

# HISTORIC AND DESIGN REVIEW COMMISSION

February 16, 2022

**HDRC CASE NO:** 2022-070  
**ADDRESS:** 635 V.F.W. BLVD  
**LEGAL DESCRIPTION:** NCB 8618 BLK LOT 7  
**ZONING:** C-2, H  
**CITY COUNCIL DIST.:** 3  
**DISTRICT:** Mission Historic District  
**APPLICANT:** Abraham Diaz/City of San Antonio  
**OWNER:** NATIVIDAD MARIA E  
**TYPE OF WORK:** Construction of a 1-story, single family residential structure  
**APPLICATION RECEIVED:** January 24, 2022  
**60-DAY REVIEW:** Not applicable due to City Council Emergency Orders  
**CASE MANAGER:** Edward Hall

## REQUEST:

The applicant is requesting a Certificate of Appropriateness for approval to construct a 1-story, single-family residential structure at 635 VFW Boulevard, located within the Mission Historic District.

## APPLICABLE CITATIONS:

*Historic Design Guidelines, Chapter 4, Guidelines for New Construction*

### 1. Building and Entrance Orientation

#### A. FAÇADE ORIENTATION

- i. Setbacks*—Align front facades of new buildings with front facades of adjacent buildings where a consistent setback has been established along the street frontage. Use the median setback of buildings along the street frontage where a variety of setbacks exist. Refer to UDC Article 3, Division 2. Base Zoning Districts for applicable setback requirements.
- ii. Orientation*—Orient the front façade of new buildings to be consistent with the predominant orientation of historic buildings along the street frontage.

#### B. ENTRANCES

- i. Orientation*—Orient primary building entrances, porches, and landings to be consistent with those historically found along the street frontage. Typically, historic building entrances are oriented towards the primary street.

### 2. Building Massing and Form

#### A. SCALE AND MASS

- i. Similar height and scale*—Design new construction so that its height and overall scale are consistent with nearby historic buildings. In residential districts, the height and scale of new construction should not exceed that of the majority of historic buildings by more than one-story. In commercial districts, building height shall conform to the established pattern. If there is no more than a 50% variation in the scale of buildings on the adjacent block faces, then the height of the new building shall not exceed the tallest building on the adjacent block face by more than 10%.
- ii. Transitions*—Utilize step-downs in building height, wall-plane offsets, and other variations in building massing to provide a visual transition when the height of new construction exceeds that of adjacent historic buildings by more than one-half story.
- iii. Foundation and floor heights*—Align foundation and floor-to-floor heights (including porches and balconies) within one foot of floor-to-floor heights on adjacent historic structures.

#### B. ROOF FORM

- i. Similar roof forms*—Incorporate roof forms—pitch, overhangs, and orientation—that are consistent with those predominantly found on the block. Roof forms on residential building types are typically sloped, while roof forms on nonresidential building types are more typically flat and screened by an ornamental parapet wall.

*ii. Façade configuration*—The primary façade of new commercial buildings should be in keeping with established patterns. Maintaining horizontal elements within adjacent cap, middle, and base precedents will establish a consistent street wall through the alignment of horizontal parts. Avoid blank walls, particularly on elevations visible from the street. No new façade should exceed 40 linear feet without being penetrated by windows, entryways, or other defined bays.

#### D. LOT COVERAGE

*i. Building to lot ratio*—New construction should be consistent with adjacent historic buildings in terms of the building to lot ratio. Limit the building footprint for new construction to no more than 50 percent of the total lot area, unless adjacent historic buildings establish a precedent with a greater building to lot ratio.

### 3. Materials and Textures

#### A. NEW MATERIALS

*i. Complementary materials*—Use materials that complement the type, color, and texture of materials traditionally found in the district. Materials should not be so dissimilar as to distract from the historic interpretation of the district. For example, corrugated metal siding would not be appropriate for a new structure in a district comprised of homes with wood siding.

*ii. Alternative use of traditional materials*—Consider using traditional materials, such as wood siding, in a new way to provide visual interest in new construction while still ensuring compatibility.

*iii. Roof materials*—Select roof materials that are similar in terms of form, color, and texture to traditionally used in the district.

*iv. Metal roofs*—Construct new metal roofs in a similar fashion as historic metal roofs. Refer to the Guidelines for Alterations and Maintenance section for additional specifications regarding metal roofs.

*v. Imitation or synthetic materials*—Do not use vinyl siding, plastic, or corrugated metal sheeting. Contemporary materials not traditionally used in the district, such as brick or simulated stone veneer and Hardie Board or other fiberboard siding, may be appropriate for new construction in some locations as long as new materials are visually similar to the traditional material in dimension, finish, and texture. EIFS is not recommended as a substitute for actual stucco.

### 4. Architectural Details

#### A. GENERAL

*i. Historic context*—Design new buildings to reflect their time while respecting the historic context. While new construction should not attempt to mirror or replicate historic features, new structures should not be so dissimilar as to distract from or diminish the historic interpretation of the district.

*ii. Architectural details*—Incorporate architectural details that are in keeping with the predominant architectural style along the block face or within the district when one exists. Details should be simple in design and should complement, but not visually compete with, the character of the adjacent historic structures or other historic structures within the district.

Architectural details that are more ornate or elaborate than those found within the district are inappropriate.

*iii. Contemporary interpretations*—Consider integrating contemporary interpretations of traditional designs and details for new construction. Use of contemporary window moldings and door surroundings, for example, can provide visual interest while helping to convey the fact that the structure is new. Modern materials should be implemented in a way that does not distract from the historic structure.

### 5. Garages and Outbuildings

#### A. DESIGN AND CHARACTER

*i. Massing and form*—Design new garages and outbuildings to be visually subordinate to the principal historic structure in terms of their height, massing, and form.

*ii. Building size*—New outbuildings should be no larger in plan than 40 percent of the principal historic structure footprint.

*iii. Character*—Relate new garages and outbuildings to the period of construction of the principal building on the lot through the use of complementary materials and simplified architectural details.

- iv. Windows and doors—Design window and door openings to be similar to those found on historic garages or outbuildings in the district or on the principle historic structure in terms of their spacing and proportions.
- v. Garage doors—Incorporate garage doors with similar proportions and materials as those traditionally found in the district.

## B. SETBACKS AND ORIENTATION

- i. Orientation—Match the predominant garage orientation found along the block. Do not introduce front-loaded garages or garages attached to the primary structure on blocks where rear or alley loaded garages were historically used.
  - ii. Setbacks—Follow historic setback pattern of similar structures along the streetscape or district for new garages and outbuildings. Historic garages and outbuildings are most typically located at the rear of the lot, behind the principal building. In some instances, historic setbacks are not consistent with UDC requirements and a variance may be required.
- ### 6. Mechanical Equipment and Roof Appurtenances

## A. LOCATION AND SITING

- i. *Visibility*—Do not locate utility boxes, air conditioners, rooftop mechanical equipment, skylights, satellite dishes, and other roof appurtenances on primary facades, front-facing roof slopes, in front yards, or in other locations that are clearly visible from the public right-of-way.
- ii. *Service Areas*—Locate service areas towards the rear of the site to minimize visibility from the public right-of-way.

## B. SCREENING

- i. *Building-mounted equipment*—Paint devices mounted on secondary facades and other exposed hardware, frames, and piping to match the color scheme of the primary structure or screen them with landscaping.
  - ii. *Freestanding equipment*—Screen service areas, air conditioning units, and other mechanical equipment from public view using a fence, hedge, or other enclosure.
  - iii. *Roof-mounted equipment*—Screen and set back devices mounted on the roof to avoid view from public right-of-way.
- Historic Design Guidelines, Chapter 5, Guidelines for Site Elements

*Historic Design Guidelines, Chapter 5, Guidelines for Site Elements*

## B. NEW FENCES AND WALLS

- i. *Design*—New fences and walls should appear similar to those used historically within the district in terms of their scale, transparency, and character. Design of fence should respond to the design and materials of the house or main structure.
- ii. *Location*—Avoid installing a fence or wall in a location where one did not historically exist, particularly within the front yard. The appropriateness of a front yard fence or wall is dependent on conditions within a specific historic district.  
New front yard fences or wall should not be introduced within historic districts that have not historically had them.
- iii. *Height*—Limit the height of new fences and walls within the front yard to a maximum of four feet. The appropriateness of a front yard fence is dependent on conditions within a specific historic district. New front yard fences should not be introduced within historic districts that have not historically had them. If a taller fence or wall existed historically, additional height may be considered. The height of a new retaining wall should not exceed the height of the slope it retains.
- iv. *Prohibited materials*—Do not use exposed concrete masonry units (CMU), Keystone or similar interlocking retaining wall systems, concrete block, vinyl fencing, or chain link fencing.
- v. *Appropriate materials*—Construct new fences or walls of materials similar to fence materials historically used in the district. Select materials that are similar in scale, texture, color, and form as those historically used in the district, and that are compatible with the main structure. Screening incompatible uses—Review alternative fence heights and materials for appropriateness where residential properties are adjacent to commercial or other potentially incompatible uses.

## 3. Landscape Design

### A. PLANTINGS

- i. *Historic Gardens*—Maintain front yard gardens when appropriate within a specific historic district.

- ii. *Historic Lawns*—Do not fully remove and replace traditional lawn areas with impervious hardscape. Limit the removal of lawn areas to mulched planting beds or pervious hardscapes in locations where they would historically be found, such as along fences, walkways, or drives. Low-growing plantings should be used in historic lawn areas; invasive or large-scale species should be avoided. Historic lawn areas should never be reduced by more than 50%.
- iii. *Native xeric plant materials*—Select native and/or xeric plants that thrive in local conditions and reduce watering usage. See UDC Appendix E: San Antonio Recommended Plant List—All Suited to Xeriscape Planting Methods, for a list of appropriate materials and planting methods. Select plant materials with a similar character, growth habit, and light requirements as those being replaced.
- iv. *Plant palettes*—If a varied plant palette is used, incorporate species of taller heights, such informal elements should be restrained to small areas of the front yard or to the rear or side yard so as not to obstruct views of or otherwise distract from the historic structure.
- v. *Maintenance*—Maintain existing landscape features. Do not introduce landscape elements that will obscure the historic structure or are located as to retain moisture on walls or foundations (e.g., dense foundation plantings or vines) or as to cause damage.

## B. ROCKS OR HARDSCAPE

- i. *Impervious surfaces* —Do not introduce large pavers, asphalt, or other impervious surfaces where they were not historically located.
- ii. *Pervious and semi-pervious surfaces*—New pervious hardscapes should be limited to areas that are not highly visible, and should not be used as wholesale replacement for plantings. If used, small plantings should be incorporated into the design.
- iii. *Rock mulch and gravel* - Do not use rock mulch or gravel as a wholesale replacement for lawn area. If used, plantings should be incorporated into the design.

## D. TREES

- i. *Preservation*—Preserve and protect from damage existing mature trees and heritage trees. See UDC Section 35-523 (Tree Preservation) for specific requirements.
- ii. *New Trees* – Select new trees based on site conditions. Avoid planting new trees in locations that could potentially cause damage to a historic structure or other historic elements. Species selection and planting procedure should be done in accordance with guidance from the City Arborist.

## 5. Sidewalks, Walkways, Driveways, and Curbing

### A. SIDEWALKS AND WALKWAYS

- i. *Maintenance*—Repair minor cracking, settling, or jamming along sidewalks to prevent uneven surfaces. Retain and repair historic sidewalk and walkway paving materials—often brick or concrete—in place.
- ii. *Replacement materials*—Replace those portions of sidewalks or walkways that are deteriorated beyond repair. Every effort should be made to match existing sidewalk color and material.
- iii. *Width and alignment*—Follow the historic alignment, configuration, and width of sidewalks and walkways. Alter the historic width or alignment only where absolutely necessary to accommodate the preservation of a significant tree.
- iv. *Stamped concrete*—Preserve stamped street names, business insignias, or other historic elements of sidewalks and walkways when replacement is necessary.
- v. *ADA compliance*—Limit removal of historic sidewalk materials to the immediate intersection when ramps are added to address ADA requirements.

### B. DRIVEWAYS

- i. *Driveway configuration*—Retain and repair in place historic driveway configurations, such as ribbon drives. Incorporate a similar driveway configuration—materials, width, and design—to that historically found on the site. Historic driveways are typically no wider than 10 feet. Pervious paving surfaces may be considered where replacement is necessary to increase stormwater infiltration.
- ii. *Curb cuts and ramps*—Maintain the width and configuration of original curb cuts when replacing historic driveways. Avoid introducing new curb cuts where not historically found.

## 7. Off-Street Parking

### A. LOCATION

- i. Preferred location*—Place parking areas for non-residential and mixed-use structures at the rear of the site, behind primary structures to hide them from the public right-of-way. On corner lots, place parking areas behind the primary structure and set them back as far as possible from the side streets. Parking areas to the side of the primary structure are acceptable when location behind the structure is not feasible. See UDC Section 35-310 for district-specific standards.
- ii. Front*—Do not add off-street parking areas within the front yard setback as to not disrupt the continuity of the streetscape.
- iii. Access*—Design off-street parking areas to be accessed from alleys or secondary streets rather than from principal streets whenever possible.

### B. DESIGN

- i. Screening*—Screen off-street parking areas with a landscape buffer, wall, or ornamental fence two to four feet high—or a combination of these methods. Landscape buffers are preferred due to their ability to absorb carbon dioxide. See UDC Section 35-510 for buffer requirements.
- ii. Materials*—Use permeable parking surfaces when possible to reduce run-off and flooding. See UDC Section 35-526(j) for specific standards.
- iii. Parking structures*—Design new parking structures to be similar in scale, materials, and rhythm of the surrounding historic district when new parking structures are necessary.

#### *Standard Specifications for Windows in Additions and New Construction*

Consistent with the Historic Design Guidelines, the following recommendations are made for windows to be used in new construction:

- **GENERAL:** Windows used in new construction should be similar in appearance to those commonly found within the district in terms of size, profile, and configuration. While no material is expressly prohibited by the Historic Design Guidelines, a high quality wood or aluminum-clad wood window product often meets the Guidelines with the stipulations listed below.
- **SIZE:** Windows should feature traditional dimensions and proportions as found within the district.
- **SASH:** Meeting rails must be no taller than 1.25". Stiles must be no wider than 2.25". Top and bottom sashes must be equal in size unless otherwise approved.
- **DEPTH:** There should be a minimum of 2" in depth between the front face of the window trim and the front face of the top window sash. This must be accomplished by recessing the window sufficiently within the opening or with the installation of additional window trim to add thickness. All windows should be supplied in a block frame and exclude nailing fins which limit the ability to sufficiently recess the windows.
- **TRIM:** Window trim must feature traditional dimensions and architecturally appropriate casing and sloped sill detail.
- **GLAZING:** Windows should feature clear glass. Low-e or reflective coatings are not recommended for replacements. The glazing should not feature faux divided lights with an interior grille. If approved to match a historic window configuration, the window should feature true, exterior muntins.
- **COLOR:** Wood windows should feature a painted finish. If a clad or non-wood product is approved, white or metallic manufacturer's color is not allowed and color selection must be presented to staff.

## **FINDINGS:**

- a. The applicant is requesting a Certificate of Appropriateness for approval to construct a 1-story, single-family residential structure at 635 VFW Boulevard, located within the Mission Historic District.
- b. **EXISTING STRUCTURE** – The existing structure at 635 VFW Boulevard was constructed circa 1960. Staff finds that the existing structure does not contribute to the Mission Historic District.
- c. **SETBACKS & ORIENTATION** – According to the Guidelines for New Construction, the front facades of new buildings are to align with front facades of adjacent buildings where a consistent setback has been established along the street frontage. Additionally, the orientation of new construction should be consistent with the historic examples found on the block. The applicant has not noted a setback from the right of way. Staff finds that the proposed new construction should feature a setback that is equal to or greater than those found to the east and west of the proposed new construction.

- d. ENTRANCES – According the Guidelines for New Construction 1.B.i. primary building entrances should be orientated towards the primary street. The proposed entrance orientation is appropriate and consistent with the Guidelines.
- e. SCALE & MASS – Per the Guidelines for New Construction 2.A.i., a height and massing similar to historic structures in the vicinity of the proposed new construction should be used. In residential districts, the height and scale of new construction should not exceed that of the majority of historic buildings by more than one-story. The applicant has proposed for the new construction to feature 1-story. Staff finds the proposed massing and height to be appropriate and consistent with the Guidelines.
- f. FOUNDATION & FLOOR HEIGHTS – According to the Guidelines for New Construction 2.A.iii., foundation and floor heights should be aligned within one (1) foot of neighboring structure’s foundation and floor heights. Foundation heights on this block are between one (1) foot and two (2) feet. The applicant has proposed a foundation height of at least six (6) inches. Generally, staff finds the proposed foundation height to be appropriate.
- g. ROOF FORM – The applicant has proposed for the new construction to feature both a front facing, gabled porch roof and a primary roof form that features a front facing gable and a rear hipped roof. Generally, staff finds the proposed roof forms to be appropriate and consistent with the Guidelines.
- h. ARCHITECTURAL DETAILS – The applicant has proposed an overall form and massing that are comparable to those found on VFW Boulevard and predominantly throughout the Mission Historic District. Staff does find that additional fenestration should be added to both side façades to maintain a traditional window pattern. Additionally, staff finds that all windows should feature a one over one profile. Additionally, staff finds that the proposed front porch columns should feature a 6”x6” profile and capital and base trim.
- i. MATERIALS – The applicant has proposed materials that include fiber cement siding and a composition shingle roof. Staff finds that the fiber cement siding should feature an exposure of four inches and a smooth finish.
- j. WINDOW MATERIALS – At this time the applicant has not noted window materials. Staff finds that a wood or aluminum clad wood window that is consistent with the staff’s standards for windows in new construction should be installed. An alternative window material may be appropriate provided that it meets staff’s standards for windows in new construction.
- k. FENESTRATION PROFILE – As noted in finding h, staff finds that additional fenestration should be added to both side facades, and that all windows should feature a one over one profile.
- l. MECHANICAL EQUIPMENT – Per the Guidelines for New Construction 6., all mechanical equipment should be screened from view at the public right of way. The applicant is responsible for screening all mechanical equipment where it cannot be viewed from the public right of way.
- m. DRIVEWAY – The existing lot currently features a driveway on the western side of the block. At this time the applicant has not noted specific driveway modifications. Staff finds that any modifications to the driveway should result in a driveway that is no wider than ten (10) feet in width, per the Guidelines for Site Elements. Additionally, the proposed driveway should terminate at the side of the proposed new construction to prevent parking in front of the new construction.
- n. SIDEWALK – Historic structures on this block and throughout the Mission Historic District feature walkways that lead from the sidewalk at the public right of way to the front porch. Staff finds that a walkway should be added leading from the sidewalk to the front porch to be consistent with the Guidelines. The sidewalk should be concrete and feature approximately three (3) feet in width.
- o. FENCING – The existing lot features a chain link fence with a driveway gate. The replacement of the chain link fence with an alternative fencing material and is eligible for administrative approval; however, any new fencing on site should not feature a gate at the driveway. A driveway gate should be located behind the front façade of the new construction.
- p. LANDSCAPING – At this time the applicant has not noted specific landscaping materials. A detailed landscaping plan should be submitted for review and approval.

## **RECOMMENDATION:**

Staff recommends approval based on findings a through q with the following stipulations:

- i. That the proposed setback be equal to or greater than those of the neighboring historic structures, as noted in finding c.

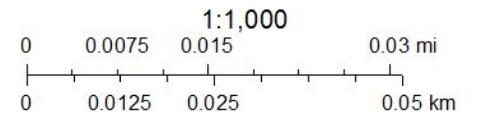
- ii. That the proposed siding feature an exposure of four inches and a smooth finish and that columns feature a profile of six inches square and capital and base trim.
- iii. That a wood or aluminum clad wood window that is consistent with the staff's standards for windows in new construction be installed, as noted in the applicable citations and in finding j. An alternative window material may be appropriate provided that it meets staff's standards for windows in new construction.
- iv. That all mechanical equipment be screened from view at the public right of way.
- v. That any driveway modifications result in a driveway that is no wider than (10) feet in width that terminates to the side of the proposed new construction, as noted in finding m.
- vi. That a detailed landscaping plan be submitted for review and approval.

# City of San Antonio One Stop

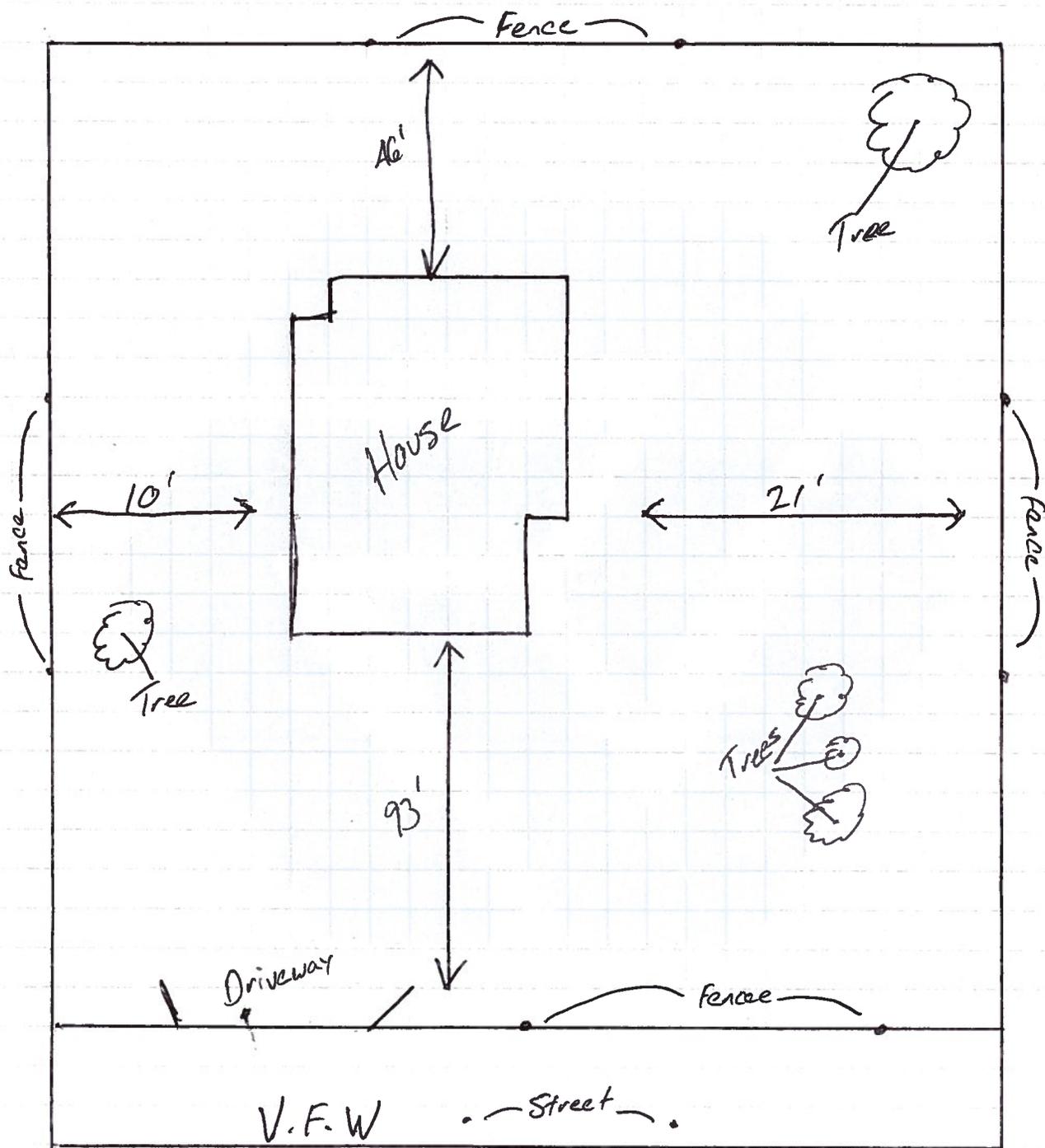


February 10, 2022

- CoSA Addresses
- Community Service Centers
- Pre-K Sites
- CoSA Parcels
- BCAD Parcels



G35VFW Site Plan



Not to Scale

# COSA - MODEL 1233R-18

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT  
CITY OF SAN ANTONIO, TEXAS

FOR

## CITY OF SAN ANTONIO

1400 S. FLORES STREET  
SAN ANTONIO, TEXAS 78204

### SQUARE FOOT INFORMATION

LIVING SPACE	1233 SQ. FT.
FRONT PORCH	80 SQ. FT.
STEP PORCH & W/H	30 SQ. FT.
TOTAL	1343 SQ. FT.

