

Community Services Department  
Planning and Building  
**DETACHED ACCESSORY DWELLING  
ADMINISTRATIVE REVIEW  
APPLICATION**



Community Services Department  
Planning and Building  
1001 E. Ninth St., Bldg. A  
Reno, NV 89520

Telephone: 775.328.6100

## 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.

<b>Project Information</b>		Staff Assigned Case No.: _____	
Project Name:			
Project Description:			
Project Address:			
Project Area (acres or square feet):			
Project Location (with point of reference to major cross streets <b>AND</b> area locator):			
Assessor's Parcel No.(s):	Parcel Acreage:	Assessor's Parcel No.(s):	Parcel Acreage:
Section(s)/Township/Range:			
<b>Indicate any previous Washoe County approvals associated with this application:</b>			
Case No.(s).			
<b>Applicant Information</b> (attach additional sheets if necessary)			
<b>Property Owner:</b>		<b>Professional Consultant:</b>	
Name:		Name:	
Address:		Address:	
Zip:		Zip:	
Phone:	Fax:	Phone:	Fax:
Email:		Email:	
Cell:	Other:	Cell:	Other:
Contact Person:		Contact Person:	
<b>Applicant/Developer:</b>		<b>Other Persons to be Contacted:</b>	
Name:		Name:	
Address:		Address:	
Zip:		Zip:	
Phone:	Fax:	Phone:	Fax:
Email:		Email:	
Cell:	Other:	Cell:	Other:
Contact Person:		Contact Person:	
<b>For Office Use Only</b>			
Date Received:	Initial:	Planning Area:	
County Commission District:		Master Plan Designation(s):	
CAB(s):		Regulatory Zoning(s):	

# Property Owner Affidavit

**Applicant Name:** MILLER FAMILY TRUST  
JEFFREY MILLER | KAROLINA MILLER

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.

STATE OF Florida )  
COUNTY OF Palm Beach )

I, Jeffrey Miller KAROLINA MILLER  
(please 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 and belief. 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): 040-152-25

Printed Name Jeffrey Miller Karolina Miller  
Signed Jeffrey Miller Karolina Miller

Address 1085 Mill Creek Road

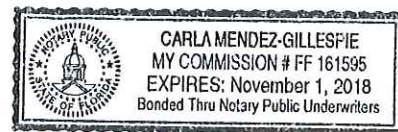
4000 sft, 5 bedroom/5-1/5 bath new resi

Subscribed and sworn to before me this  
21 day of June, 2018

(Notary Stamp)

Carla Menendez-Gillespie  
Notary Public in and for said county and state

My commission expires: 11-1-2018



6-21-2018

\*Owner refers to the following: (Please mark appropriate box.)

- Owner
- Corporate Officer/Partner (Provide copy of record document indicating authority to sign.)
- Power of Attorney (Provide copy of Power of Attorney.)
- Owner Agent (Provide notarized letter from property owner giving legal authority to agent.)
- Property Agent (Provide copy of record document indicating authority to sign.)
- Letter from Government Agency with Stewardship

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

(All required information may be separately attached)

This application is for proposals to establish a Detached Accessory Dwelling unit in the Low Density Rural, Medium Density Rural, High Density Rural, and Low Density Suburban regulatory zones. Chapter 110 of the Washoe County Code is commonly known as the Development Code. Specific references to the administrative review permit process for Detached Accessory Dwellings may be found in Article 306, Accessory Uses and Structures, Section 25(i). A Detached Accessory Dwelling is also referred to as a “secondary dwelling” in this application. The “main dwelling” is the original or larger dwelling on the property.

1. What is the size (square footage) of the main dwelling unit or proposed main dwelling unit (exclude size of garage)?

4,089 SF, 5 BEDROOM 5-1/5 BATH NEW RESIDENCE

2. What is the size of the detached accessory dwelling unit or proposed detached accessory dwelling unit (exclude size of garage)?

BARN TOTAL SF = 3,840 SF. INCLUDES 480 SF APARTMENT, 64 SF COVERED ENTRY, 1568 SF BARN, 1152 SF BARN LOFT/STORAGE AND 576 SF COVERED PORCH AREA.

3. How are you planning to integrate both the main dwelling and secondary dwelling to provide architectural compatibility and a sense of project integration of the two structures?

4. How are you planning to provide water and wastewater disposal (sewer or septic) to the secondary dwelling unit?

5. What additional roadway, driveway, or access improvements are you planning?

6. A parking space is required. How are you providing the additional parking?

7. When do you plan to complete construction of the secondary dwelling and obtain a certificate of occupancy?

8. What will you do to minimize any potential negative impacts (e.g. increased lighting, obstruction of views, removal of existing vegetation, etc.) your project may have on adjacent properties?

9. Is the subject property part of an active Home Owners Association (HOA) or Architectural Control Committee? If yes, please include the name and contact information for the applicable board.

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10. Are there any restrictive covenants, recorded conditions, or deed restrictions (CC&Rs) that may prohibit a detached accessory dwelling on your property?

<input type="checkbox"/> Yes	<input type="checkbox"/> No	If yes, please attach a copy.
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11. Only one accessory dwelling unit, whether attached or detached, is allowed per parcel. Please verify that an accessory dwelling (i.e. secondary dwelling) currently does not exist on the subject property.

There is only one dwelling unit on the property
---

12. List the age and size of the unit If you plan to utilize a manufactured or modular home as the secondary dwelling. (Note: manufactured or modular homes must be permanently affixed and converted to real property.)

N/A
-----

13. List who the service provider will be for the following utilities:

a. Sewer Service	
b. Electrical Service	
c. Solid Waste Disposal Service	
d. Water Service	

# Property Tax Reminder Notice

WASHOE COUNTY  
 PO BOX 30039  
 RENO, NV 89520-3039  
 775-328-2510

PIN: 04015225  
 AIN:

<b>Balance Good Through:</b>	<b>06/21/2018</b>
<b>Current Year Balance:</b>	<b>\$0.00</b>
<b>Prior Year(s) Balance:</b> (see below for details)	<b>\$0.00</b>
<b>Total Due:</b>	<b>\$0.00</b>

AUTO  
 :894513:

MILLER FAMILY TRUST  
 1085 MILL CREEK RD  
 INCLINE VILLAGE NV 89451

Description:

Situs: 1580 DEL MONTE LN  
 WCTY

This is a courtesy notice. If you have an impound account through your lender or are not sure if you have an impound account and need more information, please contact your lender directly. Please submit payment for the remaining amount(s) according to the due dates shown. Always include your PIN number with your payment. Please visit our website: [www.washoecounty.us/treas](http://www.washoecounty.us/treas)

Current Charges									
PIN	Year	Bill Number	Inst	Due Date	Charges	Interest	Pen/Fees	Paid	Balance
04015225	2017	2017172308	1	08/21/2017	1,787.32	0.00	0.00	1,787.32	0.00
04015225	2017		2	10/02/2017	1,787.29	0.00	0.00	1,787.29	0.00
04015225	2017		3	01/01/2018	1,787.28	0.00	160.86	1,948.14	0.00
04015225	2017		4	03/05/2018	1,787.28	0.00	92.86	1,880.14	0.00
Current Year Totals					7,149.17	0.00	253.72	7,402.89	0.00

Prior Years								
PIN	Year	Bill Number	Charges	Interest	Pen/Fees	Paid	Balance	
Prior Years Total								

Permit # \_\_\_\_\_



# Washoe County

## Department of Building & Safety

1001 E. Ninth Street  
P.O. Box 11130  
Reno, NV 89520-0027  
Phone (775) 328-2020

FAX (775) 328-6132 or FAX (775) 325-8016  
www.washoecounty.us/bldgsafety



### RESIDENTIAL/REMODEL

### BUILDING PERMIT APPLICATION

Parcel Number: \_\_\_\_\_ Address: \_\_\_\_\_

Unit No. \_\_\_\_\_

**Owner Information:** Owner/Builder Permit? \_\_\_ Yes \_\_\_ No

Name: \_\_\_\_\_ Phone No: \_\_\_\_\_

Address: \_\_\_\_\_

**Contractor Information:**

General Contractor: \_\_\_\_\_ Contact Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone : \_\_\_\_\_ Fax : \_\_\_\_\_

Nevada License No. : \_\_\_\_\_ County Business License No.: \_\_\_\_\_

**Design Professional Information:**

Architect's Name: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Email: \_\_\_\_\_ Fax No.: \_\_\_\_\_

Engineer's Name: \_\_\_\_\_ Phone \_\_\_\_\_

Email: \_\_\_\_\_ Fax No.: \_\_\_\_\_

**Person to contact regarding the permit:**

Name: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Email: \_\_\_\_\_ Fax No.: \_\_\_\_\_



**Project Information:**

**( Complete Applicable Items )**

Contract Price: \_\_\_\_\_  
 Total Project Sq. Footage: \_\_\_\_\_  
 New Living Area Sq. Footage: \_\_\_\_\_  
 Remodel Sq. Footage: \_\_\_\_\_  
 Current Living Area Sq. Footage: \_\_\_\_\_  
 New Garage Sq. Footage: \_\_\_\_\_  
 Current Garage Sq. Footage: \_\_\_\_\_  
 New Covered Deck and Porch Sq. Footage: \_\_\_\_\_  
 New Deck and Porch Sq. Footage: \_\_\_\_\_  
 Patio Cover or Sunroom Sq. Footage: \_\_\_\_\_  
 Shed Sq. Footage: \_\_\_\_\_  
 Fence Lineal Footage: \_\_\_\_\_

Water Well: Yes  No   
 Septic System: Yes  No   
 Architectural Committee Yes  No

**Description of Work:**

**Applicant (print)** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Signature** \_\_\_\_\_

**FOR OFFICE USE ONLY**

**RTC:**

New Single Family Home       Accessory Dwelling (second kitchen on site)       N/A

**Park Tax Determination:**

New Dwelling on Vacant Lot       Replace Existing Dwelling Built Prior To 1974       N/A

**Building Code Information:**

Edition of Code: \_\_\_\_\_ Building Code used: \_\_\_\_\_

Type of Construction: Wood Framing       ~ Steel Framing       Occupancy Use \_\_\_\_\_

Occupancy Group: Single Family Home       ~ Townhouse       ~ Duplex

**ACCEPTANCE OF CONDITIONS AND APPROVAL FOR  
DOMESTIC WATER WELL USE FOR AN ACCESSORY DWELLING**

Physical Address of Domestic Well Parcel:

1580 DEL MONTE LANE, RENO, NV 89451

Located in the County of: WASHOE

County Assessor Parcel Number: 040-152-25

I, JEFFREY MUIR KARAWA MUIR, the owner of the above-referenced parcel  
Please Print

of land, fully understand and accept the conditions listed below and upon which this approval is made.

1. The combined water use from the well for the main residence and any accessory dwelling shall not exceed two (2) acre-feet per year as provided in Chapter 534.180 of the Nevada Revised Statutes (NRS).
2. A totalizing meter shall be installed near the discharge of the well that provides water to the main residence and the accessory dwelling. This meter shall be easily accessible for meter reading by the DWR and maintained in good working order and shall be installed to measure all water pumped from the well for the purposes of this approval. No water shall be used by the accessory dwelling until the meter has been installed.
3. The main residence and any accessory dwelling shall remain on the same parcel as determined by the County Assessor records, or this authorization shall be rescinded.
4. Water usage measurements from the totalizing meter must be submitted by the parcel owner to DWR no later than January 31st of each calendar year.

State of

County of Palm Beach

Subscribed and sworn to before me on 6-21-2018

by Carla Mendez-Gillespie

Signed

Jeffrey Muir  
Karawa Muir  
Owner

Address

1085 MILLCREEK ROAD  
Street Address or PO Box

Twice Village, NV 89451  
City, State, ZIP Code

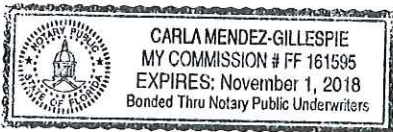
Phone

775 843-6380

E-mail

jeffm@adc-tahoe.com

Carla Mendez-Gillespie  
Signature of Notary Public Required



## Approval of Local Governing Body or Planning Commission

This request to allow an accessory building to be served by a domestic well is hereby approved subject to the attached notarized agreement.

County Assessor Parcel Number: \_\_\_\_\_

Owner \_\_\_\_\_

Signature \_\_\_\_\_

Print Name \_\_\_\_\_

Title \_\_\_\_\_

Agency \_\_\_\_\_

Date \_\_\_\_\_

Phone Number \_\_\_\_\_

**After approval, please send original to:**

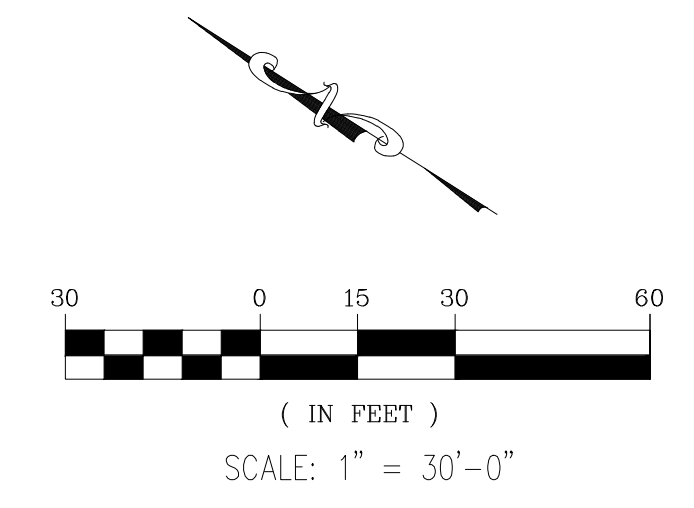
**State Engineer  
Nevada Division of Water Resources  
901 South Stewart Street  
Suite 2002  
Carson City, NV 89701**







CONTRACTOR TO OBTAIN ALL  
REQUIRED ENCROACHMENTS  
FOR □ OR □ IN RIGHT OF □ AY

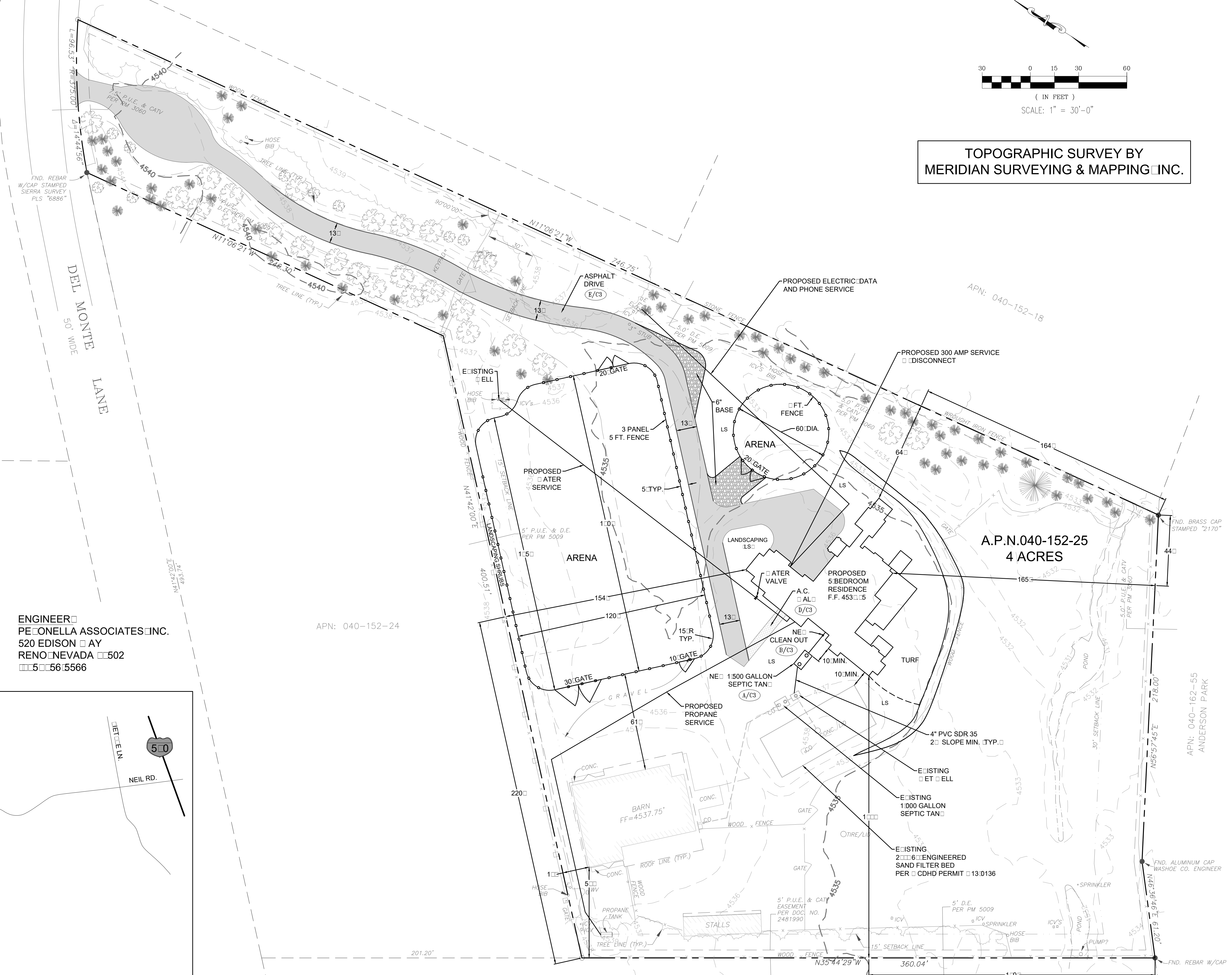
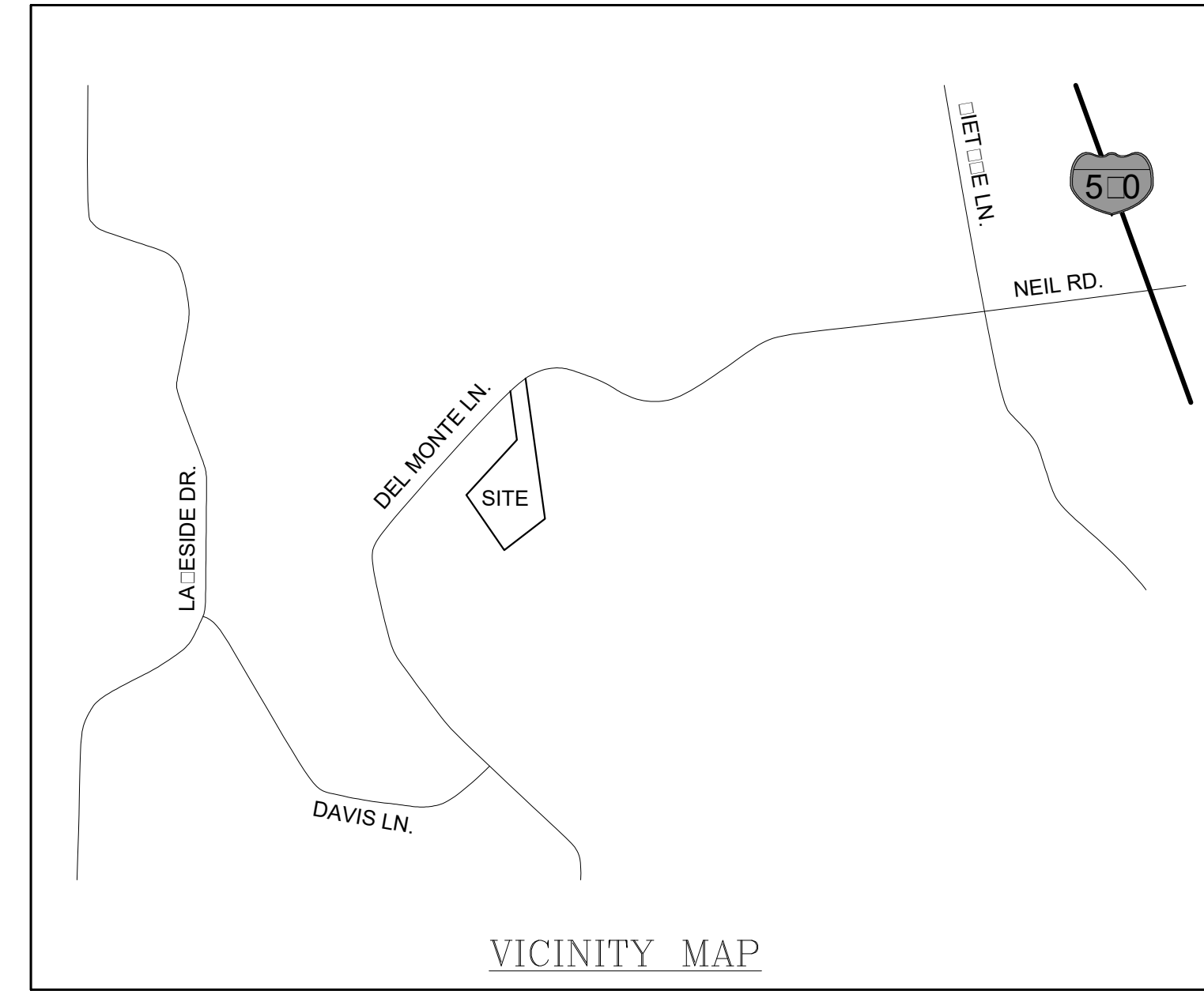


TOPOGRAPHIC SURVEY BY  
MERIDIAN SURVEYING & MAPPING INC.

SITE PLAN  
1580 DEL MONTE LANE  
WASHOE COUNTY, NEVADA

OWNER  
JEFF MILLER  
23 TAHOE BLVD. #100B  
INCLINE VILLAGE NEVADA #451  
503 433 630

ENGINEER  
PEZONELLA ASSOCIATES INC.  
520 EDISON WAY  
RENO NEVADA #502  
503 565 566



APN: 040-152-24

A.P.N.040-152-25  
4 ACRES

APN: 040-162-55  
ANDERSON PARK

APN: 040-152-24

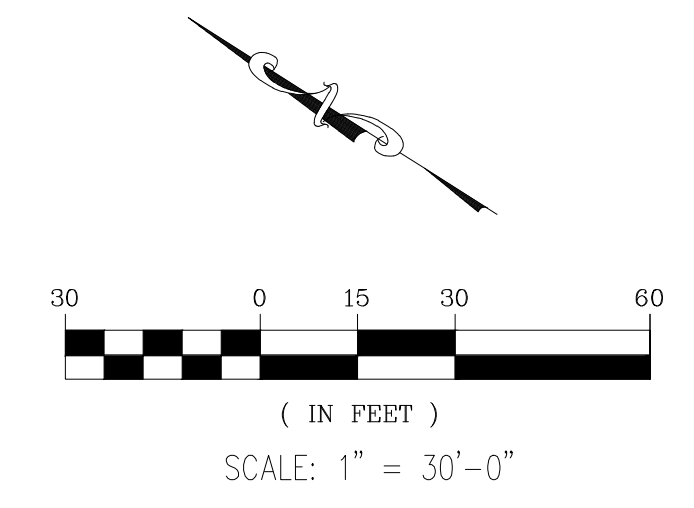
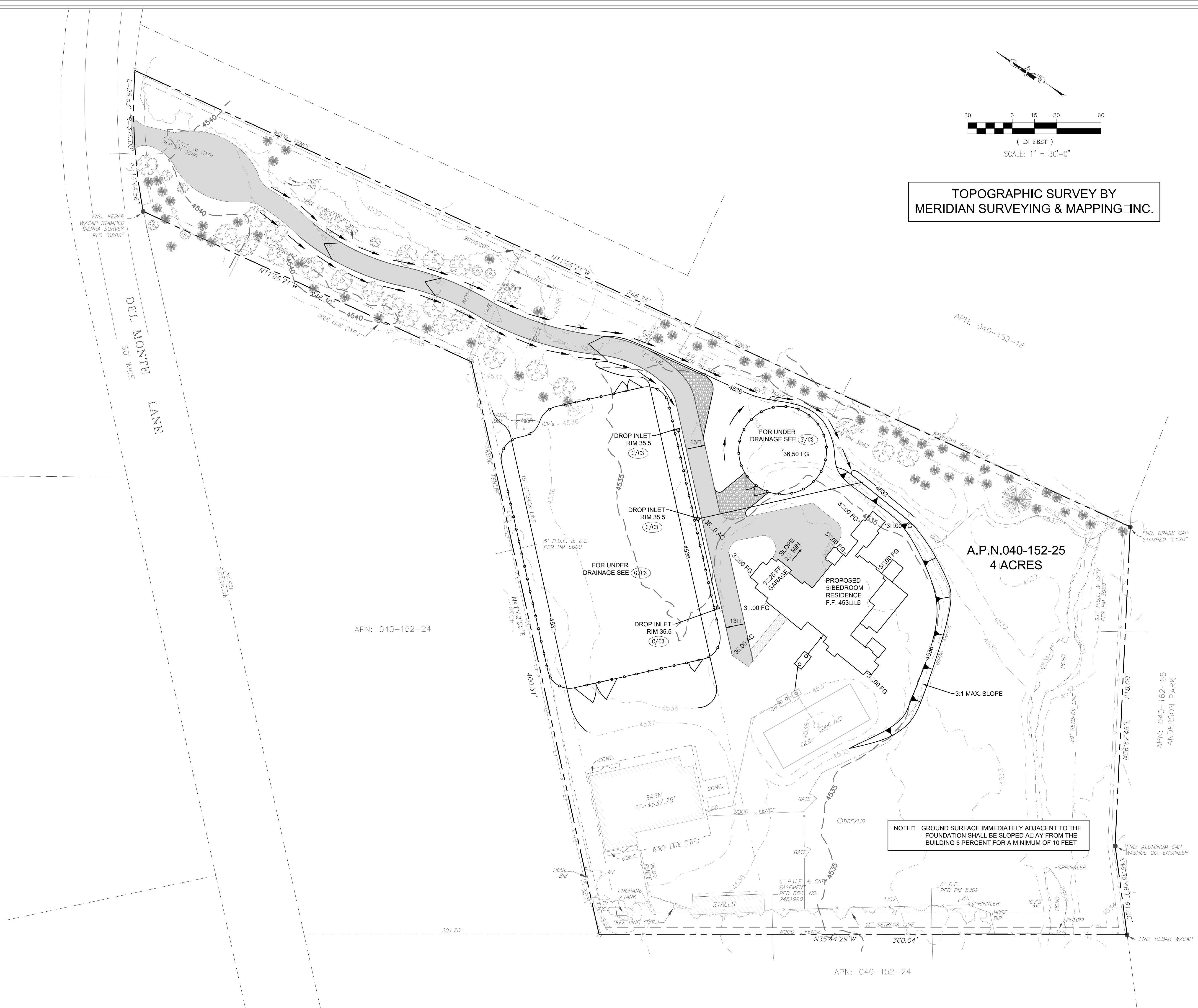


**Pezonella Associates, Inc.**

Consulting Engineers  
520 Edison Way Reno, Nevada 89502  
PHONE (775) 856-5566 FAX (775) 856-6042

Drawn by	KLM/BEL	Sheet	
Job No.	5250.09-M		
Date	JUN. 07, 2018		C1
Scale	1" = 30'		





TOPOGRAPHIC SURVEY BY  
 MERIDIAN SURVEYING & MAPPING INC.

NOTED: GROUND SURFACE IMMEDIATELY ADJACENT TO THE FOUNDATION SHALL BE SLOPED AWAY FROM THE BUILDING 5 PERCENT FOR A MINIMUM OF 10 FEET

GRADING PLAN  
 1580 DEL MONTE LANE  
 WASHOE COUNTY, NEVADA



**Pezonella Associates, Inc.**

Consulting Engineers  
 520 Edison Way Reno, Nevada 89502  
 PHONE (775) 856-5566 FAX (775) 856-6042

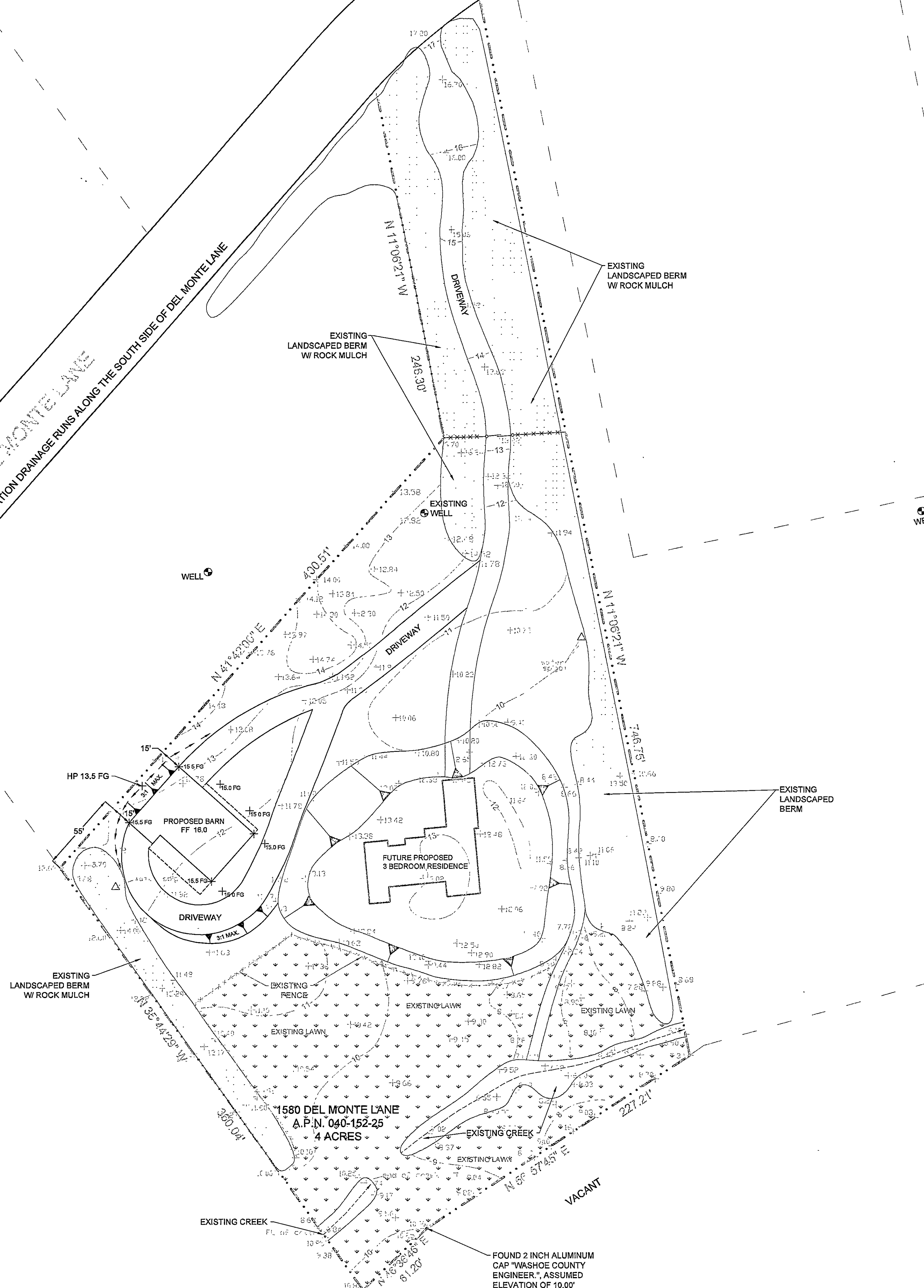
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Job No.	5250.09-M		
Date	JUN. 07, 2018		C2
Scale	1" = 30'		



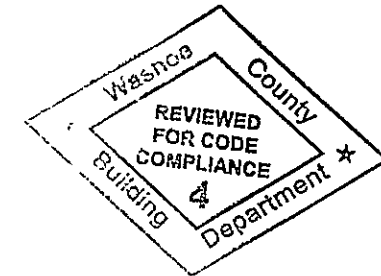
13-0136

SCALE: 1" = 40'-0"

DEL MONTE LANE  
IRRIGATION DRAINAGE RUNS ALONG THE SOUTH SIDE OF DEL MONTE LANE



SEE WARNING SHEET BOTH SIDES

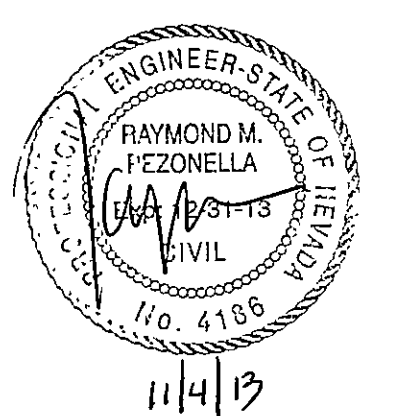


WASHOE COUNTY BUILDING DEPT  
OFFICE COPY

Revision  
ACCEPTED  
1/2 NOV 03 2013  
Washoe County Regional District  
Environmental Health

Revision	WELL IS NOW EXISTING	Nov. 09, 2012
Revision	ADDITIONAL EXISTING LANDSCAPING & GRADING CHANGES PER OWNER	Nov. 01, 2013

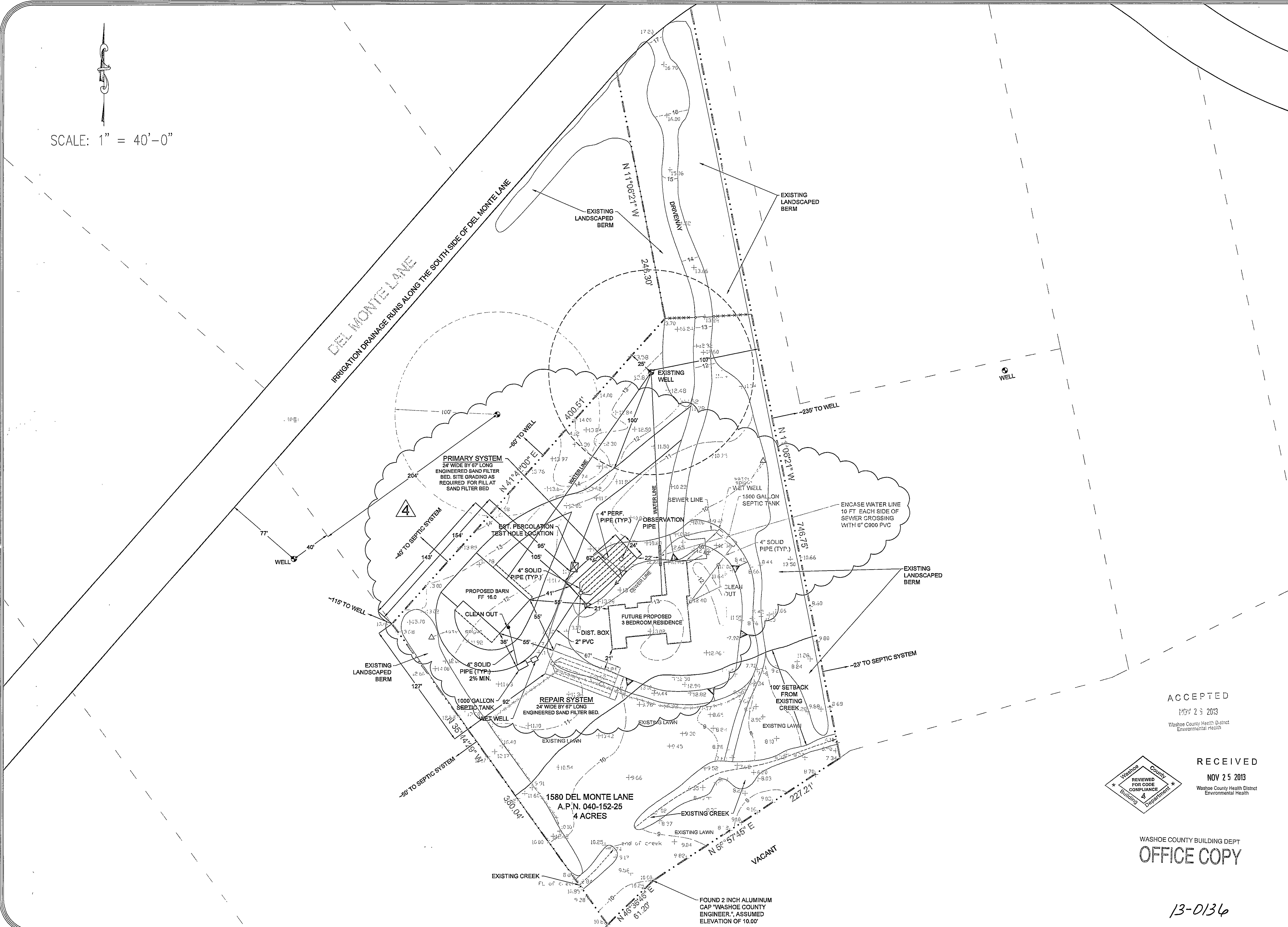
PERI RESIDENCE  
1580 DEL MONTE LANE  
PROPOSED BARN GRADING  
A.P.N. 040-152-25  
WASHOE COUNTY, NEVADA



**Pezonella Associates, Inc.**  
Consulting Engineers  
520 Edison Way Reno, Nevada 89502  
PHONE (775) 856-5566 FAX (775) 856-6042

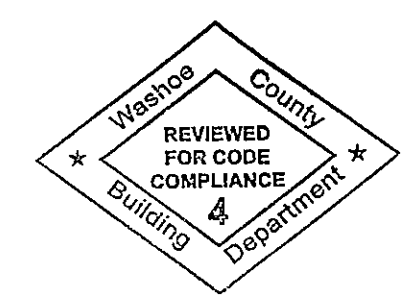
Drawn by	KLM/BEL	Sheet	1
Job No.	6293.01-B		
Date	NOV. 1, 2012		
Scale	1" = 40'		

SCALE: 1" = 40'-0"



ACCEPTED  
NOV 25 2013  
Washoe County Health District  
Environmental Health

RECEIVED  
NOV 25 2013  
Washoe County Health District  
Environmental Health

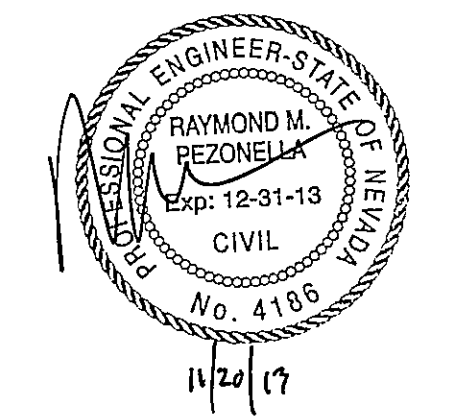


WASHOE COUNTY BUILDING DEPT  
OFFICE COPY

13-0134

WATER LINE TO BARN WELL IS NOW EXISTING	Nov. 09, 2012
PER WCDHO COMMENTS	Mar. 18, 2013
SWITCHED PRIMARY AND REPAIR SYSTEM LOCATIONS PER OWNER	Nov. 01, 2013
PER WCDHO COMMENTS	Nov. 18, 2013

PERI RESIDENCE  
1580 DEL MONTE LANE  
BARN SEWAGE DISPOSAL SYSTEM  
A.P.N. 040-152-25  
WASHOE COUNTY, NEVADA

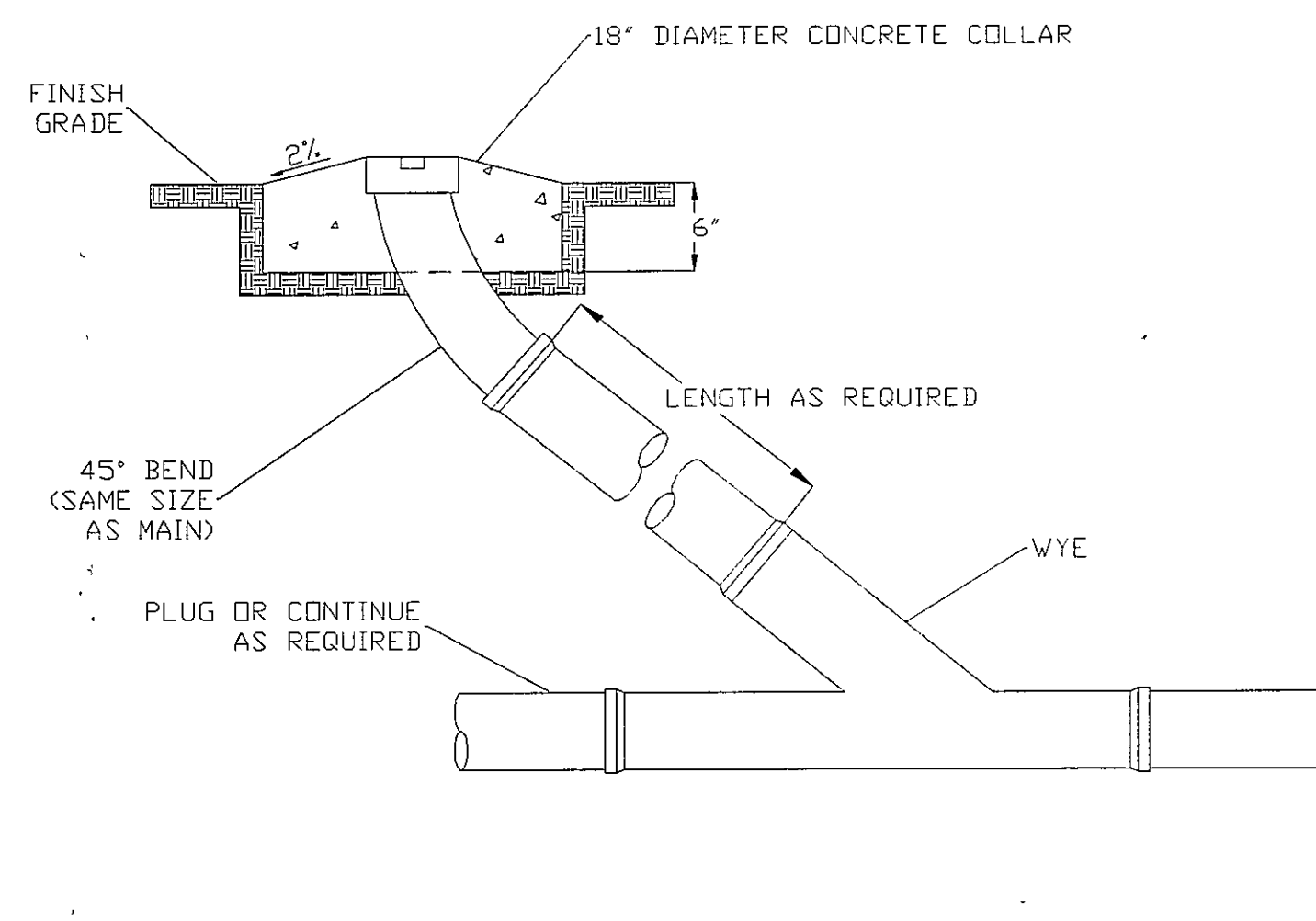


Pezonella  
Associates, Inc.

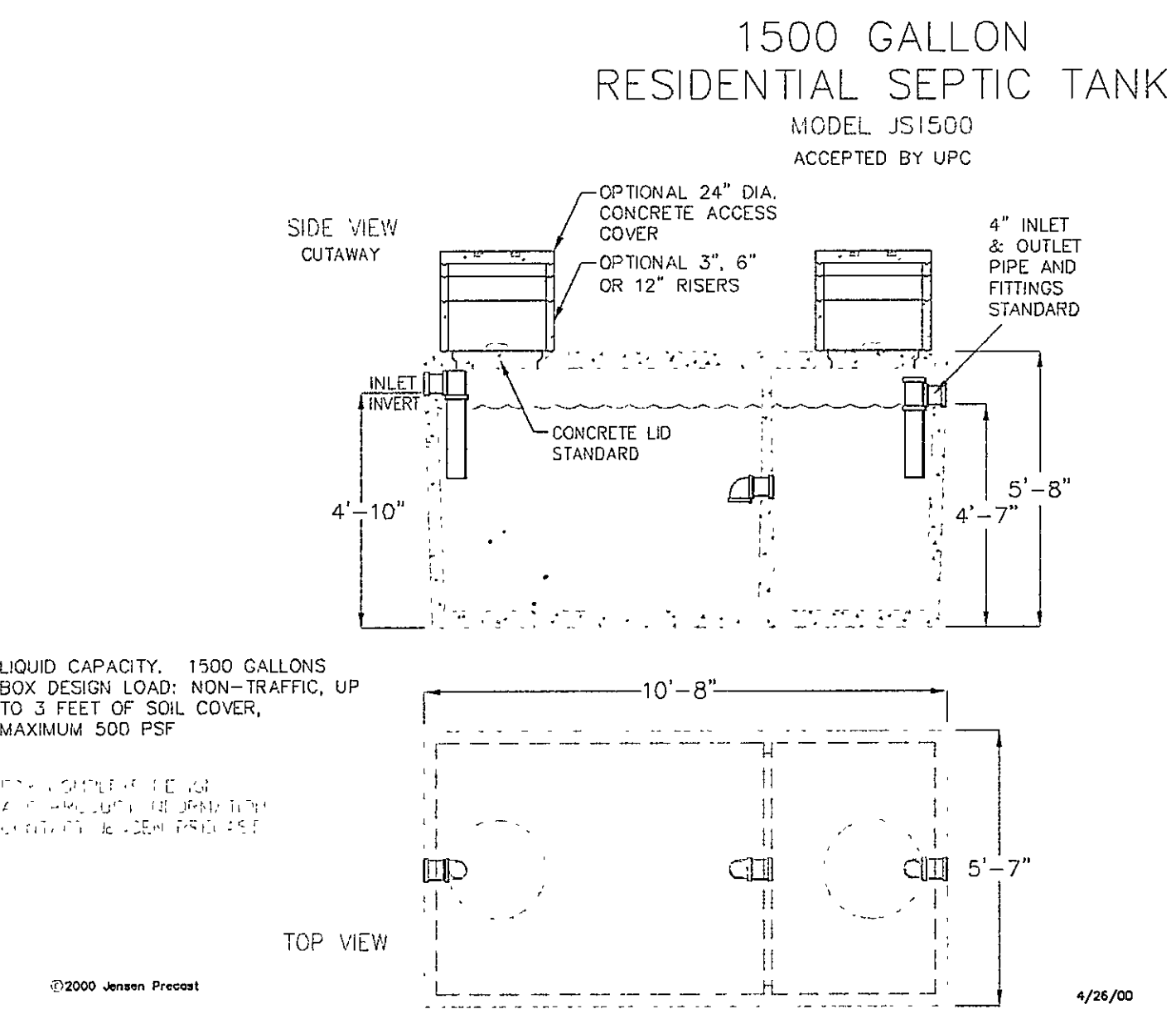
Consulting Engineers  
520 Edison Way Reno, Nevada 89502  
PHONE (775) 856-5566 FAX (775) 856-6042

Drawn by	KLM/BEL	Sheet	
Job No.	6293.01-B		
Date	NOV. 1, 2012		2
Scale	1" = 40'		

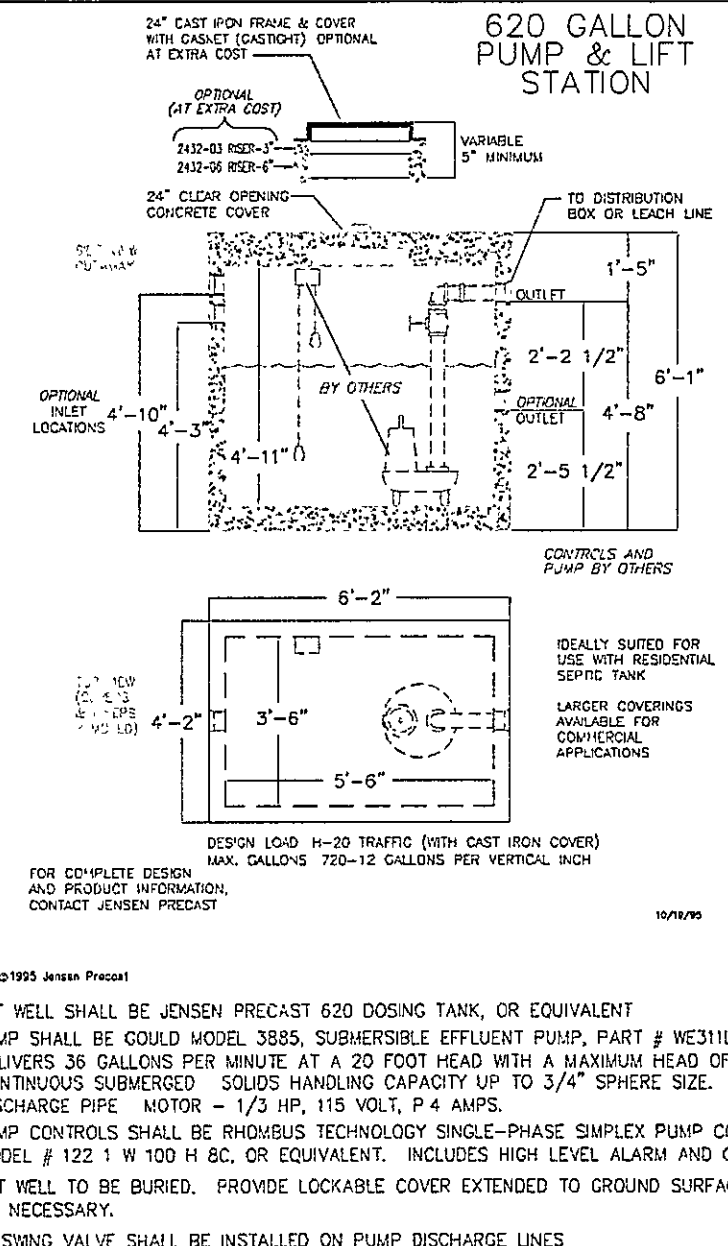




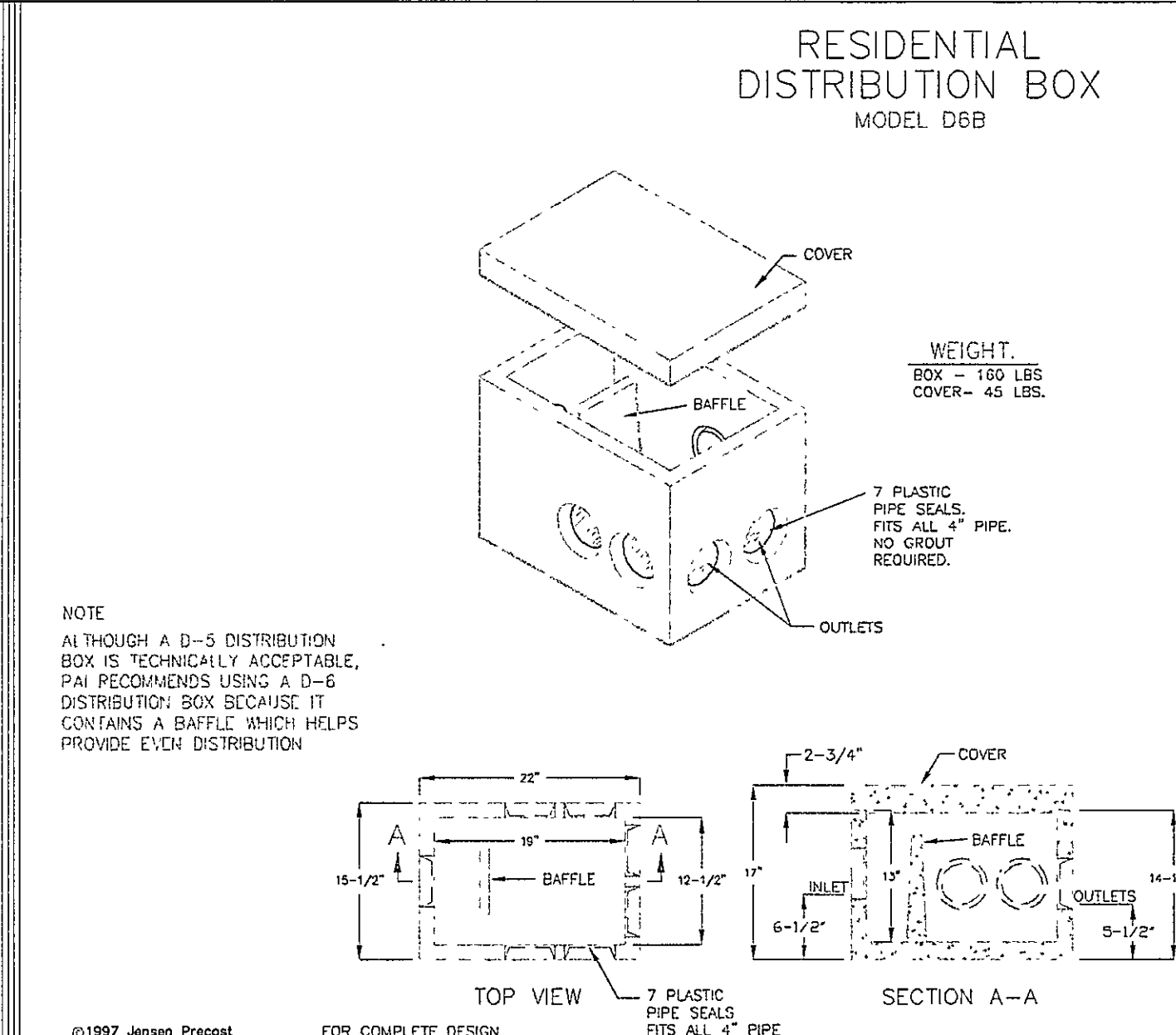
### CLEAN OUT



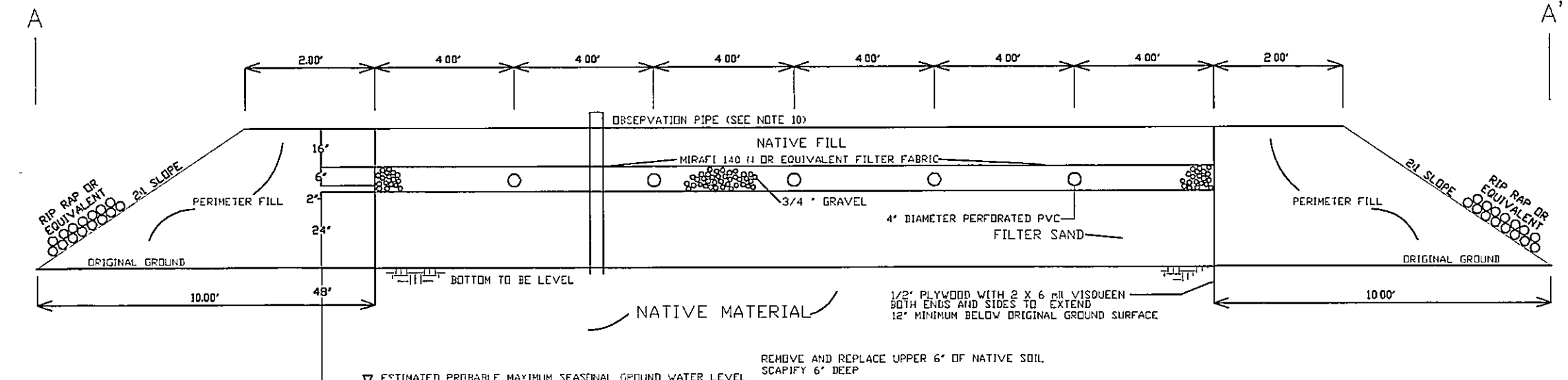
### 1500 GALLON SEPTIC TANK PHASE 2- FUTURE RESIDENCE



### WET WELL



### DISTRIBUTION BOX



- NOTES:
- ESTIMATED PROBABLE SEASONAL HIGH GROUNDWATER IS 4 FEET BELOW THE GROUND SURFACE.
  - CLEAN/WASHED GRAVEL IS IMPERATIVE IN THE GRAVEL LAYER OVERLYING THE FILTER SAND. GRAVEL WITH FINE-GRAINED MATERIAL (DIRTY GRAVEL) CAN CLOG THE SAND FILTER AND WILL BE REJECTED DURING INSPECTION.
  - USE RIP PAPER OR EQUIVALENT TO ARMOR PERIMETER FILL A MINIMUM OF 2' ABOVE EXISTING GROUND SURFACE.
- 1) THE DISPOSAL SYSTEM SHOULD BE CONSTRUCTED IN ACCORDANCE WITH THE GUIDELINES FOR INTERMITTENT SAND FILTERS (SECTION 100.100, WASHOE COUNTY DISTRICT HEALTH DEPARTMENT REGULATIONS GOVERNING SEWAGE, WASTEWATER, AND SANITATION), EFFECTIVE FEBRUARY 27, 1985, AS AMENDED JULY 2000.
- 2) SEAL SEPTIC TANK AND WET WELL (OR DOSING CHAMBER) AND UTILIZED INTERMITTENT DOSING SYSTEM.
- 3) AT INLET TO DISPOSAL FIELD, PROVIDE A WATERTIGHT SEAL BETWEEN THE DISTRIBUTION LINES AND IMPERMEABLE MEMBRANE.
- 4) ENGINEERED FILL TO CONSIST OF MATERIAL, FREE OF ORGANIC MATTER AND DEBRIS, CONFORMING TO THE FOLLOWING GRADATION:
- | SI-EVE SIZE | PERCENT PASSING (BY DRY WEIGHT) |
|-------------|---------------------------------|
| 4 INCH      | 100                             |
| 3/4 INCH    | 70-100                          |
| NO. 200     | 20-40                           |
- LIQUID LIMIT 30 MAXIMUM  
PLASTICITY INDEX 15 MAXIMUM  
(COMPACTED TO 85 PERCENT RELATIVE COMPACTION BASED ON THE ASTM D 1557 TEST PROCEDURE)
- DISTRIBUTION LINES SHOULD BE SLOPED 4 INCHES PER 100 FEET. THE BOTTOM OF THE TRENCH SHOULD BE LEVEL.
  - FILTER SAND SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 100.105, WASHOE COUNTY DISTRICT HEALTH DEPARTMENT REGULATIONS GOVERNING SEWAGE, WASTEWATER, AND SANITATION, AS AMENDED JANUARY 26, 1994.
  - A REPRESENTATIVE SAMPLE OF THE SAND SHALL BE TESTED BY A RECOGNIZED TESTING FACILITY TO DOCUMENT CONFORMANCE WITH THE GRADATION REQUIREMENTS PRIOR TO HAULING THE SUPPLIER SHALL PROVIDE CERTIFICATION OF THE MATERIAL QUALITY.
  - PERIMETER FILL SHALL BE MATERIAL NATIVE TO THE AREA OR SIMILAR TO NATIVE SOILS.
  - PERIMETER FILL TO EXTEND AT LEAST 10 FEET BEYOND THE EDGES OF THE BED.
  - INSTALL VERTICAL, 4 INCH DIAMETER OBSERVATION PIPE AT THE MIDPOINT OF THE BED. THE PIPE SHALL BE SLOTTED WITHIN THE GRAVEL AND SAND LAYERS AND EXTEND AT LEAST 6 INCHES ABOVE THE SURFACE OF THE BED AND TO A DEPTH OF 6 INCHES BELOW THE ORIGINAL GROUND SURFACE. A 1/8 INCH DIAMETER HOLE SHALL BE DRILLED IN THE 6 INCH PORTION OF THE PIPE WHICH PROTRUDES ABOVE THE SURFACE. PROVIDE A TIGHT FITTING, REMOVABLE PIPE CAP.
  - TO MAINTAIN 2' SEPARATION FROM MAXIMUM SEASONAL HIGH GROUNDWATER LEVEL, PLACE THE BOTTOM OF THE DISPOSAL SYSTEM ON THE EXISTING GROUND SURFACE.

