDOORS AND EXPOSED TO WEATHER SHALL BE "WEATHER-PROOF".
2. RECEPTACLES IN KITCHEN AND BATHROOM SHALL BE INSTALLED ABOVE WORK TOP UNLESS OTHERWISE NOTED ON PLANS.
3. RECEPTACLES SHALL BE INSTALLED VERTICALLY AT 12 INCHES (APPROX.) ABOVE FLOOR.
4. WALL SWITCHES TO BE ABOVE FLOOR AS DETERMINED BY THE ARCHITECT. (42 INCHES ABOVE FLOOR, UNLESS NOTED OTHERWISE).
5. PROVIDE TWO 20-AMPERE SMALL APPLIANCE CIRCUITS AT THE KITCHEN, PANTRY, DINING ROOM AND BREAKFAST AREAS.
6. PROVIDE A SEPARATE 20-AMPERE LAUNDRY CIRCUIT.
7. PROVIDE GROUND FAULT CIRCUIT INTERRUPTER (GFCI) PROTECTION AT ALL BATHROOMS, POWDER ROOMS, OUTDOOR RECEPTACLES, GARAGES AND ALL KITCHEN RECEPTACLES SERVING THE COUNTERTOP SURFACES. ALSO AT LAUNDRY, UTILITY, AND WET BAR SINKS WHERE THE RECEPTACLES ARE INSTALLED WITHIN 6 FEET OF THE OUTSIDE EDGE OF THE SINK.
8. RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6 FEET, MEASURED HORIZONTALLY, FROM AN OUTLET IN THAT SPACE.
9. IN KITCHEN AND DINING AREAS A RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH COUNTER SPACE WIDER THAN 12 INCHES AND SO THAT NO POINT ALONG THE WALL LINE IS MORE THEN 24 INCHES FROM A RECEPTACLE IN THAT SPACE.
10. A RECEPTACLE OUTLET SHALL BE INSTALLED IN ANY USABLE WALL SPACE 2 FEET OR MORE IN WIDTH.
11. ALL EQUIPMENT AND MATERIALS FURNISHED AND INSTALLED UNDER THIS SECTION, SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE OF THE WORK BY THE OWNER.
12. PROVIDE TWO METHODS OF ELECTRICAL GROUNDING:
    - A. CLAMP AT HOSE BIB.
    - B. ONE ADDITIONAL #4 BAR-20' LONG IN FOOTING AT ELECTRICAL METER LOCATION FOR UFER GROUND.
13. BATHROOM RECEPTACLE OUTLETS SHALL BE SUPPLIED BY A MINIMUM OF ONE 20-AMPERE BRANCH CIRCUIT. SUCH CIRCUITS SHALL HAVE NO OTHER OUTLETS BUT MAY SERVE MORE THAN ONE BATHROOM.
14. ALL 120-VOLT, SINGLE PHASE, 15-& 20-AMPERE BRANCH CIRCUITS SUPPLYING OUTLETS INSTALLED IN DWELLING UNIT FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS, OR SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A LISTED ARC-FAULT CIRCUIT INTERRUPTER (AFCI), COMBINATION TYPE INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT. THIS INCLUDES LIGHTS, RECEPTACLES, FANS AND SMOKE DETECTORS.

EXCEPTION 1: WHERE RMC, IMC, EMT OR STEEL ARMORED CABLE, TYPE AC, MEETING THE REQUIREMENTS OF N.E.C. 250.118 USING METAL OUTLET AND JUNCTION BOXES IS INSTALLED FOR THE PORTION OF THE BRANCH CIRCUIT BETWEEN THE BRANCH CIRCUIT OVERCURRENT DEVICE AND THE FIRST OUTLET, IT SHALL BE PERMITTED TO INSTALL A COMBINATION AFCI AT THE FIRST OUTLET TO PROVIDE PROTECTION FOR THE REMAINING PORTION OF THE BRANCH CIRCUIT. N.E.C. 210.12

15. KITCHEN AND APPLIANCE CIRCUITS ARE LIMITED TO SUPPLYING WALL AND COUNTER SPACE OUTLETS ONLY AND CANNOT SERVE DISHWASHER, MICROWAVE, RANGE HOOD, GARBAGE DISPOSAL OR APPLIANCE, LOCATED WITHIN CABINETS OR CUPBOARDS, OR LOCATED MORE THAN 5-1/2 FEET ABOVE THE FLOOR.
16. BATHROOM LIGHTING SHALL NOT BE ON AN OUTLET CIRCUIT.
17. HIGH EFFICACY LUMINARIES MUST BE PIN BASED.
18. OCCUPANT SENSOR AND MOTION SENSORS SHALL BE CAPABLE OF AUTOMATICALLY TURNING OFF ALL THE LIGHTS IN AN AREA NO MORE THAN 30 MINUTES AFTER THE AREA HAS BEEN VACATED.
19. ALL 125-VOLT, 15-AND 20- AMPERE OUTLETS IN DWELLING UNITS SHALL BE LISTED TAMPER-RESISTANT PER N.E.C. 406.11 AND 210.52

SMOKE ALARMS:

1. POWER SOURCE: IN NEW CONSTRUCTION, REQUIRED SMOKE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING WHEN SUCH WIRING IS SERVED FROM A COMMERCIAL SOURCE AND SHALL BE EQUIPPED WITH A BATTERY BACKUP. SMOKE ALARMS WITH INTEGRAL STROBES THAT ARE NOT EQUIPPED WITH BATTERY BACKUP SHALL BE CONNECTED TO AN EMERGENCY ELECTRICAL SYSTEM. SMOKE ALARMS SHALL EMIT A SIGNAL WHEN THE BATTERIES ARE LOW. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THEN THOSE REQUIRED FOR OVER-CURRENT PROTECTION. **I.B.C. 907.2.11.4**
2. LOCATION WITHIN DWELLING UNITS: IN DWELLING UNITS, A SMOKE ALARM SHALL BE INSTALLED IN EACH SLEEPING ROOM AND ON THE CEILING OR WALL OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF BEDROOMS. WHEN THE DWELLING UNIT HAS MORE THEN ONE STORY AND IN DWELLINGS WITH BASEMENTS, A SMOKE ALARM SHALL BE INSTALLED ON EACH STORY AND IN THE BASEMENT. IN DWELLING UNITS WITH SPLIT LEVELS AND WITHOUT AN INTERVENING DOOR BETWEEN THE ADJACENT LEVELS, A SMOKE ALARM INSTALLED ON THE UPPER LEVEL SHALL SUFFICE FOR THE ADJACENT LOWER LEVEL PROVIDED THE LOWER IS LESS THAN ON FULL STORY BELOW THE UPPER LEVEL.
3. SMOKE ALARMS SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT. THE ALARM SHALL BE CLEARLY AUDIBLE IN ALL BEDROOMS OVER BACKGROUND NOISE LEVELS WITH ALL INTERVENING DOORS CLOSED.
4. WHERE MORE THAN ONE SMOKE ALARM IS REQUIRED TO BE INSTALLED WITHIN AN INDIVIDUAL DWELLING UNIT THE ALARM DEVICES SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT. **I.B.C. 907.2.11.3**
5. ALL SMOKE ALARMS SHALL BE LISTED IN ACCORDANCE WITH UL217 AND INSTALLED IN ACCORDANCE WITH **I.B.C. SECTIONS 907.2.11.1 THROUGH 907.2.11.4** AND NFPA 72.

CARBON MONOXIDE ALARMS:

1. A CARBON MONOXIDE ALARM COMPLYING WITH UL 2034 AND FOR CARBON MONOXIDE DETECTORS COMPLYING WITH UL 2075 SHALL BE INSTALLED PER NFPA 720 (REQUIRED IN DWELLING UNITS WITHIN WHICH FUEL-BURNING APPLIANCES ARE INSTALLED AND/OR WITH ATTACHED GARAGES), OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF BEDROOMS PER **I.B.C. 908.7**
2. CARBON MONOXIDE ALARMS SHALL RECEIVE THEIR PRIMARY POWER FROM THE BUILDING WIRING AND SHALL BE EQUIPPED WITH A BATTERY BACKUP AND EMIT A SIGNAL WHEN THE BATTERY IS LOW. WIRING SHALL BE PERMANENT AND WITHOUT A DISCONNECTING SWITCH OTHER THAN AS REQUIRED FOR OVER-CURRENT PROTECTION.
3. WHERE MORE THAN ONE SMOKE DETECTOR IS REQUIRED TO BE INSTALLED THEY SHALL BE INTERCONNECTED IN SUCH A MANNER THAT THE ACTIVATION OF ONE ALARM WILL ACTIVATE ALL OF THE ALARMS IN THE INDIVIDUAL UNIT.

MISCELLANEOUS

A. SECURITY REQUIREMENTS

SLIDING GLASS DOORS AND WINDOWS:

1. SLIDING GLASS DOORS OPENING ONTO PATIOS OR BALCONIES WHICH ARE LESS THAN ONE-STORY ABOVE GRADE OR ARE OTHERWISE ACCESSIBLE FROM THE OUTSIDE SHALL BE SECURED AS FOLLOWS:
   - A. ALL SLIDING GLASS DOORS SHALL HAVE A HOOK-BOLT DEADLOCK WHICH IS NO LESS THAN 1/8 INCH IN THICKNESS, AND WHICH HAS A MINIMUM THROW OF 1/2 INCH.
   - B. THE HOOK-BOLT DEADLOCK AND THE STRIKE SHALL BE MADE FROM HARDENED STEEL.
2. ALL SLIDING WINDOWS SHALL HAVE SAFETY LOCKS.
3. WINDOWS AND DOOR LIGHTS SHALL BE OF TEMPERED GLASS AS REQUIRED BY I.B.C. STATE AND LOCAL CODES (SEE DIVISION 8).

EXTERIOR DOORS AND HOUSE TO GARAGE DOORS:

1. EXTERIOR DOORS AND DOORS LEADING FROM GARAGE AREAS INTO PRIVATE RESIDENCES AND MULTIPLE DWELLING RESIDENCES SHALL BE OF SOLID CORE CONSTRUCTION AND SHALL BE NO LESS THAN 1-3/8 INCH IN THICKNESS.
2. EXTERIOR DOORS AND DOORS LEADING FROM GARAGE AREAS INTO PRIVATE RESIDENCE OR MULTIPLE DWELLING RESIDENCES SHALL HAVE A DEADLOCKING LATCH DEVICE WITH A MINIMUM THROW OF 1/2 INCH AND A DEADBOLT LOCK WITH A CYLINDER GUARD, HARDENED STEEL INSERT WITH A MINIMUM THROW OF 1 INCH.
3. A INTERVIEWER OR PEEPHOLE SHALL BE PROVIDED ON THE FRONT DOOR OF EACH INDIVIDUAL RESIDENCE.
4. EXTERIOR DOORS SWINGING OUT SHALL HAVE NON-REMOVEABLE HINGES.
5. IN-SWINGING EXTERIOR DOOR STOPS SHALL BE OF ONE PIECE CONSTRUCTION.
6. JAMBS FOR ALL DOORS SHALL BE SO CONSTRUCTED OR PROTECTED SO AS TO PREVENT VIOLATION OF THE FUNCTION OF THE STRIKE PLATE FROM THE OUTSIDE.
7. THE INACTIVE LEAF OF A PAIR OF DOORS OR UPPER LEAF OF A DUTCH DOOR SHALL HAVE A DEADBOLT, NOT KEY OPERATED, OR HARDENED DEADBOLT TOP AND BOTTOM WITH 1 INCH EMBEDMENT.
8. PROJECTING CYLINDERS REQUIRE GUARD.
9. EQUIP FRONT AND REAR DOOR WITH DEADBOLTS AND DEADLOCKING LATCHES.
10. DEADBOLTS SHALL CONTAIN HARDENED INSERTS OR EQUIVALENT.
11. OVERHEAD AND SECTIONAL GARAGE DOORS SHALL BE SECURED WITH A CYLINDER LOCK, PAD WITH A HARDENED STEEL SHACKLE, METAL SLIDE BAR BOLT OR EQUIVALENT WHEN NOT OTHERWISE LOCKED BY ELECTRICAL POWER OPERATION.

B. BUILDING ACCESSIBILITY

BUILDINGS OR PORTIONS OF BUILDINGS WHICH ARE REQUIRED TO BE ACCESSIBLE TO THE PHYSICALLY DISABLED SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, APPLICABLE EDITION AND/OR STATE AND LOCAL CODES OR OTHER AUTHORITY HAVING JURISDICTION. IF APPLICABLE, REFER TO DRAWINGS FOR ADDITIONAL INFORMATION.

ANY DISCREPANCIES OR DEFICIENCIES IN THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO COMMENCEMENT OF CONSTRUCTION.

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1st PLAN CHECK
Date: 02-21-25

REVISIONS

ALTIS SERENITY CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

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GENERAL NOTES
(2018 INTERNATIONAL CODE)

AGN.2

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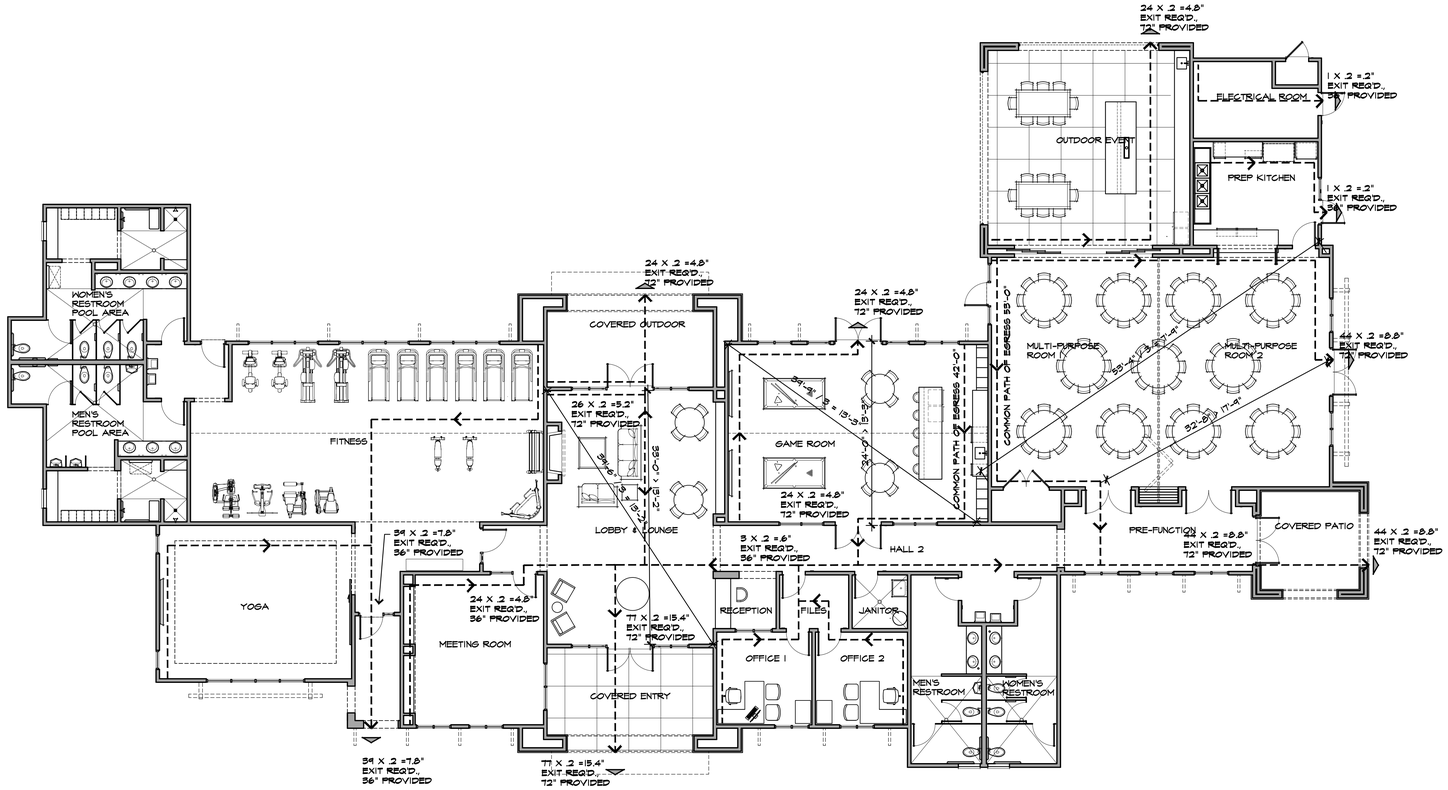
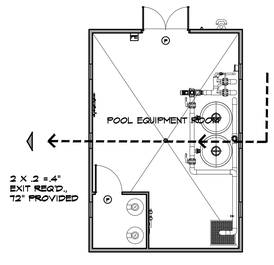
PLOT DATE: 2-20-25
FILE NAME: 4126_02 AGN-IBC-2018



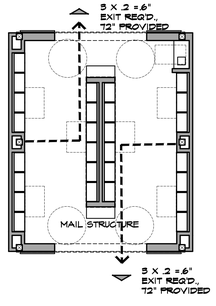
CODE ANALYSIS SUMMARY

CODES USED:	2018 NORTH CAROLINA STATE BUILDING CODE 2018 NORTH CAROLINA STATE BUILDING CODE - ENERGY CONSERVATION CODE 2018 NORTH CAROLINA STATE BUILDING CODE - MECHANICAL CODE 2018 NORTH CAROLINA STATE BUILDING CODE - PLUMBING CODE 2018 NORTH CAROLINA STATE BUILDING CODE - FUEL GAS CODE 2018 NORTH CAROLINA STATE BUILDING CODE - FIRE PREVENTION CODE 2020 NORTH CAROLINA STATE BUILDING CODE - ELECTRICAL CODE 2009 ICC/ ANSI A117.1 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES ALL LOCAL CODES, AMENDMENTS AND ORDINANCES *Where conflicts occur, the more restrictive code section is applied
PROJECT PARCEL / ADDRESS:	#0645-84-9879 / 325 STREAMSIDE TERRACE, FUQUAY-VARINA, NC 27526
SITE AREA / ZONING:	7.89 AC / RA-30
TYPE OF CONSTRUCTION:	TYPE V-B FIRE RATING OF BUILDING ELEMENTS (NCBC TABLE 601): Primary Structural Frame: 0 hour Bearing Walls - Exterior: 0 hour Bearing Walls - Interior: 0 hour Nonbearing Walls and Partitions - Exterior: 0 hour Nonbearing Walls and Partitions - Interior: 0 hour Floor Construction: 0 hour and secondary members Roof Construction: 0 hour and secondary members
ALLOWABLE BUILDING HEIGHT:	OCCUPANCY GROUP A-3 (SPRINKLERED) = 60'-0" MAXIMUM BUILDING HEIGHT OCCUPANCY GROUP B AND U (NON-SPRINKLERED) = 40'-0" MAXIMUM BUILDING HEIGHT
ACTUAL BUILDING HEIGHT:	CLUB HOUSE: 24'-8" POOL BUILDING: 14'-0" MAIL STRUCTURE: 16'-0" (Measured from adjacent grade to mid-point of highest sloping roof plane.)
ALLOWABLE STORIES:	OCCUPANCY GROUPS A-3 AND U = 2 STORIES. OCCUPANCY GROUP B = 3 STORIES
ACTUAL STORIES:	CLUB HOUSE (A-3): 1 STORY, POOL BUILDING (U): 1 STORY, MAIL STRUCTURE (B): 1 STORY
ALLOWABLE BUILDING AREA:	BUILDING AREA MODIFICATIONS NCBC Section 506.2.1 (Equation 5-1) Aa=At + (NS x If) Aa = Allowable Building area per story (square feet) At = Tabular building area per story in accordance with Table 503 (square feet) NS = Allowable building area for a non-sprinklered building (square feet) If = Area increase factor due to frontage as calculated in accordance with sec. 506.2
CLUB HOUSE (A-3): (NON SEPARATED OCCUPANCY PER NCBC 508.3)	Aa = At + (NS X If) Aa = {24,000 + (6,000 x 0) Aa = 24,000 Aa = 24,000 allowed > 7,893 SF + 1,649 SF outdoor under trellis = 9,542 SF actual.
POOL BUILDING (U):	Aa = At + (NS X If) Aa = {5,500 + (5,500 x 0) Aa = 5,500 Aa = 5,500 allowed > 580 SF actual
MAIL STRUCTURE (B):	Aa = At + (NS X If) Aa = {9,000 + (9,000 x 0) Aa = 9,000 Aa = 9,000 allowed > 684 SF actual
FIRE SPRINKLERS:	CLUB HOUSE: NFPA 13 required by NCBC 903.2.1.3 with occupancies of 300 or greater. POOL BUILDING: Not Fire Sprinklered MAIL STRUCTURE: Not Fire Sprinklered
EXTERIOR WALL SEPARATION:	FIRE RESISTANCE AT EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE (FSD) (NCBC Table 602) Where separation distances equal: "X" < 5 feet, Type VB = 1Hr. 5 feet </= "X" < 10 feet, Type VB = 1 Hr. 10 feet </= "X" < 30 feet Type VB = 0 Hr. "X" >/= 30 feet Type VB = 0 Hr. REFER TO SITE PLAN FOR SEPARATION DISTANCE
EXTERIOR WALL OPENINGS:	Per NCBC Section 705.8.1 exception 2, Buildings whose exterior bearing walls, exterior nonbearing walls, and exterior primary structural frame are not required to be fire-resistance rated shall be permitted to have unlimited unprotected openings.

CLUB HOUSE EXITING DIAGRAMS



POOL BUILDING EXITING DIAGRAMS



MAIL STRUCTURE EXITING DIAGRAMS

PLUMBING FIXTURE COUNT - CLUB HOUSE

REQUIRED PLUMBING FIXTURES FOR A-2 OCCUPANCY PER NCPC TABLE 403.1, AND THE OCCUPANT LOAD CALCULATIONS ARE PER NCBC TABLE 1004.1.2:

ROOM NAME	ROOM AREA / OCC.FACTOR	OCCUPANT LOAD
COVERED ENTRY (A-3 OCC.):	283 SF / 15 NET	19 OCCUPANTS
LOBBY & LOUNGE (A-3):	767 SF / 15 NET	51 OCCUPANTS
COVERED OUTDOOR (A-3 OCC.):	250 SF / 15 NET	17 OCCUPANTS
OFFICE 1 (B OCC.):	150 SF / 100 GROSS	2 OCCUPANTS
OFFICE 2 (B OCC.):	151 SF / 100 GROSS	2 OCCUPANTS
RECEPTION (B OCC.):	40 SF / 100 GROSS	1 OCCUPANT
FILES (B OCC.):	60 SF / 100 GROSS	1 OCCUPANT
JANITOR (U OCC.):	50 SF / 300 GROSS	1 OCCUPANT
GAME ROOM (A-3 OCC.):	730 SF / 15 NET	49 OCCUPANTS
FITNESS (A-3 OCC.):	1241 SF / 50 GROSS	25 OCCUPANTS
MEETING (A-3 OCC.):	357 SF / 15 GROSS	24 OCCUPANTS
YOGA (A-3 OCC.) :	501 SF / 35 NET	15 OCCUPANTS
PRE-FUNCTION (A-3 OCC.):	247 SF / 15 NET	17 OCCUPANTS
COVERED PATIO (A-3 OCC.):	171 SF / 15 NET	12 OCCUPANTS
MULI-PURPOSE ROOM 1 & 2 (A-3 OCC.):	1319 SF / 15 NET	88 OCCUPANTS
PRE KITCHEN (B OCC.) :	119 SF / 200 GROSS	1 OCCUPANT
ELECTRICAL ROOM (U OCC.):	141 SF / 300 GROSS	1 OCCUPANT
OUTDOOR EVENT (A-3 OCC.):	618 SF / 15 NET	42 OCCUPANTS
TOTAL:		368 OCCUPANTS / 184 MEN / 184 WOMEN

FIXTURES:
MEN - 1 W.C. FOR EVERY 125 MEN = 2 W.C. REQUIRED / 2 W.C. & 1 URINAL PROVIDED
WOMEN - 1 W.C. FOR EVERY 65 WOMEN = 3 W.C. REQUIRED / 3 W.C. PROVIDED
LAVATORY - 1 FOR EVERY 200 MEN = 1 LAVATORY REQUIRED / 2 PROVIDED
LAVATORY - 1 FOR EVERY 200 WOMEN = 1 LAVATORY REQUIRED / 2 PROVIDED
DRINKING FOUNTAIN - 1 FOR EVERY 500 OCCUPANTS = 1 REQUIRED / 2 PROVIDED

PLUMBING FIXTURE COUNT - POOL AREA

REQUIRED PLUMBING FIXTURES PER POOL AREA BASED ON NORTH CAROLINA PLUMBING CODE (CHAPTER 4) AND NORTH CAROLINA BUILDING CODE (CHAPTER 10) AND NORTH CAROLINA HEALTH 15A NCAC 18A.2500:

NUMBER OF OCCUPANTS ON DECK: 1 OCCUPANT / 15 S.F. GROSS OF DECK AREA (NOT INCLUDING REQUIRED CIRCULATION) = 7500 S.F. DECK AREA GROSS / 15 = 500 OCCUPANTS
(250 MEN / 250 WOMEN)
NUMBER OF POOL BATHERS: 1 OCCUPANT / 50 S.F. POOL AREA = 5000 S.F. / 50 = 100 BATHERS
(50 MEN / 50 WOMEN)
TOTAL: 600 OCCUPANTS (300 MEN / 300 WOMEN)

MINIMUM FIXTURE COUNT BASED ON 15A NCAC 18A.2526 (e):
MEN - 3 W.C. / 3 URINAL / 2 LAVS REQUIRED FOR 300 MALE OCCUPANTS.
WOMEN - 4 W.C. / 4 LAVS REQUIRED FOR 300 FEMALE OCCUPANTS.
SHOWERS - 3 FOR 600 OCCUPANTS.

PROVIDED:
MEN - 3 W.C. / 3 URINALS / 3 LAVATORIES PROVIDED.
WOMEN - 4 W.C. / 4 LAVATORIES PROVIDED.
SHOWERS = 4 SHOWERS PROVIDED.
DRINKING FOUNTAINS = 2 PROVIDED.

ACCESSIBILITY SUMMARY

BUILDING DESIGN:	PER NCBC SECTION 1101.2 BUILDINGS AND FACILITIES SHALL BE DESIGNED AND CONSTRUCTED TO BE ACCESSIBLE IN ACCORDANCE WITH THE NORTH CAROLINA STATE BUILDING CODE AND NORTH CAROLINA ACCESSIBILITY CODE (ICC A117.1 2009).
ACCESSIBLE PARKING:	PARKING SERVING THE BUILDINGS AND FACILITIES UNDER THIS PERMIT SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH NCBC SECTION 1106 AND CHAPTER 5 OF THE NORTH CAROLINA ACCESSIBILITY CODE (ICC A117.12009).

OCCUPANT LOAD CALCULATION

CLUB HOUSE ROOM NAME	ROOM AREA / OCC.FACTOR	OCCUPANT LOAD
COVERED ENTRY (A-3 OCC.):	283 SF / 15 NET	19 OCCUPANTS
LOBBY & LOUNGE (A-3):	767 SF / 15 NET	51 OCCUPANTS
COVERED OUTDOOR (A-3 OCC.):	250 SF / 15 NET	17 OCCUPANTS
OFFICE 1 (B OCC.):	150 SF / 100 GROSS	2 OCCUPANTS
OFFICE 2 (B OCC.):	151 SF / 100 GROSS	2 OCCUPANTS
RECEPTION (B OCC.):	40 SF / 100 GROSS	1 OCCUPANT
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FITNESS (A-3 OCC.):	1241 SF / 50 GROSS	25 OCCUPANTS
MEETING (A-3 OCC.):	357 SF / 15 GROSS	24 OCCUPANTS
YOGA (A-3 OCC.) :	501 SF / 35 NET	15 OCCUPANTS
PRE-FUNCTION (A-3 OCC.):	247 SF / 15 NET	17 OCCUPANTS
COVERED PATIO (A-3 OCC.):	171 SF / 15 NET	12 OCCUPANTS
MULI-PURPOSE ROOM 1 & 2 (A-3 OCC.):	1319 SF / 15 NET	88 OCCUPANTS
PRE KITCHEN (B OCC.) :	119 SF / 200 GROSS	1 OCCUPANT
ELECTRICAL ROOM (U OCC.):	141 SF / 300 GROSS	1 OCCUPANT
OUTDOOR EVENT (A-3 OCC.):	618 SF / 15 NET	42 OCCUPANTS
TOTAL:		368 OCCUPANTS

MAIL STRUCTURE ROOM NAME	ROOM AREA / OCC.FACTOR	OCCUPANT LOAD
MAIL PICK UP (B OCC.):	526 SF / 100 GROSS	6 OCCUPANTS

POOL BUILDING ROOM NAME	ROOM AREA / OCC.FACTOR	OCCUPANT LOAD
POOL EQUIPMENT (U OCC.):	536 SF / 300 GROSS	2 OCCUPANTS

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1st PLAN CHECK
Date: 02-21-25

REVISIONS

ALTIS SERENITY
CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

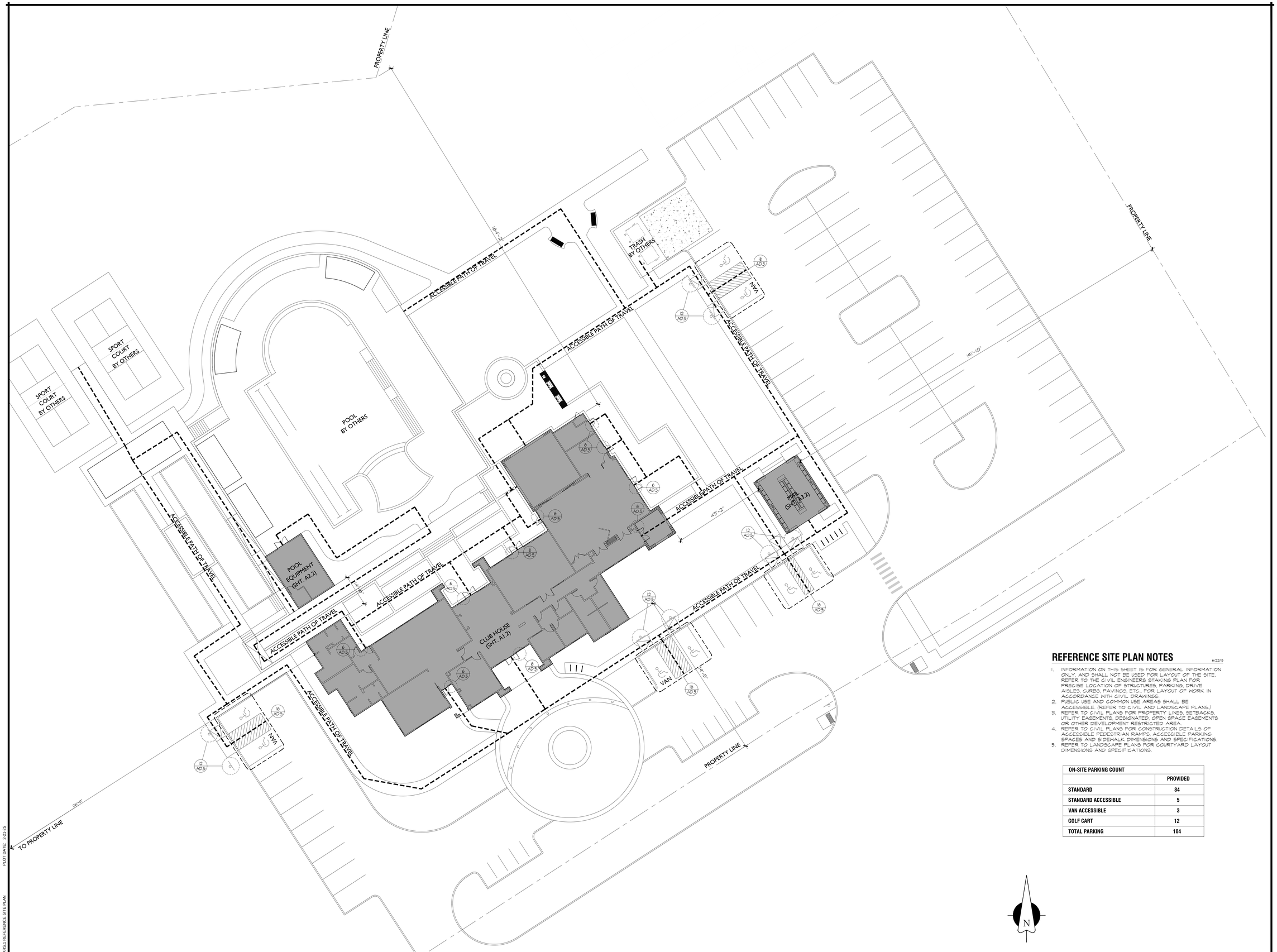
tri pointe HOMES

PROJECT DATA
BUILDING CODE ANALYSIS
EXITING DIAGRAMS

APD.1

JOB NUMBER: 667-24126

PLOT DATE: 2-20-25
FILE NAME: 4130_03_APD.1



REFERENCE SITE PLAN NOTES

6/22/15

1. INFORMATION ON THIS SHEET IS FOR GENERAL INFORMATION ONLY, AND SHALL NOT BE USED FOR LAYOUT OF THE SITE. REFER TO THE CIVIL ENGINEERS STAKING PLAN FOR PRECISE LOCATION OF STRUCTURES, PARKING, DRIVE AISLES, CURBS, PAVINGS, ETC., FOR LAYOUT OF WORK IN ACCORDANCE WITH CIVIL DRAWINGS.
2. PUBLIC USE AND COMMON USE AREAS SHALL BE ACCESSIBLE (REFER TO CIVIL AND LANDSCAPE PLANS.)
3. REFER TO CIVIL PLANS FOR PROPERTY LINES, SETBACKS, UTILITY EASEMENTS, DESIGNATED, OPEN SPACE EASEMENTS OR OTHER DEVELOPMENT RESTRICTED AREA.
4. REFER TO CIVIL PLANS FOR CONSTRUCTION DETAILS OF ACCESSIBLE PEDESTRIAN RAMPS, ACCESSIBLE PARKING SPACES AND SIDEWALK DIMENSIONS AND SPECIFICATIONS.
5. REFER TO LANDSCAPE PLANS FOR COURTYARD LAYOUT DIMENSIONS AND SPECIFICATIONS.

ON-SITE PARKING COUNT	
	PROVIDED
STANDARD	84
STANDARD ACCESSIBLE	5
VAN ACCESSIBLE	3
GOLF CART	12
TOTAL PARKING	104

ARCHITECTURAL REFERENCE SITE PLAN

SCALE: 1" = 10'-0"

1

PLOT DATE: 2-21-25

FILE NAME: 4126_05 ARS.1 REFERENCE SITE PLAN

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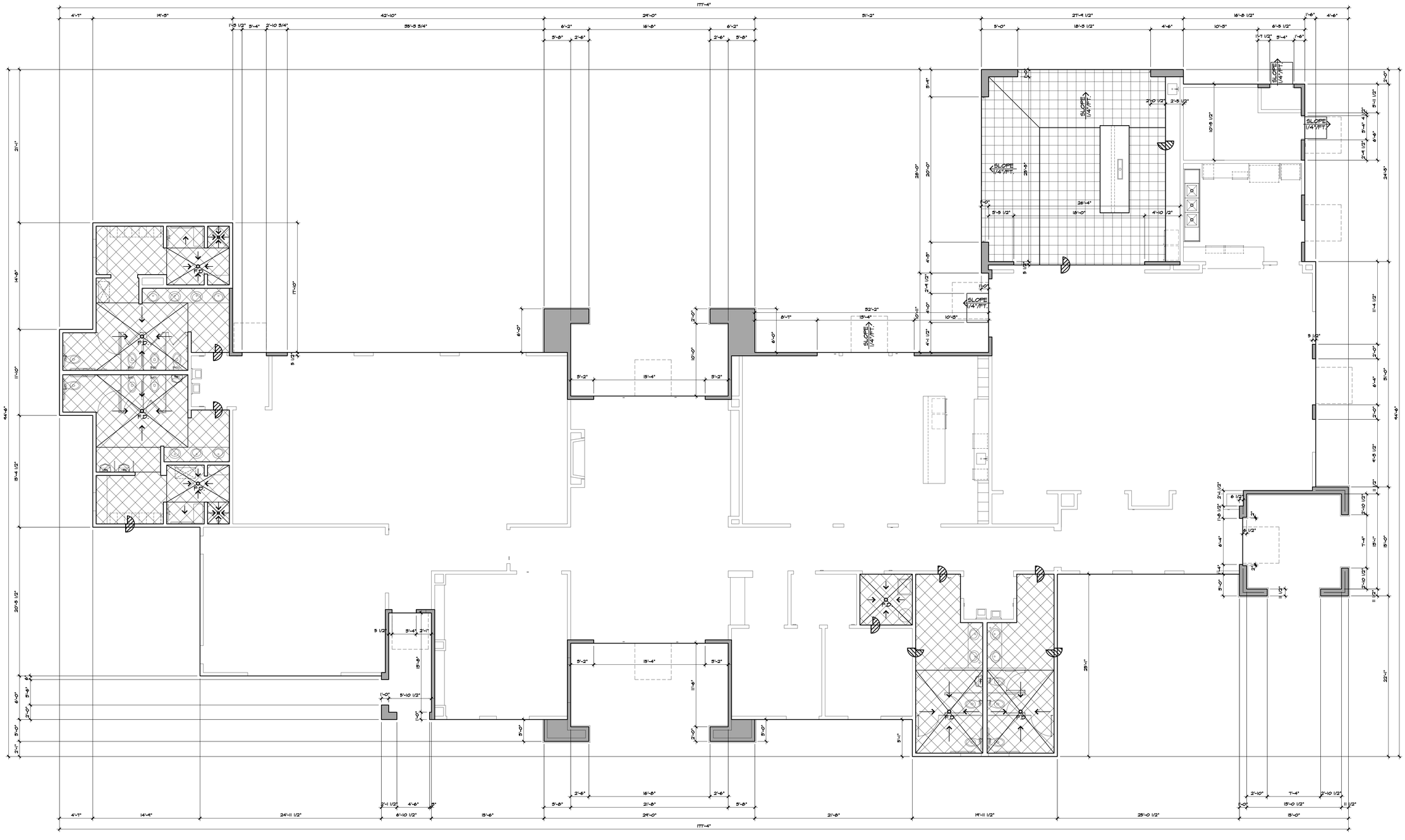
ARCHITECTURAL SITE PLAN

ARS.1

JOB NUMBER: 667-24126



SLAB INTERFACE PLAN

SCALE: 3/16"=1'-0" | 1

SLAB INTERFACE LEGEND

02/15/17

- INDICATES DROP IN SLAB.
- INDICATES AREA OF 2" DEPRESSED SLAB TO RECEIVE TILE FLOORING OVER SETTING BED. SEE INTERIOR DESIGN PLANS AND SPECIFICATIONS FOR TILE.
- INDICATES AREA OF 3" DEPRESSED SLAB TO RECEIVE PAVERS AND MORTAR BED. REFER TO LANDSCAPE ARCHITECT / CIVIL DRAWINGS TO CONFIRM THE DEPTH OF PAVERS, MORTAR BED AND DEPTH OF SLAB DEPRESSION.
- INDICATES 6" RAISED CURB ABOVE FINISH FLOOR. VERIFY LOCATIONS W/ SITE GRADING PLANS. SEE ELEVATIONS.
- INDICATES LOCATION OF LEVEL ACCESSIBLE LANDING REQUIRED AT EXTERIOR ENTRY DOORS.
- INDICATES DOWNSPOUT LOCATION. VERIFY WITH CIVIL/ LANDSCAPE.

GENERAL SLAB INTERFACE NOTES

01/20/17

A. VERIFY MINIMUM FOUNDATION DEPTH, WIDTH, REINFORCING STEEL AND ADDITIONAL EXPANSIVE SOIL REQUIREMENTS WITH THE SOILS REPORT.
B. REFER TO STRUCTURAL ENGINEERING DRAWINGS FOR INFORMATION RELATED TO FLOOR SLAB NOT SHOWN HERE.
C. FOR HARDSCAPE INFORMATION REFER TO LANDSCAPE PLANS.
D. COVERED ENTRIES: PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING(S) TO SURFACE AREA DRAINS.
E. EXTERIOR DRAIN LOCATIONS TO BE DETERMINED BY CIVIL ENGINEER. SEE PRECISE GRADING PLANS FOR LOCATIONS.
F. WHEN REQUIRED BY SOILS ENGINEER OR OTHERS, TIE COURTYARD DRAINS AND ROOF DOWNSPOUTS INTO SITE AREA DRAINS.
G. PRIOR TO POURING SLAB COORDINATE RISER SLEEVE WITH STRUCTURAL ENGINEER'S DRAWINGS.

REFER TO CIVIL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION THAT MAY IMPACT THE SLAB INTERFACE NOT SHOWN HERE.

PLOT DATE: 2-20-25

FILE NAME: 4126_A1_01 CLUB HOUSE SLAB PLAN

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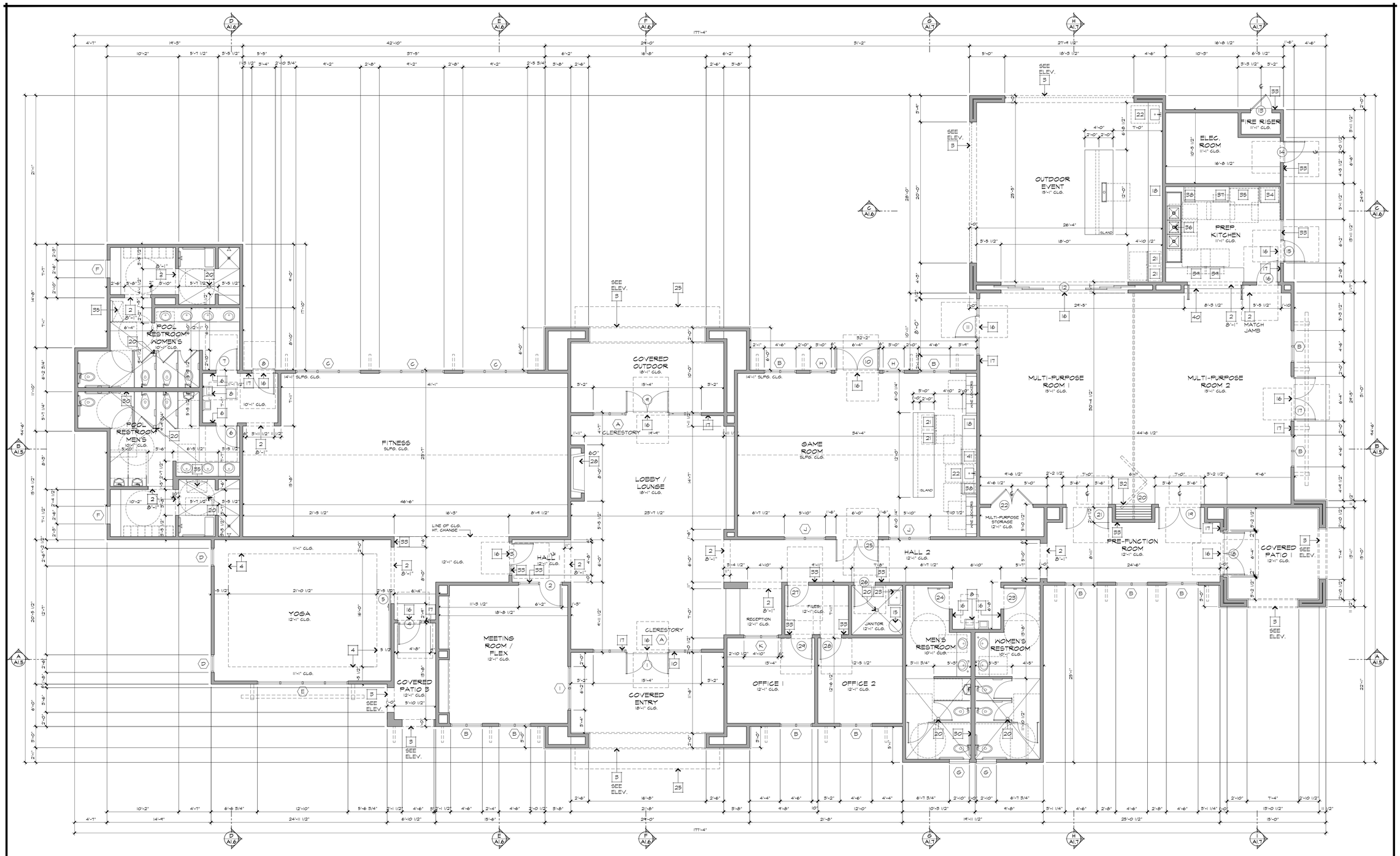
CLUBHOUSE
FIRST FLOOR
SLAB PLAN

A1.1

JOB NUMBER: 667-24126



BUILDING PLAN

SCALE: 3/16"=1'-0"

BUILDING PLAN LEGEND

11/1/22

TYPICAL 2X6 STUDS AT 16" O.C. UNLESS OTHERWISE NOTED. REFER TO STRUCTURAL DRAWINGS.

(1) INDICATES DOOR SYMBOL NUMBER. REFER TO DOOR SCHEDULE SHEET A3.1 FOR ADDITIONAL INFORMATION

(A) INDICATES WINDOW SYMBOL LETTER. REFER TO WINDOW SCHEDULE SHEET A3.1-1 FOR ADDITIONAL INFORMATION

BUILDING PLAN NOTES

12/20/22

1. SINK W/ GARBAGE DISPOSAL.
2. SOFFIT. SEE PLAN FOR HEIGHT.
3. EXTERIOR SOFFIT. SEE EXTERIOR ELEVATIONS FOR HEIGHT.
4. LINE OF CEILING HEIGHT CHANGE OF COFFERED CEILING. REFER TO REFLECTED CEILING PLANS.
5. MILLWORK. REFER TO INTERIOR ELEVATIONS.
6. TOILET/ BATHING ROOM IDENTIFICATION SYMBOL PER DETAIL 5/AD.5.
7. FLUSH 24" X 36" (U.N.O.) MIN. ATTIC ACCESS W/ GYP. BD. FINISH.
8. HI-LO HI-LO DRINKING FOUNTAIN. PROVIDE A 30" X 48" CLEAR SPACE POSITIONED FOR A FORWARD APPROACH CENTERED TO THE DRINKING FOUNTAIN. SPOUT OUTLETS OF A WHEELCHAIR ACCESSIBLE DRINKING FOUNTAIN SHALL BE 36" MAXIMUM ABOVE THE FLOOR. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38" MINIMUM AND 43" MAXIMUM ABOVE THE FLOOR. THE SPOUT LOCATION SHALL BE LOCATED 15" MINIMUM FROM THE VERTICAL SUPPORT AND 5" MAXIMUM FROM THE FRONT EDGE OF THE DRINKING FOUNTAIN, INCLUDING BUMPERS. THE SPOUT SHALL PROVIDE A FLOW OF WATER 4" MINIMUM IN HEIGHT. THE ANGLE OF THE WATER STREAM FROM SPOUTS WITHIN 5" OF THE FRONT OF THE DRINKING FOUNTAIN SHALL BE 30 DEGREES MAXIMUM, AND FROM SPOUTS BETWEEN 5" AND 5" FROM THE FRONT OF THE DRINKING FOUNTAIN SHALL BE 15 DEGREES MAXIMUM, MEASURED HORIZONTALLY RELATIVE TO THE FRONT FACE OF THE DRINKING FOUNTAIN. (CC A117.1 602, PER 15/D.5.
9. CARD READER REFER TO SECURITY PLANS.
10. INTERNATIONAL SYMBOL OF ACCESSIBILITY IN ACCORDANCE WITH (CC A117.1 FIGURE 703.6.3.1. SEE DETAIL 6/AD.5.
11. CLASS "A" FIRE EXTINGUISHER WITH CABINET. SERVICE PERSONNEL PROVIDING OR CONDUCTING MAINTENANCE SHALL POSSES A VALID CERTIFICATE ISSUED BY AN APPROVED GOVERNMENTAL AGENCY, OR OTHER APPROVED ORGANIZATION FOR THE TYPE OF WORK PERFORMED. THE CLEARANCE BETWEEN FLOOR AND THE BOTTOM OF INSTALLED HAND-HELD PORTABLE EXTINGUISHERS SHALL BE NO LESS THAN 4". PORTABLE FIRE EXTINGUISHERS HAVING A GROSS WEIGHT NOT EXCEEDING 40 LBS. SHALL BE INSTALLED SO THAT THEIR TOPS ARE NOT MORE THAN 5' ABOVE FLOOR (3.5' ABOVE FLOOR WHEN EXCEEDING 40 LBS.). VERIFY LOCATION AND QUANTITY WITH THE FIRE DEPARTMENT PRIOR TO INSTALLATION.
12. FIRE DEPARTMENT KNOX KEY SWITCH (PER FIRE DEPT. SPECIFICATIONS). INSTALL IN ACCORDANCE WITH FIRE DEPARTMENT STANDARDS.
13. ROOM CAPACITY SIGN. POSTED SIGN SHALL BE OF AN APPROVED LEGIBLE PERMANENT DESIGN, AND SHALL BE MAINTAINED BY THE OWNER OR THE OWNERS AUTHORIZED AGENT. EVERY ROOM OR SPACE THAT IS AN ASSEMBLY OCCUPANCY SHALL HAVE THE OCCUPANT LOAD OF THE ROOM OR SPACE POSTED IN A CONSPICUOUS PLACE, NEAR THE MAIN EXIT OR EXIT ACCESS DOORWAY I.B.C. 1004.9
14. MIRRORED WALL - SEE INTERIOR ELEVATION SHEET.
15. WATER HEATER. REFER TO PLUMBING DRAWINGS.
16. EXIT SIGN, LOCATED READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL, EXIT SIGNS NOT REQUIRED IN ROOMS OR AREAS THAT REQUIRE ONLY ONE EXIT OR EXIT ACCESS. I.B.C. 1013.1.
17. TACTILE EXIT SIGN, A SIGN STATING "EXIT" PER I.B.C. 1013.4 & ICC-A117.1 703. SHALL BE PROVIDED ADJACENT TO EACH EXIT DOOR. SEE DETAIL 2/AD.5.
18. CABINETS. SEE INTERIOR ELEVATION FOR HEIGHT.
19. 30"X48" CLEARANCE SPACE.
20. FLOOR DRAIN. SEE PLUMBING DRAWINGS. SLOPE ADJACENT FLOORING 2%.
21. UNDER COUNTER REFRIGERATOR.
22. BAR SINK.
23. JANITOR SINK. REFER TO PLUMBING DRAWINGS.
24. 60" DIA. CLEAR TURNAROUND SPACE.
25. LINE OF METAL AWNING WITH DECORATIVE METAL ROOF PANEL. SEE ELEVATIONS AND DETAIL 15/AD.1-1.
26. LINE OF EYEBROW CANOPY. SEE ELEVATIONS.
27. STEEL TUBE POST. SEE PLAN AND STRUCTURAL DRAWINGS.
28. APPLIANCE FIREPLACE. VERIFY WITH INTERIOR DESIGNER.
29. DOUBLE STUD WALL.
30. 2x8 STUD WALL.
31. 30" X 30" ROOF ACCESS HATCH WITH PERMANENTLY AFFIXED LADDER TO ROOF.
32. 30'-0" WIDE X 12'-0" HIGH 6 PANEL FOLDING PARTITION WALL. BASIS OF DESIGN IS "MODERNFOLD ACOUSTI-SEAL ENCORE".
33. ROOM IDENTIFICATION SIGNAGE PER ICC -A117.1 703, PER DETAIL 4/AD.5.
34. 30" DOUBLE OVEN
35. 48" REFRIGERATOR / FREEZER
36. TRIPLE BASIN PREP SINK.
37. MICROWAVE DRAWER.
38. TRASH COMPACTOR.
39. WARMING DRAWER.
40. PASS-THROUGH COUNTERTOP.
41. DISH WASHER (UNDER 34" COUNTERTOP).
42. WASTE PAPER HOLE IN COUNTERTOP ABOVE WASTE PAPER BASKET.

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REVISIONS

ALTIS SERENITY CLUB HOUSE
HARTNETT COUNTY NORTH CAROLINA

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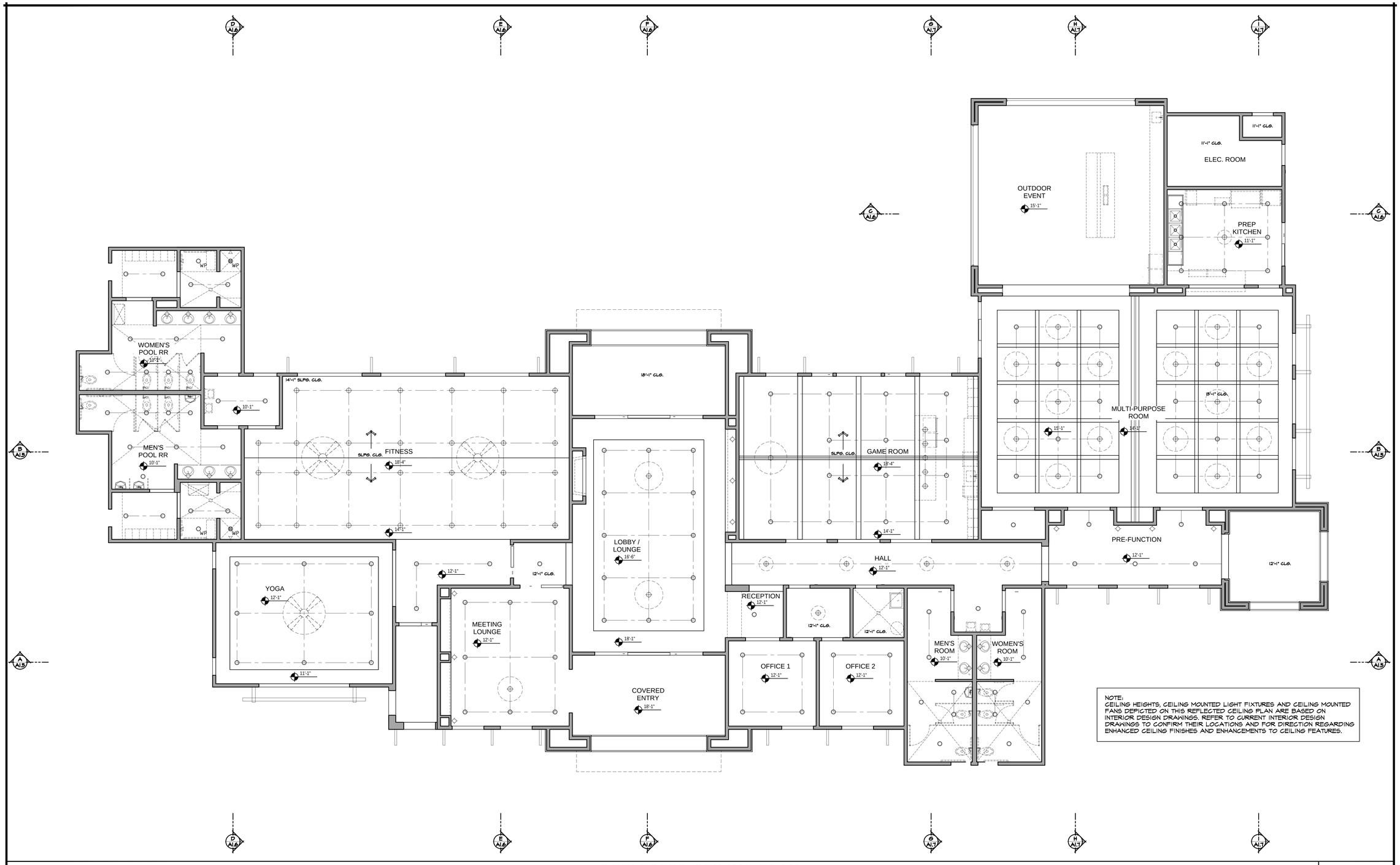
CLUBHOUSE
FLOOR PLAN

A1.2

JOB NUMBER: 667-24126

PLOT DATE: 2-20-25
FILE NAME: 4126_A1_02 CLUB HOUSE FLOOR PLAN



NOTE:
CEILING HEIGHTS, CEILING MOUNTED LIGHT FIXTURES AND CEILING MOUNTED FANS DEPICTED ON THIS REFLECTED CEILING PLAN ARE BASED ON INTERIOR DESIGN DRAWINGS. REFER TO CURRENT INTERIOR DESIGN DRAWINGS TO CONFIRM THEIR LOCATIONS AND FOR DIRECTION REGARDING ENHANCED CEILING FINISHES AND ENHANCEMENTS TO CEILING FEATURES.

REFLECTED CEILING PLAN

SCALE: 3/16"=1'-0"

BUILDING REFLECTED CEILING LEGEND 5/17/12

- SURFACE MOUNTED LED CEILING LIGHT FIXTURE
- RECESSED LED LIGHT FIXTURE
- (F) CEILING FAN
- (S) SMOKE ALARM, CEILING MOUNTED, HARD WIRED AND W/ BATTERY BACKUP. ICC AND SFM APPROVED
- (S/C) COMBINATION SMOKE/CARBON MONOXIDE ALARM, CEILING MOUNTED, HARD WIRED AND W/ BATTERY BACK UP. ICC APPROVED
- EMERGENCY LIGHT
- EXHAUST FAN, SEE MECHANICAL PLAN
- MECHANICAL CEILING REGISTER, SEE MECHANICAL PLANS
- MECHANICAL CEILING REGISTER, SEE MECHANICAL PLANS
- INDICATES DROPPED CEILING

REFLECTED CEILING GENERAL NOTES 5/17/12

1. FOR ADDITIONAL INFORMATION REGARDING CEILING MOUNTED FIXTURES, REFER TO ELECTRICAL PLANS, MECHANICAL PLANS AND FIRE SPRINKLER PLANS.
2. TYPICAL CEILING FINISH, CLUB HOUSE: PAINTED GYPSUM BOARD REFER TO INTERIOR DESIGN DRAWINGS FROM SPECIAL CEILING FINISHES.
3. TYPICAL CEILING FINISH, POOL EQUIPMENT BUILDING: EXPOSED STRUCTURE / NO FINISH, EXCEPT WHERE NOTED OTHERWISE.
4. TYPICAL CEILING FINISH MAIL STRUCTURE: 2X6 T & G CEILING FINISH.

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CLUBHOUSE
FIRST FLOOR REFLECTED CEILING PLAN
A1.3

JOB NUMBER: 667-24126

FILE NAME: 4126_A1_03 CLUB HOUSE REFLECTED C.L.G. PLAN PLOT DATE: 2-20-25

ATTIC VENTILATION CALCULATIONS

(REFER TO "REQUIRED ATTIC VENTILATION" NOTES FOR ADDITIONAL INFORMATION)

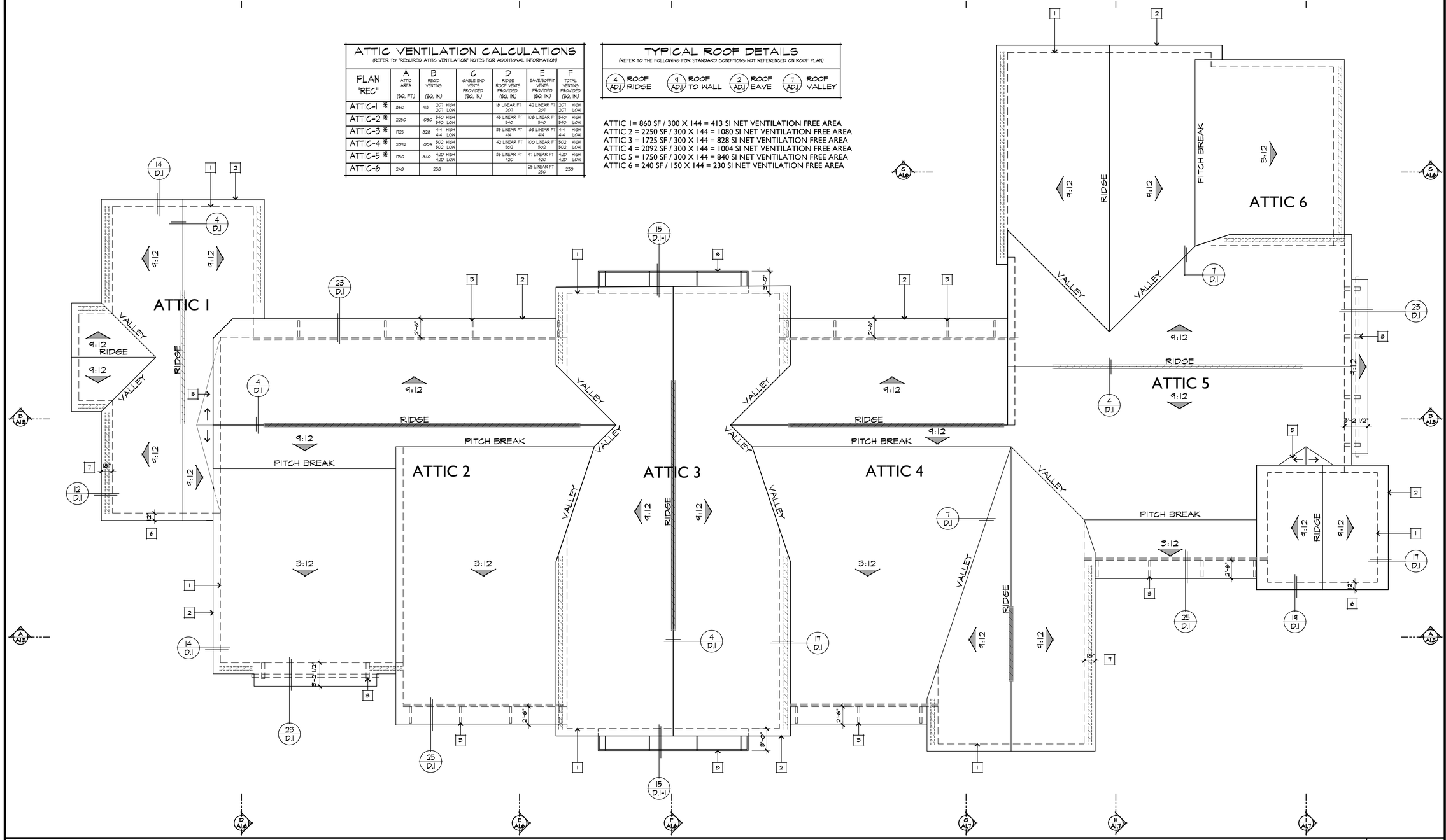
PLAN "REC"	A ATTIC AREA (SQ. FT.)	B REQ'D VENTING (SQ. IN.)	C GABLE END VENTS PROVIDED (SQ. IN.)	D RIDGE ROOF VENTS PROVIDED (SQ. IN.)	E EAVE/SOFFIT VENTS PROVIDED (SQ. IN.)	F TOTAL VENTING PROVIDED (SQ. IN.)
ATTIC-1 *	860	415 207 HIGH 207 LOW		18 LINEAR FT 207	42 LINEAR FT 207	207 HIGH 207 LOW
ATTIC-2 *	2250	1080 540 HIGH 540 LOW		45 LINEAR FT 540	108 LINEAR FT 540	540 HIGH 540 LOW
ATTIC-3 *	1725	828 414 HIGH 414 LOW		35 LINEAR FT 414	85 LINEAR FT 414	414 HIGH 414 LOW
ATTIC-4 *	2092	1004 502 HIGH 502 LOW		42 LINEAR FT 502	100 LINEAR FT 502	502 HIGH 502 LOW
ATTIC-5 *	1750	840 420 HIGH 420 LOW		35 LINEAR FT 420	41 LINEAR FT 420	420 HIGH 420 LOW
ATTIC-6	240	230			25 LINEAR FT 230	230

TYPICAL ROOF DETAILS

(REFER TO THE FOLLOWING FOR STANDARD CONDITIONS NOT REFERENCED ON ROOF PLAN)

- 4 / AD.1 ROOF RIDGE
- 9 / AD.1 ROOF TO WALL
- 2 / AD.1 ROOF EAVE
- 7 / AD.1 ROOF VALLEY

ATTIC 1= 860 SF / 300 X 144 = 413 SI NET VENTILATION FREE AREA
ATTIC 2 = 2250 SF / 300 X 144 = 1080 SI NET VENTILATION FREE AREA
ATTIC 3 = 1725 SF / 300 X 144 = 828 SI NET VENTILATION FREE AREA
ATTIC 4 = 2092 SF / 300 X 144 = 1004 SI NET VENTILATION FREE AREA
ATTIC 5 = 1750 SF / 300 X 144 = 840 SI NET VENTILATION FREE AREA
ATTIC 6 = 240 SF / 150 X 144 = 230 SI NET VENTILATION FREE AREA



ROOF PLAN

SCALE: 3/16"=1'-0"

REQUIRED ATTIC VENTILATION

01/20/17

PER IBC 1203.2 ENCLOSED ATTICS AND ENCLOSED RAFTER SPACES FORMED WHERE CEILINGS ARE APPLIED DIRECTLY TO THE UNDERSIDE OF ROOF FRAMING MEMBERS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATION OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN AND SNOW. BLOCKING AND BRIDGING SHALL BE ARRANGED SO AS NOT TO INTERFERE WITH THE MOVEMENT OF AIR. AN AIRSPACE OF NOT LESS THAN 1 INCH SHALL BE PROVIDED BETWEEN THE INSULATION AND THE ROOF SHEATHING. THE NET FREE VENTILATING AREA SHALL BE NOT LESS THAN 1/150 OF THE AREA OF THE SPACE VENTILATED. VENTILATORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

* EXCEPTION: THE NET FREE CROSS VENTILATION AREA SHALL BE PERMITTED TO BE REDUCED TO 1/300 PROVIDED AT LEAST 40% AND NOT MORE THAN 50% OF THE REQUIRED VENTING AREA IS PROVIDED BY VENTILATORS LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER SPACE. UPPER VENTILATORS SHALL BE LOCATED NOT MORE THAN 3 FEET BELOW THE RIDGE OR THE HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY WITH THE BALANCE OF THE VENTILATION PROVIDED BY EAVE OR CORNICE VENTS.

PER IBC 1203.2.1 EXTERIOR OPENINGS INTO THE ATTIC SPACE OF ANY BUILDING INTENDED FOR HUMAN OCCUPANCY SHALL BE PROTECTED TO PREVENT THE ENTRY OF BIRDS, SQUIRRELS, RODENTS, SNAKES AND OTHER SIMILAR CREATURES. OPENINGS FOR VENTILATION HAVING A LEAST DIMENSION OF NOT LESS THAN 1/16" AND NOT MORE THAN 1/4" SHALL BE PROVIDED WITH CORROSION RESISTANT WIRE CLOTH SCREENING, HARDWARE CLOTH, PERFORATED VINYL OR SIMILAR MATERIAL WITH OPENINGS HAVING A LEAST DIMENSION OF NOT LESS THAN 1/16" AND NOT MORE THAN 1/4". WHERE COMBUSTION AIR IS OBTAINED FROM AN ATTIC AREA, IT SHALL BE IN ACCORDANCE WITH CHAPTER 7 OF THE IMC.

- =SOFFIT VENT = 9 SQUARE INCHES OF FREE VENTILATION AREA / FOOT
- =RIDGE VENT = 12 SQUARE INCHES OF FREE VENTILATION AREA / FOOT
- =EAVE VENT = 5 SQUARE INCHES OF FREE VENTILATION AREA / FOOT

ROOF PLAN NOTES

01/20/17

1. BUILDING LINE.
2. ROOF LINE.
3. ROOF BRACE AT EAVE. SEE DETAILS 23/D.1 AND 25/D.1.
4. PROPOSED LOCATION OF ROOF GUTTER AND DOWNSPOUT. CONFIRM LAYOUT IN FIELD
5. G.I. FLASHING AND SADDLE/ CRICKET.
6. ROOF RAKE: 12" OVERHANG, TYPICAL.
7. ROOF EAVE: 18" OVERHANG, UNLESS NOTED OTHERWISE.
8. LINE OF CANOPY BELOW. SEE DETAIL 15/D.1-1.
9. ROOF VENT. REFER TO ROOF CALCS FOR ADDITIONAL INFORMATION.

ROOF PLAN LEGEND

01/20/17

- 6:12 — INDICATES ROOF SLOPE DIRECTION.
- 6:12 — INDICATES RATE OF ROOF SLOPE.
- ← — INDICATES DIRECTION OF ROOF SLOPE AT CRICKET.
- HIGH DEFINITION COMPOSITION ASPHALT SHINGLES MANUFACTURER AND MODEL TO BE SELECTED BY TRIPOINTE HOMES

A. REFER TO ROOF PLAN FOR ROOF OVERHANG DIMENSIONS.
B. PROVIDE 1/4" NON-CORROSIVE SCREENS AT GUTTERS.

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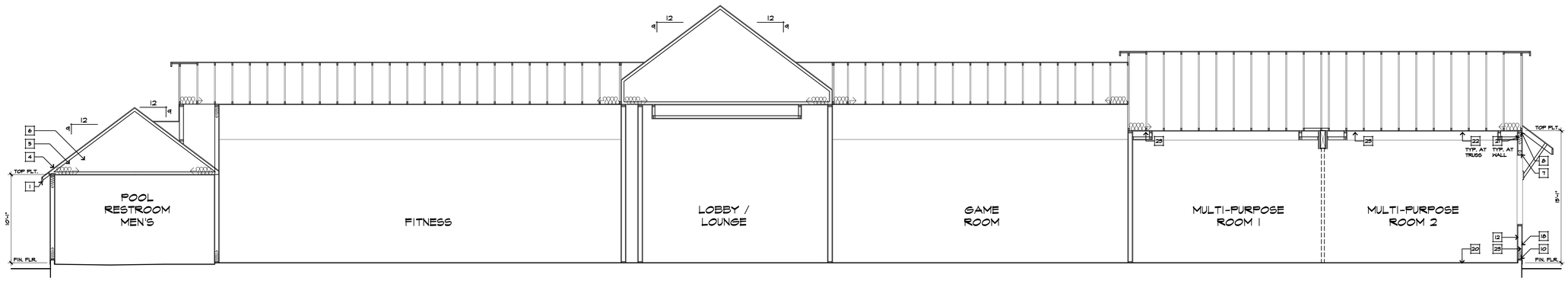
CLUBHOUSE
ROOF PLAN

A1.4

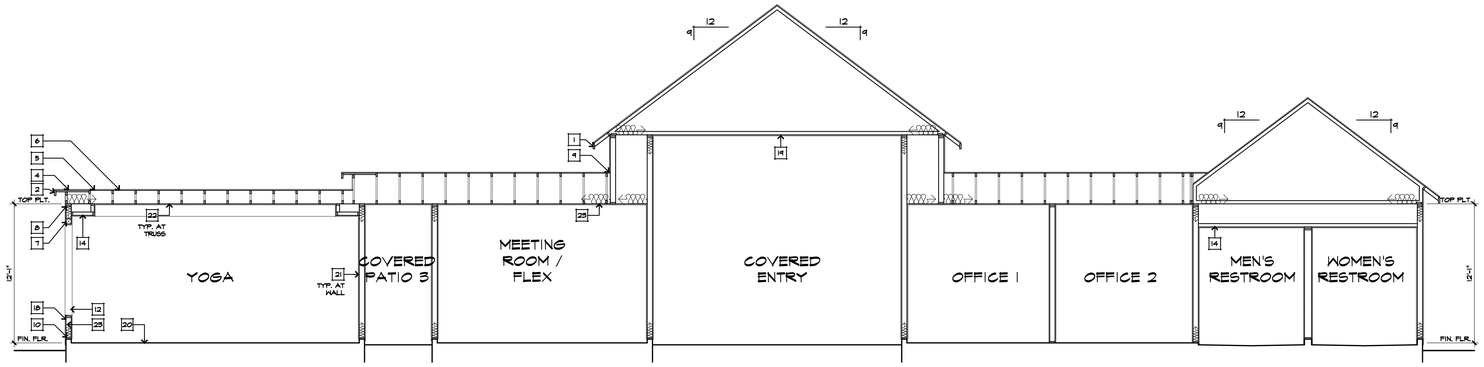
JOB NUMBER: 667-24126

PLOT DATE: 2-20-25
FILE NAME: 4126_A1_04 CLUB HOUSE ROOF PLAN



BUILDING SECTION

SCALE: 3/16"=1'-0" | B



BUILDING SECTION

SCALE: 3/16"=1'-0" | A

SECTION NOTES

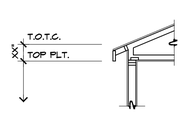
01/20/17

1. FASCIA BOARD. (SEE ELEVATION.)
2. BARGE BOARD. (SEE ELEVATION.)
3. ROOFING MATERIAL, REFER TO ROOF PLAN NOTES.
4. ROOF SHEATHING.
5. DESIGNED WOOD ROOF TRUSSES.
6. DROPPED BEAM.
7. HEADER.
8. DOUBLE 2X TOP PLATE.
9. G.I. FLASHING AT ROOF TO WALL.
10. 2X P.T.D.F. SILL PLATE.
11. 2X4 STUDS.
12. 2X6 STUDS.
13. 2X8 STUDS.
14. 2X CEILING FURRING.
15. 2X BLOCKING.
16. PONY WALL. SEE PLAN FOR HEIGHT.
17. BALLOON FRAMED WALLS. SEE STRUCTURAL FRAMING PLANS, STRUCTURAL CALCULATIONS AND GENERAL NOTES.
18. EXTERIOR FINISH, REFER TO ELEVATIONS.
19. EXTERIOR CEILING / SOFFIT (SEE PLAN / ELEVATION).
20. CONCRETE FLOOR SLAB.
21. 1/2" GYPSUM WALL BOARD.
22. 5/8" GYPSUM WALL BOARD.
23. FIBERBATT INSULATION-SEE ENERGY COMPLIANCE SHEET.
24. LOUVERED VENT.
25. UNENCLOSED, NON CONDITIONED ATTIC
26. ENHANCED PAVING OVER DEPRESSED STRUCTURAL SLAB.
27. COVERED OUTDOOR SPACES IN CLUB HOUSE AND MAIL STRUCTURE TO MATCH EXTERIOR WALL FINISHES.
28. MAIL STRUCTURE CEILING FINISH TO BE 2X6 T&G WOOD PER REFLECTED CEILING PLAN.

GENERAL SECTION NOTES

5/17/12

A. REFER TO STRUCTURAL ENGINEERS DRAWINGS, DETAILS AND NOTES FOR INFORMATION NOT SHOWN HERE.
B. REFER TO TRUSS DRAWINGS FOR INFORMATION NOT SHOWN HERE.
C. ROOF SLOPE(S) AND OVERHANG(S) MAY VARY PER PLAN. REFER TO THE ROOF NOTES AND ROOF PLANS FOR MORE INFORMATION.
D. TYPICAL DIMENSIONS FOR A HEEL TRUSS. (DIMENSION FROM TOP PLATE TO THE TOP OF TOP CHORD) .



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ALTIS SERENITY CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

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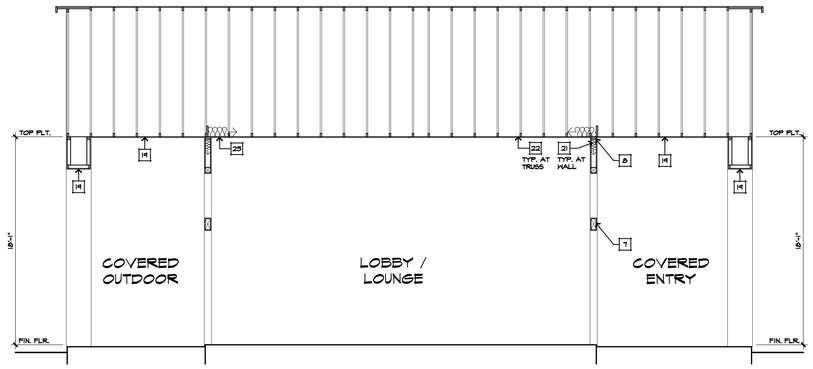
CLUBHOUSE
BUILDING SECTIONS

A1.5

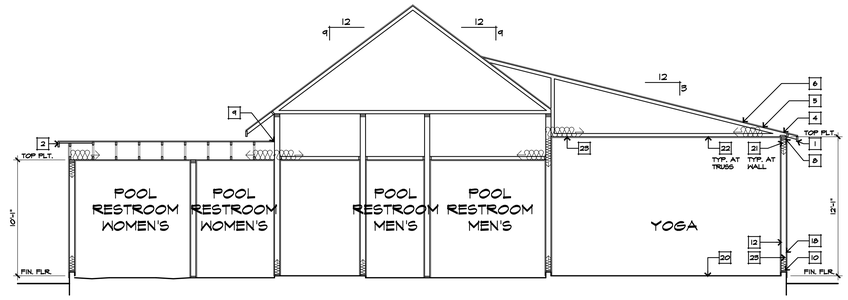
JOB NUMBER: 667-24126

PLOT DATE: 2-20-25
FILE NAME: 4126_A1_05 CLUB HOUSE SECTIONS



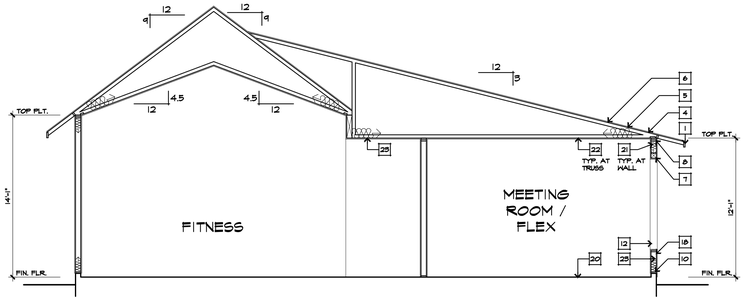
BUILDING SECTION

SCALE: 3/16"=1'-0" | F



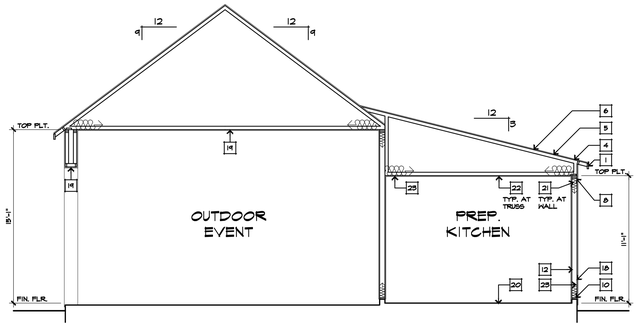
BUILDING SECTION

SCALE: 3/16"=1'-0" | D



BUILDING SECTION

SCALE: 3/16"=1'-0" | E



BUILDING SECTION

SCALE: 3/16"=1'-0" | C

SECTION NOTES

01/20/17

1. FASCIA BOARD. (SEE ELEVATION.)
2. BARGE BOARD. (SEE ELEVATION.)
3. ROOFING MATERIAL, REFER TO ROOF PLAN NOTES.
4. ROOF SHEATHING.
5. DESIGNED WOOD ROOF TRUSSES.
6. DROPPED BEAM.
7. HEADER.
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11. 2X4 STUDS.
12. 2x6 STUDS.
13. 2X8 STUDS.
14. 2X CEILING FURRING.
15. 2X BLOCKING.
16. PONY WALL. SEE PLAN FOR HEIGHT.
17. BALLOON FRAMED WALLS. SEE STRUCTURAL FRAMING PLANS, STRUCTURAL CALCULATIONS AND GENERAL NOTES.
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GENERAL SECTION NOTES

5/17/12

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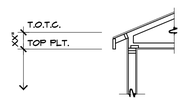

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ALTIS SERENITY CLUB HOUSE
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NORTH CAROLINA

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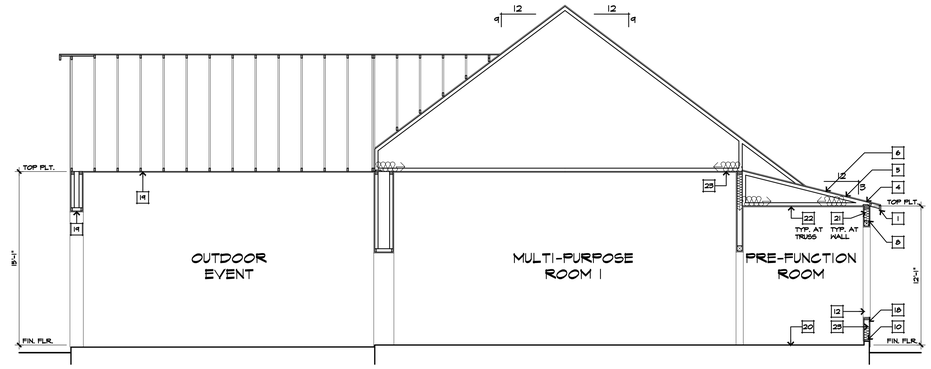
CLUBHOUSE
BUILDING SECTIONS

A1.6

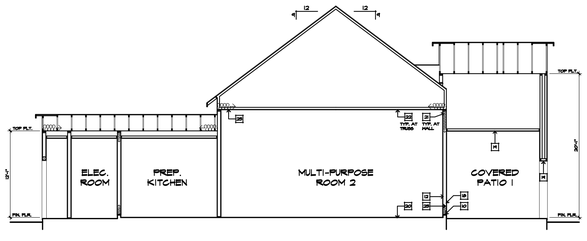
JOB NUMBER: 667-24126

PLOT DATE: 2-20-25
FILE NAME: 4126_A1_05 CLUB HOUSE SECTIONS



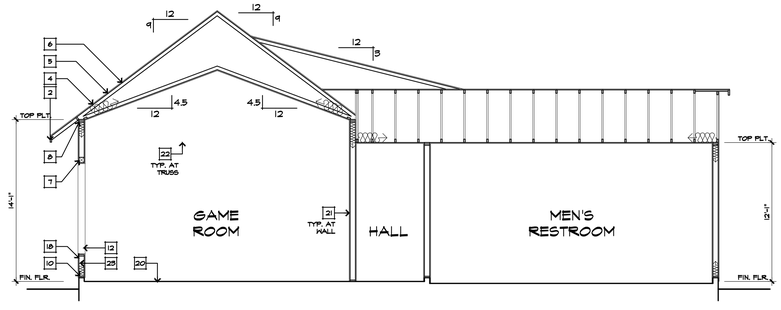
BUILDING SECTION

SCALE: 3/16"=1'-0" | H



BUILDING SECTION

SCALE: 3/16"=1'-0" | I



BUILDING SECTION

SCALE: 3/16"=1'-0" | G

SECTION NOTES

01/20/17

1. FASCIA BOARD. (SEE ELEVATION.)
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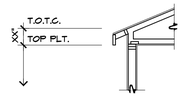
11. 2X4 STUDS.
12. 2x6 STUDS.
13. 2X8 STUDS.
14. 2X CEILING FURRING.
15. 2X BLOCKING.
16. PONY WALL. SEE PLAN FOR HEIGHT.
17. BALLOON FRAMED WALLS. SEE STRUCTURAL FRAMING PLANS, STRUCTURAL CALCULATIONS AND GENERAL NOTES.
18. EXTERIOR FINISH, REFER TO ELEVATIONS.
19. EXTERIOR CEILING / SOFFIT (SEE PLAN / ELEVATION).
20. CONCRETE FLOOR SLAB.
21. 1/2" GYPSUM WALL BOARD.
22. 5/8" GYPSUM WALL BOARD.
23. FIBERBATT INSULATION-SEE ENERGY COMPLIANCE SHEET.
24. LOUVERED VENT.
25. UNENCLOSED, NON CONDITIONED ATTIC
26. ENHANCED PAVING OVER DEPRESSED STRUCTURAL SLAB.
27. COVERED OUTDOOR SPACES IN CLUB HOUSE AND MAIL STRUCTURE TO MATCH EXTERIOR WALL FINISHES.
28. MAIL STRUCTURE CEILING FINISH TO BE 2X6 T&G WOOD PER REFLECTED CEILING PLAN.