### SEC. 6-300. UNIVERSAL DESIGN AND CONSTRUCTION REQUIREMENTS.

IF A PERSON RECEIVES FINANCIAL ASSISTANCE FROM CITY, STATE, OR FEDERAL FUNDS ADMINISTERED BY THE CITY OF SAN ANTONIO FOR THE CONSTRUCTION OF NEW SINGLE FAMILY HOMES, DUPLEXES, OR TRIPLEXES, THAT PERSON SHALL CONSTRUCT THE UNITS IN ACCORDANCE WITH ALL OTHER CITY CODES AND THE FOLLOWING REQUIREMENTS.

- AT LEAST ONE ENTRANCE SHALL HAVE A 36-INCH DOOR AND BE ON AN ACCESSIBLE ROUTE. (AN ACCESSIBLE ROUTE IS A CONTINUOUS, UNOBSTRUCTED PATH AT LEAST 36 INCHES WIDE CONNECTING ALL INTERIOR AND EXTERIOR ELEMENTS AND SPACES OF A HOUSE AND SITE INCLUDING CORRIDORS, PARKING, CURB RAMPS, CROSSWALKS AND SIDEWALKS AND SERVED BY A NO-STEP, FLAT ENTRANCE WITH A BEVELED THRESHOLD OF  $\frac{1}{2}$  INCH OR LESS).
- ALL INTERIOR DOOR SHALL BE NO LESS THAN 32 INCHES WIDE, EXCEPT FOR A DOOR THAT PROVIDES ACCESS TO A CLOSET OF FEWER THAN 15 SQUARE FEET IN AREA.
- EACH HALLWAY SHALL HAVE A WIDTH OF AT LEAST 36 INCHES AND SHALL BE LEVEL WITH RAMPED OR BEVELED CHANGES AT EACH DOOR THRESHOLD.
- ALL BATHROOMS SHALL HAVE THE WALLS REINFORCED AROUND THE TOILET FOR POTENTIAL INSTALLATION OF GRAB BARS. WALLS AROUND THE SHOWER AND TUB SHALL BE REINFORCED FOR POTENTIAL INSTALLATION OF GRAB BARS OR A PRE-MANUFACTURED TUB AND SHOWER SURROUND MAY BE USED WHICH INCLUDES GRAB BAR(S) CERTIFIED TO MEET THE ADA REQUIREMENT TO BEAR A 250 POUND LOAD. WALL REINFORCEMENTS SHALL COMPLY WITH THE STANDARDS SET FORTH IN REQUIREMENT 6, REINFORCED WALLS FOR GRAB BARS OF THE FAIR HOUSING ACT DESIGN AND CONSTRUCTION GUIDELINES: FEDERAL REGISTER/VOLUME 56 NO. 44/WEDNESDAY, MARCH 6, 1991/RULES AND REGULATIONS, A COPY OF WHICH IS ATTACHED HERETO AN INCORPORATED HEREIN FOR ALL PURPOSED AS ATTACHMENT I.
- EACH ELECTRICAL PANEL, LIGHT SWITCH OR THERMOSTAT SHALL BE MOUNTED NO HIGHER THAN 48 INCHES ABOVE THE FLOOR. EACH ELECTRICAL PLUG OR OTHER RECEPTACLE SHALL BE AT LEAST 15 INCHES FROM THE FLOOR.
- AN ELECTRICAL PANEL LOCATED OUTSIDE THE DWELLING UNIT MUST BE BETWEEN 18 INCHES AND 42 INCHES ABOVE THE GROUND AND SERVED BY AN ACCESSIBLE ROUTE.
- ALL HARDWARE INSTALLED TO OPEN/CLOSE DOORS AND OPERATE PLUMBING FIXTURES SHALL BE LEVER HANDLES.

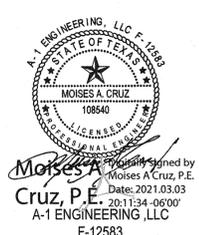
### INDEX OF SHEETS

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- NOTES CONTINUED
- NOTES CONTINUED, STRUCTURAL GENERAL NOTES
- FLOOR PLAN AND ROOF PLAN
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- ENLARGED BATH #1 FLOOR PLAN AND GRAB BAR SCHEMATIC
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NEW RESIDENTIAL BUILDING  
MODEL 1233R-18  
CITY OF SAN ANTONIO  
DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

BY	DATE	REVISIONS
MAC	7/24/2017	FOR CONSTRUCTION
MAC	8/22/2020	SSI 1
MAC	2/28/2021	SSI 2



THESE PLANS COMPLY WITH THE UNIVERSAL DESIGN CODE AND 2018 IRC

SHEET SIZE: 24" x 36"  
ISSUE DATE: 9.22.2020  
SHEET:

1 OF 14  
COVER

A1 # 17-464-0

ANY PARTY, REFERENCING THESE PLANS FOR PRICING OR CONSTRUCTION, SHALL VERIFY ALL FIELD CONDITIONS WHICH WILL AFFECT THEIR SCOPE OF WORK, THE PROCUREMENT OF MATERIAL, AND FABRICATION OF COMPONENTS FOR THE CONSTRUCTION SHOWN ON THESE PLANS PRIOR TO THE START OF CONSTRUCTION. UNLESS OTHERWISE INDICATED, THE DOCUMENTS DO NOT INDICATE THE MEANS AND METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL MEASURES TO PROTECT THE SAFETY OF THE PUBLIC ALONG WITH THE SAFETY OF PROPERTY AND HIMSELF. DURING CONSTRUCTION, SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, RETAINING PROFESSIONAL TO AID IN DEVELOPING, SHORING AND BRACING SYSTEMS AND INSPECTION OF THE ASSEMBLY AND MAINTENANCE OF BRACING AND SHORING SYSTEMS. DESIGN, CONSTRUCT, INSPECT AND MAINTAIN BRACING AND SHORING SYSTEMS TO SUSTAIN PRESCRIBED SERVICE LOADS PER THE INTERNATIONAL BUILDING CODE. THE CONTRACTOR WILL BE REQUIRED TO CORRECT AT HIS OWN EXPENSE ANY SUBSIDENCE, STRUCTURAL DAMAGE OR OTHER OBJECTIONAL CONDITIONS CAUSED BY HIS OPERATIONS.

ISSUED FOR CONSTRUCTION



**Section 1 – General Requirements**

**1.1 General Information**

- The following general information items are applicable to all residential construction projects.
1) The Contractor shall obtain and display at the job site all permits and permit cards as required by the City.
2) The Contractor shall use the site and its facilities only for the specified construction. The electrical, sanitary waste, water, and gas system shall be used only for construction purposes and during the construction phase only.
3) Contractor shall be responsible to determine the need for adequate sanitary facilities and to provide those accommodations on site. Contractor shall be responsible for the safe operation of equipment at all times.
4) All work shall be done with skilled and licensed craftsman and accomplished with care.
5) All materials used shall be new (unless otherwise specified in the specifications manual) and of a good quality.
6) This document is not intended to take the place of or duplicate the adopted codes by the City of San Antonio. It is intended to clarify the various methods of construction and the specific materials to be used in the rehabilitation (construction) work outlined in the description of the work to be performed.
7) This document is not a substitute for City of San Antonio building codes, which will typically apply to any substantial new work that is being done on existing structures, and, in some cases, will apply to existing conditions whether addressed in the course of rehabilitation, or not. In all cases, grantees are responsible for determining the applicability of local building codes. In all cases the more rigorous standard will apply.

All new home construction must meet the ENERGY STAR Qualified Homes Thermal Bypass Inspection Checklist.

**1.2 Project Submittals**

- Individual project specifications must provide specific scopes of work, locations, measurements, and other specifics, and include the Standard Specifications by reference as performance criteria.
2) Contractor is responsible for assuring that the bid proposal includes all work and costs necessary to satisfy a building code inspection of the work specified and completed. Contractor is responsible for completing all such work whether specified or not and without additional cost to the Program.
3) Repairs needed to correct basic safety, durability, mechanical and efficiency deficiencies, will take precedence over other repairs. The scope of repairs may be limited by budget.
4) A thorough inspection of the property may result in a "walk away" if necessary repairs exceed the program's previously established budget.

**1.3 Discovery**

Discovery of unforeseen conditions or change in scope of work by the Contractor or by the Owner or by the City acting on the Owner's behalf shall be made known to each of the other two in writing as soon as possible. Where additional work is necessary, the Contractor shall submit to the Owner and the City a written description of the work, cost of such work, and the time necessary for such work. Unless it is determined there exists an immediate health and safety danger, no work shall be authorized until agreed upon in writing by the Contractor and the Owner and approved by the City. Compensation for additional work will be negotiated between the Owner (or the City acting on the Owner's behalf) and the Contractor and must be approved in advance by the City.

**1.4 Inspections: Permit**

Inspections of work performed must be promptly secured by Contractor, and Contractor shall permit access and inspection required by any governmental agency with jurisdictional interest. Aside from the electrical, plumbing, shower pan, and HVAC inspections and finals, the following are also required:

- FOUNDATION
a. Slab on Grade - The work requires engineering letter to clear foundation. Letter must specifically indicate that drainage meets the minimum requirements of the City's building codes. If drainage not addressed in letter, an inspection for drainage is required.
b. Pier & Footing - The work requires engineering letter to clear foundation. If sills or joists are replaced/repaired engineer letter required to clear foundation inspection. Letter must specifically indicate replacement/repair of wood sill, wood shim, beam and/or girder meets minimum requirements of the City's building codes.
c. Removal/Repair/Replace: Skirting - Requires Final Inspection by City Inspector for venting, subfloor access and drainage (in addition to engineer letter)
d. City inspection of all concrete flat work and concrete porches to ascertain that steel is properly installed.
2) WALLS
a. City inspection of framing - City insulation inspection or letter from Insulation Company for proper amount and R-factor to City code.
b. NOTE: City code requires that insulation be installed, if sheathing and/or sheetrock is removed from an exterior wall. Inspection is required before sheathing, sheetrock and/or paneling is re-installed.
3) ROOF
a. City inspection of partial framing, if any rafters, collars and/or additional bracing are required. New sheathing installation and/or repairs can be inspected at this time. NOTE: Do not leave roof open pending inspection.
4) SHOWER PAN
a. City inspection of shower pan is mandatory before covering shower pan.

**1.5 Energy efficiency: (energy star/ green build)**

The homebuilder and associated sub-contractors shall comply with all standards and policies relating to energy efficiency, which are contained in the current international energy conservation code (IECC). As mentioned above, the energy star and green build strategy requirements shall prevail over other construction specifications that may conflict, with the exception of the building jurisdictions and authorities of the building codes.

**1.6 Energy conservation: (energy star/ green build)**

Incorporated herewith are guidelines and specifications necessary to build an energy star rated and green home, to include the documentation that must be submitted to build San Antonio green reviewer for inspection, testing, and upon approval, receive the designation of energy star rated/ green home.
Install natural gas fired equipment where natural gas service is available.
All built-in-installed equipment and appliances must be energy star labeled.
Install an energy star advanced lighting package. Exterior security lights must be activated by a motion detection switch.
HVAC system must comply with the ACC manual "J" (version 8.2 or later as required). All required documentation will be submitted to BSAG.
NOTE: These items are recommended but not required by BSAG.
Installation of exterior gas fired lamps shall not be more than 2 and must have a timer device that turns lamps off during daylight hours, is piezo activated, and protects against wind and storm extinguishing.
NOTE: This item is not an eligible component expense under COSA reconstruction program.
If installed, builder and homeowner must comply with energy star requirements. Homeowner, in consultation with homebuilder will petition and submit application to CPS energy and SAWS regarding rebates or other incentive programs that may be available.

**1.7 Water conservation: (energy star/ green build)**

Install only one energy star qualified shower head per shower.
All sink fixtures must be rated at 2.2 gallons per minute or less.
Locate water heater within 20 feet of plumbing fixtures or install hot-water-on-demand system.
Install a catch pan at water heater or drain to the exterior floors in rooms with water heaters must not be water-sensitive.
All exposed hot and cold water supply lines located in non-conditioned space must be insulated with minimum R-2 material designed to insulate water lines. Do not bundle hot with cold lines in manifold systems.
If installing gutters, downspouts must drain onto previous surface (turf or landscaping) or into a rainwater harvesting cistern.
NOTE: This item is not a program requirement, however, gutters are allowed when the project is located on a zero line development where roof projections are allowed by deed covenant.
Landscaping package must be from SAWS approved plan list.

**1.8 Health, safety, and accident prevention:**

In performing this contract, the homebuilder shall ensure that no laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous to his/ her health and/ or safety as determined under construction safety and health standards promulgated by the secretary of labor. Homebuilder to post proper warning signage, caution tapes, flags or physical barriers when hazard exist. Homebuilder shall comply with all other safety precautions including applicable provisions of the national occupational safety health act (NOSHA) 1970. Contractor will be held liable for damage to property or persons.

**1.9 Health: (Green Build)**

Install required venting through roof top for gas fixtures.
Vent kitchen range hood to the exterior.
Install merv 8 or higher rated filters for central air conditioners.
Builder installed - dehumidification system must be independent of the cooling system.
NOTE: This item is highly discouraged by BSAG and is not COSA program requirements.
Isolate garage space from conditioned space using the current energy star/ green build thermal bypass checklist. Builder - installed garage must follow this provision.
NOTE: This item is highly discouraged by BSAG and is not COSA program requirements.
If installed, builder and homeowner must comply with energy star/ green build requirements.
Fireplaces are allowed only with restrictions.
NOTE: This item is highly discouraged by BSAG and is not COSA program requirements.
If installed, builder and homeowner must comply with energy star/ green build requirements.
Install one carbon monoxide detector with an American Gas Association (AGA) IAS996 blue star certification seal every 1,000 square feet (near bedrooms) at a minimum of one per floor.
Seal HVAC ducts during construction with speedi - boot or other similar method that effectively eliminates duct contamination.
Vacuum boots and grills before first use.
Fiber glass duct board, if installed, must comply with the fiber duct board requirements as described in the guidelines.
NOTE: This item is highly discouraged by BSAG and is not COSA program requirements.
If installed, builder and homeowner must comply with energy star/ green build requirements.
Do not use vapor retarding materials on interior surfaces of perimeter walls.
Use carpet and rug institute's green label certified carpet in all carpeted areas and carpet adhesives or padding's used must also be designated as green label certified.
Interior paints must be selected from the BSAG "ALLOWED INTERIOR PAINT" listings which are those that reduce volatile organic compounds (VOC). Trim for doors, windows, and base boards are exempt if these surfaces are less than 15% of total paintable interior surfaces.

**1.10 Inspections:**

General - homebuilder shall obtain all required building inspections to include: City of San Antonio - building (framing, UDS and insulation), HVAC, plumbing, electrical, public works-right of way division and work associated with CPS energy, SAWS and Bevar Net Water District.
Periodic inspections - The work shall be subject to periodic observation by the COSA-HNSD reconstruction program staff in an effort to verify that work conforms to contract requirements. Homebuilder is required to correct all discrepancies identified by homeowner, COSA-HNSD and COSA building inspectors, that are not in accordance with construction documents and any current applicable international, state and city building codes with local amendments and ordinances, common trade standards, manufacturers specifications, or any applicable federal or state of Texas regulations. Presence or absence of COSA-HNSD staff or performance or non-performance of the COSA-HNSD staff shall not relieve the homebuilder of any requirement of the contract.
Final inspection - Once the reconstruction project is completed, COSA-HNSD reconstruction program staff and an independent home inspector, licensed with the Texas real estate commission (TREC) will perform the final inspection in consultation with the homebuilder and homeowner. COSA-HNSD expects all work specified in the construction documents (plans and specifications), to be complete at the final inspection without punch list. The homebuilder shall address and complete the TREC final inspection findings no later than 7 consecutive calendar days after receiving the TREC final inspection report.
NOTE: When a final inspection reveals a major deficiency that is a matter of potential health and/ or safety hazard, the TREC inspector will conduct a follow-up inspection and the homebuilder may be subjected to pay for the follow-up inspection fee.

**1.11 Project closeout**

- Cleaning by the Contractor shall include, but is not limited to:
1) Removal and proper disposal of all construction debris from the site.
2) Clean and mop all resilient floors.
3) Clean all paint from other finished surfaces including window glass and mirrors.
4) Contractor shall put all hardware in operating condition. New keys shall be turned over to the City's agent as hardware is installed. The City shall be responsible for providing said keys to the Owner.
5) Further details are included in section 16.

**Section 2 – Site Work**

**2.1 General Specifications**

- General specifications shall meet Texas Minimum Construction Standards, and City of San Antonio building code current at the time of construction.

**2.2 Demolition of Structure**

- The work covered by this section consists of any required demolition, removal and disposal of building, building components, fencing and appurtenances. No building or portion of a building shall be removed intact for any use or purpose. The site should be generally level, well drained, and accessible. Site preparation must meet Texas minimum Construction Specification.
2) Disposition of Materials/Debris: All materials resulting from the demolition activity, except such materials, as may be the property of utility companies providing service to the building, shall be disposed of by one of the following means:
a) Locally recyclable materials that can be reasonably segregated shall be delivered for recycling with the proceeds belonging to the Contractor.
b) Salvageable materials that the Contractor desires to retain shall become the property of the Contractor and shall be transported, stored and/ or utilized in compliance with all applicable codes and ordinances.
c) All remaining material and debris not recycled or salvaged shall dispose of in accordance with City ordinance "Chapter 14 - Solid Waste". The landfill fees are the responsibility of the offeror and should not be included in the proposal amount.
d) A log of all loads hauled for each site, whether for recycling, salvage, or disposal, shall be maintained such that a record will be available for each demolition site as to the final disposition of all material and debris removed.
3) The Contractor will be responsible for coordinating with all necessary parties to ensure that all utilities have been disconnected prior to starting demolition work. The Contractor will be responsible for the removal of any old lines requiring removal from the property line forward.
4) Protection of Utilities and Other Site Improvements: The Contractor shall perform all work required for the care, protection and maintenance of public utilities, building, and other site improvements on and around the site. The Contractor shall assume responsibility for any damage that may be located in or near the work area, then take precautions to protect these utilities during this work.
5) Site Cleanup: The site shall be totally free of debris resulting from the demolition activity and/ or as listed on the individual site worksheet. All disturbed areas not remaining under a concrete slab shall be leveled and graded in such a manner that no water will stand on the site. Should additional fill dirt be required to achieve the above stated requirement for drainage, the cost of said material shall be subsidiary and included in the price proposed for demolition of said structure.
6) Hazardous Material: Should the Contractor encounter what is believed to be a hazardous material during the demolition, the City shall immediately be notified.
7) Permits/Notifications: The Contractor will be required to obtain a demolition permit for each site from the City's Building Inspection Department. The Contractor will be required to provide a payment and performance bond under this contract in the amount of the total contract price.
8) Project Safety, Accident Precaution: With respect to all work performed under this contract, the Contractor shall:
a) Comply with the safety standards provision of applicable laws, building and construction codes, The "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, and the Occupational Safety and Health Act of 1970 (Public Law 91-596).
b) Exercise every precaution at all times for the prevention of accidents and the protection of persons including employees and property.
c) Maintain at the office or a well-known place at the job site, all articles necessary for giving first aid to the injured, and shall make standing arrangements for the immediate removal to a hospital or doctor's care of persons, including employees who may be injured on the job site. In no case shall employees be permitted to work at a job site before the employer has made a standing arrangement for removal of injured persons to a hospital or doctor's office.

**2.3 Site Preparation General**

- General specifications shall meet Texas Minimum Construction Standards, and City of San Antonio building code current at the time of construction.
2) Site clearing: All trees and undergrowth located only within the perimeter of the house and in areas of driveways, walks, and outbuildings are to be removed.

**2.4 Site Preparation Materials**

- All on-site fill material must be soil or soil rock mixture which is free of organic matter or other deleterious substances. It must contain no rocks or lumps over 6" in greatest dimension, and not more than 15% must be larger than 2 1/2" in greatest dimension.
2) Imported fill material- must conform with 1) but must have a maximum particle size of 2" in greatest dimension.
3) Fill must have a plasticity index (PI) of 12 or better unless placed under a foundation in which case the PI should be 2.

**Section 3 – Concrete**

\*NOTE: Foundation repairs must be accomplished in such a manner as to be permanent and must be completed prior to the start of any other work.

**3.1 Steps**

- General Specifications for steps shall be in accordance with City of San Antonio building code current at the time of construction.
2) All steps shall have treads a minimum of ten inches (exclusive of nosing) and maximum rise of seven and three-fourths inches. They shall be a minimum of three feet wide or they shall the full width of the door opening whichever is greater. They shall be a minimum of three feet wide at porches.
3) Precast steps shall be standard size with no defects. They shall be set level with concrete bases under each corner. When set, the rise from the top step to the wearing surface shall be the same as the rise for the steps or be in the wearing surface plane.
4) Hollow poured steps shall be formed and poured over 8 inch x 16-inch footer. Wall thickness shall be a minimum of 4 inches. The treads shall be broom finished. Steps shall have 3/8 inch steel rods 12 inches on center in both directions.

**3.2 Slab on grade (Foundation)**

- General Specifications for concrete foundations shall be in accordance with City of San Antonio building code current at the time of construction.
2) Grades shall be established from existing concrete or masonry structures, when feasible. Bottom of all shall maintain a minimum of 12" above existing grade at lowest point. Leveling cannot be exact when any of the following conditions exist:
a) The framing is racked, out of plumb
b) The sill/floor joists are warped and crowned
c) The structure is multi-addition at multi-levels
d) The structure is a porch, slanted for drainage
3) All concrete slabs shall be poured monolithically and in accordance with City of San Antonio building code current at the time of construction, unless otherwise specified. Top of slab poured on existing grade shall have ground slope away from wall. Ground slope shall provide for drainage of water away from the house. All slabs shall be termite treated.
4) Before concrete is poured, a slab inspection must be requested from the City's Building Inspection Department and then pass inspection. All slabs and driveways must meet City codes and pass City inspection prior pouring concrete.
5) Soil conditions will determine the length of time the concrete footings shall be allowed to set. When the bearing soil is dry, the concrete footing must set three (3) days before the weight of the house is placed on the foundation. When wet conditions exist, or occur, the soil shall be allowed to dry to accept the bearing load.
6) Beams (exterior) must have a minimum width of 12 inches at bottom. Exterior beams to have 4 #5 (5/8 inch) rebar, two at top and two at the bottom, set on 3/8 inch steel dowel rods at maximum 8 feet on center. Exterior beams must extend a minimum of 12 inches into undisturbed soil. Exterior beams must be a minimum of 20 inches in height. Interior beams must be a minimum of 8 inches in height with two #5 rebar (5/8 inch) side-by-side 4 inches off bottom of beam set in 3/8-inch stirrups at maximum 8 feet on center. Interior beams width to be 16 inches in width at top and may taper to 8 inches at bottom. #4 rebar to have a minimum lap of 12 inches. #5 rebar to have a minimum lap of 15 inches. All slab and beam specifications listed here must be used unless the City's Building Code requirements exceed these specifications.
7) All slabs shall be poured over a two-inch thick select granular fill cushion.
8) Entry ramp shall be poured at 1" foot slope with 1/2" x 1/2" loosed grooves at 6" O.C.
9) Footings shall comply with the City's Building Code requirements for size and reinforcement. When the surrounding soil is not sufficiently strong enough to hold the concrete until final set, forms shall be constructed instead.

