HISTORIC AND DESIGN REVIEW COMMISSION

February 03, 2021

HDRC CASE NO:	**2021-041**
ADDRESS:	120 CALLAGHAN AVE
LEGAL DESCRIPTION:	NCB 719 BLK 1 LOT N 1-2 OF 5
ZONING:	RM-4
CITY COUNCIL DIST.:	1
DISTRICT:	Lavaca Historic District
APPLICANT:	Mario Mendiola
OWNER:	Mario Mendiola
TYPE OF WORK:	Historic Tax Certification
APPLICATION RECEIVED:	January 22, 2021
60-DAY REVIEW:	Not applicable due to City Council Emergency Orders
CASE MANAGER:	Rachel Rettaliata

REQUEST:

The applicant is requesting Historic Tax Certification for the property at 120 Callaghan.

APPLICABLE CITATIONS:

UDC Section 35-618. Tax Exemption Qualification.

(d)Certification.
(1)Historic and Design Review Commission Certification. Upon receipt of the owner's sworn application the historic and design review commission shall make an investigation of the property and shall certify the facts to the city tax assessor-collector within thirty (30) days along with the historic and design review commission's documentation for recommendation of either approval or disapproval of the application for exemption.

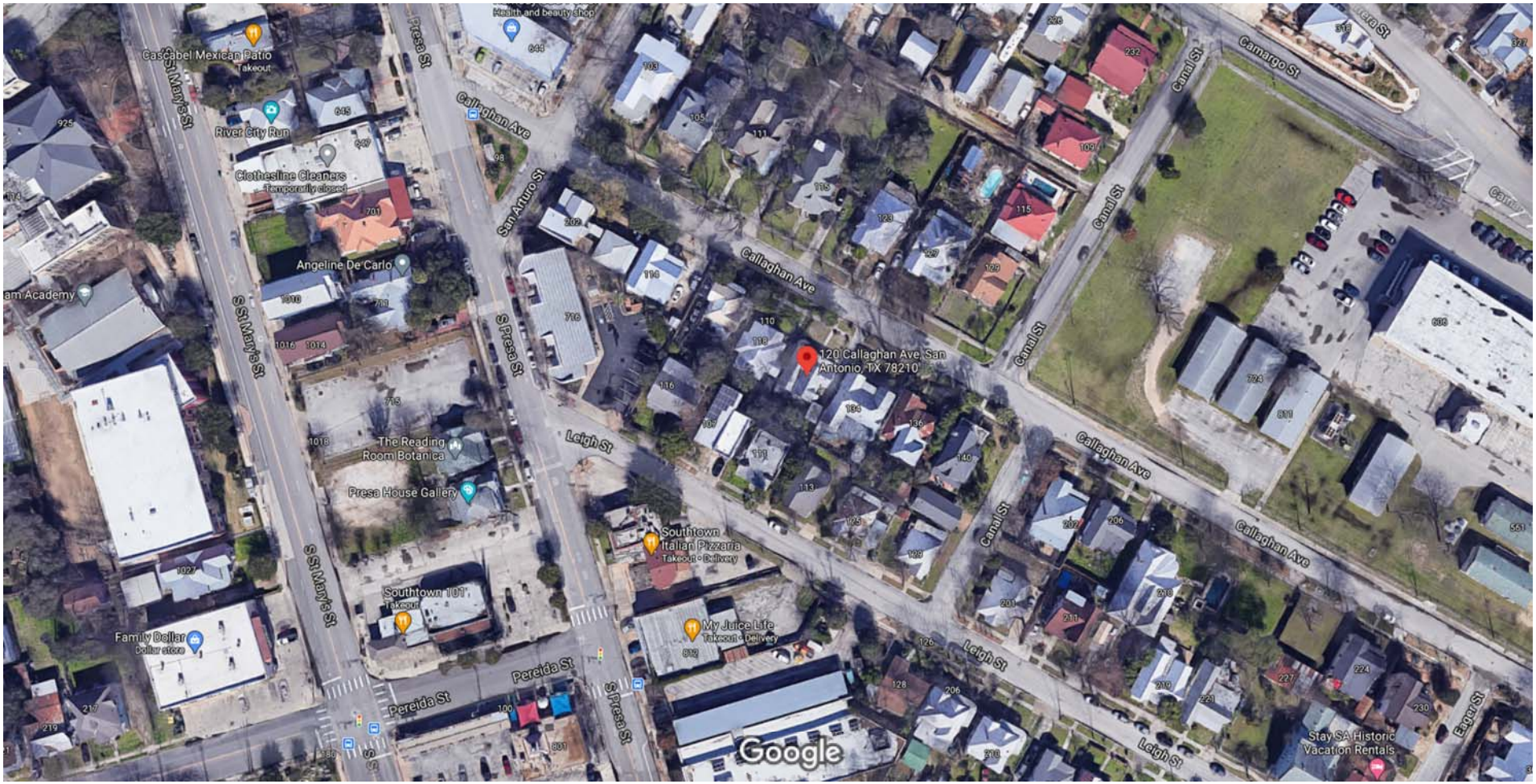
FINDINGS:

a. The primary structure at 120 Callaghan is a 1.5-story, single-family residence constructed circa 1915 in the Folk Victorian style. The home features a primary side-gable configuration, an asymmetrical front porch with turned columns, tall rectangular wood windows with a two-over-two configuration, and a primary front gable with decorative wood shingles. The structure is contributing to the Lavaca Historic District. A fire damaged the interior of the structure, along with a portion of the exterior roof and rear façade in March 2019. The applicant received approval to reconstruct the structure in kind. The property is an individual landmark. The applicant is requesting Historic Tax Certification.
b. The scope of work includes the in-kind interior and exterior reconstruction of the structure, the installation of new electrical, HVAC and plumbing, roof installation, door and window installation, painting, porch railing installation, and landscaping.
c. The applicant has met all the requirements for Historic Tax Certification outlined in UDC Section 35-618 and has provided evidence to that effect to the Historic Preservation Officer.

RECOMMENDATION:

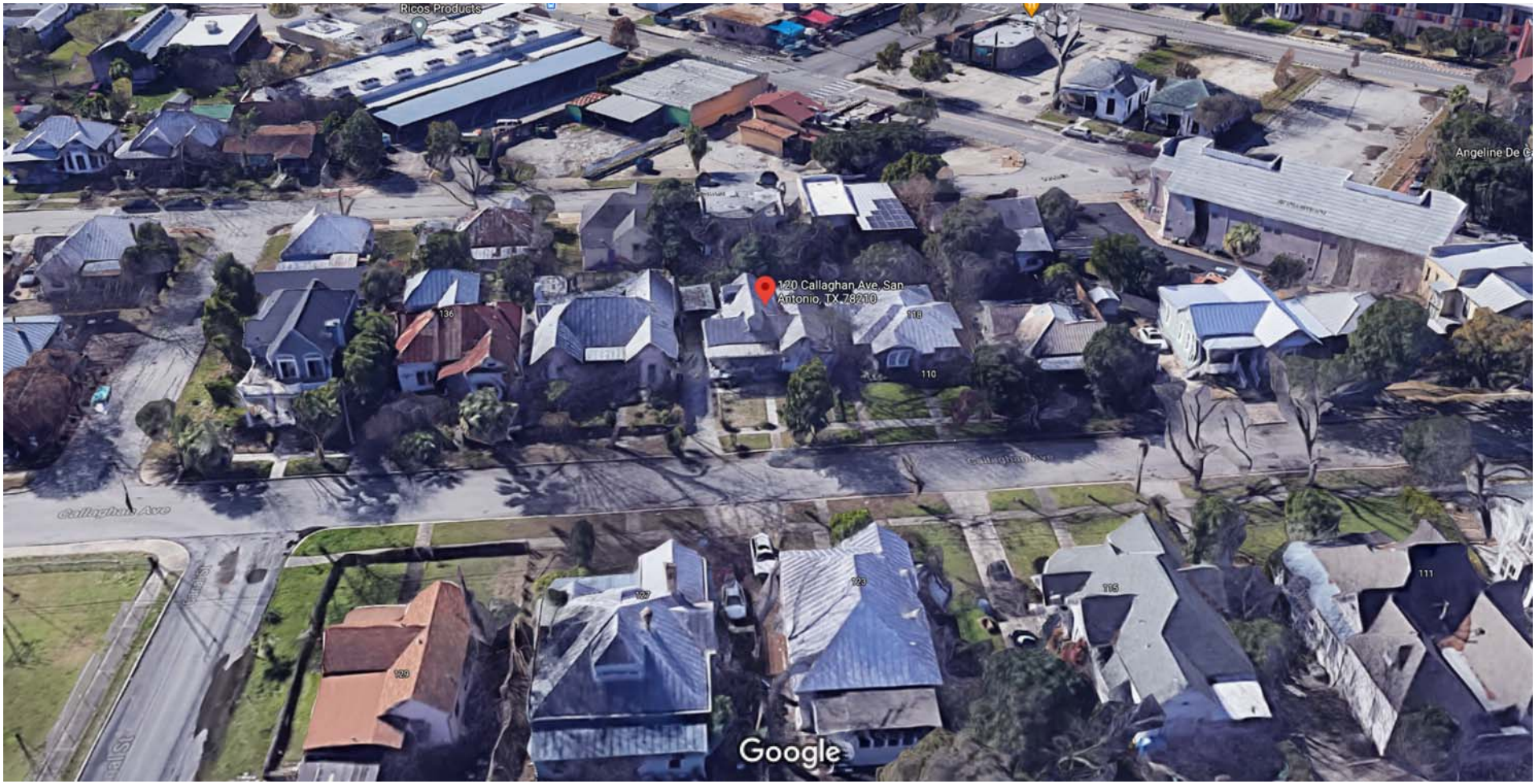
Staff recommends approval based on findings a through c.

Google Maps 120 Callaghan Ave



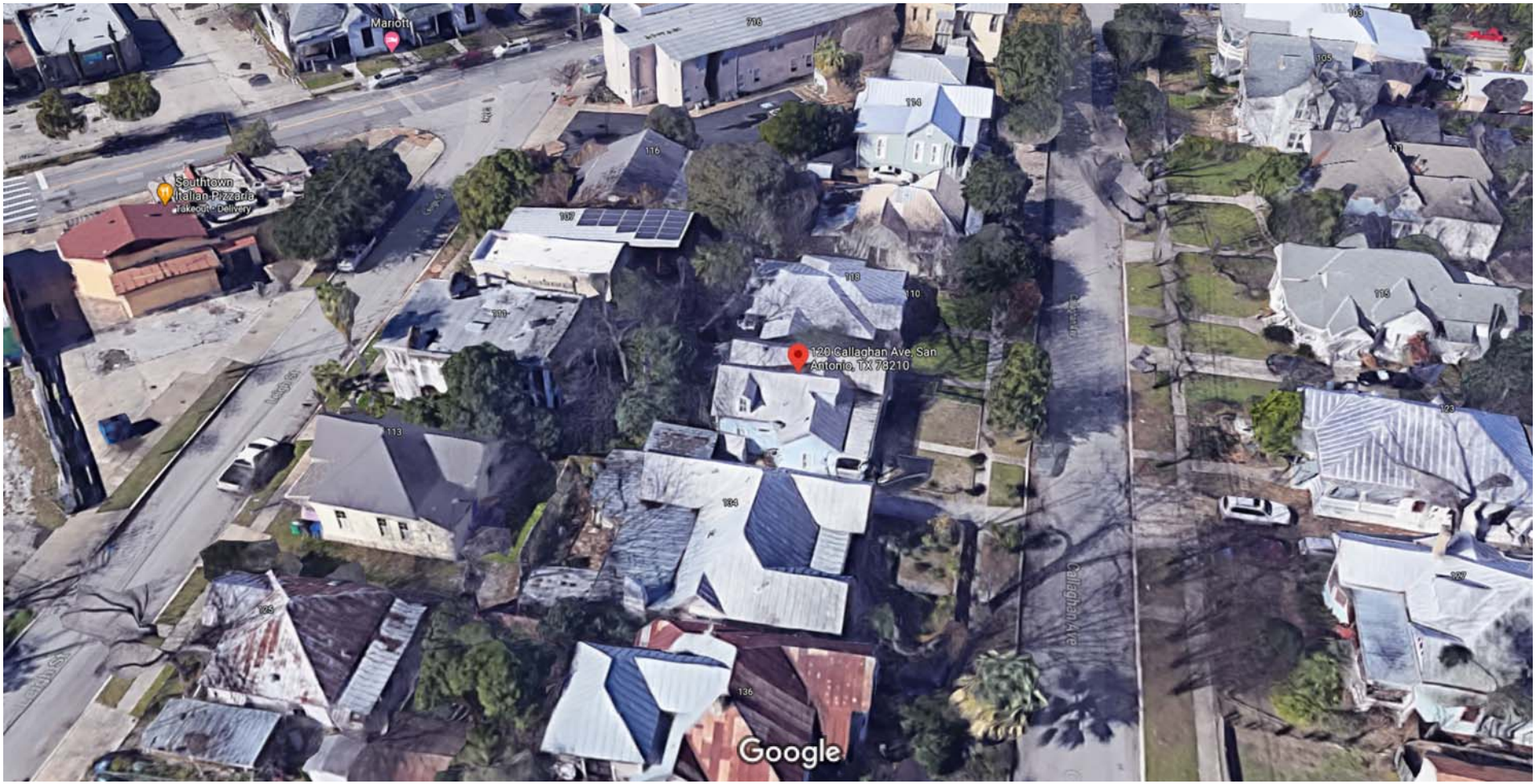
Imagery ©2021 Google, Imagery ©2021 CNES / Airbus, Maxar Technologies, Map data ©2021 Google 50 ft

Google Maps 120 Callaghan Ave



Imagery ©2021 Google, Map data ©2021 , Map data ©2021 20 ft

Google Maps 120 Callaghan Ave



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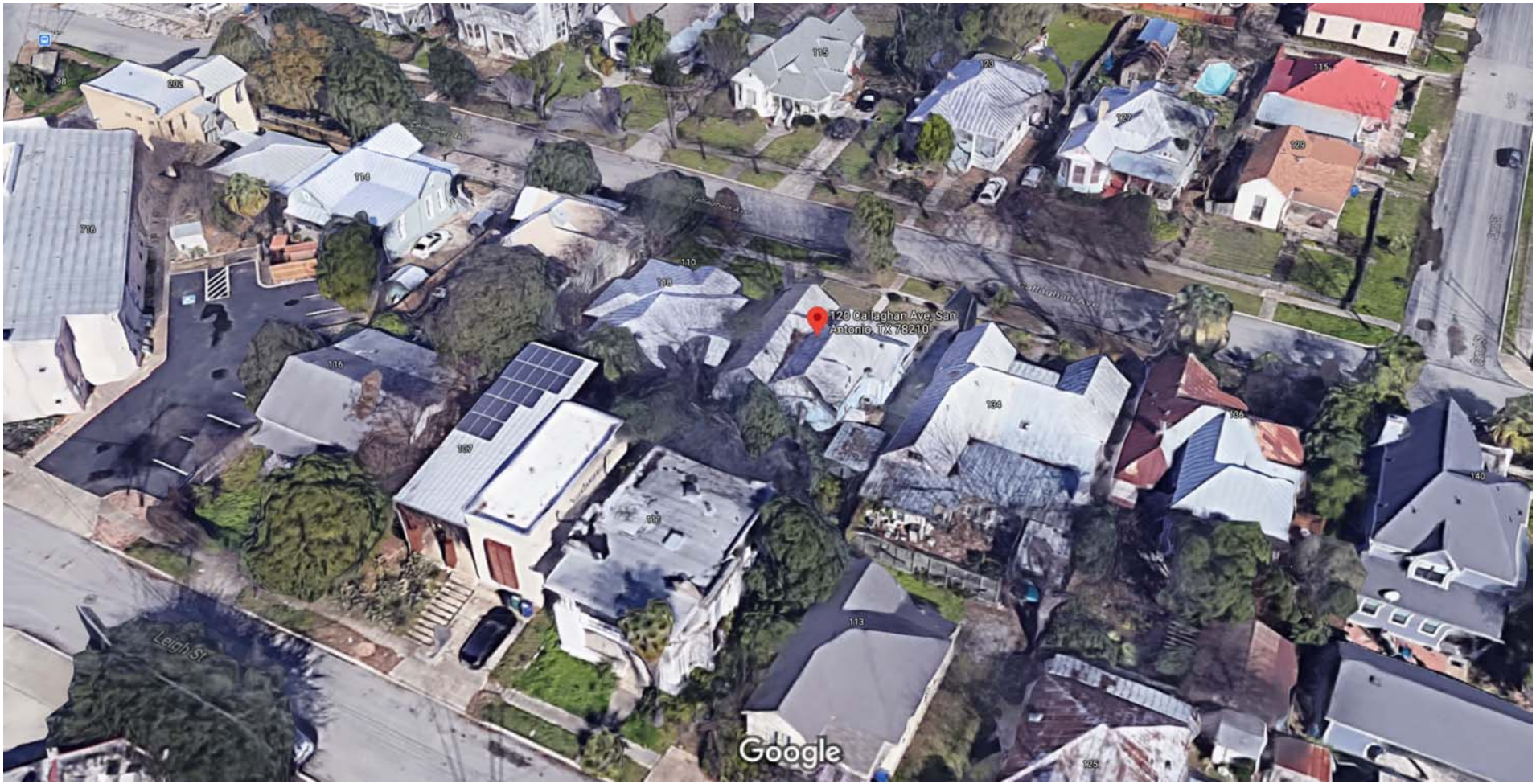
Google Maps 120 Callaghan Ave



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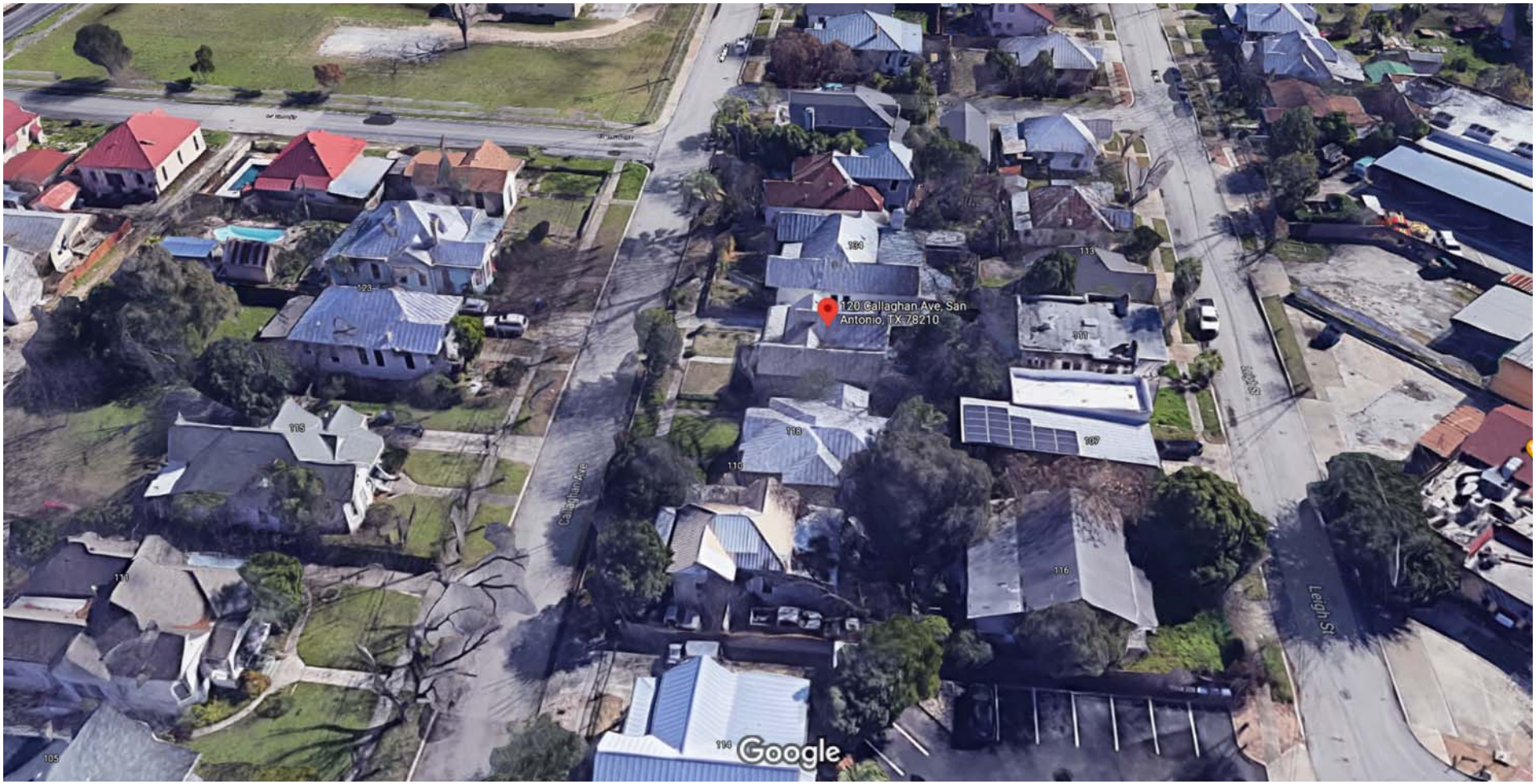
Google Maps 120 Callaghan Ave



