# Padilla Residence

# PRESCOTT, ARIZONA

# General Notes

- 1. A COPY OF THE CITY OF PRESCOTT APPROVED CONSTRUCTION DRAWINGS SHALL BE KEPT AT THE
- EXTERIOR WALLS: CONSTRUCTION, PROJECTIONS, OPENINGS AND PENETRATIONS OF EXTERIOR WALLS OF DWELLINGS AND ACCESSORY BUILDINGS SHALL COMPLY WITH IRC 2012 TABLE 302.1.
- 3. CEMENT, FIBER-CEMENT AND GLASS MAT GYPSUM BACKERS SHALL BE USED AS BACKERS FOR WALL TILE IN TUB AND SHOWER AREAS AND WALL PANELS IN SHOWER AREAS. SUCH WALL SURFACES SHALL EXTEND TO A HEIGHT OF NOT LESS THAN 6 FEET ABOVE THE FLOOR.
- 4. EVERY SLEEPING ROOM AND BASEMENT WITH HABITABLE SPACE SHALL HAVE AT LEAST ONE WINDOW WITH A NET CLEAR OPENING OF 5.7 SQUARE FEET (MIN. 5 SQUARE FEET NET CLEAR OPENING AT GRADE FLOOR). MINIMUM OPENING WIDTH OF 20" MINIMUM OPENING HEIGHT OF 24" AND THE FINISHED SILL HEIGHT SHALL NOT BE MORE THAN 44" ABOVE THE FLOOR, OR PROVIDE EXTERIOR DOOR FOR EMERGENCY EGRESS.
- WINDOWS SHALL BE FLASHED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS
- GLAZING IN HAZARDOUS LOCATIONS SHALL COMPLY WITH IRC 308.
- ALL INTERIOR AND EXTERIOR GLAZING IN BATHROOMS MUST BE SAFETY GLAZING WHEN THE BOTTOM EDGE IS LESS THAN FIFTY-SIX INCHES ABOVE THE FLOOR LEVEL. (BATHROOM SHALL BE DEFINED AS A ROOM PROVIDED WITH A TUB OR SHOWER.
- CEILING INSULATION: R-30 SHALL BE DEEMED TO SATISFY THE REQUIREMENTS FOR R-38 WHEREVER THE FULL HEIGHT OF UNCOMPRESSED R-30 INSULATION EXTENDS OVER THE WALL TOP PLATE AT EAVES. MARKERS SHALL BE AFFIXED TO THE TRUSSES OR JOISTS AND MARKED WITH THE MINIMUM INSTALLED THICKNESS BY ONE (1) INCH HIGH NUMBERS. A MINIMUM OF ONE (1) MARKER SHALL BE INSTALLED FOR EVERY 300 SQUARE FEET OF AREA WITH NUMBERS TO FACE THE ATTIC ACCESS OPENING.
- WOOD FRAMED WALLS: INSULATION SHALL BE IN SUBSTANTIAL CONTACT WITH THE SURFACE BEING INSULATED TO AVOID AIR PATHS THAT BYPASS THE INSULATION. INSULATION SHALL NOT BE COMPRESSED BY THE INSET STAPLING OF BATT INSULATION OR OTHER MEANS. INSULATION SHALL FILL CAVITIES COMPLETELY BY CUTTING INSULATION AROUND ELECTRICAL OUTLETS AND SWITCHES, AND BY SLICING INSULATION TO FIT BEHIND AND IN FRONT OF ELECTRICAL WIRING IN THE CAVITY AND PLUMBING PIPE.

- 10. AIR LEAKAGE THE CODE ALLOWS THE USE OF AIRFLOW RETARDERS (HOUSE WRAPS) OR OTHER SOLID MATERIALS AS ACCEPTABLE METHODS TO MEET THIS REQUIREMENT. TO BE EFFECTIVE, THE BUILDING THERMAL SEAL MUST BE:
- IMPERMEABLE TO AIR FLOW.
- CONTINUOUS OVER THE ENTIRE BUILDING ENVELOPE.
- ABLE TO WITHSTAND THE FORCES THAT MAY ACT ON IT DURING AND AFTER CONSTRUCTION. DURABLE OVER THE EXPECTED LIFETIME OF THE BUILDING.
- ALL SEAMS AND EDGES MUST BE SEALED/TAPED PER MANUFACTURER'S SPECIFICATIONS.
- 11. BUILDING THERMAL ENVELOPE THE SEALING METHODS BETWEEN DISSIMILAR MATERIALS SHALL ALLOW FOR DIFFERENTIAL EXPANSION AND CONTRACTION. THE FOLLOWING SHALL BE CAULKED, GASKETED, WEATHER-STRIPPED OR OTHERWISE SEALED WITH AN AIR BARRIER MATERIAL. SUITABLE FILM OR SOLID MATERIAL:
- ALL JOINTS, SEAMS AND PENETRATIONS.
- SITE BUILT WINDOWS, DOORS AND SKYLIGHTS.
- OPENINGS BETWEEN WINDOW AND DOOR ASSEMBLIES AND THEIR RESPECTIVE JAMBS AND **FRAMING**
- UTILITY PENETRATIONS. DROPPED CEILINGS OR CHASES ADJACENT TO THE THERMAL ENVELOPE.
- WALLS AND CEILINGS SEPARATING A GARAGE FROM CONDITIONED SPACES. BEHIND TUBS AND SHOWERS ON EXTERIOR WALLS.
- COMMON WALLS BETWEEN DWELLING UNITS.
- OTHER SOURCES OF INFILTRATION.
- 12. FENESTRATION AIR LEAKAGE WINDOW, SKYLIGHT AND SLIDING GLASS DOORS SHALL HAVE AN AIR INFILTRATION RATE OF NO MORE THAN 0.3 CFM PER SQUARE FOOT, AND SWINGING DOORS NO MORE THAN 0.5 CFM. SPECIFICATION SHALL BE LISTED ON THE MANUFACTURER LABEL
- 13. RECESSED LIGHTING RECESSED LUMINAIRES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE SEALED TO LIMIT AIR LEAKAGE BETWEEN CONDITIONED AND UNCONDITIONED SPACES BY
- IC-RATED AND LABELED WITH ENCLOSURES THAT ARE SEALED OR GASKETED TO PREVENT AIR LEAKAGE TO THE CEILING CAVITY OR UNCONDITIONED SPACE
- IC-RATED AND LABELED AS MEETING ASTM E283
- LOCATED INSIDE AIRTIGHT SEALED BOX WITH CLEARANCES OF AT LEAST 0.5 INCH FROM COMBUSTIBLE MATERIAL AND 3 INCHES FROM INSULATION

# Roject Information Steet Index

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### PREPARED BY: W. Alan Kenson & Assoc., P.C.

### P.O. Box 11593 Prescott, AZ 86304

# 1911 Perfect Place

### **ADDRESS**: Prescott, AZ 86305

- **PARCEL NUMBER:** 115-01-117 **ZONING:**
- SITE USE:
- Residential **OCCUPANCY**: Group R
- **CONST. TYPE: CURRENT CODE:**

**JOBSITE** 

- 2012 International Residential Code 2012 International Fire Code 2012 International Plumbing Code
- 2012 International Mechanical Code 2012 International Fuel Gas Code
- 2012 International Electrical Code 2012 National Electrical Code
- AREA SUMMARY:

### Livable Garage: Covered Porch: Covered Patio: Total under roof:

### 3,475 S.F. 1467 S.F. 482 S.F.

### **ARCHITECTURAL**

- CS Cover Sheet / Project Information
- A1 Site Plan
- A2.1 Landscape Details
- Wall Types Plan
- Building Sections

- A16 Interior Elevations

- Grading and Drainage plan
- Landscape Plan
- Dimension Floor Plan

- Exterior Elevations
- Exterior Elevations
- Reflected Ceiling Plan
- A10 Ceiling Framing Plan A11 Roof Plan
- A12 Door and Window Schedules
- A13 Floor Finish Plan
- A14 Interior Elevations
- A15 Interior Elevations

# **STRUCTURAL**

- General Structural Notes Typical Details T1 - T13
- Plan Schedules
- Foundation Plan
- Roof Framing Plan
- Foundation Details 101 108
- Framing Details 201 213

### **MECHANICAL:**

- Mechanical Compliance
- Mechanical Floor Plan
- Mechanical Schedules
- Mechanical Details

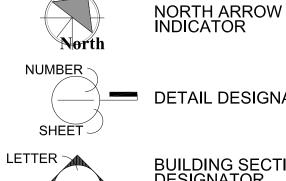
# **ELECTRICAL**:

- Electrical Floor Plan
- Electrical Notes and Load Calculation

# Deferred Submittals Tecinity Map



# Caphic Standards



DETAIL DESIGNATOR

BUILDING SECTION DESIGNATOR

**GRID LINE DESIGNATOR** 

**REVISION DESIGNATOR** 

**ELEVATION DESIGNATOR** 

DESCRIPTIVE NOTE DESIGNATOR ROOM NUMBER / FINISH DESIGNATOR

DOOR NUMBER DESIGNATOR

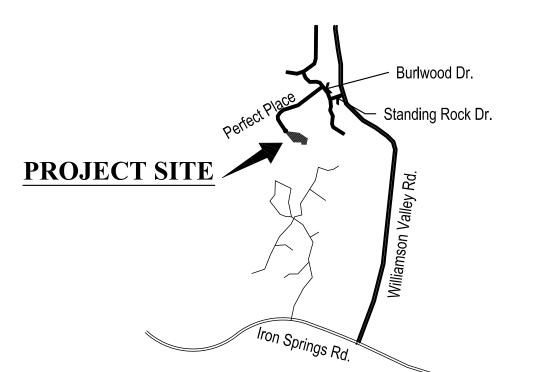
DOOR TYPE DESIGNATOR

WINDOW TYPE DESIGNATOR

WALL TYPE DESIGNATOR

# The following item is required and will be provided as a deferred submittal:

1. Fire Sprinkler System. Automatic Fire Sprinkler System submittal documents for deferred submittal shall be submitted to the local fire district, who shall review them and forward them to the building official, with a notation indicating that the deferred submittal documents have been reviewed and that they have been found to be in general conformance with the design of the building. The deferred submittal items shall "NOT" be installed until their design and submittal documents have been approved by the fire



# **Architect:**

marshal having jurisdiction.

# W. Alan Kenson & Associates, P.C.

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ARCHITECTURE & PLANNING

www.kenson-associates.com



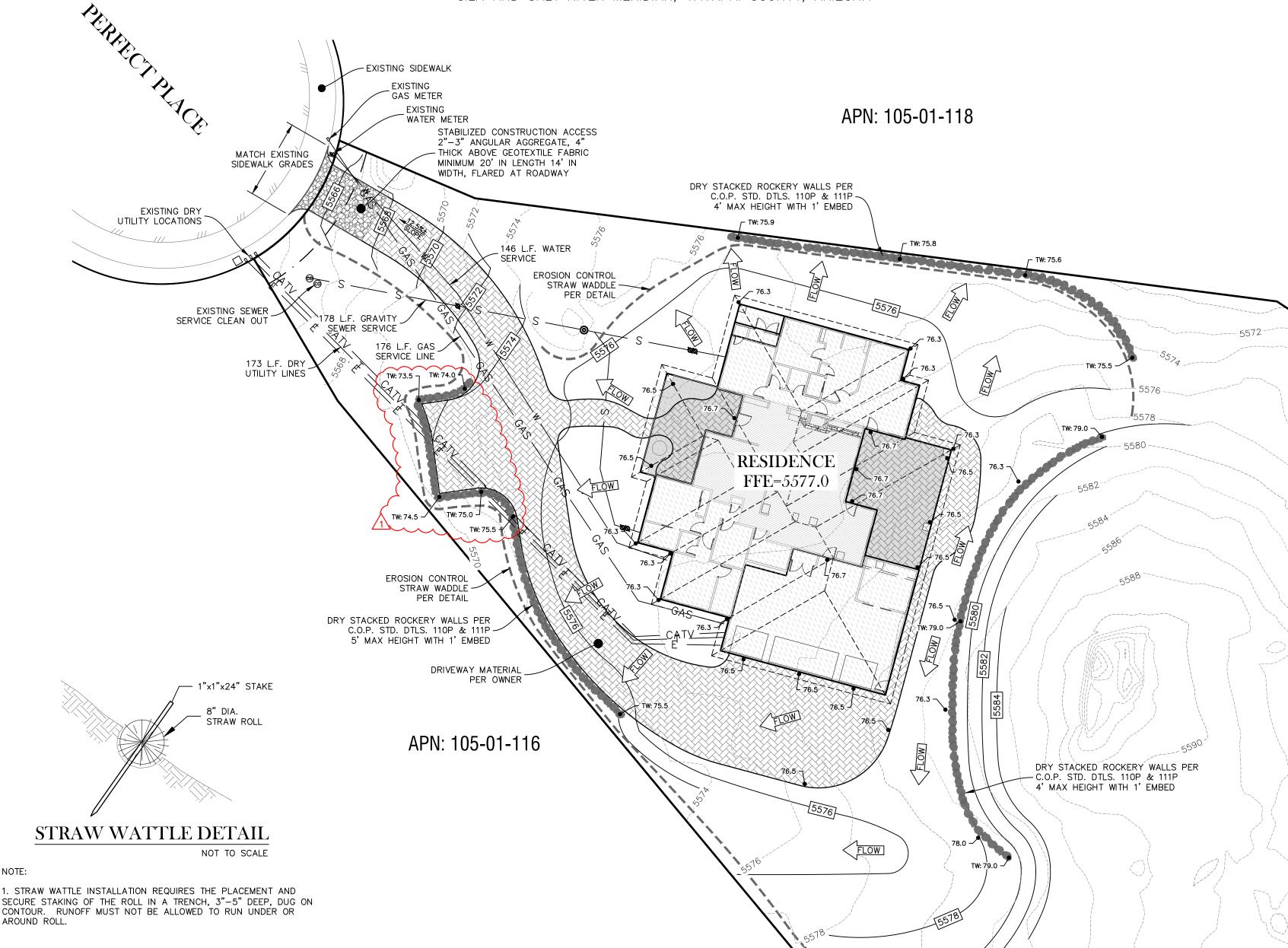
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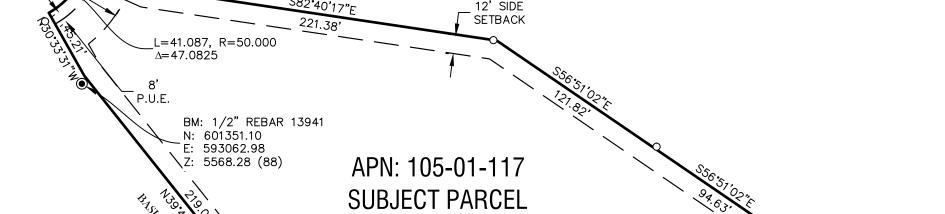
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L.O. CHECKED BY W.A.K. July 17th, 2015

AS NOTED

APN: 115-01-117, LOT 29 OF NORTH FORTY SUBDIVISION, LOCATED IN SECTION 19, TOWNSHIP 14 NORTH, RANGE 2 WEST GILA AND SALT RIVER MERIDIAN, YAVAPAI COUNTY, ARIZONA





1.68 ACRES ±

168.22'

N88°52'25"W

N0°00'00"E

N88°52'25"W

SETBACK

BM: 1/2" REBAR 13941

N: 601182.53

E: 593202.92

Z: 5580.82 (88)

PROJECT SITE

WILLIAMSON

\_\_\_\_\_

\_\_\_\_\_\_

PLACE

IRON

SPRINGS -

VALLEY -

VICINITY MAP

SCALE: 1" = 1/2 MILE

SUBJECT PROPERTY LINE

ADJACENT PROPERTY LINE

PUBLIC UTILITY EASEMENT

EXISTING INDEX CONTOUR

EXISTING INTERMEDIATE CONTOUR

EXISTING EDGE OF PAVEMENT

PROPOSED DRAINAGE FLOWLINE

PROPOSED ELEVATION CONTOUR

PROPOSED STACKED ROCK HEADWALL

CALCULATED POINT

PROPOSED HARDSCAPE

SITE BENCHMARK

**ESTIMATED EARTHWORK:** 

RAW CUT = 882 C.Y

**RAW FILL** = 775 **C.Y.** 

3. NO OVER-EXCAVATION INCLUDED FOR UNDERLYING SOILS.

4. CONTRACTOR SHALL OBTAIN SEPARATE GRADING PERMIT FOR SURPLUS MATERIAL PLACED OFF-SITE IN

CONFORMANCE WITH THE YAVAPAI COUNTY GRADING

NOTES FOR EARTHWORK ASSUMPTIONS:

30' FRONT SETBACK

SCALE: 1" = 60'

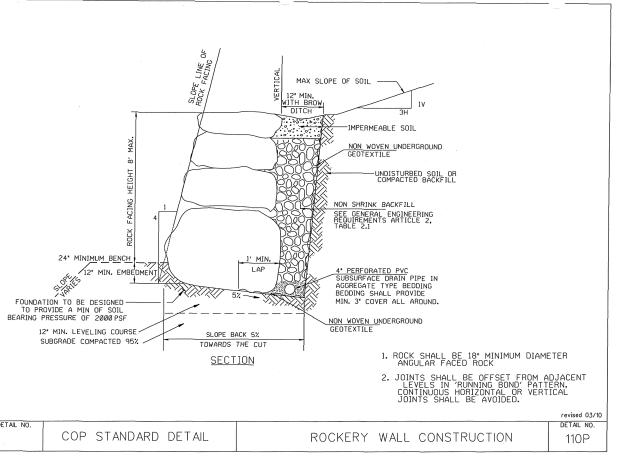
1. 8" OVER-EXCAVATION FOR DRIVEWAY SECTION.

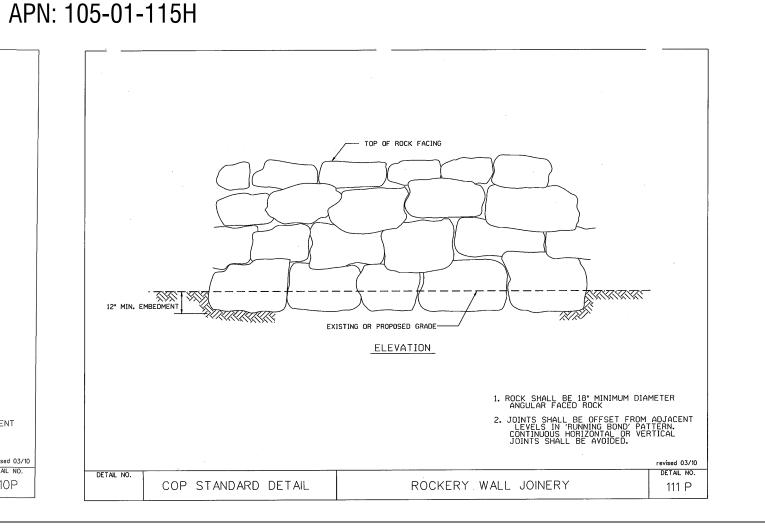
2. 8" OVER-EXCAVATION FOR FOR SLAB ON GRADE.

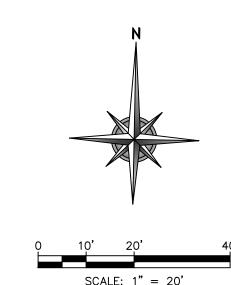
STRAW WADDLE

**LEGEND** 

\_S13**\***51**'**12"W SETBACK







### SITE PLAN NOTES:

- 1. THIS MAP DOES NOT REPRESENT THE RESULTS OF A BOUNDARY SURVEY. NO BOUNDARY SURVEY WAS PERFORMED OR IS IMPLIED BY THIS MAP.
- 2. PROPERTY BOUNDARY PER BOOK 57 OF MAPS AND PLATS, PAGE(S) 81-83, YCRO.
- 3. ALL EASEMENTS OF RECORD MAY NOT BE PLOTTED
- TOPOGRAPHIC SURVEY PROVIDED BY NEXUS SOUTHWEST
- 5. CONTOUR INTERVAL = 2'

# CONSTRUCTION SPECIFICATIONS

ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH C.O.P. ENGINEERING STANDARDS AND SPECIFICATIONS, "MARICOPA ASSOCIATION OF GOVERNMENTS UNIFORM STANDARD" (MAG SPECS), MARICOPA ASSOCIATION OF GOVERNMENTS UNIFORM STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION" (MAG DETAILS), "YAVAPAI COUNTY ASSOCIATION OF GOVERNMENTS UNIFORM STANDARD AND DETAILS" (YAG SPECS & DETAILS), AND GENERALLY ACCEPTED GOOD CONSTRUCTION PRACTICES.

ALL IMPROVEMENTS SHALL BE CONSTRUCTED BY CONTRACTORS LICENSED BY THE ARIZONA STATE REGISTRAR OF CONTRACTORS, WITH A CLASS OF LICENSE(S) FOR THE SPECIFIC WORK BEING PERFORMED.

ANY DEFECTS WHICH APPEAR IN THE WORK WITHIN TWO YEARS FROM THE DATE OF ACCEPTANCE AND WHICH ARE DUE TO IMPROPER WORKMANSHIP OR INFERIOR MATERIALS SUPPLIED SHALL BE CORRECTED BY OR AT THE EXPENSE OF THE CONTRACTOR.

QUANTITIES OF CONSTRUCTION MATERIALS ARE PROVIDED AS A GUIDE AND FOR INFORMATION ONLY THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING AND PROVIDING ALL QUANTITIES REQUIRED. CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTIONS METHODS, SEQUENCING, AND SAFETY DURING CONSTRUCTION. CONTRACTOR IS REQUIRED TO COMPLY WITH ALL LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS APPLICABLE TO THE CONSTRUCTION OF THIS PROJECT.

APPROVAL OF A PORTION OF THE WORK IN PROGRESS DOES NOT GUARANTEE ITS FINAL ACCEPTANCE. TESTING AND EVALUATION MAY CONTINUE UNTIL WRITTEN FINAL ACCEPTANCE OF A COMPLETE WORKABLE UNIT. ACCEPTANCE OF COMPLETED IMPROVEMENTS WILL NOT BE GIVEN UNTIL DEFECTIVE OR UNAUTHORIZED WORK IS REMOVED AND FINAL CLEAN—UP IS COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ANY REQUIRED PERMITS

CITY OF PRESCOTT THE ISSUANCE OF A GRADING PERMIT FOR ANY EXCAVATION OR GRADING (INCLUDING PLACEMENT OF FILL). A RIGHT-OF-WAY PERMIT IS REQUIRED PRIOR TO COMMENCING ANY WORK WITHIN ANY RIGHT-OF-WAY. THESE PLANS ARE SUBJECT TO THE INTERPRETATION OF INTENT BY THE ENGINEER. ALL QUESTIONS REGARDING THESE PLANS SHALL BE DIRECTED TO THE ENGINEER. ANY INTERPRETATION OF THE PLANS BY ANYONE OTHER THAN THE ENGINEER SHALL BE RESPONSIBLE FOR ANY CONSEQUENCES

POSITIVE DRAINAGE OF SURFACE WATER AWAY FROM STRUCTURES SHALL BE PROVIDED DURING CONSTRUCTION AT ALL TIMES AND WITH FINAL GRADING OF LOT. PONDING OF SURFACE WATER SHALL NOT BE PERMITTED DURING CONSTRUCTION OR BE PRESENT AFTER FINAL LOT GRADING.

ROOF DRAINS SHALL DISCHARGE A MINIMUM OF FIVE (5) FEET AWAY FROM BUILDING STRUCTURE.

THESE PLANS REPRESENT A REASONABLE EFFORT TO SHOW LOCATIONS OF EXISTING UNDERGROUND UTILITIES WITHIN THE PROJECT LIMITS. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES CAUSED DURING CONSTRUCTION. THE CONTRACTOR IS TO VERIFY THE LOCATION AND THE ELEVATIONS OF ALL EXISTING UTILITIES PRIOR TO ANY EXCAVATION OR CONSTRUCTION. SHOULD ANY LOCATION OR ELEVATION THE PROPER LITHITY OWNERS'S ACENT RESPONSIBLE FOR CONTACTING THE PROPER UTILITY OWNER'S AGENT.

LOCATION OF UNDERGROUND UTILITIES SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ARS 40-360.22 PRIOR TO ANY EXCAVATION. CONTRACTOR PERFORMING EXCAVATING OPERATIONS IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES. BLUE STAKE SHALL BE CALLED AT 1-800-STAKE-IT FOR ACCURATE LOCATION OF UTILITIES AS NECESSARY AND PRIOR TO ANY EXCAVATION.

LOCATION OF ALL WATER VALVES MUST BE REFERENCED AT ALL TIMES DURING CONSTRUCTION AND MADE AVAILABLE TO THE WATER COMPANY. ONLY WATER COMPANY EMPLOYEES ARE AUTHORIZED TO OPERATE THE WATER VALVES AND FIRE HYDRANT CONNECTIONS TO THE COMPANY'S WATER SYSTEM.

# SIGNS, TREES SHRUBS, MAILBOXES AND OTHER INCIDENTALS REQUIRING RELOCATION SHALL BE MOVED ONLY FAR ENOUGH TO ALLOW CONSTRUCTION OF THE PROJECT AND CAUSE THE LEAST DISRUPTION TO PRIVATE PROPERTY, AND LANDSCAPE. FINAL POSITIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO RELOCATION. ALL RELOCATED ITEMS SHALL CONTINUE TO WORK IN THEIR INTENDED CAPACITY AFTER THE RELOCATION HAS BEEN ACCOMPLISHED. NO SIGNS SHALL BE RELOCATED TO POSITIONS OUTSIDE DESIGNATED RIGHTS—OF—WAY. SAFETY SHALL BE A PRIMARY CONSIDERATION IN THE PLACEMENT OF SHRUBBERY AND SIGNS WHICH COULD POSSIBLY DISRUPT THE SIGHT DISTANCE OF MOTORISTS.

RELOCATIONS

A. TESTING OF MATERIALS AND CONSTRUCTION PERFORMANCE BY AN APPROVED TESTING LAB IS REQUIRED. B. THE GEOTECHNICAL LAB AND CITY OF PRESCOTT WILL DETERMINE THE NUMBER AND TYPE OF TESTS NEEDED. C. THE CONTRACTOR/DEVELOPER WILL NOTIFY THE TESTING LAB OF THE NEEDED TESTS, COORDINATE WITH THE INSPECTOR AND TESTING LAB AND PAY THE COSTS TO PERFORM THE

THE MAXIMUM SLOPE FOR CUT SECTIONS IS 2:1 AND FOR FILL SECTIONS IS 2:1, HORIZONTAL TO VERTICAL. MAXIMUM LIFT THICKNESSES IN FILL SECTIONS IS NOT TO EXCEED 6"

THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATION AND GENERAL CONDITION OF ALL EXISTING TIE—IN AND MATCHING POINTS OF PAVEMENT PRIOR TO ANY STREET CONSTRUCTION. SHOULD ANY LOCATIONS, ELEVATIONS, CROSS SLOPES, OR CONDITIONS DIFFER FROM WHAT IS SHOWN ON THE PLANS, THE CONTRACTOR SHALL CONTACT THE OWNERS AGENT IMMEDIATELY FOR APPROPRIATE CORRECTIVE ACTION. THE CONTRACTOR IS RESPONSIBLE FOR ANY COSTS INCURRED IF THIS PROCEDURE IS NOT FOLLOWED.

# CITY OF PRESCOTT SINGLE FAMILY SITE EROSION CONTROL DETAIL NOTES

1. DEPENDING ON CONTRACTORS PRACTICES, THESE MEASURES MAY BE VARIED WITH APPROVAL FORM THE CITY ENGINEER OR DESIGNEE. 2. CONTRACTOR SHALL CONFORM TO ALL EROSION PREVENTION AND SEDIMENT CONTROL NOTES AND DETAILS. 3. PERIMETER PROTECTION IS REQUIRED ON THE DOWN STREAM SIDE OF THE LOT OR DISTURBED 4. CONSTRUCTION ACCESS MAY BE SIZED TO FIT THE SITE, OR A COMBINATION OF OTHER CONTROL MEASURES MAY BE USED TO PREVENT TRACK OUT WITH APPROVAL FROM THE CITY ENGINEER OR DESIGNEE. 5. STOCKPILES MUST BE LOCATED AWAY FROM PAVED AREAS AND DRAINAGE FACILITIES AND MUST HAVE PERIMETER PROTECTION. DURING WET SEASONS, ADDITIONAL CONTROL MAY BE REQUIRED AT THE DISCRETION OF THE CITY ENGINEER OR DESIGNEE.

6. EROSION & SEDIMENT CONTROL MEASURES MUST BE MAINTAINED AND FUNCTION DURING CONSTRUCTION ACTIVITY.

REVISIONS

OMMENTS 8/13/15 /1

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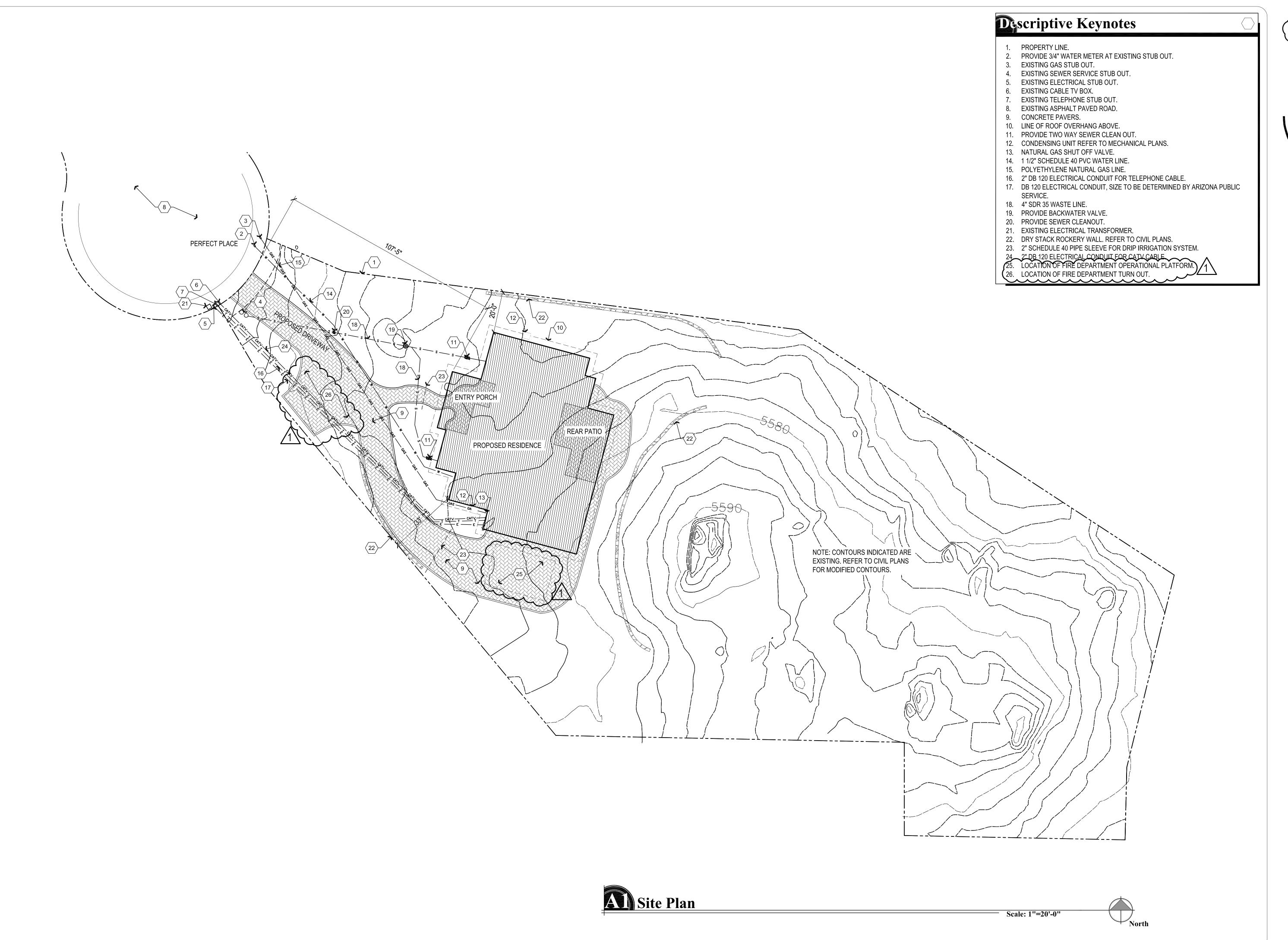
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# Descriptive Keynotes

- PROPERTY LINE.
- CONCRETE PAVERS. LINE OF ROOF OVERHANG ABOVE.
- 4. CONDENSER UNIT. REFER TO MECHANICAL PLANS.
  - DRY STACK ROCKERY WALL. REFER TO CIVIL PLANS.
- WATER FEATURE.
- IRRIGATION CONTROLLER LOCATION. TYPICALLY INDICATES EXTENT OF DECORATIVE ROCK.

