







#### **ENGINEERING:**

J EDWARDS HOME DESIGNS IS NOT AN ENGINEERING FIRM, WE DO NOT OUALIFY TO BE ONE, NOR ARE WE LICENSED TO DESIGN STRUCTURAL FRAMING, WINDBRACING OR FOUNDATIONS. A LICENSED PROFESSIONAL ENGINEER SHOULD BE CONTRACTED AND CONSULTED REGARDING FRAMING, WINDBRACING AND FOUNDATION DESIGNS. SHOULD AN ENGINEERS SEAL BE PRESENT ON THESE DRAWINGS, THE ENGINEER OF RECORD SHALL BEAR ALL RESPONSIBILITY FOR THE STRUCTURE, WINDBRACING AND FOUNDATION DESIGNS FOR THIS PROJECT. J EDWARDS HOME DESIGNS IS NOT HELD RESPONSIBLE FOR THE STRUCTURAL DESIGN IN ANY WAY MATTER OR FORM IF ANY PROBLEMS ARISE.

#### **GENERAL PROJECT NOTES:**

- 1. THESE CONSTRUCTION DOCUMENTS ARE INTENDED TO MEET ALL APPLICABLE CODES AND ORDINANCES. CONTRACTOR TO COMPLY WITH ALL LOCAL CODES, ORDINANCES AND DEED RESTRICTIONS. CONTRACTOR SHALL ALSO REQUIRE ALL SUBCONTRACTORS TO COMPLY WITH THESE REGULATIONS.
- 2. ANY DISCREPANCIES IN CONSTRUCTION DOCUMENTS OR NONCOMPLIANCE TO BE BROUGHT TO THE ATTENTION OF THE DESIGNER PRIOR TO ANY WORK BEING PERFORMED OR MATERIALS BEING ORDERED.
- 3. BUILDER ACCEPTS FULL RESPONSIBILITY FOR CHECKING PLANS TO ASSURE CONFORMITY TO CURRENT LOCAL BUILDING CODES. SHOULD ANY CHANGES BE MADE TO THESE PLANS BY BUILDER OR HIS REPRESENTATIVES WITHOUT CONTACTING THE DESIGNER, THE BUILDER WILL ACCEPT FULL LIABILITY FOR AMENDED PLANS.
- 4. WHILE THESE DRAWINGS ARE INTENDED TO SHOW SAME, THE DESIGNER IS NOT RESPONSIBLE FOR GOVERNING AUTHORITY INTERPRETATIONS WHERE THOSE INTERPRETATIONS CONFLICT WITH THESE DRAWINGS &/OR SPECS.
- 5. DESIGNER ASSUMES NO RESPONSIBILITY FOR ANY ERRORS OR NEGLIGENCE MADE BY ROOFING CONTRACTOR, CONCERING
- FLASHING & WATER PROOFING ON THIS PROJECT 6. THESE DOCUMENTS DO NOT SHOW TYPICAL DETAILING &/OR WATERPROOFING.
- 7. THESE DOCUMENTS DO NOT SPECIFY ACTUAL PRODUCTS OR MATERIAL SELECTIONS. CONTRACTOR ACCEPTS FULL RESPONSIBILITY FOR APPROPRIATE AND PROPER DETAILING FOR AND BETWEEN ALL ACTUAL PRODUCTS/MATERIALS SELECTED WHEN INSTALLED.
- 8. ALL COMPONENTS, MATERIALS, ASSEMBLIES AND FINISHES TO BE CONSTRUCTED AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS, CODE REQUIREMENTS AND REGULATED BUILDING PRACTICES.
- 9. DESIGNER IS NOT RESPONSIBLE FOR MEANS AND METHODS OF CONSTRUCTION WHICH ARE NOT DETAILED IN THESE CONSTRUCTION DOCUMENTS. CONTRACTOR WILL BE RESPONSIBLE FOR ALL ASPECTS OF CONSTRUCTION INCLUDING BUT NOT LIMITED TO ALL WATER AND DAMP PROOFING, LOAD CONNECTIONS AND MECHANIC, ELECTRICAL AND PLUMBING SYSTEMS.
- 10. ALL MATERIALS AND LABOR TO BE GUARANTEED FOR ONE YEAR FROM THE DATE OF FINAL PAYMENT, IN ADDITION TO ALL WARRANTIES THAT ARE STANDARD TO THE INDUSTRY. CONTRACTOR TO PROVIDE (SUPPLY AND INSTALL) ALL EQUIPMENT, LABOR
- SERVICES, AND MATERIALS REQUIRED FOR THE COMPLETE APPROVED INSTALLATION OF THE SYSTEMS CALLED FOR. 11. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS NECESSARY FOR COMPLETION OF
- 12. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD. REPORT ANY AND ALL DISCREPANCIES, ERRORS OR OMISSIONS TO THE DESIGNER PRIOR TO COMMENCING WORK AND/OR ORDERING MATERIALS. MINOR DEVIATIONS, SUBJECT TO CONSTRUCTION
- REQUIREMENTS AND FIELD CONDITIONS, CAN BE EXPECTED. 13. UNDER NO CIRCUMSTANCES SHALL ANY DIMENSION BE SCALED FROM THESE DRAWINGS. ANY CRUCIAL DIMENSION NOT GIVEN SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGNER.
- 14. ALL DIMENSIONS SHOWN ON PLAN ARE TO THE STRUCTURAL FACE OF WALL AND DO NOT INCLUDE WALL FINISHES OR FURRING. 15. THE CONTRACTOR SHALL GIVE NOTICE TO ALL AUTHORIZED INSPECTORS, SUPERINTENDENTS OR PERSONS IN CHARGE OF UTILITIES AFFECTED BY HIS OPERATIONS PRIOR TO COMMENCING WORK.
- 16. THE CONTRACTOR IS TO FILE FOR, AND SECURE ALL APPROVALS, PERMITS, TESTS, INSPECTIONS AND CERTIFICATES OF COMPLIANCE AS REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR ASSURING THAT ALL PERMITS NECESSARY TO LEGALLY PERFORM THE WORK HAVE BEEN OBTAINED PRIOR TO COMMENCING CONSTRUCTION.
- 17. VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION START. 18. IN CASE OF DISCREPANCIES OR CONFLICTS ON THE DRAWINGS AND SPECIFICATIONS, OR BETWEEN THE DRAWINGS AND THE
- EXISTING CONDITIONS, CONTACT THE DESIGNER OR OWNER BEFORE PROCEEDING WITH THE WORK. 19. FINAL SELECTIONS FOR ALL FINISHES, FINISH MATERIALS, COLORS, TEXTURES, ETC. SHALL BE MADE BY THE BUILDER OR
- 20. ALL WINDOWS WITHIN 24" OF AN EXTERIOR OR INTERIOR DOOR TO BE TEMPERED GLASS. WINDOW MANUFACTURER TO VERIFY FOR ALL TEMPERED GLASS LOCATIONS AS PER APPLICABLE CODE.
- 21. WINDOW MANUFACTURER & BUILDER TO VERIFY EGRESSABLE WINDOWS INSTALLED WHERE REQUIRED BY CODE. 22. WINDOW SIZES GIVEN ARE APPROXIMATE UNIT SIZES, VERIFY ACTUAL SIZES, AND ROUGH OPENING REQUIREMENTS WITH
- WINDOW MANUFACTURER. 23. PROVIDE BLOCKING FOR CEILING FANS WHERE SPECIFIED.
- 24. PROVIDE ELECTRIC FOR POOL &/OR SPA EQUIP. & LIGHTS. PROVIDE NECESSARY PLUMBING FOR POOL &/OR SPA. VERIFY LOCATION WITH BUILDER OR OWNER. BUILDER TO VERIFY SIZING AND LOCATION OF ALL APPLIANCES & RELATED
- 26. CONTRACTOR TO PROVIDE A 3/4" PLYWOOD CATWALK FROM ATTIC ACCESS TO HVAC UNITS (IF APPLICABLE). UNITS TO BE LOCATED WITHIN 20'-0" OF ACCESS. PROVIDE 1 S.F. NET FREE AREA OF ATTIC VENTILATION PER 150 S.F. OF TOTAL COVERED
- ROOF AREA AS PER CODE.
- 27. PROVIDE CONTROL AND EXPANSION JOINTS AS REQUIRED ON CONCRETE DRIVES, WALKS PATIOS AND STUCCO WALLS 28. PROVIDE WEATHERSEAL AND A 9 1/2" MASONRY DOOR SILL AT ALL EXTERIOR DOOR THRESHOLDS.
- 29. ALL WALLS OVER 10'-0" IN HEIGHT TO BE FRAMED WITH 2x6 STUDS. IF WALLS OVER 10'-0" IN HEIGHT ARE NOT BUILT WITH 2X6 STUDS THEY MUST BE BUILT WITH DOUBLE 2X4 STUDS AT 12" O.C. 30. THE DROP FROM INTERIOR FINISH FLOOR TO ANY EXTERIOR FINISH FLOOR IS TO BE A MINIMUM OF 1 1/2". CONTRACTOR TO
- VERIFY MATERIALS USED FOR DECK CONSTRUCTION AND FINISH FLOORING TO MAINTAIN MINIMUM DROP. THE STANDARD MOUNTING HEIGHT FOR SHOWER HEADS IS 7'-0" ABOVE FINISH FLOOR UNLESS NOTED OTHERWISE.
- 31. PROVIDE BLOCKING FOR HANDRAIL MOUNTING AT STAIRS AS NECESSARY. 32. ALL FIREPLACES TO HAVE 20" DEEP HEARTH& 12" NON-COMBUSTIBLE SURROUND

25. WEATHERSTRIP ATTIC ACCESS DOOR(S).

- 33. ALL OVERHANGS TO BE 18" FROM THE FRAMEWALL UNLESS NOTED OTHERWISE.
- 34. U.N.O. ALL INTERIOR WALLS OF ONE STORY PLANS TO BE LOAD BEARING.
- 35. ALL EXTERIOR OPENINGS TO BE LOAD BEARING. 36. WHEN ENGINEERED TRUSSES TO BE USED TRUSS DESIGN & SPACING TO BE PER ENGINEER'S SPECIFICATIONS.
- 37. THE DESIGN & SIZING OF ALL LOAD BEARING HEADERS, STRUCTURAL BEAMS AND TRUSSES IS THE RESPONSIBILITY OF THE AGENT (ENGINEER/TRUSS MANUFACTURER, ETC.) CHOSEN BY THE BUILDER/OWNER TO DO SAID DESIGN.
- 38. ALL PLUMBING, APPLIANCE AND GAS VENTS TO BE GANGED TO THE FEWEST NUMBER POSSIBLE PENETRATING THE ROOF AND KEPT TO REAR OF ROOF WHEREVER POSSIBLE.
- 39. CHIMNEY/FLUE SHOWN AT MINIMUM DIMENSIONAL HEIGHT REQUIREMENTS PER CODE. BUILDER RESPONSIBLE FOR CONSTRUCTING CHIMNEY/FLUE TO ENSURE PROPER DRAW FOR FIREPLACE BASED ON HOUSE & SITE ORIENTATION VERSUS
- PREVAILING WINDS. 40. CHIMNEY CAP TO BE BUILT WITH NON COMBUSTABLE MATERIALS. 41. LAVATORIES AND SINKS SHOWN ARE NOT ACTUAL FIXTURE. CHECK WITH BUILDER/DESIGNER/OWNER FOR ACTUAL FIXTURE
- STYLE AND SIZE. 42. APPLIANCE DIMENSIONS MAY VARY. CHECK WITH BUILDER FOR EXACT DIMENSIONS.
- 43. PROVIDE VENT HOLES AS REQUIRED FOR AIR CIRCULATION OF IN-CABINET COMPUTER EQUIPMENT.
- 44. TOP & SPLASH MATERIAL AT ALL CABINETS TO BE AS PER SPECS. 45. CROWN MOLDING, INTERIOR WINDOW/DOOR TRIM, BASEBOARD & TILE SHOWN TO BE PER OWNER &/OR INTERIOR DESIGNER.
- 46. ALL WORK DONE UNDER THIS SECTION SHALL COMPLY WITH THE CURRENT NATIONAL ELECTRICAL CODE AND LOCAL CODE REGULATIONS. THE CONTRACTOR SHALL PERFORM ALL WORK IN CONFORMITY WITH THESE REGULATIONS WHETHER OR NOT SUCH WORK IS SPECIFICALLY SHOWN ON DRAWINGS.
- 47. ELECTRICAL SUBCONTRACTOR TO MAKE ALL NECESSARY ELEC. CONNECTIONS AND BE RESPONSIBLE FOR ALL ELECTRICAL SERVICE AT MECHANICAL ROOM. ELECTRICAL CONTRACTOR TO COORDINATE AS REQUIRED WITH MECHANICAL
- 48. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTION AND APPROVAL OF WIRING, INSTALLATION OF FIXTURES AND EQUIPMENT. AND FOR FINAL ACCEPTANCE OF THE COMPLETE ELECTRICAL INSTALLATIONS BY THE UNDERWRITERS AND BY LOCAL ELECTRICAL INSPECTORS.
- 49. COORDINATE WITH CONSTRUCTION SPECIFICATIONS FOR ANY APPLICABLE ALLOWANCES FOR ELECTRICAL
- 50. PREWIRE FOR SECURITY SYSTEM PER OWNERS REQUEST
- 51. SUPPLY 220v & 110v OR GAS & 110v TO HVAC UNIT(S) IN ATTIC. (REFER TO SPECS) PROVIDE POWER AS REQ'D. AT A/C COMPRESSOR UNITS.
- 52. PROVIDE FOR LIGHT NEAR HVAC UNIT(S) IN ATTIC.
- 53. PROVIDE ELECTRIC FOR POOL &/OR SPA EQUIP. & LIGHTS. PROVIDE ELECTRIC AND SWITCHING FOR LANDSCAPE LIGHTING, FOUNTAINS, ETC. VERIFY LOCATION WITH BUILDER OR OWNER.
- 54. SMOKE DETECTORS SHOULD BE LOCATED IN EACH BEDROOM AND AS SHOWN. ALL SMOKE DETECTORS SHALL BE HARD WIRED TO PRIMARY ELECTRICAL SERVICES WITH BATTERY BACKUP.
- 55. ALL CONSTRUCTION SHALL CONFORM TO ALL LOCAL BUILDING CODES.
- 56. ALL DIMENSIONS SHOWN ON FLOOR PLAN ARE FROM FACE OF STUDS AND/ OR STONE VENEER UNLESS OTHERWISE NOTED. 57. CONTRACTOR SHALL NOTIFY DESIGNER UPON DISCOVERY OF ANY ERRORS OR DISCREPENCY OF DIMENSIONS, CLEARANCES, OR
- OTHER ITEMS AS SHOWN OR NOTED IN THESE DRAWINGS. 58. COORDINATE ALL WINDOW SIZES AND LOCATIONS AS NOTED ON FLOOR PLAN WITH SELECTED ELEVATION OPTIONS.

PERMIT DOCUMENTS

- 59. HVAC SYSTEM SHALL BE DESIGNED BY MECHANICAL SUB-CONTRACTOR AND APPROVED BY DESIGNER OR GENERAL CONTRACTOR. SYSTEM SHALL HAVE A S.E.E.R. RATING OF 14 OR AS REQUIRED BY LOCAL BUILDING CODES. UNITS SHALL BE DESIGNED WITH TWO ZONES AS DIRECTED BY CONTRACTOR. PROVIDE ALL SUCTION LINES FROM UNITS TO EXTERIOR CONDENSOR UNITS AS INDICATEDON SITE PLAN. PROVIDE 4" THICK CONCRETE PADS WITH 6X6X10 WWF REINFORCING. LOCATE
- AIR HANDLING UNITS IN ATTIC SPACE NEAR RETURN AIR CHASES AS INDICATED ON THE FLOOR PLAN. 60. FOUNDATION PLAN TO BE DESIGNED BY A QUALIFIED ENGINEER.
- 61. PROVIDE ATTIC VENTING AS REQUIRED BY LOCAL CODES.



THIS SET TO **ON-SITE** 

DATE:

8/16/2022

SCALE:

1/4" = 1

SHEET:

FINAL

VERVEW - HOMES

BUILDER:

OT 1099 CAP ROCK HORSESHOE BAY, TX

**EVERVIEW HOMES** 

J EDWARDS HOME DESIGNS WWW.JEDWARDSHOMEDESIGNS.COM JULIE@JEDWARDSHOMEDESIGNS.COM 830-460-3455

DESIGNER:

DATE:

8/16/2022

SCALE: 1/4" = 1'

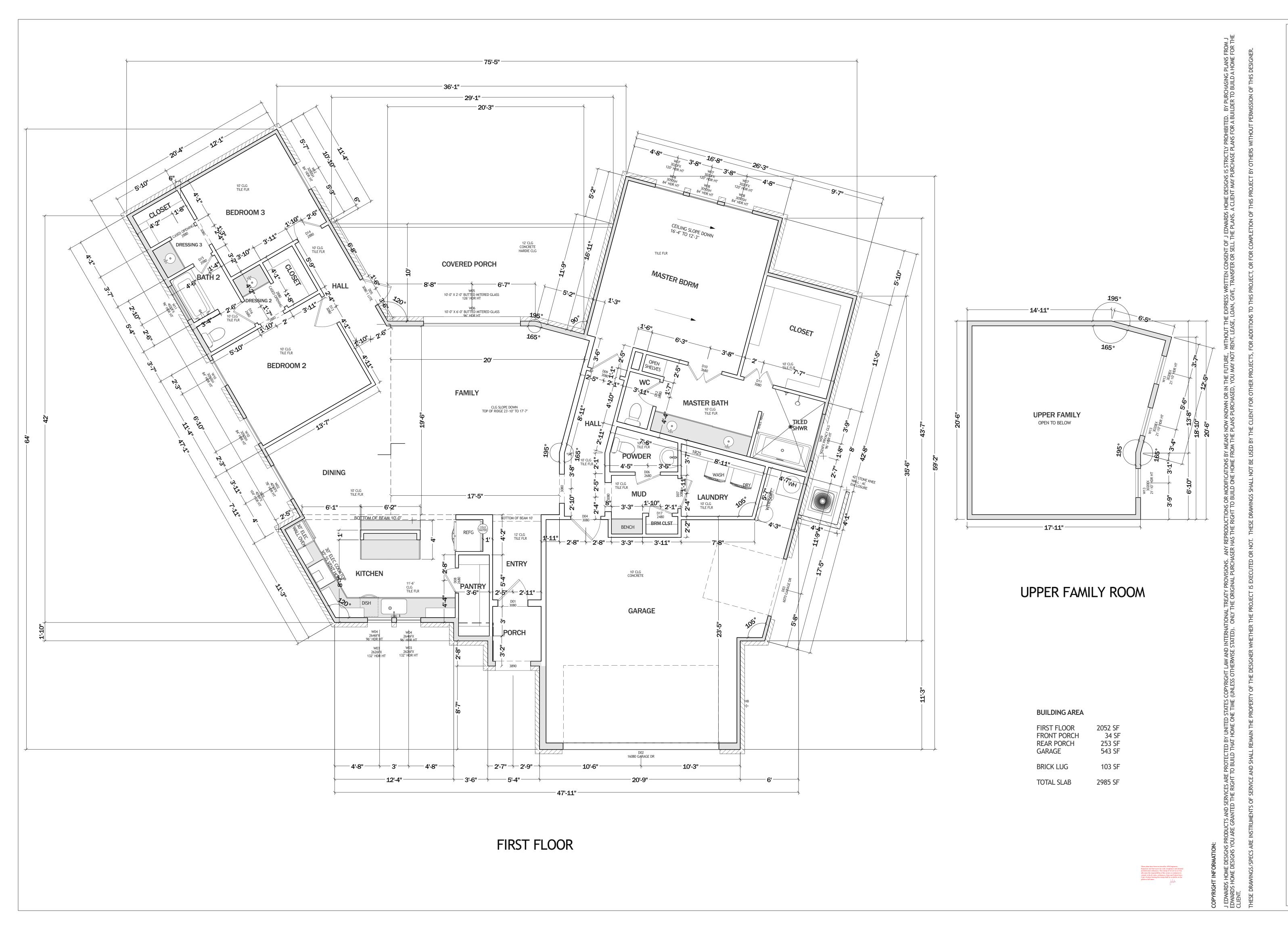
SHEET:

1/4" = 1'

SHEET:



FLOOR PLAN OVERVIEW



FINAL

EVERVIEW HOMES —

> T 1099 CAP ROCK RSESHOE BAY, TX

> > EVERVIEW HOMES

J EDWARDS HOME DESIGNS

WWW.JEDWARDSHOMEDESIGNS.COM

JULIE@JEDWARDSHOMEDESIGNS.COM

830-460-3455

Charles Constitution of the constitution of th

DATE:

8/16/2022

SCALE:

SCALE: 1/4" = 1'

SHEET:

DOOR SCHEDULE							
3D EXTERIOR ELEVATION	NUMBER	ROOM NAME	QTY	WIDTH	HEIGHT	TYPE	LABEL
	D01	PORCH/ENTRY	1	36 "	96 "	HINGED	D013080
	D02	GARAGE	1	192 "	96 "	GARAGE	D02 16080 GARAGE DR
	D03	GARAGE	1	72 "	84 "	GARAGE	D03 6070 GARAGE DR
	D04	GARAGE/HALL	1	36 "	96 "	HINGED	D043080
	D05	HALL/COVERED PORCH	1	36 "	96 "	HINGED	D05 3080 1 LITE
	D06	POWDER/MUD	1	30 "	96 "	HINGED	D062680
	D07	MUD/LAUNDRY	1	36 "	96 "	HINGED	D073080
	D08	PANTRY/KITCHEN	1	30 "	96 "	HINGED	D082680
	D09	MASTER BDRM/HALL	1	36 "	96 "	HINGED	D093080
	D10	MASTER BDRM/MASTER BATH	1	42 "	96 "	DOUBLE HINGED	D103680
	D11	CLOSET/MASTER BATH	1	36 "	96 "	DOUBLE HINGED	D113080
	D12	WC/MASTER BATH	1	30 "	96 "	HINGED	D122680
	D13	BEDROOM 2/HALL	1	36 "	96 "	HINGED	D133080
	D14	HALL/BEDROOM 3	1	32 "	96 "	HINGED	D142880
	D15	BATH 2/DRESSING 3	1	24 7/16 "	96 "	HINGED	D152080
	D16	DRESSING 2/BATH 2	1	30 "	96 "	HINGED	D162680
	D17	BRM CLST/MUD	1	28 "	96 "	HINGED	D172480

				WINDO	W SCHED	DULE		
3D EVTEDIOD	NILIMDED	DOOM NAME	OTV				TYPE	LABEL
EXTERIOR ELEVATION	NUMBER	ROOM NAME	QTY	WIDTH	HEIGHT	HDR HT	ITPE	LABEL
	W01	DINING	1	48 "	18 "	104"	FIXED GLASS	W01 4016FX 104" HDR HT
	W02	DINING	1	48 "	60 "	78"	FIXED GLASS	W02 4050FX 78" HDR HT
	W03	KITCHEN	2	30 "	30 "	132"	FIXED GLASS	W03 2626FX 132" HDR HT
	W04	KITCHEN	2	30 "	54 "	96"	FIXED GLASS	W04 2646FX 96" HDR HT
	W05	FAMILY/ COVERED PORCH	1	120 "	18 "	126"	FIXED GLASS	W05 10'-0" X 2'-0" BUTTED MITERED GLASS 126" HDR HT
	W06	FAMILY/ COVERED PORCH	1	120 "	72 "	96"	FIXED GLASS	W06 10'-0" X 6'-0" BUTTED MITERED GLASS 96" HDR HT
	W07	MASTER BDRM	3	36 "	24 "	120"	FIXED GLASS	W07 3020FX 120" HDR HT
	W08	MASTER BDRM	3	36 "	60 "	84"	SINGLE HUNG	W08 3050SH 84" HDR HT
	W09	MASTER BATH	1	60 "	30 "	96"	FIXED GLASS	W09 5026FX PRVACY GLS 96" HDR HT
	W10	BEDROOM 2	2	36 "	60 "	84"	SINGLE HUNG	W10 3050SH 84" HDR HT
	W11	BATH 2	1	48 "	24 "	96"	FIXED GLASS	W11 4020FX 96" HDR HT
	W12	BEDROOM 3	1	36 "	60 "	84"	SINGLE HUNG	W12 3050SH 84" HDR HT
	W13	UPPER FAMILY	3	36 "	24 "	21'-10"	FIXED GLASS	W13 3020FX 21'-10" HDR HT

DATE:

8/16/2022

SCALE:

1/4" = 1'

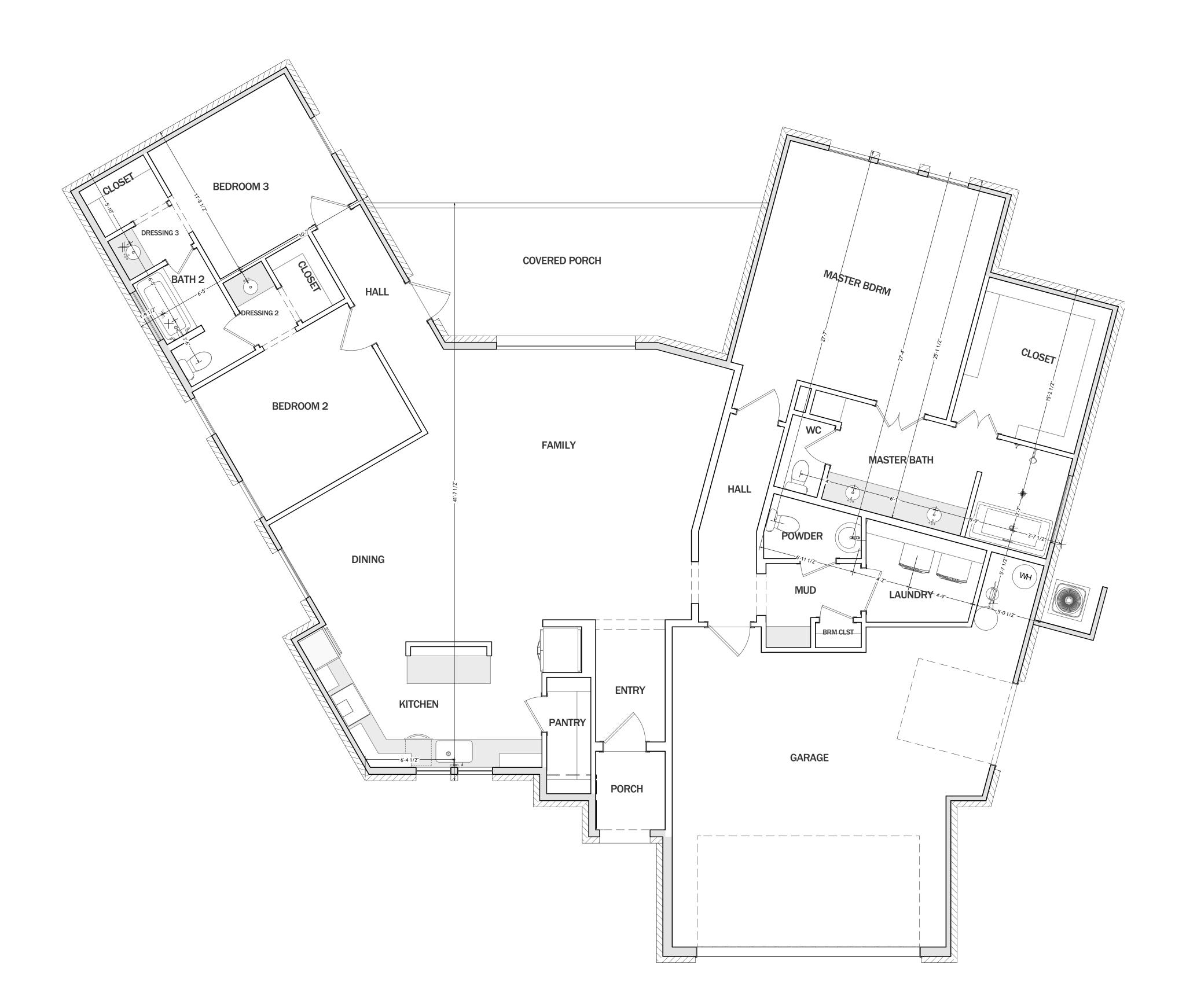
8/16/2022

SCALE:

1/4" = 1'

SHEET:

6



PLUMBING PLAN

These plans have been reviewed by ATS Engineers, Impectors and Surveyors for code compliance and adopted jurisdictional ordinances. This stamp of review in no way alleviates the repromishily of the owner or contractor to comply with all codes, ordinances, State and Federal laws. Copy of plans bearing this stamp shall be vanished on the



DATE:

8/16/2022

SCALE:

1/4" = 1' SHEET:

DATE:

8/16/2022

SCALE: 1/4" = 1'

SHEET:

Q

# FRONT ELEVATION

EXPOSED SLAB WILL BE NO GREATER THAN 12" ABOVE GRADE. DROP BRICK LUG ACCORDINGLY



EXPOSED SLAB WILL BE NO GREATER THAN 12" ABOVE GRADE. DROP BRICK LUG ACCORDINGLY

REAR ELEVATION



FINAL

EVERVEW HOMES

> LOT 1099 CAP ROCK HORSESHOE BAY, TX

> > **EVERVIEW HOMES**

J EDWARDS HOME DESIGNS

WWW.JEDWARDSHOMEDESIGNS.COM
JULIE@JEDWARDSHOMEDESIGNS.COM
830-460-3455

J Calmaras

DATE:

8/16/2022

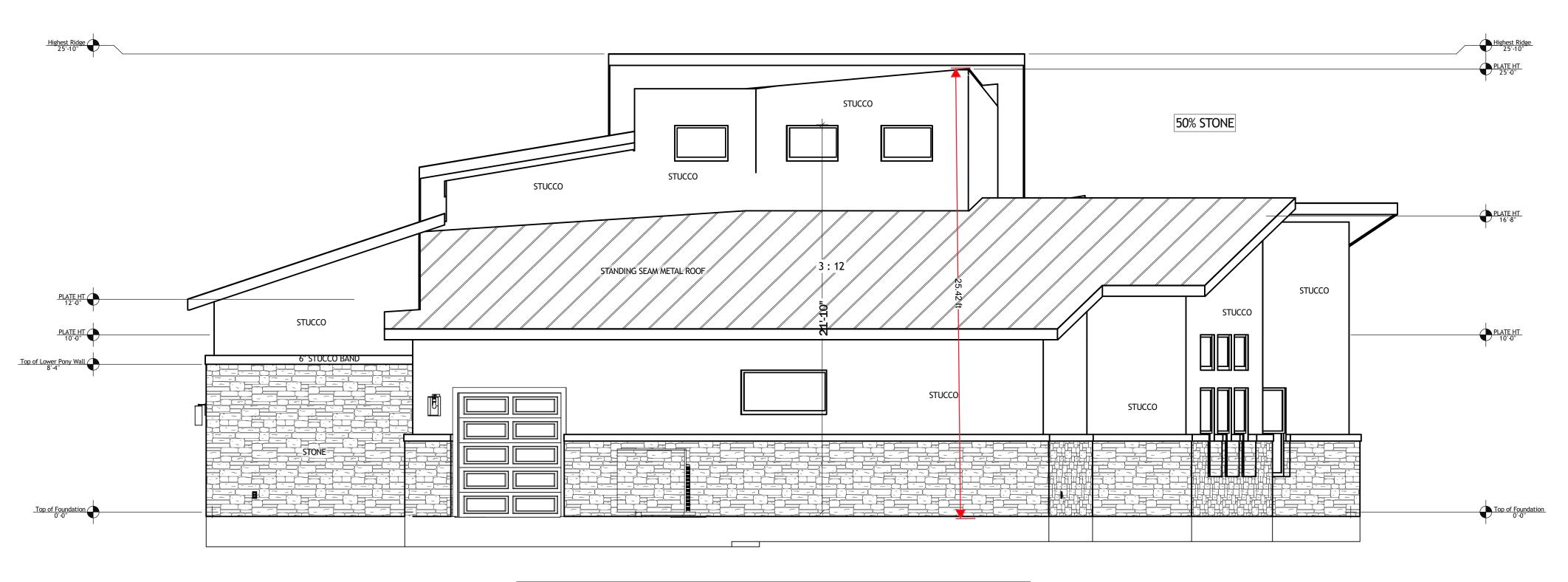
SCALE: 1/4" = 1'

SHEET:

1/4" = 1'

SHEET:

10



# EXPOSED SLAB WILL BE NO GREATER THAN 12" ABOVE GRADE. DROP BRICK LUG ACCORDINGLY

# RIGHT ELEVATION



LEFT ELEVATION

DATE:

9/17/2022

SCALE:

1/4" = 1' SHEET:

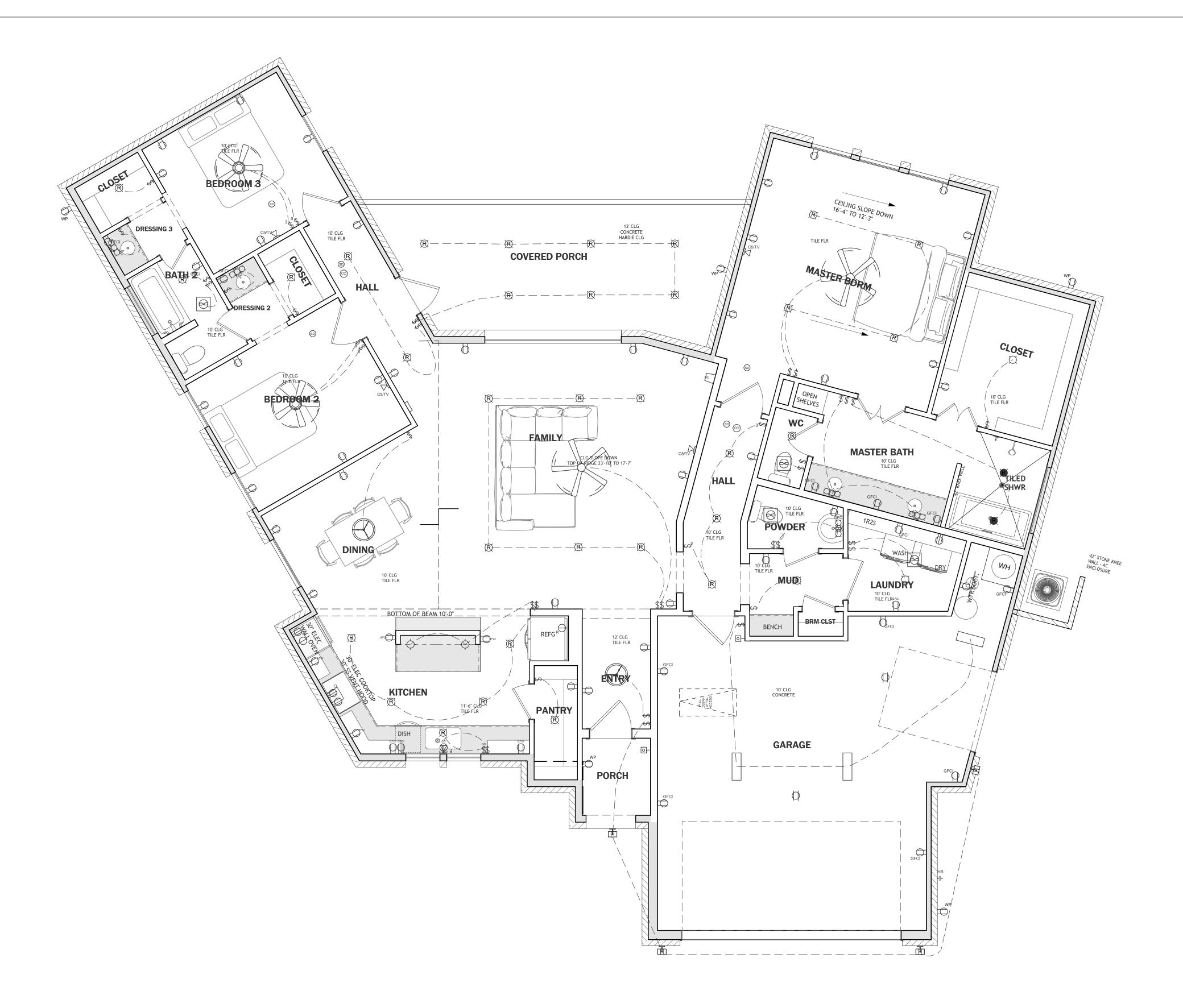
11

EXHAUST  $(\mathsf{R})$  recessed down light 6" - PENDANT LIGHT HANGING LIGHT CEILING FAN W/ LIGHT FIXTURE CEILING FAN VANITY LIGHT - 3 LIGHT FLUORESCENT LIGHT SINGLE POLE GARBAGE DISPOSAL GARBAGE DISPOSAL SWITCH THREE WAY DUPLEX OUTLET, CEILING MOUNTED 2 GFCI GFCI DUPLEX COACH LIGHT DOORBELL I △ C5/TV CAT5 W/ TV RECESSED VAPOR LIGHT DC DOOR CHIME SD SMOKE DETECTOR (CO) CO DETECTOR REFRIGERATOR OUTLET MICROWAVE OUTLET OVEN OUTLET UWP DUPLEX (WEATHERPROOF)

DOORBELL CHIME

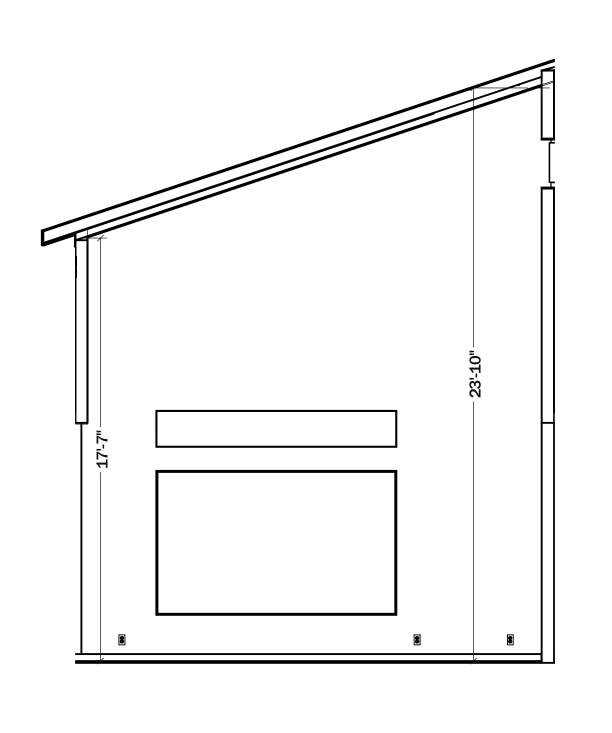
2D SYMBOL LABEL

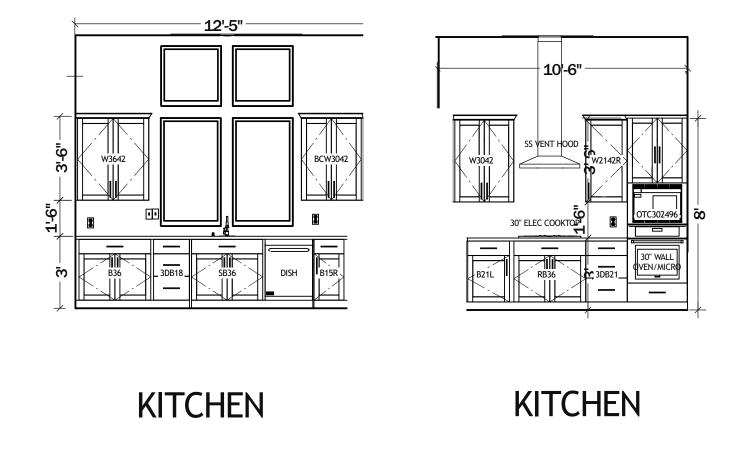
FLUSH MOUNT LIGHT

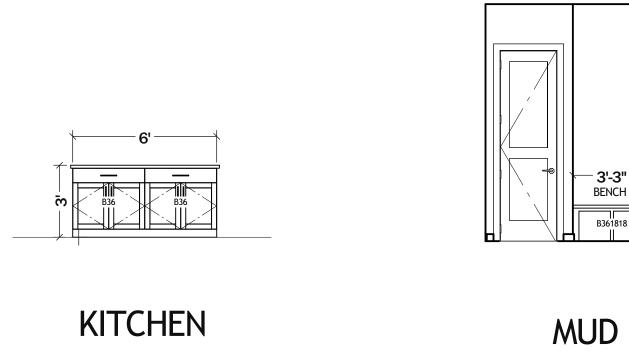


# ELECTRICAL PLAN

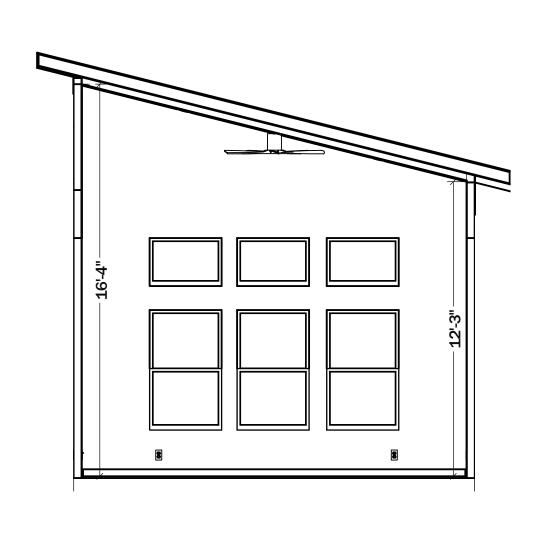
SHEET:

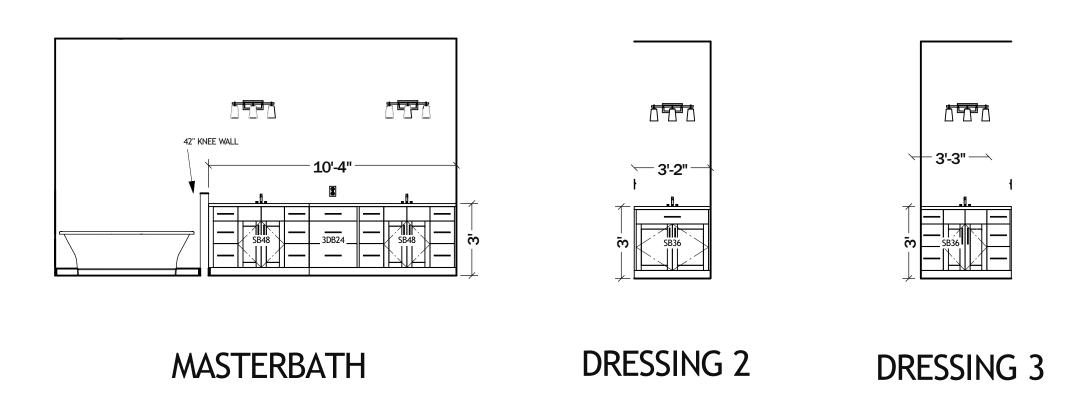




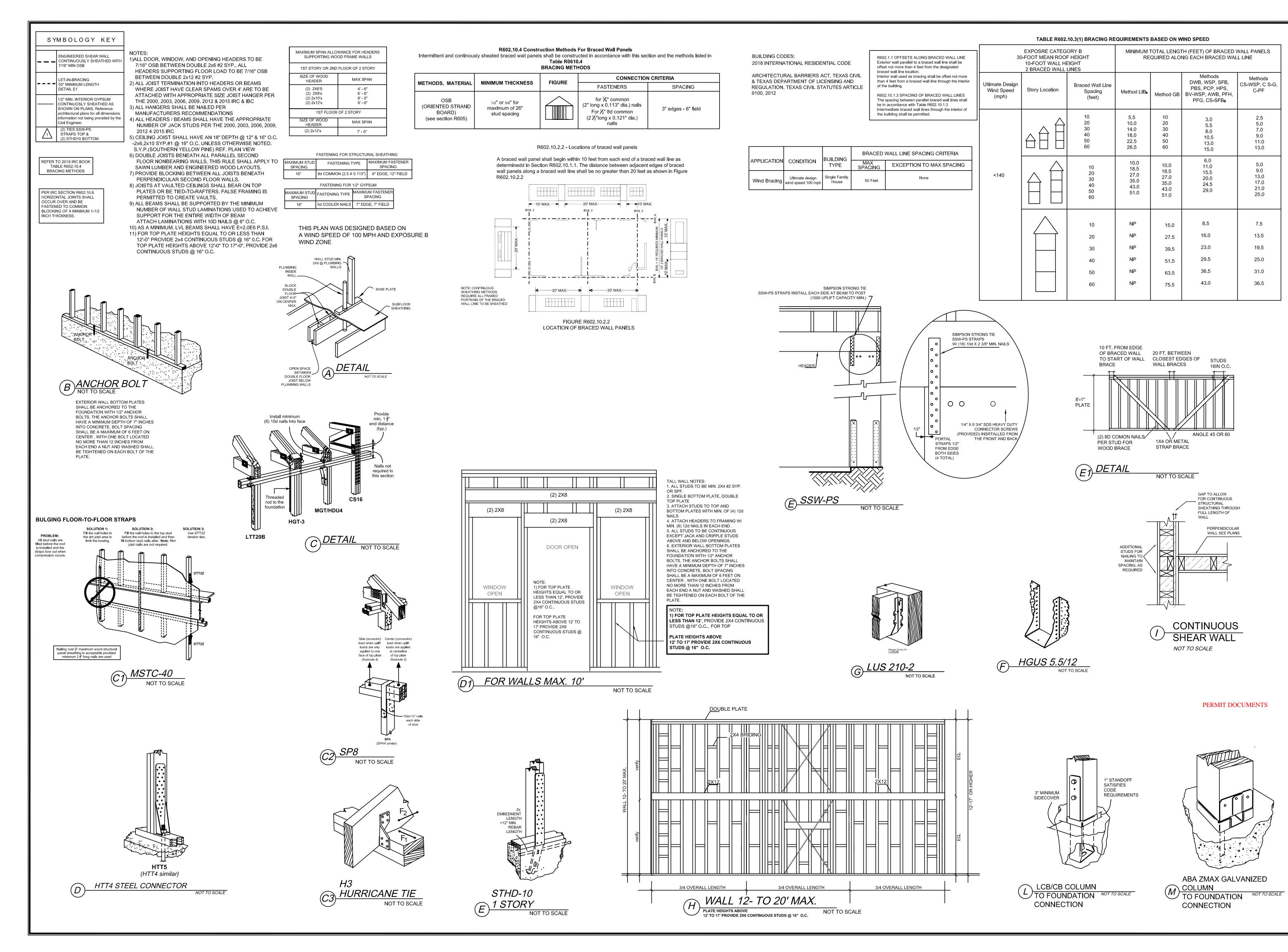


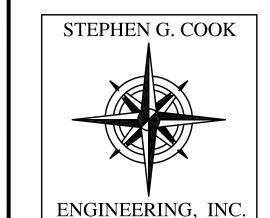




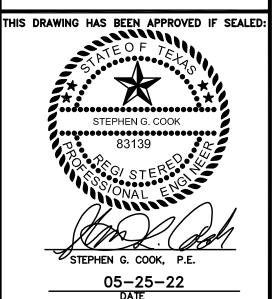


MASTER BEDROOM





TBPE FIRM NO. F-184 13302 Thornridge Lane San Antonio, Tx. 78232 (210) 481-2533www.sgce.net



05-25-22 DATE 180-552-003 STEPHEN G. COOK ENG. JOB NO G.S.I. 05-25-22 DRAWING DATE: BY:

**REVISIONS:** 

PR

REVISION

ADDRESS:

LOT 1099 CAP ROCK

**ADDRESS** N.C.B.

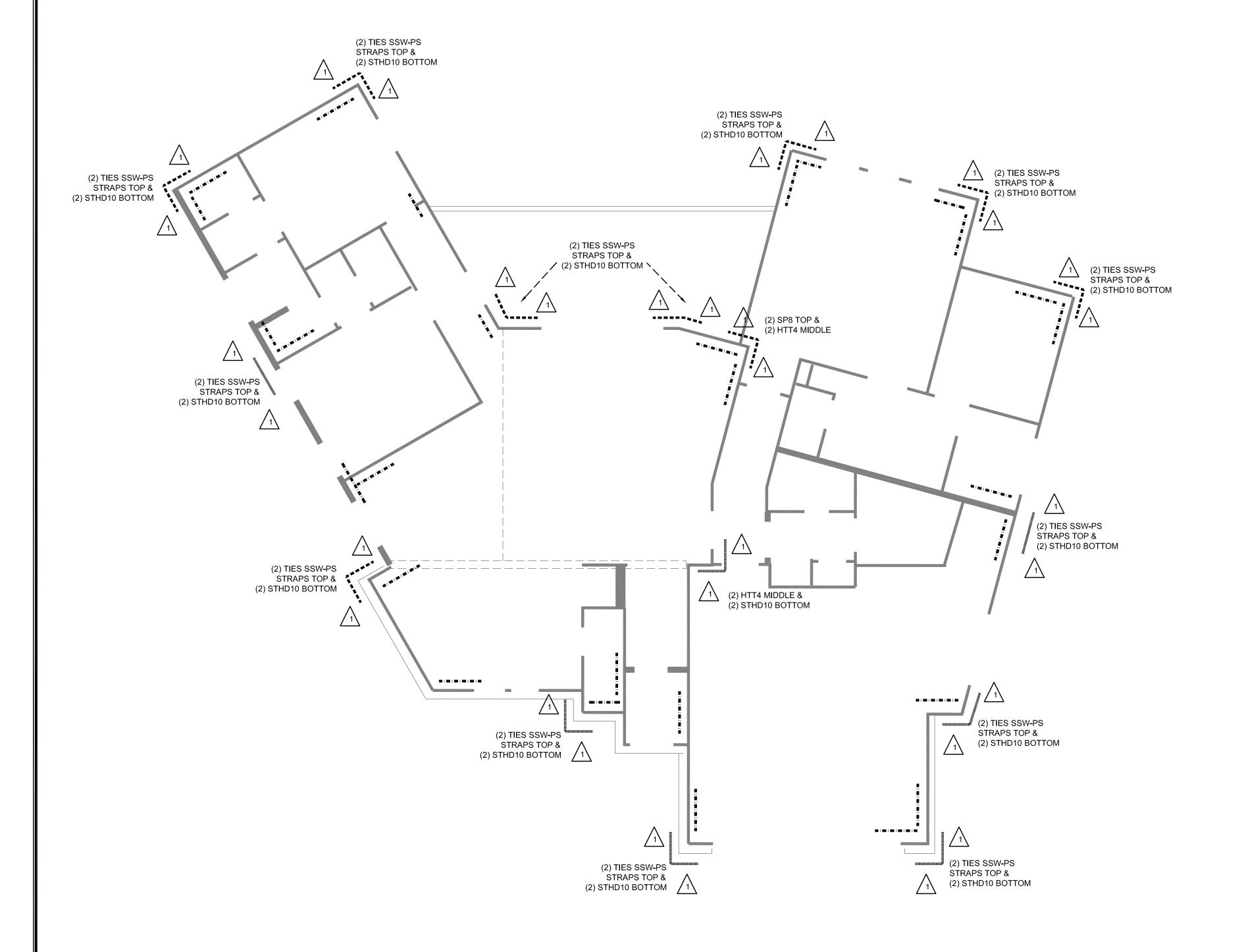
BLOCK HORSESHOE BAY

SUBDIVISION HORSESHOE BAY, TX 78657

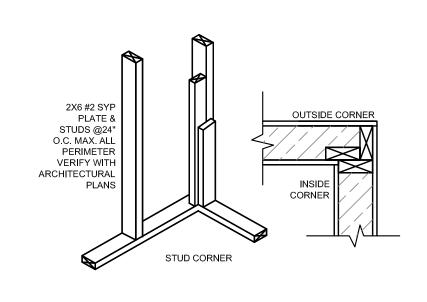
CITY STATE ZIP LLANO COUNTY

PLAN NUMBER:

1 of 5

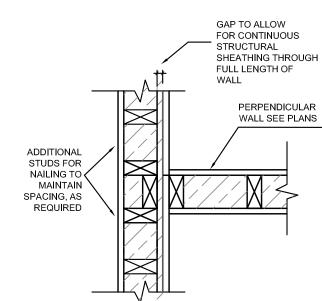


WIND BRACING PLAN
SCALE: 3/16" = 1'-0"



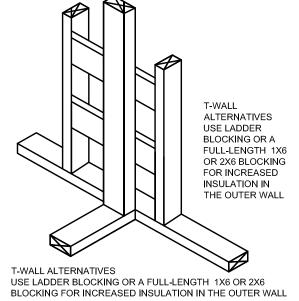


Reference architectural plans for all dimensions, sections, and elevations, which are not being provided by the Civil Engineer.
Note: 2x6's will reduce overall room dimensions and must be coordinated with architectural plans





PERMIT DOCUMENTS





TALL WALL NOTES:

OF THE PLATE.

1. ALL STUDS TO BE MIN. 2x4 #2 SYP OR SPF.

3. ATTACH STUDS TO TOP AND BOTTOM PLATES WITH MIN. OF (4) I2d NAILS.

4. ATTACH HEADERS TO FRAMING W/ MIN. (8) I2d NAILS IN EACH END.

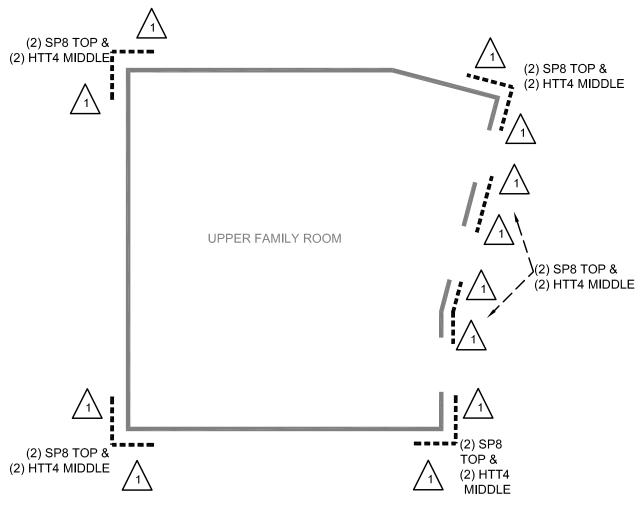
5. ALL STUDS TO BE CONTINUOUS EXCEPT JACK AND CRIPPLE STUDS ABOVE AND BELOW OPENINGS.

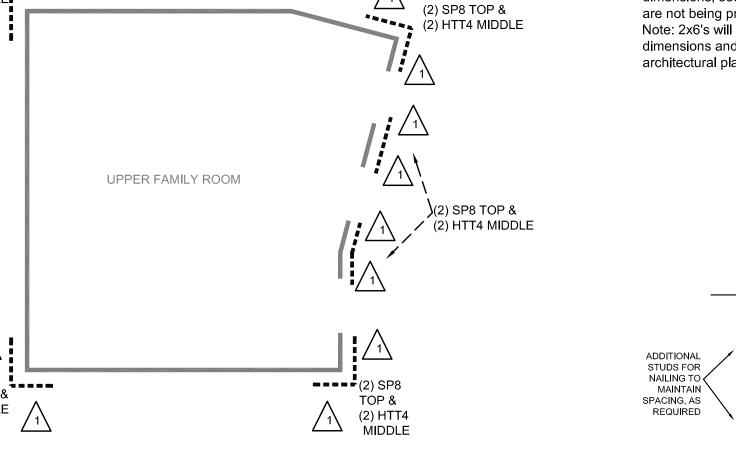
CITY STATE ZIP LLANO COUNTY

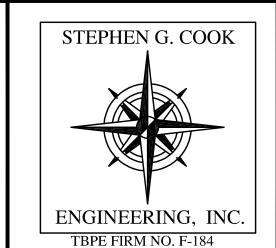
ADDRESS:

1099

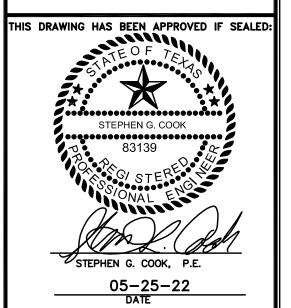
2 of 5







13302 Thornridge Lane San Antonio, Tx. 78232 (210) 481–2533 www.sgce.net



180-552-003 STEPHEN G. COOK ENG. JOB NO 05-25-22 G.S.I. DRAWING DATE: BY:

> HOME SIGNS

> > REVISION

DATE

REVISION

DATE

LOT 1099 CAP ROCK

**ADDRESS** 

HORSESHOE BAY

SUBDIVISION

HORSESHOE BAY, TX 78657

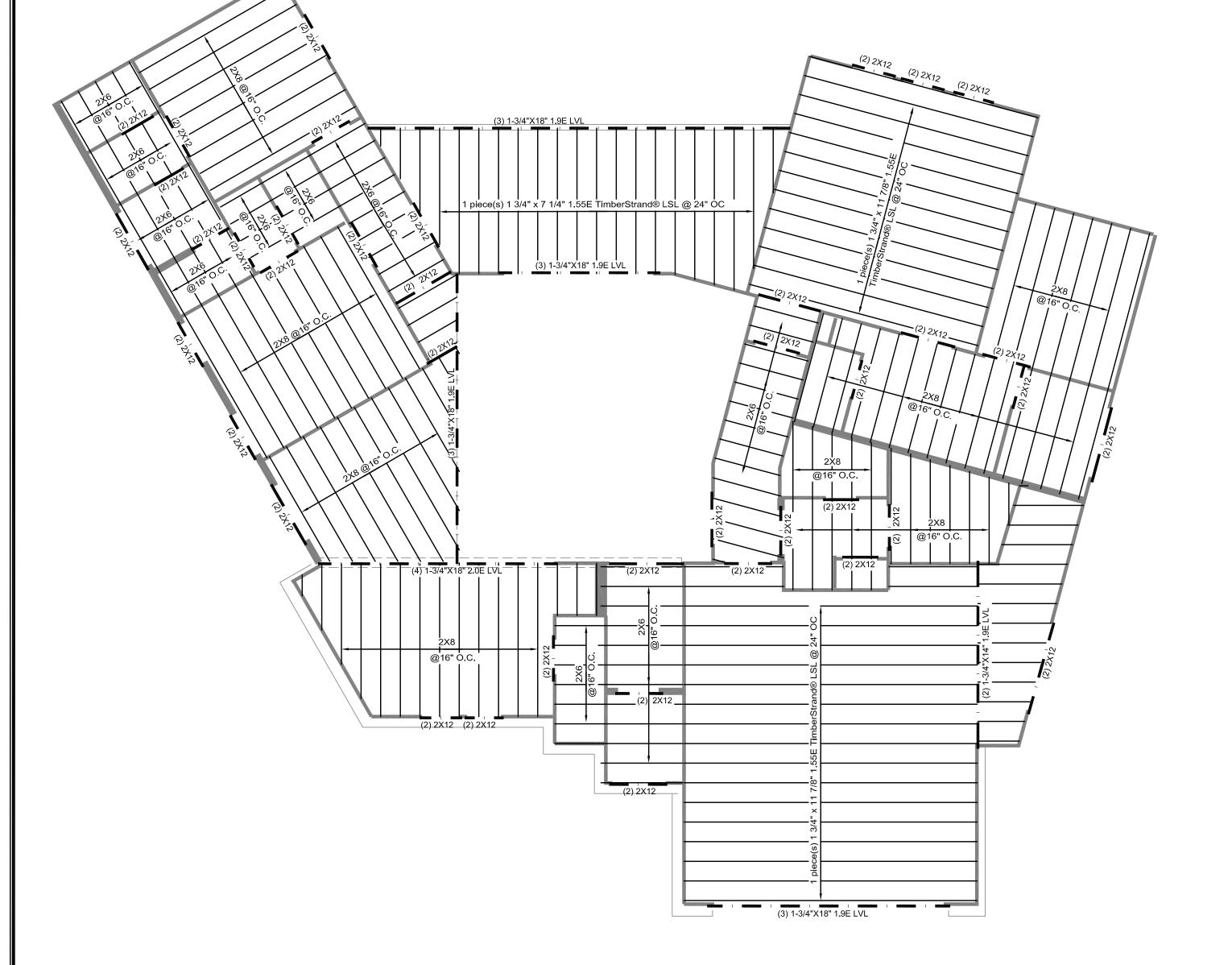
BLOCK N.C.B.

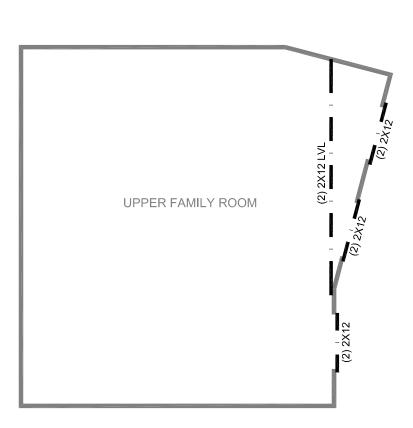
**REVISIONS:** 

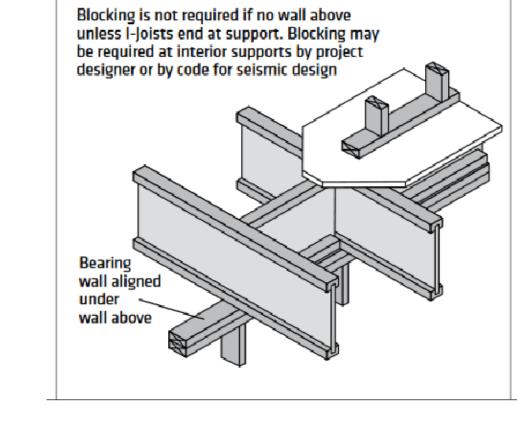
2. SINGLE BOTTOM PLATE, DOUBLE TOP PLATE.

6. EXTERIOR WALL BOTTOM PLATES SHALL BE ANCHORED TO THE FOUNDATION WITH 1/2" ANCHOR BOLTS. THE ANCHOR BOLTS SHALL HAVE A MINIMUM DEPTH OF 7 INCHES INTO CONCRETE. BOLT SPACING SHALL BE A MAXIMUM OF 6 FEET ON CENTER, WITH ONE BOLT LOCATED NO MORE THAN 12 INCHES FROM EACH

PLAN NUMBER: END. A NUT AND WASHED SHALL BE TIGHTENED ON EACH BOLT







BLOCKING AT INTERIOR SUPPORT



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

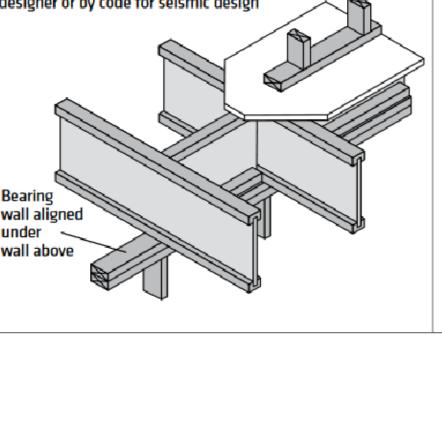
> Reference architectural plans for all dimensions, sections, and elevations, which are not being provided by the Civil Engineer.

> > EQUIPMENT AREA:
> > (PLEASE VERIFY WITH ARCHITECTURAL PLANS)

<u>LEGEND:</u> O.C. - ON CENTER S.Y.P.- SOUTHERN YELLOW PINE JOIST SHALL BE 2X10 @ 18" O.C. #2 GRADE SOUTHERN YELLOW PINE U.N.O. VERIFY WITH ARCHITECTURAL PLANS :
ATTIC STORAGE OR FURR DOWN/FRAME

**CEILING JOIST** 2x6 @ 16" O.C 2x8 @ 16" O.C

1 piece(s) 1 3/4" x 7 1/4" 1.55E TimberStrand® LSL @ 24" OC 1 piece(s) 1 3/4" x 11 7/8" 1.55E TimberStrand® LSL @ 24" OC





REVISION DATE

**REVISIONS:** 

REVISION

STEPHEN G. COOK

ENGINEERING, INC. TBPE FIRM NO. F-184

THIS DRAWING HAS BEEN APPROVED IF SEALED:

STEPHEN G. COOK

05-25-22 DATE

G.S.I.

