



NIBLEY CITY COUNCIL MEETING AGENDA  
Thursday, February 16, 2017 – 6:30 p.m.  
Nibley City Hall 455 West 3200 South, Nibley, Utah

1. Opening Ceremonies (Councilmember Hansen)
2. Call to Order and Roll Call (Chair)
3. Approval of Minutes and Agenda (Chair)
4. Public Comment Period<sup>1</sup> (Chair)
5. Discussion and consideration of a building design and site plan review for Heritage Vet Clinic/Kennel located at 2365 S Heritage Drive
6. Presentation regarding the Parks Master Plan Update by Civil Solutions
7. Discussion and Consideration of an appointment to the Nibley City Planning Commission
8. Discussion and Consideration of Ordinance 17-04: An ordinance prohibiting the provision of utilities outside Nibley City limits (First Reading)
9. Discussion of a Wastewater Progress Report
10. Council and Staff Reports

### **Adjourn Meeting**

*IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT, REASONABLE ACCOMMODATIONS FOR INDIVIDUALS WITH DISABILITIES WILL BE PROVIDED UPON REQUEST. FOR ASSISTANCE, PLEASE CALL 752-0431 A MINIMUM OF 24 HOURS BEFORE THE MEETING.*

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<sup>1</sup> *Public input is welcomed at all City Council Meetings. 15 minutes have been allotted to receive verbal public comment. Verbal comments shall be limited to 3 minutes per person. A sign-up sheet is available at the entrance to the Council Chambers starting 15 minutes prior to each council meeting and at the rostrum for the duration of the public comment period. Commenters shall identify themselves by name and address on the comment form and verbally for inclusion in the record. Comment will be taken in the order shown on the sign-up sheet. Written comment will also be accepted and entered into the record for the meeting if received prior to the conclusion of the meeting. Comments determined by the presiding officer to be in violation of Council meeting rules shall be ruled out of order.*



**Nibley City Council  
Agenda Report for  
February 16, 2017**

**Agenda Item # 5**

<b>Description</b>	Discussion and consideration of a building design and site plan review for Heritage Vet Clinic/Kennel located at 2365 S Heritage Drive
<b>Department</b>	Planning
<b>Presenter</b>	Stephen Nelson, City Planner
<b>Applicant</b>	Jim Miller
<b>Background</b>	<p>By way of general comment, in the past, when a site plan has been for a single, small building, the opinion and direction of the Council and Planning Commission has been that a concept presentation could be waived and that preliminary and final site plan could be done as one approval. The approval being requested at this time is the final site plan and building design.</p> <p>Heritage Vet Clinic/Kennel is a small-animal vet clinic being proposed to be constructed at 2365 S Heritage Drive. This property is zoned Commercial. A small-animal vet clinic is listed as a conditional use in the commercial zone. That conditional use permit is not on the agenda at this time and would be considered by the planning commission at the time of businesses licensing.</p> <p><b>Plat:</b> The building is being proposed on a 1.5 acre lot in the Sierra Commercial Subdivision. The location of the building complies with the 20 ft. front setback. The Utility easements are properly notated and labeled. The plat also meets the requirements to show the surrounding buildings and streets within 300 ft. The applicant has included the construction drawings for the improvements to the utilities and infrastructure. Plans for these improvements comply with Nibley City Design Standards.</p> <p>The site plan also includes stormwater infrastructure that meets Nibley City Standards.</p> <p><b>Easement:</b> There is a sewer easement located along the west side of the property, behind the building. This is the main sewer line that runs to the Hansen lift station, (the City's primary lift station) is located on this applicant's property, between the proposed building and the west property line. The plat currently shows the building sitting just outside of the easement. Their engineer has relocated</p>

the building just outside the easement. However, a section of the building footing is in the easement. Because the footing is in the easement, the developer has agreed to have the back foundation wall 8' ft. deep and to sign a liability waiver to indemnify the city against any potential damage his building might sustain if the City ever needed to conduct repairs to the sewer line.

As noted on the landscaping plan, there are a number of trees located on the easement. Staff and the Planning Commission recommend that the City waive the requirement to have trees planted on that section of landscaping and adjust the number of required trees down accordingly.

**Building:**

The building is a total of 9,702 square ft. and two stories tall. The building will be 25 ft. tall. The height limitation in the Commercial Zone is 40 feet. The exterior of the building will be made out of Hardi-Board Siding and Drystack LedgeStone Stone Veneer and will be earth-tone colors.

Currently, along the front elevation, the gross exterior façade is 1,157 sq. ft. and fenestration is 482.5 sq. ft. with a total of 41.7%. Nibley City Design Standards for Commercial Building requires that that front façade of commercial building has at least 60% fenestration. The building does not comply as proposed and will need to be addressed.

The Nibley City Design Standard for Commercial and Institutional Developments in section 1.2 states:

*“The Standards are not meant to preclude making exception in the case of innovative design, and variances are allowed at the discretion of the governing bodies...Adherence to the standards may require some flexibility depending on specific site conditions. Such flexibility, however, will not be contrary to the general intent for each section, as described.”*

The standards do give the governing body some discretion and flexibility to apply the code differently for unique developments. Staff has provided a letter to the Council from the property owner addressing these concerns and asking for deviation from the standard. His primary reason for the request is privacy and safety for the animals. It is staff’s opinion that the design of the building matches the intent of the law and will match the surrounding development. The Planning Commission waived the requirement for 60% fenestration at the façade of the building on January 25, 2017.

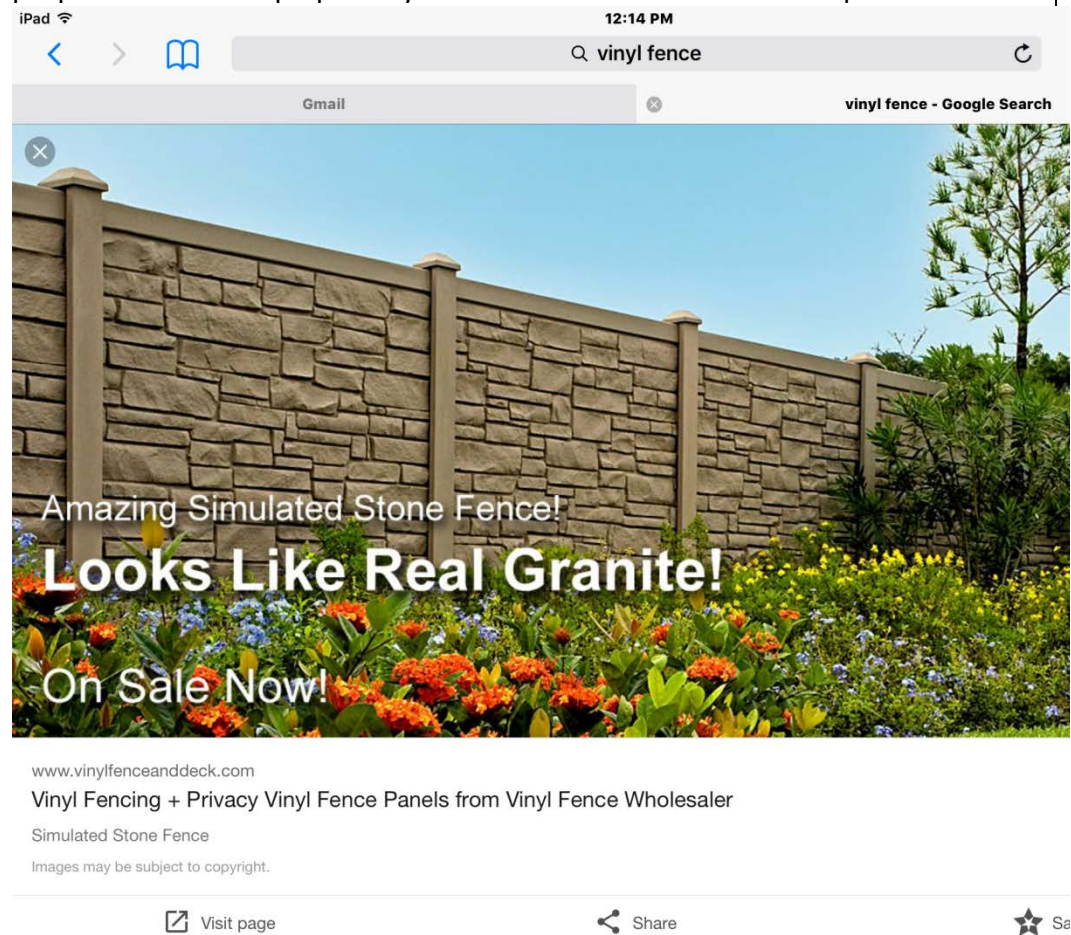
**Landscaping:**

Nibley City Code 10-12-17 requires that lots in the commercial zone have a minimum of 20% of landscaping. The building is being proposed to be built on

a 1.5 acre lot, which requires a 13,068 sq. ft. of landscaping, there is a total of 13,620 sq. ft. of landscaping proposed on the plan.

Nibley City Code requires for commercial buildings that there be a tree for every 300 sq. ft. of landscaping, which means that there would need to be 44 trees. The landscaping plan currently has 44 trees; however, staff recommends that the City waive the requirements for trees in the easement to allow staff to have access to the easement in the future if needed. Doing so would drop the number of trees to 25.

There will also be a fence on the property surrounding a dog run. The fence is proposed to be an opaque vinyl or concrete fence similar in the picture below.



**Parking:**

Nibley City Code 10-12-16 requires that adequate parking be provided for all commercial buildings based on the type of use. Below is the table with the requirements:

	<table border="1" data-bbox="407 268 1446 499"> <tr> <td data-bbox="407 268 951 499">Professional offices, such as doctors, lawyers, dentists, chiropractors, insurance offices, real estate brokers, beauticians</td> <td data-bbox="951 268 1446 499">3 spaces per professional member, plus 1 space per professional and staff employee</td> </tr> </table> <p data-bbox="407 541 1446 653">Heritage Vet clinic will have 3 professional employees and 10-12 staff members. This would require 24 parking spots. The plat has 29 parking spots plus 2 additional ADA spots, for a total of 31, which exceeds the requirement.</p> <p data-bbox="407 695 1446 806">The Planning Commission recommended approval of the site plan and design for Heritage Vet Clinic/Kennel with a waiver for the 60% fenestration requirement and that no trees be planted on the easement.</p>	Professional offices, such as doctors, lawyers, dentists, chiropractors, insurance offices, real estate brokers, beauticians	3 spaces per professional member, plus 1 space per professional and staff employee
Professional offices, such as doctors, lawyers, dentists, chiropractors, insurance offices, real estate brokers, beauticians	3 spaces per professional member, plus 1 space per professional and staff employee		
<b>Findings</b>	<ul data-bbox="451 856 1446 1161" style="list-style-type: none"> <li>• The plat meets Nibley City Standards</li> <li>• Landscaping meets Nibley City Code</li> <li>• In general, the building complies with Commercial Design Standard except for the fenestration along the façade of the building. The City Council and Planning and Zoning Commission have the authority to grant a variance to these standards at their discretion. The Planning Commission waived the requirement for 60% fenestration at the façade of the building on January 25, 2017.</li> </ul>		
<b>Recommendation</b>	Approve the proposed site plan and design, with a modification of the 60% fenestration requirement down to 40% and waiving the requirement to have trees in the landscaping along the sewer easement.		
<b>Reviewed By</b>	City Planner, City Manager, City Engineer, City Public Works Director, Nibley City Building Inspector, Nibley City Planning Commission		

**Agenda Item # 6**

<b>Description</b>	Presentation regarding the Parks Master Plan Update by Civil Solutions
<b>Department</b>	Planning, Recreation, and Parks
<b>Presenter</b>	Civil Solutions
<b>Applicant</b>	
<b>Background</b>	<p>Nibley City has contracted Civil Solutions to help the City create a new Parks, Trails, Recreation and Open Space Masterplan. This plan's goal is to provide the City with clear direction over the next few years for developing these programs and creating a wonderful place to live and work. Civil Solutions has been working on the project for several months now and is coming to give an update regarding their progress.</p> <p>One aspect of the plan that they will cover in more detail is the future landscaping plan for Serenity Park/Heritage Park expansion. They are planning to show a few concepts with some landscape drawings.</p>
<b>Findings</b>	
<b>Recommendation</b>	Give staff and Civil Solutions feedback on progress and for Serenity Park.
<b>Financial Impact</b>	The budget for the park master plan update is \$35,000.
<b>Reviewed By</b>	City Planner and City Manager

**Agenda Item # 7**

<b>Description</b>	Discussion and Consideration of an appointment to the Nibley City Planning Commission
<b>Department</b>	Planning
<b>Presenter</b>	Mayor Dustin
<b>Applicant</b>	
<b>Background</b>	<p>There is currently a vacancy on the Nibley City Planning Commission. Where there is a vacancy, Nibley City Code 2-1-1 (A) states:</p> <p><i>The Mayor, with advice and consent of the City Council, shall appoint all members and alternates to the Planning Commission. Members of the city council may not be appointed to the planning commission.</i></p> <p>Nibley City Code 2-1-2 Terms of office states:</p> <p><i>Each member of the planning commission shall serve for a term of five (5) years and until his successor is appointed; provided, that the term of the first members shall be such that the terms of one member shall expire each year.</i></p> <p>The Mayor has reached out to Aaron Bliesner, who is currently serving as an Alternate for the Planning Commissioner, and the Mayor has asked him to serve another 5 year term on the Commission. Mr. Bliesner has served two full terms on the Commission (appointed for the first time in January 2006 and again in 2011) and in 2016, he was appointed as an Alternate on the Commission. In January of 2017, Mr. Bliesner was selected as vice chair for the Commission to serve this year.</p>
<b>Findings</b>	
<b>Recommendation</b>	Approve the appointment of Aaron Bliesner to the Nibley City Planning Commission.
<b>Financial Impact</b>	Commissioners are paid \$50.00 per meeting attended.
<b>Reviewed By</b>	Mayor Dustin, City Planner and City Manager

**Agenda Item # 8**

<b>Description</b>	Discussion and Consideration of Ordinance 17-04: An ordinance prohibiting the provision of utilities outside Nibley City limits (First Reading)
<b>Department</b>	Planning
<b>Presenter</b>	Stephen Nelson, City Planner
<b>Applicant</b>	
<b>Background</b>	<p>This ordinance would require all applicants that would like to connect to Nibley City utilities services to be within city limits. Currently, the City does have a few connection into the water and sewer systems from outside the City, however, City staff has concerns about continuing that policy and adding new outside connection. There is a lot of area surrounding the City that could be developed where developers may wish to tie into City utilities. In order to ensure the best service to Nibley residents and businesses, this ordinance is proposing to limit future connections just to the properties within the City. If a property outside the City wishes to apply to connect to the City's water and sewer systems, they would need to properly annex into the City first.</p> <p>There are several reasons why staff believes this issued should considered:</p> <ul style="list-style-type: none"><li>• Nibley City installed these systems to serve Nibley residents and business, not to serve those in the unincorporated areas.</li><li>• This change in the code would give staff clear direction of when to accept or not to accept an application to making a connection to the City's system.</li><li>• It is possible, that if multiple connections are made from outside the City, this could cause more maintenance, including high maintenance cost, and the City would be more likely to replace infrastructure sooner. However, a lot, if not all of these costs, would be paid for impact fees and utility charges from the new connections.</li></ul> <p>Utility users who might currently be outside of City limits would be able to continue using services under this ordinance.</p>
<b>Findings</b>	
<b>Recommendation</b>	Review and approval for a second reading
<b>Reviewed By</b>	City Planner, City Manager, City Attorney, and Utility Manager

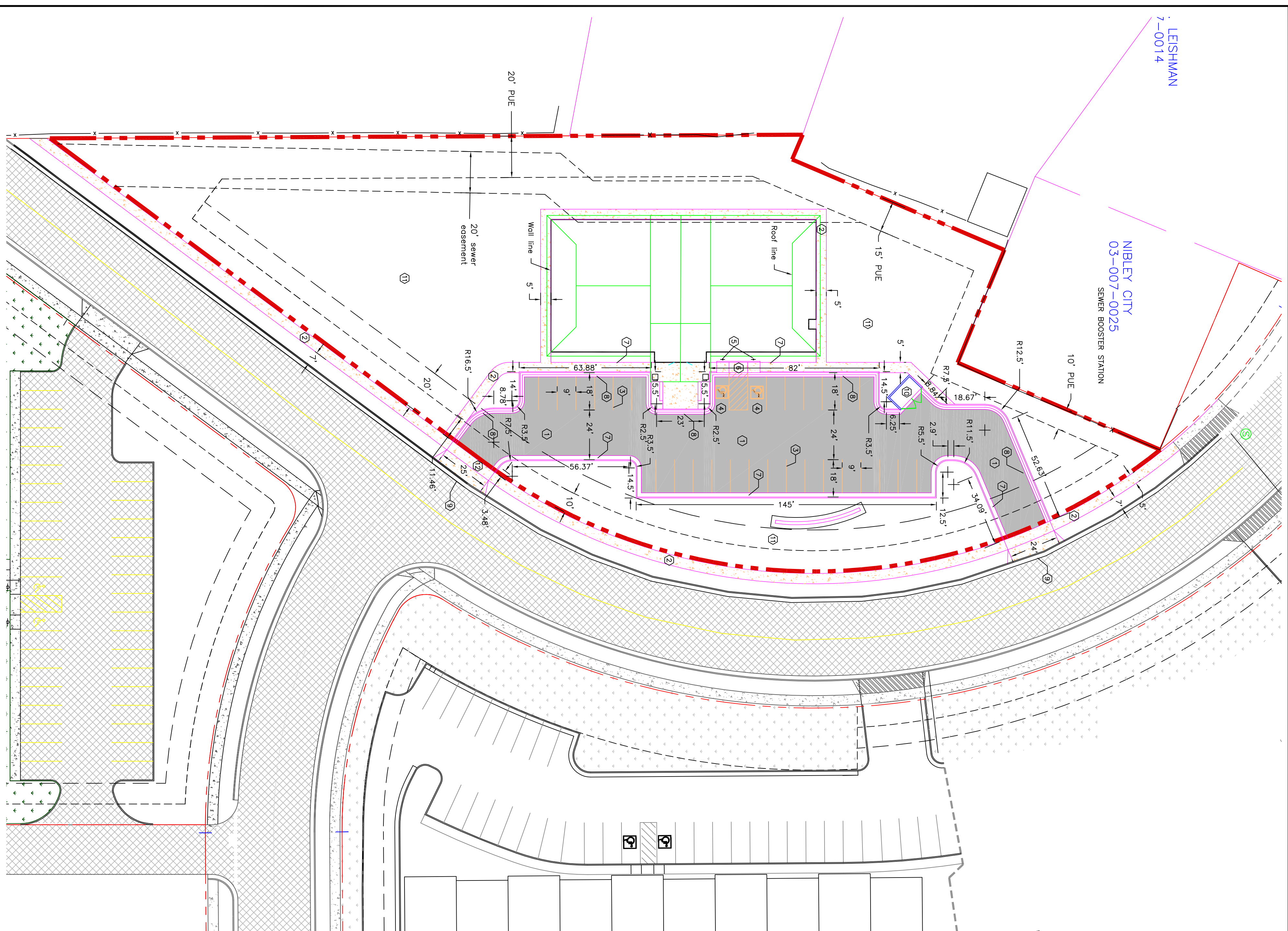


**Agenda Item # 9**

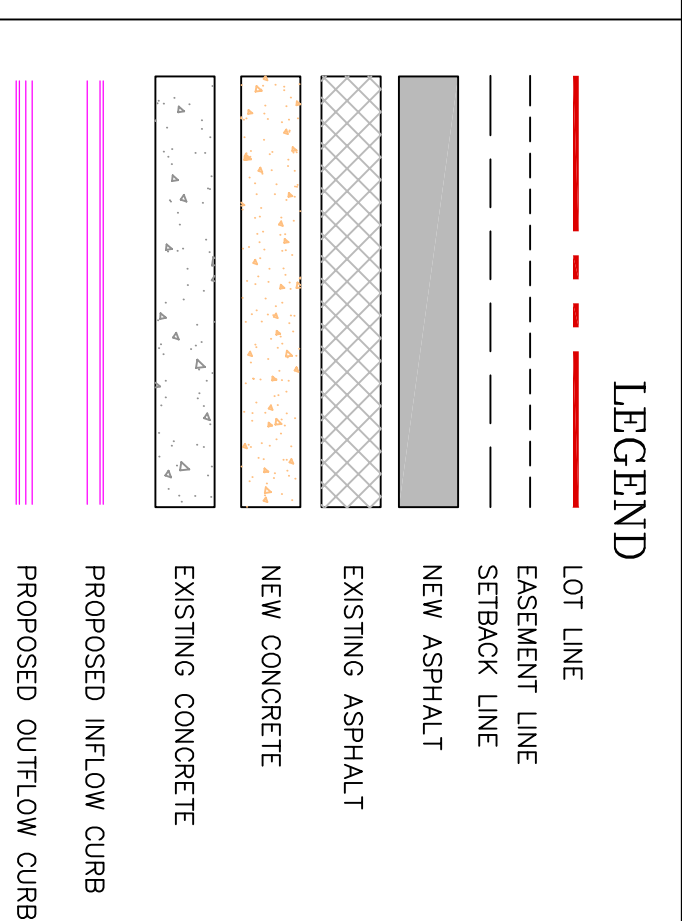
<b>Description</b>	Discussion of a Wastewater Progress Report
<b>Department</b>	Planning
<b>Presenter</b>	Mayor Dustin
<b>Applicant</b>	
<b>Background</b>	Mayor Dustin will provide an update to the City Council on the latest discussions with Hyrum and Providence Cities regarding the potential for further study and collaboration on wastewater treatment.
<b>Findings</b>	
<b>Recommendation</b>	N/A
<b>Reviewed By</b>	Mayor Dustin, the City Manager and City Planner

LESHMAN  
7-0014

NIBLEY CITY  
03-007-0025  
SEWER BOOSTER STATION

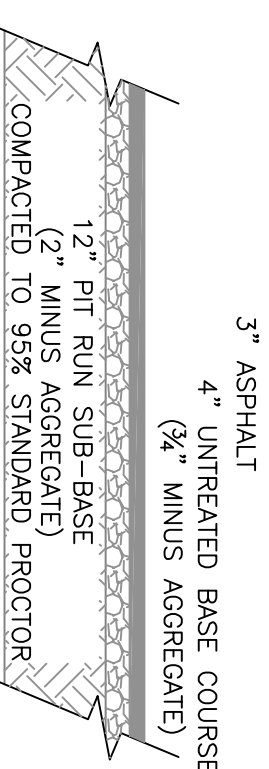


AREA MAP  
SCALE: 1" = 100'

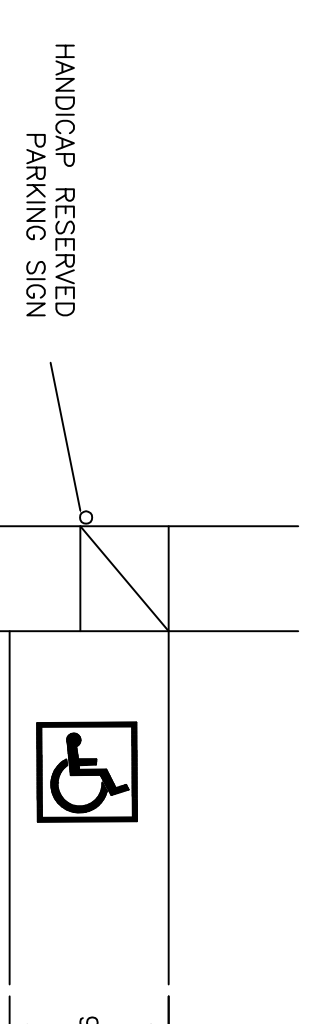


**SITE REFERENCE NOTES**

- ① 3" ASPHALT OVER PROPERLY PREPARED BASE COURSE. DRAIN AS PER GRADING/DRAINAGE PLAN.
- ② 4" CONCRETE SIDEWALK w/ 4" GRAVEL BASE PER CITY STANDARD
- ③ PAINTED PARKING LOT STRIPING.
- ④ WHITE HANDICAPPED LOGO WITH BLUE BACKGROUND PAINTED
- ⑤ "HANDICAPPED RESERVED PARKING SIGN MOUNTED ON METAL POLE BEHIND THE SIDEWALK (CENTER IN STALL)
- ⑥ ADA RAMP
- ⑦ 30" INFLOW CURB AND GUTTER
- ⑧ 30" OUTFLOW CURB AND GUTTER
- ⑨ CURB CUT (PER APVA PLAN 221)
- ⑩ 14'x8" 8" THICK ENCLOSED CONCRETE DUMPSTER PAD-SEE ARCHITECT PLAN
- ⑪ LANDSCAPING (SEE LANDSCAPE PLAN)
- ⑫ SIDEWALK AT DRIVEWAY (PER APVA PLAN 231)

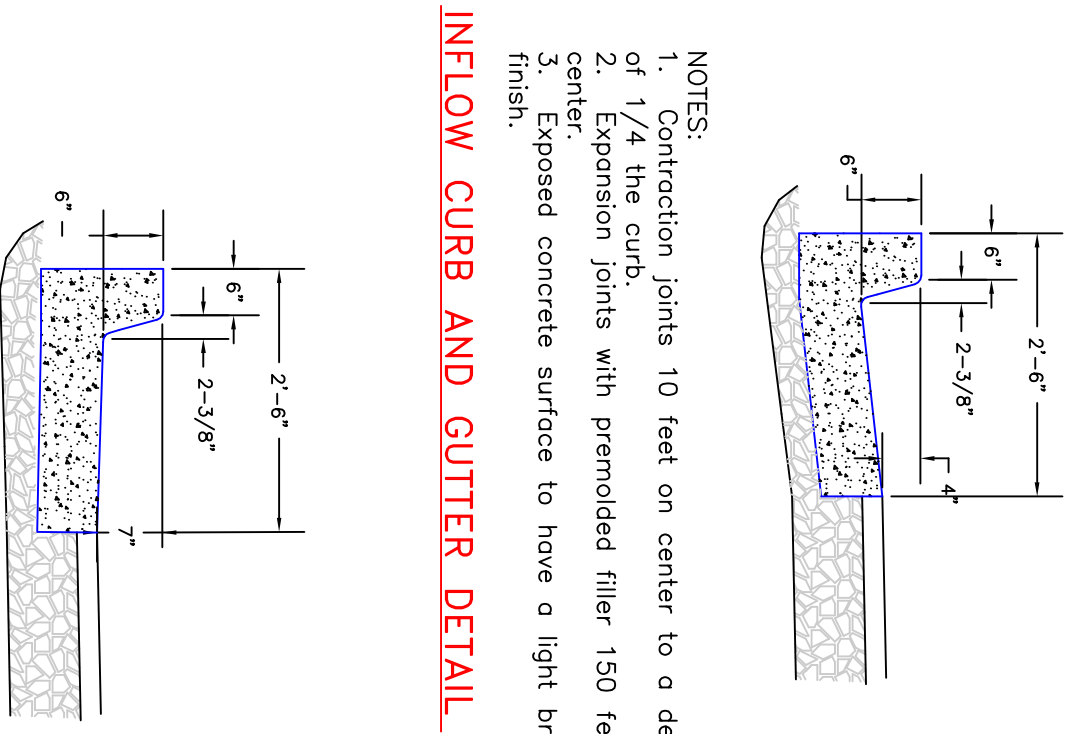


**PARKING PAVEMENT SECTION**  
NOT TO SCALE



**HANDICAP STALL DETAIL**  
NOT TO SCALE

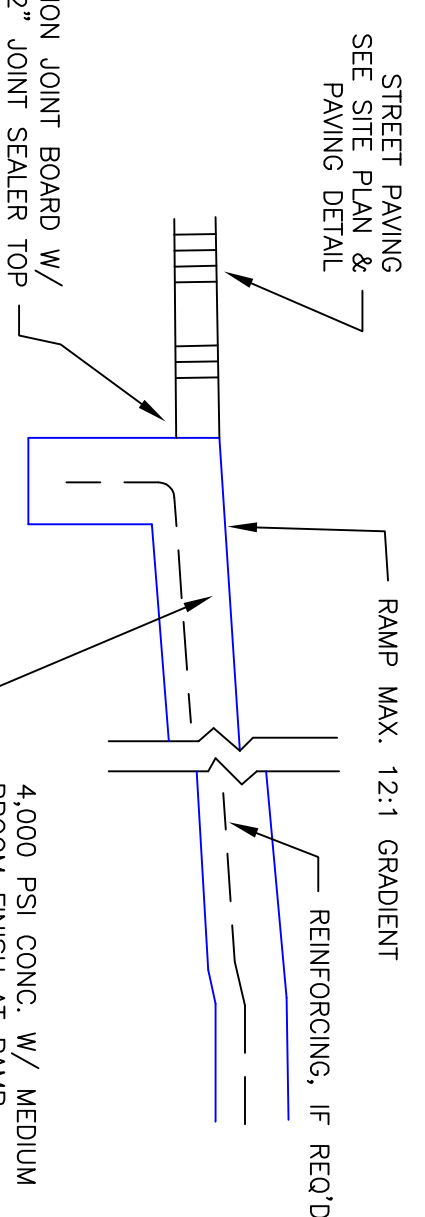
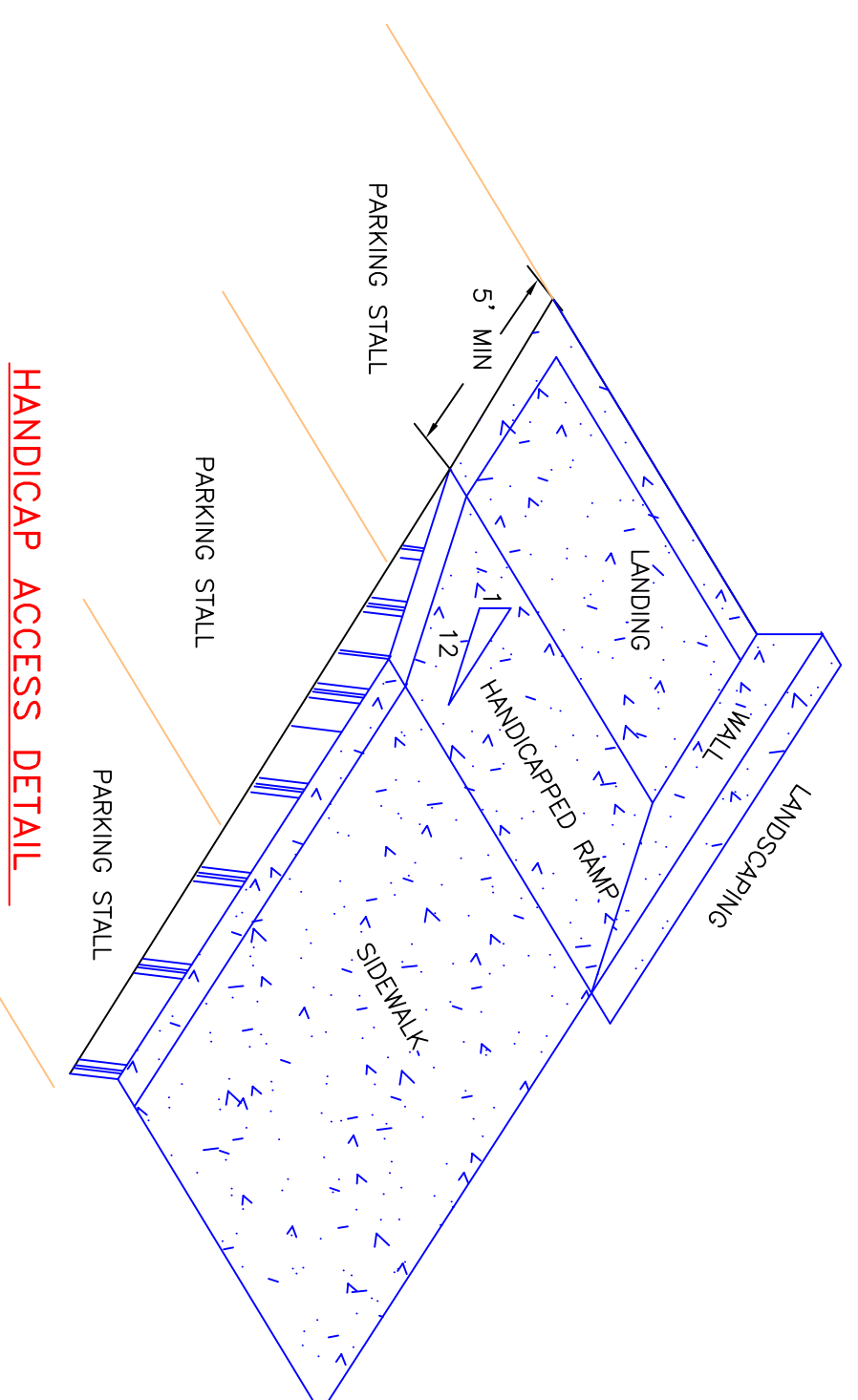
**INFLOW CURB AND GUTTER DETAIL**



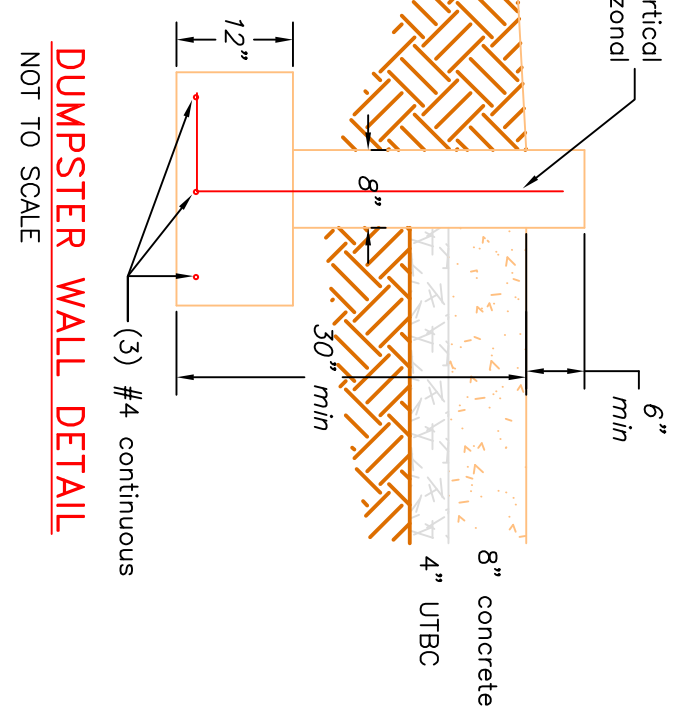
**OUTFLOW CURB AND GUTTER DETAIL**

- NOTES:
1. Construction joints 10 feet on center to a depth of 1/4 the curb.
  2. Expansion joints with preformed filler 150 feet on center.
  3. Exposed concrete surface to have a light broom finish.

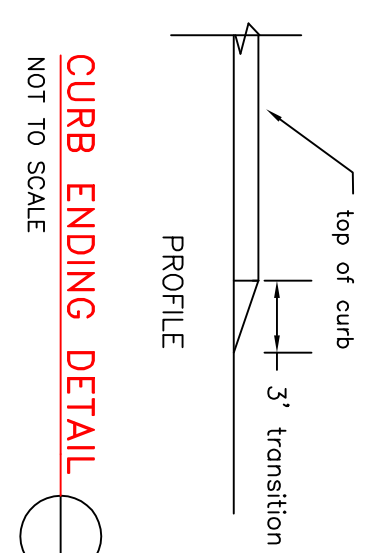
**HANDICAP ACCESS DETAIL**



**HANDICAP ACCESS SECTION**  
NOT TO SCALE



**DUMPSTER WALL DETAIL**  
NOT TO SCALE



**CURB ENDING DETAIL**  
NOT TO SCALE

PROJECT TITLE  
**SIERRA COMMERCIAL PARK, LOT 7**

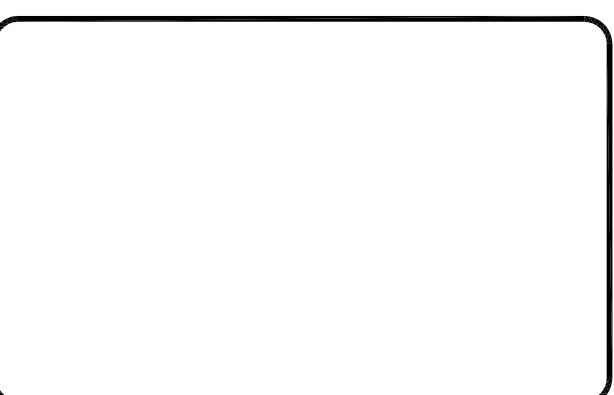
PART OF THE SW 1/4 OF SECTION 17,  
TOWNSHIP 11 NORTH, RANGE 1 EAST,  
SALT LAKE BASELINE & MERIDIAN  
NIBLEY, UTAH

DRAWING TITLE  
**SITE PLAN**

DATE: SEPT 2016  
DRAWING NO. **2**

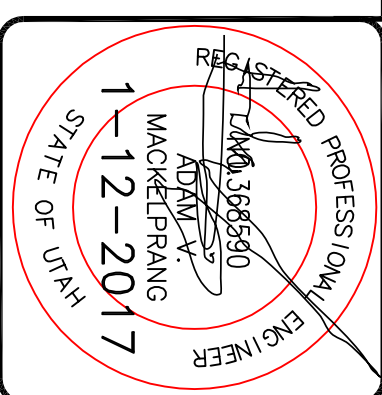
No.	REVISIONS/ SUBMISSIONS	DATE

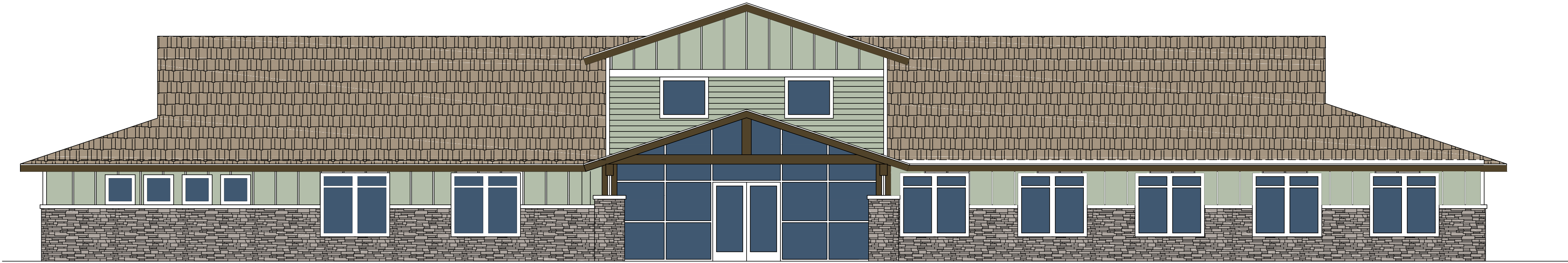
REVIEWED: \_\_\_\_\_ DRAWN: \_\_\_\_\_  
CAD FILE: \_\_\_\_\_ PROJECT NO: \_\_\_\_\_



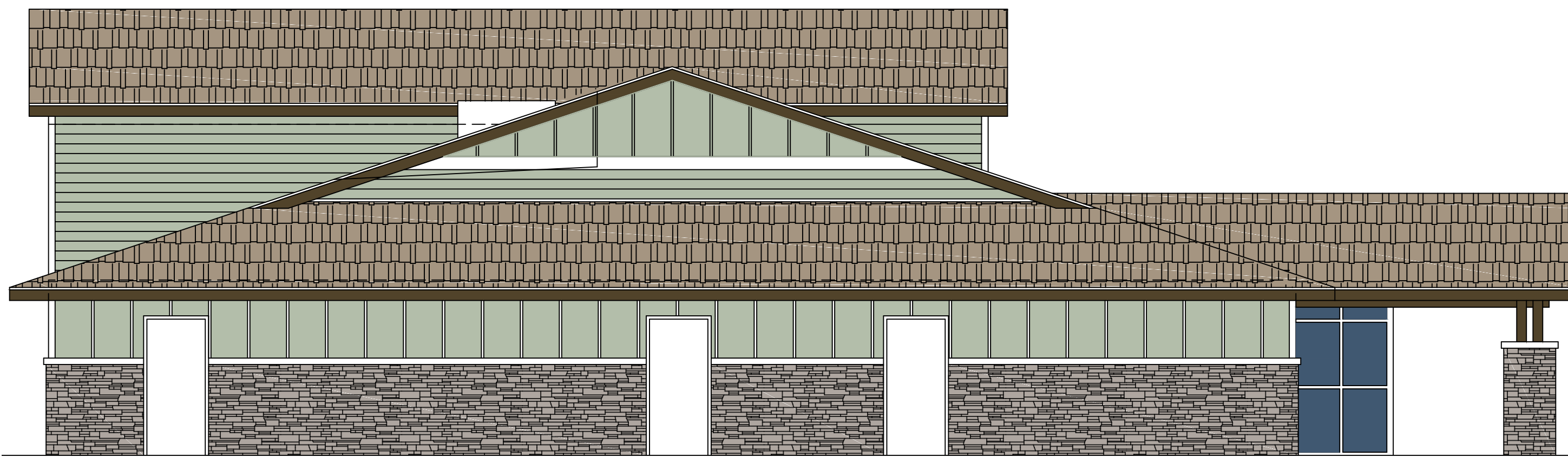
**AE ALLIANCE CONSULTING ENGINEERS**

150 EAST 200 NORTH SUITE P  
LOGAN, UTAH 84321  
(435)755-5121  
alliancecloganam@yahoo.com

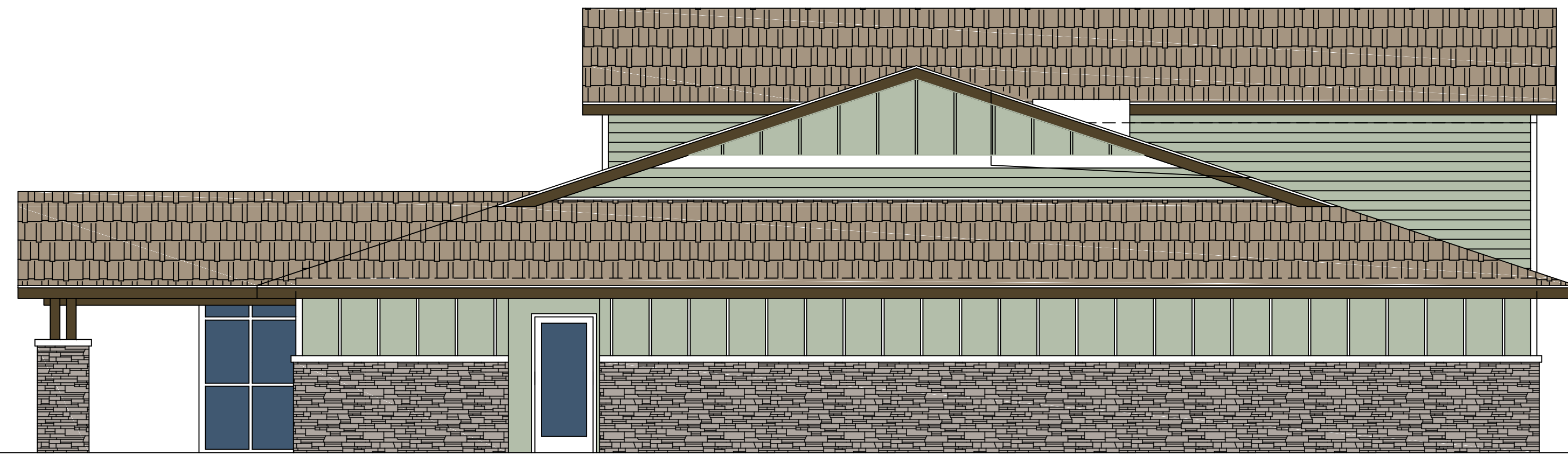




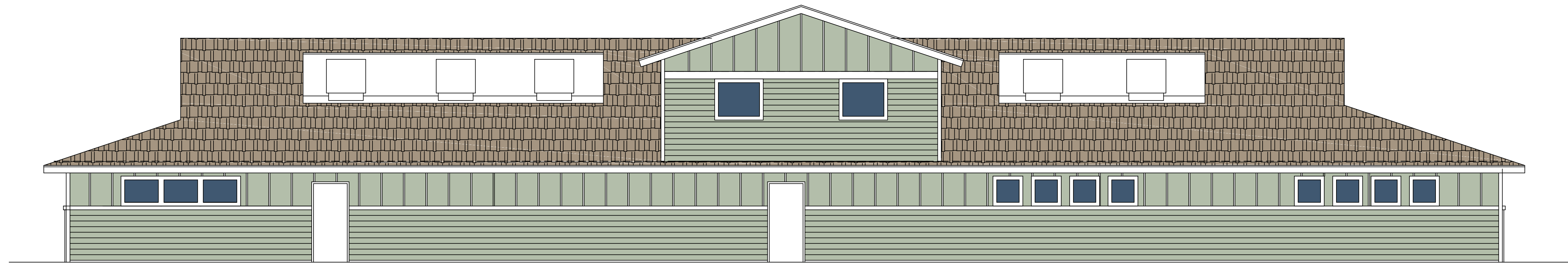
EAST ELEVATION (FRONT)  
SCALE: 3/16" = 1' - 0"



SOUTH ELEVATION (SIDE)  
SCALE: 3/16" = 1' - 0"



NORTH ELEVATION (SIDE)  
SCALE: 3/16" = 1' - 0"



WEST ELEVATION (BACK)  
SCALE: 3/16" = 1' - 0"

JOSEPH T. BECK ARCHITECT, INC.  
497 EAST 520 SOUTH  
SMITHFIELD, UTAH  
(435) 764-6742

DATE  
JUNE 30, 2016

PROJECT TITLE  
NIBLEY VET CLINIC / KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

SHEET TITLE  
EXTERIOR  
ELEVATIONS

PROJECT NUMBER  
-

REVISIONS

SHEET NUMBER

A2.0

**J&J GARDEN CENTER**  
1815 W GENTILE LAYTON, UT 84041 (801) 544-1211  
CALL FOR DISCOUNT PRICING POLICY

- GENERAL NOTES**
- HEAVY GAUGE STEEL OR EXTRUDED CONCRETE MOULDING EDGE MUST DEFINE ALL SHRUB BED SHAPES AS PER SPECIFICATIONS.
  - PRE-EMERGENT HERBICIDE AS APPROVED BY L.A. TO BE APPLIED IN ALL BEDS TO MANUFACTURERS SPECIFICATIONS.
  - SHREDDED BARK OR GRAVEL MULCH 3 INCHES DEEP MUST BE UNIFORMLY PLACED IN ALL SHRUB BEDS.
  - ANY PLANT LIST #S FROM PLAN GRAPHICS ARE CONCEPTUAL ONLY. THE CONTRACTOR MUST VERIFY PLANT #S FROM SYMBOLS ON PLAN.
  - PLANTS MATERIALS MUST BE ESTABLISHED, HEALTHY, SYMMETRICALLY BRANCHED, FREE FROM DISEASE, INSECTS AND DAMAGE, NO BARK ROT, ROOT BOUND STOCK WILL BE ACCEPTED. CALIFOR OF DECIDUOUS TREES TO BE MEASURED 4 FEET ABOVE GROUND.
  - PLANTS MUST BE INSTALLED IN OVER-EXCAVATED HOLES WITH 6" MIN. CLEARANCE ON ALL SIDES AND BOTTOM FOR PLANTING MIX.
  - PLANTS TO BE BACK FILLED WITH A PLANTING MIX OF 3 PARTS PREMIUM TOPSOIL, 1 PART PEAT MOSS & 1 PART SOIL PREP, UNIFORMLY MIXED, DEEP WATERED AND BACK FILLED - REPEAT UNTIL NO SETTLING OCCURS.
  - PLANTS TO BE FERTILIZED WITH SLOW RELEASE TABLETS TO MANUFACTURERS SPECIFICATIONS AND AS APPROVED BY THE L.A.
  - DECIDUOUS TREES IN LAWN AREAS TO BE PROTECTED FROM MOVER AND STRING TRIMMER DAMAGE WITH DEVICE APPROVED BY L.A.
  - EXISTING OAK, MAPLE OR OTHER NATIVE VEGETATION OVER 1 INCH CALIFER MUST BE PROTECTED.
  - TO STAKE DECIDUOUS TREES, A 2-8" T-POST SYSTEM MUST BE USED. TREE ROOT MASS MUST NOT BE PUNCTURED, 16 GAUGE WIRE AND 2-1/2" LONG HOSE PROTECTORS MUST BE USED, WIRE TO BE TWISTED TO TIGHTEN. WIRES IN LAWN AREAS MUST BE MARKED WITH SAFETY FLAGGING.
  - TO STAKE EVERGREEN TREES A 3-4" T-POST SYSTEM MUST BE USED. T-POSTS MUST BE INSTALLED AT 45° ANGLE TO TREE. CONTRACTOR TO USE 16 GAUGE WIRE AND 3-1/2" LONG HOSE PROTECTORS, USING TURN BUCKLES TO TIGHTEN. WIRE IN LAWN AREAS TO BE MARKED WITH FLAGGING.

- TOPSOIL NOTES**
- TOPSOIL MUST BE 3" MIN. DEEP IN ALL LANDSCAPED AREAS - AS SPECIFIED BY VOLUME BY L.A. THE CONTRACTOR WILL NOT APPLY TOPSOIL UNTIL SUB GRADE IS PROPERLY PREPARED & GRADED FOR DRAINAGE.
  - IMPORTED TOPSOIL MUST BE ULTRA PREMIUM QUALITY. THE TOPSOIL MUST BE SANDY LOAM, DARK IN COLOR, DRY, FREE OF DEBRIS, WEEDS AND ODOOR. THE OWNER OR L.A. MUST APPROVE SOURCE BEFORE DELIVERY TO SITE. SUB-QUALITY SOIL WILL BE REJECTED. THE CONTRACTOR MUST SAVE ALL DELIVERY SLIPS FOR REVIEW BY L.A.
  - EXISTING TOPSOIL IS STOCKPILED ON SITE. CONTRACTOR IS RESPONSIBLE FOR TRANSPORTING SOIL TO RECD LANDSCAPE AREAS.
  - TOPSOIL FINISH GRADE MUST DRAIN AWAY FROM ALL STRUCTURES PER LOCAL CODES. DRAINAGE THROUGHOUT LAWN AREAS TO BE 2.0% MIN. SLOPE, UNIFORM AND FREE FROM IRREGULARITIES AND DEPRESSIONS.
  - THE TOPSOIL FINISH GRADE IN LAWN AREAS NEXT TO HARDSCAPE TO BE 1/2" BELOW HARDSCAPE BEFORE HYDROSEEDING AND 1/2" FOR SOEDING.
  - TOPSOIL FINISH GRADE IN MULCHED SHRUB BEDS MUST LEAVE ROOM FOR 3 INCHES OF MULCH LAYER.

**HYDROSEED MULCH FOR LAWN OR WILDFLOWER** NA  
MULCH MUST BE UNIFORM 1/4 MIX OF WOOD CELLULOSE AND VIRGIN WOOD FIBER. THE RATE OF APPLICATION TO BE 2,000 LBS/AC FOR AREAS WITH 18-38% SLOPE AND 2,200 LBS/AC FOR AREAS ABOVE 38% SLOPE. THE MULCH MUST BE APPLIED WITH EQUAL DISTRIBUTION ON PROPERLY PREPARED SUB GRADE AS APPROVED BY L.A.

**SOD NOTES**  
SOD TO BE PREMIUM QUALITY BLENDED MIX, FRESH, FREE FROM IRREGULARITIES & INSTALLED WITH NO GAPS BETWEEN PIECES. DEEP WATER AFTER INSTALLATION.

**IRRIGATION NOTES**  
DESIGN BY CONTRACTOR. ALL PARTS TO BE PREMIUM QUALITY. RAIN BIRD HUNTER OR AFFORD EQUAL. PRODUCT DATA AND BUILT DRAWINGS TO BE PROVIDED TO OWNER BY CONTRACTOR. HEADS TO BE SPACED FOR HEAD TO HEAD COVERAGE AND MINIMIZE WATER WASTE AND SPRAY ON STRUCTURES. CONTRACTOR TO ADJUST CLOCK DURING ESTABLISHMENT PERIOD. SYSTEM WILL BE GUARANTEED FOR 1 YEAR.

**ROCK WALL / RETAINING WALL NOTES** NA  
CONTRACTOR MUST BE INSURED AND WILL ACCEPT ALL RESPONSIBILITY FOR STRUCTURAL INTEGRITY OF WALLS. ROCK WALL DESIGN IS CONCEPTUAL. WALLS MUST BE INSTALLED TO A STANDARD THAT INSURES THE ENGINEERABILITY AND ACCEPTANCE BY GOVERNING BODIES.

**LIGHTING NOTES** NA  
CONTRACTOR TO SUBMIT DESIGN, PRODUCT DATA, PRICE LIST AND WARRANTY TO OWNER FOR REVIEW.

**WARRANTY NOTES**  
ALL ELEMENTS OF LANDSCAPE SHALL BE FOR 1 YEAR UNLESS AGREED IN WRITING BY OWNER AND APPROVED BY L.A.

**WATER FALL NOTES** NA  
L.A. ACCEPTS NO LIABILITY FOR PERSONAL INJURY, WATER DAMAGE, LEAKS, MAINTENANCE, ETC ASSOC. WITH ALL WATER FEATURES.

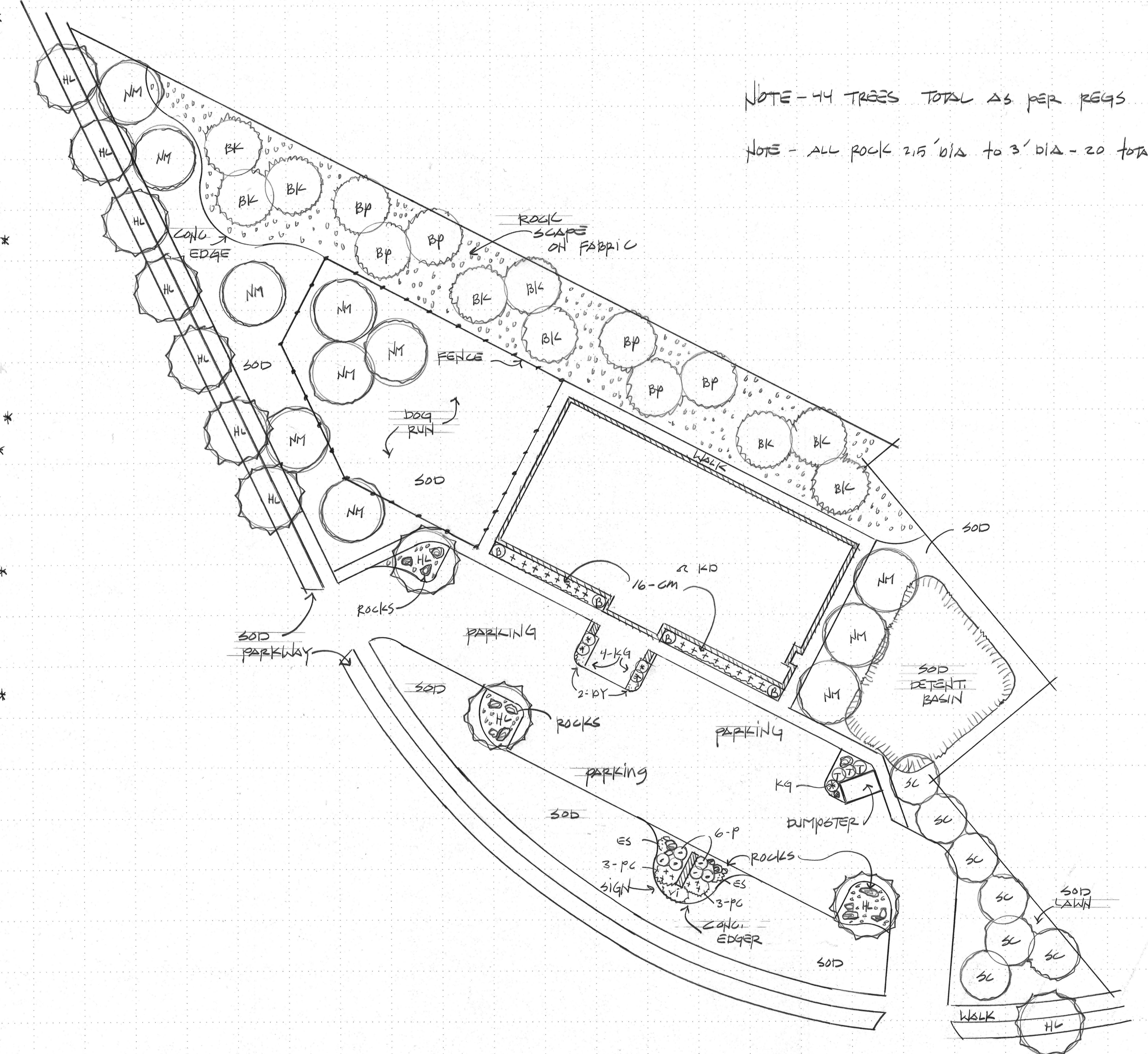
- BID PROCESS**
- BID FORMAT MUST BE DETAILED & ITEMIZED. BIDS WITHOUT SUFFICIENT BREAK-DOWNS WILL BE REJECTED.
  - PROOF OF LICENSE & INSURANCE MUST BE SUBMITTED WITH ALL BIDS. ALL BIDS MUST BE COVERED BY WORKMAN'S COMPENSATION AND BE COMPLIANT TO LABOR LAWS.
  - PRINTED PRODUCT DATA FOR ANY ELEMENT TO BE SUBMITTED WITH BID.
  - BIDS ARE SUBJECT TO REJECTION. SUBMITTING THE LOWEST BID DOES NOT GUARANTEE AWARD OF CONSTRUCTION.

- CONSTRUCTION NOTES**
- CONTRACTOR TO INFORM L.A. OF CONSTRUCTION START DATE, ONGOING PROGRESS & PROJECT COMPLETION.
  - CONTRACTOR TO SECURE ALL PERMITTING REQUIRED BY ALL LOCAL GOVERNING ENTITIES BEFORE BEGINNING CONSTRUCTION.
  - CONTRACTOR TO CALL BLUE STAKES BEFORE ANY EXCAVATION. 1-800-662-4111
  - CONTRACTOR TO VERIFY LOCATION OF ALL UTILITIES NOT IDENTIFIED BY BLUE STAKES, I.E. SECONDARY WATER, ETC.
  - CONTRACTOR TO FOLLOW ON SITE SAFETY STANDARDS TO MEET OR EXCEED OSHA REQUIREMENTS.
  - CONTRACTOR TO AVOID ANY IMPACT TO ADJOINING PROPERTIES.
  - CONTRACTOR TO KEEP ALL STREETS, DRIVEWAYS & SIDEWALKS CLEAN AND FREE OF DEBRIS DURING CONSTRUCTION.
  - CONTRACTOR TO FIELD VERIFY ALL LOCATIONS, ELEVATIONS AND DIMENSIONS STATED GRAPHICALLY AND INFLIED BY SCALE. CHECK ALL PROPERTY LINES AND PROPERTY CORNER MARKERS FOR PLAN COMPLIANCE BEFORE BEGINNING CONSTRUCTION.
  - CONTRACTOR TO VERIFY PLAN COMPLIANCE WITH ALL STATE, FEDERAL, LOCAL AND ASSOCIATION CODES PRIOR TO CONSTRUCTION.
  - THE LETTERS "L.A." ON PLAN GRAPHICS OR WRITTEN MATERIAL, RELATED TO THIS PROJECT, REFER TO LANDSCAPE ARCHITECT, PAUL H. KEELER, AS.L.A. AND/OR ANY REPRESENTATIVE OF DESERET LAND DESIGN, LLC.
  - THE TERM "CONTRACTOR" REFERS TO ANY COMPANY, INDIVIDUAL OR OWNER PARTICIPATING IN CONSTRUCTION OF ELEMENTS DEFINED BY PLAN GRAPHICS OR SPECS CREATED BY PAUL H. KEELER, AS.L.A. OR DESERET LAND DESIGN, LLC.
  - ALL PLANS AND GRAPHICS ARE CONCEPTUAL ONLY. DISCREPANCIES FROM PLANS TO ACTUAL SITE CONDITIONS MAY EXIST. IT IS THE CONTRACTORS RESPONSIBILITY TO IDENTIFY THESE AREAS AND REPORT THEM TO THE L.A. CONTRACTOR WILL ADAPT AS NEEDED TO RESOLVE ANY DISCREPANCIES AND REVISIONS BEFORE CONSTRUCTION.

COPYRIGHT LAW PROTECTS ALL CREATIVITY, ART, GRAPHICS, RENDERINGS, CONCEPTUAL IDEAS, TECHNICAL MATERIAL AND SPECIFICATIONS, PLAN GRAPHICS OR WRITTEN MATERIAL. SHOWN MAY NOT BE COPIED, IN PART OR WHOLE, WITHOUT THE WRITTEN PERMISSION OF PAUL H. KEELER, AS.L.A.

ISSUE DATE: 1-1-2011  
REV. DATE: DESCRIPTION

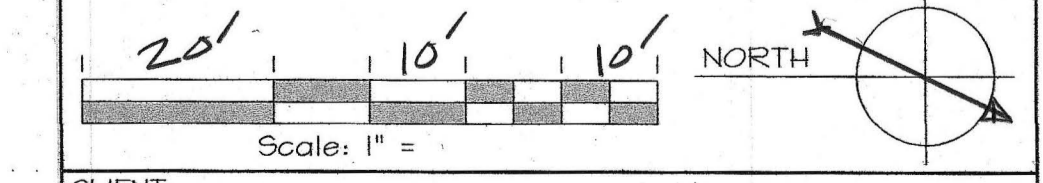
Deseret Land Design  
4184 WEST 1915 NORTH  
FLAIN CITY, UTAH 84404  
801-791-9244  
PAUL H. KEELER AS.L.A.  
LANDSCAPE ARCHITECT  
801-791-9244  
www.deseretlanddesign.com



NOTE - 44 TREES TOTAL AS PER REQS  
NOTE - ALL ROCK 2.5' DIA TO 3' DIA - 20 TOTAL

PLANT LIST	SYMBOL	SIZE	#	ZN	COMMON NAME / Botanical name
A					ASTER / aster
AB					ABBOTSKNOOD POTENTILLA / potentilla fruticosa
AP					AUTUMN PURPLE ASH / fraxinus a. 'junginger'
B	5-6	7			FINE LINE BUCKHORN / rhamnus - fireline
BB					DWARF BURNING BUSH / euonymus alatus compactus
BE					BABY BLUE EYES SPRUCE / picea pungens
BF					BLEEDING HEARTS / dicentra
BH					BLUECHIP JUNIPER / juniperus horizontalis
BK	6'	9			BAKERII SPRUCE / picea pungens
BL					BLUE HST SPIREA / corioperia x glandonensis
BP	6'	6			BOSNIAN PINE / pinus espadensis 'ball fastigata'
BS					COLUMNAR BLUE SPRUCE / picea pungens
BT					BIG TOOTH MAPLE / acer grandidentatum
BX					WINTERGAT BOXWOOD / buxus microphylla asiatic
C					BELLFLOWER / campanula
CA					CANADA RED CHOCCHERRY / prunus v. 'canada'
CB					CRIMSON FLYGHT BARBERRY / barberry l. 'crimson'
CC					COLUMNAR ENGLISH OAK / quercus robur 'fastigiata'
CD					GLORIOUS clematis
CE					WHITE FIR / abies concolor
CF					COTON HACKBERRY / celtis occidentalis
CG					CLEMATIS / clematis
CH	1-9	10			CREeping MAHONIA / mahonia repens
CI					COLUMNAR NORWAY MAPLE / acer platanoides
CO					COLUMBINE / aquilegia
CP					CISTENA PLUM / prunus x cistena
CQ					COMPACT CRANBERRY BUSH / viburnum trilobum
CR					CRIMSON SENTRY MAPLE / acer pl. 'crimson sentry'
CS					CRIMSON SENTRY MAPLE / acer pl. 'crimson sentry'
D					DELPHINIUM / larkspur
DN					DIABLO NINEBARK / physocarpus opulifolius
DR					DEER RUN SPRUCE / picea orientalis 'deer run'
DT	1-9	2			DAUNT / temnocallis
EL	1-9	2			DWARF ENGLISH LAUREL / prunus laurocerasus
E					BLACK EYED SUSAN / rudbeckia fulgida
FA					GOLDFLAME SPIRAEA / spiraea x b. goldflame
FB					FLOERNS ALPINE / prunus glandulosa
FC					CONTORTED SNOW FOUNTAIN CHERRY / prunus x. 'ferns'
FD					PERNS / ferns
FE					CHANTICLEER PEAR / pyrus calleryana, 'glen's form'
FF					FRUIT TREES
GB					GLOBOSA SPRUCE / picea pungens globosa
GG					GRAY GLEAM JUNIPER / juniperus scopulorum
GH					GOLDEN PINNACLE / juniperus chinensis 'old gold'
GI					GREENSPIRE LINDEN / tilia cordata
GN					DARTS GOLD NINEBARK / physocarpus opulifolius
H					HOSTA / hosta
HB					PYRAMIDAL HORNBEAM / carpinus b. 'pyramidal'
HJ					HILLSPIRE JUNIPER / juniperus cypressifolia
HK					HICKS YEW / taxus mexicanus
HL	2"	11			IMPERIAL HONEYLOCUST / gleditsia t. 'imperial'
HM					RED HOT POKER / Kniphofia
HN					HOOP PINE / magnolia grandiflora
HO					HORIZONTAL YEW / taxus canadensis
IB					JAPANESE MAPLE BLOODGOOD / acer palmatum
IC					JAPANESE MAPLE RED CUTLEAF / acer p. atropur.
ID					KEI SET DODGEWOOD / cornus sericea kotsukei
IE					KARL FOERSTER REED GRASS / calamagrostis
IF					MISS KITT LILAC / syringa patula
IJ					LODENSE PRIVET / ligustrum vulgare lodense
IL					LUPINE / lupinus
IS					GRASS OAK SUFAC / rhus aromatica l.
IT					LATRIS / Goufeather
IU					LAVANDER / lavandula angustifolia
IV					DWARF MUGO PINE / pinus mugo 'pumila'
MA					MARSHALL SEEDLESS ASH / fraxinus p. seedless
MB					MOONSHADOW EUCONYMIUS / euonymus fortunei
MC					SLOWGROW MUGO PINE / pinus mugo 'slowmound'
N					NEST SPRUCE / picea abies nidiformis
NI	2"	11			FAIRVIEW MAPLE / acer platanoides
OJ					BUFFALO JUNIPER / juniperus sibirica buffalo
OL					OTTO LUTKEN LAUREL / prunus l.
OM					ORIENTAL POPPY / papaver orientale
OS					OAKBRUSH SUFAC / rhus trilobata
P	1-9	6			GOLD DROP POTENTILLA / potentilla fruticosa
PC					PURPLE CONE FLOWER / echinacea
PE					PEONY / paeonia
PF					PURPLE FOUNTAIN BEECH / fagus purpurea pend.
PH					FRASERS PILOTINA / rhodod. 'fraser'
PK					PEKING COTONEASTER / cotoneaster acutifolius
PL					PARKWAY MAPLE / acer platanoides
PN					PENSTEMON / penstemon
PSH					PACIFIC SUNSET MAPLE / acer truncata 'warrenred'
QA					QUAKING ASPEN / populus tremuloides
R					ROSES
RB					EASTERN REDBUD / cercis canadensis
RC					ROCK COTONEASTER / cotoneaster horizontalis
RD					REDFORD LINDEN / tilia americana
RE					RIVERSIDE SPRUCE / picea amabilis
RF					ROSE OF SHARON / hibiscus syriacus
RG					ROSE OF SHARON / tree form
S					SHASTA DAISY / leucanthemum 'snow lady'
SA					SHEDISH ASPEN / populus tremula 'shasta'
SB					SPRING SNOW CRABAPPLE / malus 'spring snow'
SF					SNOW-FOUNTAIN CHERRY / prunus x 'snowflake'
SH					PAUL'S SCARLET HAWTHORN / crataegus l.
SI					STERLING SILVER LINDEN / tilia tomentosa
SJ					SNOW-BOUND SPIRAEA / spiraea nipponica l.
SK					SUFFER HINE NINEBARK / physocarpus opulifolius
SN					ARNOLD SENTINEL PINE / pinus nigra
SO					SCOTCH SUFAC / rhus glabra
ST					STAGHORN SUFAC / rhus typhina
SV					SALVIA / salvia
SW					SWEET WILLIAMS / dianthus barbatus
T	5-6	3			TALL HEDGE BUCKHORN / rhamnus l. columnaris
TB					TRUFFET VINE / clematis
TR					TRI-COLOR BEECH / fagus s. rosea marginata
V					VARIEGATED REDTING DOGWOOD / cornus alba
VC					PERINKLE / vinca
VI	1-9	1			VARIEGATED IRIS / iris variegata
VR					SPEEDWELL / veronica spicata
W					ANTHONY WATERER SPIRAEA / spiraea x b. water
WN					KEEPING NORWAY SPRUCE / picea abies 'pendula'
WS					HELLSPIRE SPRUCE / picea mariana l.
WT					WISTERIA / wisteria
WV					KEEPING WHITE SPRUCE / picea glauca 'pendula'
Y					GOLD SNOWDR TUCCA / yucca filamentosa
Z					ZELKOVA SERRATA / manu varieties

AGGRESSIVE ROCK WALL PERENNIALS (SUN)  
PURPLE ROCK CRESS / aubrieta cultorum, SEA THRIFT / amaria maritima, CREEPING BABIES BREATH / gypsophila repens, SCARLET PIPER / dianthus barbatus, CREEPING PHLOX / phlox subulata, ICE PLANT / delosperma, FUSST TOES / antemaria dioica, BELL FLOWER / campanula, SEDUM / sedum, CRANESBILL / geranium, MAIDENHAIR / dianthus barbatus, CREEPING ASTER / aster violet carpet, GANDYDUFF / Iberis, BASKET OF GOLD / alysum, BLANKET FLOWER / gallitarda

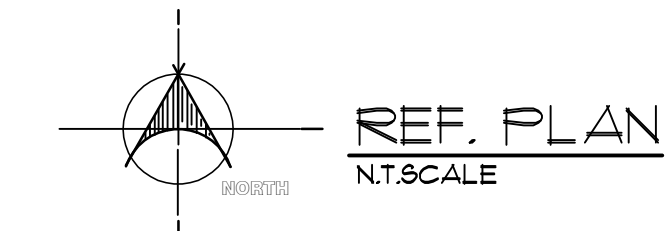


CLIENT:  
**HERITAGE VET, CLINIC**  
ADDRESS:  
**NIBLEY-2305 S. HERITAGE DR.**

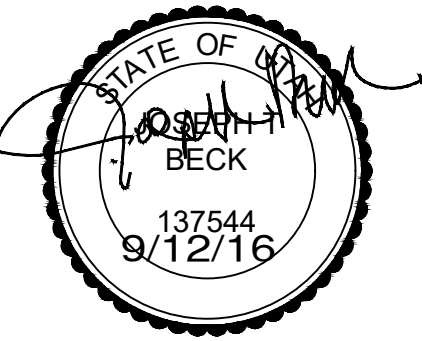


# HERITAGE VET CLINIC / KENNEL NEW BUILDING PROJECT

## 2365 SOUTH HERITAGE DRIVE NIBLEY, UTAH



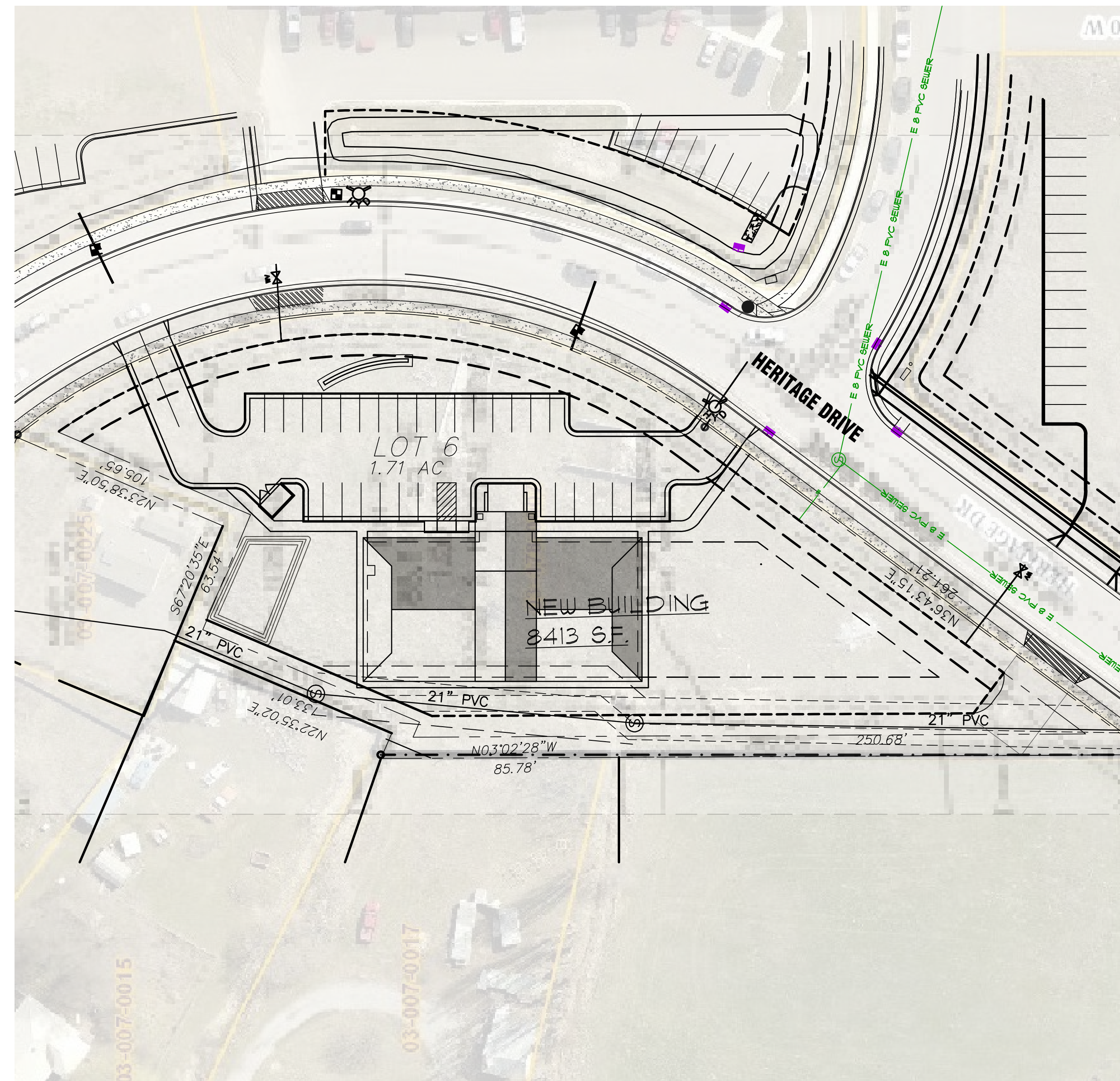
JOSEPH T. BECK ARCHITECT, INC.  
497 EAST 520 SOUTH  
SMITHFIELD, UTAH  
(435) 764-6742



DATE  
SEPT 12, 2016

### IBC 2015

DESCRIPTION	IBC REFERENCE	REMARKS
<b>OCCUPANCY</b> BUSINESS ANIMAL CLINIC, KENNEL	Chapter 3 SECT NO. 304	
<b>BASIC ALLOWABLE BUILDING HEIGHT, FLOOR AREA AND STORY IN HEIGHT</b> MAX HEIGHT IN FEET (ALLOWED X/B/V/B) 40' MAX ALLOWED MAXIMUM # OF FLOORS (B/V/B) 2 STORIES ALLOWED	Chapter 3 Table No. 504.3	Provided: PROVIDED HEIGHT = 25' PROVIDED STORIES = 2
<b>B2 OCCUPANCIES</b> FLOOR AREA (ALLOWED - B/V/B) 9000 INCREASED FLOOR AREA 0	Table No. 506.2 Table No. 506.3.3	MAIN = 8214 SF UPPER = 1488 SF
ALLOWABLE AREA 9000 SF.		
<b>TYPE OF CONSTRUCTION</b> Fire Resistive Requirements Building Element 1. Structural Frame 2. Exterior Bearing Walls Interior Bearing Walls 3. Non-Bearing Walls - Exterior 4. Non-Bearing Walls - Interior 5. Floor Construction - Beams and Joists 6. Roof Construction - Beams and Joists	Chapter 6 Table No. 601	Comply
<b>INTERIOR FINISHES</b> SPRINKLERED - R4 (S13R SYSTEM) EXIT ENCLOSURES AND PASSAGEWAYS CORRIDORS ROOMS AND ENCLOSED SPACES	Chapter 8 TABLE 803.9	WILL COMPLY WILL COMPLY WILL COMPLY
<b>FIRE PROTECTION</b> AUTOMATIC SPRINKLER SYSTEM - NOT REQUIRED MANUAL FIRE ALARM SYSTEM - NOT REQUIRED (1) MEANS OF EGRESS ILLUMINATION - REQUIRED	Chapter 9 SECTION 907.2.10 SECTION 1008	PROVIDED
<b>OCCUPANT LOAD</b> ANIMAL CLINIC / KENNEL 8413 SF / 300 SF/OCC - 28 OCCS.	Chapter 10 Table No. 1004.12	
<b>EXITING</b> TWO EXITS REQD PER FLOOR LESS THAN 50 OCCS ACCESSIBLE MEANS OF EGRESS	Chapter 10 TABLE 1006.3.1 SECTION 1007.1	4 EXITS PROVIDED 4 PROVIDED
<b>ACCESSIBILITY</b> GROUP B OCCUPANCIES WILL BE ACCESSIBLE TO PERSONS WITH DISABILITIES AS REQUIRED BY USER. **FURNITURE / RESTROOM LAYOUT SHALL BE ARRANGED TO PROVIDE ACCESSIBILITY THROUGHOUT THE SPACE.	Chapter 11	ALL ROOMS COMPLY
<b>PLUMBING SYSTEMS</b> B OCCUPANCIES - ANIMAL CLINIC MEN = 14 OCCS WOMEN = 14 OCCS	Chapter 29 TABLE 2902.1	LAV = 1 TOILET = 1 SHUR = 0
TOTAL FIXTURES REQUIRED	TOILET = 2 LAV = 2	SHUR = 0 DRINKING FOUNTAIN = 1 SERVICE SINK = 1
TOTAL FIXTURES PROVIDED	TOILETS = 3 LAV = 3	SHUR = 0 DRINKING FOUNTAIN = 1 SERVICE SINK = 1



REFERENCE SITE PLAN  
SCALE: 1"=40'-0"

### SHEET INDEX

<b>CIVIL / LANDSCAPE ENGINEERING</b> ALLIANCE ENGINEERING 1011 WEST 400 NORTH LOGAN, UTAH 84321 435-713-0099	C0.0 C1.0 C2.0 C3.0 C5.0 C5.1 C6.0 L1.0 L4.0 L5.0	COVER SHEET SITE PLAN UTILITY PLAN GRADING PLAN DETAILS EROSION CONTROL PLAN PLANTING PLAN ENLARGED PLANTING PLANS PLANTING DETAILS
<b>ARCHITECT</b> JOSEPH T. BECK ARCHITECT, INC. 497 EAST 520 SOUTH SMITHFIELD, UTAH 84335 435-764-6742 JTBARCHITECT@GMAIL.COM	A0.0 A1.0 A1.1 A1.2 A1.3 A2.0 A2.1 A3.0 A3.1 A4.0	COVER SHEET/CODE REVIEW/SITE PLAN FLOOR PLAN / WALL TYPES CEILING PLAN / SCHEDULE ENLARGED PLANS / SCHEDULES UPPER FLOOR PLANS ELEVATIONS INTERIOR ELEVATIONS SECTIONS SECTIONS SCHEDULES / ENLARGED PLANS
<b>STRUCTURAL ENGINEERING</b> STRUCTURAL SOLUTIONS 545 WEST 465 NORTH, SUITE 150 PROVIDENCE, UTAH 84332 435-181-1445 structural@questoffice.net	S0 S1 S1.1 S2 S2.1 S2.2	GENERAL STRUCTURAL NOTES FOOTINGS / FOUNDATION PLAN FOUNDATION DETAILS ROOF FRAMING PLAN ROOF FRAMING DETAILS ROOF FRAMING DETAILS
<b>MECHANICAL ENGINEERING</b> MORTENSEN ENGINEERING, INC. 251 SOUTH 830 EAST SMITHFIELD, UTAH 84335 435-710-5534 LORIN.MORTENSEN@COMCAST.NET	M0.1 M1.1 M2.1 M3.0 P0.1 P1.1 P2.1 P3.1	MECH NOTES AND SPECS MECHANICAL PLAN MECHANICAL DETAILS MECHANICAL SCHEDULES PLUMBING NOTES AND SPECS PLUMBING PLAN PLUMBING DETAILS PLUMBING SCHEDULES
<b>ELECTRICAL ENGINEERING</b> SINE SOURCE ENGINEERING 545 WEST 465 NORTH, SUITE 150 PROVIDENCE, UTAH 84332 435-181-1445 SHANES@SINESOURCE.NET	E0.01 E0.10 E2.01 E3.01 E4.01 E5.01 E5.02 E6.01 E6.02 E6.03	TITLE SHEET ELECTRICAL SITE PLAN LIGHTING PLAN POWER PLAN ELECTRONIC SYSTEMS PLAN ELECTRICAL DETAILS COMM RISER DIAGRAM ELECTRICAL ONE-LINE DIAGRAM SCHEDULES SCHEDULES

PROJECT TITLE  
HERITAGE VET CLINIC / KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

SHEET TITLE  
COVER SHEET  
CODE REVIEW  
SHEET INDEX

PROJECT NUMBER

REVISIONS

SHEET NUMBER

A0.0

# SIERRA COMMERCIAL PARK, LOT 7

PART OF THE SW $\frac{1}{4}$  OF SECTION 17,  
TOWNSHIP 11 NORTH, RANGE 1 EAST,  
SALT LAKE BASELINE & MERIDIAN  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

## INDEX SHEET

PROJECT



VICINITY MAP

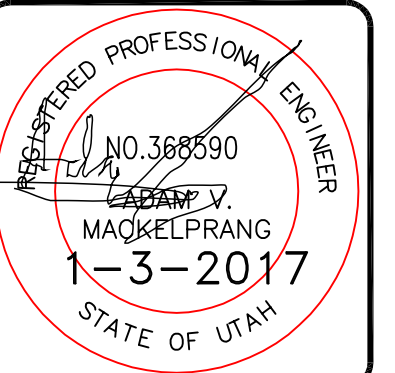
SHEET INDEX	
SHEET NO.	SHEET DESCRIPTION
1	INDEX SHEET
2	SITE PLAN
3	UTILITY PLAN
4	GRADING PLAN
5	EROSION CONTROL PLAN

**OWNER/DEVELOPER**  
**HERITAGE VET**

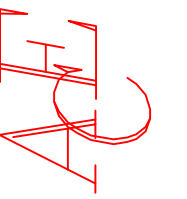
**CIVIL ENGINEER**  
**ALLIANCE CONSULTING**  
**ENGINEERS, INC.**  
**150 EAST 200 NORTH SUITE P**  
**LOGAN, UTAH 84321**  
**435-755-5121**

**GENERAL NOTES (APPLICABLE TO ALL CIVIL SHEETS):**

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, APWA, NIBLEY CITY STANDARDS, STATE OF UTAH AND ANY OTHER APPLICABLE STANDARDS ISSUED BY THE CONTROLLING AGENCY.
- CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE CONSTRUCTION. ANY DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND FIELD CONDITIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE OWNER.
- CONTRACTOR SHALL REPAIR AND/OR REPLACE ANY AREAS AND/OR MATERIALS DAMAGED DURING CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN ALL ADJACENT PROPERTY (PUBLIC & PRIVATE) FROM ALL CONSTRUCTION DEBRIS.
- CONTRACTOR SHALL PROVIDE SMOOTH TRANSITION FROM ALL NEW CONSTRUCTION TO EXISTING CONDITIONS.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY AUTOMOBILE AND PEDESTRIAN TRAFFIC CONTROL DEVICES REQUIRED BY LOCAL, STATE, AND FEDERAL CODES AND ORDINANCES.
- CONTRACTOR SHALL REPLACE SURVEY MONUMENTS DAMAGED DURING CONSTRUCTION. SURVEY MONUMENTS TO BE REPLACED BY A REGISTERED, LICENSED LAND SURVEYOR.
- CONTRACTOR TO LOCATE ALL EXISTING UTILITIES, INCLUDING FIBER OPTIC. ANY DAMAGES TO EXISTING UTILITIES WILL BE REPAIRED AT CONTRACTOR'S EXPENSE.
- DIMENSIONS SHOWN ARE TO THE CENTER OF THE PIPELINE UNLESS OTHERWISE NOTED.
- DISTANCES SHOWN ALONG PIPELINES ARE HORIZONTAL DISTANCES AND NOT ACTUAL PIPE LENGTHS. MORE PIPE MAY BE REQUIRED TO COMPLETE CONSTRUCTION THAN IS DIMENSIONED IN THE PLANS.
- THRUST BLOCKS SHALL BE PLACED ON WATERLINES AT ALL DIRECTION CHANGES, FITTINGS, BENDS, ELBOWS, FIRE HYDRANTS AND GATES VALVES AS SHOWN IN THE PROJECT PLANS.
- CONTRACTOR IS REQUIRED TO HAVE A SET OF PLANS ON THE SITE AT ALL TIMES. ANY WORK COMPLETED WITHOUT A SET PRESENT IS DONE SO AT THE CONTRACTOR'S RISK AND EXPENSE IF ERRORS OCCUR.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING WATER NECESSARY FOR DUST ABATEMENT, COMPACTING, ETC.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING SOURCES FOR GRANULAR MATERIALS, WATER, WASTE SITES, AND ANY OTHER MATERIALS SOURCES AS REQUIRED FOR PROJECT COMPLETION.
- ANY WORK DONE WITHIN A PUBLIC RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE TRANSPORTATION AGENCY AND SHALL MEET THE REQUIREMENTS OF THAT AGENCY AND THE REQUIREMENTS OF ANY RIGHT-OF-WAY OR SPECIAL USE PERMITS.
- THE CONTRACTOR SHALL COORDINATE ALL LIVE TAPS AND ANY OTHER WORK OR MANIPULATION OF THE EXISTING WATER SYSTEM WITH THE CITY.
- ON SLOPING AREAS, THE CONTRACTOR SHALL TAKE PRECAUTIONS TO MITIGATE ANY POSSIBLE EROSION PROBLEMS IN THE TRENCHES DUE TO STORM WATER THAT MIGHT OCCUR DURING OR AFTER CONSTRUCTION.
- THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL MEASURES AS DETAILED IN THE PROJECT PLANS UNTIL FINAL ACCEPTANCE OF THIS PROJECT.
- THE CONTRACTOR IS REQUIRED TO TAKE ALL PRECAUTIONS NECESSARY TO INSURE THAT NO STORM WATER/SEDIMENT AND/OR CONSTRUCTION DEBRIS ARE RELEASED FROM THE SITE. ANY RELEASES SHALL BE CLEANED AND MITIGATED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION ACCESS AND RELATED TRAFFIC CONTROL WITH THE COUNTY, CITY, AND STATE ROADWAY DEPARTMENTS. THE ENGINEER SHALL REVIEW ALL TRAFFIC CONTROL PLANS.
- ALL GATE VALVES SHALL BE LOCATED NEAR TO TEES OR CROSSES AND THEIR ASSOCIATED REDUCERS AS SHOWN ON THE PROJECT PLANS.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY FITTINGS, HARDWARE, LABOR, ETC. TO CONSTRUCT VERTICAL AND HORIZONTAL BENDS IN PIPE AS NEEDED TO MEET THE REQUIRED GRADES, ALIGNMENTS AND COVER REQUIREMENTS.
- ALL AIR RELEASE VALVES SHALL BE INSTALLED AT THE CREST OF THE VERTICAL CURVATURE OF THE WATER LINE. CONTRACTOR SHALL RECORD ACTUAL LOCATION OF VALVES ON FIELD RECORD DRAWINGS.
- THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF SMITHFIELD FOR ALL UTILITY INSPECTIONS PRIOR TO BACKFILLING.
- ALL WATER SYSTEM COMPONENTS SHALL BE INSTALLED, PRESSURE TESTED, AND CHLORINATED PRIOR TO COMPLETING ANY ROADWAY CONSTRUCTION.



