HISTORIC AND DESIGN REVIEW COMMISSION April 19, 2017

HDRC CASE NO: 2017-169

ADDRESS: 720 LAMAR ST

LEGAL DESCRIPTION: NCB 1653 BLK A LOT 10

ZONING: R-5 H CITY COUNCIL DIST.: 2

DISTRICT: Dignowity Hill Historic District

APPLICANT: Dan Plummer/North Gate Custom Builders LLC

OWNER: North Gate Custom Builders LLC
TYPE OF WORK: Construction of a single family house

REQUEST:

The applicant is requesting conceptual approval to construct a single family house featuring approximately 1,730 square feet on the vacant lot at 720 Lamar in the Dignowity Hill 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

- v. Garage doors—Incorporate garage doors with similar proportions and materials as those traditionally found in the district.
- 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

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.

FINDINGS:

- a. The applicant has proposed to construct a single family house featuring approximately 1,730 square feet on the vacant lot at 720 Lamar Street, located in the Dignowity Hill Historic District. This lot is located mid-block between N Pine Street and Willow Street and is located to the south of Bowden Elementary School.
- b. Conceptual approval is the review of general design ideas and principles (such as scale and setback). Specific design details reviewed at this stage are not binding and may only be approved through a Certificate of Appropriateness for final approval.
- c. DESIGN REVIEW COMMITTEE This request was reviewed by the Design Review Committee on April 11, 2017. At that meeting, DRC members offered suggestions regarding inconsistencies with the proposed design and the Design Guidelines which included recommending the installation of additional window fenestration, the installation of appropriate columns, suggestions on appropriate site elements and building materials.
- d. 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 example found on the block. The applicant has noted the use of a setback that is consistent with those of historic structures on the block.
- e. ENTRANCES According to the Guidelines for New Construction 1.B.i., primary building entrances should be oriented towards the primary street. The applicant has proposed to orient the primary entrance towards Lamar. This is consistent with the Guidelines.
- f. 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. The applicant has proposed a one story structure with an overall height of approximately twenty (20) feet. This is consistent with the historic example found on this block of Lamar and the Guidelines.
- g. FOUNDATION & FLOOR HEIGHTS According to the Guidelines for New Construction 2.A.iii., foundation and floor height should be aligned within one (1) foot of neighboring structure's foundation and floor heights. Historic structures on this block feature foundation heights of approximately two to three feet. The applicant has proposed a foundation height of approximately one (1) foot. Staff finds that a foundation height that is consistent with those found on the block should be used.
- h. ROOF FORM The applicant has proposed a side gabled roof and two front gabled roofs. This is consistent with many historic roof forms on this block of Lamar and throughout the Dignowity Hill Historic District and is consistent with the Guidelines.
- i. WINDOW & DOOR OPENINGS Per the Guidelines for New Construction 2.C.i., window and door openings with similar proportions of wall to window space as typical with nearby historic facades should be incorporated into new construction. On the front façade, the applicant has proposed two double windows. This window arrangement is commonly found on historic structures in the Dignowity Hill Historic District. A trim piece of approximately six inches should be located between each window.
- j. WINDOW & DOOR OPENINGS On the left elevation, the applicant has proposed window openings that are generally consistent with the Guidelines. The applicant has proposed an extending bay which currently features no window openings. Historic structures that feature a bay have windows incorporated into those bays. Staff recommends the applicant install windows in the side window bay that are consistent in height with those found on the left elevation.
- k. WINDOW & DOOR OPENINGS The proposed right elevation is currently void of window openings with the exception of three small fixed windows. This is not consistent with the Guidelines for New Construction 2.C.i. Staff finds that window openings that are sized and located similar to those on the left façade should be installed.
- 1. LOT COVERAGE The building footprint for new construction should be no more than fifty (50) percent of the size of total lot area. The applicant's proposed building footprint is consistent with the Guidelines for New Construction 2.D.i.
- m. MATERIALS Regarding materials, the applicant has proposed materials to include Hardi board siding to feature a six (6) inch exposure, an asphalt shingle roof and vinyl windows. Staff finds the use of Hardi board siding appropriate if installed with a smooth finish and four (4) inch exposure. Additionally, staff finds the use of asphalt shingles appropriate. Staff does not find the installation of vinyl windows appropriate. Staff finds that the applicant should install wood windows that are consistent with the Historic Design Guidelines, Window Policy Document as noted in finding n that are to include traditional dimensions and profiles, be recessed within the

- window frame, feature traditional materials or appearance and feature traditional trim and sill details.
- n. WINDOW MATERIALS As noted in finding m, staff finds the installation of vinyl windows neither appropriate nor consistent with the Guidelines. Staff finds given the real estate market in the district, the installation of wood windows would be a minor additional expense in comparison to the overall potential for profit and would ensure a high quality appearance.
- o. ARCHITECTURAL DETAILS New building should be designed to reflect their time while representing the historic context of the district. Additionally, architectural details should be complementary in nature and should not detract from nearby historic structures. Staff finds that generally the applicant has proposed architectural details that are in keeping with the Guidelines for New Construction and appropriate for the Dignowity Hill Historic District.
- p. COLUMN DESIGN The applicant has proposed for the structure to feature three front porch columns. Rarely do historic structures feature an odd number of columns. The applicant should install an even number of columns to be architecturally consistent with the column examples set form in the district. Additionally, columns should feature at least six inches in width and depth and feature capital and base trim.
- q. 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 complying with this.
- r. DRIVEWAY The Guidelines for Site Elements 5.B.i. state that new driveways should feature a similar driveway configuration to those found historically throughout the district in terms of materials, width and design. The applicant has proposed a driveway of decomposed granite to feature ten (10) feet in width.
- s. SIDEWALK The applicant has proposed a front yard sidewalk of decomposed granite to feature a width of four (4) feet in width. The Guidelines for Site Elements 5.A.iii. notes that the historic alignment, configuration and width of sidewalks and walkways should be followed. Given that no historic front yard sidewalk is located at this address, staff finds the installation of decomposed granite walkways appropriate. The applicant shall install walkways with widths matching those of historic walkways found on the block.
- t. CARPORT At the rear of the site, the applicant has proposed to construct a carport to match the materials of the primary historic structure. Staff finds this installation appropriate.
- u. LANDSCAPING At this time, the applicant has not provided a landscaping plan noting landscaping materials. Staff finds that a landscaping plan noting proposed landscaping materials should be submitted when returning to the HDRC for final approval.

RECOMMENDATION:

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

- i. That the applicant install a foundation height that is consistent with those found historically on this block of Lamar as noted in finding f.
- ii. That the applicant install trim between the proposed front facing double windows that features at least six (6) inches in width as noted in finding h.
- iii. That the applicant install windows in the side window bay that are consistent in size with the other left façade windows as noted in finding i.
- iv. That the applicant install wood windows that are consistent with the Historic Design Guidelines, Window Policy Document as noted in finding n that are to include traditional dimensions and profiles, be recessed within the window frame, feature traditional materials or appearance and feature traditional trim and sill details as noted in finding l.
- v. That the applicant install Hardi board siding that features a smooth finish and a four (4) inch exposure as noted in finding 1.

