Washoe County Development Application

Your entire application is a public record. If you have a concern about releasing personal information, please contact Planning and Building staff at 775.328.6100.

Project Information		Staff Assigned Case No.:	
- Froject information		otali Assigned Case No	
Project Name: 12550 B	Broili WBL	022-100908	
Project Accessory Dwe Description:	lling		
Project Address:12550 Broili D	r, Reno NV 89511		
Project Area (acres or square fee	et):768 sqft living are	a with 160sqft covered patio	
Project Location (with point of re	ference to major cross	streets AND area locator):	
North East corn	er of prope	erty	
Assessor's Parcel No.(s):	Parcel Acreage:	Assessor's Parcel No.(s):	Parcel Acreage:
162-042-11	1 acre		
Indicate any previous Washo Case No.(s). test trench per		s associated with this applicat	ion:
Applicant Info	ormation (attach	additional sheets if necess	ary)
Property Owner:		Professional Consultant:	
Name: LINDBERG, BRAD & C	HRISTIN K	Name:	
Address:12550 Broili Dr		Address:	
Reno NV	Zip: 89511		Zip:
Phone: 775-313-5770	Fax:	Phone:	Fax:
Email:skaylind61@yahoo.com		Email:	
Cell:	Other:	Cell:	Other:
Contact Person:Sandy Lind		Contact Person:	
Applicant/Developer:		Other Persons to be Contact	ed:
Name:Kolbe Custom Builders		Name:Michelle Francis	
Address:PO Box 2468		Address:2959 Vicky Ln	
Gardnerville NV	Zip: 89410	Minden NV	Zip: 89423
Phone: 775-691-1455	Fax:	Phone: 775-546-3495	Fax:
Email:JoshKolbeKCB@gmail.c	com	Email:michellefrancisrealtor@g	gmail.com
Cell:	Other:	Cell:	Other:
Contact Person: Josh Kolbe		Contact Person:Michelle Franc	sis
	For Office	Use Only	
Date Received:	Initial:	Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	

Property Owner Affidavit

Applicant Name: Bradley Lindberg, Christin Lindberg

The receipt of this application at the time of submittal does not guarantee the application complies with all requirements of the Washoe County Development Code, the Washoe County Master Plan or the applicable area plan, the applicable regulatory zoning, or that the application is deemed complete and will be processed.

country of Washoe }

Bradley Lindberg and Christin Undberg

(slease print name)

being duly sworn, depose and say that I am the owner" of the property or properties involved in this application as listed below and that the foregoing statements and answers herein contained and the information herewith submitted are in all respects complete, true, and correct to the best of my knowledge for the best of my knowledge. I understand that no assurance or guarantee can be given by members of Planning and Building.

(A separate Affidavit must be provided by	each property owner named in the title report.
Assessor Parcel Number(s)	
Christin unaberg	Signed Market Lindburg Signed Market Broili dr. Address 12550 Broili dr. reno, NV 89611
17550 BIDITI OF. TEND, NV B9511 Subscribed and swom to before me this 30 may of March 200 Z	(Notary Stamp)
Notary Public in and for said county and stale My commission expires: 11/1/7422	RRISTIAN LANCING Hosey Prace. Sake of New County of Weston And The Charles My Appt Operas Nov. 1, 20
*Owner refers to the following: (Please mark app	propriate box)
Charles of Allegram (Provide copy of Pow	om property owner giving legal authority to algent.) sociement indicating authority to sign.)
	Diese

Over 2018

Administrative Review Permit Application for a Detached Accessory Dwelling **Supplemental Information**

(All required information may be separately attached)

1.	What is the size (square footage) of the main dwelling or proposed main dwelling (exclude size of garage)?
	2652
2.	What is the size of the proposed detached accessory dwelling (exclude size of garage)? If a manufactured or modular home is the secondary dwelling, list the age and size of the unit.
	768
3.	How are you planning to integrate the main dwelling and secondary dwelling to provide architectural compatibility of the two structures?
	Similar in design, finishes, and colors
5.	How many off-street parking spaces are available? Parking spaces must be shown on site plan. Are any new roadway, driveway, or access improvements be required?
	Parking is provided inside of existing garage
6.	What will you do to minimize any potential negative impacts (e.g. increased lighting, removal of existing vegetation, etc.) your project may have on adjacent properties?
	Area will be cleaned of all debris, and unpleasant landscape to provide a visually asthetic accessory dwelling site that is hardly visible to surrounding properties.
7.	Is the subject property part of an active Home Owners Association (HOA) or Architectural Control Committee?
	☐ Yes ☐ No If yes, please list the HOA name.
8.	Are there any restrictive covenants, recorded conditions, or deed restrictions (CC&Rs) that may prohibit a detached accessory dwelling on your property?
	☐ Yes ☐ No If yes, please attach a copy.
9.	Only one accessory dwelling unit, whether attached or detached, is allowed per parcel. Is there a guest apartment, mother-in-law unit, next-gen addition with kitchen or any other type of secondary dwelling on the subject property?
	☐ Yes ☐ No If yes, please provide information on the secondary unit.

10. List who the service providers are for the main dwelling and accessory dwelling:

	Main Dwelling	Accessory Dwelling
Sewer Service	septic	additional septic
Electrical Service	NV Energy	NV Energy
Solid Waste Disposal Service		
Water Service	TMWA	TMWA

PROJECT PLANS FOR AN

ACCESSORY DWELLING

12550 BROILI DRIVE RENO, NEVADA



SCALE: NONE



LEGEND

PROPERTY LINE BUILDING SETBACK LINE EASEMENT BOUNDARY LINE

DRAINAGE SWALE W/ MIN 1% SLOPE TO DRAIN

EDGE OF ROADWAY PAVEMENT UNDERGROUND POWER, PHONE & CATY

3/4 " # UNDERGROUND PVC GAS LINE 4'\$ (SDR-35) SOLID SEWER LINE, SLOPED 2%

UNDERGROUND 3/4 1/4 PVC WATER LINE

KEY NOTES

A. (2) STOP & DRAINS & WATER CONNECTION TO STRUCTURE
B. 100AMP POWER DISTRIBUTION PANEL
C. GAS CONNECTION TO STRUCTURE SEWER CLEAN OUT - SEE DTL B, SHEET 562 (N) SEPTIC TANK - SEE DTL A, SHEET SS2 (N) LEACH FIELD - SEE DTL C, SHEET 992 G. (E) SEPTIC TANK H. (E) 75' LEACH FIELD (E) WATER METER & UTILITY VAULTS 34" PVC WATER LINE

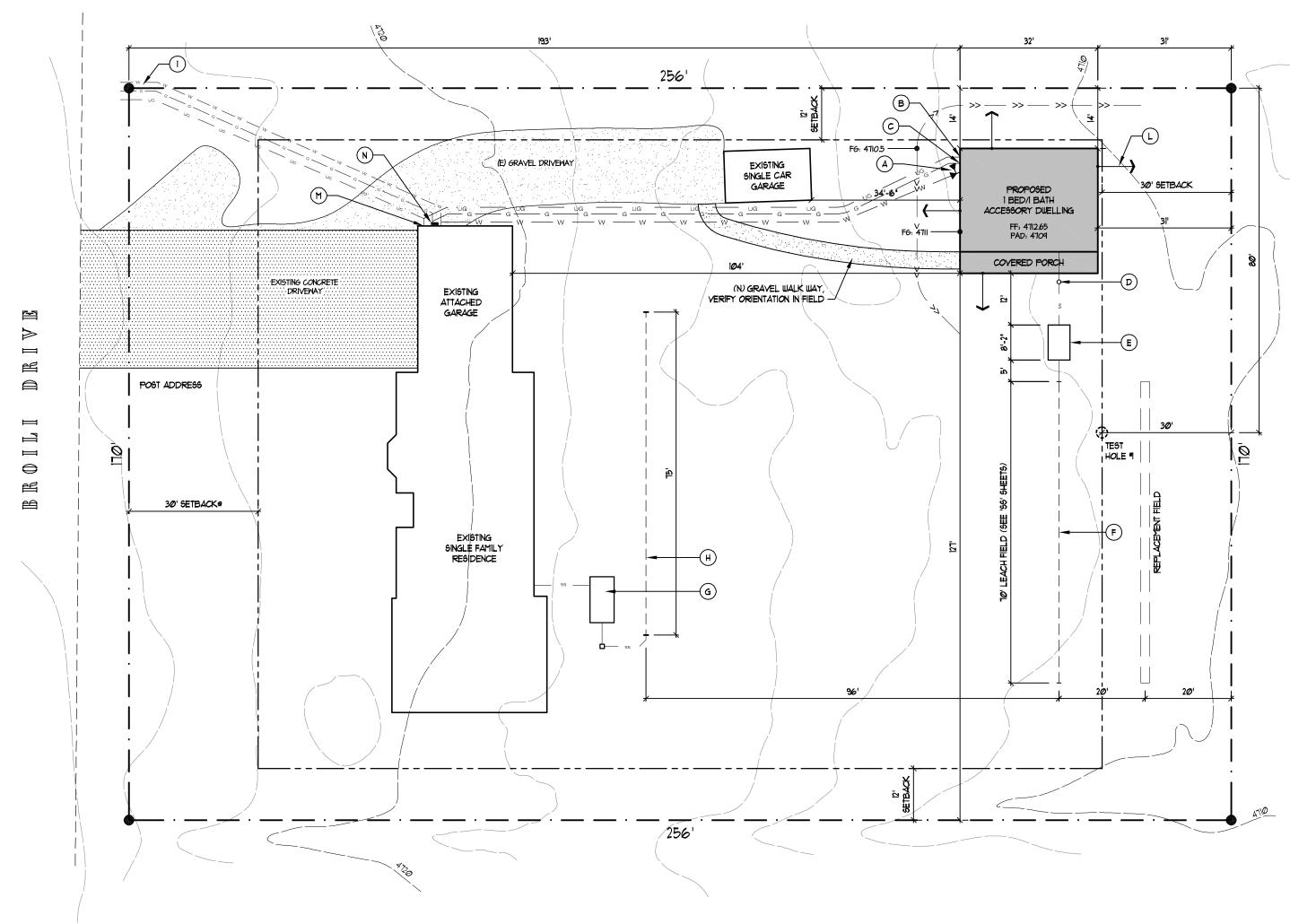
L. SLOPE AWAY @ 5% FOR 10 MIN, TYPICAL AT ALL SIDES OF STRUCTURE M. (E) 200AMP POWER SERVICE

K. I' PVC GAS LINE

N. (E) GAS METER

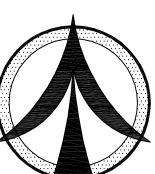
ARCHITECTURAL ABBREVIATIONS

Hollow Core Header Hollow Metal Horizontal Hour Air Conditioning Arc Fault Circuit Interrupted AF ALIX G BLOT TO PE X Heating, Ventilating, And Air Conditioning Insulated or insulation Interior
Low
Maximum
Mechanical
Minimum/Minute
Metal
Number
Nominal
Over
On Center
Over Hang
Orient Strand Board
Ounce
Plumbing
Plywood
Paint or Painted
Point of Connection
Pressure Treated/Pressure Tank
Quantity Auminum
Auming
Blocking
Below
Bottom
Basement
Between
Beyond
C-D Exposure | plywood (X means exterior glue, or glue that can be wet) Standard plywood CHNL
CJ
CLG/CL'G
CLR
CMI
COL
CONC
CONT
CONT Channel
Control Joint/Ceiling Joiet
Ceiling
Clear Quantity Rubber Room Solid Core Social Core
Second
Square Foot
Single Hung
Sheeting/Sheathing
Similar
Specified OR Specification Diameter Dimension Down
Door
Each
Electrical
Edge Nail
Equal
Equivalent
Each Way
Existing
Exterior Top Of Concrete Forced Air Unit Floor Drain or Fire Departme Unless Noted Otherwise Volt Vertical With Wood Water Heater Walk in Closet Weather Proof/Water Proof





NO SURVEY PROVIDED. THIS SITE PLAN IS PROVIDED SCALE: 1'=20'-0' FOR THE LOCATION OF THE PROJECT FOR CONSTRUCTION PURPOSES ONLY. CONTOURS DIGITIZED FROM WASHOE COUNTY GIS LAYER, THIS IS NOT A GRADING PLAN.



GENERAL NOTES

- ALL MATERIAL, WORKMANSHIP, TOOLS AND EQUIPMENT SHALL MEET OR EXCEED LOCAL BUILDING DEPARTMENT, CITY, COUNTY STATE AND FEDERAL REQUIREMENTS. THIS INCLUDES THE APPLICABLE SECTIONS OF THE INTERNATIONAL BUILDING CODE, AND ALL OTHER APPLICABLE CODES, ORDINANCES, REGULATIONS RULES & LAWS
- 2. ALL MATERIALS SHALL BE NEW & UNUSED, UNLESS OTHERWISE NOTED
- 3. PURSUANT TO THE REQUIREMENTS OF THE 2018 IRC, SECTION 106.1 AND NEVADA LAW, THE NEVADA REGISTERED ARCHITECT, ENGINEER, RESIDENTIAL DESIGNER, LICENSED CONTRACTOR OR OWNER/BUILDER IS SOLELY RESPONSIBLE FOR HAVING A THOROUGH KNOWLEDGE OF ALL GOVERNING CODES, REGULATIONS, ORDINANCES, AND DESIGN DOCUMENT PREPARATION CONVENTIONS & PRACTICES AND SHALL PROVIDE COMPLETE, ACCURATE AND DETAILED DOCUMENTS WHOSE CONTENT CONFORMS TO ALL GOVERNING CODES, REGULATIONS AND ORDINANCES.
- 4. FIGURES AND NOTES SHALL HAVE PRECEDENCE OVER SCALED MEASUREMENTS AND DETAILS OVER GENERAL DRAWINGS.
- 5. DO NOT SCALE DRAWINGS IN FIELD, USE DIMENSIONS AS CALLED FOR
- 6. ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH ALL STATE AND LOCAL BUILDING CODES & ORDINANCES CURRENTLY IN FORCE
- 1. IF ANY ERRORS OMISSIONS OR DISCREPANCIES ARE NOTED ON THE PLANS, SUBCONTRACTORS AND SUPPLIERS AFFECTED SHALL NOTIFY GENERAL IN WRITING OF SUCH ERRORS OR OMISSIONS PRIOR TO CONSTRUCTION OF AREA IN QUESTION. FAILURE TO COMPLY WITH THE ABOVE SHALL RESULT IN SUBCONTRACTOR/SUPPLIER BEING HELD RESPONSIBLE
- 8. IT IS THE INTENT OF THESE DRAWINGS TO PROVIDE THE GENERAL CONTRACTOR WITH AND OVERALL SCOPE OF THE REQUIREMENTS. FIELD VERIFICATION SHALL BE REQUIRED OF ALL TRADES TO DETERMINE THE EXTENT OF ACTUAL REQUIREMENTS.
- 9. ALL EQUIPMENT, FIXTURES, FINISH MATERIALS AND COLORS, INTERIOR AND EXTERIOR SHALL BE APPROVED BY OWNER
- 10. PROVIDE POSITIVE DRAINAGE AROUND AND AWAY FROM BUILDING. PER IRC & LOCAL CODE. CONTRACTOR TO VERIFY DRAINAGE OF SUBSURFACE DRAINS PRIOR TO BACKFILLING.
- II. VERIFY LOCATION OF ALL UTILITIES PRIOR TO COMMENCEMENT.
- GENERAL CONTRACTOR.
- 13. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND PROPER FUNCTION OF PLUMBING, HYAC, AND ELECTRICAL SYSTEMS. THE GENERAL CONTRACTOR SHALL NOTIFY THE DESIGNER WITH ANY PLAN CHANGES REQUIRED FOR DESIGN & FUNCTION OF PLUMBING, HYAC, AND ELECTRICAL SYSTEMS.
- 15. THERE ARE NO NEIGHBORING WELLS W/IN 150°, OR PONDS, LAGOONS, OR WATER
- 17. SEPTIC SYSTEM APPROVAL WILL NEED TO BE PROVIDED BY WASHOE COUNTY PRIOR TO THE PERMIT BEING ISSUED

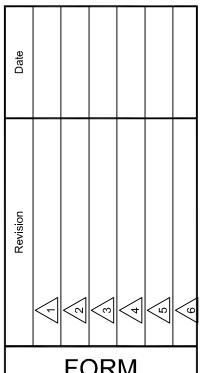
DESIGN CRITERIA

MIN REQUIREMENT: (2) OFF-STREET COVERED PARKING

AI SITE & TITLE SHEET A2 EXTERIOR ELEVATIONS A3 ARCH, STRUCT, & ELECTRICAL FLOOR PLAN ON CODE REFERENCE NOTES CONSTRUCTION DRAWINGS

952 SEPTIC DESIGN DETAILS & CALCULATIONS

BUILDER/CONTRACTOR: RESIDENTIAL DESIGN: CARTER HILL HOMES BRANDON HILL 1625 US HWY 88, SUITE 102 P O BOX 1335 GENOA NV 89411 175-720-4817 MINDEN NV 89423 OFFICE: 115-339-9000 SEPTIC DESIGN: WESTEX CONSULTING ENGINEERS BLAKE D. CARTER, PE P O BOX 1335 RENO NV 89511 GENOA NV 89411



FORM CONSULTING LLC

NATHAN E TOLBERT RESIDENTIAL DESIGNER NV License #399-RD

> P O BOX 1335 GENOA NV 89411

(775) 720-4817

12. THE BUILDING, BUILDING SITE, AND NEIGHBORING BUILDINGS & PROPERTIES SHALL BE PROTECTED FROM ANY DAMAGE THAT MAY OCCUR DUE TO THE PERFORMANCE OF THIS WORK. ANY DAMAGES THAT OCCUR ARE THE SOLE RESPONSIBILITY OF THE

- 14. WASHOE COUNTY REQUIRES A BLOWER DOOR TEST, THE AIR BARRIER SHALL BE VERIFIED WITH BUILDING TESTING (BLOWER DOOR TEST) PER IECC R402.4.12. .
- COURSES WITHIN 500' OF THE PROPOSED SEPTIC SYSTEMS, U.O.N.
- 16. THERE IS NO PUBLIC SEWER SYSTEM WITH IN 3,000' OF THIS PARCEL.