**ALLIANCE CONSULTING**  
**ENGINEERS**  
150 EAST 200 NORTH SUITE P  
LOGAN, UTAH 84321  
(435)755-5121  
alliancec@alliancec.com



No.	REVISIONS/SUBMISSIONS	DATE

REVIEWED : \_\_\_\_\_ DRAWN : \_\_\_\_\_  
COP FILE : \_\_\_\_\_ PROJECT NO. : \_\_\_\_\_

PROJECT TITLE  
**SIERRA COMMERCIAL PARK, LOT 7**  
PART OF THE SW $\frac{1}{4}$  OF SECTION 17,  
TOWNSHIP 11 NORTH, RANGE 1 EAST,  
SALT LAKE BASELINE & MERIDIAN,  
NIBLEY, UTAH

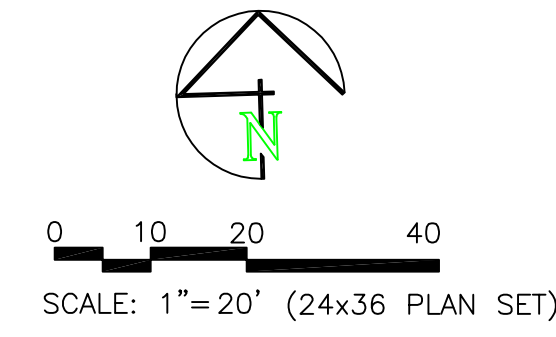
DRAWING TITLE  
**INDEX SHEET**

DATE : SEPT, 2016  
DRAWING No. **1**

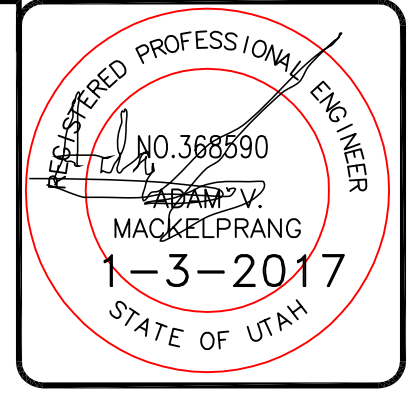




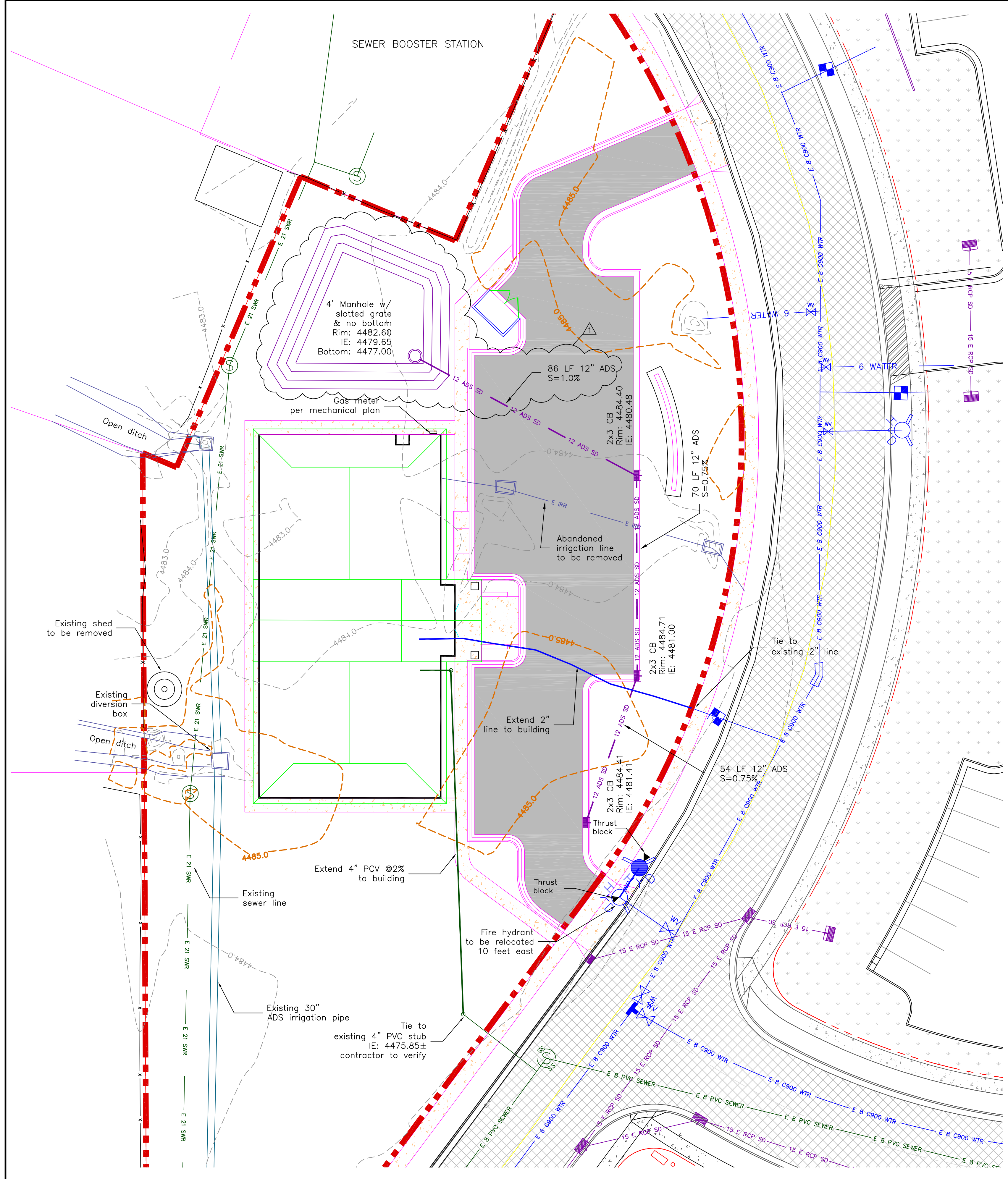
# SIERRA COMMERCIAL PARK, LOT 7 UTILITY PLAN



- LEGEND**
- LOT LINE
  - EXISTING WATER/FH/VALVE
  - EXISTING SEWER
  - EXISTING STORM LINE/BOX
  - PROPOSED WATER
  - PROPOSED SEWER SERVICE
  - PROPOSED STORM
- Contractor to coordinate with mechanical/plumbing plan for sewer and water connections



**ALLIANCE CONSULTING ENGINEERS**  
 150 EAST 200 NORTH SUITE P  
 LOGAN, UTAH 84321  
 (435)755-5121  
 alliancelogan@yahoo.com



No.	REVISIONS / SUBMISSIONS	DATE

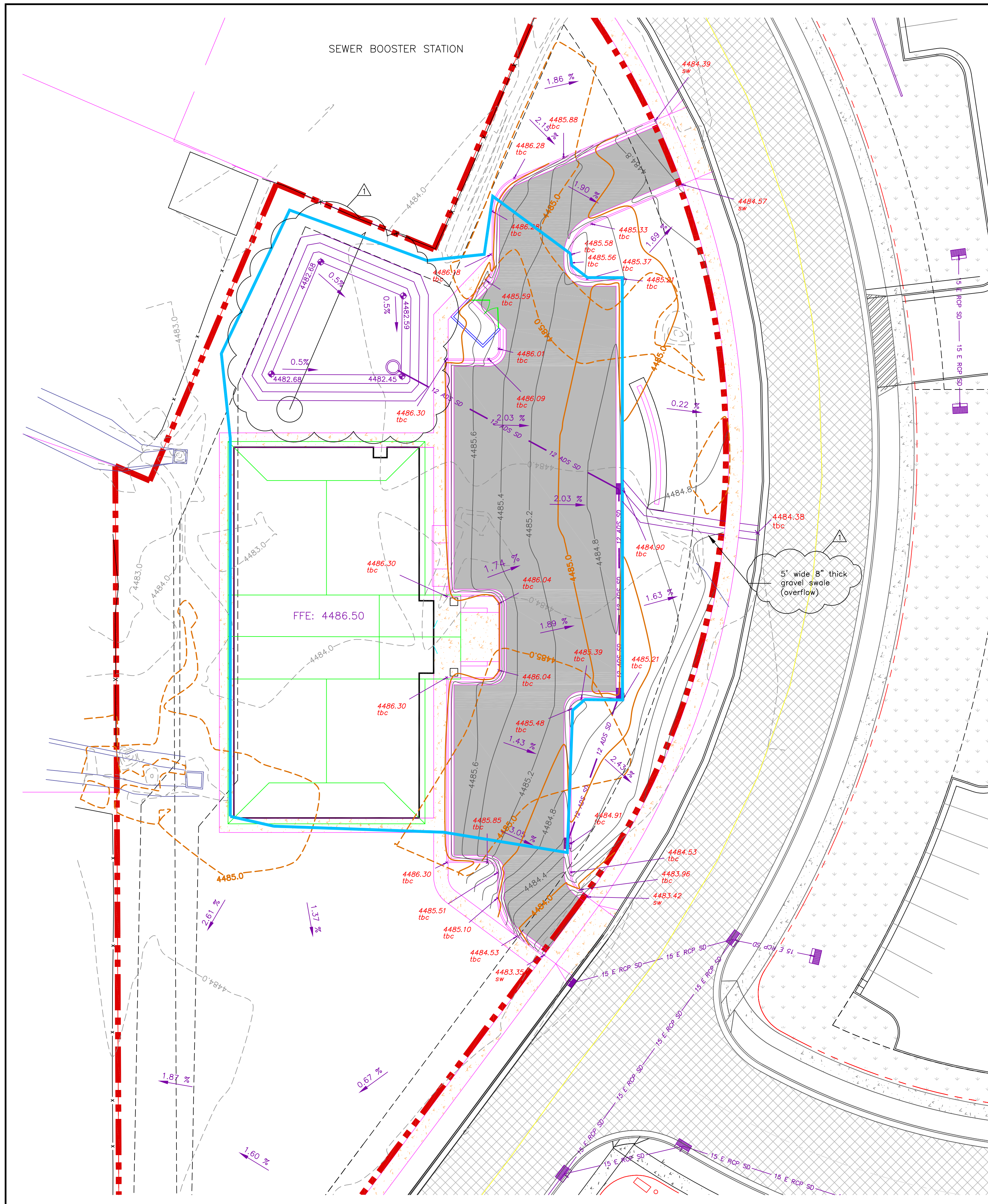
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DRAWN: \_\_\_\_\_  
 PROJECT NO.: \_\_\_\_\_

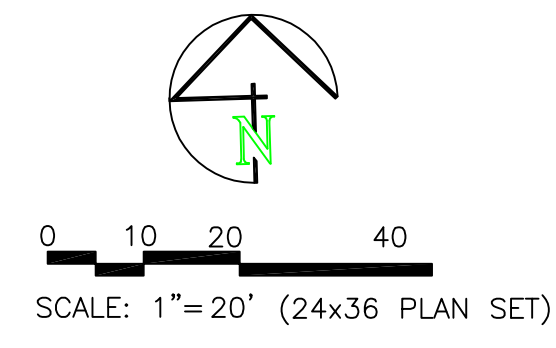
PROJECT TITLE: **SIERRA COMMERCIAL PARK, LOT 7**  
 PART OF THE SW1/4 OF SECTION 17,  
 TOWNSHIP 10 NORTH RANGE EAST,  
 SALT LAKE MERIDIAN, UTAH

DRAWING TITLE: **UTILITY PLAN**

DATE: SEPT, 2016  
 DRAWING No.



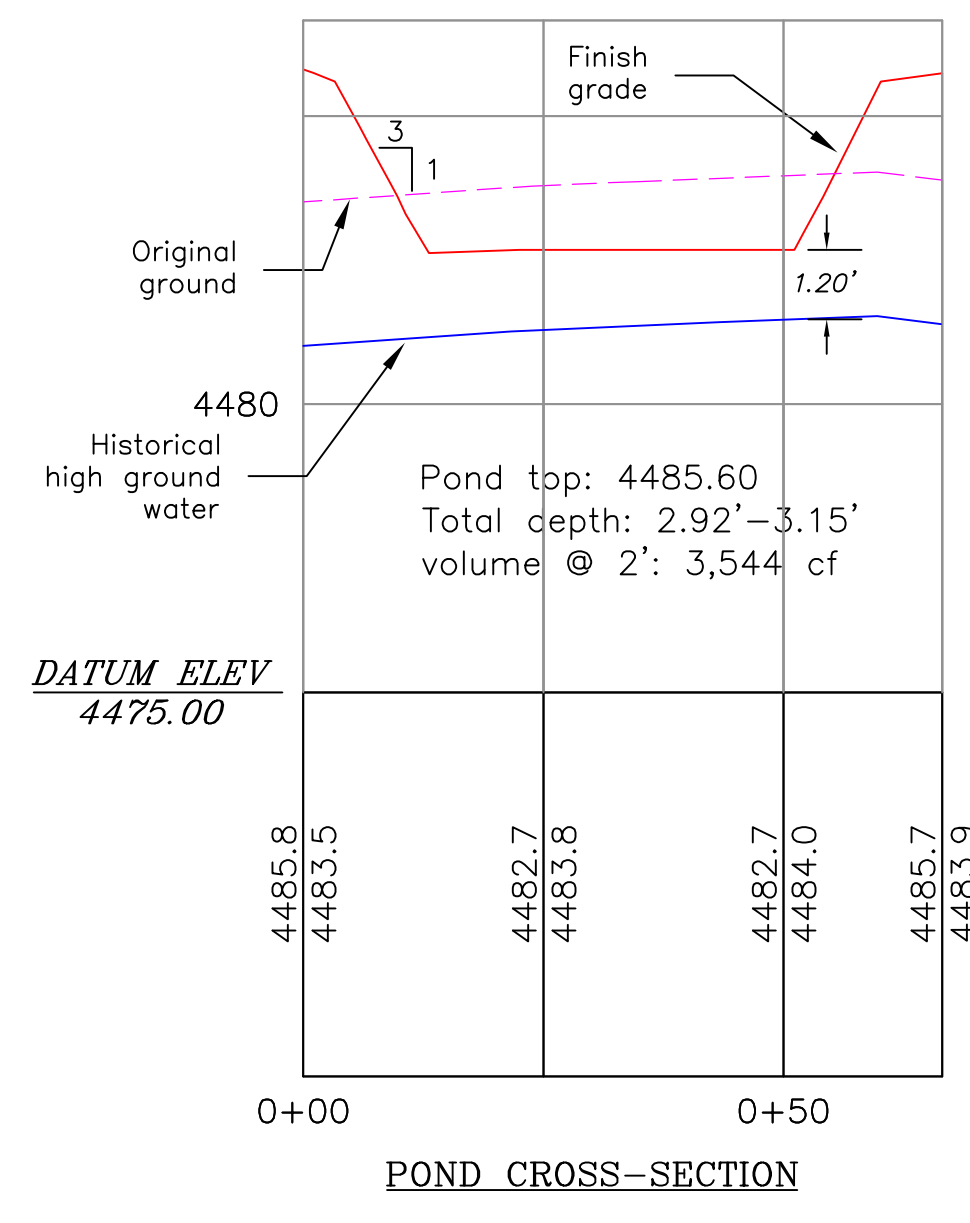
# SIERRA COMMERCIAL PARK, LOT 7 GRADING PLAN



LEGEND	
	LOT LINE
	SPOT ELEVATION
	PROPOSED SLOPE
	EXISTING MINOR CONTOUR (0.5')
	EXISTING MAJOR CONTOUR (2.5')
	PROPOSED MINOR CONTOUR (0.2')
	PROPOSED MAJOR CONTOUR (1.0')
	HYDROLOGY BOUNDARY (storm water to pond)

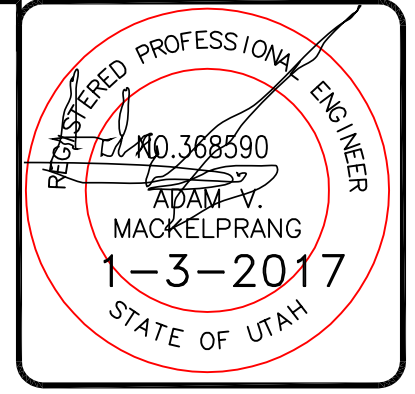
### STORM DRAINAGE CALCULATIONS

CONTRIBUTING DRAINAGE AREA: 26,631 S.F.(0.61 acres)  
 IMPERVIOUS AREA: 13,058 S.F. Road  
 8,800 S.F. Building  
 21,858 S.F. Total  
 C-IMPERVIOUS: 0.95  
 C\*A=20,765  
 REMAINING UNDEVELOPED AREA: 4,773 S.F.  
 C-UNDEVELOPED: 0.15  
 C\*A= 716  
 C-POST=21,481/26,631 = 0.81



### NOTES:

1. A perk test was performed on December 23, 2016 with a resulting perk rate of 12.6 min per inch.
2. Per the NRCS the existing soil is GsA and part of hydrologic group B with a permeability of 0.63-2.0 inches per hour. The water table is reported as being from 30 inches to 60 inches deep.
3. To be conservative an infiltration rate of 1.5 inches per hour was used along with a water table depth of 30 inches.



**ALLIANCE CONSULTING ENGINEERS**  
 150 EAST 200 NORTH SUITE P  
 LOGAN, UTAH 84321  
 (435)755-5121  
 alliancelogan@yahoo.com

No.	REVISIONS / SUBMISSIONS	DATE

REVIEWED: \_\_\_\_\_  
 CAD FILE: \_\_\_\_\_  
 DRAWN: \_\_\_\_\_  
 PROJECT NO.: \_\_\_\_\_

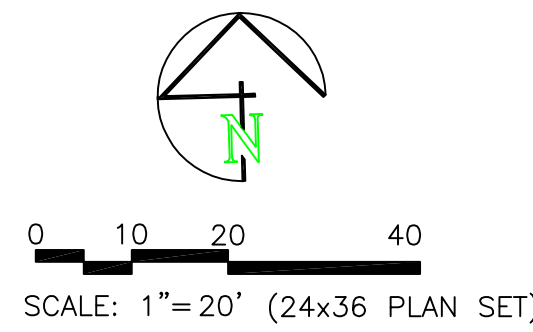
PROJECT TITLE  
**SIERRA COMMERCIAL PARK, LOT 7**

DRAWING TITLE  
**GRADING PLAN**

PART OF THE SW1/4 OF SECTION 17,  
 TOWNSHIP 1 NORTH RANGE EAST,  
 SALT LAKE MERIDIAN, UTAH

DATE: SEPT, 2016  
 DRAWING No. **4**

# SIERRA COMMERCIAL PARK, LOT 7 EROSION CONTROL PLAN



## STORM DRAINAGE CONTROL SPECIFICATIONS

UPDES PERMIT TO BE OBTAINED BEFORE CONSTRUCTION

### EROSION AND SEDIMENT CONTROLS MEASURES

#### STABILIZATION PRACTICES

1. DETENTION AREAS SHALL BE RESEEDED 28 DAYS AFTER CONSTRUCTION ACTIVITIES PERMANENTLY CEASES.
2. RE-VEGETATE AREAS WHERE LANDSCAPING HAS DIED.

#### STRUCTURAL PRACTICES

1. PROVIDE STRAW BERMS OR SILT FENCES BEFORE STORM EVENTS TO PREVENT SILTS FROM ENTERING EXISTING STREETS.
2. LIMIT ROAD CONSTRUCTION TO ROAD RIGHT-OF-WAYS AND EASEMENTS (SEE PROPOSED CONTOURS).
3. STOCKPILE TOPSOILS AS TO NOT OBSTRUCT CONSTRUCTION OPERATIONS. IF EROSION IS OBSERVED PROVIDE SILT FENCE AROUND STOCKPILES.
4. THE CONTRACTOR SHALL PROVIDE DUST CONTROL PROCEDURES.
5. NON-STORM WATER DISCHARGES
6. PROVIDE SILT FENCES AROUND CATCH BASINS AFTER INSTALLATION.
7. FLUSHING OF FIRE HYDRANTS WATER MAINS SHALL BE DISCHARGED TO A WELL VEGETATED UNDISTURBED AREA. WATER SHALL NOT BE ALLOWED TO CROSS DISTURBED AREAS THROUGH USE OF DIKES OR SWALES.

#### OTHER CONTROLS

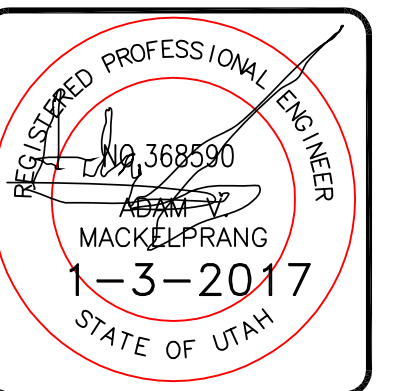
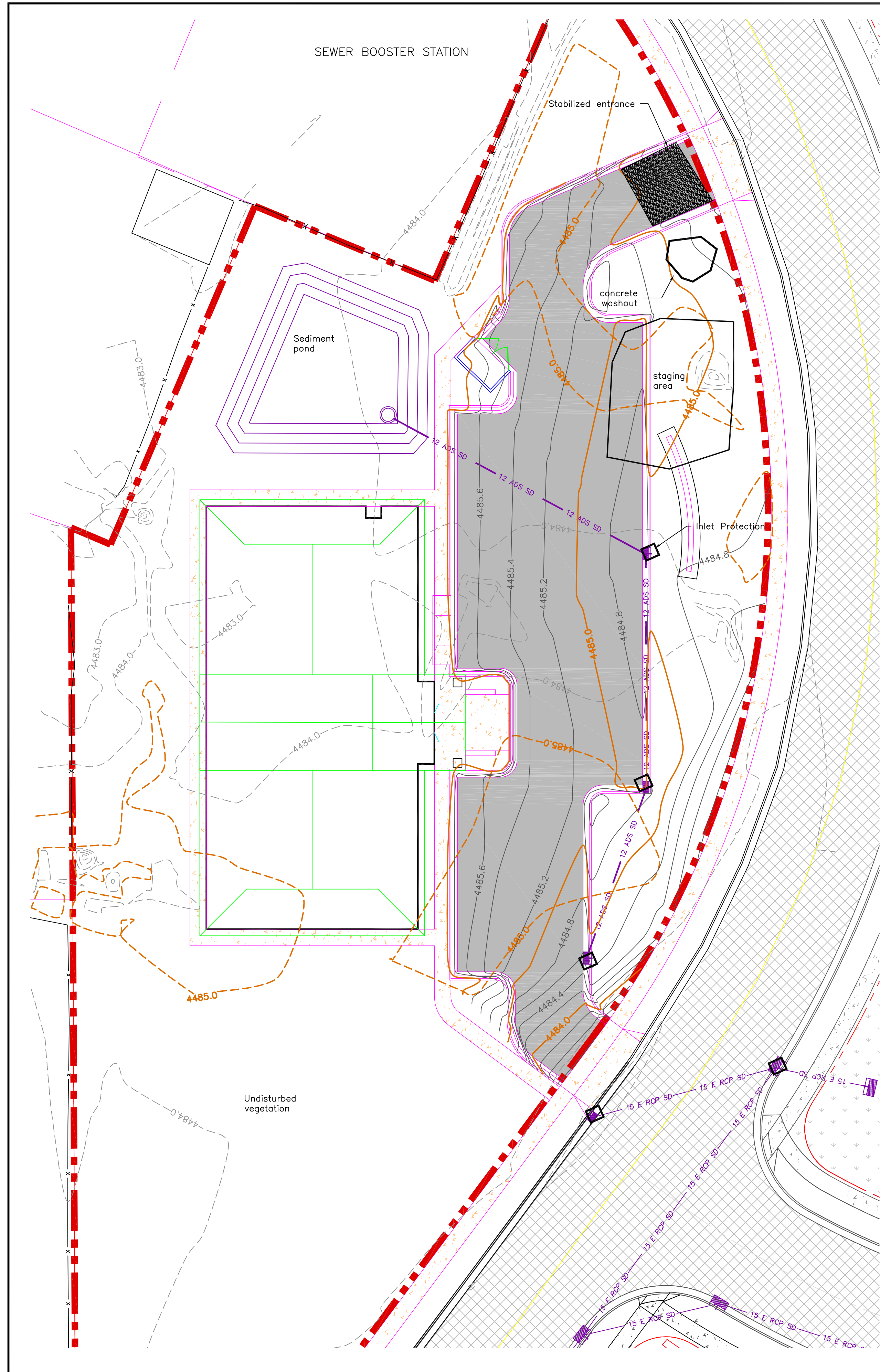
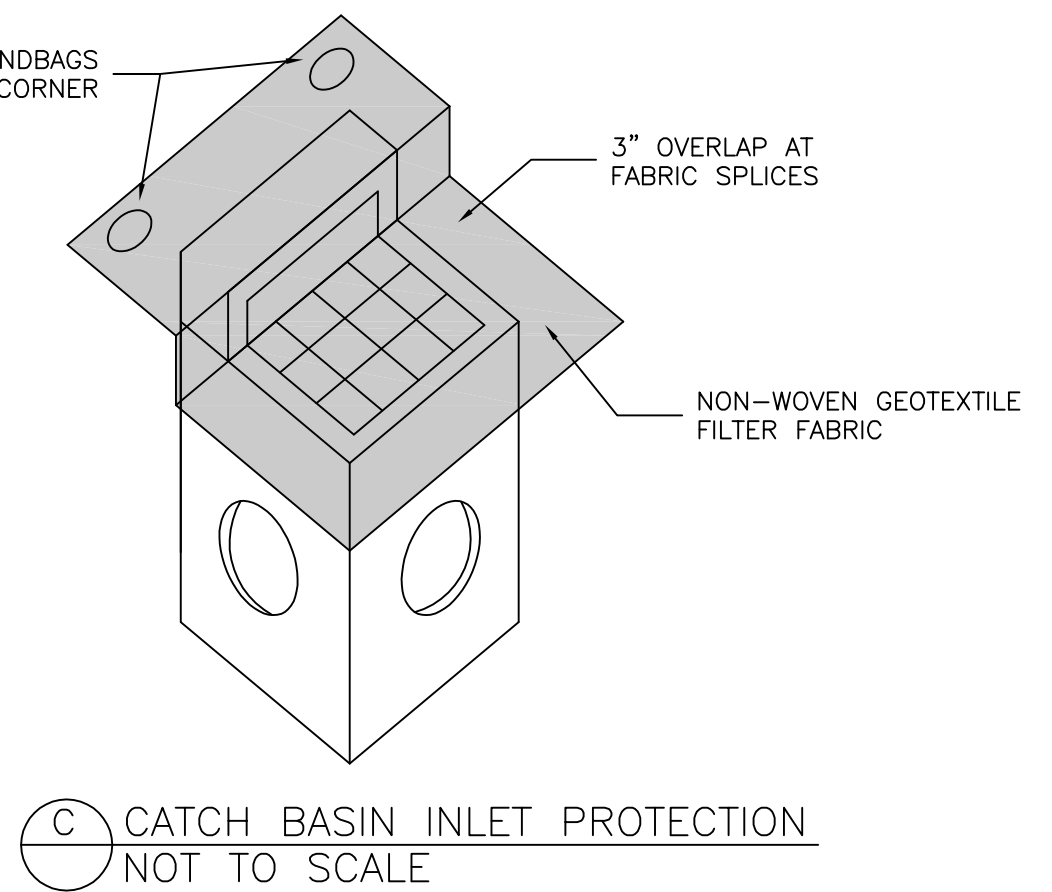
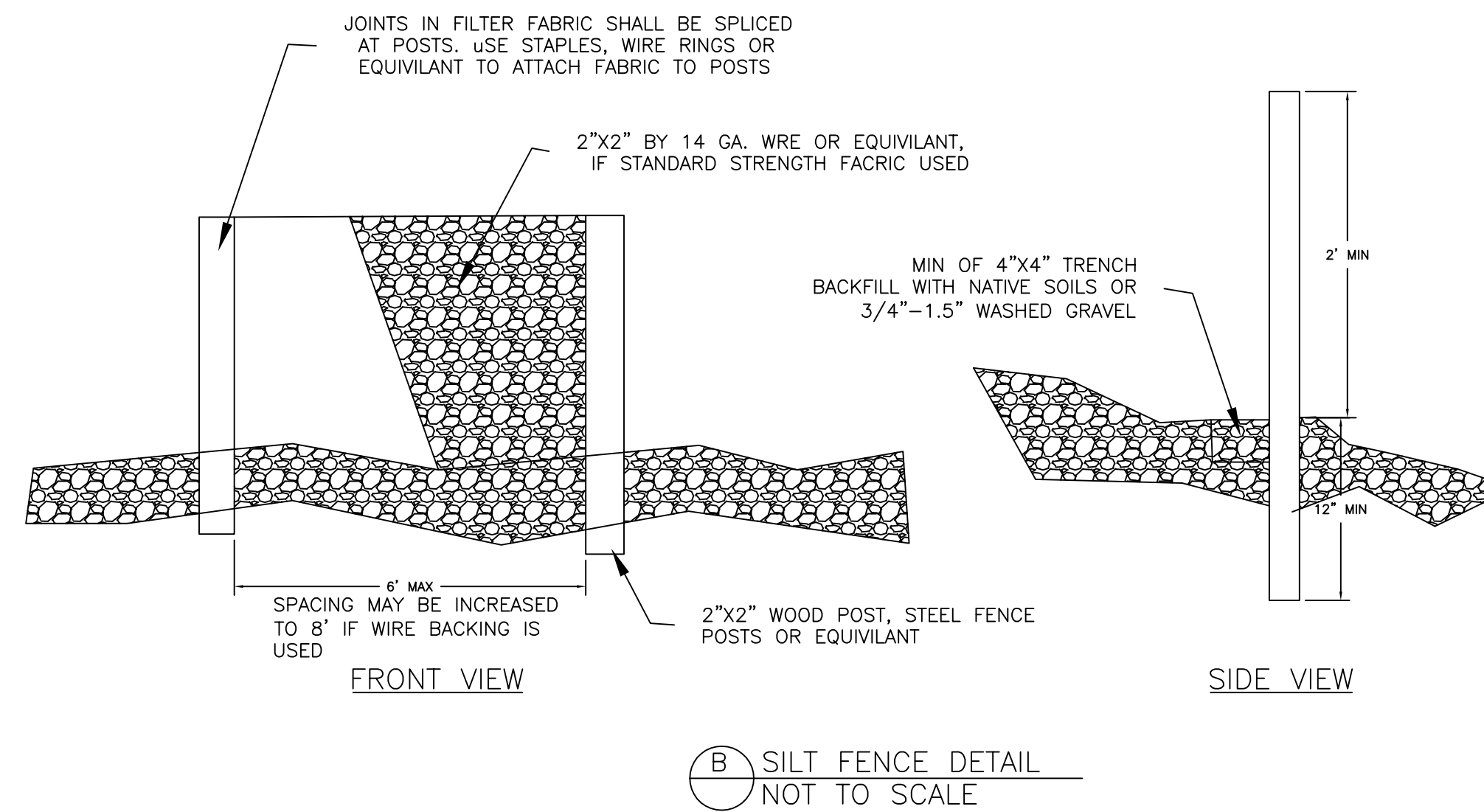
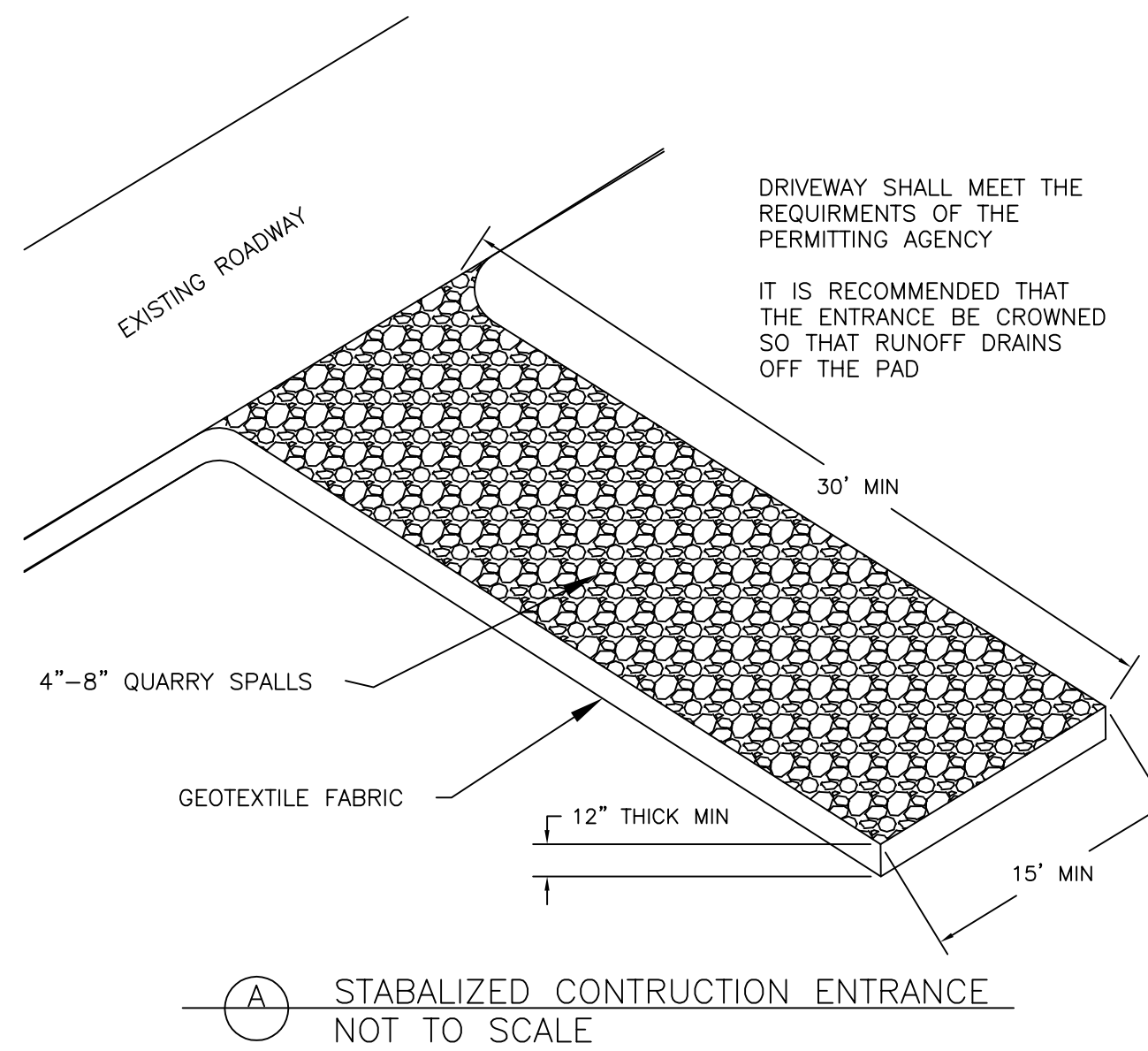
1. DO NOT DISPOSE OF WASHOUT FROM THE WASHING OF CONCRETE TRUCKS, MIXERS, AND HANDLING EQUIPMENT WHERE IT WILL FLOW INTO A WATER INLET OR INTO A PUBLIC STREET.
2. SANITARY DISPOSAL
3. PORTABLE TOILETS SHALL BE SERVICED WEEKLY AND PUMPED CLEAN BY A WASTE DISPOSAL COMPANY.
4. PROVIDE WEEKLY SWEEPING TO KEEP PAVED AREAS OF THE SITE FREE OF DUST, DIRT, AND DEBRIS. ANY DEBRIS TRACKED ONTO THE ROAD SURFACE SHALL BE CLEANED IMMEDIATELY.
5. KEEP WASTE DISPOSAL CONTAINERS COVERED. PROVIDE FOR WEEKLY DISPOSAL OF WASTE CONTAINERS OR AS NEEDED.
6. AVOID OVER WATERING OF LANDSCAPED AREAS.
7. LIMIT THE APPLICATION OF FERTILIZERS TO THE MINIMUM AREA AND THE MINIMUM RECOMMENDED AMOUNTS.
8. DISPOSE OF CONTAMINATED MATERIALS ACCORDING TO MANUFACTURERS INSTRUCTIONS OR ACCORDING TO STATE OR LOCAL REQUIREMENTS. STORE ABSORBENT MATERIAL, RAGS, BROOMS, SHOVELS AND WASTE CONTAINERS ON THE SITE TO CLEAN-UP SPILLS. CLEAN UP SPILLS IMMEDIATELY.
9. CONSTRUCTION PRODUCTS (ESPECIALLY GRAVEL & SOIL) SHALL NOT BE PLACED IN CITY RIGHT-OF-WAY.

#### MAINTENANCE/INSPECTION PROCEDURES

1. ALL CONTROL MEASURES WILL BE INSPECTED AT LEAST ONCE A WEEK OR FOLLOWING ANY STORM EVENT.
2. ALL MEASURES WILL BE MAINTAINED IN GOOD WORKING ORDER; IF REPAIR IS NECESSARY, IT WILL BE INITIATED WITHIN 24 HOURS OF REPORT.
3. PERMANENT SEEDING AND PLANTING WILL BE INSPECTED FOR BARE SPOTS, WASHOUTS, AND HEALTHY GROWTH.

#### DUST CONTROL

1. A WATER TRUCK WILL BE AVAILABLE AND USED TO CONTROL DUST CAUSED BY CONSTRUCTION.



**ALLIANCE CONSULTING ENGINEERS**  
 150 EAST 200 NORTH SUITE P  
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 (435) 755-5121  
 alliancelogan@yahoo.com

No.	REVISIONS / SUBMISSIONS	DATE

PROJECT TITLE: **SIERRA COMMERCIAL PARK, LOT 7**  
 PART OF THE SW 1/4 OF SECTION 17,  
 TOWNSHIP 10 NORTH RANGE 12 EAST,  
 SALT LAKE COUNTY, MERIDIAN

CONTRACTOR INFORMATION:  
 Name: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_

NOI# \_\_\_\_\_

DRAWING No. **5**

DATE: SEPT, 2016  
 DRAWING No. **5**



DATE  
 SEPT 12, 2016

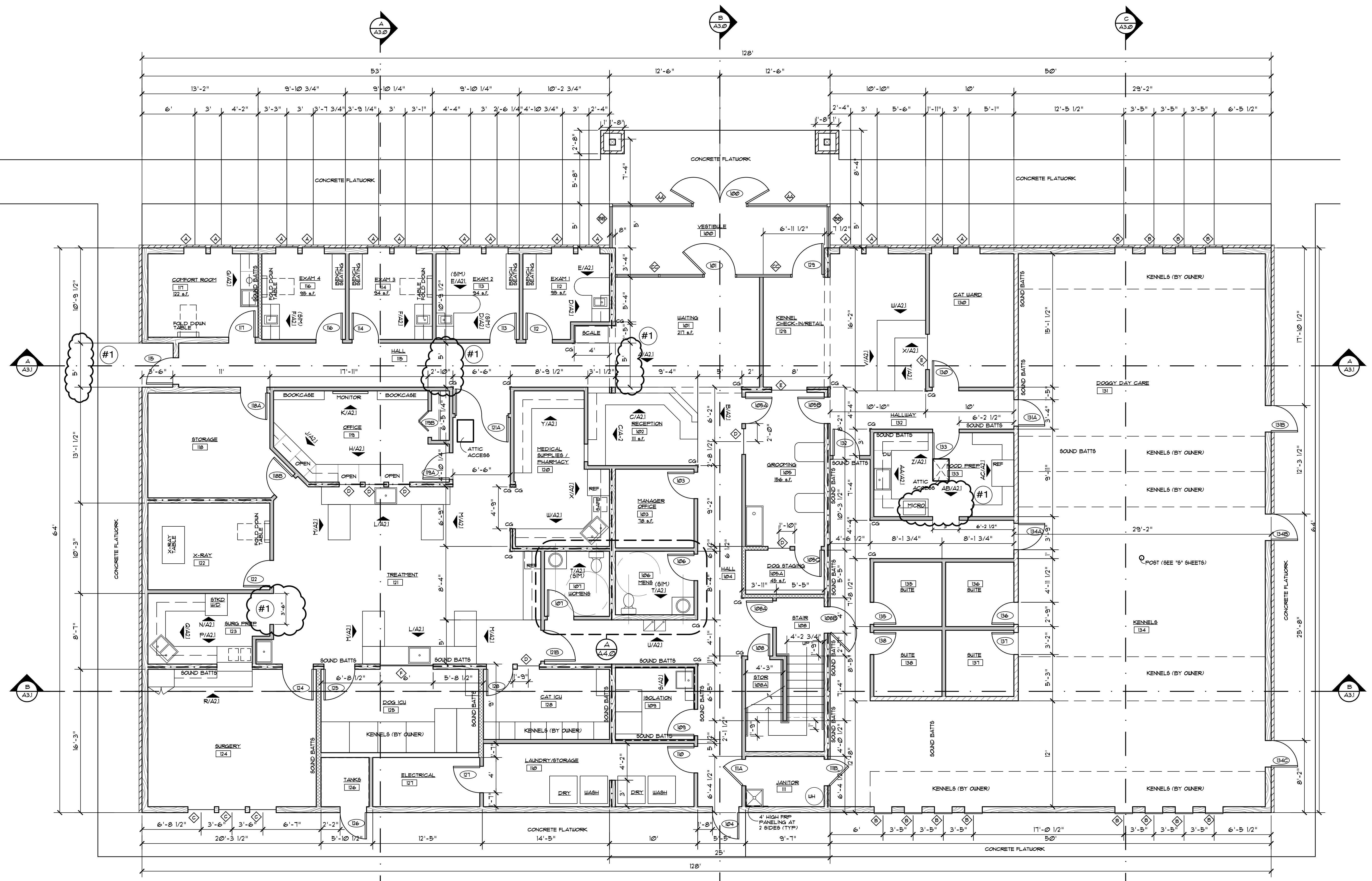
PROJECT TITLE  
**HERITAGE VET CLINIC / KENNEL**  
**NEW BUILDING PROJECT**  
**2365 SOUTH HERITAGE DRIVE**  
**NIBBLEY, UTAH**

SHEET TITLE  
**FLOOR PLAN**

PROJECT NUMBER  
 -

REVISIONS  
 #1 - 9-26-16

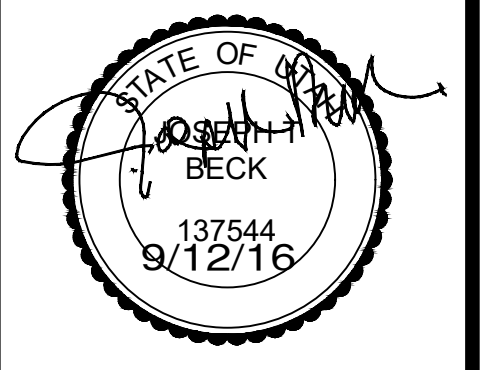
SHEET NUMBER  
**A1.0**



**MAIN FLOOR PLAN**  
 SCALE: 3/16" = 1' - 0"  
 TOTAL FLOOR AREA = 8300 S.F.

**WALL TYPES**

- INTERIOR NON-BEARING WALL  
 2X4 STUDS AT 16" O.C. W/ 5/8" GYP. BD. EACH SIDE (WR GYP. BD. AT WET WALL LOCATIONS)  
 (9' HIGH WALLS MAIN FLOOR, 8' HIGH UPPER)  
 (SOUND INSULATION - FULL HEIGHT-WHERE SHOWN)
- INTERIOR NON-BEARING SOUND WALLS  
 2X4 STUDS AT 16" O.C. W/ (2 LAYERS) 5/8" GYP. BD. EACH SIDE  
 (9' HIGH WALLS - V.F.Y.)  
 (SOUND BATT INSULATION - FULL HEIGHT)
- INTERIOR NON-BEARING SOUND/DURABLE WALLS  
 2X4 STUDS AT 16" O.C. W/ (1 LAYER) 5/8" GYP. BD. ROOM SIDE, PROVIDE PAINTED FLYUD AT KENNEL WALL FACE, (9' HIGH WALLS - V.F.Y.)  
 (SOUND BATT INSULATION - FULL HEIGHT)
- INTERIOR BEARING SHEAR WALLS  
 2X6 STUDS AT 16" O.C. W/ 5/8" GYP. BD. EACH SIDE (WR GYP. BD. AT WET WALL LOCATIONS)  
 (V.F.Y. SHEAR WALL LOCATIONS WITH 6 SHEETS)  
 (9' HIGH WALLS MAIN FLOOR, 8' HIGH UPPER)
- INTERIOR NON-BEARING WET WALLS  
 2X6 STUDS AT 16" O.C. W/ 5/8" GYP. BD. EACH SIDE (WR GYP. BD. AT WET WALL LOCATIONS)  
 (9' HIGH WALLS MAIN, 8' HIGH UPPER)
- EXTERIOR BEARING WALLS  
 2X4 STUDS AT 16" O.C. W/ 1/16" OSB SHEATHING (EXT) W/ 5/8" GYP. BD. INSIDE (WR GYP. BD. AT WET WALLS), AND R-22 BLOWN IN INSULATION AT CAVITY. PROVIDE "HOUSEWRAP" MEMBRANE AT EXTERIOR FACE WITH STONE VENEER (SEE ELEV.).  
 (9' HIGH WALLS - TYP)
- INTERIOR NON-BEARING SOUND WALL (2)  
 2X4 STUDS AT 16" O.C. W/ (2 LAYERS) 5/8" GYP. BD. ON THE ISOLATION ROOM SIDE, (1 LAYER) AT OTHER SIDE, PROVIDE SOUND BATTS (FULL HEIGHT) (9' HIGH WALLS MAIN)
- CORNER GUARDS  
 FULL HEIGHT STAINLESS STEEL CORNER GUARD (4" EACH SIDE)



DATE  
 SEPT 12, 2016

PROJECT TITLE  
 HERITAGE VET CLINIC / KENNEL  
 NEW BUILDING PROJECT  
 2365 SOUTH HERITAGE DRIVE  
 NIBLEY, UTAH

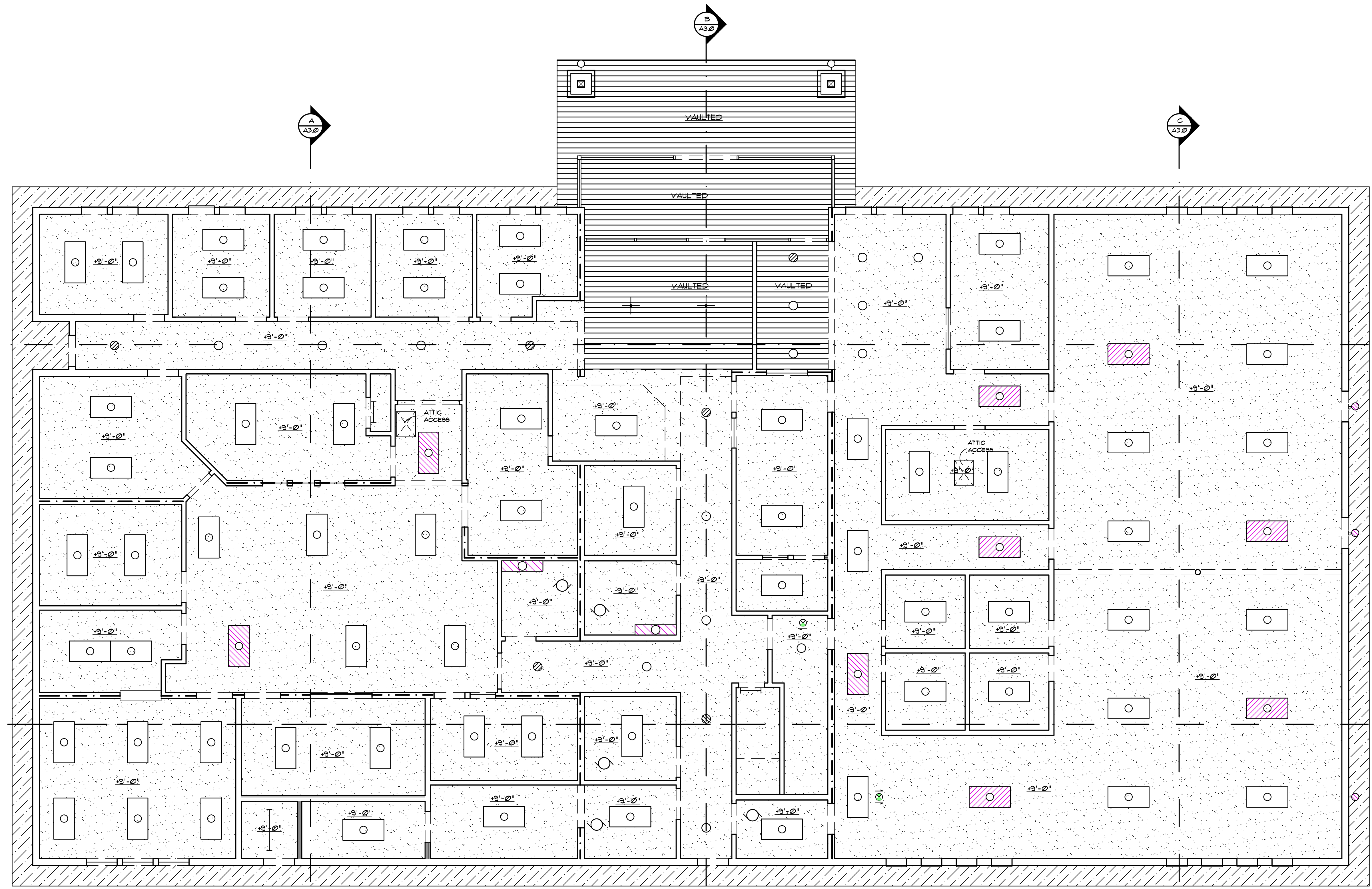
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 CEILING PLAN

PROJECT NUMBER  
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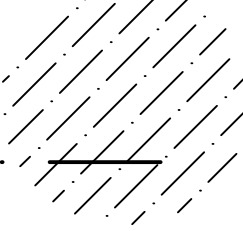
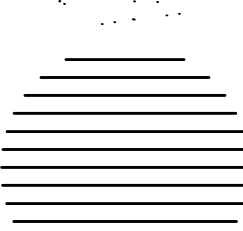
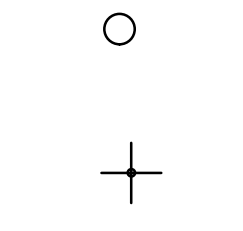
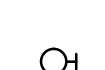

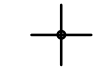
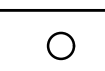

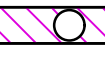

REVISIONS

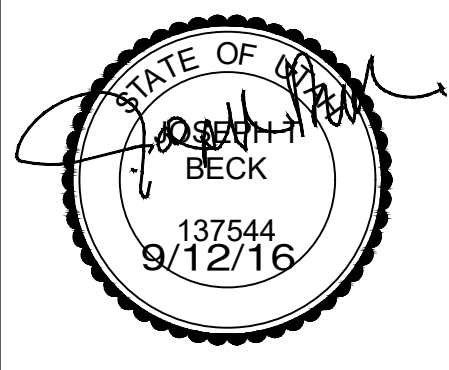
SHEET NUMBER

A1.2



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

- CEILING LEGEND**
-  VENTED METAL SOFFIT. VERIFY COLOR WITH OWNER.
  -  NEW FINISHED 5/8" GYP BD CEILING OVER 2X TRUSSES AT 24" O.C. - TYP AT ALL LOCATIONS SHOWN. (9' MAIN FLOOR AND 8' UPPER FLOOR CEILING)
  -  2X6 T & G CEILING BOARDS. STAIN FINISHED TO MATCH TIMBERS. SEE "5" SHEETS FOR FRAMING LAYOUT
  -  NEW EXT SCONCE AT FRONT COLUMNS (+16") SEE E SHEETS
  -  NEW LED RECESSED LIGHT FIXTURE. SEE E SHEETS.
  -  NEW PENDANT FIXTURE (SEE E SHEETS)
  -  NEW 2X2/2X4 LIGHT FIXTURES. (SEE E SHEETS)
  -  NEW CEILING MOUNTED EXIT LIGHTS (SEE E SHEETS)
  -  NEW WALL MOUNTED LED LIGHTS (SEE E SHEETS)
  -  NEW CEILING MOUNTED EXHAUST FAN (SEE E AND M SHEETS)



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 2365 SOUTH HERITAGE DRIVE  
 NIBLEY, UTAH

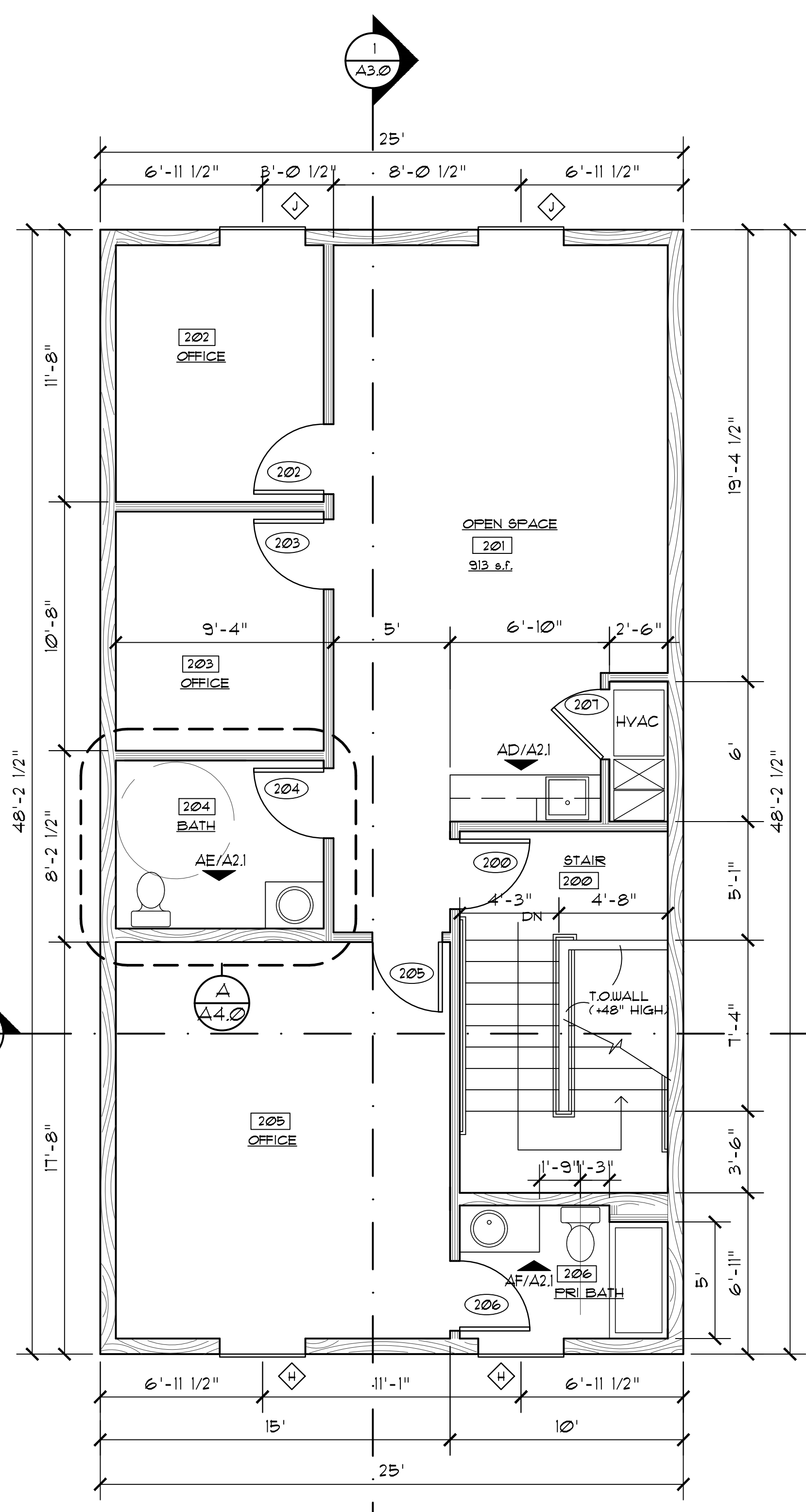
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 UPPER FLOOR PLAN  
 WINDOW SCHEDULES

PROJECT NUMBER  
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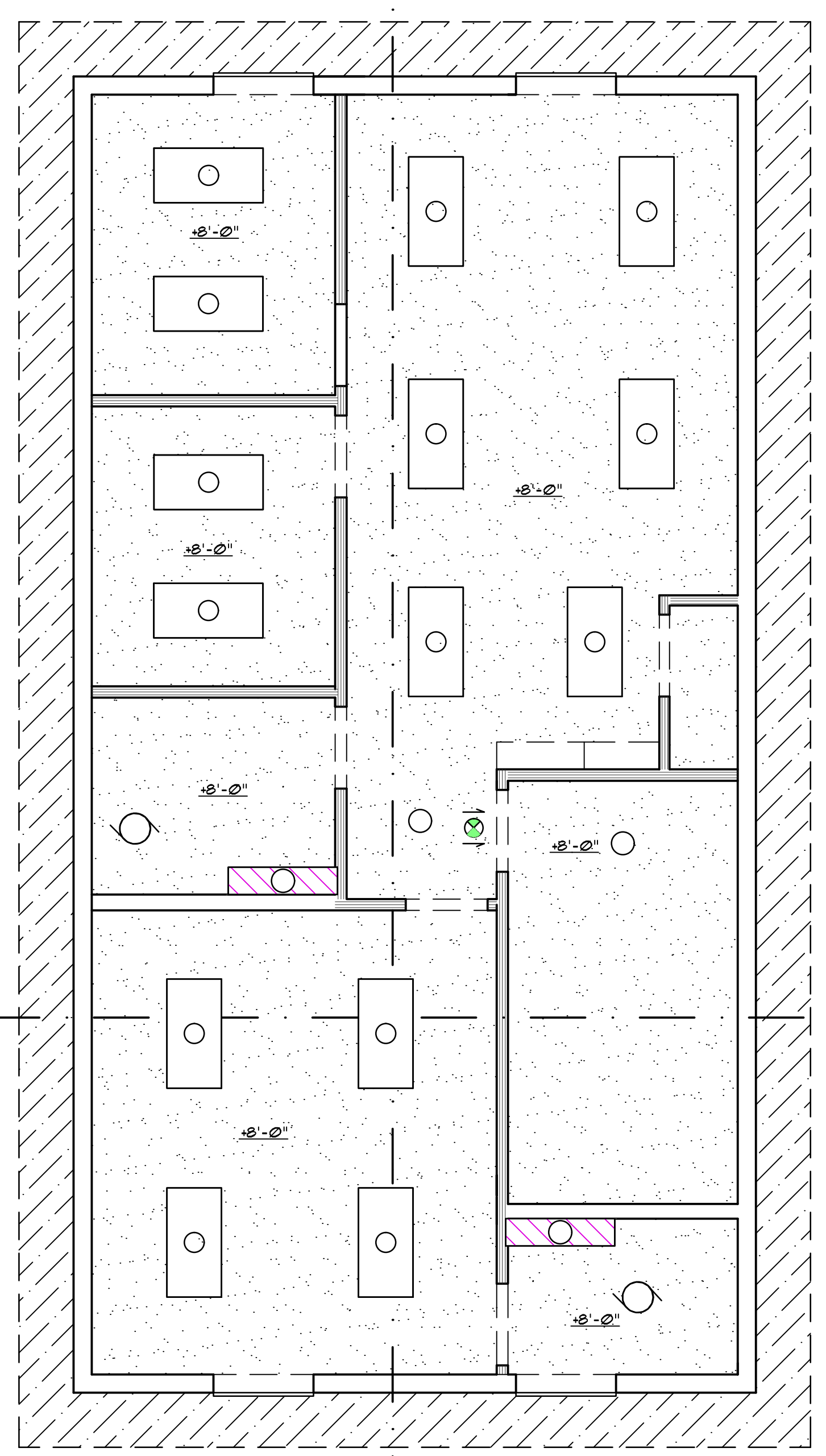
REVISIONS

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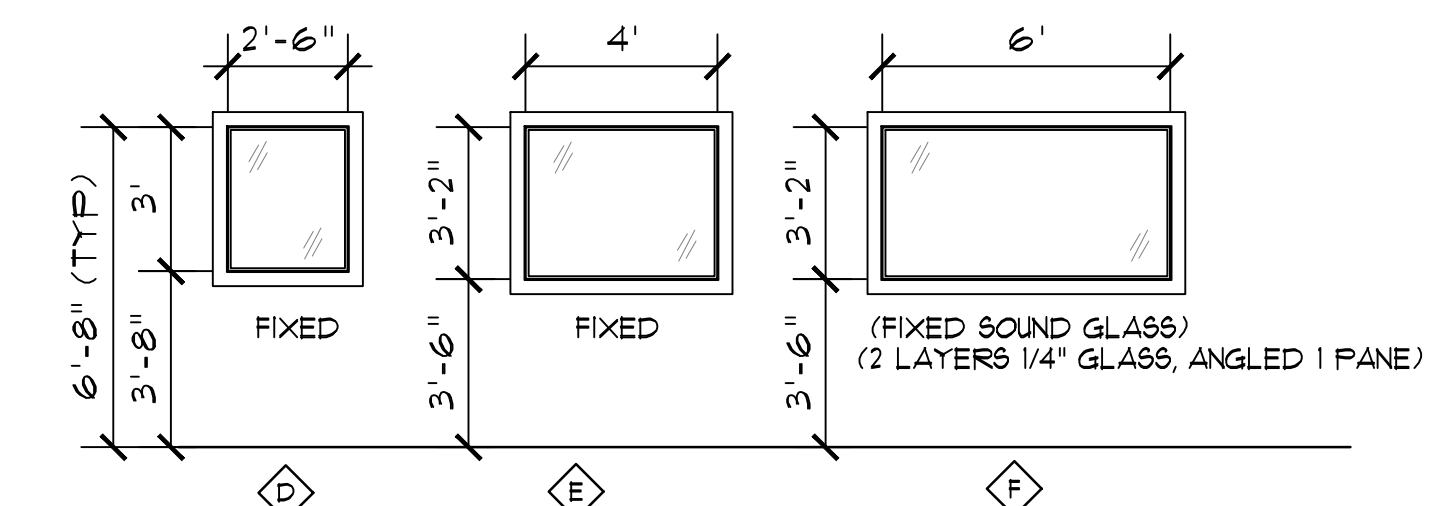


UPPER FLOOR PLAN  
 SCALE: 1/4" = 1' - 0"

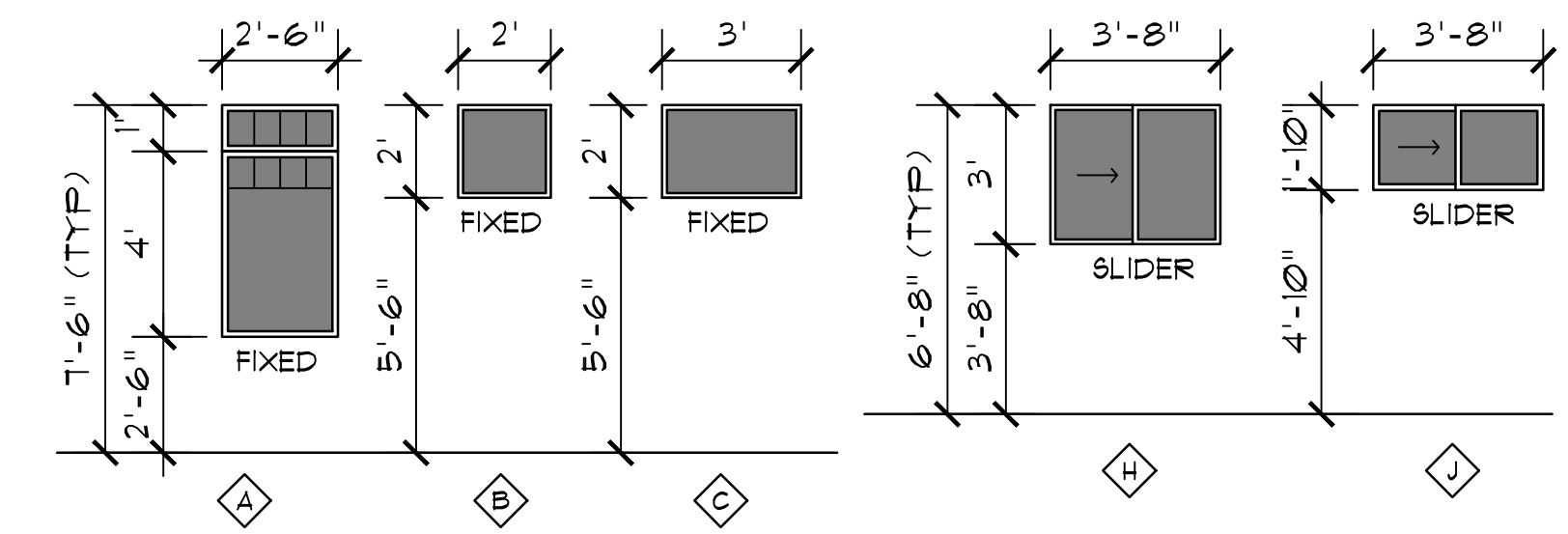


UPPER FLOOR CEILING  
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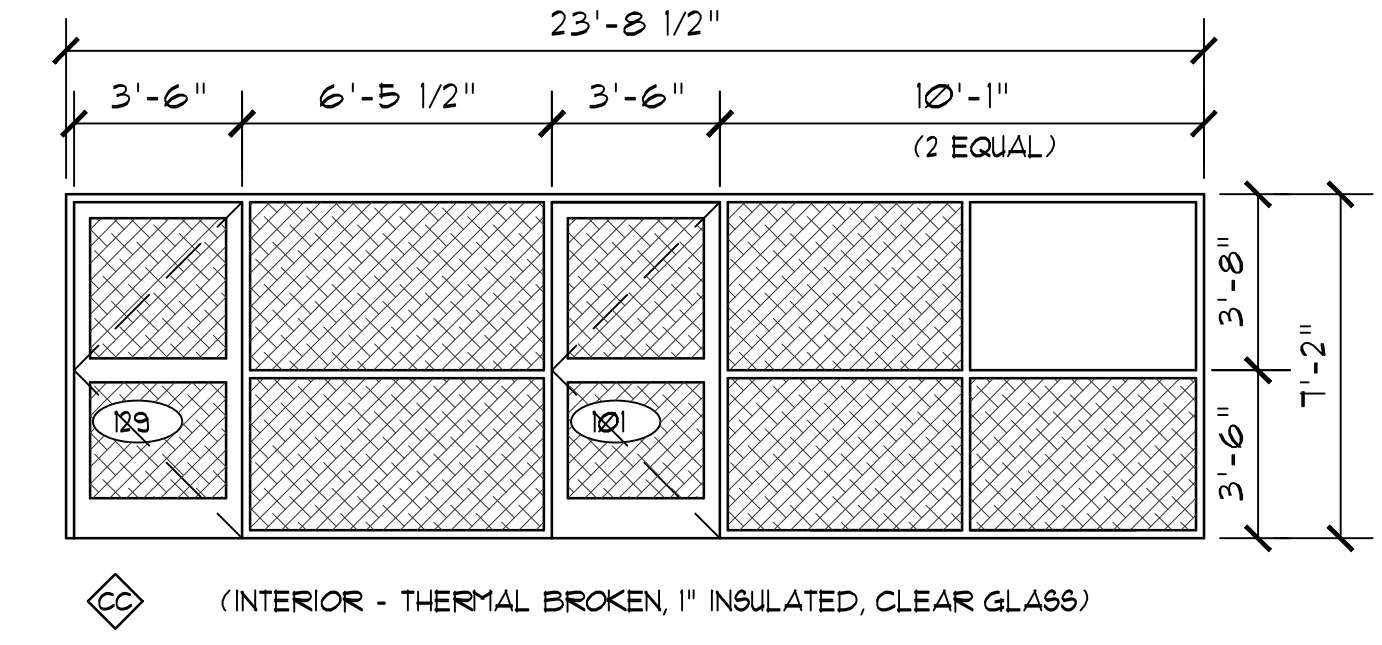
NOTE: SEE SHEET A12 FOR CEILING FINISHES



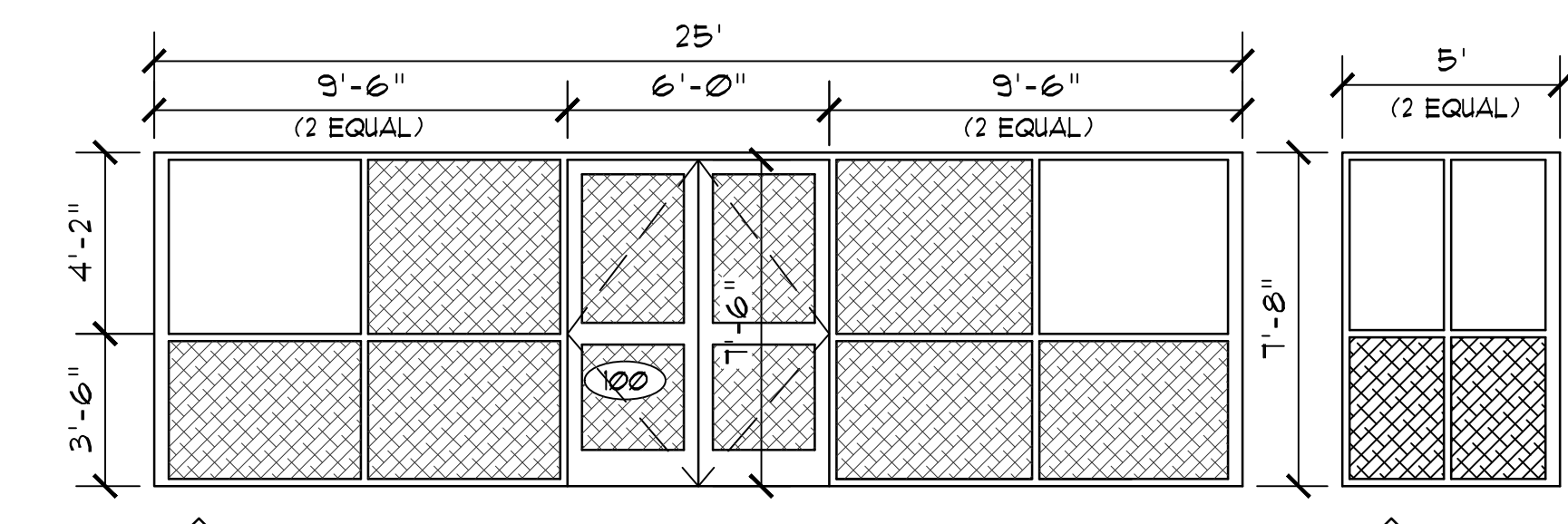
NOTE: INTERIOR WINDOWS TO BE CUSTOM WOOD FRAMED/TRIMMED, PAINTED, 1/4" TEMPERED FLOAT GLASS W/ MATCHING PAINTED WOOD CASING AT PERIMETER



NOTE: EXTERIOR VINYL WINDOWS TO BE (JELD WEN PREMIUM VINYL V-4500, CHOCOLATE BROWN WITH GRID AS SHOWN, INSULATED GLASS W/ 40% BRONZE TINT LOW-E GLAZING TYPICAL AT EXTERIOR)

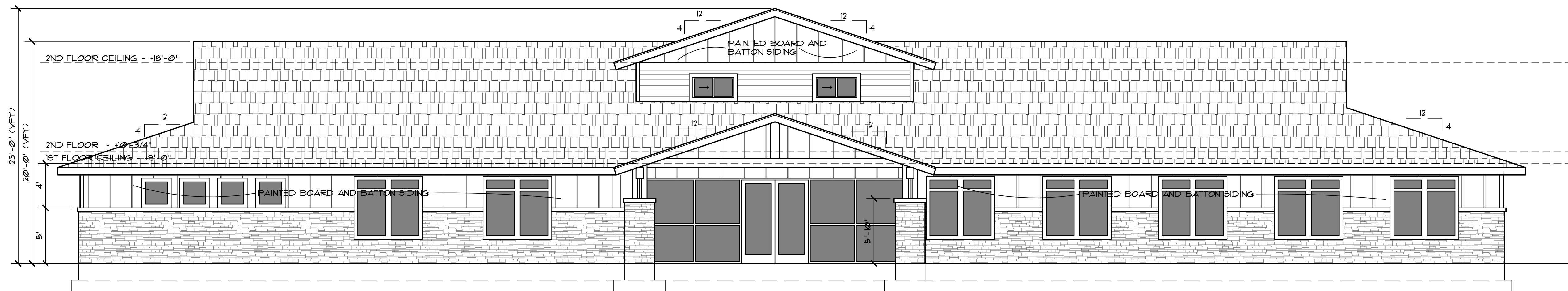


(INTERIOR - THERMAL BROKE, 1" INSULATED, CLEAR GLASS)



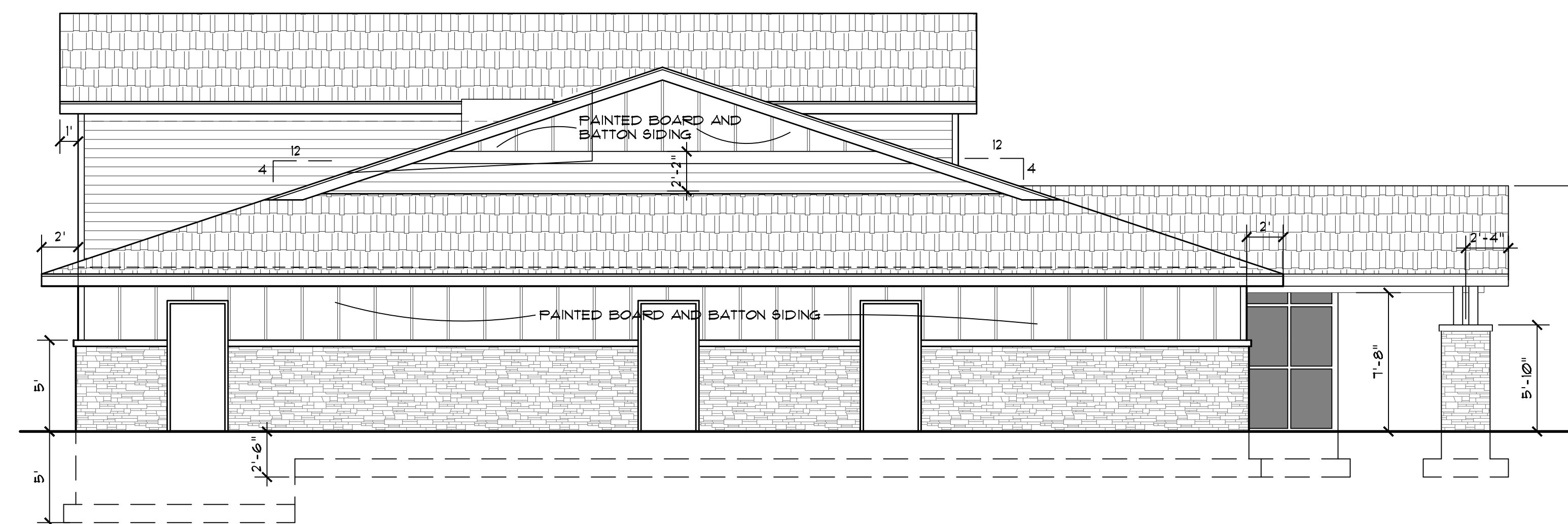
(EXTERIOR - THERMAL BROKE, 1" INSULATED, BRONZE TINTED 40%) (2 - 91M)

NOTE: ALL STOREFRONT GLAZING TO BE DK BRONZE, THERMAL BROKE FRAME, 1" INSULATED GLASS 40% BRONZE TINT AT EXTERIOR, LOW E AT EXTERIOR, TEMPERED WHERE SHOWN! PROVIDE MANUF STANDARD CONNECTIONS TO MAIN BUILDING AS NEEDED PROVIDE MANUF STANDARD HARDWARE WHERE NOT CALLED OUT AT DOOR SCHEDULE.



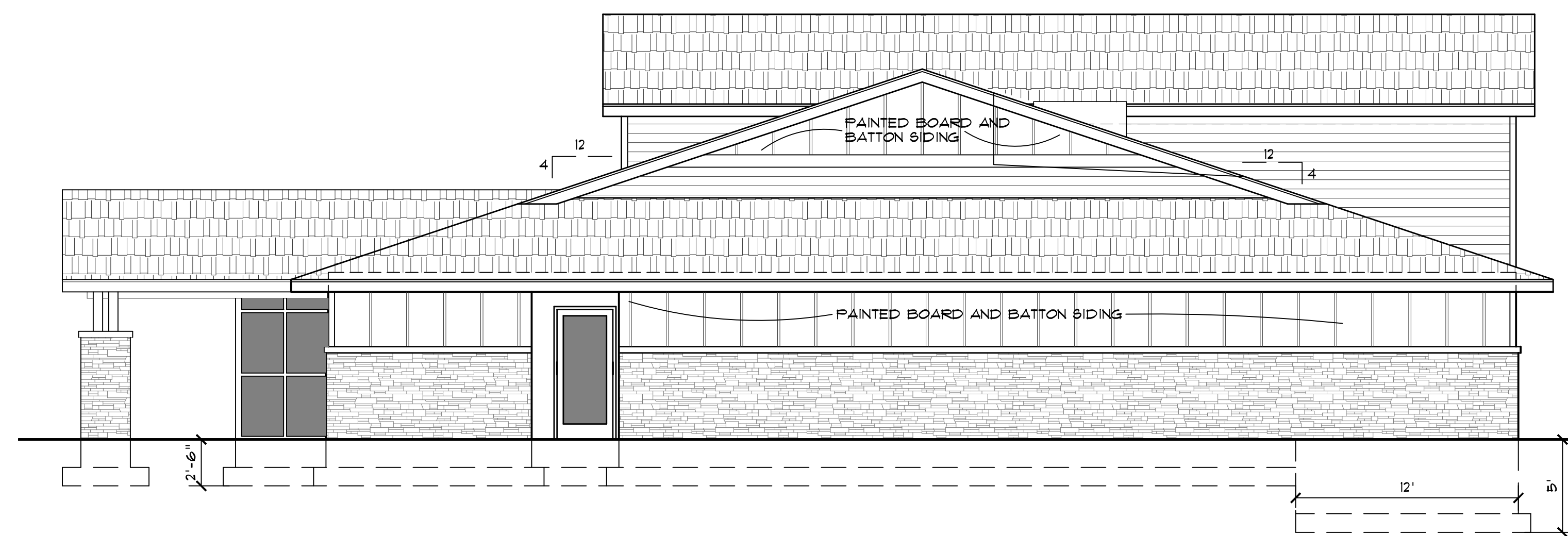
**EAST ELEVATION (FRONT)**

SCALE: 3/16" = 1' - 0"



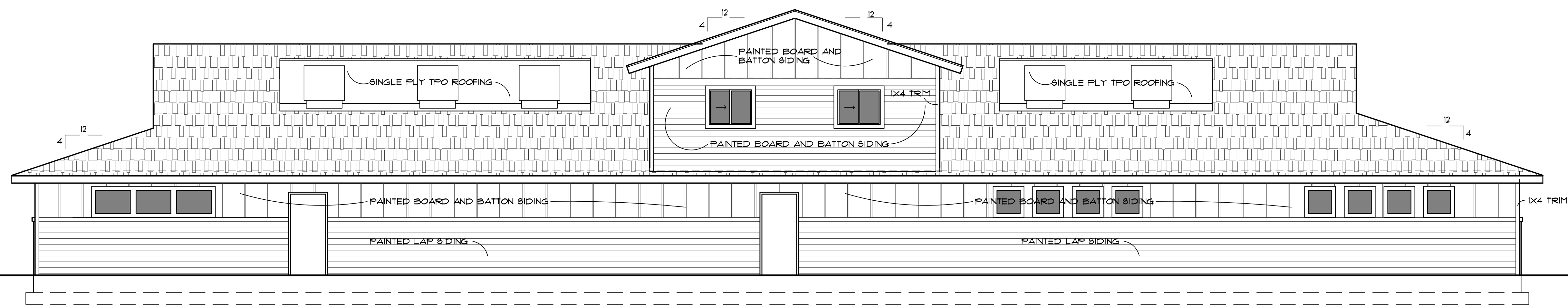
**SOUTH ELEVATION (SIDE)**

SCALE: 3/16" = 1' - 0"



**NORTH ELEVATION (SIDE)**

SCALE: 3/16" = 1' - 0"



**WEST ELEVATION (BACK)**

SCALE: 3/16" = 1' - 0"

**ROOF CONSTRUCTION:**

1. 25 YEAR ARCHITECTURAL ASPHALT SHINGLES ON FELTEX OVER 5/8" ROOF SHEETING
2. 2X PREMANUFACTURED TRUSSES AT 24" OC. TYP W/ 24" OVERHANG
3. DARK BROWN ALUMINUM SOFFIT AND FASCIA WITH GUTTER AND DOWNSPOUT AT FRONT AND BACK
4. FLASH ALL PENETRATIONS THROUGH ROOF SYSTEMS
5. R-50 EXPANDING FOAM INSULATION TO UNDERSIDE OF SHEETING.
6. SINGLE PLY TPO ROOFING AT MECH WELL. EXTEND MIN 12" AT ALL SIDES.