### CROSS-SECTION A-A' SAND FILTER DETAIL

PERCOLATION TESTING FOR THIS PROPERTY WAS CONDUCTED BY NORTECH. PERCOLATION RATES FOR THE TESTING WERE 6 AND 28 MINUTES PER INCH (MPI). PERCOLATION TEST LOGS FOR THESE TESTS ARE ON FILE AT THE WASHOE COUNTY DISTRICT HEALTH DEPARTMENT (WCDHD).

BECAUSE THE PERCOLATION RATES FOR THE PROPERTY TO THE EAST AND THE PROPERTY TO THE WEST WERE 90 AND 40 MPI, RESPECTIVELY, PEZONELLA ASSOCIATES INC. SET THE DESIGN PERCOLATION RATE FOR THE SUBJECT PROPERTY AT 90 MPI.

THE PERCOLATION TEST LOGS SHOW GROUNDWATER AT 5' BELOW THE GROUND SURFACE. BASED ON THIS GROUNDWATER LEVEL AND WCDHD INSPECTION OF THE TEST HOLE, SEASONAL HIGH GROUNDWATER WAS ESTIMATED AT 4' BELOW THE GROUND SURFACE.

### PERCOLATION TEST

GIVEN: Barn with a 1000 gallon per day septic tank. 90 minutes per inch design percolation rate. Engineered Sand Filter Systems (Primary and Repair)

Future 3 bedroom residence: with a 1500 gallon per day septic tank. 90 minutes per inch design percolation rate. Engineered Sand Filter Systems (Primary and Repair)

USE:  $Q = \frac{5}{Jt}$  where Q = rate of application, gallons per day per square foot (gpd/sqft) t = design percolation rate, minutes per inch (mpi)

$Q = \frac{5}{90} = 0.527 \text{ gpd/sqft}$

REQUIRED AREA:  $\frac{1000 \text{ gpd}}{0.527 \text{ gpd/sqft}} = 1,898 \text{ sqft}$   $\frac{1,898 \text{ sqft}}{3} = 633 \text{ sqft}$  (BARN)

REQUIRED AREA:  $\frac{1500 \text{ gpd}}{0.527 \text{ gpd/sqft}} = 2,846 \text{ sqft}$   $\frac{2,846 \text{ sqft}}{3} = 949 \text{ sqft}$  (FUTURE RESIDENCE)

Total = 1,582 sqft.

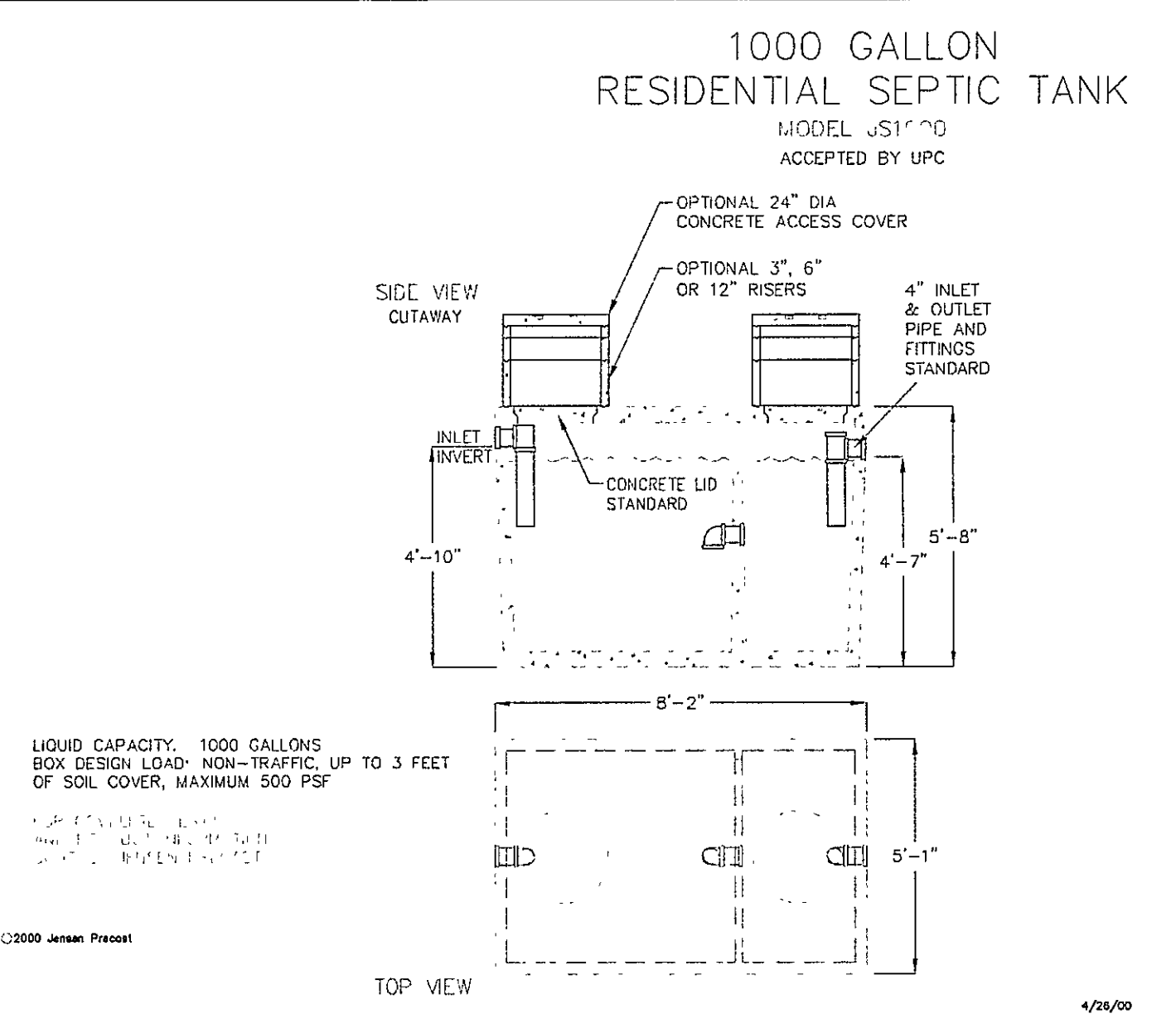
\* Per WCDHD Section 100.105(10)

REQUIRED DIMENSIONS:  
Primary and Repair Systems: 24 ft. wide by 67 ft. long sand filter bed (1,608 sqft)

### CALCULATIONS

- PIPING BETWEEN THE HOUSE AND SEPTIC TANK, AND SEPTIC TANK AND WET WELL SHALL HAVE A MINIMUM OF 2% SLOPE.
- NO COMMUNITY SEWER AVAILABLE WITHIN 400' OF THE PROPERTY.
- DESIGN PERCOLATION RATE IS 90 MINUTES PER INCH.
- BASED ON COMMUNITY PARCEL NO. 32031C3233G, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, DATED MARCH 16, 2009, THE ENTIRE PROPERTY IS LOCATED IN ZONE X SHADED. THIS FLOOD ZONE CONTAINS AREAS OF 0.2% ANNUAL CHANCE FLOOD AND/OR AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1' FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE.
- A CREEK IS LOCATED AT THE SOUTH END OF THE PROPERTY, AND IRRIGATION DRAINAGE IS LOCATED ALONG THE SOUTH SIDE OF DEL MONTE LANE AT THE NORTH END OF THE PROPERTY; THESE FEATURES ARE DEPICTED ON THE PLOT PLAN. THERE ARE NO OTHER WATERCOURSES OR NATURAL DRAINAGE CHANNELS WITHIN 100' OF THE PROPERTY.
- NO PUBLIC WELL WITHIN 200' OF THE PROPERTY.
- DRAINAGE AROUND RESIDENCE SHALL COMPLY WITH APPLICABLE BUILDING CODES.
- SEPTIC SYSTEM MAINTAINANCE IS RECOMMENDED. VISIT THE EPA WEBSITE AT <http://efpub.epa.gov/owm/septic/homeowners.cfm> FOR MAINTAINENCE PROTOCOLS.
- GRADING MAY BE REQUIRED IN THE PRIMARY AND REPAIR SYSTEM AREAS TO ENSURE EQUAL DISTRIBUTION AND FLAT BOTTOMS FOR THE SAND FILTER BEDS.

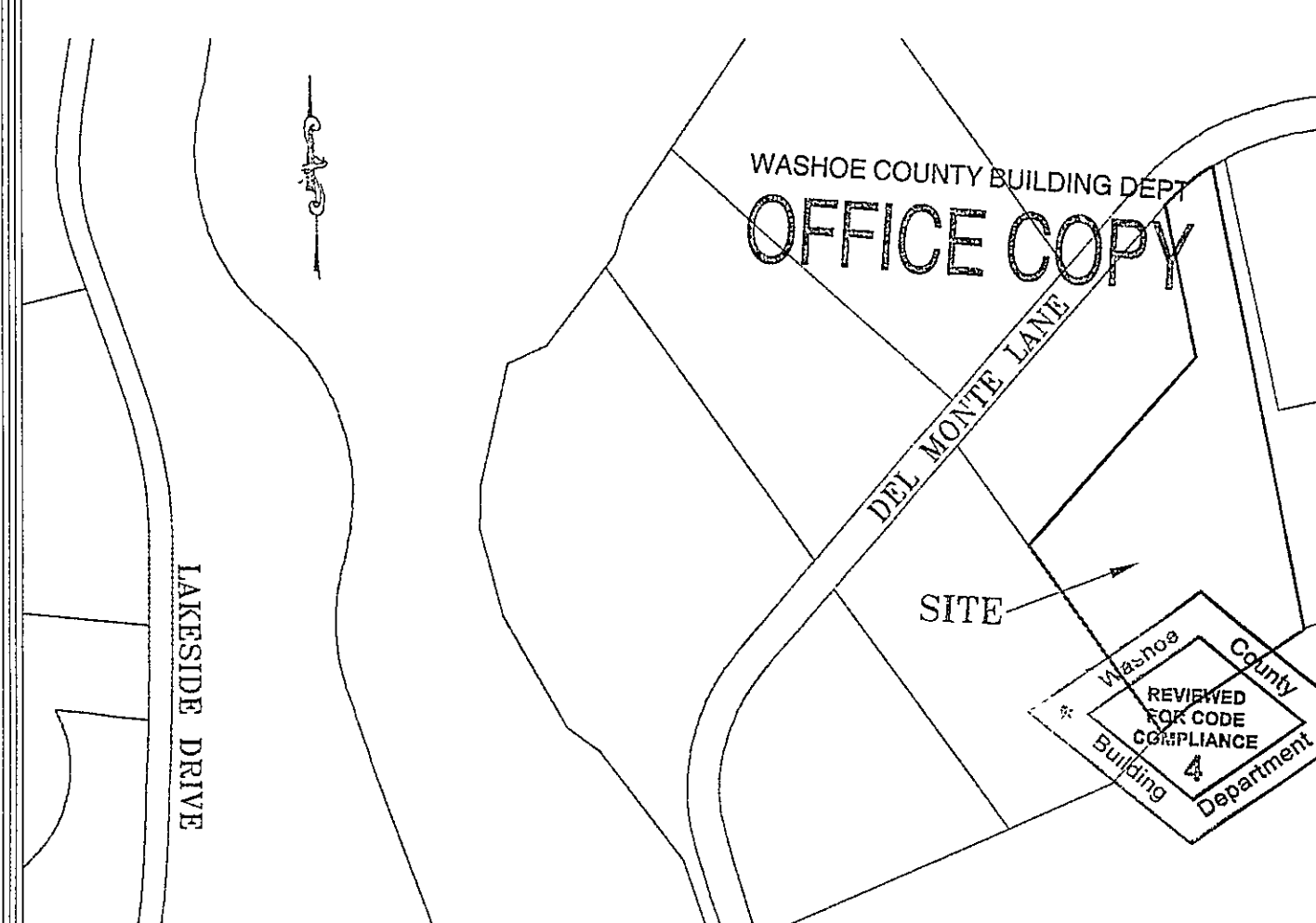
### SEPTIC NOTES



### 1000 GALLON SEPTIC TANK PHASE 1- BARN

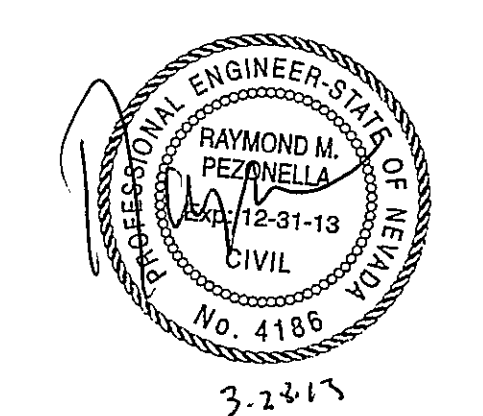
LEGAL OWNER: JOSEPH PERI, D.D.S. 175 BRINKBY AVENUE RENO, NEVADA 89509 (775) 825-9225

ENGINEER: PEZONELLA ASSOCIATES, INC. 520 EDISON WAY RENO, NEVADA (775) 856-5566



### VICINITY MAP/NOTES

PERI RESIDENCE  
1580 DEL MONTE LANE  
BARN SEWAGE DISPOSAL SYSTEM  
A.P.N. 040-152-25  
WASHOE COUNTY, NEVADA



Pezonella Associates, Inc.  
Consulting Engineers  
520 Edison Way Reno, Nevada 89502  
PHONE (775) 856-5566 FAX (775) 856-6042

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Job No.	6293.01-B		
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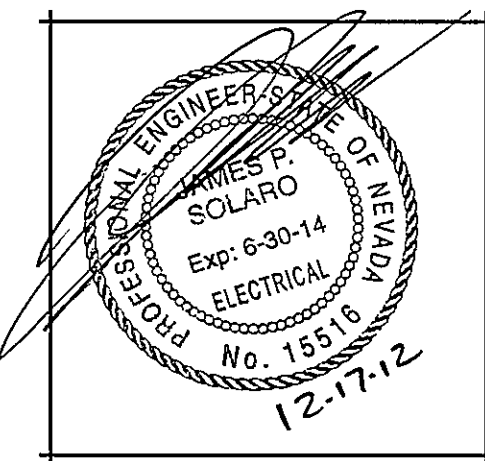
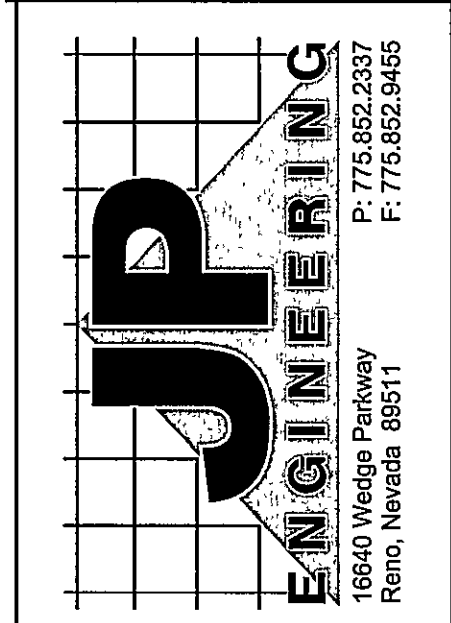


**SPECIFICATIONS**

ITEM	DESCRIPTION	ITEM	DESCRIPTION
16.1	<b>STANDARDS AND CODES:</b> ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), AS WELL AS ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES. THIS DOES NOT RELIEVE THE CONTRACTOR FROM FURNISHING AND INSTALLING WORK SHOWN OR SPECIFIED WHICH MAY EXCEED THE REQUIREMENTS OF SUCH ORDINANCES, LAWS, REGULATIONS AND CODES.	16.17	<b>CIRCUITING:</b> ALL WIRING SHALL BE IN CONDUIT, CONCEALED EXCEPT WHERE NOTED. EMT WITH STEEL SET SCREW INSULATED-THROAT FITTINGS MAY BE USED IN DRY, PROTECTED INTERIOR LOCATIONS. PVC SCHEDULE 40 SHALL BE USED BELOW GRADE AT MINIMUM -24". WRAPPED RIGID ELBOWS AND RISERS SHALL BE USED FOR ALL THROUGH-GRADE TRANSITIONS AND STUB-UPS. RGS OR MC CONDUIT WITH THREADED FITTINGS SHALL BE USED IN ALL LOCATIONS WHERE EXPOSED TO THE ELEMENTS OR SUBJECT TO PHYSICAL DAMAGE. METAL-CLAD CABLE (TYPE MC) WILL BE ACCEPTABLE FOR SINGLE CIRCUIT BRANCH CIRCUITING, FLEXIBLE WHIPS FROM JUNCTION BOXES TO LIGHTING FIXTURES AND WITHIN CASEWORK. TYPE MC CABLE MAY NOT BE USED FOR HOMERUNS. EMT IS NOT ALLOWED. CONNECT RECESSED AND SUSPENDED LIGHTING FIXTURES, MOTORIZED AND VIBRATING EQUIPMENT WITH STEEL FLEX. ALL CONDUIT SHALL HAVE PULL CORD IF OTHERWISE EMPT.
16.2	<b>COMPLETE INSTALLATION:</b> PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, ACCESSORIES, ETC., NECESSARY TO ACCOMPLISH A COMPLETE ELECTRICAL SYSTEM IN ACCORDANCE WITH THE PLANS TOGETHER WITH THE SPECIFICATIONS.	16.18	<b>WIRING:</b> WIRE SHALL BE COPPER UNLESS OTHERWISE INDICATED. MINIMUM WIRE SIZE SHALL BE #12 AWG. WHERE ALUMINUM IS ALLOWED, WIRE SHALL BE TERMINATED IN AN INSULATED CU/AL RATED COMPRESSION TERMINAL FITTING (MAC-ADAPT OR EQUAL). INSULATION SHALL BE THW, THWN OR THHN.
16.3	<b>PERMITS:</b> OBTAIN AND PAY FOR ALL BUILDING AND WORKING PERMITS AND INSPECTION FEES REQUIRED FOR THIS PROJECT.	16.19	<b>RESIDENTIAL CIRCUITING:</b> NONMETALLIC CABLE (ROMEX TYPE NMC), METAL-CLAD (TYPE MC) AND/OR NONMETALLIC CONDUIT (TYPE ENT) MAY BE USED THROUGHOUT THE PROJECT, EXCEPT IN THOSE AREAS WHERE MECHANICAL PROTECTION OF CIRCUITING IS REQUIRED, OR WHERE PRECLUDED BY LOCAL CODE ENFORCING AUTHORITY. WHERE MECHANICAL PROTECTION IS REQUIRED, INSTALL TYPE THW OR THWN WIRE IN CONDUIT. EMT MAY BE USED IN DRY PROTECTED INTERIOR LOCATIONS. PVC SCHEDULE 40 SHALL BE USED IN CONCRETE AND BELOW GRADE AT MINIMUM -24".
16.4	<b>DRAWINGS:</b> DATA PRESENTED ON THESE DRAWINGS SHALL BE FIELD VERIFIED SINCE ALL DIMENSIONS, LOCATIONS, AND LEVELS ARE GOVERNED BY ACTUAL FIELD CONDITIONS. REVIEW ALL ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL AND SPECIALTY SYSTEMS DRAWINGS AND ADJUST ALL WORK TO MEET THE REQUIREMENTS ON CONDITIONS SHOWN THEREON. DO NOT SCALE ELECTRICAL PLANS FOR FIXTURE, DEVICE OR APPLIANCE LOCATIONS. USE CONFIGURED DIMENSIONS IF GIVEN OR CHECK ARCHITECTURAL OR MECHANICAL DRAWINGS.	16.20	<b>FUSES:</b> FUSES SHALL BE SIZED PER ACTUAL NAMEPLATE OF EQUIPMENT SERVED. FUSES SHALL BE DUAL-ELEMENT, CURRENT-LIMITING, AND SHALL BE INTERCHANGEABLE BETWEEN FRAME SIZES WITH STANDARD FACTORY FUSE REDUCERS. FUSES SHALL BE AS FOLLOWS UNLESS OTHERWISE INDICATED: a. CIRCUITS 601 TO 6000 AMPERES SHALL BE PROTECTED BY CURRENT LIMITING BUSSMANN LOW-PEAK TIME-DELAY FUSES KRP-C - UL CLASS L b. CIRCUITS 0 TO 600 AMPERES SHALL BE PROTECTED BY CURRENT LIMITING BUSSMANN LOW-PEAK DUAL-ELEMENT FUSES LPN-RK (250 VOLTS) OR LPS-RK (600 VOLTS) - UL CLASS RK1 c. ALL INDIVIDUAL MOTOR CIRCUITS RATED 480 AMPERES OR LESS SHALL BE PROTECTED BY BUSSMANN LOW-PEAK DUAL-ELEMENT FUSES LPN-RK (250 VOLTS) OR LPS-RK (600 VOLTS) - UL CLASS RK1 OR L d. CIRCUIT BREAKER PANELS SHALL BE PROTECTED BY BUSSMANN LOW-PEAK DUAL-ELEMENT FUSES LPN-RK (250 VOLTS), LPS-RK (600 VOLTS) OR BUSSMANN LOW-PEAK KRP-C TIME-DELAY FUSES - UL CLASS RK1 OR L e. ALL DUAL-ELEMENT FUSES SHALL HAVE SEPARATE OVERLOAD AND SHORT-CIRCUIT ELEMENTS. f. PROVIDE SPARE FUSE CABINET AFTER THE COMPLETION OF THE PROJECT WITH ONE SET OF SPARE FUSES FOR EVERY SIZE USED.
16.5	<b>COPYRIGHT:</b> THESE PLANS, SPECIFICATIONS AND ALL RELATED ADDENDA AND DOCUMENTS CONSTITUTE COPYRIGHT MATERIALS OF JP ENGINEERING. ALL RIGHTS CONFERRED BY THE COPYRIGHT AND SIMILAR LAWS ARE RESERVED TO JP ENGINEERING. THESE MATERIALS SHALL REMAIN THE SOLE PROPERTY OF JP ENGINEERING AND MAY NOT BE REPRODUCED, DISTRIBUTED TO OTHERS OR USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE PRIOR WRITTEN CONSENT OF JP ENGINEERING.	16.21	<b>UTILITY SERVICES:</b> PROVIDE POWER AND COMMUNICATIONS SYSTEM SERVICES IN ACCORDANCE WITH THE REQUIREMENTS OF THE SERVING UTILITIES. PROVIDE EXCAVATION, RACEWAY, STRUCTURES, GROUNDING, ETC. AS REQUIRED. CONTACT SERVING UTILITIES AND OBTAIN THEIR PROJECT SPECIFIC REQUIREMENTS PRIOR TO BID. UTILITY WORK INDICATED HEREIN IS FOR BIDDING ASSISTANCE ONLY. THESE PLANS DO NOT PURPORT TO INDICATE ALL WORK REQUIRED. (UTILITY SERVICE CHARGES PAID BY OTHERS)
16.6	<b>LOCATIONS:</b> INDICATED LOCATIONS OF ALL OUTLETS AND EQUIPMENT ARE SUBJECT TO CHANGE. SHIFT/RELOCATE/RECONFIGURE ANY OUTLET, EQUIPMENT OR CONNECTION POINT UP TO 10" AS DIRECTED BY ENGINEER, AT NO ADDED COST.	16.22	<b>TEMPORARY CONSTRUCTION POWER:</b> PROVIDE TEMPORARY ELECTRICAL POWER AND LIGHTING FOR ALL TRADES THAT REQUIRE SERVICE DURING THE COURSE OF THIS PROJECT. PROVIDE TEMPORARY SERVICE AND DISTRIBUTION AS REQUIRED. COMPLY WITH THE NEC AND OSHA REQUIREMENTS. (ENERGY COSTS BY OTHERS).
16.7	<b>RECORD DRAWINGS:</b> CONTRACTOR SHALL PROVIDE, PRIOR TO FINAL ACCEPTANCE AND OBSERVATION, ONE SET OF REVISED RECORD ELECTRICAL CONSTRUCTION DOCUMENTS ON REPRODUCIBLE MEDIUM INDICATING THE FOLLOWING ADDITIONAL INFORMATION:  EXACT ROUTING OF ALL CONDUITS LARGER THAN 1" EXACT LOCATION OF ALL SERVICE GROUNDING/BONDING CONNECTIONS CONTRACTORS NAME, ADDRESS AND TELEPHONE NUMBER  RECORD NOTATIONS SHALL BE CLEARLY DRAWN AT A DRAFTING APPEARANCE EQUAL TO THE ORIGINAL DRAWINGS. CONTRACTOR SHALL ALSO PROVIDE ALL OPERATING AND MAINTENANCE MANUALS PRIOR TO FINAL PAYMENT.	16.23	<b>SUBMITTALS:</b> BEFORE ORDERING ANY EQUIPMENT, CONTRACTOR SHALL SUBMIT SIX COPIES OF FACTORY SHOP DRAWINGS FOR ALL LIGHTING FIXTURES, SWITCHGEAR, PANELS, MOTOR CONTROLLERS, WIRING DEVICES, ETC. PROPOSED FOR THIS PROJECT.
16.8	<b>EXAMINATION OF SITE AND EXISTING CONDITIONS:</b> BEFORE SUBMITTING A PROPOSAL, CONTRACTOR SHALL EXAMINE THE SITE AND FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS AND LIMITATIONS. NO EXTRAS WILL BE ALLOWED BECAUSE OF THE CONTRACTOR'S MISUNDERSTANDING OF THE AMOUNT OF WORK INVOLVED OR HIS LACK OF KNOWLEDGE OF ANY SITE CONDITIONS WHICH MAY AFFECT HIS WORK. ANY APPARENT VARIANCE OF THE DRAWINGS OR SPECIFICATIONS FROM THE EXISTING CONDITIONS AT THE SITE SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER BEFORE SUBMITTING A PROPOSAL.	16.24	<b>SUBSTITUTIONS:</b> PROPOSED SUBSTITUTIONS SHALL BE EQUAL OR SUPERIOR TO SPECIFIED ITEMS IN ALL RESPECTS. DETERMINATION OF EQUALITY RESTS SOLELY WITH ENGINEER. SUBSTITUTIONS MUST BE SUBMITTED A MINIMUM OF 10 WORKING DAYS PRIOR TO BID FOR CONSIDERATION. PROPOSED SUBSTITUTIONS PROVIDED LATER WILL NOT BE REVIEWED OR ALLOWED. BID SUBSTITUTED MATERIAL WILL ONLY BE ALLOWED IF ACCEPTED IN WRITING BY ENGINEER.
16.9	<b>NEW SERVICE:</b> PROVIDE NEW POWER SERVICE IN ACCORDANCE WITH THE REQUIREMENTS OF THE SERVING UTILITIES. PROVIDE EXCAVATION, RACEWAY, STRUCTURES, BARRIERS, GROUNDING, ETC. AS DIRECTED. POWER SERVICES AND DISTRIBUTION SYSTEM AIC RATING SHALL EXCEED MAXIMUM AVAILABLE FAULT CURRENT THROUGHOUT THE PROJECT. CONTACT SERVING UTILITIES AND OBTAIN THEIR REQUIREMENTS PRIOR TO BID. (UTILITY SERVICE AND LINE EXTENSION CHARGES PAID BY OTHERS).	16.25	<b>IDENTIFICATION:</b> PROVIDE ENGRAVED NAMEPLATES FOR ALL SWITCHBOARDS, PANELS, TRANSFORMERS, DISCONNECTS, MOTOR STARTERS, CONTACTORS, TIME SWITCHES AND CABINETS. NAMEPLATES SHALL INCLUDE THE FOLLOWING INFORMATION AS APPLICABLE:  DESIGNATION (i.e. PANEL A) FUNCTION (i.e. AIR HANDLER AH-1) VOLTAGE, PHASE, WIRE (i.e. 480 VOLT, 3Ø, 4W) FEEDER SIZE (i.e. 4-#4/0 THWN CU IN 2" C.) SOURCE (i.e. SWITCHBOARD MSB)  NAMEPLATES SHALL BE WHITE LETTERS ON BLACK FOR NORMAL EQUIPMENT AND WHITE LETTERS ON RED FOR EMERGENCY EQUIPMENT.
16.10	<b>SALVAGE:</b> ALL EXISTING EQUIPMENT REMOVED DURING THE COURSE OF THIS PROJECT SHALL BE OFFERED TO OWNER FOR SALVAGE. ANY EQUIPMENT SELECTED BY OWNER SHALL BE DELIVERED TO OWNER ON SITE. ALL REMAINING EQUIPMENT BECOMES THE PROPERTY OF THIS CONTRACTOR AND SHALL BE REMOVED FROM THE SITE.	16.26	<b>GUARANTEE:</b> THE COMPLETE ELECTRICAL SYSTEM, AND ALL PORTIONS THEREOF, SHALL BE GUARANTEED TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. PROMPTLY REMEDY SUCH DEFECTS AND ANY SUBSEQUENT DAMAGE CAUSED BY THE DEFECTS OR REPAIR THEREOF AT NO EXPENSE TO THE OWNER. LAMPS ARE EXEMPT FROM THIS GUARANTEE, BUT SHALL BE NEW AT TIME OF FINAL ACCEPTANCE.
16.11	<b>TESTING:</b> PRIOR TO PLACING IN SERVICE, ALL ELECTRICAL SYSTEMS SHALL BE TESTED FOR OPENS, GROUNDS AND PHASE ROTATION. THE MAIN SERVICE GROUND AND ALL LOCAL TRANSFORMER MADE GROUNDS SHALL BE MEGGER-TESTED.	16.27	<b>COORDINATION:</b> THE CIVIL, ARCHITECTURAL, MECHANICAL, KITCHEN AND INTERIOR DRAWINGS CONTAIN DETAIL DESCRIPTIONS, CIRCUITING AND CONNECTION REQUIREMENTS WHICH ARE PART OF DIVISION 16 RESPONSIBILITIES. ELECTRICAL CONTRACTOR SHOULD NOT SUBMIT BIDS ON THIS PROJECT BEFORE REVIEWING ALL PROJECT DRAWINGS, SPECIFICATIONS AND ADDENDA.
16.12	<b>GROUNDING:</b> TEST EXISTING SERVICE NEUTRAL FOR ADEQUACY AND FOR GROUND CONTINUITY. GROUND ALL EQUIPMENT AND SYSTEM NEUTRAL IN ACCORDANCE WITH ARTICLE 250 OF THE NEC. EQUIPMENT GROUNDS HAVE NOT BEEN SHOWN ON DRAWINGS - WHERE GROUND WIRES HAVE BEEN SHOWN THEY INDICATE AN INSULATED GROUND.		
16.13	<b>EQUIPMENT STANDARDS:</b> ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND OF THE HIGHEST QUALITY AVAILABLE ("SPECIFICATION GRADE"). SERVICE EQUIPMENT SHALL BE FACTORY-ASSEMBLED COMMERCIAL-GRADE, CONFIGURED PER SERVING UTILITY STANDARDS. WIRING DEVICES SHALL BE SPECIFICATION GRADE WITH NYLON PLATES, WHITE UNLESS OTHERWISE NOTED, RAISED-STEEL BOX COVERS MAY BE USED IN UTILITY AREAS.		
16.14	<b>DISTRIBUTION EQUIPMENT:</b> DISTRIBUTION EQUIPMENT SHALL BE DEAD-FRONT, PANELBOARD OR SWITCHBOARD TYPE AS INDICATED, UL-LABELED AND ENCLOSED IN A NEMA HOUSING APPROPRIATE TO ITS LOCATION AND APPLICATION WITH HINGED WEIRWAY COVERS. BUSSING, DEVICE FINGERS AND LUGS SHALL BE COPPER UNLESS INDICATED ON DRAWINGS. AIC RATINGS SHOWN ON PLANS ARE MINIMUM RATINGS. CIRCUIT BREAKERS SHALL BE IN EXCESS OF THE AVAILABLE FAULT CURRENT. SERIES-RATING OF UPSTREAM AND DOWNSTREAM CIRCUIT BREAKERS TO ACHIEVE REQUIRED FAULT CURRENT RATINGS IS PROHIBITED UNLESS APPROVED BY ENGINEER IN WRITING.		
16.15	<b>PANELBOARDS:</b> PANELS SHALL HAVE FLUSH MONO-FLAT TRIM, LOCKING DOOR-IN-DOOR HINGED COVERS AND BOLT-ON CIRCUIT BREAKERS. FLUSH-MOUNTED PANELS SHALL HAVE EMPTY CONDUITS STUBBED TO ACCESSIBLE ATTIC SPACE. ONE 1" CONDUIT FOR EACH FOUR SPARE-SPACE CIRCUITS. PROVIDE ONE TYPED AND ONE SPARE PANEL SCHEDULE FOR OWNER'S USE. SCHEDULES SHALL BE TWO COLUMN TYPE WITH ODD CIRCUIT NUMBERS ON THE LEFT AND EVEN NUMBERS ON THE RIGHT.		
16.16	<b>TRANSFORMERS:</b> TRANSFORMERS SHALL BE SELF VENTILATED DRY-TYPE UNLESS INDICATED OTHERWISE AND SHALL BE UL LISTED AS SUITABLE FOR INSTALLATION IN INTERIOR LOCATIONS. INSULATION SHALL BE MINIMUM 220 DEGREE CELSIUS OPERATION - TEMPERATURE RISE SHALL BE MINIMUM 115 DEGREES CELSIUS. PROVIDE SIX 2 1/2% VOLTAGE ADJUSTING TAPS - TWO ABOVE AND FOUR BELOW RATED PRIMARY VOLTAGE. IMPEDANCE FOR UNITS ABOVE 15KVA SHALL BE MINIMUM 3%. TRANSFORMERS SHALL BE CONNECTED WITH SEALTIGHT FLEXIBLE CONDUIT WITH SEPARATE INTERNAL GROUND WIRE.		

**MASTER SYMBOL LIST**

SIGNAL OUTLETS		RECEPTACLES		ABBREVIATIONS	
☐	TELEPHONE: 4S BOX WITH SINGLE GANG MUD RING UON, +18" AFF UON	☐	DUPLEX: 20A, 125V, NEMA 5-20, +18" AFF	☐	CENTERLINE
☐	TELEPHONE: 4S BOX WITH SINGLE GANG MUD RING UON, WALL MOUNT +54" AFF UON	☐	DOUBLE DUPLEX: 20A, 125V, NEMA 5-20, +18" AFF (TOP HALF SWITCHED)	AFF	ABOVE FINISHED FLOOR
☐	DATA: 4S BOX WITH SINGLE GANG MUD RING UON, +18" AFF UON	☐	DUPLEX GFCL: 20A, 125V, GFCL, NEMA 5-20 GFR, +18" AFF	AIC	AMPERES INTERRUPTING CAPACITY
☐	VOICE/DATA: 4S BOX WITH SINGLE GANG MUD RING UON, +18" AFF UON	☐	DUPLEX I.G.: 20A, 125V, ISO. GND., NEMA 5-20 IG +18" AFF (WHITE WITH ORANGE TRIANGLE, UON)	AFC	ABOVE FINISH CEILING
☐	TELEVISION: 4S BOX WITH SINGLE GANG MUD RING UON, +18" AFF UON	☐	DOUBLE DUPLEX I.G.: 20A, 125V, ISO. GND., NEMA 5-20 IG +18" AFF (WHITE WITH ORANGE TRIANGLE, UON)	BMS	BUILDING MANAGEMENT SYSTEM
☐	CAMERA: 4S BOX WITH SINGLE GANG MUD RING UON, CEILING MOUNTED UON	☐	SPECIAL RECEPTACLE - AS INDICATED ON PLANS, +18" AFF	C	CONDUIT
☐	MICROPHONE: 4S BOX WITH SINGLE GANG MUD RING UON, +18" AFF UON	☐	NOTE: DIAMOND SYMBOLS INDICATES DEDICATED CIRCUIT.	CB	CIRCUIT BREAKER
<b>EQUIPMENT</b>		☐	SWITCHBOARD	CLG	CEILING
☐	VOLUME CONTROL: 4S BOX WITH SINGLE GANG MUD RING UON, +48" TO TOP UON	☐	PANELBOARD: SURFACE MOUNTED	DIR	CIRCUIT
☐	SPEAKER: 8" COAXIAL WITH BACK BOX AND GRILLE, CEILING MOUNTED UON	☐	PANELBOARD: FLUSH MOUNTED	DPST	DOUBLE POLE DOUBLE THROW
☐	3/4" (UON) STUB INTO ACCESSIBLE CEILING SPACE	☐	TRANSFORMER	DPST	DOUBLE POLE SINGLE THROW
<b>SWITCHES</b>		☐	RELAY (120V COIL, STEP DN XFMR IF REQUIRED, UON)	(E)	EXISTING TO REMAIN
S	SINGLE POLE: 20A, 120/277V, +48" TO TOP UON	☐	CONTRACTOR (120V COIL, STEP DN XFMR IF REQUIRED, UON)	ELEV	ELEVATOR
S <sub>2</sub>	TWO POLE: 20A, 120/277V, +48" TO TOP UON	☐	COMBINATION MAGNETIC STARTER/FUSED DISCONNECT	EMT	ELECTRICAL METALLIC TUBING
S <sub>3</sub>	THREE WAY: 20A, 120/277V, +48" TO TOP UON	☐	NON-FUSIBLE DISCONNECT SWITCH	EPO	EMERGENCY POWER OFF SYSTEM
S <sub>4</sub>	FOUR WAY: 20A, 120/277V, +48" TO TOP UON	☐	FUSIBLE DISCONNECT SWITCH	FBO	FURNISHED BY OTHERS
S <sub>x</sub>	X INDICATES EMERGENCY CIRCUIT	☐	PULLBOX: SIZE AS REQUIRED BY NEC	FLUOR	FLUORESCENT
S <sub>p</sub>	P INDICATES PILOT LIGHT (LIGHTED WHEN ON)	☐	JUNCTION BOX: SIZE AS REQUIRED BY NEC	FU	FUSE: DUAL-ELEMENT, TIME DELAY
S <sub>l</sub>	L INDICATES PILOT LOCATOR (LIGHTED WHEN OFF)	☐	SURFACE RACEWAY WITH OR WITHOUT DEVICES	GF/GFCI	GROUND FAULT INTERRUPTER
S <sub>k</sub>	K INDICATES KEY OPERATED SWITCH	☐	TELEPOWER POLE	GND	GROUND
S <sub>m</sub>	MANUAL MOTOR STARTER: 20A, 120/277V, POLES AND HEATERS AS REQUIRED	<b>CIRCUITING</b>		HOA	HAND-OFF-AUTOMATIC
S <sub>mc</sub>	MOMENTARY CONTACT: 20A, 120/277V, SPDT CENTER NORMALLY OFF UON, +48" TO TOP UON	—	CONDUIT IN WALL OR ABOVE CEILING	HID	HIGH INTENSITY DISCHARGE
D	DIMMER: 600 WATT UON, ELECTRONIC SLIDER, WITH ON/OFF TOGGLE, +48" TO TOP UON (PLANS SHALL INDICATE TYPE: FLUOR, INCAND OR LOW-VOLTAGE)	—	CONDUIT IN FLOOR OR BELOW GRADE	IG	ISOLATED GROUND
☐	MOTION/OCCUPANCY SENSOR SWITCH WITH OFF-AUTO SELECTOR - WALL MOUNTED AT +48" TO TOP UON	—	METAL CLAD CABLE (MC)	INCAND	INCANDESCENT
☐	ULTRASONIC MOTION/OCCUPANCY SENSOR SWITCH CEILING MOUNTED	—	OVERHEAD SERVICE	K	kcmil (300K = 300 kcmil)
☐	ARROWS INDICATE DIRECTION AND COVERAGE PROVIDE WITH POWER PACK PER MANUFACTURERS REQUIREMENTS	—	PRIMARY	LTG	LIGHTING
☐	PHOTO ELECTRIC SWITCH: 1600VA UON	—	SECONDARY	LV	LOW VOLTAGE
<b>METHODS</b>		—	TELEPHONE	MCP	MOTOR CIRCUIT PROTECTOR
☐	SHADING INDICATES: FIXTURE, OUTLET, EQUIPMENT, ETC. ON EMERGENCY 'X' OR NIGHT LIGHT 'NL' CIRCUIT	—	TELEVISION	MC	MULTI-CONDUCTOR CABLE
☐	DEVICE MOUNTED IN MULTIPLE UNDER COMMON COVER MAXIMUM HEIGHT ON WALL SHALL BE +48" TO TOP UON	—	LOW VOLTAGE AND/OR CONTROL CIRCUITING	(N)	NEW
☐	DEVICES MOUNTED IN OR ABOVE COUNTER/BACKSPLASH: MAXIMUM HEIGHT ON WALLS SHALL BE +48" TO TOP UON	—	EMERGENCY CIRCUIT	NC	NORMALLY CLOSED
☐	FLUSH FLOOR MOUNTED WIRING DEVICES	—	STUB OUT: MARK AND CAP (SITE)	NEUT	NEUTRAL
☐	FLUSH FLOOR MOUNTED WIRING DEVICES IN SINGLE MULTI-COMPARTMENT BOX	—	CIRCUITING UP OR DOWN	NL	NIGHT LIGHT
☐	RECEPTACLE MOUNTED IN CEILING OR CASEWORK	—	ISOLATED GROUNDING CONDUCTOR	NO	NORMALLY OPEN
☐	FINE DASHING INDICATES EXISTING EQUIPMENT AND DEVICES TO BE REMOVED	—	GROUNDING CONDUCTOR	NTS	NOT TO SCALE
<b>DESIGNATIONS</b>		—	NEUTRAL CONDUCTOR	PNL	PANEL
☐	LIGHT FIXTURE: F1 = TYPE (SEE FIXTURE SCHEDULE)	—	PHASE CONDUCTOR(S)	PVC	POLYVINYL CHLORIDE CONDUIT
☐	SHEET NOTE	—	GROUNDING CONDUCTOR	(R)	EXISTING TO BE RELOCATED
☐	REVISION DELTA: NUMBER REPRESENTS REVISION	—	NEUTRAL CONDUCTOR	RAC	RIGID ALUMINUM CONDUIT
☐	MECHANICAL AND PLUMBING EQUIPMENT	—	PHASE CONDUCTOR(S)	RSC	RIGID STEEL CONDUIT
☐	MISCELLANEOUS: THESE AND OTHER SYMBOLS AS INDICATED IN TABLES AND SCHEDULES ON THE PLANS.	—	GROUNDING CONDUCTOR	SO	SEAL OFF
<b>NOTE:</b> THIS IS A MASTER SYMBOL LIST, ALL SYMBOLS SHOWN MAY NOT BE USED WITHIN THIS SET OF PLANS		—	ISOLATED GROUNDING CONDUCTOR	SPDT	SINGLE POLE DOUBLE THROW
		—	NEUTRAL CONDUCTOR	SPEN	SIZE PER EQUIPMENT NAMEPLATE
		—	PHASE CONDUCTOR(S)	SPST	SINGLE POLE SINGLE THROW
		—	GROUNDING CONDUCTOR	TEL	TELECOM
		—	PHASE CONDUCTOR(S)	TYP	TYPICAL
		—	GROUNDING CONDUCTOR	UNSW	UNSWITCHED
		—	PHASE CONDUCTOR(S)	UON	UNLESS OTHERWISE NOTED
		—	GROUNDING CONDUCTOR	WP	WEATHERPROOF (NEMA 3R)
		—	PHASE CONDUCTOR(S)	WT	WATERTIGHT
		—	GROUNDING CONDUCTOR	(X)	EXISTING TO BE REMOVED
		—	PHASE CONDUCTOR(S)	XFMR	TRANSFORMER
		—	GROUNDING CONDUCTOR	XP	EXPLOSION PROOF
		—	PHASE CONDUCTOR(S)	FPEN	FUSE PER EQUIPMENT NAMEPLATE



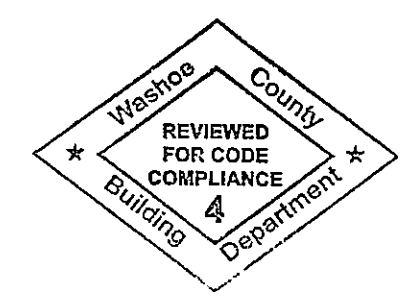
A PROPOSED NEW BARN FOR:  
**DR. JOE PERI**  
RENO, NEVADA

REVISIONS	

**SHEET TITLE**  
SYMBOL LIST,  
SPECIFICATIONS  
AND SCHEDULES

WASHOE COUNTY BUILDING DEPT.  
**OFFICE COPY**

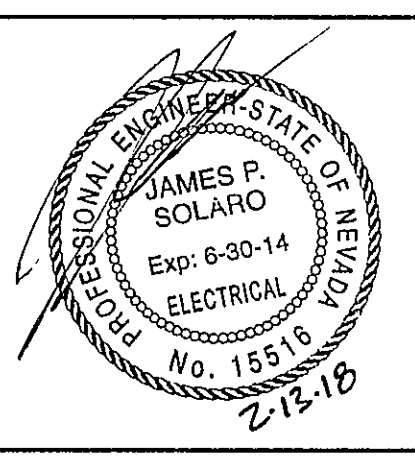
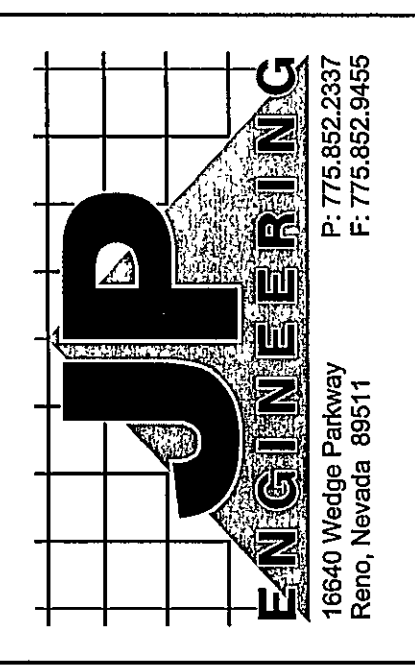
DRAWN	MT
CHECKED	JS
DATE	17 DECEMBER 2012
JOB NUMBER	JP #12139



**E0.1**







A PROPOSED NEW BARN FOR:  
**DR. JOE PERI**  
 RENO, NEVADA

REVISIONS	
1	PLAN CHECK COMMENTS 08 FEBRUARY 2013

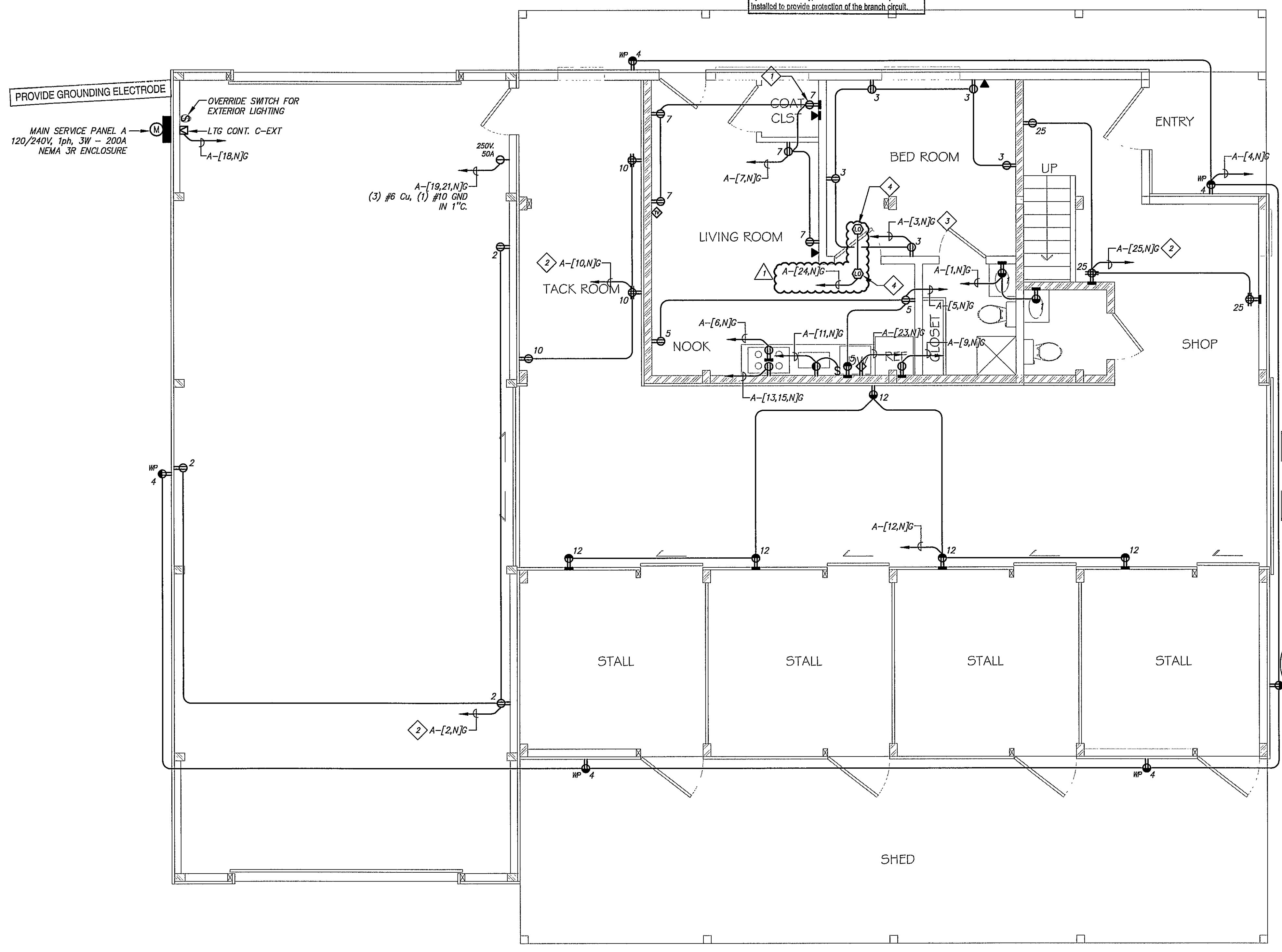
**SHEET TITLE**  
 MAIN LEVEL  
 ELECTRICAL  
 PLAN

DRAWN:	MT
CHECKED:	JS
DATE:	17 DECEMBER 2012
JOB NUMBER:	JP #12139

**E2.1**

E3902.12 Arc-fault circuit-interrupter protection. All branch circuits that supply 120-volt, single-phase, 15- and 20-ampere outlets installed in family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways and similar rooms or areas shall be protected by a combination type arc-fault circuit interrupter installed to provide protection of the branch circuit.