# Degend

TYPICALLY INDICATES PROPOSED RESIDENCE

TYPICALLY INDICATES PROPOSED PAVERS

TYPICALLY INDICATES PROPOSED GRASS AREA

TYPICALLY INDICATES PROPOSED DECORATIVE ROCK

# Pant Schedule

<i> </i>  -			
SYMBOL	SIZE	QUANTITY	NAME
•	5 GAL	<b>15</b>	NANDINA
*	1 GAL	92	DEER GRASS
	1 GAL	14	RUSSIAN SAGE
Ship Ship	1 GAL	24	TEXAS SAGE
<b>%</b>	1 GAL	6 1	EVERGREEN SALVA GREGGI
$\Box$	1 GAL	51	BLUE PFITZER JUNIPER
	1 GAL	11	ROSEMARY
	1 GAL	13	HALLS HONEYSUCKLE
9	2'-3'	12	BOULDER CLUSTER
	15 GAL	3	CLUMP ASPEN
	15 GAL	2	PURPLE LEAF PLUM
	15 GAL	1	SYCAMORE
	15 GAL	2	MONDEL PINE
	15 GAL	5	LEYLANDI CYPRESS
	15 GAL	1	ARIZONA ASH
	15 GAL	2	SUNBURST HONEY LOCUST
***************************************	EXISTING	EXISTING	EXISTING PINE
	EXISTING	EXISTING	EXISTING OAK
	EXISTING	EXISTING	EXISTING JUNIPER

- LANDSCAPE PLANTINGS SHALL BE WATERED VIA
   DRIP IRRIGATION SYSTEM ON LANDSCAPE TIME
- PROVIDE BACKFLOW PREVENTOR FOR DRIP IRRIGATION SYSTEM.
   SPRAY ALL GROUND COVER AREAS W/PRE-EMERGENT FOR WEED CONTROL.
- PROVIDE WEED BARRIER IN ALL PLANTER AREAS.

  GROUND COVER IN ALL PLANTER AREAS SHALL BE 3/4" COLORED ROCK. WHERE SLOPES ARE TOO STEEP, PROVIDE 2" 3" FRACTURED RIP RAP OF MATCHING COLOR.
- REFER TO LANDSCAPE DETAILS, SHEET A2.1

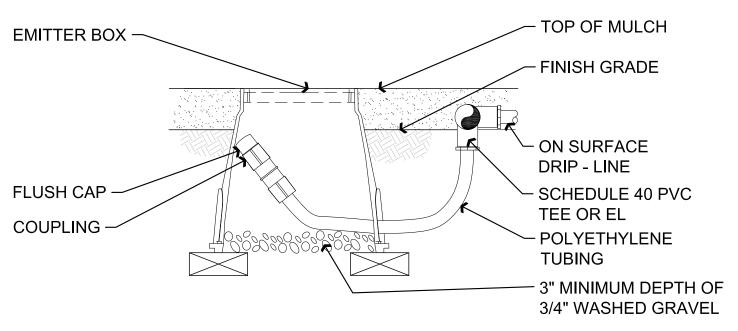
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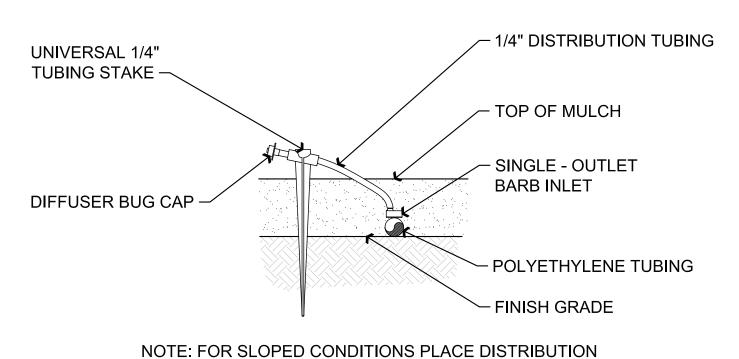
NOTE: SEAL ALL THREADED JOINTS / FITTINGS WITH APPROVED SEALANT PRIOR TO ASSEMBLY

# Typical Electric Remote Control Valve



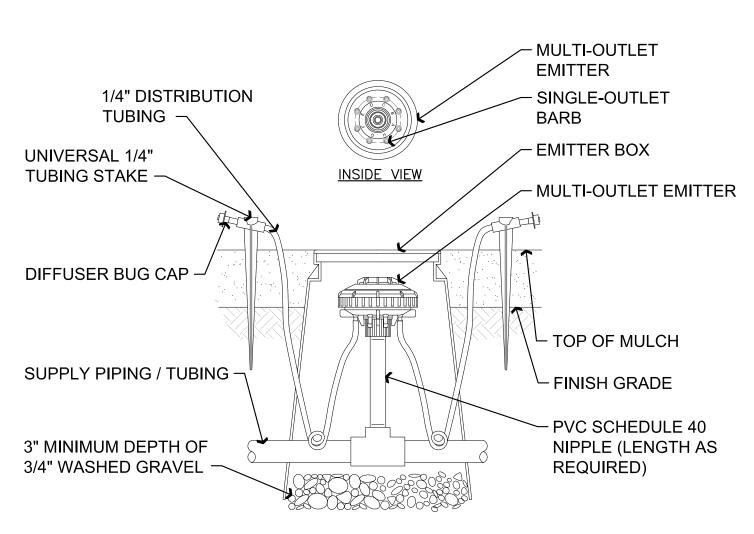
NOTE: ALLOW A MINIMUM 6" OF DRIP - LINE TUBING IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.

# **B** Typical Drip Line Flush Box



POINT AT THE HIGH POINT OF THE PLANTING WELL

# Ba Typical Single - Port Emitter

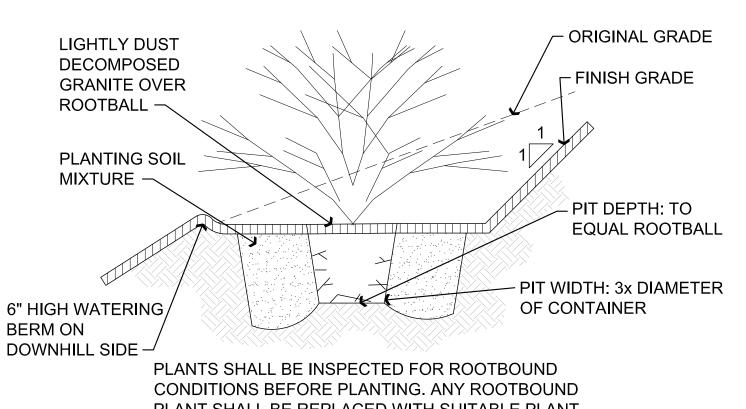


NOTE: COIL ADDITIONAL 9" OF TUBING IN EMITTER BOX TO FACILITATE MAINTENANCE.

INSTALL A MINIMUM OF (1) MULTI-PORT EMITTER PER TREE - EQUALLY SPACED AROUND DRIP LINE OF TREE CANOPY TYPICAL. OPEN ADDITIONAL PORTS AND INSTALL SPAGHETTI DISTRIBUTION TUBING TO PROVIDE ADEQUATE WATER AS TREE MATURES, (TYP.)

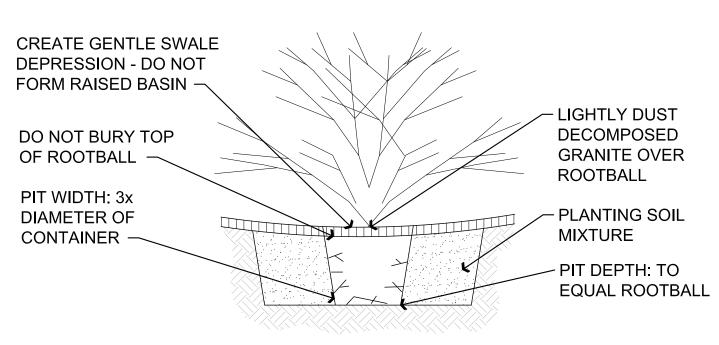
FOR SLOPED CONDITIONS PLACE DISTRIBUTION POINT AT THE HIGH POINT OF PLANTING WELL.





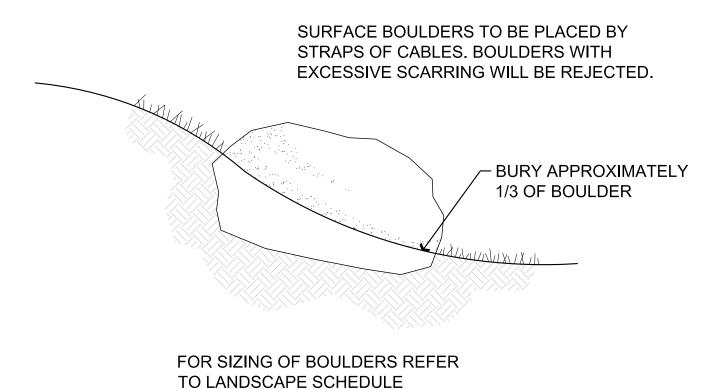
PLANT SHALL BE REPLACED WITH SUITABLE PLANT.

# Typical Shrub Planting on Slope

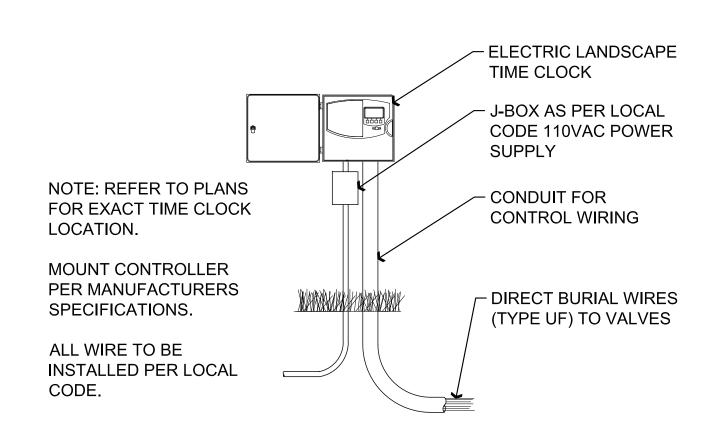


PLANTS SHALL BE INSPECTED FOR ROOTBOUND CONDITIONS BEFORE PLANTING. ANY ROOTBOUND PLANT SHALL BE REPLACED WITH SUITABLE PLANT.

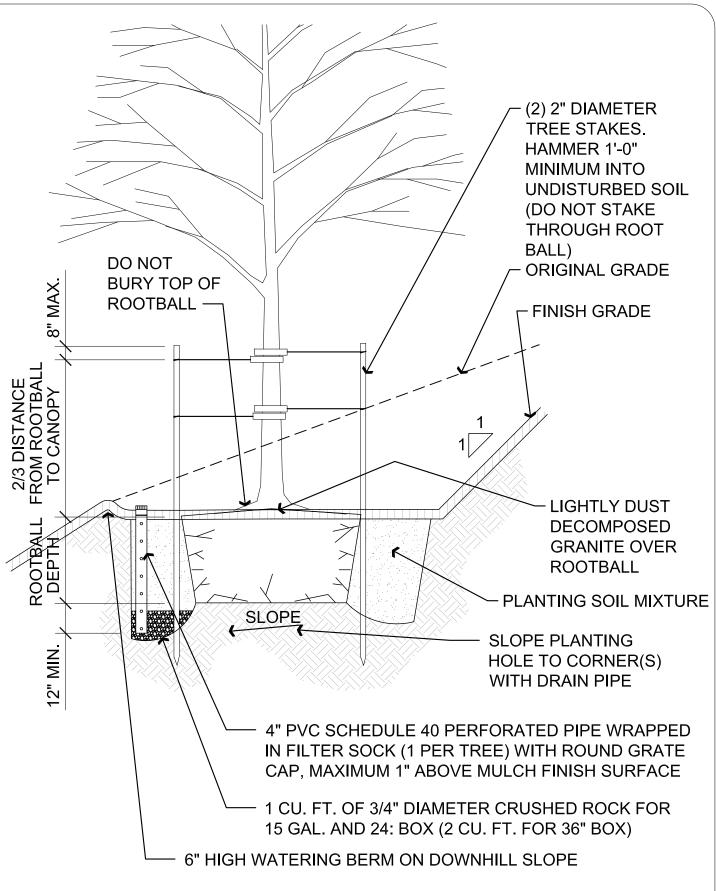
# Typical Shrub Planting



# Typical Boulder Detail



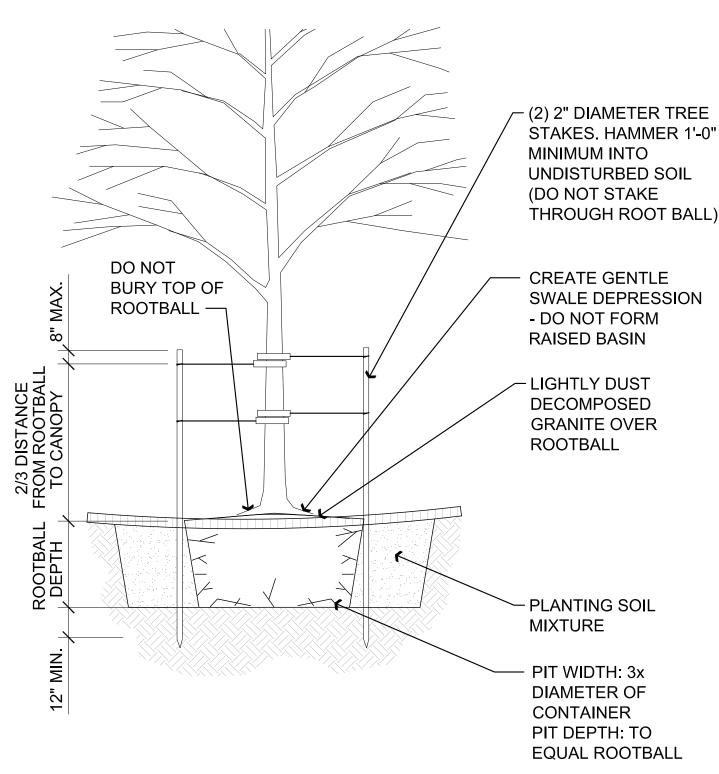




NOTE: STAKE TREE PERPENDICULAR TO DIRECTION OF PREVAILING WIND.

PLANTS SHALL BE INSPECTED FOR ROOTBOUND CONDITIONS BEFORE PLANTING. ANY ROOTBOUND PLANT SHALL BE REPLACED WITH SUITABLE PLANT.

# Typical Tree Planting on Slope



NOTE: STAKE TREE PERPENDICULAR TO DIRECTION OF PREVAILING WIND.

PLANTS SHALL BE INSPECTED FOR ROOTBOUND CONDITIONS BEFORE PLANTING. ANY ROOTBOUND PLANT SHALL BE REPLACED WITH SUITABLE PLANT.



928-928-

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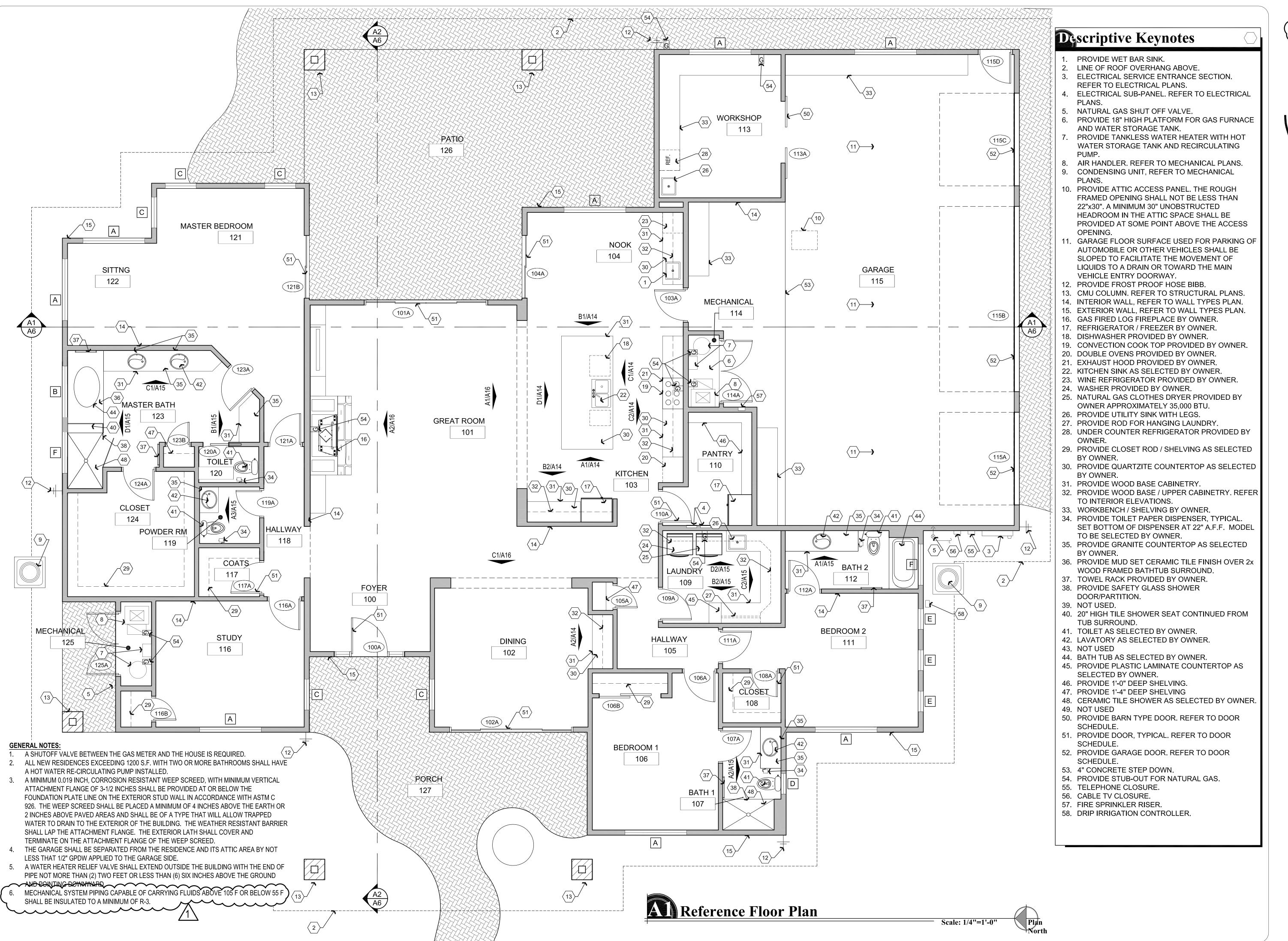
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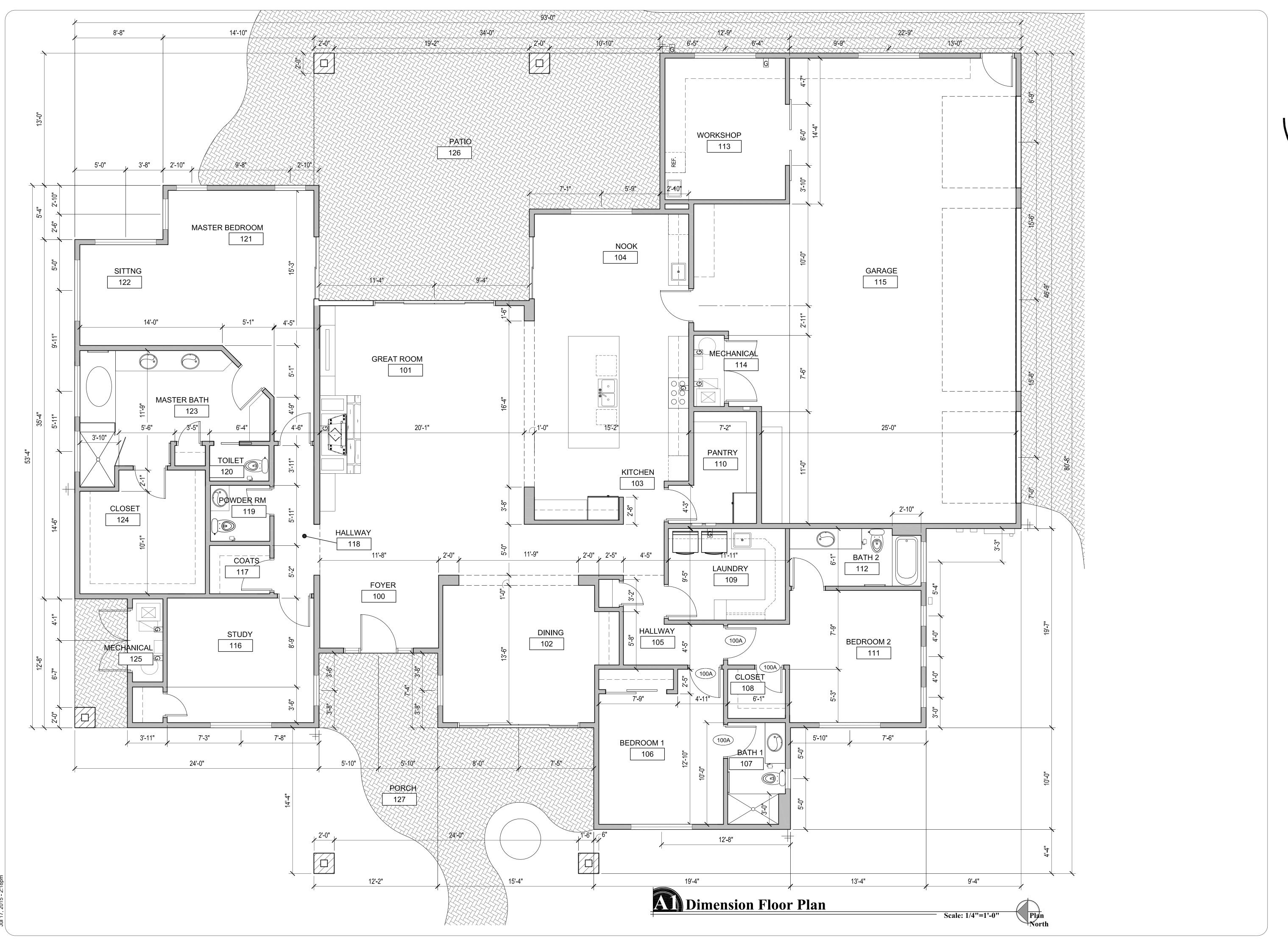
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> JOB NO. **671** SHEET



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AWING: DIMENSION FLOOR PLAN

PROJECT: Pac

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W.A.K.

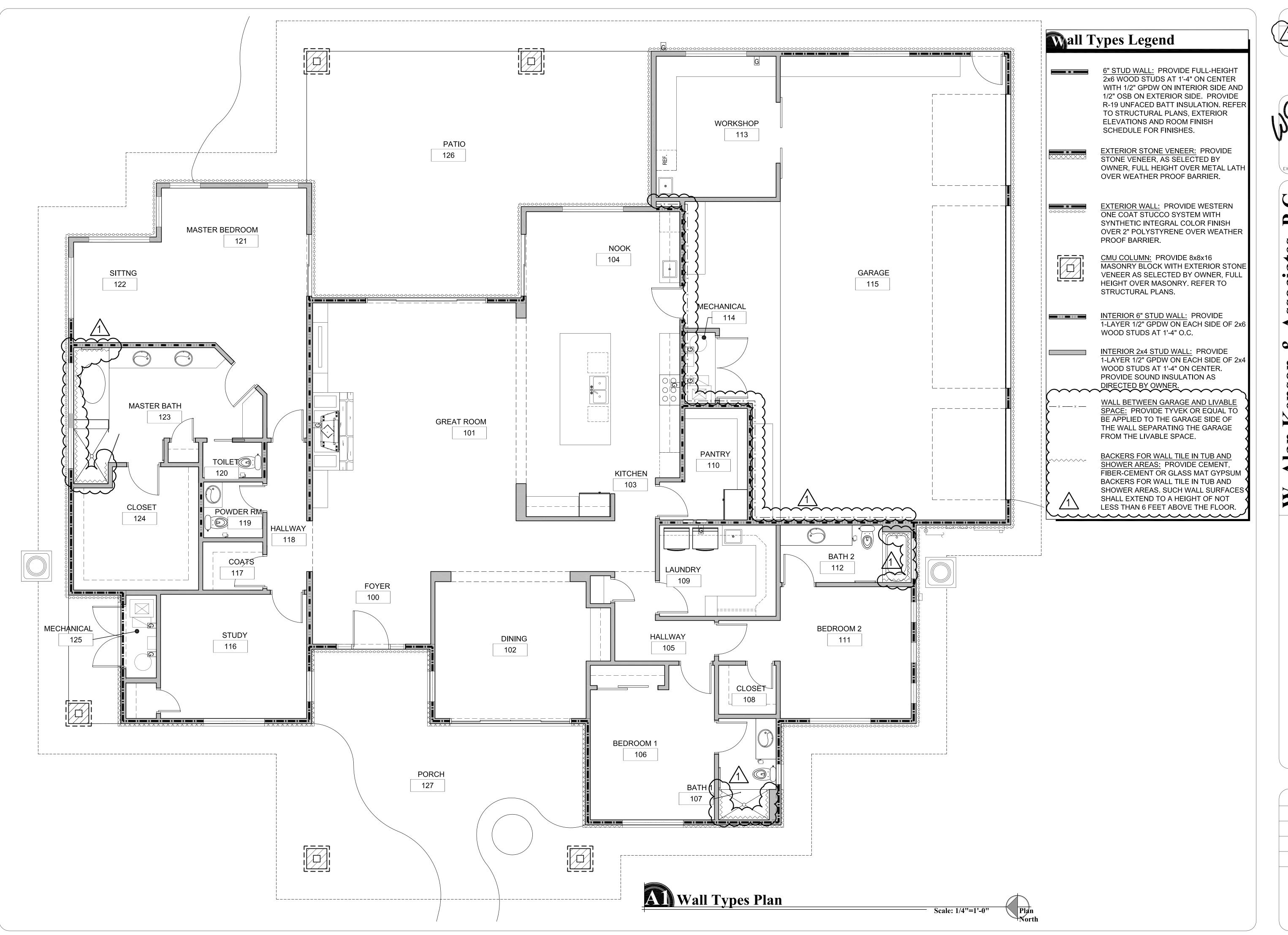
July 17th, 2015

SCALE
AS NOTED

JOB NO.
671

SHEET

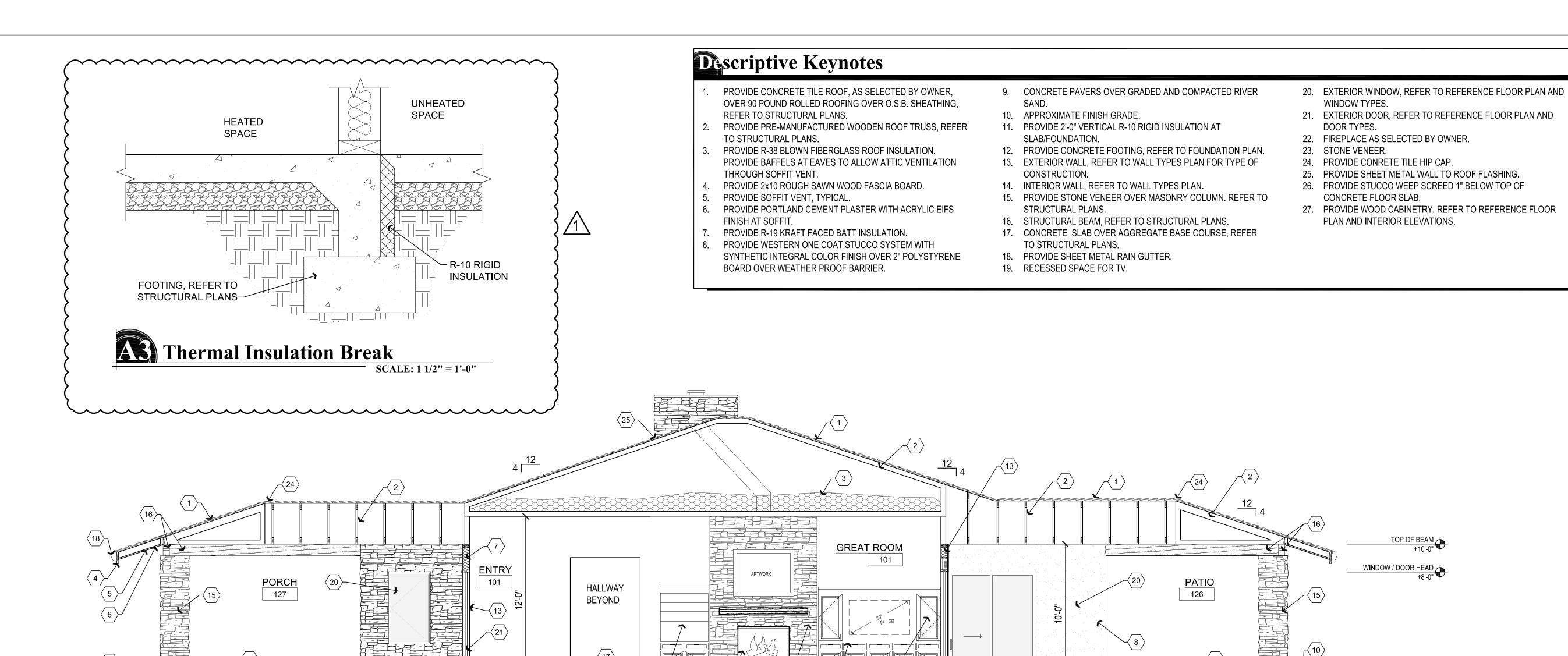
SHEET A



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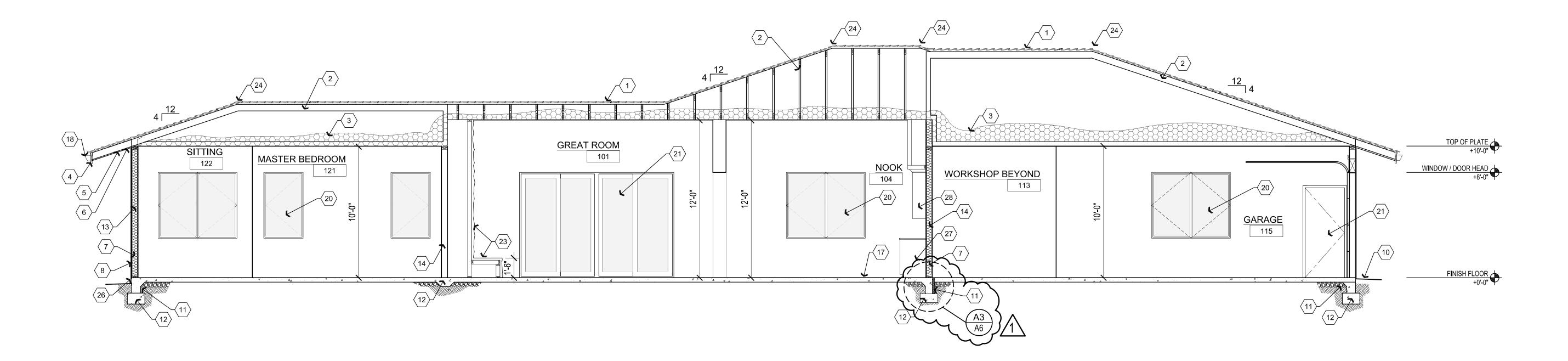
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A Section

Section

TOP OF BEAM +10'-0"



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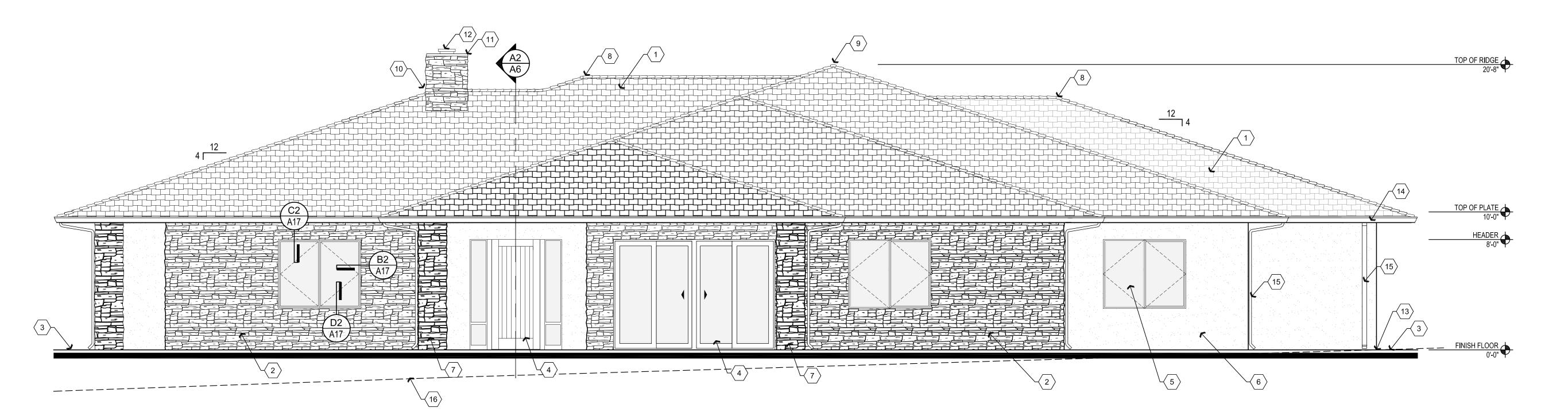
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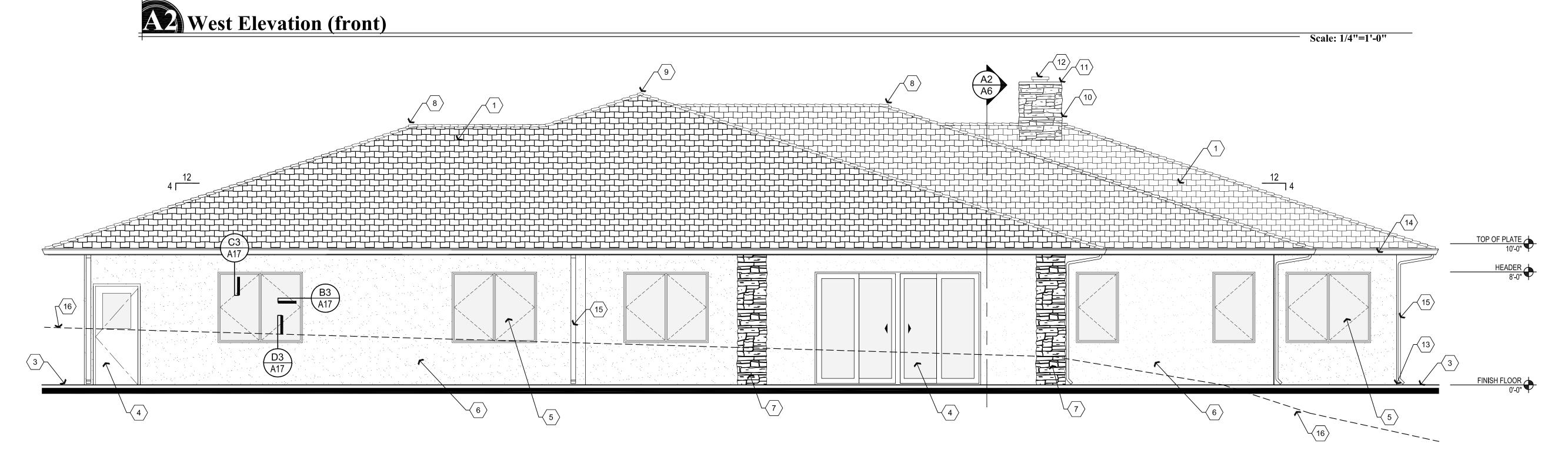
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- 1. PROVIDE CONCRETE TILE ROOF, AS SELECTED BY OWNER, OVER 90 POUND ROLLED ROOFING OVER O.S.B. SHEATHING,
- REFER TO STRUCTURAL PLANS. STONE VENEER FINISH.
- 3. FINISH GRADE TO SLOPE AWAY FROM STRUCTURE. 4. EXTREIOR DOOR, REFER TO DOOR SCHEDULE.
- 5. EXTERIOR WINDOW. REFER TO WINDOW ELEVATIONS SHEET A12.
- 6. PROVIDE WESTERN ONE COAT STUCCO SYSTEM WITH SYNTHETIC INTEGRAL COLOR FINISH OVER 2" POLYSTYRENE OVER WEATHER PROOF BARRIER. 7. PROVIDE STONE VENEER OVER MASONRY COLUMN. REFER
- TO STRUCTURAL PLANS. PROVIDE CONCRETE TILE HIP CAP.

