

APPLICANT: Jeffrey McVay EMAIL: jmcvay3@cox.net PHONE: (262) 893-6417

Subject: Certificate of Appropriateness (Historic Clearance) for 111 W. 7th Place (the "Subject Property") (Case Number ADM23-00135, APN/Parcel #13724011, Evergreen Historic District)

Dear Jeffrey,

The City of Mesa Historic Preservation Office has reviewed your request for a Certificate of Appropriateness for the proposed exterior alterations to the Subject Property.

The City Historic Preservation Officer has determined the request **does not comply** with the Secretary of the Interior's Standards for the Treatment of Historic Properties. In addition, the modifications are **inconsistent** with the City's historic standards and guidelines. The Historic Preservation Officer has therefore **denied** the Certificate of Appropriateness request based on the analysis completed on Attachment 1 of this decision letter.

You have the right to appeal this decision to the City of Mesa Historic Preservation Board. Appeals are subject to the provisions of Chapter 77 and Section 11-67-12 of the Mesa Zoning Ordinance (MZO). A copy of these sections of the MZO are attached to this decision letter for your reference.

Appeals may be filed by the applicant, by the owner of property, or by any other person aggrieved by a decision that may be appealed under the provisions of the MZO. All appeals shall be filed in writing within 15 calendar days after the date of the action being appealed. Calendar days are inclusive of all business days, non-business days, weekends and holidays. In the event the time limit for appeals ends on a non-business day, holiday or weekend, the time limit shall be extended to the close of business of the next business day.

If you have additional questions, please feel free to contact Maura Jackson, Historic Preservation Advisor/Planner at maura.jackson@mesaaz.gov or 480-644-2021.

Sincerely

Maura Jackson

Maura Jackson, Historic Preservation Advisor/Planner, City of Mesa

cc: Mary Kopaskie-Brown, Planning Director/Historic Preservation Officer Michelle Dahlke, Principal Planner



Enclosures:

- 1) Attachment 1
- 2) Chapter 77 and Section 11-67-12 (Table 11-67-12) of the MZO Regarding Appeals



ATTACHMENT 1

Background:

The Subject Property is located at 111 W. 7th Place within the Evergreen Historic District (the "District") which has a period of significance from 1910 to 1948. The zoning designation for the Subject Property is Single Family Residential ("RS-9"), with an Historic District ("HD") overlay.

The original home exhibited a minimal Early Ranch form with an intersecting gabled roof and simple, slender porch posts. The property has previously been altered with an attached garage, new windows, a rear addition, and a non-historic wall/gate. The building is considered to be a non-contributor to the District.

Although this property is currently considered to be a non-contributor to the District, further changes to the site that disrupt the District are discouraged.

Project Description:

Proposed work for this Certificate of Appropriateness request includes construction of a new single-story, 1,612 square foot casita, covered patio, and a two-bay carport (722 square foot livable – 890 square foot non-livable). The casita will be conventionally framed, finished with stucco painted to match the main home, and roofed with asphalt shingles. The casita includes a two-bay carport, of which one bay is for an RV and one bay is for a car. The casita and attached carports would be located at the west of the existing dwelling. The proposed materials for the casita include stucco and asphalt shingles, with 6x6 posts and beams used for the covered patios. The carports are both proposed to be posts and beam, one at a maximum height of 11'-10", sloping down to 9'-8", and the RV carport at a maximum height of 15'-6", sloping down to 14'-3". There is also a new driveway apron proposed for the driveway leading to the proposed carports attached to the casita. No changes are proposed to the existing main house.



US Secretary of the Interior's Standards for Historic Preservation – Rehabilitation

Standard	Consistent	Inconsistent	N/A
A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.	\boxtimes		
The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided. Staff comment: The proposed RV garage has a height that exceeds the development patterns within the District. Additionally, the placement on the parcel disrupts the rhythm and character found within the District. It would be better placed elsewhere on the lot or further back if possible. The proposed driveway apron would be inconsistent with conditions of a previous approval ADM20-00186: The vehicular access gate aligns with the existing curb cut			
and no new driveways are created. It would also further disrupt the historic pattern found within the District.			
Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.	×		
Changes to a property that have acquired historic significance in their own right will be retained and preserved.			\boxtimes
Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.	×		
Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.			\boxtimes
Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.			



Standard	Consistent	Inconsistent	N/A
Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.			\boxtimes
New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment. Guidelines recommend: Constructing a new addition on a secondary or non-character defining elevation and limiting its size and scale in relationship to the historic building. Ensuring that the addition is subordinate and secondary to the historic building and is compatible in massing, scale, materials, relationship of solids to voids, and color. Staff comment: The project as proposed with the RV carport would disrupt the scale and proportion found within the District. This part of the project would not be subordinate to the historic resources and is not limited in size and scale to the historic buildings.			
New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.	×		

<u>City of Mesa Historic Homes of Mesa: An Architectural and Preservation Guide</u> <u>New Addition Design Standards – Dos and Don'ts</u>

Standard	Consistent	Inconsistent	N/A
Construct new exterior additions to the side or the rear of a historic building to retain the streetscape façade and the setback to the street.	\boxtimes		
Remove non-significant additions or nearby outbuildings to make room for a new exterior addition if removal does not affect the architectural integrity of the building.			



Standard	Consistent	Inconsistent	N/A
Design the new addition to complement and enhance the historic building in size, scale, materials, and details. Don't: construct an addition which is larger in size or inappropriate in scale to the original building. Staff comment: The RV carport has a scale that is incompatible with the District, especially for where it is placed on the parcel.			
Verify zoning restrictions for heights, setbacks, and building separation to define the buildable area within the property. Take into consideration overhang dimensions when determining the allowable building envelope. Setback and lot coverage variances may be difficult to obtain if zoning problems are self-imposed by the applicant's own design. Staff comment: Proposal meets the criteria for an accessory dwelling unit (ADU) based on the site plan provided with the COA request.			
Design non-historic site features and landscaping as distinctive but compatible with the building's historic style.			\boxtimes

CHAPTER 77 - APPEALS

Footnotes:
--- (5) --Editor's note— Previously, Chapter 77 derived from Ord. No. 5472, 11-6-18.

11-77-1: - PURPOSE AND APPLICABILITY

This Chapter establishes uniform procedures for appeals of final decisions by the Historic Preservation Officer, Planning Director, Zoning Administrator, Zoning Administrator Hearing Officer, Board of Adjustment, Planning and Zoning Board, Planning Hearing Officer, Design Review Board, and the Historic Preservation Board.

11-77-2: - RIGHTS OF APPEAL

Appeals may be filed by the applicant, by the owner of property, or by any other person aggrieved by a decision that may be appealed under the provisions of this Ordinance.

11-77-3: - TIME LIMITS

Unless otherwise specified in State or federal law, all appeals except of Board of Adjustment decisions shall be filed in writing within 15 calendar days after the date of the action being appealed. Appeals of Board of Adjustment decisions shall be filed within 30 calendar days of the Board rendering its decision. Calendar days are inclusive of all business days, non-business days, weekends and holidays. In the event the time limit for appeals ends on a non-business day, holiday or weekend, the time limit shall be extended to the close of business of the next business day.

11-77-4: - PROCEDURES

A. **Proceedings Stayed by Appeal.** The timely filing of an appeal may stay all City-related proceedings in the matter appealed including, but not limited to, the issuance of demolition permits, building permits, and business licenses. Proceedings in which an appeal has been filed to County, State or Federal Courts or jurisdictions may only be stayed by action from those jurisdictions.

B. Filing of Appeals.

- 1. *Appeals of Specified Decisions*. All decisions of the Historic Preservation Officer, Planning Director, Zoning Administrator acting in an administrative or Hearing Officer role, Planning and Zoning Board, Planning Hearing Officer, Design Review Board, and Historic Preservation Board may be appealed to the appropriate body as specified in <u>Chapter 67</u> by filing a written notice of appeal. The notice of appeal shall set forth, in concise language, the following:
 - a. Date of appeal;
 - b. Name of person filing the appeal (appellant) and any individual representing appellant;
 - c. Address to which notices shall be sent;
 - d. Contact information such as telephone number and/or e-mail address of appellant or representative

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to be contacted regarding the appeal;

- e. Action or decision being appealed and the date of such action or decision;
- f. Description of requested outcome if the appeal is granted;
- g. Grounds for appeal; and,
- h. Address and case number involved.
- 2. *Appeals of Board of Adjustment Decisions*. Any person aggrieved by the decision of the Board of Adjustment, or officer or department of the City of Mesa affected by a decision of the Board may, at any time within 30 days after the Board has rendered its decision, file a complaint of special action in Superior Court to review the Board's decision. Filing the complaint does not stay proceedings on the decision sought to be reviewed, but the court may, on application, grant a stay, and on final hearing, may affirm or reverse, in whole or in part, or modify the decision reviewed.
- C. **Public Notice.** Notice of an appeal heard by the City Council, Planning and Zoning Board, Board of Adjustment, or Design Review Board, shall be:
 - 1. Provided in the same manner required in Chapter 67, for the appropriate hearing body, and
 - 2. Provided to all persons who spoke on the matter at any prior hearings on the same matter, if such persons provided their names and addresses at the time they spoke at the prior hearing.

D. Appeals to the Board of Adjustment.

- 1. Appeals to the Board shall be made in conformance with A.R.S. § 9-462.06.
- 2. **Board of Adjustment Action.** The Board of Adjustment shall conduct a public hearing de novo, and shall review all relevant information, including but not limited to the application, plans, related project materials that were the subject of the original decision, any additional materials as may be presented at the appeal hearing, and any written correspondence submitted after the appeal has been filed, information observed by a site visit if made, and may take one of the following actions:
 - a. Make a decision; or
 - b. Remand the matter to the Zoning Administrator to cure a deficiency in the record or proceedings.
- 3. *Board of Adjustment Decision.* The Board of Adjustment may approve, approve with conditions, or deny an appeal, and may prescribe reasonable conditions in connection with its decision as may be necessary in order to fully carry out the purpose and intent of the provisions of this Zoning Ordinance.

E. Appeals to the Design Review Board.

- 1. *Design Review Board Action.* The Design Review Board shall conduct a public meeting and review the appeal, the record, including the application, plans, related project materials that were the subject of the original decision, any additional materials as may be presented at the meeting, and any written correspondence submitted after the appeal has been filed, and may take one of the following actions:
 - a. Make a decision; or
 - b. Remand the matter to the Planning Director to cure a deficiency in the record or proceedings.
- 2. *Design Review Board Decision.* The Design Review Board may approve, approve with conditions, or deny an appeal, and may prescribe reasonable conditions in connection with its decision as may be necessary in order to fully carry out the purpose and intent of the provisions of this Zoning Ordinance.

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- F. Appeals to the Planning and Zoning Board.
 - 1. *Planning and Zoning Board Action.* The Planning and Zoning Board shall conduct a public hearing, and review the appeal, the record, including the application, plans, related project materials that were the subject of the original decision, any additional materials as may be presented at the appeal hearing, and any written correspondence submitted after the appeal has been filed, and may take one of the following actions:
 - a. Make a decision; or
 - b. Remand the matter to the Planning Director to cure a deficiency in the record or proceedings.
 - 2. *Planning and Zoning Board Decision.* The Planning and Zoning Board may approve, approve with conditions, or deny an appeal, and may prescribe reasonable conditions in connection with its decision as may be necessary in order to fully carry out the purpose and intent of the provisions of this Zoning Ordinance.
- G. Appeals to the Historic Preservation Board.
 - 1. *Historic Preservation Board Action.* The Historic Preservation Board shall conduct a public meeting and review the appeal, the record, including the application, plans, related project materials that were the subject of the original decision, any additional materials as may be presented at the appeal hearing, and any written correspondence submitted after the appeal has been filed, and may take one of the following actions:
 - a. Make a decision: or
 - b. Remand the matter to the Historic Preservation Officer to cure a deficiency in the record or proceedings.
 - 2. *Historic Preservation Board Decision*. The Historic Preservation Board may approve, approve with conditions, or deny an appeal, and may prescribe reasonable conditions in connection with its decision as may be necessary in order to fully carry out the purpose and intent of the provisions of this Zoning Ordinance.
- H. **Appeals to the City Council.** The City Council shall review the appeal, the record, and any written correspondence submitted after the appeal has been filed, and at the Council's discretion, review any additional materials that may be presented at the meeting. After the review, the Council may take one of the following actions:
 - 1. Conduct a public hearing, after which it may affirm, reverse, or modify the previous decision; or
 - 2. Remand the matter to the Planning and Zoning Board, Planning Hearing Officer, Design Review Board, or Historic Preservation Board (as deemed appropriate) for additional review and consideration, or to cure a deficiency in the record or proceedings.

