DESIGN LOADS

CODE BODY:	IBC 2015
GROUND SNOW LOAD: RISK	20 PSF
CATEGORY:	II
C_t:	1.0
C_e:	1.0
I_s:	1.0
C_s:	1.0
FLAT ROOF SNOW LOAD:	14 PSF
RAIN ON SNOW SURCHARGE:	5 PSF
MINIMUM SNOW LOAD:	20 PSF
ROOF LIVE LOAD:	20 PSF
ROOF DEAD LOAD:	10 PSF
CEILING LIVE LOAD:	0 PSF
CEILING DEAD LOAD:	10 PSF
V_{ult}:	115 mph
V_{asd}:	89 mph
EXPOSURE:	C
k_h:	0.92

AN EMPLOYEE-OWNED COMPANY

ENERGY PANEL STRUCTURES
102 EAST INDUSTRIAL PARK
GRAETTINGER, IA 51342
PHONE: 712/859-3219
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WWW.EPSBUILDINGS.COM

SHEET DRAWING INDEX

S0	TITLE SHEET
S0.1	FOUNDATION LOADS
S1.0	PLAN VIEW - MAIN
S1.1	PLAN VIEW - ROOF
S2.0	BUILDING SECTIONS
S2.1	BUILDING SECTIONS
S3.0	BUILDING DETAILS
R1.0	ROOF TRUSS LAYOUT & BRACING
C1.0	CONSTRUCTION DETAILS
C1.1	CONSTRUCTION DETAILS
B1	TRUSS INSTALLATION
B2	TRUSS INSTALLATION
B3	TRUSS INSTALLATION
B7	TRUSS INSTALLATION

SEE RED JOBSITE PACKET FOR THE FOLLOWING ADDITIONAL MATERIAL USE GUIDELINES TO ENSURE PROPER INSTALLATION OF THESE ITEMS:
- "BLOCK-IT" HOUSE WRAP
- EPOXY ANCHORAGE
- PLYCO WALKDOORS
- A.J. WINDOWS
- SILVERLINE WINDOWS
- HAYFIELD WINDOWS

GENERAL INFORMATION

DEALER:
LAYNECO CONSTRUCTION SERVICES
1027 COOL SPRINGS INDUSTRIAL DRIVE
O'FALLON, MO 63366
PHONE: (636) 294-6245
FAX: --

OWNER:
IMO'S PIZZA
MID RIVERS MALL DRIVE
ST. PETERS, MO 63676

BUILDING TYPE:
STICK BUILT

BUILDING USAGE:
COMMERCIAL

BUILDING DIMENSIONS:
68'-9" x 55'-9" x 12'-6"
--

AREA:
3,833 SQ. FT.

SEISMIC DESIGN CRITERIA

SEISMIC IMPORTANCE FACTOR:	1.0
MAPPED SPECTRAL RESPONSE, S_s:	0.327
S_1:	0.137
SITE CLASS:	D
SPECTRAL RESPONSE COEFFICIENTS, S_{DS}:	0.335
S_{D1}:	0.208
SEISMIC DESIGN CATEGORY:	D
SEISMIC FORCE RESISTIVE SYSTEM:	WOOD STRUCTURAL PANEL SHAETHED SHEAR WALLS
DESIGN BASE SHEAR:	11.7 K
Cs, SEISMIC RESPONSE COEFFICIENT:	0.168
R, RESPONSE MODIFICATION FACTOR:	7.0
ANALYSIS PROCEDURE:	Equivalent Lateral Force Analysis

SITEWORK: THE SITE SHALL BE GRADED TO PROVIDE DRAINAGE AWAY FROM THE BUILDING. SLOPE AWAY FROM WALL ½" PER FOOT MIN. 6' FROM WALL.

CONCRETE WORK: THE CONCRETE WORK SHALL CONSIST OF ALL NECESSARY POUR-IN-PLACE CONCRETE FOOTINGS (OR FOUNDATION) AS PER BUILDING PLANS DESIGNED BY OTHERS. THE CONCRETE SHALL MEET A MINIMUM COMPRESSIVE STRENGTH OF 3,500 PSI AT 28 DAYS. ALL CONCRETE SHALL BE DESIGNED IN ACCORDANCE WITH THE AMERICAN CONCRETE INSTITUTE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-14) AND COMMENTARY (ACI 318R-14).

WOOD FRAMING: ALL WOOD CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE PROVISIONS OF THE 2015 EDITION OF THE NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. UNLESS NOTED OTHERWISE ALL FRAMING LUMBER SHALL BE SPF#2 GRADE.

TRUSSES: WOOD TRUSSES ARE SHOP/PLANT FABRICATED WITH CONNECTOR PLATES PER SPECIFICATIONS. DESIGN CRITERIA ESTABLISHED BY THE TRUSS PLATE INSTITUTE - (ANSI/TPI 1-2014). REFER TO THE BCSI(BUILDING COMPONENT SAFETY INFORMATION) MANUAL FOR WOOD TRUSS TEMPORARY BRACING REQUIREMENTS.

METAL CONNECTORS: ALL METAL CONNECTORS ARE OF GALVANIZED STEEL AND DESIGN APPROVED TO MEET OR EXCEED REQUIRED STANDARDS.

SHORING AND BRACING: CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY SHORING AND BRACING.

THESE CONTRACT DOCUMENTS/DRAWINGS ARE THE PROPERTY OF ENERGY PANEL STRUCTURES AND ARE INTENDED FOR THE EXPRESS USE FOR CONSTRUCTION OF THIS PROJECT BY AN ENERGY PANEL STRUCTURES' AUTHORIZED INDEPENDENT DEALER. THESE DOCUMENTS SHALL NOT BE USED FOR ANY OTHER CONSTRUCTION PROJECT, OR BY ANY OTHER ENTITY WITHOUT THE EXPRESS WRITTEN CONSENT OF ENERGY PANEL STRUCTURES. IN THE EVENT THAT ANY OF THE DESIGN DRAWINGS OR SPECIFICATIONS ARE REUSED OR MODIFIED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF ENERGY PANEL STRUCTURES,THEN ENERGY PANEL STRUCTURES WILL NOT BE LIABLE FOR SUCH REUSE OR MODIFICATION, AND IT WILL BE SUBJECT OF THE PERSON OR ENTITY TO CLAIM FOR A COPYRIGHT INFRINGEMENT, COSTS, DAMAGES, AND ATTORNEY FEES.

* THIS SET OF PLANS ARE INTENDED TO BE USED BY CONTRACTORS WITH BUILDING CONSTRUCTION KNOWLEDGE.

* ENERGY PANEL STRUCTURES CAN NOT BE HELD RESPONSIBLE FOR MISUSE OR MISINTERPRETATION OF INFORMATION INCLUDED IN THESE DRAWINGS, OR THE USE OF THIS SET OF PLANS BY PEOPLE WITHOUT BUILDING CONSTRUCTION KNOWLEDGE.

* RESPONSIBILITY OF THIS SET OF PLANS IS LIMITED TO THE BUILDING DESIGN SHOWN ON THE DRAWINGS. BUILDING DESIGN IS BASED ON NUMBER, SIZE AND LOCATION OF OPENINGS SHOWN ON THE DRAWINGS. NO RESPONSIBILITY IS ASSUMED FOR ADDITIONAL OPENINGS NOT SHOWN ON THE DRAWINGS OR CHANGES IN THE SIZES OR LOCATION OF OPENINGS.

* ALL DOOR AND WINDOW OPENINGS SHOWN ON THIS SET OF PLANS ARE THE ACTUAL SIZE OF THE OPENING PROVIDED. IT IS THE GENERAL CONTRACTOR/OWNER'S RESPONSIBILITY TO VERIFY ALL LOCATIONS AND SIZES OF OPENINGS PRIOR TO CONSTRUCTION.

* IMPORTANT!! THIS BUILDING IS DESIGNED USING THE ROOF AS A DIAPHRAGM (DEEP THIN BEAM) TO TRANSFER SIDEWALL AND ROOF WIND LOADS TO THE SHEAR WALLS SHOWN. STRUCTURAL PANELS ARE AN INTEGRAL PART OF THE BUILDING STRUCTURE AND ANY FUTURE FIELD MODIFICATIONS MADE MAY BE DETRIMENTAL TO THE BUILDING'S STRUCTURAL PERFORMANCE.

* THIS IS A STRUCTURAL FRAMING DRAWING AND IS TO BE USED FOR THAT PURPOSE ONLY, CODES REGARDING FIRE SAFETY, INTERIOR FINISHES, PERSONAL SAFETY & INJURY ARE NOT ADDRESSED IN THIS DRAWING AND ARE THE RESPONSIBILITY OF THE OWNER.