**3.3 Concrete porches**

- All porches shall be poured monolithically over select granular fill cushion.
2) Exterior beams must be the same as for the house.
3) Pour 1 inch below doorsill or as noted and slope 1/8 inch per foot to provide drain.

**3.4 Concrete Walkways**

- Walks shall be poured monolithically to expansion joints. Reinforcing shall be 6" x 6" number 10 welded wire fabric.
2) Width shall be a minimum of 3 feet wide with a broom finish. Control joints shall be spaced the width of the walk. Expansion joints shall be spaced at all radius points, elevation changes, porches, and at back of curb. Expansion joint material shall be 1/2 inch redwood or other material that complies with the building code.
3) Slab thickness shall be a minimum of 4 inches.
4) Concrete will be deposited when temperature is at 40s F, or above and rising.

**3.5 Driveways**

- Driveways shall be monolithic poured slab with a broom finish and a minimum thickness of 4 inches.
2) Reinforcing shall be 6" x 6" number 10 welded wire fabric.
3) The slab will be poured on a 2 inch sand cushion (compact).
4) Expansion joints will be spaced a maximum of 20 linear feet. Expansion joints will be used at all radius points, sidewalk intersections and house slab tie-ins.
5) Expansion joint materials shall be 1/2 inch redwood or other material that complies with the building code.
6) Concrete will be deposited when temperature is at 40s F, or above and rising.

**3.6 Hazardous/Substandard Conditions**

- Hazardous conditions must include any condition that threatens the health and or safety of the occupants. Substandard conditions include any condition that threatens, defects or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
a) Broken, fire damaged or otherwise compromised beams, joist or sills;
b) Water draining and/or pooling under foundation area;
c) In areas that have more than two annual days with temperatures below 30 degrees, a lack of underpinning, skirting, or other insulating feature to exposed plumbing;
d) Severe slab cracks that create or threaten structural or other systems such as plumbing;
2) Any other condition not mentioned that meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

**Section 4 – Framing**

**4.1 General Specifications**

- General specifications shall meet Texas Minimum Construction Standards and shall be in accordance with City of San Antonio building code current at the time of construction.

**4.2 Hazardous/Substandard Conditions**

- Hazardous conditions must include any condition that threatens the health and or safety of the occupants. Substandard conditions include any condition that threatens, defects or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
a) Termite or other wood destroying insect damage to structural members;
b) Water damage or dry rot to structural members;
c) Broken, fire damaged or otherwise compromised beams, joist or sills;
d) Unsupported beams, or sills or joists in same that have no support; inadequate support;
e) Water draining and/or pooling under foundation area;
f) In areas that have more than two annual days with temperatures below 30 degrees, a lack of underpinning, skirting, or other insulating feature to exposed plumbing;
g) Existing skirting or underpinning that is cracked, damaged or not properly vented.
h) Ground contact of untreated wooden structure;
i) Water incursion through wall structure resulting in drywall damage;
j) Holes, cracks or gaps in interior or exterior wall structures;
k) Exposed nails, popped screws or other defects not representative of normal wear and tear;
l) Cracked, peeling, or chipped paint. Exposed unpainted or untreated wood, drywall or other wall surface;
2) Any other condition not mentioned that meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

**Section 5 – Roofing**

**5.1 General specifications**

- General specifications shall meet Texas Minimum Construction Standards, and City of San Antonio building code current at the time of construction.
2) There shall not be any voids or obstructions in the sheathing, and knotholes shall be covered with sheet metal.
3) Sufficient bracing shall be installed to strengthen the roof and to bring the framing to code.
4) Repair decking by replacing defective sheathing boards, leaving new deck surface smooth and clean, and adequately secured to structural members. Nails to be 8D common or box for ship-lap, and 6D common or box nails for plywood sheathing, 6" o.c. along all edges and 12" o.c. along intermediate members for plywood. Plywood to be sheathing grade no less than 1/2" in thickness with aluminum clips or 1 x 4 shingle strip blocking.
5) All roofing shall be done in accordance with the manufacturer's recommendations, and installed in such a manner to prevent any leaks.
6) Galvanized or aluminum attic vents shall be installed, minimum of two. One square foot of ventilation should be provided for every 300 square feet of attic area.
7) Eaves shall have galvanized drip edge.

**5.2 Composition roofing**

- Install with simple felt nails #30 felt paper-overlapping rows 4 inches.
2) Install minimum 220-pound equivalent fiberglass seal tab Class A fiberglass composition shingles (30 year warranty) according to manufacturer's directions.
3) Architectural shingles (30 year warranty) may be used in lieu of composition shingles.

**5.3 Gutter and downspout**

- Shall be of seamless galvanized metal or aluminum properly hung and shall have a "splash block" under each downspout.

**5.4 New built-up roof**

- shall be installed as follows:
a. Nail one (1) ply of 30# felt; mop two (2) plys of 15# felt.
b. Apply hot mopped tar and gravel, properly spaced to create a uniform and durable roof.
c. Aggregate shall be 1/4" crushed limestone.

**5.5 Stoop roofs**

- To be constructed of such material as to conform to existing roof, and shall have all necessary structural members required to form a structurally sound unit.

**5.6 Flashing**

- All flashing and valley material shall be 26 gauge galvanized iron.
2) Valley tin shall be a minimum of 20" wide, 10" each side centered.
3) Shingles shall be laced over flashing.
4) All flashing shall be installed only after all felt paper is in place.
5) All pipes projecting through the roof shall have metal stack flashing or neoprene rings.

**Section 6 – Doors & Glazing**

**6.1 Windows**

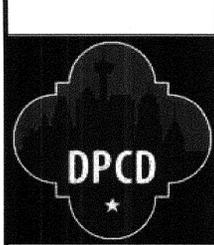
- For historic properties, the city recommends identifying, retaining, and preserving windows--and their functional and decorative features--that are important in defining the overall historic character of the building. Such features can include frames, sash, muntins, glazing, sills, heads, hoodmolds, paneled or decorated jambs and moldings, and interior and exterior shutters and blinds. For more detailed information see: http://www.nps.gov/ps/ps/standguide/rehab/rehab\_windows.htm
2) General specifications shall be as follows:
a) 1/2" insulated glass
b) All interior and exterior gaps, joints, or mating surfaces shall be caulked to prevent air infiltration. Windows shall have air infiltration rates not exceeding 0.37 cubic feet per minute per foot of operable sash crack.
3) Windows shall be installed plumb and level to ensure proper operation with no "sticking".
4) All windows shall be low "E" glass.

**6.2 Doors**

- For historic properties, the city recommends identifying, retaining, and preserving doors--and their functional and decorative features--that are important in defining the overall historic character of the building. Such features can include frames, sills, heads, hoodmolds, paneled or decorated jambs and moldings, and interior and exterior shutters and blinds. For more detailed information see:
a) http://www.nps.gov/ps/ps/standguide/rehab/rehab\_spacesetfinish.htm
b) http://www.nps.gov/ps/ps/standguide/rehab/rehab\_entrances.htm
2) General specifications for doors shall be as follows:
a) All doors shall fit and work properly.
b) All exterior doors shall be one and three-quarter inch, solid core, units. They shall be drilled for a lockset and deadbolt. Exterior doors shall have one and one-half pair of door butts, weather-strip threshold (made of rolled vinyl with aluminum channel backing). Doors shall have air infiltration rates not exceeding 0.5 cubic feet per minute per square foot of door area.
c) All interior doors shall be hollow core or six panel mahogany or pressureboard with a minimum thickness of one and three-eighths inches and shall be bored for a lockset.
d) Pre-hung units shall have a frame made of three-quarter inch material with a properly pined jamb to receive one and three-quarter inch or one and three-eighth inch doors. A pre-hung unit shall be equipped with the door panel, jamb, and all trim. Pre-hung doors shall be installed plumb and level. Door panel shall not be trimmed or manipulated in any fashion and shall swing free and easy.
e) All doors which come into contact with interior wall surfaces when opened are to have base board mounted, rubber tipped door stops installed.

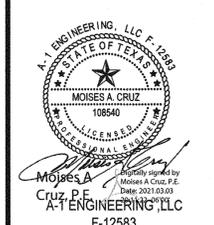
**6.3 Mirrors**

- Mirrors located above lavatories or countertops shall be installed with the bottom edge of the reflecting surface 40 inches (1015 mm) maximum above the finish floor or ground.
2) Mirror Specifications:
a) ASTM C 1036, Type 1, Class 3, Quality Q3; with pyrolytic coating.
b) Nominal Glass Thickness: 1/4 inch (6 mm).
c) Performance Characteristics: coated surface to subject side:
d) Visible Light Transmittance: 12 percent.
e) Visible Light Reflectance: 80 percent.
3) Mirror Installation:
a) Coordinate with other trades to ensure that surfaces to receive mirrors are not painted, coated, or otherwise treated in a manner detrimental to mirror adhesion.
b) Ensure walls are rigid, plumb, smooth, clean, dry, and free of foreign materials.
c) Apply one coat moisture-resistant paint to back of mirror and allow to completely dry.
d) Set mirrors with mechanical fasteners and adhesive applied in accordance with manufacturer's instructions.
e) Apply adhesive to mirror back with 25 percent coverage. Set mirror in place and hold firmly until adhesive sets.
f) Support bottom of mirror with L-shaped bar mechanically fastened to wall blocking.
g) Provide 2 clips minimum at top and each side of mirror. Mirrors greater than 6 square feet shall have 3 clips minimum at top.
h) Place plumb and level without visible distortion.



NEW RESIDENTIAL BUILDING
MODEL 1233R-18
CITY OF SAN ANTONIO
DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

Table with columns: REMARKS, DATE, ISSUE, and rows for FOP CONSTRUCTION, SSI 1, SSI 2.



THESE PLANS COMPLY WITH THE UNIVERSAL DESIGN CODE AND 2018 IRC

SHEET SIZE: 24" x 36"

ISSUE DATE: 9.22.2020

SHEET:

2 OF 14
NOTES

ANY PARTY, REFERENCING THESE PLANS FOR PRICING OR CONSTRUCTION, SHALL VERIFY ALL FIELD CONDITIONS WHICH WILL AFFECT THEIR SCOPE OF WORK, THE PROCUREMENT OF MATERIAL, AND FABRICATION OF COMPONENTS FOR THE CONSTRUCTION SHOWN ON THESE PLANS PRIOR TO THE START OF CONSTRUCTION. UNLESS OTHERWISE INDICATED, THE DOCUMENTS DO NOT INDICATE THE MEANS AND METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL MEASURES TO PROTECT THE SAFETY OF THE PUBLIC ALONG WITH THE SAFETY OF PROPERTY AND HIMSELF, DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, RETAINING PROFESSIONAL TO AID IN DEVELOPING, SHORING AND BRACING SYSTEMS, AND INSPECTION OF THE ASSEMBLY AND MAINTENANCE OF BRACING AND SHORING SYSTEMS. DESIGN, CONSTRUCT, INSPECT AND MAINTAIN BRACING AND SHORING SYSTEMS TO SUSTAIN PRESCRIBED SERVICE LOADS PER THE INTERNATIONAL BUILDING CODE. THE CONTRACTOR WILL BE REQUIRED TO CORRECT AT HIS OWN EXPENSE ANY SUBSIDENCE, STRUCTURAL DAMAGE OR OTHER OBJECTIONAL CONDITIONS CAUSED BY HIS OPERATIONS.

ISSUED FOR CONSTRUCTION





**NEW RESIDENTIAL BUILDING**  
**MODEL 1233R-18**  
**CITY OF SAN ANTONIO**  
**DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT**

**Section 7 – Interior Finishes**

**7.1 Walls & Ceilings**

- General specifications for ceiling and walls shall be as follows:
- Gypsum board must conform to "ASTM C1396 / C1396M - 11 Standard Specification for Gypsum Board". It shall be tapered joint gypsum board with a thickness of one-half inch on walls and 5/8" grade "X" on ceilings.
  - Moisture resistant gypsum board must conform to ASTM D-3273 and ASTM C-473. Standard "green board" does not meet these requirements and is not acceptable.
  - Paneling shall be smooth without blemish, one-fourth inch thick, and finished according to individual specifications.
  - Perforated tape mix installation shall comply with the recommendations of the manufacturer. Temperature shall be 55 degrees Fahrenheit or above in the area it is being applied until the cement is completely dry.

**7.2 Gypsum board for ceiling**

- Fasteners shall be spaced in accordance with City of San Antonio building code current at the time of construction.
- Nails shall be driven with their heads perpendicular to the face of the board and seated below the surface of the board without breaking the paper (screws shall comply with the same above).
- The board shall be cut to fit with tapered ends butting and ends butting. Where possible joints shall be staggered. The board shall be a minimum of one-half inch off finished floor.

**7.3 Gypsum board for wall**

- Fasteners shall be spaced in accordance with City of San Antonio building code current at the time of construction. Nails shall be driven with their shanks perpendicular to the face of the board and seated below the surface of the board without breaking the paper.
- The board shall be cut to fit with tapered edges butting and ends butting. Where possible joints shall be staggered. The board shall be a minimum of one-half inch off finished floor.

**7.4 Tape and float**

- Over joints, the tape shall be embedded in cement and covered with a thin layer of cement. A second and third coat shall be applied with each coat feathered and extended beyond the previous coat by two inches. The finish coat shall be sanded lightly and any imperfections filled prior to any painting or decorating.
- Cover nails with three (3) applications of cement allowing time to dry between each coat. The final coat shall be sanded lightly before application of paint or other decoration.
- Inside corners shall be reinforced with tape embedded in cement, finished as specified "over joints".
- Outside corners shall be protected by wood molding, metal molding, or metal corner reinforcement. Metal corner reinforcement shall be finished as specified "over joints" with two coats of cement.
- Texturing ceilings and walls shall be medium orange peel spatter.

**Section 8 – Millwork and Trim**

**8.1 General specifications**

- For existing millwork and trim install material that is a replacement in kind—or a compatible substitute material.
- For historic properties, the City recommends identifying, retaining, and preserving interior features and finishes that are important in defining the overall historic character of the building, including columns, cornices, baseboards, fireplaces and mantels, paneling, light fixtures, hardware, and flooring; and wallpaper, plaster, paint, and finishes such as stenciling, marbling, and graining; and other decorative materials that accent interior features and provide color, texture, and patterning to walls, floors, and ceilings. For more detailed information see: [http://www.nps.gov/hps/tps/standguide/rehab/rehab\\_spaces/interior.htm](http://www.nps.gov/hps/tps/standguide/rehab/rehab_spaces/interior.htm)
- New trim materials shall be of select grade of white pine or equivalent. Cabinet plywood shall be of A grade or equivalent (paint or stain grade as per specifications. Pine or fir plywood not permitted for cabinets. MDF is not permitted in millwork.
- Finger jointed material shall not be allowed on surfaces to be varnished but are allowed on surfaces to be painted.
- Finish work shall be finished smooth, free from machine or tool marks, abrasions, raised grain, etc., on exposed surfaces, and shall be machine sanded and hand sanded to a smooth finish.
- All molder members and trim shall be mitered or coped at corners.
- All measurements and dimensions shall be verified by the Contractor at the job.
- Nails shall be countersunk.

**8.2 Cabinets (Kitchen)**

- Cabinets shall be set level.
- Cabinet face frames shall be made of 1/4 inch grade birch plywood. End panels and bottoms shall be 1/2" plywood. Cabinet backs and tops shall be 3/8" medium density particleboard with filled bull nosed edge.
- Doors shall be 1/2" birch plywood, "A" grade, trimmed with lip mold.
- Drawer fronts shall be the same as doors. Sides, panels, and bottoms of 3/8" plywood.
- All joints shall have countersunk nailing and glue.

**8.3 Countertops**

Countertops shall be laminated counter top with matching backsplash, approved by the Grants Management and Administration Department.

**8.4 Interior trim**

- Door trim shall be H-trim with mitered corners and installed with a 1/8" inch reveal, or specified trim.
- Window stools shall have a mitered, bull nosed front end. Window trim may also be gypsum board.
- Ceiling trim, where needed, shall be 1/4" cove mold with mitered joints and corners.
- Baseboards shall be a base mold of at least 2 1/4".
- Shoe mold shall be required in all rooms without carpet.

**8.5 Shelves**

- Kitchen shelves shall be a minimum 11 1/2" deep by 1" lumber. Bedroom closet, bathroom closet, and garage shelves shall be a minimum of 12" deep by 1" thick lumber or other dimension as specified on the plans. They shall be adequately supported with wall brackets.

**Section 9 – Flooring**

**9.1 General specifications**

- General specifications shall meet Texas Minimum Construction Standards, and City of San Antonio building code current at the time of construction.
- All sub-floors should be solid and continuous, without liberal movement or bounce, free from rot and deterioration.
- All flooring must be free from tripping hazards with a minimum of seams spaced at logical locations such as doorways and matched to the existing floor.
- All flooring must be sealed and/or light at the edges.
- If concrete slab on grade is used, plywood underlayment is not required.
- Underlayment for pier and beam construction:
  - Bathroom underlayment must be 5/8" CDX exterior grade plywood over a 30 pound felt paper vapor barrier.
  - All other floors must have 5/8", plywood installed with vapor barrier as is in bathroom; floors must be smooth and even throughout structures.
- If hardwood flooring is to be installed, sub-flooring must be 5/8" CDX plywood.
- Vinyl composition tile (VCT) must be 12"x12" square and 1/8" thickness homogeneous type as approved by the Contract Administrator.
- Sheet vinyl must be 12" mm. Floors at bath and kitchen must have waterproofed cover.
- Carpeting must be durable quality nylon fabric with jute backing and meet or exceed FHA specifications. Must be a 24-28 oz. face weight carpet with continuous nylon filament.
- Installation must be done with manufacturer's suggested adhesive.
- The VCT must be fitted with no gaps showing at walls, door openings, or trim. Full cover must be achieved. At doors or other areas of joining, metal strips must be installed to protect floor covering.
- Shoe mold is required.

**Section 10 – Exterior Treatment**

**10.1 Brick**

- For existing masonry install masonry that is a replacement in kind—or a compatible substitute material.
- For historic properties, the City recommends identifying, retaining, and preserving masonry features that are important in defining the overall historic character of the building such as walls, brackets, railings, cornices, window architraves, door pediments, sills, and columns, and details such as tooling and bonding patterns, coatings, and color. For more detailed information see: [http://www.nps.gov/hps/tps/standguide/rehab/rehab\\_masonry.htm](http://www.nps.gov/hps/tps/standguide/rehab/rehab_masonry.htm)
- New building face brick must be of gas fired solid clay shale units. Structural clay tile, concrete masonry units, and stone must comply with FHA specifications, Section 703.
- Do not install cracked, broken, or chipped masonry units.
- Lay masonry units plumb, true to line and with level courses accurately spaced within allowable tolerances.
- Adjust masonry units into final position while mortar is soft and plastic.
- Lay masonry units with full mortar coverage on horizontal and vertical joints.
- Provide weep holes in head joints in first course and immediately above all flashing. Maximum spacing 33 inches.
- Attach masonry veneer to backing with metal veneer ties. Use at least one tie per 3.25 square feet of veneer.
- Dry trash masonry surface after each day's work. Scrub with acceptable cleaning agent.

**10.2 Exterior Trim**

- For existing exterior trim install material that is a replacement in kind—or a compatible substitute material.
- For historic properties, the City recommends identifying, retaining, and preserving wood features that are important in defining the overall historic character of the building such as siding, cornices, brackets, window architraves, and doorway pediments; and their paints, finishes, and colors. For more detailed information see: [http://www.nps.gov/hps/tps/standguide/rehab/rehab\\_wood.htm](http://www.nps.gov/hps/tps/standguide/rehab/rehab_wood.htm)
- New fascia shall be Hardi Plank. Fascia shall be installed on wood band nailed to rafter tails and shall be 1/2 inch wider than the cut of the rafter and soffit.
- New soffit shall be Hardi Vented soffit installed to rafter (when specified).
- New posts and handrails:
  - Columns shall be a turned post column and be pressure treated lumber or fiberglass equivalent designed for exterior use.
  - Handrails shall be pressure treated lumber.
- New exterior door and window trim shall be Hardi Trim. Gaps shall be only large enough so that caulking will be sufficient to fill.
- All fasteners and fittings shall be non-corrosive materials.

**10.3 Siding**

- For existing siding install siding that is a replacement in kind—or a compatible substitute material.

For historic properties, the City recommends identifying, retaining, and preserving wood features that are important in defining the overall historic character of the building such as siding, cornices, brackets, window architraves, and doorway pediments; and their paints, finishes, and colors. For more detailed information see: [http://www.nps.gov/hps/tps/standguide/rehab/rehab\\_wood.htm](http://www.nps.gov/hps/tps/standguide/rehab/rehab_wood.htm)

- New exterior siding shall be Hardi-Plank.
- All joints and panels must fall on center of framing members.
- For lap siding start application by fastening a starter strip (3/8" x 3/8") along bottom edge of the Sill. Level and install first piece of siding so that bottom edge is at least 1/8", below the starter strip.
- Fasteners must be 1/4", up from the drip edge of the siding.
- Minimum overlap of courses must be 1". No siding may be placed closer than 6" to the exposed eave.
- Exposure of siding to be 4-5 inches.

**Section 11 – Painting**

**11.1 General specifications**

- All work shall be done by skilled mechanics and shall be uniform in appearance, of approved color, smooth and free from runs, sags, skips, and defective brushing.
- Paint shall be well ground, not settled, badly caked, or thickened in container. It shall be readily broken up with a paddle to a smooth consistency and have easy brushing properties.
- Paint shall be readily mixed.
- Installation rate shall be no higher than the rate of coverage suggested by the manufacturer. All paint materials shall be delivered in original unopened containers, with labels and tag intact.
- Paint shall be allowed to dry hard between coats, as per manufacturer's recommendation. Full coverage is required.
- When color, wood grain, stain, or undercoat show through the final coat of paint, the work shall be covered by additional coat or coats until the paint is uniform in color and appearance and coverage is complete.
- Edges of paint adjoining other materials or colors shall be sharp and clean without overlapping.
- All cracks and joints shall be completely sealed with caulking compound (both interior and exterior). Caulking compound shall be delivered to the job in manufacturer's unopened containers. Caulk to be minimum 20-year warranty acrylic latex.
- At completion of all construction, all damaged surfaces shall be touched up and left in a high quality condition.
- Lead based paint shall not be used.