2009 IECC 404.1  
 LIGHTING EQUIPMENT (PRESCRIPTIVE):  
 A MINIMUM OF 50 PERCENT OF THE LAMPS IN PERMANENTLY INSTALLED LIGHTING FIXTURES SHALL BE HIGH-EFFICACY LAMPS



ALL REC OUTLETS IN BARN TO BE GFI

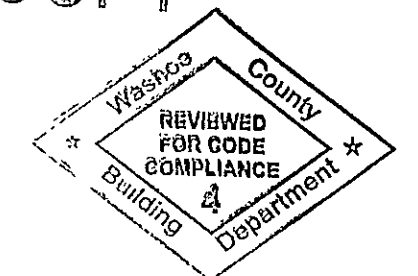
2009 IECC 402.4.2: Building envelope air tightness shall be tested by an approved agency. Blower door test (402.4.2.1) or visual inspection (402.4.2.2) are acceptable. Per IECC 403.2.2(1) or (2): Duct sealing must be tested by an approved agency.

REC. outlets < 5' above floor must be "TAMPER RESISTANT"

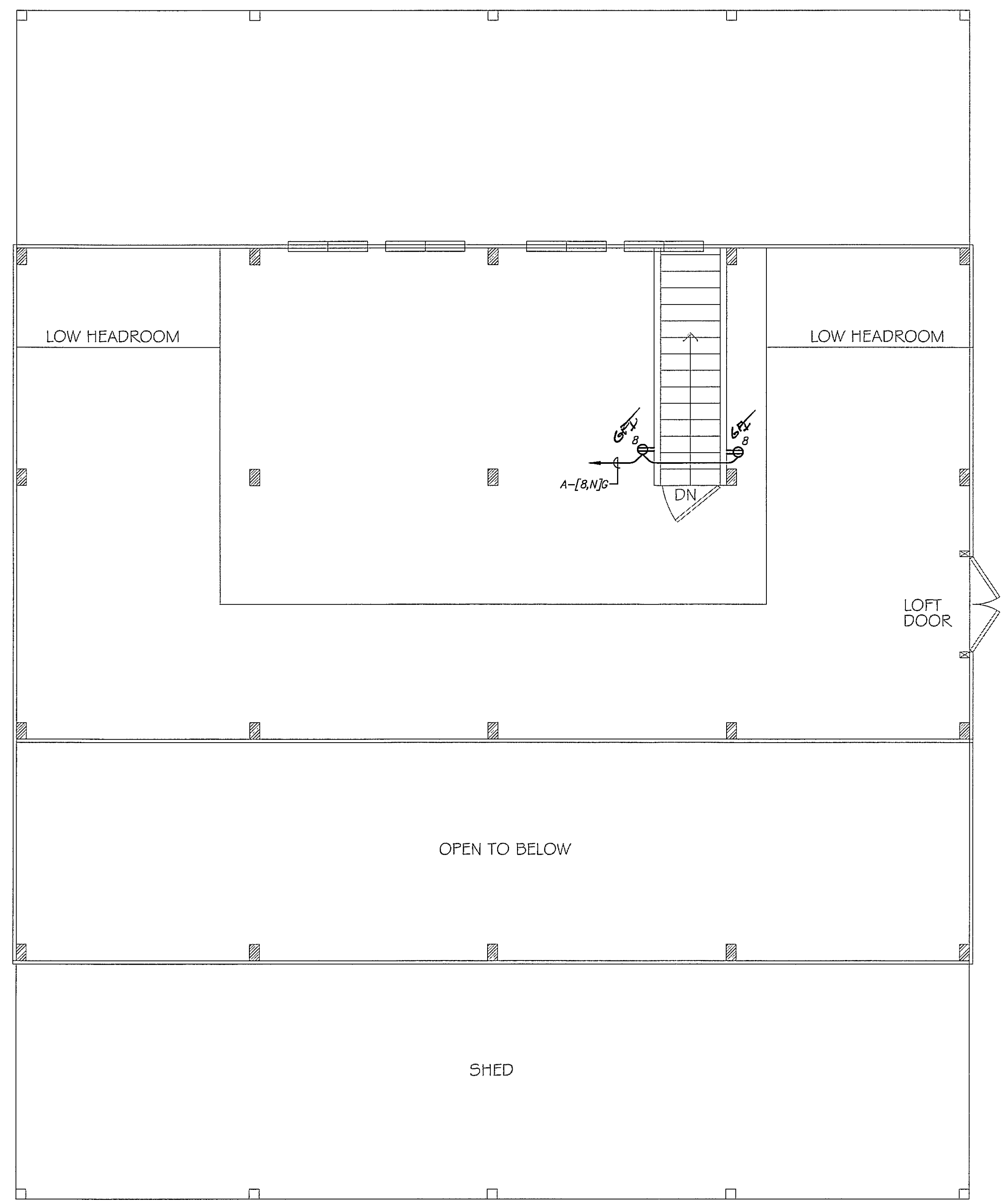
SHEET NOTES	
1	MOUNT DUPLEX RECEPTACLE AND PHONE OUTLET AT -6" BELOW CEILING FOR FUTURE SECURITY ALARM SYSTEM.
2	PROVIDE GFCI TYPE CIRCUIT BREAKER.
3	PROVIDE AFCI TYPE CIRCUIT BREAKER.
4	PROVIDE LOCAL ONLY SMOKE DETECTOR.

**A MAIN LEVEL ELECTRICAL PLAN**  
 SCALE: 1/4" = 1'-0"

WASHOE COUNTY BUILDING DEPT  
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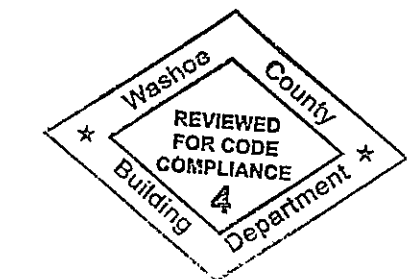


A PROPOSED NEW BARN FOR:  
**DR. JOE PERI**  
 RENO, NEVADA



A	<b>LOFT ELECTRICAL PLAN</b>	
E2.2	SCALE: 1/4" = 1'-0"	

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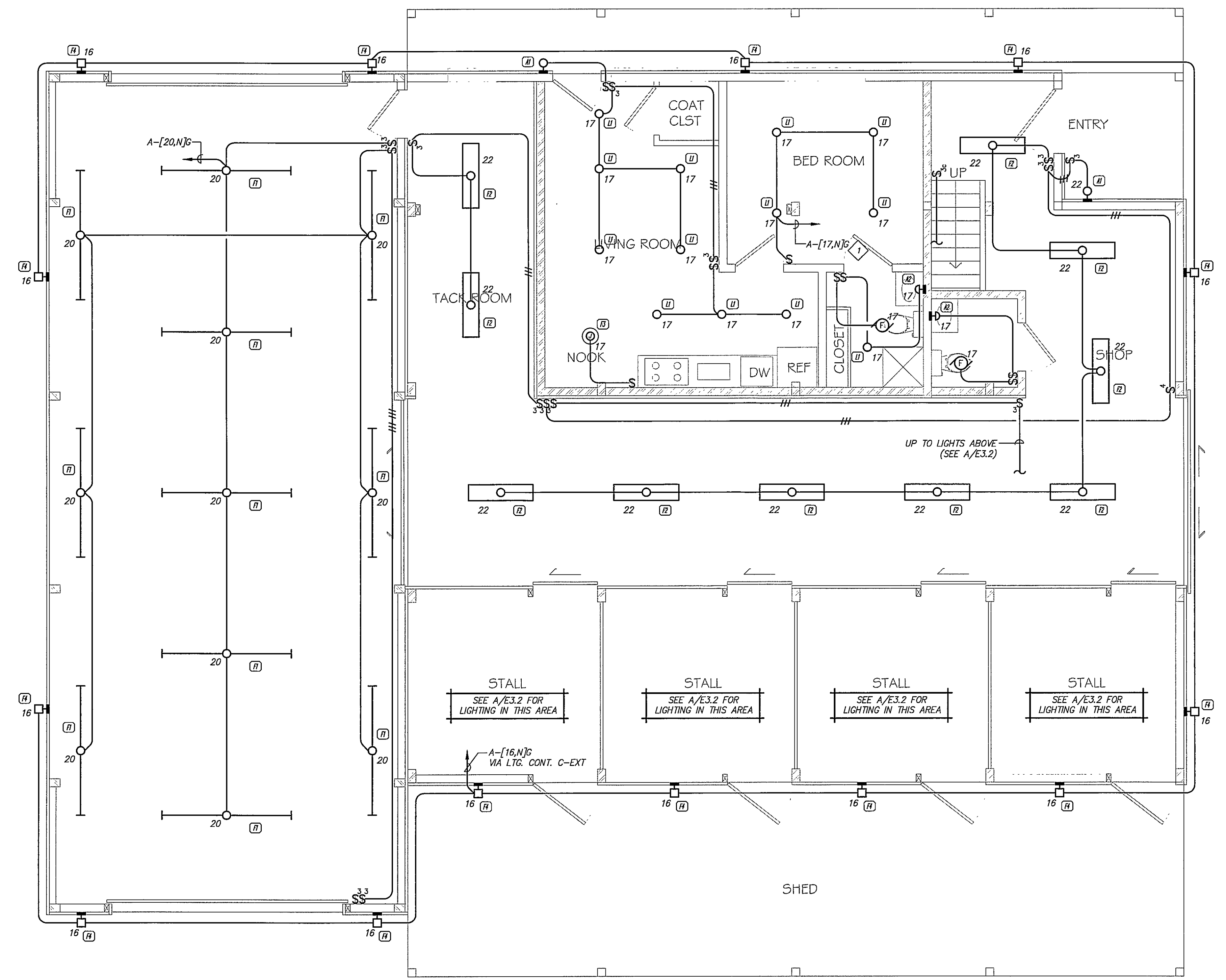


REVISIONS

**SHEET TITLE**  
 LOFT  
 ELECTRICAL  
 PLAN

DRAWN	MT
CHECKED	JS
DATE	17 DECEMBER 2012
JOB NUMBER	JP #12139

**E2.2**



2009 IECC 404.1  
 LIGHTING EQUIPMENT (PRESCRIPTIVE):  
 A MINIMUM OF 50 PERCENT OF THE LAMPS  
 IN PERMANENTLY INSTALLED LIGHTING  
 FIXTURES SHALL BE HIGH-EFFICACY LAMPS

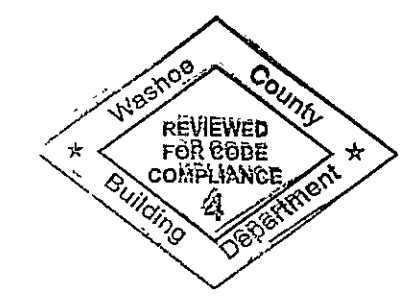
A PROPOSED NEW BARN FOR:  
**DR. JOE PERI**  
 RENO, NEVADA

**SHEET NOTES**

1 PROVIDE AFCI TYPE CIRCUIT BREAKER.

**A MAIN LEVEL LIGHTING PLAN**  
 E3.1 SCALE: 1/4" = 1'-0"

WASHOE COUNTY BUILDING DEPT.  
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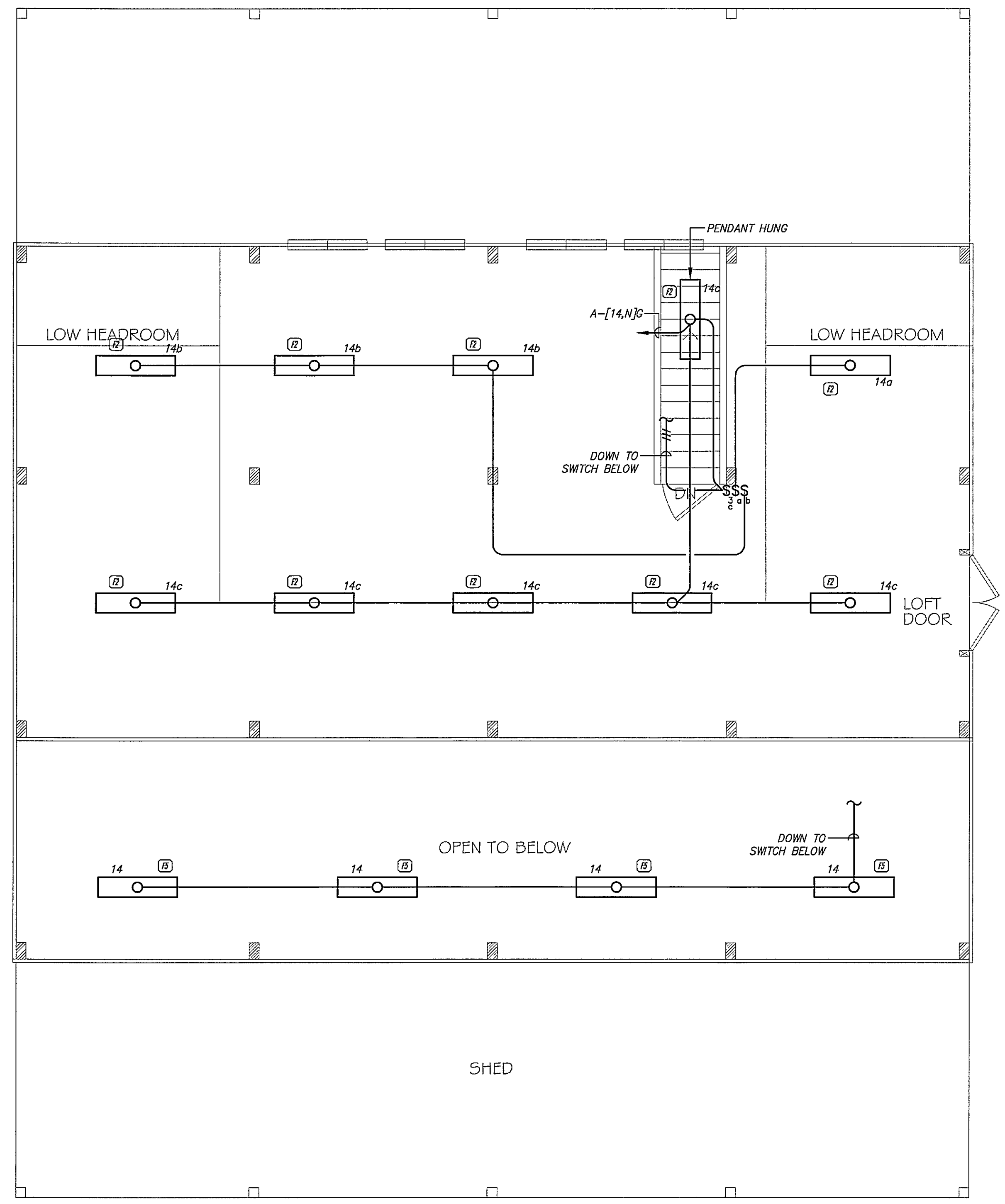


REVISIONS

**SHEET TITLE**  
 MAIN LEVEL  
 LIGHTING PLAN

DRAWN: MT  
 CHECKED: JS  
 DATE: 17 DECEMBER 2012  
 JOB NUMBER: JP #12139

**E3.1**

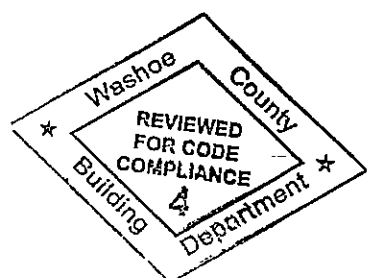


A	<b>LOFT LIGHTING PLAN</b>	
E3.2	SCALE: 1/4" = 1'-0"	

A PROPOSED NEW BARN FOR:  
**DR. JOE PERI**  
 RENO, NEVADA

REVISIONS

**SHEET TITLE**  
 LOFT LIGHTING PLAN



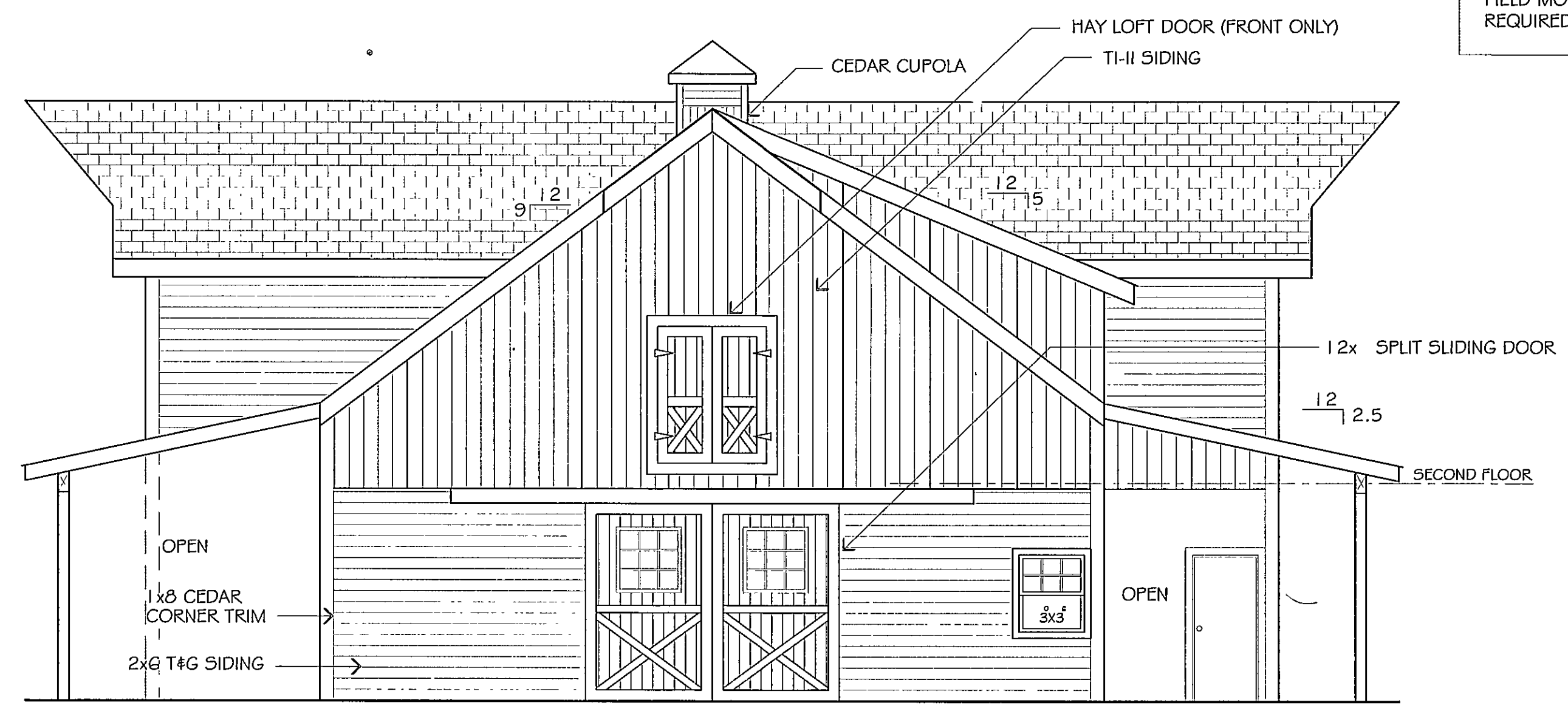
WASHOE COUNTY BUILDING DEPT.  
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DRAWN	MT
CHECKED	JS
DATE	17 DECEMBER 2012
JOB NUMBER	JP #12139

**E3.2**

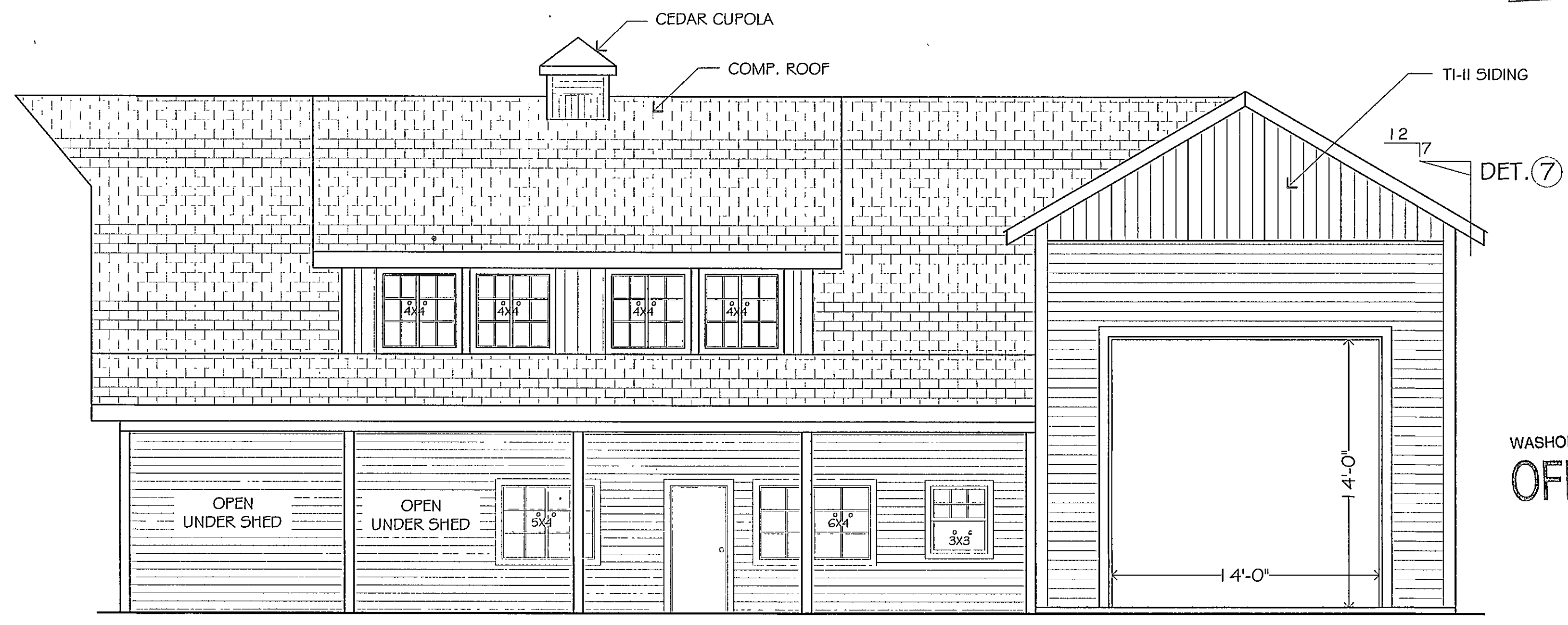
13-0136

THIS PACKAGE HAS BEEN MODIFIED FROM THE ORIGINAL STOCK BARN PROS PACKAGE DESIGN. FIELD MODIFICATIONS & SOME EXTRA MATERIALS MAY BE REQUIRED DURING ASSEMBLY.

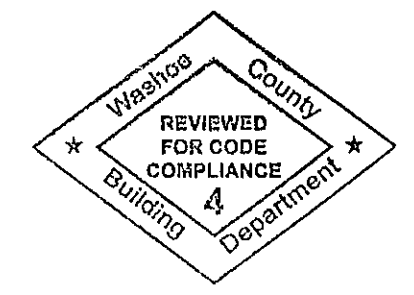


FRONT ELEVATION  
SCALE 3/16" = 1'-0"

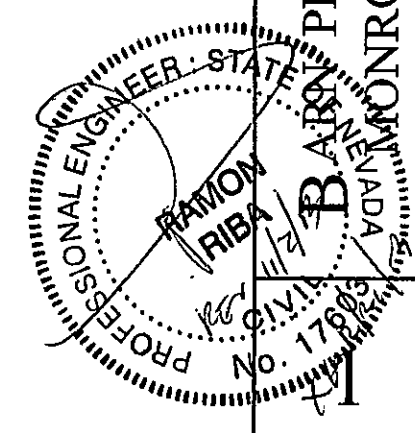
SEE WARNING SHEET BOTH SIDES



SIDE ELEVATION  
SCALE 3/16" = 1'-0"



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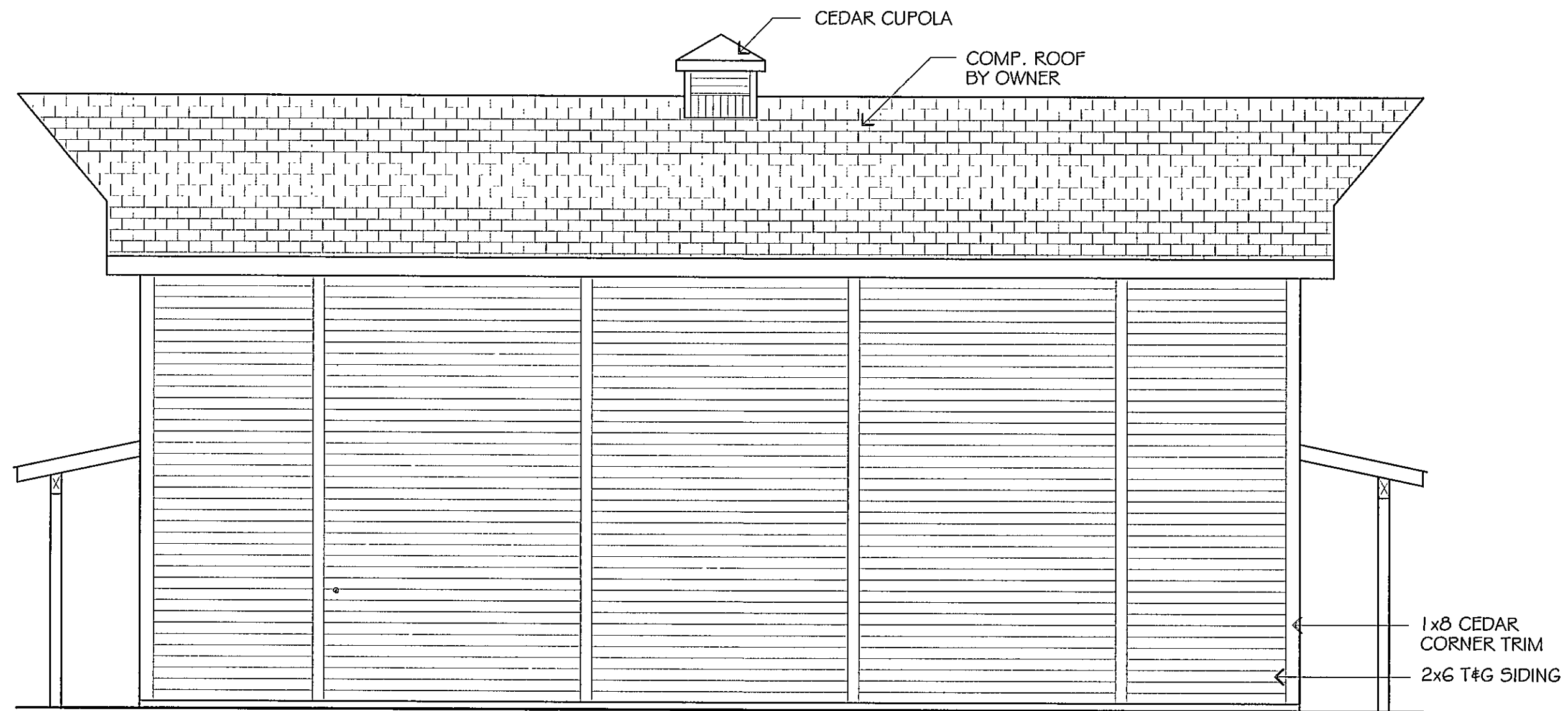


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RENO, NV

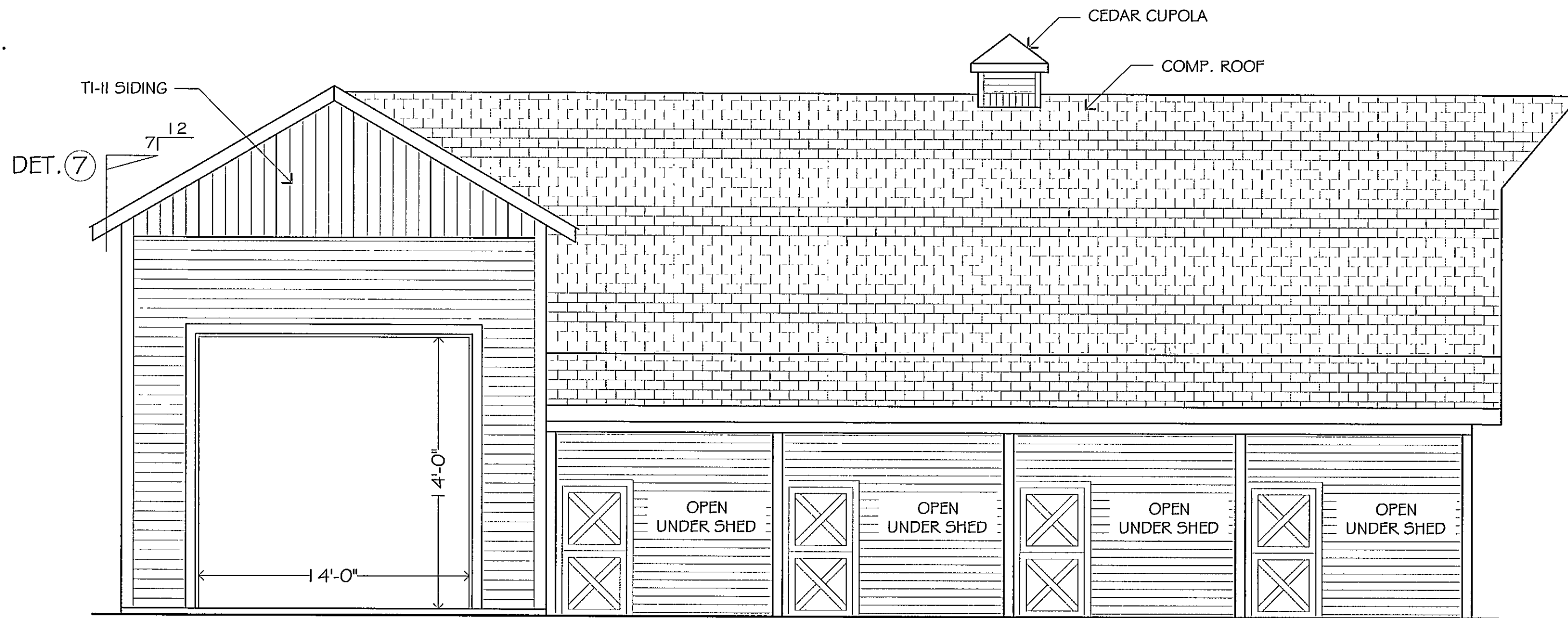
DENALI 48-C &  
COACHMAN

BARN PROS INC.  
BLADY  
MONROE, WA

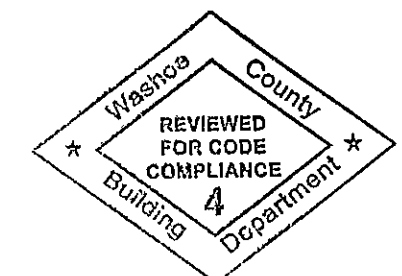




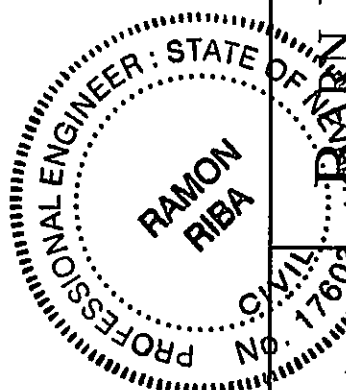
REAR ELEVATION  
SCALE 3/16" = 1'-0"



SIDE ELEVATION  
SCALE 3/16" = 1'-0"



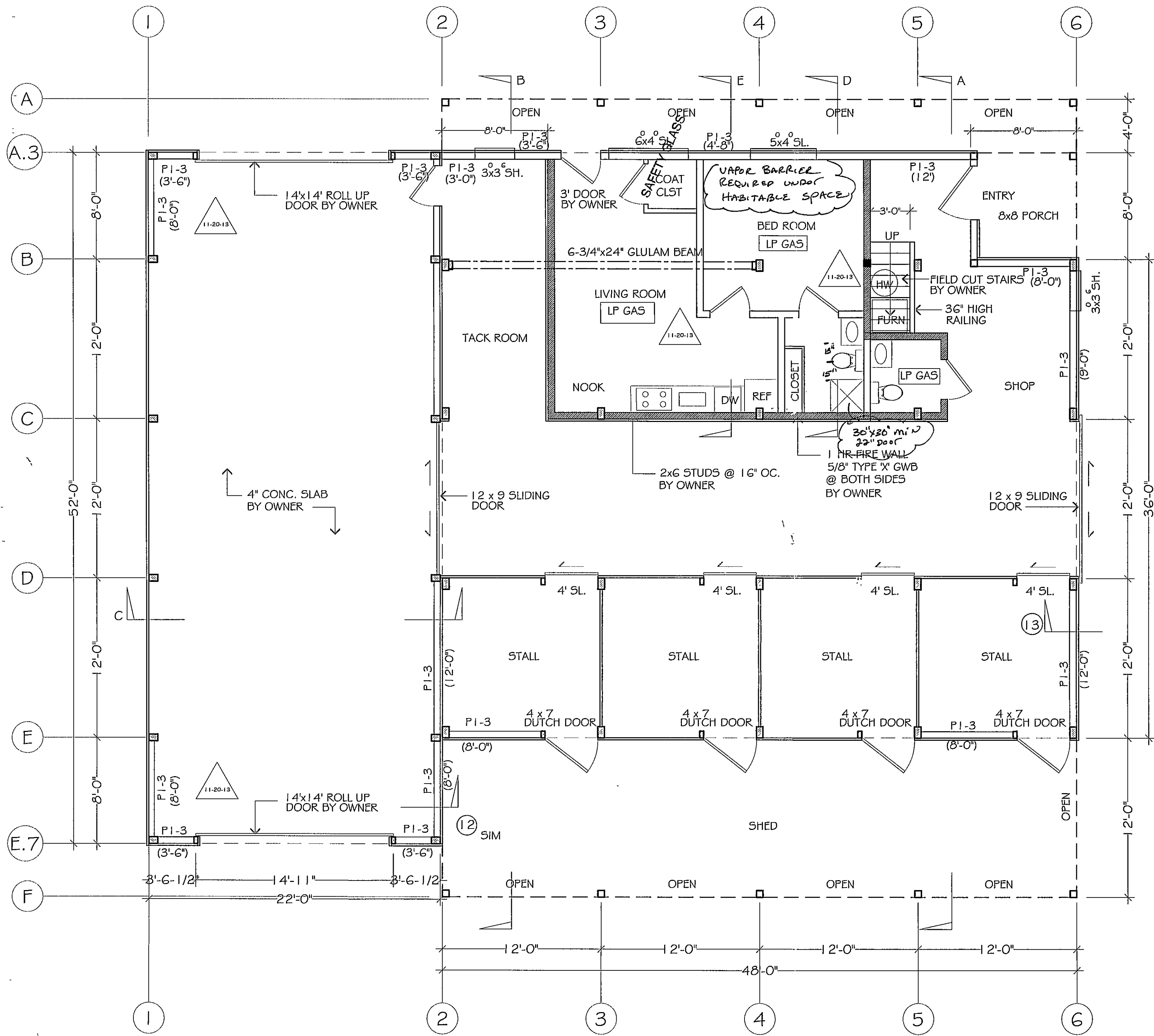
WASHOE COUNTY BUILDING DEPT.  
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MONROE, WA



GUARDRAILS SHALL BE PROVIDED AT ALL UNENCLOSED FLOORS WHICH ARE MORE THAN 30" ABOVE GRADE OR FLOOR BELOW, GUARDRAILS SHALL NOT BE LESS THAN 36 INCHES IN HEIGHT. GUARDRAILS AND HANDRAILS SHALL HAVE INTERMEDIATE RAILS SUCH THAT AN OBJECT 4 INCHES IN DIAMETER CANNOT PASS THROUGH.

HANDRAILS AT STAIRS SHALL NOT BE LESS THAN 34" OR MORE THAN 38" ABOVE NOSING. HANDGRIP NOT LESS THAN 1-1/4" OR MORE THAN 2" IN CROSS-SECTIONAL DIMENSIONS.

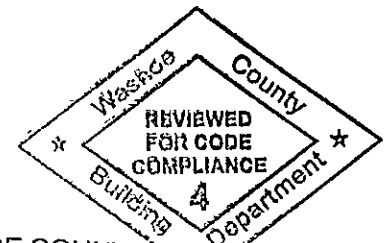
STAIRWAYS - STAIR RISER: 4" MIN, 8" MAX. STAIR RUNS: 3" MIN. RUN. HEADROOM 6'-8" MIN. FROM A PLANE PARALLEL AND TANGENT TO THE STAIRWAY TREAD NOSINGS TO ANY CONSTRUCTION ABOVE ALL POINTS. PROVIDE LANDING, 36" IN LENGTH, AT TOP AND BOTTOM OF EACH STAIRWAY OR STAIR RUN. INSTALL 5/8" TYPEX' GWB IN ENCLOSED STORAGE AREA UNDER STAIRS.

*7 3/4 max riser 10" min run*

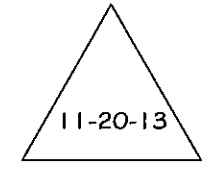
NOTE: LP GAS TO BE USED IN BATH AND LIVING SPACE W/ THERMOSTAT

← FRONT

FLOOR PLAN  
SCALE 3/16" = 1'-0"



WASHOE COUNTY BUILDING DEPT  
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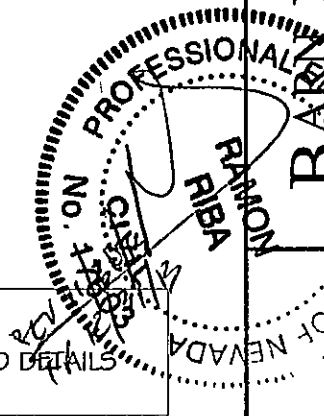


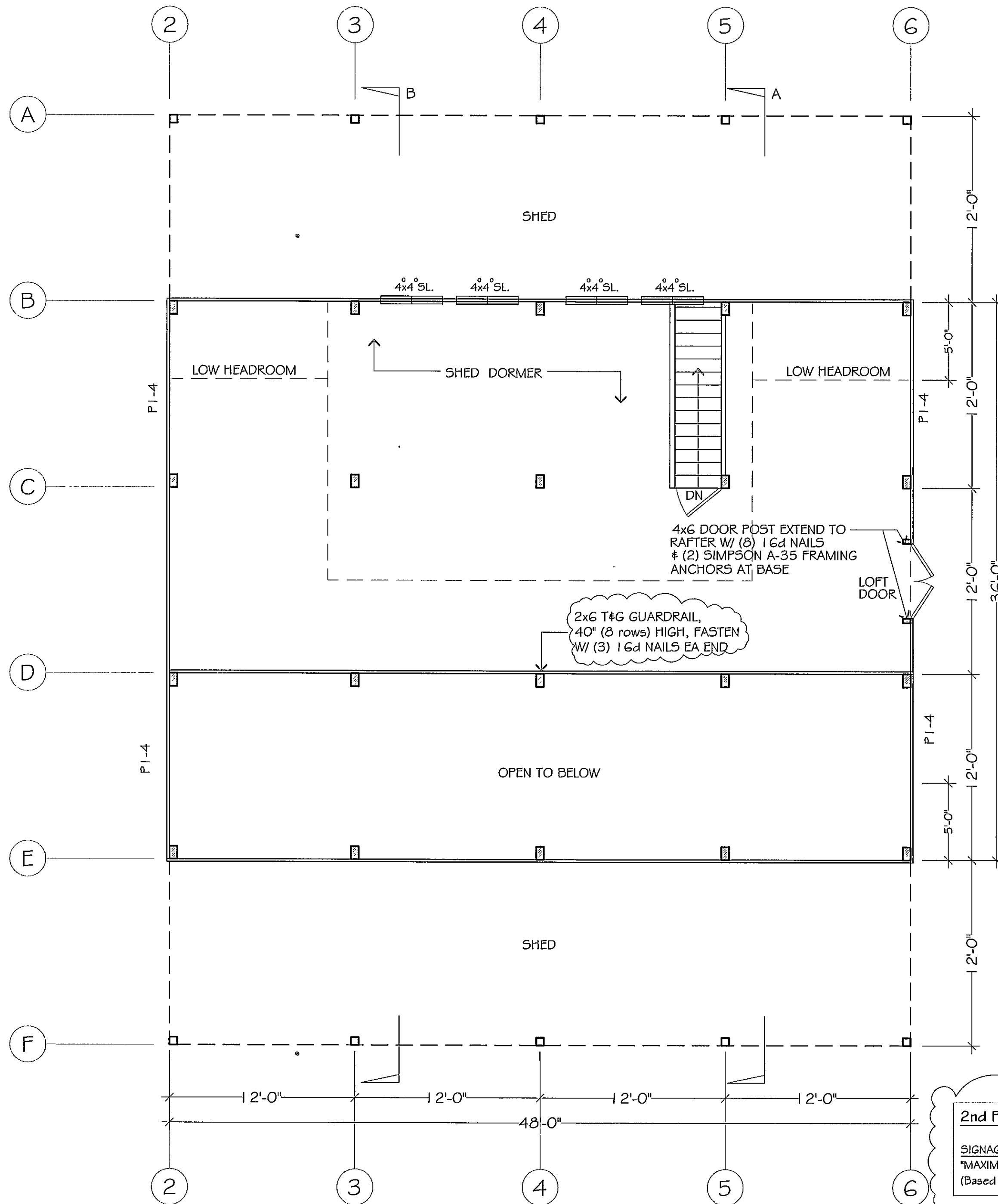
1st FLOOR WALL TYPES:  
-SEE SHEET 7.1 FOR WALL TYPES AND DETAILS

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SECOND FLOOR PLAN  
SCALE 3/16" = 1'-0"

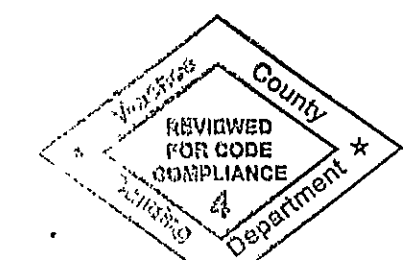
**2nd FLOOR WALL TYPES:**  
 P1-4 - 7/8" OSB SHEATHING ON 2x6 STUDS 16" OC, SHEATHING NAILED w/ 8d SINKERS 4" OC @ PERIMETER & 12" OC IN FIELD. FASTEN SINGLE 2x6 SILL PLATE w/ 16d NAILS 6" OC STAGGERED. (LOCATED ON GRIDS 2 & 6 BTWN B & F)

GRID B @ SHED DORMER - INFILL BTWN POSTS w/ 2x6 STUDS 16" OC, SINGLE SILL AND DBL TOP PLATES, SHEATHED w/ 3/8" T1-11 SIDING (8d NAILS 6" OC PERIMETER & 12" OC FIELD), WINDOW HEADERS TO BE DBL 2x6 ON EDGE.

GRIDS 3&5 @ SHED DORMER - 2x6 STUDS, 16" OC, SINGLE SILL AND DOUBLE TOP PLATES BTWN ROOF RAFTERS.

2x6 T&G GUARDRAIL, 40" (8 rows) HIGH, FASTEN w/ (3) 16d NAILS EA END

4x6 DOOR POST EXTEND TO RAFTER w/ (8) 16d NAILS & (2) SIMPSON A-35 FRAMING ANCHORS AT BASE



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**2nd FLOOR STORAGE CAPACITY:**  
 SIGNAGE REQUIREMENTS - CONTRACTOR TO PROVIDE SIGNAGE INDICATING "MAXIMUM HAY STORAGE HEIGHT OF 5 BALES HIGH" (Based on 70 lb bales, 14"x18"x42" in size)

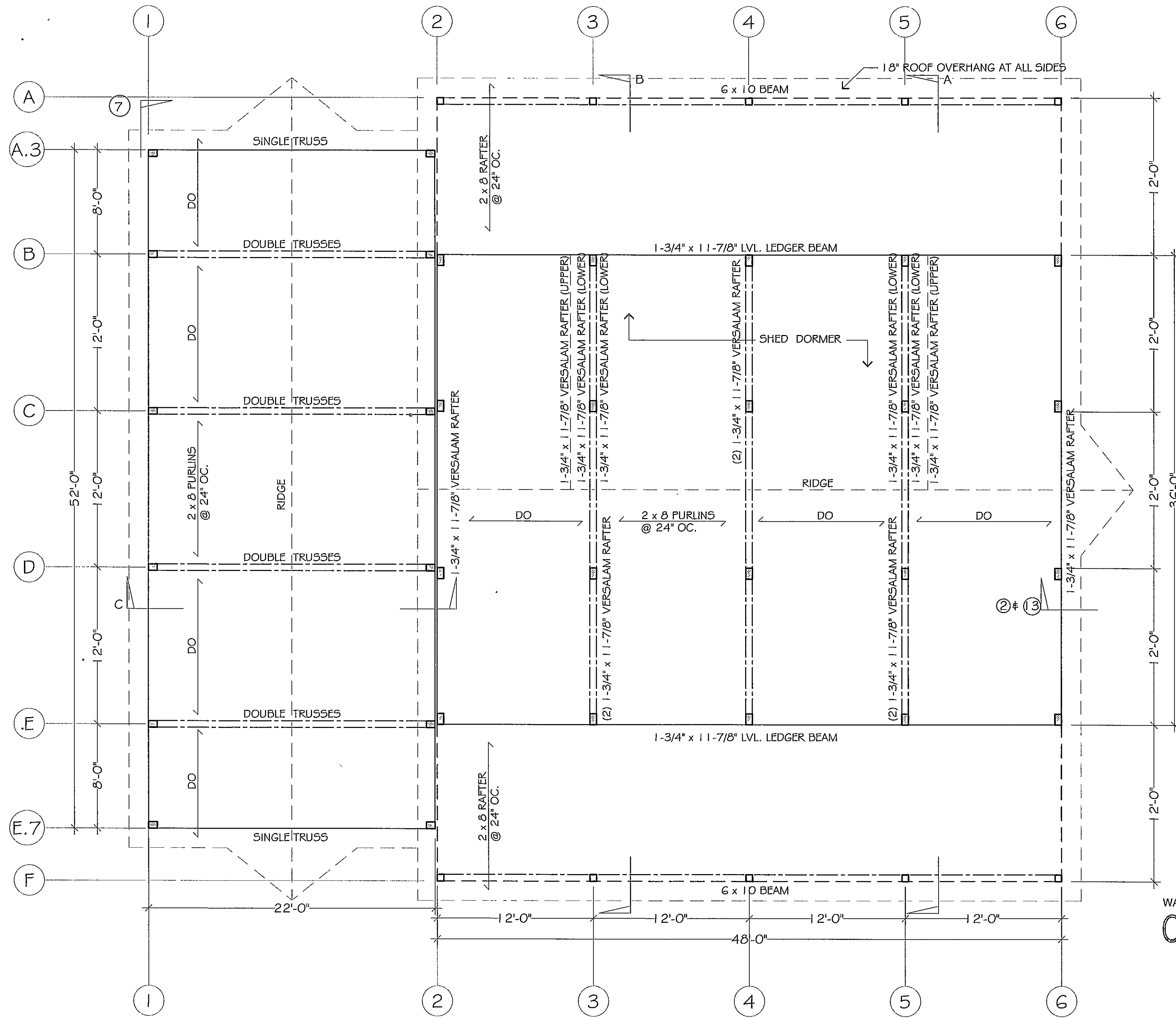
DR. JOE PERI  
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COACHMAN

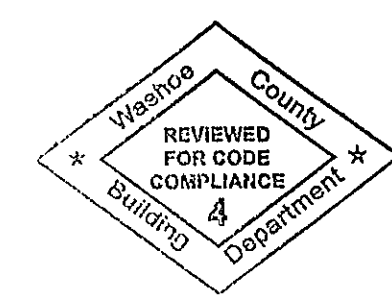
RAMON RIBA  
PROFESSIONAL ENGINEER - STATE OF NEVADA  
LICENSE NO. 17600

RAMON RIBA  
PROS INC.  
MONROE, WA

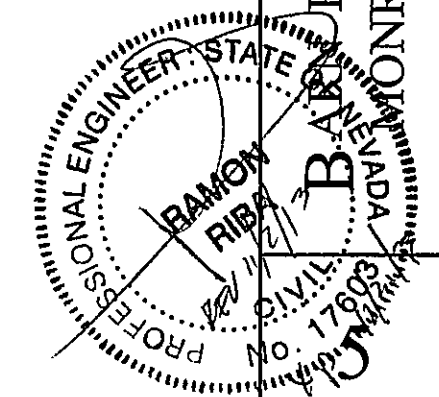
4



ROOF FRAMING PLAN  
SCALE 3/16" = 1'-0"



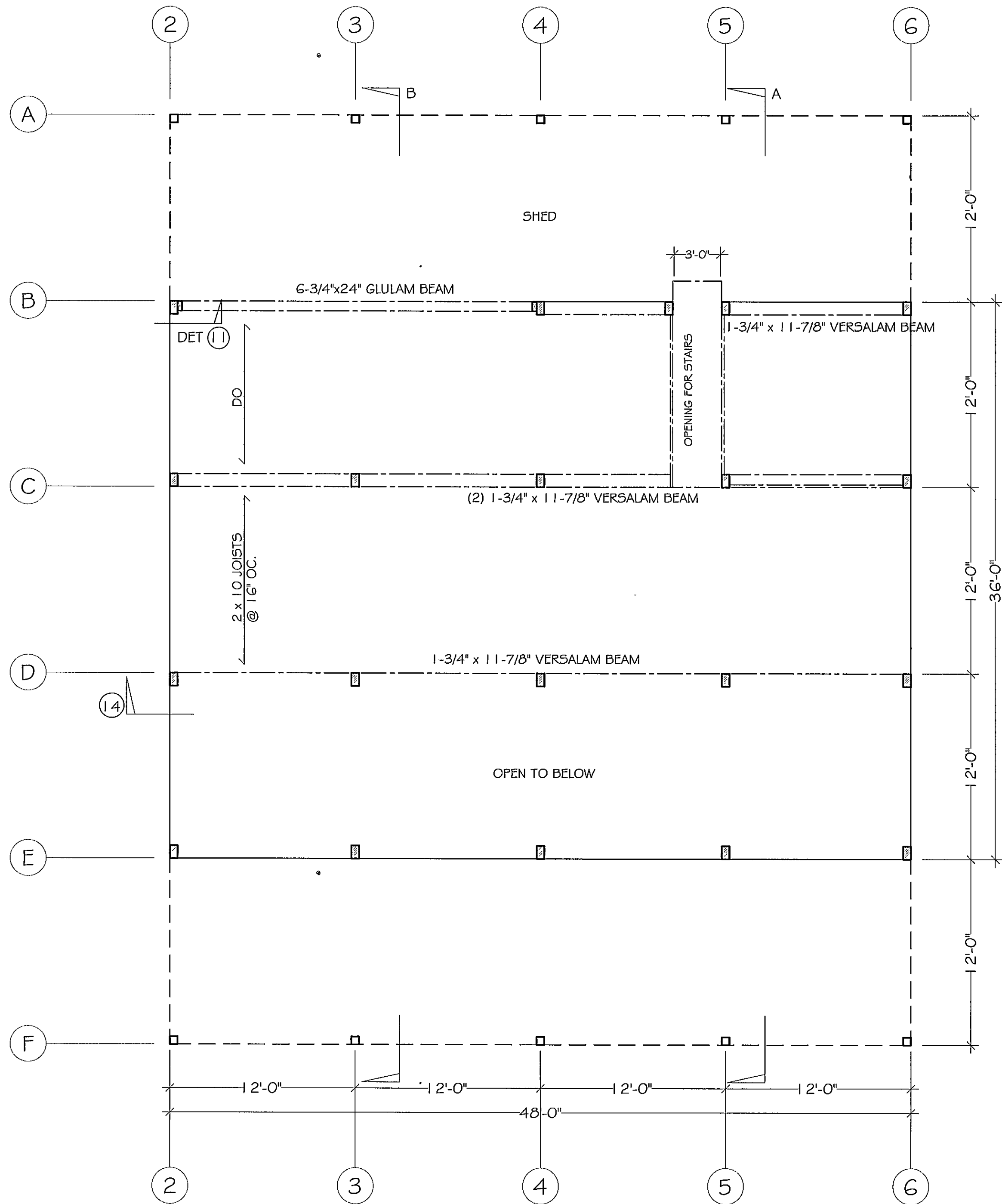
WASHOE COUNTY BUILDING DEPT.  
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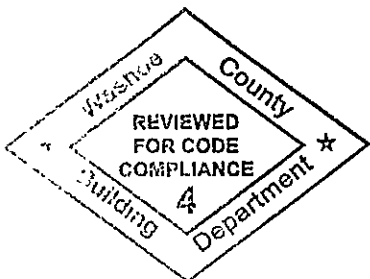
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COACHMAN

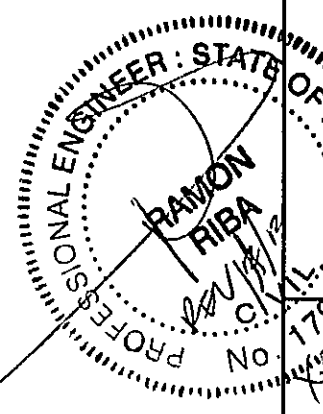
BRADEN PROS INC.  
1000 AVENUE MONROE, WA



