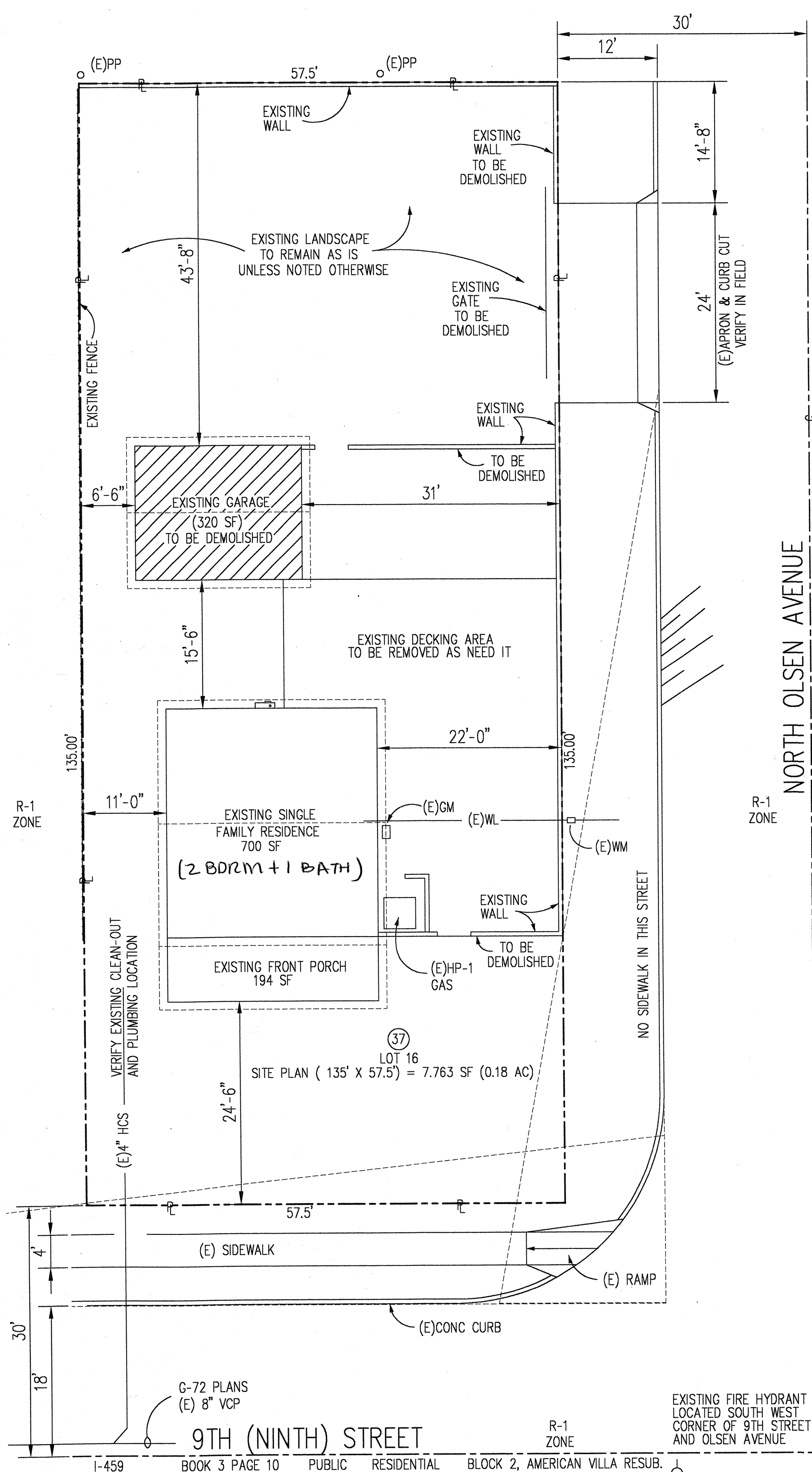
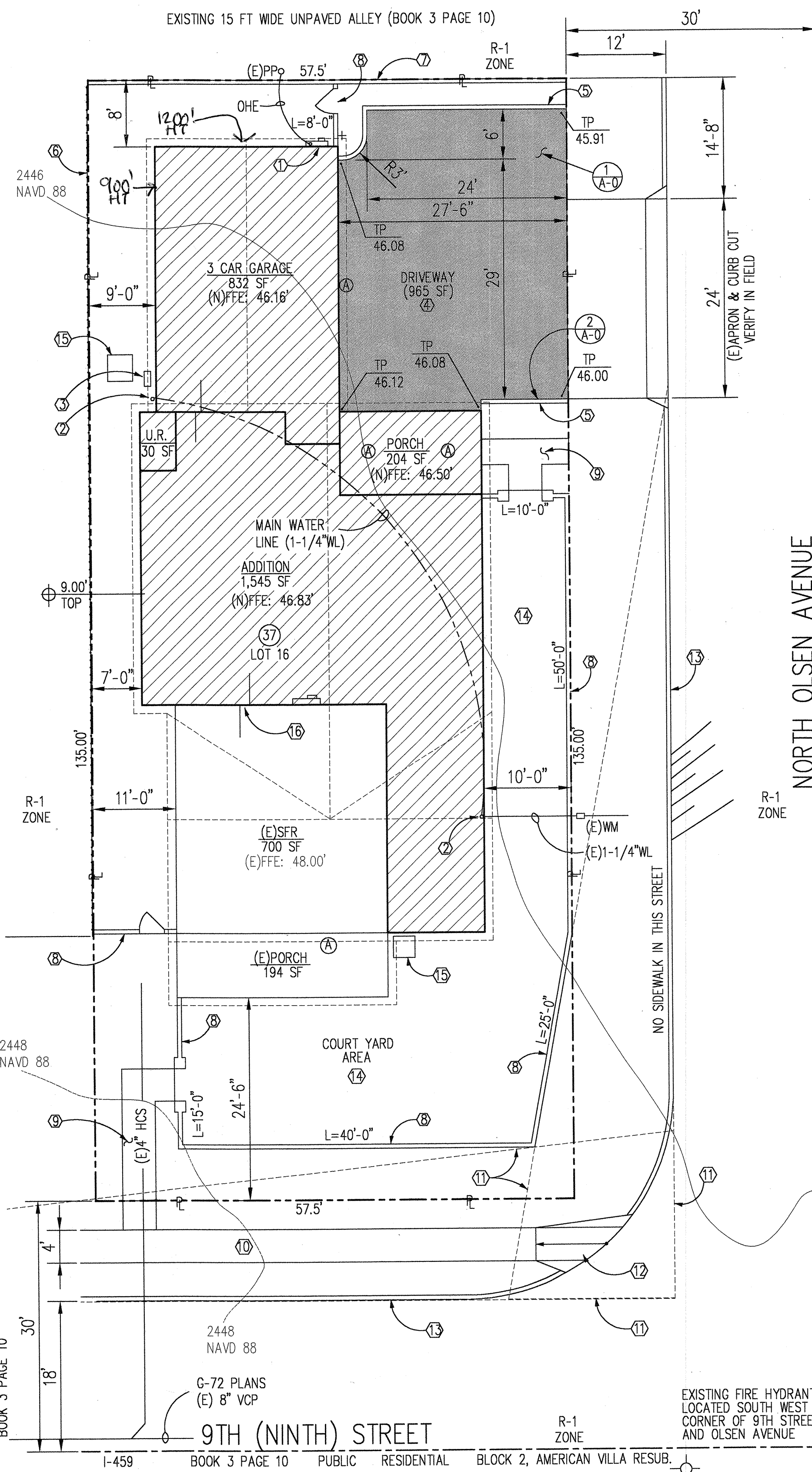


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DEMOLITION SITE
SCALE 1" = 10'-0"



PROPOSED SITE
SCALE 1" = 10'-0"

- KEYNOTES**
- (E) EXISTING
 - (N) NEW
 - (RE) RELOCATED
 - ① (RE) MAIN 200 AMPS SERVICES - SEE ELECT. PLAN
 - ② MAIN WATER LINE SEE PLUMBING PLAN
 - ③ GAS METER SEE PLUMBING PLAN
 - ④ 2" AC ON 4" ABC 95% COMPACTION
 - ⑤ 6" HT CONC. VERT CURB PER COT/PG STDS DET 209
 - ⑥ (E) 6 FT HT. WOOD FENCE NEIGHBOR PROPERTY
 - ⑦ (E) 6 FT HT. MASONRY WALL WITH GATE VERIFY IN FIELD
 - ⑧ (N) 6 FT HT MASONRY WALL WITH GATE
 - ⑨ (N) CONC. WALKWAY 3 FT WIDE MIN (4 FT WIDE MAX) Fc = 2,500 PSI
 - ⑩ (E) CONC SIDEWALK TO REMAIN AS IS
 - ⑪ SIGHT VISIBILITY TRIANGLE LOCAL TO LOCAL PER DEV STDS NEAR 180 LF FAR 110 LF
 - ⑫ (E) RAMP TO REMAIN AS IS
 - ⑬ (E) VERT CONC. CURB TO REMAIN AS IS
 - ⑭ (N) LANDSCAPE AREA BY OTHERS
 - ⑮ AIR CONDITIONING PAD FOR REFERENCE ONLY
 - ⑯ DIFFERENT ELEVATION FFE: - 1'-2" (BELOW)

TOTAL PATIO WALL = 160 LINEAL FEET

SINGLE FAMILY RESIDENCE PROJECT

	NON-LIV	LIVABLE
EXISTING	194 SF	700 SF
UTILITY ROOM	30 SF	30 SF
3 CAR GARAGE	832 SF	832 SF
BACK PORCH	204 SF	204 SF
ADDITION	1,545 SF	1,545 SF
REMODELING	360 SF	360 SF
EXISTING RES	340 SF	340 SF
EXISTING PORCH	194 SF	194 SF
	3,505 SF	2,245 SF
TOTAL STRUCTURE	3,505 SF	
DRIVEWAY	965 SF	
	4,470 SF	
SITE PLAN (135' X 57.5') = 7,763 SF (0.18 AC)		
LOT COVERAGE	4,470 SF / 7,763 SF	
	X = 58% LOT COVERAGE	
OUTDOOR LIGHTING CALCULATION - PER E3 ZONE		
4 X 100 WATTS (MAX RATING) = 1,500 L X 4		
X = 6,000 LUMENS PROVIDED		
OUTDOOR LIGHTING ALLOWED		
55,000 L X (0.18 AC) = 9,900 LUMENS		
12,000 L X (0.18 AC) = 2,160 LUMENS		
	X = 7,740 LUMENS ALLOWED	

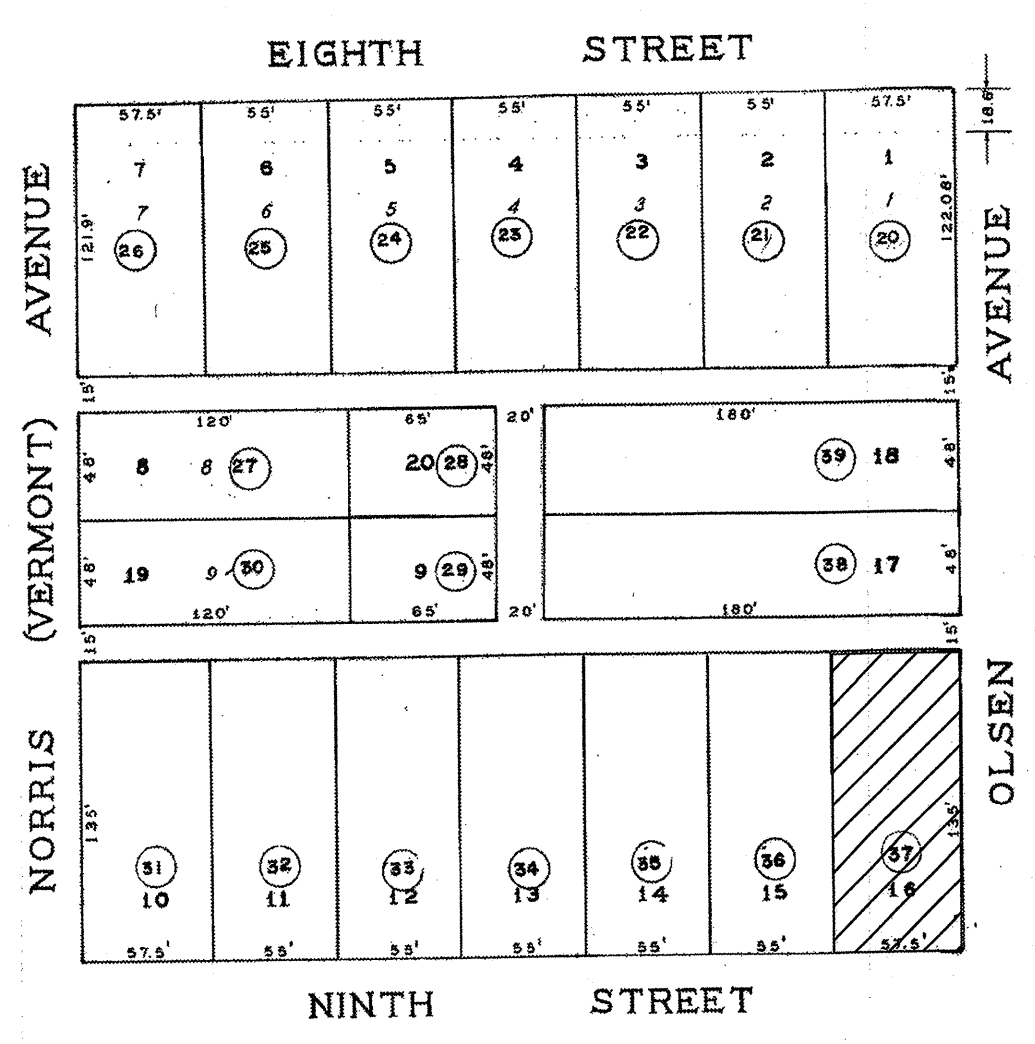
City of Tucson
ENGINEERING APPROVAL
HDZ SVT OTHER
BY: T11-CMD1424-Add to date 5/10/11
T11-CMD1424-Add to date 5/10/11

SITE WORK
SHOP DRAWINGS TO BE SUBMITTED TO GENERAL CONTRACTOR AND PROCESSED FOR REVIEW PRIOR TO EXECUTING OR FABRICATING THAT AREA OF WORK. NO DEVIATION FROM THE APPROVED DRAWINGS SHALL BE PERMITTED WITHOUT THE WRITTEN APPROVAL OF THE OWNER/G.C. AND BUILDING OFFICIAL. BUILDING LIGHTING SHALL COMPLY W/ NEC & COT LIGHT POLLUTION ORDINANCE. ALL EXTERIOR LIGHTS TO BE LESS THAN 160W INCANDESCENT. G.C./OWNER TO BE AWARE OF EXISTING ELEC. BOXES, WATER METER, TEL. BOXES, ETC. & ADJUST AS REQUIRED. G.C./OWNER IS RESPONSIBLE FOR THE SEQUENCE OF CONSTRUCTION AND ALL MATERIALS, SORTED AND -IN PLACE. THE G.C./OWNER SHALL BE RESPONSIBLE FOR COORDINATING ALL DRAWINGS OF THE CONTRACT DOCUMENTS.

NOTES:
SITE TO BE GRADED WITH A CLOSE BALANCE BETWEEN CUT AND FILL. DURING TIME OF GRADING, ALL SOIL THAT IS BEING EXCAVATED, STORED, OR REMOVED FROM SITE WILL HAVE WATER SPRAYED FOR APPROPRIATE DUST CONTROL MEASURES.



ASSESSOR'S RECORD MAP
129-04 2/30
BLOCK 2, AMERICAN VILLA RESUB.



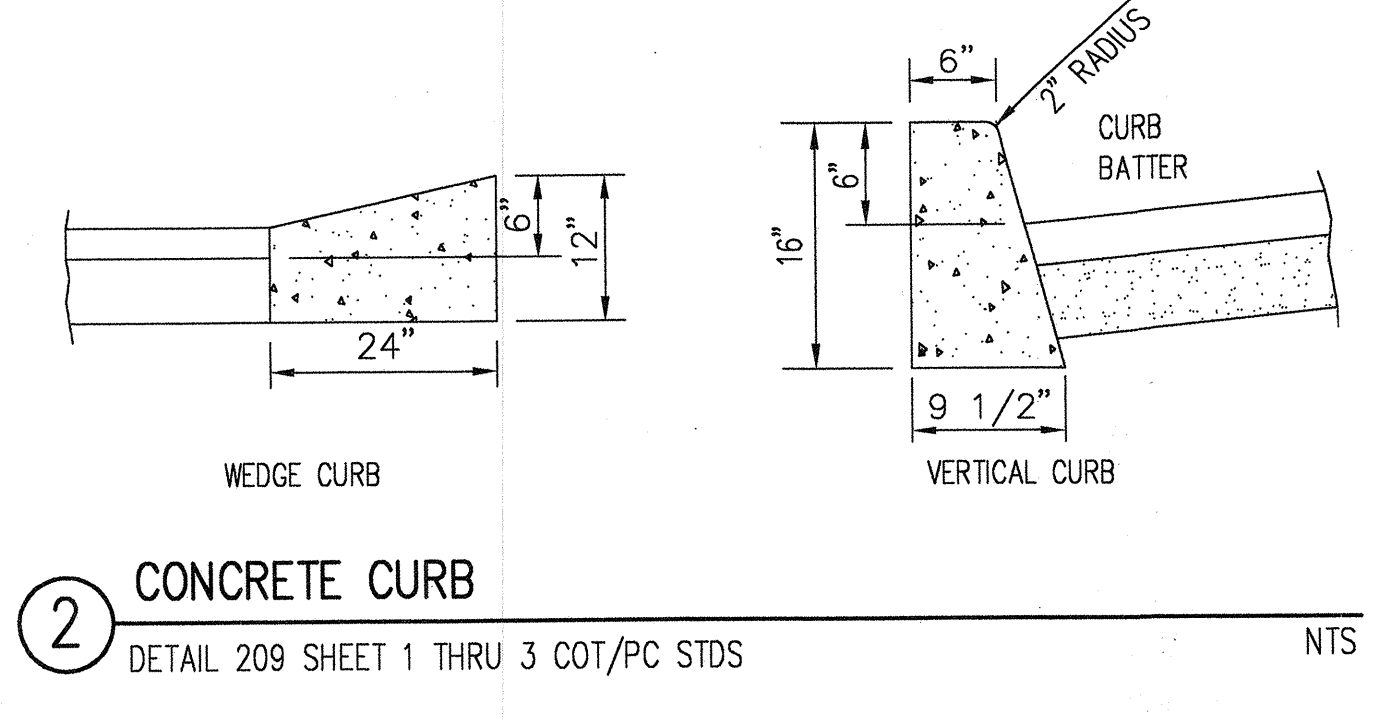
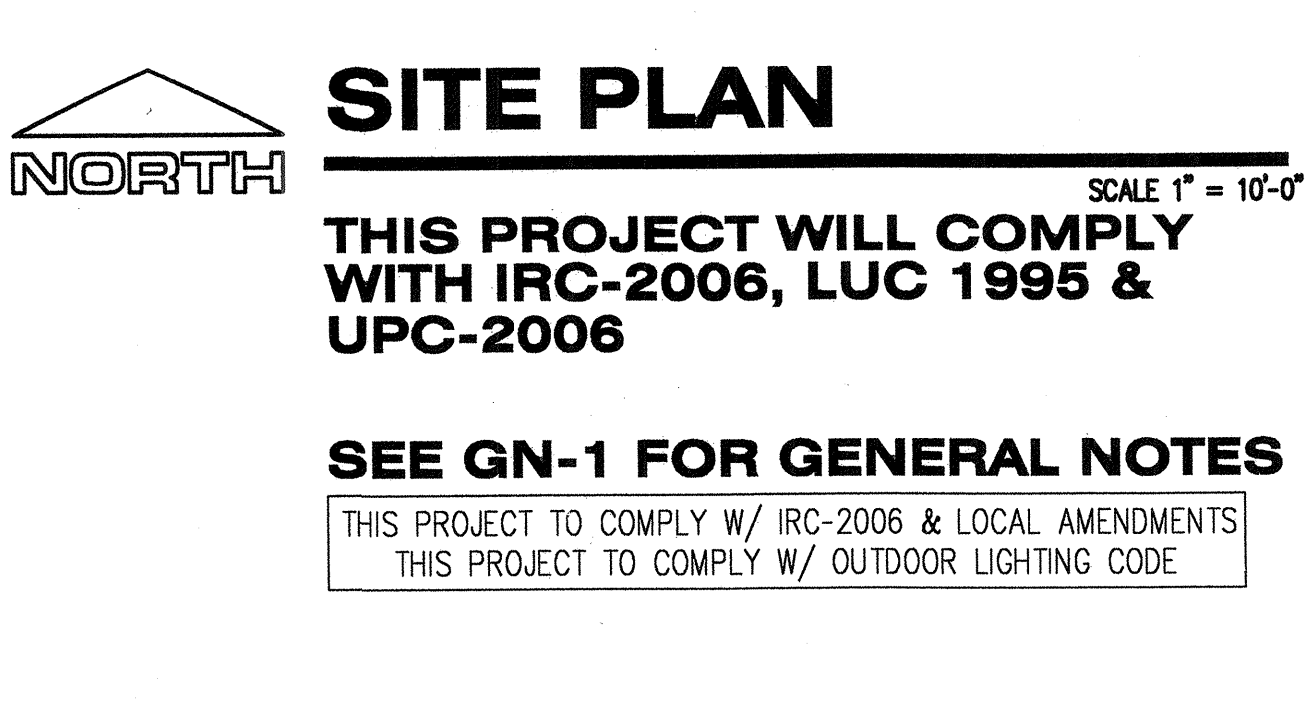
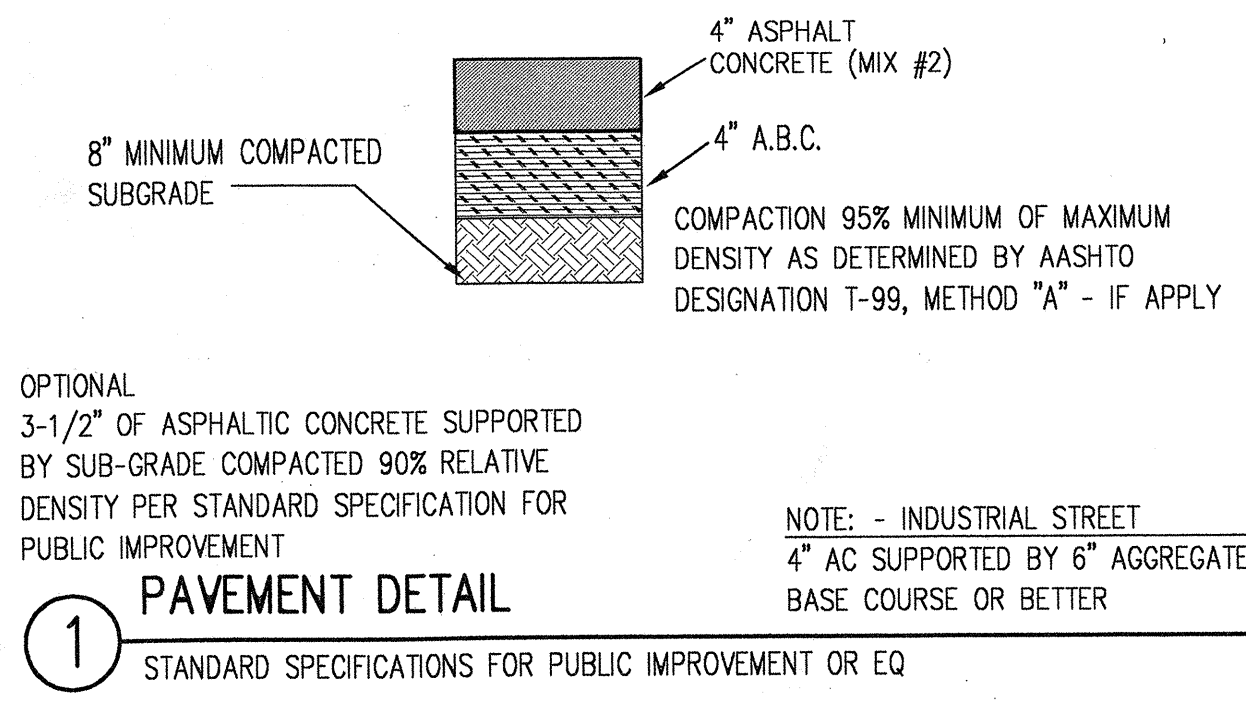
ASSESSORS MAP

CITY OF TUCSON DSD / ZONING APPROVAL
Site Plan Grading Plan Wall Lot Split Sign HPZ SCZ Other DETKO
APPROVED 5-11-11

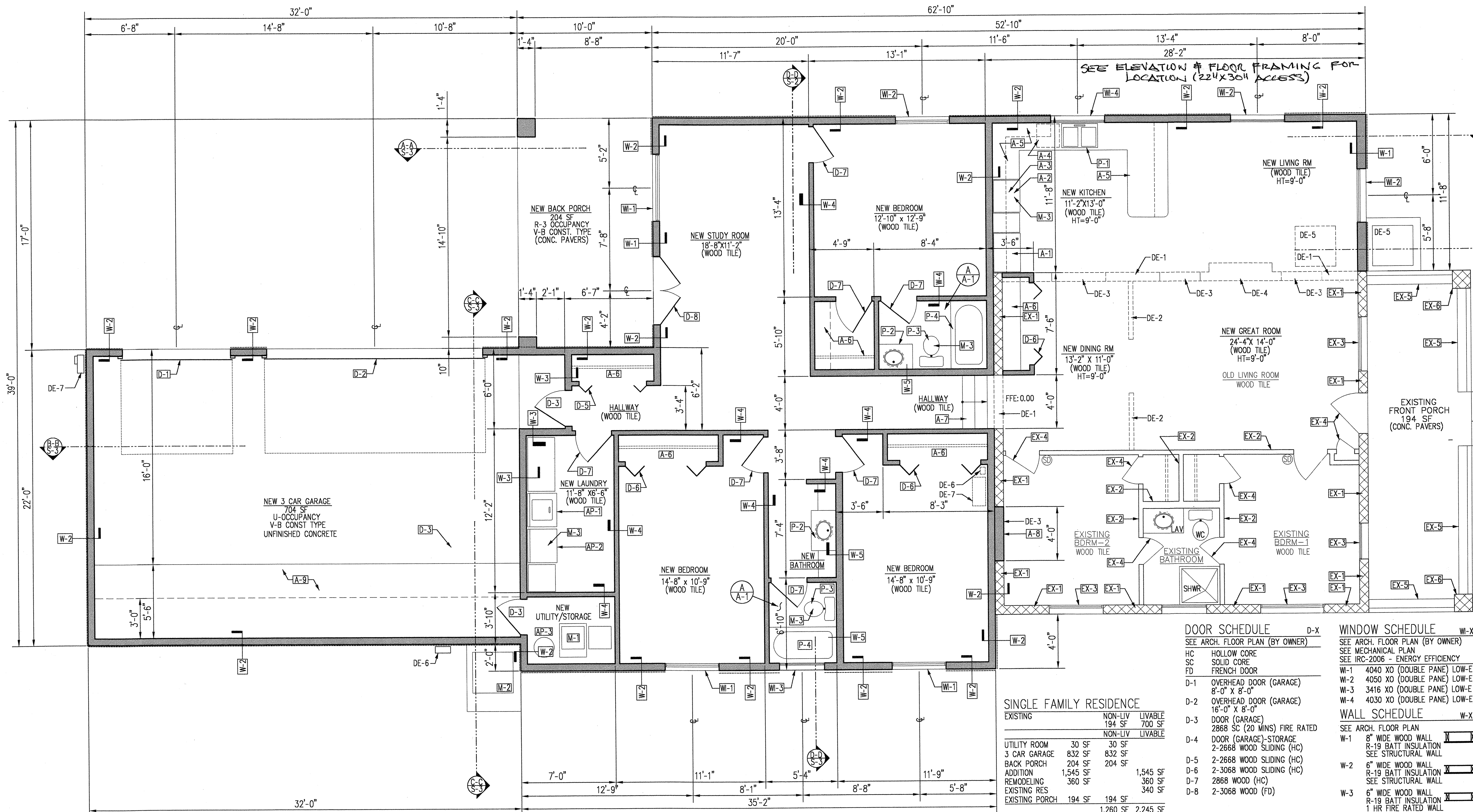
CITY OF TUCSON DSD / ZONING APPROVAL
Site Plan Grading Plan Wall Lot Split Sign HPZ SCZ Other
APPROVED 6-8-11
Bldg. Permit Specialist

- DRAWING INDEX:**
- A-00 SITE PLAN
 - A-01 FLOOR PLAN
 - A-02 ELEVATIONS
 - S-01 FOUND. PLAN
 - S-02 WALL/ROOF PLAN
 - S-03 SECTION/DETAIL
 - S-04 DETAILS
 - MP-1 PLUMB'G WALL
 - MP-2 MECH. PLAN
 - MP-3 DETAILS
 - E-01 ELEC. PLAN
 - GN-1 GEN. NOTES

PROJECT: FAMILY RESID. ADDITION
2049 EAST 9TH STREET
TUCSON, ARIZONA 85719
AMERICAN VILLA RESUB
LOT 16 BLK 2
BOOK 3 PAGE 10
PARCEL 129-04-0370
T 14 S RANGE 14 E SEC 8
SHEET NO. A-00
SH. THESE DOCUMENTS ARE TO BE USED ONLY FOR THE ADDRESSED SITE PER CONTRACT BETWEEN JACA AND CLIENT. THE REPRODUCIBLE DRAWINGS, TRACINGS, SEPIAS, ETC. ARE THE PROPERTY OF JACA.



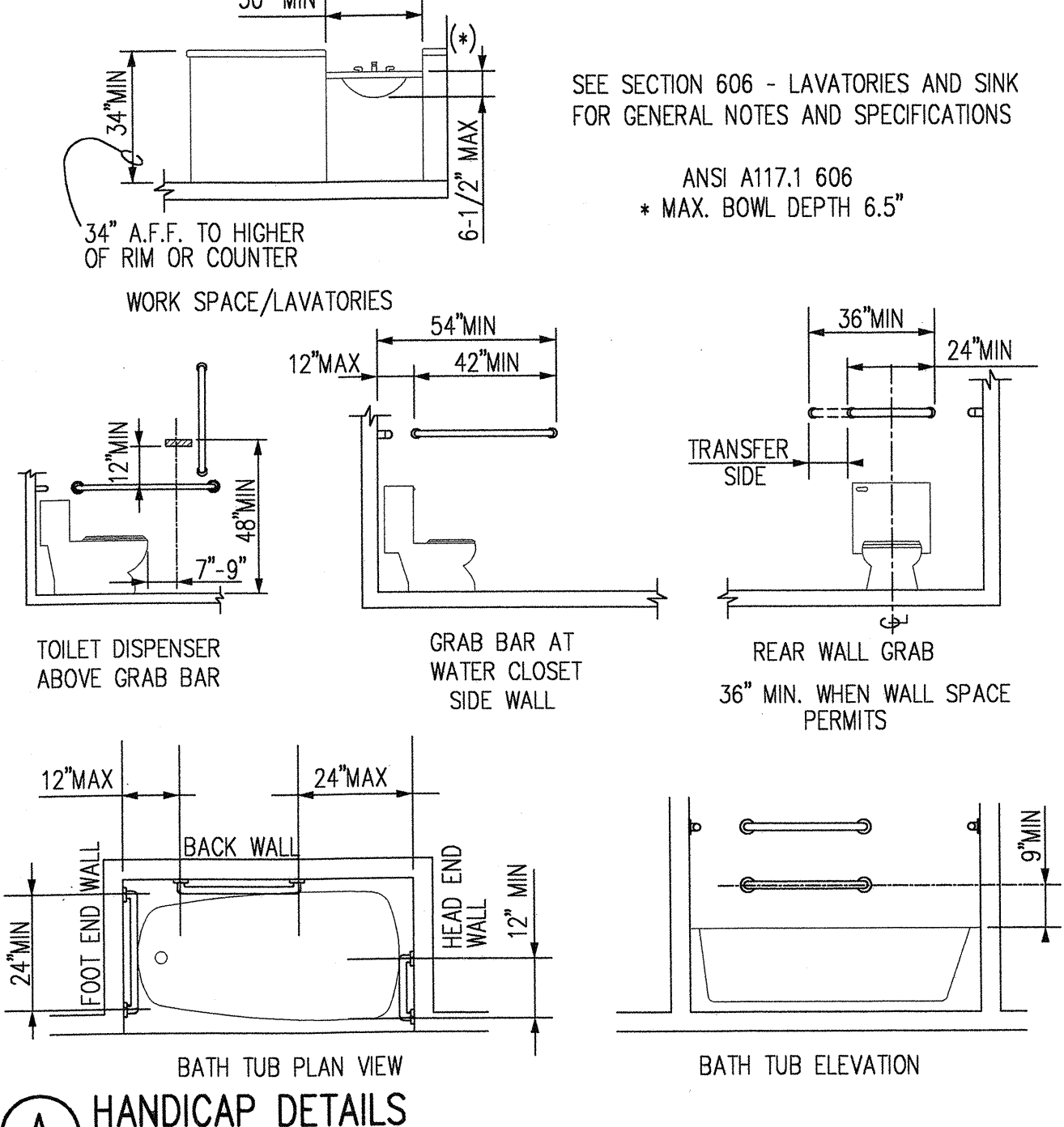
T11-CMD1424



- KEYNOTES**
 (E) EXISTING TO REMAIN AS IS
 (N) NEW
- ARCH. FLOOR PLAN**
 DEMOLITION PLAN DE-X
 DE-1 EXISTING MASONRY TO BE DEMOLISHED
 DE-2 EXISTING WOOD FRAME TO BE DEMOLISHED
 DE-3 EXISTING WINDOW TO BE REMOVED
 DE-4 EXISTING FIREPLACE TO BE DEMOLISHED
 DE-5 EXISTING HEAT PUMP TO BE RELOCATED SEE MECHANICAL PLAN
 DE-6 EXISTING GAS METER TO BE RELOCATED SEE PLUMBING PLAN
 DE-7 EXISTING ELECT MTR TO BE RELOCATED SEE ELECTRICAL PLAN
- EXISTING CONDITION** EX-X
 EX-1 EXISTING MASONRY WALL TO REMAIN AS IS
 EX-2 EXISTING WOOD FRAME WALL TO REMAIN AS IS
 EX-3 EXISTING WINDOW TO REMAIN AS IS
 EX-4 EXISTING WOOD DOORS TO REMAIN AS IS
 EX-5 EXISTING LOW WALL TO REMAIN AS IS
 EX-6 EXISTING COLUMN TO REMAIN AS IS
- ARCH FLOOR PLAN** A-X
 ADDITION FLOOR PLAN/GARAGE/PORCH
 SEE PLUMBING & ELECTRICAL PLAN
 A-1 KITCHEN APPLIANCES REFRIGERATOR
 A-2 KITCHEN APPLIANCES RANGE/OVEN
 A-3 KITCHEN APPLIANCES MICROWAVE
 A-4 KITCHEN APPLIANCES DISHWASHER/GARB. DISP.
 A-5 ABOVE/BELOW COUNTER BY OWNER/DEVELOPER
 A-6 ROD/SHELF/SHELVES BY OWNER/DEVELOPER
 A-7 STAIRS RUN = 11" RISER = 7"
 A-8 FILL IN W 2 X'S SEE FRAMING PLAN
 A-9 CONC. WHEESTOP SEE FOUNDATION PLAN
- PLUMBING FIXTURE**
 SEE PLUMBING PLAN
 P-1 KITCHEN SINK
 P-2 LAVATORY
 P-3 TOILET
 P-4 TUB/SHWR
- APPLIANCES FIXTURE**
 SEE PLUMBING & ELECTRICAL PLAN
 AP-1 WASHER
 AP-2 DRYER
 AP-3 WATER HEATER
- MECHANICAL APPLIANCES**
 SEE PLUMBING & ELECTRICAL PLAN
 M-1 FURNACE
 M-2 COMPRESSOR
 M-3 EXHAUST FAN
- WALL SCHEDULE** W-X
 SEE ARCH. FLOOR PLAN
 W-1 8" WIDE WOOD WALL SEE STRUCTURAL WALL
 W-2 6" WIDE WOOD WALL R-19 BATT INSULATION SEE STRUCTURAL WALL
 W-3 6" WIDE WOOD WALL R-19 BATT INSULATION 1 HR FIRE RATED WALL SEE STRUCTURAL WALL
 W-4 4" WIDE WOOD WALL SEE STRUCTURAL WALL
 W-5 6" WIDE WOOD WALL (WET WALL) SEE STRUCTURAL WALL
- DOOR SCHEDULE** D-X
 SEE ARCH. FLOOR PLAN (BY OWNER)
 HC HOLLOW CORE
 SC SOLID CORE
 FD FRENCH DOOR
 D-1 OVERHEAD DOOR (GARAGE) 8'-0" X 8'-0"
 D-2 OVERHEAD DOOR (GARAGE) 16'-0" X 8'-0"
 D-3 DOOR (GARAGE) 2868 SC (20 MINS) FIRE RATED
 D-4 DOOR (GARAGE)-STORAGE 2-2668 WOOD SLIDING (HC)
 D-5 2-2668 WOOD SLIDING (HC)
 D-6 2-3068 WOOD SLIDING (HC)
 D-7 2868 WOOD (HC)
 D-8 2-3068 WOOD (FD)
- WINDOW SCHEDULE** W-X
 SEE ARCH. FLOOR PLAN (BY OWNER)
 SEE MECHANICAL PLAN
 SEE IRC-2006 - ENERGY EFFICIENCY
 W-1 4040 XO (DOUBLE PANE) LOW-E
 W-2 4050 XO (DOUBLE PANE) LOW-E
 W-3 3416 XO (DOUBLE PANE) LOW-E
 W-4 4030 XO (DOUBLE PANE) LOW-E
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- MECHANICAL APPLIANCES**
 SEE PLUMBING & ELECTRICAL PLAN
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 M-2 COMPRESSOR
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ADDITION	1,545 SF	1,545 SF
REMODELING	360 SF	360 SF
EXISTING RES	360 SF	340 SF
EXISTING PORCH	194 SF	194 SF
	1,260 SF	2,245 SF



BATHROOM WALL REINFORCEMENT

IN BATHROOMS ON THE ACCESSIBLE ROUTE, REINFORCEMENT SHALL BE INSTALLED TO ALLOW THE FUTURE INSTALLATION OF GRAB BARS ON WALLS ADJACENT TO THE TUB AND TOILET. IN ADDITION, REINFORCEMENT SHALL BE INSTALLED IN SHOWER COMPARTMENTS FOR FUTURE INSTALLATION OF GRAB BARS.

THIS REINFORCEMENT SHALL BE INSTALLED FLUSH WITH THE STUDS AND AT THE FOLLOWING LOCATIONS:

TOILET: 33" - 36" ABOVE THE FLOOR ON ALL ADJACENT WALLS. HORIZONTAL LENGTH OF REINFORCEMENT SHALL BE SUFFICIENT TO ALLOW A 42" GRAB BAR AND 24" REAR GRAB BAR. NOTE: NOTHING IN THE ORDINANCE REQUIRES THAT THE TOILET BE PLACED BY A SIDEWALL.

TUB: HORIZONTAL LENGTH REINFORCEMENT SHALL BE SUFFICIENT TO ALLOW FOR

A) BACK WALL: TWO BACKING REINFORCEMENTS, ONE BACKING REINFORCEMENT HORIZONTAL POSITION 33" MINIMUM AND 36" MAXIMUM ABOVE THE FLOOR, AND ONE BACKING REINFORCEMENT 9" ABOVE THE RIM OF THE BATHTUB. EACH BACKING REINFORCEMENT SHALL BE 24" LONG MINIMUM AND SHALL BE 24" MAXIMUM FROM THE HEAD END WALL AND 12" MAXIMUM FROM THE FOOT END WALL.