* THE ATTIC OF THIS STRUCTURE MUST BE PROPERLY VENTILATED. CONSULT AN HVAC ENGINEER FOR PROPER SIZING OF EAVE INLETS, RIDGE OPENINGS, END WALL LOUVERS, OR MECHANICAL SYSTEMS. FAILURE TO PROPERLY VENTILATE THE ATTIC MAY CAUSE PARTITION TO SEPARATE AT ROOF/CEILING, CONDENSATION ON ROOF MATERIALS, LARGER AIR CONDITIONING LOAD, MOLD OR MILDEW, CORROSION OF TRUSS PLATES, PREMATURE DEGRADATION OF STRUCTURAL BUILDING COMPONENTS.

* SIP PANEL WALL CONSTRUCTION BUILDINGS ARE DESIGNED FOR MINIMAL AIR INFILTRATION. IT IS RECOMMENDED THAT GENERAL CONTRACTOR/OWNER WORKS IN CONJUNCTION WITH AN HVAC PROFESSIONAL TO DESIGN A SYSTEM TO INSURE AIR QUALITY AND MOISTURE CONTROL. AIR TO AIR EXCHANGERS ARE RECOMMENDED IN SUCH TYPE STRUCTURES.

* THE CEILING SYSTEM PROVIDED HAS NOT BEEN DESIGNED FOR HUMAN TRAFFIC. CONTRACTORS - IT IS YOUR RESPONSIBILITY TO WARN OTHER TRADES.

* EPS WALLS ARE NOT DESIGNED FOR LATERAL LOADS IMPOSED BY CONCRETE FOUNDATION WALLS. CONCRETE WALLS TO BE DESIGNED TO ABSORB ALL LOADS IMPOSED BY EPS STRUCTURE AND 100% OF ALL MATERIAL/BACKFILL/ETC (IF ANY) STORED AGAINST THEM. CONCRETE WALL TO IMPOSE NO HORIZONTAL LOAD TO EPS STRUCTURE.

* ALL PANELS SHALL BE STORED IN A PROTECTED AREA AND SUPPORTED EVERY 4' TO PREVENT DEFORMATION AND CONTACT WITH THE GROUND. DO NOT USE BLACK OR DARK COLORED TARP. AFTER INSTALLATION, ALL PANELS SHALL BE COVERED TO PREVENT CONTACT WITH WATER ON ALL EXPOSED PANEL EDGES.

* IMPORTANT!! IF METAL IS NOT TO BE USED IMMEDIATELY, STORE IN A DRY AREA. MOISTURE FROM RAIN OR CONDENSATION TRAPPED BETWEEN SHEETS MAY CAUSE "WATER STAINS". IF MATERIAL MUST BE STORED OUTSIDE, PROTECT WITH CANVAS OR WATERPROOF PAPER. IF PLASTIC IS USED, DO NOT COVER AIR TIGHT. SHOULD PANELS BECOME WET, SEPARATE THEM BY PUTTING DIVIDERS BETWEEN EACH SHEET AND ELEVATE ONE END 8" OR STAND SHEETS ON END AGAINST A WALL AND FAN THEM OUT TO ALLOW AIR CIRCULATION. AVOID STORING NEAR ALKALINE METALS SUCH AS FERTILIZER, CEMENT, LIME, SALT, ETC. THESE INSTRUCTIONS APPLY TO ALUMINUM OR STEEL WHETHER PAINTED OR UNPAINTED.

* TO MINIMIZE THE POSSIBILITY OF FASTENER POPPING AND CRACKING IN AREAS ADJACENT TO A WALL AND CEILING INTERSECTION, A FLOATING GYPSUM CORNER ANGLE METHOD OF APPLICATION SHOULD BE USED. PLEASE REFER TO THE GYPSUM ASSOCIATION'S SPECIFICATIONS FOR THE APPLICATION AND FINISHING OF GYPSUM PANEL PRODUCTS.

* THERE MAY BE SOME "BOWING" OF EXTERIOR STRUCTURAL INSULATED PANELS DUE TO A TEMPERATURE AND MOISTURE DIFFERENTIAL BETWEEN INTERIOR AND EXTERIOR OSB SKINS. WHEN THE EXTERIOR SKIN EXPERIENCES COLD TEMPERATURE, ITS MOISTURE CONTENT RISES, WHICH CAUSES THE EXTERIOR SKIN TO EXPAND. THIS MAY CAUSE THE PANEL TO BOW OUT. TO MINIMIZE THE EFFECT, YOU MAY WANT TO CONSIDER:
A.) HIDE THE "BOW" BY USING FLOATING CORNERS ON THE INTERIOR GYPSUM BOARD.
B.) MECHANICALLY FASTENING ONE STRUCTURAL INSULATED PANEL TO THE CROSS WALLS. THE CROSS WALL WILL HAVE TO BE DESIGNED TO RESIST FORCES OF THE BOW, AS WILL THE MECHANICAL FASTENERS.

NOTE: WHEN APPLYING ICE & WATER OR "PEEL & SEAL" FOLLOW THE FOLLOWING INSTRUCTIONS TO PREVENT AIR INFILTRATION
1. BE SURE TEMERATURE OF MATERIALS AND AMBIENT TEMPERATURE ARE BOTH ABOVE 50° F.
2. THOROUGHLY CLEAN SURFACES.
3. APPLY ACETONE(BY OTHERS) TO METAL SURFACE TO CLEAN.
4. ALLOW ACETONE TO FLASH OFF.
5. APPLY "PEEL & SEEL" OR ICE & WATER. BE SURE TO APPLY PRESSURE THROUGH OUT MATERIAL TO ENSURE 100% CONTACT.

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PROJECT NUMBER: 2020/HOUSE/MO7820
CUSTOMER SERVICE: BRETT D.
DRAWN BY: ANDREW P.
REVIEWED BY: DAVE M.

DATE: 2/6/2020
REVISIONS: 2/12/2020, 3/3/2020, 3/12/2020
Print Date: 3/12/ 2020

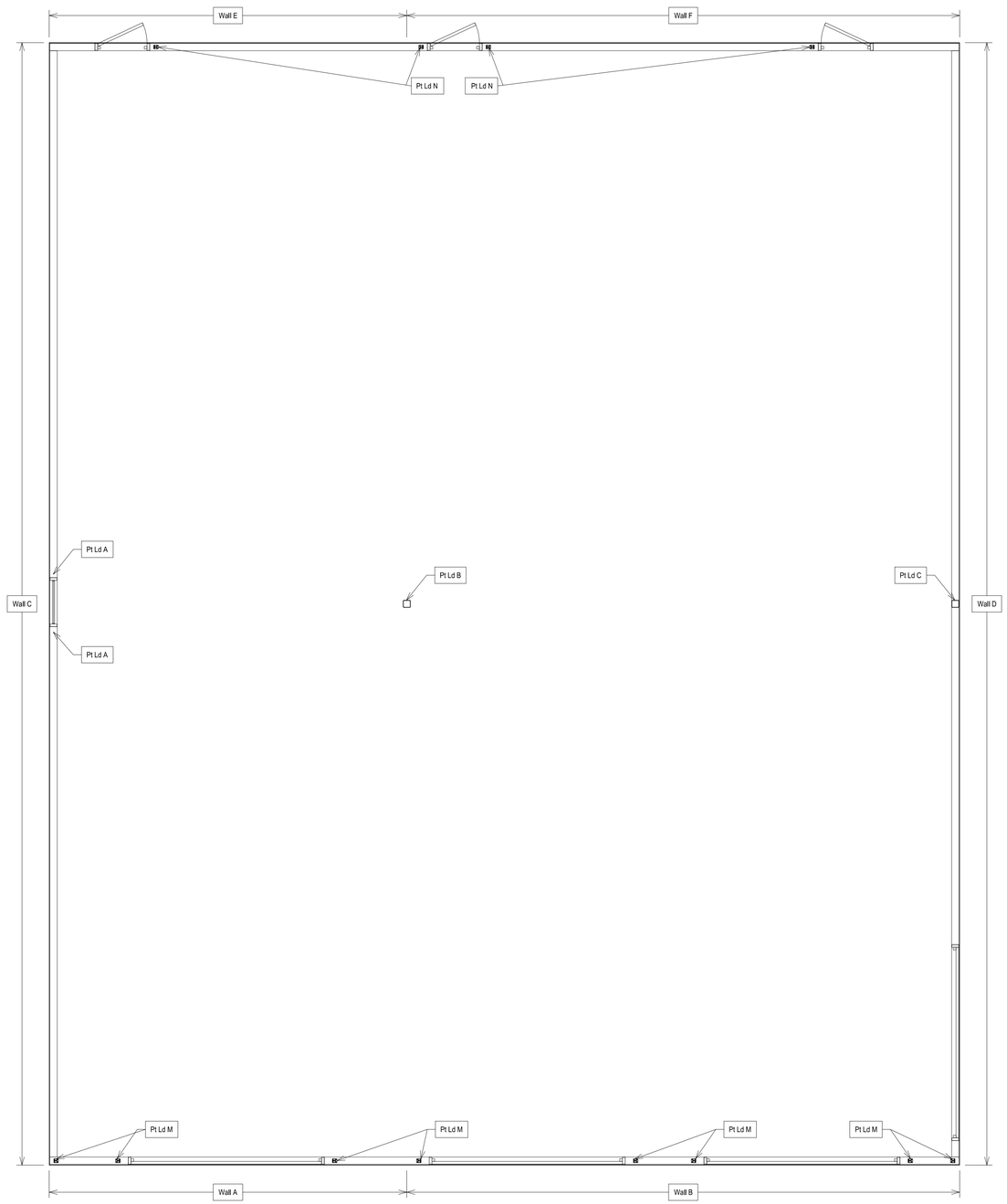
STATE OF MISSOURI
DAVID M. MENSING
NUMBER PE-2011000022
PROFESSIONAL ENGINEER
03/12/2020