LOFT FRAMING PLAN  
SCALE 3/16" = 1'-0"



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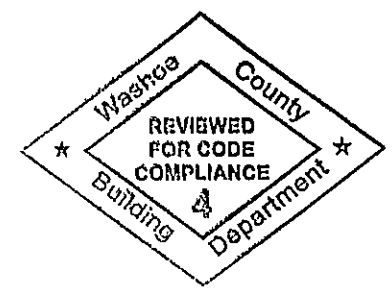
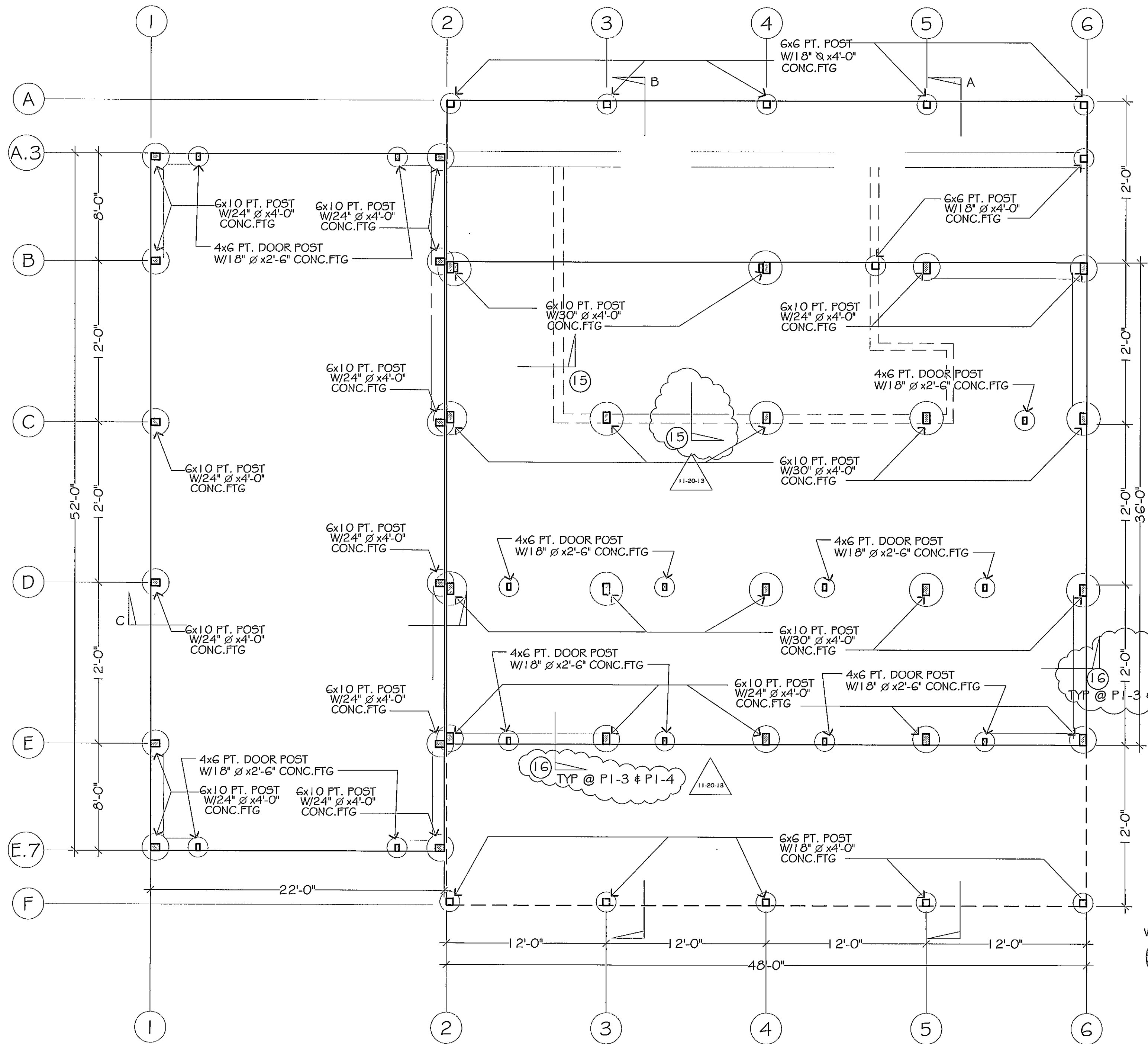


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MONROE, WA

6



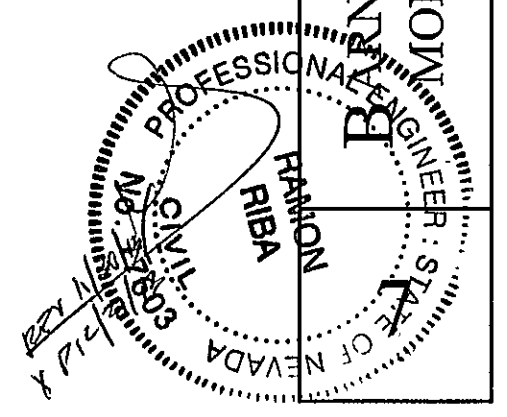
WASHOE COUNTY BUILDING DEPT  
**OFFICE COPY**

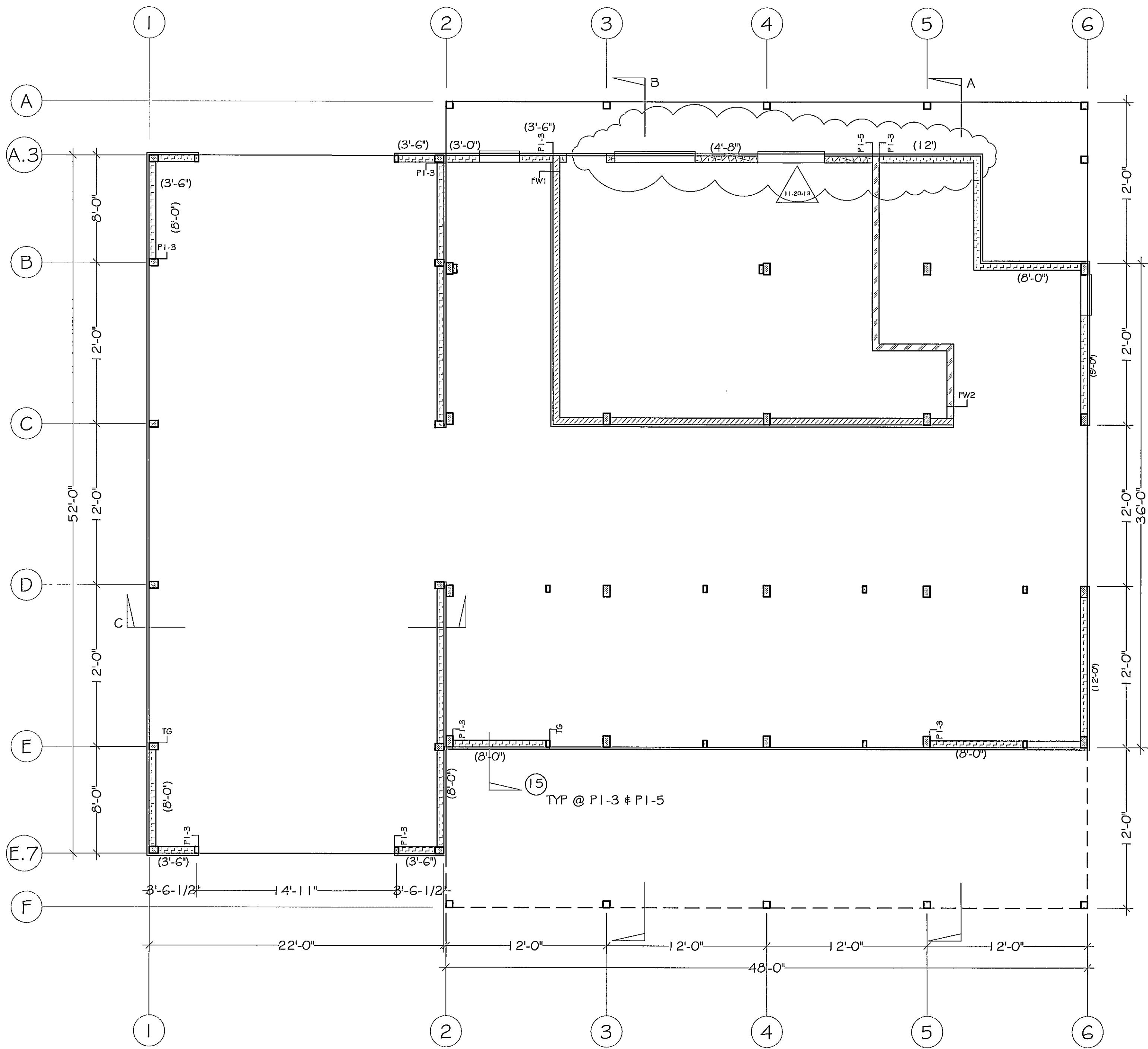
**FOOTING PLAN**  
 SCALE 3/16" = 1'-0"

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 MONROE, WA



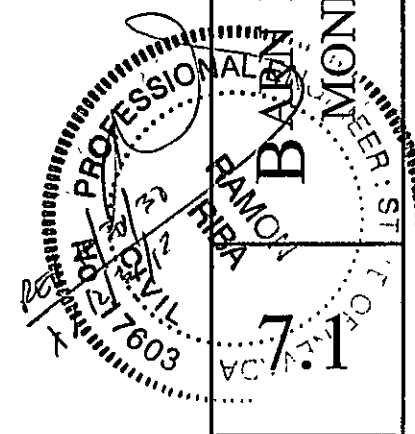
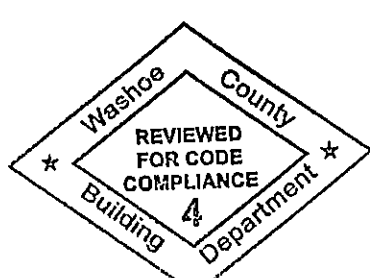


FIRST FLOOR WALL TYPE PLAN  
SCALE: 3/16" = 1'-0"

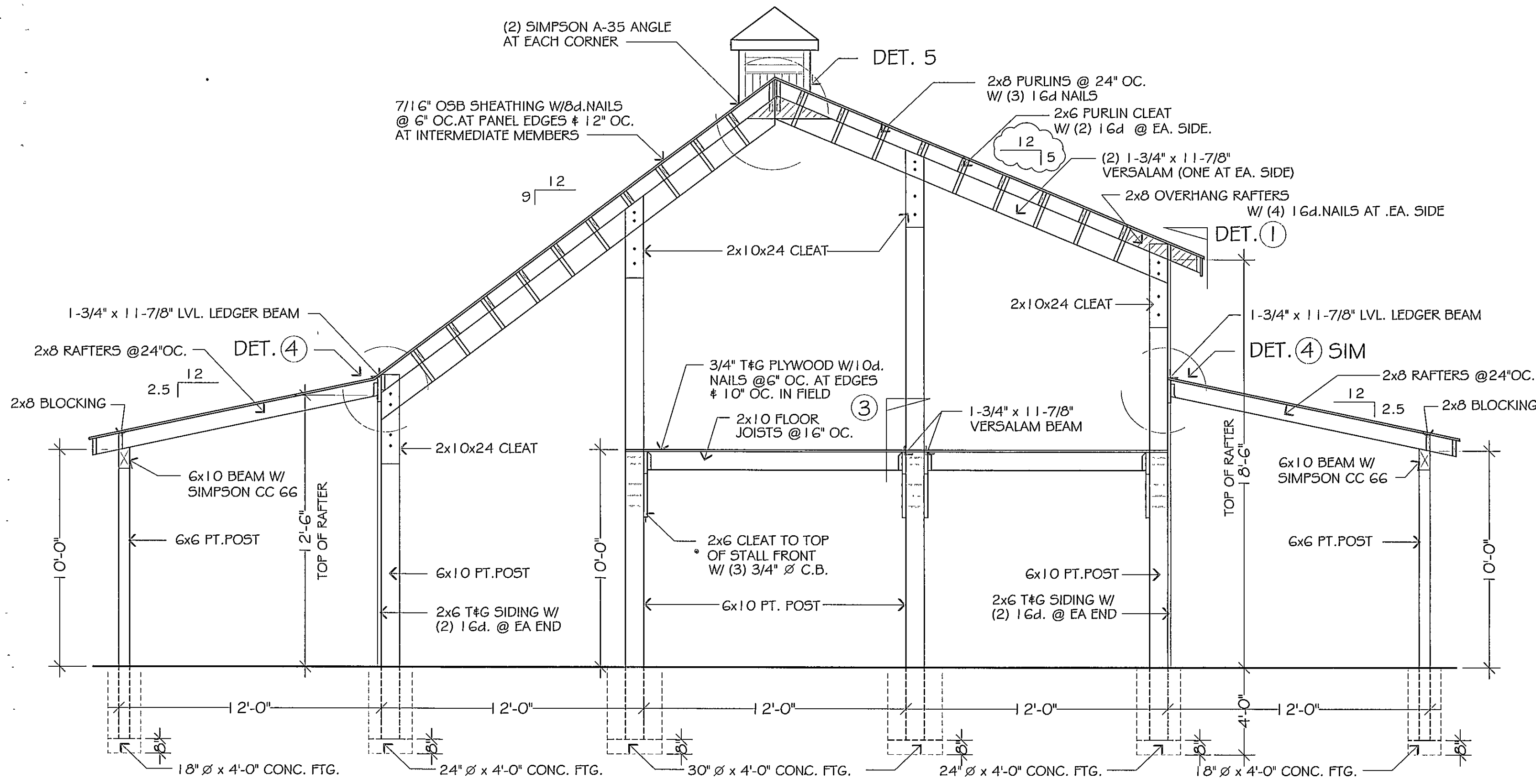
WALL TYPE # CONSTRUCTION							
WALL LABEL	FILL PATTERN	EXTERIOR FINISH	SILL PLATE	FRAMING	INSULATION	INTERIOR FINISH	NOTES
P1-3	[Pattern]	2x6 T&G	FT 4x6 w/ 5/8" Ø x 12" AB @ 24" OC	2x6 STUDS, 16" OC	none	7/8" OSB SHEAR PANEL; FASTEN w/ Ø4 SINKERS, 3" OC @ EDGE & 12" OC @ FIELD	SEE DETAIL 15 FOR SILL DETAIL
P1-5	[Pattern]	2x6 T&G	FT 2x6 w/ 5/8" Ø x 12" AB @ 24" OC	2x6 STUDS, 16" OC	R-2.1 HIGH DENSITY FIBERGLASS BATTS	1/2" OSB -over- 7/8" OSB SHEAR PANEL; FASTEN w/ Ø4 SINKERS, 3" OC @ EDGE & 12" OC @ FIELD	SEE DETAIL 16 FOR SILL DETAIL
FW1	[Pattern]	2x6 T&G OVER 5/8" TYPE X GWB	FT 2x6 w/ 5/8" Ø x 12" AB @ 48" OC	2x6 STUDS, 16" OC	R-2.1 HIGH DENSITY FIBERGLASS BATTS	5/8" TYPE X GWB	FASTENING FOR GWB: 2 1/4" TYPE 5 SCREWS, 7" OC
FW2	[Pattern]	5/8" TYPE X GWB	FT 2x6 w/ 5/8" Ø x 12" AB @ 48" OC	2x6 STUDS, 16" OC	R-2.1 HIGH DENSITY FIBERGLASS BATTS	5/8" TYPE X GWB	FASTENING FOR GWB: 2 1/4" TYPE 5 SCREWS, 7" OC
Tg (DEFAULT)	none	2x6 T&G	FIRST (2) COURSES HORIZONTAL, w/ (3) TO BE FT	2x6 T&G INSTALLED HORIZONTAL, w/ (3) 1 1/2" NAILS EA END	none	none	DEFAULT WALL TYPE

- WALL TYPES EXTEND IN DIRECTION OF "ARROW", THROUGH OPENINGS AND AROUND CORNERS.  
- ALL PANEL EDGES FOR WALL TYPES P1-3, P1-5, FW1, AND FW2 NEED TO BE SUPPORTED BY FRAMING OR DIMENSIONAL BLOCKING  
- SEE NOTES FOR FASTENING SCHEDULE FOR 1 HOUR FIRE WALL (PER IBC 2009, TABLE 720.1(2), ITEM 15-1.1.4)

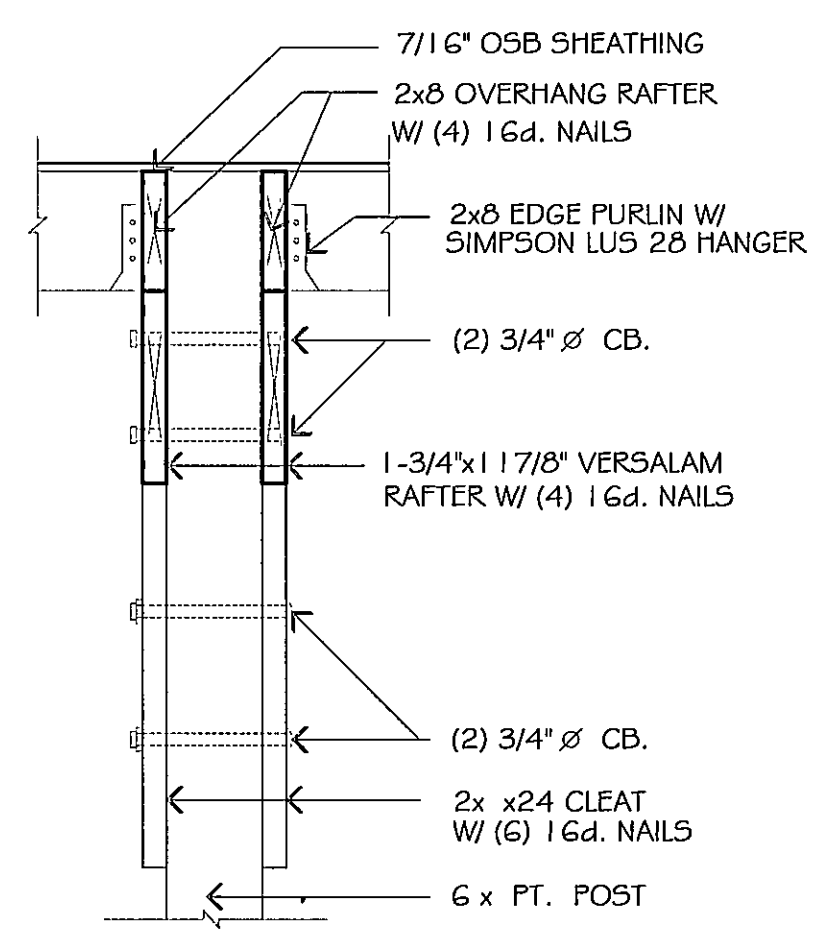
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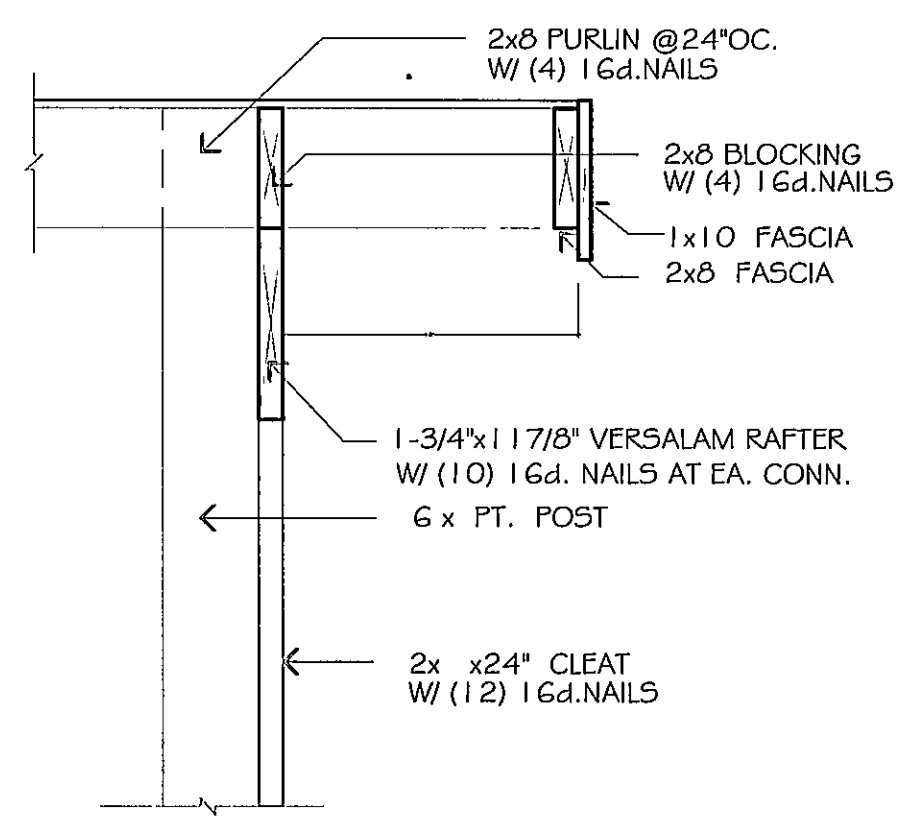
DR. JOE PERI  
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COACHMAN  
BARN PROS INC.  
MONROE, WA



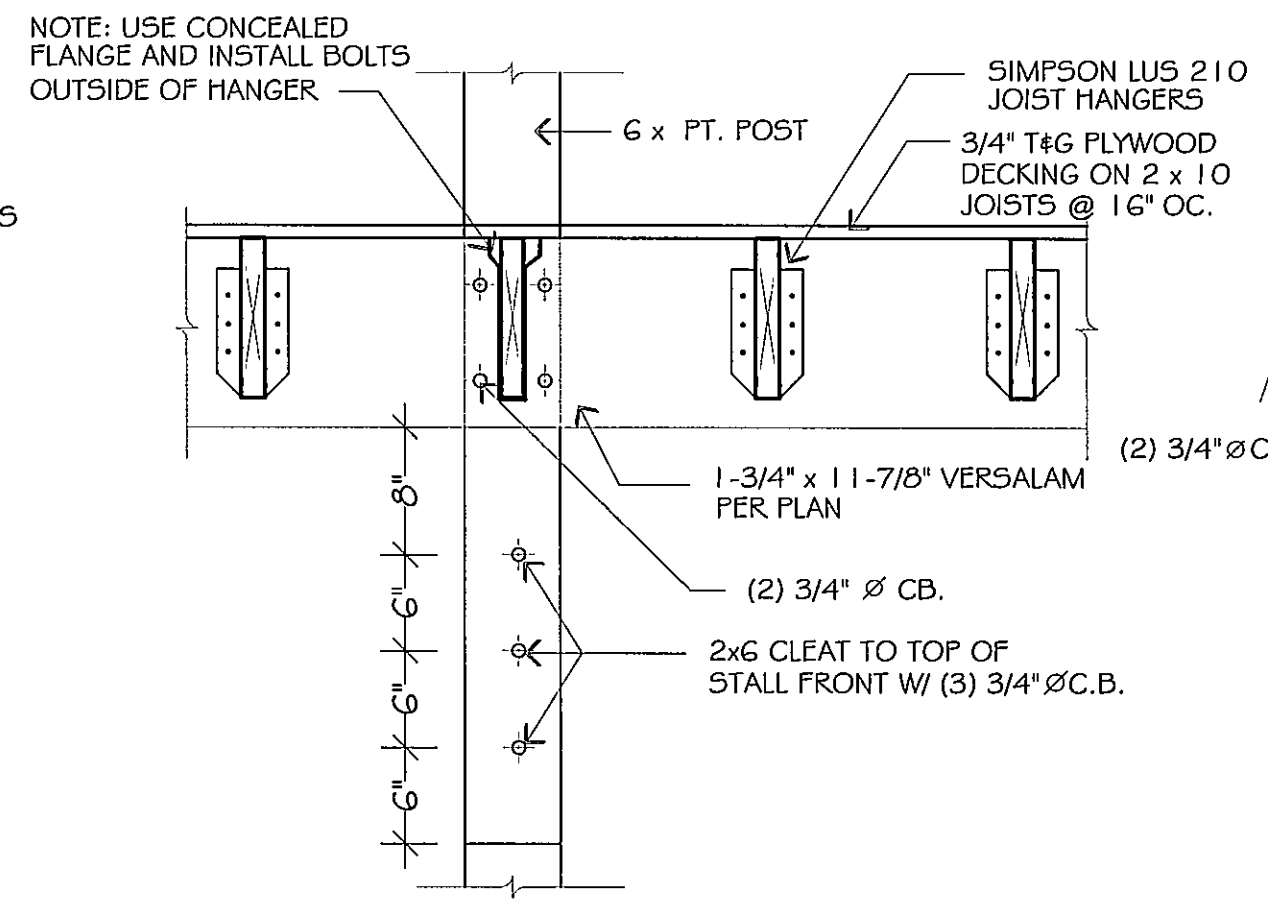
**SECTION A**  
SCALE 1/4" = 1'-0"



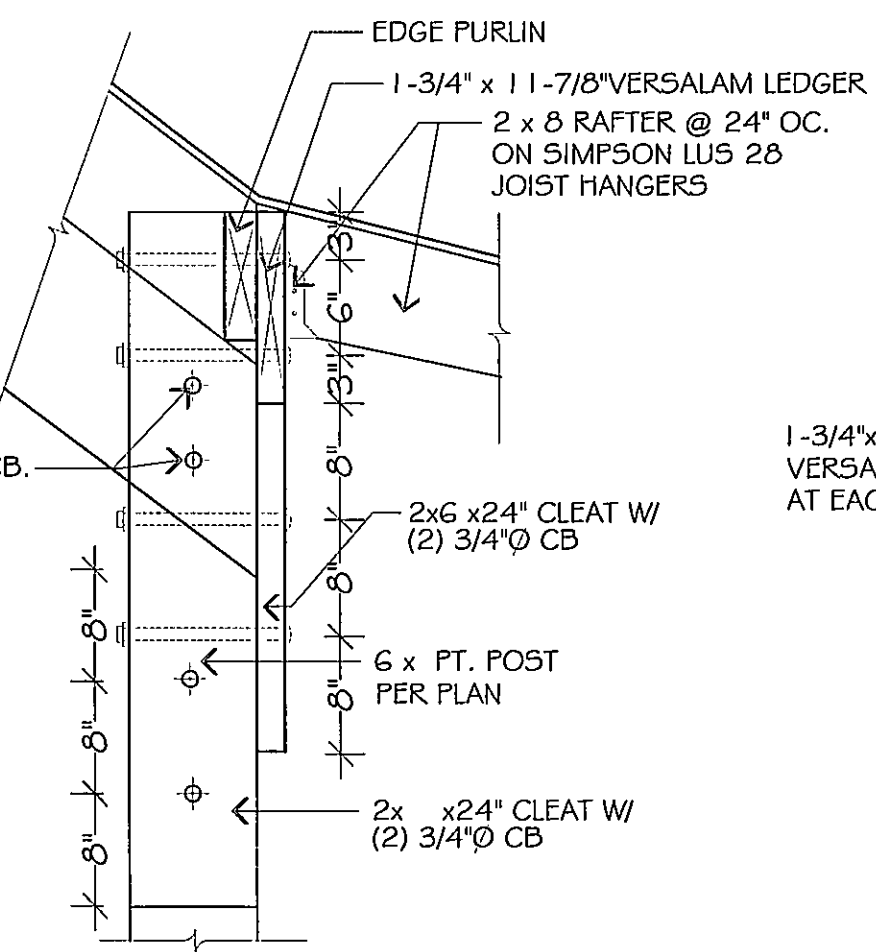
**DETAIL 1**  
SCALE 1/4" = 1'-0"



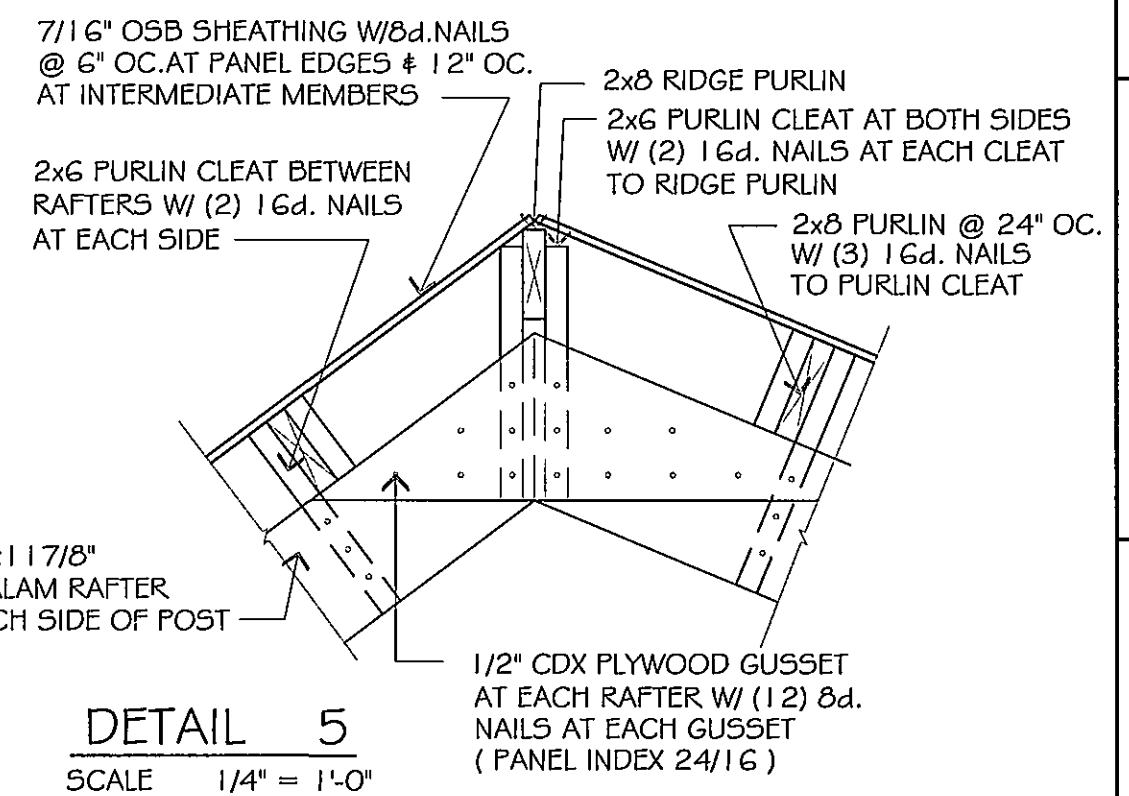
**DETAIL 2**  
SCALE 1/4" = 1'-0"



**DETAIL 3**  
SCALE 1/4" = 1'-0"

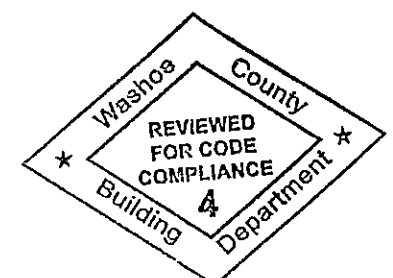


**DETAIL 4**  
SCALE 1/4" = 1'-0"



**DETAIL 5**  
SCALE 1/4" = 1'-0"

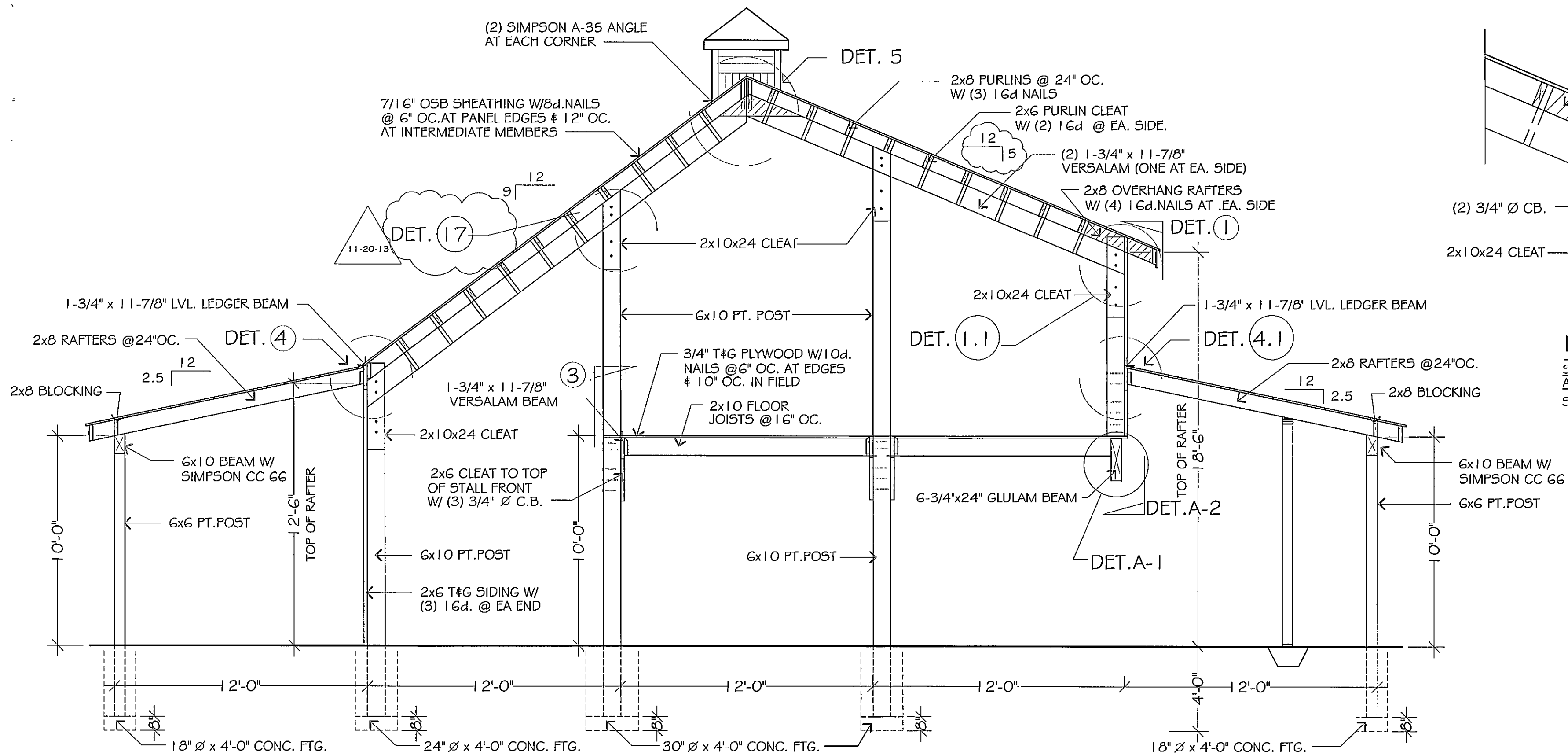
NOTE:  
SLIDE 5: 1/2 VERSALAM UP 1-3/8"  
TO 1-1/2" TO MATCH UP AT PEAK



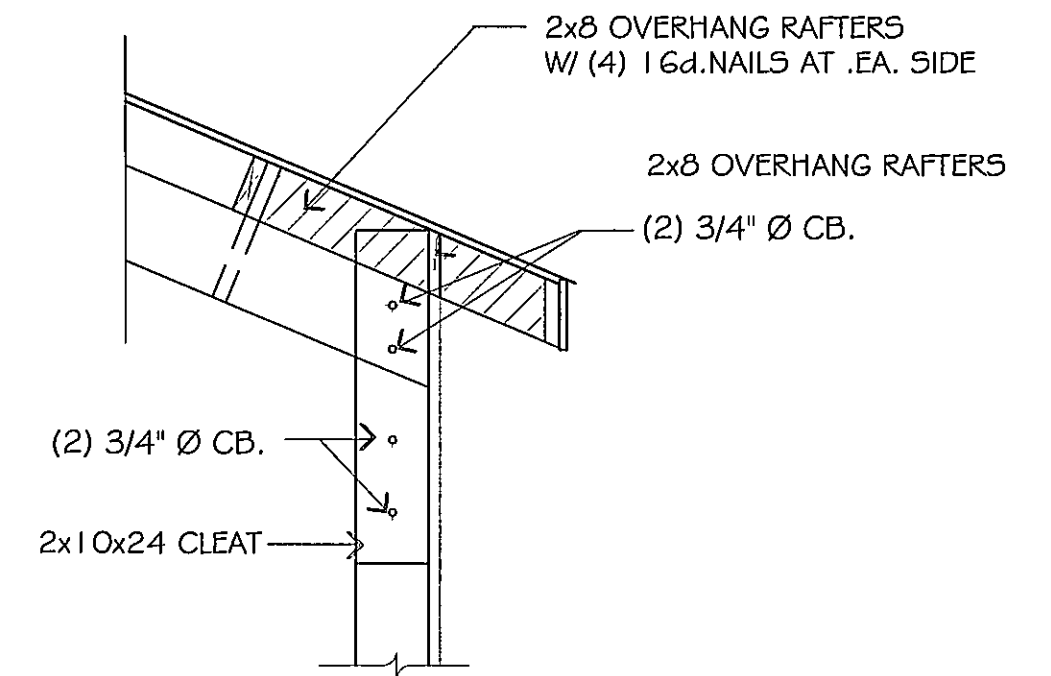
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DENALI 48-C &  
COACHMAN  
NEWARK PROS INC.  
MONROE, WA

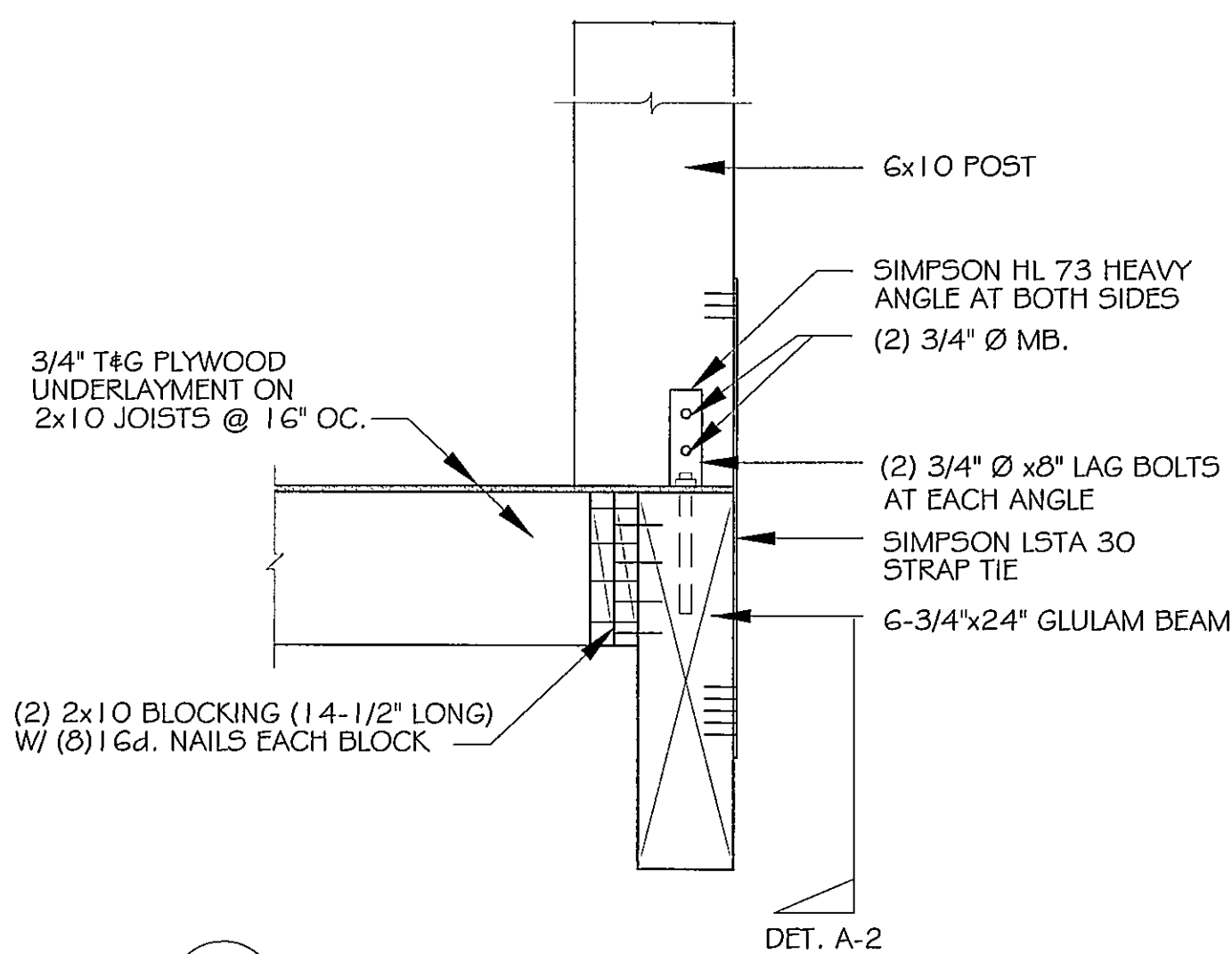




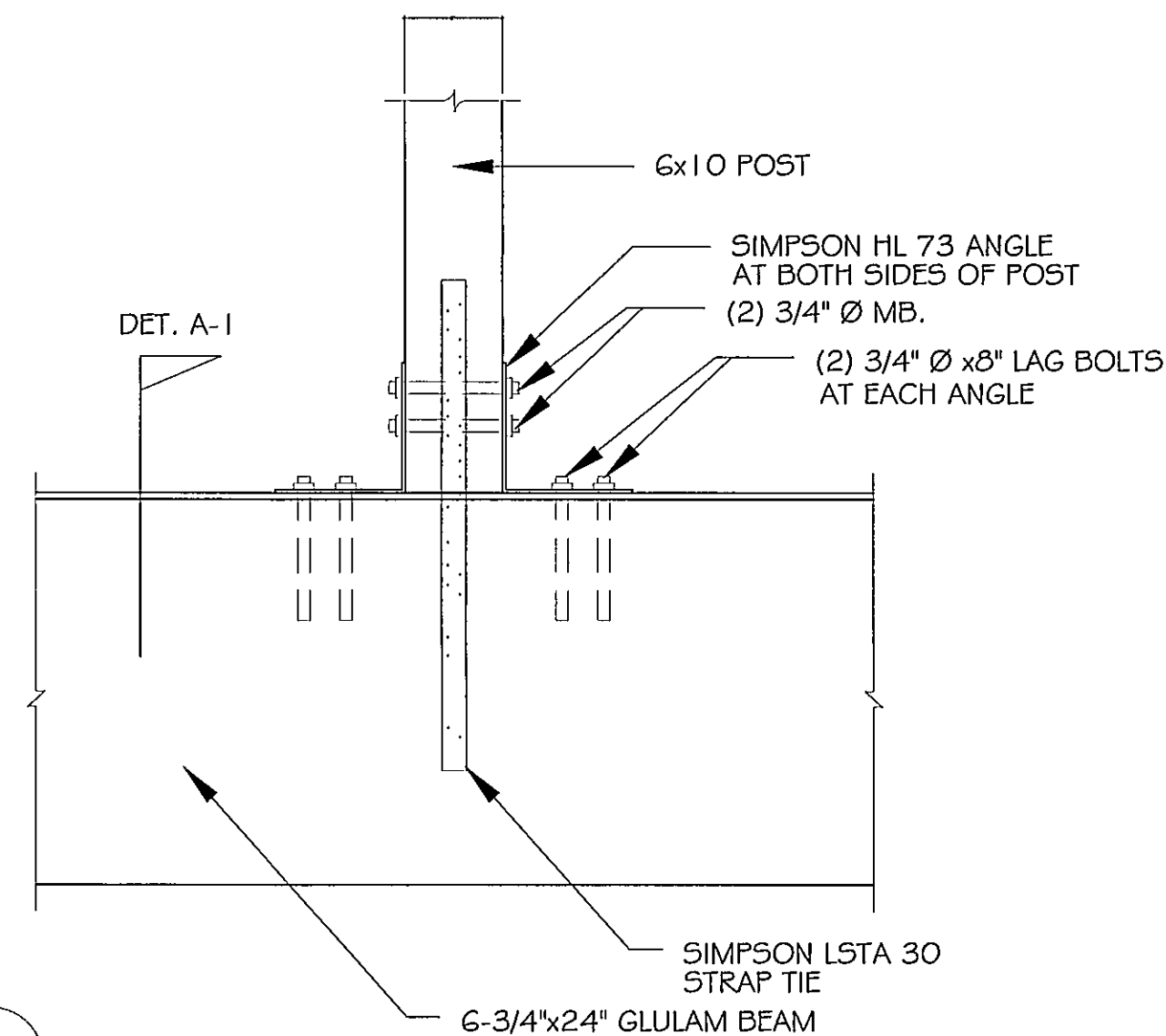
**SECTION B**  
SCALE 1/4" = 1'-0"



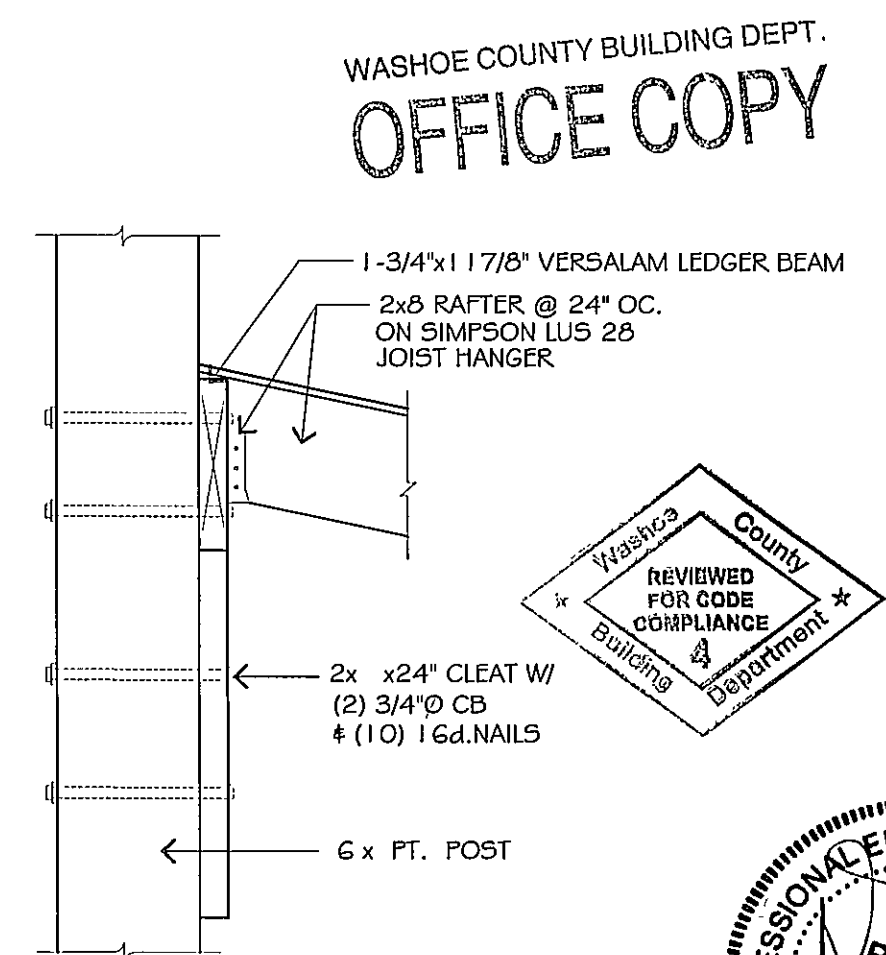
**DETAIL 1.1**  
SHED DORMER RAFTER AT CLERESTORY  
SCALE: 1" = 1'-0"



**A-1 CLERESTORY POST AT BEAM**  
SCALE 1" = 1'-0"

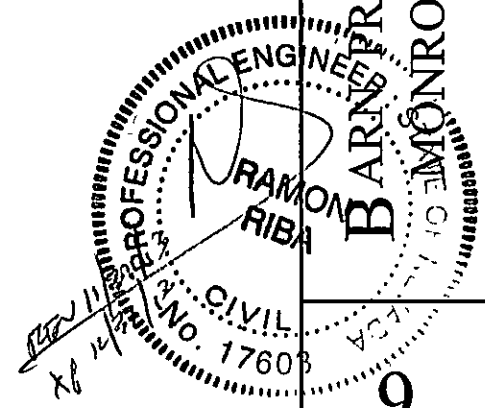
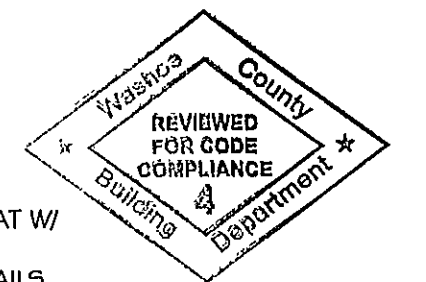


**A-2 CLERESTORY POST AT GLULAM BEAM**  
SCALE 1" = 1'-0"



**DETAIL 4.1**  
SCALE 1" = 1'-0"

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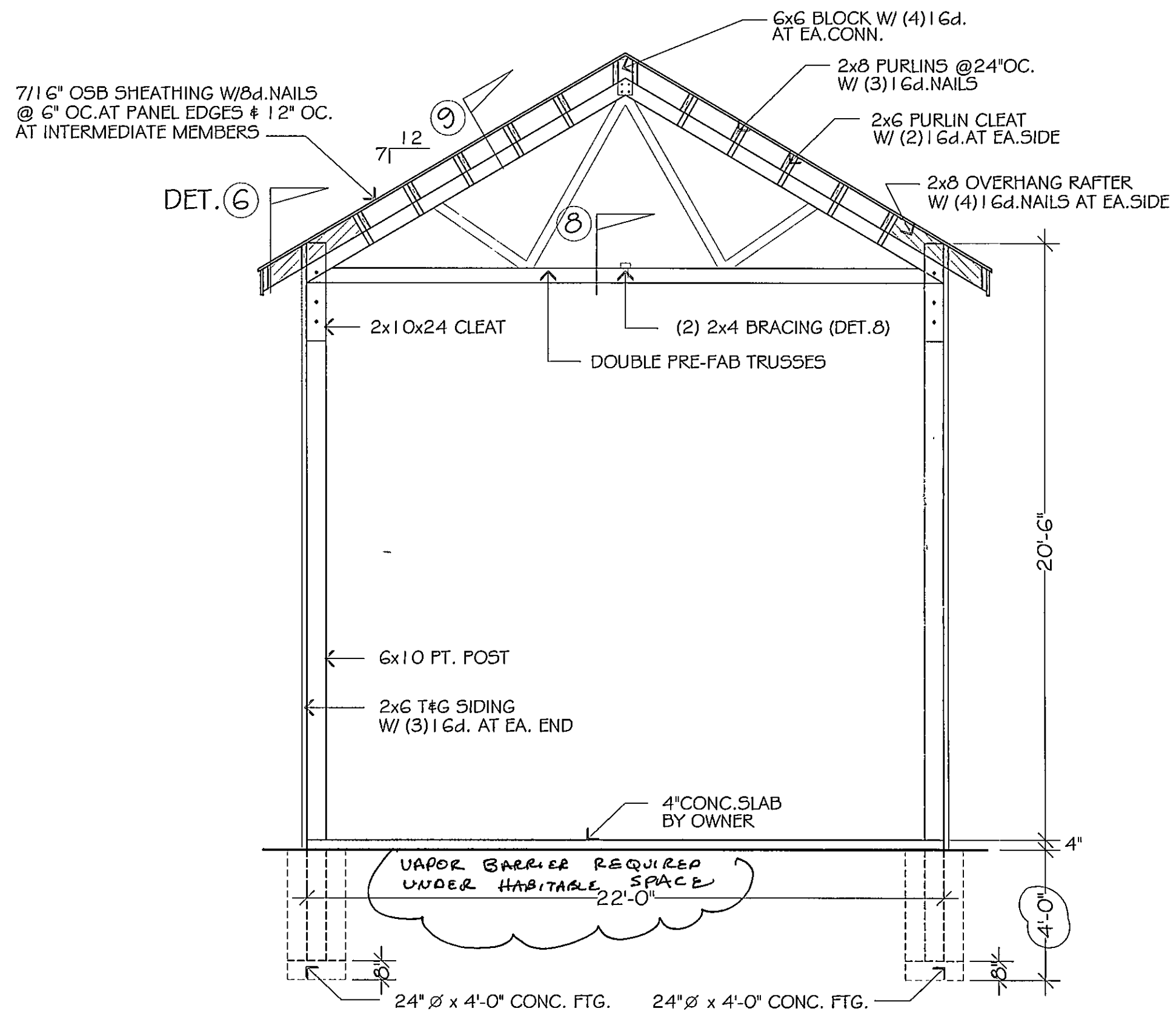