BY:

180-552-003

STEPHEN G. COOK ENG. JOB NO

05-25-22

DRAWING DATE:

13302 Thornridge Lane San Antonio, Tx. 78232 (210) 481—2533 www.sgce.net

ADDRESS: LOT 1099 CAP ROCK

**ADDRESS** 

LOT BLOCK N.C.B.

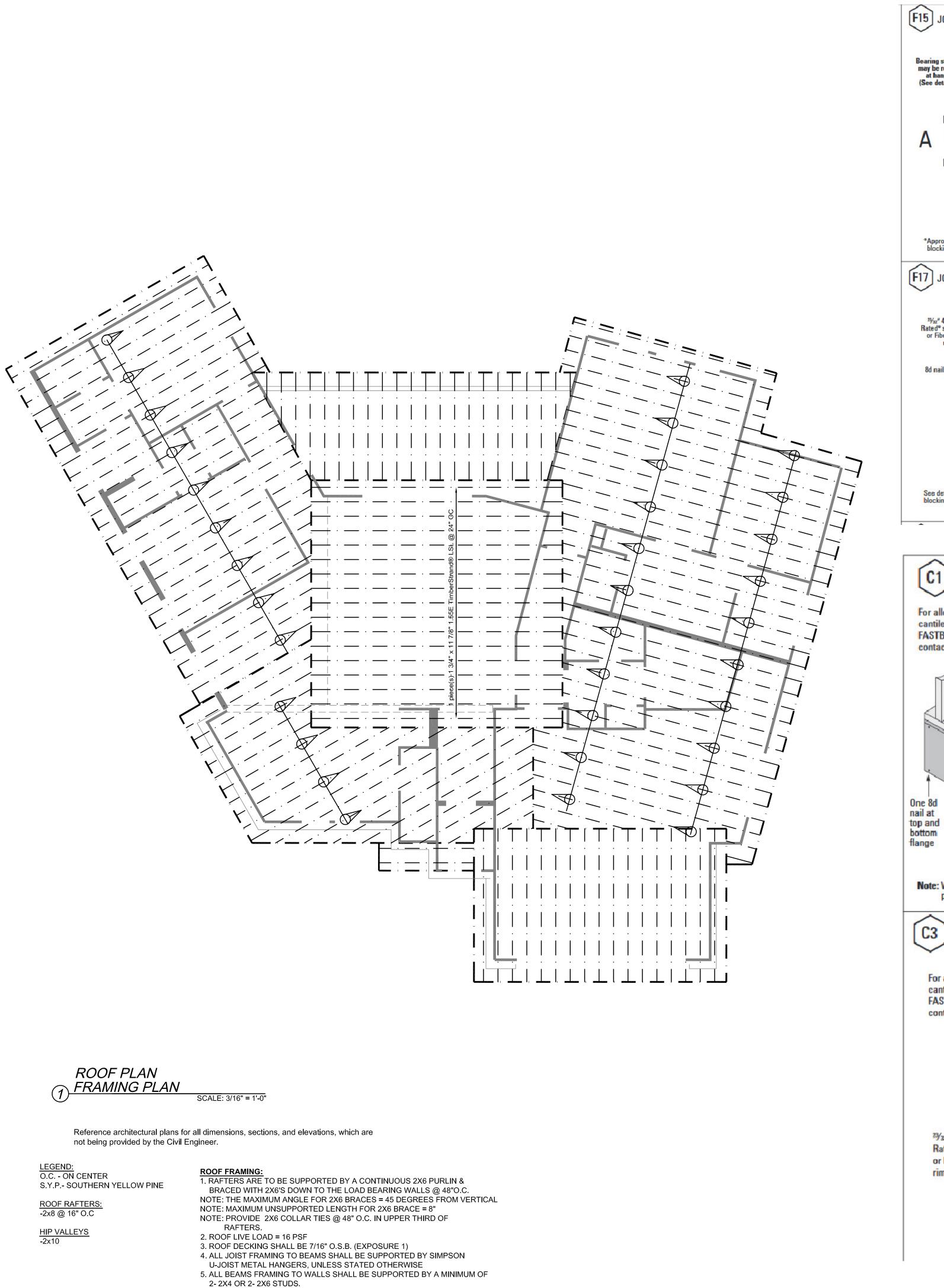
HORSESHOE BAY SUBDIVISION

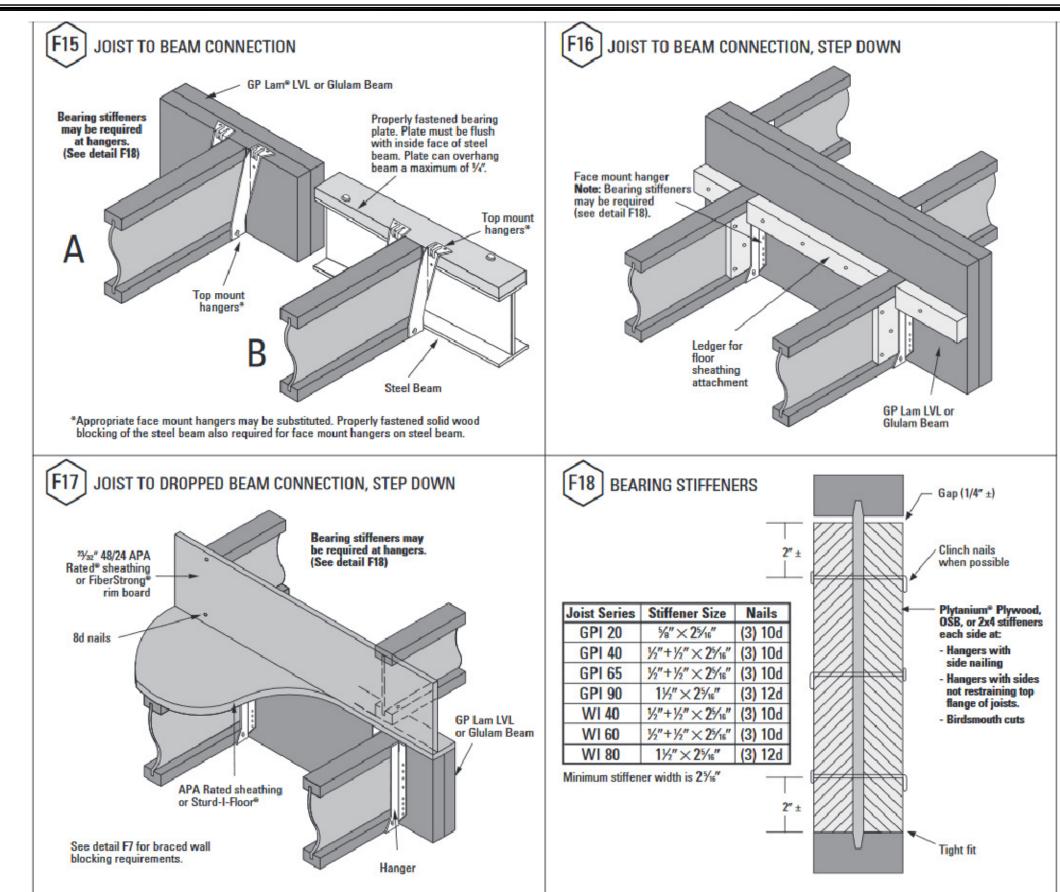
HORSESHOE BAY, TX 78657 CITY STATE ZIP LLANO

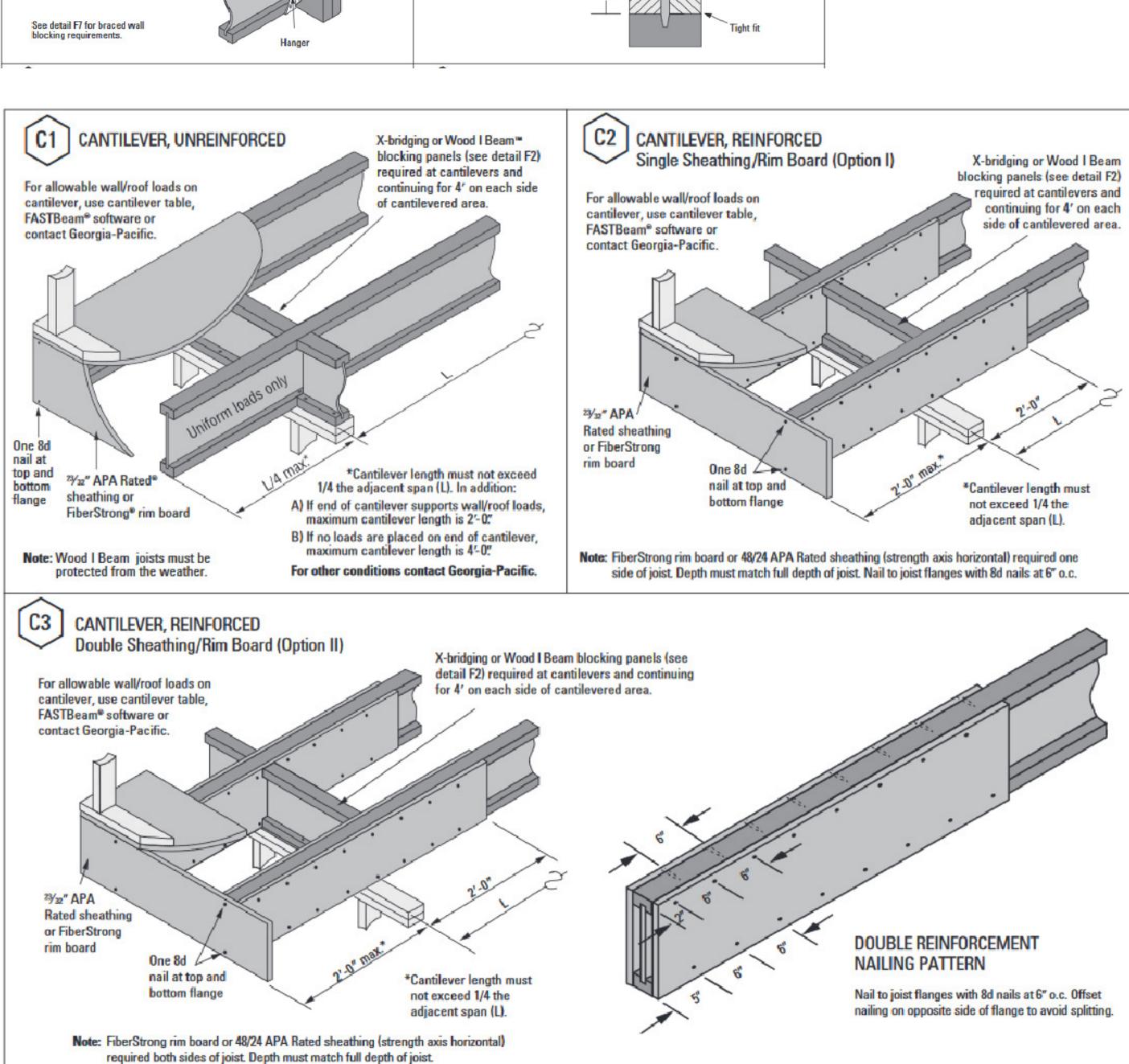
PLAN NUMBER:

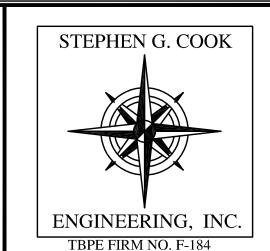
3 of 5

COUNTY



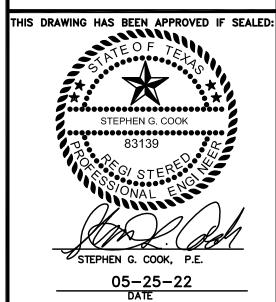






PERMIT DOCUMENTS

13302 Thornridge Lane San Antonio, Tx. 78232 (210) 481-2533 www.sgce.net



_						
		18	0-552·	-003		
ļ	STEPHEN	G.	СООК	ENG.	JOB	NO.
	05-25-	-22			G.S.I	•
	DRAWING	G DA	TE:		BY:	

# DRAWING DATE:

# HOME IGN

# **REVISIONS:**

REVISION DATE

REVISION

ADDRESS:

LOT 1099 CAP ROCK **ADDRESS** 

1099 BLOCK N.C.B.

> HORSESHOE BAY SUBDIVISION

HORSESHOE BAY, TX 78657 CITY STATE ZIP

LLANO COUNTY

PLAN NUMBER:

4 of 5

- 4.0 Conventional Wood Framing:
- 4.1 Framing shall conform with the IRC or the IBC and the Wood Frame Construction Manual (WFCM), publishhed by the American
- Forst & Paper Association (AF & PA) 4.2 Framing shall be adequate to to provide a continous load path to transfer all vertical and lateral loads from the roof, wall, and floor systems to the foundation.
- 4.3 Roof-Ceiling Construction

Span schedule.

- 1. Rafters shall be sized and spaced per the Rafter Span Schedule. 2. Provide purlins same size as rafters and brace with min 2x4 brace at not more than 48 inches on center to wall, header, or elevated beam below. The slope of struts shall not be less than 45 degrees from horizontal. Struts longer than 8' shall be 2x4 T-brace or 2x6. At wind speeds greater than 100 mph, use 2x4 T-brace. Struts larger than 8' shall be 2x6 T-brace.
- 3. Ridge straps or collar ties installed in the upper 1/3 of the attic space shall not be spaced more than 48 inches on center U.N.O.
- 4. Hips, valleys, and ridges shall provide full end-cut bearing for supported rafters, not less than one dimensional size larger 5. Roof sheathing shall be minimum 7/16" thickness sheathing with 24/16 span rating. For roof coverings weighing more than 1000
- pounds per square (100 sq.ft.), roof framing spacing shall be limited to not more than 24 inches on center. Refer to Sheathing and Cladding Attachment Schedule for fastening requirements. 6. Ceiling joists shall be sized and spaced per the Ceiling Joist
- 7. All ceilings are designed for limited attic storage unless noted otherwise, except for cathedral type ceilings where no attic storage is permitted. Ceilings are not designed for future rooms, unless noted otherwise.
- 8. Rafters and ceiling joists shall have minimum 1 1/2 inches of bearing and opposing ceiling joists shall be lapped a minimum of 3 inches at interior bearing walls. Rafters and joists shall be face nailed together and both shall be toe nailed to the plate. At
- vaulted ceilings, cripple rafters shall be added, to achieve full bearing and toe nailing at the plate.
- 9. Where ceiling joists run perpendicular to rafters or where ceiling joists do not tie into rafters, rafter ties or some other method of resisting out thrust shall be installed. Refer to Typical Rafter Tie Detail. Cripple joists and rafters shall be added to allow full bearing and toe nailing at the top plate.
- 10. Rafter and ceiling joists with a depth:thickness ratio greater than 5:1 shall have lateral blocking at bearing points to prevent rotation. Where solid sawn rafters and joists are parallel and face nailed together, the combined thickness may be used. 11. Rafters and ceiling joists with a depth:thickness ratio greater
- than 6:1 shall have intermediate blocking at intervals not exceeding 8 feet. 12. Notches in sawn lumber rafters and joists shall not exceed
- one-sixth the depth of the member, shall not be longer than \_ one-third the depth of the member, and shall not be located in the middle one-third of the span. Notches at the ends shall not exceed one-fourth the depth of the member
- 13. Holes in sawn lumber rafters and joists shall not exceed one-third the depth of the member and shall not be within 2 inches of the top or bottom edge of the member, a notch, or another hole. 4.4 Floors
- 1. Floor joists shall be sized and spaced per IRC Table R502.3.1(2) IBC Table 2308.8(2). Manufactured floor systems (such as I-joists) shall be sized and spaced per manufacturer's specications. Manufactured floor trusses shall be designed for the applicable loads.
- 2. Floor joists or trusses shall be doubled under parallel walls or otherwise provide full bearing, unless noted otherwise. Joists or trusses under perpendicular walls shall be designed for the
- 3. Floor joists or trusses shall have minimum 1 1/2, inches bearing and opposing members shall lap minimum 3 inches at interior bearing walls.
- 4. Floor joists or trusses shall be supported at the ends by full depth 2x blocking, full depth beam, band of rim joist. Blocking is also required for continuous floor joists or trusses at perpendicular load bearing walls above or below.
- 5. Floor joists or trusses with a depth: thickness ratio greater than 6:1 shall have intermediate blocking or bracing at intervals not exceeding 8 feet.
- 6. Floor sheating shall be minimum 23/32" thickness T&G sheating with 48/24 span rating. Refer to sheathing and Cladding
- Attachment Schedule for fastening requirements. 7. Allowances for notches and holes in sawn lumber floor joists are the same as for the fasters and ceiling joists. For manufactured products, notches and holes are prohibited except where permitted by the manufacturer's installation guide or where the effects, of the alternations are specifically considered in the design
- of the member by a registered engineer. 4.5 Wall Construction Load bearing studs shall be sized and spaced per the Wall Stud Schedules, unless otherwise noted on the plans. Interior
- non-load bearing walls may be 2x4s @ 24 inches on center up to 14' height abd 2x6s @ 24 inches on center up to 19'8" height. 2. Notching in any stud in a nonbearing wall shall not exceed 40 percent of its width. Notching of any stud in an exterior or load bearing wall shall not exceed 25 percent of its width.
- 3. Holes in any stud in a nonbearing wall shall not exceed 60 percent of its width. Holes in stud in an exterior or load bearing wall shall not exceed 40 percent of its width. Hole diameter may be increased to 60 percent of the stud width if the studs are doubled and not more than two successive studs are so bored. Holes may not be located within 5/8 inch of the edge of the stud or in the same section as a notch. Approved stud shoes may also be used.
- 4. Load bearing walls shall have minimum one bottom plate and two top plates, having a width at least equal to the width of the studs. The double top plate shall overlap at corners and intersections of bearing walls. End joints and splices shall be offset atleast 24 inches, unless noted otherwise.
- 5. The sill plate at exterior walls shall be anchored to the foundation with anchor bolts fo per the Sill Plate Anchorage Schedule, with atleast two bolts in each section of sill plate spaced not more than 12" or less than 7 bolt diameters from the end. Bolts shall be at least 1/2" diameter and shall extend at least 7 inches into the foundation. The sill plate at interior bearing walls shall be positively connected to the foundation with approved fasteners. Additional bolts may be required per the Sheathing Schedule or other connections. At wind speeds in excess of 100 mph in hurricane prone regions, all anchor bolts shall have a 2 x 2 x 1/4 thick plate washer or (2) 2x2x 1/8 plate washers. At wind speeds less than or equal to 100 mph, all anchors bolts shall have a standard washer. Equivalent fasteners are permitted.
  - REFER TO 2018 IRC BOOK TABLE R602.10.4 **BRACING METHODS**

- 6. Single top plates may be used, except that 3" x 6" 20ga galvanized steel plates shall used at corners, intersections, and joints. Rafters or joists shall be centered over studs with a
- tolerance of not more than 1 inch. 7. If drilling or notching of the top plate exceeds 50 percent of its width, a 1-1/2" x16ga galvanized metal tie shall be used across
- the opening. 8. Headers or beams at openings shall be per IRC Table R502.5 or IBC Tables 2308.9.5 and 2308.9.6 and WFCM Table 3.23,

unless other wise noted in the plans.

- 9. The ends of flush beams and girders bearing on the top plate shall be supported byt a full-heighted stud pack. Dropped headers shall be supported by jack studs. For conventional lumber, stud pack or jack studs shall not be less thn 1 for 2x6 and 2x8 membersjac: ane. svat not less than 1 for 2x6 and 2x8) members and not less than 2 for 2x10 and 2x12 members. For manufactured lumber and trusses, studs shall provide full bearing and shall be not less than 1 for up to 7 1/4 depth and 2 for up to 11 7/8 depth. These are minimums - additional studs required based on actual loads. At upper floors, stud packs and jack studs with 2 or more studs shall be continued at lower floors to the foundation, to include blocking through
- subfloor as necessary. 10. At dropped headers, all jack studs shall have not less than one full-height king stud. Additional king studs may be required at exterior walls subject to wind loads. Refer to WFCM Tables 3.23C and 3.23D. King stud may replace required jack studs if a mechanical connector is used to fasten the header to the king
- 11. Wall bracing shall be per the IRC Section R602.10 or IBC Section 2308.9.3. Perpendicular to braced wall lines shall be blocked in the plane of the wall as required by the IRC/BC. Framing parallel to braced wall lines shall have a structural member in the plane of the wall. All braced wall lines shall be anchored to the concrete foundation. These plans may contain a layout of braced wall lines and panels, including portions of the structure which have been designed per IRC Section R602.10.10 or IBC Section 2308.4. Refer to the Sheathing Schedule/Shear Connection Schedule.
- 1. Wall coverings shall comply with IRC Chapter 7. Roof coverings shall comply with IRC Chapter 9. Coverings, windows and other openings shall be rated for the components and cladding loads of IRC Table R301.2(2) or IBC Table 1609.6.1.(2) 2. Windows and other openings in wind borne debris regions shall be protected per IRC Table R301.2.1.2 or IBC Table 1609.1.2, or per the TDI as applicable.