GENERAL SECTION NOTES

5/17/12

A. REFER TO STRUCTURAL ENGINEERS DRAWINGS, DETAILS AND NOTES FOR INFORMATION NOT SHOWN HERE.
B. REFER TO TRUSS DRAWINGS FOR INFORMATION NOT SHOWN HERE.
C. ROOF SLOPE(S) AND OVERHANG(S) MAY VARY PER PLAN. REFER TO THE ROOF NOTES AND ROOF PLANS FOR MORE INFORMATION.
D. TYPICAL DIMENSIONS FOR A HEEL TRUSS. (DIMENSION FROM TOP PLATE TO THE TOP OF TOP CHORD) .



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REVISIONS

ALTIS SERENITY
CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

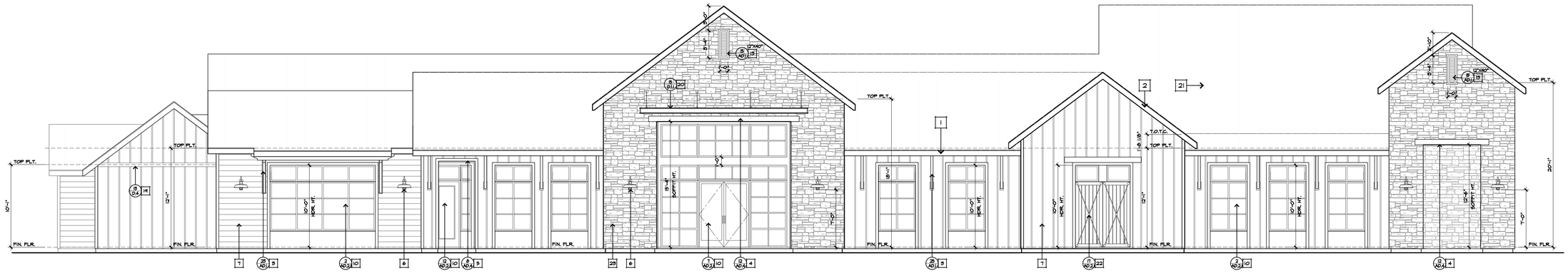
tri pointe HOMES

CLUBHOUSE
BUILDING
SECTIONS

A1.7

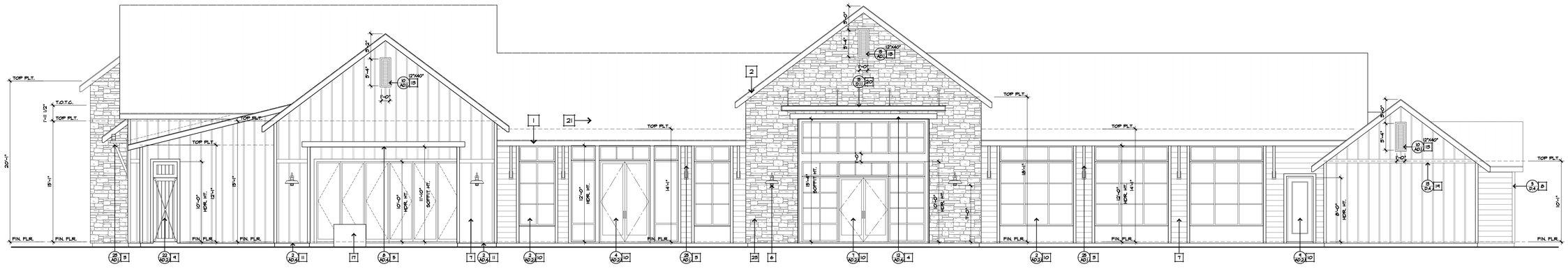
JOB NUMBER: 667-24126

PLOT DATE: 2-20-25
FILE NAME: 4126_A1_05 CLUB HOUSE SECTIONS



ELEVATION (FRONT)

SCALE: 3/16"=1'-0" | 1



ELEVATION (REAR)

SCALE: 3/16"=1'-0" | 2

ELEVATION NOTES

01/20/17

1. FASCIA, SEE ROOF PLAN.
2. BARGE, SEE ROOF PLAN.
3. ROOF OVERHANG KICKER, SEE DETAIL.
4. FOAM TRIM HEADER AT FAUX STONE.
5. CEMENTITIOUS WOOD TRIM HEADER AT SIDING.
6. EXTERIOR LIGHT FIXTURE. REFER TO ELECTRICAL PLANS
7. CEMENTITIOUS SIDING. SEE EXTERIOR FINISH NOTES.
8. EXTERIOR CEMENTITIOUS TRIM BOARD AT CORNER.
9. CUSTOM BARN DOOR.
10. STOREFRONT WINDOW/DOOR.
11. CONTINUOUS G.I. SCREED, SEE DETAIL.
12. G.I. FLASHING ROOF TO WALL.
13. DECORATIVE LOUVERED VENT. SEE ELEVATION FOR SIZE.
14. ALUMINUM LOUVERED VENT FOR POOL EQUIPMENT. SEE POOL EQUIPMENT DRAWINGS FOR ADDITIONAL INFORMATION.
15. G.I. GUTTER AND DOWNSPOUTS. GUTTER LAYOUT AND DOWNSPOUT LOCATIONS TO BE FIELD VERIFIED.
16. STUCCO CANOPY. SEE DETAIL.
17. OUTDOOR EVENT ROOM ISLAND BEYOND.
18. BUILDING ADDRESS LOCATION.
19. CEMENTITIOUS WALL SHEATHING PANEL CONTROL JOINT
20. METAL TRELLIS
21. ROOF FINISH PER ROOF PLAN.
22. CUSTOM BARN DOOR. FIXED IN PLACE.
23. ADHERED SYNTHETIC STONE VENEER BY EL DORADO, ESR-1215.
24. CUSTOM ROOF TRUSS.

EXTERIOR FINISHES

1/1/14

A. ALL EXPOSED WOOD TRIM, PLYWOOD, POSTS AND CORBELS TO BE "RESAWN" AND SHALL BE PRIMED ON ALL SIDES PRIOR TO INSTALLATION/ASSEMBLY.
B. TYPICAL BOARD AND BATTEN SIDING TO BE : SMOOTH FINISH CEMENTITIOUS SIDING PANELS WITH SMOOTH FINISH CEMENTITIOUS VERTICAL BATTENS AT 16" OC, TYPICAL. UTILIZE VERTICAL CEMENTITIOUS BATTENS AT EXTERIOR AND INTERIOR CORNERS.
HORIZONTAL AND VERTICAL GALVANIZED METAL EXPANSION JOINTS PRIMED AND PAINTED AS RECOMMENDED BY MANUFACTURER.
C. TYPICAL HORIZONTAL LAP SIDING TO BE : SMOOTH FINISH CEMENTITIOUS LAP SIDING WITH 8" EXPOSURE TYPICAL. UTILIZE VERTICAL CEMENTITIOUS BATTENS AT EXTERIOR AND INTERIOR CORNERS.
HORIZONTAL AND VERTICAL GALVANIZED METAL EXPANSION JOINTS PRIMED AND PAINTED AS RECOMMENDED BY MANUFACTURER.
d. STONE VENEER : MANUFACTURED STONE VENEER PER CLIENT.

PLOT DATE: 2-20-25

FILE NAME: 4126_A1_08 CLUB HOUSE ELEVATIONS

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HARTNETT COUNTY
NORTH CAROLINA

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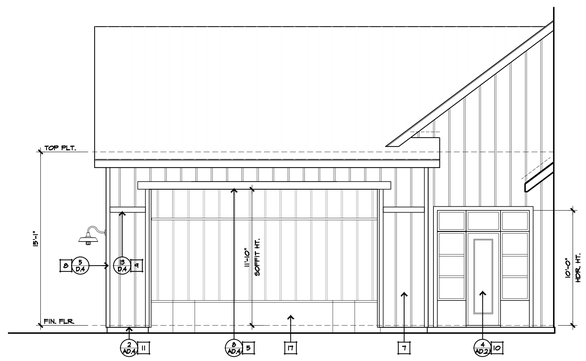
CLUBHOUSE
BUILDING ELEVATIONS

A1.8

JOB NUMBER: 667-24126

ELEVATION (RIGHT)

SCALE: 3/16"=1'-0" | 3



ELEVATION (LEFT)

SCALE: 3/16"=1'-0" | 4

ELEVATION NOTES

01/20/17

1. FASCIA. SEE ROOF PLAN.
2. BARGE. SEE ROOF PLAN.
3. ROOF OVERHANG KICKER. SEE DETAIL.
4. FOAM TRIM HEADER AT FAUX STONE .
5. CEMENTITIOUS WOOD TRIM HEADER AT SIDING.
6. EXTERIOR LIGHT FIXTURE. REFER TO ELECTRICAL PLANS
7. CEMENTITIOUS SIDING. SEE EXTERIOR FINISH NOTES.
8. EXTERIOR CEMENTITIOUS TRIM BOARD AT CORNER.
9. CUSTOM BARN DOOR.
10. STOREFRONT WINDOW/DOOR.
11. CONTINUOUS G.I. SCREED. SEE DETAIL.
12. G.I. FLASHING ROOF TO WALL.
13. DECORATIVE LOUVERED VENT. SEE ELEVATION FOR SIZE.
14. ALUMINUM LOUVERED VENT FOR POOL EQUIPMENT. SEE POOL EQUIPMENT DRAWINGS FOR ADDITIONAL INFORMATION.
15. G.I. GUTTER AND DOWNSPOUTS. GUTTER LAYOUT AND DOWNSPOUT LOCATIONS TO BE FIELD VERIFIED.
16. STUCCO CANOPY. SEE DETAIL.
17. OUTDOOR EVENT ROOM ISLAND BEYOND.
18. BUILDING ADDRESS LOCATION.
19. CEMENTITIOUS WALL SHEATHING PANEL CONTROL JOINT
20. METAL TRELLIS
21. ROOF FINISH PER ROOF PLAN.
22. CUSTOM BARN DOOR. FIXED IN PLACE.
23. ADHERED SYNTHETIC STONE VENEER BY EL DORADO, ESR-1215.
24. CUSTOM ROOF TRUSS.

EXTERIOR FINISHES

1/1/14

A. ALL EXPOSED WOOD TRIM, PLYWOOD, POSTS AND CORBELS TO BE 'RESAWN' AND SHALL BE PRIMED ON ALL SIDES PRIOR TO INSTALLATION/ASSEMBLY.
B. TYPICAL BOARD AND BATTEN SIDING TO BE : SMOOTH FINISH CEMENTITIOUS SIDING PANELS WITH SMOOTH FINISH CEMENTITIOUS VERTICAL BATTENS AT 16" OC, TYPICAL. UTILIZE VERTICAL CEMENTITIOUS BATTENS AT EXTERIOR AND INTERIOR CORNERS. HORIZONTAL AND VERTICAL GALVANIZED METAL EXPANSION JOINTS PRIMED AND PAINTED AS RECOMMENDED BY MANUFACTURER.
C. TYPICAL HORIZONTAL LAP SIDING TO BE : SMOOTH FINISH CEMENTITIOUS LAP SIDING WITH 8" EXPOSURE TYPICAL. UTILIZE VERTICAL CEMENTITIOUS BATTENS AT EXTERIOR AND INTERIOR CORNERS. HORIZONTAL AND VERTICAL GALVANIZED METAL EXPANSION JOINTS PRIMED AND PAINTED AS RECOMMENDED BY MANUFACTURER.
d. STONE VENEER : MANUFACTURED STONE VENEER PER CLIENT.

PLOT DATE: 2-20-25

FILE NAME: 4126_A1_09 CLUB HOUSE ELEVATIONS

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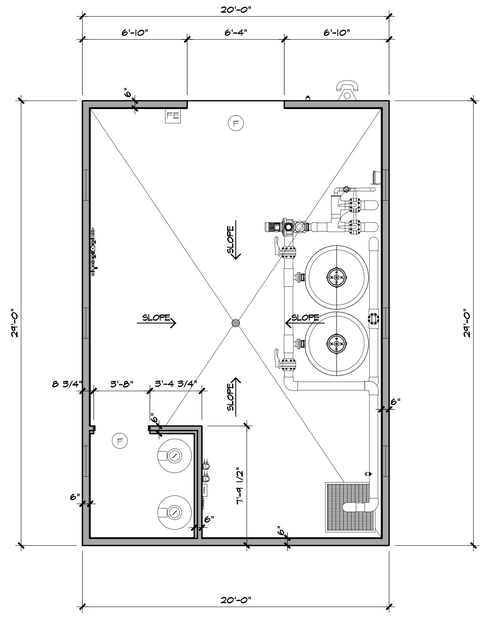
CLUBHOUSE
BUILDING
ELEVATIONS

A1.9

JOB NUMBER: 667-24126



REFER TO POOL EQUIPMENT DRAWINGS PREPARED BY SHULTZ ENGINEERING FOR INFORMATION REGARDING ALL POOL EQUIPMENT REQUIREMENTS.

SLAB INTERFACE PLAN

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

SLAB INTERFACE LEGEND

02/15/17

- INDICATES DROP IN SLAB.
- INDICATES AREA OF 2" DEPRESSED SLAB TO RECEIVE TILE FLOORING OVER SETTING BED. SEE INTERIOR DESIGN PLANS AND SPECIFICATIONS FOR TILE.
- INDICATES AREA OF 3" DEPRESSED SLAB TO RECEIVE PAVERS AND MORTAR BED. REFER TO LANDSCAPE ARCHITECT / CIVIL DRAWINGS TO CONFIRM THE DEPTH OF PAVERS, MORTAR BED AND DEPTH OF SLAB DEPRESSION.
- INDICATES 6" RAISED CURB ABOVE FINISH FLOOR. VERIFY LOCATIONS W/ SITE GRADING PLANS. SEE ELEVATIONS.
- INDICATES LOCATION OF LEVEL, ACCESSIBLE LANDING REQUIRED AT EXTERIOR ENTRY DOORS.
- INDICATES DOWNSPOUT LOCATION, VERIFY WITH CIVIL/ LANDSCAPE.

GENERAL SLAB INTERFACE NOTES

01/20/17

A. VERIFY MINIMUM FOUNDATION DEPTH, WIDTH, REINFORCING STEEL AND ADDITIONAL EXPANSIVE SOIL REQUIREMENTS WITH THE SOILS REPORT.
B. REFER TO STRUCTURAL ENGINEERING DRAWINGS FOR INFORMATION RELATED TO FLOOR SLAB NOT SHOWN HERE.
C. FOR HARDSCAPE INFORMATION REFER TO LANDSCAPE PLANS.
D. COVERED ENTRIES: PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING(S) TO SURFACE AREA DRAINS.
E. EXTERIOR DRAIN LOCATIONS TO BE DETERMINED BY CIVIL ENGINEER. SEE PRECISE GRADING PLANS FOR LOCATIONS.
F. WHEN REQUIRED BY SOILS ENGINEER OR OTHERS, TIE COURTYARD DRAINS AND ROOF DOWNSPOUTS INTO SITE AREA DRAINS.
G. PRIOR TO POURING SLAB COORDINATE RISER SLEEVE WITH STRUCTURAL ENGINEER'S DRAWINGS.

REFER TO CIVIL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION THAT MAY IMPACT THE SLAB INTERFACE NOT SHOWN HERE.

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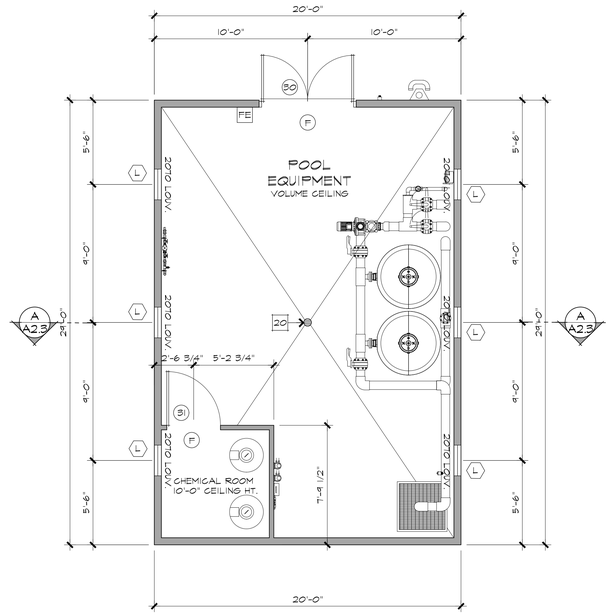
POOL EQUIPMENT
FIRST FLOOR
SLAB PLAN

A2.1

JOB NUMBER: 667-24126

FILE NAME: 4126_A2_01 POOL EQUIPMENT SLAB PLAN PLOT DATE: 2-20-25



REFER TO POOL EQUIPMENT DRAWINGS PREPARED BY SHULTZ ENGINEERING FOR INFORMATION REGARDING ALL POOL EQUIPMENT REQUIREMENTS.

BUILDING PLAN

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

BUILDING PLAN LEGEND

11/7/22

TYPICAL 2X6 STUDS AT 16" O.C. UNLESS OTHERWISE NOTED. REFER TO STRUCTURAL DRAWINGS.

(1) INDICATES DOOR SYMBOL NUMBER. REFER TO DOOR SCHEDULE SHEET A5.1 FOR ADDITIONAL INFORMATION

(A) INDICATES WINDOW SYMBOL LETTER. REFER TO WINDOW SCHEDULE SHEET A5.1-1 FOR ADDITIONAL INFORMATION

BUILDING PLAN NOTES

12/20/22

1. SINK W/ GARBAGE DISPOSAL.
2. SOFFIT. SEE PLAN FOR HEIGHT.
3. EXTERIOR SOFFIT, SEE EXTERIOR ELEVATIONS FOR HEIGHT.
4. LINE OF CEILING HEIGHT CHANGE OF COFFERED CEILING. REFER TO REFLECTED CEILING PLANS.
5. MILLWORK. REFER TO INTERIOR ELEVATIONS.
6. TOILET/ BATHING ROOM IDENTIFICATION SYMBOL PER DETAIL 5/A0.5.
7. FLUSH 24" X 36" (U.N.O.) MIN. ATTIC ACCESS W/ GYP. BD. FINISH.
8. HI-LO HI-LO DRINKING FOUNTAIN. PROVIDE A 30" X 48" CLEAR SPACE POSITIONED FOR A FORWARD APPROACH CENTERED TO THE DRINKING FOUNTAIN. SPOUT OUTLETS OF A WHEELCHAIR ACCESSIBLE DRINKING FOUNTAIN SHALL BE 36" MAXIMUM ABOVE THE FLOOR. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38" MINIMUM AND 43" MAXIMUM ABOVE THE FLOOR. THE SPOUT LOCATION SHALL BE LOCATED 15" MINIMUM FROM THE VERTICAL SUPPORT AND 5" MAXIMUM FROM THE FRONT EDGE OF THE DRINKING FOUNTAIN. INCLUDING BUMPERS, THE SPOUT SHALL PROVIDE A FLOW OF WATER 4" MINIMUM IN HEIGHT. THE ANGLE OF THE WATER STREAM FROM SPOUTS WITHIN 3" OF THE FRONT OF THE DRINKING FOUNTAIN SHALL BE 30 DEGREES MAXIMUM, AND FROM SPOUTS BETWEEN 3" AND 5" FROM THE FRONT OF THE DRINKING FOUNTAIN SHALL BE 15 DEGREES MAXIMUM, MEASURED HORIZONTALLY RELATIVE TO THE FRONT FACE OF THE DRINKING FOUNTAIN. ICC A117.1 602, PER 15/D.5.
9. CARD READER REFER TO SECURITY PLANS.
10. INTERNATIONAL SYMBOL OF ACCESSIBILITY IN ACCORDANCE WITH ICC A117.1 FIGURE 703.6.3.1. SEE DETAIL 6/A0.5.
11. CLASS "A" FIRE EXTINGUISHER WITH CABINET. SERVICE PERSONNEL PROVIDING OR CONDUCTING MAINTENANCE SHALL POSSES A VALID CERTIFICATE ISSUED BY AN APPROVED GOVERNMENTAL AGENCY, OR OTHER APPROVED ORGANIZATION FOR THE TYPE OF WORK PERFORMED, THE CLEARANCE BETWEEN FLOOR AND THE BOTTOM OF INSTALLED HAND-HELD PORTABLE EXTINGUISHERS SHALL BE NO LESS THAN 4". PORTABLE FIRE EXTINGUISHERS HAVING A GROSS WEIGHT NOT EXCEEDING 40 LBS. SHALL BE INSTALLED SO THAT THEIR TOPS ARE NOT MORE THAN 5' ABOVE FLOOR (3.5' ABOVE FLOOR WHEN EXCEEDING 40 LBS.). VERIFY LOCATION AND QUANTITY WITH THE FIRE DEPARTMENT PRIOR TO INSTALLATION.
12. FIRE DEPARTMENT KNOX KEY SWITCH (PER FIRE DEPT. SPECIFICATIONS). INSTALL IN ACCORDANCE WITH FIRE DEPARTMENT STANDARDS.
13. ROOM CAPACITY SIGN. POSTED SIGN SHALL BE OF AN APPROVED LEGIBLE PERMANENT DESIGN, AND SHALL BE MAINTAINED BY THE OWNER OR THE OWNERS AUTHORIZED AGENT. EVERY ROOM OR SPACE THAT IS AN ASSEMBLY OCCUPANCY SHALL HAVE THE OCCUPANT LOAD OF THE ROOM OR SPACE POSTED IN A CONSPICUOUS PLACE, NEAR THE MAIN EXIT OR EXIT ACCESS DOORWAY I.B.C. 1004.9
14. MIRRORED WALL - SEE INTERIOR ELEVATION SHEET.
15. WATER HEATER. REFER TO PLUMBING DRAWINGS.
16. EXIT SIGN, LOCATED READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL, EXIT SIGNS NOT REQUIRED IN ROOMS OR AREAS THAT REQUIRE ONLY ONE EXIT OR EXIT ACCESS. I.B.C. 1013.1.
17. TACTILE EXIT SIGN, A SIGN STATING "EXIT" PER I.B.C. 1013.4 & ICC-A117.1 703. SHALL BE PROVIDED ADJACENT TO EACH EXIT DOOR. SEE DETAIL 2/A0.5.
18. CABINETS. SEE INTERIOR ELEVATION FOR HEIGHT.
19. 30"X48" CLEARANCE SPACE.
20. FLOOR DRAIN. SEE PLUMBING DRAWINGS. SLOPE ADJACENT FLOORING 2%.
21. UNDER COUNTER REFRIGERATOR.
22. BAR SINK.
23. JANITOR SINK. REFER TO PLUMBING DRAWINGS.
24. 60" DIA. CLEAR TURNAROUND SPACE.
25. LINE OF METAL AWNING WITH DECORATIVE METAL ROOF PANEL. SEE ELEVATIONS AND DETAIL 15/A0.1-1.
26. LINE OF EYEBROW CANOPY. SEE ELEVATIONS.
27. STEEL TUBE POST. SEE PLAN AND STRUCTURAL DRAWINGS.
28. APPLIANCE FIREPLACE. VERIFY WITH INTERIOR DESIGNER.
29. DOUBLE STUD WALL.
30. 2x8 STUD WALL.
31. 30" X 30" ROOF ACCESS HATCH WITH PERMANENTLY AFFIXED LADDER TO ROOF.
32. 30'-0" WIDE X 12'-0" HIGH 6 PANEL FOLDING PARTITION WALL. BASIS OF DESIGN IS "MODERNFOLD ACOUSTI-SEAL ENCORE".
33. ROOM IDENTIFICATION SIGNAGE PER ICC -A117.1 703. PER DETAIL 4/A0.5.
34. 30" DOUBLE OVEN
35. 48" REFRIGERATOR / FREEZER
36. TRIPLE BASIN PREP SINK
37. MICROWAVE DRAWER.
38. TRASH COMPACTOR.
39. WARMING DRAWER.
40. PASS-THROUGH COUNTERTOP.
41. DISH WASHER (UNDER 34" COUNTERTOP).
42. WASTE PAPER HOLE IN COUNTERTOP ABOVE WASTE PAPER BASKET.

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REVISIONS

ALTIS SERENITY CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

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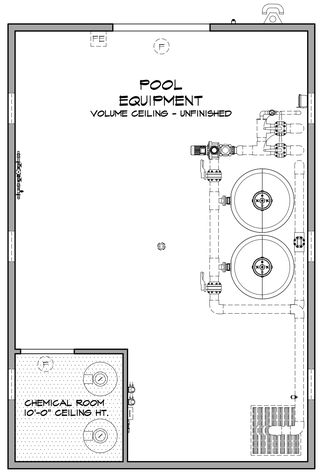
POOL EQUIPMENT
FIRST FLOOR
BUILDING PLAN

A2.2

JOB NUMBER: 667-24126

FILE NAME: 4126_A2_02 POOL EQUIPMENT FLOOR PLAN PLOT DATE: 2-20-25



REFLECTED CEILING PLAN

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

BUILDING REFLECTED CEILING LEGEND 5/17/12

- SURFACE MOUNTED LED CEILING LIGHT FIXTURE
- RECESSED LED LIGHT FIXTURE
- (F) CEILING FAN
- (S) SMOKE ALARM, CEILING MOUNTED, HARD WIRED AND W/ BATTERY BACKUP. ICC AND SFM APPROVED
- (CO) COMBINATION SMOKE/CARBON MONOXIDE ALARM, CEILING MOUNTED, HARD WIRED AND W/ BATTERY BACK UP. ICC APPROVED
- EMERGENCY LIGHT
- EXHAUST FAN, SEE MECHANICAL PLAN
- MECHANICAL CEILING REGISTER, SEE MECHANICAL PLANS
- MECHANICAL CEILING REGISTER, SEE MECHANICAL PLANS
- INDICATES DROPPED CEILING

REFLECTED CEILING GENERAL NOTES 5/17/12

1. FOR ADDITIONAL INFORMATION REGARDING CEILING MOUNTED FIXTURES, REFER TO ELECTRICAL PLANS, MECHANICAL PLANS AND FIRE SPRINKLER PLANS.
2. TYPICAL CEILING FINISH: CLUB HOUSE: PAINTED GYPSUM BOARD REFER TO INTERIOR DESIGN DRAWINGS FROM SPECIAL CEILING FINISHES.
3. TYPICAL CEILING FINISH: POOL EQUIPMENT BUILDING: EXPOSED STRUCTURE / NO FINISH, EXCEPT WHERE NOTED OTHERWISE.
4. TYPICAL CEILING FINISH MAIL STRUCTURE: 2X6 T & G CEILING FINISH.

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NORTH CAROLINA

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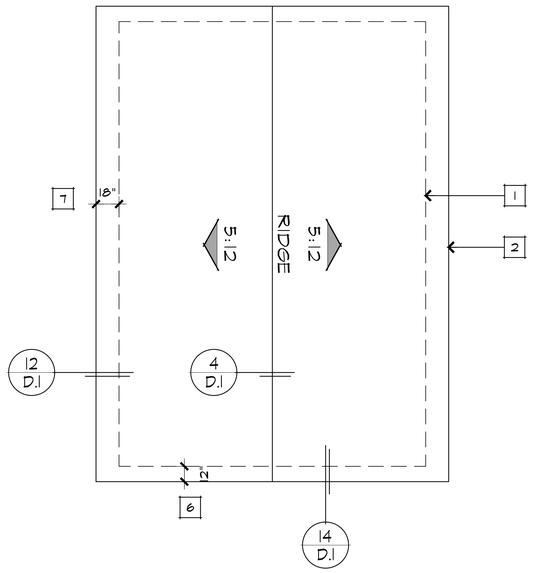
POOL EQUIPMENT
FIRST FLOOR
REFLECTED
CEILING PLAN

A2.3

JOB NUMBER: 667-24126

FILE NAME: 4126_A2_03 POOL EQUIPMENT REFLECTED CLG PLAN PLOT DATE: 2-20-25



ROOF PLAN

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

ROOF PLAN NOTES

01/20/17

1. BUILDING LINE.
2. ROOF LINE.
3. ROOF BRACE AT EAVE. SEE DETAILS 23/D.1 AND 25/D.1.
4. PROPOSED LOCATION OF ROOF GUTTER AND DOWNSPOUT. CONFIRM LAYOUT IN FIELD
5. G.I. FLASHING AND SADDLE/ CRICKET.
6. ROOF RAKE: 12" OVERHANG, TYPICAL.
7. ROOF EAVE: 18" OVERHANG, UNLESS NOTED OTHERWISE.
8. LINE OF CANOPY BELOW. SEE DETAIL 15/D.1-1.
9. ROOF VENT. REFER TO ROOF CALCS FOR ADDITIONAL INFORMATION.

ROOF PLAN LEGEND

01/20/17

6:12 — INDICATES ROOF SLOPE DIRECTION. INDICATES RATE OF ROOF SLOPE.

INDICATES DIRECTION OF ROOF SLOPE AT CRICKET.

HIGH DEFINITION COMPOSITION ASPHALT SHINGLES MANUFACTURER AND MODEL TO BE SELECTED BY TRIPOINTE HOMES

A. REFER TO ROOF PLAN FOR ROOF OVERHANG DIMENSIONS.
B. PROVIDE 1/4" NON-CORROSIVE SCREENS AT GUTTERS.

FILE NAME: 4126_A2_04 POOL EQUIPMENT ROOF PLAN PLOT DATE: 2/20/25

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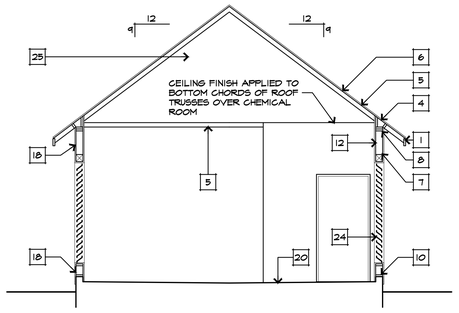
POOL EQUIPMENT
ROOF PLAN

A2.4

JOB NUMBER: 667-24126



BUILDING SECTION

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

A

SECTION NOTES

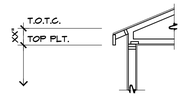
01/20/17

1. FASCIA BOARD. (SEE ELEVATION.)
2. BARGE BOARD. (SEE ELEVATION.)
3. ROOFING MATERIAL, REFER TO ROOF PLAN NOTES.
4. ROOF SHEATHING.
5. DESIGNED WOOD ROOF TRUSSES.
6. DROPPED BEAM.
7. HEADER.
8. DOUBLE 2X TOP PLATE.
9. G.I. FLASHING AT ROOF TO WALL.
10. 2X P.T.D.F. SILL PLATE.
11. 2X4 STUDS.
12. 2X6 STUDS.
13. 2X8 STUDS.
14. 2X CEILING FURRING.
15. 2X BLOCKING.
16. PONY WALL. SEE PLAN FOR HEIGHT.
17. BALLOON FRAMED WALLS. SEE STRUCTURAL FRAMING PLANS, STRUCTURAL CALCULATIONS AND GENERAL NOTES.
18. EXTERIOR FINISH, REFER TO ELEVATIONS.
19. EXTERIOR CEILING / SOFFIT (SEE PLAN / ELEVATION).
20. CONCRETE FLOOR SLAB.
21. 1/2" GYPSUM WALL BOARD.
22. 5/8" GYPSUM WALL BOARD.
23. FIBERBATT INSULATION-SEE ENERGY COMPLIANCE SHEET.
24. LOUVERED VENT.
25. UNENCLOSED, NON CONDITIONED ATTIC
26. ENHANCED PAVING OVER DEPRESSED STRUCTURAL SLAB.
27. COVERED OUTDOOR SPACES IN CLUB HOUSE AND MAIL STRUCTURE TO MATCH EXTERIOR WALL FINISHES.
28. MAIL STRUCTURE CEILING FINISH TO BE 2X6 T&G WOOD PER REFLECTED CEILING PLAN.

GENERAL SECTION NOTES

5/17/12

A. REFER TO STRUCTURAL ENGINEERS DRAWINGS, DETAILS AND NOTES FOR INFORMATION NOT SHOWN HERE.
B. REFER TO TRUSS DRAWINGS FOR INFORMATION NOT SHOWN HERE.
C. ROOF SLOPE(S) AND OVERHANG(S) MAY VARY PER PLAN. REFER TO THE ROOF NOTES AND ROOF PLANS FOR MORE INFORMATION.
D. TYPICAL DIMENSIONS FOR A HEEL TRUSS. (DIMENSION FROM TOP PLATE TO THE TOP OF TOP CHORD) .



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ALTIS SERENITY CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

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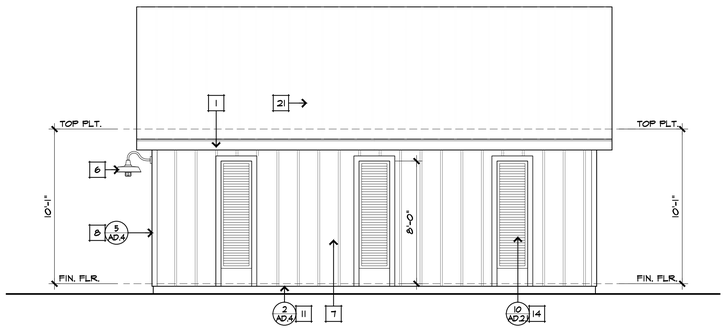
POOL EQUIPMENT BUILDING SECTIONS

A2.5

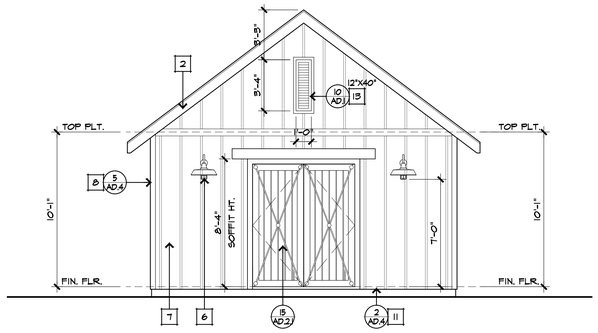
JOB NUMBER: 667-24126

PLOT DATE: 2-20-25
FILE NAME: 4126_A2_05 POOL EQUIPMENT SECTIONS



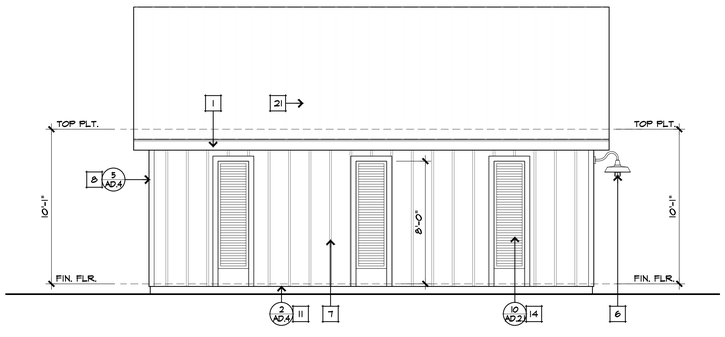
ELEVATION (RIGHT)

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



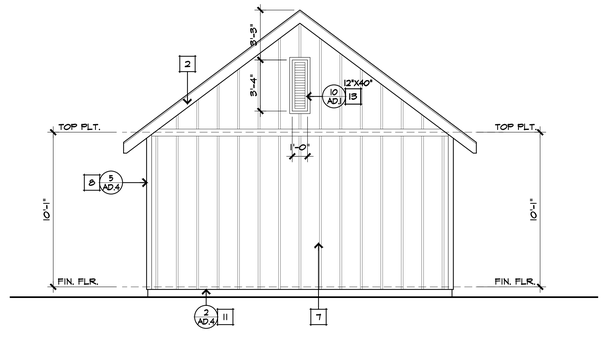
ELEVATION (FRONT)

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



ELEVATION (LEFT)

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



ELEVATION (REAR)

SCALE: 1/4"=1'-0" | 2

ELEVATION NOTES

01/20/17

1. FASCIA, SEE ROOF PLAN.
2. BARGE, SEE ROOF PLAN.
3. ROOF OVERHANG KICKER, SEE DETAIL.
4. FOAM TRIM HEADER AT FAUX STONE .
5. CEMENTITIOUS WOOD TRIM HEADER AT SIDING.
6. EXTERIOR LIGHT FIXTURE. REFER TO ELECTRICAL PLANS
7. CEMENTITIOUS SIDING. SEE EXTERIOR FINISH NOTES.
8. EXTERIOR CEMENTITIOUS TRIM BOARD AT CORNER.
9. CUSTOM BARN DOOR.
10. STOREFRONT WINDOW/DOOR.
11. CONTINUOUS G.I. SCREED, SEE DETAIL.
12. G.I. FLASHING ROOF TO WALL.
13. DECORATIVE LOUVERED VENT. SEE ELEVATION FOR SIZE.
14. ALUMINUM LOUVERED VENT FOR POOL EQUIPMENT. SEE POOL EQUIPMENT DRAWINGS FOR ADDITIONAL INFORMATION.
15. G.I. GUTTER AND DOWNSPOUTS, GUTTER LAYOUT AND DOWNSPOUT LOCATIONS TO BE FIELD VERIFIED.
16. STUCCO CANOPY, SEE DETAIL.
17. OUTDOOR EVENT ROOM ISLAND BEYOND.
18. BUILDING ADDRESS LOCATION.
19. CEMENTITIOUS WALL SHEATHING PANEL CONTROL JOINT
20. METAL TRELLIS
21. ROOF FINISH PER ROOF PLAN.
22. CUSTOM BARN DOOR, FIXED IN PLACE.
23. ADHERED SYNTHETIC STONE VENEER BY EL DORADO, ESR-1215.
24. CUSTOM ROOF TRUSS.

EXTERIOR FINISHES

1/1/14

A. ALL EXPOSED WOOD TRIM, PLYWOOD, POSTS AND CORBELS TO BE "RESAWN" AND SHALL BE PRIMED ON ALL SIDES PRIOR TO INSTALLATION/ASSEMBLY.
B. TYPICAL BOARD AND BATTEN SIDING TO BE : SMOOTH FINISH CEMENTITIOUS SIDING PANELS WITH SMOOTH FINISH CEMENTITIOUS VERTICAL BATTENS AT 16" OC, TYPICAL. UTILIZE VERTICAL CEMENTITIOUS BATTENS AT EXTERIOR AND INTERIOR CORNERS.
HORIZONTAL AND VERTICAL GALVANIZED METAL EXPANSION JOINTS PRIMED AND PAINTED AS RECOMMENDED BY MANUFACTURER.
C. TYPICAL HORIZONTAL LAP SIDING TO BE : SMOOTH FINISH CEMENTITIOUS LAP SIDING WITH 8" EXPOSURE TYPICAL. UTILIZE VERTICAL CEMENTITIOUS BATTENS AT EXTERIOR AND INTERIOR CORNERS.
HORIZONTAL AND VERTICAL GALVANIZED METAL EXPANSION JOINTS PRIMED AND PAINTED AS RECOMMENDED BY MANUFACTURER.
d. STONE VENEER : MANUFACTURED STONE VENEER PER CLIENT.

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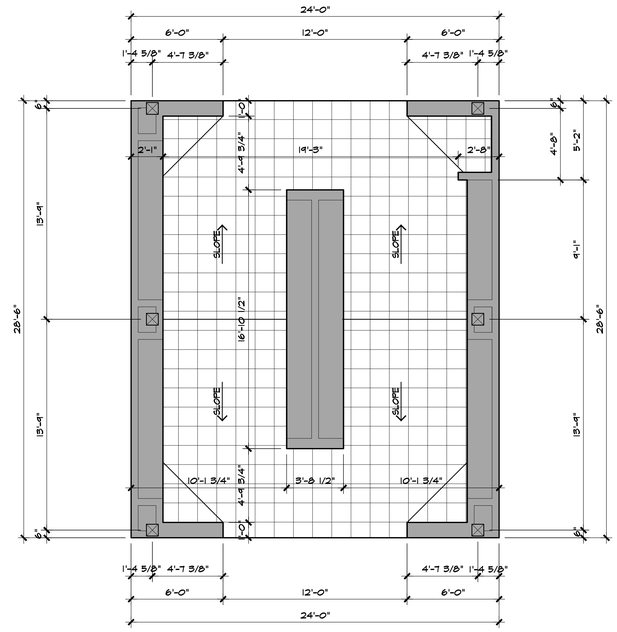
POOL EQUIPMENT
BUILDING
ELEVATIONS

A2.6

JOB NUMBER: 667-24126

FILE NAME: 4126_A2_06 POOL EQUIPMENT ELEVATIONS PLOT DATE: 2-20-25



SLAB INTERFACE PLAN

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

SLAB INTERFACE LEGEND

02/15/17

- INDICATES DROP IN SLAB.
- INDICATES AREA OF 2" DEPRESSED SLAB TO RECEIVE TILE FLOORING OVER SETTING BED. SEE INTERIOR DESIGN PLANS AND SPECIFICATIONS FOR TILE.
- INDICATES AREA OF 3" DEPRESSED SLAB TO RECEIVE PAVERS AND MORTAR BED. REFER TO LANDSCAPE ARCHITECT / CIVIL DRAWINGS TO CONFIRM THE DEPTH OF PAVERS, MORTAR BED AND DEPTH OF SLAB DEPRESSION.
- INDICATES 6" RAISED CURB ABOVE FINISH FLOOR. VERIFY LOCATIONS W/ SITE GRADING PLANS. SEE ELEVATIONS.
- INDICATES LOCATION OF LEVEL ACCESSIBLE LANDING REQUIRED AT EXTERIOR ENTRY DOORS.
- INDICATES DOWNSPOUT LOCATION. VERIFY WITH CIVIL/ LANDSCAPE.

GENERAL SLAB INTERFACE NOTES

01/20/17

A. VERIFY MINIMUM FOUNDATION DEPTH, WIDTH, REINFORCING STEEL AND ADDITIONAL EXPANSIVE SOIL REQUIREMENTS WITH THE SOILS REPORT.
B. REFER TO STRUCTURAL ENGINEERING DRAWINGS FOR INFORMATION RELATED TO FLOOR SLAB NOT SHOWN HERE.
C. FOR HARDSCAPE INFORMATION REFER TO LANDSCAPE PLANS.
D. COVERED ENTRIES: PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING(S) TO SURFACE AREA DRAINS.
E. EXTERIOR DRAIN LOCATIONS TO BE DETERMINED BY CIVIL ENGINEER. SEE PRECISE GRADING PLANS FOR LOCATIONS.
F. WHEN REQUIRED BY SOILS ENGINEER OR OTHERS, TIE COURTYARD DRAINS AND ROOF DOWNSPOUTS INTO SITE AREA DRAINS.
G. PRIOR TO POURING SLAB COORDINATE RISER SLEEVE WITH STRUCTURAL ENGINEER'S DRAWINGS.

REFER TO CIVIL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION THAT MAY IMPACT THE SLAB INTERFACE NOT SHOWN HERE.

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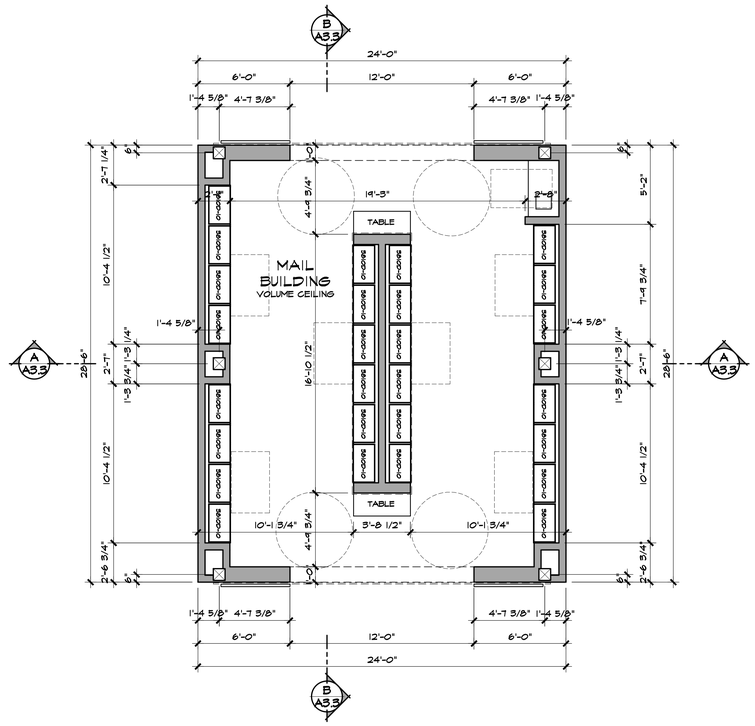
MAIL BUILDING
SLAB PLAN

A3.1

JOB NUMBER: 667-24126

PLOT DATE: 2-20-25
FILE NAME: 4126_A3_01 MAIL BUILDING SLAB PLAN



BUILDING PLAN

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

BUILDING PLAN LEGEND

11/17/22

TYPICAL 2X6 STUDS AT 16" O.C. UNLESS OTHERWISE NOTED. REFER TO STRUCTURAL DRAWINGS.

(1) INDICATES DOOR SYMBOL NUMBER, REFER TO DOOR SCHEDULE SHEET A9.1 FOR ADDITIONAL INFORMATION

(A) INDICATES WINDOW SYMBOL LETTER, REFER TO WINDOW SCHEDULE SHEET A9.1-1 FOR ADDITIONAL INFORMATION

BUILDING PLAN NOTES

12/20/22

1. SINK W/ GARBAGE DISPOSAL.
2. SOFFIT, SEE PLAN FOR HEIGHT.
3. EXTERIOR SOFFIT, SEE EXTERIOR ELEVATIONS FOR HEIGHT.
4. LINE OF CEILING HEIGHT CHANGE OF COFFERED CEILING, REFER TO REFLECTED CEILING PLANS.
5. MILLWORK, REFER TO INTERIOR ELEVATIONS.
6. TOILET/ BATHING ROOM IDENTIFICATION SYMBOL PER DETAIL **5/AD.5.**
7. FLUSH 24" X 36" (U.N.O.) MIN. ATTIC ACCESS W/ GYP. BD. FINISH.
8. HI-LO HI-LO DRINKING FOUNTAIN, PROVIDE A 30" X 48" CLEAR SPACE POSITIONED FOR A FORWARD APPROACH CENTERED TO THE DRINKING FOUNTAIN. SPOUT OUTLETS OF A WHEELCHAIR ACCESSIBLE DRINKING FOUNTAIN SHALL BE 36" MAXIMUM ABOVE THE FLOOR. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38" MINIMUM AND 43" MAXIMUM ABOVE THE FLOOR. THE SPOUT LOCATION SHALL BE LOCATED 15" MINIMUM FROM THE VERTICAL SUPPORT AND 5" MAXIMUM FROM THE FRONT EDGE OF THE DRINKING FOUNTAIN, INCLUDING BUMPERS. THE SPOUT SHALL PROVIDE A FLOW OF WATER 4" MINIMUM IN HEIGHT. THE ANGLE OF THE WATER STREAM FROM SPOUTS WITHIN 3" OF THE FRONT OF THE DRINKING FOUNTAIN SHALL BE 30 DEGREES MAXIMUM, AND FROM SPOUTS BETWEEN 3" AND 5" FROM THE FRONT OF THE DRINKING FOUNTAIN SHALL BE 15 DEGREES MAXIMUM, MEASURED HORIZONTALLY RELATIVE TO THE FRONT FACE OF THE DRINKING FOUNTAIN. ICC A117.1 602. PER **15/D.5.**
9. CARD READER REFER TO SECURITY PLANS.
10. INTERNATIONAL SYMBOL OF ACCESSIBILITY IN ACCORDANCE WITH ICC A117.1 FIGURE 703.6.3.1. SEE DETAIL **6/AD.5.**
11. CLASS "A" FIRE EXTINGUISHER WITH CABINET. SERVICE PERSONNEL PROVIDING OR CONDUCTING MAINTENANCE SHALL POSSES A VALID CERTIFICATE ISSUED BY AN APPROVED GOVERNMENTAL AGENCY, OR OTHER APPROVED ORGANIZATION FOR THE TYPE OF WORK PERFORMED. THE CLEARANCE BETWEEN FLOOR AND THE BOTTOM OF INSTALLED HAND-HELD PORTABLE EXTINGUISHERS SHALL BE NO LESS THAN 4". PORTABLE FIRE EXTINGUISHERS HAVING A GROSS WEIGHT NOT EXCEEDING 40 LBS. SHALL BE INSTALLED SO THAT THEIR TOPS ARE NOT MORE THAN 5' ABOVE FLOOR (3.5' ABOVE FLOOR WHEN EXCEEDING 40 LBS.). VERIFY LOCATION AND QUANTITY WITH THE FIRE DEPARTMENT PRIOR TO INSTALLATION.
12. FIRE DEPARTMENT KNOX KEY SWITCH (PER FIRE DEPT. SPECIFICATIONS). INSTALL IN ACCORDANCE WITH FIRE DEPARTMENT STANDARDS.
13. ROOM CAPACITY SIGN. POSTED SIGN SHALL BE OF AN APPROVED LEGIBLE PERMANENT DESIGN, AND SHALL BE MAINTAINED BY THE OWNER OR THE OWNERS AUTHORIZED AGENT. EVERY ROOM OR SPACE THAT IS AN ASSEMBLY OCCUPANCY SHALL HAVE THE OCCUPANT LOAD OF THE ROOM OR SPACE POSTED IN A CONSPICUOUS PLACE, NEAR THE MAIN EXIT OR EXIT ACCESS DOORWAY I.B.C. 1004.9
14. MIRRORED WALL - SEE INTERIOR ELEVATION SHEET.
15. WATER HEATER. REFER TO PLUMBING DRAWINGS.
16. EXIT SIGN, LOCATED READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL. EXIT SIGNS NOT REQUIRED IN ROOMS OR AREAS THAT REQUIRE ONLY ONE EXIT OR EXIT ACCESS. I.B.C. 1013.1.
17. TACTILE EXIT SIGN, A SIGN STATING "EXIT" PER I.B.C. 1013.4 & ICC-A117.1 703. SHALL BE PROVIDED ADJACENT TO EACH EXIT DOOR. SEE DETAIL **2/AD.5.**
18. CABINETS. SEE INTERIOR ELEVATION FOR HEIGHT.
19. 30"X48" CLEARANCE SPACE.
20. FLOOR DRAIN. SEE PLUMBING DRAWINGS. SLOPE ADJACENT FLOORING 2%.
21. UNDER COUNTER REFRIGERATOR.
22. BAR SINK.
23. JANITOR SINK. REFER TO PLUMBING DRAWINGS.
24. 60" DIA. CLEAR TURNAROUND SPACE.
25. LINE OF METAL AWNING WITH DECORATIVE METAL ROOF PANEL. SEE ELEVATIONS AND DETAIL 15/AD.1-1.
26. LINE OF EYEBROW CANOPY. SEE ELEVATIONS.
27. STEEL TUBE POST. SEE PLAN AND STRUCTURAL DRAWINGS.
28. APPLIANCE FIREPLACE. VERIFY WITH INTERIOR DESIGNER.
29. DOUBLE STUD WALL.
30. 2x8 STUD WALL.
31. 30" X 30" ROOF ACCESS HATCH WITH PERMANENTLY AFFIXED LADDER TO ROOF.
32. 30'-0" WIDE X 12'-0" HIGH 6 PANEL FOLDING PARTITION WALL. BASIS OF DESIGN IS "MODERNFOLD ACOUSTI-SEAL ENCORE".
33. ROOM IDENTIFICATION SIGNAGE PER ICC -A117.1 703. PER **DETAIL 4/AD.5.**
34. 30" DOUBLE OVEN
35. 48" REFRIGERATOR / FREEZER
36. TRIPLE BASIN PREP SINK
37. MICROWAVE DRAWER.
38. TRASH COMPACTOR.
39. WARMING DRAWER.
40. PASS-THROUGH COUNTERTOP.
41. DISH WASHER (UNDER 34" COUNTERTOP).
42. WASTE PAPER HOLE IN COUNTERTOP ABOVE WASTE PAPER BASKET.

PLOT DATE: 2-20-25

FILE NAME: 4126_A3_02 MAIL BUILDING FLOOR PLAN

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ALTIS SERENITY CLUB HOUSE

HARTNETT COUNTY NORTH CAROLINA

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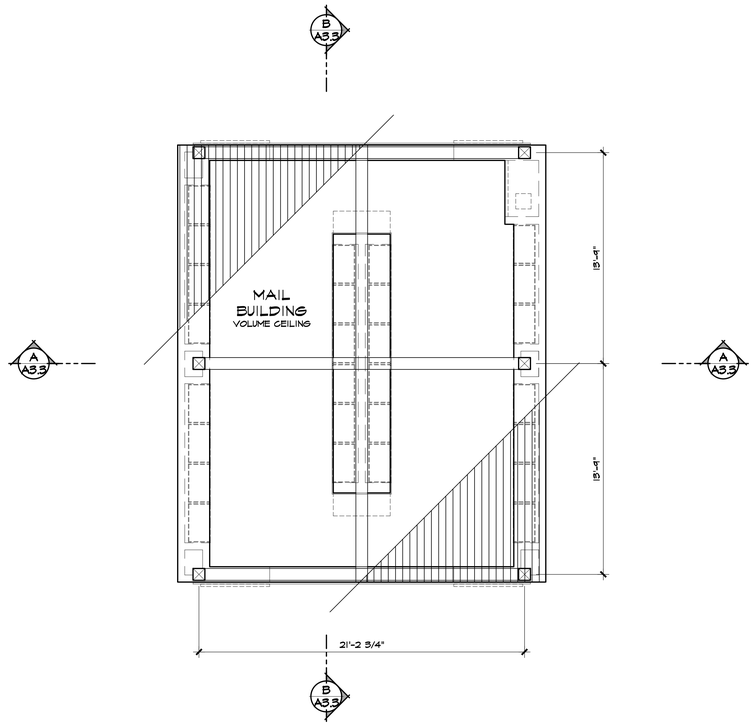
MAIL BUILDING

BUILDING PLAN

A3.2

JOB NUMBER: 667-24126



REFLECTED CEILING PLAN

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

BUILDING REFLECTED CEILING LEGEND 5/17/12

- SURFACE MOUNTED LED CEILING LIGHT FIXTURE
- RECESSED LED LIGHT FIXTURE
- (F) CEILING FAN
- (S) SMOKE ALARM, CEILING MOUNTED, HARD WIRED AND W/ BATTERY BACKUP. ICC AND SFM APPROVED
- (CO) COMBINATION SMOKE/CARBON MONOXIDE ALARM, CEILING MOUNTED, HARD WIRED AND W/ BATTERY BACK UP. ICC APPROVED
- EMERGENCY LIGHT
- EXHAUST FAN, SEE MECHANICAL PLAN
- MECHANICAL CEILING REGISTER, SEE MECHANICAL PLANS
- MECHANICAL CEILING REGISTER, SEE MECHANICAL PLANS
- INDICATES DROPPED CEILING

REFLECTED CEILING GENERAL NOTES 5/17/12

1. FOR ADDITIONAL INFORMATION REGARDING CEILING MOUNTED FIXTURES, REFER TO ELECTRICAL PLANS, MECHANICAL PLANS AND FIRE SPRINKLER PLANS.
2. TYPICAL CEILING FINISH: CLUB HOUSE: PAINTED GYPSUM BOARD REFER TO INTERIOR DESIGN DRAWINGS FROM SPECIAL CEILING FINISHES.
3. TYPICAL CEILING FINISH: POOL EQUIPMENT BUILDING: EXPOSED STRUCTURE / NO FINISH, EXCEPT WHERE NOTED OTHERWISE.
4. TYPICAL CEILING FINISH MAIL STRUCTURE: 2X6 T & G CEILING FINISH.

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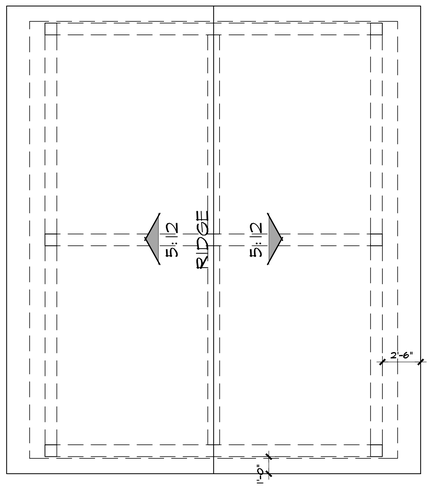
MAIL BUILDING
REFLECTED
CEILING PLAN

A3.3

JOB NUMBER: 667-24126

FILE NAME: 4126_A3_03 MAIL BUILDING REFLECTED CLG PLAN PLOT DATE: 2-20-25



ROOF PLAN

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

ROOF PLAN NOTES

01/20/17

1. BUILDING LINE.
2. ROOF LINE.
3. ROOF BRACE AT EAVE. SEE DETAILS 23/D.1 AND 25/D.1.
4. PROPOSED LOCATION OF ROOF GUTTER AND DOWNSPOUT. CONFIRM LAYOUT IN FIELD
5. G.I. FLASHING AND SADDLE/ CRICKET.
6. ROOF RAKE: 12" OVERHANG, TYPICAL.
7. ROOF EAVE: 18" OVERHANG, UNLESS NOTED OTHERWISE.
8. LINE OF CANOPY BELOW. SEE DETAIL 15/D.1-1.
9. ROOF VENT. REFER TO ROOF CALCS FOR ADDITIONAL INFORMATION.

ROOF PLAN LEGEND

01/20/17

6:12 — INDICATES ROOF SLOPE DIRECTION. INDICATES RATE OF ROOF SLOPE.

INDICATES DIRECTION OF ROOF SLOPE AT CRICKET.

HIGH DEFINITION COMPOSITION ASPHALT SHINGLES MANUFACTURER AND MODEL TO BE SELECTED BY TRIPOINTE HOMES

A. REFER TO ROOF PLAN FOR ROOF OVERHANG DIMENSIONS.
B. PROVIDE 1/4" NON-CORROSIVE SCREENS AT GUTTERS.

PLOT DATE: 2-20-25

FILE NAME: 4126_A3_04 MAIL BUILDING ROOF PLAN

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HARTNETT COUNTY NORTH CAROLINA

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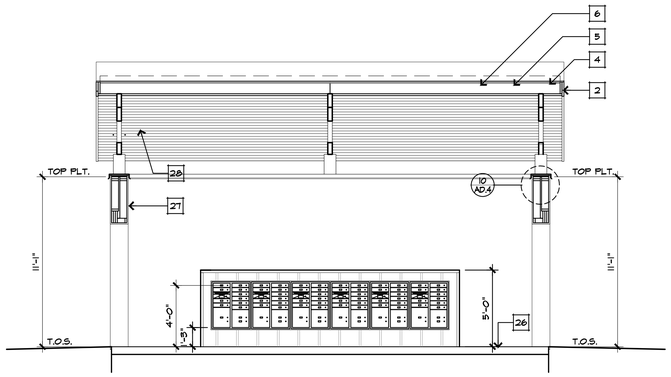
MAIL BUILDING
ROOF PLAN

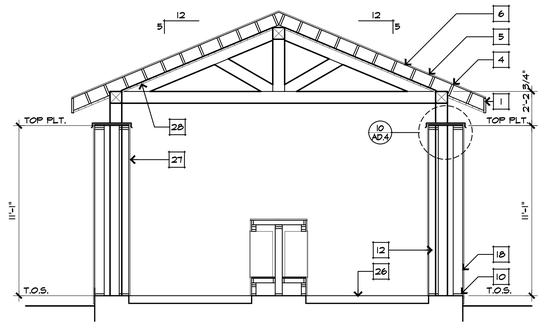
A3.4

JOB NUMBER: 667-24126



BUILDING SECTION

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



BUILDING SECTION

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

SECTION NOTES

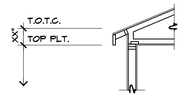
01/20/17

1. FASCIA BOARD. (SEE ELEVATION.)
2. BARGE BOARD. (SEE ELEVATION.)
3. ROOFING MATERIAL, REFER TO ROOF PLAN NOTES.
4. ROOF SHEATHING.
5. DESIGNED HOOD ROOF TRUSSES.
6. DROPPED BEAM.
7. HEADER.
8. DOUBLE 2X TOP PLATE.
9. G.I. FLASHING AT ROOF TO WALL.
10. 2X P.T.D.F. SILL PLATE.
11. 2X4 STUDS.
12. 2X6 STUDS.
13. 2X8 STUDS.
14. 2X CEILING FURRING.
15. 2X BLOCKING.
16. PONY WALL, SEE PLAN FOR HEIGHT.
17. BALLOON FRAMED WALLS. SEE STRUCTURAL FRAMING PLANS, STRUCTURAL CALCULATIONS AND GENERAL NOTES.
18. EXTERIOR FINISH, REFER TO ELEVATIONS.
19. EXTERIOR CEILING / SOFFIT (SEE PLAN / ELEVATION).
20. CONCRETE FLOOR SLAB.
21. 1/2" GYPSUM WALL BOARD.
22. 5/8" GYPSUM WALL BOARD.
23. FIBERBATT INSULATION-SEE ENERGY COMPLIANCE SHEET.
24. LOUVERED VENT.
25. UNENCLOSED, NON CONDITIONED ATTIC
26. ENHANCED PAVING OVER DEPRESSED STRUCTURAL SLAB.
27. COVERED OUTDOOR SPACES IN CLUB HOUSE AND MAIL STRUCTURE TO MATCH EXTERIOR WALL FINISHES.
28. MAIL STRUCTURE CEILING FINISH TO BE 2X6 T&G WOOD PER REFLECTED CEILING PLAN.

GENERAL SECTION NOTES

5/17/12

A. REFER TO STRUCTURAL ENGINEERS DRAWINGS, DETAILS AND NOTES FOR INFORMATION NOT SHOWN HERE.
B. REFER TO TRUSS DRAWINGS FOR INFORMATION NOT SHOWN HERE.
C. ROOF SLOPE(S) AND OVERHANG(S) MAY VARY PER PLAN. REFER TO THE ROOF NOTES AND ROOF PLANS FOR MORE INFORMATION.
D. TYPICAL DIMENSIONS FOR A HEEL TRUSS. (DIMENSION FROM TOP PLATE TO THE TOP OF TOP CHORD) .



PLOT DATE: 2-20-25

FILE NAME: 4126_A3_05 MAIL BUILDING SECTIONS

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1st PLAN CHECK
Date: 02-21-25

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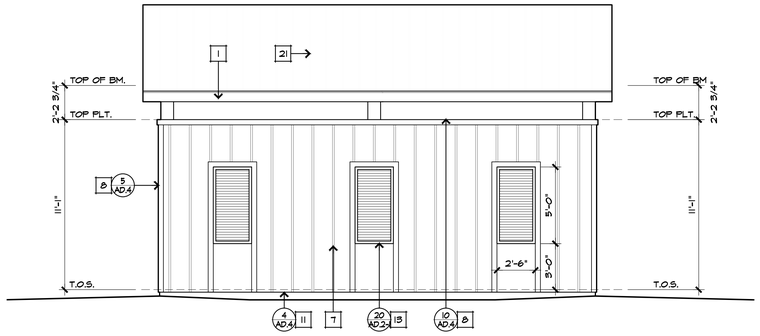
CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

tri pointe HOMES

MAIL BUILDING
BUILDING
SECTIONS

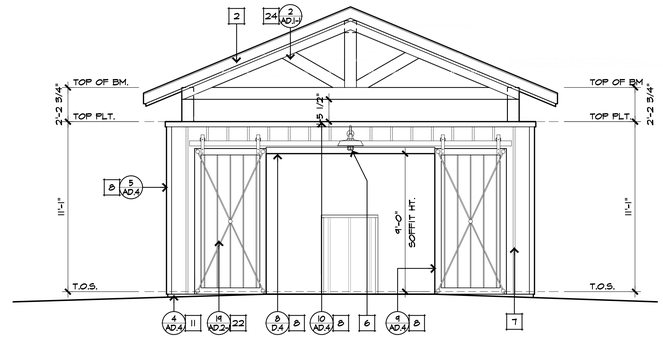
A3.5

JOB NUMBER: 667-24126



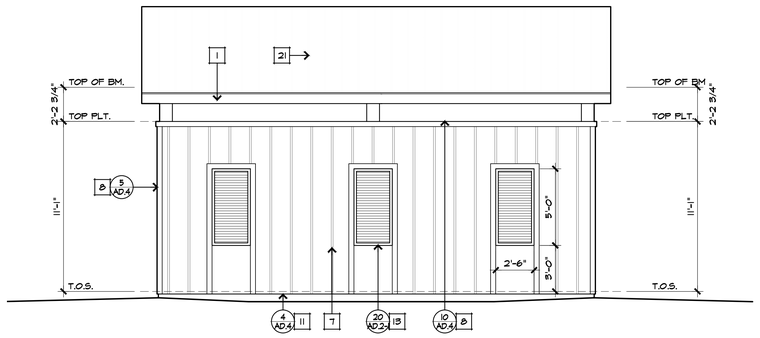
ELEVATION (RIGHT)

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



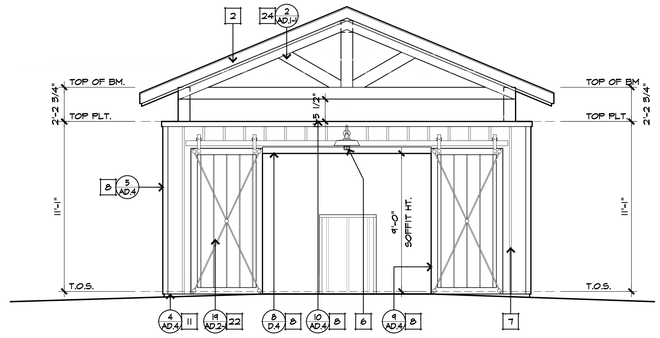
ELEVATION (FRONT)

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



ELEVATION (LEFT)

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



ELEVATION (REAR)

SCALE: 1/4"=1'-0" | 2

ELEVATION NOTES

01/20/17

1. FASCIA, SEE ROOF PLAN.
2. BARGE. SEE ROOF PLAN.
3. ROOF OVERHANG KICKER, SEE DETAIL.
4. FOAM TRIM HEADER AT FAUX STONE .
5. CEMENTITIOUS WOOD TRIM HEADER AT SIDING.
6. EXTERIOR LIGHT FIXTURE, REFER TO ELECTRICAL PLANS
7. CEMENTITIOUS SIDING. SEE EXTERIOR FINISH NOTES.
8. EXTERIOR CEMENTITIOUS TRIM BOARD AT CORNER.
9. CUSTOM BARN DOOR.
10. STOREFRONT WINDOW/DOOR.
11. CONTINUOUS G.I. SCREED, SEE DETAIL.
12. G.I. FLASHING ROOF TO WALL.
13. DECORATIVE LOUVERED VENT. SEE ELEVATION FOR SIZE.
14. ALUMINUM LOUVERED VENT FOR POOL EQUIPMENT. SEE POOL EQUIPMENT DRAWINGS FOR ADDITIONAL INFORMATION.
15. G.I. GUTTER AND DOWNSPOUTS. GUTTER LAYOUT AND DOWNSPOUT LOCATIONS TO BE FIELD VERIFIED.
16. STUCCO CANOPY, SEE DETAIL.
17. OUTDOOR EVENT ROOM ISLAND BEYOND.
18. BUILDING ADDRESS LOCATION.
19. CEMENTITIOUS WALL SHEATHING PANEL CONTROL JOINT
20. METAL TRELLIS
21. ROOF FINISH PER ROOF PLAN.
22. CUSTOM BARN DOOR. FIXED IN PLACE.
23. ADHERED SYNTHETIC STONE VENEER BY EL DORADO, ESR-1215.
24. CUSTOM ROOF TRUSS.

EXTERIOR FINISHES

1/1/4

A. ALL EXPOSED WOOD TRIM, PLYWOOD, POSTS AND CORBELS TO BE 'RESAWN' AND SHALL BE PRIMED ON ALL SIDES PRIOR TO INSTALLATION/ASSEMBLY.
B. TYPICAL BOARD AND BATTEN SIDING TO BE : SMOOTH FINISH CEMENTITIOUS SIDING PANELS WITH SMOOTH FINISH CEMENTITIOUS VERTICAL BATTENS AT 16" OC, TYPICAL. UTILIZE VERTICAL CEMENTITIOUS BATTENS AT EXTERIOR AND INTERIOR CORNERS. HORIZONTAL AND VERTICAL GALVANIZED METAL EXPANSION JOINTS PRIMED AND PAINTED AS RECOMMENDED BY MANUFACTURER.
C. TYPICAL HORIZONTAL LAP SIDING TO BE : SMOOTH FINISH CEMENTITIOUS LAP SIDING WITH 8" EXPOSURE TYPICAL. UTILIZE VERTICAL CEMENTITIOUS BATTENS AT EXTERIOR AND INTERIOR CORNERS. HORIZONTAL AND VERTICAL GALVANIZED METAL EXPANSION JOINTS PRIMED AND PAINTED AS RECOMMENDED BY MANUFACTURER.
d. STONE VENEER : MANUFACTURED STONE VENEER PER CLIENT.

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1st PLAN CHECK
Date: 02-21-25

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ALTIS SERENITY
CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

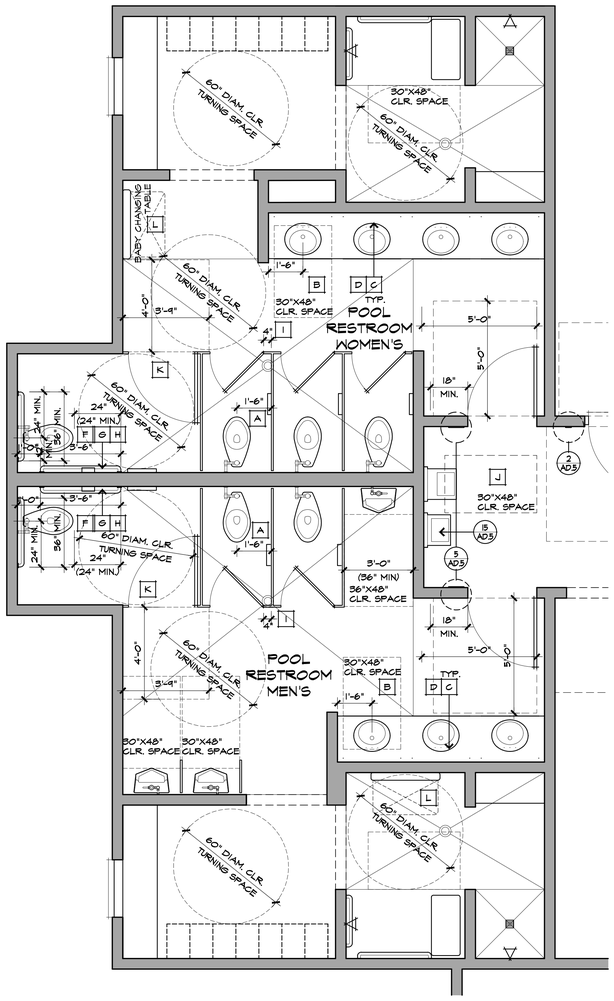
tri pointe HOMES

POOL EQUIPMENT
BUILDING
ELEVATIONS

A3.6

JOB NUMBER: 667-24126

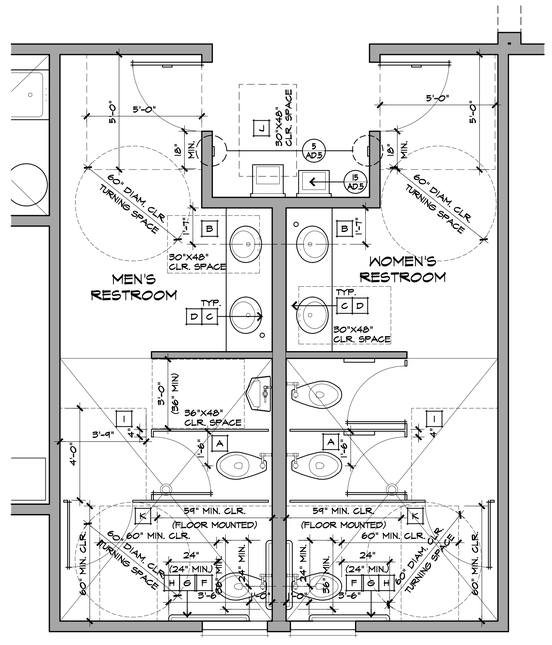
PLOT DATE: 2-20-25
FILE NAME: 4126_A3_06 MAIL BUILDING ELEVATIONS



FOR MORE INFORMATION, SEE INTERIOR ELEVATION 1, 2 & 3 ON SHEET A4.2

REC BLDG POOL RESTROOMS

SCALE: 3/8"=1'-0" | 1



FOR MORE INFORMATION, SEE INTERIOR ELEVATION 1, 2 & 3 ON SHEET A4.3

REC BLDG RESTROOMS

SCALE: 3/8"=1'-0" | 2

INTERIOR ELEVATION NOTES

01/20/11

1. SINK WITH GARBAGE DISPOSAL.
2. BASE CABINET (SEE ELEVATION FOR DEPTH).
3. UPPER CABINET (SEE ELEVATION FOR DEPTH).
4. 4" TOE SPACE (UNLESS NOTED OTHERWISE).
5. COUNTERTOP AND BACKSPLASH.
6. DOOR, SEE SCHEDULE.
7. WINDOW, SEE SCHEDULE.
8. BASE, REFER TO INTERIOR DESIGNER DRAWINGS.
9. CASING, REFER TO INTERIOR DESIGNER DRAWINGS.
10. TILE BASE, REFER TO INTERIOR DESIGNER DRAWINGS.
11. TILE FLOOR, REFER TO INTERIOR DESIGNER DRAWINGS.
12. TILE WAINSCOT, REFER TO INTERIOR DESIGNER DRAWINGS.
13. WALL TILE, REFER TO INTERIOR DESIGNER DRAWINGS.
14. TOILET PARTITION; BOBRICK SERIES 1091 OR APPROVED EQUAL.
15. URINAL PARTITION; BOBRICK SERIES 1095 OR APPROVED EQUAL.
16. COUNTER MOUNTED SOAP DISPENSER; BOBRICK B-823 OR APPROVED EQUAL.
17. SEMI-RECESSED PAPER TOWEL DISPENSER W/ WASTE RECEPTACLE: BOBRICK B-3442 OR EQUAL.
18. RECESSED MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER: BOBRICK B-3888 OR APPROVED EQUAL.
19. SURFACE MOUNTED SEAT COVER DISPENSER, SANITARY NAPKIN DISPOSAL AND TOILET TISSUE DISPENSER; BOBRICK B-3574 OR APPROVED EQUAL.
20. PARTITION MOUNTED SEAT COVER DISPENSER, SANITARY NAPKIN DISPOSAL AND TOILET TISSUE DISPENSER; BOBRICK B-357 OR APPROVED EQUAL.
21. MIRROR, REFER TO INTERIOR DESIGNER DRAWINGS.
22. HIGH/ LOW DRINKING FOUNTAINS.
23. 1 1/2" DIA. GRAB BAR, SEE PLAN FOR LENGTH.
24. SURFACE MOUNTED SEAT COVER AND TOILET TISSUE DISPENSER; BOBRICK B-3479 OR APPROVED EQUAL.
25. SOFFIT (SEE PLAN FOR DEPTH).
26. RECESSED SEAT COVER DISPENSER; BOBRICK B-301 OR APPROVED EQUAL.
27. FLEXIBLE HAND HELD SPRAYER UNIT, HANDLE TO BE SET AT 48" MAX.
28. CONTROL AREA.
29. FOLDING SHOWER SEAT; BOBRICK B-5182 OR APPROVED EQUAL.
30. FOLDING SHOWER SEAT; BOBRICK B-5183 OR APPROVED EQUAL.
31. SHOWER HEAD.
32. FLUSH CONTROL LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
33. RECESSED MOUNTED SANITARY NAPKIN DISPOSAL; BOBRICK B-353 OR APPROVED EQUAL.
34. FLOOR MOUNTED TOILET, SEE PLUMBING PLANS.
35. WALL MOUNTED URINAL, SEE PLUMBING PLANS.
36. EXTERIOR PLASTER, SEE ELEVATIONS.
37. UNDER COUNTER REFRIGERATOR (UNDER 34" COUNTERTOP).
38. REAR LOADING MAILBOXES.
39. DISHWASHER (UNDER 34" COUNTERTOP).
40. FLOOR SINK.
41. COUNTER MOUNTED LAVATORY.
42. KOALA KARE KB 300 HORIZONTAL SURFACE MOUNTED FOLD DOWN BABY CHANGING STATION OR APPROVED EQUAL.
43. SHOWER SEAT, SEE PLAN FOR HEIGHT.
44. BAR SINK.
45. REFRIGERATOR SPACE.
46. UTILITY SINK.
47. FIREPLACE.
48. DOORS AND HARDWARE SHALL PROVIDE FOR ACCESSIBLE ENTRY WHEN OPENED. TOE KICK SHALL BE INTEGRAL WITH DOORS. HOT WATER AND DRAIN PIPES EXPOSED UNDER SINK SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER THE SINK. THE FINISHED FLOOR BENEATH THE SINK SHALL BE EXTENDED TO THE WALL.
49. 30" BUILT-IN OVEN.
50. TRASH COMPACTOR (UNDER 34" COUNTERTOP).
51. WINE STORAGE UNITS.
52. 12" X 12" WASTE PAPER OPENING IN COUNTERTOP ABOVE WASTE PAPER BASKET.
53. BASIS OF DESIGN FOR USPS POSTAL COLLECTION/DELIVERY MODULE: SALSBURY INDUSTRIES 3810D-10.
54. BUILT-IN TABLE.
55. HOOD FRAMED POSTAL BOX ENCLOSURE.

GENERAL INTERIOR NOTES

01/20/11

A. CABINET DRAWINGS ARE FOR SCHEMATIC USE ONLY. REFER TO BUILDER SPECIFICATIONS AND SHOP DRAWINGS BY CABINET MANUFACTURER FOR FURTHER INFORMATION.
B. REFER TO INTERIOR DESIGN DRAWINGS FOR INFORMATION NOT SHOWN HERE.