CASE MANAGER:

Edward Hall





Flex Viewer

Powered by ArcGIS Server

Printed:Apr 05, 2017

The City of San Antonio does not guarantee the accuracy, adequacy, completeness or usefulness of any information. The City does not warrant the completeness, timeliness, or positional, thematic, and attribute accuracy of the GIS data. The GIS data, cartographic products, and associated applications are not legal representations of the depicted data. Information shown on these maps is derived from public records that are constantly undergoing revision. Under no circumstances should GIS-derived products be used for final design purposes. The City provides this information on an "as is" basis without warranty of any kind, express or implied, including but not limited to warranties of merchantability or fitness for a particular purpose, and assumes no responsibility for anyone's use of the information.





North Gate Custom Builders

909 NE Loop 410 Suite 903 San Antonio, TX 78209 E-Mail: dan@northgatecb.com Web: www.northgatecb.com

March 31, 2017

Historic & Design Review Commission 1901 S Alamo St San Antonio, TX 78204

To Whom It May Concern:

At 720 Lamar, our goal is to help continue the revitalization of Dignowity Hill. Our 1730 square foot new construction project will help bring in the old with the new. Our exterior will represent that old historic feel but with a new and clean appearance. The materials that will be used are made to stand the test of time such as James Hardi siding and Owens Corning 30 year shingles. These are two examples that represent the quality of materials that will be used on this project. On the interior, it will be loaded with many of today's modern amenities. Materials such as BIBS insulation system with R30 attic insulation and LED lighting throughout are two examples of what today's young buyer are looking for in a home.

Sincerely,

Dan Plummer





Google Maps 720 Lamar



Imagery @201 Google, Map data @2017 Google 20 ft



Estimated Setback for project

720 Lamar San Antonio, TX 78202





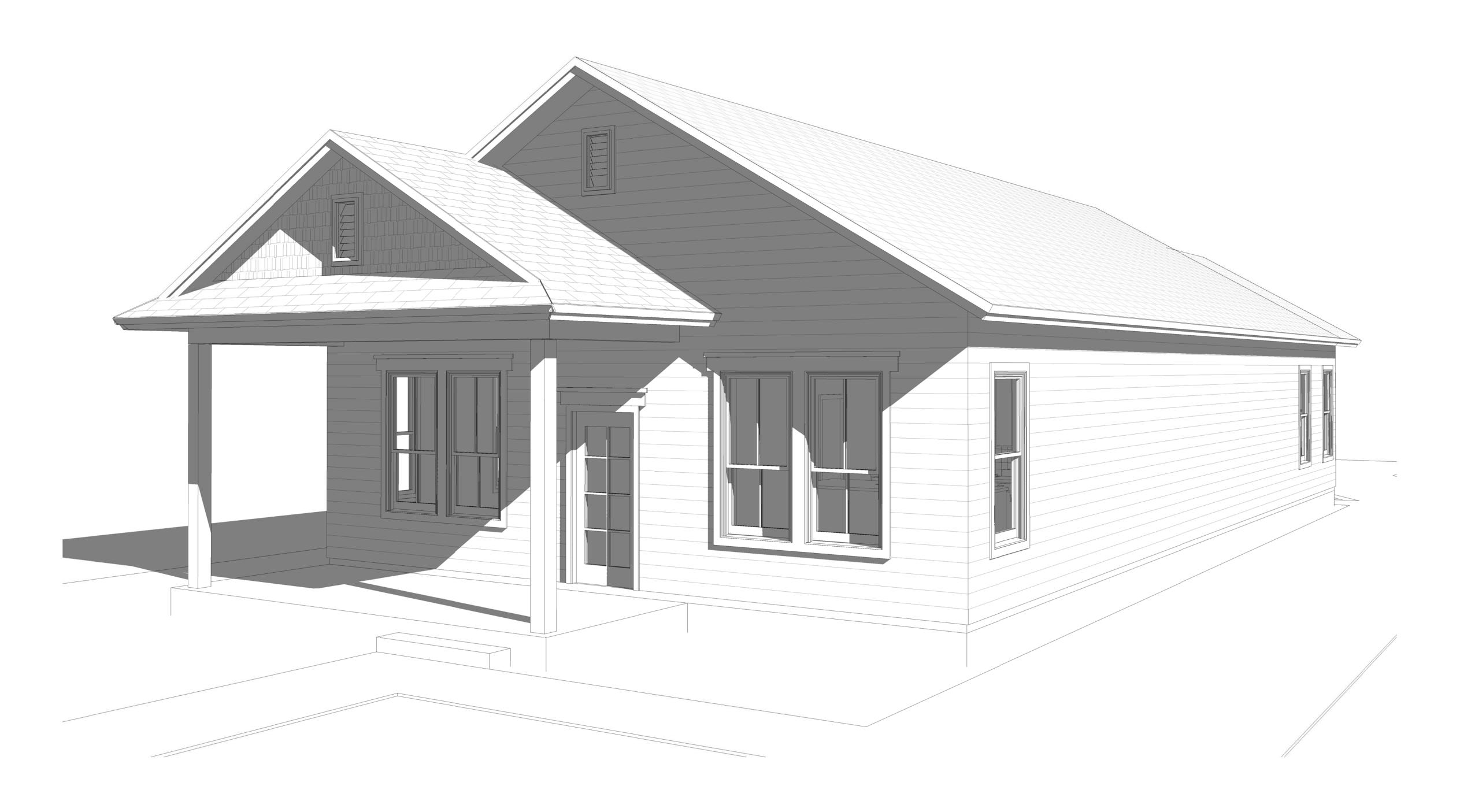


drawn by:

drawn number:

drawing title:

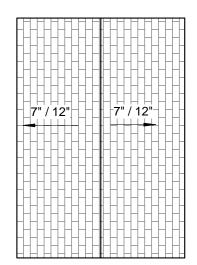
COVER SHEET

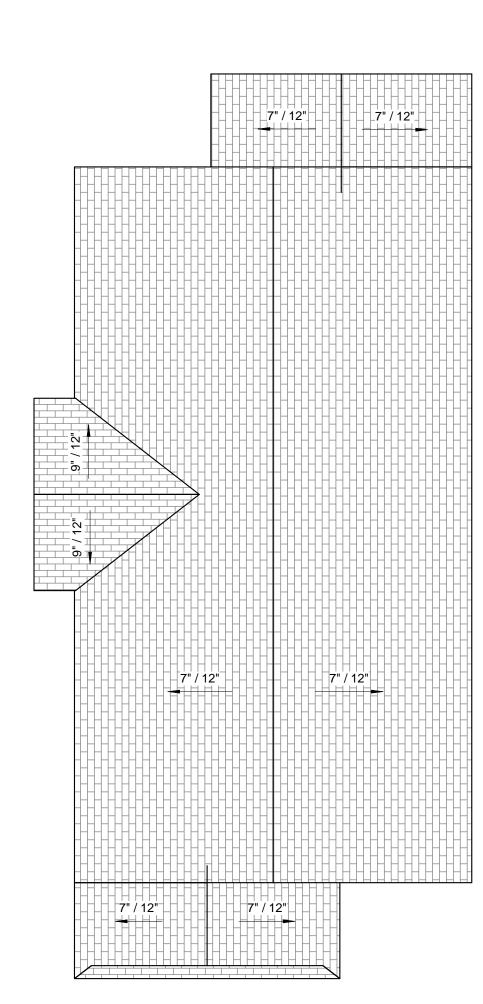


SQUARE FOOTAGE: 1730 SF. EXTERIOR FINISH: LAP SIDING

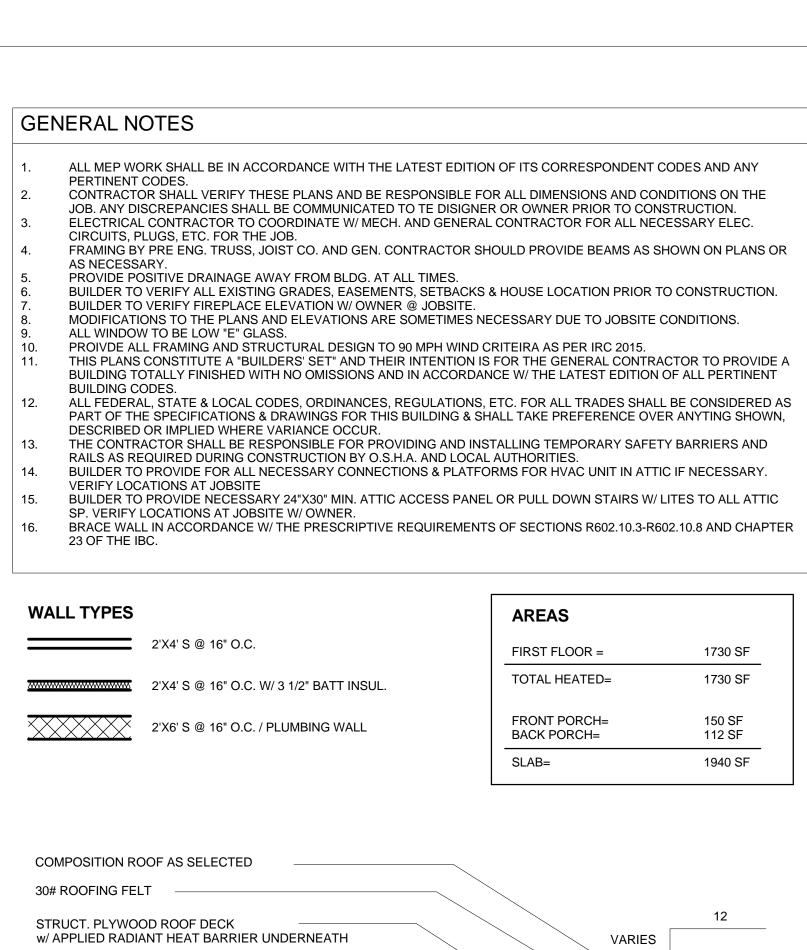
	Sheet List	
Sheet		
Number	Sheet Name	

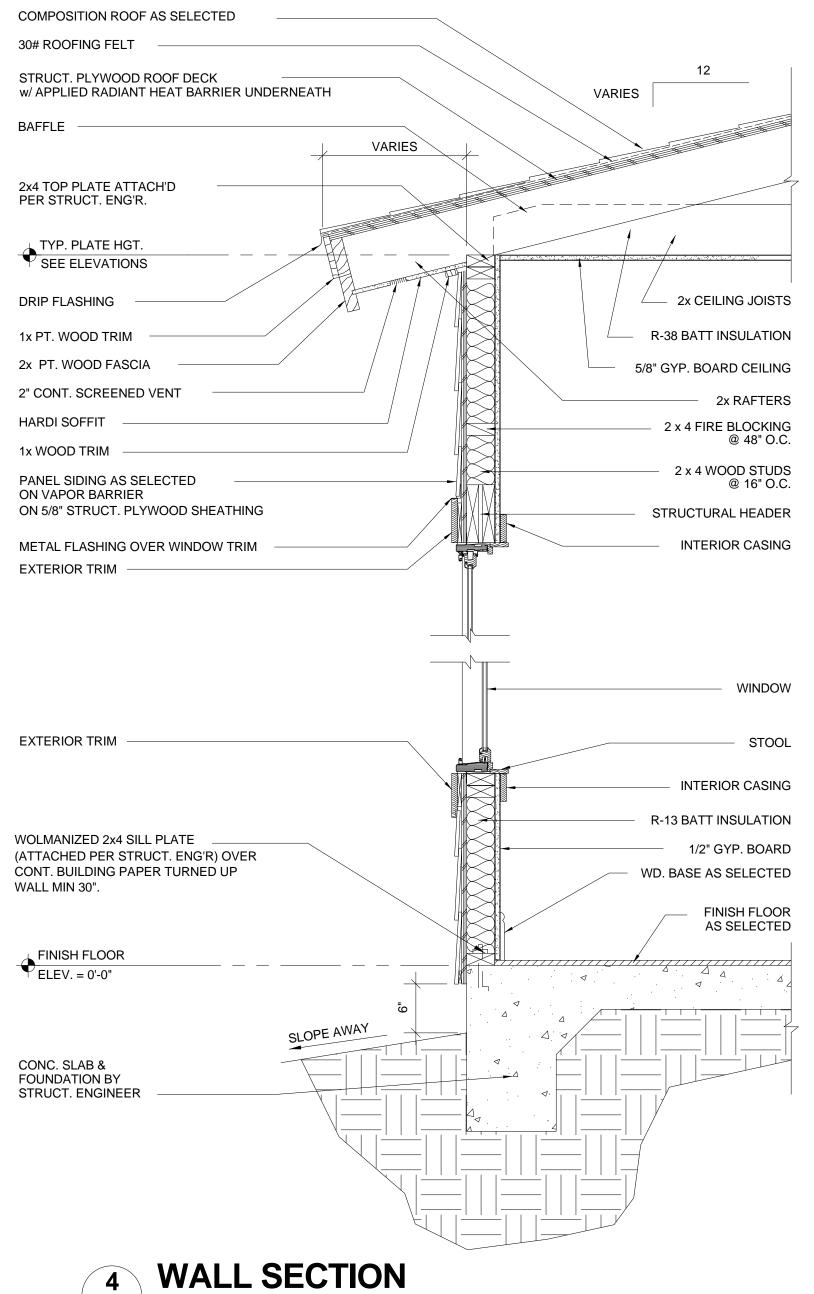
\1	COVER SHEET
\ 2	FLOOR PLAN & ROOF PLAN
43	EXTERIOR ELEVATIONS & SITE PLAN
\ 4	EXTERIOR ELEVATIONS
\ 5	INTERIOR ELEVATIONS
\ 6	ELECTRICAL PLAN