11-77-5: - STANDARDS OF REVIEW

When reviewing any decision on appeal, the same standards and criteria shall apply as were required for the original decision.

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11-67-12: - APPEALS

A final decision is subject to appeal according to the standards in <u>Chapter 77</u> - Appeals. Table 11-67-12 summarizes the appeal process for each body issuing a final decision.

Table 11-67-12: Appeal Bodies	
Initial Decision-Maker	Appeal Body
Historic Preservation Officer	Historic Preservation Board
Zoning Administrator	Board of Adjustment
Zoning Administrator - Alternative Landscape Plan	Design Review Board
Zoning Administrator Hearing Officer	Board of Adjustment
Board of Adjustment	Superior Court, per A.R.S. § 9-462.06.K
Planning Director, Site Plan Modification	Planning & Zoning Board
Planning Director, Design Review	Design Review Board
Historic Preservation Board	City Council
Planning & Zoning Board	City Council
Design Review Board	City Council

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Planning Hearing Officer	City Council
City Council	Superior Court, where applicable under state law

RESPONSE TO CERTIFICATE OF APPROPRIATENESS REVIEW QUESTIONS (ADM23-00135)

Below are responses to questions related to the site plan and building material questions received from City staff on March 6, 2023. Where noted, the site plan has been updated include these details.

1. Materials:

- a. Carport posts, beam
- b. Patio for guest house posts, beam

Response: As noted on Sheet A-1 of the uploaded plans (McVay Casita Final_With HP Details.pdf), the carport and patio will be constructed using 6"x6" Posts. In addition, the west and east elevation of the carports will be finished with wood slat walls similar to the images below.







2. Dimensions:

- a. Height of house and garage as it relates to RV carport
- b. Setback of carports from front façade of main house

Response: Height of the primary house and setbacks to carports are noted below and shown on the additional uploaded documents.

- 1. As shown on the uploaded elevation (Primary House Elevation.pdf), the existing house has heights are as follows:
 - a. Main structure: 11'-0"-12'-0"
 - b. Garage addition and new roof beyond: 12'-0"
 - c. Chimney: 14'-0"
- 2. As designed, the plans include a carport and RV carport. The carport and RV carport have different heights and setbacks. As noted on Sheet S-P of the uploaded plans (McVay Casita Final_With HP Details.pdf), the carport RV carport have the following heights and setbacks:
 - a. Carport:
 - i. Height: 11'-10"
 - ii. Setback from primary house: 7'-0"
 - iii. Setback from front of primary house: 26'-6"
 - iv. Setback from street: 61'-6"

b. RV Carport:

i. Height: 15'-6"

ii. Setback from primary house: 18'-0"

iii. Setback from front of primary house: 16'-6"

iv. Setback from street: 51'-6"

Based on the above responses, and the additional plan details uploaded in DIMES, the proposed RV carport has been placed with a significant setback from the front of the primary house, in addition to a significant separation from the primary house. The proposed RV carport has a significant setback from the front of the primary house. Both carports are setback greater than 50-feet from the street. With a height of 15"-6", the RV carport is only 1'-6" taller than the height of the chimney, which is a prominent feature of the primary house. The setback and separation of the proposed RV carport from the primary house and street will be successful in mitigating the RV carport height. While the primary house is located within the Evergreen Historic District, it is also important to note that due to action of previous owners, the house is not a contributing property to the historic district.

I look forward to receiving a Certificate of Appropriateness for the proposed casita, but stand ready to respond should you have any further questions.

Jeff McVay

ALL CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING CODES AND AMENDMENTS PER THEIR ADOPTING ORDINANCES:

2018 International Residential Code(WITH AMENDMENTS)

2018 International Building Code(WITH AMENDMENTS)

2018 International Mechanical Code(WITH AMENDMENTS)

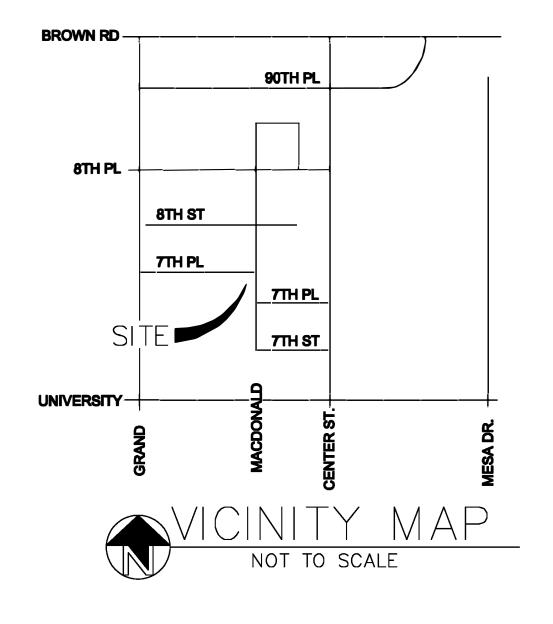
2018 International Fire Code(WITH AMENDMENTS)

2017 National Electrical Code/NFPA-70

2018 International Plumbing Code (WITH AMENDMENTS)

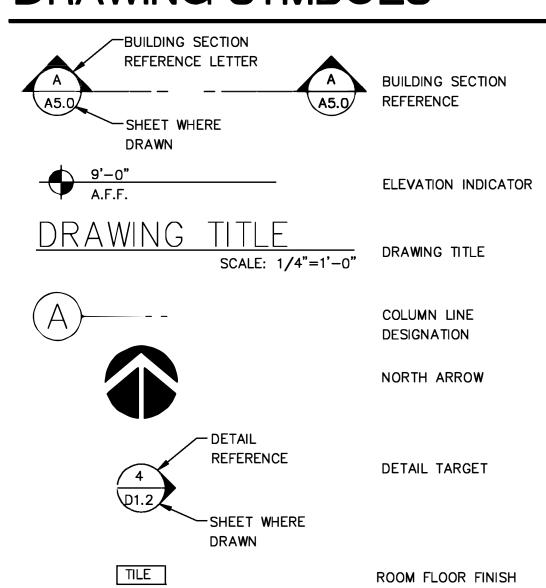
2018 International Energy Conservation Code (WITH AMENDMENTS)

COVER
SITE PLAN
S-P
FLOOR PLAN/ SECTION
A-1
ELEVATIONS
A-2
ELECTRIC / M and P NOTES
STRUCTURAL NOTES
STRUCTURAL
DETAILS
C-1
S-1
D-1



GUEST HOUSE

DRAWING SYMBOLS



PROJECT DATA

OWNER:

JENNIFER MCVAY 111 W. 7TH PLACE MESA, AZ 85201

PROJECT LOCATION:

111 W. 7TH PLACE MESA, AZ 85201 OCCUPANCY TYPES: SQUARE FOOTAGE(NEW): EX. HOUSE UNDER ROOF:

R-5, U (CONSTRUCTED UNDER THE 2018 I.R.C.)

HABITABLE: 722 NON-HABITABLE: 890 TOTAL: 1,612

1,980 S.F.(LIVABLE), 1,260 S.F.(PATIO/PORCH/GARAGE) 3,240 S.F. TOTAL

LOT COVERAGE: 4,898 (COVERAGE TOTAL) (4,898)/(17,712)X(100)= 28%

ZONING: RS-

CURRENT USE: SINGLE FAMILY RESIDENCE

LOT AREA: 17,712 TOTAL (9,736 S.F., 137-24-011, 7,976 S.F., 137-24-012)

TYPE OF CONSTRUCTION: TYPE VB

JURISDICTION: CITY OF MESA

SPRINKLER SYSTEM: NOT REQUIRED

SCOPE OF WORK: NEW DETACHED GUESTHOUSE, WITH PATIO, AND

TWO NEW CARPORTS.

PROJECT CONTACT

JEFFREY MCVAY (262) 893-6417

PARCEL NUMBER

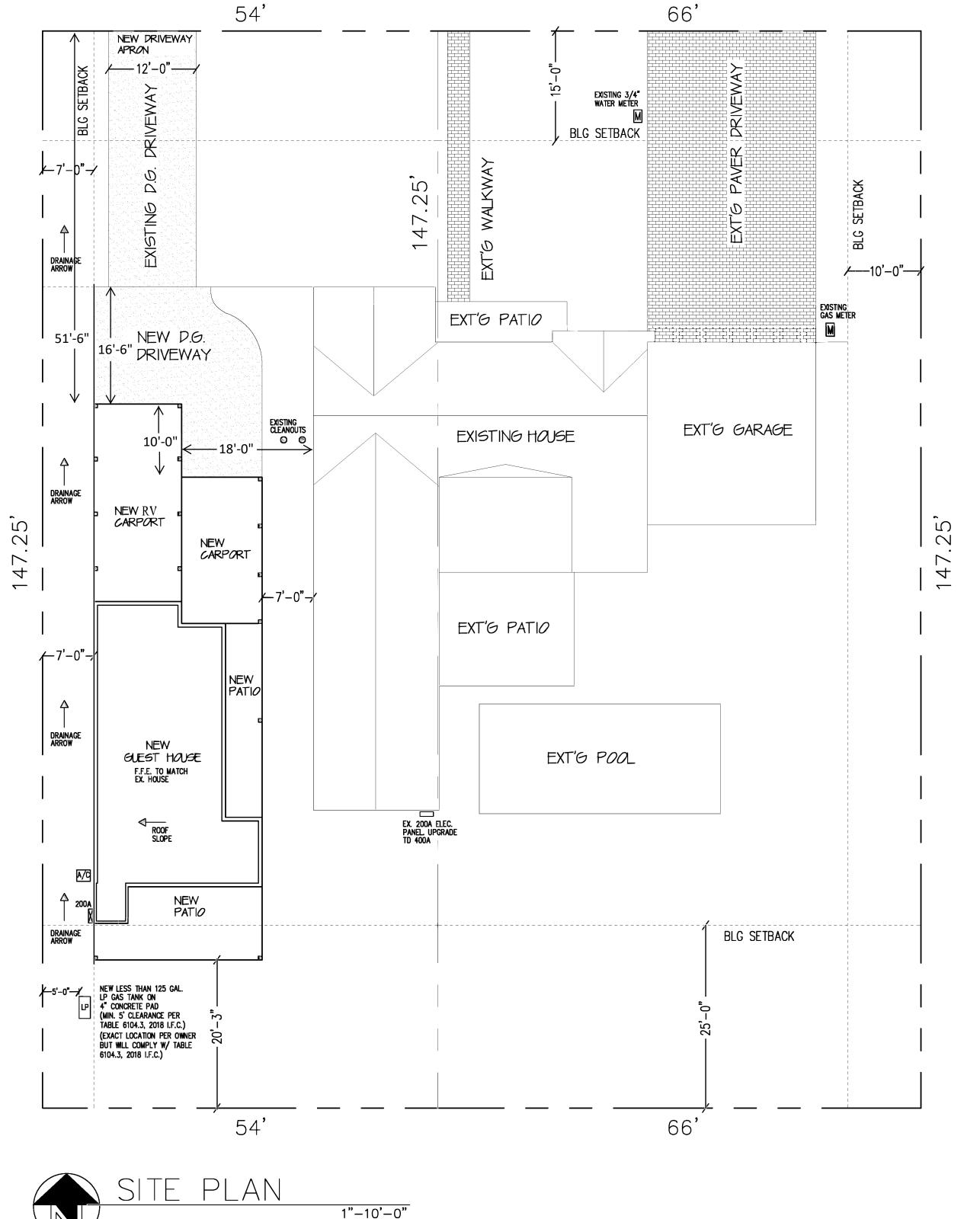
137-24-011 137-24-012

BUILDER

OWNER BUILDER

JOB NO. SHEET:

 \prod ·UE 'H PLACE 85201 AZ M MCV MESA,

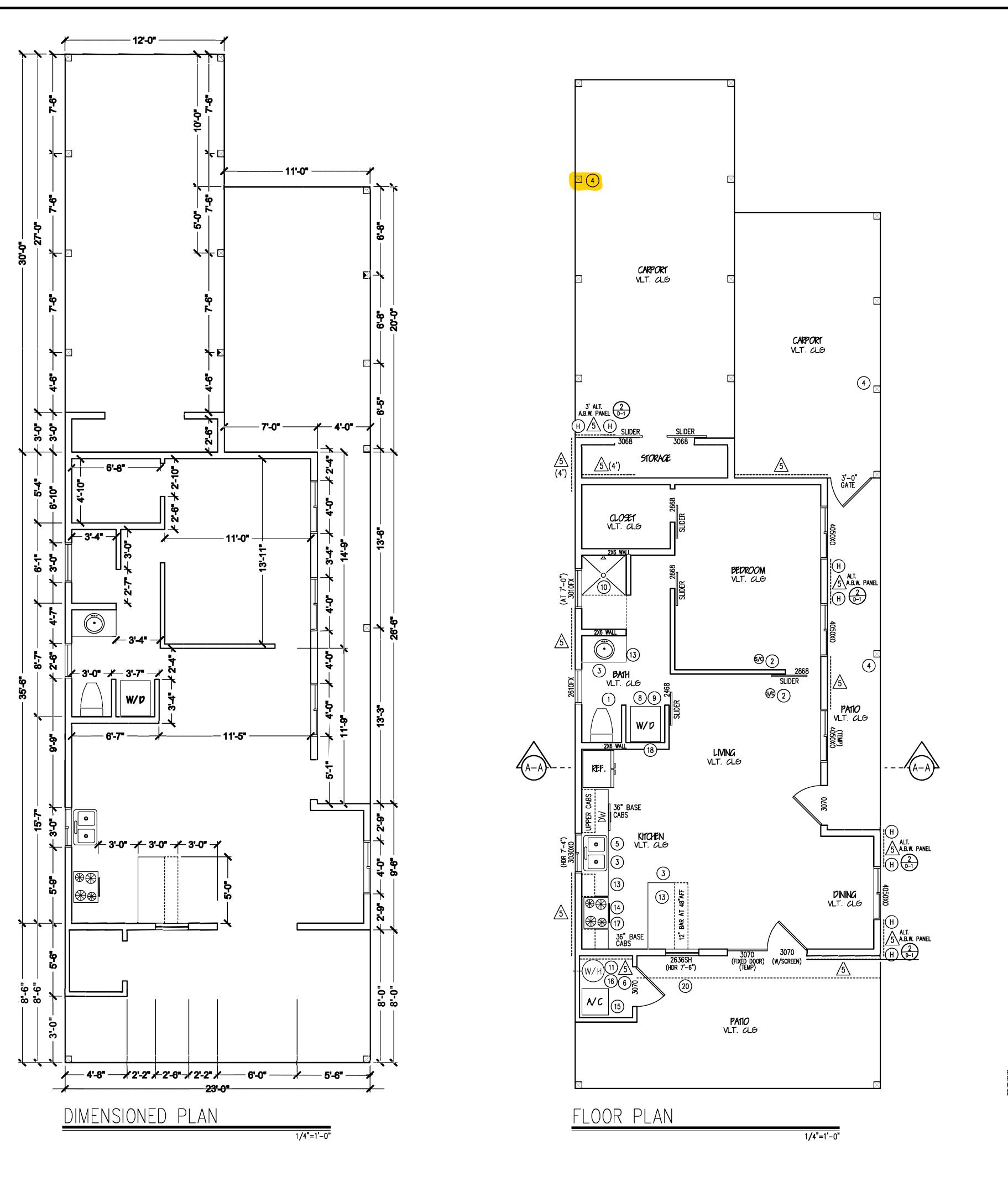




SITE DRAINAGE NOTES:

SURFACE DRAINAGE SHALL BE DIVERTED TO A STORM SEWER CONVEYANCE OR OTHER APPROVED POINT OF COLLECTION SO AS TO NOT CREATE A HAZARD. LOTS SHALL BE GRADED TO DRAIN SURFACE WATER AWAY FROM FOUNDATION WALLS. THE GRADE SHALL FALL A MINIMUM OF 6" WITHIN THE FIRST 10' IN ACCORDANCE WITH THE 2018 I.R.C. SECTION R401.3.

CONCRETE AND MASONRY FOUNDATION WALLS SHALL EXTEND ABOVE THE FINISH GRADE ADJACENT TO THE FOUNDATION AT ALL POINTS A MINIMUM OF 4" WHERE MASONRY VENEER IS USED AND A MINIMUM OF 6" ELSEWHERE IN ACCORDANCE WITH THE 2018 I.R.C. SECTION R404.1.6.



KEYNOTES

- 1. WATER CLOSET PROVIDE A (MIN) 15" ON
- EA. SIDE & 24" (MIN) CLR. IN FRONT
- 2. COMBINATION SMOKE/CO DETECTOR

3. CABINET HEIGHTS PER OWNER

4. 6X6 POST (TYP.)

- 5 .SINK (SIZE PER OWNER)
- 6 .ELEC 40 GAL. WATER HEATER (COMPLY WITH CH. 28. IRC)
- 7. 18" HIGH PLATFORM
- 8. ELEC. DRYER (STACK)
- 9. WASHER (STACK)
- 10. MOISTURE RESISTANT GYP. BRD. o/WALLS

 © SHR/TUB/W.C. COMPARTMENT
- 11. WATER HEATER T&P DISCHARGE +6" ABOVE GRADE
 FULL SIZE STEEL PIPE OR HARD DRAWN COPPER TUBING
 (2018 IRC SECTION P2804.6.1)
- 13. COUNTER PER OWNER
- 14. MICROWAVE ABOVE RANGE
- 15. MAINTAIN REQ'D APPLIANCE SERVICE CLEARANCE
- 16. WATER HEATER PAN
- 17. RANGE VENTED OUTSIDE PER MFG SPECS AND M1503. EXHAUST RATES PER TABLE M1505.4.4 (2018 IRC)
- 18. DRYER VENTED OUTSIDE IN ACCORDANCE WITH SECTION M1502, 2018 I.R.C.
- 19. 2X6 PLUMBING WALL
- 20. MECH. CHASE

R602.10., 2018 IRC 2018 IRC A

ALL CONSTRUCTION WILL COMPLY WITH THE 2018 IRC AND CITY OF MESA AMENDMENTS.

	BRACED WALL SCHEDULE: (WSP METHOD)					
KEY	MATERIAL	FASTENERS	NAILING	FACES	BLOCKING	SILL PLATE ANCHORS
5	3/8" PLYWOOD OR O.S.B. (16" O.C. STUD SPÁCING)	8d COMMON	6" EDGE 12" FIELD	SINGLE	BLOCKED	1/2" DIAM. ANCHOR BOLTS @ 32" O.C.
6	1/2" GYPSUM BOARD (16" O.C. STUD SPACING)	5d COOLER	7" ON CENTER	SINGLE	UNBLOCKED	1/2" DIAM. ANCHOR BOLTS @ 48" O.C.
	(4) (4) (4) (4) (4) (4) (4) (4) (4) (4)					

(H2) SIMP. LSTHD8 HOLDOWN. (2) 2X STUD END POST. (24)—16D SINKER NAILS TO POST. WET SET STRAP.

(H2) SIMP. STHD14 HOLDOWN. (2) 2X STUD END POST. (30)—16D SINKER NAILS TO POST. WET SET STRAP.

EXTERIOR WALLS TO BE FULLY SHEATHED WITH 3/8" OSB/PLYWD.

SMOKE DETECTORS (R314); LOCATION IN ACCORDANCE WITH R314.3. SHALL BE INTERCONNECTED (R314.4) AND EQUIPPED WITH BATTERY BACKUP (R314.6).

CARBON MONOXIDE ALARMS; OUTSIDE EACH SEPARATE SLEEPING AREA IN THE IMMEDIATE VICINITY OF THE BEDROOMS IN DWELLINGS HAVING FUEL FIRED APPLIANCES AND/OR ATTACHED GARAGES (R315).

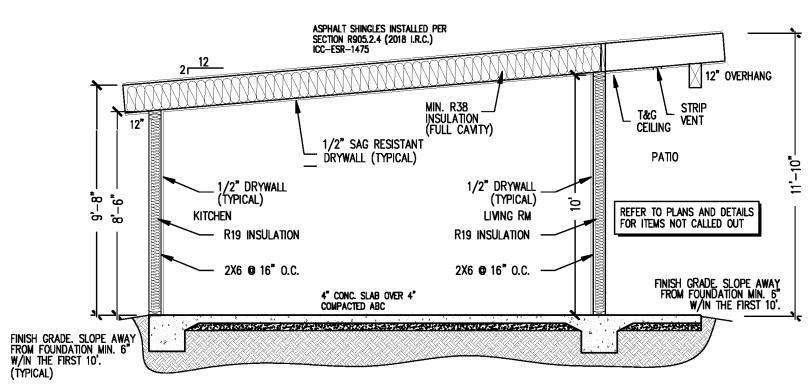
INTERIOR MATERIAL

- PROVIDE 1/2" DRYWALL THROUGHOUT. UNLESS NOTED OTHERWISE (U.N.O.)
 PROVIDE 5/8" TYPE "X" DRYWALL IN ONLY AREAS SPECIFICALLY MENTIONED ON THE PLANS.
- FLOOR PLAN CODE NOTES:
- EMERGENCY ESCAPE(S), I.R.C. (R-310) FROM SLEEPING
- A) IN ALL SLEEPING AREAS, PROVIDE AN OPENABLE WINDOW OR DOOR WITH AN AREA OF 5.7 SQ. FT. (MINIMUM) OPENING DIRECTLY TO THE OUTSIDE WITH A MINIMUM NET CLEAR OPENING OF 20" WIDE AND 24" HIGH. NOTE: (5.7 SQ. FT. = 20" X 41" OR 34" X 24"), 44" MAX SILL HEIGHT.
- B) EMERGENCY ESCAPE ROUTE: PROVIDE A CONTINUOUS 3'-0" WIDE (MINIMUM) PATH OF EXCAPE FROM ALL BEDROOM WINDOW/DOORS TO A PUBLIC WAY.

- WALL FRAMING -U.N
 - EXTERIOR WALLS 2x6 STUDS @ 16" O.C.
- INTERIOR BEARING WALLS 2X6 16" O.C.
 INTERIOR NON BRG. 2X4 24" O.C.
- INSULATION / FENESTRATION:
 R-19 BATTS @ EXT 2X6 WALLS U.N.O.
- SUPPLY AND RETURN DUCTS R-8
- MAX. U-FACTOR 0.40, MAX. SHGC 0.25 FOR ALL FENESTRATION PRODUCTS.
 R-38 ROOF - U.N.O.

BUILDING AREA COVERAGE:

LIVABLE: NON LIVABLE:	722 890	•	
TOTAL:	1612	SQ.	FT.