**11.2 Exterior painting**

- Paint must carry a quality of no less than a 15-year warranty.
- Exterior painting shall be performed when weather conditions are acceptable as recommended by the manufacturer.
- Back prime unpainted wood using one coat of primer paint with mildew retardant.
- Nail holes, splits or scratches shall be puttied, caulked or spackled smooth after prime coat. Knots and pitch streaks shall be spot primed with a quality stain killer.
- Wood surfaces shall have smooth finish surface when painted.

**11.3 Interior painting**

- Gypsum board paint finish shall be Eggshell or Satin. Flat finish is not allowed.
- Paint for walls, ceiling and trim must carry a quality of at least a 10-year warranty.
- At no time will latex paint be used to cover oil-based paint. All trim and wood shall receive two coats of semi-gloss oil base or latex enamel paint.

**Section 12 – Plumbing**

**12.1 General specifications**

- General specifications shall meet Texas Minimum Construction Standards, and City of San Antonio building code current at the time of construction.
- For historic properties, the City recommends identifying, retaining, and preserving visible features of early mechanical systems that are important in defining the overall historic character of the building, such as radiators, and plumbing fixtures. For more detailed information see: [http://www.nps.gov/hps/tps/standguide/rehab/rehab\\_mechsystems.htm](http://www.nps.gov/hps/tps/standguide/rehab/rehab_mechsystems.htm)
- All lines shall be located in wall cavities, ceiling/attic cavities and under foundation. Include roof jacks and flashing where necessary.
- Gas piping shall be black steel pipe. Provide standard U.S. made gas stops where required.
- Provide standard U.S. made gas stops where required.
- Potable water supply piping, water discharge outlets, back-flow prevention devices or similar equipment must be in serviceable condition free from deterioration, corrosion and blockage and must not be so located as to make possible their submergence in any contaminated or polluted liquid or substance.
- New sanitary waste and drainage piping shall be PVC, Schedule 40.
- Water piping shall be type "L" copper tubing with wrought copper solder joint fittings, PEX water lines or galvanized iron with galvanized fittings.
- Unions shall be provided to permit removal of equipment without cutting piping where legal.
- Water stop valves shall be standard U.S. made with ends similar to fittings. Valves shall be provided at each piece of equipment to permit removal without shutting off service.

**12.2 Water Supply and Wastewater Systems**

- Every dwelling unit must be connected to a sanitary water supply and functioning sanitary waste/water disposal system.
- Every dwelling unit must contain a room which is equipped with a functioning toilet and a properly installed lavatory. Said lavatory must be properly connected to both hot and cold running water, under pressure, and must be properly maintained in working order. Faucets should be free from leaks or drips and should shut off completely.
- Every dwelling unit must contain a bathtub and/or shower. Bathtub and/or shower may be in the same room as the flush water cold and lavatory, or said bathtub and/or shower may be in a separate room. These facilities must be properly connected to both hot and cold running water lines, under pressure, and must be maintained in working order. Faucets shall be free from leaks or drips and shall shut off completely.
- Toilets and bathrooms must have doors with a privacy type lock and such doors, lock and hardware must be operable and maintained in working order.
- Every dwelling must have supplied water-heating facilities which are properly installed; are maintained in working condition and free of leaks; are properly connected to any required hot water lines; and, are capable of heating water to be drawn for every bath as well as general usage.
- Every kitchen sink, toilet, lavatory basin and bathtub/shower, must be maintained in working condition and be properly connected to an approved water and sewer or septic system.
- The following shut off valves will be installed:
  - One owner's shut off at the meter or supply source,
  - One shut off at each toilet,
  - One shut off each for hot and cold water at each sink/lavatory,
  - One supply side shut off at each water heater.
  - At least one exterior faucet must be installed and all faucets must be freeze protected.

**12.3 Fixtures**

- Existing Plumbing Fixtures which are to remain shall be placed in good working order. All missing or damaged trim shall be replaced with new trim of same design or the entire set shall be replaced.
- Water Closet: Only standard US made brand is acceptable and shall include a two (2) piece close coupled white, vitreous china, water saving commode (gallons per flush to current code). Includes pressed wood toilet seat, supply line, shut-off valve and one (1) bowl wax ring.
- Kitchen sink shall be a new stainless steel seven (7) inches deep medium-grade double compartment, 33x22 inch self-rimming unit installed in kitchen complete with new ADA Compliant single handed mixer faucet, with vegetable sprayer, American Standard Colony Soft Kitchen Faucet w separate spray (Model #: 4175.501 or written approved equivalent washer-less), basket strainers, new continuous waste, P-trap assembly, DWV, etc. to code.
- Lavatory: Unit shall include a 18" or 24" vanity (if space allows) complete with wood cabinet or equal, with cultured marble top, supply risers, shut-off valves and all necessary hardware.
- Lavatory faucets to be ADA Compliant American Standard Colony Soft Single Control Faucet w pop-up drain or written approved equivalent. Model #: 2175.503
- Shower pan shall be installed as per manufacturer's instructions and have a City inspection.
- Dryer venting shall be ducted to the exterior of the structure. All openings shall be rodent and weatherproof.
- Washer connections shall be recessed mount box in wall with DWV and water faucets.
- Hose bibs shall be installed at locations on the plans. Exterior hose bibs shall be the frost proof type with built in vacuum breaker. Backflow preventers are required.

**12.4 Water Heaters**

- All water heaters must carry a 5 year tank warranty, and be properly vented and sealed.
- All water heaters will have at least thirty gallons storage capacity. Will be able to supply a continuous flow of hot water of at least 102 degrees F, and will be properly installed with gas or electric shut-off valves as well as cold water supply shut-off valves.
- Each unit shall be equipped with a functioning pressure release valve (TRV) which must release pressure at 150 P.S.I. and/or 210 degrees F. Water released must be exhausted to the exterior of the building.
- Each water heater must be enclosed (except where otherwise permitted by the SBCCI) in a sealed closet designed for this purpose with combustion air drawn from outside the living area. Any gas water heater installed in garage areas will be located at least 18" above the floor in order to prevent combustion of fuel vapors.
- Energy Efficiency Requirements
  - Electric water heaters must meet the minimum energy efficiency requirements outlined in the following chart when acquiring residential electric resistance water heaters of the types and sizes described below.  

Energy Efficiency Requirements for Federal Purchases	Storage Volume	Energy Factor	Annual Energy Use
55 gallons or less	0.93 or greater	4,721 kWh or less	
56 gallons or more	0.92 or greater	4,773 kWh or less	
  - Where specified, residential electric resistance water heaters that meet or exceed the energy efficiency requirements outlined above are required.
  - Water heater pipe insulation must have a minimum thickness of 3/4". All hot and cold vertical lengths of pipe shall be insulated, plus the initial length of horizontal hot and cold water pipe until vent penetration.

**12.5 Hazardous/Substandard Conditions**

- Hazardous conditions must include any condition that threatens the health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
  - Lack of a continuous sanitary water supply. Where ground wells are used, this source should be approved for drinking or a secondary source of drinking water should be available.
  - Lack of a continuously functioning sanitary waste water disposal system.
  - Missing, dysfunctional or non-existent sanitary facilities including a functioning toilet in a separate room designed for such purposes. The lack of at least one sink and/or lavatory for hygiene and at least one sink for kitchen purposes, each providing a continuous flow of both hot and cold water. The lack of at least one functional bathing facility.
  - Deteriorated, rotted, broken or otherwise worn water supply or waste water pipes;
  - Evident leaks either continuous or intermittent of either waste water or water supply lines.

- This includes evidence of pooling underground of water mains, sewer feeds or septic drain fields;
- Missing or blocked vent pipes;
- Gas water heaters are prohibited in bathrooms, sleeping rooms, and closets;
- Missing gas shut off valve for water heater;
- Water heater combustion air taken from living area except when adequate air exchange meets SBCCI standards;
- Missing or dysfunctional water heater TRV valve. TRV drain should flow at an angle not exceeding horizontal and exhaust flow to exterior of building;
- Inadequate water heater exhaust pipe, combustion exhaust should be double walled and skirted at all penetrations;
- Water Heater storage tanks less than thirty gallons;
- Water Heater storage tanks that have calcified;
- Water heater pipes, nipples or tanks elements that are rusted or corroded.
- Missing or dysfunctional shut off valves one of which should be located at the following locations:
  - One shut off at the meter or supply source,
  - One shut off at each toilet,
  - One shut off each for hot and cold water at each sink/lavatory,
  - One supply side shut off at each water heater.
- The lack of fully functioning faucets at each sink/lavatory, bathtub/shower, at and at least one exterior hose bib
- Any other condition not mentioned which meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

**Section 13 – Electrical**

**13.1 General specifications**

- General specifications shall meet Texas Minimum Construction Standards, and City of San Antonio building code current at the time of construction.
- All habitable rooms and other appropriate spaces requiring electrical services shall be provided with a system of wiring, wiring devices, and equipment to safely supply electrical energy for proper illumination, appliances, resident security, and other electrical equipment.
- All electrical work must be performed by a licensed electrician, and a copy of the permit issued by the City Building Inspection Department must be PROPERLY DISPLAYED prior to commencement of work on the electrical system. All electrical work must be inspected by the City Building Inspection Department.
- For Historic properties, the City recommends identifying, retaining, and preserving visible features of early mechanical systems that are important in defining the overall historic character of the building, such as fans, grilles, and switch plates, and lights. For more detailed information see: [http://www.nps.gov/hps/tps/standguide/rehab/rehab\\_mechsystems.htm](http://www.nps.gov/hps/tps/standguide/rehab/rehab_mechsystems.htm)
- All wiring must utilize copper conductors, aluminum conductors are disallowed.
- All wiring must be fished in wall cavities. Any surface mounted wiring must be in smooth EMT conduit or wire mold securely mounted.
- All electrical components, installations and modifications shall comply with NEC, and amended Codes and Ordinances of the City of San Antonio, Texas.
- In case of any conflict between the plans and the National Electrical Code, the National Electrical Code will prevail and all work must be performed in accordance with said code. In case of any conflict between the plans and the Codes and Ordinances of the City, the Codes and Ordinances of the City will prevail and all work must be performed in accordance with said codes and ordinances.
- GFCI's will be installed according to State of Texas property code, City of San Antonio building code current at the time of construction, and manufacturer's recommendation; such devices will be properly grounded and tested for proper function.

**13.2 Service**

- New Service Entrance must be a minimum 200 amp, 120/240v service as per the plans.
- New Service shall include capacity for 200 amps, grounding and lightning arrester.
- Service panel box shall include, capacity of service as indicated, box with number of circuits as indicated, lightning arrester and ground. Distribute all circuits to avoid overload of service.

**13.3 Fixtures**

- Materials shall be new and shall be UL Approved and/or National Electrical Code rated. New light fixtures shall be metal and not plastic.
- All existing or new 220v appliances/equipment shall be retrofitted with new cord to be compatible with receptacle required by the State of Texas property code and City of San Antonio Building Code.
- Bathroom ceiling heater must be forced fan unit. Install as per the plans and the manufacturer's recommendations.
- Bath exhaust fan must be U.L. approved and installed to meet City of San Antonio building code current at the time of construction.
- Newly installed Range Hood must be U.L. listed and vented through the roof.

**13.4 Smoke and CO Detector**

- For all new construction, 110 volt U.L. listed smoke alarm units shall be installed according to State of Texas property code, City of San Antonio building code current at the time of construction, and manufacturer's recommendation at location(s) specified on project specifications. Also at least one carbon monoxide detector must be installed if natural gas or other combustible is used as fuel source.
- For all rehabilitation projects, U.L. listed smoke alarm units shall be installed according to State of Texas property code, City of San Antonio building code current at the time of construction and manufacturer's recommendation. Also at least one carbon monoxide detector must be installed if natural gas or other combustible is used as fuel source.

**13.5 Hazardous/Substandard Conditions**

- Hazardous conditions must include any condition that threatens the health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
  - Equipment or wiring which is missing, broken, disconnected, loosely connected, burnt, unsupported, corroded, cracked, spilt, has evidence of overheating, physical damage, or misuse;
  - Device or equipment is dirty, full of debris, infested, etc.;
  - Frayed wiring is present;
  - Unshielded, knob and tube wiring is present;
  - Circuit breaker, switch, receptacle, fixed equipment, wiring or cable is not compatible with the phase, voltage, amperage, or other characteristics of the electricity in use;
  - Intermittent operation of fixed equipment, switches, outlets or other devices;
  - Flexible cord is used as a permanent wiring method;
  - Interior wiring is surface mounted and not conduit. This excludes crawl spaces and other allowable installations where access to wiring is limited;
  - Exterior wiring which is exposed to damp conditions, sunlight or potential damage is not conduit;
  - Bathroom receptacle, kitchen receptacle located within six feet of a water source garage receptacle or other exterior receptacle are not protected by a ground fault interrupting device;
  - Polarity is reversed in connections or receptacles;
  - Branch circuits, feeder lines, cable size, device rating, circuit breakers, sub-panels or service panels are inadequate for the load as calculated by the current NEC standard Section 110-14, CABO sections 4100-4500 or the SBCCI sections;
  - Unlabeled circuit breakers;
  - Circuits that have been expanded past their original design limits;
  - Missing or dysfunctional overhead or other switch operated lighting in each interior room;
  - Missing or dysfunctional lighting at each exterior door operated by an interior switch that is within reach of the door;
- Any other condition not mentioned which meets the definition of a hazardous or substandard condition should be repaired and/or rehabilitated to meet industry standards.

**Section 14 – Mechanical Systems**

**14.1 General Specifications**

- General specifications shall meet Texas Minimum Construction Standards, and City of San Antonio building code current at the time of construction.
- For Historic properties, the City recommends identifying, retaining, and preserving visible features of early mechanical systems that are important in defining the overall historic character of the building, such as radiators, vents, fans, and grilles. For more detailed information see: [http://www.nps.gov/hps/tps/standguide/rehab/rehab\\_mechsystems.htm](http://www.nps.gov/hps/tps/standguide/rehab/rehab_mechsystems.htm)
- Central heat and air unit shall be U.L. listed. The unit shall be and shall comply with the Energy Conservation Code. It shall include all connections, piping, and fittings. BTU output and number of units shall be determined in the individual specifications. Unit must be installed by a licensed HVAC contractor in accordance City of San Antonio building code current at the time of construction. The thermostat must be capable of being set by adjustment or selection of sensors from at least 55o to 85o Fahrenheit and shall be capable of operating the system heating and cooling in sequence.

**14.2 Minimum Mechanical Systems Standards**

- Each dwelling and/or dwelling unit must be supplied with its own heating system.
- All heating facilities must be properly installed, be maintained in working condition and be capable of adequately heating all habitable rooms, bathrooms, and toilet rooms contained therein, or intended for use by the occupants thereof, to a temperature of at least 70 degrees F. (21 -degrees C) at a distance 3 feet above the floor when the outside temperature is at or below minus 10 degrees F.
- Ambient heat must be supplied from an adequate heat source in an adjoining room or hallway;
- Every supplied central heating system must comply with all of the following requirements:
  - The central heating unit must be safe and in good working condition.
  - Every heat duct, steam pipe, and hot water pipe must be free of leaks and must function so that an adequate amount of heat is delivered where intended;
  - Every seal between any of the sections of a hot air furnace must be air-tight so noxious gases will not escape into the heat ducts; liner must be installed.
  - The liner must meet or exceed the requirements of the City of San Antonio building code current at the time of construction, and must be installed according to same.
  - Whenever an existing structure has as its source of central heat the old octopus type conversion furnace, the unit must be inspected by a qualified furnace inspector to determine if the unit is still safe, free from carbon-monoxide leakage and capable of supplying heat as required above.
- Every supplied space heater must comply with all of the following requirements:
  - No space heater burning solid, liquid, or gaseous fuels must be of a portable type;
  - Every space heater burning solid, liquid, or gaseous fuels must be properly vented to a chimney or duct leading to outdoor space and must be so installed as to provide proper draft (except when a functioning ODS system and a CO testing device is installed).
  - Every fuel burning space heater must have a fire-resistant panel on the floor or floor covering; whenever a space heater is located within 2 feet of a wall, said wall must be protected with insulation sufficient to prevent overheating of the wall.
  - Every space heater smoke pipe must be of a double walled variety and must be equipped with approved type thimbles or guards, properly constructed of non-flammable material. At the point where the pipe goes through any wall, ceiling, or partition the pipe must be surrounded by a protective collar or escutcheon.
  - Whenever feasible, un-vented free standing space heaters shall be removed and replaced with vented types. In rare situations, when vented type units are not feasible, un-vented ODS equipped units may be installed if approved by the City. In cases where ODS equipped heater are used a Carbon Monoxide testing device will be permanently installed.
- All Texas, "T" valves should be replaced with approved shut off valves.
- All mechanical work must be inspected and approved by the City's building inspection department.

ANY PARTY, REFERENCING THESE PLANS FOR PRICING OR CONSTRUCTION, SHALL VERIFY ALL FIELD CONDITIONS WHICH WILL AFFECT THEIR SCOPE OF WORK, THE PROCUREMENT OF MATERIAL, AND FABRICATION OF COMPONENTS FOR THE CONSTRUCTION SHOWN ON THESE PLANS PRIOR TO THE START OF CONSTRUCTION. UNLESS OTHERWISE INDICATED, THE DOCUMENTS DO NOT INDICATE THE MEANS AND METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL MEASURES TO PROTECT THE SAFETY OF THE PUBLIC ALONG WITH THE SAFETY OF PROPERTY AND HIMSELF, DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, RETAINING PROFESSIONAL TO AID IN DEVELOPING, SHORING AND BRACING SYSTEMS, AND INSPECTION OF THE ASSEMBLY AND MAINTENANCE OF BRACING AND SHORING SYSTEMS. DESIGN, CONSTRUCT, INSPECT AND MAINTAIN BRACING AND SHORING SYSTEMS TO SUSTAIN PRESCRIBED SERVICE LOADS PER THE INTERNATIONAL BUILDING CODE. THE CONTRACTOR WILL BE REQUIRED TO CORRECT AT HIS OWN EXPENSE ANY SUBSIDENCE, STRUCTURAL DAMAGE OR OTHER OBJECTIONAL CONDITIONS CAUSED BY HIS OPERATIONS.

ISSUED FOR CONSTRUCTION



3 OF 14  
NOTES

THESE PLANS COMPLY WITH  
 THE UNIVERSAL DESIGN CODE  
 AND 2018 IRC  
 SHEET SIZE: 24" x 36"  
 ISSUE DATE: 9.22.2020  
 SHEET:



**NEW RESIDENTIAL BUILDING**  
**MODEL 1233R-18**  
 CITY OF SAN ANTONIO  
 DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

**14.3 Heat Pumps Installation & Efficiency Standard**

- Equipment shall be properly sized to dwelling based on ASHRAE or ACCA Manual J standards.
- Manufacturer data sheets on installed air conditioning equipment or ARI equivalent combined compressor and coil HSPF must be provided to the utility in the Implementation Report.
- Heat pumps shall have a minimum SEER of 14.00 and an HSPF of 8.2.

**14.4 Central Heat and Air Conditioner Installation & Efficiency Standard**

- Air conditioning equipment shall be properly sized to dwelling based on ASHRAE or ACCA Manual J standards.
- Manufacturer data sheets on installed air conditioning equipment or ARI reference numbers must be provided.
- The central air conditioning equipment must meet the following standards:
  - Minimum ARI-listed SEER rating of 14.00
  - Minimum ARI-listed EER of 11.5
  - Heat pumps must have a minimum ARI-listed HSPF rating of 8.2

**14.5 Hazardous/Substandard Conditions**

- Hazardous conditions must include any condition that threatens the health and or safety of the occupants. Substandard conditions include any condition that threatens, defeats or will lead to the lack of functional viability of a single feature of a home. These conditions must include but not be limited to:
  - The lack of a steady and dependable source of heat which will supply heat to all living areas either directly or indirectly and be able to maintain this heat at least 70 degrees F. in all conditions;
  - Open flame gas or propane heaters which exhaust fumes to the interior of the living area and are not equipped with an Oxygen Depletion System (ODS). If an open flame type heater equipped with ODS is used a carbon monoxide detector must be installed;
    - Leaking, damaged or inadequate heat exchange units or venting systems which create the danger of CO build up;
    - Leaking, corroded or damaged gas supply lines;
    - Tease-T type shut valves;
    - The lack of a functioning supply shut off valve for each gas or propane device;
    - The lack of a functional pilot or electric start for each gas or propane device;
    - Ambient heat which is not supplied from an adjoining room;
    - Free standing electric heaters used for sole source of heat.

**Section 15 – Miscellaneous**

**15.1 Attic Access**

- Must be located as per the plans. Dimensions must be listed on the plans.
- Unless otherwise specified on the plans, scuttle hole cover must be 5/8", plywood with a smooth finish. Trim must be H trim with mitered joints.
- Paint to match other trim in house.
- Cover must have insulation batt cut to fit on top of it.

**15.2 Gravel Walks and drives**

- Gravel Walks and drives must be made of washed gravel 3/8", diameter minimum.
- Gravel must be 4" thick minimum over a well graded and compacted soil.
- Gravel must be contained by 2" x 12" treated lumber (note: distance from ground level to top of board not less than 2").

**15.3 Gutters**

- Gutters and downspouts must be galvanized metal, or aluminum, properly hung.
- A directional fitting must be installed to divert water away from the house.
- A concrete splash block must be placed under each downspout.

**15.4 Insulation**

- General specifications shall meet Texas Minimum Construction Standards, and City of San Antonio building code current at the time of construction.
- Exterior wall insulation: provide foil or paper faced glass fiber batts having a thermal resistance "R" value of at least R-13.
- Ceiling insulation: provide foil or paper faced glass fiber batts having a thermal resistance "R" value of at least R-30.
- Floor insulation: provide foil or paper faced glass fiber batts having a thermal resistance "R" value of at least R-11.
- Install all insulation according to manufacturer's instructions unless otherwise specified.
- Blown insulation is acceptable but should have proper fire retardance and be placed above and below fire blocking.

**15.5 Hardware**

- All exterior deadbolt locks are to be ANSI rated Security Grade 1.
- All entrance locksets must be keyed alike with deadbolts.
- Schlage Accent Universal Residential Keyed Entry Door Lever shall be installed on all exterior entry doors. Any alternate brands must be approved by the Contract Administrator.
- Schlage Residential Single-Cylinder Deadbolts (Security Grade 1) shall be installed on all exterior entry doors. Any alternate brands must be approved by the Contract Administrator.
- Keyed Entry sets and Deadbolt locks for new construction are to be finished in satin nickel/chrome unless otherwise specified.
- Keyed Entry sets and Deadbolt locks for rehabilitation projects are to match existing hardware as close as possible.
- Interior Doors on new construction - All bathroom and bedroom doors shall have Schlage Privacy Accent Push-Button Lock Residential Privacy Door Lever.
- All other interior doors on new construction shall have Schlage Accent Residential Passage Door Lever.
- All door hardware on rehab projects shall match existing hardware as closely as possible.
- All doors must have a wall mounted door stop, strike-plate, and lockset with 1 1/2" pair of appropriate hinges.
- Bathroom hardware must include the following unless otherwise specified:
  - Two chrome towel bars 18", long
  - Chrome toilet tissue holder.
  - Chrome toothbrush and tumbler holder.
  - Shower/tub panel kit must be ABS plastic unit sealed with matching color silicone caulk. Master bath unit must be ADA compliant.
  - Chrome shower curtain rod.