2018 INTERNATIONAL RESIDENTIAL CODE (IRC) 2017 NATIONAL ELECTRICAL CODE (NEC) 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC) 2018 INTERNATIONAL FIRE CODE (IFC) 2018 NORTHERN NEVADA AMENDMENTS X-UNSHADED SEISMIC ZONE: D2 (IRC) 130 MPH (V_{ult}) EXPOSURE: GROUND SNOW LOAD: 40 PSF FLAT ROOF SNOW LOAD: 31 PSF ROOF DEAD LOAD: 18' MINIMUM FROST DEPTH: 1500 PSF MAX SOIL BEARING: MIN ROOF PITCH: MAX BUILDING HEIGHT: 35'-0' MIN SOFFIT EAVES (O.H.): 18" MIN REQUIREMENT: BUILDING OFFSETS RECESSED/ ALCOVE OR SIMILAR FEATURES

SHEET INDEX

STRUCTURAL DETAILS STRUCTURAL NOTES & SCHEDULES 661 SEPTIC DESIGN PLAN

PROJECT TEAM FORM CONSULTING, LLC NATHAN TOLBERT, RD Nathan.TNT@Charter.net STRUCTURAL DESIGN: FORM CONSULTING, LLC STEVE GREER, PE TT5-232-T8T1 SRGreerNv@gmail.com



03/07/2022

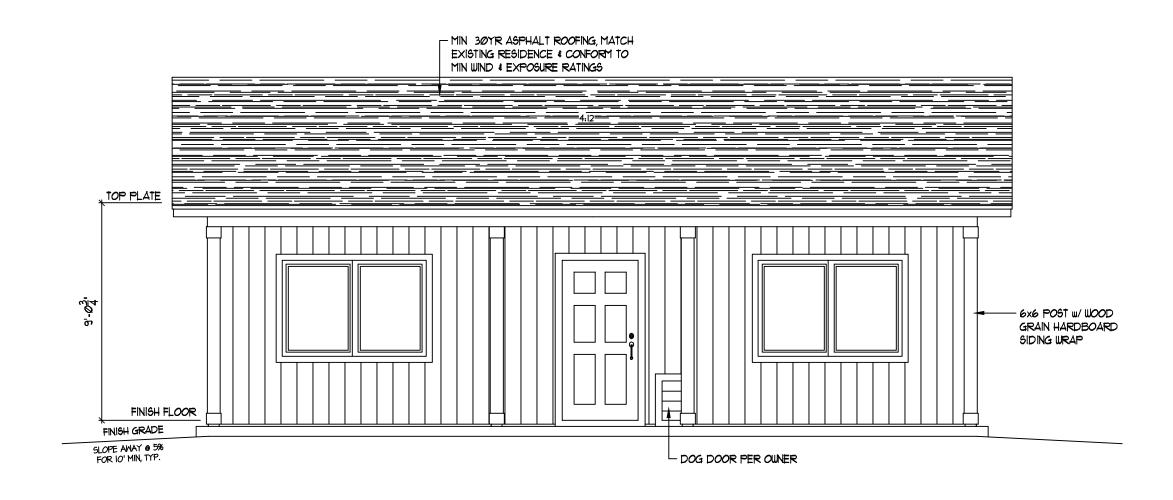
A1

MARCH, 2022

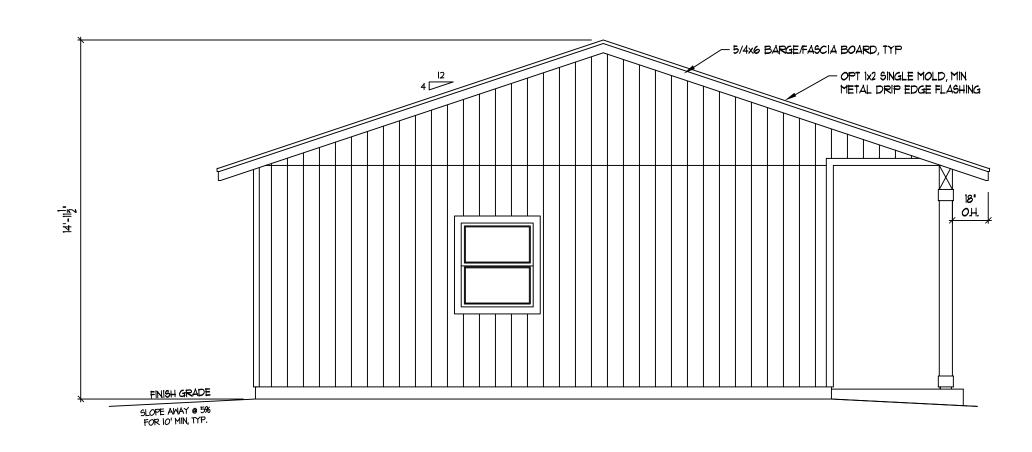
1"=20'-0"

SHEET

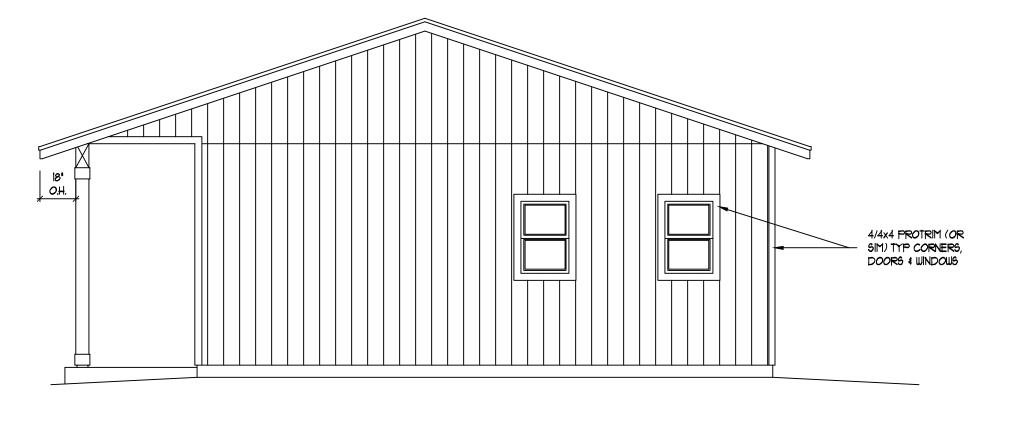
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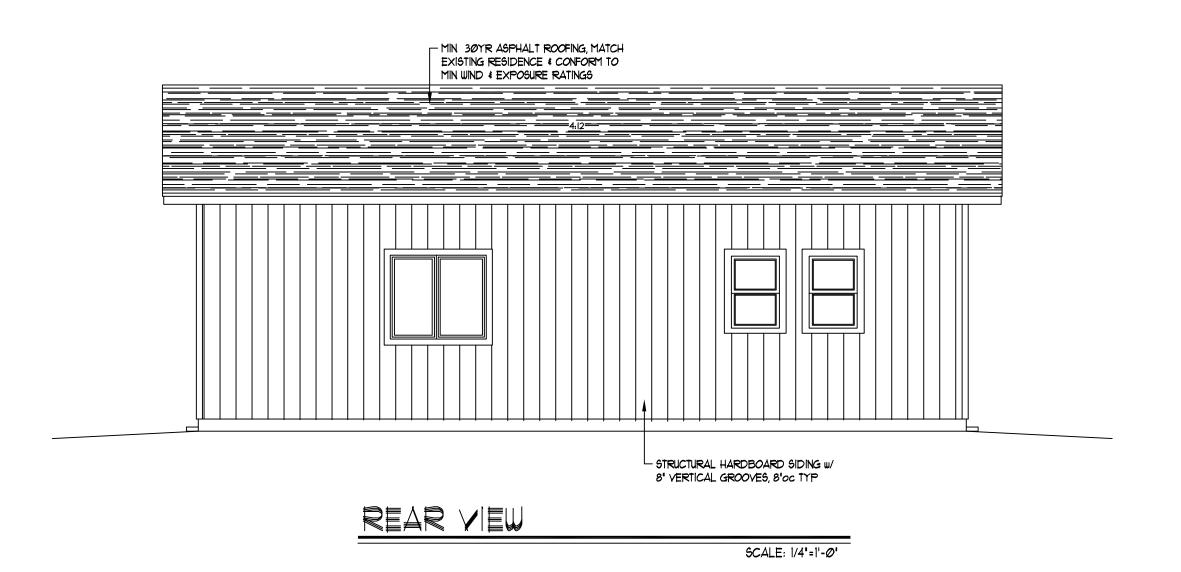
SCALE: 1/4"=1'-@"



LEFT SIDE VIEW SCALE: 1/4"=1'-@"



RIGHT SIDE VIEW SCALE: 1/4"=1'-0"

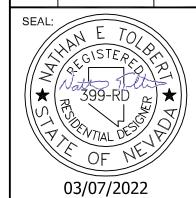


FORM CONSULTING LLC

NATHAN E TOLBERT RESIDENTIAL DESIGNER NV License #399-RD P O BOX 1335 **GENOA NV 89411**

(775) 720-4817

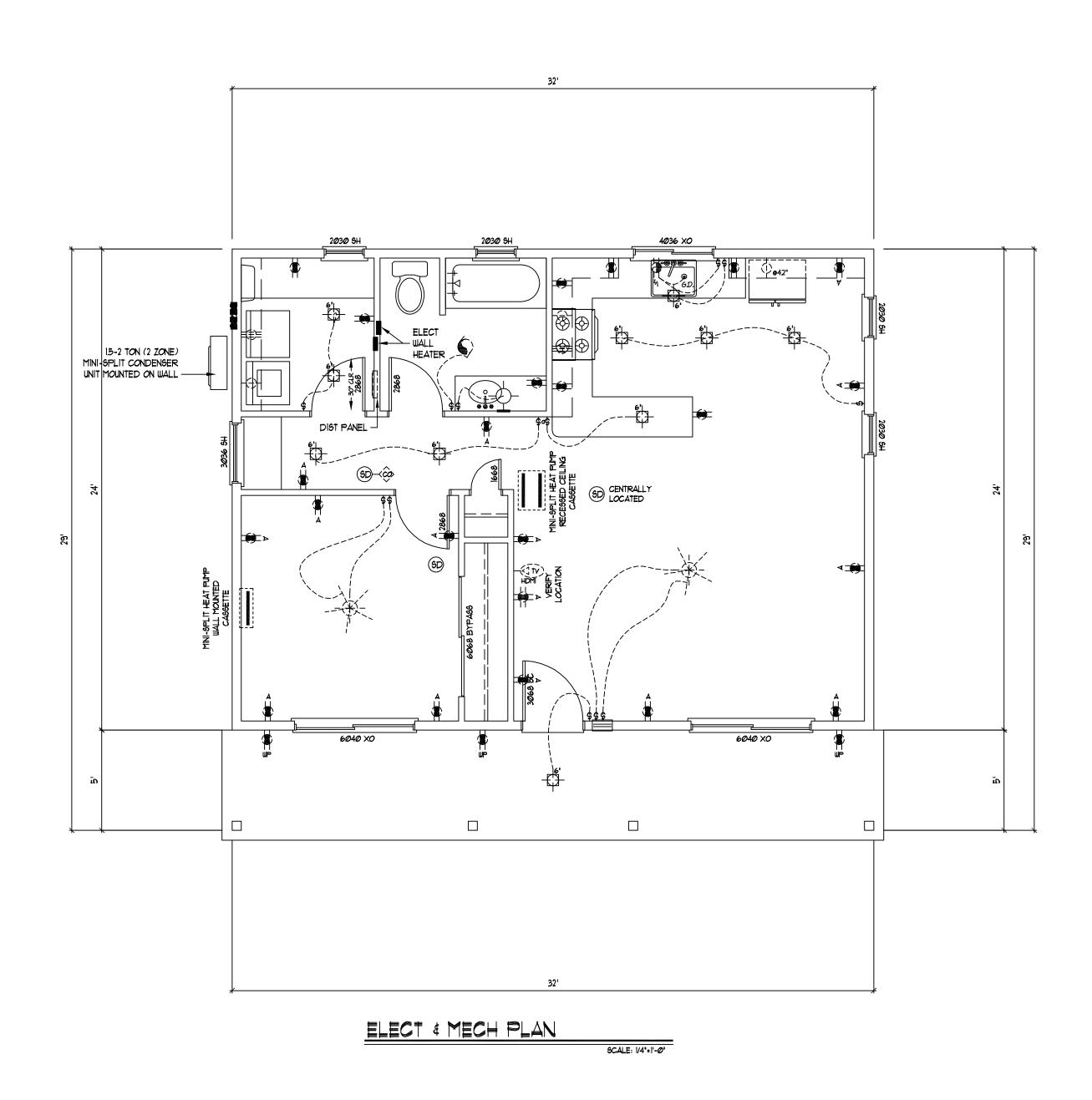
EXTERIOR ELEVATIONS

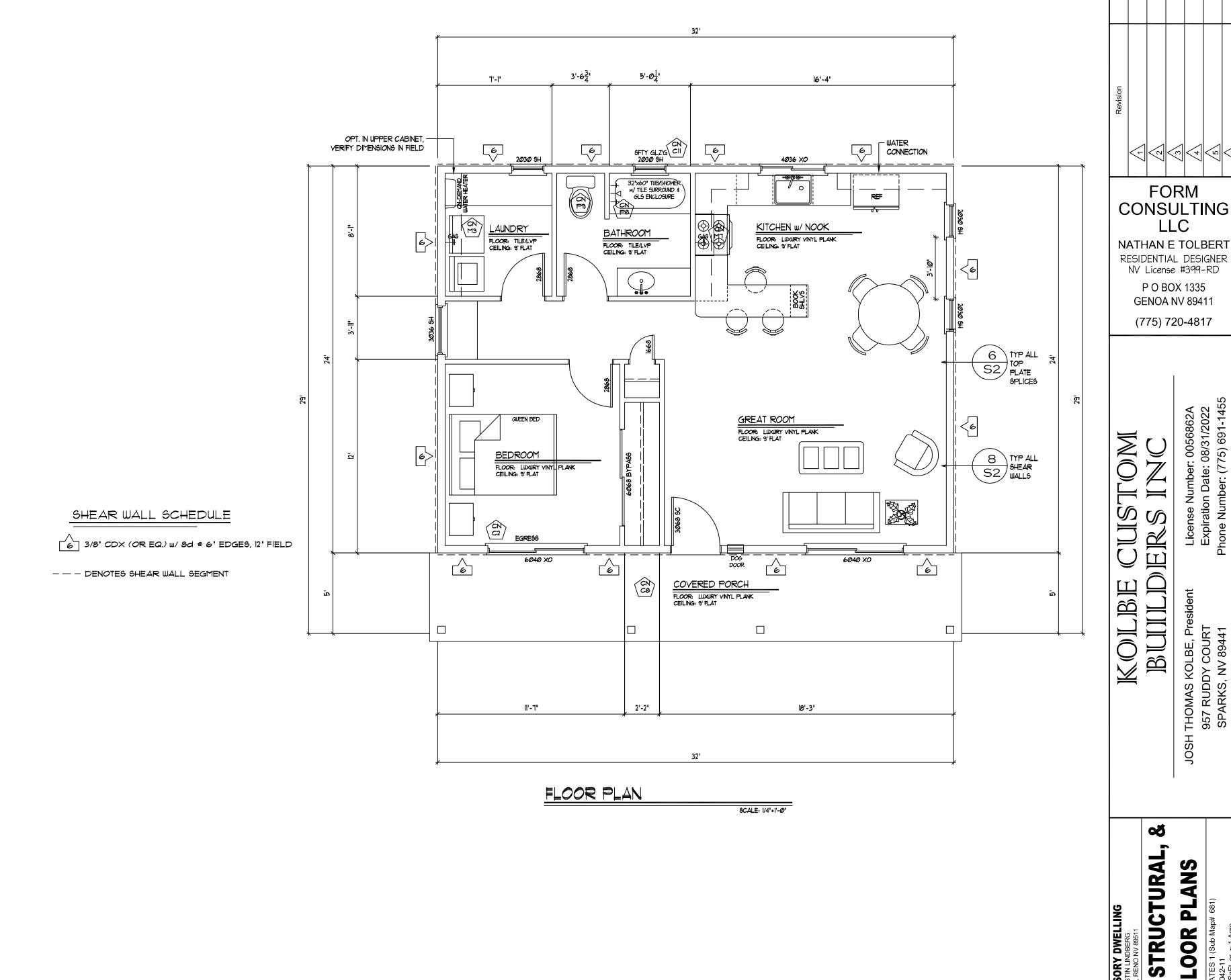


SHEET:

A2

JOB #: CHECKED BY: DATE: MARCH, 2022 1/4"=1'-0"

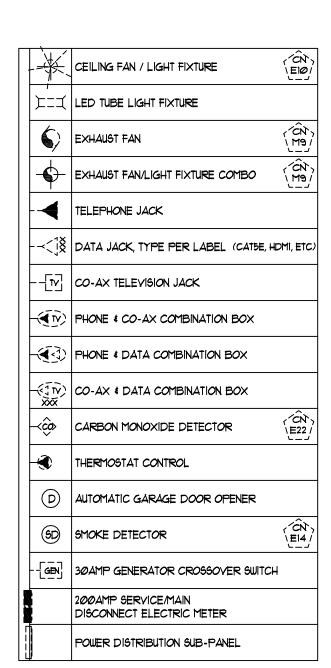


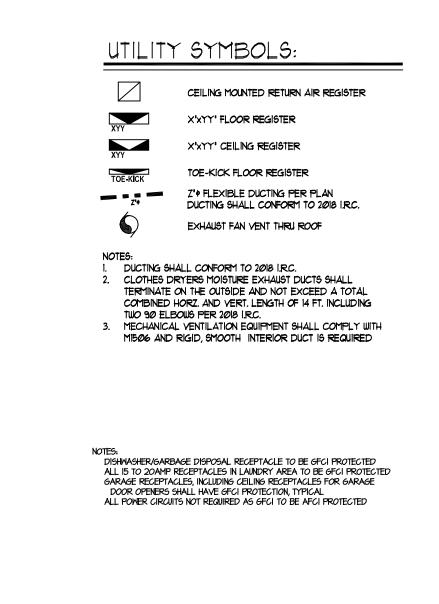


ELECTRICAL SYMBOLS

-	120 VOLT SINGLE OUTLET - DEDICATED USE
\longleftrightarrow	120 VOLT DUPLEX OUTLET
	120 VOLT GFI DUPLEX OUTLET
<u> </u>	120 VOLT AFCI DUPLEX OUTLET
A	120 VOLT QUAD OUTLET
(location)	120V FLR/CL'G MNT DUPLEX OUTLET (CN) (CN)
	WEATHERPROOF GFI OUTLET (CX)
→ ½	HALF SWITCHED OUTLET
==	240 VOLT OUTLET
€-	SINGLE POLE SWITCH
ૄ	THREE WAY SWITCH
ф-	FOUR WAY SWITCH
Č.	SPECIALTY SWITCH: H= HINGE, D= DIMMER
-	CEILING MOUNT LIGHT FIXTURE
∳ -≖	CEILING MOUNT TRACK LIGHTING FIXTURE
ф-	WALL MOUNT LIGHT FIXTURE

RECESSED CANNISTER LIGHT (DIAMETER)









03/07/22

ARCHITECTURAL, & ELECTRICAL FL 03/07/2022

00R

SHEET **A3**

JOB #:	KCB-32
CHECKED BY:	NT
DATE:	MARCH, 2022
SCALE:	1/4"=1'-0"

C2: Basements w/habitable space & every sleeping room shall have @ least one openable escape & rescue opening 2018 IRC R310.[

A. minimum total open area = 5.7 sq.ft. <u>2018 IRC R310.1.1</u>

B. minimum clear opening ht. = 24" <u>2018 IRC R310.1.2;</u> C. minimum clear opening width = 20° 2018 IRC R310.1.3;

D. maximum clear opening ht. above fin. flr. = 44" E. emergency escape & rescue openings shall be operational from the inside of the room w/out the use of keys, tools, or special knowledge 2018 IRC 310.1.4. C3: An occupancy separation between the garage & dwelling shall conform to 2018 IRC, SEC. 302, ie;

From the residence & attics: Not less than 1/2-inch gypsum board or equivalent applied to the garage From all habitable rooms above the garage: Not less than 5/8-inch Type X gypsum board or equivalent

Structure(s) supporting floor/ceiling assemblies used for separation: Not less than 1/2-inch gypsum Garages located less than 3 feet from a dwelling unit on the same lot: Not less than 1/2-inch gypsum

board or equivalent applied to the int side of ext walls that are w/in this area (2018 IRC, Table R302.6).

B. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted. Other openings between the garage # residence shall be equipped w/self-closing solid wood doors not less than 13/4 inches in thickness, self-closing solid or honeycomb core steel doors not less than 13/4 inches thick, or self-closing 20-minute fire-rated doors. (2018 IRC R309.6 & Per County Amendment). C. Ducts in the garage # ducts penetrating the walls or ceilings separating the dwelling from the garage shall be constructed of a minimum No. 26 gage (0.48 mm) sheet steel or other approved material & shall

have no openings into the garage. (2018 $\bar{R}\bar{C}$, SEC R302.5.2). D. Other Penetrations: Penetrations through the separation required in sec R302.6 shall be protected as

required by sec R302.11, Item 4 (2018 IRC, SEC R302.5.3). - When an attic ladder is proposed in the Garage Ceiling & gypsum board is NOT provided to the bottom of the roof sheeting @ the house/garage wall, secure (1) layer 5/8-inch Type X gypsum board or equivalent to the bottom of the pull down stair.

C4: Appliances shall not be installed in a location subject to vehicle damage except where protected by approved barriers 2018 IRC, Sec M1307.1

C5: Guards shall conform to 2018 IRC, SEC. R312 A. Guards shall be located along open-sided walking surfaces, including stairs, ramps & landings, that are located more than 30 inches (762 mm) measured vertically to the floor or grade blw @ any point w/in 36 inches (914 mm) horizontally to the edge of the open side. Insect screening shall not be considered as a quard. (R312.1.1)

B. Required guards @ open-sided walking surfaces, including stairs, porches, balconies or landings, shall be not less than 36 inches (914 mm) high measured vertically above the adjacent walking surface, adjacent fixed seating or the line connecting the leading edges of the treads.

Exceptions: I. Guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads. 2. Where the top of the quard also serves as a handrail on the open sides of stairs, the top of the

quard shall not be less than 34 inches (864 mm) & not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads. (R312.1.2) C. Required guards shall not have openings from the walking surface to the required guard height which

allow passage of a sphere 4 inches (102 mm) in diameter. Exceptions: 1. The triangular openings @ the open side of stair, formed by the riser, tread & bottom rail of a quard,

shall not allow passage of a sphere 6 inches (153 mm) in diameter. 2. Guards on the open side of stairs shall not have openings which allow passage of a sphere 43/8

inches (III mm) in diameter. (R312.1.3) C6: Enclosed accessible space under stairs shall have walls, under-stair surface \$ any soffits protected on the enclosed side w/ 1/2-inch (12.7 mm)gypsum board. 2018 IRC, SEC. R302.7

C7: Stairs & handrails shall conform to 2018 IRC, SEC. R311.7 A. Handrails shall be provided on @ least one side of each continuous run of treads or flight w/ four or more risers, \$ shall conform to the requirements of height, continuity, \$ grip-size per <u>SEC 311.7.8</u> B. Landinas @ Stairways: There shall be a floor or landina @ the top & bottom of each stairway. The

minimum width perpendicular to the direction of travel shall be no less than the width of the flight served. Landings of shapes other than square or rectangular shall be permitted provided the depth @ the walk line & the total area is not less than that of a quarter circle w/ a radius equal to the required landing width. Where the stairway has a straight run, the minimum depth in the direction of travel shall be not less than 36 inches (914 mm)

C. max. 4 min. dimensions of rise 4 run 4 max. dimensional tolerance shall conform to SEC. R311.7.5 ie; I. The maximum riser height shall be 7 3/4" max. The greatest riser height w/in any flight of stairs shall not exceed the smallest by more than 3/8" 2. The minimum tread depth shall be 10". The greatest tread depth w/in any flight of stairs shall not exceed the smallest by more than 3/8"

C8: Landings @ doors shall conform to 2018 IRC, SEC R311.3 There shall be a landing or floor on each side of each ext door. The width of each landing shall not be

less than the door served. Every landing shall have a minimum dimension of 36 inches (914 mm) measured in the direction of travel. ext landings shall be permitted to have a slope not to exceed 1/4 unit vertical in 12 units horizontal (2-percent). Exception: ext balconies less than 60 square feet (5.6 m2) \$ only accessible from a door are

permitted to have a landing less than 36 inches (914 mm) measured in the direction of travel. Floor elevations @ the required egress doors: Landings or finished floors @ the required egress door shall not be more than 1 1/2 inches (38 mm) lower than the top of the threshold. Exception: The landing or floor on the ext side shall not be more than 7 3/4 inches (196 mm) blw the top of the threshold provided the door does not swing over the landing or floor.

Where ext landings or floors serving the required egress door are not @ grade, they shall be

provided w/ accēss to grade by means of a ramp in accordance w/ sec R311.8 or a štairway in accordance w/ sec R311.7. Floor elevations for other ext doors: Doors other than the required egress door shall be provided w/ landings or floors not more than 7 3/4 inches (196 mm) blw the top of the threshold.

Exception: A landing is not required where a stairway of two or fewer risers is located on the Storm # screen doors. Storm & screen doors shall be permitted to swing over all ext stairs & landings.

C9: All habitable rooms shall have an aggregate glazing area of not less than 8 percent of the floor area of such rooms. Natural ventilation shall be through windows, doors, louvers or other approved openings to the outdoor air. Such openings shall be provided w/ ready access or shall otherwise be readily controllable by the building occupants. The minimum openable area to the outdoors shall be 4 percent of the floor area being ventilated. 2018 IRC, SEC. R303.1

Exceptions: I. The glazed areas need not be openable where the opening is not required by sec R310 & a whole-house mechanical ventilation system is installed in accordance w/ sec M1507. 2. The glazed areas need not be installed in rooms where Exception I above is satisfied & artificial light is provided capable of producing an average illumination of 6 footcandles (65 lux) over the area of

the room @ a height of 30 inches (762 mm) above the floor level. 3. Use of sunroom \$\overline{\psi}\$ patio covers, as defined in sec R202, shall be permitted for natural ventilation if in excess of 40 percent of the ext sunroom walls are open, or are enclosed only by insect screening. CIO: All glass windows & doors shall be dual glazed

CII: Safety glazing shall conform to 2018 IRC, SEC. R308

1. Decorative glazing.

A. Glazing in all fixed & operable panels of swinging, sliding & bifold doors.

I. Glazed openings of a size through which a 3-inch-diameter (76 mm) sphere is unable to pass.

2. Decorative alazina. R308.4.1 B. Glazing in an individual fixed or operable panel adjacent to a door where the nearest vertical edge of the glazing is w/in a 24" arc of either vertical edge of the door in a closed position & where the bottom exposed edge of the glazing is less than 60" above the floor or walking surface

2. When there is an intervening wall or other permanent barrier between the door \$ the glazing. 3. Glazing in walls on the latch side of \$ perpendicular to the plane of the door in a closed position. 4. Where access through the door is to a closet or storage area 3 feet (914 mm) or less in depth. Glazing in this application shall comply w/ sec R308.4.3.

5. Glazing that is adjacent to the fixed panel of patio doors. R308.4.2 C. Glazing in an individual fixed or operable panel that meets all of the following conditions: I. The exposed area of an individual pane is larger than 9 square feet (0.836 m2);

2. The bottom edge of the glazing is less than 18" (457 mm) above the floor; 3. The top edge of the glazing is more than 36" (914 mm) above the floor; \$

4. One or more walking surfaces are w/in 36" (914 mm), measured horizontally \$ in a straight line, of the

Exceptions: I. Decorative glazing

2. When a horizontal rail is installed on the accessible side(s) of the glazing 34 to 38" (864 to 965 mm) above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot (730 N/m) without contacting the glass \$ be a minimum of 11/2" (38 mm) in cross sectional height.

3. Outboard panes in insulating glass units & other multiple glazed panels when the bottom edge of the glass is 25 feet (7620 mm) or more above grade, a roof, walking surfaces or other horizontal [w/in 45 degrees (0.79 rad) of horizontal] surface adjacent to the glass ext. R308.4.3 D. Glazing in quards & railings, including structural baluster panels & nonstructural in-fill panels, regardless of

area or height above a walking surface R308.4.4 E. Glazing in walls, enclosures or fences containing or facing hot tubs, spas, whirlpools, saunas, steam rooms, bathtubs, showers & indoor or outdoor swimming pools where the bottom exposed edge of the glazing is less than 60" (1524 mm) measured vertically above any standing or walking surface. This shall apply to

single glazing & all panes in multiple glazing. Exception: Glazing that is more than 60" (1524 mm), measured horizontally \$ in a straight line, from the water's edge of ā bathtub, hot tub, spa, whirlpool, or swimming pool. R308.4.5

F. Glazing where the bottom exposed edge of the glazing is less than 36" (914 mm) above the plane of the adjacent walking surface of stairways, landings between flights of stairs & ramps.

I. When a rail is installed on the accessible side(s) of the glazing 34 to 38" (864 to 965 mm) above the walking surface. The rail shall be capable of withstanding a horizontal load of 50 pounds per linear foot (730 N/m) without contacting the glass & be a minimum of I-I/2" in cross sectional height.

2. Glazing 36" or more measured horizontally from the walking surface. R308.4.6 G. Glazinq adjacent to the landing @ the bottom of a stairway where the glazing is less than 36" above the landing \$ w/in 60" horizontally of the bottom tread. Exception: The glazing is protected by a guard complying w/ sec R312 & the plane of the glass is more

than 18" from the guard. C12: Installation of fireplaces & chimneys shall conform to 2018 IRC, CHAPTER 10 & manufacturer's instructions. A. Masonry chimneys shall be constructed, anchored, supported & reinforced as required by IRC Chapter 10

the listing. Factory-built fireplaces shall be tested in accordance w/ UL 127

\$ the applicable provisions of Chapters 3, 4 \$ 6. Chimneys shall be structurally sound, durable, smoke-tight & capable of conveying flue gases to the ext safely. B. Factory-built fireplaces shall be listed & Tabeled & shall be installed in accordance w/ the conditions of BUILDING CONSTRUCTION & FRAMING NOTES (CONTINUED)

C13: Insulating material(s) shall conform to 2018 IECC Ceilina R-value:

Wood Frame Wall R-value: 20 or 13+5h

stagaered studs, as follows:

Mass Wall R-value: (The second R-value applies when more than half the insulation is on the int of the wall)

Floor R-value: (Or insulation sufficient to fill the framing cavity. R-19 is minimum)

Basement Wall R-value: 15/19 ("15/19" means R-15 continuous insulated sheathing on the int or ext of the home or R-19 cavity insulation the int of the basement wall)

Slab R-value, Depth: (R-5 shall be added to the required slab edge R-values for heated slabs)

Crawlspace Wall R-value: ("15/19" means R-15 continuous insulated sheathing on the int or ext of the home or R-19 cavity insulation the int of the basement wall) Fenestration U-Factor:

(The fenestration U-factor column excludes skylights.)

[☀]Per sec R402.1.4 Total UA alternative. If the total building thermal envelope UA is less than or equal to the total UA resulting from using the U-factors in table R402.1.3 (see Zone 5 values above), the building shall be considered in compliance. See attached ResCheck Compliance report for verification of compliance using this method.

C14: Fire blocking & draft stops shall conform to 2018 IRC, SEC. R302.11 In combustible construction, fireblocking shall be provided to cut off all concealed draft openings (both vertical & horizontal) & to form an effective fire barrier between stories, & between a top story & the roof space. Fireblocking shall be provided in wood-frame construction in the following locations: I. In concealed spaces of stud walls & partitions, including furred spaces & parallel rows of studs or

I.I. Vertically @ the ceiling & floor levels.

1.2. Horizontally @ intervals not exceeding 10 feet (3048 mm). 2. @ all interconnections between concealed vertical & horizontal spaces such as occur @ soffits, drop ceilings & cove ceilings. 3. In concealed spaces between stair stringers @ the top # bottom of the run. Enclosed spaces under

stairs shall comply w/ sec R302.7. 4. @ openings around vents, pipes, ducts, cables & wires @ ceiling & floor level, w/ an approved material to resist the free passage of flame & products of combustion. The material filling this annular space shall not be required to meet the ASTM E 136 requirements.

5. For the fireblocking of chimneys & fireplaces, see sec R1003.19. 6. Fireblocking of cornices of a two-family dwelling is required @ the line of dwelling unit separation. C15: Wall bracing shall conform 2018 IRC, SEC. R602.10 Buildings shall be braced in accordance w/ this sec or, when applicable, sec R602.12. Where a building, or

portion thereof, does not comply w/ one or more of the bracing requirements in this sec, those portions shall be designed & constructed in accordance w/sec R301.1. C16: Ground clearance for ext finishes: A. Wood & wood based products shall be protected from decay per 2018 IRC, Sec R317.1. I.e.: Wood siding, sheathing & wall framing on the ext of a building having a clearance of less than 6 inches (152 mm) from

the ground or less than 2 inches (51 mm) measured vertically from concrete steps, porch slabs, patio slabs. \$ similar horizontal surfaces exposed to the weather B. @ walls w/ ext Plaster (Stucco) provide a minimum 0.019-inch (0.5 mm) (No. 26 galvanized sheet gage), corrosion-resistant weep screed or plastic weep screed, w/ a minimum vertical attachment flange of 31/2 inches (89 mm), shall be provided $oldsymbol{ ilde{a}}$ or blw the foundation plate line on ext stud walls in accordance w/ ASTM C926. The weep screed shall be placed not less than 4 inches (102 mm) above the earth or 2 inches (51 mm) above paved areas \$ shall be of a type that will allow trapped water to drain to the ext of the building. The weather-resistant barrier shall lap the attachment flange. The ext lath shall cover \$

terminate on the attachment flange of the weep screed. 2018 IRC, SEC RT03.7.2.1 CI7: All wall wood structural panel sheathing shall be span rated in conformance w/ 2018 IRC, SPAN TABLES A. All wood structural panels to be exposed in outdoor applications shall be ext type in conformance w/

B. Unless otherwise specified by Engineer of Record in Shear Wall Schedule, weather resistant sidina attachment & min thickness to comply w/ Table R703.4 for shear wall panel joint member, sheathing material, configuration, & fastening

C18: Visually graded lumber material shall be D.F. #2 U. N. O. CI9: Post & column connections (base & cap) shall conform to 2018 IRC, SEC. R317.3, R402.1.1 & R502.9. C20: Substitution(s) for manufactured framing hardware (Simpson A, H, HD, ST, etc.) may be made when the Contractor provides the Building Dep't (Inspector, Plan Checker, or Building Official) w/ two (2) copies of published data which indicates that the load capacity of the substitution meets or exceeds either the load capacity of the hardware called out on the plans or the actual load on the hardware as identified in the

structural analysis **#** that the substitution hardware has current ICC approval C21: SUBSTITUTION HARDWARE INSTALLED PRIOR TO BUILDING DEP'T APPROVAL MAY BE SUBJECT TO REMOVAL & REPLACEMENT & SUBSTITUTION HARDWARE WHICH DOES NOT MEET REQ'TS DESCRIBED ABOVE BUT IS INSTALLED WITHOUT BUILDING DEP'T APPROVAL SHALL BE REMOVED & REPLACED W/ APPROVED HARDWARE

C22: Building ext shall be weather protected in conformance w/ 2018 IRC, SEC. R703 A. all stone & masonry veneer shall be installed in conformance w/ 2018 IRC, SEC. 703. B. vinyl siding shall be installed per manufacturer's instructions \$ in conformance w/ TABLE R703.II С. wood & hardboard. siding shall be installed per manufacturer's instructions & in conformance w/ 2<u>018</u> IRC, SECS. R703.3, R703.4 & R703.5. D. ext plaster shall be installed in conformance w/ 2018 IRC, SEC. 703.6

PLUMBING NOTES, PER 2018 IRC CODE:

Pl: Sillcocks, hose bibbs, wall hydrants & other openings w/ a hose connection shall be protected by an atmospheric-type or pressúre-type vacuum breakér or a permanently attached hose connection vacuum breaker. <u>2018 IRC sec P2902.4.3</u>

P2: Pipe joints shall conform to 2018 IRC, sec P2905.

General: Water heaters shall be installed in accordance w/ the manufacturer's instructions & the requirements of this code. Water heaters installed in an attic shall comply w/ the requirements of sec M1305.1.3. Gas-fired water heaters shall comply w/ the requirements in Chapter 24. Domestic electric water heaters shall comply w/ UL 174. Oiled-fired water heaters shall comply w/ UL 732. Thermal solar water heaters shall comply w/ Chapter 23 & UL 174. Solid-fuel-fired water heaters shall comply w/ UL 2523. 2018

Anchorage/Strapping: Water heaters shall be anchored against movement \$ overturning in accordance w/ 2018 IRC, sec MI307.2. 2018 IRC R301.2.2.3.7. <u>Prohibited locations:</u> Fuel-fired water heaters shall not be installed in a room used as a storage closet. Water heaters located in a bedroom or bathroom shall be installed in a sealed enclosure so that

combustion air will not be taken from the living space. Installation of direct-vent water heaters w/in an enclosure is not required. 2018 IRC, M2005.2 Relief Valve Drains: The discharge piping serving a pressure-relief valve, temperature relief valve or combination valve shall:

1. Not be directly connected to the drainage system. 2. Discharge through an air gap located in the same room as the water heater.

3. Not be smaller than the diameter of the outlet of the valve served & shall discharge full size to the air gap. 4. Serve a single relief device \$ shall not connect to piping serving any other relief device or equipment.

5. Discharge to the floor, to the pan serving the water heater or storage tank, to a waste receptor or to the outdoors.

6. Discharge in a manner that does not cause personal injury or structural damage. 7. Discharge to a termination point that is readily observable by the building occupants.

8. Not be Trapped. 9. Be installed to flow by gravity

10. Not terminate more than 6 inches (152 mm) above the floor or waste receptor. II . Not have a threaded connection @ the end of the piping.