- 9. PROVIDE CONCRETE TILE RIDGE CAP.
- 10. PROVIDE SHEET METAL WALL TO ROOF FLASHING.
- 11. PROVIDE SHEET METAL AT TOP OF CHIMNEY. 12. PROVIDE CHIMNEY FLUE WITH APPROPRIATE FLASHING.
- 13. PROVIDE STUCCO WEEP SCREED 1" BELOW TOP OF
- CONCRETE FLOOR SLAB. 14. PROVIDE SEAMLESS SHEET METAL GUTTER SYSTEM.
- 15. PROVIDE SHEET METAL DOWNSPOUT.
- 16. EXISTING GROUND ELEVATION PRIOR TO GRADING OF THE







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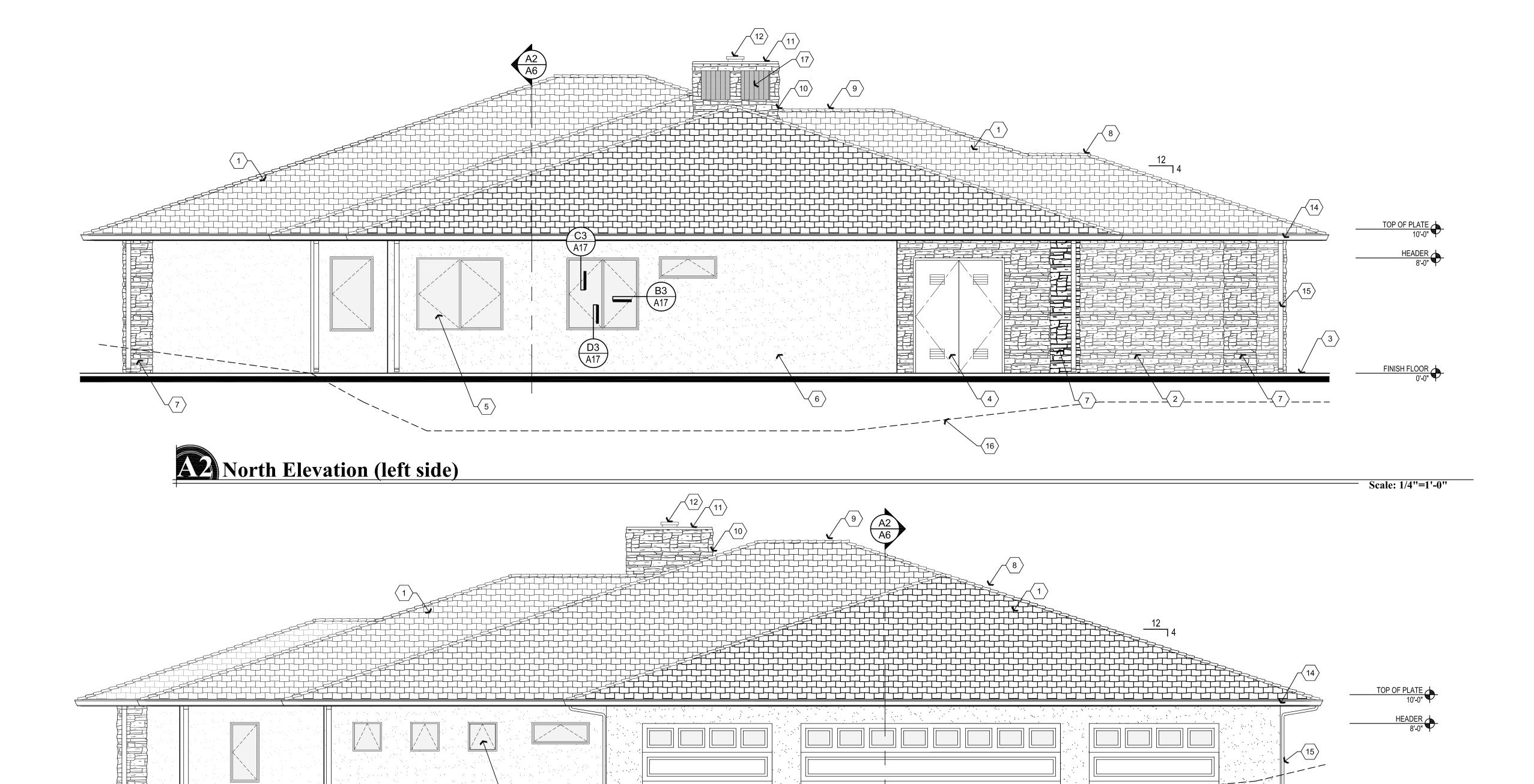
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- 1. PROVIDE CONCRETE TILE ROOF, AS SELECTED BY OWNER, OVER 90 POUND ROLLED ROOFING OVER O.S.B. SHEATHING, REFER TO STRUCTURAL PLANS.
- 2. STONE VENEER FINISH.
- FINISH GRADE TO SLOPE AWAY FROM STRUCTURE.
   EXTERIOR DOOR. REFER TO DOOR SCHEDULE.
- 5. EXTERIOR WINDOW. REFER TO WINDOW ELEVATIONS SHEET A12.
- PROVIDE WESTERN ONE COAT STUCCO SYSTEM WITH SYNTHETIC INTEGRAL COLOR FINISH OVER 2"
  POLYSTYRENE OVER WEATHER PROOF BARRIER.
- PROVIDE STONE VENEER OVER MASONRY COLUMN. REFER TO STRUCTURAL PLANS.
- 8. PROVIDE CONCRETE TILE HIP CAP.
- 9. PROVIDE CONCRETE TILE RIDGE CAP.
- 10. PROVIDE SHEET METAL WALL TO ROOF FLASHING.
- 11. PROVIDE SHEET METAL AT TOP OF CHIMNEY.12. PROVIDE CHIMNEY FLUE WITH APPROPRIATE FLASHING.
- 13. PROVIDE STUCCO WEEP SCREED 1" BELOW TOP OF CONCRETE FLOOR SLAB.
- 14. PROVIDE SEAMLESS SHEET METAL GUTTER SYSTEM.
- 15. PROVIDE SHEET METAL DOWNSPOUT.
- 16. EXISTING GROUND ELEVATION PRIOR TO GRADING OF THE SITE.
- 17. ATTIC VENT. REFER TO SHEET A9 FOR ATTIC VENT CALCULATIONS.



South Elevation (right side)

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

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OJECT: Padilla

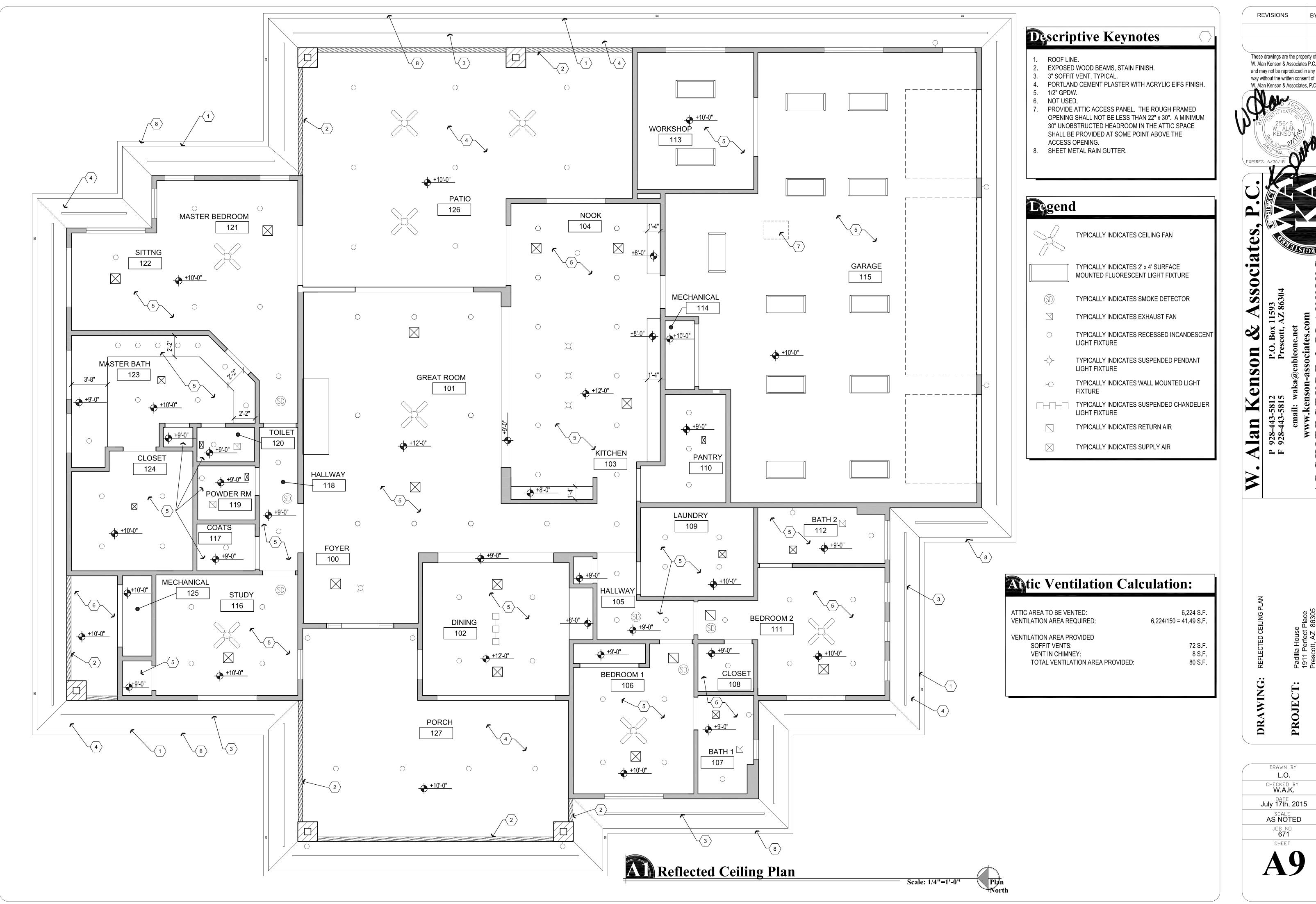
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DATE
July 17th, 2015

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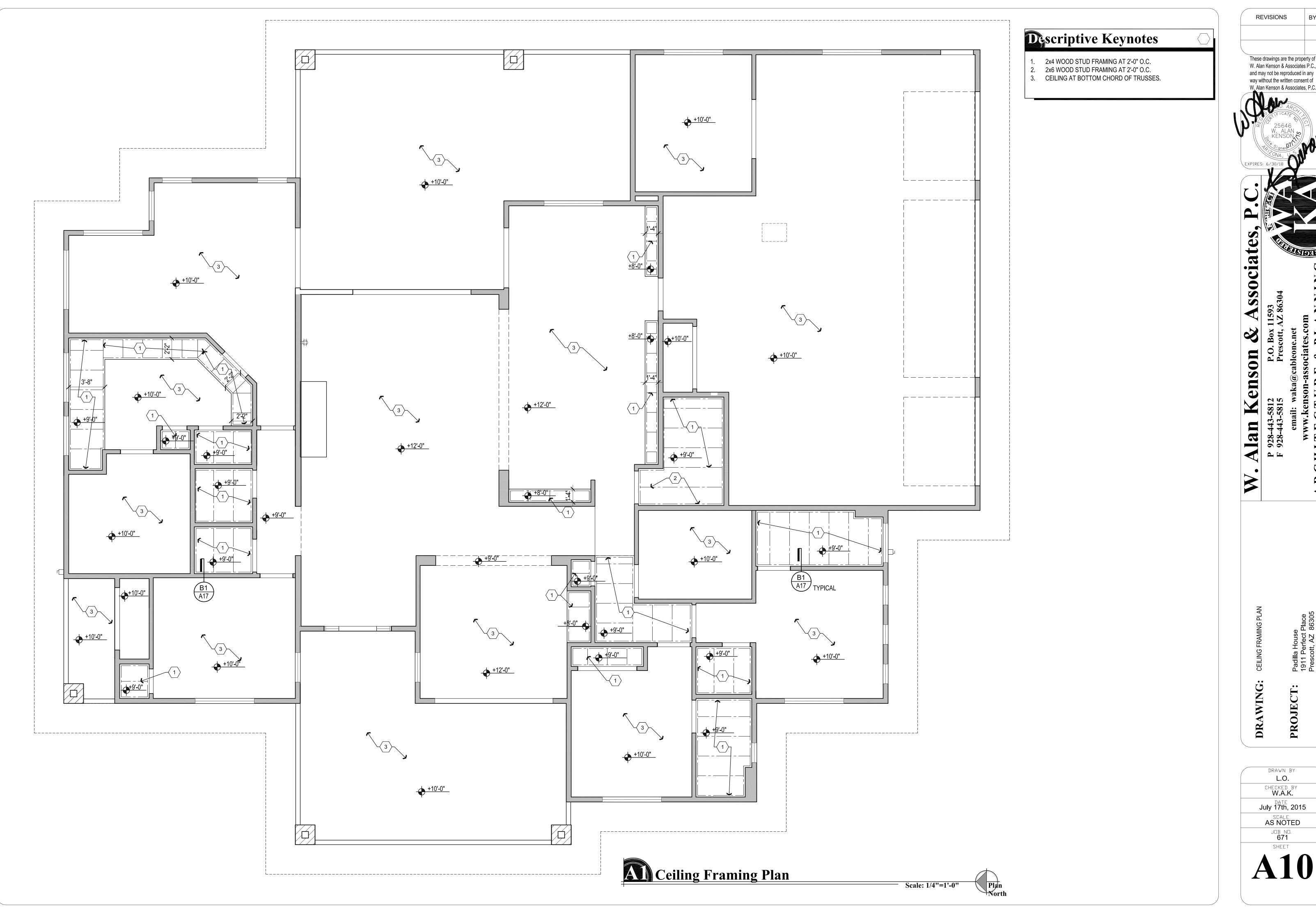
A8



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# SLOPE 4:12 SLOPE 4:12 SLOPE 4:12 Roof Plan Scale: 1/8"=1'-0"

# Descriptive Keynotes

PROVIDE CONCRETE TILE ROOF, AS SELECTED BY OWNER, OVER 90 POUND ROLLED ROOFING OVER
O.S.B. SHEATHING, REFER TO STRUCTURAL PLANS.
2. GALVANIZED METAL DRIP EDGE, TYPICAL.
3. PROVIDE FLASHING AT VALLEYS.

4. SHEET METAL RAIN GUTTERS.

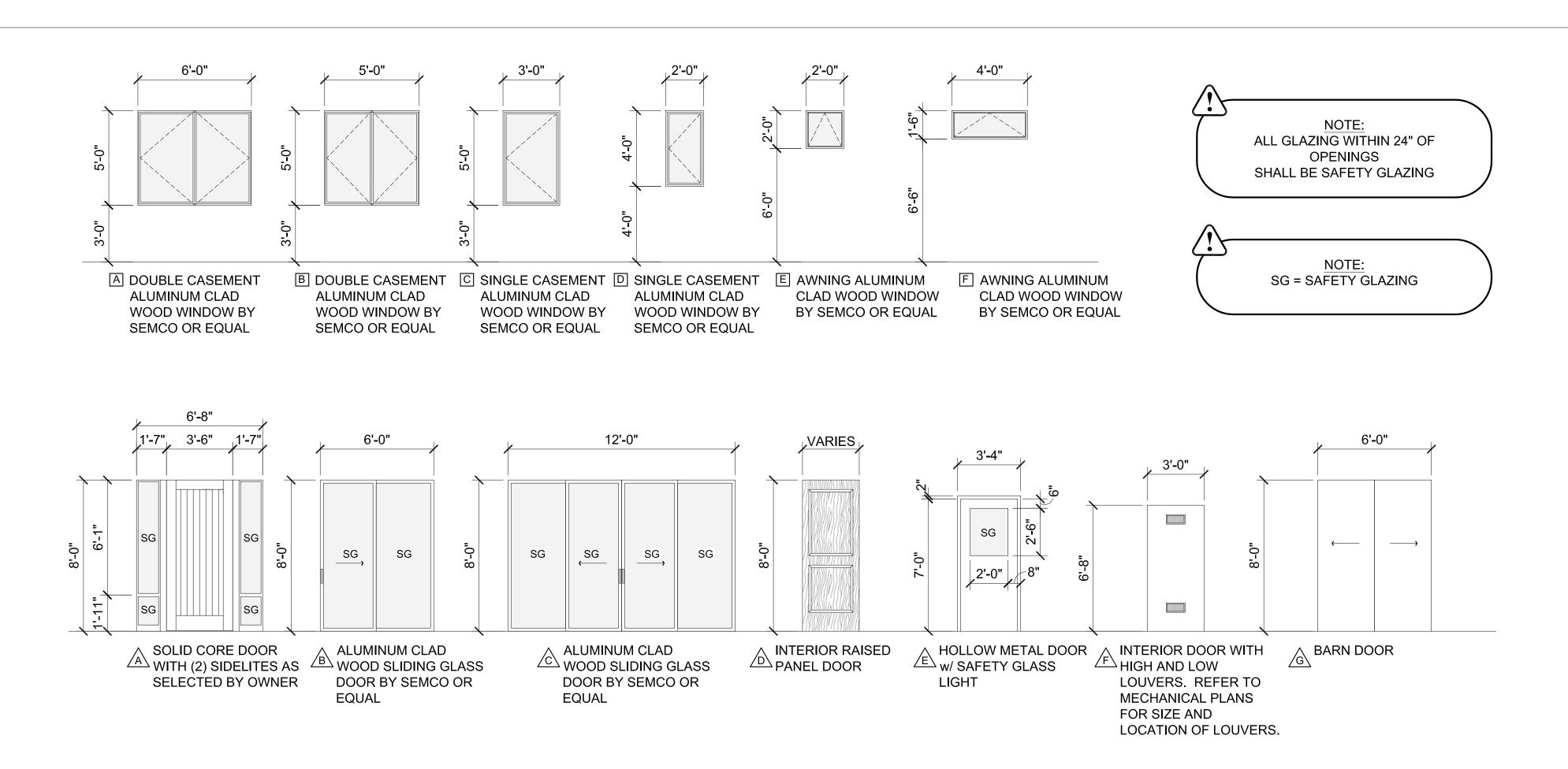
5. 26 GA. PRE-FINISHED METAL CHIMNEY CAP. 6. PROVIDE DOWNSPOUTS FOR RAIN GUTTERS, REFER TO EXTERIOR ELEVATIONS.

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# Dior Hardware Schedule

HARDWARE SET A:

LEVER PRIVACY LOCK

HARDWARE SET B:

LEVER PASSAGE

HARDWARE SET C:

RECESSED PULL FOR POCKET DOOR

HARDWARE SET D:

LEVER ENTRY LOCK, WEATHER STRIP, THRESHOLD, DEADBOLT.

HARDWARE SET E:

ELECTRICALLY OPERATED OPENER.

HARDWARE SET F:

LEVER PASSAGE AND FLUSH BOLTS.

PULL FOR SLIDING BARN DOOR

HARDWARE SET G:

				DOOR	DOOR	FRAME	FRAME		
NO.	ROOM NAME	SIZE	TYPE	MATERIAL	FINISH	MATERIAL	FINISH	HARDWARE TYPE	COMMENTS
100A	FOYER	3'-6"x8'-0"	A	WOOD	STAIN	WOOD	STAIN	D	
101A	GREAT ROOM	12'-0"x8'-0"	С	ALUM. CLAD	STAIN	ALUM. CLAD	STAIN	F	
102A	DINING	12'-0"x8'-0"	С	ALUM. CLAD	STAIN	ALUM. CLAD	STAIN	F	
103A	KITCHEN	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	A	20 MINUTE FIRE RATED, PROVIDE SELF-CLOSING HINGES
104A	NOOK	6'-0"x8'-0"	В	ALUM. CLAD	STAIN	ALUM. CLAD	STAIN	F	Tillvolo
105A	HALLWAY	2'-2"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	В	
106A	BEDROOM 1	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	A	
106B	BEDROOM 1	PAIR 3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN		BI-PASS DOORS
107A	BATH 1	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	A	511,100,0010
108A	CLOSET	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	В	
109A	LAUNDRY	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	В	
110A	PANTRY	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	В	
111A	BEDROOM 2	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	A	
112A	BATH 2	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	A	
113A	WORKSHOP	PAIR 3'-0"x8'-0"	G	WOOD	STAIN	WOOD	STAIN		
114A	MECHANICAL	PAIR 3'-0"x6'-8"	F	WD/MASONITE	PAINT	WOOD	PAINT	В	WITH LOUVERS, REFER TO MECHANICAL
115A	GARAGE	9'-0"x8'-0"	-	WD/STEEL	PAINT	WOOD	PAINT	E	AS SELECTED BY OWNER
115B	GARAGE	18'-0"x8'-0"	-	WD/STEEL	PAINT	WOOD	PAINT	E	AS SELECTED BY OWNER
115C	GARAGE	9'-0"x8'-0"	-	WD/STEEL	PAINT	WOOD	PAINT	E	AS SELECTED BY OWNER
115D	GARAGE	3'-0x6'-8"	E	H.M.	PAINT	H.M.	PAINT	D	
116A	STUDY	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	Α	
116B	STUDY	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	В	
117A	COATS	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	В	
119A	POWDER RM	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	А	
120A	TOILET RM	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	С	POCKET DOOR
121A	MASTER BEDROOM	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	A	
121B	MASTER BEDROOM	6'-0"x8'-0"	В	ALUM. CLAD	STAIN	ALUM. CLAD	STAIN	F	
123A	MASTER BATH	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	A	
123B	MASTER BATH	2'-2"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	В	
124A	CLOSET	3'-0"x8'-0"	D	WOOD	STAIN	WOOD	STAIN	В	
125A	MECHANICAL	PAIR 3'-0"x6'-8"	F	WD/MASONITE	PAINT	WOOD	PAINT	В	WITH LOUVERS, REFER TO MECHANICAL

# NOTES:

- 1. ALL GLAZING IN DOORS SHALL BE SAFETY GLAZING.
- 2. ALL GLAZING WITHIN 24" OF OPENINGS SHALL BE SAFETY GLASS.
- 3. IF A DOOR HAS A CLOSER, THEN THE SWEEP PERIOD OF THE CLOSER SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 70 DEGREES, THE DOOR WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3" FROM THE LATCH, MEASURED TO THE LEADING EDGE OF THE DOOR.

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OR AND WINDOW SCHEDULES

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July 17th, 2015

SCALE
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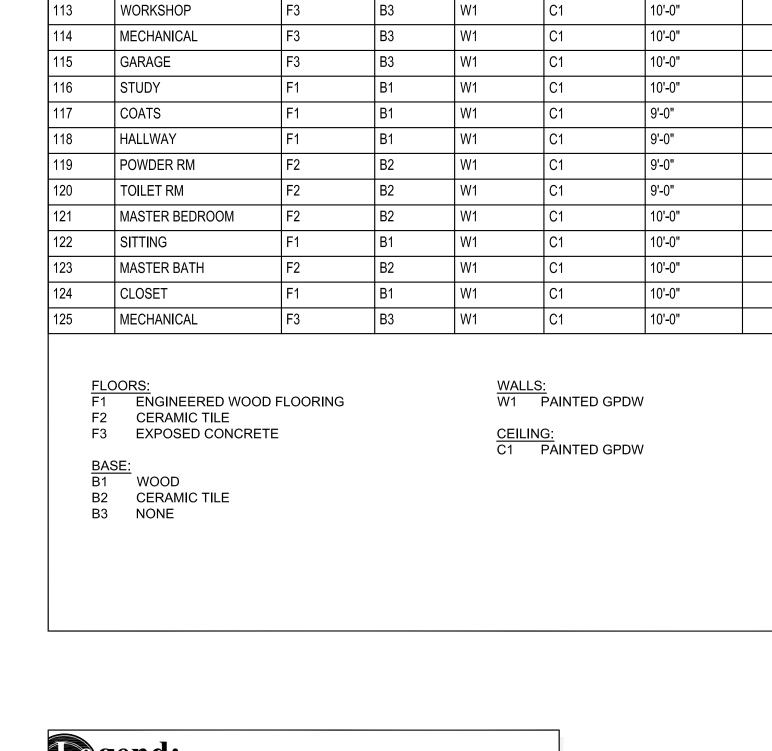
JOB NO.
671

**A12** 

3, 2015 - 7:26pm



Scale: 1/8"=1'-0"



WALLS

BASE

CEILING

C1

C1

C1

C1

C1

C1

HEIGHT

12'-0"

12'-0"

12'-0"

12'-0"

10'-0"

9'-0"

10'-0"

9'-0"

COMMENTS

Room Finish Schedule

ROOM NAME

GREAT ROOM

KITCHEN

HALLWAY

BEDROOM 1

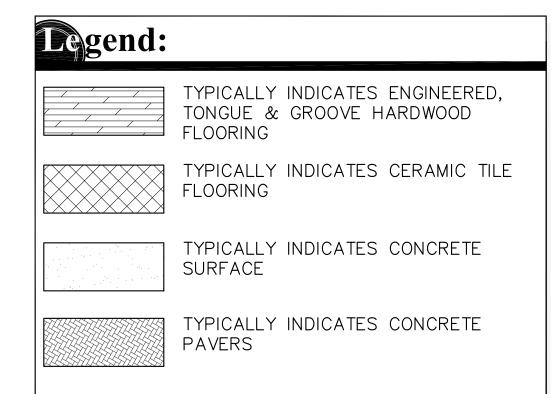
CLOSET

LAUNDRY PANTRY

BEDROOM 2

BATH 2

NOOK



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DRAWING: FLOOR FINISH PLAN
PROJECT: Padilla House