B) FOOT END WALL: ONE BACKING REINFORCEMENT 24" LONG MINIMUM ON THE FOOT END WALL AT

C) HEAD END WALL: ONE BACKING REINFORCEMENT 12" LONG MINIMUM ON THE HEAD END WALL AT THE FRONT EDGE OF THE BATHTUB.

D) SHOWER COMPARTMENTS SHALL HAVE BACKING ON A MINIMUM OF TWO WALLS, NOT TO INCLUDE

DEMOLITION AND ADDITION

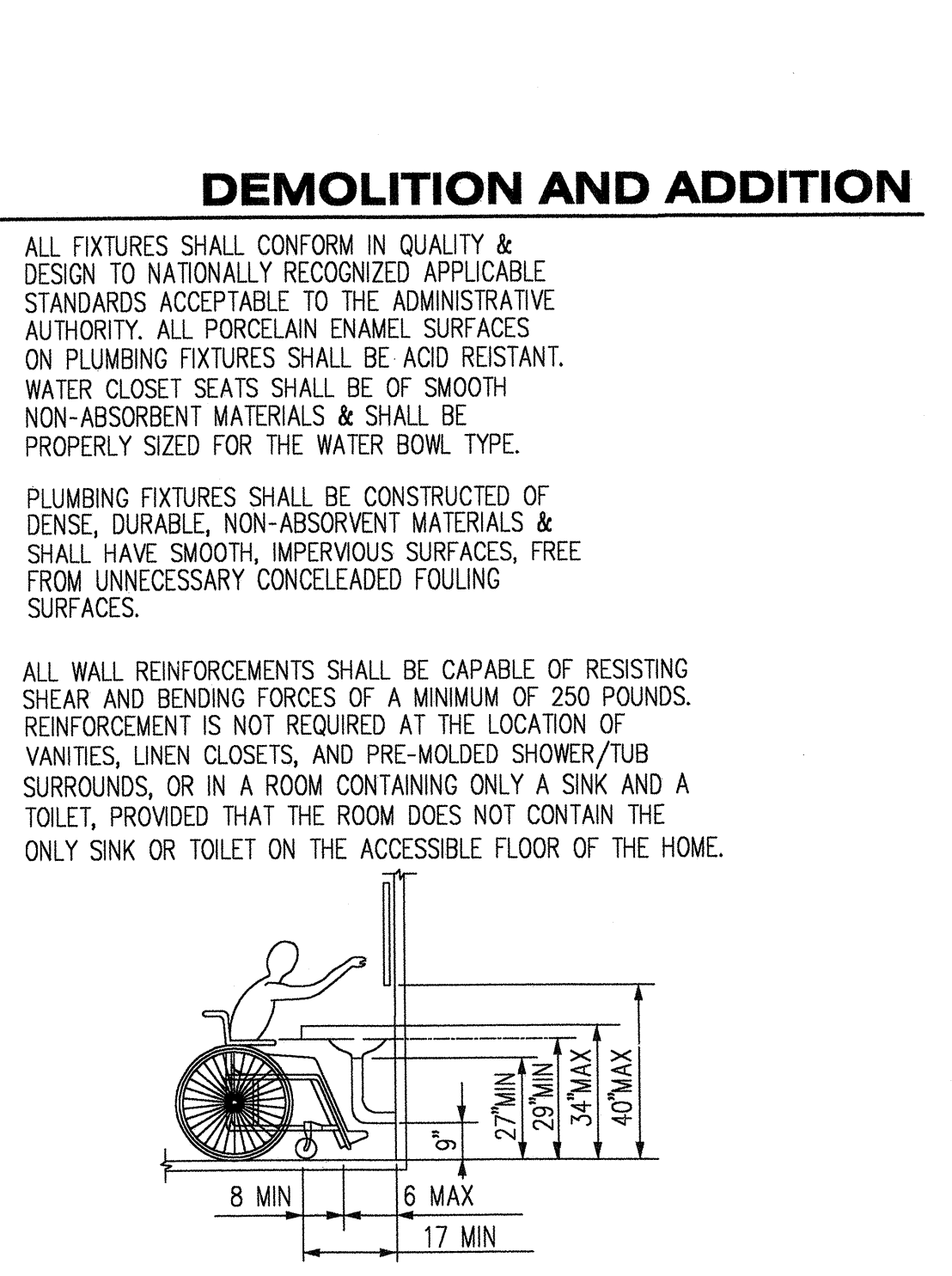
EXPOSED PIPES AND SURFACES - WATER SUPPLY AND DRAINAGES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT

ELECTRICAL
 All light controls shall be placed no higher than 48", center, above the floor.
 Where practical, all electrical receptacles shall be placed no lower than 15", center, above the floor. All thermostats shall be placed no higher than 48" on center, above the floor.
 The exceptions to these provisions are as follows:
 1. Electrical receptacles serving a dedicated use.
 2. Appliance mounted controls or switches.
 3. A single outlet where all of the following conditions are met.

DOOR HARDWARE
 HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERABLE PARTS ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND THAT DOES NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST TO OPERATE. LEVER HARDWARE SATISFIES THE REQUIREMENTS OF THIS PROVISION.

THRESHOLDS
 THRESHOLDS AT THE ACCESSIBLE ENTRANCE AND ALONG ACCESSIBLE ROUTES MAY BE 1/2 INCH HIGH MAXIMUM. CHANGES IN LEVEL WHICH EXCEED 1/4 INCH HIGH, SHALL BE BEVELED, WITH A SLOPE NOT STEEPER THAN ONE INCH RISE TO 2 INCH RUN (1:2).

INTERIOR DOORS
 DOORWAYS ON THE ACCESSIBLE ROUTE SHALL HAVE A CLEAR OPENING OF 30 INCHES WIDE MINIMUM. A 32" (2'-8") WIDE DOOR SATISFIES THESE REQUIREMENTS. THIS DOOR SHALL CONTAIN HARDWARE MEETING THE DOOR HARDWARE REQUIREMENTS DESCRIBED IN THIS PAMPHLET.



NOTE: ATTL ACCESS REQUIRED FOR A/C & EXCEEDING 30 SF W/ MIN 30" OF HEADROOM & LOCATIONS IN A HALLWAY OR ACCESSIBLE SPACE - PER R 807.1

FLOOR PLAN
 SCALE 1/4"=1'-0"
THIS PROJECT WILL COMPLY WITH IRC-2006
SEE GN-1 FOR GENERAL NOTES
 THIS PROJECT TO COMPLY W/ IRC-2006 & LOCAL AMENDMENTS
 THIS PROJECT TO COMPLY W/ OUTDOOR LIGHTING CODE

IECC CALCULATION
 THIS PROJECT COMPLY W/ IECC 502.2.4 FOR WINDOWS & DOORS FOR ENERGY CONSERVATION - ENERGY EFFICIENCY - SECT. N 1102 BUILDING ENVELOPE. (ZONE 2- PIMA COUNTY)

MTL WINDOW-DOUBLE PANE U=0.75
 EXTERIOR DOOR U=0.75
 CEILING R 30
 WALLS (6" W) R 19

THE SOLAR HEAT GAIN COEFFICIENT SHGC MIN VALUE OF 0.40 FOR ALL DOORS / WINDOWS PER N 1102.2 IRC-2006 (U=0.75 MAX)

BATHTUB & SHOWER ENCLOSURES SHALL BE FINISHED PER 2710 W/ CERAMIC TUB, OR A LISTED ENCLOSURE TO A HEIGHT OF 72" ABOVE THE DRAIN PER R702.4 & R 1307.2

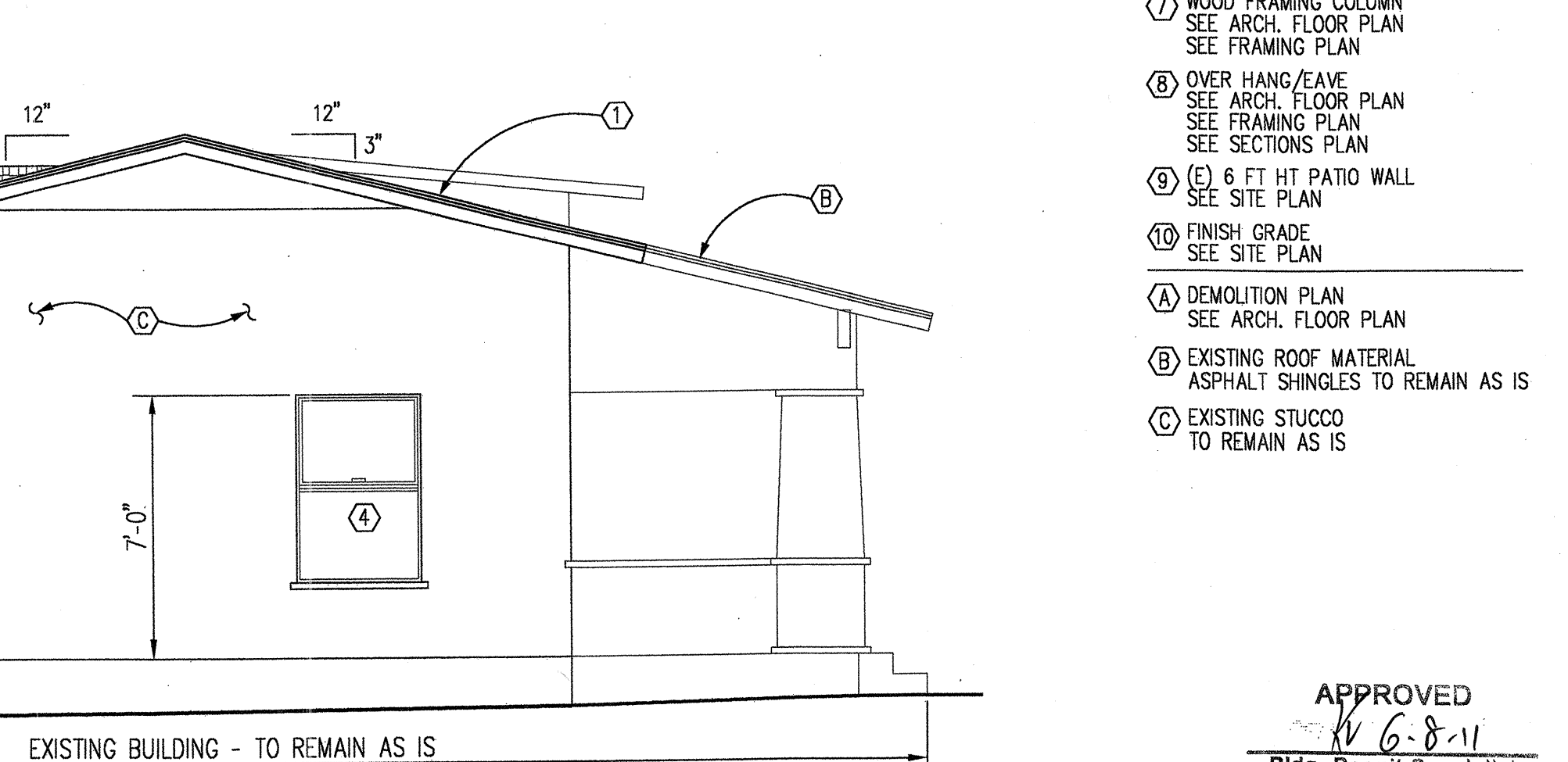
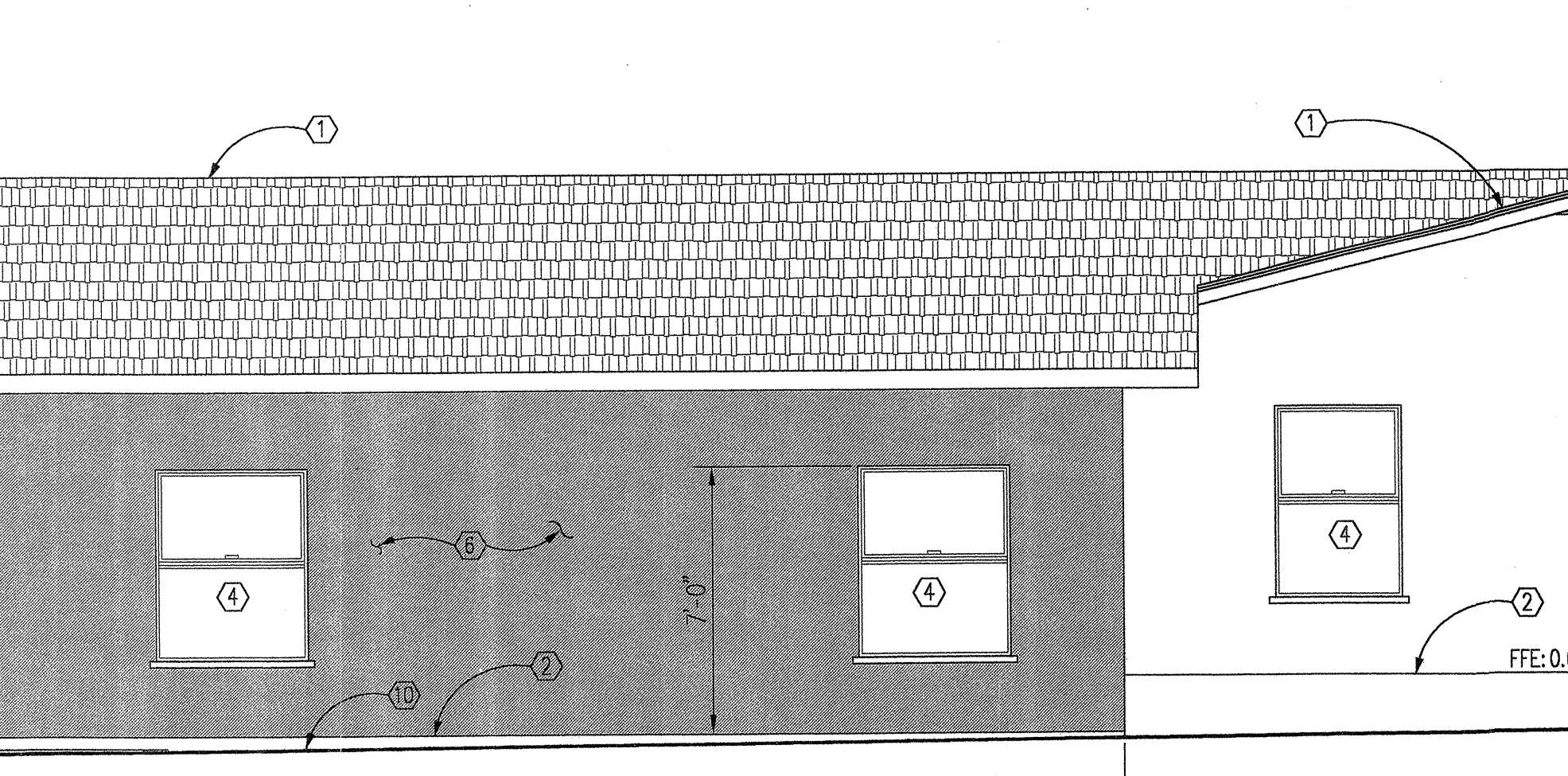
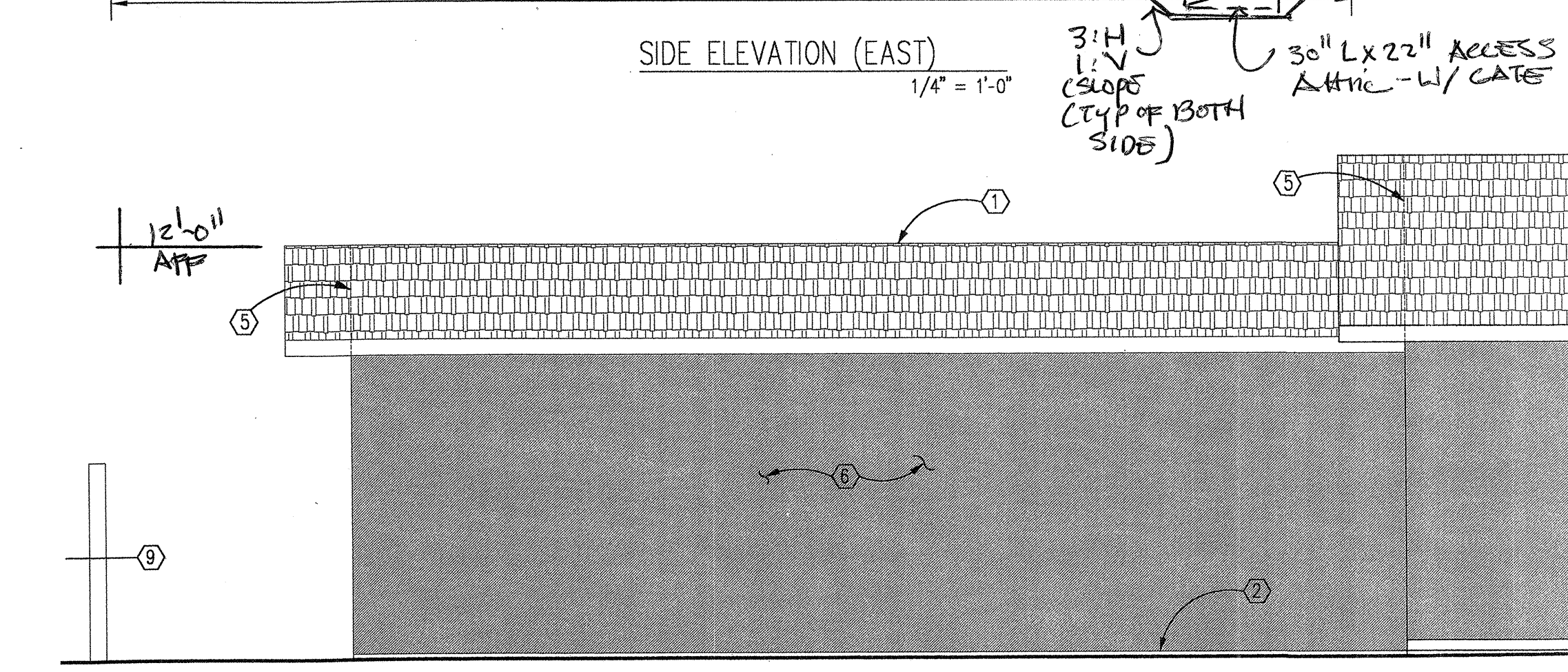
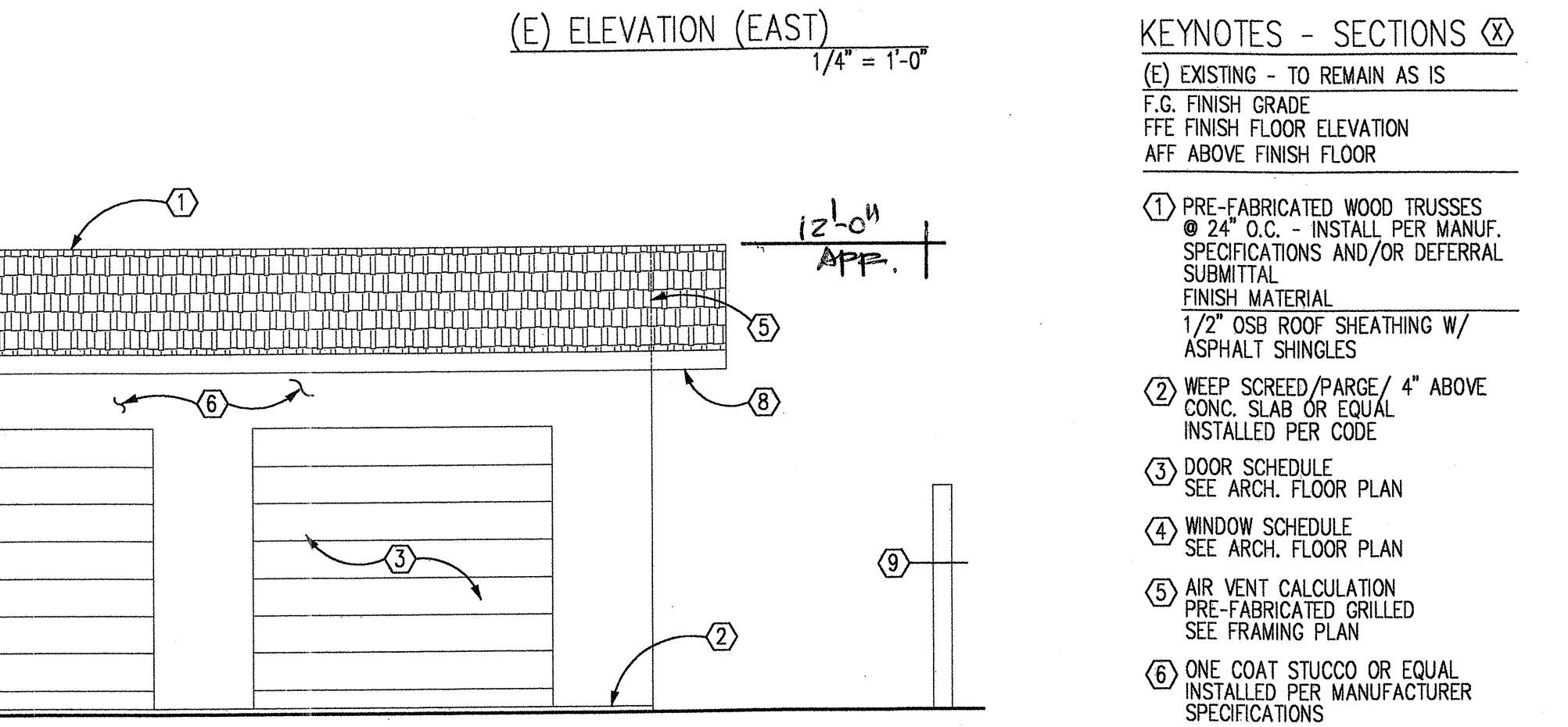
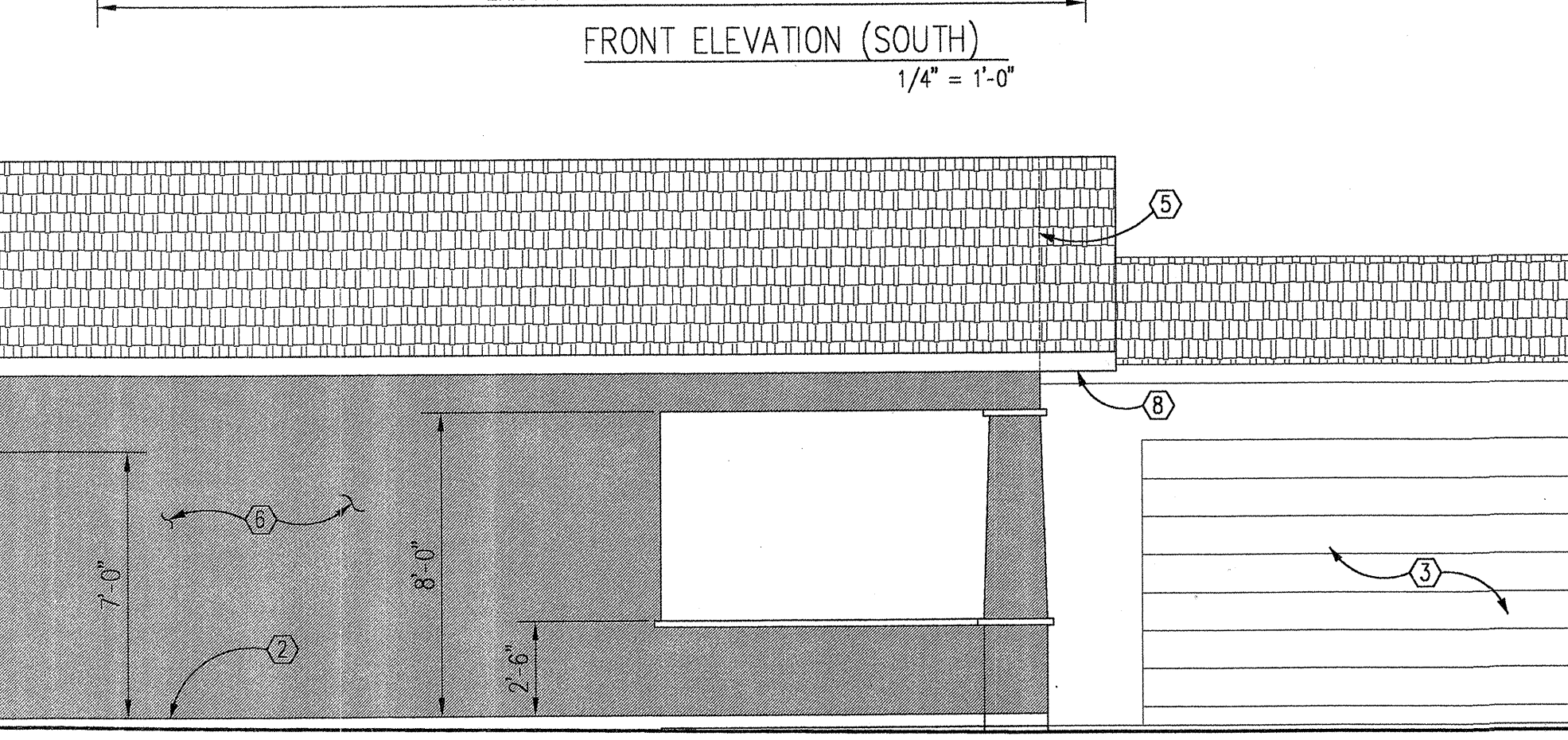
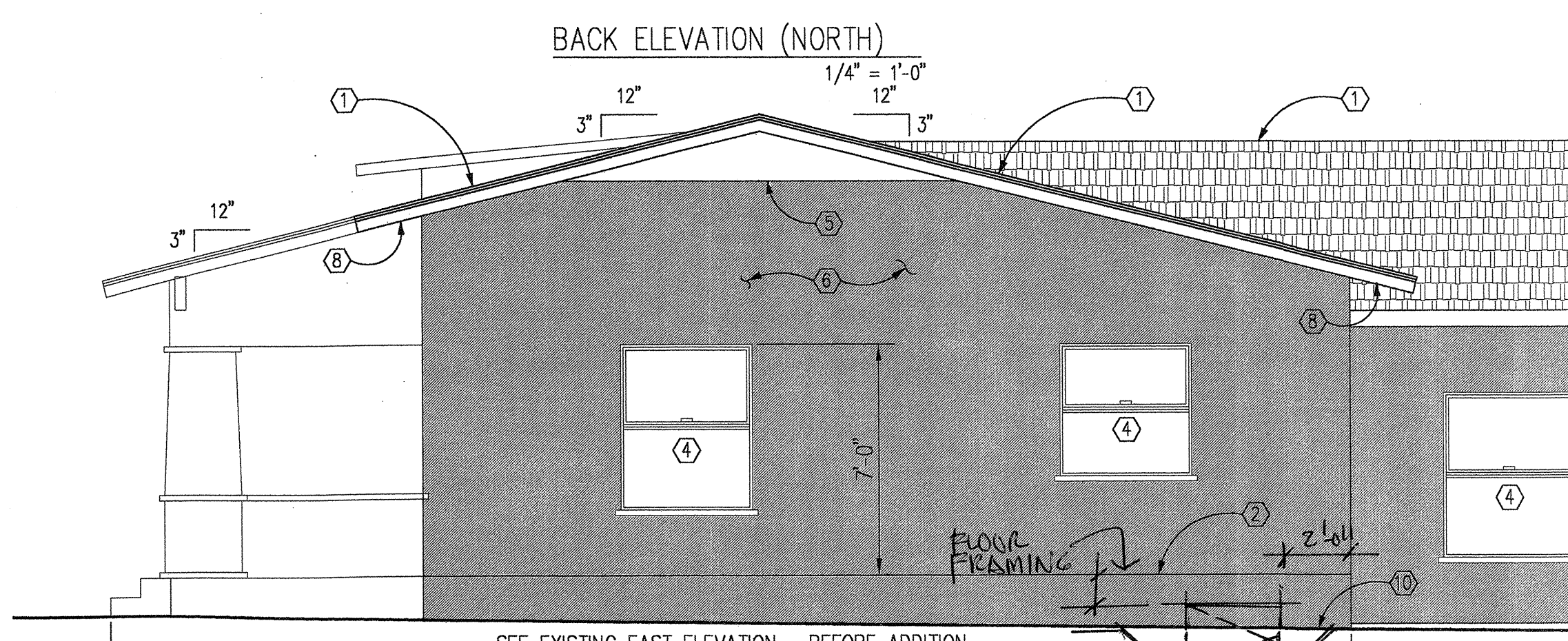
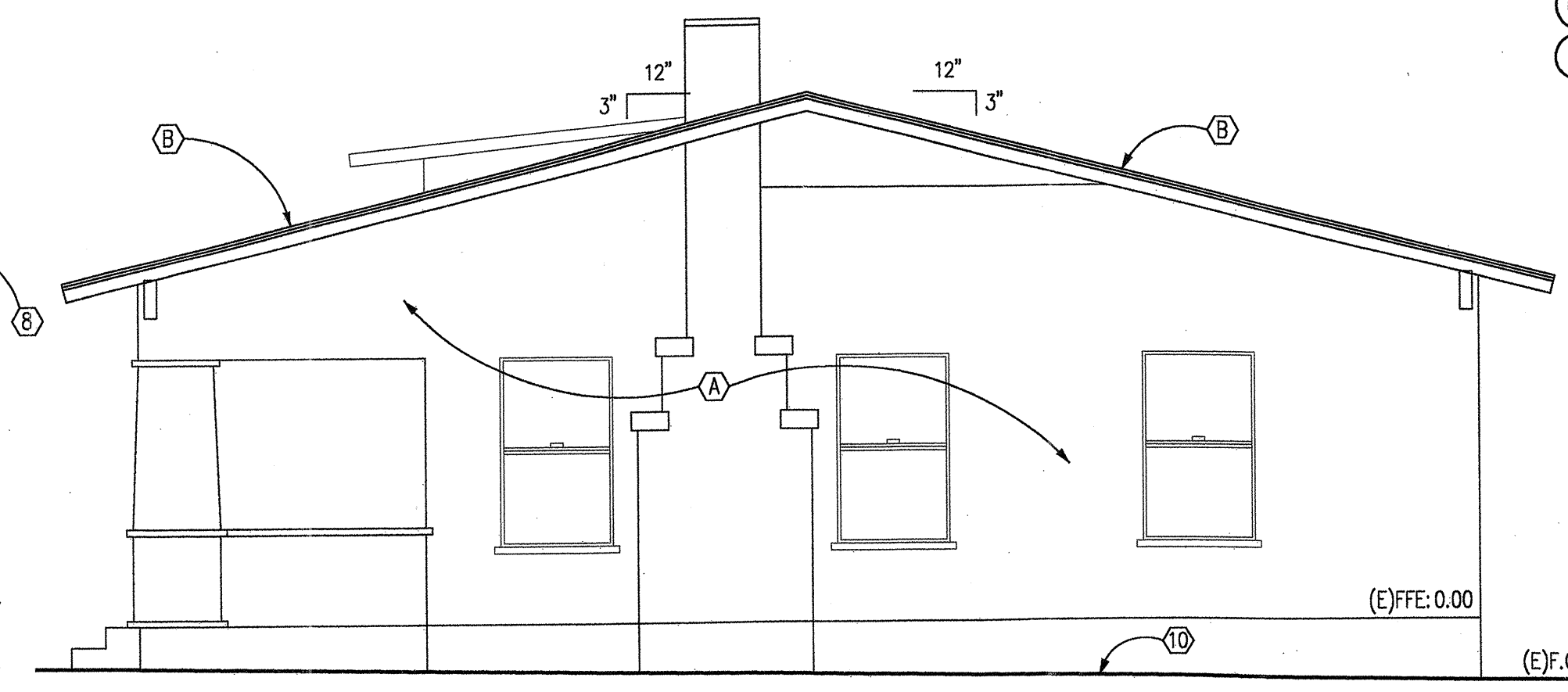
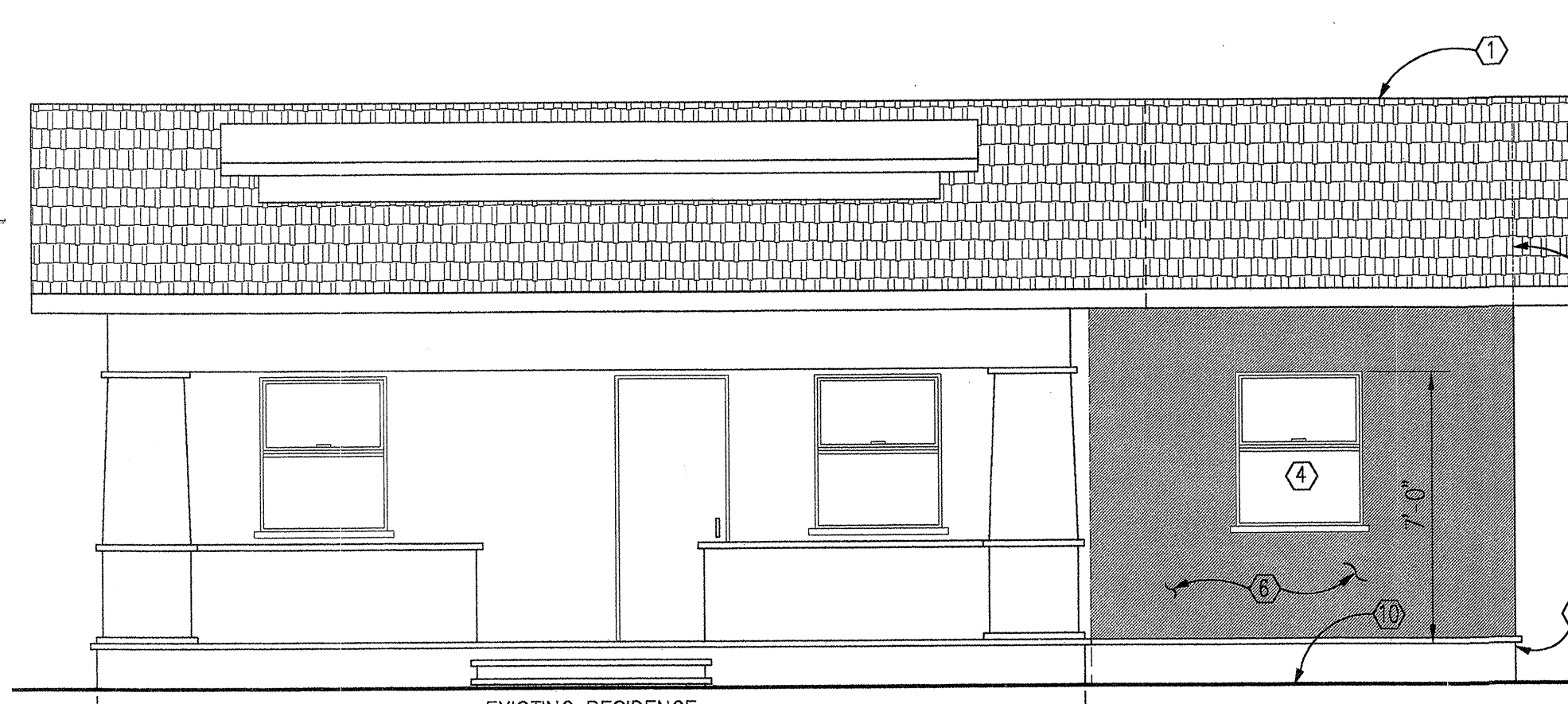
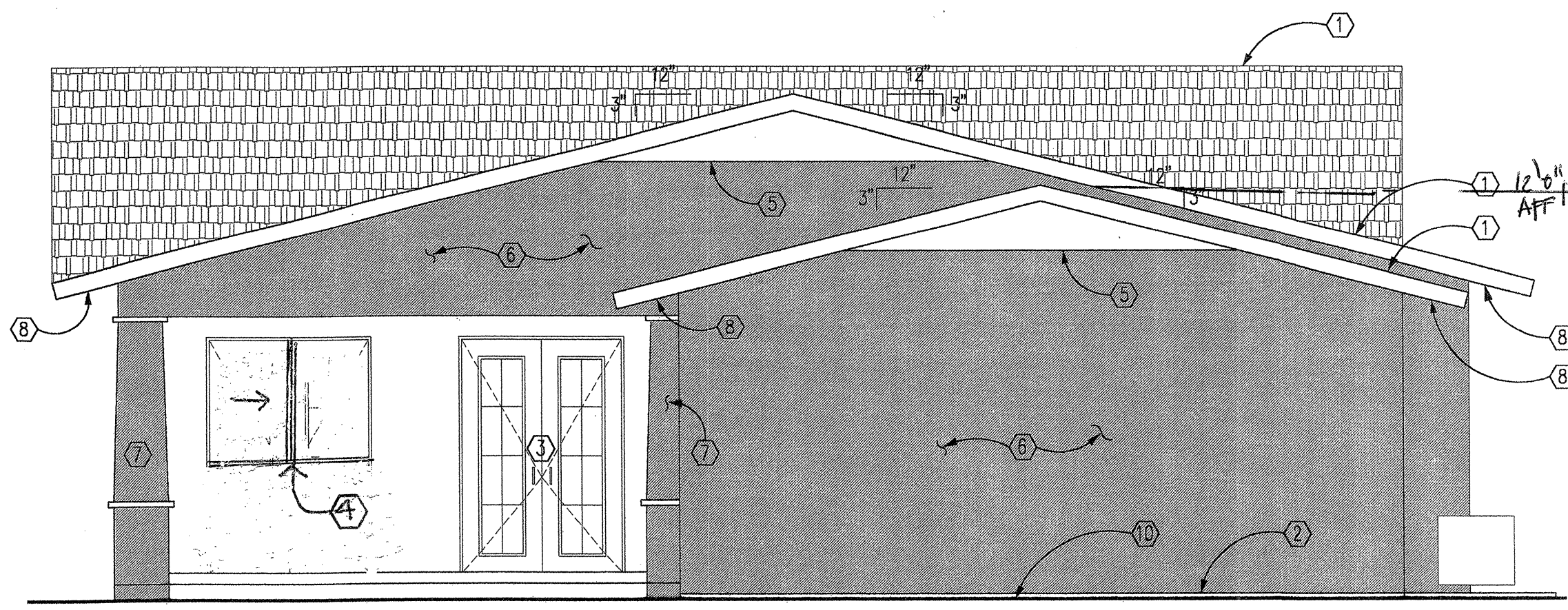
FLOOR R-VALUE R 13 MIN
 - SEE A-2 FOR BATHROOM NOTES

APPROVED
 8/6/11
 Bldg. Permit Specialist

DRAWING INDEX:
 A-00 SITE PLAN
 A-01 FLOOR PLAN
 A-02 ELEVATIONS
 S-01 FOUND. PLAN
 S-02 WALL/ROOF PLAN
 S-03 SECTION/DETAIL
 S-04 DETAILS
 MP-1 PLUMB'G WALL
 MP-2 MECH. PLAN
 MP-3 DETAILS
 E-01 ELEC. PLAN
 GN-1 GEN. NOTES

PROJECT:
FAMILY RESID. ADDITION
 2049 EAST 9TH STREET
 TUCSON, ARIZONA 85719
 AMERICAN VILLA RESUB
 LOT 16 BLK 2
 PARCEL 129-04-0970
 BOOK 3 PAGE 10
 T 14 S RANGE 14 E SEC 8
 SHEET NO. A-1
 OF 18

J.A.C.A. DESIGN L.L.C.
 DRAFTING SERVICES
 TUCSON, ARIZONA
 WWW.JACADesign.com
 CELL (520) 808-4052 - FAX (520) 616-0200
 *AS DESIGN FOR THE POOR
 THESE DOCUMENTS ARE TO BE USED ONLY FOR THE ADDRESSED SITE PER CONTRACT BETWEEN JACA AND CLIENT. THE REPRODUCIBLE DRAWINGS, TRACINGS, ETC. ARE THE PROPERTY OF JACA



- KEYNOTES - SECTIONS (X)**
- (E) EXISTING - TO REMAIN AS IS
 - F.F.E. FINISH FLOOR ELEVATION
 - AFF ABOVE FINISH FLOOR
 - 1) PRE-FABRICATED WOOD TRUSSES @ 24" O.C. - INSTALL PER MANUF. SPECIFICATIONS AND/OR DEFERRAL SUBMITTAL
 - FINISH MATERIAL
 - 1/2" OSB ROOF SHEATHING W/ ASPHALT SHINGLES
 - 2) KEEP SCREED/PARGE / 4" ABOVE CONC. SLAB OR EQUAL INSTALLED PER CODE
 - 3) DOOR SCHEDULE SEE ARCH. FLOOR PLAN
 - 4) WINDOW SCHEDULE SEE ARCH. FLOOR PLAN
 - 5) AIR VENT CALCULATION PRE-FABRICATED GRILLED SEE FRAMING PLAN
 - 6) ONE COAT STUCCO OR EQUAL INSTALLED PER MANUFACTURER SPECIFICATIONS
 - 7) WOOD FRAMING COLUMN SEE ARCH. FLOOR PLAN
 - 8) OVER HANG/EAVE SEE ARCH. FLOOR PLAN
 - 9) 6 FT HT PATIO WALL SEE SITE PLAN
 - 10) FINISH GRADE SEE SITE PLAN
 - A) DEMOLITION PLAN SEE ARCH. FLOOR PLAN
 - B) EXISTING ROOF MATERIAL ASPHALT SHINGLES TO REMAIN AS IS
 - C) EXISTING STUCCO TO REMAIN AS IS

APPROVED
 6-8-11
 Bidg. Permit Specialist

GENERAL NOTES

- 1) ALL WORK SHALL CONFORM WITH REQUIREMENT OF THE LOCAL GOVERNING BUILDING CODE, LOCAL ZONING CODE, NATIONAL ELECTRIC CODE, N.F.P.A., OSHA, AND ALL OTHER APPLICABLE CODES, RULES AND REGULATIONS ALL IN THEIR LATEST EDITION OF ALL AUTHORITIES HAVING JURISDICTION OVER WORK OF THIS TYPE. THE CONTRACTOR SHALL POLICE ALL SUBCONTRACTORS TO COMPLY WITH THESE REGULATIONS.
- 2) THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK, USING THERE BEST SKILL AND ATTENTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT. THE CONTRACTOR SHALL EMPLOY A COMPETENT SUPERINTENDENT WHO SHALL BE IN ATTENDANCE AT THE PROJECT SITE DURING THE PROGRESS OF THE WORK. THE SUPERINTENDENT SHALL REPRESENT THE CONTRACTOR AND ALL COMMUNICATIONS GIVEN TO THE SUPERINTENDENT SHALL BE AS BINDING AS IF GIVEN TO THE CONTRACTOR.
- 3) THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE PROJECT THROUGH INSPECTION OF THE SITE, THE DRAWINGS AND SPECIFICATIONS, SO AS TO THOROUGHLY UNDERSTAND THE WORK. ANY AND ALL DISCREPANCIES AND OMISSIONS SHALL BE REPORTED AND CLARIFICATION OBTAINED FROM THE ARCHITECT PRIOR TO THE WORK BEING DONE. ANY WORK THAT PROCEEDS OTHERWISE SHALL BE, IF INCORRECTLY PERFORMED, REPLACED OR REPAIRED WITH THE COST FOR SAME BEING BORNE BY THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS FOR COORDINATION.
- 4) ALL WORK SHALL BE PROPERLY PROTECTED AT ALL TIMES. THE CONTRACTOR SHALL FOLLOW ALL ACCEPTED METHODS OF SAFETY PRACTICE AND AS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER THIS WORK. HE SHALL REPAIR AT HIS OWN COST ANY DAMAGES TO THE PREMISES OR ADJACENT WORK CAUSED BY HIS OPERATION.
- 5) ALL PENETRATION OF EXISTING FIRE RATED MEMBRANES SHALL BE PROTECTED AS REQUIRED. REPAIR AND DAMAGE TO EXISTING FIRE PROTECTED MATERIALS.
- 6) ALL PERMITS, INSPECTIONS APPROVALS, ETC. SHALL BE APPLIED FOR AND PAID FOR BY THE CONTRACTOR, AND SHALL BE RESPONSIBLE FOR THE COORDINATION OF INSPECTIONS AND APPROVALS OF HIS WORK. ALL THERMAL AND ACOUSTIC INSULATION SHALL COMPLY WITH IRC-2006
- 7) AS STATED: INSULATION-ALL INSULATION MATERIALS, INCLUDING FACINGS, SUCH AS VAPOR BARRIERS OR BREATHER PAPERS INSTALLED WITHIN FLOOR/CEILING ASSEMBLIES, ROOF/CEILING ASSEMBLIES, WALLS, CRAWL SPACES OR ATTICS, SHALL HAVE A FLAME RATING NOT TO EXCEED 25 AND A SMOKE DENSITY NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH LATEST STANDARDS
- 8) A COPY OF THE LATEST SET OF CONSTRUCTION DRAWINGS SHALL BE KEPT AT THE JOB SITE.
- 9) DRAWINGS ARE NOT TO BE SCALED FOR INFORMATION. ALL WRITTEN DIMENSIONS TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR
- 10) MAINTAIN A CLEAN AND ORDERLY WORK AREA AT ALL TIMES. CORE DRILLING NEAR EXISTING TENANTS WILL BE DONE AFTER HOURS OF 5:00 PM AND BEFORE 6:00 AM. PROPER PROTECTION OF EXISTING FURNITURE AND FINISHES AS WELL AS CLEAN UP WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. ON SITE G.C. SUPERVISION OF THIS OPERATION IS MANDATORY.