DEALER: LAYNECO CONSTRUCTION SERVICES
PROJECT TITLE: IMO'S PIZZA
STICK BUILT BUILDING PACKAGE

SHEET TITLE: TITLE SHEET

PROJECT STATUS:

SHEET: S0



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

Location	Snow Load	Roof Live Load	Dead Load	Dead Load (Brick)	Wind Uplift	Wind Shear Perpendicular	Wind Shear Parallel	Seismic Shear Parallel	Overturning Tension or Compression **
Wall A	345	345	445	880	397	131	575	300	--
Wall B	345	345	445	800	397	131	575	300	--
Wall C	40	40	140	880	46	131	180	110	--
Wall D	40	40	140	800	46	131	180	110	--
Wall E	345	345	445	880	397	131	310	160	--
Wall F	345	345	445	800	397	131	310	160	--
Point Load A	3795	3795	4295	--	4364	--	--	--	--
Point Load B	19320	19320	20320	--	22218	--	--	--	--
Point Load C	11730	11730	12730	--	13490	--	--	--	--
Point Load M	--	--	--		--	--	--		6115
Point Load N	--	--	--		--	--	--		500

LOADS LISTED ARE STRENGTH LOADS AND HAVE NOT BEEN FACTORED (LRFD LOADS)

ALL UPLIFT AND BASE SHEAR LOADS BASED ON ASCE 7-10 MWFRS LOADING

POINT LOADS LISTED TO BE IN ADDITION TO UNIFORM LINEAR LOAD AS MARKED

OVERTURNING LOADS TO BE APPLIED AS A COUPLE AT LOCATIONS AS MARKED

FOR ALL OPENINGS IN LINEAR LOADS GIVEN ABOVE: MULTIPLY THE LINEAR LOAD BY THE WIDTH OF THE OPENING AND DIVIDE BY TWO. APPLY POINT LOAD TO EACH SIDE OF OPENING

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BRETT D.

DRAWN BY:
ANDREW P.

REVIEWED BY:
DAVE M.

DATE:
2/6/2020

REVISIONS:
2/12/2020
3/3/2020
3/12/2020

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03/12/2020

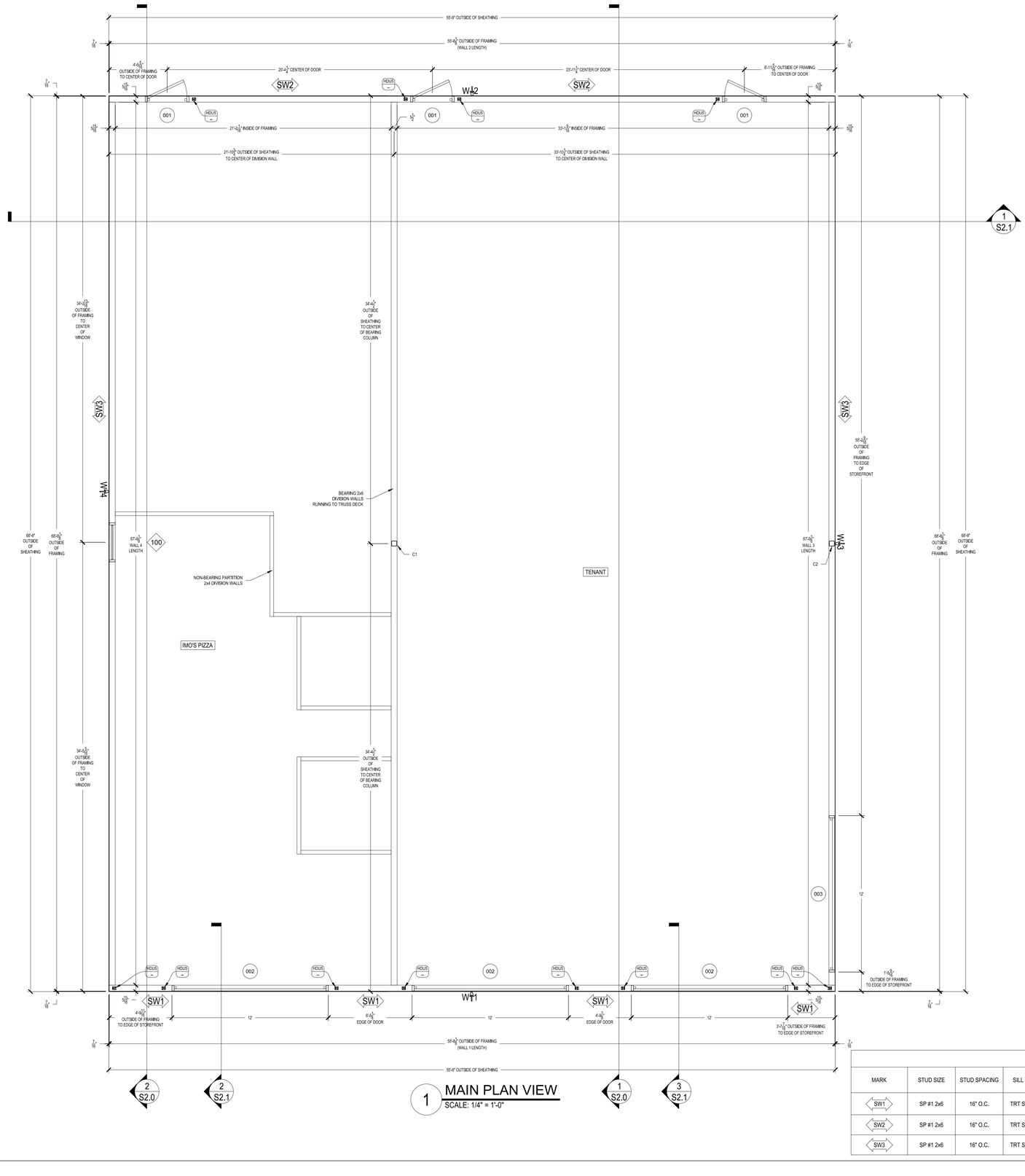
DEALER:
LAYNECO CONSTRUCTION SERVICES

PROJECT TITLE:
IMO'S PIZZA
STICK BUILT BUILDING PACKAGE

SHEET TITLE:
FOUNDATION LOADS

PROJECT STATUS:

SHEET:
S0.1



1 MAIN PLAN VIEW

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

DOOR OPENING SCHEDULE							
Number	Quantity	Rough Width	Rough Height	Head Height	Header	Bearing Studs (Each Side)	Full Studs (Each Side)
001	3	3'-4 1/4"	7'-4 1/2"	7'-4 1/2"	(2) PLY SP MSR2400 2x8 BOX HEADER	1	1
002	3	12'-0"	10'-0"	10'-0"	(3) PLY 1-3/4" x 14" LVL BOX HEADER	2	2
003	1	12'-0"	10'-0"	10'-0"	(3) PLY 1-3/4" x 14" LVL BOX HEADER	2	2

WINDOW SCHEDULE							
Number	Quantity	Rough Width	Rough Height	Head Height	Header	Bearing Studs (Each Side)	Full Studs (Each Side)
100	1	3'-0"	4'-0"	7'-6"	(3) PLY 1-3/4" x 9-1/2" LVL HEADER	2	1

HOLDOWN SCHEDULE	
HDU5	SIMPSON HDUD-SDS2.5 BASE ANCHOR, FASTEN TO STUDS WITH (14) 1/4" x 2½" SDS SCREWS. FASTEN TO CONCRETE WITH (1) 5/8"DIA 0" EMBEDMENT THREADED ROD, EPOXY IN PLACE W/ SIMPSON AT-XP10.