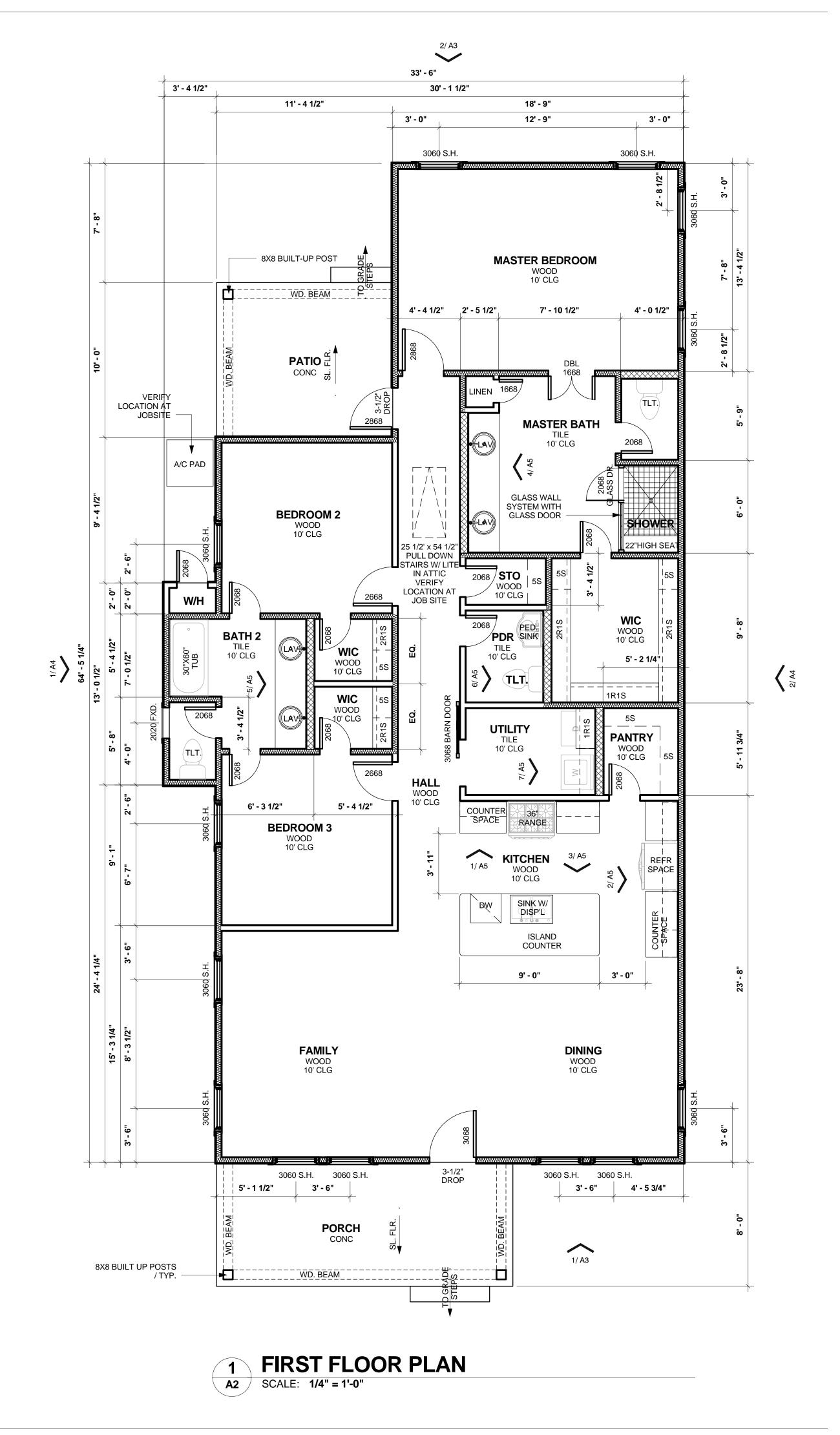








A2 | SCALE: 1" = 1'-0"