SECTION A-A

1 /4"=1'-0"

MCVAY GUEST H

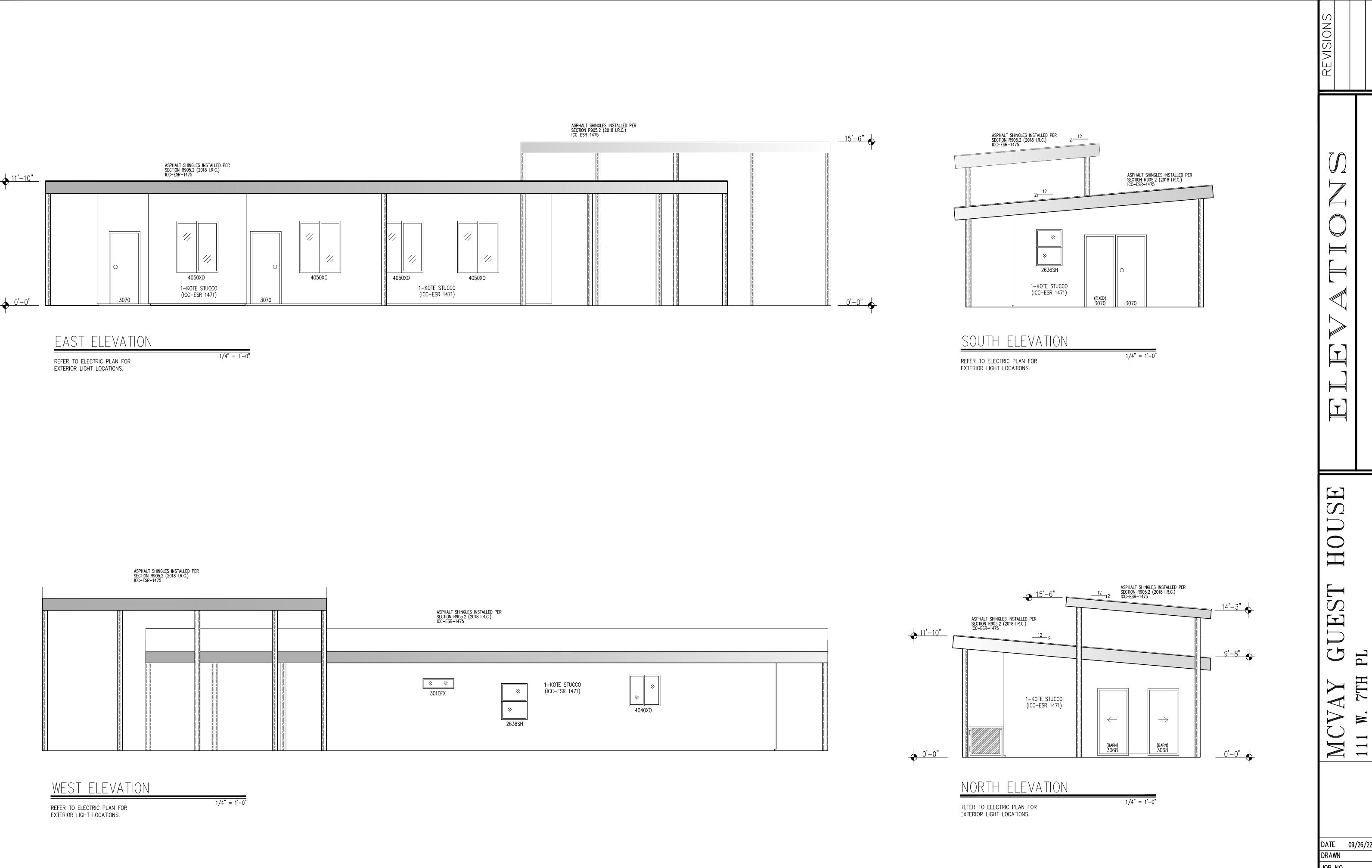
7TH PL Z 85201

田田

DATE 09/28/22 DRAWN

JOB NO. SHEET:

A — 1



7TH PL Z 85201 111 W MESA

DATE 09/26/22 JOB NO.

SHEET:

DRAWN JOB NO. SHEET:

MECHANICAL:

FIXTURE UNI

EXIST. NEW

CLOTHES DRYER EXHAUST DUCT: (M1502.4.5) SHALL EXTEND TO THE EXTERIOR AND TERMINATE WITH BACK DRAFT DAMPER (M1502.3). LENGTH OF THE DUCT 35' MAX. (M1502.4.5),

REDUCE IN ACCORDANCE WITH TABLE M1502.4.5.1. DUCT TERMINATION MIN. 3' IN ANY DIRECTION FROM OPENINGS INTO THE BUILDING (M1502.3)

THE DWELLING MUST BE PROVIDED WITH HEATING CAPABLE OF MAINTAINING A ROOM TEMPERATURE OF 80 DEGREES AT A POINT 3' ABOVE THE FLOOR.

M1401.3 SIZING. HEATING AND COOLING EQUIPMENT AND APPLIANCES SHALL BE SIZED IN ACCORDANCE WITH ACCA MANUAL S BASED ON BUILDING LOADS IN ACCORDANCE WITH ACAA MANUAL J OR OTHER APPROVED HEATING AND COOLING CALCULATION METHODOLOGIES.

M1601.1 DUCT DESIGN. DUCT SYSTEMS SERVING HEATING, COOLING AND VENTILATION EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISIONS OF THIS SECTION AND ACCA MANUAL D OR OTHER APPROVED METHODS.

APPLIANCE ACCESS WILL COMPLY WITH SEC. M1305 (2018 I.R.C.)

APPLIANCES IN ATTIC WILL COMPLY WITH SEC. M1305.1.2 (2018 I.R.C.)

IRC SECTION E3703.3, GFCI E3902.9

ELECTRICAL:

AT LEAST ONE 20-AMP BRANCH CIRCUIT SHALL BE INSTALLED TO SERVE THE LAUNDRY ROOM AND THIS CIRCUIT SHALL HAVE NO OTHER OUTLETS.

IRC SECTION E3703.4 AT LEAST ONE 20-AMP BRANCH CIRCUIT SHALL BE INSTALLED TO SERVE THE BATHROOM AND THIS CIRCUIT SHALL HAVE NO OTHER OUTLETS.

A CONVENIENCE OUTLET WILL BE PROVIDED WITH 25 FEET OF THE A/C CONDENSER FOR SERVICING.

E4002.14 TAMPER-RESISTANT RECEPTACLES E4002.14 IN AREAS SPECIFIED IN SECTION E3901.1, 125-VOLT, 15- AND 20-AMPERE RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.

E3902.16 ARC-FAULT CIRCUIT-INTERRUPTER PROTECTION. ALL BRANCH CIRCUITS THAT SUPPLY 120-VOLT, SINGLE-PHASE, 15- AND 20-AMPERE OUTLETS INSTALLED IN FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATION ROOMS, CLOSETS, HALLWAYS AND SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.

EXISTING			
LOAD CALC	JLATIONS		
1979 S.F. X 3 WATTS		5,937	
MIN. 2 S.A. CIRCUITS	2 X 1500 W	3000	
LAUNDRY CIRCUIT	1 X 1500 W	1500	
REFRIGERATOR	1 X 1500 W	1500	
DRYER	@ 5,000 W	5000	
WATER HEATER	0 X 4500 W	0000	
DISH WASHER	1 X 1500 W	1500	
RANGE (N/A)	0 X 5000 W	0000	
MICROWAVE	1 X 1500 W	1500	
BATHS 2 CIRCUITS	2 X 1500 W	3000	
GARAGE	2 X 1500 W	3000	
CLOTHES WASHER	1 X 1500 W	1500	
TOTAL	TOTAL		
FIRST 10 KW. @ 100%		10000	
REMAINDER @ 40 %		6,974	
A/C X 1 9000		9,000	
A/C / X 1 HEAT PUMP 1200		1,200	
TOTAL 27		27,339	
27,174 DIVIDED BY 240\	V = 113 AMPS.		

ELECTRICAL GROUNDING NOTES

- THE INTERIOR METAL COLD WATER PIPING SYSTEM IS TO BE BONDED TO THE SERVICE EQUIPMENT ENCLOSURE, THE GROUNDING CONDUCTOR AT THE SERVICE, THE GROUNDING ELECTRODE OR TO ONE OR MORÉ GROUNDING ELECTRODES USED.
- TO GAS PIPING SYSTEM.

KEYNOTES	 RESIDENTIAL	WATER	METER	WORKSH	HEET
1. 200A SUB PANEL					

3. DRYER VENT. SEE MECH. NOTES FOR CODE REQ'S 4. LP RANGE. SEE SITE PLAN FOR TANK SIZE AND LOCATION.

2. A/C

ELECTRICAL SYMBOLS LEGEND □ DUPLEX OUTLET GFCI OUTLET

CEILING MOUNTED LIGHT FIXTURE WALL MOUNTED LIGHT FIXTURE

SWITCH COMBINATION SMOKE/CO DETECTOR

EXHAUST FAN TO OUTSIDE 5-AIR CHANGES PER HOUR MIN. CEILING FAN OUTLET SWITCH

AND BACKING (LISTED BOX)

RECESSED LIGHT FIXTURE

2.5 2.5 KITCHEN GROUP FULL BATH GROUP 3.6 7.2 | 3.6 LAUNDRY GROUP 2.5 2.5 HOSE BIB 5.0 | 0 2.5 0.7 LAVATORY KITCHEN SINK 1.4 1.4 | 1.4

FIXTURE

UNIT VALUE

 $0 \mid x \quad 2.6 = \mid 2.6 \mid 0$

NOTE: VERIFY PIPE

& METER SIZING W/

PLUMBER/CONTRACTO

NUMBER OF

FIXTURES

EXIST. NEW

TYPE OF FIXTURE

HALF BATH

21.2 | 10.0 31.2 TOTAL TOTAL DEVELOPED LENGTH FROM WATER METER TO THE FURTHEST WATER USING OUTLET: 156' $1\frac{1}{4}$ Existing water supply (ok per code)

MECHANICAL EQUIPMENT NOTE:

3/4" EXISTING WATER METER (OK PER CODE)

FIXTURE UNIT VALUES PER IRC 2018 TABLE P2903.6

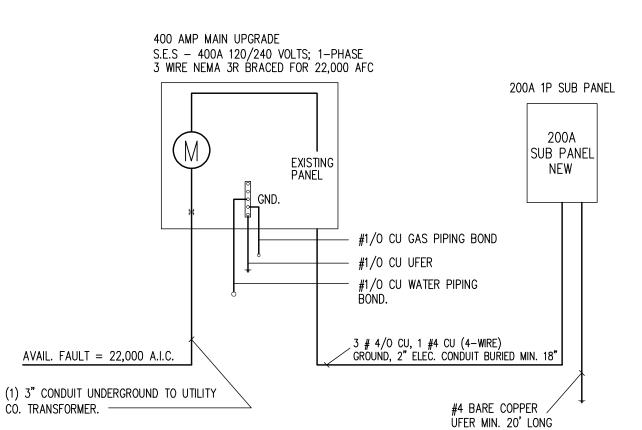
PIPE/METER SIZING VALUES PER IRC 2018 TABLE AP201.1

PRESSURE RANGE 50 TO 60 PSI

MANUFACTURER'S INSTALLATION INSTRUCTIONS, AS REQUIRED BY CODE, SHALL BE AVAILABLE ON THE JOB SITE AT THE TIME OF INSPECTION. (SEC R 106.1.2)

NEW

INL				
LOAD CALC	LOAD CALCULATIONS			
695 S.F. X 3 WATTS		2,085		
MIN. 2 S.A. CIRCUITS	2 X 1500 W	3000		
LAUNDRY CIRCUIT	1 X 1500 W	1500		
REFRIGERATOR	1 X 1500 W	1500		
DRYER	@ 5,000 W	5000		
WATER HEATER	1 X 4500 W	4500		
DISH WASHER	1 X 1500 W	1500		
RANGE (N/A)	0 X 5000 W	0000		
MICROWAVE	1 X 1500 W	1500		
BATHS 1 CIRCUITS	1 X 1500 W	1500		
CARPORTS	1 X 1500 W	1500		
CLOTHES WASHER	1 X 1500 W	1500		
30A RECEPTACLE	2 X 4800 W	9600		
50A RECEPTACLE	1 X 8000 W	8000		
TOTAL		42,685		
FIRST 10 KW. @ 100%		10000		
REMAINDER @ 40 %		13,074		
A/C X 1 9000		9,000		
A/C / X 1 HEAT PUMP 1200		1,200		
TOTAL		33,274		
33,274 DIVIDED BY 240	V = 138.6 AMPS.			