**15.6 Landscaping**

- Upon final cleanup and removal of all materials and debris, yard must be hydro-mulched, or sodded with a turf grass appropriate to the local climate, or as specified in individual work write-up.
- Replacement landscaping will be of native/adaptive and drought resistant species.
- Utilize low-water requirement turf. Long, narrow strips of turf should be eliminated.
- Low-water use, drought-tolerant, native and adaptive plants shall be utilized.
- Group plants according to water usage.
- Choose plants suitable to the South Central Texas climate. <http://www.saws.org/conservation/outdoor/plants/index.cfm>

**Section 16 – Project Close-Out**

**16.1 Cleaning**

- Remove all construction debris from the site.
- Clean and mop all resilient floors.
- Clean all paint from other finished surfaces including window glass and mirrors.

**16.2 Operating Items**

- Start all systems and leave all newly installed items in operating condition.
- The Contractor shall be responsible for determining that all plumbing and electrical fixtures, switches and receptacles, which were part of the Scope of Work, are in proper working order upon completion of the rehabilitation.

**16.3 Preparation of Structure**

- Prepare structure for Owner's occupancy.

**16.4 Hardware**

- All hardware to be put in operating condition.
- New keys must be turned over to Grants Administrator upon final completion.

**STRUCTURAL GENERAL NOTES**

- The Building Code Requirements for 2018 International Building Code is the basic code document used in the preparation of these structural documents. Additional codes and references are as noted. All structural work shall be according to all local codes in addition to this basic code document.
- The structural engineer-of-record prepared specifications for structural related portions of the project and has included these specifications on the structural drawings. Architectural specifications for non-structural portions of the project are included in the project manual.
- The Contractor shall familiarize himself with the site. Ignorance of conditions is not a basis for a claim for additional compensation. Layout the building by a licensed surveyor.
- Drawings of specific details on the drawings indicate the intent of the structural design and in most cases, are typical conditions or very similar to other details. Consider typical conditions not necessarily noted as typical as typical for other conditions.
- Understanding the requirements shown on the construction documents requires cooperation among all parties involved. Communication is necessary. Immediately report discrepancies for our interpretation. Consider unresolved discrepancies as the more costly interpretation of the discrepancy.
- Combining all construction documents with the structural documents defines the total project. The structural documents represent the finished structure and do not indicate the means or methods of construction. Verify all field conditions that affect new construction before starting construction. Take all measures necessary to protect the safety of the public along with the safety of the structure during construction. Such measures shall include but not be limited to bracing and shoring of dead loads, construction loads and wind loads. Correct at own expense any subsidence structural damage or other objectionable conditions caused by your operations.
- Structural design is based on the following:  
 Floor live loads: 40 psf  
 Floor live loads shall be posted for each floor or part thereof  
 Roof live load = 12/20 psf, Tributary area considered, Ponding not considered  
 Roof uplift = 5 psf  
 Ground Snow Load = 5 psf, Importance Factor (I) = 1.0  
 Design Load Combinations (Allowable Stress Design Method)  
 $D$   
 $D + L$   
 $D + L + (Lr \text{ or } S \text{ or } R)$   
 $D + (W \text{ or } 0.7E) + L + (Lr \text{ or } S \text{ or } R)$   
 $0.6D + W$   
 $0.6D + 0.7E$   
 Wind Loads  
 ASCE 7 Method 2 - Building and Other Structures <= 60'  
 Basic wind speed (3 sec. gust) = 90 mph, Basic wind press = 12 psf.  
 V Ult at Exp. C = 115 mph  
 Structure Type = Building  
 Structure Classification Category II, Exposure Category B  
 Topographic Effects (Kt) = 1.0, Gust Effect Factor (G) = 0.85, Rigid Structure  
 Enclosure Classification: Enclosed  
 Importance Factor: 1.0 Category: II
- Wood Framing
  - All lumber shall be PS 20, new and undamaged graded lumber in accordance with NFPA Grading Rules. Lumber stresses specified do not include repetitive member use. Framing members shall be S4S unless noted otherwise. All wood bearing on concrete or masonry shall be w/olaminated.  
 a) Rough framing (2x4 - 2x12) shall consist of #2 southern yellow pine (SYP) with 19 percent maximum moisture content having no less than an allowable bending stress (Fb) of 1,500 psi (2x4), 1,250 psi (2x6), 1,200 psi (2x8), 1,050 psi (2x10) and 975 psi (2x12), a Modulus of Elasticity of 1,800,000 psi, and an allowable shear stress of 90 psi.  
 g) Framing designated as VL (Versa-lam), or ML (Micro-lam) or Gang-Lam S beams on the plans shall consist of solid plywood beams manufactured by the Boise-Cascade Truss-Joist Corporation or Louisiana Pacific and shall have no less than an allowable bending stress (Fb) of 2,800 psi, a Modulus of Elasticity of 1,800,000 psi, and an allowable shear stress of 185 psi (or larger), unless indicated otherwise.
  - Nails, spikes, and staples shall be galvanized for exterior locations, high humidity locations, and treated wood; plain finish for other interior locations; size and type to suit application. Typical nailing shall be with common wire nails. Exterior gypsum sheathing shall be nailed with #11 gage, 1 3/4" long, 7/16" head, diamond-point, galvanized cooler nails, or cadmium plated W-bugle head screws 1 1/4" long. Staples shall not be used instead of required nails.  
 Bolts, nuts, washers, lags and screws shall be medium carbon steel, size and type to suit application; galvanized for exterior locations, high humidity locations, and treated wood; plain finish for other interior locations.  
 Floor Truss Hangers shall be:  
 Simpson Strong-Tie light double shear joist hangers Model LUS410, or equal having an allowable load capacity of at least 1875#.  
 Plywood sheathing clips shall be Simpson Strong-Tie 18 gage galvanized steel x plywood thickness.  
 Unless otherwise indicated, use type LUS joist hangers as manufactured by the Simpson Company for flush type joist connections to supporting beams. Column cap and base connections shall be as manufactured by The Simpson Company, type as recommended by the manufacturer for the size of joist or column and beams being connected.
- Submit evidence of compliance with specified requirements showing design values for selected species and grades. Indicate sizes and spacing of prefabricated plywood web joists, loads and joist cambers, framed openings, bearing and anchor details, bridging and bracing.
- Store framing material a minimum of 12" above the ground in a manner to allow for proper drainage, ventilation and protection from the weather.
- The "Manual of House Framing" by National Lumber Manufacturer's Association shall set the minimum standard of workmanship. Install main framing miscellaneous blocking, furring, nailing strips, framing, and sheathing. Install members true, plumb, and level. Install shimming where required to set framing in proper alignment. Secure framing in place. Space miscellaneous framing and furring no more than 24 inches on center. Construct members of continuous pieces of longest possible lengths. Framing member connections shall be nailed with no less than 2-16d nails, or as noted. Provide rough hardware as indicated. Comply with Fair Housing Act provisions. Install fire and draftstops according to code requirements.  
 Make proper provisions for the Work of other trades. Refer to the Drawings for wood blocking and plywood required as back-up and framed openings for all other trades and their accessories. All bathrooms on all handicap accessible levels shall receive solid 2x6 wall blocking for grab bars at toilets and tub/shower surrounds.
- At headers built-up with multiple SYP #1/#2 2x members, nail together with at least 16d nails at 16" on center along each edge and with at least 1-16d nail per 6" nominal depth of header. Provide plywood spacers between 2x members to widen header to the width of the stud wall.
- Framing members shall be installed within 1/4" from true position. Square end cuts shall be within 1/16" per foot of depth and width. End surfaces shall be cut to provide contact over substantially the entire surface. Lengths of framing members shall be 1/16" up to 20 feet in length, and 1/16" per 20 feet of specified length for members over 20 feet in length.
- Maintain sheathing surface flatness of maximum 1/8 inch in 10 feet or more.
- Install building paper on all exterior walls. Install horizontally and weather lap a minimum of 2' for horizontal joints and 6' for vertical joints. Stagger vertical joints. Staple securely with roof tin caps.
- Coordinate structural engineer's review, and the building official inspection.  
 The Building Official shall inspect the primary structural framing. The Building Official may accept a review by a licensed professional engineer in place of the Building Official conducting his inspection. (IBC Chapter 109.3.4)

DATE	ISSUE	REMARKS	BT		
			MAC	MAC	MAC
7/24/2017		FOR CONSTRUCTION			
9/22/2020	Δ	SSI 1			
2/28/2021	Δ	SSI 2			



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SHEET SIZE: 24" x 36"

ISSUE DATE: 9/22/2020

SHEET:

**4 OF 14**  
**NOTES**

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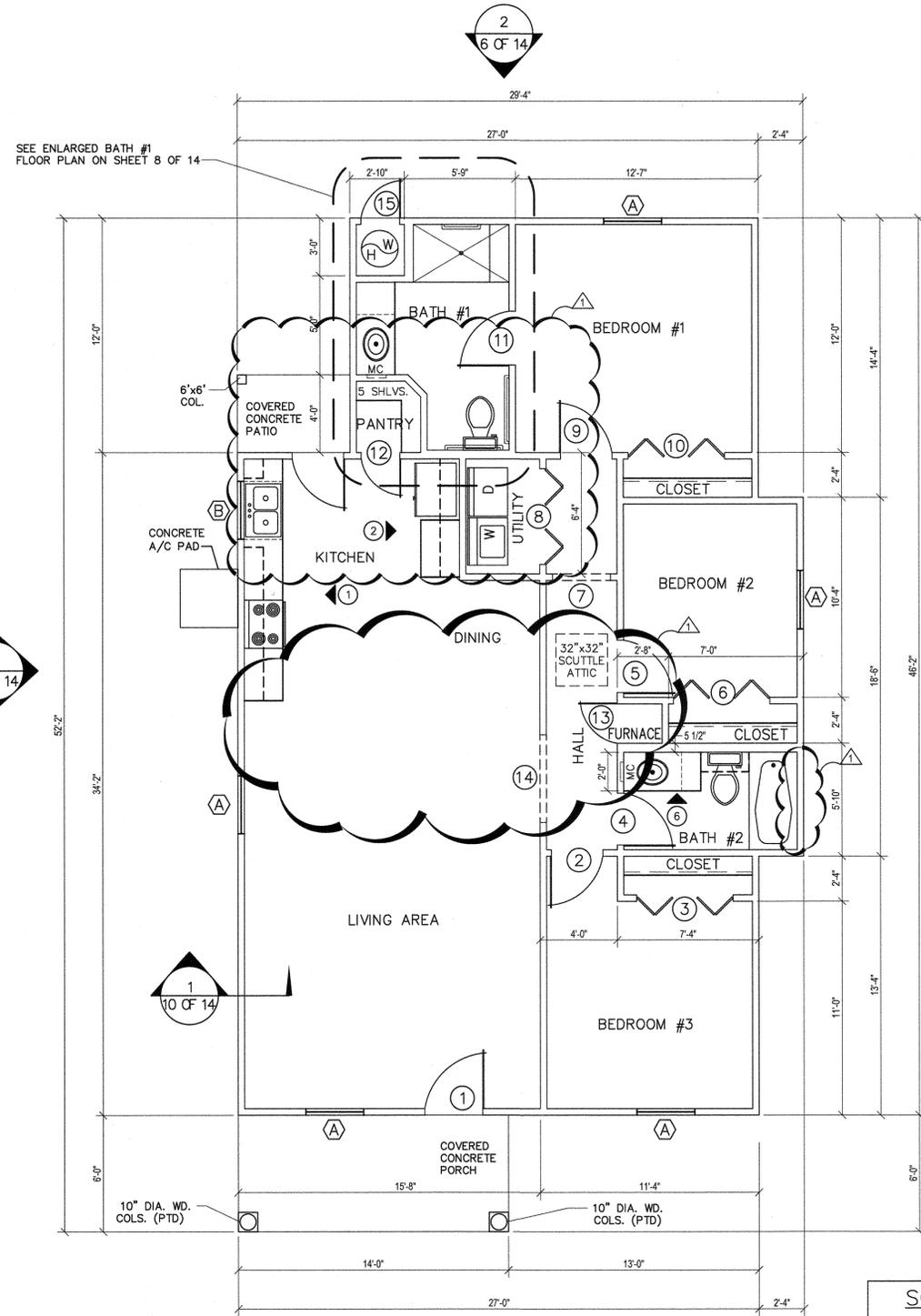




NEW RESIDENTIAL BUILDING

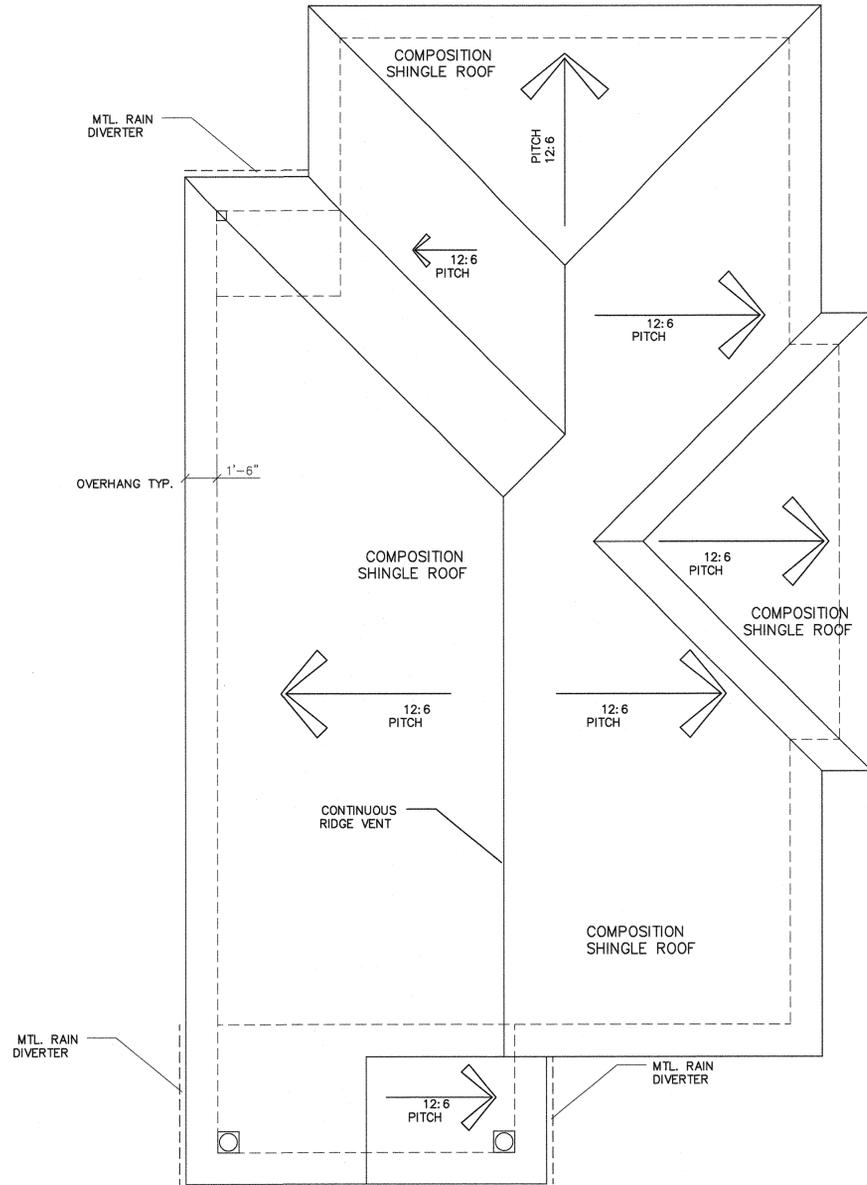
MODEL 1233R-18

CITY OF SAN ANTONIO  
DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT



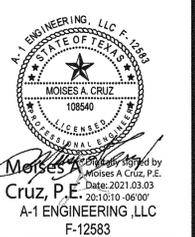
1 FLOOR PLAN  
SCALE: 1/4" = 1'-0"

SQUARE FOOT INFORMATION	
LIVING SPACE	1233 SQ. FT.
FRONT PORCH	80 SQ. FT.
STEP PORCH & W/H	30 SQ. FT.
<b>TOTAL</b>	<b>1343 SQ. FT.</b>



2 ROOF PLAN  
SCALE: 1/4" = 1'-0"

BY	DATE	ISSUE	REMARKS
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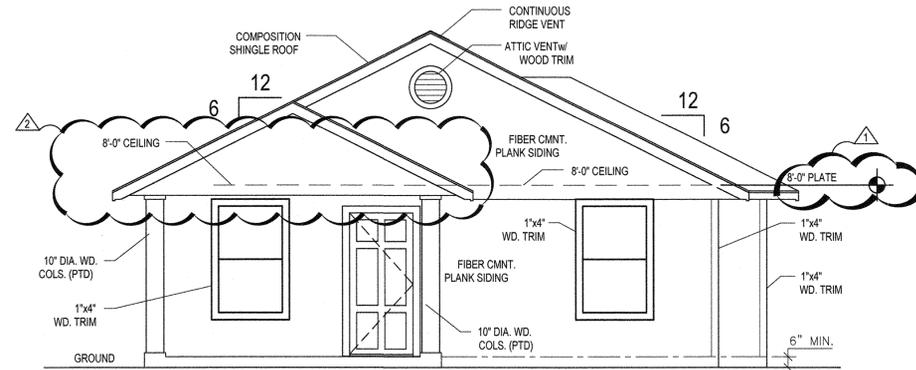




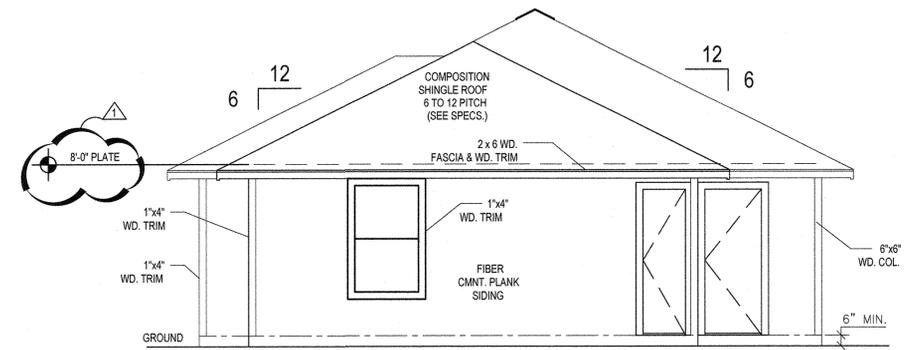
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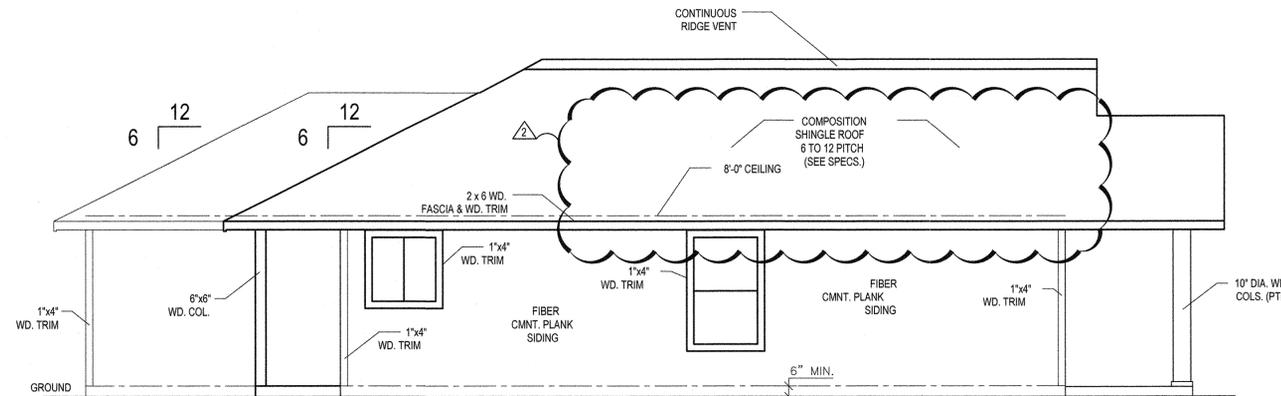
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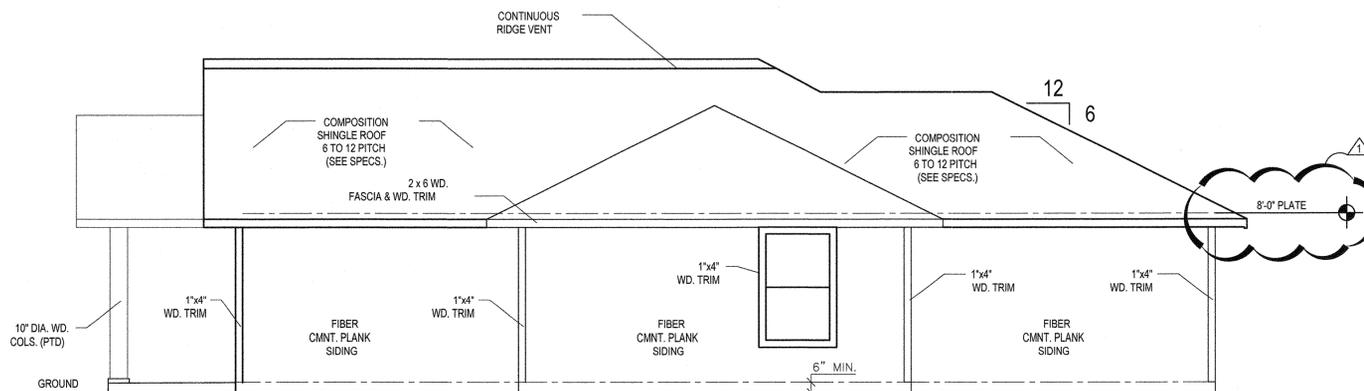
1  
6 OF 14  
FRONT ELEVATION  
SCALE: 1/4" = 1'-0"



2  
6 OF 14  
REAR ELEVATION  
SCALE: 1/4" = 1'-0"



3  
6 OF 14  
LEFT SIDE ELEVATION  
SCALE: 1/4" = 1'-0"



4  
6 OF 14  
RIGHT SIDE ELEVATION  
SCALE: 1/4" = 1'-0"

BY	DATE	ISSUE	REMARKS
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MAC	2.28.2021	SSI 2	



Moises A. Cruz, P.E.  
A-1 ENGINEERING, LLC  
F-12583

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ELEVATIONS

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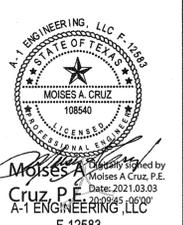
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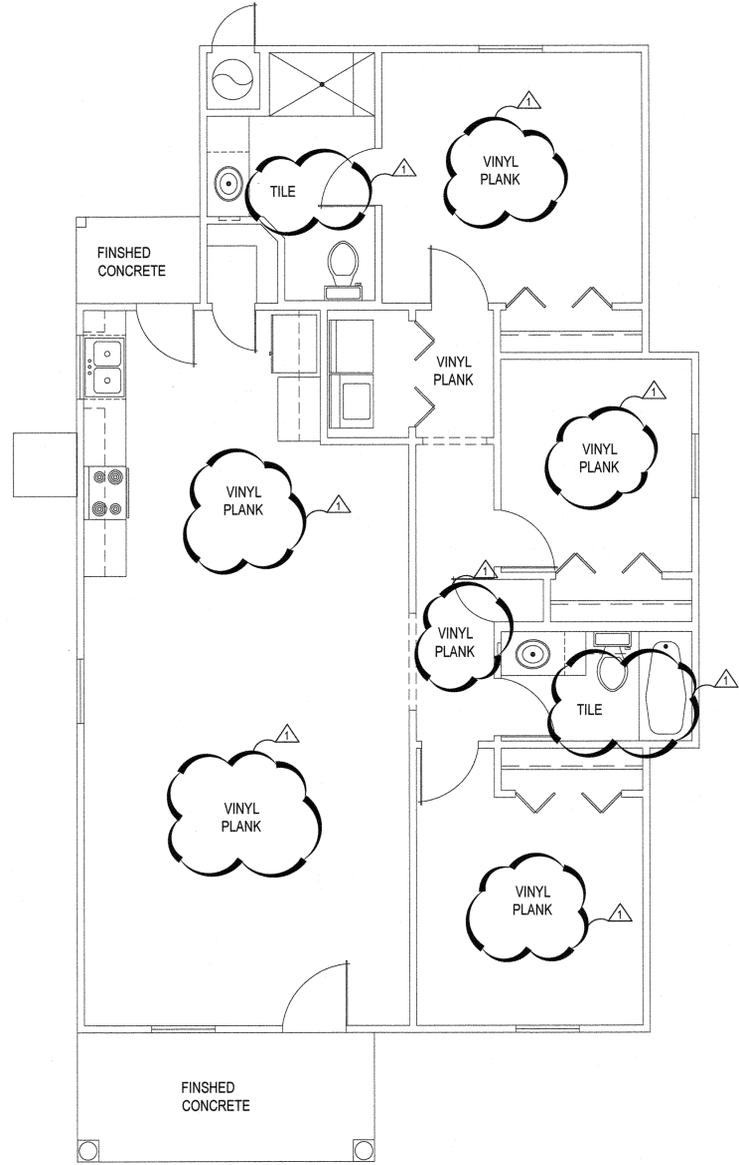
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**7 OF 14**

