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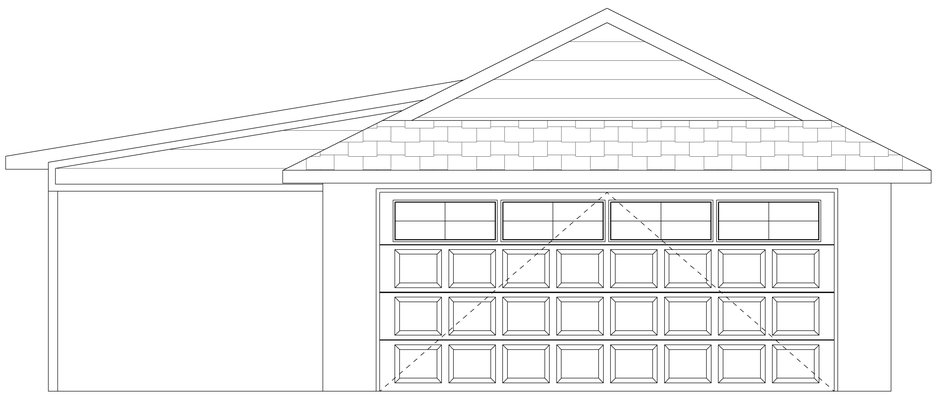

Drawing Index

Building Data

Building Type: Single Family Residence unsprinkled

Occupancy Classification: Residential Group R-3

Construction Type: V

Number of Stories: 1

Building Height: 20'-2"

Area Tabulation:
Garage 400 SF
Carport 246 sqft
Total 646 sqft

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF SECTION R301.1 OF THE FLORIDA RESIDENTIAL BUILDING CODE, 2017 EDITION, AND ASCE 7-10 FOR Vult.=140 MPH WIND SPEED, Vasd. =108 MPH

RISK CATEGORY II
TOPOGRAPHIC FACTOR = 1.0
WIND DIR. FACTOR Kd=0.85
INTERNAL PRESSURE COEFFICIENT, +/- 0.18
DESIGN PRESSURE FOR WALL COMPONENTS & CLADDING (WORST CASE) +42.1 PSF -57.1 PSF
GARAGE DOOR DESIGN PRESSURE =+22.4, -25.3 (WORST CASE)
ROOF LIVE LOAD = 20 PSF FLOOR LIVE LOAD = 40 PSF

EXPOSURE CATEGORY C
GUST EFFECT, G=0.85
FULLY ENCLOSED

ENGINEERING SERVICES GROUP, LLC
CA#8886
391 W. Alfred St.
Tavares, FL 32778
352-308-1735 J. Lee Smith, P.E. #36177

101 E Woodward (Detached Garage)

Drawn By
Michael Roberts

JAMES LEE SMITH LICENSE No 36177 STATE OF FLORIDA PROFESSIONAL ENGINEER

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Digitally signed by James L Smith
Date: 2021.03.23 10:55:33 -04'00'

1/8" scale on 11 x 17
or
1/4" scale on 24 x 36

C-1

ENGINEERING SERVICES GROUP, LLC
391 W. Alfred St. CA#28886
Tavares, FL 32778
352-308-1735 J. Lee Smith, P.E. #36177

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(Detached Garage)

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A-1

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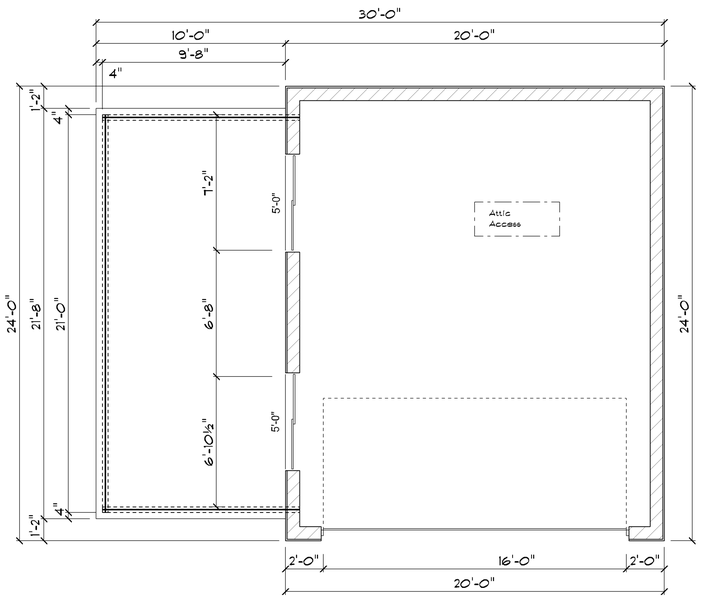
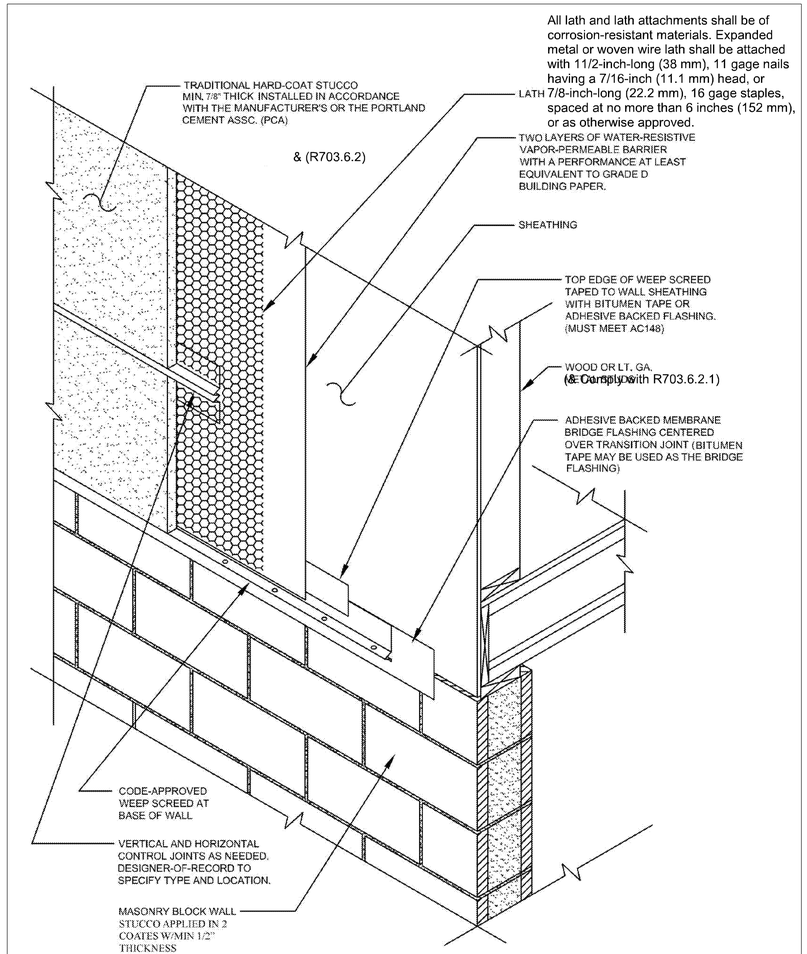
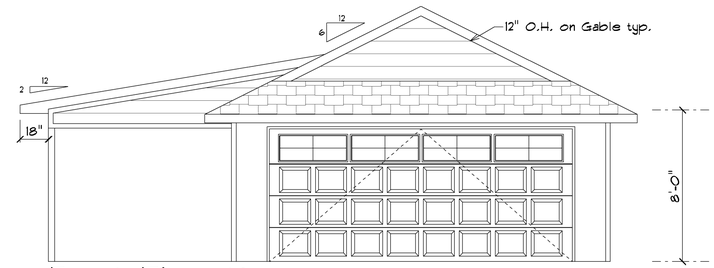
Garage 400 SF
Carport 246 sqft
Total 646 sqft

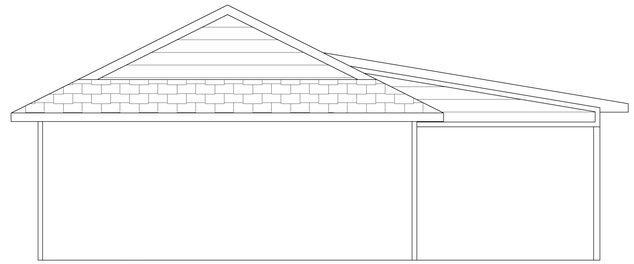
Floorplan



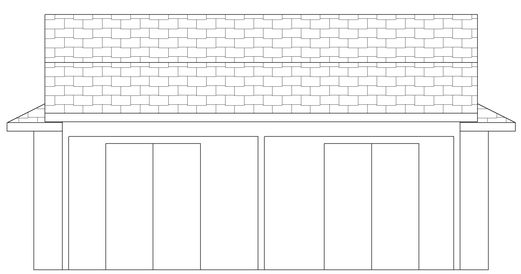




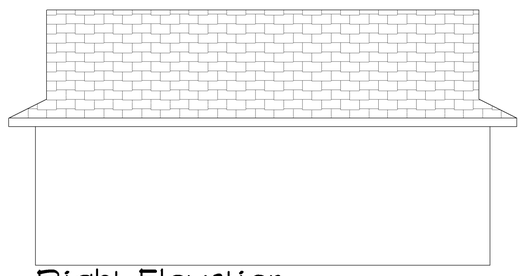
Front Elevation



Rear Elevation



Left Elevation



Right Elevation

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WIND DIR. FACTOR Kd=0.85
INTERNAL PRESSURE COEFFICIENT. +/- 0.18
DESIGN PRESSURE FOR WALL COMPONENTS & CLADDING (WORST CASE) +42.1 PSF -51.1 PSF
GARAGE DOOR DESIGN PRESSURE =+22.4, -25.3 (WORST CASE)
ROOF LIVE LOAD = 20 PSF

EXPOSURE CATEGORY C
GUST EFFECT, G=0.85
FULLY ENCLOSED

FLOOR LIVE LOAD = 40 PSF

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A-2

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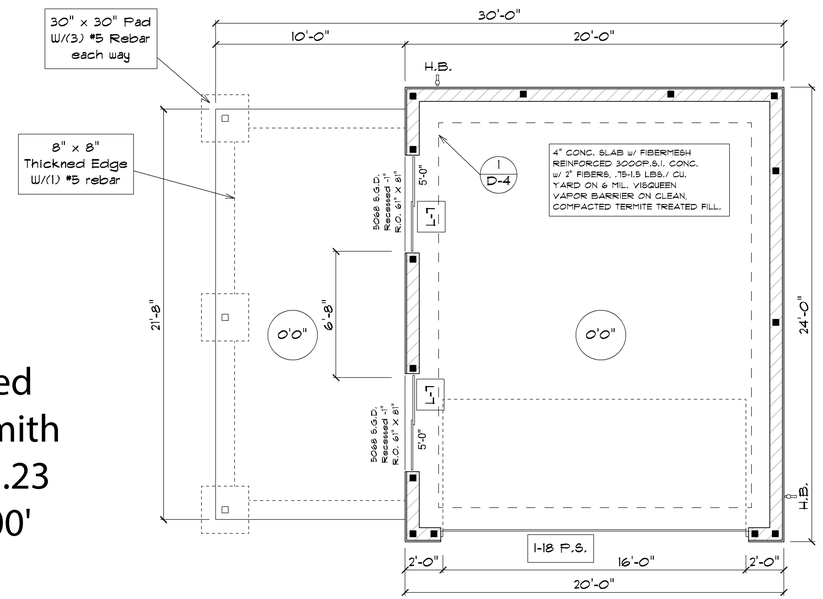

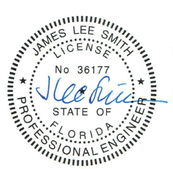

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Date: 2021.03.23 10:56:52 -04'00'

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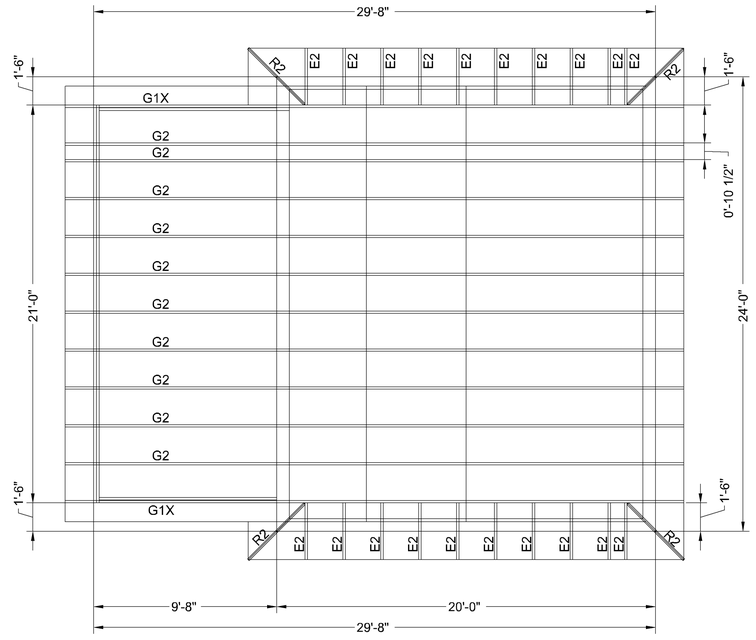
or
1/4" scale on 24 x 36

S-1

Unless otherwise noted
Use (3) truss to framing
& (1) truss to C.M.U.
for double girders x 2 straps
for triple girders x 3 straps
See Connector Schedule



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Digitally signed by James L Smith
Date: 2021.03.23 10:57:17 -04'00'

712 Duck Lake RD., Lady Lake, FL 32159
Phone: (352) 259-1768 Fax: (352) 259-2521

CLIENT APPROVAL

*** Signature of this document acknowledges that the client has reviewed this truss placement diagram in its entirety and is in agreement with the following items, including, but not limited to:

A.) It is the client's responsibility to verify the accuracy of information submitted for use in design, fabrication, and scheduling. Any false, material, or time delay incurred from inadequate or incorrect information supplied from the client will be at the client's expense. Any field measurements, by an associate of Pro-Build, are performed solely as a courtesy to the client and shall be verified by the client. It is the client's responsibility to report any design changes or errors in the construction documents to the building designer.