LAMAR RESIDEN

720 LA ANTONIO

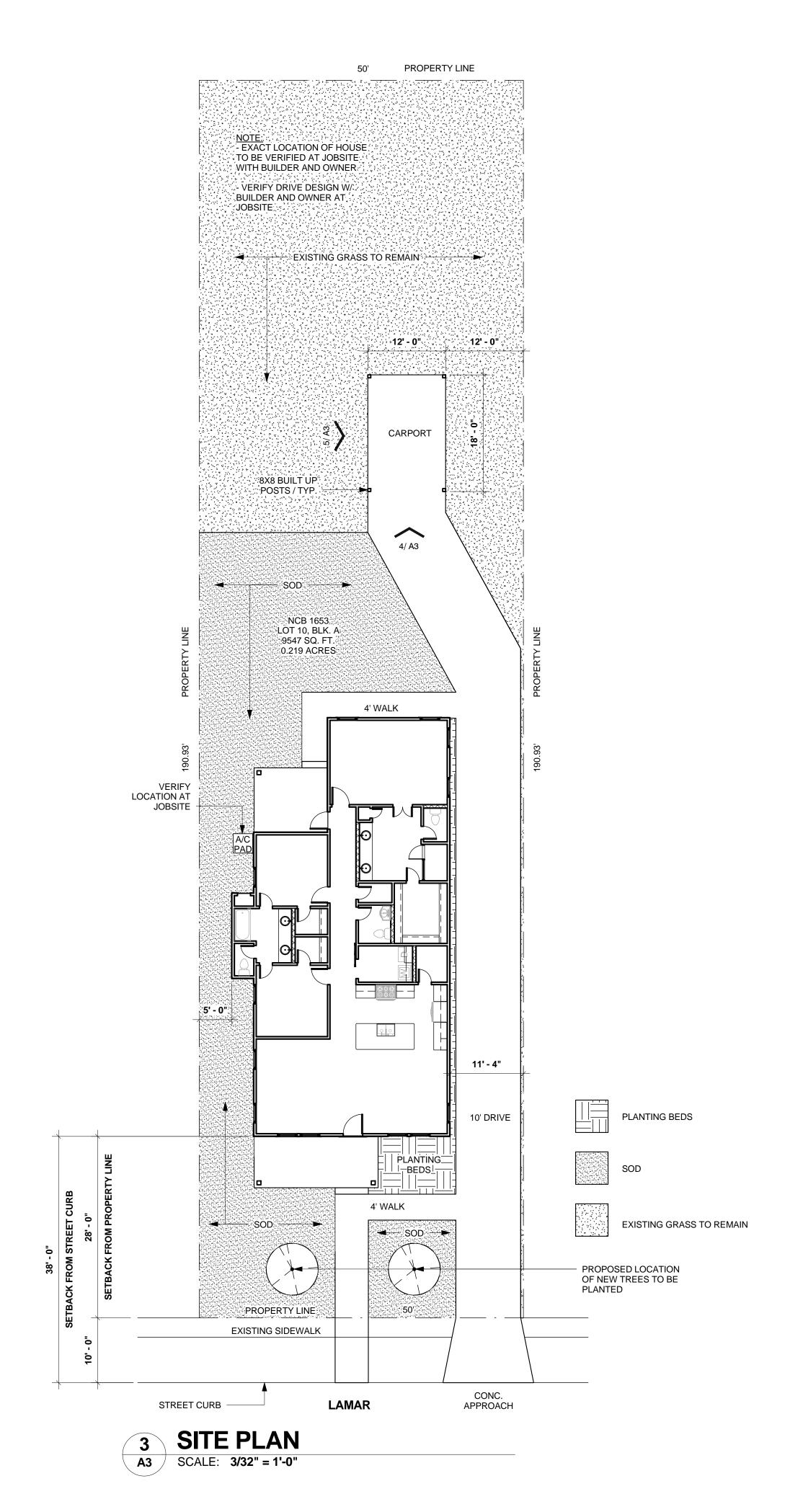
date:
04/10/2017

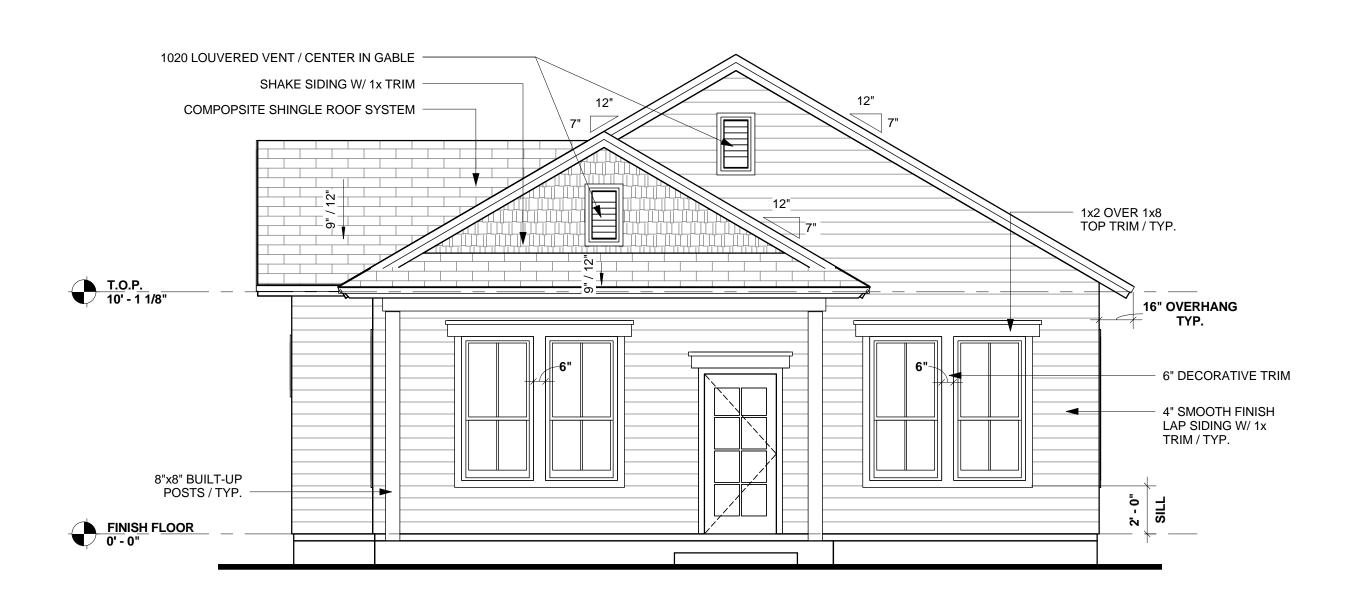
drawn by:
--drawing title:

FLOOR PLAN & ROOF PLAN

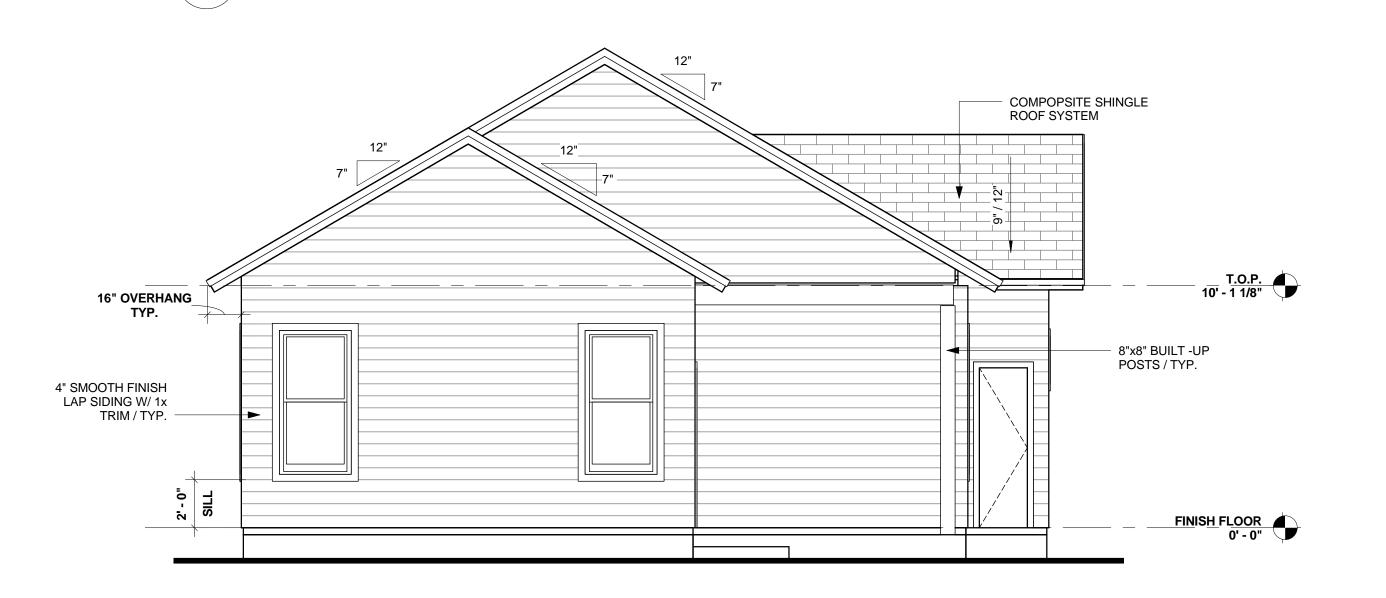
drawn
number:

720 LAI SAN ANTONIC

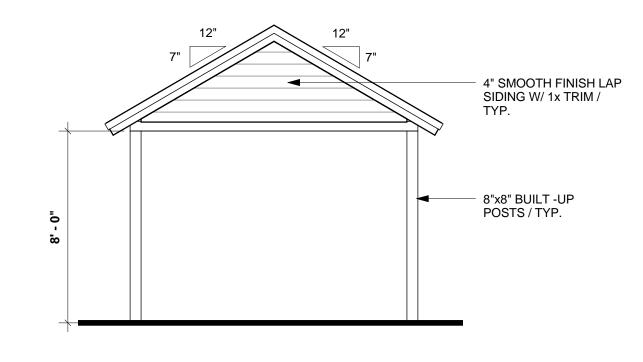


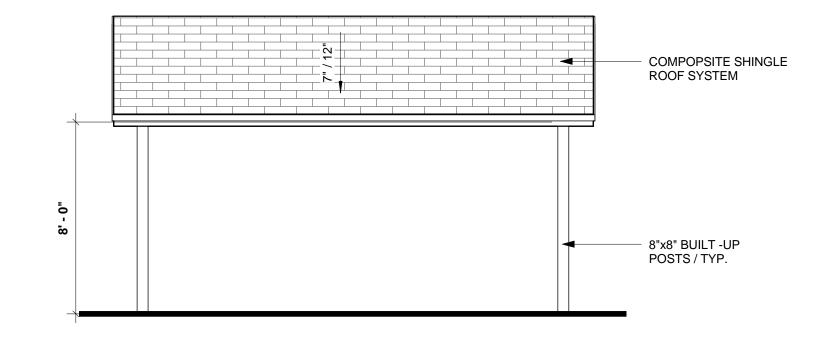


FRONT ELEVATION A3 | SCALE: 1/4" = 1'-0"



2 BACK ELEVATION A3 | SCALE: 1/4" = 1'-0"





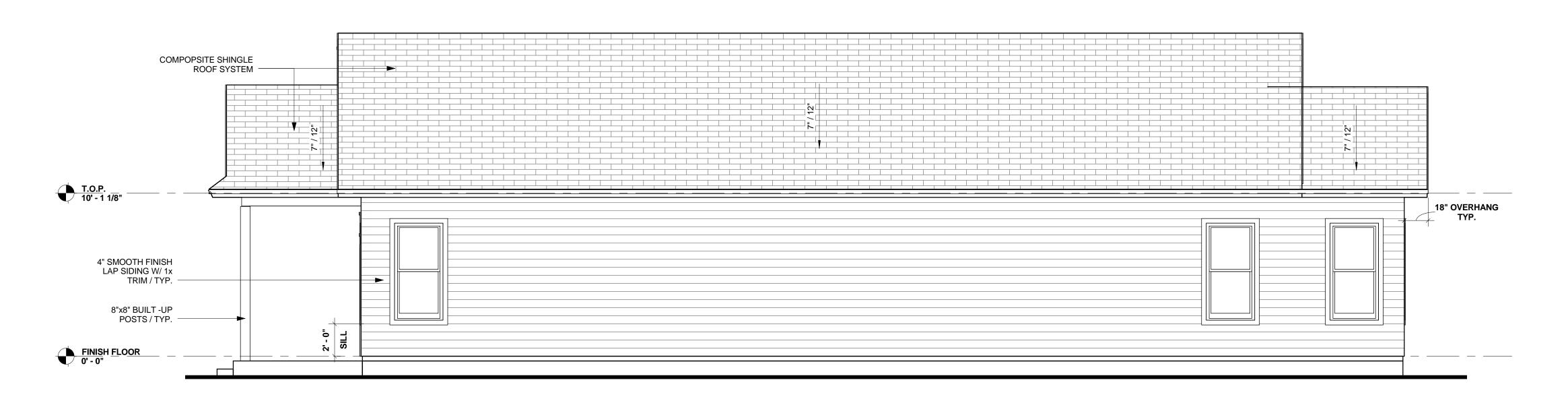
CARPORT FRONT ELEVATION A3 SCALE: 1/4" = 1'-0"

5 CARPORT SIDE ELEVATION
A3 SCALE: 1/4" = 1'-0"

04/10/2017 drawn by: drawing title: EXTERIOR ELEVATIONS & SITE PLAN number:

720 LAMAR SAN ANTONIO, TX 78202

1 LEFT ELEVATION
A4 SCALE: 1/4" = 1'-0"



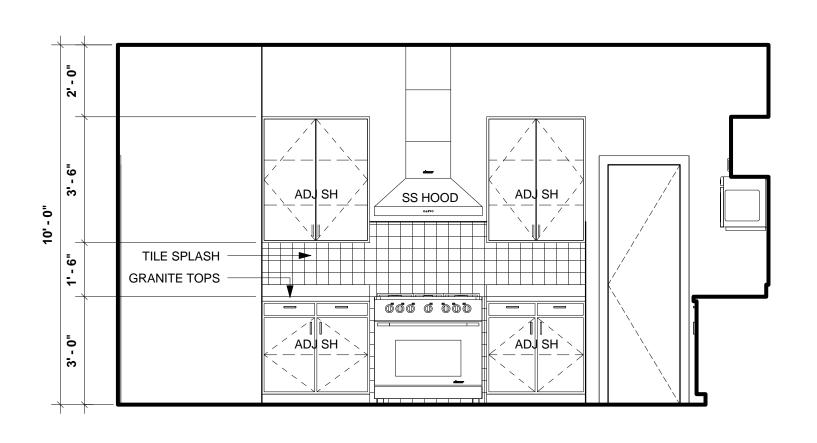
2 RIGHT ELEVATION
A4 SCALE: 1/4" = 1'-0"

date:
04/10/2017

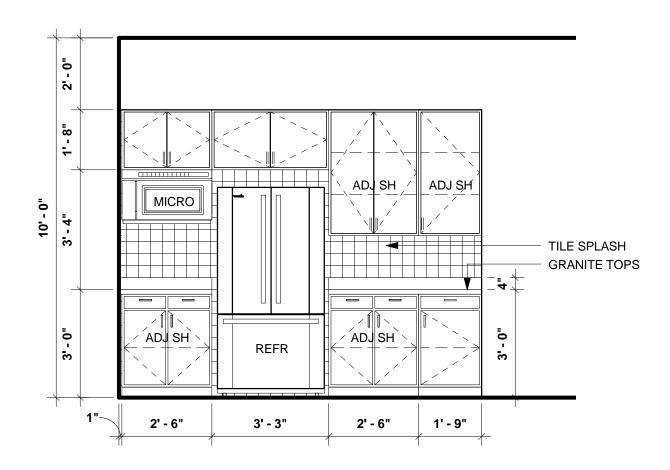
drawn by:
-drawing title:
EXTERIOR ELEVATIONS

drawn
number:

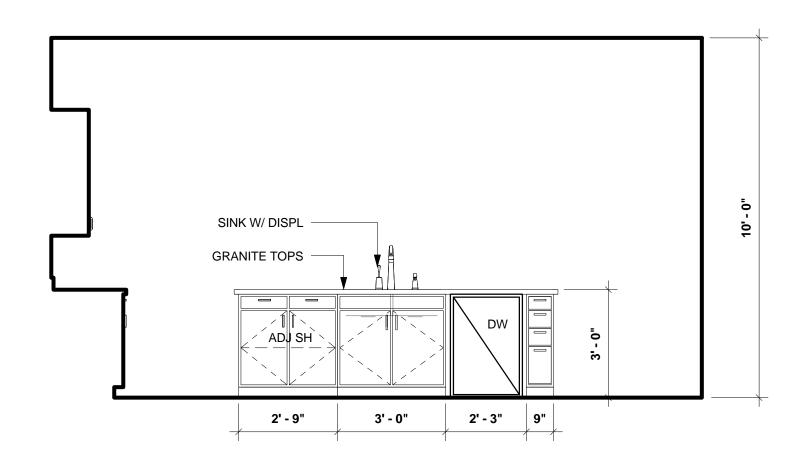
720 LAMAR SAN ANTONIO, TX 78202



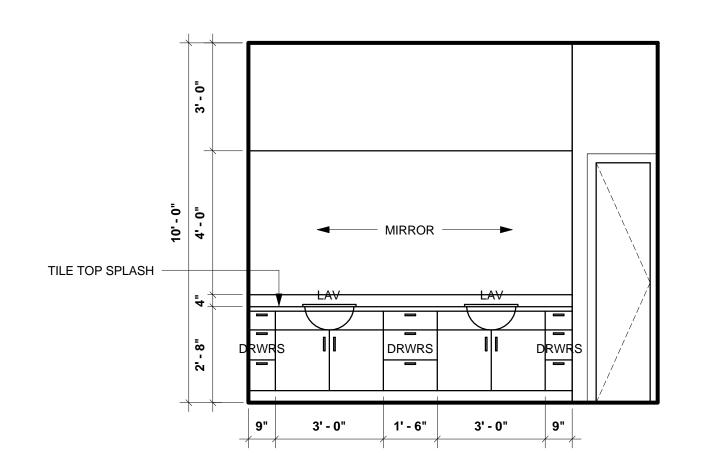




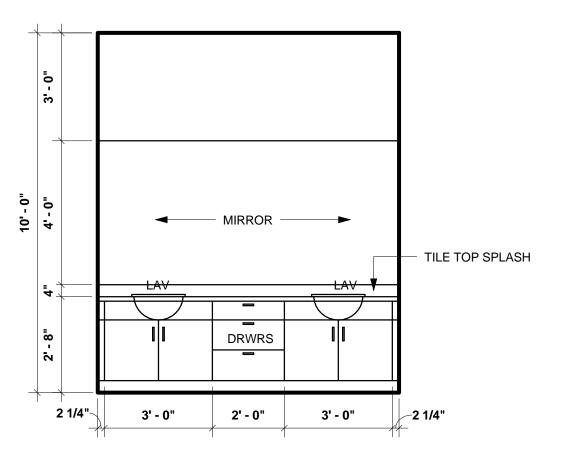




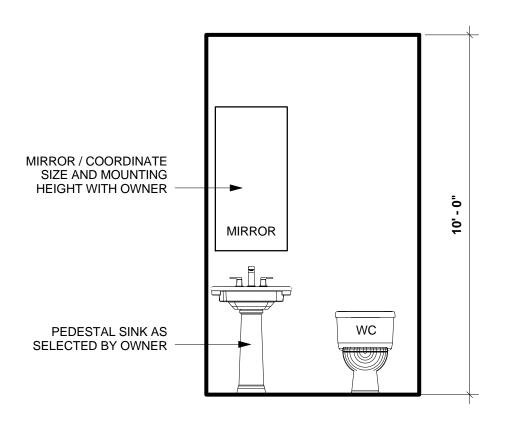
3 INTERIOR ELEVATION
A5 SCALE: 3/8" = 1'-0"