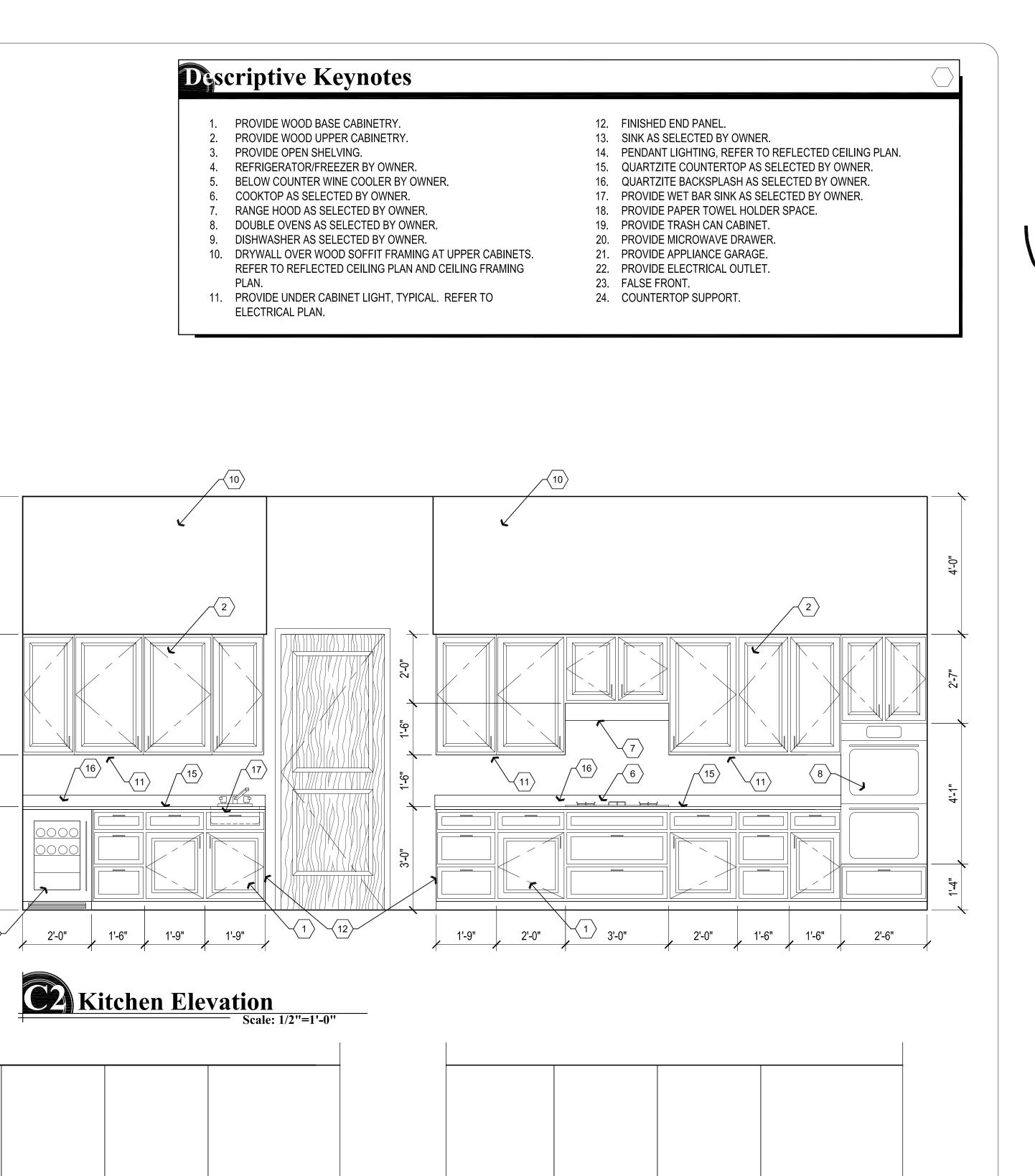
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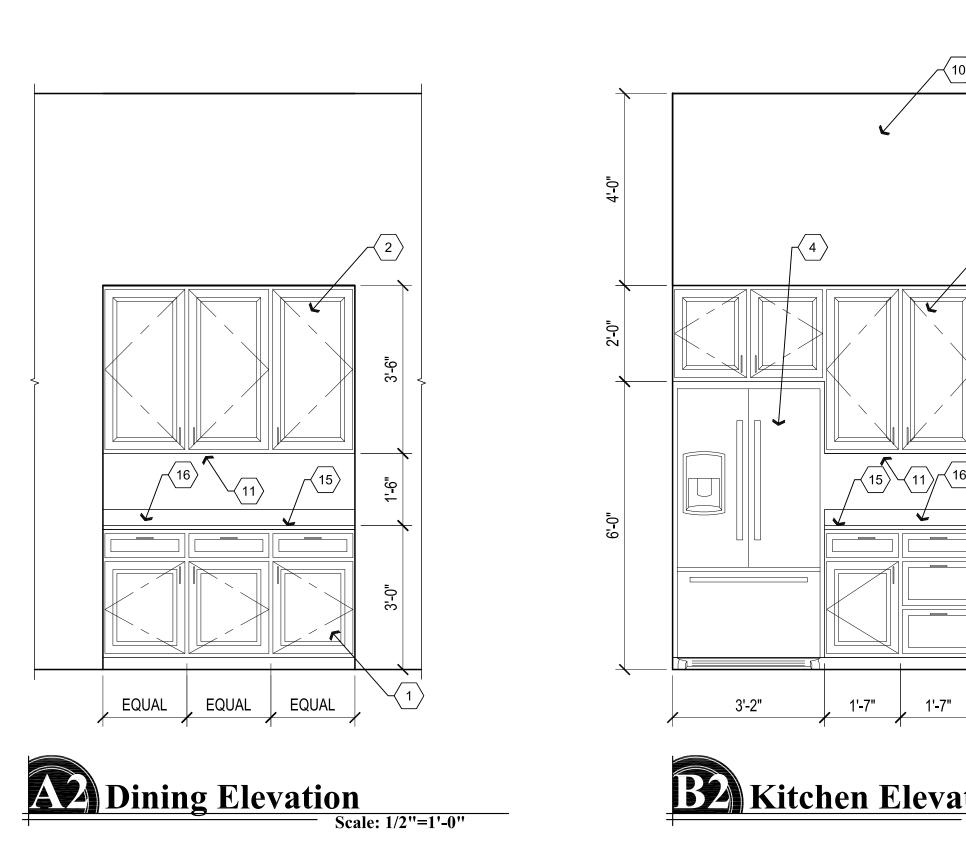
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July 17th, 2015

A13

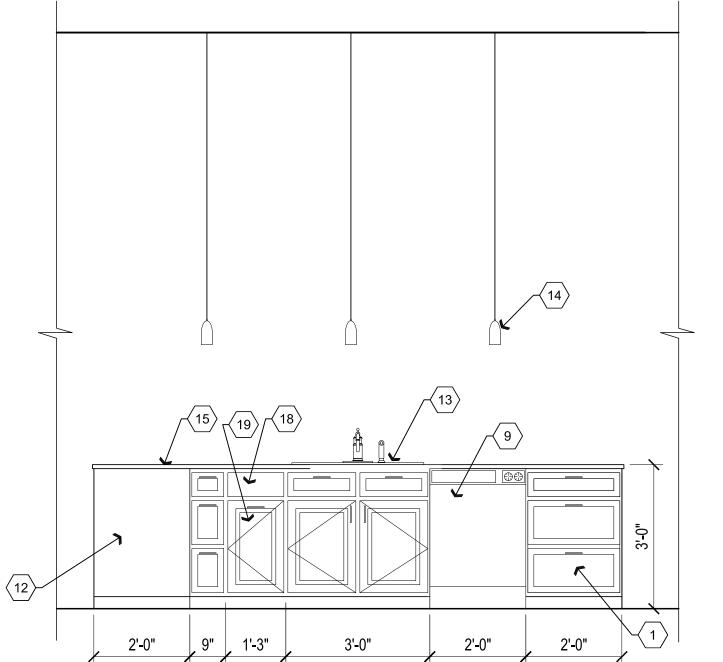
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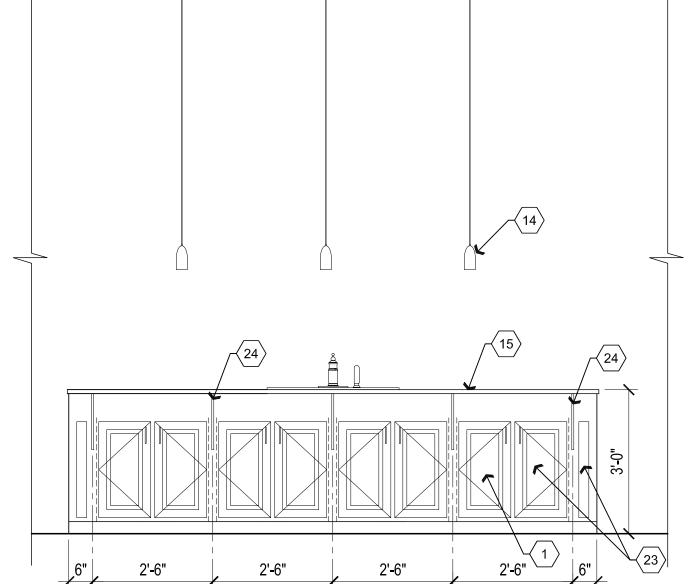


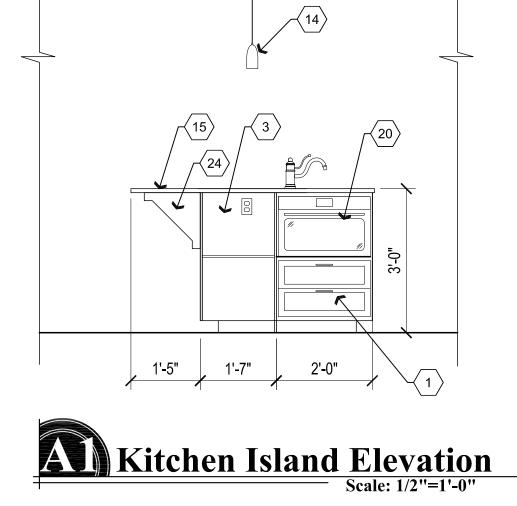




2'-0"













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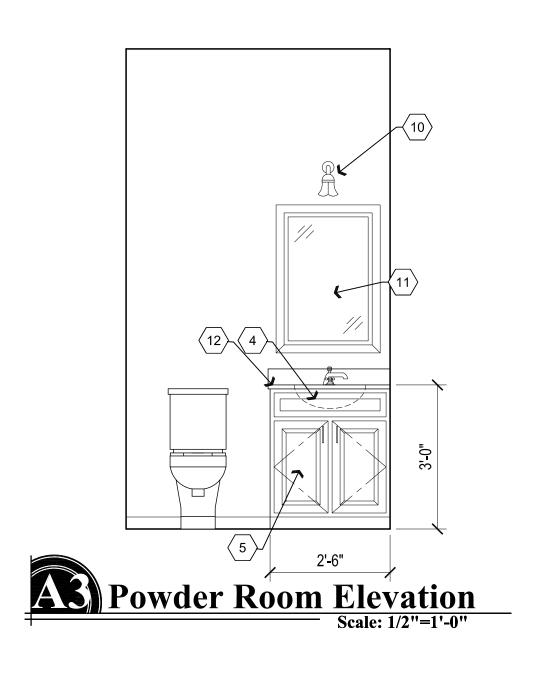
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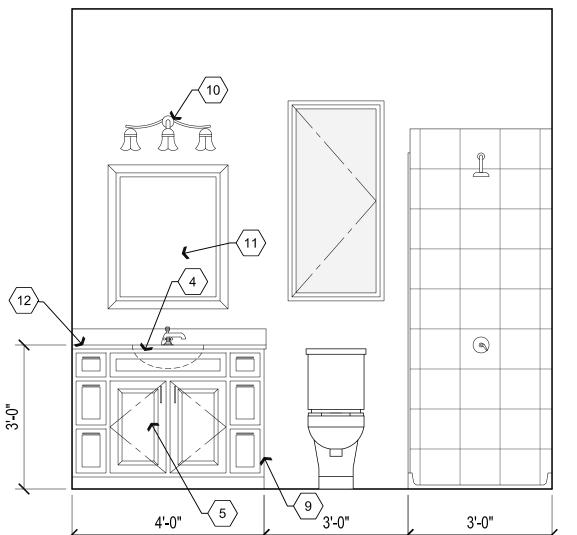
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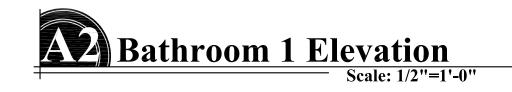
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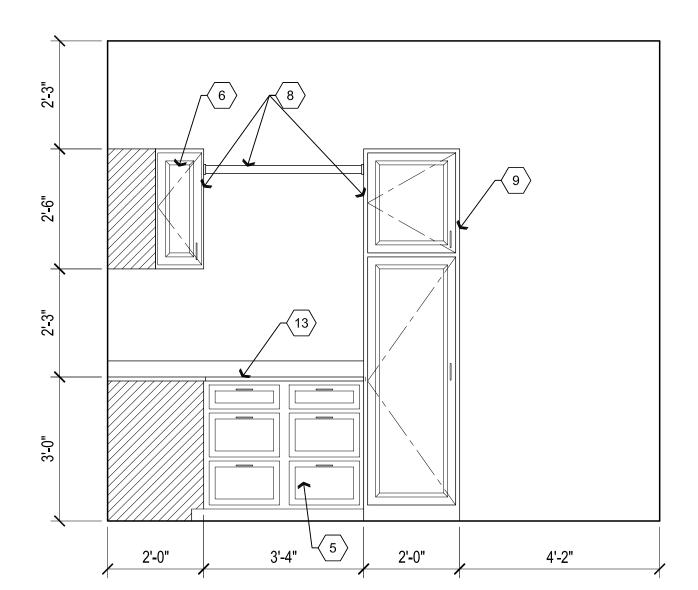
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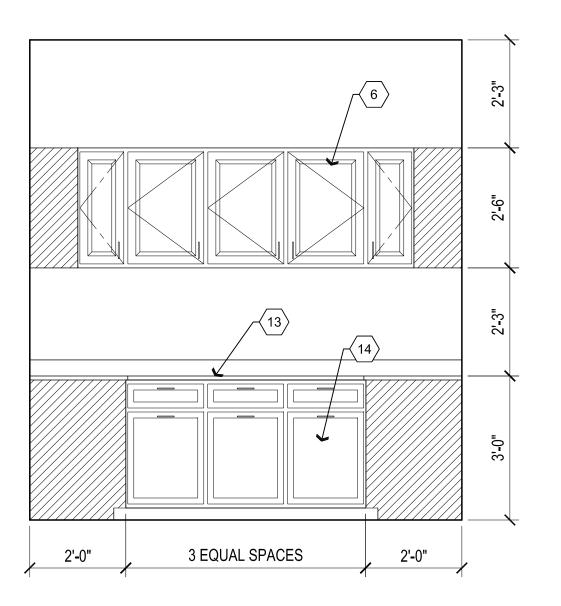




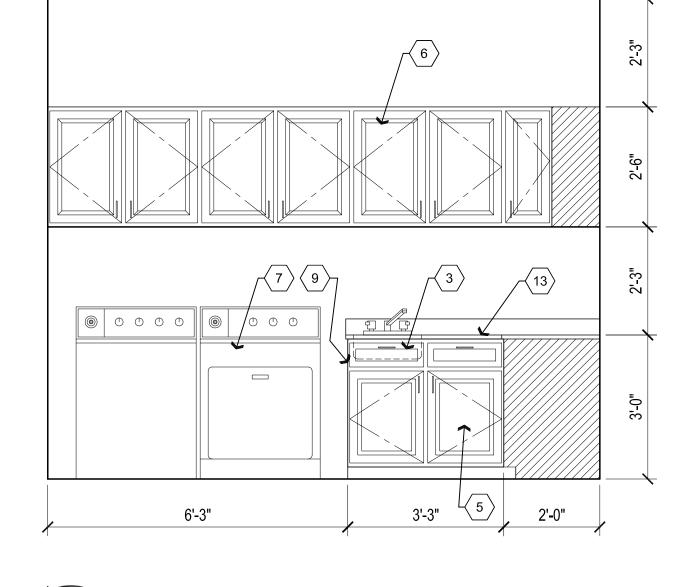




Balaundry Room Elevation
Scale: 1/2"=1'-0"







Discriptive Keynotes

2. PROVIDE BATH TUB AS SELECTED BY OWNER.

4. PROVIDE BELOW COUNTER VANITY SINK.

10. VANITY LIGHT AS SELECTED BY OWNER.

14. LARGE LAUNDRY DRAWER CABINETRY.

11. MIRROR AS SELECTED BY OWNER.

SELECTED BY OWNER.

PROVIDE WOOD BASE CABINETRY. 6. PROVIDE WOOD UPPER CABINETRY.

9. FINISHED END PANEL.

PROVIDE UTILITY SINK SET INTO COUNTERTOP.

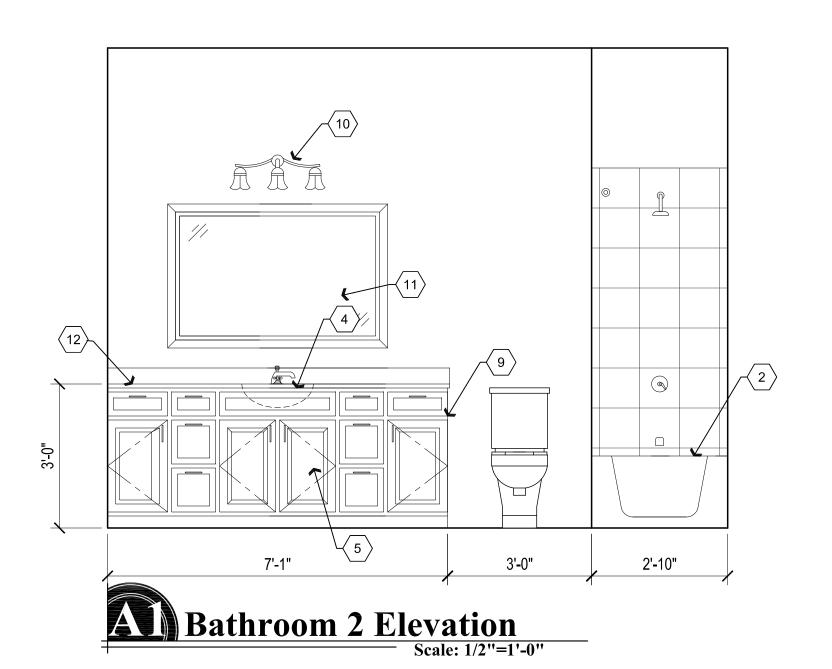
1. PROVIDE CERAMIC TILE FINISH OVER 2x WOOD FRAMED BATH TUB

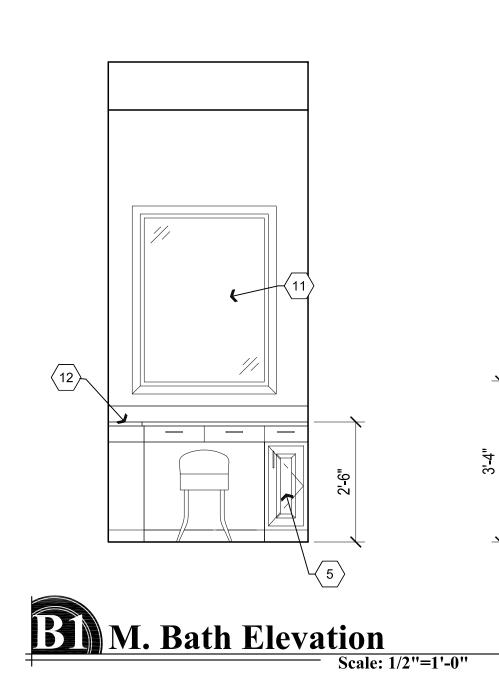
7. CLOTHES WASHER AND DRYER BY OWNER. STUB OUT FOR GAS. 8. PROVIDE FINISHED END PANEL WITH CLOTHES HANGER ROD

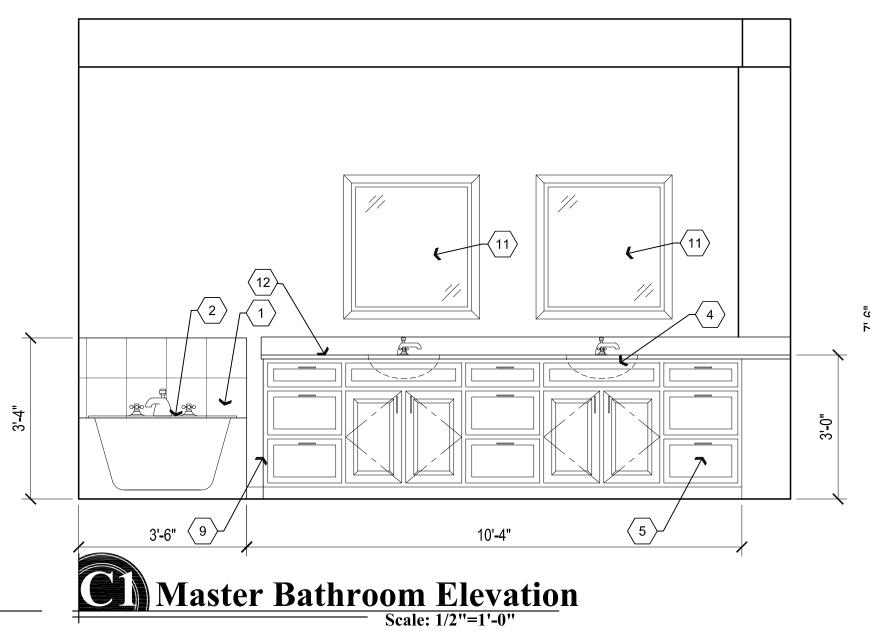
12. GRANITE COUNTERTOP AND BACKSPLASH AS SELECTED BY

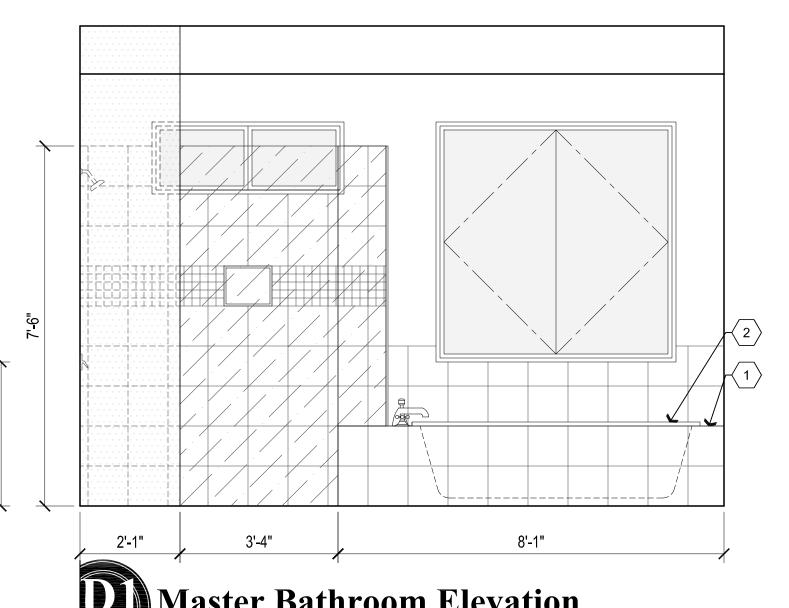
13. PLASTIC LAMINATE COUNTERTOP AND BACKSPLASH AS











Master Bathroom Elevation
Scale: 1/2"=1'-0"

REVISIONS

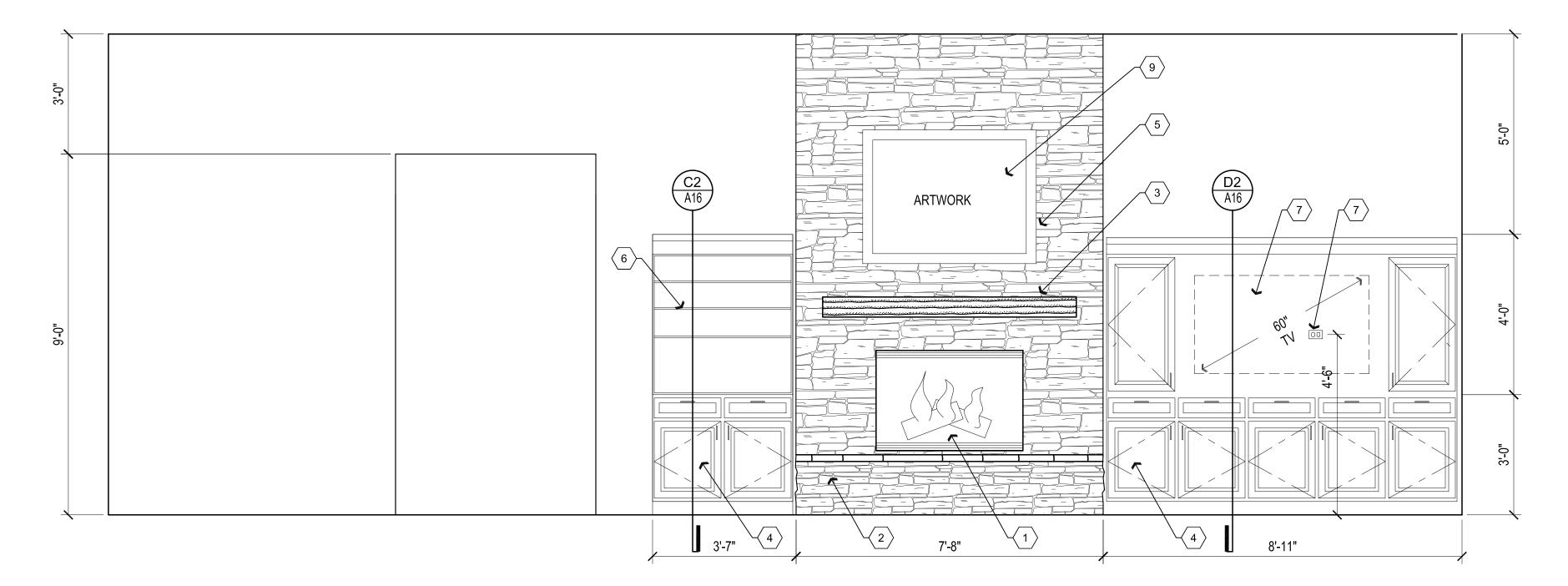
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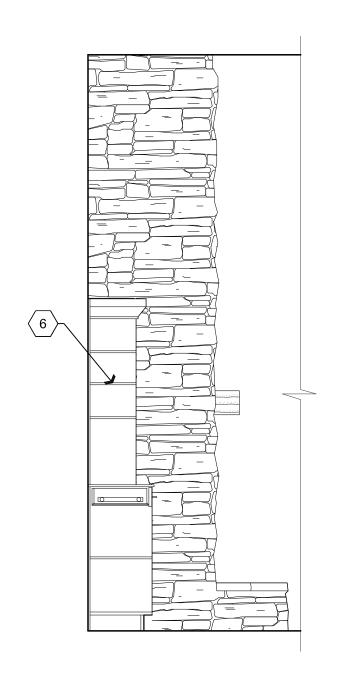
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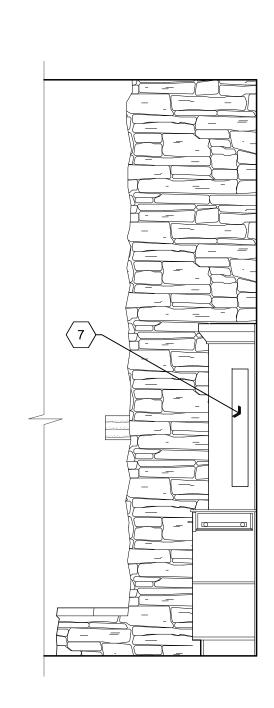
DRAWN BY CHECKED BY W.A.K. July 17th, 2015 AS NOTED

# Descriptive Keynotes

- 1. PROVIDE PRE-MANUFACTURED FIREPLACE, REFER TO
- REFERENCE FLOOR PLAN.
- 2. PROVIDE 18" HIGH STONE HEARTH.
- 3. PROVIDE WOOD FIREPLACE MANTLE AS SELECTED BY OWNER.
- PROVIDE WOOD CABINETRY.
   PROVIDE STONE VENEER AS SELECTED BY OWNER.
- 6. PROVIDE OPEN WOOD SHELVING.
- 7. WALL MOUNTED TELEVISION BY OWNER.
- 8. PENDANT LIGHTING, REFER TO REFLECTED CEILING PLAN.
- 9. ARTWORK BY OWNER.
- 10. KITCHEN ISLAND. REFER TO SHEET A14.
- 11. ELECTRIC OUTLET AND CABLE TV JACK LOCATION.





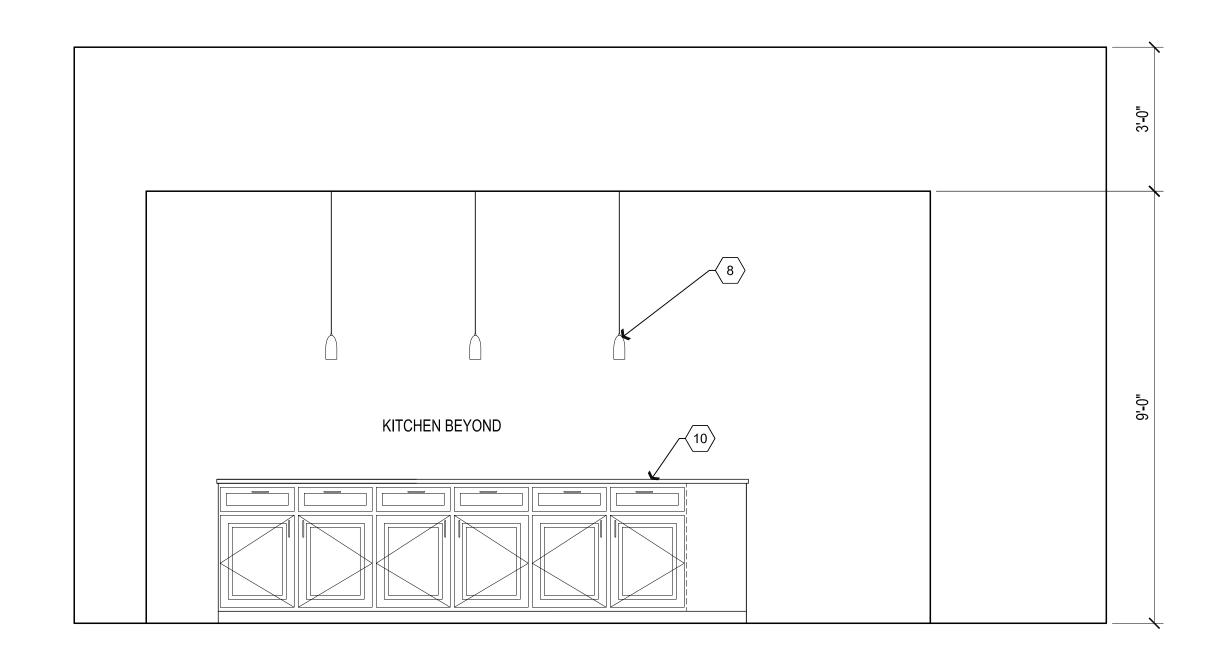


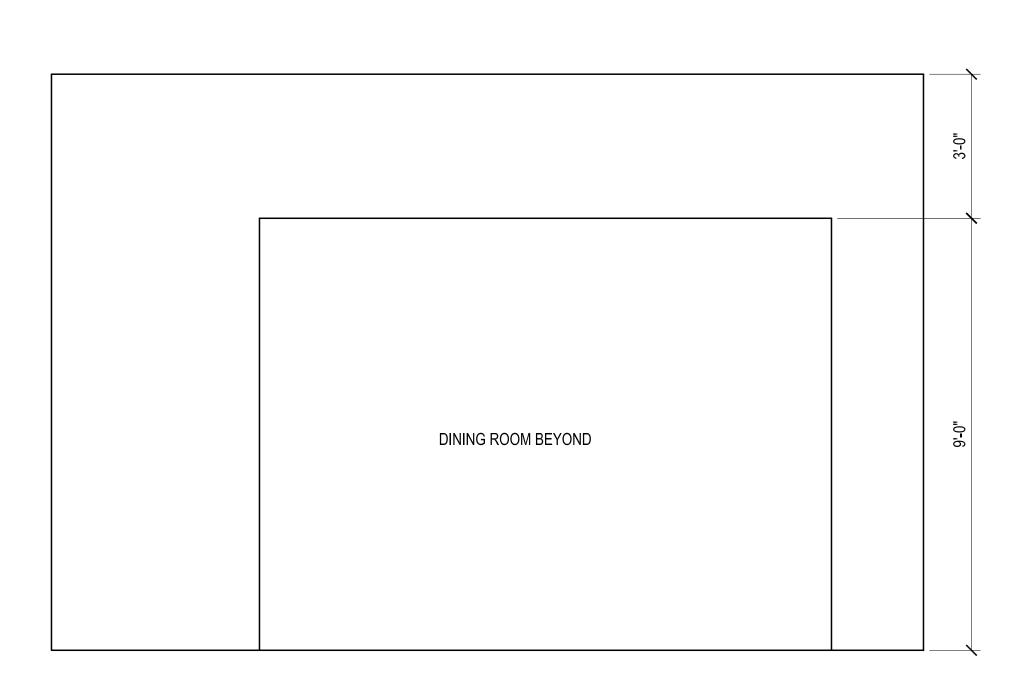
**A2** Great Room Elevation

ale: 1/2"=1'-0"









Great Room to Kitchen Elevation

**Great Room to Dining Elevation** 

Scale: 1/2"=1'-0"

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S812

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S815

Prescott, AZ 86304

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Padilla House 1911 Perfect Place

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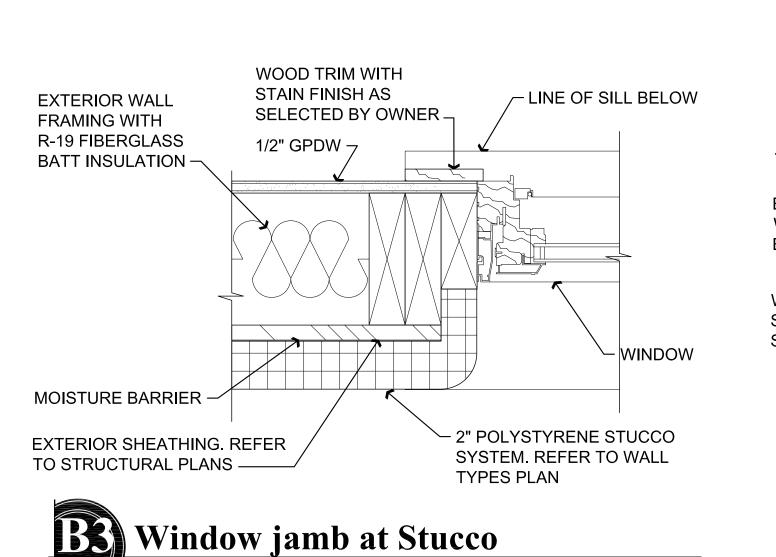
JULY 17th 2015