Imagery ©2021 Google, Map data ©2021 , Map data ©2021 Google 20 ft

ING
RETE STEPS

NEW FRONT ELEVATION

11" x 17" - SCALE 1/8" = 1'-0"
24" x 36" - SCALE 1/4" = 1'-0"

FRANK TELLES
BUILDER SERVICES

Phone 210.400.5617
frank.telles@gmail.com

NOTES

CUSTOM HOME PLANS FOR:
120 CALLAGHAN AVE.
SAN ANTONIO, TX

PLAN NO.
000
06/05/2020

COVER SHEET & SITE PLAN

SHEET

PROPOSED PLANS FOR :

MENDIOLA RESIDENCE

120 CALLAGHAN AVE SAN ANTONIO, TEXAS

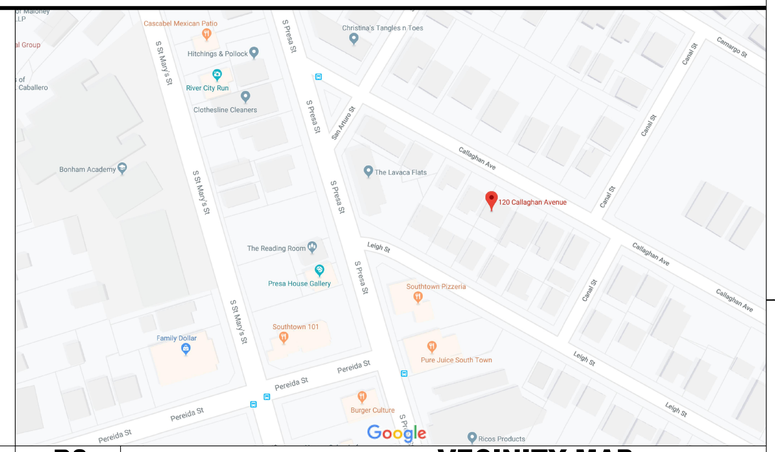
FRANK TELLES
Builders Services

San Antonio, Texas
frank.telles@gmail.com

210.400.5617

INDEX OF DRAWINGS

B2
NTS



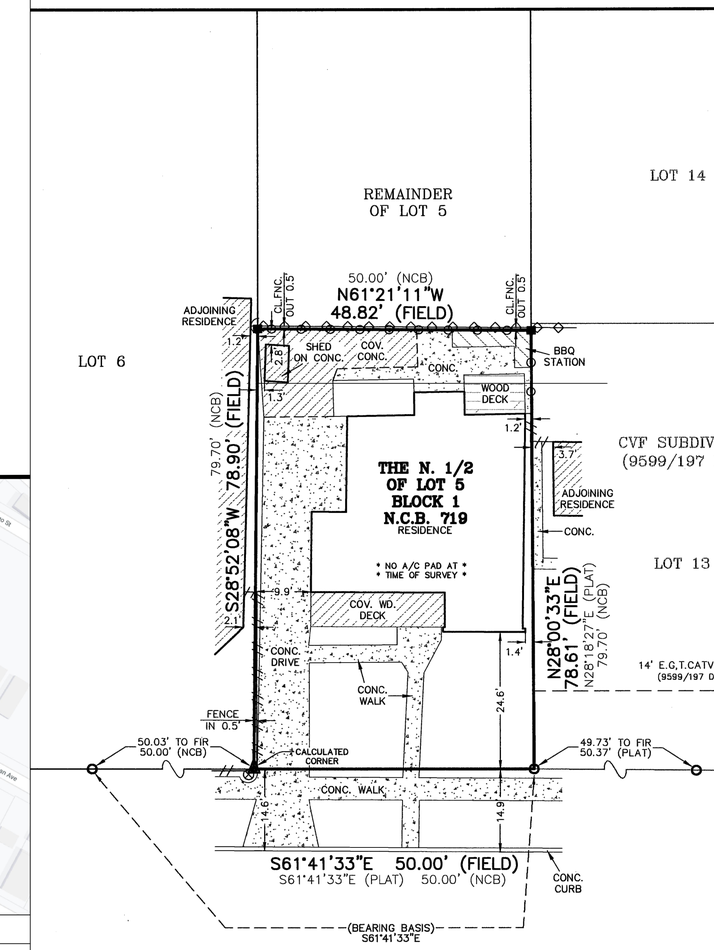
B2
NTS

VECINITY MAP

PROJECT GENERAL NOTES

1. THE OWNER WILL ASSUME RESPONSIBILITY FOR ADMINISTRATION OF THE CONTRACT FOR CONSTRUCTION AND FOR SUPERVISING THE EXECUTION OF THE CONTRACT DOCUMENTS (WORKING DRAWINGS). THE ARCHITECT IS NOT RESPONSIBLE FOR DAMAGES RESULTING FROM ERRORS AND OMISSIONS BY THOSE EXECUTING THE WORK, OR DAMAGES RESULTING FROM CHANGES IN THE WORK NOT SET FORTH IN THE CONTRACT DOCUMENTS, AND OR CHANGES NOT APPROVED IN WRITING TO THE ARCHITECT.
2. CONTRACTOR SHALL HOLD ALL REQUIRED LICENCES IN THE MUNICIPALITY IN WHICH THE THE WORK IS TO BE PERFORMED. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS INCLUDING ANY AND ALL PERMITTING FEES.
3. CONTRACTOR SHALL BE FULLY INSURED AND SUBMIT PROOF OF COVERAGE AND COVERAGE AMOUNTS WITH BID.
4. CONTRACTOR SHALL CONTACT THE OWNER (OR ARCHITECT) AS SOON AS POSSIBLE WITH ANY QUESTIONS, COMMENTS OR DISCREPANCIES CONCERNING PLANS.
5. CONTRACTOR SHALL FEILD VERIFY AND BE RESPONSIBLE AND UNDERSTAND ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES, VARIATIONS ETC. WITH THE DIMENSIONS AND OR CONDITIONS INDICATED OR NOT INDICATED ON THESE DRAWINGS.
6. EXISTING CONDITIONS, I.E. DIMENSIONS, LOCATIONS OF UTILITIES ETC. SUPPLIED BY ENGINEER. THE ARCHITECT IS NOT RESPONSIBLE FOR DISCREPANIES, ERRORS, DAMAGES, AND CHANGES RESULTING FROM INCORRECT INFORMATION.
7. BY SUBMITTING A BID, THE BIDDER AGREES AND WARRANTS THAT HE HAS VISITED THE PROJECT SITE, EXAMINED THE DRAWINGS AND SPECIFICATIONS (IF PART OF CONTRACT) AND FOUND THAT THEY ARE ADEQUATE FOR THE PROPER COMPLETION OF PROJECT.
8. SHOULD CONFLICT ARISE BETWEEN GENERAL NOTES, HEREIN AND FOLLOWING, AND SPECIFICATIONS (IF PART OF CONTRACT), THE GENERAL NOTES SHALL HAVE PRECEDENCE. WRITTEN DIMENSIONS ON DRAWINGS HAVE PRECEDENCE OVER SCALED DIMENSIONS.
9. DO NOT SCALE DRAWINGS FOR CONSTRUCTION PURPOSES, SEE WRITTEN DIMENSIONS. ALL DIMENSIONS ARE TO FACE OF STUD, CONCRETE, OR TO CENTER LINE, UNLESS OTHERWISE NOTED.
10. CONTRACTOR TO VERIFY ALL CODES, ORDINANCES, REQUIREMENTS AND INCORPORATE INTO BIDS, PROPOSALS AND CONSTRUCTION.
11. ALL NECESSARY AND REQUIRED CONTROLLED INSPECTIONS SHALL BE MADE AND FILED WITH THE APPROPRIATE DEPARTMENTS, BY AN AUTHORIZED OR QUALIFIED LICENSED BUILDING INSPECTOR.
12. ALL MATERTIALS AND CONSTRUCTION TO BE INCORPORATED IN THE WORK SHALL BE IN STRICT ACCORDANCE WITH THE LATEST EDITION OF THE ASTM SPECIFICATIONS APPLICABLE AND TO CONFORM TO THE STANDARDS AND RECOMMENDATIONS OF THE VARIOUS TRADE INSTITUTES (A.I.I., A.I.S.C., ETC.) WHERE APPLICABLE. ALL MATERIALS INCORPATED INTO THE WORK SHALL BE NEW, UNLESS NOTED OTHERWISE.
13. USE ONLY SKILLED AND EXPERIENCED PERSONEL. ALL WORK SHALL BE DONE IN A WORKMAN MANNER. ALL WORK TO DONE IN ACCORDANCE WITH INDUSTRY STANDARD PRACTICES.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING ALL WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE COLLAPSE, DISTORTIONS AND MISALIGNMENT ACCORDING TO APPLICABLE CODES, STANDARDS AND GOOD PRACTICES.
15. EACH CONTRACTOR SHALL BE HELD STRICTLY RESPONSIBLE FOR HIS WORK.
16. PROTECT ALL MATERIALS, FIXTURES AND APPLIANCES FROM WEATHER AND OR THEFT.
17. CONTRACTOR SHALL KEEP SITE (INSIDE AND OUTSIDE) NEAT AND ORDERLY THROUGHOUT CONSTRUCTION. COMPLETED WORK SHALL BE CLEAN.
18. PROVIDE ELECTRICAL REQUIRED FOR BURGLAR ALARM SYSTEM. CONTRACTOR TO COORDINATE INSTALLATION WITH THE SECURITY COMPANY SELECTED BY OWNER.
19. ALL WALL & CEILING FINISHES TO BE CLASS B OR BETTER, FLAME SPREAD 26-75 WITH MAXIMUM SMOKE DEVELOPED OF 450.
20. ALL INTERIOR TRIM TO BE CLASS C, FLAME SPREAD 76-200 WITH MAXIMUM SMOKE DEVELOPED OF 450.
21. FLOOR COVERINGS TO HAVE A FLAME SPREAD RATING NOT TO EXCEED 75.
22. ALL COMBUSTIBLE INTERIOR FINISH & TRIM ITEMS ARE TO BE APPLIED DIRECTLY TO A NON-COMBUSTIBLE BASE.
23. PROVIDE AND INSTALL OCCUPANCY SIGN IN A CONSPICUOUS LOCATION IN ACCORDANCE WITH STATE & LOCAL CODES.
24. PROVIDE AND INSTALL OCCUPANCY SIGN IN A CONSPICUOUS LOCATION IN ACCORDANCE WITH STATE & LOCAL CODES.
25. SIGNAGE AS SHOWN IN THESE DRAWINGS IS SCHEMATIC ONLY FOR ILLUSTRATION PURPOSES AND DOES NOT IMPLY OR DESCRIBE ANY MEANS, METHODS, OR DETAILS PERTAINING TO INSTALLATION OF THE SIGNAGE. IT SHALL BE SOLELY THE SIGN CONTRACTOR'S RESPONSIBILITY TO DESIGN, FABRICATE, AND INSTALL THE SIGN UNDER SEPARATE PERMIT. ANY AND ALL STRUCTURAL CONSIDERATIONS SHALL BE COORDINATED BETWEEN THE SIGNAGE CONTRACTOR, OWNER, AND HIS DESIGN PROFESSIONALS. THE SIGN CONTRACTOR SHALL SUBMIT SHOP DRAWINGS DESCRIBING THE SIGNAGE DESIGN INCLUDING FINISHES, COLORS AND DESIGN DIMENSIONS TO THE OWNER FOR DESIGN INTENT REVIEW ONLY PRIOR TO SIGN FABRICATION.
26. SPRINKLER WORK WHERE REQUIRED BY CODE OR CONSTRUCTION CONDITIONS SHALL BE SUBMITTED UNDER SEPARATE PERMIT BY A LICENSED SPRINKLER CONTRACTOR. TIE SPRINKLER & FIRE ALARM INTO BASE BUILDING FIRE PROTECTION SYSTEM.
27. NO ELEMENTS ARE TO BE ATTACHED TO OR SUPPORTED FROM THE ROOF DECK.
28. G.C. SHALL NOT USE GAS POWERED CONSTRUCTION EQUIPMENT.

A1
1/4"=1'-0"



CALLAGHAN AVE.
(USPS: CALLAGHAN AVE.)
(55.6' R.O.W., ASPHALT PAVEMENT)
(RECORDED AS: CALLAGHAN AVE.)

NOTE: THE BEARINGS SHOWN HEREON ARE BASED ON ADJOINING CVF SUBDIVISION AS RECORDED IN VOLUME 9599, PAGE 197, DEED AND PLAT RECORDS, BEXAR COUNTY, TEXAS.

* – AS RECORDED IN THE CITY OF SAN ANTONIO MUNICIPAL ARCHIVES AND RECORDS.

NOTE: THIS SURVEY WAS THE BENEFIT OF A CURREN CONFLICTS IN TITLE, EA SETBACKS ARE NOT CER FIELD CONDITIONS ARE

1" = 20'
APHIC SCALE
10 20

MARIO J. MENDIOLA	ADDRESS: 120 CALLAGHAN AVE.	
PANY: ~	G.F. NO.: ~	
TH 1/2 OF 5	BLOCK: 1	N.C.B: *719
N: ~		
N ANTONIO	COUNTY: BEXAR	STATE: TEXAS

LEGEND:
= WOOD FENCE
= CHAIN LINK FENCE
= HOG WIRE FENCE
= WROUGHT IRON FENCE

A2
1/4"=1'-0"

SITE PLAN

FRANK TELLES BUILDER SERVICES

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NOTES

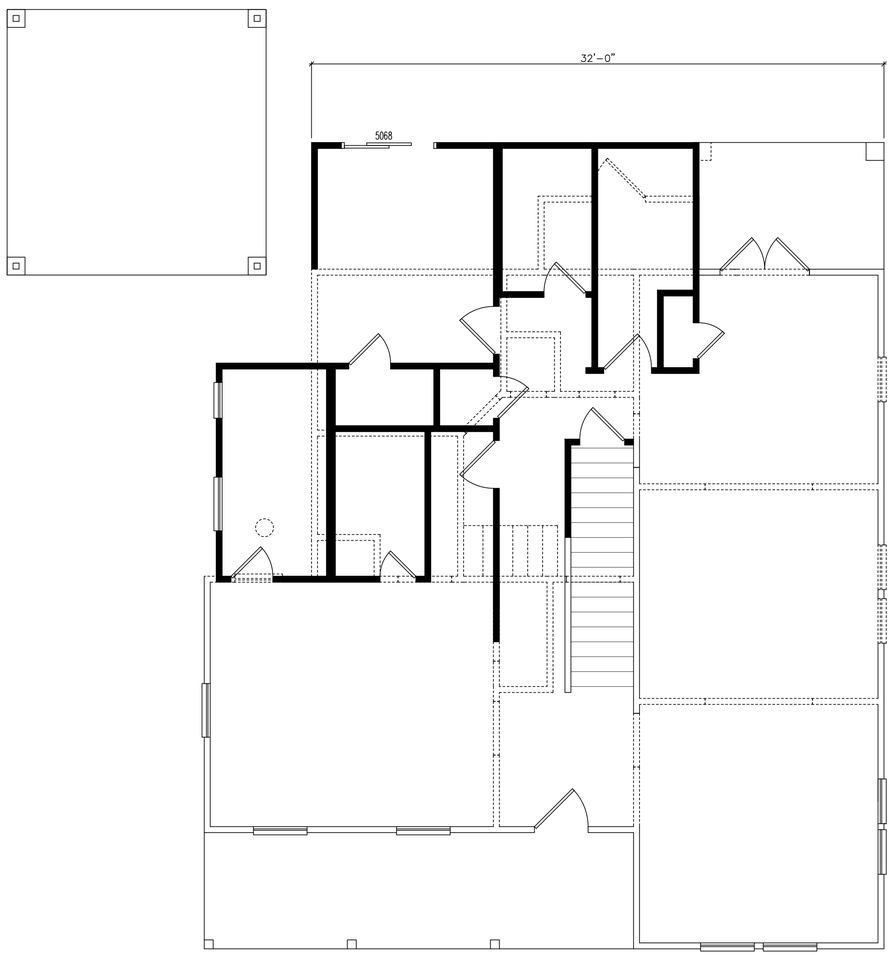
CUSTOM HOME PLANS FOR:
120 CALLAGHAN AVE.
SAN ANTONIO, TX

PLAN NO.
000
06/05/2020

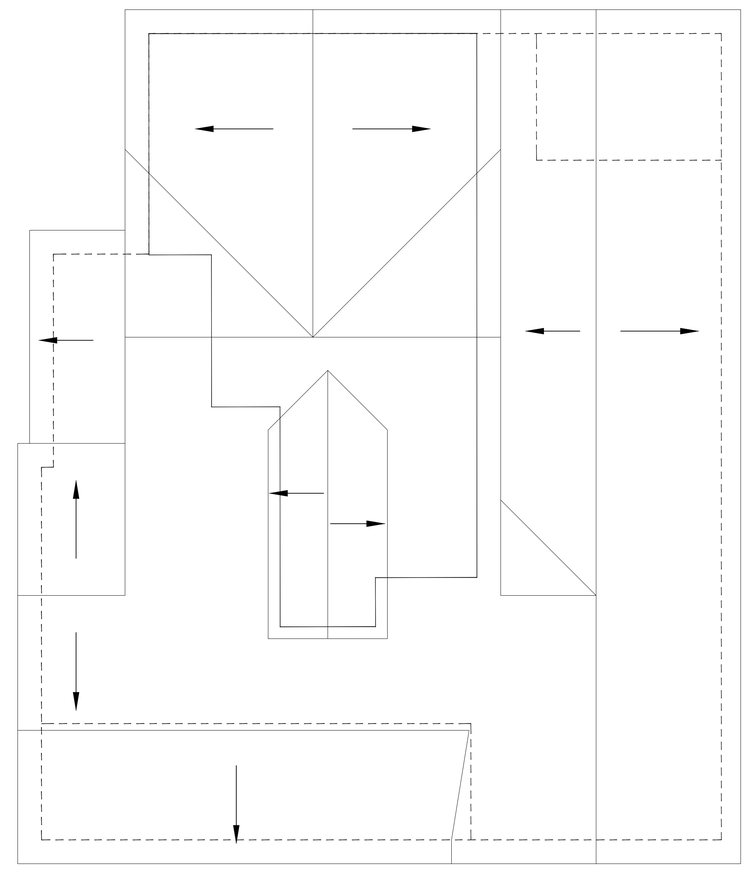
COVER SHEET & SITE PLAN

SHEET

COVER



DEMO
MAIN FLOOR PLAN
11" x 17" - SCALE 1/8" = 1'-0"
24" x 36" - SCALE 1/4" = 1'-0"