COLUMN SCHEDULE						
MARK	TYPE	BASE	ANCHOR	LAP	CAP FASTENERS	NOTE
C1	HSS 5 x 5 x ¼"	5½" x 16" x ¾"	(2) ¾" x 12" EMB. ANCHOR	¼" WELD BUCKET	(24) SDS25300 SIMPSON SCREWS	SEE 7&9/S3.0 FOR BASE DETAILS
C2	HSS 5 x 5 x ¼"	5½" x 16" x ¾"	(2) ¾" x 12" EMB. ANCHOR	¼" WELD BUCKET	(12) SDS25300 SIMPSON SCREWS	SEE 8&9/S3.0 FOR BASE DETAILS

WALL SCHEDULE												
MARK	STUD SIZE	STUD SPACING	SILL PLATE	TOP PLATE	SHEATHING	BASE PLATE ANCHORAGE	TOP PLATE ANCHORAGE	FASTENING		ANCHOR POST EACH END	HOLD DOWN EACH END	BLOCKED/ UNBLOCKED	NOTES
								EDGE	FIELD				
SW1	SP #1 2x6	16" O.C.	TRT SP#1 2x6	(2) SP #1 2x6	7/16" OSB ZIP SHEATHING	⅝"x10" EMB. ANCHOR 32" O.C.	PER SECTIONS	8d 4" O.C.	8d 12" O.C.	(2) SP #1 2x6	SIMPSON HDU5	BLOCKED	–
SW2	SP #1 2x6	16" O.C.	TRT SP#1 2x6	(2) SP #1 2x6	7/16" OSB ZIP SHEATHING	⅝"x10" EMB. ANCHOR 48" O.C.	PER SECTIONS	8d 6" O.C.	8d 12" O.C.	(2) SP #1 2x6	SIMPSON HDU5	BLOCKED	–
SW3	SP #1 2x6	16" O.C.	TRT SP#1 2x6	(2) SP #1 2x6	7/16" OSB ZIP SHEATHING	⅝"x10" EMB. ANCHOR 48" O.C.	PER SECTIONS	8d 6" O.C.	8d 12" O.C.	NA	NA	NA	–

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PROJECT NUMBER:
2020/HOUSE/MO7820

CUSTOMER SERVICE:
BRETT D.

DRAWN BY:
ANDREW P.

REVIEWED BY:
DAVE M.

DATE:
2/6/2020

REVISIONS:
2/12/2020
3/3/2020
3/12/2020

Print Date: 3/12/ 2020

STATE OF MISSOURI
DAVID M. MENSING
NUMBER PE-2011000022
PROFESSIONAL ENGINEER
03/12/2020

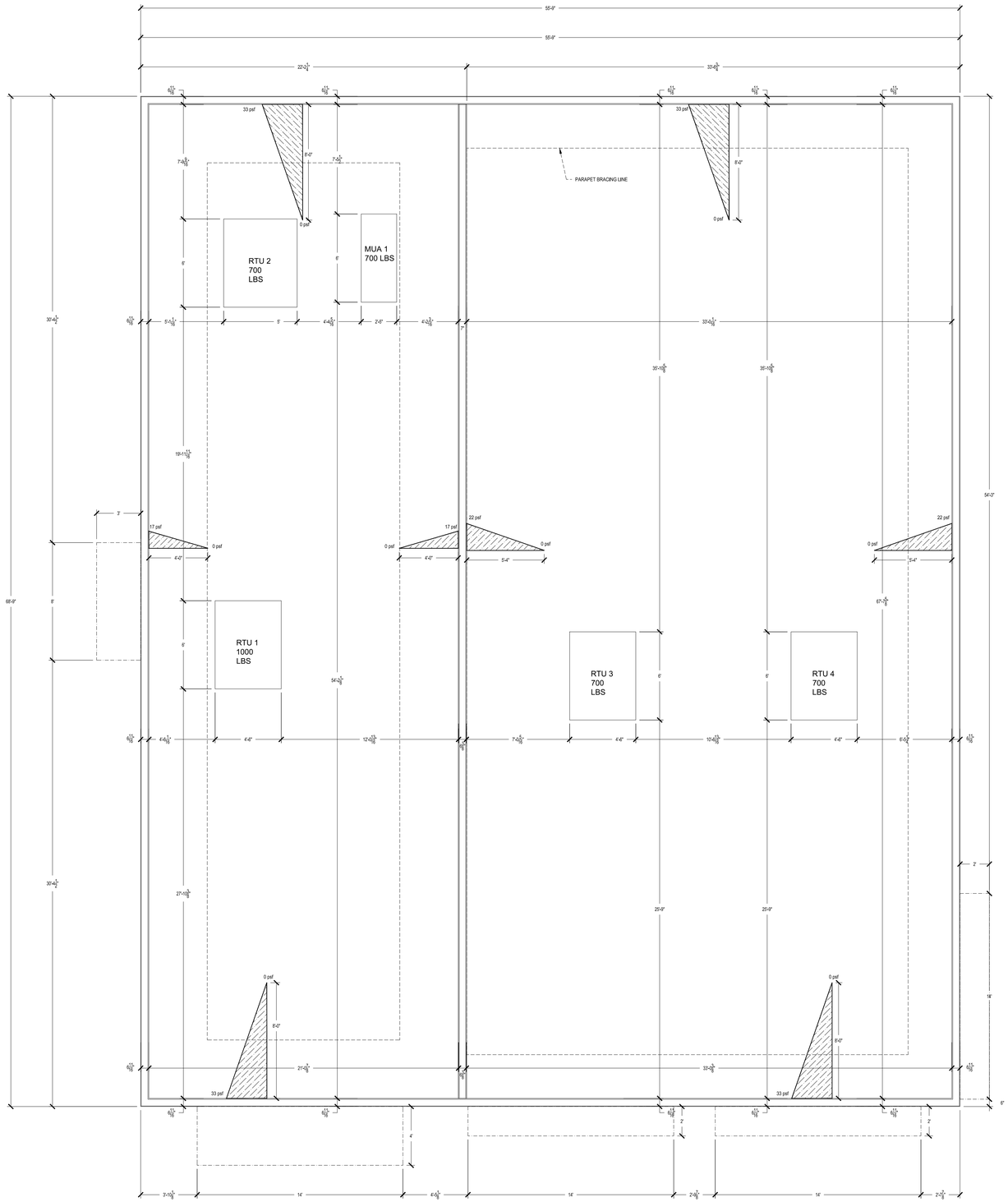
DEALER:
LAYNECO CONSTRUCTION SERVICES

PROJECT TITLE:
IMO'S PIZZA
STICK BUILT BUILDING PACKAGE

SHEET TITLE:
PLAN VIEW
MAIN

PROJECT STATUS:

SHEET:
S1.0



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

AN EMPLOYEE-OWNED COMPANY

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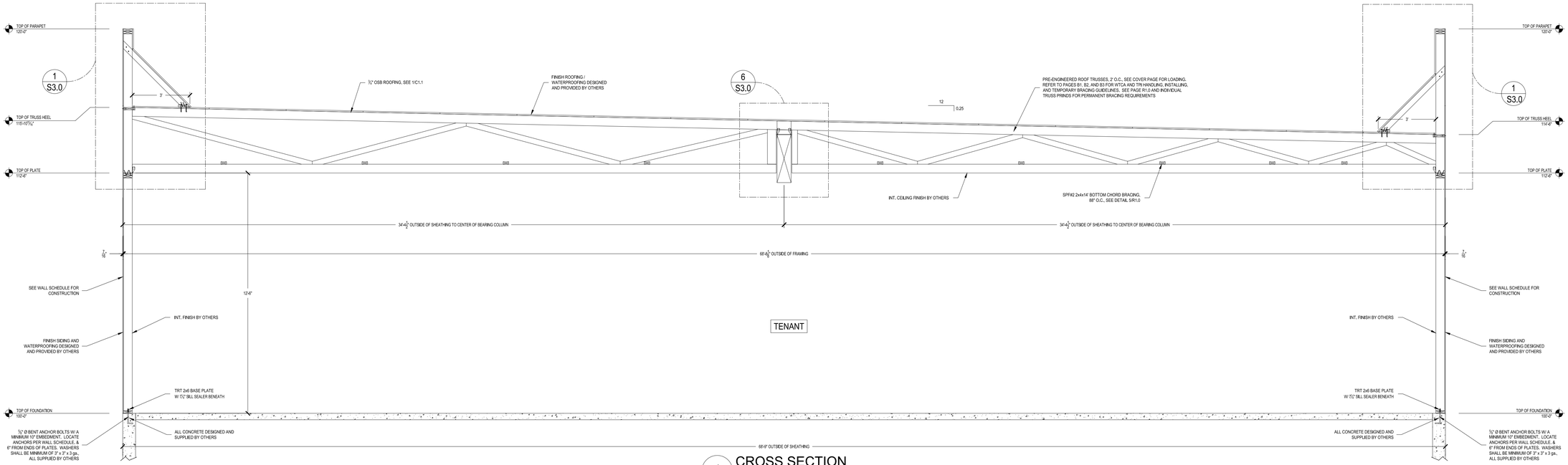
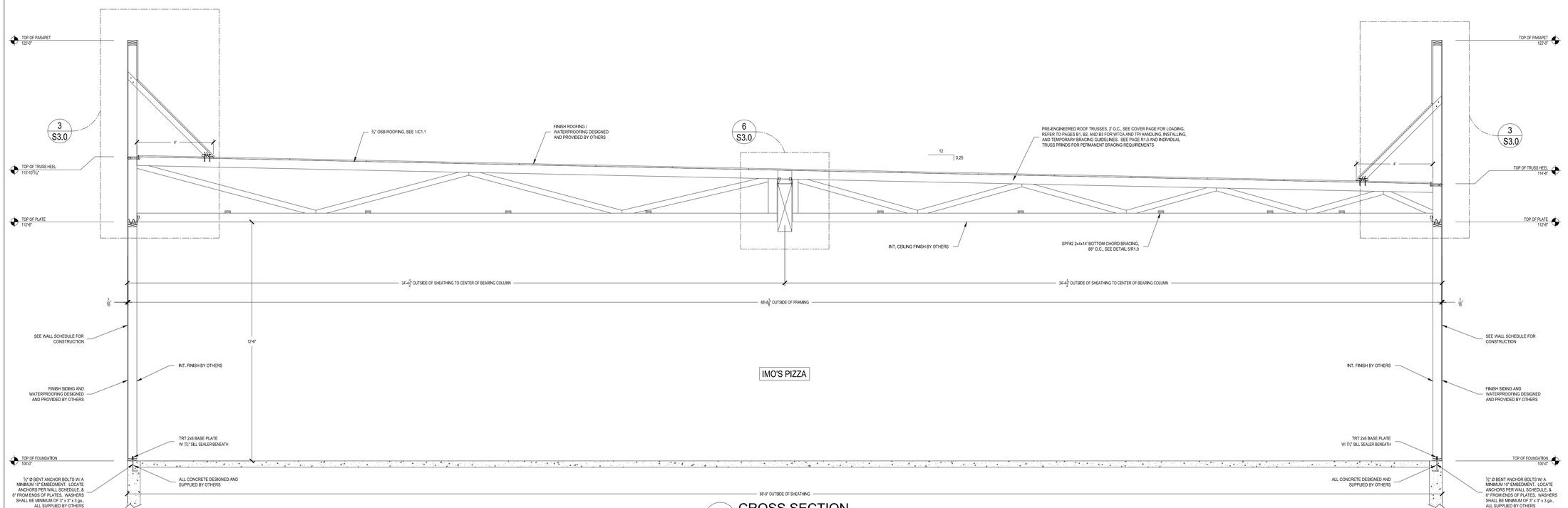
SHEET TITLE:
PLAN VIEW
ROOF

PROJECT STATUS:

SHEET:
S1.1



1 CROSS SECTION
SCALE: 3/8" = 1'-0"



2 CROSS SECTION
SCALE: 3/8" = 1'-0"

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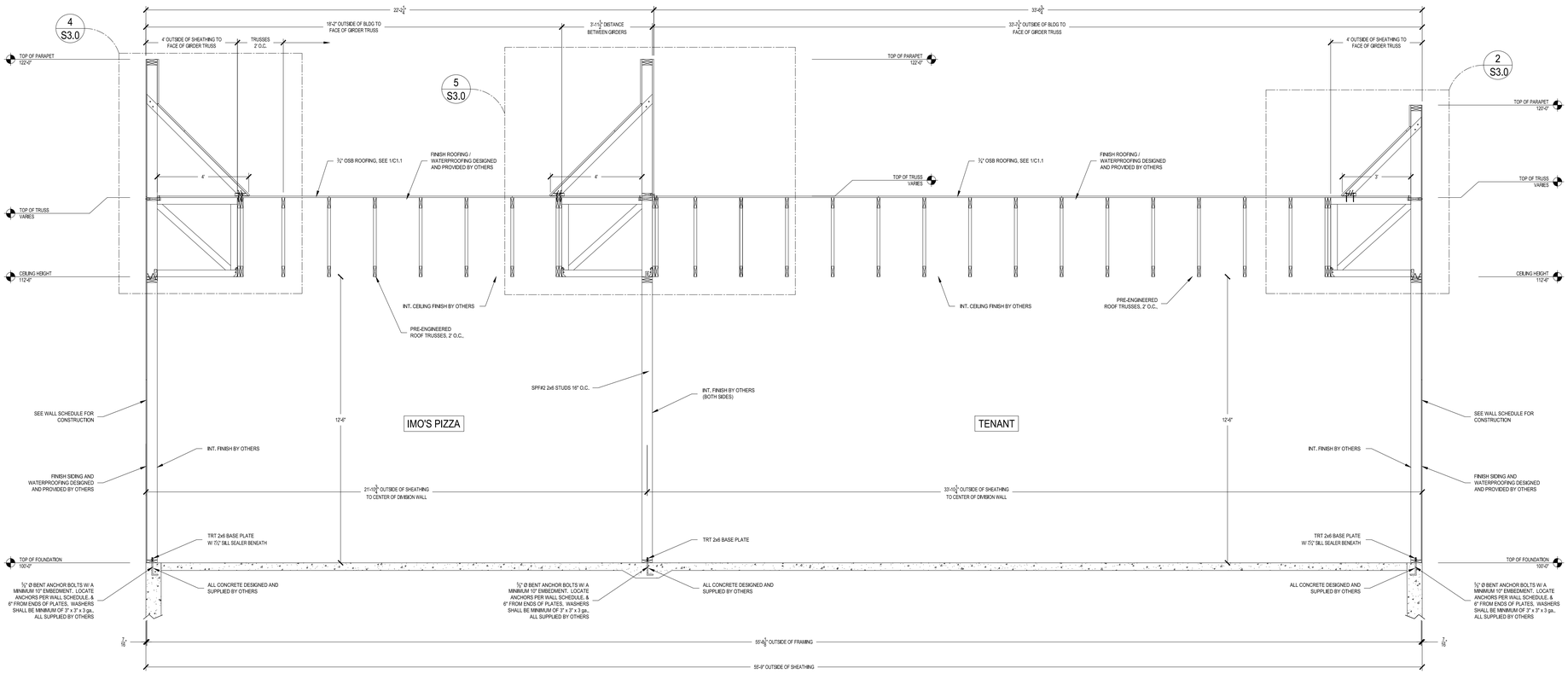
SHEET TITLE:
BUILDING SECTIONS

PROJECT STATUS:

SHEET:
S2.0



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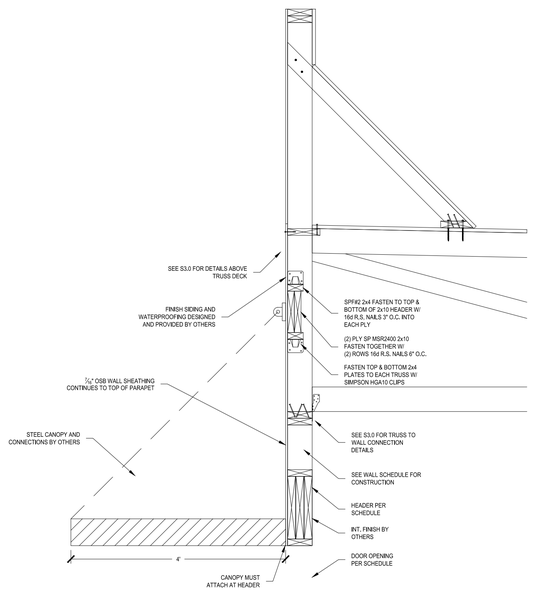
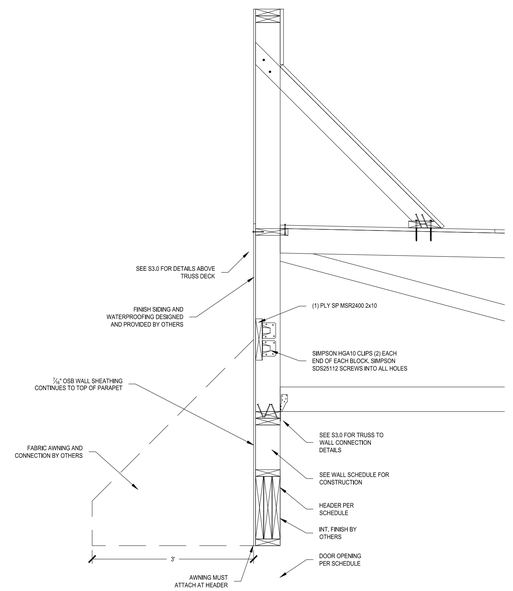