12. Not have valves or tee fittings.

13. Be constructed of those materials listed in sec P2904.5 or materials tested, rated \$ approved for such use in accordance w/ ASME All 2.4.1. 2018 IRC, Sec. P2803.6.1 P4: A means for controlling increased pressure caused by thermal expansion shall be installed where required in accordance w/ 2018 TRC, Sections P2903.4.1 & P2903.4.2. When requested by the Building Inspector,

General Contractor shall identify the pressure of the existing incoming water supply & record that value in ink on the project site plan drawing prior to hook-up of hot water heater P5: Water line's shall conform to 2018 IRC, & fixture manufacturer's specifications. The water-distribution & drainage system of any building or premises where plumbing fixtures are installed shall be connected to a public water supply or sewer system, respectively, if available. When either a public water-supply or sewer

system, or both, are not available, or connection to them is not feasible, an individual water supply or individual (private) sewage-disposal system, or both, shall be provided. 2018 IRC, Sec P2602.1 P6: Sewer lines shall conform to 2018 IRC, CHAPTER 30 Drain, waste \$ vent (DMV) piping in buildings shall be as shown in Tables P3002.1(1) \$ P3002.1(2) except that galvanized wrought-iron or galvanized steel pipe shall not be used underground & shall be maintained

not less than 6 inches (152 mm) above ground. Allowance shall be made for the thermal expansion \$ contraction of plastic piping. 2018 IRC, Sec P3002.1 P7: Gas lines shall conform to 2018 IRC, Chapter 24, Piping systems shall be of such size \$ so installed as to provide a supply of gas sufficient to meet the

maximum demand & supply gas to each appliance inlet @ not less than the minimum supply pressure required bu the appliance. 2018 IRC, Sec G2413.1 P8: Individual shower & tub/shower combination valves shall be equipped w/ control valves of the pressure-balance, thermostatic-mixing or combination pressure-balance/thermostatic-mixing valve types w/a high limit stop in accordance w/ ASSÉ 1016 or ASME A112.18.1/CSA B125.1. The high limit stop shall be set to

limit the water temperature to not greater than 120F (49C). 2018 IRC, Sec P2708.3 P9: Per County Ordinances, all plumbina fixtures must be low-flow/low-volume. Lavatory faucet: 2.2 gpm @ 60 psi

Sink faucet: 2.2 apm @ 60 psi Shower heads shall be 2.5 gpm @ 80 psi

Water closet fixtures: 1.6 gallons per flushing cycle 2018 IRC, Table P2903.2 PIO: The static water pressure shall be not greater than 80 psi (551 kPa). When main pressure exceeds 80 psi (551 kPa), an approved pressure-reducing valve conforming to ASSE 1003 or CSA B356 shall be installed on the domestic water branch main or riser @ the connection to the water-service pipe. 2018 IRC, P2903.3.

PII. Dishwashing Machines Per <u>2018 IRC, Sec P2717</u>: The combined discharge from a sink, dishwasher, ¢ waste grinder is permitted to discharge through a single 1.5" trap... The dishwasher waste line shall rise \$ be securely fastened to the underside of the counter before connecting to sink tail piece. P12: Shower compartments shall have @ least 900 square inches (0.6 m2) of int cross-sectional area. Shower compartments shall be not less than 30 inches (762 mm) in minimum dimension measured from the finished int dimension of the shower compartment, exclusive of fixture valves, shower heads, soap dishes, \$ safety grab

bars or rails. The minimum required area & dimension shall be measured from the finished int dimension @ a height equal to the top of the threshold # @ a point tangent to its centerline # shall be continued to a height of not less than 70 inches (1778 mm) above the shower drain outlet. Hinged shower doors shall open outward. The wall area above built-in tubs having installed shower heads \$ in shower compartments shall be constructed in accordance w/ sec R702.4. Such walls shall form a water-tight joint w/ each other & w/

either the tub, receptor or shower floor. 2018 IRC, P2708.1 P13: The potable water supply to lawn irrigation systems shall be protected against backflow by an atmospheric vacuum breaker, a pressure vacuum breaker assembly or a reduced pressure principle backflow prevention assembly. Valves shall not be installed downstream from an atmospheric vacuum breaker. Where chemicals are introduced into the system, the potable water supply shall be protected against backflow by a reduced pressure principle backflow prevention assembly. 2018 IRC sec P2902.5.3

FOUNDATION & FLOOR CONSTRUCTION & FRAMING NOTES

FI: The under-floor space between the bottom of the floor joists & the earth under any building (except space occupied by a basement) shall have ventilation openings through foundation walls or ext walls. The minimum net area of ventilation openings shall not be less than I square foot (0.0929 m2) for each 150 square feet (14 m2) of under-floor space area, unless the ground surface is covered by a Class I vapor retarder material. When a Class I vapor retarder material is used, the minimum net area of ventilation openings shall not be less than I square foot (0.0929 m2) for each 1,500 square feet (140 m2) of under-Floor space area. One such ventilating opening shall be w/in 3 feet (914 mm) of each corner of the building. 2018 IRC, SEC R408.1

F2: Access shall be provided to all under-floor spaces. Access openings through the floor shall be a minimum of 18 inches by 24 inches (457 mm by 610 mm). Openings through a perimeter wall shall be not less than 16 inches by 24 inches (407 mm by 610 mm). When any portion of the through-wall access is blw grade, an areaway not less than 16 inches by 24 inches (407 mm by 610 mm) shall be provided. The bottom of the areaway shall be blw the threshold of the access opening. Through wall access openings shall not be located under a door to the residence. See sec MI305.1.4 for access requirements where mechanical equipment is located under floors (2018 IRC R408.4).

F3: Protection of wood & wood based products from decay shall be provided in the following locations by the use of naturally durable wood or wood that is preservative-treated in accordance w/ AMPA UI for the species, product, preservative & end use. Preservatives shall be listed in sec 4 of AWPA UI. (2018 <u>IRC, sec R317.1</u>)

1. Wood joists or the bottom of a wood structural floor when closer than 18 inches (457 mm) or wood airders when closer than 12 inches (305 mm) to the exposed ground in crawl spaces or unexcavated area located w/in the periphery of the building foundation. 2. All wood framing members that rest on concréte or masonry ext foundation walls & are less than 8

inches (203 mm) from the exposed ground. 3. Sills & sleepers on a concrete or masonry slab that is in direct contact w/ the ground unless separated from such slab by an impervious moisture barrier.

4. The ends of wood girders entering ext masonry or concrete walls having clearances of less than 1/2 inch (12.7 mm) on tops, sides & ends. 5. Wood siding, sheathing & wall framing on the ext of a building having a clearance of less than 6 inches (152 mm) from the ground or less than 2 inches (51 mm) measured vertically from concrete steps, porch slabs, patio slabs, \$ similar horizontal surfaces exposed to the weather.

6. Wood structural members supporting moisture-permeable floors or roofs that are exposed to the

weather, such as concrete or masonry slabs, unless separated from such floors or roofs by an

impervious moisture barrier. 7. Wood furring strips or other wood framing members attached directly to the int of ext masonry walls or concrete walls blw grade except where an approved vapor retarder is applied between the wall \$ the furring strips or framing members.

F4: Wood sill plates shall be a minimum of 2-inch by 4-inch (51 mm by 102 mm) nominal lumber. Sill plate anchorage shall be in accordance w/ Sections R403.1.6 \$ R602.11 (2018 IRC, Sec R404.3). F5: Concrete shall have a minimum specified compressive strength of f'c, as shown in Table R402.2. Concrete subject to moderate or severe weathering as indicated in Table R301.2(1) shall be air entrained as specified in Table R402.2. The maximum weight of fly ash, other pozzolans, silica fume, slag or blended cements that is included in concrete mixtures for garage floor slabs & for ext porches, carport slabs & steps that will be exposed to deicing chemicals shall not exceed the percentages of the total weight of cementitious materials specified in sec 4.2.3 of ACI 318. Materials used to produce concrete & testing thereof shall comply w/the applicable standards listed in Chapter 3 of ACI 318 or ACI 332. (2018 IRC, Sec R402.2)

F6: **INCREASES IN COMPRESSIVE STRENGTH ABOVE THOSE USED IN DESIGN SHALL NOT CAUSE IMPLEMENTATION OF THE SPECIAL INSPECTION PROVISIONS OF 2018 IBC F7: Wood sole plates @ all ext walls on monolithic slabs, wood sole plates of braced wall panels @ building interiors on monolithic slabs \$ all wood sill plates shall be anchored to the foundation w/ anchor bolts spaced a maximum of 6 feet (1829 mm) on center. Bolts shall be @ least 1/2 inch (12.7 mm) in diameter \$ shall extend a minimum of 7 inches (178 mm) into concrete or grouted cells of concrete masonry units. A nut & washer shall be tightened on each anchor bolt. There shall be a minimum of two bolts per plate sec w/ one bolt located not more than 12 inches (305 mm) or less than seven bolt diameters from each end of the plate sec. int bearing wall sole plates on monolithic slab foundation that are not part of a braced wall panel shall be positively anchored w/ approved fasteners. Sill plates \$ sole plates shall be protected against decay & Termites where required by Sections R317 & R318. Cold-formed steel framing systems shall be fastened to wood sill plates or anchored directly to the foundation as required in sec R505.3.1 or R603.3.1. (2018 IRC, sec R403.1.6)

F8: Floor diagram shall be span rated per 2018 IRC, SEC. R503 & Table R503.2.1.1 & shall be as shown on foundation \$/or floor framing plan. A. all wood structural panéls exposed in outdoor applications shall be ext type in conformance w/ 2018 IRC, SEC. R803.2.1.1

B. all wood structural panel floor sheathing exposed on the underside shall be bonded w/ ext type glue in conformance w/ <u>2018 IRC, SEC. R803.2.1.1</u> F9: Visually graded lumber material shall be DF#2 U.N.O.

FIO: Manufactured wood members shall be "LOUISIANA PACIFIC," "Boise-Cascade," or "Weyerhaeuser" - see manufactures specifications FII: Under Floor Finish Conditions: The under-floor grade shall be cleaned of all vegetation \$ organic material, all wood forms used for placing concrete shall be removed before a building is occupied or used for any purpose. All construction materials shall be removed before a building is occupied or used for any purpose (2018 IRC 4085). Exposed earth in the crawl space shall be covered w/a continuous class I vapor retarder (min 6mil black plastic sheeting). Joints of the vapor retarder shall overlap a minimum of 6". (2018 IRC R408.1 \$.2).

RI: Attic ventilation shall conform to <u>2018 IRC, SEC, R806</u>. Opening area may = 1/300th of area of space ventilated provided @ least 40% & not more than 50% of the required ventilating area is provided by ventilators located in the upper portion of the attic or rafter space. Upper ventilators shall be located no more than 3 feet (914 mm) blw the ridge or highest point of the space, measured vertically, w/ the balance of the required ventilation provided by eave or cornice vents. Where the location of wall or roof framing members conflicts w/ the installation of upper ventilators, installation more than 3 feet (914 mm) blw the ridge or highest point of the space shall be permitted.

R2: Readily accessible 22" min. X 30" min. attic access w/ 30" min. unobstructed headroom in the attic space @ some point above opening shall conform to 2018 IRC, SEC. R807 R3: Roofing shall be installed per manufacturer's instructions & conforming to 2018 IRC, CHAP. 9 Roofs shall be covered w/ materials as set forth in IRC Sections R904 & R905. Class A, B or C roofing shall be installed in areas designated by law as requiring their use or when the edge of the roof is less than 3' from a property line. Classes A, B or C roofing required to be listed shall be tested in accordance w/UL

790 or ATM É 108. R4: Manufactured metal plate connected wood trusses shall conform to 2018 IRC, sec R802.10. Design, analyses, & drawings shall be provided by the truss manufacturer w/ analyses & drawings wet stamped & wet signed by a State licensed Professional Architect or Engineer.

R5: Visually graded lumber material shall be DF #2 U.N.O. R6: GLB shall be 24 fF/ V4 (DF-DF) R7: Manufactured wood members shall be by "TRUSJOIST-MACMILLAN" or "LOUISANNA PACIFIC" - see manufacturer's published data

R8: Roof diaphragm shall be span rated per 2018 IRC, SEC. R803 & shall be per roof framing plan A. all wood structural panels exposed in outdoor applications shall be ext type in conformance w/ 2018 IRC, <u>SEC. R803.2.I.I</u> B. all wood structural panel roof sheathing exposed on the underside shall be bonded w/ ext glue in conformance w/ 2018 IRC, SEC. R803.2.[.]

R9: General Contractor shall provide two (2) copies of roof truss design drawings, calculations, # truss layout in conformance w/ 2<u>018 IRC, SEC. R802.10.2</u>. Both copies of this data shall be wet stamped & signed by the State licensed Architect or Engineer responsible for the truss design. A. when truss design data is a "deferred submittal" (after building permit issuance), the Architect, Engineer, or General Contractor of Record (responsible for the building design) may wet sign, date, & indicate "REVIENED BY" on the first sheet of both copies of the submittal data, thus indicating that the data has been reviewed & found to be in general conformance w/ the building design B. ROOF TRUSSES SHALL NOT BE INSTALLED UNTIL SUBMITTAL DATA HAS BEEN APPROVED BY THE

BUILDING INSPECTOR (OR BUILDING OFFICIAL OR PLANS EXAMINER) & ONE COPY ATTACHED TO THE PERMIT SET OF PLANS" ON SITE & ONE COPY DELIVERED TO THE BUILDING DEP'T FOR ATTACHMENT TO THE RECORD SET OF PLANS. RIO: Specifically identified attic storage areas (including open \$ exposed storage areas as in a garage) shall have their structural members (trusses or joists & rafters) designed to support 40#/sq.ft. min. live load &

A. "... shall have ... designed live loads conspicuously posted ..., using durable metal signs, \$ it shall be unlawful to remove or deface such notices. the occupant of the building is responsible for keeping the actual load blw the allowable limits.'

RII: Specifically identified attic areas intended for equipment support (FAU, AC, etc.) shall have their structural members (trusses or joists & rafters) designed in conformance w/ 2018 IRC, R301.4 RI2: SPECIAL REVIEW & APPROVAL REQ'TS - ROOF TRUSSES Prior to installation of roof trusses, the building Architect/Engineer of record shall indicate his/her review \$ approval of special truss design for general conformance $\bar{\mathsf{w}}/\mathsf{project}$ design f design intent by wet signing f dating (no professional stamp required) two (2) copies the following special roof truss drawings./calculations:

A. special roof trusses which are an integral part of the building's lateral load resisting system

B. special roof trusses for which a pad footing is indicated on $\hat{\epsilon}$ in the building foundation plan ϵ calculations MECHANICAL NOTES, PER 2018 IRC CODE:

Kitchens:

ROOF CONSTRUCTION & FRAMING NOTES

MI: Combustion air provisions shall conform to 2018 IRC, CHAPTER 17" Combustion Air" M2: Equipment # appliances having an ignition source shall be elevated such that the source of ignition is not less than 18" (457 mm) above the floor in hazardous locations & public garages, private garages, repair garages, motor fuel-dispensing facilities \$ parking garages. For the purpose of this sec, rooms or spaces that are not part of the living space of a dwelling unit & that communicate directly w/a private garage through openings shall be considered to be part of the private garage. (2018 IRC, 62408.2) M3: Exhaust ducts for domestic clothes dryers shall conform to the requirements of Sections G2439.5.1 through

M4: Ducts shall conform to <u>2018 IRC Chapter 16</u>. A. flex duct shall be installed, connected, spliced, \$ supported per 2018 IRC, SEC. MI601.4 the

manufacturer's instructions, & The Air Diffusion Council's Flexible Duct Performance & Installation Standard. B. duct insulation shall conform to <u>sec MI601.4</u> M5: Heating & cooling equipment & appliances shall be located w/respect to building construction & other equipment & appliances to permit maintenance, servicing & replacement. Clearances shall be maintained to permit cleaning of heating & cooling surfaces, replacement of filters, blowers, motors, controls & vent

connections; lubrication of moving parts; & adjustments. 2018 IRC, Sec MI401.2. M6: Heating & cooling equipment & appliances shall be sized in accordance w/ ACCA Manual S based on building loads calculated in accordance w/ ACCA Manual J or other approved heating & cooling calculation methodologies. 2018 IRC, Sec M1401.3 M7: General contractor (or owner/builder) shall provide two (2) copies of manufacturer's installation specs & data sheets for all fuel burning equipment (fireplaces, wood stoves, heating units, hot water heaters, etc.) w/ Plan Sets Submitted to Building Department for Permit . (Spec's to include ICBO/UL Listing #, Manufacturer, \$

FUEL BURNING EQUIP'T SHALL NOT BE INSTALLED & HOOKED UP UNTIL SUBMITTAL DATA HAS BEEN APPROVED BY THE BUILDING INSPECTOR (OR BUILDING OFFICIAL OR PLANS EXAMINER) & ONE (I) COPY ATTACHED TO THE "PERMIT SET OF PLANS" ON SITE & THE OTHER COPY DELIVERED TO THE BUILDING DEP'T FOR ATTACHMENT TO THE RECORD SET OF PLANS

M8: Condensate from all cooling coils or evaporators shall be conveyed from the drain pan outlet to an

approved place of disposal. Condensate shall not discharge into a street, alley or other areas so as to cause a nuisance. <u>2018 IRC, Sec M1411.3</u> M9: Exhaust air from bathrooms & toilet rooms shall not be re-circulated w/in a residence or circulated to another dwelling unit & shall be exhausted directly to the outdoors. Exhaust air from bathrooms, toilet rooms & kitchens shall not discharge into an attic, crawl space or other areas inside the building. MINIMUM MECHANICAL EXHAUST CAPACITY SHALL BE AS FOLLOWS:

100 cfm intermittent or 25 cfm continuous

50 cfm intermittent or 20 cfm continuous 2018 IRC, Sec M1505 Bathrooms-Toilet Rooms:

ELECTRICAL NOTES, PER 2018 IRC:

Exceptions:

El: Dwelling unit receptacle outlets shall conform to 2018 IRC, Chapter 39, le; A. Receptacles shall be installed so that no point measured horizontally along the floor line of any wall space is more than 6 feet (1829 mm), from a receptacle outlet. I. Wall space shall include the following:

a. Any space that is 2 feet (610 mm) or more in width, including space measured around corners, \$ that is unbroken along the floor line by doorways & similar openings, fireplaces, & fixed

b. The space occupied by fixed panels in ext walls, excluding sliding panels. c. The space created by fixed room dividers such as railings & freestanding bar-type counters. E2: In kitchens pantries, breakfast rooms, dining rooms & similar areas of dwelling units, receptacle outlets for countertop spaces shall be installed in accordance w/ Sections E3901.4.1 through E3901.4.5 le: A receptacle outlet shall be installed @ each wall countertop space 12 inches (305 mm) or wider. Receptacle outlets shall be installed so that no point along the wall line is more than 24 inches (610 mm), measured horizontally from a receptacle outlet in that space; @ least one receptacle outlet shall be installed @ each island countertop space w/a long dimension of 24 inches (610 mm) or greater 4 a short dimension of 12 inches (305 mm) or greater; Réceptacle outlets shall be located not more than 20 inches (508 mm) above the countertop; etc.