4.6 Coverings, Openings and Veneers

- 3. Masonry veneers shall not exceed 30' in height or 40psf in weight, unless noted otherwise on the plans. Brick ties shall be minimum 22ga corrugated sheet metal, spaced not more than 24 inches on center horizontally and spaced not more than 2.67 square feet of masonry. In high wind areas where the basic wind speed is greater than or equal to 110 mph but does not exceed 130 mph, space anchors a maximum of 16"o.c. in either direction. Add additional anchors around perimeter of opening at a maximum of 24" o.c. and place anchors within 12" of openining. Flashing is required beneath the first course of masonry and at other points of support. Weepholes located immediately above the flashing shall be minimum 3/16 inch diameter, spaced not more than 33 inches on center.
- 4. Steel lintels supporting only dead load from masonry shall be per Schedule or plans. Lintels shall have bearing length not less than 4 inches and shall not be fastened to the wood framing, unless noted otherwise
- 5. Brick veneer not exceeding 12'-8" in height may be supported on wood framing per IRC Section R703.7.2.
- 4.7 Connections 1. Connections and fasteners shall be per IRC Table R602.3 or IBB Table 2304.9.1
- Where joists or beams frame into a flush beam or girder, the conncetion shall consist of a metal hanger or other framing angle, except that single ceiling joists spanning not more than 6 feet may be connceted with 3-8d common or 3-0.131"x3" toe nails. 3. Framing members consisting of multiple plies of dimensional lumber shall be fastened together 2 rows of 0.131" x 3" nails at 24 inches on center, except where side-loaded beams shall be fastened together with 2 rows of 0.131" x 3" nails at 12 inches on center.
- 4. Framing members consisting of multiple plies of engineered wood products shall be fastened per the manufacturer's instructions. Solid members of the same nominal size and capacity may be used in lieu of built up members. 5.0 Construction Documentation
- 5.1 Submttals. Review of submittals is for general conformance with the structural drawings and project specifications, not for dimension control. The Engineer shall be entitled to rely on the accuracy and completeness of information provided by the contractor, the Architect, or other third party. All materials and systems shall be installed in accordance with the structural plans, projecct specifications, and manufacturer's installation
- 5.2 Site Visits. The purpose of site visits is to observe and become generally familiar with the quality and progress of the construction work. Site visits are not intended as detailed inspections. The Engineer makes no warranty or guarantee about work observed during a site visit. Site visits may be conducted by a registered engineer or by other qualified personnel.

# Sheathing and Cladding Attachment Schedule

	Max Framing Spacing	Min Sheathing Thickness	APA Spar Rating	Interior Zone (Edge/Field)		
Roof Sheathing 12	16" O.C. 24" O.C.	7/16" 7/16"	24/16 24/16	6/12 6/12 <sup>5</sup>		
Gable Endwall Rake		7/16"	24/16			
Exterior Wall Sheathing	16" O.C.	7/16"	24/16	6/12 <sup>6</sup>		
Floor Sheathing <sup>13</sup>	24" O.C.	23/32"	48/24	6/12		

- Perimeter Edge Zone shall be used at roofs within 4 feet of either the roof edge or roof peak. It shall also be used at walls within 4 feet of outside or re-entrant corners.
- Sheathing shall be OSB or APA Rated sheathing. Alternate sheathing materials may be used, provided they have code approval for suitability for the anticipated wind pressures.
- These are minimum requirements for cladding loads. Refer to notes and plans for wall bracing or shear wall requirements.
- 4. Refer to WFCM Tables 3.10 through 3.14 5. Reduce spacing to 6" oc for framing members with specific gravity
- between 0.42 and 0.49
- Reduce spacing to 4" oc for framing members with specific gravity between 0.42 and 0.49
- 7. Reduce spacing to 3" oc for framing members with specific gravity between 0.42 and 0.49
- 8. Reduce spacing to 2" oc for framing members with specific gravity between 0.42 and 0.49 9. Roof sheathing shall be fastened with 8d common nails or
- equivalent. 10. Floor sheathing shall be fastened with 10d common nails or equivalent.

# Sill Plate Anchorage Schedule

Anchorage Options		SI	hear Wa	ıll		
Anchorage Options	А	В	С	D	Е	F
½ " O anchor bolts ⁵	28"	34"	72"	46"	72"	72"
MASA Anchors 5	15"	18"	34"	24"	32"	32"
Hilti X-CP 72 (exterior walls <sup>4</sup> )	5"	7"	48"	14"	48"	48"
Hilti X-CP 72 (interior walls 4)	4"	5"	12"	7"	12"	18"

- 1. Refer to Note 5 in Section 4.5 of the General Notes on Sheet FR-0.1 for anchor bolt installation requirements,
- 2. Hilti X-CP 72 "shots" or equivalent shall have a min. allowable shear value of 250 lbs. Begin spacing fasteners 2" from end studs of shear wall.
- 3. Interior shear walls are assumed to have powder actuated sill anchorage. If 1/2" bolts or other embedded connection will be used, either due to builder preference or local code, the builder shall contact this office prior to concrete placement. This is necessary to ensure minimum concrete coverage for required embedment depth of alternate anchorages.
- 4. Hilti X-CP 72 "shots" at exterior shear walls are required in addition to 1/2" anchor bolts or MASA specified for "non-shear wall" installation.
- 5. Sill plate anchorage shall be the more restrictive of the applicable shear wall and non-shear wall requirements.

**Nailing Schedule** 

3 - 8d (Toenail)

2 - 16d (Endnail)

2 - 10d (Toenail each end)

3 - 16d @ 16" oc (Facenail)

3 - 8d or 2 - 16d (Toenail)

16d @ 16" oc along each edge

10d @ 16" (Facenail)

10d @ 12" (Facenail)

2 - 10d (Facenail)

3-8d (Toenail)

4-8d (Toenail)

3-10d (Facenail)

3-10d (Facenail)

10d @ 24" oc Top, Bot &

8" oc for 2x6 or greater

3- 10d (Toenail)

3-8d (Toenail)

3 - 16d (Facenail)

8d @ 6" oc Toenail

2 - 16d (Toenail)

3 - 10d (Facenail)

3 - 8d (Facenail)

3 - 16d (Facenails)

Staggered - 2 nails @ ends &

16d @ 8" oc (2x4's); 2 rows 16d @

4- 16d (Toenail)/3 - 16d (Facenail)

4 - 16d (Toenail)/3 - 16d (Facenail)

10d @ 16" oc

each splice

Fastening Schedule

Joist to Sill or Girder

Sole Plate to Joist or Blocking

Top Plates Laps & Intersections

Continuous Header, Two Pieces

Ceiling Joists to Parallel Rafters

Bridging to Joist

Top Plate to Stud

Stud to Sole Plate

Double Top Plates

Ceiling Joist to Plate

Built- Up Corner Studs

Built- Up Wood Columns

Rim Joist to Top Plate

Ledger Strip

Rafter to Plate

Collar Tie to Rafter

Jack Rafter to Hip

Rafter Ties to Rafters

Joist to Band Joist

Roof or Floor Truss to Plate

Roof Rafter to 2x Ridge Bm

Blocking @ Joists/ Rafters to Top Plate

Continuous Header to Stud

Built- Up Girders and Beams

Double Studs

IRC Table R602.3(1)

6. For sill plates anchored with MASA anchors, (2) Hilti X-CP 72 "shots" shall be placed for each 4'-0" braced wall panel specified on the plans.

# Bend steelbrace over chord and fix with five nails to face of chord Two nails to web of each Typical both ends of brace. intersection of truss. Web tie, as specified fixed to each truss web at even spacing with two 65 mm nails Braces to cross Angle of brace at mid-length to to web ties shall match tie be between 30° and 45° (R) TYP. ROOF FRAMING NOT TO SCALE

Joist or beam per plans, face

Plan View

Secure adjoining rafters at ridges and hips with CS22

Alternate: 2x collar tie, spaced and fastened per

in upper 1/3 of the attic.

table. Ties shall be located

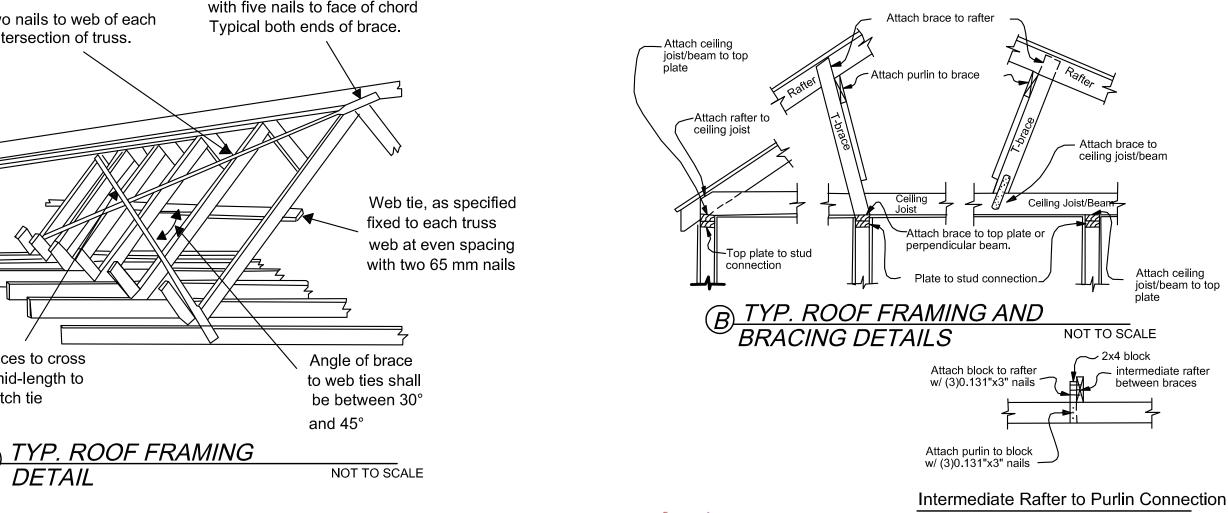
RIDGE STRAP OR COLLAR TIE DETAIL

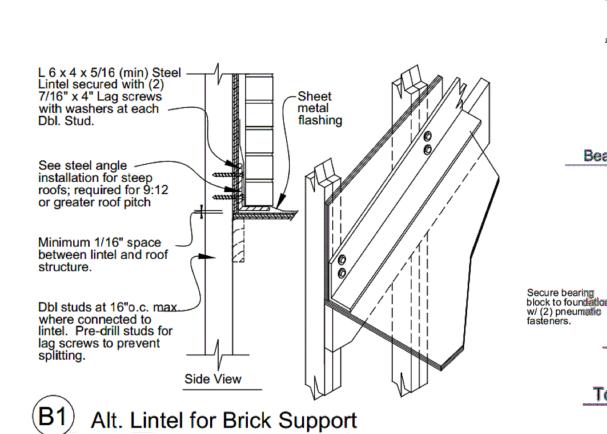
w/8" lap at spacing per

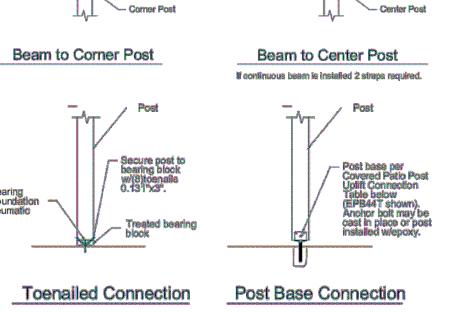
neiled to the refter per the

Nailing Schedule. Multiple

plies shall be fastened







Rafter per plan.

Joist or beam per plans, face

nailed to the rafter per the

plies shall be fastened-

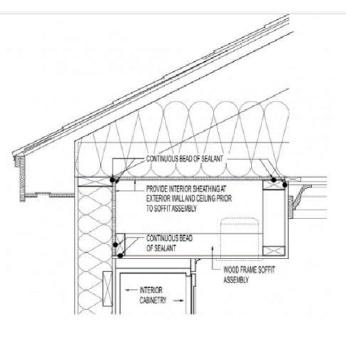
NOT TO SCALE

- Add cripple raiters as

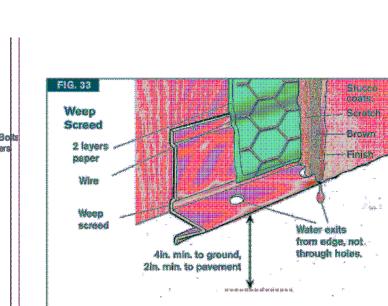
required for full bearing, plus

an additional full-height

(F) DETAILS



PERMIT DOCUMENTS



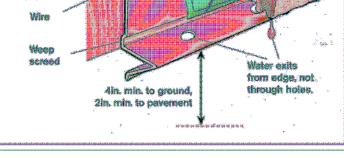
RAFTER TO JOIST CONNECTION AT SLOPED CEILINGS

Add cripple rafters as

toe nail to top plate.

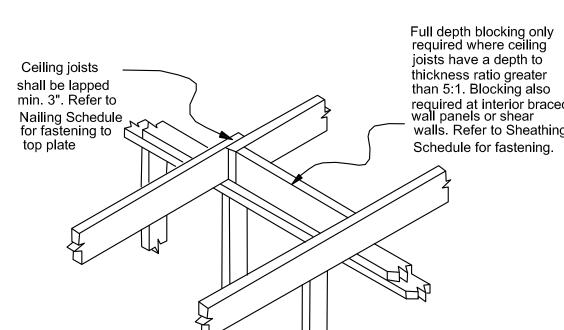
required for full bearing for

icists. Face nail to rafter and

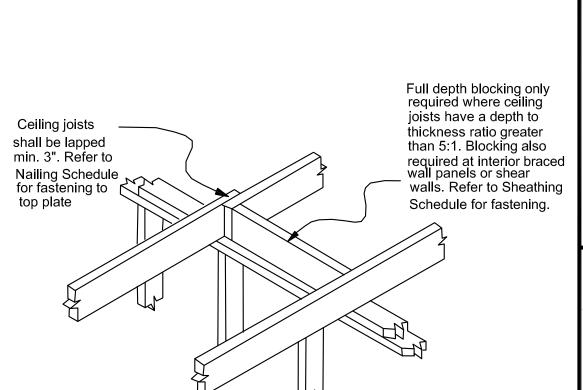


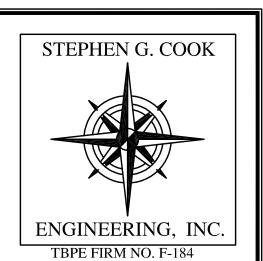
NOT TO SCALE

<u>(J) DETAIL</u>

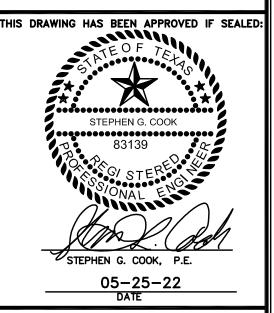


**CEILING JOIST AT INTERIOR WALL** JOISTS PERPENDICULAR TO WALL





13302 Thornridge Lane San Antonio, Tx. 78232 (210) 481-2533www.sgce.net



180-552-003 STEPHEN G. COOK ENG. JOB NO G.S.I. 05-25-22 **DRAWING DATE:** BY:

S X IGN

H

**REVISIONS:** 

REVISION DATE

> REVISION DATE

LOT 1099 CAP ROCK **ADDRESS** N.C.B. BLOCK

> HORSESHOE BAY SUBDIVISION

HORSESHOE BAY, TX 78657

CITY STATE ZIP

LLANO COUNTY

PLAN NUMBER:

5 OF 5

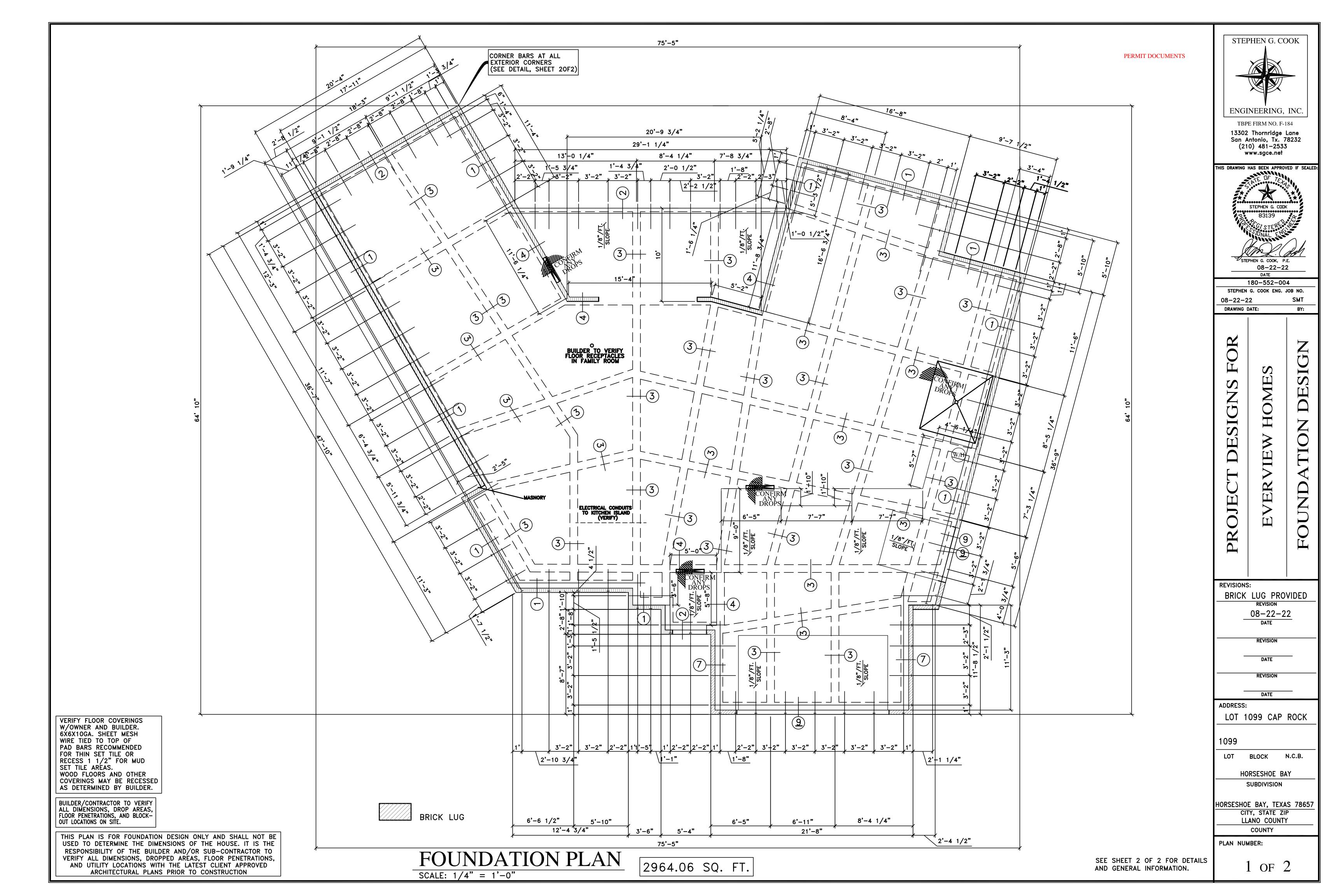
# Loose Intels for Masonry Support

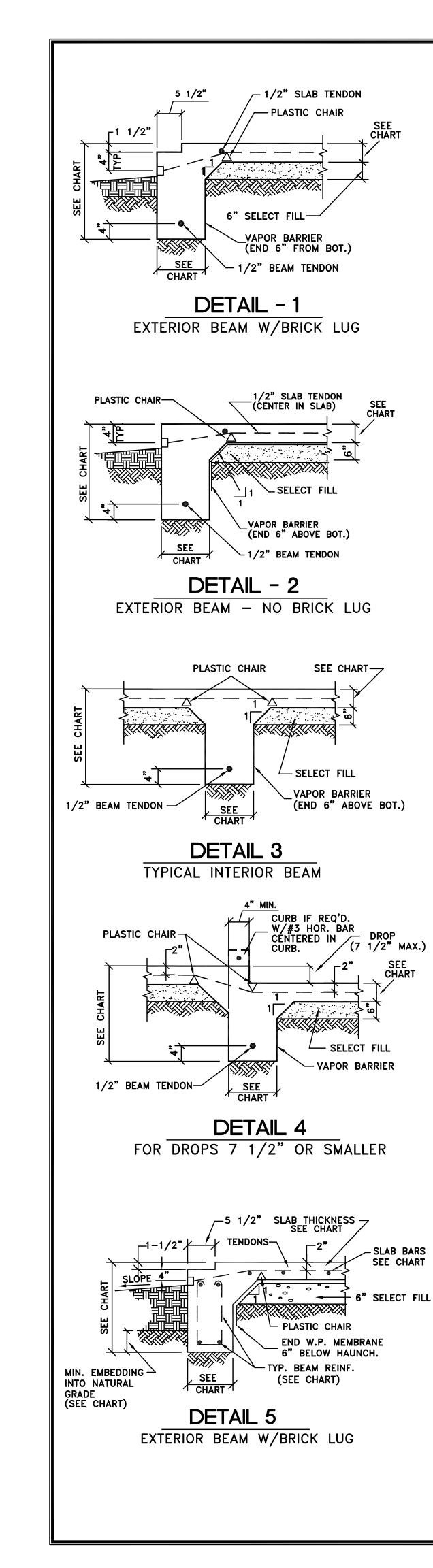
Masonry Weight/ Width	Opening					
(NTE)	Width	12"	24"	36"	48"	Arch Action
	<u>≤</u> 6'	3x3x1⁄4	3x3x1⁄4	3x3x1⁄4	3x3x1⁄4	3x3x1⁄4
30 psf (3" Max Width)	> 6' - < 8'-3"	3x3x1⁄4	3 ½ x3 ½ x¼	4 x3 x1⁄4	4 x3 ½ x¼	3 ½ x3 ½ x¼
(3 Max Width)	< 8'-3" - <12'	4x3x1⁄4	5 x3 ½ x¼	5 x 3 ½ x ¾ <sub>6</sub>	6 x 4 x ½	6 x 4 x ½ <sub>6</sub>
	>12'-3" - <16' -3"	5x3x¾₅	6 x 4 x 3/8	7 x 4 x ½	7 x 4 x ½	8 x 4 x ½
	<u>&lt;</u> 6'	3½ x 3½ x ¼	3 ½ x3 ½ x¼	3 ½ x3 ½ x¼	3 ½ x3 ½ x¼	3 ½ x3 ½ x¼
40 psf (4" Max Width)	≥ 6' - < 8'-3"	3½ x 3½ x ¼	3 ½ x3 ½ x¼	4 x3 ½ x¼	5 x 3 ½ x ¼	4 x3 ½ x¼
(	<u>≤</u> 8'-3" - <12'	4½ x 3½ x¼	5 x 3 ½ x ¼	6 x 4 x ½	6 x 4 x 3/8	6 x 4 x ½
	>12'-3" - <16' -3"	5 x 3 ½ x ¾	7 x 4 x ½	7 x 4 x ½	8 x 4 x ½	8 x 4 x ½
60 psf (4" Max Width)	<u>&lt;</u> 6'	3½ x 3½ x¼	3 ½ x3 ½ x¼	3 ½ x3 ½ x¼	4 ½ x3 ½ x¼	$3\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{4}$
	<u>&gt; 6' - &lt; 8'-3"</u>	3½ x 3½ x¼	4 ½ x3 ½ x¼	5 x 3 ½ x ¼	5 x 3 ½ x ¼	5 x 3 ½ x ¼
,	<u>&lt;</u> 8'-3" - <12'	5 x 3 ½ x ¼	6 x 4 x ½	6 x 4 x 3/8	7 x 4 x ½	7 x 4 x ½
	>12'-3" - <16' -3"	6 x 4 x ½	7 x 4 x ½	8 x 4 x ½		

Steel Lintel:

instructions.