2 CANOPY DETAIL
SCALE: 3/4" = 1'-0"



3 AWNING DETAIL
SCALE: 3/4" = 1'-0"

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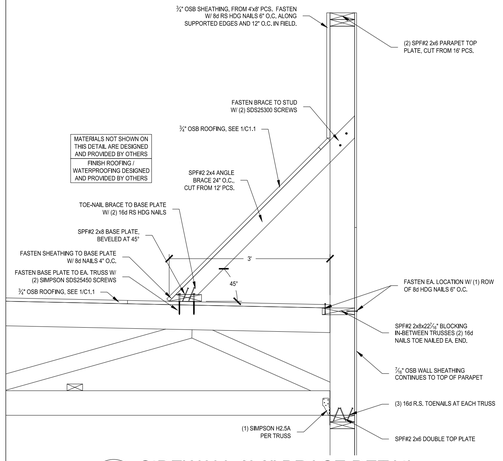
STICK BUILT BUILDING PACKAGE

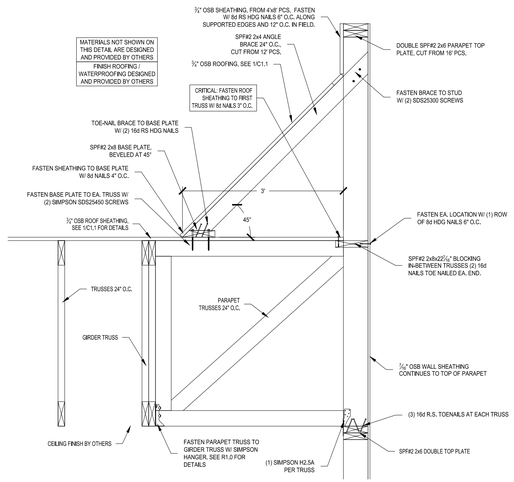
SHEET TITLE:
BUILDING SECTIONS

PROJECT STATUS:

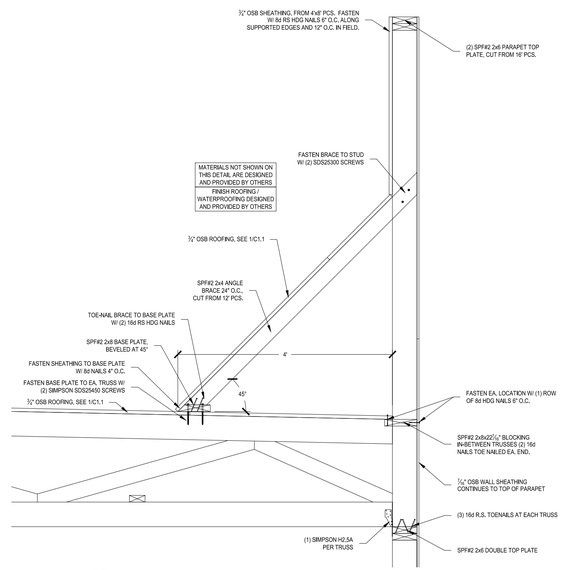
SHEET:
S2.1



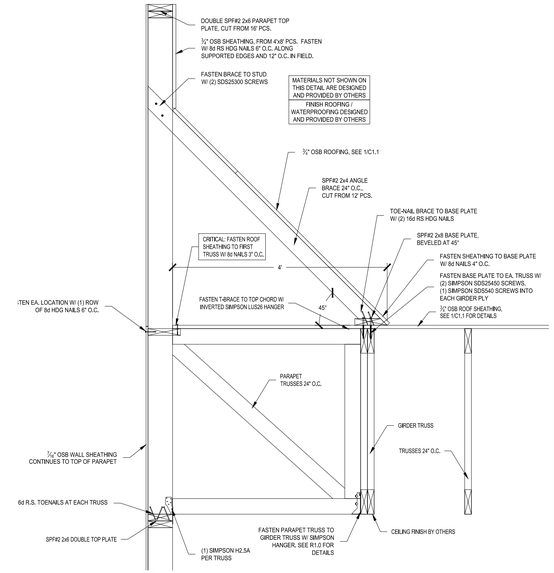
1 SIDEWALL 3'-0" BRACE DETAIL
SCALE: 3/4" = 1'-0"



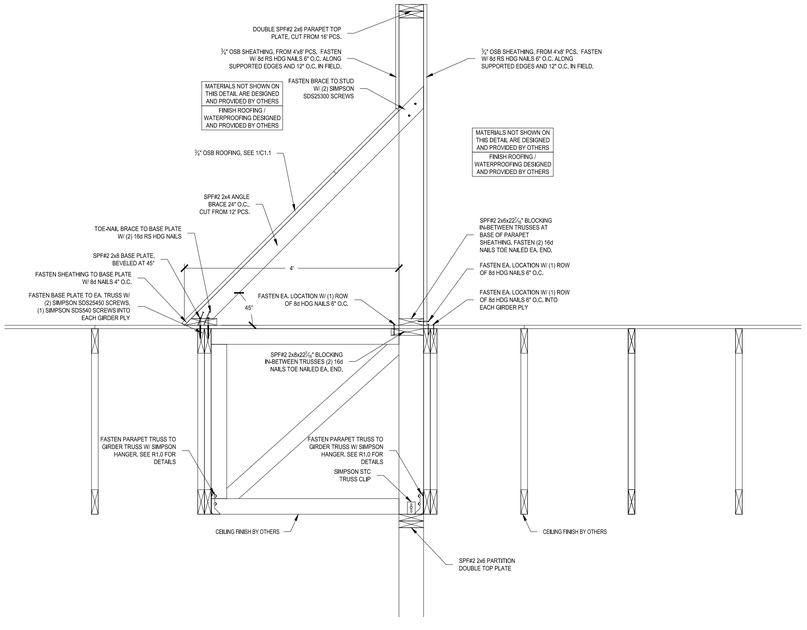
2 ENDWALL 3'-0" BRACE DETAIL
SCALE: 3/4" = 1'-0"



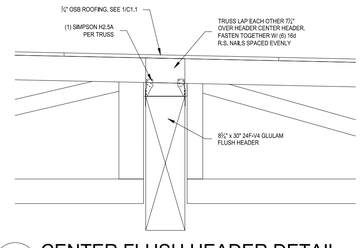
3 SIDEWALL 4'-0" BRACE DETAIL
SCALE: 3/4" = 1'-0"



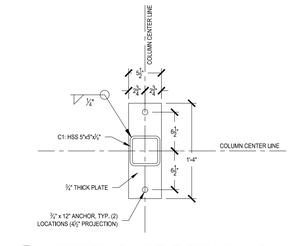
4 ENDWALL 4'-0" BRACE DETAIL
SCALE: 3/4" = 1'-0"



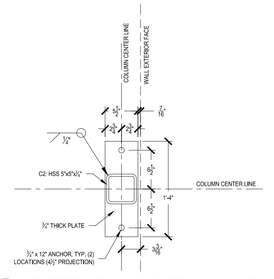
5 UNION PARAPET BRACE DETAIL
SCALE: 3/4" = 1'-0"



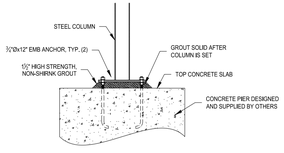
6 CENTER FLUSH HEADER DETAIL
SCALE: 3/4" = 1'-0"



7 STEEL BASE DETAIL - C1
SCALE: 1" = 1'-0"



8 STEEL BASE DETAIL - C2
SCALE: 1" = 1'-0"



9 STEEL BASE DETAIL
SCALE: 1/2" = 1'-0"

AN EMPLOYEE-OWNED COMPANY
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102 EAST INDUSTRIAL PARK
GRAETTINGER, IA 51342
PHONE: 712/859-3219
FAX: 712/859-3275
WWW.EPSBUILDINGS.COM

PROJECT NUMBER:
2020/HOUSE/MO7820

CUSTOMER SERVICE:
BRETT D.

DRAWN BY:
ANDREW P.

REVIEWED BY:
DAVE M.

DATE:
2/6/2020

REVISIONS:
2/12/2020
3/3/2020
3/12/2020

Print Date: 3/12/ 2020

STATE OF MISSOURI
DAVID M. MENSING
NUMBER PE-2011000022
PROFESSIONAL ENGINEER
03/12/2020

DEALER:
LAYNECO CONSTRUCTION SERVICES

PROJECT TITLE:
IMO'S PIZZA
STICK BUILT BUILDING PACKAGE

SHEET TITLE:
BUILDING DETAILS

PROJECT STATUS:

SHEET:
S3.0

GENERAL LAYOUT NOTES:

1. Complete truss engineering and analysis can be found on the Truss Design Drawings which may be sealed by the Truss Design Engineer as applicable. The trusses identified are designed as individual building components to be incorporated into the building to support the loads specified on the individual truss drawings. The Contractor/owner is to verify that no other load, from the overall building system, is imposed on these trusses.

2. Any discrepancies between the dimensions and conditions specified on this layout versus the approved for construction prints should be reported prior to truss fabrication.

3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.

4. Do NOT cut or alter truss location without prior approval of Energy Panel Structures. All connections must be made in such a way as to prevent splitting. Pre-drill if necessary.