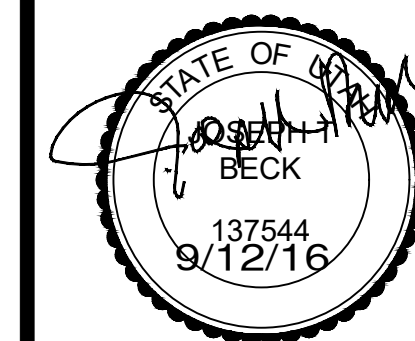
**WALL CONSTRUCTION:**

1. 2X6 EXTERIOR STUD CONSTRUCTION W/ R-22 BLOWN IN INSULATION - TYP
2. 7/16" OSB WALL SHEATHING TYP AT ALL EXTERIOR WALLS
3. PROVIDE CONTINUOUS "HOUSEWRAP" UNDERLAYMENT AT EXTERIOR SURFACES.
4. PAINTED "HARDI-BOARD" SIDING AND "DRYSTACK LEDGESTONE" STONE VENEER AS SHOWN

**FOUNDATION CONSTRUCTION:**

1. PROVIDE 4" CONCRETE FLATWORK AT PERIMETER OVER 4" CRUSHED ROCK (TYP)
2. PROVIDE BITUMINOUS DAMPROOFING AT FOUNDATION PERIMETER FROM BOTTOM OF FOOTING TO FINISH GRADE (TYP.)
3. PROVIDE 2" RIGID INSULATION AT INSIDE FACE OF FOUNDATION WALL AS WELL AS 24" HORIZONTAL AT PERIMETER OF FLOOR SLAB.

JOSEPH T. BECK ARCHITECT, INC.  
497 EAST 520 SOUTH  
SMITHFIELD, UTAH  
(435) 764-6742



DATE  
SEPT 12, 2016

PROJECT TITLE  
HERITAGE VET CLINIC / KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

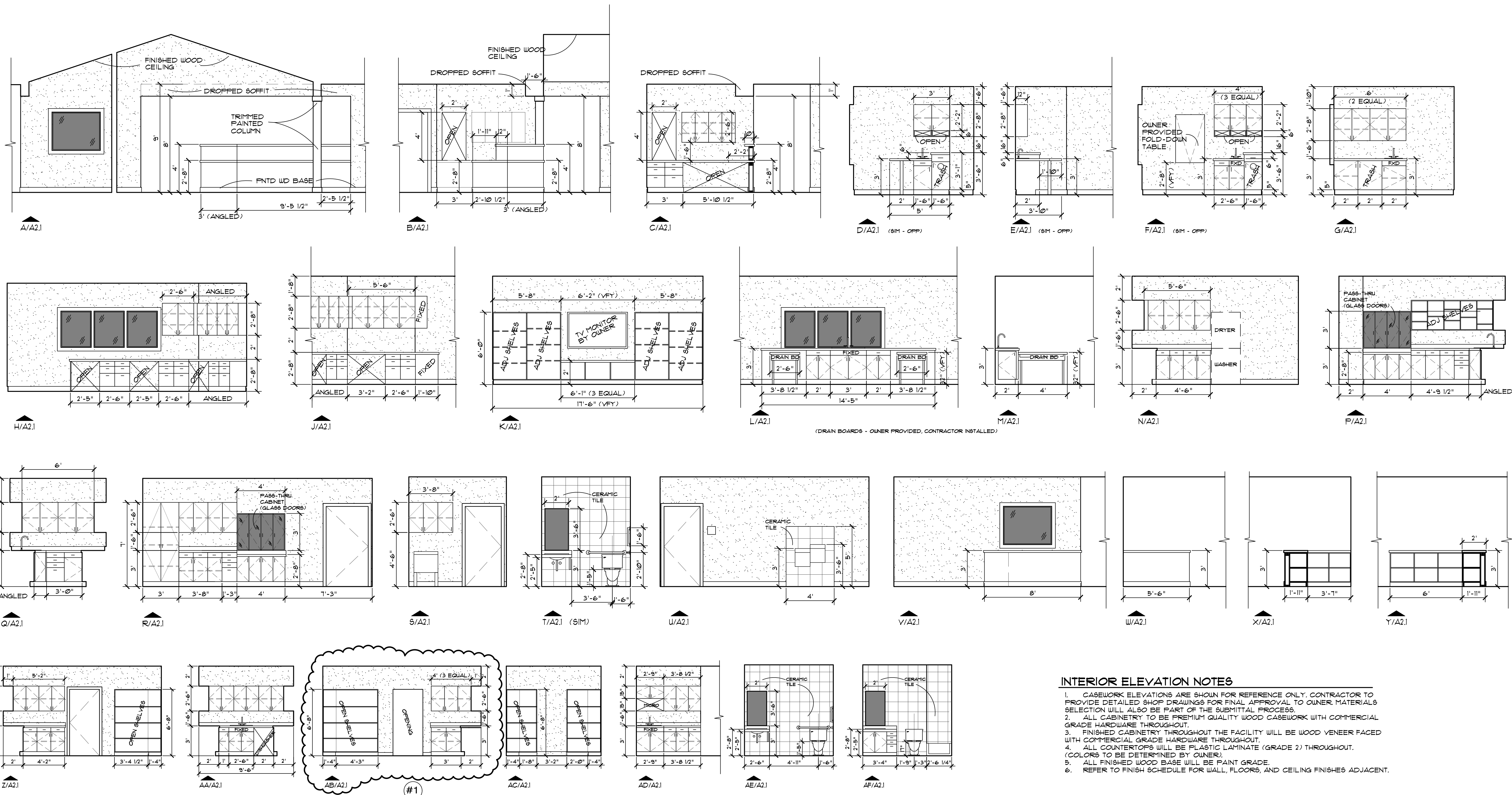
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EXTERIOR  
ELEVATIONS

PROJECT NUMBER

REVISIONS

SHEET NUMBER

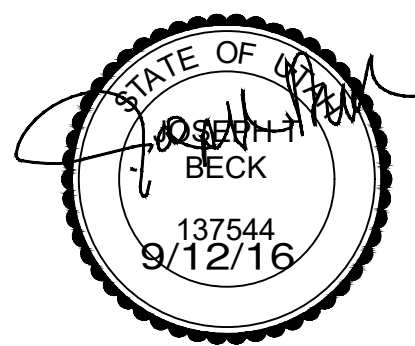
A2.0



**INTERIOR ELEVATION NOTES**

1. CASEWORK ELEVATIONS ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR TO PROVIDE DETAILED SHOP DRAWINGS FOR FINAL APPROVAL TO OWNER. MATERIALS SELECTION WILL ALSO BE PART OF THE SUBMITTAL PROCESS.
2. ALL CABINETS TO BE PREMIUM QUALITY WOOD CASEWORK WITH COMMERCIAL GRADE HARDWARE THROUGHOUT.
3. FINISHED CABINETRY THROUGHOUT THE FACILITY WILL BE WOOD VENEER FACED WITH COMMERCIAL GRADE HARDWARE THROUGHOUT.
4. ALL COUNTERTOPS WILL BE PLASTIC LAMINATE (GRADE 2) THROUGHOUT. (COLORS TO BE DETERMINED BY OWNER)
5. ALL FINISHED WOOD BASE WILL BE PAINT GRADE.
6. REFER TO FINISH SCHEDULE FOR WALL, FLOORS, AND CEILING FINISHES ADJACENT.

JOSEPH T. BECK ARCHITECT, INC.  
497 EAST 520 SOUTH  
SMITHFIELD, UTAH  
(435) 764-6742



DATE  
SEPT 12, 2016

PROJECT TITLE  
HERITAGE VET CLINIC / KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

SHEET TITLE  
INTERIOR  
ELEVATIONS

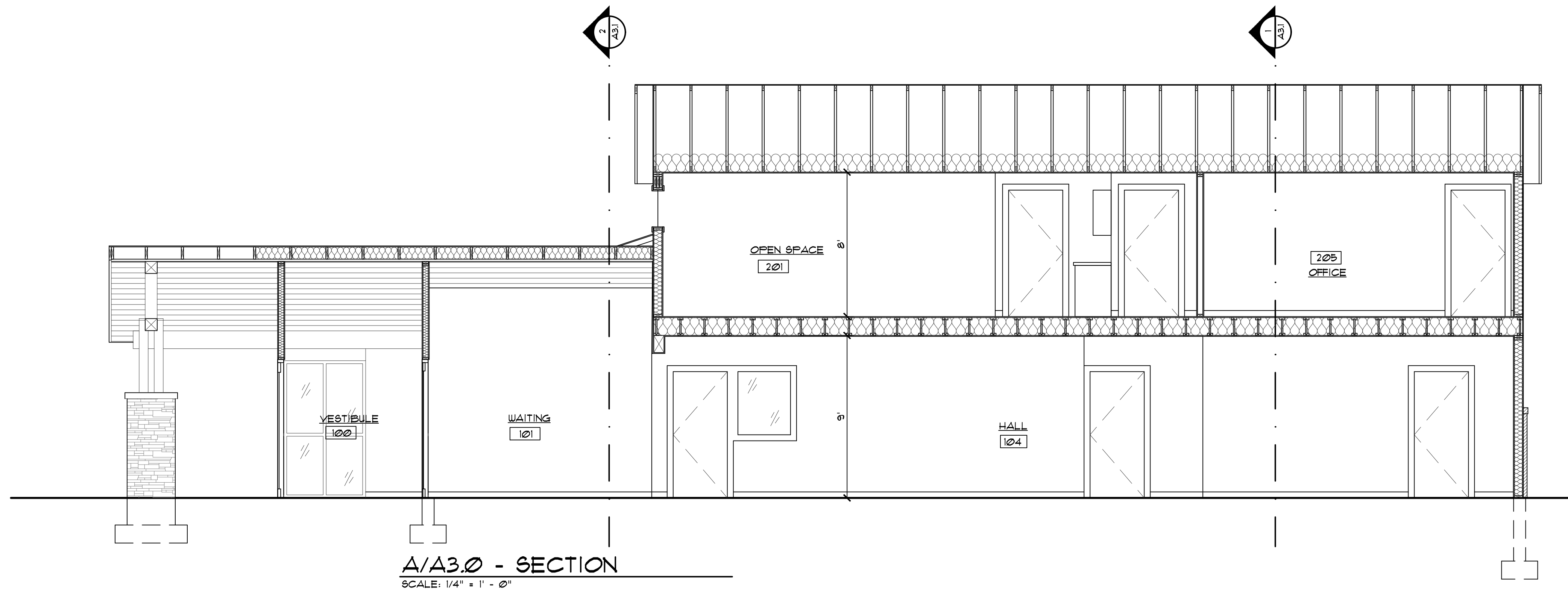
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REVISIONS  
#1 - 9-26-16

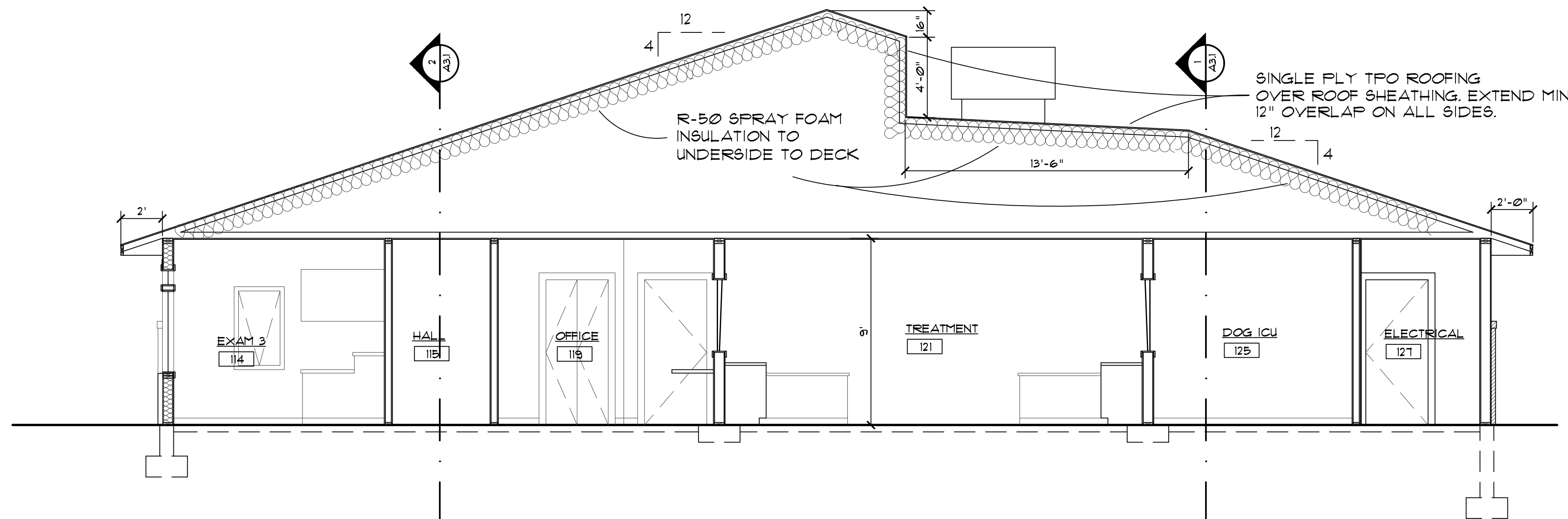
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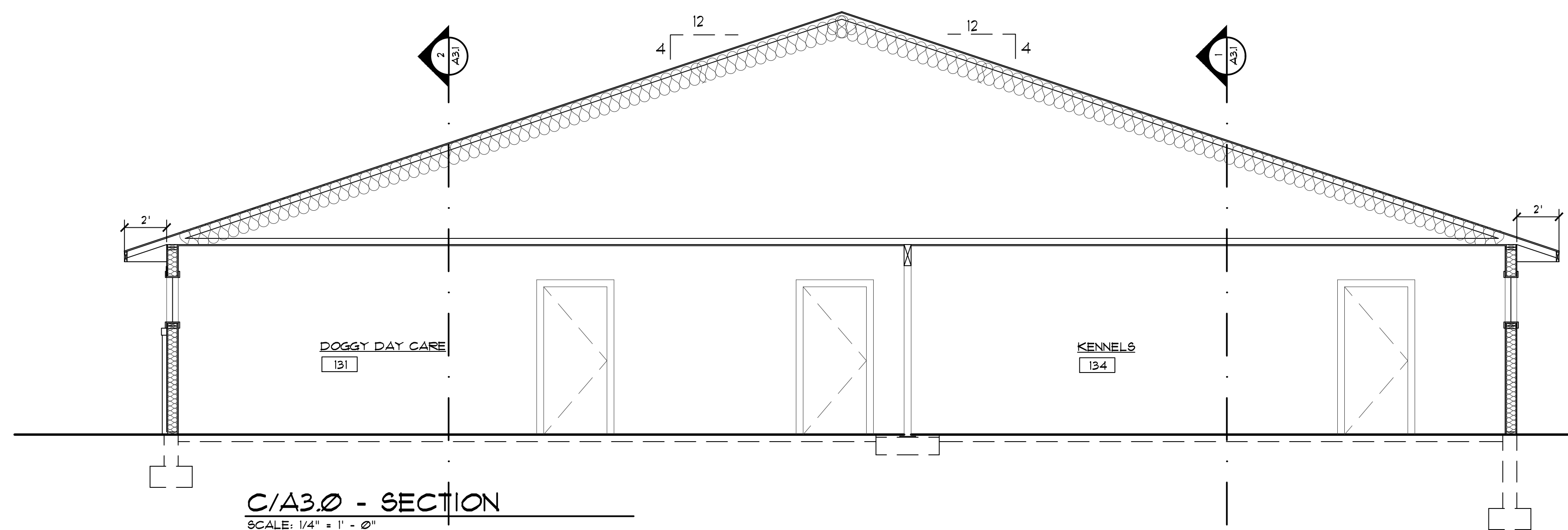




**A/A3.0 - SECTION**  
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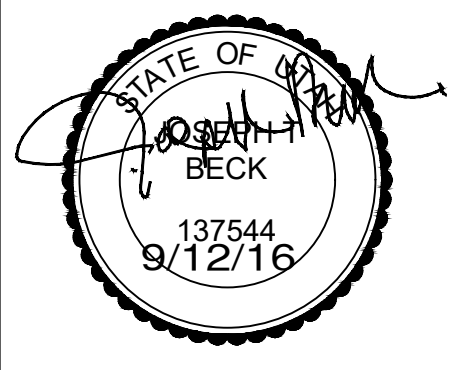


**B/B3.0 - SECTION**  
SCALE: 1/4" = 1' - 0"



**C/C3.0 - SECTION**  
SCALE: 1/4" = 1' - 0"

JOSEPH T. BECK ARCHITECT, INC.  
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SMITHFIELD, UTAH  
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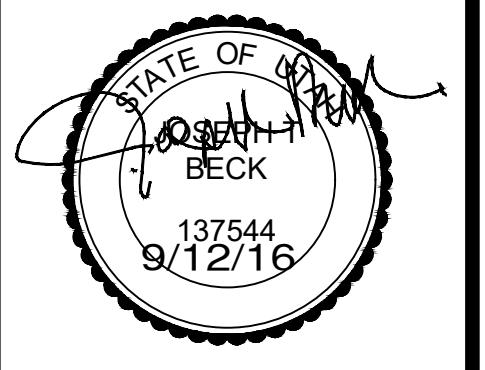
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SECTIONS

PROJECT NUMBER  
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REVISIONS

SHEET NUMBER

**A3.0**



DATE  
 SEPT 12, 2016

PROJECT TITLE  
 HERITAGE VET CLINIC / KENNEL  
 NEW BUILDING PROJECT  
 2365 SOUTH HERITAGE DRIVE  
 NIBLEY, UTAH

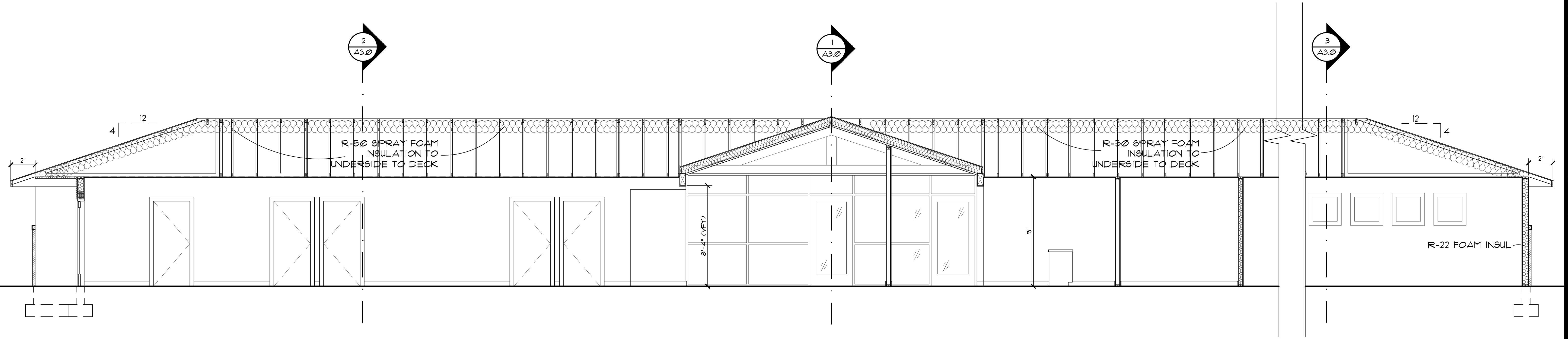
SHEET TITLE  
 SECTIONS

PROJECT NUMBER

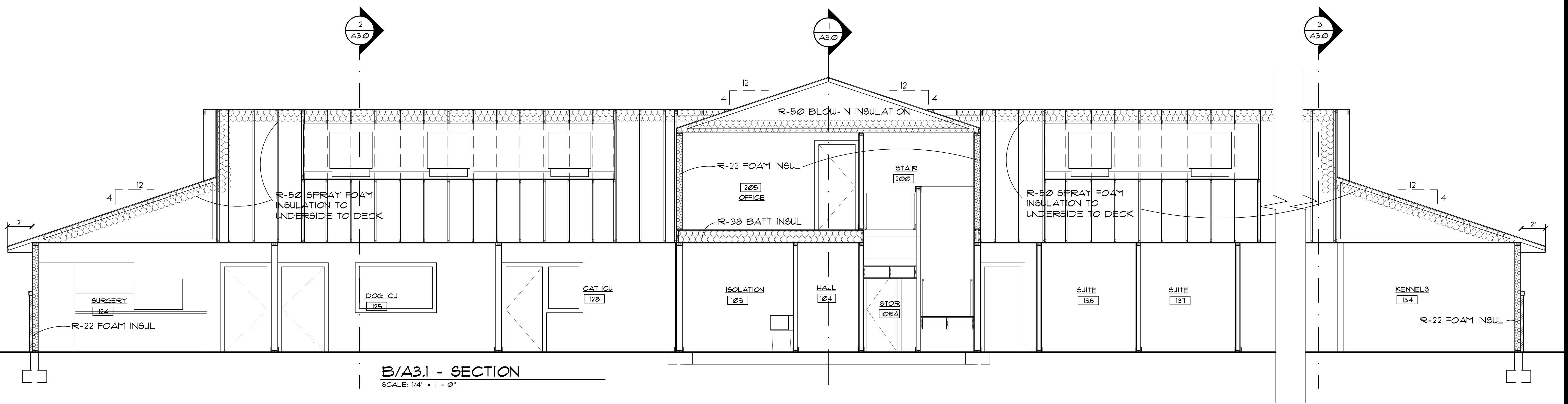
REVISIONS

SHEET NUMBER

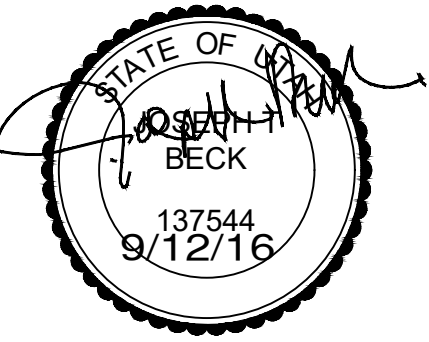
A3.1



A/A3.1 - SECTION  
 SCALE: 1/4" = 1' - 0"



B/A3.1 - SECTION  
 SCALE: 1/4" = 1' - 0"



DATE  
SEPT 12, 2016

PROJECT TITLE  
HERITAGE VET CLINIC / KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBBLEY, UTAH

SCHEDULES

SHEET TITLE

PROJECT NUMBER

REVISIONS

#1 - 9-26-16

SHEET NUMBER

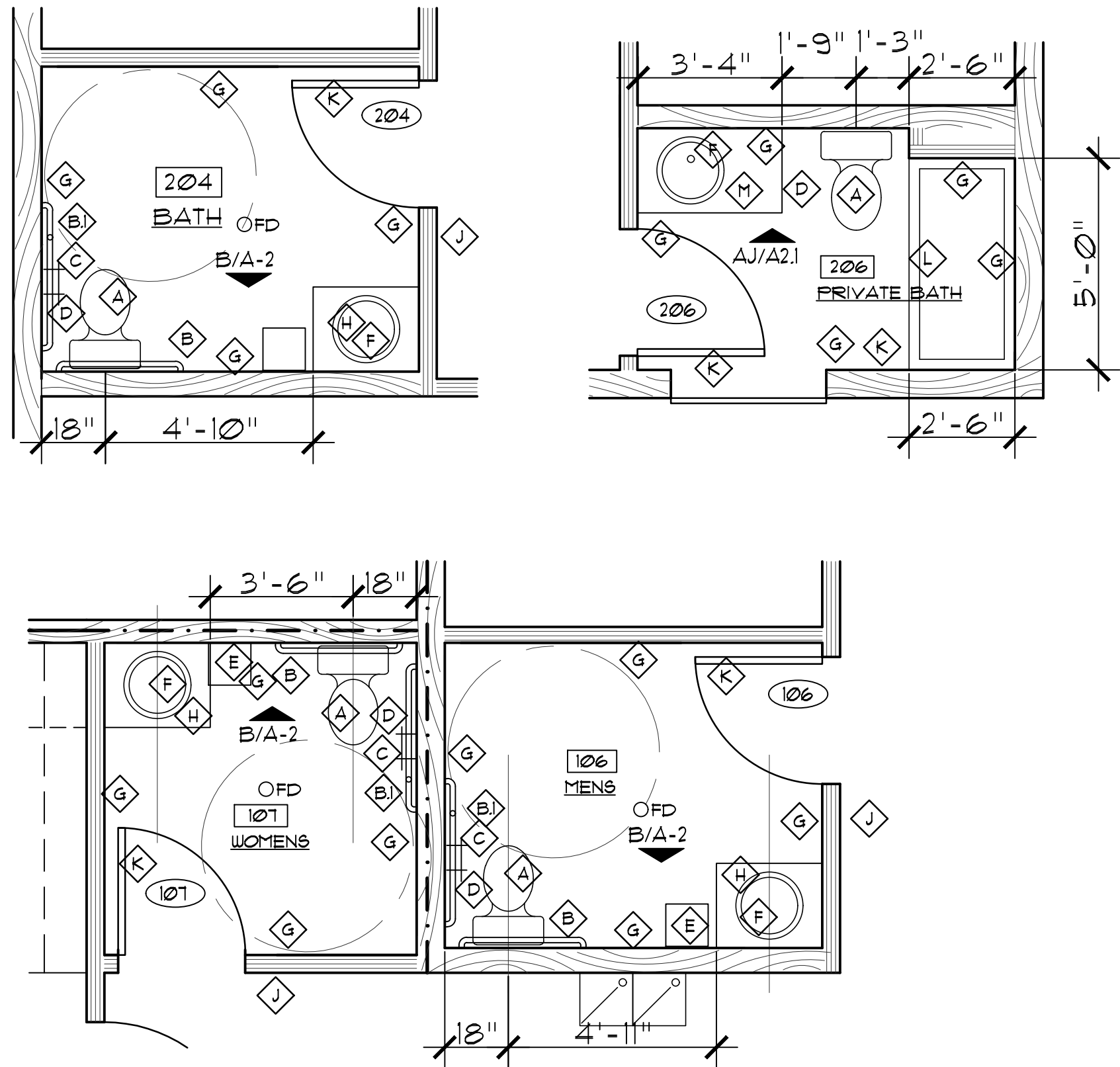
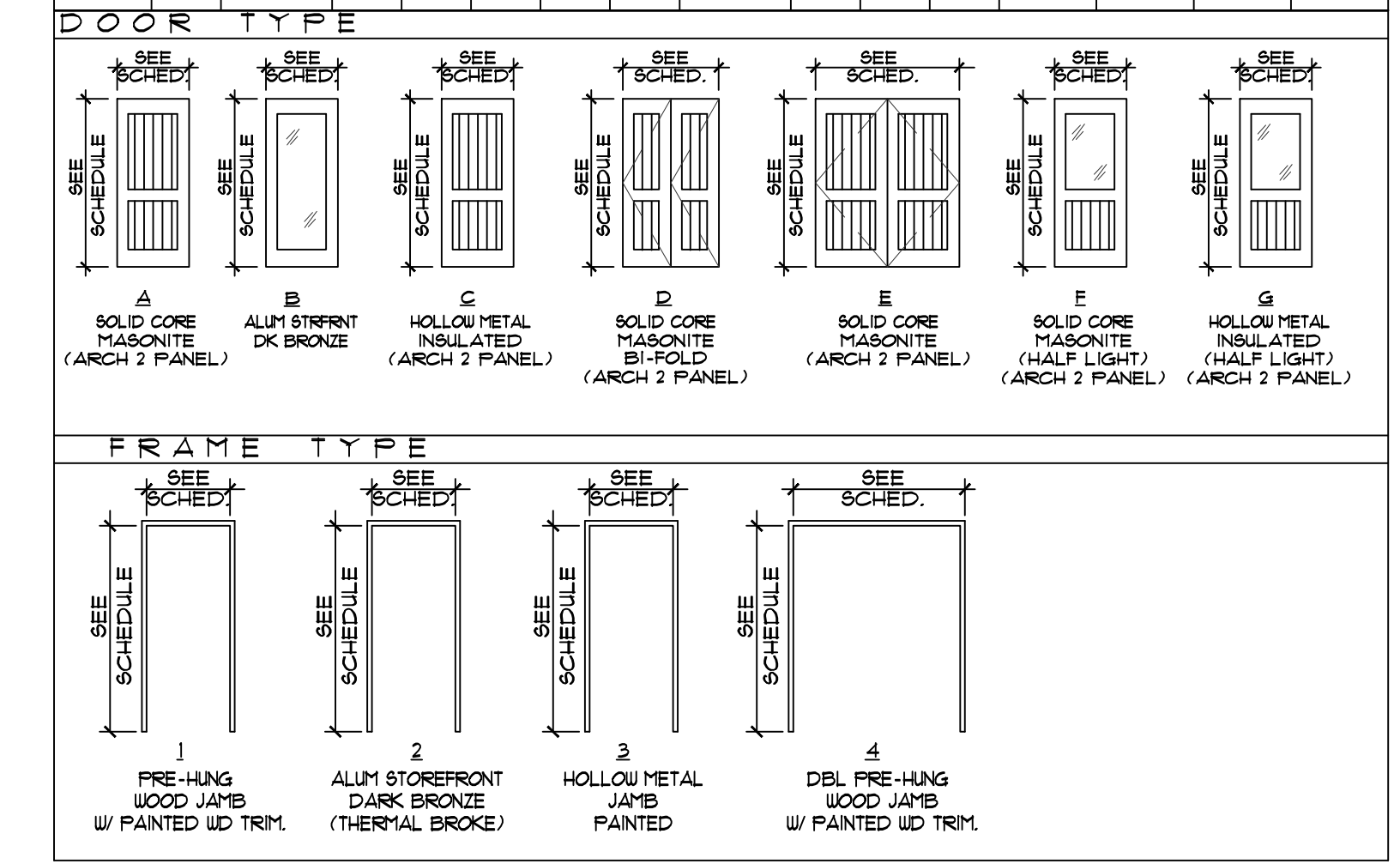
A4.0

ROOM FINISH SCHEDULE									
RM #	ROOM NAME	FLOORING	BASE	WALLS	CEILING	CEILING HT.	NOTES		
				N S W E					
100	VESTIBULE	C	3	A A - -	2		VARIABLE VAULTED CEILING		
101	WAITING	B	1	A A B -	2		VARIABLE VAULTED CEILING		
102	RECEPTION	B	1	B A B -	1		9'-0"		
103	MANAGER OFFICE	E	1	A A A A	1		9'-0"		
104	HALL	B	1	A A A A	1		9'-0"		
105	GROOMING	B	1	A A A A	1		9'-0"		
105A	STAGING	B	1	A A A A	1		9'-0"		
106	MENS	C	3	C C C C	1		9'-0"		
107	WOMENS	C	3	C C C C	1		9'-0"		
108	STAIRS	E	1	A A A A	1		9'-0"		
108A	STORAGE	B	1	A A A A	1		9'-0"		
109	ISOLATION	A	2	A A A A	1		9'-0"		
110	LAUNDRY/STOR	D	4	A A A A	1		9'-0"		
111	JANITOR	D	4	D D D A	1		9'-0"		
112	EXAM	B	1	A B A A	1		9'-0"		
113	EXAM	B	1	B A A A	1		9'-0"		
114	EXAM	B	1	A B A A	1		9'-0"		
115	HALL	B	1	A A A A	1		9'-0"		
116	EXAM	B	1	B A A A	1		9'-0"		
117	COMFORT ROOM	B	1	A B A A	1		9'-0"		
118	STORAGE	D	4	A A A A	1		9'-0"		
119	OFFICE	E	1	B B B B	1		9'-0"		
120	MED SUPP/PHARM	A	2	A A A A	1		9'-0"		
121	TREATMENT	A	2	A A A A	1		9'-0"		
122	XRAY	A	2	A A A A	1		9'-0"		
123	BURG PREP	A	2	A A A A	1		9'-0"		
124	BURGERY	A	2	A A A A	1		9'-0"		
125	DOG ICU	A	2	A A A A	1		9'-0"		
126	TANKS	D	4	A A A A	1		9'-0"		PAINTED PLYWOOD WALLS (FULL HT)
127	ELECTRICAL	D	4	A A A A	1		9'-0"		
128	CAT ICU	A	2	A A A A	1		9'-0"		
129	KENNEL CHECK-IN	B	1	B B A A	1		9'-0"		
130	CAT WARD	D	1	A A A A	1		9'-0"		
131	DOGGY DAY CARE	D	4	D D D D	1		9'-0"		
132	HALLWAY	B	1	A A A A	1		9'-0"		
133	FOOD PREP	D	1	A A A A	1		9'-0"		
134	KENNELS	D	4	D D D D	1		9'-0"		
135	SUITE	D	1	A A A A	1		9'-0"		
136	SUITE	D	1	A A A A	1		9'-0"		
137	SUITE	D	1	A A A A	1		9'-0"		
138	SUITE	D	1	A A A A	1		9'-0"		
200	STAIR	E	1	A A A A	1		8'-0"		
201	OPEN AREA	E	1	B A A A	1		8'-0"		
202	OFFICE	E	1	B B A A	1		8'-0"		
203	OFFICE	E	1	B B A A	1		8'-0"		
204	BATH	C	3	C C C C	1		8'-0"		
205	OFFICE	E	1	A A A A	1		8'-0"		
206	PRIVATE BATH	C	3	C C C C	1		8'-0"		
206	FURNACE	D	4	E E E E	1		8'-0"		

- FINISH SCHEDULE LEGEND (VIFY ALL FINAL FINISHES WITH OWNER)**
- FLOORING**
- A. COMMERCIAL SHEET VINYL HEAT WELDED SEAMS
  - B. LVT "WOOD LOOK" SELECTED BY OWNER
  - C. CERAMIC TILE SELECTED BY OWNER
  - D. NO FLOORING - SEALED CONC
  - E. CARPET - SELECTED BY OWNER
- WALLS**
- A. FINISHED PAINTED GYP BD - COLOR #1 (TBD)
  - B. FINISHED PAINTED GYP BOARD - COLOR #2 (TBD)
  - C. CERAMIC TILE (12X12) (FULL HEIGHT)
  - D. 4' HIGH WHITE FRP PANELING WITH PAINTED FINISH ABOVE
  - E. NO FINISH - FIRE TAPED GYP BD.
- BASE**
- 1. 6" PAINTED MDF BASE
  - 2. COVERED SHEET VINYL (6")
  - 3. CERAMIC TILE BASE
  - 4. 4" RUBBER BASE
  - 5. NO BASE
- CEILING**
- 1. 5/8" TEXTURE FINISHED GYP BD. (PAINT TBD)
  - 2. 1X6 T&G WOOD CEILING STAINED (TBD)

- HARDWARE SCHEDULE NOTES**
- ALL PREHUNG DOORS TO HAVE PRIMED WOOD JAMBS FOR FIELD PAINTING AND DK BRONZE HINGES PROVIDE MATCHING WALL STOPS AT ALL NEEDED LOCATIONS AND SOUND GASKETING - TYP.
- A - DARK BRONZE - PANIC DEVICE, W/ EXT LEVERS, COORDINATORS, CLOSERS TO MATCH, PROVIDE MATCHING CONTINUOUS HINGES
  - B - DARK BRONZE - PASSAGE LEVER LOCKSET, 1 1/2" PAIR DK BRONZE HINGES
  - C - DARK BRONZE - OFFICE LEVER LOCKSET, 1 1/2" PAIR DK BRONZE HINGES
  - D - DARK BRONZE - PRIVACY LEVER LOCKSET, 1 1/2" PAIR DK BRONZE HINGES, ROBE HOOK
  - E - DARK BRONZE - STORAGE LEVER LOCKSET, 1 1/2" PAIR DK BRONZE HINGES
  - F - DARK BRONZE - ENTRY LEVER LOCKSET, 1 1/2" PAIR DK BRONZE HINGES
  - G - DARK BRONZE - ENTRY CYLINDER LOCK, MANUF HINGES, OH CLOSER TO MATCH
  - H - DARK BRONZE - SAME AS "C" WITH SLIDE BOLT FOR FIXED LEAF HALF.
- GLAZING NOTES**
- 1 - ALL EXTERIOR DOOR GLAZING TO BE 1" INSULATED 40% BRONZE TINT TEMPERED GLASS
  - 2 - ALL INTERIOR DOOR GLAZING TO BE CLEAR TINT TEMPERED GLASS

DOOR SCHEDULE																
DOOR #	DOOR	TYPE	MATERIAL	WIDTH	HEIGHT	THICK	FINISH	FRAME	MAT	HEAD	JAMB	STILL	HARDWARE GROUP	LABEL	GLAZING	NOTES
100	B	STOREFRONT	6'-0"	7'-6"	2"	DK BR	2	STOREFRONT	--	--	ADA	A	--	--	1	
101	B	STOREFRONT	3'-6"	7'-0"	2"	DK BR	2	STOREFRONT	--	--	ADA	G	--	--	1	
102	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
103	C	INSUL MTL	3'-0"	7'-0"	2"	PAINT	3	HLLU METAL	--	--	ADA	F	--	--		
104	F	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--	2	
105	F	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--	2	
105A	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
106	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	D	--	--		
107	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	D	--	--		
108	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	E	--	--		
108A	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	60 MIN	--		
109	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	60 MIN	--		
110	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
111	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
112	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
113	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
114	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
115	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
116	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
117	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
118	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
119	B	STOREFRONT	3'-0"	7'-0"	2"	DK BR	2	STOREFRONT	--	--	ADA	A	--	--	1	
120	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
121	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
122	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
123	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
124	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
125	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
126	D	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	H	--	--		
127	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
128	A	MASONITE	3'-6"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
129	F	MASONITE	3'-6"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--	2	
130	C	INSUL MTL	3'-0"	7'-0"	2"	PAINT	3	HLLU METAL	--	--	ADA	F	--	--		
131	C	INSUL MTL	3'-0"	7'-0"	2"	PAINT	3	HLLU METAL	--	--	ADA	F	--	--		
132	C	INSUL MTL	3'-0"	7'-0"	2"	PAINT	3	HLLU METAL	--	--	ADA	F	--	--		
133	C	INSUL MTL	3'-0"	7'-0"	2"	PAINT	3	HLLU METAL	--	--	ADA	F	--	--		
134	C	INSUL MTL	3'-0"	7'-0"	2"	PAINT	3	HLLU METAL	--	--	ADA	F	--	--		
135	G	INSUL MTL	2'-6"	6'-8"	2"	PAINT	1	FREHUNG UD	--	--	--	B	--	--	2	
136	G	INSUL MTL	2'-6"	6'-8"	2"	PAINT	1	FREHUNG UD	--	--	--	B	--	--	2	
137	G	INSUL MTL	2'-6"	6'-8"	2"	PAINT	1	FREHUNG UD	--	--	--	B	--	--	2	
138	G	INSUL MTL	2'-6"	6'-8"	2"	PAINT	1	FREHUNG UD	--	--	--	B	--	--	2	
200	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	60 MIN	--		
201	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
202	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
203	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
204	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	D	--	--		
205	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	C	--	--		
206	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	D	--	--		
207	A	MASONITE	3'-0"	6'-8"	1-3/4"	PAINT	1	FREHUNG UD	--	--	--	E	--	--		



# GENERAL STRUCTURAL NOTES

## GENERAL

- Code: I.B.C. 2015.
- Notes: Notes apply to all drawings unless noted otherwise.
- Design Criteria:
 

Soil Bearing Pressure = 1500 psf (assumed, Contractor to verify)	
Roof SNOW Load = 40 psf	
Roof Dead Load = 20 psf	
Floor Live Load = 50 psf	
Floor Dead Load = 20 psf	
Deck Live Load = N/A psf	
Deck Dead Load = N/A psf	
Seismic Design Cat. D	
115 MPH Exp. C Wind	
- Coordination: Check with conditions at the job site and with all other subcontractors.
- Datum: See PLAN.
- Details: Details, sections, and notes as shown on the drawings are intended to be typical and shall apply to all similar situations elsewhere unless noted otherwise.

## FOUNDATION

- No soils report has been prepared. If a Soils Report is prepared, all recommendations in the Soils Report shall be followed.
- Unless noted otherwise in a Soils Report, remove top 12" of soil including all vegetation and debris. Remove existing elements as required and replace voids and soft spots with compacted granular fill.
- Unless noted otherwise in a Soils Report, all footings are to be placed on firm, undisturbed, natural soil or properly compacted granular fill unless noted otherwise in the project Soils Report. The natural undisturbed soil below all footings shall be proof rolled prior to placing concrete. Replace voids and soft spots with compacted granular fill. Clear excavations of debris and loose soil prior to placing concrete.
- Compacted Granular Fill: Unless noted otherwise in a project Soils Report, Contractor shall be responsible for the selection of all fill material, and verification of adequate compaction. All fill shall be tested to ensure adequate compaction and proper gradation by a qualified materials testing agency. Compact all fill to 95% dry density minimum. All fill shall be placed and compacted in lift heights not to exceed 8".
- Frost protection: All exterior footings shall be placed a minimum of 30" below finish grade.
- Center all footings under walls, columns or grid lines unless noted otherwise on plans.
- Contractor is responsible to verify natural undisturbed soil below all footing is adequate to support loading of 1500 psf with negligible settlement.
- FOUNDATION DRAINAGE AND WATERPROOFING SYSTEMS SHALL BE SPECIFIED & DESIGNED BY OTHERS.

## EPOXY

- All epoxy shall be Simpson brand or equivalent. The following systems shall be used:
  - Hollow CMU – SIMPSON SET-XP with screen tubes.
  - Concrete or grouted masonry – SIMPSON SET-XP.
- Install all epoxied anchors per manufacturer's instructions and recommendations.
- All holes shall be sized properly and cleaned thoroughly prior to placement of epoxy adhesive.

## REINFORCING STEEL

- Grade: ASTM A615, Grade 60.
- Dowel and lap lengths: For concrete work provide 48 bar diameters for dowel embedment and splice lap lengths, and 64 bar diameters for masonry work. Do not splice vertical reinforcing bars in retaining walls unless noted otherwise. Minimum splice length is 15 inches.
- Detailing and fabrication: Reference "American Concrete Institute" (ACI 318-14).
- Field bending: Reinforcing steel shall not be bent or straightened in a manner injurious to the concrete or steel. Bars larger than #5 shall not be field bent.
- Splice locations: In slabs, beams and girders, reinforcing steel shall not be spliced at zones of maximum tensile stress, unless noted otherwise on the drawings.
- Embedments, dowels, & all reinforcement shall be securely tied to formwork or adjacent reinforcement prior to concrete or grout placement using tie wire or positioners. "Wet-sticking" is not permitted.

## CARPENTRY NOTES:

- Sawn Lumber Grade: Doug-Fir #2 or better, EXCEPT WHERE NOTED OTHERWISE  
LVL Grade: Boise-Cascade – VersaLam 2.0 2800 or better 1-3/4" THICK.  
LVL STUD GRADE: VersaStud 3100
- Openings in Floor Framing: Provide double header and trimmer joists at openings where joists are cut. Provide joist hangers where joists frame into headers and headers frame into trimmers.
- Openings in Walls: Provide headers as indicated on plans. All headers in bearing walls shall be supported by a single 2x trimmer and double king studs, unless larger columns are indicated on the drawings.
- General Framing and Carpentry: Connect all items as per IBC Table 2304.9.1, "Fastening Schedule", unless noted otherwise.
- Framing connections shown on drawings refer to Simpson Strong-Tie Connectors or I.C.B.O. Equal. All framing connections not shown or otherwise indicated on the drawings shall be connected in a manner similar to the connections shown in the drawings or with approved Simpson Strong-Tie connectors.
- All wood framing shall conform to the "Conventional Light-Frame Construction" provisions in Section 2308 of the I.B.C. 2015 unless noted otherwise.
- Install triple 2x, nail laminated studs below all girder truss bearing points, unless noted otherwise on the drawings.

## DEFERRED DESIGNS & SUBMITTALS:

- The following designs shall be provided by the applicable subcontractor, and submitted for approval:
  - Timber Trusses & Connections.
  - Premanufactured Wood Trusses
- Designs for the above items shall be prepared and stamped by a licensed Professional Engineer in the State of Utah.
- Designs and calculations for the above listed items shall be specific to the project, show specific locations, types of bracing required, embed locations, and loading used for the design.
- Designs shall be approved by the Building Official prior to installation.

## CONCRETE:

- Concrete Density: Normal Weight Concrete approximately 145 to 150 pounds per cubic foot.
- Strength: Minimum ultimate 28-day compressive strength:
 

Footings	3000 psi	(2500 used for design)
Slabs on grade	4500 psi	
Walls	4500 psi	(2500 used for design)
SUSPENDED SLABS	5000 psi	
All other site cast concrete	4500 psi	
- Construction Joints: Continue vertical and horizontal reinforcing through all construction joints.
- Slabs: Slabs are to be placed in as large of sections as possible. Where construction joints are necessary, provide bulkhead shear keyways and reinforcing dowels as required to maintain full section capacity. Control joints shall be installed in slabs on grade so the length to width ratio of the slab is no more than 1.25:1. Control joints shall be completed within 12 hours of concrete placement. Control joints may be installed by saw cut or tooled joints a depth of 1/4 the thickness of the slab. Contractor is responsible for exact locations and spacing of all control & construction joints.
- Form Work: Form work shall comply with ACI Standards Publication 347 and Project Specifications.
- Wall reinforcing: Unless noted otherwise on the drawings, reinforce all concrete wall as follows:
 

THICKNESS	HORIZONTAL	VERTICAL
<b>See schedule on Sl.O</b>		
- Provide corner bars at intersecting wall corners using the same size and spacing as horizontal wall reinforcing. Dowel vertical reinforcing to the footing or structure below with the same size and spacing as wall, column, or pier reinforcing above. Footing dowels shall terminate with a 90 degree standard hook.
- Openings: Around all sides of openings with a size greater than 12" provide (2) #5 bars (unless noted otherwise) and extend 24" beyond the corners of the opening.
- Concrete protection for reinforcing steel: Provide concrete cover equal to the bar diameter but not less than:
 

**See schedule on sheet S0**
- Slabs on grade: Any reinforcing steel shall be adequately supported on precast concrete units or stand chairs, to keep the reinforcing the minimum height specified or indicated above the grade. Lifting the reinforcing off the grade during placement will not be permitted.
- Curing: All concrete is to be cured and protected in strict accordance with ACI Cold Weather Curing Procedures. Tenting of the concrete and added heat may be required for certain temperature levels. If heat is added, proper venting shall be provided to eliminate the harmful effects of carbon dioxide exposed to fresh concrete.

## SPECIAL INSTRUCTION

- The project specifications are not superseded by the General Structural Notes but are intended to be complementary to them. Consult the specification for additional requirements in each section. Notes and details on the drawings shall take precedence over General Structural Notes and typical details.
- All omissions or conflicts between the various elements of the working drawings and/or specifications shall be brought to the attention of the Architect and Structural Engineer before proceeding with any work involved. In case of conflict, follow the most stringent requirement as directed by the Architect without additional cost to the owner.
- Notification of Engineer: The Engineer shall be notified twenty-four hours prior to:
  - Completion of footing excavation.
  - Placing concrete in any footing.
  - Closing any wall forms.
  - Completing diaphragm fastening.
  - Grouting of any masonry.
  - Completion of structural welding.
- Shoring and Bracing Requirements:
  - Roof Structures – The General Contractor is responsible for the method and sequence of all structural erection. He shall provide temporary shoring and bracing as his method of erection requires to provide adequate vertical and lateral support. Shoring and bracing shall remain in place as the chosen method requires until all permanent members are in place and all final connections are completed, including all roof attachments. The building shall not be considered stable until all connections are complete.
  - Walls above grade shall be braced until the structural system is complete. Walls shall not be considered to be self supporting.

- Submittals: A copy of all shop drawings that have been submitted for review must be kept at the construction site for reference. These drawings must bear the appropriate review stamps. The shop drawing review shall not relieve the contractor of the responsibility of completing the project according to the contract documents. The general contractor shall review and mark all shop drawings prior to submitting them to the Architect for his review. Shop Drawings made from reproductions of (these) contract drawings will be rejected.
- Project Coordination: It shall be the responsibility of the general contractor to coordinate with all trades and all items that are to be integrated into the structural system. Openings or penetrations through, or attachments to the structural system that are not indicated on these drawings shall be the responsibility of the general contractor and shall be coordinated with the Architect/Engineers. The order of construction is the responsibility of the general contractor. It is the contractor's obligation to provide all items necessary for his chosen procedure.
- Observation visits to the site by the Engineer's field representatives shall not be construed as inspection or approval of construction.
- Contractor shall field verify all dimensions, and conditions. If the contract drawings do not represent actual conditions, contractor shall notify Architect/Engineer prior to fabrication or construction within that area.
- The structural drawings, plans, schedules, notes and details shall not be reproduced, or copied, in whole or in part by the contractor or his subcontractors for preparation of shop drawings or other submittals.

## STRUCTURAL STEEL

- Grade: All structural steel shall conform to ASTM A992 (fy=50 ksi), latest edition. Tubes shall be ASTM A500 GR. B (fy=46 ksi), all other steel shall be A36. Anchor bolts shall be A307 steel with ASTM A563 heavy hex nuts and hardened washers, unless noted otherwise.
- Erection and fabrication: Reference the "American Institute of Steel Construction" specifications for erection and fabrication of steel buildings, latest edition.
- Welding:
  - Welders: All shop and field welding shall be executed by AWS certified welders.
  - Electrodes: E-70 XX. E-60 XX may be used for welding steel decks. Welds designated as "Demand Critical" shall be completed with filler metal capable of providing a minimum Charpy V-Notch toughness of 20ft-lb @ -20F, and 40ft-lb @ 70F per AISC 341 Section 7.3b.
  - Fillet welds: Sizes not shown shall be "American Welding Society" minimum based upon the thickness of the materials being welded.
  - Butt welds: Full penetration unless noted otherwise.
  - Quality Assurance: See Special Inspections
- Bolted Connections: Use ASTM A325 bolts for steel to steel connections, EXCEPT WHERE NOTED OTHERWISE. Tighten bolts "snug tight" unless noted otherwise. Provide hardened washers beneath turned element.
- Bearing plates: Base plates and bearing plates shall be provided with full bearing after the supported members have been plumbed and properly positioned. Separate setting plates under column base plates will not be permitted. All bearing grout shall consist of a non-shrink, expansive, metallic grout.
- Submittals: Shop drawings shall be submitted for approval to the Architect, Contractor, and Engineer, prior to fabrication.

CONCRETE PROTECTION FOR REINFORCEMENT		
	APPLICATION	MINIMUM CLEAR COVER
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	1. ALL APPLICATIONS EXCEPT SLABS ON GRADE	3"
	2. SLABS ON GRADE – CLEAR DISTANCE FROM TOP OF SLAB	1"
CONCRETE EXPOSED TO EARTH OR WEATHER	1. NO. 6 BARS AND LARGER	2"
	2. NO. 5 BARS AND SMALLER	1 1/2"
CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR IN CONTACT WITH GROUND	1. SLABS, WALLS, JOISTS	3/4"
	2. BEAM OR COLUMN TIES, STIRRUPS, OR PRIMARY REINFORCEMENT	1 1/2"
NOTES	1. TOLERANCE FOR CONCRETE COVER AND REINFORCEMENT LOCATION IS ±3/8"	

FRAMING NAILING SCHEDULE			
CONNECTION	NAILING	CONNECTION	NAILING
TOP PLATE TO STUD, END NAIL	2x4 (2)– 16d 2x6 (3)– 16d 1 3/4" x 5 1/2" LVL (3)– 16d 1 3/4" x 7 1/4" LVL (4)– 16d 1 3/4" x 9 1/4" LVL (5)– 16d 1 3/4" x 11 7/8" LVL (6)– 16d	TOP PLATE LAPS (4'-0" MINIMUM)	16d AT 6" O.C.
		BUILT-UP HEADERS AND BEAMS	16d AT 16" O.C. ALONG TOP AND BOTTOM EDGE
STUD TO SILL PLATE, END NAIL	2x4 (2)– 16d 2x6 (3)– 16d 1 3/4" x 5 1/2" LVL (3)– 16d 1 3/4" x 7 1/4" LVL (4)– 16d 1 3/4" x 9 1/4" LVL (5)– 16d 1 3/4" x 11 7/8" LVL (6)– 16d	BUILT-UP COLUMNS BELOW BEAMS, FACE NAIL	16d AT 16" O.C. – EACH FACE
		BUILT-UP CORNER STUDS (3 STUDS MINIMUM)	16d AT 24" O.C.
DOUBLE SILL PLATES, FACE NAIL (STAGGER)	10d AT 12" O.C.	BACKING AND BLOCKING AT TRUSSES AND 2x FRAMING, END NAIL OR TOE NAIL	(2)– 16d EACH END
DOUBLE STUDS, FACE NAIL (STAGGER)	10d AT 12" O.C. – EACH FACE	BACKING AND BLOCKING AT I-JOIST FRAMING	SIMPSON Z2 OR EQUAL AT EACH END [W/ (4)– 10d x 1 1/2" NAILS]
DOUBLE TOP PLATES, FACE NAIL	16d AT 24" O.C.		
TOP PLATES AT WALL INTERSECTIONS, FACE NAIL	(2)– 16d		

TABLES OF EQUIVALENT FASTENERS, STAPLES, NAILS, AND T-NAILS. (VALID FOR LATERAL LOAD ONLY)						
COMMON NAIL SPACING	EQUIV. GAUGE	SPACING OF APPR'D FASTENER				
		STAPLES	NAILS		T-NAILS	
6d A	1"	1"	1"	1 1/4"	1 1/2"	
	4"	3 1/2"	4"	5"	4"	5"
	6"	5"	6"	7"	6"	7 1/2"
	8"	6 1/2"	8"	9 1/2"	8"	10"
	10"	8 1/2"	10"	12"	10"	12"
	12"	10"	12"	14 1/2"	12"	14 1/2"
	12"	10"	12"	14 1/2"	12"	14 1/2"
8d AT	4"	2 1/2"	3 1/2"	4"	3 1/2"	4"
	6"	4"	5"	6"	5"	6"
	8"	5 1/2"	6 1/2"	8"	6 1/2"	8"
	10"	6 1/2"	8"	10"	8"	10"
10d AT	4"	2"	2 1/2"	3"	2 1/2"	3 1/2"
	6"	3 1/2"	4"	5"	4"	5"
	8"	4 1/2"	5 1/2"	6 1/2"	5 1/2"	7"
	10"	5 1/2"	7"	8"	6 1/2"	8 1/2"
	12"	6 1/2"	8"	9 1/2"	8"	10"

NOTE: PENETRATION IS THE DEPTH OF EMBEDMENT OF THE STAPLE OR NAIL INTO THE MAIN MEMBER REQUIRED TO ATTAIN ITS FULL CAPACITY (SHEAR VALUE) FOR LATERAL LOADING.

LINTEL SCHEDULE	
CLEAR OPENING	SIZE OF ANGLE
UP TO 7'-0"	3 1/2" X 3 1/2" X 1/4"
7'-1" TO 9'-0"	5" X 3 1/2" X 1/4"
9'-1" TO 10'-0"	5" X 3 1/2" X 5/16"
10'-1" TO 11'-0"	5" X 3 1/2" X 3/8"
11'-1" TO 12'-0"	6" X 4" X 3/8"
12'-1" AND OVER	REQUIRES SPECIAL ANALYSIS

NOTES:  
 1. LINTELS CARRY BRICK OR STONE ONLY.  
 2. WHERE FLOORS, ROOFS OR CONCENTRATED LOADS OCCUR, FURTHER ANALYSIS IS NECESSARY.  
 3. PROVIDE 1" OF BEARING EACH END FOR EACH FOOT OF SPAN. MINIMUM BEARING OF 6" EACH SIDE OF OPENING. USE THIS SCHEDULE UNLESS NOTED OTHERWISE.  
 4. WHERE PRECAST CONCRETE LINTELS ARE USED, MANUFACTURER SHALL BE RESPONSIBLE FOR LINTEL DESIGN

JOSEPH T. BECK ARCHITECT, INC.  
497 EAST 520 SOUTH  
SMITHFIELD, UTAH  
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DATE  
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PROJECT TITLE  
HERITAGE VET CLINIC / KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

SHEET TITLE  
GENERAL  
STRUCTURAL NOTES

PROJECT NUMBER

-

REVISIONS

SHEET NUMBER

**S0**



DATE: SEPT. 9, 2016  
REV. 1-4-17

PROJECT TITLE  
**HERITAGE VET CLINIC / KENNEL  
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2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH**

SHEET TITLE  
**FOOTING &  
FOUNDATION  
PLAN**

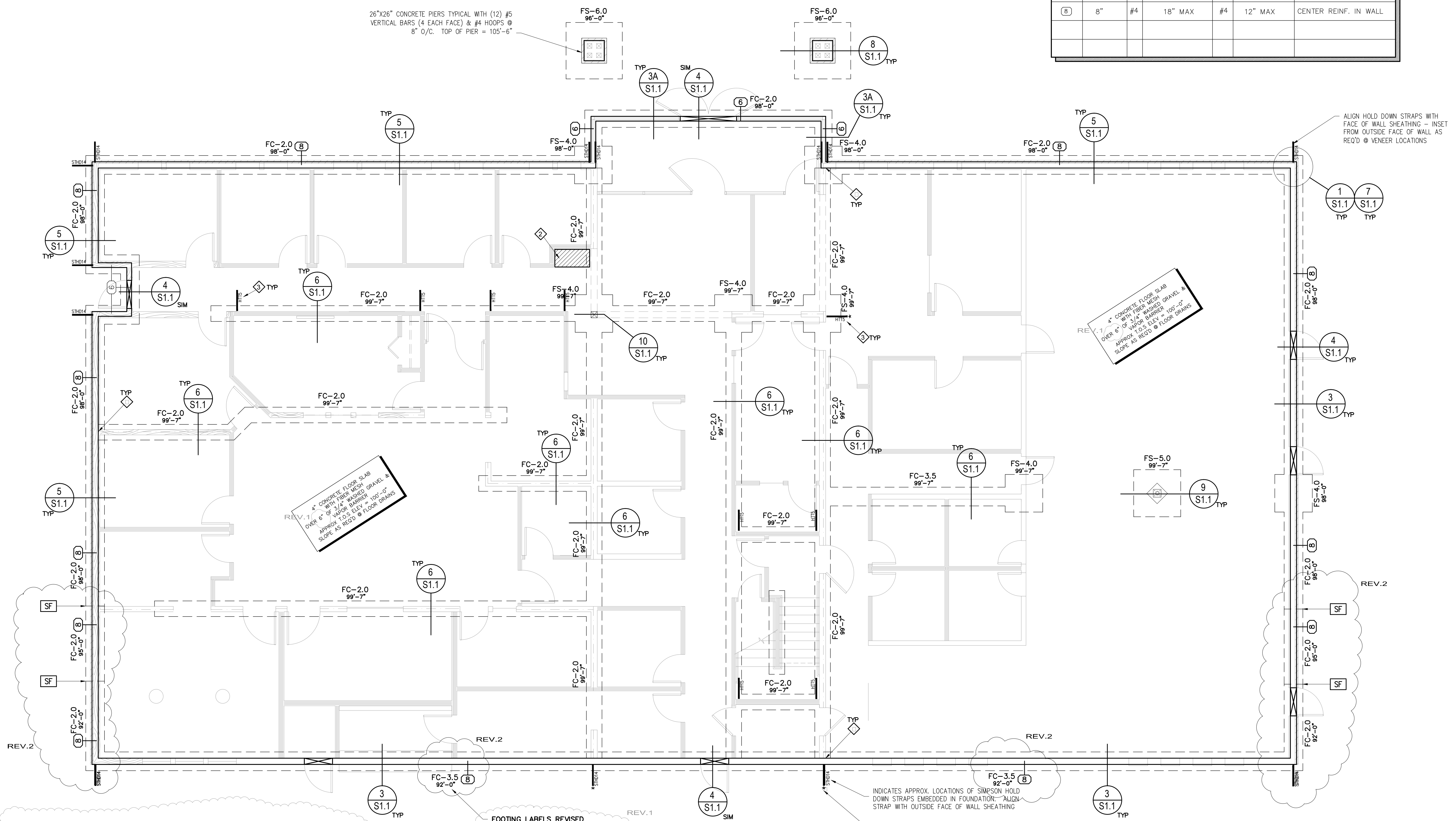
PROJECT NUMBER  
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REVISIONS  
1 - 10/13/16 - FOOTINGS  
2 - 1/4/17 - FOOTING ELEV

SHEET NUMBER

**S1.0**

CONCRETE FOUNDATION WALL SCHEDULE						
WALL NO.	THICKNESS	VERT. REINF.		HORIZ. REINF.		COMMENTS
		SIZE	SPACE	SIZE	SPACE	
(6)	6"	#4	18" MAX	#4	12" MAX	CENTER REINF. IN WALL
(8)	8"	#4	18" MAX	#4	12" MAX	CENTER REINF. IN WALL



CONCRETE FOOTING SCHEDULE													
MARK NO.	DIMENSIONS		CROSSWISE REINFORCEMENT			LENGTHWISE REINFORCEMENT			COMMENTS				
	WIDTH	LENGTH	THICKNESS	NO.	SIZE	LENGTH	SPACE	NO.		SIZE	LENGTH	SPACE	
FC-2.0	2'-0"	2'-0"	CONT.	12"	-	-	-	(3)	#4	CONT.	6"	REINF. 3" FROM BOTTOM	
FC-2.5	2'-6"	2'-6"	CONT.	12"	-	#5	2'-0"	18"	(4)	#4	CONT.	6"	REINF. 3" FROM BOTTOM
FC-3.5	3'-6"	3'-6"	CONT.	12"	-	#5	3'-0"	18"	(5)	#4	CONT.	6"	REINF. 3" FROM BOTTOM
FS-4.0	4'-0"	4'-0"	12"	(6)	#4	3'-6"	EQ.	(6)	#4	3'-6"	EQ.	REINF. 3" FROM BOTTOM	
FS-5.0	5'-0"	5'-0"	12"	(7)	#4	4'-6"	EQ.	(7)	#4	4'-6"	EQ.	REINF. 3" FROM BOTTOM	
FS-6.0	6'-0"	6'-0"	12"	(9)	#4	5'-6"	EQ.	(9)	#4	5'-6"	EQ.	REINF. 3" FROM BOTTOM	

FOOTING LABELS REVISED  
3" STRUCTURAL FILL REQUIRED BELOW  
ALL FOOTINGS PER SOILS REPORT

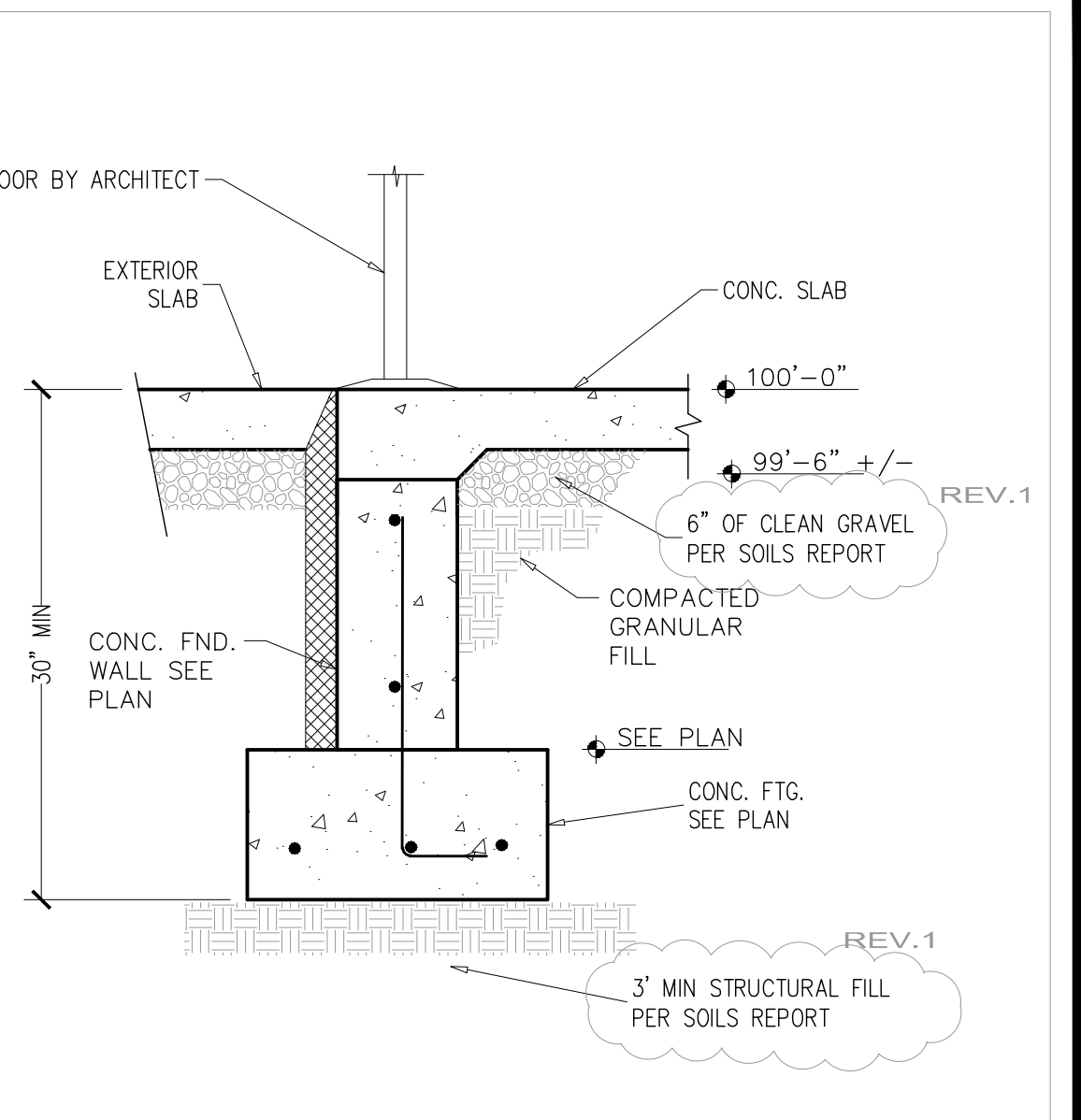
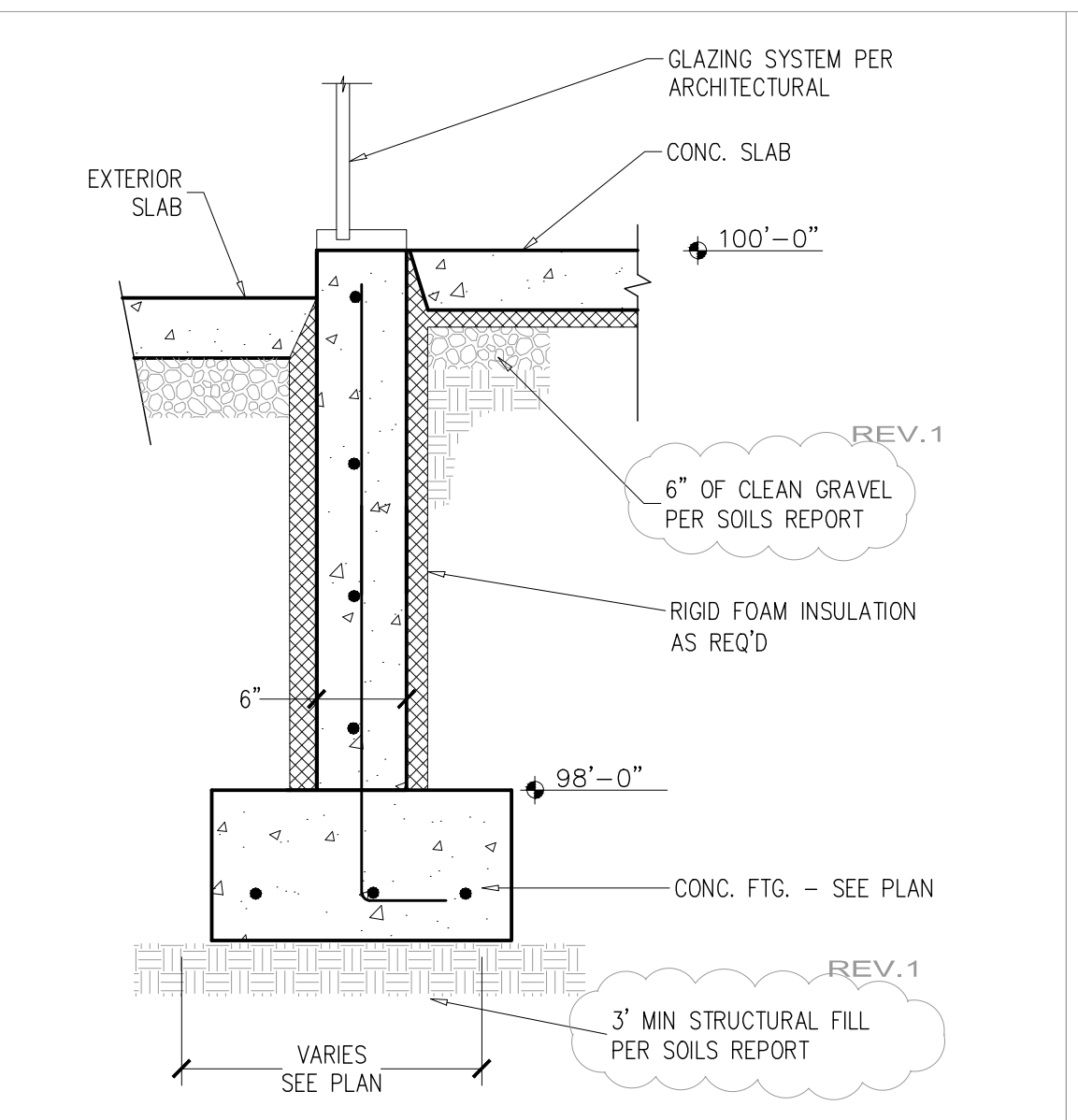
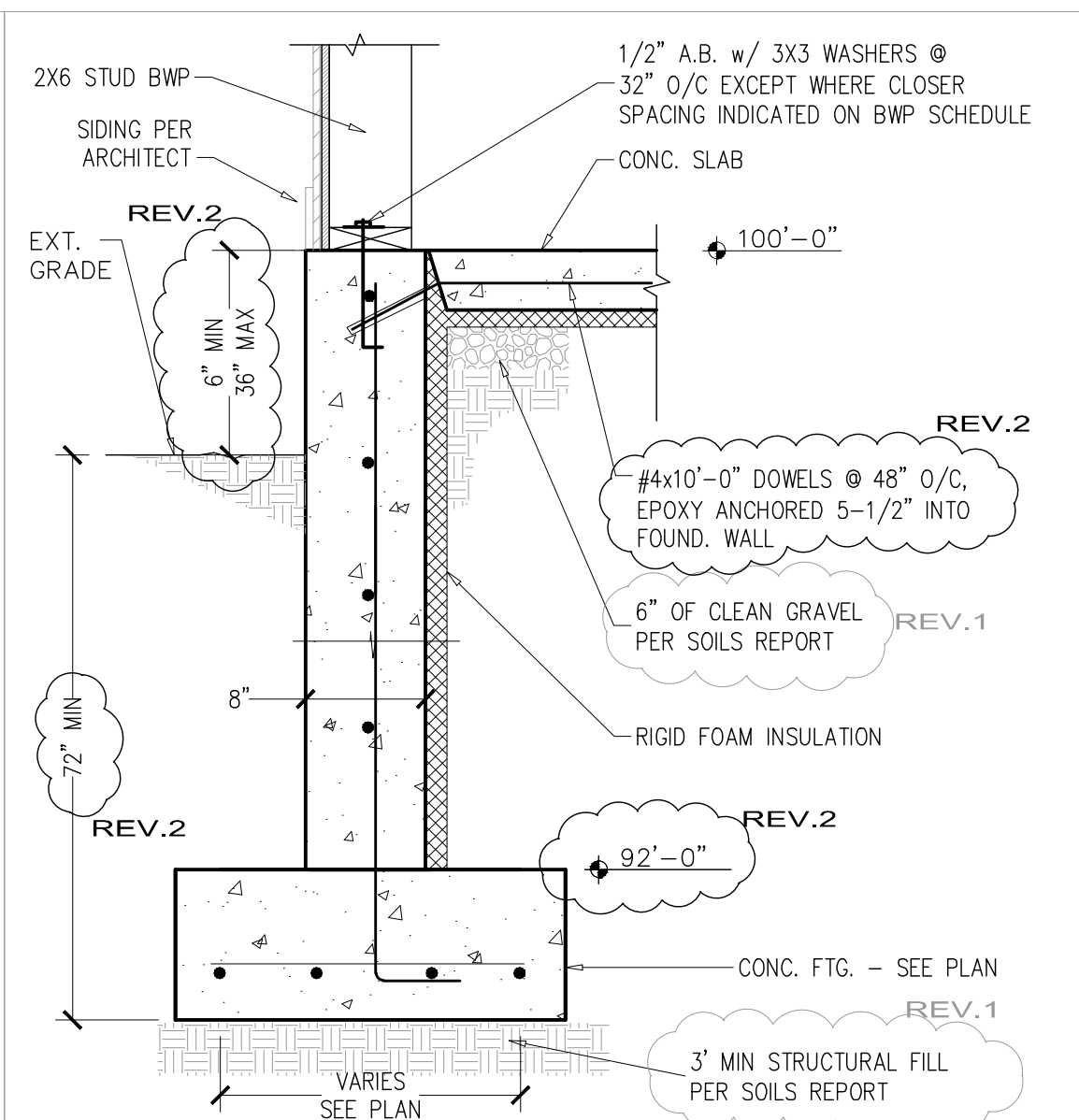
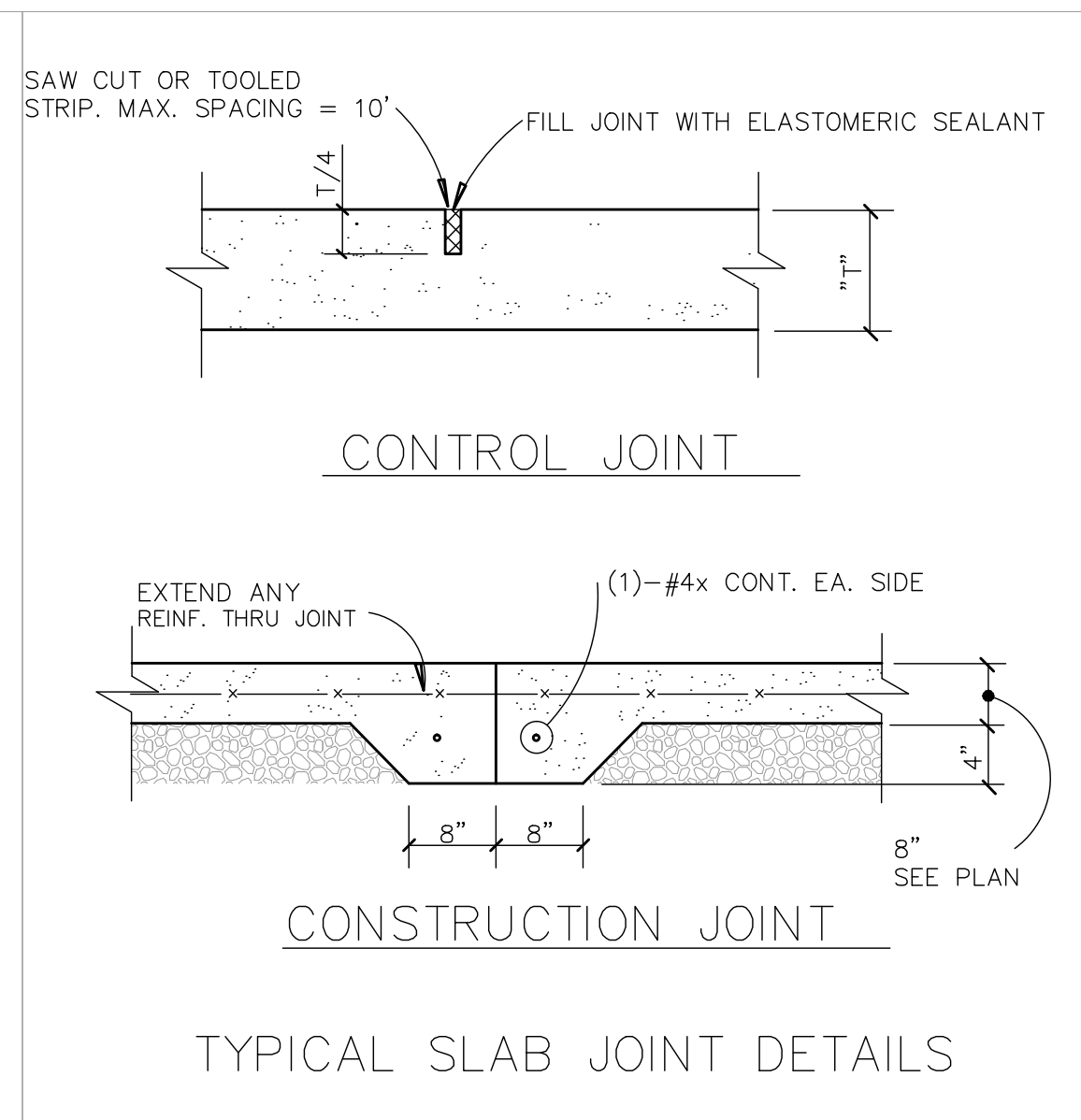
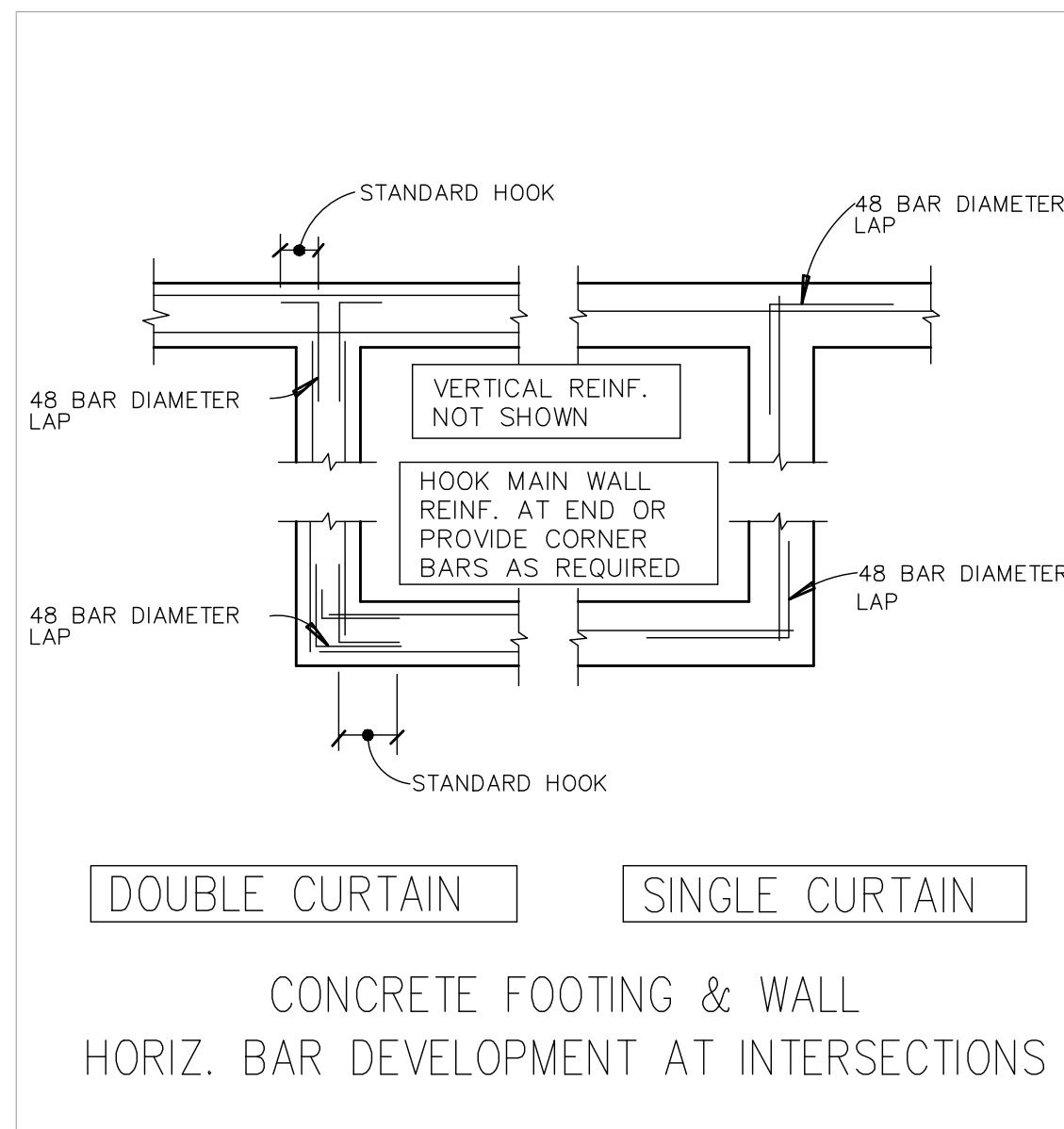
FOOTING FOUNDATION PLAN  
3/8" 0/0"

**KEYED NOTES:**

- ◆ DOWEL AND EPOXY ANCHOR ALL SHALLOW INTERIOR FOOTING REINFORCING BARS 5" INTO CONCRETE FOUNDATION WALL.
- ◆ DEPRESS SLAB 4" @ SCALE AREA. MAINTAIN 4" MINIMUM FLOOR SLAB THICKNESS THROUGHOUT.
- ◆ HTTS HOLD DOWNS SHALL BE ANCHORED TO CONCRETE AT BASE OF WALL WITH 5/8"x15" THREADED ROD, EPOXY ANCHORED 12" INTO CONCRETE, WITH HOLES AND EPOXY INSTALLED PER SIMPSON'S INSTRUCTIONS. FASTEN HOLD DOWN TO BASE OF DOUBLE WALL STUDS MINIMUM. CONTINUOUS SPECIAL INSPECTION REQUIRED.

**PLAN NOTES:**

1. COORDINATE & VERIFY THIS DRAWING WITH EXISTING SITE CONDITIONS, ARCHITECTURAL, SITE, MECHANICAL, ELECTRICAL, AND CIVIL DRAWINGS PRIOR TO START OF CONSTRUCTION.
2. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN ON THIS DRAWING. CROSS COORDINATE ALL DIMENSIONS.
3. REFER TO SOILS REPORT, GENERAL STRUCTURAL NOTES, & THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
4. FIELD VERIFY ALL TOP OF FOOTING ELEVATIONS WILL ACHIEVE 30" OF FROST PROTECTION FROM THE FINISHED GRADE, PRIOR TO COMPLETION OF EXCAVATION.
5. REFER TO DETAIL (2/S1.1) FOR TYPICAL SLAB CONTROL JOINT, AND CONSTRUCTION JOINT DETAIL. JOINT LOCATIONS & SPACING SHALL BE DETERMINED BY CONTRACTOR. SEE DETAIL (1/S1.1) FOR TYPICAL HORIZONTAL BAR LAPS AT ALL WALL AND FOOTING CORNERS AND INTERSECTIONS.
6. REFER TO ARCHITECT FOR VAPOR BARRIER REQUIREMENTS BELOW SLABS.
7. [SF] INDICATES APPROXIMATE FOOTING STEP LOCATION. STEP FOOTING AT APPROX. INDICATED LOCATION.
8. [SW] INDICATES APPROXIMATE TOP OF WALL STEP LOCATION. COORDINATE WITH ARCHITECTURAL PLANS AND DETAILS.