- 1. All lintels shall be A36 steel, oriented in the strong direction (longer leg vertical).
- 2. All lintels shall extend at least 4 inches beyand each end of the opening. 3. The arching action assumes that the weight of the masonry load is transferred around the opening at a 45 degree angle. This assumption is valid when there is sufficient masonry on both sides of the opening to carry the load from above and when no
- openings interrupt the arch action. 4. Deflection is limited to L/600 or 0.30", whichever is less.
- 5. Lintels are designed for supporting non-structural masonry veneer only. Other gravity loads shall be carried
- by other structural members. Lintels shall not be attached to header/beams U.N.O. 6. Table is based on typical sizes and weights. Builder to verify. Contact this office for alternate materials.
- 7. Masonry shall not extend more than 1/2" past the edge of the horizontal leg. 8. Reference: Brick Industry Association and IRC R703.7.3



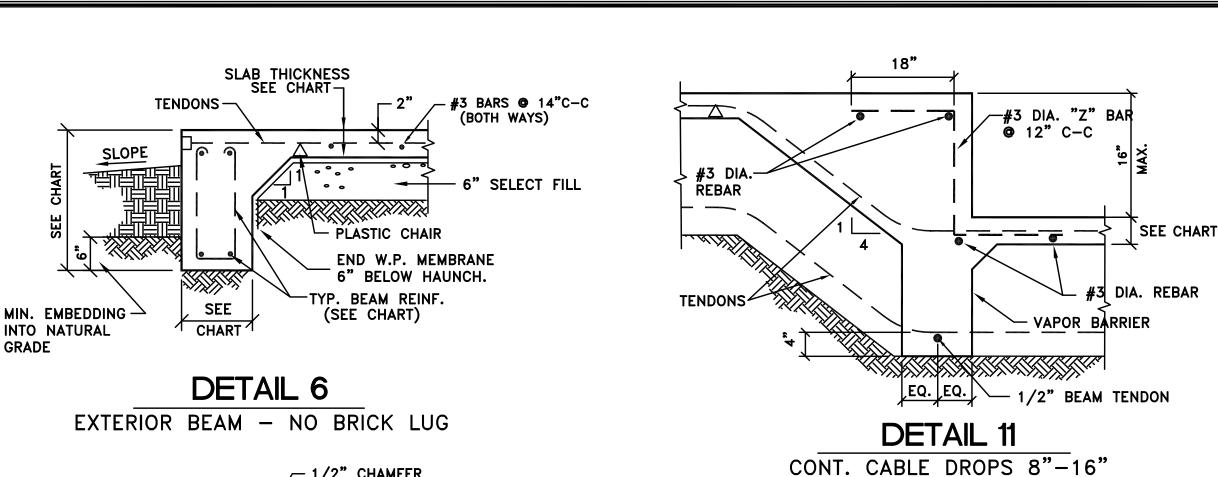


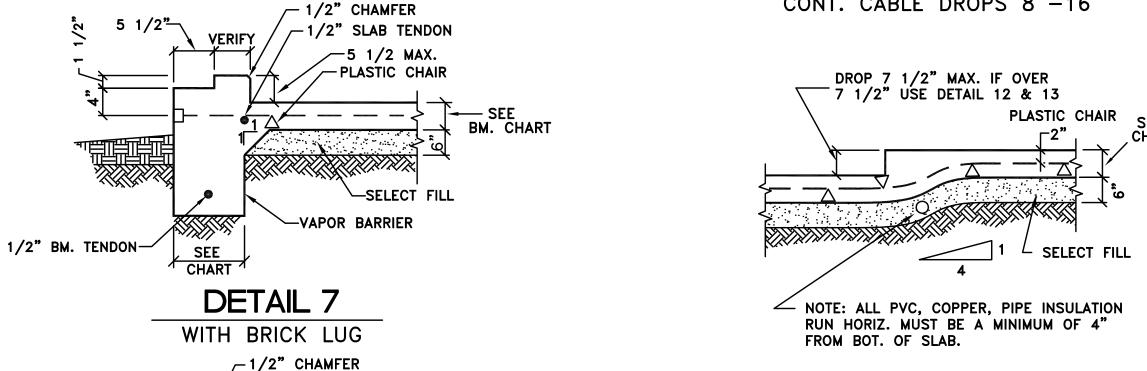
CHART

- SELECT FILL

- SLAB BARS

SEE CHART





-SEE PLAN

-SAND FILL

#3 DOWEL 12" LONG

<sup>V</sup>—6" SELECT FILL

\_\_ 1/2" BEAM TENDON

TOP OF SLAB

2-#3 BARS TOP & BOT.

PERMIT DOCUMENTS

\_1/2" DIA. SLAB TENDON

-VAPOR BARRIER

- 1/2" BEAM TENDON

SEE

CHART

48" TO DIP

2"MIN.SLOPE

-66/100 W.W.F.

MIN. EMBEDDING  $\stackrel{\sim}{-}$ 

INTO NAT. GRADE

SEE CHART

2-#3 BARS EA. SIDE —

#3 HORIZ. BARS TOP AND BOT.

**DETAIL 8** 

WITH WALL CURB

12"W/MASON.

61/2"W/0]

SEE

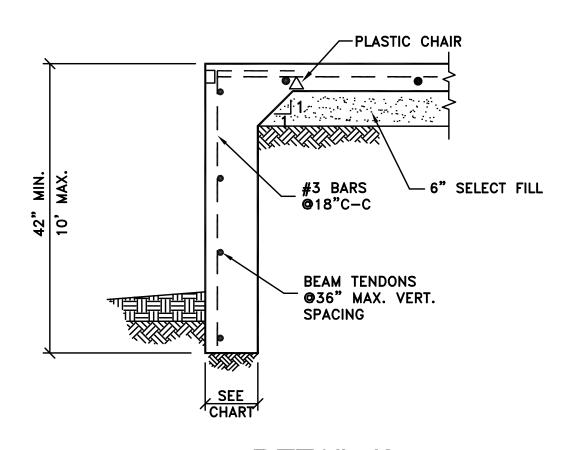
**DETAIL 9** 

GARAGE RAMP DETAIL

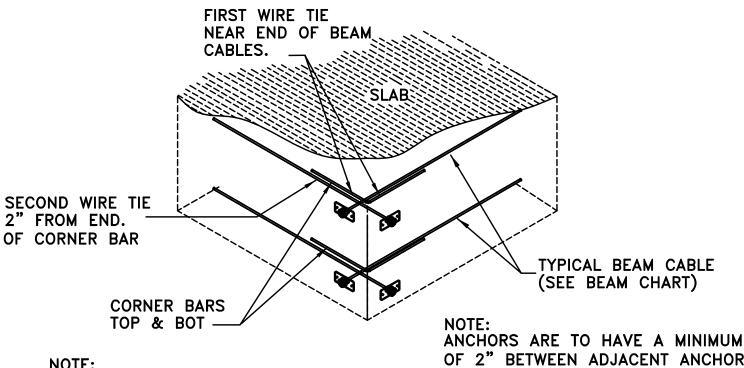
**COLUMN REINFORCEMENT** 

PLASTIC CHAIR

# DETAIL 12 DROPPED SLAB DETAIL



DETAIL 13 FOR BEAMS OVER 42" CONTACT STEPHEN G. COOK ENGINEERING FOR BEAM DEPTHS GREATER THAN 10 FT.



OF 2" BETWEEN ADJACENT ANCHORS CORNER BARS SHALL OVERLAP EACH CABLE FOR A MINIMUM DISTANCE OF 30 BAR DIAMETERS

(I.E. 15 INCHES FOR 1/2 INCH DIA BAR)

# TYP. EXT. CORNER BARS-POST TENSION

FOR ALL EXT. CORNERS WHERE CABLES TERMINATE

STIRRUP STIRRUP BEAM STIRRUP STIRRUP BARS EXT. BEAM INT. BEAM EXT.BM. SLAB **BEAM** BEAM DEPTH IN BEAM BARS BY DATE SOIL TYPE THICKNESS (IF REQ'D) (IF REQ'D) (IF REQ'D) **DEPTH** GRADE DEPTH USDA SOIL CONSERVATION HENSLEY LOAM, 22.5 2022 SURVEY - LLANO COUNTY 1 TO 5 PERCENT SLOPES, STONY

#### GENERAL NOTES

- This foundation has been designed in accordance with the Post Tensioning Institute "Design and Construction of Post Tensioned Slabs-On-Ground"; American Concrete Institute -Building Code Requiremenets for Reinforced Concrete" and B.R.A.B. Report—Criteria for selection and design of residential slab-on-grade.
- 2. This design is for a particular location only. Reuse in a different location is strictly prohibited and the design is void.
- 3. This foundation has been designed for a post—tensioning system conforming to the require ments of these drawings. The design is based on a soil supported stiffened grid type beam and slab foundation, and as such, will move with the soils upon which it bears.
- 4. Contractor shall verify all dimensions and drops with floor plans and elevations.
- 5. Contractor shall call Stephen G. Cook Engineering 48-72 hours before prepour inspection is made. Failure to request prepour inspection shall void this design.
- 6. In the case where geotechnical investigation or soils report is not provided by owner/builder, Stephen G. Cook Engineering has designed the foundation based on our knowledge of the soil conditions in the vicinity of this site and other soil surveys and reports for this area.
- 7. It is the responsibility of the builder/general contractor to inform the owner of the importance of proper drainage away from slab, maintaining moisture content of the soils around perimeter of foundation and planting trees near foundation.

#### CONSTRUCTION

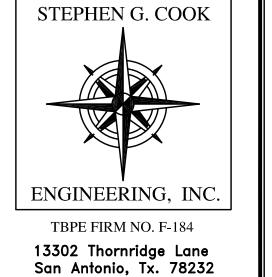
- 1. Builder/General Contractor shall notify Stephen G. Cook Engineering if fill material is encountered beneath the building foot print.
- 2. All slabs to have a minimum of 6" layer of granular fill underneath followed by a 6 mil thick polyethylene vapor barrier. The vapor barrier shall be taped at all tears and splices.
- 3. Provide positive drainage away from the perimeter of the finished foundation. Top of foundation should be a minimum of 8" above the adjacent earthen finished grade. Slope away from foundation should be 6" in the first five feet. All french drains and condensation lines should discharge a minimum of 5 feet away from the slab.
- 4. All beam and slab sizes are minimum and shall not be decreased without prior approval from Stephen G. Cook Engineering.
- 5. Tendons and reinforcing bars shall be supported on chairs or similar approved support at a maximum of 4'-6" centers. All tendons shall be 270,000 psi, grade 7 wire, steel strand, greased and sheathed with a plastic sleeve. All tears in the sheathing shall be taped to prevent contact with concrete.
- 6. Formwork construction shall be done as outlined in ACI 347, and shall be reused in accor dance with ACI 347 only.
- 7. Concrete procedures outlined in ACI 318—83 shall be strictly followed. Particular attention shall be given to the consolidate concrete around post—tensioning anchorages.
- 8. Utility lines under the slab shall pass beneath the stiffening grade beams where possible. Sleeving is recommended for utility lines which must cross through the beams.
- 9. All 1/2" tendons shall be post—tensioned to an initial force of 33,000 ibs. each. Post tensioning shall not take place until concrete has attained a minimum compression strength of 2,500 psi. This initial stress shall provide 0.08" of elongation of the tendon length for every foot of tendon length unless specified otherwise.
- 10. Tendons greater than 100 feet in length shall have "live" ends at both ends.
- 11. Reinforcing bars shall comply with ASTM A-615, grade 60. Reinforcing bars shall be continuous with splices lapped at minimum of 40 bar diameters.
- 12. Provide corner bars top and bottom at all perimeter beam corners.
- 13. Pre-pour inspection by Stephen G. Cook Engineering is required for review of reinforcing steel, tendons, beam size and depth. Elongation inspection by Stephen G. Cook Engineering after tendons are stressed is required before tendons are trimmed and pockets are patched. Tendons are to be marked prior to stressing for verification of elongation.
- 14. Concrete is not to be poured if site has been disturbed by rainfall or seepage, and all beam areas to be free of loose soils, ponded water and trash prior to placing the concrete.
- 15. Beam depths may be reduced to a minimum of 14" if the grade beam is bearing on solid

## **CONCRETE**

- 1. Concrete shall develop a 28-day compressive stress (f'c) of at least 3,000 psi and shall be in accordance with ACl 301. Cement shall be Type 1 (gray) Portland. Maximum water cement ratio shall be 7.0 and a slump range of 2 to 5 inches. Contractor shall satisfy himself that the mix design is acceptable for it's intended purpose.
- 2. Concrete shall be placed and cured in accordance with ACI 302.1R. Finish tolerance shall be in accordance with ACI 117.
- 3. Testing shall be the sole responsibility of the builder, and any substandard strength shall be reported to Stephen G. Cook Engineering.
- 4. While some shrinkage cracking is to be expected in the concrete, it has been shown to be significantly reduced through proper curing procedure and proper control of admixtures. Only those admixtures having specific written authorization of the design engineer shall be introduced having specific written authorization of the design engineer shall be with the concrete mix.
- ANCHORS ARE TO HAVE A MINIMUM DISTANCE 5. Where a brick facade is to be utilized in the superstructure, vertical control joints shall be installed at a maximum spacing of twenty-five feet (25')
  - 6. Concrete pour shall not be started unless the site temperature is 40 degrees F and rising.

## **ANCHORAGE**

1. Anchor bolts to be 1/2"dia. steel through the base plate around the perimeter, or engineering approved alternate connection, commencing at 12" from all exterior corners. Anchorage is to be centered at 4 feet on center maximum, and embedded 6" min.



(210) 481-2533www.sgce.net THIS DRAWING HAS BEEN APPROVED IF SEALED STEPHEN G. COOK 83139

> STEPHEN G. COOK, P.E. 08-22-22 DATE 180-552-004

STEPHEN G. COOK ENG. JOB NO. 08-22-22 SMT DRAWING DATE: BY:

口

# ME Z IE ER

DE

**REVISIONS:** BRICK LUG PROVIDED REVISION 08-22-22 DATE REVISION DATE REVISION

DATE ADDRESS: LOT 1099 CAP ROCK

LOT BLOCK N.C.B. HORSESHOE BAY

**SUBDIVISION** 

HORSESHOE BAY, TEXAS 78657 CITY, STATE ZIP LLANO COUNTY COUNTY

PLAN NUMBER:

2 of 2

#### **IECC 2018 Performance Compliance**

Property 118 CAP ROCK HORSESHOE BAY, TX 78657 Model: 2053 SLB BD3 10PL L Community: CUSTOM HOMES

909EVETX CUSTOM HOMES 118 CAP ROCK-2053 SLB BD3 10PL L-

Organization TopBuild Home Services, I Holly Shipwash IECC 8297

Inspection Status Results are projected



Builder

**EVERVIEW HOMES** 

This report is based on a proposed design and does not confirm field enforcement of design elements.

#### Annual Energy Cost

Design	IECC 2018 Performance	As Designed
Heating	\$398	\$463
Cooling	\$430	\$382
Water Heating	\$320	\$320
Mechanical Ventilation	\$36	\$20
SubTotal - Used to determine compliance	\$1,184	\$1,185
Lights & Appliances w/out Ventilation	\$584	\$584
Onsite generation	\$0	\$0
Total	\$1,768	\$1,769

R405.3 Source Energy Exception: The proposed home uses 0.301 MBtu LESS source energy than the reference home.

#### Requirements

405.3	Performance-based compliance passes by 0.3%	
R402.4.1.2	Air Leakage Testing	Air sealing is 2.00 ACH at 50 Pa. It must not exceed 3.00 ACH at 50 Pa.
R402.5	Area-weighted average fenestration SHGC	
R402.5	Area-weighted average fenestration U-Factor	
R404.1	Lighting Equipment Efficiency	
R403.6.1	Mechanical Ventilation Efficacy	
Mandatory Checklist	Mandatory code requirements that are not checked by Ekotrope must be met.	
IRC M1505.4.3	Mechanical Ventilation Rate	
R405.2	Duct Insulation	

#### Design exceeds requirements for IECC 2018 Performance compliance by 0.3%.

As a 3rd party extension of the code jurisdiction utilizing these reports, I certify that this energy code compliance document has been created in accordance with the requirements of Chapter 4 of the adopted International Energy Conservation Code based on BURNET County. If rating is Projected, I certify that the building design described herein is consistent with the building plans, specifications, and other calculations submitted with the permit application. If rating is Confirmed, I certify that the address referenced above has been inspected/tested and that the mandatory provisions of the IECC have been installed to meet or exceed the intent of the IECC or will be verified as such by another party.

Name:	Holly Shipwash IECC 8297536	Signature:	Holly Shipwash IECC 8297536
Organization:	TopBuild Home Services, Inc.	Digitally signed:	8/31/22 at 1:05 PM

# 118 CAP ROCK

#### **HORSESHOE BAY, TX 78657**

**Builder: EVERVIEW HOMES** 

Model: 2053 SLB BD3 10PL L Community: CUSTOM HOMES

This report is based on a proposed design and does not confirm field enforcement of design elements.

# THIS HOME IS CERTIFIED TO MEET THE 2018 INTERNATIONAL ENERGY CONSERVATION CODE

#### **Building Features**

Ceiling Attic, R-38

Duct Supply R-6.0, Return R-6.0

Above Grade Walls R-15

Duct Leakage to Outside 3 CFM25 / 100 ft<sup>2</sup>

Foundation Walls N/A

Total Duct Leakage 4 CFM25 / 100 ft<sup>2</sup> (Post-Construction)

Framed Floor N/A

Heating Furnace • Natural Gas • 80 AFUE

Slab R-0.0 Perimeter, R-0.0 Under

Cooling Air Conditioner • Electric • 16 SEER

Infiltration 2 ACH50

Water Heating Residential Water Heater • Electric • 0.92 Energy

Window U-Value: 0.33, SHGC: 0.23

Facto

As a 3rd party extension of the code jurisdiction utilizing these reports, I certify that this energy code compliance document has been created in accordance with the requirements of Chapter 4 of the adopted International Energy Conservation Code based on BURNET County. If rating is Projected, I certify that the building design described herein is consistent with the building plans, specifications, and other calculations submitted with the permit application. If rating is Confirmed, I certify that the address referenced above has been inspected/tested and that the mandatory provisions of the IECC have been installed to meet or exceed the intent of the IECC or will be verified as such by another party.

Name: Holly Shipwash IECC 8297536

Signature: Holly Shipwash IECC 8297536

Organization: TopBuild Home Services, Inc.

Digitally signed: 8/31/22 at 1:05 PM

#### Ekotrope RATER - Version 4.0.1.2980

2018 IECC compliance results calculated using Ekotrope RATER's energy and code compliance algorithm.

Ekotrope RATER is a RESNET Accredited HERS Rating Tool. All results are based on data entered by Ekotrope users.

Ekotrope disclaims all liability for the information shown on this report.

Property 118 CAP ROCK HORSESHOE BAY, TX 78657

Model: 2053 SLB BD3 10PL L Community: CUSTOM HOMES

909EVETX CUSTOM HOMES 118 CAP ROCK-2053 SLB BD3 10PL L- Organization

TopBuild Home Services, I Holly Shipwash IECC 8297

Builder

**EVERVIEW HOMES** 

TopBuild
Home Services
ENVIRONMENTS FOR

Inspection Status
Results are projected

#### **General Building Information**

Conditioned Area (sq ft) 2,053 Conditioned Volume (cubic ft) 23,101 Insulated Shell Area (sq ft) 7,799.72

The building energy model in Ekotrope reflects the building assemblies and energy features listed below. Sometimes energy features will change in the field from what has been modeled. The inspection process should identify any changes and ensure that the home continues to meet the applicable energy code.