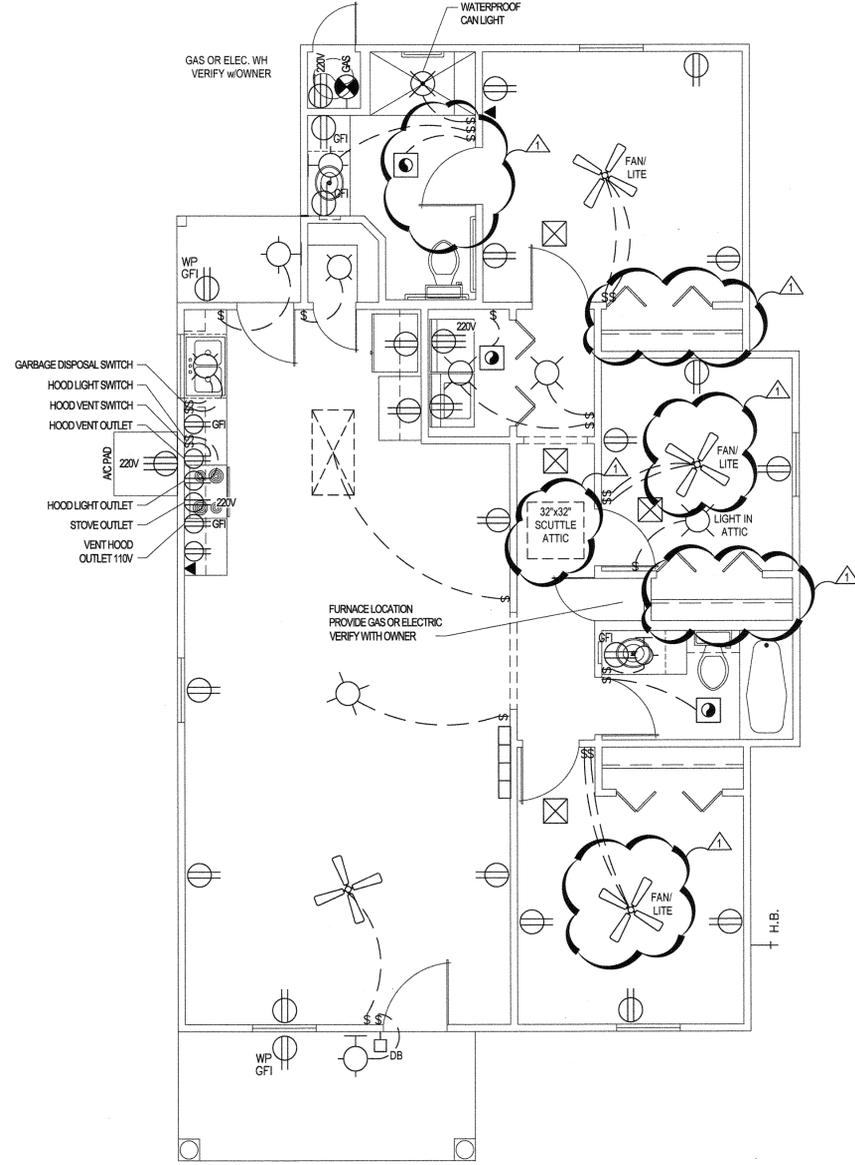
**ELECTRICAL PLANS**

**LEGEND**

- ☒ SMOKE DETECTOR  
NOTE: SMOKE DETECTORS SHALL BE HARDWIRED IN SERIES WITH BATTERY BACKUP POWER AS PER (sec. R317).
- \$ SINGLE POLE LIGHT SWITCH
- WALL MOUNTED LIGHT FIXTURE
- CEILING MOUNTED LIGHT FIXTURE
- ☒ CEILING MOUNTED WATERPROOF CAN LIGHT
- ⊖ DUPLEX ELECTRICAL OUTLET
- ⊖<sub>GFI</sub> G.F.I. OUTLET
- ⊖<sub>D/W</sub> D/W OUTLET
- ⊖<sup>220 V.</sup> 220 V. OUTLET
- INTERNET DATA LINE
- VENT
- † H.B. HOSE BIB
- ⊗ CEILING FAN w/LIGHT FIXTURE
- (B.O.) BY OWNER
- ⊖<sub>TV</sub> TELEPHONE JACK OUTLET
- ⊖<sub>CABLE</sub> CABLE CONNECTION
- ⊖<sub>GAS</sub> GAS CONNECTION
- ▬ CHIMES
- (SIZE) HS HORIZONTAL SLIDER
- (SIZE) SH SINGLE HUNG (SLIDES UP)
- ⊖<sub>LED</sub> 2'x4' LED FIXTURE
- DB □ DOOR BELL



**1 FLOORING PLAN**  
SCALE: 1/4" = 1'-0"



**2 ELECTRICAL PLAN**  
SCALE: 1/4" = 1'-0"

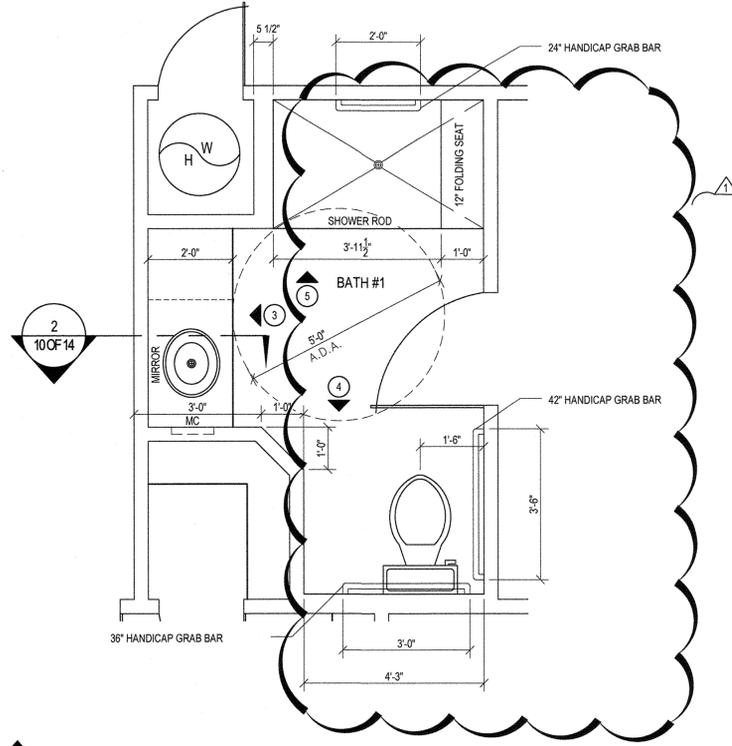
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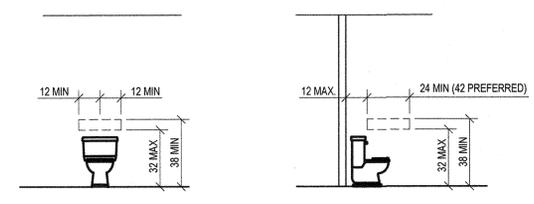




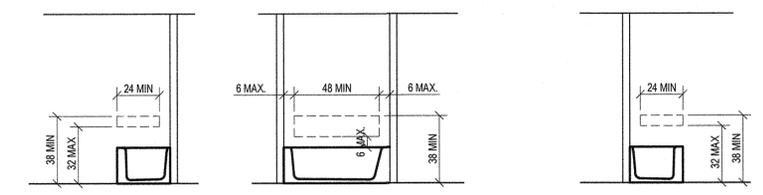
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 CITY OF SAN ANTONIO  
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**1**  
 8 OF 14  
**ENLARGED BATH #1 FLOOR PLAN**  
 SCALE: 1/2" = 1'-0"



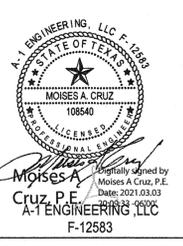
LOCATION OF GRAB BAR REINFORCEMENTS FOR ADAPTABLE BATHROOMS  
 NOTE: THE AREAS OUTLINED IN DASHED LINES REPRESENT LOCATIONS FOR FUTURE INSTALLATION OF GRAB BARS FOR TYPICAL FIXTURE CONFIGURATIONS.



LOCATION OF GRAB BAR REINFORCEMENTS FOR ADAPTABLE SHOWERS  
 NOTE: THE AREAS OUTLINED IN DASHED LINES REPRESENT LOCATIONS FOR FUTURE INSTALLATION OF GRAB BARS FOR TYPICAL FIXTURE CONFIGURATIONS.

**GRAB BAR SCHEMATIC**

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△	7/24/2017	FOR CONSTRUCTION	MAC
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**BATHROOM**

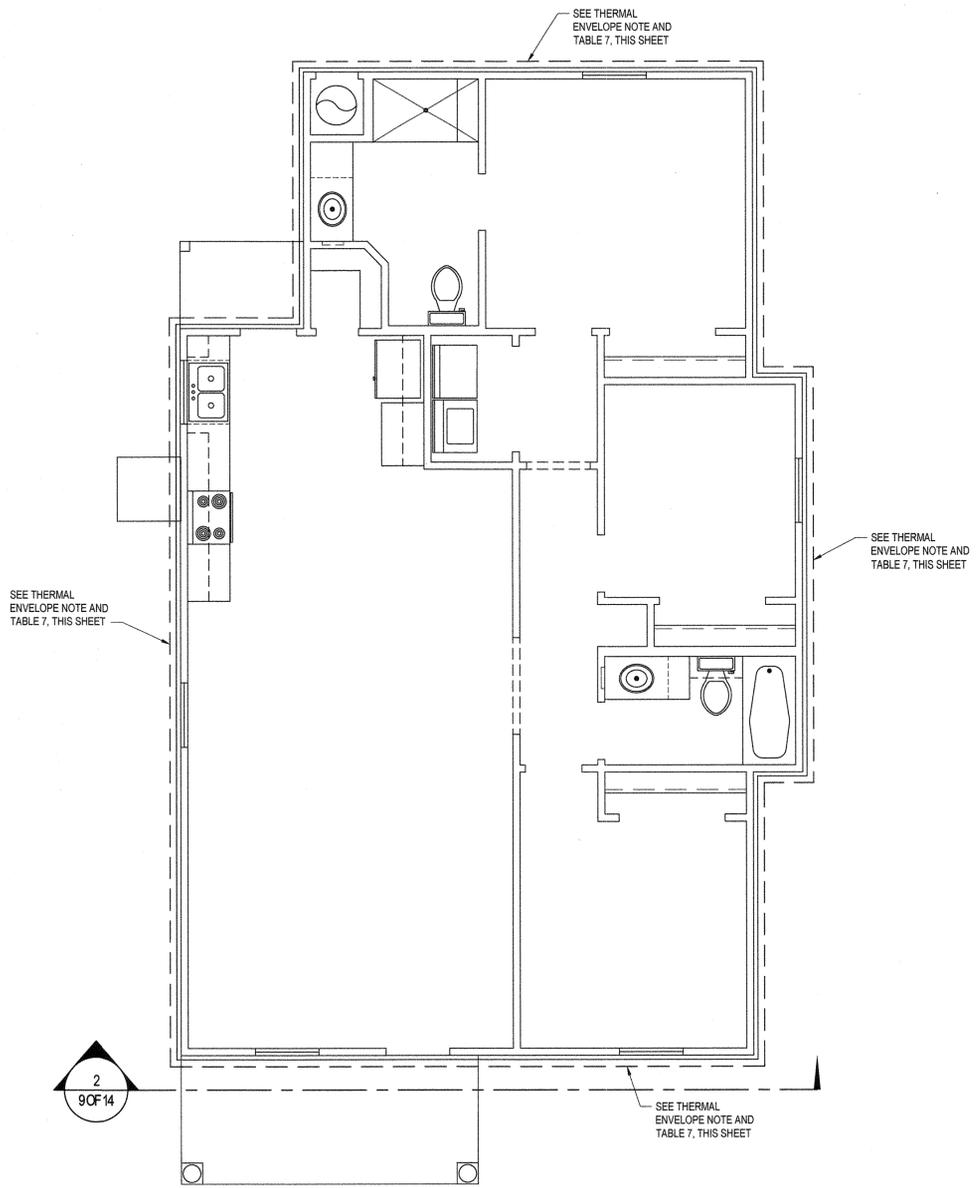
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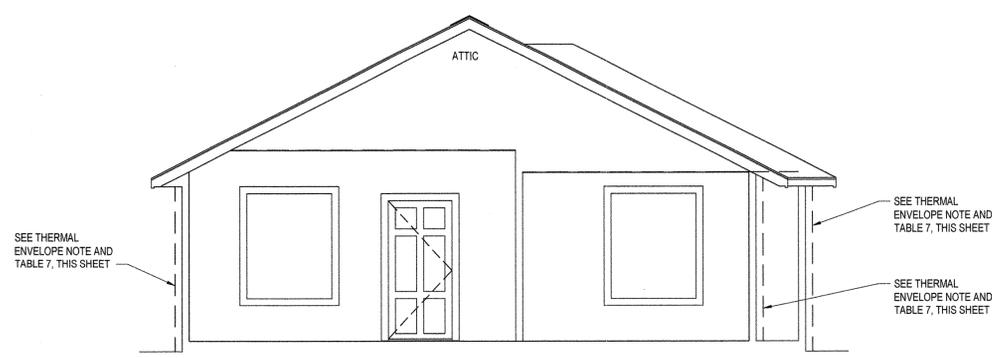




**NEW RESIDENTIAL BUILDING**  
**MODEL 1233R-18**  
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**1 THERMAL ENVELOPE FLOOR PLAN**  
 SCALE: 1/4" = 1'-0"



**2 THERMAL ENVELOPE BUILDING ELEVATION**  
 SCALE: 1/4" = 1'-0"

**TABLE 7**  
**AIR BARRIER**

COMPONENT	AIR BARRIER CRITERIA
General requirements	A continuous air barrier shall be installed in the building envelope. The exterior thermal envelope contains a continuous air barrier. Breaks or joints in the air barrier shall be sealed.
Ceiling/Attic	The air barrier in any dropped ceiling/ soffit shall be aligned with the insulation and any gaps in the air barrier shall be sealed.
Walls	The junction of the foundation and seal plate shall be sealed. The junction of the top plate and the top of exterior walls shall be sealed. Knee walls shall be sealed.
Windows, skylights and doors	The space between window/ door jambs and framing, and skylights and framing shall be sealed.
Rim joists	Rim joists shall include the air barrier.
Floors (including above garage and cantilevered floors)	The air barrier shall be installed at any exposed edge of insulation.
Crawl space	Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.
Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.
Narrow cavities	
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be sealed to the drywall.
Plumbing and wiring	
Shower / tub on exterior wall	The air barrier installed at exterior walls adjacent to showers and tubs shall separate them from the showers and tubs.
Electrical/ phone box on exterior wall	The air barrier shall be installed behind electrical or communication boxes or air-sealed boxes shall be installed.
HVAC register boots	HVAC register boots that penetrate building thermal envelope shall be sealed to the subfloor or drywall.
Concealed sprinklers	When required to be sealed, concealed fire sprinklers shall only be sealed in a manner that is recommended by the manufacturer. Caulking or other adhesive sealants shall not be used to fill voids between fire sprinkler cover plates and walls or ceilings.

**THERMAL ENVELOPE NOTE:**  
 WRAP THE ENTIRE EXTERIOR OF BUILDING WITH TYVEK THERMA WRAP R5.0, AS MANUFACTURED BY DUPONT. REFER TO MANUFACTURER FOR HANDLING, STORAGE, AND INSTALLATION TO ACHIEVE MAXIMUM PERFORMANCE.

ISSUE	DATE	REMARKS
	7.24.2017	FOR CONSTRUCTION
	9.22.2020	SSI 1
	2.28.2021	SSI 2



THESE PLANS COMPLY WITH THE UNIVERSAL DESIGN CODE AND 2018 IRC

SHEET SIZE: 24" x 36"

ISSUE DATE: 9.22.2020

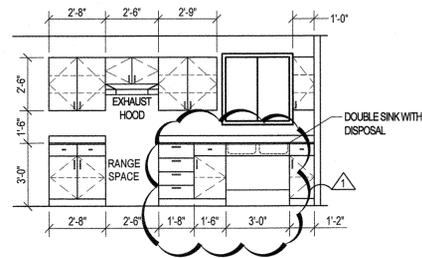
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**9 OF 14**  
**THERMAL**

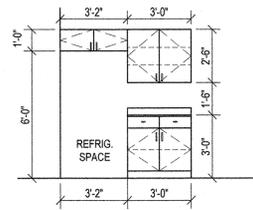
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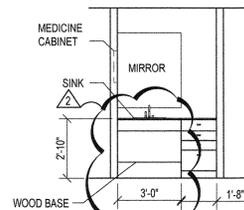




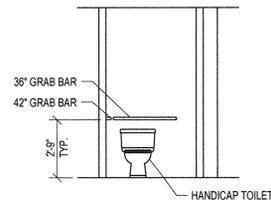
1 KITCHEN



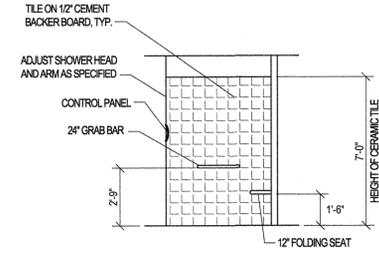
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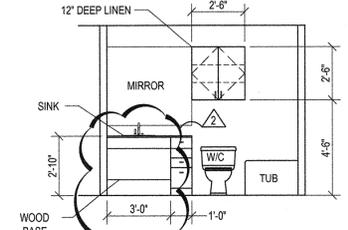
3 BATH #1



4 BATH #1



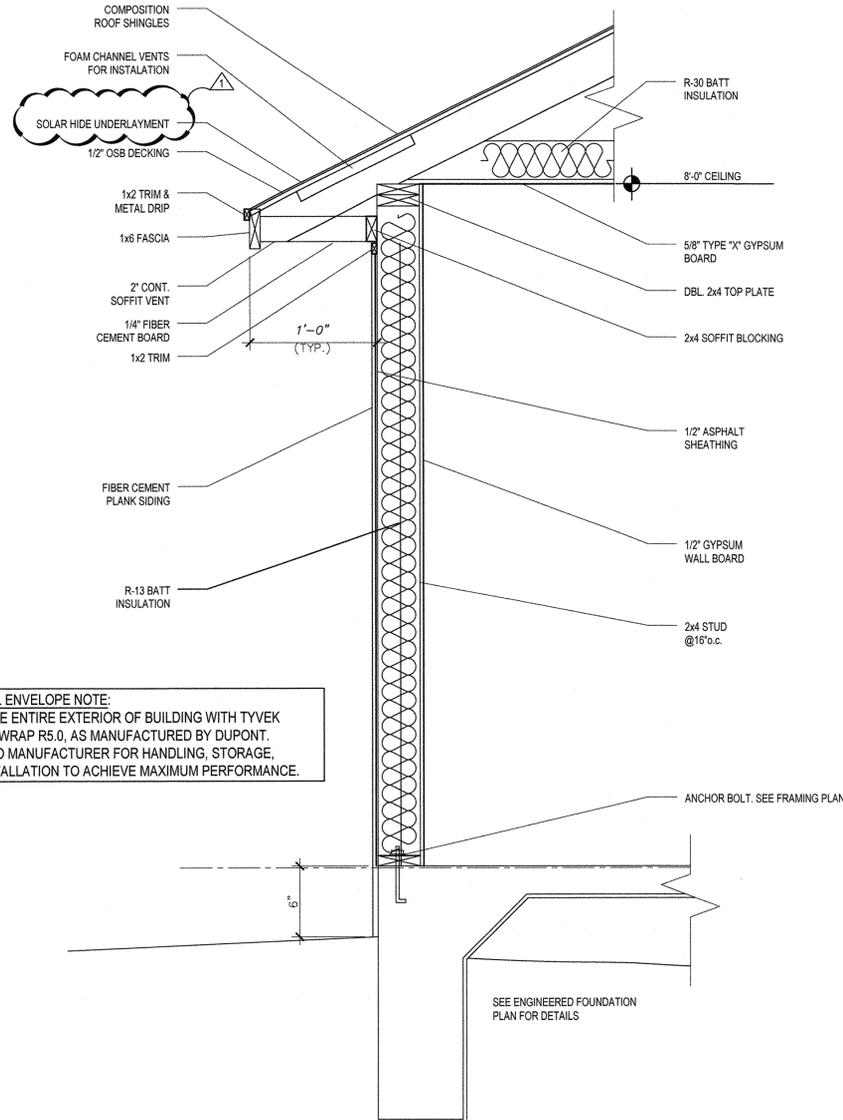
5 BATH #1



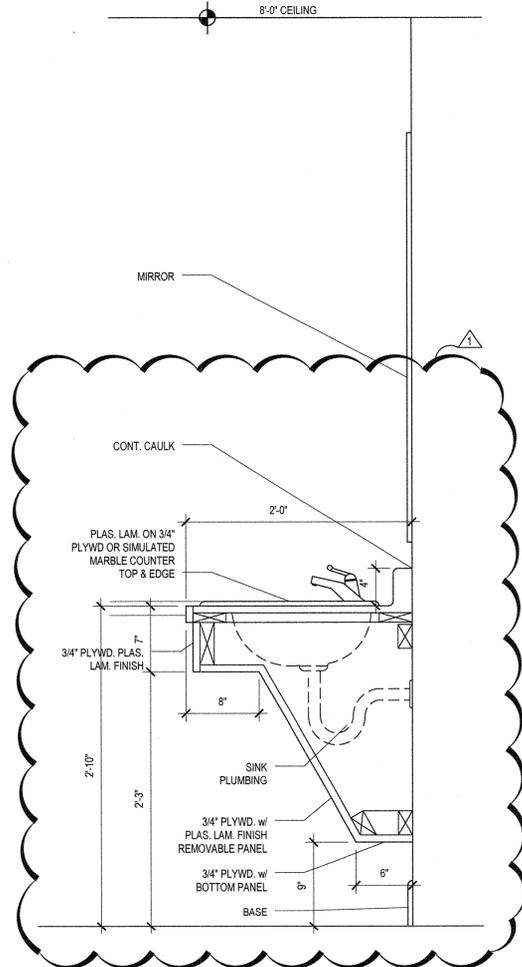
6 BATH #2

INTERIOR ELEVATIONS

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



1 TYPICAL SIDING WALL SECTION  
 SCALE: 1" = 1'-0"



2 RESTROOM SINK CABINET SECTION  
 SCALE: 1" = 1'-0"

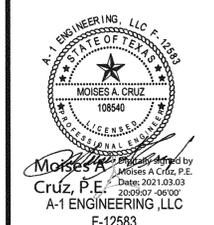
DOOR SCHEDULE															
DR. NM.	DOOR SIZE		DOOR MATERIAL			FRAME MATERIAL			REMARKS						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	X									X					
2		X							X						
3			X												BI-FOLD
4		X							X						
5		X							X						
6			X						X						BI-FOLD
7				X											GWB OPENING
8		X							X						BI-FOLD
9		X							X						
10		X							X						BI-FOLD
11		X							X						
12				X					X						
13					X				X						
14						X									GWB OPENING
15					X				X						
16	X								X						

NOTE: All Final Selections will be made by owners.