ONE-LINE DIAGRAM

- 1. ALL INTERIOR METALLIC WATER PIPING WHICH MAY BECOME ENERGIZED SHALL BE BONDED TOGETHER AND MADE ELECTRICALLY CONTINUOUS. A BOND OF BARE #4 COPPER WIRE SHALL BE MADE BETWEEN THE BONDED PIPING SYSTEM AND THE ELECTRODE
- 2. 20'0" MIN. BARE COPPER WIRE CONDUCTOR (#4 MIN.) ENCASED BY 2" MIN. OF CONCRETE AT THE BOTTOM OF A FOOTING WHICH IN IN DIRECT CONTACT WITH THE ADJACENT EARTH.
- 4. IF GAS IS PROVIDED, A GAS BOND OF MIN. (BARE #4)

MESA AZ, (ZONE 2B, TABLE N1102.1.2) ENERGY EFFICIENCY:

SECTION N1101.4.1 RESNET TESTING AND INSPECTION PROTOCOL (NEW SECTION BY AMENDMENT) RESIDENTIAL ENERGY SERVICES NETWORK (RESNET) MORTGAGE INDUSTRY NATIONAL HOME ENERGY RATING SYSTEMS STANDARDS PROTOCOL FOR THIRD PARTY TESTING AND INSPECTIONS, SHALL BE DEEMED TO MEET THE REQUIREMENTS OF SECTIONS R402.4.1.1, R402.1.2, R402.2.2 AND MEET THE FOLLOWING CONDITIONS:

1. THIRD PARTY TESTING AND INSPECTIONS SHALL BE COMPLETED BY RESNET CERTIFIED RATERS OR RATED FIELD INSPECTORS AND SHALL BE SUBJECT TO RESNET QUALITY ASSURANCE FIELD REVIEW PROCEDURES.

2. SAMPLING IN ACCORDANCE WITH CHAPTER 6 OF THE RESNET STANDARDS SHALL BE PERFORMED BY RATERS OR RATING FIELD INSPECTORS WORKING UNDER RESNET ACCRED-ITED SAMPLING PROVIDER.

- 3. THIRD PARTY TESTING AND INSPECTIONS REQUIRED FOR THE FOLLOWING ITEMS: A. N1102.4.1.1 - BUILDING ENVELOPE-THERMAL AND AIR BARRIER CHECKLIST; 3RD PARTY INSPECTION; CERTIFICATE TO BE POSTED AT JOBSITE.
- B. N1102.4.1.2 TESTING-AIR LEAK RATE. A WRITTEN REPORT SHALL BE SIGNED AND PROVIDED TO THE BUILDING OFFICIAL
- C. N1103.3.2 SEALING-DUCT TIGHTNESS. A WRITTEN REPORT SHALL BE SIGNED AND PROVIDED TO THE BUILDING OFFICIAL.
- 4. ALTERNATE TESTING AND INSPECTION PROGRAMS AND PROTOCOLS SHALL BE ALLOWED WHEN APPROVED BY THE BUILDING OFFICIAL.

CERTIFICATE (MANDATORY) (N1101.14) PERMANENT CERTIFICATE, COMPLETED BY THE BUILDER OR OTHER APPROVED PARTY, POSTED IN THE SPACE WHERE THE FURNACE IS LOCATED, A UTILITY ROOM OR AN APPROVED LOCATION INSIDE THE BUILDING IS REQUIRED. CERTIFICATE SHALL INCLUDE THE PREDOMINANT R-VALUES OF INSULATION INSTALLED IN CEILINGS, ROOFS WALLS, FOUNDATION COMPONENTS SUCH AS SLABS, BASEMENT WALLS, CRAWL SPACE WALLS AND FLOORS, AND DUCTS OUTSIDE CONDITIONED SPACES; U-FACTORS OF FENESTRATION AND THE SOLAR HEAT GAIN COEFFICIENT (SHGC) OF FENESTRATION AND RESULTS OF THE DUCT SYSTEM AND BUILDING ENVELOPE AIR LEAKAGE TESTING. CERTIFICATE SHALL INDICATE THE TYPES AND EFFICIENCIES OF HEATING, COOLING AND SERVICE WATER HEATING.

ACCESS DOORS FROM CONDITION SPACES TO UNCONDITIONED SPACES SHALL BE WEATHER-STRIPPED AND INSULATED TO A LEVEL EQUIVALENT TO THE INSULATION ON THE SURROUNDING SURFACES. IRC SECTION N1103.1.1.

PER DWELLING UNIT SHALL BE CAPABLE OF CONTROLLING THE HEATING AND COOLING SYSTEM ON A DAILY SCHEDULE TO MAINTAIN DIFFERENT TEMPERATURES THROUGHOUT THE DAY. THE THERMOSTAT SHALL INITIALLY BE PROGRAMMED WITH A HEATING TEMPERATURE SET POINT NO HIGHER THAN 85 DEGREES AND A COOLING TEMPERATURE SET POINT NO LOWER THAN 55 DEGREES. 2018 IRC SECTION N1103.1.1.

AIR DUCT TIGHTNESS SHALL BE VERIFIED BY EITHER THE FOLLOWING; POST CONSTRUCTION TEST OR ROUGH-IN TEST. 2018 IRC SECTION N1103.3.3.

SUPPLY AND RETURN DUCTS WHEN LOCATED OUTSIDE THE THERMAL ENVELOPE TO HAVE A MINIMUM R-8 INSULATION, N1103.3.1 (AMENDED)

A MINIMUM OF 90 PERCENT OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH EFFICIENCY LAMPS OR A MINIMUM OF 75% OF THE PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL CONTAIN ONLY HIGH EFFICACY LAMPS. 2018 IRC SECTION N1104.1.

INSULATION / FENESTRATION: R-19 BATTS' @ EXT 2X6 WALLS - U.N.O. SUPPLY AND RETURN DUCTS R-8 MAX. U-FACTOR 0.40, MAX. SHGC 0.25 FOR ALL FENESTRATION PRODUCTS. R-38 ROOF - U.N.O.

<u>PLUMBING:</u>

PLUMBING FIXTURE FLOW RATES IN ACCORDANCE WITH P2903.2, 2018 IRC.

PRESSURE TEMP. RELIEF VALVE IN ACCORDANCE WITH P2804, P2804.6.1.

INDIVIDUAL SHOWER AN TUB/SHOWER COMBINATION VALVES SHALL HAVE PRESSURE-BALANCE, THERMOSTATIC-MIXING OR COMBINATION PRESSURE-BALANCING/THERMOSTATIC VALVES TYPES IN ACCORDANCE WITH ASSE 1016 OR ASME A12.18.1/CSA B125.1. THE HIGH LIMIT STOP SHALL BE SET TO LIMIT THE WATER TEMPERATURE TO NOT GREATER THAN 120-FAHRENHEIT DEGREES. 2018 IRC SECTION P2708.4.

THE POTABLE WATER SUPPLY SYSTEM TO LAWN IRRIGATION SYSTEMS SHALL BE PROTECTED AGAINST BACKFLOW BY AN ATMOSPHERIC-TYPE VACUUM BREAKER, A PRESSURE-TYPE VACUUM BREAKER OR A REDUCED PRESSURE PRINCIPAL BACKFLOW PREVENTER. A VALVE SHALL NOT BE INSTALLED DOWNSTREAM FROM AN ATMOSPHERIC VACUUM BREAKER. WHERE CHEMICALS ARE INTRODUCED INTO THE SYSTEM, THE POTABLE WATER SUPPLY SHALL BE PROTECTED AGAINST BACKFLOW BY A REDUCED PRESSURE PRINCIPAL BACKFLOW PREVENTER. IRC SECTION P2902.5.3.

THE FLOW VELOCITY OF THE WATER DISTRIBUTION SYSTEM SHALL BE CONTROLLED TO REDUCE THE POSSIBILITY OF WATER HAMMER. A WATER-HAMMER ARRESTOR SHALL BE INSTALLED WHERE QUICK CLOSING VALVES ARE USED. WATER-HAMMER ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURES SPECIFICATIONS. WATER-HAMMER ARRESTORS SHALL CONFORM TO ASSE 1010. 2018 IRC SECTION P2903.5.

WATER SUPPLY AND DISTRIBUTION WILL COMPLY WITH CHAPTER 29 (2018 IRC).

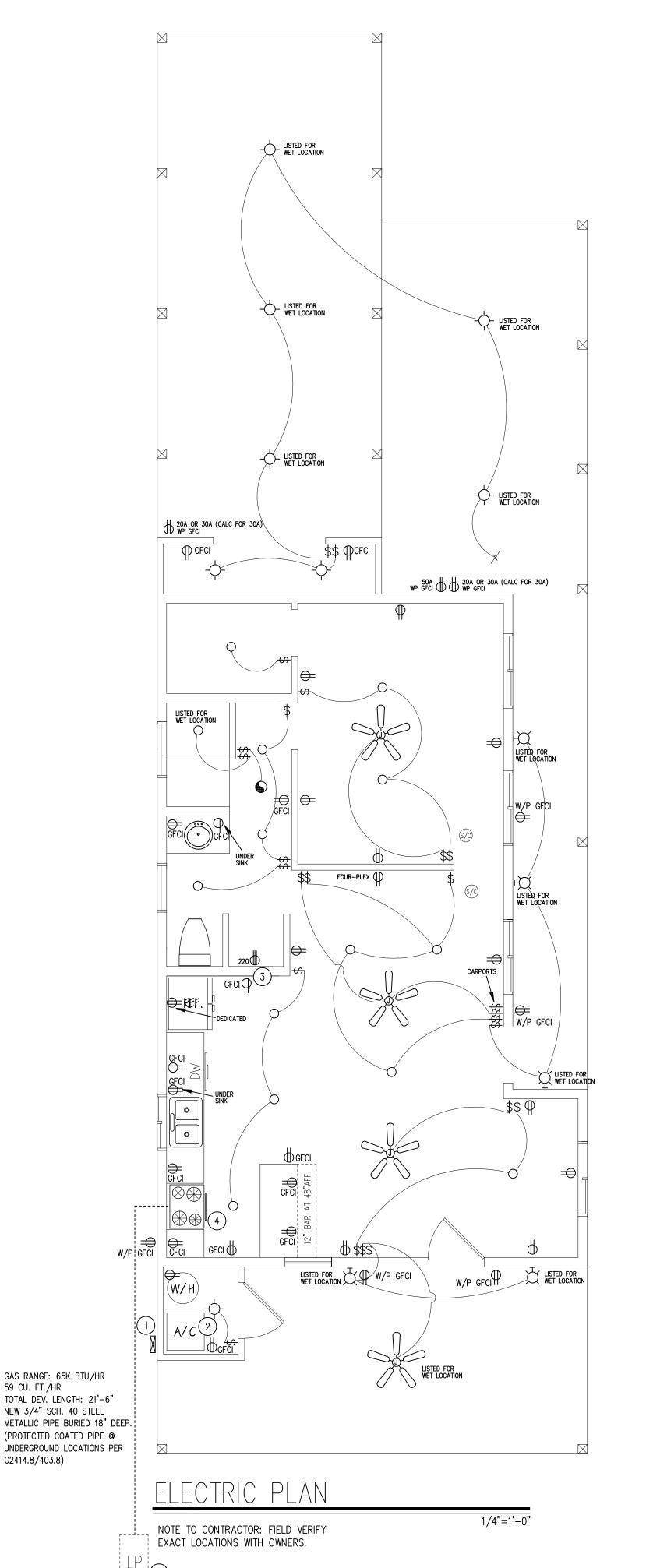
WATER SERVICE PIPE: 3/4" POLYVINYL CHLORIDE (PVC) PLASTIC PIPE ASTM D 1785 (TABLE P2905.4)

WATER DISTRIBUTION PIPE: CROSS-LINKED POLYETHLENE (PEX) PLASTIC TUBING ASTM F 876 (TABLE P2905.5)

SANITARY DRAIN WASTE AND VENT. POLYVINYL CHLORIDE (PVC) PLASTIC PIPE ASTM D 2665 (TABLE P3002.2)

WHEN PROVIDED, HOSE BIBS SHALL HAVE A BACKFLOW DEVICE (P2902.4.3)

MECHANICAL CONTRACTOR TO COORDINATE LOCATION OF MECHANICAL DUCT WORK WITH ELECTRICAL CONTRACTOR, TO AVOID CONFLICT WITH RECESSED AND FIXTURES.