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REVISIONS

ALTIS SERENITY CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

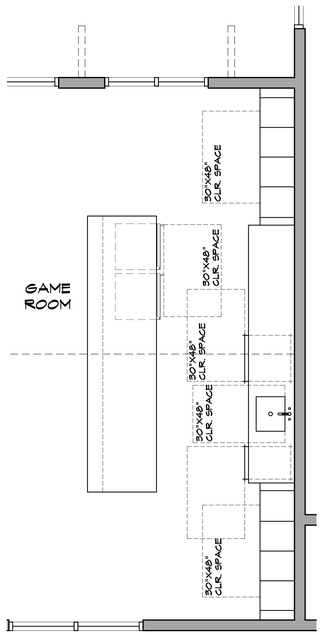
tri pointe HOMES

CLUBHOUSE
ENLARGED ACCESSIBLE PLANS

A4.0

JOB NUMBER: 667-24126

PLOT DATE: 2-21-25
FILE NAME: 4126_A4_01 INT ELEVATIONS

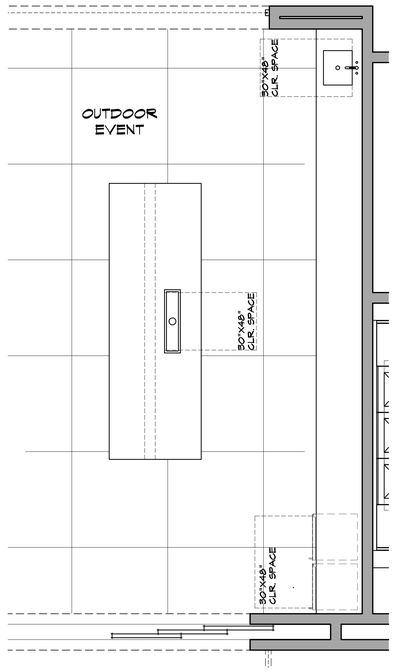


FOR MORE INFORMATION, SEE INTERIOR ELEVATION 1 ON SHEET A4.4

GAME ROOM

SCALE: 3/8"=1'-0"

1

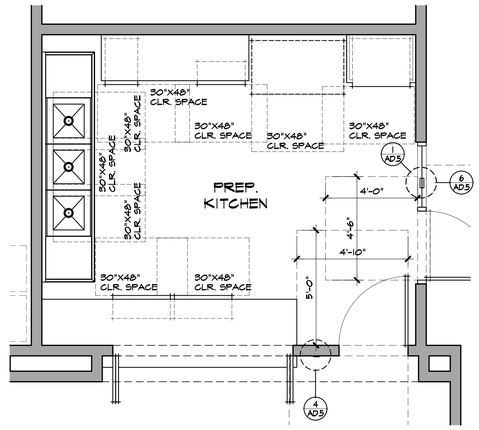


FOR MORE INFORMATION, SEE INTERIOR ELEVATION 2 ON SHEET A4.4

OUTDOOR EVENT

SCALE: 3/8"=1'-0"

2



FOR MORE INFORMATION, SEE INTERIOR ELEVATION 3 ON SHEET A4.4

PREP KITCHEN

SCALE: 3/8"=1'-0"

3

INTERIOR ELEVATION NOTES

01/20/17

1. SINK WITH GARBAGE DISPOSAL.
2. BASE CABINET (SEE ELEVATION FOR DEPTH).
3. UPPER CABINET (SEE ELEVATION FOR DEPTH).
4. 4" TOE SPACE (UNLESS NOTED OTHERWISE).
5. COUNTERTOP AND BACKSPLASH.
6. DOOR, SEE SCHEDULE.
7. WINDOW, SEE SCHEDULE.
8. BASE, REFER TO INTERIOR DESIGNER DRAWINGS.
9. CASING, REFER TO INTERIOR DESIGNER DRAWINGS.
10. TILE BASE, REFER TO INTERIOR DESIGNER DRAWINGS.
11. TILE FLOOR, REFER TO INTERIOR DESIGNER DRAWINGS.
12. TILE WAINSCOT, REFER TO INTERIOR DESIGNER DRAWINGS.
13. WALL TILE, REFER TO INTERIOR DESIGNER DRAWINGS.
14. TOILET PARTITION: BOBRICK SERIES 1091 OR APPROVED EQUAL.
15. URINAL PARTITION: BOBRICK SERIES 1095 OR APPROVED EQUAL.
16. COUNTER MOUNTED SOAP DISPENSER: BOBRICK B-823 OR APPROVED EQUAL.
17. SEMI-RECESSED PAPER TOWEL DISPENSER W/ WASTE RECEPTACLE: BOBRICK B-3942 OR EQUAL.
18. RECESSED MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER: BOBRICK B-3888 OR APPROVED EQUAL.
19. SURFACE MOUNTED SEAT COVER DISPENSER, SANITARY NAPKIN DISPOSAL AND TOILET TISSUE DISPENSER: BOBRICK B-3574 OR APPROVED EQUAL.
20. PARTITION MOUNTED SEAT COVER DISPENSER, SANITARY NAPKIN DISPOSAL AND TOILET TISSUE DISPENSER: BOBRICK B-357 OR APPROVED EQUAL.
21. MIRROR, REFER TO INTERIOR DESIGNER DRAWINGS.
22. HIGH/ LOW DRINKING FOUNTAINS.
23. 1 1/2" DIA. GRAB BAR, SEE PLAN FOR LENGTH.
24. SURFACE MOUNTED SEAT COVER AND TOILET TISSUE DISPENSER: BOBRICK B-3479 OR APPROVED EQUAL.
25. SOFFIT (SEE PLAN FOR DEPTH).
26. RECESSED SEAT COVER DISPENSER: BOBRICK B-301 OR APPROVED EQUAL.
27. FLEXIBLE HAND HELD SPRAYER UNIT, HANDLE TO BE SET AT 48" MAX.
28. CONTROL AREA.
29. FOLDING SHOWER SEAT: BOBRICK B-5182 OR APPROVED EQUAL.
30. FOLDING SHOWER SEAT: BOBRICK B-5183 OR APPROVED EQUAL.
31. SHOWER HEAD.
32. FLUSH CONTROL LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
33. RECESSED MOUNTED SANITARY NAPKIN DISPOSAL: BOBRICK B-353 OR APPROVED EQUAL.
34. FLOOR MOUNTED TOILET, SEE PLUMBING PLANS.
35. WALL MOUNTED URINAL, SEE PLUMBING PLANS.
36. EXTERIOR PLASTER, SEE ELEVATIONS.
37. UNDER COUNTER REFRIGERATOR (UNDER 34" COUNTERTOP).
38. REAR LOADING MAILBOXES.
39. DISHWASHER (UNDER 34" COUNTERTOP).
40. FLOOR SINK.
41. COUNTER MOUNTED LAVATORY.
42. KOALA KARE KB 300 HORIZONTAL SURFACE MOUNTED FOLD DOWN BABY CHANGING STATION OR APPROVED EQUAL.
43. SHOWER SEAT, SEE PLAN FOR HEIGHT.
44. BAR SINK.
45. REFRIGERATOR SPACE.
46. UTILITY SINK.
47. FIREPLACE.
48. DOORS AND HARDWARE SHALL PROVIDE FOR ACCESSIBLE ENTRY WHEN OPENED. TOE KICK SHALL BE INTEGRAL WITH DOORS. HOT WATER AND DRAIN PIPES EXPOSED UNDER SINK SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER THE SINK. THE FINISHED FLOOR BENEATH THE SINK SHALL BE EXTENDED TO THE WALL.
49. 30" BUILT-IN OVEN.
50. TRASH COMPACTOR (UNDER 34" COUNTERTOP).
51. WINE STORAGE UNITS.
52. 12" X 12" WASTE PAPER OPENING IN COUNTERTOP ABOVE WASTE PAPER BASKET.
53. BASIS OF DESIGN FOR USPS POSTAL COLLECTION/DELIVERY MODULE: SALSBURY INDUSTRIES 3810D-10.
54. BUILT-IN TABLE.
55. WOOD FRAMED POSTAL BOX ENCLOSURE.

GENERAL INTERIOR NOTES

01/20/17

A. CABINET DRAWINGS ARE FOR SCHEMATIC USE ONLY. REFER TO BUILDER SPECIFICATIONS AND SHOP DRAWINGS BY CABINET MANUFACTURER FOR FURTHER INFORMATION.
B. REFER TO INTERIOR DESIGN DRAWINGS FOR INFORMATION NOT SHOWN HERE.

PLOT DATE: 2-21-25

FILE NAME: 4126_A4_03 INT ELEVATIONS

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1st PLAN CHECK
Date: 02-21-25

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HARTNETT COUNTY
NORTH CAROLINA

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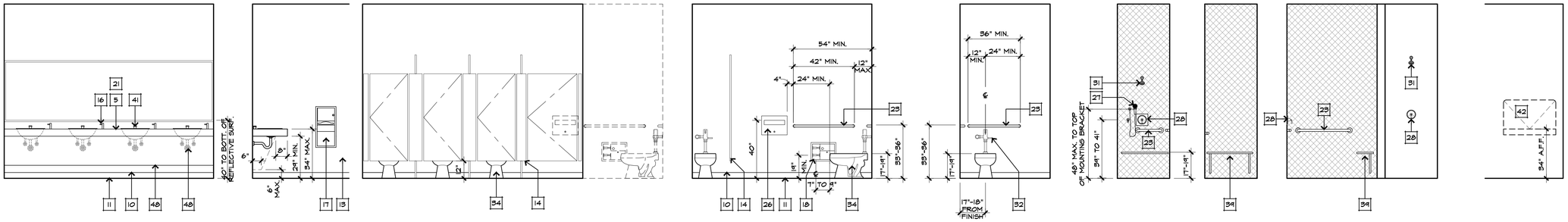
CLUBHOUSE
ENLARGED
ACCESSIBLE PLANS

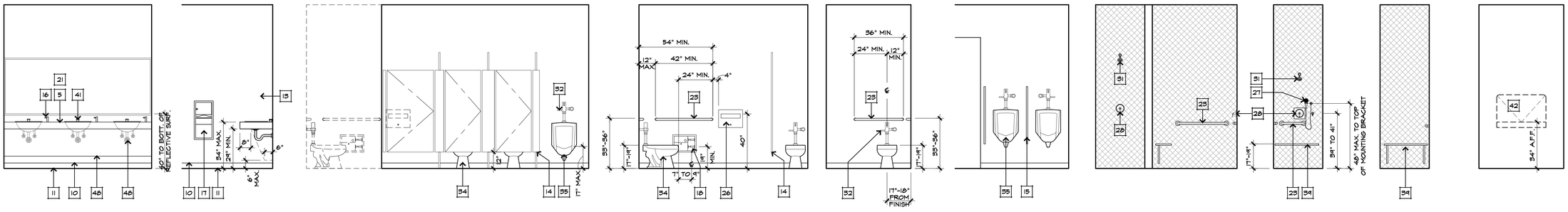
A4.1

JOB NUMBER: 667-24126



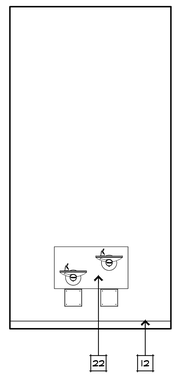
REC BLDG POOL WOMEN'S RESTROOMS

SCALE: 3/8"=1'-0" | 1



REC BLDG POOL MEN'S RESTROOM

SCALE: 3/8"=1'-0" | 3



REC BLDG POOL RESTROOMS DRINKING FOUNTAIN

SCALE: 3/8"=1'-0" | 3

INTERIOR ELEVATION NOTES

01/20/11

1. SINK WITH GARBAGE DISPOSAL.
2. BASE CABINET (SEE ELEVATION FOR DEPTH).
3. UPPER CABINET (SEE ELEVATION FOR DEPTH).
4. 4" TOE SPACE (UNLESS NOTED OTHERWISE).
5. COUNTERTOP AND BACKSPLASH.
6. DOOR, SEE SCHEDULE.
7. WINDOW, SEE SCHEDULE.
8. BASE, REFER TO INTERIOR DESIGNER DRAWINGS.
9. CASING, REFER TO INTERIOR DESIGNER DRAWINGS.
10. TILE BASE, REFER TO INTERIOR DESIGNER DRAWINGS.
11. TILE FLOOR, REFER TO INTERIOR DESIGNER DRAWINGS.
12. TILE WAINSCOT, REFER TO INTERIOR DESIGNER DRAWINGS.
13. WALL TILE, REFER TO INTERIOR DESIGNER DRAWINGS.
14. TOILET PARTITION: BOBRICK SERIES 1091 OR APPROVED EQUAL.
15. URINAL PARTITION: BOBRICK SERIES 1095 OR APPROVED EQUAL.
16. COUNTER MOUNTED SOAP DISPENSER: BOBRICK B-823 OR APPROVED EQUAL.
17. SEMI-RECESSED PAPER TOWEL DISPENSER W/ WASTE RECEPTACLE: BOBRICK B-3942 OR EQUAL.
18. RECESSED MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER: BOBRICK B-3888 OR APPROVED EQUAL.
19. SURFACE MOUNTED SEAT COVER DISPENSER, SANITARY NAPKIN DISPOSAL AND TOILET TISSUE DISPENSER: BOBRICK B-3574 OR APPROVED EQUAL.
20. PARTITION MOUNTED SEAT COVER DISPENSER, SANITARY NAPKIN DISPOSAL AND TOILET TISSUE DISPENSER: BOBRICK B-357 OR APPROVED EQUAL.
21. MIRROR, REFER TO INTERIOR DESIGNER DRAWINGS.
22. HIGH/ LOW DRINKING FOUNTAINS.
23. 1 1/2" DIA. GRAB BAR, SEE PLAN FOR LENGTH.
24. SURFACE MOUNTED SEAT COVER AND TOILET TISSUE DISPENSER: BOBRICK B-3479 OR APPROVED EQUAL.
25. SOFFIT (SEE PLAN FOR DEPTH).
26. RECESSED SEAT COVER DISPENSER: BOBRICK B-301 OR APPROVED EQUAL.
27. FLEXIBLE HAND HELD SPRAYER UNIT, HANDLE TO BE SET AT 48" MAX.
28. CONTROL AREA.
29. FOLDING SHOWER SEAT: BOBRICK B-5182 OR APPROVED EQUAL.
30. FOLDING SHOWER SEAT: BOBRICK B-5183 OR APPROVED EQUAL.
31. SHOWER HEAD.
32. FLUSH CONTROL LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
33. RECESSED MOUNTED SANITARY NAPKIN DISPOSAL: BOBRICK B-353 OR APPROVED EQUAL.
34. FLOOR MOUNTED TOILET, SEE PLUMBING PLANS.
35. WALL MOUNTED URINAL, SEE PLUMBING PLANS.
36. EXTERIOR PLASTER, SEE ELEVATIONS.
37. UNDER COUNTER REFRIGERATOR (UNDER 34" COUNTERTOP).
38. REAR LOADING MAILBOXES.
39. DISHWASHER (UNDER 34" COUNTERTOP).
40. FLOOR SINK.
41. COUNTER MOUNTED LAVATORY.
42. KOALA KARE KB 300 HORIZONTAL SURFACE MOUNTED FOLD DOWN BABY CHANGING STATION OR APPROVED EQUAL.
43. SHOWER SEAT, SEE PLAN FOR HEIGHT.
44. BAR SINK.
45. REFRIGERATOR SPACE.
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48. DOORS AND HARDWARE SHALL PROVIDE FOR ACCESSIBLE ENTRY WHEN OPENED. TOE KICK SHALL BE INTEGRAL WITH DOORS. HOT WATER AND DRAIN PIPES EXPOSED UNDER SINK SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER THE SINK. THE FINISHED FLOOR BENEATH THE SINK SHALL BE EXTENDED TO THE WALL.
49. 30" BUILT-IN OVEN.
50. TRASH COMPACTOR (UNDER 34" COUNTERTOP).
51. WINE STORAGE UNITS.
52. 12" X 12" WASTE PAPER OPENING IN COUNTERTOP ABOVE WASTE PAPER BASKET.
53. BASIS OF DESIGN FOR USPS POSTAL COLLECTION/DELIVERY MODULE: SALSBURY INDUSTRIES 3810D-10.
54. BUILT-IN TABLE.
55. WOOD FRAMED POSTAL BOX ENCLOSURE.

GENERAL INTERIOR NOTES

01/20/11

A. CABINET DRAWINGS ARE FOR SCHEMATIC USE ONLY. REFER TO BUILDER SPECIFICATIONS AND SHOP DRAWINGS BY CABINET MANUFACTURER FOR FURTHER INFORMATION.
B. REFER TO INTERIOR DESIGN DRAWINGS FOR INFORMATION NOT SHOWN HERE.

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North Carolina
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6/30/2025

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1st PLAN CHECK
Date: 02-21-25

REVISIONS

ALTIS SERENITY CLUB HOUSE
HARTNETT COUNTY NORTH CAROLINA

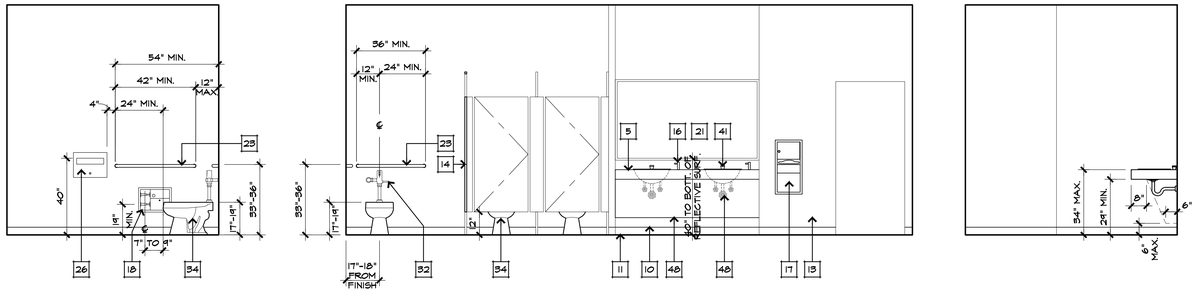
tri pointe HOMES

CLUBHOUSE INTERIOR ELEVATIONS

A4.2

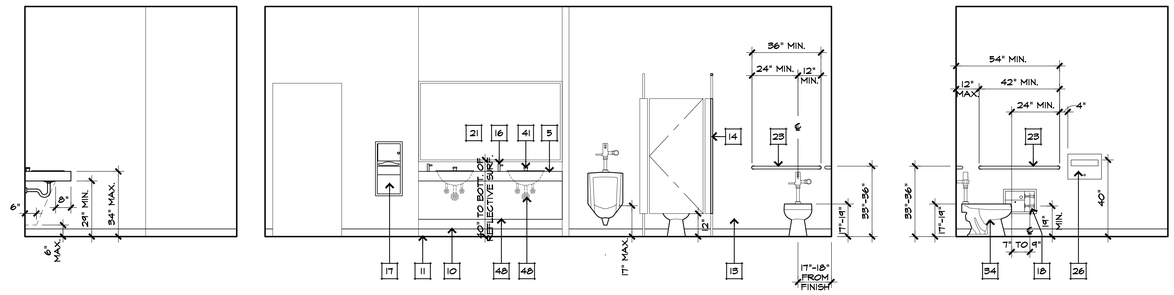
JOB NUMBER: 667-24126

PLOT DATE: 2-20-25
FILE NAME: 4126_A4_03 INT ELEVATIONS



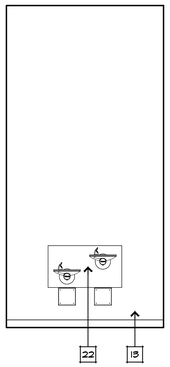
REC BLDG WOMEN'S RESTROOMS

SCALE: 3/8"=1'-0" | 1



REC BLDG MEN'S RESTROOMS

SCALE: 3/8"=1'-0" | 2



REC BLDG POOL RESTROOMS

SCALE: 3/8"=1'-0" | 3

INTERIOR ELEVATION NOTES

01/20/11

1. SINK WITH GARBAGE DISPOSAL.
2. BASE CABINET (SEE ELEVATION FOR DEPTH).
3. UPPER CABINET (SEE ELEVATION FOR DEPTH).
4. 4" TOE SPACE (UNLESS NOTED OTHERWISE).
5. COUNTERTOP AND BACKSPLASH.
6. DOOR, SEE SCHEDULE.
7. WINDOW, SEE SCHEDULE.
8. BASE, REFER TO INTERIOR DESIGNER DRAWINGS.
9. CASING, REFER TO INTERIOR DESIGNER DRAWINGS.
10. TILE BASE, REFER TO INTERIOR DESIGNER DRAWINGS.
11. TILE FLOOR, REFER TO INTERIOR DESIGNER DRAWINGS.
12. TILE WAINSCOT, REFER TO INTERIOR DESIGNER DRAWINGS.
13. WALL TILE, REFER TO INTERIOR DESIGNER DRAWINGS.
14. TOILET PARTITION: BOBRICK SERIES 1091 OR APPROVED EQUAL.
15. URINAL PARTITION: BOBRICK SERIES 1095 OR APPROVED EQUAL.
16. COUNTER MOUNTED SOAP DISPENSER: BOBRICK B-823 OR APPROVED EQUAL.
17. SEMI-RECESSED PAPER TOWEL DISPENSER W/ WASTE RECEPTACLE: BOBRICK B-3442 OR EQUAL.
18. RECESSED MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER: BOBRICK B-3888 OR APPROVED EQUAL.
19. SURFACE MOUNTED SEAT COVER DISPENSER, SANITARY NAPKIN DISPOSAL AND TOILET TISSUE DISPENSER: BOBRICK B-3574 OR APPROVED EQUAL.
20. PARTITION MOUNTED SEAT COVER DISPENSER, SANITARY NAPKIN DISPOSAL AND TOILET TISSUE DISPENSER: BOBRICK B-351 OR APPROVED EQUAL.
21. MIRROR, REFER TO INTERIOR DESIGNER DRAWINGS.
22. HIGH/ LOW DRINKING FOUNTAINS.
23. 1 1/2" DIA. GRAB BAR, SEE PLAN FOR LENGTH.
24. SURFACE MOUNTED SEAT COVER AND TOILET TISSUE DISPENSER: BOBRICK B-3474 OR APPROVED EQUAL.
25. SOFFIT (SEE PLAN FOR DEPTH).
26. RECESSED SEAT COVER DISPENSER: BOBRICK B-301 OR APPROVED EQUAL.
27. FLEXIBLE HAND HELD SPRAYER UNIT, HANDLE TO BE SET AT 48" MAX.
28. CONTROL AREA.
29. FOLDING SHOWER SEAT: BOBRICK B-5182 OR APPROVED EQUAL.
30. FOLDING SHOWER SEAT: BOBRICK B-5183 OR APPROVED EQUAL.
31. SHOWER HEAD.
32. PLUSH CONTROL LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
33. RECESSED MOUNTED SANITARY NAPKIN DISPOSAL: BOBRICK B-353 OR APPROVED EQUAL.
34. FLOOR MOUNTED TOILET, SEE PLUMBING PLANS.
35. WALL MOUNTED URINAL, SEE PLUMBING PLANS.
36. EXTERIOR PLASTER, SEE ELEVATIONS.
37. UNDER COUNTER REFRIGERATOR (UNDER 34" COUNTERTOP).
38. REAR LOADING MAILBOXES.
39. DISHWASHER (UNDER 34" COUNTERTOP).
40. FLOOR SINK.
41. COUNTER MOUNTED LAVATORY.
42. KOALA KARE KB 300 HORIZONTAL SURFACE MOUNTED FOLD DOWN BABY CHANGING STATION OR APPROVED EQUAL.
43. SHOWER SEAT, SEE PLAN FOR HEIGHT.
44. BAR SINK.
45. REFRIGERATOR SPACE.
46. UTILITY SINK.
47. FIREPLACE.
48. DOORS AND HARDWARE SHALL PROVIDE FOR ACCESSIBLE ENTRY WHEN OPENED. TOE KICK SHALL BE INTEGRAL WITH DOORS. HOT WATER AND DRAIN PIPES EXPOSED UNDER SINK SHALL BE INSULATED OR OTHERWISE COVERED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER THE SINK. THE FINISHED FLOOR BENEATH THE SINK SHALL BE EXTENDED TO THE WALL.
49. 30" BUILT-IN OVEN.
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1st PLAN CHECK
Date: 02-21-25

REVISIONS

ALTIS SERENITY
CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

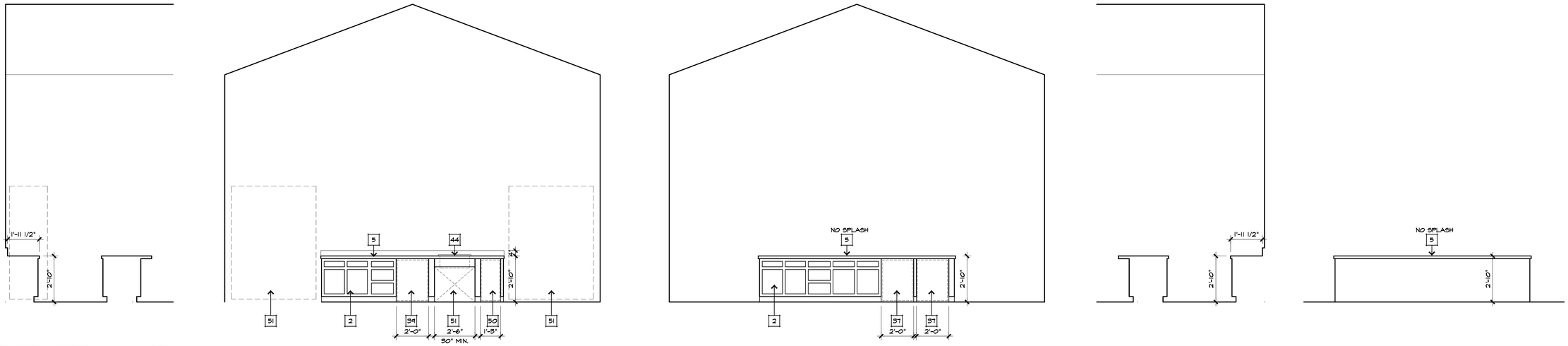
tri pointe HOMES

CLUBHOUSE
INTERIOR
ELEVATIONS

A4.3

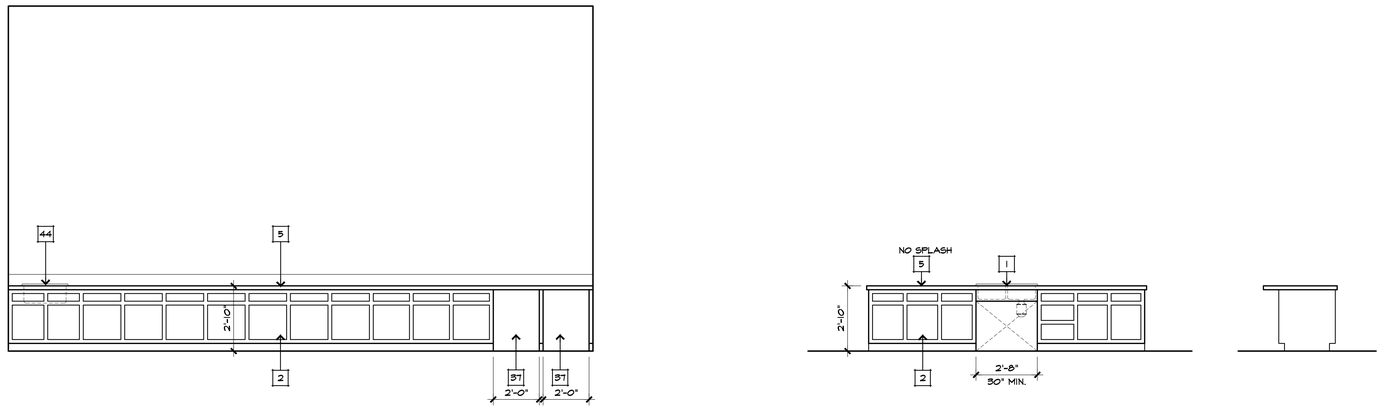
JOB NUMBER: 667-24126

PLOT DATE: 2-20-25
FILE NAME: 4126_A4_01 INT ELEVATIONS



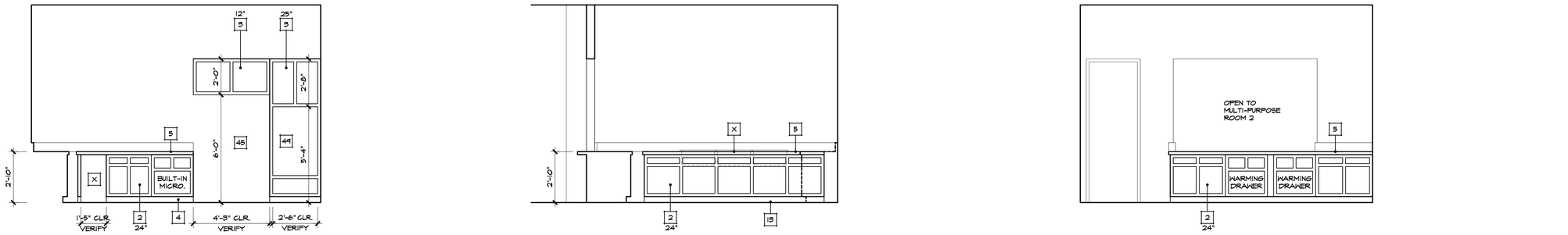
GAME ROOM KITCHEN

SCALE: 3/8"=1'-0" | 1



OUTDOOR EVENT KITCHEN

SCALE: 3/8"=1'-0" | 2



PREP KITCHEN

SCALE: 3/8"=1'-0" | 3

INTERIOR ELEVATION NOTES

01/20/17

1. SINK WITH GARBAGE DISPOSAL.
2. BASE CABINET (SEE ELEVATION FOR DEPTH).
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4. 4" TOE SPACE (UNLESS NOTED OTHERWISE).
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13. WALL TILE, REFER TO INTERIOR DESIGNER DRAWINGS.
14. TOILET PARTITION: BOBRICK SERIES 1091 OR APPROVED EQUAL.
15. URINAL PARTITION: BOBRICK SERIES 1095 OR APPROVED EQUAL.
16. COUNTER MOUNTED SOAP DISPENSER: BOBRICK B-823 OR APPROVED EQUAL.
17. SEMI-RECESSED PAPER TOWEL DISPENSER W/ WASTE RECEPTACLE: BOBRICK B-3942 OR EQUAL.
18. RECESSED MOUNTED MULTI-ROLL TOILET TISSUE DISPENSER: BOBRICK B-3888 OR APPROVED EQUAL.
19. SURFACE MOUNTED SEAT COVER DISPENSER, SANITARY NAPKIN DISPOSAL AND TOILET TISSUE DISPENSER: BOBRICK B-3574 OR APPROVED EQUAL.
20. PARTITION MOUNTED SEAT COVER DISPENSER, SANITARY NAPKIN DISPOSAL AND TOILET TISSUE DISPENSER: BOBRICK B-357 OR APPROVED EQUAL.
21. MIRROR, REFER TO INTERIOR DESIGNER DRAWINGS.
22. HIGH/ LOW DRINKING FOUNTAINS.
23. 1 1/2" DIA. GRAB BAR, SEE PLAN FOR LENGTH.
24. SURFACE MOUNTED SEAT COVER AND TOILET TISSUE DISPENSER: BOBRICK B-3479 OR APPROVED EQUAL.
25. SOFFIT (SEE PLAN FOR DEPTH).
26. RECESSED SEAT COVER DISPENSER: BOBRICK B-301 OR APPROVED EQUAL.
27. FLEXIBLE HAND HELD SPRAYER UNIT, HANDLE TO BE SET AT 48" MAX.
28. CONTROL AREA.
29. FOLDING SHOWER SEAT; BOBRICK B-5182 OR APPROVED EQUAL.
30. FOLDING SHOWER SEAT; BOBRICK B-5183 OR APPROVED EQUAL.
31. SHOWER HEAD.
32. FLUSH CONTROL LOCATED ON THE OPEN SIDE OF THE WATER CLOSET.
33. RECESSED MOUNTED SANITARY NAPKIN DISPOSAL: BOBRICK B-353 OR APPROVED EQUAL.
34. FLOOR MOUNTED TOILET, SEE PLUMBING PLANS.
35. WALL MOUNTED URINAL, SEE PLUMBING PLANS.
36. EXTERIOR PLASTER, SEE ELEVATIONS.
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PLOT DATE: 2-20-25

FILE NAME: 4126_A4_00 INT ELEVATIONS

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6/30/2025

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1st PLAN CHECK
Date: 02-21-25

REVISIONS

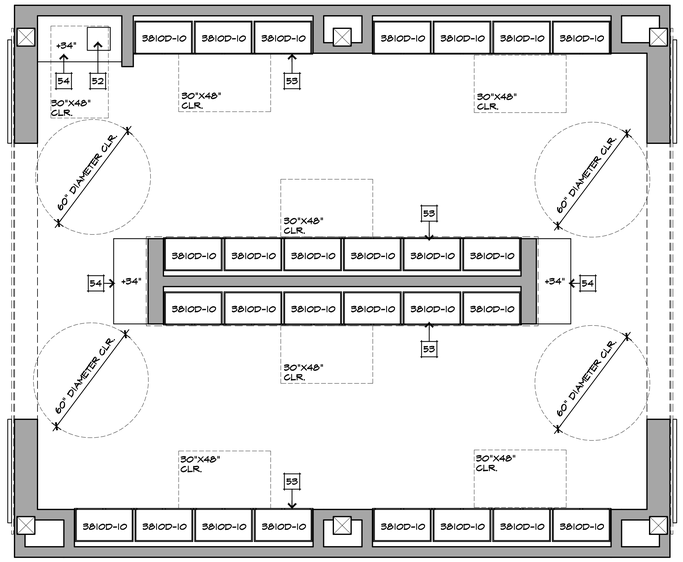
ALTIS SERENITY
CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

tri pointe HOMES

CLUB HOUSE
INTERIOR
ELEVATIONS

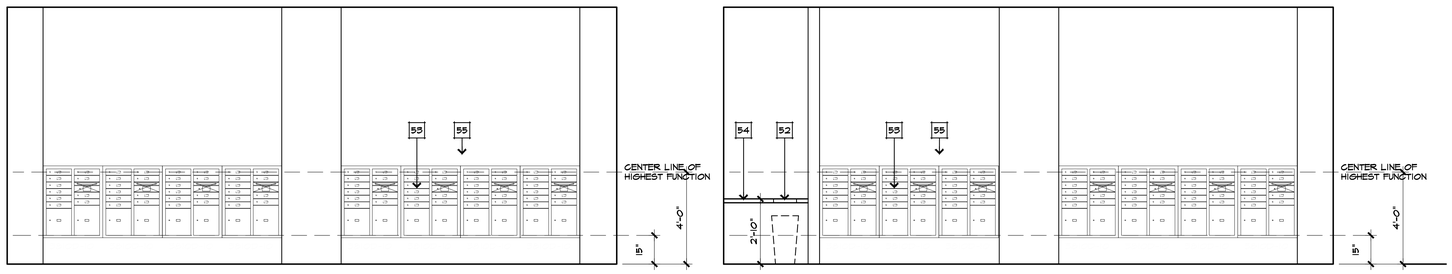
A4.4

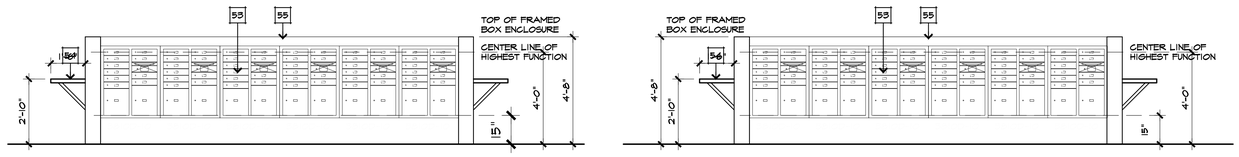
JOB NUMBER: 667-24126



MAIL BLDG PLAN

SCALE: 3/8"=1'-0" | 1





MAIL BLDG ELEVATIONS

SCALE: 3/8"=1'-0" | 2

INTERIOR ELEVATION NOTES

01/20/11

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PLOT DATE: 2-20-25

FILE NAME: 4126_A4_01 INT ELEVATIONS

KENNETH C. NIEMERSKI Registered Architect Reg. No. 12022 North Carolina Newport Beach, CA 6/30/2025

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1st PLAN CHECK
Date: 02-21-25

REVISIONS

ALTIS SERENITY CLUB HOUSE
HARTNETT COUNTY NORTH CAROLINA

tri pointe HOMES

MAIL BUILDING
ACCESSIBILITY PLAN AND INTERIOR ELEVATIONS

A4.5

JOB NUMBER: 667-24126

FINISH SCHEDULE

ROOM		FLOOR						BASE				WALLS				CEILING				REMARKS
		CARPET	PORCELAIN TILE	CERAMIC TILE	VINYL TILE	WOOD	SEALED CONCRETE	WOOD	PORCELAIN TILE	CERAMIC TILE	VINYL BASE	GYP. BOARD	EXT. PLASTER			GYP. BOARD	EXT. PLASTER			NOTE: REFER TO INTERIOR DESIGNER PLANS TO CONFIRM ALL FLOOR, WALL AND CEILING INTERIOR FINISH TREATMENTS AND ENHANCEMENTS.
CLUB HOUSE	COVERED ENTRY		●										●				●			
	LOBBY		●						●			●				●				
	LOUNGE		●						●			●				●				
	COVERED OUTDOOR (POOL)		●										●				●			
	OFFICE 1	●						●				●				●				
	OFFICE 2	●						●				●				●				
	RECEPTION		●						●			●				●				
	FILES		●						●			●				●				
	JANITOR				●						●	●				●				
	MEN'S RESTROOM			●						●		●				●				
	WOMEN'S RESTROOM			●						●		●				●				
	GAME ROOM		●						●			●				●				
	FITNESS ROOM	●						●				●				●				
	MEN'S POOL RESTROOM			●						●		●				●				
	WOMEN'S POOL RESTROOM			●						●		●				●				
	POOL RESTROOM VESTIBULE		●						●			●				●				
	MEETING ROOM		●						●			●				●				
	YOGA ROOM	●										●				●				
	PRE-FUNCTION AREA		●						●			●				●				
	COVERED PATIO		●										●				●			
	MULTI-PURPOSE ROOM 1 & 2		●						●			●				●				
	STORAGE CLOSET				●						●	●				●				
	PREPARATION KITCHEN		●						●			●				●				
	ELECTRICAL ROOM						●				●	●				●				
	FIRE RISER CLOSET						●				●	●				●				
	OUTDOOR EVENT SPACE		●										●				●			
POOL BUILDING	POOL EQUIPMENT ROOM						●				●	●				●				
MAIL STRUCTURE	COVERED MAIL AREA		●										●				●			

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REVISIONS

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CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

tri pointe HOMES

SCHEDULES
FINISH

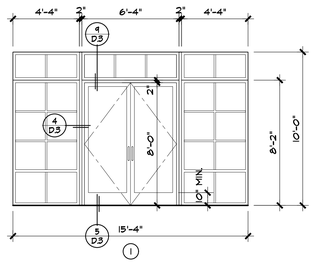
A5.0

JOB NUMBER: 667-24126

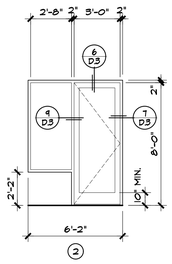
PLOT DATE: 2-20-25

FILE NAME: 412b_A5_00 FINISH SCHEDULE

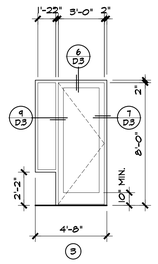
DOOR TYPES



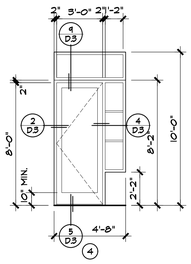
1
STOREFRONT (EXTERIOR)



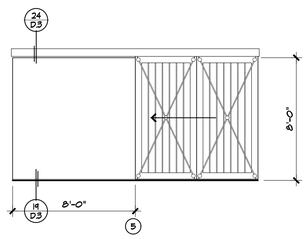
2
STOREFRONT (INTERIOR)



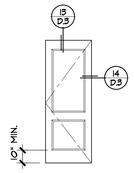
3
STOREFRONT (INTERIOR)



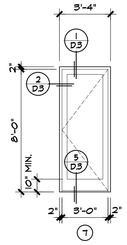
4
STOREFRONT (EXTERIOR)



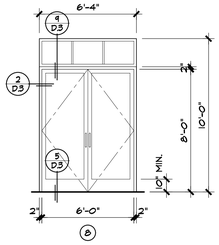
5
SLIDING "BARN" DOOR (INTERIOR)



6
PANEL DOOR (INTERIOR)



7
STOREFRONT (EXTERIOR)



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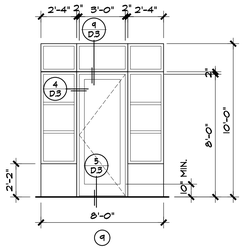
STOREFRONT (EXTERIOR)



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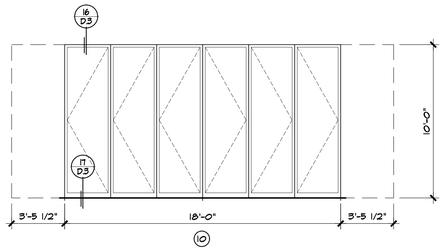
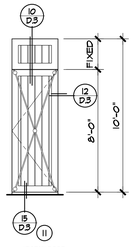
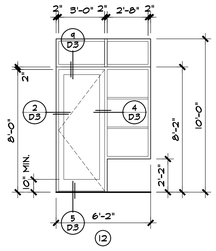
STOREFRONT (EXTERIOR)



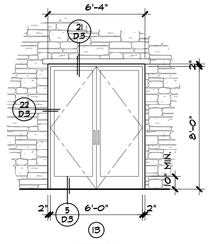
10
6 PANEL MULTI-SLIDER (EXTERIOR)



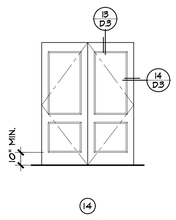
"BARN" DOOR (EXTERIOR)



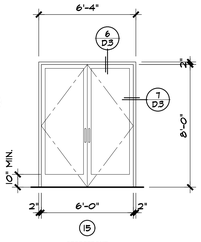
12
STOREFRONT (EXTERIOR)



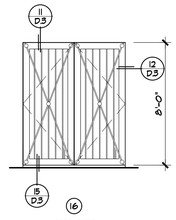
15
STOREFRONT (EXTERIOR)



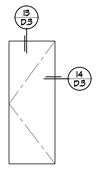
14
PANEL DOOR (INTERIOR)



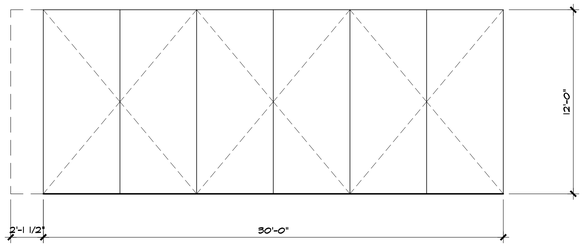
15
STOREFRONT (INTERIOR)



16
"BARN" DOOR (EXTERIOR)



18
PANEL DOOR (INTERIOR)



17
FOLDING PARTITION (INTERIOR)

DOOR SCHEDULE

DOOR NO. (REFER TO FLOOR PLAN)	SIZE: WIDTH	SIZE: HEIGHT	SIZE: THICKNESS	DOOR TYPE (REFER TO THIS SHEET)	DOOR: MATERIAL: STOREFRONT	HOLLOW METAL	SOLID CORE WOOD	CUSTOM "BARN"	MULTI-SLIDER	FOLDING PARTITION	FRAME: DETAILS: HEAD	JAMB	THRESHOLD	MATERIAL: ALUMINUM	HOLLOW METAL	WOOD	CUSTOM "BARN"	HARDWARE SET	FIRE RATED	PANIC HARDWARE	U-FACTOR	SHGC	VT	REMARKS: TEMPERED GLAZING	CLOSER
RECREATION BUILDING																									
1	15'-4"	10'-0"	1-3/4"	1	●						9/D3	4/D3	9/D3	●										●	
2	6'-2"	8'-2"	1-3/4"	2	●						6/D3	2/D3	--	●										●	
3	4'-8"	8'-2"	1-3/4"	3	●						6/D3	2/D3	--	●										●	
4	4'-8"	10'-0"	1-3/4"	4	●						9/D3	2/D3	5/D3	●										●	
5	8'-0"	8'-0"	1-3/4"	5				●			24/D3	--	14/D3				●								
6	3'-0"	8'-0"	1-3/4"	6			●				13/D3	14/D3	--		●										●
7	3'-0"	8'-0"	1-3/4"	6			●				13/D3	14/D3	--		●										●
8	3'-4"	8'-2"	1-3/4"	7	●						1/D3	2/D3	5/D3	●										●	●
9	15'-4"	10'-0"	1-3/4"	1	●						9/D3	4/D3	9/D3	●										●	
10	6'-4"	10'-0"	1-3/4"	8	●						9/D3	2/D3	5/D3	●										●	
11	8'-0"	10'-0"	1-3/4"	9	●						9/D3	4/D3	5/D3	●										●	
12	18'-0"	10'-0"	1-3/4"	10						●	16/D3	--	17/D3	●										●	
13	3'-0"	10'-0"	1-3/4"	11				●			10/D3	12/D3	5/D3		●										
14	3'-0"	10'-0"	1-3/4"	11				●			10/D3	12/D3	5/D3		●										
15	6'-2"	10'-0"	1-3/4"	12	●						9/D3	2/D3	5/D3	●										●	
16	3'-0"	8'-0"	1-3/4"	6			●				13/D3	14/D3	--			●									
17	6'-4"	10'-0"	1-3/4"	8	●						9/D3	2/D3	5/D3	●										●	
18	6'-4"	8'-2"	1-3/4"	13	●						21/D3	22/D3	5/D3	●										●	
19	6'-0"	8'-0"	1-3/4"	14			●				13/D3	14/D3	--			●									
20	12'-0"	30'-0"	1-3/4"	17						●				●											
21	6'-0"	8'-0"	1-3/4"	14			●				13/D3	14/D3	--			●									
22	6'-0"	8'-0"	1-3/4"	14			●				13/D3	14/D3	--			●									
23	3'-0"	8'-0"	1-3/4"	6			●				13/D3	14/D3	--			●									
24	3'-0"	8'-0"	1-3/4"	6			●				13/D3	14/D3	--			●									
25	6'-4"	8'-0"	1-3/4"	15	●						11/D.4	12/D.4	15/D.4	●										●	
26	3'-0"	8'-0"	1-3/4"	6			●				13/D3	14/D3	--			●									
27	3'-0"	8'-0"	1-3/4"	6			●				13/D3	14/D3	--			●									
28	3'-0"	8'-0"	1-3/4"	6			●				13/D3	14/D3	--			●									
29	3'-0"	8'-0"	1-3/4"	6			●				13/D3	14/D3	--			●									
POOL EQUIPMENT BUILDING																									
30	6'-0"	8'-0"	1-3/4"	16				●			11/D3	12/D3	15/D3				●							●	
31	3'-6"	7'-0"	1-3/4"	18			●				13/D3	14/D3	--			●								●	

DOOR OPENING WIDTH AND HEIGHT:
THE REQUIRED CAPACITY OF EACH DOOR OPENING SHALL BE SUFFICIENT FOR THE OCCUPANT LOAD THEREOF AND SHALL PROVIDE A MINIMUM CLEAR OPENING WIDTH OF 32 INCHES. THE MINIMUM CLEAR OPENING HEIGHT OF DOORS SHALL BE NOT LESS THAN 80 INCHES. (I.B.C. 1010.1.1)

LOCKS AND LATCHES:
A MAIN EXIT OF GROUP 'A' OCCUPANCY SHALL BE PERMITTED TO BE LOCKING IN ACCORDANCE WITH I.B.C. 1010.1.9.4 ITEM 2. ITEM 2: IN BUILDINGS IN OCCUPANCY GROUP 'A' HAVING AN OCCUPANT LOAD OF 300 OR LESS, THE MAIN DOOR OR DOORS ARE PERMITTED TO BE EQUIPPED WITH KEY-OPERATED LOCKING DEVICE FROM EGRESS SIDE PROVIDED.
2.1. THE LOCKING DEVICE IS READILY DISTINGUISHABLE AS LOCKED.
2.2. A READILY VISIBLE DURABLE SIGN IS POSTED ON THE EGRESS SIDE ON OR ADJACENT TO THE DOOR STATING:
THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED.
THE SIGN SHALL BE IN LETTERS 1 INCH (25 MM) HIGH ON A CONTRASTING BACKGROUND.

NOTES:
1. EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. (I.B.C. 1010.1.9)
2. DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES ON DOORS REQUIRED TO BE ACCESSIBLE SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING OR TWISTING OF THE WRIST TO OPERATE. (I.B.C. 1010.1.9.1.)
3. DOOR HARDWARE SHALL BE CENTERED BETWEEN 30 INCHES AND 48 INCHES ABOVE THE FLOOR.
4. INTERIOR DOORS SHALL HAVE A MAXIMUM OPENING FORCE OF 5 lbf.
5. SAFETY GLAZING SHALL BE PROVIDED WITH PERMANENT IDENTIFICATION PER I.B.C. 2403.1.
6. ALL GLAZING IN DOORS TO BE TEMPERED.
7. WHERE REQUIRED BY CODE, SIDE-LITES AND WINDOWS ADJACENT TO A DOOR SHALL BE TEMPERED.

KENNETH C. NIEMERSKI
Registered Architect
Reg. No. 12022
North Carolina
Newport Beach, CA
6/30/2025

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1st PLAN CHECK
Date: 02-21-25

REVISIONS

ALTIS SERENITY CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

tri pointe HOMES

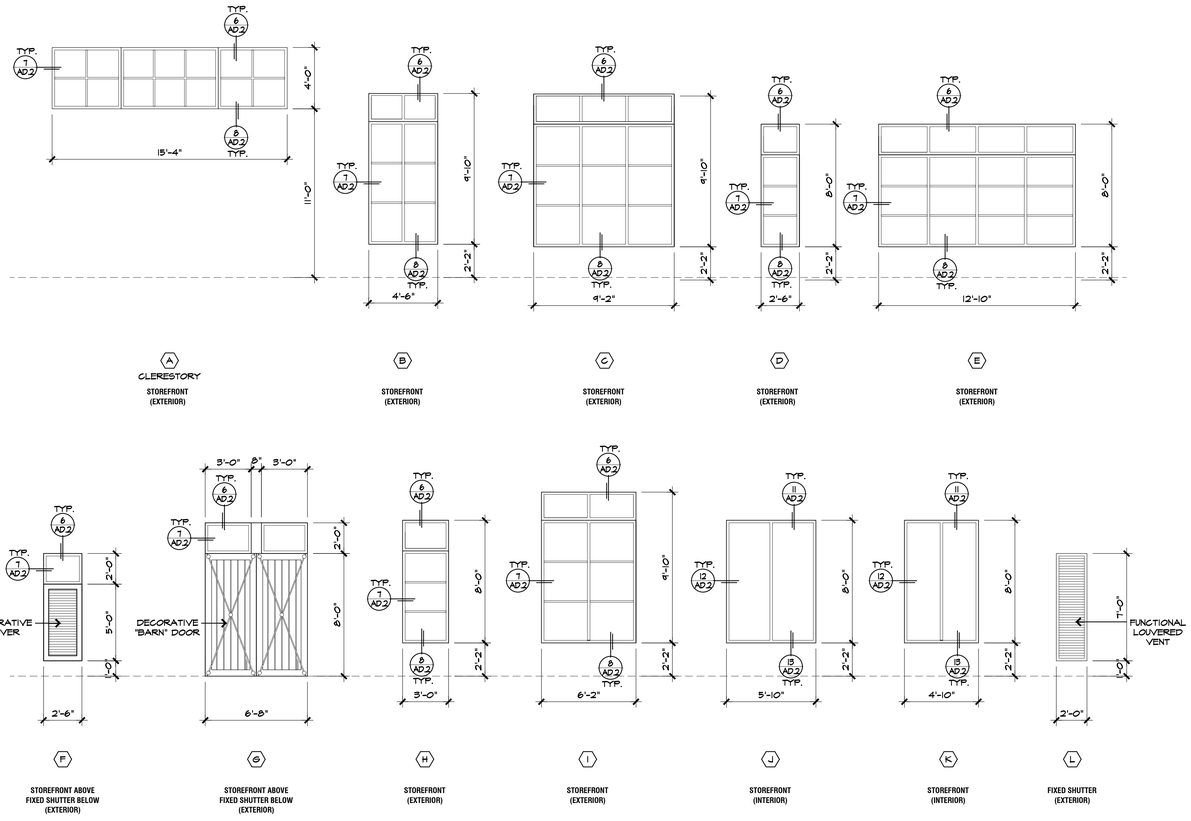
SCHEDULES
DOOR SCHEDULE

A5.1

JOB NUMBER: 667-24126

PLOT DATE: 2-20-25
FILE NAME: 4126_A5_01 SCHEDULES

WINDOW TYPES



A — CLERESTORY STOREFRONT (EXTERIOR)

B — STOREFRONT (EXTERIOR)

C — STOREFRONT (EXTERIOR)

D — STOREFRONT (EXTERIOR)

E — STOREFRONT (EXTERIOR)

F — STOREFRONT ABOVE FIXED SHUTTER BELOW (EXTERIOR)

G — STOREFRONT ABOVE FIXED SHUTTER BELOW (EXTERIOR)

H — STOREFRONT (EXTERIOR)

I — STOREFRONT (EXTERIOR)

J — STOREFRONT (INTERIOR)

K — STOREFRONT (INTERIOR)

L — FIXED SHUTTER (EXTERIOR)

WINDOW SCHEDULE

X	SIZE		FRAME		GLAZING	DETAILS					U-FCTR.	SHGC	VT	MULLIONS	TEMP. GLAZING	REMARKS
	WIDTH	HEIGHT	OPERATION	MAT'L.		HEAD	JAMB	JAMB	SILL	MULL						
RECREATION BUILDING																
A	15'-4"	4'-0"	FIXED	ALUM.	1" INSULATED	6/D.2	7/D.3	7/D.3	8/D.3	--				●		
B	4'-6"	9'-10"	FIXED	ALUM.	1" INSULATED	6/D.2	7/D.3	7/D.3	8/D.3	--				●	●	
C	9'-2"	9'-10"	FIXED	ALUM.	1" INSULATED	6/D.2	7/D.3	7/D.3	8/D.3	--				●	●	
D	2'-6"	8'-0"	FIXED	ALUM.	1" INSULATED	6/D.2	7/D.3	7/D.3	8/D.3	--				●	●	
E	12'-10"	8'-0"	FIXED	ALUM.	1" INSULATED	6/D.2	7/D.3	7/D.3	8/D.3	--				●	●	
F	12'-2"	6'-0"	FIXED	ALUM.	1" INSULATED	5/D.3	2/D.3	2/D.3	--	--						
G	12'-2"	--	FIXED	ALUM.	1" INSULATED	1/D.3	2/D.3	2/D.3	--	--						
H	3'-0"	8'-0"	FIXED	ALUM.	1" INSULATED	6/D.2	7/D.3	7/D.3	8/D.3	--				●	●	
I	6'-2"	8'-0"	FIXED	ALUM.	1" INSULATED	6/D.2	7/D.3	7/D.3	8/D.3	--				●	●	
J	5'-10"	8'-0"	FIXED	ALUM.	1" INSULATED	11/D.2	12/D.3	12/D.3	13/D.3	--					●	
K	4'-10"	8'-0"	FIXED	ALUM.	1" INSULATED	11/D.2	12/D.3	12/D.3	13/D.3	--					●	
POOL EQUIPMENT BUILDING																
L	2'-0"	7'-0"	LOUVERED VENT	ALUM.	--											

NOTE:
1. SAFETY GLAZING SHALL BE PROVIDED WITH PERMANENT IDENTIFICATION PER I.B.C. 2403.1.

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1st PLAN CHECK
Date: 02-21-25

REVISIONS

ALTIS SERENITY
CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

tri pointe HOMES

SCHEDULES
WINDOW SCHEDULE

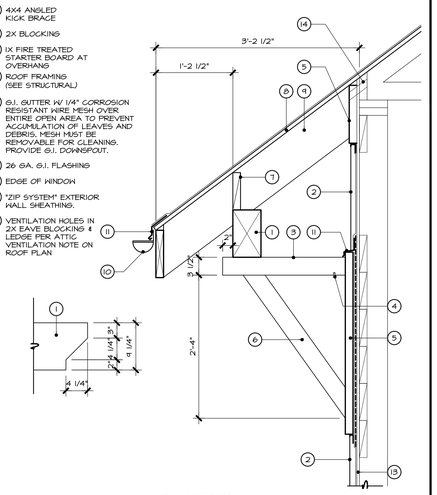
A5.2

JOB NUMBER: 667-24126

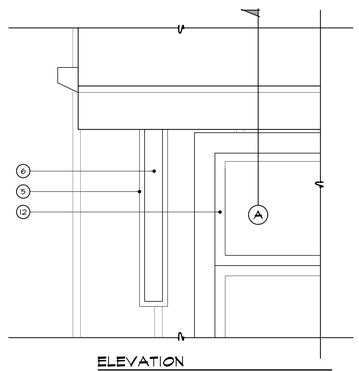
PLOT DATE: 2-20-25

FILE NAME: 4126_A5_01 SCHEDULES

1. 6X10 WOOD BEAM
2. EXTERIOR FINISH
3. 4X4 WOOD OUTLOOKER
4. KERF CUT
5. 2X VERTICAL LEDGER (SEE ELEVATION)
6. 4X4 ANGLED KICK BRACE
7. 2X BLOCKING
8. 1X FIRE TREATED STARTER BOARD AT OVERHANG
9. ROOF FRAMING (SEE STRUCTURAL)
10. G.I. GUTTER W/ 1/4" CORROSION RESISTANT WIRE MESH OVER ENTIRE OPEN AREA TO PREVENT ACCUMULATION OF LEAVES AND DEBRIS. MESH MUST BE REMOVABLE FOR CLEANING. PROVIDE G.I. DOWNSPOUT.
11. 26 GA. G.I. FLASHING
12. EDGE OF WINDOW
13. "ZIP SYSTEM" EXTERIOR WALL SHEATHING.
14. VENTILATION HOLES IN 2X EAVE BLOCKING 4 LEDGE PER ATTIC VENTILATION NOTE ON ROOF PLAN



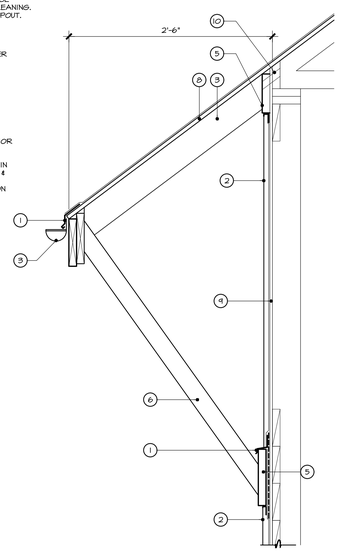
A SECTION



ELEVATION

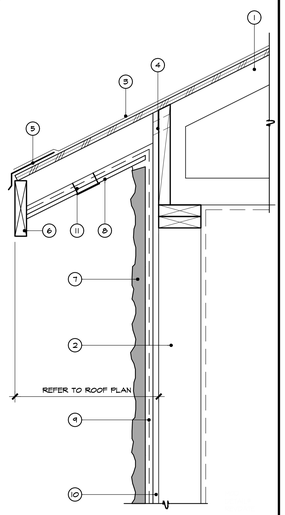
ROOF BRACE
SCALE : 1" = 1'-0" — 23

1. 26 GA. G.I. FLASHING
2. EXTERIOR FINISH
3. G.I. GUTTER W/ 1/4" CORROSION RESISTANT WIRE MESH OVER ENTIRE OPEN AREA TO PREVENT ACCUMULATION OF LEAVES AND DEBRIS. MESH MUST BE REMOVABLE FOR CLEANING. PROVIDE G.I. DOWNSPOUT.
3. ROOF FRAMING (SEE STRUCTURAL)
5. 2X VERTICAL LEDGER (SEE ELEVATION)
6. 4X4 ANGLED KICK BRACE
7. 2X BLOCKING
8. 1X STARTER BOARD AT OVERHANG
9. "ZIP SYSTEM" EXTERIOR WALL SHEATHING
10. VENTILATION HOLES IN 2X EAVE BLOCKING 4 LEDGE PER ATTIC VENTILATION NOTE ON ROOF PLAN



ROOF BRACE
SCALE : 1" = 1'-0" — 25

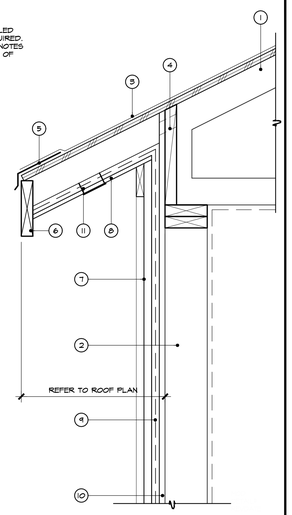
1. ROOF FRAMING (SEE STRUCTURAL)
2. 2X WALL FRAMING PER STRUCTURAL
3. ROOF MATERIAL, UNDERLAYMENT, AND FLASHING-SEE ROOF MATERIAL DETAIL 2/D.)
4. 2X EAVE BLOCKING W/ EAVE VENT HOLES PER ROOF PLAN VENTILATION NOTES.
5. 26 GA. G.I. DRIP EDGE FLASHING
6. 2X8 FASCIA
7. ADHERED MANUFACTURED STONE VENEER PER EXTERIOR ELEVATIONS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
8. CEMENTITIOUS SOFFIT W/ PRE-DRILLED ATTIC VENTILATION HOLES AS REQUIRED. SEE ROOF PLAN FOR ADDITIONAL NOTES REGARDING SIZE AND PROTECTION OF OPENINGS. INSTALL PER MFR.
9. WATER RESISTANT PAPER (60 MINUTE GRADE 'D' MIN.)
10. "ZIP SYSTEM" EXTERIOR WALL SHEATHING
11. CONTINUOUS SOFFIT VENT PROVIDING FREE VENTILATION AREA PER NOTES ON ROOF PLAN.



REFER TO STRUCT. DWGS. FOR SHEAR REQUIREMENTS.

EAVE AT WALL
AT STONE VENEER — SCALE : 1 1/2" = 1'-0" — 17

1. ROOF FRAMING (SEE STRUCTURAL)
2. 2X WALL FRAMING PER STRUCTURAL
3. ROOF MATERIAL, UNDERLAYMENT, AND FLASHING-SEE ROOF MATERIAL DETAIL 2/D.)
4. 2X EAVE BLOCKING W/ EAVE VENT HOLES PER ROOF PLAN VENTILATION NOTES.
5. 26 GA. G.I. DRIP EDGE FLASHING
6. 2X8 FASCIA
7. CEMENTITIOUS SIDING PER EXTERIOR ELEVATIONS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
8. CEMENTITIOUS SOFFIT W/ PRE-DRILLED ATTIC VENTILATION HOLES AS REQUIRED. SEE ROOF PLAN FOR ADDITIONAL NOTES REGARDING SIZE AND PROTECTION OF OPENINGS. INSTALL PER MFR.
9. WATER RESISTANT PAPER. (60 MIN/TE GRADE 'D' MIN.)
10. "ZIP SYSTEM" EXTERIOR WALL SHEATHING.
11. CONTINUOUS SOFFIT VENT PROVIDING FREE VENTILATION AREA PER NOTES ON ROOF PLAN.

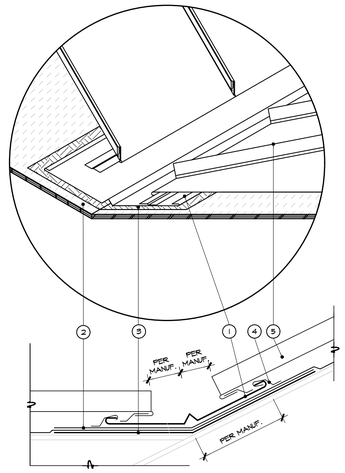


REFER TO STRUCT. DWGS. FOR SHEAR REQUIREMENTS.

EAVE AT WALL
AT CEMENTITIOUS SIDING — SCALE : 1 1/2" = 1'-0" — 12

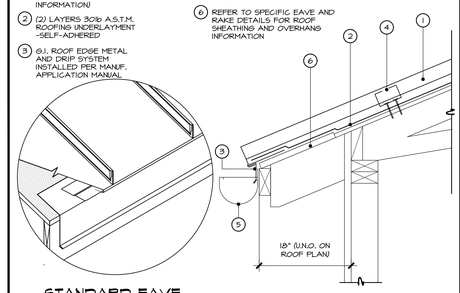
1. 24 GA. G.I. VALLEY FLASHING MIN. 1/2" CRIMPED EDGES (EXTEND 1" PAST EAVE), APPLY SEALANT BETWEEN LAPS
2. (2) LAYERS ROOFING UNDERLAYMENT
3. 30# SHEAT SHEET UNDER FLASHING MIN. 36" WIDE
4. SECURE VALLEY FLASHING AT MAX. 24" O.C. W/CLIPS FABRICATED OF SIMILAR OR COMPATIBLE MATERIAL. DO NOT NAIL FELT, BATTENS OR ROOFING THROUGH VALLEY FLASHING. APPLY ROOFING CEMENT OVER EXPOSED FASTENERS
5. SHEET METAL ROOF INSTALL PER MANUF. APPLIACTION MANUAL

ALL CORNER PIECES TO BE MECHANICALLY FASTENED AND FULLY SOLDERED

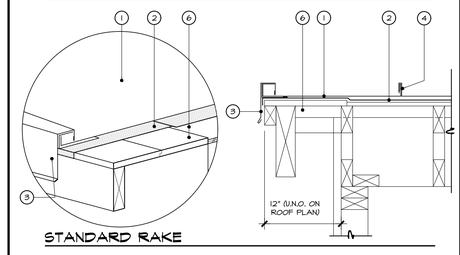


VALLEY FLASHING
METAL ROOF — SCALE: 1 1/2"=1'-0" — 7

1. MIN. 24 GA. STANDING SEAM SHEET METAL ROOF SYSTEM INSTALLED PER MANUFACTURER'S APPLICATION MANUAL (SEE ROOF PLAN NOTES FOR ADD'L INFORMATION)
2. (2) LAYERS 30lb A.S.T.M. ROOFING UNDERLAYMENT -SELF-ADHERED
3. G.I. ROOF EDGE METAL AND DRIP SYSTEM INSTALLED PER MANUF. APPLICATION MANUAL
4. PANEL CLIPS AND FASTENERS INSTALLED PER MANUF. APPLICATION MANUAL
5. G.I. GUTTER AND DOWNSPOUT
6. REFER TO SPECIFIC EAVE AND RAKE DETAILS FOR ROOF SHEATHING AND OVERHANG INFORMATION



STANDARD EAVE

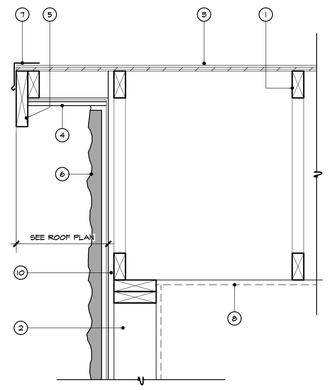


STANDARD RAKE

REFER TO SPECIFIC ROOFING DETAILS FOR ADDITIONAL INFORMATION NOT SHOWN HERE.

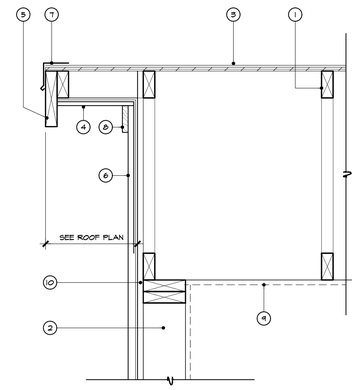
GENERAL ROOF ASSEMBLY
METAL ROOF — SCALE: 1 1/2" = 1'-0" — 2

1. DESIGNED WOOD ROOF TRUSSES
2. WALL BEYOND (SEE PLANS)
3. ROOF MATERIAL, UNDERLAYMENT, AND FLASHING-SEE ROOF MATERIAL DETAIL 2/D.) AT METAL ROOFING AND DETAIL 12/D.) AT COMPOSITION ASPHALT SHINGLE ROOFING
4. CEMENTITIOUS SOFFIT MATERIAL W/ VENTING HOLES, INSTALL PER MFR.
5. 2X8 BARGE (SEE ELEVATION)
6. ADHERED MANUFACTURED STONE VENEER PER EXTERIOR ELEVATIONS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
7. 26 GA. G.I. DRIP
8. INTERIOR WALL FINISH AT INTERIOR SPACES
10. "ZIP SYSTEM" EXTERIOR WALL SHEATHING



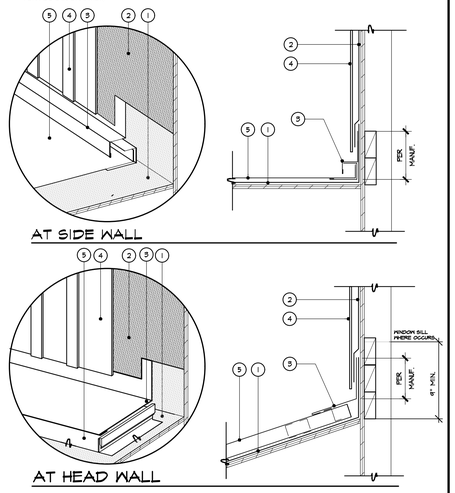
RAKE
AT METAL ROOF FINISH — SCALE : 1 1/2" = 1'-0" — 19

1. DESIGNED WOOD ROOF TRUSSES
2. WALL BEYOND (SEE PLANS)
3. ROOF MATERIAL, UNDERLAYMENT, AND FLASHING-SEE ROOF MATERIAL DETAIL 2/D.) AT METAL ROOFING AND DETAIL 12/D.) AT COMPOSITION ASPHALT SHINGLE ROOFING
4. CEMENTITIOUS SOFFIT MATERIAL W/ VENTING HOLES, INSTALL PER MFR.
5. 2X8 BARGE (SEE ELEVATION)
6. CEMENTITIOUS SIDING, OVER 60 MIN. BUILDING PAPER. INSTALL PER MFGR.
7. 26 GA. G.I. DRIP
8. CEMENTITIOUS TRIM BOARD AT MATERIAL TRANSITIONS
9. INTERIOR WALL FINISH AT INTERIOR SPACES
10. "ZIP SYSTEM" EXTERIOR WALL SHEATHING



RAKE
AT METAL ROOF FINISH — SCALE : 1 1/2" = 1'-0" — 14

1. (2) LAYERS UNDERLAYMENT (30lb. A.S.T.M. FELT MIN.)
2. WATER-RESISTANT PAPER, (60 MINUTE, GRADE 'D' MINIMUM)
3. 24 GA. CORROSION RESISTANT METAL ROOF TO WALL FLASHING SYSTEM PER MANUF. APPLICATION MANUAL
4. HARDIE VERTICAL SIDING
5. MIN. 24 GA. STANDING SEAM SHEET METAL ROOF SYSTEM INSTALLED PER MANUFACTURER'S APPLICATION MANUAL (SEE ROOF PLAN NOTES FOR ADD'L INFORMATION)

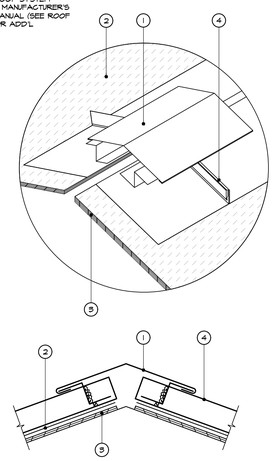


AT SIDE WALL

AT HEAD WALL

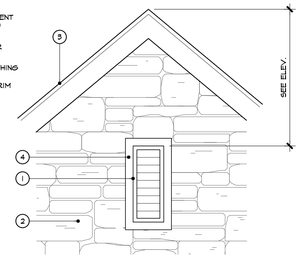
ROOF TO WALL FLASHING
METAL ROOF AT BOARD AND BATTEN — SCALE : 1 1/2" = 1'-0" — 9

1. VENTED RIDGE CAP INSTALLED PER MANUF. APPLICATION SPECIFICATIONS (SEE ROOF PLAN NOTES FOR ADDITIONAL INFORMATION.
2. (2) LAYERS UNDERLAYMENT (MIN. 30 lb. A.S.T.M. FELT)- SELF-ADHERED
3. ROOF SHEATHING HELD BACK TO ALLOW FOR ATTIC VENTILATION. VERIFY OFFSET PER MANUF. RECOMMENDATION. (SEE STRUCTURAL)
4. MIN. 24 GA. STANDING SEAM SHEET METAL ROOF SYSTEM INSTALLED PER MANUFACTURER'S APPLICATION MANUAL (SEE ROOF PLAN NOTES FOR ADD'L INFORMATION)



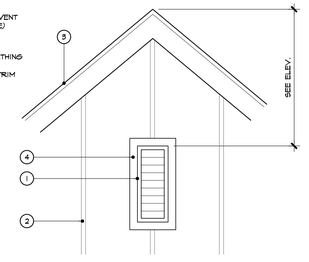
RIDGE CAP
METAL ROOF — SCALE: 1 1/2"=1'-0" — 4

1. FALSE GABLE END VENT (SEE ELEV. FOR SIZE)
2. SYNTHETIC STONE VENEER, INSTALL PER MFR.
3. LINE OF ROOF SHEATHING
4. 2X2 CEMENTITIOUS TRIM



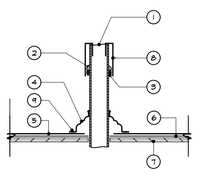
GABLE END VENT TRIM
AT EXTERIOR SIDING — SCALE : 3/4" = 1'-0" — 15

1. FALSE GABLE END VENT (SEE ELEV. FOR SIZE)
2. EXTERIOR SIDING
3. LINE OF ROOF SHEATHING
4. 2X2 CEMENTITIOUS TRIM



GABLE END VENT TRIM
AT EXTERIOR SIDING — SCALE : 3/4" = 1'-0" — 10

1. PIPE, SEE PLUMBING DRAWINGS
2. SEALANT
3. BACKER ROD
4. RUBBERIZED BOOT FLASHING INSTALLED PER MANUF. RECOMMENDATIONS
5. METAL ROOF PANEL SEE ROOF NOTES
6. (2) LAYERS ROOFING UNDERLAYMENT
7. PLYWOOD DECK, SEE STRUCTURAL DRAWINGS
8. VENT CAP, ATTACH TO PIPE DO NOT FASTEN TO METAL PIPE FLASHING TO ALLOW FOR BUILDING SHRINKAGE MOVEMENT
9. FASTENERS SET ON APPROVED SEALANT INSTALL PER MANUF. RECOMMENDATIONS, DO NOT PENETRATE SUBSTRATE



PIPE FLASHING
AT METAL ROOF — SCALE: 1-1/2"=1'-0" — 5

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1st PLAN CHECK
Date: 02-21-25

REVISIONS

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HARTNETT COUNTY
NORTH CAROLINA

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DETAILS
NOTE: REFER TO GENERAL NOTES SHEETS FOR FURTHER INFORMATION

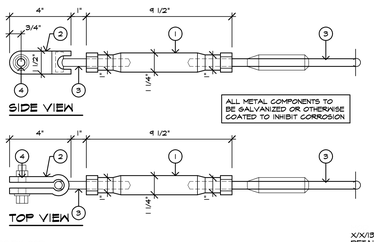
AD.1

JOB NUMBER: 667-24126

PLOT DATE: 2-20-25
FILE NAME: 4126_AD1_DETAILS

21

1 METAL TURNBUCKLE
2 METAL TOGGLE JAW
3 1/4" DIA. METAL ROD W/ THREADED ENDS
4 5/8" DIA. HOLE



ALL METAL COMPONENTS TO BE GALVANIZED OR OTHERWISE COATED TO INHIBIT CORROSION

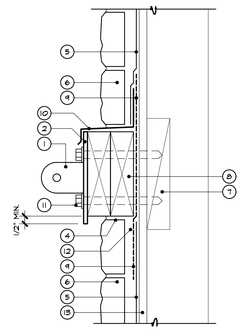
X/X/15 DETAIL#

TOGGLE JAW ASSEMBLY

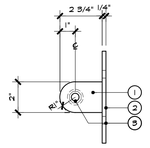
SCALE: 3"=1'-0" | 22

1 1/4" METAL TAB
2 1/4" METAL PLATE
3 5/8" DIA. HOLE
4 NON-HARDENING SEALANT
5 60 MINUTE GRADE 'D' PAPER
6 STONE VENEER, INSTALL PER MFR.
7 2X BACKING
8 2x6 BLOCK (DBL. BLOCKING AT STONE VENEER)
9 SELF SEALING, SELF ADHERING BITUMINOUS MEMBRANE APPLIED OVER SOLID BACKING
10 26 GA. G.I. FLASHING
11 1/2" DIA. LAG BOLT W/ FLAT WASHER, LAG INTO PRE-DRILLED HOLES FILLED W/ SEALANT
12 26 GA. G.I. J-MOULD
13 "ZIP SYSTEM" EXTERIOR WALL SHEATHING

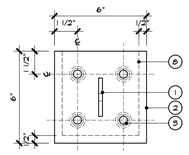
ALL METAL COMPONENTS TO BE GALVANIZED OR OTHERWISE COATED TO INHIBIT CORROSION



SECTION AT WALL



SIDE VIEW

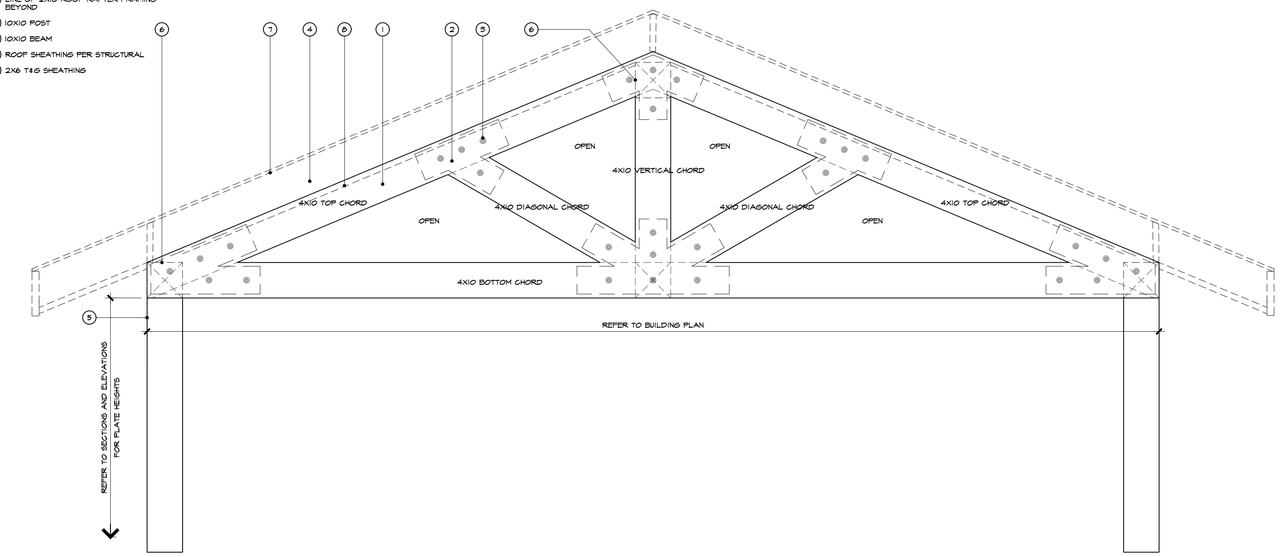


FRONT VIEW

METAL PLATE W/ TAB

SCALE: 3"=1'-0" | 19

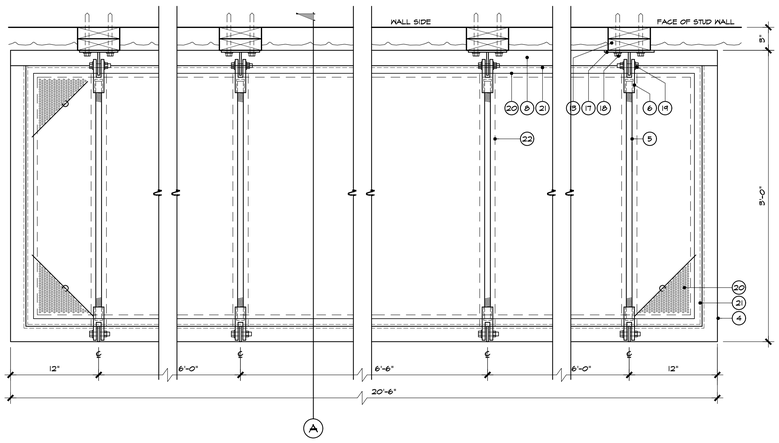
1 4X10 ENGINEERED WOOD ROOF TRUSS (SEE TRUSS LAYOUT)
2 CONCEALED STEEL PLATE TRUSS CONNECTORS
3 STEEL THROUGH BOLTS AND STEEL PLATE WASHER MECHANICALLY FASTENED, REFER TO STRUCTURAL ENGINEER.
4 LINE OF 2X10 ROOF RAFTER FRAMING BEYOND
5 10X10 POST
6 10X10 BEAM
7 ROOF SHEATHING PER STRUCTURAL
8 2X6 T&G SHEATHING



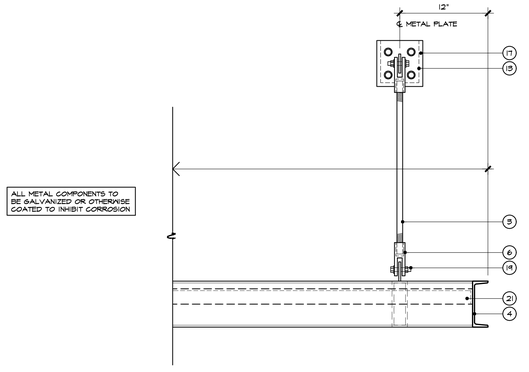
TRUSS PROFILE

MAIL BUILDING | SCALE: 3/4"=1'-0" | 2

1 26 GA. G.I. DRIP EDGE FLASHING
2 APPROVED FLASHING MATERIAL
3 WATER RESISTANT PAPER (60 MINUTE GRADE 'D' MIN.)
4 2X8 METAL C-CHANNEL
5 5/8" DIA. STEEL ROD WITH THREAD AT BOTH END PER MFR.
6 STEEL CLEVIS, PER MFR.
7 2X BACKING
8 2X8 RECTANGULAR HSS STEEL TUBE (SEE STRUCTURAL)
9 26 GA. G.I. J-MOULD
10 26 GA. G.I. FLASHING
11 HEADER (SEE FRAMING PLAN)
12 SELF SEALING, SELF ADHERING BITUMINOUS MEMBRANE APPLIED OV SOLID BACKING
13 2X6 BLOCK (DBL. BLOCKING AT STONE VENEER)
14 STONE VENEER, INSTALL PER MFR.
15 STRUCTURAL BACKING OR POST (SEE STRUCTURAL PLANS)
16 2X8 CONTINUOUS LEDGER (DOUBLE BLOCKING AT STONE VENEER)
17 1/4" THK. METAL PLATE W/ TAB
18 1/2" DIA. LAG BOLT W/ FLAT WASHER
19 1/2" DIA. MACHINE BOLT W/ FLAT WASHERS AND NUT
20 CORRUGATED METAL PANEL: 22 GA. PERFORATED 1/4" SQ. HOLES, 3/4" STRAIGHT ROW, 11% OPEN AREA
21 1-1/2" X 1-1/2" ANGLE STEEL
22 2X8 RECTANGULAR HSS STEEL TUBE AT EACH DIAGONAL SUPPORT ROD.
23 "ZIP SYSTEM" EXTERIOR WALL SHEATHING



PLAN VIEW



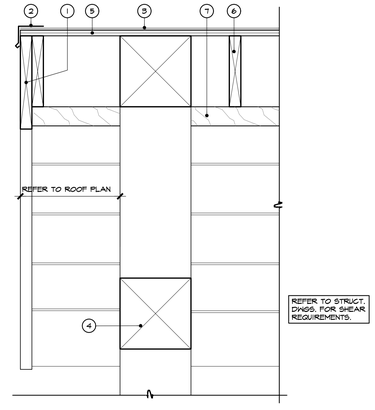
FRONT ELEVATION

SECTION A

HORIZONTAL METAL AWNING

SCALE: N.T.S. | 15

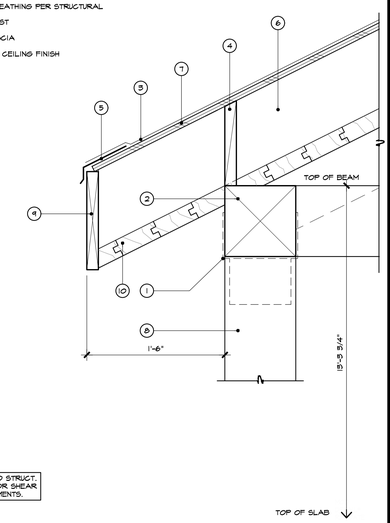
1 2X12 BARGE (SEE ELEVATION)
2 26 GA. G.I. DRIP
3 ROOF MATERIAL, UNDERLAYMENT, AND FLASHING-SEE ROOF MATERIAL DETAIL 2/D.1
4 DESIGNED WOOD ROOF TRUSS BY STRUCTURAL ENGINEER
5 ROOF SHEATHING PER STRUCTURAL
6 2 X 12 ROOF RAFTERS
7 2X T&G CEILING FINISH



RAKE @ CUSTOM TRUSS

AT METAL ROOF | SCALE: 1 1/2" = 1'-0" | 9

1 POST TO BEAM CONNECTION, PER STRUCTURAL
2 10X10 EXPOSED BEAM PER STRUCTURAL
3 ROOF MATERIAL, UNDERLAYMENT, AND FLASHING-SEE ROOF MATERIAL DETAIL 12/D.1
4 2X EAVE BLOCKING
5 26 GA. G.I. DRIP EDGE FLASHING
6 2X10 ROOF RAFTERS PER STRUCTURAL
7 ROOF SHEATHING PER STRUCTURAL
8 10X10 POST
9 2X12 FASCIA
10 2X6 T&G CEILING FINISH



REFER TO STRUCT. DWGS. FOR SHEAR REQUIREMENTS.