WINDOW SCHEDULE															
WIN. LET.	WINDOW SIZE		WIN. TYPE	FRAME MATERIAL			REMARKS								
	1	2	3	4	5	6	7	8	9	10	11	12			
A	X							X		X					SINGLE HUNG (SLIDES UP)
B	X								X	X					HORIZONTAL SLIDER

NOTE: All windows 7'-0" Header.

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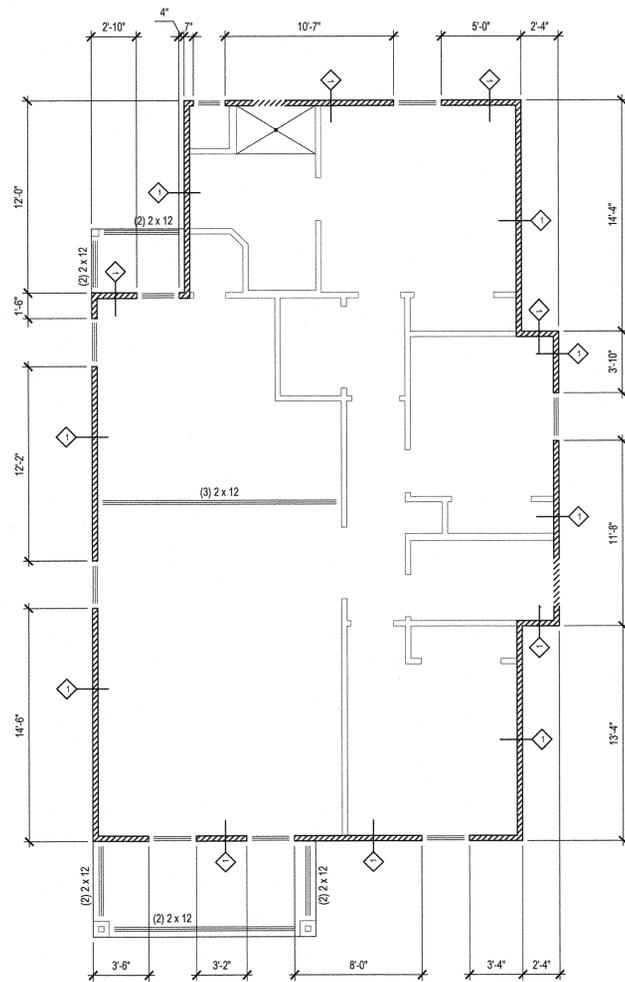


MOISES A. CRUZ, P.E.  
 A-1 ENGINEERING, LLC  
 F-12583

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 SHEET SIZE: 24" x 36"  
 ISSUE DATE: 9.22.2020  
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**NEW RESIDENTIAL BUILDING**  
**MODEL 1233R-18**  
 CITY OF SAN ANTONIO  
 DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT



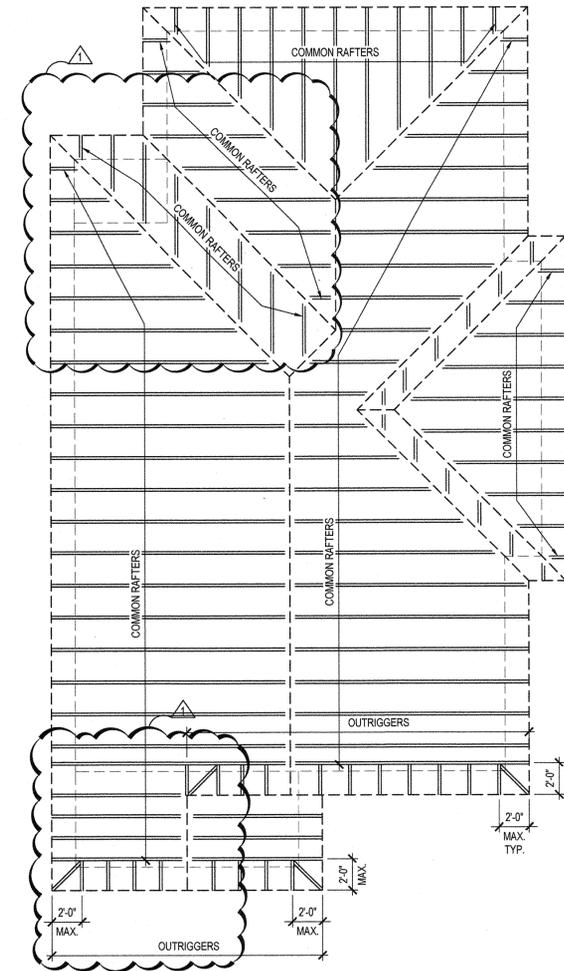
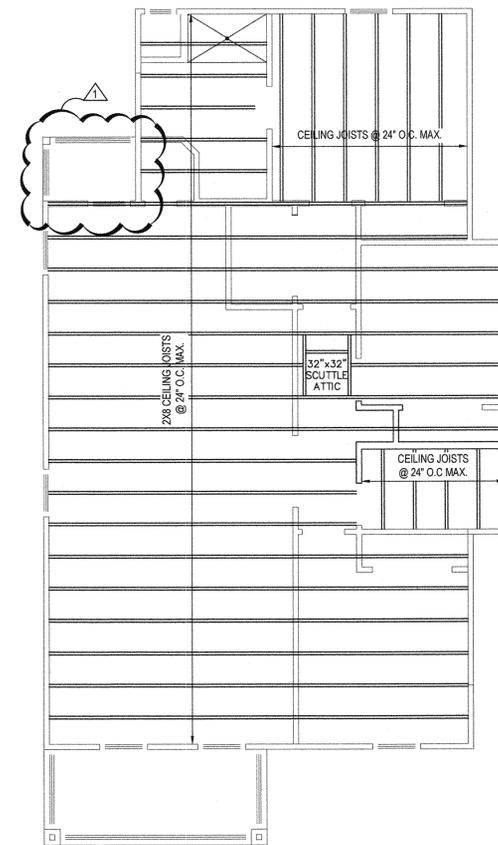
**BRACE WALL TYPES**

CONTINUOUS SHEATHED WALL, 7/16" THICK PLYWOOD SHEATHING FASTENED TO FRAMING WITH 10d NAILS AT 6" O.C. EDGE SPACING AND 12" O.C. FIELD SPACING. SEE TABLE 2, THIS SHEET. SEE SHEET 13 OF 14 FOR BRACED WALL DETAILS.

EXTERIOR

DENOTES BRACED WALL PANELS. APPLY 1/2" THICK FIBER BOARD OR INSULATION BOARD AT NON-STRUCTURAL UNBRACED EXTERIOR WALLS.

EXTERIOR WALLS THAT ARE NOT BRACED SHALL HAVE 1/2" THICK FIBER BOARD OR INSULATION BOARD.



**1**  
 11 OF 14  
**BRACED WALL AND BEAM/HEADER PLAN**  
 SCALE: 3/16"=1'-0"

**2**  
 11 OF 14  
**CEILING FRAMING PLAN**  
 SCALE: 3/16"=1'-0"

**3**  
 11 OF 14  
**ROOF FRAMING PLAN**  
 SCALE: 3/16"=1'-0"

**TABLE #1**

CONNECTION	NAILING
JOIST OR TRUSS BEARING ON SILL OR GIRDER, TOENAIL	(3) 8d
BRIDGING TO JOIST, TOENAIL EACH END	(2) 8d
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d AT 16" o.c.
TOP PLATE TO STUD, END NAIL TO EACH STUD	(2) 16d
STUD TO SOLE PLATE	(4) 8d TOENAIL OR (2) 16d END NAIL
DOUBLE STUDS, FACE NAIL	16d AT 24" o.c.
DOUBLE TOP PLATES, FACE NAIL	16d AT 16" o.c.
TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2 - 16d
CONTINUOUS HEADER, TWO PIECES	16d AT 16" o.c. ALONG EACH EDGE
CEILING JOISTS TO PLATE, TOENAIL	(3) 8d
CONTINUOUS HEADER TO STUD, TOENAIL	(4) 8d
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	(3) 16d
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL	(3) 16d
RAFTER OR TRUSS TO PLATE, TOE NAIL	(3) 8d
BUILT-UP CORNER STUDS	16d AT 24" o.c.

**NOTES:**

1. MINIMUM NAILING SPECIFIED HEREIN SHALL BE PROVIDED UNLESS OTHERWISE NOTED ON DETAILS OR STRUCTURAL NOTES.

2. COMMON OR BOX NAILS MAY BE USED. 16d NAILS MAY BE EITHER COMMON OR SINKER.

**TABLE #2**

STRUCTURAL SYSTEM	SHEATHING TYPE	EXPOSURE CATEGORY	THICKNESS (MIN.)	SPAN RATING	NAILING PATTERN	
					EDGE SUPPORT	INTERIOR SUPPORT
FLOOR DECKING	APA RATED STURD I-FLOOR	EXP. 1	3/4" / 1 1/8"	24 oc / 48 oc	10d @ 6" O.C.	10d @ 12" O.C.
WALL SHEATHING	APA RATED SHEATHING	EXP. 1	7/16"	24/16	10d @ 6" O.C.	10d @ 12" O.C.
ROOF DECKING	APA RATED SHEATHING	EXP. 1	7/16"	24/16	8d @ 6" O.C.	8d @ 12" O.C.

**NOTES:**

1. STRUCTURAL PANELS SHALL BE LABELED / STAMPED WITH APA APPROVED MARKINGS AND LABELS SHOWING CONFORMANCE WITH SPECIFICATIONS.

2. ALL PANELS SHALL BE LAID OUT / ORIENTATED TO BE PERPENDICULAR TO SUPPORTS.

3. STAPLES MAY NOT BE SUBSTITUTED FOR NAILS.

4. BLOCK EDGES OF ALL WALL, ROOF, AND FLOOR SHEATHING PANELS.

**TABLE #3**

MEMBER	SIZE	GRADE
COMMON RAFTER	2 X 6 AT 2'-0" O.C.	SYP #2
HIP RIDGE	2 X 10	SYP #2
GABLE RIDGE	2 X 10	SYP #2
OUTRIGGERS	2 X 4 AT 2'-0" O.C.	SYP #2

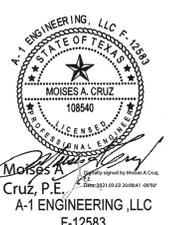
**TABLE #4**

SPAN	HEADER	SPECIES	JACK STUDS
3'-0" - 5'-0"	(2) 2 X 6	SYP #2	(1) SPF #2
6'-0" - 8'-0"	(2) 2 X 8	SYP #2	(1) SPF #2
9'-0" - 11'-0"	(2) 2 X 12	SYP #2	(1) SPF #2

**TABLE #5**

WALL FRAMING SCHEDULE		
WALLS	2 X 4 AT 2'-0" O.C.	SPF #2
BOTTOM PLATE	2 X 4 TREATED	SPF #2
TOP PLATE	(2) 2 X 4	SPF #2

ISSUE	DATE	REMARKS
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ISSUED FOR CONSTRUCTION

11 OF 14  
**FRAMING**



NEW RESIDENTIAL BUILDING  
MODEL 1233R-18

CITY OF SAN ANTONIO  
DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

BY	MAC	MAC	MAC

REMARKS	FOR CONSTRUCTION	SSI 1	SSI 2

DATE	7.24.2017	9.22.2020	2.28.2021

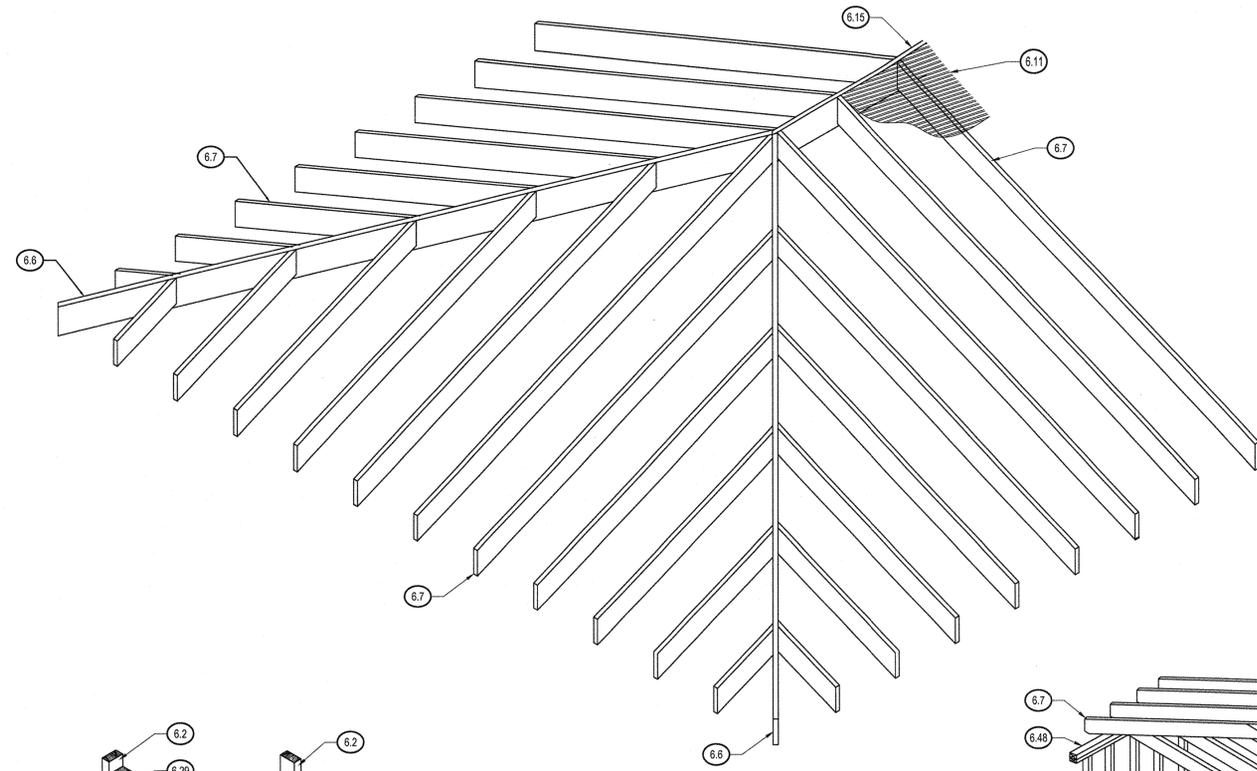
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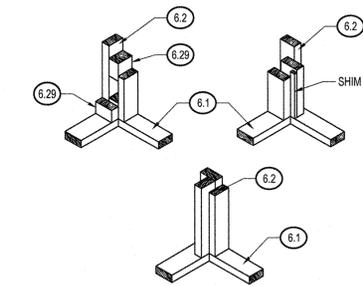
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A-1 ENGINEERING, LLC  
F-12583

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THE UNIVERSAL DESIGN CODE  
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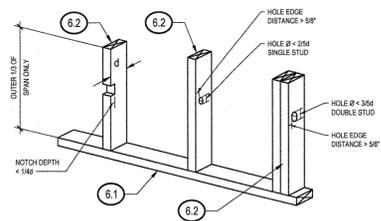
SHEET SIZE: 24" x 36"  
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**12 OF 14**  
**DETAILS**



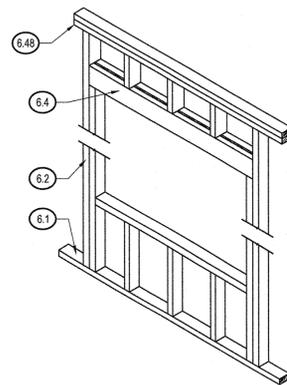
Detail R1 - Typical Hip Roof Framing



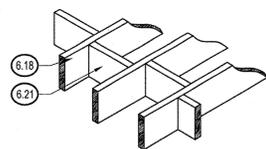
Detail R2 - Typical Wall Corners



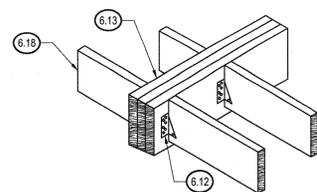
Detail R3 - Allowable Stud Notches



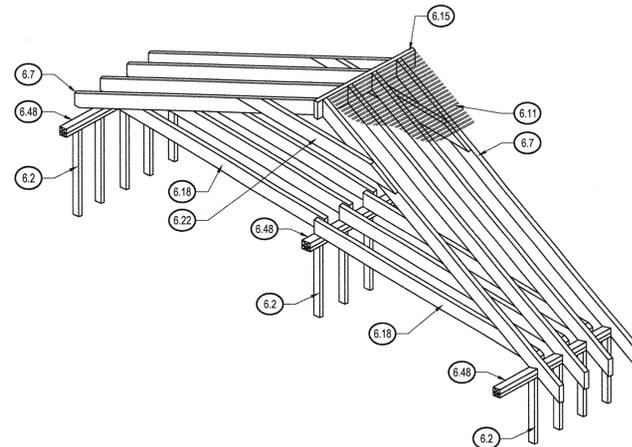
Detail R5 - Typical Header Framing at Opening



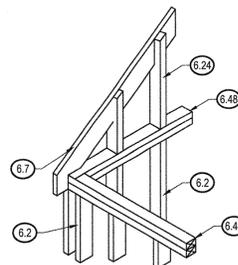
Detail R4 - Typical Joist Blocking



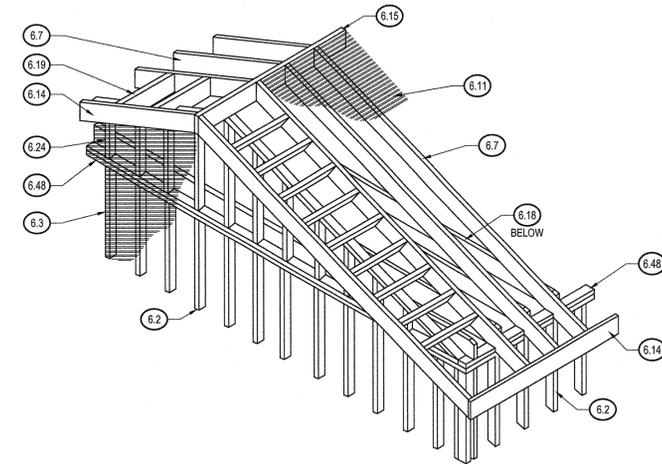
Detail R6 - Typical Joist to Beam



Detail R7 - Typical Gable Roof Framing



Detail R8 - Typical Gable End Framing



Detail R9 - Typical Gable Roof Framing at End

6.1) WALL SILL PLATE: SEE TABLE 5 ON SHEET 11 OF 14.

SILL PLATE TO CONCRETE FOUNDATION: ANCHOR SILL PLATE TO CONCRETE FOUNDATION WITH 1/2-INCH DIAMETER, A307 1/2" BOLTS OR ALL THREAD RODS AT 48-INCHES ON CENTER MAX. EMBED ANCHOR AT LEAST 7-INCHES INTO CONCRETE.

SILL PLATE TO WOOD FRAMING (AT UPPER FLOORS): ANCHOR SILL PLATE TO FLOOR FRAMING WITH 1/4-INCH DIAMETER x 5-INCHES LONG LAG SCREW OR (2) SIMPSON STRONG TIE STRONG DRIVE SDWS TIMBER SCREW (5-INCHES LONG) AT 48-INCHES ON CENTER.

6.2) WALL STUDS: SEE TABLE 5 ON SHEET 11 OF 14.

STUDS SHALL BE DOUBLED AT ALL ANGLES, CORNERS, AND AROUND ALL OPENINGS. NOT LESS THAN (3) STUDS SHALL BE INSTALLED AT EACH WALL CORNER.

PROVIDE 2X SOLID BLOCKING AT MID-HEIGHT OF ALL WOOD STUD BEARING WALLS LOCATED ON THE FIRST FLOOR OF BUILDINGS.

6.3) EXTERIOR STRUCTURAL WALL SHEATHING: SEE TABLE 2 ON SHEET 11 OF 14.

ALL EXTERIOR WALLS AND MAIN CROSS STUD PARTITIONS INDICATED ON THE DRAWINGS SHALL BE EFFECTIVELY AND THOROUGHLY SHEATHED.

6.4) HEADER: SEE FRAMING PLAN AND TABLE 4 ON SHEET 11 OF 14.

UNLESS NOTED OTHERWISE, ADD (1) 2X CRIPPLE STUD AT EACH END OF THE END AND (1) KING STUD FACE NAILED TO CRIPPLE STUD AT EACH END.

6.6) CONVENTIONAL FRAMING FORMING ROOF VALLEYS: SEE TABLE 3 ON SHEET 11 OF 14.

RAFTERS SHALL BE FRAMED DIRECTLY OPPOSITE EACH OTHER AT THE RIDGE. END NAIL EACH RAFTER TO RIDGE WITH AT LEAST 2-16D NAILS.

6.7) ROOF RAFTER: 2X CONVENTIONAL ROOF RAFTER. SEE ROOF FRAMING PLAN AND TABLE 3 ON SHEET 11 OF 14.

6.11) ROOF DECKING: SEE TABLE 2 ON SHEET 11 OF 14.

PLACE PLYWOOD ROOF SHEATHING WITH REQUIRED JOINT SPACES BETWEEN SHEETS AND WITH END JOINTS STAGGERED. PLYWOOD GRAIN SHALL BE PERPENDICULAR TO FRAMING.

6.12) JOIST HANGERS TO BE SIMPSON STRONG TIE:

- 2x4 TO INTERSECTING BEAM: LUS24
- 2x6 TO INTERSECTING BEAM: LUS26
- 2x8 TO INTERSECTING BEAM: LUS28
- 2x10 TO INTERSECTING BEAM: LUS210
- 2x12 TO INTERSECTING BEAM: LUS212

6.1) WOOD BEAM: SEE FRAMING PLAN.

6.2) FASCIA BOARD: 1x6 CONTINUOUS FASCIA BOARD.

6.3) RIDGE BOARD/BEAM: SEE FRAMING PLAN AND TABLE 3 ON SHEET 11 OF 14.

6.18) CEILING JOIST: SEE FRAMING PLAN.

6.19) ROOF OUTRIGGER: SEE FRAMING PLAN AND TABLE 3 ON SHEET 11 OF 14.

6.21) BLOCKING FOR JOISTS: 2X FULL DEPTH BLOCKING BETWEEN ALL FLOOR JOISTS, CEILING JOISTS AND ROOF RAFTERS. BLOCKING DEPTH TO MATCH SIZE OF FRAMING MEMBER BEING REINFORCED.