ROOF PLAN
11" x 17" - SCALE 1/8" = 1'-0"
24" x 36" - SCALE 1/4" = 1'-0"

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NOTES

MENDIOLA'S RESIDENCE
120 CALLAGHAN AVE
SAN ANTONIO, TX

PLAN NO.
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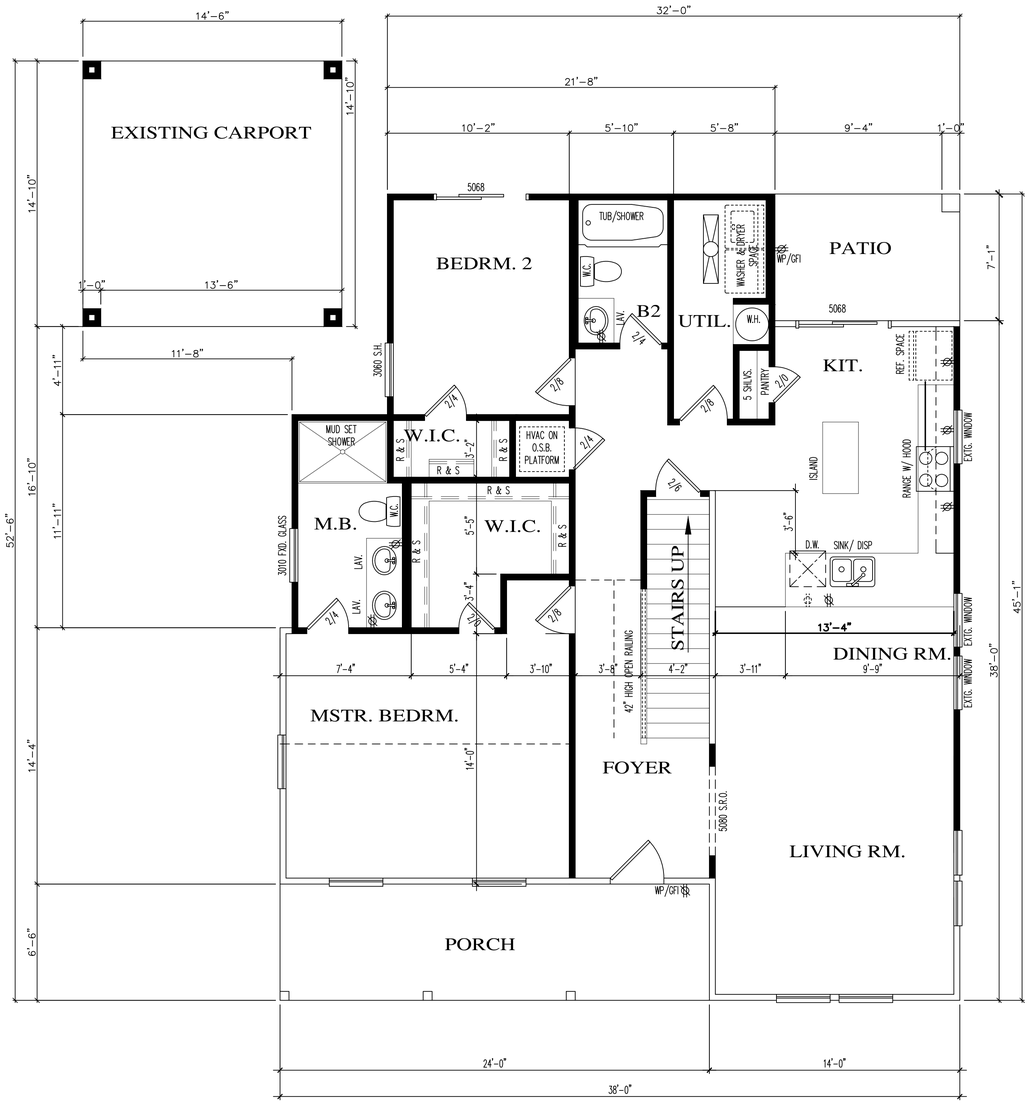
06/05/2020

DEMO
PLAND AND
ROOF PLAN

SHEET

A-100

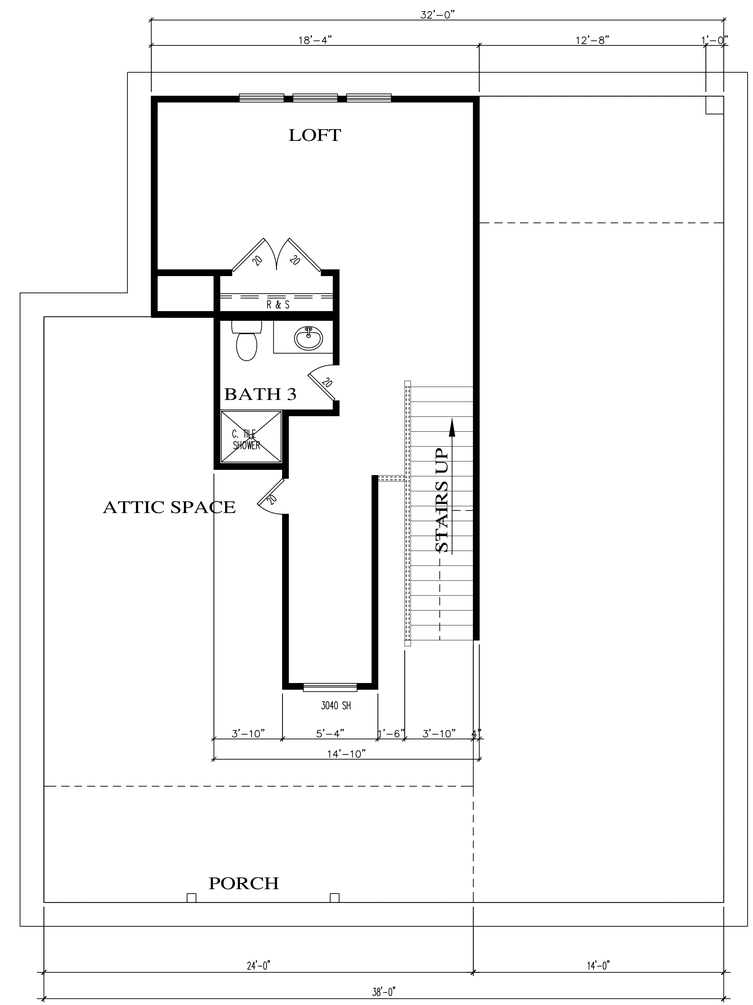


1ST LEVEL FLOOR PLAN

11" x 17" - SCALE 1/8" = 1'-0"
24" x 36" - SCALE 1/4" = 1'-0"

LEGEND

- WALLS & WINDOWS TO BE REMOVED
- WALLS & DOORS TO BE REMOVED
- WALLS & DOORS TO REMAIN
- WALLS & WINDOWS TO REMAIN
- NEW WALLS & DOORS
- NEW WALLS & WINDOWS



LOFT FLOOR PLAN

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NOTES

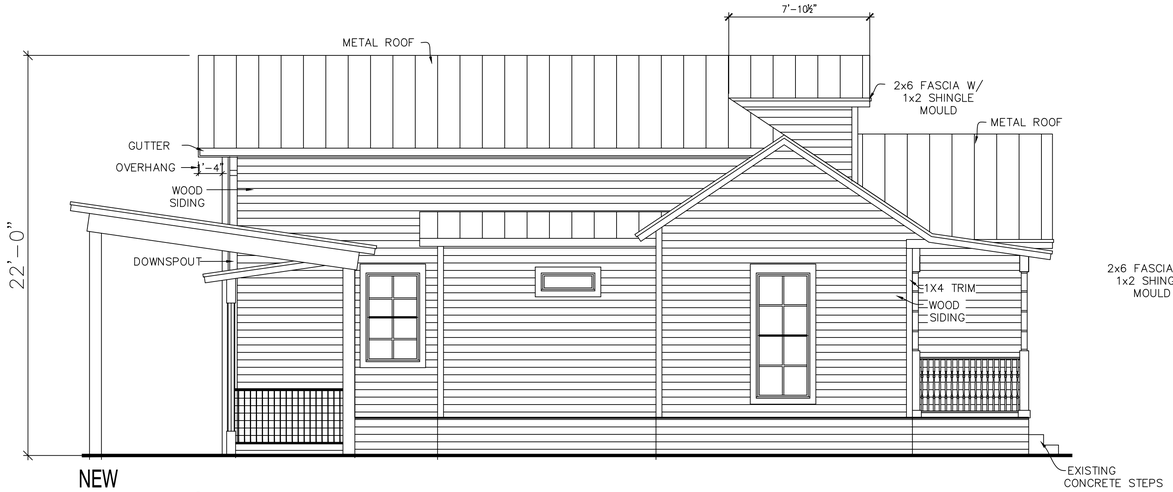
MENDIOLA'S RESIDENCE
120 CALLAGHAN AVE
SAN ANTONIO, TX

PLAN NO.
000
06/05/2020

FLOOR PLANS

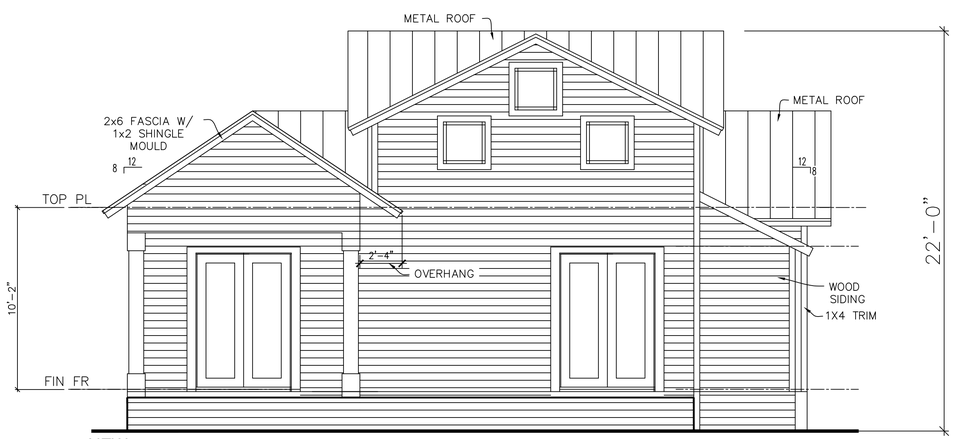
SHEET

A-101



NEW
LEFT ELEVATION
11" x 17" - SCALE 1/8" = 1'-0"
24" x 36" - SCALE 1/4" = 1'-0"

NEW
FRONT ELEVATION
11" x 17" - SCALE 1/8" = 1'-0"
24" x 36" - SCALE 1/4" = 1'-0"



NEW
REAR ELEVATION
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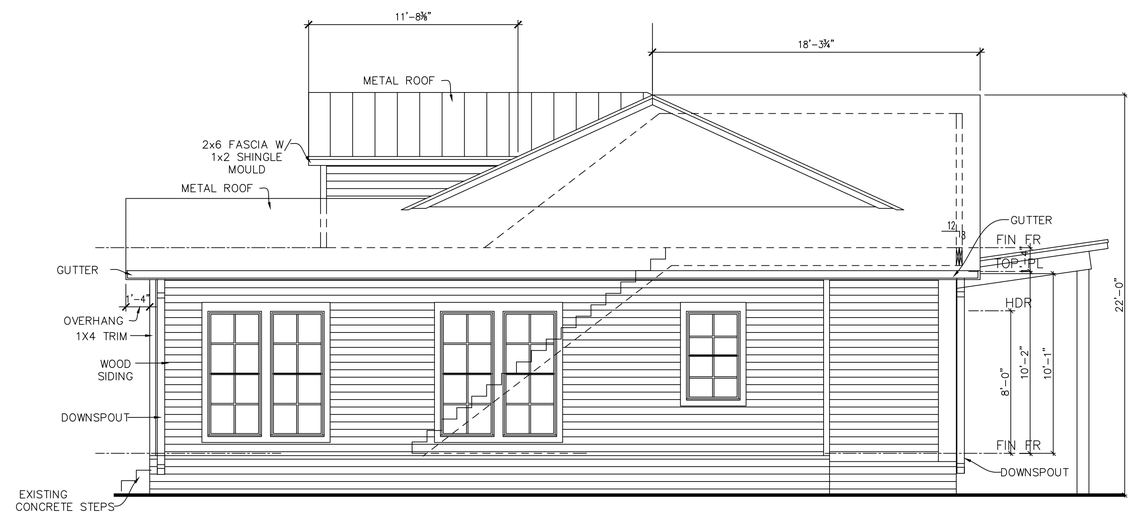
24" x 36" - SCALE 1/4" = 1'-0"



NEW
RIGHT ELEVATION
11" x 17" - SCALE 1/8" = 1'-0"
24" x 36" - SCALE 1/4" = 1'-0"

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NOTES

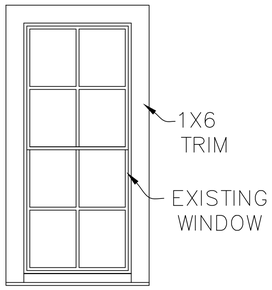
MENDIOLA'S RESIDENCE
120 CALLAGHAN AVE
SAN ANTONIO, TX

PLAN NO.
000
06/05/2020

EXTERIOR
ELEVATION

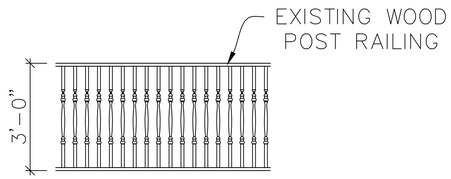
SHEET

A-102



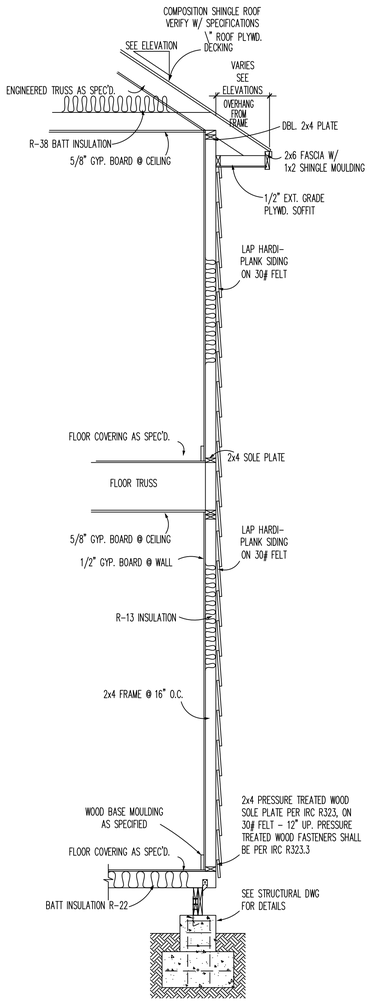
WINDOW SILL DETAIL

11" x 17" – SCALE 1/4" = 1'-0"
24" x 36" – SCALE 1/2" = 1'-0"



WOOD RAILING ENLARGEMENT

11" x 17" – SCALE 1/4" = 1'-0"
24" x 36" – SCALE 1/2" = 1'-0"



TYP. TWO-STORY SIDING WALL SECTION

SCALE: 1/4" = 1'-0" FOR 11X17 SHEET
SCALE: 1/2" = 1'-0" FOR 22X34 SHEET

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NOTES

MENDIOLA'S RESIDENCE
120 CALLAGHAN AVE
SAN ANTONIO, TX

PLAN NO.
000
06/05/2020

WALL SECTION WINDOW & WOOD RAILING ENLARGEMENT

SHEET

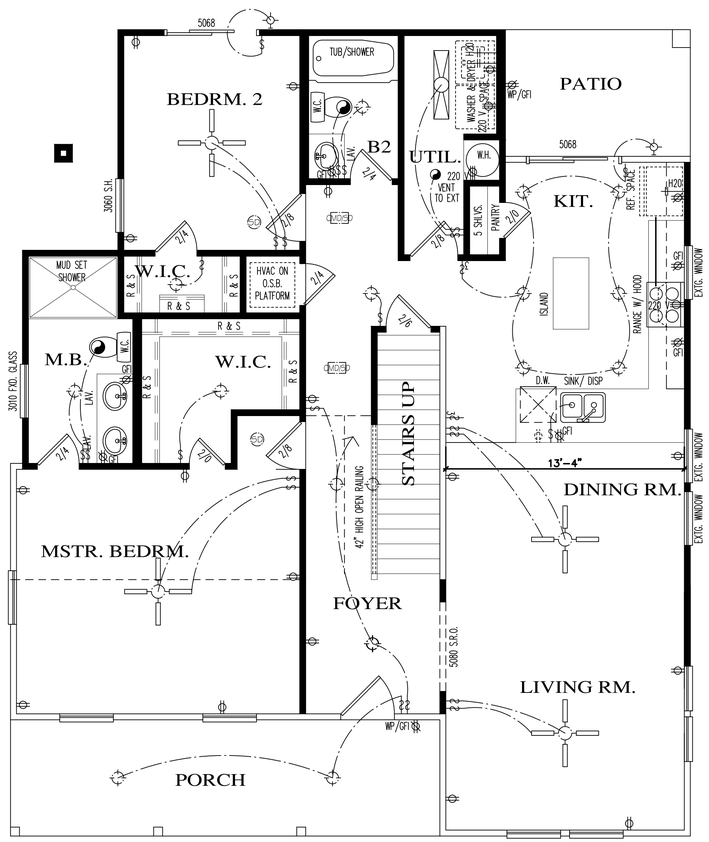
A-103

ELECTRICAL LEYEND

- PENDANT LIGHT FIXTURE
- WALL MOUNTED LIGHT
- LIGHT FIXTURE
- QUAD RECEPTACLE
- FLOOR POWER PLUG
- OUTLET
- 220 OUTLET
- INSTALLED AT COUNTER HEIGHT
- DUPLEX RECEPTACLE / GROUND FAULT INTERRUPTING
- SWITCH
- 3 WAY SWITCH
- LIGHT / VENT / HEAT
- L/ V/H
- LIGHT FIXTURE
- CURRENT LINE
- CEILING FAN
- TELEPHONE OUTLET IN WALL / 18" AFF UNLESS OTHERWISE NOTED W = WALL PHONE / MOUNT 54" AFF C = ABOVE COUNTERTOP
- CABLE TELEVISION / SATELLITE OUTLET
- FLOOR DATA PLUG
- FLOURESCENT LIGHT
- 2x2 FLOURESCENT LIGHT
- SMOKE DETECTOR

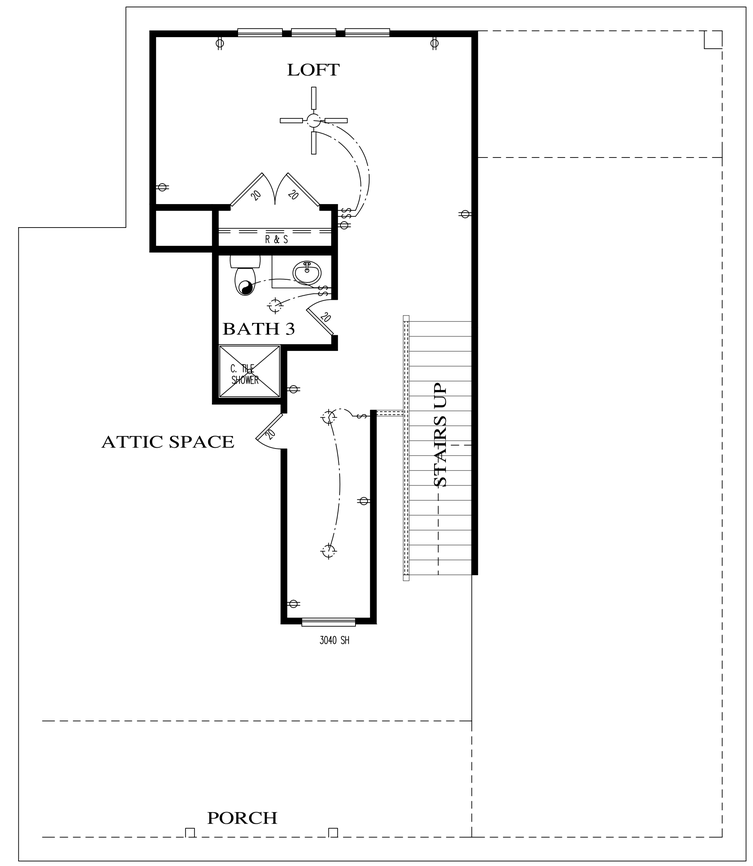
LEGEND

- WALLS & WINDOWS TO BE REMOVED
- WALLS & DOORS TO BE REMOVED
- WALLS & DOORS TO REMAIN
- WALLS & WINDOWS TO REMAIN
- NEW WALLS & DOORS
- NEW WALLS & WINDOWS