EAVE / EXTENDED RAFTER TAIL

AT MAIL BUILDING | SCALE: 1 1/2" = 1'-0" | 4

10 | 5

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DETAILS
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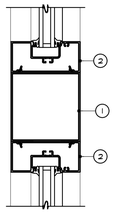
AD.1.1

JOB NUMBER: 667-24126

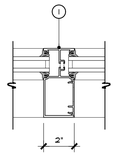
PLOT DATE: 2-20-25
FILE NAME: 4126_AD1.1_DETAILS

1. 4 1/2" X 4 1/2" ALUMINUM STOREFRONT TUBE
2. 2"X 4 1/2" ALUMINUM STOREFRONT W/ 1" INSULATED GLASS



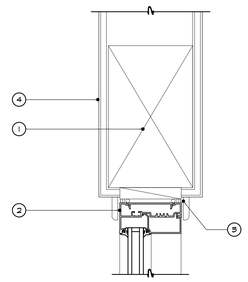
STOREFRONT HEAD/SILL
SCALE: 3"=1'-0" — 21

1. ALUMINUM STOREFRONT W/ 1" INSULATED GLASS



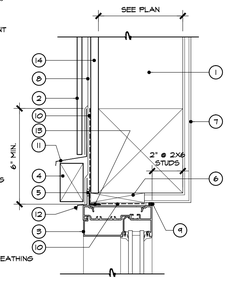
STOREFRONT VERTICAL MULLION
SCALE: 3"=1'-0" — 16

1. FRAMING (SEE STRUCTURAL)
2. ALUMINUM STOREFRONT W/ 1" INSULATED GLASS
3. SEALANT W/ BACKER ROD
4. SHIM PER MFR.
5. GYPSUM BOARD



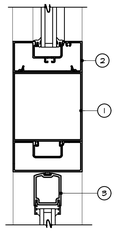
STOREFRONT HEAD
AT INTERIOR CONDITION — SCALE: 3"=1'-0" — 11

1. WALL FRAMING (SEE STRUCTURAL)
2. SIDING, SEE ELEVATIONS
3. 2" X 4 1/2" ALUMINUM STOREFRONT W/ 1" INSULATED GLASS
4. 2X3 CEMENTITIOUS TRIM BOARD
5. CONT. BEAD OF POLYURETHANE SEALANT
6. SHIM
7. GYPSUM WALL BOARD
8. (2) LAYERS 60 MINUTE GRADE 'D' BLDG. PAPER
9. SEALANT W/ BACKER ROD
10. SELF SEALING, SELF ADHERING BITUMINOUS WATERPROOF MEMBRANE OVER SOLID BACKING
11. 26 GA. BONDERIZED SHEET METAL FLASHING, SLOPE TOP
12. 26 GA. BONDERIZED FLASHING
13. 3/4" X 3/4" GALV. SHT. METAL CORNER GUARD
14. "ZIP SYSTEM" EXTERIOR WALL SHEATHING



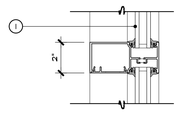
STOREFRONT WINDOW HEAD
AT SIDING — SCALE: 3"=1'-0" — 6

1. 4 1/2" X 4 1/2" ALUMINUM STOREFRONT TUBE
2. 2"X 4 1/2" ALUMINUM STOREFRONT W/ 1" INSULATED GLASS
3. MEDIUM STYLE ALUMINUM STOREFRONT ENTRANCE



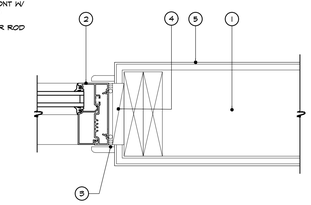
STOREFRONT HEAD/SILL
SCALE: 3"=1'-0" — 22

1. ALUMINUM STOREFRONT W/ 1" INSULATED GLASS



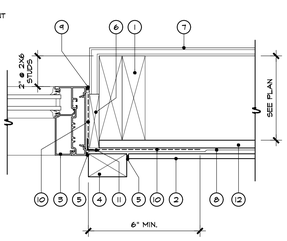
STOREFRONT HORIZ MULLION
SCALE: 3"=1'-0" — 17

1. FRAMING (SEE STRUCTURAL)
2. ALUMINUM STOREFRONT W/ 1" INSULATED GLASS
3. SEALANT W/ BACKER ROD
4. SHIM PER MFR.
5. GYPSUM BOARD



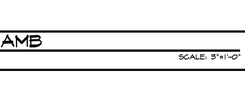
STOREFRONT JAMB
AT INTERIOR CONDITION — SCALE: 3"=1'-0" — 12

1. WALL FRAMING (SEE STRUCTURAL)
2. SIDING, SEE ELEVATIONS
3. 2" X 4 1/2" ALUMINUM STOREFRONT W/ 1" INSULATED GLASS
4. 2X3 CEMENTITIOUS TRIM BOARD
5. CONT. BEAD OF POLYURETHANE SEALANT
6. SHIM
7. GYPSUM WALL BOARD
8. (2) LAYERS 60 MINUTE GRADE 'D' BLDG. PAPER
9. SEALANT W/ BACKER ROD
10. SELF ADHERING, SELF SEALING BITUMINOUS WATERPROOF MEMBRANE OVER SOLID BACKING
11. 3/4" X 3/4" GALV. SHT. METAL CORNER GUARD
12. "ZIP SYSTEM" EXTERIOR WALL SHEATHING



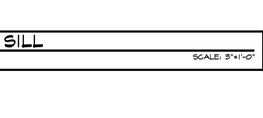
STOREFRONT WINDOW JAMB
AT SIDING — SCALE: 3"=1'-0" — 7

1. 4 1/2" X 4 1/2" ALUMINUM STOREFRONT TUBE
2. 2"X 4 1/2" ALUMINUM STOREFRONT W/ 1" INSULATED GLASS
3. MEDIUM STYLE ALUMINUM STOREFRONT ENTRANCE



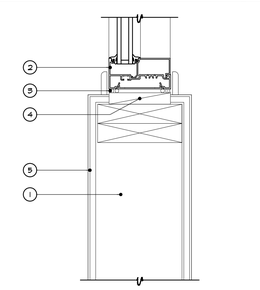
STOREFRONT JAMB
SCALE: 3"=1'-0" — 23

1. CONCRETE FLOOR SLAB
2. ALUMINUM STOREFRONT W/ 1" INSULATED GLASS
3. SEALANT W/ BACKER ROD
4. SHIM
5. EXTERIOR FINISH MATERIAL
6. INTERIOR FINISH MATERIAL



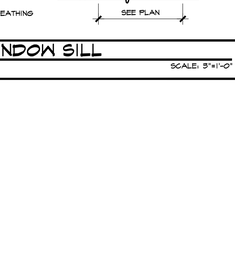
STOREFRONT SILL
SCALE: 3"=1'-0" — 18

1. FRAMING (SEE STRUCTURAL)
2. ALUMINUM STOREFRONT W/ 1" INSULATED GLASS
3. SEALANT W/ BACKER ROD
4. SHIM PER MFR.
5. GYPSUM BOARD



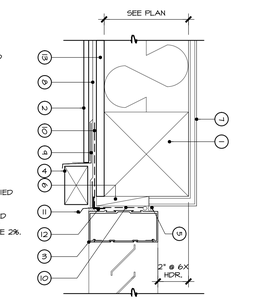
STOREFRONT SILL
AT INTERIOR CONDITION — SCALE: 3"=1'-0" — 13

1. WALL FRAMING (SEE STRUCTURAL)
2. SIDING, SEE ELEVATIONS
3. 2" X 4 1/2" ALUMINUM STOREFRONT W/ 1" INSULATED GLASS
4. 2X3 CEMENTITIOUS TRIM BOARD
5. CONT. BEAD OF POLYURETHANE SEALANT
6. SHIM
7. GYPSUM WALL BOARD
8. (2) LAYERS 60 MINUTE GRADE 'D' BLDG. PAPER
9. SEALANT W/ BACKER ROD
10. SELF SEALING, SELF ADHERING BITUMINOUS WATERPROOF MEMBRANE OVER SOLID BACKING
11. 26 GA. BONDERIZED FLASHING, EXTEND WIDTH OF ROUGH OPENING AND PROVIDE FORMED ENDS. SLOPE 2%
12. 3/4" X 3/4" GALV. SHT. METAL CORNER GUARD
13. "ZIP SYSTEM" EXTERIOR WALL SHEATHING



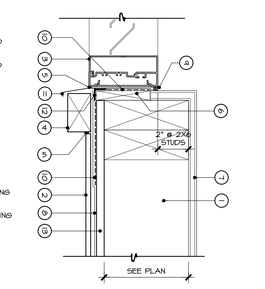
STOREFRONT WINDOW SILL
AT SIDING — SCALE: 3"=1'-0" — 8

1. WALL FRAMING (SEE STRUCTURAL)
2. SIDING, SEE ELEVATIONS
3. CEMENTITIOUS VERTICAL SIDING, INSTALL PER MFGR.
4. 2" X 4 1/2" ALUMINUM LOUVERED VENT FRAME.
5. 2X4 TRIM BOARD
6. SEALANT
7. SHIM
8. GYPSUM WALL BOARD
9. (2) LAYERS 60 MINUTE GRADE 'D' BLDG. PAPER
10. 26 GA. GALV. FLASHING
11. SELF SEALING, SELF ADHERING WATERPROOF MEMBRANE APPLIED O/ SOLID BACKING
12. 26 GA. GALV. FLASHING, EXTEND WIDTH OF ROUGH OPENING AND PROVIDE FORMED ENDS. SLOPE 2%.
13. 3/4" X 3/4" GALV. SHT. METAL CORNER GUARD
14. "ZIP SYSTEM" EXTERIOR WALL SHEATHING



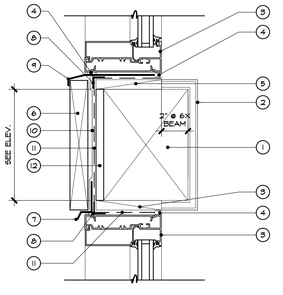
LOUVERED VENT HEAD
AT CEMENTITIOUS WOOD SIDING — SCALE : 3" = 1'-0" — 14

1. WALL FRAMING (SEE STRUCTURAL)
2. SIDING, SEE ELEVATIONS
3. 2" X 4 1/2" ALUMINUM LOUVERED VENT FRAME
4. 2X3 CEMENTITIOUS TRIM BOARD
5. CONT. BEAD OF POLYURETHANE SEALANT
6. SHIM
7. GYPSUM WALL BOARD
8. (2) LAYERS 60 MINUTE GRADE 'D' BLDG. PAPER
9. SEALANT W/ BACKER ROD
10. SELF SEALING, SELF ADHERING BITUMINOUS WATERPROOF MEMBRANE OVER SOLID BACKING
11. 26 GA. BONDERIZED FLASHING, EXTEND WIDTH OF ROUGH OPENING AND PROVIDE FORMED ENDS. SLOPE 2%
12. 3/4" X 3/4" GALV. SHT. METAL CORNER GUARD
13. "ZIP SYSTEM" EXTERIOR WALL SHEATHING

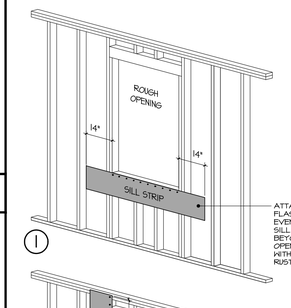


LOUVERED VENT SILL
AT CEMENTITIOUS WOOD SIDING — SCALE : 3" = 1'-0" — 15

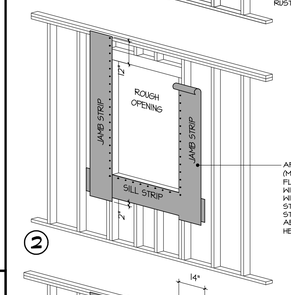
1. FRAMING, SEE STRUCTURAL
2. GYPSUM WALL BOARD
3. 2" X 4 1/2" ALUMINUM STOREFRONT W/ 1" INSULATED GLASS. INSTALL PER MFR.
4. SEALANT W/ BACKER ROD
5. SHIM PER MFR.
6. 2X CEMENTITIOUS TRIM BOARD
7. 26 GA. GALV. FLASHING
8. 3/4" X 3/4" GALV. SHT. METAL CORNER GUARD
9. 26 GA. GALV. FLASHING, EXTEND WIDTH OF ROUGH OPENING AND PROVIDE FORMED ENDS. SLOPE 2%
10. (2) LAYERS 60 MINUTE GRADE 'D' BLDG. PAPER
11. SELF SEALING SELF ADHERED BITUMINOUS WATERPROOF MEMBRANE O/ SOLID BACKING
12. "ZIP SYSTEM" EXTERIOR WALL SHEATHING



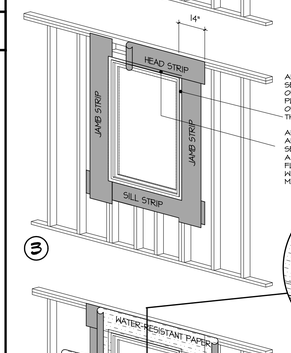
STOREFRONT WINDOW TRANSOM
AT CEMENTITIOUS TRIM — SCALE: X"=1'-0" — 10



1. ATTACH A (MIN. 12" WIDE) SILL STRIP OF FLASHING MATERIAL WITH THE TOP EDGE EVEN WITH THE TOP EDGE OF THE ROUGH SILL. EXTEND SILL STRIP MINIMUM 14" BEYOND THE EDGE OF THE ROUGH OPENING FOR WINDOW. ATTACH FLASHING WITH GALVANIZED ROOFING NAILS OR RUST-RESISTANT STAPLES.

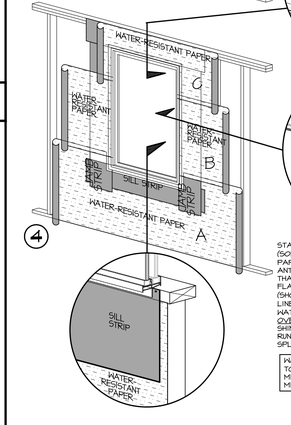


2. AFTER SILL STRIP IS IN PLACE, ATTACH MIN. 12" WIDE) JAMB STRIPS OF FLASHING MATERIAL (SIDE OF OPENING) WITH INSIDE EDGE OF FLASHING FLUSH WITH EDGE OF ROUGH OPENING. START JAMB STRIPS 2" BELOW THE SILL STRIP AND EXTEND JAMB STRIPS 12" ABOVE THE LOWER EDGE OF THE HEADER (TOP OF ROUGH OPENING).



3. APPLY A CONTINUOUS BEAD OF SEALANT TO THE BACK SURFACES OF THE WINDOW FLANGE, THEN PLACE THE WINDOW INTO THE ROUGH OPENING WITH THE FLANGES OVER THE INSTALLED FLASHING STRIPS.

AFTER THE WINDOW IS PLACED, APPLY A CONTINUOUS BEAD OF SEALANT O/ HEAD FLANGE, INSTALL A (MIN. 12" WIDE) HEAD STRIP OF FLASHING MATERIAL, OVER THE WINDOW FLANGE. EMBED FLASHING MATERIAL INTO SEALANT.



4. STARTING AT THE BOTTOM OF THE WALL (SOLE PLATE), LAY WATER-RESISTANT PAPER (A) UNDER THE SILL STRIP. CUT ANT EXCESS WATER-RESISTANT PAPER THAT MAY EXTEND ABOVE THE SILL FLANGE ON EACH SIDE OF THE OPENING. (SHOWN IN DIAGRAM AS SHORT DASH LINES). INSTALL SUCCEEDING COURSES OF WATER-RESISTANT PAPER (B, C, ETC.) OVER JAMB AND HEAD FLANGES IN SHINGLE-BOARD FASHION. PAPER SHOULD RUN CONTINUOUSLY OVER HEAD WITH NO SPLICES ABOVE WINDOW.

WATER-RESISTANT PAPER TO BE (2) LAYERS 60 MINUTE GRADE 'D' PAPER MINIMUM

WINDOW FLASHING
SCALE : 3/8" = 1'-0" — 5

NOTES:

ALL EXTERIOR OPENINGS EXPOSED TO THE HEATHER SHALL HAVE FLASHING TO MAKE THEM HEATHER PROOF. TECHNIQUES SHOWN HERE ARE RECOMMENDED MINIMUMS. AS A MINIMUM USE APPROVED 12" WIDE SELF-SEALING FLASHING. CAULK BACK OF WINDOW FRAMES BEFORE SETTING. USE WINDOWS THAT ARE WATER TIGHT.

26 GA. G.I. FLASHING REQUIRED AS SHOWN IN OTHER WINDOW DETAILS TO BE INSTALLED BY SHEET METAL CONTRACTOR.

LINE WIRE, WHEN USED AS BACKING TO SUPPORT WATER-RESISTANT BUILDING PAPER OR FELT BENEATH LATH FOR STUCCO SHOULD BE INSTALLED ACCORDING TO INDUSTRY STANDARDS AND PRACTICE NO ATTACHMENT DEVICE NOR THE WIRE BACKING SHOULD COVER OR PENETRATE FLASHING MATERIAL. PERIPHERAL FLASHING AT ALL EDGES OF WALL OPENINGS MUST COVER WIRE BACKING.

KENNETH C. NIEMIERSKI — Registered Architect — Reg. No. 12022 — North Carolina — Newport Beach, CA
6/30/2025

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1st PLAN CHECK
Date: 02-21-25

REVISIONS

ALTIS SERENITY CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

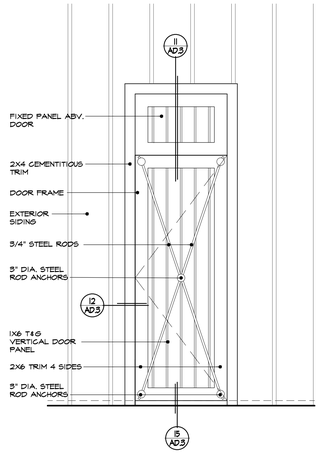
tri pointe HOMES

DETAILS
NOTE: REFER TO GENERAL NOTES SHEETS FOR FURTHER INFORMATION

AD.2

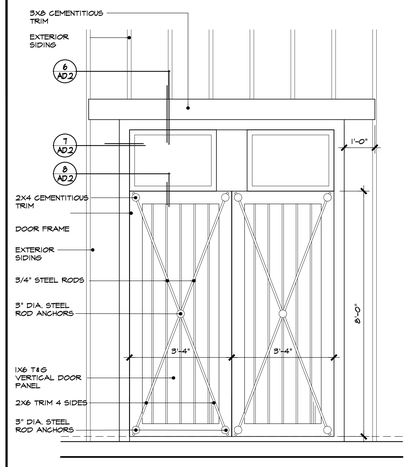
JOB NUMBER: 667-24126

PLOT DATE: 2-20-25
FILE NAME: 4126_ADD_DETAILS



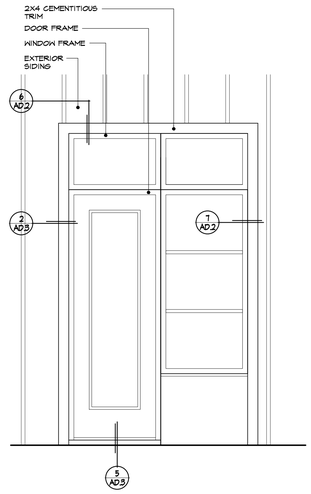
BARN DOOR ELEVATION

AT SIDING — SCALE : 1/2" = 1'-0" — **22**



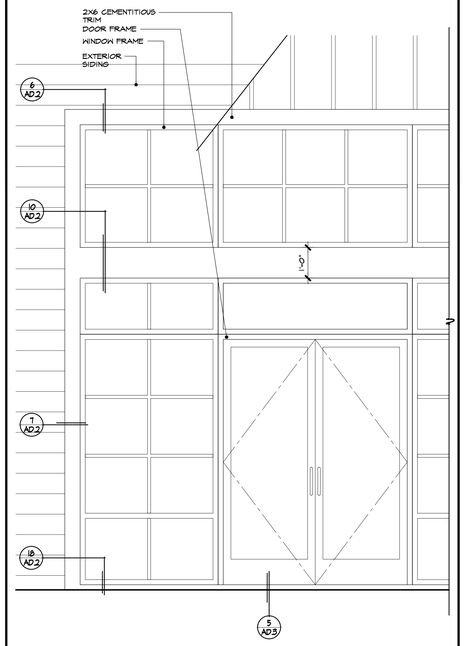
WINDOW / SHUTTER ELEVATION

AT SIDING — SCALE : 1/2" = 1'-0" — **17**



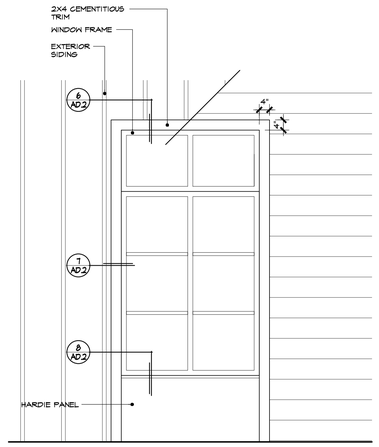
DOOR / WINDOW AT STOREFRONT

AT SIDING — SCALE : 1/2" = 1'-0" — **12**



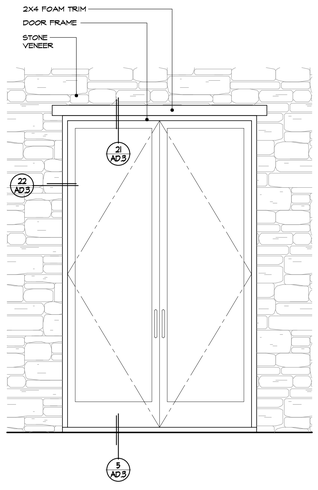
DOOR / WINDOW AT STOREFRONT

AT SIDING — SCALE : 1/2" = 1'-0" — **7**



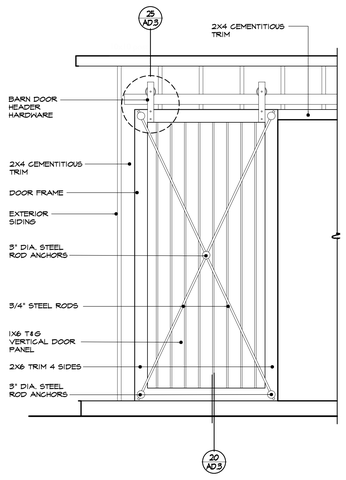
WINDOW AT STOREFRONT

AT SIDING — SCALE : 1/2" = 1'-0" — **2**



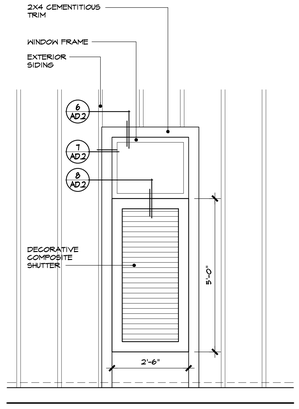
DOOR AT STOREFRONT

AT STONE VENEER — SCALE : 1/2" = 1'-0" — **24**



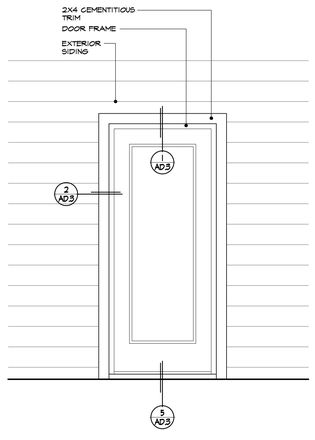
FIXED BARN DOOR ELEVATION

AT MAIL BULDING — SCALE : 1/2" = 1'-0" — **19**



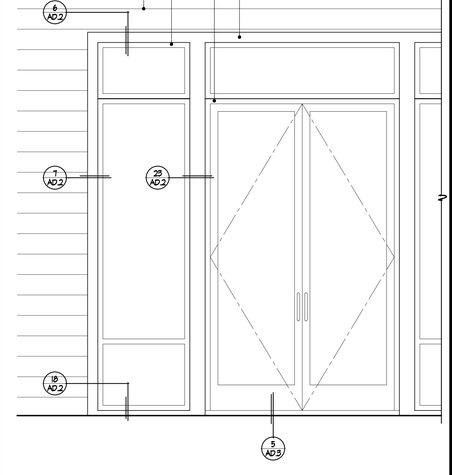
WINDOW / SHUTTER ELEVATION

AT SIDING — SCALE : 1/2" = 1'-0" — **14**



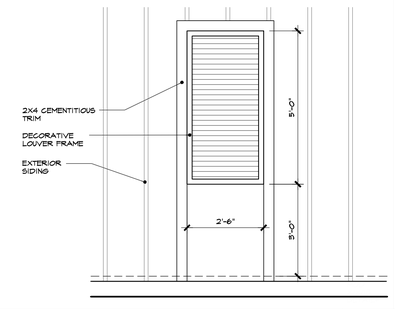
DOOR ELEVATION

AT SIDING — SCALE : 1/2" = 1'-0" — **9**



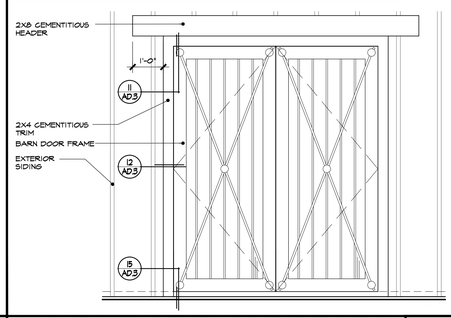
DOOR / WINDOW AT STOREFRONT

AT SIDING — SCALE : 1/2" = 1'-0" — **4**



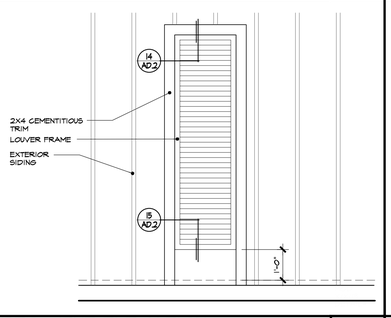
DECORATIVE LOUVER ELEVATION

AT SIDING — SCALE : 1/2" = 1'-0" — **20**



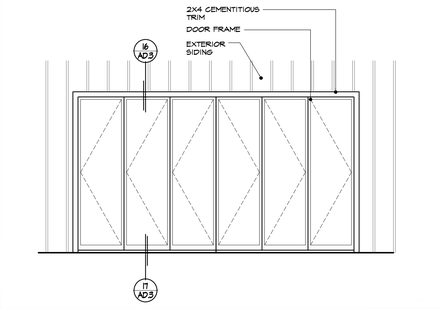
POOL BUILDING BARN DOOR ELEVATION

AT SIDING — SCALE : 1/2" = 1'-0" — **15**



LOUVERED VENT ELEVATION

AT SIDING — SCALE : 1/2" = 1'-0" — **10**



MULTI-SLIDE DOOR

AT SIDING — SCALE : 1/2" = 1'-0" — **5**

PLOT DATE: 2-20-25

FILE NAME: 4126_AD2-1_DETAILS

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North Carolina
Newport Beach, CA
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1st PLAN CHECK

Date: 02-21-25

REVISIONS

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ALTIS SERENITY CLUB HOUSE

HARTNETT COUNTY
NORTH CAROLINA

tri pointe HOMES

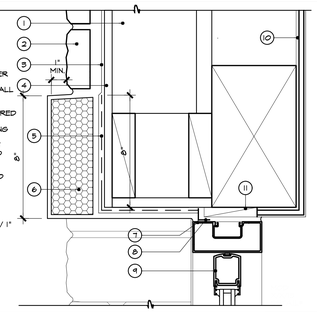
DETAILS

NOTE: REFER TO GENERAL NOTES SHEETS FOR FURTHER INFORMATION

AD.2.1

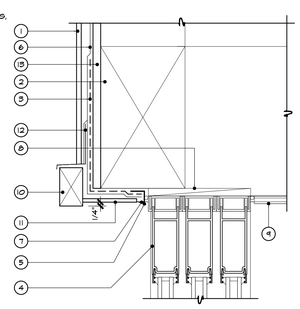
JOB NUMBER: 667-24126

1. WALL FRAMING (SEE STRUCTURAL)
2. STONE VENEER OVER SCRATCH COAT
3. (2) LAYERS 60 MINUTE GRADE "D" BUILDING PAPER
4. "ZIP SYSTEM" EXTERIOR WALL SHEATHING
5. SELF SEALING, SELF ADHERED WATERPROOF MEMBRANE APPLIED O/ SOLID BACKING
6. FOAM TRIM WITH PRECAST FINISH (2 LB PCF) APPLIED OVER SCRATCH COAT
7. SEALANT W/ BACKER ROD
8. 3/4" X 3/4" GALV. SHT. METAL CORNER GUARD
9. MEDIUM STYLE ALUMINUM STOREFRONT ENTRANCE W/ 1" INSULATED GLASS
10. 5/8" GYP. WALL BOARD
11. SHIM PER MFR.



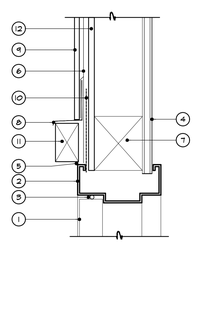
STOREFRONT HEAD
@ STONE VENEER - RECESSED — SCALE: 3"=1'-0" — 21

1. CEMENTITIOUS VERTICAL SIDING, INSTALL PER MFR.
2. FRAMING (SEE STRUCTURAL)
3. 12" FLASHING MEMBRANE
4. ALUMINUM STOREFRONT DOOR W/ 1" INSULATED GLASS
5. SEALANT W/ BACKER ROD
6. (2) LAYERS 60 MINUTE GRADE 'D' BLDG. PAPER
7. J-MOLD
8. SHIM SPACE PER MFR.
9. GYPSUM WALL BOARD
10. 2X4 TRIM BOARD
11. HARDIE SOFFIT BOARD
12. 26 GA. GALV. FLASHING
13. "ZIP" SYSTEM" EXTERIOR WALL SHEATHING



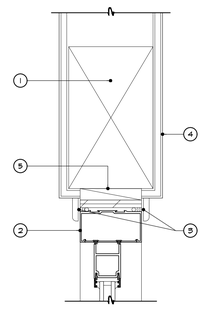
MULTI-SLIDE DOOR HEAD
SCALE: 3"=1'-0" — 16

1. CUSTOM "BARN" DOOR
2. HOLLOW METAL FRAME
3. WEATHER STRIPPING
4. GYP. BD. WALL FINISH (REFER TO BUILDING PLANS)
5. POLYURETHANE SEALANT
6. (2) LAYERS 60 MINUTE GRADE 'D' BLDG. PAPER
7. FRAMING (SEE STRUCTURAL)
8. 26 GA. GALV. FLASHING
9. CEMENTITIOUS VERTICAL SIDING, INSTALL PER MFGR.
10. 12" FLASHING MEMBRANE
11. 2X4 CEMENTITIOUS TRIM BOARD
12. "ZIP SYSTEM" EXTERIOR WALL SHEATHING



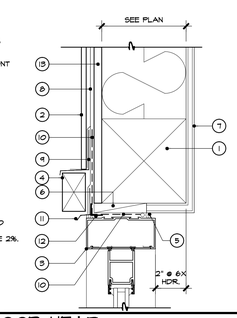
"BARN" DOOR HEAD
AT SIDING — SCALE: 3"=1'-0" — 11

1. FRAMING (SEE STRUCTURAL)
2. ALUMINUM STOREFRONT W/ 1" INSULATED GLASS
3. SEALANT W/ BACKER ROD
4. GYPSUM BOARD
5. SHIM PER MFR.



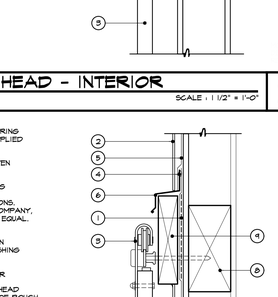
STOREFRONT DOOR HEAD
AT INTERIOR WALL — SCALE: 3"=1'-0" — 6

1. WALL FRAMING (SEE STRUCTURAL)
2. CEMENTITIOUS VERTICAL SIDING, INSTALL PER MFGR.
3. 2" X 4 1/2" ALUMINUM STOREFRONT ENTRANCE DOOR
4. 2X4 TRIM BOARD
5. SEALANT
6. SHIM
7. GYPSUM WALL BOARD
8. (2) LAYERS 60 MINUTE GRADE 'D' BLDG. PAPER
9. 26 GA. GALV. FLASHING
10. SELF SEALING, SELF ADHERING WATERPROOF MEMBRANE APPLIED O/ SOLID BACKING
11. 26 GA. GALV. FLASHING, EXTEND WIDTH OF ROUGH OPENING AND PROVIDE FORMED ENDS. SLOPE 2%
12. 3/4" X 3/4" GALV. SHT. METAL CORNER GUARD
13. "ZIP SYSTEM" EXTERIOR WALL SHEATHING



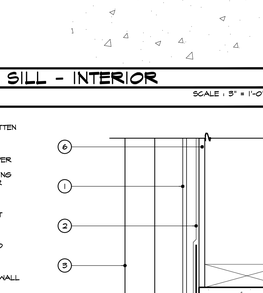
STOREFRONT DOOR HEAD
AT SIDING — SCALE: 3"=1'-0" — 1

1. WALL FRAMING (SEE STRUCTURAL)
2. SELF SEALING, SELF ADHERED WATERPROOF MEMBRANE APPLIED O/ SOLID BACKING
3. MEDIUM STYLE ALUMINUM STOREFRONT ENTRANCE W/ 1" INSULATED GLASS
4. SEALANT W/ BACKER ROD
5. FOAM TRIM WITH PRECAST FINISH (2 LB PCF) APPLIED OVER SCRATCH COAT
6. 5/8" GYP. WALL BOARD
7. (2) LAYERS 60 MINUTE GRADE "D" BUILDING PAPER
8. STONE VENEER OVER SCRATCH COAT
9. SHIM PER MFR.
10. 3/4" X 3/4" GALV. SHT. METAL CORNER GUARD
11. "ZIP SYSTEM" EXTERIOR WALL SHEATHING



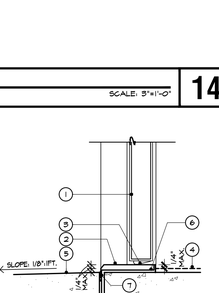
STOREFRONT JAMB
AT STONE VENEER - RECESSED — SCALE: 3"=1'-0" — 22

1. THRESHOLD - PROVIDE BITUMINOUS COATING ON THRESHOLD FOR SEPARATION OF ALUMINUM AND CONCRETE (OR PRESSURE TREATED SILL LET INTO SLAB) OR OTHER APPROVED MEASURE TO ISOLATE/PROTECT
2. CONCRETE SLAB SEE STRUCTURAL
3. ALUMINUM STOREFRONT DOOR W/ 1" INSULATED GLASS
4. STRUCTURAL SLAB DEPRESSED TO ALLOW INSTALLATION OF EXTERIOR PAVERS, REFER TO LANDSCAPE ARCHITECTURAL PLANS FOR PAVER SPECIFICATION AND DEPTH OF SLAB REGESS. SLOPE STRUCTURAL SLAB PER SLAB PLAN.
5. INTERIOR FLOOR FINISH MATERIAL REFER TO INTERIOR DESIGNER PLANS FOR SPECIFICATION.



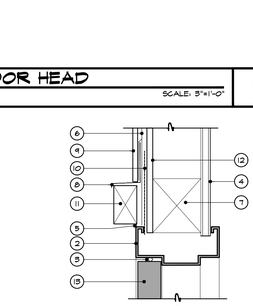
THRESHOLD AT MULTI-SLIDE DOOR
SCALE: 3"=1'-0" — 17

1. CUSTOM "BARN" DOOR
2. HOLLOW METAL FRAME
3. WEATHER STRIPPING
4. GYP. BD. WALL FINISH (REFER TO BUILDING PLANS)
5. POLYURETHANE SEALANT
6. J-MOLD
7. FRAMING (SEE STRUCTURAL)
8. CEMENTITIOUS VERTICAL SIDING, INSTALL PER MANUFACTURER'S REQUIREMENTS
9. 12" FLASHING MEMBRANE
10. (2) LAYERS 60 MINUTE GRADE 'D' BLDG. PAPER
11. 2X4 TRIM BOARD
12. "ZIP SYSTEM" EXTERIOR WALL SHEATHING



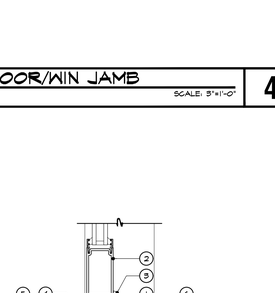
"BARN" DOOR JAMB
AT CEMENTITIOUS SIDING — SCALE: 3"=1'-0" — 12

1. FRAMING (SEE STRUCTURAL)
2. ALUMINUM STOREFRONT W/ 1" INSULATED GLASS
3. SEALANT W/ BACKER ROD
4. GYPSUM BOARD
5. SHIM PER MFR.



STOREFRONT DOOR JAMB
AT INTERIOR WALL — SCALE: 3"=1'-0" — 7

1. FRAMING (SEE STRUCTURAL)
2. SIDING, SEE ELEVATIONS
3. ALUMINUM STOREFRONT ENTRANCE W/ 1" INSULATED GLASS
4. SEALANT W/ BACKER ROD
5. POLYURETHANE SEALANT
6. SHIM PER MFR.
7. GYPSUM WALL BOARD
8. 2 LAYERS OF W.R.B. (WEATHER RESISTIVE BARRIER)
9. 2X4 HOOD TRIM
10. SELF SEALING, SELF ADHERING WATERPROOF MEMBRANE APPLIED O/ SOLID BACKING
11. 3/4" X 3/4" GALV. SHT. METAL CORNER GUARD
12. "ZIP SYSTEM" EXTERIOR WALL SHEATHING



STOREFRONT DOOR JAMB
AT SIDING — SCALE: 3"=1'-0" — 2

1. DOOR SEE SCHEDULE
2. DOOR FRAME
3. DOOR CASING PER INTERIOR DESIGNER SPECIFICATIONS
4. INTERIOR FINISH
5. WALL FRAMING (SEE STRUCTURAL)
6. SHIM SPACE

DOOR HEAD
INTERIOR — SCALE: 3"=1'-0" — 13

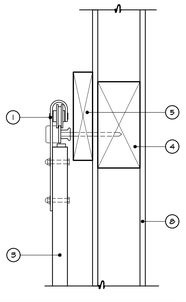
1. 4 1/2" X 4 1/2" ALUMINUM STOREFRONT TUBE
2. 2"X 4 1/2" ALUMINUM STOREFRONT W/ 1" INSULATED GLASS
3. MEDIUM STYLE ALUMINUM STOREFRONT ENTRANCE

STOREFRONT HEAD/SILL
SCALE: 3"=1'-0" — 8

1. WALL FRAMING (SEE STRUCTURAL)
2. 26 GA. GALV. FLASHING, SLOPE 2%
3. 2" X 4 1/2" ALUMINUM STOREFRONT W/ 1" INSULATED GLASS
4. 2X TRIM BOARD
5. SEALANT
6. SHIM
7. GYPSUM WALL BOARD
8. (2) LAYERS 60 MINUTE GRADE 'D' BUILDING PAPER
9. "ZIP SYSTEM" EXTERIOR WALL SHEATHING
10. SELF SEALING, SELF ADHERING WATERPROOF MEMBRANE APPLIED O/ SOLID BACKING
11. 26 GA. GALV. FLASHING
12. ALUMINUM STOREFRONT ENTRANCE DOOR
13. 3/4" X 3/4" GALV. SHT. METAL CORNER GUARD

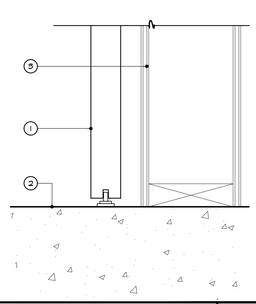
STOREFRONT WINDOW SILL/DOOR HEAD
AT SIDING — SCALE: 3"=1'-0" — 3

1. BARN DOOR AND MOUNTING HARDWARE. INSTALL PER MANUFACTURES INSTRUCTIONS. REAL CARRIAGE DOOR COMPANY, CLASSIC FLAT TRACK OR EQUAL.
2. GYPSUM BOARD INTERIOR WALL SHEATHING.
3. CUSTOM BARN DOOR
4. HEADER (SEE STRUCTURAL)
5. 2X6 TRIM



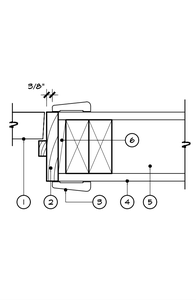
BARN DOOR HEAD - INTERIOR
AT INTERIOR WALL FINISH — SCALE : 1 1/2" = 1'-0" — 24

1. BARN DOOR AND MOUNTING HARDWARE. INSTALL PER MANUFACTURES INSTRUCTIONS. REAL CARRIAGE DOOR COMPANY, CLASSIC FLAT TRACK OR EQUAL.
2. FINISH FLOOR
3. GYPSUM BOARD INTERIOR WALL SHEATHING



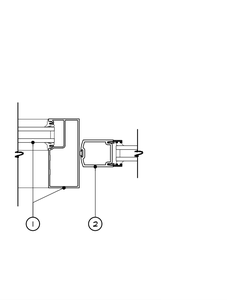
BARN DOOR SILL - INTERIOR
AT INTERIOR WALL FINISH — SCALE : 3" = 1'-0" — 19

1. DOOR SEE SCHEDULE
2. DOOR FRAME
3. DOOR CASING PER INTERIOR DESIGNER SPECIFICATIONS
4. INTERIOR FINISH
5. WALL FRAMING (SEE STRUCTURAL)
6. SHIM SPACE



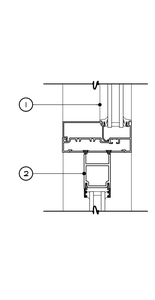
JAMB AT DOOR
INTERIOR — SCALE: 3"=1'-0" — 14

1. WALL FRAMING (SEE STRUCTURAL)
2. 26 GA. GALV. FLASHING
3. ALUMINUM STOREFRONT ENTRANCE W/ 1" INSULATED GLASS
4. SEALANT W/ BACKER ROD
5. POLYURETHANE SEALANT
6. SHIM PER MFR.
7. GYPSUM WALL BOARD
8. (2) LAYERS 60 MINUTE GRADE 'D' BUILDING PAPER
9. "ZIP SYSTEM" EXTERIOR WALL SHEATHING
10. SELF SEALING, SELF ADHERING WATERPROOF MEMBRANE APPLIED O/ SOLID BACKING
11. 26 GA. GALV. FLASHING
12. ALUMINUM STOREFRONT ENTRANCE DOOR
13. 3/4" X 3/4" GALV. SHT. METAL CORNER GUARD



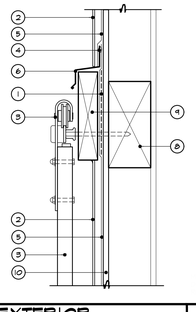
STOREFRONT DOOR HEAD
SCALE: 3"=1'-0" — 9

1. ALUMINUM STOREFRONT W/ 1" INSULATED GLASS
2. ALUMINUM STOREFRONT ENTRANCE W/ 1" INSULATED GLASS



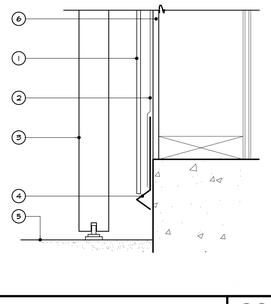
STOREFRONT DOOR/WIN JAMB
SCALE: 3"=1'-0" — 4

1. SELF SEALING, SELF ADHERING BITUMINOUS MEMBRANE APPLIED OVER SOLID BACKING
2. HARDIE BOARD AND BATTEN EXTERIOR FINISH
3. BARN DOOR AND MOUNTING HARDWARE. INSTALL PER MANUFACTURES INSTRUCTIONS. REAL CARRIAGE DOOR COMPANY, CLASSIC FLAT TRACK OR EQUAL.
4. CONTINUOUS BEAD OF SEALANT BETWEEN NAIL ON FLASHING AND HEAD FLASHING
5. (2) LAYERS 60 MINUTE GRADE 'D' BUILDING PAPER
6. 26 GA. G.I. SHEET METAL HEAD FLASHING, EXTEND WIDTH OF ROUGH OPENING AND PROVIDE FORMED ENDS
7. 3X12 WOOD HEADER
8. HEADER (SEE STRUCTURAL)
9. 2X4 TRIM
10. "ZIP SYSTEM" EXTERIOR WALL SHEATHING



BARN DOOR HEAD - EXTERIOR
AT VERTICAL CEMENTITIOUS SIDING — SCALE : 1 1/2" = 1'-0" — 25

1. HARDIE BOARD AND BATTEN EXTERIOR FINISH
2. (2) LAYERS 60 MIN/TE GRADE 'D' BUILDING PAPER
3. BARN DOOR AND MOUNTING HARDWARE. INSTALL PER MANUFACTURES INSTRUCTIONS. REAL CARRIAGE DOOR COMPANY, CLASSIC FLAT TRACK OR EQUAL.
4. 26 GA. G.I. CORROSION RESISTANT KEEP SCREED
5. FINISH FLOOR
6. "ZIP SYSTEM" EXTERIOR WALL SHEATHING



BARN DOOR
AT SIDING — SCALE : 3" = 1'-0" — 20

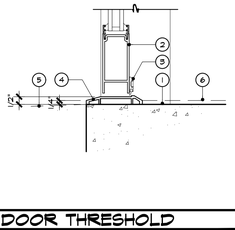
1. DOOR (SEE PLAN)
2. ACCESSIBLE THRESHOLD SET IN A BED OF MASTIC
3. APPROVED WEATHERSTRIPPING
4. INTERIOR FINISH
5. CONCRETE FINISH SLAB - SLOPE TO DRAIN
6. 1-PIECE 24 GA. G.I. SHEET METAL PAN FULLY SOLDERED WATER TIGHT, TO BE SET IN A BED OF MASTIC COORDINATE PAN INSTALLATION W/ TYP. WALL FLASHING INSTALLATION
7. EXPANSION JOINT

ACCESSIBLE THRESHOLD
SCALE: 3"=1'-0" — 15

1. 4 1/2" X 4 1/2" ALUMINUM STOREFRONT TUBE
2. 2"X 4 1/2" ALUMINUM STOREFRONT W/ 1" INSULATED GLASS
3. MEDIUM STYLE ALUMINUM STOREFRONT ENTRANCE

FIXED PANEL ABOVE DOOR
AT SIDING — SCALE: 3"=1'-0" — 10

1. CONCRETE FLOOR SLAB
2. ALUMINUM STOREFRONT DOOR W/ 1" INSULATED GLASS
3. BOTTOM DOOR SWEEP
4. ACCESSIBLE THRESHOLD SET IN FULL BED OF SEALANT
5. EXTERIOR FINISH MATERIAL
6. INTERIOR FINISH MATERIAL



STOREFRONT DOOR THRESHOLD
SCALE: 3"=1'-0" — 5

PLOT DATE: 2-20-25
FILE NAME: 4126_AD3_DETAILS

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1st PLAN CHECK
Date: 02-21-25

REVISIONS

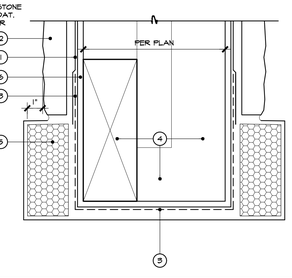
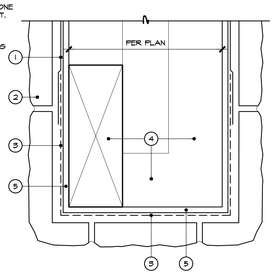
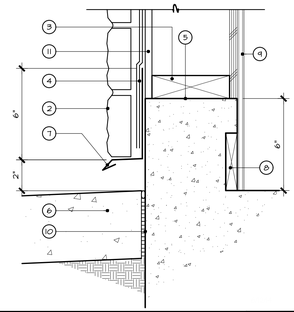
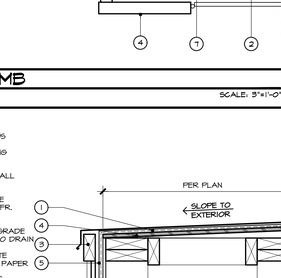
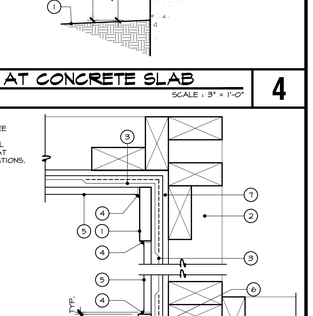
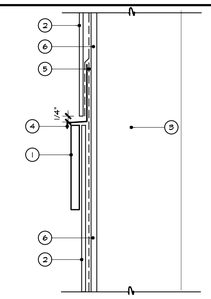
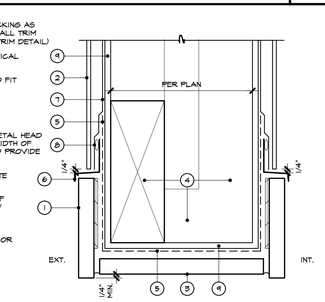
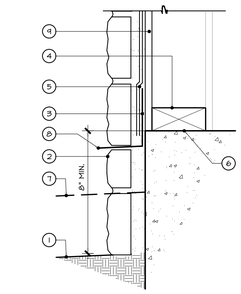
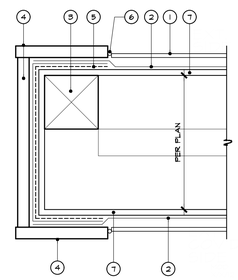
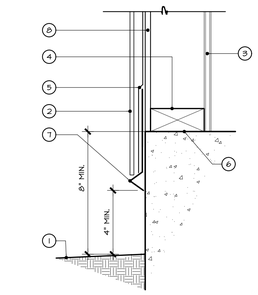
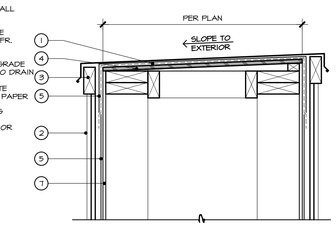
ALTIS SERENITY CLUB HOUSE
HARTNETT COUNTY NORTH CAROLINA

tri pointe HOMES

DETAILS
NOTE: REFER TO GENERAL NOTES SHEETS FOR FURTHER INFORMATION

AD.3

JOB NUMBER: 667-24126

				(1) (2) LAYERS 60 MINUTE GRADE 'D' PAPER (2) ADHERED MANUFACTURED STONE VENEER OVER SCRATCH COAT. INSTALL PER MANUFACTURER RECOMMENDATIONS (3) SELF SEALING, SELF ADHERING BITUMINOUS MEMBRANE OVER SOLID BACKING (4) FRAMING (SEE STRUCTURAL PLANS) (5) PLASTER COATED FOAM TRIM O/ BROWN COAT (6) "ZIP SYSTEM" EXTERIOR WALL SHEATHING			(1) (2) LAYERS 60 MINUTE GRADE 'D' PAPER (2) ADHERED MANUFACTURED STONE VENEER OVER SCRATCH COAT. INSTALL PER MANUFACTURER RECOMMENDATIONS (3) SELF SEALING, SELF ADHERING BITUMINOUS MEMBRANE FLASHING APPLIED OVER SOLID BACKING (4) FRAMING (SEE STRUCTURAL PLANS) (5) "ZIP SYSTEM" EXTERIOR WALL SHEATHING			(1) FINISH GRADE (2) STONE VENEER OVER SCRATCH COAT (3) PRESSURE TREATED DOUGLAS FIR SILL PLATE (4) WEATHER-RESISTANT PAPER (MIN. 60 MINUTE GRADE 'D' PAPER) (5) CONT. "ROPE" CAULKING (6) HARDSCAPE (7) 26 GA. CORROSION RESISTANT WEEP SCREED (8) IX WOOD NAILER STRIP LET IN TO CONCRETE CURB (9) INTERIOR FINISH (10) EXPENSION STRIP WITH CAULK AND BACKER ROD. (11) "ZIP SYSTEM" EXTERIOR WALL SHEATHING		
21		16	SOFFIT HEAD AT STONE VENEER SCALE : 3" = 1'-0"	11	SOFFIT HEAD AT STONE VENEER SCALE : 3" = 1'-0"	6	WEEP SCREED AT CONCRETE CURB AT STONE VENEER SCALE : 3" = 1'-0"	1			
					(1) STONE VENEER OVER SCRATCH COAT INSTALL PER MFR. (2) (2) LAYERS 60 MINUTE GRADE 'D' BUILDING PAPER (3) FRAMING (SEE STRUCTURAL PLANS) (4) "ZIP SYSTEM" EXTERIOR WALL SHEATHING (5) SELF SEALING, SELF ADHERING BITUMINOUS MEMBRANE APPLIED TO SOLID BACKING			(1) FINISH GRADE (2) HARDIE BOARD AND BATTEN EXTERIOR FINISH (3) PRESSURE TREATED DOUGLAS FIR SILL PLATE (4) WEATHER-RESISTANT PAPER (MIN. 60 MINUTE GRADE 'D' PAPER) (5) CONT. "ROPE" CAULKING (6) HARDSCAPE (7) 26 GA. CORROSION RESISTANT WEEP SCREED (8) IX WOOD NAILER STRIP LET IN TO CONCRETE CURB (9) INTERIOR FINISH (10) EXPENSION STRIP WITH CAULK AND BACKER ROD. (11) "ZIP SYSTEM" EXTERIOR WALL SHEATHING		
22		17	EXTERIOR SOFFIT AT STONE VENEER SCALE : 1/2" = 1'-0"	12	SOFFIT JAMB AT STONE VENEER SCALE : 3" = 1'-0"	7	WEEP SCREED AT CONCRETE CURB AT SIDING SCALE : 3" = 1'-0"	2			
					(1) 1 X 6 HARDIE TRIM W/ BACKING AS NEEDED. ALIGN W/ WALL TRIM BAND. (SEE SOFFIT TRIM DETAIL) (2) HARDIE PANEL VERTICAL SIDING (3) FRAMING (SEE STRUCTURAL PLANS) (4) 26 GA. G.I. SHEET METAL HEAD FLASHING, EXTEND WIDTH OF ROUGH OPENING AND PROVIDE FORMED ENDS (5) (2) LAYERS 60 MINUTE GRADE 'D' PAPER (6) "ZIP SYSTEM" EXTERIOR WALL SHEATHING			(1) HARDIE TRIM W/ BACKING AS NEEDED. ALIGN W/ WALL TRIM BAND. (SEE SOFFIT TRIM DETAIL) (2) HARDIE PANEL VERTICAL SIDING (3) HARDIE TRIM, CUT TO FIT (4) FRAMING (SEE STRUCTURAL PLANS) (5) NAIL ON FLASHING (6) 26 GA. G.I. SHEET METAL HEAD FLASHING, EXTEND WIDTH OF ROUGH OPENING AND PROVIDE FORMED ENDS (7) (2) LAYERS 60 MINUTE GRADE 'D' PAPER (8) CONTINUOUS BEAD OF SEALANT SMOOTH O/ METAL AND NAIL ON FLASHING (9) "ZIP SYSTEM" EXTERIOR WALL SHEATHING			(1) FINISH GRADE (2) STONE VENEER OVER SCRATCH COAT (3) 26 GA. G.I. FLASHING (12" MUDSILL METAL) (4) PRESSURE TREATED DOUGLAS FIR SILL PLATE (5) WEATHER-RESISTANT PAPER (MIN. 60 MINUTE GRADE 'D' PAPER) (6) CONT. "ROPE" CAULKING (7) HARDSCAPE (8) 26 GA. CORROSION RESISTANT WEEP SCREED (9) "ZIP SYSTEM" EXTERIOR WALL SHEATHING		
23		18	SIDING HORIZONTAL JOINT W/ TRIM SCALE : 3" = 1'-0"	13	SOFFIT HEAD SCALE : 3" = 1'-0"	8	WEEP SCREED AT CONCRETE SLAB AT STONE VENEER SCALE : 3" = 1'-0"	3			
					(1) EXTERIOR SIDING SEE ELEVATIONS (2) (2) LAYERS WATER RESISTANT PAPER (60 MINUTE, GRADE 'D' MINIMUM) (3) FRAMING (SEE STRUCTURAL) (4) TRIM BOARD SEE ELEVATIONS (5) SELF SEALING, SELF ADHERING BITUMINOUS MEMBRANE APPLIED OVER SOLID BACKING (6) CAULKING (7) "ZIP SYSTEM" EXTERIOR WALL SHEATHING			(1) FINISH GRADE (2) HARDIE BOARD AND BATTEN EXTERIOR FINISH (3) INTERIOR WALL FINISH (4) PRESSURE TREATED DOUGLAS FIR SILL PLATE (5) WEATHER-RESISTANT PAPER (MIN. 60 MINUTE GRADE 'D' PAPER) (6) CONT. "ROPE" CAULKING (7) 26 GA. CORROSION RESISTANT WEEP SCREED (8) "ZIP SYSTEM" EXTERIOR WALL SHEATHING		
24		19	EXTERIOR SOFFIT AT SIDING SCALE : 1/2" = 1'-0"	14	SOFFIT JAMB AT SIDING SCALE: 3"=1'-0"	9	WEEP SCREED AT CONCRETE SLAB AT SIDING SCALE : 3" = 1'-0"	4			
					(1) SELF SEALING, SELF ADHERING BITUMINOUS MEMBRANE APPLIED OVER SOLID BACKING (2) HARDIE BOARD AND BATTEN SIDING, INSTALL PER MANUFACTURER (3) 2X4 NOMINAL HARDIE TRIM INSTALL PER MFR. RECOMMENDATIONS (4) 1/2" THK EXTERIOR GRADE PLYWOOD SLOPED TO DRAIN (5) (2) LAYERS 60 MINUTE GRADE 'D' BUILDING PAPER (6) 26 GA. G.I. FLASHING (7) "ZIP SYSTEM" EXTERIOR WALL SHEATHING			(1) 4" 4/4 HARDIETRIM BOARD SEE ELEVATION FINISH NOTES, RUSTIC FINISH AT TRADITIONAL ELEVATIONS, SMOOTH FINISH AT CONTEMPORARY FARM ELEVATIONS. (2) 2X FRAMING (3) (2) LAYERS 60 MINUTE GRADE 'D' MINIMUM BUILDING PAPER (4) NON-HARDENING SEALANT (5) SIDING - INSTALL PER MFR. (SEE ELEV.) (6) 12" VERTICAL STRIP OF SELF SEALING, SELF ADHERING BITUMINOUS MEMBRANE (7) "ZIP SYSTEM" EXTERIOR WALL SHEATHING		
25		20	EXTERIOR SOFFIT AT SIDING SCALE : 1/2" = 1'-0"	15	TRIM AT TOP OF THICKENED WALL AT BOARD AND BATTEN SCALE : 1 1/2" = 1'-0"	10	TYPICAL CORNER TRIM AT EXTERIOR SIDING SCALE: 3"=1'-0"	5			

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1st PLAN CHECK
Date: 02-21-25

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DETAILS
NOTE: REFER TO GENERAL NOTES SHEETS FOR FURTHER INFORMATION

AD.4

JOB NUMBER: 667-24126

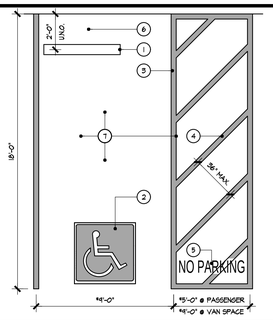
PLOT DATE: 2-20-25

FILE NAME: 4126_ADA_DETAILS

21

1. WHEEL STOP- TO BE LOCATED 3'-0" OFF FRONT OF CURB OR HEAD OF STALL.
2. INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) MARKING, SEE DETAIL II/AD.3
3. LOADING AND UNLOADING AISLE AT PASSENGER SIDE. BORDER PAINTED BLUE.
4. STRIPES AT 36" MAXIMUM O.C. PAINTED BLUE OR WHITE TO CONTRAST WITH PARKING SURFACE.
5. WITHIN THE LOADING AND UNLOADING ACCESS AISLE PAINT THE WORDS "NO PARKING" IN 12" HIGH MINIMUM WHILE LETTERS.
6. MINIMUM 2'-0" UNOBSTRUCTED AREA BETWEEN HEAD OF STALL AND FACE OF WHEEL STOP.
7. ACCESS AISLE SHALL BE AT THE SAME LEVEL AS THE PARKING SPACE IT SERVES. SLOPE IN ANY DIRECTION WITHIN THE PARKING STALL AND ACCESS AISLE SHALL BE 2% MAXIMUM.

*NOTE:
AT VAN ACCESSIBLE STALLS CURRENT CODE ALLOWS FOR TWO CONFIGURATIONS:
1. 9'-0" STALL WITH AN 8'-0" ACCESS AISLE
2. 12'-0" STALL WITH A 5'-0" ACCESS AISLE



ACCESSIBLE PARKING STALL DESIGN

SCALE : N.T.S.

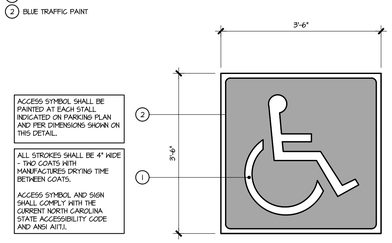
16

1. WHITE TRAFFIC PAINT
2. BLUE TRAFFIC PAINT

ACCESS SYMBOL SHALL BE PAINTED AT EACH STALL INDICATED ON PARKING PLAN AND PER DIMENSIONS SHOWN ON THIS DETAIL.

ALL STROKES SHALL BE 4" WIDE - TWO COATS WITH MANUFACTURES DRYING TIME BETWEEN COATS.

ACCESS SYMBOL AND SIGN SHALL COMPLY WITH THE CURRENT NORTH CAROLINA STATE ACCESSIBILITY CODE AND ANSI A117.1

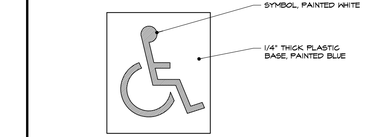


DETAIL# REVDATE

ACCESSABLE PARKING STALL SURFACE

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

11



NOTE:
INSTALL SIGN ON WALL ADJACENT TO THE LATCH SIDE OF DOORS. FOR DOUBLE DOORS OR WHERE THERE IS NO WALL SPACE, THE SIGN SHALL BE PLACED ON THE NEAREST ADJACENT WALL. MOUNT THE SIGN AT 60" ABOVE THE FINISHED SURFACE. MOUNT THE SIGN SO THAT A HANDICAPPED PERSON CAN APPROACH TO WITHIN 3" OF THE SIGN WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR THE DOOR SWING.

ACCESSIBILITY ENTRANCE SIGN

SCALE: 1 1/2"=1'-0"

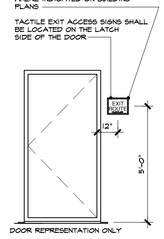
6

TACTILE EXIT ACCESS SIGNS SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS AS DEFINED BY NCBC SECTION 1013.4 AND ICC A117.1 703.

1. EACH EXIT ACCESS DOOR FROM AN INTERIOR ROOM OR AREAS TO A CORRIDOR OR HALLWAY THAT IS REQUIRED TO COMPLY WITH NCBC SECTION 1013.1, SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT ROUTE."
2. THE FINISH AND CONTRAST OF THE TACTILE EXIT ICC A117.1 703.
3. THE PROPORTIONS OF THE CHARACTERS OF THE TACTILE EXIT ACCESS SIGN SHALL CONFORM TO ICC A117.1 703.2.
4. THE RAISED CHARACTERS ON THE TACTILE EXIT ACCESS SIGN SHALL BE SANS SERIF UPPER CASE AND SHALL CONFORM TO ICC A117.1 703.5.
5. WHEN REQUIRED BY THE CODE, GRADE 2 BRAILLE SHALL CONFORM TO ICC A117.1 703.4.
6. THE MOUNTING AND LOCATION OF THE TACTILE EXIT ACCESS SIGN SHALL CONFORM TO ICC A117.1 703.

TACTILE EXIT ACCESS SIGNS LOCATED WHERE INDICATED ON BUILDING PLANS

TACTILE EXIT ACCESS SIGNS SHALL BE LOCATED ON THE LATCH SIDE OF THE DOOR



DOOR REPRESENTATION ONLY

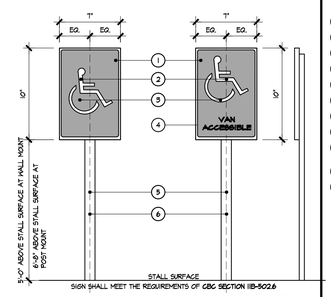
TACTILE EXIT ACCESS SIGN

SCALE: 1"=1'-0"

1

22

1. BLUE BACKGROUND
2. WHITE PICTOGRAM
3. ACCESSIBILITY SYMBOL PER ANSI A117.1-2003.8.1
4. PROVIDE TEXT "VAN ACCESSIBLE" ONLY AT STALLS RESERVED FOR VANS
5. 2" DIAMETER METAL PIPE WHEN WALL MOUNTING IS NOT PRACTICAL.
6. CENTER SIGN WITHIN PARKING SALL AT INTERIOR END.



SIGN SHALL MEET THE REQUIREMENTS OF CBC SECTION 11B-502.6

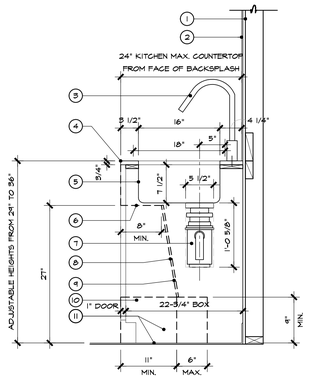
17

ACCESSABLE PARKING STALL SIGN

SCALE : 1" = 1'-0"

12

1. GYP BOARD AND STUD WALL, SEE PARTITION
2. TILE BACKSPLASH, SEE INTERIOR ELEVATIONS
3. KITCHEN FAUCET ALIGN 7565
4. 2 CM HARD SURFACE (NO MITERED EDGE)
5. CANTARIO - KSS-104FHAGA
6. CLEARANCE PROFILE
7. GARBAGE DISPOSER - GE GFC325V
8. CLEARANCE PROFILE, SLOPE CANNOT EXCEED 1:6
9. REMOVABLE PROTECTION PANEL TO MATCH CASEWORK, IF PROVIDED; IF NOT PROVIDED, ALL PIPES MUST BE INSULATED.
10. FINISH TO MATCH CASEWORK
11. EXTEND FLOORING AND BASE



KITCHEN SINK KNEE CLEARANCE

PER ICC A117.1 TYPE A UNITS

TYPE A UNIT

SCALE: 1"=1'-0"

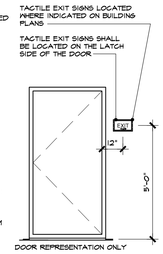
8

TACTILE EXIT SIGNS SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS AS DEFINED BY NCBC SECTION 1013.4 ICC A117.1 703.

1. EACH GRADE LEVEL EXTERIOR DOOR SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORD "EXIT"
2. EACH EXIT ACCESS DOOR FROM AN INTERIOR ROOM OR AREA THAT IS REQUIRED TO HAVE A VISUAL EXIT SIGN SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT ROUTE"
3. EACH EXIT DOOR THAT LEADS DIRECTLY TO A GRADE- LEVEL EXTERIOR EXIT BY MEANS OF AN EXIT ENCLOSURE THAT DOES NOT UTILIZE A STAIR OR RAMP (SUCH AS A RATED CORRIDOR), OR BY MEANS OF AN EXIT PASSAGEWAY SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT ROUTE"
4. EACH EXIT DOOR THROUGH A HORIZONTAL EXIT SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS: "TO EXIT"
5. THE FINISH AND CONTRAST OF THE TACTILE EXIT SIGN SHALL CONFORM TO ICC A117.1 703.
6. THE PROPORTIONS OF THE CHARACTERS OF THE TACTILE EXIT SIGN SHALL CONFORM TO ICC A117.1 703.2.
7. THE RAISED CHARACTERS ON THE TACTILE EXIT SIGN SHALL BE SANS SERIF UPPER CASE AND SHALL CONFORM TO ICC A117.1 703.5.
8. WHEN REQUIRED BY THE CODE, GRADE 2 BRAILLE SHALL CONFORM TO ICC A117.1 703.4.
9. THE MOUNTING AND LOCATION OF THE TACTILE EXIT SIGN SHALL CONFORM TO ICC A117.1 703.

TACTILE EXIT SIGNS LOCATED WHERE INDICATED ON BUILDING PLANS

TACTILE EXIT SIGNS SHALL BE LOCATED ON THE LATCH SIDE OF THE DOOR



DOOR REPRESENTATION ONLY

TACTILE EXIT SIGN

SCALE: 1"=1'-0"

2

23

1. 1 1/4" TO 2" NOMINAL DIAMETER CIRCULAR GRAB BAR
2. WALL FINISH PER INTERIOR ELEVATIONS / SCHEDULE
3. 2X SOLID BLOCKING IN WALL CAVITY
4. GRAB BAR ATTACHMENT TO SOLID BLOCKING AS REQUIRED TO PROVIDE MIN. 250 lbs OFF FORCE (1.12 N). INSTALL USING MANUFACTURER'S PROVIDED WALL ANCHORS. MIN. ATTACHMENT (3) 7/16" X 4" LAG SCREWS EACH END.

18

GRAB BAR DETAIL

SCALE: 3"=1'-0"

13

1. DOOR FRAME
2. DOOR - SEE PLANS FOR TYPE AND SIZE
3. UNIT IDENTIFICATION SIGN, REFER TO SIGNAGE PLANS (BY OTHERS) FOR ADDITIONAL INFORMATION

FINISH AND CONTRAST PER ICC A117.1 703.

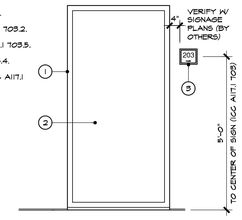
CHARACTER PROPORTIONS PER ICC A117.1 703.2.

RAISED CHARACTER HEIGHT PER ICC A117.1 703.5.

BRAILLE REQUIREMENTS PER ICC A117.1 703.4.

MOUNTING LOCATION AND HEIGHT PER ICC A117.1 703.

REFER TO SHEET G.5 FOR SIGNAGE ACCESSIBILITY REQUIREMENTS



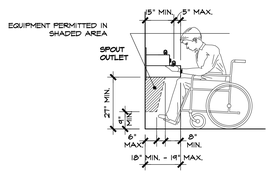
UNIT IDENTIFICATION SIGN

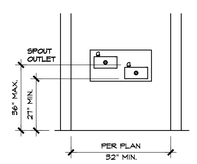
AT ACCESSIBLE UNITS

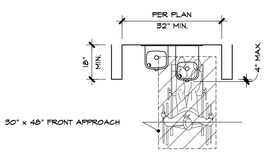
SCALE: 1/2"=1'-0"

3

24







FLOW SHALL BE A MINIMUM OF 4" HIGH PER C.B.C. 11B-A.6

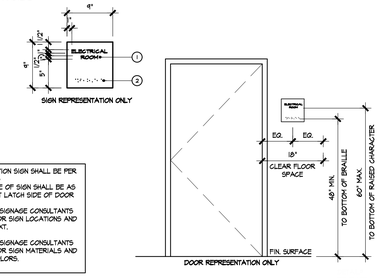
19

MISCELLEANOUS ROOM SIGNAGE

SCALE : 1" = 1'-0"

4

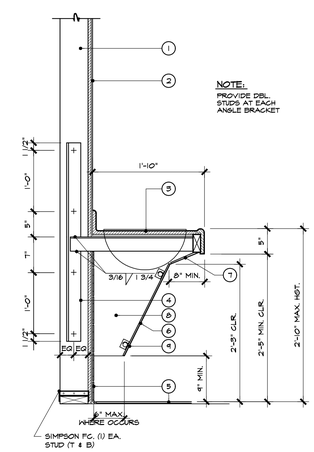
1. RAISED CHARACTERS
2. BRAILLE



SIGN NOTES:
1. IDENTIFICATION SIGN SHALL BE PER ICC A117.1 703
2. CENTERLINE OF SIGN SHALL BE AS INDICATED AT LATCH SIDE OF DOOR.
3. REFER TO SIGNAGE CONSULTANTS DRAWINGS FOR SIGN LOCATIONS AND REQUIRED TEXT.
4. REFER TO SIGNAGE CONSULTANTS DRAWINGS FOR SIGN MATERIALS AND REQUIRED COLORS.

25

1. WALL FRAMING VERIFY STUD LOCATION
2. TILE, OMIT BEHIND MIRROR (TYP.)
3. COUNTERTOP, SPLASH, AND EDGE PER INTERIOR DESIGNER
4. 2 1/2" X 2 1/2" X 1/4" WELDED STEEL ANGLE BRACKET W/ (4) 1/2" DIA. BOLTS AT EACH BRACKET. SPACE BRACKETTS AT MAX. 48" O.C. (2) BRACKETS TYP. AT 4' COUNTERS, (3) BRACKETS TYP. AT 6' COUNTERS
5. WALL AND FLOOR FINISH SURFACE
6. REMOVABLE 1/4" THK. WOOD PANEL
7. FIXED 1/4" THK. WOOD PANEL
8. 1/2" THK. SIDE BRACKET WOOD PANEL WITH WOOD ROD, ATTACH TO WALL
9. METAL HOOK ATTACHED TO REMOVABLE WOOD PANEL AT (4) CORNERS



LAVATORY COUNTER

AT CLUB ROOM ALL GENDER ACCESSIBLE TOILET ROOMS

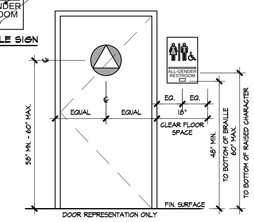
SCALE: 1"=1'-0"

10

1. 1/4" THICK - WHITE
2. 1/4" THICK - BLUE
3. MATERIAL PER SUPPLIER

SYMBOL NOTES:
1. IDENTIFICATION SYMBOLS SHALL BE PER NCBC SECTION 1111.6 & ICC A117.1 703.
2. CENTERLINE OF SYMBOL SHALL BE ALIGN WITH CENTER OF DOOR
3. REFER TO SIGNAGE CONSULTANTS DRAWINGS FOR SIGN MATERIALS.

SIGN NOTES:
1. IDENTIFICATION SIGNS SHALL BE PER NCBC SECTION 1111.6 & ICC A117.1 703.
2. CENTERLINE OF SIGN SHALL BE AS INDICATED AT LATCH SIDE OF DOOR.
3. INSPECTION OF BRAILLE DOTS AND CELLS AND SIZE AND PROPORTIONS OF RAISED CHARACTERS PRIOR TO CERTIFICATE OF OCCUPANCY IS REQUIRED.



DOOR SYMBOLS AND WALL SIGNS

AT CLUB ROOM ALL GENDER ACCESSIBLE TOILET ROOMS

SCALE : 1" = 1'-0"

5

DRINKING FOUNTAIN

AT ALCOVE

SCALE: 3/8"=1'-0"

15

PLOT DATE: 2-21-25

FILE NAME: 4126_AD5_DETAILS

KENNETH C. NIEMERSKI
Registered Architect
Reg. No. 12022
North Carolina
Newport Beach, CA
6/30/2025

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ARCHITECTURE • PLANNING • INTERIORS
2031 ORCHARD DRIVE | NEWPORT BEACH, CA 92660 T 949.553.9100 F 949.553.0548

1st PLAN CHECK
Date: 02-21-25

REVISIONS

ALTIS SERENITY CLUB HOUSE
HARTNETT COUNTY
NORTH CAROLINA

tri pointe HOMES

DETAILS
NOTE: REFER TO GENERAL NOTES SHEETS FOR FURTHER INFORMATION

AD.5

JOB NUMBER: 667-24126

GENERAL CONSTRUCTION SPECIFICATION

1. THE FOLLOWING DOCUMENTS ARE THE PROPERTY OF TYNDALL ENGINEERING & DESIGN, P.A. FOR USE SOLELY FOR THIS PROJECT AND SHALL NOT BE REPRODUCED, COPIED, OR USED FOR OTHER PURPOSES WITHOUT WRITTEN PERMISSION FROM TYNDALL ENGINEERING & DESIGN, P.A.

2. THE DESIGN PROFESSIONAL WHOSE SEAL APPEARS ON THESE DRAWINGS IS THE STRUCTURAL ENGINEER OF RECORD(SER) FOR THIS PROJECT. THE SER BEARS THE RESPONSIBILITY FOR THE PRIMARY STRUCTURAL ELEMENTS AND THE PERFORMANCE OF THIS STRUCTURE. NO OTHER PARTY MAY REVISE, ALTER, OR DELETE THESE CONSTRUCTION DOCUMENTS WITHOUT WRITTEN PERMISSION FROM TYNDALL ENGINEERING & DESIGN, P.A. OR THE SER. FOR THE PURPOSES OF THESE CONSTRUCTION DOCUMENTS THE SER AND TYNDALL ENGINEERING & DESIGN, P.A. SHALL BE CONSIDERED THE SAME ENTITY.

3. THIS STRUCTURE IS ONLY STABLE IN ITS COMPLETED FORM. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED TEMPORARY BRACING DURING CONSTRUCTION TO STABILIZE THE STRUCTURE. TEMPORARY SHORING AND BRACING METHODS ARE NOT THE RESPONSIBILITY OF TYNDALL ENGINEERING & DESIGN, P.A. AND ARE BEYOND THE SCOPE OF THESE DRAWINGS.

4. THE SER IS NOT RESPONSIBLE FOR CONSTRUCTION SEQUENCES, METHODS, OR TECHNIQUES IN CONNECTION WITH THE CONSTRUCTION OF THIS STRUCTURE. THE SER WILL NOT BE HELD RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CONFORM TO THE CONSTRUCTION DOCUMENTS, SHOULD ANY NON-CONFORMITIES OCCUR.

5. ANY STRUCTURAL ELEMENTS OR DETAILS NOT FULLY DEVELOPED ON THE CONSTRUCTION DRAWINGS SHALL BE COMPLETED UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. THESE SHOP DRAWINGS SHALL BE SUBMITTED TO TYNDALL ENGINEERING & DESIGN, P.A. FOR REVIEW BEFORE ANY CONSTRUCTION BEGINS. SEE THE "SUBMITTALS" SECTION OF THESE SPECIFICATIONS.

6. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH AND COORDINATED WITH THE ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, AND CIVIL DRAWINGS. THIS COORDINATION IS NOT THE RESPONSIBILITY OF THE SER. SHOULD ANY DISCREPANCIES BECOME APPARENT THE CONTRACTOR SHALL NOTIFY TYNDALL ENGINEERING & DESIGN, P.A. BEFORE ANY CONSTRUCTION BEGINS.

7. VERIFICATION OF ASSUMED FIELD CONDITIONS IS NOT THE RESPONSIBILITY OF THE STRUCTURAL ENGINEER OF RECORD. THE CONTRACTOR SHALL VERIFY THE FIELD CONDITIONS FOR ACCURACY AND REPORT ANY DISCREPANCIES TO TYNDALL ENGINEERING & DESIGN, P.A. BEFORE CONSTRUCTION BEGINS.

8. THE STRUCTURAL ENGINEER OF RECORD IS NOT RESPONSIBLE FOR ANY SECONDARY STRUCTURAL ELEMENTS OR NON-STRUCTURAL ELEMENTS, EXCEPT FOR THE ELEMENTS SPECIFICALLY NOTED ON THE STRUCTURAL DRAWINGS.

9. THIS STRUCTURE AND ALL CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE SECTIONS OF THE INTERNATIONAL BUILDING CODE AND ANY LOCAL LAWS WHERE THE STRUCTURE IS TO BE CONSTRUCTED.

SCOPE OF STRUCTURAL ENGINEERING SERVICES

TYNDALL ENGINEERING & DESIGN, P.A. HAS PERFORMED THE STRUCTURAL DESIGN AND PREPARED THE STRUCTURAL WORKING DRAWINGS FOR THIS PROJECT. “CONSTRUCTION REVIEW” SERVICES ARE NOT ALSO A PART OF OUR CONTRACT.

PORTIONS OF THE STRUCTURAL DESIGN (AS NOTED ON THE DRAWINGS) ARE THE RESPONSIBILITY OF THE MATERIAL SUPPLIERS.

THE SER IS RESPONSIBLE FOR THE DESIGN OF THE PRIMARY STRUCTURAL SYSTEM, EXCEPT FOR THE COMPONENTS NOTED ABOVE. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE FOR ANY SECONDARY STRUCTURAL AND NON-STRUCTURAL SYSTEMS NOT SHOWN ON THE STRUCTURAL PLANS.

THE SER HAS NOT DONE A SUBSURFACE INVESTIGATION. THE FOUNDATION DESIGN IS BASED UPON AN ASSUMED ALLOWABLE BEARING PRESSURE AS SHOWN IN THE “FOUNDATION” STRUCTURAL NOTES. THIS ALLOWABLE BEARING PRESSURE MUST BE VERIFIED BY THE CONTRACTOR OR OWNER. IF PROBLEMS ARE ENCOUNTERED, A SOILS ENGINEER SHALL BE RETAINED TO EVALUATE THE CONDITIONS AND RECOMMEND THE APPROPRIATE FOUNDATION SYSTEM.