- 11) DO NOT USE PAINTS, PRIMER, SEALERS, OR GLUES THAT EMIT FLAMMABLE, TOXIC OR NAUSEOUS FUMES. EACH TRADE SHALL BE RESPONSIBLE TO VERIFY THE MATERIALS THEY ARE USING, COMPLY WITH MANUFACTURERS WRITTEN INSTRUCTIONS FOR THEIR USE. "NSDS" SHEET SHALL BE SUBMITTED TO THE GENERAL CONTRACTOR
 - 12) DRAWINGS ASSUME THE EXISTING BUILDING TO BE IN COMPLIANCE WITH CODE REQUIREMENTS. NOTIFY PROPERTY MANAGER AND ARCHITECT OF ANY VIOLATIONS OF CODES DISCOVERED DURING THE COURSE OF CONSTRUCTION IN THE EXISTING BUILDING.
 - 13) MECHANICAL - SUPPLY AND INSTALL AS PER MANUFACTURERS INSTRUCTIONS. HVAC OVERRIDE INSTALLATION IS TO BE COORDINATED WITH BOTH MECHANICAL AND ELECTRICAL CONTRACTORS. HVAC UNITS ARE TO BE INSTALLED WITH CLEAR ACCESS TO FILTERS FOR FUTURE MAINTENANCE. SHUT OFF VALVES ARE TO BE LOCATED ON A PLAN AND SUBMITTED TO MANAGER FOR FUTURE REFERENCE. BALANCE SYSTEM UPON COMPLETION TO TENANT COMFORT & BALANCE BUILDING WATER SYSTEM. WRAP ALL EXPOSED FIBERGLASS INSULATION FOUND IN RETURN AIR PLENUMS WITH (FS25) FOIL SCRM.
- FLOORING NOTES:**
 CONTRACTOR SHALL INSPECTED THE SUB FLOORING BEFORE COMMENCEMENT OF WORK. CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY UNACCEPTABLE FINISHED WORK CAUSED BY SUB-FLOOR CONDITIONS AND CORRECTIONS REQUIRED BY THE G.C./OWNER
- FINISH HARDWARE NOTES:**
- 1) ALL WORK SHALL BE PERFORMED IN A FIRST-CLASS, WORKMANLIKE MANNER, MATCHING AND ALIGNING ALL SURFACES WHERE APPLICABLE TO AFFORD A NEAT AND FINISHED APPEARANCE. CONTRACTOR SHALL CLEAN SURFACES FREE OF ALL DIRT AND DEBRIS. CONTRACTOR SHALL PROPERLY PROTECT ALL ADJACENT SURFACES DURING THE COURSE OF INSTALLATION(S). ALL GLASS AND HARDWARE SHALL BE THOROUGHLY CLEANED PRIOR TO FINAL INSPECTION.
 - 2) DRYWALL TO BE PAINTED SHALL RECEIVE A "LIGHT STIPPLE" FINISH; DRYWALL TO BE FINISHED WITH FRP BOARD, WALL COVERING AND/OR VENEER SHALL RECEIVE A SMOOTH FINISH. ALL JOINTS, SCREWS AND METAL SHALL RECEIVE MINIMUM THREE COATS JOINT COMPOUND WITH SANDING BETWEEN EACH COAT. APPLY A THIN PUTTY COAT TO ALL GWB SURFACES. ALL EXISTING DRYWALL OR PLASTER AREAS (INCLUDING EXISTING CORNER BEADS) ARE TO BE REPAIRED, TAPED SKIMMED AND FINISHED ALONG WITH NEW DRYWALL. DRYWALL CONTRACTOR SHALL RE-TOUCH FINISH AS NECESSARY AFTER FIRST COAT OF PAINT AND PRIOR TO FINAL POINT.
 - 3) PAINTED DRYWALL SHALL RECEIVE ONE PRIMER COAT AND TWO FINISH COATS OF MANUFACTURER'S HIGHEST PREMIUM BRAND PRODUCT(S). REFER TO BUILDING STANDARD FINISHING NOTES FOR PAINT TYPES, FINISHES AND COLOR SPECIFICATIONS. DRYWALL TO RECEIVE FRP BOARD, WALL COVERING AND/OR VENEER SHALL RECEIVE ONE COAT OF SEALER PRIMER. DOOR FRAMES SHALL RECEIVE ONE COAT OF PRIMER AND TWO COATS OF SEMI-GLOSS.

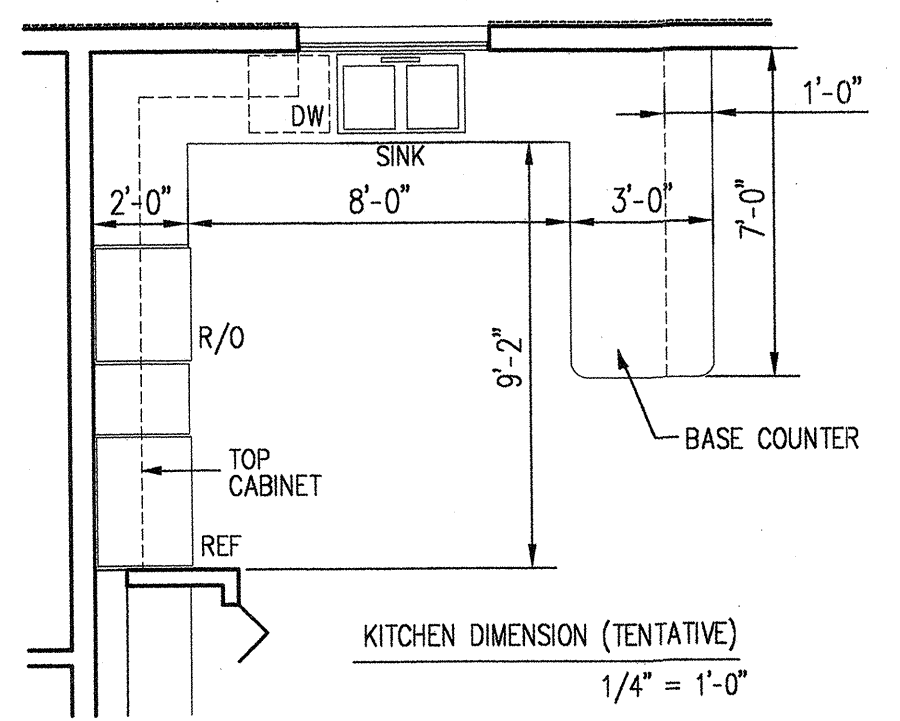
MOISTURE/THERMAL CONTROL

ALL ROOFING SYSTEMS TO BE INSTALLED PER MANUFACTURERS WRITTEN SPECIFICATION. SEALING OF PENETRATIONS IN THE BUILDING ENVELOPE AND AT THE JUNCTION OF DISSIMILAR MATERIALS TO BE OF AN APPROVED TYPE AND INSTALLED TO INSURE WEATHER TIGHTNESS.

MINIMUM INSULATION VALUES TO BE:
 R30 CEILING
 R19 FRAME WALLS

CONDITIONED ATTIC ASSEMBLY PER R 806.4 (UNVENTED)
 COORDINATE WITH ROOF CONTRACTOR AND INSULATION MANUFACTURER & PROVIDED

VENT CALCULATION - SEE 6 SF PREFABRICATED AIR VENT GRILLE



TYP.-WINDOW SILL HEIGHT 44" MAX. WINDOW OPENING 20"W X 24"H & THE TOTAL SQ. FT. OF THE OPENING MUST BE 5.7 SQ. FT.

SEE GN-1 FOR GENERAL NOTES

SPECIALTIES

UNLESS BY APPROVED EXCEPTION, ALL SOIL BELOW CONCRETE SLABS TO BE TREATED FOR TERMITE CONTROL USING THE PRODUCT "DURSBAN TC" BY S.O.S. EXTERMINATOR, INC, 480-781-9660 APPLIED AT A RATE OF 0.75% TO 1.0%.

THIS PROJECT COMPLY W/ CHAPTER 7 FOR WALL COVERING FOR THICKNESS OF PLASTER SEE TABLE R 702.1 (1) FOR GYPSUM PLASTER PROPORTIONS. SEE TABLE R 702.1 (2) FOR PORTLAND CEMENT PLASTER. SEE TABLE 702.1 (3)

THIS PROJECT COMPLY W/ CHAPTER 8 FOR ROOF -CEILING CONSTRUCTION.

THIS PROJECT COMPLY W/ CHAPTER 9 -ROOF ASSEMBLIES

EXTERIOR SOFFITS REQUIRING STUCCO, TO BE APPLIED TO 1/2" MOISTURE RESISTANT GYPSUM WALLBOARD.

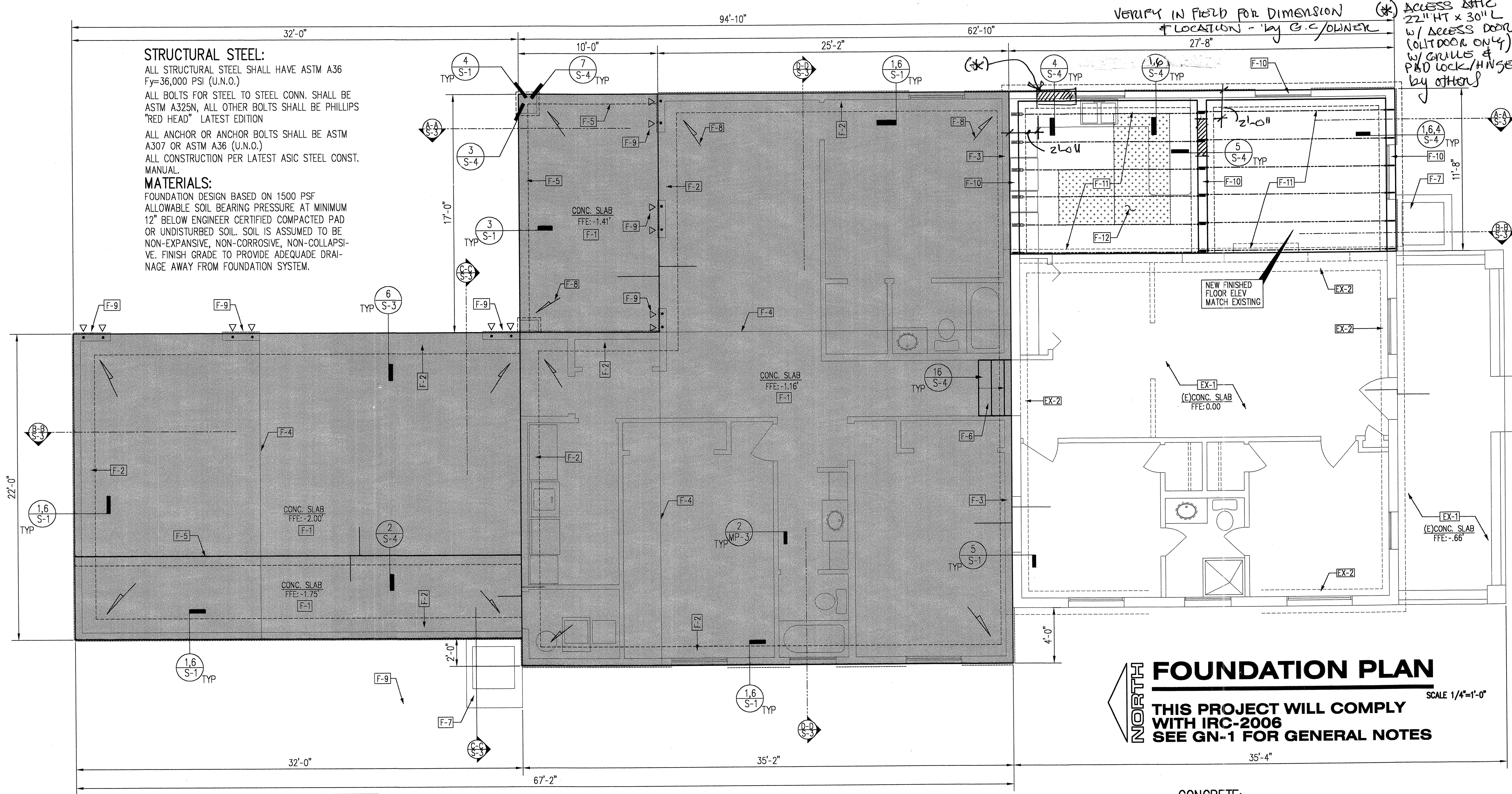
ALL GYPSUM WALLBOARD USED AS A BASE FOR HARD SURFACE FINISHES IN SHOWERS, TUBS OR WATER CLOSET COMPARTMENTS SHALL BE OF WATER RESISTANT TYPE.

THIS PROJECT COMPLY W/ CHAPTER 6 FOR WALL CONSTRUCTION.

FOR FASTENER SCHEDULE FOR STRUCTURE MEMBERS SEE TABLE R 602.3 PAGE 104

- DRAWING INDEX:**
- A-01 SITE PLAN
 - A-01 FLOOR PLAN
 - A-02 ELEVATIONS
 - S-01 FOUND. PLAN
 - S-02 WALL/ROOF PLAN
 - S-03 SECTION/DETAIL
 - S-04 DETAILS
 - MP-1 PLUMB'G WALL
 - MP-2 MECH. PLAN
 - MP-3 DETAILS
 - E-01 ELEC. PLAN
 - GN-1 GEN. NOTES

56-MKH
 JOB NO. DATE 19 APRIL 2011
 DRAWING SERVICES
 J.A.C. DESIGN L.L.C.
 TUCSON, ARIZONA
 www.jacdesignllc.com
 CILLI(520) 808-4052 - FAX (520) 616-0200
 PROJECT ADDRESS: 2045 EAST 9TH STREET, TUCSON, ARIZONA 85719
 AMERICAN VILLA RESUB
 LOT 16 BLK 2
 PARCEL 128-04-0970
 BOOK 8 PAGE 10
 T 14 S RANGE 14 E SEC 8
 SHEET NO. A-2
 THESE DOCUMENTS ARE TO BE USED ONLY FOR THE ADDRESSED SITE PER CONTRACT BETWEEN JACA AND CLIENT. THE REPRODUCIBLE DRAWINGS, TRACINGS, SEPIAS, ETC. ARE THE PROPERTY OF JACA

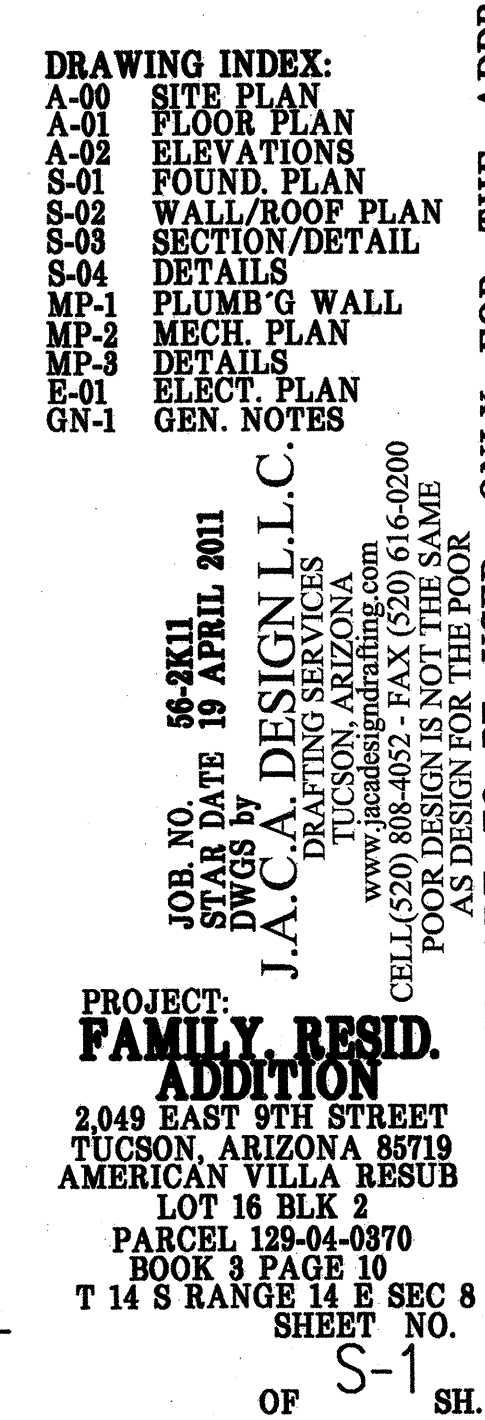
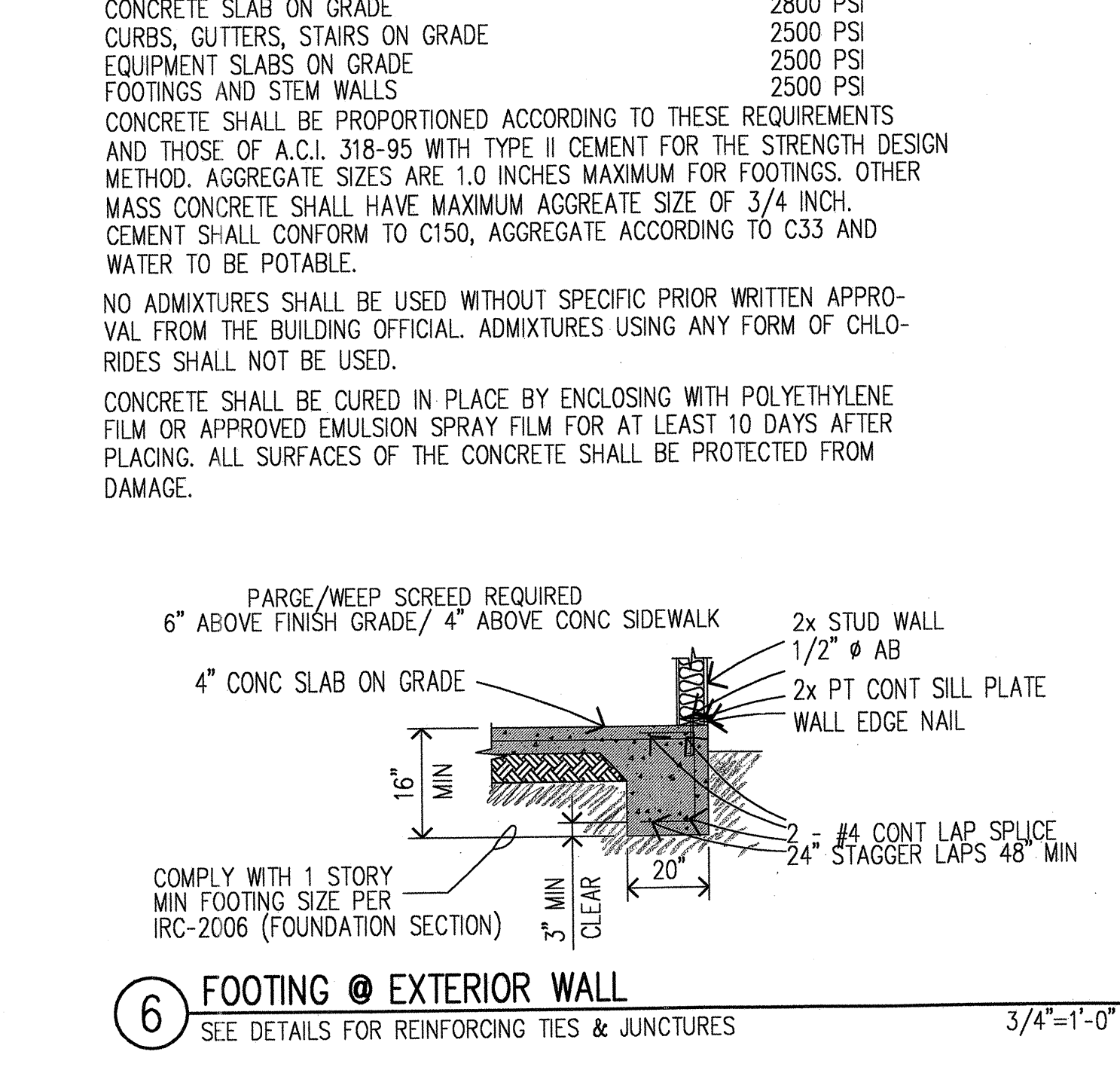
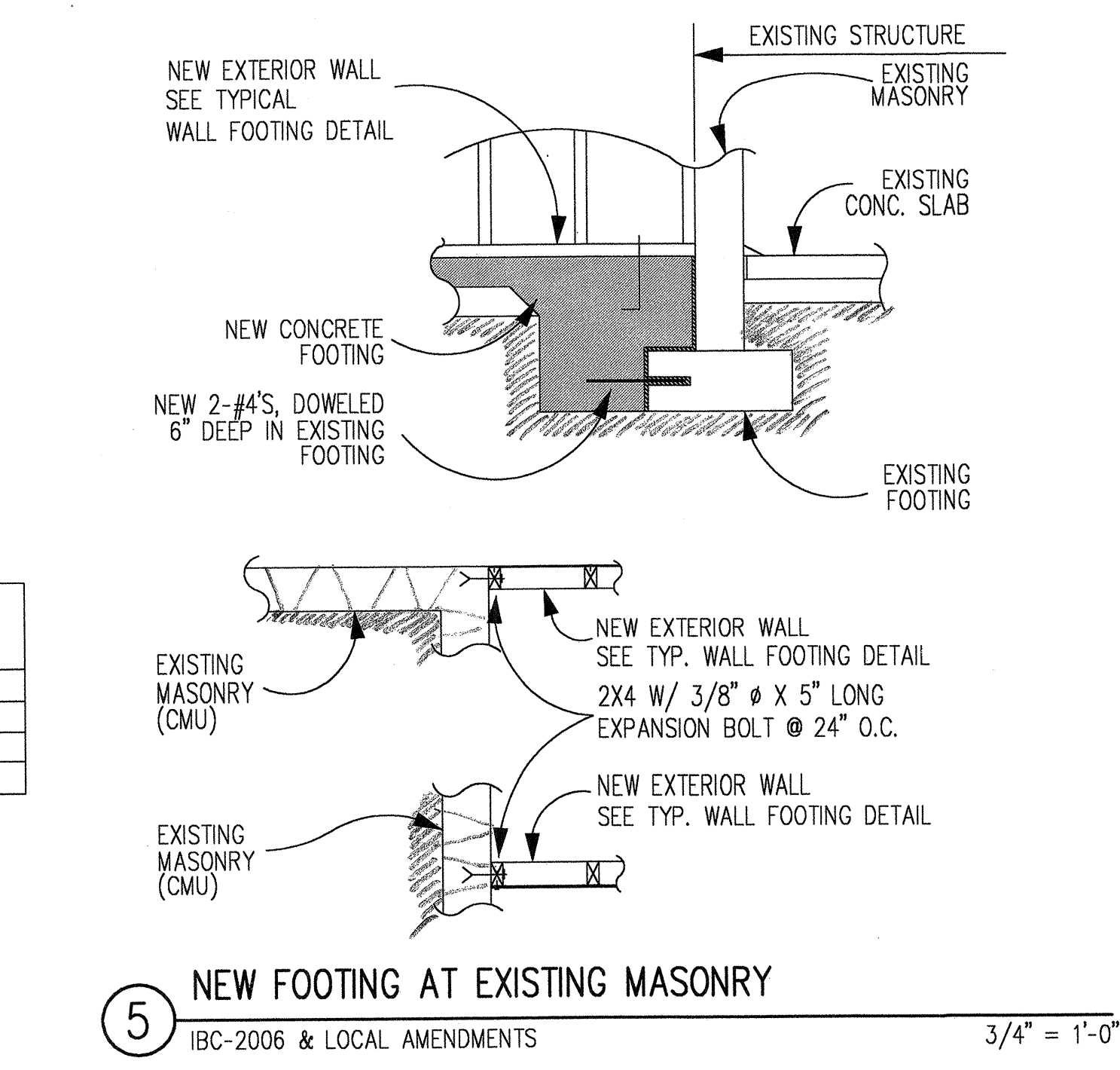
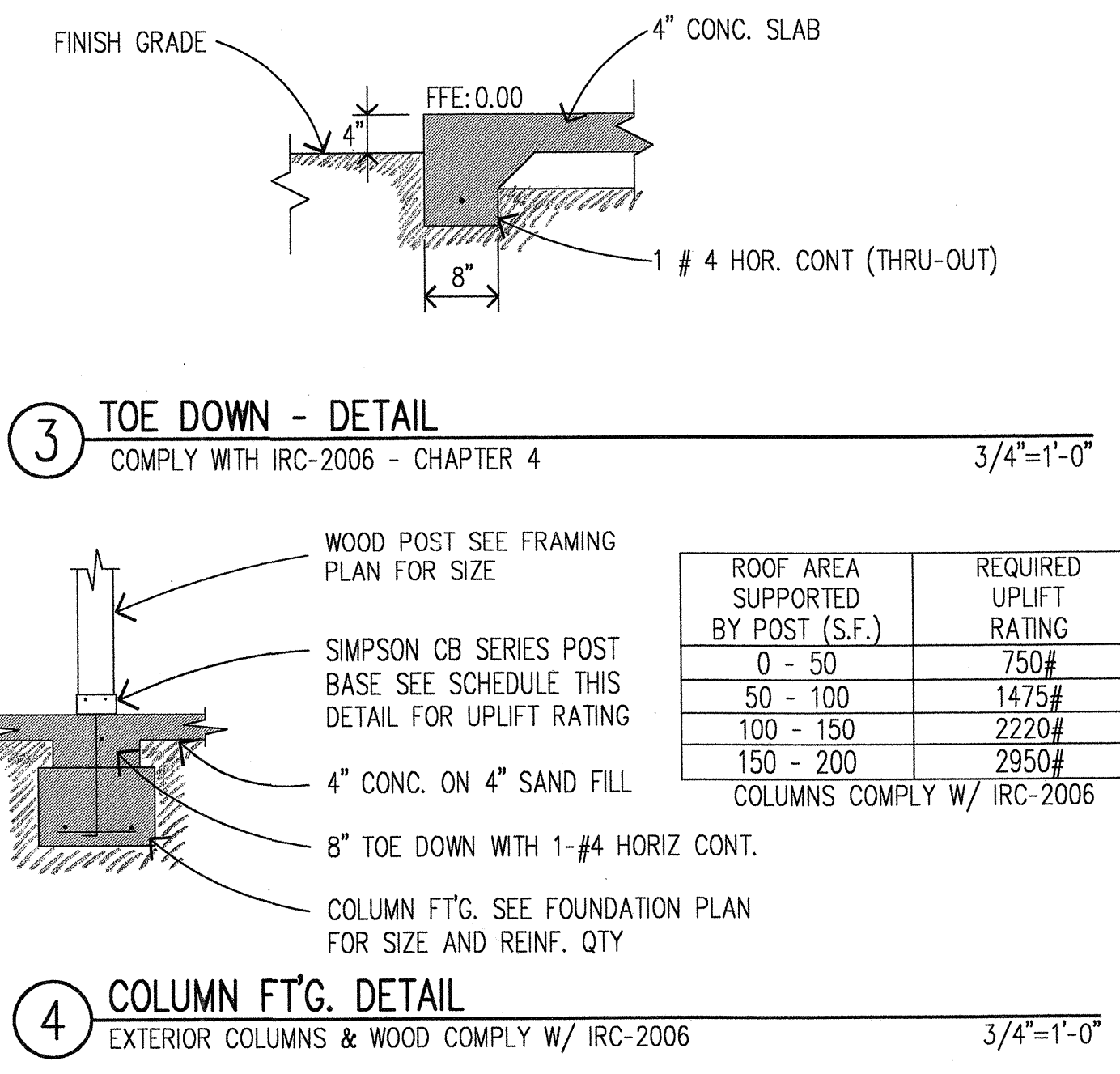
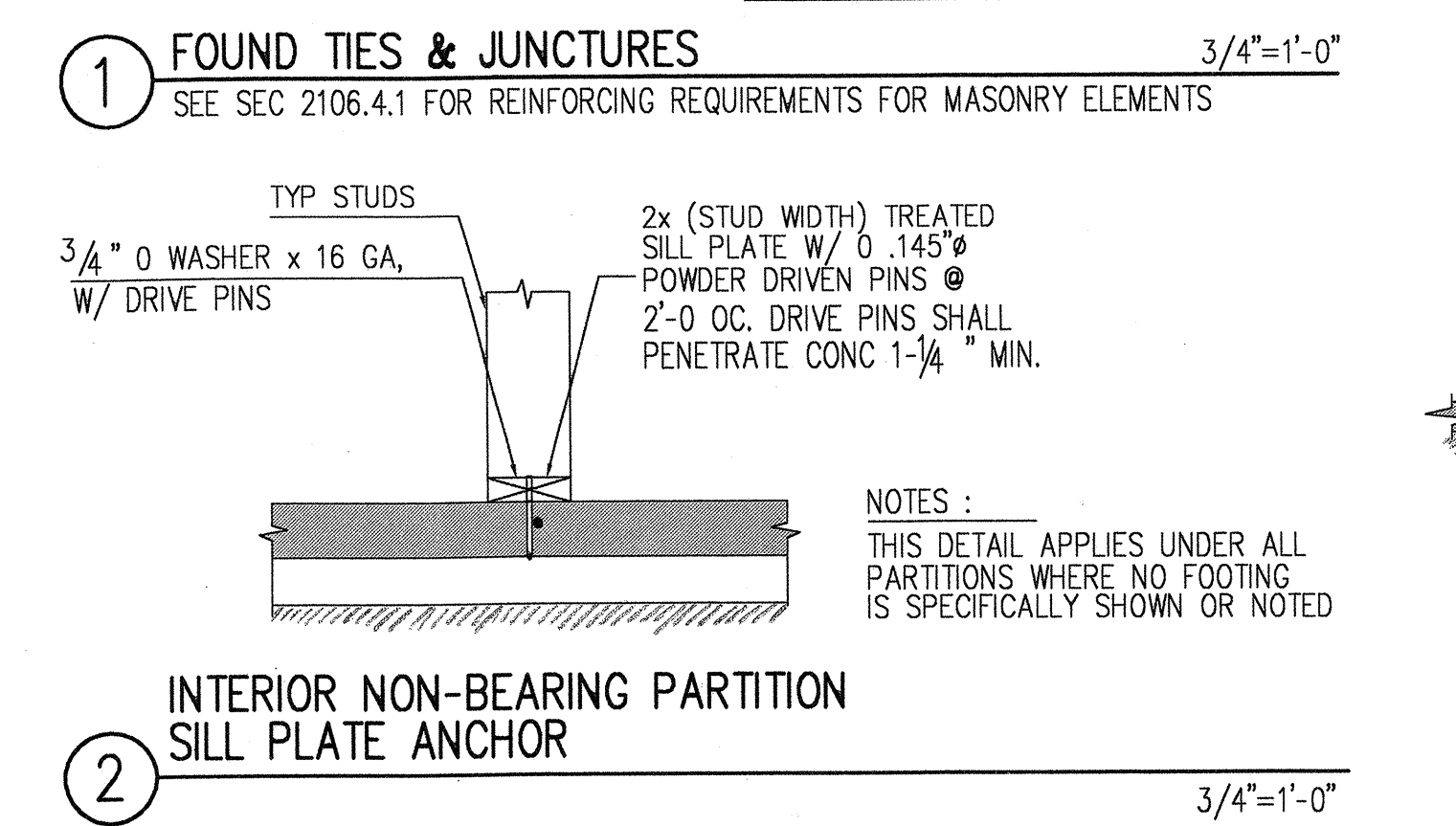
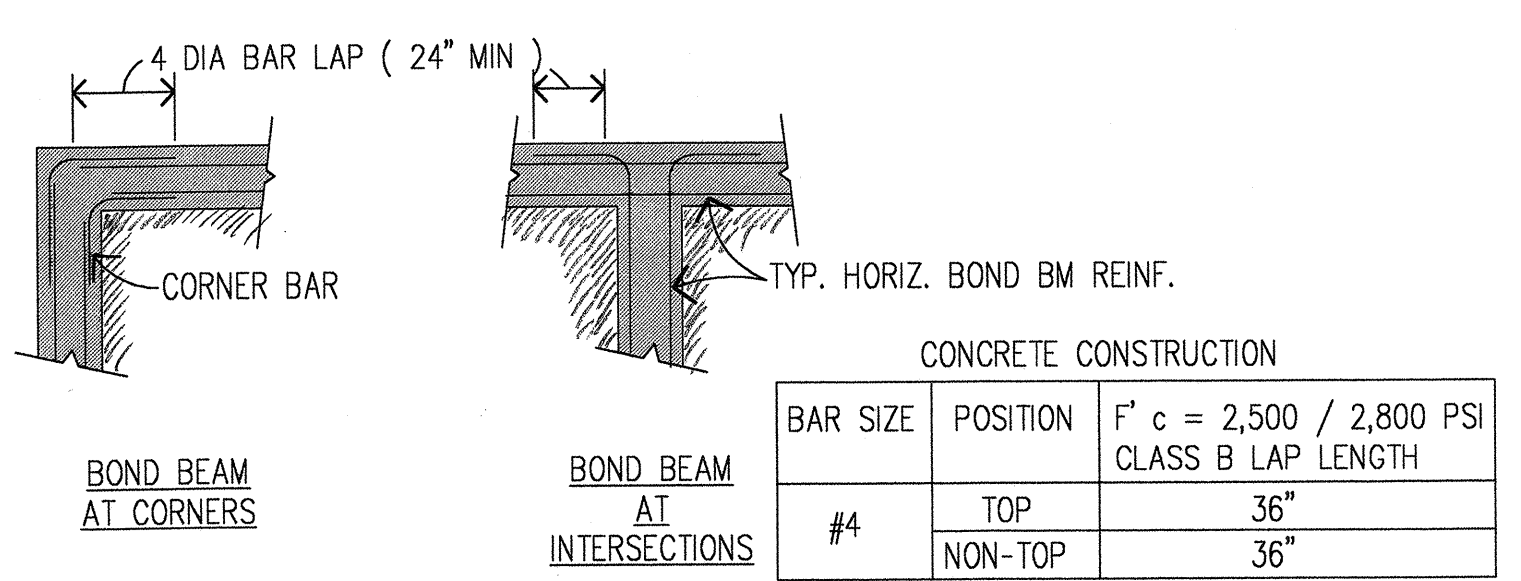


FOUNDATION PLAN
 THIS PROJECT WILL COMPLY WITH IRC-2006
 SEE GN-1 FOR GENERAL NOTES
 SCALE 1/4"=1'-0"

BASIS OF DESIGN:
 2006 IBC (INTERNATIONAL BUILDING CODE)
 2006 IRC (INTERNATIONAL RESIDENTIAL CODE)

ROOF LIVE LOAD:
 FLAT ROOF: 20 LBS
 SLOPE ROOF: 15 LBS

FLOOR LIVE LOAD: 40 PSF
WIND LOADING: 90 MPH



C:\JACO\DESIGN\2011\195-2K11 (courtesy) \522K11-51.dwg Tue May 10 07:14:08 2011

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ROUGH HARDWARES:

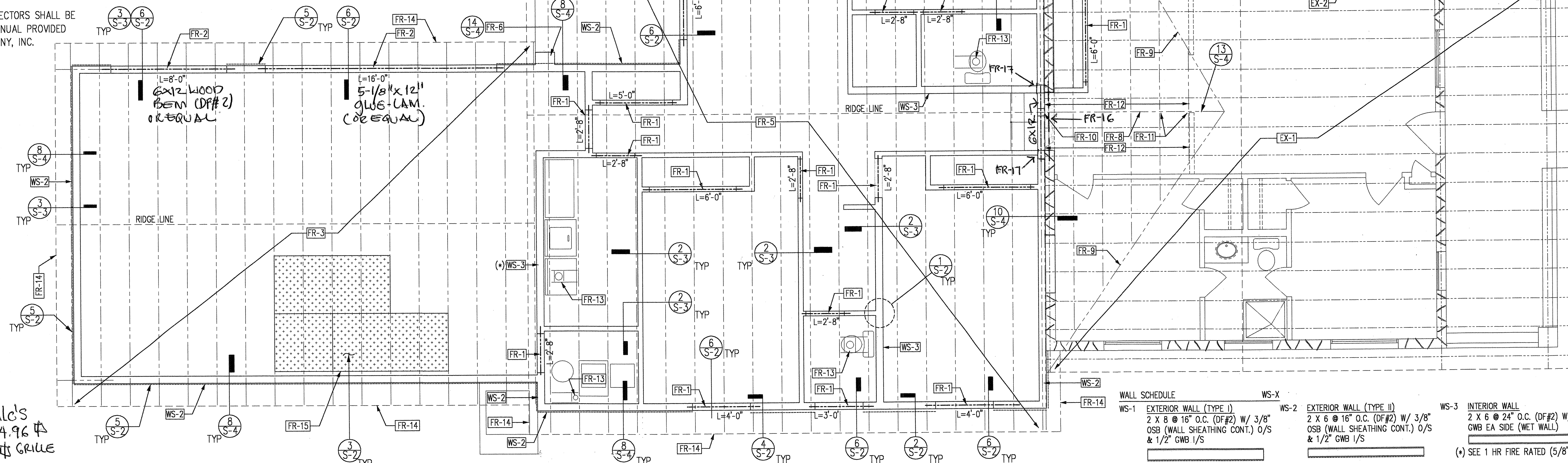
SOLID SAW LUMBER SHALL COMPLY WITH THE LATEST EDITION OF THE GRADING RULES OF THE WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) OR THE COAST LUMBER INSPECTION BUREAU (NCLIB). ALL SOLID SAW LUMBER SHALL BE STAMPED WITH THE GRADE MARK OF AN APPROVED GRADING AGENCY. SOLID SAW LUMBER SHALL HAVE THE FOLLOWING MINIMUM GRADES. USE: MATERIAL:

2x4 STUDS AND BLOCKING.	STUD GRADE OR BETTER DOUGLAS FIR OR HEM-FIR
2x6 STUDS AND BLOCKING.	STUD GRADE OR BETTER DOUGLAS FIR OR HEM-FIR
AND BLOCKING.	DOUGLAS FIR # 2
4x BEAMS AND POSTS.	DOUGLAS FIR # 2
6x BEAMS AND POSTS.	DOUGLAS FIR # 2

ALL SIMPSON STRONG-TIE CONNECTORS SHALL BE INSTALLED PER INSTRUCTION MANUAL PROVIDED BY SIMPSON STRONG-TIE COMPANY, INC.