GAS RANGE: 65K BTU/HR

NEW 3/4" SCH. 40 STEEL

59 CU. FT./HR

G2414.8/403.8)

- COMPLY WITH AITC LUMBER CONSTRUCTION STANDARDS LATEST EDITION FOR STRESS GRADE LUMBER CONSTRUCTION.
- EACH PIECE OF LUMBER SHALL BEAR THE GRADE STAMP OF A GRADING RULES
- AGENCY APPROVED BY THE AMERICAN LUMBER STANDARDS COMMITTED EACH PIECE OF LUMBER IN PLACE IN THE STRUCTURE SHALL BE OF THE
- ORIGINAL GRADE SPECIFIED OR BETTER WHEN INSPECTED BY A GRADING AGENCY APPROVED BY THE ALSC, REGARDLESS OF REQUIRED GRADE STAMP AND CERTIFICATIONS. GRADE LOSS RESULTING FROM EFFECTS OF WEEATHERING, HANDLING, STORAGE, RESAWING, DIVIDING LENGTHS, OR CHECKING AT BOLTED JOINTS WILL CAUSE FOR REJECTION
- DO NOT NOTCH OR DRILL JOISTS, BEAMS, OR LOAD BEARING STUDS WITHOUT
- APPROVAL BY STRUCTURAL ENGINEER. DOUBLE UP FLOOR JOISTS UNDER PARTITIONS.
- PROVIDE METAL OR 1 X 3 WOOD CROSS BRIDGING AT 8'-0" O.C. WHEN JOIST DEPTH EXCEEDS 8".
- PROVIDE 2" SOLID BLOCKING AT JOIST SUPPORTS
- DOUBLE UP JOIST AT PIPING OR MECH. UNIT SUPPORT POINTS. MAXIMUM LOAD TO BE 100 LBS. FOR EACH ADDED JOIST.
- DOUBLE UP STUDS AT JAMBS AND UNDER BEAMS.
- STUDS SHALL BE CONTINUOUS (NOT SPLICED) BETWEEN ROOF AND FLOOR LEVELS. PARAPETS SHALL BE FRAMED FROM STUDS PASSING UNSPLICED ABOVE THE ROOF OR FLOOR LEVELS
- PROVIDE 2 X 4 SOLID BLOCKING AT PLYWOOD EDGES OF ROOF OR FLOOR SHEATHING WHICH ARE PARALLEL TO AND WITHIN 4'-0" OF ANY SHEAR WALLS
- NO UNBLOCKED PLYWOOD FLOOR OR ROOF SHEATHING PANELS LESS THAN 12"
- PLYWOOD ROOF OR FLOOR SHEATHING SHALL BEAR 2" MINIMUM ON LEDGERS AT MASONRY OF CONCRETE WALLS.
- EACH 2X MEMBER OF A MULTIPLE MEMBER (BUILT-UP) BEAM OR COLUMN SHALL BE CONTINUOUS AND UNSPLICED BETWEEN SUPPORTS OR FLOORS AND SHALL BE NAILED TO EACH OTHER WITH 16d AT 12" O.C. STAGGERED
- CONNECTIONS:

PANEL EDGE.

- SEE TABLE R602.3 OF THE 2018 I.R.C. CODE FOR NAILING NOT SPECIFICALLY CALLED OUT ON THE DRAWINGS. USE COMMON NAILS.
- MAKE FRAMED CONNECTIONS WITH ICBO APPROVED FRAMING ANCHORS ON EACH SIDE OF JOIST OR HANGERS BY SIMPSON, TECO OR K.C.
- NAIL PLYWOOD WITH (8)d COMMON AT 6" ALL EDGES AND BOUNDARIES AND 12" AT INTERMEDIATE SUPPORTS FOR ROOFS USE 8(d) NAILS FOR PLYWOOD WALL SHEATHING WITH NAIL SPACING PER S.W. DETAIL 1 SHT. #7 NAILS SHALL BE PLACED NOT LESS THAN 3/8" IN FROM THE
- PLYWOOD SHEATHING NAILS OR OTHER APPROVED SHEATHING CONNECTIONS SHALL BE DRIVEN FLUSH, BUT SHALL NOT FRACTURE THE SURFACE OF THE SHEATHING.
- HOLES FOR NAILS SHALL BE SUBDRILLED WHERE DRIVING CAUSES SPLITTING
- AND WHEN THE NAILS ARE LARGER THAN 20d. FIELD DRILL BOLTS HOLES FOR PROPER MATCHING AND BEARING
- PROVIDE CUT WASHERS AT BOLTS IN WOOD WITHOUT STEEL PLATES.
- AT LEDGERS AND PLATES, PROVIDE ANCHOR BOLTS AT A MINIMUM OF 6" AND A MAXIMUM OF 12" FROM EACH END OF EACH PIECE.
- HOLES IN WOOD PLATES SHALL BE NO MORE THEN 1/16" LARGER THAN THE DIAMETER OF THE BOLTS. CUT WASHERS SHALL BE USED AND NUTS SHALL BE TIGHTENED SECURELY.
- FIELD DRILL HOLES FOR NAILS 16d OR LARGER. WHEN SPACED LESS THAN 4" O.C. IN THE SAME ROW PARALLEL TO THE GRAIN IN 2X LUMBER. BUILT UP MEMBERS OF 2X LUMBER, OR PREFABRICATED WOOD TRUSS MEMBERS.
- NAILS THAT ARE SHORTER THAN STANDARD LENGTH, i.e. METAL JOIST HANGER NAILS, SHALL BE USED ONLY FOR LIGHT GAGE STEEL STRAPS, ANCHORS, OR HANGERS WITH 1-1/8" MINIMUM PENETRATION INTO THE SUPPORTING MEMBER.
- COUNTERSINK ANCHOR BOLTS IN PLATES AND LEDGERS ONLY IF CALLED OUT ON THE STRUCTURAL DRAWINGS.
- WHERE PROPRIETARY METAL ANCHORS, HANGERS, SEATS, COLUMN, CAPS, ETC., ARE CALLED OUT, ALL AVAILABLE HOLES SHALL CONTAIN THE APPROPRIATE NAIL OR BOLT AS REQUIRED BY THE MANUFACTURER.
- ALL JOIST AND BEAMS SHALL HAVE FULL BEARING ON THE JOIST HANGER, COLUMN CAP, OR BEAM SEAT AS APPLICABLE. SHAPE THE BOTTOM OF THE JOIST OR BEAM TO PROVIDE THIS FULL BEARING.
- WHERE BOLTS ARE SHOWN, NOTED, OR REQUIRED FOR STRAPS, COLUMN CAPS, HANGERS, SEATS, ETC., THEY SHALL BE MACHINE BOLTS EXTENDING COMPLETELY THROUGH THE MEMBERS AND SECURED BY NUTS.

STRUCTURAL SAWN LUMBER:

- S-DRY, 19% MAX. MOISTURE CONTENT AND FINISHED S4S.
- JOIST, LEDGERS, AND BEAMS SHALL BE OF DOUGLAS FIR LARCH
- #2 OR BETTER: TIMBERS, BEAMS, STRINGERS, COLUMNS - 5X5 AND LARGER:
- DOUGLAS FIR-LARCH, SELECT STRUCTURAL.
- COLUMNS: UNEXPOSED, DOUGLAS FIR-LARCH EXPOSED, DOUGLAS FIR-LARCH,
- AND SELECTED FOR FREEDOM FROM BLEMISHES. STUDS: HEM FIR #2 (EXTERIOR); HEM FIR STUD GRADE INTERIOR.

GLULAM BEAMS:

- SEE PLANS FOR REQUIRED CAMBERS. WHERE NO CAMBER IS INDICATED, PROVIDE CAMBER OF 1800 FOOT RADIUS BETWEEN SUPPORTS.
- FABRICATION AND HANDLING PER LATEST AITC STANDARDS. EACH BEAM SHALL
- BEAR AITC STAMP WITH CERTIFICATE INDICATING SPECIES AND STRESS GRADE. GLULAMS TO BE ARCHITECTURAL APPEARANCE GRADE.
- FABRICATE WITH WATER RESISTANT GLUE FOR INTERIOR CONDITIONS AND
- WATERPROOF GLUE FOR EXPOSED CONDITIONS. E. GRADE: 24F/V4 OR BETTER, DF/DF.

5. PLYWOOD:

- ROOF SHEATHING: APA STRUCTURAL II RATED, EXPOSURE 1. (PS 1& PS2) 15/32" MINIMUM WITH SPAN RATING 32/16. LAY UP WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. PLYWOOD TO BE CONTINUOUS OVER 2 SPANS MINIMUM. STAGGER JOINTS COMPLY WITH I.B.C. 2306.3.1
- WALL SHEATHING: APA STRUCTURAL II RATED, EXPOSURE 1, (PS 1) 3/8" WITH SPAN RATING OF 24/0. ALL UNSUPPORTED PLYWOOD EDGES SHALL BE BLOCKED WITH 2X4 LUMBER AND EDGE NAILED, COMPLY WITH I.B.C. 2306.4.1 (ANY SPECIES EXCEPT GROUP 5).

<u>CONCRETE</u>

- CONCRETE QUALITY: CONFORM TO ACI 301 AND ACI 318.
- CONCRETE REGULAR WEIGHT (144 PCF) WITH TYPE II CEMENT PER ASTM C150 AGGREGATE PER ASTM C33 AND POTABLE WATER. IF FLY ASH IS USED AS A PARTIAL REPLACEMENT FOR PORTLAND CEMENT, ITS CONTENT SHALL NOT BE LESS THAN 15% NOR MORE THAN 25% OF THE TOTAL CEMENT. FLY ASH SHALI CONFORM TO THE REQUIREMENTS OF ASTM C618. CLASS F.
- AGGREGATE SIZE: 1-1/2" MAX. FOR FOOTINGS, CAISSONS, AND OTHER MASS CONCRETE AND 3/4" MAX. FOR OTHER CONCRETE.
- SLAB FINISH TO BE TESTED WITH A 10 FOOT STRAIGHT EDGE TO DETECT HIGH AND LOW SPOTS. A TOLERANCE OF 3/16" WILL BE ALLOWED IN A 10 FT. LENGTH.
- MINIMUM 28 DAY COMPRESSIVE STRENGTH: 3,000 PSI
- MAXIMUM SLUMP: 4-1/2" FOR REGULAR WEIGHT CONCRETE.
- DO NOT CAST WALLS IN LENGTHS OVER 60"-0"
- WAIT 48 HOURS BETWEEN ADJACENT CONCRETE CASTINGS.
- CAST SLABS ON GRADE WITH CONSTRUCTION AND CONTROL JOINTS AS SHOWN ON THE PLANS.
- 10. DO NOT TAMP SLABS.
- 11. CURE CONCRETE MEMBERS AND SLABS WITH POLYETHYLENE FOR 5 DAYS OR WITH A CURING COMPOUND.
- CONCRETE WHICH DURING THE LIFE OF THE STRUCTURE WILL BE SUBJECT TO FREEZING TEMPERATURES WHILE WET, SHALL HAVE A WATER-CEMENT RATIO NOT EXCEEDING 0.50 AND SHALL CONTAIN ENTRAINED AIR PER ACI 301.
- DO NOT PLACE PIPES, DUCTS, REGLETS, OR CHASES IN STRUCTURAL CONCRETE WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT SEE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR LOCATIONS
- 14. NON-SHRINK CEMENT GROUT BELOW COLUMN BASE PLATES, ETC. NON METALLIC FLOWABLE, HIGH STRENGTH - 4000 PSI MINIMUM COMPRESSIVE STRENGTH AT 7 DAYS. CONFORM WITH CRD-C 621. SUBMIT MANUFACTURER AND TYPE OF GROUT BEFORE USING.
- 15. EPOXY: POURABLE, NON-SHRINK, 100% SOLIDS FORMULA 5500 PSI MINIMUM COMPRESSIVE STRENGTH AT 24 HOURS CONFORMING TO ASTM C881. SUBMIT MANUFACTURER AND DATA BEFORE USING.
- MINIMUM STRENGTH FOR REMOVAL OF BOTTOM FORMWORK FOR SUSPENDED FLOOR MEMBERS SHALL BE 75% OF SPECIFIED STRENGTH AT 28 DAYS.
- MECHANICALLY VIBRATE CONCRETE. EXCEPT THAT SLABS ON GRADE NEED BE VIBRATED ONLY AROUND UNDER-FLOOR DUCTS AND OTHER ITEMS EMBEDDED IN THE SLAB.
- PLACEMENT OF SLEEVES FOR PIPING OR CONDUIT IN CONCRETE WALLS, ELEVATED SLABS AND OTHER CONCRETE MEMBERS MUST BE APPROVED BY THE STRUCTURAL **ENGINEER**
- 19. DESIGN FORMWORK FOR THE LOADS AND LATERAL PRESSURES OUTLINED IN ACI-347 AND WIND LOADS AS SPECIFIED BY THE LOCAL CODES. DESIGN CONSIDERATIONS AND ALLOWABLE STRESSES SHALL MEET ACI-347 AND THE APPLICABLE REQUIREMENTS OF THE LOCAL CODES.