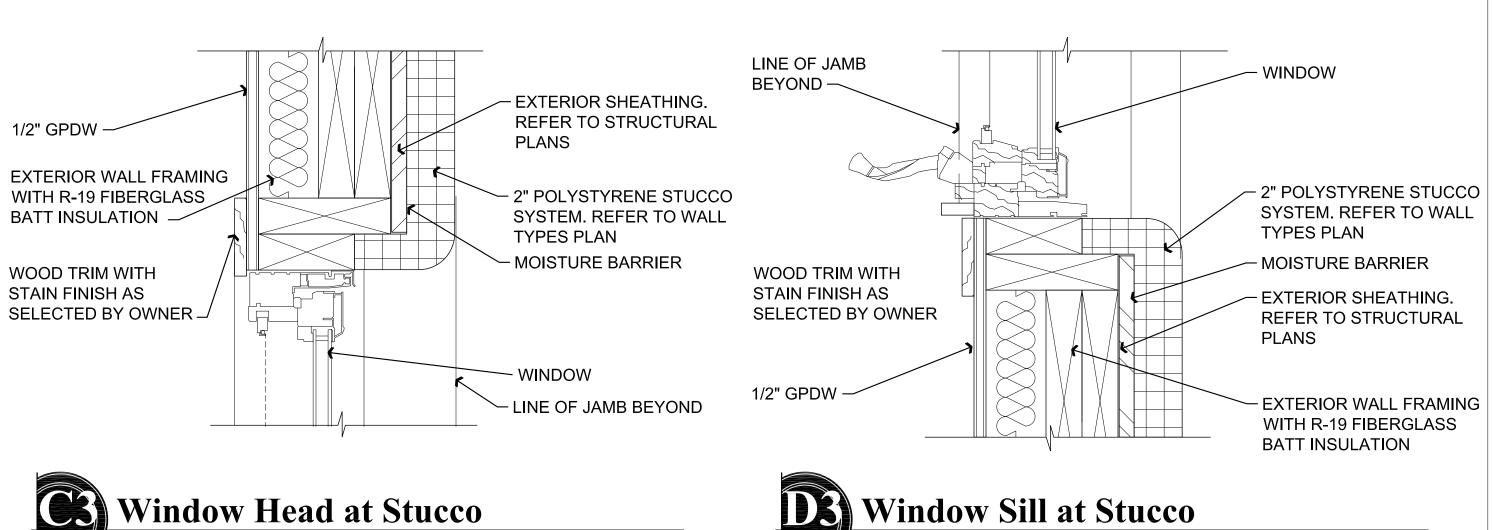
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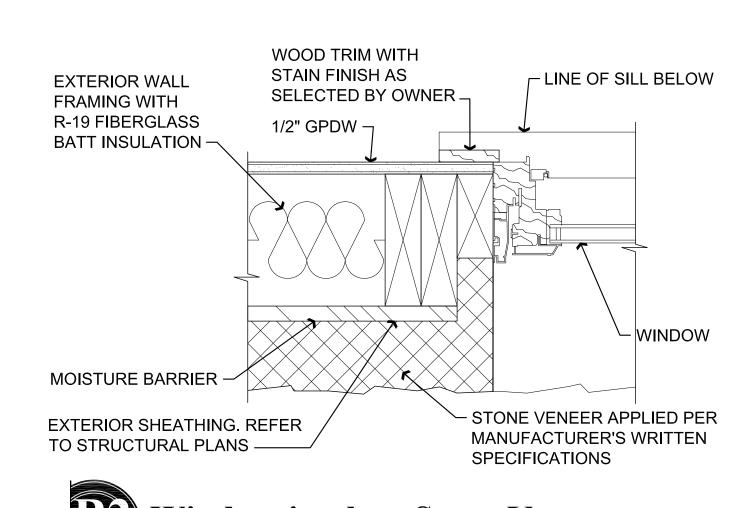
July 17th, 2015

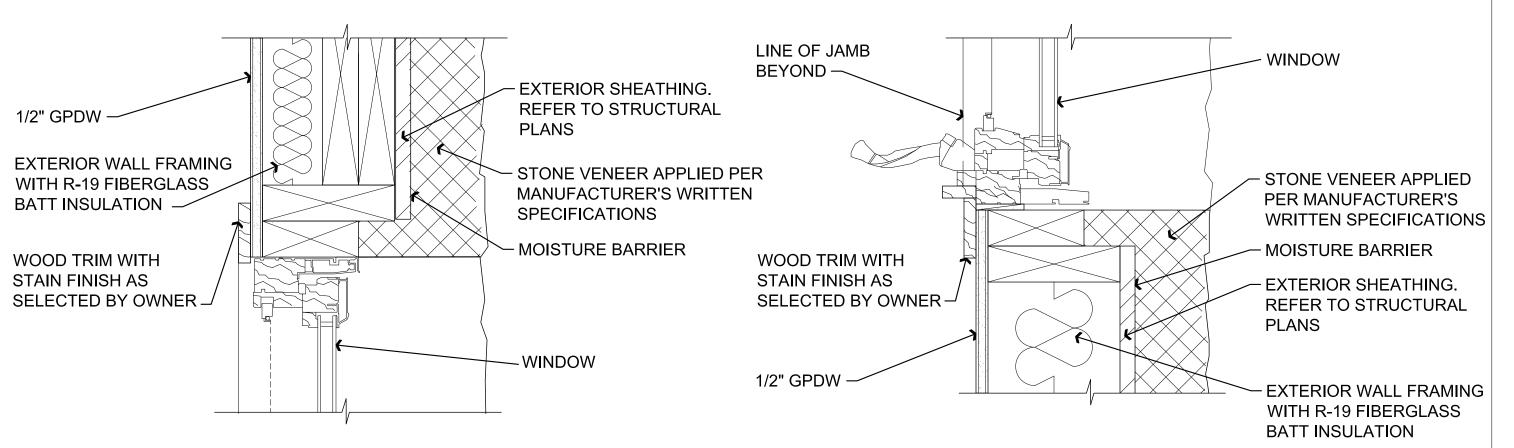
SCALE
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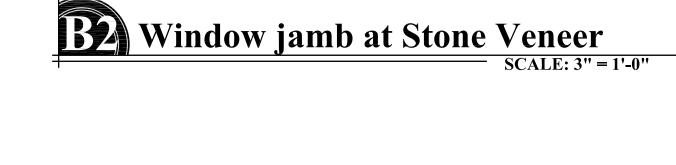
A16





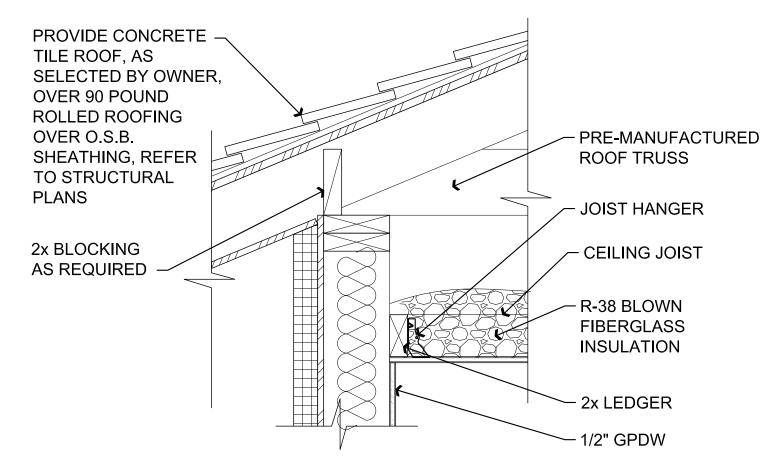


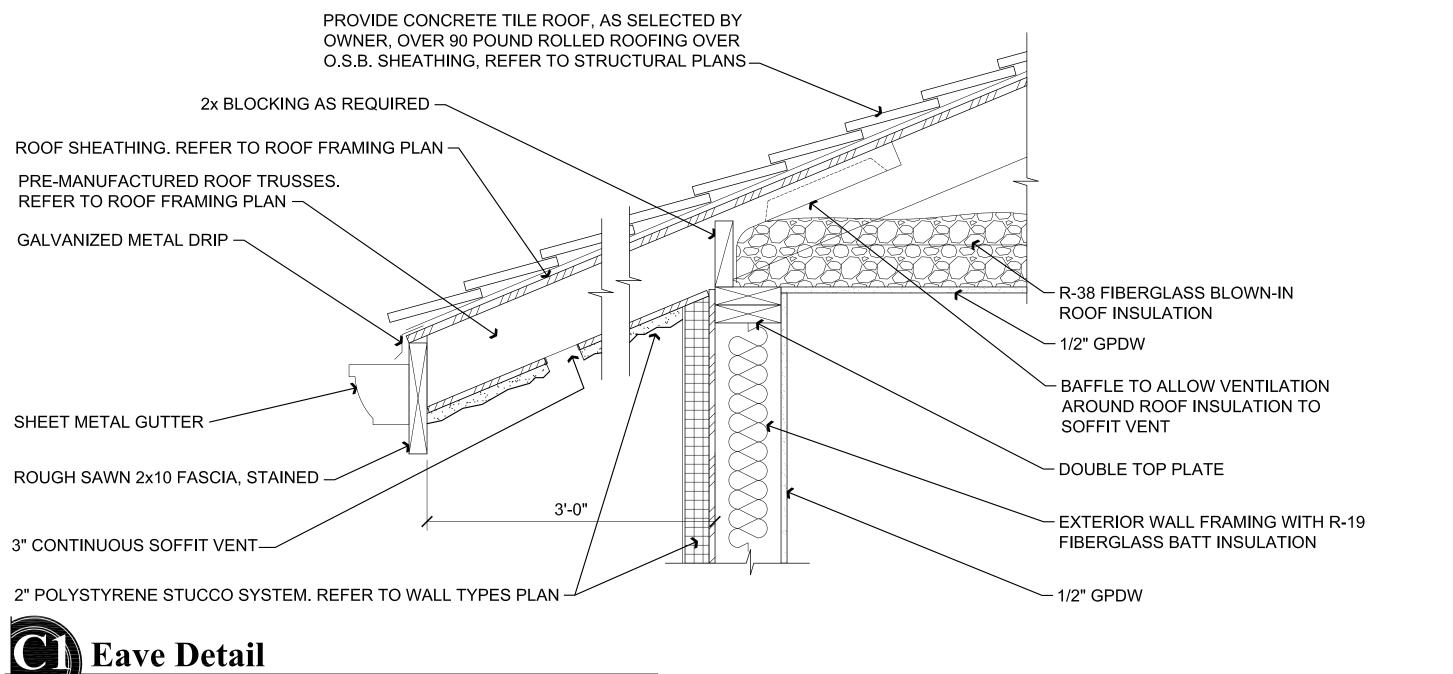














SCALE: 1 1/2" = 1'-0"

SCALE: 1 1/2" = 1'-0"

DRAWING:
O.

PROJECT:

REVISIONS

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671
SHEET

July 17th, 2015

AS NOTED

19, 2015 - 9:22am

### **GENERAL REQUIREMENTS:**

- 1. THE STRUCTURAL SYSTEMS AND MEMBERS DEPICTED HEREIN HAVE BEEN DESIGNED PRIMARILY TO SAFEGUARD AGAINST MAJOR STRUCTURAL DAMAGE AND LOSS OF LIFE, NOT TO LIMIT DAMAGE OR MAINTAIN FUNCTION (IBC SECTION 101.3).
- 2. THESE DRAWINGS, AND THEIR ASSOCIATED STRUCTURAL CALCULATIONS, HAVE BEEN PERFORMED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE STRUCTURAL ENGINEER'S IN THIS OR SIMILAR LOCALITIES. THEY NECESSARILY ASSUME THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKMEN WHO HAVE A WORKING KNOWLEDGE OF THE INTERNATIONAL BUILDING CODE CONVENTIONAL FRAMING REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR FRAMING ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, IT IS UNDERSTOOD THAT THE CONTRACTOR WILL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR ALL MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
- 3. THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED CONSTRUCTION SUCH THAT DESIGN LIVE LOAD PER SQUARE FOOT AS STATED HEREIN IS NOT EXCEEDED. OPTIONS ARE FOR CONTRACTOR'S CONVENIENCE. IF AN OPTION IS USED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CHANGES, AND SHALL COORDINATE ALL DETAILS.
- 4. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL STRUCTURAL NOTES AND SPECIFICATIONS, THE GREATER REQUIREMENTS SHALL GOVERN. TYPICAL DETAILS AND NOTES ARE NOT NECESSARILY INDICATED ON THE PLANS, BUT SHALL APPLY NONE-THE-LESS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT. DETAILS MAY SHOW ONLY ONE SIDE OF CONNECTION OR MAY OMIT INFORMATION FOR CLARITY.
- 5. ESTABLISH AND VERIFY ALL OPENINGS AND INSERTS FOR ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL WITH APPROPRIATE TRADES, DRAWINGS AND SUBCONTRACTORS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION. RESOLVE ANY DISCREPANCY WITH THE ARCHITECT AND STRUCTURAL
- 6. ANY INSPECTIONS, SPECIAL (IBC CHAPTER 17) OR OTHERWISE THAT ARE REQUIRED BY THE BUILDING CODES, LOCAL BUILDING DEPARTMENTS, OR BY THESE PLANS SHALL BE DONE BY AN INDEPENDENT INSPECTION COMPANY OR THE BUILDING DEPARTMENT, SITE VISITS BY THE STRUCTURAL ENGINEER DO NOT CONSTITUTE AN OFFICIAL INSPECTION, UNLESS SPECIFICALLY CONTRACTED FOR.

### BASIS FOR DESIGN:

1. BUILDING CODE: 2012 EDITION OF THE IBC WITH CITY/COUNTY AMENDMENTS.

RISK CATEGORY = II

2. VERTICAL LOADS:

	LOCATION	LIVE / LO		DE	EAD LOAD	
	ŔOOF	30	PSF		22 PSF	
3.	SEISMIC DESIGN PARA	AMETERS:				•
						1

ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE PROCEDURE
IMPORTANCE FACTOR	le = 1.00
SITE CLASS	D
SEISMIC DESIGN CATEGORY	С
SPECTRAL RESPONSE ACCELERATIONS	Sms = 0.477, Sm1 = 0.214
SPECTRAL RESPONSE COEFFICIENTS	Sds = 0.318, Sd1 = 0.142
HORIZONTAL SHEAR TRANSFER ELEMENT	"S:
PLYWOOD — FLEXIBLE DIAPHRAM(S)	R = 6.5
VERTICAL SHEAR TRANSFER ELEMENTS:	
GYPBOARD SHEARWALL(S)	R = 2.0
PLYWOOD SHEARWALL(S)	R = 6.5

### 4. WIND DESIGN PARAMETERS (STRENGTH):

ULTIMATE WIND SPEED	115 MPH (3 SECOND GUST)
WIND EXPOSURE	C
IMPORTANCE FACTOR	Iw = 1.00
INTERNAL PRESSURE COEFFICIENT	-0.18
ULTIMATE COMPONENT AND CLADDING PRESSURE	37.1 PSF
NET UPLIFT ON ROOF	5 PSF

# **GENERAL STRUCTURAL NOTES**

(APPLY UNLESS NOTED OTHERWISE ON PLANS/DETAILS

### **FOUNDATION NOTES:**

- 1. IN LIEU OF A GEOTECHNICAL REPORT: THE FOUNDATION HAS BEEN DESIGNED ACCORDING TO THE RECOMMENDATIONS OF CHAPTER 18 OF THE IBC.
- 2. THE SOIL DESIGN VALUES LISTED BELOW HAVE BEEN APPROVED BY THE CITY/COUNTY BUILDING DEPARTMENT, CONTINGENT THAT THE SOIL ON THE SITE PREDOMINATELY CONSISTS OF SAND AND/OR GRAVEL.

SPECIFIC SOIL CLASSIFICATIONS SHOULD BE ONE OF THE FOLLOWING: SANDY GRAVEL OR GRAVEL(GW OR GP), SAND(SW AND SP), SILTY SAND(SM), CLAYEY SAND(SC), SILTY GRAVEL(GM), OR CLAYEY GRAVEL(GC). THESE SOIL CLASSIFICATIONS CAN BE FOUND IN TABLE 1804.2 OF CHAPTER 18 OF THE IBC. VERIFICATION OF SOIL CLASSIFICATION IS THE RESPONSIBILITY OF THE CONTRACTOR.

VERIFICATION OF SOIL CLASSIFICATION IS THE RESPONSIBILITY OF THE CONTRACTOR.

THE SOIL DESIGN VALUES FOR THE FOUNDATION ARE:

ALLOWABLE BEARING PRESSURE	1500 PSF
ALLOWABLE LATERAL BEARING PRESSURE	150 PSF/FT
ALLOWABLE LATERAL SLIDING COEFFICIENT	0.25
LATERAL BACKFILL PRESSURE (UNRESTRAINED)	30 PSF/FT
LATERAL BACKFILL PRESSURE (RESTRAINED)	50 PSF/FT
SITE CLASS	D
7 A ONE THIRD INCODESCE IN DESCRIPC DESCRIPCE IS AL	LOWED WITH CEICH

3. A ONE-THIRD INCREASE IN BEARING PRESSURES IS ALLOWED WITH SEISMIC OR WIND LOAD COMBINATIONS. LATERAL BEARING AND LATERAL SLIDING RESISTANCE MAY BE COMBINED.

FOUNDATION	BEARING	DEPTH
------------	---------	-------

- 18" BELOW FINISHED GRADE 4. ALL FOUNDATIONS SHALL BEAR ON COMPACTED ENGINEERED FILL 18
- INCHES MINIMUM BELOW FINISH GRADE. GRADE IS DEFINED AS TOP OF SLAB FOR INTERIOR FOOTINGS AND LOWEST ADJACENT GRADE WITHIN 5 FEET OF THE BUILDING FOR PERIMETER FOOTINGS. WHERE EXTERIOR PAVING OR CONCRETE IS DIRECTLY ADJACENT TO BUILDING, GRADE IS DEFINED AS TOP OF EXTERIOR PAVING AT LEAST 5 FEET FROM BUILDING. CONCRETE FOOTING EXCAVATIONS SHALL BE CLEAN AND FREE OF LOOSE DEBRIS OR UN-COMPACTED MATERIAL AT TIME OF CONCRETE PLACEMENT.
- 5. CONCRETE SLABS ON GRADE SHALL BE SUPPORTED ON A 4 INCH LAYER OF SELECT FILL MATERIAL ACCORDING TO THE SPECIFICATIONS OF THE SOIL REPORT. FILL MATERIAL SHOULD BE MOISTENED, BUT NOT SATURATED JUST PRIOR TO PLACING CONCRETE.

### **CONCRETE:**

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

USE:	CONCRETE STRENGTH:	REMARKS:
FOUNDATIONS	2500 PSI	DESIGNED FOR 2500 PSI
CONCRETE SLABS ON GRADE	3000 PSI	W/O INSPECTION

- 2. ALL NORMAL WEIGHT CONCRETE SHALL BE REGULAR WEIGHT OF 150 POUNDS PER CUBIC FOOT USING HARD-ROCK AGGREGATES. AGGREGATE USED IN CONCRETE SHALL CONFORM TO ASTM C67 FOR 34", ASTM C57 FOR 1" AND ASTM C467 FOR 11/2" AGGREGATE.
- 3. TENSION LAP SPLICES OF REINFORCING STEEL IN CONCRETE SHALL BE AS FOLLOW:

REBAR SIZE	STANDARD LAP
#3	20"
#4	32"
#5	39"

- OF PROCEDURE WITH THE STRUCTURAL ENGINEER, LATEST ACLICODE AND DETAILING MANUAL APPLY. PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT ALL CORNERS AND INTERSECTIONS PER TYPICAL DETAILS. VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES.
- 4. ALL DIMENSIONS SHOWING THE LOCATION OF REINFORCING STEEL NOT NOTED AS "CLEAR" OR "CLR" ARE TO CENTER OF STEEL. MINIMUM COVER FOR NON-PRESTRESSED CONCRETE REINFORCING SHALL BE AS FOLLOWS:

LOCATION:	MINIMUM COVER	TOLERANC E
AST AGAINST EARTH (FOOTINGS)	3"	± ¾"
ABS ON GRADE	1½"	± 1/4"
POSED TO EARTH OR WEATHER - #5 AND MALLER	1½"	± ¾"

NO TACK WELDING OF REINFORCING BARS ALLOWED WITHOUT PRIOR REVIEW

- 5. MAXIMUM SLUMP FOR ALL CONCRETE SHALL BE 4". SLUMP FOR EXTERIOR SLABS SHALL BE 6". PORTLAND CEMENT SHALL CONFORM TO ASTM C150. TYPE V CEMENT SHALL BE USED FOR CONCRETE IN CONTACT WITH ALKALINE SOIL, AND TYPE II ELSEWHERE.
- 6. NO MORE THAN 90 MINUTES SHALL ELAPSE BETWEEN CONCRETE BATCHING AND CONCRETE PLACEMENT UNLESS APPROVED BY THE TESTING AGENCY.
- 7. CONCRETE PLACEMENT AND QUALITY SHALL BE PER RECOMMENDATIONS IN ACI 614, ACI 301 AND ACI 318. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED, EXCEPT THAT SLABS ON GRADE NEED BE VIBRATED ONLY AROUND AND UNDER FLOOR DUCTS, ETC. CAST CLOSURE POUR, WHERE SHOWN ON PLANS AROUND COLUMNS AFTER COLUMN DEAD LOAD IS APPLIED. REMOVE ALL DEBRIS FROM FORMS BEFORE PLACING CONCRETE.
- ALL ITEMS TO BE CAST IN CONCRETE SUCH AS REINFORCING, DOWELS, BOLTS, ANCHORS, PIPES, SLEEVES, ETC., SHALL BE SECURELY POSITIONED IN THE FORMS BEFORE PLACING THE CONCRETE.
- 8. ALL CONCRETE SLABS ON GRADE SHALL BE DIVIDED INTO AREAS BY CONTROL JOINTS (KEYED OR SAW CUT) SUCH THAT ONE SLAB AREA DOES NOT EXCEED 250 SQUARE FEET, OR BE MORE THAN TWO TIMES LONGER THAN THE SLAB AREA WIDTH. THE FOUNDATION PLAN SHOWS A SUGGESTE METHOD OF CONTROL JOINT LAYOUT. IT IS RECOMMENDED THAT SAW CUTS BE MADE WITHIN 16 HOURS OF CONCRETE BATCHING.
- KEYED CONTROL JOINTS NEED ONLY OCCUR AT EXPOSED EDGES DURING POURING, ALL OTHER JOINTS MAY BE SAW CUT.
- 9. HORIZONTAL PIPES AND ELECTRICAL CONDUITS SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE AND SLABS ON GRADE EXCEPT WHERE SPECIFICALLY APPROVED OR NOTED BY THE STRUCTURAL ENGINEER. PIPES AND CONDUITS SHALL NOT IMPAIR THE STRENGTH OF THE WORK.
- 10. FLY ASH MAY BE USED ONLY IF PERMITTED BY ARCHITECTURAL SPECIFICATIONS AND SHALL BE LIMITED TO 18 PERCENT OF CEMENTITIOUS MATERIALS AND SHALL HAVE A REPLACEMENT FACTOR OF 1.2 RELATIVE TO CEMENT REPLACED. NO FLY ASH ADDITIVES SHALL BE USED IN FLATWORK OR ARCHITECTURALLY EXPOSED CONCRETE.
- 11. COLD/HOT WEATHER CONCRETE CONSTRUCTION: PROTECT CONCRETE FROM DAMAGE OR REDUCED STRENGTH IN COMPLIANCE WITH ACI 305 AND 306.
- 12. CONCRETE MIXES SHALL BE DESIGNED BY A CERTIFIED LABORATORY AND APPROVED BY THE STRUCTURAL ENGINEER.

# REINFORCING STEEL:

BEFORE PLACING CONCRETE.

- 1. ASTM A615 GRADE 60 (FY = 60 KSI) DEFORMED BARS FOR ALL BARS #5 AND LARGER. ASTM A615 GRADE 40 (FY = 40 KSI) DEFORMED BARS FOR ALL BARS #4 AND SMALLER. GRADE 60 DEFORMED BARS SHALL BE USED FOR CONCRETE WALLS, BEAMS, ELEVATED SLABS AND COLUMN REINFORCING.
- 2. WELDING OF REINFORCING BARS SHALL BE MADE ONLY TO ASTM A706 GRADE 60 BARS AND ONLY USING E90 SERIES RODS. WELDING OF REINFORCING BARS SHALL BE MADE ONLY AT LOCATIONS SHOWN ON PLANS OR DETAILS.
- 3. REINFORCING BAR SPACING GIVEN ARE MAXIMUM ON CENTERS. ALL BARS PER CRSI SPECIFICATIONS AND HANDBOOK. DOWEL ALL VERTICAL REINFORCING TO FOUNDATION. SECURELY TIE ALL BARS IN LOCATION

# WOOD:

1. SAWN LUMBER: FRAMING LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) OR THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB). ALL SAWN LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED LUMBER GRADING AGENCY. SAWN LUMBER SHALL HAVE THE FOLLOWING MINIMUM GRADE UNLESS NOTED OTHERWISE IN SCHEDULES:

USE:	MATERIAL:
2X4 STUDS	HEM-FIR STUD
2X6 STUDS	HEM-FIR NO. 2
JOISTS, TOP PLATES AND ALL OTHER SAWN LUMBER	DOUGLAS-FIR NO. 2 OR BETTER
BEAMS AND POSTS	DOUGLAS-FIR NO. 2 OR BETTER

2. PLYWOOD: ALL PLYWOOD SHALL BE C-D OR C-C SHEATHING CONFORMING TO STANDARD PS 1-95. LAY UP PLYWOOD WITH FACE GRAIN IN PERPENDICULAR TO SUPPORTS (ON ROOFS WHERE PLYWOOD IS LAID UP WITH FACE GRAIN PARALLEL TO SUPPORTS, USE A MINIMUM OF 5-PLY PLYWOOD, STAGGER JOINTS). ALL NAILING, COMMON NAILS. BLOCKING AT PANEL EDGES WHERE INDICATED ON PLANS. ALL PLYWOOD SHALL BE OF THE FOLLOWING NOMINAL THICKNESS, SPAN/INDEX RATING AND SHALL BE NAILED AS FOLLOWS UNLESS NOTED OTHERWISE ON THE PLANS:

LOCATION:	NOMINAL THICKNES S:	SPAN INDEX RATING: EDGE ATTACHMENT: FIELD AT		FOGE ATTACHMENT			FIELD ATTACHMENT:
WALLS	½" OR ¾"	24/0	8d AT 6" O.C.	8d AT 12" O.C.			
ROOF	5%"	40/20	10d AT 6" O.C.	10d AT 12" O.C.			

- PLYWOOD ALTERNATE: AMERICAN PLYWOOD ASSOCIATION PERFORMANCE RATED SHEATHING MAY BE USED AS AN ALTERNATE TO PLYWOOD WITH PRIOR APPROVAL OF OWNER, ARCHITECT AND ROOFER, IT MAY NOT BE USED ON ROOFS WHERE BUILT-UP ROOF SYSTEM IS TO BE GUARANTEED BY ROOFER. RATED SHEATHING SHALL COMPLY WITH ICBO REPORT NER-108, EXPOSURE 1, AND SHALL HAVE A SPAN RATING EQUIVALENT TO OR BETTER THAN THE PLYWOOD IT REPLACES. ATTACHMENT AND THICKNESS (WITHIN 1/32") SHALL BE THE SAME AS THE PLYWOOD IT REPLACES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- GLUED-LAMINATED BEAMS (GLULAM): GLUED-LAMINATED BEAMS SHALL BE DOUGLAS FIR COMBINATION AT 24F-V4 AT SIMPLE SPAN BEAMS AND 24F-V8 AT CANTILEVERED BEAMS WITH THE FOLLOWING MINIMUM PROPERTIES: FB = 2,400 PSI, FV = 190 PSI, FC (PERPENDICULAR) = 650 PSI. E =1,800 KSI. ALL BEAMS SHALL BE FABRICATED USING WATERPROOF GLUE. FABRICATION AND HANDLING PER LATEST AITC AND WCLA STANDARDS. BEAMS TO BEAR GRADE STAMP AND AITC STAMP AND CERTIFICATE CAMBER AS SHOWN ON DRAWINGS. STANDARD CAMBER IS BASED ON A RADIUS OF CURVATURE OF 2000 FEET.

4. SILL PLATES RESTING ON CONCRETE OR MASONRY SHALL BE OF TREATED FIR OR FOUNDATION GRADE REDWOOD. SHEAR WALLS AND EXTERIOR WALL

- SILLS AT CONCRETE SLAB SHALL HAVE A MINIMUM OF (2) 1/8" ANCHOR BOLTS PER PIECE. PROVIDE ANCHOR BOLT AT 9" MAXIMUM, 4" MINIMUM FROM THE END OF EACH PIECE AT SPLICE OR END OF WALL. MAXIMUM ANCHOR BOLT SPACING SHALL BE 72" ON CENTER UNLESS NOTED OTHERWISE ON PLANS OR DETAILS. ALL ANCHOR BOLTS (OTHER THAN BOLTS FOR HOLDOWNS) SHALL EMBED 7" INTO CONCRETE. ANCHOR BOLTS FOR HOLDOWNS SHALL NOT BE CONSIDERED AS PART OF REQUIRED ANCHOR BOLTS ON SHEAR WALLS. ALL EXTERIOR WALLS SHALL BE SECURED WITH MINIMUM ANCHOR BOLTS. INTERIOR WALLS MAY BE SECURED TO CONCRETE WITH EITHER ANCHOR BOLTS OR POWER DRIVEN SHOT PINS UNLESS NOTED OTHERWISE ON PLANS.
- 5. GENERAL: DO NOT NOTCH OR DRILL JOISTS, BEAMS OR LOAD BEARING STUDS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER THROUGH THE ARCHITECT. DOUBLE UP FLOOR JOISTS AND BLOCKING UNDER PARTITIONS. PROVIDE 2" (NOMINAL) SOLID BLOCKING AT SUPPORTS OF ALL JOISTS. UNLESS NOTED OTHERWISE ON PLANS/DETAILS PROVIDE 2X SOLID BLOCKING AT MID-HEIGHT OF BEARING STUD WALLS. ALL NAILING NOT NOTED SHALL BE ACCORDING TO IBC TABLE 2304.9.1. JOIST HANGERS AND OTHER MISCELLANEOUS FRAMING ANCHORS SHALL BE AS MANUFACTURED BY SIMPSON STRONG-TIE COMPANY, INC. OR OTHER MANUFACTURER WITH CURRENT ICBO APPROVAL.
- 6. BOLTING: ALL BOLTS IN WOOD CONNECTIONS SHALL CONFORM TO ASTM A307. BOLTS SHALL BE INSTALLED IN HOLES BORED WITH A BIT 1/6" LARGER THAN THE Ø (DIAMETER) OF THE BOLT. BOLTS AND NUTS SEATING ON WOOD SHALL HAVE CUT STEEL WASHERS UNDER HEADS AND NUTS. NICK THREADS TO PREVENT LOOSENING.
- 7. PREFABRICATED WOOD TRUSSES: PREFABRICATED WOOD TRUSSES SHALL BE DESIGNED TO SUPPORT SELF WEIGHT PLUS LIVE LOAD AND SUPERIMPOSED DEAD LOADS. WHERE ATTIC SPACE CAN BE USED FOR STORAGE, A 40 PSF LIVE LOAD ON THE BOTTOM CHORD SHALL BE INCLUDED IN THE ANALYSIS. BRIDGING SIZE AND SPACING BY TRUSS MANUFACTURER UNLESS NOTED OTHERWISE. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WITH DESIGN CALCULATIONS SEALED BY A REGISTERED ENGINEER FOR REVIEW PRIOR TO MANUFACTURE.