ALL STRUCTURAL FRAMING AND CONNECTIONS SHALL BE PER IRC-2006. SPECIFIED HARDWARE SHALL BE SIMPSON STRONG-TIE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. ALL WALLS NOT SOLIDLY SHEATHED OR CONTAINING SHEAR PANELS SHALL HAVE A 1x6 DIAGONAL LET-IN OR APPROVED STEEL "X" BRACE AT THE ENDS AND AT NOT MORE THAN 25' ON CENTER. BRACE SHALL EXTEND FROM BOTTOM OF LOWEST PLATE TO TOP OF UPPER PLATE. GYPSUM WALL BOARD SHEATHING TO BE PER TABLE 2306.4.5. OF IBC-2006 (U.N.O.) SEE SHEAR WALL SCHEDULE.

PRE-FABRICATED WOOD TRUSSES @ 24" O.C. SEE SHOP DRAWINGS ATTACHED OR DEFERRAL SUBMITTAL



REQUIRED VENT. CALC'S
 $2,245 \text{ CF} \times 1/150 = 14.96 \text{ CF}$
 PROVIDED: $4 \times 6 = 24 \text{ CF MIN}$

WOOD AND LUMBER PRODUCTS:

ALL WOOD CONSTRUCTION SHALL CONFORM TO INTERNATIONAL RESIDENTIAL CODE 2006 DOUGLAS FIR LARCH N # 2
 ALL STRESS GRADE LUMBER SHALL COMPLY WITH THE APPROPRIATE SPECIFICATIONS AS PUBLISHED IN THE CURRENT EDITION OF THE W.C.L.A. MANUAL AND ALL PIECES OF LUMBER, IN PLACE, SHALL BEAR THE APPROVAL STAMP OF THE W.C.L.A.
 SPECIFICATIONS FOR LUMBER AND WOOD PRODUCTS: FRAMING LUMBER, S4S (2x4 - 4x16): SIMPSON STRONG-TIE HOLES FOR NAILS, WHERE NECESSARY TO PREVENT SPLITTING, SHALL BE PREDRILLED AT A SMALLER DIAM. THAN NAILS.

PRE-FABRICATED WOOD TRUSSES - BY OTHER INSTALL PER MANUFACTURER SPECIFICATIONS

UNLESS SHOWN OTHERWISE ON THE PLANS, PROVIDE THE FOLLOWING TRIMMERS AT BEAMS. SINGLE TRIMMER FOR ALL 4x8 AND SMALLER BEAMS AND HEADERS. DOUBLE TRIMMERS FOR ALL 4x12 AND SMALLER BEAMS AND HEADERS. TRIPLE TRIMMERS FOR ALL BEAMS AND HEADERS. PROVIDE DOUBLE STUDS (MIN.) ALL GIRDER TRUSSES, BEAMS, AND HEADERS, (U.N.O.)

FRAMING NOTES:

AS AN ALTERNATE TO PLYWOOD, AMERICAN PLYWOOD ASSOCIATION (APA) PERFORMANCE RATED SHEATHING MAY BE USED WITH PRIOR APPROVAL OF THE OWNER AND G.C.. RATED SHEATHING SHALL COMPLY WITH ICBO REPORT N# 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.

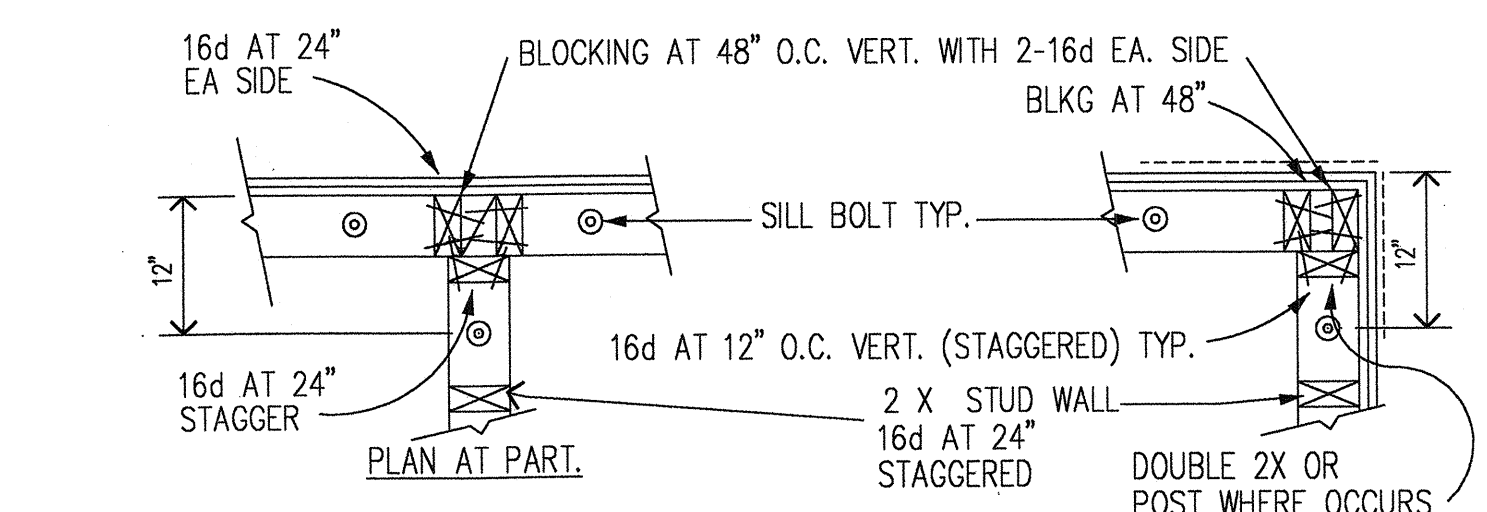
ROOF SHEATHING SHALL BE 1/2" STRUCTURAL II AP RATED PLYWOOD (OR OSB) W/ 8d COMMON NAILS @ 6" O.C. AT EDGES AND 12" O.C. FIELD. UNLESS SHOWN OTHERWISE ON THE PLANS, PROVIDE THE FOLLOWING KING STUDS AT EDGE OF OPN'G OF EXTERIOR WALLS: SINGLE STUD FOR OPN'G < 4'-0" DOUBLE STUDS FOR OPN'GS 4'-1" TO 6'-0" TRIPLE STUDS FOR OPN'GS 6'-1" TO 9'-0" ALL STUD-WALL TOP PLATES TO BE DOUBLE MEMBERS AND SPLICED WITH 48" MIN. LAP. SEE DETAILS ALL SHEAR WALLS SHALL HAVE DOUBLE 2x STUDS AT EA. END (U.N.O.)

SILL PLATES RESTING ON CONCRETE OR MASONRY SHALL BE OF PRESSURE TREATED FIR. MAXIMUM ANCHOR BOLT SPACING SHALL BE 72 INCHES O.C. U.N.O. ON PLANS AND DETAILS. ALL ANCHOR BOLTS (OTHER THAN BOLTS FOR HOLD-DOWNS) SHALL BE 1/2" DIAM. AND EMBEDDED 7" INTO CONCRETE U.N.O. ANCHOR BOLTS FOR HOLD-DOWNS 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 DRIVEN WITH SHOT PINS ACCORDING TO ALTERNATE OUTLINED HEREIN U.N.O. ON PLANS.

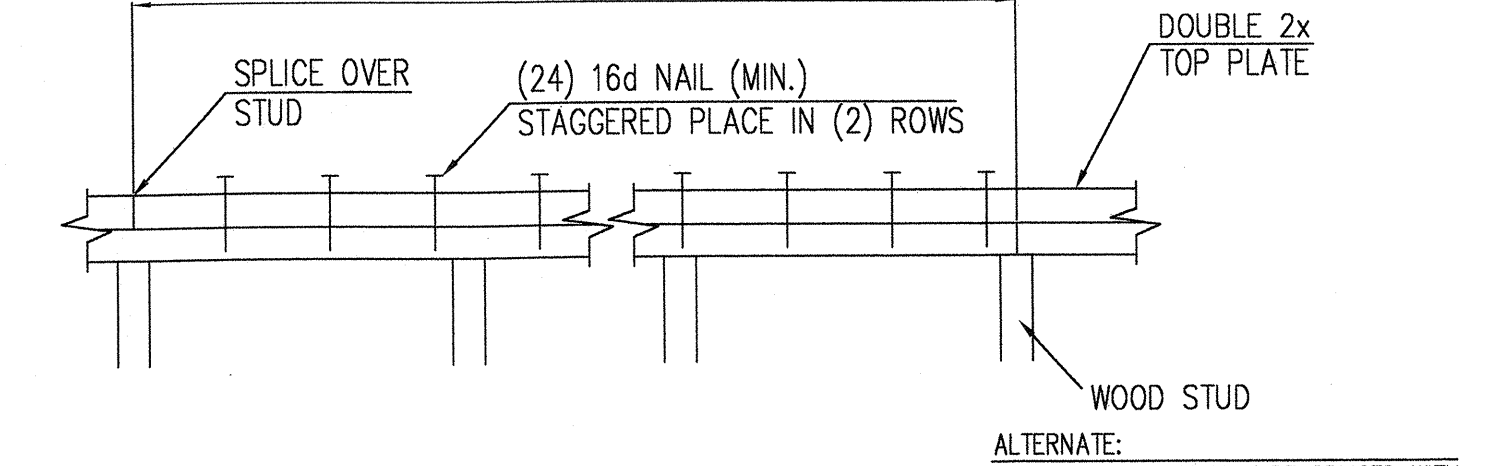
KEYNOTES
 (E) EXISTING TO REMAIN AS IS
 (N) NEW

FRAMING PLAN

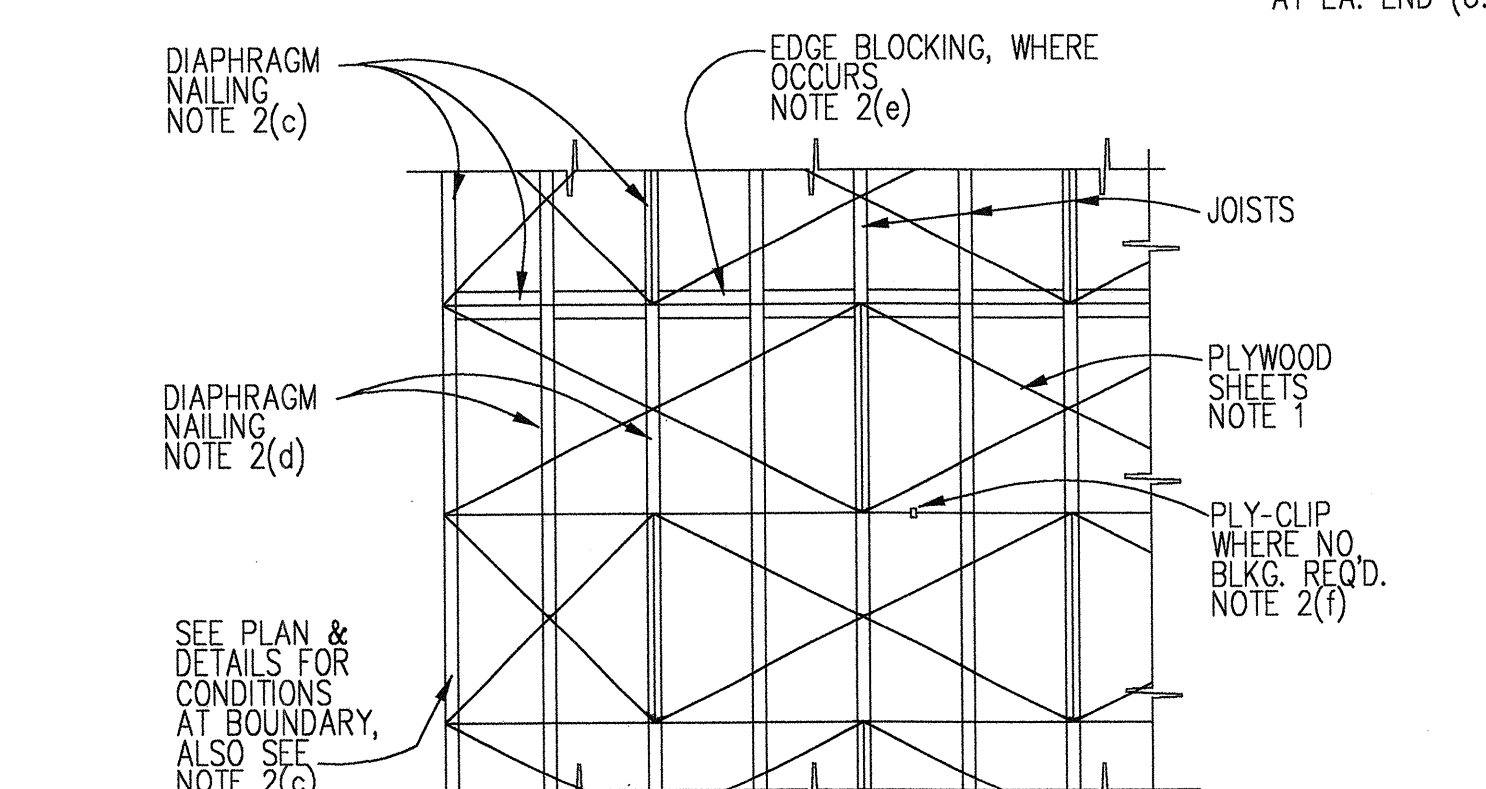
EXISTING CONDITIONS	EX-X
EXISTING WALL (CMU) TO REMAIN AS IS	
EXISTING WALL (CMU) TO BE REMOVED SEE DEMOLITION PLAN	
FRAMING KEYNOTES	FR-X
FR-1 WOOD HEADER (DF#2) 6" X 12" (L=9'-0") PER IRC-2006	(6) (S-2)
FR-2 WOOD BEAM (DF#2) 6" X 12" (L=9'-0") PER IRC-2006	(6) (S-2)
FR-3 PRE-FABRICATED WOOD TRUSSES @ 24" O.C. - INSTALL PER MANUFACTURER SPECIFICATIONS L=22'-0"	
FR-4 PRE-FABRICATED WOOD TRUSSES @ 24" O.C. - INSTALL PER MANUFACTURER SPECIFICATIONS L=28'-2"	
FR-5 PRE-FABRICATED WOOD TRUSSES @ 24" O.C. - INSTALL PER MANUFACTURER SPECIFICATIONS L=28'-2"	
FR-6 WOOD FRAME BOX (DF#2) 2 X 3 FRAME	
FR-7 WOOD BEAM (DF#2) 6 X 12 (L=9'-0")	
FR-8 WOOD BEAM (DF#2) 4 X 12 (L=12'-6")	
FR-9 WOOD RAFTER (DF#2) 2 X 10 W/ LUS 210 OR EQUAL	
FR-10 WOOD COLUMN (DF#2) 6X6 WOOD POST W/ CONNECTION	
FR-11 LUS 28 HANGER OR EQUAL BEAM/RAFTER CONNECTION (TYP. OF ALL)	
FR-12 2 X 8 WOOD RAFTER @ 24" O.C. OVER-FRAMING PLAN	
FR-13 2 X 3 WOOD BLOCKING (DF#2) CLIP HARDWARE BY SIMPSON FOR EQUIPMENT ROOF PENETRATION COORDINATE WITH ROOF FRAMING CONTRACTOR & OWNER	(9) (S-4)
FR-14 2 X 3 WOOD FASCIA (DF#2) W/ CLIP HARDWARE BY SIMPSON	
FR-15 1/2" OSB (PLYWOOD) ROOF SHEATHING - FINISHING - ASPHALT SHINGLES - INSTALL PER MANUFACT. SPECIFICATIONS	



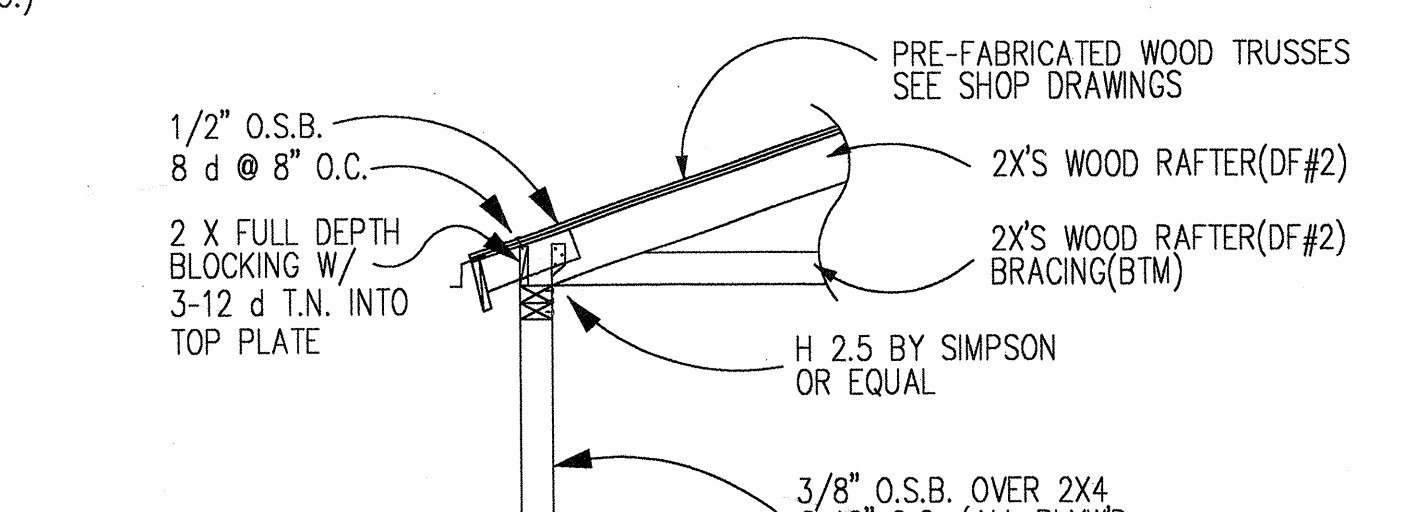
1 WOOD FRAMING @ WALL INTERSECTION
 BOLTS IN WOOD SHALL BE NOT LESS THAN 7 BOLT DIAM. FROM ENDS 3/4" = 1'-0" AND 4 BOLTS DIAM. FROM EDGES 48" MIN.



2 TYP. NAILED TO TOP PLATE SPLICE
 SEE ARCH. FLOOR PLAN FOR FINISH MATERIAL 3/4" = 1'-0"



3 TYP. HORIZ. ROOF SHEATHING
 IBC-2006 & LOCAL AMENDMENTS 3/4" = 1'-0"



4 PRE-FABRICATED WOOD TRUSSES @ STUD WALL
 3/4" = 1'-0"

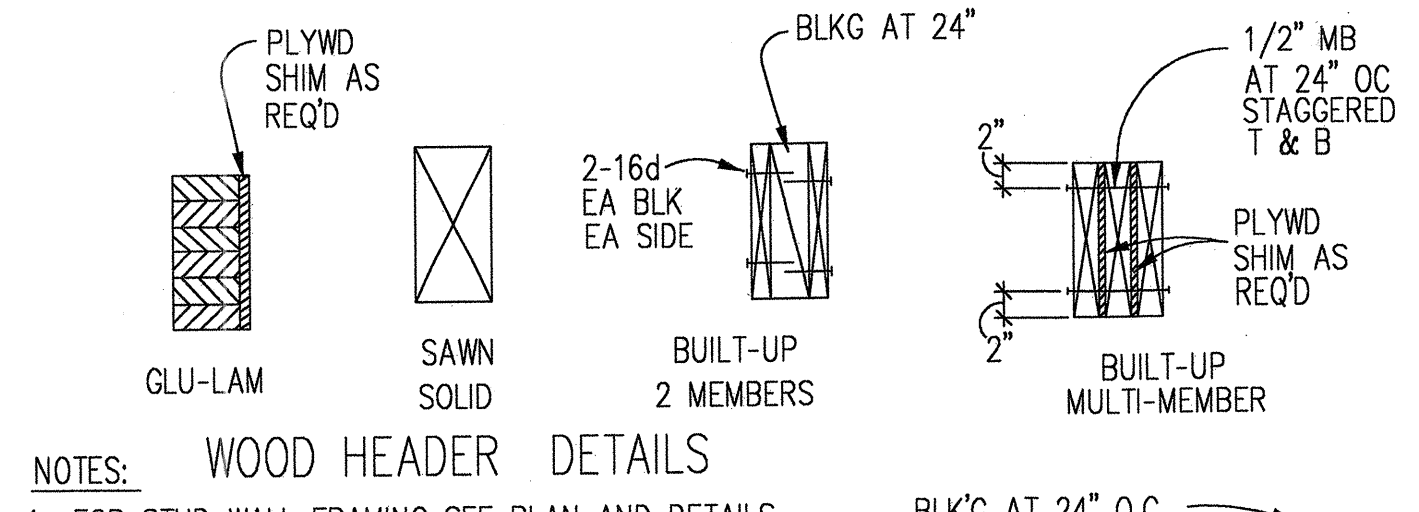
WALL FRAMING PLAN

MARK	SHEATHING	EDGE NAILING	FIELD NAILING	STUD & BLOCKING SIZE & ADJOINING EDGES	NOTES
SW-1	3/8" PLWD	8d @ 6" O.C.	8d @ 12" O.C.	2 X 3'S	(1)

MARK	SILL PLATE ATTACHMENT	NOTES
SW-1	NAILING TO WOOD ANCHOR BOLT TO CONCRETE BELOW 2 X PLATE W/ 1/2" @ A.B.'S @ 48" O.C.	(1)

NOTES:
 (1) PROVIDE 2 - 2 X STUDS OR POST PER HOLD-DOWN SCHEDULE AT ENDS OF ALL SW-1

5 SHEAR WALL SCHEDULE
 3/4" = 1'-0"



6 HEADER @ BEARING WALLS
 TABLE R 502.5.1 (1) FOR EXTR BEAR'G WALL (30 PSF GROUND SNOW) 3/4" = 1'-0"

HEADER SCHEDULE

BUILT UP	SPAN
2-2 X 6	UP TO 6'-0"
2-2 X 8	6'-1" TO 8'-0"
2-2 X 10	8'-1" TO 10'-9"
6 X 10	BM-1/BM-2
4 X 12	BM RIDGE (BM-1)

PRE-FABRICATED WOOD TRUSSES

USE 1/2" DIAM. x 10" A.B. AT 4'-0" O.C. MAX. (PER LOCAL BLD'G OFFICIAL) 6" FROM CORNERS AND SPLICES (U.N.O.) SEE SHEAR WALL SCHEDULE. SEE DETAILS, FOR LOCATION OF HOLD-DOWNS AT CORNERS.

FRAMING PLAN
 SCALE 1/4"=1'-0"
THIS PROJECT WILL COMPLY WITH IRC-2006
SEE GN-1 FOR GENERAL NOTES

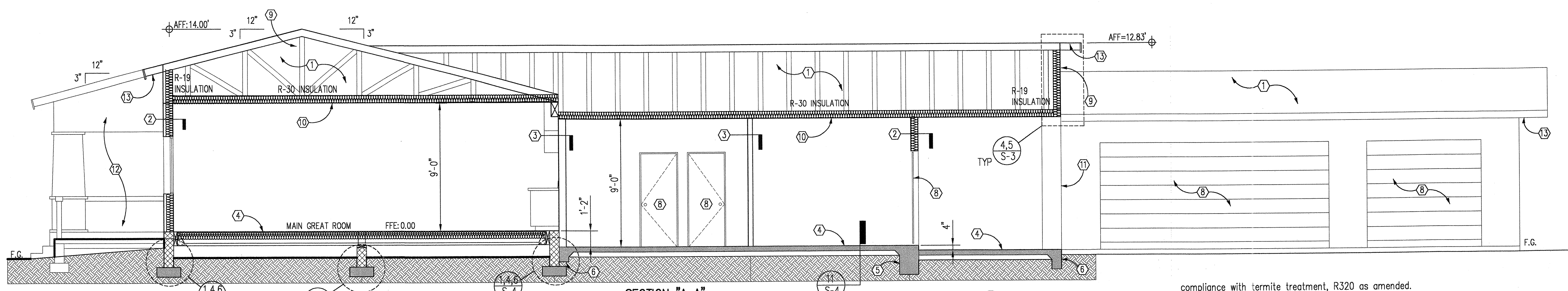
APPROVED
 6-8-11
 Bldg. Permit Specialist

DRAWING INDEX:

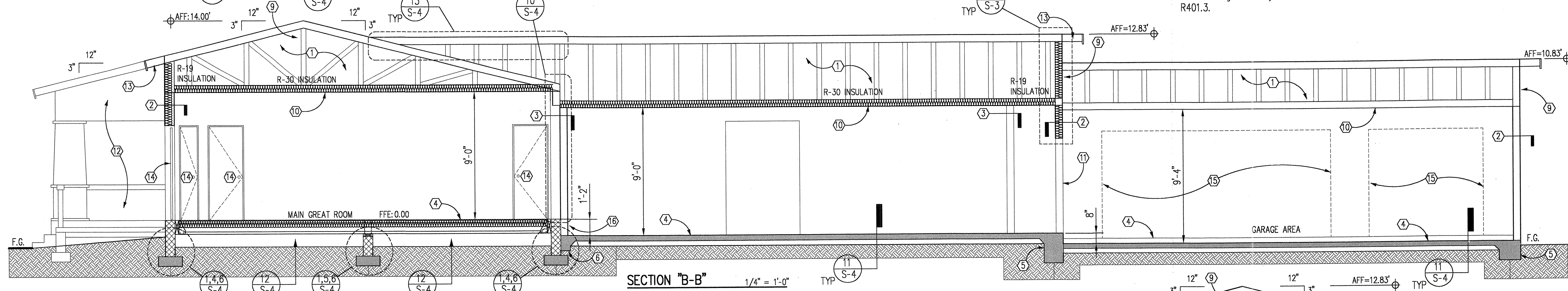
A-00	SITE PLAN
A-01	FLOOR PLAN
A-02	ELEVATIONS
S-01	FOUND. PLAN
S-02	WALL/ROOF PLAN
S-03	SECTION/DETAIL
S-04	DETAILS
MP-1	PLUMB'G WALL
MP-2	MECH. PLAN
MP-3	DETAILS
E-01	ELECT. PLAN
GN-1	GEN. NOTES

56-JKL1
 JOB NO. 19
 START DATE 19 APRIL 2011
 DWGS BY J.A.C.A. DESIGN L.L.C.
 TUCSON, ARIZONA
 (520) 808-4052 • FAX (520) 616-0200
 AS DESIGN FOR THE POOR
 POOR DESIGN IS NOT THE SAME

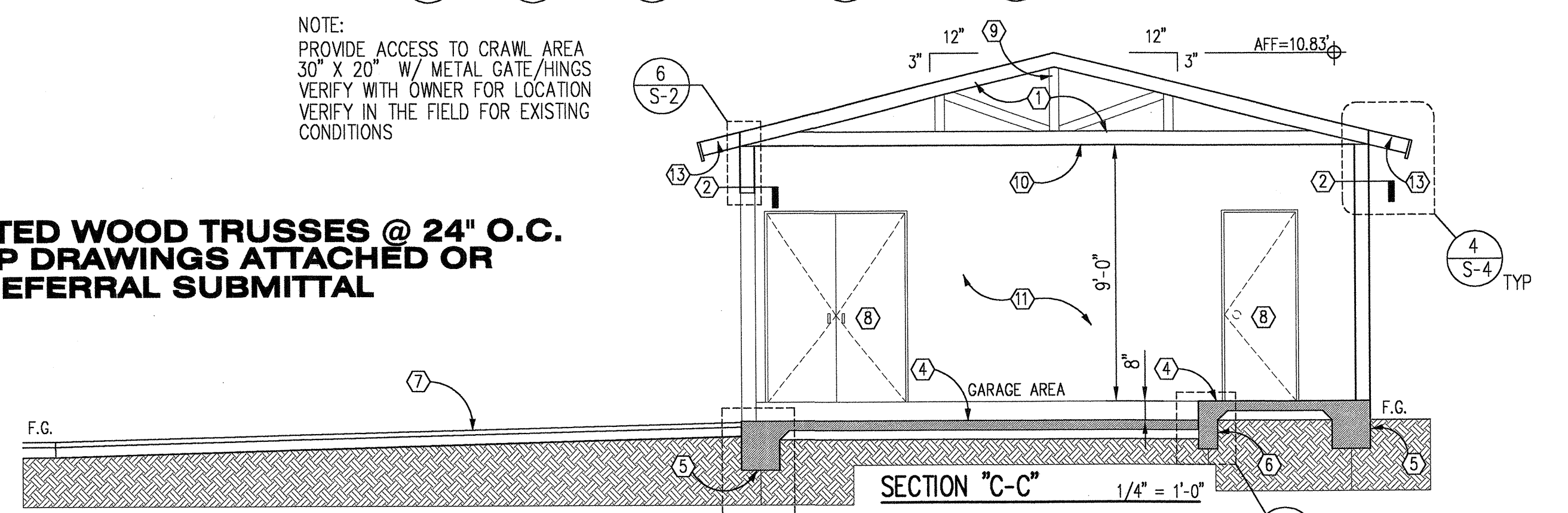
PROJECT:
FAMILY RESID.
ADDITION
 2049 EAST 9TH STREET
 TUCSON, ARIZONA 85718
 AMERICAN VILLA RESUB
 LOT 16 BLK 2
 PARCEL 129-04-0870
 BOOK 3 PAGE 10
 T 14 S RANGE 14 E SEC 8
 SHEET NO. 5-2
 OF 5-2



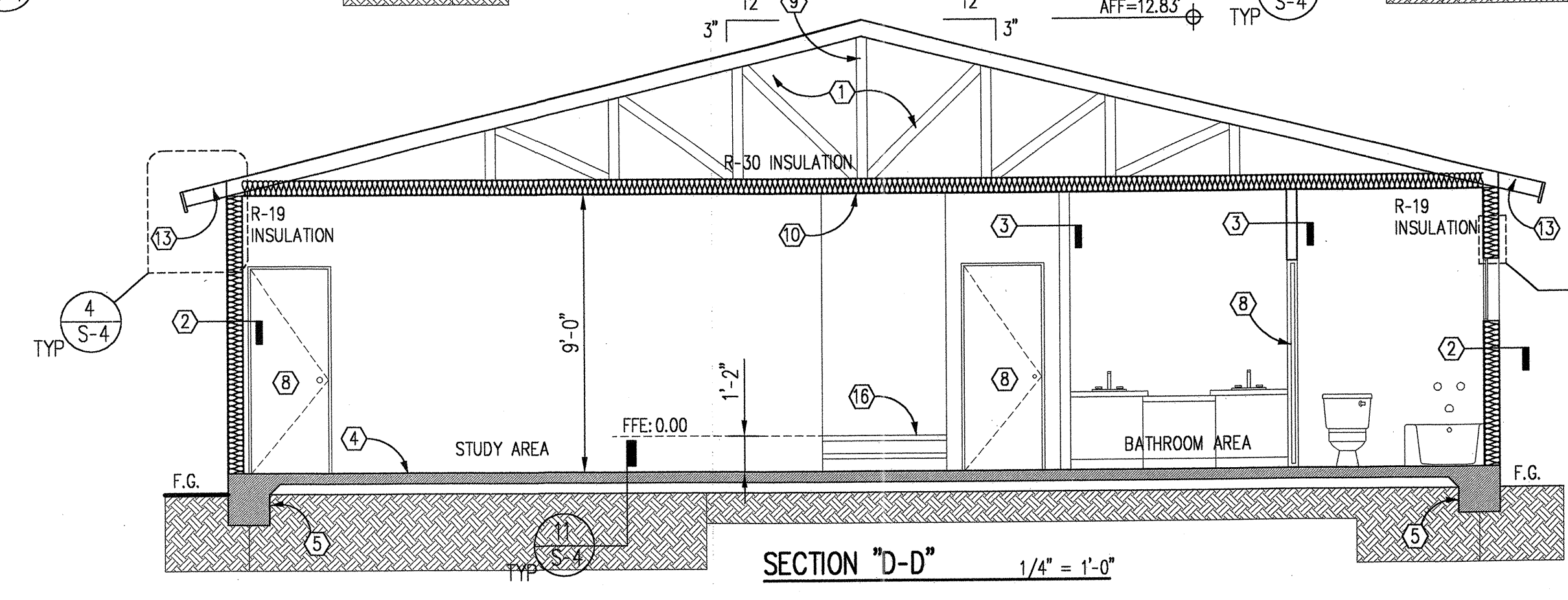
SECTION "A-A" 1/4" = 1'-0" TYP



SECTION "B-B" 1/4" = 1'-0" TYP



SECTION "C-C" 1/4" = 1'-0" TYP



SECTION "D-D" 1/4" = 1'-0" TYP

PRE-FABRICATED WOOD TRUSSES @ 24" O.C.
SEE SHOP DRAWINGS ATTACHED OR DEFERRAL SUBMITTAL

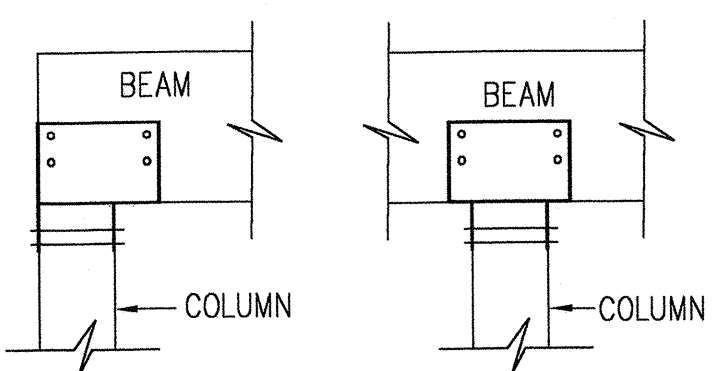
NOTE:
PROVIDE ACCESS TO CRAWL AREA
30" X 20" W/ METAL GATE/HINGS
VERIFY WITH OWNER FOR LOCATION
VERIFY IN THE FIELD FOR EXISTING
CONDITIONS

compliance with termite treatment, R320 as amended.
Note that grade away from foundations shall fall min 6" within the first 10', R401.3.