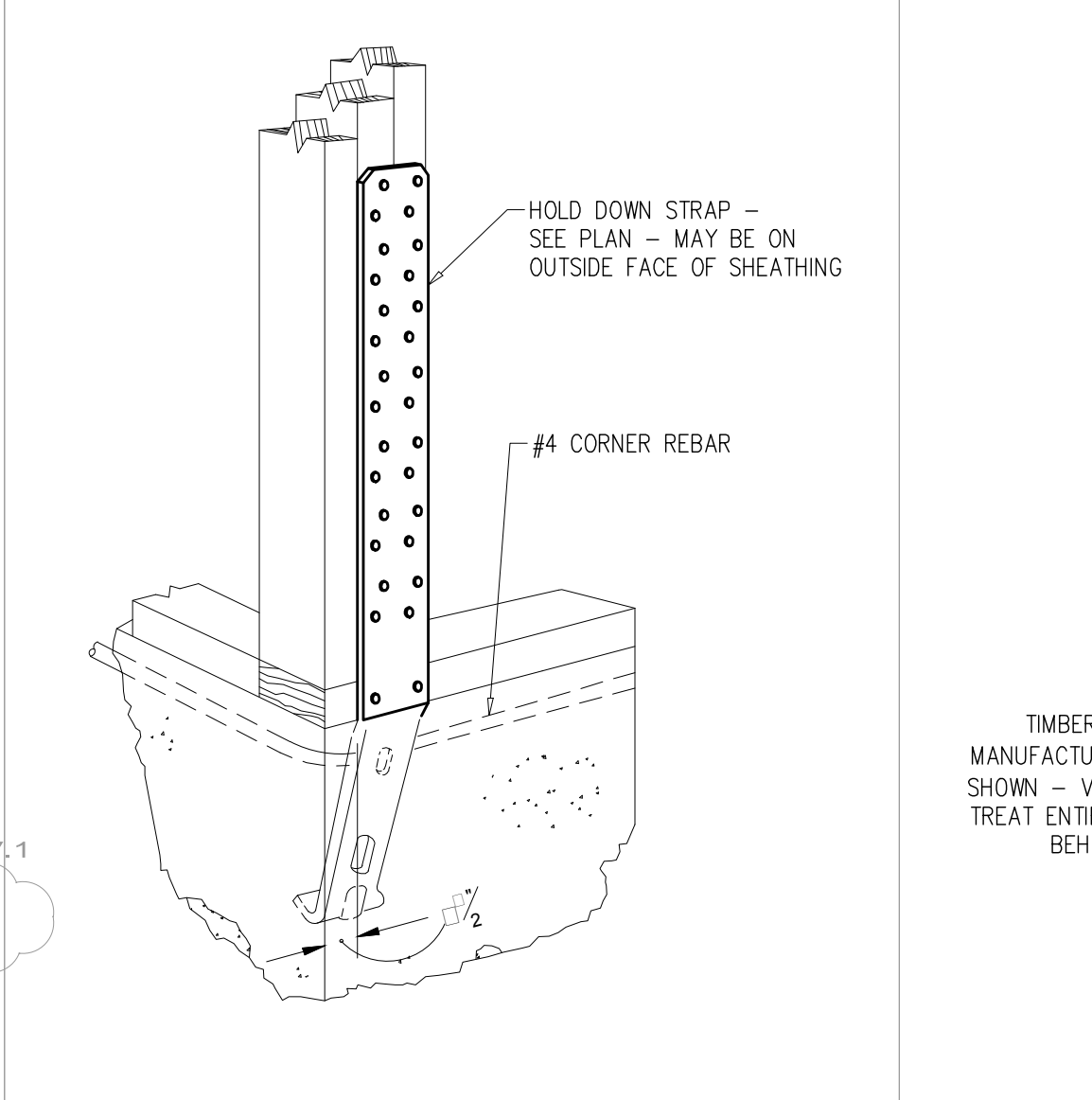
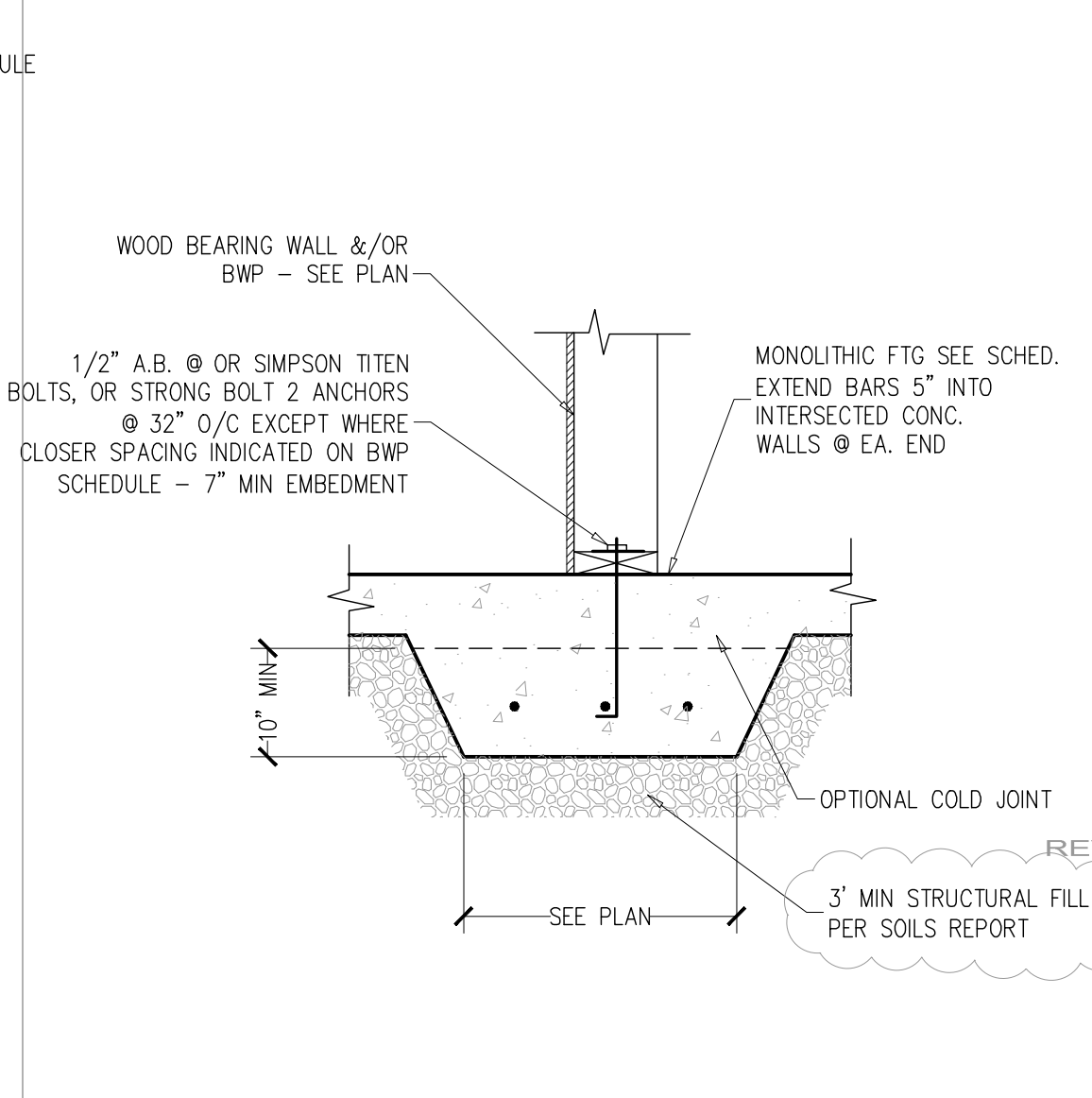
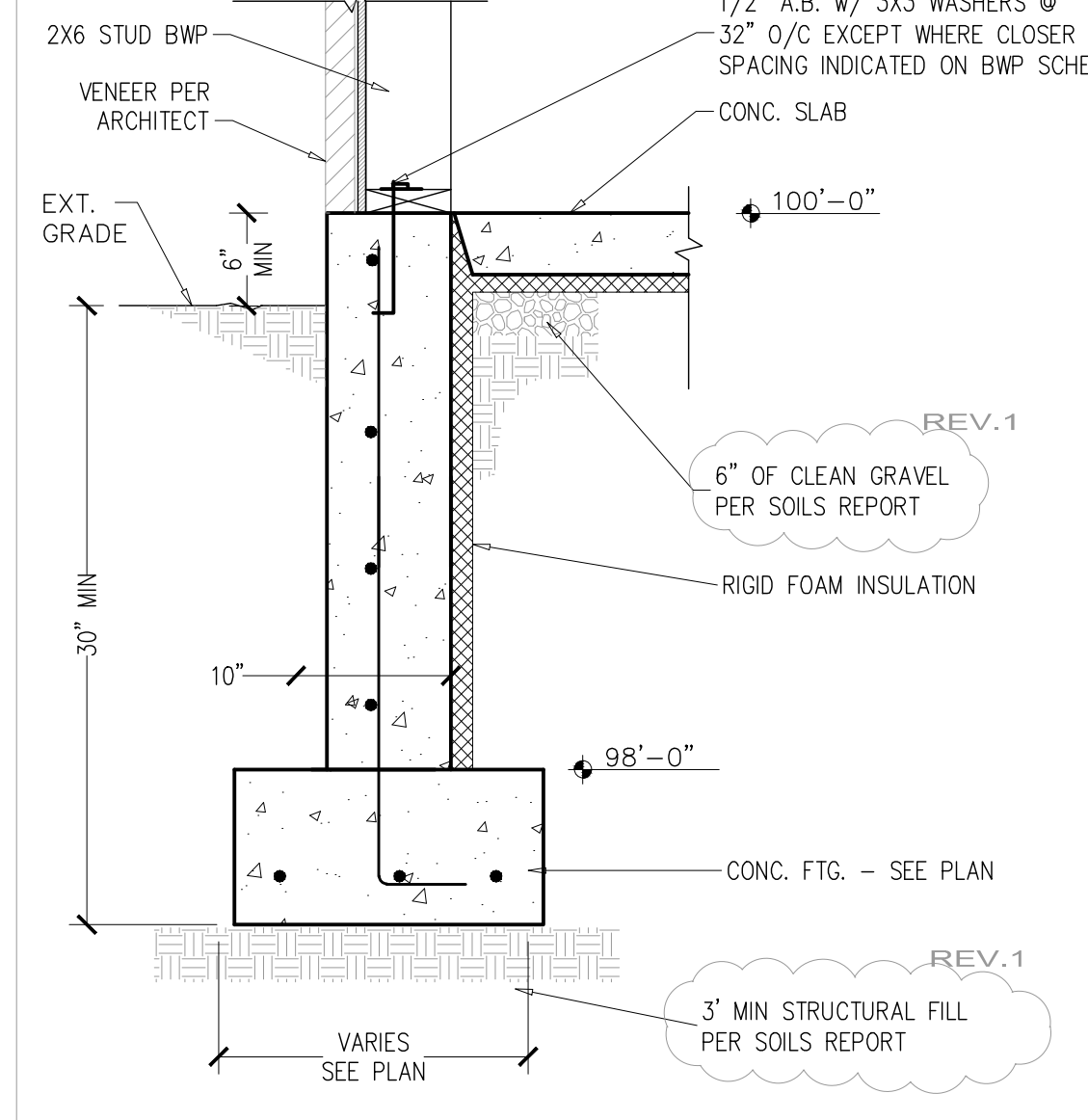
DETAIL  
SCALE: 1"=1'-0" REF: S1

DETAIL  
SCALE: 1"=1'-0" REF: S1

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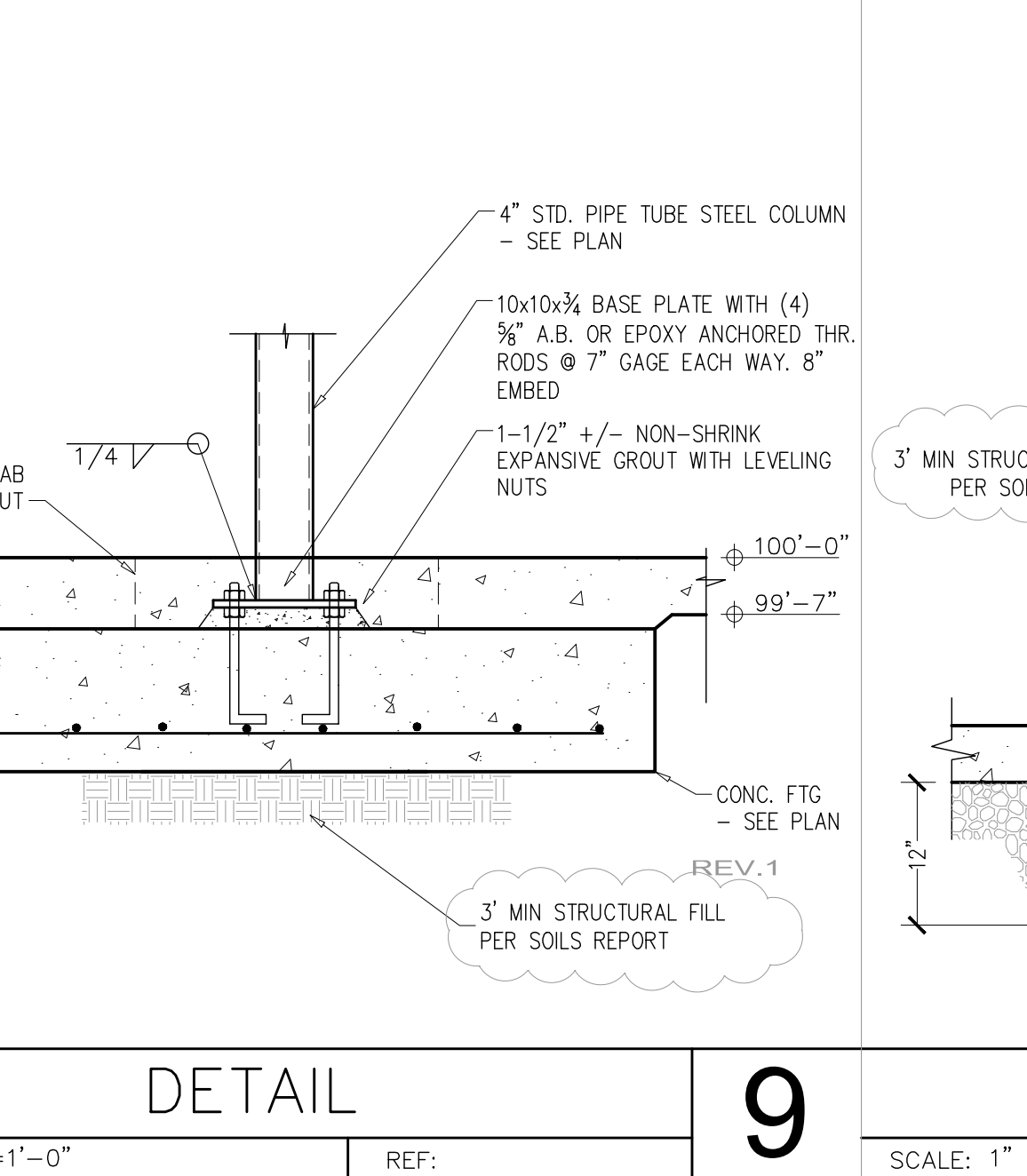
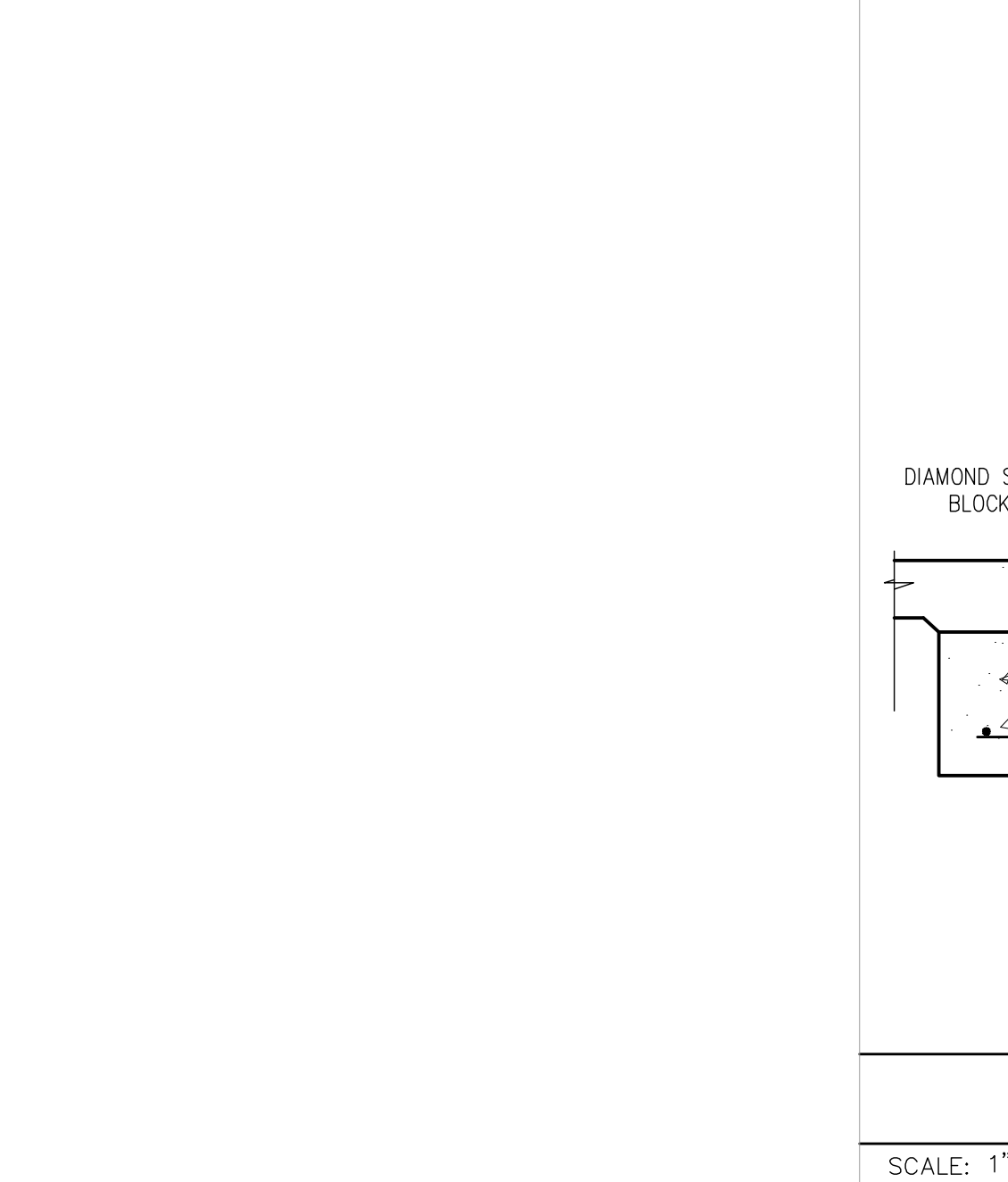
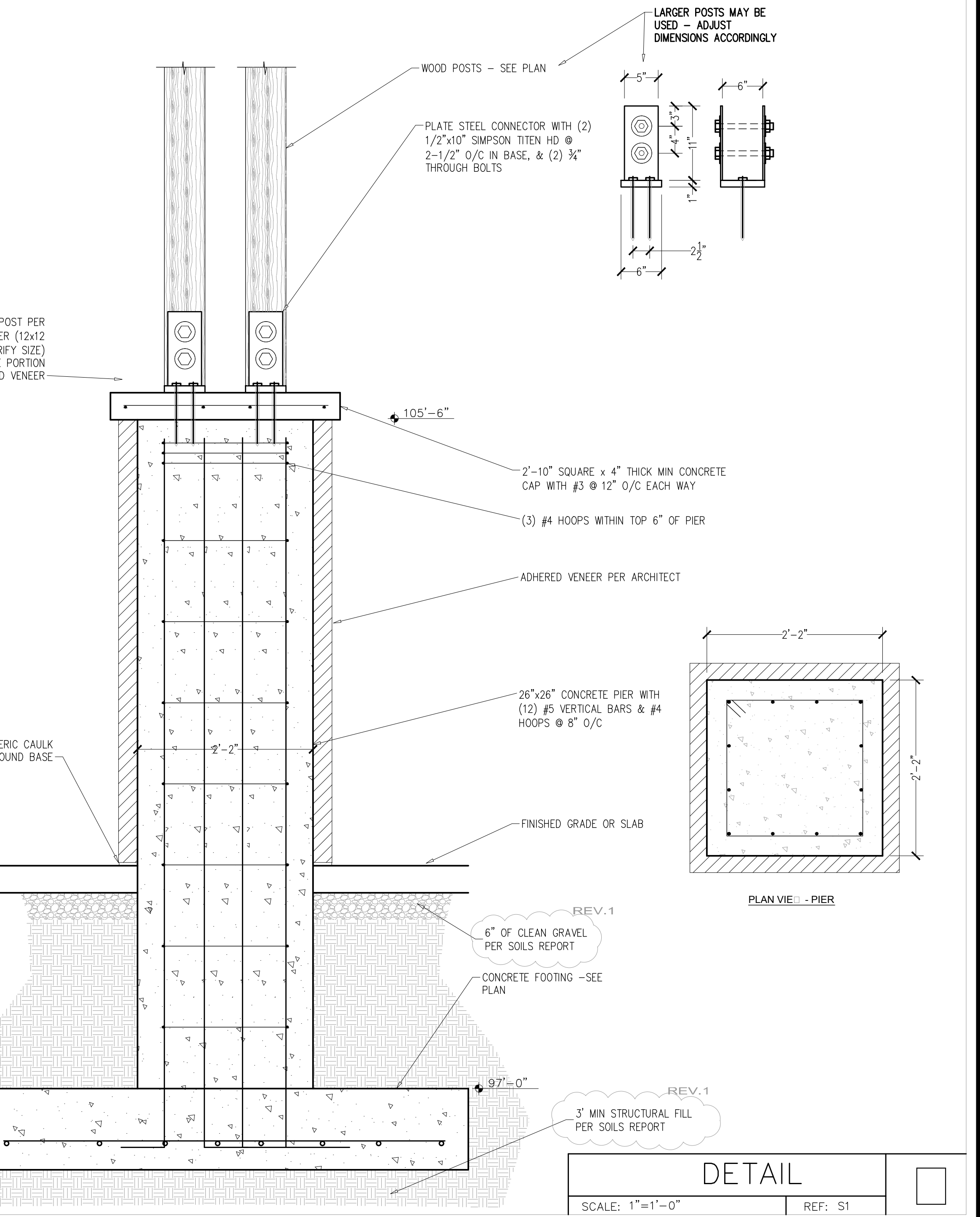
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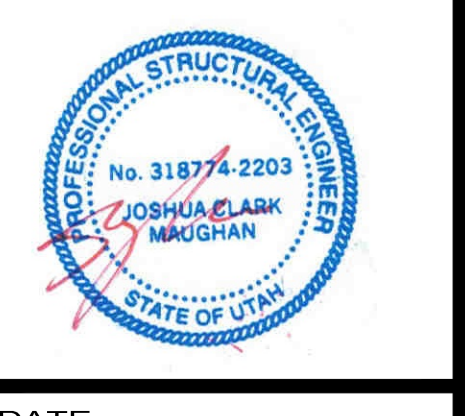
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JOSEPH T. BECK ARCHITECT, INC.  
497 EAST 520 SOUTH  
SMITHFIELD, UTAH  
(435) 764-6742



DATE  
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rev. 1-4-17

PROJECT TITLE  
HERITAGE VET CLINIC / KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

SHEET TITLE  
FOOTING & FOUNDATION PLAN  
DETAILS

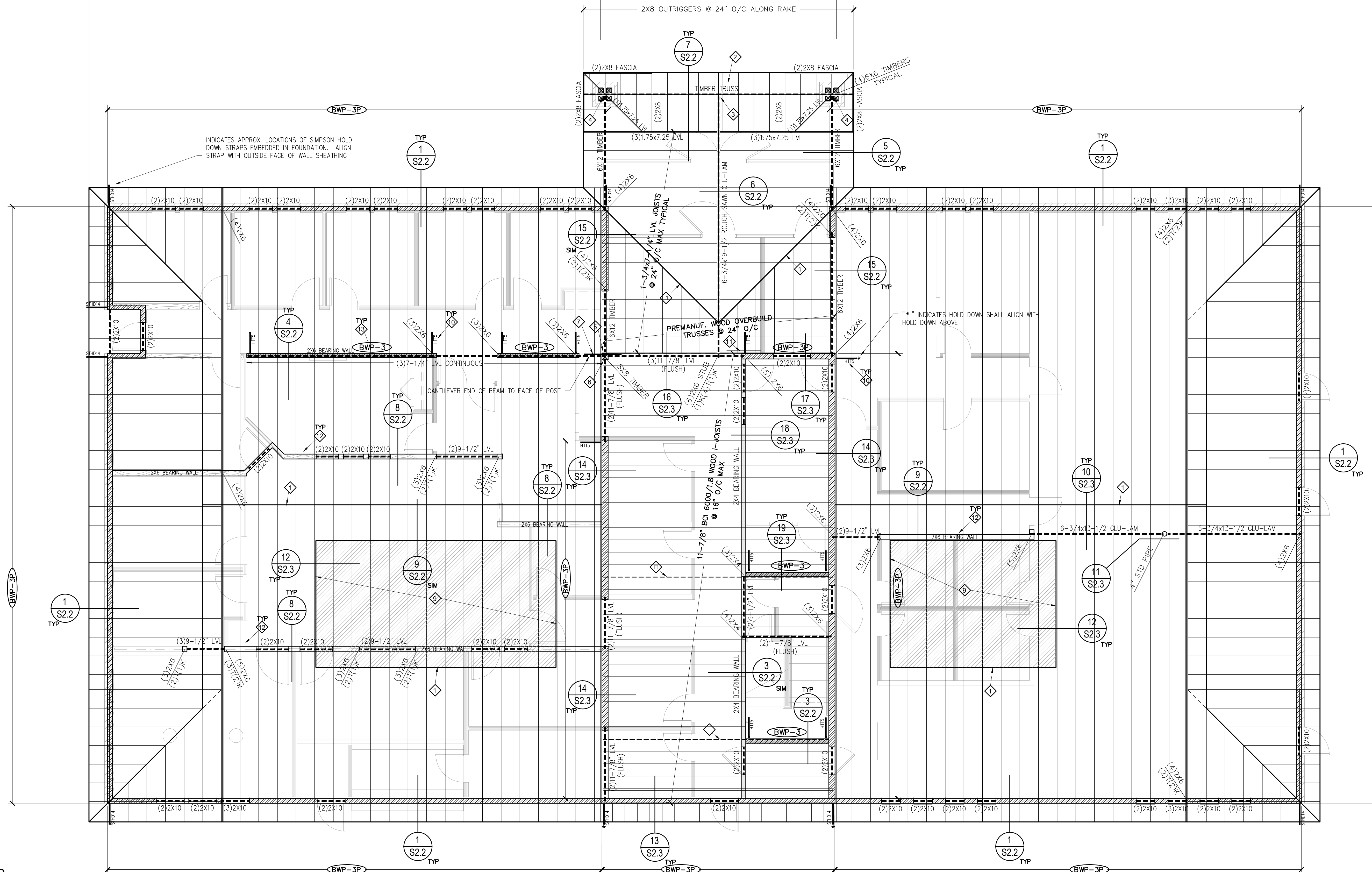
PROJECT NUMBER  
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REVISIONS  
1 - 10/13/16 - FOOTINGS  
2 - 1/4/17 - DETAIL 3

SHEET NUMBER  
S1.1

PREMANUFACTURED/PRE ENGINEERED WOOD ROOF TRUSSES @ 24" O/C MAXIMUM THROUGHOUT. TRUSS MANUFACTURER SHALL PROVIDE AND DESIGN ALL OVERBUILDS WITH VALLEY TRUSSES. SEE ARCHITECTURAL PLANS AND SECTIONS FOR TRUSS PROFILES.

PREMANUFACTURED/PRE ENGINEERED WOOD ROOF TRUSSES @ 24" O/C MAXIMUM THROUGHOUT. TRUSS MANUFACTURER SHALL PROVIDE AND DESIGN ALL OVERBUILDS WITH VALLEY TRUSSES. SEE ARCHITECTURAL PLANS AND SECTIONS FOR TRUSS PROFILES.



**KEYED NOTES:**

- ◆ INSTALL 10d NAILS @ 6" O/C ALONG BOTH SIDES OF ALL ROOF RIDGES & VALLEYS. BACK WITH CONT SOLID 2X SHAPED RUNNER OR 2X SHAPED BLOCKING BTWN TRUSSES/JOISTS TO MAINTAIN DIAPHRAGM CONTINUITY. FULLY SHEATH UNDERBUILT AREAS OF OVERBUILDS. ALL OVERBUILT AREAS SHALL BE FRAMED WITH PRE-MANUFACTURED OVERBUILD TRUSSES (VALLEY TRUSSES) @ 24" O/C MAX, SECURED PER TRUSS MANUF (SIMPSON VTC2 @ 48" O/C MIN).
- ◆ TIMBER TRUSS SHALL BE DESIGNED BY TIMBER TRUSS MANUFACTURER/SUPPLIER, AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF UTAH. LOADS TO THE TRUSS SHALL BE DEVELOPED BY THE TRUSS DESIGNER USING THE TYPICAL ROOF SNOW, DEAD, AND WIND LOADS. SHOP DRAWINGS SHALL BE PROVIDED FOR REVIEW, PRIOR TO FABRICATION.
- ◆ CONNECTION OF RIDGE BEAM INTO TIMBER TRUSS SHALL BE DESIGNED BY TIMBER TRUSS MANUFACTURER/SUPPLIER, AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF UTAH. LOADS TO THE TRUSS SHALL BE DEVELOPED BY THE TRUSS DESIGNER USING THE TYPICAL ROOF SNOW, DEAD, WIND, & SEISMIC LOADS. SHOP DRAWINGS SHALL BE PROVIDED FOR REVIEW, PRIOR TO FABRICATION. MINIMUM BEAM VERTICAL REACTION LOAD = 10.5 KIPS DOWN.
- ◆ CONNECTION OF EVE BEAMS & TIMBER TRUSS INTO TIMBER COLUMNS SHALL BE DESIGNED BY TIMBER TRUSS MANUFACTURER/SUPPLIER, AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF UTAH. LOADS TO THE TRUSS SHALL BE DEVELOPED BY THE TRUSS DESIGNER USING THE TYPICAL ROOF SNOW, DEAD, WIND, & SEISMIC LOADS. SHOP DRAWINGS SHALL BE PROVIDED FOR REVIEW, PRIOR TO FABRICATION.
- ◆ FASTEN END OF TIMBER BEAM TO FACE OF TIMBER COLUMN WITH 10" TALL x 4" LONG x 6" WIDE x 1/4" PLATE STEEL BUCKET CONNECTOR, WITH (10) CONCEALED SIMPSON SDS-3-1/2" LAG SCREWS THRU BRACKET PLATE INTO COLUMN FACE, SPACED 1-1/2" APART MIN. INSTALL (3) 3/8" BOLTS THRU BUCKET SIDES AND BEAM.
- ◆ BEAR END OF (2) 11-7/8" LVL BEAM ON TOP OF TIMBER COLUMN. SECURE TO (3) 11-7/8" LVL BEAM WITH 9" TALL L3X3/4" STEEL ANGLE PLACED ON INSIDE CORNER, WITH (4) SIMPSON SDS 3/4-1/2" LAG SCREWS INTO EACH ANGLE LEG.

**1 UPPER FLOOR/ROOF FRAMING PLAN**

- ◆ BEAR (3) 11-7/8" LVL ON TOP OF TIMBER POST, ALIGNED WITH EDGE OF POST. DARK LINES INDICATE SIMPSON MST48 STRAP PLACED FLAT WITH 1/2 HALF OF STRAP NAILED UP INTO BOTTOM OF (3) 11-7/8" LVL BEAM, AND THE OTHER HALF NAILED DOWN INTO TOP DBL 2X6 TOP PLATE OVER TO TOP OF CANTILEVERED (3) 9-1/2" LVL BEAM END. INTENDED TO DRAG UPPER FLOOR LATERAL LOADS INTO BWP TO THE LEFT.
- ◆ DASHED LINE INDICATES 1-3/4" x 11-7/8" LVL DRAG JOIST ALIGNED OVER TOP OF BWP-3 BEYOND PER DETAIL 19. SECURE FLOOR SHEATHING WITH 10d @ 6" O/C.
- ◆ HATCHED AREAS INDICATE MECHANICAL PIT IN ROOF TRUSSES. TRUSS MANUF. SHALL DESIGN THE AREA WITH 80 PSF SNOW LOAD + 30 PSF MECHANICAL LOAD. 3/4" OSB ROOF SHEATHING REQUIRED HERE.
- ◆ HTS HOLDS DOWNS SHALL BE ANCHORED TO CONCRETE AT BASE OF WALL WITH 5/8"x15" THREADED ROD, EPOXY ANCHORED 12" INTO CONCRETE, WITH HOLES AND EPOXY INSTALLED PER SIMPSON'S INSTRUCTIONS. FASTEN HOLD DOWN TO BASE OF DOUBLE WALL STUDS MINIMUM. CONTINUOUS SPECIAL INSPECTION REQUIRED.
- ◆ DARK LINE INDICATES SIMPSON MST48 STRAP INSTALLED HORIZONTALLY ON OUTSIDE FACE OF RIM JOIST AND (3) 11-7/8" LVL BEAM AT MID-HEIGHT, ACROSS JOINT.
- ◆ TRUSS MANUFACTURER SHALL DESIGN AND SPECIFY ANY REQUIRED LATER BRACING IN TRUSSES OVER BEARING WALLS.
- ◆ TRUSS MANUFACTURER SHALL PROVIDE TRUSS BLOCKING OVER INTERIOR BWP/BEARING WALL PER DETAIL 8/S2.1, FOR ENTIRE LENGTH OF (3) 9-1/2" LVL BEAM. TRUSS MANUF SHALL DESIGN BLOCKING TO ACCOMMODATE 350 PLF SHEAR LOAD. ATTACH EACH ADJACENT TRUSS BLOCK END TO NEXT WITH 1/2" x 8" WIDE OSB SHEATHING STRIP, NAILED WITH 8d @ 4" O/C STAGGERED EACH SIDE.

**PLAN NOTES:**

1. COORDINATE & VERIFY THIS DRAWING WITH ELECTRICAL, MECHANICAL, ARCHITECTURAL, & TRUSS MANUFACTURER'S DRAWINGS PRIOR TO START OF CONSTRUCTION.
2. APPLY DETAILS TO ALL APPLICABLE LOCATIONS.
3. (BWP-3) DESIGNATES BRACED WALL PANEL TYPE. SEE BRACED WALL PANEL SCHEDULE ON S2.1. INSTALL SPECIFIED HOLD DOWN ANCHORS AT EACH END OF EACH BRACED WALL PANEL.
4. ALL ROOF TRUSSES SHALL BE DESIGNED BY THE TRUSS MANUFACTURER. ALL TRUSS TO TRUSS CONNECTIONS SHALL ALSO BE DESIGNED AND SPECIFIED BY THE TRUSS MANUFACTURER.
5. ROOF SHEATHING: ALL ROOF SHEATHING SHALL BE 5/8" RATED OSB MINIMUM. ROOF SHEATHING SHALL BE NAILED WITH 10d NAILS @ 6" o/c ALONG ALL SUPPORTED EDGES, AND 12" o/c IN THE FIELD. SPECIAL NAILING SHALL BE APPLIED INTO TRUSSES AND TRUSS BLOCKING NEAR ALL PERIMETER WALLS AS INDICATED IN THE FRAMING DETAILS.
6. FLOOR SHEATHING: ALL FLOOR SHEATHING SHALL BE 3/4" RATED, TONGUE AND GROOVE, OSB MINIMUM. FLOOR SHEATHING SHALL BE FASTENED WITH CONSTRUCTION ADHESIVE AND 10d RING SHANK NAILS @ 6" o/c ALONG ALL SUPPORTED EDGES, AND 12" o/c IN THE FIELD. SPECIAL NAILING SHALL BE APPLIED INTO RIM JOISTS AND BLOCKING NEAR ALL PERIMETER WALLS AS INDICATED IN THE FRAMING DETAILS.
7. ALL EXTERIOR WALLS NOT LABELED AS BRACED WALL PANELS SHALL BE SHEATHED AND NAILED PER BWP-1 ON THE BRACED WALL PANEL SCHEDULE. EXTERIOR BEARING WALLS SHALL BE 2X6 AT 16" O/C, INTERIOR BEARING WALLS SHALL BE 2x6 AT 16" O/C.

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**HERITAGES VET CLINIC / KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH**

SHEET TITLE  
**UPPER FLOOR/  
LOW ROOF  
FRAMING PLAN**

PROJECT NUMBER  
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REVISIONS

SHEET NUMBER

**S2.0**



DATE  
SEPT. 9, 2016

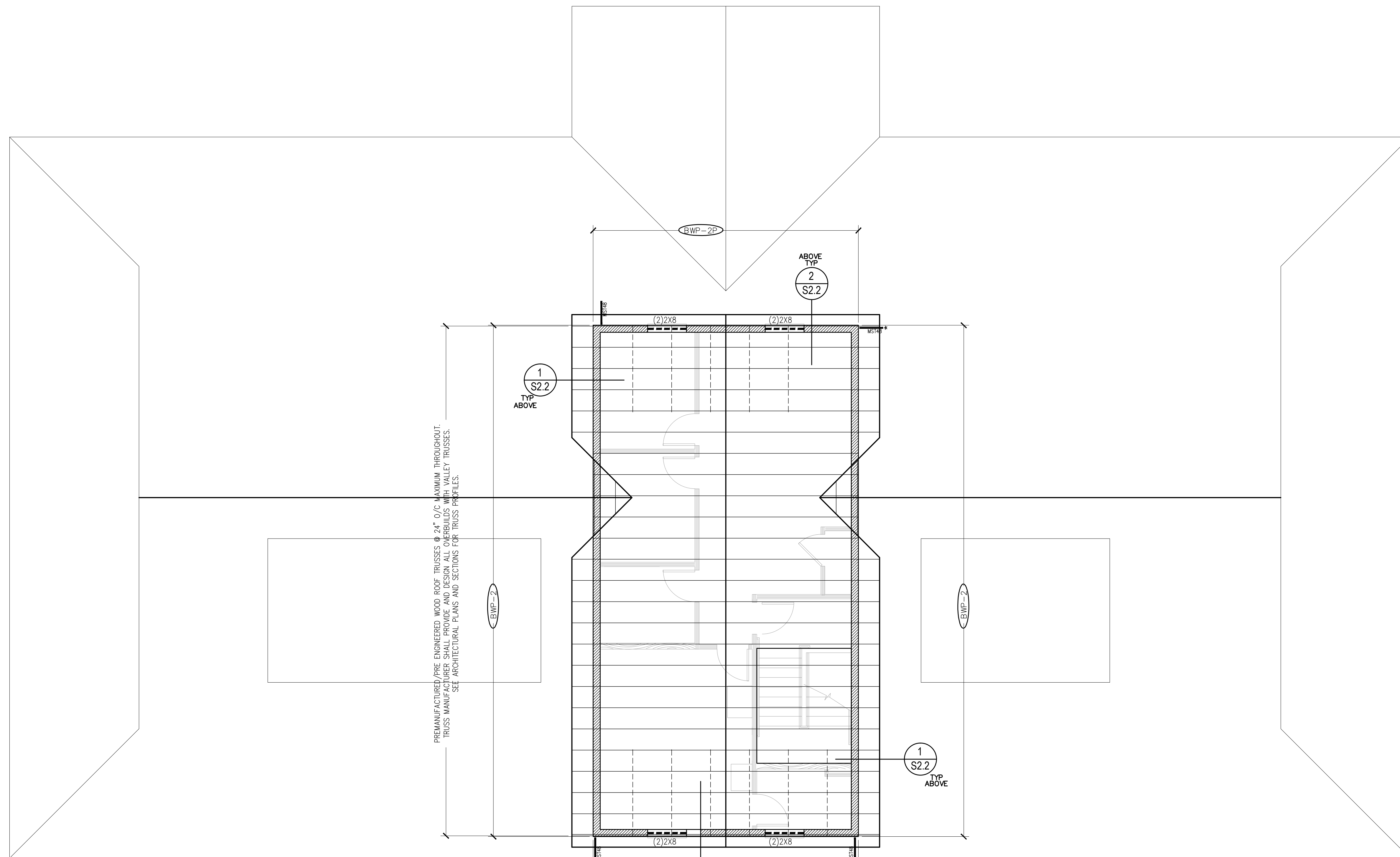
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SHEET TITLE  
UPPER ROOF  
FRAMING  
PLAN

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S2.1



PREMANUFACTURED/PRE ENGINEERED WOOD ROOF TRUSSES @ 24" O/C MAXIMUM THROUGHOUT. TRUSS MANUFACTURER SHALL PROVIDE AND DESIGN ALL OVERBUILDS WITH VALLEY TRUSSES. SEE ARCHITECTURAL PLANS AND SECTIONS FOR TRUSS PROFILES.

BRACED WALL PANEL SCHEDULE													
MARK	WALL FRAMING			WALL ANCHORAGE		WALL SHEATHING	EDGE NAILING		FIELD NAILING		REMARKS		
	STUDS	SPACING	BOTTOM PLATE	TOP PLATE	END STUDS OR POST		BOTTOM ANCHORAGE	SIZE	SPACING	SIZE		SPACING	
BWP-1	2x	16"	(2) 2x	(2) 2x	2x	(3) 16x 8"	NONE	7/16" OSB	8d	6"	8d	12"	-
BWP-2	-	-	-	-	(2) 2x	(3) 16x 8"	10d RING SHANK NAILS @ 6" O/C	-	-	-	-	-	-
BWP-2P	-	-	-	-	(2) 2x	(3) 16x 8"	10d RING SHANK NAILS @ 6" O/C	-	-	-	-	-	PERF. BWP FULLY SHEATH BOTH SIDES
BWP-2B	-	-	-	-	(2) 2x	(3) 16x 8"	10d RING SHANK NAILS @ 6" O/C	-	-	-	-	-	PERF. BWP FULLY SHEATH BOTH SIDES
BWP-3	-	-	-	-	(2) 2x	(3) 16x 8"	10d RING SHANK NAILS @ 6" O/C	-	-	-	-	-	-
BWP-3P	-	-	-	-	(2) 2x	(3) 16x 8"	10d RING SHANK NAILS @ 6" O/C	-	-	-	-	-	PERF. BWP FULLY SHEATH BOTH SIDES
BWP-4	-	-	(2) 2x	-	(2) 2x	(3) 16x 8"	10d RING SHANK NAILS @ 6" O/C	-	-	-	-	-	PERF. BWP FULLY SHEATH BOTH SIDES
BWP-4P	-	-	(2) 2x	-	(2) 2x	(3) 16x 8"	10d RING SHANK NAILS @ 6" O/C	-	-	-	-	-	PERF. BWP FULLY SHEATH BOTH SIDES

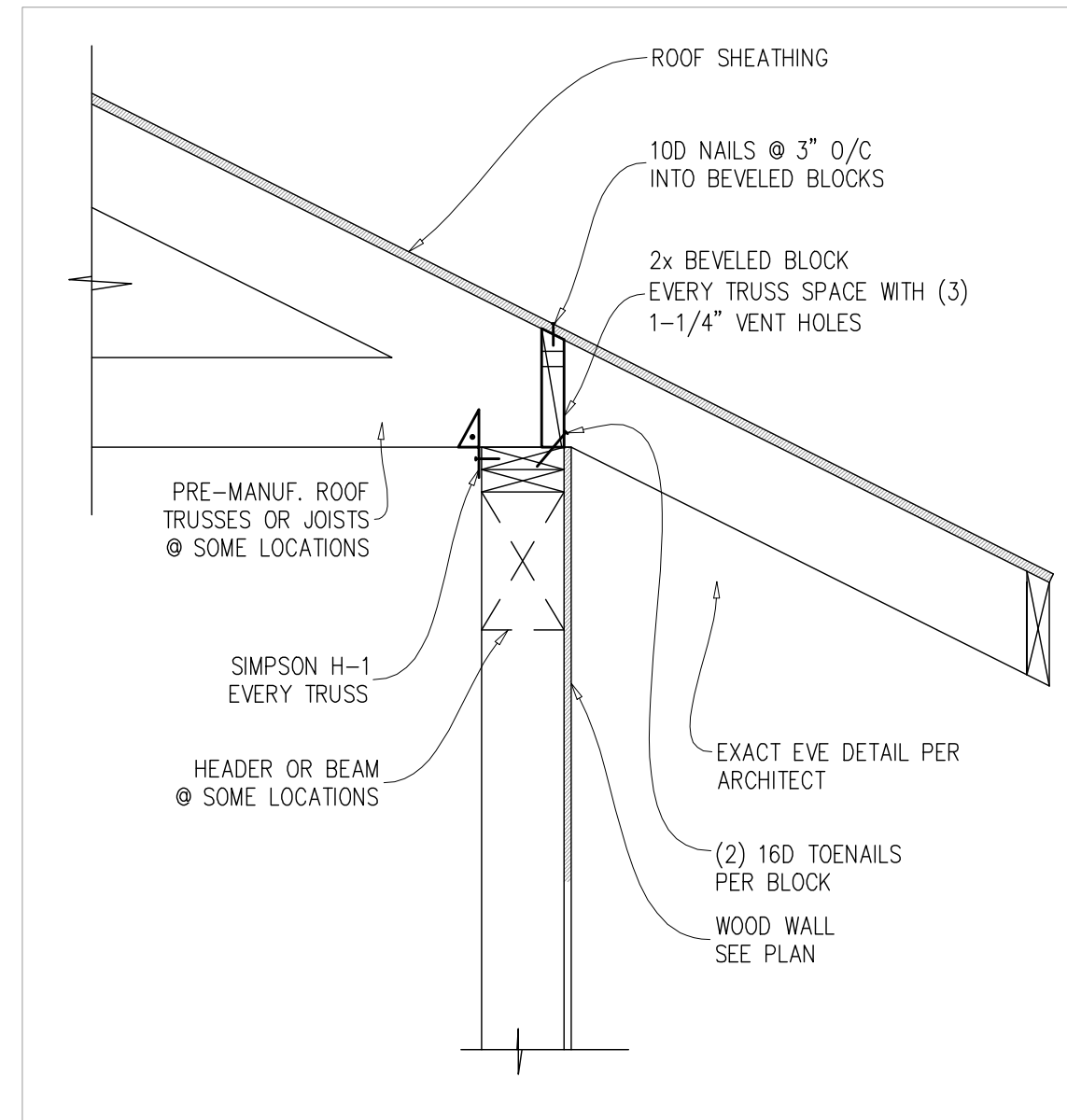
NOTES:  
1. ALL WALL SHEATHING SHALL BE A.P.A. RATED SHEATHING, EXPOSURE 1. INSTALL (1) HOLD-DOWN ANCHOR @ EACH END OF EACH SHEAR WALL.  
2. WHERE STUD MUST BE CUT DUE TO THE PLACEMENT OF ANCHOR BOLTS OR OTHER PRODUCTS, AN ADDITIONAL STUD SHALL BE INSERTED ALONG SIDE.  
3. ALL PANEL EDGES SHALL BE SOLID BUILT WITH 2x FRAMING MEMBER, EXCEPT USE 3x MEMBER FOR NAIL SPACING OF 2' O.C. OR LESS.  
4. WHERE THROUGH SHEATHING IS APPLIED ON BOTH FACES OF WALL AND NAIL SPACING IS LESS THAN 6" O.C. ON EITHER SIDE, OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED.  
5. DISTANCE FROM PANEL EDGE TO NAILING SHALL BE NOT LESS THAN 3/4".  
6. SHEATHING SHALL BE APPLIED WITH EDGES 1/8" APART AT JOINTS AND 1/4" APART AT END JOINTS.  
7. NAILS REFERRED TO SHALL BE COMMON OR GALVANIZED BOX NAILS.  
8. THE "HD" MARK REFERS TO "SMIPSON" HOLD-DOWN ANCHORS.  
9. INSTALL STRAPS AND ANCHORS PER SMIPSON'S RECOMMENDATIONS.  
10. ALL ANCHOR BOLT WASHERS SHALL BE 3/32 PLATE STEEL (SMIPSON BP OR BPS).

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

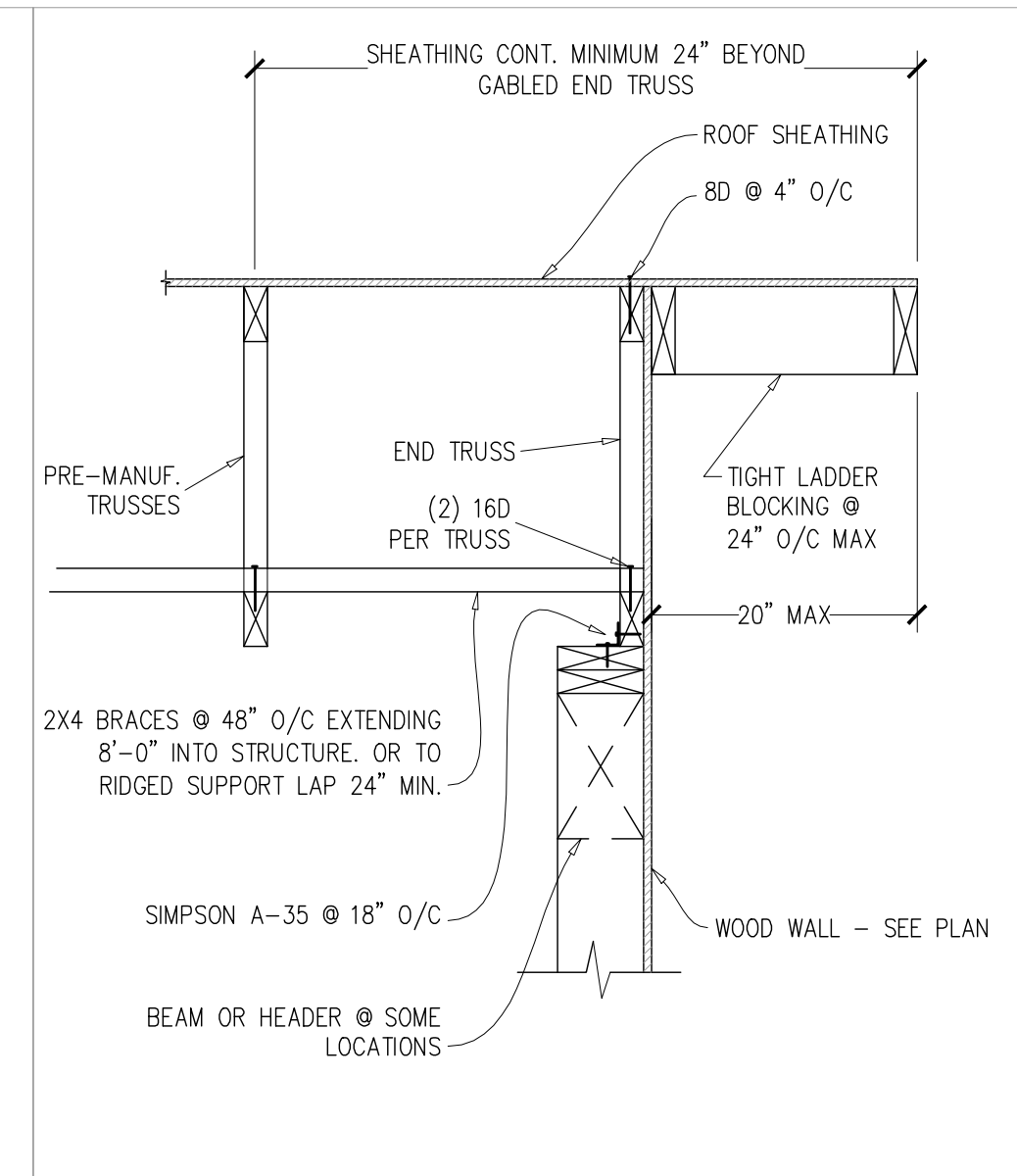
KEYED NOTES:  
◇ LAP BOTTOM HALF OF STRAP TO SIDE OF FLOOR BEAM BELOW

PLAN NOTES:  
1. COORDINATE & VERIFY THIS DRAWING WITH ELECTRICAL, MECHANICAL, ARCHITECTURAL, & TRUSS MANUFACTURER'S DRAWINGS PRIOR TO START OF CONSTRUCTION.  
2. APPLY DETAILS TO ALL APPLICABLE LOCATIONS.  
3. (BWP-2P) DESIGNATES BRACED WALL PANEL TYPE. SEE BRACED WALL PANEL SCHEDULE ON S2.1. ALL SPECIFIED HOLD DOWN ANCHORS AT EACH END OF EACH BRACED WALL PANEL.  
4. ALL ROOF TRUSSES SHALL BE DESIGNED BY THE TRUSS MANUFACTURER. ALL TRUSS TO TRUSS CONNECTIONS SHALL ALSO BE DESIGNED AND SPECIFIED BY THE TRUSS MANUFACTURER.  
5. ROOF SHEATHING: ALL ROOF SHEATHING SHALL BE 5/8" RATED OSB MINIMUM. ROOF SHEATHING SHALL BE NAILED WITH 10d NAILS @ 6" o/c ALONG ALL SUPPORTED EDGES, AND 12" o/c IN THE FIELD. SPECIAL NAILING SHALL BE APPLIED INTO TRUSSES AND TRUSS BLOCKING NEAR ALL PERIMETER WALLS AS INDICATED IN THE FRAMING DETAILS.  
6. FLOOR SHEATHING: ALL FLOOR SHEATHING SHALL BE 3/4" RATED, TONGUE AND GROOVE, OSB MINIMUM. FLOOR SHEATHING SHALL BE FASTENED WITH CONSTRUCTION ADHESIVE AND 10d RING SHANK NAILS @ 6" o/c ALONG ALL SUPPORTED EDGES, AND 12" o/c IN THE FIELD. SPECIAL NAILING SHALL BE APPLIED INTO RIM JOISTS AND BLOCKING NEAR ALL PERIMETER WALLS AS INDICATED IN THE FRAMING DETAILS.  
7. ALL EXTERIOR WALLS NOT LABELED AS BRACED WALL PANELS SHALL BE SHEATHED AND NAILED PER BWP-1 ON THE BRACED WALL PANEL SCHEDULE. EXTERIOR BEARING WALLS SHALL BE 2x6 AT 16" O/C, INTERIOR BEARING WALLS SHALL BE 2x6 AT 16" O/C.

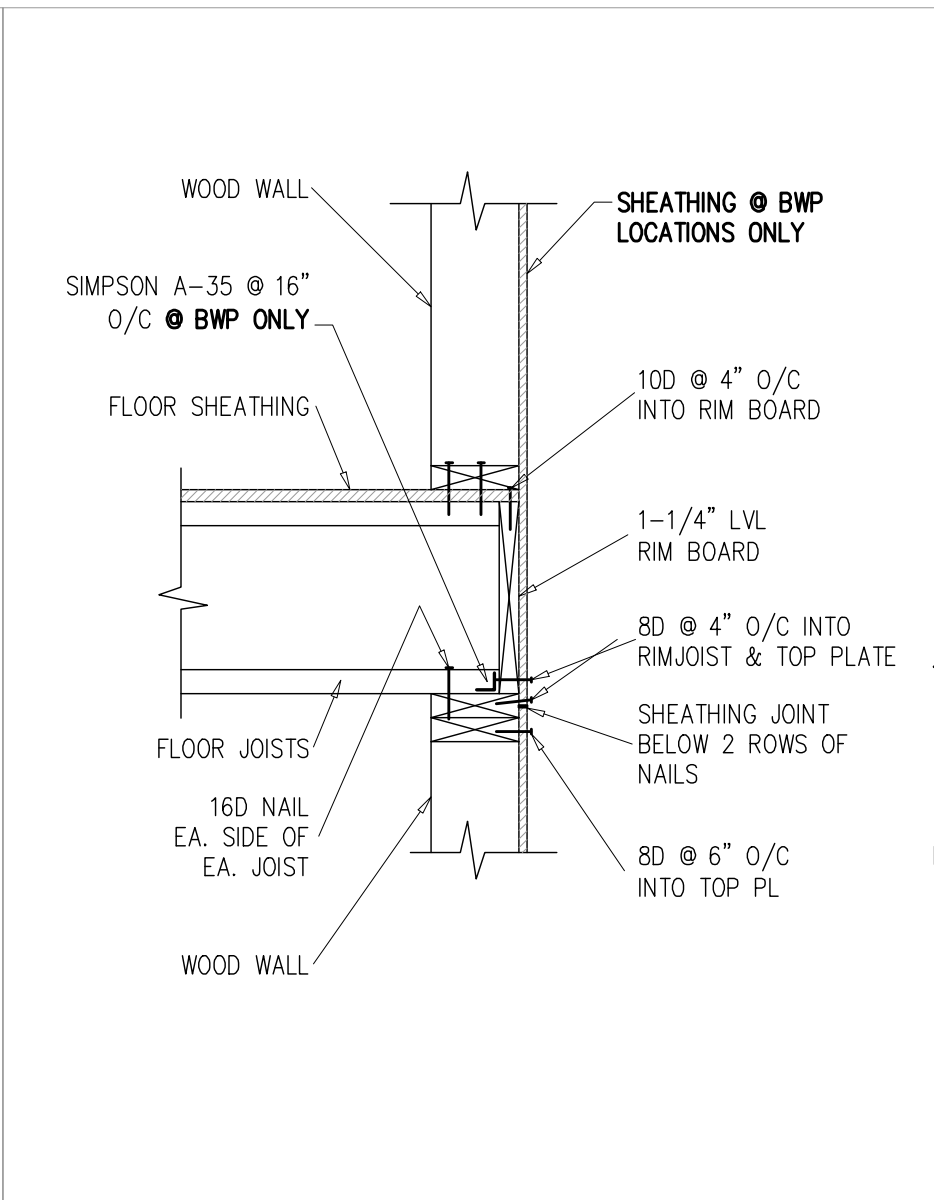




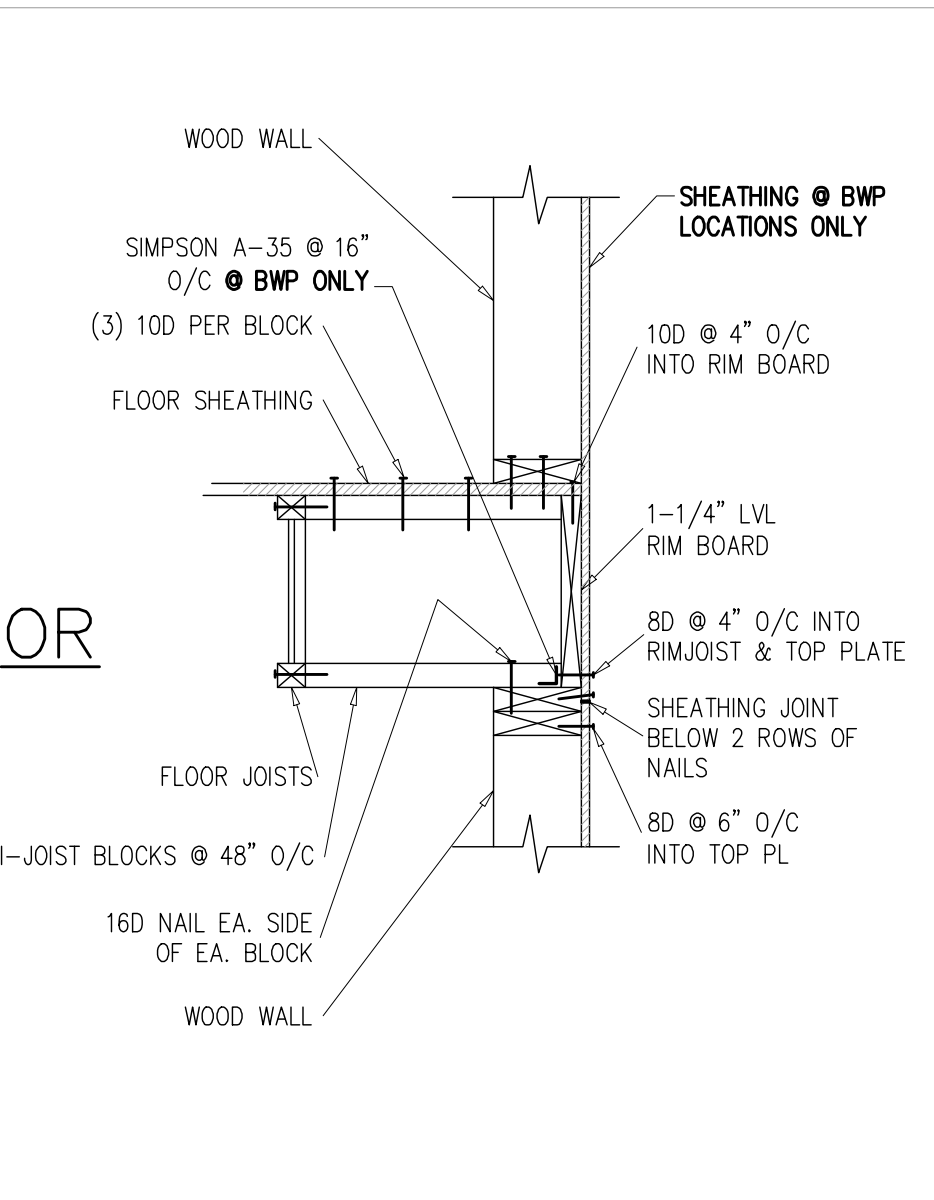
DETAIL 1  
SCALE: 1"=1'-0" REF: S2



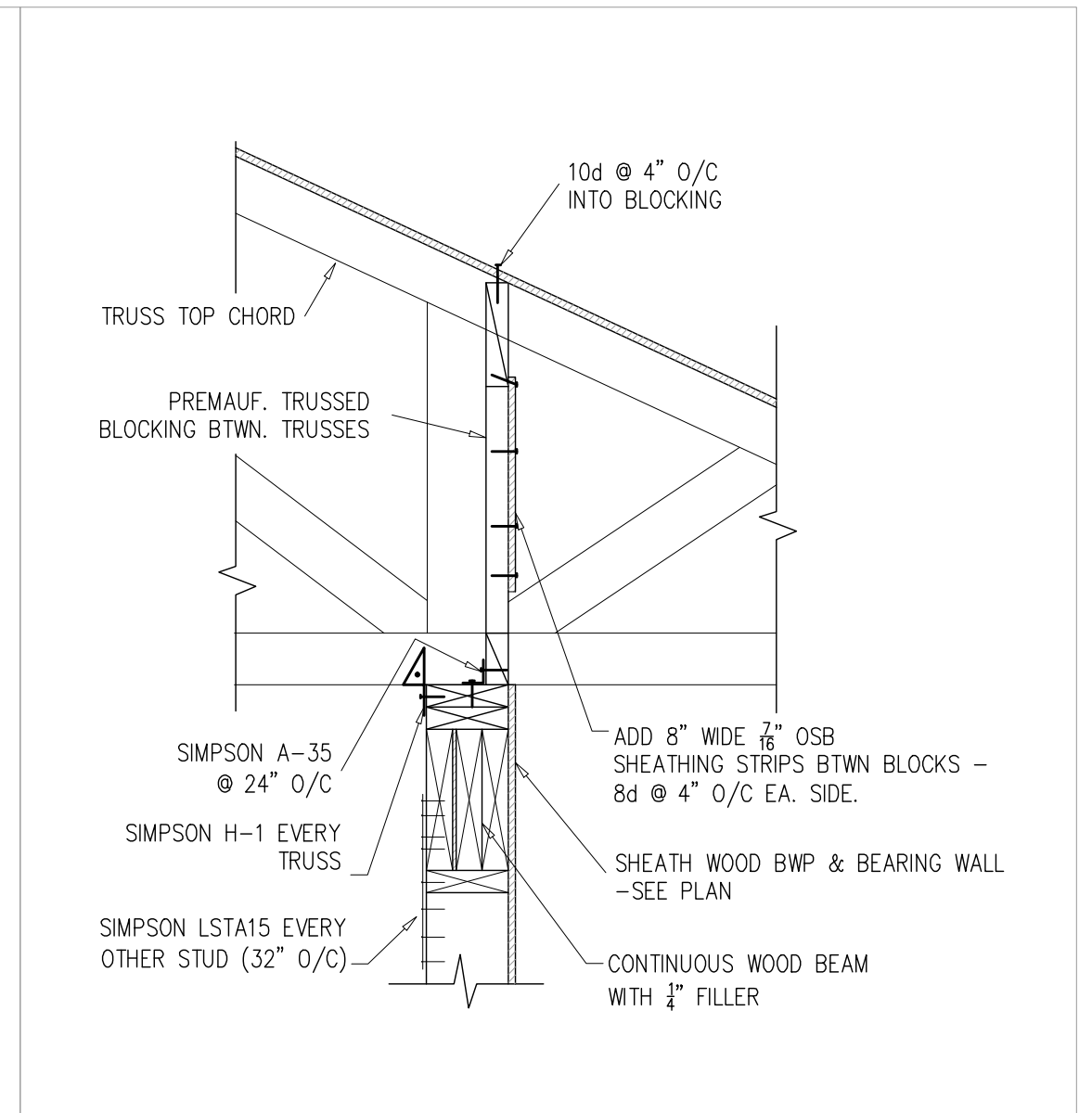
DETAIL 2  
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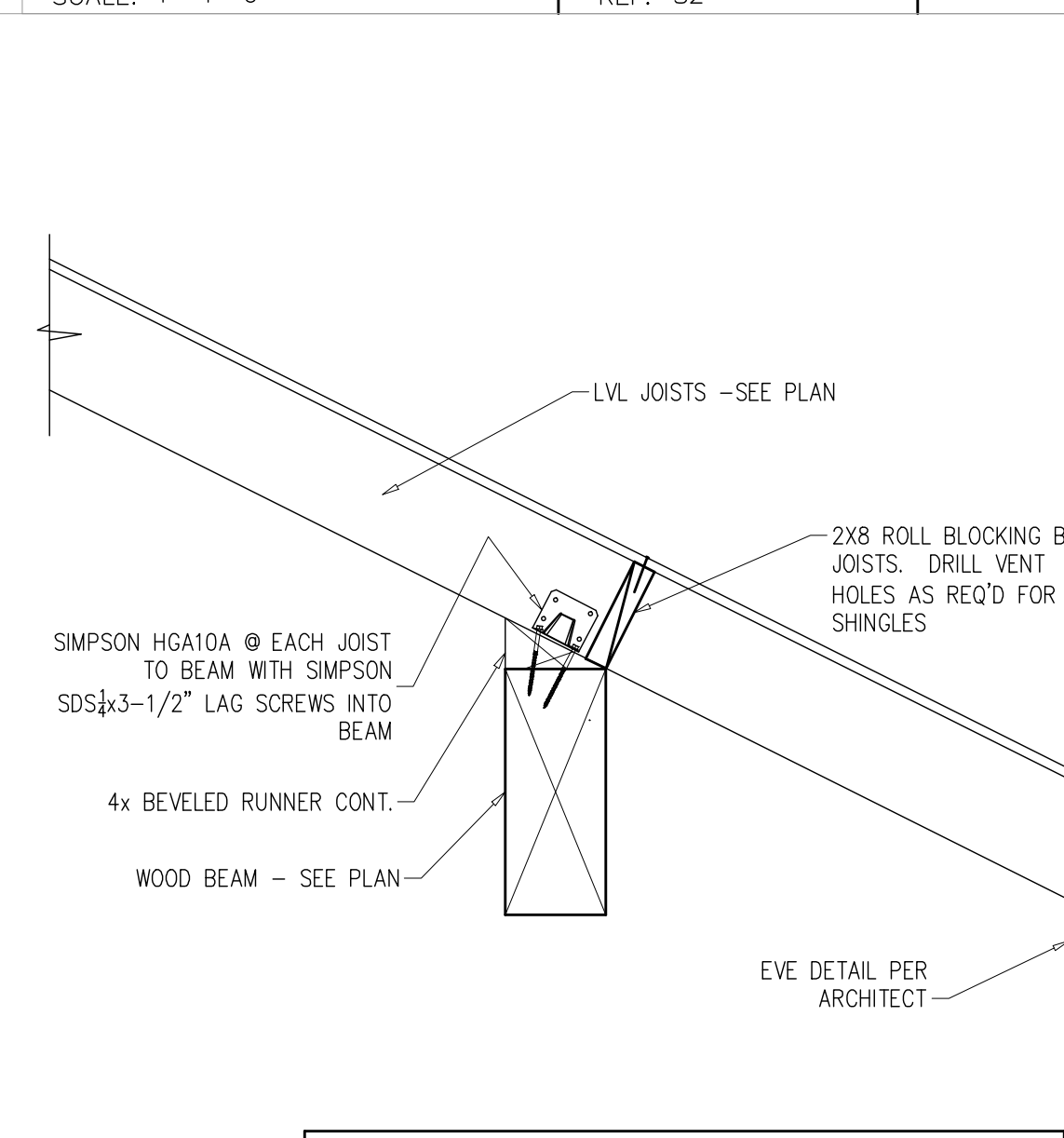
DETAIL 3  
SCALE: 1"=1'-0" REF: S-3



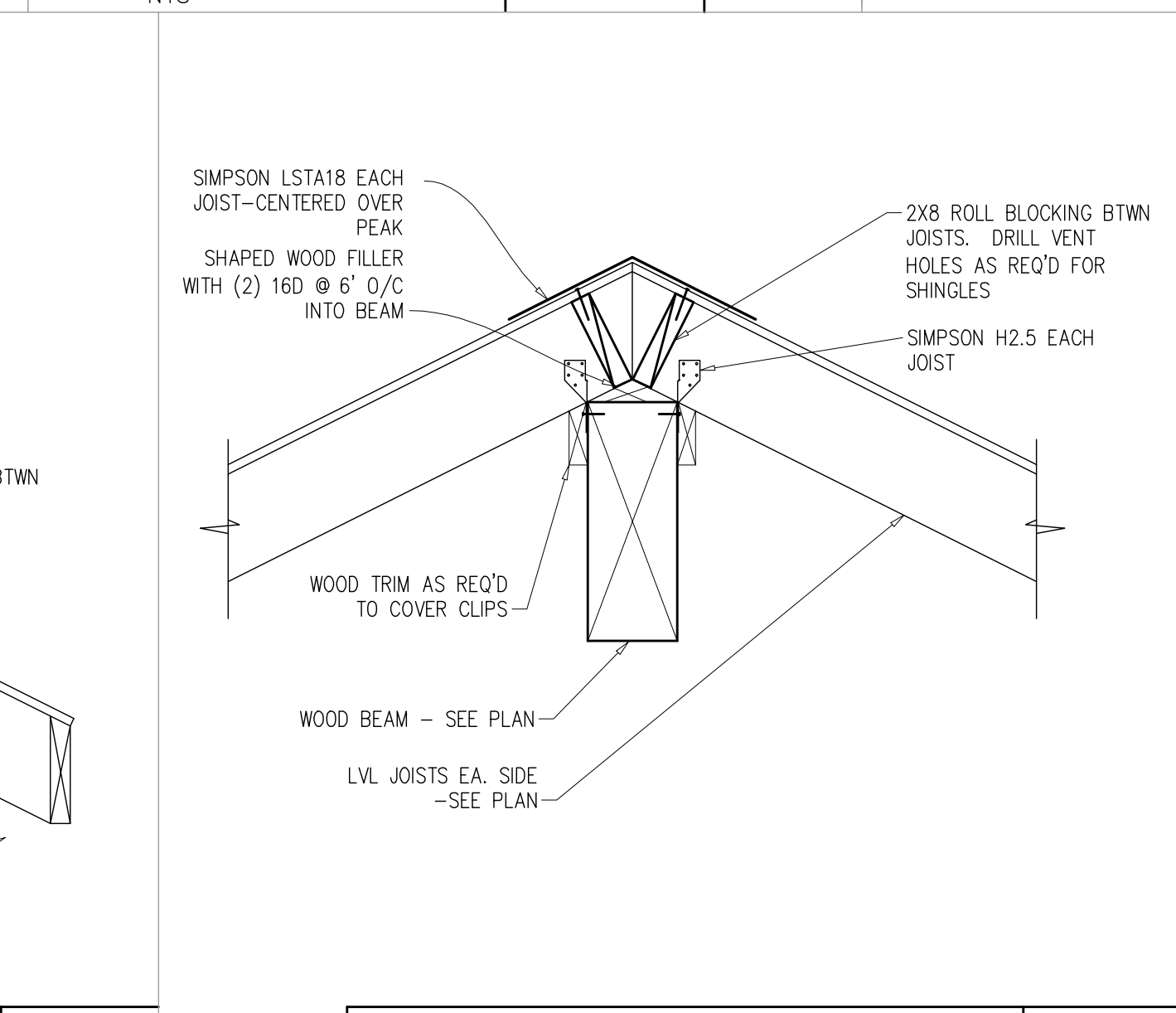
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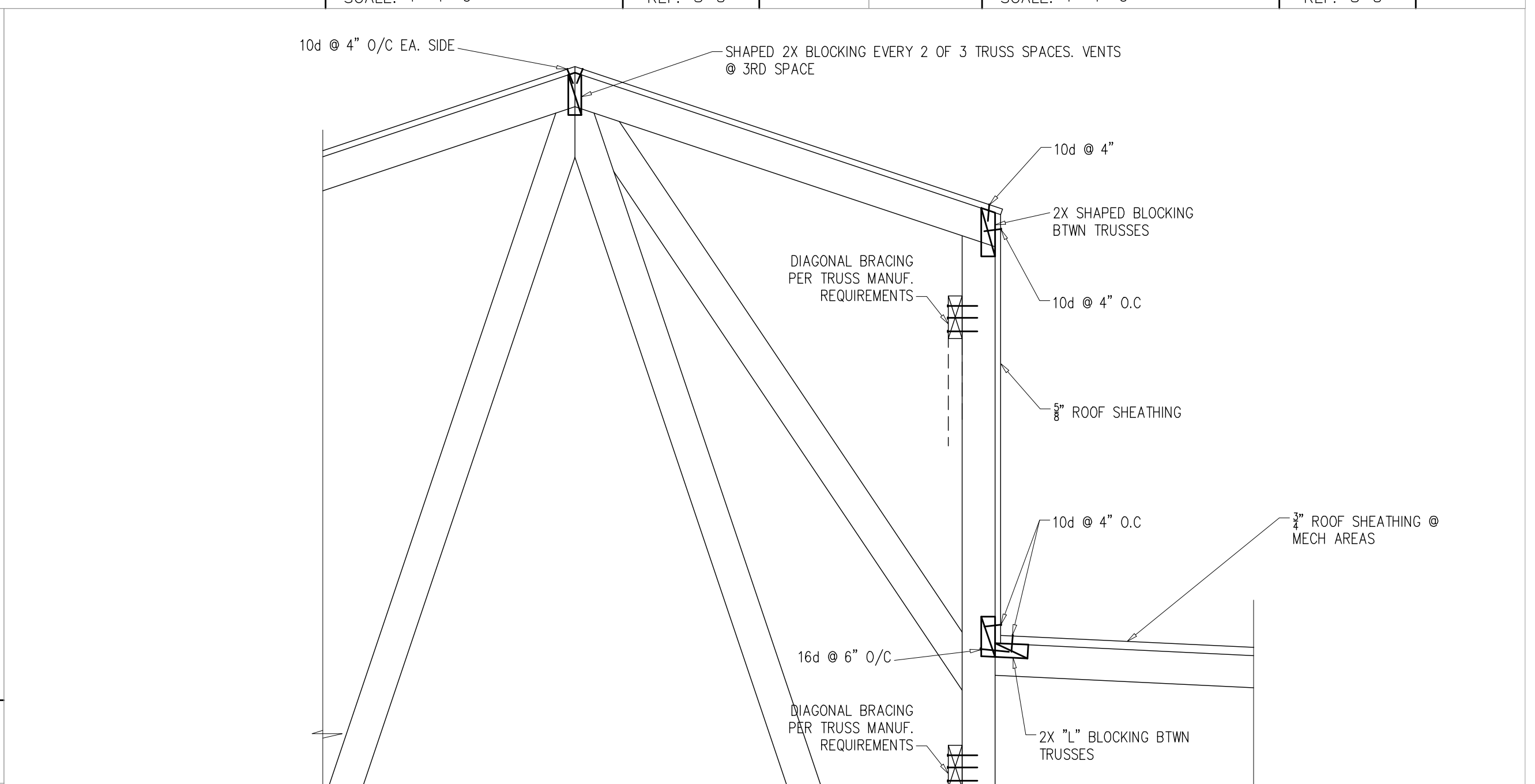
DETAIL 4  
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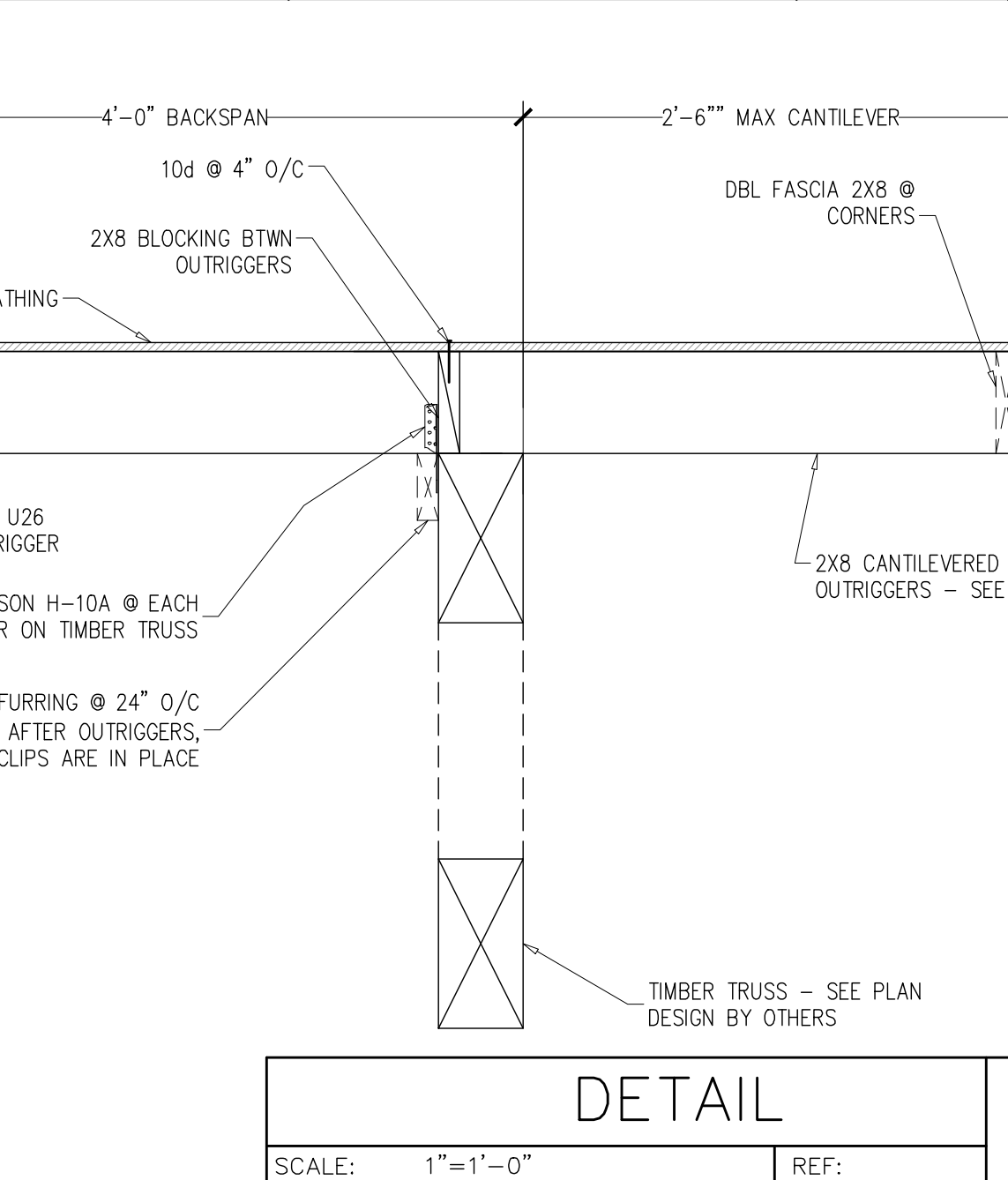
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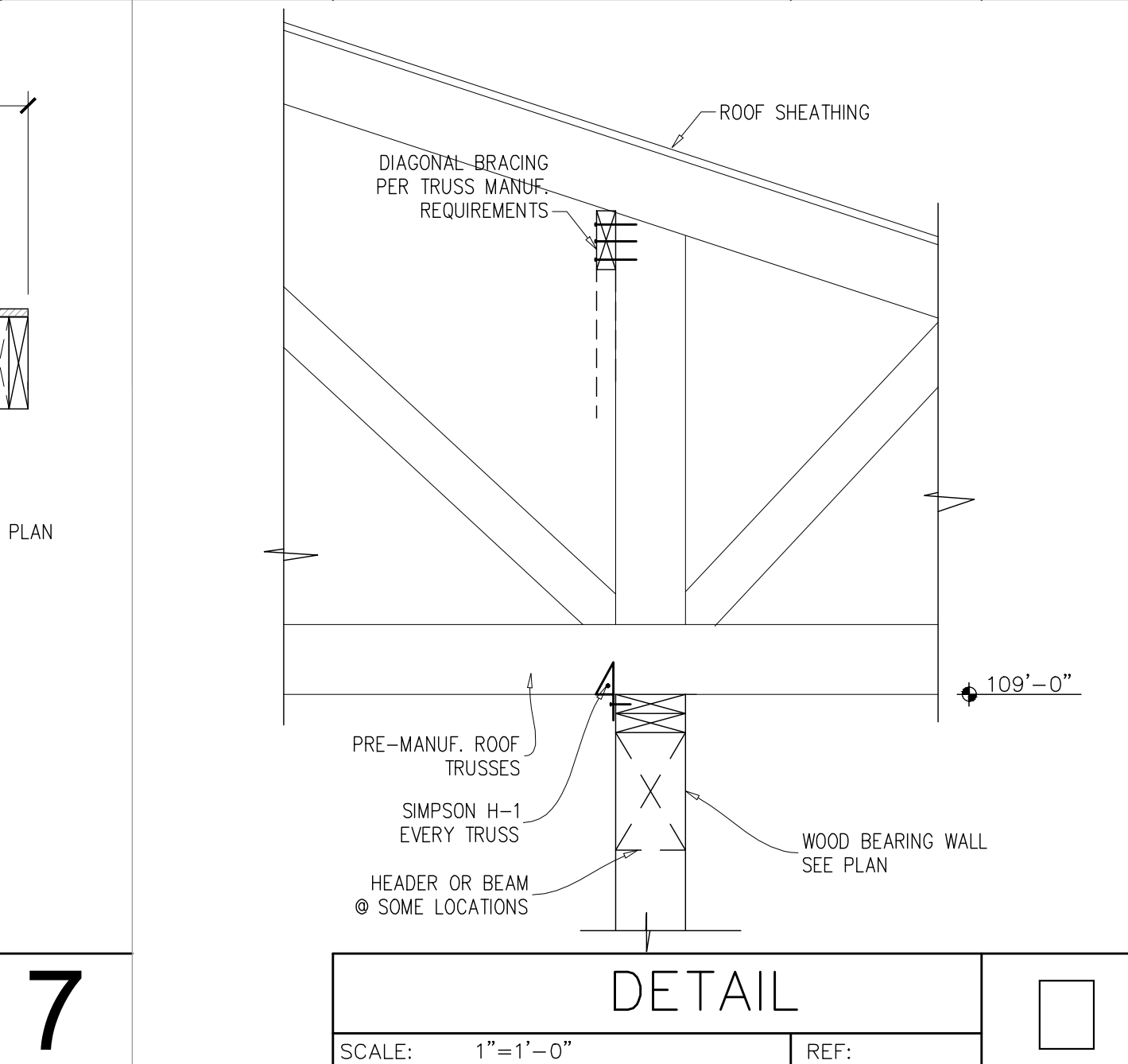
DETAIL 6  
SCALE: 1"=1'-0" REF:



DETAIL 9  
SCALE: 1"=1'-0" REF:

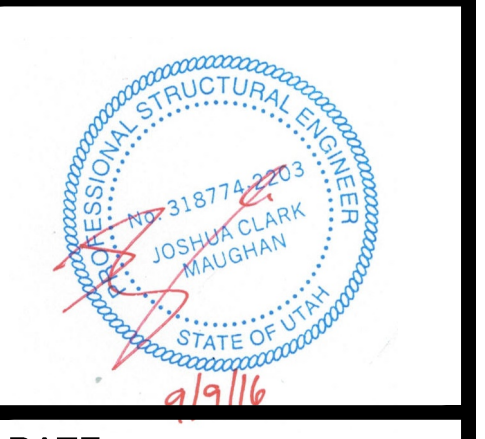


DETAIL 7  
SCALE: 1"=1'-0" REF:



DETAIL 8  
SCALE: 1"=1'-0" REF:

JOSEPH T. BECK ARCHITECT, INC.  
497 EAST 520 SOUTH  
SMITHFIELD, UTAH  
(435) 764-6742



DATE  
SEPT 9, 2016

PROJECT TITLE  
HERITAGE VET CLINIC / KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