E3: Hallways of 10 feet (3048 mm) or more in length shall have @ least one receptacle outlet. The hall length shall be considered the length measured along the centerline of the hall without passing through a doorway. <u>2018 IRC, Sec E3901.10</u> E4: @ Teast one receptacle outlet that is accessible while standing @ grade level & located not more than 6 feet, 6 inches (1981 mm) above grade, shall be installed outdoors @ the front & back of each

dwelling unit having direct access to grade. Balconies, decks, \$ porches that are accessible from inside of the dwelling unit shall have @ least one receptacle outlet installed w/in the perimeter of the balcony, deck, or porch. The receptacle shall be located not more than 6 feet, 6 inches (1981 mm) above the balcony, deck, or porch surface. 2018 IRC, Sec E3901.7 E5: @ least one wall switch-controlled lighting outlet shall be installed in every habitable room & bathroom. (<u>2018 IRC, Sec E3903.2</u>)

be considered equivalent to the required lighting outlet. 2. Lighting outlets shall be permitted to be controlled by occupancy sensors that are in addition to wall switches, or that are located @ a customary wall switch location & equipped w/ a manual override that will allow the sensor to function as a wall switch. @ least one wall-switch-controlled lighting outlet shall be installed in hallways, stairways, attached

I. In other than kitchens & bathrooms, one or more receptacles controlled by a wall switch shall

garages, # detached garages w/ électric power. @ least one wall-switch-controlled lighting outlet shall be installed to provide illumination on the ext side of each outdoor earess door having grade level access, including outdoor egress doors for attached garages \$ detached garages w/electric power. A vehicle door in a garage shall not be considered as an outdoor egress door. Where one or more lighting outlets are installed for int stairways, there shall be a wall switch @ each floor level \$ landing level that includes an entryway to control the lighting outlets where the stairway between floor levels has six or more risers. (2018 IRC, Sec E3903.3)

E6: Provide GFCI Protection for Outlets in Garage & Accessory Buildings, Bathroom, Kitchen Counter Tops, Wet Bar Sinks, Basements & Crawl Spaces per 2018 IRC Sec's E3902.1 thru E3902.11 E7: The grounding electrode conductors shall be sized based on the size of the service entrance conductors as required in Table E3603.1 (wrapping around rebar is permitted per local code). 2018 IRC, Sec E3603.4 Eð: Location, clearances ¢ types of lights in closets shall conform to 2018 IRC Sec 4003.12. ie;

"Incandescent luminaries w/ open or partially enclosed lamps & pendant luminaires or lamp-holders shall be prohibited." E9: Electrical wiring protection from damage shall conform to 2018 IRC, Sec E3803.3 EIO: Outlet boxes & outlet box systems used as the sole support of celling-suspended fans (paddle) shall be marked by their manufacturer as suitable for this purpose \$ shall not support ceiling-suspended fans (paddle) that weigh more than 70 pounds (31.8 kg). For outlet boxes & outlet box systems designed to support ceiling-suspended fans (paddle) that weigh more than 35 pounds

(15.9 kg), the required marking shall include the maximum weight to be supported. Where spare, separately switched, ungrounded conductors are provided to a ceiling-mounted outlet box & such box is in a location acceptable for a ceiling-suspended (paddle) fan, the outlet box or outlet box system shall be listed for sole support of a ceiling-suspended (paddle) fan. 2018 IRC, <u>Sec E3905.8</u> Ell: A 125-volt, single-phase, 15- or 20-ampere-rated receptacle outlet shall be installed @ an accessible location for the servicing of heating, air-conditioning & refrigeration equipment. The

receptacle shall be located on the same level \$ w/in 25 feet (7620 mm) of the heating, air-conditioning & refrigeration equipment. The receptacle outlet shall not be connected to the load side of the HVAC equipment disconnecting means. 2018 IRC Sec E3901.12 El2: In attics, under-floor spaces, utility rooms & basements, @ least one lighting outlet shall be installed where these spaces are used for storage or contain equipment requiring servicing. Such lighting outlet shall be controlled by a wall switch or shall have an integral switch. @ least one point of control shall be @ the usual point of entry to these spaces. The lighting outlet shall be provided @ or near the equipment requiring servicing. 2018 IRC E3903.4

El3: Grounding of ranges, wall mounted ovens, counter mounted cooking units, clothes dryers, \$ other similar equipment shall conform to 2018 Sec E3908.8 El4: A.C. smoke detectors shall conform to 2018 IRC, SEC. R314. detectors shall be installed in the followina locations: A. in each sleeping room

B. outside each separate sleeping area in the immediate vicinity of the bedrooms C. on each additional story of the dwelling, including basements but not including crawl spaces \$ uninhabitable attics. In dwellings or dwelling units w/split levels & without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story blw the upper

El5: Cord-connected luminaries, chain-, cable-, or cord-suspended-luminaires, lighting track, pendants, \$ ceiling-suspended (paddle) fans shall not have any parts located w/in a zone measured 3 feet (914 mm) horizontally \$ 8 feet (2438 mm) vertically from the top of a bathtub rim or shower stall threshold. This zone is all encompassing \$ includes the space directly over the tub or shower. Luminaries w/in the actual outside dimension of the bathtub or shower to a height of 8 feet (2438 mm) vertically from the top of the bathtub rim or shower threshold shall be marked for damp locations & where subject to shower spray, shall be marked for wet locations. 2018 IRC, Sec.

El6: Central Heating Equipment Other Than Fixed Electric Space-Heating Equipment Shall Be Supplied Bu An Individual Branch Circuit. E17: Luminaries installed in wet or damp locations shall be installed so that water cannot enter or accumulate in wiring compartments, lampholders or other electrical parts. All luminaries installed in wet locations shall be marked SUITABLE FOR WET LOCATIONS. All luminaries installed in damp

locations shall be marked SUITABLE FOR WET LOCATIONS or SUITABLE FOR DAMP LOCATIONS.

2018 IRC Sec E4003.9 El8: A minimum of one 20-ampere-rated branch circuit shall be provided for receptacles located in the laundry area & shall serve only receptacle outlets located in the laundry area. 2018 IRC, Sec

EI9: All branch circuits that supply 125-volt, single phase, 15-\$-20 amp outlets installed in bedrooms shall be protected by an arc-fault circuit interrupter listed to provide protection of the entire branch circuit <u>2005 NEC 210.12</u> E20. A minimum of two 20-ampere-rated branch circuits shall be provided to serve all wall & floor receptacle outlets located in the kitchen, pantry, breakfast area, dining area or similar area of a dwelling. The kitchen countertop receptacles shall be served by a minimum of two 20-ampere-rated branch circuits, either or both of which shall also be permitted to supply other receptacle outlets in the same kitchen, pantry, breakfast & dining area including receptacle outlets for refrigeration

appliances. <u>2018 IRC E3707.2</u> E21. All branch circuits that supply 120-volt, single-phase, 15- \$ 20-ampere outlets installed in family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreations rooms, closets, halfways & similar rooms or areas shall be protected by a combination type arc-fault circuit interrupter installed to provide protection of the branch circuit.

Exception: 1. Where an outlet branch-circuit type AFCI is installed @ the first outlet to provide protection for the remaining portion of the branch circuit, the portion of the branch circuit between the branch-circuit overcurrent device \$ the first outlet shall be installed w/ metal outlet \$ junction boxes & RMC, IMC, EMT, type MC, or steel armored type AC cables meeting the requirements of sec E 3908.8.

2. Where an outlet branch-circuit type AFCI is installed @ the first outlet to provide protection for the remaining portion of the branch circuit, the portion of the branch circuit between the branch-circuit overcurrent device \$ the first outlet shall be installed w/ metal or nonmetallic conduit or tubing that is encased in not less than 2 inches (51 mm) of concrete. 3. AFCI protection is not required for an individual branch circuit supplying only a fire alarm system where the branch circuit is wired w/ metal outlet & junction boxes & RMC, IMC, EMT or

E22: Carbon Monoxide Alarms shall be provided per 2018 IRC, sec R315. i.e.: For new construction, an

steel-sheathed armored cable Type AC, or Type MC meeting the requirements of sec E3908.8.

approved carbon monoxide alarm shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms in dwelling units w/in which fuel-fired appliances are installed & in dwelling units that have attached garages. E23: All 125-volt, 15- \$ 20-ampere receptacles shall be listed tamper-resistant receptacles.

1. Receptacles located more than 5'-6" above the floor.

2. Receptacles that are part of a luminaire or appliance. 3. A single receptacle for a single appliance or a duplex receptacle for two appliances where such receptacles are located in spaces dedicated for the appliances served \$, under conditions of normal use, the appliances are not easily moved from one place to another. (2018)

IRC E4002.14) E24: Indoor Whirlpool/Jetted Tubs - receptacles that provide power for water-pump motors or other loads directly related to the circulation **#** sanitation system shall be located not less than 6 feet (1829 mm) from the inside walls of indoor spas & hot tubs. A minimum of one 125-volt receptacle shall be located between 6 feet (1829 mm) & 10 feet (3048 mm) from the inside walls of indoor spas or hot tubs. [2018 IRC E4203.1.4). All 125-volt receptacles rated 30 amperes or less & located w/in 10 feet (3048 mm) of the inside walls of spas & hot tubs installed indoors, shall be protected by qround-fault circuit-interrupters. (2018 IRC E4203.1.5)

E25: Luminaires & outlets that are installed in the area extending between 5 feet (1524 mm) & 10 feet (3048 mm) from the inside walls of pools & outdoor spas & hot tubs shall be protected by ground-fault circuit-interrupters except where such fixtures & outlets are installed not less than 5 Feet (1524 mm) above the maximum water level st are rigidly attached to the structure.

FORM CONSULTING LLC

NATHAN E TOLBERT RESIDENTIAL DESIGNER NV License #399-RD P O BOX 1335

GENOA NV 89411 (775) 720-4817

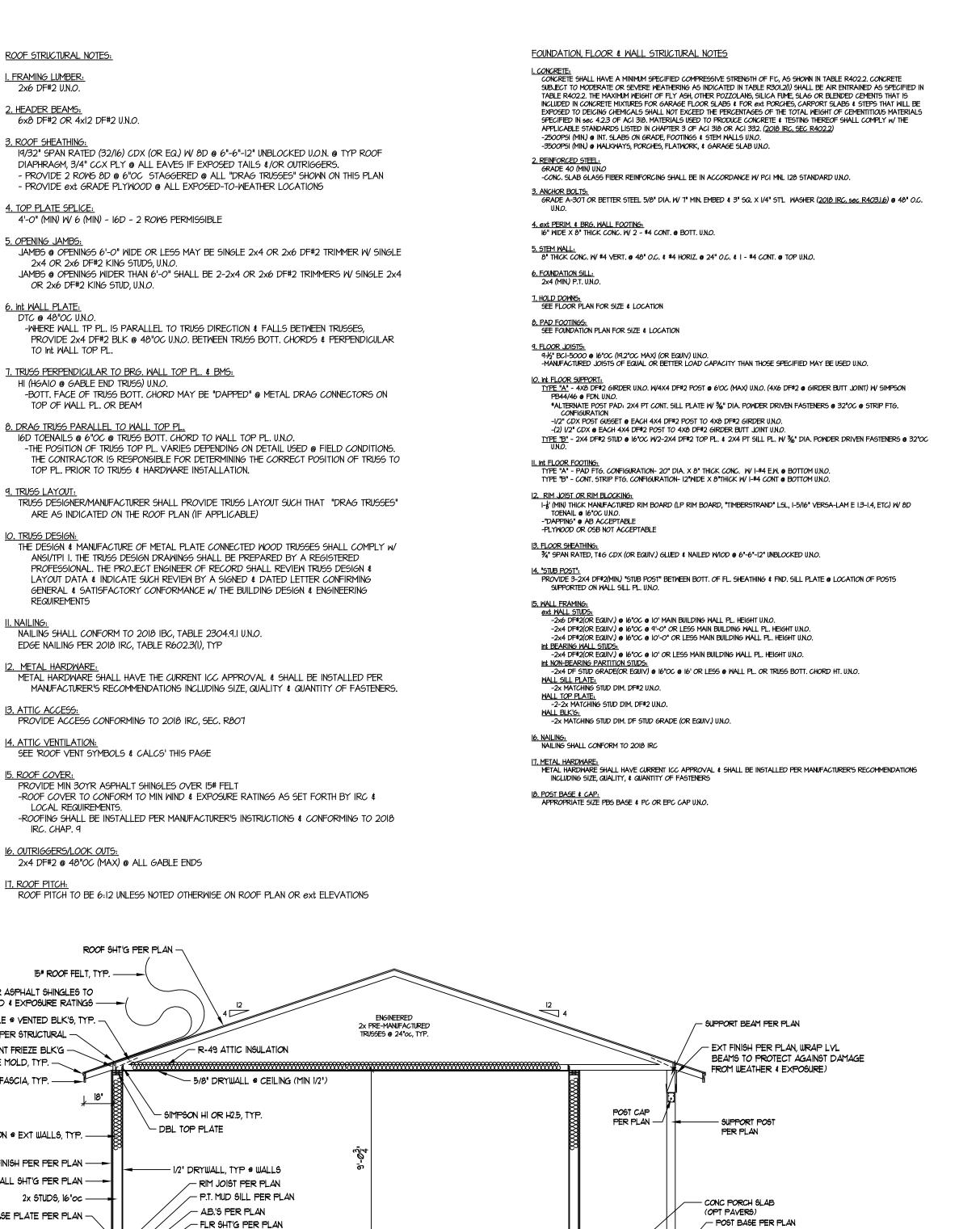
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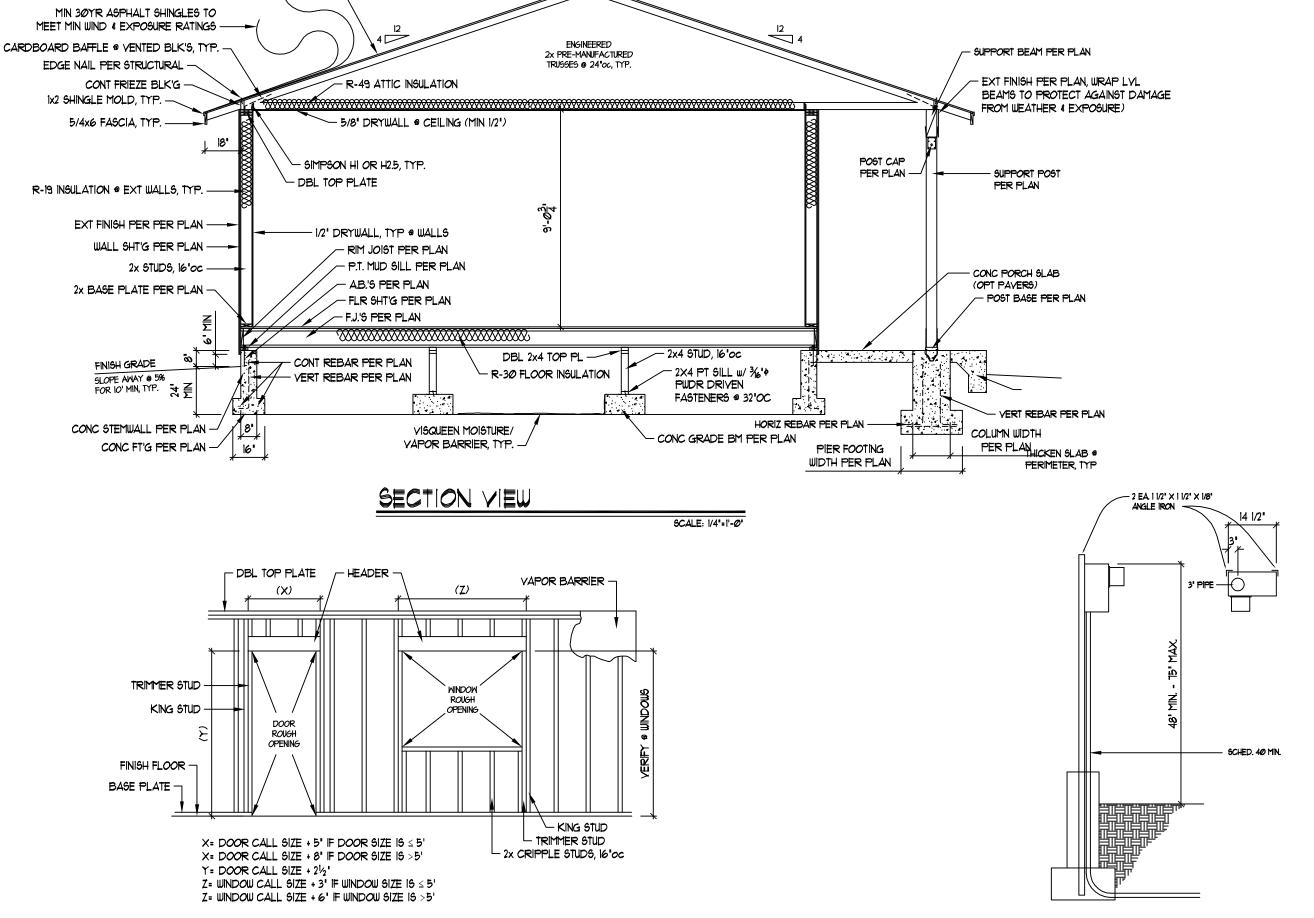
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03/07/2022 SHEET

CHECKED BY: MARCH, 2022





ANCHOR BOLT LEGEND

WHEN REQUIRED AB SPACING IS LESS THAN 48' O.C. IN A 2 X PL. THE REQUIRED SPACING IN INCHES IS IDENTIFIED INSIDE A SQUARE PLACED ADJACENT TO THE SPECIFIC FOUNDATION WALL LOCATION. WHERE A FDN. PL. MUST BE 3 X (MIN.) P.T., THE THICKER FDN. PL. IS IDENTIFIED OUTSIDE, BUT CONTIGUOUS TO THE A.B. SPACING SQUARE.

EXAMPLES: 48"

FLOOR VENT SYMBOLS & CALCS

SYMBOLS:

- ADJUSTABLE 16" x 8" PLASTIC RESIN SLIDER FOUND VENT
(40 SQ IN x QTY 4 = 160 SQ IN) I.II SQ FT

- 8" x 16" x 8" PLASTIC FOUND VENT WITH 1/4" SCREEN
(73 SQ IN x QTY (/) = (/) SQ IN) (/) SQ FT

VENT CALCULATION

TOTAL UNDER-FLOOR AREA:

VENT AREA (1/1,500):

-MINIMUM NET AREA OF VENTILATION OPENINGS SHALL NOT BE LESS

THAN I SQUARE FOOT FOR EACH 1500 SQUARE FEET OF

UNDER-FLOOR AREA WHEN CLASS I VAPOR RETARDER IS

PROVIDED (MIN 6 MIL VISQUEEN). -ONE SUCH OPENING SHALL BE WITHIN 3 FEET OF EACH CORNER OF THE BUILDING.

ENT NOTES:

- VENTILATION OPENINGS SHALL BE COVERED FOR THEIR HEIGHT & WIDTH W/ ANY OF THE FOLLOWING MATERIALS PROVIDED THAT THE LEAST DIMENSION OF THE COVERING SHALL NOT EXCEED 1/4":

• PERFORATED SHEET METAL PLATES NOT LESS THAN 0.047" THK

• EXPANDED SHEET METAL PLATES NOT LESS THAN 0.047" THK

CAST-IRON GRILL OR GRATING.
 EXTRUDED LOAD-BEARING BRICK VENTS.
 HARDWARE CLOTH OF 0.035" WIRE OR HEAVIER.

 HARDWARE CLOTH OF 0.035" WIRE OR HEAVIER.
 CORROSION-RESISTANT WIRE MESH, WITH THE LEAST DIMENSION BEING 1/8".

ROOF VENT SYMBOLS & CALCS

VENT CALCULATION

TOTAL ATTIC AREA:

VENT AREA (1/300):

-NOT LESS THAN 40% & NOT MORE THAN 50% OF THE REQ'D VENT AREA IS

PROVIDED BY VENT LOCATED IN THE UPPER PORTION OF THE ATTIC OR RAFTER

SPACE. UPPER VENTS SHALL BE LOCATED NOT MORE THAN 3' BELOW THE RIDGE

OR HIGHEST POINT OF THE SPACE, MEASURED VERTICALLY, w/ THE BALANCE OF

THE REQUIRED VENTILATION PROVIDED BY EAVE OR CORNICE VENTS. WHERE THE

LOCATION OF WALL OR ROOF FRAMING MEMBERS CONFLICTS WITH THE

INSTALLATION OF UPPER VENTILATORS, INSTALLATION MORE THAN 3' BELOW THE

RIDGE OR HIGHEST POINT OF THE SPACE SHALL BE PERMITTED.

-VENTILATION OPENINGS SHALL HAVE A LEAST DIMENSION OF 1/16 INCH MIN & 1/4 INCH MAX.