THE SER IS NOT RESPONSIBLE FOR, AND WILL NOT HAVE CONTROL OF, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE CONSTRUCTION WORK; NOR WILL THE SER BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE CONSTRUCTION WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

FIELD MEASUREMENTS AND THE VERIFICATION OF FIELD DIMENSIONS ARE NOT PART OF TYNDALL ENGINEERING & DESIGN, P.A.'S RESPONSIBILITY. THE CONTRACTOR MUST CHECK ALL (ASSUMED) EXISTING CONDITIONS SHOWN ON THESE DRAWINGS FOR ACCURACY AND NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES.

THE SER HAS ANALYZED THE NEW STRUCTURAL SLAB CONSTRUCTION FOR CONCENTRATED LOADS DUE TO VEHICLES. THE SLAB IS DESIGNED FOR UNIFORM LOADING AS NOTED IN THE “DESIGN LOADS” PORTION OF THE STRUCTURAL NOTES AND CONCENTRATED LOADS IN ACCORDANCE WITH REQUIREMENTS OF THE BUILDING CODE.

THE SER HAS NOT DESIGNED THE STRUCTURE TO SUPPORT DYNAMIC LOADS FROM VIBRATING MACHINERY OR EQUIPMENT. ALL VIBRATING EQUIPMENT AND MACHINERY MUST BE ISOLATED FROM THE STRUCTURE.

THE SER HAS NOT PREFORMED AN ANALYSIS OF THE EXISTING BUILDING STRUCTURE ADJACENT TO THE NEW STRUCTURE. THE NEW BUILDING IS DESIGNED AS AN INDEPENDENT SELF-SUPPORTING STRUCTURE.

SUBMITTALS

1. SHOP DRAWINGS AND SUBMITTALS SHALL BE SUBMITTED TO TYNDALL ENGINEERING & DESIGN, P.A. FOR REVIEW BEFORE ANY CONSTRUCTION BEGINS. THESE SUBMITTALS WILL BE REVIEWED FOR OVERALL COMPLIANCE AS IT RELATES TO THE STRUCTURAL DESIGN OF THIS PROJECT. VERIFICATION OF THE SHOP DRAWINGS FOR DIMENSIONS, OR FOR ACTUAL FIELD CONDITIONS IS NOT THE RESPONSIBILITY OF TYNDALL ENGINEER & DESIGN, P.A.

2. ALLOW ENOUGH TIME FOR SUBMITTAL REVIEW, INCLUDING TIME FOR RESUBMITTALS. TIME FOR REVIEW SHALL COMMENCE UPON TYNDALL ENGINEERING & DESIGN'S RECEIPT OF SUBMITTAL. ALLOW 15 DAYS FOR INITIAL REVIEW OF EACH SUBMITTAL AND 15 DAYS FOR REVIEW OF EACH RESUBMITTAL.

3. CONTRACTOR SHALL HIGHLIGHT, ENCIRCLE, OR OTHERWISE SPECIFICALLY IDENTIFY DEVIATIONS FROM THE CONTRACT DOCUMENTS ON SUBMITTALS.

4. CONTRACTOR SHALL REVIEW EACH SUBMITTAL AND CHECK FOR COORDINATION WITH OTHER TRADES AND FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS. NOTE CORRECTIONS AND FIELD DIMENSIONS. MARK WITH APPROVAL STAMP BEFORE SUBMITTING TO TYNDALL ENGINEERING & DESIGN, P.A. STAMP SHALL INCLUDE NAME OF REVIEWER, DATE OF CONTRACTOR'S APPROVAL, AND STATEMENT CERTIFYING THAT SUBMITTAL HAS BEEN REVIEWED, CHECKED, AND APPROVED FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS.

5. WHERE PROFESSIONAL DESIGN SERVICE OR CERTIFICATIONS BY A DESIGN PROFESSIONAL ARE SPECIFICALLY REQUIRED OF THE CONTRACTOR BY THE CONTRACT DOCUMENTS, PROVIDE PRODUCTS AND SYSTEMS COMPLYING WITH SPECIFIC PERFORMANCE AND DESIGN CRITERIA INDICATED. IN ADDITION, SUBMIT COPIES OF A STATEMENT, SIGNED AND SEALED BY THE RESPONSIBLE DESIGN PROFESSIONAL, FOR EACH PRODUCT AND SYSTEM SPECIFICALLY ASSIGNED TO THE CONTRACTOR TO BE DESIGNED OR CERTIFIED BY A DESIGN PROFESSIONAL.

6. REVIEW OF SHOP DRAWINGS BY THE ENGINEER IS LIMITED TO COMPLIANCE OF THE COMPLETED STRUCTURE WITH THE DESIGN CONCEPT AND INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS, QUANTITIES, PERFORMANCE, SAFETY, COORDINATION WITH OTHER WORKS, AND ALL OTHER REQUIREMENTS OF THE CONTRACT DOCUMENTS. REVIEW DOES NOT AUTHORIZE CHANGES TO THE CONTRACT.

7. PROVIDE THE FOLLOWING SUBMITTALS FOR THIS PROJECT:

   a. CAST-IN-PLACE CONCRETE
   i. IN ADDITION TO THE FOLLOWING, COMPLY WITH REQUIREMENTS IN ACI 301
   ii. PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED
   iii. DESIGN MIXTURES FOR EACH CONCRETE MIXTURE
   iv. REBAR SHOP DRAWINGS
   v. SHOP DRAWINGS FOR THE DESIGN, ERECTION, AND REMOVAL OF FORMWORK, SHORES AND RESHORES PREPARED BY OR UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL ENGINEER. SHOP DRAWINGS, INCLUDING STRUCTURAL ANALYSIS DATA, SIGNED AND SEALED BY THE QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR THEIR PREPARATION. COMPLY WITH REQUIREMENTS IN "ACI MANUAL OF CONCRETE PRACTICE".

   b. STRUCTURAL STEEL
   i. PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED
   ii. SHOP DRAWINGS: SHOW FABRICATION OF STRUCTURAL STEEL COMPONENTS
   iii. WELDING CERTIFICATES

   c. UNIT MASONRY ASSEMBLIES
   i. PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED

   d. COLD-FORMED METAL FRAMING
   i. PRODUCT DATA FOR EACH TYPE OF COLD-FORMED METAL FRAMING PRODUCT AND ACCESSORY INDICATED
   ii. SHOP DRAWINGS FOR TRUSSES PREPARED BY OR UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL ENGINEER. SHOW FABRICATION AND INSTALLATION DETAILS FOR TRUSSES. INCLUDING LOCATION, PITCH, SPAN, CAMBER, CONFIGURATION, SPACING, AND SPLICE DETAILS AND BEARING DETAILS FOR EACH TYPE OF TRUSS REQUIRED. ALSO, INDICATE LOCATIONS OF PERMANENT BRACING REQUIRED TO PREVENT BUCKLING OF INDIVIDUAL TRUSS MEMBERS DUE TO DESIGN LOADS.
   iii. PRODUCT DATA FOR EACH TYPE OF PRODUCT INDICATED.

FOUNDATIONS

1. THE SCOPE OF SERVICES FOR THIS PROJECT PROVIDED BY TYNDALL ENGINEERING & DESIGN, P.A. BEGINS FROM THE BOTTOM OF THE FOUNDATION ELEMENTS. SUBSURFACE INVESTIGATIONS ARE BEYOND THE SCOPE OF THE STRUCTURAL SERVICES PROVIDED. THE FOUNDATION SYSTEM SHOWN ON THESE DRAWINGS ARE BASED UPON THE ASSUMED SOIL PROPERTIES LISTED BELOW. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR, OWNER OR OWNER'S AGENT TO CONTACT TYNDALL ENGINEERING & DESIGN, P.A. IF ANY ADVERSE SOIL CONDITIONS ARE ENCOUNTERED DURING CONSTRUCTION. VERIFICATION OF THIS ASSUMED VALUE IS ALSO THE RESPONSIBILITY OF THE CONTRACTOR, OWNER OR OWNER'S AGENT.

a. ALLOWABLE SOIL BEARING PRESSURE	2000 PSF
b. SUB GRADE MODULUS (k)	100 PCI
c. ULTIMATE FRICTION COEFFICIENT BETWEEN CONCRETE FOUNDATIONS AND SOIL	0.30
d. UNIT WEIGHT OF SOIL	120 PCF
e. AT REST EARTH PRESSURE, Ko	60 PSF/FT

2. THE BOTTOM OF ALL FOOTINGS SHALL EXTEND BELOW THE FROST LINE FOR THE REGION IN WHICH THE STRUCTURE IS TO BE CONSTRUCTED. HOWEVER, THE TOP OF FOOTING SHALL BE A MINIMUM OF 12" BELOW GRADE.

3. EXCAVATE TO INDICATED ELEVATIONS AND DIMENSIONS WITHIN A TOLERANCE OF +/- 1". IF APPLICABLE, EXTEND EXCAVATIONS A SUFFICIENT DISTANCE FROM STRUCTURES FOR PLACING AND REMOVING CONCRETE FORMWORK, FOR INSTALLING SERVICES AND OTHER CONSTRUCTION, AND FOR INSPECTIONS. DO NOT DISTURB BOTTOM OF EXCAVATION. EXCAVATE BY HAND TO FINAL GRADE JUST BEFORE PLACING CONCRETE REINFORCEMENT. TRIM BOTTOMS TO REQUIRED LINES AND GRADES TO LEAVE SOLID BASE TO RECEIVE OTHER WORK.

4. ANY FILL SHALL BE PLACED UNDER THE DIRECTION OR RECOMMENDATION OF A LICENSED PROFESSIONAL ENGINEER USING SUITABLE SOILS OR ENGINEERED FILL. PLOW, SCARIFY, BENCH, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING MATERIAL. PLACE BACKFILL AND FILL SOIL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS. COMPACT SOIL MATERIALS TO NOT LESS THAN 95% OF MAXIMUM DRY UNIT WEIGHT ACCORDING TO ASTM D698, UNLESS A HIGHER PERCENTAGE IS RECOMMENDED BY THE GEOTECHNICAL ENGINEER. UNDER SLABS-ON-GRADE AND STEPS, SCARIFY AND RECOMPACT TOP 12" OF EXISTING SUBGRADE AND EACH LAYER OF BACKFILL OR FILL SOIL AT 98%.

5. IT IS STRONGLY RECOMMENDED THAT A QUALIFIED INDEPENDENT GEOTECHNICAL ENGINEERING TESTING AGENCY INSPECT AND TEST SUBGRADES AND EACH FILL OR BACKFILL LAYER, AND AT FOOTING SUBGRADES PERFORM TESTING TO VERIFY DESIGN BEARING CAPACITIES.

6. EXCAVATION FOR FOOTINGS SHALL BE LINED TEMPORARILY WITH A 6 MIL POLYETHYLENE IF PLACEMENT OF CONCRETE DOES NOT OCCUR WITHIN 24 HOURS OF EXCAVATION.

7. CONCRETE SHALL NOT BE POURED AGAINST ANY SUB GRADE CONTAINING WATER, ICE, FROST, OR LOOSE MATERIAL

CONCRETE FLOOR AND SLABS

1. REQUIREMENTS NOTED IN THIS SECTION APPLY TO CONCRETE SLABS ON GRADE AND ELEVATED FLOOR SLABS. REFER TO THE CONCRETE SECTION OF THESE SPECIFICATIONS FOR FURTHER REQUIREMENTS.

2. CONCRETE SLABS ON GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 302.1R-04 "GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION".

3. SLABS ON GRADE DEPEND ON THE INTEGRITY OF BOTH THE SLAB AND FILL SOIL SUPPORT. PROVIDE SATISFACTORY SOIL MATERIALS UNDER SLABS ON GRADE ACCORDING TO GEOTECHNICAL ENGINEER'S WRITTEN RECOMMENDATIONS. PROOF-ROLL SUBGRADE BELOW THE BUILDING SLABS WITH HEAVY PNEUMATIC-TIRED EQUIPMENT TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING.

4. COMPACT SOIL MATERIALS AND SUBGRADE TO NOT LESS THAN 98% OF MAXIMUM DRY UNIT WEIGHT, UNLESS OTHERWISE RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

5. PROVIDE PLASTIC VAPOR RETARDER OVER THE SUBGRADE OR SUBBASE BUT UNDER THE BASE COURSE (GRANULAR FILL). VAPOR RETARDER SHALL CONFORM TO ASTM E1745, CLASS C, OR POLYETHYLENE SHEET, ASTM D4397, NOT LESS THAN 6 MILS THICK. VAPOR RETARDER MAY BE OMITTED ONLY WHEN STATED IN THE GEOTECHNICAL ENGINEER'S WRITTEN INSTRUCTIONS.

6. PROVIDE A MINIMUM OF 4" OF GRANULAR FILL DIRECTLY UNDER SLABS ON GRADE. FILL SHALL CONSIST OF A CLEAN MIXTURE OF CRUSHED STONE OR CRUSHED OR UNCRUSHED GRAVEL PER ASTM D448, SIZE 57, WITH 100% PASSING A 1-1/2" SIEVE AND 0% TO 5% PASSING A #8 SIEVE.

7. REINFORCE CONCRETE SLABS ON GRADE WITH WELDED WIRE FABRIC REINFORCEMENT (FABRIC) AS INDICATED. WELDED WIRE REINFORCEMENT SHALL BE SUPPLIED IN FLAT SHEETS AND INSTALLED IN LONGEST PRACTICAL LENGTHS ON BAR SUPPORTS SPACED TO MINIMIZE SAGGING. LAP EDGES AND ENDS OF ADJOINING SHEETS FOR AT LEAST ONE MESH SPACING. OFFSET LAPS OF ADJOINING SHEET WIDTHS TO PREVENT CONTINUOUS LAPS IN EITHER DIRECTION. LACE OVERLAPS WITH WIRE TIES AND DO NOT EXTEND REINFORCEMENT THROUGH JOINTS.

8. DEPOSIT AND CONSOLIDATE CONCRETE FOR FLOORS AND SLABS IN A CONTINUOUS OPERATION, WITHIN LIMITS OF CONSTRUCTION JOINTS, UNITL PLACEMENT OF A PANEL OR SECTION IS COMPLETE AND AS FOLLOWS:

   a. CONSOLIDATE CONCRETE DURING PLACEMENT OPERATIONS SO CONCRETE IS THOROUGHLY WORKED AROUND REINFORCEMENT AND OTHER EMBEDDED ITEMS AND INTO CORNERS.
   b. MAINTAIN REINFORCEMENT IN POSITION ON CHAIRS DURING CONCRETE PLACEMENT.
   c. SCREED SLAB SURFACES UNIFORMLY TO DRAINS WHERE REQUIRED.
   d. SLOPE SURFACES UNIFORMLY TO DRAINS WHERE REQUIRED.
   e. BEGIN INITIAL FLOATING USING BULL FLOATS OR DARBIES TO FORM A UNIFORM AND OPEN-TEXTURED SURFACE PLANE, BEFORE EXCESS BLEEDWATER APPEARS ON THE SURFACE. DO NOT FURTHER DISTURB SLAB SURFACES BEFORE STARTING FINISHING OPERATIONS.

9. APPLY A TROWEL FINISH TO CONCRETE SLAB ON GRADE SURFACES UNLESS OTHERWISE NOTED. VERIFY THIS FINISH WITH THE ARCHITECTURAL REQUIREMENTS BEFORE CONSTRUCTION. AFTER APPLYING FLOAT FINISH, APPLY FIRST TROWELING AND CONSOLIDATE CONCRETE BY HAND OR POWER-DRIVEN TROWEL. CONTINUE TROWELING PASSES AND RESTRAIGHTEN UNTIL SURFACE IS FREE OF TROWEL MARKS AND UNIFORM IN TEXTURE AND APPEARANCE. GRIND SMOOTH ANY SURFACE DEFECTS THAT WOULD TELEGRAPH THROUGH APPLIED COATING OR FLOOR COVERINGS.

10. FORM WEAKENED-PLANE CONTRACTION JOINTS, SECTIONING CONCRETE INTO AREAS AS INDICATED BUT NOT MORE THAN 20'-0 O.C. CONSTRUCT CONTRACTION JOINTS FOR A DEPTH EQUAL TO AT LEAST ONE-FOURTH OF CONCRETE THICKNESS. FORM CONTRACTION JOINTS WITH POWER SAWS EQUIPPED WITH SHATTERPROOF ABRASIVE OR DIAMOND-RIMMED BLADES WITHIN 4 TO 12 HOURS AFTER THE SLAB HAS BEEN FINISHED. CUT 1/8" WIDE JOINTS INTO CONCRETE WHEN CUTTING ACTION WILL NOT TEAR, ABRADE, OR OTHERWISE DAMAGE SURFACE AND BEFORE CONCRETE DEVELOPS RANDOM CONTRACTION CRACKS.

11. CURE CONCRETE SLABS ON GRADE FOR AT LEAST SEVEN DAYS BY ONE OF THE FOLLOWING METHODS: MOISTURE CURING, MOISTURE-RETAINING-COVER CURING, APPLICATION OF A CURING COMPOUND, OR BY APPLICATION OF A CURING AND SEALING COMPOUND.

12. THE CONCRETE SLAB ON GRADE HAS BEEN DESIGNED USING A SUBGRADE MODULUS OF K=100 pci AND A DESIGN LOADING AS NOTED IN THE "DESIGN LOADS" SECTION OF THESE SPECIFICATIONS. THE SER IS NOT RESPONSIBLE FOR DIFFERENTIAL SETTLEMENT, SLAB CRACKING, OR OTHER FUTURE DEFECTS RESULTING FROM UNREPORTED CONDITIONS MITIGATING THE ABOVE ASSUMPTIONS.

CONCRETE

1. CONCRETE SHALL BE PROPORTIONED, MIXED, PLACED, AND TESTED IN ACCORDANCE WITH THE ACI MANUAL OF CONCRETE PRACTICE INCLUDING BUT NOT LIMITED TO ACI 318-02 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND ACI 301-05 "SPECIFICATIONS FOR STRUCTURAL CONCRETE." COMPLY WITH ACI 117-90 "SPECIFICATIONS FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS."

2. STEEL REINFORCEMENT SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:

a. REINFORCING BARS	ASTM A615, GRADE 60, DEFORMED
b. PLAIN-STEEL WIRE	ASTM A82, AS DRAWN
c. EPOXY COATED BARS	ASTM A775
d. PLAIN-STEEL WELDED WIRE REINFORCEMENT	ASTM A185, FLAT SHEETS ONLY

3. CONCRETE DENOTED AS "LIGHTWEIGHT CONCRETE" ON THESE DESIGN DOCUMENTS SHALL HAVE A UNIT WEIGHT OF 115 PCF. CONCRETE NOT SPECIFICALLY NOTED AS "LIGHTWEIGHT" SHALL HAVE A UNIT WEIGHT OF 145 PCF. CONCRETE MATERIALS SHALL COMPLY WITH THE FOLLOWING:

a. PORTLAND CEMENT	ASTM C150, TYPE I OR II
b. FLY ASH	ASTM C618, CLASS F
c. BLENDED HYDRAULIC CEMENT	ASTM C595, TYPE I POZZOLAN-MODIFIED PORTLAND
d. NORMAL-WEIGHT AGGREGATE	ASTM C33, GRADED, 1$\frac{1}{2}$" NOMINAL MAXIMUM AGGREGATE SIZE
e. LIGHTWEIGHT AGGREGATE	ASTM C330, GRADED, $\frac{3}{4}$" NOMINAL MAXIMUM AGGREGATE SIZE
f. WATER POTABLE	

4. NO ADMIXTURES SHALL BE ADDED TO ANY STRUCTURAL CONCRETE WITHOUT THE EXPRESS WRITTEN PERMISSION OF TYNDALL ENGINEERING & DESIGN, P.A. ALL PROPOSED ADMIXTURES SHALL BE SUBMITTED TO TYNDALL ENGINEERING & DESIGN, P.A. FOR APPROVAL. THE ADMIXTURE MUST BE CERTIFIED BY THE MANUFACTURER THAT IT IS COMPARABLE TO OTHER ADMIXTURES AND DOES NOT CONTRIBUTE TO WATER-SOLUBLE CHLORIDE IONS EXCEEDING THOSE PERMITTED IN HARDENED CONCRETE. DO NOT USE CALCIUM CHLORIDE OR ANY ADMIXTURE CONTAINING CALCIUM CHLORIDE.

5. NORMAL-WEIGHT CONCRETE MIXTURES SHALL HAVE THE FOLLOWING PROPERTIES:

ELEMENT	MINIMUM COMP. STRENGTH @ 28 DAYS	MAXIMUM WATER-CEMENT RATIO	SLUMP LIMIT	AIR CONTENT
a. FOOTINGS	3000 PSI	0.45	4"	0.0%
b. SLABS-ON-GRADE	3000 PSI	0.45	4"	0.0%

NOTE: IT IS RECOMMENDED THAT INTERIOR SLABS BE GIVEN A SMOOTH, DENSE, HARD-TROWELED FINISH NOT CONTAINING ENTRAINED AIR SINCE BLISTERING OR DELAMINATION MAY OCCUR. IF SLAB WILL BE EXPOSED TO DEICING OR OTHER AGGRESSIVE CHEMICALS, CONTACT TYNDALL ENGINEERING & DESIGN, P.A. FOR PROPER AIR ENTRAINMENT REQUIREMENTS.

6. COMPLY WITH THE MINIMUM CONCRETE COVER FOR REINFORCEMENT AS FOLLOWS:

   a. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 3"
   b. CONCRETE EXPOSED TO EARTH OR WEATHER
   i. No. 5 BARS AND SMALLER 1-1/2"
   ii. No. 6 BARS AND LARGER 2"
   c. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND
   i. SLABS, WALLS, JOISTS, No. 11 BARS AND SMALLER 3/4"
   ii. SLABS, WALLS, JOISTS, No. 14 AND No. 18 BARS 1-1/2"
   iii. PRIMARY REINFORCEMENT, TIES, STIRRUPS, AND SPIRALS FOR BEAMS OR COLUMNS 1-1/2"

8. SPLICE REINFORCEMENT AS DETAILED OR AUTHORIZED BY TYNDALL ENGINEERING & DESIGN, P.A. MAKE BARS CONTINUOUS AROUND CORNERS. SPLICES SHALL BE MADE BY CONTACT TENSION LAP SPLICES, UNLESS OTHERWISE NOTED.

9. PLACING SLEEVES THROUGH CONCRETE ELEMENTS IS NOT PERMITTED UNLESS SHOWN ON THE DESIGN DOCUMENTS, ON APPROVED SLEEVE SHOP DRAWINGS, OR AS AUTHORIZED BY TYNDALL ENGINEERING & DESIGN, P.A.

10. LOCATE CONSTRUCTION JOINTS FOR MILD-REINFORCED ELEVATED CONCRETE WITHIN THE MIDDLE THIRD OF THE SPANS OF SLABS, BEAMS, AND GIRDERS. INDICATE PROPOSED CONSTRUCTION JOINT LOCATIONS ON REINFORCING STEEL SHOP DRAWINGS. LOCATE CONSTRUCTION JOINTS NOT FARTHER THAN 60 FEET APART IN ANY DIRECTION IN WALLS, SLABS, OR BEAMS. OFFSET JOINTS IN GIRDERS A MINIMUM DISTANCE OF TWO TIMES THE WIDTH OF INTERSECTING BEAMS. MAKE STOPS IN CONCRETE PLACEMENT WITH VERTICAL BULKHEADS AND HORIZONTAL KEYS, UNLESS OTHERWISE SHOWN. SUBMIT SHOP DRAWINGS INDICATING PROPOSED JOINT LOCATIONS AND REINFORCING STEEL TO BE PLACED IN THE SLAB. ANY STOP IN CONCRETE WORK MUST BE MADE WITH VERTICAL BULKHEADS, UNLESS OTHERWISE SHOWN.

11. COMPLY WITH ACI 301 FOR MEASURING, BATCHING, MIXING, TRANSPORTING, AND PLACING CONCRETE, BEFORE TEST SAMPLING AND PLACING CONCRETE. WATER MAY BE ADDED AT THE PROJECT SITE, SUBJECT TO LIMITATIONS OF ACI 301.

12. SEE ARCHITECTURAL DRAWINGS FOR FINISHING REQUIREMENTS OF FORMED CONCRETE SURFACES. FOR UNFORMED SURFACES, COMPLY WITH ACI 302.1R FOR SCREEDING, RESTRAIGHTENING, AND FINISHING OPERATIONS UNLESS OTHERWISE NOTED ON THE ARCHITECTURAL DRAWINGS.

13. CURE FORMED AND UNFORMED CONCRETE FOR AT LEAST SEVEN DAYS BY ONE OF THE FOLLOWING METHODS: MOISTURE CURING, MOISTURE-RETAINING-COVER CURING, APPLICATION OF A CURING COMPOUND, OR BY APPLICATION OF A CURING AND SEALING COMPOUND.

14. ENGAGE A QUALIFIED INDEPENDENT TESTING AGENCY TO SAMPLE MATERIALS, PERFORM TESTS, AND SUBMIT REPORTS DURING CONCRETE PLACEMENT ACCORDING TO ACI 301 AND IRC BUILDING CODE.

STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND THE LATEST EDITIONS OF SAID STANDARDS:

   a. AISC'S "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES"
   b. AISC 'S "SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS" AND "SUPPLEMENT NO.2", IF THE RESPONSE MODIFICATION FACTOR IS GREATER THAN 3.0
   c. AISC'S "LOAD AND RESISTANCE FACTORED DESIGN SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"
   d. AISC'S "SPECIFICATION FOR THE DESIGN OF STEEL HOLLOW STRUCTURAL SECTIONS"
   e. RCSC'S "SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS"
   f. AWS'S STRUCTURAL WELDING CODE AWS D1.1

2. STEEL FABRICATORS FOR THIS PROJECT SHALL PARTICIPATE IN THE AISC QUALITY CERTIFICATION PROGRAM AND HAVE A MINIMUM DESIGNATION OF SBD. STEEL INSTALLERS FOR THIS PROJECT SHALL PARTICIPATE IN THE AISC QUALITY CERTIFICATION PROGRAM AND HAVE A MINIMUM DESIGNATION OF CSE. ALL PERSONNEL PERFORMING WELDING ON THIS PROJECT SHALL CONFORM TO THE QUALITY PROCEDURES ACCORDING TO AWS D1.1 "STRUCTURAL WELDING CODE - STEEL".
3. ALL STRUCTURAL STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING:

a. WIDE FLANGE SHAPES	ASTM A992
b. CHANNELS, ANGLES, M-SHAPES, S-SHAPES	ASTM A36
c. PLATE AND BAR	ASTM A36
d. COROSION-RESISTING STRUCTURAL STEEL	ASTM A588
e. COLD-FORMED HOLLOW STRUCTURAL SECTIONS	ASTM A500, GRADE B
f. STEEL PIPE	ASTM A53
g. WELDING ELECTRODES	CLASS E70XX

4. UNLESS OTHERWISE NOTED ON THE DESIGN DOCUMENTS, APPLY A ONE-COAT NON-ASPHALTIC PRIMER COMPLYING WITH SSPC-PS GUIDE 7.00 "PAINTING SYSTEM GUIDE 7.00: GUIDE FOR SELECTING ONE-COAT SHOP PAINTING SYSTEMS", TO PROVIDE A DRY FILM THICKNESS OF NOT LESS THAN 1.5 MILS TO ALL STEEL SURFACES NOT EXPOSED TO WEATHER EXCEPT THE FOLLOWNG:

   a. SURFACES EMBEDDED IN CONCRETE OR MORTAR. EXTEND PRIMING OF PARTIALLY EMBEDDED MEMBERS TO A DEPTH OF 2".
   b. SURFACES TO BE FIELD WELDED.
   c. SURFACES TO BE HIGH-STRENGTH BOLTED WITH SLIP-CRITICAL CONNECTIONS.
   d. SURFACES TO RECEIVE SPRAYED-ON FIRE RESISTIVE MATERIALS.
   e. GALVANIZED SURFACES.

5. APPLY A ZINC COATING BY THE HOT-DIPPED PROCESS ACCORDING TO ASTM A123 TO LOOSE ANGLE LINTELS, RELIEVING ANGLES (SHELF ANGLES) AND ALL STEEL EXPOSED TO WEATHER. FILL VENT HOLES AND GRIND SMOOTH AFTER GALVANIZING AS REQUIRED. REPAIR DAMAGED GALVANIZING COATINGS WITH GALVANIZED REPAIR PAINT ACCORIND TO ASTM A780 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

6. BOLTS, CONNECTORS, AND ANCHORS SHALL CONFORM TO THE FOLLWONG:

   a. ASTM A325 BOLTED CONNECTIONS:
   i. ASTM A325, TYPE 1 HEAVY HEX NUT STEEL STRUCTURAL BOLTS
   ii. ASTM A563 HEAVY HEX CARBON-STEEL NUTS
   iii. ASTM F436 HARDENED CARBON-STEEL WASHERS
   THE FINISH FOR THESE BOLTED CONNECTIONS SHALL BE PLAIN UNLESS CONNECTING HOT-DIPPED GALVANIZED MATERIALS AND THEN SHALL HAVE A HOT-DIPPED ZINC COATING CONFORMING TO ASTM A153.

   b. ASTM A490 BOLTED CONNECTIONS:
   i. ASTM A490, TYPE 1 HEAVY HEX NUT STEEL STRUCTURAL BOLTS
   ii. ASTM A563 HEAVY HEX CARBON-STEEL NUTS
   iii. ASTM F436 HARDENED CARBON-STEEL WASHERS
   THE FINISH FOR THESE BOLTED CONNECTIONS SHALL BE PLAIN.

   c. ANCHOR RODS: ASTM F1554, GRADE 36
   i. NUTS: ASTM A563
   ii. PLATE WASHERS: 3/8" MINIMUM THICKNESS, ASTM A36 CARBON STEEL.

   d. THREADED RODS: ASTM A307, GRADE A
   i. NUTS: ASTM A563
   ii. WASHERS: ASTM A36
   iii. FINISH: PLAIN

   e. CLEVISES AND TURNBUCKLES: ASTM A108, GRADE 1035, COLD-FINISHED CARBON STEEL

   f. EYE BOLTS AND NUTS: ASTM A108, GRADE 1030, COLD-FINISHED CARBON STEEL

7. SELECT AND COMPLETE STEEL TO STEEL CONNECTIONS USING FULL-DEPTH CONNECTION AS INDICATED IN AISC'S "MANUAL OF STEEL CONSTRUCTION, 13TH EDITION"

8. IN BOLTED CONNECTIONS, PROVIDE HIGH STRENGTH BOLTS, NUTS, AND WASHERS IN BOLTED STEEL CONNECTIONS AND INSTALL CONNECTORS ACCORDING TO RCSC'S "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS". CUT, DRILL, OR PUNCH BOLT HOLES PERPENDICULAR TO METAL SURFACES. EITHER ASTM A325 OR A490 BOLTS MAY BE USED FOR SNUG TIGHTENED CONNECTIONS. ALL CONNECTIONS EXCEPT LISTED BELOW SHALL BE SNUG TIGHTENED:

   a. JOINTS THAT UTILIZE OVERSIZED HOLES
   b. JOINTS THAT CONNECT BRACING MEMBERS FOR LATERAL RESISTING SYSTEM
   c. JOINTS THAT UTILIZE SLOTTED HOLES EXCEPT THOSE WITH APPLIED LOAD APPROXIMATELY NORMAL TO THE DIRECTION OF THE LONG DIMENSION OF THE SLOT.

9. IN WELDED CONNECTIONS, COMPLY WITH AWS D1.1 FOR WELDING PROCEDURE SPECIFICATIONS, TOLERANCES, APPEARANCE, AND QUALITY OF WELDS AND FOR METHODS USED IN CORRECTING WELDING WORK. COMPLY WITH AISC MINIMUM WELDING REQUIREMENTS.

10. SHEAR CONNECTORS (SHEAR STUDS) SHALL BE OF THE HEIGHT AND DIAMETER AS NOTED ON THE COMPOSITE FLOOR DECK DETAIL ON THESE DRAWINGS. CONNECTORS SHALL BE ASTM A108, GRADE 1015 THROUGH 1020, HEADED STUD, COLD-FINISHED CARBON STEEL; AWS D1.1, TYPE B. SPACE CONNECTORS UNIFORMLY ON EACH SIDE OF THE BEAM MIDSPAN IN THE PORTION OF THE DECK RIB CLOSEST TO THE NEAREST END OF THE BEAM, UNLESS OTHERWISE NOTED. IN ADDITION TO THE TESTING AND INSPECTIONS LISTED BELOW, TEST AND INSPECT FIELD WELDED SHEAR CONNECTORS ACCORDING TO REQUIREMENTS IN AWS D1.1 FOR STUD WELDING AND AS FOLLOWS:

    a. PERFORM BEND TESTS IF VISUAL INSPECTIONS REVEAL EITHER A LESS THAN CONTINUOUS 360 DEGREES FLASH OR WELDING REPAIRS TO ANY SHEAR CONNECTOR.
    b. CONDUCT TESTS ON ADDITIONAL SHEAR CONNECTORS IF WELD FRACTURE OCCURS ON SHEAR CONNECTORS ALREADY TESTED, ACCORDING TO REQUIREMENTS IN AWS D1.1.
    c. CORRECT DEFICIENCIES IN WORK THAT TEST REPORTS AND INSPECTIONS INDICATE SHEAR CONNECTORS NOT IN COMPLIANCE WITH THESE DOCUMENTS.

11. BASE AND BEARING PLATES WHICH ARE SUPPORTED OVER CONCRETE OR MASONRY SHALL BE PLACED OVER 2" OF GROUT WITH A TOLERANCE OF +/- $\frac{1}{2}$" UNLESS OTHERWISE NOTED. CLEAN CONCRETE AND MASONRY SURFACES OF BOND REDUCING MATERIAL AND ROUGHEN SURFACES. SET PLATES FOR STRUCTURAL MEMBERS ON WEDGES, SHIMS, OR SETTING NUTS AS REQUIRED. TIGHTEN ANCHOR RODS AFTER MEMBER IS POSITIONED AND PLUMBED. DO NOT REMOVE WEDGES, BUT IF PROTRUDING, CUT OFF FLUSH WITH BASE PLATE. PROMPTLY PACK GROUT SOLIDLY BETWEEN BEARING SURFACES SO NO VOIDS REMAIN. GROUT SHALL CONFORM TO ASTM C1107, FACTORY-PACKAGED, NONMETALLIC AGGREGATE GROUT, NONCORROSIVE, NON STAINING, MIXED WITH WATER TO CONSISTENCY SUITABLE FOR APPLICATIONS. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI.

12. FURNISH ANCHORAGE ITEMS EMBEDDED OR ATTACHED TO OTHER CONSTRUCTION BY USE OF SETTING DIAGRAMS AND TEMPLATES. DO NOT FLOAT-IN THESE ITEMS.

13. ACCURATELY FINISH ENDS OF COLUMNS AND OTHER MEMBERS TRANSMITTING BEARING LOADS.

14. PROVIDE TEMPORARY SHORES, GUYS, BRACES, AND OTHER SUPPORTS DURING ERECTION TO KEEP STRUCTURAL STEEL SECURE, PLUMB, AND IN ALIGNMENT AGAINST TEMPORARY CONSTRUCTION LOADS AND LOADS EQUAL IN INTENSITY TO DESIGN LOADS. ALSO, PROVIDE TEMPORARY SUPPORTS IN STEEL TO STEEL CONNECTIONS AND ALL OTHER LOCATIONS PER OSHA REQUIREMENTS.

15. MAINTAIN ERECTION TOLERANCES OF STRUCTURAL STEEL WITHIN AISC'S "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".

16. ONLY SPLICE MEMBERS WHERE INDICATED ON THE DESIGN DOCUMENTS.

17. ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTION AGENCY TO INSPECT FIELD WELDS AND HIGH-STRENGTH BOLTED CONNECTIONS. SHOP-BOLTED CONNECTIONS SHALL BE INSPECTED ACCORDING TO RCSC'S "SPECIFICATION FOR STRUCTURAL JOINTS USING ASSTM A325 OR A490 BOLTS". FIELD WELDS SHALL BE VISUALLY INSPECTED ACCORDING TO AWS D1.1, EXCEPT FULL PENETRATION WELDS SHALL ALSO BE INSPECTED PER ULTRASONIC INSPECTION PER ASTM E164.

WOOD FRAMING

1. ALL ROUGH CARPENTRY SHALL CONFORM TO THE REQUIREMENTS OF THE "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION," 2012 EDITION BY THE NATIONAL FOREST PRODUCTS ASSOCIATION. WOOD FRAMING SHALL BE CONNECTED AS SPECIFIED IN THE INTERNATIONAL BUILDING CODE TABLE 2304.9.1, UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS.

2. ALL FRAMING LUMBER INCLUDING STUDS, PLATES, LINTELS, JOISTS, RAFTERS AND BEAMS SHALL BE SPF #2 WITH 19% MAXIMUM MOISTURE CONTENT.

3. ALL LUMBER, BLOCKING, FURRING AND OTHER WOOD IN CONTACT WITH CONCRETE, MASONRY, THE GROUND OR EXPOSED TO THE WEATHER SHALL BE PRESSURE TREATED WITH WATER-BORNE PRESERVATIVES IN ACCORDANCE WITH THE AMERICAN WOOD PRESERVERS' INSTITUTE STANDARD AWPA-P5.

4. ALL STEEL FASTENERS IN TREATED WOOD SHALL BE OF HOT-DIPPED ZINC GALVANIZED STEEL (G185) OR STAINLESS STEEL.

5. ALL WOOD I-JOIST, TJW JOISTS AND MICRO-LAM VENEER LUMBER SHALL BE EQUAL TO PRODUCT MANUFACTURED BY TRUSJOIST, A WEYERHAEUSER BUSINESS.

6. STRUCTURAL WALL SHEATHING SHALL BE 1/2" APA RATED SHEATHING (32/16, EXPOSURE 1) NAILED TO VERT. WOOD SUPPORTS WITH 8d NAILS AT 6" o.c. AT PANEL EDGES AND 12" o.c. AT INTERMEDIATE SUPPORTS. PROVIDE STUD BLOCKING AT ALL SHEATHING JOINTS.

7. STRUCTURAL FLOOR SHEATHING SHALL BE 3/4" TONGUE AND GROOVE APA RATED SHEATHING (32/16, EXPOSURE 1) GLUED AND NAILED TO WOOD FLOOR WITH 8d NAILS AT 6" o.c. AT PANEL EDGES AND 12" o.c. AT INTERMEDIATE SUPPORTS, UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS.

8. STRUCTURAL ROOF SHEATHING SHALL BE 1/2" APA RATED SHEATHING (32/16, EXPOSURE 1) NAILED TO WOOD TRUSSES WITH 8d NAILS AT 6" o.c. AT PANEL EDGES AND 12" o.c. AT INTERMEDIATE SUPPORTS, UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS. PROVIDE (1) PANEL SHEATHING CLIP AT MIDSPAN OF ALL UNSUPPORTED PANEL EDGES.

9. SECURE MULTIPLE SOLID SAWN LUMBER MEMBERS TOGETHER WITH (2) 10d NAILS AT 12" O.C. PER PLY. SECURE MULTIPLE LVL BEAM MEMBERS TOGETHER WITH (2) 12d NAILS AT 6" o.c. PER PLY.

10. WALL AND ROOF CLADDING VALUES:
    WALL CLADDING SHALL BE DESIGNED FOR 24.1 POUNDS PER SQUARE FOOT (LBS/SQFT) OR GREATER POSITIVE AND NEGATIVE PRESSURE.
    ROOF VALUES BOTH POSITIVE AND NEGATIVE SHALL BE AS FOLLOWS:
    45.5 LBS/SQFT FOR ROOF PITCHES 0/12 TO 2.25/12
    34.8 LBS/SQFT FOR ROOF PITCHES 2.25/12 TO 7/12
    21.0 LBS/SQFT FOR ROOF PITCHES 7/12 TO 12/12
    **MEAN ROOF HEIGHT 30'-0" OR LESS

11. PROVIDE CONTINUOUS SHEATHING WHERE APPLICABLE.

12. INTERIOR WALL SHEATHING SHALL BE 1/2" GYPSUM BOARD (GB) SECURE w/ 5d COOLER NAILS OR EQUAL SPACED @ 7" O.C. AT PANEL EDGES, INCLUDING TOP AND BOTTOM PLATES & 7" O.C AT INTERMEDIATE SUPPORTS.

DESIGN LOADS

1. BUILDING CODES	
a. NORTH CAROLINA BUILDING CODE 2018 EDITION	
b. MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES, ASCE 7-10	
2. ROOF DEAD LOAD	20 PSF
3. ROOF LIVE LOAD	20 PSF
4. ROOF SNOW LOAD	
a. FLAT-ROOF SNOW LOAD, Pf	15 PSF
b. SNOW EXPOSURE FACTOR, Ce	0.9
c. SNOW IMPORTANCE FACTOR, Is	1.0
d. THERMAL FACTOR, Ct	1.0
5. FLOOR DEAD LOAD	
a. TYPICAL FLOOR	15 PSF
6. FLOOR LIVE LOADS	
a. SLAB-ON-GRADE	100 PSF
7. WIND LOADS/DATA	
a. BASIC WIND SPEED (3 SECOND GUST)	120 MPH
b. RISK CATEGORY	II
c. EXPOSURE	B
d. INTERNAL PRESSURE COEFFICIENT, GCpi	+/-0.18
e. TOPOGRAPHY FACTOR, Kzt	1.00
f. APPLIED DIRECTIONALITY FACTOR, Kd	0.85
g. WIND BASE SHEAR	
Wx	92.7 KIPS
Wy	51.8 KIPS
8. SEISMIC LOADS/DATA	
a. ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE
b. SITE CLASS	D
c. SEISMIC IMPORTANCE FACTOR Ie	1.0
f. SITE COEFFICIENT, Fa	1.6
g. SITE COEFFICIENT, Fv	2.4
h. SPECTRAL RESPONSE COEFFICIENT, Sds	0.145
i. SPECTRAL RESPONSE COEFFICIENT, Sd1	0.106
BASIC STRUCTURAL SYSTEM	LIGHT-FRAME WOOD
j. RESPONSE MODIFICATION FACTOR, R	6.5
k. SEISMIC RESPONSE COEFFICIENT, Cs	0.022
q. SEISMIC BASE SHEARS	
Sx	6.04 KIPS
Sy	6.04 KIPS

ABBREVIATIONS

+/-	PLUS OR MINUS
@	AT
&	AND
Ø	DIAMETER
AB	ANCHOR BOLTS
ACI	AMERICAN CONCRETE INSTITUTE
ADDL	ADDITIONAL
AFF	ABOVE FINISHED FLOOR
AISC	AMER. INSTITUTE OF STEEL CONSTRUCTION
AISI	AMER. IRON & STEEL INSTITUTE
ALT	ALTERNATE
ARCH	ARCHITECTURAL/ARCHITECT'S
ASTM	AMER. SOCIETY FOR TESTING & WELDING
AWS	AMERICAN WELDING SOCIETY
B/ OR BOT	BOTTOM
BCX	BOTTOM CHORD EXTENSION
BFF	BELOW FINISHED FLOOR
BLDG	BUILDING
BM	BEAM
BOS	BOTTOM OF STEEL
BRG	BEARING
BTWN	BETWEEN
MECH	MECHANICAL
CANT	CANTILEVER BEAM
CJ	CONTROL JOINT
CL	CENTERLINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST JT	CONSTRUCTION JOINT
CONT	CONTINUOUS
CONTR	CONTRACTOR
CTRD	CENTERED
d	NAILS (PENNY)
DBA	DEFORMED BAR ANCHOR
DEFL	DEFLECTION
DEPR	DEPRESSION / DEPRESSED
DET	DETAIL
DIAG	DIAGONAL
DIM	DIMENSION
DIST	DISTANCE
DJ	DOUBLE JOIST
DWG (S)	DRAWING (S)
DWL (S)	DOWEL (S)
EA	EACH
EE	EACH END
EF	EACH FACE
EJ	EXPANSION JOINT
ELEV	ELEVATION
EMBED	EMBEDDED / EMBEDMENT
ENGR	ENGINEER
EOD	EDGE OF DECK
EOS	EDGE OF SLAB
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FDN	FOUNDATION
FFE	FINISHED FLOOR ELEVATION
FOM	FACE OF MASONRY
FOW	FACE OF WALL
FS	FAR SIDE
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
HD	HEADED
HI	HIGH
HORIZ	HORIZONTAL
HSS	HOLLOW STRUCTURAL SYSTEM
INT	INTERIOR
JT	JOINT
K	KIP(S)
KB	KNEE BRACE
KSI	KIPS PER SQ. INCH
LB	LONG BAR
LBS	POUNDS
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LO	LOW
LOC	LOCATION
LWC	LIGHT WEIGHT CONCRETE
MAX	MAXIMUM
MC	MOMENT CONNECTION
MECH	MECHANICAL
MFR	MANUFACTURER
MID	MIDDLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MOW	MIDDLE OF WALL
MP	MASONRY PILASTER
No OR #	NUMBER
NS	NEAR SIDE
NTS	NOT TO SCALE
NWC	NORMAL WEIGHT CONCRETE
OC	ON CENTER
OPNG	OPENING
OPP	OPPOSITE HAND
PAF	POWDER ACTUATED FASTENER
PED	PEDESTAL
⅊	PLATE
PL	POINT LOAD
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
REF	REFERENCE
REINF	REINFORCING
REQ'D	REQUIRED
SB	SHORT BAR
SC	STUD COLUMNS
SCHD	SCHEDULE
SIM	SIMILAR
SOG	SLAB ON GRADE
SPEC (S)	SPECIFICATION (S)
SQ	SQUARE
STD	STANDARD
STIFF	STIFFENER
STIRR	STIRRUP (S)
STL	STEEL
STR	STRUCTURAL
T/	TOP
TCX	TOP CHORD EXTENSION
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VIF	VERIFY IN FIELD
W/	WITH
WWF	WELDED WIRE FABRIC

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SEAL 050516
SCOTT T. PYRCH
2/18/25

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250 Shipwash Drive • Garner • North Carolina • 27529
www.tyndallengineering.com

Client: TRIPOINTE HOMES

Plan: ALTIS SERENITY AMENITY BUILDING
REC BUILDING

NOTES

Project #: 2401-010249
Date: 2/18/2025
Engineered By: VA
DWG. Checked By: PAT
Scale: SEE PLAN

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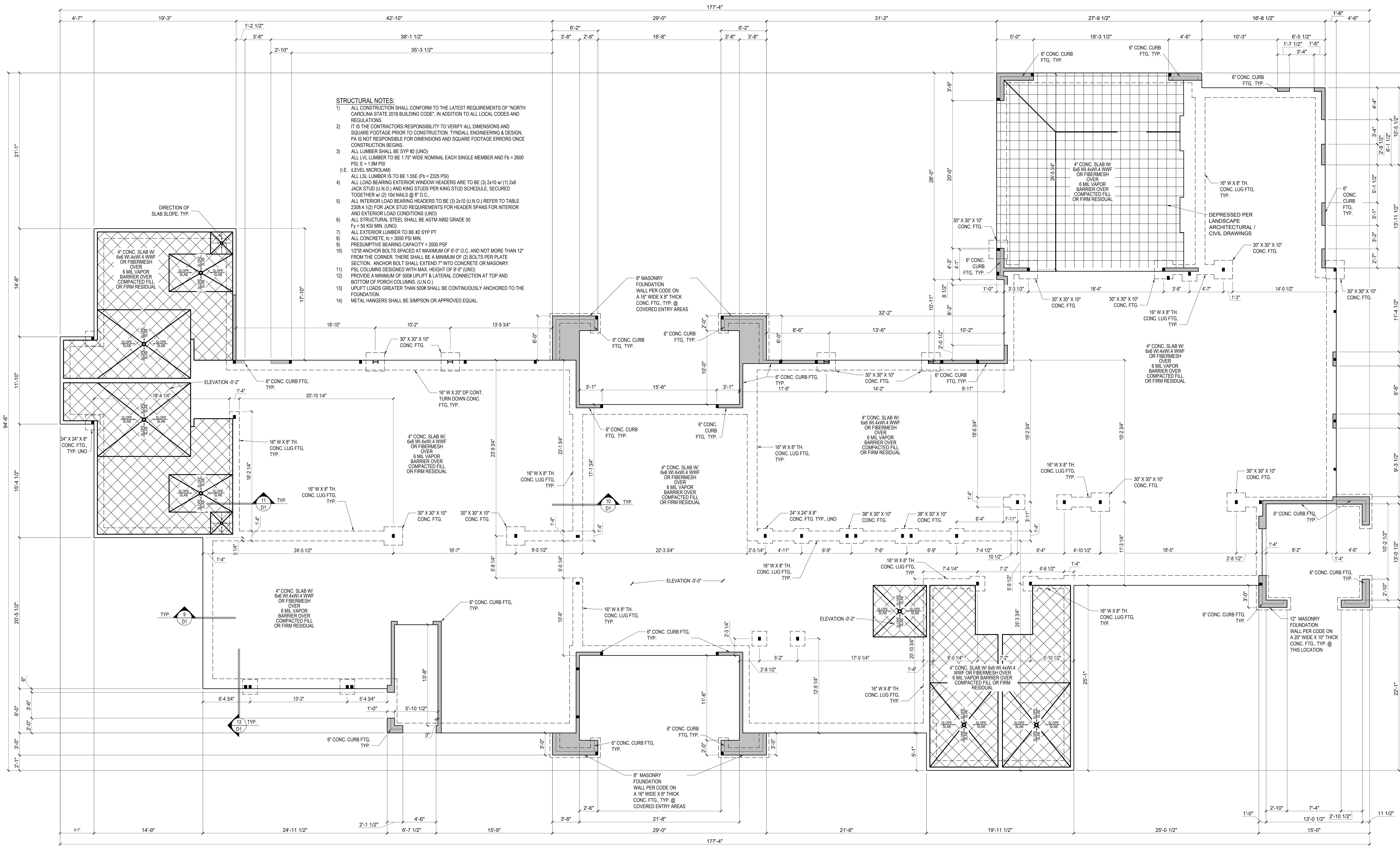
FILENAME: \\192.168.1.15\DATA\RALEIGH OFFICE\RESIDENTIAL ENGINEERING\2024 STRUCTURAL PROJECTS\2401-010249 - TRIPOINTE HOMES - ALTIS SERENITY CLUBHOUSE\2401-010249\CAD_FILES\2401-010249_FULLSET_E.DWG SAVED BY: VANESSA LAST PLOT DATE:2/18/2025 5:26 PM



STRUCTURAL NOTES:

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(I.E. iLEVEL MICROLAM)
ALL LSL LUMBER IS TO BE 1.55E (Fb = 2325 PSI)
4) ALL LOAD BEARING EXTERIOR WINDOW HEADERS ARE TO BE (3) 2x10 w/ (1) 2x6 JACK STUD (U.N.O.) AND KING STUDS PER KING STUD SCHEDULE, SECURED TOGETHER w/ (2) 10d NAILS @ 8" O.C.,
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9) PRESUMPTIVE BEARING CAPACITY = 2000 PSF
10) 1/2"Ø ANCHOR BOLTS SPACED AT MAXIMUM OF 6'-0" O.C. AND NOT MORE THAN 12" FROM THE CORNER. THERE SHALL BE A MINIMUM OF (2) BOLTS PER PLATE SECTION. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY.
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14) METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.

INDICATES AREA OF 2" DEPRESSED SLAB TO RECEIVE FINISHED FLOORING OVER SETTING BED. REFER TO ARCHITECTURAL DRAWINGS.

INDICATES AREA OF DEPRESSED SLAB TO RECEIVE OVER POUR (FLATWORK). REFER TO LANDSCPE ARCHITECTURAL / CIVIL DRAWINGS

INDICATES 6" RAISED CURB ABOVE FINISH FLOOR. VERIFY LOCATIONS W/ SITE GRADING PLANS. SEE ARCHITECTURAL ELEVATIONS DRAWINGS.

FOUNDATION PLAN

3/16" = 1'-0"

NORTH CAROLINA PROFESSIONAL SEAL 050516 ENGINEER SCOTT T. PYRCH 2/18/25

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www.tyndallengineering.com

Client: TRIPOINTE HOMES

Plan: ALTIS SERENITY AMENITY BUILDING
REC BUILDING

FOUNDATION PLAN

Project #: 2401-010249
Date: 2/18/2025
Engineered By: VA
DWG. Checked By: PAT
Scale: SEE PLAN

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NOTE:

ALL EXTERIOR LOAD BEARING HEADERS ARE TO BE (3)2 X 10 W/ (1)JACK STUD EACH END, UNLESS NOTED OTHERWISE

NOTE: SEE ARCHITECTURAL PLANS PLATE HEIGHTS

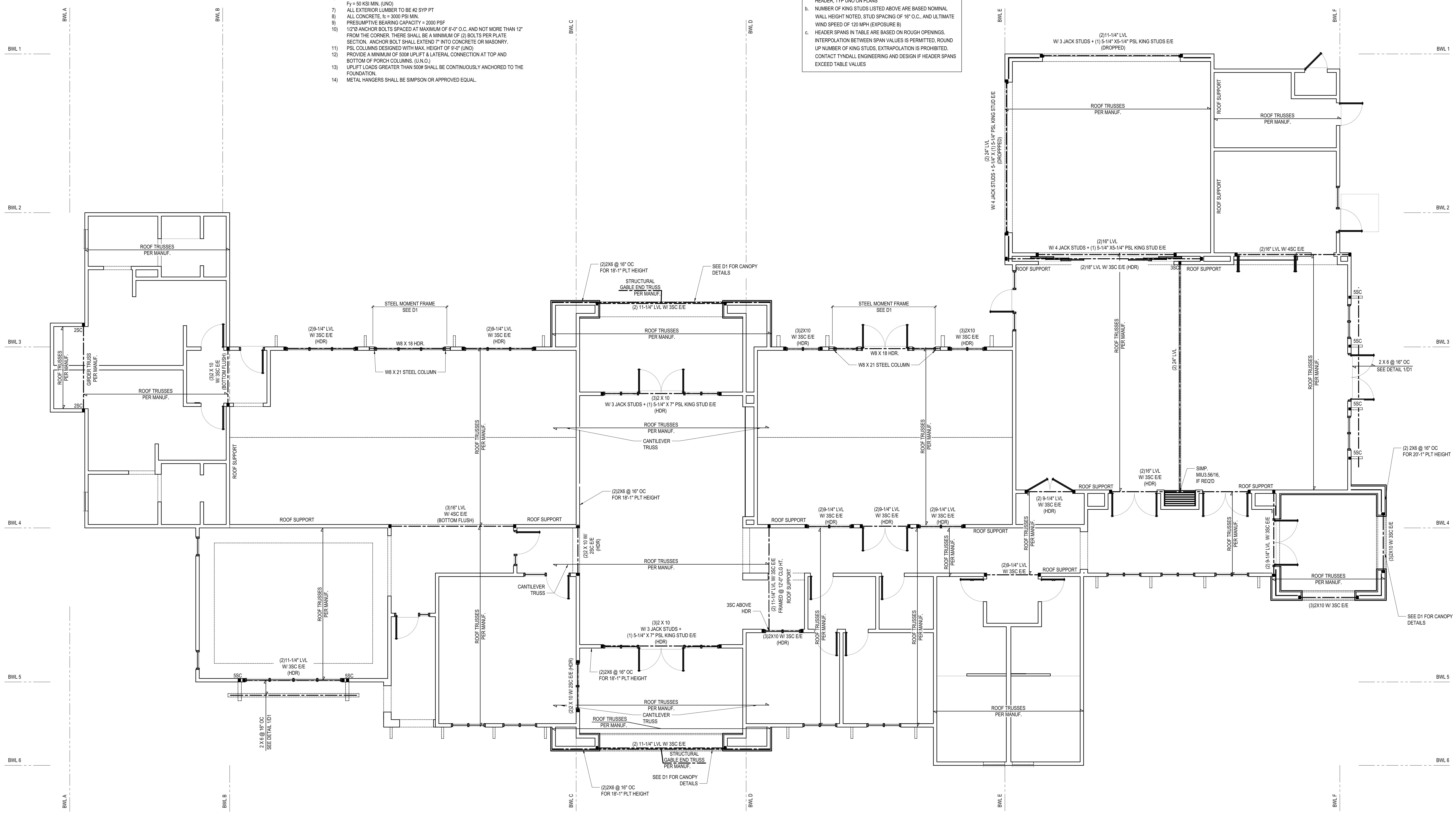
1. ALL EXTERIOR WALLS TO BE 2 X 6 SYP #2 STUDS SPACED @ 16" O.C., UNO.
2. ALL INTERIOR WALLS TO BE 2 X 6 SYP #2 STUDS SPACED @ 16" O.C., UNO.

KING STUD SCHEDULE

HEADER SPAN (FT)	MIN. # OF FULL HEIGHT 2X6 STUDS (KING) E.E. OF OPENING PER WALL DEPTH			
	10' WALLS	12' WALLS	16' WALLS	20' WALLS
UP TO 3'-0"	1	2	2	3
3'-1" TO 6'-0"	1	3	3	4
6'-1" TO 9'-0"	2	3	4	4
9'-1" TO 12'-0"	2	3	5	5
12'-1" TO 15'-0"	3	4	5	5
15'-1" TO 18'-0"	3	4	--	--

NOTES*:

a. TABLE DENOTES REQUIRED MINIMUM NUMBER OF STUDS EE OF HEADER, TYP UNO ON PLANS
b. NUMBER OF KING STUDS LISTED ABOVE ARE BASED NOMINAL WALL HEIGHT NOTED, STUD SPACING OF 16" O.C., AND ULTIMATE WIND SPEED OF 120 MPH (EXPOSURE B)
c. HEADER SPANS IN TABLE ARE BASED ON ROUGH OPENINGS. INTERPOLATION BETWEEN SPAN VALUES IS PERMITTED, ROUND UP NUMBER OF KING STUDS, EXTRAPOLATION IS PROHIBITED. CONTACT TYNDALL ENGINEERING AND DESIGN IF HEADER SPANS EXCEED TABLE VALUES



FIRST FLOOR PLAN
3/16" = 1'-0"

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Client: TRIPOINTE HOMES

Plan: ALTIS SERENITY AMENITY BUILDING REC BUILDING

1ST FLOOR HDR 1ST FLOOR CLG FRAMING PLAN

Project #:	2401-010249
Date:	2/18/2025
Engineered By:	VA
DWG. Checked By:	PAT
Scale:	SEE PLAN

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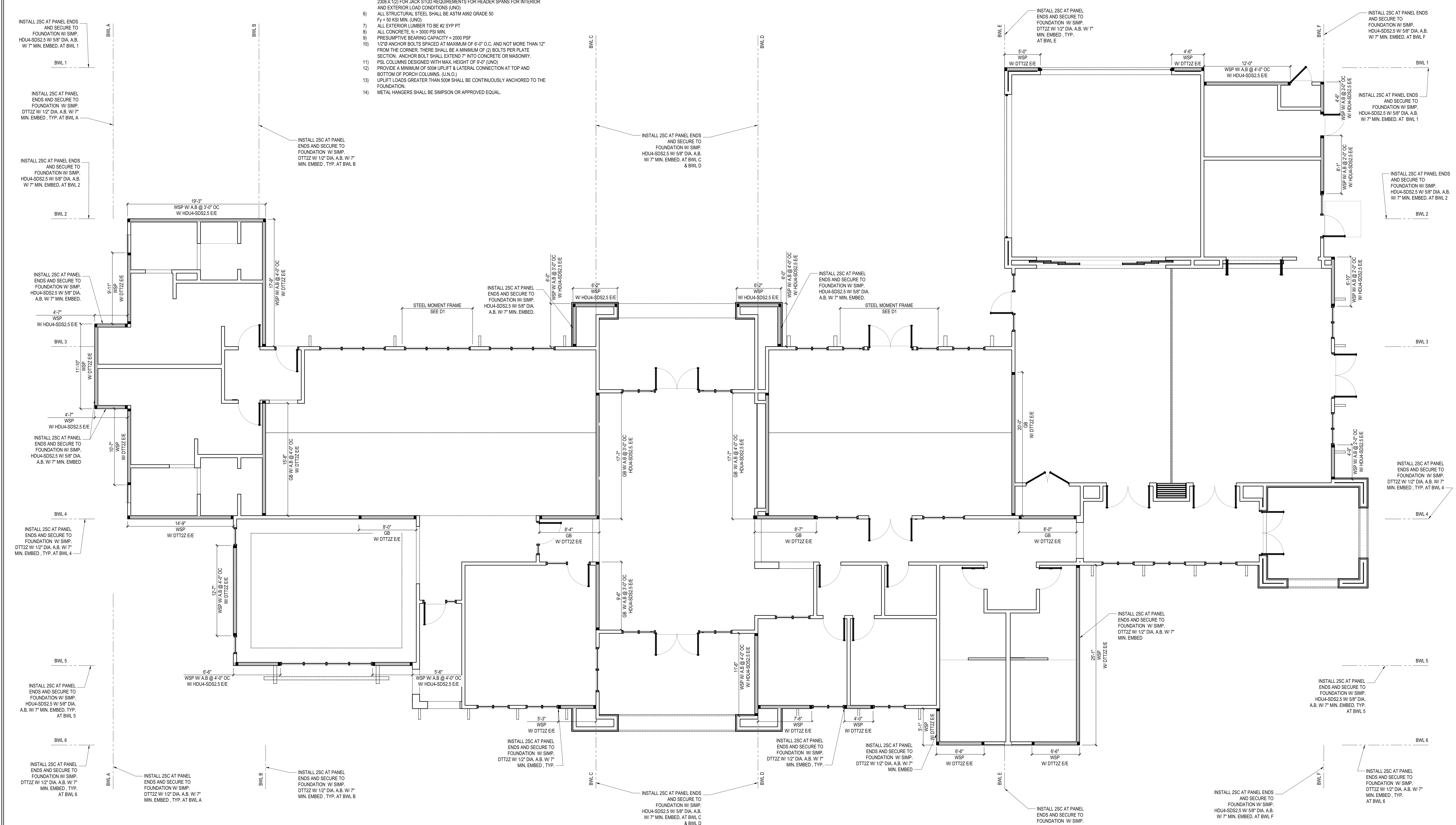
NOTE: SEE ARCHITECTURAL PLANS PLATE HEIGHTS

HOLDOWN SCHEDULE		
HOLDOWN	ANCHOR BOLTS	EMBED.
DTT2Z	1/2" Ø	7"
HDU4-SDS2.5	5/8" Ø	7"



NOTE: WSP SHEAR WALL

STRUCTURAL WALL SHEATHING SHALL BE NAILED TO VERT. WOOD SUPPORTS WITH 8d NAILS AT 3" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.
PROVIDE STUD BLOCKING AT ALL SHEATHING JOINTS.

NOTE: GB SHEAR WALL

SHEATH BOTH SIDES OF WALL W/ GYPSUM BOARD SHEATHING NAILED TO VERT. WOOD SUPPORTS W/ 8d NAILS AT 3" O.C. AT PANEL EDGES AND 12" O.C. AT INTERMEDIATE SUPPORTS.
PROVIDE STUD BLOCKING AT ALL SHEATHING JOINTS.

FIRST FLOOR BRACING PLAN

3/16" = 1'-0"

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NORTH CAROLINA PROFESSIONAL SEAL 050516 ENGINEER SCOTT T. PYRCH 2/18/25

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BRACING PLAN

Project #: 2401-010249
Date: 2/18/2025
Engineered By: VA
DWG. Checked By: PAT
Scale: SEE PLAN

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NOTE: SEE ARCHITECTURAL PLANS FOR ROOF PITCHES AND OVERHANG DIMENSIONS

NOTE: ROOF TRUSSES NOT DESIGNED FOR ATTIC ACCESS

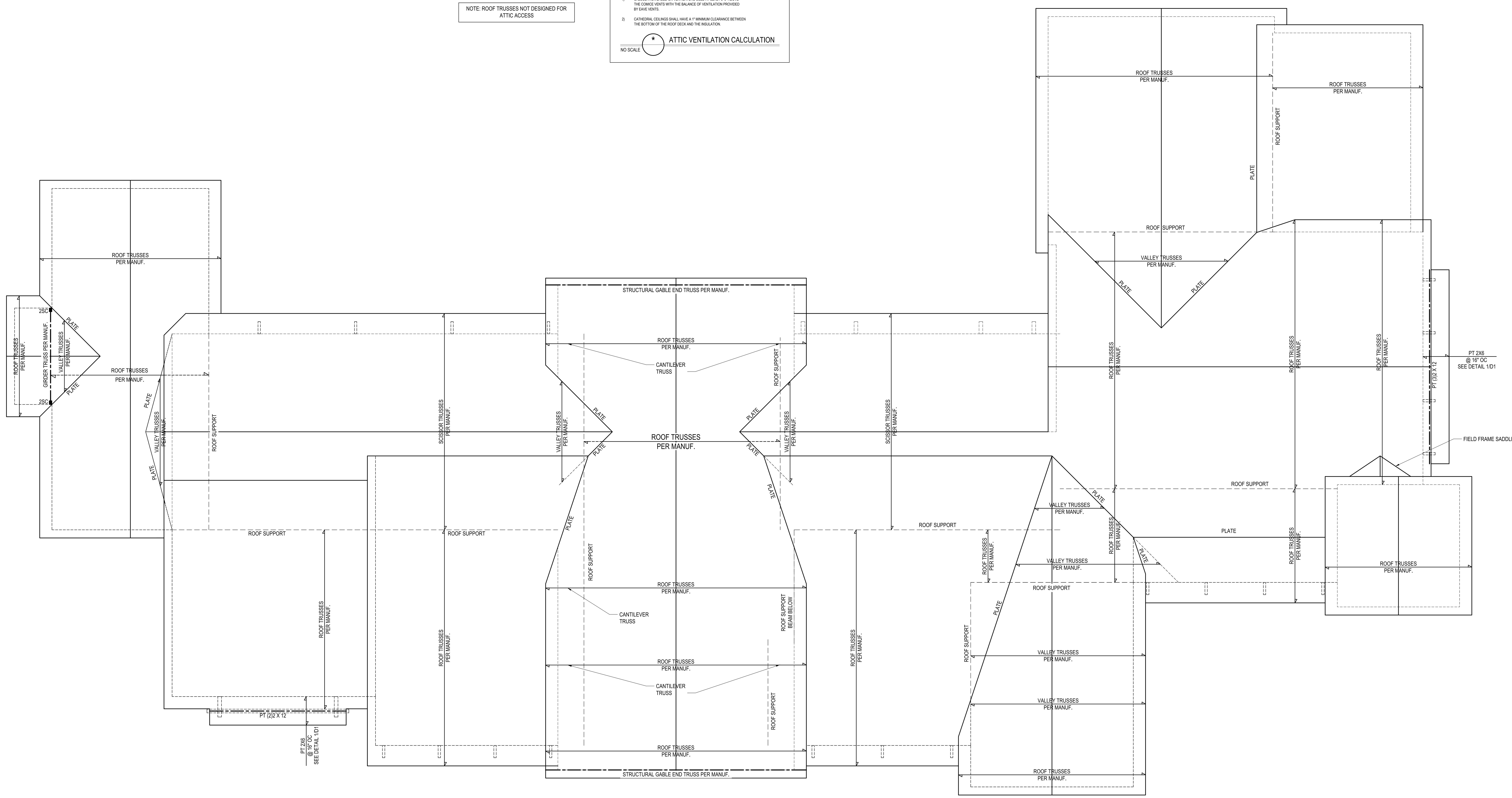
10803 SQ. FT. OF ATTIC / 300 = 36.1 SQ. FT. INLETS/OUTLETS REQUIRED

1) CALCULATION BASED ON VENTILATORS USED AT LEAST 3'-0" ABOVE THE COMICE VENTS WITH THE BALANCE OF VENTILATION PROVIDED BY EAVE VENTS.

2) CATHEDRAL CEILINGS SHALL HAVE A 1" MINIMUM CLEARANCE BETWEEN THE BOTTOM OF THE ROOF DECK AND THE INSULATION.

* ATTIC VENTILATION CALCULATION

NO SCALE



ROOF PLAN

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ROOF PLAN

Project #:	2401-010249
Date:	2/18/2025
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DWG. Checked By:	PAT
Scale:	SEE PLAN

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S3

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a. ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE
b. SITE CLASS	D
c. SEISMIC IMPORTANCE FACTOR Ie	1.0
f. SITE COEFFICIENT, Fa	1.6
g. SITE COEFFICIENT, Fv	2.4
h. SPECTRAL RESPONSE COEFFICIENT, Sds	0.145
i. SPECTRAL RESPONSE COEFFICIENT, Sd1	0.106
BASIC STRUCTURAL SYSTEM	LIGHT FRAMED WOOD WALL W/ WOOD STRUCTURAL PANELS
j. RESPONSE MODIFICATION FACTOR, R	6.5
k. SEISMIC RESPONSE COEFFICIENT, Cs	0.022
q. SEISMIC BASE SHEARS	
Sx	0.45 KIPS
Sy	0.45 KIPS

STRUCTURAL NOTES:

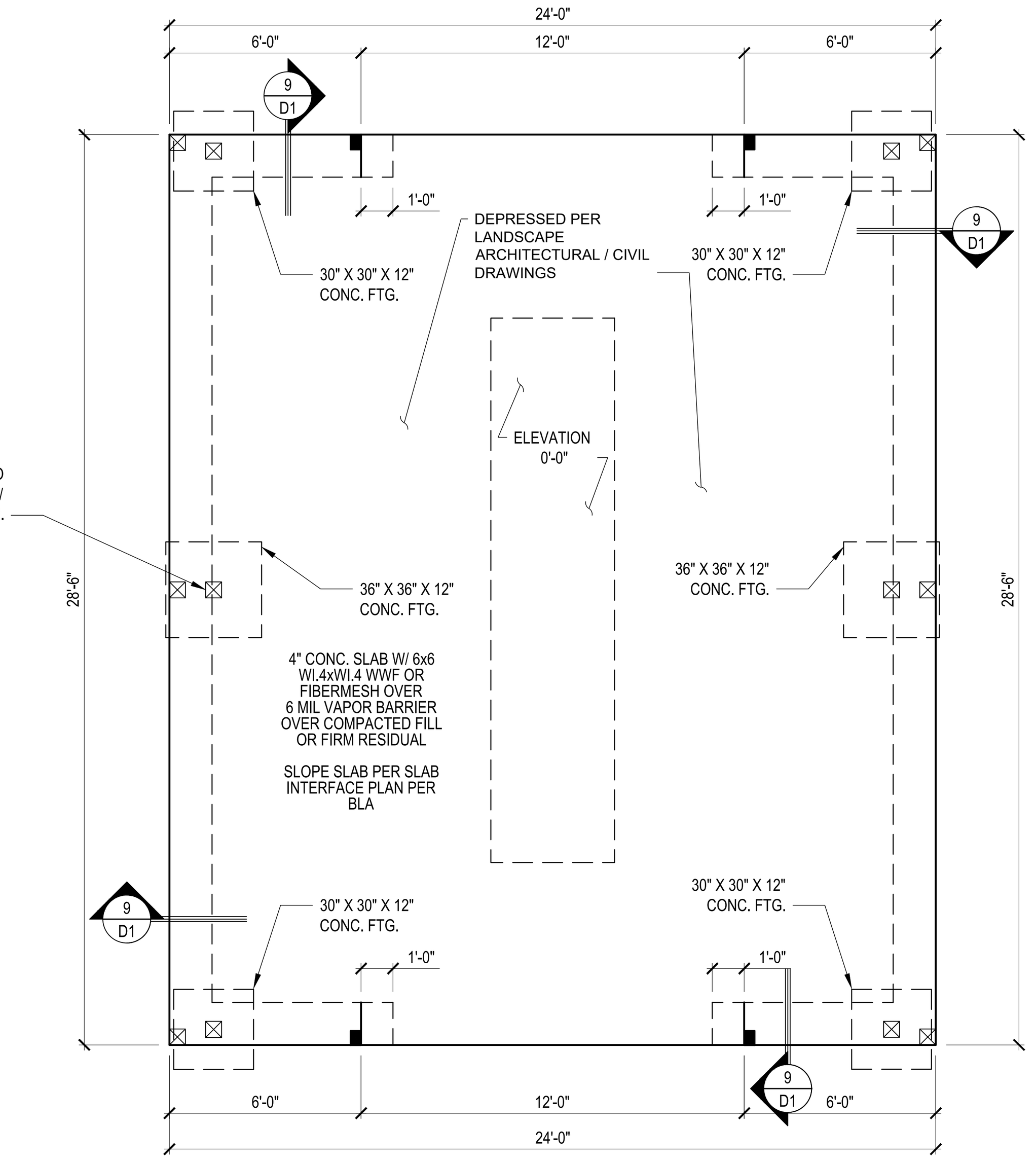
1) ALL CONSTRUCTION SHALL CONFORM TO THE LATEST REQUIREMENTS OF "NORTH CAROLINA STATE 2018 BUILDING CODE", IN ADDITION TO ALL LOCAL CODES AND REGULATIONS.
2) IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND SQUARE FOOTAGE PRIOR TO CONSTRUCTION. TYNDALL ENGINEERING & DESIGN, PA IS NOT RESPONSIBLE FOR DIMENSIONS AND SQUARE FOOTAGE ERRORS ONCE CONSTRUCTION BEGINS.
3) ALL LUMBER SHALL BE SYP #2 (UNO)
ALL LVL LUMBER TO BE 1.75" WIDE NOMINAL EACH SINGLE MEMBER AND Fb = 2600 PSI, E = 1.9M PSI
(I.E. iLEVEL MICROLAM)
ALL LSL LUMBER IS TO BE 1.55E (Fb = 2325 PSI)
4) ALL LOAD BEARING EXTERIOR WINDOW HEADERS ARE TO BE (3) 2x10 w/ (1) 2x6 JACK STUD (U.N.O.) AND KING STUDS PER KING STUD SCHEDULE, SECURED TOGETHER w/ (2) 10d NAILS @ 8" O.C.,
5) ALL INTERIOR LOAD BEARING HEADERS TO BE (3) 2x10 (U.N.O.) REFER TO TABLE 2308.4.1(2) FOR JACK STUD REQUIREMENTS FOR HEADER SPANS FOR INTERIOR AND EXTERIOR LOAD CONDITIONS (UNO)
6) ALL STRUCTURAL STEEL SHALL BE ASTM A992 GRADE 50
Fy = 50 KSI MIN. (UNO)
7) ALL EXTERIOR LUMBER TO BE #2 SYP PT
8) ALL CONCRETE, fc = 3000 PSI MIN.
9) PRESUMPTIVE BEARING CAPACITY = 2000 PSF
10) 1/2"Ø ANCHOR BOLTS SPACED AT MAXIMUM OF 6'-0" O.C. AND NOT MORE THAN 12" FROM THE CORNER. THERE SHALL BE A MINIMUM OF (2) BOLTS PER PLATE SECTION. ANCHOR BOLT SHALL EXTEND 7" INTO CONCRETE OR MASONRY.
11) PSL COLUMNS DESIGNED WITH MAX. HEIGHT OF 9'-0" (UNO)
12) PROVIDE A MINIMUM OF 500# UPLIFT & LATERAL CONNECTION AT TOP AND BOTTOM OF PORCH COLUMNS. (U.N.O.)
13) UPLIFT LOADS GREATER THAN 500# SHALL BE CONTINUOUSLY ANCHORED TO THE FOUNDATION.
14) METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.

NOTE:

ALL EXTERIOR HEADERS ARE TO BE (3)2 X 10 W/ (1)JACK STUD EACH END, UNLESS NOTED OTHERWISE

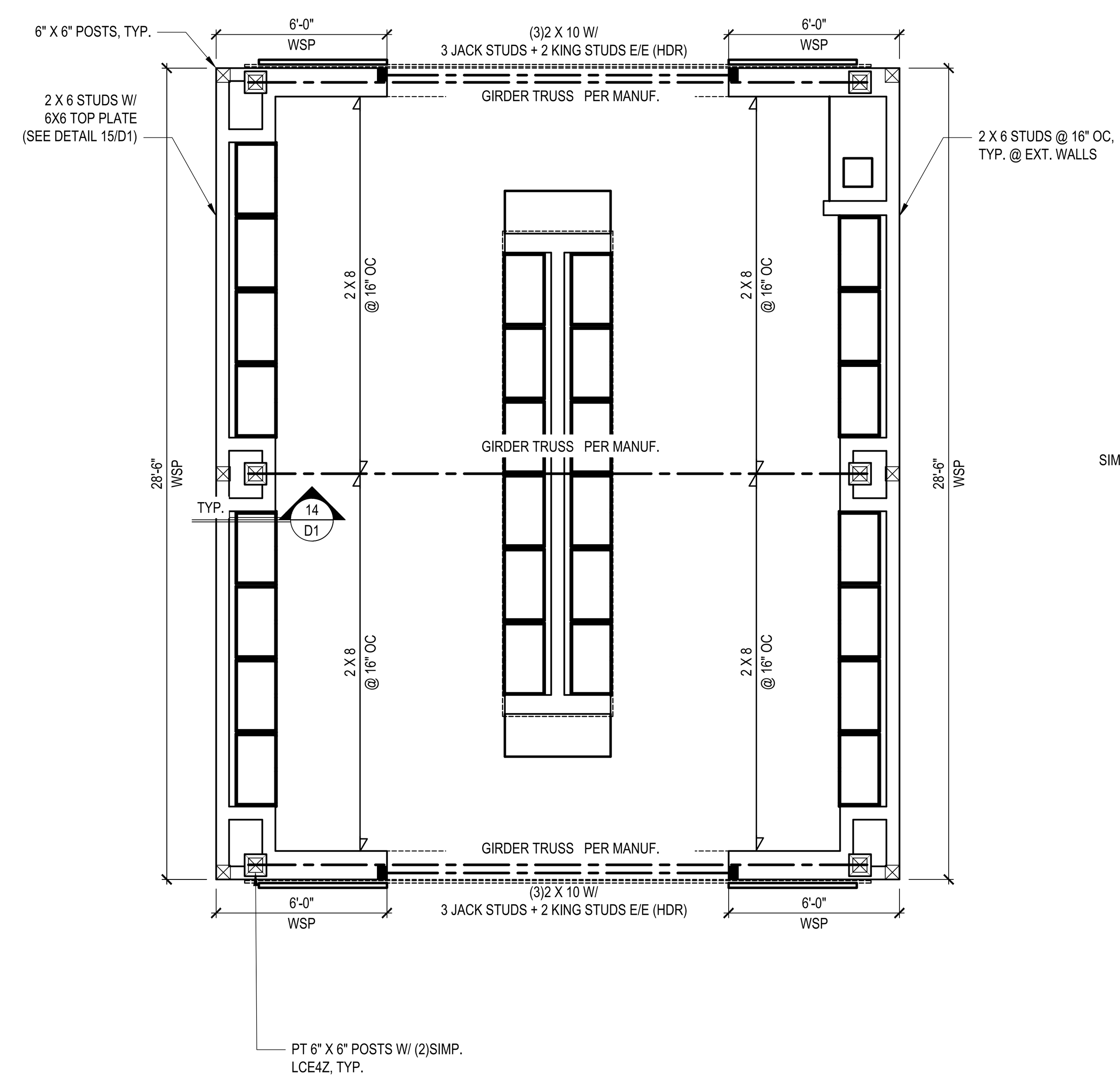
1. ALL EXTERIOR WALLS TO BE 2 X 6 SYP #2 STUDS SPACED @ 16" O.C., UNO.