- KEYNOTES - SECTIONS**
- (E) EXISTING - TO REMAIN AS IS
 - F.C. FINISH GRADE
 - FFE FINISH FLOOR ELEVATION
 - AFF ABOVE FINISH FLOOR
 - 1 PRE-FABRICATED WOOD TRUSSES @ 24" O.C. - INSTALL PER MANUF. SPECIFICATIONS AND/OR DEFERRAL SUBMITTAL
 - 2 EXTERIOR WALL SEE FRAMING & ARCH. PLAN
 - 3 INTERIOR WALL SEE FRAMING & ARCH. PLAN
 - 4 4" THICK CONC. SLAB SEE FOUND. PLAN
 - 5 SPREAD CONC FOOTING SEE FOUND. PLAN
 - 6 CONC. TOE DOWN SEE FOUND. PLAN
 - 7 CONC. DRIVEWAY / 2" AC ON 4" ABC 95% COMPACTION (SLOPE TO DRAIN) SEE SITE PLAN
 - 8 DOOR SCHEDULE SEE ARCH. FLOOR PLAN
 - 9 AIR VENT SEE ELEVATIONS
 - 10 CEILING MATERIAL 1/2" GWB ANTI-SAGGING OR EQUAL
 - 11 WALL SEPARATION MATERIAL GARAGE/LIVING AREA 5/8" TYPE X GWB OR EQUAL INSTALLED PER CODE
 - 12 (E) BUILDING - TO REMAIN AS IS
 - 13 12" WIDE MIN. OVERHANG 12" WIDE MIN. EAVE 24" MAX OVERHANG/EAVE SEE FRAMING PLAN
 - 14 (E) DOOR - TO REMAIN AS IS
 - 15 OVERHEAD DOOR PROJECTION SEE FLOOR PLAN
 - 16 CONC. STAIRS SEE FLOOR & FOUND. PLAN

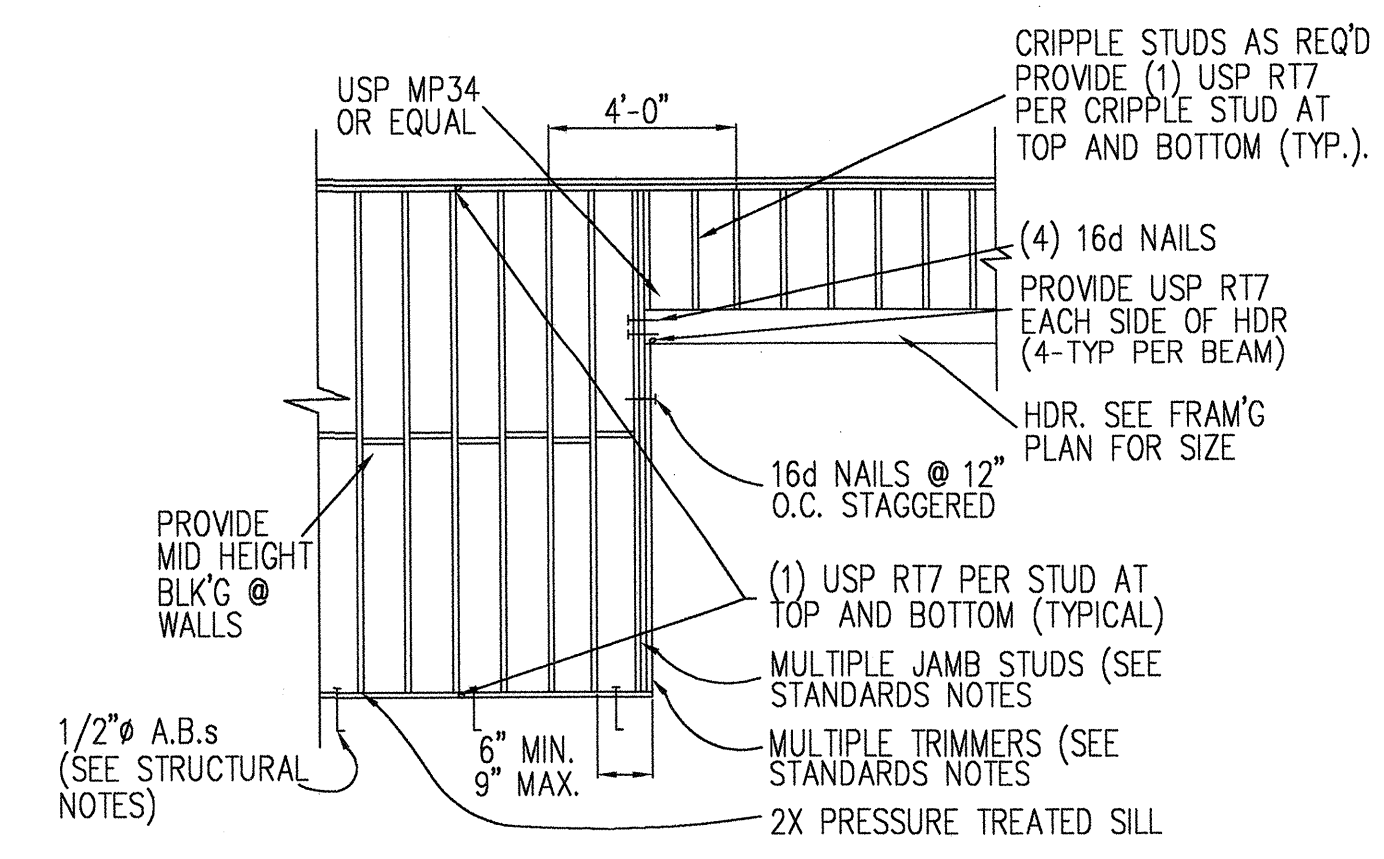
GRADE AWAY FROM FOUNDATION SHALL FALL A MIN 6" WITHIN THE FIRST 10 FT PER IRC-2006 SECTION R 401.3

APPROVED
16.8.11
Bldg. Permit Specialist



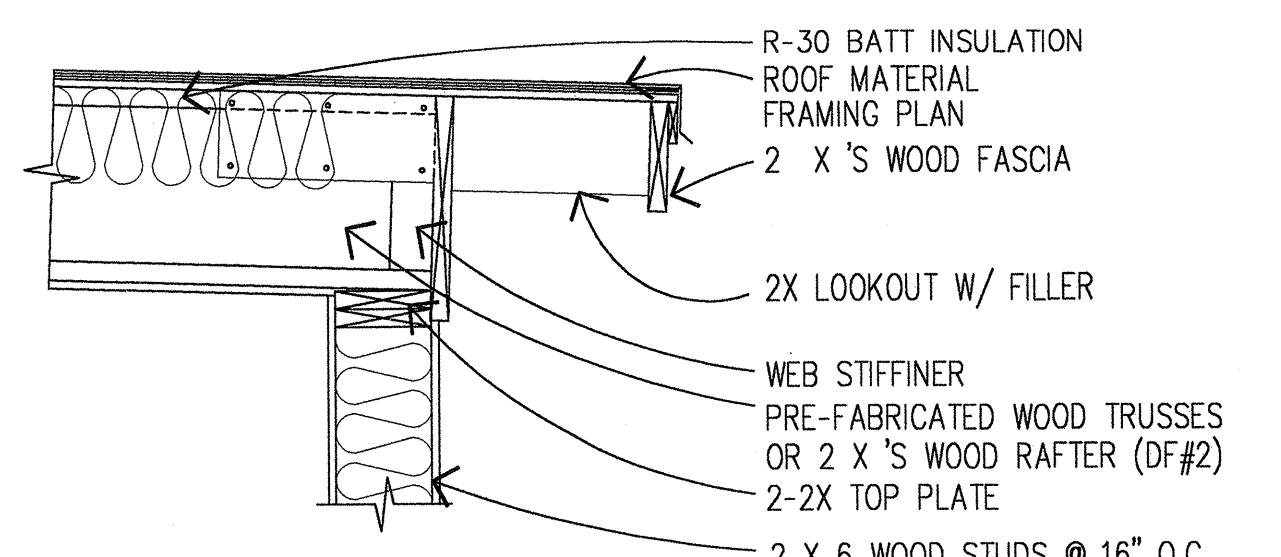
COLUMN CAP AT END COLUMN
SIMPSON EPC44 AT 4x BM & 4x4 COLUMN
SIMPSON EPC66 AT 6x BM & 6x6 COLUMN
SIMPSON ECC5-1/4-6 AT 5 1/8 GLM 6x COLUMN
COLUMN CAP AT CENTER COLUMN
SIMPSON PC44 AT 4x BM & 4x4 COLUMN
SIMPSON PC66 AT 6x BM & 6x6 COLUMN
SIMPSON CCS-1/4-6 AT 5 1/8 GLM 6x COLUMN
FOR OTHER SIZES REFER SIMPSON CATALOG
COLUMN CAP TO MATCH BEAM AND COLUMN SIZES.

BASIS OF DESIGN:
BUILDING CODE: 2006 ED. OF THE INTERNATIONAL BUILDING CODE (IBC) AND 2006 ED. OF THE INTERNATIONAL RESIDENTIAL CODE (IRC)
ROOF LIVE LOAD: FLAT ROOFS: 20 PSF
 SLOPED ROOFS: 15 PSF
FLOOR LIVE LOAD: FLAT ROOFS: 40 PSF
WIND LOADING: 90 MPH

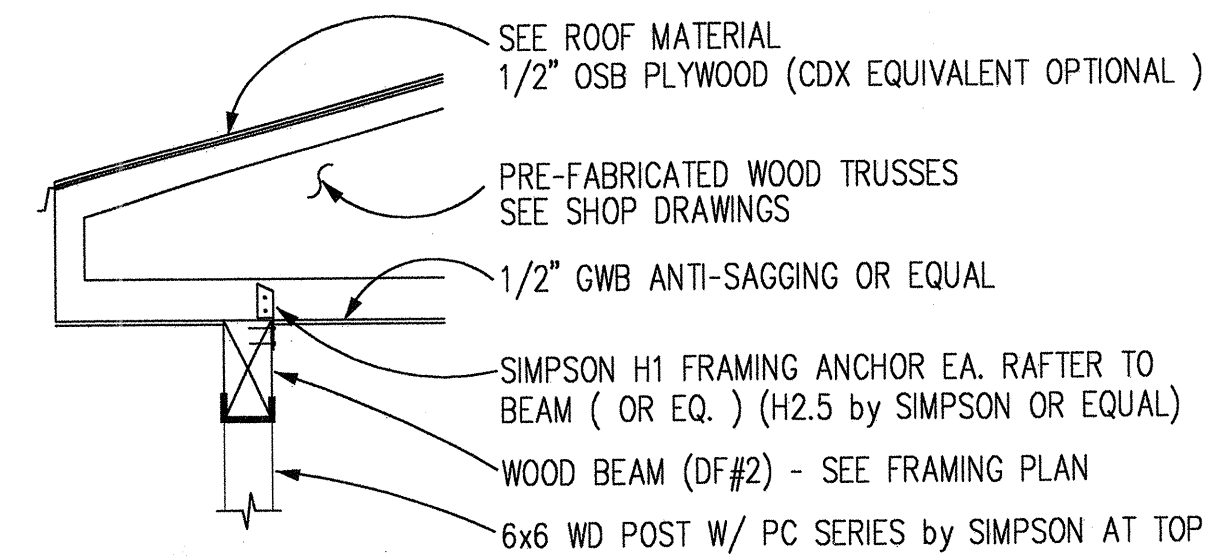


3 TYP. WALL ELEVATIONS 3/4" = 1'-0"

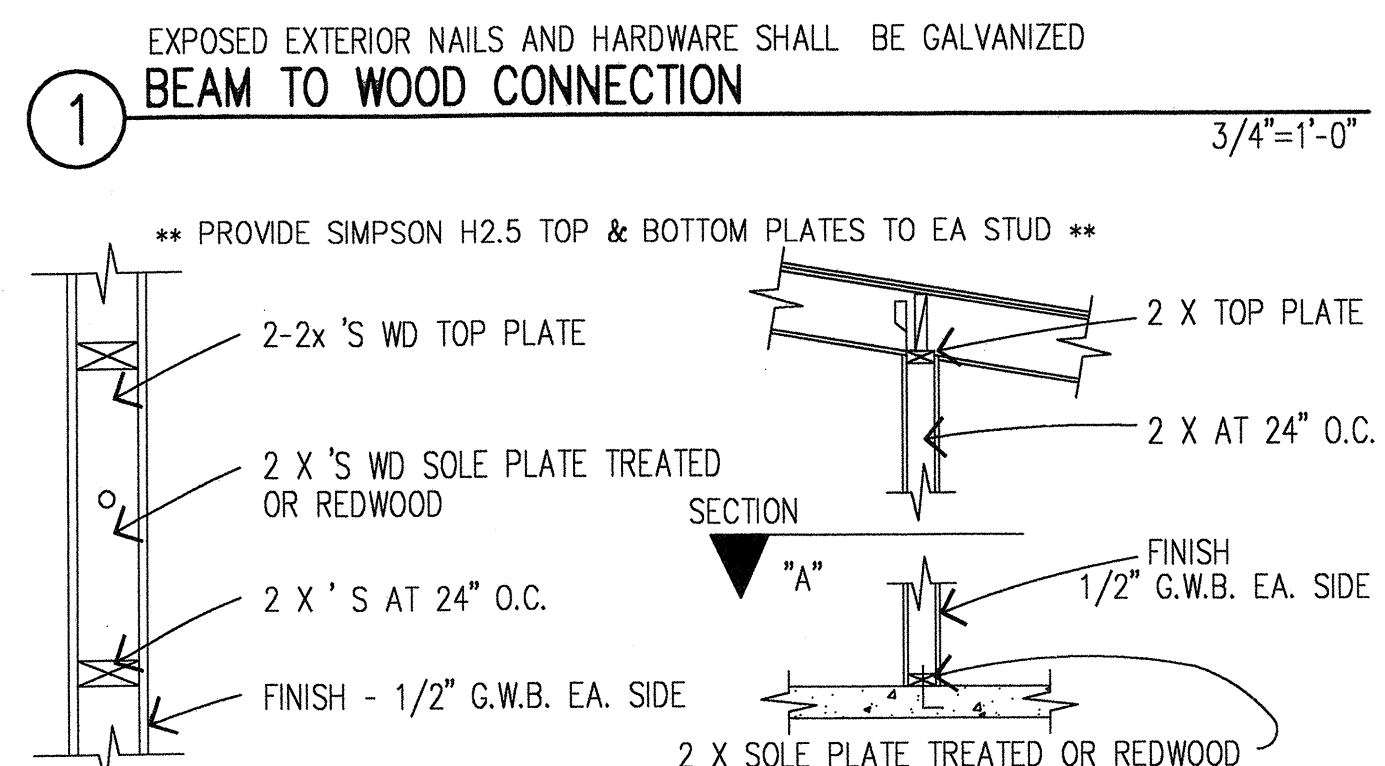
SECTIONS
SCALE 1/4" = 1'-0"
THIS PROJECT WILL COMPLY WITH IRC-2006
SEE GN-1 FOR GENERAL NOTES



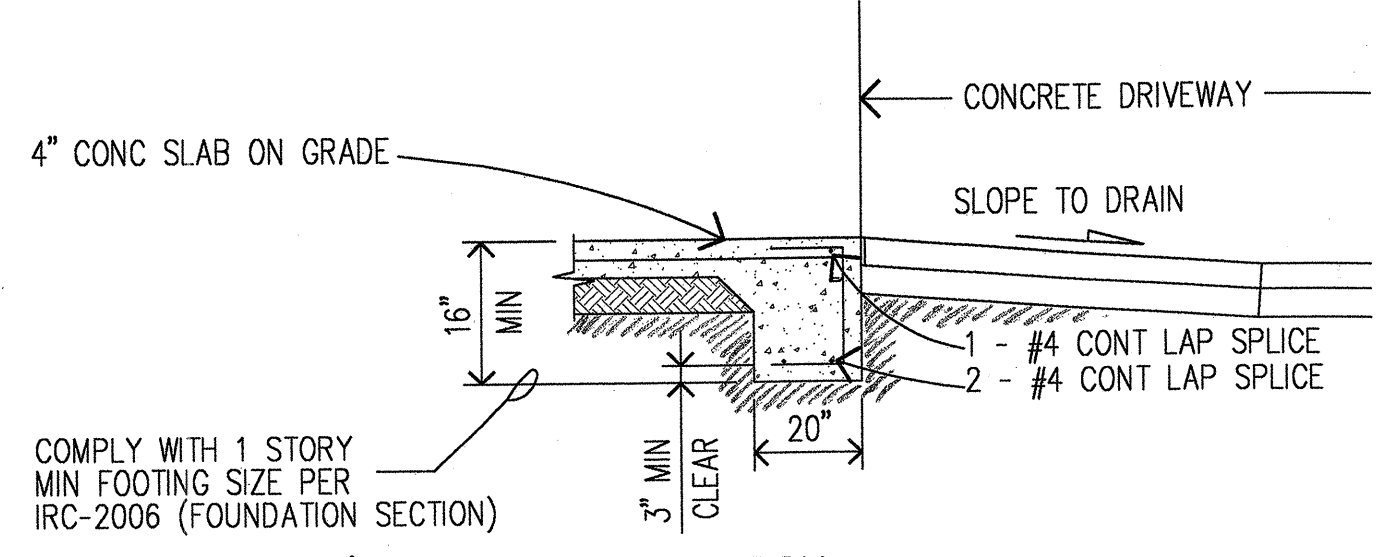
4 EAVE DETAIL NAILED PER CODE (GN-1) 3/4" = 1'-0"



5 OVERHAND AT PORCH AREA SEE S-1 FOR FOOTING AND DETAILS 3/4" = 1'-0"



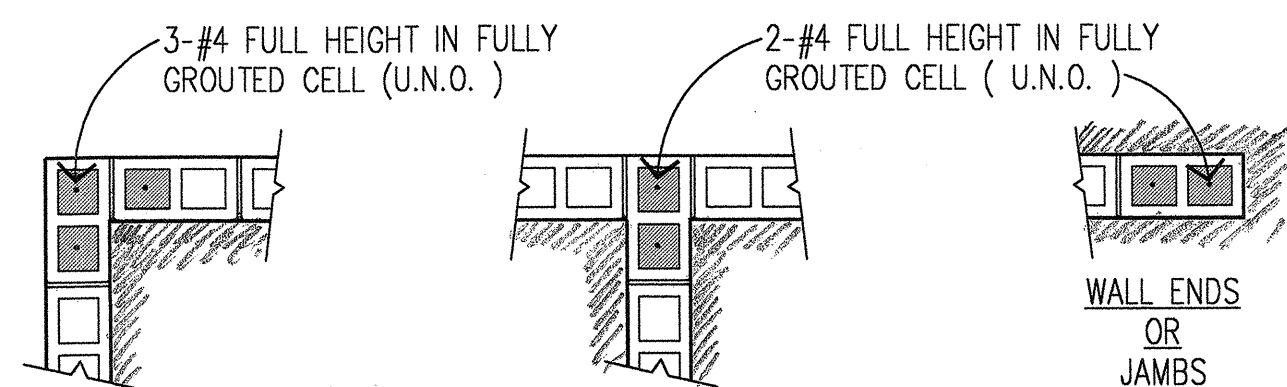
2 INTERIOR NON-BEARING WALL SEE SECTION "A" - ABOVE 3/4" = 1'-0"



6 GARAGE/DRIVEWAY CONNECTION COMPLY WITH IRC-2006 - CHAPTER 4 3/4" = 1'-0"

- DRAWING INDEX:**
A-00 SITE PLAN
A-01 FLOOR PLAN
A-02 ELEVATIONS
S-01 FOUND. PLAN
S-02 WALL/ROOF PLAN
S-03 SECTION/DETAIL
S-04 DETAILS
MP-1 PLUMB'G WALL
MP-2 MECH. PLAN
MP-3 DETAILS
E-01 ELEC. PLAN
GN-1 GEN. NOTES

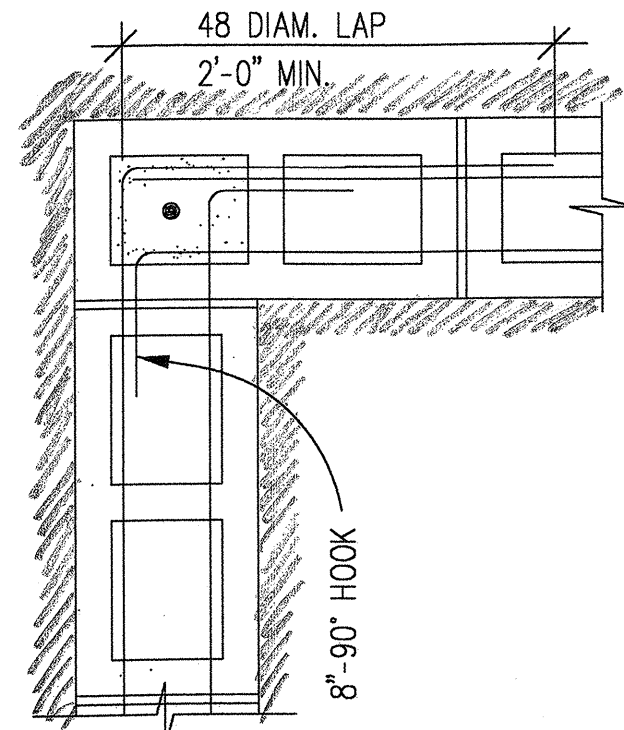
JOB NO. 56-2111
STAR DATE 19 APRIL 2011
DWGS BY J.A.C.A. DESIGN L.L.C.
TUCSON, ARIZONA
CELL (520) 808-4052 - FAX (520) 616-0200
WWW.JACADDESIGN.COM
PROJECT: FAMILY RESID. ADDITION
2049 EAST 9TH STREET
TUCSON, ARIZONA 85719
AMERICAN VILLA RESUB
PARCEL 129-04-0870
BOOK 3 PAGE 10
T 14 S RANGE 14 E SEC 8
SHEET NO. 5
OF 5 SH.



AT CORNERS

AT INTERSECTIONS

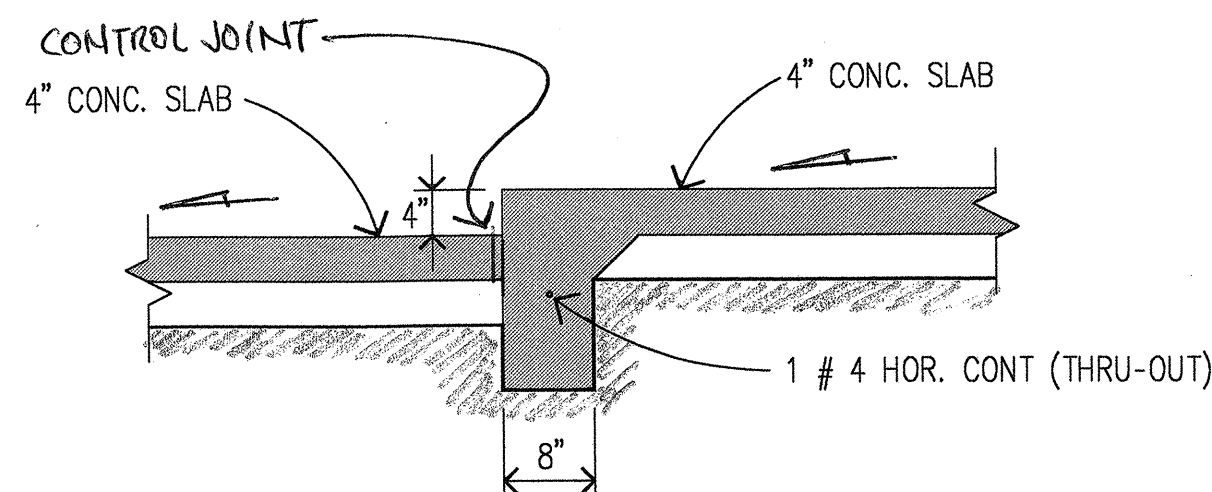
NOTE: IF NOT INDICATED ON DRAWINGS, PROVIDE MCJ'S AT 24'-0" MAX. O.C. TYP. IN ALL MASONRY WALLS



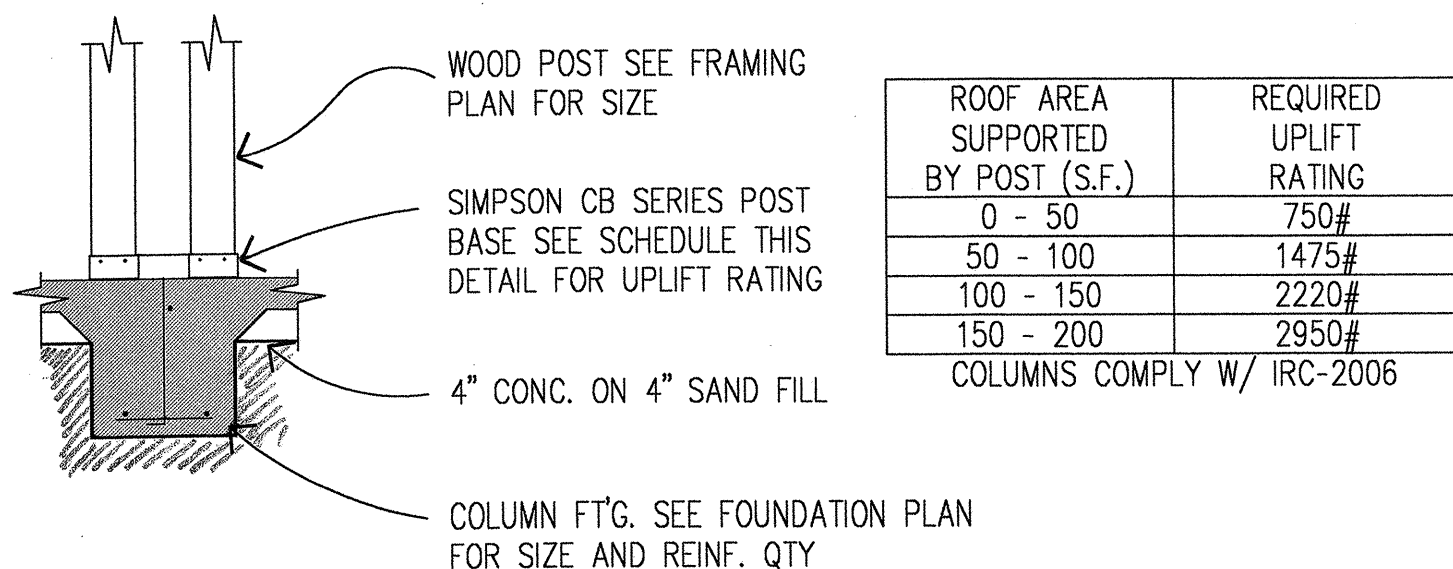
NOTES:

- WHERE VERT. OR HORIZ. BARS ARE SHOWN IN THIS DETAIL, PROVIDE BARS OF SAME SIZE AND DETAIL AS SHOWN ON DRAWINGS FOR WALLS. WHERE SIZE IS NOT SHOWN, USE AT LEAST #5 VERTS. AND #4 HORIZ.
- (●) INDICATES LOCATION OF VERT. BARS EXTEND MCJ FULL HEIGHT OF MASONRY WALL. ALL HORIZONTAL REINF. TERMINATES AT MCJ EXCEPT FOR BOND BEAM REINF. AT FLOORS AND ROOFS, WHICH EXTEND CONTINUOUS THRU. LOCATE MCJ'S PER PLAN, DO NOT LOCATE WITHIN 2'-0" OF OPENING
-

1 FOUND TIES & JUNCTURES 3/4" = 1'-0" SEE SEC 2106.4.1 FOR REINFORCING REQUIREMENTS FOR MASONRY ELEMENTS



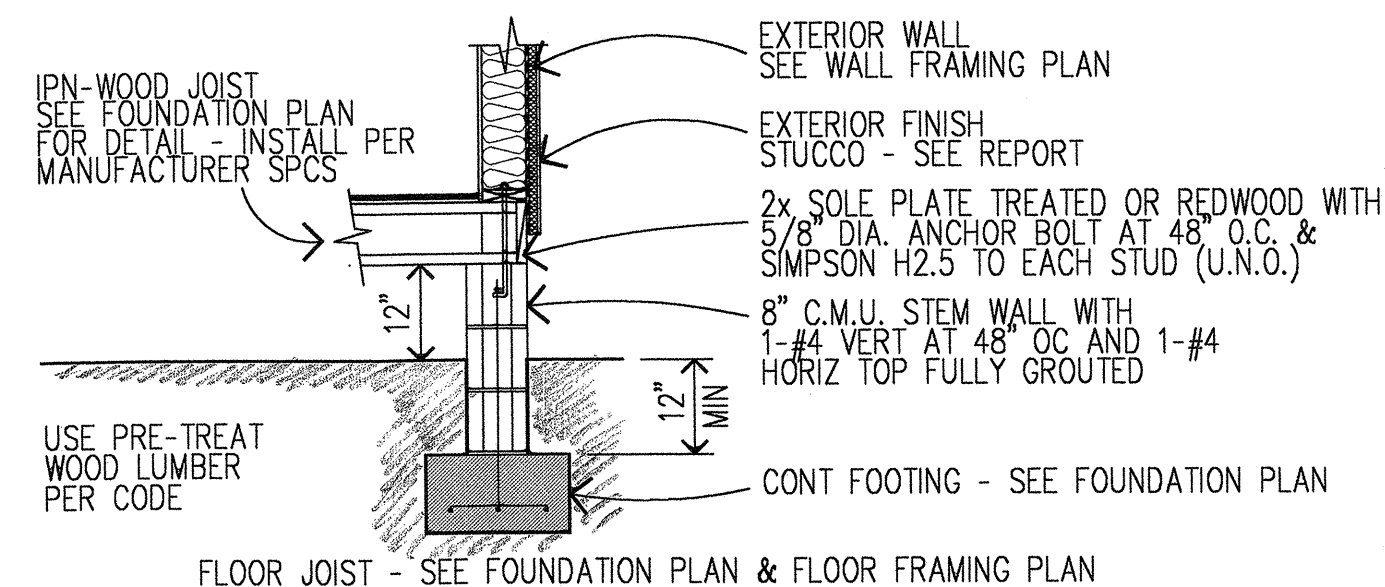
2 TOE DOWN - DETAIL 3/4" = 1'-0" COMPLY WITH IRC-2006 - CHAPTER 4



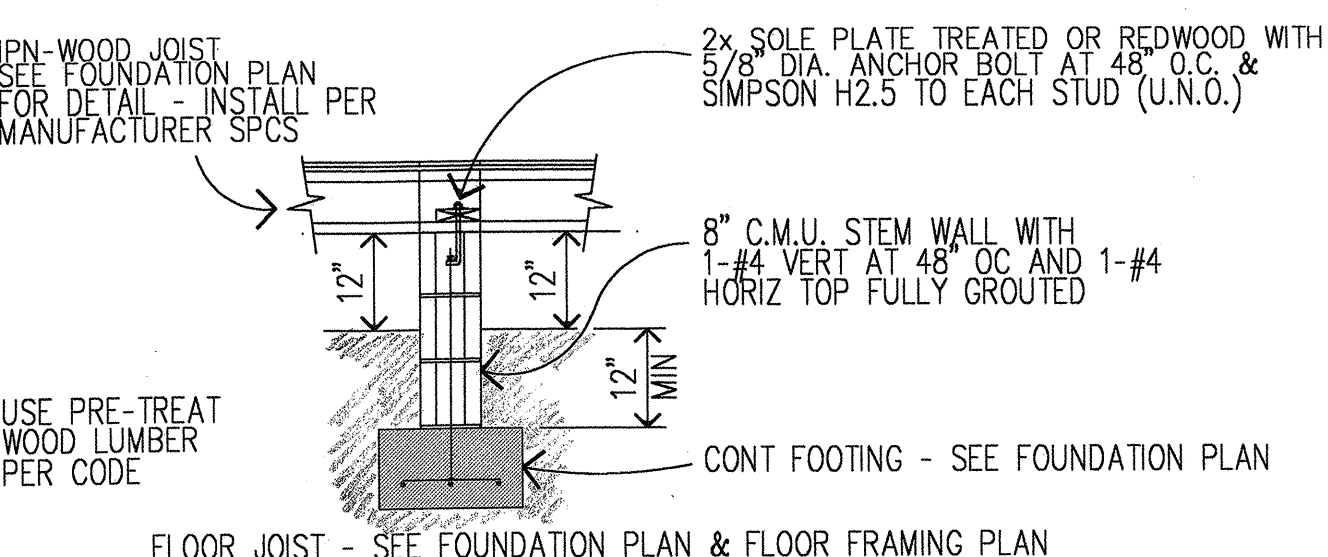
ROOF AREA SUPPORTED BY POST (S.F.)	REQUIRED UPLIFT RATING
0 - 50	750#
50 - 100	1475#
100 - 150	2220#
150 - 200	2950#

COLUMNS COMPLY W/ IRC-2006

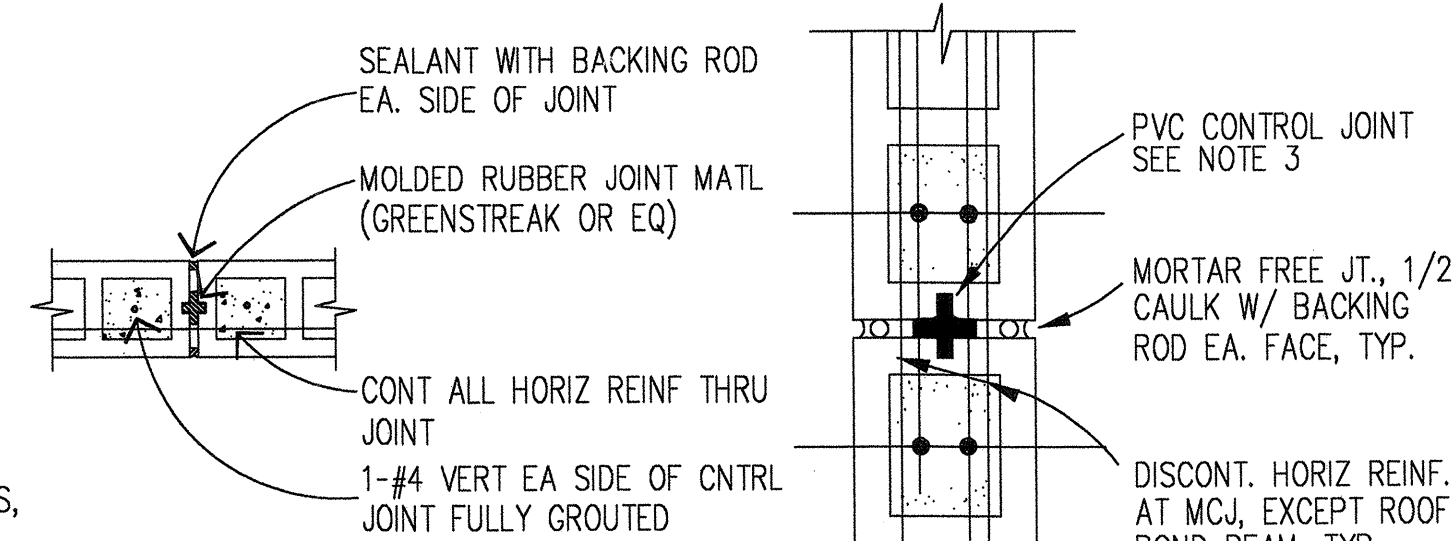
3 COLUMN FTG. DETAIL 3/4" = 1'-0" EXTERIOR COLUMNS & WOOD COMPLY W/ IRC-2006



4 EXTERIOR STEM CMU WALL 3/4" = 1'-0"

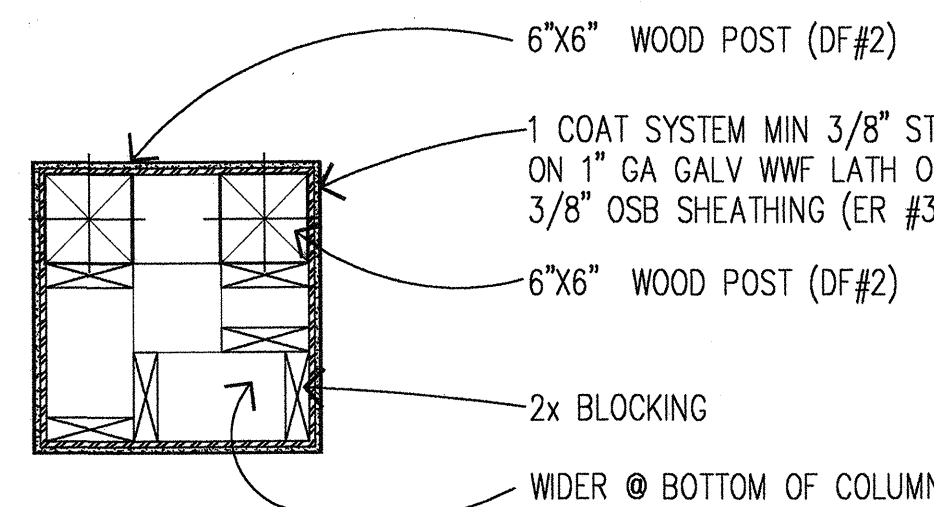


5 BEARING STEM CMU WALL 3/4" = 1'-0"

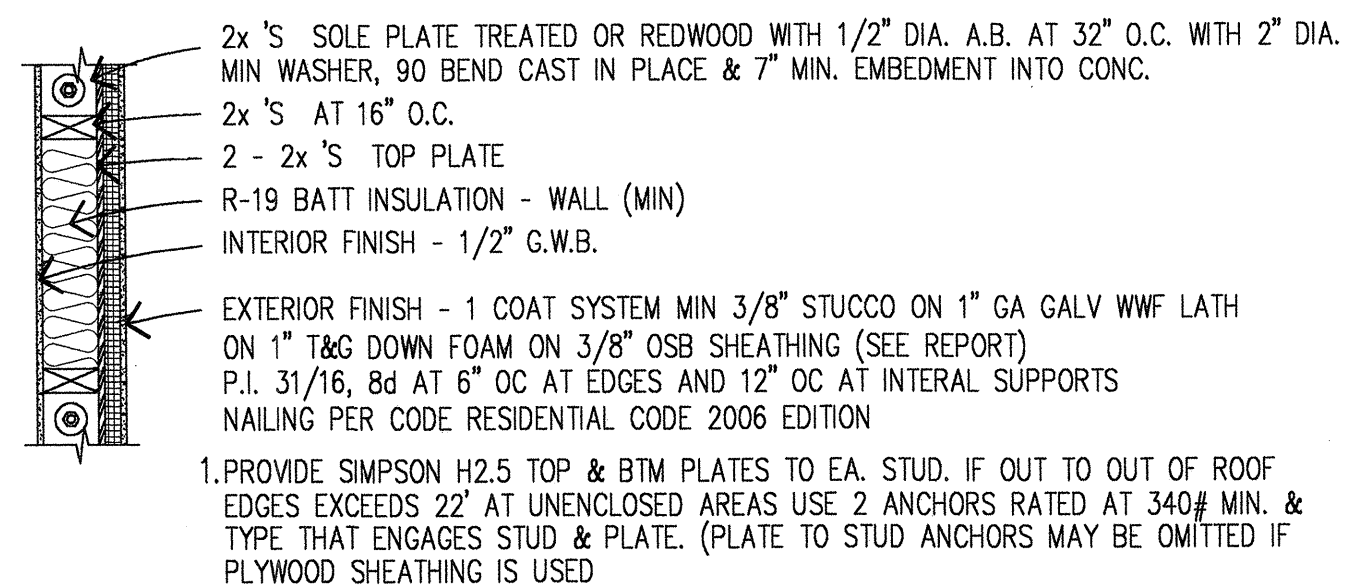


6 CMU CONTROL JOINT 3/4" = 1'-0"

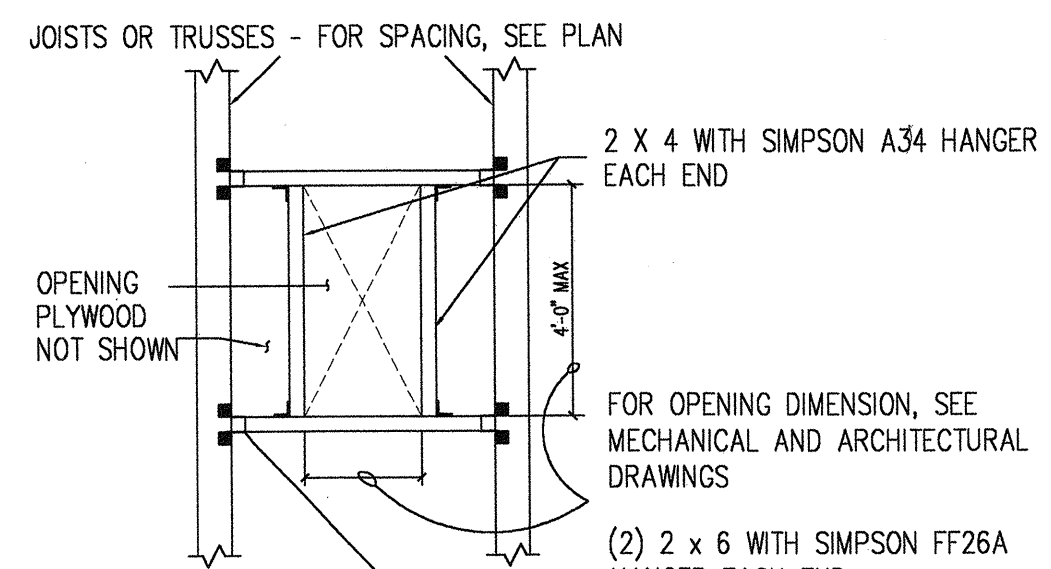
AT EXTERIOR STUCCO FINISH PROVIDE EXPANSION JOINTS AT 20'-0" O.C. MAX



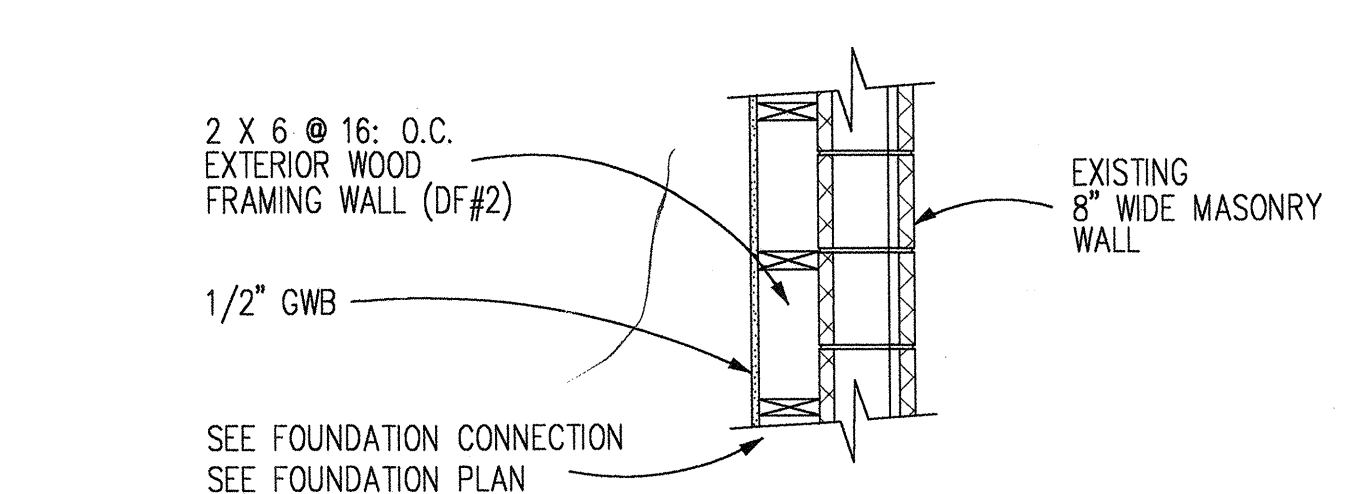
7 BUILT-UP COLUMN 3/4" = 1'-0"



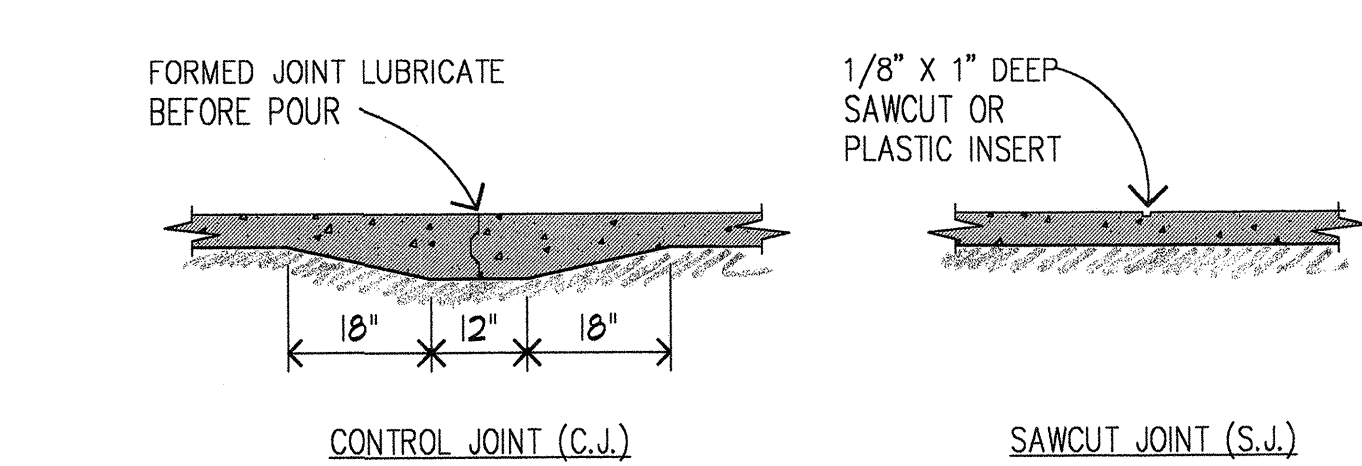
8 EXTERIOR WOOD FRAME WALL 3/4" = 1'-0" SEE SHEAR WALL DETAIL FOR SPECS



9 SMALL OPENING - TYP 3/4" = 1'-0" COORDINATE WITH MECHANICAL CONTRACTOR FOR EXHAUST FAN



10 MASONRY WALL W/ FURRING 3/4" = 1'-0"



11 CONCRETE CONTROL JOINTS 3/4" = 1'-0" COMPLY WITH SECT 1906.4 AND CHAPTER 19

STRUCTURAL STEEL:

ALL STRUCTURAL STEEL SHALL HAVE ASTM A36 Fy=36,000 PSI (U.N.O.) ALL TUBE STEEL SHALL BE ASTM A500 GRADE B ALL PIPE COLUMNS SHALL BE ASTM A53 TYPE E OR S OR ASTM A501 GRADE B ALL BOLTS FOR STEEL TO STEEL CONN. SHALL BE ASTM A325N, ALL OTHER BOLTS SHALL BE PHILLIPS "RED HEAD" ER # 1372 ALL ANCHOR OR ANCHOR BOLTS SHALL BE ASTM A307 OR ASTM A36 (U.N.O.) ALL CONSTRUCTION PER LATEST ASIC STEEL CONST. MANUAL. ALL BOLTS SHALL BE INSTALLED WITH WASHERS. WELDING ELECTRODES SHALL BE E7018 (U.N.O.) ALL WELDING PER UBC. SECTION 2714 AND AWS REQUIREMENTS.