1ST LEVEL FLOOR PLAN

11" x 17" - SCALE 1/8" = 1'-0"
24" x 36" - SCALE 1/4" = 1'-0"



LOFT FLOOR PLAN

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NOTES

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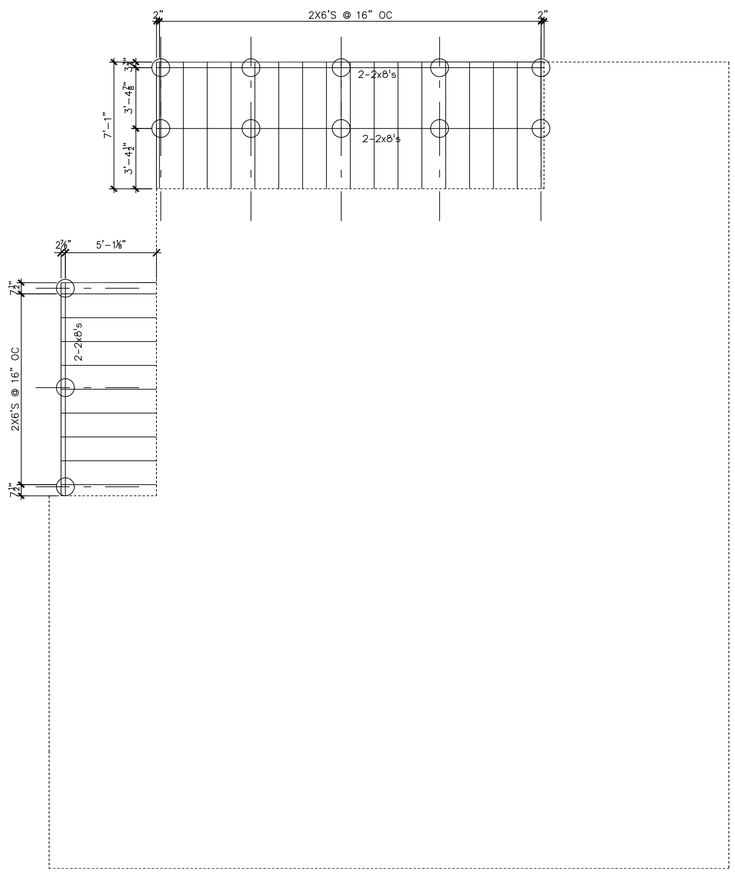
FLOOR PLAN - LIGHTING & POWER

SHEET

E-101

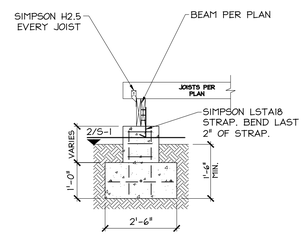


FLOOR FRAMING PLAN

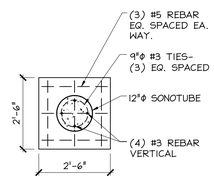
11" x 17" - SCALE 1/8" = 1'-0"
24" x 36" - SCALE 1/4" = 1'-0"

NOTE:

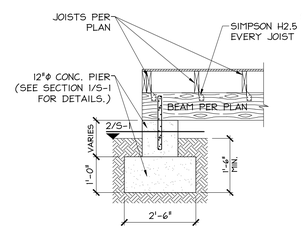
1. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL PLANS.
2. BUILDER TO ESTABLISH FINISHED FLOOR ELEVATION.
3. THIS IS A CONCRETE PIER AND WOOD BEAM FOUNDATION. ALL PIERS ARE 12" DIAMETER BEARING ON A CONCRETE PAD.
4. CONCRETE- 3000 PSI AT 28 DAYS
5. STEEL REINFORCEMENT- GRADE 60



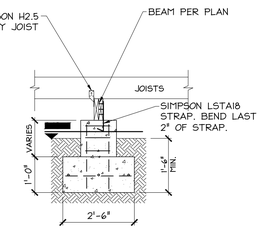
1 SECTION N.T.S.
PIER & BEAM DETAIL



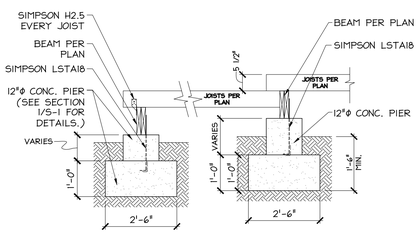
2 SECTION N.T.S.
SECTION THRU PIER



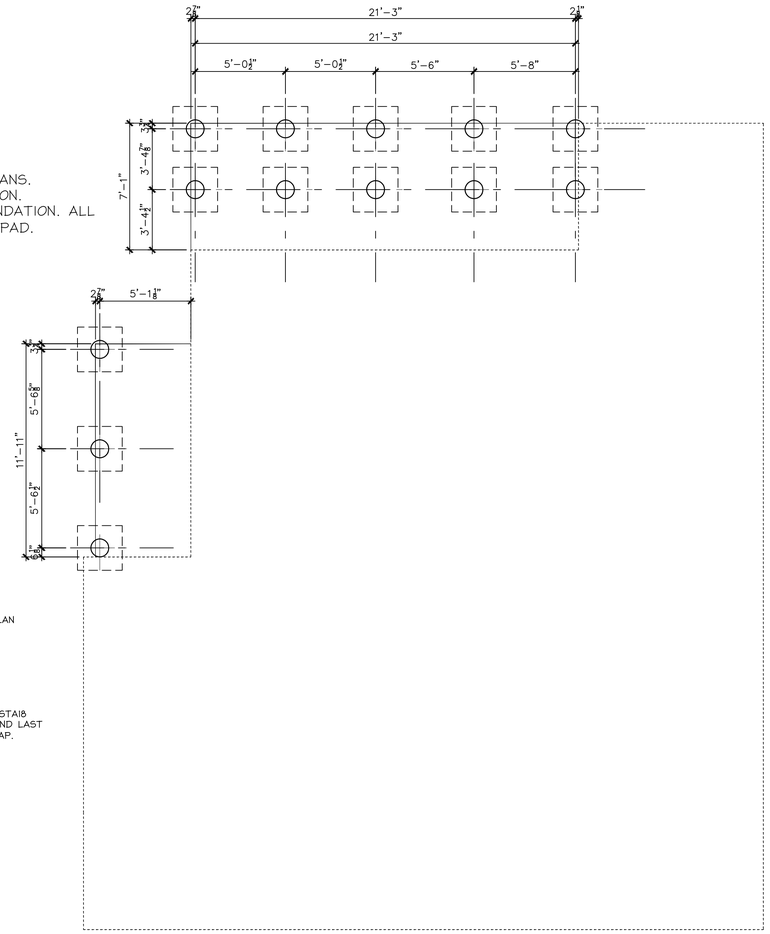
3 SECTION N.T.S.
PIER & BEAM DETAIL



4 SECTION N.T.S.
PIER & BEAM DETAIL

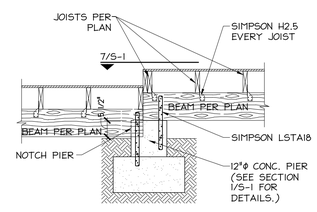


5 SECTION N.T.S.
SECTION THRU FRONT PORCH

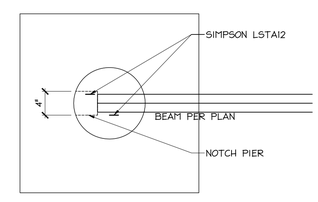


PIER FLOOR PLAN

11" x 17" - SCALE 1/8" = 1'-0"
24" x 36" - SCALE 1/4" = 1'-0"



6 SECTION N.T.S.
PIER & BEAM DETAIL



7 SECTION N.T.S.
PIER & BEAM DETAIL

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frank.telles@gmail.com

NOTES

ATLAS ENGINEERING CONSULTANTS
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lucas@c.atlas@gmail.com

03/13/2020

STATE OF TEXAS
LUCAS CASTILLO
119990
LICENSED
PROFESSIONAL ENGINEER

MENDIOLA'S RESIDENCE
120 CALLAGHAN AVE
SAN ANTONIO, TX

PLAN NO.
000
03/13/20

FLOOR FRAMING PLAN

SHEET

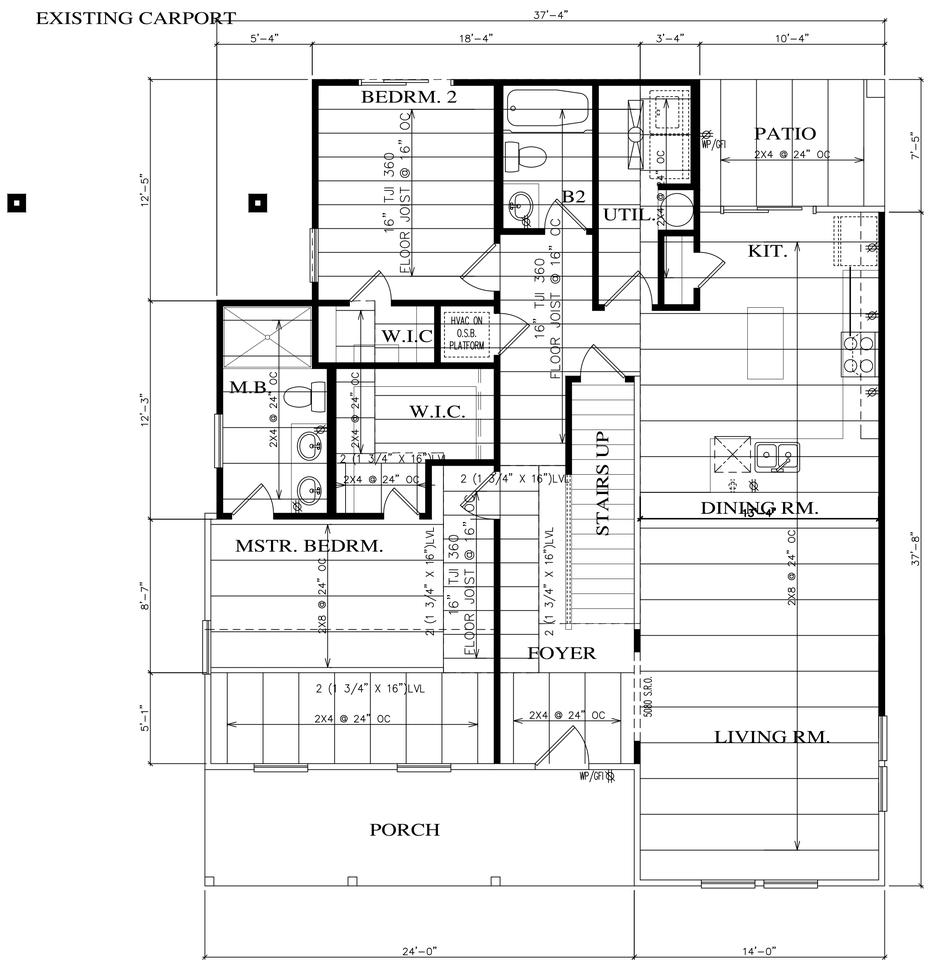
S-101

WALLS & DOORS TO REMAIN

WALLS & WINDOWS TO REMAIN

NEW WALLS & DOORS

NEW WALLS & WINDOWS

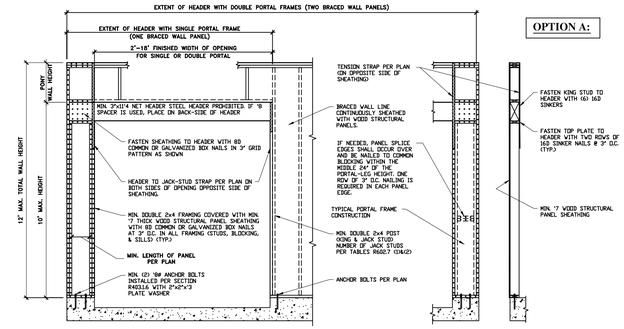


REMODEL

1ST FLOOR CEILING JOIST FRAMING

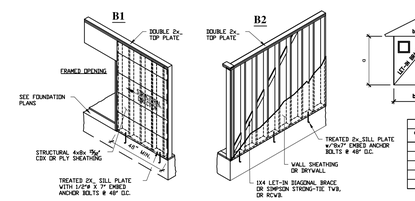
11" x 17" - SCALE 1/8" = 1'-0"

24" x 36" - SCALE 1/4" = 1'-0"



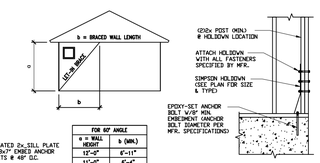
METHOD CS-PF CONTINUOUSLY SHEATHED SINGLE & DOUBLE PORTAL FRAME CONSTRUCTION AS PER THE 2015 IRC

OPTION B:



TYPICAL BRACING FOR CONVENTIONAL RESIDENTIAL CONSTRUCTION

OPTION E:



FOR 60° ANGLE	
h = WALL HEIGHT	b (MIN.)
12'-0"	6'-11"
11'-0"	6'-4"
10'-0"	5'-9"
9'-0"	5'-2"
8'-0"	4'-7"

TYPICAL HOLD DOWN DETAILS

OPTION D:

IRC 2015 - TABLE R602.3(3)

REQUIREMENTS FOR WOOD STRUCTURAL PANEL WALL SHEATHING USED TO RESIST WIND PRESSURES

MINIMUM NAIL SIZE	MINIMUM NAIL PENETRATION (INCHES)	MINIMUM WOOD STRUCTURAL PANEL SPAN RATING	MINIMUM NOMINAL PANEL THICKNESS (INCHES)	MAX. WALL STUD SPACING (INCHES)	PANEL NAIL SPACING EDGES (INCHES O.C.)	PANEL NAIL SPACING FIELD (INCHES O.C.)	ULTIMATE DESIGN WIND SPEED (MPH) WIND EXPOSURE CATEGORY B	C	D
6d COMMON (2.0 x 0.113")	1.5	24/0	3/8	16	6	12	140	115	100
8d COMMON (2.5 x 0.131")	1.75	24/16	7/16	16	6	12	170	140	125
				24	6	12	140	115	100

GENERAL WALL BRACING NOTES:

STUD SPACING SHALL NOT EXCEED 16" ON CENTERS. BRACING METHODS LIB, WSP, SFB, PBS, IRC 2015 SECTION R602.10.3

2. NOMINAL 1"X4" CONTINUOUS DIAGONAL WOOD BRACE, LET IN FLATWISE INTO TOP AND BOTTOM (SILL) PLATES AND INTERVENING STUDS. IRC BRACE METHOD 1, IRC 2015 SECTION R602.10.3.
3. WOOD STRUCTURAL PANELS OR STRUCTURAL FIBER BOARD, OR PARTICLE BOARD SHEATHING, LAID UP WITH 4X8 SHEET LONG AXIS APPLIED HORIZONTALLY. IRC BRACING METHODS WSP, SFB, & PBS, SECTION R602.10.3.
4. STEEL BRACING, LET-IN VERT BRACES BY SIMPSON STRONG-TIE ; RCWB OR TWB FOR 16" ON CENTER STUD SPACING. WALL BRACING IN ACCORDANCE WITH IRC 2015 R602.10, ALTERNATE METHODS PER ICC NER REPORT NER402, AND ICC ER REPORT ER5707.
5. NAILING FOR PLYWOOD, STRUCTURAL FIBER BOARD, AND PARTICLE BOARD SHEATHING SHALL BE IN ACCORDANCE WITH IRC SECTION R602.3, TABLE R602.3(3). NAIL SPACING SHALL NOT TO EXCEED 6" ON CENTER AT EDGES, AND 12" ON CENTER AT INTERMEDIATE SUPPORTS.

TABLE R602.10.5

LENGTH REQUIREMENTS FOR BRACED WALL PANELS WITH CONTINUOUS SHEATHING (INCHES)

METHOD	ADJACENT CLEAR OPENING HEIGHT (INCHES)	WEIGHT HEIGHT (FEET)a 8	9	10	11	12
CS-WSP	64	24	27	30	33	36
	68	26	27	30	33	36
	72	27	27	30	33	36
	76	30	29	30	33	36
	80	32	30	30	33	36
	84	35	32	32	33	36
	88	38	35	33	33	36
	92	43	37	35	35	36
	96	48	41	38	36	36
	100	-	44	40	38	38
	104	-	49	43	40	39
	108	-	54	46	43	41
	112	-	-	50	45	43
	116	-	-	55	48	45
	120	-	-	60	52	48
	124	-	-	-	56	51
	132	-	-	-	66	58
	144	-	-	-	-	72
CS-G	≤120	24	27	30	33	36
CS-PF	≤120	16	18	20	22	24

FOR SI: 1 inch=25.4mm, 1 foot=304.8mm
a. INTERPOLATION SHALL BE PERMITTED.