TRUSS LOADING
TOP CHORD DL = 10 psf
TOP CHORD LL = 20 psf
BOTT CHORD DL = 10 psf
LIVE LOAD REDUCTION DUE TO AREA SUPPORTED BY COMPONENT IS NOT PERMITTED
LIVE LOAD REDUCTION DUE TO SLOPE OF ROOF TRUSS IS PERMITTED
WIND LOADS = 120 mph ZONE PER NC BUILDING CODE (TRUSSES TO BE DESIGNED FOR A LATERAL LOAD OF 200 PLF)



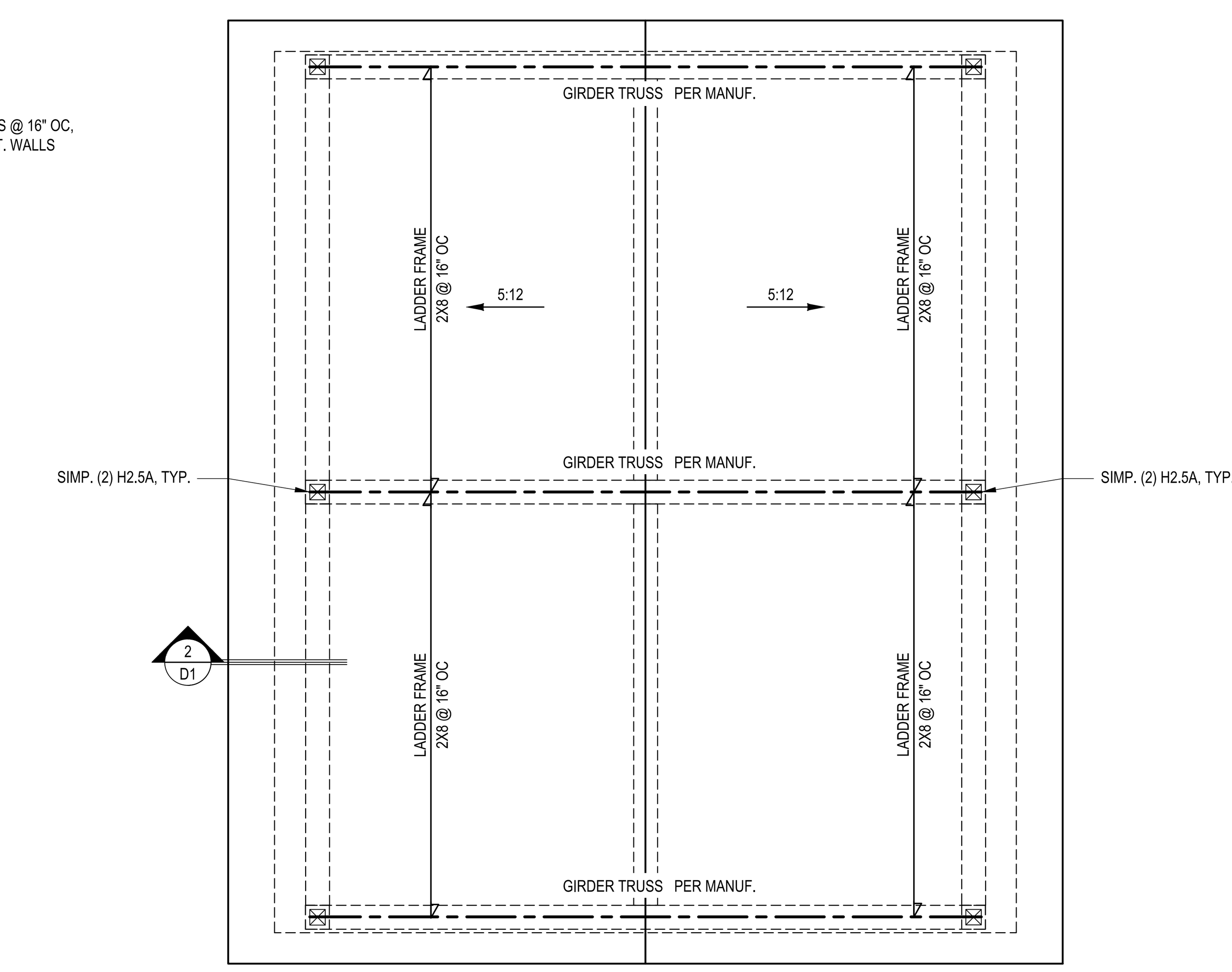
FOUNDATION PLAN

1/4" = 1'-0"



FIRST FLOOR PLAN

1/4" = 1'-0" PLT = 11'-1"



ROOF PLAN

1/4" = 1'-0"

MAIL BUILDING

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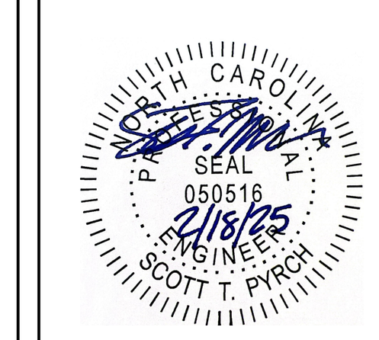

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250 Shipwash Drive ▪ Garner ▪ North Carolina ▪ 27529
www.tyndallengineering.com

Client: TRIPOINTE HOMES

Plan: ALTIS SERENITY AMENITY BUILDING REC BUILDING

FOUNDATION & ROOF PLAN FIRST FLOOR CLG FRAMING

Project #: 2401-010249

Date: 2/18/2025

Engineered By: VA

DWG. Checked By: PAT

Scale: SEE PLAN

REVISIONS		
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Sheet Number

S4

DESIGN LOADS

1. BUILDING CODES
a. NORTH CAROLINA BUILDING CODE 2018 EDITION
b. MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES, ASCE 7-16

2. ROOF DEAD LOAD	20 PSF
3. ROOF LIVE LOAD	20 PSF
4. ROOF SNOW LOAD	
a. FLAT-ROOF SNOW LOAD, Pf	15 PSF
b. SNOW EXPOSURE FACTOR, Ce	0.9
c. SNOW IMPORTANCE FACTOR, Is	1.0
d. THERMAL FACTOR, Ct	1.0
5. FLOOR DEAD LOAD	
a. TYPICAL FLOOR	15 PSF
6. FLOOR LIVE LOADS	
a. SLAB-ON-GRADE	100 PSF
7. WIND LOADS/DATA	
a. BASIC WIND SPEED (3 SECOND GUST)	120 MPH
b. RISK CATEGORY	II
c. EXPOSURE	B
d. INTERNAL PRESSURE COEFFICIENT, GCpi	+/-0.18
e. TOPOGRAPHY FACTOR, Kzt	1.00
f. APPLIED DIRECTIONALITY FACTOR, Kd	0.85
g. WIND BASE SHEAR	
Wx	10.0 KIPS
Wy	6.9 KIPS
8. SEISMIC LOADS/DATA	
a. ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE
b. SITE CLASS	D
c. SEISMIC IMPORTANCE FACTOR Ie	1.0
f. SITE COEFFICIENT, Fa	1.6
g. SITE COEFFICIENT, Fv	2.4
h. SPECTRAL RESPONSE COEFFICIENT, Sds	0.145
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BASIC STRUCTURAL SYSTEM	LIGHT FRAMED WOOD WALL W/ WOOD STRUCTURAL PANELS
j. RESPONSE MODIFICATION FACTOR, R	6.5
k. SEISMIC RESPONSE COEFFICIENT, Cs	0.022
l. SEISMIC BASE SHEARS	
Sx	0.44 KIPS
Sy	0.44 KIPS

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14) METAL HANGERS SHALL BE SIMPSON OR APPROVED EQUAL.

KING STUD SCHEDULE

	MIN. # OF FULL HEIGHT STUDS (KING) E.E. OF OPENING PER WALL DEPTH	
HEADER SPAN (FT)	2 X 4 STUD WALL	2 X 6 STUD WALL
UP TO 3'-0"	1	1
3'-1" TO 6'-0"	2	1
6'-1" TO 9'-0"	3	2
9'-1" TO 12'-0"	4	2
12'-1" TO 15'-0"	5	3
15'-1" TO 18'-0"	6	3

NOTES*:
a. TABLE DENOTES REQUIRED MINIMUM NUMBER OF STUDS EE OF HEADER, TYP UNO ON PLANS
b. NUMBER OF KING STUDS LISTED ABOVE ARE BASED 10' NOMINAL WALL HEIGHT, STUD SPACING OF 16" O.C., AND ULTIMATE WIND SPEED OF 120 MPH (EXPOSURE B)
c. HEADER SPANS IN TABLE ARE BASED ON ROUGH OPENINGS. INTERPOLATION BETWEEN SPAN VALUES IS PERMITTED, ROUND UP NUMBER OF KING STUDS, EXTRAPOLATION IS PROHIBITED. CONTACT TYNDALL ENGINEERING AND DESIGN IF HEADER SPANS EXCEED TABLE VALUES

580 SQ. FT. OF ATTIC / 300 = 1.94 SQ. FT. INLETS/OUTLETS REQUIRED

1) CALCULATION BASED ON VENTILATORS USED AT LEAST 3'-0" ABOVE THE COMICE VENTS WITH THE BALANCE OF VENTILATION PROVIDED BY EAVE VENTS.
2) CATHEDRAL CEILINGS SHALL HAVE A 1" MINIMUM CLEARANCE BETWEEN THE BOTTOM OF THE ROOF DECK AND THE INSULATION.

* ATTIC VENTILATION CALCULATION
NO SCALE

NOTE:
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LIVE LOAD REDUCTION DUE TO SLOPE OF ROOF TRUSS IS PERMITTED
WIND LOADS = 120 mph ZONE PER NC BUILDING CODE
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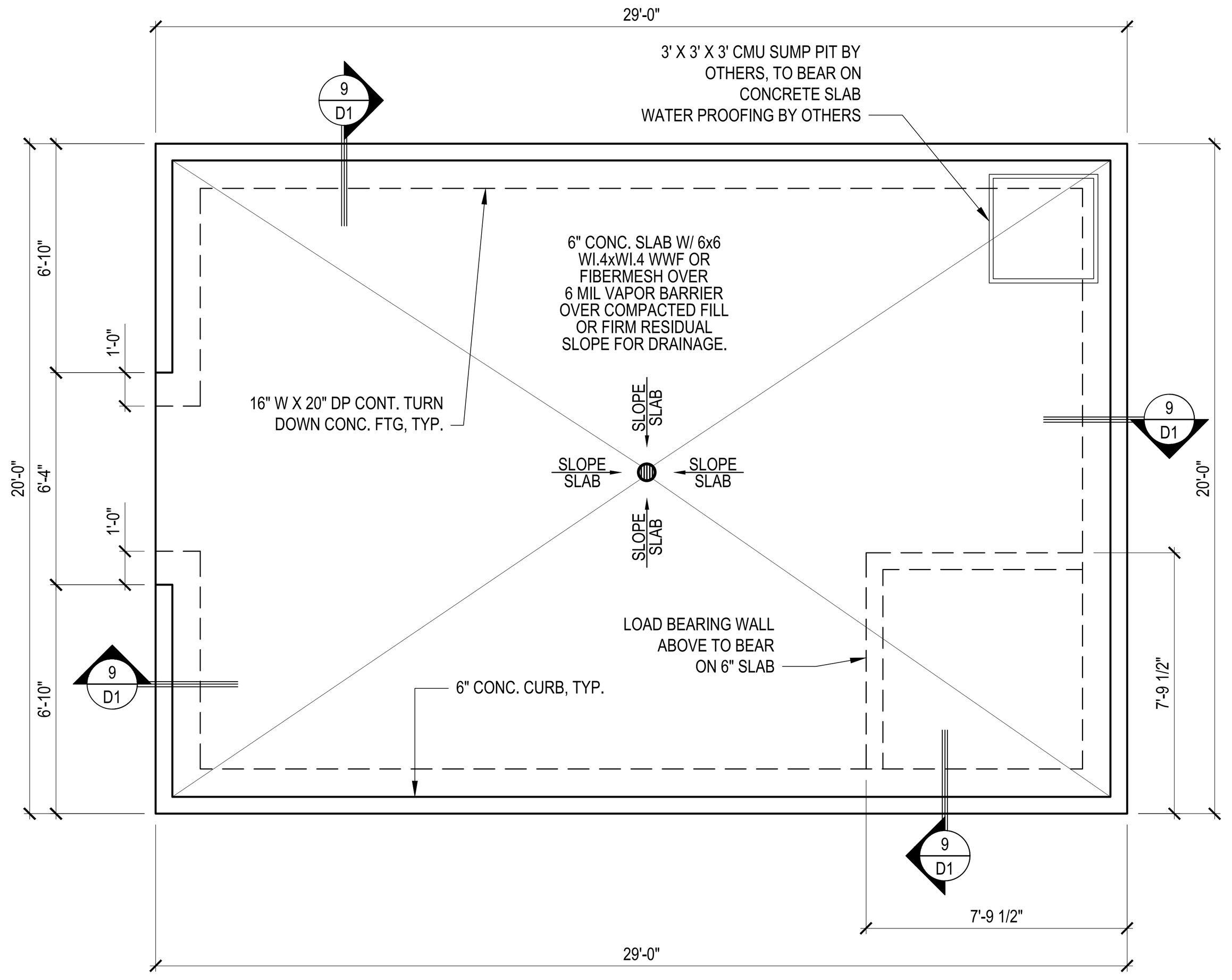
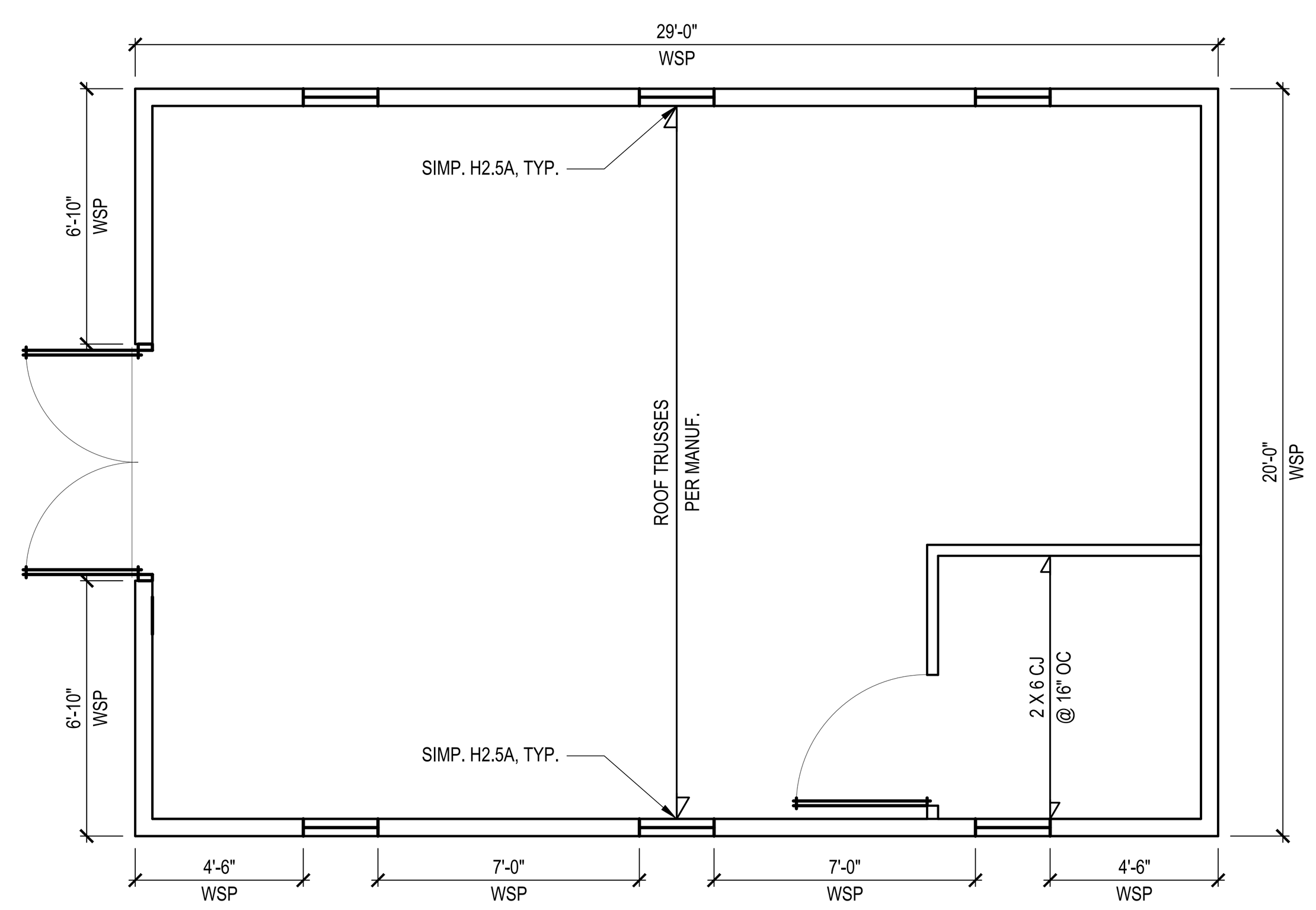
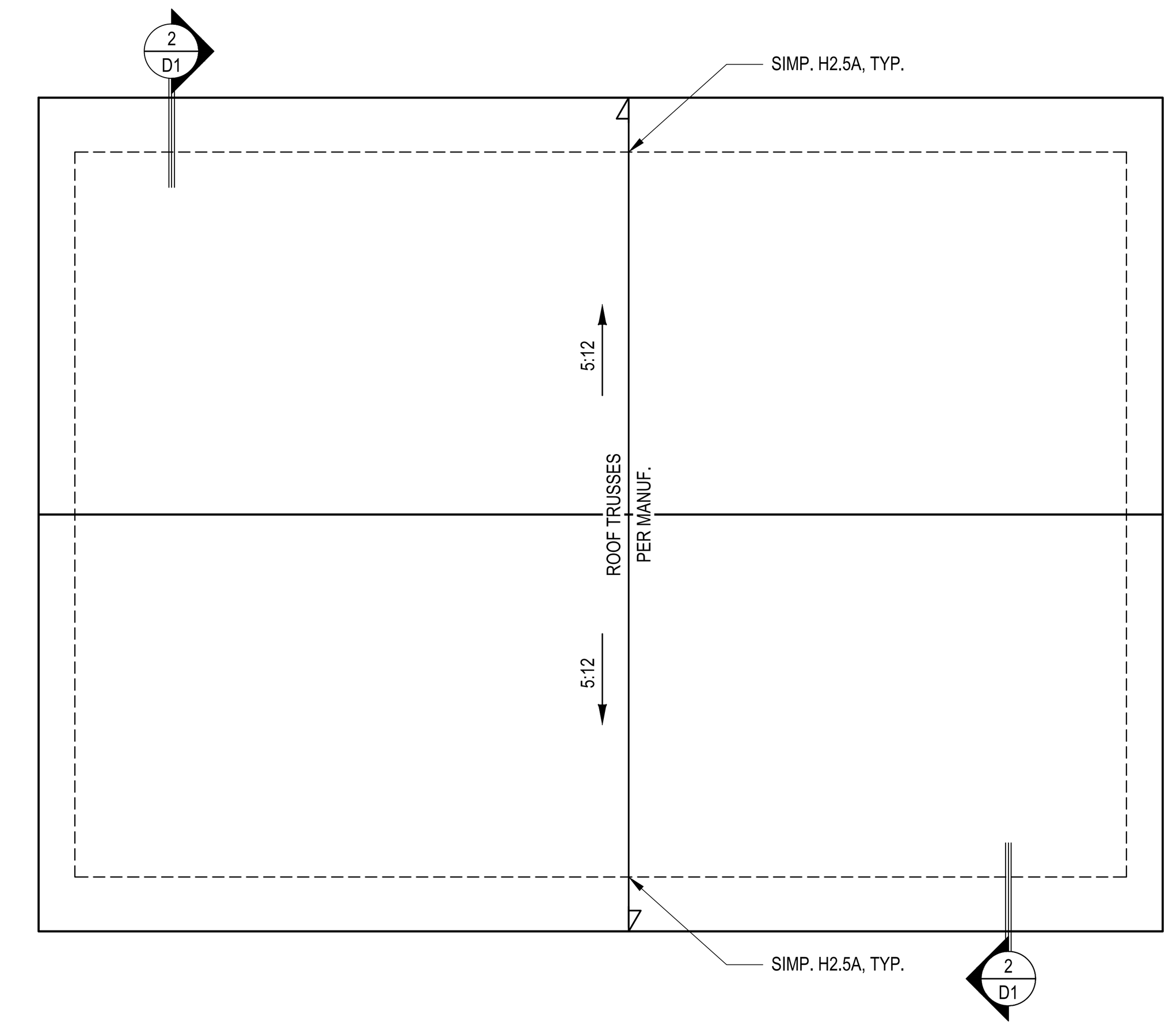


FOUNDATION PLAN
1/4" = 1'-0"



FIRST FLOOR PLAN
1/4" = 1'-0" PLT = 10'-1"



ROOF PLAN
1/4" = 1'-0"

POOL EQUIPMENT BUILDING

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NORTH CAROLINA PROFESSIONAL SEAL 050516 ENGINEER SCOTT T. PYRCH 2/18/25

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Client: TRIPOINTE HOMES

Plan: ALTIS SERENITY AMENITY BUILDING REC BUILDING

FOUNDATION & ROOF PLAN
FIRST FLOOR CLG FRAMING

Project #:	2401-010249
Date:	2/18/2025
Engineered By:	VA
DWG. Checked By:	PAT
Scale:	SEE PLAN

REVISIONS

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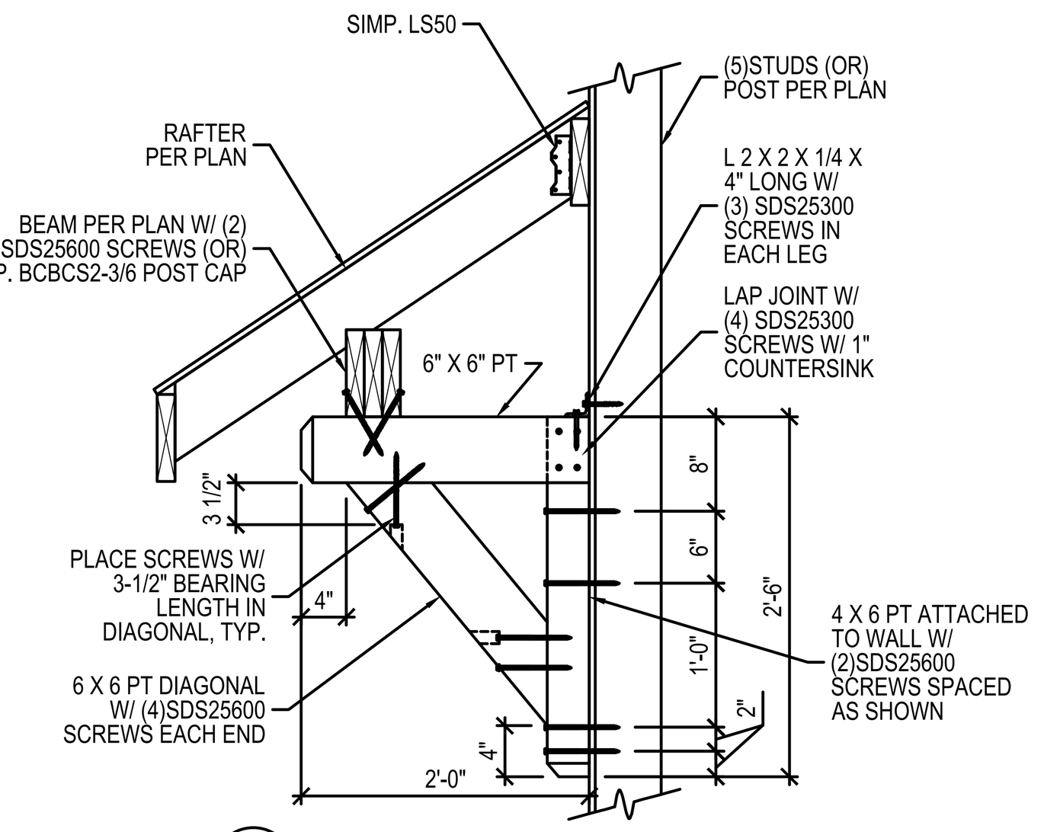
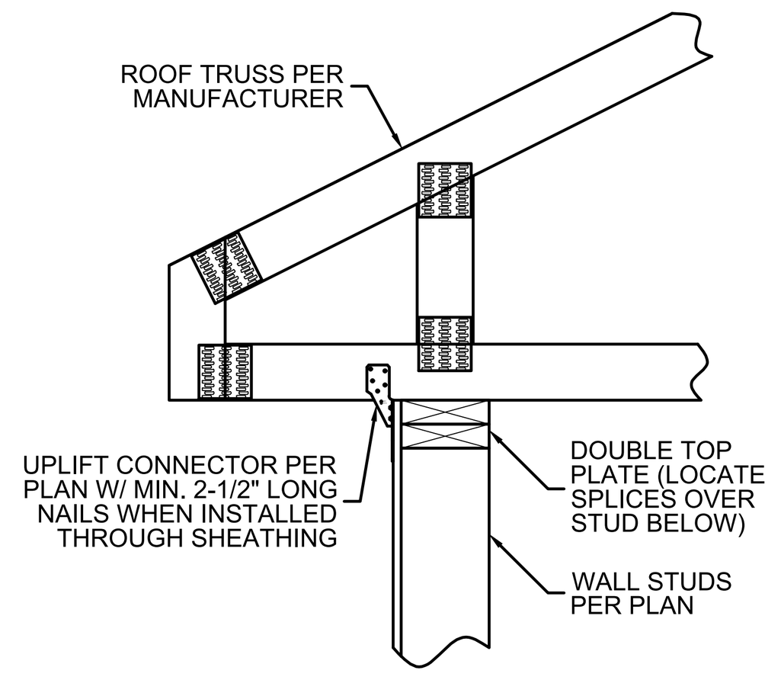
Sheet Number

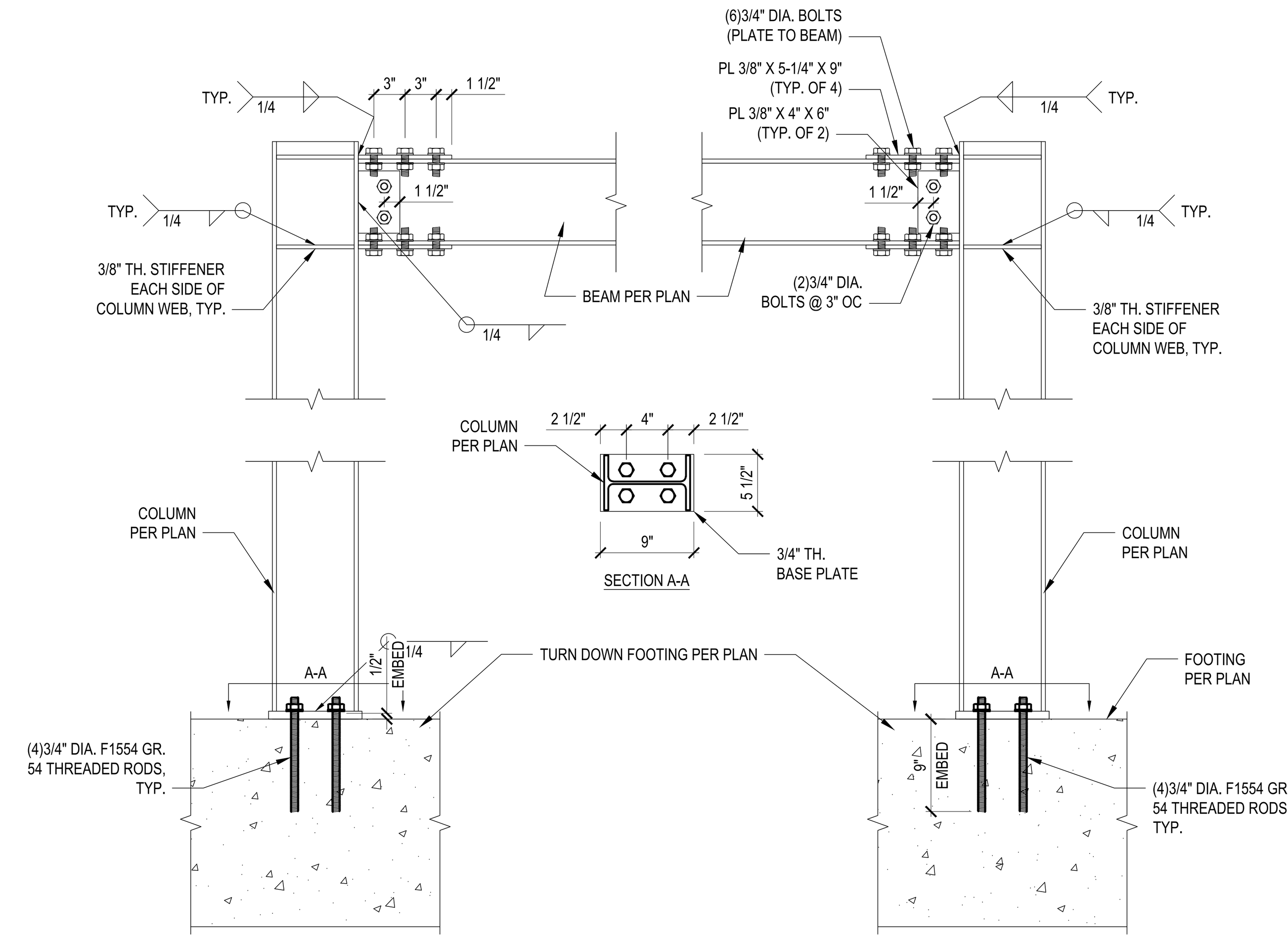
S5



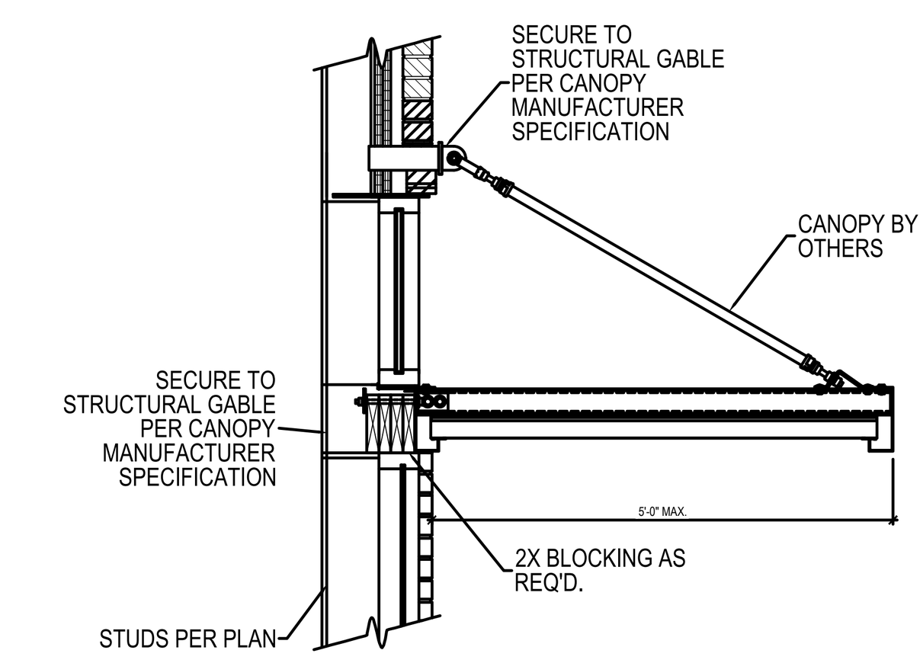
1 CANTILEVERED ROOF BRACKET
SCALE: 3/4" = 1'-0"



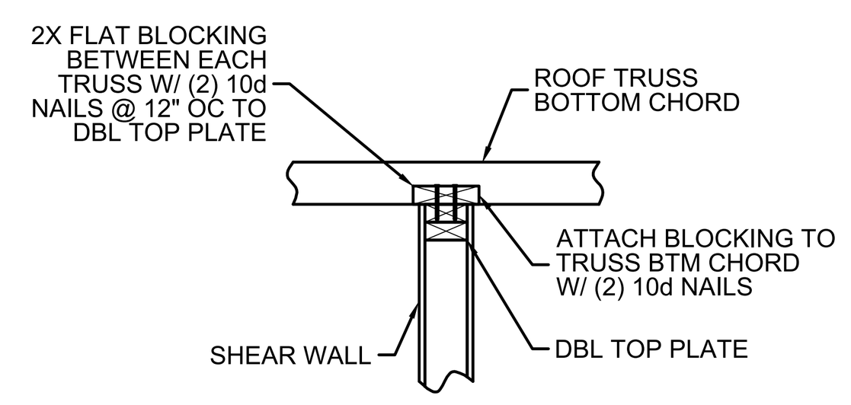
2 ROOF TRUSS BEARING
SCALE: 1" = 1'-0"



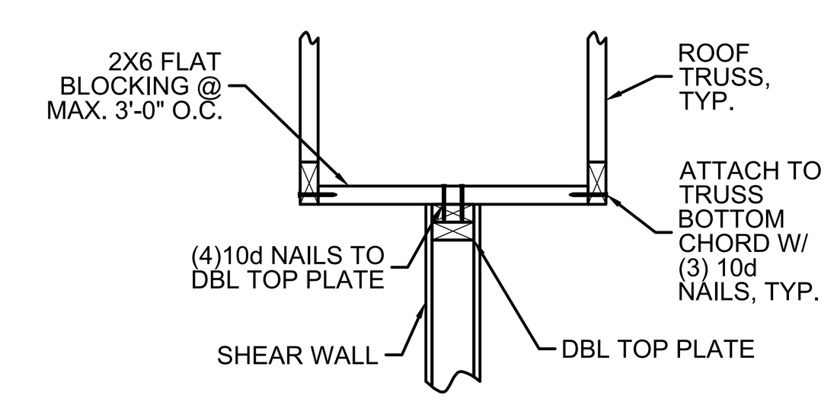
3 STEEL MOMENT FRAME DETAIL
SCALE: 1" = 1'-0"



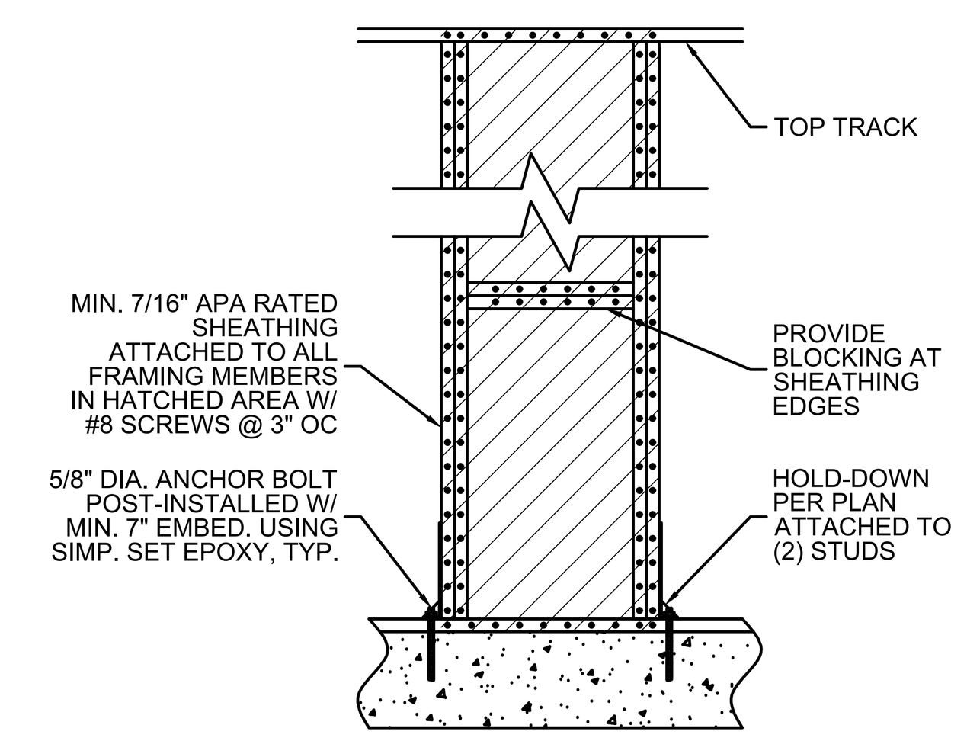
4 CANOPY SUPPORT FRAMING
SCALE: 1/2" = 1'-0"



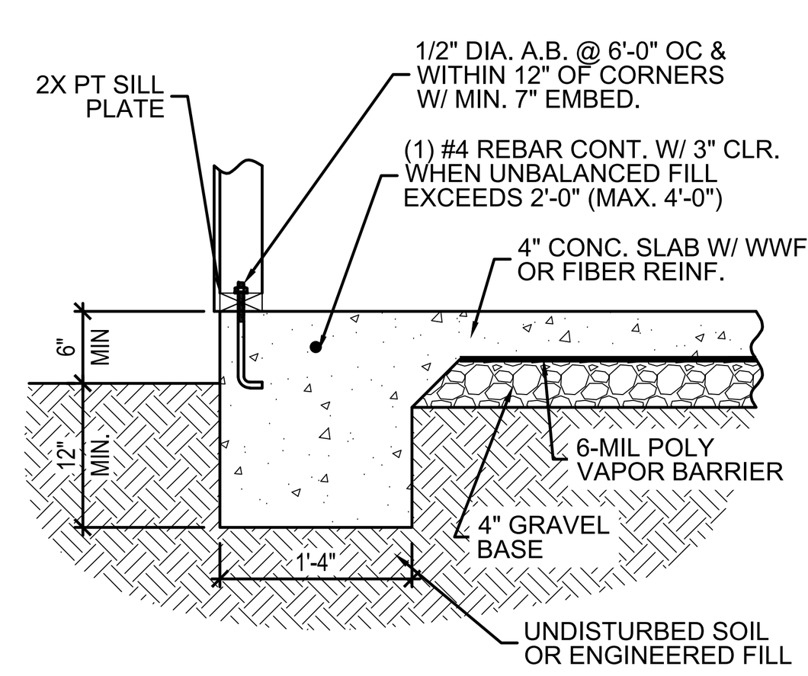
6 SHEAR WALL ATTACHMENT
TRUSSES PERPENDICULAR
SCALE: 3/4" = 1'-0"



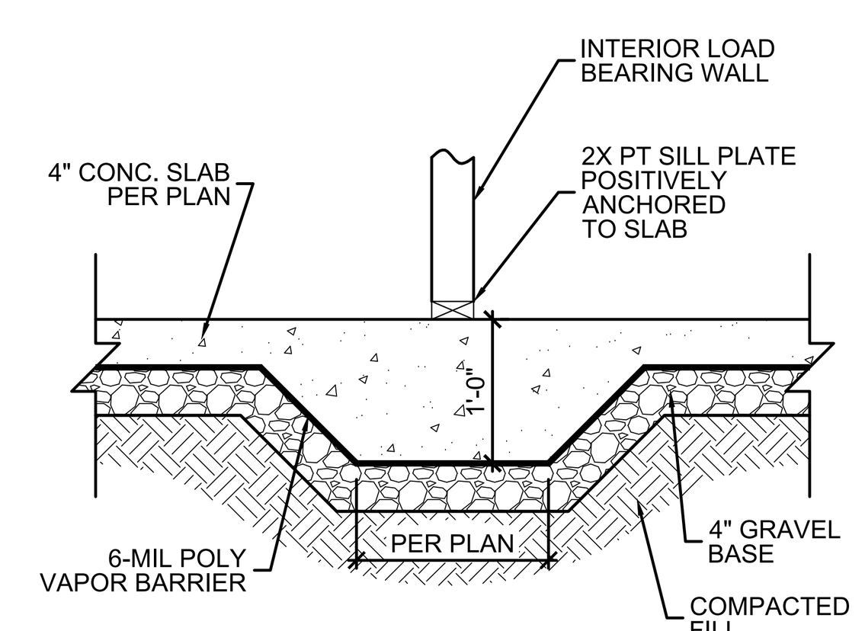
7 SHEAR WALL ATTACHMENT
TRUSSES PARALLEL
SCALE: 3/4" = 1'-0"



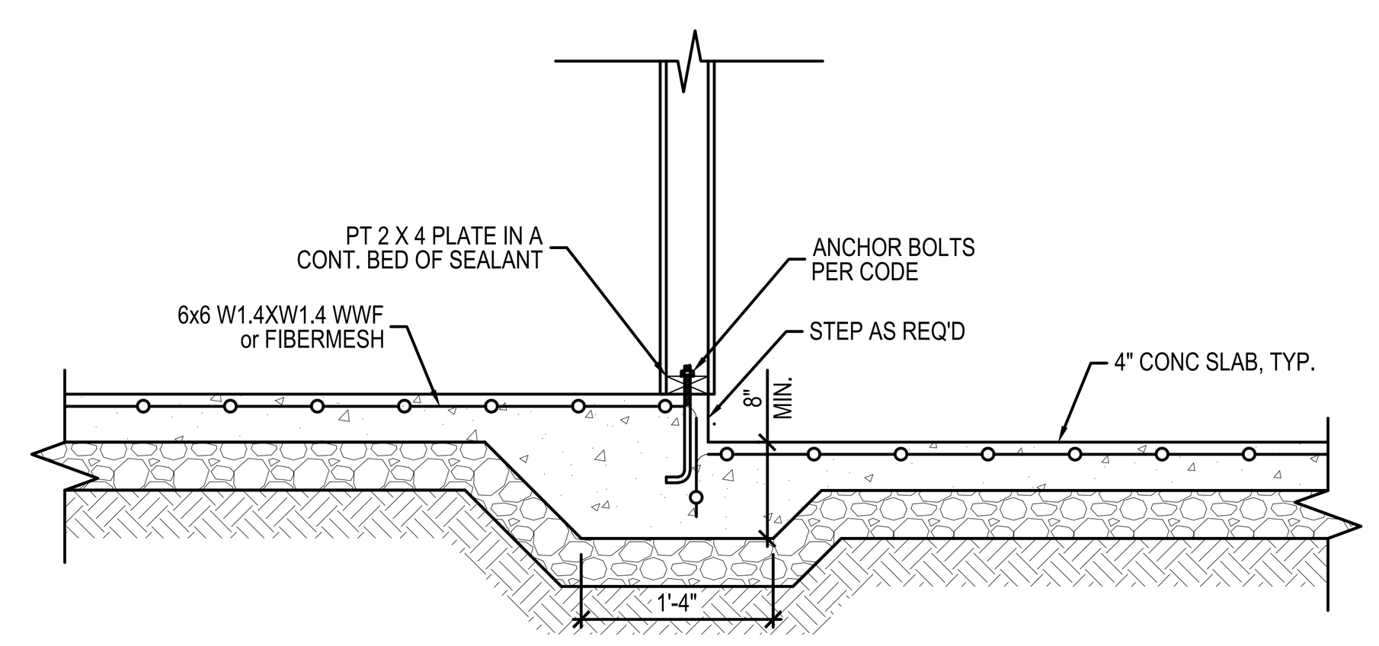
8 SHEAR WALL
SCALE: 1/2" = 1'-0"



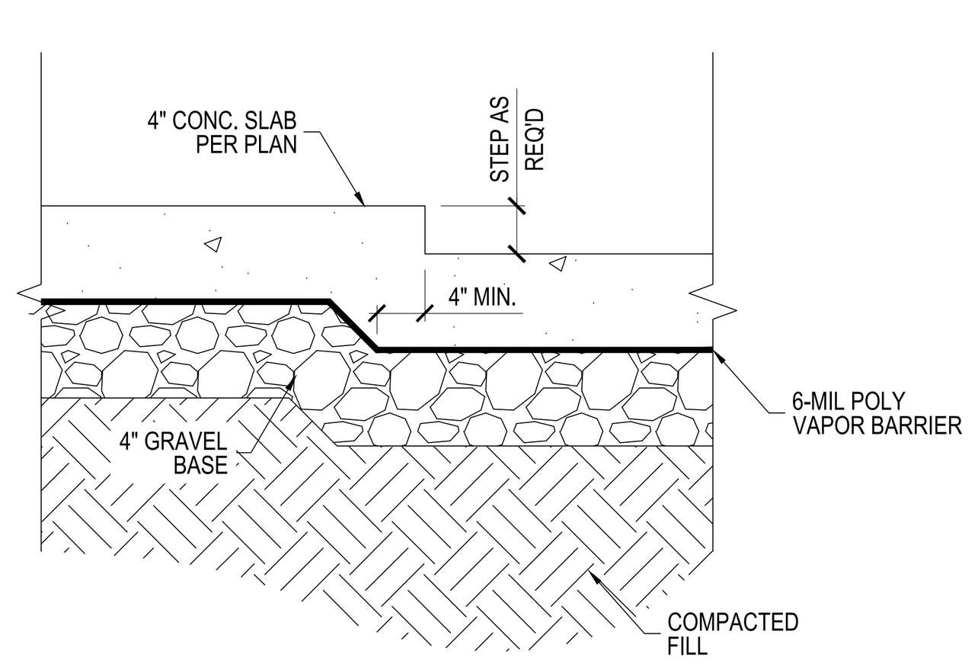
9 MONOLITHIC SLAB FOUNDATION
SCALE: 3/4" = 1'-0"



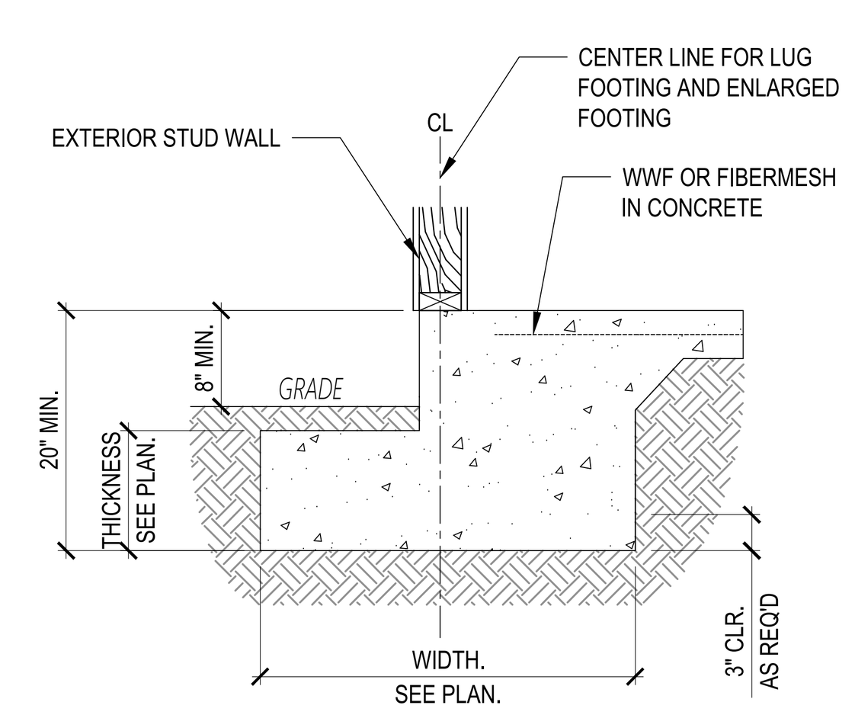
10 THICKENED SLAB FOOTING
SCALE: 3/4" = 1'-0"



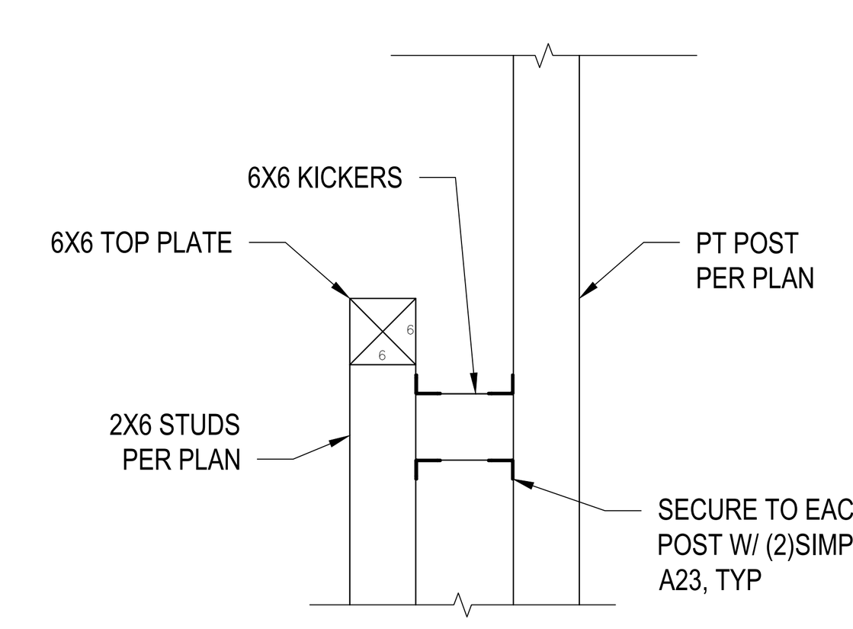
11 LUG FOOTING @ ELEVATION CHANGE
SCALE: 3/4" = 1'-0"



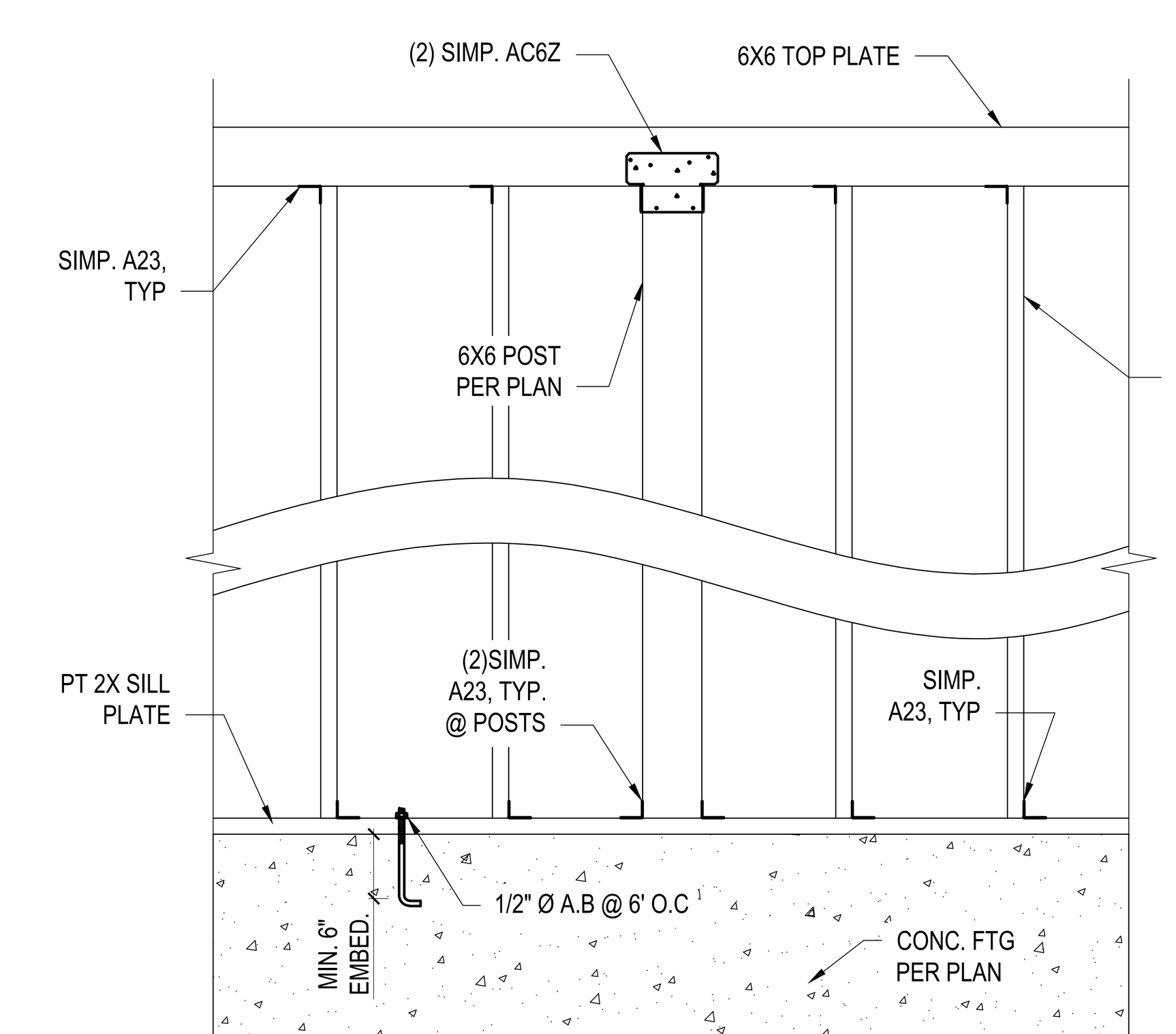
12 SLAB STEP DETAIL
SCALE: 1-1/2" = 1'-0"



13 ENLARGED FOOTING @ EXTERIOR TURN DOWN SLAB
SCALE: 3/4" = 1'-0"



14 WALL FRAMING TIE BACK DETAIL
SCALE: 3/4" = 1'-0"



15 MAIL ROOM WALL FRAMING DETAIL
SCALE: 3/4" = 1'-0"

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Client: TRIPOINTE HOMES

Plan: ALTIS SERENITY AMENITY BUILDING REC BUILDING

STANDARD DETAILS

Project #: 2401-010249
Date: 2/18/2025
Engineered By: VA
DWG. Checked By: PAT
Scale: SEE PLAN

REVISIONS		
No.	Date:	Remarks
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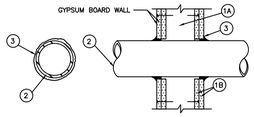
8 of 8

FILENAME: \\192.168.1.15\DATA\RALEIGH OFFICE\RESIDENTIAL ENGINEERING\2024 STRUCTURAL PROJECTS\2401-010249 - TRIPOINTE HOMES - ALTIS SERENITY CLUBHOUSE\2401-010249\CAD_FILES\2401-010249_FULLSET_E.DWG SAVED BY: VANESSA LAST PLOT DATE:2/18/2025 5:26 PM

GENERAL NOTES AND REQUIREMENTS.

1. WORKMANSHIP SHALL CONFORM TO NECA PUBLICATION "STANDARDS OF INSTALLATION".
2. INSTALLATION SHALL COMPLY WITH NATIONAL ELECTRICAL CODE, STATE BUILDING CODE, AND ALL REQUIREMENTS OF THE LOCAL INSPECTOR (FURNISH INSPECTION CERTIFICATE). ALL WORK SHALL BE BY LICENSED ELECTRICAL CONTRACTOR.
3. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS. DO NOT SCALE THESE DRAWINGS.
4. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ANY AND ALL WORK WITH OTHER TRADES INVOLVED IN THE PROJECT, PRIOR TO INSTALLATION OF ELEC. EQUIPMENT, SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND TO ALLOW FOR OPTIMUM MAINTENANCE AND WORKING SPACE.
5. ALL BRANCH CIRCUITS SHALL BE IN ZINC-COATED EMT, OR RIGID CONDUIT AS PERMITTED OR REQUIRED BY THE NATIONAL ELECTRICAL CODE. TYPE MC CABLE MAY BE USED AS PERMITTED BY THE NATIONAL ELECTRICAL CODE. SCHEDULE 40 PVC CONDUIT MAY BE USED ONLY FOR THE SECONDARY UNDERGROUND SERVICE, THE UNDERGROUND TELEPHONE SERVICE CONDUIT, AND BRANCH TELEPHONE SYSTEM CONDUITS LOCATED BELOW THE FLOOR SLAB ON GRADE OR BURIED ON THE EXTERIOR OF THE BUILDING, OR IN CONCRETE BLOCK WALLS. ALL CONDUIT SHALL BE A 1/2" MINIMUM SIZE. EMT FITTINGS SHALL BE STEEL COMPRESSION TYPE.
6. PROVIDE 4"WIDE PLASTIC TAPE, MAGNETIC DETECTABLE TYPE, COLORED RED WITH SUITABLE WARNING LEGEND DESCRIBING BURIED ELECTRICAL LINES OR ORANGE DESCRIBING BURIED TELEPHONE LINES.
7. ALL CONDUCTORS SHALL BE COPPER TYPE THHN, OR XHHW, SOLID FOR #10 AWG OR #12 AWG, AND STRANDED FOR ALL LARGER SIZES.
8. ALL WIRING SHALL BE CONCEALED IN WALLS, UNDER SLAB, OR ABOVE SUSPENDED CEILING SPACE.
9. ALL WIRE AND CONDUIT SIZES ARE BASED ON 75°C THHN WIRE UNLESS OTHERWISE NOTED.
10. CONDUITS MAY BE RUN EXPOSED IN MECHANICAL AREAS. CONDUITS SHALL BE RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS AND SHALL BE RUN IN GROUPS. SEAL ALL PENETRATIONS TIGHT AROUND ALL CONDUITS WHEN PASSING INTO MECHANICAL ROOMS.
11. ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING SYSTEM.
12. WHERE FIRST OUTLET ON BRANCH CIRCUIT IS GREATER THAN FIFTY (50) FEET FROM THE PANELBOARD, USE #10 AWG MINIMUM TO THE FIRST OUTLET.
13. ALL MOUNTING HEIGHTS ARE GIVEN TO THE CENTERLINE OF THE DEVICE UNLESS OTHERWISE NOTED. RECEPTACLES, DATA AND TELEPHONE OUTLET TO BE MOUNTED 18"AFF UNLESS OTHERWISE NOTED. LIGHT SWITCHES TO BE MOUNTED 48"AFF UNLESS OTHERWISE NOTED.
14. THE LOCATION OF ALL WALL MOUNTED DEVICES, INCLUDING MOUNTING HEIGHTS, SHALL BE FIELD VERIFIED WITH THE ARCHITECT PRIOR TO INSTALLATION.
15. ALL FUSES, DISCONNECT SWITCHES, AND BREAKER SIZES, SHOWN FOR MECHANICAL EQUIPMENT, SHALL BE VERIFIED BEFORE THE PURCHASE OR INSTALLATION OF SAID EQUIPMENT, WITH THE EQUIPMENT SUPPLIER AND THE MECHANICAL CONTRACTOR.
16. ALL DISCONNECT SWITCHES ARE TO BE FUSIBLE TYPE. FUSE IN ACCORDANCE WITH THE NAMEPLATE DATA WITH DUAL ELEMENT TYPE FUSES BY BUSSMAN OR EQUAL.
17. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY DISCONNECTS, SWITCHES, AND RECEPTACLES UNDER THE ELECTRICAL BID AND SHALL INCLUDE ALL NECESSARY CIRCUITS TO AND FINAL CONNECTIONS TO THE EQUIPMENT PROVIDED BY ALL SUPPLIERS, UNLESS NOTED OTHERWISE BY OTHER DISCIPLINES. COORDINATE CLOSELY.
18. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED SO THAT ALL CODE-REQUIRED AND MANUFACTURER-RECOMMENDED SERVICING CLEARANCES ARE MAINTAINED. INSTALLATIONS SHALL FULLY COMPLY WITH NEC 110-26 FOR CLEARANCE REQUIREMENTS.
19. COORDINATE LOCATIONS OF ALL LIGHT FIXTURES WITH THE REFLECTED CEILING PLANS. LIGHT FIXTURES INSTALLED IN MECHANICAL AREAS SHALL AVOID MECHANICAL PIPING, EQUIPMENT, DUCTWORK, ETC.
20. GROUND SHALL BE PER N.E.C. PROVIDE SEPARATE GROUNDING CONDUCTOR FOR ALL CIRCUITS. PROVIDE DRIVEN AND COLD WATER GROUND FOR MAIN SERVICE.
21. GROUND TELEPHONE EQUIPMENT PER NEC.
22. THE ELECTRICAL CONTRACTOR SHALL PATCH ANY WALL, CEILING, OR FLOOR OPENING AND PENETRATIONS RESULTING FROM DEMOLITION OR NEW WORK IN EXISTING AREAS.
23. ALL WIRING SHALL BE CONCEALED IN METALLIC CONDUIT.
24. COMBINE HOMERUNS IN CONDUIT AS DESIRED (3 ON 3-PHASE, 2 ON SINGLE PHASE). DO NOT OVERLOAD NEUTRALS.
25. ALL CIRCUITS SHALL BE TESTED WITH 500 VOLT TESTER PRIOR TO ENERGIZING.
26. ALL WALL OUTLET BOXES SHALL BE STEEL CITY OR RACO
27. RECEPTACLES, SWITCHES, COVERPLATES, ETC. SHALL BE HUBBELL, LEVITON, OR LEGRAND EXCEPT AS SPECIFIED. COLOR SPECIFIED BY ARCHITECT, VERIFY COLOR PRIOR TO PURCHASE.
28. PROVIDE PULL WIRE IN ALL EMPTY CONDUIT.
29. CONDUIT SHALL BE LABELED EVERY TEN FEET.
30. ALL RECEPTACLE AND SWITCH PLATES SHALL BE LEGIBLY MARKED WITH LABEL MARKER TO CLEARLY INDICATE PANELBOARD ORIGIN AND CIRCUIT NUMBER. VERIFY IF LABEL SHOULD BE ON THE INSIDE OR OUTSIDE FACE OF COVERPLATE WITH OWNER/TENANT.
31. PROVIDE PHENOLIC LABELS ON ALL MAJOR EQUIPMENT INCLUDING SWITCHBOARDS, MOTOR CONTROL CENTERS, PANELBOARDS, INDIVIDUAL STARTERS, SAFETY SWITCHES, AND TRANSFORMERS. PROVIDE ENGRAVED THREE-LAYER LAMINATED PLASTIC, WHITE LETTERS ON BLACK BACKGROUND.
32. ALL CIRCUIT BREAKERS IN PANEL SHALL BE SERIES RATED WITH MAIN BREAKER OR FULLY RATED FOR THE SYSTEM.
33. CONTRACTOR SHALL PROVIDE ENGINEER A MINIMUM OF 3 COPIES OF SHOP DRAWINGS FOR LIGHTS, SWITCHGEAR, PANELS, ETC.
34. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE W/ ALL OTHER TRADES REGARDING VOLTAGES, LOADS, CIRCUIT BREAKERS, ETC. PRIOR TO BEGINNING ANY WORK.
35. AS USED ON THESE DOCUMENTS, THE WORD "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL THE ITEM OR EQUIPMENT AND MAKE THE FINAL CONNECTION AS REQUIRED.
36. PANELS SHALL BE BY SQUARE "D", G.E. AND SIEMENS. PANELS SHALL BE SQUARE "D" TYPE NQOD OR "I-LINE" AS REQUIRED.
37. FOR NEW OR MODIFIED SERVICES, PRIOR TO ENERGIZATION AND AFTER UTILITY FAULT CURRENT CONFIRMATION AT THE DELIVERY POINT, PROVIDE PLAQUE AT SERVICE EQUIPMENT STATING MAXIMUM AVAILABLE FAULT CURRENT AND DATE OF CALCULATION PER NEC 110.24.
38. OPERABLE DEVICES SHALL BE ACCESSIBLE IN COMPLIANCE WITH ANSI A117.1, SECTION 309, OPERABLE PARTS. WHERE GFI RECEPTACLES ARE NOT ACCESSIBLE, PROVIDE GFI BREAKER.
39. RECESSED LIGHTING FIXTURES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE IC RATED AND LABELED AS MEETING ASTM E283. OR SHALL BE TENTED TO REMOVE THEM FROM THE THERMAL ENVELOPE
40. BRANCH CIRCUITS SERVING EXIT & EMERGENCY FIXTURES SHALL BE CLEARLY LABELED ON THE PANELBOARD DIRECTORY PER NEC 110.22(A), 408.4 & 700.12(I).
41. UPON PROJECT COMPLETION, THE EC SHALL PROVIDE TYPED CIRCUIT DIRECTORIES FOR ALL NEW AND ALTERED PANELBOARDS WITH CIRCUIT DESIGNATIONS COMPLYING WITH THE REQUIREMENTS OF NEC 408.4(A).
42. ALL EXIT AND EMERGENCY LIGHTING SHALL BE FED FROM LOCAL BRANCH CIRCUIT, UNSWITCHED AND HAVE A MINIMUM OF 90 MINUTE BATTERY BACKUP PER NEC 700.12(I)(2).
43. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES AND EQUIPMENT SHALL BE LABELED AND LISTED BY A THIRD PARTY AGENCY. THE THIRD PARTY AGENCY SHALL BE AMONG THOSE ACCEPTABLE TO THE NC BUILDING CODE COUNCIL TO LABEL ELECTRICAL AND MECHANICAL EQUIPMENT.



U.L. #WL1001

1. Wall Assembly - The 1,2,3, or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs - Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plateds and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.

B. Wallboard,Gypsum* - Nom 1/2 or 5/8 in. thick, 4ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 13-1/2 in.

2. Pipe or Conduit - Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe, nom 12 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) Class 50 (or heavier) ductile iron pressure pipe, nom 6 in. diam (or smaller) steel conduit, nom 4 in. diam (or smaller) steel electrical metallic tubing or Type L or (or heavier) copper tubing or nom 1 in. (or smaller) flexible steel conduit. When copper pipe or flexible steel conduit is used, max F Rating of firestop system (Item 3) is 2h. Steel pipes or conduits larger than nom 4 in. diam may only be used in wall constructed using steel channel studs. A max of one pipe or conduit is permitted in the firestop system. Pipe or conduit to be installed near center of stud cavity width and to be rigidly supported on both sides of wall assembly.

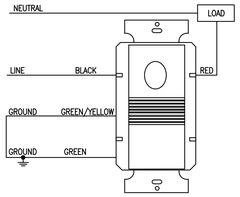
3. Fill, Void or Cavity Material* - Caulk - Caulk fill material installed to completely fill annular space between pipe or conduit and gypsum wallboard and with a min 1/4 in. diam bead of caulk applied to perimeter of pipe or conduit at its egress from the wall. Caulk installed symmetrically on both sides of wall assembly. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam, In	Annular Space, In	F Rating, Hr	T Rating, Hr
1	0 to 3/16	1 or 2	0+, 1 or 2
1	1/4 to 1/2	3 or 4	3 or 4
4	0 to 1/4	1 or 2	0
4	0 to 1-1/2#	1 or 2	0
6	1/4 to 1/2	3 or 4	0
12	3/16 to 3/8	1 or 2	0

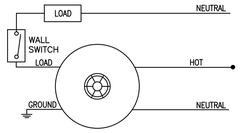
\+ When copper pipe is used, T Rating is 0 h
\# 0 to 1-1/2 in. annular space applies only when Type CP-25 WB+ caulk is used.

Minnesota Mining & Mfg. Co. - Types CP-25 S/L, CP-25 N/S, CP-25 WB, CP-25 WB+. (NOTE: L Rating apply only when Type CP-25 WB+ caulk is used). *Bearing the UL Classification Marking

5 / E1.1 RATED WALL PENETRATION DETAIL
SCALE: NTS



4 / E1.1 OCC. SENSOR SWITCH WIRING DIAGRAM (TYP.)
SCALE: NTS



3 / E1.1 OCC. SENSOR SWITCH WIRING DIAGRAM (TYP.)
SCALE: NTS

ELECTRICAL SYSTEM AND EQUIPMENT (SECTION C405)

METHOD OF COMPLIANCE SECTION C405.1 ■

LIGHTING SCHEDULE
LAMP TYPE REQUIRED IN FIXTURE
NUMBER OF LAMPS IN FIXTURE
BALLAST TYPE USED IN FIXTURE
NUMBER OF BALLASTS IN FIXTURE
TOTAL WATTAGE PER FIXTURE
→ SEE LIGHTING FIXTURE SCHEDULE
TOTAL INTERIOR WATTAGE SPECIFIED VS ALLOWED: 6.6KW VS 7.6KW
TOTAL EXTERIOR WATTAGE SPECIFIED VS ALLOWED: 2KW VS 2.6KW

ADDITIONAL EFFICIENCY PACKAGE OPTIONS
☐ C406.2 MORE EFFICIENT HVAC EQUIPMENT PERFORMANCE
■ C406.3 REDUCED LIGHTING POWER DENSITY
☐ C406.4 ENHANCED DIGITAL LIGHTING CONTROLS
☐ C406.5 ON-SITE RENEWABLE ENERGY
☐ C406.6 DEDICATED OUTDOOR AIR SYSTEM
☐ C406.7 REDUCED ENERGY USE IN SERVICE WATER HEATING

DESIGNER STATEMENT:

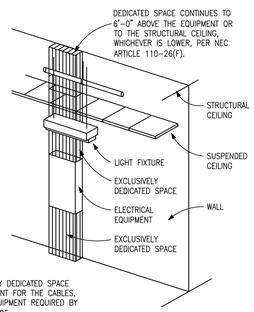
TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE DESIGN OF THIS BUILDING COMPLIES WITH THE ELECTRICAL SYSTEM AND EQUIPMENT REQUIREMENTS OF THE NORTH CAROLINA STATE BUILDING CODE, ENERGY CODE 2018 EDITION

NAME: ANGUS M. CLARK PE

TITLE: ELECTRICAL ENGINEER

ABBREVIATIONS

A	AMPS, AMPERES	KVA	KILOVOLT-AMPERES
AIC	AMPS INTERRUPTING CURRENT	LTG	LIGHTING
ATS	AUTOMATIC TRANSFER SWITCH	MC	METAL CLAD CABLE
AF	AMP FUSE	MCA	MINIMUM CIRCUIT AMPACITY
AFC	ABOVE FINISHED CEILING	MCB	MAIN CIRCUIT BREAKER
AFF	ABOVE FINISHED FLOOR	MLO	MAIN LUGS ONLY
AFG	ABOVE FINISHED GRADE	NA	NOT APPLICABLE
AHJ	AUTHORITY HAVING JURISDICTION	NCSBC	NORTH CAROLINA STATE BUILDING CODE
BRKR	CIRCUIT BREAKER	NEC	NATIONAL ELECTRICAL CODE
BLDG	BUILDING	NEMA	NATIONAL ELECTRICAL MANUFACTURER'S ASSOC.
C	CONDUIT	NF	NON-FUSED
CKT	CIRCUIT	NL	NIGHT LIGHT - UNSWITCHED
CLG	CEILING	NIC	NOT IN CONTRACT
CTR	COUNTER - DEVICE MOUNTED ABOVE	NTS	NOT TO SCALE
DISC	DISCONNECT SWITCH	MC	MECHANICAL CONTRACTOR
E	EXISTING TO REMAIN	P	POLES
EC	ELECTRICAL CONTRACTOR	PC	PLUMBING CONTRACTOR
ECB	ENCLOSED CIRCUIT BREAKER	PH	PHASE
EF	EXHAUST FAN	PNL	PANELBOARD
EM	EMERGENCY	R	RELOCATED
EMT	ELECTRICAL METALLIC TUBING	SW	SHOW WINDOW RECEP, 18"MAX ABOVE WINDOW
ETR	EXISTING TO REMAIN	T	TAMPER RESISTANT RECEPTACLE
EX	EXISTING	UL	UNDERWRITER'S LABORATORIES
FA	FIRE ALARM	ULSE	UL SERVICE ENTRANCE
GC	GENERAL CONTRACTOR	UON	UNLESS OTHERWISE NOTED
GFCI	GROUND FAULT CURRENT INTERRUPTER	V	VOLTS
G	GROUND	W	WIRE
HP	HORSEPOWER	W/	WITH
IMC	INTERMEDIATE METAL CONDUIT	W/O	WITHOUT
JB	JUNCTION BOX	WP	WEATHERPROOF
KW	KILOWATT		



NOTE:
THIS FIGURE ILLUSTRATES THE ADDITIONAL EXCLUSIVELY DEDICATED SPACE REQUIRED OVER AND UNDER THE ELECTRICAL EQUIPMENT FOR THE CABLES, RACEWAYS, ETC... TO AND FROM THE ELECTRICAL EQUIPMENT REQUIRED BY SECTION 110.26(F) OF THE NATIONAL ELECTRICAL CODE.

1 / E1.1 DEDICATED SPACE FOR ELECTRICAL EQUIPMENT
SCALE: NTS

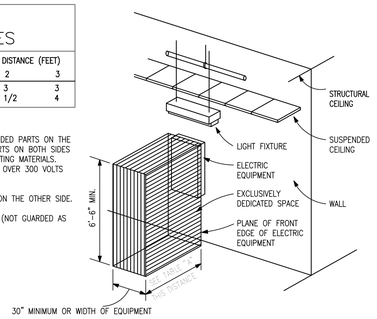
TABLE "A"
WORKING CLEARANCES

VOLTAGE TO GROUND, NOMINAL	MINIMUM CLEAR DISTANCE (FEET) CONDITION: 1	2	3
0-150	3	3	3
151-600	3	3 1/2	4

WHERE THE "CONDITIONS" ARE AS FOLLOWS:

1. EXPOSED LIVE PARTS ON ONE SIDE AND NO LIVE OR GROUNDED PARTS ON THE OTHER SIDE OF THE WORKING SPACE, OR EXPOSED LIVE PARTS ON BOTH SIDES EFFECTIVELY GUARDED BY SUITABLE WOOD OR OTHER INSULATING MATERIALS. INSULATED WIRE OR INSULATED BUSBARS OPERATING AT NOT OVER 300 VOLTS SHALL NOT BE CONSIDERED LIVE PARTS.
2. EXPOSED LIVE PARTS ON ONE SIDE AND GROUNDED PARTS ON THE OTHER SIDE.
3. EXPOSED LIVE PARTS ON BOTH SIDES OF THE WORK SPACE (NOT GUARDED AS PROVIDED IN CONDITION 1) WITH THE OPERATOR BETWEEN.

NOTE:
THIS FIGURE ILLUSTRATES THE WORKING SPACE IN FRONT OF ELECTRIC EQUIPMENT REQUIRED BY SECTION 110.26 OF THE NATIONAL ELECTRICAL CODE.



2 / E1.1 WORKING CLEARANCE FOR ELECTRICAL EQUIPMENT
SCALE: NTS

ELECTRICAL LEGEND

(ALL SYMBOLS MAY NOT BE USED ON THIS PROJECT)

- HOMERUN TO POWER SOURCE, 2#12,#12G 1/2"C UON
- BRANCH CIRCUIT WIRING CONCEALED IN WALLS AND CEILINGS
- BRANCH CIRCUIT WIRING CONCEALED UNDER FLOOR OR UNDERGROUND
- RECESSED LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
- DOWNLIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
- WALL MOUNTED LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
- SURFACE MOUNTED LIGHT FIXTURE, REFER TO LUMINAIRE SCHEDULE
- EXIT SIGN, DIRECTIONAL ARROWS AS INDICATED. REFER TO LUMINAIRE SCHEDULE
- EMERGENCY LIGHT, REFER TO LUMINAIRE SCHEDULE
- EXIT/EMERGENCY LIGHT COMBINATION, REFER TO LUMINAIRE SCHEDULE
- DUPLEX RECEPTACLE
- QUADRUPLEX RECEPTACLE
- SIMPLEX RECEPTACLE, AMP RATING AS NOTED, OR MATCH BREAKER SIZE
- GFCI RECEPTACLE
- WP WEATHERPROOF WHILE N USE GFCI RECEPTACLE
- T TAMPER RESISTANT RECEPTACLE
- SW SHOW WINDOW RECEPTACLE MOUNTED 18"MAX ABOVE WINDOW
- FLUSH MOUNTED FLOOR RECEPTACLE, CLOSED COVER WHILE-IN-USE
- FLUSH MOUNTED RECEPTACLE AND DATA, CLOSED COVER WHILE-IN-USE
- JUNCTION BOX FOR POWER CONNECTION
- EQUIPMENT POWER CONNECTION
- FUSED DISCONNECT SWITCH
- NON-FUSED DISCONNECT SWITCH
- PANELBOARD
- T DRY TYPE TRANSFORMER
- $ SINGLE POLE SWITCH
- $3 THREE WAY SWITCH
- $4 FOUR WAY SWITCH
- $OS WALL MOUNTED DUAL TECH OCCUPANCY SENSOR SWITCH (LINE VOLTAGE)
- OS CEILING OR WALL MOUNTED DUAL TECH OCCUPANCY SENSOR (LINE VOLTAGE)
- $LV LOW VOLTAGE LIGHTING CONTROL SWITCH
- $D DIMMER SWITCH. 1500W SLIDER TYPE
- $DOS DIMMER SWITCH WITH DUAL TECHNOLOGY OCCUPANCY SENSOR
- $T WALL MOUNTED DECORATOR DIGITAL TIMER SWITCH WITH ON/OFF BUTTON, 48"AFF, 120/277V PROGRAMMABLE . INTERMATIC E1400 SERIES OR EQUAL.
- LC LIGHTING CONTACTOR, MECHANICALLY HELD
- LCP LIGHTING CONTROL PANEL
- ◄ COMBINATION TELEPHONE/DATA OUTLET, EMPTY SINGLE GANG BOX WITH 3/4"C STUBBED ABOVE CEILING.
- TV CABLE TV OUTLET, EMPTY SINGLE GANG BOX WITH 3/4"C STUBBED ABOVE CEILING. COORDINATE EXACT MOUNTING HEIGHT WITH GC PRIOR TO ROUGH-IN.
- CR CARD READER ROUGH-IN, WITH EMPTY 3/4"C STUBBED ABOVE CEILING
- GND BUILDING GROUND CONNECTION POINT, 3/8" COPPER STUD WITH #6G WIRE ROUTED TO GROUND BUS AT SERVICE DISCONNECT
- PC PHOTOCELL, MOUNT WITH SENSOR FACING NORTH, EXACT LOCATION TO BE DETERMINED
- (X) EXISTING EQUIPMENT TO BE REMOVED
- (E) EXISTING EQUIPMENT TO REMAIN
- (R) EXISTING EQUIPMENT TO BE RELOCATED

CAROLINA PROFESSIONAL ENGINEER 13779 ANGUS M. CLARK
2/17/2025

CONSTRUCTION SET
Date: 2-17-25

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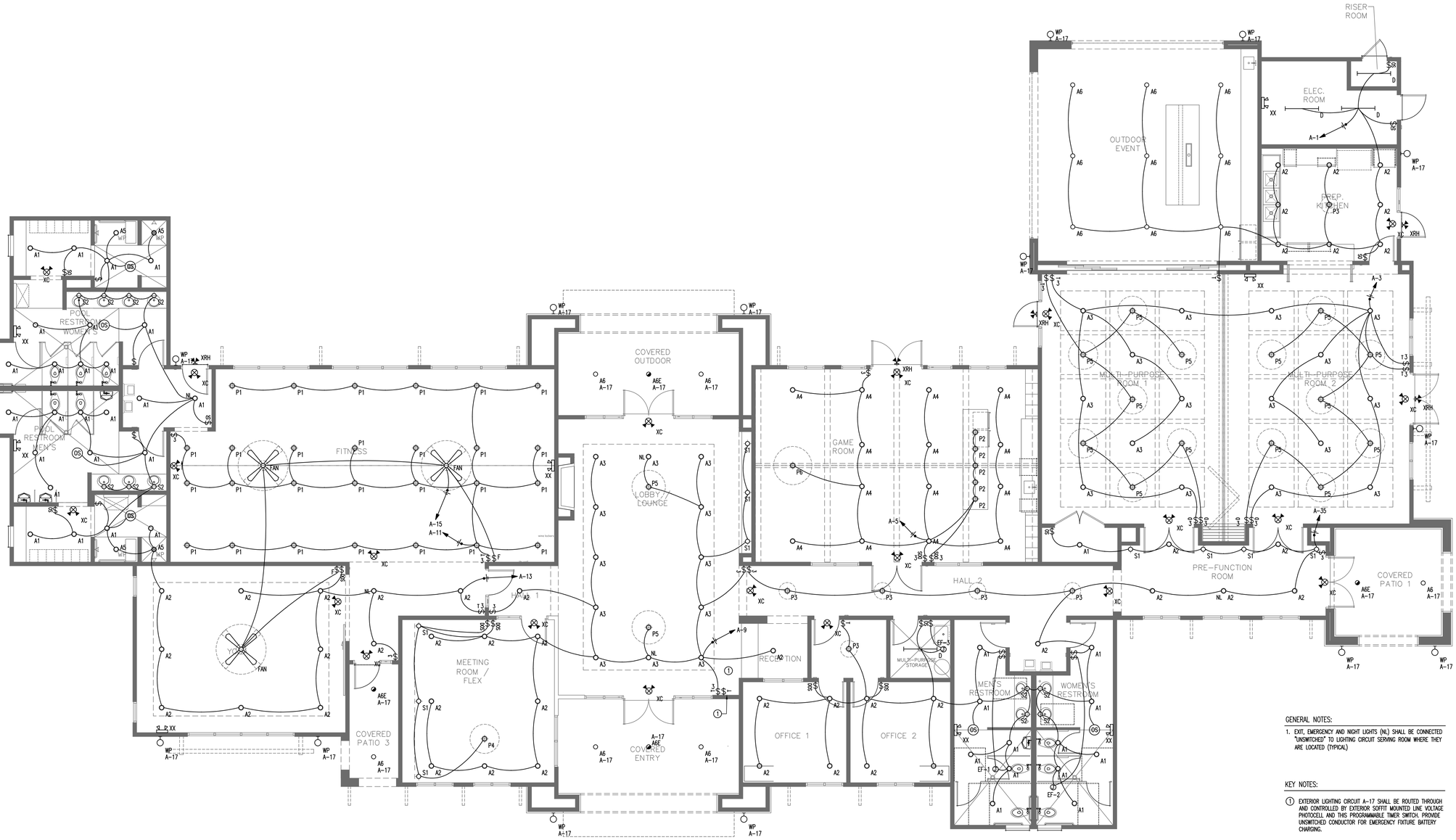
E1.1



GENERAL NOTES:

1. EXIT, EMERGENCY AND NIGHT LIGHTS (NL) SHALL BE CONNECTED "UNSWITCHED" TO LIGHTING CIRCUIT SERVING ROOM WHERE THEY ARE LOCATED (TYPICAL)

KEY NOTES:

(1) EXTERIOR LIGHTING CIRCUIT A-17 SHALL BE ROUTED THROUGH AND CONTROLLED BY EXTERIOR SOFFIT MOUNTED LINE VOLTAGE PHOTOCELL AND THIS PROGRAMMABLE TIMER SWITCH. PROVIDE UNSWITCHED CONDUCTOR FOR EMERGENCY FIXTURE BATTERY CHARGING.

1 E2.1 **LIGHTING PLAN**
SCALE: 3/16" = 1'-0"

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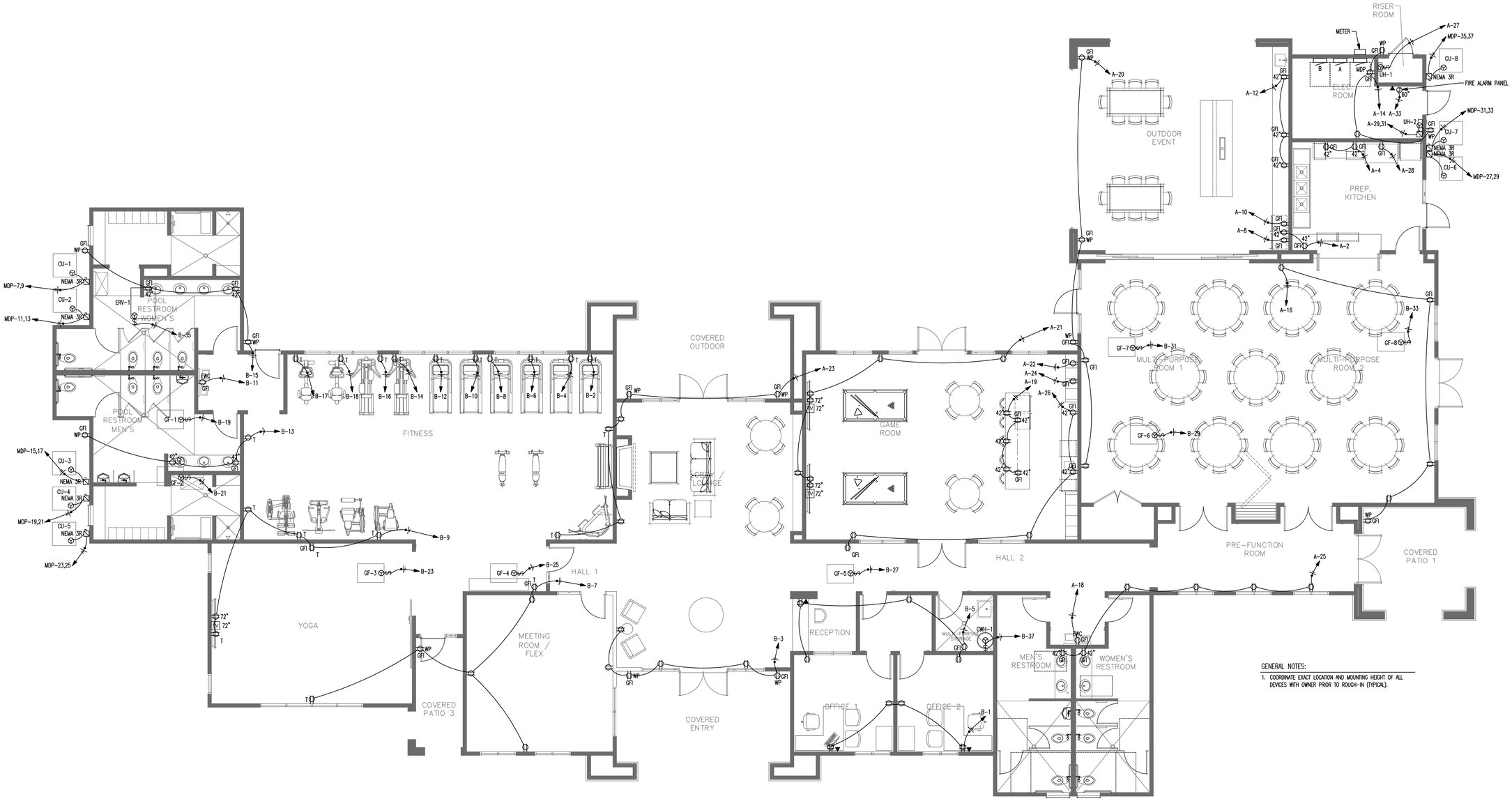
E2.1



1 POWER PLAN
E3.1 SCALE: 3/16" = 1'-0"

GENERAL NOTES:

1. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF ALL DEVICES WITH OWNER PRIOR TO ROUGH-IN (TYPICAL).