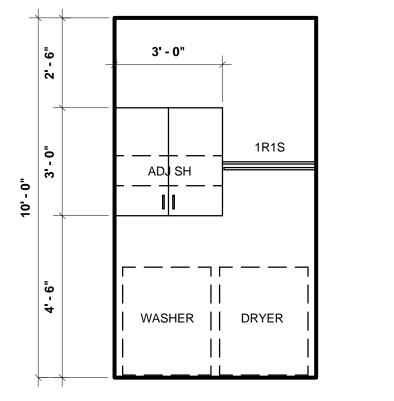




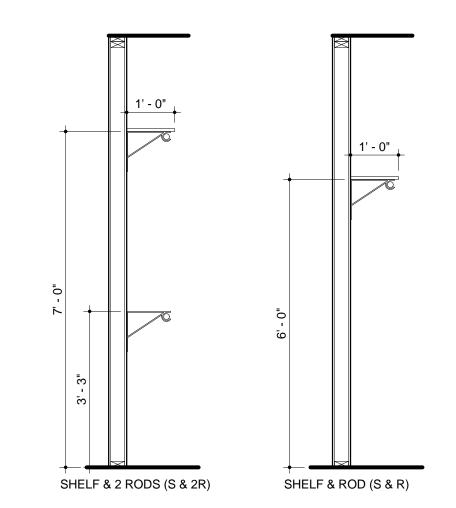




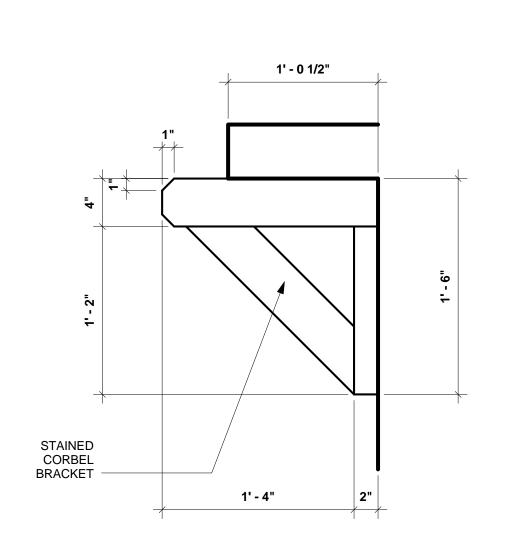




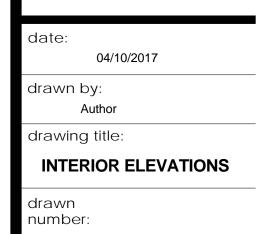






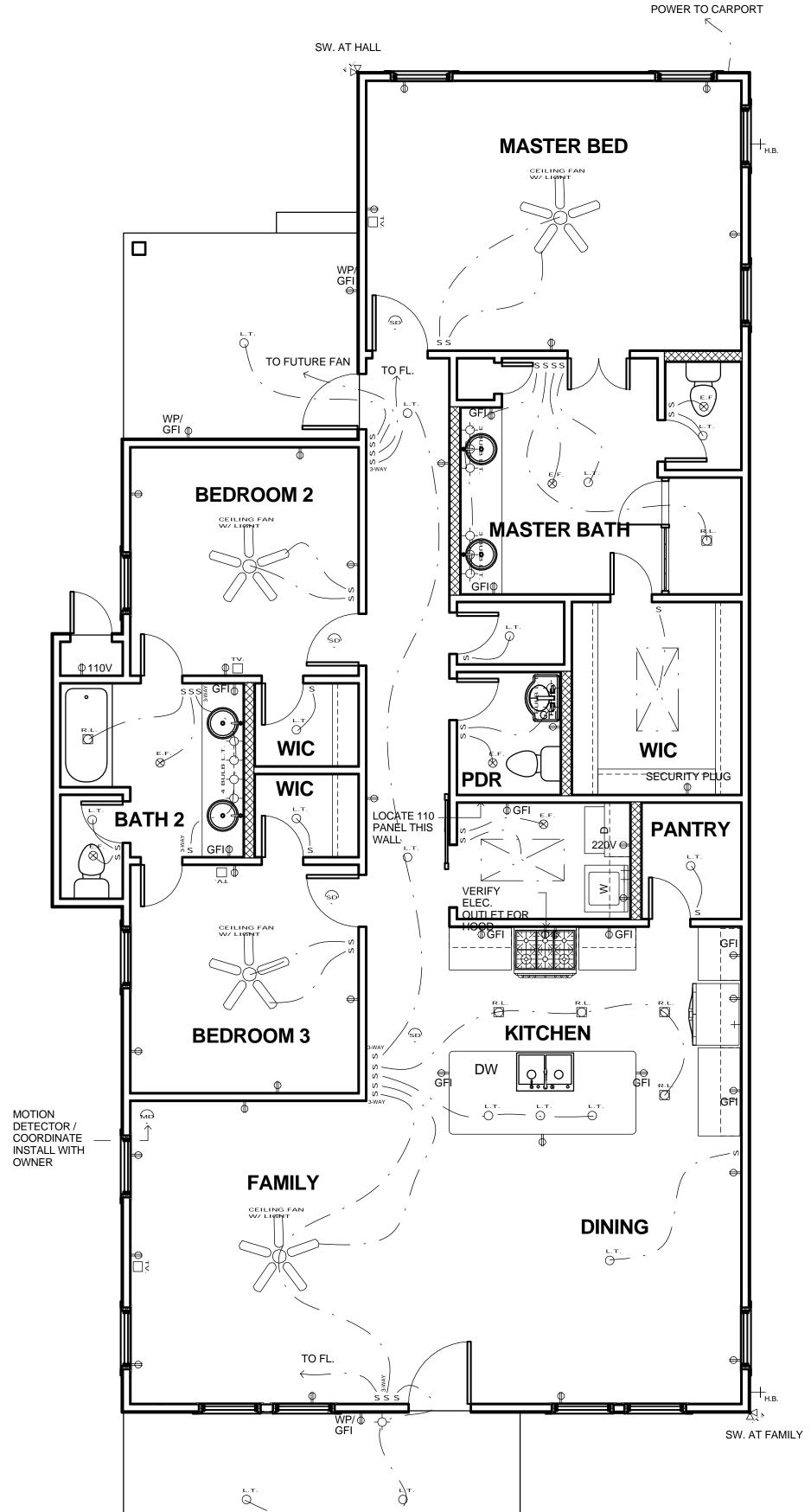






A5

720 LAMAR SAN ANTONIO, TX 78202



SYMBOLS		
PLUG	φ	
SWITCH	SSS	
LIGHT	L.T.	
RECESS LIGHT	R.L.	
WALL SCONCE	<u> </u>	
2'X4' FLOURESCENT LIGHT		
FAN W/ LIGHT	CEILING FAN W/ LIGHT	
EXHAUST FAN	E.F.	
SECURITY LIGHT	F.L.	
TELEPHONE JACK	TEL. ▼	
CABLE JACK	TV.	
SMOKE DETECTOR	SD	
CARBON MONOXIDE	C.M.D.	

NOTES:
-ANY ELECT., INTERCOM, SURVEILLANCE,
SOUND SYSTEM, COLORS & MATERIALS TO BE
DISCUSSED BEFORE CONSTRUCTION BEGINS.

-VERIFY LIGHTING LOCATIONS AT JOBSITE.

-COORDINATE LOCATION OF A/C PAD(S) AT JOBSITE AND PROVIDE 220V ELECTRICAL CONNECTION.

1 ELECTRICAL PLAN
A6 SCALE: 1/4" = 1'-0"

date:
04/10/2017

drawn by:
Author

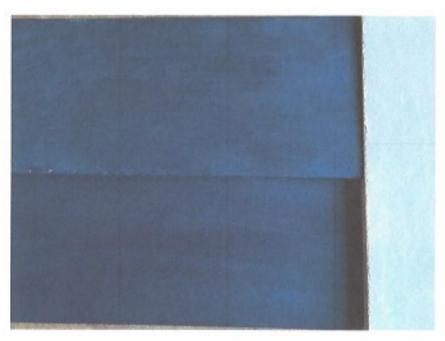
drawing title:
ELECTRICAL PLAN

drawn
number:

A6

EXTERIOR SIDING/TRIM/SHINGLES

Siding – SW Naval – James Hardi Siding 6" Exposure Trim/Soffit/Fascia – SW Snowbound



Shingles – Owens Corning Oakridge Estate Gray 30yr Dimensional Shingle



Front Door and Driveway

Front Door – GlassCraft 6'8" Mahogany Finish Door



Driveway/Leadwalks











9800 Series Single Hung, Horizontal Slider, Picture Windows 4100 Series Patio Door 9900 Series Impact Windows





AFILINA

A A L

The New Standard: LoE³-366° Glass

Builders FirstSource Introduces Cardinal LoE³-366°

(pronounced low E cubed-366), the ultimate performance glass. It just might make all other low-E glasses obsolete. LoE3-366 delivers the ideal balance of solar control and high visibility. And it provides the highest levels of year-round comfort and energy savings, making it the perfect glass no matter where you live. The secret? An unprecedented triple layer of silver. This is beyond ordinary low-E glass; LoE3-366 sets the new standard.

Low-E Times Three Makes the Difference

Cardinal has for years provided energyefficient LoE² glass. Now with three layers of year-round thermal protection, the benefits are exceptional. The results: a clear coating that blocks even more solar gain than ever before, reflects heat and lets the light stream in.

Energy Savings All Year Long

The full-year benefits of LoE3-366 can be clearly seen. When the temperature soars in the summer, ordinary window glass just can't beat the heat. And tinted glass spoils the view. LoE3-366 is formulated to reject solar heat while





In summer, LoE³-366 is formulated to reject solar heat.



In winter, LoE³-366 is formulated to keep the heat in.

maintaining attractive visibility. So it keeps the heat out while letting light in. As a matter of fact, LoE³-366 glass is our ultimate in performance and clarity among all of Cardinal's clear coated products.

What is more, LoE³-366 provides the ultimate in fading protection. It blocks 95% of the sun's damaging ultraviolet rays—a leading cause of fading (visible light also contributes to fading)—so your furniture, carpets, curtains and wall coverings stay beautiful for years.

During the cold weather, the insulating effect of your windows has a direct impact on how your rooms feel. The better insulated the window glass; the warmer your room will feel.

Saving Money and Protecting the Environment

In view of limited global resources while considering financial responsibility it is prudent for us to use products that are energy efficient and reduce our carbon footprint. With Spectrum Vinyl windows manufactured with Cardinal LoE3-366 glass you will limit usage of fossil fuels and lower carbon emissions while saving money on utilities.