5. For valley trusses, the roof under the valley trusses shall be sheathed. Conventionally framed valleys shall transfer load uniformly to the trusses below.

6. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 2014.

7. Truss to wall connection specified for each truss, satisfies uplift requirements only. Truss uplift requirements are shown on the individual truss drawings. For all unspecified truss to truss or truss to wall connections, use 3-16d (0.131"x3.5") Toe-nailed.

8. The required permanent bracing for the truss top chord, bottom chord, and webs are specified on the individual truss drawing. T-bracing is to be used for webs when lateral bracing is impractical. Additional bracing may be required for overall building stability. See EPS drawings for requirements.

9. For general guidance regarding bracing consult "BCSI Guide to good practice for handling, installing, and bracing of metal plate connected wood trusses" available from the Truss Plate Institute, 218 North Lee St., Ste. 312, Alexandria, VA 22314 - (703) 683-1010 - www.tpiinst.org

10. See individual truss profiles for all multiply truss fastening specifications.

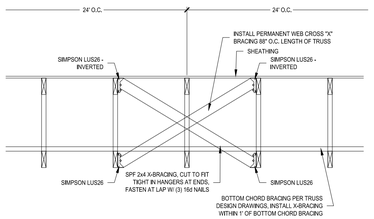
GENERAL SAFETY NOTES:

1. Failure to follow all notes could cause property damage or personal injury!

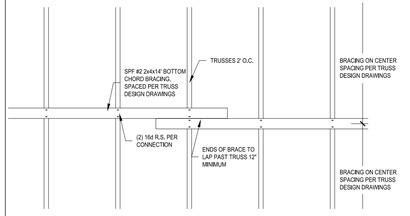
2. Until the building is completely erected in accordance with the construction documents, the trusses are unstable and may present a safety hazard. Truss instability may increase with building width, height, and length.

3. Buildings under construction are vulnerable to high winds and present a safety hazard. It is the responsibility of the contractor and truss installation crew to brace components adequately.

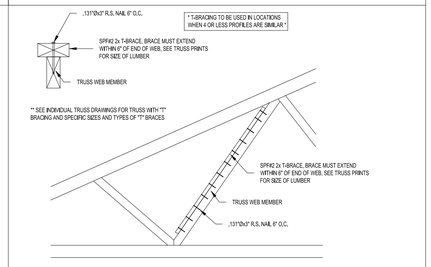
4. Review all information provided in the JOBSITE PACKAGE to ensure compliance with industry recommendations.



3 - ATTIC CROSS BRACING



5 - BOTTOM CHORD BRAINCG

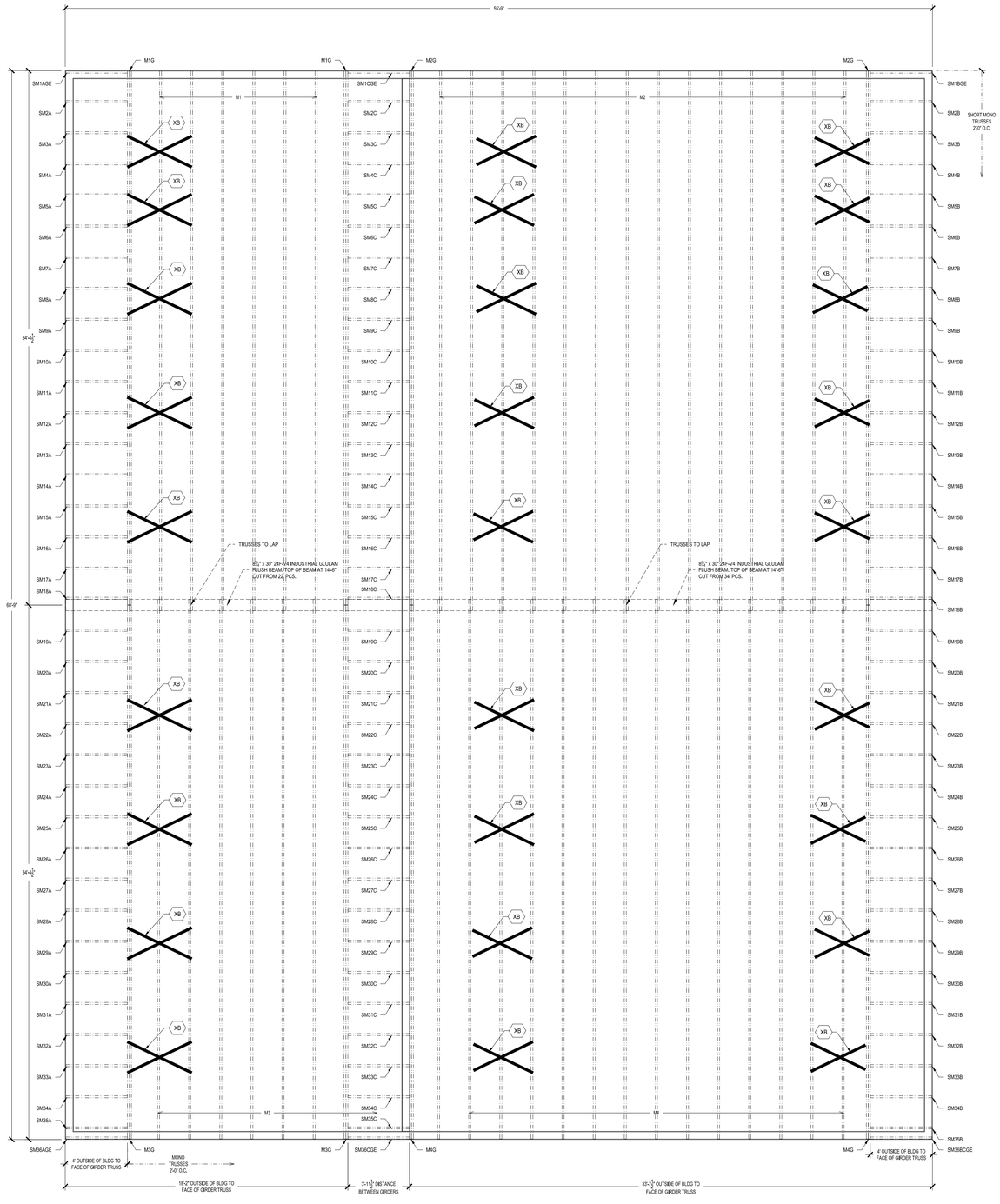


6 - WEB T-BRACING

LUS26

Fasteners:
Supporting Member: (4) 10d Common @ 45° Nails
Supported Members: (4) 10d X 1.5" @ 90° Nails, per member

Simpson Strong-Tie
www.strongtie.com
800.999.5099



1 ROOF TRUSS LAYOUT
SCALE: 1/4" = 1'-0"

AN EMPLOYEE-OWNED COMPANY

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GRAETTINGER, IA 51342
PHONE: 712/859-3219
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PROJECT NUMBER:
2020/HOUSE/MO7820

CUSTOMER SERVICE:
BRETT D.

DRAWN BY:
ANDREW P.

REVIEWED BY:
DAVE M.

DATE:
2/6/2020

REVISIONS:
2/12/2020
3/3/2020
3/12/2020

Print Date: 3/12/ 2020

STATE OF MISSOURI
DAVID M. MENSING
NUMBER PE-2011000022
PROFESSIONAL ENGINEER
03/12/2020

DEALER:
LAYNECO CONSTRUCTION SERVICES

PROJECT TITLE:
IMO'S PIZZA
STICK BUILT BUILDING PACKAGE

SHEET TITLE:
ROOF TRUSS LAYOUT & BRACING

PROJECT STATUS:

SHEET:
R1.0

AN EMPLOYEE-OWNED COMPANY

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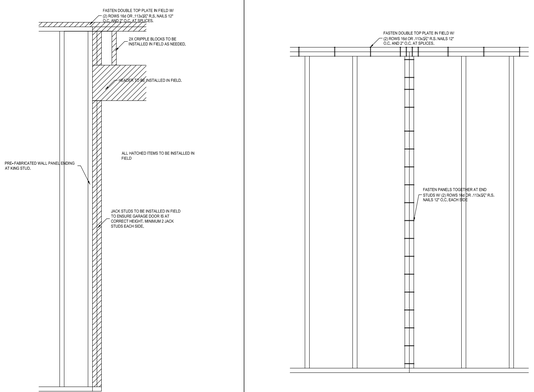
STICK BUILT BUILDING PACKAGE

SHEET TITLE:
CONSTRUCTION DETAILS

PROJECT STATUS:

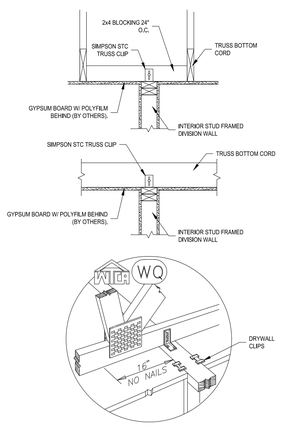
SHEET:
C1.0

5 - BASE PLATE / CONCRETE CONNECTION



6 - FIELD FRAME DOOR HEADER

7 - STUD WALL PANEL CONNECTION



8 - DIVISON WALL / TRUSS ATTACHMENT

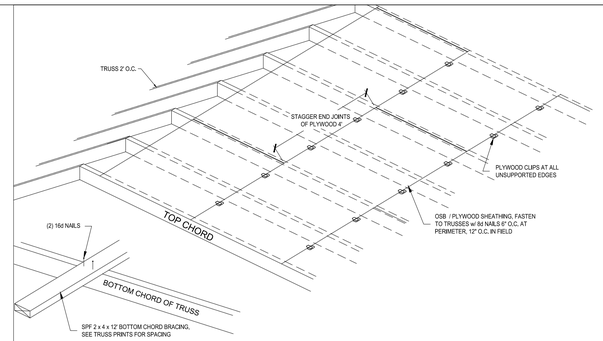
GUN NAIL SUBSTITUTION	
HAND DRIVE	GUN NAIL
8d NAIL	.113"Øx2½" HDG R.S.
8d GALVANIZED NAIL	.113"Øx2½" HDG R.S.
10d NAIL	.131"Øx3" HDG R.S.
10d GALVANIZED NAIL	.131"Øx3" HDG R.S.
16d NAIL	.131"Øx3" R.S. BRITE
16d R.S.	.131"Øx3" R.S. BRITE
16d GALVANIZED	.131"Øx3" HDG R.S.

STUD WALL PANEL FASTENING SCHEDULE		
COMONENTS	TYPE OF FASTENER	FREQUENCY
BASE PLATE TO SUBFLOOR	SIMPSON SDS25300 SCREWS	(1) ROW 12" O.C PARALLEL TRUSS (2) SCREWS PER PERP. TRUSS
PLATES TO STUDS	16d R.S.	2 PER STUD
CAP PLATE TO TOP PLATE	16d R.S.	2 ROWS 12" O.C.
PANEL TO PANEL	16d R.S.	2 ROWS 12" O.C.

BUILT-UP WOOD HEADER / BEAM FASTENING SCHEDULE			
DIMENSION LUMBER			
	PLYS	DEPTH	FASTENERS
2 PLY	2	D < 8"	10d NAILS 2 ROWS @ 12" O.C.
	2	D ≥ 8"	10d NAILS 3 ROWS @ 12" O.C.
3 PLY	3	D < 8"	16d NAILS 2 ROWS @ 12" O.C.
	3	D ≥ 8"	16d NAILS 3 ROWS @ 12" O.C.
LVL			
	PLYS	DEPTH	FASTENERS
2 PLY	2	D < 12"	16d NAILS 2 ROWS @ 12" O.C.
	2	12 < D ≤ 18"	16d NAILS 3 ROWS @ 12" O.C.
	2	D > 18"	16d NAILS 4 ROWS @ 12" O.C.
3 PLY	3	D < 14"	16d NAILS 2 ROWS @ 12" O.C.
	3	14 < D ≤ 20"	16d NAILS 3 ROWS @ 12" O.C.
	3	D > 20"	16d NAILS 4 ROWS @ 12" O.C.
4 PLY	4	D ≤ 16	0.22" Ø x 6½" TRUSSLOK SCREWS 2 ROWS @ 18" O.C.
	4	D > 16	0.22" Ø x 6½" TRUSSLOK SCREWS 3 ROWS @ 18" O.C.

1) FOR 2 PLY MEMBERS ALL FASTENERS ARE TO BE INSTALLED FROM SAME SIDE
2) FOR 3 PLY MEMBERS SAME FASTENERS ARE INSTALLED @ EACH FACE, STAGGER LAYOUT ½ FASTENER SPACING FROM ONE FACE TO THE OTHER
3) FOR 4 PLY MEMBERS ALL FASTENERS ARE TO BE INSTALLED FROM SAME FACE

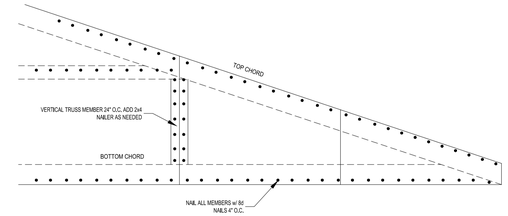
10 - FASTENING SCHEDULE



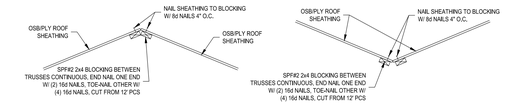
ROOF SHEATHING

1. ROOF SHEATHING SHALL BE APA-RATED SHEATHING STRUCTURAL PANEL. SEE SECTION FOR THICKNESS AND TYPE. EACH PANEL SHALL BE IDENTIFIED WITH THE GRADE TRADEMARK OF THE APA-ENGINEERED WOOD ASSOCIATION AND SHALL MEET THE REQUIREMENTS OF THE PRODUCT STANDARD. APPLICATION AND NAILING OF STRUCTURAL PANELS SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE APA - ENGINEERED WOOD ASSOCIATION UNLESS REQUIREMENTS NOTED ON THESE CONTRACT DRAWINGS ARE MORE RESTRICTIVE. H-CLIPS SHALL BE USED TO SUPPORT EDGES OF THE PLYWOOD SHEATHING BETWEEN TRUSSES, UNLESS BLOCKING IS OTHERWISE REQUIRED OR PROVIDED.
2. PANELS SHALL BE ORIENTED WITH THE FACE GRAIN PERPENDICULAR TO THE TRUSS SUPPORTS AND PANEL JOINTS SHALL BE STAGGERED.
3. GAP ALL PANEL EDGES ⅛"
4. PROVIDE 2x BLOCKING AT RIDGE OF TRUSSES EACH SIDE OF RIDGE VENT
5. MINIMUM ROOF DIAPHRAGM NAILING SHALL BE AS FOLLOWS:
   - 5.1. NAILS USED TO FASTEN THE ROOF SHEATHING SHALL BE .113"Dx2½" R.S. GUN NAILS UNLESS NOTED OTHERWISE.
   - 5.2. NAIL PANEL EDGES TO EAVE AND RIDGE BLOCKING AT 6" O.C.
   - 5.3. NAIL PANEL EDGES TO TRUSSES OR SUPPORTS AT 6" O.C.
   - 5.4. NAIL PANEL TO INTERMEDIATE TRUSSES OR SUPPORTS AT 12" O.C.
6. SHEATHING PANEL SHALL NOT BE LESS THAN 4'x8' EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING WHERE THE MINIMUM PANEL DIMENSIONS SHALL BE 24" UNLESS ALL EDGES OF THE UNDERSIZED PANELS ARE SUPPORTED BY MINIMUM 2x FRAMING MEMBERS OR SUPPLEMENTAL BLOCKING.

1 - 2' O.C. ROOF TRUSSES ROOF SHEATHING CONNECTION



2 - GABLE END SHEATHING FASTENING



3 - PLYWOOD DECK ROOF HIP & VALLEY BLOCKING DETAILS

ROOF TRUSS FASTENING SCHEDULE		
COMPONENTS	TYPE OF FASTENER	FREQUENCY
TRUSS TO TOP PLATE	PER ROOF PLAN	PER HANGER SCHEDULE
FASCIA TO TRUSS	16d R.S.	(3) PER CONNECTION
TRUSS HEEL SHEATHING	8d NAILS	4" O.C. TO ALL MEMBERS
ROOF SHEATHING	8d NAILS	6" O.C. EDGES 12" O.C. CENTERS
GABLE END SHEATHING	8d NAILS	4" O.C
BOTTOM CORD BRACING LATERAL BRACING DIAGONAL BRACING	16d CC SINKER	(2) PER CONNECTION
X-BRACING	SIMPSON LUS26 TECO NAILS	(4) PER X-BRACE
OUTLOOKER	SIMPSON H1 (3) 16d	ALL OUTLOOKERS

GUN NAIL SUBSTITUTION	
HAND DRIVE	GUN NAIL
8d NAIL	.113"Dx2½" HDG R.S.
8d GALVANIZED NAIL	.113"Dx2½" HDG R.S.
10d NAIL	.131"Dx3" HDG R.S.
10d GALVANIZED NAIL	.131"Dx3" HDG R.S.
16d NAIL	.131"Dx3" R.S. BRITE
16d R.S.	.131"Dx3" R.S. BRITE
16d GALVANIZED	.131"Dx3" HDG R.S.

4 - FASTENING SCHEDULE

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STICK BUILT BUILDING PACKAGE

SHEET TITLE: CONSTRUCTION DETAILS

PROJECT STATUS:

SHEET: C1.1