Slab	
	Name: Slab(2,053 s.f., 250.3 ft. exterior perimeter) R-0 perimeter insulation, R-0 under slab insulation
Fram	ned Floor
	None Present
Four	ndation Wall
	None Present
Abov	ve Grade Wall
	Name: EXTERIOR WALL 2x4 (3,093.84 s.f.) R-0 continuous insulation, R-15 cavity insulation Insulation Grade: I
	Name: GARAGE WALL 2x4 (440 s.f.) R-0 continuous insulation, R-15 cavity insulation Insulation Grade: I
П	Name: ATTIC WALL 2x4 (130.88 s.f.) R-0 continuous insulation, R-15 cavity insulation Insulation Grade: I

#### Rim Joist

None Present 1

Property 118 CAP ROCK HORSESHOE BAY, TX 78657 Model: 2053 SLB BD3 10PL L Community: CUSTOM HOMES Organization
TopBuild Home Services, I
Holly Shipwash IECC 8297

Inspection Status Results are projected



**Builder** EVERVIEW HOMES

909EVETX CUSTOM HOMES 118 CAP ROCK-2053 SLB BD3 10PL L-

Ceili	ing / Roof	
	Name: FLAT (1,347 s.f.) R-24.75 continuous insulation, R-12.95 cavity insulation Insulation Grade: I	
	Name: SLOPED (735 s.f.) R-25.75 continuous insulation, R-12.95 cavity insulation Insulation Grade: I	
Ора	que Door	
	Name: FRONT (24 s.f.) R: 4.40	
	Name: GAR (24 s.f.) R: 4.40	
Glaz	ing	
	Name: FRONT RIGHT 1ST (12.5 s.f.), U: 0.330, SHGC: 0.23, Orientation: NORTH	
	Name: FRONT RIGHT 1ST UPPER (6 s.f.), U: 0.330, SHGC: 0.23, Orientation: NORTH	
	Name: FRONT RIGHT 1ST UPPER (6 s.f.), U: 0.330, SHGC: 0.23, Orientation: NORTH	
	Name: FRONT RIGHT 1ST UPPER (6 s.f.), U: 0.330, SHGC: 0.23, Orientation: NORTH	
П	Name: FRONT 1ST (11.3 s.f.), U: 0.330, SHGC: 0.23, Orientation: NORTH_EAST	
	Name: FRONT 1ST (6.3 s.f.), U: 0.330, SHGC: 0.23, Orientation: NORTH_EAST	
	Name: FRONT 1ST (11.3 s.f.), U: 0.330, SHGC: 0.23, Orientation: NORTH_EAST	
	Name: FRONT 1ST (6.3 s.f.), U: 0.330, SHGC: 0.23, Orientation: NORTH_EAST	2
	Name: FRONT LEFT 1ST (20 s.f.) U: 0.330 SHGC: 0.23 Orientation: FAST	

Property 118 CAP ROCK HORSESHOE BAY, TX 78657 Model: 2053 SLB BD3 10PL L Community: CUSTOM HOMES Organization
TopBuild Home Services, I
Holly Shipwash IECC 8297

Inspection Status
Results are projected



**Builder** EVERVIEW HOMES

909EVETX CUSTOM HOMES 118	
CAP ROCK-2053 SLB BD3 10PL L	

·	
	Name: FRONT LEFT 1ST (6 s.f.), U: 0.330, SHGC: 0.23, Orientation: EAST
	Name: FRONT LEFT 1ST (30 s.f.), U: 0.330, SHGC: 0.23, Orientation: EAST
П	Name: FRONT LEFT 1ST (8 s.f.), U: 0.330, SHGC: 0.23, Orientation: EAST
	Name: BACK 1ST (60 s.f.), U: 0.330, SHGC: 0.23, Orientation: SOUTH_WEST
	Name: BACK 1ST (20 s.f.), U: 0.330, SHGC: 0.23, Orientation: SOUTH_WEST
	Name: BACK RIGHT 1ST (15 s.f.), U: 0.330, SHGC: 0.23, Orientation: WEST
	Name: BACK RIGHT 1ST FRDR (24 s.f.), U: 0.330, SHGC: 0.23, Orientation: WEST
	Name: BACK RIGHT 1ST (15 s.f.), U: 0.330, SHGC: 0.23, Orientation: WEST
	Name: BACK RIGHT 1ST (6 s.f.), U: 0.330, SHGC: 0.23, Orientation: WEST
	Name: BACK RIGHT 1ST (15 s.f.), U: 0.330, SHGC: 0.23, Orientation: WEST
	Name: BACK RIGHT 1ST (6 s.f.), U: 0.330, SHGC: 0.23, Orientation: WEST
	Name: BACK RIGHT 1ST (15 s.f.), U: 0.330, SHGC: 0.23, Orientation: WEST
	Name: BACK RIGHT 1ST (6 s.f.), U: 0.330, SHGC: 0.23, Orientation: WEST
Skyl	ight
•	None Present
Mecl	hanical Ventilation
	Mechanical ventilation system rated for, and capable of, providing continuous ventilation. System shall include automatic timing controls. System type: Supply Only, 6 hrs/day, 82 Watts

**Property** 118 CAP ROCK HORSESHOE BAY, TX 78657 Model: 2053 SLB BD3 10PL L Community: CUSTOM HOMES

Organization TopBuild Home Services, I Holly Shipwash IECC 8297 Inspection Status Results are projected



Builder **EVERVIEW HOMES** 

ROCK-2053 SLB BD3 10PL L-
Fuel-fired air distribution (1) •

	Fuel-fired air distribution (1) • Natural Gas • 100% Heating Load @ 80 AFUE
П	Air conditioner (3) • Electric • 100% Cooling Load @ 16 SEER
П	Water Heating (3) • Electric • 50% Hot Water Load @ 0.92 Energy Factor
	Water Heating (4) • Electric • 50% Hot Water Load @ 0.92 Energy Factor
Air l	_eakage Control
	Test Status: Blower-door tested House is air-sealed as to achieve 770 CFM50 (2.00 ACH50) or less at final blower-door test.
	Infiltration Requirements for IECC in Climate Zone 3
	2009 IECC Infiltration limit for the design home is 7 ACH50.
	2012 IECC Infiltration limit for the design home is 3 ACH50.
	2015 IECC Infiltration limit for the design home is 3 ACH50.
	2018 IECC Infiltration limit for the design home is 3 ACH50.

#### **Duct Leakage**

Duct System 1

NOT entirely within conditioned space, testing required Leakage to Outside specified as: 3 CFM25 / 100 ft<sup>2</sup> Total Leakage specified as: 4 CFM25 / 100 ft² (Post-Construction)

2021 IECC Infiltration limit for the design home is 5 ACH50.

Property 118 CAP ROCK HORSESHOE BAY, TX 78657 Model: 2053 SLB BD3 10PL L Community: CUSTOM HOMES

909EVETX CUSTOM HOMES 118 CAP ROCK-2053 SLB BD3 10PL L- Organization

TopBuild Home Services, I Holly Shipwash IECC 8297

Builder EVERVIEW HOMES **Inspection Status** Results are projected



#### **Duct Leakage Code Requirements for IECC**

#### 2009 IECC:

Postconstruction Leakage Test: Duct Leakage to Outdoors <= 8 CFM25 / 100 sq ft CFA.

Rough in Test with AHU: Total Duct Leakage <= 6 CFM25 / 100 sq ft CFA.

Rough in Test without AHU: Total Duct Leakage <= 4 CFM25 / 100 sq ft CFA.

2012 IECC Mandatory, 2015, 2018, & 2021 IECC Prescriptive Paths:

Postconstruction Leakage Test: Total Duct Leakage <= 4 CFM25 / 100 sq ft CFA.

Rough in Test with AHU: Total Duct Leakage <= 4 CFM25 / 100 sq ft CFA.

Rough in Test without AHU: Total Duct Leakage <= 3 CFM25 / 100 sq ft CFA.

\* Note: IECC 2021 requires Total Duct Leakage <= 8 CFM25 / 100 sq ft CFA when all ducts and air handlers are within the building thermal envelope.

2015 and 2018 IECC Performance Paths (Cost Compliance):

Leakage testing is required UNLESS all ducts and air handlers are located entirely within the thermal envelope. There is no pass/fail threshold for duct leakage on the performance path.

#### **Project Notes**

ORG ID: 7662 ACC#: 909EVETX

BUILDER NAME: EVERVIEW HOMES

PROJECT ID: 61444

SUBDIVISION: CUSTOM HOMES

PLAN ID: 979364

PLAN NAME: 118 CAP ROCK-2053 SLB BD3 10PL L-CC

REVISION DATE: 08/31/2022 PROGRAM: CODE | 100% | CHS:NO CREATED ON: 08/31/2022



San Antonio, TX

Air Max Heating and Cooling



Elite Software Development, Inc.

Lot 1099 Caprock Page 2

#### Load Calculation Project Report

**General Project Information** 

Project Title: Lot 1099 Caprock

Project Date: 5/16/2022

Designed By: Alr Max Heating and Cooling

Permit Number(s): **Project Comment:** 

Client Name: **Everview Homes** 

Client Address: Client City: Client Phone: Client Fax: Client E-Mail: Client Website: Client Comment: Company Name:

Company Representative: Company Address: Company City: Company Phone: Company Fax: Company Comment:

#### Design Data

Reference City: Llano, Texas, United States

**Building Orientation:** Front door faces N

Daily Temperature Range: Medium 29 Degrees Latitude: Elevation: 788 feet Altitude Factor: 0.972

	Outdoor	Outdoor	Outdoor	Indoor	Indoor	Grains	
_	<u>Dry Bulb</u>	Wet Bulb	Rel.Hum	Rel.Hum	Dry Bulb	<u>Difference</u>	_
Winter	30	27.99	n/a	n/a	70	n/a	
Summer	99	73	29%	50%	75	17	

Lot 1099 Caprock Wednesday, May 18, 2022

#### **Rhvac Online** Elite Software Development, Inc. Air Max Heating and Cooling Lot 1099 Caprock

San Antonio, 17				rage 3
Check Figures				
Supply CFM: Square ft. of Room Area: Volume (ft³) of Cond. Space:	2,342 2,262 22,620		per Square ft. re ft. per ton:	1.036 458
Building Loads				
Total Heating Required Including Ventilation Total Sensible Gain	on Air:	57,993 Btuh 56,060 Btuh	57.993 MBH 95 %	

3,203 Btuh 5 % Total Latent Gain: Total Cooling Required Including Ventilation Air 59,263 Btuh 4.94 Tons (Based On Sensible + Latent)

#### Notes

Rhvac Online Is an ACCA approved Manual J, D And S computer program.

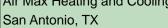
Calculations are performed per ACCA Manual J 8th Edition, Version 2, And ACCA Manual D.

All computed results are estimates as building use And weather may vary.

Be sure to select a unit that meets both sensible And latent loads according to the manufacturer's performance data at your design conditions.

Lot 1099 Caprock Wednesday, May 18, 2022

Air Max Heating and Cooling





#### Elite Software Development, Inc.

Lot 1099 Caprock Page 4

#### Miscellaneous Report

System 1 Main	Outdoor	Outdoor	Outdoor	Indoor	Indoor	Grains
Input Data	Dry Bulb	Wet Bulb	Rel.Hum	Rel.Hum	Dry Bulb	Difference
Winter:	30	27.99	80%	n/a	70	n/a
Summer:	99	73	29%	50%	75	17.25

Outside Air Data		
	<u>Winter</u>	<u>Summer</u>
Infiltration Specified:	0.320 AC/hr	0.160 AC/hr
	121 CFM	60 CFM
Infiltration Actual:	0.251 AC/hr	0.000 AC/hr
Above Grade Volume:	X 22,620 ft <sup>3</sup>	X 22,620 ft <sup>3</sup>
	5,670 ft <sup>3</sup> /hr	0 ft³/hr
	<u>X 0.0167</u>	<u>X 0.0167</u>
Total Building Infiltration:	94 CFM	0 CFM
Total Building Ventilation:	75 CFM	75 CFM

---System 1---

Infil. & Vent. Sensible Gain Multiplier: 25.66 = (1.10 X 0.972 X 24.00 Summer Temp. Diff.) Infil. & Vent. Latent Gain Multiplier: 11.40 = (0.68 X 0.972 X 17.25 Grains Difference) Infil. & Vent. Sensible Loss Multiplier: 42.76 = (1.10 X 0.972 X 40.00 Winter Temp. Difference)

Winter Infiltration Specified: 0.320 AC/hr (121 CFM), Construction: Average Summer Infiltration Specified: 0.160 AC/hr (60 CFM), Construction: Average

Duct Lo	Duct Load Factor Scenarios for System 1										
No.	Туре	Desc.	Location	Attic Ceiling	Duct Leakage	Duct Insulation	Surface Area	From Ducts			
1	Supply		Attic	16B	0.12	6	610.7	No			
1	Return		Attic	16B	0.24	6	226.2	No			

Lot 1099 Caprock

Wednesday, May 18, 2022

San Antonio, TX

Air Max Heating and Cooling



#### Elite Software Development, Inc.

Lot 1099 Caprock Page 5

Total Building Summary Loads

Component Description	Area Quan		Lat Gain	Sen Gain	Total Gain
1D-cm-o: Glazing-Double pane, operable window, clear, metal frame no break, U-value 0.87, SHGC 0.67	437	15,208	0	27,332	27,332
11A: Door-Wood - Hollow Core, U-value 0.47	18	338	0	296	296
12D-0sw: Wall-Frame, R-15 insulation in 2 x 4 stud cavity, no board insulation, siding finish, wood studs, U-value 0.086	3199	11,006	0	7,879	7,879
16B-38: Roof/Ceiling-Under Attic with Insulation on Attic Floor (also use for Knee Walls and Partition Ceilings), Vented Attic, No Radiant Barrier, Dark Asphalt Shingles or Dark Metal, Tar and Gravel or Membrane, R-38 insulation, U-value 0.026	2262 o	2,352	0	3,471	3,471
22A-pl: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, light dry soil, U-value 0.989	250 9	9,891	0	0	0
Subtotals for structure:		38,795	0	38,978	38,978
People:	7		1,400	1,610	3,010
Equipment:			0	1,883	1,883
Lighting:	0			0	0
Ductwork:		11,951	948	10,471	11,420
Infiltration: Winter CFM: 94, Summer CFM: 0		4,040	0	0	0
Ventilation: Winter CFM: 75, Summer CFM: 75		3,207	855	1,924	2,779
AED Excursion:		0	0	1,193	1,193
Total Building Load Totals:		57,993	3,203	56,060	59,263
Check Figures					
Supply CFM:2,342Square ft. of Room Area:2,262Volume (ft³) of Cond. Space:22,620		l per Square ft. are ft. per ton:			1.036 458
Building Loads					
Total Heating Required Including Ventilation Air: Total Sensible Gain Total Latent Gain: Total Cooling Required Including Ventilation Air	57,993 Btuh 56,060 Btuh 3,203 Btuh 59,263 Btuh	57.993 N 95 % 5 % 4.94 T	6	n Sensible + I	_atent)

#### Notes

Rhvac Online Is an ACCA approved Manual J, D And S computer program.

Calculations are performed per ACCA Manual J 8th Edition, Version 2, And ACCA Manual D.

All computed results are estimates as building use And weather may vary.

Be sure to select a unit that meets both sensible And latent loads according to the manufacturer's performance data at your design conditions.

San Antonio, TX

Air Max Heating and Cooling



Elite Software Development, Inc.

Lot 1099 Caprock Page 6

System 1 Main Summary Loads

Component	Area	Sen	Lat	Sen	Total
Description	Quan	Loss	Gain	Gain	Gain
1D-cm-o: Glazing-Double pane, operable window, clear, metal frame no break, U-value 0.87, SHGC 0.67	437	15,208	0	27,332	27,332
11A: Door-Wood - Hollow Core, U-value 0.47	18	338	0	296	296
12D-0sw: Wall-Frame, R-15 insulation in 2 x 4 stud cavity, no board insulation, siding finish, wood studs, U-value 0.086	3199	11,006	0	7,879	7,879
16B-38: Roof/Ceiling-Under Attic with Insulation on Attic Floor (also use for Knee Walls and Partition Ceilings), Vented Attic, No Radiant Barrier, Dark Asphalt Shingles or Dark Metal, Tar and Gravel or Membrane, R-38 insulation, U-value 0.026	2262	2,352	0	3,471	3,471
22A-pl: Floor-Slab on grade, No edge insulation, no insulation below floor, any floor cover, passive, light dry soil, U-value 0.989	250	9,891	0	0	0
Subtotals for structure:		38,795	0	38,978	38,978
People:	7		1,400	1,610	3,010
Equipment:			0	1,883	1,883
Lighting:	0			0	0
Ductwork:		11,951	948	10,471	11,420
Infiltration: Winter CFM: 94, Summer CFM: 0		4,040	0	0	0
Ventilation: Winter CFM: 75, Summer CFM: 75		3,207	855	1,924	2,779
AED Excursion:		0	0	1,193	1,193
System 1 Main Load Totals:		57,993	3,203	56,060	59,263
Check Figures					
Supply CFM:2,342Square ft. of Room Area:2,262Volume (ft³) of Cond. Space:22,620	CFM Squa	per Square ft. re ft. per ton:			1.036 458
System Loads					
Total Heating Required Including Ventilation Air: Total Sensible Gain Total Latent Gain: Total Cooling Required Including Ventilation Air	57,993 Btuh 56,060 Btuh 3,203 Btuh 59,263 Btuh	57.993 M 95 % 5 % 4.94 To	)	n Sensible + I	_atent)

#### Notes

Rhvac Online Is an ACCA approved Manual J, D And S computer program.

Calculations are performed per ACCA Manual J 8th Edition, Version 2, And ACCA Manual D.

All computed results are estimates as building use And weather may vary.

Be sure to select a unit that meets both sensible And latent loads according to the manufacturer's performance data at your design conditions.

Air Max Heating and Cooling San Antonio, TX



Elite Software Development, Inc.

Lot 1099 Caprock Page 7

Detailed Room Loads - Room 1 - Great Room (Average Load Procedure)

General			
Calculation Mode:	Htg. & clg.	Occurrences:	1
Room Length:	19.0 ft.	System Number:	1
Room Width:	21.0 ft.	Zone Number:	1
Area:	399.0 sq.ft.	Supply Air:	524 CFM
Ceiling Height:	10.0 ft.	Supply Air Changes:	7.9 AC/hr
Volume:	3,990 cu.ft.	Actual Winter Vent.:	12 CFM
Actual Winter Infil.:	12 CFM	Percent of Supply.:	2 %
Actual Summer Infil.:	0 CFM	Actual Summer Vent.:	17 CFM
		Percent of Supply:	3 %

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
S-Wall-12D-0sw 19 X 10	190	0.086	3.4	654	2.5	0	466
W-Wall-12D-0sw 23 X 10	150	0.086	3.4	516	2.5	0	368
E-Wall-12D-0sw 4 X 10	40	0.086	3.4	138	2.5	0	98
W-Gls-1D-cm-o shgc-0.67 0%S	80	0.870	34.8	2,784	85.2	0	6,817
UP-Ceil-16B-38 19 X 21	399	0.026	1.0	415	1.5	0	612
Floor-22A-pl 42 ftPer.  42	42	0.989	39.6	1,662	0.0	0	0
Subtotals for Structure:				6,169		0	8,361
Infil.: Win.: 11.9, Sum.: 0.0	460		1.107	509	0.000	0	0
Ductwork:				1,563			1,436
AED Excursion:							267
People: 200 lat/per, 230 sen/per:	2					400	460
Equipment:						0	683
Room Totals:				8,241		400	11,207

Equipment Cooling Loads						
	Cont.	Cont.				
	Output	Output	Average	Percent	Sensible	Latent
	Sensible	Latent	In-Use	Used	Load	Load
Item Name	Btuh	Btuh	Output	per Hour	Btuh	Btuh
Color television	683	0	100	100	683	0
Total					683	0

Air Max Heating and Cooling San Antonio, TX



#### Elite Software Development, Inc.

Lot 1099 Caprock Page 8

#### Detailed Room Loads - Room 2 - Dining (Average Load Procedure)

General			
Calculation Mode:	Htg. & clg.	Occurrences:	1
Room Length:	19.0 ft.	System Number:	1
Room Width:	11.0 ft.	Zone Number:	1
Area:	209.0 sq.ft.	Supply Air:	123 CFM
Ceiling Height:	10.0 ft.	Supply Air Changes:	3.5 AC/hr
Volume:	2,090 cu.ft.	Actual Winter Vent.:	5 CFM
Actual Winter Infil.:	5 CFM	Percent of Supply.:	4 %
Actual Summer Infil.:	0 CFM	Actual Summer Vent.:	4 CFM
		Percent of Supply:	3 %

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
S-Wall-12D-0sw 11 X 10	70	0.086	3.4	241	2.5	0	172
W-Wall-12D-0sw 8 X 10	80	0.086	3.4	275	2.5	0	196
S-Gls-1D-cm-o shgc-0.67 0%S	40	0.870	34.8	1,392	38.6	0	1,545
UP-Ceil-16B-38 19 X 11	209	0.026	1.0	217	1.5	0	321
Floor-22A-pl 20 ftPer.  20	20	0.989	39.6	791	0.0	0	0
Subtotals for Structure:				2,916		0	2,234
Infil.: Win.: 4.9, Sum.: 0.0	190		1.105	210	0.000	0	0
Ductwork:				731			338
AED Excursion:							63
Room Totals:				3,857		0	2,634

Lot 1099 Caprock Wednesday, May 18, 2022

Air Max Heating and Cooling San Antonio, TX



#### Elite Software Development, Inc.

Lot 1099 Caprock Page 9

Detailed Room Loads - Room 3 - Kitchen (Average Load Procedure)

General			
Calculation Mode:	Htg. & clg.	Occurrences:	1
Room Length:	11.0 ft.	System Number:	1
Room Width:	24.0 ft.	Zone Number:	1
Area:	264.0 sq.ft.	Supply Air:	172 CFM
Ceiling Height:	10.0 ft.	Supply Air Changes:	3.9 AC/hr
Volume:	2,640 cu.ft.	Actual Winter Vent.:	7 CFM
Actual Winter Infil.:	9 CFM	Percent of Supply.:	4 %
Actual Summer Infil.:	0 CFM	Actual Summer Vent.:	5 CFM
		Percent of Supply:	3 %

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N-Wall-12D-0sw 24 X 10	220	0.086	3.4	757	2.5	0	539
W-Wall-12D-0sw 11 X 10	110	0.086	3.4	378	2.5	0	270
N-Gls-1D-cm-o shgc-0.67 100%S	20	0.870	34.8	696	34.9	0	697
UP-Ceil-16B-38 11 X 24	264	0.026	1.0	275	1.5	0	405
Floor-22A-pl 35 ftPer.  35	35	0.989	39.6	1,385	0.0	0	0
Subtotals for Structure:				3,491		0	1,911
Infil.: Win.: 9.1, Sum.: 0.0	350		1.106	387	0.000	0	0
Ductwork:				907			470
AED Excursion:							87
Equipment:						0	1,200
Room Totals:				4,785		0	3,669

Equipment Cooling Loads						
Item Name	Cont. Output Sensible Btuh	Cont. Output Latent Btuh	Average In-Use Output	Percent Used per Hour	Sensible Load Btuh	Latent Load Btuh
Whole House Default Appliance Load, Refrigerator and range with vented hood. Note: 1200 Btuh applied to the kitchen.	1,200	0	100	100	1,200	0
Total					1,200	0

Air Max Heating and Cooling San Antonio, TX



Elite Software Development, Inc.