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E3.1

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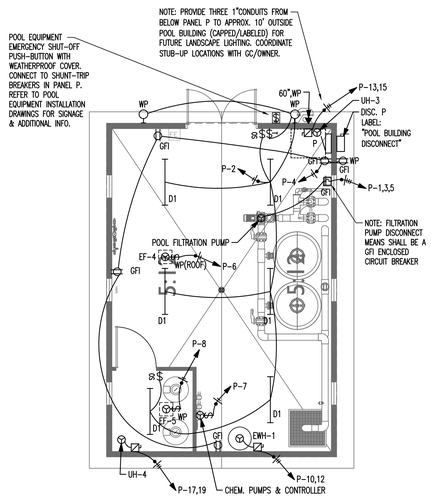
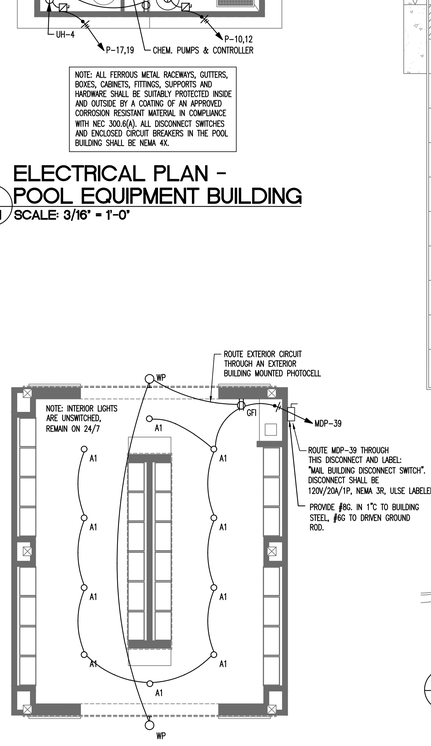
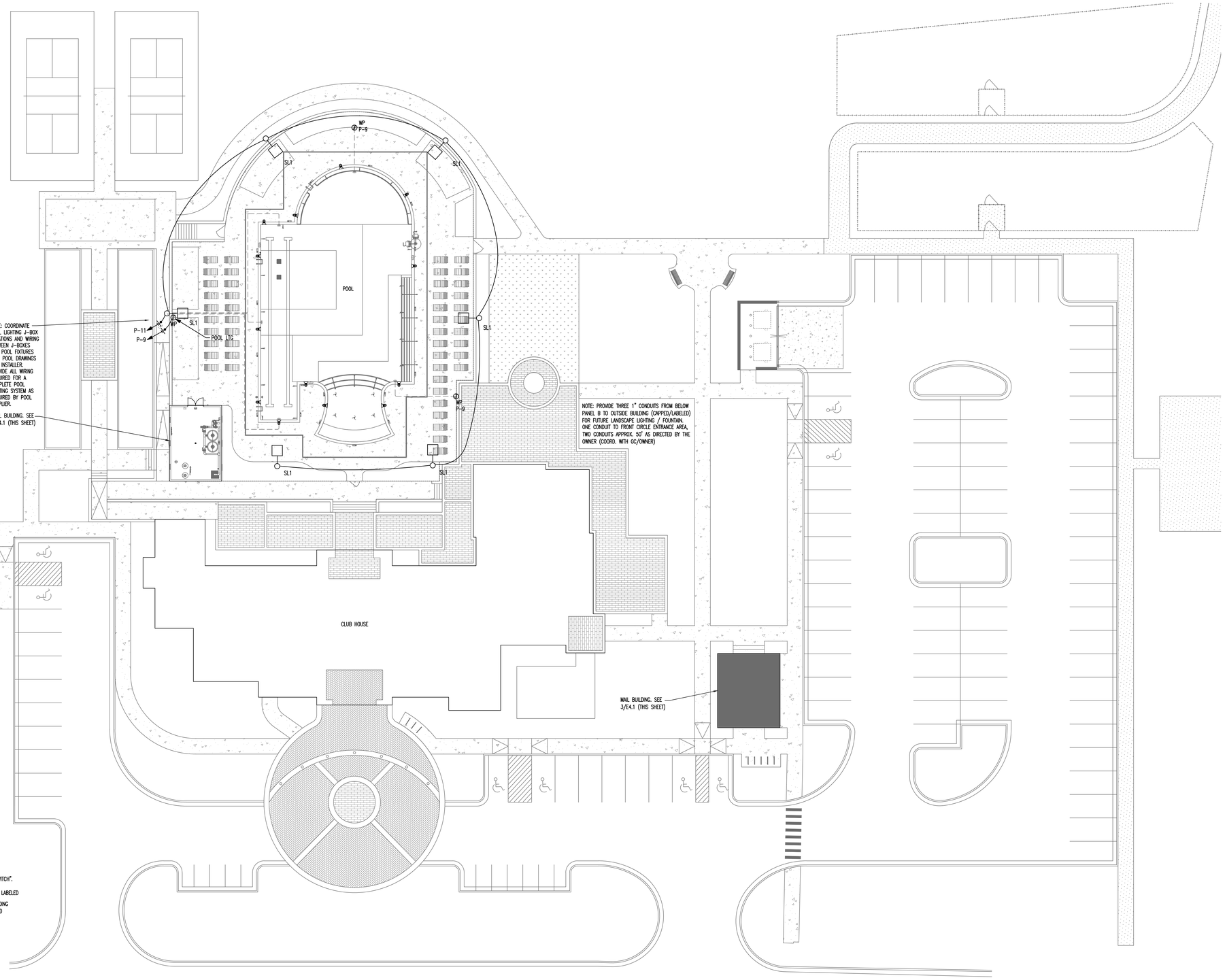


NOTE: ALL FERROUS METAL RACEWAYS, GUTTERS, BOXES, CABINETS, FITTINGS, SUPPORTS AND HARDWARE SHALL BE SUITABLY PROTECTED INSIDE AND OUTSIDE BY A COATING OF AN APPROVED CORROSION RESISTANT MATERIAL IN COMPLIANCE WITH NEC 300.6(A). ALL DISCONNECT SWITCHES AND ENCLOSED CIRCUIT BREAKERS IN THE POOL BUILDING SHALL BE NEMA 4X.

2 E4.1 ELECTRICAL PLAN - POOL EQUIPMENT BUILDING
SCALE: 3/16" = 1'-0"



3 E4.1 ELECTRICAL PLAN - MAIL BUILDING
SCALE: 3/16" = 1'-0"



1 E4.1 ELECTRICAL SITE/POOL DECK AREA PLAN
SCALE: SCALE: 1/16"=1'-0"

GENERAL POOL ELECTRICAL / GROUNDING NOTES:

1. THE POOL ELECTRICAL INSTALLATION SHALL COMPLY WITH THE APPLICABLE SECTIONS OF N.E.C. ARTICLE 680. THIS INCLUDES ALL ELECTRICAL EQUIPMENT INSTALLED IN THE POOL WATER, WALLS OR DECK.

2. UNDERGROUND WIRING SHALL NOT BE PERMITTED UNDER THE POOL OR WITHIN THE AREA EXTENDING 5' FROM THE INSIDE POOL WALL UNLESS SUPPLYING POOL EQUIPMENT (PER NEC 680.11).

3. POOL MOTORS SHALL BE CONNECTED PER NEC 680.21. LIGHTING, RECEPTACLES AND ALL EQUIPMENT SHALL COMPLY WITH NEC 680.22.

4. FEEDERS AND ALL CIRCUITS ON THE LOAD SIDE OF PANEL "1LD" SHALL COMPLY WITH THE WIRING METHODS DESCRIBED IN NEC 680.25.

5. THE FOLLOWING ITEMS SHALL BE BONDED TOGETHER IN ACCORDANCE WITH NEC 680.26 WITH A #8AWG SOLID COPPER CONDUCTOR: CONDUCTIVE POOL SHELLS, PERIMETER SURFACES, METALLIC COMPONENTS, UNDERWATER LIGHTING, METAL FITTINGS, ELECTRICAL EQUIPMENT, FIXED METAL PARTS. REFER TO THE ARCHITECTURAL DRAWINGS AND POOL DRAWINGS FOR A COMPLETE SPECIFICATION OF ALL METAL POOL COMPONENTS.

6. UNDERWATER LUMINARES SHALL COMPLY WITH NEC 680.33.

THE EC SHALL OBTAIN THE POOL EQUIPMENT DRAWINGS AND CONDUCT A PRE-INSTALLATION MEETING WITH THE POOL EQUIPMENT SUPPLIER (SCHEDULED THROUGH THE GC). THIS DRAWING SHOWS ELECTRICAL CONNECTIONS AND CIRCUIT SIZES BASED ON POOL EQUIPMENT DRAWINGS PROVIDED DURING DESIGN. THE EC SHALL REVIEW THE POOL DRAWINGS FOR ADDITIONAL ELECTRICAL INFORMATION PRIOR TO PRICING. IF EQUIPMENT SIZES OR ROUGH-IN LOCATIONS CHANGE POST BID, THE EC SHALL ADJUST FUSE, BREAKER AND CIRCUIT SIZES IN COORDINATION WITH THE EQUIPMENT SUPPLIER/GC. IF FIELD CONDITIONS REDUCE LINE OF SIGHT BETWEEN PANEL "P" AND THE EQUIPMENT, DISCONNECT SWITCHES SHALL BE ADDED. POOL EQUIPMENT CONNECTIONS SHALL COMPLY WITH NEC ARTICLE 680.

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E4.1

EQUIPMENT SCHEDULE

CALLOUT	SYMBOL	NEMA	VOLTAGE	BREAKER	CIRCUIT	MCA	MOCP	WIRING	NOTE 1
CHEM. PUMPS & CONTROLLER			120V 1P	20/1	P-7			1#12,#12N,#12G	
CU-1		NEMA 3R	208/120V 2P	20/2	MDP-7,9	13.8	20	1/2"C,2#10,#10N,#10G	
CU-2		NEMA 3R	208/120V 2P	20/2	MDP-11,13	13.8	20	1/2"C,2#10,#10N,#10G	
CU-3		NEMA 3R	208/120V 2P	15/2	MDP-15,17	8.7	15	1/2"C,2#10,#10N,#10G	
CU-4		NEMA 3R	208/120V 2P	30/2	MDP-19,21	19.8	30	1/2"C,2#10,#10N,#10G	
CU-5		NEMA 3R	208/120V 2P	20/2	MDP-23,25	13.8	20	1/2"C,2#10,#10N,#10G	
CU-6		NEMA 3R	208/120V 2P	15/2	MDP-27,29	8.7	15	1/2"C,2#12,#12N,#12G	
CU-7		NEMA 3R	208/120V 2P	30/2	MDP-31,33	19.8	30	1/2"C,2#12,#12N,#12G	
CU-8		NEMA 3R	208/120V 2P	30/2	MDP-35,37	19.8	30	1/2"C,2#12,#12N,#12G	
EF-1			120V 1P	20/1	A-35			1#10,#10N,#10G	
EF-2			120V 1P	20/1	A-35			1#10,#10N,#10G	
EF-3			120V 1P	20/1	A-35			1#10,#10N,#10G	
EF-4		WP	120V 1P	20/1	P-6			1#12,#12N,#12G	
EF-5		WP	120V 1P	20/1	P-8			1#12,#12N,#12G	
ERV-1			120V 1P	25/1	B-35	20.3	25	1/2"C,1#10,#10N,#10G	
EWH-1			208/120V 2P	30/2	P-10,12			1/2"C,2#10,#10N,#10G	
FIRE ALARM PANEL			120V 1P	20/1	A-33			1#12,#12N,#12G	
GF-1			120V 1P	15/1	B-19	7.1	15	1/2"C,1#10,#10N,#10G	
GF-2			120V 1P	15/1	B-21	7.1	15	1/2"C,1#10,#10N,#10G	
GF-3			120V 1P	15/1	B-23	7.3	15	1/2"C,1#10,#10N,#10G	
GF-4			120V 1P	20/1	B-25	13.2	20	1/2"C,1#10,#10N,#10G	
GF-5			120V 1P	15/1	B-27	7.1	15	1/2"C,1#10,#10N,#10G	
GF-6			120V 1P	15/1	B-29	7.3	15	1/2"C,1#10,#10N,#10G	
GF-7			120V 1P	20/1	B-31	13.2	20	1/2"C,1#10,#10N,#10G	
GF-8			120V 1P	20/1	B-33	13.2	20	1/2"C,1#12,#12N,#12G	
GWH-1			120V 1P	20/1	B-37			1#10,#10N,#10G	
POOL FILTRATION PUMP			208V 3P	40/3	P-1,3,5			3/4"C,3#8,#8N,#10G	
POOL LTG		WP	120V 1P	20/1	P-9			1#12,#12N,#12G	
UH-1			120V 1P	20/1	A-27			1#12,#12N,#12G	
UH-2			208/120V 2P	20/2	A-29,31			2#12,#12N,#12G	
UH-3			208/120V 2P	20/2	P-13,15			2#12,#12N,#12G	
UH-4			208/120V 2P	20/2	P-17,19			2#12,#12N,#12G	

GENERAL NOTE: VERIFY BREAKER & WIRE SIZES WITH EQUIPMENT NAMEPLATES.

LED LUMINAIRE SCHEDULE

CALLOUT	SYMBOL	DESCRIPTION	MODEL	LAMP	MOUNTING	INPUT WATTS	VOLTS	NOTE 1
A1		RECESSED 6" LED CAN	WILLIAMS 6DR-TL-L15-8-35-DIM-UNV-O-M-OF-CS-IC-F1	LED	RECESSED	14	120V 1P 2W	
A2		6" ROUND LED DOWN - MEDIUM CEILINGS	WILLIAMS 6DR-TL-L40-8-35-DIM-UNV-O-W-OF-CS-IC-F1	(1) LED	RECESSED	37	120V 1P 2W	
A3		6" ROUND LED DOWN - HIGHER CEILINGS	WILLIAMS 6DR-TL-L60-8-35-DIM-UNV-O-W-OF-CS-IC-F1	(1) LED	RECESSED	54	120V 1P 2W	
A4		6" ROUND LED DOWN - HIGHER CEILINGS - SLOPED CEILINGS	WILLIAMS 6DR-TL-L60-8-35-SCA-DIM-UNV-O-W-OF-CS-IC-F1	(1) LED	RECESSED	54	120V 1P 2W	
A5		RECESSED 6" LED CAN - WET LOCATION/SHOWER	WILLIAMS 6DR-TL-L15-8-35-DIM-UNV-S-M-OF-CS-WET/CC-IC-F1	LED	RECESSED	14	120V 1P 2W	
A6		6" ROUND LED DOWN - HIGHER CEILINGS - WET LOCATION	WILLIAMS 6DR-TL-L60-8-35-DIM-UNV-L-W-OF-CS-WET/CC-IC-F1	(1) LED	RECESSED	54	120V 1P 2W	
A6E		6" ROUND LED DOWN - HIGHER CEILINGS - WET LOCATION - EMERGENCY BATTERY	WILLIAMS 6DR-TL-L60-8-35-EM/10W/RTS-UNV-L-W-OF-CS-WET/CC-IC-F1	(1) LED	RECESSED	54	120V 1P 2W	
D		4' LENSED STRIPLIGHT	COLUMBIA LCL-4-35-ML-ED-U	(1) LED	SURFACE	42	120V 1P 2W	
D1		4' LENSED STRIPLIGHT - FIBERGLASS, WET LABEL, NEMA 4X CORROSION RESISTANT	LITHONIA DMW2-L24-4000LM-ACL-MD-MVOLT-GZ10-35K-80CRI	(1) LED	PENDANT/SURFACE	40	120V 1P 2W	
FAN		CEILING FAN	SELECTED BY OWNER, PROVIDED/INSTALLED BY EC		PENDANT/SURFACE	50	120V 1P 2W	
P1		SURFACE MOUNTED FIXTURE	SELECTED BY OWNER, PROVIDED/INSTALLED BY EC	(1) LED	PENDANT/SURFACE	40	120V 1P 2W	
P2		SURFACE MOUNTED FIXTURE	SELECTED BY OWNER, PROVIDED/INSTALLED BY EC	(1) LED	PENDANT/SURFACE	15	120V 1P 2W	
P3		SURFACE MOUNTED FIXTURE	SELECTED BY OWNER, PROVIDED/INSTALLED BY EC	(1) LED	PENDANT/SURFACE	25	120V 1P 2W	
P4		SURFACE MOUNTED FIXTURE	SELECTED BY OWNER, PROVIDED/INSTALLED BY EC	(1) LED	PENDANT/SURFACE	25	120V 1P 2W	
P5		SURFACE MOUNTED FIXTURE	SELECTED BY OWNER, PROVIDED/INSTALLED BY EC	(1) LED	PENDANT/SURFACE	25	120V 1P 2W	
P6		SURFACE MOUNTED FIXTURE	SELECTED BY OWNER, PROVIDED/INSTALLED BY EC	(1) LED	PENDANT/SURFACE	30	120V 1P 2W	
S1		WALL MOUNTED FIXTURE	SELECTED BY OWNER, PROVIDED/INSTALLED BY EC	(1) LED	WALL	10	120V 1P 2W	
S2		WALL MOUNTED FIXTURE	SELECTED BY OWNER, PROVIDED/INSTALLED BY EC	(1) LED	WALL	10	120V 1P 2W	
SL1		12' POLE MOUNTED LED FIXTURE	LITHONIA RAD1 LED P3 35K-ASY-MVOLT-RPA	(1) LED	POLE	54	120V 1P 2W	12' POLE: RSS-12-48-DM19RAD-DDBXD. INSTALL PER MFG INSTRUCTIONS.
WP		EXTERIOR FIXTURE - GOOSENECK WALL SCONCE - PHOTOCELL, FIELD SELECTABLE WATTAGE/COLOR	PLT LIGHTING #PLT-13203	(1) LED	WALL	50	120V 1P 2W	
XC		EXIT / EMERGENCY LIGHT	COMPASS CCR	(1) LED	WALL/CEILING	4	MULTIPLE	UNSWITCHED
XRH		EMERGENCY LIGHT (REMOTE HEAD)	COMPASS CORD	(1) LED	WALL/CEILING	2	MULTIPLE	UNSWITCHED
XX		EMERGENCY LIGHT	COMPASS CU2	(1) LED	WALL/CEILING	1	MULTIPLE	UNSWITCHED

GENERAL LIGHTING FIXTURE SCHEDULE NOTES:

1. FIXTURES OF EQUAL QUALITY MAY BE SUBMITTED. ALL FINAL FIXTURE TYPES, FINISHES AND ANY SUBSTITUTIONS SHALL BE REVIEWED/APPROVED BY ARCHITECT PRIOR TO RELEASE.
2. ALL EXIT, EMERGENCY & NIGHT LIGHTS (NL) SHALL BE CONNECTED "UNSWITCHED" TO LIGHTING CIRCUIT SERVING ROOM WHERE THEY ARE LOCATED.
3. COORDINATE EXACT LOCATION & MOUNTING HEIGHT WITH PLUMBING & MECHANICAL CONTRACTORS SO THAT FIXTURE IS SUSPENDED BELOW PIPING & DUCTWORK.
4. SEE ARCHITECTURAL ELEVATIONS & COORDINATE WITH GC FOR MOUNTING HEIGHTS.

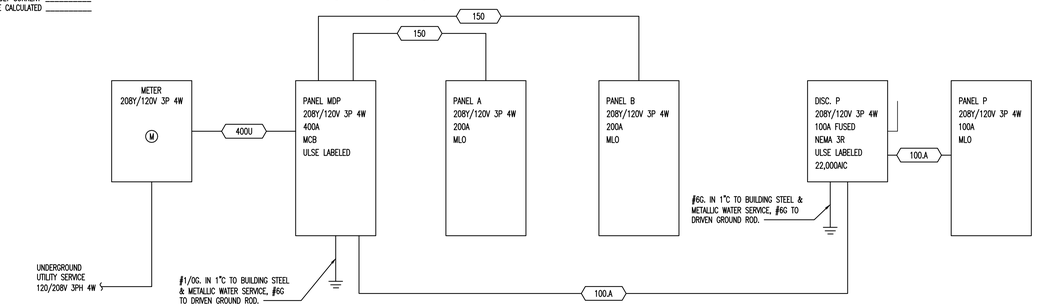
PER NEC 110.24, THE SERVICE EQUIPMENT ENCLOSURE(S) SHALL BE LEGIBLY MARKED IN THE FIELD TO INDICATE THE AVAILABLE FAULT CURRENT. THE ELECTRICAL CONTRACTOR SHALL OBTAIN, FROM THE POWER COMPANY, THE ACTUAL AVAILABLE FAULT CURRENT AT THE POINT OF DELIVERY. THE CONTRACTOR SHALL CONTACT THE ENGINEER WITH THIS VALUE AND THE VERIFIED LENGTH OF CONDUCTORS RUN FROM THE POINT OF DELIVERY TO THE SERVICE ENCLOSURE FOR CALCULATIONS OF THE AVAILABLE FAULT CURRENT. THE RESULTING CALCULATED VALUE SHALL BE MARKED ON THE EXTERIOR OF THE SERVICE ENCLOSURE ON AN ENGRAVED PLACARD THAT SHALL READ AS FOLLOWS:

AVAIL. FAULT CURRENT _____
DATE CALCULATED _____

FEEDER SCHEDULE

ID	FEEDER AMPS	CONDUIT AND FEEDER	FEEDING THESE DEVICES
100.A	100	1-1/2"C,3#1,#1N,#8G	DISC. P, P
150	150	1-1/2"C,3#1/0,#1/0N,#6G	A, B
400U	400	(2)2"C,3#3/0,#3/0N	MDP

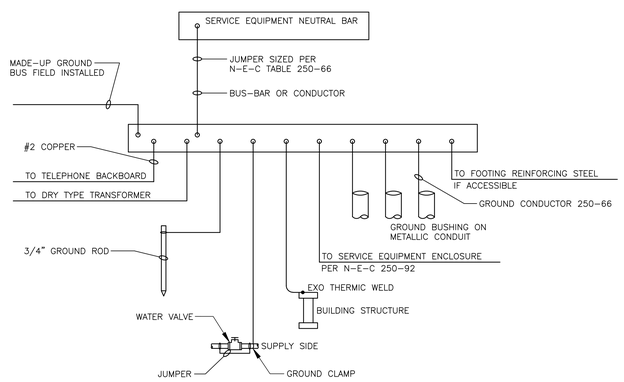
SIZING METHOD: COPPER, 60°C #12 THROUGH #1, 75°C 1/0 AND ABOVE



NOTE: NEW ELEC. SERVICE, METER BASE TYPE AND LOCATION OF ALL EQUIPMENT SHALL BE CLOSELY COORDINATED BY THE EC WITH THE UTILITY COMPANY. CHANGES IN EXACT EQUIPMENT PLACEMENT, MOUNTING HEIGHTS AND CONNECTION MAY BE REQUIRED. EC SHALL FOLLOW UTILITY GUIDELINES, THE NEC AND ALL LOCAL REQUIREMENTS FOR SERVICE EQUIPMENT INSTALLATION. EC SHALL CONTACT UTILITY PRIOR TO BEGINNING ANY WORK AND SCHEDULE AN ON-SITE COORDINATION MEETING TO REVIEW UTILITY REQUIREMENTS AND THE PLANNED INSTALLATION. ADDITIONAL CONDUIT, WIRING, FEES OR WORK REQUIRED BY THE UTILITY NOT SHOWN ON THIS RISER SHALL BE COORDINATED BY THE EC AT THE BEGINNING OF THE PROJECT AND INCLUDED IN PRICING BY THE EC TO THE OWNER.

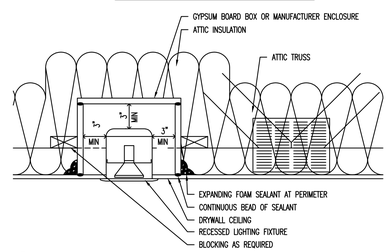
1 RISER DIAGRAM
E5.1 SCALE: NTS

NOTE: UPON PROJECT COMPLETION, THE EC SHALL PROVIDE TYPED CIRCUIT DIRECTORIES FOR ALL NEW AND ALTERED PANELBOARDS WITH CIRCUIT DESIGNATIONS COMPLYING WITH THE REQUIREMENTS OF NEC 408.4(A).



2 SERVICE EQUIPMENT GROUNDING DETAIL
E5.1 SCALE: NTS

NOTE: PROVIDE ADDITIONAL CLEARANCE AROUND FIXTURE IF REQUIRED BY MANUFACTURER.



3 AIR SEALING AT RECESSED LIGHTING
E5.1 SCALE: NTS

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CAROLINA PROFESSIONAL 13719 ENGINEER ANGUS M. CLARK
2/17/2025

CONSTRUCTION SET
Date: 2-17-25

REVISIONS

ALTIS SERENITY CLUB HOUSE
HARNETT COUNTY
NORTH CAROLINA

tri pointe HOMES

E5.1

MDP

ROOM
MOUNTING SURFACE
FED FROM METER
NOTE ULSE LABELED

VOLTS 208Y/120V 3P 4W
BUS AMPS 400
NEUTRAL 100%

AIC 65,000
MAIN BKR 400
LUGS STANDARD

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	150/3	PANEL A	8.38			2	150/3	PANEL B	9.80		
3	|			8.54		4	|			8.97	
5	|				8.44	6	|				9.57
7	20/2	CU-1	1.44			8	100/3	FUSED DISCONNECT DISC. P	7.88		
9	|			1.44		10	|			8.99	
11	20/2	CU-2			1.44	12	|				8.11
13	|		1.44			14	-/1	SPACE	0.00		
15	15/2	CU-3		0.90		16	-/1	SPACE		0.00	
17	|				0.90	18	-/1	SPACE			0.00
19	30/2	CU-4	2.06			20	-/1	SPACE	0.00		
21	|			2.06		22	-/1	SPACE		0.00	
23	20/2	CU-5			1.44	24	-/1	SPACE			0.00
25	|		1.44			26	-/1	SPACE	0.00		
27	15/2	CU-6		0.90		28	-/1	SPACE		0.00	
29	|				0.90	30	-/1	SPACE			0.00
31	30/2	CU-7	2.06			32	-/1	SPACE	0.00		
33	|			2.06		34	-/1	SPACE		0.00	
35	30/2	CU-8			2.06	36	-/1	SPACE			0.00
37	|		2.06			38	-/1	SPACE	0.00		
39	20/1	LIGHTING, RECEPTACLE		0.42		40	-/1	SPACE		0.00	
41	-/1	SPACE			0.00	42	-/1	SPACE			0.00
								TOTAL CONNECTED KVA BY PHASE	36.54	34.28	32.86

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	9.87	12.33	(125%)	CONTINUOUS	4.70	5.88	(125%)
LARGEST MOTOR	11.53	2.88	(25%)	NONCONTINUOUS	14.40	14.40	(100%)
MOTORS	13.72	13.72	(100%)	HEATING	44.08	44.08	(100%)
RECEPTACLES	16.92	13.46	(50%>10)	COOLING	36.08	0.00	(0%)
				TOTAL LOAD		106.75	
				BALANCED 3-PHASE LOAD		296.30 A	

A

ROOM
MOUNTING SURFACE
FED FROM MDP
NOTE

VOLTS 208Y/120V 3P 4W
BUS AMPS 200
NEUTRAL 100%

AIC 22,000
MAIN BKR MLO
LUGS STANDARD

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	LIGHTING	0.93			2	20/1	RECEPTACLE	0.36		
3	20/1	LIGHTING		1.21		4	20/1	RECEPTACLE		0.36	
5	20/1	LIGHTING			0.86	6	-/1	SPACE			0.00
7	-/1	SPACE	0.00			8	20/1	REFRIG UNDER COUNTER	0.70		
9	20/1	LIGHTING		1.15		10	20/1	REFRIG UNDER COUNTER		0.70	
11	20/1	LIGHTING			1.08	12	20/1	RECEPTACLE			0.54
13	20/1	LIGHTING	0.88			14	20/1	RECEPTACLE	0.72		
15	20/1	CLG FAN		0.15		16	20/1	RECEPTACLE		0.90	
17	20/1	LIGHTING			1.24	18	20/1	WATER COOLER			0.70
19	20/1	RECEPTACLE	0.90			20	20/1	RECEPTACLE	0.90		
21	20/1	RECEPTACLE		1.26		22	20/1	REFRIG UNDER COUNTER		0.70	
23	20/1	RECEPTACLE			1.08	24	20/1	REFRIG UNDER COUNTER			0.70
25	20/1	RECEPTACLE	1.08			26	20/1	RECEPTACLE	0.90		
27	20/1	UH-1		1.00		28	20/1	REFRIG		1.00	
29	20/2	UH-2			1.00	30	-/1	SPACE			0.00
31	|		1.00			32	-/1	SPACE	0.00		
33	20/1	(HL) FIRE ALARM PANEL		0.10		34	-/1	SPACE		0.00	
35	20/1	EF-1, EF-2, EF-3, LIGHTING			1.24	36	-/1	SPACE			0.00
37	-/1	SPACE	0.00			38	-/1	SPACE	0.00		
39	-/1	SPACE		0.00		40	-/1	SPACE		0.00	
41	-/1	SPACE			0.00	42	-/1	SPACE			0.00
								TOTAL CONNECTED KVA BY PHASE	8.38	8.54	8.44

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	8.46	10.58	(125%)	RECEPTACLES	9.00	9.00	(50%>10)
LARGEST MOTOR	0.11	0.03	(25%)	CONTINUOUS	0.10	0.13	(125%)
MOTORS	0.30	0.30	(100%)	NONCONTINUOUS	4.50	4.50	(100%)
				HEATING	3.00	3.00	(100%)
				TOTAL LOAD		27.53	
				BALANCED 3-PHASE LOAD		76.40 A	

P

ROOM
MOUNTING SURFACE
FED FROM DISC. P
NOTE

VOLTS 208Y/120V 3P 4W
BUS AMPS 100
NEUTRAL 100%

AIC 22,000
MAIN BKR MLO
LUGS STANDARD

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	40/3	(ST) POOL FILTRATION PUMP	3.84			2	20/1	LIGHTING	0.34		
3	|			3.84		4	20/1	RECEPTACLE		0.90	
5	|				3.84	6	20/1	EF-4			0.70
7	20/1	(ST) CHEM. PUMPS & CONTROLLER	0.50			8	20/1	EF-5	0.70		
9	20/1	POOL LTG		0.50		10	30/2	EWH-1		2.25	
11	20/1	LIGHTING			0.32	12	|				2.25
13	20/2	UH-3	1.50			14	-/1	SPACE	0.00		
15	|			1.50		16	-/1	SPACE		0.00	
17	20/2	UH-4			1.00	18	-/1	SPACE			0.00
19	|		1.00			20	-/1	SPACE	0.00		
21	-/1	SPACE		0.00		22	-/1	SPACE		0.00	
23	-/1	SPACE			0.00	24	-/1	SPACE			0.00
								TOTAL CONNECTED KVA BY PHASE	7.88	8.99	8.11

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LIGHTING	1.16	1.46	(125%)	RECEPTACLES	0.90	0.90	(50%>10)
LARGEST MOTOR	11.53	2.88	(25%)	CONTINUOUS	4.50	5.63	(125%)
MOTORS	13.42	13.42	(100%)	HEATING	5.00	5.00	(100%)
				TOTAL LOAD		29.28	
				BALANCED 3-PHASE LOAD		81.28 A	

GENERAL PANELBOARD NOTES:

1. EXISTING LOADS ACCOUNTED FOR BY METERED DEMAND.
2. *LH - INDICATES HANDLE LOCKING DEVICE, LOCKED IN THE "ON" POSITION.
3. *ST - INDICATES SHUNT-TRIP BREAKER (NOTE: SHUNT TRIP BREAKERS FOR EQUIPMENT UNDER THE KITCHEN HOOD SHALL BE CONTROLLED BY THE KITCHEN HOOD FIRE SUPPRESSION SYSTEM).
4. *GFEP - INDICATES GROUND FAULT EQUIPMENT PROTECTION BREAKER.
5. *GFI - INDICATES GROUND FAULT CIRCUIT INTERRUPTER BREAKER.
6. PROVIDE BLANK FILLER COVERS OVER EMPTY BREAKER SLOTS.
7. ALL UNUSED BREAKERS SHALL BE TURNED TO THE "OFF" POSITION & LABELED AS "SPARES" ACCORDINGLY.

NOTE: UPON PROJECT COMPLETION, THE EC SHALL PROVIDE TYPED CIRCUIT DIRECTORIES FOR ALL NEW AND ALTERED PANELBOARDS WITH CIRCUIT DESIGNATIONS COMPLYING WITH THE REQUIREMENTS OF NEC 408.4(A).

B

ROOM
MOUNTING SURFACE
FED FROM MDP
NOTE

VOLTS 208Y/120V 3P 4W
BUS AMPS 200
NEUTRAL 100%

AIC 22,000
MAIN BKR MLO
LUGS STANDARD

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C	CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA A	LOAD KVA B	LOAD KVA C
1	20/1	RECEPTACLE	1.08			2	20/1	TREADMILL	1.00		
3	20/1	RECEPTACLE		1.08		4	20/1	TREADMILL		1.00	
5	20/1	RECEPTACLE			1.08	6	20/1	TREADMILL			1.00
7	20/1	RECEPTACLE	1.08			8	20/1	TREADMILL	1.00		
9	20/1	RECEPTACLE		1.08		10	20/1	TREADMILL		1.00	
11	20/1	WATER COOLER			0.70	12	20/1	TREADMILL			1.00
13	20/1	RECEPTACLE	0.72			14	20/1	EXERCISE EQUIP.	0.80		
15	20/1	RECEPTACLE		0.72		16	20/1	EXERCISE EQUIP.		0.80	
17	20/1	EXERCISE EQUIP.			0.80	18	20/1	EXERCISE EQUIP.			0.80
19	15/1	GF-1	0.85			20	-/1	SPACE	0.00		
21	15/1	GF-2		0.85		22	-/1	SPACE		0.00	
23	15/1	GF-3			0.88	24	-/1	SPACE			0.00
25	20/1	GF-4	1.58			26	-/1	SPACE	0.00		
27	15/1	GF-5		0.85		28	-/1	SPACE		0.00	
29	15/1	GF-6			0.88	30	-/1	SPACE			0.00
31	20/1	GF-7	1.58			32	-/1	SPACE	0.00		
33	20/1	GF-8		1.58		34	-/1	SPACE		0.00	
35	25/1	ERV-1			2.44	36	-/1	SPACE			0.00
37	20/1	GWH-1	0.10			38	-/1	SPACE	0.00		
39	-/1	SPACE		0.00		40	-/1	SPACE		0.00	
41	-/1	SPACE			0.00	42	-/1	SPACE			0.00
								TOTAL CONNECTED KVA BY PHASE	9.80	8.97	9.57

	CONN KVA	CALC KVA			CONN KVA	CALC KVA	
LARGEST MOTOR	2.44	0.61	(25%)	NONCONTINUOUS	9.90	9.90	(100%)
RECEPTACLES	6.84	6.84	(50%>10)	HEATING	11.50	11.50	(100%)
CONTINUOUS	0.10	0.13	(125%)	COOLING	11.50	0.00	(0%)
				TOTAL LOAD		28.97	
				BALANCED 3-PHASE LOAD		80.41 A	

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NORTH CAROLINA PROFESSIONAL 13719 ENGINEER ANGUS M. CLARK
2/17/2025

CONSTRUCTION SET
Date: 2-17-25

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E5.2

FIRE ALARM SYSTEM INPUT/OUTPUT MATRIX SPRINKLER MONITORING ONLY		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	
	SYSTEM OUTPUTS →	FACP ANNUNCIATION												NOTIFICATION					REQUIRED FIRE SAFETY CONTROL								
		ACTUATE COMMON ALARM SIGNAL INDICATOR	ACTUATE AUDIBLE ALARM SIGNAL	ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR	ACTUATE AUDIBLE SUPERVISORY SIGNAL	ACTUATE COMMON TROUBLE SIGNAL INDICATOR	ACTUATE AUDIBLE TROUBLE SIGNAL	ACTUATE ZONE OR DEVICE ADDRESS ALARM INDICATOR	ACTUATE GENERAL EVACUATION SIGNAL	DISPLAY CHANGE OF STATUS	TRANSMIT FIRE ALARM SIGNAL TO CENTRAL STATION	TRANSMIT SUPERVISORY SIGNAL TO CENTRAL STATION	TRANSMIT TROUBLE SIGNAL TO CENTRAL STATION	RELEASE MAGNETICALLY HELD DOORS	RECALL ELEVATOR TO RECALL FLOOR	RECALL ELEVATOR TO ALTERNATE RECALL FLOOR	ACTUATE WARNING TO ELEVATOR CABS	DELAYED REMOVAL OF POWER FROM ELEVATOR	CLOSE ALL SMOKE DAMPERS	UNLOCK EXITS AND CONTROL DOORS	SHUT DOWN RESPECTIVE AIR HANDLING EQUIPMENT	ACTUATE FLOOR PRESSURIZATION	ACTUATE STAIRWELL PRESSURIZATION	ACTUATE SMOKE EXHAUST	-	-	
	SYSTEM INPUTS																										
1	FIRE ALARM SYSTEM AC POWER FAILURE					●	●						●														1
2	FIRE ALARM SYSTEM LOW BATTERY					●	●						●														2
3	OPEN CIRCUIT					●	●						●														3
4	GROUND FAULT					●	●						●														4
5	NOTIFICATION APPLIANCE CIRCUIT SHORT					●	●						●														5
6	BUILDING MANUAL PULL STATIONS	●	●					●	●	●	●			●						●							6
7	AREA SMOKE DETECTORS	●	●					●	●	●	●			●	●				●	●		●	●	●			7
8	HVAC AIR DUCT SMOKE DETECTORS			●	●			●				●									●						8
9	SPRINKLER TAMPER SWITCH			●	●			●				●															9
10	SPRINKLER WATER FLOW IN BUILDING	●	●					●	●	●	●			●	●				●	●							10
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	V	W	

ABBREVIATIONS

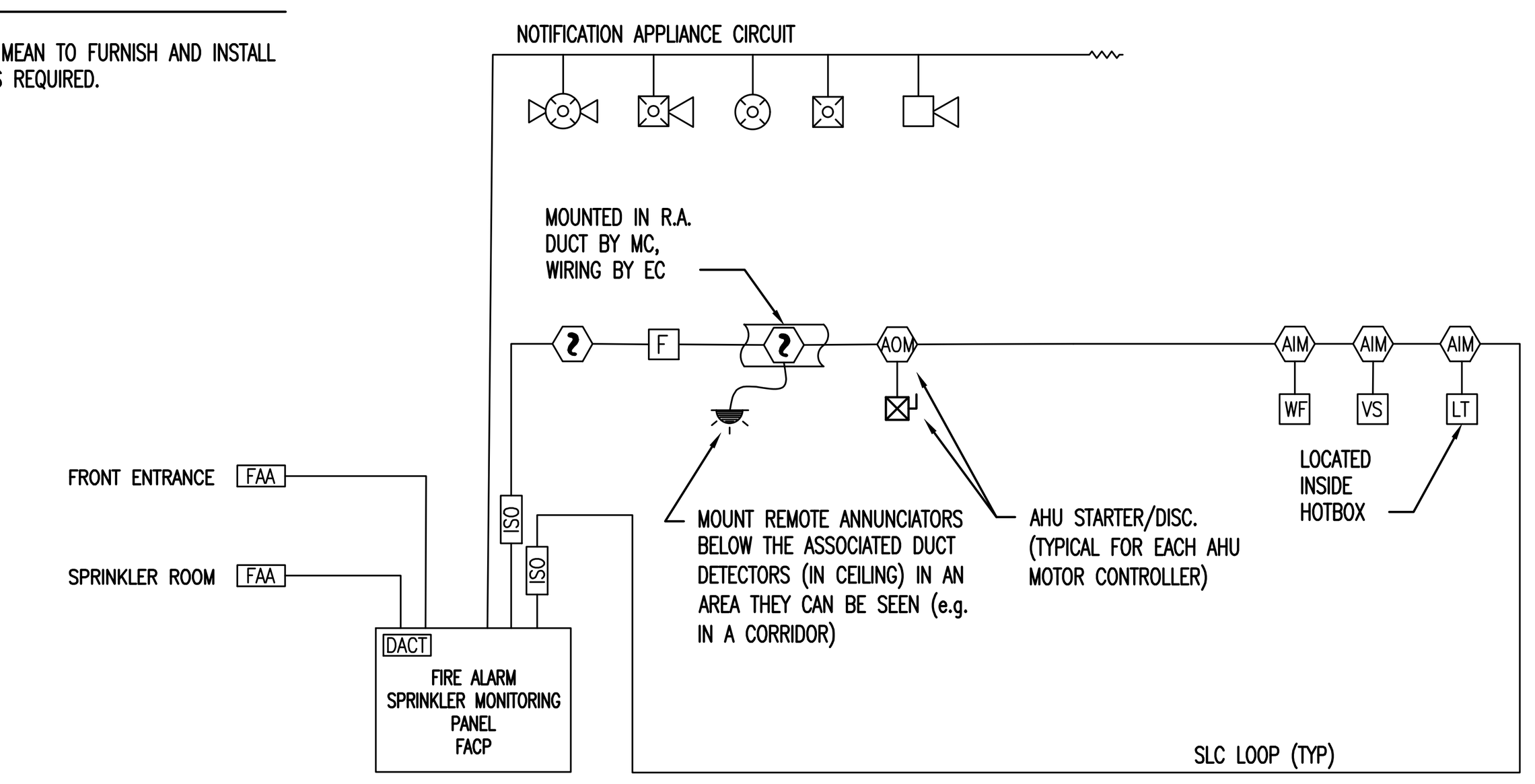
AFC ABOVE FINISHED CEILING
AFF ABOVE FINISHED FLOOR
AFG ABOVE FINISHED GRADE
AHJ AUTHORITY HAVING JURISDICTION
BLDG BUILDING
C CONDUIT
CLG CEILING
EC ELECTRICAL CONTRACTOR
EM EMERGENCY
EMT ELECTRICAL METALLIC TUBING
EX EXISTING TO REMAIN
FA FIRE ALARM
FAA FIRE ALARM ANNUNCIATOR
FACP FIRE ALARM CONTROL PANEL
GC GENERAL CONTRACTOR
G GROUND
IMC INTERMEDIATE METAL CONDUIT
JB JUNCTION BOX
NA NOT APPLICABLE
NAC NOTIFICATION APPLIANCE CIRCUIT
NCSBC NORTH CAROLINA STATE BUILDING CODE
NEC NATIONAL ELECTRICAL CODE
NEMA NATIONAL ELECTRICAL MANUFACTURER'S ASSOC.
NFPA NATIONAL FIRE PROTECTION ASSOCIATION
NIC NOT IN CONTRACT
NTS NOT TO SCALE
MC MECHANICAL CONTRACTOR
R RELOCATED
SLC SIGNAL LINE CIRCUIT
UL UNDERWRITER'S LABORATORIES
UON UNLESS OTHERWISE NOTED
W WIRE
W/ WITH
W/O WITHOUT
WP WEATHERPROOF

FIRE ALARM GENERAL NOTES

1. AS USED ON THESE DOCUMENTS, THE WORD "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL THE ITEM OR EQUIPMENT AND MAKE THE FINAL CONNECTION AS REQUIRED.

FIRE ALARM SCOPE OF WORK: PROVIDE A FIRE ALARM / SPRINKLER MONIORING SYSTEM WITH DEVICES AS SHOWN.

NOTE:
ALL DEVICES MAY NOT BE USED ON THIS PROJECT, REFER TO PLANS FOR QUANTITIES AND LOCATIONS

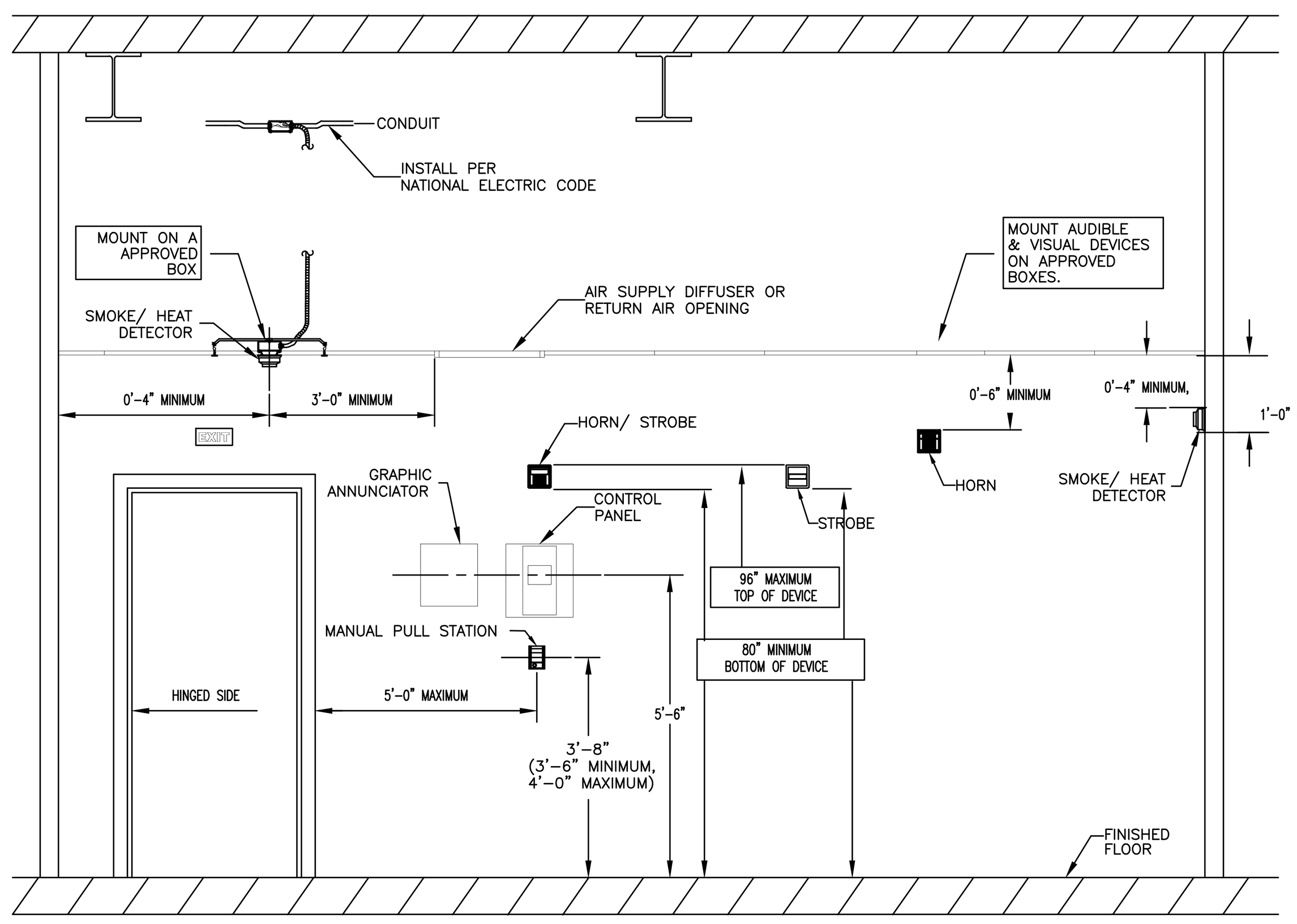


1 FA1.1 **FIRE ALARM RISER DIAGRAM**
SCALE: NTS

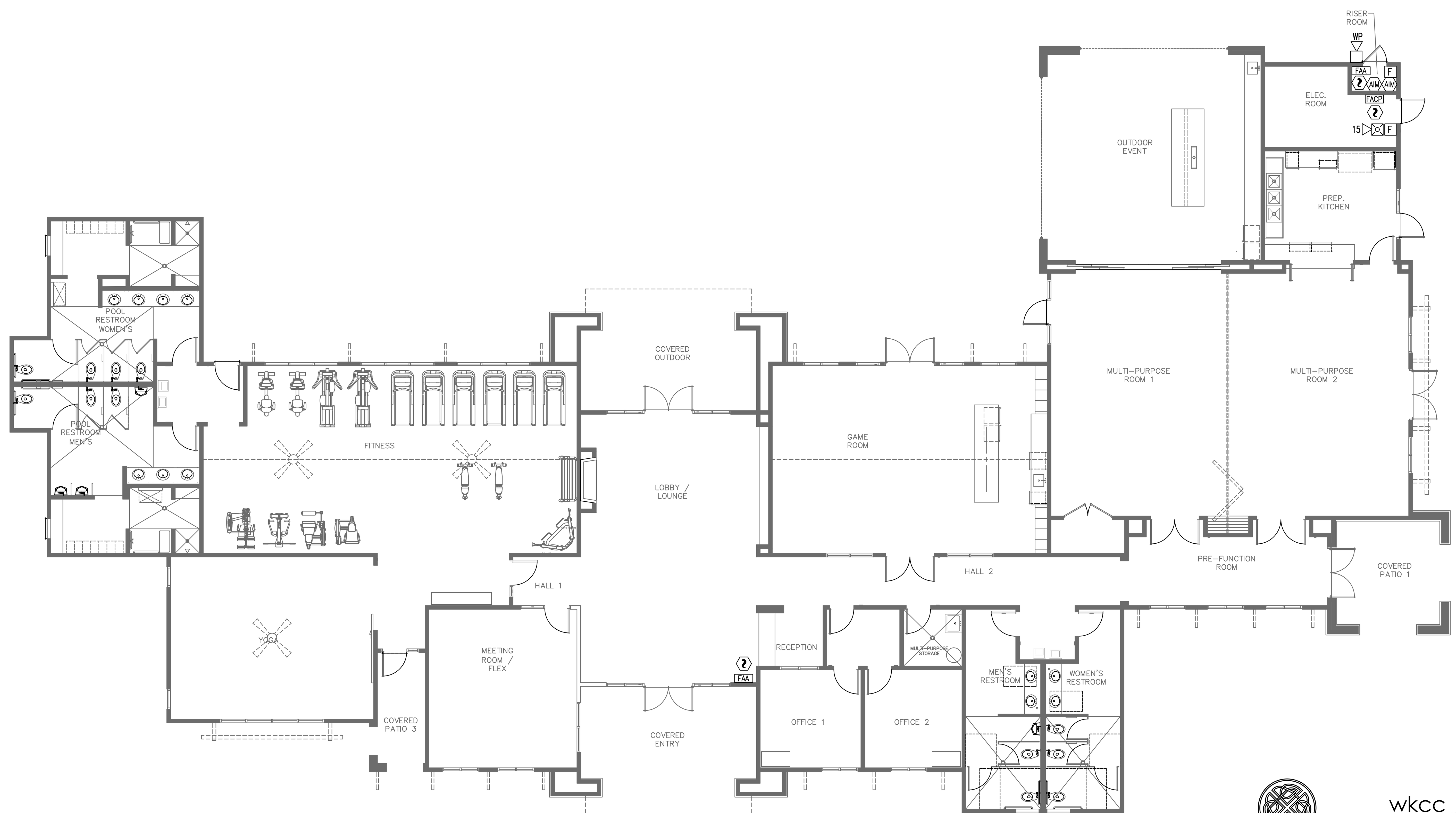
FIRE ALARM RISER NOTES

1. PROVIDE "ADDRESSABLE" FIRE ALARM SYSTEM AS SHOWN. ALL WORK SHALL BE IN ACCORDANCE WITH NFPA 72. ALL WIRING SHALL BE SIZED AS REQUIRED BY THE MANUFACTURER.
2. SEE FIRE ALARM PLAN FOR LOCATION AND NUMBER OF DEVICES. THE DRAWINGS INDICATE THE SUGGESTED LOCATIONS FOR INITIATING, NOTIFICATION, AND OTHER MISCELLANEOUS DEVICES INDIRECTLY CONNECTED TO THE FIRE ALARM SYSTEM. MISCELLANEOUS REQUIREMENTS ARE FOR THE GENERAL INFORMATION OF THE CONTRACTOR EXACT LOCATIONS, INSTALLATIONS, AND CONNECTIONS SHALL BE PER FIRE ALARM MANUFACTURERS INSTRUCTIONS AND DIRECTIONS FOR A COMPLETED SYSTEM. CONTRACTOR SHALL FURNISH AND INSTALL ALL CONDUIT, PULL BOXES, JUNCTION BOXES, AND MISCELLANEOUS REQUIREMENTS AS REQUIRED BY FIRE ALARM EQUIPMENT SUPPLIER.
3. PROVIDE BATTERY CALCULATIONS FOR THE DEVICES REQUIRED. ALLOW 25% ADDITIONAL CAPACITY FOR FUTURE DEVICES.
4. FIRE SEAL ALL CONDUIT PENETRATIONS.
5. PROVIDE GRAPHIC ANNUNCIATOR CHART AT THE MAIN LOBBY TO INDICATE ALL DEVICE POINT ASSIGNMENTS AND LOCATIONS.
6. ALL COMPONENTS SHALL BE COMPATIBLE. PROVIDE ALL NECESSARY CONTROL WIRING AND CONDUIT PER MANUFACTURERS REQUIREMENTS.
7. INITIATION OF FIRE ALARM SHALL CAUSE ALL AIR HANDLING UNITS TO SHUT DOWN.
8. ALL DEVICES/SUBMITTALS SHALL BE APPROVED BY THE FIRE MARSHALL PRIOR TO ORDERING/INSTALLATION.
9. COORDINATE QUANTITY AND LOCATION OF TAMPER AND FLOW SWITCHES WITH SPRINKLER CONTRACTOR.

NFPA 72 AND ADA DEVICE INSTALLATION REQUIREMENTS



2 FA1.1 **FIRE ALARM DEVICE MOUNTING DETAIL**
SCALE: NTS



3 FA1.1 **FIRE ALARM PLAN**
SCALE: 1/8"=1'-0"

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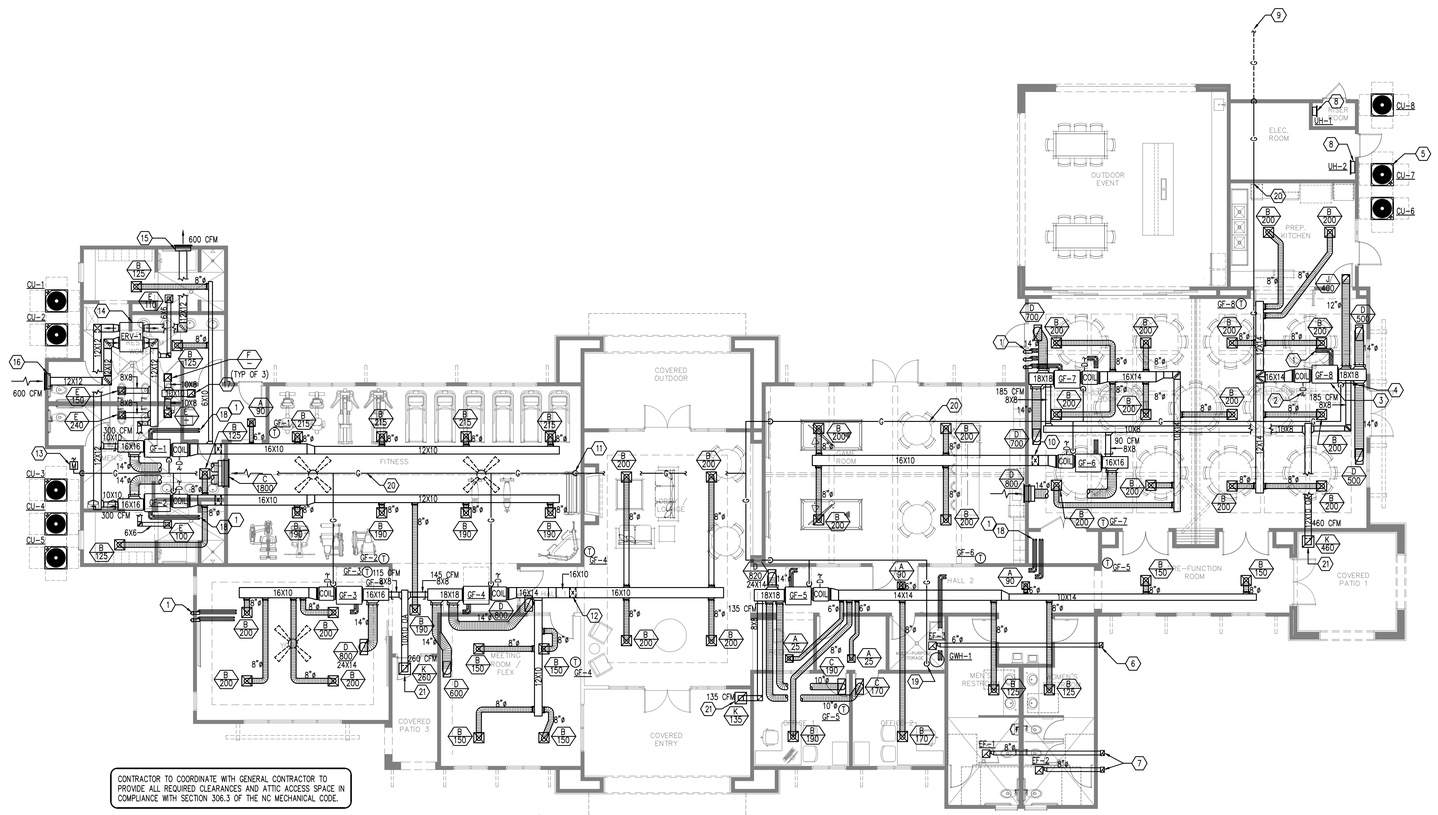
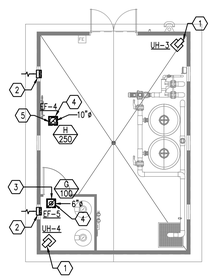


CONTRACTOR TO COORDINATE WITH GENERAL CONTRACTOR TO PROVIDE ALL REQUIRED CLEARANCES AND ATTIC ACCESS SPACE IN COMPLIANCE WITH SECTION 306.3 OF THE NC MECHANICAL CODE.

1/M1 FLOOR PLAN - HVAC
SCALE: 1/8" = 1' - 0"

1/M1 PLAN NOTES

1. ROUTE COMBUSTION AIR INTAKE AND GAS VENT TO CONCENTRIC VENT AT ROOF OR EXTERIOR WALL. LOCATE VENT A MINIMUM OF 10 FEET FROM ANY OUTSIDE AIR INTAKE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO COORDINATE WITH GENERAL CONTRACTOR TO LOCATE CONCENTRIC VENT AS HIDDEN AS FEASIBLY POSSIBLE. (TYPICAL)
2. PROVIDE GAS FURNACE WITH AUX. DRAIN PAN AND FLOAT SWITCH. FIELD ROUTE DRAIN LINE TO DRY WELL. (TYPICAL)
3. SUSPEND GAS FURNACE FROM STRUCTURE IN ATTIC. MOUNT PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE REQUIRED CLEARANCES AND ACCESS. COORDINATE WITH BUILDING STRUCTURE. (TYPICAL)
4. OUTSIDE AIR DUCT CONNECTION TO GAS FURNACE RETURN. PROVIDE MANUAL VOLUME DAMPER IN DUCT. SEE GAS FURNACE SCHEDULE FOR MINIMUM CFM. (TYPICAL)
5. MOUNT OUTDOOR CONDENSING UNIT ON 4" THICK CONCRETE PAD. ALLOW FOR CLEARANCES. MOUNT PER MANUFACTURER'S RECOMMENDATIONS. FIELD VERIFY ACTUAL LOCATION OF OUTDOOR CONDENSING UNIT. (TYPICAL)
6. ROUTE 6"ø EXHAUST DUCT TO EAVES VENT. LOCATE EXHAUST DISCHARGE A MINIMUM OF 10 FEET FROM ANY OUTSIDE AIR INTAKE.
7. ROUTE 8"ø EXHAUST DUCT TO EAVES VENT. LOCATE EXHAUST DISCHARGE A MINIMUM OF 10 FEET FROM ANY OUTSIDE AIR INTAKE. (TYPICAL)
8. ELECTRIC WALL HEATER. MOUNT 12" A.F.F. INSTALL OUTSIDE EXIT EGRESS PATH. (TYPICAL)
9. ROUTE GAS PIPING UNDERGROUND TO TWO GAS GRILLS LOCATED IN ADJACENT PATIO AREA. FIELD COORDINATE EXACT LOCATIONS. PROVIDE SHUTOFF VALVE FOR EACH GRILL.
10. TURN 16X10 SUPPLY DUCT UP AND ROUTE THROUGH TRUSS OPENINGS. COORDINATE WITH BUILDING STRUCTURE.
11. TURN GAS PIPING UP TO ROUTE IN ATTIC SPACE ABOVE LOBBY AREA.
12. TURN 16X10 SUPPLY DUCT UP. ROUTE TO ABOVE LOBBY AREA. COORDINATE WITH BUILDING STRUCTURE.
13. GAS METER BY GAS COMPANY. COORDINATE ACTUAL LOCATION WITH GAS COMPANY.
14. ERV UNIT (ERV-1) TO BE MOUNTED IN ATTIC. SUPPORT FROM STRUCTURE. ALLOW FOR ALL REQUIRED ACCESS AND CLEARANCES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. FIELD COORDINATE ALL DUCT ROUTING AND UNIT CONNECTIONS. UNIT SHOWN OFFSET FOR CLARITY.
15. PROVIDE DOWCO MODEL DBE 24X18 DRAINABLE EXHAUST LOUVER IN EXTERIOR WALL. COORDINATE WITH BUILDING STRUCTURE. PROVIDE WITH 6"DEEP INSULATED SHEET METAL PLENUM ON BACK OF LOUVER. VERIFY LOUVER IS LOCATED A MINIMUM OF 10 FEET FROM ANY OUTSIDE AIR INTAKE. CONNECT 12X12 EXHAUST DUCT TO PLENUM.
16. PROVIDE DOWCO MODEL DBE 24X18 DRAINABLE INTAKE AIR LOUVER IN EXTERIOR WALL. COORDINATE WITH BUILDING STRUCTURE. PROVIDE WITH 6"DEEP INSULATED SHEET METAL PLENUM ON BACK OF LOUVER. VERIFY LOUVER IS LOCATED A MINIMUM OF 10 FEET FROM ANY VENT OR EXHAUST DISCHARGE. CONNECT 12X12 OUTSIDE AIR DUCT TO PLENUM.
17. PROVIDE TRANSFER DUCTS AND CEILING MOUNTED GRILLES AS INDICATED TO ALLOW FOR MAKE-UP AIR FOR RESTROOMS. PROVIDE WITH BACKDRAFT DAMPER.
18. TURN COMBUSTION AIR INTAKE AND GAS VENT PIPING UP AND ROUTE TO CONCENTRIC VENT AT EXTERIOR WALL SECTION ABOVE.
19. TURN GAS PIPING DOWN TO SERVE GAS WATER HEATER.
20. GAS PIPING TO BE ROUTED IN ATTIC SPACE. COORDINATE WITH BUILDING STRUCTURE. (TYPICAL)
21. OUTSIDE AIR INTAKE GRILLE MOUNTED IN CEILING OF PATIO/ENTRY. PROVIDE WITH TRANSITION AS REQUIRED. LOCATED A MINIMUM OF 10 FEET FROM ANY VENT OR EXHAUST DISCHARGE. COORDINATE WITH BUILDING STRUCTURE. (TYPICAL)



POOL BUILDING FLOOR PLAN - HVAC
SCALE: 1/8" = 1' - 0"

2/M1 PLAN NOTES

1. UNIT HEATER MOUNTED ON WALL. MOUNT A MINIMUM OF 7' A.F.F. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
2. INTAKE LOUVER. DOWCO MODEL DBE-06, 12X12, WITH DAMPER. PROVIDE DAMPER WITH GRAVITY ACTUATOR. LOUVER TO HAVE A MINIMUM FREE AREA OF .3 SF. PROVIDE WITH KYNAR FINISH. (TYPICAL)
3. EXHAUST GRILLE MOUNTED IN CEILING. ROUTE 6"ø EXHAUST DUCT TO FAN ON ROOF. PROVIDE WITH 1 HOUR FIRE WRAP FROM RATED CEILING TO FAN. DUCTWORK TO BE GALVANIZED 22 GAUGE MINIMUM.
4. EXHAUST FAN TO BE MOUNTED ON ROOF. PROVIDE WITH ROOF CURB AND MANUFACTURER'S ROOF MOUNTING KIT. FIELD VERIFY ACTUAL LOCATION. ALLOW FOR REQUIRED CLEARANCES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. VERIFY FAN CAN BE SERVICED FROM PORTABLE EXTERIOR LADDER. VERIFY ACCESSIBILITY OF SERVICE REQUIREMENTS WITH LOCAL AUTHORITY PRIOR TO INSTALLATION. (TYPICAL))
5. EXHAUST GRILLE MOUNTED IN CEILING. ROUTE 10"ø EXHAUST DUCT TO FAN ON ROOF. DUCTWORK TO BE GALVANIZED 20 GAUGE MINIMUM.

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NORTH CAROLINA

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HVAC FLOOR PLAN

M1

JOB NUMBER: -

GAS FIRED FURNACE W/ COOLING COIL SCHEDULE

MARK	NOMINAL TONNAGE	CARRIER MODEL	COOLING COIL MODEL	EAT	LAT	COOLING (MBH)		HEATING (BTUH)			FAN			OUTSIDE AIR CFM	VOLTS/ø	MCA	MOCP	REMARKS
				DB/WB	DB/WB	TC	SHC	INPUT	OUTPUT	AFUE%	CFM	E.S.P.	HP					
GF-1	3 TONS	59TN6C080017-14	CVPMA3617XMC	80.0/67.0	55.0/54.0	36.0	26.0	80,000	78,000	96	1200	0.5"	–	300	115/1	7.1	15	①②③④
GF-2	3 TONS	59TN6C080017-14	CVPMA3617XMC	80.0/67.0	55.0/54.0	36.0	26.0	80,000	78,000	96	1200	0.5"	–	300	115/1	7.1	15	①②③④
GF-3	2 TONS	59TN6C060C17-14	CVPMA2517XMC	80.0/67.0	55.0/54.0	24.0	18.0	60,000	58,000	96	800	0.5"	–	115	115/1	7.3	15	①②③④
GF-4	3.5 TONS	59TN6C100C21-22	CVPMA4921XMC	80.0/67.0	55.0/54.0	48.0	34.0	100,000	98,000	96	1400	0.5"	–	145	115/1	13.2	20	①②③④⑤
GF-5	3 TONS	59TN6C080017-14	CVPMA3617XMC	80.0/67.0	55.0/54.0	36.0	26.0	80,000	78,000	96	1200	0.5"	–	135	115/1	7.1	15	①②③④⑤
GF-6	2 TONS	59TN6C060C17-14	CVPMA2517XMC	80.0/67.0	55.0/54.0	24.0	18.0	60,000	58,000	96	800	0.5"	–	90	115/1	7.3	15	①②③④
GF-7	3.5 TONS	59TN6C100C21-22	CVPMA4921XMC	80.0/67.0	55.0/54.0	48.0	34.0	100,000	98,000	96	1400	0.5"	–	185	115/1	13.2	20	①②③④
GF-8	3.5 TONS	59TN6C100C21-22	CVPMA4921XMC	80.0/67.0	55.0/54.0	48.0	34.0	100,000	98,000	96	1400	0.5"	–	185	115/1	13.2	20	①②③④

① PROVIDE FLANGES FOR COOLING COIL MOUNTING. PROVIDE WITH VARIABLE SPEED FAN.

② PROVIDE UNIT WITH CONCENTRIC VENT KIT TO ALLOW FOR SINGLE WALL/ROOF PENETRATION FOR GAS VENT AND COMBUSTION AIR INTAKE.

③ UNIT TO BE CONFIGURED FOR NATURAL GAS.

④ PROVIDE UNIT WITH CARRIER 7-DAY PROGRAMMABLE THERMOSTAT.

⑤ PROVIDE UNIT WITH CARRIER 7-DAY PROGRAMMABLE THERMOSTAT WITH REMOTE AVERAGING FEATURE (2 TEMPERATURE SENSORS).

CONDENSING UNIT SCHEDULE

MARK	CARRIER MODEL	TOTAL COOLING (MBH)	SEER2	VOLTS/ø	MCA	MAX. FUSE	REMARKS
CU-1	24VNA636A003	36,000	20.0	208/1	13.8	20	①
CU-2	24VNA636A003	36,000	20.0	208/1	13.8	20	①
CU-3	24VNA624A003	24,000	20.5	208/1	8.7	10	①
CU-4	24VNA648A003	48,000	21.0	208/1	19.8	30	①
CU-5	24VNA636A003	36,000	20.0	208/1	13.8	20	①
CU-6	24VNA624A003	24,000	20.5	208/1	8.7	10	①
CU-7	24VNA648A003	48,000	21.0	208/1	19.8	30	①
CU-8	24VNA648A003	48,000	21.0	208/1	19.8	30	①

① PROVIDE CYCLE PROTECTOR, COMPRESSOR START ASSIST, OUTDOOR THERMOSTAT, EVAPORATOR FREEZE THERMOSTAT, HIGH AND LOW PRESSURE SWITCH, TIME-DELAY RELAY, CRANK CASE HEATER, THERMAL EXPANSION VALVE, FILTER DRIER, AND ALL ACCESSORIES REQUIRED TO PROVIDE LOW AMBIENT COOLING (TO 0°F). PROVIDE LONG LINE REFRIGERANT KIT IF LENGTH OF REFRIGERANT LINES FROM CONDENSING UNIT TO COOLING COIL EXCEEDS 50 FT.

ELECTRIC UNIT HEATER SCHEDULE

MARK	MANUF/MODEL	SERVICE	KW	OUTPUT	VOLTS/ø	AMPS	REMARKS
UH-1	QMARK CWH-1101DS	RISER ROOM	1.0	3.41	120/1	8.3	①
UH-2	QMARK CWH-1202DS	ELECTRICAL ROOM	2.0	6.82	208/1	10	①
UH-3	CHROMALOX HD3D-300	POOL EQ. ROOM	3.0	10.23	208/1	15	②
UH-4	CHROMALOX HD3D-200	CHEM. STOR.	2.0	6.82	208/1	10	②

① MOUNT HEATER ON WALL. HEATER SHALL HAVE BUILT-IN THERMOSTAT. INSTALL HEATER SUCH THAT IT DOES NOT IMPEDE EXIT PATH.

② MOUNT HEATER ON WALL. HEATER SHALL HAVE BUILT-IN THERMOSTAT. HEATER SHALL BE CORROSIVE RESISTANT AND SHALL BE LISTED FOR INSTALLATION IN A CORROSIVE ENVIRONMENT AS DEFINED BY THE 2020 NEC.

ENERGY RECOVERY VENTILATOR SCHEDULE

MARK	MANUF/MODEL	CONFIGURATION	O.A. CFM	EXH. CFM	VOLTS/ø	MCA	MOP	EFF.	ESP		O.A.		INDOOR SUPPLY AIR		REMARKS
									SUPPLY	EXHAUST	SUMMER	WINTER	SUMMER	WINTER	
ERV-1	GREENHECK MINIVENT 750-VG	INDOOR	600	600	120/1	20.3	25	–	0.5	0.5	94.1/78.3	18.8/15.5	78.8/66.6	60.3/48.3	①②

NOTE: CFM SHOWN FOR BUILDING SIDE, NOT INCLUDING CFM REQUIRED FOR PURGE.

① INSTALL PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE WITH 7-DAY TIME CLOCK, SUPPLY FAN CONTROL, EXHAUST FAN CONTROL, FROST CONTROL, SPEED CONTROLLER, BACKDRAFT DAMPERS (EXHAUST), MOTORIZED DAMPER (SUPPLY), INTERNALLY ISOLATED FANS, SINGLE MAGNEHELLIC GAUGE FOR SUPPLY AND EXHAUST, SINGLE POINT POWER, AND 2" PLEATED FILTERS (FACTORY INSTALLED).

② UNIT SHALL BE CONTROLLED BY TIME CLOCK. INTERLOCK WITH GF-1 & GF-2. SYSTEMS SHALL BE IN OPERATION DURING ALL OCCUPIED HOURS.

EXHAUST FAN SCHEDULE

MARK	MANUF/ MODEL	TYPE	CFM	ESP	WATTS/HP	VOLTS/ø	RPM	REMARKS
EF-1	COOK GC-160	CABINET FAN	150	0.25"	113	120/1	1500	①②
EF-2	COOK GC-160	CABINET FAN	150	0.25"	113	120/1	1500	①②
EF-3	COOK GC-140	CABINET FAN	75	0.25"	70	120/1	1500	①③
EF-4	PLASTEC 20 (W/RU20 ROOF KIT)	ROOF MOUNTED FAN	250	0.25"	0.25 HP	120/1	1140	④⑥⑦
EF-5	PLASTEC 15 (W/RU15 ROOF KIT)	ROOF MOUNTED FAN	100	0.25"	0.25 HP	120/1	1140	⑤⑥⑦

① FAN CONTROLLED BY TIME CLOCK. FAN SHALL BE DIRECT DRIVE. SUPPORT FAN FROM STRUCTURE. PROVIDE FAN WITH BACKDRAFT DAMPER AND SINGLE POINT ELECTRICAL CONNECTION.

② ROUTE 8"ø EXHAUST DUCT TO EAVES VENT AS SHOWN ON DRAWINGS. LOCATE A MINIMUM OF 10 FEET FROM ANY OUTSIDE AIR INTAKE.

③ ROUTE 6"ø EXHAUST DUCT TO EAVES VENT AS SHOWN ON DRAWINGS. LOCATE A MINIMUM OF 10 FEET FROM ANY OUTSIDE AIR INTAKE.

④ ROUTE 8"ø EXHAUST DUCT FROM GRILLE TO FAN ON ROOF AS SHOWN ON DRAWINGS.

⑤ ROUTE 6"ø EXHAUST DUCT FROM GRILLE TO FAN ON ROOF AS SHOWN ON DRAWINGS. PROVIDE WITH FIRE WRAP AS INDICATED ON DRAWINGS.

⑥ FAN SHALL OPERATE CONTINUOUSLY. FAN SHALL BE DIRECT DRIVE. SUPPORT FAN FROM STRUCTURE. PROVIDE FAN WITH SINGLE POINT ELECTRICAL CONNECTION.

⑦ FAN SHALL BE CORROSIVE RESISTANT AND SHALL BE LISTED FOR INSTALLATION IN A CORROSIVE ENVIRONMENT AS DEFINED BY THE 2020 NEC.

OUTSIDE AIR CALCULATION

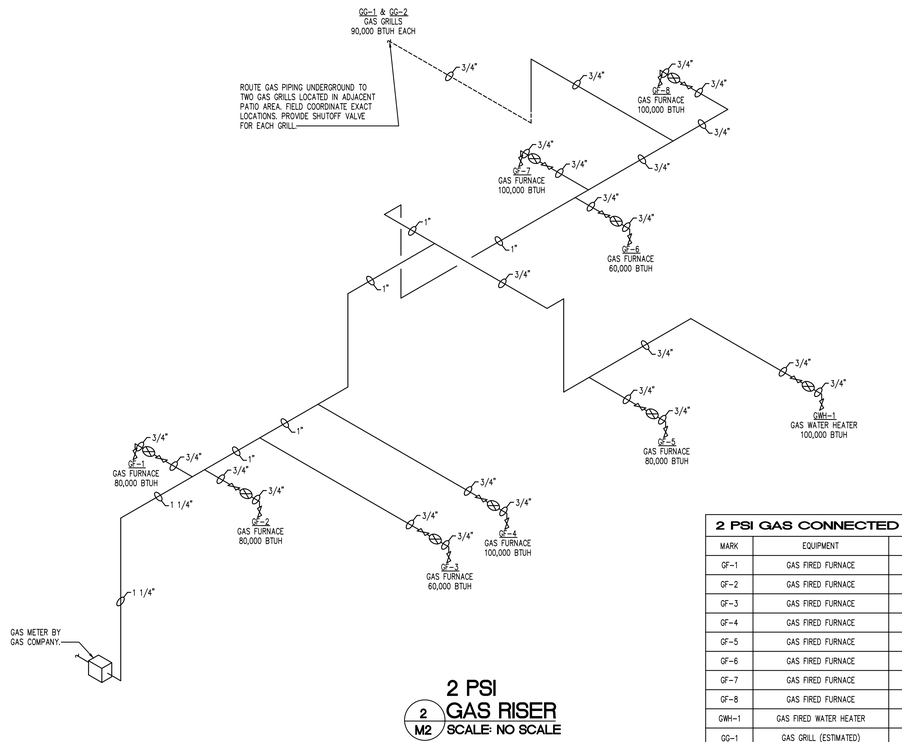
SPACE CLASSIFICATION	NET AREA (SF)	NUMBER PEOPLE/ 1000SF	TOTAL PEOPLE	CFM/ PERSON	CFM/ SQ. FT	TOTAL CFM	REQUIRED CFM (Vbz)	DESIGN CFM
OFFICE	2410	5	13	5	0.06	210	210	1455
CONF/MEETING	750	50	38	5	0.06	235	235	
HEALTH CLUB/WEIGHTS	1265	10	13	20	0.06	336	336	
CORRIDOR/STORAGE	3435	0	0	0	0.06	206	206	
SINGLE ZONE RECIRCULATION CALCULATION							987	
Voz = Vbz/Ez Ez = 0.8 (ASHRAE 62.1-2004 TABLE 6.1)							1233	
GRAND TOTAL OUTSIDE AIR REQUIRED							1233	

AIR DISTRIBUTION SCHEDULE

MARK	NAILOR MODEL	PANEL SIZE	TYPE	NECK SIZE	TYPE	REMARKS
(A)	MODEL 6400, TYPE "S", STEEL, LOUVERED FACE, WITH BEVELED FRAME, SQUARE TO ROUND TRANSITION, & OBD.	12X12	SURFACE MOUNTED	6"ø (6X6)	SUPPLY	VERIFY CEILING TYPES, COLOR BY ARCHITECT
(B)	MODEL 6400, TYPE "S", STEEL, LOUVERED FACE, WITH BEVELED FRAME, SQUARE TO ROUND TRANSITION, & OBD.	12X12	SURFACE MOUNTED	8"ø (9X9)	SUPPLY	VERIFY CEILING TYPES, COLOR BY ARCHITECT
(C)	MODEL 6145H-O, STEEL, LOUVERED FACE, HORZ., PROVIDE W/ OBD.	40X18	SURFACE MOUNTED	40X18	RETURN	COLOR TO BE DETERMINED BY ARCHITECT
(D)	MODEL 6145H-O, STEEL, LOUVERED FACE, HORZ., PROVIDE W/ OBD.	24X14	SURFACE MOUNTED	24X14	RETURN	COLOR TO BE DETERMINED BY ARCHITECT
(E)	MODEL 4360AA, TYPE "S", ALUM., PERFORATED, PROVIDE W/ SQR. TO RND. TRANS.	12X12	SURFACE MOUNTED	8X8	RETURN	VERIFY CEILING TYPES, COLOR BY ARCHITECT
(F)	MODEL 4360AA, TYPE "S", ALUM., PERFORATED, PROVIDE W/ SQR. TO RND. TRANS.	12X12	SURFACE MOUNTED	10X10	RETURN	VERIFY CEILING TYPES, COLOR BY ARCHITECT
(G)	MODEL 4360AA, TYPE "S", ALUM, PERFORATED, PROVIDE W/ SQR. TO RND. TRANS. & RADIATION DAMPER	12X12	SURFACE MOUNTED	6"ø	EXHAUST	VERIFY CEILING TYPES, COLOR BY ARCHITECT
(H)	MODEL 4360AA, TYPE "S", ALUM, PERFORATED, PROVIDE W/ SQR. TO RND. TRANS.	12X12	SURFACE MOUNTED	10"ø	EXHAUST	VERIFY CEILING TYPES, COLOR BY ARCHITECT
(J)	MODEL 6145H-O, STEEL, LOUVERED FACE, HORZ., PROVIDE W/ OBD.	14X14	SURFACE MOUNTED	14X14	RETURN	COLOR TO BE DETERMINED BY ARCHITECT
(K)	MODEL 51EC-O, ALUM., EGGCRATE FACE, PROVIDE W/ OBD.	14X14	SURFACE MOUNTED	14X14	OUTSIDE AIR	COLOR TO BE DETERMINED BY ARCHITECT

HVAC LEGEND

- CEILING LOUVERED SUPPLY DIFFUSER
- CEILING RETURN GRILLE
- CEILING EXHAUST GRILLE/FAN
- (T) THERMOSTAT
- RECTANGULAR DUCT
- EXISTING DUCTWORK TO REMAIN
- MANUAL VOLUME DAMPER
- G — GAS PIPING
- DUCT TAP & FLEX
- (SD) SMOKE DETECTOR
- (M) MOTORIZED DAMPER
- DUCT TURNS DOWN
- DIFFUSER MARK / DIFFUSER CFM (e.g. A / 100)
- EF-1 EXHAUST FAN MARK
- ERV-1 ENERGY RECOVERY VENTILATOR MARK
- GF-1 GAS FURNACE MARK
- CU-1 CONDENSING UNIT MARK
- GWH-1 GAS WATER HEATER MARK
- GG-1 GAS GRILL MARK
- CONNECT TO EXISTING
- ONE HOUR RATED PARTITION
- TWO HOUR RATED PARTITION
- THREE HOUR RATED PARTITION



2 PSI GAS RISER
2 / M2 SCALE: NO SCALE

2 PSI GAS CONNECTED LOAD

MARK	EQUIPMENT	BTUH INPUT
GF-1	GAS FIRED FURNACE	80000
GF-2	GAS FIRED FURNACE	80000
GF-3	GAS FIRED FURNACE	60000
GF-4	GAS FIRED FURNACE	100000
GF-5	GAS FIRED FURNACE	80000
GF-6	GAS FIRED FURNACE	60000
GF-7	GAS FIRED FURNACE	100000
GF-8	GAS FIRED FURNACE	100000
GWH-1	GAS FIRED WATER HEATER	100000
GG-1	GAS GRILL (ESTIMATED)	90000
GG-2	GAS GRILL (ESTIMATED)	90000
	TOTAL	940000

EQUIVALENT LENGTH (GAS METER TO FARTHEST REGULATOR): 320'
GAS PIPE SIZING BASED ON NC 2018 FUEL GAS CODE TABLE 402.4(5)

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C-1474

REVISIONS

ALTIS SERENITY CLUB HOUSE
HARNETT COUNTY
NORTH CAROLINA

tri pointe HOMES

HVAC DEATAILS

M2

JOB NUMBER: -

GENERAL NOTES:

1. THE HEATING AND AIR CONDITIONING CONTRACTOR (THE CONTRACTOR) SHALL PROVIDE ALL SPECIFIED AND MISCELLANEOUS MATERIAL AND LABOR AS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM AS DESCRIBED BY THESE PLANS AND SPECIFICATIONS.