B.) General Information: The client acknowledges that the following information has been supplied, and the information shown or noted on the truss placement diagram is in agreement with the construction documents: 1.) dimensions; 2.) wall heights, widths, and bearing wall locations; 3.) roof pitch, top chord size, and heel height, and any special roof ridge centering requirements; 4.) overhang and / or cantilever lengths and end cut; 5.) ceiling conditions including vaults, sloped or stepped trays, special ceiling transitions and centering requirements; 6.) floor truss depth and bearing requirements; 7.) AHU location/placement (suspended, recessed, or attic) and any special AHU sizes or loading requirements; and 8.) any other special conditioning including, but not limited to, chimneys, suspended soffits, suspended headers or beams, skylight locations, opening for attic spaces, and attic storage requirements. Trusses will be built in accordance with this truss placement diagram.

C.) Design Criteria: The client acknowledges that the truss design criteria noted on this truss placement diagram meets or exceeds the design criteria specified by the building designer, engineer of record, and local and state building requirements.

D.) Fabrication and Delivery: One approved truss placement diagram must be returned to the truss manufacturer before fabrication and delivery will be scheduled. It is the client's responsibility to coordinate delivery dates with the truss manufacturer. The client shall provide a marked location for delivery, which must be accessible, level and clear of materials and debris; in lieu of this, trusses will be delivered in the best available location at our driver's discretion. No back charges will be accepted if the above criteria are not met. Care and handling of the trusses following delivery is the responsibility of the client.

E.) Installation & Bracing: BCSI 2006 (Building Component Safety Information) WTCA / TPI guidelines shall be followed when handling, installing & bracing trusses. Temporary and / or permanent bracing and blocking is not included in the truss package. Trusses shall be braced to prevent rotation and provide lateral stability in accordance with the requirements specified in the construction documents for the building and on the individual truss design drawings. The overall stability of the truss system is the responsibility of the building designer.

F.) Field framing: 1.) Tray ceilings and other ceiling transitions may require field framing by others. 2.) Ceiling drops and valleys not shown are to be field framed by others. 3.) Overhangs may be over-length - cut to fit in the field. Overhangs are 2x4 or 2x6 - no blocking is applied.

G.) Repairs: Truss related problems are to be reported to the truss manufacturer ASAP, preferably in writing. Do Not Cut Any Trusses before contacting the truss manufacturer with specifics of the problem. Any field modifications made without an engineered repair drawing will be the responsibility of the client. Repair information may require written approval by the client prior to production and / or delivery of any necessary material or repair drawings. No back charges or crane charges of any kind will be accepted, unless specifically approved in writing by the truss manufacturer's management.

H.) This Truss Placement Diagram was not created by an engineer, but rather by the Pro-Build staff, and is purely to be used as an installation guide and does not require a seal. Complete truss engineering and analysis can be found on the Truss Design Drawings which may be sealed by the Truss Design Engineer.

*** Approved By : _____ Delivery Date : _____

Please Print Name: _____ Employed By: _____ Approval Date

TYPICAL DESIGN CRITERIA

Shingle - Load: 37# psf; 20 TCLL, 7 TCDL, 00 BCLL, 10 BCDL; Dur.: 1.25
Design checked for 10psf non-concurrent LL on BC.

T.C. Pitch	6 / 12	MiTek Engineering	MiTek 2020 8.24
B.C. Pitch	0 / 12	Building Code	FBC 2020
T.C. Size	2 x 4		ASCE 7-16
Heel Hgt.	4-3		TPI 1-2014
Bearing	8"	Truss Design	Comp. & Cladding
Cantilever	NA	Uplift Calculations	MWFRS
Overhang	18"	Wind Speed / Exposure	140 mph / Exp. B
O.H. Cut	Plumb	Mean Height	≤ 15'
Spacing	24" O.C.	Bldg. Cat. (Factor)	II (1.00)
Lumber	SYP	Enclosure (Coefficient)	Enclosed (± 0.18)
		Entry	Exposed to Wind
		Lanai	Exposed to Wind

BRG. SCHEDULE

8'-0" Brg. Hgt.		Brg. Hgt.	
10'-0" Brg. Hgt.		Brg. Hgt.	
Brg. Hgt.		Brg. Hgt.	
Brg. Hgt.		Non-Brg. Wall	

All Bearing Heights Above Finished Floor

CONNECTORS

Simpson Strong-Tie	TYP.	HTU26	(C)	HTU28	(F)	LUS24	(J) .
	(A)	HTU26-2	(D)	HTU28-2	(G)	.	(K) .
	(B)	HGUS26-3	(E)	HGUS28-3	(H)	.	(L) .
USP	(M)	HTHJ24-18	(O)	GTWS2T	(Q)	.	(S) .
	(N)	HJC26	(P)	GTWS3T	(R)	.	(T) .

Installation shall be per connector manufacturer's guidelines. All connectors and tie downs, other than truss to girder truss connectors, are to be specified and supplied by others.

UPLIFT SUMMARY

(1)			(11)	R:	U:	(21)	R:	U:	
(2)			(12)			(22)			
(3)			(13)			(23)			
(4)			(14)			(24)			
(5)			(15)			(25)			
(6)			(16)			(26)			
(7)			(17)			(27)			
(8)			(18)			(28)			
(9)			(19)			(29)			
(10)			(20)			(30)			

NOT USED

Only Points Listed Above have Reaction >5000 or Uplift >1000
Values shown on the sealed Truss Design Drawings supersede the above.

NOTES

(N1) .
(N2) .
(N3) .
(N4) .
(N5) .
(N6) .

CLIENT INFO.

Client : KEVCO BUILDERS INC
Project : DETACHED GARAGE
Address : 101 E. WOODWARD AVE.

REV.

. . .
. . .
.

Date	3/18/2021	Scale	N.T.S.
Revised	.	Drawn By	BB
Sheet #	1 of 1	Job #	2647895

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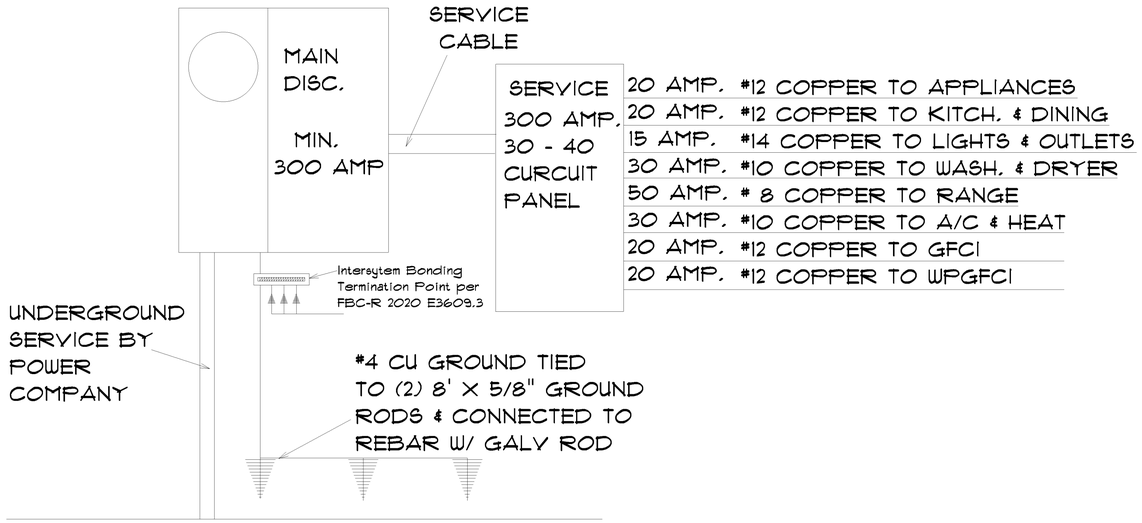
S-2



ELECTRICAL RISER

NOTE: WIRING TO MEET N.E.C. & ALAPPLICABLE LOCAL CODES

IN ALL AREAS SPECIFIED IN NEC 2017 210.52 & FBC-R 2020 6th edition, ALL 125V 15 & 20 AMP RECEPTICALS SHALL BE LISTED TAMPER RESISTANT RECEPTICALS

FBC-R 2020 E3902.16 Arc-fault circuit-interrupter protection. Branch circuits that supply 120-volt, single-phase, 15- and 20-ampere outlets installed in kitchens, family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sun-rooms, recreations rooms, closets, hallways, laundry areas and similar

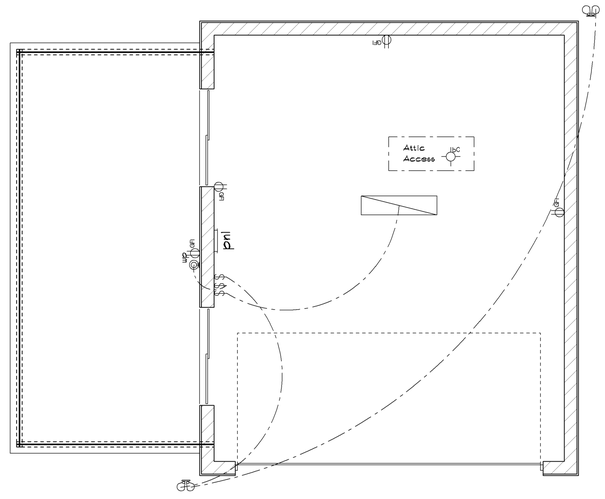
USE C.M. DETECTORS WHERE REQIRED & STANDARD SMOKE DETECTOR IN ALL OTHER AREAS REQUIRED

All GFCI to Comply with FBCR E3703.3 "A Min of (1) 20A Curcuit Shall Be Provided for Recepticals Located in & only serve the Laundry Area"

All GFCI & WPGFCI to comply with FBC-R 2020 E3901.9 "Curcuit Seperation"

ELECTRICAL	COUNT	SYMBOL
double spotlight	2	
fluorescent fixture	2	
wall mount 1	1	
electrical panel	1	
outlet gfi	5	
pull chain light	1	
switch	1	
switch 3 way	2	

Electrical Layout



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or
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E-1

DESIGN LOADS:

(THESE DESIGN LOADS BELOW ARE ALSO INTENDED TO SERVE AS INSTRUCTIONS TO THE DELEGATED (TRUSS) ENGINEER FOR THIS PROJECT).

ROOF TRUSSES: LIVE LOAD=20 PSF. DEAD LOAD=7 PSF (TC) + 10 PSF (BC). (SHINGLES) 15 PSF (BC). (TILE)

ATTIC FLOOR: 20 PSF

FLOOR TRUSSES: LIVE LOAD=40 PSF. DEAD LOAD=10 PSF (TC) + 5 PSF (BC).

DESIGN WIND LOADS IN ACCORDANCE WITH SECTION R301 OF THE FLORIDA RESIDENTIAL BUILDING CODE 2020, 7th EDITION, AND ASCE 7-16:
WIND SPEED: Vult= 140 MPH, Vasd= 108 MPH
RISK CATEGORY II
EXPOSURE CATEGORY C
FULLY ENCLOSED
TOPOGRAPHIC FACTOR = 1.0
WIND DIR. FACTOR Kd = 0.85
GUST EFFECT, G = 0.85

DESIGN PRESSURES FOR WALL COMPONENTS AND CLADDING (WORST CASE) = +25.6 PSF, -33.9 PSF

GARAGE DOOR DESIGN PRESSURES (WORST CASE) +22.4 PSF, -25.3 PSF

DESIGN PRESSURES FOR ROOF COMPONENTS (WORST CASE)= +27.0 PSF, -59.3 PSF

NOTE TO DELEGATED ENGINEER:

PREFABRICATED WOOD JOISTS AND TRUSSES FOR ROOF ASSEMBLIES AND FLOOR SYSTEMS (IF APPLICABLE) SHALL BE DESIGNED AND MANUFACTURED IN CONFORMANCE TO ASTM D5055-13, ANSI/TPI-2014 AND BCSI (WTCA)-2013 AND SHALL BE CERTIFIED BY A FLORIDA REGISTERED ENGINEER AS EMPLOYED BY THE TRUSS MANUFACTURER (DELEGATED ENGINEER). ALL ROOF AND FLOOR TRUSSES SHALL BE DESIGNED TO RESIST THE WORST CASE LOAD COMBINATION WHICH RESULTS IN THE MAXIMUM STRESSES BEING PLACED ON THAT COMPONE NT. GALVANIZED SEAT-PLATES ARE TO BE ATTACHED TO EACH TRUSS AS A PROTECTIVE BARRIER, WHERE THEY BEAR ON CONCRETE OR CMU. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD PRIOR TO FABRICATION TO ENSURE CONFORMANCE TO THE DESIGN INTENT OF THE PROJECT.