WALL BRACING LEGEND:

REF. DETAIL SHEET

A — BRACED WALL PANEL PER SECTION R602.10.6.4 w/TABLE R602.10.5, FOOTNOTE E. (SEE DETAIL SHEET FOR OPTION 'A')

B2 — SECTION R602.10.3, METHOD LIB 1X4 LET-IN DIAGONAL BRACE OR SIMPSON STRONG-TIE TWB OR RCWB @ 45° TO 60° FROM HORIZ. (SEE DETAIL SHEET FOR OPTION 'B'/'B2')

D — 7/16" OSB SHEATHING ON ONE WALL FACE ONLY (WHERE SHOWN AT WINDOW & DOOR OPENINGS, CONTINUE OSB ABOVE AND BELOW WINDOWS AND DOORS) (SEE DETAIL SHEET FOR OPTION 'D')

E — SIMPSON HOLDOWN ANCHOR (SEE PLAN FOR TYPE & SIZE) (SEE DETAIL SHEET FOR OPTION 'E')

BWL — BRACE WALL LINE

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NOTES

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03/13/2020

STATE OF TEXAS
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LICENSED
PROFESSIONAL ENGINEER

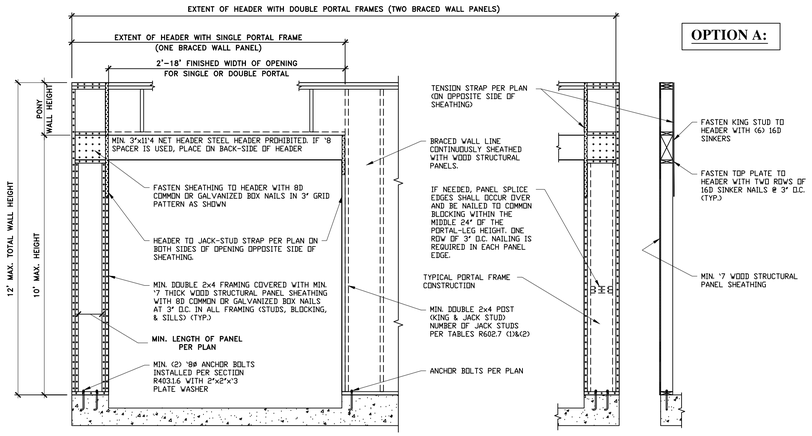
MENDIOLA'S RESIDENCE
120 CALLAGHAN AVE
SAN ANTONIO, TX

PLAN NO. 000
03/13/20

1ST FLOOR CEILING FRAMING PLAN

SHEET

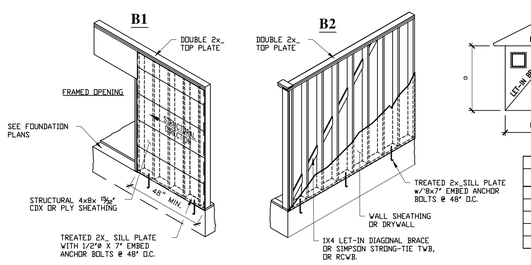
S-102



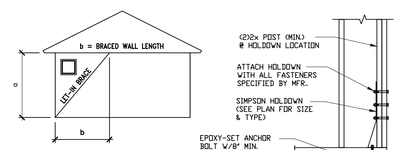
OPTION A:

METHOD CS-PF CONTINUOUSLY SHEATHED SINGLE & DOUBLE PORTAL FRAME CONSTRUCTION AS PER THE 2015 IRC

OPTION B:



OPTION E:



FOR 60° ANGLE	
a = WALL HEIGHT	b (MIN.)
12'-0"	6'-11"
11'-0"	6'-4"
10'-0"	5'-9"
9'-0"	5'-3"
8'-0"	4'-7"

TYPICAL HOLD DOWN DETAILS

TYPICAL BRACING FOR CONVENTIONAL RESIDENTIAL CONSTRUCTION

OPTION D:

IRC 2015 - TABLE R602.3(3)

REQUIREMENTS FOR WOOD STRUCTURAL PANEL WALL SHEATHING USED TO RESIST WIND PRESSURES

MINIMUM NAIL		MINIMUM WOOD STRUCTURAL PANEL SPAN RATING	MINIMUM NOMINAL PANEL THICKNESS (INCHES)	MAX. WALL STUD SPACING (INCHES)	PANEL NAIL SPACING		ULTIMATE DESIGN WIND SPEED (MPH)		
SIZE	PENETRATION (INCHES)				EDGES (INCHES O.C.)	FIELD INCHES O.C.)	WIND EXPOSURE CATEGORY		
							B	C	D
6d COMMON (2.0 x 0.113")	1.5	24/0	3/8	16	6	12	140	115	110
8d COMMON (2.5 x 0.131")	1.75	24/16	7/16	16	6	12	170	140	135
				24	6	12	140	115	110

TABLE R602.10.5

LENGTH REQUIREMENTS FOR BRACED WALL PANELS WITH CONTINUOUS SHEATHING (INCHES)

METHOD	ADJACENT CLEAR OPENING HEIGHT (INCHES)	WEIGHT HEIGHT (FEET)[a]				
		8	9	10	11	12
CS-WSP	64	24	27	30	33	36
	68	26	27	30	33	36
	72	27	27	30	33	36
	76	30	29	30	33	36
	80	32	30	30	33	36
	84	35	32	32	33	36
	88	38	35	33	33	36
	92	43	37	35	35	36
	96	48	41	38	36	36
	100	–	44	40	38	38
	104	–	49	43	40	39
	108	–	54	46	43	41
	112	–	–	50	45	43
	116	–	–	55	48	45
	120	–	–	60	52	48
	124	–	–	–	56	51
	132	–	–	–	66	58
	144	–	–	–	–	72
CS-G	≤220	24	27	30	33	36
CS-PF	≤220	16	18	20	22	24

FOR SI: 1 inch=25.4mm, 1 Foot=304.8mm
a. INTERPOLATION SHALL BE PERMITTED.

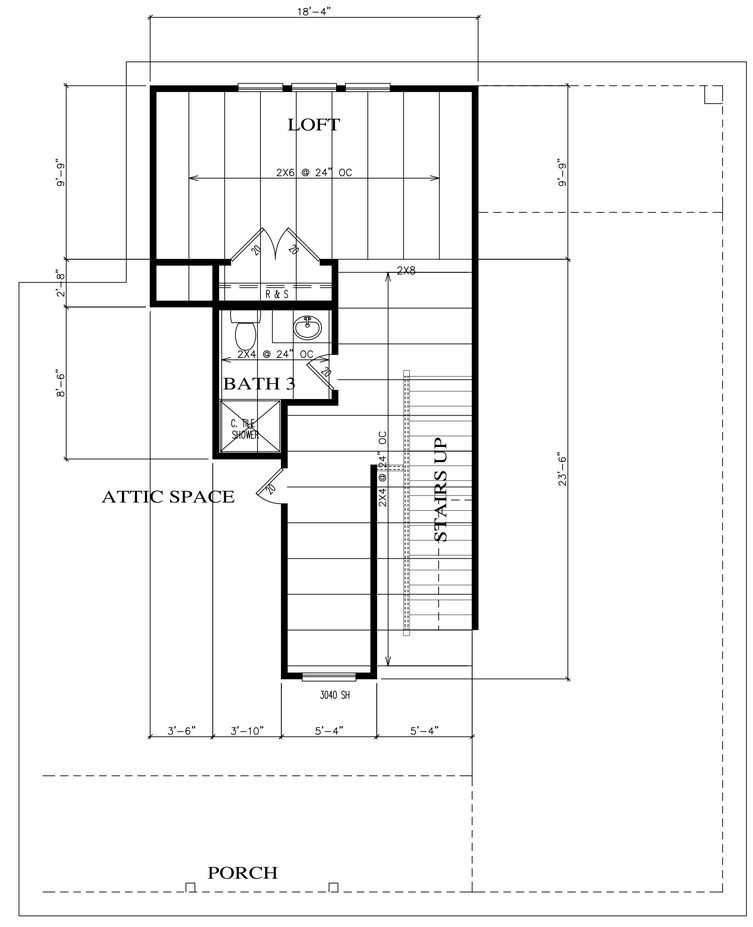
GENERAL WALL BRACING NOTES:

STUD SPACING SHALL NOT EXCEED 16" ON CENTERS; BRACING METHODS LIB, WSP, SFB, PBS, IRC 2015 SECTION R602.10.3
2. NOMINAL 1"X4" CONTINUOUS DIAGONAL WOOD BRACE, LET IN FLATWISE INTO TOP AND BOTTOM (SILL) PLATES AND INTERVENING STUDS; IRC BRACE METHOD 1, IRC 2015 SECTION R602.10.3.
3. WOOD STRUCTURAL PANELS OR STRUCTURAL FIBER BOARD, OR PARTICLE BOARD SHEATHING, LAID UP WITH 4X8 SHEET LONG AXIS APPLIED HORIZONTALLY; IRC BRACING METHODS WSP, SFB, & PBS, SECTION R602.10.3.
4. STEEL DIAGONAL LET-IN KERF BRACES BY SIMPSON STRONG-TIE ; RCWB OR TWB FOR 16" ON CENTER STUD SPACING; WALL BRACING IN ACCORDANCE WITH IRC 2015 R602.10, ALTERNATE METHODS PER ICC NER REPORT NER422, AND ICC ER REPORT ER5729.
5. NAILING FOR PLYWOOD, STRUCTURAL FIBER BOARD, AND PARTICLE BOARD SHEATHING SHALL BE IN ACCORDANCE WITH IRC SECTION R602.3, TABLE R602.3(1); NAIL SPACING SHALL NOT TO EXCEED 6" ON CENTER AT EDGES, AND 12" ON CENTER AT INTERMEDIATE SUPPORTS.

WALL BRACING LEGEND:

REF. DETAIL SHEET

- A — BRACED WALL PANEL PER SECTION R602.10.6.4 W/TABLE R602.10.5, FOOTNOTE E. (SEE DETAIL SHEET FOR OPTION 'A')
- B2 — SECTION R602.10.3, METHOD LIB: 1X4 LET-IN DIAGONAL BRACE OR SIMPSON STRONG-TIE TWB OR RCWB @ 45° TO 60° FROM HORIZ. (SEE DETAIL SHEET FOR OPTION 'B'/B2)
- D — 7/16" OSB SHEATHING ON ONE WALL FACE ONLY (WHERE SHOWN AT WINDOW & DOOR OPENINGS, CONTINUE OSB ABOVE AND BELOW WINDOWS AND DOORS) (SEE DETAIL SHEET FOR OPTION 'D')
- E — SIMPSON HOLDOWN ANCHOR (SEE PLAN FOR TYPE & SIZE) (SEE DETAIL SHEET FOR OPTION 'E')
- BWL — BRACE WALL LINE



LOFT FLOOR PLAN

11" x 17" - SCALE 1/8" = 1'-0"
24" x 36" - SCALE 1/4" = 1'-0"

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NOTES

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03/13/2020

MENDIOLA'S RESIDENCE
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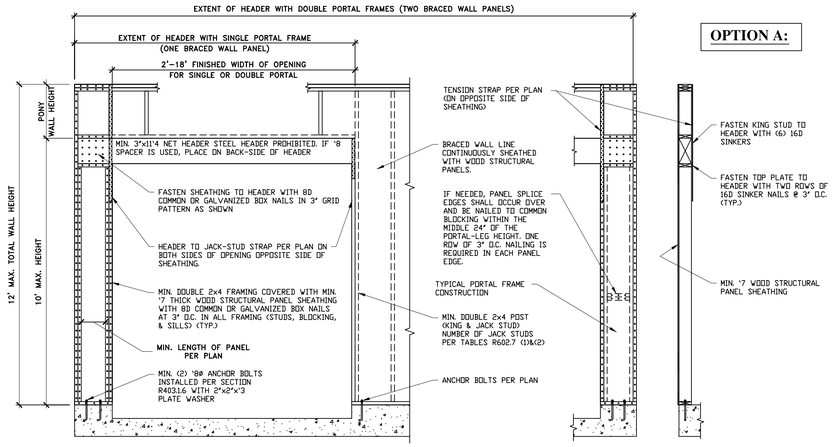
SAN ANTONIO, TX

PLAN NO. 000
03/13/20

2ND LEVEL CEILING FRAMING PLAN

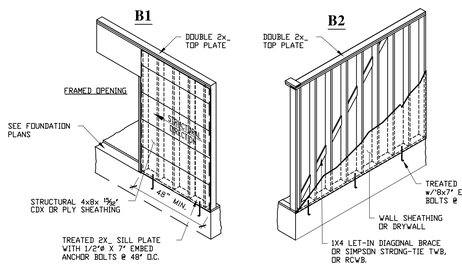
SHEET

S103



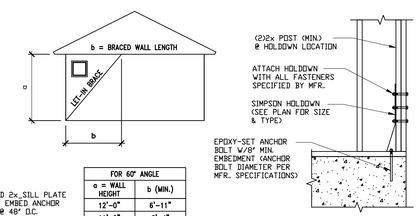
METHOD CS-PF CONTINUOUSLY SHEATHED SINGLE & DOUBLE PORTAL FRAME CONSTRUCTION AS PER THE 2015 IRC

OPTION B:



TYPICAL BRACING FOR CONVENTIONAL RESIDENTIAL CONSTRUCTION

OPTION E:



FOR 60° ANGLE	
a = WALL HEIGHT	b (MIN.)
12'-0"	6'-11"
11'-0"	6'-4"
10'-0"	5'-9"
9'-0"	5'-3"
8'-0"	4'-7"

TYPICAL HOLD DOWN DETAILS

OPTION D:

IRC 2015 - TABLE R602.3(3)									
REQUIREMENTS FOR WOOD STRUCTURAL PANEL WALL SHEATHING USED TO RESIST WIND PRESSURES									
MINIMUM NAIL		MINIMUM WOOD STRUCTURAL PANEL SPAN RATING	MINIMUM NOMINAL PANEL THICKNESS (INCHES)	MAX. WALL STUD SPACING (INCHES)	PANEL NAIL SPACING		ULTIMATE DESIGN WIND SPEED (MPH)		
SIZE	PENETRATION (INCHES)				EDGES (INCHES O.C.)	FIELD (INCHES O.C.)	WIND EXPOSURE CATEGORY		
							B	C	D
6d COMMON (2.0 x 0.113")	1.5	24/0	3/8	16	6	12	140	115	110
8d COMMON (2.5 x 0.131")	1.75	24/16	7/16	16	6	12	170	140	135
				24	6	12	140	115	110

TABLE R602.10.5						
LENGTH REQUIREMENTS FOR BRACED WALL PANELS WITH CONTINUOUS SHEATHING (INCHES)						
METHOD	ADJACENT CLEAR OPENING HEIGHT (INCHES)	WEIGHT HEIGHT (FEET)#				
		8	9	10	11	12
CS-WSP	64	24	27	30	33	36
	68	26	27	30	33	36
	72	27	27	30	33	36
	76	30	29	30	33	36
	80	32	30	30	33	36
	84	35	32	32	33	36
	88	38	35	33	33	36
	92	43	37	35	35	36
	96	48	41	38	36	36
	100	-	44	40	38	38
	104	-	49	43	40	39
	108	-	54	46	43	41
	112	-	-	50	45	43
	116	-	-	55	48	45
	120	-	-	60	52	48
	124	-	-	-	56	51
	132	-	-	-	66	58
	144	-	-	-	-	72
CS-G	≤120	24	27	30	33	36
CS-PF	≤120	16	18	20	22	24

FOR SI: 1 inch=25.4mm, 1 foot=304.8mm
a. INTERPOLATION SHALL BE PERMITTED.

GENERAL WALL BRACING NOTES:

STUD SPACING SHALL NOT EXCEED 16" ON CENTERS; BRACING METHODS LIB, WSP, SFB, PBS, IRC 2015 SECTION R602.10.3
2. NOMINAL 1"X4" CONTINUOUS DIAGONAL WOOD BRACE, LET IN FLATWISE INTO TOP AND BOTTOM (SILL) PLATES AND INTERVENING STUDS; IRC BRACE METHOD 1, IRC 2015 SECTION R602.10.3.
3. WOOD STRUCTURAL PANELS OR STRUCTURAL FIBER BOARD, OR PARTICLE BOARD SHEATHING, LAID UP WITH 4X8 SHEET LONG AXIS APPLIED HORIZONTALLY; IRC BRACING METHODS WSP, SFB, & PBS, SECTION R602.10.3.
4. STEEL DIAGONAL LET-IN KERF BRACES BY SIMPSON STRONG-TIE ; RCWB OR TWB FOR 16" ON CENTER STUD SPACING; WALL BRACING IN ACCORDANCE WITH IRC 2015 R602.10, ALTERNATE METHODS PER ICC NER REPORT NER422, AND ICC ER REPORT ER5729.
5. NAILING FOR PLYWOOD, STRUCTURAL FIBER BOARD, AND PARTICLE BOARD SHEATHING SHALL BE IN ACCORDANCE WITH IRC SECTION R602.3, TABLE R602.3(1); NAIL SPACING SHALL NOT TO EXCEED 6" ON CENTER AT EDGES, AND 12" ON CENTER AT INTERMEDIATE SUPPORTS.

WALL BRACING LEGEND:
REF. DETAIL SHEET

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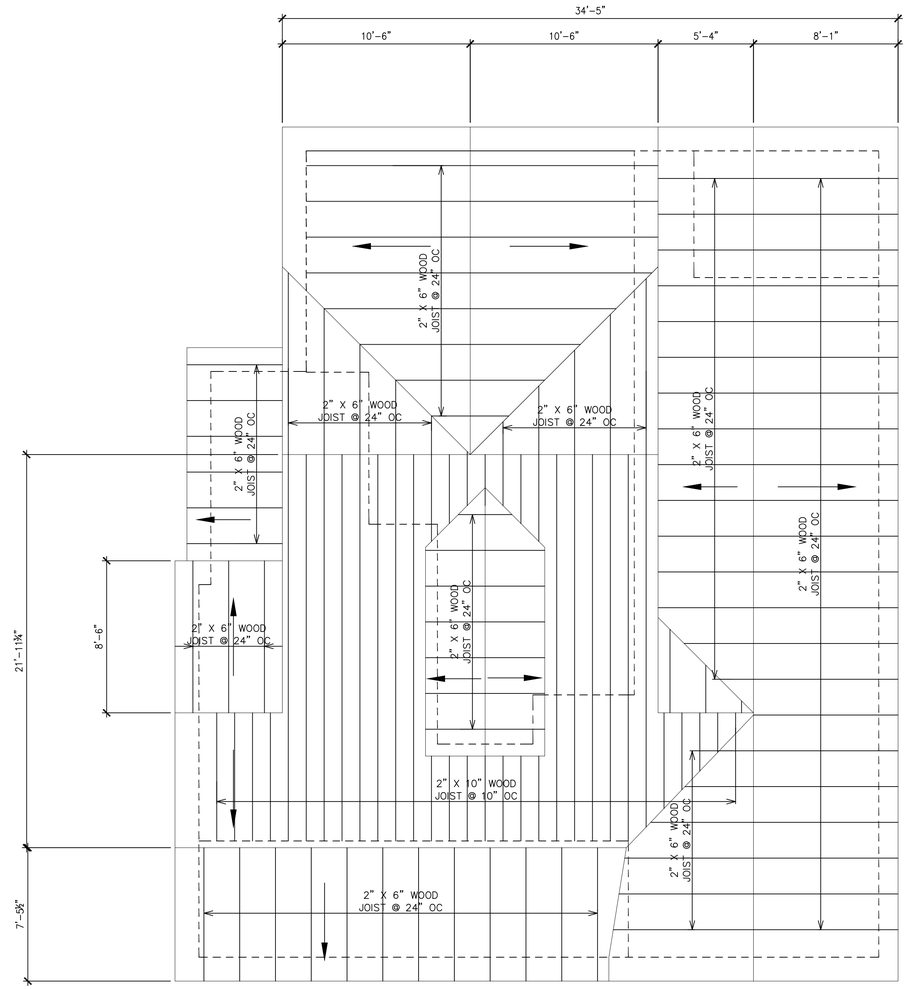
- B2 — SECTION R602.10.3, METHOD LIB: 1X4 LET-IN DIAGONAL BRACE OR SIMPSON STRONG-TIE TWB OR RCWB @ 45° TO 60° FROM HORIZ. (SEE DETAIL SHEET FOR OPTION 'B'/B2)
- D — 7/16" OSB SHEATHING ON ONE WALL FACE ONLY (WHERE SHOWN AT WINDOW & DOOR OPENINGS, CONTINUE OSB ABOVE AND BELOW WINDOWS AND DOORS) (SEE DETAIL SHEET FOR OPTION 'D')
- E — SIMPSON HOLDOWN ANCHOR (SEE PLAN FOR TYPE & SIZE) (SEE DETAIL SHEET FOR OPTION 'E')
- BWL — BRACE WALL LINE



ROOF FRAMING PLAN
11" x 17" - SCALE 1/8" = 1'-0"
24" x 36" - SCALE 1/4" = 1'-0"

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NOTES

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03/13/2020

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MENDIOLA'S RESIDENCE
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SAN ANTONIO, TX