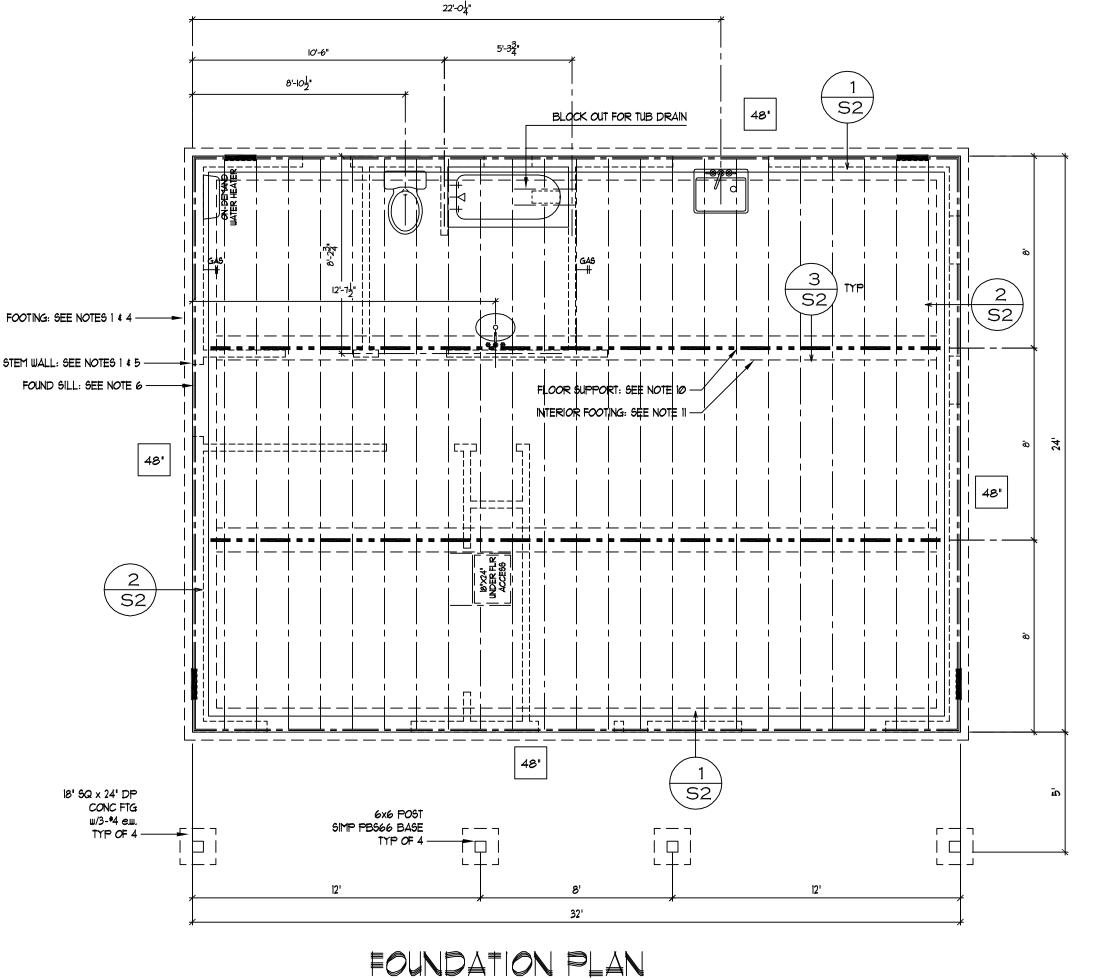
-VENTILATION OPENINGS HAVING A LEAST DIMENSION LARGER THAN 1/4 INCH SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE CLOTH SCREENING, HARDWARE CLOTH OR SIMILAR MATERIAL WITH OPENINGS HAVING A LEAST DIMENSION OF 1/16 INCH MIN & 1/4 INCH MAX.

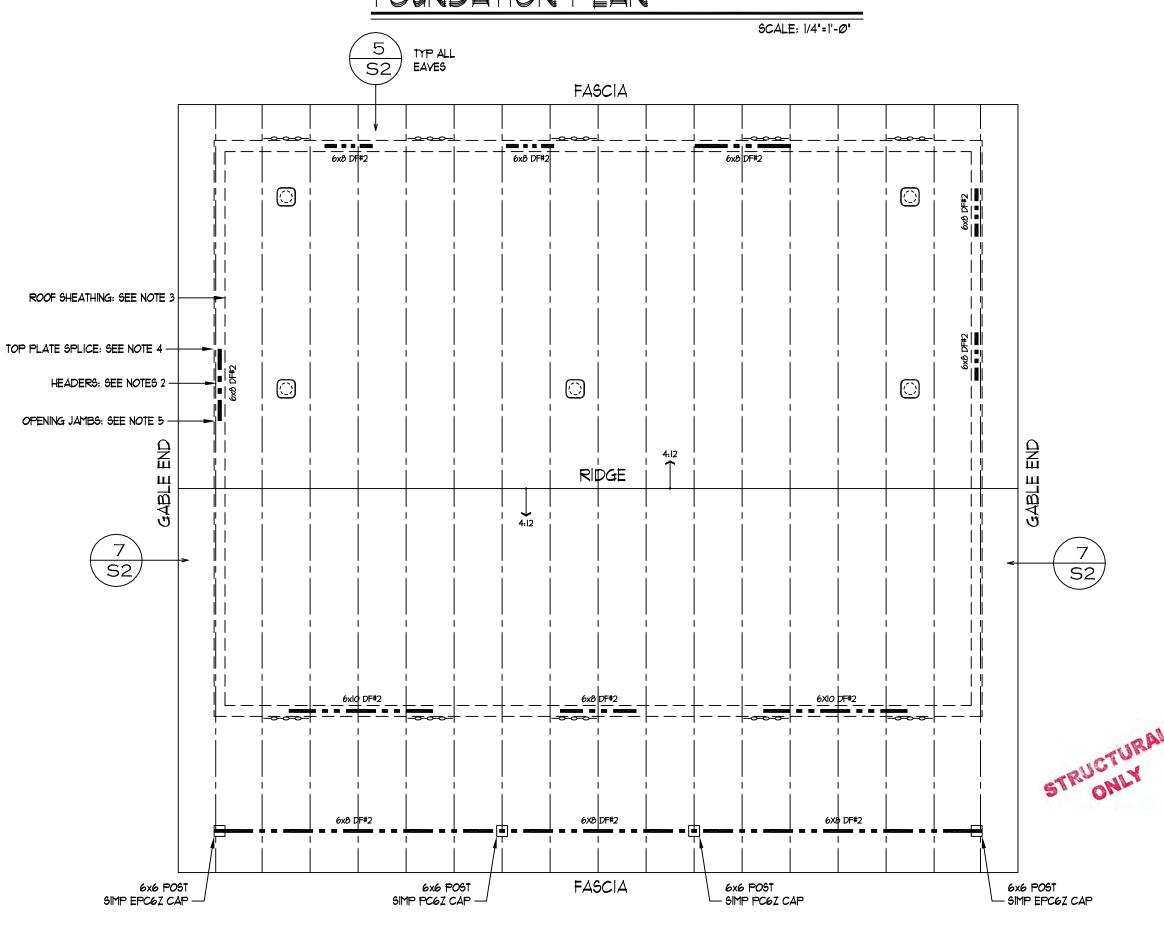
-OPENINGS IN ROOF FRAMING MEMBERS SHALL CONFORM TO THE REQUIREMENTS OF 2018 IRC SEC R802.7.

-REQUIRED VENTILATION OPENINGS SHALL OPEN DIRECTLY TO THE OUTSIDE AIR.

-VENTILATORS SHALL BE INSTALLED IN ACCORDANCE W/ MANUFACTURER'S

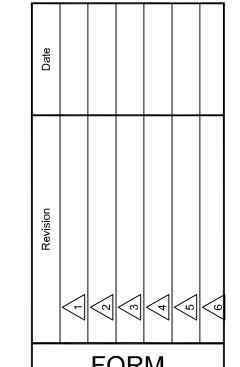
INSTRUCTIONS.





ROOF FRAMING PLAN

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



FORM CONSULTING LLC

STEVE GREER
CIVIL ENGINEER
NV License #7467
Expires: 06/30/2021
P O BOX 1335
GENOA NV 89411
(775) 232-7871

NOA NV 89411 75) 232-7871

CIUISTOME EIRS IINC License Number: 0056862

H THOMAS KOLBE, President 957 RUDDY COURT

ONSTRUCTION
DRAWINGS

CONS CONS LOT 32, WEST RID



SHEET: **\$1**

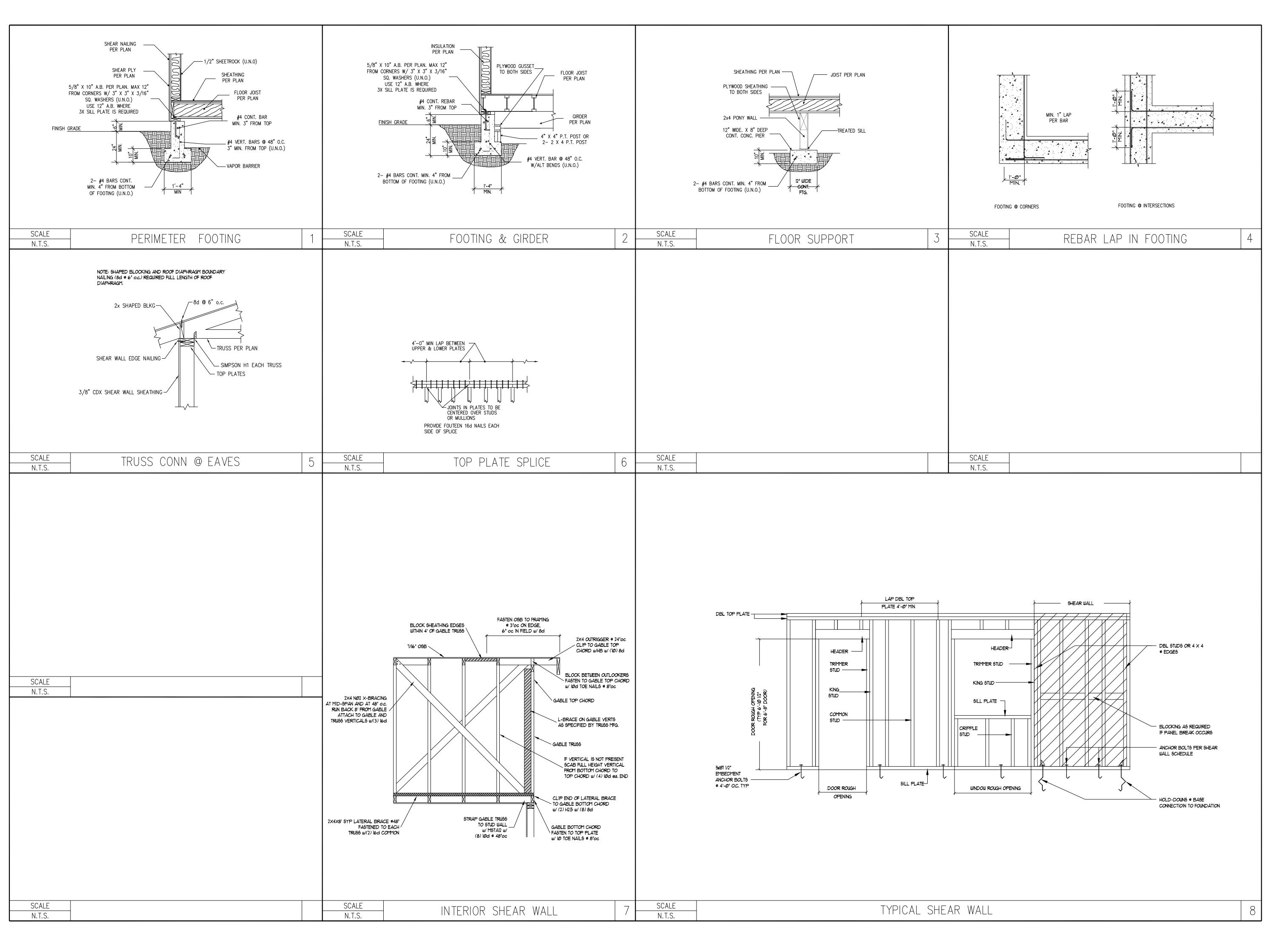
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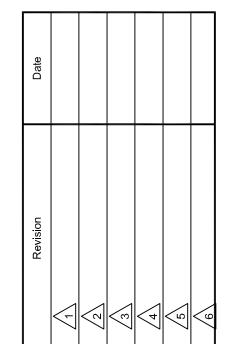
CHECKED BY: NT

DATE: MARCH, 2022

SCALE: AS NOTED

WALL FRAMING DETAIL





FORM CONSULTING

LLC

STEVE GREER CIVIL ENGINEER NV License #7467 Expires: 06/30/2021 P O BOX 1335 **GENOA NV 89411** (775) 232-7871

STRUCTURAL DETAILS

03/07/2022

SHEET

CHECKED BY: MARCH, 2022

GENERAL NOTES ANY MATERIALS, MEANS, METHODS, OR PROCEDURES NOT DEPICTED IN THESE CONSTRUCTION DOCUMENTS SHALL BE THE SOLE RESPONSIBILITY OF THE OWNER AND CONTRACTOR. 2. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR TEMPORARY BRACING AND SHORING OF ITEMS INCLUDING, BUT NOT LIMITED TO, EXCAVATIONS, TRENCHES, FORMS, AND ERECTED STRUCTURES. THE CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED WORK AND NOT THE MEANS, METHODS, OR PROCEDURES. 3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, SAFETY, SECURITY, AND ENVIRONMENTAL CONCERNS. THIS REQUIREMENT IS NOT LIMITED TO EMPLOYEES, EXTENTS OF THE WORK.

- SUBCONTRACTORS, WORKING HOURS, OR THE PHYSICAL 4. THE OWNER AND CONTRACTOR ACKNOWLEDGE THAT THESE CONSTRUCTION DOCUMENTS INCLUDE CONCEPTS THAT ARE SUBJECT TO THE SITE CONDITIONS. THE SITE CONDITIONS MAY REQUIRE MODIFICATIONS TO THE ACTUAL CONSTRUCTION OF THE
- PROJECT TO SATISFY THE INTENT OF THE CONCEPTS. 5. THESE DOCUMENTS ARE NOT APPROVED FOR PERMITTING OR CONSTRUCTION WITHOUT A STAMP AND SIGNATURE OF THE ENGINEER IN THE TITLE BLOCK OF EACH SHEET.
- 6. ANCHOR BOLTS, EMBEDS, AND INSERTS FOR EQUIPMENT SPECIFIED BY OTHERS SHALL BE DESIGNED BY A QUALIFIED ENGINEER WITH SHOP DRAWINGS SUBMITTED FOR REVIEW.

7. BY THE USE OF THESE PLANS, THE USER ACKNOWLEDGES

- THAT HE/SHE HAS READ AND UNDERSTANDS ALL OF THE INFORMATION INCLUDED HEREIN.
- 8. REFERENCES IN BRACKETS [...] INDICATE SPECIFIC STANDARDS, CODES, ORDINANCES, REGULATIONS AND AMENDMENTS BY THE AUTHORITIES HAVING JURISDICTION.
- 9. ALL STANDARDS, CODES, ORDINANCES, REGULATIONS AND AMENDMENTS BY THE AUTHORITIES HAVING JURISDICTION SHALL BE THE LATEST EDITION UNO ALTHOUGH NO GUARANTEE IS MADE THAT REFERENCES IN BRACKETS [...] WILL MATCH THE LATEST EDITION.
- 10. ALL CONSTRUCTION SHALL CONFORM TO: IBC - INTERNATIONAL BUILDING CODE STATE AMENDMENTS TO THE IBC LOCAL AMENDMENTS TO THE IBC OTHER REQUIREMENTS OF THE AUTHORITIES HAVING
- 11. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND ENGINEER OF ALL ERRORS, OMISSIONS AND/OR CONFLICTS BETWEEN STANDARDS, CODES, ORDINANCES, REGULATIONS, AMENDMENTS BY THE AUTHORITIES HAVING JURISDICTION, DRAWINGS, SPECIFICATIONS, CONSTRUCTION DOCUMENTS, AND/OR CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK AFFECTED BY THE ISSUE(S) UNTIL THEY ARE RESOLVED BY THE ARCHITECT AND/OR ENGINEER.
- 12. THE HIERARCHY OF CONTRACT DOCUMENTS SHALL FOLLOW THE AIA 'GUIDE FOR SUPPLEMENTARY CONDITIONS' AND HIGHER COST CONDITIONS SHOULD GOVERN WHERE CONFLICTS OCCUR.
- 13. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT AND ENGINEER OF ALL DISCREPANCIES PRIOR TO STARTING WORK.
- 14. IF A SPECIFIC DETAIL OR SPECIFICATION IS NOT PROVIDED THEN CONSTRUCTION SHALL BE THE SAME AS FOR SIMILAR WORK. THE CONTRACTOR SHOULD CLARIFY OMISSIONS WITH THE ARCHITECT AND ENGINEER.

DIMENSIONS

В

8 ||/|6" | 3 |/4" | 1 |/4"

10 15/16" | 3 1/4" | 1 1/4"

16 5/8" | 3 1/2" | 1 1/4"

22 1/4" | 3 1/2" | 1 1/4"

25 1/16" | 3 1/2" | 1 9/16"

3" | 13 13/16" | 3 1/4" | 1 1/4"

CORNER

CL

MODEL

NUMBER

НОЦ2

HDU4

НОЦ5

НДЦ8

HDLIII

НОШ4

2X SILL PLATE -

16D @ 16" O.C.

PER PLAN

13/4" MIN -

1. THESE ARE PRELIMINARY RECOMMENDATIONS. IF A VALID SOILS REPORT IS AVAILABLE THEN ALL CONSTRUCTION JOINT DETAIL.

SHALL CONFORM TO THE RECOMMENDATIONS THEREIN. IF A VALID SOILS REPORT IS NOT AVAILABLE THEN A QUALIFIED GEOLOGIST OR SOILS ENGINEER SHOULD MAKE SITE SPECIFIC RECOMMENDATIONS AS TO SETTLEMENT POTENTIAL, EXPANSIVE AND CORROSIVE SOIL POTENTIAL SLOPE CREEP AND STABILITY, ALLOWABLE FOUNDATION PRESSURE, AND OTHER FACTORS.