SOIL:

FOOTINGS HAVE BEEN DESIGNED FOR 2000 PSF SOIL BEARING CAPACITY.
ANY LESSER BEARING SHALL BE THE SOLE RESPONSIBILITY OF THE OWNER OR THE CONTRACTOR.
WHERE THE SOIL BEARING CAPACITY IS NOT KNOWN OR IS IN QUESTION, THE SOIL SHALL BE TESTED BY A QUALIFIED GEOTECHNICAL ENGINEER, WHO SHALL ESTABLISH THE BEARING CAPACITY. SAID ENGINEER SHALL CO-ORDINATE WITH STRUCTURAL ENGINEER WHEN NECESSARY. COMPACTED SOILS SHALL BE TESTED TO A MINIMUM OF 95% MODIFIED PROCTOR IN ACCORDANCE WITH ASTM D 1557.

SLAB ON GRADE:

SLAB SHALL BE OVER .006" POLYETHYLENE VAPOR/RADON BARRIER SEALED ON TERMITE-TREATED SOIL WHICH HAS BEEN COMPACTED TO 95% MODIFIED PROCTOR IN ACCORDANCE WITH ASTM D 1557, OR UNDISTURBED SOIL. SLABS SHALL BE AT A MINIMUM ELEVATION OF 8" ABOVE FINISHED GRADE. HIGHER ELEVATION MAY BE SUBSTITUTED OR REQUIRED. FOR #5 REBAR FOR 90 DEG HOOK, LENGTH SHALL BE 10", MIMINUM EMBEDMENT SHALL BE 7" AND BEND RADIUS SHALL BE 2".

REBAR EMBEDMENT AND HOOK LENGTH / BEND RADIUS:

SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD PRIOR TO FABRICATION TO ENSURE CONFORMANCE TO THE DESIGN INTENT OF THE PROJECT.
FOR #5 REBAR FOR 90 DEG HOOK, LENGTH SHALL BE 12DB
MIMINUM EMBEDMENT SHALL BE 7.5" AND BEND RADIUS SHALL BE 3.75"
PER ACI-318-14 TABLE 25.3.1

CONNECTORS:

ALL METAL FASTENERS SHALL CONFORM TO ISANTA NER-272, AND SHALL BE GALVANIZED OR STAINLESS STEEL (WITHIN 3 MILES OF COASTAL SALT WATER AREAS). FASTENERS SHALL NOT BE OVER-DRIVEN BY MORE THAN 1/8'.
FOR PRESSURE TREATED WOOD, USE GALVANIZED FASTENERS.

CONCRETE:

UNLESS OTHERWISE SPECIFIED, CAST IN PLACE CONCRETE SHALL HAVE A MINIUM COMPRESSIVE STRENGTH OF 3,000 PSI. CAST IN PLACE GROUT 2,000 PSI, PRECAST CONCRETE LINTELS 3000 PSI AND PRE-STRESSED CONCRETE LINTELS 5000 PSI, AT 28 DAYS. CONCRETE SHALL CONSIST OF 1" MAX AGGREGATE CONCRETE MIX WITH SLUMP BETWEEN 6" AND 7" AT THE TIME OF PLACEMENT. SEE ASTM AND ACI SPECIFICATIONS FOR ADDITIONAL CRITERIA.

CONSTRUCTION JOINTS ARE TO BE PROVIDED IN ACCORDANCE WITH THE DESIGN CODES AND GUIDELINES AT THE ENGINEER'S DIRECTION.

METHOD OF CONCRETE FORMING, PLACEMENT AND CURING SHALL BE CONDUCTED IN ACCORDANCE WITH ACI AND ASTM SPECIFICATIONS.

CMU:

ALL CONCRETE MASONRY UNITS SHALL BE STANDARD WEIGHT BLOCK CONFORMING TO ASTM C-90, TYPE II NON-MOISTURE CONTROLLED AND SHALL HAVE A MINIMUM NET AREA COMPRESSIVE STRENGTH OF 2,000 PSI.

PRECAST LINTELS:

ALL PRECAST LINTELS SHALL BE DESIGNED AND MANUFACTURED IN ACCORDANCE WITH PCI-MNL-116

MORTAR:

MORTAR SHALL BE EITHER TYPE M OR SIN ACCORDANCE WITH ASTM C 270 AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI.

GROUT:

GROUT SHALL HAVE A MINIMUM COARSE AGGREGATE SIZE OF 3/8 INCH PLACED AT AN 8 TO 10 INCH SLUMP AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI AT 28 DAYS. SEE ACI AND ASTM SPECIFICATIONS FOR ADDITIONAL CRITERIA.

REINFORCING STEEL:

REINFORCING STEEL SHALL BE A MINIMUM OF GRADE 40 AND SHALL CONFORM TO ASTM A615 UNLESS OTHERWISE NOTED.

ALL CONTINUOUS VERTICAL AND HORIZONTAL REBAR SHALL BE LAP SPLICED WHERE NECESSARY BY WIRING TOGETHER. LAP SPLICES SHALL BE CLASS B WITH A MINIMUM LAP OF 48 BAR DIAMETERS UNLESS SPECIFIED OTHERWISE.
IN LIEU OF 6"X 6" WELDED WIRE MESH OF 10 GAUGE STEEL. CONCRETE MAY BE REINFORCED WITH AN APPROVED FIBER MESH PRODUCT AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. FIBER MANUFACTURER MUST DOCUMENT COMPLIANCE WITH ASTM C-1116.

COVER FOR REINFORCING SHALL BE MEASURED FROM CENTER OF BAR AND BE AS FOLLOWS UNLESS NOTED OTHERWISE:

CAST IN PLACE CONCRETE AGAINST EARTH = 3"

CAST IN PLACE CONCRETE EXPOSED TO EXTERIOR = 2"

CAST IN PLACE CONCRETE NOT EXPOSED TO EXTERIOR = 1-1/2"

GROUT FILLED MASONRY = 1-1/2"

PRE-CAST AND PRE-STRESSED GROUT FILLED LINTELS = 1-1/2"

STEEL REINFORCEMENT MAY NOT BE WELDED.

WELDED WIRE MESH:

WELDED WIRE MESH SHALL CONFORM TO ASTM A185.

WELDED WIRE MESH SHALL BE SUPPLIED IN SHEETS NOT ROLLS.

ANCHOR BOLTS:

CAST IN PLACE ANCHOR BOLTS SHALL BE GALVANIZED AND MUST EXTEND

7" MINIMUM INTO CONCRETE UNLESS OTHERWISE NOTED.

RAILINGS:

RAILINGS (IF APPLICABLE) ARE TO BE DESIGNED TO RESIST A 200 LB. CONCENTRATED LOAD AT ANY POINT AND IN ANY DIRECTION.
TYPE OF LUMBER.

FOR WOOD FRAME CONSTRUCTION, USE #2 SPF FOR ALL EXTERIOR AND INTERIOR BEARING WALLS. ALL ROOF FRAMING MEMBERS TO BE #2 YELLOW PINE.

TYPE OF LUMBER:

FOR WOOD FRAME CONSTRUCTION, USE #2 SPF FOR ALL EXTERIOR AND INTERIOR

BEARING WALLS. ALL ROOF FRAMING MEMBERS TO BE #2 YELLOW PINE.

TREATED LUMBER:

ALL WOOD MEMBERS THAT ARE WITHIN 8" OF FINISHED GRADE LEVEL, ALL EXPOSED

UNFINISHED WOOD AND ALL WOOD MEMBERS IN CONTACT WITH CONCRETE AND/OR

OTHER MASONRY SHALL BE PRESERVATIVE TREATED WITH DISODIUM OCTABORATE

TETRAHYDRATE TO A MINIMUM GRADE OF 0.40PCF RETENTION AND SHALL CONFORM TO

AWPA STANDARD C1 THROUGH C23 DEPENDING ON THE APPLICATION.

ROOF DECKING:

UNLESS OTHERWISE SPECIFIED, ROOF SHEATHING SHALL BE 19/32 CDX PLYWOOD INSTALLED

WITH EDGE CLIPS IN EACH BAY. ALL SHEATHING SHALL BE APA RATED FOR THE USE

INTENDED.

PREFABRICATED PRODUCTS:

LAMINATED VENEER LUMBER SHALL CONFORM TO ASTM D5456 STANDARD SPECIFICATION FOR EVALUATION OF STRUCTURAL COMPOSITE LUMBER PRODUCTS. ALL WOOD STRUCTURAL PANELS, INCLUDING BUT NOT LIMITED TO PLYWOOD, OSB, WAFERBOARD AND MEDIUM DENSITY FIBERBOARD (MDF) SHALL CONFORM TO PS-1 AND PS-2 PERFORMANCE STANDARDS FOR WOOD BASED STRUCTURAL-USE PLYWOOD. MDF SHALL NOT BE USED IN ANY EXTERIOR APPLICATIONS. THE USE OF FORMALDEHYDE-BASED GLUES AND RESINS IS DISCOURAGED.

ALL FINGER JOINTED LUMBER SHALL CONFORM TO NDS SECTION 4.1.6 AND SHALL NOT BE USED IN A MANNER INCONSISTENT WITH THE LIMITATIONS OF FINGER-JOINTED LUMBER WITH RESPECT TO THE INTENDED APPLICATION.

PREFABRICATED WOOD JOISTS AND TRUSSES SHALL BE DESIGNED AND MANUFACTURED IN CONFORMANCE TO ASTM D5055, ANSI/TPI 1-1995 AND WTCA 1-1995 AND SHALL BE CERTIRED BY A FLORIDA REGISTERED ENGINEER (DELEGATED ENGINEER).

CONTRACTOR RESPONSIBILITIES:

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO FABRICATION OR START OF CONTRUCTION. WRITTEN DIMENSIONS SHALL TAKE PRECEDENT OVER SCALED DIMENSIONS. ANY DEVIATIONS OR DISCREPANCIES SHALL BE PROMPTLY REPORTED TO THE ENGINEER OF RECORD. CONTRACTOR SHALL MAKE ALL EFFORTS TO PROTECT THE STRUCTURE, THE WORK PERSONS, AND OTHER PEOPLE DURING CONSTRUCTION. HE SHALL SUPERVISE AND DIRECT THE WORK AND BE RESPONSIBLE FOR ALL CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE ARCH ITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND CONSTRUCTION FOR ANCHORS, EMBEDS AND SUPPORTS OR ANY OTHER ITEMS WHICH AFFECT THE STRUCTURAL DRAWINGS.
THERE SHALL NOT BE ANY CHANGES TO THESE CONSTRUCTION DOCUMENTS DURING THE DEVELOPMENT OF SHOP DRAWINGS OR DURING CONSTRUCTION WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER OF RECORD.

ENGINEERING SERVICES GROUP, LLC ASSUMES NO RESPONSIBILITY FOR THE ARCHITECTURAL, MECHANICAL, PLUMBING, ELECTRICAL, HVAC, FIRE PROTECTION OR FIRE CODE PROVISIONS, FABRICATION, INSTALLATION/ERECTION, SUPERVISION, PLAN DIMENSIONS, UNKNOWN FIELD CONDITIONS OR OTHER CONDITIONS NOT FULLY REPRESENTED IN THESE DRAWINGS.

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF FBC 2020, 7TH EDITION, AND ASCE 7-10 FOR Vult=160 MPH
WIND SPEED, Vasd. =124 MPH
RISK CATEGORY II — EXPOSURE CATEGORY C
TOPOGRAPHIC FACTOR = 1.0 — GUST EFFECT, G=0.85
WIND DIR. FACTOR Kd=0.85 — FULLY ENCLOSED
INTERNAL PRESSURE COEFFICIENT: +/- 0.18
DESIGN PRESSURE FOR WALL COMPONENTS & CLADDING
(WORST CASE) +33.1 PSF -43.8 PSF
GARAGE DOOR DESIGN PRESSURE = +28.9, -32.7 (WORST CASE)
ROOF LIVE LOAD = 20 PSF FLOOR LIVE LOAD = 40 PSF

ENGINEERING SERVICES GROUP, LLC
CA#8886
391 W. Alfred St.
Tavares, FL 32778
352-308-1135 J. Lee Smith, P.E. #36177

James Lee Smith / P.E.

Drawn By
Michael Roberts

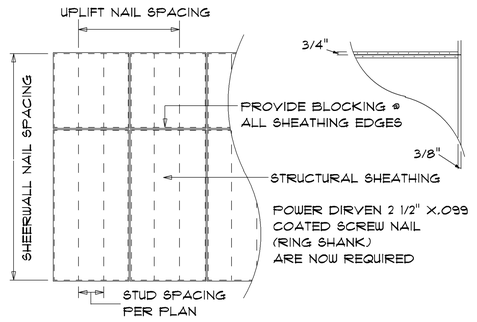
Detail Typical

General Notes

JAMES LEE SMITH LICENSE No 36177 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been electronically signed and sealed by James Lee Smith, P.E. using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Digitally signed by James L Smith
Date: 2021.03.23 10:57:39 -04'00'



EXTERIOR WALL SHEATHING

SHEATHING REQ.	NAIL SIZE	VERTICAL SPACING	HORIZONTAL SPACING	FEILD SPACING
7/16" STRUCTURAL SHEATHING	8d R.S. NAILS	6" O.C.	6" O.C.	12" O.C.