DR. JOE PERI  
RENO, NV

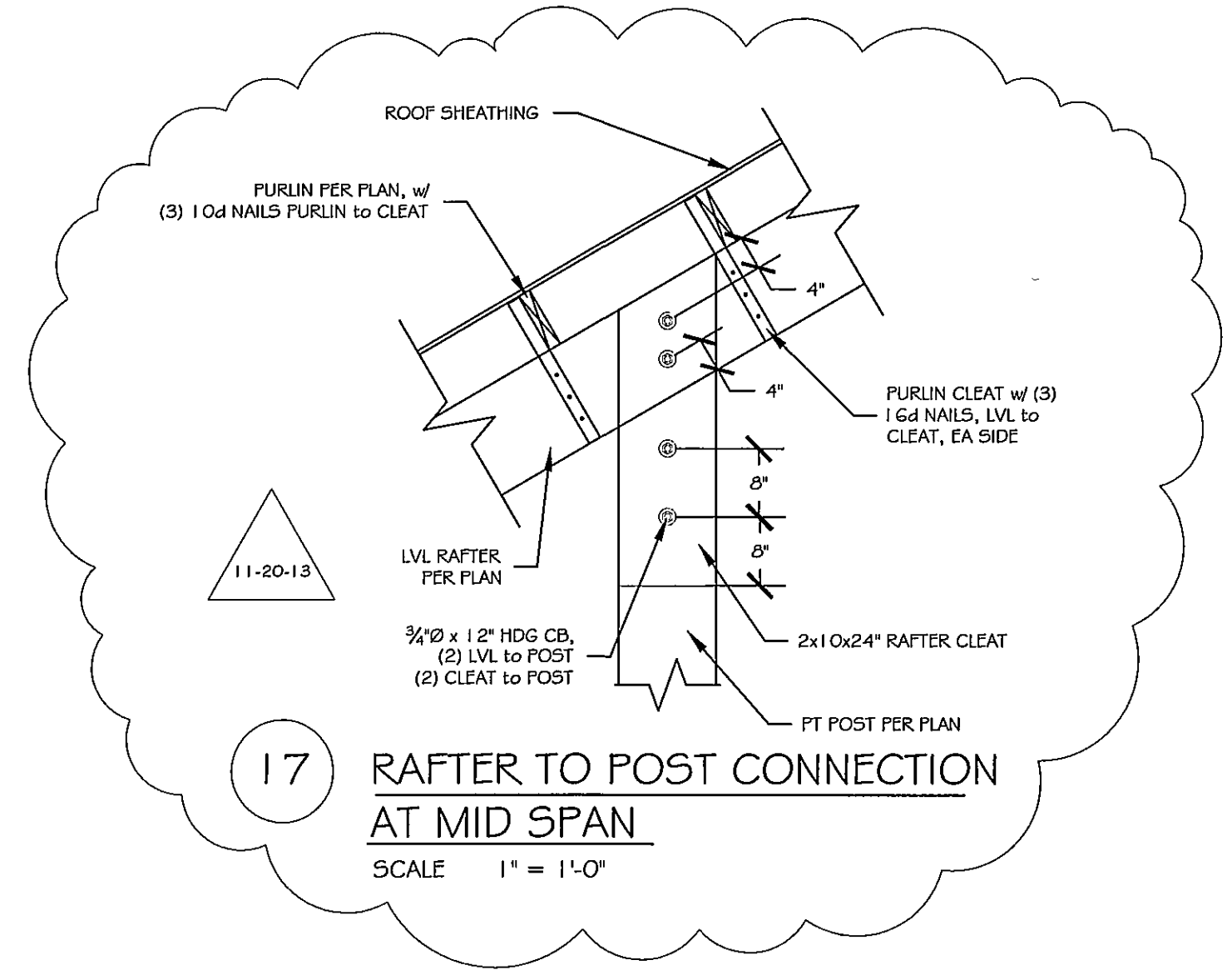
DENALI 48-C &  
COACHMAN

BARNETT PROS. INC.  
10 MONROE, WA

9



SECTION C  
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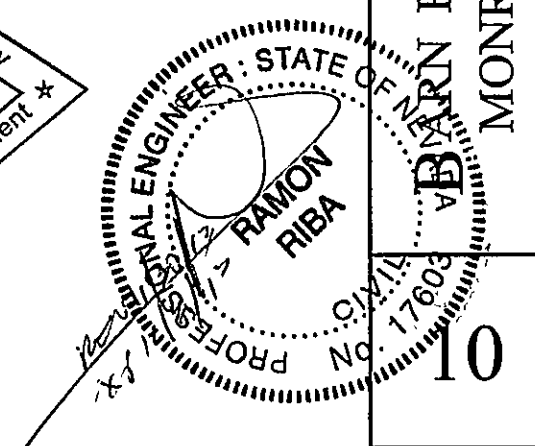
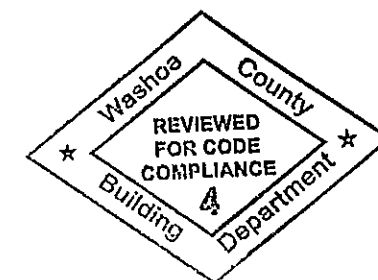


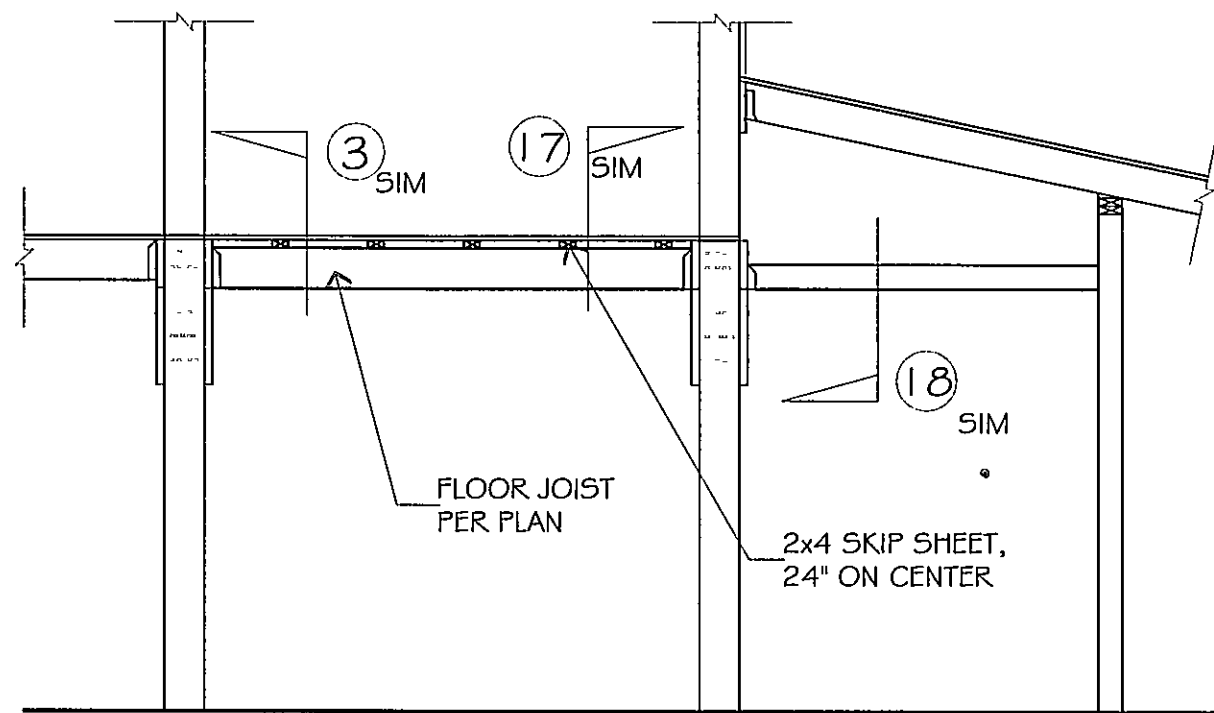
DR. JOE PERI  
RENO, NV

DENALI 48-C &  
COACHMAN

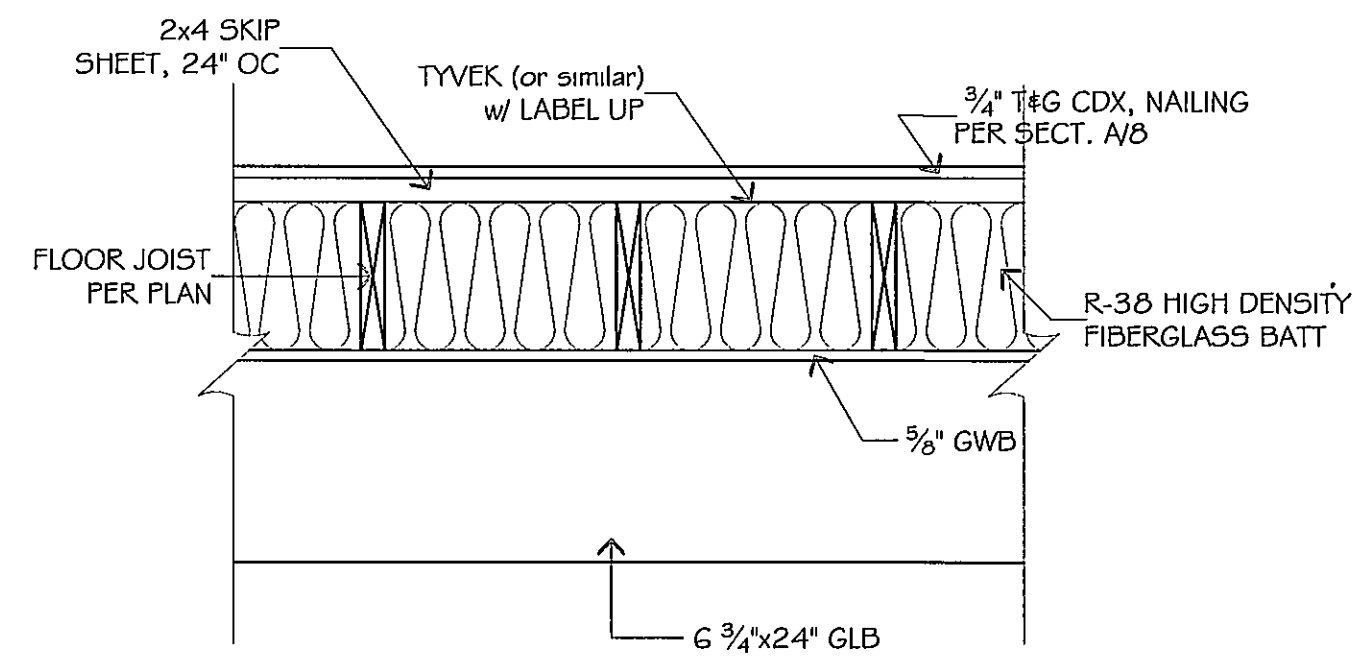
BARN PROS INC.  
MONROE, WA

WASHOE COUNTY BUILDING DEPT.  
OFFICE COPY

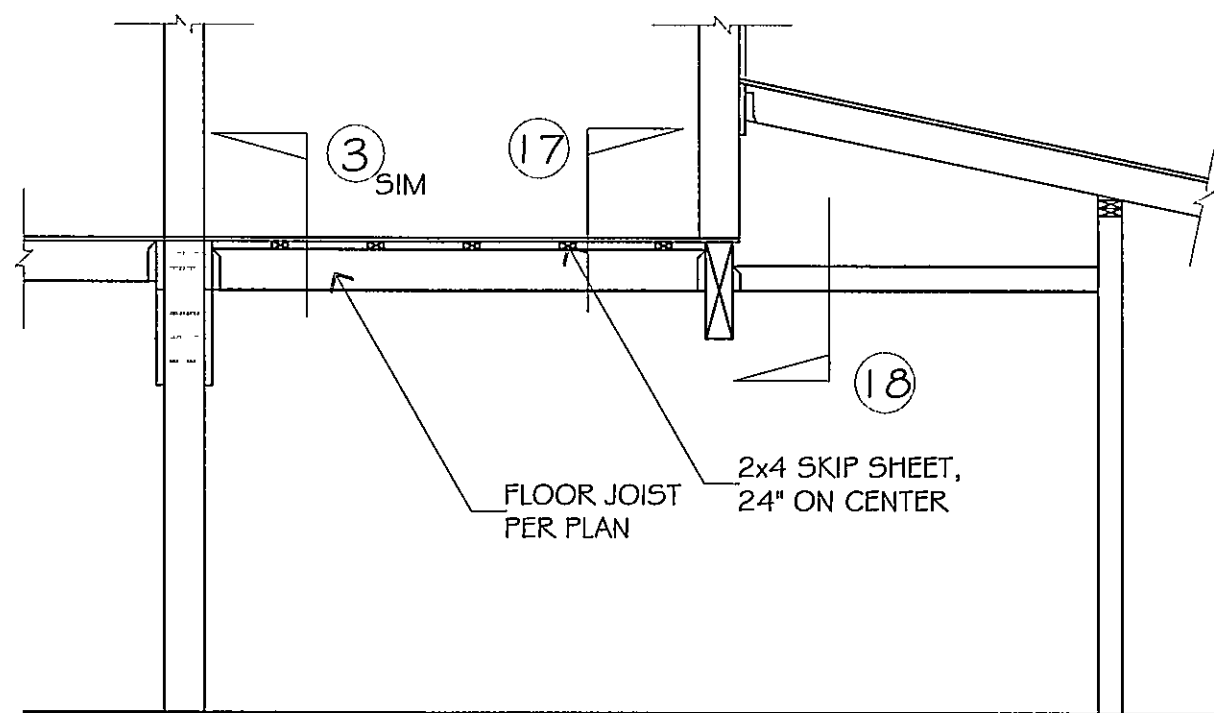




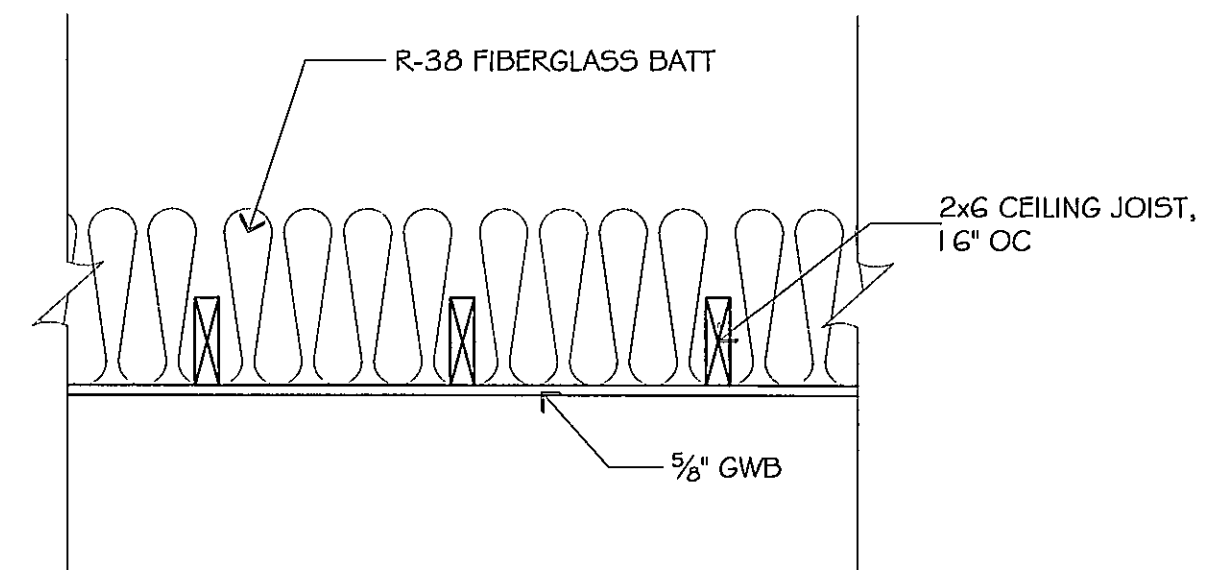
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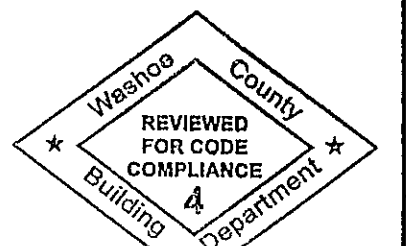
DETAIL 17  
SCALE 1" = 1'-0"



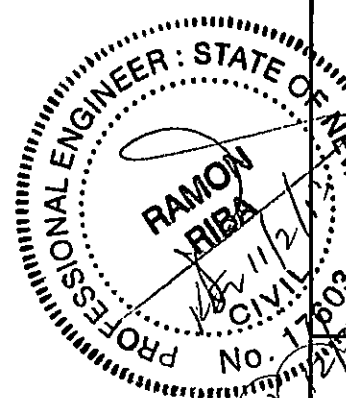
SECTION E  
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DETAIL 18  
SCALE 1" = 1'-0"



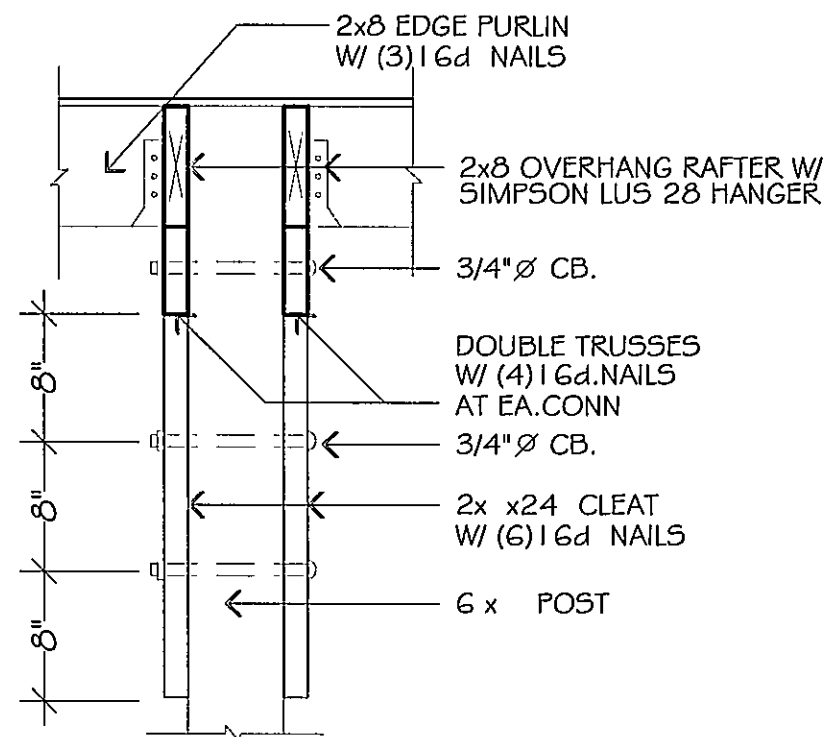
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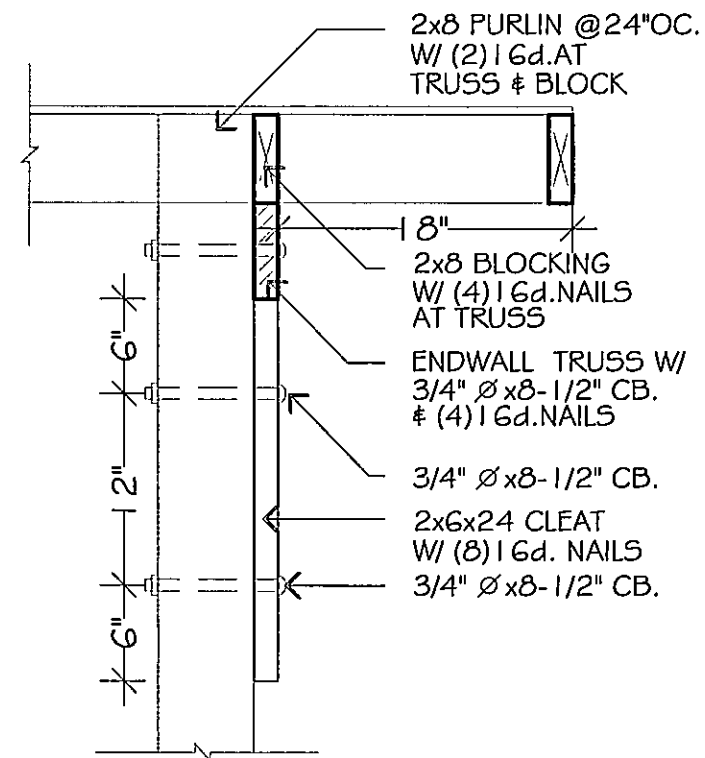
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COACHMAN

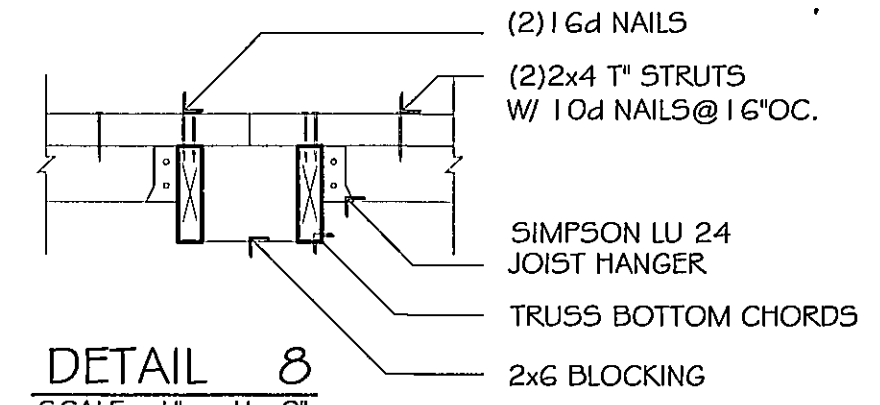
DEAN PROS INC.  
MONROE, WA



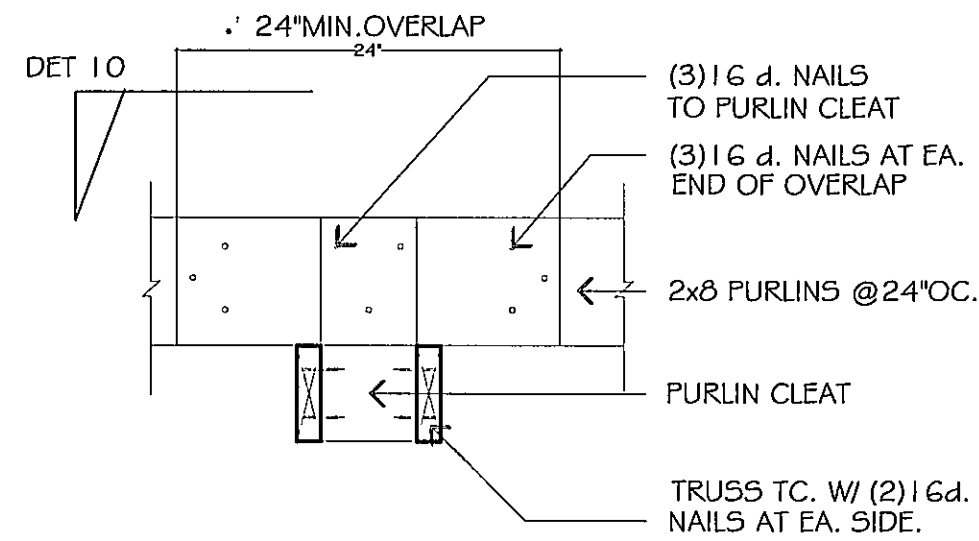
**DETAIL 6**  
SCALE 1" = 1'-0"



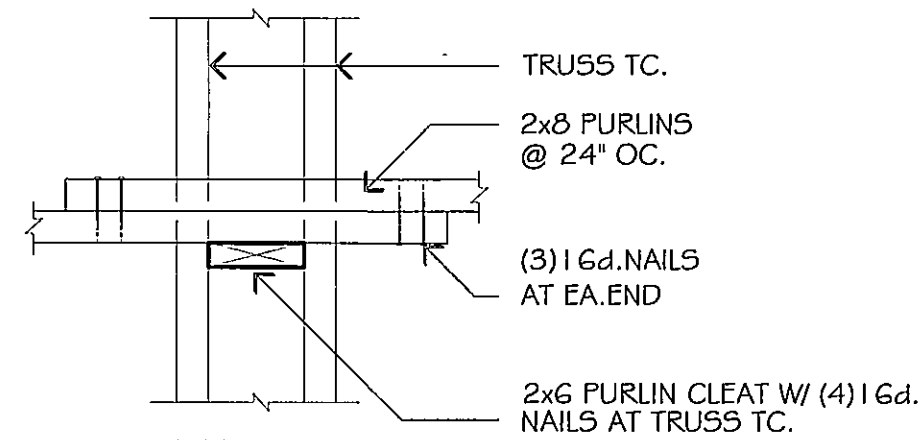
**DETAIL 7**  
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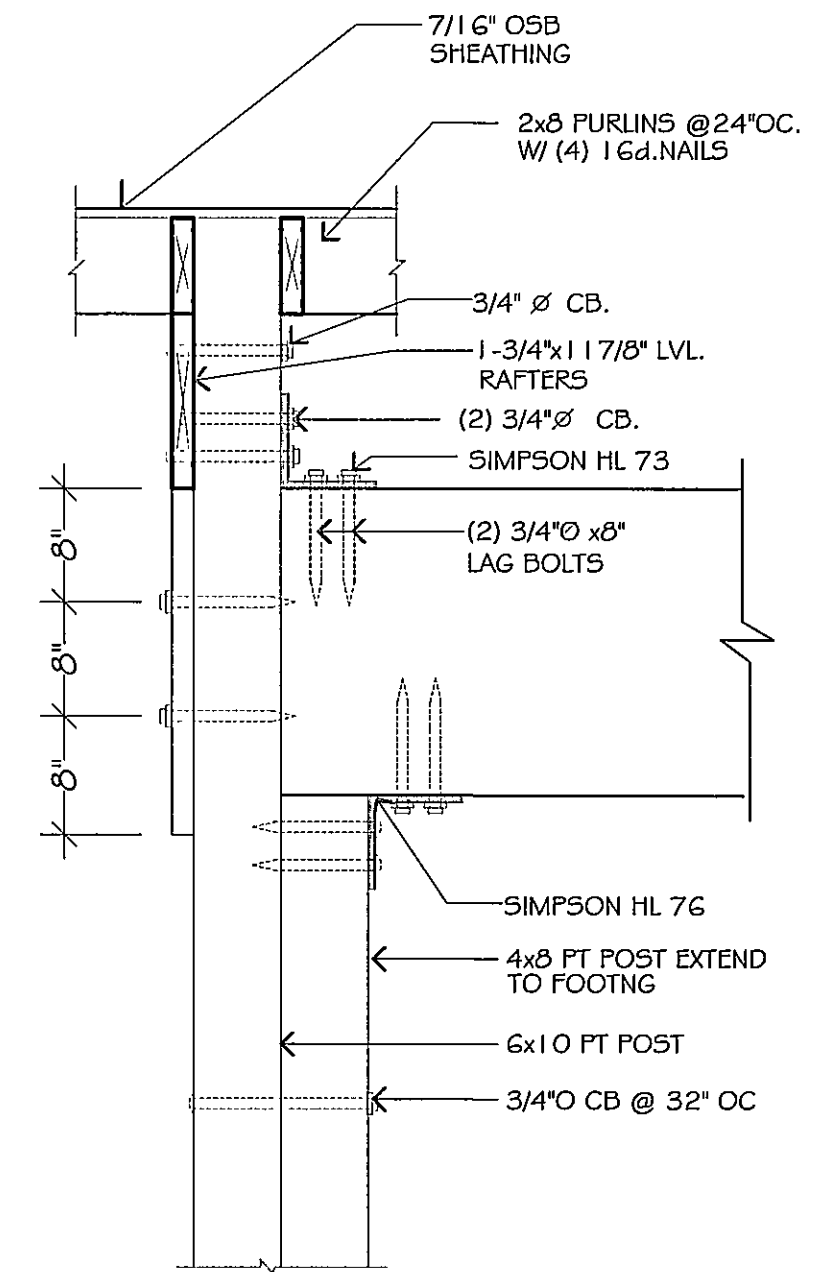
**DETAIL 8**  
SCALE 1" = 1'-0"



**DETAIL 9**  
SCALE 1" = 1'-0"  
(PURLIN OVERLAP @ TRUSSES)

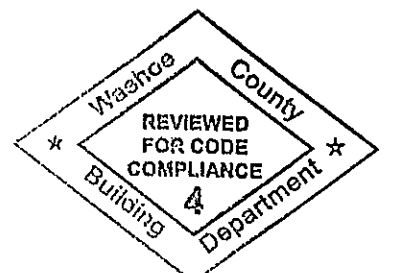


**DETAIL 10**  
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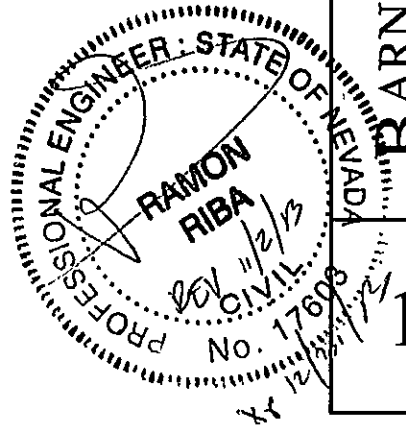


**BEAM AT END WALL POST**

**DETAIL 11**  
SCALE 1" = 1'-0"



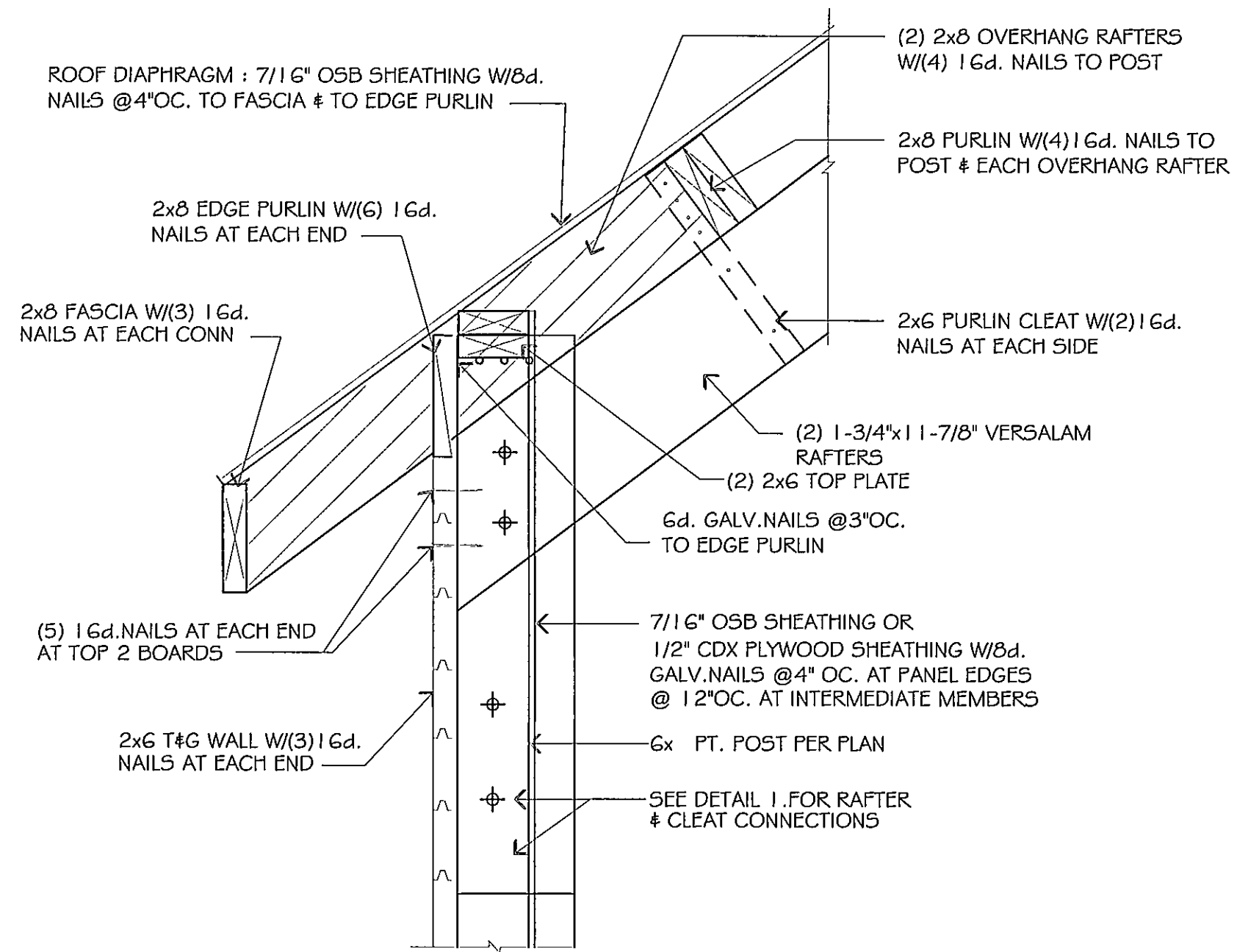
WASHOE COUNTY BUILDING DEPT.  
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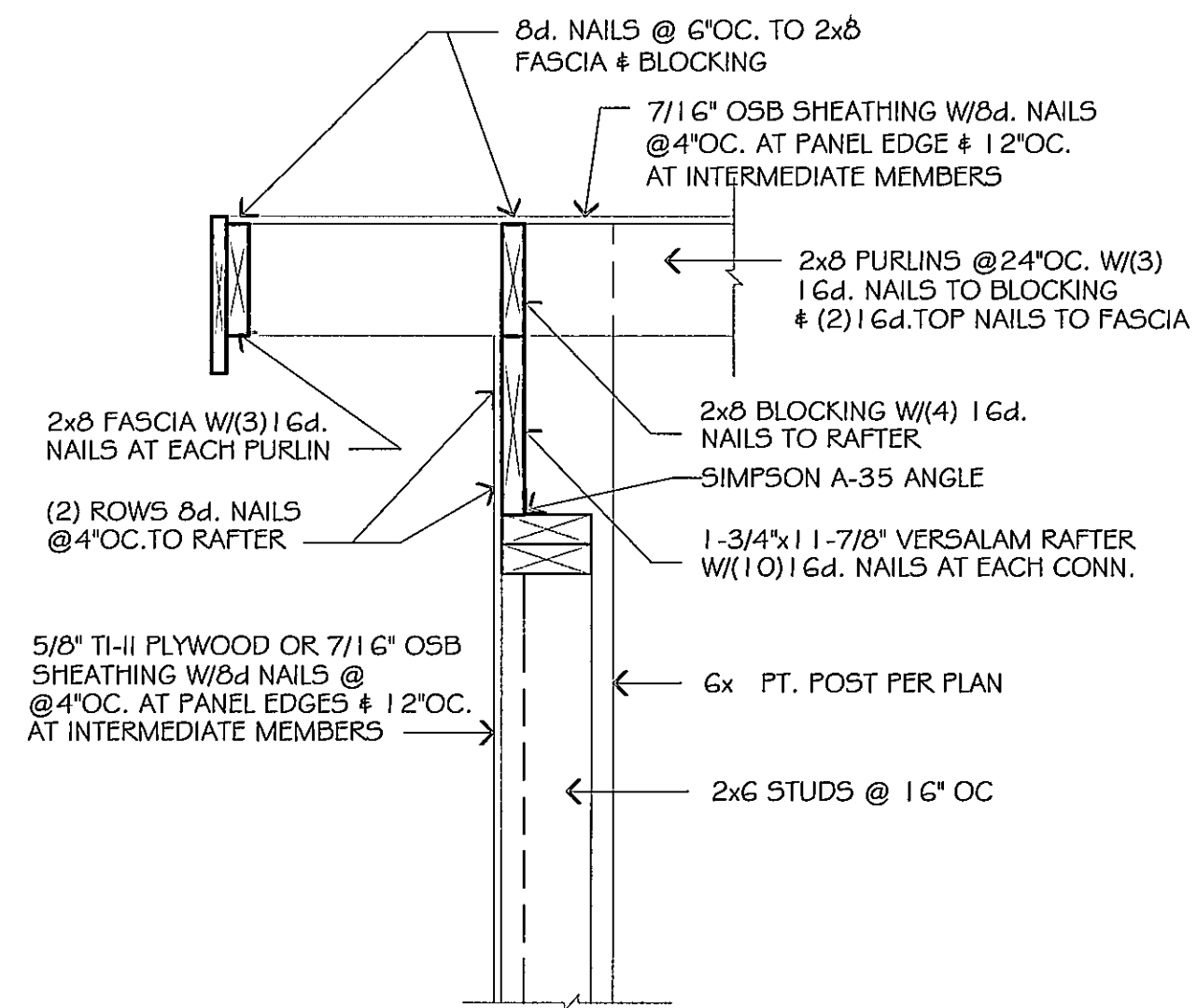
DR. JOE PERI  
RENO, NV

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COACHMAN

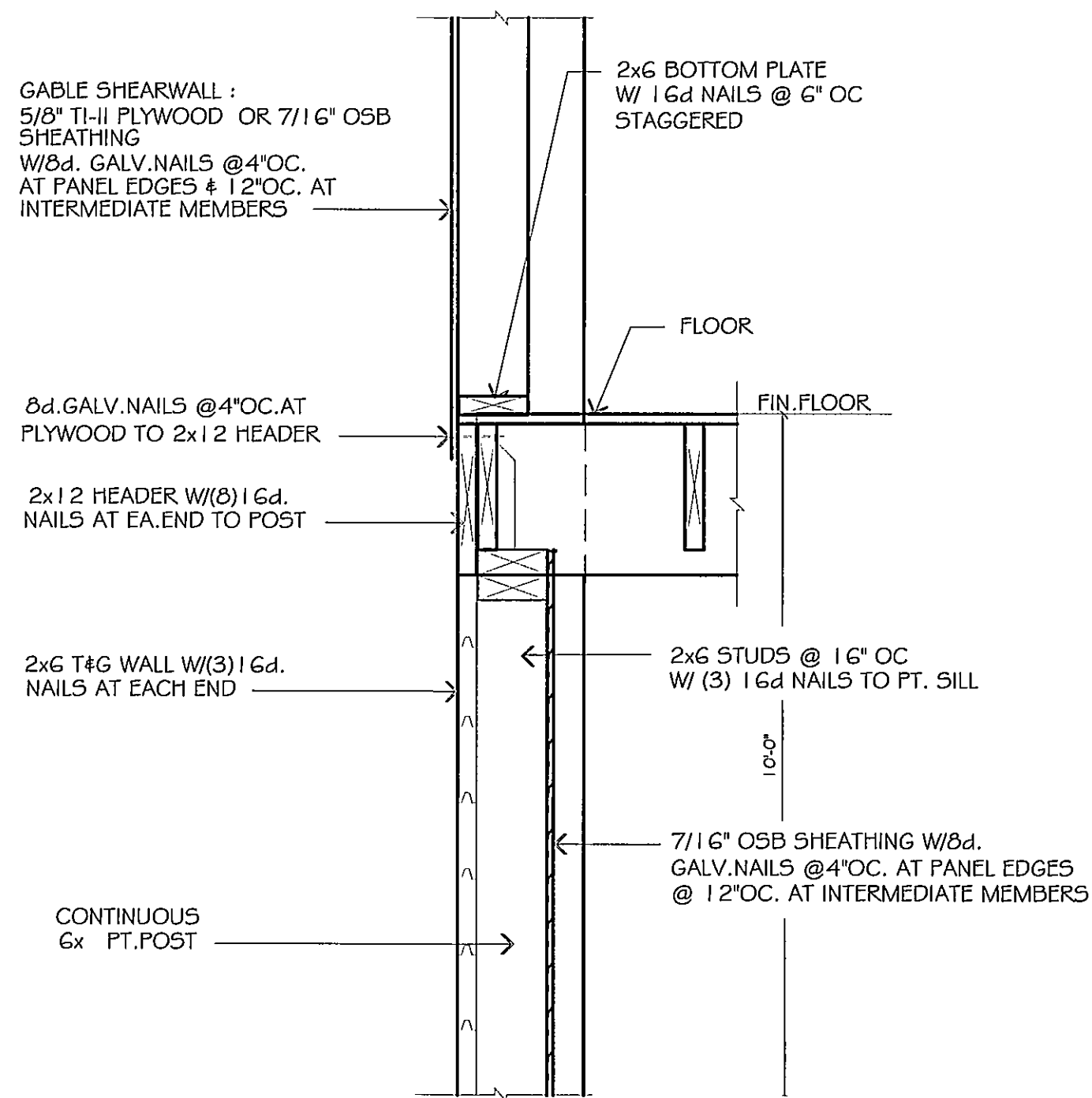
BARN PROS INC.  
MONROE, WA



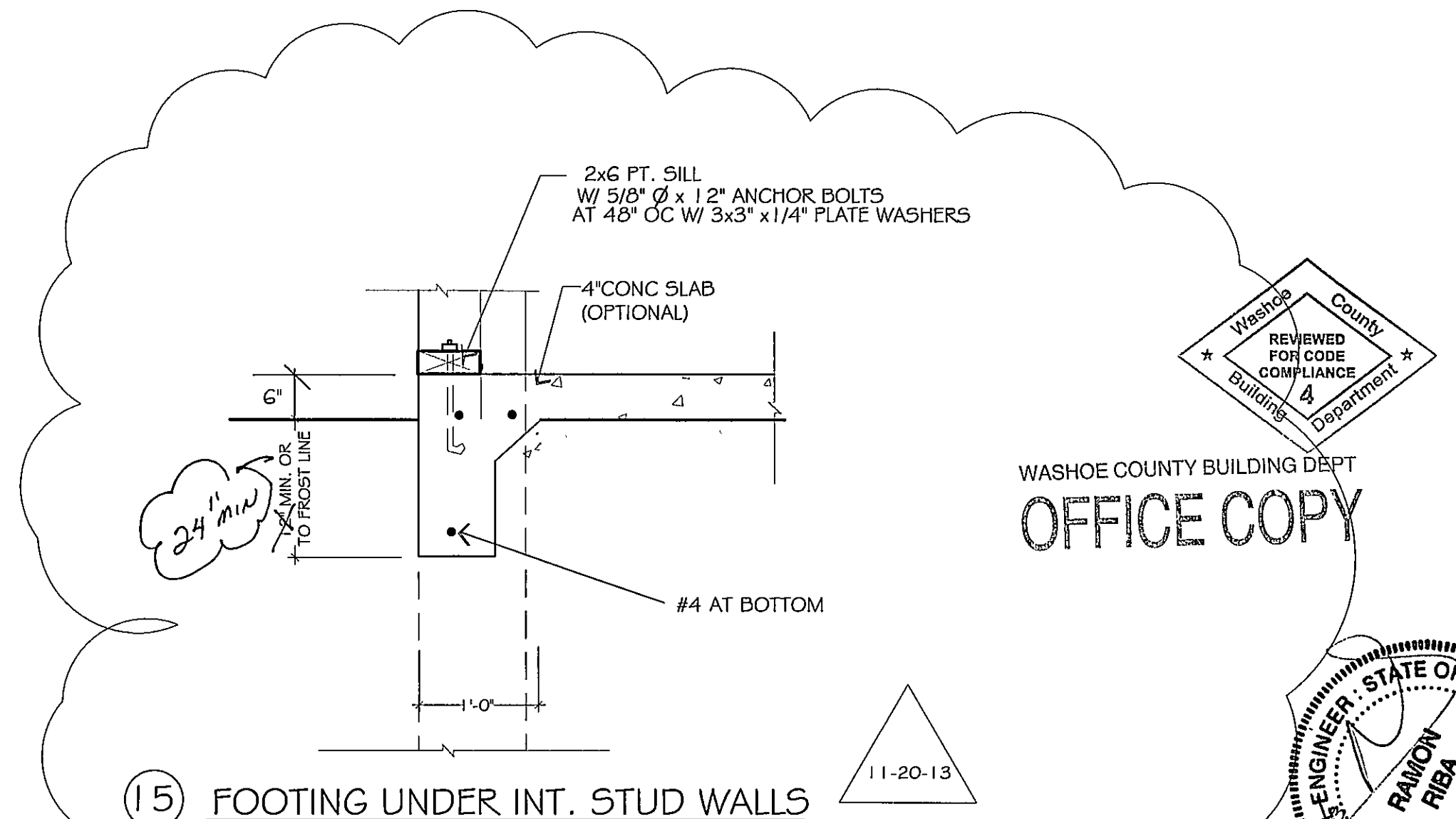
12 ROOF DIAPHRAGM AT SHEAR WALL AT SIDEWALL  
SCALE 1"=1'-0"



13 ROOF DIAPHRAGM AT GABLE SHEARWALL  
SCALE 1"=1'-0"



14 GABLE SHEARWALL AT MAIN FLOOR SHEARWALL  
SCALE 1"=1'-0"



15 FOOTING UNDER INT. STUD WALLS FOR FW-1, FW-2  
SCALE 1"=1'-0"

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BARREN PROS INC.  
MONROE, WA

NOTE

1. DESIGN LOADS:  
 ROOF SNOW = 30 PSF  
 LOFT LL = 65 PSF  
 WIND SPEED (EXP C) = 105 MPH  
 SOIL BEARING PRESSURE = 2000 PSF  
 SEISMIC DESIGN CATEGORY D
2. LUMBERS:  
 6 X POST :HEM-FIR # 2  
 4 X 6 POST :HEM-FIR # 2  
 PURLINS & GIRTS :HEM-FIR # 2  
 RAFTERS :VERSALAM LVL.
3. TREATED LUMBER: ALL LUMBER WITH GROUND CONTACT SHALL BE PRESSURE TREATED  
 POST : .60 PCF RETENTION  
 SKIRTBOARDS : .40 PCF RETENTION
4. CONCRETE : F'c = 2500 PSI @ 28 DAYS.
5. ALL FOOTINGS SHALL BEAR ON UNDISTURBED NATIVE FIRM SOIL WITH MIN. BEARING CAPACITY OF 2000 PSF AND LATERAL BEARING CAPACITY OF 200 PCF. BUILDER TO VERIFY SOIL CONDITION PRIOR TO CONSTRUCTION
6. STALLS ARE OPTIONAL
7. ALL FASTENERS IN CONTACT WITH PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED

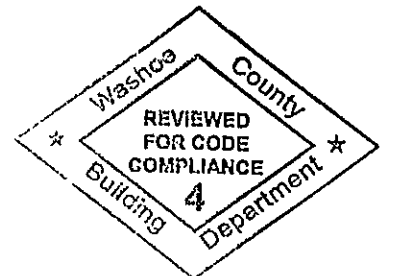
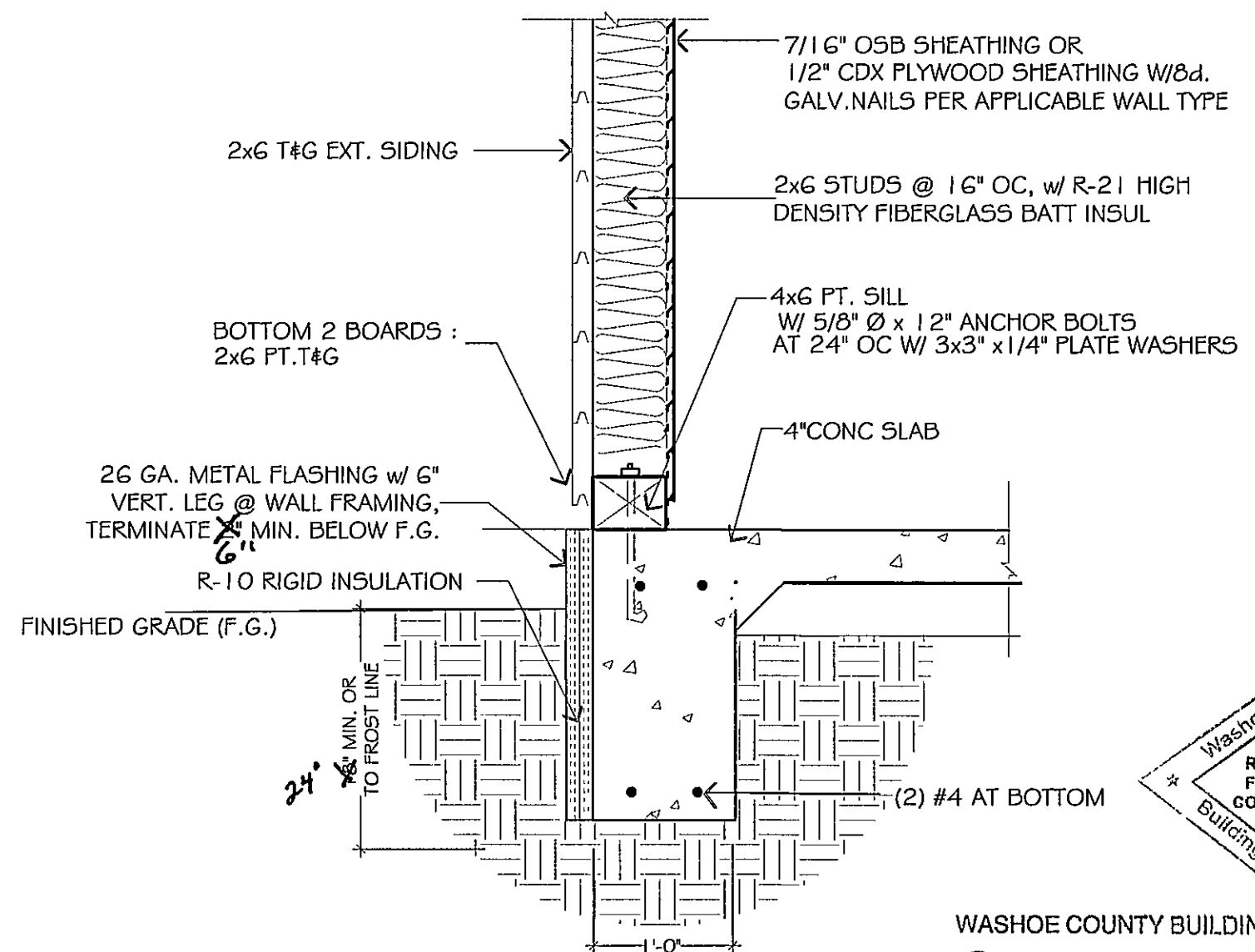
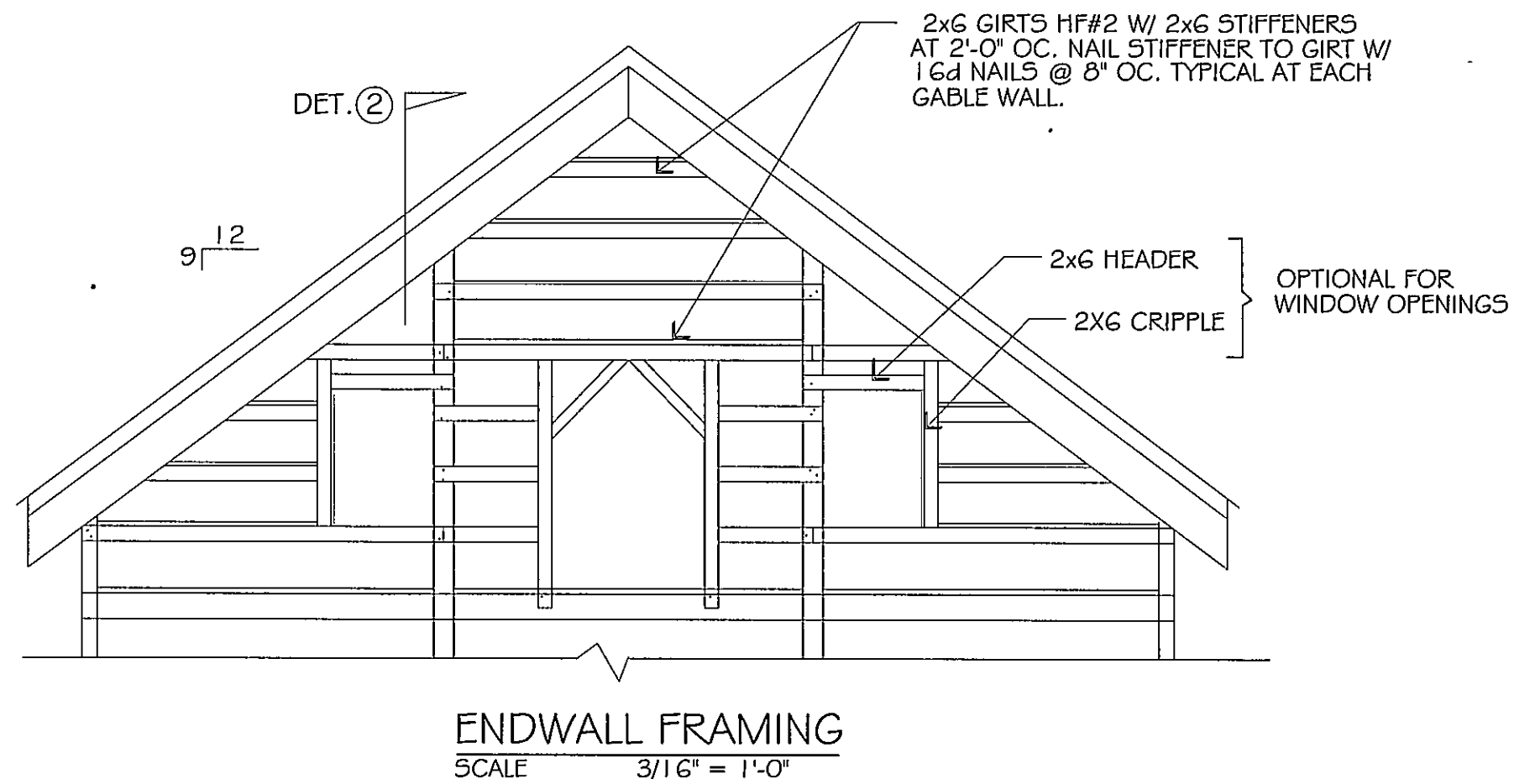
SHEARWALL NOTES:

SHEARWALL P1-4 : 1/2" CDX PLYWOOD OR 7/16" OSB SHEATHING W/ 8d. SINKER NAILS AT 4" OC. AT PANEL EDGES AND 12" OC AT INTERMEDIATE MEMBERS

PLATE NAILING: 2x6 BOTTOM PLATE W/ 16d NAILS AT 6" OC STAGGERED

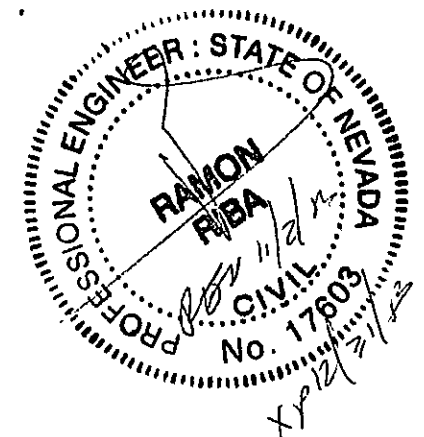
SHEARWALL P1-3 : 1/2" CDX PLYWOOD OR 7/16" OSB SHEATHING W/ 8d. SINKER NAILS AT 3" OC. AT PANEL EDGES AND 12" OC AT INTERMEDIATE MEMBERS

SILL PLATE: 4x6 PT. SILL PLATE W/ 5/8" X 12" ANCHOR BOLTS AT 24" OC W/ 3"x3"x 1/4" PLATE WASHERS



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16 PERIMETER INSULATION  
SCALE 1" = 1'-0"



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DENALI 48-C & COACHMAN
BARN PROS INC. MONROE, WA
13

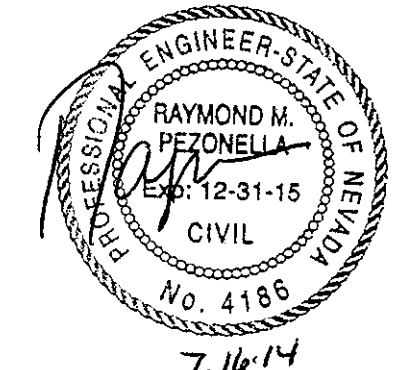


SCALE: 1" = 40'-0"

13-0136

WATER LINE TO BARN WELL IS NOW EXISTING	Nov. 09, 2012
PER WCOHD COMMENTS	Mar. 19, 2013
SWITCHED PRIMARY AND REPAIR SYSTEM LOCATIONS PER OWNER	Nov. 01, 2013
PER WCOHD COMMENTS	Nov. 19, 2013
REVISED SHEET PER OWNER'S REQUEST	July 14, 2014

PERI RESIDENCE  
1580 DEL MONTE LANE  
BARN SEWAGE DISPOSAL SYSTEM  
A.P.N. 040-152-25  
WASHOE COUNTY, NEVADA

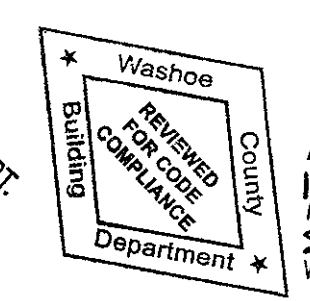


Pezonella Associates, Inc.