SHOP DRAWINGS SHALL SHOW ANY SPECIAL DETAILS REQUIRED AT BEARING POINTS. ALL CONNECTORS SHALL HAVE CURRENT ICBO APPROVAL. ADDITIONAL TRUSSES SHALL BE SUPPLIED AS REQUIRED TO SUPPORT MECHANICAL EQUIPMENT. PER IBC SECTION 2303.4 AND TPI-1: EACH TRUSS SHALL BE LEGIBLY BRANDED, MARKED OR OTHERWISE HAVE PERMANENTLY AFFIXED THERETO THE IDENTITY OF THE COMPANY MANUFACTURING THE TRUSS, THE DESIGN LOADS, AND THE TRUSS SPACING - WITHIN TWO FEET OF THE CENTER OF THE SPAN ON THE FACE OF THE BOTTOM CHORD. TOTAL LOAD DEFLECTIONS SHALL BE LIMITED TO SPAN/240. FLOOR LIVE LOAD DEFLECTIONS SHALL BE LIMITED TO SPAN /480.

### GYPSUM BOARD SHEATHING:

- 1. ALL GYPSUM BOARD SHEATHING MATERIALS SHALL CONFORM TO ASTM C79 AND SHALL BE INSTALLED IN ACCORDANCE WITH ASTM C1280. FOUR-FOOT WIDE PIECES OF GYPSUM SHEATHING SHALL BE APPLIED PARALLEL OR PERPENDICULAR TO THE STUDS. TWO-FOOT WIDE PIECES OF GYPSUM SHEATHING SHALL BE APPLIED PERPENDICULAR TO THE STUDS. END JOINTS OF ADJACENT COURSES OF GYPSUM BOARD SHALL BE STAGGERED.
- 2. FOR FIRE RATED WALLS WITH GYPSUM SHEATHING EACH SIDE, GYPSUM SHEATHING SHALL BE INSTALLED SO THAT ALL EDGES ARE SUPPORTED EXCEPT %" TYPE-X GYPSUM SHEATHING SHALL BE PERMITTED TO BE INSTALLED HORIZONTALLY WITH THE HORIZONTAL JOINTS STAGGERED 24" FROM THE OPPOSITE SIDE, BUT JOINTS ARE UNSUPPORTED AND

# **SPECIAL INSPECTION ITEMS:**

1. SPECIAL INSPECTION IS NOT REQUIRED AS FOLLOWS:

TYPE OF WORK:	REQUIRE D:	REMARKS:
CONCRETE SLAB ON GRADE	NO	DESIGN BASED ON f'c=2500 PSI
CONCRETE FOUNDATIONS	NO	DESIGN BASED ON f'c=2500 PSI

SPECIAL INSPECTIONS NOT LISTED ABOVE ARE NOT REQUIRED.

	ABBRE\	/IATIONS			
A/C	- BELOW FINISHED FLOOR - BOTTOM OF BEAM - BOTTOM OF DECK - BOTTOM OF FOOTING - BEARING - CAST IN PLACE - CENTERLINE - CENTERLINE OF BEAM - CENTERLINE OF FOOTING - CENTERLINE OF WALL - CLEAR - CONCRETE - CONCRETE - CONCRETE SAWCUT JOINT - CONCRETE SAWCUT JOINT - CONCRETE MASONRY UNIT - CONCRETE MASONRY UNIT - CONTINUOUS - DEAD LOAD - DIAMETER - DOWN - DRAWING(S) - EDGE OF SLAB - EQUIPMENT - EXPANSION BOLT - EXPANSION JOINT - FACE OF MEMBER	I.F.W. HORIZ — — — — — — — — — — — — — — — — — — —	1000 POUNDS - LIVE LOAD - POUNDS - LONG LEG HORIZONTAL - LONG LEG VERTICAL - MANUFACTURER('S) - MASONRY CONTROL JOINT - MECHANICAL - NOT APPLICABLE - NOT TO SCALE - ON CENTER - OUTSIDE FACE OF WALL - OPPOSITE - PRECAST CONCRETE - POUNDS PER LINEAR FOOT - PREFABRICATED - POUNDS PER SQUARE INCH - REINFORCING - SHORT LEG HORIZONTAL - SHORT LEG VERTICAL - SIMILAR - SQUARE - STANDARD - TOTAL LOAD - TOP OF BEAM - TOP OF DECK - TOP OF LEDGER - TOP OF MASONRY - TOP OF MASONRY - TOP OF STEEL - TOP OF WALL - TYPICAL		
F.O.S. — — — — — — — — — — — — — — — — — —	FACE OF WALL GAGE	VERT	— — WELDED WIRE FABRIC — — WITH		

DRAWING INDEX				
DETAILS SHEET DESCRIPTION				
	S1	GENERAL STRUCTURAL NOTES		
T1-T13	S1.1	TYPICAL DETAILS		
	S1.2	PLAN SCHEDULES		
	S2	FOUNDATION PLAN		
NAMES STORM AND	<b>S</b> 3	FRAMING PLAN		
101-109	<b>S4</b>	FOUNDATION DETAILS		
201-213	<b>S</b> 5	FRAMING DETAILS		

FROST STRUCTURAL ENGINEERING

JOB NO.: 2015-0192 PROJECT MANAGER: AGK CAD OPERATOR: MJS

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REVISIONS

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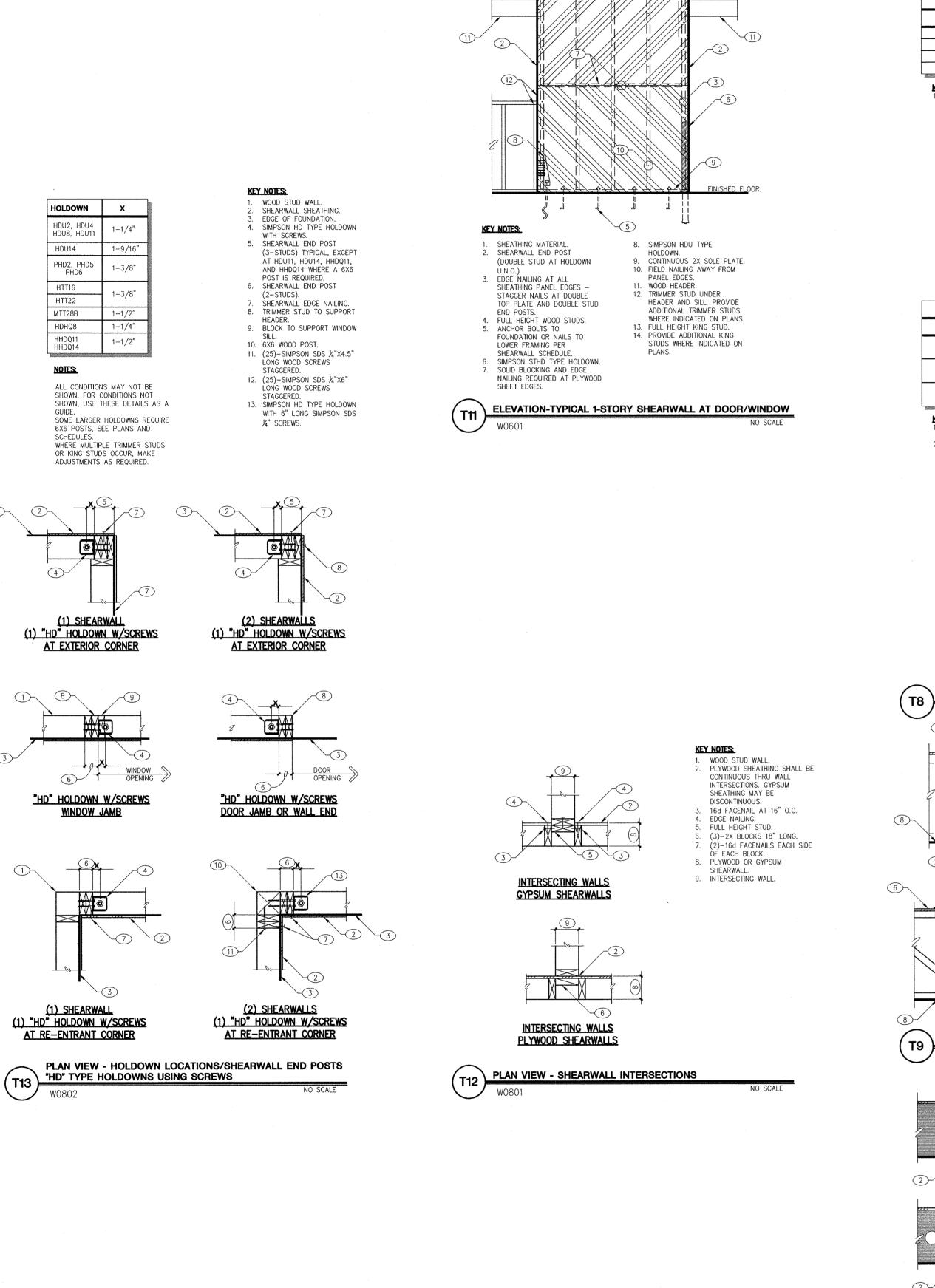
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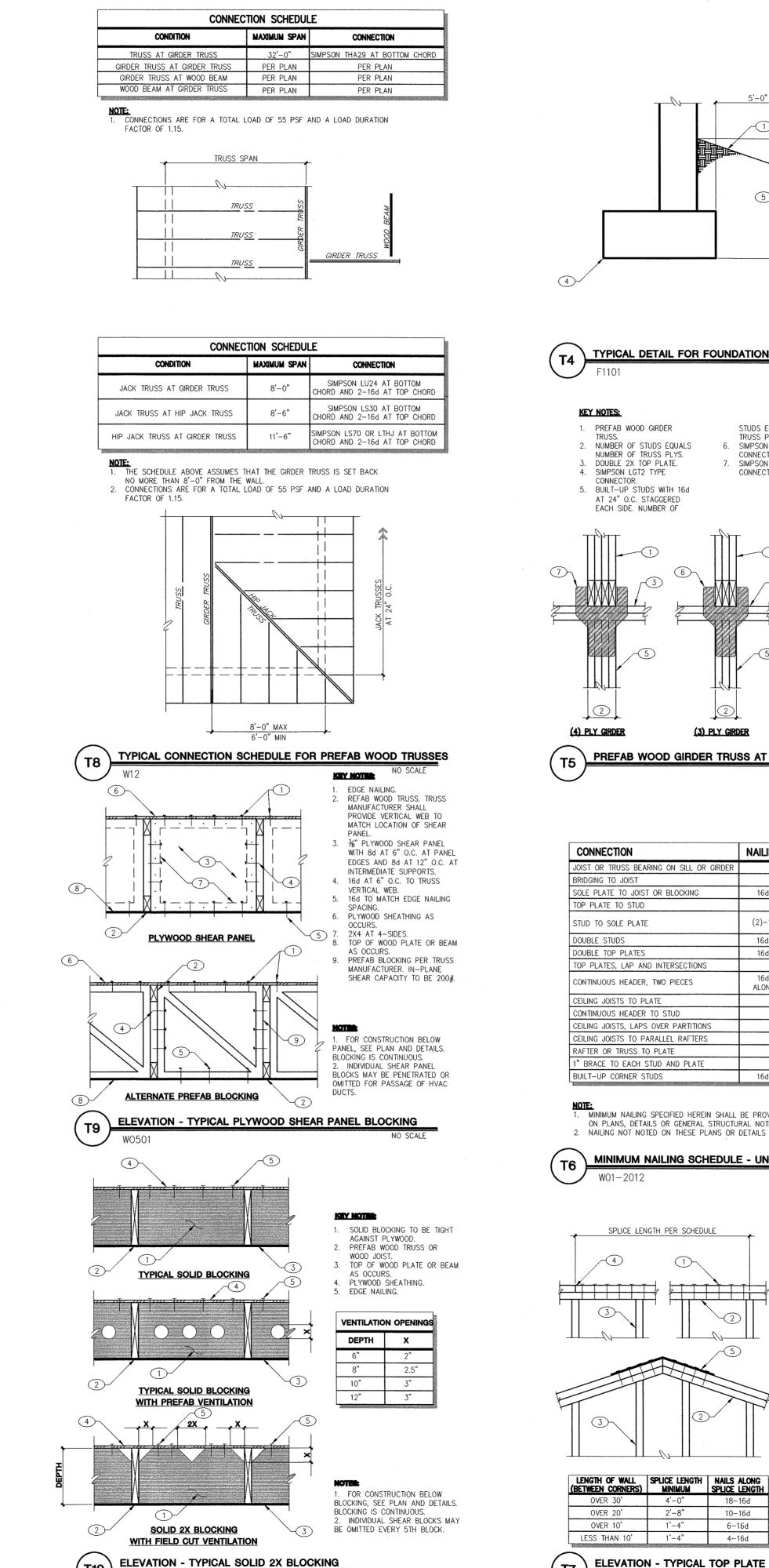
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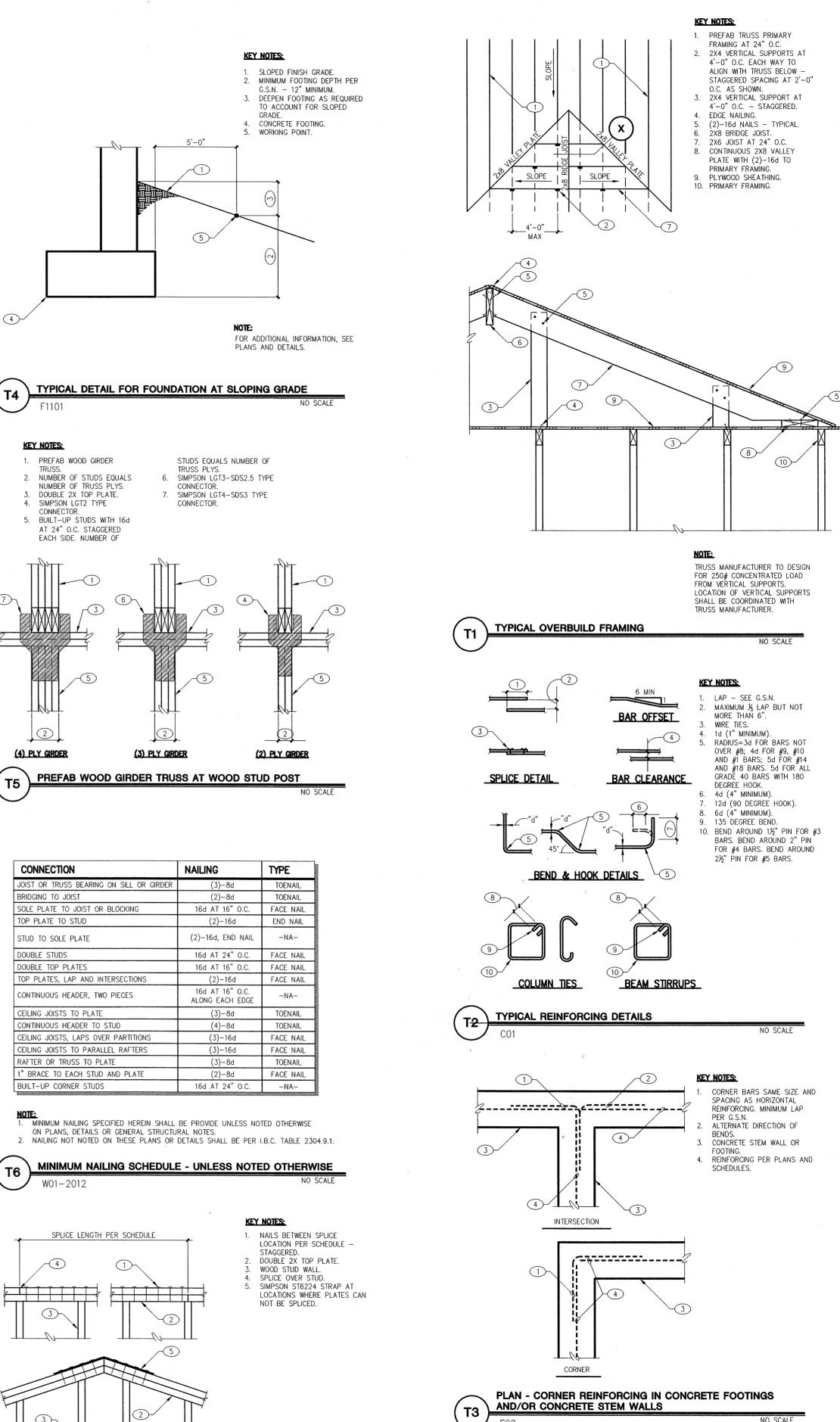
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DRAWN BY MJS CHECKED BY AGK 7/17/15 **AS NOTED** 

2015-0192 SHEET







DO NOT SPLICE TOP PLATES WITHIN

REQUIRED AT ALL EXTERIOR WALLS

REQUIRED AT INTERIOR NON-SHEAR

AND OVER SHEAR WALLS - NOT

6'-0" OF ENDS OF PLYWOOD

SHEAR WALLS. THIS DETAIL

2'-8"

1'-4"

1'-4"

**ELEVATION - TYPICAL TOP PLATE SPLICE** 

6-16d

REVISIONS

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Prescott, Arizona 86305

DRAWN BY MJS CHECKED BY AGK 7/17/15 SCALE AS NOTED

2015-0192 SHEET

SHEARWALL HOLDOWN SCHEDULE						
MARK	HOLDOWN	SHEARWALL END POST	DETAIL REFERENCE	ALTERNATE HOLDOWN	DETAIL REFERENCE	
1	SIMPSON HDU4	(2) 2X6 STUDS	108	NONE	NONE	
2	SIMPSON HDU2	(2) 2X6 STUDS	107	NONE	NONE	

NOTE: TO BE USED WHEN	CAST-IN-PLACE HOLDOWN ANCHORS	ARE INCORRECTLY INSTALLED. SPE	
SPECIFIED ANCHOR	ALTERNATE ANCHOR	DRILLED HOLE	MINIMUM EDGE DISTANCE
SIMPSON SSTB16	15" LONG X 5/8"ø A307 THREADED ROD	3/4"ø X 12" DEEP	1.75 INCHES
2. CONCRETE: MASONRY: U 3. INSTALL ALL 4. DO NOT PLA EDGE OF CO  MIN. EDGE DISTANCE	<del>/</del>	HESIVE (ESR-2322) OR SIMI (ESR-1772). IUFACTURERS RECOMMENDAT MINIMUM EDGE DISTANCE TO	FREE  MIN. EDGE  T DISTANCE 1

SHEARWALL HOLDOWN FASTENERS				
HOLDOWN	HOLDOWN CONNECTS TO STRUCTURE BELOW WITH:	HOLDOWN CONNECTS TO SHEARWALL ENDPOST WITH:		
SIMPSON HDU2	CAST-IN-PLACE SIMPSON SSTB16 ANCHOR BOLT	(6) 1/4"X2.5" SDS SCREWS		
SIMPSON HDU4	CAST-IN-PLACE SIMPSON SSTB16 ANCHOR BOLT	(10) 1/4"X2.5" SDS SCREWS		

### SHEARWALL SCHEDULE (ALL EXTERIOR WALLS ARE 5 UNLESS NOTED OTHERWISE)

# NOTES:

- SHEARWALL TYPES LISTED BELOW ARE NOT JOB SPECIFIC. SOME TYPES MAY NOT BE USED ON PLANS.
   BLOCK ALL PANEL EDGES WHERE INDICATED ON SCHEDULE. EDGE NAIL SHEATHING AT BLOCKED EDGES.
   FRAMING MEMBER SUPPORTING MATERIAL SHALL BE SPACED AT 16" ON CENTER MAXIMUM.
   ANCHOR BOLTS TO FOUNDATION SHALL BE 10 LONG AND SHALL BE EMBEDDED 7 INCHES INTO CONCRETE. EXPANSION BOLTS OR SHOT PINS MAY BE USED AT INTERIOR WALLS (AWAY FROM EDGE OF SLAB OR SLAB STEPDOWN) PER SUPPLEMENTAL INSTRUCTIONS.
- 5. A MINIMUM OF 2 ANCHOR BOLTS SHALL BE USED ON EACH BASE PLATE PIECE. PROVIDE 1 ANCHOR BOLT MINIMUM WITHIN 9 INCHES OF EACH END OF EACH PIECE.
- 6. PROVIDE CONTINUOUS DOUBLE 2X PLATE TOP PLATE AT ALL SHEAR WALLS AND EXTERIOR WALLS. UNLESS NOTED OTHERWISE, LAP SPLICE TOP PLATE A MINIMUM OF 6'-0" WITH 16d NAILS STAGGERED AT 4" ON CENTER (18-16d NAILS
- TOTAL BETWEEN SPLICE JOINTS).
- 7. PROVIDE FULL HEIGHT DOUBLE STUDS AT ENDS OF SHEAR WALLS UNLESS NOTED OTHERWISE ON PLANS OR DETAILS.

  8. ELEVATED SHEAR WALLS TO BE FRAMED OVER DOUBLE JOIST OR SOLID BLOCKING UNLESS NOTED OTHERWISE.

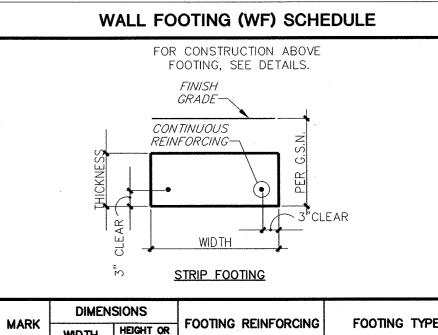
  9. "L=P.P." DESIGNATES LENGTH OF SHEARWALL (±3").

IARK	SHEATHING MATERIAL	EDGE NAILING	FIELD NAILING	BOTTOM PLATE ATTACHMENT
1 =P.P.	1/2" GYPBOARD (UNBLOCKED) ONE SIDE OF WALL	5d COOLER AT 7" O.C. OR #6 SCREWS AT 6" O.C.	5d COOLER AT 7" O.C. OR #6 SCREWS AT 12 O.C.	CONCRETE: 1/2" DIA. A.B. AT 72" O.C. WOOD: 16d STAGGERED AT 16" O.C.
<b>2</b> =P.P.	5/8" GYPBOARD (UNBLOCKED) ONE SIDE OF WALL	6d COOLER AT 7" O.C. OR #6 SCREWS AT 6" O.C.	6d COOLER AT 7" O.C. OR #6 SCREWS AT 12 O.C.	CONCRETE: 1/2" DIA. A.B. AT 72" O.C. WOOD: 16d STAGGERED AT 12" O.C.
<b>3</b> =P.P.	BOTH SIDES	5d COOLER AT 7" O.C. OR #6 SCREWS AT 6" O.C.	5d COOLER AT 7" O.C. OR #6 SCREWS AT 12 O.C.	CONCRETE: 1/2" DIA. A.B. AT 48" O.C. WOOD: 16d STAGGERED AT 8" O.C.
4 =P.P.	ONE SIDE	SEE ABOVE	SEE ABOVE	CONCRETE: 1/2" DIA. A.B. AT 36" O.C. WOOD: 16d STAGGERED AT 6" O.C.
<b>5</b> =P.P.	1/2" OR 3/8" PLYWOOD OR OSB (BLOCKED) ONE SIDE OF WALL	8d COMMON AT 6" O.C.	8d COMMON AT 12" O.C.	CONCRETE: 1/2" DIA. A.B. AT 36" O.C. WOOD: 16d STAGGERED AT 6" O.C.
<b>6.</b> =P.P.	1/2" OR 3/8" PLYWOOD OR OSB (BLOCKED) ONE SIDE OF WALL	8d COMMON AT 4" O.C.	8d COMMON AT 12" O.C.	CONCRETE: 1/2" DIA. A.B. AT 24" O.C. WOOD: 16d STAGGERED AT 4" O.C.

SCH0901

BEAM (B) SCHEDULE				
MARK	SIZE	CAMBER		
B1	5½X15 GLB OR 8X14 DF#1			
B2	5%X12 GLB OR 8X12 DF#1			

HEADER (H) SCHEDULE				
MARK	SIZE	REMARKS		
H1	4X6	OR (2) 2X6		
H2	4X10	OR (2) 2X12		
нз	4X12			
H4	5%X12 GLB			
H5	5%X18 GLB			
Н6	5%X10.5 GLB			



	DIMEN	ISIONS	5005110 55115050110	
MARK	WIDTH	HEIGHT OR THICKNESS	FOOTING REINFORCING	FOOTING TYPE
WF1	16"	10"	(2) #4 CONT.	STRIP FOOTING
WF2	16"	12"	(2) #4 CONT.	MONO W/ SLAB

CONCRETE FOOTING (F) SCHEDULE					
	FOR CONSTRUCTION ABOVE FOOTING, SEE DETAILS.				
HICKNESS	FOOTING REINFORCING.				
3."CLR	3"CLEAR WIDTH/LENGTH				

MARK	DIMENSIONS			FOOTING
MARK	LENGTH	WIDTH	THICKNESS	REINFORCING
F1	3'-4"	3'-4"	10"	(7) #4 EACH WAY
				SCHUS

	MASO	NRY COLUM	MN (MC) SCHE	EDULE
MARK	SIZE	REINF	FORCING	REMARKS
MARK	SIZE	VERTICAL	TIES	REMARNS
MC1	24" X 24"	(6) #5	#2 AT 8" O.C.	and the sub-

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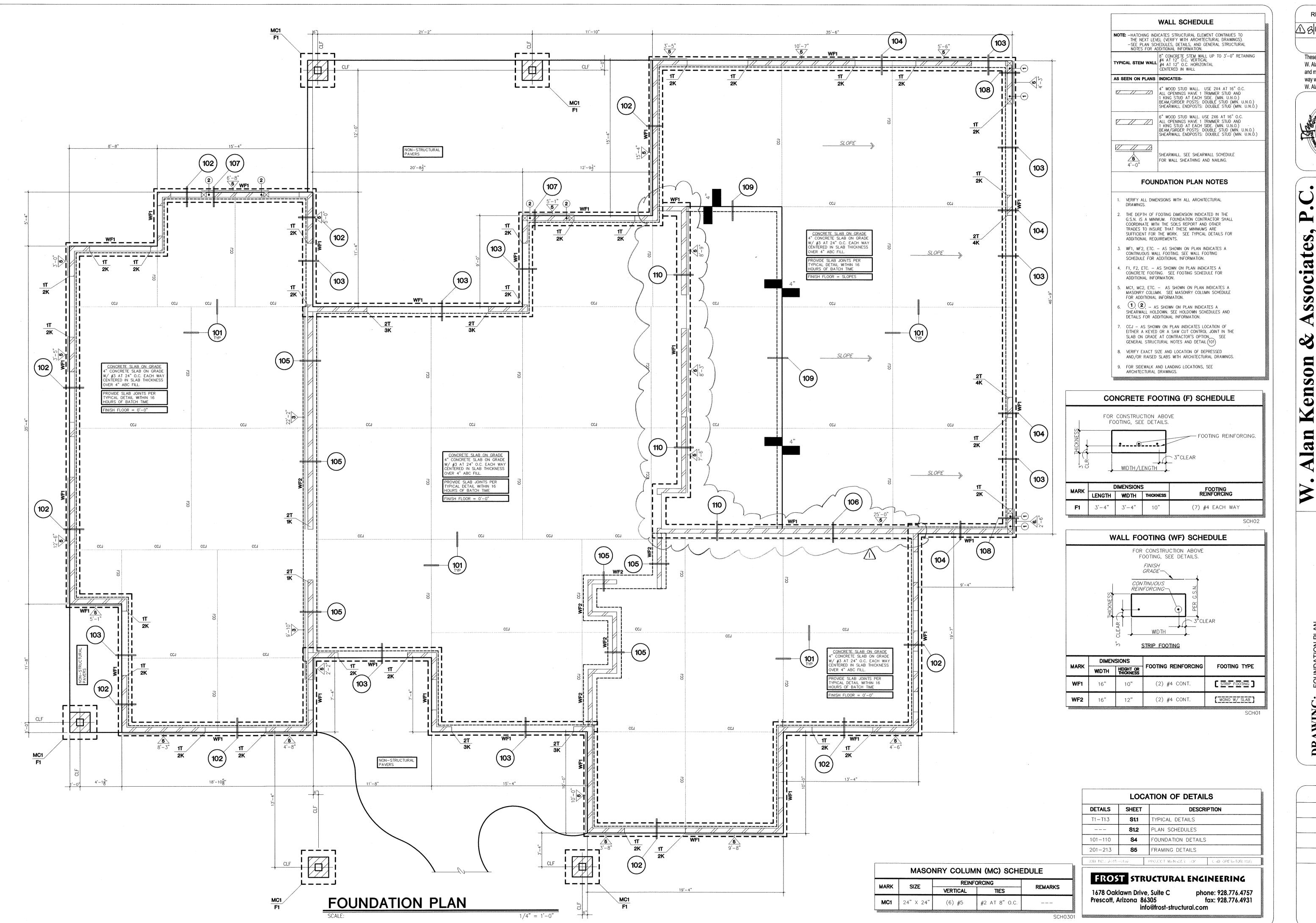
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FROST STRUCTURAL ENGINEERING