EXTERIOR GABLE SHEATHING

SHEATHING REQ.	NAIL SIZE	VERTICAL SPACING	HORIZONTAL SPACING	FEILD SPACING
7/16" STRUCTURAL SHEATHING	8d R.S. NAILS	4" O.C.	4" O.C.	8" O.C.

6 TYPICAL WALL SHEATHING DETAIL
N.T.S.

LIMITING HEIGHT OF 2" STUDS

SIZE STUD MATERIAL AT O.C. SPACING	MAX. HEIGHT
2" X 4" SPF @ 24" O.C.	8' 0"
2" X 4" SPF @ 16" O.C.	9' 0"
2" X 4" SPF @ 12" O.C.	10' 0"
2" X 4" YP @ 24" O.C.	9' 0"
2" X 4" YP @ 16" O.C.	10' 9"
2" X 4" YP @ 12" O.C.	12' 4"
2" X 6" SPF @ 24" O.C.	11' 4"
2" X 6" SPF @ 16" O.C.	13' 9"
2" X 6" SPF @ 12" O.C.	16' 0"
2" X 6" YP @ 24" O.C.	13' 9"
2" X 6" YP @ 16" O.C.	17' 0"
2" X 6" YP @ 12" O.C.	19' 4"
2" X 8" SPF @ 24" O.C.	14' 9"
2" X 8" SPF @ 16" O.C.	18' 0"
2" X 8" SPF @ 12" O.C.	21' 0"
2" X 8" YP @ 24" O.C.	18' 0"
2" X 8" YP @ 16" O.C.	22' 3"
2" X 8" YP @ 12" O.C.	25' 8"

UPLIFT CONNECTION REQUIREMENT AT POINTS 'A' SEE F-2 (TOP & BOTTOM OF HEADER STUDS) UPLIFT CONNECTION IS REQUIRED AT AT EACH END OF HEADER & AT BOTTOM OF HEADER STUDS IN ADDITION TO CONNECTORS AT WALL STUDS

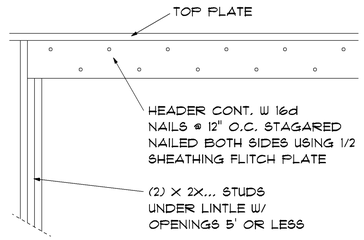
UNSUPPORTED WALL HEIGHT	STUD SPACING	MAX. HEADER SPAN 3	6	9	12	15	18
		NUMBER OF HEADER STUDS SUPPORTING EACH END OF HEADER 1	2	2	2	3	3
		NUMBER OF FULL LENGTH STUDS AT EACH END OF HEADER					
10' OR LESS	12"	2	2	3	3	3	3
	16"	2	2	3	3	3	3
	24"	2	2	2	2	2	2
GREATER THAN 10'	12"	2	2	3	4	5	5
	16"	2	2	3	3	4	4
	24"	2	2	2	2	3	3

MINIMUM WALL & HEADER STUD REQ.

1. USE HEADER SIZES BELOW UNLESS OTHERWISE NOTED ON FRAMING PLAN

2. PRIMARY FRAMING (BEAMS, GIRDERS, ETC.,) WERE SIZED USING 1800 'FB' EXTREME FIBER IN BENDING (SINGLE) 90 'FV' HORIZONTAL SHEER 16 'E' MODULES OF ELASTICITY

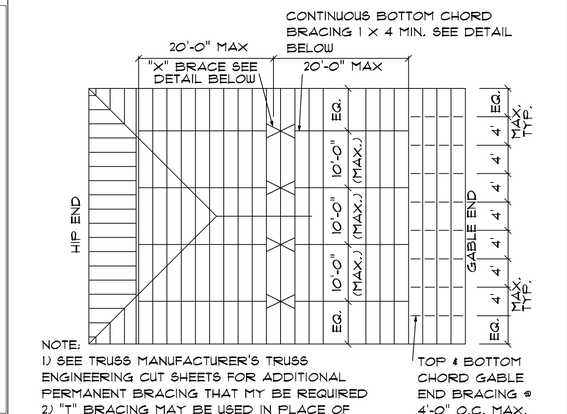
3. JOISTS, RAFTERS, LINTELS, ETC WERE SIZED USING 1200 'FB' EXTREME FIBER IN BENDING (SINGLE) 90 'FV' HORIZONTAL SHEER 16E 'E' MODULES OF ELASTICITY



In Compliance with ASTM D 7032

HEADER SCHEDULE

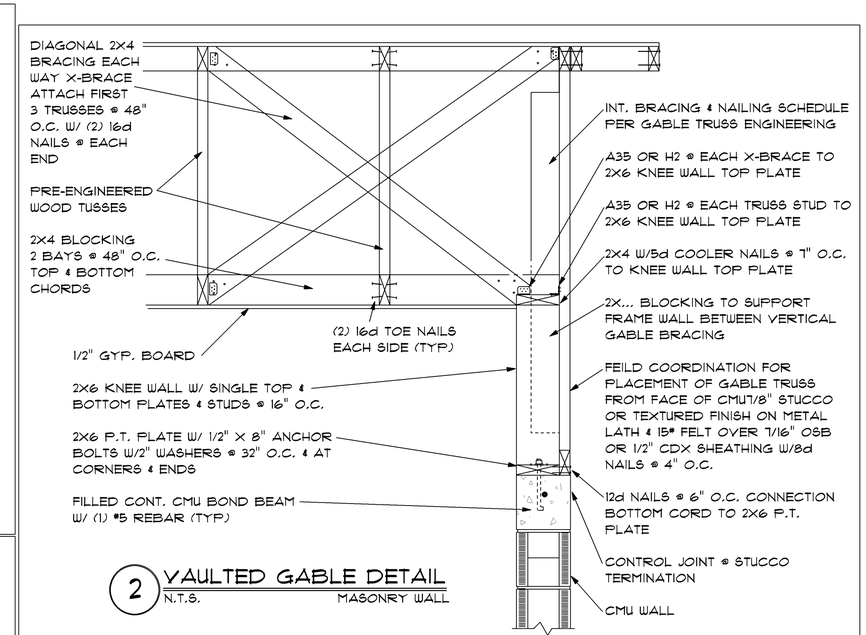
OPENING WIDTH	BEARING WALL OR SHEER WALL	NON-BEARING WALLS
0'-0" TO 3'0"	(2) 2X6	(2) 2X4
3'1" TO 5'0"	(2) 2X10	(2) 2X4
5'1" TO 7'0"	(2) 2X12	(2) 2X6
7'1" TO 9'0"	(2) 2X12 W/ 1/2" PLY. FLITCH PL.	(2) 2X8



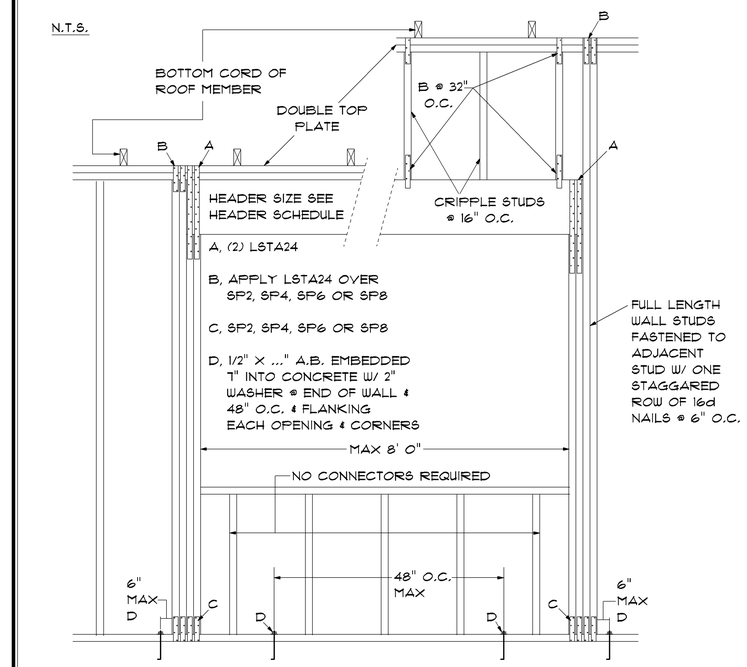
NOTE:
1) SEE TRUSS MANUFACTURER'S TRUSS ENGINEERING CUT SHEETS FOR ADDITIONAL PERMANENT BRACING THAT MY BE REQUIRED
2) "T" BRACING MAY BE USED IN PLACE OF PERMANENT BRACING PROVIDED IT EXTENDS OVER AT LEAST 90% OF THE WEB.

TOP & BOTTOM CHORD GABLE END BRACING @ 4'-0" O.C. MAX. FOR FIRST (4) ROWS OF TRUSSES

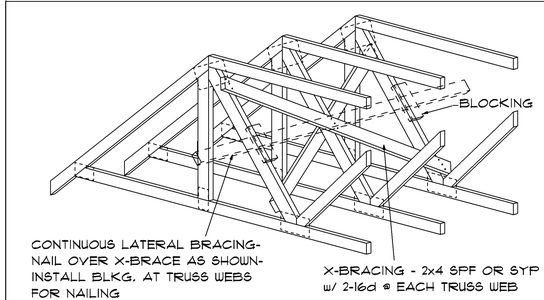
5 REQ. MIN. PERMANENT TRUSS BRACING
N.T.S.



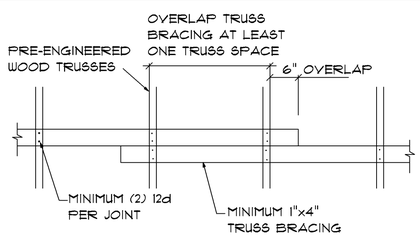
2 VAULTED GABLE DETAIL
N.T.S. MASONRY WALL



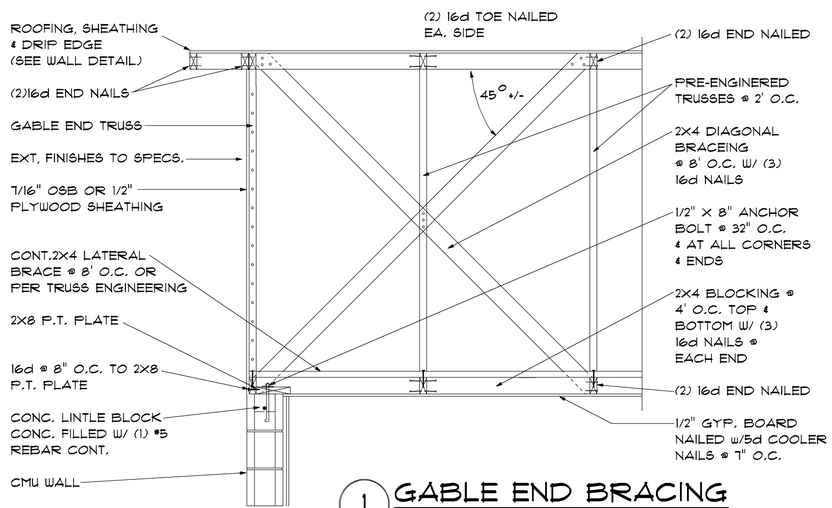
UNLESS OTHERWISE NOTED FOR UP TO 8' SPAN TYPICAL FRAMING CONNECTORS FOR OPENINGS IN INTERIOR & EXTERIOR LOAD BEARING WALLS



4 CROSS BRACING DETAIL (TYP.)
N.T.S.



3 TRUSS BRACING OVERLAP DETAIL
N.T.S.



1 GABLE END BRACING
N.T.S. MASONRY WALL

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF FBC 2020, 7TH EDITION, AND ASCE 7-16 FOR Vult.=140 MPH WIND SPEED. Vasd. =108 MPH
RISK CATEGORY II — EXPOSURE CATEGORY C
TOPOGRAPHIC FACTOR = 1.0 — GUST EFFECT, G=0.85
WIND DIR. FACTOR Kd=0.85 — FULLY ENCLOSED
INTERNAL PRESSURE COEFFICIENT, +/- 0.18
DESIGN PRESSURE FOR WALL COMPONENTS & CLADDING (WORST CASE) -25.6 PSF -33.9 PSF
GARAGE DOOR DESIGN PRESSURE = +22.4, -25.3 (WORST CASE)
ROOF LIVE LOAD = 20 PSF FLOOR LIVE LOAD = 40 PSF

ENGINEERING SERVICES GROUP, LLC CA#8886
391 W. Alfred St.
Tavares, FL 32778
352-368-1735 J. Lee Smith, P.E. #36177

James Lee Smith / P.E.