Consulting Engineers  
520 Edison Way Reno, Nevada 89502  
PHONE (775) 856-5566 FAX (775) 856-6042

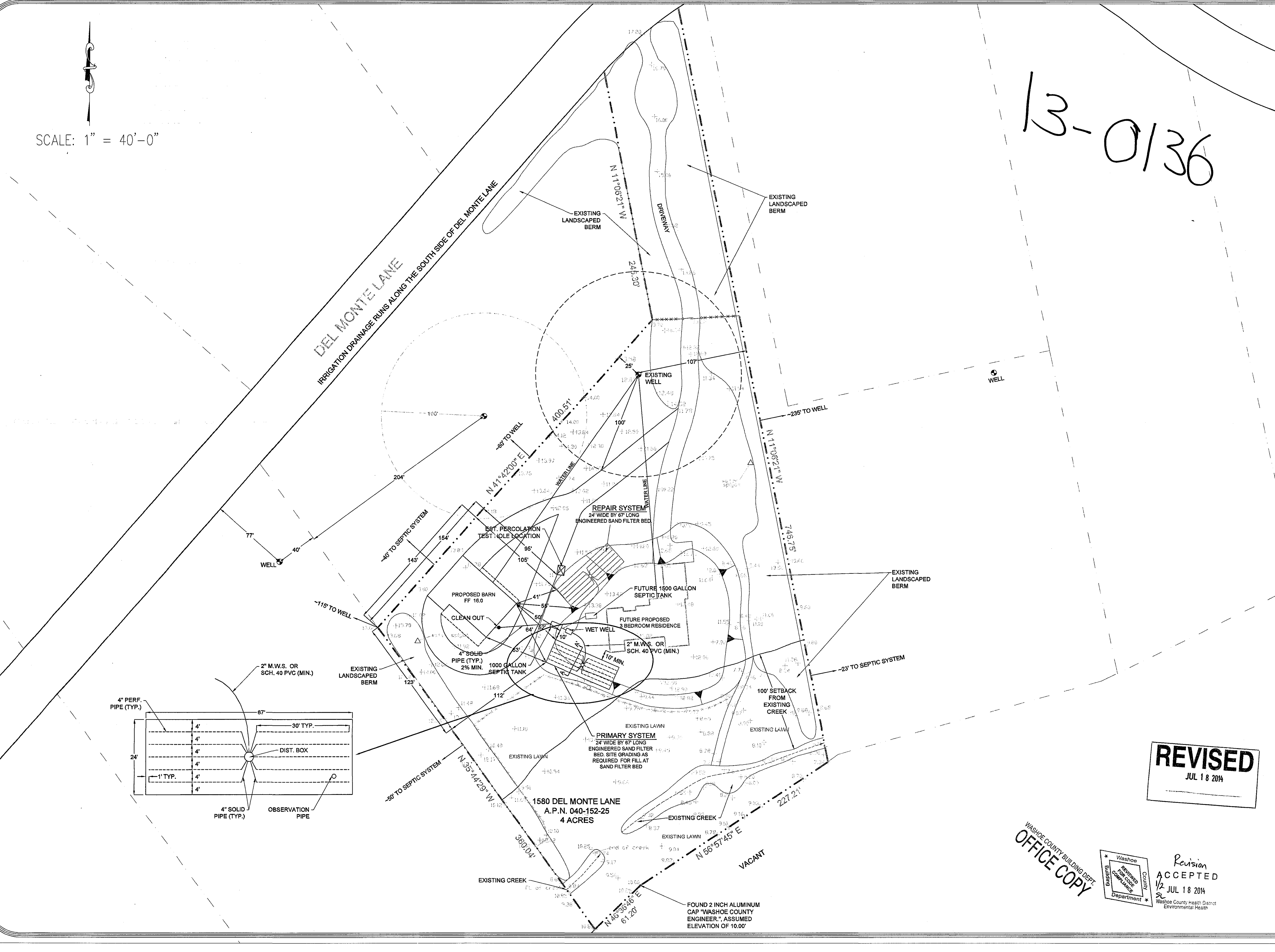
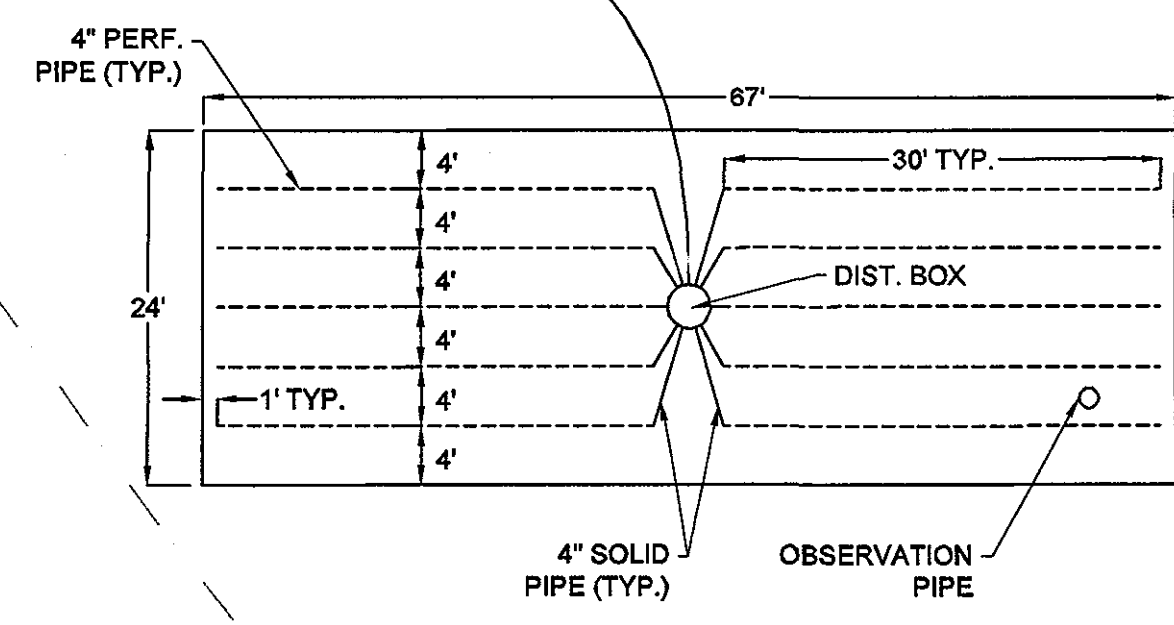
**REVISED**  
JUL 18 2014

WASHOE COUNTY BUILDING DEPT.  
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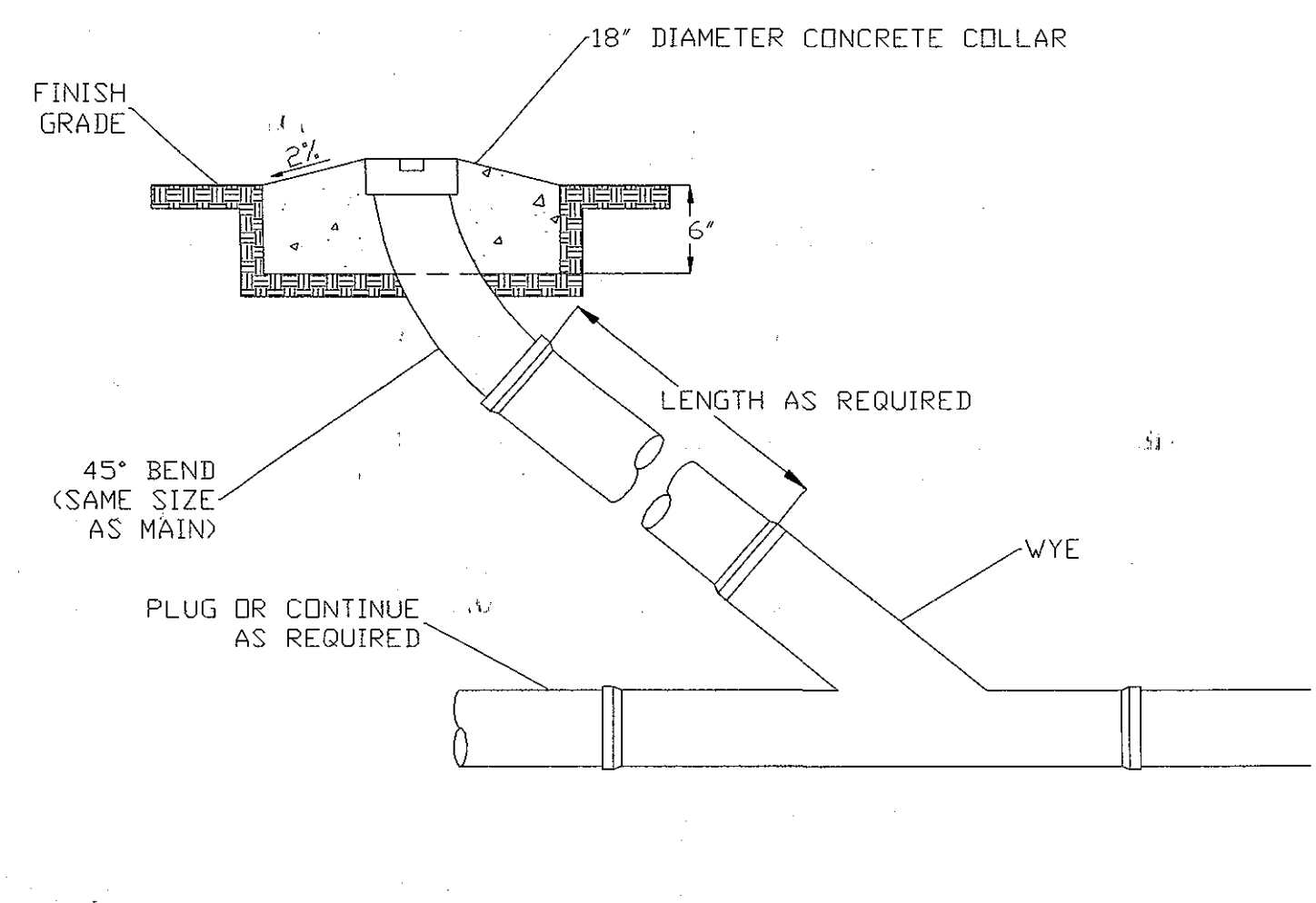


Revision  
ACCEPTED  
1/2 JUL 18 2014  
Washoe County Health District  
Environmental Health

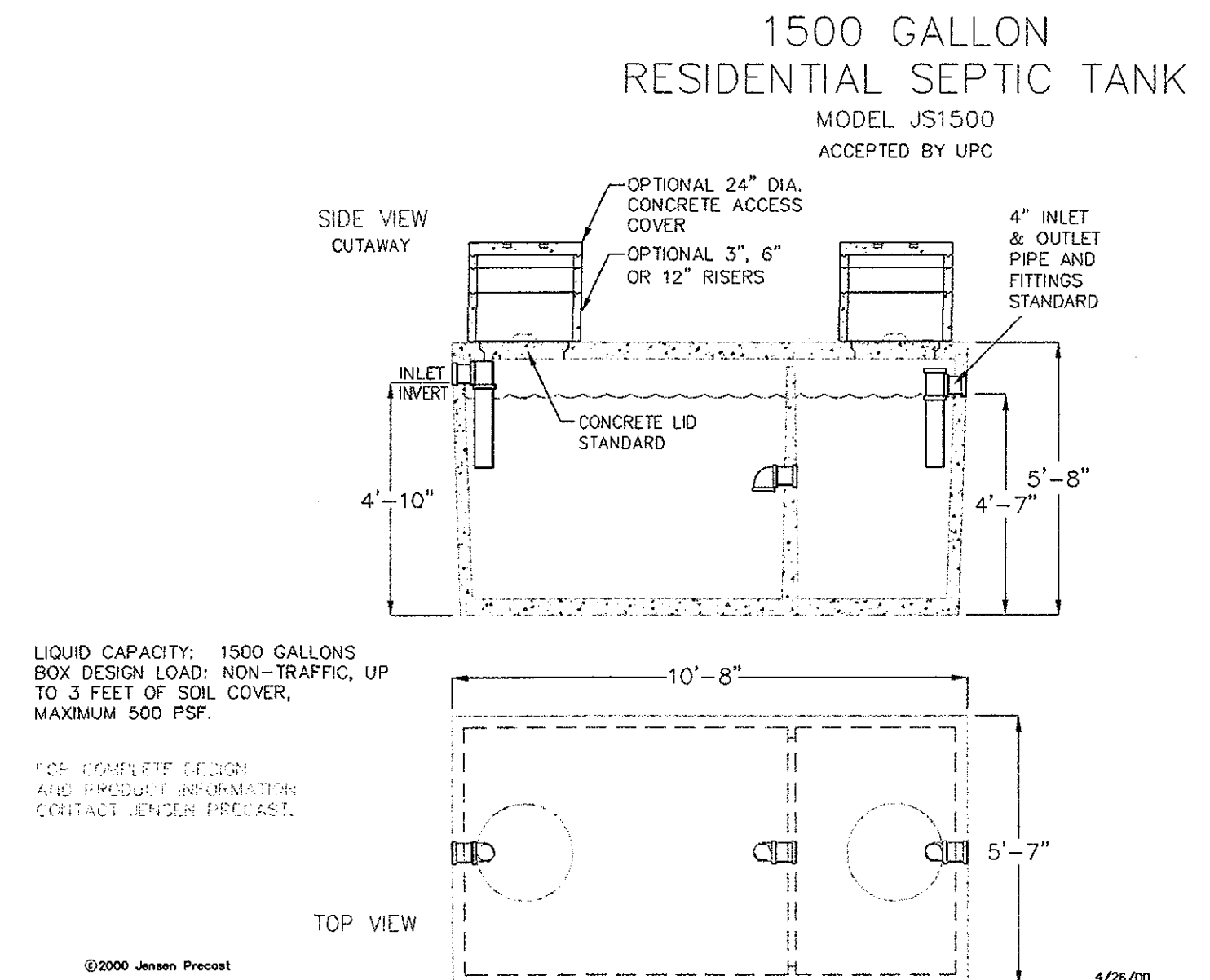
Drawn by	KLM/BEL	Sheet	2
Job No.	6293.01-B	Date	NOV. 1, 2012
Scale	1" = 40'		



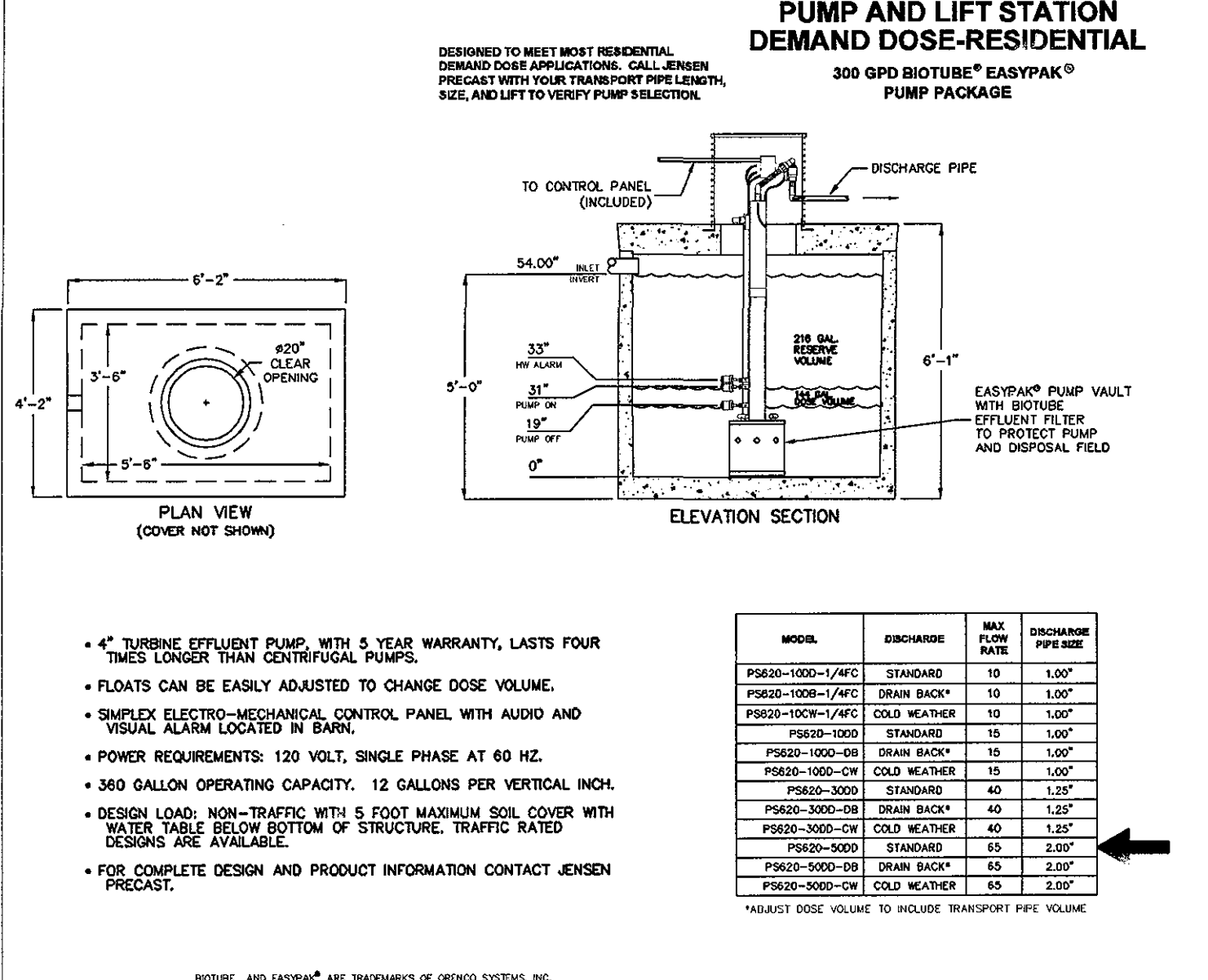
FOUND 2 INCH ALUMINUM CAP "WASHOE COUNTY ENGINEER," ASSUMED ELEVATION OF 10.00'



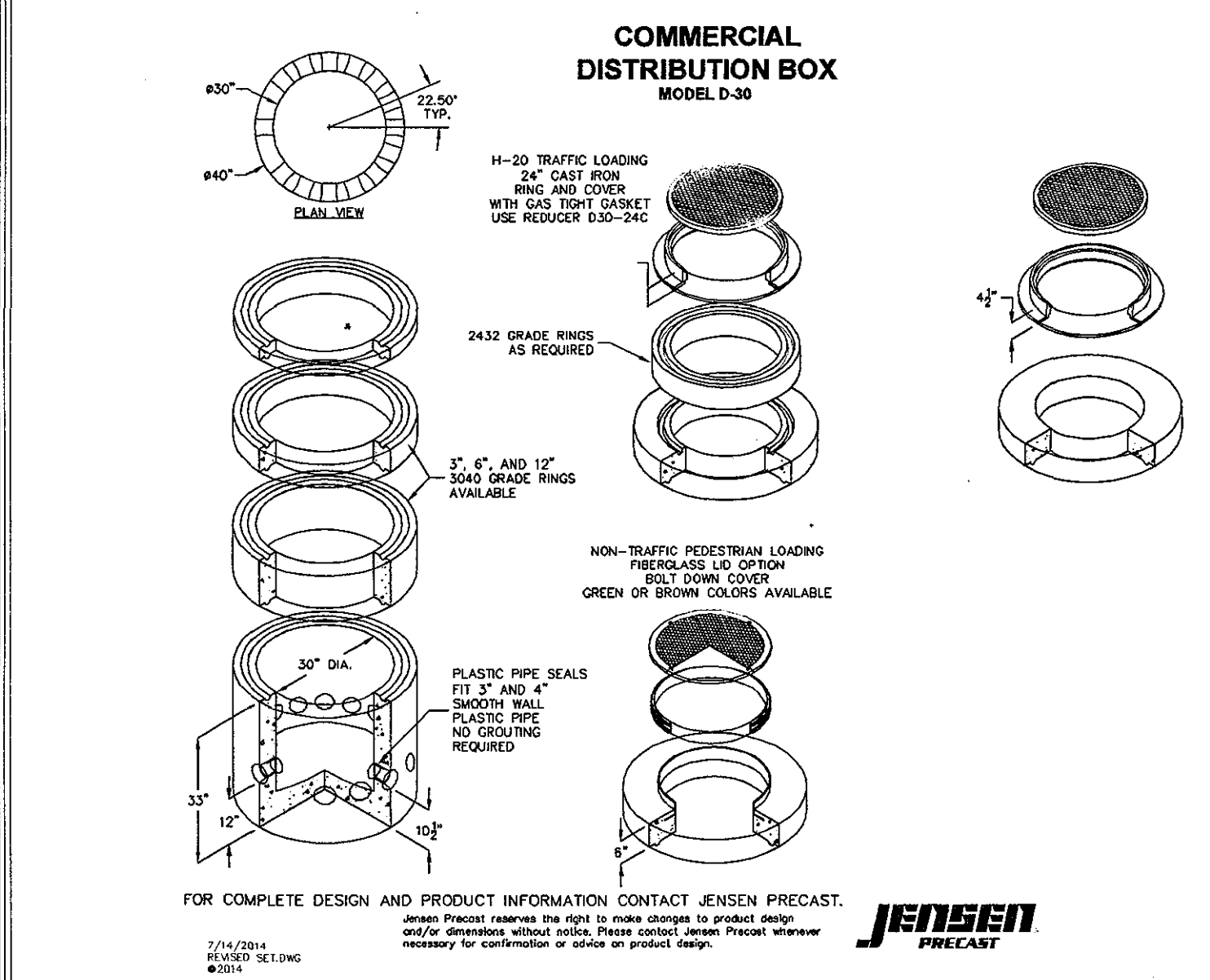
**CLEAN OUT**



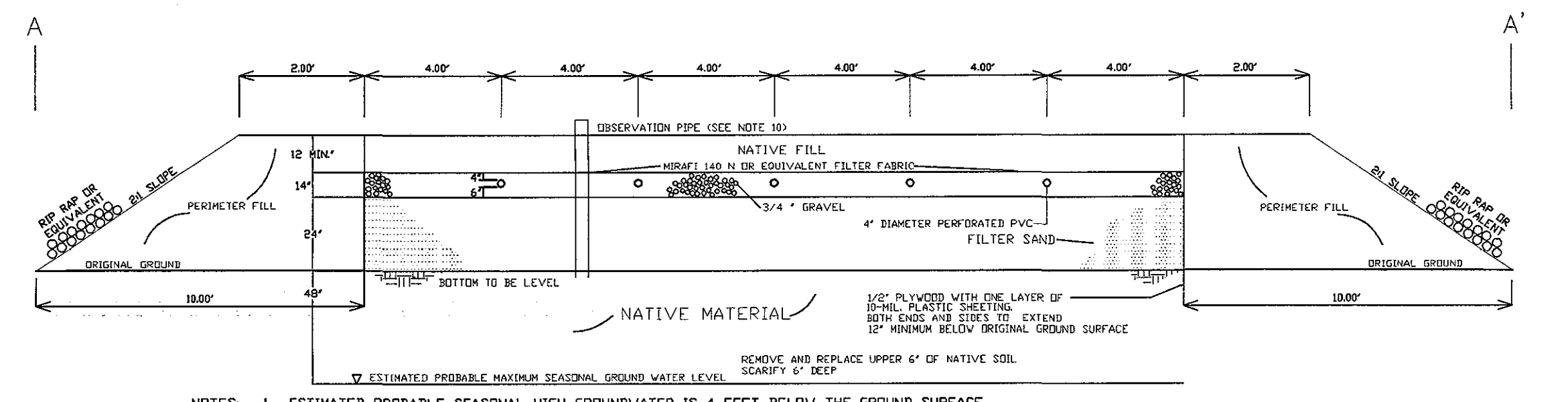
**1500 GALLON SEPTIC TANK  
PHASE 2- FUTURE RESIDENCE**



**WET WELL**



**DISTRIBUTION BOX**



- NOTES:**
- ESTIMATED PROBABLE SEASONAL HIGH GROUNDWATER IS 4 FEET BELOW THE GROUND SURFACE.
  - CLEAN/WASHED GRAVEL IS IMPERATIVE IN THE GRAVEL LAYER OVERLYING THE FILTER SAND. GRAVEL WITH FINE-GRAINED MATERIAL ("DIRTY" GRAVEL) CAN CLOG THE SAND FILTER AND WILL BE REJECTED DURING INSPECTION.
  - USE RIP RAP OR EQUIVALENT TO ARMOR PERIMETER FILL A MINIMUM OF 2' ABOVE EXISTING GROUND SURFACE.
- THE DISPOSAL SYSTEM SHOULD BE CONSTRUCTED IN ACCORDANCE WITH THE GUIDELINES FOR INTERMITTENT SAND FILTERS (SECTION 100.100, WASHOE COUNTY DISTRICT HEALTH DEPARTMENT REGULATIONS GOVERNING SEWAGE, WASTEWATER, AND SANITATION) EFFECTIVE FEBRUARY 27, 1985, AS AMENDED MAY 23, 2013.
  - SEAL SEPTIC TANK AND WET WELL (OR DOSING CHAMBER) AND UTILIZED INTERMITTENT DOSING SYSTEM.
  - AT INLET TO DISPOSAL FIELD, PROVIDE A WATER TIGHT SEAL BETWEEN THE DISTRIBUTION LINES AND IMPERMEABLE MEMBRANE.
  - ENGINEERED FILL TO CONSIST OF MATERIAL, FREE OF ORGANIC MATTER AND DEBRIS, CONFORMING TO THE FOLLOWING GRADATION:
 

SIeve SIZE	PERCENT PASSING (BY DRY WEIGHT)
4 INCH	100
3/4 INCH	70-100
NO. 200	20-40
- LIQUID LIMIT: 30 MAXIMUM  
PLASTICITY INDEX: 15 MAXIMUM  
(COMPACTED TO 95 PERCENT RELATIVE COMPACTION BASED ON THE ASTM D 1557 TEST PROCEDURE).
- DISTRIBUTION LINES SHOULD BE SLOPED 4 INCHES PER 100 FEET. THE BOTTOM OF THE TRENCH SHOULD BE LEVEL.
  - FILTER SAND SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 100.105, WASHOE COUNTY DISTRICT HEALTH DEPARTMENT REGULATIONS GOVERNING SEWAGE, WASTEWATER, AND SANITATION, AS AMENDED MAY 23, 2013.
  - A REPRESENTATIVE SAMPLE OF THE SAND SHALL BE TESTED BY A RECOGNIZED TESTING FACILITY TO DOCUMENT CONFORMANCE WITH THE GRADATION REQUIREMENTS PRIOR TO HaulING THE MATERIAL ON SITE.
  - PERIMETER FILL SHALL BE MATERIAL NATIVE TO THE AREA OR SIMILAR TO NATIVE SOILS.
  - PERIMETER FILL TO EXTEND AT LEAST 10 FEET BEYOND THE EDGES OF THE BED.
  - INSTALL VERTICAL, 4 INCH DIAMETER OBSERVATION PIPE AT THE MIDPOINT OF THE BED. THE PIPE SHALL BE SLOTTED WITHIN THE GRAVEL AND SAND LAYERS AND EXTEND AT LEAST 6 INCHES ABOVE THE SURFACE OF THE BED AND TO A DEPTH OF 6 INCHES BELOW THE ORIGINAL GROUND SURFACE. A 1/8 INCH DIAMETER HOLE SHALL BE DRILLED IN THE 6 INCH PORTION OF THE PIPE WHICH PROTRUDES ABOVE THE SURFACE. PROVIDE A TIGHT FITTING, REMOVABLE PIPE CAP.
  - TO MAINTAIN 2' SEPARATION FROM MAXIMUM SEASONAL HIGH GROUNDWATER LEVEL, PLACE THE BOTTOM OF THE DISPOSAL SYSTEM ON THE EXISTING GROUND SURFACE.

**CROSS-SECTION A-A' SAND FILTER DETAIL**

PERCOLATION TESTING FOR THIS PROPERTY WAS CONDUCTED BY NORTECH. PERCOLATION RATES FOR THE TESTING WERE 6 AND 28 MINUTES PER INCH (MPI). PERCOLATION TEST LOGS FOR THESE TESTS ARE ON FILE AT THE WASHOE COUNTY DISTRICT HEALTH DEPARTMENT (WCDHD).

BECAUSE THE PERCOLATION RATES FOR THE PROPERTY TO THE EAST AND THE PROPERTY TO THE WEST WERE 90 AND 40 MPI, RESPECTIVELY, PEZONELLA ASSOCIATES INC. SET THE DESIGN PERCOLATION RATE FOR THE SUBJECT PROPERTY AT 90 MPI.

THE PERCOLATION TEST LOGS SHOW GROUNDWATER AT 5' BELOW THE GROUND SURFACE. BASED ON THIS GROUNDWATER LEVEL AND WCDHD INSPECTION OF THE TEST HOLE, SEASONAL HIGH GROUNDWATER WAS ESTIMATED AT 4' BELOW THE GROUND SURFACE.

**PERCOLATION TEST**

**GIVEN:** Barn with a 1000 gallon per day septic tank. 90 minutes per inch design percolation rate. Engineered Sand Filter Systems (Primary and Repair)

**Future 3 bedroom residence; with a 1500 gallon per day septic tank. 90 minutes per inch design percolation rate. Engineered Sand Filter Systems (Primary and Repair)**

**USE:**  $Q = \frac{5}{\sqrt{t}}$  where Q = rate of application, gallons per day per square foot (gpd/sqft), t = design percolation rate, minutes per inch (mpi)

$Q = \frac{5}{\sqrt{90}} = 0.527 \text{ gpd/sqft}$

**REQUIRED AREA:**  $\frac{1000 \text{ gpd}}{0.527 \text{ gpd/sqft}} = 1,898 \text{ sqft}$   $\frac{1,898 \text{ sqft}}{3} = 633 \text{ sqft}$  (BARN)

**REQUIRED AREA:**  $\frac{1500 \text{ gpd}}{0.527 \text{ gpd/sqft}} = 2,846 \text{ sqft}$   $\frac{2,846 \text{ sqft}}{3} = 949 \text{ sqft}$  (FUTURE RESIDENCE)

**Total = 1,582 sqft.**

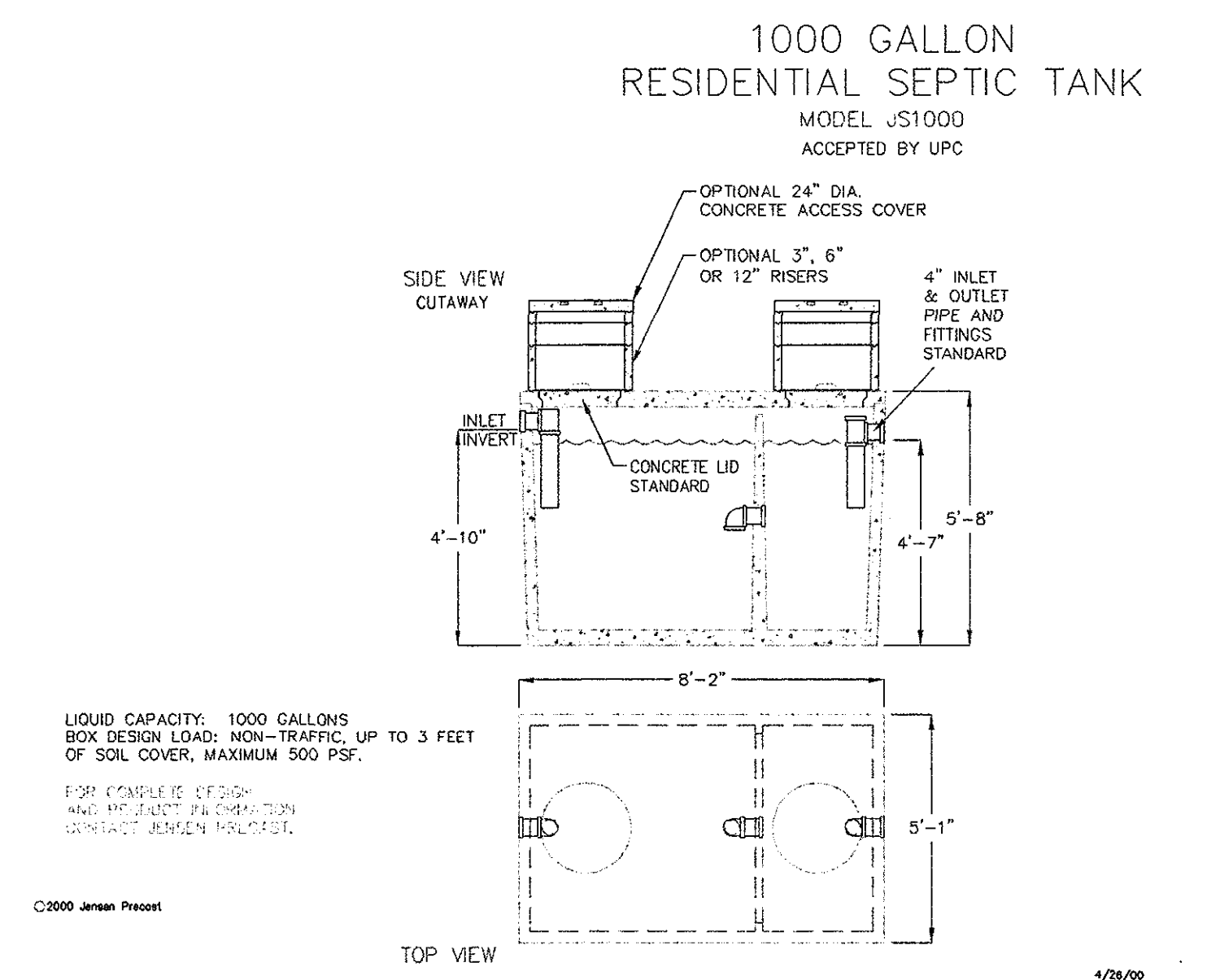
• Per WCDHD Section 100.105(10)

**REQUIRED DIMENSIONS:**  
Primary and Repair Systems: 24 ft. wide by 67 ft. long sand filter bed (1,608 sqft)

**CALCULATIONS**

- PIPING BETWEEN THE HOUSE AND SEPTIC TANK, AND SEPTIC TANK AND WET WELL SHALL HAVE A MINIMUM OF 2% SLOPE.
- NO COMMUNITY SEWER AVAILABLE WITHIN 400' OF THE PROPERTY.
- DESIGN PERCOLATION RATE IS 90 MINUTES PER INCH.
- BASED ON COMMUNITY PARCEL NO. 32031C3233G, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, DATED MARCH 16, 2009, THE ENTIRE PROPERTY IS LOCATED IN ZONE X SHADED. THIS FLOOD ZONE CONTAINS AREAS OF 0.2% ANNUAL CHANCE FLOOD AND/OR AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1' FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE.
- A CREEK IS LOCATED AT THE SOUTH END OF THE PROPERTY, AND IRRIGATION DRAINAGE IS LOCATED ALONG THE SOUTH SIDE OF DEL MONTE LANE AT THE NORTH END OF THE PROPERTY; THESE FEATURES ARE DEPICTED ON THE PLOT PLAN. THERE ARE NO OTHER WATERCOURSES OR NATURAL DRAINAGE CHANNELS WITHIN 100' OF THE PROPERTY.
- NO PUBLIC WELL WITHIN 200' OF THE PROPERTY.
- DRAINAGE AROUND RESIDENCE SHALL COMPLY WITH APPLICABLE BUILDING CODES.
- SEPTIC SYSTEM MAINTENANCE IS RECOMMENDED. VISIT THE EPA WEBSITE AT <http://cfpub.epa.gov/owm/septic/homeowners.cfm> FOR MAINTENANCE PROTOCOLS.
- GRADING MAY BE REQUIRED IN THE PRIMARY AND REPAIR SYSTEM AREAS TO ENSURE EQUAL DISTRIBUTION AND FLAT BOTTOMS FOR THE SAND FILTER BEDS.

**SEPTIC NOTES**



**1000 GALLON SEPTIC TANK  
PHASE 1- BARN**

**A) DOSING CYCLE:**  $V = (m)(R)^2(L)(0.70)$

$\pi = 3.14$   
 $R = \text{Radius of pipe (2" for 4"Ø pipe)}$   
 $L = \text{length of perforated pipe (300 ft.)}$   
 $V = 70\% = \text{volume of the perforated pipe}$   
 $62.4 \frac{\text{lbs}}{\text{cu ft}} = \text{Weight of water per cubic foot}$   
 $8.33 \frac{\text{lbs}}{\text{gal}} = \text{Pounds per gallon of water}$

$(3.14)(2 \text{ in})^2(300 \text{ ft.})(0.70) = 18.32 \text{ ft}^3$

$(18.32 \text{ ft}^3)(62.4 \frac{\text{lbs}}{\text{cu ft}}) = 1143 \text{ lbs}$

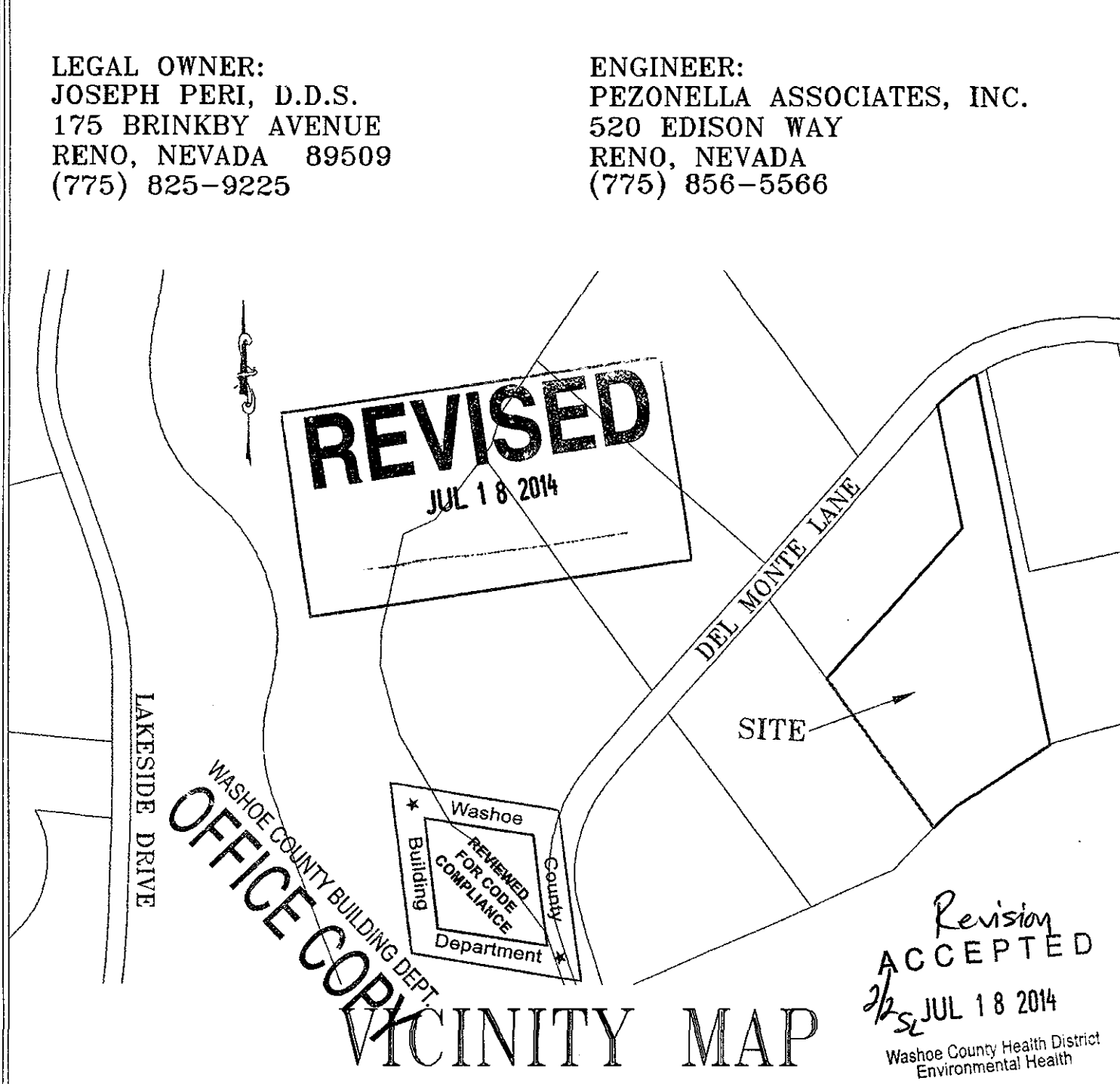
$\frac{1143 \text{ lbs}}{8.33 \frac{\text{lbs}}{\text{gal}}} = 137 \text{ gallons}$

The dose at 70% of the volume of perforated pipe is 137 gallons.

**B) Design sand filter area** 27 ft. X 67 ft. = 1,608 sqft.

**C) Maximum of 6 doses per day**  
 $(6 \text{ doses per day})(137 \text{ gal}) = 822 \text{ gal}$   
 $\frac{822 \text{ gal}}{1,608 \text{ sqft}} = 0.51 \text{ gal/sqft. per day} < 1.33 \text{ gal/sqft. per day}$

**CALCULATIONS**

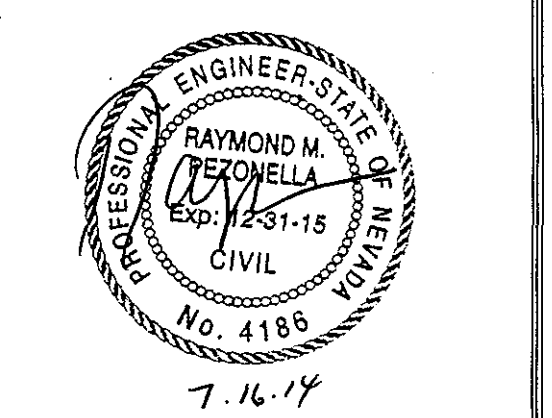


**LEGAL OWNER:** JOSEPH PERI, D.D.S. 175 BRINKBY AVENUE RENO, NEVADA 89509 (775) 825-9225

**ENGINEER:** PEZONELLA ASSOCIATES, INC. 520 EDISON WAY RENO, NEVADA (775) 856-5566

Revised PER WCDHD COMMENTS	Mar. 18, 2013
Revised SHEET PER OWNER'S REQUEST	July 14, 2014

PERI RESIDENCE  
1580 DEL MONTE LANE  
BARN SEWAGE DISPOSAL SYSTEM  
A.P.N. 040-152-25  
WASHOE COUNTY, NEVADA



**Pezonella Associates, Inc.**

Consulting Engineers  
520 Edison Way Reno, Nevada 89502  
PHONE: (775) 856-5566 FAX (775) 856-6042

Drawn by: KLM/BEL  
Job No.: 6293.01-B  
Date: NOV. 1, 2012  
Scale: NTS

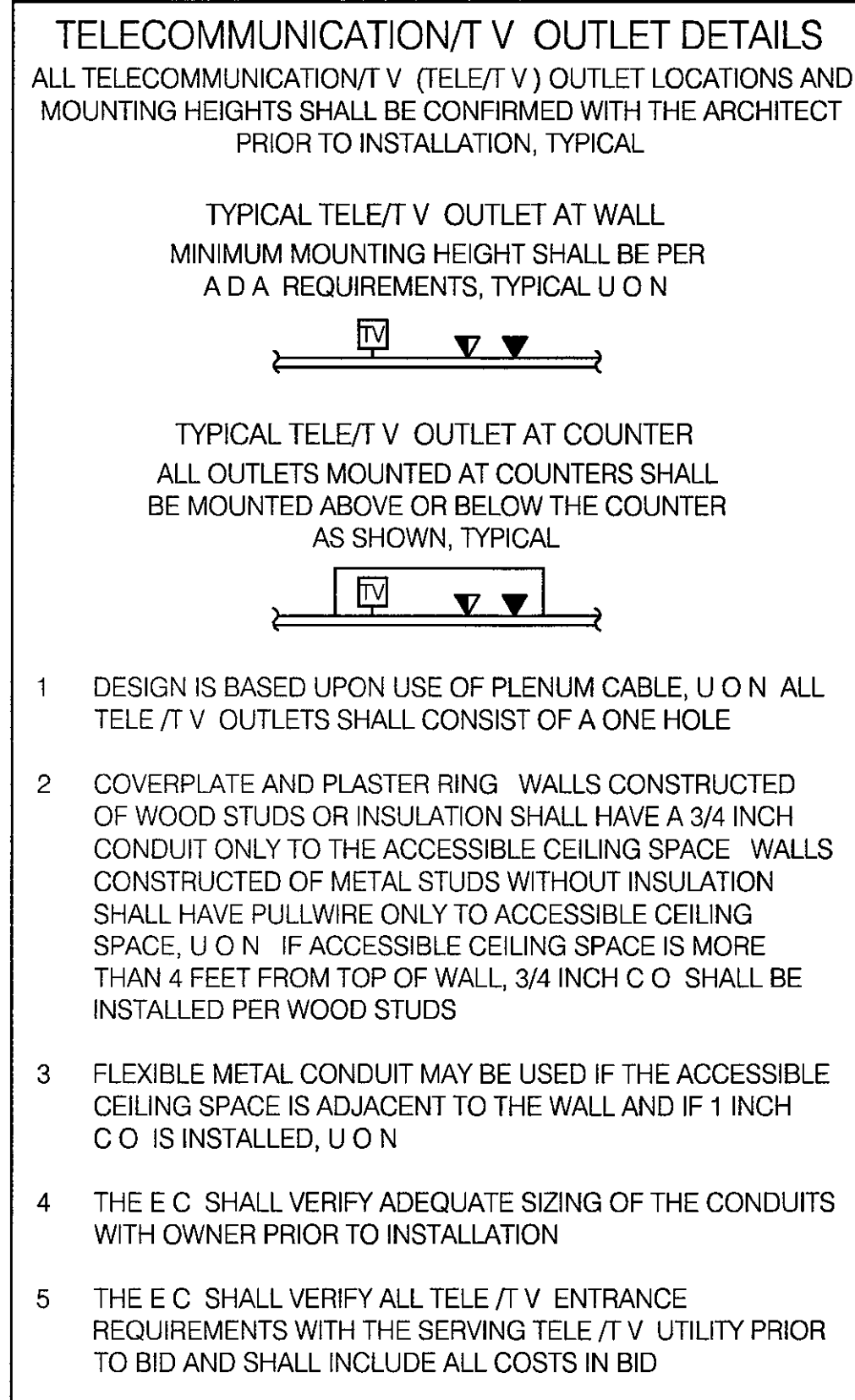
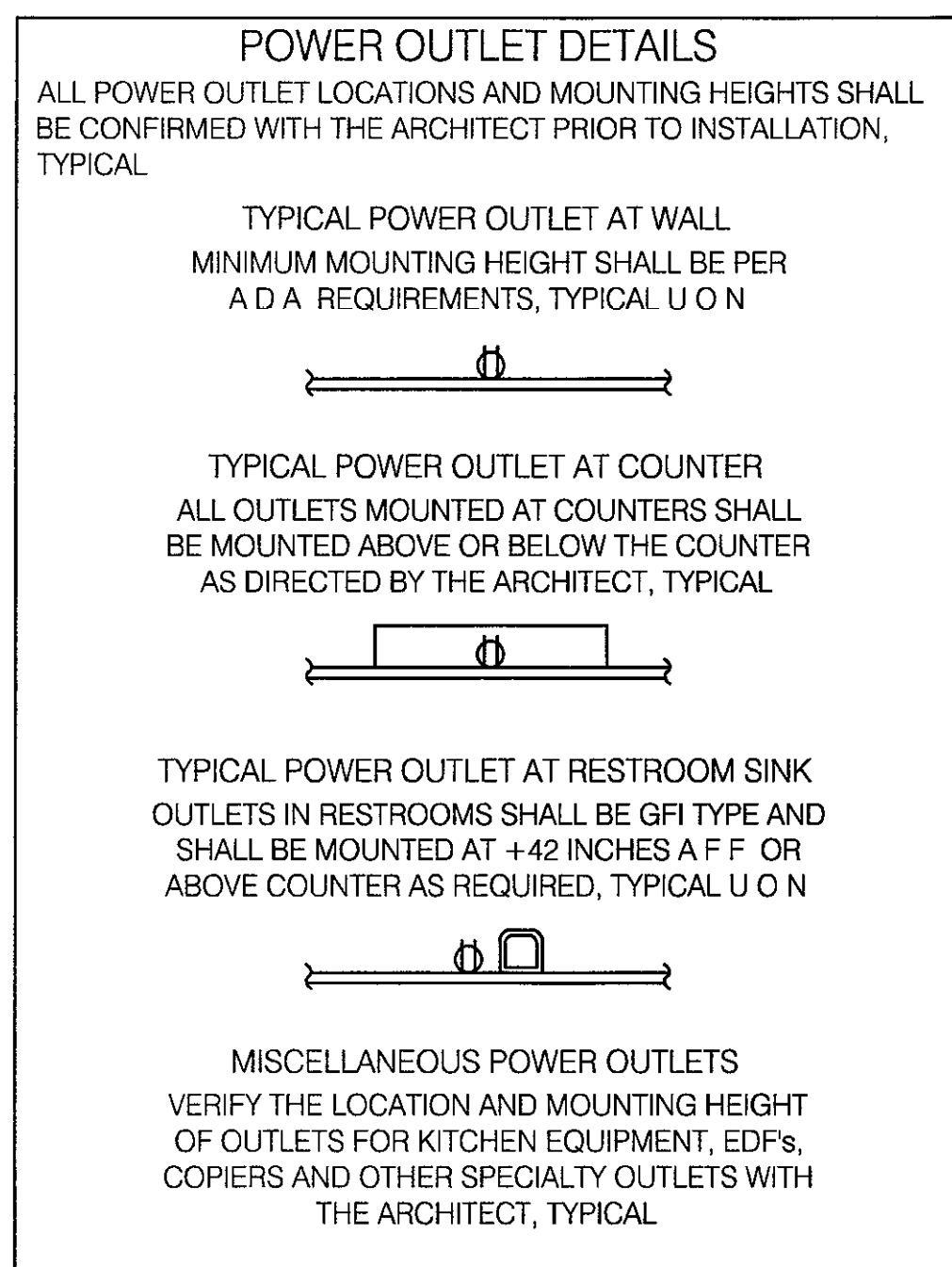
Revision ACCEPTED  
JUL 18 2014  
Washoe County Health District Environmental Health



### TYPICAL SYMBOL LIST

	DENOTES WALL MOUNTED 20A DUPLEX RECEPTACLE WITH COVERPLATE
	DENOTES WALL MOUNTED 20A DOUBLE DUPLEX RECEPTACLE WITH COVERPLATE
	DENOTES FLUSH FLOOR MOUNTED 20A DUPLEX RECEPTACLE WITH ALL REQUIRED FITTINGS VERIFY FLOOR COVERING AND TYPE, U O N
	DENOTES CEILING MOUNTED PROJECTOR RECEPTACLE 20A DUPLEX RECEPTACLE WITH ALL REQUIRED FITTINGS VERIFY COVERINGS AND TYPE, U O N
	DENOTES FLUSH MOUNTED 20A DOUBLE DUPLEX RECEPTACLE WITH ALL REQUIRED FITTINGS VERIFY THE FLOOR COVERINGS AND TYPE, U O N
	DENOTES FLUSH MOUNTED 20A GFI RATED DUPLEX RECEPTACLE WEATHERPROOF, U O N
	DENOTES WALL MOUNTED 20A DUPLEX RECEPTACLE WITH 1/2 HOT AND 1/2 SWITCHED MOUNTED = 18\"/>
	DENOTES WALL MOUNTED 20A DUPLEX RECEPTACLE WITH COVERPLATE AND GROUND FAULT INTERCEPTOR
	DENOTES WALL MOUNTED DUPLEX DEDICATED CIRCUIT RECEPTACLE
	DENOTES WALL MOUNTED TELEPHONE OUTLET *
	DENOTES WALL MOUNTED COMBINATION OUTLET *
	DENOTES FLUSH FLOOR MOUNTED TELEPHONE OUTLET WITH ALL REQUIRED FITTINGS VERIFY THE FLOOR COVERING AND TYPE, U O N
	DENOTES FLUSH FLOOR MOUNTED COMBINATION OUTLET WITH ALL REQUIRED FITTINGS VERIFY THE FLOOR COVERING AND TYPE, U O N
	DENOTES JUNCTION BOX
	DENOTES WALL MOUNTED TELEVISION OUTLET *
	DENOTES WALL MOUNTED CLOCK OUTLET, +78\"/>
	DENOTES DISCONNECT SWITCH, EXTERNALLY OPERATED AMPS AND POLE AS NOTED BY SUBSCRIPT, FUSED, U O N
	DENOTES DISCONNECT SWITCH, EXTERNALLY OPERATED AMPS AND POLE AS NOTED BY SUBSCRIPT, NON-FUSED, U O N
	DENOTES COMBINATION MAGNETIC MOTOR STARTER WITH RATING, POLE AND OVERLOAD PER HORSEPOWER REQUIREMENTS, U O N
	DENOTES FAN, HEATER, LIGHT COMBO
	DENOTES FAN, U O N
	SURFACE MOUNTED PANEL
	FLUSH MOUNTED PANEL
	DENOTES MECHANICAL EQUIPMENT TYPE - SEE THE MECHANICAL PLANS, U O N
	DENOTES EXIT SIGN - SHADED SECTION(S) REPRESENT NUMBER OF FACES (SEE 'FIXTURE LIST'), U O N
	SAME AS ABOVE WITH EMERGENCY BUGEYES
	DENOTES PLYWOOD TELEPHONE BACKBOARD (WITH SIZE AS INDICATED) WITH 1 #6 cu, 1\"/>
	DENOTES OUTLET/DEVICE MOUNTED +18\"/>