Lot 1099 Caprock Page 10

## Detailed Room Loads - Room 4 - Master Bedroom (Average Load Procedure)

Htg. & clg.	Occurrences:	1
15.0 ft.	System Number:	1
24.0 ft.	Zone Number:	1
360.0 sq.ft.	Supply Air:	334 CFM
10.0 ft.	Supply Air Changes:	5.6 AC/hr
3,600 cu.ft.	Actual Winter Vent.:	11 CFM
14 CFM	Percent of Supply.:	3 %
0 CFM	Actual Summer Vent.:	11 CFM
	Percent of Supply:	3 %
	15.0 ft. 24.0 ft. 360.0 sq.ft. 10.0 ft. 3,600 cu.ft. 14 CFM	15.0 ft. System Number: 24.0 ft. Zone Number: 360.0 sq.ft. Supply Air: 10.0 ft. Supply Air Changes: 3,600 cu.ft. Actual Winter Vent.: 14 CFM Percent of Supply.: 0 CFM Actual Summer Vent.:

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
W-Wall-12D-0sw 24 X 10	195	0.086	3.4	671	2.5	0	478
N-Wall-12D-0sw 15 X 10	150	0.086	3.4	516	2.5	0	368
S-Wall-12D-0sw 15 X 10	150	0.086	3.4	516	2.5	0	368
W-Gls-1D-cm-o shgc-0.67 0%S	45	0.870	34.8	1,566	85.2	0	3,835
UP-Ceil-16B-38 15 X 24	360	0.026	1.0	374	1.5	0	552
Floor-22A-pl 54 ftPer.  54	54	0.989	39.6	2,136	0.0	0	0
Subtotals for Structure:				5,779		0	5,601
Infil.: Win.: 14.0, Sum.: 0.0	540		1.106	597	0.000	0	0
Ductwork:				1,492			916
AED Excursion:							170
People: 200 lat/per, 230 sen/per:	2					400	460
Room Totals:				7,868		400	7,147

Air Max Heating and Cooling San Antonio, TX



#### Elite Software Development, Inc.

Lot 1099 Caprock Page 11

Detailed Room Loads - Room 5 - Laundry/ Mud room (Average Load Procedure)

General			
Calculation Mode:	Htg. & clg.	Occurrences:	1
Room Length:	8.0 ft.	System Number:	1
Room Width:	13.0 ft.	Zone Number:	1
Area:	104.0 sq.ft.	Supply Air:	62 CFM
Ceiling Height:	10.0 ft.	Supply Air Changes:	3.6 AC/hr
Volume:	1,040 cu.ft.	Actual Winter Vent.:	3 CFM
Actual Winter Infil.:	5 CFM	Percent of Supply.:	5 %
Actual Summer Infil.:	0 CFM	Actual Summer Vent.:	2 CFM
		Percent of Supply:	3 %

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
S-Wall-12D-0sw 7 X 10	58	0.086	3.4	200	3.1	0	177
E-Wall-12D-0sw 13 X 10	130	0.086	3.4	447	2.5	0	319
S-Gls-1D-cm-o shgc-0.67 0%S	12	0.870	34.8	418	38.6	0	463
UP-Ceil-16B-38 8 X 13	104	0.026	1.0	108	1.5	0	160
Floor-22A-pl 11 ftPer.  11	11	0.989	39.6	435	0.0	0	0
Subtotals for Structure:				1,608		0	1,119
Infil.: Win.: 5.2, Sum.: 0.0	200		1.105	221	0.000	0	0
Ductwork:				428			169
AED Excursion:							31
Room Totals:				2,257		0	1,320

Air Max Heating and Cooling San Antonio, TX



#### Elite Software Development, Inc.

Lot 1099 Caprock Page 12

#### Detailed Room Loads - Room 6 - Loft (Average Load Procedure)

Htg. & clg.	Occurrences:	1
16.0 ft.	System Number:	1
16.0 ft.	Zone Number:	1
256.0 sq.ft.	Supply Air:	755 CFM
10.0 ft.	Supply Air Changes:	17.7 AC/hr
2,560 cu.ft.	Actual Winter Vent.:	19 CFM
26 CFM	Percent of Supply.:	3 %
0 CFM	Actual Summer Vent.:	24 CFM
	Percent of Supply:	3 %
	16.0 ft. 16.0 ft. 256.0 sq.ft. 10.0 ft. 2,560 cu.ft. 26 CFM	16.0 ft. System Number: 16.0 ft. Zone Number: 256.0 sq.ft. Supply Air: 10.0 ft. Supply Air Changes: 2,560 cu.ft. Actual Winter Vent.: 26 CFM Percent of Supply.: 0 CFM Actual Summer Vent.:

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
S-Wall-12D-0sw 16 X 16	211	0.086	3.4	726	2.5	0	517
E-Wall-12D-0sw 16 X 16	193	0.086	3.4	664	2.5	0	473
W-Wall-12D-0sw 16 X 16	211	0.086	3.4	726	2.5	0	517
N-Wall-12D-0sw 16 X 16	211	0.086	3.4	726	2.5	0	517
E-Door-11A 3 X 6	18	0.470	18.8	338	16.5	0	296
S-Gls-1D-cm-o shgc-0.67 0%S	45	0.870	34.8	1,566	38.6	0	1,738
E-Gls-1D-cm-o shgc-0.67 0%S	45	0.870	34.8	1,566	85.2	0	3,835
W-Gls-1D-cm-o shgc-0.67 0%S	45	0.870	34.8	1,566	85.2	0	3,835
N-Gls-1D-cm-o shgc-0.67 100%S	45	0.870	34.8	1,566	34.9	0	1,569
UP-Ceil-16B-38 16 X 16	256	0.026	1.0	266	1.5	0	393
Subtotals for Structure:				9,710		0	13,690
Infil.: Win.: 26.5, Sum.: 0.0	1,024		1.105	1,132	0.000	0	0
Ductwork:				2,537			2,069
AED Excursion:							385
Room Totals:				13,379		0	16,144

Air Max Heating and Cooling San Antonio, TX



#### Elite Software Development, Inc.

Lot 1099 Caprock Page 13

Detailed Room Loads - Room 7 - Master Bath (Average Load Procedure)

General			
Calculation Mode:	Htg. & clg.	Occurrences:	1
Room Length:	10.0 ft.	System Number:	1
Room Width:	18.0 ft.	Zone Number:	1
Area:	180.0 sq.ft.	Supply Air:	57 CFM
Ceiling Height:	10.0 ft.	Supply Air Changes:	1.9 AC/hr
Volume:	1,800 cu.ft.	Actual Winter Vent.:	3 CFM
Actual Winter Infil.:	3 CFM	Percent of Supply.:	5 %
Actual Summer Infil.:	0 CFM	Actual Summer Vent.:	2 CFM
		Percent of Supply:	3 %

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N-Wall-12D-0sw 10 X 10	84	0.086	3.4	289	2.5	0	206
N-Gls-1D-cm-o shgc-0.67 100%S	16	0.870	34.8	557	34.9	0	558
UP-Ceil-16B-38 10 X 18	180	0.026	1.0	187	1.5	0	276
Floor-22A-pl 10 ftPer.  10	10	0.989	39.6	396	0.0	0	0
Subtotals for Structure:				1,429		0	1,040
Infil.: Win.: 2.6, Sum.: 0.0	100		1.110	111	0.000	0	0
Ductwork:				360			157
AED Excursion:							29
Room Totals:				1,900		0	1,226

Lot 1099 Caprock Wednesday, May 18, 2022

Air Max Heating and Cooling San Antonio, TX



#### Elite Software Development, Inc.

Lot 1099 Caprock Page 14

Detailed Room Loads - Room 8 - Bedroom 3 (Average Load Procedure)

General			
Calculation Mode:	Htg. & clg.	Occurrences:	1
Room Length:	12.0 ft.	System Number:	1
Room Width:	17.0 ft.	Zone Number:	1
Area:	204.0 sq.ft.	Supply Air:	121 CFM
Ceiling Height:	10.0 ft.	Supply Air Changes:	3.6 AC/hr
Volume:	2,040 cu.ft.	Actual Winter Vent.:	8 CFM
Actual Winter Infil.:	11 CFM	Percent of Supply.:	6 %
Actual Summer Infil.:	0 CFM	Actual Summer Vent.:	4 CFM
		Percent of Supply:	3 %

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N-Wall-12D-0sw 17 X 10	150	0.086	3.4	516	2.5	0	368
W-Wall-12D-0sw 12 X 10	120	0.086	3.4	413	2.5	0	294
S-Wall-12D-0sw 12 X 10	120	0.086	3.4	413	2.5	0	294
N-Gls-1D-cm-o shgc-0.67 100%S	20	0.870	34.8	696	34.9	0	697
UP-Ceil-16B-38 12 X 17	204	0.026	1.0	212	1.5	0	313
Floor-22A-pl 41 ftPer.  41	41	0.989	39.6	1,622	0.0	0	0
Subtotals for Structure:				3,872		0	1,966
Infil.: Win.: 10.6, Sum.: 0.0	410		1.105	453	0.000	0	0
Ductwork:				1,012			332
AED Excursion:							62
People: 200 lat/per, 230 sen/per:	1					200	230
Room Totals:				5,337		200	2,590

Air Max Heating and Cooling San Antonio, TX



#### Elite Software Development, Inc.

Lot 1099 Caprock Page 15

Detailed Room Loads - Room 9 - Bath 2 (Average Load Procedure)

General			
Calculation Mode:	Htg. & clg.	Occurrences:	1
Room Length:	7.0 ft.	System Number:	1
Room Width:	13.0 ft.	Zone Number:	1
Area:	91.0 sq.ft.	Supply Air:	41 CFM
Ceiling Height:	10.0 ft.	Supply Air Changes:	2.7 AC/hr
Volume:	910 cu.ft.	Actual Winter Vent.:	2 CFM
Actual Winter Infil.:	2 CFM	Percent of Supply.:	4 %
Actual Summer Infil.:	0 CFM	Actual Summer Vent.:	1 CFM
		Percent of Supply:	3 %

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N-Wall-12D-0sw 7 X 10	64	0.086	3.4	220	2.5	0	157
N-Gls-1D-cm-o shgc-0.67 100%S	6	0.870	34.8	209	34.8	0	209
UP-Ceil-16B-38 7 X 13	91	0.026	1.0	95	1.5	0	140
Floor-22A-pl 7 ftPer.  7	7	0.989	39.6	277	0.0	0	0
Subtotals for Structure:				801		0	506
Infil.: Win.: 1.8, Sum.: 0.0	70		1.100	77	0.000	0	0
Ductwork:				205			111
AED Excursion:							21
People: 200 lat/per, 230 sen/per:	1					200	230
Room Totals:				1,083		200	868

Air Max Heating and Cooling San Antonio, TX



#### Elite Software Development, Inc.

Lot 1099 Caprock Page 16

Detailed Room Loads - Room 10 - Bedroom 2 (Average Load Procedure)

General			
Calculation Mode:	Htg. & clg.	Occurrences:	1
Room Length:	15.0 ft.	System Number:	1
Room Width:	13.0 ft.	Zone Number:	1
Area:	195.0 sq.ft.	Supply Air:	153 CFM
Ceiling Height:	10.0 ft.	Supply Air Changes:	4.7 AC/hr
Volume:	1,950 cu.ft.	Actual Winter Vent.:	6 CFM
Actual Winter Infil.:	8 CFM	Percent of Supply.:	4 %
Actual Summer Infil.:	0 CFM	Actual Summer Vent.:	5 CFM
		Percent of Supply:	3 %

Item Description	Area Quantity	-U- Value	Htg HTM	Sen Loss	Clg HTM	Lat Gain	Sen Gain
N-Wall-12D-0sw 15 X 10	150	0.086	3.4	516	2.5	0	368
E-Wall-12D-0sw 13 X 10	112	0.086	3.4	385	2.5	0	275
S-Wall-12D-0sw 3 X 10	30	0.086	3.4	103	2.5	0	74
E-Gls-1D-cm-o shgc-0.67 0%S	18	0.870	34.8	626	85.2	0	1,534
UP-Ceil-16B-38 15 X 13	195	0.026	1.0	203	1.5	0	299
Floor-22A-pl 30 ftPer.  30	30	0.989	39.6	1,187	0.0	0	0
Subtotals for Structure:				3,020		0	2,550
Infil.: Win.: 8.0, Sum.: 0.0	310		1.106	343	0.000	0	0
Ductwork:				787			420
AED Excursion:							78
People: 200 lat/per, 230 sen/per:	1					200	230
Room Totals:				4,150		200	3,278

Air Max Heating and Cooling

San Antonio, TX



#### Elite Software Development, Inc.

Lot 1099 Caprock Page 17

#### Manual S Performance Data - System 1 - Main

#### Loads and Design Conditions

C	1	_	_	
Coo	IJ	n	y	•

Outdoor Dry Bulb:	0	Sensible Gain:	56,060
Outdoor Wet Bulb:	73	Latent Gain:	3,203
Indoor Dry Bulb:	75	Total Gain:	59,263
Indoor RH:	50	Load SHR:	0.95
Supply Airflow:	0	Entering Dry Bulb:	0
		Entering Wet Bulb:	0

#### Heating:

Outdoor Dry Bulb:	30	Sensible Loss:	57,993
Indoor Dry Bulb:	70	Entering Dry Bulb:	63.5
Indoor RH:	30	Supply Airflow:	706

#### Equipment Performance Data at System Design Conditions

#### Cooling:

Model Type: Air Source Heat Pump, Outdoor Model: RP1560AC1, Indoor Model: RH1T6024STAN AHRI Reference Number: 201631073, Nominal Capacity: 58,000, Manufacturer: RHEEM

#### Interpolation Results:

		<u>Load</u>	Percent of Load
Sensible Capacity:	0	56,060	0%
Latent Capacity:	0	3,203	0%
Total Capacity:	0	59,263	0%

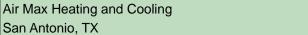
#### Heating:

Model Type: Air Source Heat Pump, Model: RP1560AC1, Nominal Capacity: 56,000, Manufacturer: RHEEM

#### Results:

			Percent
		<u>Load</u>	of Load
Heating Capacity:	56,000	57,993	97%

Lot 1099 Caprock Wednesday, May 18, 2022



#### Elite Software Development, Inc.

Lot 1099 Caprock Page 18

#### Manual S Performance Data - System 2 - Additional System

Loads and	d Design	Conditions
-----------	----------	------------

$C_{\alpha\alpha}$	lina:
	ling:

Outdoor Dry Bulb:	0	Sensible Gain:	0
Outdoor Wet Bulb:	73	Latent Gain:	0
Indoor Dry Bulb:	75	Total Gain:	0
Indoor RH:	50	Load SHR:	0.00
Supply Airflow:	0	Entering Dry Bulb:	0
		Entering Wet Bulb:	0

#### Heating:

Outdoor Dry Bulb:	30	Sensible Loss:	57,993
Indoor Dry Bulb:	70	Entering Dry Bulb:	63.5
Indoor RH:	30	Supply Airflow:	706

#### Equipment Performance Data at System Design Conditions

#### Cooling:

Model Type: , Manufacturer:

#### Interpolation Results:

		<u>Load</u>	Percent of Load
Sensible Capacity:	0	0	0%
Latent Capacity:	0	0	0%
Total Capacity:	0	0	0%

#### Heating:

Model Type: , Model: , Manufacturer:

#### Results:

			Percent
		<u>Load</u>	of Load
Heating Capacity:	0	57,993	0%

Lot 1099 Caprock Wednesday, May 18, 2022

San Antonio, TX

Air Max Heating and Cooling



Elite Software Development, Inc.

Lot 1099 Caprock Page 19

#### Manual S Performance Data - System 3 - Another Additional System

Loads and	l Design	Conditions
-----------	----------	------------

Cooling	:
---------	---

0 Sensible Gain: Outdoor Dry Bulb: 0 Outdoor Wet Bulb: 73 Latent Gain: 0 Indoor Dry Bulb: 75 Total Gain: 0 Indoor RH: 50 Load SHR: 0.00 Supply Airflow: 0 Entering Dry Bulb: 0 Entering Wet Bulb: 0

#### Heating:

Outdoor Dry Bulb:30Sensible Loss:57,993Indoor Dry Bulb:70Entering Dry Bulb:63.5Indoor RH:30Supply Airflow:706

#### Equipment Performance Data at System Design Conditions

#### Cooling:

Model Type: , Manufacturer:

#### Interpolation Results:

		<u>Load</u>	Percent of Load
Sensible Capacity:	0	0	0%
Latent Capacity:	0	0	0%
Total Capacity:	0	0	0%

#### Heating:

Model Type: , Model: , Manufacturer:

#### Results:

			Percent
		<u>Load</u>	of Load
Heating Capacity:	0	57,993	0%

Lot 1099 Caprock Wednesday, May 18, 2022

Air Max Heating and Cooling San Antonio, TX



#### Elite Software Development, Inc.

Lot 1099 Caprock Page 20

# System 1 Room Load Summary

Room No Name	Area SF	Htg Sens Btuh	Min Htg CFM	Run Duct Size	Run Duct Vel	Clg Sens Btuh	Clg Lat Btuh	Min Clg CFM	Act Sys CFM
Zone 1					_				
1 Great Room	399	8,241	110	0-0	0	11,207	400	524	524
2 Dining	209	3,857	52	0-0	0	2,634	0	123	123
3 Kitchen	264	4,785	64	0-0	0	3,669	0	172	172
4 Master Bedroom	360	7,868	105	0-0	0	7,147	400	334	334
5 Laundry/ Mud room	104	2,257	30	0-0	0	1,320	0	62	62
6 Loft	256	13,379	179	0-0	0	16,144	0	755	755
7 Master Bath	180	1,900	25	0-0	0	1,226	0	57	57
8 Bedroom 3	204	5,337	71	0-0	0	2,590	200	121	121
9 Bath 2	91	1,083	14	0-0	0	868	200	41	41
10 Bedroom 2	195	4,150	55	0-0	0	3,278	200	153	153
- Ventilation	-	3,207	-	-	-	1,924	855	-	-
- Duct Latent	-	-	-	-	-	-	460	-	-
- Return Duct	-	1,927	-	-	-	4,053	489	-	-
- System 1 total	2,262	57,993	706	-	-	56,060	3,203	2,342	2,342

Coolii	ng System	Summary
--------	-----------	---------

-	<u> </u>					
	-	Cooling	Sensible/Latent	Sensible	Latent	Total
	-	Tons	Split	Btuh	Btuh	Btuh
	Net Required:	4.94	95% / 5%	56,060	3,203	59,263

Lot 1099 Caprock Wednesday, May 18, 2022

Air Max Heating and Cooling

San Antonio, TX



Elite Software Development, Inc.

Lot 1099 Caprock Page 21

#### Equipment Data - System 1 - Main

#### Cooling

System Type: Air Source Heat Pump

Outdoor Model: RP1560AC1 Indoor Model: RH1T6024STAN

Outdoor Manufacturer: **RHEEM** 

Description: Air Source Heat Pump

AHRI Reference No.: 201631073 58000 Capacity: Efficiency: 15 SEER

Heating

System Type: Air Source Heat Pump

Model: RP1560AC1 Manufacturer: **RHEEM** 

Description: Air Source Heat Pump

Capacity: 56000 Efficiency: 9 HSPF

Lot 1099 Caprock

Wednesday, May 18, 2022