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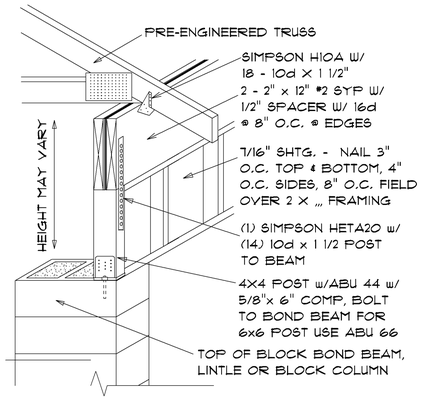
Date: 2021.03.23 10:57:59 -04'00'

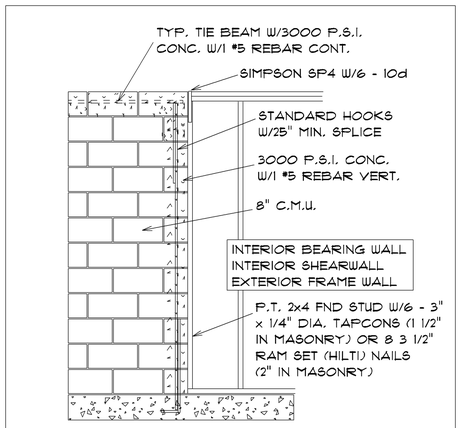
Drawn By: Michael Roberts

Detail Typical

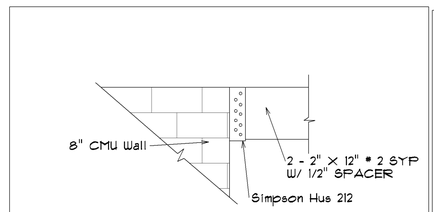
D-1



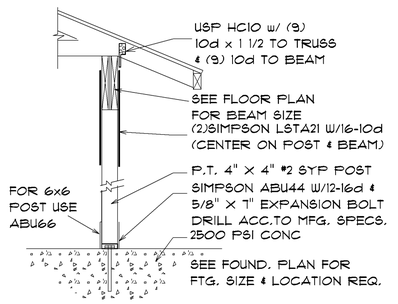
12 RAISED ENTRY DETAIL
N.T.S.



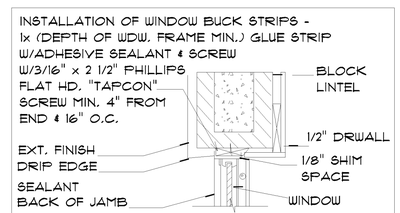
11 FRAME (EXT./BRG./SHEAR) WALL TO MASONRY DETAIL
N.T.S.



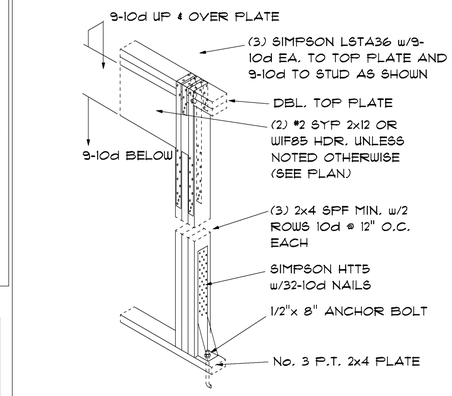
9 BEAM TO WALL DETAIL
N.T.S.



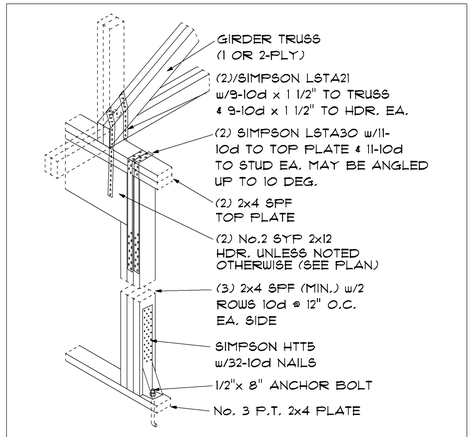
8 POST TO BEAM DETAIL
N.T.S. UPLIFT CAPACITY: 2200#



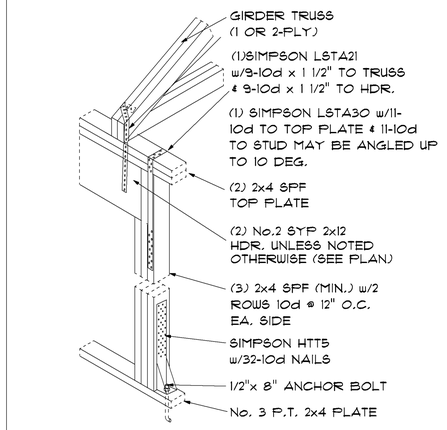
7 WINDOW INSTALLATION
N.T.S. MASONRY OPENING



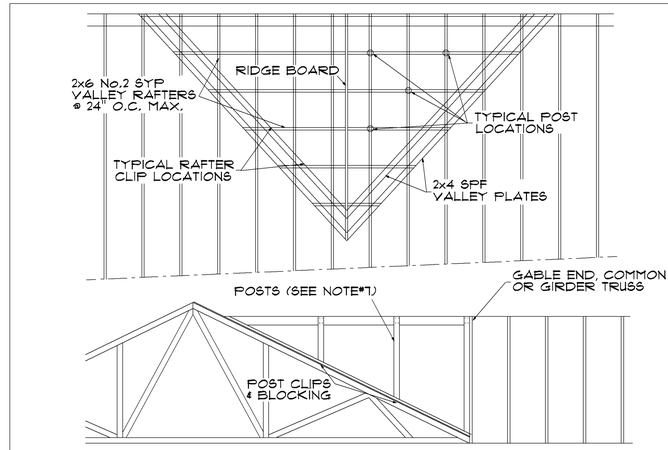
5 HEADER OPENING/ MED. UPLIFT
N.T.S. MAX. CAP. OF CONNECTION - 3885#



4 HEADER OPENING/ MED U.L.
N.T.S. MAX. CAP. OF CONNECTION - 2580#

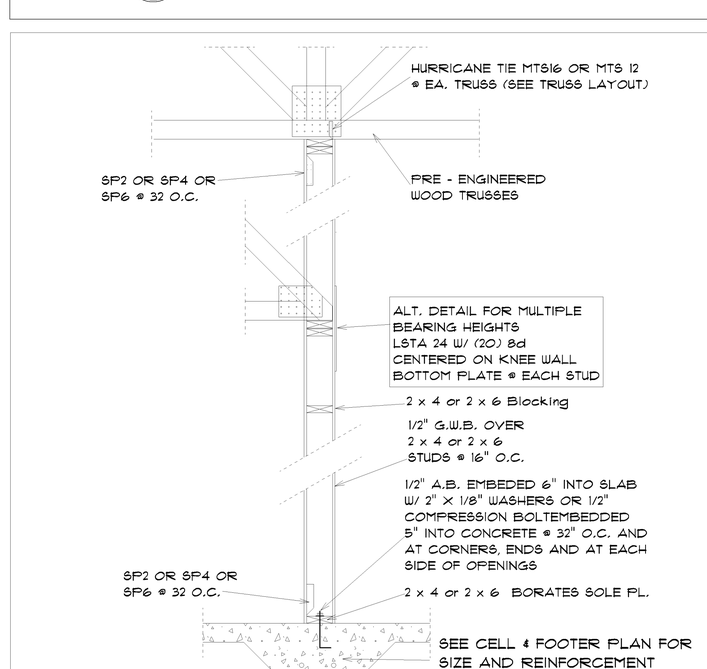


3 HEADER OPENING / LOW UPLIFT
N.T.S. MAX. CAP. OF CONNECTION - 1290#

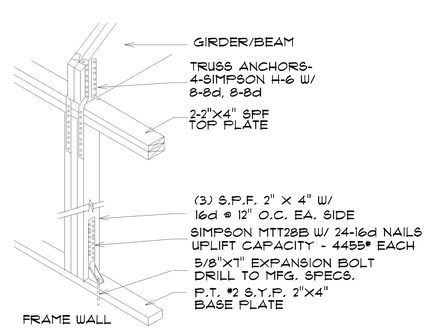


1. INSTALL BASE TRUSSES
2. APPLY SHEATHING TO TOP CHORD OF SUPPORTING TRUSSES. IF SHEATHING IS NOT APPLIED, PROVIDE 2x4 PURLINS AT 24" O.C. ON THE TOP CHORD OF THE SUPPORTING TRUSSES UNDER THE VALLEY FRAMING. CONNECT PURLINS TO EACH TRUSS WITH (2) 16d NAILS & (1) SIMPSON H2.5 OR EQUAL HURRICANE CLIP.
3. INSTALL 2x4 VALLEY PLATES AS SHOWN ON PLAN VIEW. FASTEN TO EACH SUPPORTING TRUSS WITH (2) 16d NAILS. INSIDE VALLEY PLATE SHOULD BE ALIGNED WITH THE HEELS OF THE RAFTERS.
4. DEFINE VALLEY RIDGE BY RUNNING A LEVEL STRING FROM THE INTERSECTING RIDGE OF THE (a.) GABLE END (b.) GIRDER TRUSS (c.) COMMON TRUSS TO THE ROOF SHEATHING.
5. SET 2x6 No.2 SYP RIDGE BEAM. SUPPORT WITH 2x4 POSTS SPACED 48" O.C., BEVEL BOTTOM OF POST TO SET EVENLY ON THE SHEATHING. INSTALL 2x4 SYP BLOCKING UNDER POSTS BETWEEN TRUSSES AND AT INTERSECTION OF RIDGE BOARD WITH ROOF. FASTEN POST TO RIDGE WITH (4) 10d NAILS. FASTEN POST TO BLOCKING WITH (3) 10d TOE NAILS & (1) SIMPSON H3 OR EQUAL HURRICANE CLIP OR TWIST STRAP.
6. FRAME VALLEY RAFTERS FROM VALLEY PLATES TO RIDGE , MAXIMUM RAFTER SPACING IS 24" O.C.. FASTEN VALLEY RAFTER TO RIDGE BEAM AND TO VALLEY PLATE WITH (3) 16d TOE NAILS & (1) SIMPSON H3 OR EQUAL HURRICANE CLIP AT EACH CONNECTION.
7. SUPPORT THE VALLEY RAFTERS WITH 2x4 POSTS 48" O.C. (OR LESS) ALONG EACH RAFTER. INSTALL POSTS IN A STAGGERED PATTERN AS SHOWN ON PLAN DRAWING. ALIGN POSTS WITH TRUSSES BELOW. FASTEN VALLEY RAFTER TO POST WITH (4) 10d NAILS. FASTEN POST TO TRUSS WITH (3) 10d TOE NAILS & (1) SIMPSON H3 OR EQAL CLIP. FOR PURLIN APPLICATIONS, CONNECT 2x4 POST TO FACE OF TOP CHORD WITH (4) 10d NAILS.

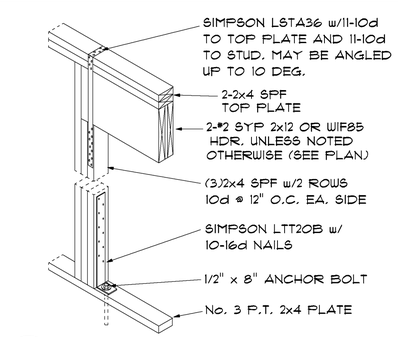
2 CONV. FRAMING & VALLEY DETAIL
N.T.S.



1 Interior Bearing Wall - One Story
N.T.S.



10 GIRDER/BEAM CONN.
N.T.S. UPLIFT 3040 #



6 HEADER OPENING/ LOW U.L.
N.T.S. MAX. CONNECTION UPLIFT CAP. 1715#

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF FBC 2020, 7Th EDITION, AND ASCE 7-16 FOR Vult=140 MPH

WIND SPEED, Vasd. =108 MPH	
RISK CATEGORY II	EXPOSURE CATEGORY C
TOPOGRAPHIC FACTOR = 1.0	GUST EFFECT, G=0.85
WIND DIR. FACTOR Kd=0.85	FULLY ENCLOSED
INTERNAL PRESSURE COEFFICIENT, +/- 0.18	

DESIGN PRESSURE FOR WALL COMPONENTS & CLADDING (WORST CASE) +25.6 PSF -33.9 PSF
GARAGE DOOR DESIGN PRESSURE = +22.4, -25.3 (WORST CASE)
ROOF LIVE LOAD = 20 PSF FLOOR LIVE LOAD = 40 PSF

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JAMES LEE SMITH LICENSE No 36177 STATE OF FLORIDA PROFESSIONAL ENGINEER

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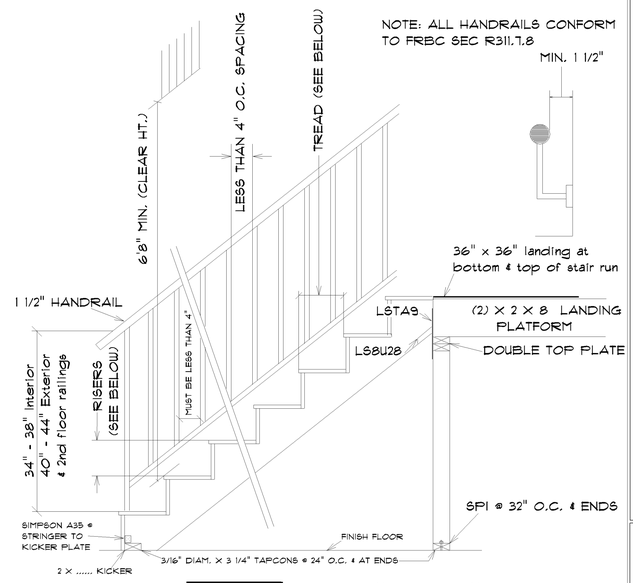
Digitally signed by James L Smith
Date: 2021.03.23 10:58:47 -04'00'

Drawn By: Michael Roberts

Detail Typical

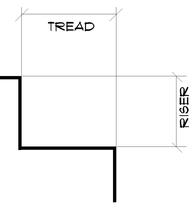
D-2



TREAD
MAXIMUM: 11.5"
MINIMUM: 10"

RISER
MAXIMUM: 7.75"
MINIMUM: 6.75"
MAXIMUM TOTAL VARIATION BETWEEN ALL RISERS: 3/8"

THE FOLLOWING MUST BE TRUE:
(2) RISERS + (1) TREAD = 24 - 25"

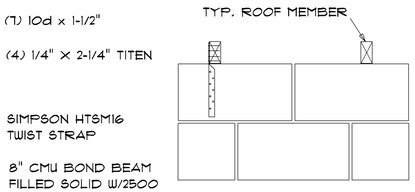


Railings to be designed to resist a 200 psf. concentrated load at any point and in any direction and 50 plf for in-fill component and 40 psf. for stair live load

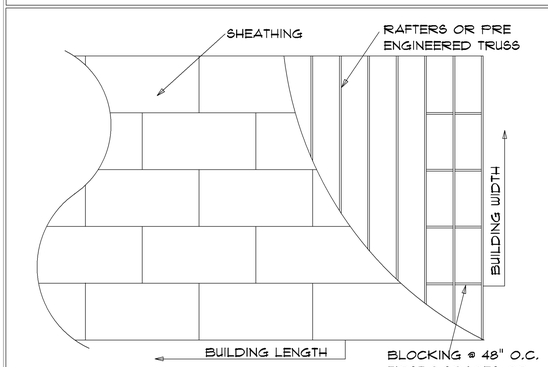
11 TYPICAL STAIR DETAIL
N.T.S.