SOILS

- 2. SEE STRUCTURAL DESIGN PARAMETERS FOR SPECIFIC VALUES USED FOR DESIGN AND ENGINEERING.
- 3. SOIL SHALL HAVE A MINIMUM ALLOWABLE FOUNDATION PRESSURE OF 1,500 PSF.
- 4. VERY LOW EXPANSIVE SOIL SHALL BE COMPACTED TO 95% RELATIVE COMPACTION AT OPTIMUM MOISTURE CONDITIONS.
- 5. EXPANSIVE SOIL SHALL BE COMPACTED TO 90% RELATIVE COMPACTION AT OVER OPTIMUM MOISTURE CONDITIONS.
- 6. SOIL BENEATH THE STRUCTURE SHALL BE UNIFORMLY MOIST WITH THE SAME STIFFNESS THROUGHOUT.
- 7. IF A CUT/FILL TRANSITION OCCURS BENEATH THE STRUCTURE THE CUT PORTION SHOULD BE OVEREXCAVATED TO A MINIMUM DEPTH OF 4 FT AND REPLACED WITH COMPACTED FILL. THE STRUCTURE IS NOT DESIGNED FOR VARYING SOIL CONDITIONS AND IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY SOILS CONDITIONS OR USE A QUALIFIED GEOLOGIST OR SOILS ENGINEER TO MAKE SITE SPECIFIC RECOMMENDATIONS.
- 8. THE BOTTOM OF EXCAVATIONS SHALL NOT SLOPE TOWARD FOUNDATIONS OF STRUCTURES.
- 9. EXCAVATIONS AND TRENCHING MAY BE SUBJECT TO CAVING OR SLOUGHING. SHORING OR BACKCUTS AT 2:1 OR 1:1 SLOPES MAY BE REQUIRED. WE DO NOT PROVIDE SAFETY ENGINEERING, CONSULTATION OR REVIEW, SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 10. FREEZE-THAW CONDITIONS REQUIRE ADDITIONAL MIX DESIGN PARAMETERS INCLUDING BUT NOT LIMITED TO LOWER WATER-CEMENTITIOUS MATERIALS RATIOS AND AIR ENTRAINMENT. [ACI318 4.2]
- 11. SULFATE-CONTAINING SOIL REQUIRES ADDITIONAL MIX DESIGN PARAMETERS INCLUDING BUT NOT LIMITED TO LOWER WATER-CEMENTITIOUS MATERIALS RATIOS, HIGHER COMPRESSIVE STRENGTHS AND DIFFERENT CEMENT TYPES. [ACI318 4.3]
- 12. DRAINAGE SHALL BE INSTALLED TO ELIMINATE FLOW OVER SLOPES, GROUND SATURATION AND PONDING WATER.
- 13. DECKING AND OTHER STRUCTURES BUILT WITHIN 20 FT OR 1/3 OF SLOPE HEIGHT (H/3) WILL MOVE AND TILT TOWARD THE SLOPE. NON-LEVEL STRUCTURES MAY BE AESTHETICALLY UNACCEPTABLE AND EDGES MAY NOT PERFORM AS INTENDED.
- MOST STRUCTURES SETTLE AND CRACK WITHOUT STRUCTURAL FAILURE; HOWEVER, WATERSHAPES THAT SETTLE, DIFFERENTIALLY SETTLE, TILT, AND/OR CRACK DUE TO SOILS OR SEISMICITY MAY LEAK AND FAILURES MAY RESULT OR PARTIAL OR TOTAL FUNCTIONAL AND ECONOMIC LOSS. WATERSHAPE CONSULTING, INC. DOES NOT WARRANTY, GUARANTEE OR INSURE AGAINST LOSSES DUE TO SOILS AND SEISMICITY.

FASTENERS

BOLT

5/8"

5/8"

5/8"

7/8"

ALL HOLDDOWN BOLTS SHALL BE IN PLACE PRIOR TO INSPECTION

|DIAMETER | EMBED.

16 5/8"

20 5/8"

20 5/8"

28 7/8" 24"

24"

HOLDDOWN

BOLT

33TB20

33TB24

33TB24

33TB34

3BIX30

3BIX30

F'C = 3000"OR PER PLAN

PER PLAN /W

TYPICAL HOLDOWN

3D3252I2

SCREWS

10

14

30

<u>END</u> WALL

POST PER PLAN

NAILER ABOVE

HOLDOWN

WATERSHAPES FORMED BY A STABLE WELL-SHAPED EXCAVATION DO NOT REQUIRE FORMS EXCEPT AT THE BOND BEAM FOR BOTH ELEVATION CONTROL AND THE EXPANSION

FORMS

- 2. EXPANSION JOINTS REQUIRE THAT THE FIRST CONCRETE SECTION IS FORMED FOR A FLAT, EVEN FINISH. FOR WATERSHAPES, THIS WILL REQUIRE FORMING TO A DEPTH THAT EXCEEDS THE THICKNESS OF THE DECKING AND MONOLITHIC CUTOFF WALL WHICH MAY EXCEED 12" (300MM) EVEN IF THE TOP OF BOND BEAM IS AT GRADE.
- 3. ALL VERTICAL SURFACES ABOVE FINISHED GRADE SHALL BE FORMED.
- 4. ALL EXPOSED OUTSIDE CORNERS SHALL BE CHAMFERED 3/4" (20MM) UNO.
- 5. SEE OTHER PLANS (ARCHITECTURE, LANDSCAPE, WATERSHAPE AND OTHERS) FOR SPECIFIC FORMING DETAILS INCLUDING, BUT NOT LIMITED TO, CLIPS, GROOVES, INSERTS, MOLDINGS, ORNAMENTS, RECESSES, AND REVEALS.
- 6. FORMS FOR STRAIGHT-WALL WATERSHAPES SHALL BE MINIMUM 1/2" (13MM) PLYWOOD WITH NOMINAL 2 X 4 (40MM X 90MM) AT 16" (400MM) ON CENTER OR EQUAL.
- 7. FORMS FOR CURVED-WALL WATERSHAPES SHALL BE MINIMUM 1/4" (6MM) PLYWOOD WITH NOMINAL 2 X 4 (40MM X 90MM) AT 16" (400MM) ON CENTER OR EQUAL.
- 8. DRYWALL AND PEGBOARD ARE NOT ACCEPTABLE FORMING MATERIALS.
- 9. FORM TOLERANCES SHALL BE ±1/8" (3MM) IN ALL DIRECTIONS AND ELEVATIONS. LASER LEVELS TYPICALLY HAVE POOR ACCURACY THUS WATER LEVELS SHOULD BE USED TO ESTABLISH EDGE WALL FORM ELEVATIONS.
- 10. FORMS SHALL BE ERECTED BY AN EXPERIENCED CONCRETE FORMING CONTRACTOR.
- 11. MASONITE MAY BE USED WITH THE SMOOTH SIDE OUT AS A FORM RELEASE.
- 12. FORM RELEASE CHEMICALS MAY AFFECT THE BONDING OF COPING, TILE, POOL FINISH AND OTHER MATERIALS. CONTRACTOR SHALL REVIEW AND ENSURE COMPATIBILITY.
- 13. RATE OF CONCRETE PLACEMENT SHALL BE MONITORED AND LIMITED SO THAT THE CAPACITY OF THE FORMING SYSTEM IS NOT EXCEEDED:

PRESSURES ON FORMS PRESSURE OF VIBRATED CONCRETE 1 FT/HR (300MM/HR) 330 PSF (15.8 KPA) 2 FT/HR (600MM/HR) 510 PSF (24.4 KPA) 3 FT/HR (900MM/HR) 690 PSF (33.0 KPA) 4 FT/HR (1200MM/HR) 870 PSF (41.7 KPA) 5 FT/HR (1500MM/HR) 1050 PSF (50.3 KPA) 6 FT/HR (1800MM/HR) 1230 PSF (58.9 KPA) 7 FT/HR (2100MM/HR) 1410 PSF (67.5 KPA) 8 FT/HR (2400MM/HR) 1590 PSF (76.1 KPA) 9 FT/HR (2700MM/HR) 1770 PSF (84.7 KPA) 10 FT/HR (3000MM/HR) 1950 PSF (93.4 KPA) CARPENTRY BY GASPAR LEWIS

REINFORCING STEEL

REINFORCING STEEL SHALL BE DEFORMED BAR IN CONFORMANCE WITH ASTM A615/A615M-09:

S	TEEL REI	NFOR (CEMENT
BAR SIZE	NOMINAL DIA	GRADE	Fy, MIN YIELD STRENGTH
#3	3/8" (10 MM)	40	40,000 PSI
#4	1/2" (13 MM)	40	(300 MPA)
#5	5/8" (16 MM)		
#6	3/4" (19 MM)		
#7	7/8" (22MM)		
#8	1" (25MM)		
#9	1-1/8" (29MM)	60	60,000 PSI (420 MPA)
#10	1-1/4" (32MM)	_	(
#11	1-3/8" (36MM)		
#14	1-3/4" (43MM)		
#18	2-1/4" (57MM)		

REINFORCING STEEL

- REINFORCING STEEL SHALL CONFORM WITH IBC CHAPTER 19 FOR CONCRETE AND CHAPTER 21 FOR MASONRY.
- 3. REINFORCING STEEL SHALL CONFORM WITH ACI 318-08 EXCEPT AS MODIFIED BY IBC SECTION 1908.
- 4. REINFORCING STEEL SHALL CONFORM WITH THE MANUAL OF STANDARD PRACTICE PUBLISHED BY THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
- 5. LAP SPLICES IN CONCRETE SHALL UTILIZE CONTACT LAPS PER
- 6. HOOKS, BENDS AND OFFSETS SHALL BE PER ACI 318.

7. HOOPS, TIES AND STIRRUPS SHALL BE PER ACI 318.

OVERLAP AS LONG AS CLEARANCES ARE MAINTAINED.

- 8. PLANS SPECIFY MINIMUM REINFORCING STEEL REQUIREMENTS BUT IT IS ACCEPTABLE TO HAVE EXCESS STEEL WHERE DETAILS
- 9. CONCRETE COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

REINFORCEMENT (OVER
LOCATION	MINIMUM COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3" (75MM)
CONCRETE FORMED AND EXPOSED TO EARTH, WEATHER OR WATER	2" (50MM)
OTHER LOCATIONS, UNO	1-1/2" (40MM)
[ACI 318 7.7.1, 7.7.2 AND 7.7	7.3]

10. WELDING OR TACK WELDING OF REINFORCING STEEL CURTAINS AT THE INTERSECTIONS IS NOT PERMITTED.

- 11. WELDING OF REINFORCING STEEL SHALL CONFORM WITH ANSI/AWS D1 4 (D1 4M) AND IS ONLY PERMITTED WHERE SPECIFICALLY SHOWN ON THE PLANS. ALL OTHER WELDING REQUIRES PRIOR WRITTEN APPROVAL FROM THE ENGINEER. SPECIAL INSPECTION, AND APPROVAL FROM THE AUTHORITIES HAVING JURISDICTION.
- 12. IT IS THE INTENT OF THE STRUCTURAL DESIGN TO ELIMINATE THE USE OF #3 (3/8" (10MM) DIA) REINFORCING STEEL IN WATERSHAPES INCLUDING POOLS AND SPAS. ALTHOUGH ANALYSIS MAY VALIDATE THE USE OF #3 REINFORCING, IT IS NOTED THAT #3 REINFORCING IS SUBJECT TO BENDING DAMAGE WHILE CREWS ARE WALKING ON IT AND THE SPACING OF #3 REINFORCING CAN PREVENT PROPER CLEARANCES TO PLUMBING AND OTHER FITTINGS. #3 REINFORCING STEEL SHALL ONLY BE USED WHERE SPECIFICALLY
- 13. CONTRACTOR SHALL SUBMIT REINFORCING STEEL SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION AND INSTALLATION. THIS IS NOT NECESSARY FOR FIELD INSTALLATION OF WATERSHAPE SHELL REINFORCING.

MASONRY

1. CONCRETE MINIMUM 28-DAY COMPRESSIVE STRENGTH SHALL BE AS FOLLOWS:

COMPRESSI	VE STRENGTH
DESCRIPTION	fm'
MASONRY BLOCK	1,500 PSI (10.3 KPA)
[IBC	1904.2.2]

- 2. HOLLOW LOAD BEARING SHALL BE GRADE 'N' TYPE I AND MEDIUM WEIGHT, CONFORMING TO ASTMC90
- 3. MORTAR SHALL BE TYPE M AND SHALL CONFORM TO IBC SECTION 2103.8 AND ASTM C270. MIN COMPRESSIVE STRENGTH SHALL BE 2500 PSI @ 28 DAYS. MORTAR PROPORTIONS SHALL BE 1 PART PORTLAND CEMENT 1/2 PART HYDRATED LIME AND 3 1/2 TO 4 1/2 PARTS SAND BY VOLUME (SAND SHALL CONFORM TO ASTM C144). MORTAR SHALL MAINTAIN A 2 1/2" TO 3" SLUMP.
- 4. GROUT SHALL CONFORM TO ASTM C476 AND IBC SECTION 2103.12 AND SHALL HAVE A MINIMUM STRENGTH OF 2000 PSI @ 28 DAYS. GROUT PROPORTIONS FOR FINE GROUT SHALL BE 1 PART PORTLAND CEMENT, 2 1/4 TO 3 PARTS SAND BY VOLUME AND A MAX OF 0.1 PART LINE (SAND SHALL CONFORM TO ASTM C144). GROUT SHALL MAINTAIN A 8" TO 10" SLUMP. COARSE GROUT PROPORTIONS ARE TO BE 1 PART PORTLAND CEMENT, 1 TO 2 PARTS PEA GRAVEL, 2 1/4 TO 3 PARTS SAND AND A MAX OF 0.1 PART LIME.

CONCRETE

CONCRETE MINIMUM 28-DAY COMPRESSIVE STRENGTH SHALL BE AS FOLLOWS:

COMPRESSI	VE STRENGTH
DESCRIPTION	fc' AT 28 DAYS
CHLORIDE EXPOSURE (SALT, BRACKISH WATER)	5,000 PSI (34.5 MPA) [ACI 318 4.2.2]
FREEZE/THAW	4,500 PSI (31.0 MPA)
CONDITIONS	[ACI 318 4.2.2]
CAISSONS, PIERS, PILES	4,000 PSI (27.6 MPA)
GRADE BEAMS	4,000 PSI (27.6 MPA)
SHOTCRETE	4,000 PSI (27.6 MPA)
(DRY-MIX GUNITE OR	[ACI 318 4.2.2]
WET-MIX SHOTCRETE)	[ACI 506R 6.3.3.2]
CONTINUOUS FOOTINGS	3,000 PSI (20.7 MPA)
IN MODERATE EXPOSURE	[IBC 1904.2.2]
SPREAD PAD FOOTINGS	3,000 PSI (20.7 MPA)
IN MODERATE EXPOSURE	[IBC 1904.2.2]
SLAB ON GRADE	3,000 PSI (20.7 MPA)
IN MODERATE EXPOSURE	[IBC 1904.2.2]
VERTICAL WALLS	3,000 PSI (20.7 MPA)
IN MODERATE EXPOSURE	[IBC 1904.2.2]

- 2. CONCRETE COMPRESSIVE STRENGTHS GREATER THAN 2,500 PSI (17.2 KPA) SHALL HAVE SPECIAL INSPECTION PER IBC SECTION 1704.4.
- 3. CONCRETE MIX PARAMETERS SHALL BE AS FOLLOWS:

DECORIDATION	\
DESCRIPTION	VALUE
COARSE AGGREGATE	3/4" (20MM) MAX [IBC 1913.3]
SHOTCRETE	7 SACK (658 LBS) MIN
SLUMP	<5"
COLOR	NONE

- NORMAL WEIGHT CONCRETE AGGREGATES SHALL CONFORM TO ASTM C33.
- 5. LIGHT WEIGHT CONCRETE AGGREGATES SHALL CONFORM TO ASTM C330 LIGHTWEIGHT AGGREGATES FOR STRUCTURAL CONCRETE AND ASTM C567 DENSITY OF STRUCTURAL LIGHTWEIGHT CONCRETE. LIGHT WEIGHT CONCRETE SHALL HAVE A SPECIFIC WEIGHT RANGE OF 110 TO 115 PCF.
- 6. FINE AGGREGATES (SAND) SHALL BE WELL GRADED.
- PORTLAND CEMENT SHALL CONFORM TO ASTM C150. TYPE I OR TYPE II. [IBC 1903.1, ACI318 3.2]
- 8. WATER SHALL BE POTABLE, CLEAN AND FREE OF INURIOUS AMOUNTS OF OILS, ACIDS, ALKALIS, SALTS, CHLORIDE IONS, ORGANIC MATERIALS, OR OTHER SUBSTANCES DELETERIOUS TO CONCRETE OR REINFORCING
- 9. ADMIXTURES SHALL BE APPROVED BY THE ENGINEER PRIOR TO MIXING AND PLACEMENT AND THEY SHALL CONFORM TO ASTM C260 AIR-ENTRAINING ADMIXTURES FOR CONCRETE, ASTM C494 CHEMICAL ADMIXTURES FOR CONCRETE, ASTM C618 COAL FLY ASH AND RAW OR CALCINED NATURAL POZZOLAN FOR USE IN CONCRETE, ASTM C845 EXPANSIVE HYDRAULIC CEMENT, ASTM C989 SLAG CEMENT FOR USE IN CONCRETE AND MORTARS, ASTM C1017 CHEMICAL ADMIXTURES FOR USE IN PRODUCING FLOWING CONCRETE, AND/OR ASTM C1240 SILICA FUME USED IN CEMENTITIOUS MIXTURES. WHICHEVER IS APPLICABLE.
- READY-MIX CONCRETE SHALL BE MIXED AND DELIVERED IN CONFORMANCE WITH ASTM C94 READY-MIXED CONCRETE, ASTM C685 CONCRETE MADE BY VOLUMETRIC BATCHING AND CONTINUOUS MIXING, AND/OR ASTM C109 COMPRESSIVE STRENGTH OF HYDRAULIC CEMENT MORTARS.
- 11. BLOCK-OUTS, CONDUITS, DUCTS, NOTCHES, OPENINGS, PIPES, POCKETS, SLEEVES, ETC SHALL NOT BE LOCATED IN OR THROUGH CONCRETE UNLESS SPECIFICALLY SHOWN IN THESE DRAWINGS. IF ANY OF THESE ITEMS ARE LOCATED IN OR THROUGH CONCRETE AND NOT SHOWN IN THESE DRAWINGS THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED IMMEDIATELY. CONCRETE SHALL NOT BE CUT OR CORED FOR ANY OF THESE ITEMS WITHOUT WRITTEN APPROVAL OF THE ENGINEER.
- 12. ANCHOR BOLTS, EMBEDS, INSERTS, BLOCK-OUTS, CONDUITS, DUCTS, NOTCHES, OPENINGS, PIPES, POCKETS, SLEEVES, ETC SHALL BE RIGIDLY FORMED OR SECURED INTO POSITION WITH ALL LOCATIONS VERIFIED BY THE RESPONSIBLE CONTRACTOR(S) PRIOR TO CONCRETE PLACEMENT.
- 13. NOT USED
- 14. NOT USED

CONCRETE

- 15. DURING THE CURING PERIODS SPECIFIED HEREIN, SHOTCRETE SHALL BE MAINTAINED ABOVE 40°F (4.4°C) AND IN MOIST CONDITION. IN INITIAL CURING, SHOTCRETE SHALL BE KEPT CONTINUOUSLY MOIST FOR 24 HOURS AFTER PLACEMENT IS COMPLETE. FINAL CURING SHALL CONTINUE FOR SEVEN DAYS AFTER SHOTCRETING, FOR THREE DAYS IF HIGH-EARLY-STRENGTH CEMENT IS USED, OR UNTIL THE SPECIFIED STRENGTH IS OBTAINED. FINAL CURING SHALL CONSIST OF A FOG SPRAY OR AN APPROVED MOISTURE-RETAINING COVER OR MEMBRANE. IN SECTIONS OF A DEPTH IN EXCESS OF 12 INCHES (300MM), FINAL CURING SHALL BE THE SAME AS THAT FOR INITIAL CURING.
- 16. ALL SHOTCRETE WORK SHALL BE CONTINUOUSLY INSPECTED DURING PLACING BY AN INSPECTOR SPECIALLY APPROVED FOR THAT PURPOSE BY THE ENFORCEMENT AGENCY. THE SPECIAL SHOTCRETE INSPECTOR SHALL CHECK THE MATERIALS, PLACING EQUIPMENT, DETAILS OF CONSTRUCTION AND CONSTRUCTION PROCEDURE. THE INSPECTOR SHALL FURNISH A VERIFIED REPORT THAT OF HIS OR HER OWN PERSONAL KNOWLEDGE THE WORK COVERED BY THE REPORT HAS BEEN PERFORMED AND MATERIALS USED AND INSTALLED IN EVERY MATERIAL RESPECT IN COMPLIANCE WITH THE DULY APPROVED PLANS AND SPECIFICATIONS.
- 17. AT LEAST FOUR WEEP-HOLES SHALL BE LOCATED IN THE WATERSHAPE FLOORS FOR DRAINAGE.
- 18. CONCRETE HYDRATION SHALL INCLUDE THOROUGHLY AND CONTINUALLY WETTING ALL CONCRETE WORK INCLUDING THE DECKING AND SHOTCRETE SHELL WITH A LOW PRESSURE GARDEN HOSE OR IRRIGATION SYSTEM. DO NOT USE GARDEN HOSE JET NOZZLES OR PRESSURE WASHING EQUIPMENT THAT COULD DAMAGE THE CONCRETE. THIS SHALL BE DONE TWICE DAILY MINIMUM OR AS OTHERWISE NEEDED TO KEEP THE CONCRETE MOIST FOR TWO WEEKS MINIMUM.
- 19. SEE OTHER PLANS (ARCHITECTURE, LANDSCAPE, WATERSHAPE AND OTHERS) REGARDING ADDITIONAL REQUIREMENTS FOR ARCHITECTURAL CAST-IN-PLACE CONCRETE (E.G., COLOR AND FINISH).