1678 Oaklawn Drive, Suite C Prescott, Arizona 86305 fax: 928.776.4931 info@frost-structural.com

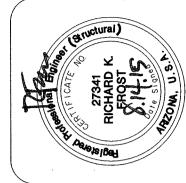
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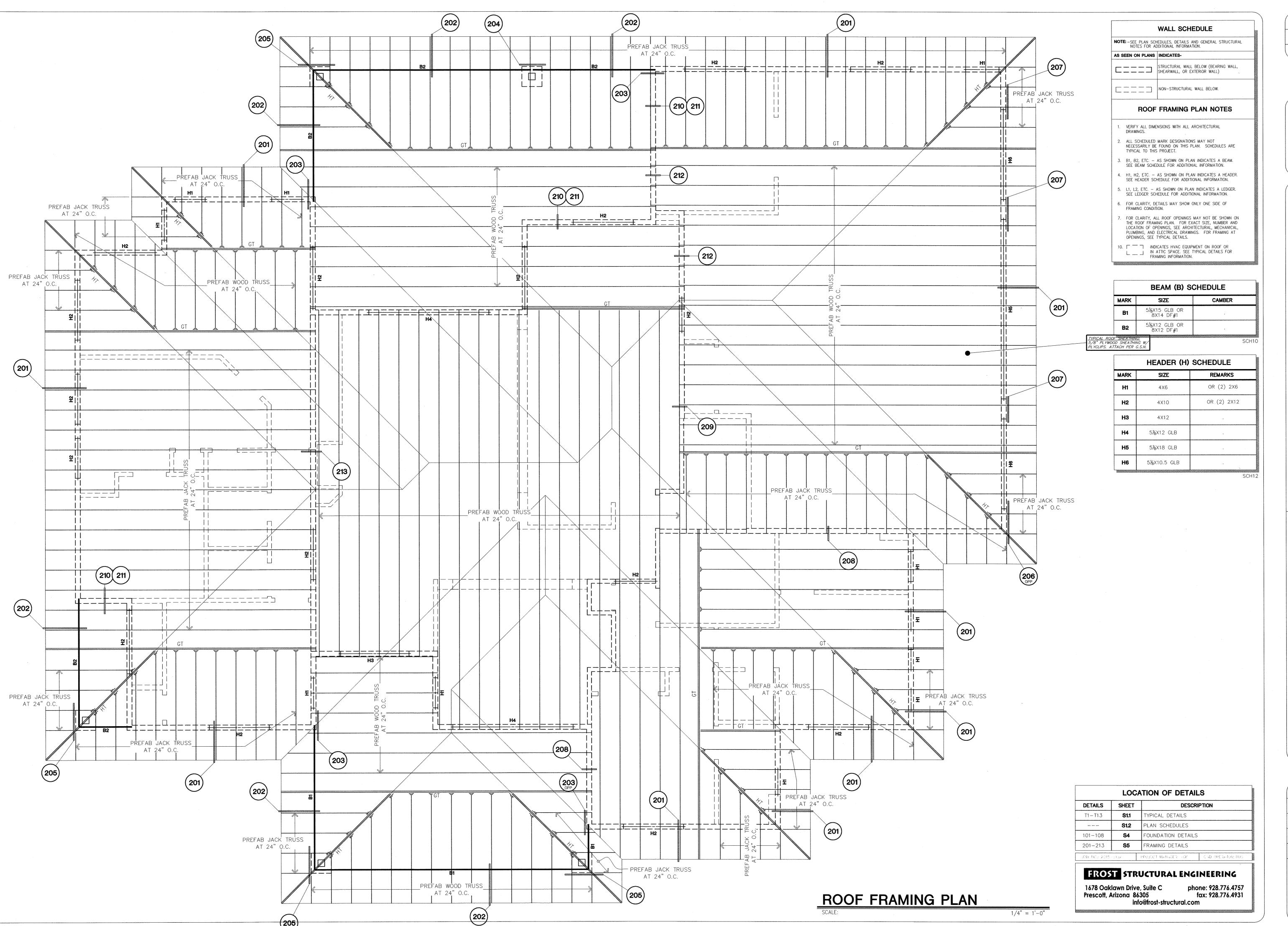
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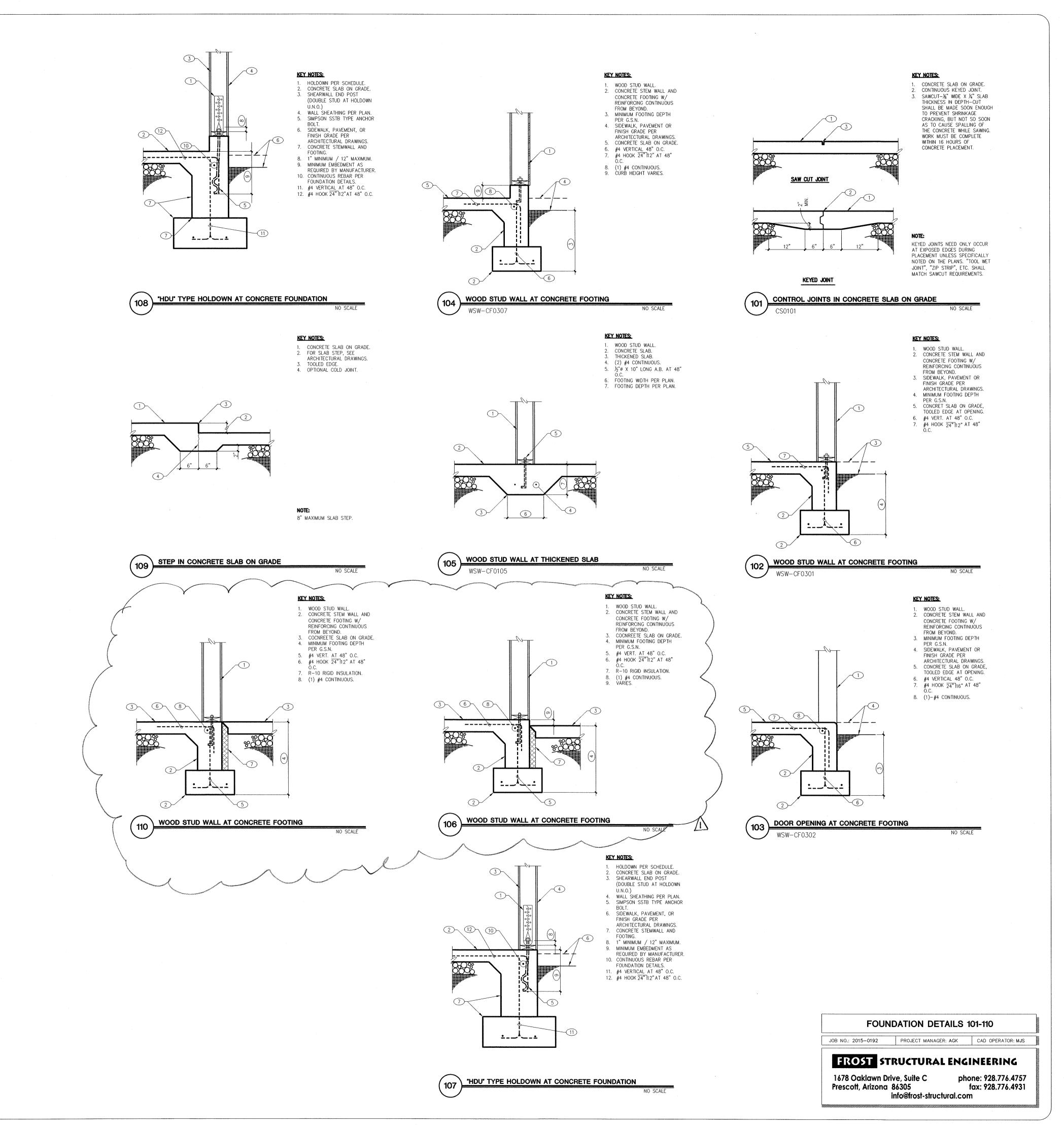
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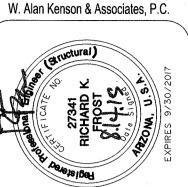
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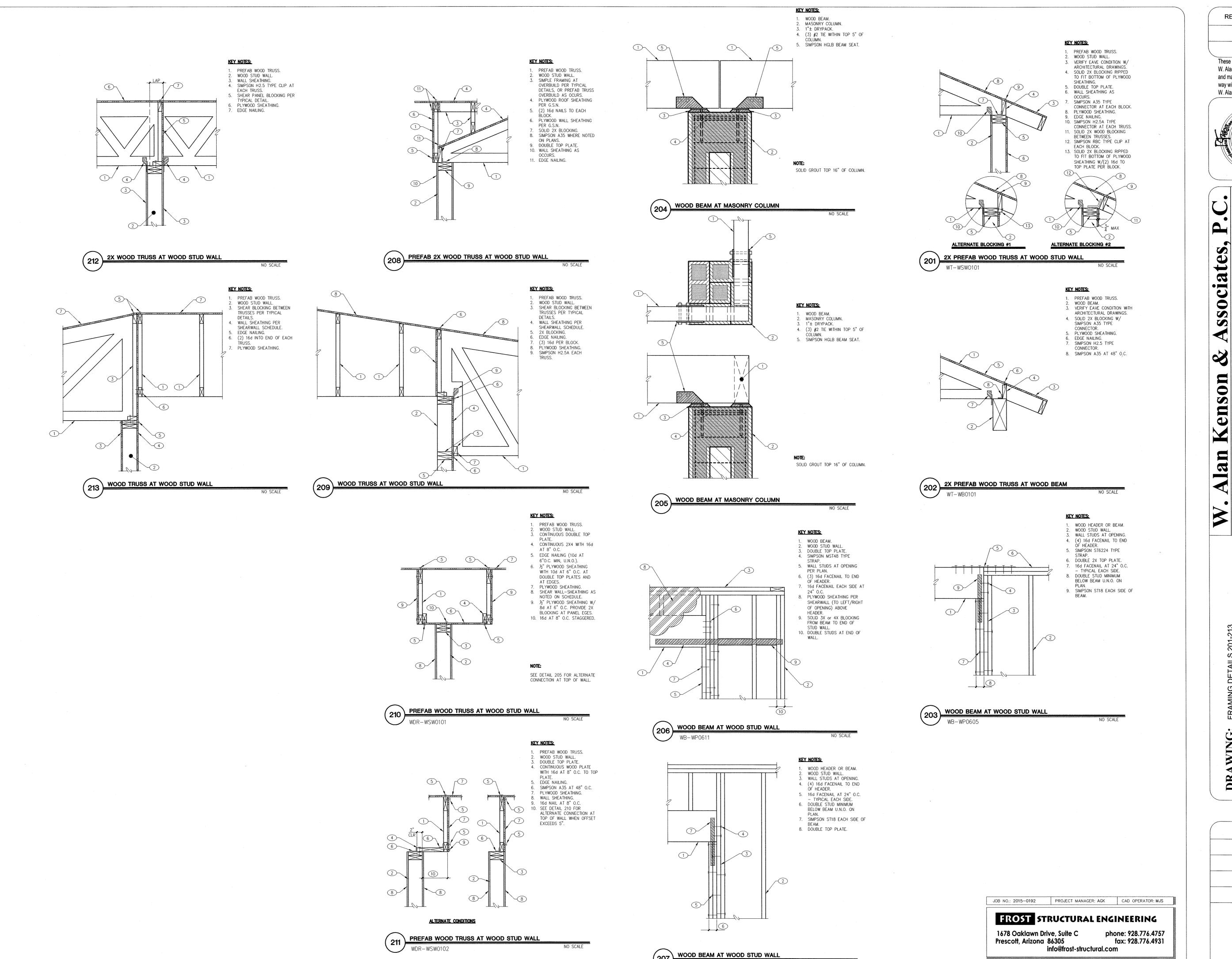
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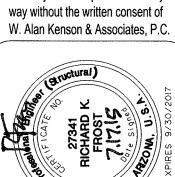
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# MAIN RESIDENCE 2012 IRC M1507 VENTILATION CALC

TABLE M1507.3.3(1)

CONTINUOUS WHOLE-HOUSE MECHANICAL VENTIALTION SYSTEM AIRFLOW RATE REQUIREMENTS

DWELLING UNIT	NUMBER OF BEDROOMS									
FLOOR AREA	0-1	2-3	4-5	6-7	7+					
(SQUARE FEET)		AIF	RFLOW IN CF	M						
< 1,500	30	45	60	75	90					
1,501 - 3,000	45	€O	75	90	105					
3,001 - 4,500	68	75	90	105	120					
4,501 - 6,000	75	90	105	120	135					
6,001 - 7,500	90	105	120	135	150					
> 7,500	105	120	135	150	165					

ZONE 1 (GREAT/MASTER) FLOOR AREA ZONE 2 (BEDROOMS) FLOOR AREA

=1,640 (52% OF TOTAL DWELLING) =1,540 (48% OF TOTAL DWELLING)

DWELLING UNIT FLOOR AREA = 3,180 NUMBER OF BEDROOMS = 3

MECHANICAL VENTILATION REQUIRED = 75 CFM (PER TABLE TABLE M1507.3.3(1)

VENTILATION TO EACH ZONE ZONE 1 =  $75 \times 52\% = 44$  CFM ZONE  $2 = 75 \times 48\% = 36 \text{ CFM}$ 

EACH INTAKE SHALL BE BALANCED TO 100 CFM. SINCE PROVIDED AIR EXCEEDS THAT REQUIRED, HOURLY RUNTIME CAN BE REDUCED;

VENTILATION HOURLY RUN TIME ZONE 1 (F-1) = 44 CFM / 100 CFM X 60 MINUTES = 26 MINUTES ZONE 2 (F-2) = 36 CFM / 100 CFM X 60 MINUTES = 26 MINUTES

# Residential Requirements

- 1. Exterior wall penetrations by pipes, ducts or conduits shall be caulked. (R307.6)
- 2. Energy compliance shall be demonstrated by a passing REScheck energy compliance score.
- 3. Supply and return ducts shall be insulated to a minimum R-8. Ducts in floor trusses shall be insulated to minimum R-6. (N1103.2.1).
- 4. Registers, diffusers and grilles shall be mechanically fastened to rigid supports or structural members on at least two opposite sides in addition to being connected to the ductwork they
- 5. Dryer exhaust ducts shall conform to the requirements of Sections (M1502.4.5 amended), M1502.4.1 thru M1502.4.6.
- 6. Exhaust air from kitchens, bathrooms and toilet rooms shall not be re-circulated within a residence or to another dwelling unit, shall not discharge into an attic and/or crawl space and shall be exhausted directly to the outdoors. (M1507.2).
- 7. Provide outside combustion air to all indoor fireplaces, with air intake located not higher than the firebox. (R1006.2).
- 8. At least one thermostat shall be provided for each separate heating and cooling system.
- 9. The building shall be provided with ventilation that meets the requirements of Section M1507 or with other approved means of ventilation. Outdoor air intakes and exhausts shall have automatic or gravity dampers that close when the ventilation system is not operating. (N1103.5).
- 10. The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding 5 air changes per hour. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pascals). Testing shall be conducted by an approved third party. A written report of the results of the test shall be signed by the party conducting the test and provided to the building official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope. (N1102.4.1.2).
- 11. Ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply with Section M1601.4.1, (N1103.2.2). Duct tightness shall be verified by either of the following:
- 1. Post-construction test: Total leakage shall be less than or equal to 4 cfm (113.3 L/min) per 100 square feet (9.29 m2) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.
- 2. Rough—in test: Total leakage shall be less than or equal to 4 cfm (113.3 L/min) per 100 ft2 (9.29 m2) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the system, including the manufacturer's air handler enclosure. All registers shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 3 cfm (85 L/min) per 100 square feet (9.29 m2) of conditioned floor area.

# **MECHANICAL SHEET INDEX**

MECHANICAL DESIGN CRITERIA AND CODE COMPLIANCE

MECHANICAL FLOOR PLAN

MECHANICAL SCHEDULES MECHANICAL DETAILS

# **MECHANICAL DESIGN CRITERIA**

# **IMPORTANT NOTICE**

MECHANICAL SYSTEMS SPECIFIED ON THESE DRAWINGS HAVE BEEN SIZED AND DESIGNED BASED ON A SPECIFIC DESIGN CRITERIA TO MEET THE ENERGY CONSERVATION REQUIREMENTS OF THE 2012 INTERNATIONAL RESIDENTIAL CODE.

INSULATION AND/OR WINDOW VALUES DIFFERENT FROM THOSE SHOWN BELOW MAY IMPACT THE SIZING OF THE MECHANICAL SYSTEMS WHICH SHOULD BE CONSIDERED AND EVALUATED BEFORE IMPLEMENTATION.

> SUMMER OUTDOOR TEMP 111°F SUMMER INDOOR TEMP 75°F WINTER OUTDOOR TEMP

WINTER INDOOR TEMP 70°F ROOF INSULATION R-38

WALL INSULATION

R-19

# COMBUSTION AIR CALC NORTH MECH ROOM

100 MBH <u>80 MBH</u> TOTAL 180 MBH

FOR <u>HORIZONTAL</u> OPENINGS DIRECTLY TO THE OUTDOORS PROVIDE 1 SQUARE INCH PER 4000 MBH.

180.000 / 4000 = 45 SQUARE INCHES

45 SQ. IN. / 144 = 0.32 SQ. FT. FREE AREA

PROVIDE 2 OPENINGS, ONE 12" ABOVE FLOOR AND THE OTHER 12" BELOW CEILING EACH WITH A MINIMUM .32 SQ. FT. FREE AREA OPENING

# COMBUSTION AIR CALC GARAGE MECH ROOM

GARAGE VOLUME

1211 FT. SQ. X 9 FT. = 10,899 CU. FT.

TOTAL GAS MBH FC-1 100 MBH

VOLUME PER MBH

10,899 CU. FT. / 100 MBH = 108 FT. CU./MBH

VOLUME PER MBH IS MORE THAN 50 FT. CU./MBH

COMBUSTION AIR DELIVERED INTO GARAGE VIA INFILTRATION COMBUSTION AIR OPENINGS INTO GARAGE SOUTH MECH ROOM:

<u>F-2</u> 100 MBH

FOR HORIZONTAL OPENINGS FROM ADJACENT SPACE IN PROVIDE 1 SQUARE INCH PER 1000 MBH. (MIN. 100 SQUARE INCHES)

100,000/1000 = 100 SQUARE INCHES

100 SQ. IN. / 144 = 0.70 SQ. FT. FREE AREA

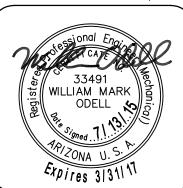
PROVIDE 2 OPENINGS, ONE 12" ABOVE FLOOR AND THE OTHER 12" BELOW CEILING EACH WITH A MINIMUM .70 SQ. FT. FREE AREA

# **MECHANICAL SYMBOLS** AND ARREVIATIONS

	AND ABBR	EVIA	IIUMƏ
SYMBLE	DESCRIPTION	SYMBLE	DESCRIPTION
	SUPPLY AIR DUCT	<b>2</b> -0	CEILING EXHAUST FAN W/ DUCT UP THROUGH ROOF
	RETURN AIR DUCT	<b>=</b>	REFRIGERANT PIPING UP IN WALL
$\boxtimes$	CEILING SUPPLY DIFFUSER	Ō	THERMOSTAT
X	3-WAY THROW CEILING DIFFUSER	CD	CEILING DIFFUSER
	CEILING RETURN GRILLE	CU	CONDENSING UNIT
$\Box$	SIDEWALL SUPPLY GRILLE	EF	EXHAUST FAN
	SUPPLY AIR DUCT UP	F	FURNACE
X	SUPPLY AIR DUCT DOWN	RG	RETURN GRILLE
	RETURN AIR DUCT UP		
	RETURN AIR DUCT DOWN		

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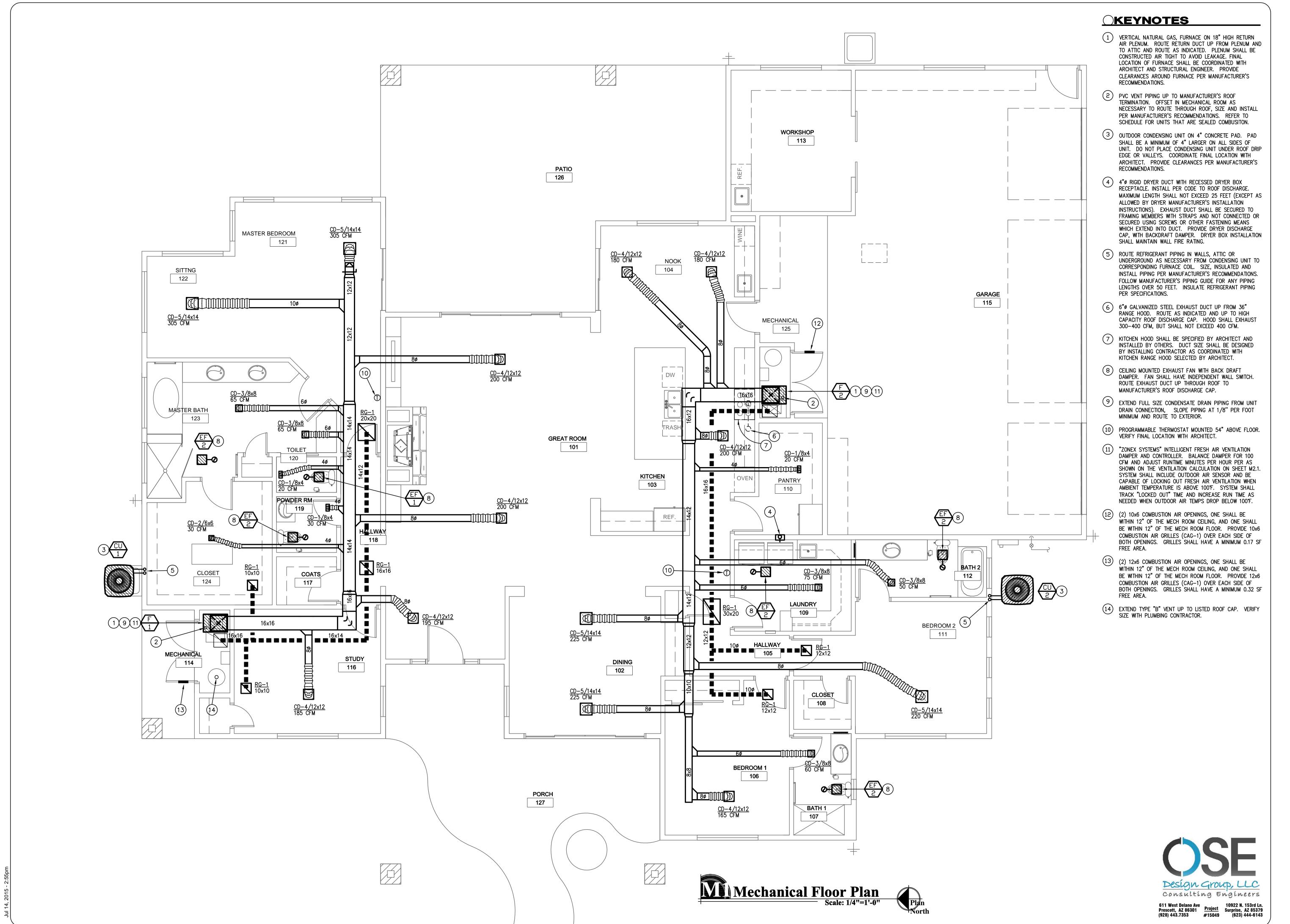






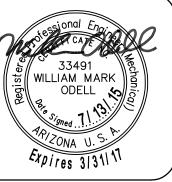
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# MECHANICAL SPECIFICATIONS

OF EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY OFFSET INSULATING MATERIALS SHALL HAVE COMPOSITE FIRE AND SMOKE OR FITTINGS OR EVERY STRUCTURAL DIFFICULTY THAT MAY BE ENCOUNTERED DURING INSTALLATION OF THE WORK. LOCATION OF ALL ITEMS NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. EXACT LOCATIONS NECESSARY TO SECURE BEST CONDITIONS AND RESULTS MUST BE DETERMINED AT PROJECT AND SHALL HAVE LINED DUCTWORK - SEMI-RIGID GLASS FIBER INSULATION, 1 1/2 APPROVAL OF ARCHITECT BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS. IF SO DIRECTED BY ARCHITECT, WITHOUT EXTRA 1 1/2" THICK, THERMAL CONDUCTIVITY AT 75°. MAXIMUM 0.17 CHARGE, MAKE REASONABLE MODIFICATIONS IN LAYOUT AS NEEDED BTU/IN./SQ. FT./DEG./HR. MINIMUM "R-VALUE" SHALL BE 6.0. TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR PROPER EXECUTION OF WORK. INCLUDE MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED, BUT NECESSARY FOR PROPER INSTALLATION AND OPERATION OF A SYSTEM OR PIECE OF EQUIPMENT.

INCLUDE IN WORK, WITHOUT EXTRA COST TO OWNER, LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS (IN ADDITION TO CONTRACT DRAWINGS AND DOCUMENTS) REQUIRED TO COMPLY WITH APPLICABLE LAWS, ORDINANCES, RULES AND REGULATIONS. DRAWINGS AND SPECIFICATIONS TAKE PRECEDENCE WHEN THEY ARE MORE STRINGENT THAN CODES, ORDINANCES, STANDARDS AND STATUTES. CODES, ORDINANCES, STANDARDS AND STATUES TAKE PRECEDENCE WHEN THEY ARE MORE STRINGENT OR CONFLICT WITH DRAWINGS OR SPECIFICATIONS. FOLLOWING INDUSTRY STANDARDS, SPECIFICATIONS AND CODES ARE MINIMUM REQUIREMENTS:

- A. APPLICABLE CITY, COUNTY, AND STATE MECHANICAL, ELECTRICAL, GAS, PLUMBING, HEALTH AND SANITARY CODES, LAWS AND ORDINANCES.
- B. UNDERWRITER'S LABORATORIES, INC. STANDARDS. C. 2012 INTERNATIONAL RESIDENTIAL CODE WITH LOCAL
- D 2012 INTERNATIONAL PLUMBING CODE WITH STATE AMENDMENTS. E. 2012 INTERNATIONAL MECHANICAL CODE WITH STATE
- F. 2011 NEC G. 2012 INTERNATIONAL FUEL GAS CODE WITH STATE AMENDMENTS.

AMENDMENTS.

RECOMMENDATIONS.

THE WORK INCLUDED UNDER THIS SECTION CONSISTS OF FURNISHING ALL LABOR, MATERIALS, AND EQUIPMENT TO PROVIDE A COMPLETE FUNCTIONING HVAC SYSTEM AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN. THE SYSTEM SHALL INCLUDE REQUIRED UNITS, THERMOSTATS, DUCTWORK, FANS, CONDENSATE DRAINS, REFRIGERANT PIPING, INSULATION, CLEAN FILTERS, FLUES AND ALL APPURTENANCES AS REQUIRED. WHERE MORE THAN ONE UNIT IS REQUIRED OF ANY ITEM, FURNISHED BY THE SAME MANUFACTURER, EXCEPT WHERE SPECIFIED OTHERWISE. INSTALL MATERIAL AND EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S

INSTRUCT THE OWNER AS TO PROPER OPERATION AND CARE OF THE EQUIPMENT AFTER START-UP AND CHECK-OUT. PROVIDE THE INSULATION. INSULATION SHALL BE "ARMAFLEX" FLEXIBLE OWNER WITH ALL WARRANTY AND OPERATING INSTRUCTIONS AT THE ELASOMERIC, OR EQUAL. COMPLETION OF THE PROJECT.

EACH COMPLETE SYSTEM GUARANTEED BY CONTRACTOR FOR A PERIOD OF ONE YEAR, FROM DATE OF ACCEPTANCE OF WORK BY OWNER IN WRITING. TO BE FREE OF DEFECTS OF MATERIALS AND WORKMANSHIP, AND TO PERFORM SATISFACTORILY UNDER ALL CONDITIONS OF LOAD OR SERVICE. THE GUARANTEES PROVIDE THAT ANY ADDITIONAL CONTROLS, PROTECTIVE DEVICES, OR EQUIPMENT BE PROVIDED AS NECESSARY TO MAKE THE SYSTEM OF EQUIPMENT OPERATE SATISFACTORILY. AND THAT ANY FAULTY MATERIALS OR WORKMANSHIP BE REPLACED OR REPAIRED. LOSS OF REFRIGERANT IS CONSIDERED A DEFECT IN WORKMANSHIP AND/OR EQUIPMENT, TO BE CORRECTED AS REQUIRED AT NO EXTRA COST TO THE OWNER.

REGULATIONS, PERMITS & INSPECTIONS COMPLY WITH ALL APPLICABLE CODES, RULES AND REGULATIONS. ALL MATERIALS, EQUIPMENT AND WORK MUST CONFORM TO THE INTERNATIONAL RESIDENTIAL CODE. OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND LICENSES. WHEN REQUIRED BY CODE, ALL ZONEX SYSTEMS INTELLIGENT FRESH AIR CONTROLLER IS A WORK MUST BE INSPECTED AND APPROVED BY LOCAL AUTHORITIES.

ALL DUCTWORK TO BE GALVANIZED LOCK FORMING SHEET METAL. SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS. CONSTRUCT ALL DUCTWORK AND FITTINGS TO PROVIDE MINIMUM RESISTANCE AND NOISE LEVELS. DUCTWORK SHALL BE FABRICATED AND INSTALLED BY SKILLED MECHANICS IN A WORKMANLIKE MANNER USING THE LATEST EDITION OF THE "SMACNA" MANUAL AS A GUIDELINE. SEAL TIME FAN AND DAMPER OUTPUTS WILL BE ENERGIZED EACH HOUR. ALL SUPPLY AIR DUCTWORK AND RETURN AIR PLATFORMS/PLENUMS AIRTIGHT WITH APPROVED DUCT SEALER. TURNING VANES SHALL BE IN ADDITION TO PROVIDING FAN OPERATION TIME PER HOUR. THE INSTALLED IN ALL MITERED ELBOWS.

UPON APPROVAL BY ARCHITECT, CONTRACTOR MAY USE FIBER GLASS OUTSIDE AIR TEMPERATURES ARE TO HIGH OR LOW FOR SYSTEM DUCT BOARD FOR ABOVE GROUND SUPPLY AND RETURN DUCT SYSTEMS. FIBER GLASS DUCT BOARD SHALL BE OWENS CORNING "ENDURAGOLD", TYPE 800, 1-1/2" THICK. (OR APPROVED EQUAL)

FLEXIBLE DUCT MAY BE USED FOR FINAL CONNECTION TO AIR DISTRIBUTION DEVICES, BUT SHALL NOT EXCEED 8 FEET IN LENGTH. FLEXIBLE DUCT SHALL HAVE A MINIMUM R-8 INSULATION VALUE.

**DUCT INSULATION** 

DRAWINGS ARE GENERALLY DIAGRAMMATIC AND ARE INTENDED TO DUCT SIZES ON DRAWINGS ARE "CLEAR INSIDE." INCREASE SHEET CONVEY SCOPE OF WORK AND TO INDICATE GENERAL ARRANGEMENT METAL SIZES ACCORDINGLY FOR LINED DUCTWORK. ADHESIVE AND HAZARD RATINGS MAXIMUM 25 FOR FLAME SPREAD AND 50 FOR SMOKE DEVELOPED. ADHESIVES SHALL BE WATERPROOF.

<u>DUCTS IN FLOOR TRUSSES OR OTHER CONDITIONED</u> SPACE:

WRAPPED DUCTWORK - FIBER GLASS BLANKET WITH FRK VAPOR RETARDING FACING. 1 1/2 PCF, 2" THICK, WITH A MINIMUM INSTALLED "R-VALUE" OF 6.0. (ASSUMES 25% COMPRESSION)

DUCTS IN ATTICS OR OTHER UNCONDITIONED SPACE:

LINED DUCTWORK - SEMI-RIGID GLASS FIBER INSULATION, 1 1/2 PCF, 2" THICK, THERMAL CONDUCTIVITY AT 75". MAXIMUM 0.13 BTU/IN./SQ. FT./DEG./HR. MINIMUM "R-VALUE" SHALL BE 8.0.

WRAPPED DUCTWORK - FIBER GLASS BLANKET WITH FRK VAPOR RETARDING FACING. 0.75 PCF, 3" THICK, WITH A MINIMUM INSTALLED "R-VALUE" OF 8.0. (ASSUMES 25% COMPRESSION)

ACCEPTABLE MANUFACTURERS ARE TITUS, ANEMOSTAT, KRUEGER, CARNES, BARBERCOMAN, AGITAIR, E.A.P.C., METAL-AIR OR HART AND COOLEY. CONFIRM FINISHED AND COLOR WITH ARCHITECT. ALL GRILLES AND DIFFUSERS SHALL BE SUBMITTED TO ARCHITECT FOR FINAL APPROVAL.

FURNISH AND INSTALL EXHAUST FANS AS REQUIRED BY ARCHITECTURAL DRAWINGS. PROVIDE FANS WITH FACTORY ROOF OR WALL CAPS AS SHOWN. PROVIDE ALL EXHAUST FANS WITH BACKDRAFT DAMPER. MAXIMUM NOISE RATING 4.0 SONES. ACCEPTABLE MANUFACTURER'S ARE "BROAN", "NUTONE" OR "GREENHECK" OR AS APPROVED BY ARCHITECT.

CONDENSATE AND FURNACE DRAIN PIPING SHALL BE SCHEDULE 40 PVC. RUN DRAIN LINE FULL SIZE TO NEAREST PLANTER AREA, FLOOR DRAIN, OR P-TRAP. INSTALL TRAPS IN LINES AS REQUIRED BY EQUIPMENT MANUFACTURER. COORDINATE SPECIAL REQUIREMENTS FOR DRAIN AND WATER LINES THAT MAY BE REQUIRED WITH SPECIAL EQUIPMENT WITH PLUMBING CONTRACTOR PRIOR TO COMPLETION OF ROUGH-IN.

ABOVE GROUND. WITHIN BUILDING PIPING SHALL BE TYPE ACR DRAWN-TEMPER COPPER TUBE WITH WROUGHT COPPER UNIONS. PIPING BELOW GROUND SHALL BE TYPE L ANNEALED COPPER TUBING. EXPOSED SUCTION PIPING SHALL HAVE 1-1/2" INSULATION, CONCEALED SUCTION PIPING SHALL HAVE 1"

FURNACES AND CONDENSING UNITS AIR CONDITIONING EQUIPMENT SHALL BE AS SPECIFIED ON SCHEDULES UNLESS SPECIFICALLY ALLOWED BY OWNER OR

THERMOSTAT AND CONTROLS

ARCHITECT.

FURNISH AND INSTALL PROGRAMMABLE THERMOSTATS AS REQUIRED BY THE EQUIPMENT MANUFACTURER OR AS SPECIFIED ON THE EQUIPMENT SCHEDULES. FIELD VERIFY EXACT LOCATION AND MOUNTING HEIGHT FOR CONTROLS WITH ARCHITECT AND GENERAL CONTRACTOR.

VENTILATION BALANCING

AT A MINIMUM CONTRACTOR SHALL PROVIDE BALANCING OF ALL FRESH AIR SYSTEMS TO ENSURE COMPLIANCE WITH IRC M1507 AND A COMFORT BALANCE ON THE AIR DISTRIBUTION SYSTEM THROUGHOUT THE RESIDENCE. CONTRACTOR SHALL PROVIDE BALANCING DAMPERS AND/OR OBD'S AS MAY BE REQUIRED.

MICROPROCESSOR BASED CONTROLLER DESIGNED TO PROVIDE REQUIRED FRESH AIR BASED ON TIME, OUTSIDE AIR TEMPERATURE AND AIR REQUIREMENTS FOR 24 HOUR OPERATIONS, BASED ON ASHRAE 62.2 VENTILATION AND INDOOR AIR QUALITY STANDARDS.

INTELLIGENT FRESH AIR CONTROLLER ALLOWS THE INSTALLER TO CONFIGURE TIME FROM 5 TO 40 MINUTES OF OPERATION AT THE TIME POTENTIOMETER. THIS SETTING REPRESENTS THE AMOUNT OF

INTELLIGENT FRESH AIR CONTROLLER ALSO MONITORS OUTSIDE AIR TEMPERATURES (OSA) AND WILL LOCKOUT OPERATIONS WHEN EFFICIENCY. LOCKOUT HIGH AND LOW LIMITS ARE ADJUSTABLE ON CONTROLLER POTENTIOMETERS. HIGH LIMIT CAN BE

ADJUSTED FROM 85° TO 115° AND LOW LIMIT CAN BE ADJUSTED FROM 15° TO 45°. WHEN OSA LOCKOUT OCCURS, THE CONTROLLER WILL STORE LOCKOUT MINUTES AND USE THESE MINUTES WHEN OSA RETURNS TO NORMAL TEMPERATURE.