THIS LETTER IS TO DESCRIBE APPROPRIATE MEASURES TO TAKE WHEN EMBEDDED TRUSS ACHORS HAVE BEEN MISPLACED.

1. IF THE DISTANCE OF THE STRAP BEING OFF IS BETWEEN 1/16" TO 3/4", NO CORRECTIVE MEASURES ARE REQUIRED.
2. IF THE DISTANCE OF THE STRAP BEING OFF IS BETWEEN 9/16" TO 1" A WOOD SHIM OF APPROPRIATE THICKNESS MUST BE INSTALLED BETWEEN THE STRAP & THE TRUSS WITH AN INCREASE IN NAIL LENGTH TO EQUIL OR EXCEED THE THICKNESS OF THE SHIM.
3. IF THE DISTANCE OF THE STRAP BEING OFF IS EXCEEDS 1" THEN THE STRAP MUST BE REPLACED WITH THE APPROPRIATE FIX AS REQUIRED BY THE UPLIFT LOAD PER ATTACHED DETAILS.

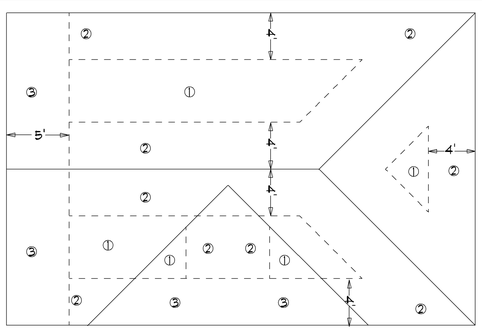


10 FIX FOR MISPLACED TRUSS ANCHORS
N.T.S.



BLOCKING @ 48" O.C. FIRST 2 SPACES OR 48" FROM GABLE TOP & BOTTOM

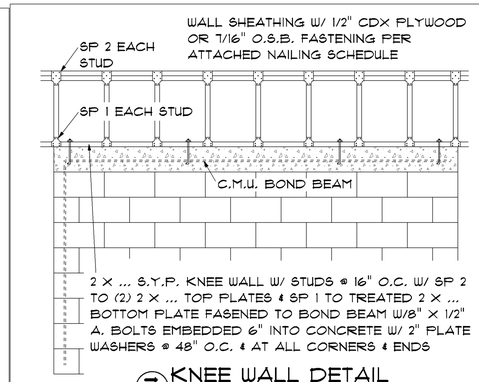
9 ROOF SHEATHING LAYOUT
N.T.S.



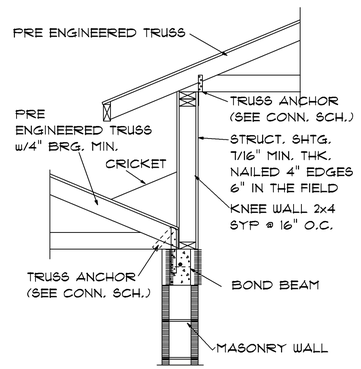
PANEL LOCATIONS	ROOF FASTENING ZONES		
	1	2	3
PANEL EDGES & SUPPORTS (1)	6" O.C.	4" O.C.	2 1/2" O.C.
PENEL FEILD	8" O.C.	6" O.C.	6" O.C.

NOTE:
1. EDGE SPACING ALSO APPLIES OVER GABLE END WALLS OR TRUSSES
2. USE 7/16" OSB OR 1/2" PLYWOOD W/ 2 1/4"X.099 DIAM. (RING SHANK) POWER DRIVEN COATED SCREW NAIL PER SCHEDULE ABOVE

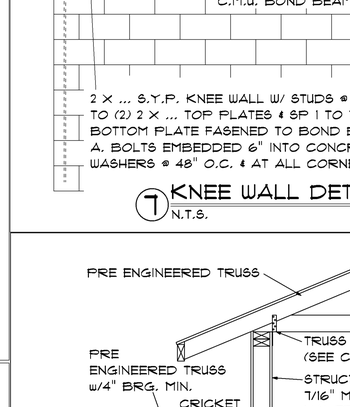
8 ROOF SHEATHING FASTNING SCHEDULE
N.T.S.



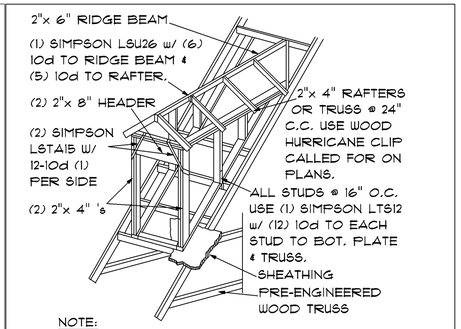
7 KNEE WALL DETAIL
N.T.S.



6 KNEE WALL ON MASONARY WALL
N.T.S.

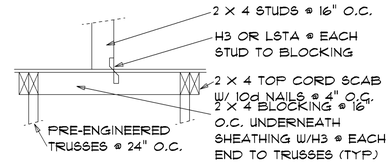


5 SHEER WALL BRACING
N.T.S.

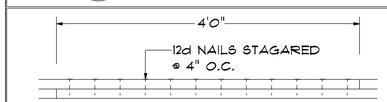


NOTE:
THIS DORMER DESIGN MAY BE FUNCTIONAL OR INACTIVE. THE DIFFERENCE DEPENDS ON THE DESIGN OF THE TRUSSES. IN EITHER CASE THE DORMER MUST BE CONNECTED TO THE ROOF FRAMING AS SHOWN.

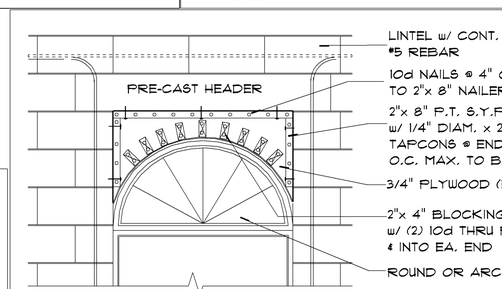
4 DORMER FRAMING DETAIL
SCALE: N.T.S



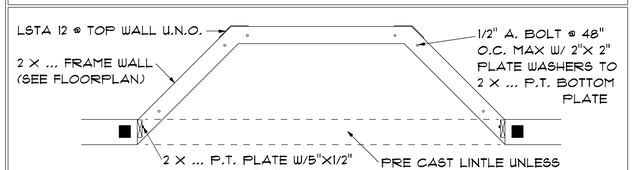
3 DORMER CROSS SECTION
N.T.S.



TOP PLATE SPLICE DETAIL
N.T.S.

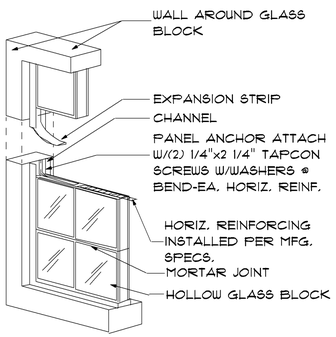


2 ARCH TOP WINDOW DETAIL
N.T.S



SEE FLOORPLAN FOR ROUGH OPENINGS & DIMENSIONS

1 BAY WINDOW FRAMING
N.T.S.



GLASS BLK. PANELS SHALL HAVE REINF. IN THE HORIZONTAL MORTAR JOINTS, EXTENDING FROM END TO END OF MORTAR JOINTS, BUT NOT ACROSS EXPANSION JOINTS, WITH ANY UNAVOIDABLE JOINTS SPLICED BY LAPPING THE REINF. NOT LESS THAN 6". THE REINF. SHALL BE SPACED NOT MORE THAN 2' APART VERT. FOR 3 7/8" BLK. & 16" APART VERTICALLY FOR 3 1/8" BLK. IN ADDITION REINFORCEMENTS SHALL BE PLACED IN THE JOINT IMMEDIATELY BELOW & ABOVE ANY OPENINGS WITHIN A PANEL. THE REINF. SHALL CONSIST OF TWO PARALLEL LONGITUDINAL, GALVANIZED STELL WIRES, 9 GA. OR LARGER, SPACED 2" APART AND HAVING WELDED THERETO 14 GA. OR HEAVIER CROSS WIRES AT INTERVALS NOT EXCEEDING 8", OR THE EQUIVALENT APPROVED BY THE BUILDING OFFICIAL.

FOR GLASS BLOCK OPENINGS 50 SQFT & UNDER USE FULL BED OF TYPE S OF M (IN ACCORDANCE WITH ASTM C 270) MORTAR TPY. 1/4" WIDE @ FACE OF WALL FOR MORE THAN 50 SQFT USE TPICAL ABOVE

GLASS BLOCK DETAIL
N.T.S

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF FBC 2020, 7TH EDITION, AND ASCE 7-16 FOR Vult.=140 MPH WIND SPEED. Vasd. =108 MPH

RISK CATEGORY	II
EXPOSURE CATEGORY	C
TOPOGRAPHIC FACTOR =	1.0
GUST EFFECT, G=	0.85
WIND DIR. FACTOR Kd=	0.85
FULLY ENCLOSED	
INTERNAL PRESSURE COEFFICIENT, +/-	0.18

DESIGN PRESSURE FOR WALL COMPONENTS & CLADDING (WORST CASE) =25.6 PSF -33.9 PSF
GARAGE DOOR DESIGN PRESSURE = +22.4, -25.3 (WORST CASE)
ROOF LIVE LOAD = 20 PSF FLOOR LIVE LOAD = 40 PSF

ENGINEERING SERVICES GROUP, LLC
CA#8886
391 W. Alfred St.
Tavares, FL 32778
352-308-1735 J. Lee Smith, P.E. #36177

James Lee Smith / P.E.

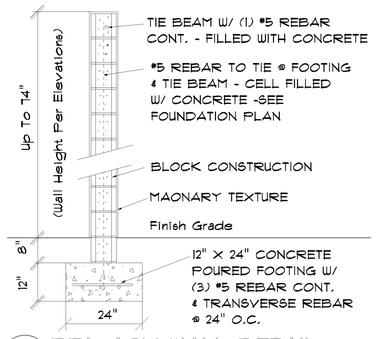
This item has been electronically signed and sealed by James Lee Smith, P.E. using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Digitally signed by James L Smith
Date: 2021.03.23 11:00:24 -04'00'

Drawn By Michael Roberts

Detail Typical

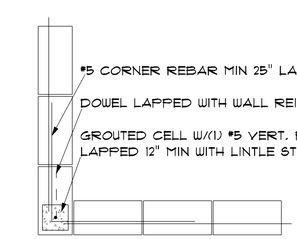
D-3



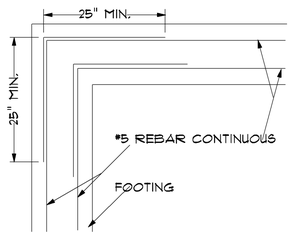
7 PRIVACY WALL DETAIL

N.T.S.

10



N.T.S. BOND BEAM & WALL STEEL DETAIL



N.T.S. FOOTER CORNER STEEL DETAIL

FIX FOR MISSING OR MISPLACED DOWELS

11

THIS LETTER IS TO DESCRIBE ALTERNATIVES TO MITIGATE FOR CASTING REBAR VERTICAL REINFORCING AT AN INCORRECT LOCATION.

IF THE WALL HAS NOT BEEN BUILT DRILL A 1" DIAM. HOLE 6" DEEP INTO THICKENED EDGE OF SLAB AT THE CORRECT LOCATION. EPOXY A 30" LONG #5 REBAR INTO DRILLED HOLE. AS THE WALL IS BUILT, LAP REBAR A MINIMUM OF 25" & BEND VERTICAL BAR 90 DEG. TO ACHEIVE A 12" LONG LAP WITH THE CONTINUOUS REBAR IN THE TIE BEAM.