ALUMINUM

- 1. ALUMINUM SHALL NEVER BE IN ELECTRICALLY CONDUCTIVE CONTACT WITH STEEL REINFORCEMENT OR STRUCTURAL STEEL DUE TO GALVANIC REACTIONS.
- 2. ALUMINUM SHALL NEVER BE IN CONTACT WITH WET CONCRETE (CURING OR IN SERVICE) UNLESS COATED, WARRANTED BY THE MANUFACTURER FOR THE SPECIFIC INSTALLATION AND APPROVED IN WRITING BY THE ENGINEER.

STRUCTURAL STEEL

- 1. AS A MINIMUM, STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36 SPECIFICATIONS AND ASTM A-992 SPECIFICATIONS.
- 2. ALL STEEL TUBES SHALL CONFORM TO ASTM A-500
- 3. ALL BOLTS SHALL CONFORM TO ASTM A-307.
- 4. MINIMUM STEEL STRENGTH Fy = 36,000 PSI WELDING SHALL BE DONE IN AN APPROVED FABRICATING SHOP BY WELDERS QUALIFIED, AS REQUIRED BY THE BUILDING
- DEPARTMENT. CONFORMING TO THE LATEST A.W.S. SPECIFICATIONS AND STANDARDS. E-70 T6 OR E70 TGK2 ELECTRODES: ASTM A-572 GRADE 50

WOOD

STRUCTURAL STEEL

1. ALL WOOD IN DIRECT CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED.

GLASS AND GLAZING

1. ALL GLAZING IN WALLS AND FENCES WITHIN 5' (1,500MM) OF WATER SHALL BE SAFETY GLAZING IN CONFORMANCE WITH IBC 2406.3.9.

FORM

CONSULTING LLC

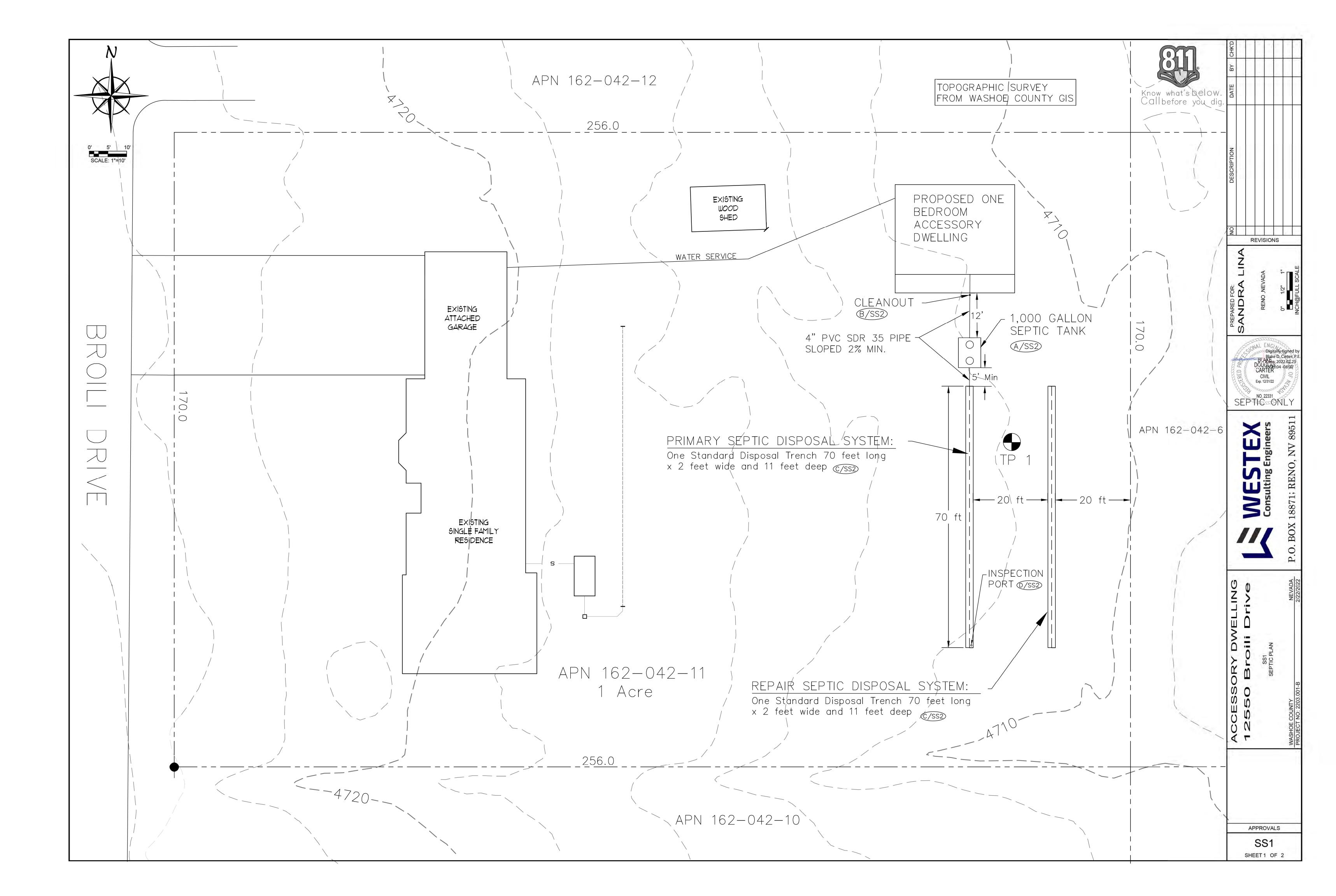
STEVE GREER CIVIL ENGINEER NV License #7467 Expires: 06/30/2021 P O BOX 1335 **GENOA NV 89411** (775) 232-7871

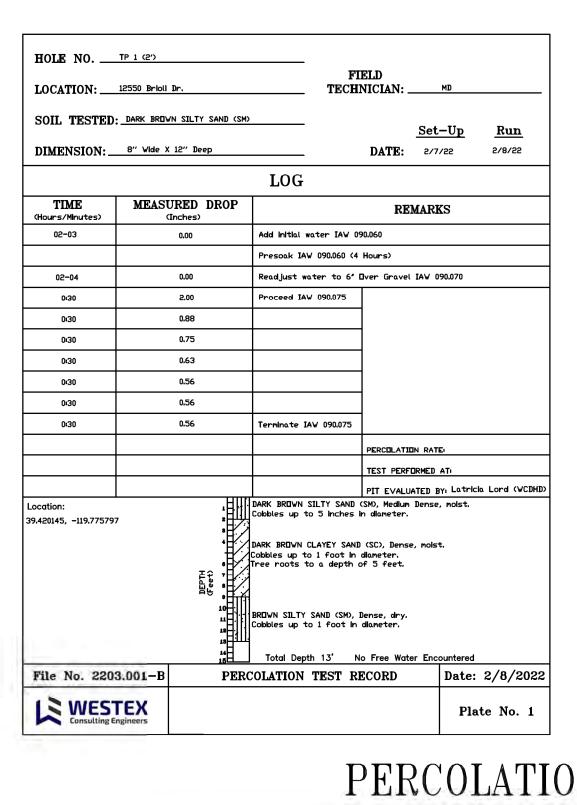
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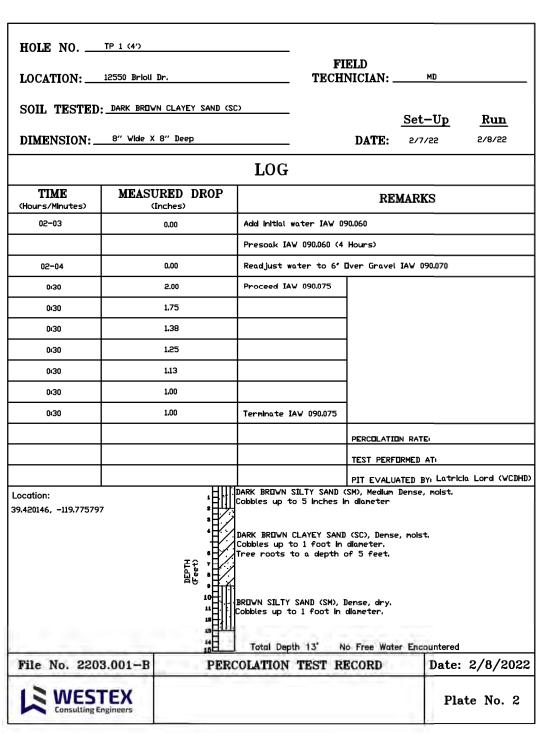
03/07/2022

SHEET: SN

CHECKED BY: DATE: MARCH, 2022 AS NOTED

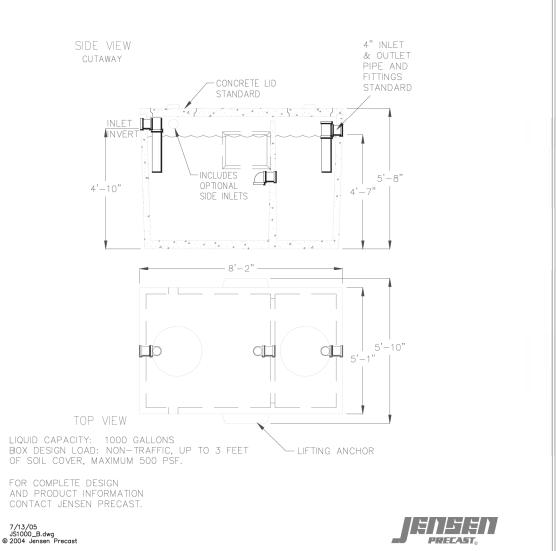






1000 GALLON RESIDENTIAL SEPTIC TANK MODEL JS1000 ACCEPTED BY UPC

OR APPROVED EQUAL



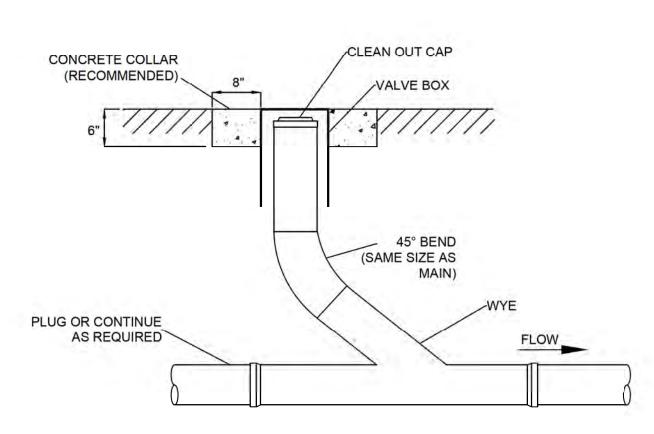
SEPTIC TANK

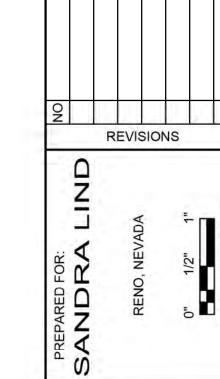
4" SOLID PVC

→ 4" PERFORATED PVC

(A/SS2)





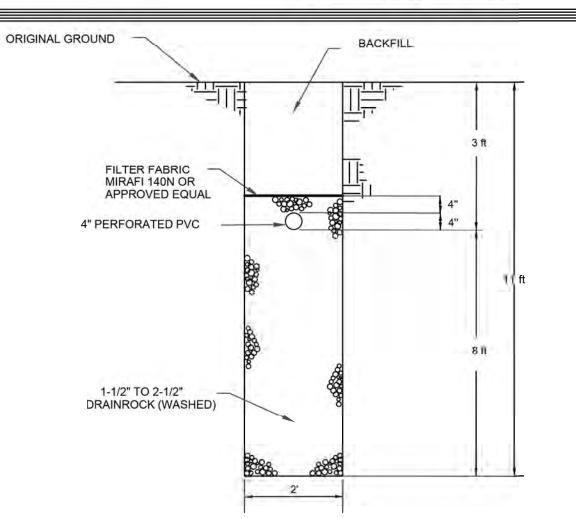


CIVIL

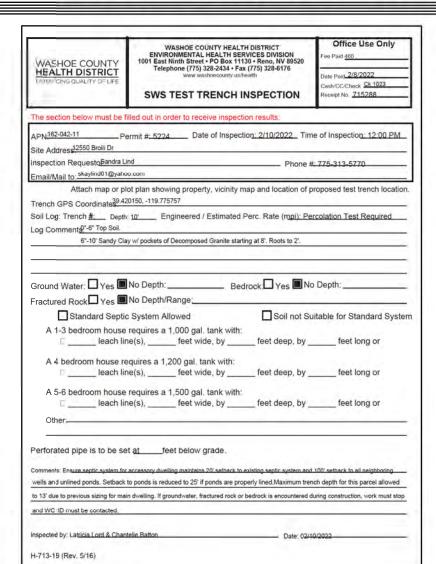
NO. 22331 SEPTIC ONL'

CLEAN OUT B/SS2

PERCOLATION TESTS



TYPICAL TRENCH DETAIL ©/SS2)



GIVEN: THE PARCEL CONTAINS AN EXISTING FOUR BEDROOM RESIDENCE WITH EXISTING SEPTIC SYSTEM. THE PROPOSED ONE BEDROOM ACCESSORY DWELLING WOULD REQUIRE A 1,000 GAILON SEPTIC TANK. THE PRIMARY AND REPAIR SYSTEMS ARE TO BE STANDARD TRENCHES. DESIGN PERCOLATION RATE IS 30 MINUTES PER INCH.

REQUIRED AREA:

where Q = rate of application, gallons per day per square foot, and t = design percolation rate, minutes per inch (mpi)

 $Q = \frac{5}{\sqrt{30}} = 0.91 \text{ gpd/sqft}$

PRIMARY SYSTEM: $\frac{1,099 \text{ sqft.}}{(2)(8 \text{ ft.})} = 69 \text{ feet}$

PROVIDED AREA:

Primary and Repair System:

One 70 feet long by 2 feet wide by 11 feet deep trench.

CALCULATIONS



2. BASED ON COMMUNITY PARCEL NO. 32031C3245G, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, DATED MARCH 16, 2009, THE ENTIRE PROPERTY IS LOCATED IN ZONE X (UNSHADED). THIS FLOOD ZONE IS OUTSIDE AREAS OF 0.2% ANNUAL CHANCE OF FLOODS (100-YEAR FLOOD).

INSPECTION PORT

3. NO PUBLIC WELL WITHIN 200 FEET OF THE PROPERTY.

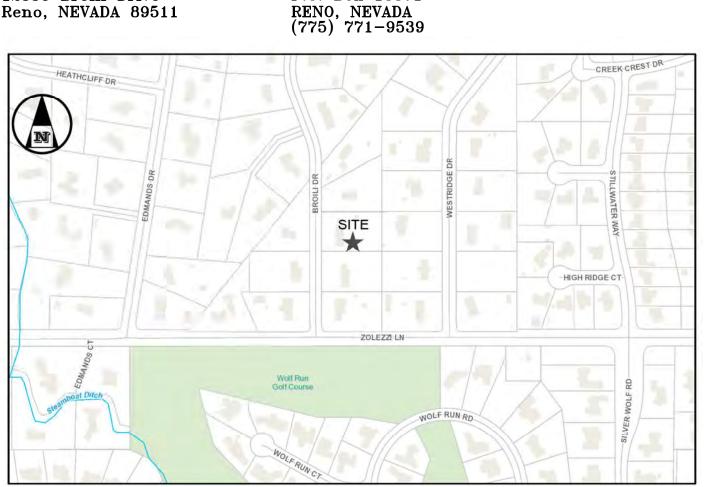
FILTER FABRIC

1-1/2" TO 2-1/2" DRAINROCK (WASHED)

- 4. DRAINAGE AROUND RESIDENCE SHALL COMPLY WITH APPLICABLE BUILDING CODES.
- 5. THERE ARE NO WATERCOURSES WITHIN 100 FT. OF THE SUBJECT PROPERTY. WITH THE EXCEPTION OF THE DRAINAGE DITCH SHOWN ON SITE PLAN.
- 6. THE BUILDING SEWER AND SOLID LINE BETWEEN THE SEPTIC TANK AND DISPOSAL FIELD SHALL BE LAID ON A SLOPE NOT LESS THAN ONE-FOURTH (1/4) INCH PER FOOT (2%).
- 7. PERFORATED DISTRIBUTION LINES SHOULD BE SLOPED 2 TO 4 INCHES PER 100 FT. THE BOTTOM OF THE DISPOSAL TRENCHES SHALL BE ESSENTIALLY LEVEL.
- 8. THE DISPOSAL TRENCH SIDEWALL SHALL HAVE A MINIMUM HORIZONTAL SET BACK OF TWENTY (20) FEET FROM THE FACE OF THE FINISHED SLOPE, AS MEASURED AT THE LEVEL OF THE PERFORATED DISPOSAL PIPE.
- 9. VEHICULAR TRAFFIC, LARGE ANIMAL CONFINEMENT, MATERIAL STORAGE, AND PAVING ARE PROHIBITED IN THE DISPOSAL FIELD AREA.
- 10. SEPTIC SYSTEM MAINTAINENCE IS RECOMMENDED. VISIT THE EPA WEBSITE AT Http://cfpub.epa.gov/owm/septic/homeowners.cfm FOR MAINTAINENCE PROTOCOLS.

NOTES

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VICINITY MAP

Oi

APPROVALS SS2

SHEET 2 OF 2