NOT ALL OF THE SYMBOLS LISTED ABOVE APPEAR ON THE ENCLOSED PLANS



### GENERAL NOTES

- DESIGN BASED UPON USE OF TYPE THHN (90 DEGREE) COPPER CONDUCTORS
- ALL FUSES IN LOW VOLTAGE DISCONNECT SWITCHES, CONTROL CIRCUITS, COMBINATION MOTOR STARTERS, AND NEMA-1 ENCLOSURES SHALL BE BUSSMAN FUSETRON TYPE 'FRN' OR 'FRS' OR EQUAL (U L CLASS RK5, NEMA CLASS H), U O N

### TYPICAL SWITCH SYMBOLS

S DENOTES WALL MOUNTED, SINGLE POLE TOGGLE SWITCH VOLTAGE AS REQUIRED, U O N

S<sub>2</sub> DENOTES WALL MOUNTED, DOUBLE POLE TOGGLE SWITCH VOLTAGE AS REQUIRED, U O N

S<sub>3</sub> DENOTES WALL MOUNTED, THREE WAY TOGGLE SWITCH VOLTAGE AS REQUIRED, U O N

S<sub>4</sub> DENOTES WALL MOUNTED, FOUR WAY TOGGLE SWITCH VOLTAGE AS REQUIRED, U O N

S<sub>K</sub> DENOTES WALL MOUNTED, KEY OPERATED SWITCH VOLTAGE AS REQUIRED, U O N

S<sub>L</sub> DENOTES WALL MOUNTED, PILOT LIGHT SWITCH VOLTAGE AS REQUIRED, U O N

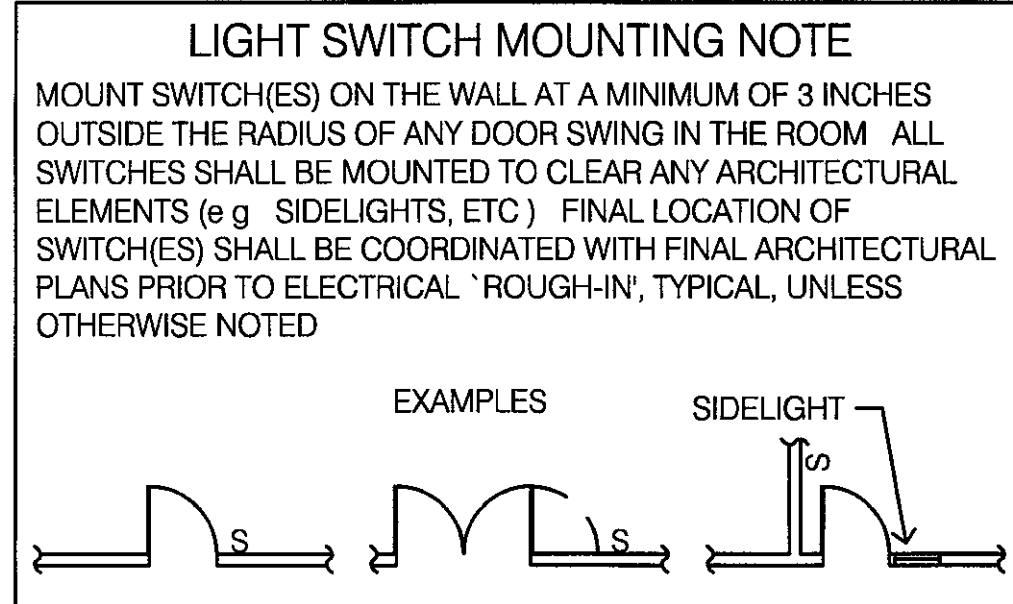
S<sub>T</sub> DENOTES WALL MOUNTED, TIMER (0-2 HOUR) SWITCH VOLTAGE AS REQUIRED, U O N

S<sub>OS</sub> DENOTES WALL MOUNTED, OCCUPANCY SENSOR, TWO LEVEL SWITCH VOLTAGE AS REQUIRED, U O N

S<sub>MOM</sub> DENOTES WALL MOUNTED, MOMENTARY CONTACT SWITCH VOLTAGE AS REQUIRED, U O N

S<sub>M</sub> DENOTES EXO MOUNTED MOTOR RATED TOGGLE SWITCH MOTOR VOLTAGE AS REQUIRED EXTERIOR SWITCHES SHALL HAVE WEATHERPROOF BOX

ALL SWITCHES LISTED ABOVE SHALL BE MOUNTED +42\"/>



### GENERAL LIGHTING NOTES

- THE N/L SYMBOL DENOTES NIGHT-LIGHT FIXTURE OF THE SAME TYPE AS SIMILAR SYMBOLS WITHOUT THE N/L SYMBOL, U O N
- ALL RECESSED DOWNLIGHTS SHALL BE EQUIPPED WITH THERMAL CUTOUPS WHERE REQUIRED BY CODE
- GENERAL CONTRACTOR TO PROVIDE FIRE RATED GYPSUM BOARD ENCLOSURES AROUND ALL FIXTURES THAT PENETRATE FIRE RATED AREAS
- ALL FIXTURE TRIMS SHALL BE OF THE APPROPRIATE TYPE FOR THE CEILING IN WHICH THE FIXTURE IS TO BE INSTALLED
- ALL DOUBLE-SWITCHED FOUR-LAMP FLUORESCENT FIXTURES SHALL BE SWITCHED SUCH THAT THE INNER LAMP OPERATES INDEPENDENTLY OF THE TWO OUTER LAMPS
- ALL DOUBLE SWITCHED THREE LAMP FIXTURES SHALL BE SWITCHED SO THAT THE OUTSIDE LAMPS ARE ON ONE SWITCH AND THE INSIDE LAMP IS ON THE OTHER SWITCH (TWO BALLASTS REQUIRED)
- ALL FLUORESCENT LAMPS AND BALLASTS SHALL BE CERTIFIED BY MANUFACTURER TO COMPLY WITH THE APPLIANCE STANDARDS FOR FLUORESCENT BALLASTS (SECTION 2-5314, TABLE 53-G, ITEM 7)
- ALL FLUORESCENT LAMPS WITH ELECTRONIC BALLAST SHALL BE RATED FOR USE WITH THE BALLAST PROVIDED

### CONDUIT LEGEND

--- DENOTES CONDUIT CONCEALED IN WALL, CEILING, OR ABOVE CEILING, U O N

--- DENOTES CONDUIT CONCEALED IN FLOOR, BELOW FLOOR, OR BELOW GRADE, U O N

~ DENOTES FLEXIBLE CONDUIT (U O N) TO BE USED FOR FINAL CONNECTIONS TO LIGHTING FIXTURES, VIBRATING, MOVABLE, ROTATING EQUIPMENT, FURNITURE PARTITIONS, AND STRUCTURAL CONDITIONS WHERE PERMITTED BY CODE SEE SPECIFICATIONS

--- DENOTES CONDUIT STUB-OUT, CAP AND MARK

□ DENOTES 'MASTER-SLAVE' CONDUIT (MINIMUM #12 CONDUCTORS) U O N

### ABBREVIATIONS

A	AMPS	GRD	GROUND
AC	ABOVE COUNTER	HP	HORSEPOWER
A F F	ABOVE FINISHED FLOOR	H O A	HAND-OFF-AUTOMATIC
A F G	ABOVE FINISHED GRADE	HT	HEIGHT
AL	ALUMINUM	INCAND	INCANDESCENT
ARCH	ARCHITECTURAL	L D	LOW DENSITY RATING
BKBD	BACKBOARD	LOC	LOCATION
C	CONDUIT WITH WIRE	LTG	LIGHTING
CLB	CURRENT LIMITING BREAKER	MW	MICROWAVE
CLF	CURRENT LIMITING FUSE	MANUF	MANUFACTURER
CLG	CEILING	MECH	MECHANICAL
C O	CONDUIT ONLY WITH PULLWIRE	M C	MECHANICAL CONTRACTOR
CTR	COUNTERTOP RECEP	MTD	MOUNTED
C W	COLD WATER	MTG	MOUNTING
CU	COPPER	N I C	NOT IN CONTRACT
D L	DAMP LOCATION LISTING	N/L	NIGHT LIGHT
D W	DISHWASHER	P	POLE
DIST	DISTRIBUTION	PC	PHOTOCELL
E C	ELECTRICAL CONTRACTOR	PCTC	PHOTOCELL TIMECLOCK
EDF	ELECTRICAL DRINKING FOUNTAIN	PH	PHASE
ELEC	ELECTRICAL	P L	PILOT LIGHT
ELEV	ELEVATOR	PNL	PANEL
EM	EMERGENCY	PWR	POWER
EQUIP	EQUIPMENT	RECEPT	RECEPTACLE
EXIST	EXISTING	REF	REFRIGERATOR
FIXT	FIXTURE	REQ	REQUIREMENTS
FL, FLR	FLOOR	RM	ROOM
FLUOR	FLUORESCENT	SC	SEPARATE CIRCUIT
FTG	FOOTING	SW	SWITCH
G C	GENERAL CONTRACTOR	SWGR	SWITCHGEAR
G D	GARBAGE DISPOSAL	TC	TIMECLOCK
G F I	GROUND FAULT INTERRUPTER	TEL, TELE	TELEPHONE
G F R	GROUND FAULT RELAY	TRANSF	TRANSFORMER
G G	GREEN GROUND PARITY TO MATCH CONDUCTORS	T V	TELEVISION
		TYP	TYPICAL
		UGPS	UNDERGROUND PULL SECTION
		U O N	UNLESS OTHERWISE NOTED
		V	VOLTS
		VM	VENDING MACHINE
		W/P	WEATHERPROOF
		W/H	WATER HEATER

IF ABBREVIATIONS NOT MENTIONED ABOVE ARE NEEDED, REFERENCE SHOULD BE MADE TO AMERICAN STANDARDS INSTITUTE ABBREVIATIONS ANSI Y11 OR THE MILITARY ABBREVIATIONS MIL-STAND, OR ANY INDUSTRY STANDARD ABBREVIATIONS

### CONTRACTOR NOTES

- THE ELECTRICAL CONTRACTOR (E C) SHALL BE RESPONSIBLE FOR CONFORMITY TO ALL LOCAL CODES AND ORDINANCES, THE STATE OF NEVADA SAFETY ORDERS, THE NATIONAL ELECTRICAL CODE, AND ANY ADDITIONAL JURISDICTIONS RELATING TO THE WORK
- THE E C SHALL FURNISH AND INSTALL ALL CONDUIT, WIRE, CABLE, BOXES, SWITCHES, LIGHT FIXTURES (WITH LAMPS), RECEPTACLES, SERVICE DEVICES, SWITCHBOARDS AND PANELBOARDS, ETC. REQUIRED FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM WITHIN THE SCOPE OF WORK CONTRACTED
- LOCATIONS SHOWN ON THE ARCHITECTURAL PLANS SHALL TAKE PRECEDENCE OVER THOSE SHOWN ON THE ELECTRICAL PLANS

### DRAWING SCHEDULE

NO.	DESCRIPTION	DATE	BY	CHKD.
E0 1	COVER SHEET AND NOTES			
E1 1	BARN POWER			
E2 1	BARN LIGHTING			

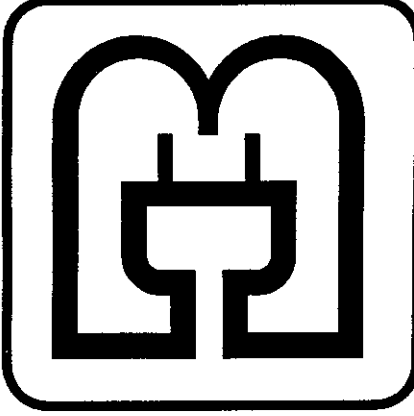
*Washoe County Building Department*  
Electrical work shall comply with the 2012 IAC

### DESIGN/BUILD CONTRACTOR

These plans are prepared and submitted by the contractor as an exemption to NRS 623 330 for work under the contractor's license category authorized under NRS 624

<b>BRIGGS ELECTRIC, INC.</b> Company Name	<b>GREG DYE</b> Electrical Contractor Representative of Q1
<b>C2 41943 / UNLIMITED</b> Contractor License Number / Limit	<b>3/31/2016</b> Contractor Expiration Date
<b>GREG DYE</b> Plans Prepared By	<b>12/8/2014</b> Signature

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**Briggs Electric Inc.**  
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CARSON CITY, NV 89706  
Ph: (775) 887-9801 Fax: (775) 887-9454  
NV Contractors License Number: C-2 41943  
14381 FRANKLIN AVE. TUSTIN, CA 92789  
Ph: (714) 944-2500 Fax: (714) 944-0071  
CA Contractor License Number: C-10 28188

## PERI, JOSEPH BARN LIVING AREA

1580 DEL MONTE LANE, RENO, NV 89511  
WASHOE COUNTY, APN 040-152-25

### ELECTRICAL GENERAL NOTES

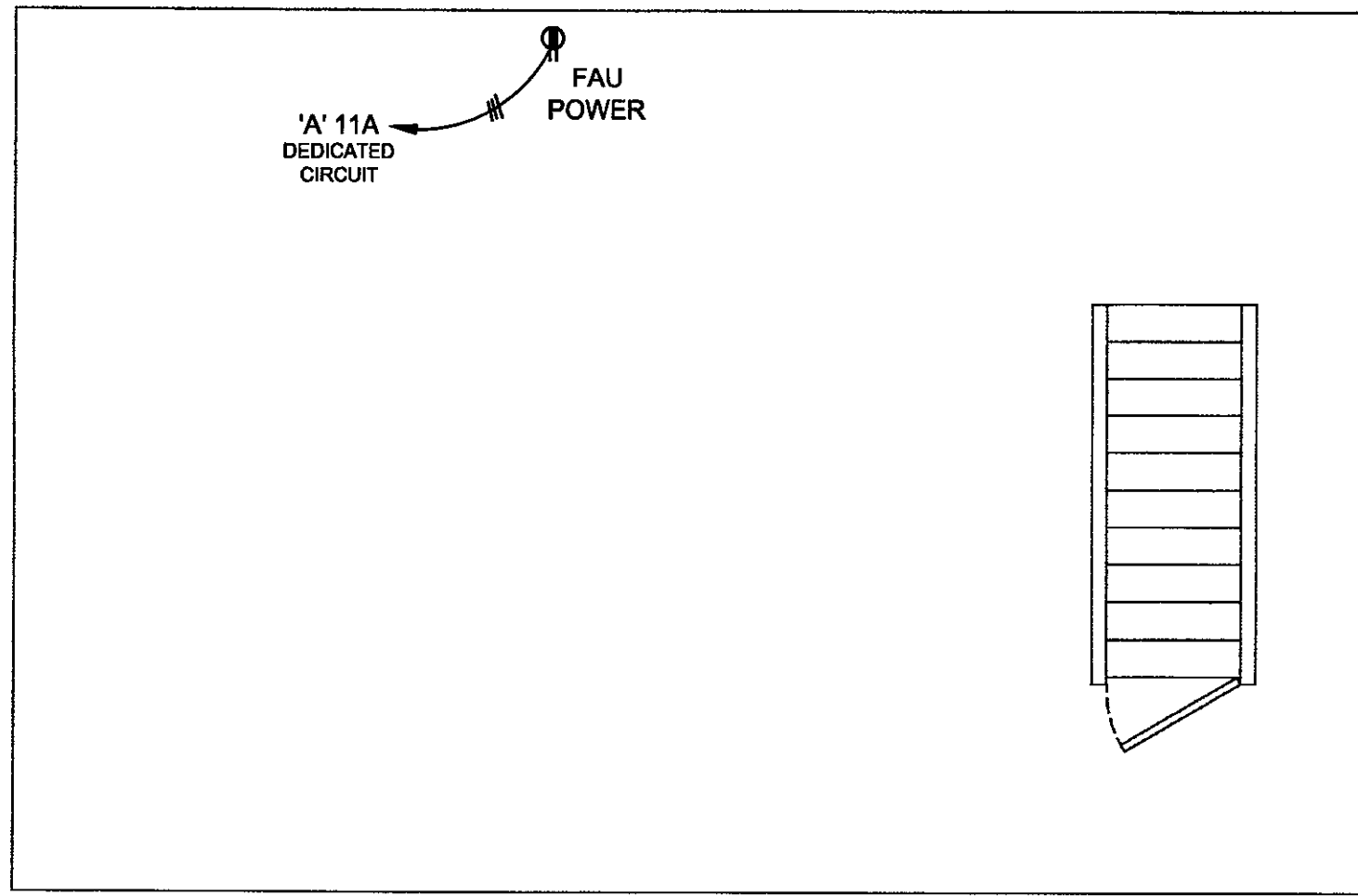
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REVISIONS				
SCALE	AS NOTED			
DATE	10/21/2014			
DWN BY	TD			
CK BY	GD			

SHEET  
**E0.1**  
OF

13-0136

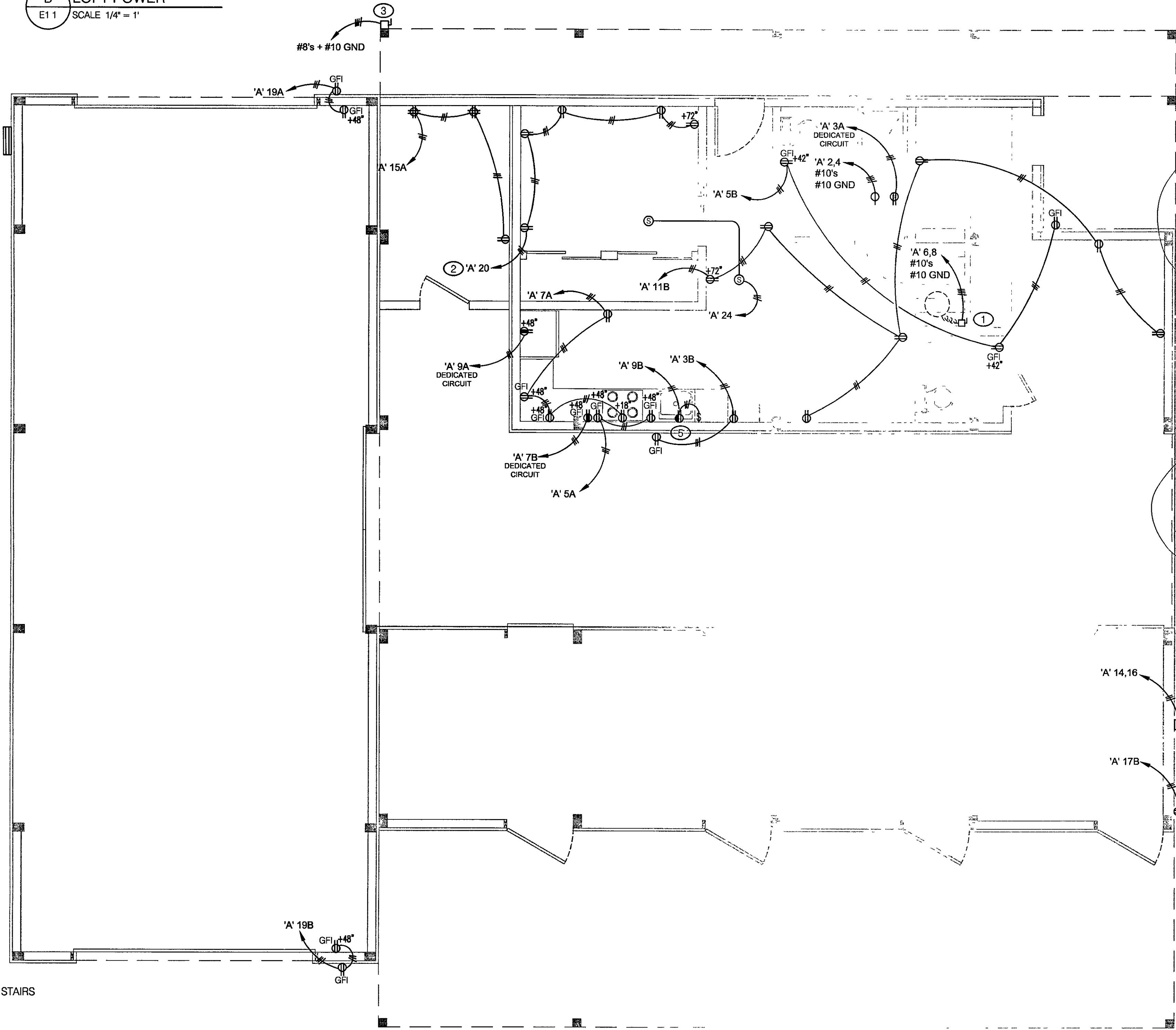
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DEC 16 2014

WASHOE COUNTY BUILDING DEPT  
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**B LOFT POWER**  
E1.1 SCALE 1/4" = 1'

MAIN SERVICE PANEL A  
200A 120/240V 1PH 3W  
NEMA 3R ENCLOSURE  
PROVIDE GROUNDING  
ELECTRODE

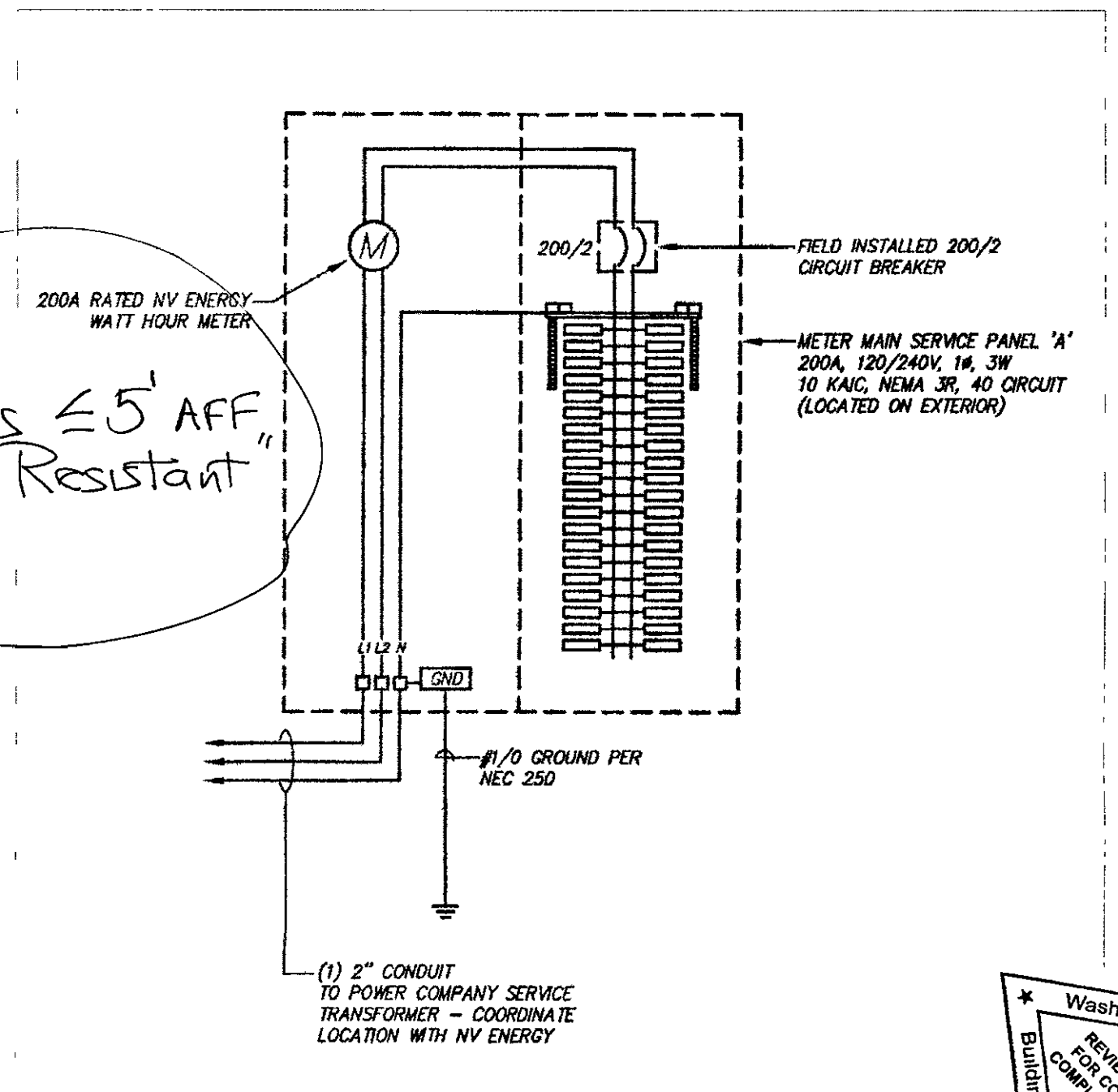


Panel Schedule									
Panel Designation	A	10 KAIC	Bottom Feed	Watts	Breaker	NEMA 1, Surf	Phase	Voltage	3W
Amperes: 200A									
1a	Spare	20/20	A	2900					
1b	Spare	20/20							
3a	Washing Machine	20/20	B	2900			30/2		2
3b	Spare	20/20							
5a	Kitchen	20/20	A	2200					4
5b	GFI Bath	20/20							6
7a	Kitchen	20/20	B	2200			30/2		8
7b	Microwave	20/20							
9a	Refrigerator	20/20	A	4600					10
9b	Dish Washer / Disposal	20/20							
11a	FAU	20/20	B	4600			50/2		12
11b	Dining Room	20/20							
13a	Spare	20/20	A	0					14
13b	Stall Lights	20/20							
15a	Tack Room	20/20	B	0					16
15b	Spare	20/20							
17a	Ext. Lights	20/20	A	0					18
17b	East GFI / Lights	20/20							
19a	RV Barn GFI	20/20	B	90			20/1		20
19b	South GFI	20/20							
Loads from this Panel				13210	19490				
Calculated Load				127.08 Amps			A		13050 W
100% Non continuous Diversity factor				127.08 Amps			B		17450 W
Load W/ 125% Demand Factor				158.85 Amps			Total		30500 W

**CIRCUIT BREAKER NOTES**  
 E Existing to remain unchanged  
 N New Circuit Breaker  
 B Remove and Blank off  
 R Replace Existing with breaker specified

All receptacles outlets in barn to be GFCI

Receptacle outlets ≤ 5' AFF shall be "Tamper Resistant"



**C ONE-LINE DIAGRAM**  
E1.1 SCALE NOT TO SCALE

**SHEETS NOTES**

- ① ELECTRIC WATER HEATER UNDER STAIRS
- ② AFCI CIRCUIT
- ③ 50A 240V OUTSIDE CONDENSING UNIT
- ④ FUTURE CIRCUIT TO SEPTIC ALARM & PUMP
- ⑤ SPLIT 20A RECEPTACLE SEPARATE YORK TO ENSURE THAT TOP IS SWITCHED AND THAT THE BOTTOM IS CONSTANT

**A BARN POWER**  
E1.1 SCALE 1/4" = 1'

**REVISED**  
DEC 16 2014

**DESIGN/BUILD CONTRACTOR**  
 These plans are prepared and submitted by the contractor as an exemption to NRS 623 330 for work under the contractor's license category authorized under NRS 624

**BRIGGS ELECTRIC, INC.**  
Company Name

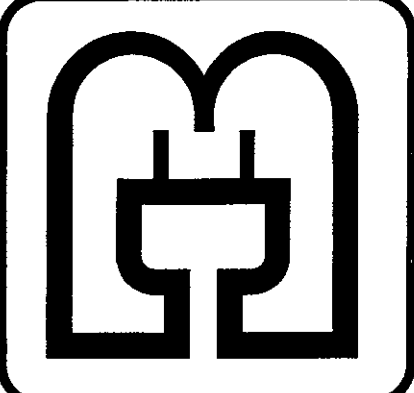
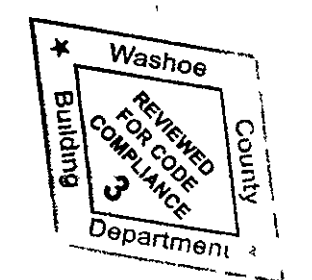
**GREG DYE**  
Electrical Contractor Representative or O.P.

**C2 41943 / UNLIMITED**  
Contractor License Number / Limit

**3/31/2016**  
Contractor Expiration Date

**GREG DYE**  
Plans Prepared By

**11/19/2014**  
Signature



**Briggs Electric Inc.**  
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 NV Contractors License Number: C-2 41943  
 1481 FRANKLIN AVE. LUSTIN, CA 92780  
 Ph: (714) 544-2500 Fax: (714) 544-0771  
 CA Contractors License Number: C-12 29288

**PERI, JOSEPH BARN**  
 1580 DEL MONTE LANE, RENO, NV 89511  
 WASHOE COUNTY, APN 040-152-25

TITLE: **BARN POWER**

JOB NO: 26370

SCALE: AS NOTED

DATE: 10/21/2014

DWN BY: TO

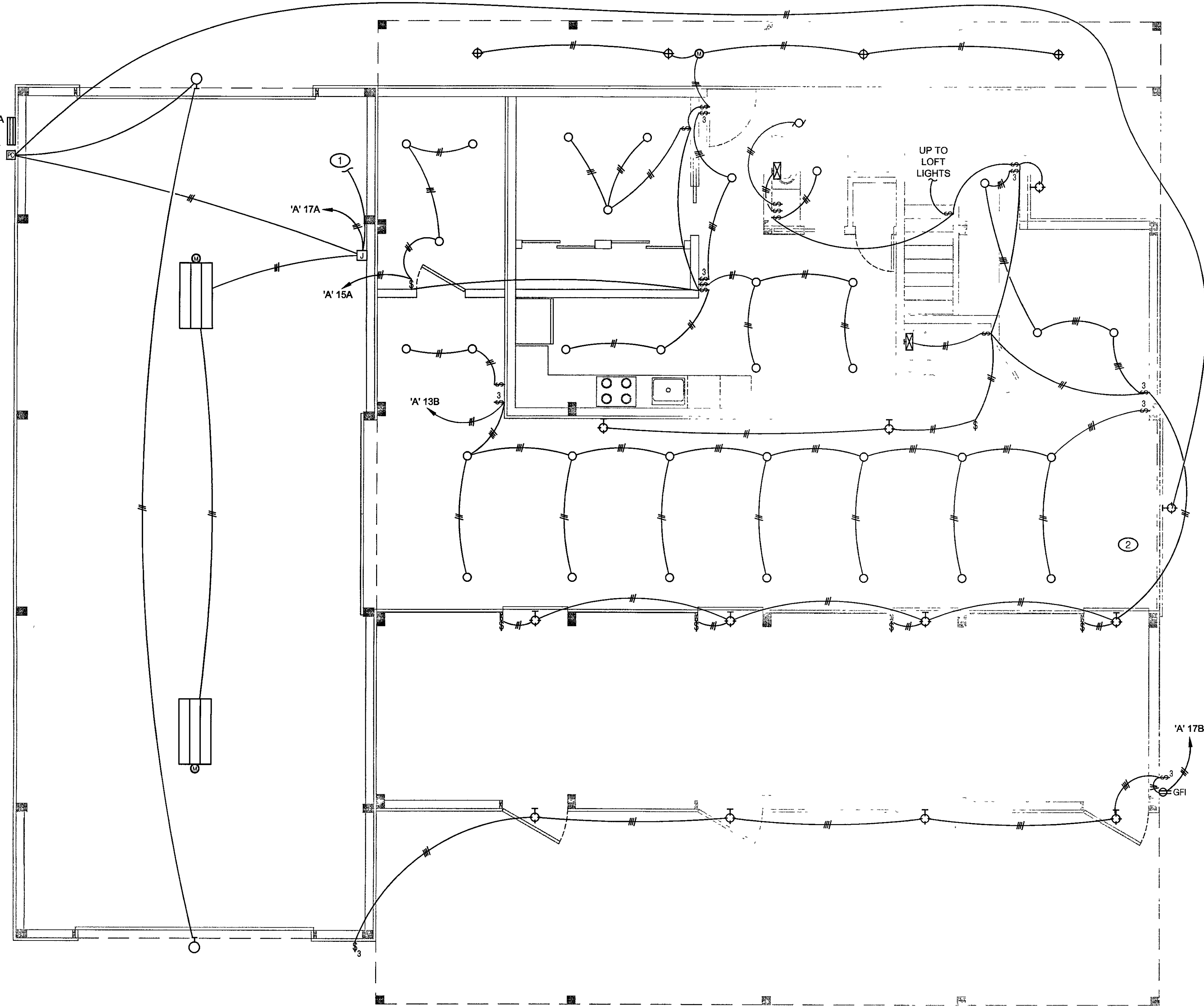
CK BY: GD

REVISIONS

SHEET **E1.1** OF

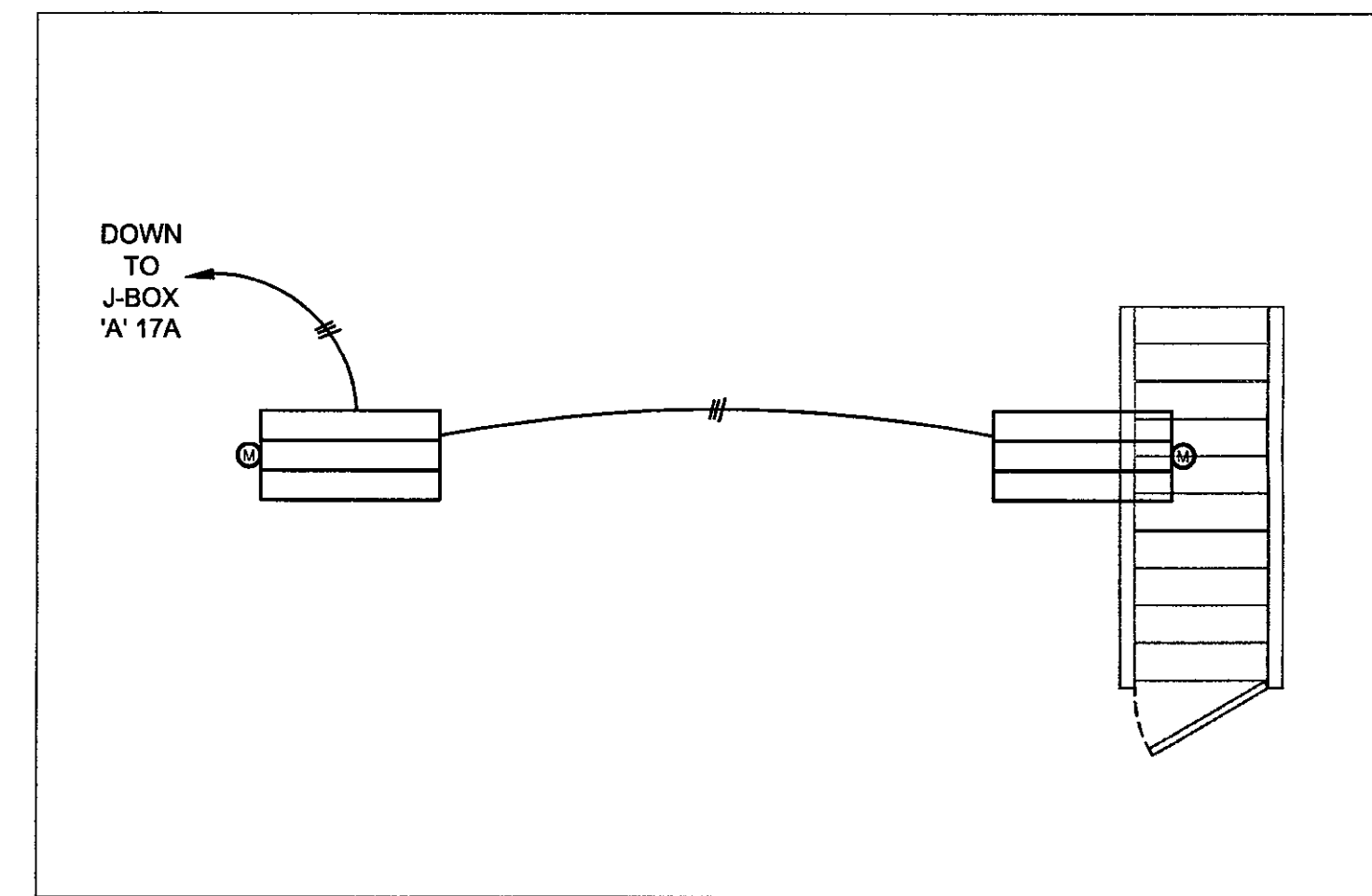
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MAIN SERVICE PANEL A  
120/240V 1PH 3W  
NEMA 3R ENCLOSURE



**A BARN LIGHTING**  
E2.1 SCALE 1/4" = 1'

<b>FIXTURE SCHEDULE</b>								
SYM	TYPE	QTY	MFG	PART NUMBER	DESCRIPTION	VOLTS	LAMP	MOUNTING
	F1	9	SEAGULL	89018BLE-12	WEATHERPROOF EXTERIOR SCONCE	120V	(1) 60W	WALL
	F2	2	SEAGULL	44792BLE-962	DECORATIVE 3-LAMP VANITY FIXTURE	120V	(3) 13W	WALL
	F3	4	SEAGULL	65160-05	PENDANT MOUNTED 1-LAMP LED FIXTURE	120V	(1)13 5W LED	CEILING
	F4	2	LITHONIA	TWF1 2/42TRT 120	2-LAMP COMPACT FLOURESCENT	120V	(2) 42W	WALL
	F5	4	LITHONIA	FHE 432L PCL SD	STEM MOUNTED 4-LAMP FLOURESCENT FIXTURE	120V	(4) 32W	CEILING
	F6	32	LITHONIA	6BP MW LED LTX	6" BAFFLED LED MODULE	120V	8 9W LED	RECESSED



**B LOFT LIGHTING**  
E2.1 SCALE 1/4" = 1'

**SHEETS NOTES - LIGHTING**

- ① UP TO LOFT LIGHTS

**REVISED**  
DEC 16 2014

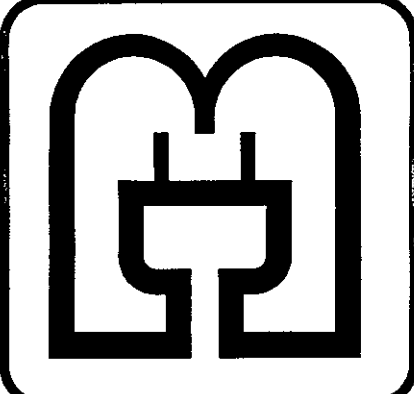
Washoe  
REVIEWED FOR CODE COMPLIANCE  
3  
Department

WASHOE COUNTY BUILDING DEPT  
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**PERI, JOSEPH BARN**  
1580 DEL MONTE LANE, RENO, NV 89511  
WASHOE COUNTY, APN 040-152-25

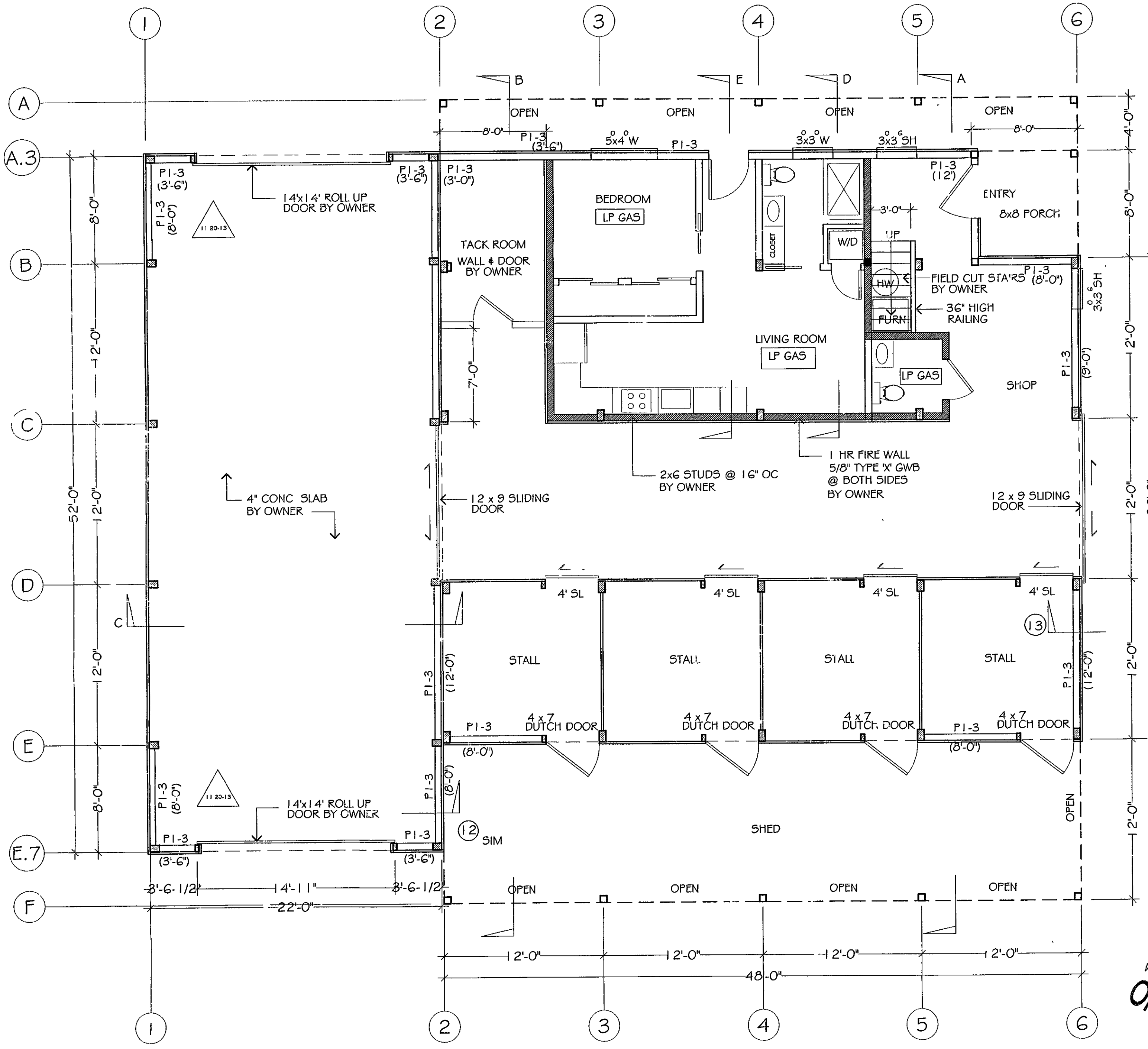
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BARN LIGHTING*			
SCALE AS NOTED	10/21/2014	TD	GD
DATE			
DWN BY			
CK BY			

SHEET  
**E2.1**  
OF

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13-0134



GUARDRAILS SHALL BE PROVIDED AT ALL UNENCLOSED FLOORS WHICH ARE MORE THAN 30" ABOVE GRADE OR FLOOR BELOW, GUARDRAILS SHALL NOT BE LESS THAN 36 INCHES IN HEIGHT, GUARDRAILS AND HANDRAILS SHALL HAVE INTERMEDIATE RAILS SUCH THAT AN OBJECT 4 INCHES IN DIAMETER CANNOT PASS THROUGH

HANDRAILS AT STAIRS SHALL NOT BE LESS THAN 34" OR MORE THAN 38" ABOVE NOSING, HANDGRIP NOT LESS THAN 1-1/4" OR MORE THAN 2" IN CROSS-SECTIONAL DIMENSIONS

STAIRWAYS - STAIR RISER 4" MIN, 8" MAX, STAIR RUNS 9" MIN, RUN HEADROOM 6'-8" MIN FROM A PLANE PARALLEL AND TANGENT TO THE STAIRWAY TREAD NOSINGS TO ANY CONSTRUCTION ABOVE ALL POINTS, PROVIDE LANDING, 36" IN LENGTH, AT TOP AND BOTTOM OF EACH STAIRWAY OR STAIR RUN, INSTALL 5/8" TYPE X' GWB IN ENCLOSED STORAGE AREA UNDER STAIRS

NOTE LP GAS TO BE USED IN BATH AND LIVING SPACE W/ THERMOSTAT

P1-3  
1/2" GWB - over- 7/16" OSB SHEAR PANEL, FASTEN W/ 8d SINKERS, 3" OC @ EDGE & 12" OC @ FIELD

**2nd FLOOR WALL TYPES.**

P1-4 - 7/16" OSB SHEATHING ON 2x6 STUDS 16" OC, SHEATHING NAILED W/ 8d SINKERS 4" OC @ PERIMETER & 12" OC IN FIELD, FASTEN SINGLE 2x6 SILL PLATE W/ 16d NAILS 6" OC STAGGERED (LOCATED ON GRIDS 2 & 6 BTWN B & E)

GRID B @ SHED DORMER - INFILL BTWN POSTS W/ 2x6 STUDS 16" OC, SINGLE SILL AND DBL TOP PLATES, SHEATHED W/ 5/8" T1-11 SIDING (8d NAILS 6" OC PERIMETER & 12" OC FIELD), WINDOW HEADERS TO BE DBL 2x6 ON EDGE

GRIDS 3 & 5 @ SHED DORMER - 2x6 STUDS, 16" OC, SINGLE SILL AND DOUBLE TOP PLATES BTWN ROOF RAFTERS



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**REVISED**  
DEC 16 2014

1st FLOOR WALL TYPES:  
-SEE SHEET 7 I FOR WALL TYPES AND DETAILS

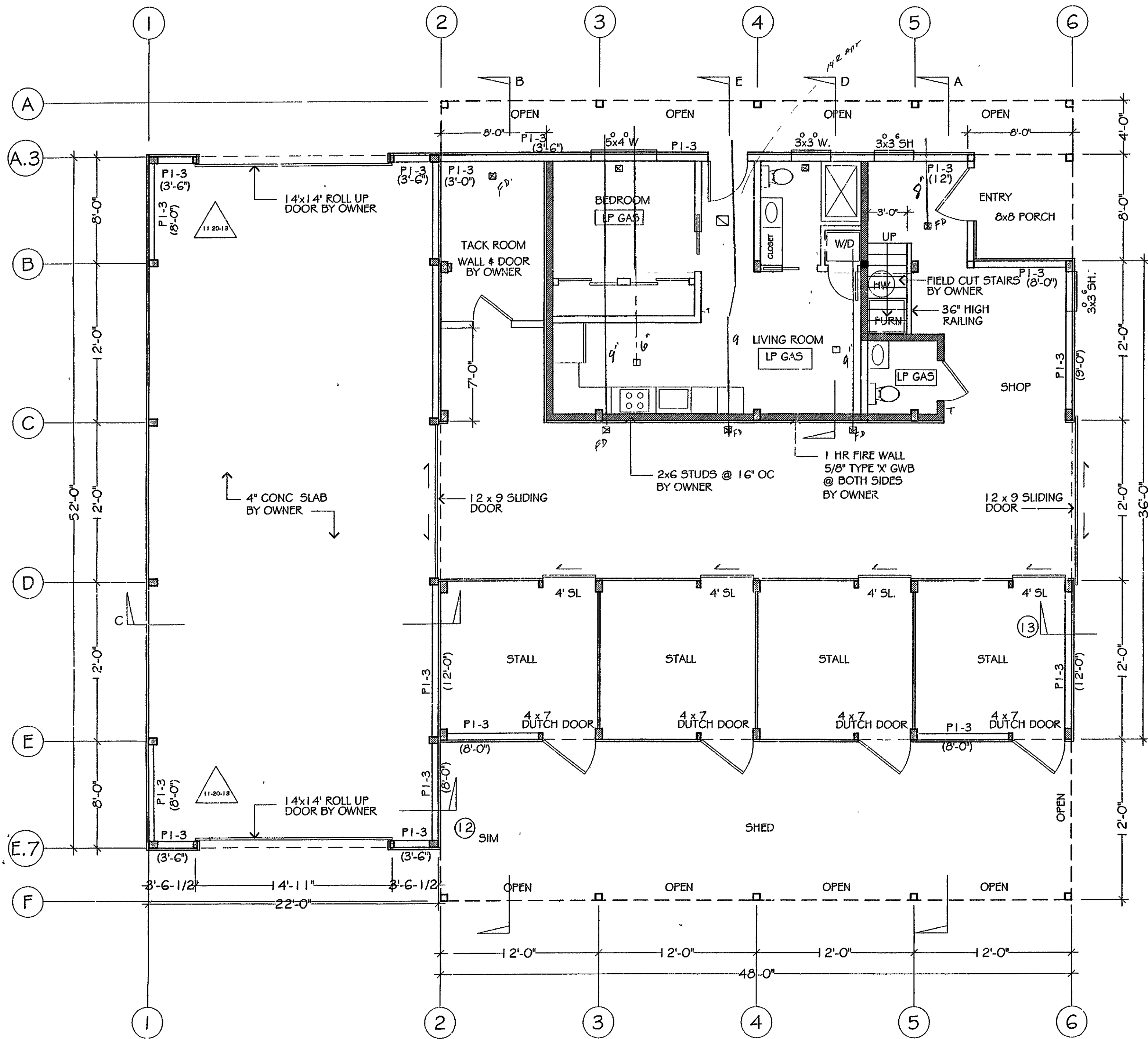
FLOOR PLAN  
SCALE 3/16" = 1'-0"

DR. JOE PERI  
RENO, NV

DENALI 43-C &  
COACHMAN

BARN PROS INC.  
MONROE, WA

3



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NOTE. LP GAS TO BE USED IN BATH AND LIVING SPACE W/ THERMOSTAT

P1-3  
1/2" GWB -over- 7/16" OSB SHEAR PANEL, FASTEN W/ 8d SINKERS, 3" OC @ EDGE & 12" OC @ FIELD

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GRIDS 3&5 @ SHED DORMER - 2x6 STUDS, 16" OC, SINGLE SILL AND DOUBLE TOP PLATES BTWN ROOF RAFTERS

FLOOR PLAN  
SCALE 3/16" = 1'-0"

**REVISED**  
DEC 16 2014

MICHAEL'S PLUMBING HEATING & AIR, INC.  
670 W. 2nd St.  
Spokane, WA 99201  
509-355-1611  
NY Lic 80138 & 80228  
10-17-14

Washoe County Building Department  
REVIEWED FOR CODE COMPLIANCE  
3  
Department

11-20-13  
WASHOE COUNTY BUILDING DEPT  
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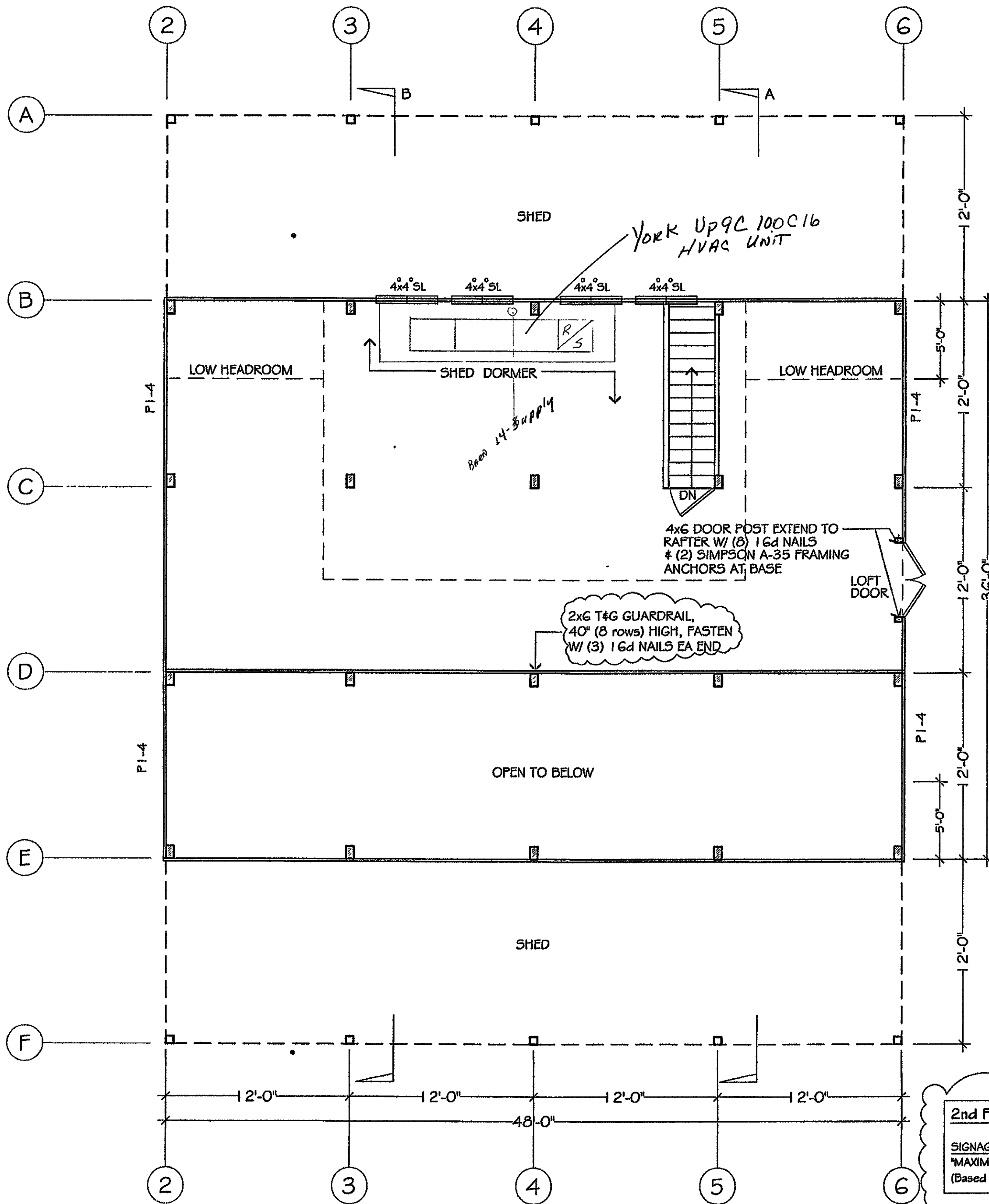
1st FLOOR WALL TYPES  
-SEE SHEET 7 I FOR WALL TYPES AND DETAILS

DR. JOE PERI  
RENO, NV

DENALI 48-C &  
COACHMAN

BARN PROS INC.  
MONROE, WA

3

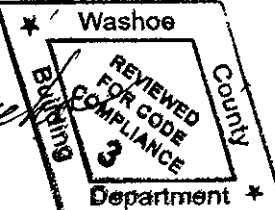


SECOND FLOOR PLAN  
SCALE 3/16" = 1'-0"

**2nd FLOOR WALL TYPES:**  
 P1-4 - 7/8" OSB SHEATHING ON 2x6 STUDS 16" OC, SHEATHING NAILED w/ 8d SINKERS 4" OC @ PERIMETER & 12" OC IN FIELD FASTEN SINGLE 2x6 SILL PLATE w/ 16d NAILS 6" OC STAGGERED. (LOCATED ON GRIDS 2 & 6 BTWN B & F)  
 GRID B @ SHED DORMER - INFILL BTWN POSTS w/ 2x6 STUDS 16" OC, SINGLE SILL AND DBL TOP PLATES, SHEATHED w/ 5/8" T1-1 SIDING (8d NAILS 6" OC PERIMETER & 12" OC FIELD), WINDOW HEADERS TO BE DBL 2x6 ON EDGE.  
 GRIDS 3&5 @ SHED DORMER - 2x6 STUDS, 16" OC, SINGLE SILL AND DOUBLE TOP PLATES BTWN ROOF RAFTERS.