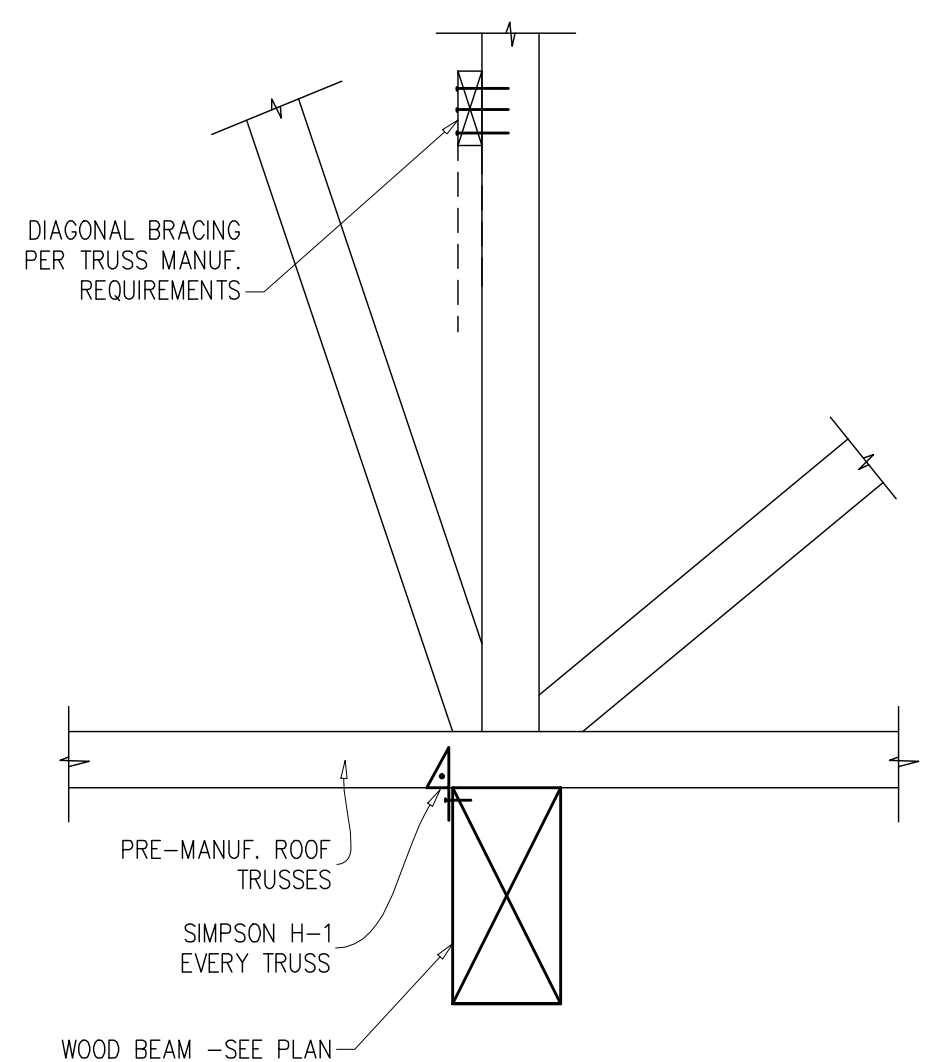
SHEET TITLE  
ROOF & UPPER  
FLOOR FRAMING  
DETAILS

PROJECT NUMBER  
-

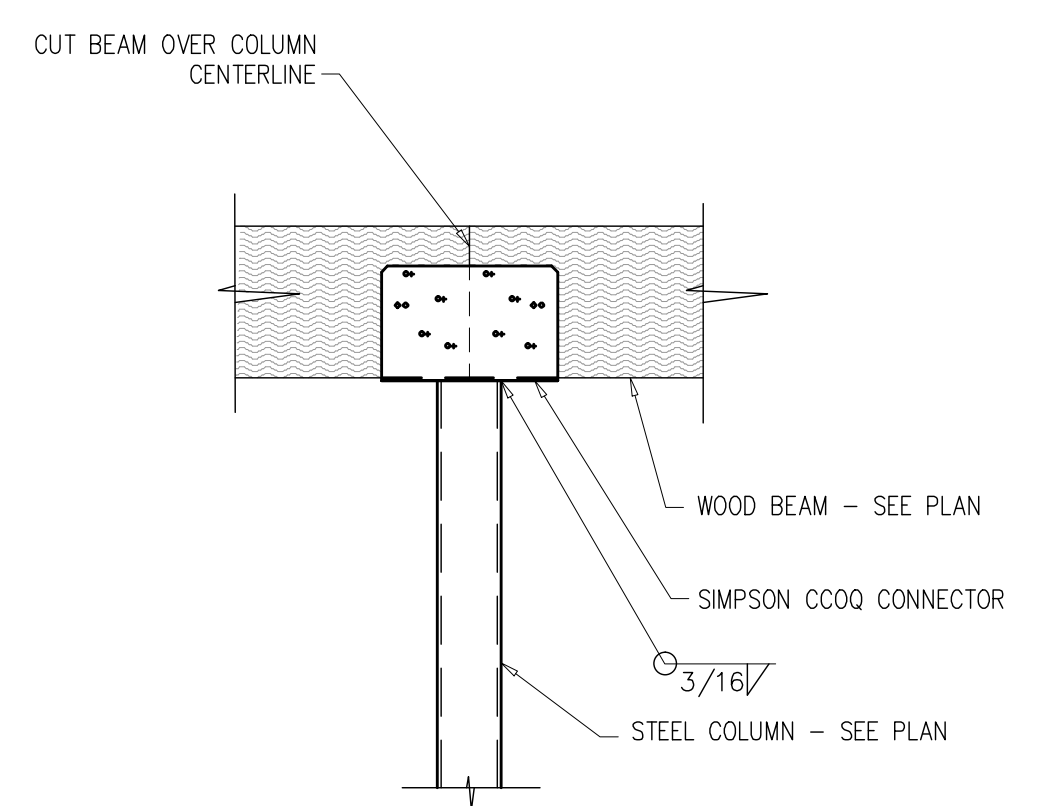
REVISIONS

SHEET NUMBER

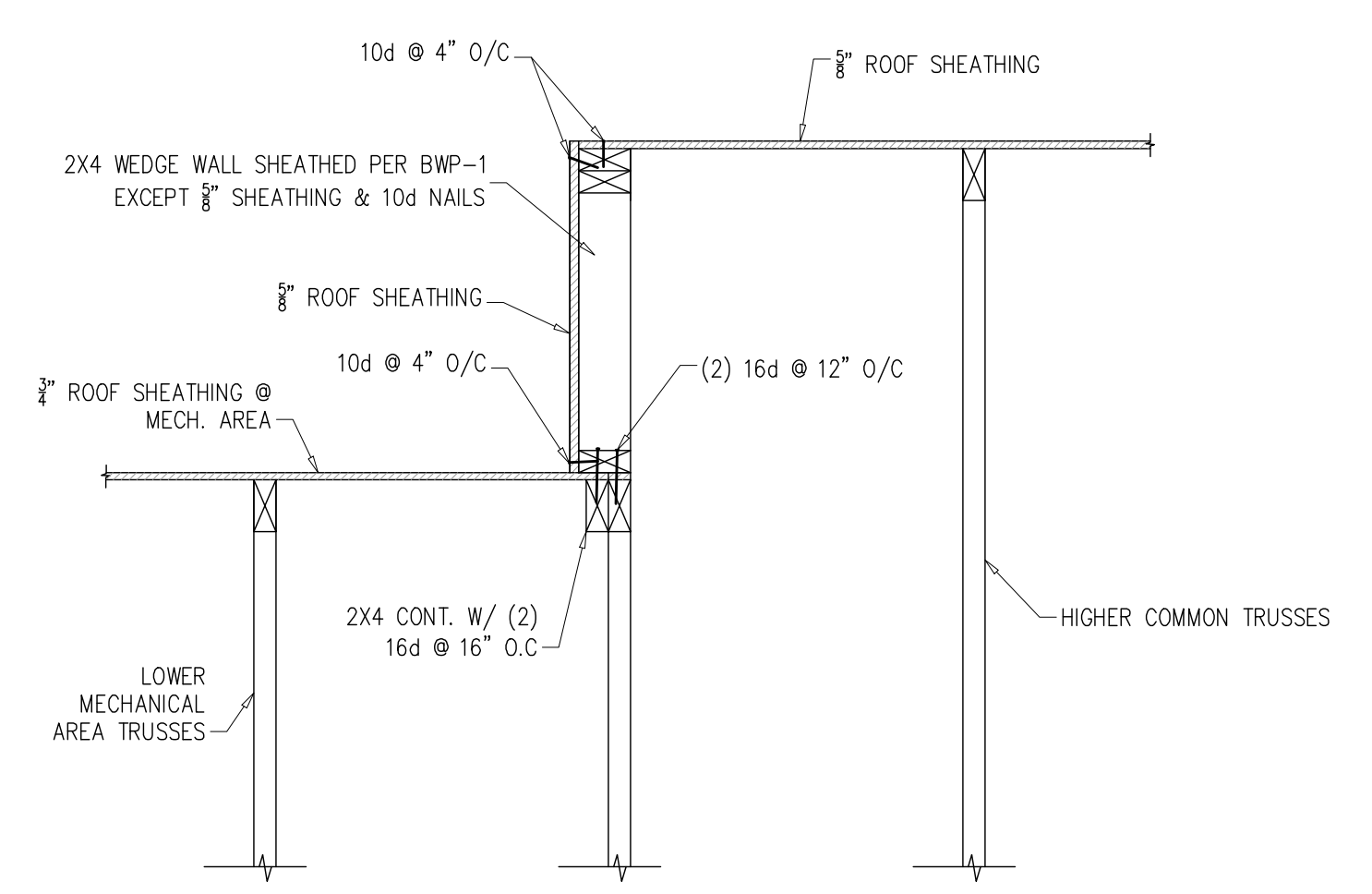
S2.2



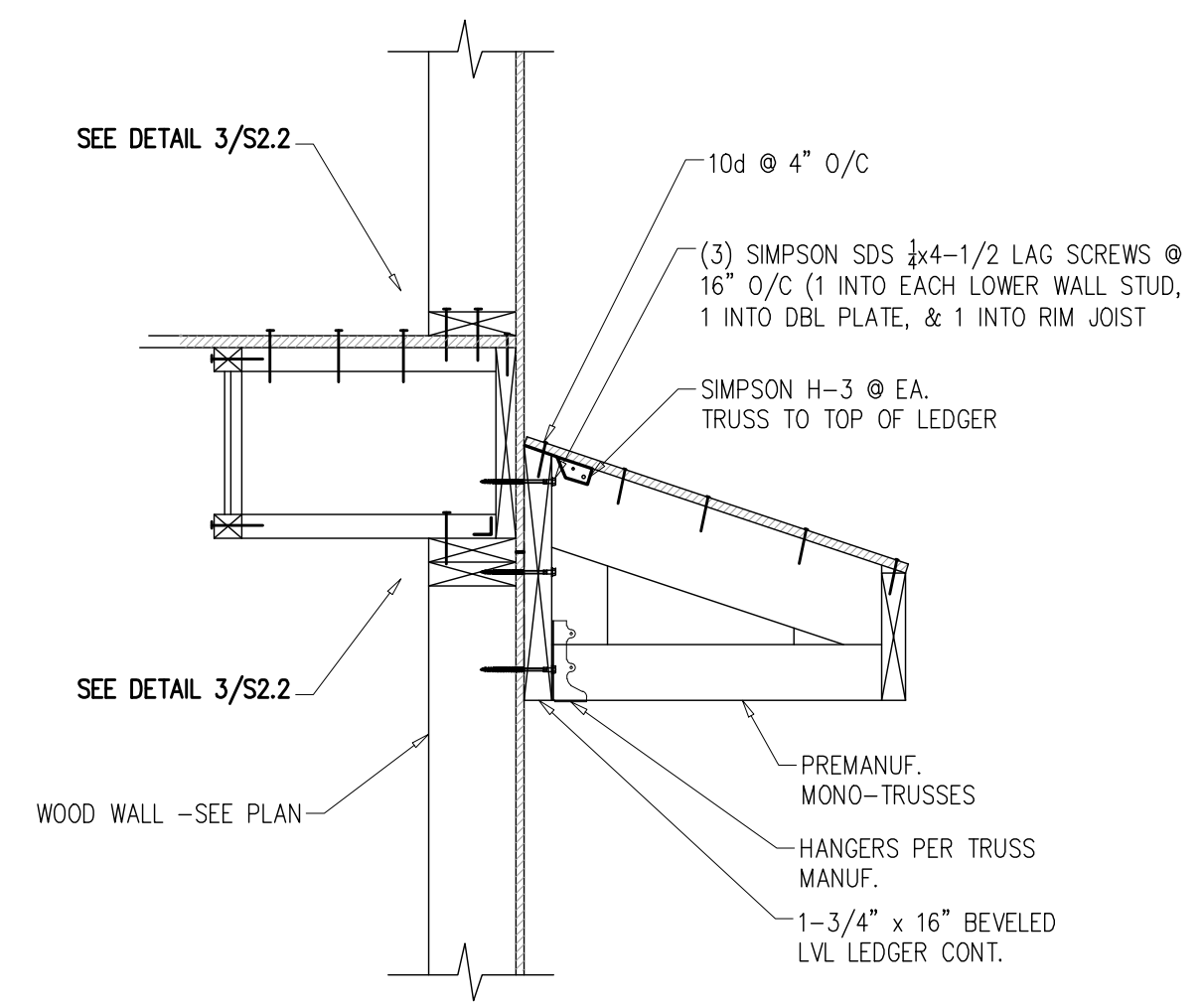
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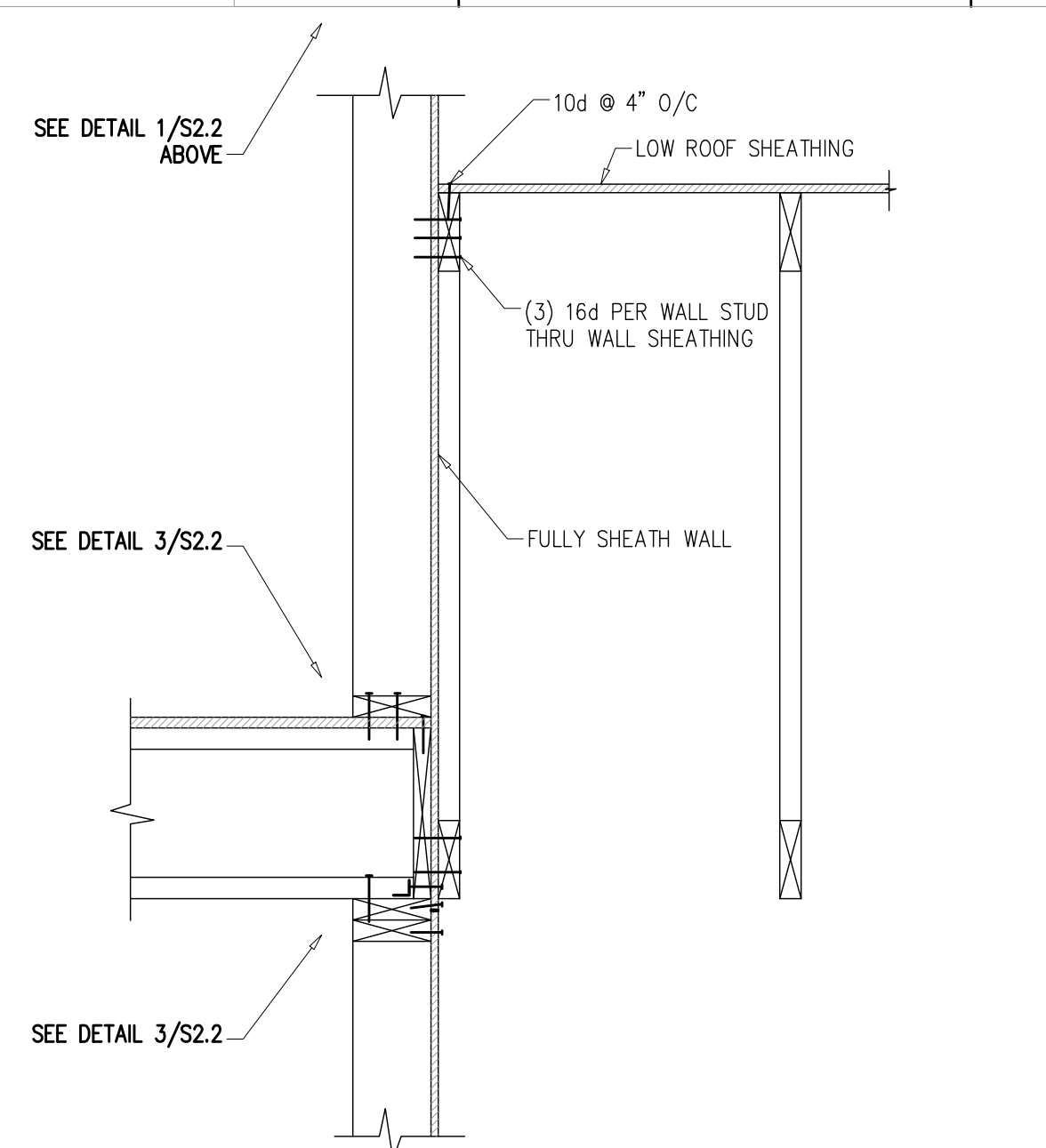
DETAIL 11  
SCALE: 1"=1'-0" REF: @ MIDDLE COLUMNS



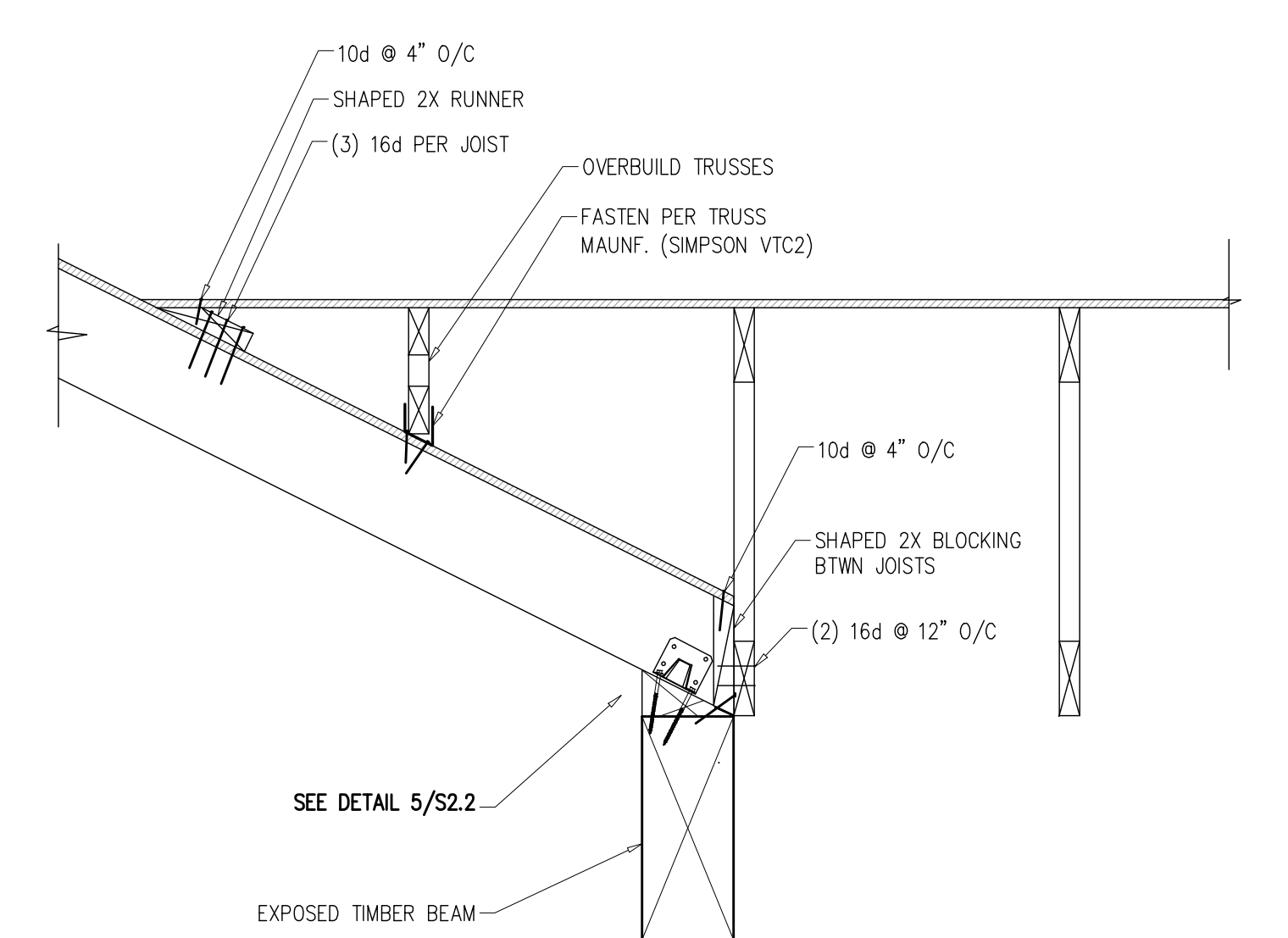
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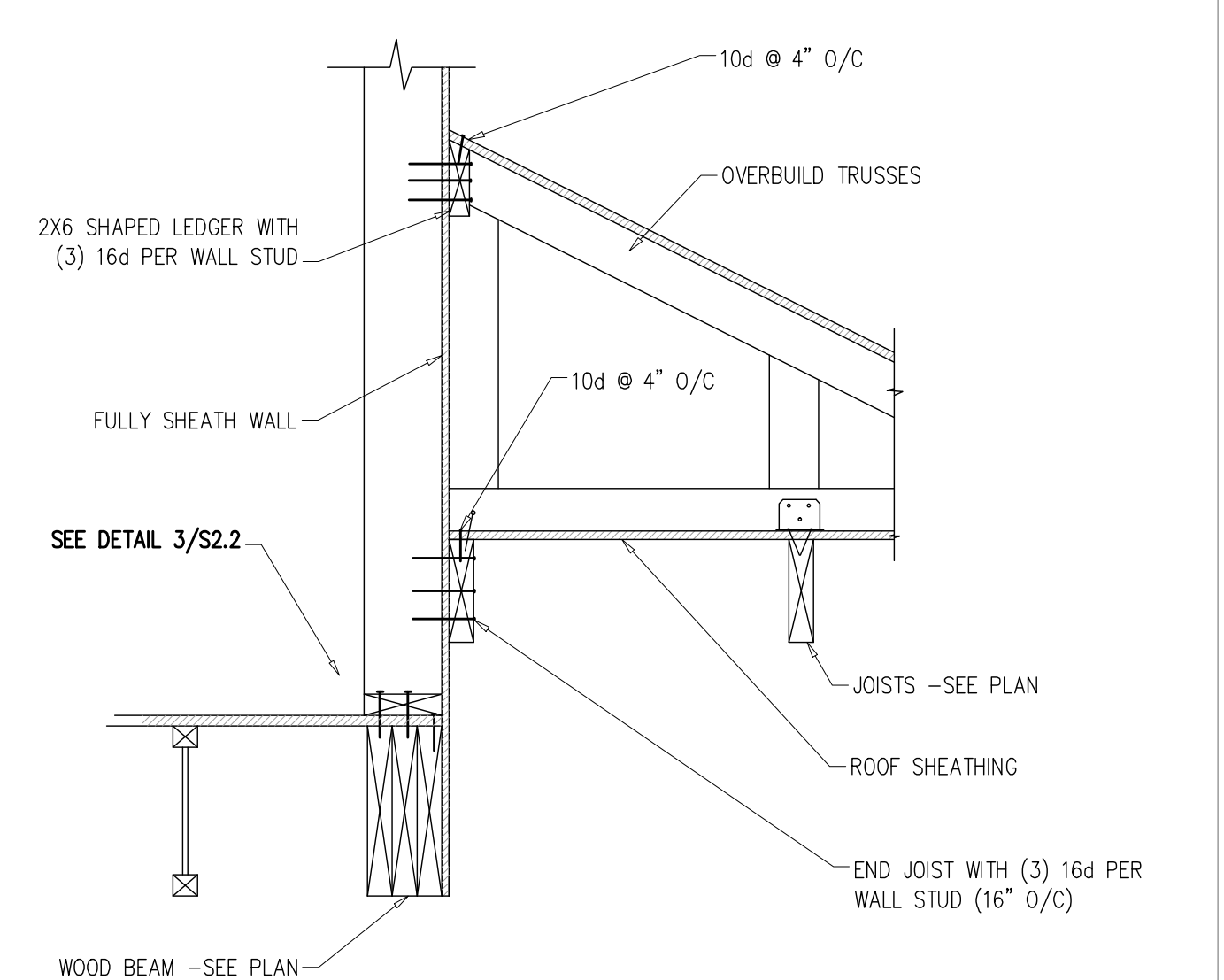
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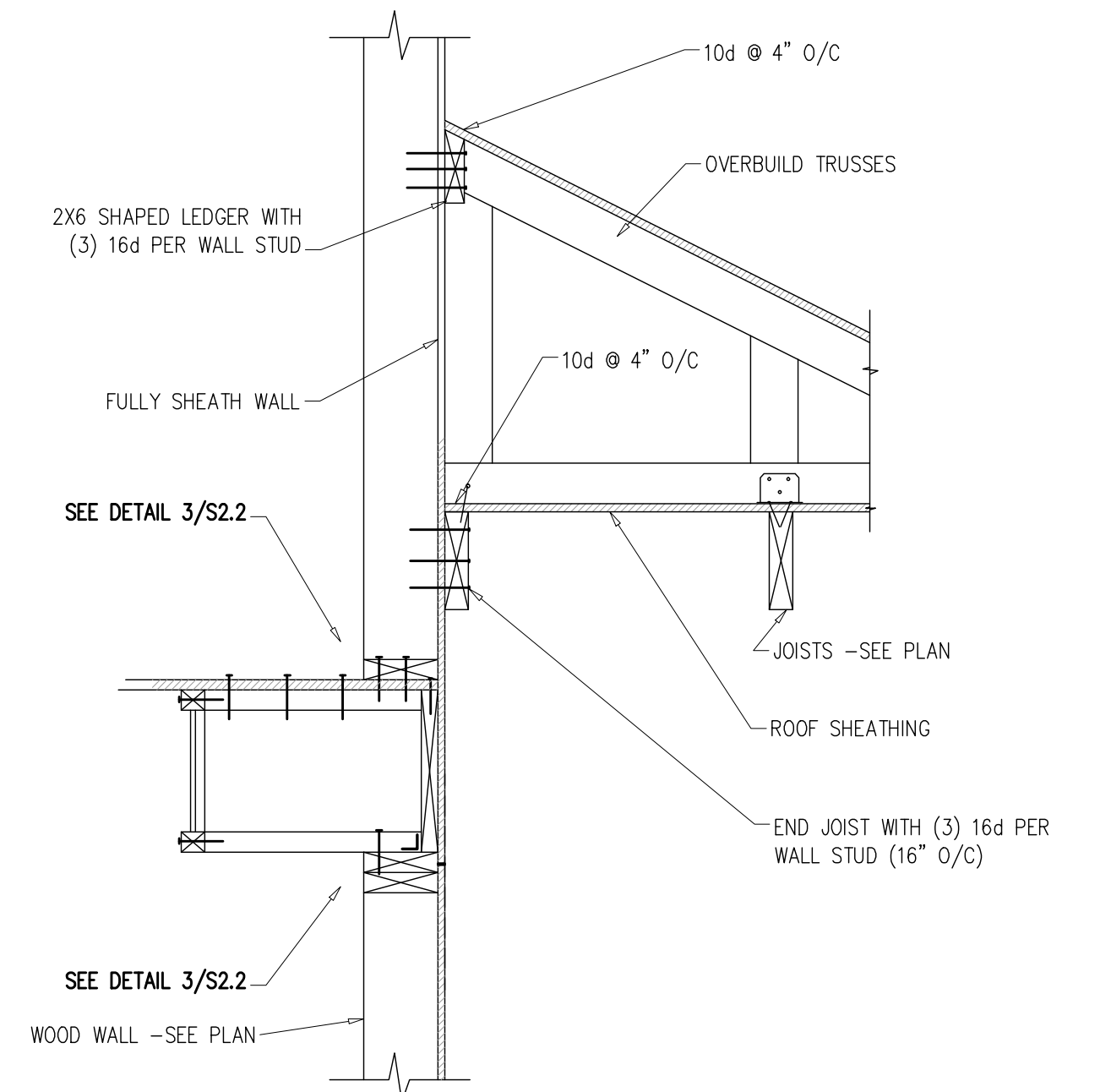
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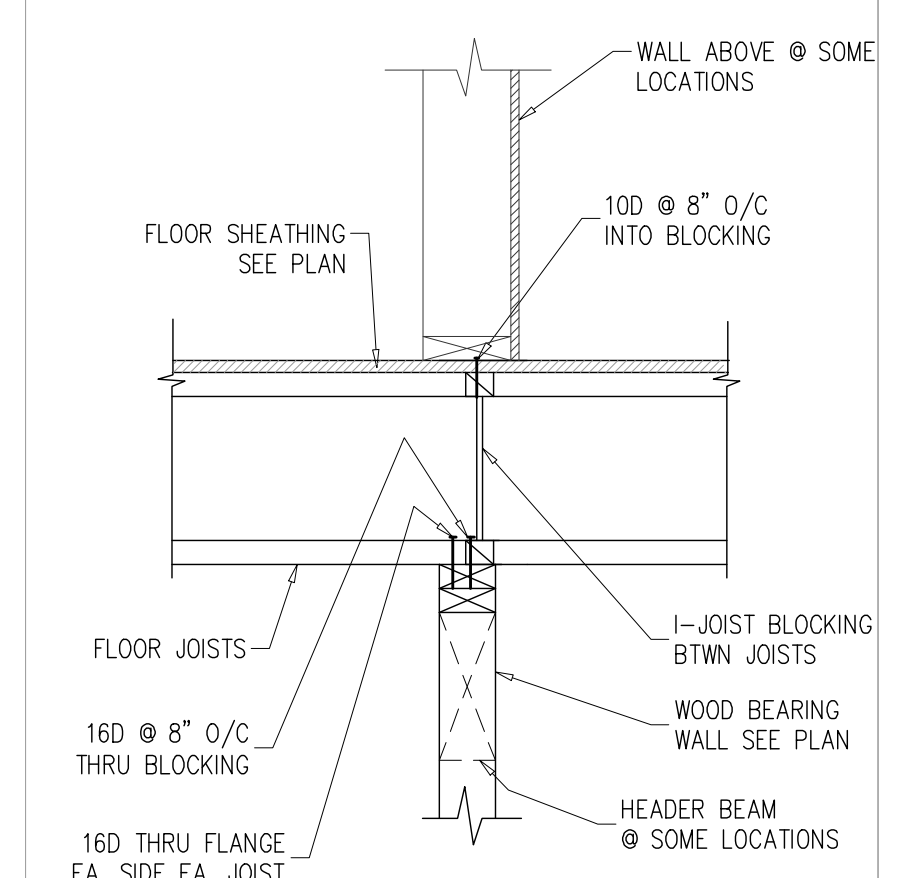
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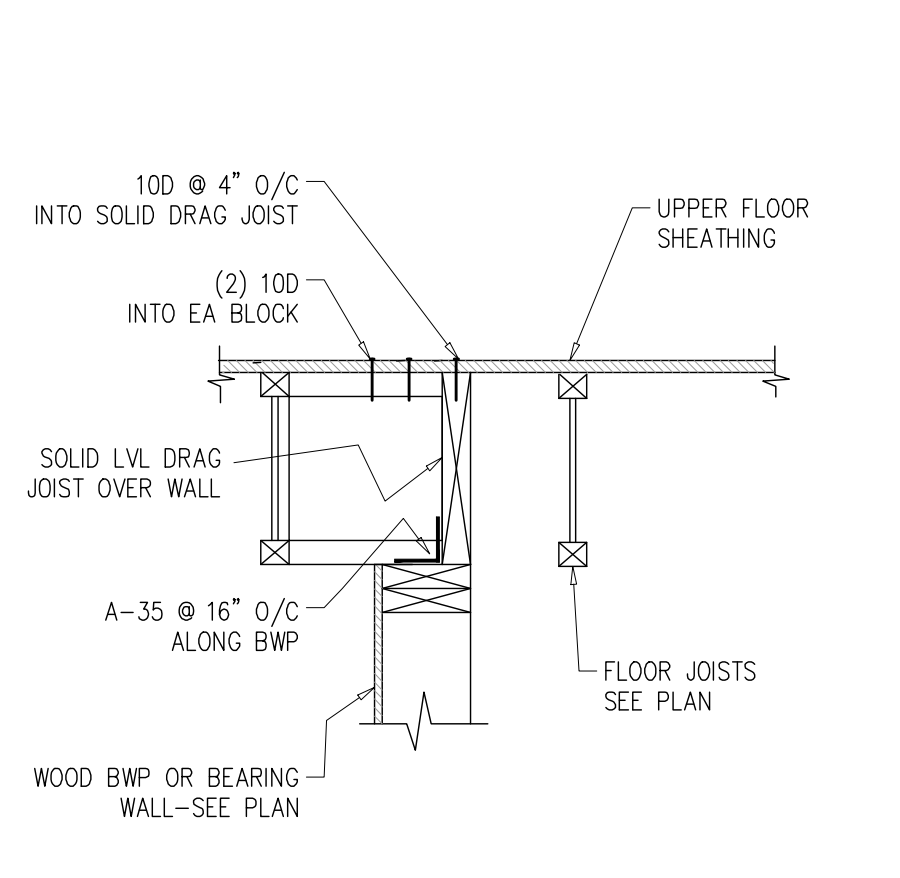
DETAIL 16  
SCALE: 1"=1'-0" REF:



DETAIL 17  
SCALE: 1"=1'-0" REF:



DETAIL 18  
SCALE: 1"=1'-0" REF:



DETAIL 19  
SCALE: 1"=1'-0" REF:

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FLOOR FRAMING  
DETAILS

PROJECT NUMBER

REVISIONS

SHEET NUMBER

S2.3

### MECHANICAL SYMBOL LEGEND

SINGLE LINE	DOUBLE LINE
THERMOSTAT	
TEMPERATURE SENSOR	
HUMIDISTAT	
REFRIGERANT SUCTION	
REFRIGERANT LIQUID	
90° ELBOW UP	
90° ELBOW DOWN	

### MECHANICAL ABBREVIATIONS

AD	ACCESS DOOR	N/A	NOT APPLICABLE
AHU	AIR HANDLING UNIT	NC	NOT IN CONTRACT
BD	BALANCING DAMPER	NTS	NOT TO SCALE
BHP	BRAKE HORSE POWER	NO	NUMBER
BTU	BRITISH THERMAL UNIT	OZ	OUNCE
CFM	CUBIC FEET PER MINUTE	OA	OUTSIDE AIR
COND	CONDENS(ER,-ING,-ATION)	PSF	POUNDS PER SQUARE FT.
CLG	COOLING	PSI	POUNDS PER SQUARE IN.
CW	COLD WATER	PSIA	PSI ABSOLUTE
CD	DEPTH OR DEEP	PSIG	PSI GAUGE
ID	INSIDE DIAMETER	PRESS	PRESSURE
OD	OUTSIDE DIAMETER	PD	PRESSURE DIFFERENCE
DWT	DRY BULB TEMPERATURE	SP	STATIC PRESSURE
(E)	EXISTING	RA	RETURN AIR
EFF	EFFICIENCY	RPM	REVOLUTIONS PER MIN.
ELEV	ELEVATION	SF	SAFETY FACTOR
EW	ENTERING WATER TEMP.	SL	SEA LEVEL
EVAP	EVAPORAT(-E,-ING,-ED,-OR)	SH	SENSIBLE HEAT
(F)	FUTURE	SC	SHADING COEFFICIENT
F	FARENHEIT	SPEC	SPECIFICATION
FC	FLEXIBLE CONNECT(-OR,-ION)	SQ	SQUARE
FD	FIRE DAMPER	STD	STANDARD
FPS	FEET PER SECOND	SP	STATIC PRESSURE
FSD	FIRE SMOKE DAMPER	SPV	SUPPLY AIR
FT	FEET	SA	SUPPLY AIR
GAL	GALLON(S)	TEMP	TEMPERATURE
GPH	GALLONS PER HOUR	TD	TEMP. DROP OR DIFF.
GPM	GALLONS PER MINUTE	R	THERMAL RESISTANCE
HD	HEAD	TSTAT	THERMOSTAT
HT	HEIGHT	T	TIME
HTG	HEATING	VAC	VACUUM
HPS	HORSE POWER	VAV	VARIABLE AIR VOLUME
HW	HOT WATER	VENT	VENTILATION
LH	LATENT HEAT	VERT	VERTICAL
LAT	LEAVING AIR TEMPERATURE	VOL	VOLUME
LWT	LEAVING WATER TEMP.	WTR	WATER
LG	LENGTH	WT	WEIGHT
MAX	MAXIMUM	WB	WET BULB TEMP.
MIN	MINIMUM	WR	YEAR
NO	NORMALLY OPEN		
NC	NORMALLY CLOSED		

### MECHANICAL SPECIFICATIONS ③

**FURNACES**

- PROVIDE AND INSTALL FURNACES WITH CAPACITIES, FEATURES, AND ACCESSORIES AS SHOWN ON THE EQUIPMENT SCHEDULE. PROVIDE EQUIPMENT FROM THE FOLLOWING APPROVED MANUFACTURERS: BRYANT, CARRIER, LENNOX, TRANE, YORK.
- PROVIDE 10 YEAR MINIMUM WARRANTY FOR THE HEAT EXCHANGER.
- PROVIDE AN EXTRA SET OF FAN BELTS FOR EACH FAN AND AN EXTRA SET OF FILTERS FOR EACH UNIT.
- FURNACE SHALL BE FACTORY ASSEMBLED AND TESTED. UNIT SHALL BE CONSTRUCTED WITH MANUFACTURERS STANDARD CONSTRUCTION WITH ALL COMPONENTS, EQUIPMENT, AND ACCESSORIES. THE ENCLOSURE SHALL HAVE A CORROSION-PROTECTION COATING AND EXTERIOR FINISH.
- PROVIDE THE FOLLOWING FEATURES WITH THE FURNACE UNLESS NOTED OTHERWISE ON THE EQUIPMENT SCHEDULE: 7-DAY PROGRAMMABLE THERMOSTAT WITH AUTOMATIC HEATING AND COOLING CHANGEOVER, AND SERVICE DISCONNECT.
- PROVIDE COMPLETE FURNACE STARTUP AND COMMISSIONING INCLUDING CONTROLS CHECKOUT, LUBRICATION, FAN ROTATION, VIBRATION, REFRIGERATION SYSTEM, CLEANING, TESTING, AND BALANCING.
- PROVIDE A FACTORY AUTHORIZED SERVICE REPRESENTATIVE TO COMPLETE THE UNIT STARTUP AND OWNER TRAINING.

**AIR COOLED CONDENSING UNITS**

- PROVIDE AND INSTALL AIR-COOLED CONDENSING UNITS WITH CAPACITIES, FEATURES, AND ACCESSORIES AS SHOWN ON THE EQUIPMENT SCHEDULE. PROVIDE EQUIPMENT FROM THE FOLLOWING APPROVED MANUFACTURERS: BRYANT, CARRIER, LENNOX, TRANE, YORK.
- CONDENSING UNIT SHALL BE FACTORY ASSEMBLED AND TESTED. UNIT SHALL BE CONSTRUCTED WITH MANUFACTURERS STANDARD CONSTRUCTION WITH ALL COMPONENTS, EQUIPMENT, AND ACCESSORIES. THE ENCLOSURE SHALL HAVE A CORROSION-PROTECTION COATING AND EXTERIOR FINISH.
- PROVIDE THE FOLLOWING FEATURES WITH THE CONDENSING UNIT UNLESS NOTED OTHERWISE ON THE EQUIPMENT SCHEDULE: LOW AMBIENT HEAD-PRESSURE CONTROL TO OPERATE AT 0 DEG. F., VIBRATION ISOLATION PADS, MOTOR STARTER, AND SERVICE DISCONNECT.
- PROVIDE COMPLETE UNIT STARTUP AND COMMISSIONING INCLUDING CONTROLS CHECKOUT, LUBRICATION, FAN ROTATION, VIBRATION, REFRIGERATION SYSTEM, CLEANING, TESTING, AND BALANCING.
- PROVIDE A FACTORY AUTHORIZED SERVICE REPRESENTATIVE TO COMPLETE THE UNIT STARTUP AND OWNER TRAINING.

**ROOFTOP AIR CONDITIONERS**

- PROVIDE AND INSTALL ROOFTOP AIR CONDITIONERS WITH CAPACITIES, FEATURES, AND ACCESSORIES AS SHOWN ON THE EQUIPMENT SCHEDULE. PROVIDE EQUIPMENT FROM THE FOLLOWING APPROVED MANUFACTURERS: AAO, BRYANT, CARRIER, LENNOX, TRANE, YORK, McQUAY.
- PROVIDE A 5 YEAR MINIMUM WARRANTY FOR THE COMPRESSORS AND A 10 YEAR WARRANTY MINIMUM FOR THE HEAT EXCHANGER.
- PROVIDE AN EXTRA SET OF FAN BELTS FOR EACH FAN AND AN EXTRA SET OF FILTERS FOR EACH UNIT.
- ROOFTOP UNIT SHALL BE FACTORY ASSEMBLED AND TESTED. UNIT SHALL BE CONSTRUCTED WITH MANUFACTURERS STANDARD CONSTRUCTION WITH ALL COMPONENTS, EQUIPMENT, AND ACCESSORIES. THE ENCLOSURE SHALL HAVE A CORROSION-PROTECTION COATING AND EXTERIOR FINISH.
- PROVIDE THE FOLLOWING FEATURES WITH THE ROOFTOP UNIT UNLESS NOTED OTHERWISE ON THE EQUIPMENT SCHEDULE: 100% ECONOMIZER WITH POWER EXHAUST, 2 STAGE GAS HEATING, LOW AMBIENT HEAD-PRESSURE CONTROL TO OPERATE AT 0 DEG. F., 7-DAY PROGRAMMABLE THERMOSTAT WITH AUTOMATIC HEATING AND COOLING CHANGEOVER, VIBRATION ISOLATION SPRINGS WITH SEISMIC RESTRAINTS, MOTOR STARTER, SERVICE DISCONNECT, AND ELECTRICAL CONVENIENCE OUTLET.
- PROVIDE COMPLETE ROOFTOP UNIT STARTUP AND COMMISSIONING INCLUDING CONTROLS CHECKOUT, LUBRICATION, FAN ROTATION, VIBRATION, REFRIGERATION SYSTEM, CLEANING, TESTING, AND BALANCING.

**COMMISSIONING**

- PROVIDE SYSTEM COMMISSIONING OF ALL MECHANICAL SYSTEMS CONSISTING OF FIELD VERIFICATION AND CERTIFYING THAT THE MECHANICAL SYSTEM IS PROPERLY INSTALLED AND IS FULLY OPERATIONAL.
- PROVIDE A SYSTEM COMMISSIONING REPORT TO BE INCLUDED IN THE OPERATION AND MAINTENANCE MANUAL THAT INCLUDES A CHECKLIST OF ALL EQUIPMENT AND SYSTEMS.

**ELECTRIC AND ELECTRONIC CONTROLS**

- PROVIDE AND INSTALL A COMPLETE AUTOMATIC CONTROL SYSTEM AS DESCRIBED IN THE DRAWINGS. ALL SYSTEM CONTROLS SHALL BE PROVIDED BY A SINGLE MANUFACTURERS PRODUCTS. APPROVED MANUFACTURERS ARE: BRYANT, CARRIER, HONEYWELL, TRANE.

**TEST AND BALANCE**

- PROVIDE A COMPLETE AIR SYSTEM BALANCE, TEST, AND REPORT BY A NEBS, OR AABC CERTIFIED TEST AND BALANCE SUPERVISOR WITH EXPERIENCE IN BALANCING SYSTEMS OF SIMILAR TYPES AND SIZE.
- PROVIDE ALL NECESSARY TOOLS, EQUIPMENT, SHEAVE CHANGES, BELTS, AND ACCESSORIES TO COMPLETE WORK.
- PROVIDE A REPORT SHOWING THE REQUIRED AND THE ACTUAL FLOWS. INCLUDE IN THE REPORT A DRAWING SHEMATIC OF THE SYSTEMS BALANCED, AND SYSTEMS CHECK REPORT. SUBMIT THE BALANCING REPORT FOR REVIEW PRIOR TO THE FINAL INSPECTION. ALL REPORTS SHALL BE INCLUDED IN THE OPERATION AND MAINTENANCE MANUAL.

### MECHANICAL SPECIFICATIONS ②

**METAL DUCTS**

- PROVIDE AND INSTALL SHEETMETAL DUCTS CONFORMING TO SMACNA, ASHRAE, AND NFPA 90A STANDARDS AS SHOWN ON THE MECHANICAL PLANS.
- SHOP FABRICATE SQUARE, RECTANGULAR, ROUND, AND OVAL DUCTS, FITTINGS, HANGERS AND SUPPORTS ACCORDING TO SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
- FACTORY APPLY DUCT LINER USING APPROVED SMACNA METHODS TO ALL REQUIRED DUCTS AS INDICATED IN THE INSULATION SECTION OF THIS SPECIFICATION.
- PROVIDE TURNING VANES IN ALL RECTANGULAR DUCT FITTINGS OVER 45° ANGLES. PROVIDE 1.5 RADIUS ELBOWS ON ALL ROUND DUCTS.
- SEAL ALL LONGITUDINAL AND TRANSVERSE JOINTS, SEAMS, AND CONNECTIONS WITH AN APPROVED SEALANT OR SEALING METHOD.
- DUCT DIMENSIONS SHOWN ARE SHOWN ARE SHEETMETAL SIZES. NO INCREASE FOR DUCT LINER IS REQUIRED.
- INSTALL DUCTWORK IN THE MOST EFFICIENT MANNER POSSIBLE, MINIMIZING JOINTS AND CHANGES IN DIRECTION.
- PROTECT STORED AND INSTALLED DUCTWORK FROM DUST, DIRT, MOISTURE, AND CONSTRUCTION DEBRIS. CLEAN ALL DUCTWORK PRIOR TO OPERATION.
- ALL ROUND DUCTS SHALL BE CONSTRUCTED OF SPIRAL WOUND SHEET METAL.

**DUCT ACCESSORIES**

- PROVIDE AND INSTALL THE FOLLOWING DUCT ACCESSORIES WHERE INDICATED ON THE DRAWINGS: BACKDRIFT DAMPERS, BALANCING DAMPERS, FIRE DAMPERS, COMBINATION FIRE/SMOKE DAMPERS, ACTUATORS, TURNING VANES, ACCESS DOORS, FLEXIBLE DUCTS, AND ACCESSORIES HARDWARE.
- PROVIDE CONCEALED DAMPER REGULATORS WITH REQUIRED LINKAGES AND COVER PLATES FOR EACH DAMPER LOCATED ABOVE A NON-ACCESSIBLE CEILING.
- FIRE DAMPERS SHALL BE UL LISTED AND LABELED. FIRE DAMPERS SHALL BE RATED FOR 1-1/2 HOURS FOR FIRE RESISTIVE ASSEMBLIES RATED FOR 2 HOURS OR LESS AND RATED FOR 3 HOURS FOR FIRE RESISTIVE ASSEMBLIES RATED 3 HOURS OR MORE. REPLACEABLE FUSIBLE LINKS RATED FOR 165° F SHALL BE USED. USE TYPE A, B, OR C AS INDICATED ON THE DRAWINGS.
- PROVIDE TURNING VANES WHERE NOTED IN THE METAL DUCTS SPECIFICATION.
- PROVIDE DUCT MOUNTED ACCESS DOORS AT ALL FIRE DAMPERS, FIRE/SMOKE DAMPERS, AND MOTORIZED CONTROL DAMPERS. ACCESS DOORS SHALL BE FACTORY CONSTRUCTED OF GALVANIZED SHEET METAL AND HAVE HINGES, GASKETS, SEALS, AND LATCHES.
- FLEXIBLE DUCTS SHALL BE ROUND INSULATED, FACTORY-FABRICATED OR CORRUGATED ALUMINUM WITH AN OUTER JACKET, AND A SPIN COLLAR. THE MAXIMUM ALLOWABLE LENGTH OF FLEX DUCT SHALL BE 5'-0" AT ALL DIFFUSER TERMINATIONS.
- PROVIDE INSTRUMENT TEST HOLES AT THE INLET AND OUTLET OF ALL FAN SYSTEMS.
- INSTALL ALL DUCT ACCESSORIES ACCORDING TO THE MANUFACTURERS INSTRUCTIONS AND SMACNA STANDARDS.

**EXHAUST FANS**

- PROVIDE AND INSTALL EXHAUST FANS WITH TYPE, CAPACITIES, FEATURES, AND ACCESSORIES AS SHOWN ON THE EQUIPMENT SCHEDULE. PROVIDE EQUIPMENT FROM THE FOLLOWING APPROVED MANUFACTURERS: ACME, BROAN, CARNES, COOK, GREENHECK, PENN
- ALL EXHAUST FANS SHALL BE DESIGNED, MANUFACTURED, TESTED, AND LABELED IN ACCORDANCE WITH UL REQUIREMENTS AND AMCA STANDARDS.
- PROVIDE FACTORY FABRICATED AND ASSEMBLED EXHAUST FANS COMPLETE WITH ALUMINUM HOUSING, ALUMINUM FAN WHEEL, SHAFT, BEARINGS, DIRECT OR BELT DRIVE ASSEMBLY, PAINTED STEEL OR ALUMINUM GRILL, BACKDRAFT DAMPER, MOTOR, DISCONNECT SWITCH, MOUNTING BRACKETS, AND ACCESSORIES AS NOTED.
- PROVIDE AND INSTALL REMOTE FAN SPEED CONTROL, PROGRAMMABLE TIMER, MANUAL TIMER, ON-OFF SWITCH AS INDICATED IN THE EQUIPMENT SCHEDULE.
- PROVIDE COMPLETE FAN UNIT STARTUP AND COMMISSIONING INCLUDING CONTROLS CHECKOUT, LUBRICATION, FAN ROTATION, VIBRATION, CLEANING, TESTING, AND BALANCING.

**AIR OUTLETS AND INLETS**

- PROVIDE FACTORY FABRICATED AND ASSEMBLED CEILING AIR DIFFUSERS AND GRILLES, WALL REGISTERS AND GRILLES, AND LOUVERS COMPLETE WITH ALL FEATURES AND ACCESSORIES AS NOTED IN THE SCHEDULE. PROVIDE EQUIPMENT FROM THE FOLLOWING APPROVED MANUFACTURERS: AIROLITE, ANEMOSTAT, CARNES, COOLEY & HART, E.H. PRICE, J & J REGISTER, KRUEGER, LOUVERS AND DAMPERS, NALOR, RUSKIN, TITUS, AND TUTTLE & BAILEY.
- ALL AIR OUTLETS AND INLETS SHALL BE DESIGN, MANUFACTURED, AND TESTED TO CONFORM TO ARI, ASHRAE, ADC, AND AMCA STANDARDS.
- CEILING DIFFUSERS AND REGISTERS AND WALL REGISTERS AND GRILLES SHALL BE CONSTRUCTED OF ALUMINUM EXTRUSIONS WITH WELDED CONNECTIONS OR STAINLESS STEEL FASTENERS. PROVIDE 1/2" ANODIZED ALUMINUM WIRE BIRD SCREEN. LOUVER FINISH SHALL BE ANODIZED ALUMINUM IN COLOR AS SELECTED BY THE ARCHITECT OR OWNER.
- LOUVERS SHALL BE CONSTRUCTED OF ALUMINUM EXTRUSIONS WITH WELDED CONNECTIONS OR STAINLESS STEEL FASTENERS. PROVIDE 1/2" ANODIZED ALUMINUM WIRE BIRD SCREEN. LOUVER FINISH SHALL BE ANODIZED ALUMINUM IN COLOR AS SELECTED BY THE ARCHITECT OR OWNER.

### MECHANICAL SPECIFICATIONS ①

**BASIC MECHANICAL REQUIREMENTS**

- COMPLY WITH THE REQUIREMENTS OF THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC), INTERNATIONAL MECHANICAL CODE (IMC), UNIFORM PLUMBING CODE (UPC), INTERNATIONAL FUEL GAS CODE (IFGC), AND INTERNATIONAL ENERGY CONSERVATION CODE (IECC), AND THE CURRENT NATIONAL ELECTRIC CODE (NEC) INCLUDING ALL STATE AMENDMENTS. COMPLY WITH THE AUTHORITY HAVING JURISDICTION AND ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL CODES AND REGULATIONS IN EFFECT AT THE BID DATE.
- PREPARE AND SUBMIT FIVE (5) COPIES OF THE SHOP DRAWINGS FOR ALL MECHANICAL EQUIPMENT, VALVES, AND ACCESSORIES INCLUDING MANUFACTURERS NAME, CATALOG NUMBER, DESCRIPTION, SIZE, CAPACITY, ELECTRICAL REQUIREMENTS, OPERATION, AND MAINTENANCE INFORMATION. SHOP DRAWINGS SHALL BE REVIEWED AND STAMPED BY THE MECHANICAL AND GENERAL CONTRACTOR PRIOR TO ENGINEERS REVIEW. EQUIPMENT SHALL NOT BE ORDERED UNTIL APPROVED SHOP DRAWINGS HAVE BEEN RECEIVED.
- PREPARE COORDINATION DRAWINGS DETAILING ALL MAJOR EQUIPMENT AND SYSTEMS. INCLUDE EQUIPMENT CONNECTIONS, CLEARANCES, FIRE-RATED WALL OR FLOOR PENETRATIONS, CONCRETE PADS, AND SUPPORT DETAILS IN COORDINATION DRAWINGS. COORDINATION DRAWINGS SHALL BE IN CONJUNCTION WITH THE MECHANICAL, FIRE SPRINKLER (WHERE REQUIRED), ELECTRICAL, REFLECTED CEILING, AND ALL OTHER APPLICABLE TRADES.
- PREPARE RECORD 'AS BUILT' DOCUMENTS INCLUDING ALL CHANGES FROM THE ORIGINAL BID DOCUMENTS. SUBMIT COMPLETE 'AS BUILT' DOCUMENTS AT THE COMPLETION OF THE PROJECT.
- PROVIDE 2 SETS OF OPERATION AND MAINTENANCE (O & M) MANUALS CONTAINING INFORMATION FOR ALL MECHANICAL AND PLUMBING SYSTEMS. THE MANUALS SHALL CONTAIN A LIST OF ALL SUB-CONTRACTORS AND SUPPLIERS, EQUIPMENT CUT SHEETS, START-UP INFORMATION, BALANCING REPORTS, AND MAINTENANCE REQUIREMENTS. THE MANUALS SHALL BE HARD BACKED 3-RING BINDERS WITH THE PROJECT LABELED ON THE COVER AND 5/16" INCH.
- INSTALL ALL MECHANICAL EQUIPMENT AND MATERIALS IN COORDINATION WITH ALL OTHER TRADES. VERIFY ALL ELECTRICAL CONNECTIONS WITH THE ELECTRICAL CONTRACTOR PRIOR TO INSTALLATION.
- PROVIDE AND INSTALL ACCESS DOORS WHERE EQUIPMENT, VALVES OR DAMPERS ARE CONCEALED BEHIND FINISHED SURFACES.
- PROVIDE FACTORY-AUTHORIZED EQUIPMENT START-UP, COMMISSIONING, AND TRAINING OF ALL MECHANICAL EQUIPMENT.
- INSTALL ALL SYSTEMS, MATERIALS, AND EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS. INSTALL ALL PIPING FREE FROM SAGS AND BENDS AND AT THE SLOPE INDICATED (WHERE REQUIRED). INSTALL DUCTWORK, PIPING, AND EQUIPMENT TO PROVIDE THE MAXIMUM POSSIBLE HEADROOM.
- ALL WORK SHALL BE PERFORMED BY CERTIFIED AND SKILLED WORKERS WITH PRIOR EXPERIENCE IN THEIR PARTICULAR TRADE.
- THE MECHANICAL SUB-CONTRACTOR SHALL PROVIDE WARRANTY THE ENTIRE MECHANICAL SYSTEM FOR A PERIOD OF ONE YEAR. INCLUDE THE WARRANTY AND ALL OTHER GUARANTEES AND WARRANTIES IN THE OPERATION AND MAINTENANCE MANUAL.
- THE CONTRACTOR SHALL STORE AND PROTECT ALL EQUIPMENT AND MATERIALS DURING CONSTRUCTION AS REQUIRED AND SHALL REPAIR OR REPLACE ALL DAMAGED PIPING, EQUIPMENT, OR OTHER DAMAGE DURING CONSTRUCTION.
- PROVIDE AND INSTALL ALL MECHANICAL EQUIPMENT, PIPING, FIXTURE, AND ACCESSORIES IN STRICT ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS. PROVIDE ALL FITTINGS, VALVES, TRANSITIONS, AND OTHER DEVICES AS REQUIRED FOR A COMPLETE AND OPERATIONAL MECHANICAL SYSTEM.
- SUBMIT FOR PRIOR APPROVAL FOR EQUIPMENT MANUFACTURERS NOT LISTED IN THE SPECIFICATIONS A MINIMUM OF FIVE PRIOR TO BID.

**BASIC MECHANICAL MATERIALS AND METHODS**

- ALL PIPE AND PIPE FITTINGS SHALL BE NEW AND SHALL BE AMERICAN MADE WITH APPROVED LABELS. DELIVER, STORE, AND PROTECT DUCTWORK AND PIPING DURING CONSTRUCTION FROM DAMAGE, DIRT, AND MOISTURE.
- SEAL ALL DUCT AND PIPE PENETRATIONS THROUGH WALLS AND FLOORS AIR TIGHT. CAULK ALL FIRE RATED PIPE PENETRATIONS WITH APPROVED FIRE-STOPPING MATERIAL.
- CUT, CHANNEL, CHASE, AND DRILL FLOORS, WALLS, PARTITIONS, CEILING, AND OTHER SURFACES NECESSARY FOR PROPER INSTALLATION. REPAIR AS REQUIRED TO MATCH ADJACENT SURFACES.
- CUT, CHANNEL, CHASE, AND DRILL FLOORS, WALLS, PARTITIONS, CEILING, AND OTHER SURFACES NECESSARY FOR PROPER INSTALLATION. REPAIR AS REQUIRED TO MATCH ADJACENT SURFACES.

**HANGERS AND SUPPORTS**

- PROVIDE AND INSTALL DUCT SUPPORTS AND HANGERS AS REQUIRED FOR ALL DUCTWORK AND EQUIPMENT ACCORDING TO MANUFACTURERS STANDARDIZATION SOCIETY (MSS) AND SMACNA STANDARDS.

**VIBRATION ISOLATION AND SEISMIC CONTROLS**

- PROVIDE AND INSTALL VIBRATION ISOLATORS, FLEXIBLE CONNECTIONS, ISOLATION PADS, AND OTHER EQUIPMENT TO PREVENT NOISE AND VIBRATION TRANSMISSION.

**DUCTWORK AND EQUIPMENT IDENTIFICATION**

- PROVIDE DUCT AND EQUIPMENT TAGS, LABELS, AND IDENTIFICATION INDICATING FLOW DIRECTION, AREA SERVED, SYSTEM TYPE AND OTHER IDENTIFYING INFORMATION. COMPLY WITH ASME PIPING EQUIPMENT IDENTIFICATION STANDARDS.

**INSULATION**

- PROVIDE AND INSTALL GLASS FIBER DUCT INSULATION ACCORDING TO THE FOLLOWING SCHEDULE:  
RECTANGULAR SUPPLY AND RETURN DUCTS:  
1" DUCT LINER  
ROUND SUPPLY AND RETURN DUCTS:  
1-1/2" BLANKET WRAP WITH VAPOR BARRIER.  
ROUND AND RECTANGULAR EXHAUST DUCTS:  
NO INSULATION UNLESS OTHERWISE NOTED.  
UNLINED SUPPLY, COMBUSTION, AND OUTSIDE AIR DUCTS:  
1-1/2" BLANKET WRAP WITH VAPOR BARRIER.  
EXTERIOR INSTALLED SUPPLY AND RETURN DUCTS:  
2" BLANKET WRAP WITH VAPOR BARRIER.
- DUCT LINER SHALL BE 1" THICK, 2 LBS. DENSITY, WITH ASTM C 107.1, TYPE II COATED ACRYLIC SURFACE AND PRE-TREATED FOR ANTI-MICROBIAL AGENT TO PREVENT MICROBIAL GROWTH.
- GLASS FIBER INSULATION SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS.
- SEAL ALL ENDS AND JOINTS TO PROVIDE A COMPLETELY SEALED INSULATION SYSTEM.
- SEAL JOINTS, BREAKS AND PUNCTURES WITH VAPOR BARRIER COMPOUND.

### MECHANICAL GENERAL NOTES

- PROVIDE ALL EQUIPMENT, PIPING, MATERIALS, LABOR, PERMITS, AND FEES TO CONSTRUCT A COMPLETE AND OPERATIONAL MECHANICAL SYSTEM FOR THE ENTIRE PROJECT AS SHOWN ON THE DRAWINGS.
- COORDINATE THE EXACT LOCATION OF ALL CEILING DIFFUSERS AND GRILLES WITH THE ARCHITECTURAL REFLECTED CEILING PLAN.
- COORDINATE ALL WORK WITH THE GENERAL CONTRACTOR, PLUMBING SUB-CONTRACTOR, ELECTRICAL SUB-CONTRACTOR, AND ALL OTHER TRADES IN THE PROJECT.
- ALL MECHANICAL INFORMATION IS NOT SHOWN ON THE MECHANICAL DRAWINGS. COORDINATE ALL WORK WITH THE ARCHITECTURAL, STRUCTURAL, PLUMBING, CIVIL, AND ELECTRICAL DRAWINGS.
- MECHANICAL PLANS ARE SCHEMATIC IN NATURE AND THEREFORE DO NOT SHOW ALL DROPS, RISERS, AND OFFSETS. THE CONTRACTOR SHALL MAKE ALL REQUIRED MODIFICATIONS TO PROVIDE A COMPLETE AND OPERATIONAL MECHANICAL SYSTEM. MAJOR MODIFICATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER.
- DO NOT RUN DUCTWORK ABOVE ELECTRICAL PANELS. PROVIDE 4'-0" DEEP X 6'-6" HIGH CLEAR ACCESS SPACE IN FRONT OF PANELS. DO NOT RUN DUCTWORK IN ELECTRICAL ROOMS.
- INSTALLATION OF ALL DUCTWORK SHALL BE COORDINATED WITH STRUCTURAL GIRDERS AND JOIST. DUCTWORK SHALL BE RUN WITHIN STRUCTURE SPACE WHERE SHOWN ON THE PLANS.
- COORDINATE ALL FLOOR, CEILING, AND ROOF PENETRATIONS WITH THE STRUCTURAL PLANS. MAINTAIN DUCTWORK TIGHT TO THE STRUCTURE. OFFSET INTO THE JOIST SPACE WHERE SHOWN ON THE PLANS.
- REFER TO CEILING SUPPLY DIFFUSER AND RETURN AIR GRILL DETAIL 1A/2.1.

**OWNERSHIP OF DOCUMENTS**  
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**Mortensen Engineering, Inc.**  
251 South 830 East  
Smithfield, Utah 84335  
(435) 770-5534

**JOSEPH T. BECK ARCHITECT, INC.**  
497 EAST 520 SOUTH  
SMITHFIELD, UTAH  
(435) 764-6742

DATE  
September 9, 2016

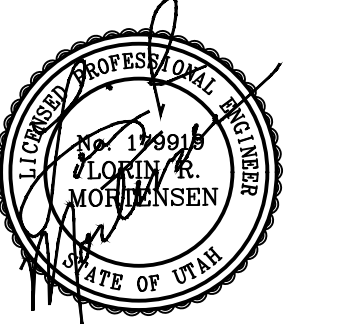
**PROJECT TITLE**  
NIBLEY VET CLINIC / KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

**SHEET TITLE**  
MECHANICAL NOTES  
& SPECIFICATIONS

**PROJECT NUMBER**

**REVISIONS**

**SHEET NUMBER**  
MO.1



DATE  
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 2365 SOUTH HERITAGE DRIVE  
 NIBLEY, UTAH

SHEET TITLE  
 MAIN LEVEL  
 MECHANICAL PLAN

PROJECT NUMBER

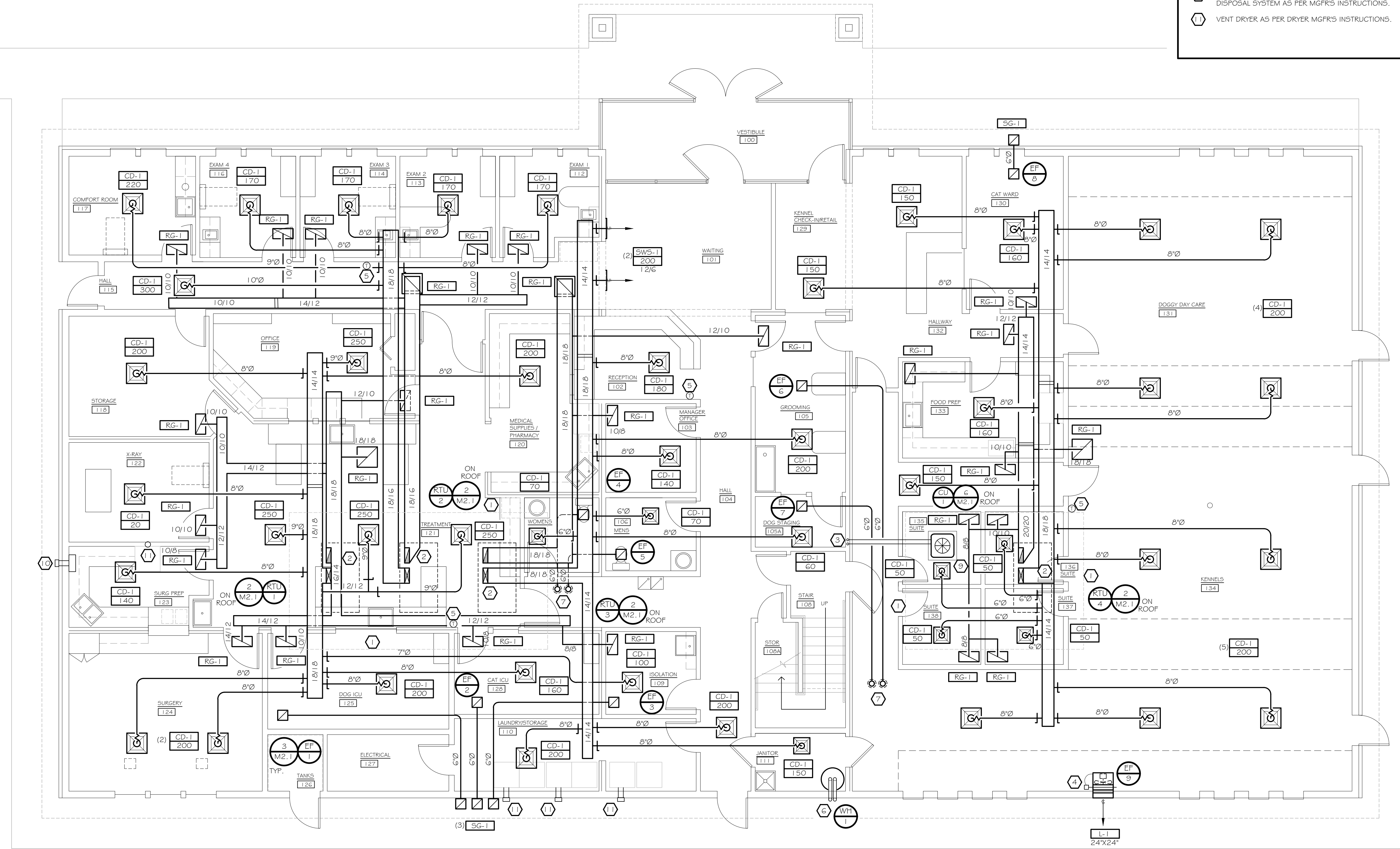
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SHEET NUMBER

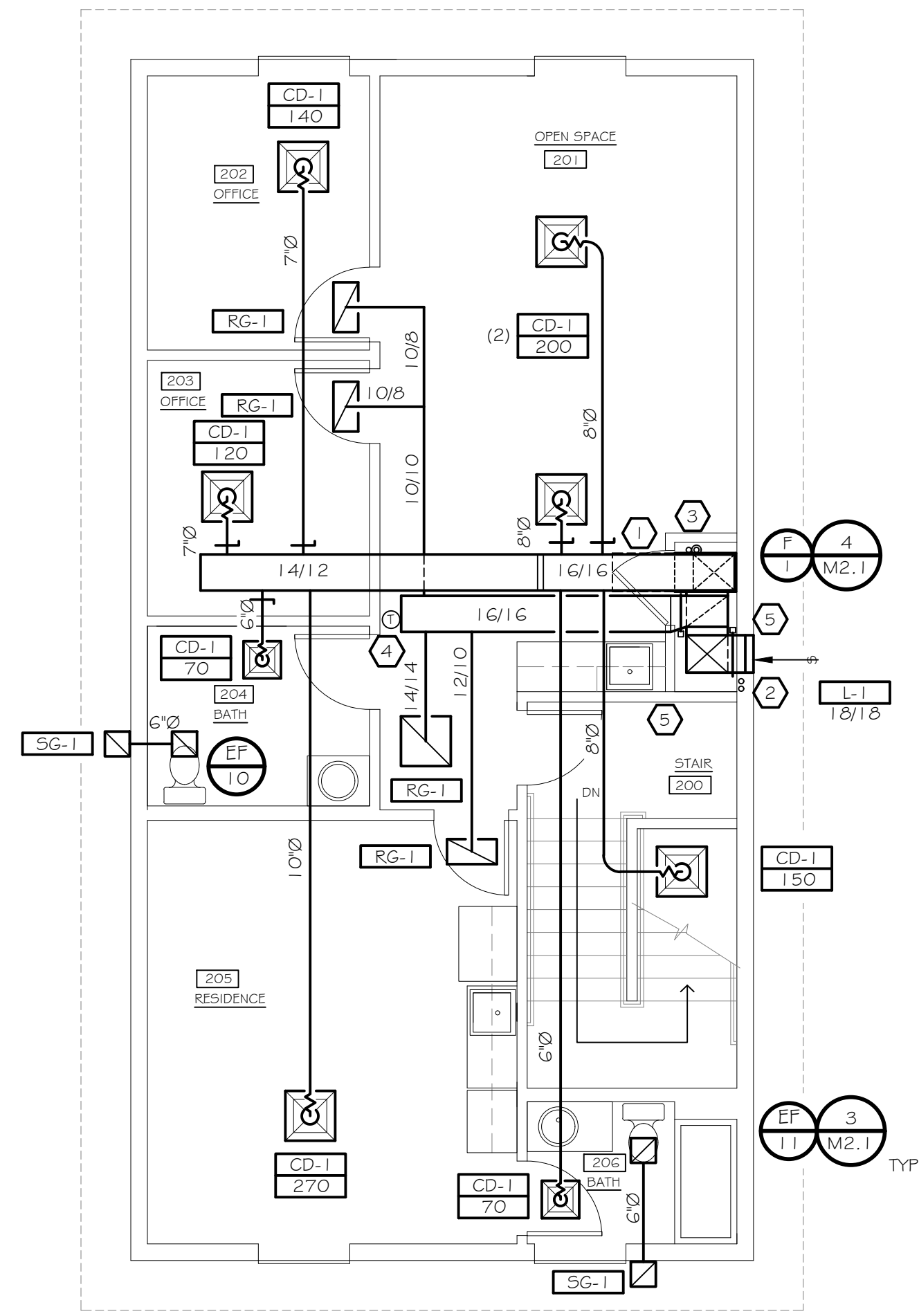
M1.1

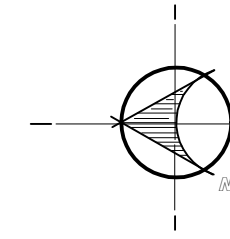
REFERENCE NOTES






- 1 ROOF EQUIPMENT WELL ABOVE. COORDINATE ROOFTOP AIR CONDITIONERS AND EQUIPMENT TO FIT.
- 2 SUPPLY AND RETURN AIR DUCTS UP TO ROOFTOP AIR CONDITIONER.
- 3 REFRIGERANT PIPING UP TO FLOOR ABOVE.
- 4 MOTORIZED DAMPER.
- 5 7 - DAY PROGRAMMABLE THERMOSTAT.
- 6 FLUE/COMBUSTION AIR PIPING UP TO FLOOR ABOVE.
- 7 EXHAUST DUCTS UP THROUGH ROOF. PROVIDE DUCT TERMINATION CAP.
- 8 PROVIDE DRYER VENT AS PER MANUFACTURER'S RECOMMENDATION.
- 9 PROVIDE ROOF CURB FOR MECHANICAL EQUIPMENT.
- 10 PROVIDE OUTSIDE VENT CONNECTION TO ANESTHETIC GAS DISPOSAL SYSTEM AS PER MGRF'S INSTRUCTIONS.
- 11 VENT DRYER, AS PER DRYER MGRF'S INSTRUCTIONS.



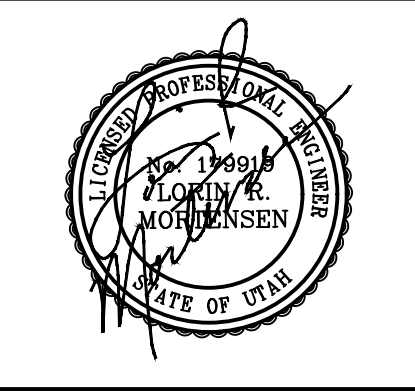
MAIN LEVEL  
 MECHANICAL PLAN  
 SCALE: 3/16" = 1'-0"




 UPPER LEVEL  
 MECHANICAL PLAN  
 SCALE: 3/16" = 1'-0"

REFERENCE NOTES	
	EQUIPMENT SERVICE AREA. KEEP CLEAR OF DUCTS AND PIPES.
	REFRIGERANT PIPING DOWN TO LOWER FLOOR.
	FLUE/COMBUSTION AIR PIPING UP TO ROOF. PROVIDE CONCENTRIC VENT KIT.
	7 DAY PROGRAMMABLE THERMOSTAT.
	MOTORIZED DAMPER.