REINFORCING

- ASTM A-615 (60) EXCEPT AS FOLLOWS:
 - #3 AND LOWER: ASTM A-615, GRADE 40.
 - BEAM AND GIRDER STIRRUPS AND COLUMN TIES: ASTM A-615, GRADE 40.
 - WELDED: ASTM A706.
 - WELDED PLAIN WIRE FABRIC: ASTM A-185.
- REINFORCING BARS DEFORMED EXCEPT #2 BARS AND WELDED PLAIN WIRE FABRIC.
- CONCRETE COVERAGE FOR REINFORCING BARS (TO FACE OF BAR INCLUDING
- STIRRUPS, TIES AND SPIRALS) EXCEPT AS SHOWN OR NOTED: UNFORMED CONCRETE IN CONTACT WITH EARTH: 3".
- FORMED CONCRETE IN CONTACT WITH EARTH: 2" #6 BAR AND LARGER; 1-1/2" - #5 BAR AND SMALLER.
- WALL EXTERIOR FACE: 2".
- WALL INTERIOR FACE: 1".
- BEAMS, GIRDERS AND COLUMNS: 1-1/2" BAR AND SMALLER; 2" #6 BAR AND LARGER.
- 4. LAP SPLICES IN CONCRETE: 36 BAR DIAMETERS
 - A. LAP SPLICES IN WELDED WIRE FABRIC: 2 MESH SPACES BUT NOT LESS THAN 6".
- LAP SPLICES IN MASONRY: 48 BAR DIAMETERS.
- SPLICE REINFORCING ONLY AT APPROVED LOCATIONS. REINFORCING SPACINGS GIVEN ARE MAXIMUM ON CENTER AND ALL REINFORCING
- IS CONTINUOUS UNLESS OTHERWISE NOTED. PROVIDE BENT CORNER REINFORCING TO MATCH AND LAP WITH HORIZONTAL
- REINFORCING AT CORNERS AND INTERSECTIONS OF WALLS, BEAMS AND FOOTINGS PER A.C.I. DETAILING MANUAL ACI 315-80.
- DOWEL ALL VERTICAL REINFORCING TO FOUNDATIONS, UNLESS OTHERWISE NOTED ON DRAWINGS.
- SECURELY TIE ALL REINFORCING AND EMBEDDED ITEMS IN POSITION BEFORE PLACING CONCRETE OR GROUT.
- REINFORCING PLACEMENT, BAR BENDS, AND STANDARD HOOKS PER ACI 318-83 AND C.R.S.I. STANDARDS. WELDING AS AN AID TO FABRICATION AND/OR INSTALLATION WILL NOT BE
- PERMITTED EXCEPT AS SPECIFICALLY SHOWN BY THE CONTRACT DRAWINGS, OR AS APPROVED BY THE STRUCTURAL ENGINEER. WELDED WIRE FABRIC SHALL BE PLACED 1" CLEAR FROM THE TOP OF CONCRETE
- SLABS ON GRADE. REINFORCING SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS.
- PROVIDE REBAR DOWEL SPLICES ASSEMBLIES (TAPER-THREADED) BY ERICO PRODUCTS, INC. OR EQUAL, WHERE REBAR DOWELS CANNOT PENETRATE THROUGH
- SUBMIT PLACING DRAWINGS PER A.C.I. DETAILING MANUAL ACI 315-80. FABRICATE AFTER ENGINEER'S REVIEW. INCLUDE ELEVATIONS SHOWING REINFORCING STEEL AT ALL CONCRETE AND MASONRY WALLS, AND AT ALL

FASTENER SCHEDULE FOR STRUCTURAL MEMBERS TABLE R602.3(1)

DESCRIPTION OF BUILDING ELEMENTS	-NUMBER, TYPE & SPACING (a,b,c,d)
DESCRIPTION OF BUILDING ELEMENTS JOIST TO SILL OR GIRDER, TOE-NAIL 1" x 6" SUBFLOOR OR LESS TO EACH JOIST, FACE NA	3-8d
1" x 6" SUBFLOOR OR LESS TO EACH JOIST, FACE NA	AIL2-8d or $2-1$ $3/4$ " STAPLES
2" SUBFLOOR TO JOIST OR GIRDER, BLIND OR FACE N	IAIL 2-16d
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL———	16d AT 16 O.C.
TOP OR SOLE PLATE TOPMAN	
DOUBLE STUDS FACE NAIL	(3-6d), UR (2-16d)
2" SUBFLOOR TO JOIST OR GIRDER, BLIND OR FACE N SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL——— TOP OR SOLE PLATE TO STUD, END NAIL————————————————————————————————————	10d AT 24 0.C.
SOLE PLATE TO JOIST OR BLOCKING (0) BRACED WALL	PANELS====================================
DOUBLE TOP PLATES, LAP SPLICE MIN 48"OFFSET OF BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL————————————————————————————————————	END JOINTS8-16d
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLAT	TE, TOENAIL 3-8d
RIM JOIST TO TOP PLATE, TOENAIL	8d AT 6" O.C.
TOP PLATES, LAPS @ CORNERS AND INTERSECTION, F	ACE NAIL2-10d
BUILT-UP OR CONT. HEADER. (2) PIECE w/ 1/2" SPA	ACER16d AT 16" O.C. ALONG EDGE
CEILING JOIST TO PLATE, TOÉ-NÁIL	3-8d
CONTINUOUS HEADER TO STUD, TOE-NAIL	4-8d
CEILING JUISTS, LAPS OVER PARTITIONS, FACE NAIL	3-10d
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL—— CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL—— RAFTER TO PLATE, TOE—NAIL———————————————————————————————————	
1" BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8d or 2-1 3/4" STAPLES
1" x 6" SHEATHING OR LESS TO EACH BEARING, FACE	E NAIL2-8d or 2-1 3/4" STAPLES
1" x 8" SHEATHING OR LESS TO EACH BEARING, FACE	E NAIL2-8d or 3-1 3/4" STAPLES
WIDER THAN 1" x 8" SHEATHING TO EA. BRG., FACE I BUILT-UP CORNER STUDS	NAIL $3-8d$ or $4-1 3/4$ " STAPLES
BUILT-UP CORNER STUDS	10d AT 24" O.C.
BUILT-UP GIRDER AND BEAMS, 2" LUMBER LAYERS	10d AT 32" O.C. AT T & B AND
STAGGERE 2" PLANKS	D. 2-10d AT EACH SPLICE & @ ENDS
Z PLANKS	(2-16d) AT EACH BEARING
ROOF RAFTERS TO RIDGE, VALLEY OR HIP RAFTERS—-RAFTER TIES TO RAFTERS, FACE————————————————————————————————————	4-100 IUENAIL OF 3-100 FACENAIL
TALLE TO RALLERS, LAGE ====================================	
WOOD OTDINGTIED AT DANIELO AND DADTIG	

WOOD STRUCTURAL PANELS AND PARTICLE BOARD

SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING)

5/16"- 1/2"---(SUBFLOOR, WALL) 6d COMMON, 6"O.C. EDGES(I), 12"O.C. INTERMEDIATE(G) 5/16"- 1/2"----(ROOF) 8d COMMON(F.), 6"O.C. EDGES(I), 12"O.C. INTERMEDIATE(G) 1-1/8"-1-1/4"-8d COMMON or 6d DEFORMED, 6"O.C. EDGES(I), 12"O.C. INTERMEDIATE(G)

OTHER WALL SHEATHING (h):

REGULAR CELLULOSIC FIBERBOARD SHEATHING:

1/2" -----1 1/2" GA. ROOFING NAIL, 6d COMMON or STAPLE 1 3/4"(b,c,d,e) 3"O.C. EDGES(I), 6"O.C. INTÉRMEDIATE(c,e)

STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING

1/2" -----1 1/2" GA. ROOFING NAIL; 8d COMMON or STAPLE 1 3/4"(b,c,d,e) 3"O.C. EDGES(i), 6"O.C. INTÉRMEDIATE(c,e) 25/32" -----1 3/4" GA. ROOFING NAIL; 8d COMMON or STAPLE 1 3/4"(b,c,d,e) 3"O.C. EDGES(i), 6"O.C. INTERMEDIATE(c,e)

GYPSUM SHEATHING

1/2" (H)---1 1/2" GA. ROOFING NAIL; 6d COMMON or STAPLE GA. 1 1/2";1 1/4 SCREWS TYPE W OR S.(b,c,d,e) 4"O.C. EDGES(i), 8"O.C. INTERMEDIATE(c,e) 5/8" (H)---1 3/4" GA. ROOFING NAIL; 8d COMMON or STAPLE GA. 1 5/8"; 1 1/4 SCREWS TYPE W OR S.(b,c,d,e) 4"O.C. EDGES(i), 8"O.C. INTERMEDIATE(c,e)

COMBINATION SUBFLOOR - UNDERLAYMENT (TO FRAMING)

3/4" AND LESS---8d COMMON or 6d DEFORMED, 6"O.C. EDGES(i), 12"O.C. INTERMEDIATE(g) 7/8"- 1"---- 8d COMMON or 8d DEFORMED, 6"O.C. EDGES(i), 12"O.C. INTERMEDIATE(g) 1-1/8"-1-1/4"-10d COMMON or 8d DEFORMED, 6"O.C. EDGES(i), 12"O.C. INTERMEDIATE(q)