VERTICAL REINFORCING:

TYP. VERT. REINFORC'G SHALL BE #5 BARS @ 32" O.C. IN THE CENTER OF THE WALL IN SOLID GROUTED CELLS (U.N.O.) IN ADDITION TO TYP. REINFORC'G 1 - #4 VERT. AT ALL WALL INTERSECTIONS, CORNERS, EA. SIDE OF OPNG'G AND CONTROL JOINTS. AND ALL LOCATION INDICATED AT PLANS AT ALL BEAM BEAR'G LOCATIONS GROUT SOLID FROM FND. TO BEAM BEAR'G (3) ADJACENT CELLS

VERTICAL REINFORCING:

WITH 1 - #4 (MIN.) BAR/CELL (U.N.O.) FOUNDATION SHALL HAVE DOWELS TO MATCH AND LAP VERT. WALL OR COLUMN. REINFORCING MAX. VERT. GROUT LIFT 4'-0" WITHOUT CLEAN OUTS, 8'-0" WITH CLEAN OUTS (U.N.O.) ALL WALLS IN CONTACT WITH SOIL SHALL BE GROUTED IN SOLID. ALL EXPANSION BOLTS AND ANCHOR BOLTS SHALL BE INSTALLED IN SOLID GROUTED CELLS.

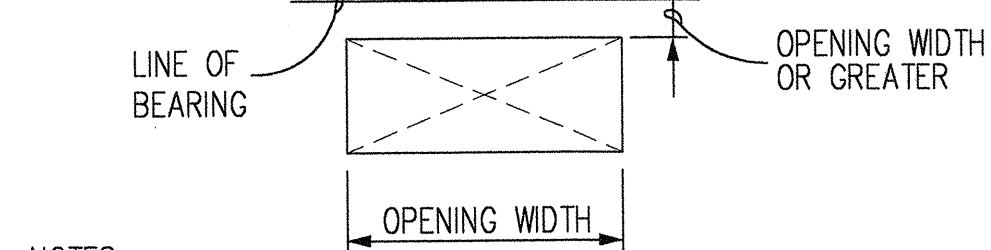
MASONRY STRUCTURAL NOTES:

HORIZONTAL REINFORCEMENT: MIN. 8" DEEP GROUTED BOND BEAMS WITH 2 - #5 CONT. AT FOLLOWING LOCATIONS: (A) ROOF (B) BELOW ALL OPNG'S (EXTEND 2'-0" MIN. BEYOND OPNG'S) MIN. 8" DEEP GROUTED BOND BEAM WITH 1 - #5 CONT. AT THE TOP OF PARAPET. HORIZ. BARS ARE CONT. AT ALL CONTROL JOINTS. WRAP 1'-6" EA. SIDE OF JOINT WITH BOND BREAK'G TAPE STAGGER SPLICES AT MIN. OF 60 BAR DIAM. PROVIDE BENT BARS AT CORNERS TO MATCH AND LAP HORIZ. REINFORCEMENT A MIN. 2'-0" PROVIDE STD'S TRUSS TYPE HORIZ. REINFORCEMENT AT 16" O.C. VERTICALLY (U.N.O.)

DETAILS

THIS PROJECT WILL COMPLY WITH IRC-2006 SEE GN-1 FOR GENERAL NOTES

OPENING WIDTH	HT	REINFORCING	STIRRUPS
0" - 3'-4"	1'-4"	2 # 4 BOTTOM	
3'-5" - 4'-8"	2'-0"	2 # 4 TOP & BTM	#3 @ 16" O.C.
4'-9" - 6'-0"	2'-8"	2 # 5 TOP & BTM	#3 @ 16" O.C.

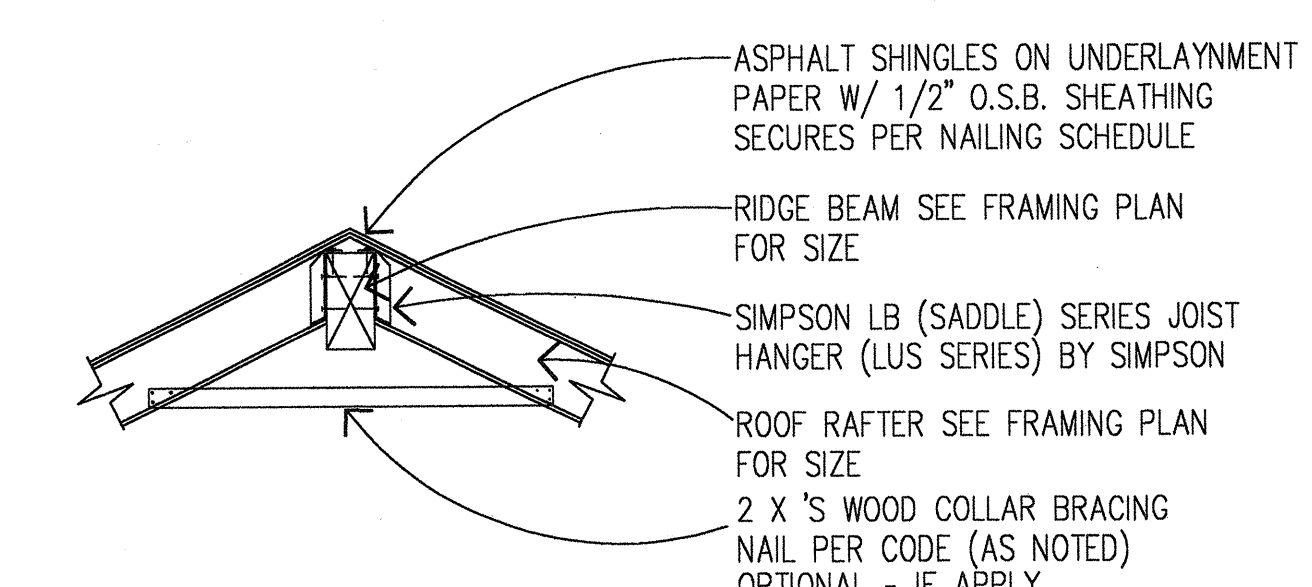


NOTES:

- UNLESS NOTED OTHERWISE OR SHOWN, PROVIDE REINFORCED MASONRY LINTELS ACCORDING TO THE ABOVE SCHEDULE IN NON-BEARING WALLS. SEE SKETCH ABOVE FOR BEARING WALLS WHERE THESE LINTELS MAY BE USED.
- PROVIDE LINTELS ABOVE ALL OPENING IN CMU WALLS, INCLUDING ALL MECHANICAL DUCTS PASSING THROUGH CMU WALLS, AND ABOVE ALL BUILT-IN ITEMS (SUCH AS CABINETS, LOUVERS, GRILLES, ACCESS PANELS, ETC.) DO NOT LOCATE OPENINGS WITHIN 2'-0" OF MASONRY CONTROL JOINTS OR ADJACENT OPENINGS
- SEE TYPICAL REINFORCED CMU LINTEL DETAIL FOR ADDITIONAL INFORMATION
- SEE TYPICAL CMU WALL REINFORCING AT OPENING DETAIL FOR REINFORCING AT SIDES AND BOTTOM OF OPENING

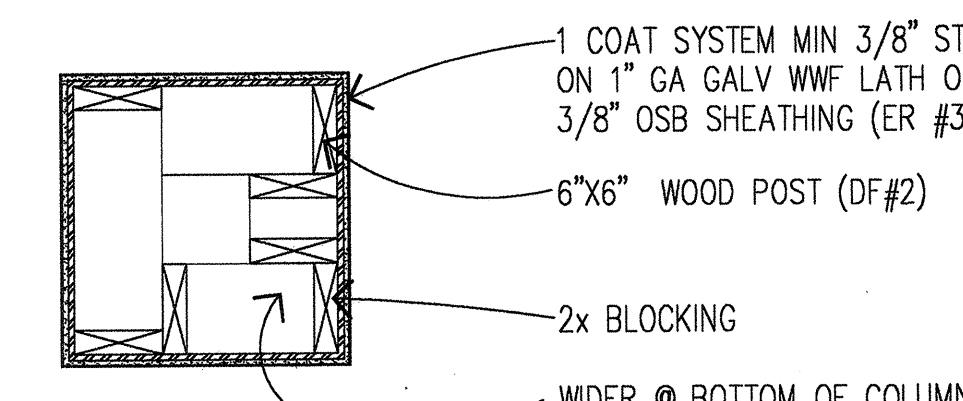
REINFORCING FOR NON-SCHEDULED OPENINGS IN CMU WALLS

12 3/4" = 1'-0"



13 RIDGE BEAM 3/4" = 1'-0"

AT EXTERIOR STUCCO FINISH PROVIDE EXPANSION JOINTS AT 20'-0" O.C. MAX



14 BUILT-UP COLUMN (NON STRUCTURAL) 3/4" = 1'-0"

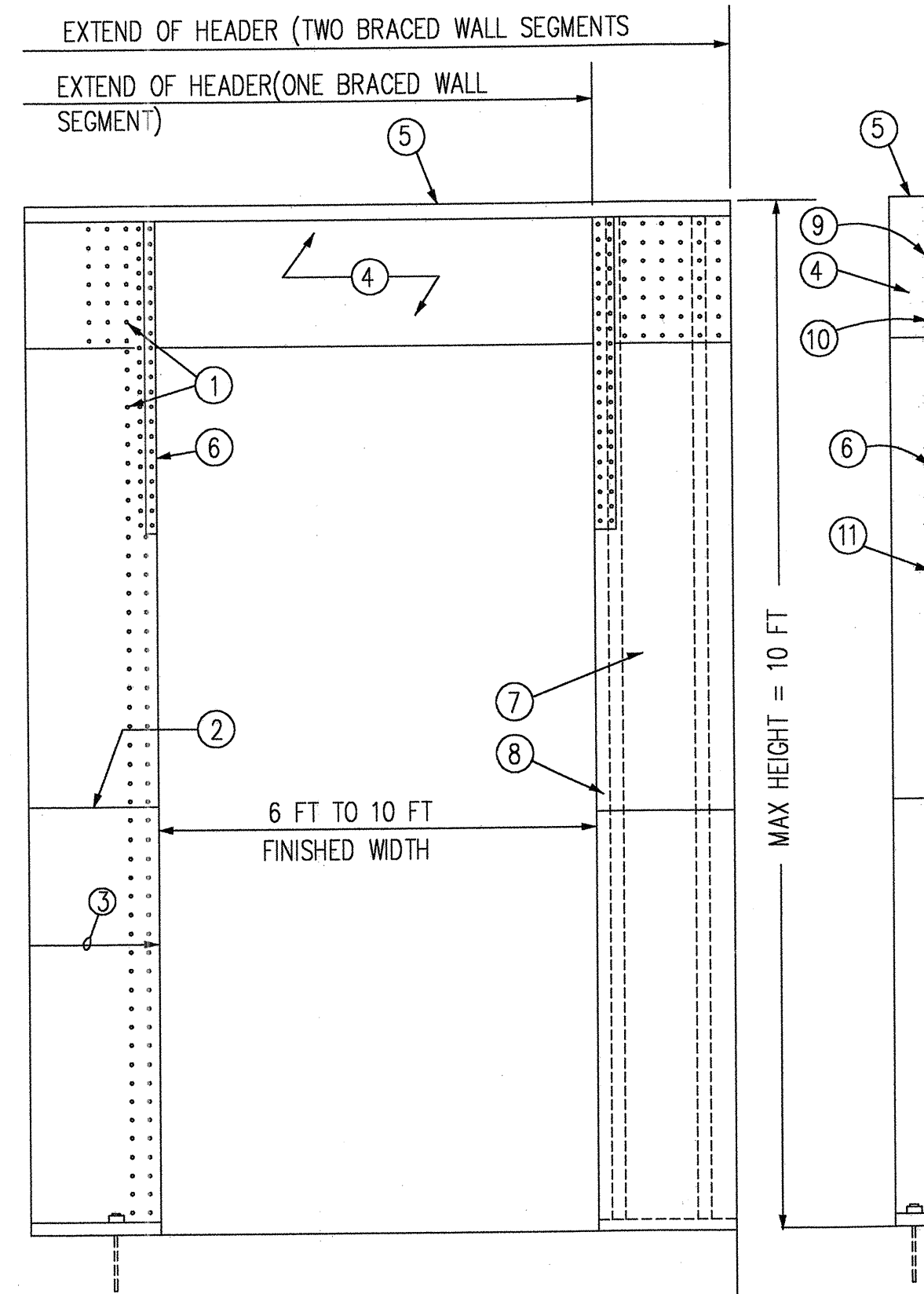
6:1 ASPECT RATIO PORTAL FRAME WIDTHS FOR COMMON WALL HEIGHT

PORTAL FRAME LENGTH (INCHES)	WALL HEIGHT (FT)
16	8
18	9
20	10

DETAILS OF 6:1 RATIO WOOD STRUCTURAL PANEL PORTAL FRAME WITHOUT HOLD DOWNS ADJACENT TO A DOOR OPENING - PER TABLE R 602.10.5 FOOTNOTE C

MIN LENGTH OF BRACED WALL PANEL (INCHES) FOR WALL HT OF	MAXIMUM OPENING HEIGHT NEXT TO THE QUALIFIED BRACING SEGMENT (% OF WALL HEIGHT)
8 FT WALL	
48	100 %
32	85 %
24	65 %

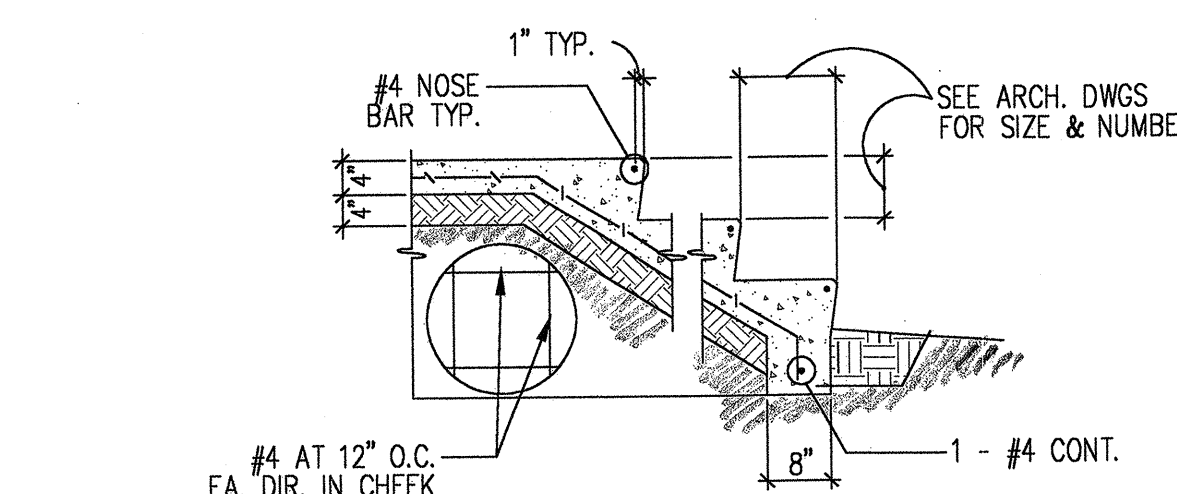
SI - 1 INCH = 25.4 mm , 1 FT = 305 mm , 1 LBS/SF = 0.0479 KN/m2



15 BRACING PANEL DETAIL 3/4" = 1'-0" LENGTH REQUIREMENTS FOR BRACED WALL PANELS IN A CONTINUOUSLY SHEATHED WALL - OPTIONAL (a,b,c) - TABLE R 602.10.5

KEYNOTE

- FASTER SHEATHING TO HEADER WITH 8d COMMON NAILS IN 3-INCH GRID PATTERN AS SHOWN & 3-INCH O.C. IN ALL FRAMING (STUDS & SILLS) TYP
- FOR A FASTER SPLICE (IF NEEDED), PANEL EDGES SHALL BE BLOCKED AND OCCUR WITH 24 INCH. OF MID HEIGHT, ONE ROW OF TYP., SHEATHING TO FRAMING NAILING IS REQUIRED IN EACH PANEL
- MIN. LENGTH BASED ON 6:1 HEIGHT-TO-WIDTH RATIO (20" W FOR 10' HT)
- MIN 3" X 11-1/4" NET HEADER - SEE HEADER DETAIL FOR MORE INFORMATION
- TOP PLATE CONTINUITY IS REQUIRED PER R 602.3.2
- 1000 LBS HEADER-TO-JACK-STUD STRAP ON BOTH SIDES OF OPENING (INSTALL ON BACKSIDE AS SHOW ON SIDE ELEVATION REF # No LSTA24)
- BRACED WALL SEGMENT PER R 602.10.5
- No OF JACK-STUDS PER TABLE R 502.5 (1 & 2)
- SHEATHING FILLER IF NEEDED
- 16d SINKER NAILS IN 2 ROWS @ 3" O.C.
- 3/8" MIN THICK WOOD STRUCTR PANEL SHEATHING



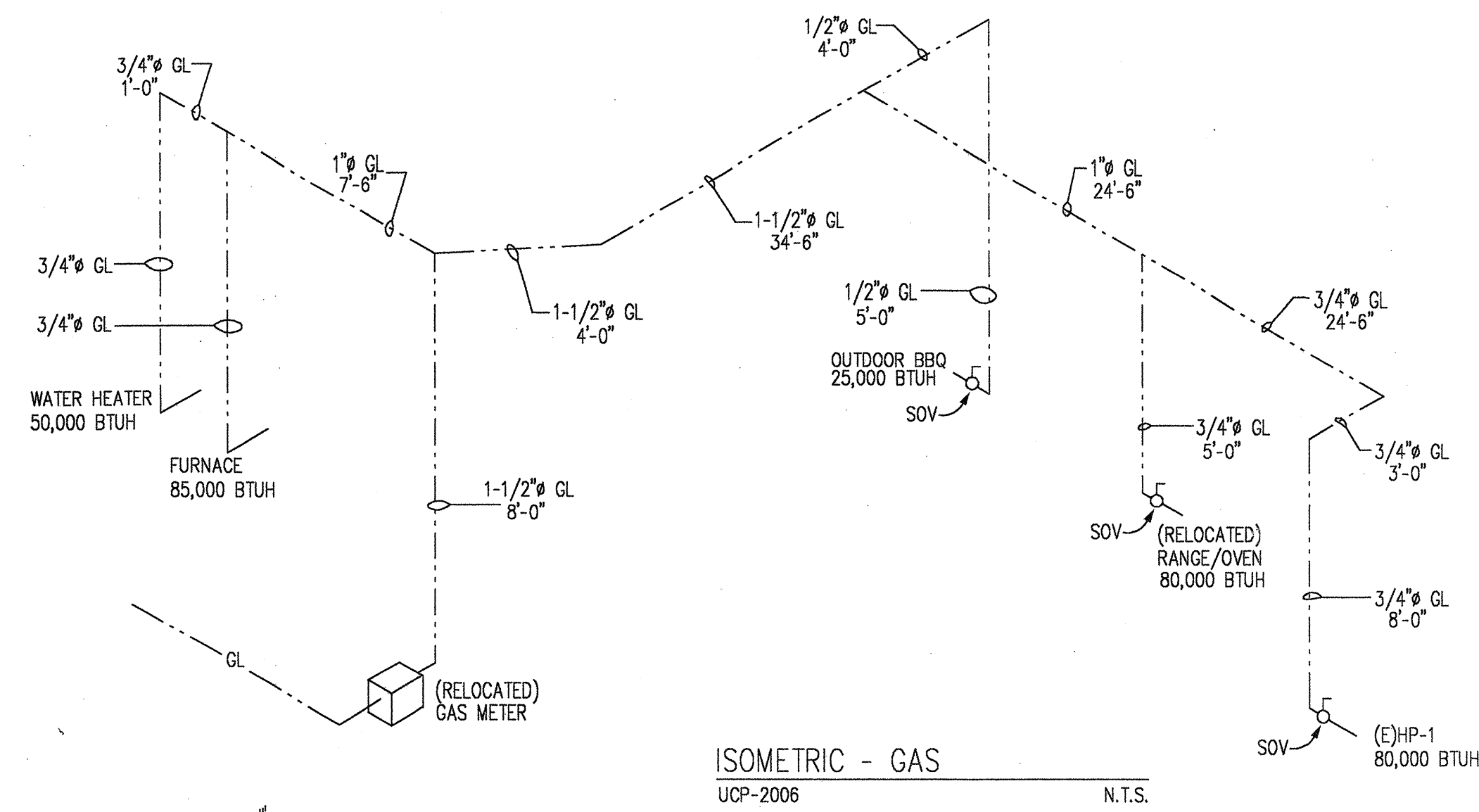
16 CONCRETE STAIRS 3/4" = 1'-0" STORAGE AREA

APPROVED 10.6.8.11 Bldg. Permit Specialist

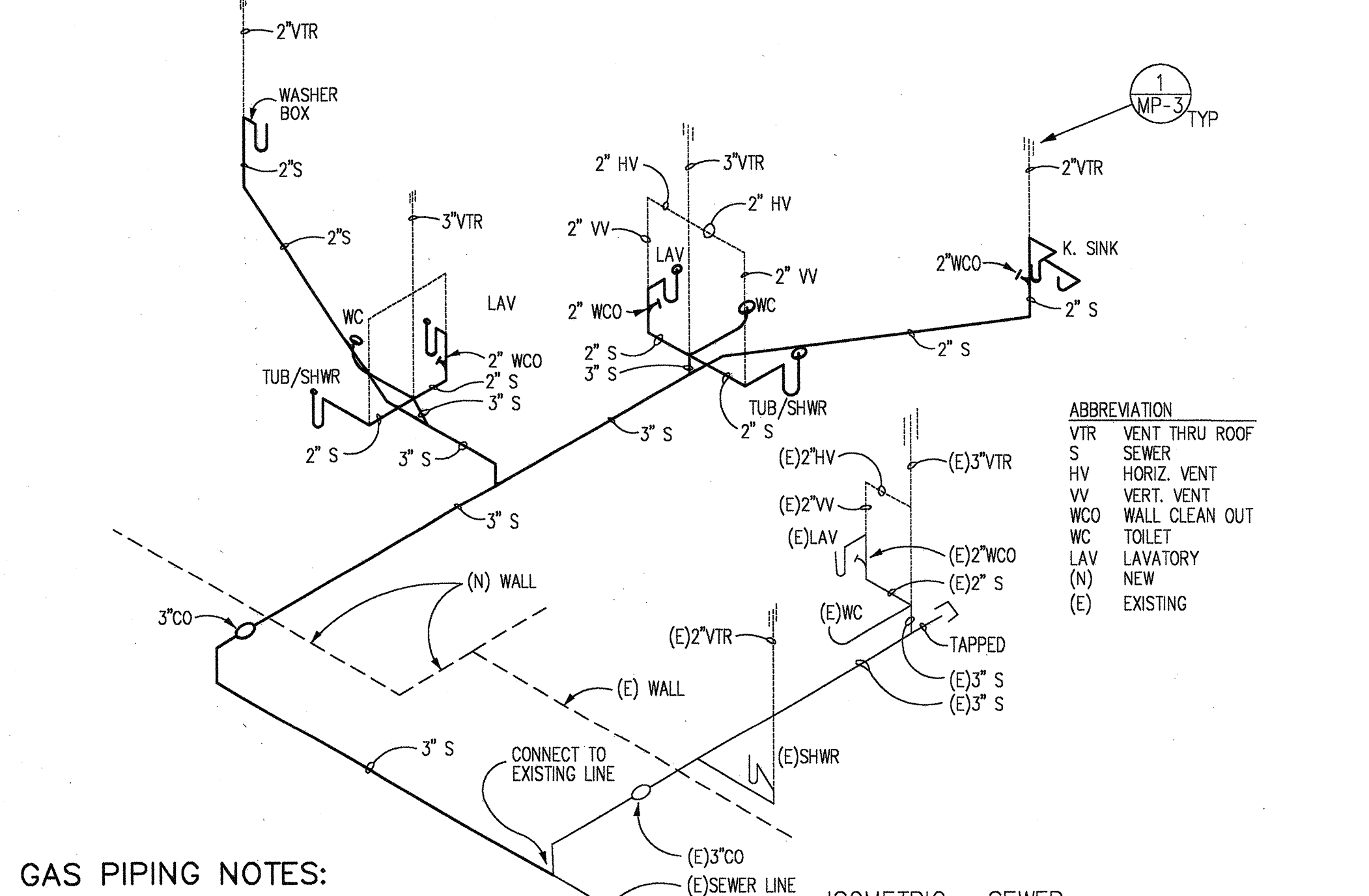
DRAWING INDEX:
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A-01 FLOOR PLAN
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S-01 FOUND. PLAN
S-02 WALL/ROOF PLAN
S-03 SECTION/DETAIL
S-04 DETAILS
MP-1 PLUMB'G WALL
MP-2 MECH. PLAN
MP-3 DETAILS
E-01 ELEC. PLAN
GN-1 GEN. NOTES

J.A.C.A. DESIGN L.L.C.
DRAWING SERVICES
TUCSON, ARIZONA
CELL (520) 808-4052 FAX (520) 616-0200
POOR DESIGN IS NOT THE SAME AS DESIGN FOR THE POOR

PROJECT: FAMILY RESID. ADDITION
2049 EAST 9TH STREET
TUCSON, ARIZONA 85719
AMERICAN VILLA RESUB
LOT 16 BLK 2
PARCEL 129-04-0370
BOOK 3 PAGE 10
T 14 S RANGE 14 E SEC 8
SHEET NO. S-4



ISOMETRIC - GAS
UCP-2006 N.T.S.



ISOMETRIC - SEWER
UCP-2006 N.T.S.

GAS PIPING NOTES:

1. MINIMUM DEPTH OF GAS PIPING TO BE 18" BELOW GRADE.
2. GAS PIPE SHALL NOT BE INSTALLED UNDER ANY BUILDING.
3. GAS PIPING SHALL NOT RUN IN HOLLOW CORE OF BLOCK.
4. PROVIDE SHUT-OFF COOK, UNION AND 6" LONG DIRT LEG WITH CAP AT EACH GAS LINE DROP TO APPLIANCE.
5. ALL GAS USING EQUIPMENT TO BE NATURAL FUEL.
6. ALL GAS PIPING UNDER ASPHALT OR CONCRETE PAVING ADJOINING BUILDING MUST BE SLEEVED IN GAS TIGHT VENTED PIPE.
7. ALL GAS PIPING, MATERIALS, VALVES, FITTING, INSTALLATION AND TESTING SHALL COMPLY WITH CHAPTER 12, 2006 U.P.C. OR LATEST EDITION.
8. VERIFY ALL GAS BTU/H INPUTS WITH ACTUAL BTU/H INPUT OF APPLIANCE SUPPLIED.
9. PROVIDED SHUT-OFF VALVE AND FLEXIBLE CONNECTION AT EACH PIECE OF EQUIPMENT, CONNECTION SIZE TO BE DETERMINED BY GAS INLET SIZE OF EQUIPMENT - TYPICAL.

WATER CONSERVATION NOTES

1. FAUCETS - SHALL DELIVER A MAX. OF TWO AND ONE-HALF (2.5) GALLONS PER MIN.
2. WATER CLOSETS - SHALL USE A MAX. OF ONE AND SIX-TENTHS (1.6) GALLONS PER FLUSH.
3. SHOWER HEADS - SHALL DELIVER A MAX. OF TWO AND ONE-HALF (2.5) GALLONS PER MINUTE.
4. LAVS OF THE METERING OR SELF-CLOSING TYPE SHALL HAVE A MAX FLOW RATE AT .25 GALLONS PER CYCLE & SHALL REMAIN OPEN FOR A PERIOD OF NOT LESS THAN 10 SECONDS.

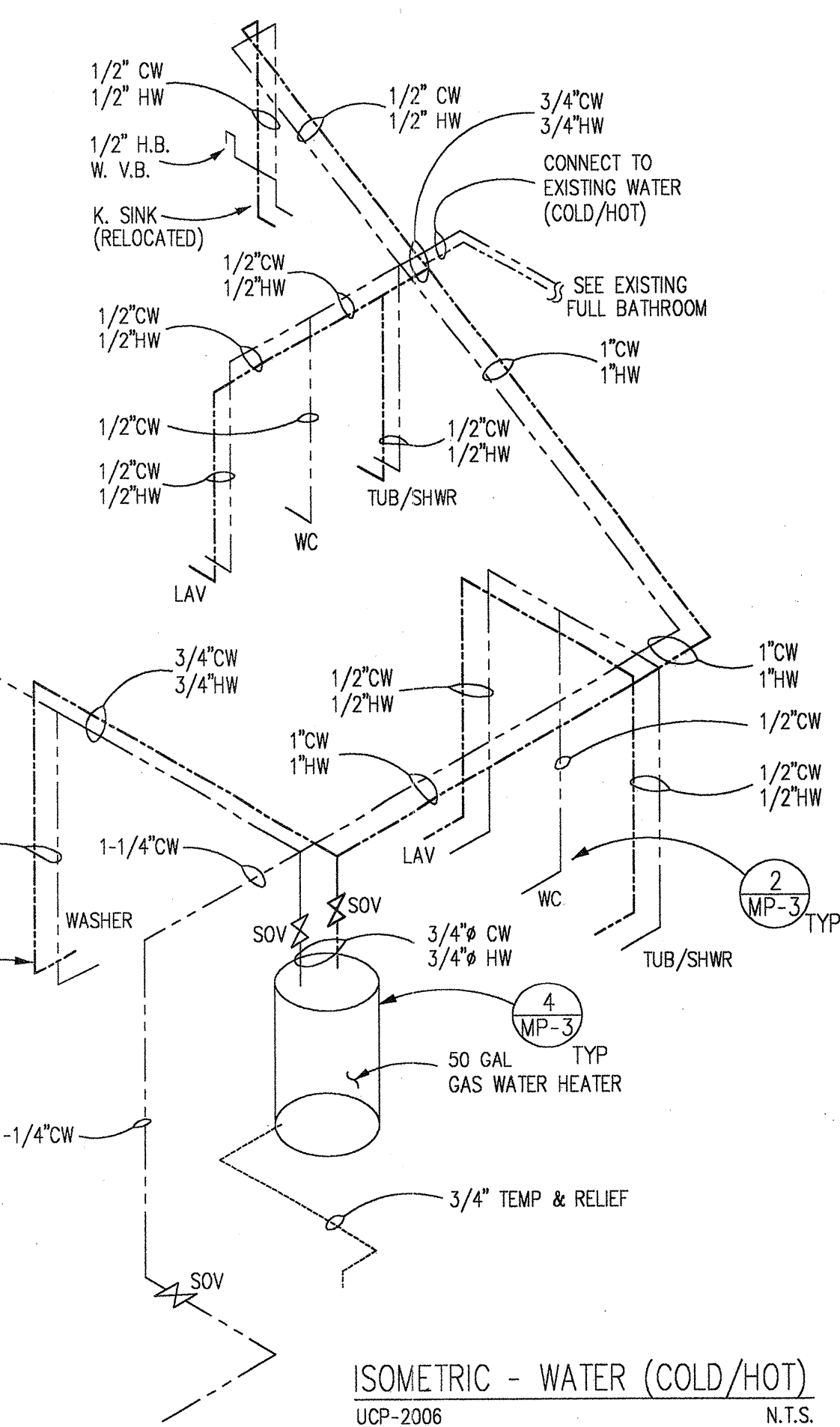
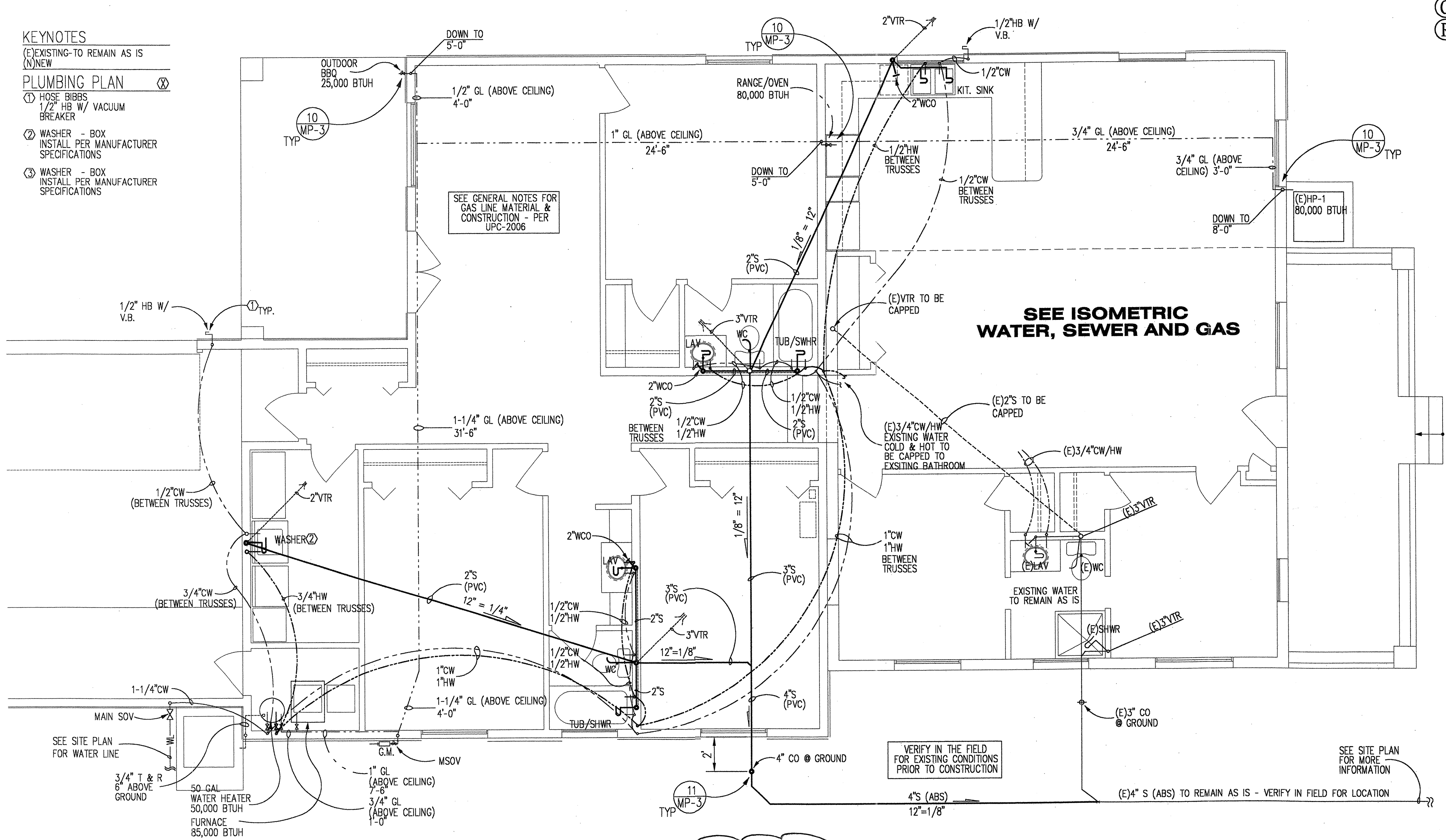
FIXTURE SCHEDULE

LAVATORY - SUPPLY BY OWNER / INSTALLED BY PLUMB'G CONTRACTOR
 WC/TOILET - SUPPLY BY OWNER / INSTALLED BY PLUMB'G CONTRACTOR
 TUB/SHWR - SUPPLY BY OWNER / INSTALLED BY PLUMB'G CONTRACTOR
 SINK (KITCHEN) - SUPPLY BY OWNER / INSTALLED BY PLUMB'G CONTRACTOR
 WASHER - SUPPLY BY OWNER / INSTALLED BY PLUMB'G CONTRACTOR

Water hammer arresters shall be installed wherever quick-closing valves are installed in a water distribution system. All of the relevant codes call for the devices to conform to ASSE 1010-2004 and to be sized and installed per the manufacturer's specifications. At a minimum, water hammer arresters are required for flush valves, clothes washers, dishwashers, refrigerator water connections, and similar appliances having quick-closing valves. Inspectors are currently enforcing this code requirement for all quick-closing valves except for the refrigerator water connections which will not be enforced until June 1, 2008.