JOSEPH T. BECK ARCHITECT, INC.  
 497 EAST 520 SOUTH  
 SMITHFIELD, UTAH  
 (435) 764-8742



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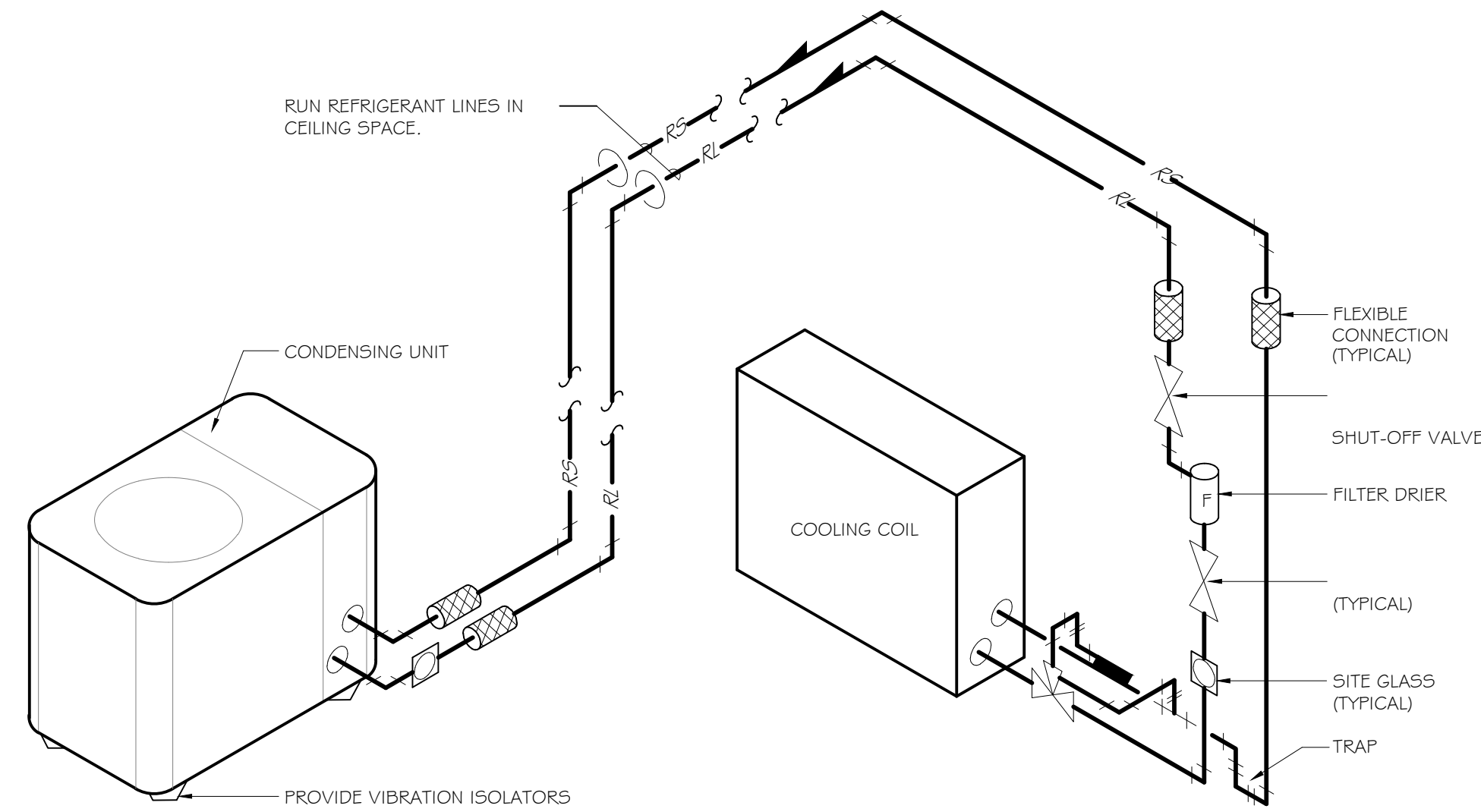
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 UPPER LEVEL  
 MECHANICAL PLAN

PROJECT NUMBER

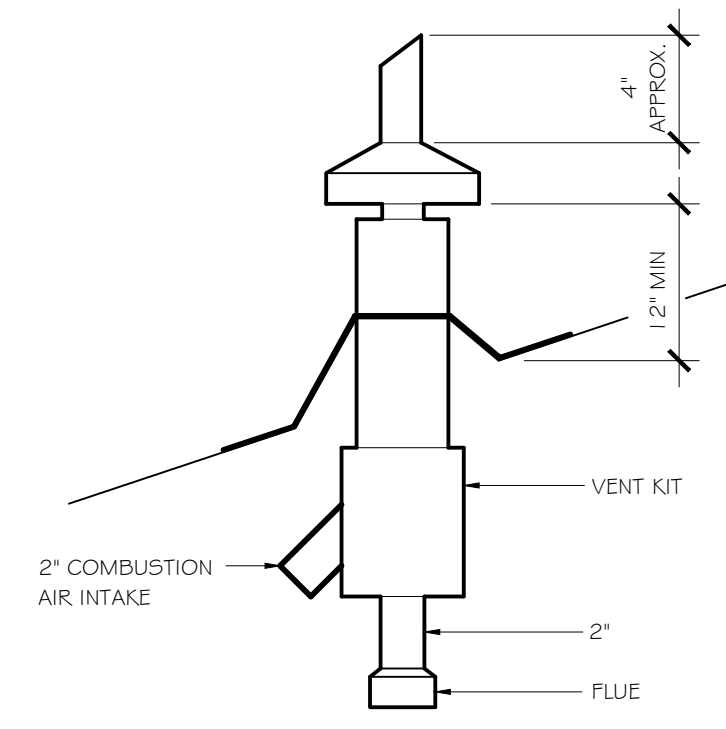
REVISIONS

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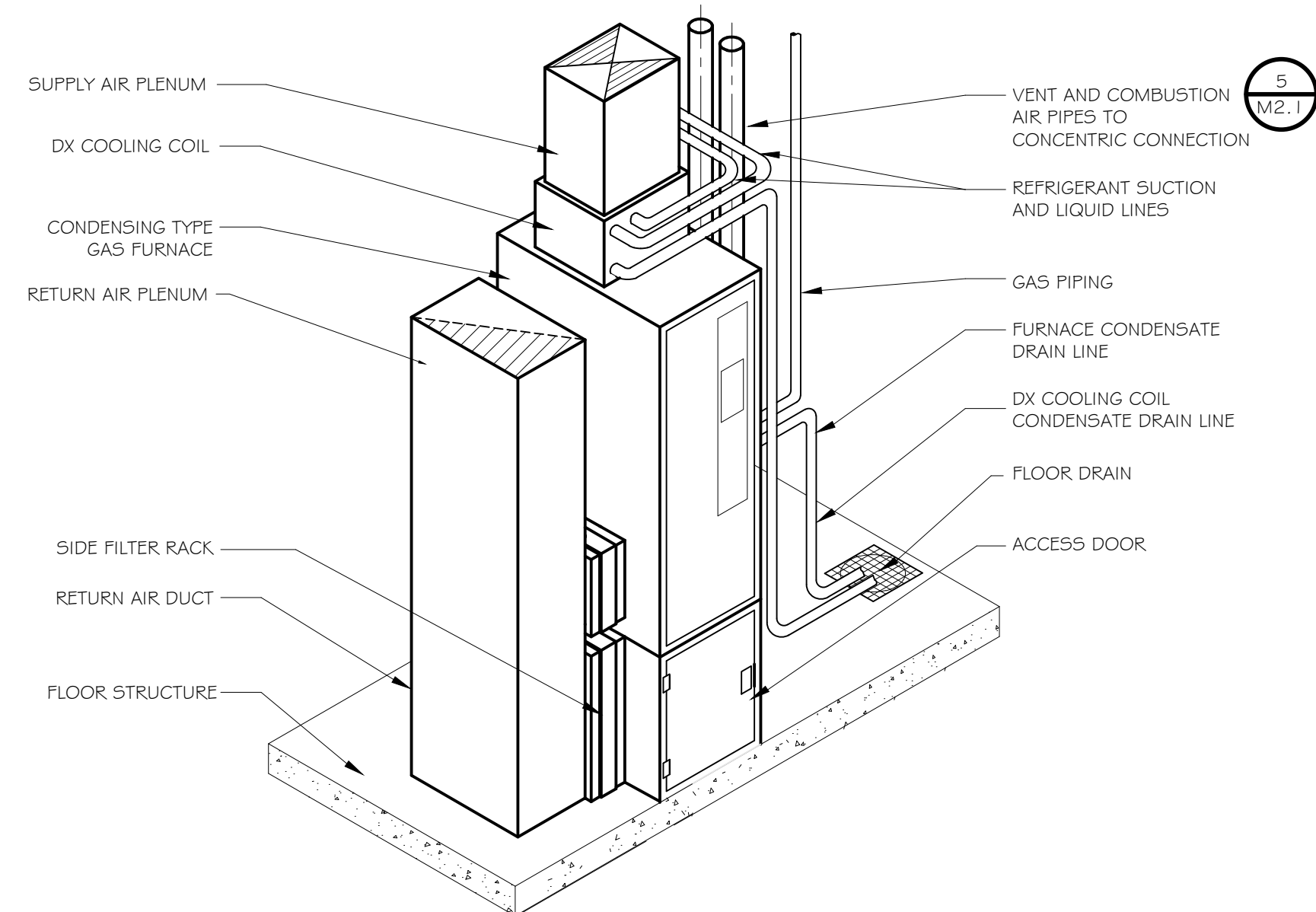
**M1.2**



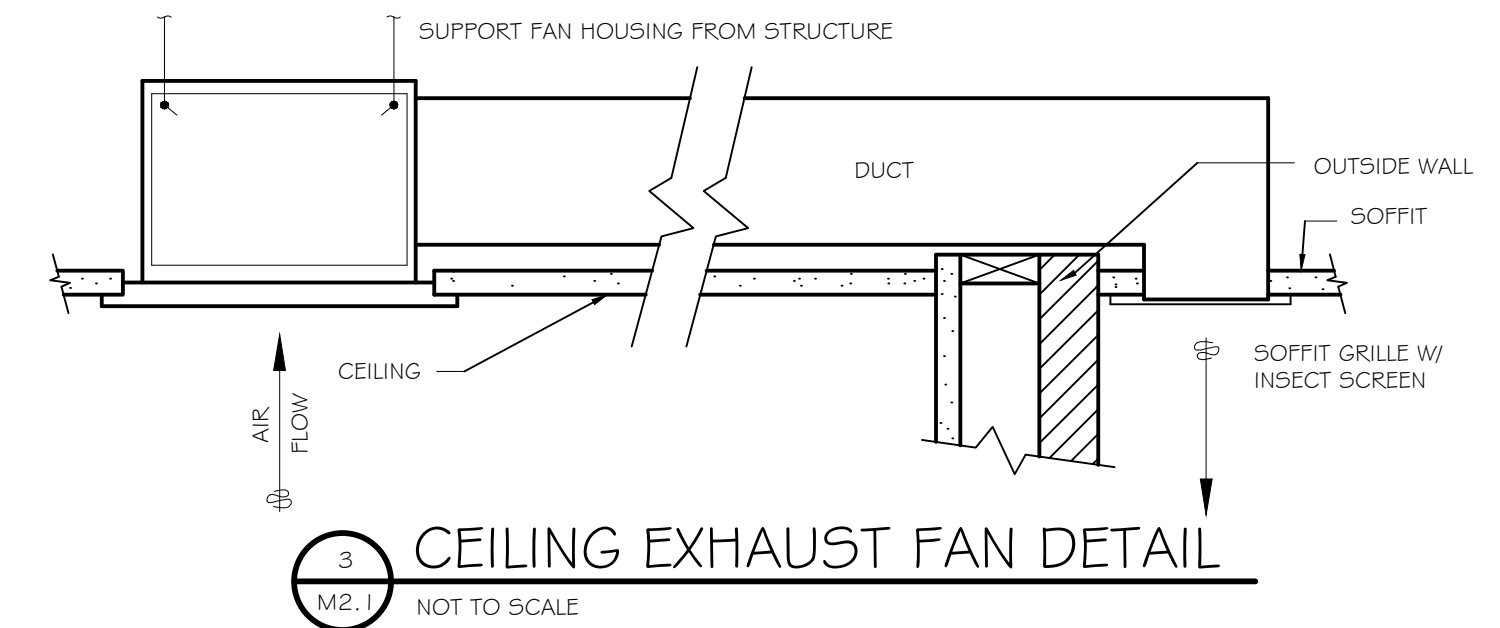
6 TYPICAL REFRIGERANT SCHEME  
M2.1 NOT TO SCALE



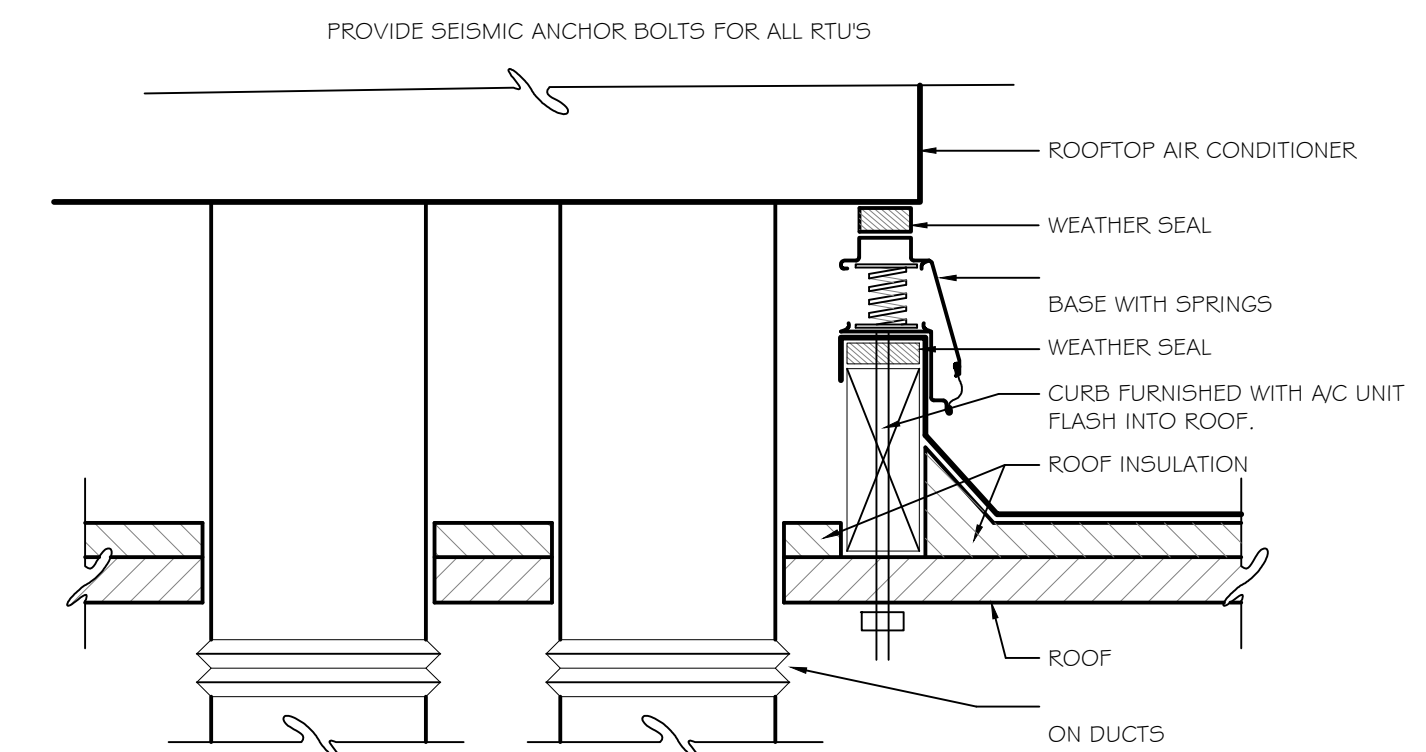
5 VENT KIT DETAIL  
M2.1 NOT TO SCALE



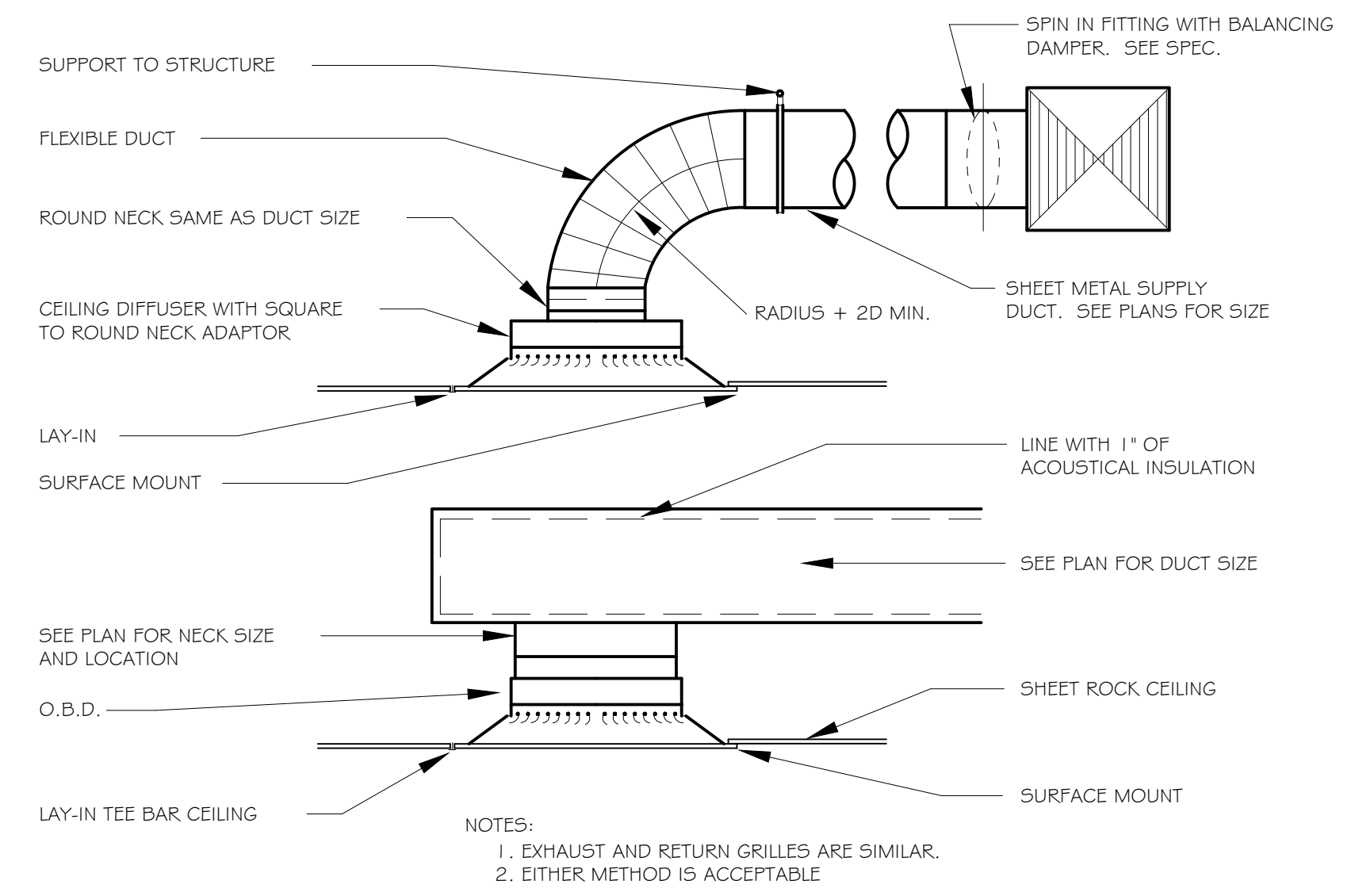
4 UP FLOW FURNACE  
M2.1 NOT TO SCALE



3 CEILING EXHAUST FAN DETAIL  
M2.1 NOT TO SCALE

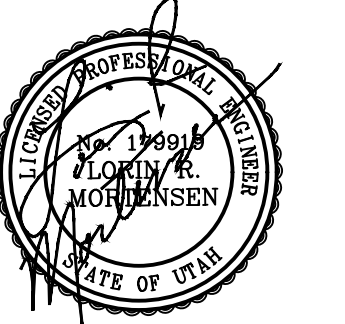


2 ROOFTOP A/C ON SPRING BASE DETAIL  
M2.1 NOT TO SCALE



1 CEILING DIFFUSER DETAIL  
M2.1 NOT TO SCALE

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M2.1

ROOFTOP PACKAGE AIR CONDITIONING UNIT SCHEDULE (GAS)															
SYMBOL	MFR. # MODEL	CFM	EXT. S.P. (1)	SUPPLY FAN H.P.	NATURAL GAS HEATING MBH		COOLING MBH (2)		MIN. OUTSIDE AIR SETTING	MAX WEIGHT LBS.	ARI SEER/EER	ELECTRICAL		COMMENTS AREA SERVED	
					INPUT	OUTPUT (1)	SENSIBLE	TOTAL				VOLTS/PHASE/CYCLE	MIN. CIRCUIT AMP.		FLA
RTU-1	YORK ZHO78	2600	0.8	2	120	89	70	78	520	1200	-11.7	208/3/60	45.6	-	(1)(2)(3)(4)(5)(6)(7)
RTU-2	YORK ZHC37	1200	0.7	1-1/2	60	45	32	36	240	1000	14/11.8	208/3/60	34.6	-	(1)(2)(3)(4)(5)(6)(7)
RTU-3	YORK ZHO49	1600	0.7	1-1/2	80	60	43	48	320	1050	14/11.8	208/3/60	37.0	-	(1)(2)(3)(4)(5)(6)(7)
RTU-4	YORK ZHO78	2600	0.8	2	120	89	70	78	520	1200	-11.7	208/3/60	45.6	-	(1)(2)(3)(4)(5)(6)(7)

- (1) CAPACITY AT 4600 FEET ELEVATION.
- (2) BASED ON 95°F DB, 65°F WB AMBIENT TEMPERATURE.
- (3) BASED ON 55°F DB, 54°F WB LAT, 80°F DB, 63°F WB EAT.
- (4) COMPLETE WITH 2 STAGE NATURAL GAS HEAT.
- (5) COMPLETE WITH 100% ECONOMIZER, AND 100% POWER RELIEF.
- (6) UNIT COMPLETE WITH VIBRATION ISOLATED ROOF CURB.
- (7) UNIT COMPLETE WITH STARTER, SERVICE DISCONNECT, AND CONVENIENCE OUTLET.

REGISTER AND GRILLE SCHEDULE						
SYMBOL	MANUFACTURER	MODEL	DESCRIPTION	MAX. NC	NECK SIZE	MAX. CFM
CD-1	PRICE	SCD	LOUVERED FACE CEILING DIFFUSERS. REMOVABLE FACE & CORE. W.O.B.D. FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES SHALL BE 24" X 24" OR 24" X 12" AS REQD. TO FIT CEILING TILE SPACE AVAILABLE. PROVIDE ROUND NECK ADAPTER.	30	6 x 6 8 x 8 9 x 9 10 x 10 6 x 18 12 x 12 15 x 15 18 x 18	125 220 250 320 350 425 625 900
RG-1	PRICE	535	LOUVERED FACE CEILING RETURN AIR UNIT, REMOVABLE FACE & CORE. FRAME SHALL BE FOR SURFACE OR LAY-IN MOUNTING AS REQUIRED BY CEILING TYPE. LAY-IN FRAMES SHALL BE 24" X 24", 24" X 12" OR 12" X 12" AS REQUIRED TO FIT CEILING TILE SPACE AVAILABLE. AIR QUANTITY SHALL MATCH ROOM SUPPLY OR EXHAUST AIR QUANTITY.	30	10 x 10 12 x 12 14 x 14 10 x 22 16 x 16 18 x 18 24 x 24 36 x 24	350 500 550 625 725 900 1300 2200
LI-1	AIRLOITE	K6774	WALL LOUVER, STATIONARY 4" THICK 45 BLADE 12 GA. EXT. ALUMINUM BLADES, 8 GA. EXT. JAMBS. CHANNEL FRAME, BRONZE ANODIZED FINISH WITH BIRD SCREEN. COLOR BY ARCHITECT.	30	SEE PLANS	
SG-1	HART & COOLEY	RH45 GRILLE	SINGLE DEFLECTION ALUMINUM CONSTRUCTION OUTSIDE AIR GRILLE WITH 3/4" SPACED FINS SET AT 40 DEGREES WITH COLOR SELECTED BY GENERAL CONTRACTOR.	30	SEE PLANS	
BWS-1	PRICE	510	SIDEWALL SUPPLY DIFFUSER, DOUBLE DEFLECTION SUPPLY REGISTER, VERTICAL FRONT WITH HORIZONTAL REAR DEFLECTION VANES SPACED AT 3/4" O.C. ADJUSTABLE. COMPLETE W/O.B.D.	30	SEE PLANS	

FURNACE SCHEDULE											
SYMBOL	MANUFACTURER # MODEL NO.	FUEL TYPE	BTU INPUT	BTU OUTPUT	CFM	MINIMUM OUTSIDE AIR CFM	HP	SP	VOLTS/PHASE/CYCLE	COIL MODEL NO.	COMMENTS
F-1	YORK TMBT	NAT. GAS	60,000	56,300	1200	240	1/2	0.7	115/1/60	-	(1)(2)(3)(4)(5)

- (1) RATINGS BASED ON 4600' ELEVATION.
- (2) PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT WITH AUTOMATIC HEATING AND COOLING CHANGEOVER.
- (3) PROVIDE BOTTOM RETURN AND SIDE PLENUM CONNECTIONS, FILTER HOUSING, AND CONCENTRIC VENT KIT.
- (4) FURNACE, COIL, AND CONDENSING UNIT SHALL BE BY THE SAME MANUFACTURER.
- (5) FURNACE COMPLETE WITH OUTSIDE AIR ECONOMIZER INCLUDING ALL DAMPERS AND CONTROLS.

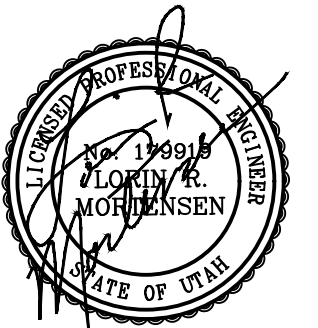
CONDENSING UNIT SCHEDULE							
SYMBOL	MANUFACTURER # MODEL	BTU CAPACITY	REFRIGERANT TYPE	VOLTS/PHASE/CYCLES	MCA	SEER	COMMENTS
CU-1	YORK TCGD36	36,000	R-410A	208/1/60Hz	18	13	(1)(2)(3)(4)(5)(6)

- (1) ALL CONDITIONS AT 4600' ELEVATION.
- (2) 95°F. AMBIENT - 40 SST.
- (3) UNIT COMPLETE WITH STARTER
- (4) FURNACE, DX EVAPORATOR, AND CONDENSING UNIT SHALL BE COORDINATED TO PROVIDE A MATCHED COIL / CU SYSTEM.
- (5) VERIFY VOLTAGE AND PHASE AVAILABLE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING OF ANY EQUIPMENT.
- (6) SIZE REFRIGERANT PIPING AS PER MANUFACTURER'S RECOMMENDATIONS.

EXHAUST FAN SCHEDULE								
SYMBOL	MANUFACTURER	MODEL	CFM	STATIC PRESSURE IN. WG.	H.P.	RPM	VOLTS/PHASE/CYCLE	COMMENTS
EF-1	GREENHECK	CEILING SP-A250	180	0.375	.84 WATTS	1000	115/1/60	(1)(2)(4)
EF-2	GREENHECK	CEILING SP-B110	100	0.375	.80 WATTS	950	115/1/60	(1)(2)(4)
EF-3	GREENHECK	CEILING SP-B110	100	0.375	.80 WATTS	950	115/1/60	(1)(2)(4)
EF-4	GREENHECK	CEILING SP-B110	100	0.375	.80 WATTS	950	115/1/60	(1)(2)(4)
EF-5	GREENHECK	CEILING SP-B110	100	0.375	.80 WATTS	950	115/1/60	(1)(2)(4)
EF-6	GREENHECK	CEILING SP-B110	100	0.375	.80 WATTS	950	115/1/60	(1)(2)(4)
EF-7	GREENHECK	CEILING SP-B110	100	0.375	.80 WATTS	950	115/1/60	(1)(2)(4)
EF-8	GREENHECK	CEILING SP-A250	180	0.375	.84 WATTS	1000	115/1/60	(1)(2)(4)
EF-9	GREENHECK	SIDEWALL S1-18-436	1100	0.25	1/6	860	115/1/60	(1)(3)(4)
EF-10	GREENHECK	CEILING SP-B110	100	0.375	.80 WATTS	950	115/1/60	(1)(2)(4)
EF-11	GREENHECK	CEILING SP-B110	100	0.375	.80 WATTS	950	115/1/60	(1)(2)(4)

- (1) ALL CAPACITIES AT 4600 FT. ELEVATION.
- (2) CEILING EXHAUST FAN PROVIDE GRAVITY BACKDRAFT DAMPER, INTEGRAL THERMAL OVERLOAD PROTECTION, WALL LOUVER, AND VARIABLE SPEED CONTROL.
- (3) SIDEWALL EXHAUST FAN PROVIDE MOTORIZED BACKDRAFT DAMPER, INTEGRAL THERMAL OVERLOAD PROTECTION.
- (4) ON-OFF SWITCH BY ELECTRICAL

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SHEET TITLE  
MECHANICAL  
SCHEDULES

PROJECT NUMBER

REVISIONS

SHEET NUMBER

M3.1

**PLUMBING SYMBOL LEGEND**

SOIL, WASTE-ABOVE GRADE	—
SOIL, WASTE-BELOW GRADE	—
VENT	----
COLD WATER	----
HOT WATER	----
HOT WATER CIRCULATE	----
GAS	— G —
RAIN WATER-ABOVE GRADE	— RW —
RAIN WATER-BELOW GRADE	— RW —
OVERFLOW RAIN WATER-ABOVE GRADE	— ORW —
DRAIN LINE	— D —
WALL HYDRANT	— W.H. —
HOSE BIBB	— H.B. —
CLEANOUT TO GRADE	— C.O.T.G. —
FLOOR CLEANOUT	— F.C.O. —
WALL CLEANOUT	— W.C.O. —
SHUT OFF VALVE	—
CHECK VALVE	—
ANGLE VALVE	—
VENTURI	—
BALANCING OR FLUG COCK	—
FLOW SETTER	—
GAS COCK	—
BUTTERFLY VALVE	—
BALL VALVE	—
RELIEF VALVE	—
PRESSURE REDUCING VALVE	—
GAUGE COCK	—
STRAINER	—
FLEXIBLE CONNECTION	—
PRESSURE GAUGE	—
THERMOMETER	—
REDUCER CONCENTRIC	—
REDUCER ECCENTRIC	—
90° ELBOW UP	—
90° ELBOW DOWN	—
90° TEE UP	—
90° TEE DOWN	—
UNION	—
CAPPED PIPE	—
ANCHOR	—

**PLUMBING ABBREVIATIONS**

BHP	BRAKE HORSE POWER	NTS	NOT TO SCALE
BTU	BRITISH THERMAL UNIT	NO	NUMBER
CLG	COOLING	OZ	OUNCE
CW	COLD WATER	PSI	POUNDS PER SQUARE INCH
DP	DEPTH OR DEEP	PSIA	PSI ABSOLUTE
ID	INSIDE DIAMETER	PSIG	PSI GAUGE
OD	OUTSIDE DIAMETER	PRESS	PRESSURE
(E)	EXISTING	PD	PRESSURE DROP
EFF	EFFICIENCY	RECIRC	RECIRCULATE
ELEV	ELEVATION	RPM	REVOLUTIONS PER MINUTE
(F)	FUTURE	RW	RAIN WATER
F	FARENHEIT	SCW	SOFT COLD WATER
FC	FLEXIBLE CONNECTION	SF	SAFETY FACTOR
FT	FEET	SL	SEA LEVEL
GAL	GALLONS	SPEC	SPECIFICATION(S)
GPH	GALLONS PER HOUR	SQ	SQUARE
GPM	GALLONS PER MINUTE	STD	STANDARD
HD	HEAD	SPLY	SUPPLY
HT	HEIGHT	TEMP	TEMPERATURE
HTG	HEATING	TD	TEMP. DROP OR DIFF.
HP	HORSE POWER	R	THERMAL RESITANCE
HW	HOT WATER	T	TIME
LG	LENGTH	VAC	VACUUM
MAX	MAXIMUM	VENT	VENT, VENTILATION
MIN	MINIMUM	VERT	VERTICAL
NO	NORMALLY OPEN	VOL	VOLUME
NC	NORMALLY CLOSED	WTR	WATER
N/A	NOT APPLICABLE	WT	WEIGHT
NIC	NOT IN CONTRACT	YR	YEAR

**PLUMBING SPECIFICATIONS ③**

**FIRE SPRINKLER SYSTEM**

A. NOT INCLUDED IN THIS CONTRACT.

**PLUMBING SPECIALTIES**

A. PROVIDE AND INSTALL WATER PRESSURE REGULATING VALVE RATED FOR INITIAL WORKING PRESSURE OF 150 PSIG WITH INLET AND OUTLET SHUTOFF VALVES, PRESSURE GAUGE, AND DRAIN VALVE. PROVIDE BACKFLOW PREVENTION DEVICE. REFER TO WATER STATION MAIN DETAIL FOR REQUIREMENTS.

B. PROVIDE AND INSTALL CLEANOUTS AND COVER PLATES WHERE INDICATED ON THE DRAWINGS. INSTALL A CLEANOUT AT EACH PLUMBING FIXTURE. CLEANOUT FLOOR COVER PLATES SHALL BE MOUNTED FLUSH WITH THE FLOOR. COORDINATE CLEANOUT COVER PLATES WITH WALL OR FLOOR SURFACE FINISH.

**WATER HEATERS**

A. PROVIDE A WATER HEATER AS SHOWN ON THE DRAWINGS THAT COMPLIES WITH ASME BOILER AND PRESSURE VESSEL CODE, UL LISTING, AGA STANDARDS, AND ASHRAE ENERGY STANDARDS.

B. SUBMIT MANUFACTURERS CUTSHEET FOR REVIEW AND APPROVAL INCLUDING MANUFACTURER, TYPE, MODEL NUMBER, CAPACITY, ELECTRICAL REQUIREMENTS, AND OPTIONS.

C. INSTALL WATER HEATER LEVEL AND PLUMB ON CONCRETE EQUIPMENT PAD UNLESS OTHERWISE NOTED. INSTALL WATER HEATER ACCORDING TO THE MANUFACTURERS INSTALLATION INSTRUCTIONS. ANCHOR WATER HEATER TO EQUIPMENT PAD. INSTALL EARTHQUAKE BRACING SECURE TO STRUCTURAL MEMBERS.

D. INSTALL WATER HEATER WITH RELIEF VALVE, SHUTOFF VALVES, UNIONS, THERMOMETERS, DRAIN LINE, GAS CONNECTION, VENT AND RECIRCULATION SYSTEM AS INDICATED ON THE DRAWINGS.

**PLUMBING SPECIFICATIONS ②**

**VALVES**

A. PROVIDE AND INSTALL BALL SHUTOFF VALVES WHERE SHOWN ON PLANS FOR LINES 3" AND SMALLER. BALL VALVES SHALL BE MSS SP-110, CLASS 150 BRONZE BODY AND BONNET AND VINYL-COVERED STEEL HANDLE.

B. PROVIDE AND INSTALL BUTTERFLY VALVES WHERE SHOWN ON PLANS FOR LINES 4" AND LARGER. BUTTERFLY VALVES SHALL BE MSS SP-67, ASTM A 126 CAST-IRON BODY AND BONNET WITH EPDM SEALS.

**FUEL GAS PIPING**

A. COORDINATE INSTALLATION OF GAS YARD LINE AND GAS METER WITH THE GAS COMPANY. WORK TO BE PERFORMED BY THE GAS COMPANY PAID BY THE CONTRACTOR.

B. COMPLY WITH NFPA 54 "NATIONAL FUEL GAS CODE", LOCAL GAS COMPANY REQUIREMENTS, AND ALL OTHER APPLICABLE CODES FOR GAS PIPING MATERIALS, COMPONENTS, INSTALLATIONS, INSPECTIONS, TESTING, AND PURGING.

C. GAS PIPING SHALL BE SEAMLESS, GRADE B, SCHEDULE 40 BLACK STEEL WITH THREADED FITTINGS.

D. INSTALL SHUTOFF VALVE DOWNSTREAM OF THE GAS METER OUTSIDE OF THE BUILDING.

F. INSTALL 2 PSIG - TO - 4 OZ GAS PRESSURE REGULATOR WHERE SHOWN ON THE DRAWINGS. INSTALL AND VENT AS REQUIRED BY MANUFACTURERS INSTRUCTIONS.

G. INSTALL GAS SHUTOFF VALVE AT ALL GAS APPLIANCES. CONNECT TO APPLIANCE WITH APPROVED FLEXIBLE CONNECTION. INSTALL TEE FITTING SEDIMENT TRAPS WITHIN 6" OF EACH APPLIANCE.

**PLUMBING PIPING**

A. WATER DISTRIBUTION PIPING - BELOW GROUND (150 PSIG):  
3-1/2" AND SMALLER - USE TYPE K SOFT OR HARD COPPER TUBE WITH CAST COPPER ALLOY BRAZED JOINT PRESSURE FITTINGS.

B. WATER DISTRIBUTION PIPING - ABOVE GROUND (125 PSIG):  
3-1/2" AND SMALLER - USE TYPE L HARD COPPER TUBE WITH CAST COPPER ALLOY BRAZED JOINT PRESSURE FITTINGS. (PEX PIPING ALTERNATE BID)

C. WASTE AND VENT PIPING - BELOW GROUND (10-FOOT HEAD OF WATER):  
2" TO 6" - USE ACRYLONITRILE-BUTADIENE-STYRENE (ABS) PLASTIC PIPE WITH ABS SOCKET-TYPE DRAIN, WASTE, AND VENT PIPE PATTERN FITTINGS WITH SOLVENT CEMENTED JOINTS.

D. WASTE AND VENT PIPING - ABOVE GROUND (10-FOOT HEAD OF WATER):  
2" TO 8" - USE HUB-AND-SPOUT CAST-IRON SOIL PIPE WITH CAST IRON SOIL PIPE FITTINGS, NEOPRENE RUBBER GASKETS, AND COMPRESSION JOINTS.

E. STORM DRAINAGE PIPING - ABOVE GROUND (10-FOOT HEAD OF WATER):  
2" TO 8" - USE HUBLESS CAST-IRON SOIL PIPE WITH CAST IRON SOIL PIPE FITTINGS, HEAVY-DUTY, SHIELDED, STAINLESS-STEEL COUPLINGS.

F. INSTALL HANGERS FOR HORIZONTAL COPPER AND CAST IRON PIPING WITH THE FOLLOWING MAXIMUM SPACING AND MINIMUM ROD SIZES:

NOM. PIPE SIZE	MAX. SPAN	MIN. ROD DIA.
3/4"	6'	3/8"
1"	6'	3/8"
1-1/2"	6'	3/8"
2"	12'	1/2"
2-1/2"	12'	1/2"
3"	12'	1/2"
3-1/2"	12'	1/2"
4"	12'	5/8"
5"	12'	5/8"
6"	12'	3/4"

SUPPORT VERTICAL PIPE AND TUBING AT EACH FLOOR.

G. SUPPORT HORIZONTAL ABS AND PVC PIPING WITH PIPE HANGERS LOCATED AT 4' MAXIMUM SPAN.

H. CLEAN, FLUSH, AND TEST ALL WATER DISTRIBUTION PIPING TO 1-1/2 TIMES THE OPERATING PRESSURE FOR A TIME PERIOD OF 4 HOURS. PURGE AND DISINFECT POTABLE WATER SYSTEMS WITH A WATER/CHLORINE SOLUTION IN ACCORDANCE WITH THE LOCAL HEALTH CODE REQUIREMENTS. TEST AND SUBMIT SATISFACTORY REPORT PRIOR TO BUILDING OCCUPANCY.

I. CLEAN, FLUSH, AND TEST THE WASTE AND VENT PIPING SYSTEM TO 10 FEET HEAD OF WATER.

**PLUMBING FIXTURES**

A. PROVIDE AND INSTALL PLUMBING FIXTURES WHERE INDICATED ON THE DRAWINGS FOR A COMPLETE PLUMBING SYSTEM. PROVIDE ALL REQUIRED CARRIERS, SUPPORTS, EQUIPMENT, HANGERS, FITTINGS, TRIM, STOPS, AND ACCESSORIES ASSOCIATED WITH THE PLUMBING FIXTURES. COORDINATE THE COLOR, STYLE, COLOR, AND ACCESSORIES OF EACH FIXTURE WITH THE BUILDING OWNER. ALL FIXTURES NOTED AS ACCESSIBLE SHALL COMPLY WITH A.D.A. REQUIREMENTS. COORDINATE ALL ELECTRICAL REQUIREMENTS WITH THE ELECTRICAL SUB-CONTRACTOR. INSTALL ALL PLUMBING FIXTURES PLUMB, LEVEL, AND ACCORDING TO THE MANUFACTURERS INSTALLATION INSTRUCTIONS. REFER TO THE PLUMBING FIXTURE SCHEDULE.

B. PROVIDE PLUMBING FIXTURES FROM THE FOLLOWING MANUFACTURERS:  
WATER CLOSETS AND URINALS:  
AMERICAN STANDARD, BRIGGS, CRANE, ELJER, KOHLER  
LAVATORIES:  
ACORN, AMERICAN STANDARD, BRIGGS, CRANE, ELJER, ELKAY, KOHLER  
SINKS AND SERVICE SINKS:  
AMERICAN STANDARD, BRIGGS, CRANE, ELJER, ELKAY, KOHLER  
DRINKING FOUNTAINS AND WATER COOLERS:  
ELKAY, HALSEY-TAYLOR, HAWS, OASIS, SUNROC  
FLUSHOMETERS:  
SLOAN, ZURN  
FAUCETS:  
AMERICAN STANDARD, BRIGGS, CHICAGO, CRANE, DELTA, ELJER, ELKAY, GERBER, KOHLER, MOEN, PRICE PFISTER, SYMMONS, T & S BRASS

C. SUBMIT MANUFACTURERS CUTSHEET FOR REVIEW AND APPROVAL FOR EACH PLUMBING FIXTURE INCLUDING MANUFACTURER, MODEL, STYLE, OPTIONS, AND ACCESSORIES.

**PLUMBING SPECIFICATIONS ①**

**BASIC PLUMBING REQUIREMENTS**

A. COMPLY WITH THE REQUIREMENTS OF THE 2015 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC), INTERNATIONAL MECHANICAL CODE (IMC), INTERNATIONAL PLUMBING CODE (IPC), INTERNATIONAL FUEL GAS CODE (IFGC), AND INTERNATIONAL ENERGY CONSERVATION CODE (IECC), AND THE CURRENT NATIONAL ELECTRIC CODE (NEC) INCLUDING ALL STATE AMENDMENTS. COMPLY WITH THE AUTHORITY HAVING JURISDICTION AND ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL CODES AND REGULATIONS IN EFFECT AT THE BID DATE.

B. PREPARE AND SUBMIT FIVE (5) COPIES OF THE SHOP DRAWINGS FOR ALL PLUMBING FIXTURES, EQUIPMENT, VALVES, AND ACCESSORIES INCLUDING MANUFACTURERS NAME, CATALOG NUMBER, DESCRIPTION, SIZE, CAPACITY, ELECTRICAL REQUIREMENTS, OPERATION, AND MAINTENANCE INFORMATION. SHOP DRAWINGS SHALL BE REVIEWED AND STAMPED BY THE PLUMBING AND GENERAL CONTRACTOR PRIOR TO ENGINEERS REVIEW. FIXTURES, EQUIPMENT, ETC. SHALL NOT BE ORDERED UNTIL APPROVED SHOP DRAWINGS HAVE BEEN RECEIVED.

C. PREPARE COORDINATION DRAWINGS DETAILING ALL MAJOR EQUIPMENT AND SYSTEMS. INCLUDE EQUIPMENT CONNECTIONS, CLEARANCES, FIRE-RATED WALL OR FLOOR PENETRATIONS, CONCRETE PADS, AND SUPPORT DETAILS IN COORDINATION DRAWINGS. COORDINATION DRAWINGS SHALL BE IN CONJUNCTION WITH THE MECHANICAL FIRE SPRINKLER (WHERE REQUIRED), ELECTRICAL, REFLECTED CEILINGS, AND ALL OTHER APPLICABLE TRADES.

D. PREPARE RECORD "AS BUILT" DOCUMENTS INCLUDING ALL CHANGES FROM THE ORIGINAL BID DOCUMENTS. SUBMIT COMPLETE "AS BUILT" DOCUMENTS AT THE COMPLETION OF THE PROJECT.

E. PROVIDE 2 SETS OF OPERATION AND MAINTENANCE (O & M) MANUALS CONTAINING INFORMATION FOR ALL MECHANICAL AND PLUMBING SYSTEMS. THE MANUALS SHALL CONTAIN A LIST OF ALL SUB-CONTRACTORS AND SUPPLIERS, EQUIPMENT CUT SHEETS, START-UP INFORMATION, BALANCING REPORTS, AND MAINTENANCE REQUIREMENTS. THE MANUALS SHALL BE HARD BACKED 3-RING BINDERS WITH THE PROJECT LABELED ON THE COVER AND SPINE.

F. INSTALL ALL PLUMBING EQUIPMENT AND MATERIALS IN COORDINATION WITH ALL OTHER TRADES. VERIFY ALL ELECTRICAL CONNECTIONS WITH THE ELECTRICAL CONTRACTOR PRIOR TO INSTALLATION.

G. PROVIDE AND INSTALL ACCESS DOORS WHERE EQUIPMENT OR VALVES ARE CONCEALED BEHIND FINISHED SURFACES.

H. PROVIDE FACTORY-AUTHORIZED EQUIPMENT START-UP, COMMISSIONING, AND TRAINING OF ALL PLUMBING EQUIPMENT.

I. INSTALL ALL SYSTEMS, MATERIALS, AND EQUIPMENT LEVEL AND PLUMB, PARALLEL AND PERPENDICULAR TO OTHER BUILDING SYSTEMS AND COMPONENTS. INSTALL ALL PIPING FREE FROM SAGS AND BENDS AND AT THE SLOPE INDICATED (WHERE REQUIRED). INSTALL PIPING AND EQUIPMENT TO PROVIDE THE MAXIMUM POSSIBLE HEADROOM.

J. ALL WORK SHALL BE PERFORMED BY CERTIFIED AND SKILLED WORKERS WITH PRIOR EXPERIENCE IN THEIR PARTICULAR TRADE.

K. THE PLUMBING SUB-CONTRACTOR SHALL PROVIDE WARRANTY THE ENTIRE PLUMBING SYSTEM FOR A PERIOD OF ONE YEAR. INCLUDE THE WARRANTY AND ALL OTHER GUARANTEES AND WARRANTIES IN THE OPERATION AND MAINTENANCE MANUAL.

L. THE CONTRACTOR SHALL REPAIR OR REPLACE ALL DAMAGED PIPING, EQUIPMENT, OR OTHER DAMAGE DURING CONSTRUCTION.

M. PROVIDE AND INSTALL ALL PLUMBING EQUIPMENT, PIPING, FIXTURE, AND ACCESSORIES IN STRICT ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS. PROVIDE ALL FITTINGS, VALVES, TRANSITIONS, AND OTHER DEVICES AS REQUIRED FOR A COMPLETE AND OPERATIONAL PLUMBING SYSTEM.

**BASIC PLUMBING MATERIALS AND METHODS**

A. ALL PIPE AND PIPE FITTINGS SHALL BE NEW AND SHALL BE AMERICAN MADE WITH APPROVED LABELS. DELIVER, STORE, AND PROTECT PIPING DURING CONSTRUCTION FROM DAMAGE, DIRT, AND MOISTURE.

B. PROVIDE AND INSTALL DIELECTRIC FITTINGS AND FLEXIBLE CONNECTORS WHERE REQUIRED FOR PROPER SYSTEM FLUID, PRESSURE, AND TEMPERATURE.

C. PROVIDE PIPE ESCUTCHEONS FOR ALL EXPOSED WALL AND CEILING PENETRATIONS. PROVIDE COVER PLATES FOR ALL FLOOR AND WALL CLEANOUTS.

D. SEAL ALL PIPE PENETRATIONS THROUGH WALLS AND FLOORS AIR TIGHT. CAULK ALL FIRE RATED PIPE PENETRATIONS WITH APPROVED FIRE-STOPPING MATERIAL.

E. CUT, CHANNEL, CHASE, AND DRILL FLOORS, WALLS, PARTITIONS, CEILINGS, AND OTHER SURFACES NECESSARY FOR PROPER INSTALLATION. REPAIR AS REQUIRED TO MATCH ADJACENT SURFACES.

**HANGERS AND SUPPORTS**

A. PROVIDE AND INSTALL PIPE SUPPORTS AND HANGERS AS REQUIRED FOR ALL PIPING AND EQUIPMENT ACCORDING TO MANUFACTURERS STANDARDIZATION SOCIETY (MSS) STANDARDS.

**VIBRATION ISOLATION AND SEISMIC CONTROLS**

A. PROVIDE AND INSTALL VIBRATION ISOLATORS, FLEXIBLE CONNECTIONS, ISOLATION PADS, AND OTHER EQUIPMENT TO PREVENT NOISE AND VIBRATION TRANSMISSION.

**PIPING AND EQUIPMENT IDENTIFICATION**

A. PROVIDE EQUIPMENT PIPE AND EQUIPMENT TACS, LABELS, AND IDENTIFICATION INDICATING FLOW DIRECTION, AREA SERVED, SYSTEM TYPE AND OTHER IDENTIFYING INFORMATION. COMPLY WITH ASME PIPING AND EQUIPMENT IDENTIFICATION STANDARDS.

**INSULATION**

A. PROVIDE AND INSTALL GLASS FIBER PREFORMED PIPE INSULATION WITH VAPOR PROOF COATING ACCORDING TO THE FOLLOWING SCHEDULE:  
DOMESTIC COLD WATER PIPING:  
1/2" TO 2" PIPE SIZE - 3/4" INSULATION  
2" AND ABOVE - 1" INSULATION  
DOMESTIC HOT WATER AND RECIRCULATED HOT WATER PIPING:  
1/2" TO 2" PIPE SIZE - 1" INSULATION  
2" AND ABOVE - 1-1/2" INSULATION  
RAIN WATER PIPING AND PLUMBING VENTS (WITHIN 6" OF ROOF):  
1/2" TO 2" PIPE SIZE - 3/4" INSULATION  
2" AND ABOVE - 1" INSULATION

B. GLASS FIBER INSULATION SHALL HAVE A FLAME SPREAD RATING OF 25 OR LESS AND A SMOKE DEVELOPED RATING OF 50 OR LESS.

C. SEAL ALL ENDS AND JOINTS TO PROVIDE A COMPLETELY SEALED INSULATION SYSTEM. PROVIDE COVER HANGER INSERTS AND SHIELDS WITH JACKET MATERIAL MATCHING ADJACENT PIPE INSULATION.

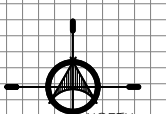
E. PROVIDE SNAP ON INSULATION KIT ON ALL ADA COMPLIANT LAVATORIES AND SINKS.

**PLUMBING GENERAL NOTES**

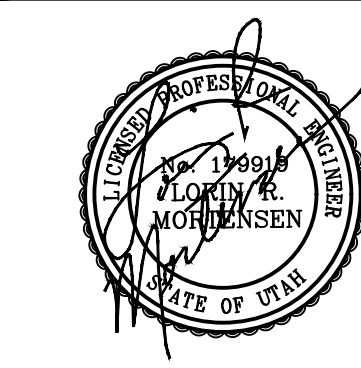
- PROVIDE ALL EQUIPMENT, PIPING, MATERIALS, LABOR, PERMITS, AND FEES TO CONSTRUCT A COMPLETE AND OPERATIONAL PLUMBING SYSTEM FOR THE ENTIRE PROJECT AS SHOWN ON THE DRAWINGS.
- COORDINATE THE EXACT LOCATION OF ALL PLUMBING FIXTURES AND DRAINS WITH THE ARCHITECTURAL DRAWINGS AND THE GENERAL CONTRACTOR.
- COORDINATE ALL WORK WITH THE GENERAL CONTRACTOR, MECHANICAL SUB-CONTRACTOR, ELECTRICAL SUB-CONTRACTOR, AND ALL OTHER TRADES IN THE PROJECT.
- ALL PLUMBING INFORMATION IS NOT SHOWN ON THE PLUMBING DRAWINGS. COORDINATE ALL PLUMBING WORK WITH THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, CIVIL, AND ELECTRICAL DRAWINGS.
- PLUMBING PLANS ARE SCHEMATIC IN NATURE AND THEREFORE DO NOT SHOW ALL DROPS, RISERS, AND OFFSETS. THE CONTRACTOR SHALL MAKE ALL REQUIRED MODIFICATIONS TO PROVIDE A COMPLETE AND OPERATIONAL PLUMBING SYSTEM. MAJOR MODIFICATIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER.
- DO NOT RUN PIPING ABOVE ELECTRICAL PANELS. PROVIDE 4'-0" DEEP X 6'-0" HIGH CLEAR ACCESS SPACE IN FRONT OF PANELS. DO NOT RUN PIPING IN ELECTRICAL ROOMS.
- INSTALL ALL PIPING SHOWN IN EXTERIOR WALLS ON THE WARM (ROOM) SIDE OF THE BUILDING INSULATION.
- INSTALL WATER, GAS, AND VENT PIPING AS HIGH AS POSSIBLE ABOVE THE CEILING UNLESS NOTED OTHERWISE.
- INSTALL WASTE PIPING BELOW THE FLOOR UNLESS NOTED OTHERWISE.
- INSTALL EXTERIOR PIPING 48" MINIMUM BELOW GRADE.
- INSTALL PLUMBING VENTS A MINIMUM OF 3 FEET ABOVE OR 10 FEET AWAY FROM OUTSIDE AIR INTAKES. COORDINATE WITH THE MECHANICAL SUB-CONTRACTOR.
- PAINT ALL ROOFTOP PLUMBING VENTS, CONCENTRIC VENTS, AND FLUES TO MATCH THE ROOF COLOR.
- WATER CLOSET FLUSH VALVE CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE FIXTURE.

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**Mortensen Engineering, Inc.**  
251 South 830 East  
Smithfield, Utah 84335  
(435) 770-5534



JOSEPH T. BECK ARCHITECT, INC.  
497 EAST 520 SOUTH  
SMITHFIELD, UTAH  
(435) 764-6742



DATE  
September 9, 2016

PROJECT TITLE  
NIBLEY VET CLINIC / KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

SHEET TITLE  
PLUMBING NOTES  
& SPECIFICATIONS

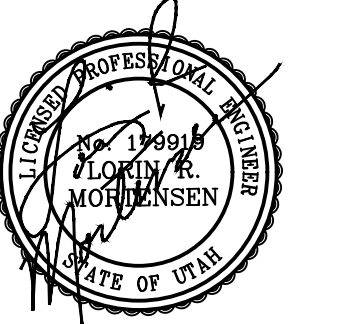
PROJECT NUMBER

REVISIONS

SHEET NUMBER

P0.1





DATE  
 September 9, 2016

PROJECT TITLE  
 NIBLEY VET CLINIC / KENNEL  
 NEW BUILDING PROJECT  
 2365 SOUTH HERITAGE DRIVE  
 NIBLEY, UTAH

SHEET TITLE  
 MAIN LEVEL  
 PLUMBING PLAN

PROJECT NUMBER

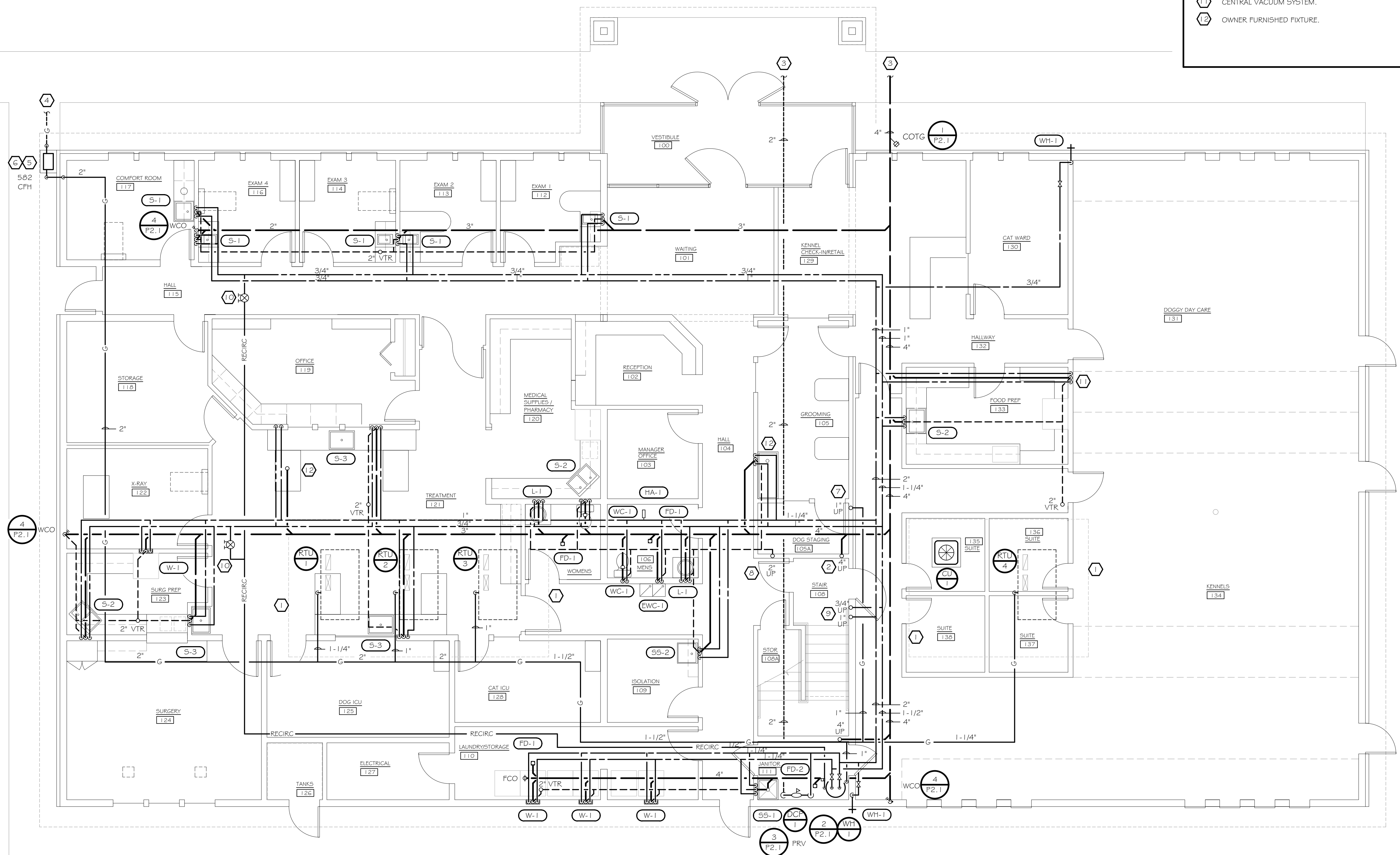
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SHEET NUMBER

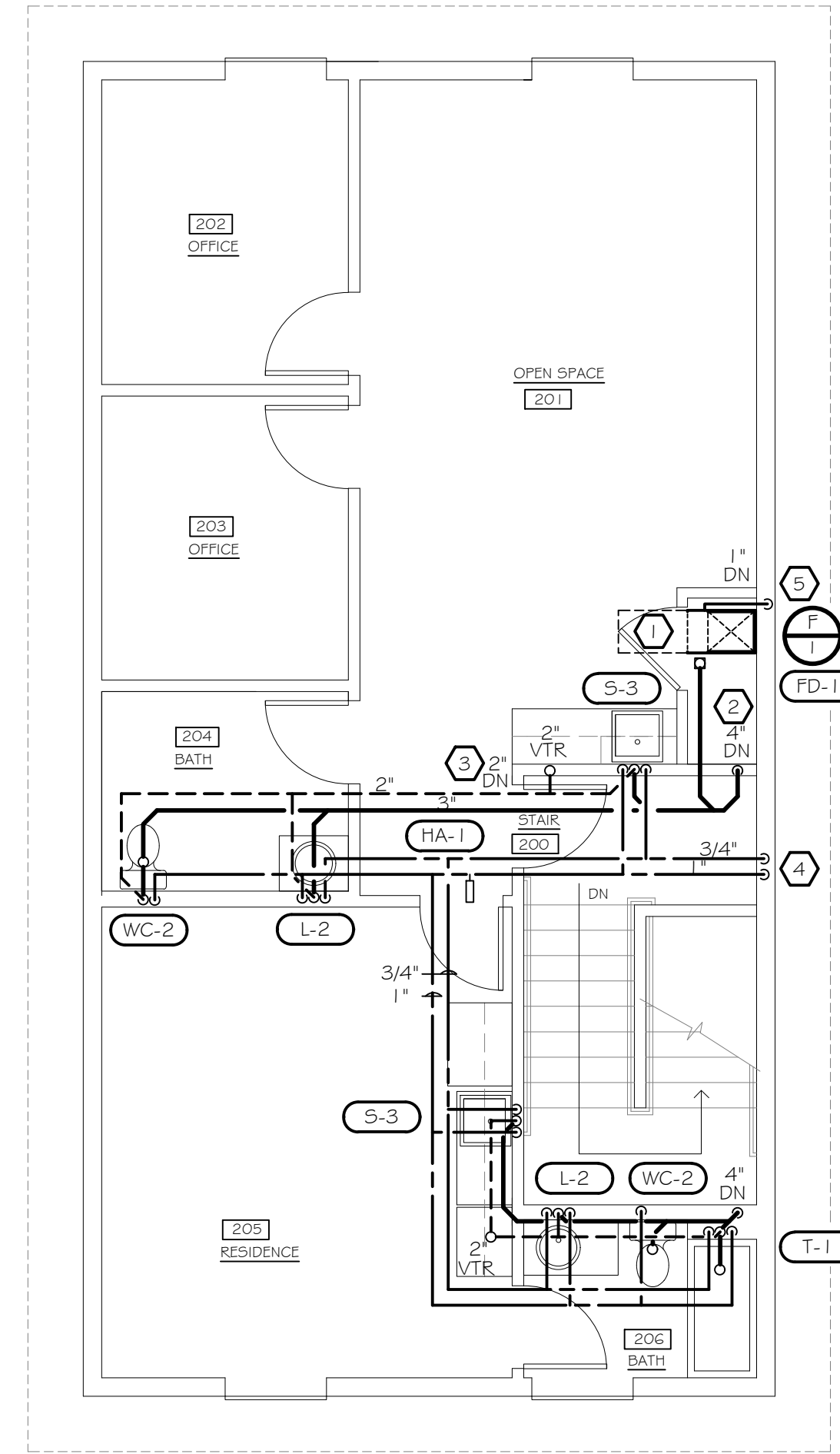
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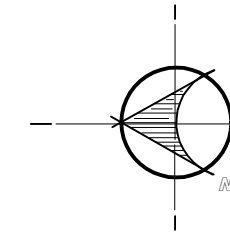
REFERENCE NOTES

- 1 MECHANICAL EQUIPMENT WELL ON ROOF ABOVE.
- 2 WASTE PIPING UP TO FLOOR ABOVE.
- 3 SEE SITE UTILITY PLAN FOR CONTINUATION.
- 4 GAS YARD LINE BY GAS COMPANY.
- 5 GAS METER BY GAS COMPANY.
- 6 PROVIDE CONCRETE PAD BELOW GAS METER.
- 7 NATURAL GAS PIPING UP TO FLOOR ABOVE.
- 8 VENT PIPING UP TO FLOOR ABOVE.
- 9 HOT & COLD WATER PIPING UP TO FLOOR ABOVE.
- 10 FLOW SETTER. SET AT 1 GPM.
- 11 CENTRAL VACUUM SYSTEM.
- 12 OWNER FURNISHED FIXTURE.



MAIN LEVEL  
 PLUMBING PLAN  
 SCALE: 3/16" = 1'-0"

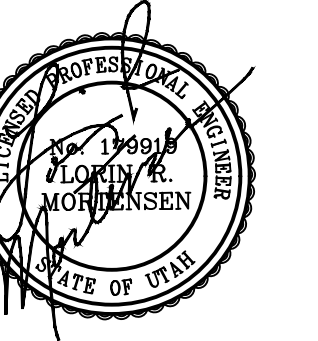



 UPPER LEVEL  
 PLUMBING PLAN  
 SCALE: 3/16" = 1'-0"

REFERENCE NOTES

- ① EQUIPMENT SERVICE AREA. KEEP CLEAR OF DUCTS AND PIPES.
- ② WASTE PIPING DOWN TO FLOOR BELOW.
- ③ VENT PIPING DOWN TO FLOOR BELOW.
- ④ HOT & COLD WATER PIPING DOWN TO FLOOR BELOW.
- ⑤ NATURAL GAS PIPING DOWN TO FLOOR BELOW.

JOSEPH T. BECK ARCHITECT, INC.  
 497 EAST 520 SOUTH  
 SMITHFIELD, UTAH  
 (435) 764-8742



DATE  
 September 9, 2016

PROJECT TITLE  
 NIBLEY VET CLINIC / KENNEL  
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 2365 SOUTH HERITAGE DRIVE  
 NIBLEY, UTAH

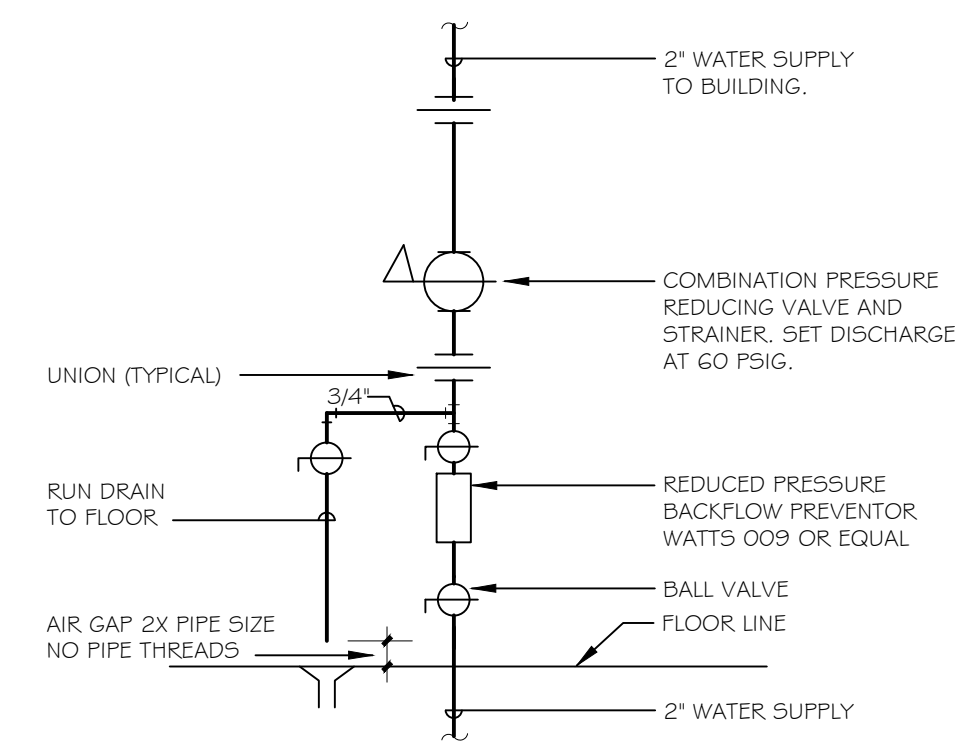
SHEET TITLE  
 UPPER LEVEL  
 PLUMBING PLAN

PROJECT NUMBER

REVISIONS

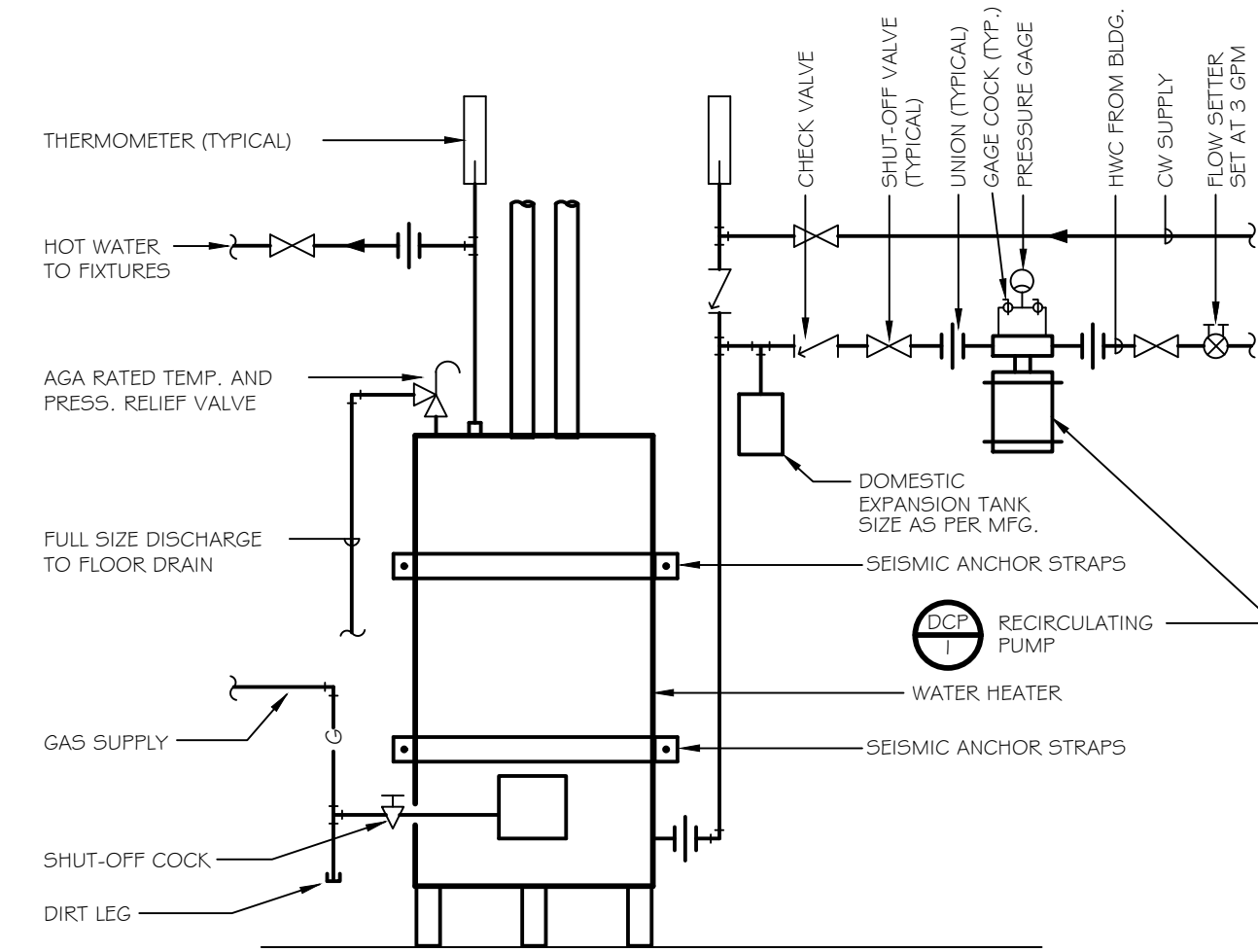
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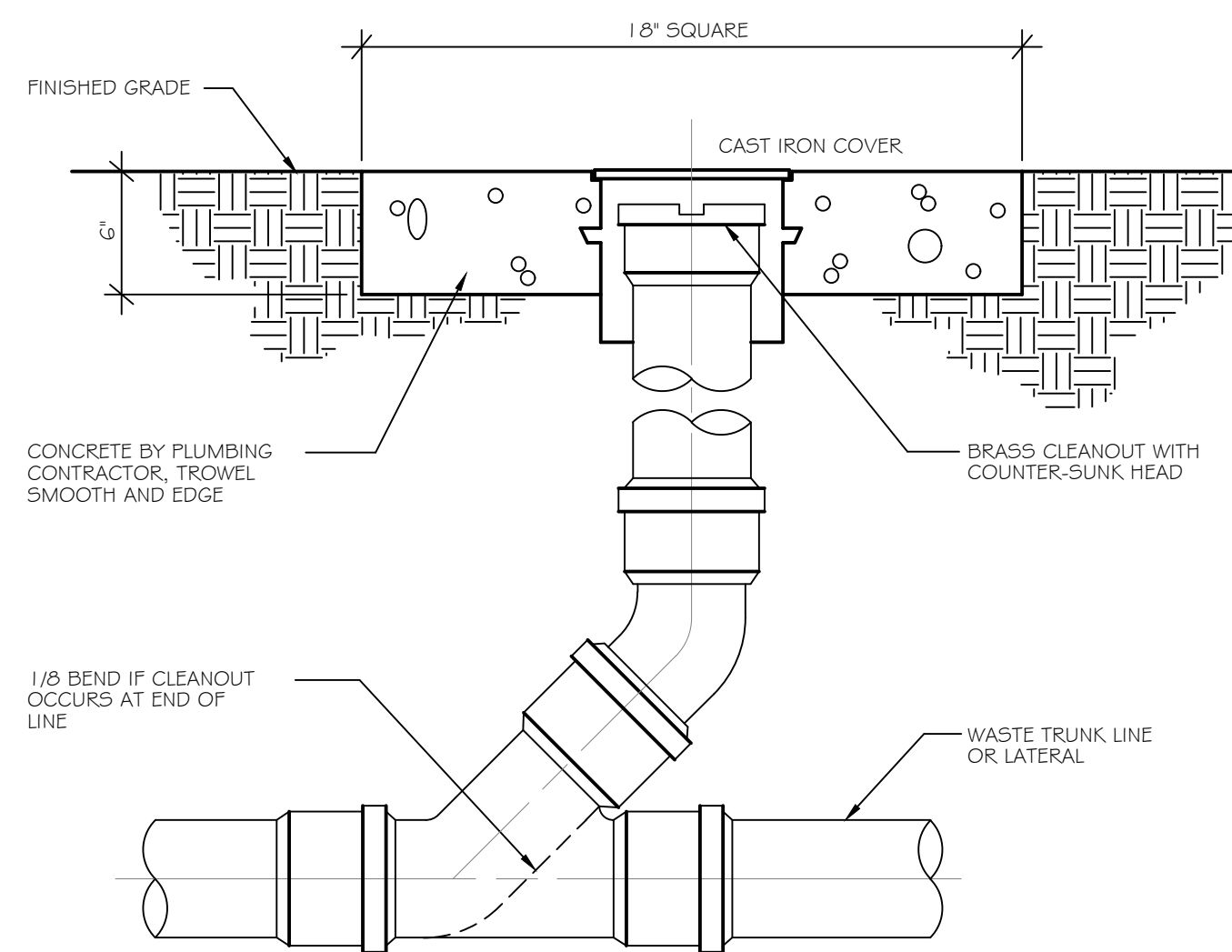
VERTICAL WATER PRESSURE REDUCING STATION DETAIL  
NOT TO SCALE

3  
P3.0



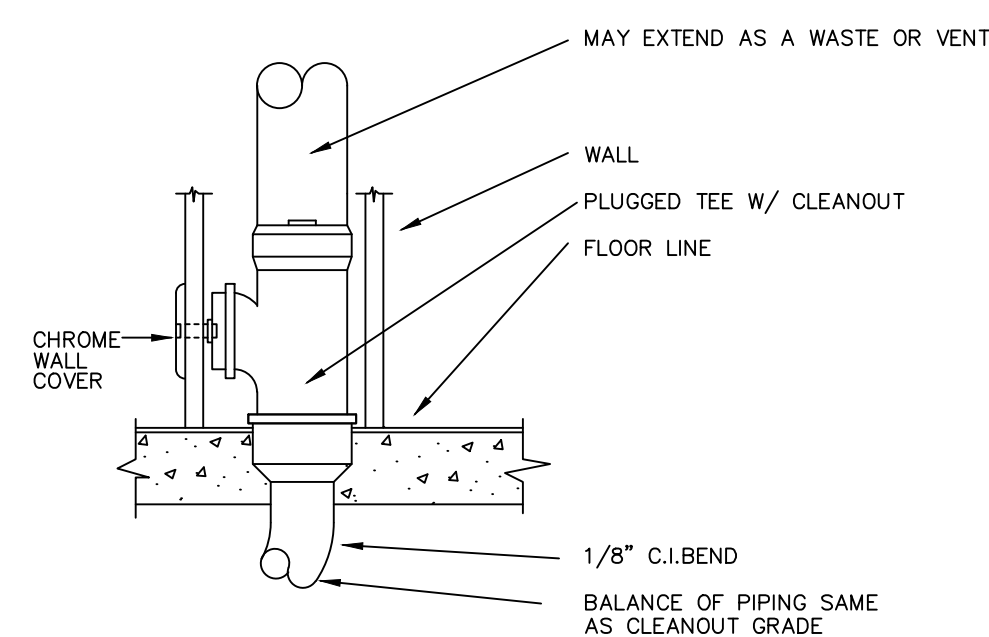
WATER HEATER DETAIL  
NOT TO SCALE

2  
P2.1



CLEAN OUT TO GRADE DETAIL  
NOT TO SCALE

1  
P2.1



WALL CLEANOUT DETAIL  
NOT TO SCALE

4  
P2.1

PLUMBING FIXTURE SCHEDULE								
FIX. NO.	FIXTURE	TYPE	DESCRIPTION	WASTE	TRAP	VENT	HW	CW
(EWC-1)	ACCESSIBLE ELECTRIC WATER COOLER	ACCESSIBLE BARRIER-FREE	ACORN AQUA A1 12106F WALL MOUNTED BARRIER FREE BI-LEVEL WATER COOLER WITH ONE-PIECE STAINLESS STEEL TOP AND RECEPTOR, WELDED STEEL FRAME, AND STEEL PANELS WITH BAKED ENAMEL COATING, 1/4 HP, 115/160, FAN COOLED CONDENSER, 2 GPM OF 50°F WATER AT 80°F INLET WATER. COLOR BY ARCHT.	1 1/2"	1 1/4"	1 1/4"	-	1/2"
(FD-1)	FLOOR DRAIN	TOILET ROOMS MECHANICAL	SMITH FIGURE 2010-BP CAST IRON BODY AND FLASHING COLLAR WITH PROTECTIVE CAP AND ROUND NICKEL BRONZE ADJUSTABLE STRAINER HEAD WITH SECURED SQUARE HOLE GRATE. DEEP SEAL TRAP.	2"	2"	1 1/2"	-	-
(FD-2)	FLOOR DRAIN	CUSTODIAL MECHANICAL	SMITH FIGURE 2010-AP CAST IRON BODY AND FLASHING COLLAR WITH PROTECTIVE CAP AND ROUND NICKEL BRONZE ADJUSTABLE STRAINER HEAD WITH SECURED SQUARE HOLE GRATE. DEEP SEAL TRAP.	3"	3"	1 1/2"	-	-
(HA-1)	WATER HAMMER ARRESTOR	INLINE	JAY R. SMITH HYDROTROL WATER HAMMER ARRESTOR MODEL 5020, PDI SYMBOL "C", 1" THREADED NIPPLE, STAINLESS STEEL CONSTRUCTION, EXPANSION BELLOW TYPE.	-	-	-	-	1"
(L-1)	ACCESSIBLE LAVATORY	ACCESSIBLE COUNTER MOUNTED OVAL	AMERICAN STANDARD MODEL 0293 SELF RIMMING VITREOUS CHINA OVAL LAVATORY WITH SINGLE FAUCET HOLE, OPEN GRID STRAINER, CLEVELAND CFG MODEL 4771 1L SINGLE HANDLE LAVATORY. PROVIDE ADA INSULATION KIT ON LINES BELOW LAV. SWING SPOUT, # E3 AERATOR, AND 1/2 HP DISPOSAL. (1)	1 1/2"	1 1/4"	1 1/4"	1/2"	1/2"
(L-2)	LAVATORY	COUNTER MOUNTED OVAL	AMERICAN STANDARD MODEL 0293 SELF RIMMING VITREOUS CHINA OVAL LAVATORY WITH SINGLE FAUCET HOLE, OPEN GRID STRAINER, CLEVELAND CFG MODEL 4771 1L SINGLE HANDLE LAVATORY. (1)	1 1/2"	1 1/4"	1 1/4"	1/2"	1/2"
(S-1)	EXAM SINK	SINGLE COMPARTMENT	ELKAY LR2219 18 GAUGE TYPE 304 STAINLESS STEEL COUNTERTOP SELF RIMMING SINK. DIMENSIONS: 17" x 19 1/2" x 7 1/2" WITH (2) FAUCET HOLES ON 8" CENTERS; LK-35 DUO-STRAINER; CHICAGO 785-E3 HI-LITE QUATURN FITTING; NO. 317 WRIST BLADE HANDLES; GN-1A-E5 SPOUT. (1)	2"	1 1/2"	1 1/2"	1/2"	1/2"
(S-2)	EXAM SINK	TWO COMPARTMENT SINK	DAYTON D5EW-3321 18 GAUGE #300 STAINLESS STEEL COUNTERTOP SELF RIMMING SINK. DIMENSIONS: 33" x 21" x 8" WITH (2) FAUCET HOLES ON 4" CENTERS; STRAINER; CLEVELAND CFG FLAGSTONE MODEL 475 1L SINGLE HANDLE FAUCET WITH 8" SWING SPOUT, # E3 AERATOR. (1)	2"	1 1/2"	1 1/2"	1/2"	1/2"
(S-3)	EXAM SINK	SINGLE COMPARTMENT	ELKAY LR2219 18 GAUGE TYPE 304 STAINLESS STEEL COUNTERTOP SELF RIMMING SINK. DIMENSIONS: 22" x 19 1/2" x 7 1/2" WITH (2) FAUCET HOLES ON 8" CENTERS; LK-35 DUO-STRAINER; CHICAGO 785-E3 HI-LITE QUATURN FITTING; NO. 317 WRIST BLADE HANDLES; GN-1A-E5 SPOUT. (1)	2"	1 1/2"	1 1/2"	1/2"	1/2"
(S-3)	EXAM SINK	SINGLE COMPARTMENT	CUSTOM BLACK RESIN UNDER COUNTER MOUNT SINGLE SINK. DIMENSIONS: 22" x 19 1/2" x 7 1/2" WITH (1) FAUCET HOLE SINGLE LEVER CONTEMPORARY GOOSENECK SPOUT WITH PULL OUT SPRAY. (1)	2"	1 1/2"	1 1/2"	1/2"	1/2"
(SS-1)	SERVICE SINK	FLOOR MOUNTED CORNER INSTALLED SERVICE SINK	KOHLER K-6710 WHITBY WHITE ENAMELED CAST IRON CORNER SERVICE SINK WITH K-8940 COATED WIRE RIM GUARD, K-91446 STRAINER, AND DEEP SEAL TRAP. CHICAGO 897-CP WALL MOUNTED FAUCET WITH VACUUM BREAKER, PAIL HOOK, WALL BRACE, 369 HANDLES, 3/4" MALE HOSE OUTLET, 4 WALL HOOKS. (1)	3"	3"	1 1/2"	1/2"	1/2"
(SS-2)	SERVICE SINK	FLOOR MOUNTED SERVICE SINK	FIAT PRODUCTS MOLDED STONE FLOOR MOUNTED LAUNDRY SINK FL-1 20-1/4" x 17-1/4" x 13" WITH MOUNTING LEGS AND EXTENDED SWING SPOUT FAUCET WITH QUARTER TURN WRISTBLADE HANDLES. (1)	3"	3"	1 1/2"	1/2"	1/2"
(T-1)	SHOWER VALVE AND TUB	WALL MOUNTED	LEONARD FAM-115T-5 PRESSURE ACTUATED MIXER WITH 1/2" INLETS & OUTLET, BRONZE CONSTRUCTION, S.S. PRESSURE BAL. PISTON, AND SAFETY STOP WITH SHUT OFF SET AT 110°F. UNIT COMPLETE WITH WALL FLANGE, 3 COLOR DIAL, ANGLE CHECK STOPS AMERICAST TUB.	2"	2"	1 1/2"	1/2"	1/2"
(W-1)	WASHER CONNECTION		WALL BOX WITH SHUT-OFF VALVES, HOSE CONNECTIONS, DRAIN OUTLET WITH 2" STAND. PIPE WITH TRAP AND VENT. SYMMONS OR GUY GRAY.	2"	2"	1 1/2"	1/2"	1/2"
(WC-1)	WATER CLOSET	ACCESSIBLE FLOOR MOUNTED FLUSH VALVE	KOHLER K-4368 HIGHCLIFF VITREOUS CHINA TOP SPUD FLOOR MOUNTED REVERSE TRAP ELONGATED TOILET WITH 52048 BOLT CAPS; PLASTIC OPEN FRONT SEAT; 12" ROUGHING-IN. ACTUATOR SHALL BE ON THE WIDE SIDE OF STALL. SLOAN MANUAL OPERATED FLUSH VALVE.	3"	-	1 1/2"	-	1"
(WC-2)	WATER CLOSET RESTROOM	FLOOR MOUNTED FLUSH VALVE	KOHLER K-4350 WELCOMME VITREOUS CHINA TOP SPUD FLOOR MOUNTED REVERSE TRAP ELONGATED TOILET WITH 52048 BOLT CAPS; PLASTIC OPEN FRONT SEAT; 12" ROUGHING-IN. ACTUATOR SHALL BE ON THE WIDE SIDE OF STALL. SLOAN MANUAL OPERATED FLUSH VALVE.	3"	-	1 1/2"	-	1/2"
(WH-1)	WALL HYDRANT	WALL MOUNTED	CHICAGO NONFREEZE AUTOMATIC DRAINING, ANTI-BACKFLOW TYPE, KEY OPERATION WITH 3/4" HOSE CONNECTION.	-	-	-	-	3/4"

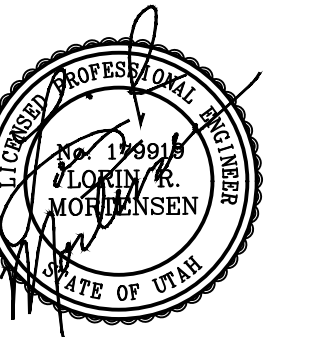
(1) PROVIDE SYMMONS THERMIXER MODEL 5-120 THERMOSTATIC MIXING VALVE BELOW LAVATORIES AND SINK. SET OUTLET AT 110°F. CONNECT TO HOT WATER INLET OF FAUCET.

DOMESTIC WATER CIRCULATE PUMP SCHEDULE								
PUMP NO.	MANUFACTURER AND MODEL NO.	GPM	HEAD FT.	H.P.	RPM	VOLTS/PHASE/CYCLE	EQUIPMENT OR AREA SERVED	COMMENTS
(DCP-1)	BELL & GOSSETT SERIES PRs	3	-	1/4	1750	120/1/60	ALL ROOMS & FIXTURES	(1) (2)

(1) ALL BRONZE CONSTRUCTION.  
(2) EQUIPPED WITH 24 HOUR, 7 DAY PROGRAMMABLE TIMER.

GAS FIRED DOMESTIC HOT WATER HEATER SCHEDULE										
SYMBOL	MANUFACTURERS AND MODEL NO.	TANK CAPACITY GALLONS	FUEL TYPE	INPUT BTUH (1)	AMP	VOLTS/ PHASE/ CYCLE	RECOVERY RATE @ 90°F RISE GPH	WATER TEMP IN/OUT	STACK IN/OUT SIZE	COMMENTS
(WH-1)	A.O. SMITH BFD-80	75	NAT GAS	76,000	3	120/1/60	82	50/140	3/0	

JOSEPH T. BECK ARCHITECT, INC.  
497 EAST 520 SOUTH  
SMITHFIELD, UTAH  
(435) 764-6742



DATE  
September 9, 2016

PROJECT TITLE  
NIBLEY VET CLINIC / KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

SHEET TITLE  
PLUMBING DETAILS  
& SCHEDULES

PROJECT NUMBER

REVISIONS  
August 27, 2015

SHEET NUMBER

P2.1



SPECIFICATIONS

260500 - COMMON WORK RESULTS FOR ELECTRICAL
11.1 PERFORMANCE REQUIREMENTS
A. Seismic Performance: Electrical equipment shall withstand the effects of earthquake motions determined according to SEIASCE 7.

260519 - LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES
1.1 CONDUCTORS AND CABLES
A. Conductor Insulation: Comply with NEMA WC 70/ICEA S-95-658 for Type THHN-2-THWN-2, Type XHHW-2, and Type SO.

260526 - GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS
1.1 CONDUCTORS
A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.

1.1 CONDUCTORS AND CABLES
A. Conductor Insulation: Comply with NEMA WC 70/ICEA S-95-658 for Type THHN-2-THWN-2, Type XHHW-2, and Type SO.

260529 - HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS
1.1 PERFORMANCE REQUIREMENTS
A. Design supports for multiple raceways capable of supporting combined weight of supported systems and its contents.

SECTION 260533 - RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS
1.1 METAL CONDUITS, TUBING, AND FITTINGS
A. Listing and Labeling: Metal conduits, tubing, and fittings shall be listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

1.1 CONDUCTORS AND CABLES
A. Conductor Insulation: Comply with NEMA WC 70/ICEA S-95-658 for Type THHN-2-THWN-2, Type XHHW-2, and Type SO.

1.1 CONDUCTORS AND CABLES
A. Conductor Insulation: Comply with NEMA WC 70/ICEA S-95-658 for Type THHN-2-THWN-2, Type XHHW-2, and Type SO.

within 24 inches of changes in direction.
G. Conceal conduit and EMT within finished walls, ceilings, and floors unless otherwise indicated. Install conduits parallel or perpendicular to building lines.

SECTION 260548 - VIBRATION AND SEISMIC CONTROLS FOR ELECTRICAL SYSTEMS
1.1 PERFORMANCE REQUIREMENTS
A. Seismic-Restraint Loading:
1. Site Class as Defined in the IBC: D.

SECTION 260553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS
1.1 QUALITY ASSURANCE
A. Comply with ANSI A13.1.

SECTION 260548 - VIBRATION AND SEISMIC CONTROLS FOR ELECTRICAL SYSTEMS
1.1 PERFORMANCE REQUIREMENTS
A. Seismic-Restraint Loading:
1. Site Class as Defined in the IBC: D.

SECTION 260943.23 - RELAY-BASED LIGHTING CONTROLS
1.1 ACTION SUBMITTALS
A. Product Data: For each type of product.

1. Leviton EZ-Max or equivalent
2. A single enclosure with incoming lighting branch circuits, control circuits, switching relays, and on-board timing and control unit.

SECTION 262416 - PANELBOARDS
1.1 ACTION SUBMITTALS
A. Product Data: For each type of product indicated.

SECTION 260553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS
1.1 QUALITY ASSURANCE
A. Comply with ANSI A13.1.

SECTION 260553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS
1.1 QUALITY ASSURANCE
A. Comply with ANSI A13.1.

SECTION 260553 - IDENTIFICATION FOR ELECTRICAL SYSTEMS
1.1 QUALITY ASSURANCE
A. Comply with ANSI A13.1.

JOSEPH T. BECK ARCHITECT, INC.
487 EASTFIELD SOUTH
SMITHFIELD, UTAH
(435) 764-6742

REGISTERED PROFESSIONAL ENGINEER
No. 294174
SHANE D. SWENSON
9/9/2016
STATE OF UTAH

DATE
SEPTEMBER 9, 2016

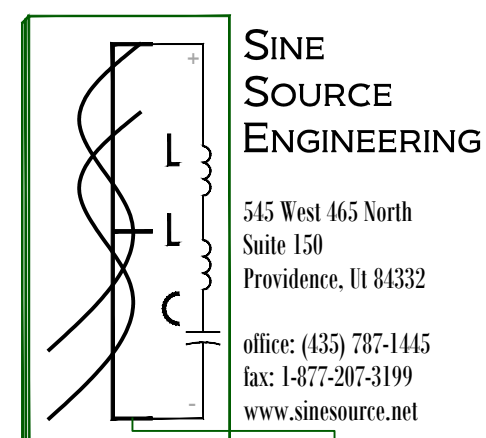
PROJECT TITLE
NIBLEY VET CLINIC/KENNEL
NEW BUILDING PROJECT
2365 SOUTH HERITAGE DRIVE
NIBLEY, UTAH

SHEET TITLE
ELECTRICAL
SPECIFICATIONS

PROJECT NUMBER
SSE# 2016038

REVISIONS

SHEET NUMBER
E002



LAST SAVE: 9/29/2016 11:00:00 AM PROJECT: NIBLEY VET CLINIC/KENNEL NEW BUILDING PROJECT 2365 SOUTH HERITAGE DRIVE NIBLEY, UTAH SHEET: ELECTRICAL SPECIFICATIONS

SPECIFICATIONS

SECTION 262713 - ELECTRICITY METERING
1.1 SUMMARY
A. Section includes equipment for electricity metering by utility company.
1.2 ACTION SUBMITTALS
A. Product Data: For each type of product indicated.
B. Shop Drawings: Dimensioned plans and sections or elevation layouts and wiring diagrams.
C. Field quality-control reports.
D. Operation and Maintenance Data. In addition to items specified in Section 017223 "Operation and Maintenance Data," include the following:
1.3 QUALITY ASSURANCE
A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
1.4 EQUIPMENT FOR ELECTRICITY METERING BY UTILITY COMPANY
A. Meters will be furnished by utility company.
B. Control/Transformer Cabinets: Comply with requirements of electrical-power utility company.
C. Meter Sockets: Comply with requirements of electrical-power utility company.
1.5 INSTALLATION
A. Comply with equipment installation requirements in NECA 1.
B. Install meters furnished by utility company. Install raceways and equipment according to utility company's written requirements. Provide empty conduits for metering leads and extend grounding connections as required by utility company.
C. Install modular meter center according to NECA 400 switchboard installation requirements.
D. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."
1. Series Combination Warning Label: Self-adhesive type, with text as required by NFPA 70.