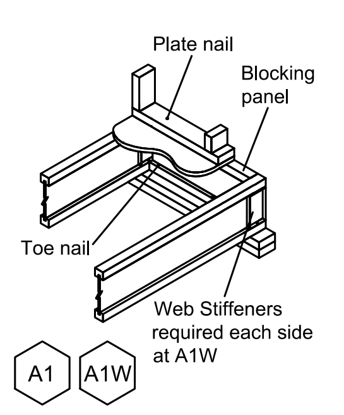
PLAN NO. 000
03/13/20

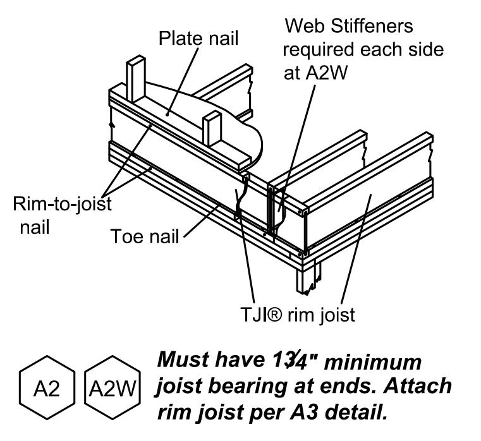
FIRST LEVEL CEILING JOIST

SHEET

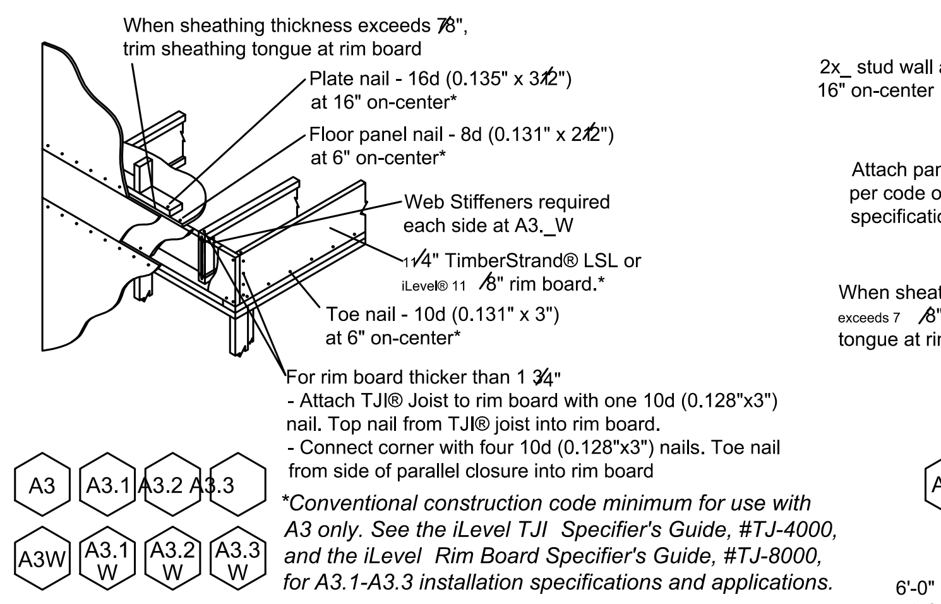
S-104

JOIST DETAILS



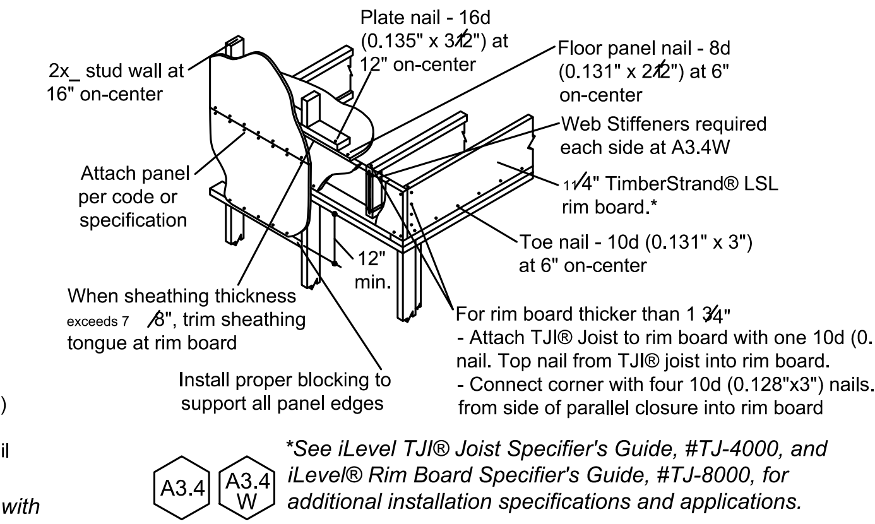


Must have 1 3/4" minimum joist bearing at ends. Attach rim joist per A3 detail.



For rim board thicker than 1 3/4"
- Attach TJI® Joist to rim board with one 10d (0.128"x3") nail. Top nail from TJI® joist into rim board.
- Connect corner with four 10d (0.128"x3") nails. Toe nail from side of parallel closure into rim board

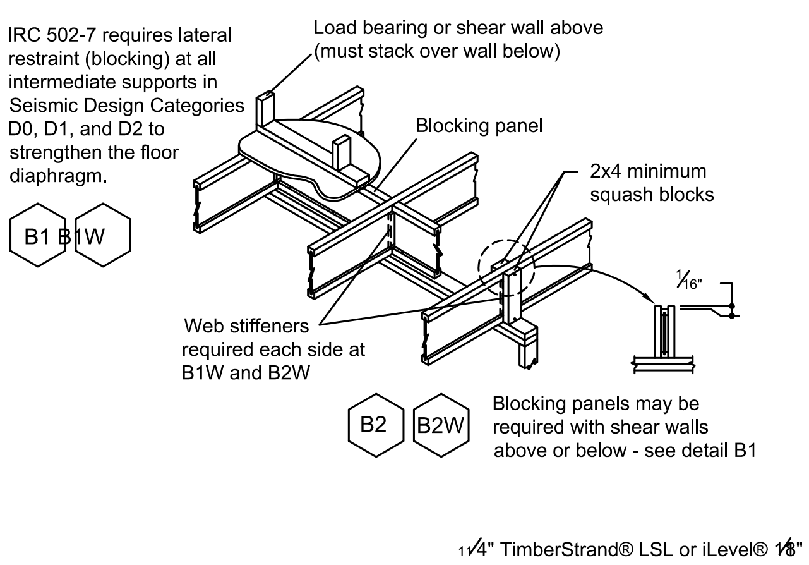
**Conventional construction code minimum for use with A3 only. See the iLevel TJI Specifier's Guide, #TJ-4000, and the iLevel Rim Board Specifier's Guide, #TJ-8000, for A3.1-A3.3 installation specifications and applications.*



For rim board thicker than 1 3/4"
- Attach TJI® Joist to rim board with one 10d (0.128"x3") nail. Top nail from TJI® joist into rim board.
- Connect corner with four 10d (0.128"x3") nails. Toe nail from side of parallel closure into rim board

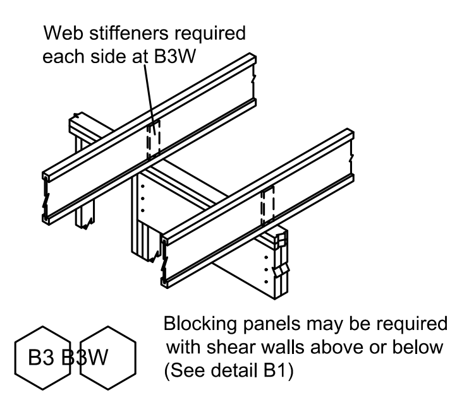
**See iLevel TJI® Joist Specifier's Guide, #TJ-4000, and iLevel® Rim Board Specifier's Guide, #TJ-8000, for additional installation specifications and applications.*

IRC 502-7 requires lateral restraint (blocking) at all intermediate supports in Seismic Design Categories D0, D1, and D2 to strengthen the floor diaphragm.

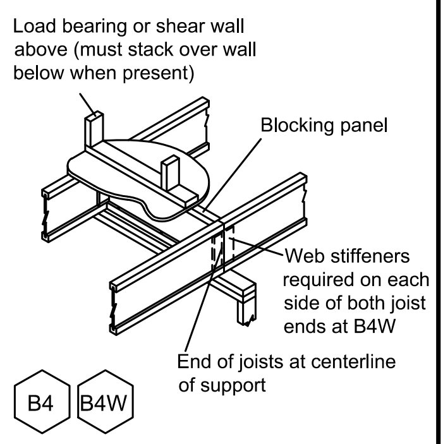


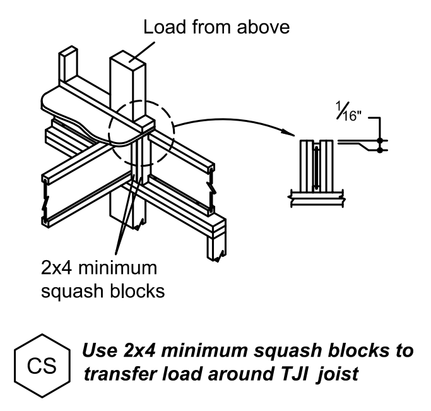
Blocking panels may be required with shear walls above or below - see detail B1

INTERMEDIATE BEARING
NO LOAD BEARING WALL ABOVE

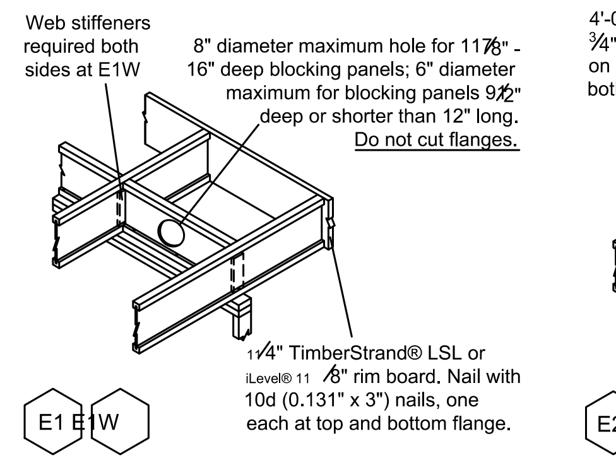


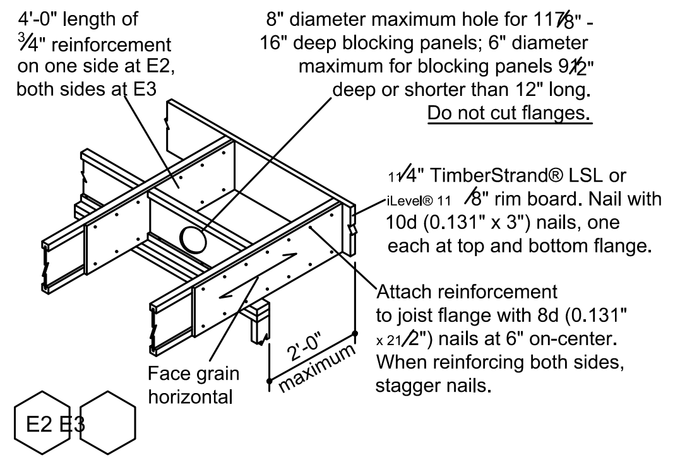
Blocking panels may be required with shear walls above or below (See detail B1)

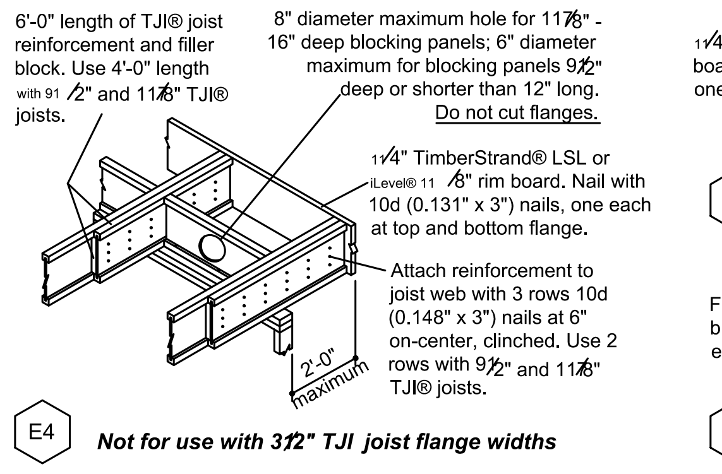




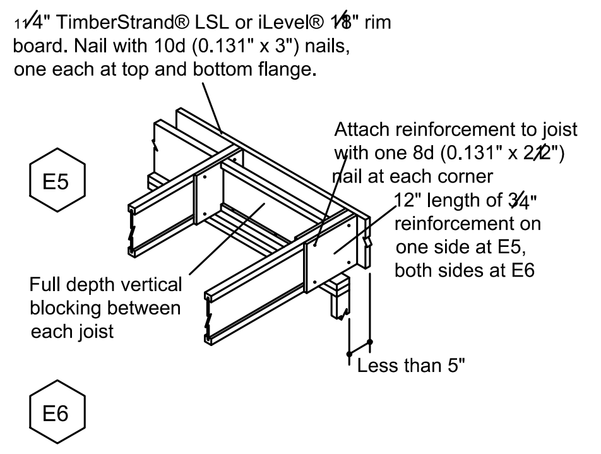
Use 2x4 minimum squash blocks to transfer load around TJI joist

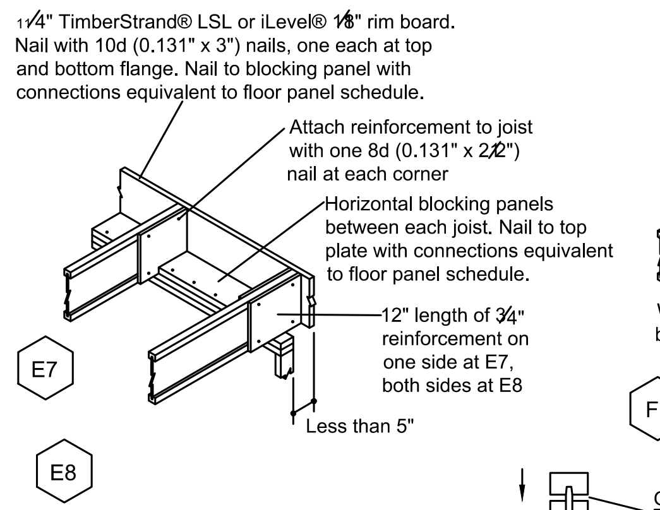


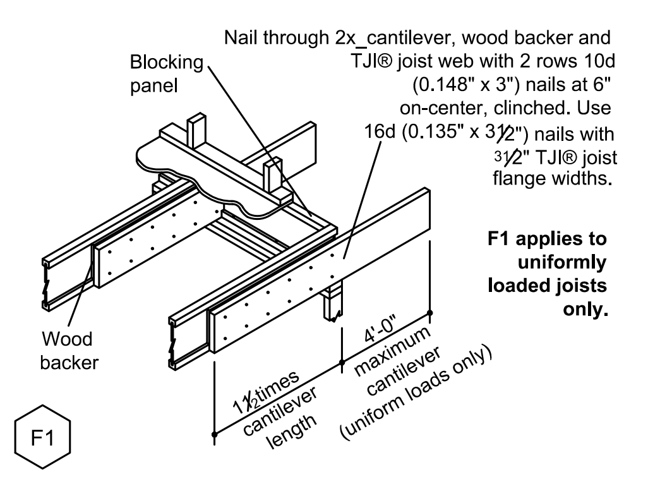




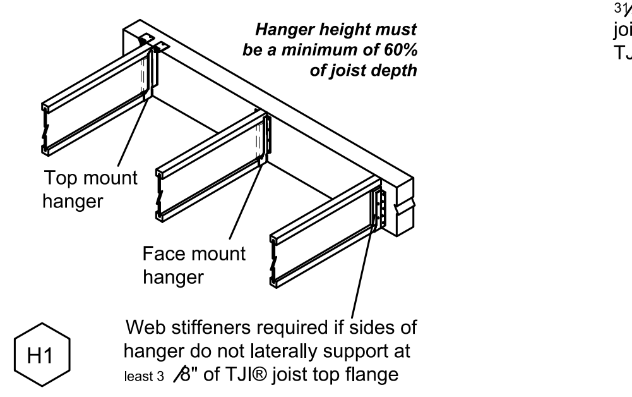
Not for use with 3 1/2" TJI joist flange widths



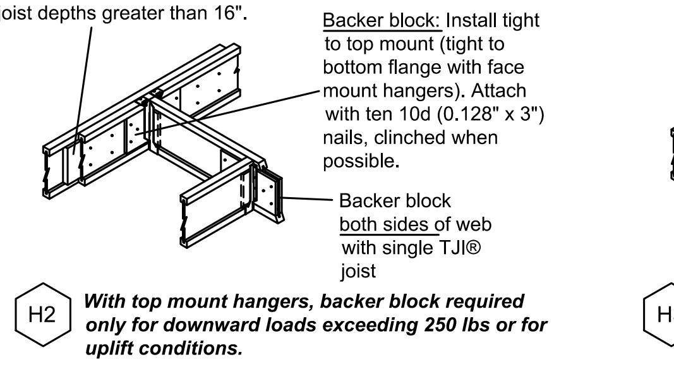




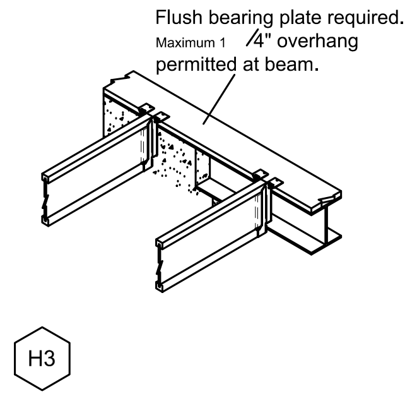
F1 applies to uniformly loaded joists only.

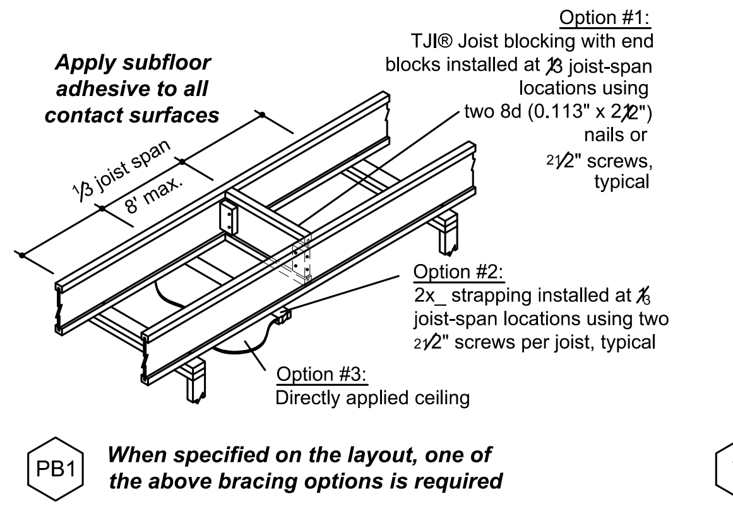


Filler block: Attach with ten 10d (0.128" x 3") nails, clinched. Use ten 16d (0.135" x 3 1/2") nails from each side with 3 1/2" TJI® joist flange widths. Use fifteen nails with TJI® joist depths greater than 16".



With top mount hangers, backer block required only for downward loads exceeding 250 lbs or for uplift conditions.

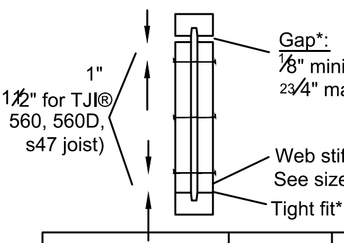




Apply subfloor adhesive to all contact surfaces

When specified on the layout, one of the above bracing options is required

WEB STIFFENER ATTACHMENT



* With point load from above, install web stiffener tight to top flange (gap at bottom flange) when there is no support below.