TO MEET ASHRAE 62.2 AND ENERGY STAR INDOOR AIR QUALITY STANDARDS, THE INTELLIGENT FRESH AIR CONTROLLER MONITORS AND STORES MINUTES OF RUN TIME LOCKED OUT DUE TO OSA CONDITIONS. LOGIC IN THE CONTROLLER USES STORED MINUTES AND CONTROLLER TIME SETTING TO CALCULATE NEEDED RUN TIME TO MEET STANDARD WITHIN THE REMAINING 24 HOUR TIME PERIOD. ONCE TIME REQUIREMENT IS DETERMINED BY THE CONTROLLER, BASED ON TIME SETTING AND STORED MINUTES. THE CONTROLLER WILL ENERGIZE FAN AND DAMPER OUTPUTS FOR REMAINDER OF 24 HOUR PERIOD TO MEET FRESH AIR REQUIREMENT.

# FURNACE SCHEDULE

MARK	AREA SERVED	NOMINAL	MFG'R	MODEL #	ENERGY	CFM	E.S.P.		NG CAP. / FIRE	HEATIN HIGH		FLUE	FUEL	A.F.U.E.	ELECTRI	CAL DATA	FILTER	FILTER	NOTES
	AMENTSERVED	TONS	5	6522 #	STAR	01 111	("W.G.) -	INPUT	OUTPUT	INPUT	OUTPUT	SIZE			H.P.	V/Ø/Hz	SIZE	TYPE	
F-1	GREAT/MASTER	4	TRANE	"XV95" TUH2C100	YES	1600	0.50	65,000	61,750	100,000	95,000	3"	N. GAS	93.0%	3/4	120/1/60	20x25x1	HIGH VELOCITY	12345
F-2	BEDROOMS	4	TRANE	"XV95" TUH2C100	YES	1600	0.50	65,000	61,750	100,000	95,000	3"	N. GAS	93.0%	3/4	120/1/60	20x25x1	HIGH VELOCITY	(1)(2)(3)(4)(5)

PROVIDE CLEARANCES PER MANUFACTURER'S RECOMMENDATIONS.

SIZE AND INSTALL FLUE PIPING PER MANUFACTURER'S INSTRUCTIONS. UNIT SHALL BE NON-DIRECT VENT OPTION TYPE.

PROVIDE RETURN AIR BASE WITH FILTER RACK.

(4) UNIT SHALL BE VARIABLE SPEED. CFM SHOWN IS MAXIMUM.

(5) PROVIDE LEFT OR RIGHT CONNECTIONS AS REQUIRED FOR ACCESS IN MECHANICAL ROOMS

CONDENSING UNIT SCHEDULE

<u> </u>				110	OIIL									
MARK	NOMINAL	MFG'R	MODEL #	1st stage Cooling DESIGN CON		DESIGN COND.	INDOOR	COIL ENT. AIR	ELECTRICAL DATA		MINIMUM	ENERGY	GY REFRIGERANT	NOTES
IVIARK	TONS	IVIFG R		TOTAL	SENS.	DB/WB	COIL MODEL #	DB/WB	MCA	V/Ø	SEER	STAR	REFRIGERANT	NOTES
CU-1	4	TRANE	(XL16) 4TTX6048	45.1	38.7	95/63	SELECTED BY MFG.	78 <b>'</b> /63'	29	208/230 1ø	16	YES	R-410A	1234567
CU-2	4	TRANE	(XL16) 4TTX6048	45.1	38.7	95/63	SELECTED BY MFG.	78 <b>'</b> /63'	29	208/230 1ø	16	YES	R-410A	1234567

INSTALL UNIT PER MANUFACTURER'S WRITTEN DIRECTIONS. SLEEVE PIPING PENETRATIONS THROUGH EXTERIOR WALL, SEAL WATERT)CHRUN ALL REFRIGERANT PIPING FULL SIZE PER MFG'RS. INSTRUCTIONS. AND PROVIDE ESCUTCHEONS.

UNIT SHALL BE PROVIDED WITH TRANE XL800 PROGRAMMABLE THERMOSTAT.

(6) PROVIDE INDOOR FAN COIL UNIT COMPLETE WITH MOTOR STARTER.

(7) PROVIDE LOW AMBIENT CONTROL KIT FOR OPERATION DOWN TO 30°F PROVIDE 10-YEAR COMPRESSOR WARRANTY AND 5-YEAR FOR OTHER COMPONENTS.

PROVIDE CONTROL TRANSFORMER IN UNIT CONTROL PANEL. PROVIDE UNIT COMPLETE WITH WEATHERPROOF CONTROL PANEL WITH ALL NECESSARY OVERLOADS AND CONTROL COMPONENTS.

FAN SCHEDULE

MARK	MOUNTING	MANUFACTURER	MODEL	CFM	E.S.P.	SONES	MOTOR		BAROM.	WIRE	DD1) (E	DEMARKS
WARK	/LOCATION	WANDFACTURER	MODEL	CFIVI	E.S.P.	@ 0.1"	AMPS, HP OR WATTS	V/PH	DAMPER	SCREEN	DRIVE	REMARKS
EF-1	CEILING	NUTONE	QTXEN80	65	0.3"	0.3	0.4 A	120/1	YES	YES	DIRECT	1234
EF-2	CEILING	NUTONE	QTXEN150	125	0.3"	1.4	0.5 A	120/1	YES	YES	DIRECT	1234

(3) EXHAUST FAN SHALL BE ENERGY STAR RATED. PROVIDE UNIT WITH FACTORY SUPPLIED EXHAUST GRILLE. PROVIDE EXHAUST FAN WITH BACK DRAFT DAMPER. (4) UNIT SHALL BE CONTROLLED BY WALL SWITCH.

	GRILLES AND REGISTERS SCHEDULE										
MARK	SIZE	DESCRIPTION	MFG.	MODEL. NO.	FRAME TYPE	MAX. NC AT DESIGN CFM	DAMPER (OBD)	COLOR	MATERIAL	REMARKS	
CD-1	8x4	CEILING REGISTER	HART & COOLEY	684	SURFACE	25	YES	WHITE	STEEL	4-WAY OR 3-WAY THROW	
CD-2	6x6	CEILING REGISTER	HART & COOLEY	684	SURFACE	25	YES	WHITE	STEEL	4-WAY OR 3-WAY THROW	
CD-3	8x8	CEILING REGISTER	HART & COOLEY	684	SURFACE	25	YES	WHITE	STEEL	4-WAY OR 3-WAY THROW	
CD-4	12x12	CEILING REGISTER	HART & COOLEY	684	SURFACE	25	YES	WHITE	STEEL	4-WAY OR 3-WAY THROW	
CD-5	14x14	CEILING REGISTER	HART & COOLEY	684	SURFACE	25	YES	WHITE	STEEL	4-WAY OR 3-WAY THROW	
RG-1	PER PLANS	RETURN GRILLE	HART & COOLEY	672	SURFACE	25	NO	WHITE	ALUMINUM	SEE PLAN FOR SIZE	

NECK SIZE SHOWN ON PLANS AND CORRESPONDS TO DUCT CONNECTION SIZE.

CONTRACTOR SHALL PROVIDE SQUARE TO ROUND ADAPTERS AS REQUIRED FOR INSTALLATION.

MOUNTING HEIGHT AND EXACT LOCATION TO BE DETERMINED BY THE ARCHITECT.

VERIFY COLOR OF ALL DEVICES WITH ARCHITECT.

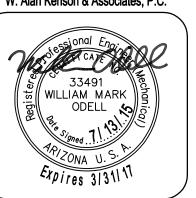
GRILLES AND REGISTER FINAL SELECTION SHALL BY ARCHITECT. SCHEDULE PROVIDED TO INDICATE GENERAL PERFORMANCE REQUIREMENTS

> Design Group, LLC Consulting Engineers 611 West Delano Ave Prescott, AZ 86301 Project Surprise, AZ 85379

(928) 443.7353 #15049 (623) 444-6143

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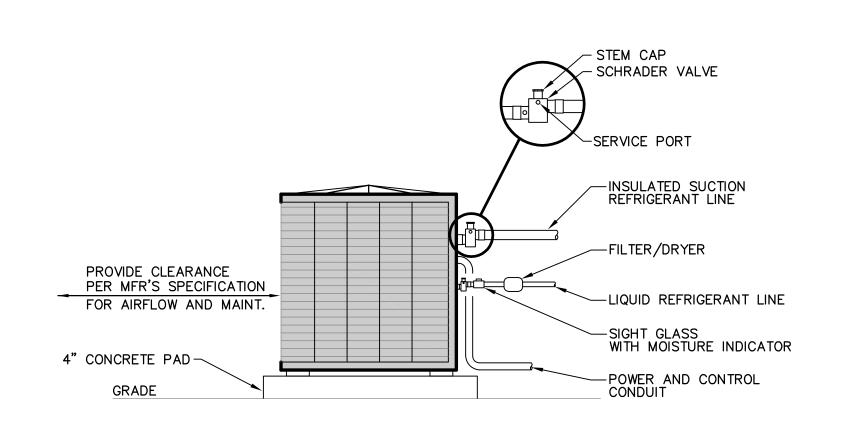
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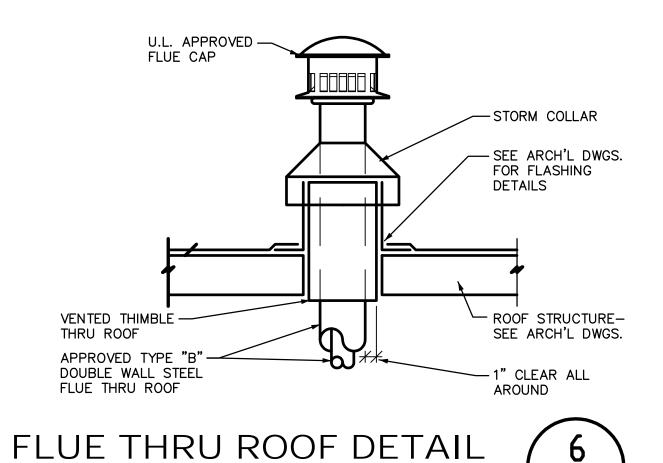
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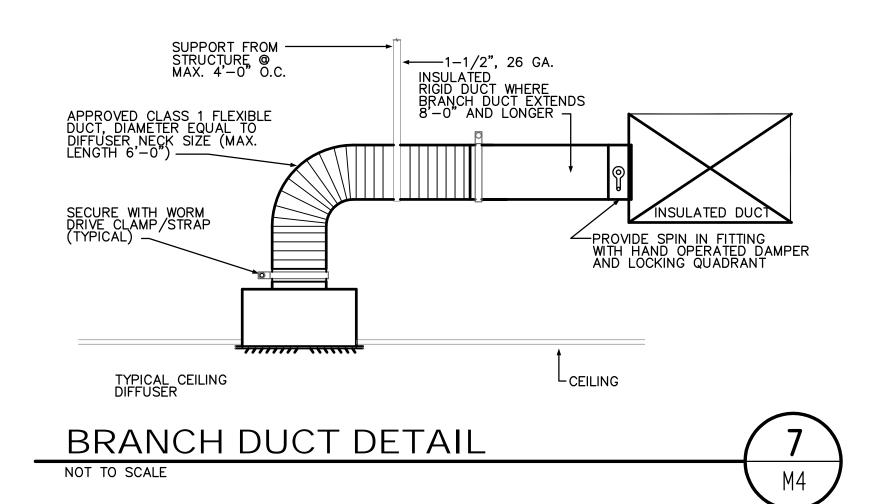
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ANO CHECKED BY WMO June 23rd, 2015 SCALE AS NOTED JOB NO. 671 SHEET

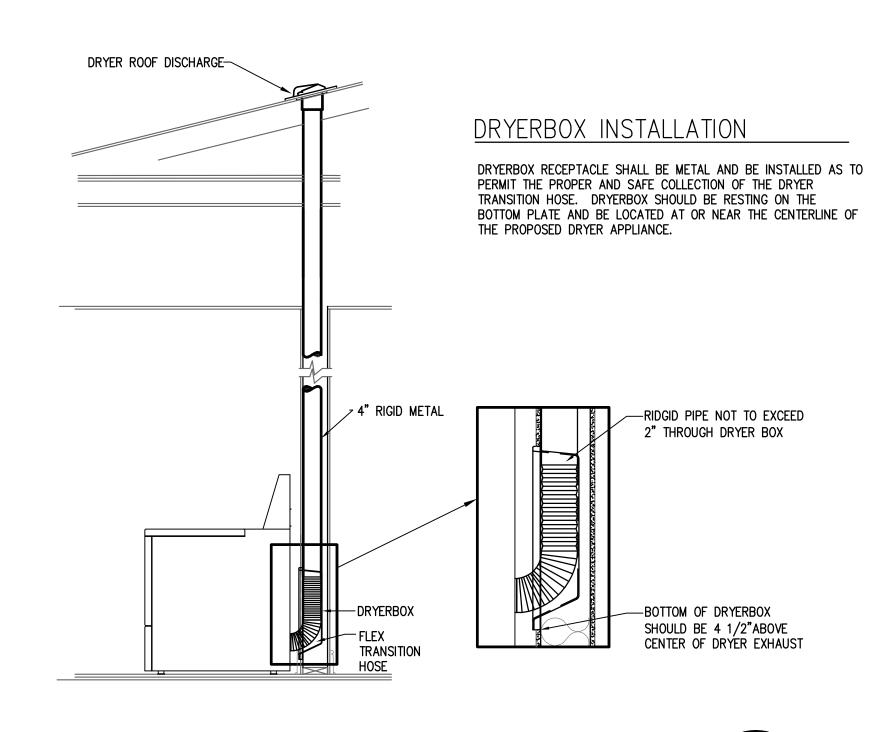


CONDENSING UNIT DETAIL NOT TO SCALE



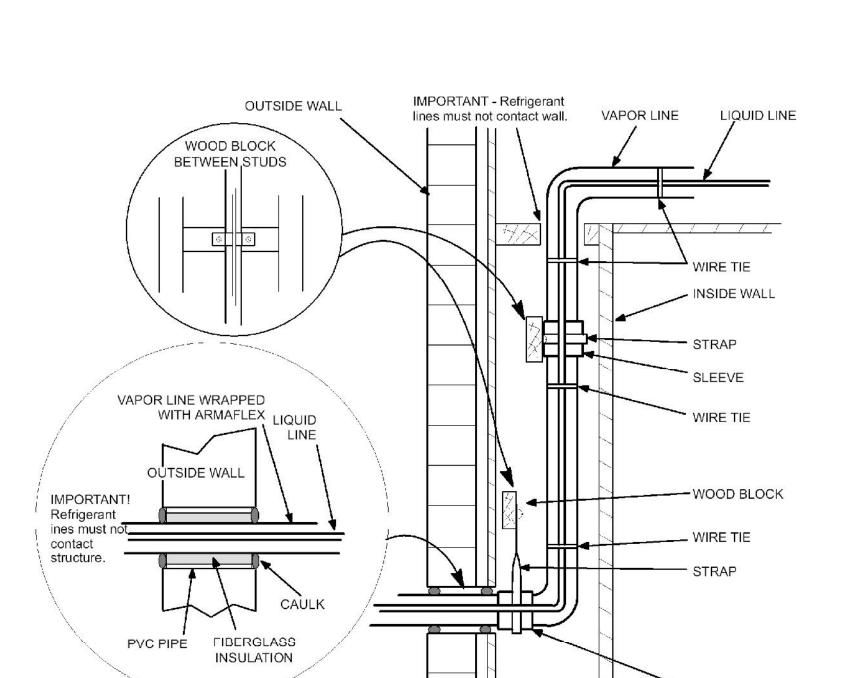


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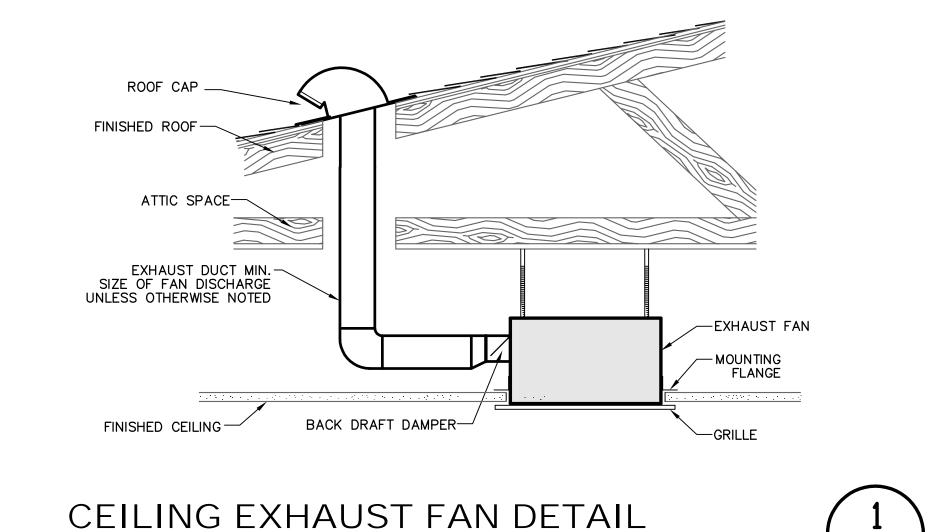
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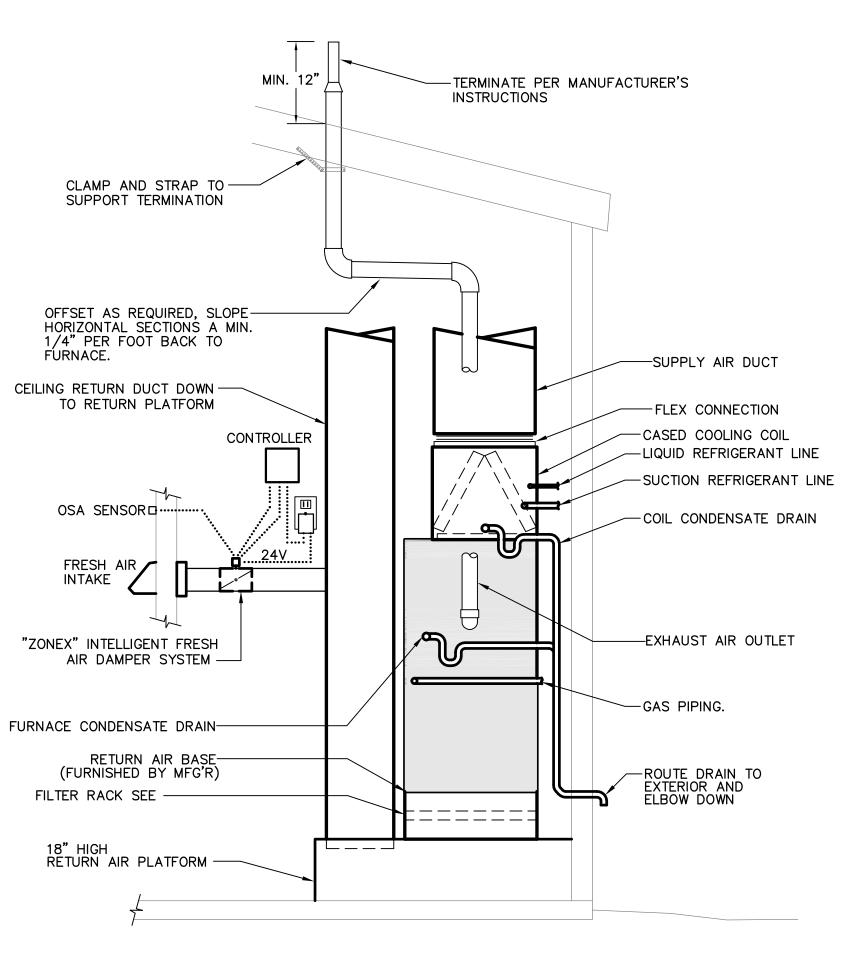


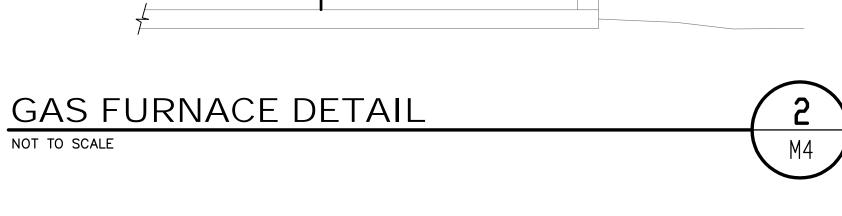


SLEEVE



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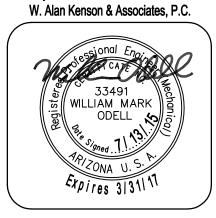






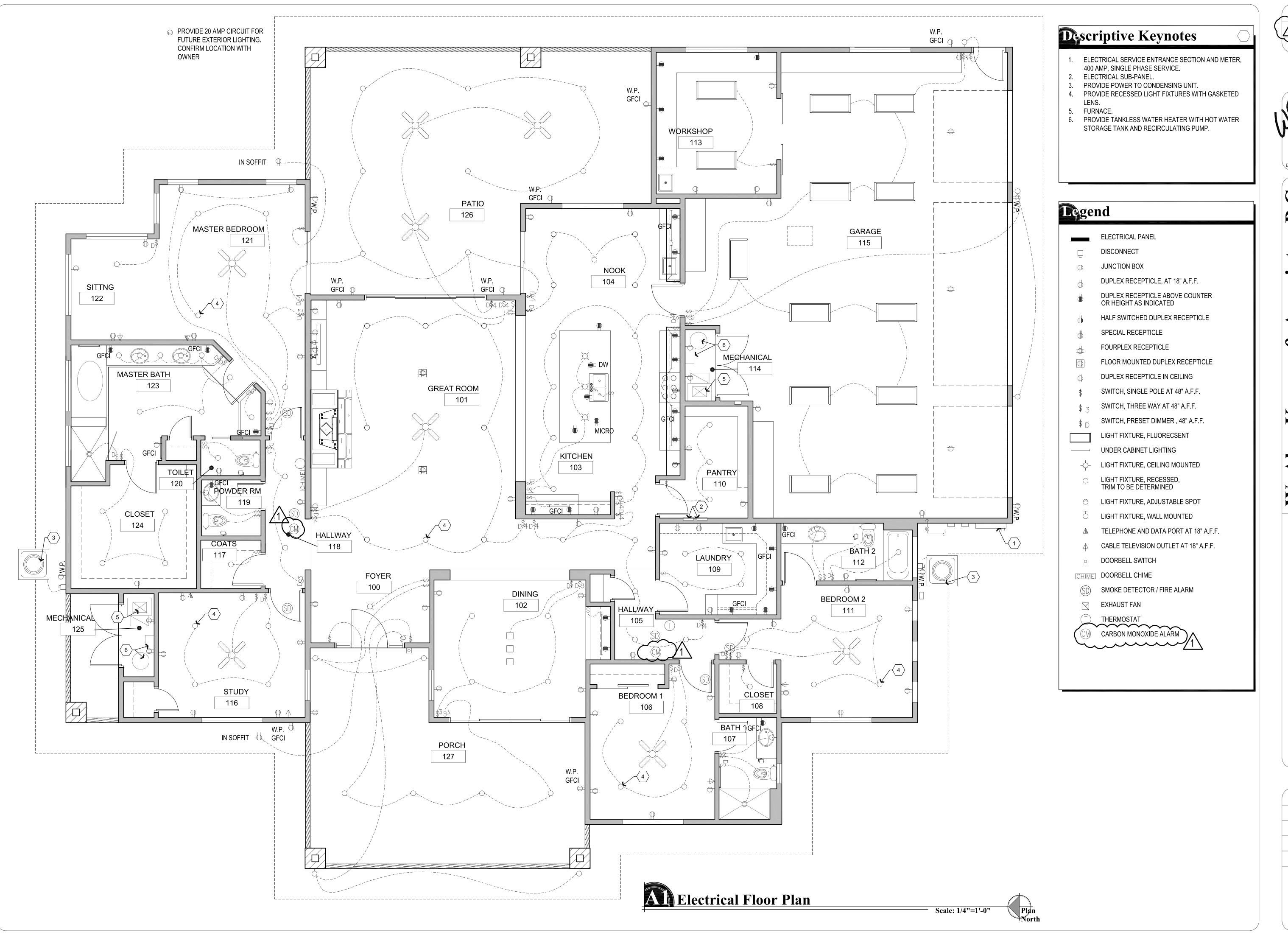
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Padilla House 1911 Perfect Place Prescott, AZ 86305

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### RESIDENTIAL ELECTRIC SERVICE LOAD CALCULATION

220.12	GENERAL LIGHTING 3 VA/SQ. FT. OF FLOOR AREA, INCLUDING UNUSED SPACE ADAPTABLE FOR FUTURE USE. FLOOR AREA = 6,224 SQ. FT.	18,672 VA
220.52(A)	SMALL APPLIANCE LOAD  1,500 VA FOR EACH 20 AMP BRANCH CIRCUIT REQUIRED PER 210.1(C)(1) IN EACH KITCHEN, PANTRY, BIROOM, DINING ROOM OR SIMILAR AREAS.  NUMBER OF SMALL APPLIANCE BRANCH CIRCUITS =	REAKFAST 4 x 1,500 VA = 6,000 VA
220.52(B)	LAUNDRY LOAD  NUMBER OF LAUNDRY BRANCH CIRCUITS =	1 x 1,500 VA = 1,500 VA
	TOTAL GENERAL LIGHTING AND APPLIANCE LOAD =	<u>26,172 VA</u>
220.42	LIGHTING LOAD FEEDER DEMAND FACTORS  FIRST 3,000 OR LESS AT 100% =  FROM 3,001 TO 120,000 AT 35% =  REMAINDER OVER 120,000 AT 25% =	3,000 VA 8,110 VA 0 VA
220,54	TOTAL LIGHTING DEMAND LOAD =	11,110 VA 5000 VA
	ELECTRIC CLOTHES DRYERS	3000 VA
220.55	ELECTRIC RANGES  ELECTRIC RANGE NAMEPLATE KW = 0 KW  WALL MOUNTED OVEN NAMEPLATE KW = 4 KW  ELECTRIC COOKTOP NAMEPLATE KW = 0 KW	
	ELECTRIC COOKING DEMAND LOAD =	<u>4,500 W</u>
220.51 220.21	LARGEST OF FIXED ELECTRIC SPACE HEATING LOADS OR A/C LOAD  A/C #1 = 29.0 MCA AT 208-240V  TOTAL NON-COINCIDENT LOAD =	<u>12,880 VA</u>
220.53	APPLIANCE LOAD QUANTITY DESCRIPTION VA(WATTS)  1 DISHWASHER 1,800  1 MICROWAVE 1,000  8 PADDLE FANS 100  2 REFRIGERATORS 725  1 WINE COOLER 500  TOTAL CONNECTED APPLIANCE LOAD = TOTAL APPLIANCE DEMAND LOAD =	<u>4, 125 VA</u> 58,787 VA
220.50	MOTOR LOADS AT 120 VOLTS  TOTAL MOTOR LOAD =	<u>0 VA</u>
TOTAL CAL	CULATED DEMAND LOAD IN VOLT-AMPERES = CULATED DEMAND LOAD IN AMPS AT 1 PHASE 3 WIRE, 120/240 VOLTS = ERVICE REQUIRED = ZE REQUESTED =	58,787 VA 244 AMPS 244 AMPS 400 AMPS

# **General Electrical Notes:**

1. A MINIMUM OF TWO 20-AMPERE RATED BRANCH CIRCUITS SHALL BE PROVIDED FOR RECEPTACLES LOCATED IN THE KITCHEN, PANTRY, BREAKFAST, AND DINING AREAS. AN ADDITIONAL 20 AMPERE RATED BRANCH CIRCUIT SHALL BE PROVIDED TO THE LAUNDRY AND A SEPARATE 20 AMPERE RATED BRANCH CIRCUIT SHALL BE PROVIDED FOR BATHROOM

ALL BRANCH CIRCUITS THAT SUPPLY 120-VOLT, SINGLE-PHASE, 15- AND 20-AMPERE OUTLETS INSTALLED IN FAMILY ROOMS, DINING ROOMS, LIVING ROOMS, PARLORS, LIBRARIES, DENS, BEDROOMS, SUNROOMS, RECREATIONS ROOMS, CLOSETS, HALLWAYS AND SIMILAR ROOMS OR AREAS SHALL BE PROTECTED BY A COMBINATION TYPE ARC-FAULT CIRCUIT INTERRUPTER INSTALLED TO PROVIDE PROTECTION OF THE BRANCH CIRCUIT.

IN EVERY KITCHEN, FAMILY ROOM, DINING ROOM, LIVING ROOM, PARLOR, LIBRARY, DEN, SUN ROOM, BEDROOM, RECREATION ROOM, OR SIMILAR ROOM OR AREA OF DWELLING UNITS, RECEPTACLES SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAT 6 FEET, MEASURED HORIZONTALLY, FROM AN OUTLET IN THAT SPACE, INCLUDING ANY WALL SPACE 2 FEET OR MORE IN WIDTH.

4. IN KITCHEN AND DINING ROOMS, AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH ISLAND OR PENINSULAR COUNTER SPACE WITH A LONG DIMENSION OF 24 INCHES OR GREATER AND A SHORT DIMENSION OF 12 INCHES.

5. IN KITCHEN AND DINING ROOMS, AT LEAST ONE RECEPTACLE OUTLET SHALL BE INSTALLED AT EACH WALL COUNTER SPACE 12 INCHES OR WIDER SO THAT NO POINT ALONG THE WALL IS MORE THAN 24 INCHES FROM A RECEPTACLE OUTLET AND SHALL BE GFCI PROTECTED.

6. PROVIDE AT LEAST ONE WEATHERPROOF RECEPTACLE OUTLET, NOT MORE THAT 6 FEET 6 INCHES ABOVE GRADE AND GFCI PROTECTED, AT THE FRONT AND BACK OF EACH DWELLING. ALL RECEPTACLES INSTALLED OUTDOORS MUST BE GFCI PROTECTED.

7. PROVIDE AT LEAST (1) ONE RECEPTACLE OUTLET IN HALLWAYS 10 FEET OR MORE IN LENGTH.

8. A 125 VOLT, SINGLE PHASE, 15 OR 20 AMPERE RATED RECEPTACLE OUTLET SHALL BE INSTALLED AT AN ACCESSIBLE LOCATION FOR THE SERVICING OF HEATING, AIR CONDITIONING AND REFRIGERATION EQUIPMENT. THE RECEPTACLE SHALL BE LOCATED ON THE SAME LEVEL AND WITHIN 25 FEET OF THE EQUIPMENT.

9. ALL 125 VOLT, SINGLE PHASE, 15 AND 20 AMPERE RECEPTACLES IN THE FOLLOWING LOCATIONS SHALL BE GFCI PROTECTED: BATHROOMS, GARAGES, UNFINISHED ACCESSORY BUILDINGS, CRAWL SPACES, UNFINISHED BASEMENTS, BAR SINKS (WITHIN 6 FEET) AND LAUNDRY ROOM SINKS (WITHIN 6 FEET).

10. PROVIDE AT LEAST (1) ONE WALL MOUNTED SWITCH CONTROLLED LIGHTING OUTLET IN EVERY HABITABLE ROOM AND BATHROOM.

11. PROVIDE A LIGHTING OUTLET ON THE EXTERIOR SIDE OF ALL EXITS/ENTRANCES.

12. A RECEPTACLE SHALL NOT BE INSTALLED WITHIN A BATHTUB OR SHOWER SPACE. 13. FIXTURES, FITTINGS, BOXES AND RECEPTACLES LOCATED IN DAMP OR WET LOCATIONS SHALL BE "LISTED" TO BE SUITABLE FOR SUCH LOCATION.

14. PROVIDE INTERCONNECTED SMOKE ALARMS IN EACH SLEEPING ROOM, IMMEDIATELY OUTSIDE EACH SLEEPING ROOM, ON EACH ADDITIONAL STORY INCLUDING BASEMENTS, AND IN THE HALLWAY. SMOKE ALARMS SHALL BE HARD WIRED WITH BATTERY BACKUP.

15. PROVIDE A GROUNDING ELECTRODE SYSTEM. PROVIDE BONDING TO THE INTERIOR WATER PIPING AND ABOVE GROUND PORTION OF GAS PIPING SYSTEM.

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