2. ALL FLEXIBLE DUCT CONNECTIONS TO HAVE MANUFACTURED SPIN-IN FITTINGS WITH DAMPER, AND MANUAL LOCKING QUADRANT.

3. PROVIDE AN ELECTRONIC PROGRAMMABLE THERMOSTAT FOR EACH AIR HANDLING UNIT. THERMOSTAT SHALL BE HONEYWELL MODEL T7351 WITH SUBBASE (OR EQUAL), PROVIDE WITH TRANSPARENT LOCKING COVERS. THE HIGHEST OPERATING COMPONENT OF THE THERMOSTAT SHALL BE MOUNTED AT 48" MAX. A.F.F. AND IN COMPLIANCE WITH NC ACCESSIBILITY CODE. THERMOSTAT SHALL BE CAPABLE OF CONTROLLING COOLING AND HEATING SYSTEM OPERATION IN COMPLIANCE WITH SECTION C403.2.4 OF THE NC ENERGY CONSERVATION CODE.

4. THE MECHANICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF THE OTHER TRADES PRIOR TO THE INSTALLATION OF ANY OF HIS EQUIPMENT, DUCTWORK, OR PIPING.

5. ALL EQUIPMENT, MATERIALS, AND INSTALLATION OF SUCH SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL CODES. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS. IF THERE IS A CONFLICT IN THE ABOVE REQUIREMENTS, THE MORE STRINGENT SHALL BE USED. ACCESS TO ALL EQUIPMENT SHALL BE PROVIDED IN COMPLIANCE WITH CHAPTER 3 OF THE NORTH CAROLINA MECHANICAL CODE.

6. THE MECHANICAL CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, AND INSPECTIONS REQUIRED FOR HIS WORK.

7. WORKMANSHIP SHALL BE FIRST-CLASS AND PERFORMED BY EXPERIENCED AND SKILLED CRAFTSMEN.

8. REFER TO ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS, DO NOT SCALE THESE DRAWINGS.

9. COORDINATE EXACT LOCATION OF ALL DIFFUSERS WITH LIGHTS, SPRINKLER HEADS, AND OTHER CEILING MOUNTED DEVICES.

10. THE MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL HIS OWN SUPPORT EQUIPMENT. LOCATIONS SHALL BE COORDINATED WITH ALL CONTRACTORS PRIOR TO INSTALLATION.

11. ALL EQUIPMENT SHALL BE LOCATED AND INSTALLED TO PROVIDE MAXIMUM SPACE FOR MAINTENANCE AND SERVICE. ALL EQUIPMENT INSTALLATIONS SHALL ALLOW FOR ALL CODE AND MANUFACTURER REQUIRED CLEARANCES.

12. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL POWER CONNECTIONS TO THE EQUIPMENT PROVIDED UNDER HIS CONTRACT.

13. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONTROL WIRING FOR HIS EQUIPMENT.

14. ALL OUTSIDE AIR SUPPLY AND EXHAUST DUCTWORK, FANS, AND EXTERIOR OPENINGS SHALL BE PROVIDED WITH CLASS 1 MOTORIZED DAMPERS IN COMPLIANCE WITH SECTION C403.2.4.3 OF THE NC ENERGY CONSERVATION CODE. GRAVITY DAMPERS MAY BE PERMITTED IN BUILDING LESS THAN 3 STORIES IN HEIGHT OR FOR EXHAUST AIRFLOW OF 300 CFM OR LESS.

15. FOR SPACES LARGER THAN 500 SQUARE FEET, THE CONTRACTOR SHALL PROVIDE CO2 SENSORS AND MOTORIZED DAMPERS ON ALL HVAC SYSTEMS TO PROVIDE DEMAND CONTROLLED VENTILATION IN COMPLIANCE WITH SECTION C403.2.6 OF THE NC ENERGY CONSERVATION CODE UNLESS OTHERWISE NOTED.

16 LINE SUPPLY AND RETURN DUCT WITH DUCT LINER A MINIMUM OF FIVE FEET BEYOND FIRST ELBOW DOWNSTREAM OF DISCHARGE AND INTAKE OF UNIT. DUCT LINER SHALL BE A MINIMUM OF R-6 ACOUSTICAL LINER. INSULATE ALL SUPPLY AND RETURN DUCT DOWN STREAM OF LINED DUCT WITH BLANKET INSULATION. BLANKET INSULATION SHALL A MINIMUM OF R-6 GLASS FIBER WITH FIRE RETARDANT FOIL-SCRIM KRAFT JACKET. AS AN ALTERNATE, THE MECHANICAL CONTRACTOR MAY LINE RIGID DUCTWORK WITH ACOUSTICAL LINER IN LIEU OF WRAPPING DUCTWORK WITH BLANKET INSULATION. PROVIDE R-8 DUCT INSULATION FOR ANY DUCTWORK LOCATED OUTSIDE OF OUTSIDE OF BUILDING ENVELOPE. ALL INSULATION R-VALUES SHALL BE IN COMPLIANCE WITH SECTION C403.2.9 OF THE NORTH CAROLINA ENERGY CONSERVATION CODE.

17. DUCTWORK AS SHOWN ON THE DRAWINGS IS STRICTLY DIAGRAMMATIC. ALL DUCT SIZES SHOWN ARE FREE AREA. COORDINATE EXACT LOCATION OF ALL DUCTWORK WITH THE BUILDING STRUCTURE AND OTHER TRADES.

18. IT WILL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO ENSURE THAT ITEMS TO BE FURNISHED UNDER HIS CONTRACT WILL FIT THE SPACE AVAILABLE. HE SHALL MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, INCLUDING THOSE FOR CONNECTIONS AND SERVICE CLEARANCES, AND SHALL FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT THAT ARE THE TRUE INTENT AND MEANING OF THESE DRAWINGS AND SPECIFICATIONS.

19. ALL DUCT TO BE CONSTRUCTED OF GALVANIZED STEEL SHEETS IN ACCORDANCE WITH SMACNA GAGES AND STANDARDS. SUPPLY DUCT JOINTS SHALL BE SEALED AIRTIGHT AND SHALL BE IN COMPLIANCE WITH SECTION C403.2.9.1 OF THE NORTH CAROLINA ENERGY CONSERVATION CODE. ALL SQUARE BENDS OR ELBOW FITTINGS SHALL HAVE TURNING VANES. PROVIDE SPLITTER DAMPERS AT SUPPLY TEES AND EXTRACTORS AT ALL SUPPLY AIR BRANCHES. PROVIDE BALANCING DAMPERS IN ALL DUCTS WHERE REQUIRED FOR SYSTEM BALANCING AS SHOWN ON PLANS OR AS REQUIRED.

20. INSTALL FLEXIBLE DUCT CONNECTIONS AT THE SUPPLY AND RETURN DUCTWORK CONNECTIONS OF ALL AIR HANDLING UNITS FOR VIBRATION ISOLATION.

21. PROVIDE FIRE DAMPERS AT ALL DUCT PENETRATIONS THROUGH THE FIRE-RATED WALLS AS SHOWN ON PLANS OR AS REQUIRED. PROVIDE RADIATION DAMPERS AT ALL DIFFUSERS/GRILLES MOUNTED IN FIRE-RATED CEILINGS AND CEILING ASSEMBLIES AS SHOWN ON PLANS OR AS REQUIRED.

22. PROVIDE ACCESS PANELS IN THE DUCTWORK FOR ALL FIRE DAMPERS OR OTHER DUCT MOUNTED EQUIPMENT. LOCATE ACCESS PANEL SO THAT ACCESS TO EQUIPMENT IS EASILY ATTAINED.

23. CONTRACTOR SHALL PROVIDE ENTHALPY CONTROLLED ECONOMIZERS FOR ANY AIR CONDITIONING UNIT OVER 65,000 BTHU OF COOLING UNLESS OTHERWISE NOTED. ECONOMIZER SHALL CONFORM TO REQUIREMENTS OF SECTION C403.3 OF THE NC ENERGY CONSERVATION CODE.

24. PRIOR TO BIDDING, MECHANICAL CONTRACTOR IS TO VISIT SITE TO FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS AND RESOLVE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND THESE PLANS WITH THE ENGINEER.

25. PROVIDE A COMPLETE 1-YEAR WARRANTY ON ALL LABOR AND MATERIALS. ALSO, MANUFACTURER'S PUBLISHED 5-YEAR NON PRORATED COMPRESSOR WARRANTY.

26. CONTRACTOR SHALL FURNISH A BOUND SET OF OPERATING AND MAINTENANCE MANUALS FOR ALL EQUIPMENT TO THE OWNER UPON COMPLETION OF PROJECT. MANUALS SHALL INCLUDE ALL ITEMS AS SPECIFIED IN SECTION C408.2.5 OF THE NORTH CAROLINA ENERGY CONSERVATION CODE.

27. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL SYSTEM COMMISSIONING AS REQUIRED PER SECTION C408 OF THE NC ENERGY CONSERVATION CODE. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING STATEMENT OF SYSTEM COMMISSIONING (APPENDIX C1) AS REQUIRED IN SECTION 503.2.9.3 OF THE NORTH CAROLINA ENERGY CONSERVATION CODE. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING STATEMENT OF COMPLIANCE AS REQUIRED

28. OUTSIDE AIR INTAKES SHALL BE LOCATED A MINIMUM OF 10 FEET FROM ALL EXHAUST DISCHARGE AND PLUMBING VENTS.

29. INSTALL ESCUTCHEONS IN ALL PLACES WHERE PIPING PENETRATES A WALL IN AN EXPOSED LOCATION.

30. REPLACE ALL FILTERS JUST PRIOR TO ACCEPTANCE BY THE OWNER.

31. THE MECHANICAL CONTRACTOR SHALL PROVIDE SMOKE DETECTORS PER SECTION 606 OF N.C. MECHANICAL CODE IN THE RETURN OF EACH UNIT TO DE-ENERGIZE UNIT IN THE EVENT OF FIRE. SMOKE DETECTORS SHALL BE U.L. LISTED FOR DUCT INSTALLATION. SUPERVISION OF DUCT DETECTOR SHALL BE PER SECTION 606.4.1. MECHANICAL CONTRACTOR SHALL PROVIDE VISUAL AND AUDIBLE ALARM FOR EACH DETECTOR.

32. MOUNT AIR HANDLING UNIT IN SUCH A WAY THAT ADEQUATE SLOPE IS PROVIDED FOR ALL DRAIN LINES. PIPE CONDENSATE FROM COIL AND DRAIN PAN FULL SIZE TO AN APPROVED PLACE OF DISPOSAL IN COMPLIANCE WITH NCMC, SECTION 307. PROVIDE FLOAT SWITCH IN CONDENSATE PANS TO STOP FAN UPON ACCUMULATION OF CONDENSATE IN PAN.

33. THE MECHANICAL CONTRACTOR SHALL MAKE A COMPLETE REVIEW OF THE MECHANICAL PLANS, INCLUDING THE SCHEDULES AND DETAILS PRIOR TO INSTALLATION OF ANY MECHANICAL SYSTEMS AND SHALL RESOLVE ANY CONFLICTS WITH THE ENGINEER.

34. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES. ALL DRAWINGS INDICATE THE GENERAL ARRANGEMENT DESIRED. THE EXACT LOCATIONS AND DETAILS OF CONSTRUCTION MAY BE SUCH THAT VARIANCES ARE REQUIRED. THE DRAWINGS DO NOT SHOW ALL BENDS, OFFSETS, AND FITTINGS THAT MAY BE REQUIRED FOR THE COMPLETE EXECUTION OF THIS CONTRACT. SUCH VARIANCES AND CONTINGENCIES SHALL BE ALLOWED FOR IN THE CONTRACTOR'S BID AND SHALL BE ACCOMPLISHED WITHOUT ADDITIONAL COST TO THE OWNER. PRIOR TO ORDERING EQUIPMENT, THE CONTRACTOR SHALL PREPARE COORDINATION DRAWINGS SHOWING HOW HIS EQUIPMENT IS TO BE LOCATED IN THE SPACE INDICATED. THIS DRAWING SHALL SHOW THE NEW AND EXISTING WORK OF ALL OTHER TRADES. THE CONTRACTOR SHALL CONTACT THE OTHER CONTRACTORS INVOLVED FOR DIMENSIONS, LOCATIONS, AND REQUIRED CLEARANCES OF THE EQUIPMENT THEY INTEND TO PROVIDE FOR THIS JOB. THE AFOREMENTIONED COORDINATION DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

35. ALL MATERIALS USED SHALL BE NEW AND FREE OF DEFECTS. WHERE TRADE NAMES ARE MENTIONED, THEY ARE GIVEN AS A REFERENCE TO THE QUALITY OF THE APPARATUS REQUIRED. ALL MATERIALS AND EQUIPMENT SHALL BEAR THE UL LABEL OR EQUIVALENT WHERE APPLICABLE. OTHER MAKES MAY BE USED IF APPROVED IN WRITING BY THE ENGINEER. THE CONTRACTOR SHALL SUBMIT A COMPLETE LIST OF MATERIALS AND EQUIPMENT PROPOSED FOR USE IN THIS CONTRACT TO THE ENGINEER WITHIN TEN DAYS FOLLOWING THE AWARD OF CONTRACT. IF SUCH LIST IS NOT SUBMITTED, THE CONTRACTOR SHALL SUPPLY THE MATERIALS AND EQUIPMENT SPECIFIED OR AS DIRECTED BY THE ENGINEER.

36. FLEXIBLE DUCT SHALL BE INSULATED, SOUND ATTENUATING, LOW VELOCITY TYPE AND SHALL COMPLY WITH NFPA 90A AND 90B. FLEXIBLE DUCT SHALL BE U.L. LISTED, CLASS 1 INSULATED TYPE, RATED FOR A MINIMUM OF 4" POSITIVE STATIC PRESSURE AND A MINIMUM OF 1" NEGATIVE STATIC PRESSURE. FLEXIBLE DUCT SHALL BE FACTORY-FORMED, COMPOSED OF SPIRAL WOUND, CORROSION RESISTANT WIRE BONDED TO AN INNER FABRIC LINER, COVERED WITH INSULATION WITH A VAPOR BARRIER. INSULATION R-VALUES SHALL BE PER THE NORTH CAROLINA ENERGY CONSERVATION CODE.

37. ROUTE REFRIGERANT LINES FROM OUTDOOR CONDENSING UNITS IN THE MOST DIRECT PATH TO AIR HANDLER LOCATED ABOVE CEILING. INSULATE WITH FOAM INSULATION. INSULATION SHALL BE IN COMPLIANCE WITH THE NORTH CAROLINA ENERGY CONSERVATION CODE. PROVIDE LONG LINE REFRIGERATION KIT AS REQUIRED.

38. IF FIRE ALARM SYSTEM IS PROVIDED IN BUILDING, THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND WIRE ALL SMOKE DETECTORS. IF FIRE ALARM SYSTEM IS NOT PROVIDED IN BUILDING, THE MECHANICAL CONTRACTOR SHALL PROVIDE AND WIRE SMOKE DETECTORS. REGARDLESS OF WHO PROVIDES DETECTOR, IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO INSTALL THE SMOKE DETECTORS IN THE RETURN OF REQUIRED UNITS TO DE-ENERGIZE UNIT IN THE EVENT OF FIRE. SMOKE DETECTORS SHALL BE U.L. LISTED FOR DUCT INSTALLATION. ELECTRICAL CONTRACTOR AND MECHANICAL CONTRACTOR SHALL COORDINATE SMOKE DETECTOR REQUIREMENTS FOR SYSTEM PRIOR TO INSTALLATION.

39. UPON COMPLETION OF THE WORK, A TEST AND BALANCE SHALL BE PERFORMED IN ACCORDANCE WITH "AABC" REQUIREMENTS. AIR FLOW AND STATIC PRESSURE SHALL BE MEASURED AND RECORDED FOR ALL OUTLETS ON EACH SYSTEM. ONE WEEK AFTER THE OWNER HAS OCCUPIED THE BUILDING AND OPENED FOR BUSINESS, THE CONTRACTOR SHALL RE-BALANCE THE SYSTEM ACCORDING TO THE NEEDS OF THE OCCUPANTS. PROVIDE A COMPLETE TEST AND BALANCE REPORT TO THE ENGINEER.

40. AS APPLICABLE, THE CONTRACTOR SHALL VERIFY THE OPERATION OF ALL EXISTING MECHANICAL EQUIPMENT IN THE AREA OF WORK. ALL MEASUREMENTS SHALL BE RECORDED NECESSARY FOR THE CONTRACTOR TO ASCERTAIN PROPER OPERATION OF THE EQUIPMENT INCLUDING, BUT NOT LIMITED TO, AMPERAGE, GPM FLOW, INLET AND OUTLET TEMPERATURES, AIR FLOW, AND INLET AND OUTLET STATIC PRESSURES. ANY DEFICIENCY IN THE RATED OUTPUT OF THE EQUIPMENT SHALL BE REPORTED TO THE ENGINEER AND BUILDING OWNER. IN ANY CASE, SAID REPORT SHALL BE SUBMITTED TO THE ENGINEER UPON REQUEST.

41. THE CONTRACTOR SHALL, AT THE COMPLETION OF THE WORK, CLEAN, POLISH, AND/OR WASH ALL EXPOSED ITEMS OF MATERIALS, EQUIPMENT, AND FIXTURES IN HIS CONTRACT TO LEAVE SUCH ITEMS BRIGHT AND CLEAN. THE CONTRACTOR SHALL KEEP THE PREMISES CLEAR OF DEBRIS FROM HIS WORK DURING CONSTRUCTION AND LEAVE THE AREA AND BUILDING CLEAN AT COMPLETION OF THE CONTRACT.

42. MECHANICAL AND ELECTRICAL EQUIPMENT SHALL OPERATE WITHOUT OBJECTIONABLE NOISE OR VIBRATION, AS DETERMINED BY THE ENGINEER. IF SUCH OBJECTIONABLE NOISE OR VIBRATION SHOULD BE PRODUCED AND TRANSMITTED TO OCCUPIED PORTIONS OF THE BUILDING, THE CONTRACTOR SHALL MAKE THE NECESSARY CHANGES TO CORRECT THE NOISE OR VIBRATION WITHOUT ADDITIONAL COST TO THE OWNER.

43. ALL AIR HANDLING UNIT SUPPLY FANS SHALL OPERATE CONTINUOUSLY DURING OCCUPIED HOURS.

44. MECHANICAL CONTRACTOR SHALL CONCEAL ALL EXTERIOR PENETRATIONS WHERE POSSIBLE. COORDINATE ALL EXTERIOR PENETRATIONS WITH BUILDING OWNER (TENANT) AND GENERAL CONTRACTOR.

45. CATALOG PART NUMBERS INDICATED ARE FOR DESCRIPTIVE AND QUALITY STANDARDS ONLY, NOT TO BE UTILIZED FOR ORDERING WITHOUT VERIFICATION. ENGINEER SHALL NOT BE RESPONSIBLE FOR MISMATCHED OR INACCURATE PART NUMBERS. COORDINATE CLOSELY WITH ALL TRADES PRIOR TO MATERIAL/EQUIPMENT ORDERING.

46. ALL GAS PIPING SHALL BE INSTALLED BY THE MECHANICAL CONTRACTOR. GAS PIPE SHALL BE SCHEDULE 40 BLACK STEEL. PROVIDE ALL VALVES, FITTINGS AND CONTROLS AS REQUIRED BY LOCAL, STATE, AND NATIONAL CODES OR BY MANUFACTURER'S WRITTEN RECOMMENDATIONS FOR A COMPLETE AND OPERATIONAL SYSTEM. THE GAS SYSTEM SHALL HAVE AN INITIAL SYSTEM PRESSURE OF 2 PSI. SIZING OF GAS PIPE SIZES BASED ON A PRESSURE DROP OF 1.5 PSI. GAS SPECIFIC GRAVITY OF 0.65. PROVIDE ALL APPLIANCES CONNECTED TO GAS SYSTEM WITH GAS REGULATOR. WHEN LOCATED INDOORS, REGULATORS SHALL BE VENTED TO OUTDOORS OR EQUIPPED WITH A LEAK LIMITING DEVICE IN COMPLIANCE WITH THE NORTH CAROLINA FUEL CODE, SECTION 410.

MECHANICAL SYSTEMS AND EQUIPMENT

METHOD OF COMPLIANCE:

- ☐ C401.2 Method 1 (ASHRAE 90.1)
- ☒ C401.2 Method 2 (Prescriptive)
- ☐ C401.2 Method 3 (Energy Cost Budget)

Thermal Zone 4A

Exterior Design Conditions
- winter dry bulb 16℉
- summer dry bulb 90℉
- summer wet bulb 75℉

Interior Design Conditions
- winter dry bulb 70℉
- summer dry bulb 75℉
- relative humidity 50%

Building Heating Load – 169,300 BTU/hr

Building Cooling Load – 273,800 BTU/hr

Mechanical Spacing Conditioning System

Unitary – The building is served by eight gas furnaces with split system air conditioning. Efficiencies and outputs for heating and cooling are listed in the schedules – See drawings.

Boiler – Not applicable to this project.

Chiller – Not applicable to this project.

Equipment efficiencies

Efficiencies are listed on equipment schedules – See drawings.

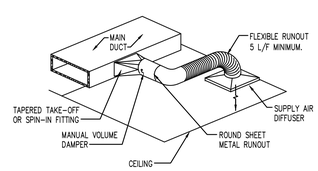
Equipment schedules with motors.

Multispeed motors are used on this project and are included in the efficiency rating of the unit. See drawings for efficiencies.

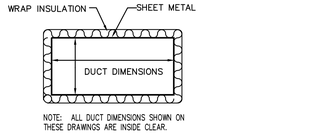
NCSBC:ENERGY, Section C406 Compliance –

- ☐ C406.2 More Efficient Mechanical Equipment
- ☒ C406.3 Reduced LPD
- ☐ C406.4 Enhanced Digital Lighting Controls
- ☐ C406.5 On-site Renewable Energy
- ☐ C406.6 Dedicated Outdoor Air System
- ☐ C406.7 Reduced Energy Use in Service Water Heating
- ☐ C406.8 Load Fraction
- ☐ N/A

DESIGNER STATEMENT:
To the best of my knowledge and belief, the design of this building complies with the mechanical system and equipment requirements of the North Carolina State Building, Code, Edition-Energy.

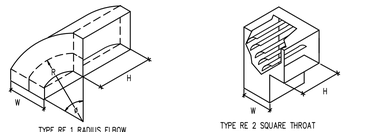


SUPPLY DIFFUSER INSTALLATION DETAIL
1 / M3 SCALE: NONE

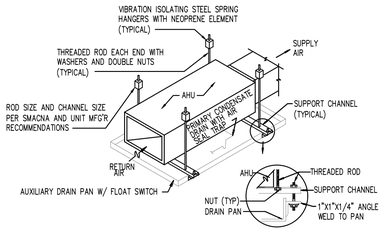


NOTE: ALL DUCT DIMENSIONS SHOWN ON THESE DRAWINGS ARE INSIDE CLEAR.

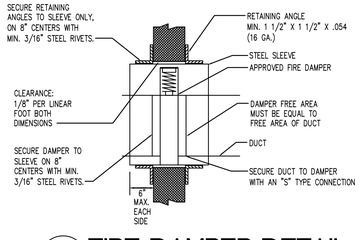
PRIMARY DUCT FABRICATION DETAIL
4 / M3 SCALE: NONE



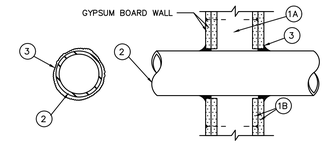
RECTANGULAR SHEETMETAL ELBOWS
2 / M3 SCALE: NONE



AHU HANGER DETAIL ABOVE CEILING
3 / M3 SCALE: NONE



FIRE DAMPER DETAIL
6 / M3 SCALE: NONE



System No. W-L-1001

June 15, 2005

F Ratings – 1, 2, 3 and 4 Hr (See Items 2 and 3)
T Ratings – 0, 1, 2, 3, and 4 Hr (See Item 3)
L Rating At Ambient – less than 1 CFM/sq ft
L Rating At 400 F – less than 1 CFM/sq ft

1. Wall Assembly – The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs – Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC with nom 2 by 4 in. (51 by 102 mm) lumber end plates and cross braces. Steel studs to be min 3-5/8 in. (92 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.

B. Gypsum Board* – Nom 1/2 or 5/8 in. (13 or 16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 26 in. (660 mm).

2. Through-Penetrant – One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in / (0 mm). (point contact) to max 2 in. (51 mm) Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. Steel Pipe – Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe – Nom 24 in. (610 mm) diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in (305 mm) diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.

C. Conduit – Nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 4 in (102 mm) diam (or smaller) steel electrical metallic tubing

D. Copper Tubing – Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing

E. Copper Pipe – Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.

F. Through Penetrating Product* – Flexible Metal Piping The following types of steel flexible metal gas piping may be used:

1. Nom 2 in. (51 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

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2. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

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3. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

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3. Fill, Void or Cavity Material* – Caulk or Sealant – Min 5/8 , 1-1/4,1-7/8 and 2-1/2 in. (16, 32, 48 and 64 mm) thickness of caulk for 1, 2, 3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

Max Pipe or Conduit Diam In (mm)	F Rating Hr	T Rating Hr
1 (25)	1 or 2	0+, 1 or 2
1 (25)	3 or 4	3 or 4
4 (102)	1 or 2	0
6 (152)	3 or 4	0
12 (305)	1 or 2	0

+When copper pipe is used, T Rating is 0 h.

3M COMPANY – CP 25WB+ or FB-3000 WT.

FOR FRAMED WALL ONLY 1,2,3, OR 4 HOUR PENETRATION FIRESTOP DETAIL
5 / M3 SCALE: NONE

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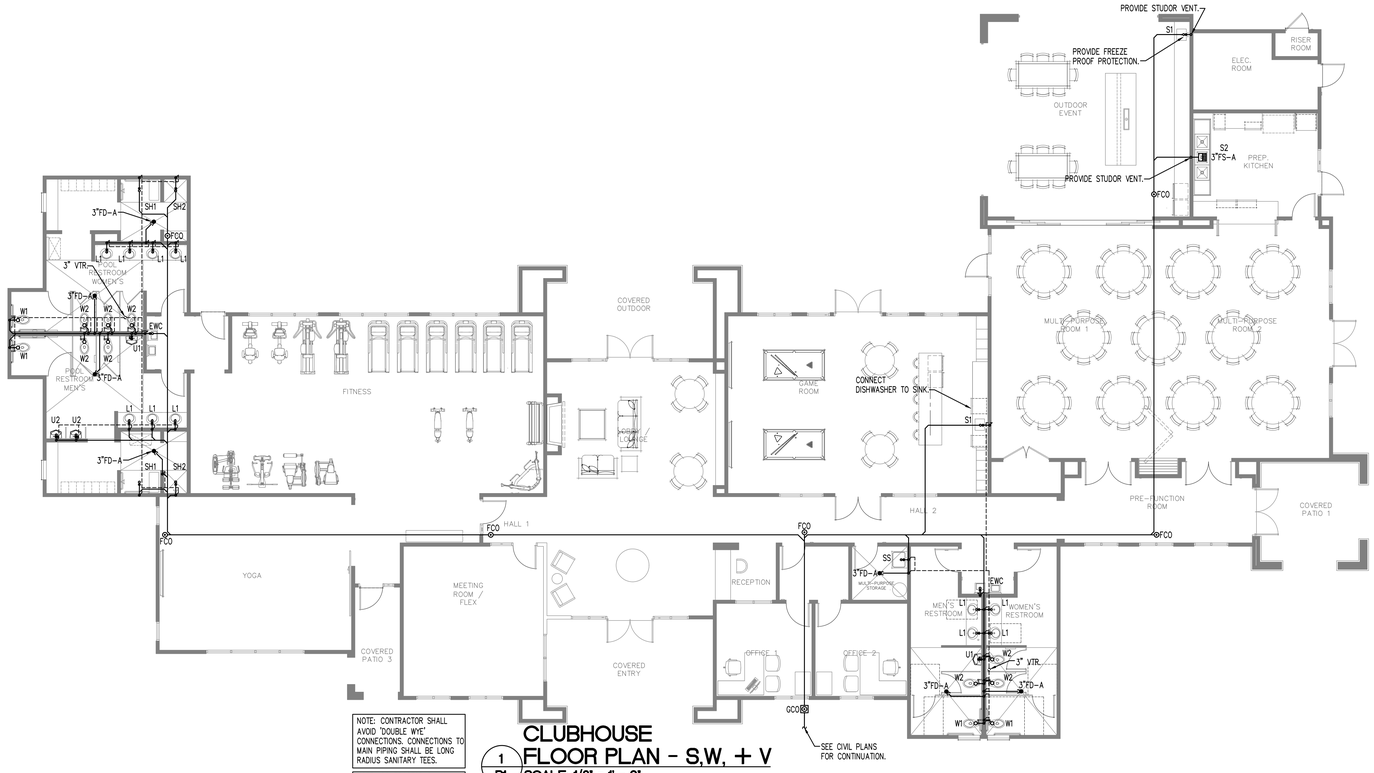
HVAC DETAILS

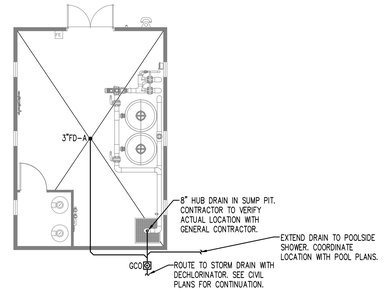
M3



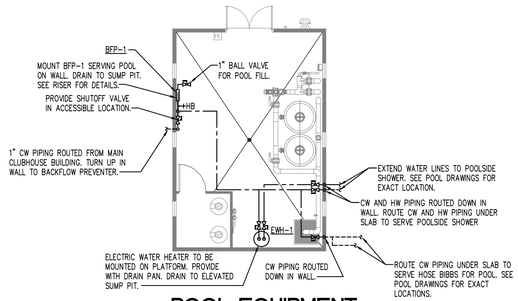
NOTE: CONTRACTOR SHALL AVOID 'DOUBLE WYE' CONNECTIONS. CONNECTIONS TO MAIN PIPING SHALL BE LONG RADIUS SANITARY TEES.

NOTE: CONTRACTOR SHALL VERIFY SANITARY SEWER LINE SLOPES, INCLUDING EXISTING PIPING, MEETS THAT INDICATED IN NCSBC PLUMBING.

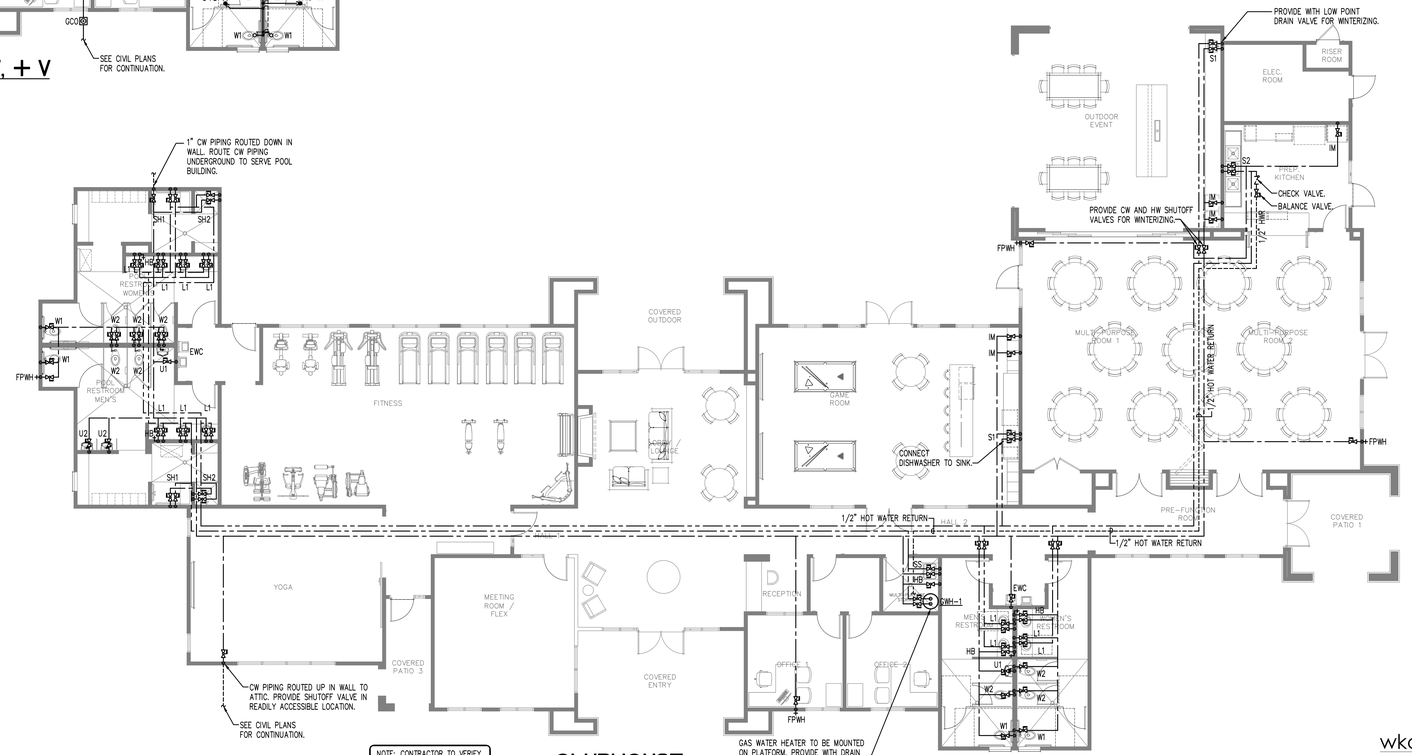
1 P1 CLUBHOUSE FLOOR PLAN - S,W, + V
SCALE: 1/8" = 1' - 0"



2 P1 POOL EQUIPMENT FLOOR PLAN - S,W, + V
SCALE: 1/8" = 1' - 0"



3 P1 POOL EQUIPMENT FLOOR PLAN - WATER
SCALE: 1/8" = 1' - 0"



NOTE: CONTRACTOR TO VERIFY BUILDING IS SERVED BY AN EXTERIOR BACKFLOW PREVENTER.

4 P1 CLUBHOUSE FLOOR PLAN - WATER
SCALE: 1/8" = 1' - 0"

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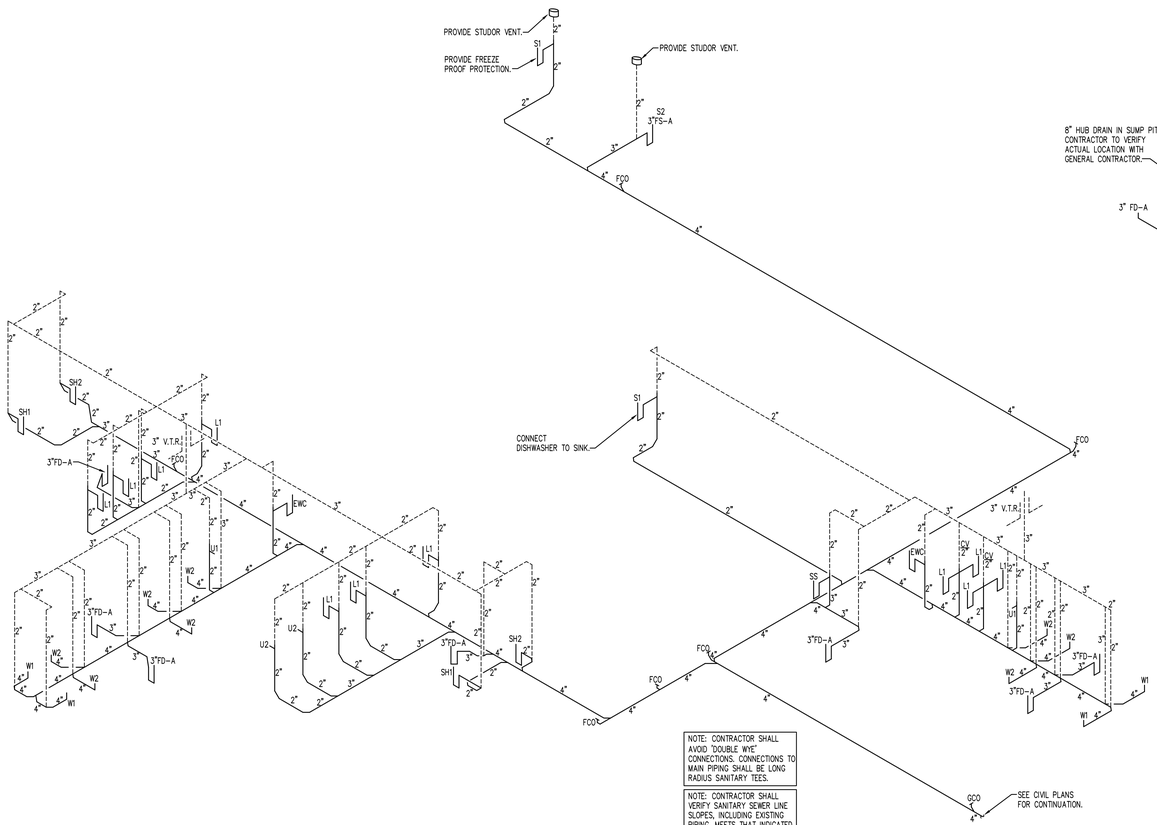
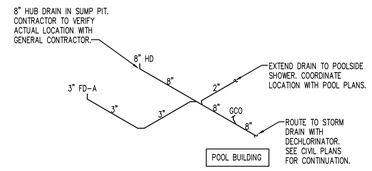
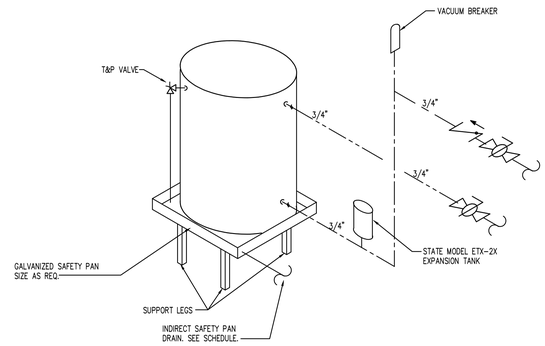
PLUMBING FLOOR PLANS

P1



1 P2 **RISER - S,W, + V**
SCALE: NO SCALE



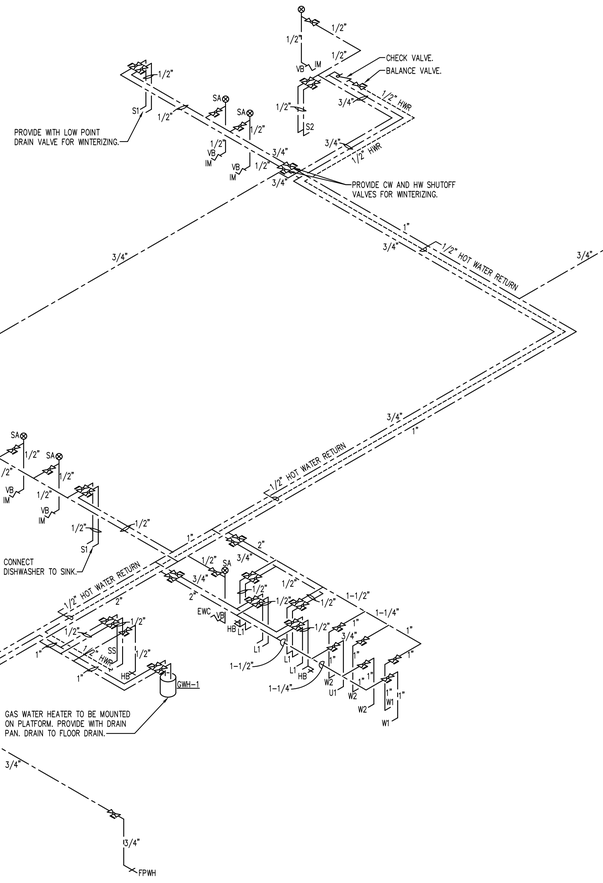


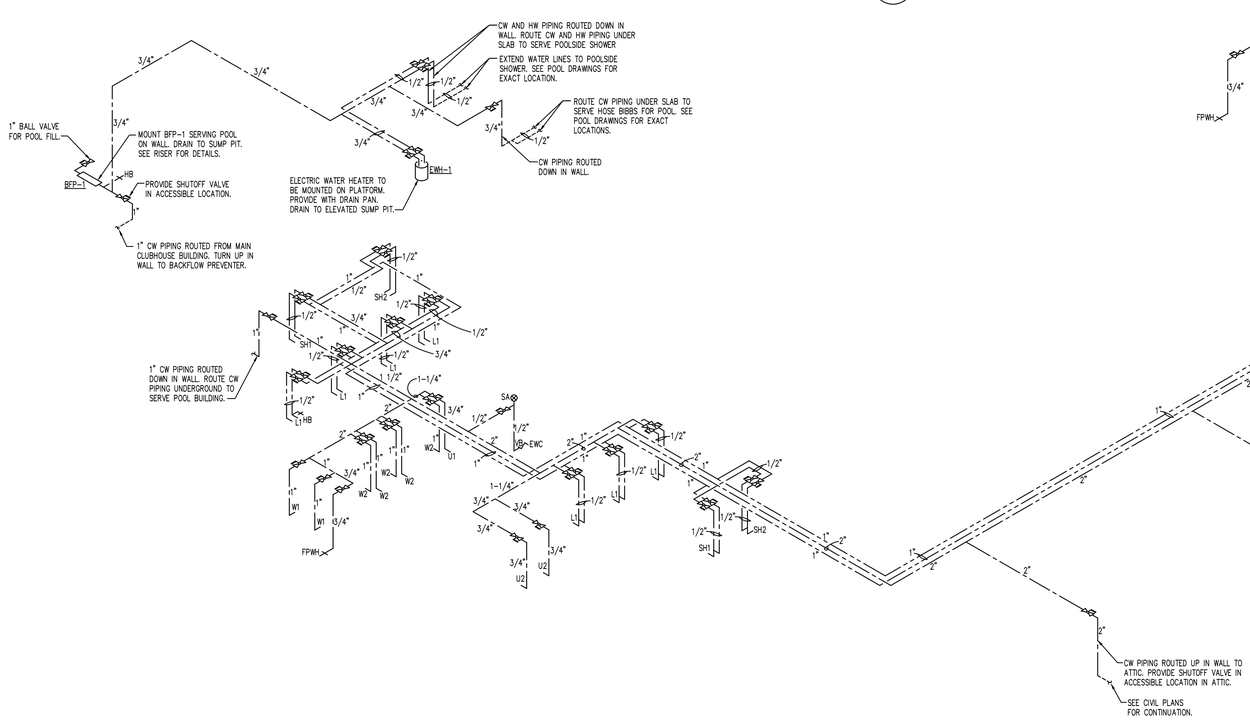
3 P2 **ELECTRIC WATER HEATER DETAIL**
SCALE: NO SCALE

ELECTRIC WATER HEATER SCHEDULE

MARK	MANUFACTURER	MODEL	CAPACITY (GAL)	RECOVERY @ 100° RISE	ELEMENT WATTS	VOLTS/ø	HEIGHT (IN)	REMARKS
EWH-1	STATE	PCE 40 20LSA	40	18 GPH	4500	208/1	32-1/4	① ②

① EQUALS BY RUUD/RHEEM, AO. SMITH ACCEPTABLE.
② INDIRECT DRAIN SAFETY PAN TO SUMP PIT.





2 P2 **RISER - WATER**
SCALE: NO SCALE

NOTE: CONTRACTOR TO VERIFY BUILDING IS SERVED BY AN EXTERIOR BACKFLOW PREVENTER.

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PLUMBING RISERS

P2

PLUMBING SPECIFICATIONS

PLUMBING SPECIFICATIONS:

1.) THE ENTIRE PLUMBING SYSTEM SHALL BE IN ACCORDANCE WITH 2018 NORTH CAROLINA PLUMBING CODE AND LOCAL PLUMBING INSPECTOR.

2.) ALL WORK SHALL BE COORDINATED WITH ALL OTHER TRADES PRIOR TO INSTALLATION. CONTRACTOR SHALL COORDINATE ROUTING OF ALL PIPING WITH EXISTING CONDITIONS AND SHALL PROVIDE ANY NECESSARY OFFSETS, REROUTING, ETC. REQUIRED FOR A COMPLETE AND COORDINATED INSTALLATION.

3.) THESE PLANS ARE DIAGRAMMATIC. CONTRACTOR SHALL PROVIDE ALL NECESSARY OFFSET, TEES, ELBOWS, ETC. FOR A COMPLETE WORKING PLUMBING SYSTEM.

4.) THE CONTRACTOR SHALL OBTAIN AND PAY ALL FEES RELATED TO PERMITTING, INSPECTIONS, TAPS, ETC.

5.) CONTRACTOR SHALL COORDINATE ANY PLUMBING SYSTEM REQUIRING SHUTDOWN WITH THE OWNER 48 HOURS PRIOR TO BEGINNING WORK.

6.) ALL DOMESTIC WATER PIPING SHOWN IS ABOVE CEILING/WITHIN WALLS UNLESS NOTED OTHERWISE.

7.) ALL DOMESTIC WATER PIPING (ABOVE SLAB) SHALL BE TYPE "L" COPPER WITH 95/5 LEAD FREE SOLDER. ABOVE SLAB, OUTSIDE OF PLENUM SPACES, PEX PIPING IS ACCEPTABLE. ALL WATER PIPING (BELOW SLAB) SHALL BE TYPE "K" SOFT COPPER. COMPLY W/ ASTM B-88-88A.

8.) ALL WATER PIPING SHALL BE INSULATED WITH CLOSED CELL (ARMAFLEX) TYPE INSULATION WITH THE FLAME DENSITY RATING NOT EXCEEDING 25 & THE SMOKE DENSITY RATING NOT EXCEEDING 50. THICKNESS FOR COLD WATER PIPING SHALL BE 1/2" THICK. THICKNESS FOR HOT WATER & RETURN PIPING SHALL BE 1" THICK.

9.) ALL BRANCH LINES SHALL HAVE SHUT-OFF VALVES. ALL DOMESTIC WATER BALL VALVES SHALL BE BRASS BODY. FULL PORT, CHROME PLATED BALL, TEFLON SEATS, 150# WSP, FOR SIZES 1/2" THRU 2". SIZES ABOVE 2" SHALL BE BRONZE GATE VALVE, NRS SOLID DISC, SCREW OVER BONNET, 125# WSP. PROVIDE VALVE HANDLE EXTENSIONS AS REQUIRED FOR INSULATION.

10.) ALL PLUMBING FIXTURES AND KITCHEN EQUIPMENT SHALL HAVE A PISTON TYPE WATER HAMMER ARRESTOR SIZED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS & PDI STANDARDS.

11.) ALL SANITARY SEWER PIPING SHOWN IS BELOW SLAB/WITHIN WALLS UNLESS NOTED OTHERWISE. ALL SANITARY VENT PIPING SHOWN IS ABOVE CEILING/WITHIN WALLS UNLESS NOTED OTHERWISE.

12.) ALL WASTE & VENT PIPING (ABOVE SLAB) SHALL BE PVC-DWV WITH PIPING AND FITTINGS CONFORMING TO ASTM D-2665. PLENUM SPACE WASTE & VENT PIPING (ABOVE SLAB) SHALL BE SERVICE WEIGHT CAST IRON WITH NO-HUB FITTINGS CONFORMING TO CISPI 301. JOINTS SHALL BE ONE-PIECE NEOPRENE GASKET WITH STAINLESS STEEL BAND AND BOLTS CONFORMING TO ASTM C564-85.

13.) ALL WASTE & VENT PIPING (BELOW SLAB) SHALL BE PVC-DWV WITH PIPING AND FITTINGS CONFORMING TO ASTM D-2665.

14.) ALL PIPING SYSTEMS SHALL BE SUPPORTED AS REQUIRED BY 2018 NORTH CAROLINA PLUMBING CODE & MANUFACTURER'S RECOMMENDATIONS.

15.) ALL PIPING PENETRATIONS THRU NEW/EXISTING WALLS/FLOORS SHALL BE SEALED TO EQUAL THE RATING OF THE NEW/EXISTING WALL OR FLOOR.

16.) ALL PLUMBING SYSTEMS SHALL BE TESTED AS REQUIRED BY 2018 NORTH CAROLINA PLUMBING CODE.

17.) THE PLUMBING CONTRACTOR SHALL COORDINATE ALL UNDERSLAB PLUMBING PIPING WITH ALL STRUCTURAL FOUNDATIONS. P.C. SHALL COORDINATE ALL UNDERSLAB PLUMBING PIPING ELEVATION INVERTS WITH SITE UTILITY ELEVATION INVERTS.

18.) P.C. SHALL COORDINATE ALL KITCHEN EQUIPMENT REQUIRING PLUMBING CONNECTIONS WITH KITCHEN EQUIPMENT VENDOR. PROVIDE ALL NECESSARY P-TRAPS, SUPPLY STOPS, INDIRECT PIPING, ETC. REQUIRED FOR COMPLETE HOOK-UP OF KITCHEN EQUIPMENT REQUIRING PLUMBING CONNECTIONS.

19.) THE BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED AS REQUIRED PER LOCAL AUTHORITY.

20.) THE ENTIRE DOMESTIC WATER SYSTEM SHALL BE DISINFECTED IN ACCORDANCE WITH 2018 NORTH CAROLINA PLUMBING CODE.

21.) ALL VENT THRU THE ROOF PENETRATIONS SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR AND SHALL BE CONCEALED BEHIND ROOF RIDGE WHERE POSSIBLE. P.C. SHALL PROVIDE ALL FLASHING MATERIAL REQUIRED FOR VENT THRU ROOF. ALL VTR'S SHALL BE LOCATED A MINIMUM OF 10'-0" FROM ALL OUTSIDE AIR INTAKES.

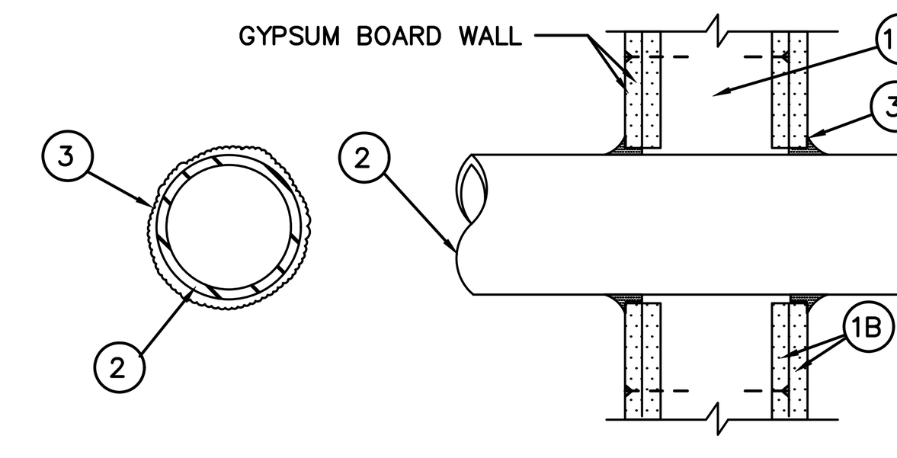
22.) ALL GAS PIPING AND GAS FLUE TO GAS WATER HEATER BY PLUMBING CONTRACTOR.

23.) PLUMBING CONTRACTOR SHALL HAVE RECEIVED APPROVED SHOP DRAWINGS FROM THE ENGINEER PRIOR TO BEGINNING NEW WORK.

PLUMBING FIXTURES AND EQUIPMENT

MARK	DESCRIPTION	PIPE SERVICE AND CONN. SIZE			FIXTURE SPECIFICATIONS
		CW	HW	WASTE	
W1	WATER CLOSET FLR. MTD. (ADA)	1"		4"	KOHLER "HIGHCLIFF" K-96057 1.6 GPF WHITE VITREOUS CHINA WATER CLOSET WITH ELONGATED BOWL, SIPHON JET FLUSHING, ANTIMICROBIAL 1-1/2" TOP SPUD, 12" ROUGH-IN, 16-1/2" HIGH, & 2 BOLT CAPS. SEAT: KOHLER LUSTRA MODEL K-4666-C EXTRA HEAVY DUTY ELONGATED WHITE OPEN FRONT SEAT. VALVE: SLOAN REGAL MODEL 111-XL EXPOSED DIAPHRAGM TYPE, WITH 1.6 GPF.
W2	WATER CLOSET FLR. MTD.	1"		4"	KOHLER "WELLCOMME" K-96053 1.6 GPF WHITE VITREOUS CHINA WATER CLOSET WITH ELONGATED BOWL, SIPHON JET FLUSHING, 1-1/2" TOP SPUD, 12" ROUGH-IN, 14-3/4" HIGH, & 2 BOLT CAPS. SEAT: KOHLER LUSTRA MODEL K-4666-SC EXTRA HEAVY DUTY ELONGATED WHITE OPEN FRONT SEAT. VALVE: SLOAN REGAL MODEL 111-XL EXPOSED DIAPHRAGM TYPE, WITH 1.6 GPF.
U1	URINAL WALL MTD. (ADA)	3/4"		2"	KOHLER "DEXTER" K-5016-ET 1.0 GPF WHITE VITREOUS CHINA URINAL, SIPHON JET FLUSHING, AND 3/4" TOP SPUD. MOUNT URINAL 17" A.F.F. TO MEET ADA REQUIREMENTS. VALVE: SLOAN REGAL MODEL 186 XL, EXPOSED DIAPHRAGM TYPE, WITH 1.0 GPF.
U2	URINAL WALL MTD.	3/4"		2"	KOHLER "DEXTER" K-5016-ET 1.0 GPF WHITE VITREOUS CHINA URINAL, SIPHON JET FLUSHING, AND 3/4" TOP SPUD. MOUNT URINAL 24" A.F.F. VALVE: SLOAN REGAL MODEL 186 XL, EXPOSED DIAPHRAGM TYPE, WITH 1.0 GPF.
L1	LAVATORY COUNTER MOUNTED (ADA)	1/2"	1/2"	1-1/2"	KOHLER "PENNINGTON" K-2196, VITREOUS CHINA 20-1/4" X 17-1/4" OVAL LAVATORY WITH SINGLE FAUCET HOLE. MOUNT LAVATORY RIM AT 34" A.F.F. TO MEET ADA REQUIREMENTS. TRAP & SUPPLIES: MCGUIRE NO. 8902 17 GA. 1-1/4" X 1-1/2" P-TRAP AND NIPPLE. McGUIRE NO. 2165 ANGLE SUPPLY STOPS. FAUCET: SLOAN EAF-350 BATTERY OPERATED INFRARED WITH MIXER. PROVIDE WITH GRID WASTE ASSEMBLY AND 0.5 GPM FLOW RESTRICTOR. ACCESSORIES: TRUEBRO HANDI-LAV GUARD INSULATION MODEL NO. 101 3-PIECE INTERLOCKING TRAP ASSEMBLY AND 2-PIECE INTERLOCKING HOT WATER ANGLE VALVE ASSEMBLY, AND NYLON TYPE FASTENERS. PROVIDE WITH ASSE 1070 COMPLIANT TEMPERATURE LIMITING DEVICE.
S1	SINK (LOUNGE) SINGLE BOWL CTR. MTD. (ADA)	1/2"	1/2"	1-1/2"	JUST MODEL NO. SL-ADA-2225-A-GR, 304 STAINLESS STEEL, 18 GAUGE, SELF-RIMMING SINGLE BOWL, DIM. 22" x 16" x 6-1/2" DEEP, 3 HOLES @ 4" CENTERS. TRAP & SUPPLIES: MCGUIRE NO. 151 CHROME PLATED FORGED BRASS BASKET STRAINER WITH 1-1/2" X 4" TAILPIECE. McGUIRE NO. 8912 17 GA. 1-1/2" P-TRAP AND NIPPLE. McGUIRE NO. 2165 3/8"x12" FLEX RISER ANGLE SUPPLY STOPS. FAUCET: AMERICAN STANDARD 7074.300 GOOSENECK SPOUT WITH SINGLE HANDLE AND 1.5 GPM FLOW RESTRICTOR. PROVIDE WITH ADA COMPLIANT LEVER.
S2	SINK 3-COMPARTMENT	1/2"	1/2"	(3) 1-1/2" TO F.S.	3 COMPARTMENT SINK BY OWNER. COORDINATE WITH GENERAL CONTRACTOR.
EWC	ELECTRIC WATER COOLER	1/2"		2"	ELKAY MODEL LZSTL8WLK TWO-LEVEL WHEEL CHAIR TYPE WALL MOUNTED WATER COOLER WITH HERMETICALLY SEALED AND AIR COOLED REFRIGERATING UNIT, WITH ELECTRIC PUSH BUTTON ON FRONT AND SIDE, COLORED VINYL COVERED STEEL SKIRT, AND STAINLESS STEEL HOOD-RECEPTOR. MOUNT HIGHEST SPOUT AT 36" A.F.F. PROVIDE WITH EZH20 BOTTLE FILLER.
IM	ICE MAKER BOX	1/2"			OATEY MODEL #38681 WALL MOUNTED AT 36" AFF
HB	HOSE BIB	1/2"			WOODFORD MODEL 24 IN POLISHED CHROME WITH VACUUM BREAKER AND LOOSE TEE KEY OPERATION
SH1	TRANSFER-TYPE SHOWER 60X36	1/2"	1/2"	2"	SHOWER TO BE CUSTOM BUILT BY CONTRACTOR. CONFIRM SHOWER HEAD LOCATION. UNIT SHALL COMPLY WITH ANSI 117:1 REQUIREMENTS. ONE (1) 32" x 32" L-SHAPED WRAP AROUND 1-1/2" 18 GAUGE STAINLESS STEEL GRAB BAR MOUNTED ON THE VALVE WALL AND BACK WALL, 34" ABOVE BOTTOM OF SHOWER. ONE (1) 60" L x 1" OD 18 GAUGE STAINLESS STEEL CURTAIN ROD WITH BRASS SHOWER DRAIN & TEXTURED BOTTOM. UNIT IS INTENDED TO BE A TRANSFER-TYPE SHOWER. CONFIRM DRAIN LOCATION PRIOR TO ORDER. SEAT: BOBRICK MODEL B-517 SURFACE-MOUNTED FOLDING SHOWER SEAT. VALVE: DELTA MODEL T13020 PRESSURE BALANCING SHOWER VALVE (THERMOSTATIC MIXING TYPE) WITH ALSONS MODEL 1551PBDSBX PERSONAL HANDHELD SHOWER HEAD. PROVIDE WITH GLIDE RAIL MOUNTING SYSTEM, HAND SHOWER, SWIVEL CONNECTOR, VACUUM BREAKER, SUPPLY ELBOW, SHOWER GLIDE RAIL AND DOUBLE SPIRAL METAL HOSE. PROVIDE WITH MATCHING TRIM KIT.
SH2	SHOWER 36X36	1/2"	1/2"	2"	SHOWER TO BE CUSTOM BUILT BY CONTRACTOR. CONFIRM SHOWER HEAD LOCATION. PROVIDE ONE (1) 36" L x 1" OD 18 GAUGE STAINLESS STEEL CURTAIN ROD WITH BRASS SHOWER DRAIN & TEXTURED BOTTOM. VALVE: DELTA MODEL T13020 PRESSURE BALANCING SHOWER VALVE (THERMOSTATIC MIXING TYPE) WITH ALSONS MODEL 1551PBDSBX PERSONAL HANDHELD SHOWER HEAD. PROVIDE WITH GLIDE RAIL MOUNTING SYSTEM, HAND SHOWER, SWIVEL CONNECTOR, VACUUM BREAKER, SUPPLY ELBOW, SHOWER GLIDE RAIL AND DOUBLE SPIRAL METAL HOSE. PROVIDE WITH MATCHING TRIM KIT.
SS	SERVICE SINK	1/2"	1/2"	2"	FIAT MODEL FL-1 FLOOR MOUNTED SERV-A-SINK, SINGLE MOLDED STONE LAUNDRY TUB COMPLETE WITH WHITE BAKED ENAMEL LEGS AND LEVELING FEET. PROVIDE FIAT A-1 DECK MOUNTED FAUCET.
FPWH	FREEZE PROOF WALL HYDRANT	3/4"	-	-	WOODFORD MODEL 65, NON-FREEZE, AUTOMATIC DRAINING WALL HYDRANT WITH ANTI-SIPHON VACUUM BREAKER, AND LOOSE TEE KEY OPERATION.

VERIFY ALL FIXTURES WITH OWNER PRIOR TO ORDERING.



System No. W-L-1001

June 15, 2005

F Ratings – 1, 2, 3 and 4 Hr (See Items 2 and 3)
T Ratings – 0, 1, 2, 3, and 4 Hr (See Item 3)
L Rating At Ambient – less than 1 CFM/sq ft
L Rating At 400 F – less than 1 CFM/sq ft

1. Wall Assembly – The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs – Wall framing may consist of either wood studs (max 2 h fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC with nom 2 by 4 in. (51 by 102 mm) lumber end plates and cross braces. Steel studs to be min 3-5/8 in. (92 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.

B. Gypsum Board* – Nom 1/2 or 5/8 in. (13 or 16 mm) thick, 4 ft. (122 cm) wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 26 in. (660 mm).

2. Through-Penetrant – One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min of 0 in / (0 mm). (point contact) to max 2 in. (51 mm) Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. Steel Pipe – Nom 24 in. (610 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.

B. Iron Pipe – Nom 24 in. (610 mm) diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in (305 mm) diam (or smaller) or Class 50 (or heavier) ductile iron pressure pipe.

C. Conduit – Nom 6 in. (152 mm) diam (or smaller) steel conduit or nom 4 in (102 mm) diam (or smaller) steel electrical metallic tubing

D. Copper Tubing – Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing

E. Copper Pipe – Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.

F. Through Penetrating Product* – Flexible Metal Piping The following types of steel flexible metal gas piping may be used:

1. Nom 2 in. (51 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

OMEGA FLEX INC

2. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

GASTITE, DIV OF TITEFLEX

3. Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.

WARD MFG INC

3. Fill, Void or Cavity Material* – Caulk or Sealant – Min 5/8. , 1-1/4,1-7/8 and 2-1/2 in. (16, 32, 48 and 64 mm) thickness of caulk for 1, 2, 3 and 4 hr rated assemblies, respectively, applied within annulus, flush with both surfaces of wall. Min 1/4 in. (6 mm) diam bead of caulk applied to gypsum board/penetrant interface at point contact location on both sides of wall. The hourly F Rating of the firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T Rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in which it is installed, as tabulated below:

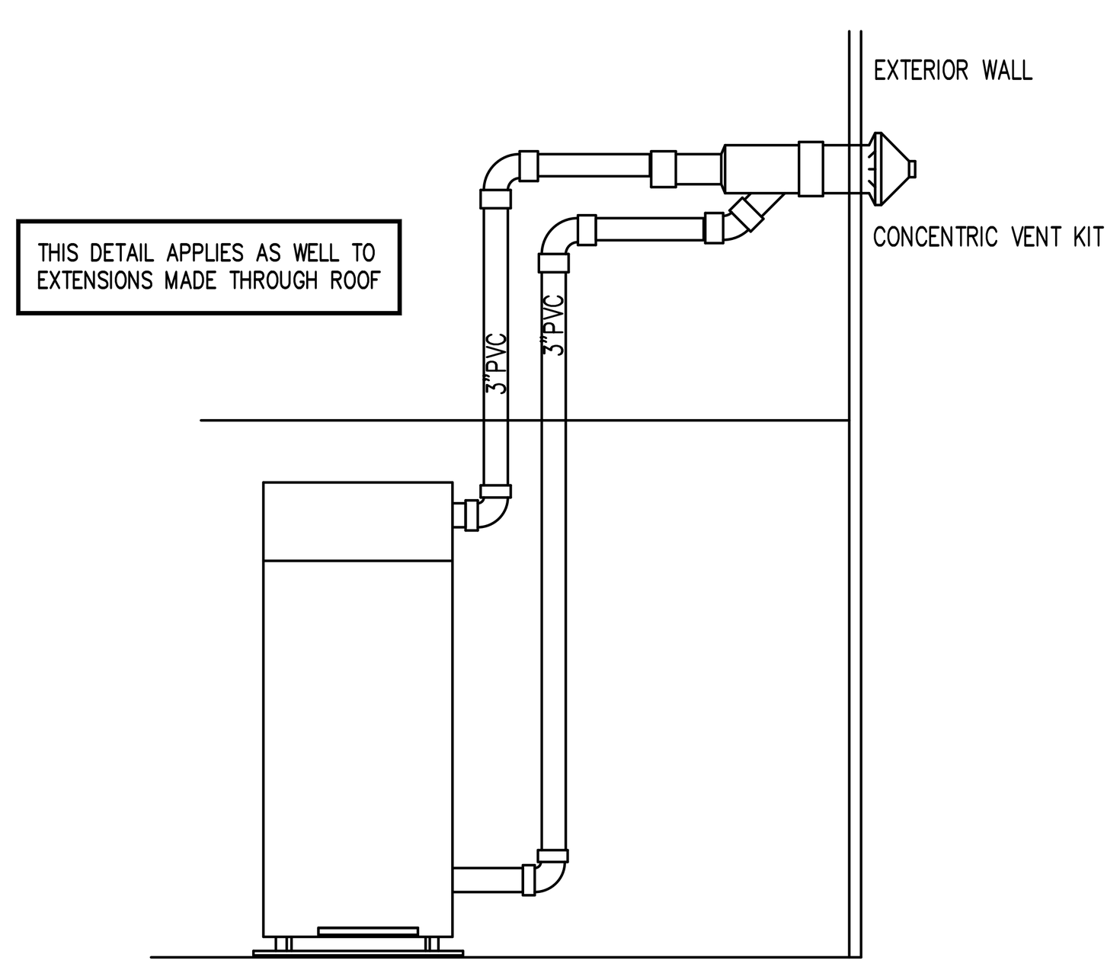
Max Pipe or Conduit Diam In (mm)	F Rating Hr	T Rating Hr
1 (25)	1 or 2	0+, 1 or 2
1 (25)	3 or 4	3 or 4
4 (102)	1 or 2	0
6 (152)	3 or 4	0
12 (305)	1 or 2	0

+When copper pipe is used, T Rating is 0 h.

3M COMPANY – CP 25WB+ or FB-3000 WT.

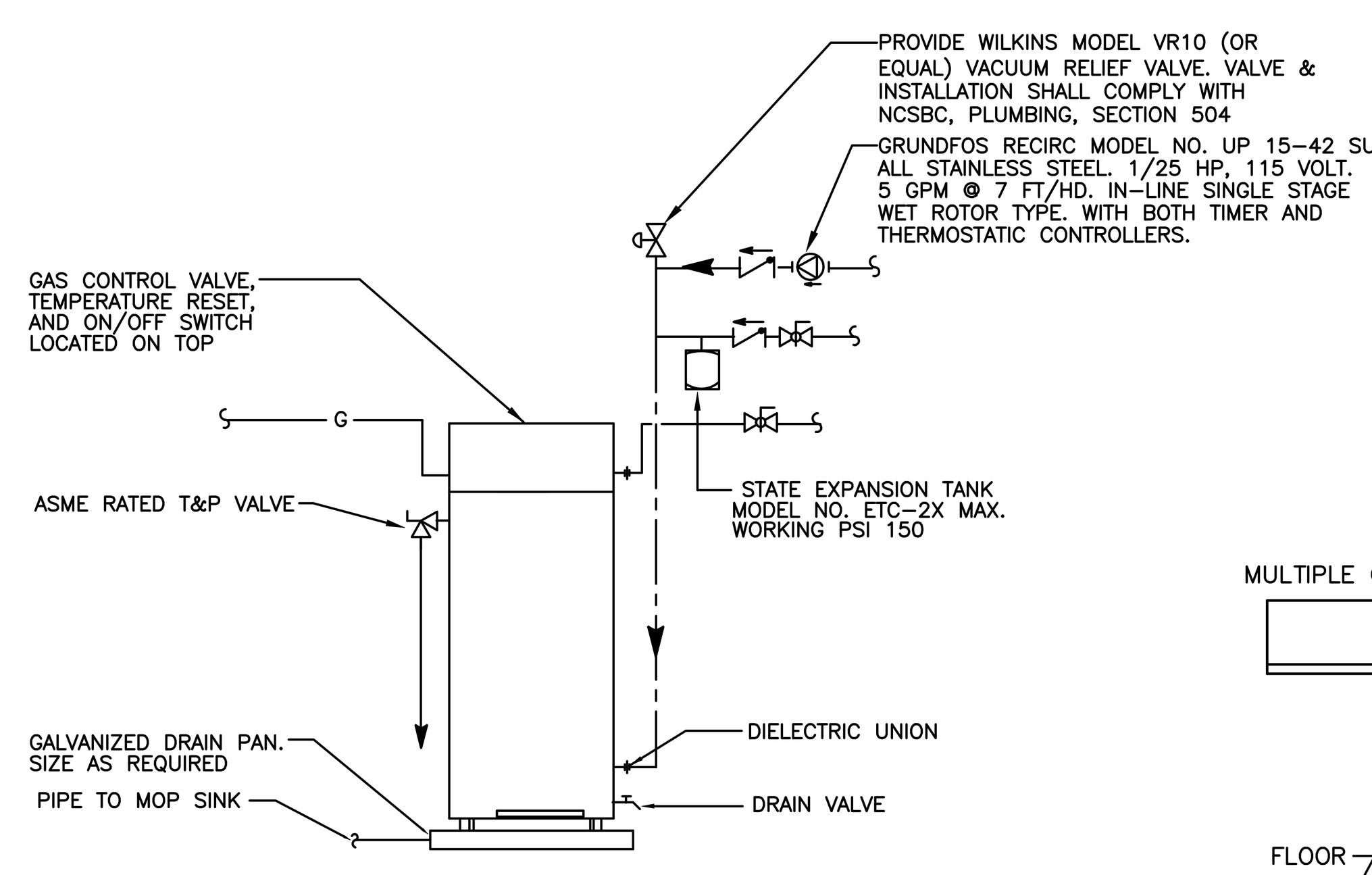
FOR FRAMED WALL ONLY 1,2,3, OR 4 HOUR PENETRATION FIRESTOP DETAIL

4 / P3 SCALE: NTS



GWH VENTING DETAIL

2 / P3 SCALE: NO SCALE



HEATER SHALL BE SUITABLE FOR SEALED COMBUSTION DIRECT VENTING USING A 3" DIAMETER PVC AIR INTAKE AND 3" DIAMETER PVC EXHAUST PIPE. THE WATER HEATER SHALL EXCEED THE RECOVERY EFFICIENCY AND STANDBY LOSS REQUIREMENTS OF ASHRAE 90.1b-1989(1992) FOR ENERGY CONSERVING APPLIANCES. TANK SHALL HAVE A WORKING PRESSURE OF 160 psi AND SHALL BE EQUIPPED WITH A BOILER TYPE HAND HOLE CLEANOUT. WATER HEATER SHALL BE COMPLETELY FACTORY ASSEMBLED, INCLUDING PRESSURE REGULATOR PROPERLY ADJUSTED FOR OPERATION ON 7-14" W.C. GAS AND AND STAINLESS STEEL BURNERS. CONTROLS WILL BE ARRANGED FOR SAFETY SHUTOFF IN EVENT OF PILOT FAILURE OR BLOCKAGES OF THE VENT OR INTAKE. WATER HEATER SHALL BE COVERED FOR A PERIOD OF (3) THREE YEARS AGAINST ANY LEAKS.

SEE DETAIL 2/P3 ON THIS SHEET FOR DIRECT VENT/SEALED COMBUSTION DETAIL.

EQUALS BY: STATE, LOCHINVAR, RUUD

GAS WATER HEATER DETAIL

1 / P3 SCALE: NONE

GAS WATER HEATER SCHEDULE

MARK	MANUFACTURER	MODEL	CAPACITY (GAL)	1ST HR RECOVERY @ 100°F RISE	RECOVERY @ 100°F RISE	GAS INPUT MBTUH	REMARKS
GWH-1	HEAT TRANS. PROD.	PH100-119	119	189 GPH	116 GPH	100.0	(1)(2)

(1) EQUALS BY STATE, LOCHINVAR, RUUD ACCEPTABLE.

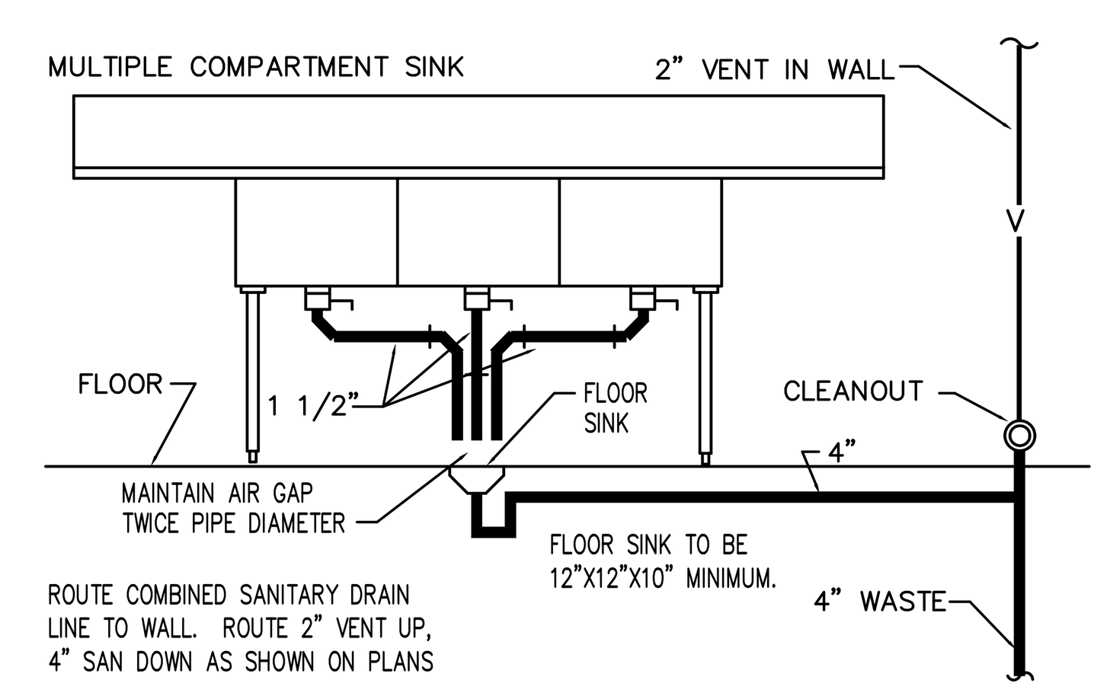
(2) HEATER SHALL HAVE CERAMIC COATED SEAMLESS GLASS LINED TANK WITH ANODE RODS.

PLUMBING LEGEND AND ABBREVIATIONS

(line symbol)	SANITARY SEWER PIPING (W)
(line symbol)	VENT PIPING (V)
(line symbol)	COLD WATER PIPING (CW)
(line symbol)	HOT WATER PIPING (HW)
(line symbol)	HOT WATER RETURN PIPING (HWR)
(symbol)	ELL TURNS UP
(symbol)	ELL TURNS DOWN
(symbol)	CHECK VALVE
(symbol)	BALL VALVE
(symbol)	GATE VALVE IN HORIZONTAL POSITION
(symbol)	CLEANOUT IN GROUND (GCO)
(symbol)	CLEANOUT IN FLOOR OR SLAB (FCO)
A.F.F.	ABOVE FINISH FLOOR
FD – A	FLOOR DRAIN – TYPE (SEE SCHEDULE)
H.B.	HOSE BIBB
FPWH	FREEZE PROOF WALL HYDRANT
H.D.	HUB DRAIN
INV. ELEV. OR I.E.	INVERT ELEVATION
P.C.	PLUMBING CONTRACTOR
V.T.R.	VENT THROUGH ROOF
CV	COMMON VENT
EOCV	END OF CIRCUIT VENT
BOCV	BEGINNING OF CIRCUIT VENT
(line symbol)	1 HOUR RATED BARRIER/PARTITION/WALL
(line symbol)	2 HOUR RATED BARRIER/PARTITION/WALL
(line symbol)	3 HOUR RATED BARRIER/PARTITION/WALL
(symbol)	CONNECT TO EXISTING

PLUMBING ACCESSORIES

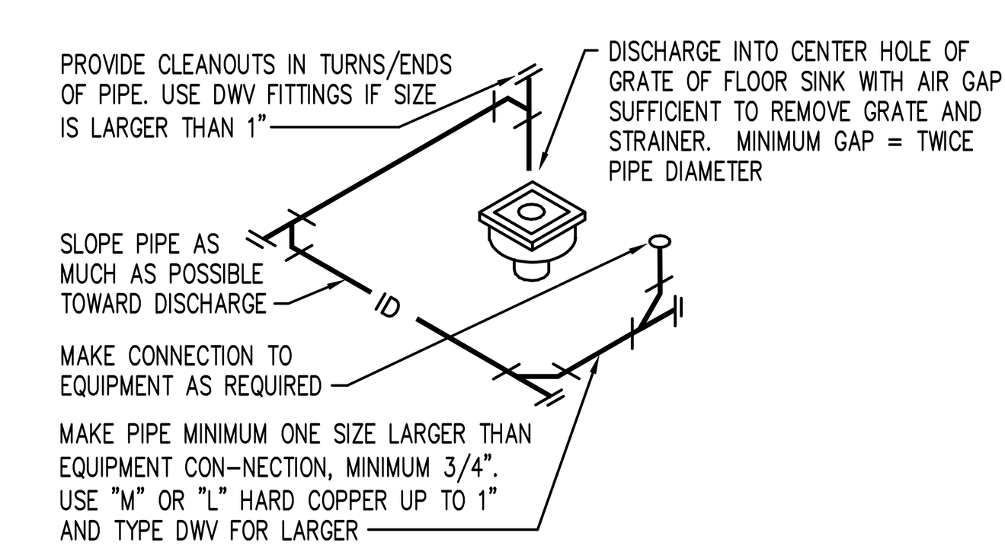
SYMBOL	SPECIFICATION
FS-A	PLASTIC ODDITIES PFS SERIES 12"x12"x10" DEEP, PVC, 1/2 GRATE, WITH PLASTIC, REMOVABLE SECONDARY STRAINER.
FS-B	ZURN Z1907 CAST IRON BODY, 12"X12"X8" DEEP, BOTTOM DOME STRAINER WITH REMOVABLE SECONDARY STRAINER.
FD-A	ZURN ZN-415 DURACOATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEBRANE CLAMP AND ADJUSTABLE COLLAR WITH 6" TYPE " B " POLISHED NICKEL BRONZE STRAINER. DEEP SEAL P-TRAP WITH TRAP PRIMER CONNECTION
FD-B	ZURN ZN-415 DURACOATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEBRANE CLAMP AND ADJUSTABLE COLLAR WITH 7" TYPE " I " POLISHED NICKEL BRONZE STRAINER WITH RAISED FLANGE. DEEP SEAL P-TRAP WITH TRAP PRIMER CONNECTION
FCO	ZURN ZN-1400 "LEVELTROL" ADJUSTABLE FLOOR CLEANOUT, DURACOATED CAST IRON BODY WITH GAS AND WATERTIGHT ABS TAPERED THREAD PLUG AND ROUND SCORIATED POLISHED NICKEL BRONZE TOP ADJUSTABLE TO FINISH FLOOR.
WCO	ZURN ZN-1441 WALL CLEANOUT, DURACOATED CAST IRON BODY WITH GAS AND WATERTIGHT ABS TAPERED THREAD PLUG AND ROUND SMOOTH STAINLESS STEEL ACCESS COVER WITH SECURING SCREW.
SA	WATTS SERIES 15 WATER HAMMER ARRESTOR TO MEET ALL REQUIREMENTS OF ASSE 1010 AS REQUIRED BY 2018 NCSBC, PLUMBING CODE, SECTION 604.9.
VB	ZURN MODEL VACUUM BREAKER TO MEET ALL REQUIREMENTS OF ASSE 1011 AS REQUIRED BY 2018 NCSBC, PLUMBING CODE, SECTION 608.13.6.



ARRANGEMENT SHOWN IS SCHEMATIC. ADJUST TO SUIT FIELD CONDITIONS OR MEET LOCAL CODE REQUIREMENTS FOR DIRECT OR INDIRECT CONNECTION. HUBLESS CAST IRON PIPE, FITTINGS AND CONNECTORS ALL AROUND SINK AND TRAP. CONNECT TRAP FROM CENTER COMPARTMENT.

3-COMPARTMENT SINK DETAIL

3 / P3 SCALE: NO SCALE



ROUTE PIPE INCONSPICUOUSLY AND UNOBTRUSIVELY. HANG PIPE AS REQUIRED. DO NOT INSULATE INDIRECT DRAIN PIPE WHEN INSTALLED EXPOSED IN FOOD SERVICE FACILITY. REFER TO LOCAL CODES FOR FURTHER INFORMATION.

INDIRECT WASTE DETAIL

5 / P3 SCALE: NO SCALE

PLUMBING SUMMARY

SYSTEM & MATERIAL	FIXTURE UNITS	MAIN SIZE
WASTE AND VENT SYSTEM		
SCHEDULE 40 PVC-DWV CONFORMING TO ASTM D-2665	100.0	4"
DOMESTIC WATER SYSTEM		
BELOW SLAB: TYPE "K" SOFT COPPER WITH NO JOINTS BELOW SLAB ABOVE SLAB: TYPE "L" ANNEALED COPPER WITH 95/5 SOLDER JOINTS.	121.0	2" 74.0 GPM

PLUMBING SUMMARY FOR THIS PROJECT ONLY.

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PLUMBING DETAILS

P3