NAILING SCHEDULE NOTES

- FOR SI: 1 INCH = 25.4 MM, 1 FOOT = 304.8 MM, 1 MILE PER HOUR = 1.609 KM/H. a. ALL NAILS ARE SMOOTH-COMMON, BOX OR DEFORMED SHANKS EXCEPT WHERE OTHERWISE STATED. NAILS USE D FOR FRAMING AND SHEATHING CONNECTIONS SHALL HAVE MINIMUM AVERAGE BENDING YIELD STRENGTHS AS SHOWN; 80ksi (51MPa) FORSHANK DIAMETER OF 0.192 INCH (20d COMMON NAIL), 90ksi(6220MPa) FOR SHANK DIAMETERS LARGER THAN 0.142 INCH BUT NOT LARGER THAN 0.177 INCH, AND 100 ksi (689 MPa)
- FOR SHANK DIAMETERS OF 0.142 INCH OR LESS. b. STAPLES ARE 16 GAGE WIRE AND HAVE A MINIMUM 7/16-INCH ON DIAMETER CROWN

c. NAILS SHALL BE SPACED AT NOT MORE THAN 6 INCHES ON CENTER AT ALL SUPPORTS

- WHERE SPANS ARE 48 INCHES OR GREATER. d. FOUR-FOOT-BY-8-FOOT OR 4-FOOT-BY-9-FOOT PANELS SHALL BE APPLIED VERTICALLY.
- e. SPACING OF FASTENERS NOT INCLUDED IN THIS TABLE SHALL BE BASED ON TABLE R602.3(1).
- f. FOR REGIONS HAVING BASIC WIND SPEED OF 110 MPH OR GREATER, 8d DEFORMED NAILS SHALL BE USED FOR ATTACHING PLYWOOD AND WOOD STRUCTURAL PANEL ROOF SHEATHING TO FRAMING WITHIN MINIMUM 48-INCH DISTANCE FROM GABLE END WALLS, IF MEAN ROOF HEIGHT IS MORE THAN 25 FEET, UP TO 35 FEET MAXIMUM.
- g. FOR REGIONS HAVING BASIC WIND SPEED OF 100 MPH OR LESS, NAILS FOR ATTACHING WOOD STRUCTURAL PANEL ROOF SHEATHING TO GABLE END WALL FRAMING SHALL BE SPACED 6 INCHES ON CENTER WHEN BASIC WIND SPEED IS GREATER THAN 80 MPH, NAILS FOR ATTACHING PANEL ROOF SHEATHING TO INTERMEDIATE SUPPORTS SHALL BE SPACED 6 INCHES ON CENTER FOR MINIMUM 48-INCH DISTANCE FROM RIDGES, EAVES AND
- GABLE END WALLS; AND 4 INCHES ON CENTER TO GABLE END WALL FRAMING. h. GYPSUM SHEATHING SHALL CONFORM TO ASTMC 79 AND SHALL BE INSTALLED IN ACCORDANCE WITH GA253. FIBERBOARD SHEATHING SHALL CONFORM TO EITHER AHA194.1 OR ASTM C 208.
- i. SPACING OF FASTENERS ON FLOOR SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND AT ALL FLOOR PERIMETERS ONLY. SPACING OF FASTENERS ON ROOF SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND AT ALL ROOF PLANE PERIMETERS. BLOCKING OF ROOF OR FLOOR SHEATHING PANEL EDGES PERPENDICULAR TO THE FRAMING MEMBERS SHALL NOT BE REQUIRED EXCEPT AT INTERSECTION OF ADJACENT ROOF PLANES. FLOOR AND ROOF PERIMETER SHALL BE SUPPORTED BY FRAMING MEMBERS OR SOLID BLOCKING.

H

 \mathcal{O} \vdash

PL 20 TH 7 77 AZ \geqslant 111 MES

DATE 07/28/22 DRAWN

JOB NO. SHEET:

COMPLY WITH THE 2018 I.R.C. CODES.

DESIGN LOADS AND G.S.N.

- 1. DEAD LOADS: 15 PSF
- 2. LIVE LOADS: 20 PSF
- 3. LATERAL LOADS:
- A. WIND: 115 MPH, 3 SECOND GUST, EXPOSURE 'C'.
 B. SEISMIC: DESIGN CATEGORY B
- 4. FOOTINGS SHALL BEAR AT 2'-0" MINIMUM BELOW LOWEST ADJACENT FINISH GRADE WITHIN 5'-0" OF THE FOOTING. AN ALLOWABLE SOIL BEARING OF 1,500 PSF PER 2018 IRC.
- 5. CONCRETE QUALITY: CONFORM TO ACI 301 AND ACI 318. MINIMUM 28 DAY COMPRESSIVE STRENGTH: 2,500 PSI
- 6. ASTM A-615 (REINFORCING GRADE 60)
- 7. U.N.O. STRUCTURAL MEMBERS SHALL BE FASTENED PER. TABLE R602.3(1) 2018 I.R.C.
- 8. ALL GLULAM BEAMS SHALL BE 24F-V4 DF/DF OR BETTER

TJI JOISTS SHALL BE INSTALLED AND HANDLED PER MFR MANUAL / SPECIFIER'S GUIDE. THE SPECIFIER'S GUIDE WILL BE ON THE JOBSITE AT ALL TIMES FOR THE CONTRACTOR AND CITY INSPECTOR. THE GUIDE CONTAINS A ROOF SPAN TABLE WHICH WAS USED TO DETERMINE WHAT SIZE AND SERIES JOISTS WERE NEEDED. THE GUIDE ALSO CONTAINS ADDITIONAL FRAMING DETAILS AND FRAMING HARDWARE APPROVED FOR TJI APPLICATIONS.

REFER TO TJI INSTALLATION GUIDE FOR DETAILS NOT CALLED OUT.

SEE SHEARWALL SCH. ON SHT. A-1 FOR A.B. SPACING AT SHEARWALLS

R318.1 SUBTERRANEAN TERMITE CONTROL METHOD:

1. CHEMICAL TERMITICIDE TREATMENT AS PROVIDED IN SECTION R318.2.

REFER TO DETAILS FOR FTG SIZES NOT CALLED OUT.

FTG. SCH.

1 10: 0011:		
F-1	24"X24"X18" W/ (3) #4 E/W.	
F-2	36"X36"X18" W/ (3) #4 E/W.	
F-3	24"X18" CONT. W/ (2)#4 CONT.	

H SIMP. STHD14 HOLDOWN
(2) 2X STUD END POST
(30)-16D SINKER NAILS TO POST
WET SET STRAP

NON DOO LIEADED COLIEDUI E			
NON-BRG. HEADER SCHEDULE			
SIZE	MAX. SPAN		
2-2 × 6	UP TO 6'-0" MAX.		
2-2 × 8	UP TO 8'-0" MAX.		
2-2 x 10	UP TO 10'-0" MAX.		

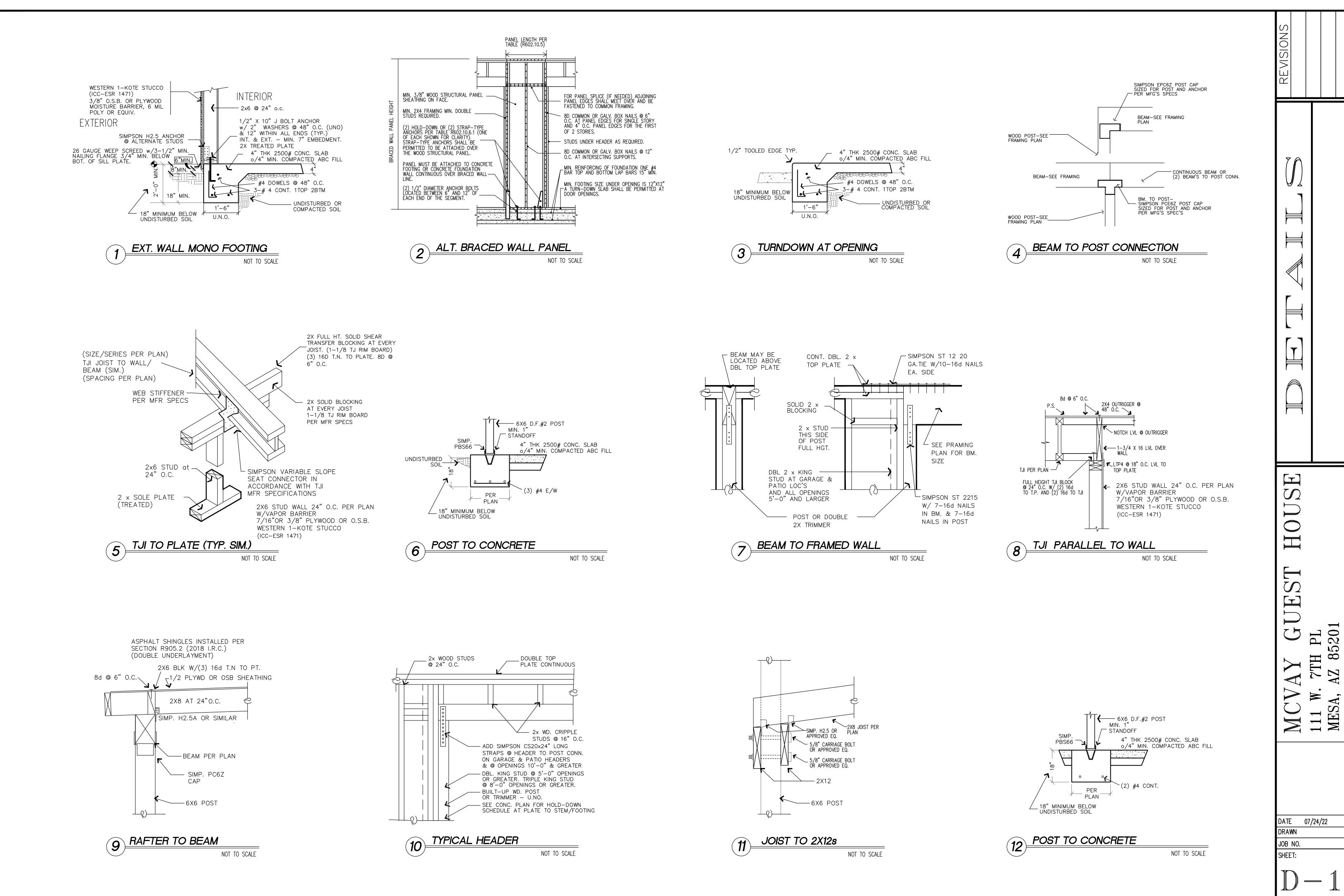
NOTE: THIS SCHEDULE MAY BE USED ONLY IN SITUATIONS WHERE NO OTHER HEADER/ BEAM HAS BEEN CALLED OUT.

Y GUEST HOUSE

1 W. 7TH PL ESA, AZ 85201

DATE 09/28/22
DRAWN
JOB NO.

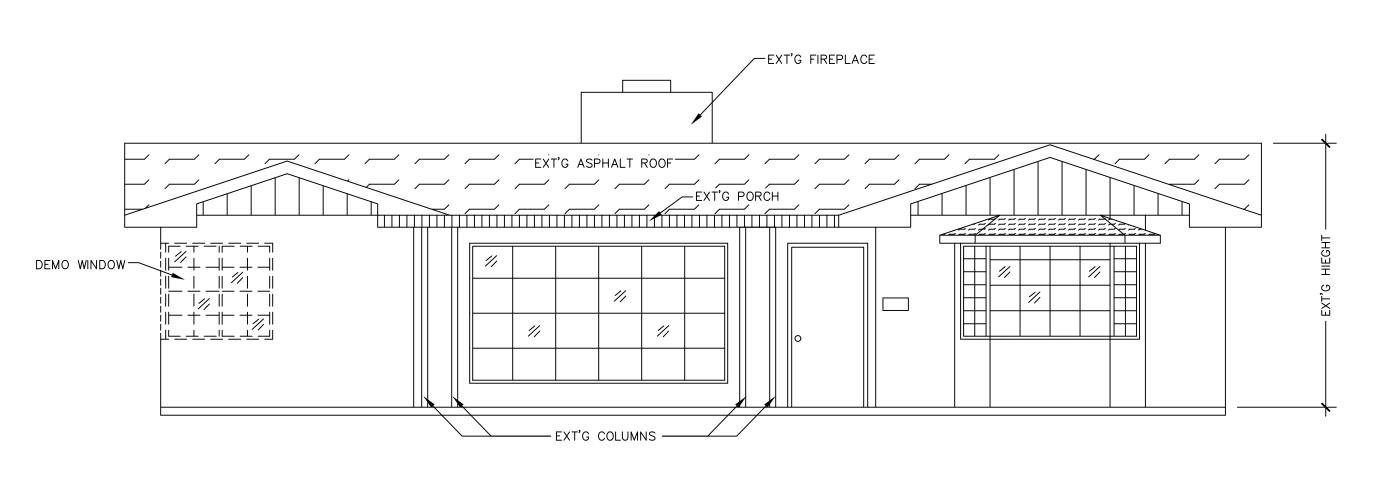
SHEET:



H $\overline{}$ 区 区 7TH PL \Z 85201

DATE 07/24/22

DRAWN JOB NO.



1 ELEVATION - FRONT EXT'G