* Relevant codes:
 Section 609.10, UPC 2006

KEYNOTES
 (E) EXISTING TO REMAIN AS IS
 (N) NEW
PLUMBING PLAN (X)
 ① HOSE BIBBS
 1/2" HB W/ VACUUM BREAKER
 ② WASHER - BOX
 INSTALL PER MANUFACTURER SPECIFICATIONS
 ③ WASHER - BOX
 INSTALL PER MANUFACTURER SPECIFICATIONS



ISOMETRIC - WATER (COLD/HOT)
UCP-2006 N.T.S.

WATER & SEWER FIXTURE UNIT COUNT (*PRIVATE)

WATER PSI	QTY	FIXTURE	WATER UNITS TABLE 6-4 (4)		SEWER UNITS TABLE 7-3	
			GPM	WSFU	UNITS	TTL
8	1 + 2	BATH TUB/SHWR	4	4.0	12.0	6
8	2	HOSE BIBB	5	3.5	3.5	
8	1 + 2	LAVATORY	2	1.0	3.0	1
8	1 + 2	WATER CLOSET	6	2.5	7.5	5
8	1	KITCHEN SINK	4	1.5	1.5	3
8	1	WASHER	4	4.0	4.0	2
TOTAL					31.5	

NOTE: QUANTITY - EXISTING + NEW FIXTURES
 THIS PROJECT TO COMPLY W/ CHAPTER 6 - WATER SUPPLY AND DISTRIBUTION & CHAPTER 7 - SANITARY DRAINAGE
 LENGTH OF BUILDING SERVICE (FARTHEST POINT TO METER)
 ALL WATER LINE SIZES BASED ON 50 TO 60 P.S.I. SUPPLIED PRESSURE

PLUMBING NOTES:

1. SHOWERS & TUB/SHOWERS COMBINATION SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE OR THE THERMOSTATIC MIXING VALVE TYPE PER UPC 2006
2. WATER CLOSET TO BE 1.6 GALLONS PER FLUSH, SINK & SHOWER HEADS TO BE 3 GALLONS PER MINUTE PER UPC CHAPTER 15 WITH LOCAL MODIFICATION REQUIREMENTS.
3. 3/4" TEMP & RELIEF VALVE PRESSURE, PER UPC 2006
4. DISHASHER: PROVIDE CONNECTION PER UPC 2006
5. CLOTHESWASHER: PROVIDE CONNECTION PER UPC 2006
6. PROVIDE SHUT OFF VALVE & UNION @ COLD WATER CONNECTION TO WATER HTR. PROVIDE UNION ONLY @ WATER HTR CONNECTION.
7. CLOTHESWASHER - PROVIDE CONN. PER UPC 2006 PROVIDE SHUT OFF VALVE & UNION @ CW CONN TO W.H. PROVIDE UNION ONLY @ HOT WATER CONN.
8. PROVIDE 2 WY CLEAN OUT TO GRADE. PROVIDE CLEAN OUTS PER UPC 2006
9. PLUMBER TO MAKE ALL GAS CONNECTIONS TO EQUIPMENT PLUMBER TO PROVIDE CONDENSATE CU LINE TO FURNACE RM. AND CONN TO W.H.
10. PLUMBER TO PROVIDE ACCESS DOORS TO SERVICE ALL PLUMB'G EQUIPMENT AS REQUIRED ALL FIXTURES TO HAVE STOPS AND 12" AIR CHAMBERS

GENERAL NOTES:

1. COORDINATE ALL OVERHEAD PIPING WITH HVAC DUCTWORK AND WORK OF OTHER TRADES
2. PLUMBER TO VERIFY EXACT SIZE AND LOCATION OF ALL EXT'G PIPING AND TO VERIFY INVERTS TO ASSURE PROPER SLOPE MAY BE OBTAINED BEFORE BEGINNING WORK
3. RUN ALL WASTE LINES AT 2% SLOPE UNLESS NOTED OTHERWISE
4. ALL SLAB PENETRATIONS SHALL BE SEALED USING POURABLE URETHANE SEALANT
5. CONTRACTOR TO COMPLY W/ UPC 2006 ON SHWR @ ALL LAVS - WASTE TRAPS - TO INCLUDE CO.
6. TYP. VTR - LOCATE MIN 1'-0" ABOVE ROOF, 1'-0" FROM ALL VERTICAL SURFACES AND 3'-0" ABOVE A/C OUTSIDE AIR INTAKES
7. PROVIDE HOSE END VACUUM BREAKER PER LATEST PLUMBING CODE EDITION.
8. OUTSIDE (UNDERGROUND) WATER LINES - INSULATE PER UPC 2006
9. MATERIALS, JOINTS AND CONN. COMPLY W/ (UPC 2006) CLEANOUTS - COMPLY W/ TABLE (UPC 2006) TESTING - COMPLY W/ LATEST PLUMBING CODE EDITION
10. CONTRACTOR TO COMPLY W/ THE LATEST PLUMBING CODE EDITION ON SHOWERS.
11. WET VENTING COMPLY W/UPC 2006
12. TRAPS COMPLY W/ UPC 2006 FOR SIZE OF TRAPS AND TRAP ARMS FOR PLUMB. FIXTURE. SEE TABLE UPC 2006

PLUMBING PLAN
 SCALE 1/4"=1'-0"

THIS PROJECT WILL COMPLY WITH UPC-2006
SEE GN-1 FOR GENERAL NOTES
SEE MP-3 FOR DETAILS AND NOTES

EXISTING FIXTURE

- 1 LAV
- 1 WC
- 1 KITCHEN SINK
- 2 HOSE BIBB

APPROVED
 Bldg. Permit Specialist

PIMA COUNTY
 WASTEWATER MANAGEMENT
 MAPS AND RECORDS
 PLAN CHECK

APPROVED
 NOT APPROVED
 APPROVED AS NOTED
 DATE 5-11-11

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 FOR DESIGN IS NOT THE SAME AS FOR CONSTRUCTION

PROJECT:
FAMILY RESID.
ADDITION
 2049 EAST 9TH STREET
 TUCSON, ARIZONA 85719
 AMERICAN VILLA RESUB
 LOT 16 BLK 2
 PARCEL 128-04-0870
 BOOK 3 PAGE 10
 T 14 S RANGE 14 E SEC 8
 SHEET NO. MP-01
 OF SHEETS

MECHANICAL PLAN NOTES

PART I - GENERAL:

- 1.01 ALL WORK SHALL BE INSTALLED IN ACCORDANCE WITH IMC-2000 ALL CODES, LAWS, RULES, AND REGULATIONS OF ALL NATIONAL, STATE, COUNTY AND LOCAL AUTHORITIES HAVING JURISDICTION OVER THE PREMISES. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE INTERNATIONAL MECHANICAL CODE, INTERNATIONAL BUILDING CODE, UPC AND THE NATIONAL FIRE PROTECTION ASSOCIATION. IN CASE OF DIFFERENCES, THE MOST RESTRICTIVE OF SAID REGULATIONS SHALL GOVERN. HOWEVER, THIS SHALL NOT BE CONSTRUED TO RELIEVE THIS CONTRACTOR FROM COMPLYING WITH REQUIREMENTS OF THE PLANS AND SPECIFICATIONS WHICH MAY BE IN EXCESS OF CODE REQUIREMENTS. CONTRACTOR TO SECURE AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS.
- 1.02 HVAC DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO SHOW THE APPROXIMATE APPROXIMATE LOCATION OF DUCTWORK, OUTLETS, EQUIPMENT AND PIPING. DIMENSIONS GIVEN IN FIGURES ON THE PLANS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS, AND ALL DIMENSIONS, WHETHER GIVEN IN FIGURES OR SCALED, SHALL BE FIELD VERIFIED. NO DUCTWORK SHALL BE FABRICATED UNTIL DUCT CLEARANCES ARE FIELD VERIFIED.
- 1.03 BEFORE SUBMITTING A BID CAREFULLY STUDY ALL THE CONSTRUCTION DOCUMENTS. CAREFULLY EXAMINE THE PREMISES AND ANY EXISTING WORK. DETERMINE, IN ADVANCE, THE METHODS OF INSTALLING AND CONNECTING THE EQUIPMENT AND BECOME THOROUGHLY FAMILIAR WITH ALL OF THE REQUIREMENTS OF THE CONTRACT.
- 1.04 MAKE ARRANGEMENTS FOR INSPECTIONS AND PERFORM TESTS REQUIRED FOR HVAC WORK.
- 1.05 FURNISH ANY MISCELLANEOUS ITEMS NORMALLY USED, SPECIFICALLY MENTIONED OR NOT, TO RENDER A COMPLETE INSTALLATION.
- 1.06 ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

PART II - PRODUCTS:

- 2.01 CONDENSATE PIPING:
 - a. CONDENSATE PIPING BELOW THE ROOF AND ABOVE THE CEILING SHALL BE INSULATED WITH 1/2" ARMAFLEX WITH ALL JOINTS SEALED.
 - b. PIPING SHALL BE TYPE "M" COPPER PLUGGED TEES FOR CLEANOUTS.
 - c. JOINTS IN CONDENSATE PIPING MAY BE MADE WITH 50-50 SOLDER.
 - d. ALL CONDENSATE LINES SHALL HAVE P-TRAPS.
- 2.02 DUCTWORK:
 - a. SIZES SHOWN ARE ACTUAL SHEET METAL SIZES. GAUGES AND INSTALLATION SHALL BE ACCORDING TO THE LATEST SMACNA DUCT CONSTRUCTION MANUAL. ALL ELBOWS SHALL HAVE SINGLE THICKNESS TURNING VANES PER SMACNA STANDARDS. DUCTWORK SHALL BE HUNG WITH 20 GAUGE 1-1/8" STRAPHANGERS FASTENED TO THE STRUCTURE ABOVE.
 - b. INSULATION: LINE ALL AIR-CONDITIONING DUCT WITH 1" FIBERGLASS DUCT LINER. THE LINER SHALL MEET THE LIFE SAFETY STANDARDS ESTABLISHED BY THE NFPA 90A AND 90B. THE DUCT LINER SHALL CONFORM TO THE REQUIREMENTS OF ASTM C 1071 WITH AN NRC NOT LESS THAN .65 AS TESTED PER ASTM C423 USING A TYPE "A" MOUNTING AND A THERMAL CONDUCTIVITY NO HIGHER THAN .25 AT 75 DEGREES F MEAN TEMPERATURE. WRAP ALL AIR CONDITIONING ROUND BRANCH DUCTS WITH 1-1/2" 3/4 LB. DUCT WRAP WITH VAPOR BARRIER. OVERLAP EDGES 2" AND STAPLE MAXIMUM 2" ON CENTER.
- 2.03 REFRIGERANT PIPING:
 - a. SHALL BE TYPE ACR COPPER.
 - b. SUCTION LINE TO BE INSULATED WITH 1/2" ARMAFLEX. ARMAFLEX EXPOSED TO WEATHER TO BE PAINTED WITH TWO (2) COATS ARMAFLEX COATING. REFRIGERATION PIPING TO HAVE TRIPLE EVACUATION WITH DRY NITROGEN.
 - c. JOINTS IN COPPER AIR CONDITIONING REFRIGERANT PIPING SHALL BE MADE WITH SILFOS AND FLUX AS RECOMMENDED BY THE BRAZING ALLOY MANUFACTURER.
 - d. A 12-HOUR HOLDING TEST SHALL BE PERFORMED WITNESSED BY ARCHITECT.
 - e. DURING BRAZING THE PIPE AND FITTINGS SHALL BE KEPT FULL OF AN INERT GAS, DRYING NITROGEN, OR CO2 TO PREVENT FORMATION OF SCALE.

PART III - EXECUTION:

- 3.01 PROVIDE ALL OPENINGS REQUIRED THROUGH THE ROOF OR WALLS.
- 3.02 ALL ELECTRICAL HIGH VOLTAGE WIRING, FUSES, CONDUIT AND DISCONNECT SWITCHES SHALL BE BY THE ELECTRICAL CONTRACTOR. LOW VOLTAGE WIRING SHALL BE BY THE HVAC CONTRACTOR.
- 3.03 ALL DUCT JOINTS SHALL BE SEALED WITH HARDCAST OR EQUIVALENT CMC DUCT SEALER.
- 3.04 ROUND BRANCH DUCT CONNECTIONS SHALL BE MADE WITH A ROUND HOLE CUTTER AND A SPIN-IN COLLAR SEALED WITH HARDCAST. NO DOVE TAIL FITTINGS AND NO DUCT TAPE ALLOWED.
- 3.05 PAINT ALL VISIBLE SHEET METAL DUCTWORK BEHIND GRILLES AND REGISTERS FLAT BLACK.
- 3.06 SUPPORT ALL CEILING DIFFUSERS AND RETURN GRILLES CONNECTED TO FLEXIBLE DUCT FROM STRUCTURE.
- 3.07 PROVIDE ACCESS PANELS FOR ANY EQUIPMENT REQUIRING ACCESS LOCATED ABOVE SOLID CEILINGS.
- 3.08 BALANCE ALL AIR QUANTITIES AS INDICATED ON THE DRAWINGS (+) OR (-) 10% IN ACCORDANCE WITH BALANCING PROCEDURES OR SMACNA, OR AABC. SUBMIT BALANCING REPORTS IN TRIPLICATE, INCLUDING EQUIPMENT VOLTAGE AND AMP READINGS. AGENCY INDEPENDENT OF CONTRACTOR SHALL DO BALANCING.
- 3.09 FURNISH THREE SETS OF OPERATION, MAINTENANCE, WIRING AND WARRANTY INFORMATION ON ALL EQUIPMENT TO THE ARCHITECT IN AN INDEXED THREE-RING BINDER.
- 3.10 MAKE NOTE OF ANY CHANGES MADE IN LAYOUT AND INCORPORATE IN "RECORD" DRAWINGS SUBMITTED TO THE OWNER/G.C. AT COMPLETION OF PROJECT.
- 3.11 GUARANTEE ALL PARTS AND LABOR FOR ONE YEAR FROM DATE OF FINAL ACCEPTANCE AND PROVIDE AN ADDITIONAL FOUR-YEAR WARRANTY FOR ALL A/C COMPRESSORS.

EXHAUST FAN SCHEDULE

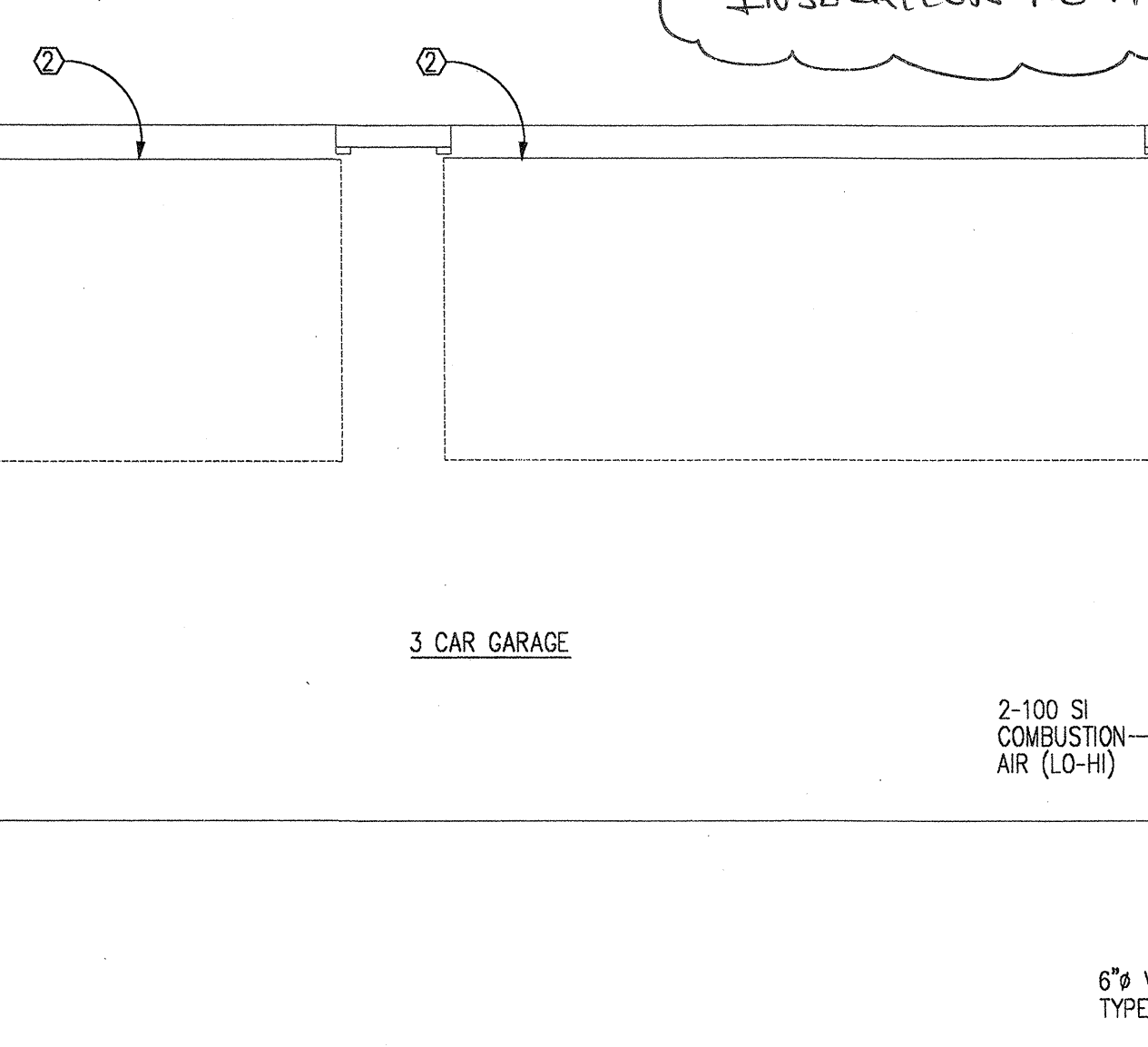
MARK	MANUF. & MODEL OR EQUAL	TYPE	CFM	E.S.P. (IN)WG	WATTS	SPEEDS	FAN RPM	MOTOR DATA ELECT.	WEIGHT	REMARKS
EF-1	COOK GC-80	CEILING MOUNTED	80	0.25	75	1	900	115-1-60	20	SEE NOTES
EF-2	COOK GC-150	CEILING MOUNTED	150	0.25	75	1	1,200	115-1-60	20	SEE NOTES
EF-3	COOK GC-100	CEILING MOUNTED	100	0.25	75	1	1,000	115-1-60	20	SEE NOTES

PROVIDE MANUF'S. DISCONNECT AND BACKDRAFT DAMPER.
 PROVIDE MANUF'S HANGING ISOLATION KIT (IF REQUIRED)
 PROVIDE MANUFACTURER'S ROOF OR WALL CAPS.
 PROVIDE SEPARATE WALL SWITCH, COORDINATE WITH ELECTRICAL.

- 1. FAN COIL UNIT SHALL HAVE SINGLE POINT POWER CONNECTION.
- 2. PROVIDE LOW VOLTAGE CONTROL POWER TRANSFORMER FAN RELAY, LIQUID LINE FILTER DRYER, AND ANTI-RECYCLING CONTROL TO PREVENT RAPID COMPRESSOR RECYCLING.
- 3. MECHANICAL CONTRACTOR TO PROVIDE & INSTALL THERMOSTAT. CARRIER RESIDENTIAL - TOTAL LINE MODEL P-474-1050.
- 4. PROVIDE MAUFACTURER'S ELECTRIC HEATERS TO BE FIELD INTALLED. COORDINATE WITH ELECT. CONTRACTOR

KEYNOTES

- (E) EXISTING TO REMAIN AS IS
- (N) NEW
- ① WINDOW SEE ARCH. FLOOR PLAN IECC-2006
- ② DOOR SEE ARCH. FLOOR PLAN IECC-2006
- ③ (E) WINDOW TO REMAIN AS IS
- ④ (E) DOOR TO REMAIN AS IS
- ⑤ (E) EXTERIOR WALL MASONRY TO REMAIN AS IS
- ⑥ 6" WIDE WOOD FRAME R-19 BATT INSULATION OR EQUAL
- ⑦ CEILING R-30 BATT INSULATION
- ⑧ RELOCATED HEAT PUMP (ON THE GROUND)



CITY OF TUCSON, ARIZONA

UNDER 4,000 FT ELEVATION

EXTERIOR DESIGN CONDITIONS	
WINTER DESIGN DRY BULB TEMP.	32 °F
SUMMER DESIGN DRY BULB TEMP.	104 °F
DESIGN WET BULB TEMP.	66 °F
DEGREE DAYS HEATING	2,100
DEGREE DAYS COOLING	2,814

THE SOLAR GAIN COEFFICIENT SHGC MIN VALUE OF 0.40 APPLIES TO ALL WINDOWS
 DOORS PER N 1101.2 IRC-2006
 U = 0.75 MIN

ENERGY EFFICIENCY

ZONE 2 (PIMA COUNTY)
 TABLE N 1102.1 (IRC-2006)

DOOR/WINDOW	0.40 SHGC
CEILING	R-30 (MIN) BATT INSULATION
WOOD WALL	R-13 (MIN) BATT INSULATION
MASS WALL	R-4 (MIN)
FLOOR (CONCRETE)	R-0
FENESTRATION	U-0.75 (FACTOR)

HEAT PUMP SPLIT SYSTEM SCHEDULE

INDOOR UNIT (FAN COIL)										
MARK	MFG. AND MODEL OR EQUAL	DISCH. TYPE	CFM	O.A. CFM	NOMINAL CAPACITY	SP				
FU-1	CARRIER FA4B-048	VERT.	1200	60	SEE GAS PLAN	0.50"				
		FAN COIL WEIGHT LBS.	MARK							
		115-1-60	130	CU-1						
OUTDOOR UNIT (COMPRESSOR UNIT)										
NOM. TON.	MFG. AND MODEL	ELECTRICAL	MCA	WEIGHT LBS.	REMARKS					
4	CARRIER 38-BYC-048	230-1-60	23.5	185	SEE NOTES					

- 1. FAN COIL UNIT SHALL HAVE SINGLE POINT POWER CONNECTION.
- 2. PROVIDE LOW VOLTAGE CONTROL POWER TRANSFORMER FAN RELAY, LIQUID LINE FILTER DRYER, AND ANTI-RECYCLING CONTROL TO PREVENT RAPID COMPRESSOR RECYCLING.
- 3. MECHANICAL CONTRACTOR TO PROVIDE & INSTALL THERMOSTAT. CARRIER RESIDENTIAL - TOTAL LINE MODEL P-474-1050.
- 4. PROVIDE MAUFACTURER'S ELECTRIC HEATERS TO BE FIELD INTALLED. COORDINATE WITH ELECT. CONTRACTOR

FLOOR R-VALUE R-13 min

MECHANICAL PLAN

SCALE 1/4"=1'-0"

THIS PROJECT WILL COMPLY WITH IRC-2006

SEE GN-1 FOR GENERAL NOTES
 SEE MP-3 FOR DETAILS AND NOTES

NOTE: SUPPLY & RETURN DUCTS w/ MIN R-8 INSULATION (INCLUDES VENTED ARTS) EXCEPTS WHEN COMPLETELY LOCATED INSIDE THE THERMAL ENVELOPES PER R-1103.3.1.

EXISTING HP-1 UNIT - GAS & ELECTRIC												
MARK	MANUFACT.	MODEL	TONS	CFM	OUTSIDE AIR CFM	ESP	NET (BTUH) CAPACITY	ELECTRIC	FLA/MCA	SEER/ EER	WEIGHT (LBS)	REMARKS
HP-1	YORK	UNKNOWN	3	1200		0.50	INPUT 80,000 OUTPUT 60,000	208 3 Ø	24.8 / 29.1	13.00/ 11.20	550	

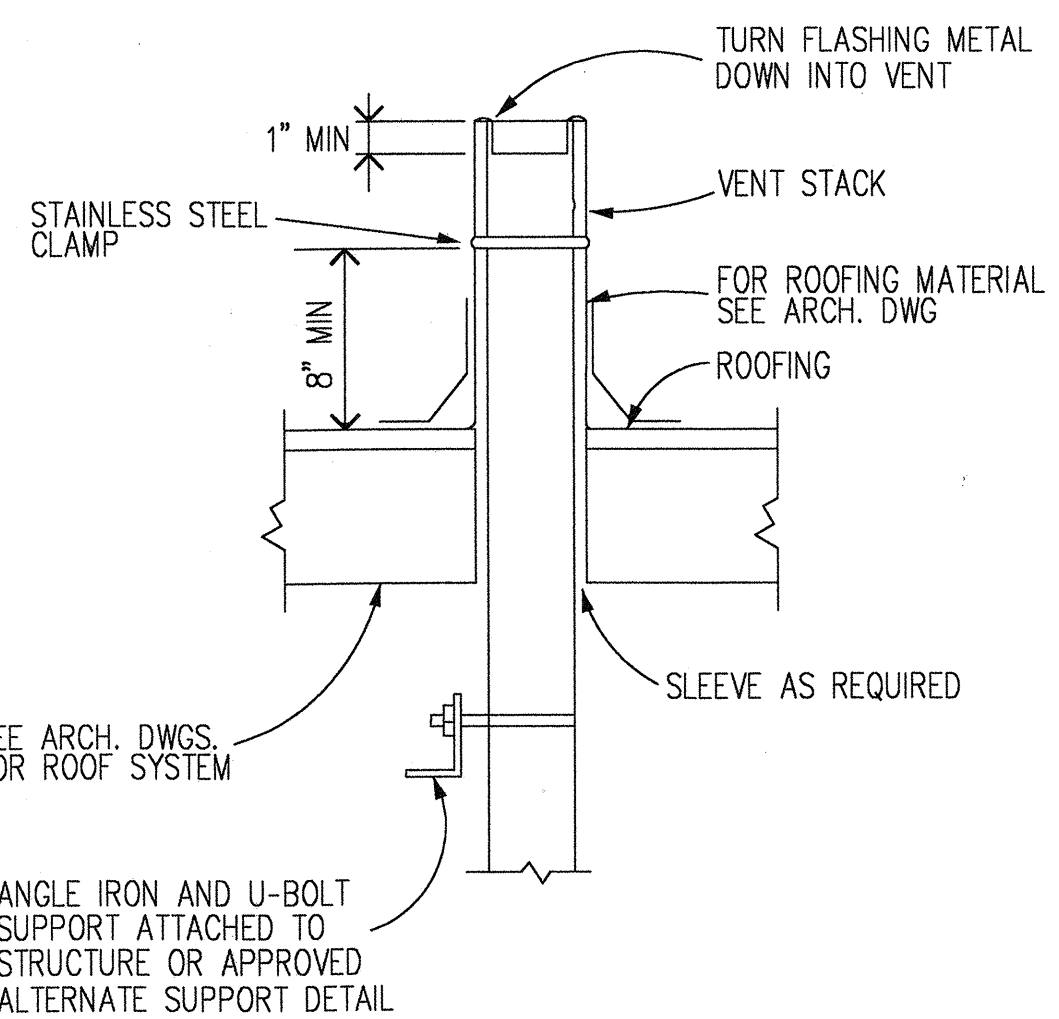
PROVIDE MANUFACTURER'S 8" ROOF CURB, DISCONNECT, OUTSIDE MANUAL AIR DAMPER AND PROGRAMM. THERMOSTAT MODEL FLASTAT 220 OR EQUAL.

- DRAWING INDEX:**
- A-00 SITE PLAN
 - A-01 FLOOR PLAN
 - A-02 ELEVATIONS
 - S-01 FOUND. PLAN
 - S-02 WALL/ROOF PLAN
 - S-03 SECTION/DETAIL
 - S-04 DETAILS
 - MP-1 PLUMB'G WALL
 - MP-2 MECH. PLAN
 - MP-3 DETAILS
 - E-01 ELECT. PLAN
 - GN-1 GEN. NOTES

56-KH11
 DATE 19 APRIL 2011
 PROJECT: 2049 EAST 9TH STREET TUCSON, ARIZONA 85719 PARCEL 120-04-0370 BOOK 3 PAGE 10 T 14 S RANGE 14 E SEC 9 SHEET NO. MP-2

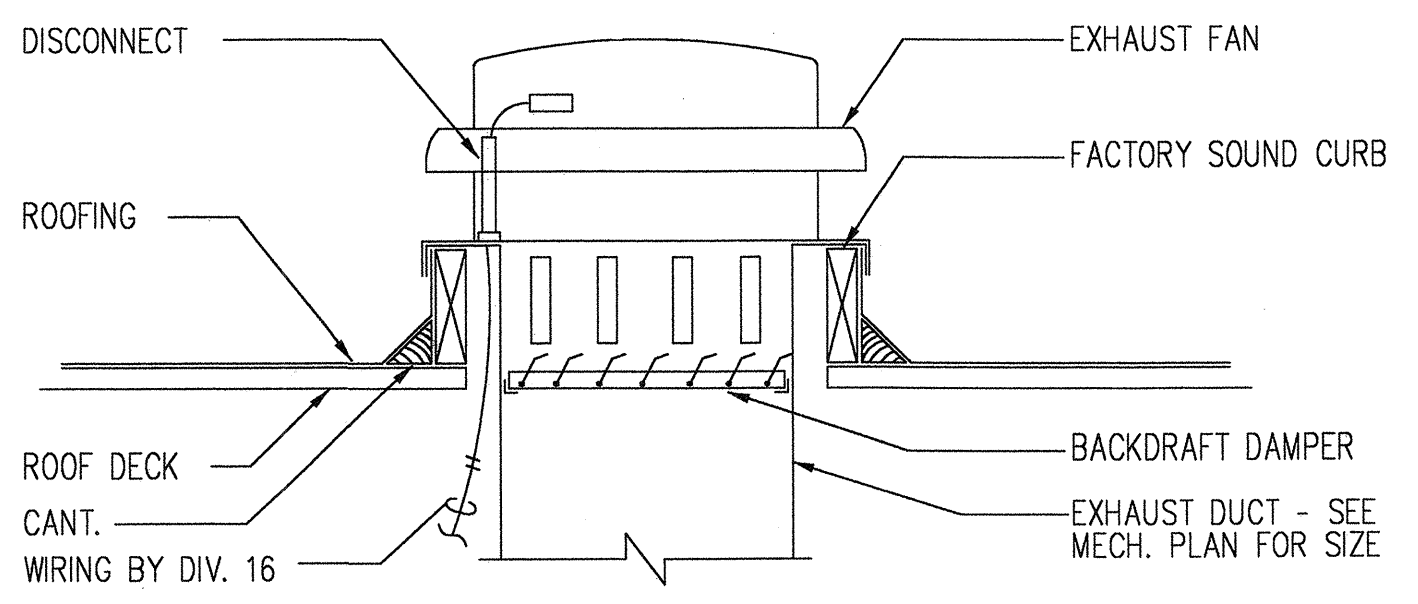
APPROVED
 Bldg. Permit Specialist

PROJECT: 2049 EAST 9TH STREET TUCSON, ARIZONA 85719 PARCEL 120-04-0370 BOOK 3 PAGE 10 T 14 S RANGE 14 E SEC 9 SHEET NO. MP-2

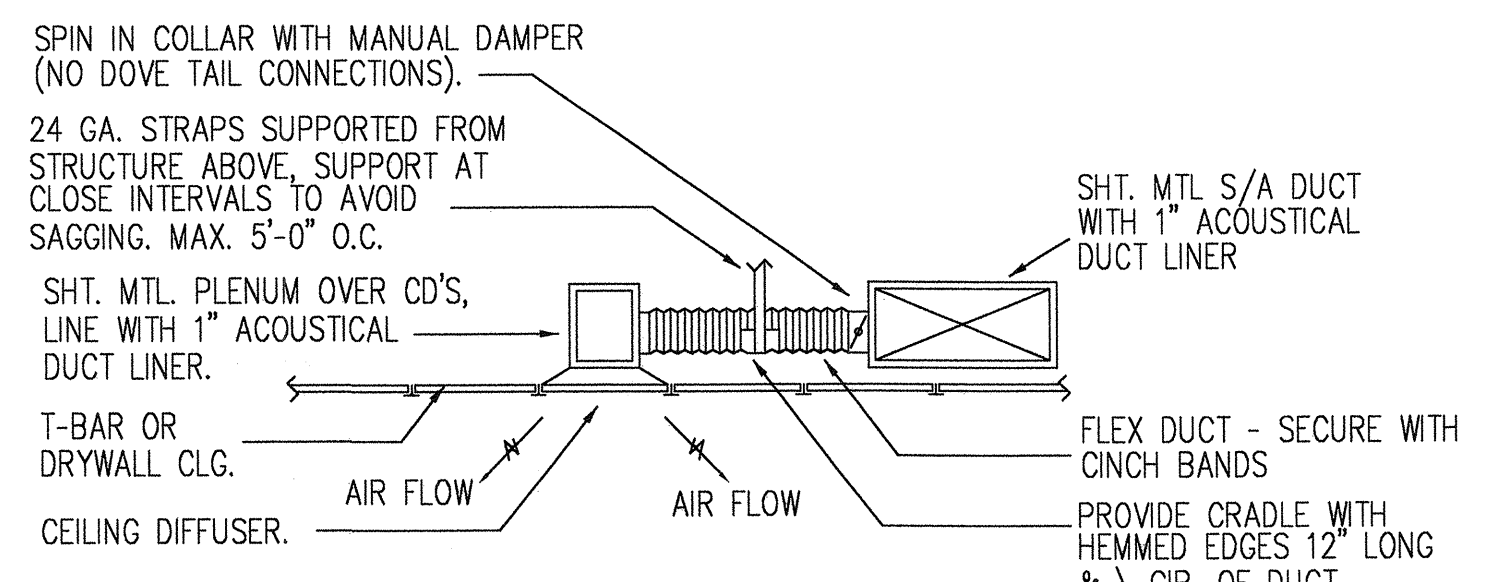


NOTES:
PLUMBER CONTRACTOR SHALL BE RESPONSIBLE FOR OFFSETTING VENTS AS REQUIRED TO MAINTAIN 10'-0" MIN. DISTANCE FROM ALL AIR CONDITIONING AIR INTAKES AND BUILDING INTAKES. COORDINATE VENTS THRU ROOF WITH MECHANICAL CONTRACTOR - IF APPLY

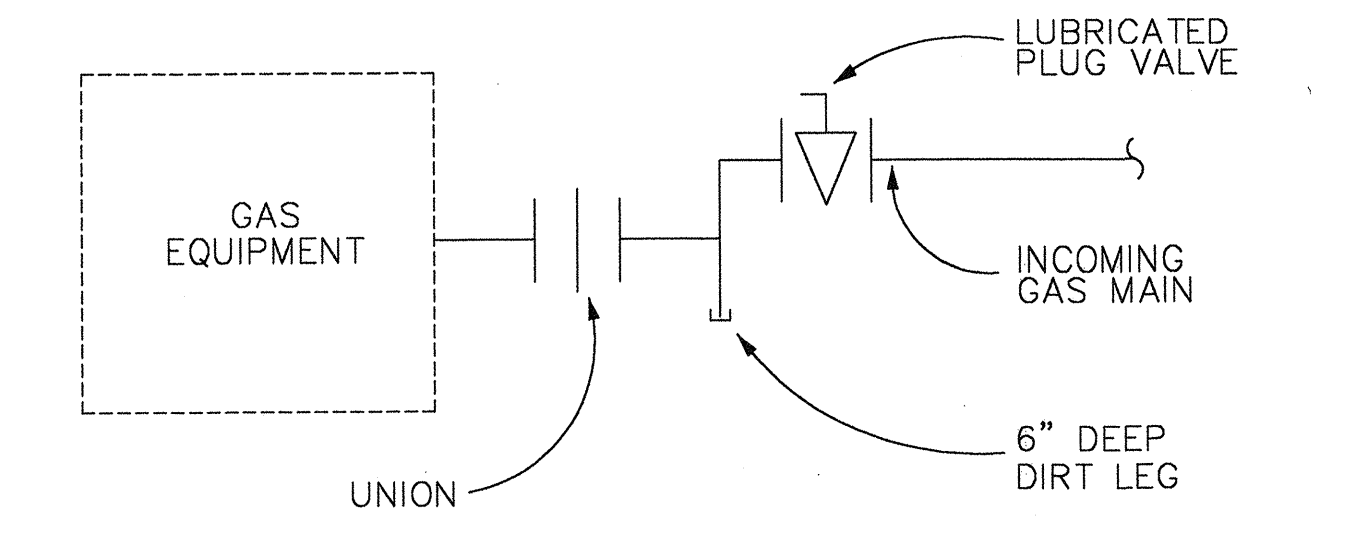
1 VENT THRU ROOF DETAIL 3/4" = 1'-0"