B. Comply with NFPA 70.
1.3 GENERAL REQUIREMENTS FOR LIGHTING FIXTURES AND COMPONENTS
A. Recessed Fixtures: Comply with NEMA LE 4 for ceiling compatibility for recessed fixtures.
B. Fluorescent Fixtures: Comply with UL 1598. Where LER is specified, test according to NEMA LE 5 and NEMA LE 5A as applicable.
C. Metal Parts: Free of burrs and sharp corners and edges.
D. Diffusers and Globes:
1. Acrylic Lighting Diffusers: 100 percent virgin acrylic plastic. High resistance to yellowing and other changes due to aging, exposure to heat, and UV radiation.
a. Lens Thickness: At least 0.125 inch minimum unless otherwise indicated.
b. UV stabilized.
1.4 LED LUMINAIRES
A. Solid State Drivers and LED: Comply with DOE LM 79
1. Total Harmonic Distortion Rating: Less than 10 percent
2. Transient Voltage protection
3. Power factor: 0.90 or higher
4. Temperature: Minus 40 deg F (minus 40 deg C) and higher
5. Heat sink to remove heat from circuits
6. L70 compliant to 70,000 hours minimum
7. Color Rendering Index: 80 CRI minimum
8. Dimmable
a. Dimming Range: 100 to 1 percent of rated lamp lumens
b. Input watts: Can be reduced to 20 percent of normal
B. Emergency Battery Pack: Minimum 1100 lumen output.
1.5 BALLASTS FOR FLUORESCENT LAMPS
A. General Requirements for Electronic Ballasts:
1. Comply with UL 935 and with ANSI C82.11.
2. Designed for type and quantity of lamps served.
3. Program-Start
1.6 EMERGENCY FLUORESCENT POWER UNIT
A. Internal Type: Self-contained, modular, battery-inverter unit, factory mounted within lighting fixture body and compatible with ballast. Comply with UL 924.
1. Emergency Connection: Operate one fluorescent lamp(s) continuously at an output of 1100 lumens each. Connect unswitched circuit to battery-inverter unit and switched circuit to fixture ballast.
2. Nightlight Connection: Operate one fluorescent lamp continuously.
3. Test Push Button and Indicator Light: Visible and accessible without opening fixture or entering ceiling space.
4. Battery: Sealed, maintenance-free, nickel-cadmium type.
5. Charger: Fully automatic.
6. Integral Self-Test.
1.7 EXIT SIGNS
A. General Requirements for Exit Signs: Comply with UL 924; for sign colors, visibility, luminance, and lettering size, comply with authorities having jurisdiction.
B. Internally Lighted Signs:
1. Lamps for AC Operation: LEDs, 50,000 hours minimum rated lamp life.
2. Self-Powered Exit Signs (Battery Type): Integral automatic charger in a self-contained power pack.
1.8 FLUORESCENT LAMPS
A. T8 rapid-start lamps, CRI 85 (minimum), color temperature 4000 K, and average rated life 20,000 hours unless otherwise indicated.
1.9 LIGHTING FIXTURE SUPPORT COMPONENTS
A. Wires: ASTM A 641/A 641M, Class 3, soft temper, zinc-coated steel, 12 gage.
1.10 INSTALLATION
A. Lighting fixtures: Set level, plumb, and square with ceilings and walls. Install lamps in each fixture.
B. Comply with NFPA 70 for minimum fixture supports.
C. Suspended Lighting Fixture Support:
1. Pendants and Rods: Where longer than 48 inches, brace to limit swinging.
2. Stem-Mounted, Single-Unit Fixtures: Suspend with twin-stem hangers.
3. Continuous Rows: Use tubing or stem for wiring at one point and tubing or rod for suspension for each unit length of fixture chassis, including one at each end.
1.11 FIELD QUALITY CONTROL
A. Test for Emergency Lighting: Interrupt power supply to demonstrate proper operation. Verify transfer from normal power to battery and retransfer to normal.

1. Install plenum cable in environmental air spaces, including plenum ceilings.
2. Comply with requirements for raceways and boxes specified in Division 26 Section "Raceway and Boxes for Electrical Systems."
B. Wiring within Enclosures: Bundle, lace, and train cables to terminal points with no excess and without exceeding manufacturer's limitations on bending radii. Provide and use lacing bars and distribution spools.
1.4 INSTALLATION OF PATHWAYS
A. Comply with TIA/EIA-569-A for pull-box sizing and length of conduit and number of bends between pull points.
B. Comply with requirements in Division 26 Section "Raceway and Boxes for Electrical Systems" for installation of conduits and wireways.
C. Install manufactured conduit sweeps and long-radius elbows.
D. Pathway Installation in Communications Equipment Rooms:
1. Position conduit ends adjacent to a corner on backboard where a single piece of plywood is installed, or in the corner of room where multiple sheets of plywood are installed around perimeter walls of room.
2. Secure conduits to backboard when entering room from overhead.
3. Install metal conduits with grounding bushings and connect with grounding conductor to grounding system.
1.5 INSTALLATION OF CABLES
A. Comply with NECA 1.
B. General Requirements for Cabling:
1. Comply with TIA/EIA-568-B.1.
2. Comply with BICSI ITSM, Ch. 6, "Cable Termination Practices."
3. Install 110-style IDC termination hardware unless otherwise indicated.
4. Terminate conductors; no cable shall contain unterminated elements.
5. Pulling Cable: Comply with BICSI ITSM, Ch. 4, "Pulling Cable." Monitor cable pull tensions.
C. UTP Cable Installation:
1. Comply with TIA/EIA-568-B.2.
D. Separation from EMI Sources:
1. Comply with BICSI TDMM and TIA/EIA-569-A for separating unshielded copper voice and data communication cable from potential EMI sources, including electrical power lines and equipment.
1.6 IDENTIFICATION
A. Identify system components, wiring, and cabling complying with TIA/EIA-606-A. Comply with requirements for identification specified in Division 26 Section "Identification for Electrical Systems."
1. Color-code cross-connect fields. Apply colors to voice and data service backboards, connections, covers, and labels.
B. Labels shall be preprinted or computer-printed type with printing area and font color that contrasts with cable jacket color but still complies with requirements in TIA/EIA-606-A.

6. Base Mounting: Detector and associated electronic components shall be mounted in a twist-lock module that connects to a fixed base. The fixed base shall be designed for mounting directly to air duct. Provide terminals in the fixed base for connection to building wiring.
a. Weatherproof Duct Housing Enclosure: NEMA 250, Type 4X, listed for use with the supplied detector.
7. Sampling Tubes: Design and dimensions as recommended by manufacturer for specific duct size, air velocity, and installation conditions where applied.
8. Relay Fan Shutdown: Rated to interrupt fan motor-control circuit.
1.8 NOTIFICATION APPLIANCES
A. General Requirements for Notification Appliances: Connected to notification-appliance signal circuits, zoned as indicated, equipped for mounting as indicated, and with screw terminals for system connections.
1. Combination Devices: Factory-integrated audible and visible devices in a single-mounting assembly, equipped for mounting as indicated, and with screw terminals for system connections.
B. Chimes, High-Level Output: Vibrating type.
C. Horns: Electric-vibrating-polarized type, 24-V dc; with provision for housing the operating mechanism behind a grille. Comply with UL 464.
D. Visible Notification Appliances: Xenon strobe lights complying with UL 1971, with clear or nonmetal white polycarbonate lens mounted on an aluminum faceplate. The word "FIRE" is engraved in minimum 1-inch-high letters on the lens.
1. Mounting: Wall mounted unless otherwise indicated.
2. Flashing shall be in a temporal pattern, synchronized with other units.
3. Strobe Leads: Factory connected to screw terminals.
4. Mounting Faceplate: Factory finished, red.
1.9 EQUIPMENT INSTALLATION
A. Comply with NFPA 72, NFPA 101, and requirements of authorities having jurisdiction for installation and testing of fire-alarm equipment. Install all electrical wiring to comply with requirements in NFPA 70 including, but not limited to, Article 760, "Fire Alarm Systems."
B. Install wall-mounted equipment, with tops of cabinets not more than 78 inches above the finished floor.
1. Comply with requirements for seismic-restraint devices specified in Section 260548.16 "Seismic Controls for Electrical Systems."
C. Smoke- or Heat-Detector Spacing: Comply with NFPA 72.
D. Duct Smoke Detectors: Comply with NFPA 72 and NFPA 90A. Install sampling tubes so they extend the full width of duct. Tubes more than 36 inches long shall be supported at both ends.
E. Visible Alarm-Indicating Devices: Install adjacent to each alarm bell or alarm horn and at least 6 inches below the ceiling. Install all devices at the same height unless otherwise indicated.
F. Device Location-Indicating Lights: Locate in public space near the device they monitor.

SECTION 262726 - WIRING DEVICES
1.1 GENERAL WIRING-DEVICE REQUIREMENTS
A. Wiring Devices, Components, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
1.2 STRAIGHT-BLADE RECEPTACLES
A. Convenience Receptacles, 125 V, 20 A: Comply with NEMA WD 1, NEMA WD 6 Configuration 5-20R, UL 498, and FS W-C-596.
1.3 GFCI RECEPTACLES
A. General Description:
1. Straight blade, feed-through type.
2. Comply with NEMA WD 1, NEMA WD 6, UL 498, UL 943 Class A, and FS W-C-596.
3. Include indicator light that shows when the GFCI has malfunctioned and no longer provides proper GFCI protection.
B. Duplex GFCI Convenience Receptacles, 125 V, 20 A:
1.4 TOGGLE SWITCHES
A. Comply with NEMA WD 1, UL 20, and FS W-S-896.
B. Switches, 120/277 V, 20 A:
C. Pilot-Light Switches, 20 A:
1. Description: Single pole, with neon-lighted handle, illuminated when switch is "off."
1.5 WALL-BOX DIMMERS
A. Dimmer Switches: Modular, full-wave, solid-state units with integral, quiet on/off switches, with audible frequency and EMIRFI suppression filters.
B. Control: Continuously adjustable slider or toggle switch; with single-pole or three-way switching. Comply with UL 1472.
C. LED Lamp Dimmer Switches: Modular, compatible with LED dimmer drivers; trim potentiometer to adjust low-end dimming; dimmer-driver combination capable of consistent dimming with low end not greater than 1 percent of full brightness.
1.6 WALL PLATES
A. Single and combination types shall match corresponding wiring devices.
1. Plate-Securing Screws: Metal with head color to match plate finish.
2. Material for Finished Spaces: Smooth, high-impact thermoplastic or 0.035-inch-thick, satin-finished, Type 302 stainless steel.
3. Material for Unfinished Spaces: Galvanized steel.
4. Material for Damp Locations: Thermoplastic or Cast aluminum with spring-loaded lift cover, and listed and labeled for use in wet and damp locations.
B. Wet-Location, Weatherproof Cover Plates: NEMA 250, complying with Type 3R, weather-resistant, die-cast aluminum or thermoplastic with lockable cover.
1.7 FINISHES
A. Device Color:
1. Wiring Devices Connected to Normal Power System: As selected by Architect unless otherwise indicated or required by NFPA 70 or device listing.
B. Wall Plate Color: For plastic covers, match device color.
1.8 INSTALLATION
A. Comply with NECA 1, including mounting heights listed in that standard, unless otherwise indicated.
B. Coordination with Other Trades:
1. Protect installed devices and their boxes. Do not place wall finish materials over device boxes and do not cut holes for boxes with routers that are guided by riding against outside of boxes.
2. Keep outlet boxes free of plaster, drywall joint compound, mortar, cement, concrete, dust, paint, and other material that may contaminate the raceway system, conductors, and cables.
3. Install device boxes in brick or block walls so that the cover plate does not cross a joint unless the joint is troweled flush with the face of the wall.
4. Install wiring devices after all wall preparation, including painting, is complete.
C. Conductors:
1. Do not strip insulation from conductors until right before they are spliced or terminated on devices.
2. Strip insulation evenly around the conductor using tools designed for the purpose. Avoid scoring or nicking of solid wire or cutting strands from stranded wire.
3. The length of free conductors at outlets for devices shall meet provisions of NFPA 70, Article 300, without pigtails.
D. Device Installation:
1. Replace devices that have been in temporary use during construction and that were installed before building finishing operations were complete.
2. Keep each wiring device in its package or otherwise protected until it is time to connect conductors.
3. Do not remove surface protection, such as plastic film and smudge covers, until the last possible moment.
4. Connect devices to branch circuits using pigtails that are not less than 6 inches in length.
5. When conductors larger than No. 12 AWG are installed on 15- or 20-A circuits, splice No. 12 AWG pigtails for device connections.
6. Tighten unused terminal screws on the device.
7. When mounting into metal boxes, remove the fiber or plastic washers used to hold device-mounting screws in boxes, allowing metal-to-metal contact.
E. Receptacle Orientation:
1. Install ground pin of vertically mounted receptacles down, and on horizontally mounted receptacles to the left.
F. Device Plates: Do not use oversized or extra-deep plates. Repair wall finishes and remove outlet boxes when standard device plates do not fit flush or do not cover rough wall opening.
G. Dimmers:
1. Install dimmers within terms of their listing.
2. Install unshared neutral conductors on line and load side of dimmers according to manufacturers' device listing conditions in the written instructions.

SECTION 271500 - COMMUNICATIONS CABLING
1.1 PERFORMANCE REQUIREMENTS
A. General Performance: Horizontal cabling system shall comply with transmission standards in TIA/EIA-568-B.1, when tested according to test procedures of this standard.
1.2 QUALITY ASSURANCE
A. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
1. Flame-Spread Index: 25 or less.
2. Smoke-Developed Index: 50 or less.
B. Telecommunications Pathways and Spaces: Comply with TIA/EIA-569-A.
C. Grounding: Comply with ANSI-J-STD-607-A.
1.3 DELIVERY, STORAGE, AND HANDLING
A. Test cables upon receipt at Project site. Test each pair of UTP cable for open and short circuits.
1.4 PATHWAYS
A. Cable Support: NRTL labeled for support of Category 6 cabling, designed to prevent degradation of cable performance and pinch points that could damage cable.
1. Support brackets with cable ties for fastening cable ties to brackets.
2. Lacing bars, spools, J-hooks, and D-rings.
3. Straps and other devices.
B. Conduit and Boxes: Comply with requirements in Division 26 Section "Raceway and Boxes for Electrical Systems." Flexible metal conduit shall not be used.
1. Outlet boxes shall be no smaller than 2 inches wide, 3 inches high, and 2-1/2 inches deep.
1.5 LABELING
A. Comply with TIA/EIA-606-A and UL 969 for a system of labeling materials, including label stocks, laminating adhesives, and inks used by label printers.
1.6 GROUNDING
A. Comply with requirements in Division 26 Section "Grounding and Bonding for Electrical Systems" for grounding conductors and connectors.
1.7 BACKBOARDS
A. Backboards: Plywood, fire-retardant treated, 3/4 by 48 by 96 inches.
1.8 UTP CABLE
A. Description: 100-ohm, 4-pair UTP, covered with a blue thermoplastic jacket.
1. Comply with ICEA S-90-661 for mechanical properties.
2. Comply with TIA/EIA-568-B.1 for performance specifications.
3. Comply with TIA/EIA-568-B.2, Category 6.
4. Listed and labeled by an NRTL acceptable to authorities having jurisdiction as complying with UL 444 and NFPA 70 for the following types:
a. Communications, General Purpose: Type CM or CMG; or MPP, CMP, MPR, CMR, MP, or MPG.
b. Communications, Plenum Rated: Type CMP or MPP, complying with NFPA 262.
1.9 UTP CABLE HARDWARE
A. General Requirements for Cable Connecting Hardware: Comply with TIA/EIA-568-B.2, IDC type, with modules designed for punch-down caps or tools. Cables shall be terminated with connecting hardware of same category or higher.
B. Connecting Blocks: 110-style IDC for Category 6.
C. Cross-Connect: Modular array of connecting blocks arranged to terminate building cables and permit interconnection between cables.
1. Number of Terminals per Field: One for each conductor in assigned cables.
D. Patch Panel: Modular panels housing multiple-numbered jack units with IDC-type connectors at each jack for permanent termination of pair groups of installed cables.
1. Number of Jacks per Field: One for each four-pair UTP cable indicated.
E. Jacks and Jack Assemblies: Modular, color-coded, eight-position modular receptacle units with integral IDC-type terminals.
F. Patch Cords: Factory-made, four-pair cables in varying lengths; terminated with eight-position modular plug at each end.
1. Patch cords shall have bend-relief-compliant boots and color-coded icons to ensure Category 6 performance. Patch cords shall have latch guards to protect against snagging.
1.10 COAXIAL CABLE
A. General Coaxial Cable Requirements: Broadband type, recommended by cable manufacturer specifically for broadband data transmission applications. Coaxial cable and accessories shall have 75-ohm nominal impedance with a return loss of 20 dB maximum from 7 to 806 MHz.
B. RG-6/U (Plenum Rated): NFPA 70, Type CMP.
C. Coaxial-Cable Connectors: Type BNC, 75 ohms.
1.11 TELECOMMUNICATIONS OUTLET/CONNECTORS
A. Jacks: 100-ohm, balanced, twisted-pair connector; four-pair, eight-position modular. Comply with TIA/EIA-568-B.1.
B. Workstation Outlets: Four and six-port connector assemblies mounted in single faceplate.
1. For use with snap-in jacks accommodating any combination of UTP work area cords.
2. Legend: Snap-in, clear-label covers and machine-printed paper inserts.

SECTION 283112 - ZONED (DC LOOP) FIRE-ALARM SYSTEM
1.1 SYSTEM DESCRIPTION
A. Noncoded system dedicated to fire-alarm service only.
B. All components provided shall be listed for use with the selected system.
1.2 SUBMITTALS
A. Product Data: For each type of product indicated.
B. Shop Drawings: For fire-alarm system. Include plans, elevations, sections, details, and attachments to other work.
C. General Submittal Requirements:
1. Submittals shall be approved by authorities having jurisdiction prior to submitting them to Architect.
2. Shop Drawings shall be prepared by persons with the following qualifications:
a. Trained and certified by manufacturer in fire-alarm system design.
b. NICET-certified fire-alarm technician, Level III minimum.
D. Delegated-Design Submittal: For smoke and heat detectors indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
1. Drawings showing the location of each smoke and heat detector, ratings of each, and installation details as needed to comply with listing conditions of the detector.
2. Design Calculations: Calculate requirements for selecting the spacing and sensitivity of detection, complying with NFPA 72.
E. Seismic Qualification Certificates: For fire-alarm control unit, accessories, and components, from manufacturer.
F. Field quality-control reports.
G. Operation and Maintenance Data: For fire-alarm systems and components to include in emergency, operation, and maintenance manuals.
1. Comply with the "Records" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72.
2. Provide "Record of Completion Documents" according to NFPA 72 article "Permanent Records" in the "Records" Section of the "Inspection, Testing and Maintenance" Chapter.
3. Record copy of site-specific software.
4. Provide "Maintenance, Inspection and Testing Records" according to NFPA 72 article of the same name and include the following:
a. Frequency of testing of installed components.
b. Frequency of inspection of installed components.
c. Requirements and recommendations related to results of maintenance.
d. Manufacturer's user training manuals.
5. Manufacturer's required maintenance related to system warranty requirements.
6. Abbreviated operating instructions for mounting at fire-alarm control unit.
1.3 SYSTEM DESCRIPTION
A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
1.4 SYSTEMS OPERATIONAL DESCRIPTION
A. Fire-alarm signal initiation shall be by one or more of the following devices and systems:
1. Duct smoke detectors.
B. Fire-alarm signal shall initiate the following actions:
1. Continuously operate alarm notification appliances.
2. Identify alarm zone at fire-alarm control unit.
3. Record events in the system memory.
C. System trouble signal initiation shall be by one or more of the following devices and actions:
1. Open circuits, shorts, and grounds in designated circuits.
2. Opening, tampering with, or removing alarm-initiating and supervisory signal-initiating devices.
3. Loss of primary power at fire-alarm control unit.
4. Ground or a single break in internal circuits of fire-alarm control unit.
5. Abnormal ac voltage at fire-alarm control unit.
6. Break in standby battery circuitry.
7. Failure of battery charging.
D. System Trouble and Supervisory Signal Actions:
1. Initiate notification appliances.
2. Annunciate at fire-alarm control unit.
1.5 PERFORMANCE REQUIREMENTS
A. Seismic Performance: Fire-alarm control unit and raceways shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
1. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified and the unit will be fully operational after the seismic event."
1.6 FIRE-ALARM CONTROL UNIT
A. General Requirements for Fire-Alarm Control Unit:
1. Modular, power-limited design with electronic modules, UL 864 listed.
a. Include a real-time clock for time annotation of events.
b. The FACP shall be listed for connection to a central-station signaling system service.
B. Alphanumeric Display and System Controls: Display alarm, supervisory, and component status messages and the programming and control menu.
1. Annunciator and Display: Liquid-crystal type, two lines of 40 characters, minimum.
C. Circuits:
1. No Fewer Than 4 Initiating-Device Circuits.
2. No Fewer Than Two Notification-Appliance Circuits.
D. Primary Power: 24-V dc obtained from 120-V ac service and a power-supply module. Initiating devices, notification appliances, signaling lines, trouble signals, shall be powered by the 24-V dc source.
1. Alarm current draw of the entire fire-alarm system shall not exceed 80 percent of the power-supply module rating.
E. Secondary Power: 24-V dc supply system with batteries, automatic battery charger, and automatic transfer switch.
1.7 SYSTEM SMOKE DETECTORS
A. General Requirements for System Smoke Detectors:
1. Operating at 24-V dc, nominal.
2. Detectors shall be two-wire type.
3. Base Mounting: Detector and associated electronic components shall be mounted in a twist-lock module that connects to a fixed base. Provide terminals in the fixed base for connection to building wiring.
4. Self-Restoring: Detectors do not require resetting or readjustment after actuation to restore them to normal operation.
5. Integral Visual-Indicating Light: LED type, indicating detector has operated and power-on status.
B. Photoelectric Smoke Detectors: Comply with UL 268.
C. Duct Smoke Detectors: Photoelectric type complying with UL 268A.
1. Remote indication station. Operating key switch initiates an alarm test.
2. Weatherproof Duct Housing Enclosure: NEMA 250, Type 4X; NRTL listed for use with the supplied detector for smoke detection in HVAC system ducts.
3. Sampling Tubes: Design and dimensions as recommended by manufacturer for specific duct size, air velocity, and installation conditions where applied.
4. Relay Fan Shutdown: Rated to interrupt fan motor-control circuit.
5. Comply with UL 268A; operating at 120-V ac.

1.00 PATHWAYS
A. Pathways shall be installed in EMT.
B. Exposed EMT shall be painted red enamel.
1.11 IDENTIFICATION
A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."
B. Install framed instructions in a location visible from fire-alarm control unit.
1.12 GROUNDING
A. Ground fire-alarm control unit and associated circuits; comply with IEEE 1100. Install a ground wire from main service ground to fire-alarm control unit.
B. Ground shielded cables at the control panel location only. Insulate shield at device location.
1.13 FIELD QUALITY CONTROL
A. Field tests shall be witnessed by Architect and authorities having jurisdiction.
B. Perform the following tests and inspections:
1. Visual Inspection: Conduct the visual inspection prior to testing.
a. Inspection shall be based on completed record Drawings and system documentation that is required by the "Completion Documents, Preparation" table in the "Documentation" section of the "Fundamentals" chapter in NFPA 72.
2. System Testing: Comply with the "Test Methods" table in the "Testing" section of the "Inspection, Testing, and Maintenance" chapter in NFPA 72.
3. Test audible appliances for the public operating mode according to manufacturer's written instructions. Perform the test using a portable sound-level meter complying with Type 2 requirements in ANSI S1.4.
4. Test visible appliances for the public operating mode according to manufacturer's written instructions.
C. Reacceptance Testing: Perform reacceptance testing to verify the proper operation of added or replaced devices and appliances.
D. Fire-alarm system will be considered defective if it does not pass tests and inspections.
E. Prepare test and inspection reports.
Annual Test and Inspection: One year after date of Substantial Completion, test fire-alarm system complying with the visual and testing inspection requirements in NFPA 72. Use forms developed for initial tests and inspections.
1.14 DEMONSTRATION
A. Train Owner's maintenance personnel to adjust, operate, and maintain fire-alarm system.

SECTION 262816 - ENCLOSED SWITCHES AND CIRCUIT BREAKERS
1.1 QUALITY ASSURANCE
A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
1.2 NONFUSIBLE SWITCHES
A. Type GD: General Duty, Single Throw, 600 A and Smaller; UL 98 and NEMA KS 1, horsepower rated, lockable handle with capability to accept two padlocks, and interlocked with cover in closed position.
B. Accessories:
1. Equipment Ground Kit: Internally mounted and labeled for copper and aluminum ground conductors.
2. Neutral Kit: Internally mounted; insulated, capable of being grounded and bonded; labeled for copper and aluminum neutral conductors.
3. Lugs: Suitable for number, size, and conductor material.
1.3 MOLDED-CASE CIRCUIT BREAKERS
A. General Requirements: Comply with UL 489, NEMA AB 1, and NEMA AB 3, with interrupting capacity to comply with available fault currents.
B. Thermal-Magnetic Circuit Breakers: Inverse time-current element for low-level overloads and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
C. Features and Accessories:
1. Standard frame sizes, trip ratings, and number of poles.
2. Lugs: Suitable for number, size, trip ratings, and conductor material.
3. Application Listing: Appropriate for application; Type SWD for switching fluorescent lighting loads; Type HID for feeding fluorescent and high-intensity discharge lighting circuits.
1.4 INSTALLATION
A. Install individual wall-mounted switches and circuit breakers with tops at uniform height unless otherwise indicated.
B. Comply with NECA 1.
1.5 IDENTIFICATION
A. Comply with requirements in Section 260553 "Identification for Electrical Systems."

SECTION 271500 - COMMUNICATIONS CABLING
1.1 PERFORMANCE REQUIREMENTS
A. General Performance: Horizontal cabling system shall comply with transmission standards in TIA/EIA-568-B.1, when tested according to test procedures of this standard.
1.2 QUALITY ASSURANCE
A. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
1. Flame-Spread Index: 25 or less.
2. Smoke-Developed Index: 50 or less.
B. Telecommunications Pathways and Spaces: Comply with TIA/EIA-569-A.
C. Grounding: Comply with ANSI-J-STD-607-A.
1.3 DELIVERY, STORAGE, AND HANDLING
A. Test cables upon receipt at Project site. Test each pair of UTP cable for open and short circuits.
1.4 PATHWAYS
A. Cable Support: NRTL labeled for support of Category 6 cabling, designed to prevent degradation of cable performance and pinch points that could damage cable.
1. Support brackets with cable ties for fastening cable ties to brackets.
2. Lacing bars, spools, J-hooks, and D-rings.
3. Straps and other devices.
B. Conduit and Boxes: Comply with requirements in Division 26 Section "Raceway and Boxes for Electrical Systems." Flexible metal conduit shall not be used.
1. Outlet boxes shall be no smaller than 2 inches wide, 3 inches high, and 2-1/2 inches deep.
1.5 LABELING
A. Comply with TIA/EIA-606-A and UL 969 for a system of labeling materials, including label stocks, laminating adhesives, and inks used by label printers.
1.6 GROUNDING
A. Comply with requirements in Division 26 Section "Grounding and Bonding for Electrical Systems" for grounding conductors and connectors.
1.7 BACKBOARDS
A. Backboards: Plywood, fire-retardant treated, 3/4 by 48 by 96 inches.
1.8 UTP CABLE
A. Description: 100-ohm, 4-pair UTP, covered with a blue thermoplastic jacket.
1. Comply with ICEA S-90-661 for mechanical properties.
2. Comply with TIA/EIA-568-B.1 for performance specifications.
3. Comply with TIA/EIA-568-B.2, Category 6.
4. Listed and labeled by an NRTL acceptable to authorities having jurisdiction as complying with UL 444 and NFPA 70 for the following types:
a. Communications, General Purpose: Type CM or CMG; or MPP, CMP, MPR, CMR, MP, or MPG.
b. Communications, Plenum Rated: Type CMP or MPP, complying with NFPA 262.
1.9 UTP CABLE HARDWARE
A. General Requirements for Cable Connecting Hardware: Comply with TIA/EIA-568-B.2, IDC type, with modules designed for punch-down caps or tools. Cables shall be terminated with connecting hardware of same category or higher.
B. Connecting Blocks: 110-style IDC for Category 6.
C. Cross-Connect: Modular array of connecting blocks arranged to terminate building cables and permit interconnection between cables.
1. Number of Terminals per Field: One for each conductor in assigned cables.
D. Patch Panel: Modular panels housing multiple-numbered jack units with IDC-type connectors at each jack for permanent termination of pair groups of installed cables.
1. Number of Jacks per Field: One for each four-pair UTP cable indicated.
E. Jacks and Jack Assemblies: Modular, color-coded, eight-position modular receptacle units with integral IDC-type terminals.
F. Patch Cords: Factory-made, four-pair cables in varying lengths; terminated with eight-position modular plug at each end.
1. Patch cords shall have bend-relief-compliant boots and color-coded icons to ensure Category 6 performance. Patch cords shall have latch guards to protect against snagging.
1.10 COAXIAL CABLE
A. General Coaxial Cable Requirements: Broadband type, recommended by cable manufacturer specifically for broadband data transmission applications. Coaxial cable and accessories shall have 75-ohm nominal impedance with a return loss of 20 dB maximum from 7 to 806 MHz.
B. RG-6/U (Plenum Rated): NFPA 70, Type CMP.
C. Coaxial-Cable Connectors: Type BNC, 75 ohms.
1.11 TELECOMMUNICATIONS OUTLET/CONNECTORS
A. Jacks: 100-ohm, balanced, twisted-pair connector; four-pair, eight-position modular. Comply with TIA/EIA-568-B.1.
B. Workstation Outlets: Four and six-port connector assemblies mounted in single faceplate.
1. For use with snap-in jacks accommodating any combination of UTP work area cords.
2. Legend: Snap-in, clear-label covers and machine-printed paper inserts.

SECTION 283112 - ZONED (DC LOOP) FIRE-ALARM SYSTEM
1.1 SYSTEM DESCRIPTION
A. Noncoded system dedicated to fire-alarm service only.
B. All components provided shall be listed for use with the selected system.
1.2 SUBMITTALS
A. Product Data: For each type of product indicated.
B. Shop Drawings: For fire-alarm system. Include plans, elevations, sections, details, and attachments to other work.
C. General Submittal Requirements:
1. Submittals shall be approved by authorities having jurisdiction prior to submitting them to Architect.
2. Shop Drawings shall be prepared by persons with the following qualifications:
a. Trained and certified by manufacturer in fire-alarm system design.
b. NICET-certified fire-alarm technician, Level III minimum.
D. Delegated-Design Submittal: For smoke and heat detectors indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
1. Drawings showing the location of each smoke and heat detector, ratings of each, and installation details as needed to comply with listing conditions of the detector.
2. Design Calculations: Calculate requirements for selecting the spacing and sensitivity of detection, complying with NFPA 72.
E. Seismic Qualification Certificates: For fire-alarm control unit, accessories, and components, from manufacturer.
F. Field quality-control reports.
G. Operation and Maintenance Data: For fire-alarm systems and components to include in emergency, operation, and maintenance manuals.
1. Comply with the "Records" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72.
2. Provide "Record of Completion Documents" according to NFPA 72 article "Permanent Records" in the "Records" Section of the "Inspection, Testing and Maintenance" Chapter.
3. Record copy of site-specific software.
4. Provide "Maintenance, Inspection and Testing Records" according to NFPA 72 article of the same name and include the following:
a. Frequency of testing of installed components.
b. Frequency of inspection of installed components.
c. Requirements and recommendations related to results of maintenance.
d. Manufacturer's user training manuals.
5. Manufacturer's required maintenance related to system warranty requirements.
6. Abbreviated operating instructions for mounting at fire-alarm control unit.
1.3 SYSTEM DESCRIPTION
A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
1.4 SYSTEMS OPERATIONAL DESCRIPTION
A. Fire-alarm signal initiation shall be by one or more of the following devices and systems:
1. Duct smoke detectors.
B. Fire-alarm signal shall initiate the following actions:
1. Continuously operate alarm notification appliances.
2. Identify alarm zone at fire-alarm control unit.
3. Record events in the system memory.
C. System trouble signal initiation shall be by one or more of the following devices and actions:
1. Open circuits, shorts, and grounds in designated circuits.
2. Opening, tampering with, or removing alarm-initiating and supervisory signal-initiating devices.
3. Loss of primary power at fire-alarm control unit.
4. Ground or a single break in internal circuits of fire-alarm control unit.
5. Abnormal ac voltage at fire-alarm control unit.
6. Break in standby battery circuitry.
7. Failure of battery charging.
D. System Trouble and Supervisory Signal Actions:
1. Initiate notification appliances.
2. Annunciate at fire-alarm control unit.
1.5 PERFORMANCE REQUIREMENTS
A. Seismic Performance: Fire-alarm control unit and raceways shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
1. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified and the unit will be fully operational after the seismic event."
1.6 FIRE-ALARM CONTROL UNIT
A. General Requirements for Fire-Alarm Control Unit:
1. Modular, power-limited design with electronic modules, UL 864 listed.
a. Include a real-time clock for time annotation of events.
b. The FACP shall be listed for connection to a central-station signaling system service.
B. Alphanumeric Display and System Controls: Display alarm, supervisory, and component status messages and the programming and control menu.
1. Annunciator and Display: Liquid-crystal type, two lines of 40 characters, minimum.
C. Circuits:
1. No Fewer Than 4 Initiating-Device Circuits.
2. No Fewer Than Two Notification-Appliance Circuits.
D. Primary Power: 24-V dc obtained from 120-V ac service and a power-supply module. Initiating devices, notification appliances, signaling lines, trouble signals, shall be powered by the 24-V dc source.
1. Alarm current draw of the entire fire-alarm system shall not exceed 80 percent of the power-supply module rating.
E. Secondary Power: 24-V dc supply system with batteries, automatic battery charger, and automatic transfer switch.
1.7 SYSTEM SMOKE DETECTORS
A. General Requirements for System Smoke Detectors:
1. Operating at 24-V dc, nominal.
2. Detectors shall be two-wire type.
3. Base Mounting: Detector and associated electronic components shall be mounted in a twist-lock module that connects to a fixed base. Provide terminals in the fixed base for connection to building wiring.
4. Self-Restoring: Detectors do not require resetting or readjustment after actuation to restore them to normal operation.
5. Integral Visual-Indicating Light: LED type, indicating detector has operated and power-on status.
B. Photoelectric Smoke Detectors: Comply with UL 268.
C. Duct Smoke Detectors: Photoelectric type complying with UL 268A.
1. Remote indication station. Operating key switch initiates an alarm test.
2. Weatherproof Duct Housing Enclosure: NEMA 250, Type 4X; NRTL listed for use with the supplied detector for smoke detection in HVAC system ducts.
3. Sampling Tubes: Design and dimensions as recommended by manufacturer for specific duct size, air velocity, and installation conditions where applied.
4. Relay Fan Shutdown: Rated to interrupt fan motor-control circuit.
5. Comply with UL 268A; operating at 120-V ac.

1.00 PATHWAYS
A. Pathways shall be installed in EMT.
B. Exposed EMT shall be painted red enamel.
1.11 IDENTIFICATION
A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."
B. Install framed instructions in a location visible from fire-alarm control unit.
1.12 GROUNDING
A. Ground fire-alarm control unit and associated circuits; comply with IEEE 1100. Install a ground wire from main service ground to fire-alarm control unit.
B. Ground shielded cables at the control panel location only. Insulate shield at device location.
1.13 FIELD QUALITY CONTROL
A. Field tests shall be witnessed by Architect and authorities having jurisdiction.
B. Perform the following tests and inspections:
1. Visual Inspection: Conduct the visual inspection prior to testing.
a. Inspection shall be based on completed record Drawings and system documentation that is required by the "Completion Documents, Preparation" table in the "Documentation" section of the "Fundamentals" chapter in NFPA 72.
2. System Testing: Comply with the "Test Methods" table in the "Testing" section of the "Inspection, Testing, and Maintenance" chapter in NFPA 72.
3. Test audible appliances for the public operating mode according to manufacturer's written instructions. Perform the test using a portable sound-level meter complying with Type 2 requirements in ANSI S1.4.
4. Test visible appliances for the public operating mode according to manufacturer's written instructions.
C. Reacceptance Testing: Perform reacceptance testing to verify the proper operation of added or replaced devices and appliances.
D. Fire-alarm system will be considered defective if it does not pass tests and inspections.
E. Prepare test and inspection reports.
Annual Test and Inspection: One year after date of Substantial Completion, test fire-alarm system complying with the visual and testing inspection requirements in NFPA 72. Use forms developed for initial tests and inspections.
1.14 DEMONSTRATION
A. Train Owner's maintenance personnel to adjust, operate, and maintain fire-alarm system.

SECTION 262816 - ENCLOSED SWITCHES AND CIRCUIT BREAKERS
1.1 QUALITY ASSURANCE
A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
1.2 NONFUSIBLE SWITCHES
A. Type GD: General Duty, Single Throw, 600 A and Smaller; UL 98 and NEMA KS 1, horsepower rated, lockable handle with capability to accept two padlocks, and interlocked with cover in closed position.
B. Accessories:
1. Equipment Ground Kit: Internally mounted and labeled for copper and aluminum ground conductors.
2. Neutral Kit: Internally mounted; insulated, capable of being grounded and bonded; labeled for copper and aluminum neutral conductors.
3. Lugs: Suitable for number, size, and conductor material.
1.3 MOLDED-CASE CIRCUIT BREAKERS
A. General Requirements: Comply with UL 489, NEMA AB 1, and NEMA AB 3, with interrupting capacity to comply with available fault currents.
B. Thermal-Magnetic Circuit Breakers: Inverse time-current element for low-level overloads and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
C. Features and Accessories:
1. Standard frame sizes, trip ratings, and number of poles.
2. Lugs: Suitable for number, size, trip ratings, and conductor material.
3. Application Listing: Appropriate for application; Type SWD for switching fluorescent lighting loads; Type HID for feeding fluorescent and high-intensity discharge lighting circuits.
1.4 INSTALLATION
A. Install individual wall-mounted switches and circuit breakers with tops at uniform height unless otherwise indicated.
B. Comply with NECA 1.
1.5 IDENTIFICATION
A. Comply with requirements in Section 260553 "Identification for Electrical Systems."

SECTION 271500 - COMMUNICATIONS CABLING
1.1 PERFORMANCE REQUIREMENTS
A. General Performance: Horizontal cabling system shall comply with transmission standards in TIA/EIA-568-B.1, when tested according to test procedures of this standard.
1.2 QUALITY ASSURANCE
A. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
1. Flame-Spread Index: 25 or less.
2. Smoke-Developed Index: 50 or less.
B. Telecommunications Pathways and Spaces: Comply with TIA/EIA-569-A.
C. Grounding: Comply with ANSI-J-STD-607-A.
1.3 DELIVERY, STORAGE, AND HANDLING
A. Test cables upon receipt at Project site. Test each pair of UTP cable for open and short circuits.
1.4 PATHWAYS
A. Cable Support: NRTL labeled for support of Category 6 cabling, designed to prevent degradation of cable performance and pinch points that could damage cable.
1. Support brackets with cable ties for fastening cable ties to brackets.
2. Lacing bars, spools, J-hooks, and D-rings.
3. Straps and other devices.
B. Conduit and Boxes: Comply with requirements in Division 26 Section "Raceway and Boxes for Electrical Systems." Flexible metal conduit shall not be used.
1. Outlet boxes shall be no smaller than 2 inches wide, 3 inches high, and 2-1/2 inches deep.
1.5 LABELING
A. Comply with TIA/EIA-606-A and UL 969 for a system of labeling materials, including label stocks, laminating adhesives, and inks used by label printers.
1.6 GROUNDING
A. Comply with requirements in Division 26 Section "Grounding and Bonding for Electrical Systems" for grounding conductors and connectors.
1.7 BACKBOARDS
A. Backboards: Plywood, fire-retardant treated, 3/4 by 48 by 96 inches.
1.8 UTP CABLE
A. Description: 100-ohm, 4-pair UTP, covered with a blue thermoplastic jacket.
1. Comply with ICEA S-90-661 for mechanical properties.
2. Comply with TIA/EIA-568-B.1 for performance specifications.
3. Comply with TIA/EIA-568-B.2, Category 6.
4. Listed and labeled by an NRTL acceptable to authorities having jurisdiction as complying with UL 444 and NFPA 70 for the following types:
a. Communications, General Purpose: Type CM or CMG; or MPP, CMP, MPR, CMR, MP, or MPG.
b. Communications, Plenum Rated: Type CMP or MPP, complying with NFPA 262.
1.9 UTP CABLE HARDWARE
A. General Requirements for Cable Connecting Hardware: Comply with TIA/EIA-568-B.2, IDC type, with modules designed for punch-down caps or tools. Cables shall be terminated with connecting hardware of same category or higher.
B. Connecting Blocks: 110-style IDC for Category 6.
C. Cross-Connect: Modular array of connecting blocks arranged to terminate building cables and permit interconnection between cables.
1. Number of Terminals per Field: One for each conductor in assigned cables.
D. Patch Panel: Modular panels housing multiple-numbered jack units with IDC-type connectors at each jack for permanent termination of pair groups of installed cables.
1. Number of Jacks per Field: One for each four-pair UTP cable indicated.
E. Jacks and Jack Assemblies: Modular, color-coded, eight-position modular receptacle units with integral IDC-type terminals.
F. Patch Cords: Factory-made, four-pair cables in varying lengths; terminated with eight-position modular plug at each end.
1. Patch cords shall have bend-relief-compliant boots and color-coded icons to ensure Category 6 performance. Patch cords shall have latch guards to protect against snagging.
1.10 COAXIAL CABLE
A. General Coaxial Cable Requirements: Broadband type, recommended by cable manufacturer specifically for broadband data transmission applications. Coaxial cable and accessories shall have 75-ohm nominal impedance with a return loss of 20 dB maximum from 7 to 806 MHz.
B.

**GENERAL SHEET NOTES**

- EXISTING ITEMS TO BE REMOVED ARE INDICATED AS BOLD DASHED. ITEMS TO REMAIN ARE SHOWN AS LIGHT/SOLID.
- CIRCUIT ROUTING IS SCHEMATIC UNLESS OTHERWISE NOTED.
- COORDINATE ALL UTILITY INSTALLATIONS WITH LOCAL UTILITY REPS.
- COMPLY WITH ALL UTILITY REQUIREMENTS FOR NEW UTILITY INSTALLATIONS.

**SHEET KEYED NOTES**

- COORDINATE NEW TRANSFORMER LOCATION WITH LOCAL UTILITY REP. VERIFY WORKING CLEARANCES AND EGRESS DOOR CLEARANCES AS PART OF COORDINATION.
- PROVIDE (1)1/4" CONDUIT AND (1)2" CONDUIT FROM EXISTING UTILITY PEDESTAL LOCATIONS TO ELECTRICAL ROOM. REFER TO KEY NOTE 1 IN DETAIL C ON SHEET E-502.
- LIGHTING CONTROL PANEL SWITCH LEGS. REFER TO LIGHTING CONTROL PANEL SCHEDULES AND DETAILS FOR ADDITIONAL INFORMATION. SWITCH LEGS MAY BE ROUTED TO PANEL IN SAME CONDUITS AS CONSTANT POWER FEEDS. CONTRACTOR TO DERATE/UPSIZE CONDUCTORS & CONDUIT WHERE REQUIRED.
- TUNNEL UNDER EXISTING CONCRETE ROADWAY FOR NEW CIRCUIT INSTALLATION.
- REPLACE DAMAGED UTILITY PEDESTAL. COORDINATE WITH UTILITIES.
- PROVIDE GROUND BOX. CIRCUIT AS INDICATED FOR FUTURE SIGN POWER. PROVIDE 1" CONDUIT FROM GROUND BOX TO DATA RACK.
- PROVIDE FREE STANDING SERVICE RACK. REFER TO DETAIL H ON SHEET E-501.
- EXTEND 2-2.5' SPARE CONDUIT FROM PANEL "1MDP1" TO THE EXTERIOR AS INDICATED FOR FUTURE. CAP AND BURY SPARE CONDUIT. MARK LOCATION ON REDLINES. REFER TO SHEET E601 KEYED NOTES 8 AND 9.
- POSSIBLE FUTURE EXPANSION ON NORTH AND SOUTH SIDES OF BUILDING. CONTRACTOR SHALL NOT MAKE ELECTRICAL INSTALLATIONS WITHIN AREAS INDICATED UNLESS SPECIFICALLY INDICATED.

JOSEPH T. BECK ARCHITECT, INC.  
487 EAST 520 SOUTH  
SMITHFIELD, UTAH  
(435) 764-6742



DATE  
SEPTEMBER 9, 2016

PROJECT TITLE  
NIBLEY VET CLINIC/KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

SHEET TITLE  
ELECTRICAL  
SITE PLAN

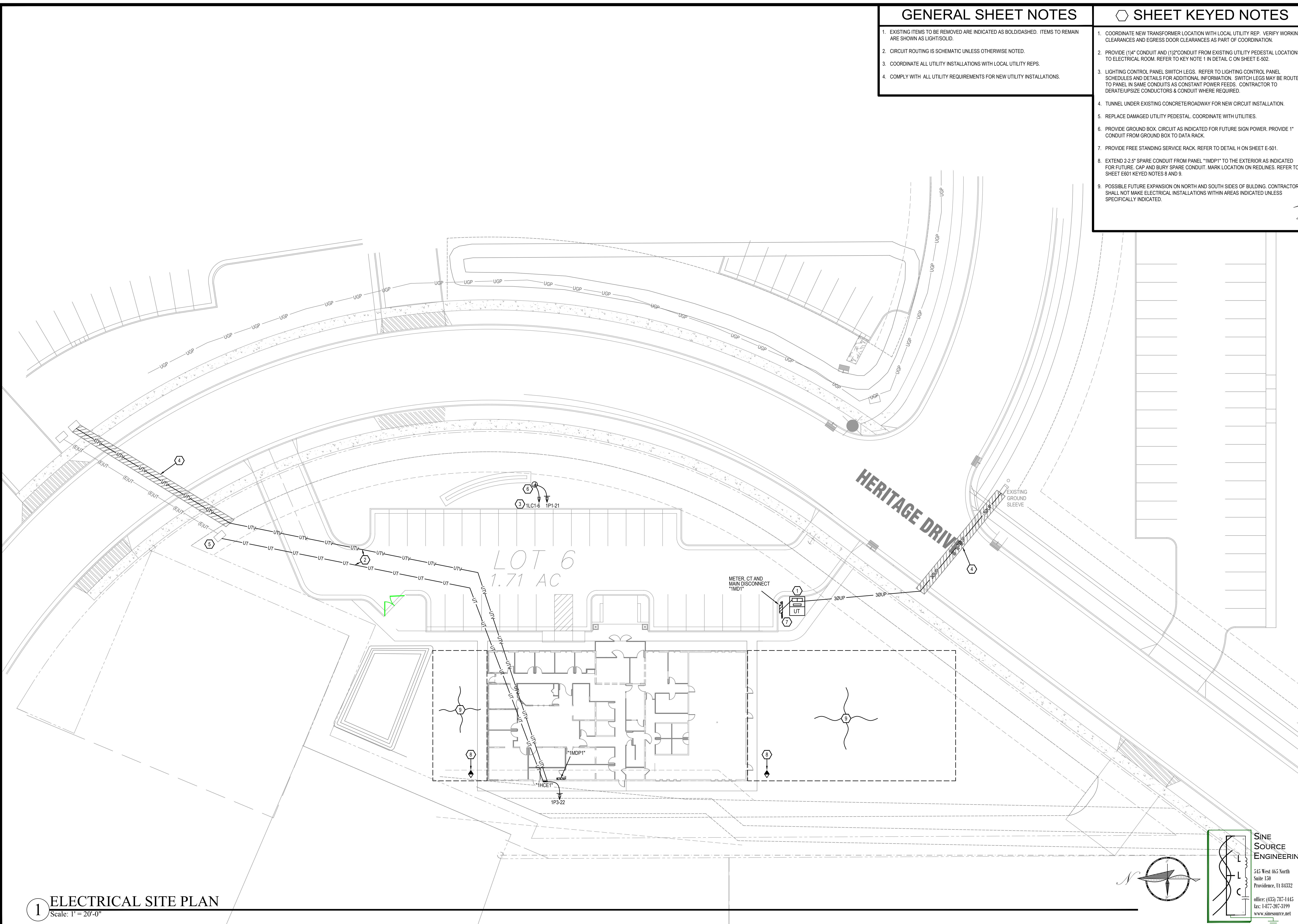
PROJECT NUMBER  
SSE# 2016038

REVISIONS

SHEET NUMBER

ES101

LAST SAVE: 9/9/2016 1:40:53:00 PM NIBLEY VET CLINIC/KENNEL NEW BUILDING PROJECT ELECTRICAL SITE PLAN.DWG LAST SAVED BY: SSB/JS



**1** ELECTRICAL SITE PLAN  
Scale: 1" = 20'-0"

**SINE SOURCE ENGINEERING**  
545 West 465 North  
Suite 150  
Providence, UT 84332  
office: (435) 787-1445  
fax: 1-877-207-3199  
www.sinesource.net

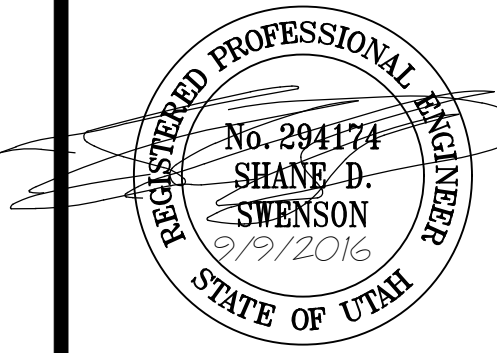
### GENERAL SHEET NOTES

1. CONTRACTOR TO FURNISH OCCUPANCY SENSORS WITH COVERAGE PATTERNS APPROPRIATE FOR THEIR INSTALLED LOCATIONS. COORDINATE WITH EQUIPMENT SUPPLIER PRIOR TO BID.
2. CONNECT OCCUPANCY SENSORS TO ENABLE ALL SWITCHES IN CONTROLLED SPACE.
3. CONNECT OCCUPANCY SENSORS, BATTERY BALLASTS, EXIT SIGNS, ETC. TO UNSWITCHED SOURCE CONDUCTOR.
4. SEE POWER PLAN FOR ELECTRICAL DISTRIBUTION, EQUIPMENT AND LIGHTING RELAY PANEL LOCATIONS.
5. PROVIDE LED ADD ALTERNATE PRICING. BASE BID FIXTURES SHOWN FIRST WITH LED EQUIVALENT FOLLOWING IN PARENTHESIS.
6. COORDINATE ALL SWITCH, OUTLET, LIGHT AND OTHER DEVICE LOCATIONS WITH ARCHITECTURAL ELEMENTS (CABINETS, WINDOWS ETC.) PRIOR TO ROUGH-IN. REVIEW ARCHITECTURAL INTERIOR ELEVATIONS PRIOR TO ROUGH-IN OF EACH AREA FOR ADDITIONAL INFORMATION.
7. SEE SYMBOL SCHEDULE AND COMMUNICATIONS RISER DIAGRAM FOR COMMUNICATIONS CABLING AND ROUGH-IN REQUIREMENTS.
8. PROVIDE INDUSTRY STANDARD CADDIE CLIPS 4" ON CENTER THROUGH ALL CORRIDORS AND INTO DATA ROOM. COMPLY WITH TIA/EIA CATEGORY 6 STANDARDS FOR COMMUNICATIONS RACEWAY INSTALLATIONS.

### SHEET KEYED NOTES

1. PROVIDE EM BATTERY BALLAST IN FIXTURES NOTED. CONNECT BATTERY TO UNSWITCHED CIRCUIT CONDUCTOR OF CIRCUIT SERVING FIXTURE. CONNECT LAMPS TO OPERATE WITH SWITCH(S) IN NORMAL MODE.
2. CONNECT FIRST SWITCH TO CONTROL OUTER LAMPS IN EACH FIXTURE. CONNECT SECOND SWITCH TO CONTROL REMAINING LAMP(S). PROVIDE A SINGLE DIMMING SWITCH TO REPLACE DUAL SWITCHES FOR LED ALTERNATE BID.
3. PROVIDE LIGHTING CONTROL OVERRIDE SWITCHES AT LOCATIONS INDICATED. PROVIDE CONTROL WIRING PER MANUFACTURER'S REQUIREMENTS. SEE DETAILS AND SCHEDULES FOR ADDITIONAL INFORMATION. ENGRAVE COVER PLATE WITH ZONES CONTROLLED. PROVIDE SEPARATE BUTTON LABELING FOR EACH ZONE INDICATED. MULTIPLE BUTTONS SHALL BE MOUNTED IN A SINGLE-GANG COVER.
4. LIGHTING CONTROL PANEL SWITCH LEGS. REFER TO LIGHTING CONTROL PANEL SCHEDULES AND DETAILS FOR ADDITIONAL INFORMATION. SWITCH LEGS MAY BE ROUTED TO PANEL IN SAME CONDUITS AS CONSTANT POWER FEEDS. CONTRACTOR TO DERATE/UPSIZE CONDUCTORS & CONDUIT WHERE REQUIRED.
5. SWITCH LEGS MAY BE ROUTED TO PANEL IN SAME CONDUITS AS CONSTANT POWER FEEDS. CONTRACTOR TO DERATE/UPSIZE CONDUCTORS & CONDUIT WHERE REQUIRED.
6. NOT USED.
7. BASE BID FIXTURE SHOWN FIRST WITH LED ALTERNATE FIXTURE SHOWN FOLLOWING IN PARENTHESIS. SEE GENERAL NOTE BELOW.
8. INTERLOCK EXHAUST FAN WITH LIGHTS IN SPACE.
9. PROVIDE SWITCHED RECEPTACLE UNDER KITCHEN BASIN FOR DISPOSAL. DISPOSAL BY OTHERS. COORDINATE DISPOSAL CORD WITH PLUMBING CONTRACTOR AND PROVIDE AND/OR INSTALL CORD AS REQUIRED. ROUTE CIRCUIT THROUGH FACELESS GFI (LEVITON 7590 OR EQUIVALENT) MOUNTED ABOVE COUNTER LEVEL WITH COUNTER-TOP OUTLETS. LABEL GFCI FOR APPLIANCE SERVED.
10. FIELD PAINT PANEL COVERS TO MATCH WALLS. COORDINATE WORK WITH PAINTING CONTRACTOR. REMOVE COVERS FROM WALLS PRIOR TO PAINTING.
11. COMBINATION STYLE HEAT/SMOKE OR CO/SMOKE DETECTORS MAY BE USED INSTEAD OF TWO DEVICES.
12. PROVIDE CEILING OUTLET FOR WIRELESS ACCESS POINT. COORDINATE WITH OWNERS I.T. PERSONNEL PRIOR TO ROUGH-IN.

JOSEPH T. BECK ARCHITECT, INC.  
487 EAST 520 SOUTH  
SMITHFIELD, UTAH  
(435) 764-6742



DATE  
SEPTEMBER 9, 2016

PROJECT TITLE  
NIBLEY VET CLINIC/KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

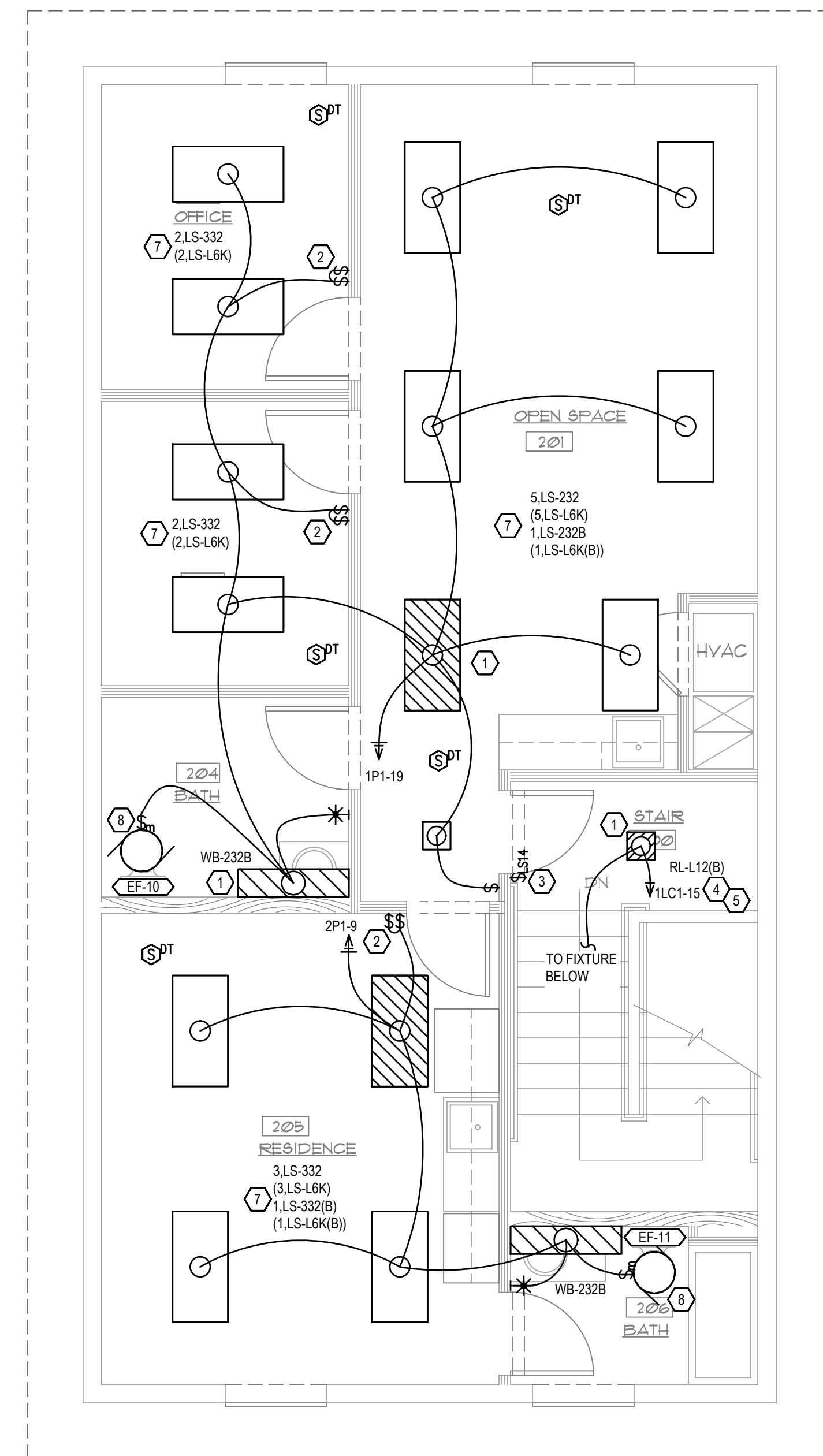
SHEET TITLE  
ELECTRICAL  
PLANS - UPPER  
LEVEL

PROJECT NUMBER  
SSE# 2016038

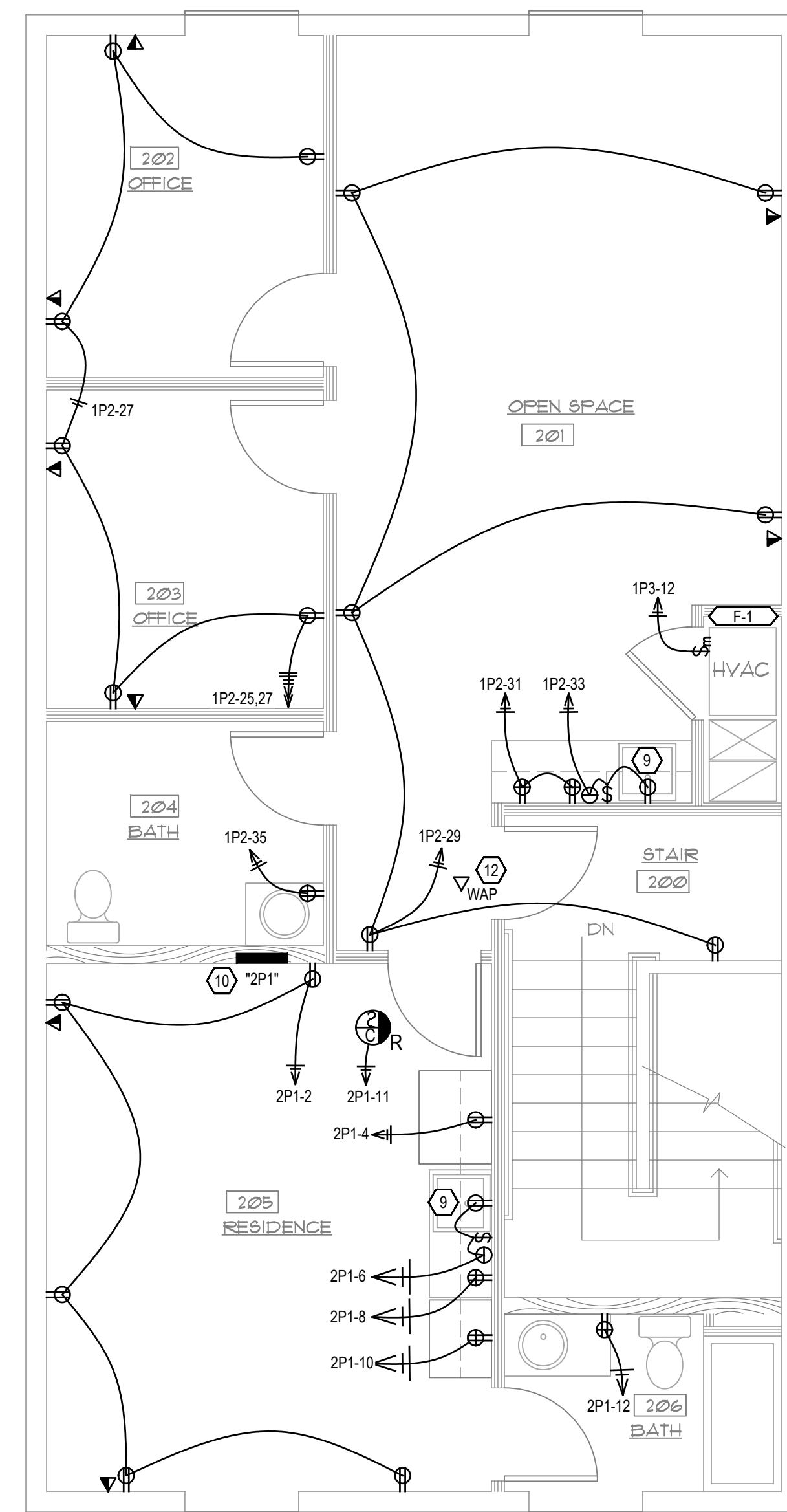
REVISIONS

SHEET NUMBER

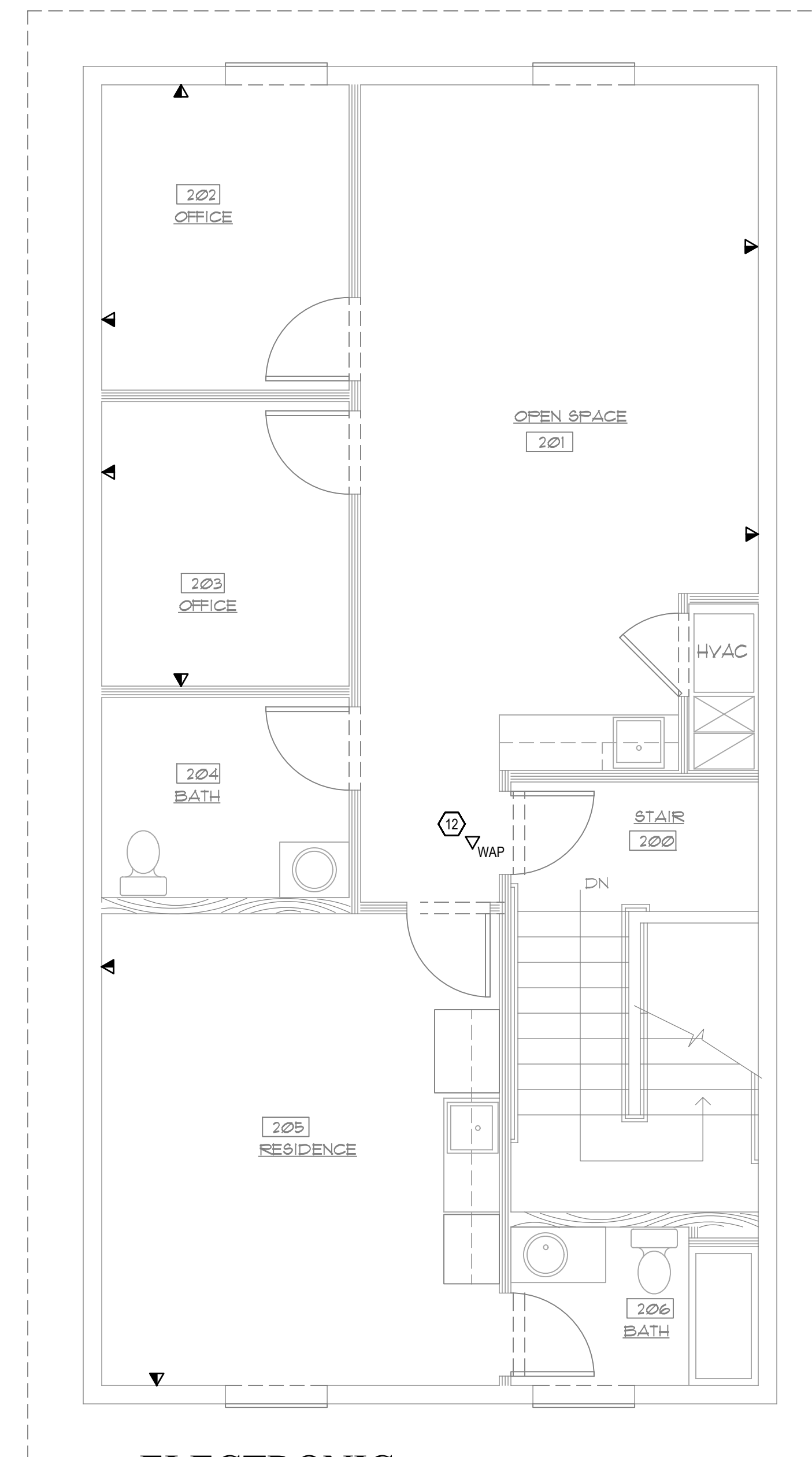
E100



3 LIGHTING PLAN: UPPER LEVEL  
Scale: 1/4" = 1'-0"

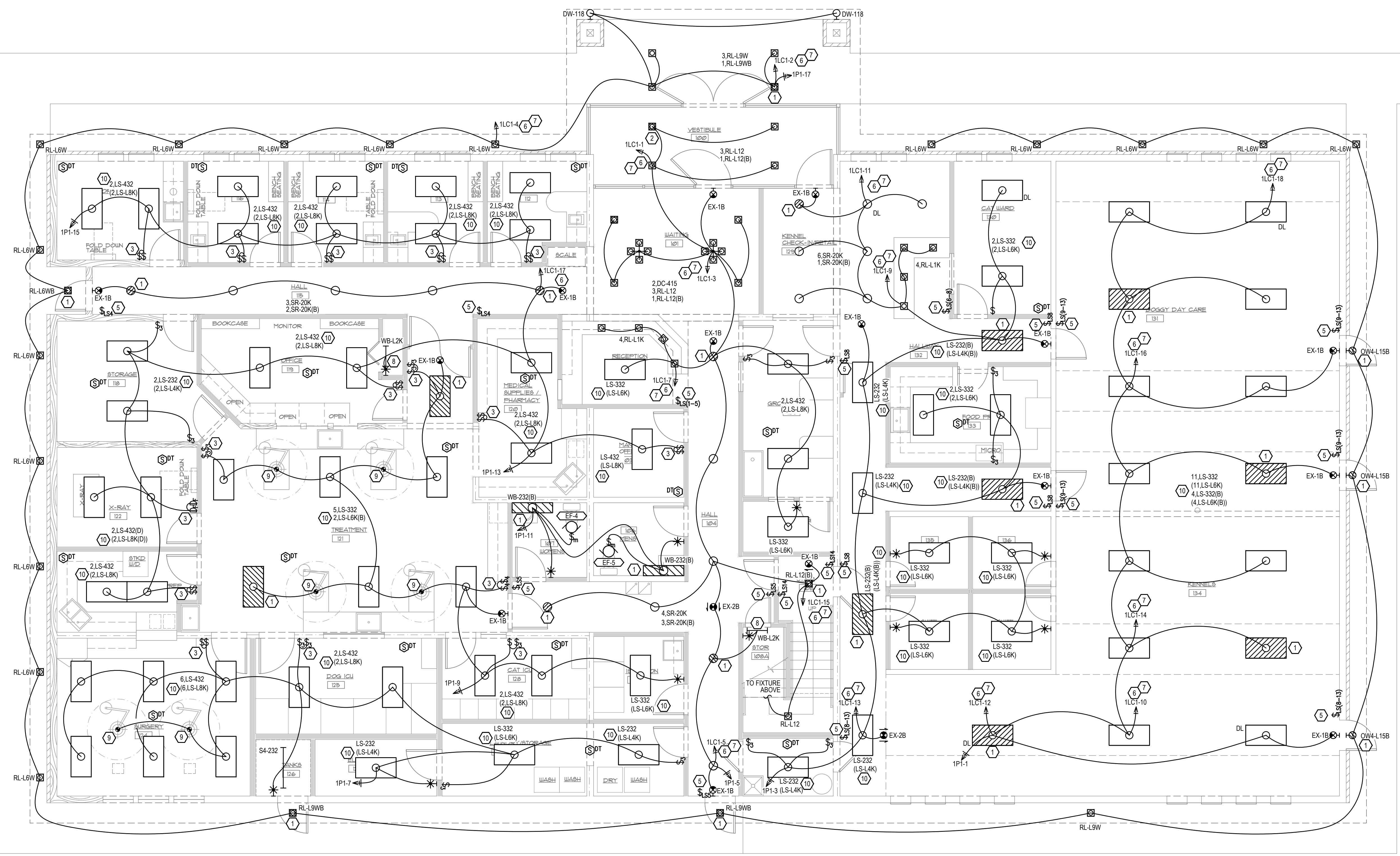


2 POWER PLAN: UPPER LEVEL  
Scale: 1/4" = 1'-0"



1 ELECTRONIC SYSTEMS PLAN: UPPER LEVEL  
Scale: 1/4" = 1'-0"





**SHEET KEYED NOTES**

1. PROVIDE EM BATTERY BALLAST IN FIXTURES NOTED. CONNECT BATTERY TO UNSWITCHED CIRCUIT CONDUCTOR OF CIRCUIT SERVING FIXTURE. CONNECT LAMPS TO OPERATE WITH SWITCH(S) IN NORMAL MODE.
2. PROVIDE EM BATTERY BALLAST FOR FIXTURES NOTED. CONNECT BATTERY TO UNSWITCHED CONDUCTOR OF CIRCUIT SERVING FIXTURE. CONNECT ONE LAMP TO OPERATE AS UNSWITCHED NIGHT LIGHT.
3. CONNECT FIRST SWITCH TO CONTROL OUTER LAMPS IN EACH FIXTURE. CONNECT SECOND SWITCH TO CONTROL REMAINING LAMP(S). PROVIDE A SINGLE DIMMING SWITCH TO REPLACE DUAL SWITCHES FOR LED ALTERNATE BID.
4. MOUNT BATTERY FLUSH IN CEILING OR HIGH ON WALL IN OPEN CEILING AREAS PER FIXTURE TYPE. CONNECT OUTPUT TO EMERGENCY LAMP OF EXTERIOR FIXTURES.
5. PROVIDE DIGITAL LIGHTING CONTROL SWITCHES AT LOCATIONS INDICATED. PROVIDE CONTROL WIRING PER MANUFACTURER'S REQUIREMENTS. SEE DETAILS AND SCHEDULES FOR ADDITIONAL INFORMATION. ENGRAVE COVER PLATE WITH ZONES CONTROLLED. PROVIDE SEPARATE BUTTON LABELING FOR EACH ZONE INDICATED. MULTIPLE BUTTONS SHALL BE MOUNTED IN A SINGLE-GANG COVER.
6. LIGHTING CONTROL PANEL SWITCH LEGS. REFER TO LIGHTING CONTROL PANEL SCHEDULES AND DETAILS FOR ADDITIONAL INFORMATION. SWITCH LEGS MAY BE ROUTED TO PANEL IN SAME CONDUITS AS CONSTANT POWER FEEDS. CONTRACTOR TO DERATE/UPSIZE CONDUCTORS & CONDUIT WHERE REQUIRED.
7. SWITCH LEGS MAY BE ROUTED TO PANEL IN SAME CONDUITS AS CONSTANT POWER FEEDS. CONTRACTOR TO DERATE/UPSIZE CONDUCTORS & CONDUIT WHERE REQUIRED.
8. MOUNT FIXTURE CENTERED BETWEEN TOP OF DOOR FRAME AND CEILING.
9. OWNER FURNISHED CONTRACTOR INSTALLED SURGICAL LIGHTS.
10. BASE BID FIXTURE SHOWN FIRST WITH LED ALTERNATE FIXTURE SHOWN FOLLOWING IN PARENTHESIS. SEE GENERAL NOTE BELOW. REFER TO KEYED NOTE 3 FOR LED SWITCHING.

JOSEPH T. BECK ARCHITECT, INC.  
487 EAST 320 SOUTH  
SMITHFIELD, UTAH  
(435) 764-6742

REGISTERED PROFESSIONAL ENGINEER  
No. 294174  
SHANE D. SWENSON  
9/9/2016  
STATE OF UTAH

DATE  
SEPTEMBER 9, 2016

**GENERAL SHEET NOTES**

1. CONTRACTOR TO FURNISH OCCUPANCY SENSORS WITH COVERAGE PATTERNS APPROPRIATE FOR THEIR INSTALLED LOCATIONS. COORDINATE WITH EQUIPMENT SUPPLIER PRIOR TO BID.
2. CONNECT OCCUPANCY SENSORS TO ENABLE ALL SWITCHES IN CONTROLLED SPACE.
3. CONNECT OCCUPANCY SENSORS, BATTERY BALLASTS, EXIT SIGNS, ETC. TO UNSWITCHED SOURCE CONDUCTOR.
4. SEE POWER PLAN FOR ELECTRICAL DISTRIBUTION, EQUIPMENT AND LIGHTING RELAY PANEL LOCATIONS.
5. BURN ALL FLUORESCENT DIMMING LAMPS AT FULL POWER FOR A MINIMUM OF 100 HOURS PRIOR TO DIMMING.
6. EXISTING LIGHTING, ELECTRICAL AND ELECTRONIC DEVICES SHOWN LIGHT. NEW DEVICES SHOWN DARK.
7. NEW DEVICES SHOWN ON EXISTING WALLS SHALL FINISH FLUSH WITH WALL UNLESS OTHERWISE NOTED. CUT, PATCH AND REPAIR SURFACES AS REQUIRED.
8. PROVIDE LED ADD ALTERNATE PRICING. BASE BID FIXTURES SHOWN FIRST WITH LED EQUIVALENT FOLLOWING IN PARENTHESIS.

PROJECT TITLE  
NIBLEY VET CLINIC/KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

SHEET TITLE  
LIGHTING PLAN  
- MAIN LEVEL

PROJECT NUMBER  
SSE# 2016038

REVISIONS

SHEET NUMBER

E201

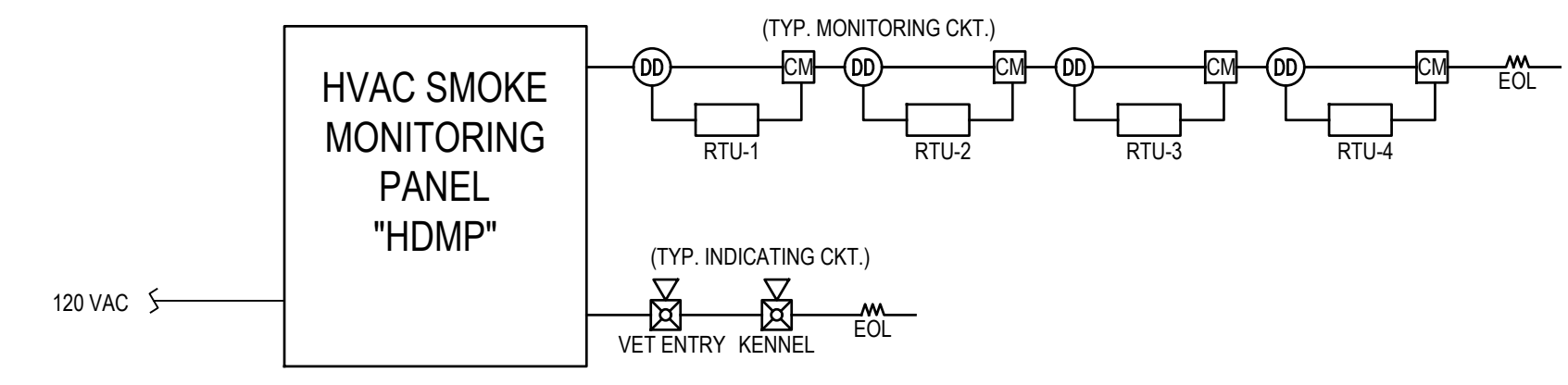
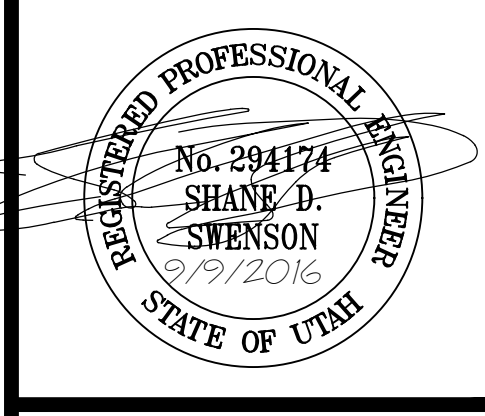
**1 LIGHTING PLAN - MAIN LEVEL**  
Scale: 3/16" = 1'-0"

SINE SOURCE ENGINEERING  
345 West 465 North  
Suite 130  
Providence, UT 84332  
office: (435) 787-1445  
fax: 1-877-207-3199  
www.sinesource.net

LAST SAVE: 9/9/2016 10:40:00 AM PROJECT: NIBLEY VET CLINIC/KENNEL NEW BUILDING PROJECT SHEET: LIGHTING PLAN - MAIN LEVEL DWG: E201

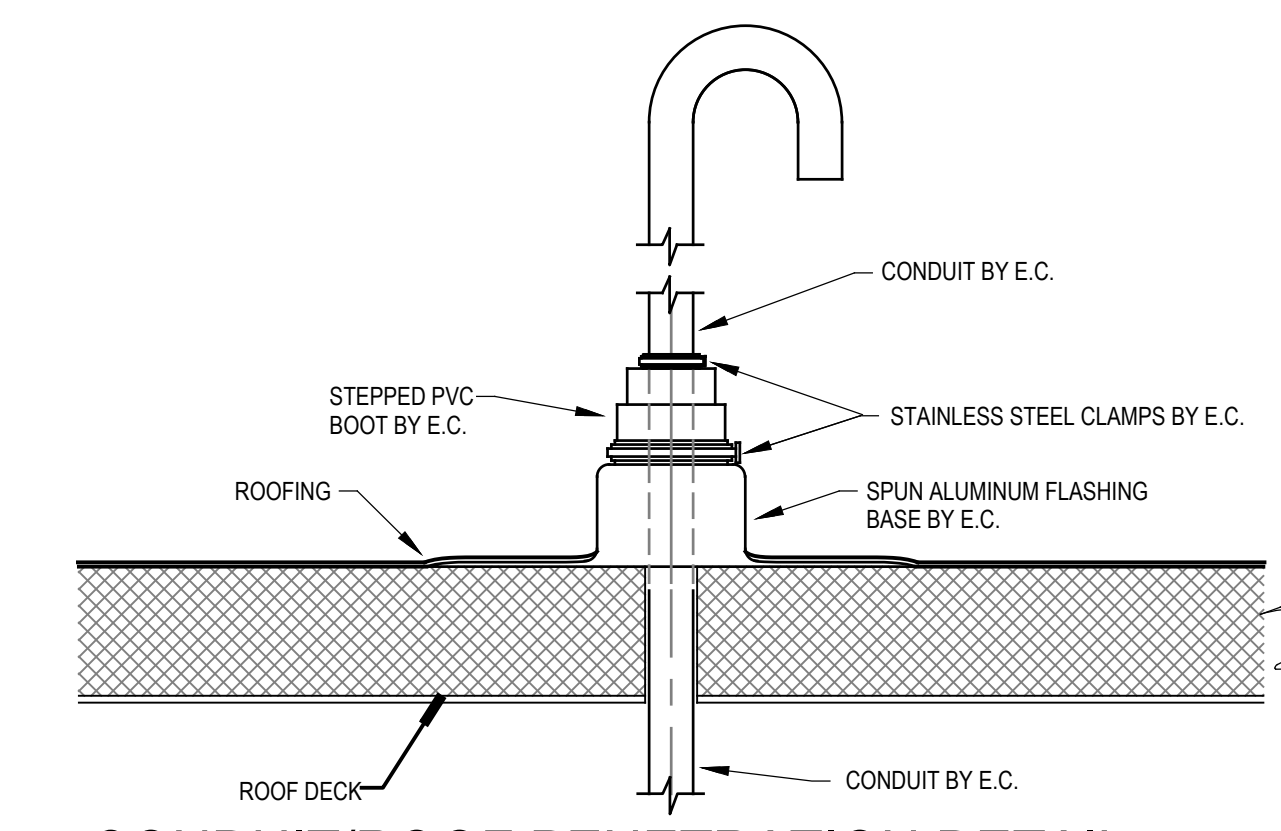




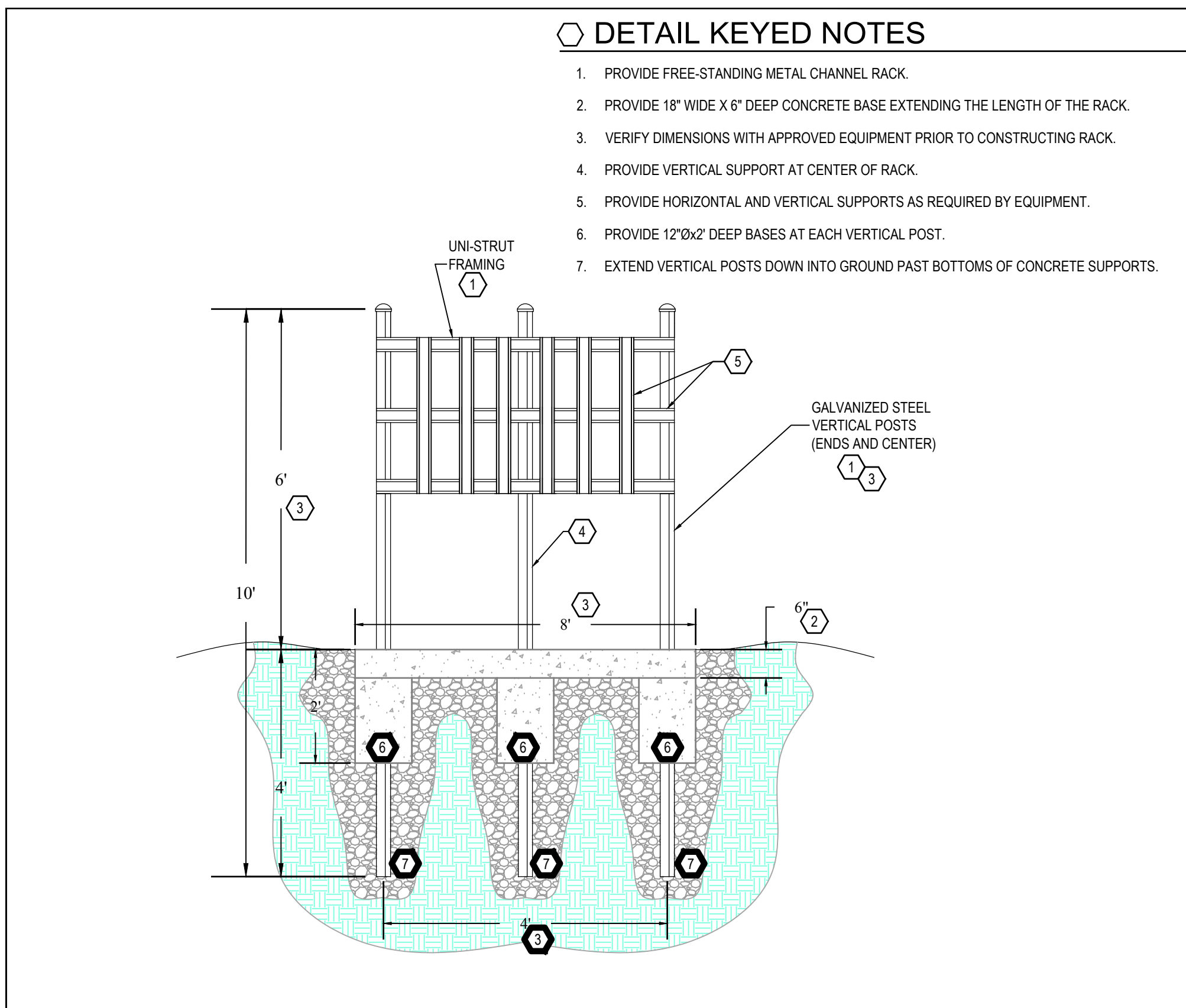


- DETAIL NOTES**
- ALL DUCT MONITORING CIRCUITS TO BE CONDUCTORS IN CONDUIT OR MC CABLE AND MARKED RED AS SPECIFIED.
  - VERIFY ALL CABLE SIZES WITH FIRE ALARM VENDOR PRIOR TO BID AND ADJUST PER MANUFACTURER'S REQUIREMENTS. CABLE SIZES SHOWN ARE MINIMUM REQUIREMENTS.