IF THE WALL HAS BEEN BUILT, OPEN WALL AT THE CORRECT LOCATION APPROX. 16" HIGH & 4" WIDE OFF THE FLOOR, DRILL HOLE & INSTALL REBAR AS DESCRIBED ABOVE. LAP VERTICAL STEEL AS DESCRIBED ABOVE INTO TIE BEAM. FORM WALL & POUR SOLID WITH 3000 PSI GROUT

FIX FOR MISSING OR MISPLACED ANCHOR BOLTS

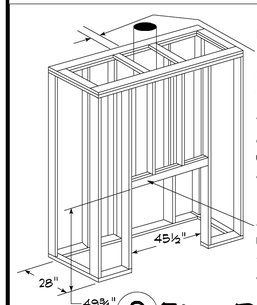
THIS LETTER IS TO DESCRIBE ALTERNATIVES TO ANCHOR BOLTS IN THE SLAB & BOND BEAM.

IF THE BOLT TO BE INSTALLED MEETS THE MIN. CONCRETE EDGE DIST. AS SPECIFIED BY THE MFG. OR IS AT LEAST 2 3/4" FROM ANY EDGE FOR 1/2" BOLTS & 3 1/2" FOR 5/8" & 3/4" BOLTS, THEN A STANDARD EXPANSION BOLT EMBEDDED 6" MIN. & THE SAME DIAM. AS THE ANCHOR BOLT MAY BE USED.

IF THE BOLT TO BE INSTALLED DOES NOT MEET THE MIN. CONCRETE EDGE DIST. AS SPECIFIED ABOUVE THEN INSTALL A EPOXY ANCHOR, EMBEDDED 6" MIN. & THE SAME SIZE AS THE ANCHOR BOLT TO BE REPLACED

FIX FOR CMU BLOW OUT AT BOND BEAM

THIS LETTER IS TO DESCRIBE ALTERNATIVES FOR BLOWN OUT CMU IN THE BOND BEAM

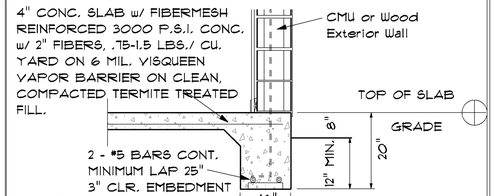


Exclaim-36"
2" minimum air space clearance to the enclosure.

Note: Fireplace header cannot be positioned until after the fireplace assembly is in place.

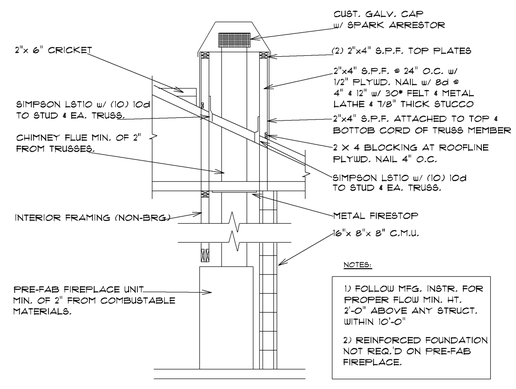
49¾" header height. Use only noncombustible material below the top of the front standoffs.

9 Fire Box Framing



4 ALT. MONOLITHIC FOOTER

N.T.S.



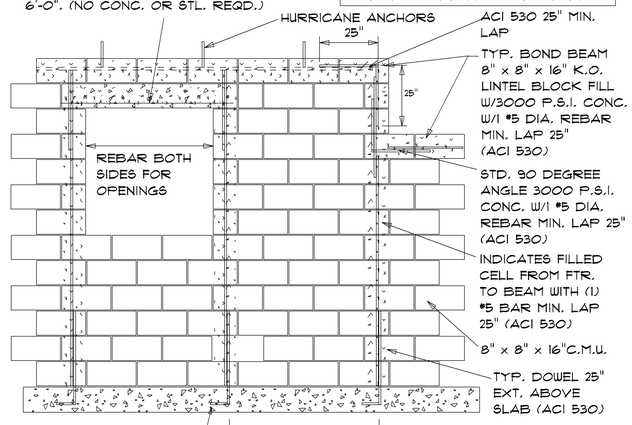
EXTERIOR BLOCK FIREPLACE DETAIL

8

NO SCALE

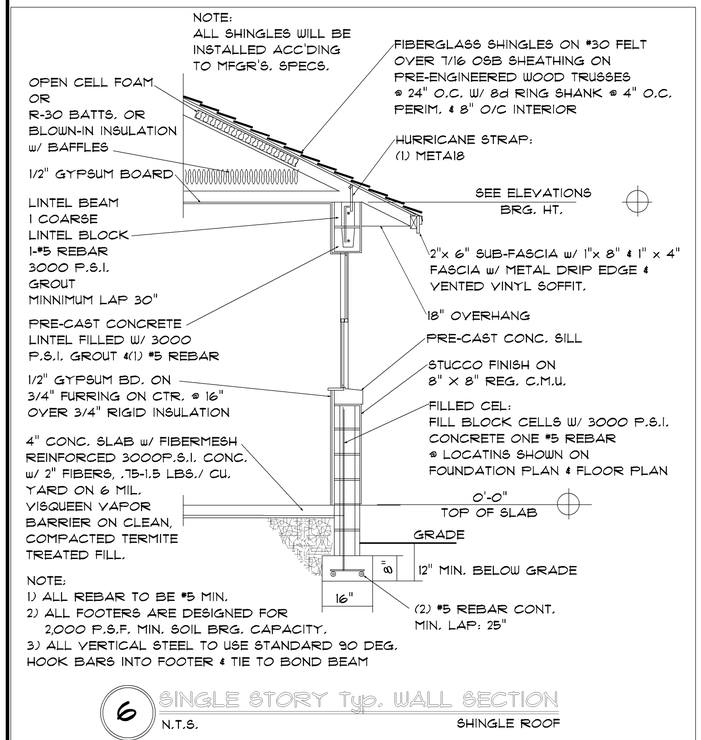
PRECAST "U" LINTEL W/ 1-#5 CONT. IN 3000 PSI CONC. @ OPNGS. 6'-0" & OVER. PRECAST "U" LINTEL ALL OPENINGS UNDER 6'-0". (NO CONC. OR STL. REQD.)

NOTE: NOT ALL MASONRY OPENINGS NEED PRECAST LINTELS; SOME HAVE MICROLAMS. REFER TO FLOOR PLAN



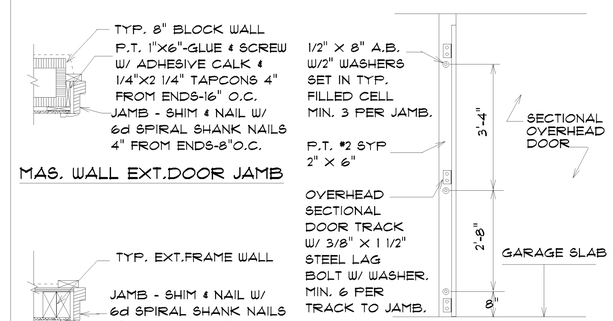
3 BLOCK WALL DETAIL

N.T.S.



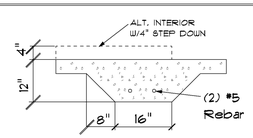
6 SINGLE STORY Typ. WALL SECTION

N.T.S. SHINGLE ROOF



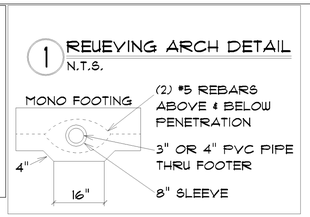
5 EXT. DOOR INSTALLATION

N.T.S.



2 INTERIOR FOOTING SIZE

n.t.s.



1 REUEVING ARCH DETAIL

N.T.S.

ENGINEERING SERVICES GROUP, LLC
CA#8886
391 W. Alfred St.
Tavares, FL 32778
352-386-1735 J. Lee Smith, P.E. #36177

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF FBC 2020, 7TH EDITION, AND ASCE 7-16 FOR Vult.140 MPH WIND SPEED. Vasd. =108 MPH
RISK CATEGORY II — EXPOSURE CATEGORY C
TOPOGRAPHIC FACTOR = 1.0 — GUST EFFECT, G=0.85
WIND DIR. FACTOR Kd=0.85 — FULLY ENCLOSED
INTERNAL PRESSURE COEFFICIENT, +/- 0.18
DESIGN PRESSURE FOR WALL COMPONENTS & CLADDING (WORST CASE) -25.6 PSF -33.9 PSF
GARAGE DOOR DESIGN PRESSURE = +22.4, -25.3 (WORST CASE)
ROOF LIVE LOAD = 20 PSF FLOOR LIVE LOAD = 40 PSF

James Lee Smith / P.E.

This item has been electronically signed and sealed by James Lee Smith, P.E. using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

JAMES LEE SMITH LICENSE No 36177 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by James L Smith
Date: 2021.03.23 11:00:46 -04'00'

Drawn By Michael Roberts

Detail Typical

D-4

CONNECTOR SCHEDULE
SIMPSON

*	CONNECTOR	FASTNERS	UPLIFT (lbs)
30	MTSM16	(7) 10D X 1-1/2" NAILS & (4) 1/4" X 1-1/2" TITEN Z	830
31	HTSM20	(10) 10D X 1-1/2 NAILS & (4) 1/4" X 3" TITEN Z	1,110
32	MSTAM24	(9) 10D X 5' NAILS & (5) 1/4" X 3" TITEN Z	1,375
33	MSTAM36	(13) 10D X 3" NAILS & (8) 1/4" X 3" TITEN Z	1,870
34	MSTCM40	(26) 10D X 3-1/4" NAILS & (10) 1/4" X 3" TITEN Z	2,800
35	CS16-R (CUT TO FIT)	(11) 10D X 15 NAILS & (8) 3/16" X 1-1/4" TITEN Z	1,650
36	H16S INV. HANGER	(2) 10D X 1-1/2 NAILS & (6) 1/4" X 3" TITEN Z	1,370
37	HUC410 MASONRY	(18) 1/4" X 2 1/4" ₩ TITEN 2 ISSUE	1,135
38	HUC412 MASONRY	(22) 1/4" X 2 1/4" ₩ TITEN 2 ISSUE	1,800
39	MBHA MASONRY	(1) 3/4" THREADED ROD • TOP & FACE	3475
40	HGAM10	(4) 1/4"X 2 3/4" TITEN Z TO MASONARY & (4) 1/4"X 1-1/2" SDS SCREWS TO TRUSS	810 815 LAT.
41	HGUS48	(24) 3/16" X 2 1/4" TAPCONS	2300
42	HGUS550/10	(24) 3/16" X 2 1/4" TAPCONS	2300

TYPICAL CONNECTIONS & DETAILS

A	(2) STUDS / (15) X 2 OR (6) X 2 @ TOP & (22) @ BASE TYP. @ 1 STORY
B	(3) STUDS / (15) X 3 OR (6) X 3 @ TOP & (23) @ BASE TYP. @ 1 STORY
C	(2) STUDS / (15) X 2 OR (6) X 2 @ TOP & (15) X 2 OR 6 X 2 @ LOWER BEAM OR RIMBOARD
C1	(3) STUDS / (15) X 2 OR (6) X 2 @ TOP & (15) X 2 OR 6 X 2 @ LOWER BEAM OR RIMBOARD
D	(4) STUDS OR 6X6 P.T. POST / (28) X 2 @ TOP & (5) @ BASE
E	(2) STUDS / (15) X 2 OR (6) X 2 @ TOP + (12) X 2 - 52" LONG @ FLOOR & (22) @ BASE
F	(3) STUDS / (15) X 3 OR (6) X 3 @ TOP + (12) X 2 - 52" LONG @ FLOOR & (23) @ BASE
G	(2) STUDS / (15) X 2 OR (6) X 2 @ TOP + (12) X 2 - 52" LONG @ BASE W/ (13) 10d NAILS TO STUDS & (10) 3/16" X 2 1/4" TAPCONS TO GROUTED C.M.U.
H	(3) STUDS / (15) X 3 OR (6) X 3 @ TOP + (12) X 3 - 52" LONG @ BASE W/ (13) 10d NAILS TO STUDS & (10) 3/16" X 2 1/4" TAPCONS TO GROUTED C.M.U.
I	5 1/4" X 5 1/4" PARALAM POST W/ (21) X 2 POST / BEAM / (23) @ BASE (TYP.)
J	2nd FLOOR STUDS TO FLOOR SYSTEM W/ LSTA36 @ 32" O.C. & AT OR CS16-R LONG @ 32 32" O.C. & AT CORNERS, ENDS & (2) AT EACH SIDE OF OPENINGS
K	2 X 10 LEDGER BOARD W/ (3) 1/4" X 4" WOOD SCREWS AT 16" O.C. AT FRAME OR 1/4" X 4 1/2" TAPCONS @ 5" O.C.
K1	(2) 2X12 LEDGER BOARD DOUBLE STAGGERED ROW OF 3/4" X 10" ANCHOR BOLTS @ 16" O.C. TO GROUTED CMU OR CONCRETE
L	5 1/4" X 5 1/4" PARALAM POST W/ (21) X 2 POST / BEAM / (23) @ BASE (TYP.)
M	6X6 P.T. POST W/ (21) X 2 POST/BEAM / (23) @ BASE (TYP.)
N	4X4 P.T. POST W/ (14) X 2 POST/BEAM / (24) @ BASE (TYP.)
O	4X4 P.T. POST W/ (16) X 3 POST/BEAM / (23) @ BASE (TYP.)