TJI Joist Series	Depth (in.)	Minimum Web Stiffener Size	Nailing Requirements		
			Type	Number Nails	
				End	Intermediate
110 210 230 & 360 s31 & s33	All All All All	5/8" x 2 5/16" 3/4" x 2 5/16" 7/8" x 2 5/16" 1" x 2 5/16"	8d (0.113" x 2 1/2")	3	3
560 & s47	All	2x4	16d (0.135" x 3 1/2")		
560D	18" 20" 22" 24"	2x4	16d (0.135" x 3 1/2")	4 5 6 6	4 5 11 13

ALLOWABLE HOLES - TJI Joists

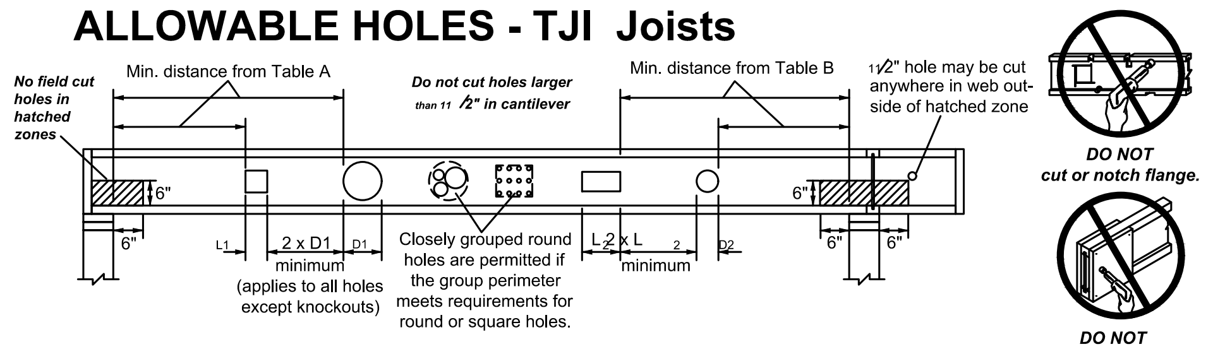


Table A - End Support
Minimum distance from edge of hole to inside face of nearest end support

JOIST DEPTH	TJI	ROUND HOLE SIZE										SQUARE OR RECTANGULAR HOLE SIZE									
		2"	3"	4"	5"	6 1/2"	7"	8 7/8"	11"	13"		2"	3"	4"	5"	6 1/2"	7"	8 7/8"	11"	13"	
9 1/2"	110	1'-6"	1'-6"	2'-0"	3'-0"	5'-0"						1'-0"	1'-6"	2'-6"	3'-6"	4'-6"					
	210	1'-6"	2'-0"	2'-6"	3'-0"	5'-6"						1'-6"	2'-0"	2'-6"	4'-0"	5'-0"					
	230	1'-6"	2'-0"	2'-6"	3'-6"	5'-6"						1'-6"	2'-0"	3'-0"	4'-6"	5'-0"					
11 7/8"	110	1'-0"	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	5'-6"				1'-0"	1'-6"	2'-0"	2'-6"	4'-6"	5'-0"	6'-0"			
	210	1'-0"	1'-6"	2'-0"	2'-0"	3'-0"	3'-6"	6'-0"				1'-0"	1'-6"	2'-6"	3'-0"	5'-0"	5'-6"	6'-6"			
	230	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	6'-6"				1'-0"	2'-0"	2'-6"	3'-6"	5'-6"	5'-6"	7'-0"			
	360	1'-6"	2'-0"	3'-0"	3'-6"	4'-6"	5'-0"	7'-0"				1'-6"	2'-6"	3'-6"	4'-6"	6'-6"	6'-6"	7'-6"			
	560	1'-6"	2'-6"	3'-0"	4'-0"	5'-6"	6'-0"	8'-0"				2'-6"	3'-6"	4'-6"	5'-6"	7'-0"	7'-6"	8'-0"			
14"	110	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-0"	3'-0"	5'-6"			1'-0"	1'-0"	1'-6"	2'-0"	3'-6"	4'-0"	6'-0"	8'-0"		
	210	1'-0"	1'-0"	1'-0"	1'-6"	2'-0"	2'-6"	3'-6"	6'-0"			1'-0"	1'-0"	2'-0"	2'-6"	4'-0"	4'-6"	6'-6"	8'-6"		
	230	1'-0"	1'-0"	1'-0"	1'-6"	2'-6"	2'-6"	4'-0"	7'-0"			1'-0"	1'-0"	2'-0"	3'-0"	4'-0"	5'-0"	7'-0"	9'-0"		
	360	1'-0"	1'-0"	1'-6"	2'-6"	3'-6"	4'-0"	5'-6"	8'-0"			1'-0"	1'-6"	2'-6"	4'-0"	6'-0"	6'-6"	8'-0"	9'-6"		
	560	1'-0"	1'-0"	2'-0"	3'-0"	4'-6"	5'-0"	6'-6"	9'-0"			1'-6"	3'-0"	4'-0"	5'-0"	7'-0"	7'-6"	9'-0"	10'-0"		
16"	210	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-6"	3'-6"	6'-0"		1'-0"	1'-0"	1'-0"	2'-0"	3'-0"	3'-6"	6'-6"	8'-0"	11'-0"	
	230	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	1'-6"	3'-0"	4'-0"	7'-0"		1'-0"	1'-0"	1'-0"	2'-0"	3'-6"	4'-0"	7'-0"	9'-0"	11'-0"	
	360	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	2'-6"	4'-6"	6'-6"	9'-0"		1'-0"	1'-0"	1'-6"	3'-0"	5'-0"	5'-6"	9'-0"	10'-0"	11'-6"	
	560	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-0"	5'-0"	7'-6"	10'-0"		1'-0"	2'-0"	3'-0"	4'-6"	6'-6"	7'-0"	10'-0"	11'-0"	12'-0"	
		4"	5"	6"	7"	8"	10"	12"	15"	17"		4"	5"	6"	7"	8"	10"	12"	15"	17"	
18"	360	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	5'-0"	10'-0"			1'-0"	1'-0"	1'-0"	3'-0"	5'-0"	10'-0"	11'-0"	13'-6"		
	560	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	5'-0"	11'-0"			1'-0"	1'-0"	1'-6"	4'-0"	6'-6"	11'-0"	12'-0"	14'-6"		
20"	360	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	7'-0"	10'-6"		1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	8'-0"	11'-6"	14'-0"	15'-6"	
	560	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	7'-0"	11'-0"		1'-0"	1'-0"	1'-0"	1'-0"	4'-0"	9'-6"	12'-6'	14'-6"	15'-6"	

Table B - Intermediate or Cantilever Support
Minimum distance from edge of hole to inside face of nearest intermediate or cantilever support

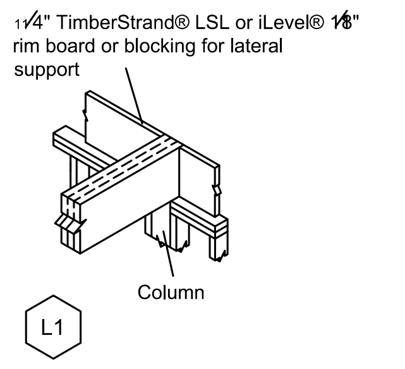
JOIST DEPTH	TJI	ROUND HOLE SIZE										SQUARE OR RECTANGULAR HOLE SIZE									
		2"	3"	4"	5"	6 1/2"	7"	8 7/8"	11"	13"		2"	3"	4"	5"	6 1/2"	7"	8 7/8"	11"	13"	
9 1/2"	110	2'-0"	2'-6"	3'-6"	4'-6"	7'-6"						1'-6"	2'-6"	3'-6"	5'-6"	6'-6"					
	210	2'-0"	2'-6"	3'-6"	5'-0"	8'-0"						2'-0"	3'-0"	4'-0"	6'-6"	7'-6"					
	230	2'-6"	3'-0"	4'-0"	5'-6"	8'-6						2'-0"	3'-6"	4'-6"	6'-6"	7'-6"					
11 7/8"	110	1'-0"	1'-0"	1'-6"	2'-6"	4'-0"	4'-6"	8'-6"				1'-0"	1'-6"	2'-6"	4'-0"	7'-0"	7'-0"	9'-6"			
	210	1'-0"	1'-0"	2'-0"	3'-0"	4'-6"	5'-0"	9'-0"				1'-0"	2'-0"	3'-0"	4'-6"	8'-0"	8'-0"	10'-0"			
	230	1'-0"	2'-0"	2'-6"	3'-6"	5'-0"	5'-6"	10'-0"				1'-0"	2'-6"	3'-6"	5'-0"	8'-6"	9'-0"	10'-6"			
	360	2'-0"	3'-0"	4'-0"	5'-6"	7'-0"	7'-6"	11'-0"				2'-0"	3'-6"	5'-0"	7'-0"	9'-6"	9'-6"	11'-0"			
	560	1'-6"	3'-0"	4'-6"	5'-6"	8'-0"	8'-6"	12'-0"				3'-0"	4'-6"	6'-0"	8'-0"	10'-6"	11'-0"	12'-0"			
14"	110	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	2'-6"	4'-6"	8'-6"			1'-0"	1'-0"	1'-0"	2'-6"	5'-0"	6'-0"	9'-0"	12'-0"		
	210	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-0"	5'-6"	9'-6"			1'-0"	1'-0"	2'-0"	3'-6"	6'-0"	7'-0"	10'-0"	13'-0"		
	230	1'-0"	1'-0"	1'-0"	2'-0"	3'-6"	4'-0"	6'-0"	10'-6"			1'-0"	1'-0"	2'-6"	4'-0"	6'-6"	7'-6"	11'-0"	13'-6"		
	360	1'-0"	1'-0"	2'-0"	3'-6"	5'-6"	6'-0"	8'-6"	12'-6"			1'-0"	2'-0"	4'-0"	5'-6"	9'-0"	10'-0"	12'-0"	14'-0"		
	560	1'-0"	1'-0"	1'-6"	3'-6"	5'-6"	6'-6"	9'-6"	13'-6"			1'-0"	3'-0"	5'-0"	7'-0"	10'-0"	11'-0"	13'-6"	15'-0"		
16"	210	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	3'-6"	6'-0"	10'-0"		1'-0"	1'-0"	1'-0"	1'-6"	4'-6"	5'-6"	10'-0"	12'-6"	16'-0"	
	230	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	2'-0"	4'-0"	6'-6"	11'-0"		1'-0"	1'-0"	1'-0"	2'-6"	5'-0"	6'-0"	10'-6"	13'-6"	16'-6"	
	360	1'-0"	1'-0"	1'-0"	1'-0"	3'-0"	4'-0"	6'-6"	10'-0"	13'-6"		1'-0"	1'-0"	2'-0"	4'-0"	7'-6"	8'-6"	13'-0"	14'-6"	17'-0"	
	560	1'-0"	1'-0"	1'-0"	1'-0"	2'-6"	3'-6"	7'-0"	11'-0"	15'-0"		1'-0"	1'-0"	3'-6"	5'-6"	9'-0"	10'-0"	14'-6"	16'-0"	18'-0"	
		4"	5"	6"	7"	8"	10"	12"	15"	17"		4"	5"	6"	7"	8"	10"	12"	15"	17"	
18"	360	1'-0"	1'-0"	1'-0"	1'-6"	3'-0"	6'-0"	9'-0"	15'-0"			1'-0"	1'-6"	4'-0"	6'-6"	9'-0"	14'-6"	16'-6"	19'-6"		
	560	1'-0"	1'-0"	1'-0"	1'-0"	2'-0"	6'-0"	10'-0"	16'-6"			1'-0"	3'-6"	6'-0"	8'-6"	11'-6"	16'-6"	18'-0"	20'-0"		
20"	360	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	3'-0"	6'-0"	11'-0"	15'-6"		1'-0"	1'-0"	1'-6"	4'-0"	7'-0"	12'-6"	16'-6"	19'-0"	21'-0"	
	560	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	5'-6"	12'-0"	16'-0"		1'-0"	1'-0"	3'-0"	6'-0"	8'-6"	14'-0"	17'-6'	19'-6"	20'-6"	

Rectangular holes based on measurement of longest side.

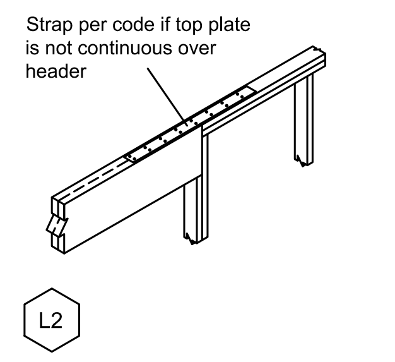
- Holes may be located vertically anywhere within the web. Leave 1/8" of web (minimum) at top and bottom of hole.
- Knockouts are located in web at approximately 12" on-center; they do not affect hole placement.
- For simple span (5' minimum), uniformly loaded joists used in residential applications, one maximum size round hole may be located **at the center of the joist span provided that no other holes occur in the joist.**
- Distances are based on the maximum uniform loads from current iLevel specifier's guides. For other load conditions or hole configurations use iLevel® TJ-Beam® software or contact your iLevel representative.

BEAM and COLUMN DETAILS

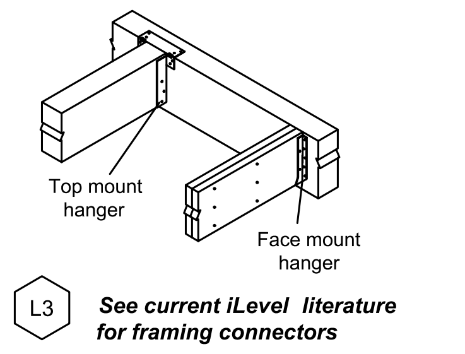
BEARING AT WALL



BEARING FOR DOOR OR WINDOW HEADER

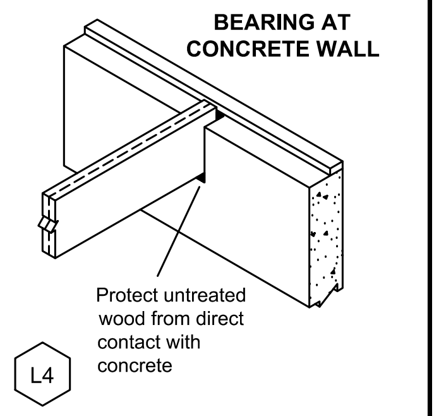


BEAM TO BEAM CONNECTION



See current iLevel literature for framing connectors

BEARING AT CONCRETE WALL



MULTIPLE MEMBER CONNECTIONS FOR TOP-LOADED BEAMS (1)

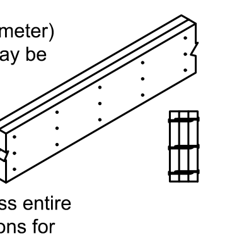
1 3/4"- Wide Pieces:

- Minimum of 3 rows 10d (0.128" x 3") nails at 12" o.c.
- Minimum of 4 rows 10d (0.128" x 3") nails at 12" o.c. for 14" and deeper beams
- If using 12d-16d (0.148"-0.162" diameter) nails, the number of nailing rows may be reduced by one.

3 1/2"- Wide Pieces:

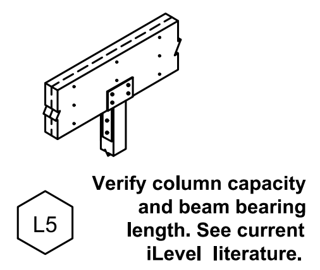
- Minimum of 2 rows 1/2" bolts at 24" o.c. staggered

(1) Load must be applied evenly across entire beam width. Otherwise, use connections for side-loaded beams.



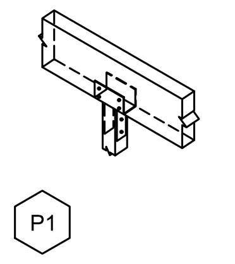
Additional nailing or bolting may be required with side-loaded multiple-member beams. Refer to current product literature.

BEARING AT COLUMN

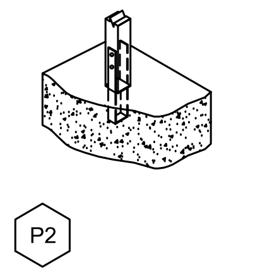


Verify column capacity and beam bearing length. See current iLevel literature.

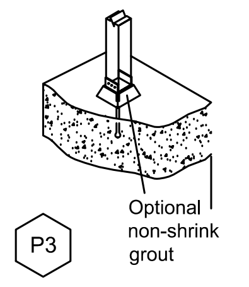
BEAM ON COLUMN CAP



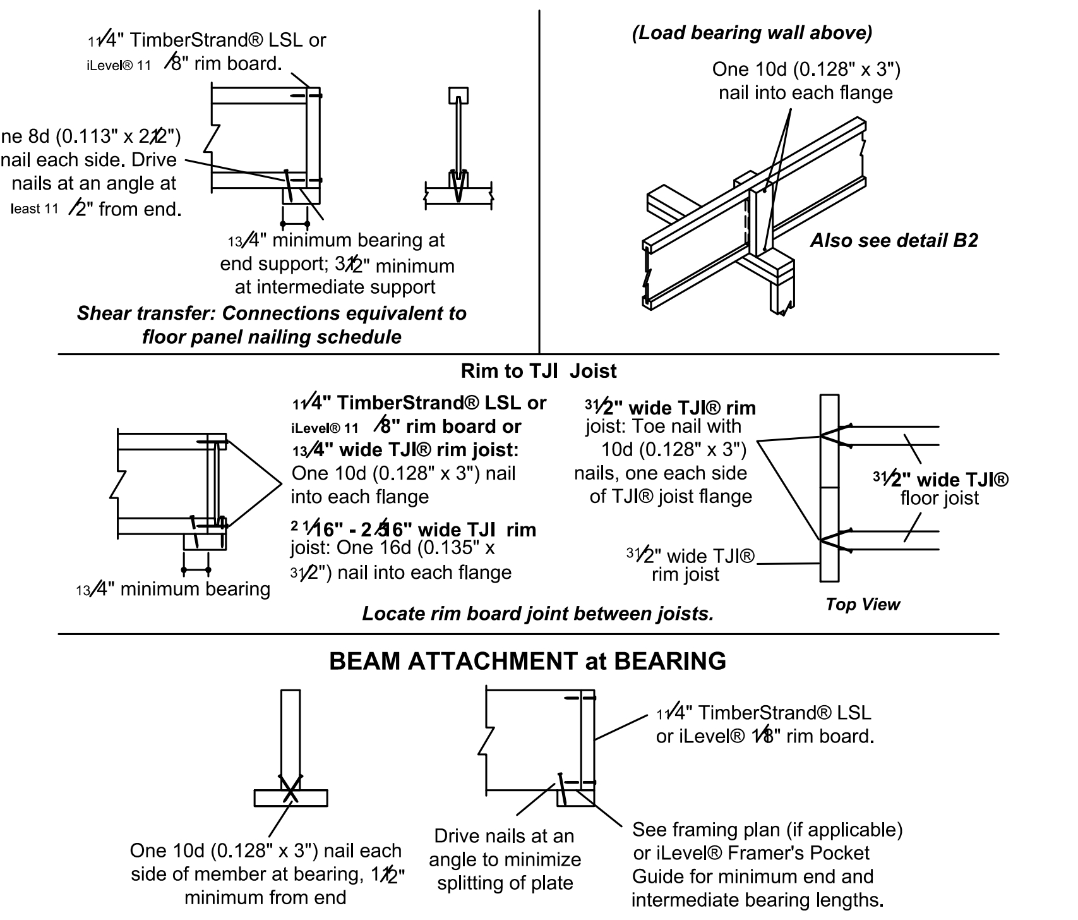
COLUMN BASE



ELEVATED COLUMN BASE



TJI JOIST NAILING REQUIREMENTS at BEARING



Shear transfer: Connections equivalent to floor panel nailing schedule

Rim to TJI Joist

1 1/4" TimberStrand® LSL or iLevel® 1 1/8" rim board or 1 3/4" wide TJI® rim joist: One 10d (0.128" x 3") nail into each flange

2 1/16" - 2 5/16" wide TJI rim joist: One 16d (0.135" x 3 1/2") nail into each flange

3 1/2" wide TJI® rim joist: Toe nail with 10d (0.128" x 3") nails, one each side of TJI® joist flange

Locate rim board joint between joists.

BEAM ATTACHMENT at BEARING

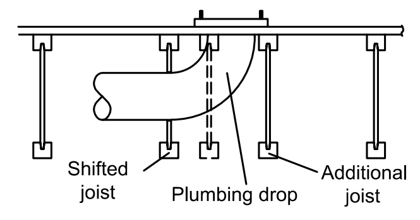
INSTALLATION TIPS

Subfloor adhesive will improve floor performance, but may not be required.

Squash blocks and blocking panels carry stacked vertical loads (details B1 and B2). Packing out the web of a TJI® joist (with web stiffeners) is not a substitute for squash blocks or blocking panels.

When joists are doubled at non-load bearing parallel partitions, space joists apart the width of the wall for plumbing or HVAC.

Additional joist at plumbing drop (see detail).