6.22) COLLAR TIE: 2x4 COLLAR TIE, 24-INCHES BELOW BOTTOM OF RIDGE BOARD. SPACE COLLAR TIES AT 4-FEET ON CENTER OR AT EVERY OTHER ROOF RAFTER. FACE NAIL COLLAR TIE TO RAFTERS WITH (2) 10d NAILS.

6.24) WALL STUDS AT END WALL OF GABLE: MATCH BUILDING WALL STUDS FROM FLOOR BELOW. SEE TABLE 5 ON SHEET 11 OF 14.

6.29) BLOCKING FOR STUDS: 2X BLOCKING BETWEEN 2X STUDS AT 32-INCHES ON CENTER ALONG THE FULL HEIGHT OF BLOCKED STUDS. TOE NAIL BLOCKING TO STUDS WITH (2) 8d NAILS PER SIDE.

6.48) DOUBLE TOP PLATE FOR BRACED WALLS: DOUBLE 2X TOP PLATE. SEE TABLE 5 ON SHEET 11 OF 14 FOR MEMBER SIZE. LAP TOP PLATE MEMBERS AT LEAST 24-INCHES FOR CONTINUITY.

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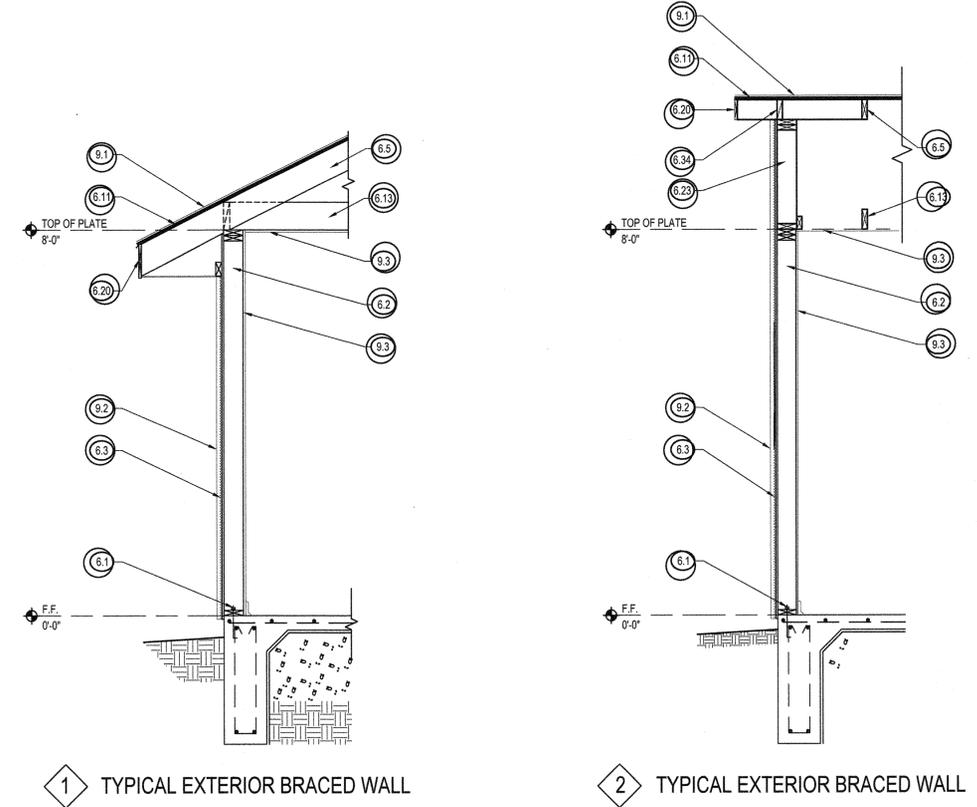




**NEW RESIDENTIAL BUILDING**  
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**KEY NOTES**

- 6.1) SOLE (BOTTOM) PLATE: 2x6 SYP #2 OR BETTER. ANCHOR SOLE PLATE TO CONCRETE WITH 1/2" Ø A307 "J" BOLTS AT 32" O.C. MAX. ENSURE BOLT IS EMBEDDED 7" INTO CONCRETE.
- 6.2) WOOD STUD WALLS SHALL BE FRAMED PER THE BRACED WALL PLAN.  
 INSTALL DOUBLE AND/OR TRIPLE STUDS AT ALL BEAM BEARING POINTS AND AT THE ENDS OF ALL DIAGONAL LET-IN BRACING. IN ADDITION, STUDS SHALL BE DOUBLED AT ALL ANGLES, CORNERS, AND AROUND ALL OPENINGS. NOT LESS THAN 3 STUDS SHALL BE INSTALLED AT EACH WALL CORNER. BLOCK BETWEEN CORNER STUDS AND NAIL ALONG FULL HEIGHT OF STUD WITH 16d NAILS AT LEAST AT 24" O.C.  
 PROVIDE A CONTINUOUS SOLE PLATE AT THE BOTTOM OF ALL STUD WALLS. LOAD BEARING WALL SOLE PLATES ADJACENT TO MASONRY AND THOSE WALLS IDENTIFIED AS SHEAR WALLS SHALL BE WOLMANIZED AND SHALL BE BOLTED TO THE FOUNDATION AS NOTED. PLACE ANCHORS AT A MAX. OF 32" O.C. SPACING UNLESS OTHERWISE NOTED AND WITHIN 12" FROM ENDS OF DISCONTINUOUS PLATES. INTERIOR NON-LOAD BEARING WALLS CAN BE BOLTED OR SHOT TO FOUNDATION. TOENAIL EACH STUD TO SOLE PLATE WITH AT LEAST (4) 8d NAILS OR END NAIL WITH AT LEAST (2) 6d NAILS. FACE NAIL SOLE PLATES IN UPPER LEVEL WALLS WITH 16d NAILS AT LEAST AT 16" O.C.  
 AT FRAMING AROUND OPENINGS, TRIMMER AND HEADER JOISTS SHALL BE DOUBLE FOR SPANS GREATER THAN 4'-0", UNLESS NOTED OTHERWISE.  
 PROVIDE A CONTINUOUS DOUBLE PLATE AT THE TOP OF ALL WALL STUDS. END JOINTS IN DOUBLE TOP PLATES SHALL BE OFFSET AT LEAST 48". CORNER JOINTS IN DOUBLE TOP PLATES SHALL BE LAPPED AND FACE NAILED WITH AT LEAST (2) 16d NAILS. END NAIL TOP PLATE TO EACH STUD WITH AT LEAST (2) 16d NAILS. FACE NAIL TOP PLATES WITH 16d NAILS AT LEAST AT 16" O.C.
- 6.3) PLYWOOD WALL SHEATHING SEE TABLE 2 ON SHEET 11 OF 14.  
 ALL EXTERIOR WALLS AND MAIN CROSS STUD PARTITIONS INDICATED ON THE DRAWINGS SHALL BE EFFECTIVELY AND THOROUGHLY SHEATHED.  
 BLOCK ALL EDGES. STAPLES SHALL NOT BE USED IN PLACE OF NAILS.
- 6.5) 2X ROOF JOIST - REFER TO ROOF FRAMING PLAN.  
 LUMBER TO BE SYP #2 OR BETTER.  
 JOISTS SHALL BE INSTALLED UPRIGHT (CROWNS UP) AND HELD IN A STRAIGHT LINE. JOISTS SHALL BE FULL BEARING OVER ENTIRE PLATE WIDTH. TOENAIL JOIST TO EACH SUPPORT WITH AT LEAST (3) 8d NAILS.  
 PROVIDE SOLID FULL DEPTH BLOCKING IN ALL CONVENTIONALLY FRAMED SPANS OVER 8'-0". MAXIMUM DISTANCE BETWEEN BLOCKING AND BEARING SHALL BE 8'-0". PROVIDE SOLID BLOCKING AT ALL SUPPORTS.  
 BORED HOLES REQUIRED IN JOISTS SHALL BE LIMITED TO 1/5 THE JOIST DEPTH AND SHALL BE NO CLOSER THAN 2" FROM THE TOP OR BOTTOM OF THE JOIST OR NO CLOSER THAN 24" FROM A SUPPORT.
- 6.11) PLYWOOD ROOF DECK SEE TABLE 2 ON SHEET 11 OF 14.  
 PLACE PLYWOOD ROOF SHEATHING WITH REQUIRED JOINT SPACES BETWEEN SHEETS AND WITH END JOINTS STAGGERED. PLYWOOD GRAIN SHALL BE PERPENDICULAR TO FRAMING. SECURE SHEETS OVER FIRM BEARING. PROVIDE SOLID BLOCKING AT ALL PLYWOOD EDGES. PROVIDE PLYWOOD SHEATHING CLIPS (REFERRED TO AS H CLIPS OR PSC CLIPS) AT UNSUPPORTED PLYWOOD ROOF EDGES. SPACED ONE BETWEEN EACH SUPPORT. PROVIDE EDGE BLOCKING AT ALL ROOF OPENINGS. NAIL TO FRAMING MEMBERS AT PLYWOOD EDGES AT 6" O.C. AND AT INTERMEDIATE SUPPORTS AT 8" O.C. NAIL WITH AT LEAST 8d COMMON NAILS.
- 6.13) 2x CEILING JOISTS ALIGNED WITH RAFTERS TO FACE NAIL CEILING JOIST TO RAFTERS WITH (3) 10d NAILS.
- 6.20) CONTINUOUS 1X FASCIA BOARD.
- 6.23) GABLE END WALL. STUD SIZE AND SPACING TO MATCH BELOW.
- 6.34) 2X BLOCKING.
- 9.1) ROOFING MATERIAL - REFER TO DESIGNER/OWNER.
- 9.2) EXTERIOR FINISH - REFER TO DESIGNER/OWNER.
- 9.3) INTERIOR FINISH - REFER TO DESIGNER/OWNER.

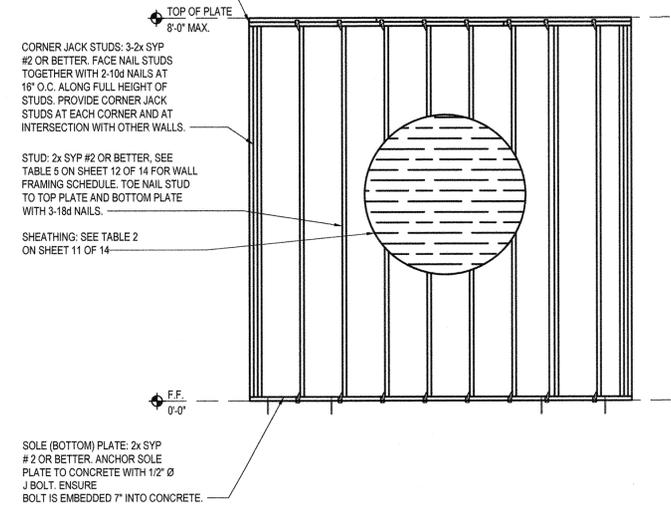


1 TYPICAL EXTERIOR BRACED WALL

2 TYPICAL EXTERIOR BRACED WALL

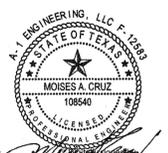
TOP PLATE: 2-2x SYP #2 OR BETTER. OVERLAP TOP PLATES AT CORNERS AND INTERSECTIONS WITH OTHER WALLS. END JOINTS IN TOP PLATE SHALL BE OFFSET AT LEAST 24". JOINTS IN PLATES NEED NOT OCCUR OVER STUDS.

FASTEN TOP PLATES TOGETHER WITH 2-10d COMMON WIRE NAILS (FACE NAIL) AT 18" O.C. ALONG LENGTH OF PLATE.



A - TYPICAL SCHEMATIC OF ENGINEERED BRACED WALL PANEL.

ISSUE	DATE	REMARKS	BY
△	7.24.2017	FOR CONSTRUCTION	MAC
△	9.22.2020	SSI 1	MAC
	2.28.2021	SSI 2	MAC



Moises A. Cruz, P.E.  
 A-1 ENGINEERING, LLC  
 F-12583

THESE PLANS COMPLY WITH THE UNIVERSAL DESIGN CODE AND 2018 IRC

SHEET SIZE: 24" x 36"

ISSUE DATE: 9.22.2020

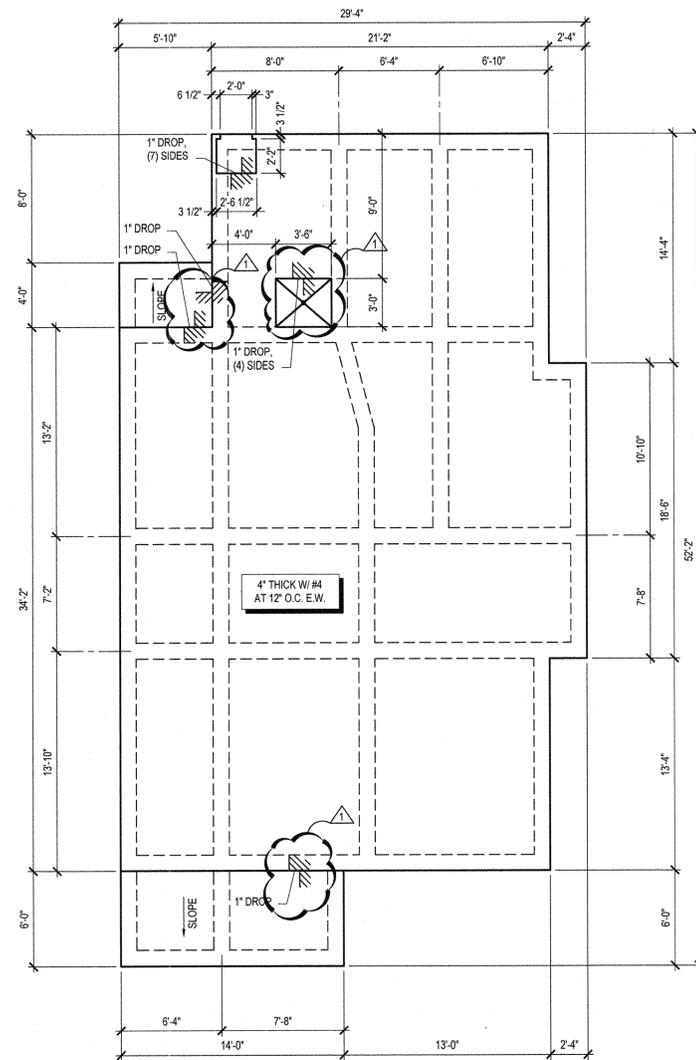
SHEET:

ANY PARTY, REFERENCING THESE PLANS FOR PRICING OR CONSTRUCTION, SHALL VERIFY ALL FIELD CONDITIONS WHICH WILL AFFECT THEIR SCOPE OF WORK, THE PROCUREMENT OF MATERIAL, AND FABRICATION OF COMPONENTS FOR THE CONSTRUCTION SHOWN ON THESE PLANS PRIOR TO THE START OF CONSTRUCTION. UNLESS OTHERWISE INDICATED, THE DOCUMENTS DO NOT INDICATE THE MEANS AND METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE ALL MEASURES TO PROTECT THE SAFETY OF THE PUBLIC ALONG WITH THE SAFETY OF PROPERTY AND HIMSELF, DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, RETAINING PROFESSIONAL TO AID IN DEVELOPING, SHORING AND BRACING SYSTEMS, AND INSPECTION OF THE ASSEMBLY AND MAINTENANCE OF BRACING AND SHORING SYSTEMS. DESIGN, CONSTRUCT, INSPECT AND MAINTAIN BRACING AND SHORING SYSTEMS TO SUSTAIN PRESCRIBED SERVICE LOADS PER THE INTERNATIONAL BUILDING CODE. THE CONTRACTOR WILL BE REQUIRED TO CORRECT AT HIS OWN EXPENSE ANY SUBSIDENCE, STRUCTURAL DAMAGE OR OTHER OBJECTIONAL CONDITIONS CAUSED BY HIS OPERATIONS.

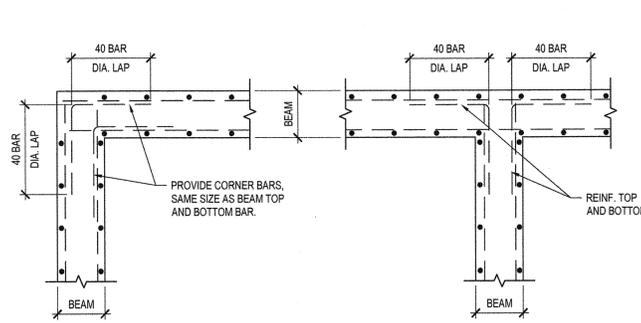
ISSUED FOR CONSTRUCTION



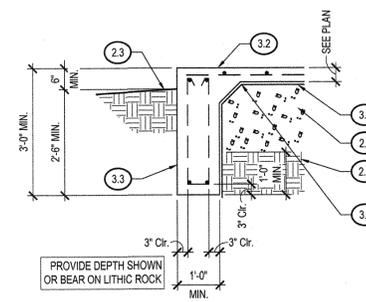
# PRELIMINARY - FOR PRICING ONLY



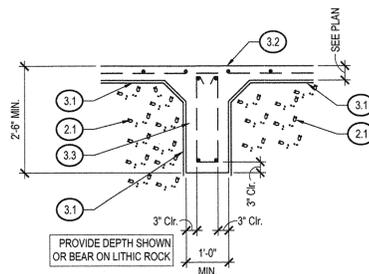
**FOUNDATION PLAN**  
SCALE: 3/16" = 1'-0"



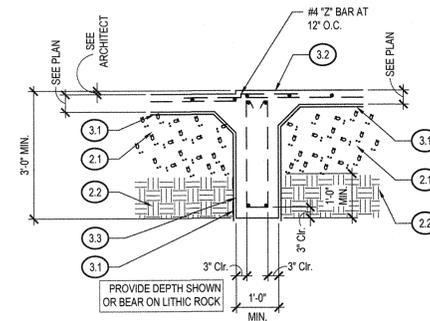
A - TYPICAL CORNER REINFORCING AT GRADE BEAM INTERSECTIONS



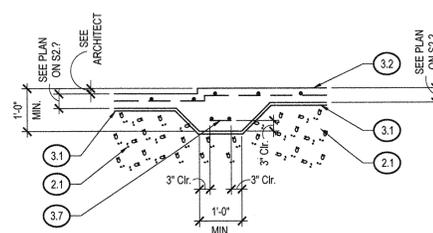
B - EXTERIOR GRADE BEAM



C - INTERIOR GRADE BEAM



D - DROP AT INTERIOR BEAM



E - THICKEN SLAB AT SHOWER DROPS

## KEY NOTES

- 2.1) SELECT STRUCTURAL COMPACTED FILL.
- 2.2) EXISTING SOIL.
- 2.3) FINAL GRADE ALONG THE PERIMETER OF THE BUILDING SHALL BE AT LEAST 5% SLOPE FOR A DISTANCE OF 10 FT OUTWARD FROM THE EDGE OF THE BUILDING. ADD SOD ALONG THE FULL PERIMETER OR 5'-0" WIDE CONTINUOUS CONCRETE APRON (SIDEWALK).
- 3.1) 10 MIL THICK PLASTIC VAPOR RETARDER, TYPE RECOMMENDED TO BE IN CONTACT WITH THE SOIL OR FILL UNDER A CONCRETE SLAB, LISTED IN ASTM 1745 CLASS A WITH A PERMEANCE LESS THAN 0.038 AS DETERMINED BY ASTM 526. POLYETHYLENE IS NOT ACCEPTABLE. INSTALL VAPOR RETARDER SOLIDLY WITHIN AND BELOW SLAB SURFACE WITH JOINTS LAPPED AT LEAST 6 INCHES AND TAPED CONTINUOUSLY WITH RECOMMENDED PRESSURE-SENSITIVE TAPE. EXTEND VAPOR RETARDER DOWN THE SIDES OF THE BEAM TRENCHES AND TERMINATE SO THAT IT DOES NOT EXTEND ACROSS THE TRENCH BOTTOM. CONTRACTOR AND ARCHITECT (NOT STRUCTURAL ENGINEER) SHALL VERIFY THAT VAPOR RETARDER SELECTED IS COMPATIBLE WITH PROPOSED FLOOR FINISHES.
- 3.2) SLAB: #4 AT 12" O.C. EACH WAY CENTERED IN CONCRETE SLAB THICKNESS. EXTEND SLAB REINFORCING TO TOP OUTSIDE PERIMETER BEAM BAR. START SLAB STEEL SPACING NOT MORE THAN 6" FROM THE EDGE OF THE SLAB.
- 3.3) GRADE BEAM: 2-#6 CONTINUOUS BEAM REINFORCING BARS TOP AND BOTTOM WITH #3 STIRRUPS AT 18" O.C. START STIRRUP SPACING AT ENDS OF HORIZONTAL BEAM BARS. LAP #6 2- BARS TO HORIZONTAL BARS WHERE BEAM STEPS DOWN GREATER THAN 3". LAP 2-#6 CORNER BARS TOP AND 2-#6 CORNER BARS BOTTOM TO HORIZONTAL BEAM BARS AT ALL BEAM CORNERS AND DEAD END BEAM INTERSECTIONS. FOR BEAMS WITH DEPTH EXCEEDING 3'-0", ADD #4 CONTINUOUS MID-HEIGHT HORIZONTAL BARS AT EACH BEAM FACE AT 12" O.C.
- 3.7) THICKENED SLAB REINFORCING SHALL BE #4 AT 12-INCHES ON CENTER EACH WAY.

NEW RESIDENTIAL BUILDING

MODEL 1233R-18

CITY OF SAN ANTONIO  
DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

ISSUE	DATE	REMARKS	BY
1	7.24.2017	PRELIMINARY - FOR PRICING ONLY	MAC
2	9.22.2020	SS1	MAC
3	2.28.2021	SS2	MAC

DATE: 9.22.2020  
MOISES A. CRUZ, P.E.  
LICENSED ENGINEER  
TX. NO. 108540  
NOTE: THESE DRAWINGS ARE INCOMPLETE AND MAY NOT BE USED FOR REGULATORY APPROVAL, PERMIT, OR CONSTRUCTION

A-1 ENGINEERING, LLC  
F-12583

THESE PLANS COMPLY WITH THE UNIVERSAL DESIGN CODE AND 2018 IRC

SHEET SIZE: 24" x 36"

ISSUE DATE: 9.22.2020

SHEET:

14 OF 14

FOUNDATION

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PRELIMINARY - FOR PRICING ONLY



CITY OF SAN ANTONIO  
DEVELOPMENT SERVICES DEPARTMENT  
PLAN REVIEW DIVISION

REVIEWED FOR CODE COMPLIANCE

DATE: 4/22/21

BY: *Jean M. Ford*

THIS SET OF PLANS AND SPECIFICATIONS MUST  
BE KEPT ON THE JOB AT ALL TIMES. OTHERWISE THE  
JOB IS SUBJECT TO PENALTY. THIS JOB IS FOR THE  
WORK OF ANY CHANGES TO THE BUILDING OR SAME  
WHICH OCCUR AFTER THE BUILDING  
SPECIFICATIONS. THE CITY OF SAN ANTONIO  
SPECIFICATIONS SHALL NOT BE HELD TO PERMIT OR  
TO BE APPROVAL OF THE VIOLATION OF ANY  
PROVISIONS OF ANY CITY ORDINANCE OR STATE LAW

COMPLY WITH I. R. C.  
AND AMENDMENTS

COMPLY WITH CHECK LIST  
ATTACHED TO PLANS