**REVISED**  
 DEC 16 2014

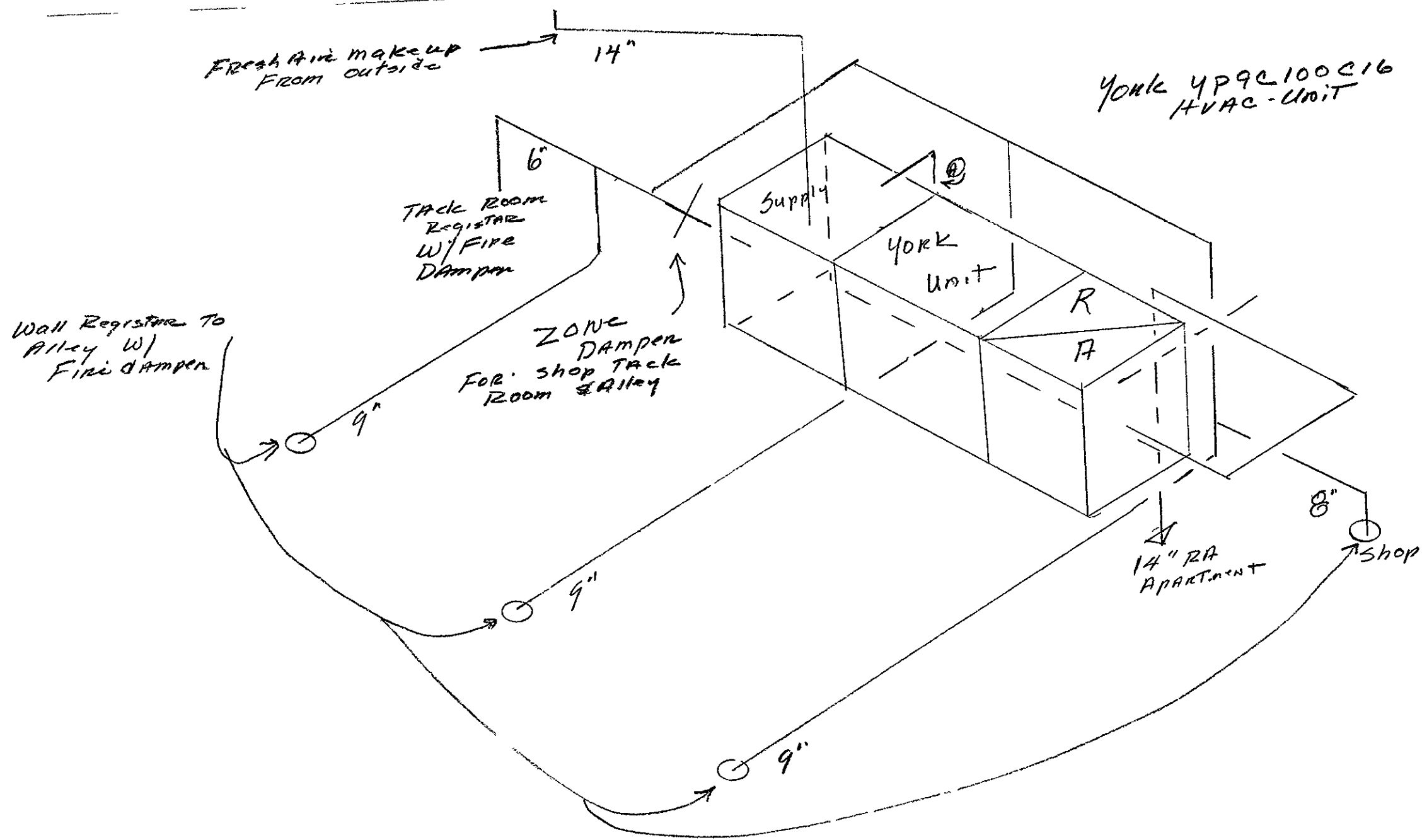
MICHAEL'S PLUMBING  
 HEATING & AIR, INC  
 670 Kresge Lane  
 Sparks, NV 89434  
 (775) 335-1511  
 NV Lic# 80135 & 60226  
 10-17-14



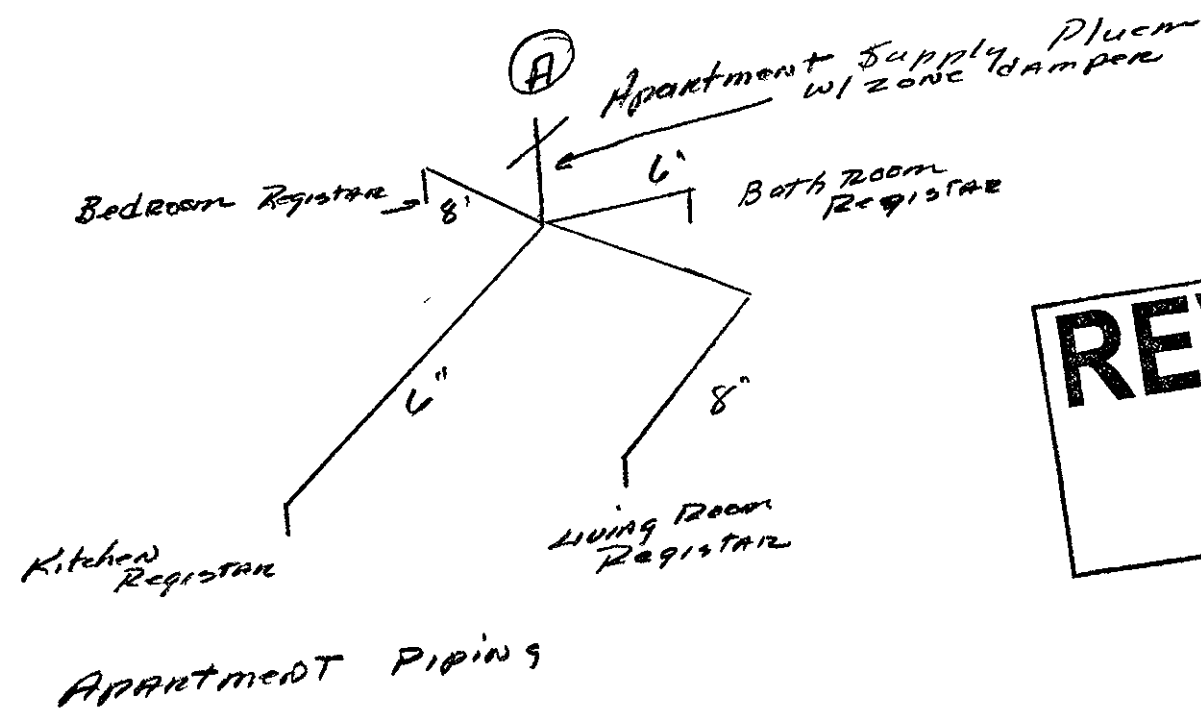
**2nd FLOOR STORAGE CAPACITY:**  
 SIGNAGE REQUIREMENTS - CONTRACTOR TO PROVIDE SIGNAGE INDICATING "MAXIMUM HAY STORAGE HEIGHT OF 5 BALES HIGH" (Based on 70 lb bales, 14'x18'x42" in size)

WASHOE COUNTY BUILDING DEPT.  
**OFFICE COPY**

DR. JOE PERI  
 RENO, NV  
 DENALI 48-C &  
 COACHMAN  
 BARN PROS INC.  
 MONROE, WA  
 4



STALLS - ALLEY - SHOP - TACK ROOM - HVAC - PIPING



**REVISED**  
DEC 16 2014

MICHAEL'S PLUMBING  
HEATING & AIR-COND  
670 Kress Lane  
Reno, NV 89501  
(775) 385-1811  
NV LIC# 80138 & 60228  
*Michael's Plumbing*  
10-17-14

Washoe County  
REVIEWED FOR CODE COMPLIANCE  
3  
Department

WASHOE COUNTY BUILDING DEPT  
OFFICE COPY

DR. JOE PERI RENO, NV
DENALI 48-C & COACHMAN
BARN PROS INC. MONROE, WA
4A



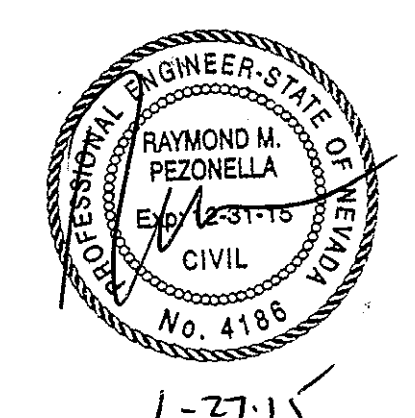
SCALE: 1" = 40'-0"

AS-BUILT INFORMATION PROVIDED BY ADAMS EXCAVATION

13-0136

WATER LINE TO BARN WELL IS NON EXISTING	Nov. 09, 2012
PER WCDHD COMMENTS	Mar. 18, 2013
SWITCHED PRIMARY AND REPAIR SYSTEM LOCATIONS PER OWNER	Nov. 01, 2013
PER WCDHD COMMENTS	Nov. 18, 2013
REVISED SHEET PER OWNER'S REQUEST	July 14, 2014
PER WCDHD COMMENTS	August 13, 2014
AS-BUILT	January 18, 2015

PERI RESIDENCE  
1580 DEL MONTE LANE  
BARN SEWAGE DISPOSAL SYSTEM  
A.P.N. 040-152-25  
WASHOE COUNTY, NEVADA



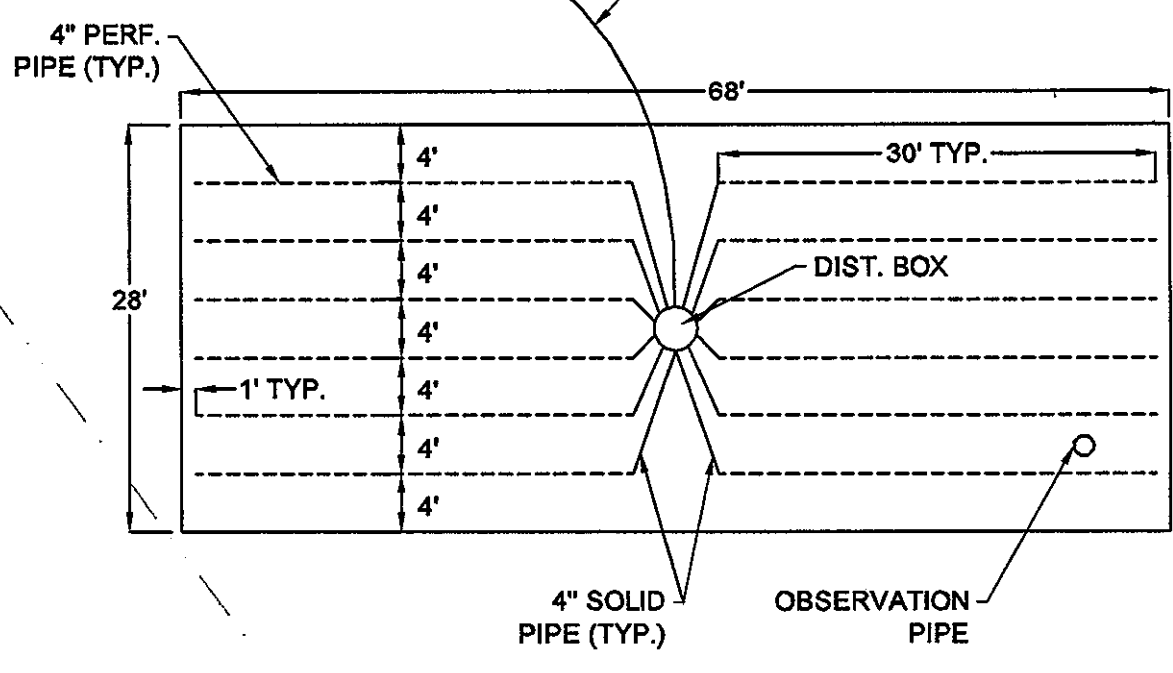
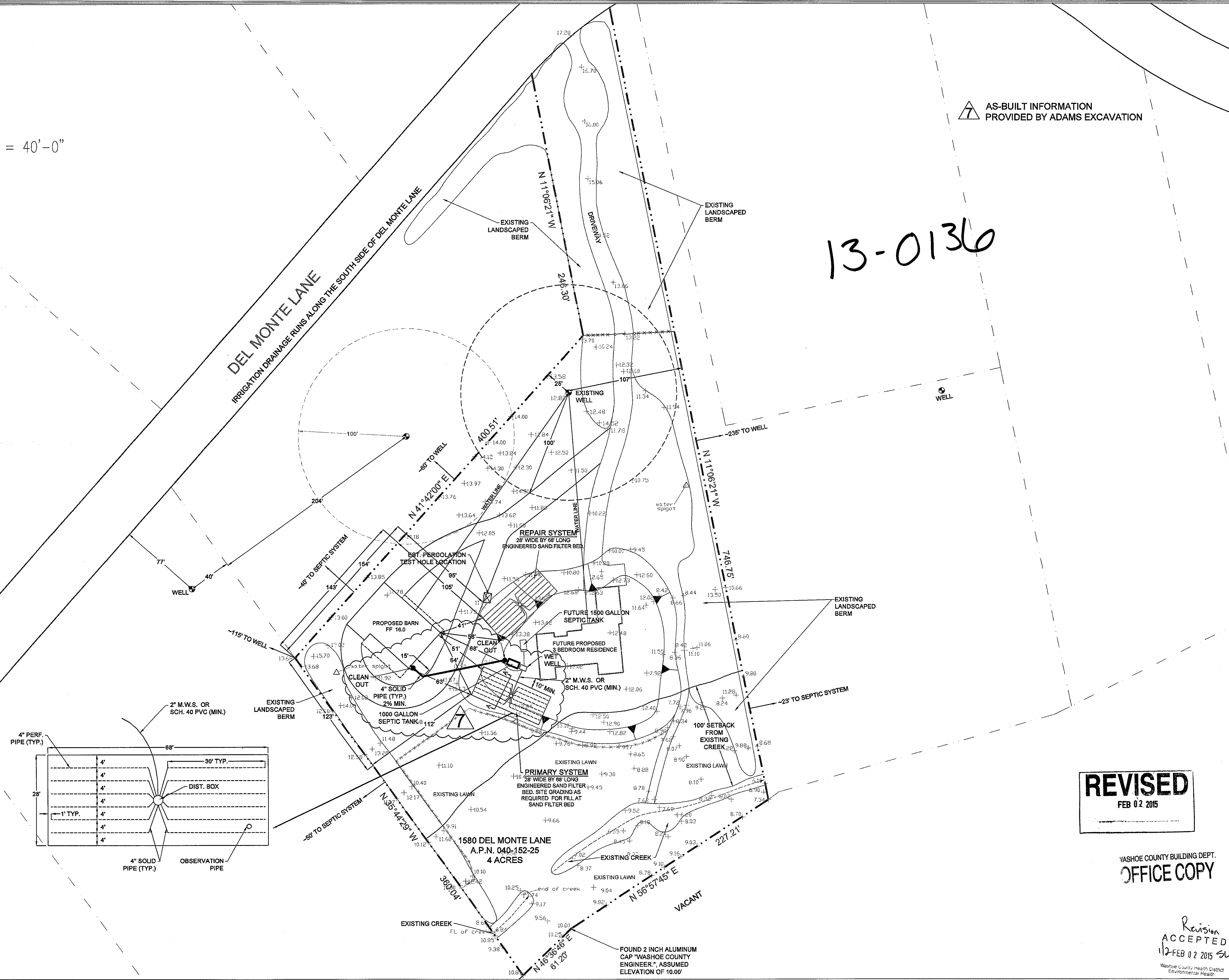
**Pezonella Associates, Inc.**  
Consulting Engineers  
520 Edison Way Reno, Nevada 89502  
PHONE (775) 856-5566 FAX (775) 856-6042

Drawn by	KLM/BEL
Job No.	6293.01-B
Date	NOV. 1, 2012
Scale	1" = 40'

Revision ACCEPTED  
12-FEB 02 2015 SL  
Washoe County Health District Environmental Health

**REVISED**  
FEB 02 2015

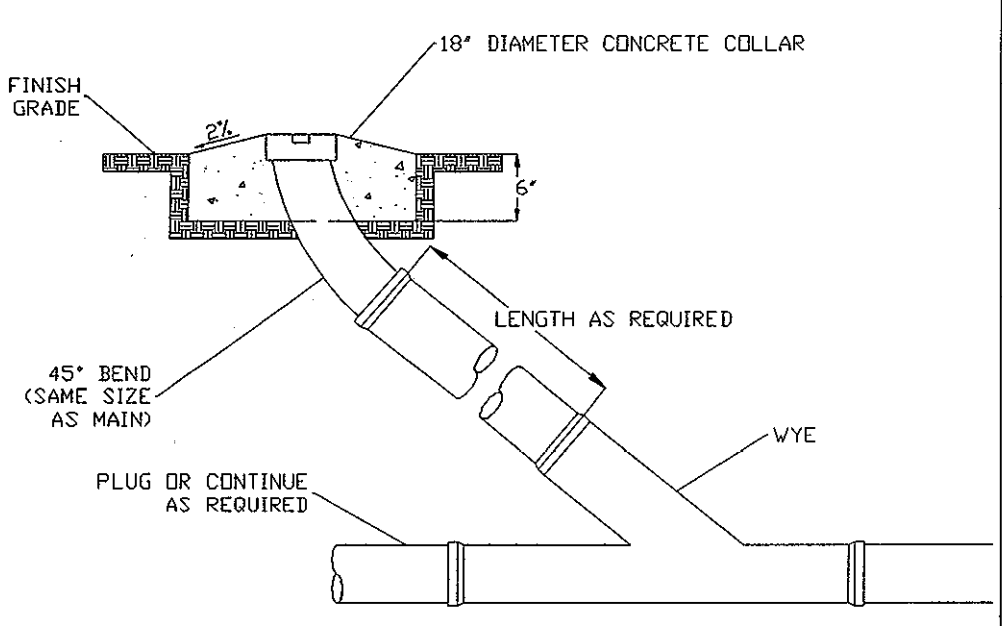
VASHOE COUNTY BUILDING DEPT.  
OFFICE COPY



1580 DEL MONTE LANE  
A.P.N. 040-152-25  
4 ACRES

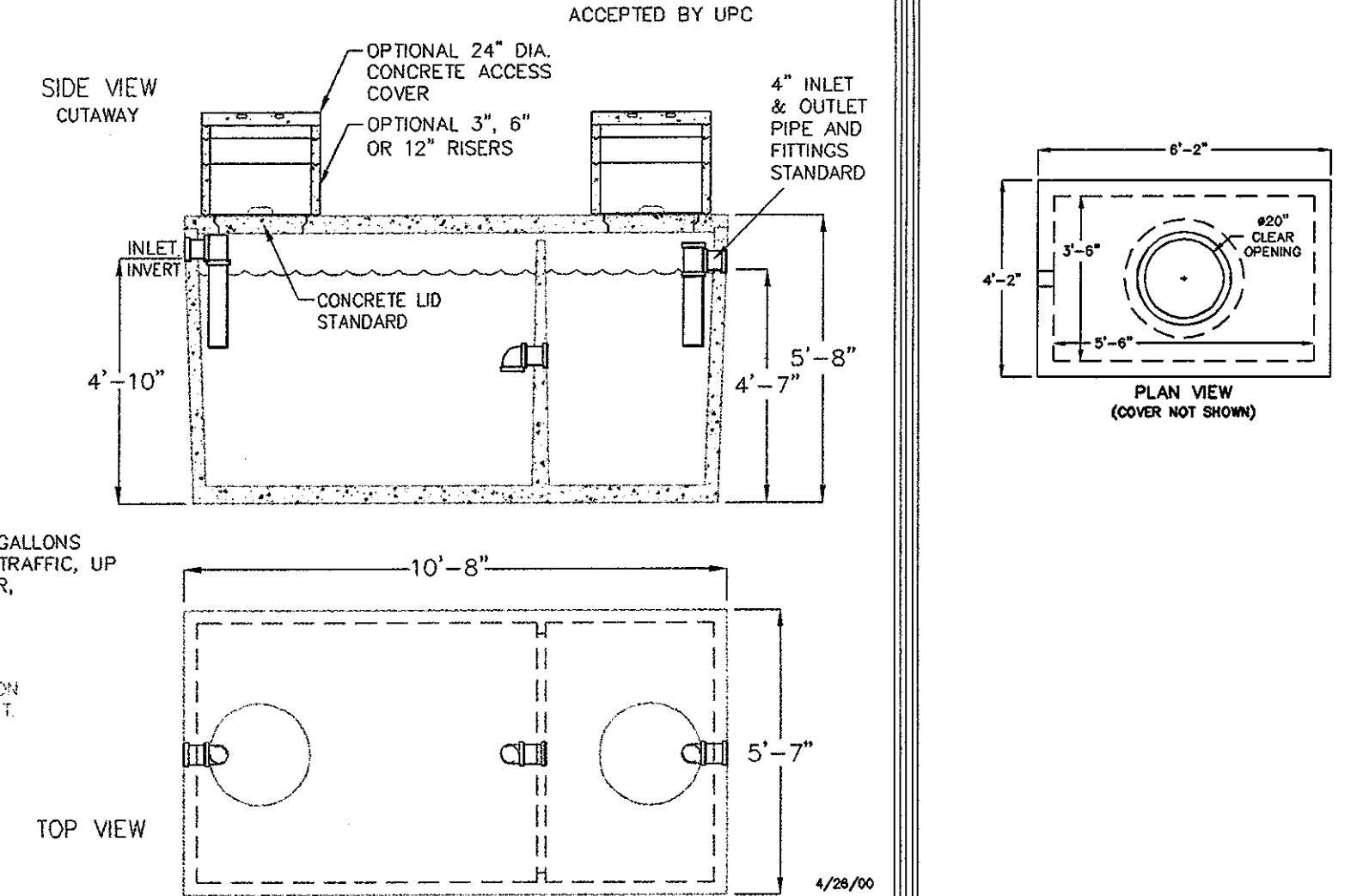
FOUND 2 INCH ALUMINUM CAP "WASHOE COUNTY ENGINEER", ASSUMED ELEVATION OF 10.00'





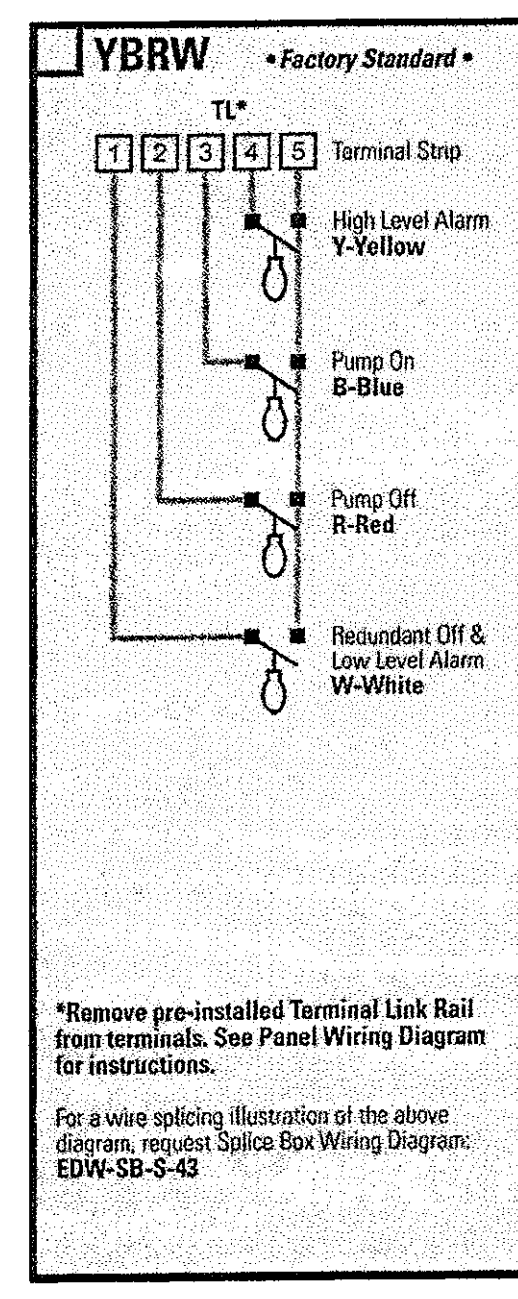
CLEAN OUT

1500 GALLON RESIDENTIAL SEPTIC TANK MODEL JS1500

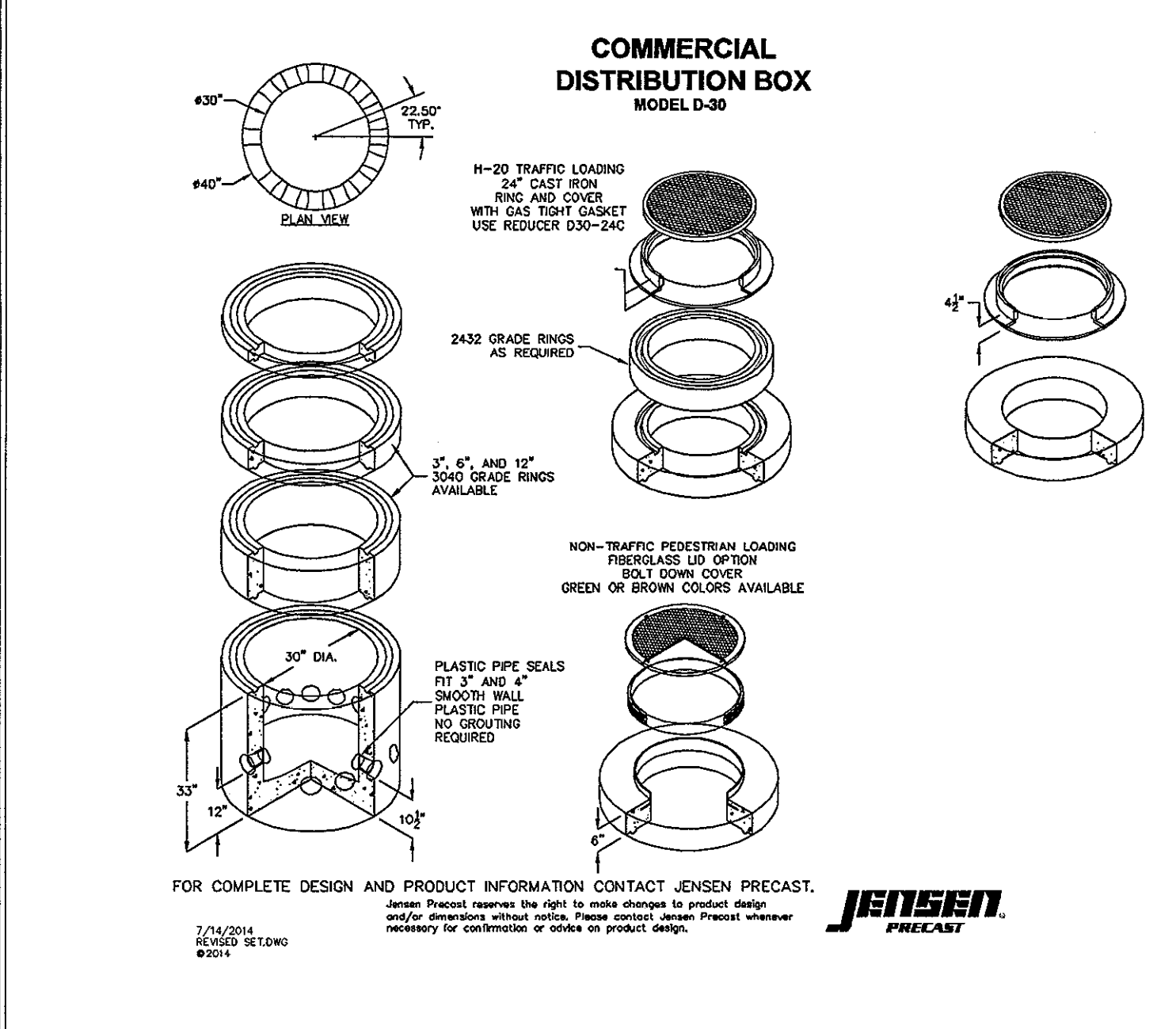
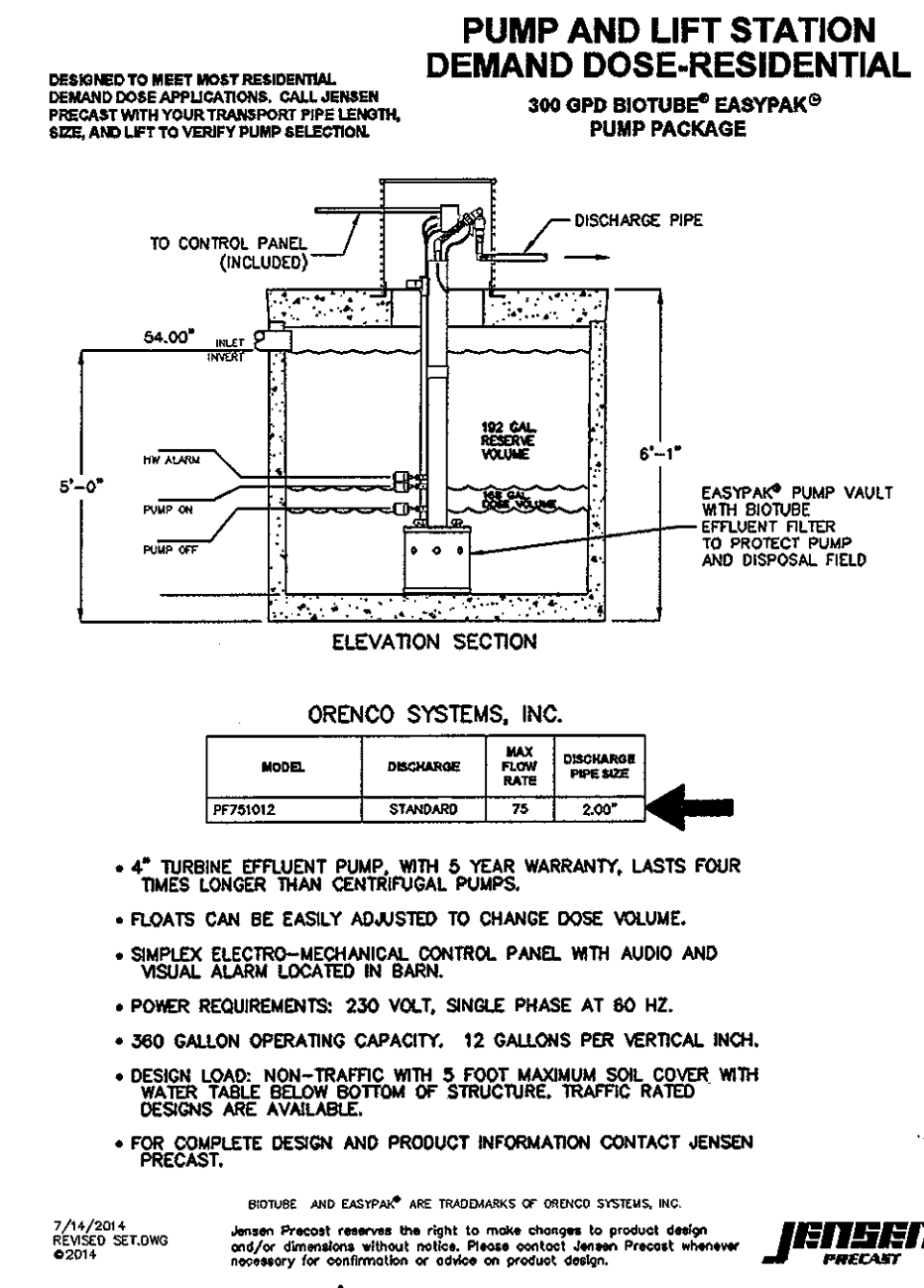


LIQUID CAPACITY: 1500 GALLONS  
BOX DESIGN LOAD: NON-TRAFFIC, UP TO 3 FEET OF SOIL COVER, MAXIMUM 500 PSF.

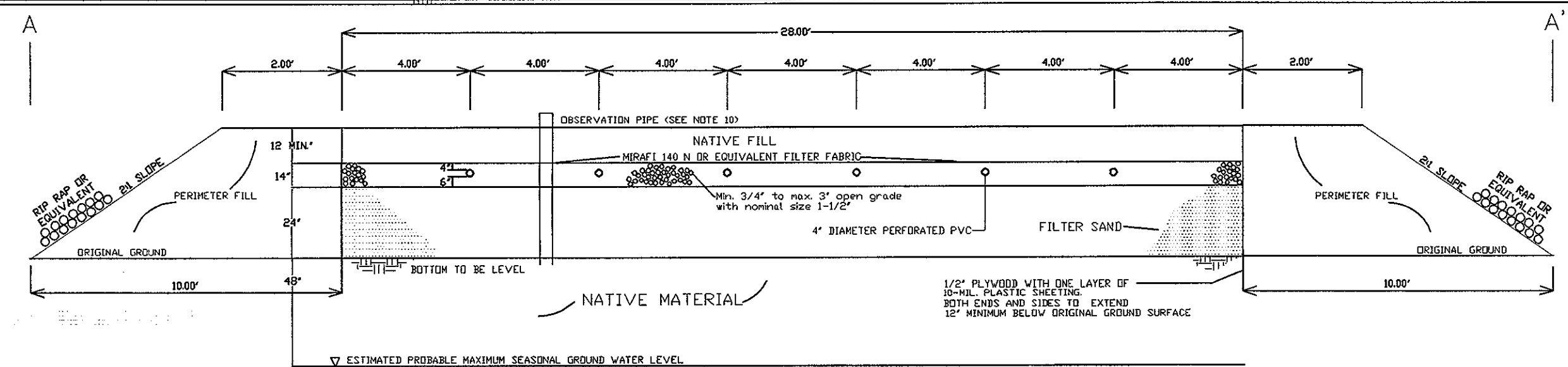
1500 GALLON SEPTIC TANK PHASE 2- FUTURE RESIDENCE



WET WELL



DISTRIBUTION BOX



- NOTES:
- ESTIMATED PROBABLE SEASONAL HIGH GROUNDWATER IS 4 FEET BELOW THE GROUND SURFACE.
  - CLEAN/WASHED GRAVEL IS IMPERATIVE IN THE GRAVEL LAYER OVERLYING THE FILTER SAND.
  - USE RIP RAP OR EQUIVALENT TO ARMOR PERIMETER FILL A MINIMUM OF 2' ABOVE EXISTING GROUND SURFACE.
- THE DISPOSAL SYSTEM SHOULD BE CONSTRUCTED IN ACCORDANCE WITH THE GUIDELINES FOR INTERMITTENT SAND FILTERS SECTION 100.100, WASHOE COUNTY DISTRICT HEALTH DEPARTMENT REGULATIONS GOVERNING SEWAGE, WASTEWATER, AND SANITATION, EFFECTIVE FEBRUARY 27, 1985, AS AMENDED MAY 23, 2013.
  - SEAL SEPTIC TANK AND WET WELL (OR DOSING CHAMBER) AND UTILIZED INTERMITTENT DOSING SYSTEM.
  - AT INLET TO DISPOSAL FIELD, PROVIDE A WATERTIGHT SEAL BETWEEN THE DISTRIBUTION LINES AND IMPERMEABLE MEMBRANE.
  - ENGINEERED FILL TO CONSIST OF MATERIAL, FREE OF ORGANIC MATTER AND DEBRIS, CONFORMING TO THE FOLLOWING GRADATION:
 

SIEVE SIZE	PERCENT PASSING (BY DRY WEIGHT)
4 INCH	100
3/4 INCH	70-100
NO. 200	20-40
- DISTRIBUTION LINES SHOULD BE SLOPED A MINIMUM OF 2 INCHES TO A MAXIMUM OF 4 INCHES PER 100 FEET. THE BOTTOM OF THE TRENCH SHOULD BE LEVEL.
  - FILTER SAND SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 100.105, WASHOE COUNTY DISTRICT HEALTH DEPARTMENT REGULATIONS GOVERNING SEWAGE, WASTEWATER, AND SANITATION, AS AMENDED MAY 23, 2013.
  - A REPRESENTATIVE SAMPLE OF THE SAND SHALL BE TESTED BY A RECOGNIZED TESTING FACILITY TO DOCUMENT CONFORMANCE WITH THE GRADATION REQUIREMENTS PRIOR TO HAULING. THE SUPPLIER SHALL PROVIDE CERTIFICATION OF THE MATERIAL QUALITY.
  - PERIMETER FILL SHALL BE MATERIAL NATIVE TO THE AREA OR SIMILAR TO NATIVE SOILS.
  - PERIMETER FILL TO EXTEND AT LEAST 10 FEET BEYOND THE EDGES OF THE BED.
  - INSTALL VERTICAL, 4 INCH DIAMETER OBSERVATION PIPE AT THE MIDPOINT OF THE BED. THE PIPE SHALL BE SLOTTED WITHIN THE GRAVEL AND SAND LAYERS AND EXTEND AT LEAST 6 INCHES ABOVE THE SURFACE OF THE BED AND TO A DEPTH OF 6 INCHES BELOW THE ORIGINAL GROUND SURFACE. A 1/2 INCH DIAMETER HOLE SHALL BE DRILLED BY THE 6 INCH PORTION OF THE PIPE WHICH PROTRUDES ABOVE THE SURFACE. PROVIDE A TIGHT FITTING, REMOVABLE PIPE CAP.
  - TO MAINTAIN 2' SEPARATION FROM MAXIMUM SEASONAL HIGH GROUNDWATER LEVEL, PLACE THE BOTTOM OF THE DISPOSAL SYSTEM ON THE EXISTING GROUND SURFACE.
  - THE SINGLE PLY IMPERMEABLE MEMBRANE SHALL NOT HAVE ANY PENETRATIONS THROUGH THE MEMBRANE BELOW 6 INCHES FROM THE FINISH GRADE.
  - THE SAND UNDERNEATH THE DISTRIBUTION BOX WILL BE COMPACTED TO MITIGATE AGAINST SETTLING.

CROSS-SECTION A-A' SAND FILTER DETAIL

PERCOLATION TESTING FOR THIS PROPERTY WAS CONDUCTED BY NORTECH. PERCOLATION RATES FOR THE TESTING WERE 6 AND 28 MINUTES PER INCH (MPI). PERCOLATION TEST LOGS FOR THESE TESTS ARE ON FILE AT THE WASHOE COUNTY DISTRICT HEALTH DEPARTMENT (WCDHD).

BECAUSE THE PERCOLATION RATES FOR THE PROPERTY TO THE EAST AND THE PROPERTY TO THE WEST WERE 90 AND 40 MPI, RESPECTIVELY, PEZONELLA ASSOCIATES INC. SET THE DESIGN PERCOLATION RATE FOR THE SUBJECT PROPERTY AT 90 MPI.

THE PERCOLATION TEST LOGS SHOW GROUNDWATER AT 5' BELOW THE GROUND SURFACE. BASED ON THIS GROUNDWATER LEVEL AND WCDHD INSPECTION OF THE TEST HOLE, SEASONAL HIGH GROUNDWATER WAS ESTIMATED AT 4' BELOW THE GROUND SURFACE.

PERCOLATION TEST

GIVEN: Barn with a 1000 gallon per day septic tank. 90 minutes per inch design percolation rate. Engineered Sand Filter Systems (Primary and Repair)

Future 3 bedroom residence; with a 1500 gallon per day septic tank. 90 minutes per inch design percolation rate. Engineered Sand Filter Systems (Primary and Repair)

USE:  $Q = \frac{5}{\sqrt{t}}$  where Q = rate of application, gallons per day per square foot (gpd/sqft), t = design percolation rate, minutes per inch (mpi)

$Q = \frac{5}{\sqrt{90}} = 0.527 \text{ gpd/sqft}$

REQUIRED AREA:  $\frac{1000 \text{ gpd}}{0.527 \text{ gpd/sqft}} = 1,898 \text{ sqft}$   $\frac{1,898 \text{ sqft}}{3'} = 633 \text{ sqft}$  (BARN)

REQUIRED AREA:  $\frac{1500 \text{ gpd}}{0.527 \text{ gpd/sqft}} = 2,846 \text{ sqft}$   $\frac{2,846 \text{ sqft}}{3'} = 949 \text{ sqft}$  (FUTURE RESIDENCE)

Total = 1,582 sqft.

SAND BED AREA MAXIMUM DAILY DOSE OF SEPTIC TANK VOLUME:  $\frac{2500 \text{ gpd}}{1.33 \text{ gpd/sqft}} = 1,880 \text{ sqft}$

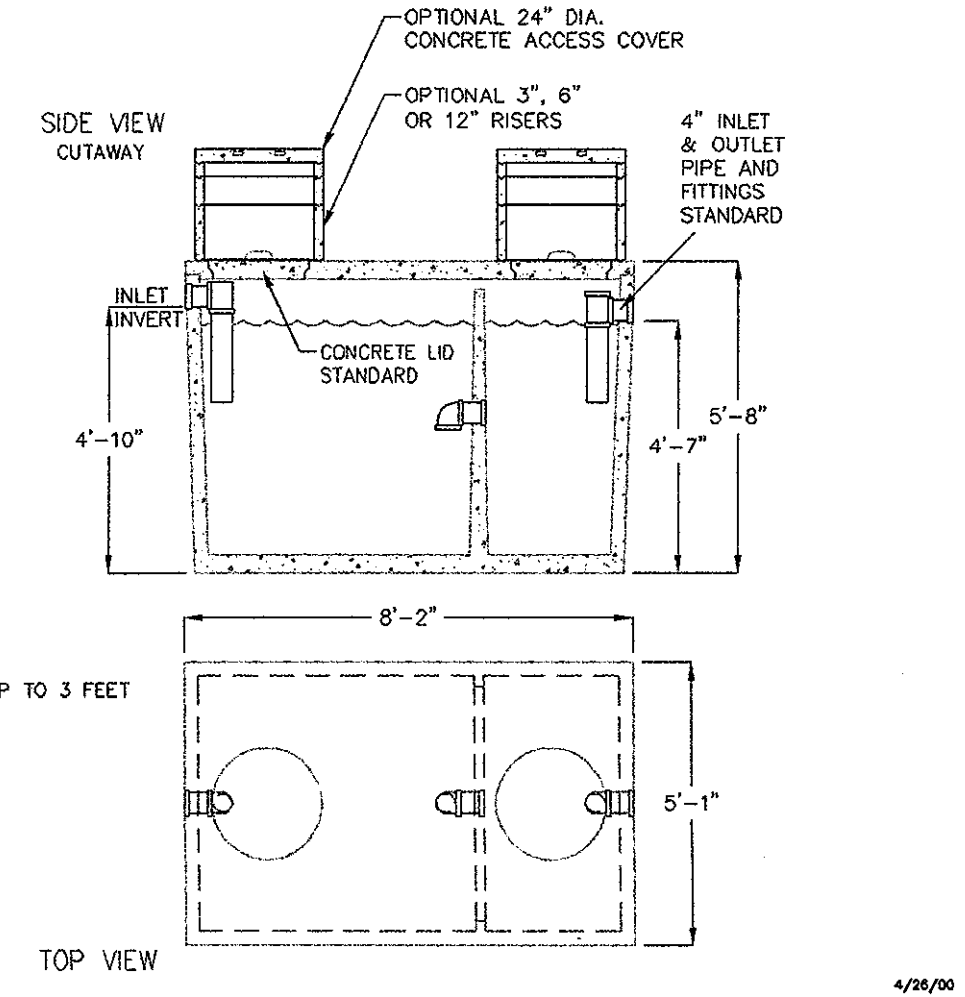
REQUIRED DIMENSIONS: Primary and Repair Systems: 28 ft. wide by 68 ft. long sand filter bed (1,904 sqft)

CALCULATIONS

- PIPING BETWEEN THE HOUSE AND SEPTIC TANK, AND SEPTIC TANK AND WET WELL SHALL HAVE A MINIMUM OF 2% SLOPE.
- NO COMMUNITY SEWER AVAILABLE WITHIN 400' OF THE PROPERTY.
- DESIGN PERCOLATION RATE IS 90 MINUTES PER INCH.
- BASED ON COMMUNITY PARCEL NO. 32031C3233G, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, DATED MARCH 16, 2009, THE ENTIRE PROPERTY IS LOCATED IN ZONE X SHADED. THIS FLOOD ZONE CONTAINS AREAS OF 0.2% ANNUAL CHANCE FLOOD AND/OR AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1' FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE.
- A CREEK IS LOCATED AT THE SOUTH END OF THE PROPERTY, AND IRRIGATION DRAINAGE IS LOCATED ALONG THE SOUTH SIDE OF DEL MONTE LANE AT THE NORTH END OF THE PROPERTY; THESE FEATURES ARE DEPICTED ON THE PLOT PLAN. THERE ARE NO OTHER WATERCOURSES OR NATURAL DRAINAGE CHANNELS WITHIN 100' OF THE PROPERTY.
- NO PUBLIC WELL WITHIN 200' OF THE PROPERTY.
- DRAINAGE AROUND RESIDENCE SHALL COMPLY WITH APPLICABLE BUILDING CODES.
- SEPTIC SYSTEM MAINTAINENCE IS RECOMMENDED. VISIT THE EPA WEBSITE AT <http://cfpub.epa.gov/owm/septic/homeowners.cfm> FOR MAINTAINENCE PROTOCOLS.
- GRADING MAY BE REQUIRED IN THE PRIMARY AND REPAIR SYSTEM AREAS TO ENSURE EQUAL DISTRIBUTION AND FLAT BOTTOMS FOR THE SAND FILTER BEDS.

SEPTIC NOTES

1000 GALLON RESIDENTIAL SEPTIC TANK MODEL JS1000



LIQUID CAPACITY: 1000 GALLONS  
BOX DESIGN LOAD: NON-TRAFFIC, UP TO 3 FEET OF SOIL COVER, MAXIMUM 500 PSF.

1000 GALLON SEPTIC TANK PHASE 1- BARN

A) DOSING CYCLE:  $V = (\pi)(R)^2(L)(0.70)$

$\pi = 3.14$   
 $R = \text{Radius of pipe (2" for 4"Ø pipe)}$   
 $L = \text{length of perforated pipe (360 ft.)}$   
 $V = 70\%$  of the volume of the perforated pipe  
 $62.4 \frac{\text{lbs}}{\text{gal}} = \text{Weight of water per cubic foot}$   
 $8.33 \frac{\text{lbs}}{\text{gal}} = \text{Pounds per gallon of water}$

$(3.14)(2 \text{ in})^2(360 \text{ ft.})(0.70) = 21.98 \text{ ft}^3$

$(21.98 \text{ ft}^3)(62.4 \frac{\text{lbs}}{\text{ft}^3}) = 165 \text{ gallons}$

$8.33 \frac{\text{lbs}}{\text{gal}}$

The dose at 70% of the volume of perforated pipe is 165 gallons.

B) Design sand filter area 28 ft. X 68 ft. = 1,904 sqft.

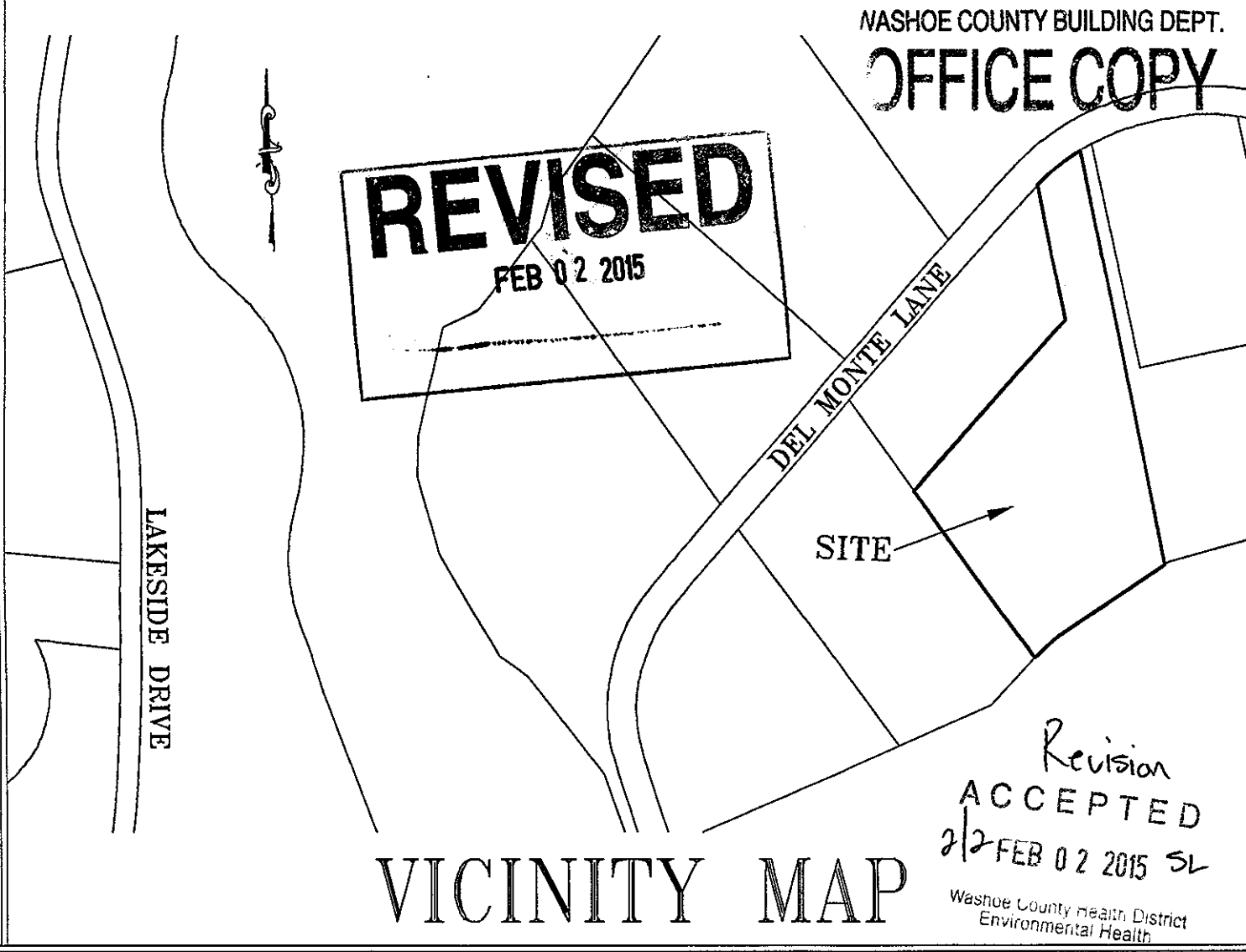
C) Maximum of 6 doses per day:  
 $(6 \text{ doses per day})(165 \text{ gal.}) = 0.52 \text{ gal./sqft. per day} \ll 1.33 \text{ gal./sqft. per day}$   
 1,904 sqft.

D) Maximum daily dose based on septic tank volume:  
 $\frac{2,500 \text{ gpd}}{1,904 \text{ sqft.}} = 1.31 \text{ gpd/sqft.}$

CALCULATIONS

LEGAL OWNER: JOSEPH PERI, D.D.S. 175 BRINKBY AVENUE RENO, NEVADA 89509 (775) 825-9225

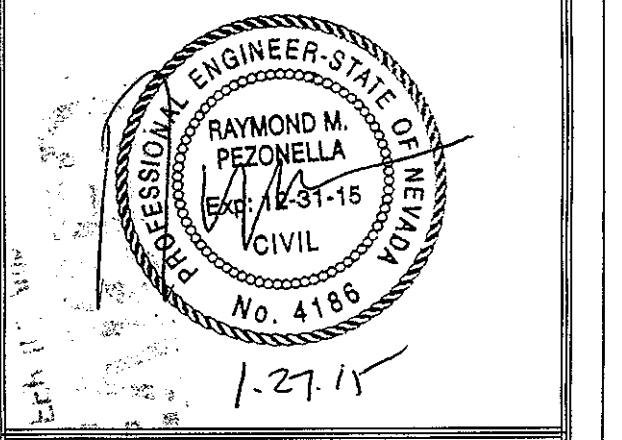
ENGINEER: PEZONELLA ASSOCIATES, INC. 520 EDISON WAY RENO, NEVADA (775) 856-5566



VICINITY MAP

PER VCDHD COMMENTS	Mar. 16, 2013
REVISED SHEET PER OWNER'S REQUEST	July 14, 2014
PER VCDHD COMMENTS	August 13, 2014
AS-BUILT	January 19, 2015

PERI RESIDENCE  
1580 DEL MONTE LANE  
BARN SEWAGE DISPOSAL SYSTEM  
A.P.N. 040-152-25  
WASHOE COUNTY, NEVADA



**Pezonella Associates, Inc.**

Consulting Engineers  
520 Edison Way Reno, Nevada 89502  
PHONE (775) 856-5566 FAX (775) 856-6042

Drawn by: KLM/BEL  
Job No.: 6293.01-B  
Date: NOV. 1, 2012  
NTS

Washoe County Building Department  
REVIEWED FOR CODE COMPLIANCE  
ACCEPTED  
212 FEB 02 2015