FASTENING of FLOOR PANELS
Guidelines for Closest On-Center Spacing per Row

Nail Size	TJI		Rim Board		1 1/2" TimberStrand LSL or wider	Microllam LVL	Parallam PSL
	110, 210, and 230	360 and 560	iLevel 1 1/8"	1 1/4" TimberStrand LSL			
8d (0.131" x 2 1/2")	4"	3"	6"	4"	3"	3"	3"
10d (0.148"x 3"), 12d (0.148"x 3 1/4")	4"	4"	6"	4"	4"	4"	4"
16d (0.162"x 3 1/2")	6"	6"	16"	6"(2)	6"(2)	8"	6"

(1) One row of fasteners permitted (two at abutting panel edges) for diaphragms. Stagger nails when using 4" on-center spacing and maintain 3/8" joist and panel edge distance. For other applications, multiple rows of fasteners are permitted if the rows are offset at least 1/2" and staggered.

(2) Can be reduced to 4" on-center if nail penetration into the narrow edge is no more than 1 3/8" (to avoid splitting).

- Recommended nailing is 12" on-center in field and 6" on-center along panel edge. Fastening requirements on engineered drawings supersede recommendations listed above.
- iLevel recommends using a non-polyurethane subfloor adhesive on all contact points between panels and floor framing.
- Nailing rows must be offset at least 1/2" and staggered.
- 14 ga. staples may be substituted for 8d (0.113" x 2 1/2") nails if minimum penetration of 1" into the TJI joist or rim board is achieved.
- Maximum spacing of nails is 18" on-center for TJI joists.

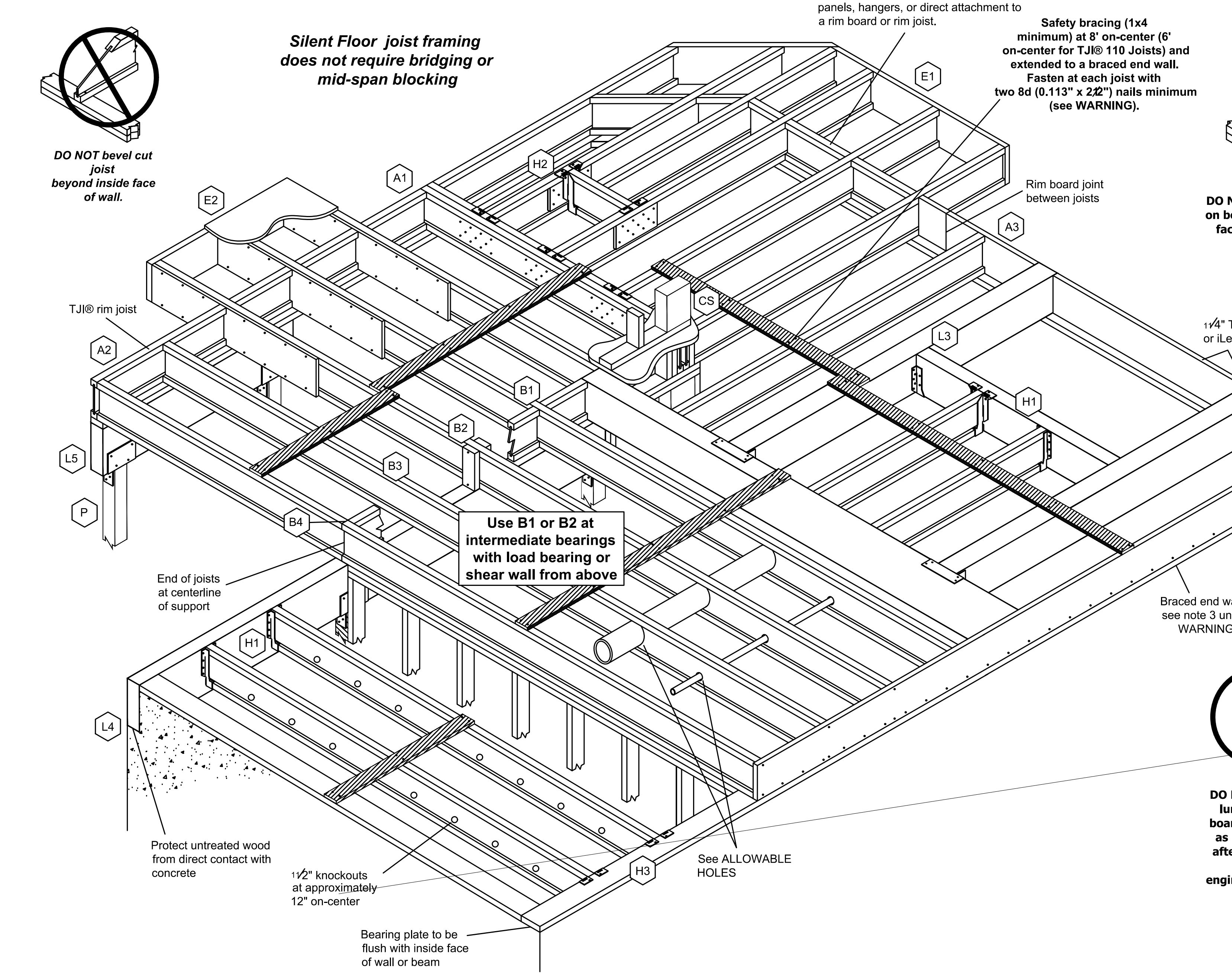
FILLER and BACKER BLOCK SIZES

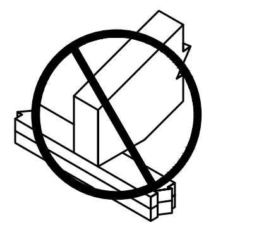
TJI Joists	110		210		230 or 360			560		
Depth	9 1/2" or 11 7/8"	14"	9 1/2" or 11 7/8"	14" or 16"	9 1/2" or 11 7/8"	14" or 16"	18" or 20"	11 7/8"	14" or 16"	18" or 20"
Filler Block (1) (Detail H2)	2x6	2x8	2x6 + 3/8" sheathing	2x8 + 3/8" sheathing	2x6 + 1/2" sheathing	2x8 + 1/2" sheathing	2x12 + 1/2" sheathing	Two 2x6	Two 2x8	Two 2x12
Cantilever Filler (Detail E4)	2x6 4'-0" long	2x10 6'-0" long	2x6 + 3/8" sheathing 4'-0" long	2x10 + 3/8" sheathing 6'-0" long	2x6 + 1/2" sheathing 4'-0" long	2x10 + 1/2" sheathing 6'-0" long	Not applicable	Not applicable		
Backer Block (1) (Detail F1 or H2)	5/8" or 3/4"		3/4" or 7/8"		1" Net			2x6	2x8	2x12

(1) If necessary, increase filler and backer block height for face mount hangers and maintain 1/8" gap at top of joist; see detail W. Filler and backer block lengths should accomodate required nailing without splitting (12" minimum for backer blocks and 24" minimum for filler blocks).

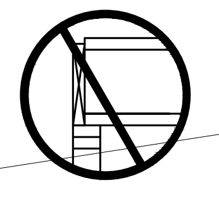
DO NOT bevel cut joist beyond inside face of wall.

Silent Floor joist framing does not require bridging or mid-span blocking



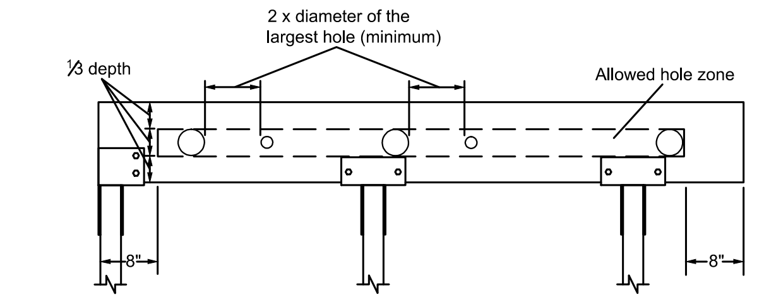


DO NOT overhang seat cuts on beams beyond the inside face of support member.



DO NOT use sawn lumber for rim board or blocking, as it may shrink after installation. Use only engineered lumber.

ALLOWABLE HOLES - Headers and Beams
1.55E TimberStrand® LSL Headers and Beams



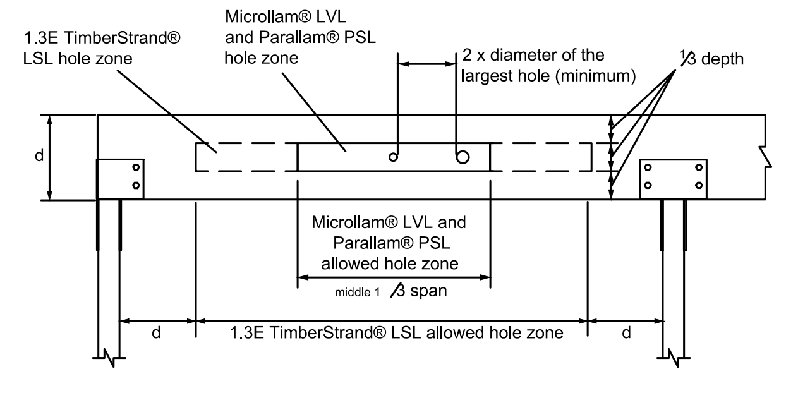
Header or Beam Depth	Maximum Round Hole Size
9 1/4"-9 1/2"	3"
11 1/4"-11 7/8"	3 5/8"
14"-16"	4 5/8"

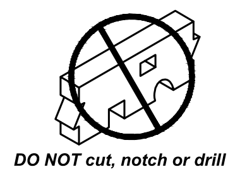
See illustration for allowed hole zone

General Notes

- Allowed hole zone suitable for headers and beams with **uniform and/or concentrated loads.**
- Round holes only
- No holes in headers or beams in plank orientation.

Other iLevel® Trus Joist® Headers and Beams





DO NOT cut, notch or drill holes in headers or beams except as indicated in illustrations and tables.

Header or Beam Depth	Maximum Round Hole Size
4 3/8"	1"
5 1/2"	1 3/4"
7 1/4"- 20"	2"

See illustration for Allowed Hole Zone

General Notes

- Allowed hole zone suitable for headers and beams with uniform loads only.
- Round holes only
- No holes in cantilevers.
- No holes in headers or beams in plank orientation.

WARNING

Joists are unstable until braced laterally

Bracing Includes:

- Blocking
- Hangers
- Sheathing
- Rim Board
- Strut Lines
- Rim Joist

DO NOT walk on joists until braced. INJURY MAY RESULT.

DO NOT walk on joists that are lying flat.

DO NOT stack building materials on unsheathed joists. Stack only over beams or walls.

WARNING NOTES:

Lack of proper bracing during construction can result in serious accidents. Observe the following guidelines:

1. All blocking, hangers, rim boards and rim joists at the end supports of the TJI® joists must be completely installed and properly nailed.
2. Establish a permanent deck (sheathing), fastened to the first 4 feet of joists at the end of the bay or braced end wall.
3. Safety bracing of 1x4 (minimum) must be nailed to a braced end wall or sheathed area and to each joist.
4. Sheathing must be completely attached to each TJI® joist before additional loads can be placed on the system.
5. Ends of cantilevers require safety bracing on both the top and bottom flanges.
6. The flanges must remain straight within 1/2" from true alignment.

Warning: Drilling, sawing, sanding or machining wood products generates wood dust, a substance known to the state of California to cause cancer. For more information on Proposition 65, visit www.wy.com/inform.

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03/13/2020

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119990

MENDIOLA'S RESIDENCE
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SAN ANTONIO, TX

PLAN NO.
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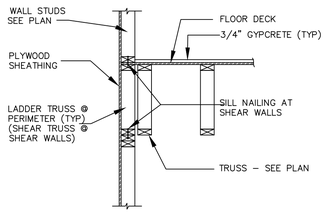
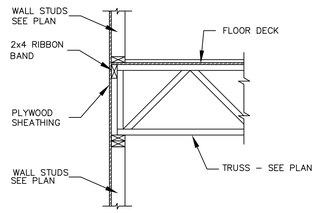
03/13/20

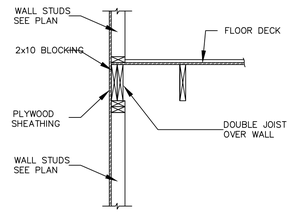
FLOOR SYSTEM DETAILS

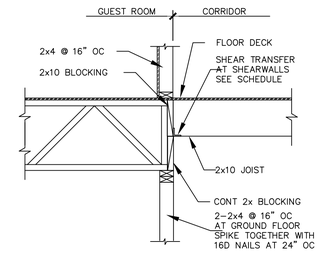
SHEET

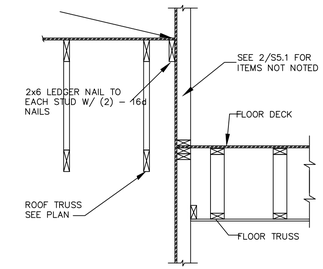
S-105

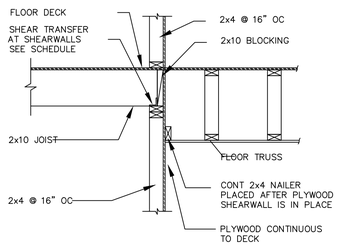


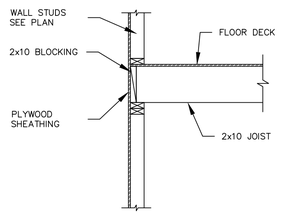


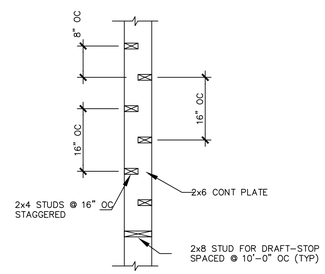


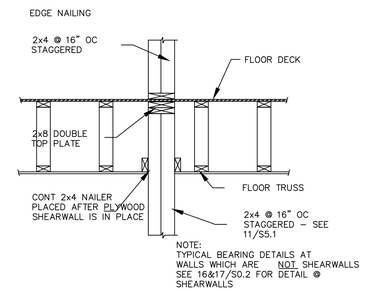


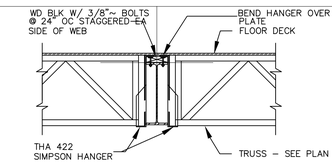


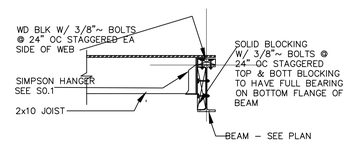


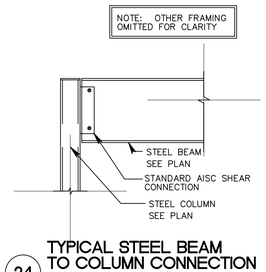




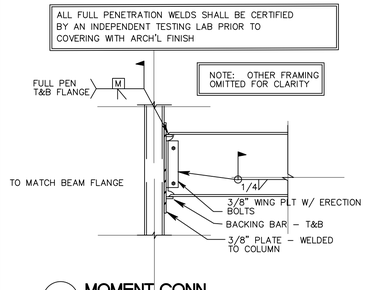








24 TYPICAL STEEL BEAM TO COLUMN CONNECTION
SCALE: 3/4" = 1'-0"



26 MOMENT CONN
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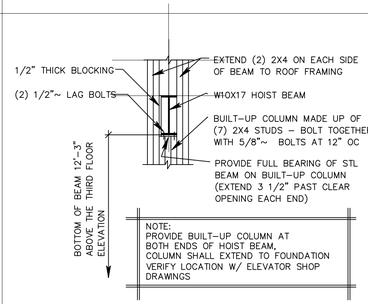
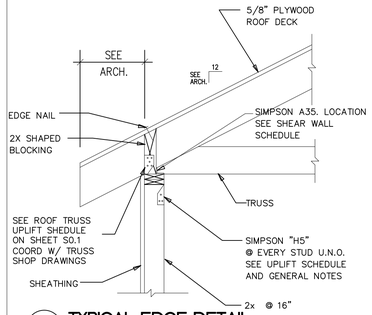
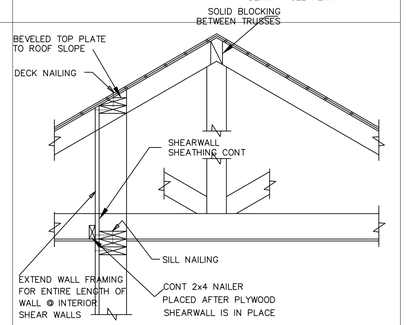


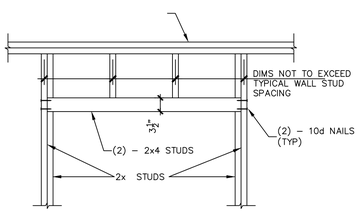
21 DETAIL AT ELEV BEAM
SCALE: 3/4" = 1'-0"



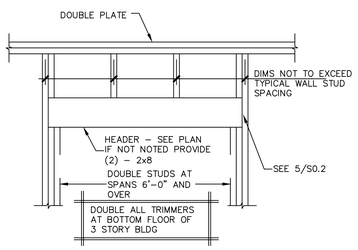
15 TYPICAL EDGE DETAIL
SCALE: 3/4" = 1'-0"



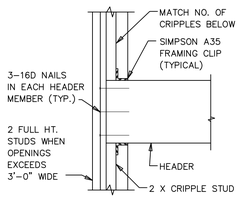
16 TYPICAL INTERIOR SHEARWALL PERP TO TRUSS
SCALE: 3/4" = 1'-0"



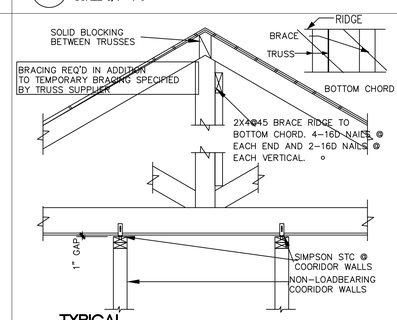
13 TYPICAL NON–LOAD BEARING HEADER
3/4" = 1'-0"



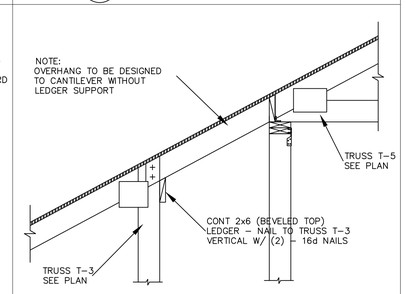
14 TYPICAL LOAD BEARING HEADER
3/4" = 1'-0"



5 TYP. HEADER CONNECTION
N.T.S.



14 TYPICAL RIGDE BRACE DETAIL
SCALE: 3/4" = 1'-0"



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

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Trade/Labor/Service	Cost	NOTES
3rd Party inspection		
POA/ACC Fees		
Bldg Permits		
Utility Permits		
Plot/Form/Final Survey		
Erosion Control/Security Fencin		
Demolition/site clear		
Rough Grade		
Final Grade		
Frame/Cornice Labor		
Trusses		
Frame/Cornice Materials		
Frame Punch Material/Misc		
Trim Labor		
Front Doors		ALLOWANCE
Trim Materials/Int Doors		
Exterior Doors		
Windows		
Plumbing		Pending BID - Betancourt Plumbing
Plumbing Fixtures		ALLOWANCE
HVAC		
Roofing		Pending BID - Fry Roof
Electric/LV		Pending BID
Light Fixtures		ALLOWANCE
Appliances		ALLOWANCE
Insulation		Spray-in foam, walls 3.5" and rafters 5.5"
Tile Flooring		
LVF Flooring		
Gutters		
Drywall Turnkey		Reserve Tech Interiors 2.15.20
Int. Cleaning/Powerwash		

Cabinets
Countertops
Shower Surrounds/Mirrors
Waterproofing
Paint
Hardware
Dirt Work/ Ext. Clean
Landscaping/Irrigation
Wrought Iron handrails
Contingency
Utility Expense
Dumpsters/Port O Let
Change Orders

Builders Compensation

Total Build