CMU WALL SYSTEM AS WELL AS ICF SEGMENTS WHICH HAVE AN UNINTERUPTED LENGTH OF 4'0" OR MORE SHALL BE CONSIDERED SHEER WALLS

S.W.S • SHEERWALL SEGMENTS (SEE ATTACHED DETAILS)

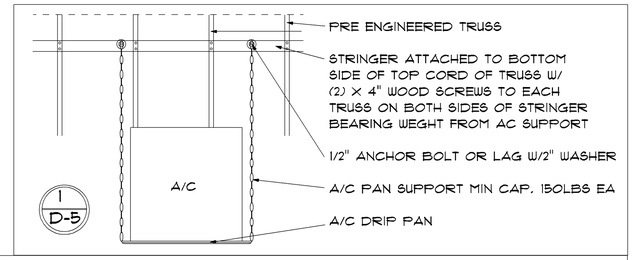
CONNECTOR SCHEDULE
SIMPSON

*	CONNECTOR	FASTNERS	UPLIFT (lbs)
1	META18	(8)10D X 1-1/2"1-PLY (6) 16d X 3-1/2"2-3PLY	1,450
2	HETA20	1 PLY (9) 10d X 1.5 2/3 PLY (8) 16d X 3-1/2"	1,810
3	MTS12 OR MTS 16	(14)10d	980
4	H3	(8) 8d	400 UPLIFT 170 LATERAL
5	HD9B	7/8" ANCHOR BOLT (3) 7/8" BOLTS THRU	7,910
6	HTS20	24- 10d X 1.5	1,310
7	HHETA20	1 PLY (10) 10d X 1.5 2-3 PLY (9) 16d X 3-1/2"	2,120
8	HGT-2 OR HGT-3	(2) 3/4" ANCHORS TO CMU & (16) 10D X 3" TO GIRDER	10,690
9	SP1	(6) 10D X 3" TO STUD (4) 10D X 3" TO PLATE	555
10	SP2	(6) 10D X 3" TO STUD (6) 10D X 3" TO PLATE	1,010
11	SP4	(6) 10d X 1.5 TO STUD	415 SIDE 825 CENTER
12	CS16-R	(22) 10d X 2 1/2"	1,705
13	LSTA12	(10) 10d X 2 1/2"	925
14	LSTA24	(18) 10d X 2 1/2"	1,235
15	LSTA30	(22) 10d X 2 1/2"	1,640
16	LSTA36	(24) 10d X 2 1/2"	1,640
17	MSTA36	(26) 10d X 2 1/2"	2,050
18	HETA16	1 PLY (9) 10d X 1.5 2 PLY (8) 16d X 3 1/3	1,810
19	HUS26	(14) 16d X 3 1/2 TO HEADER (6) 16D X 3 1/2 TO JOIST	1,320
20	HGUS48	(36) 16d X 3 1/2 TO FACE (12) 16D X 3 1/2 TO JOIST	3,235
21	RTPGA824	(24)16D	1,500
22	HTTT16	(18) 16d + 5/8" A.BOLT	4,175
23	HTT22	(32) 16d + 5/8" A.BOLT	5,250
24	ABU44	(12) 16d + 5/8" A.BOLT	1,900
25	ABU66	(12) 16d + 5/8" A.BOLT	2,475
26	H10A	(9) 10d X 1.5 TO TRUSS (9) 10D X 1 1/2" TO PLATE	855
27	MST27	(30) 16d X 2 1/2"	3,700
28	MSTI48	(48) 10d X 1.5	5,070
29	MGT	(1) 5/8" BOLT TO LINTLE & (22) 10d NAILS TO TRUSS	3,965

UNLESS NOTED OTERWISE:

- WHERE CONNECTOR NOT NOTED FOR TRUSS TO FRAME USE (6) / TRUSS TO NEW CMU USE (2) /TRUSS TO EXISTING CMU USE (30)
- ALL INTERIOR BEAMS USE (6) X 2 ON FRAME AND (2) X 2 ON BLOCK
- ALL CONVENTIONALLY FRAMED MEMBERS USE (4) 10d TOE NAILS @ EACH END OF MEMBERS
- USE HUS26 AS 1 PLY HANGER & HGUS45 AS 2 PLY HANGER
- MINIMUM OF 6" EMBEDMENT FOR ANCHOR BOLTS TO SLAB
- WHERE USED WITH WOOD FRAME WALLS, ALSO MUST USE (2) INVERTED HTT22 UNDER PLATES

ROOF LIVE LOAD = 20 P.S.F.	FLOOR LIVE LOAD = 40 P.S.F.	STAIRS = 100 P.S.F.	DECKS & BALCONIES = 60 P.S.F.



8X8 PRECAST LINTLE (FILLED & UNFILLED)

TOTAL ALLOWABLE SUPERIMPOSED LOAD - POUNDS PER LINEAR FOOR

MARK NO.	NOMINAL CELAR SPAN	TOTAL LINTLE SIZE	NO FILL NO STEEL	FILLED (1) #5 A
L-1	1'6"	2'10"	6191	7845
L-2	2'2"	3'8"	4277	5413
L-3	2'8"	4'0"	3466	4383
L-4	3'2"	4'6"	2917	3686
L-5	4'0"	5'4"	2304	2906
L-6	4'6"	5'10"	2045	2577
L-7	5'2"	6'8"	1722	2167
L-8	6'2"	7'8"	1484	1885
L-9	7'0"	8'4"	1304	1636
L-10	8'0"	9'4"	1138	1425
L-11	9'2"	10'8"	989	1236
L-12	10'0"	11'4"	904	1128
L-13	11'2"	12'8"	807	1004
L-14	12'0"	13'4"	749	931
L-15	12'8"	14'0"	708	783
I-16 (P.S.)	13'4"	14'8"	548	760
I-17 (P.S.)	14'0"	15'4"	491	687
I-18 (P.S.)	16'0"	17'4"	332	521
I-19 (P.S.)	18'0"	19'4"	233	406
I-20 (P.S.)	18'8"	20'0"	208	376
I-21 (P.S.)	20'8"	21'4"	188	302
I-22 (P.S.)	22'8"	24'0"	111	237

NOTE: (P.S.) = PRECAST LINTLES PRESTRESSED USING (2) 7/16" DIAM. PRESTRESSING STRANDS

8X16 PRECAST LINTLE (COMPOSIT)

TOTAL ALLOWABLE SUPERIMPOSED LOAD - POUNDS PER LINEAR FOOR

MARK NO.	NOMINAL CELAR SPAN	TOTAL LINTLE SIZE	FILLED (1) #5 T4B C
L-1	1'6"	2'10"	12374
L-2	2'2"	3'8"	8488
L-3	2'8"	4'0"	8868
L-4	3'2"	4'6"	5772
L-5	4'0"	5'4"	4546
L-6	4'6"	5'10"	4028
L-7	5'2"	6'8"	3382
L-8	6'2"	7'8"	2908
L-9	7'0"	8'4"	2548
L-10	8'0"	9'4"	2216
L-11	9'2"	10'8"	1918
L-12	10'0"	11'4"	1749
L-13	11'2"	12'8"	1554
L-14	12'0"	13'4"	1438
L-15	12'8"	14'0"	1356
I-16 (P.S.)	13'4"	14'8"	1395
I-17 (P.S.)	14'0"	15'4"	1326
I-18 (P.S.)	16'0"	17'4"	1153
I-19 (P.S.)	18'0"	19'4"	1019
I-20 (P.S.)	18'8"	20'0"	980
I-21 (P.S.)	20'8"	21'4"	880
I-22 (P.S.)	22'8"	24'0"	740

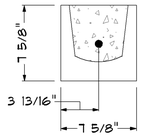
NOTE: (P.S.) = PRESTRESSED LINTLES USING (2) 7/16" DIAM. PRESTRESSING STRANDS

8X24 PRECAST LINTLE (COMPOSIT)

TOTAL ALLOWABLE SUPERIMPOSED LOAD - POUNDS PER LINEAR FOOR

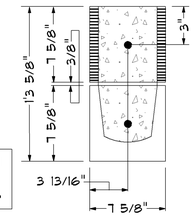
MARK NO.	NOMINAL CELAR SPAN	TOTAL LINTLE SIZE	FILLED (1) #5 T4B L
L-1	1'6"	2'10"	19724
L-2	2'2"	3'8"	13599
L-3	2'8"	4'0"	11004
L-4	3'2"	4'6"	9250
L-5	4'0"	5'4"	7287
L-6	4'6"	5'10"	6458
L-7	5'2"	6'8"	5548
L-8	6'2"	7'8"	4885
L-9	7'0"	8'4"	4089
L-10	8'0"	9'4"	3558
L-11	9'2"	10'8"	3081
L-12	10'0"	11'4"	2809
L-13	11'2"	12'8"	2497
L-14	12'0"	13'4"	2312
L-15	12'8"	14'0"	2180
I-16 (P.S.)	13'4"	14'8"	1956
I-17 (P.S.)	14'0"	15'4"	1857
I-18 (P.S.)	16'0"	17'4"	1611
I-19 (P.S.)	18'0"	19'4"	1412
I-20 (P.S.)	18'8"	20'0"	1368
I-21 (P.S.)	20'8"	21'4"	1223
I-22 (P.S.)	22'8"	24'0"	1106

NOTE: (P.S.) = PRESTRESSED LINTLES USING (2) 7/16" DIAM. PRESTRESSING STRANDS

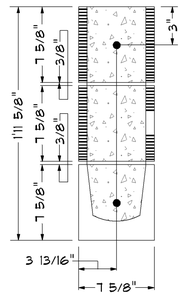


DETAIL A

Unless otherwise noted use Lintle "DETAIL C" for all C.M.U. Openings



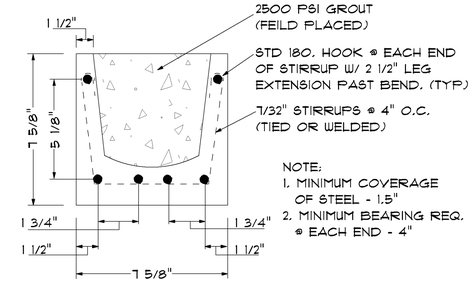
DETAIL C



DETAIL L

GENERAL NOTES:

1) CODES
 1.1 FLORIDA BUILDING CODE
 1.2 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318).
 1.3 AMERICAN SOCIETY OF CIVIL ENGINEERS MINIMUM DESIGN LOADS FOR BUILDINGS & OTHER STRUCTURES (ASCE 7-16).
2) CONCRETE,
 2.1 CONCERETE COMPRESSIVE STRENGTH @ 28 DAYS;
  2.1.1 PRE-CAST W/STANDARD REINFORCEMENT - 3500 PSI.
  2.1.2 PRE-CAST W/PRESTRESSED REINFORCEMENT - 5000 PSI.
  2.1.3 CONCRETE FILL (FEILD PLACED) - 2500 PSI
 2.2 REINFORCING BARS;
  2.1.1 STEEL PLACED IN PRECAST LINTLE @ TIME OF FABRICATION ASTM A615 (GRADE 60).
  2.1.2 STEEL IN LINTLE & KNOCK OUT BLOCK (FEILD PLACED) ASTM A615 (GRADE 40).
 2.3 PRESTRESSED STRANDS ASTM A416 7-WIRE.
 2.4 DETAIL REINFORCEMENT IN ACCORDANCE WITH ACI 315
 2.5 CONCRETING OPERATIONS SHALL COMPLY WITH ACI STANDARDS.
3) MASONRY;
 3.1 DESIGN & CONSTRUCTION SHALL CONFORM TO THE SPECIFICATION OF THE NATIONAL CONCRETE MASONRY ASSOCIATION & ACI 530/TM6402
 3.2 MINIMUM MASONRY UNIT STRENGTH: 1250 PSI.
 3.3 MORTAR SHALL BE TYPE S.
4) STRUCTURAL;
 4.1 SAFE LOAD VALUES ARE BASEDON LINTLES HAVING A BEARING 8"



NOTE;
1. MINIMUM COVERAGE OF STEEL - 1.5"
2. MINIMUM BEARING REQ. @ EACH END - 4"

TYPICAL PRECAST LINTLE

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH AND MEETS THE REQUIREMENTS OF FBC 2020, 7Th EDITION, AND ASCE 7-16 FOR Vult.=140 MPH WIND SPEED. Vasd. =108 MPH
RISK CATEGORY II
TOPOGRAPHIC FACTOR = 1.0
WIND DIR. FACTOR Kd=0.85
INTERNAL PRESSURE COEFFICIENT: +/- 0.18
DESIGN PRESSURE FOR WALL COMPONENTS & CLADDING (WORST CASE) +25.6 PSF -33.9 PSF
GARAGE DOOR DESIGN PRESSURE = +22.4, -25.3 (WORST CASE)
ROOF LIVE LOAD = 20 PSF FLOOR LIVE LOAD = 40 PSF
EXPOSURE CATEGORY C
GUST EFFECT, G=0.85
FULLY ENCLOSED

ENGINEERING SERVICES GROUP, LLC
CA#8886
391 W. Alfred St.
Tavares, FL 32778
352-308-1735 J. Lee Smith, P.E. #36177

James Lee Smith / P.E.

JAMES LEE SMITH LICENSE No 36177 STATE OF FLORIDA PROFESSIONAL ENGINEER

This item has been electronically signed and sealed by James Lee Smith, P.E. using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Digitally signed by James L Smith
Date: 2021.03.23 11:01:08 -04'00'

Drawn By
Michael Roberts

Detail Typical

D-5