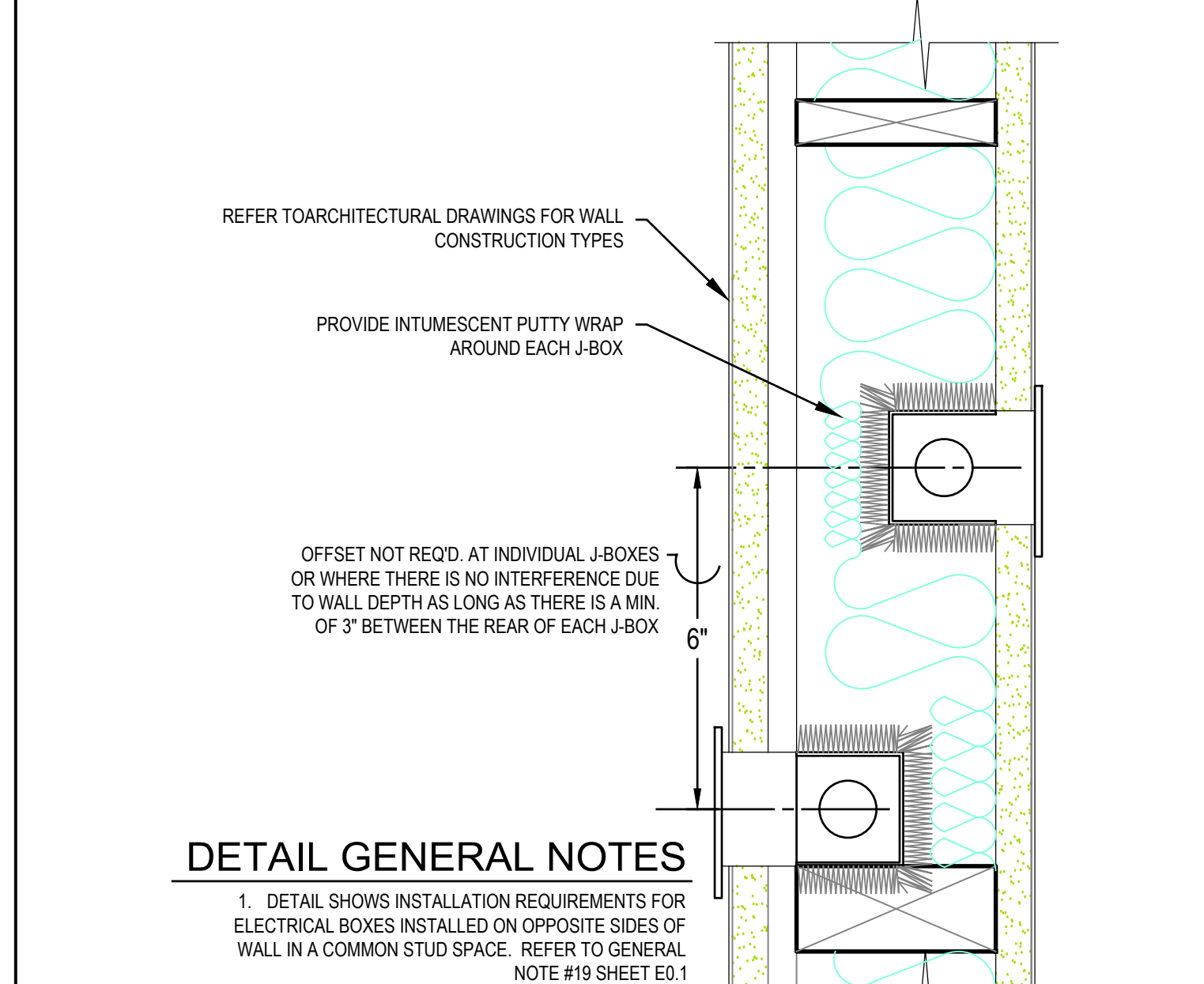
**F HVAC MONITORING AND SHUTDOWN DETAIL**  
SCALE: NO SCALE



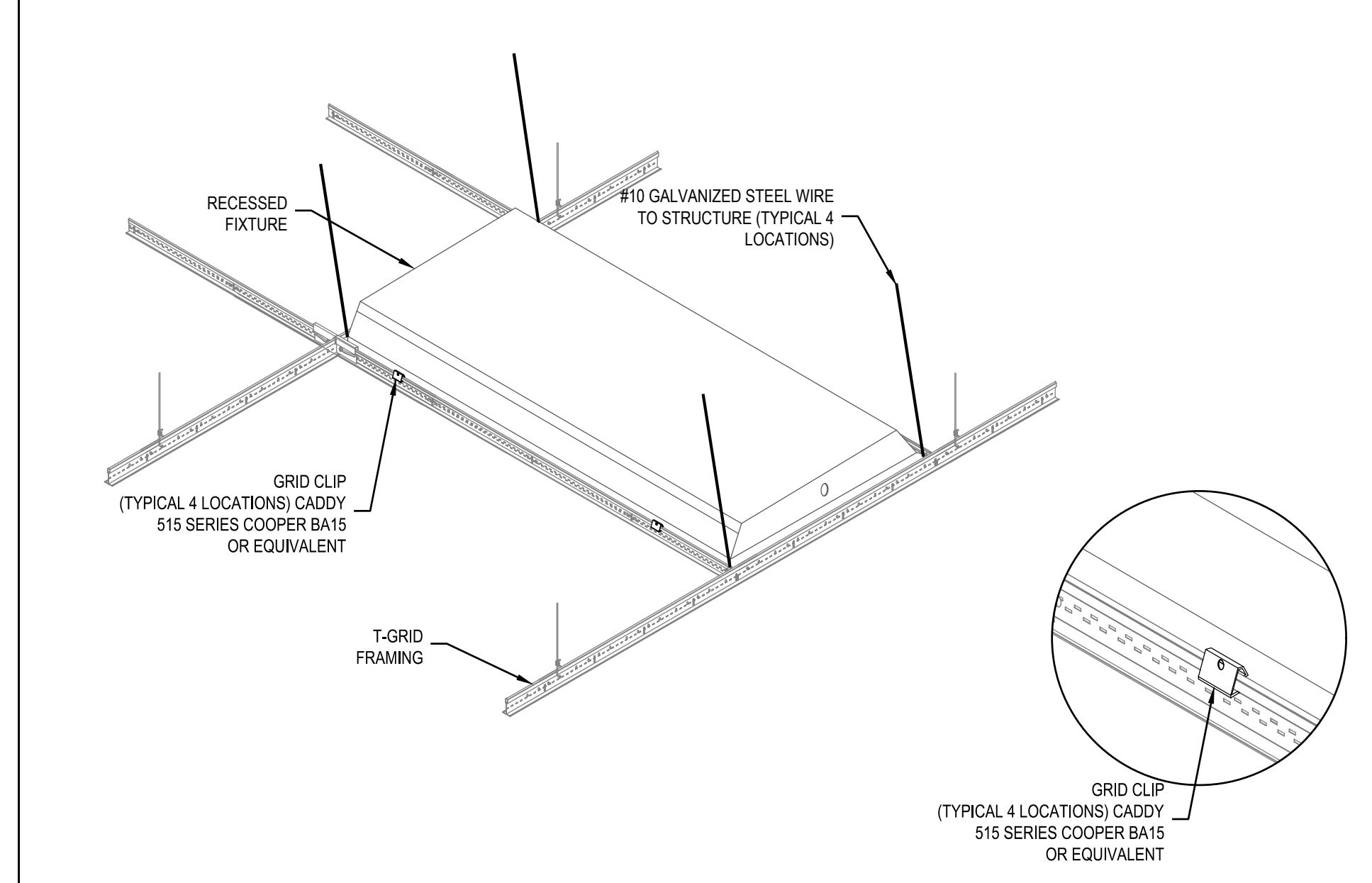
**C CONDUIT/ROOF PENETRATION DETAIL**  
SCALE: NO SCALE



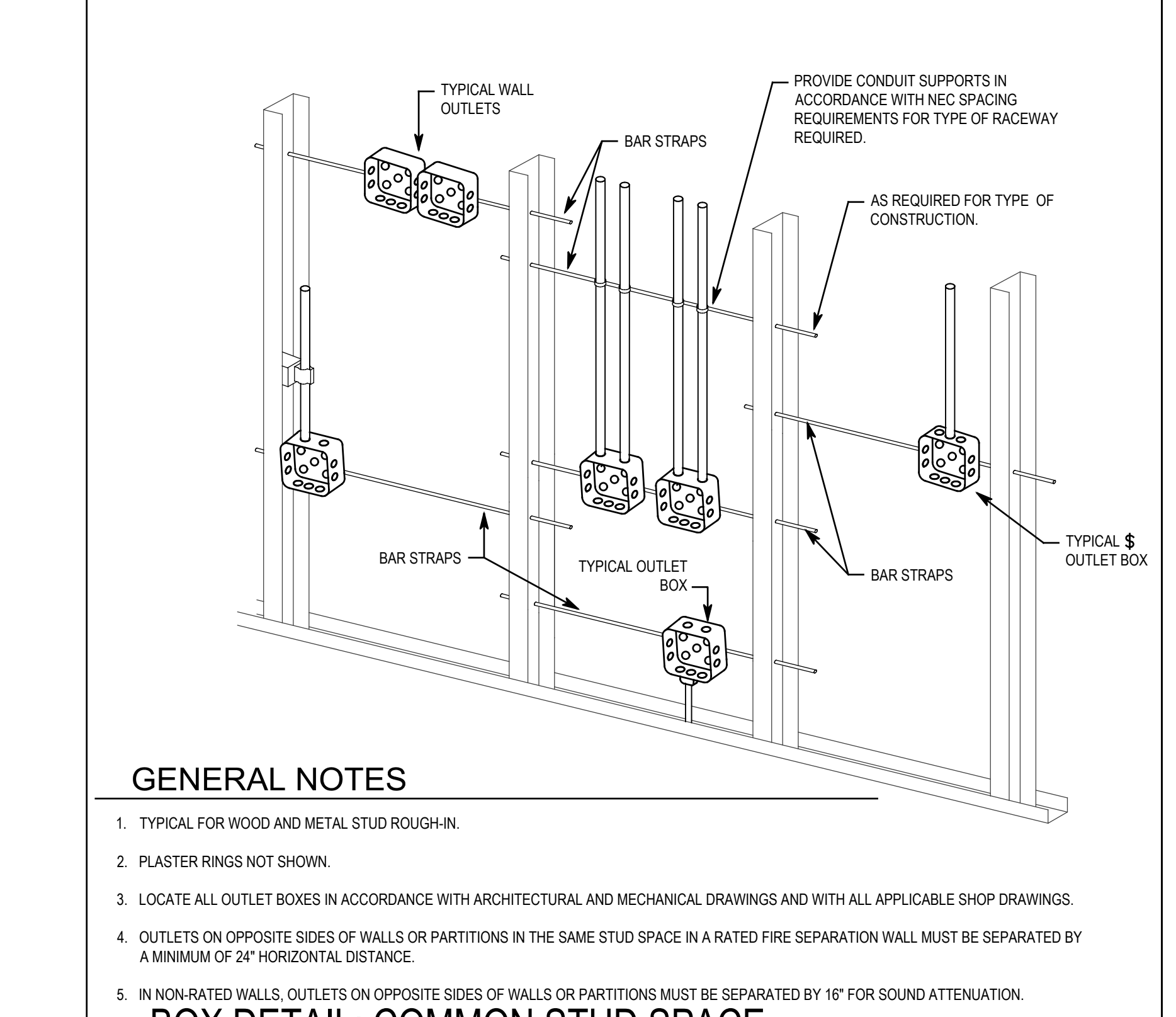
**H BOX DETAIL: COMMON STUD SPACE**  
SCALE: NO SCALE



**E BOX DETAIL: COMMON STUD SPACE**  
SCALE: NO SCALE

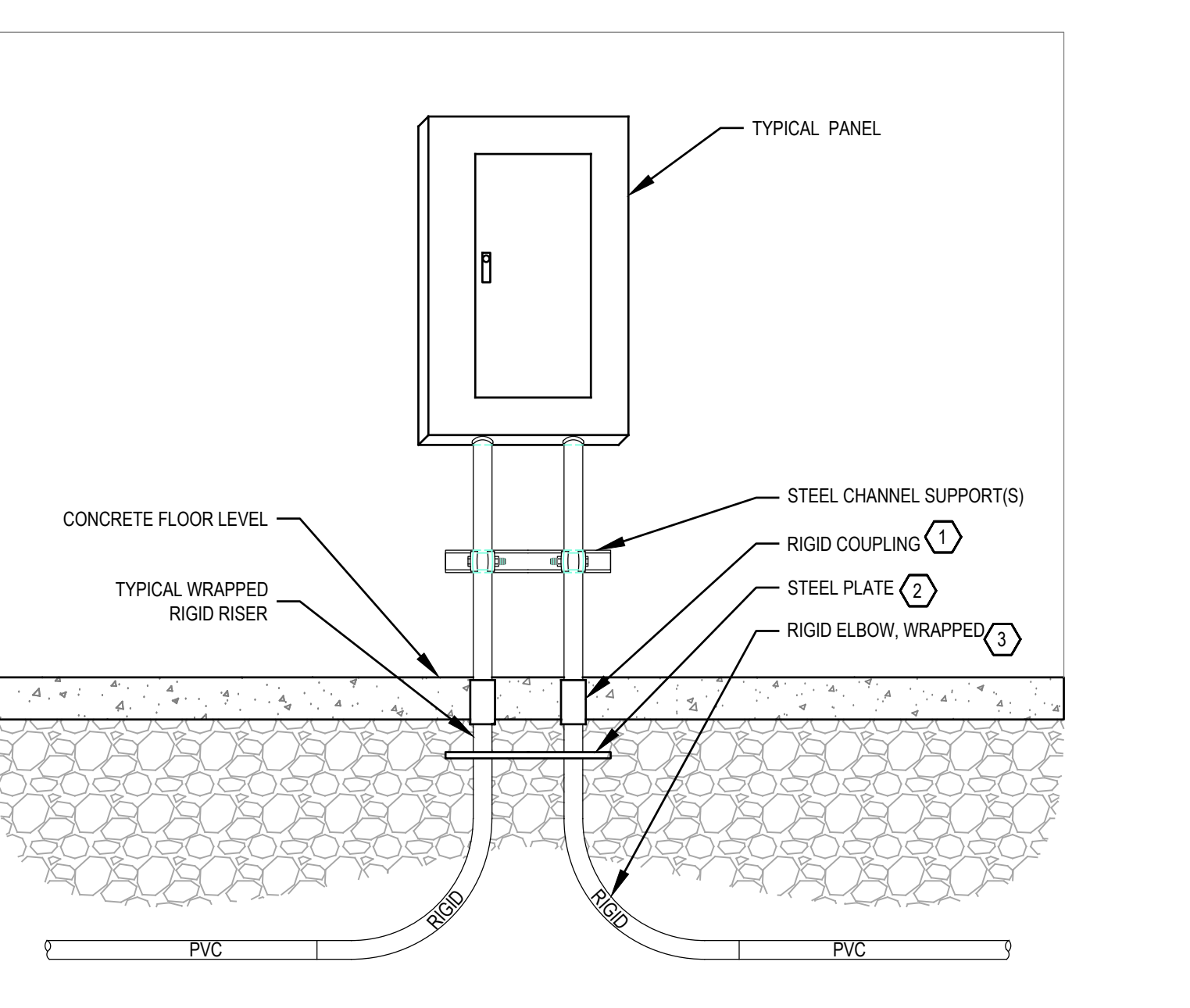


**B SEISMIC SUPPORT DETAIL**  
SCALE: NO SCALE



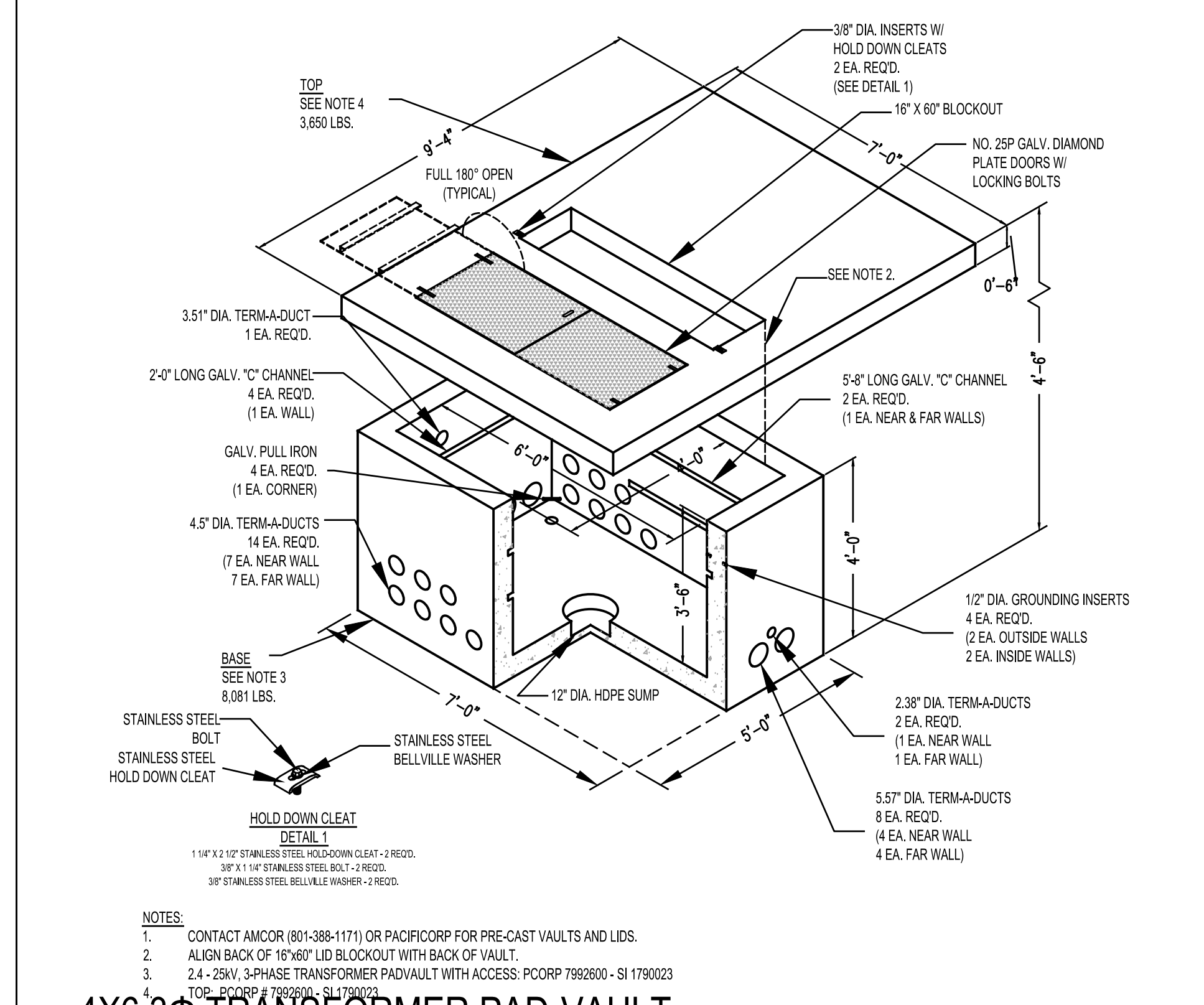
**G BOX DETAIL: COMMON STUD SPACE**  
SCALE: NO SCALE

- GENERAL NOTES**
- TYPICAL FOR WOOD AND METAL STUD ROUGH-IN.
  - PLASTER RINGS NOT SHOWN.
  - LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS AND WITH ALL APPLICABLE SHOP DRAWINGS.
  - OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE IN A RATED FIRE SEPARATION WALL MUST BE SEPARATED BY A MINIMUM OF 24" HORIZONTAL DISTANCE.
  - IN NON-RATED WALLS, OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS MUST BE SEPARATED BY 16" FOR SOUND ATTENUATION.



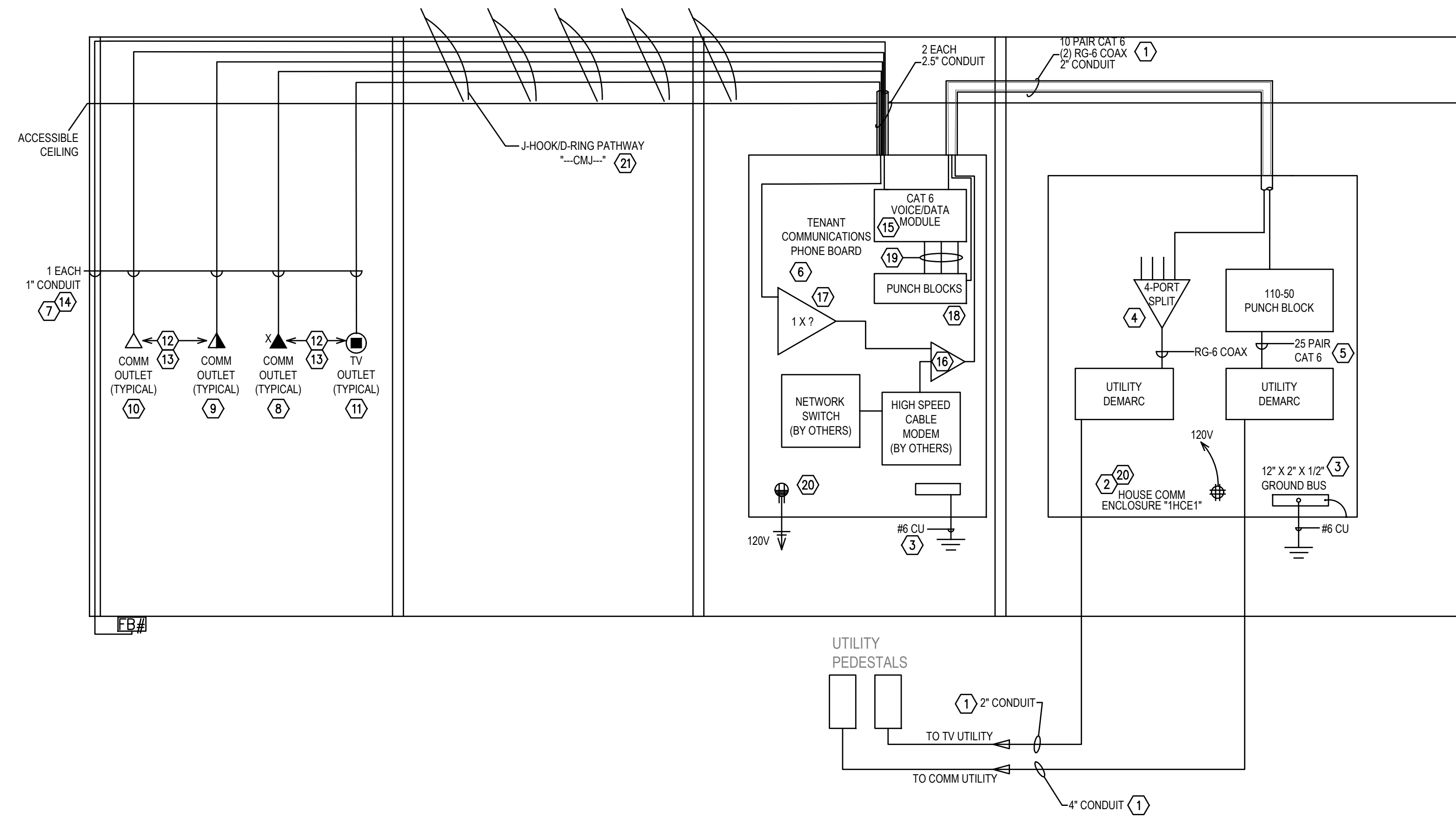
- DETAIL KEYED NOTES**
- SET COUPLING FLUSH WITH FINISH FLOOR.
  - PROVIDE STEEL PLATE WITH SAME DIMENSIONS AS PANEL BOTTOM PLATE. PUNCH PLATE PER CONDUITS ENTERING PANEL TO STRAIGHTEN/Organize CONDUITS PRIOR TO FINAL RISE INTO PANEL.
  - TRANSITION TO WRAPPED RIGID CONDUIT PRIOR TO RISING ABOVE FLOOR AS SPECIFIED.

**D EQUIPMENT CONDUIT RISER DETAIL**  
SCALE: NO SCALE



**A 4X6 3Φ TRANSFORMER PAD-VAULT**  
SCALE: NO SCALE

LAST SAVE: 9/10/16 1:40:50 PM NIBLEY\_VET\_CLINIC\_KENNEL\_NEW\_BUILDING\_PROJECT\_ELECTRICAL\_DETAILS\_ELEVATION\_UE\_P16.SVD



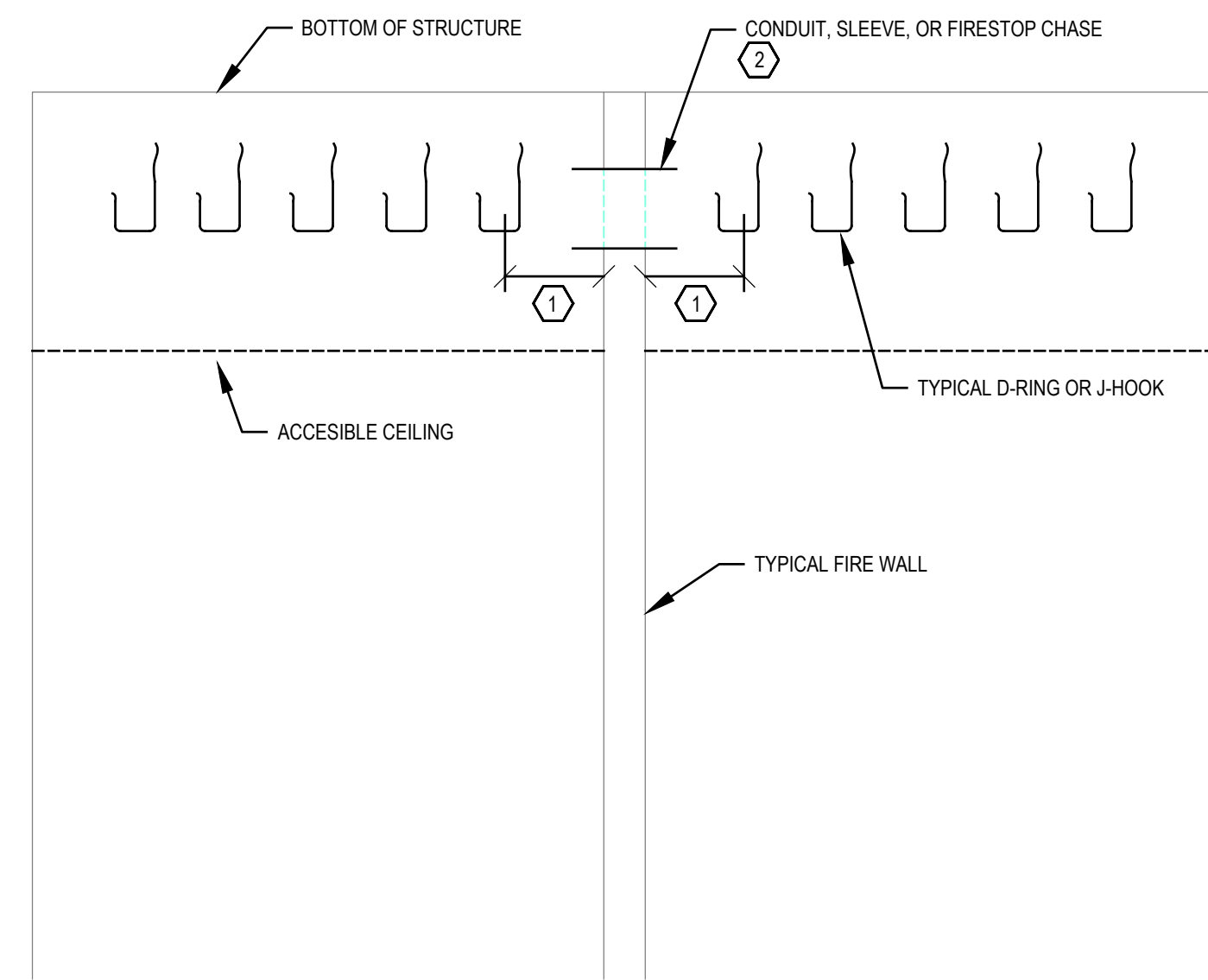
**C COMMUNICATIONS RISER DIAGRAM**  
SCALE: NO SCALE

**DIAGRAM KEYED NOTES**

- CONDUIT BY CONTRACTOR. CONDUCTORS BY UTILITY.
- PROVIDE 36"x30" HINGED COVER, LOCKABLE ENCLOSURE WITH PLYWOOD BACKBOARD FOR UTILITY DEMARCATION.
- PROVIDE PRE-DRILLED, CU GROUNDING BAR WITH STANDOFFS MOUNTED AT 12" AFF IN COMMUNICATIONS ENCLOSURE. PROVIDE #6 CU GROUND TO GROUNDING ELECTRODE SYSTEM. PROVIDE #6 BONDING CONDUCTORS TO ALL EQUIPMENT RACKS, CABLE TRAYS, RACEWAYS, AND OTHER ASSOCIATED COMMUNICATIONS AND AUXILIARY SYSTEMS EQUIPMENT AS NECESSARY.
- PROVIDE RG-6 CONNECTION TO UTILITY DEMARC.
- PROVIDE CONNECTIONS TO UTILITY DEMARC. PROVIDE PUNCH BLOCK FOR DISTRIBUTION TO TENANTS.
- PROVIDE .75" PLYWOOD BACKBOARD AS INDICATED ON SHEET E301/E401.
- PROVIDE ELECTRICALLY BONDED RACEWAY SYSTEM. BOND COMM DEVICE CONDUITS TO COMM RACK, GROUND BUS, ETC. WHERE OUTLETS STUB TO ACCESSIBLE CEILING, BOND DEVICE BOX/CONDUIT TO ADJACENT ELECTRICAL OUTLET.
- PROVIDE (3) DATA JACKS WITH (1) CAT 6 CABLE PER JACK FROM DATA RACK TO EACH COMPLETELY FILLED TRIANGLE OUTLET SHOWN ON FLOOR PLANS. WHERE OUTLETS HAVE A NUMERICAL SUPERSCRIPT, PROVIDE "X" QUANTITY OF JACKS AND CABLES WHERE "X" IS THE ASSOCIATED SUPERSCRIPT NUMBER.
- PROVIDE (2) DATA JACKS WITH (1) CAT 6 CABLE PER JACK FROM DATA RACK TO EACH HALF-FILLED TRIANGLE OUTLET SHOWN ON FLOOR PLANS.
- PROVIDE (1) DATA JACK WITH (1) CAT 6 CABLE FROM DATA RACK TO EACH EMPTY TRIANGLE OUTLET SHOWN ON FLOOR PLANS.
- PROVIDE (2) F-CONNECTORS WITH (2) RG-6 COAX CABLES FROM TV DISTRIBUTION TO EACH TV OUTLET SHOWN ON PLAN.
- PROVIDE 4SD J-BOX WITH 1-GANG MUD RING FOR OUTLETS. SEE ELECTRONIC SYSTEMS SHEETS FOR LOCATIONS AND COUNTS. TV OUTLETS SHOWN ADJACENT TO COMM OUTLETS ON FLOOR PLAN MAY BE COMBINED INTO THE SAME BOX/RACEWAY/FACEPLATE.
- PROVIDE 6-PORT, MODULAR FACEPLATE FOR EACH COMMUNICATIONS OR TV OUTLET SHOWN. PROVIDE ONE CAT 6 RJ-45 JACK FOR EACH VOICE OR DATA CABLE TERMINATED IN OUTLET OR ONE F-CONNECTOR FOR EACH COAX CABLE. PROVIDE BLANK INSERTS FOR UNUSED PLATE OPENINGS.
- PROVIDE CONDUIT FROM DEVICE TO ACCESSIBLE CEILING. PROVIDE INSULATED THROAT CONNECTORS AND WIDE SWEEP BENDS FOR ALL CONDUIT RUNS.
- PROVIDE CAT 6 MODULAR VOICEDATA MODULES MOUNTED IN ENCLOSURE. PROVIDE QUANTITIES AS REQUIRED FOR COMMUNICATIONS OUTLETS PLUS MINIMUM 50% SPARE CAPACITY.
- PROVIDE 2GHZ, 2-PORT SPLITTER FOR CATV/BROADBAND CONNECTIONS AND BETWEEN PATCH MODULES FOR PHONE CONNECTIONS.
- PROVIDE SPLITTER TO DISTRIBUTE TO TV OUTLETS. PROVIDE PORTS FOR CURRENT DEVICES PLUS MINIMUM 50% SPARE CAPACITY.
- PROVIDE 110 PUNCH BLOCK FOR INCOMING LINES.
- PROVIDE CROSS-CONNECTS FROM PUNCH BLOCK TO PATCH MODULES AND BETWEEN PATCH MODULES FOR PHONE CONNECTIONS.
- PROVIDE SURGE SUPPRESSOR OUTLET IN ENCLOSURE CIRCUITED AS SHOWN ON E301.
- PROVIDE A CABLE MANAGEMENT PATHWAY WITH MINIMUM 4" J-HOOKS SPACED 4" ON CENTERS.

**GENERAL DIAGRAM NOTES**

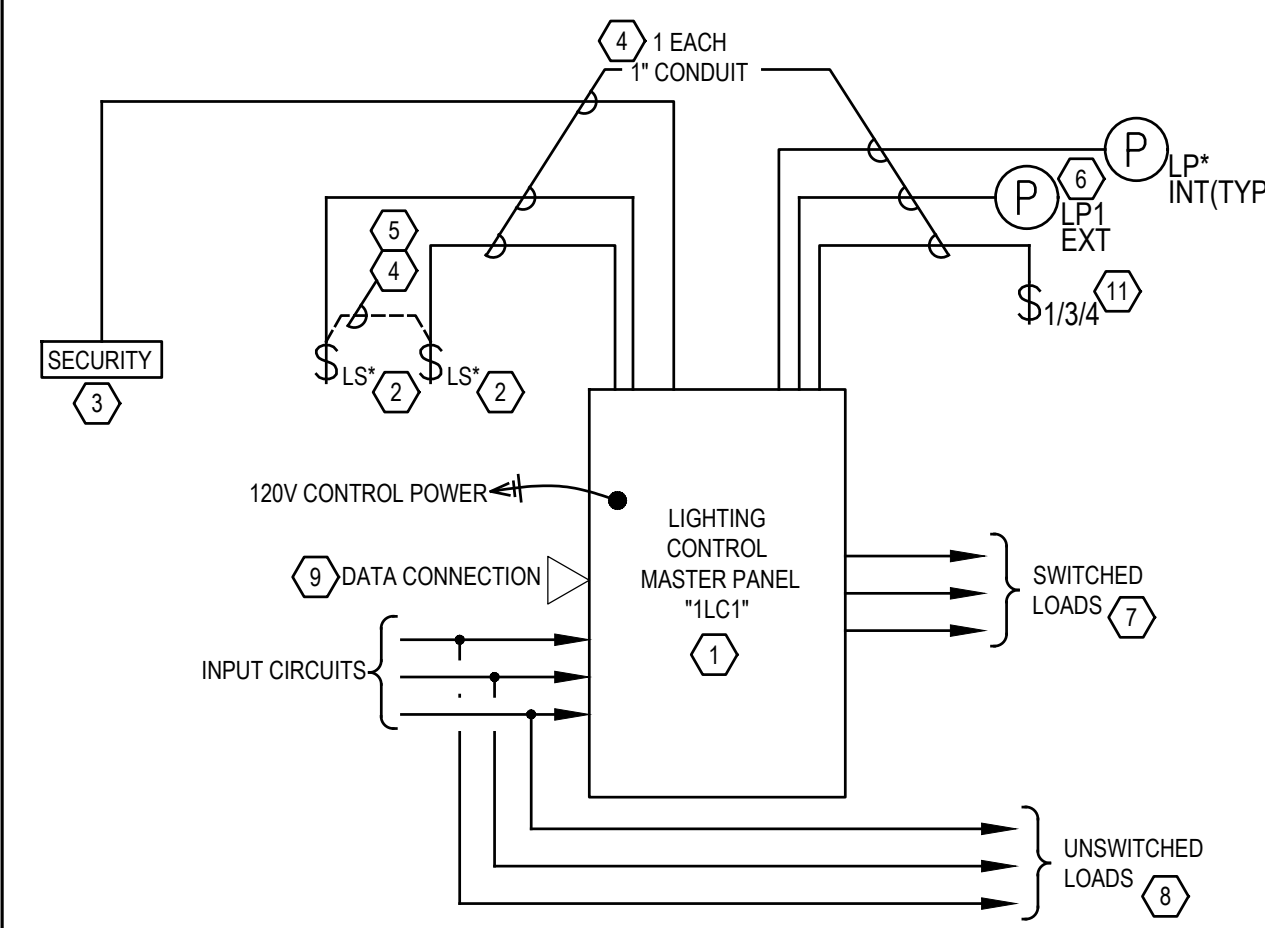
- ALL INSTALLATIONS TO COMPLY WITH TIA/EIA STANDARD 568B FOR CAT 5E CABLE.
- ALL STATION OUTLETS AND ASSOCIATED CABLING AND DATA RACKS, RACEWAYS, PUNCH BLOCKS, PATCH PANELS AND CROSS CONNECTS PROVIDED BY CONTRACTOR. ELECTRONICS BY OWNERS.
- PROVIDE ONE PATCH CORD FOR EACH NEW CABLE/PORT INSTALLED. FIELD VERIFY LENGTHS, BUT ASSUME EQUAL QUANTITIES OF 2', 4', AND 10' CABLES FOR BID.
- CONTRACTOR SHALL TEST ALL COPPER RUNS TO VERIFY dB LOSSES AND SHALL PROVIDE TEST RESULTS TO OWNER AND ENGINEER.
- PROVIDE WIDE-SWEEP BENDS FOR ALL CONDUITS.
- PROVIDE CONNECTORS WITH INSULATED THROATS OR PLASTIC BUSHINGS ON ALL CONDUIT ENDS.



**DETAIL KEYED NOTES**

- FIRST HOOK/RING TO BE INSTALLED WITHIN 12" OF WALL PENETRATION.
- PROVIDE WALL PENETRATIONS AS SPECIFIED. SEAL AROUND PENETRATION AS REQUIRED. PROVIDE STI EZ PATH SERIES 44 FIRE-STOP SYSTEM (OR EQUIVALENT) FOR CABLING THROUGH FIRE RATED WALLS. PROVIDE QUANTITY OF SLEEVES AS REQUIRED FOR CURRENT CABLING PLUS 50% SPARE CAPACITY, UNLESS INDICATED OTHERWISE.

**B SYSTEMS OPEN RACEWAY WALL PENETRATION DETAIL**  
SCALE: NO SCALE



**DETAIL KEYED NOTES**

- PROVIDE LIGHTING CONTROL PANEL WITH ALL OPTIONS NECESSARY TO PROVIDE CONTROLS AS SHOWN AND SPECIFIED.
- SEE LIGHTING PLANS ON E2 SERIES SHEETS FOR DIGITAL ADDRESSABLE SWITCH LOCATIONS. PROGRAM FOR CONTROL AS SCHEDULED. PROVIDE ENGRAVED COVER PLATES AS DESCRIBED ON E2 SHEETS. (\*) INDICATES CONTROL TYPE.
- COORDINATE CONNECTIONS WITH OWNERS SECURITY SYSTEM PROVIDER.
- PROVIDE CONTROL WIRING PER EQUIPMENT REQUIREMENTS.
- PROVIDE HOME-RUN OR DAISY CHAIN WIRING PER EQUIPMENT REQUIREMENTS.
- PROVIDE INTERIOR AND/OR EXTERIOR PHOTOCELLS. REFER TO LIGHTING PLAN FOR INTERIOR COUNTS AND LOCATIONS. PROVIDE ONE EXTERIOR SENSOR ROOF MOUNTED PER MANUFACTURER RECOMMENDATIONS. (\*) INDICATES CONTROL TYPE.
- REFER TO LIGHTING PLANS FOR SWITCHING GROUPS/HOME-RUNS.
- PROVIDE CONSTANT POWER TO EXIT SIGNS, EM BALLASTS, NIGHT-LIGHTS, OCCUPANCY SENSORS, ETC.
- PROVIDE LAN CONNECTION TO CONTROL PANEL FOR REMOTE OWNER CONTROL. PROVIDE ALL HARDWARE/PROGRAMMING REQUIRED FOR SYSTEM INTERFACES AS SPECIFIED.
- NOT USED.
- SEE LIGHTING PLANS FOR LOCAL SWITCHES TO BE INCORPORATED INTO SYSTEM (ONLY LOCATIONS SPECIFICALLY NOTED).

**A LIGHTING CONTROL RISER DIAGRAM**  
SCALE: NO SCALE

RELAY PANEL SCHEDULE											
RELAY PANEL		FEEDS		REMARKS				LOCATION		MOUNTING	
1LC1		X INDIVIDUAL MAIN LUGS								FLUSH	
X NEW		MAIN BKR								X SURFACE	
		MAX VOLTAGE		208							
		MAX PHASE		1							
No.	RELAY	CONTROLLED CKT	CONTROL ZONE	CONTROL TYPE (SEE SCHEDULE)	No.	No.	CONTROL TYPE (SEE SCHEDULE)	CONTROL ZONE	CONTROLLED CKT	RELAY	No.
1	20	1	IP1 3	VESTIBULE	1	2		ENTRY	1P1 11	20	1
3	20	1	IP1 3	WAITING	3	4		SOFFIT LTG	1P1 11	20	1
5	20	1	IP1 3	HALL 104	5	6		EXTERIOR SIGN	1P1 17	20	1
7	20	1	IP1 3	RECEPTION	7	8		SPARE		20	1
9	20	1	IP1 3	KENNEL	9	10		W. KENNEL	1P1 1	20	1
11	20	1	IP1 3	KENNEL DL	11	12		W. KENNEL DL	1P1 1	20	1
13	20	1	IP1 3	KENNEL HALL	13	14		C. KENNEL	1P1 1	20	1
15	20	1	IP1 3	STAIRS	15	16		E. KENNEL	1P1 1	20	1
17	20	1	IP1 9	HALL 115	17	18		E. KENNEL DL	1P1 1	20	1
19	20	1	SPARE		19	20		SPARE		20	1
21	20	1	SPARE		21	22		SPARE		20	1
23	20	1	SPARE		23	24		SPARE		20	1

CONTROL TYPES  
CLK = TIMECLOCK  
SW = SWITCH (1, 3, OR 4)  
OVER = 2-HOUR TIMED OVERRIDE ON PHOTO = PHOTOCELL

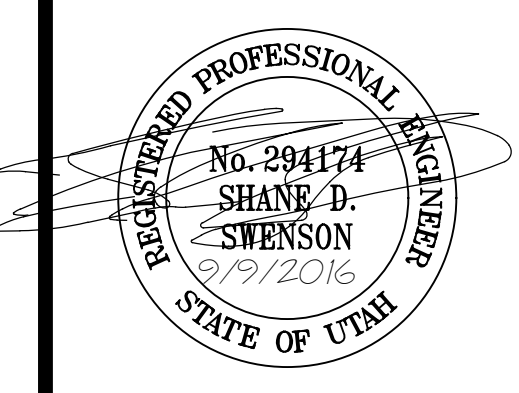
LIGHTING CONTROL TYPE SCHEDULE		
TYPE	DESCRIPTION	CONTROLLED RELAYS
T1	INTERIOR TIMECLOCK ON/OFF (SCHEDULE PER OWNER)	1LC1:1,3,5,7-18
T2	EXTERIOR TIMECLOCK ON/OFF (ON AT DUSK, OFF PER OWNER)	1LC1:2,4,6
B1	BLINK WARNING	1LC1:1,3,5,7-18
P1	PHOTOCELL: EXTERIOR	1LC1:2,4,6
S1	TOGGLE W/ TIME OUT: VESTIBULE	1LC1:1
S2	TOGGLE W/ TIME OUT: WAITING	1LC1:3
S3	TOGGLE W/ TIME OUT: RECEPTION	1LC1:7
S4	TOGGLE W/ TIME OUT: HALL 115	1LC1:17
S5	TOGGLE W/ TIME OUT: HALL 104	1LC1:5
S6	TOGGLE W/ TIME OUT: KENNEL CHECK-IN	1LC1:9
S7	TOGGLE W/ TIME OUT: KENNEL CHECK-IN DAYLIGHT	1LC1:11
S8	TOGGLE W/ TIME OUT: KENNEL HALL	1LC1:13
S9	TOGGLE W/ TIME OUT: WEST KENNEL	1LC1:10
S10	TOGGLE W/ TIME OUT: WEST KENNEL DAYLIGHT	1LC1:12
S11	TOGGLE W/ TIME OUT: CENTER KENNEL	1LC1:14
S12	TOGGLE W/ TIME OUT: EAST KENNEL	1LC1:16
S13	TOGGLE W/ TIME OUT: EAST KENNEL DAYLIGHT	1LC1:18
S14	TOGGLE W/ TIME OUT: STAIRS	1LC1:15
S15		
S16		
S17		

NOTES

**B SYSTEMS OPEN RACEWAY WALL PENETRATION DETAIL**  
SCALE: NO SCALE

**A LIGHTING CONTROL RISER DIAGRAM**  
SCALE: NO SCALE

JOSEPH T. BECK ARCHITECT, INC.  
487 EAST 520 SOUTH  
SMITHFIELD, UTAH  
(435) 764-6742



DATE  
SEPTEMBER 9, 2016

PROJECT TITLE  
NIBLEY VET CLINIC/KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

ELECTRICAL RISER  
DIAGRAMS

PROJECT NUMBER  
SSE# 2016038

REVISIONS

SHEET NUMBER

E502

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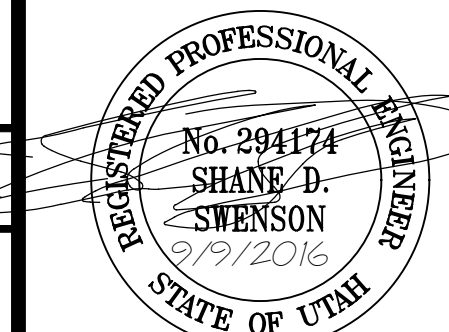
# SHEET KEYED NOTES

1. PRIMARY AND SECONDARY CONDUIT, TRENCHING, AND BACKFILL BY CONTRACTOR. CONDUCTORS BY UTILITY.
2. TRANSFORMER PAD-VAULT BY CONTRACTOR. EQUIPMENT BY UTILITY. REFER TO DETAIL A/E501.
3. LOCATE CT METER PER UTILITY REQUIREMENTS.
4. ALTERNATE CONFIGURATIONS OF PARALLEL FEEDERS CAN BE USED WITH ENGINEER'S PRIOR WRITTEN APPROVAL.
5. PROVIDE WATER & GROUND ROD GROUNDING ELECTRODE CONNECTIONS WHEN METALLIC WATERLINE ENTERS BUILDING, OTHERWISE OMIT.
6. PROVIDE FAULT CURRENT LABELING ON EQUIPMENT AS REQUIRED BY NEC 110.24.
7. REFER TO SITE PLAN ES101 FOR LOCATION OF EXISTING GROUND SLEEVE.
8. EXTEND A 2.5" CONDUIT FROM PANEL "1MDP1" TO THE NORTH SIDE OF THE BUILDING FOR FUTURE. REFER TO SITE PLAN ES101 KEYNOTE #8.
9. EXTEND A 2.5" CONDUIT FROM PANEL "1MDP1" TO THE SOUTH SIDE OF THE BUILDING FOR FUTURE. REFER TO SITE PLAN ES101 KEYNOTE #8.
10. PROVIDE GROUNDING AND BONDING PER NEC 250.32(B). DO NOT BIND TO NEUTRAL AT THIS LOCATION.

# GENERAL SHEET NOTES

1. COMPLY WITH POWER UTILITY'S REQUIREMENTS FOR ALL UTILITY RELATED INSTALLATIONS. REVIEW CURRENT UTILITY STANDARDS MANUAL PRIOR TO BID. NOTIFY ENGINEER OF CONFLICTS PRIOR TO BID.
2. AIC RATINGS SHOWN INDICATE MINIMUM REQUIRED VALUES.
3. ALL CONDUCTORS ARE CONSIDERED TO BE COPPER UNLESS SPECIFICALLY NOTED OTHERWISE.
4. A FULL SIZE EQUIPMENT GROUNDING CONDUCTOR SIZED FOR THE OVERCURRENT PROTECTIVE DEVICE PROTECTING THE CIRCUIT IS REQUIRED IN EACH RACEWAY OR CABLE FOR PARALLELED CIRCUITS.
5. CONTRACTOR SHALL DOCUMENT ALL FEEDER CONDUCTOR LENGTHS ON AS BUILT DRAWINGS.

JOSEPH T. BECK ARCHITECT, INC.  
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2365 SOUTH HERITAGE DRIVE  
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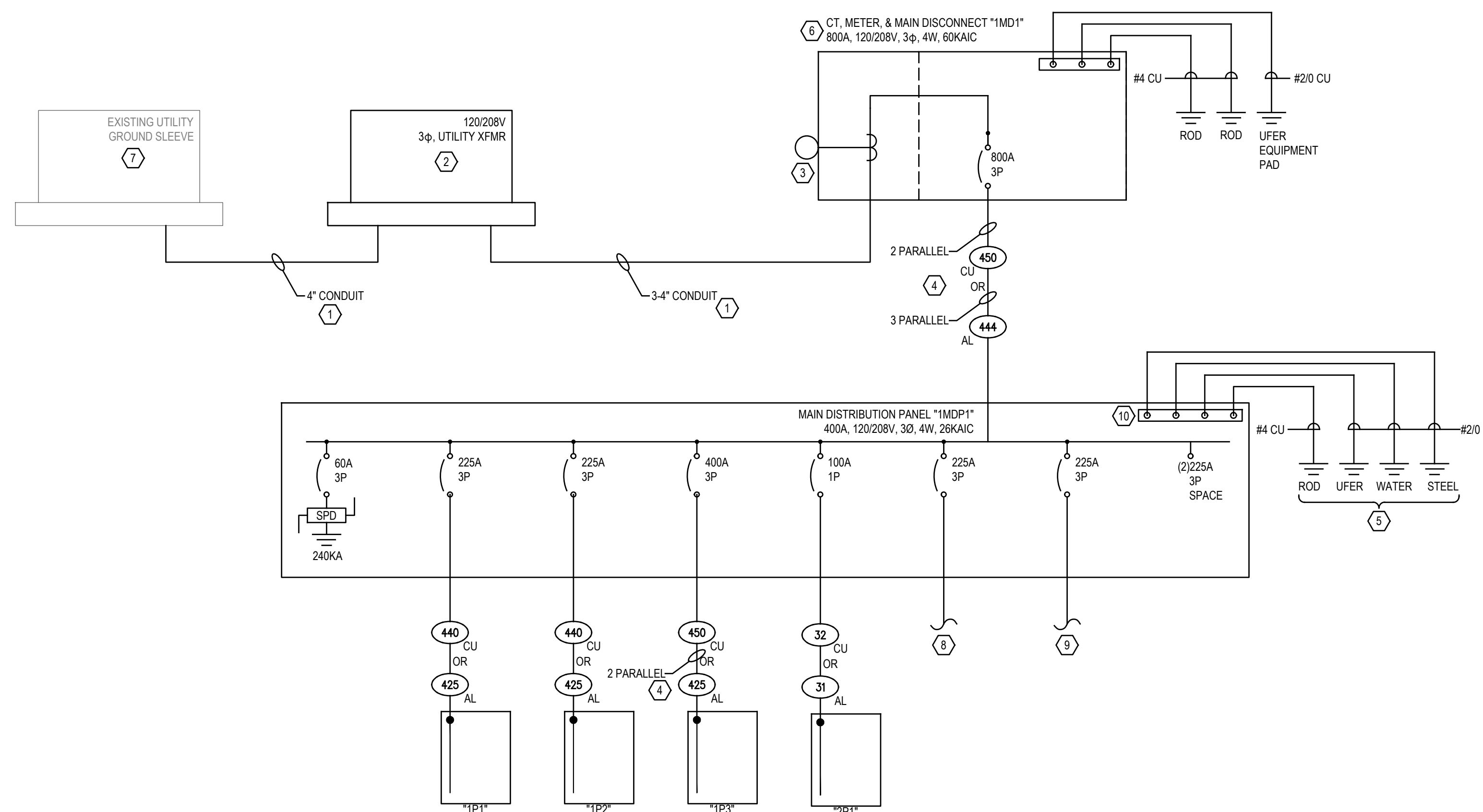
SHEET TITLE  
ELECTRICAL  
ONE-LINE  
DIAGRAM

PROJECT NUMBER  
SSE# 2016038

REVISIONS

SHEET NUMBER

E601



SERVICE ENTRANCE & FEEDER CONDUIT-CONDUCTOR SCHEDULE						
TYPE	CONDUCTOR QUAN.	CONDUCTOR SIZE	COND SIZE	AMP (CU)	AMP (AL)	INSULATION
212	2	12	3/4	20	N/A	THHN, THWN, XHHW
312	3					
412	4					
20	2	10		30		
30	3					
40	4					
28	2	8	1	40		
38	3					
48	4					
26	2	6		55		
36	3					
46	4		1 1/4			
24	2	4		70	55	
34	3					
44	4					
33	3	3		85	65	
43	4					
32	3	2		95	75	
42	4		1 1/2			
31	3	1		130	100	
41	4					
310	3	1/0	2	150	120	
410	4					
320	3	2/0		175	135	
420	4					
330	3	3/0		200	155	
430	4		2 1/2			
340	3	4/0		230	180	
440	4					
325	3	250		255	205	
425	4		3			
333	3	300		285	230	
433	4					
335	3	350		310	250	
435	4					
344	3	400	3 1/2	335	270	
444	4					
350	3	500	4	380	310	
450	4					

PROVIDE SERVICE OR EQUIPMENT GROUNDING CONDUCTOR, SIZED PER NEC, PULLED WITH THE PHASE CONDUCTORS INTO ALL CONDUITS

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LAST SAVE: 09/09/16 11:40:50 AM PROJECT: NIBLEY VET CLINIC/KENNEL NEW BUILDING PROJECT SHEET: ELECTRICAL SCHEDULES DATE: 09/09/16

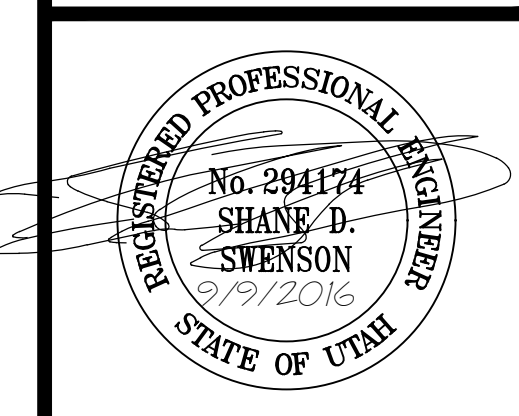
LIGHT FIXTURE SCHEDULE												
TYPE	MANUFACTURER/CATALOG NO.	DESCRIPTION	MOUNTING	POWER	LAMPS	TYPE	MANUFACTURER/CATALOG NO.	DESCRIPTION	MOUNTING	POWER	LAMPS	
EX- 1B	DUAL LITE NV3-G-EN-W-CVS SURE-LITES CCX7-0-70-G-WH-SD LIGHTOLIER LT-N-J-G-W-SD LITHONIA LQM S W 3 G 120/277 EL N SD EELP XE-2-GW-EM-SD EXITRONIX MCPHILBEN CXXL-3-G-W	EXIT SIGN; SINGLE FACE; UNIVERSAL MOUNTING; WHITE; THERMOPLASTIC HOUSING; SELF DIAGNOSTICS; WIRE GUARD WHERE NOTED ON DRAWINGS	WALL OR CEILING 1-FACE	3W	LED	RL- L6W RL- L6WB	HALO H550/CAT-ML5606840-592H (EM: PHILIPS BODINE ELI-S-20) OR EQUIVALENT	WET LOCATION; LED LAMPING; RECESSED LENS; 5" NOMINAL OPENING; IC RATED; EM INVERTER WHERE INDICATED ON DRAWINGS; INVERTER OUTPUT OF 20W FOR 90 MINS;	RECESS	10W	LED 600 LUMEN NOMINAL 4000K	
EX- 2B	DUAL LITE NV3-G-EN-W-CVS SURE-LITES CCX7-0-70-G-WH-SD LIGHTOLIER LT-N-J-G-W-SD LITHONIA LQM S W 3 G 120/277 EL N SD EELP XE-2-GW-EM-SD EXITRONIX MCPHILBEN CXXL-3-G-W	EXIT SIGN; DOUBLE FACE; UNIVERSAL MOUNTING; WHITE; THERMOPLASTIC HOUSING; SELF DIAGNOSTICS; WIRE GUARD WHERE NOTED ON DRAWINGS	WALL OR CEILING 1-FACE	3W	LED	RL- L9W RL- L9WB	HALO H550/CAT-ML5609840-592H (EM: PHILIPS BODINE ELI-S-20) OR EQUIVALENT	RECESSED CAN; LED LAMPING; SEMI-SPECULAR REFLECTOR, WHITE FLANGE; 5" NOMINAL OPENING; WET LOCATION; IC RATED; EM INVERTER WHERE INDICATED ON DRAWINGS; INVERTER OUTPUT OF 20W FOR 90 MINS;	RECESS	10W	LED 900 LUMEN NOMINAL 4000K	
DC- 415	KICHLER CATERHAM 496380Z OR EQUIVALENT WITH ARCHITECTS APPROVAL	SLOPED CEILING BRONZE DECORATIVE 4 LIGHT OUTDOOR CHANDELER; OLDE BRONZE; FACTORY TO RE-LABEL SOCKET BASE AS 15 WATTS MAX PROVIDE LED BULBS (PHILIPS A19 DIMMABLE LED MODEL #461434 OR EQUIVALENT)	SUSPENDED	60W	4-A19 LED MEDIUM SOCKET 2700K	RL- L12 RL- L12B	HALO H550/CAT-ML5609840-592H (EM: PHILIPS BODINE ELI-S-20) OR EQUIVALENT	RECESSED CAN; LED LAMPING; SEMI-SPECULAR REFLECTOR, WHITE FLANGE; 5" NOMINAL OPENING; IC RATED; EM INVERTER WHERE INDICATED ON DRAWINGS; INVERTER OUTPUT OF 20W FOR 90 MINS;	RECESS	17.5W	LED 1200 LUMEN NOMINAL 4000K	
DW- 118	KICHLER CATERHAM 496430ZFL OR EQUIVALENT WITH ARCHITECTS APPROVAL	OUTDOOR DECORATIVE 1 LIGHT WALL LANTERN; OLDE BRONZE;	WALL	18W	GU24	RL- L12W RL- L12WB	HALO H550/CAT-ML5609840-592H (EM: PHILIPS BODINE ELI-S-20) OR EQUIVALENT	WET LOCATION LENS; LED LAMPING; RECESSED LENS; 5" NOMINAL OPENING; IC RATED; EM INVERTER WHERE INDICATED ON DRAWINGS; INVERTER OUTPUT OF 20W FOR 90 MINS;	RECESS	17.5W	LED 1200 LUMEN NOMINAL 4000K	
LS- 232* LS- 232B*	COLUMBIA EWN4-232-EPU NULITE SF-2-32T8-UNV-PS-WH-(EM)-DL HE WILLIAMS DAYBRITE LITHONIA METALUX LA LIGHTING WSM200-2-4R-PA-(EM-BP)-E8*PS-UNV	SURFACE, INJECTION MOLDED WRAP; DUAL UNIVERSAL-VOLTAGE, ELECTRONIC, PROGRAM-START BALLAST; WIDE BODY EM BATTERY BALLAST WHERE NOTED ON DRAWINGS	SURFACE	64W	(2) F032/840	S4- 232	COLUMBIA CS4-232-EPU METALUX STN-232UNV-EB8XPS LIGHTOLIER SW45-232-UNV-SOPS LITHONIA C-232-MVOLT-GE810 LSI S-232-SSO10PS-UE DAY-BRITE T-232-UNV-EB*PS	STRIP FIXTURE; UNIVERSAL-VOLTAGE; ELECTRONIC BALLAST; 2-LAMPS PER CROSS-SECTION; 4" TOTAL LENGTH EM BALLAST WHERE NOTED ON DRAWINGS	SURFACE		(2) F032/827	
LS- L4K LS- L4KB	LITHONIA LBL4-48L-EZ1-LP840-(EM-EL14L) OR EQUIVALENT	LED SURFACE WRAP; 1% DIMMING, MULTI-VOLT DRIVER; EM BATTERY PACK WHERE NOTED ON DRAWING	SURFACE	48W	4800 LUMEN NOMINAL LED 4000K	SR- 20K SR- 20KB	TERON LIGHTING NEC14-L25-120V-ZE12CC-XX-40K-(EM-MIV) OR EQUIVALENT WITH PRIOR APPROVAL	14"; SURFACE ROUND, LED, DECORATIVE FIXTURE; 120V, DIMMABLE DRIVER; EM INVERTER WHERE INDICATED; INVERTER OUTPUT OF 20W FOR 90 MINS; STANDARD COLOR BY ARCHITECT	SURFACE	23.5W	2000 LUMEN NOMINAL 4000K	
LS- 332* LS- 332B*	COLUMBIA EWW4-332-EPU NULITE SF-332-MVOLT-INJ HE WILLIAMS DAYBRITE METALUX LITHONIA LA LIGHTING WSM200-3-4R-PA-(EM-BP)-E8*PS-UNV	SURFACE, INJECTION MOLDED WRAP; DUAL UNIVERSAL-VOLTAGE, ELECTRONIC, PROGRAM-START BALLAST; WIDE BODY EM BATTERY BALLAST WHERE NOTED ON DRAWINGS	SURFACE	96W	(3) F032/840	WB- 232 WB- 232B	TERON LIGHTING RAVINIA RN48232E-120E-WAL-XX-MSP OR EQUIVALENT WITH PRIOR APPROVAL	DECORATIVE WALL BRACKET; 120 VOLT, PROGRAM-START BALLAST, ELECTRONIC BALLAST; PARTIAL UP-LIGHT	WALL ABOVE MIRROR		(2) F032/835	
LS- L6K LS- L6KB	LITHONIA LBL4W-65L-EZ1-LP840-(EM-EL14L) OR EQUIVALENT	LED SURFACE WRAP; 1% DIMMING, MULTI-VOLT DRIVER; EM BATTERY PACK WHERE NOTED ON DRAWING	SURFACE	56W	6500 LUMEN NOMINAL LED 4000K	WB- L2K WB- L2K	LITHONIA WL2-22L-MVOLT-EZX-LP840 OR EQUIVALENT	WALL BRACKET; MULTI-VOLT, ELECTRONIC, DIMMING DRIVER, UP/DOWN LIGHT	WALL	21W	2000 LUMEN NOMINAL LED 4000K	
LS- 432* LS- 432B* LS- 432D*	COLUMBIA EWW4-432-EPU NULITE SF-432-MVOLT-INJ HE WILLIAMS DAYBRITE METALUX LITHONIA LA LIGHTING WSM200-4-4R-PA-(EM-BP)-E8*PS-UNV	SURFACE, INJECTION MOLDED WRAP; DUAL UNIVERSAL-VOLTAGE, ELECTRONIC, PROGRAM-START BALLAST; WIDE BODY EM BATTERY BALLAST WHERE NOTED ON DRAWINGS DIMMING BALLAST WHERE NOTED ON DRAWINGS	SURFACE	128W	(4) F032/840							
LS- L8K LS- L8KB	LITHONIA LBL4W-80L-EZ1-LP840-(EM-EL14L) OR EQUIVALENT	LED SURFACE WRAP; 1% DIMMING, MULTI-VOLT DRIVER; EM BATTERY PACK WHERE NOTED ON DRAWING	SURFACE	71W	8000 LUMEN NOMINAL LED 4000K							
OW4- L15B	LITHONIA WSTLED-P1-40K-MVOLT-DDBXD-E20WC OR EQUIVALENT	EXTERIOR WALL TRAPEZOID; LED LAMPING; TYPE 4 OPTICAL DISTRIBUTION; MULTI-VOLT, DIMMABLE DRIVER EM BATTERY BALLAST;	WALL	12W	1500 LUMEN NOMINAL LED 4000K							
RL- L06 RL- L06B	HALO H550/CAT-ML5606840-592H (EM: PHILIPS BODINE ELI-S-20) OR EQUIVALENT	RECESSED CAN; LED LAMPING; SEMI-SPECULAR REFLECTOR, WHITE FLANGE; 5" NOMINAL OPENING; IC RATED; EM INVERTER WHERE INDICATED ON DRAWINGS; INVERTER OUTPUT OF 20W FOR 90 MINS;	RECESS	10W	LED 600 LUMEN NOMINAL 4000K							

NOTES  
-CONTRACTOR AND LIGHTING SUPPLIER SEE (\*) FOR MULTIPLE BALLAST REQUIREMENTS

LIGHT FIXTURE ACCESSORY APPEND												
B	AS SPECIFIED	APPENDED TO FIXTURE TYPE; 1100 LUMEN EM BATTERY SUPPLY	AS SPECIFIED	N/A	PER FIXTURE TYPE							
D	LUTRON ADVANCE MARK X EQUIVALENT	LETTER APPENDED TO FIXTURE TYPE; DIMMING BALLAST (HID, FLUORESCENT, ETC), DRIVER (LED) OR OTHER ACCESSORY; COORDINATE DIMMER OR DIMMER SWITCH TYPE WITH POWER SUPPLY AS REQUIRED. DIMMING RANGE 100-1% UNLESS OTHERWISE INDICATED	FACTORY MOUNT IN FIXTURE	N/A	PER FIXTURE TYPE							

NOTES  
-FIXTURE APPENDS ARE ADDED TO STANDARD FIXTURE TYPES. APPENDS ARE INTENDED TO MODIFY FIXTURE CATALOG NUMBERS GIVEN ABOVE AS NOTED IN APPEND DESCRIPTION

JOSEPH T. BECK ARCHITECT, INC.  
487 EAST 520 SOUTH  
SMITHFIELD, UTAH  
(435) 764-6742



DATE  
SEPTEMBER 9, 2016

PROJECT TITLE  
NIBLEY VET CLINIC/KENNEL  
NEW BUILDING PROJECT  
2365 SOUTH HERITAGE DRIVE  
NIBLEY, UTAH

SHEET TITLE  
ELECTRICAL  
SCHEDULES

PROJECT NUMBER  
SSE# 2016038

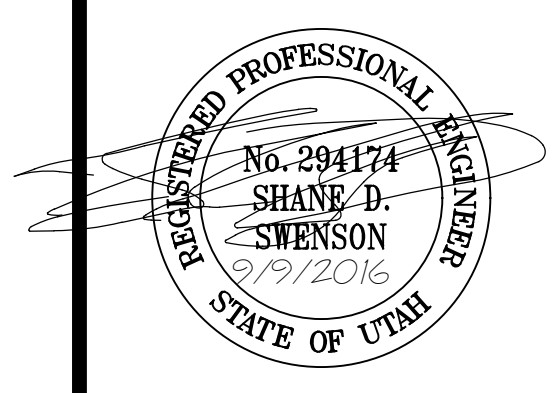
REVISIONS

SHEET NUMBER

E602

**SINE  
SOURCE  
ENGINEERING**  
545 West 465 North  
Suite 150  
Providence, UT 84332  
office: (435) 782-1445  
fax: 1-877-202-3199  
www.sinesource.net

JOSEPH T. BECK ARCHITECT, INC.  
487 EAST 520 SOUTH  
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DATE  
SEPTEMBER 9, 2016

NIBLEY VET CLINIC/KENNEL  
 NEW BUILDING PROJECT  
 2365 SOUTH HERITAGE DRIVE  
 NIBLEY, UTAH

PROJECT TITLE

ELECTRICAL  
 SCHEDULES

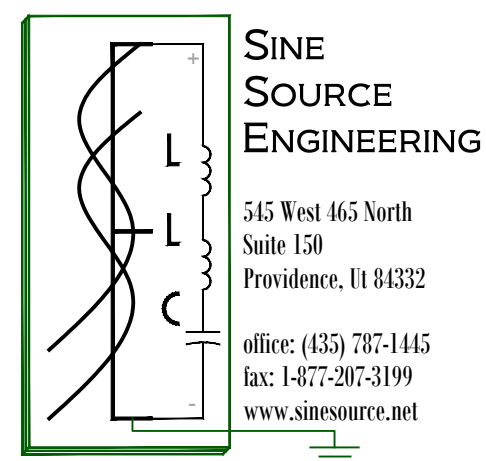
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E603



PANEL 1P3		TYPE NQOD		3 Ø 4 WIRE		120/208 VOLTS		LOCATION ELECTRICAL ROOM 117		MOUNTING				
REMARKS		FLUSH SURFACE		225 AMP MAIN		225 LUGS		BREAKER						
No.	BRKR	CIRCUIT DESCRIPTION	L	O	M	Wire	CIRC. LOAD	Wire	L	O	M	CIRCUIT DESCRIPTION	BRKR	No.
1	60H 3	ROOFTOP UNIT-1				1	6000	7600	1	6	6000	1	CLEANING MOTOR	20H 1 2
3	-	-				1	6000	8160	1	6	6000	1	CONDENSING UNIT-1	30H 1 4
5	-	-				1	6000	8160	1	6	6000	1	2160	20H 1 6
7	50H 3	ROOFTOP UNIT-2				1	4200	5800	1	8	4200	1	CLEANING MOTOR	20H 1 8
9	-	-				1	4200	5160	1	8	4200	2	WATER HTR AND CIRC. PUMP	20H 1 10
11	-	-				1	8200	5250	1	8	4200	1	FURNACE	20H 1 12
13	50H 3	ROOFTOP UNIT-3				1	4200	5800	1	8	4200	1	CLEANING MOTOR	20H 1 14
15	-	-				1	4200	5376	1	8	4200	1	EXHAUST FAN KENNEL	20H 1 16
17	-	-				1	4200	4800	1	8	4200	1	NACP	20 1 18
19	60H 3	ROOFTOP UNIT-4				1	6000	7600	1	6	6000	1	CLEANING MOTOR	20H 1 20
21	-	-				1	6000	7200	1	6	6000	2	COMMUNICATION	20 1 22
23	-	-				1	6000	7200	1	6	6000	2	COMMUNICATION	20 1 24
25	20 1	SPACE					0						SPACE	20 1 26
27	20 1	SPACE					900					5	ROOFTOP OUTLETS	20 1 28
29	20 1	SPACE					900					1	LIGHTING PANEL	20 1 30
31	20 1	SPACE					0					1	SPACE	20 1 32
33	20 1	SPACE					0						SPACE	20 1 34
35	20 1	SPACE					0						SPACE	20 1 36
37	20 1	SPACE					0						SPACE	20 1 38
39	20 1	SPACE					0						SPACE	20 1 40
41	20 1	SPACE					0						SPACE	20 1 42
TOTALS 26800 26796 26310												AIC 22 KAIC		
FEEDER			SEE ONE-LINE			AMPS/PHASE 223 223 219			PARALLEL RUNS			SEE ONE-LINE		
BREAKER CODES A=ARC-FAULT; G=GROUND FAULT; H=HACR; L=LOCKING HANDLE; S=SHUNT TRIP														

PANEL 2P1		TYPE LOAD CENTER		1 Ø 3 WIRE		120/240 VOLTS		LOCATION RESIDENCE		MOUNTING				
REMARKS		FLUSH SURFACE		125 AMP MAIN		100 LUGS		BREAKER						
-SCHEDULE IS FOR REFERENCE ONLY. CONTRACTOR TO ADJUST CIRCUITS PER FIELD CONDITIONS														
No.	BRKR	CIRCUIT DESCRIPTION	L	O	M	Wire	CIRC. LOAD	Wire	L	O	M	CIRCUIT DESCRIPTION	BRKR	No.
1	20 1	SPARE					0					PLUGS: LIVING	15A 1 2	
3	20 1	SPARE					1200	1200	12			REFRIGERATORS	20A 1 4	
5	20 1	SPARE					1200	1200	12			DISPOSAL	20A 1 6	
7	20 1	SPARE					1500	1500	12			SMALL APPLIANCE	20A 1 8	
9	15A 1	LIGHTING				14	1500	1500	12			SMALL APPLIANCE	20A 1 10	
11	15 1	SMOKERS				14	600	2100	1500	12		BATH ROOM	20A 1 12	
13	20 1	SPACE					0					SPACE	20 1 14	
15	20 1	SPACE					0					SPACE	20 1 16	
17	20 1	SPACE					0					SPACE	20 1 18	
19	20 1	SPACE					0					SPACE	20 1 20	
21	20 1	SPACE					0					SPACE	20 1 22	
23	20 1	SPACE					0					SPACE	20 1 24	
TOTALS 2700 4800												AIC 12 KAIC		
FEEDER			SEE ONE-LINE			AMPS/PHASE 23 40			PARALLEL RUNS			SEE ONE-LINE		
BREAKER CODES A=ARC-FAULT; G=GROUND FAULT; H=HACR; L=LOCKING HANDLE; S=SHUNT TRIP														

MECHANICAL EQUIPMENT SCHEDULE									
SYM	DESCRIPTION	LOAD	VOLTS	PHASE	FIRE ALARM SHUTDOWN	CONTROL CIRCUITS BY	* STARTER BY	SAFETY DISCONNECT BY	REMARKS
CU-1	CONDENSING UNIT	18 MCA	208	1	NO	MECH	MECH	ELEC	
DCP-1	DOMESTIC WATER CIRCULATION PUMP	1/4 HP	120	1	NO	MECH	ELEC	ELEC	
EF-1	EXHAUST FAN	84 W	120	1	NO	ELEC	ELEC	ELEC	PROVIDE ON/OFF WALL SWITCH
EF-2	EXHAUST FAN	84 W	120	1	NO	ELEC	ELEC	ELEC	PROVIDE ON/OFF WALL SWITCH
EF-3	EXHAUST FAN	80 W	120	1	NO	ELEC	ELEC	ELEC	PROVIDE ON/OFF WALL SWITCH
EF-4	EXHAUST FAN	80 W	120	1	NO	ELEC	ELEC	ELEC	CONTROL THROUGH LIGHTING CONTROL SERVING AREA
EF-5	EXHAUST FAN	80 W	120	1	NO	ELEC	ELEC	ELEC	CONTROL THROUGH LIGHTING CONTROL SERVING AREA
EF-6	EXHAUST FAN	80 W	120	1	NO	ELEC	ELEC	ELEC	PROVIDE ON/OFF WALL SWITCH
EF-7	EXHAUST FAN	84	120	1	NO	ELEC	ELEC	ELEC	PROVIDE ON/OFF WALL SWITCH
EF-8	EXHAUST FAN	80	120	1	NO	ELEC	ELEC	ELEC	PROVIDE ON/OFF WALL SWITCH
EF-9	EXHAUST FAN	1/2 HP	120	1	NO	ELEC	ELEC	ELEC	PROVIDE ON/OFF WALL SWITCH
EF-10	EXHAUST FAN	80 W	120	1	NO	ELEC	ELEC	ELEC	CONTROL THROUGH LIGHTING CONTROL SERVING AREA
EF-11	EXHAUST FAN	80 W	120	1	NO	ELEC	ELEC	ELEC	CONTROL THROUGH LIGHTING CONTROL SERVING AREA
F-1	FURNACE	1/2 HP	120	1	NO	MECH	ELEC	ELEC	
RTU-1	ROOFTOP UNIT	45.6 MCA	208	3	YES	MECH	MECH	MECH	
RTU-2	ROOFTOP UNIT	34.8 MCA	208	3	NO	MECH	MECH	MECH	
RTU-3	ROOFTOP UNIT	37.0 MCA	208	3	NO	MECH	MECH	MECH	
RTU-4	ROOFTOP UNIT	45.6 MCA	208	3	YES	MECH	MECH	MECH	
WH-1	WATER HEATER	3 A	120	1	NO	MECH	ELEC	ELEC	

\* ELECTRICAL CONTRACTOR VERIFY SINGLE SPEED OR TWO SPEED STARTERS WITH MECHANICAL DRAWINGS.

PANEL 1P1		TYPE NQOD		3 Ø 4 WIRE		120/208 VOLTS		LOCATION ELECTRICAL ROOM 117		MOUNTING				
REMARKS		FLUSH SURFACE		225 AMP MAIN		225 LUGS		BREAKER						
No.	BRKR	CIRCUIT DESCRIPTION	L	O	M	Wire	CIRC. LOAD	Wire	L	O	M	CIRCUIT DESCRIPTION	BRKR	No.
1	20 1	LTG: KENNEL				15	1440	3024	1584	12		1	WASHER	20 1 2
3	20 1	LTG: KENNEL ENTRY/HALL				26	1471	3055	1584	12		1	-	20 1 4
5	20 1	LTG: VET ENTRY/HALL				25	1425	3009	1584	12		1	WASHER	20 1 6
7	20 1	LTG: VET SRGRY/UTILITY				14	1632	3216	1584	12		1	-	20 1 8
9	20 1	LTG: TREATMENT				14	1504	2704	1200	12		1	DRYER	20 1 10
11	20 1	LTG: RESTROOMS				2	10	1508	1200	12		1	DRYER	20 1 12
13	20 1	LTG: OFFICES/PHARMACY/HALL				16	1380	2820	1440	12		8	PLUGS: CNTR HALL & WAITING	20 1 14
15	20 1	LTG: EXAM RMS				10	1280	2440	1160	12		6	PLUGS: S. HALL & KENNEL	20 1 16
17	20 1	LTG: EXTERIOR				29	10	522	1722	1200	12	1	ELECTRIC WATER COOLER	20 1 18
19	20 1	LTG: UPSTAIRS				11	1	1332	2052	720	12	4	SUITE 136 & SUITE 138	20 1 20
21	20 1	LTG: EXTERIOR SIGN				1	10	1200	1920	1200	12	4	SUITE 136 & SUITE 137	20 1 22
23	20 1	MICROWAVE FOOD PREP 133					12	1500	2220	720	12	4	PLUGS: KENNEL	20 1 24
25	20 1	DISPOSAL FOOD PREP 133					12	1176	1896	720	12	4	PLUGS: KENNEL RECEPTIONIST	20 1 26
27	20 1	FRIDGE FOOD PREP 133					12	1176	2376	1200	12	3	INTERIOR SIGNS	20 1 28
29	20 1	DISHWASHER FOOD PREP 133					12	1176	2076	900	12	5	PLUGS: VET RECEPTIONIST	20 1 30
31	20 1	PLUGS: FOOD PREP 133				4	12	1260	540	12	3	PLUGS: MANAGERS OFFICE	20 1 32	
33	20 1	SPARE						1088	1088	12	5	2	PLUGS: GROOMING	20 1 34
35	20 1	SPARE						1200	1200	12	1	1	ELECTRIC WATER COOLER	20 1 36
37	20 1	SPARE						360	360	12	2	2	PLUGS: RESTROOMS	20 1 38
39	20 1	SPARE						1080	1080	10	6	6	PLUGS: EXTERIOR	20 1 40
41	20 1	SPARE						1200	1200	12	1	1	STORAGE FRIDGE	20 1 42
43	20 1	SPARE						0					SPARE	20 1 44
45	20 1	SPARE						0					SPARE	20 1 46
47	20 1	SPARE						0					SPARE	20 1 48
49	20 1	SPARE						0					SPARE	20 1 50
51	20 1	SPARE						0					SPARE	20 1 52
53	20 1	SPARE						0					SPARE	20 1 54
55	20 1	SPARE						0					SPARE	20 1 56
57	20 1	SPARE						0					SPARE	20 1 58
59	20 1	SPARE						0					SPARE	20 1 60
TOTALS 14628 16365 12413												AIC 22 KAIC		
FEEDER			SEE ONE-LINE			AMPS/PHASE 122 136 103			PARALLEL RUNS			SEE ONE-LINE		
BREAKER CODES A=ARC-FAULT; G=GROUND FAULT; H=HACR; L=LOCKING HANDLE; S=SHUNT TRIP														

PANEL 1P2		TYPE NQOD		3 Ø 4 WIRE		120/208 VOLTS		LOCATION ELECTRICAL ROOM 117		MOUNTING				
REMARKS		FLUSH SURFACE		225 AMP MAIN		225 LUGS		BREAKER						
No.	BRKR	CIRCUIT DESCRIPTION	L	O	M	Wire	CIRC. LOAD	Wire	L	O	M	CIRCUIT DESCRIPTION	BRKR	No.
1	20 1	PLUGS: X-RAY & COMFORT RM				5	12	900	2100	1200	12	2	SURGERY</	



January 23, 2017

Attn: City Planning and Zoning Committee  
Nibley City, Utah

From: Heritage Vets, LLC  
Heritage Animal Hospital

Dear Committee Members,

This letter is to request an exemption for the Heritage Animal Hospital from the Nibley City Design Standards, Section 2.2.5, Section H, Windows and Doors.

This section states, "At least 60% of the primary ground story façade facing public streets, easements and other right-of-way corridors must be clear glass, to enhance the pedestrian environment, to connect the building interior to the outside, and to provide ambient lighting at night." Currently our building façade is 41.7% clear glass and does not meet this standard.

We are requesting an exemption based on a fundamental difference between our business model and that of others located in our neighborhood. As a medical facility, we are required to maintain privacy and confidentiality standards similar to those required in human medicine. Excessively large windows in the exam rooms would allow people who are walking on the adjacent sidewalk or who are parking their cars to see directly into the exam rooms. Obviously this prevents us from maintaining privacy and confidentiality during examinations.

Regarding an increase of window size in the boarding areas, another problem presents itself. It is less than ideal to have large windows in a boarding facility because the barking of the dogs could be more easily heard through large windows thereby increasing noise pollution in the neighborhood. Also, while it is uncommon, dogs have been known to break through large windows to escape from kennels.

It has been our intention from the beginning of this process to construct a veterinary hospital that contributes to the beauty of our neighborhood and the

beauty of Nibley City. To accomplish this we have designed a main entryway that is 100% clear glass and we have placed seven large windows in the façade of the building. This accomplishes the goal of the standard by connecting the interior and exterior and enhancing the clinic environment. Also, we have chosen materials that are aesthetically pleasing and harmonious with the surrounding businesses.

We have made a concerted effort to meet the recommendations of Nibley City's Design Standards while maintaining our ability to protect the privacy of our clients and patients. We kindly request an exemption from this design standard. Thank you for your consideration.

Respectfully,

Dr. C. Kolste, Dr. R. Miller, Dr. J. Miller

ORDINANCE 17-04

AN ORDINANCE PROHIBITING THE PROVISION OF UTILITIES OUTSIDE NIBLEY CITY LIMITS

WHEREAS, Nibley City provides water and sewer services to the residents and businesses in Nibley City; and

WHEREAS, Nibley City provides these service to help enhance the welfare and lives of those residents and businesses within the City; and

WHEREAS, these residents and businesses pay taxes and make other great contributions to the City and enhance the City in many ways; and

WHEREAS, Nibley City designed and built the water and sewer system to serve those properties and people that are within Nibley City boundaries.

NOW THEREFORE, BE IT ORDAINED BY THE NIBLEY CITY COUNCIL LOCATED AT NIBLEY, UTAH. THAT:

The attached ordinance, entitled “An Ordinance Prohibiting The Provision Of Utilities Outside Nibley City Limits” is hereby adopted, by fact and by reference, as Title 8, Section 1-2 (E).

1. All ordinances, resolutions and policies of the City, or parts thereof, inconsistent herewith, are hereby repealed, but only to the extent of such inconsistency. This repealer shall not be construed as reviving any law, order, resolution or ordinance or part thereof.
2. This ordinance shall become effective upon posting as required by law.

Passed by the Nibley City Council this \_\_\_\_\_ day of \_\_\_\_\_, 2017.

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Shaun Dustin, Mayor

ATTEST: \_\_\_\_\_

David Zook, City Recorder

Attached Wording:

8-1-2

E. No landowner, person, subdivider or developer's application to connect to Nibley City's water and sewer system will be considered unless the property noted on the application is within Nibley City limits. No application for connection or service will be considered from outside Nibley City limits until the property is properly annexed into Nibley City.