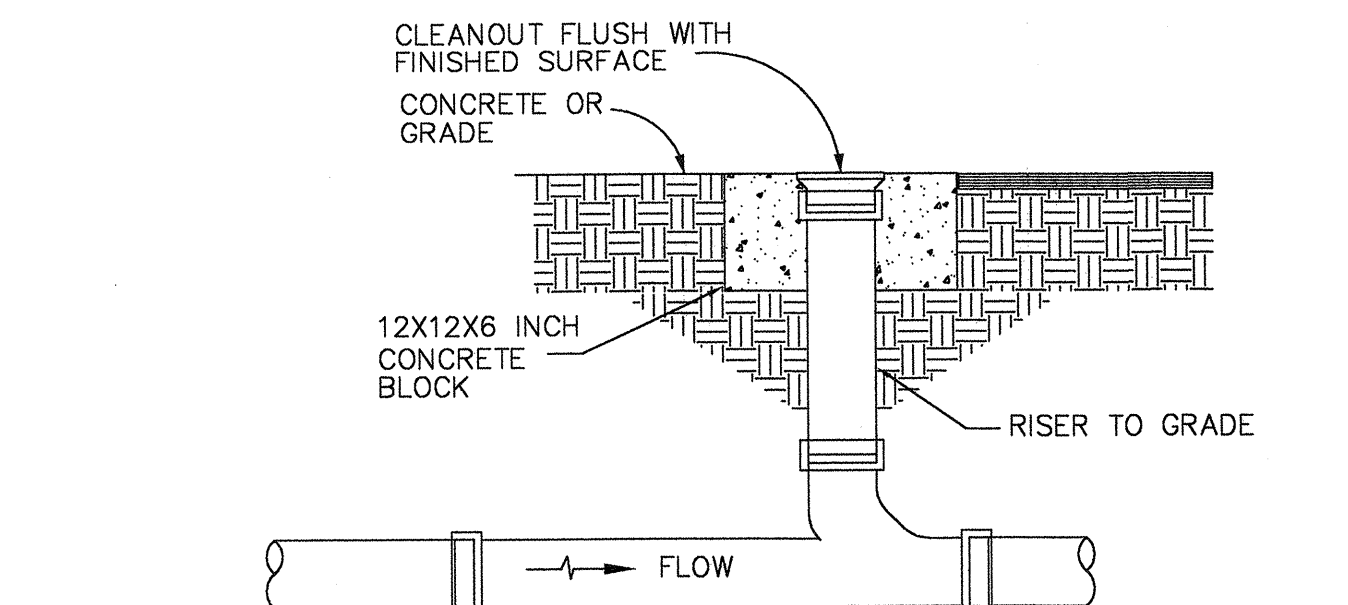
5 WALL MOUNTED FAN DETAIL 3/4" = 1'-0"



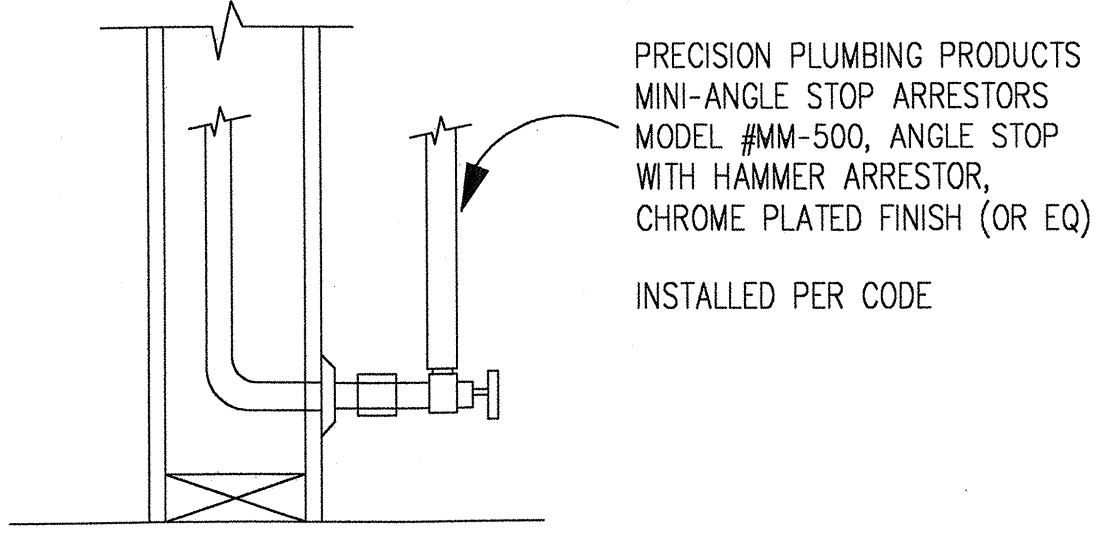
6 CEILING DIFFUSER WITH FLEX DUCT DETAIL 3/4" = 1'-0"



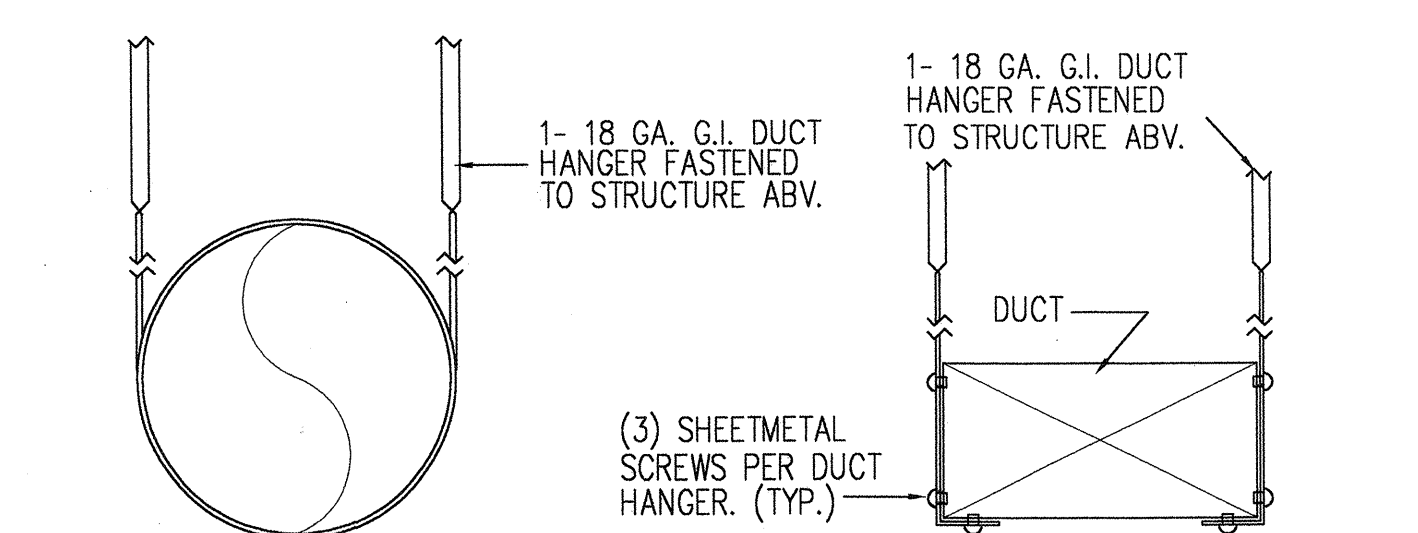
10 GAS CONNECTION DETAIL 3/4" = 1'-0"



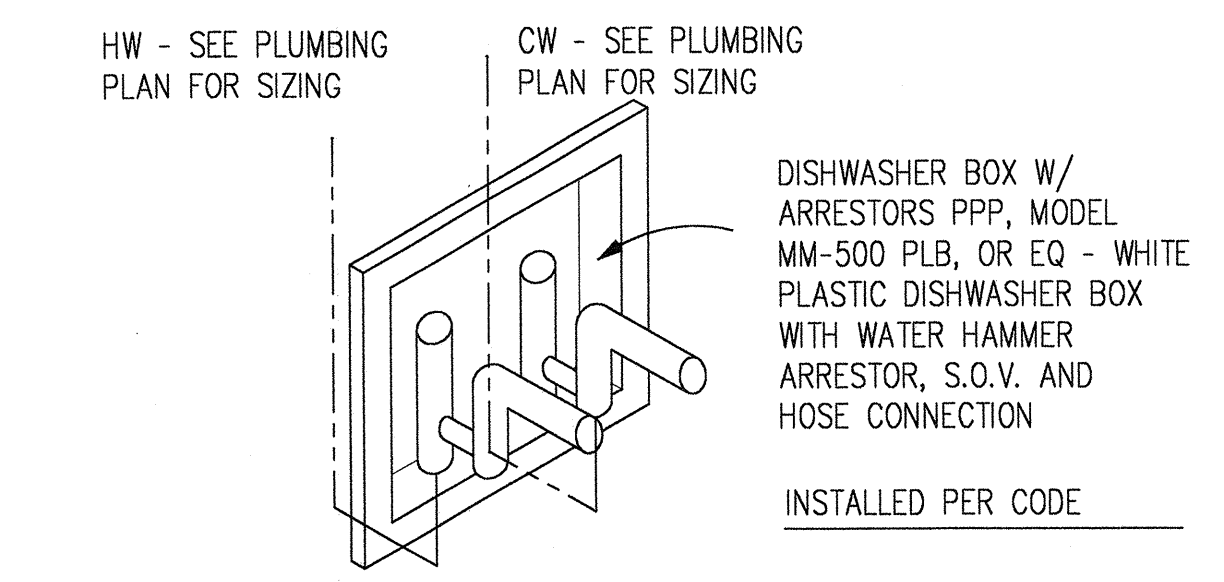
11 SEWER DETAIL 3/4" = 1'-0"



2 WATER HAMMER ARRESTOR - W.C./TOILET 3/4" = 1'-0"



7 DUCT HANGER DETAIL 3/4" = 1'-0"

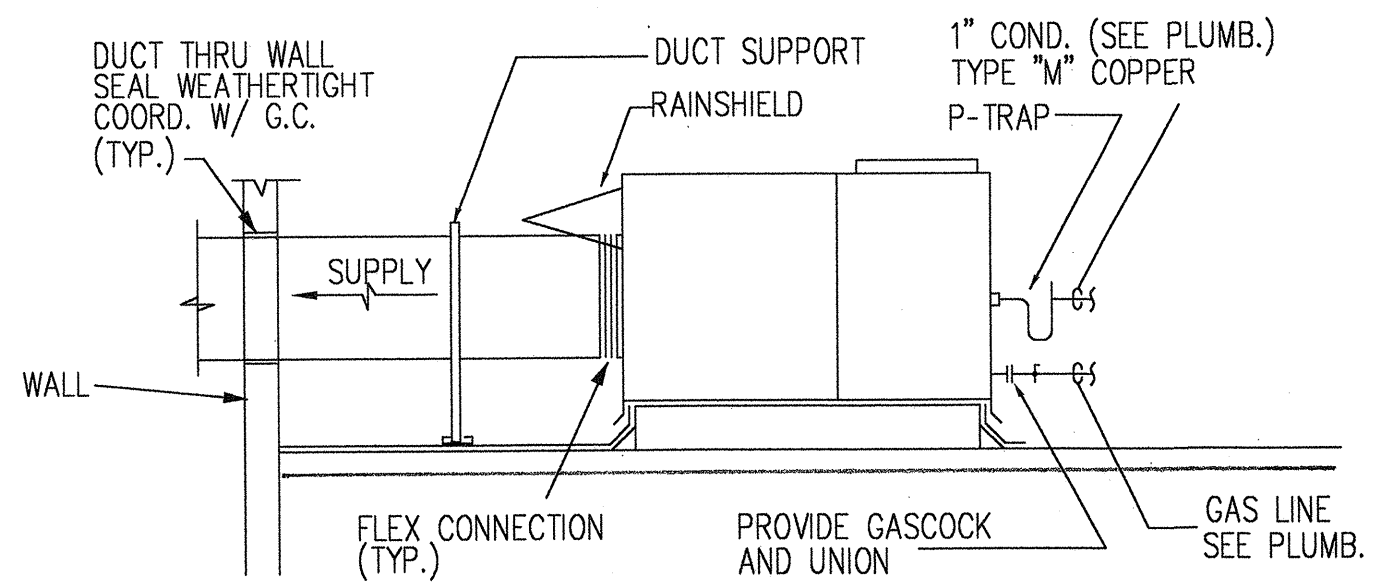


3 WATER HAMMER ARRESTOR - WASHER 3/4" = 1'-0"

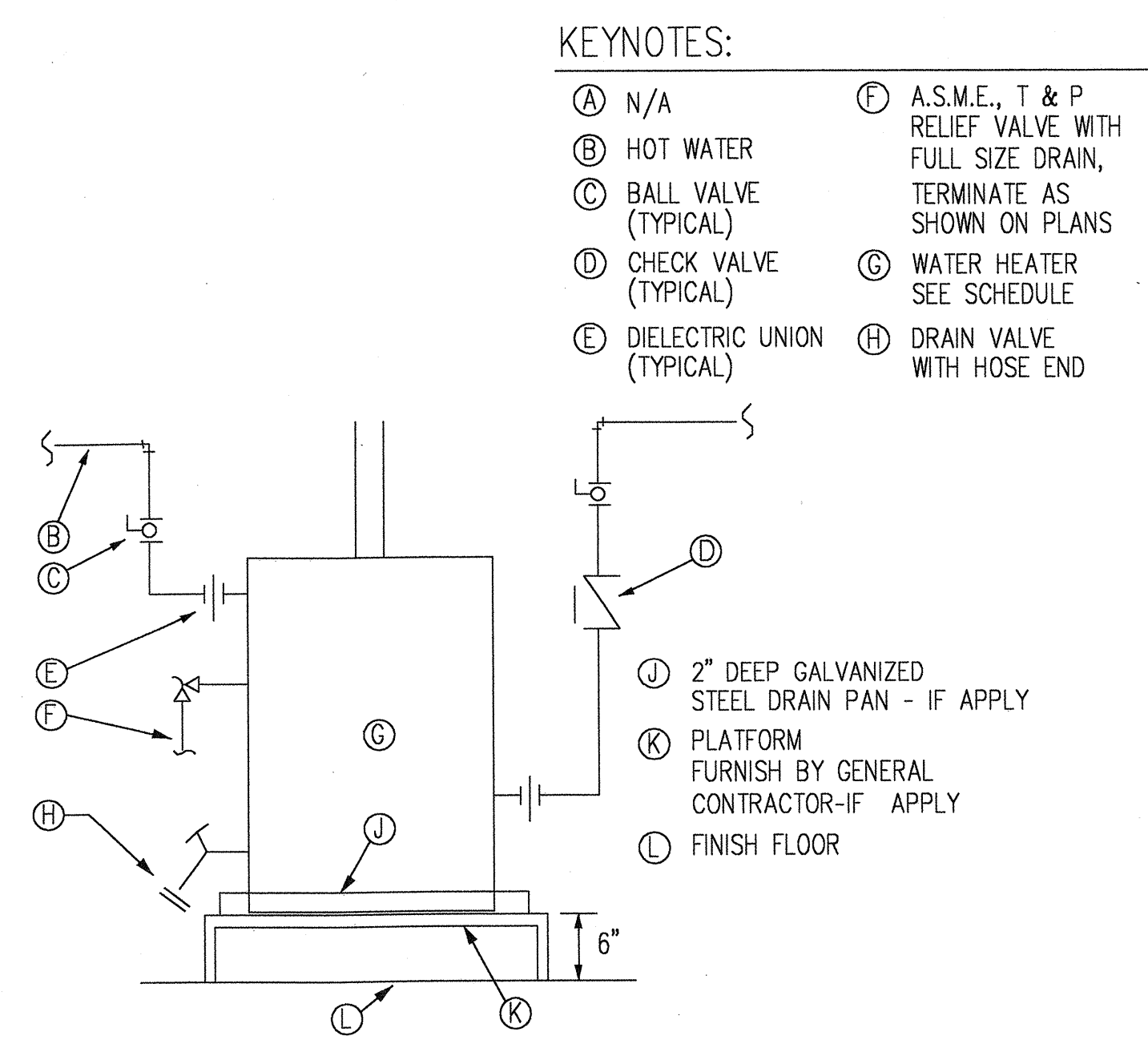
REFRIGERANT PIPING NOTE

- REFRIGERANT'S LINES SIZES AND CONNECTIONS BETWEEN OUTDOOR UNITS AND FAN COIL UNITS SHALL BE PER MANUFACTURER'S RECOMMENDATIONS. ROUTING OF LINES TO BE FIELD VERIFY BY THE MECHANICAL CONTRACTOR.
- ENCASE ALL REFRIG. LINES UNDERGROUND IN 4" PVC OR ABS PIPING, SEAL OPENING OUTDOOR WEATHERTIGHT.

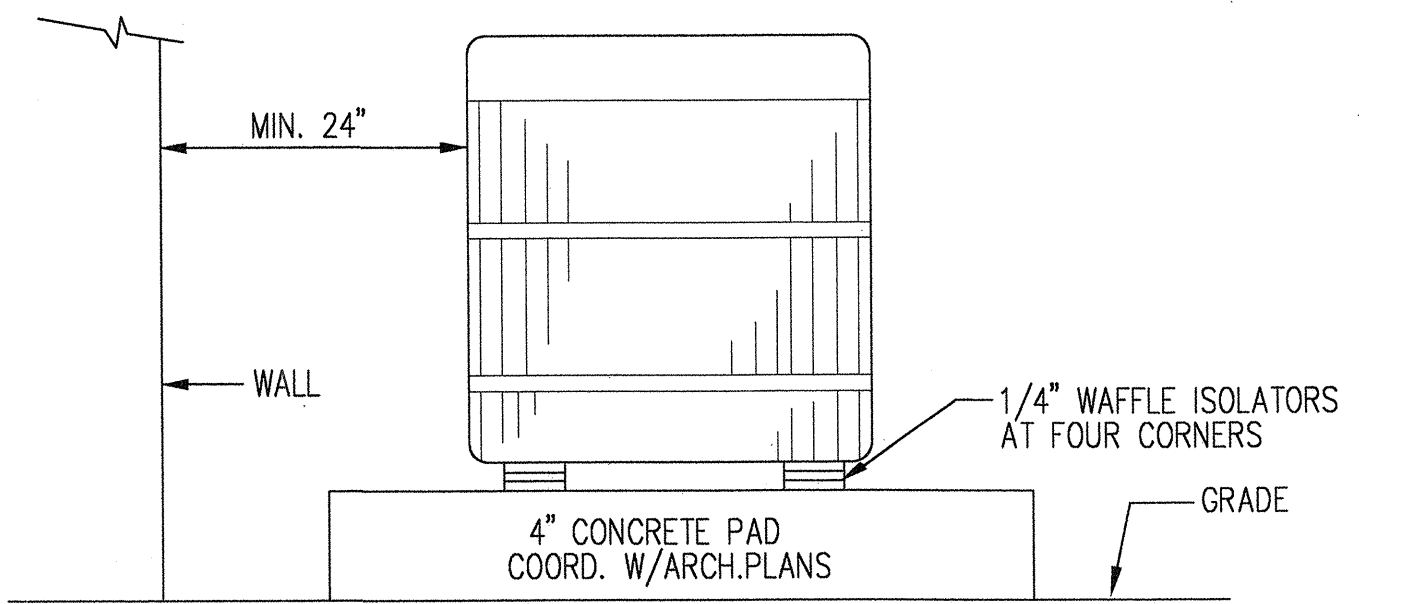
THIS PROJECT WILL COMPLY WITH IRC-2006 & LOCAL AMENDMENTS - IECC-2006 & LOCAL AMENDMENTS



12 RELOCATED HEAT PUMP 3/4" = 1'-0"

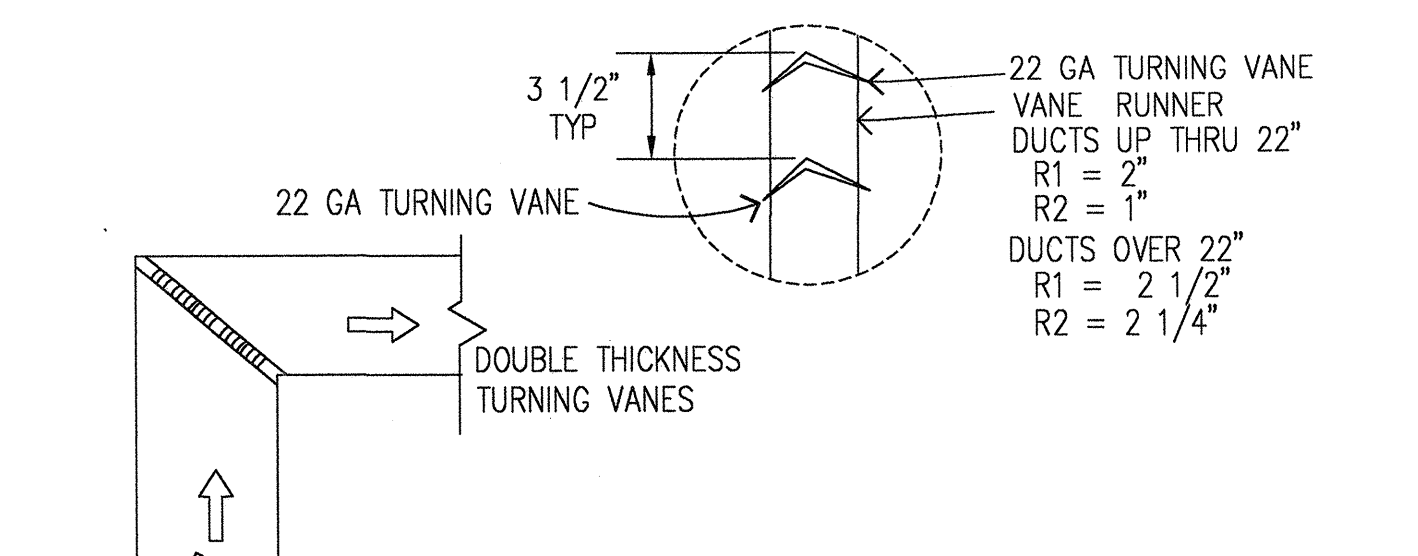


4 WATER HEATER (GAS) 3/4" = 1'-0"



ALL APPLIANCES IN CONFINED SPACE W/ FREE AREA OPENING PROVIDE 2- 100 SI (4X12) EA MIN PER M 1702.2 IRC-2006

8 COMPRESSOR UNIT 3/4" = 1'-0"



9 TYP. TURN IN RECTANGULAR DUCT 3/4" = 1'-0"

DRAWING INDEX:

A-00	SITE PLAN
A-01	FLOOR PLAN
A-02	ELEVATIONS
9-01	FOUND. PLAN
9-02	WALL/ROOF PLAN
9-03	SECTION/DETAIL
9-04	DETAILS
MP-1	PLUMB'G WALL
MP-2	MECH. PLAN
MP-3	DETAILS
E-01	ELECT. PLAN
GN-1	GEN. NOTES

PROJECT: FAMILY RESID. ADDITION
2,049 EAST 9TH STREET
TUCSON, ARIZONA 85719
LOT 16 BLK 2
PARCEL 129-04-0370
BOOK 3 PAGE 10
T 14 S RANGE 14 E SEC 8
SHEET NO. MP-03
OF 38

APPROVED
Bldg. Permit Specialist

GENERAL:

ALL WORK SHALL COMPLY WITH THE LATEST PUBLISHED EDITION OF THE NATIONAL ELECTRIC CODE, AS ADOPTED BY THE AUTHORITY HAVING JURISDICTION, AND THE RULES AND REGULATIONS OF ANY UTILITY COMPANIES SERVING THE FACILITY OR THE PROPERTY. WHERE THE CONTRACT DOCUMENTS EXCEED THESE REQUIREMENTS, THE CONTRACT DOCUMENTS SHALL GOVERN. IN NO CASE SHALL ANY WORK BE INSTALLED CONTRARY TO, OR BELOW, MINIMUM LEGAL STANDARDS. ANY DISCREPANCY BETWEEN THE CONTRACT DOCUMENTS AND THESE CODES, RULES AND REGULATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BIDDING OR ANY WORK ON THE ITEM IN QUESTION. THE CONTRACTOR SHALL VISIT THE JOB SITE AND FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING AND CONSTRUCTION. ANY DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND THE EXISTING CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO BIDDING, ORDERING OF EQUIPMENT, OR CONSTRUCTION.

ALL EQUIPMENT SHALL BE NEW, PURCHASED SPECIFICALLY FOR THE PROJECT, BE U.L. LISTED FOR THE ENVIRONMENT IN WHICH INSTALLED, AND BE DELIVERED TO THE JOB SITE IN THE ORIGINAL MANUFACTURER'S SHIPPING CONTAINERS. ALL ELECTRICAL EQUIPMENT, FUSES, ETC. WITHIN THE SAME CATEGORY (E.G., DISCONNECTS, PANEL BOARDS, CIRCUIT BREAKERS, FUSES) SHALL BE OF THE SAME MANUFACTURER.

THE ELECTRICAL CONTRACTOR IS SPECIFICALLY RESPONSIBLE FOR COORDINATING THE FURNISHING AND INSTALLATION OF THE MECHANICAL EQUIPMENT CONTROL WIRING, STARTERS FOR MECHANICAL AND OWNER FURNISHED EQUIPMENT, STARTER INTERLOCK WIRING, MECHANICAL AND OWNER FURNISHED EQUIPMENT DISCONNECTS, FIRE ALARM CONNECTIONS TO HVAC EQUIPMENT, FIRE ALARM SPRINKLER FLOW SWITCHES, FIRE ALARM DUCT SMOKE DETECTORS AND THEIR ASSOCIATED CONDUIT AND WIRING WITH THE GENERAL CONTRACTOR PRIOR TO BIDDING THE PROJECT. THE ELECTRICAL CONTRACTOR SHALL BE SPECIFICALLY RESPONSIBLE FOR FURNISHING AND INSTALLING THESE ITEMS AND THEIR ASSOCIATED CONDUIT, WIRING AND INTERCONNECTS UNLESS SPECIFICALLY RELIEVED OF THE RESPONSIBILITY BY THE GENERAL CONTRACTOR.

CIRCUIT BREAKER PANELBOARDS:

PANELBOARD BUS STRUCTURE AND CIRCUIT BREAKERS SHALL HAVE RATINGS AS INDICATED ON THE PANEL SCHEDULES ON THE DRAWINGS. ALL PANELBOARDS SHALL BE U.L. LISTED WITH A MINIMUM INTEGRATED SHORT CIRCUIT RATING OF 10,000 AMPS SYMMETRICAL FOR 240 VOLT RATED PANELS (MAXIMUM) WITH ALL DEVICES AND CIRCUIT BREAKERS IN PLACE. PANELBOARDS SHALL BE SQUARE "D" OR EQUAL.

CIRCUIT BREAKERS SHALL BE PLUG-IN FOR 240 VOLT RATED PANELBOARDS AND BE OF THE SAME MANUFACTURER AS THE PANELBOARD SUPPLIED. CIRCUIT BREAKERS SHALL BE OF THE THERMAL-MAGNETIC TYPE, SINGLE HANDLE FOR ALL POLES, WITH RATINGS AS INDICATED ON THE DRAWINGS. CIRCUIT BREAKERS SHALL HAVE A MINIMUM SHORT CIRCUIT RATING EQUAL TO THE PANELBOARD IN WHICH INSTALLED. CIRCUIT BREAKERS USED TO SWITCH LIGHTING CIRCUITS SHALL BE "SWD" RATED AND CIRCUIT BREAKERS FEEDING HEATING AND AIR CONDITIONING EQUIPMENT SHALL BE "HACR" RATED.

PANELBOARDS SHALL BE ENCLOSED IN A STEEL CABINET PER U.L. STANDARD 50 WITH WIRING GUTTER SPACE PER U.L. STANDARD 67. THE BOX AND/OR FRONTS SHALL BE FULLY FINISHED WITH RUST-INHIBITING PRIMER AND BAKED ENAMEL FINISH. CIRCUIT BREAKER PANELBOARDS SHALL HAVE LOCKABLE DOORS WITH FLUSH CYLINDER TUMBLER-TYPE LOCK WITH KEY AND SPRING-LOADED STAINLESS STEEL DOOR PULL. ALL PANELBOARDS SHALL BE KEYPED ALIKE.

ALL PANELBOARDS SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS AND BE COMPLETE WITH ALL NECESSARY MOUNTING HARDWARE, BACK BOXES, TRIM, LUGS AND WITH A COMPLETE, TYPED, PANELBOARD SCHEDULE MOUNTED ON THE INSIDE OF THE DOOR IN A DIRECTORY FRAME WITH CLEAR PLASTIC COVER INDICATING LOAD SERVED AND LOCATION. THE CONTRACTOR SHALL VERIFY MOUNTING LOCATION AND, IN THE CASE OF RECESSED PANELBOARDS, WALL THICKNESS PRIOR TO ORDERING THE EQUIPMENT.

WIRING DEVICES:

ALL SWITCHES, RECEPTACLES, OUTLETS, ETC. SHALL BE INSTALLED COMPLETE WITH GROUNDING BOXES, ALL MOUNTING HARDWARE AND SMOOTH WHITE SWITCHES/OUTLETS WITH LIGHT SWITCHES FACE PLATES IN STAINLESS AND OUTLETS IN WHITE MATCHED TO THE DEVICE INSTALLED UNLESS NOTED OTHERWISE ON THE DRAWINGS. CONFIRM FACE PLATE MATERIAL @ KITCHEN WITH G.C./OWNER

ALL RECEPTACLES SHALL BE INSTALLED AT 12 INCHES ABOVE FINISHED FLOOR (A.F.F.) OR FOUR INCHES ABOVE COUNTERS (A.C.) AND/OR BACKSPASHES AND SHALL BE LOCATED WITHIN SIX FEET OF DOOR OPENINGS AND NOT MORE THAN TWELVE FEET APART AS MEASURED ALONG THE SURFACE OF THE WALL(S). THE CONTRACTOR SHALL COORDINATE DEVICE LOCATIONS WITH ARCHITECTURAL DRAWINGS, CABINETRY SUPPLIER AND/OR EXISTING CABINETRY PRIOR TO ROUGH-IN. RECEPTACLES LOCATED IN BATHROOMS, TOILETS, KITCHENS (WITHIN SIX FEET OF ANY SINK), EXTERIOR LOCATIONS AND IN GARAGES SHALL BE OF THE GROUND FAULT INTERRUPTING TYPE.

ALL LIGHT SWITCHES SHALL BE INSTALLED AT (48") INCHES ABOVE FINISHED FLOORS (A.F.F.) UNLESS NOTED OTHERWISE ON THE DRAWINGS. THE CONTRACTOR SHALL COORDINATE SWITCH LOCATIONS WITH ARCHITECTURAL DRAWINGS, CABINETRY SUPPLIER AND/OR EXISTING CABINETRY PRIOR TO ROUGH-IN. WHERE INSTALLED ADJACENT TO A RECEPTACLE, THE LIGHT SWITCH AND RECEPTACLE SHALL BE INSTALLED UNDER A COMMON FACE PLATE.

ALL RECEPTACLES SHALL BE RATED AT TWENTY AMPS, 125 VOLTS, GROUNDING, TYPE, OF STANDARD NEMA CONFIGURATION AND EQUAL TO PASS & SEYMOUR UNLESS NOTED OTHERWISE ON THE DRAWINGS.

ALL SWITCHES SHALL BE RATED AT TWENTY AMPS, 125 VOLTS, TYPE AS INDICATED ON THE DRAWINGS, AND EQUAL TO PASS & SEYMOUR UNLESS NOTED OTHERWISE ON THE DRAWINGS.

ALL INCANDESCENT DIMMERS SHALL BE OF THE SLIDE TYPE, RATED 120 VOLTS, HAVE A MINIMUM RATING OF 2,000 WATTS AT RATED VOLTAGE AND EQUAL TO LUTRON "NOVA" SERIES UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL DIMMING CIRCUITS SHALL USE AN INDEPENDENT NEUTRAL AND ISOLATED GROUND WIRE BACK TO THE ORIGINATING PANEL.

DIMMERS USED FOR FLUORESCENT LIGHTS SHALL BE RATED FOR USE WITH FLUORESCENT LIGHTS, BE OF THE SLIDE TYPE, HAVE A RATED VOLTAGE OF THE LIGHT FIXTURES INSTALLED, HAVE A MINIMUM CAPACITY OF 14 - 40 WATT RAPID START LAMPS AND EQUAL TO LUTRON "NOVA" SERIES UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL DIMMING CIRCUITS SHALL USE AN INDEPENDENT NEUTRAL AND ISOLATED GROUND WIRE BACK TO THE ORIGINATING PANEL.

LIGHT FIXTURES:

ALL LIGHT FIXTURES SHALL BE U.L. LISTED, AS SCHEDULED OR INDICATED ON THE DRAWINGS, AND BE INSTALLED COMPLETE WITH ALL MOUNTING HARDWARE, LAMPS, LENSES, JUNCTION BOXES, SEISMIC WIRES, ETC. NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM. ALL FIXTURES SHALL BE THOROUGHLY CLEANED AT THE END OF THE CONSTRUCTION AND ALL BURNED OUT LAMPS REPLACED.

LIGHT FIXTURES REQUIRING BALLASTS SHALL HAVE BALLASTS OF THE ENERGY EFFICIENT TYPE. GENERAL ELECTRIC WATT MIZER II OR EQUAL. FLUORESCENT LIGHT FIXTURES USED ON DIMMING CIRCUITS SHALL BE SUPPLIED WITH APPLICABLE DIMMING BALLASTS.

LAMPS SHALL BE AS SCHEDULED ON THE DRAWINGS, OF STANDARD WATTAGE AND BE GENERAL ELECTRIC OR EQUAL.

DISCONNECTS/STARTERS/CONTACTORS:

ALL DISCONNECTS SHALL BE NEMA STANDARD AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS COMPLETE WITH ALL FUSES, LUGS, CONNECTORS, ETC., RATED FOR THE LOAD SERVED OR AS INDICATED ON THE DRAWINGS AND EQUAL TO SQUARE "D".

ALL STARTERS, COMBINATION STARTERS, CONTACTORS AND COMBINATION CONTACTORS SHALL BE NEMA STANDARD AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS COMPLETE WITH FUSES, 120 VOLT COIL, HAND-OFF-AUTO SELECTOR SWITCH MOUNTED IN THE COVER, OVERLOADS, OVERLOAD HEATERS, LUGS, CONNECTORS, ETC., RATED FOR THE LOAD SERVED OR AS INDICATED ON THE DRAWINGS AND EQUAL TO SQUARE "D".

MANUAL MOTOR STARTERS SHALL BE NEMA STANDARD, TOGGLE SWITCH TYPE AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS COMPLETE WITH OVERLOADS, LUGS, CONNECTORS, ETC., RATED FOR THE LOAD SERVED OR AS INDICATED ON THE DRAWINGS AND EQUAL TO SQUARE "D".

CONDUIT:

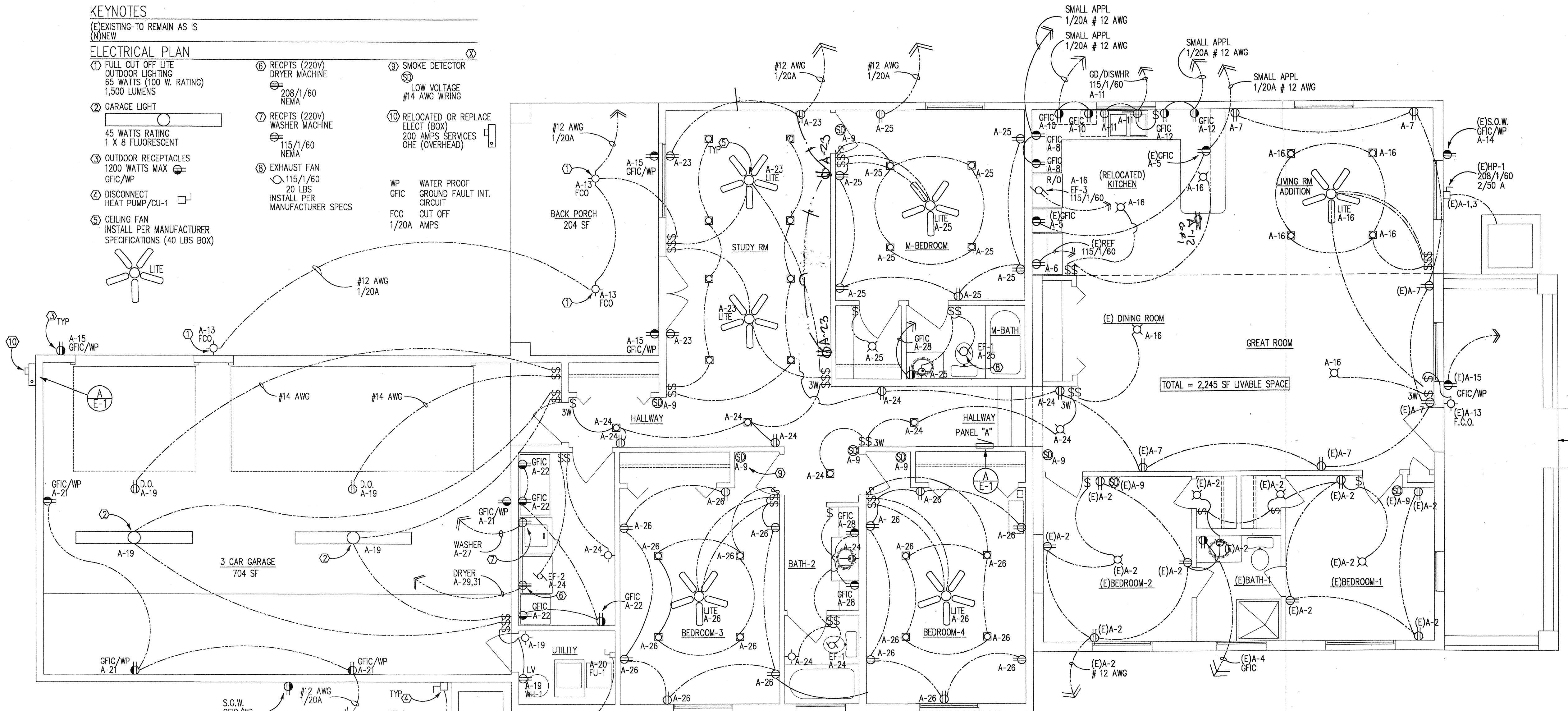
ALL CONDUITS SHALL BE GALVANIZED IMC IN EXPOSED LOCATIONS ABOVE GRADE. CONDUITS INSTALLED IN SLABS SHALL BE GALVANIZED IMC, MAXIMUM OF 3/4 INCH, IN SLABS NOT LESS THAN FOUR INCHES THICK. CONNECTORS FOR IMC CONDUITS SHALL BE SET-SCREW TYPE IN DRY LOCATIONS. CONNECTORS FOR DAMP OR WET LOCATIONS SHALL BE THE COMPRESSION TYPE.

SMOKE DETECTORS:

SMOKE DETECTORS SHALL BE OF THE PHOTO-ELECTRIC TYPE, 120 VOLTS AND INSTALLED IN ACCORDANCE WITH THE NATIONAL FIRE PROTECTION ASSOCIATION'S RECOMMENDATIONS AND THE REQUIREMENTS OF THE JURISDICTIONAL AUTHORITY. THE CONTRACTOR SHALL VERIFY ANY APPLICABLE INSTALLATION REQUIREMENTS PRIOR TO THE START OF CONSTRUCTION.

KEYNOTES

- (E) EXISTING TO REMAIN AS IS
- (N) NEW
- 1 FULL CUTOFF LITE OUTDOOR LIGHTING 65 WATTS (100 W. RATING) 1,500 LUMENS
- 2 GARAGE LIGHT 45 WATTS RATING 1 X 8 FLUORESCENT
- 3 OUTDOOR RECEPTACLES 1200 WATTS MAX GFCI/WP
- 4 DISCONNECT HEAT PUMP/CU-1
- 5 CEILING FAN INSTALL PER MANUFACTURER SPECIFICATIONS (40 LBS BOX)
- 6 RECPTS (220V) DRYER MACHINE 208/1/60 NEMA
- 7 RECPTS (220V) WASHER MACHINE 115/1/60 NEMA
- 8 EXHAUST FAN 115/1/60 20 LBS INSTALL PER MANUFACTURER SPECS
- 9 SMOKE DETECTOR LOW VOLTAGE #14 AWG WIRING
- 10 RELOCATED OR REPLACE ELECT (BOX) 200 AMP SERVICES OHE (OVERHEAD)
- 11 WATER PROOF GFCI GROUND FAULT INT. CIRCUIT
- 12 FCO CUT OFF 1/20A AMPS



NOTE: ALL PENINSULAR RECEPTACLES OUTLET AT THE PENINSULAR END NOT MORE THAN 12" BELOW THE COUNTERTOP - E 3801.5 EXCEPT

THIS PROJECT TO COMPLY W/ IRC-2006 & LOCAL AMENDMENTS
THIS PROJECT TO COMPLY W/ OUTDOOR LIGHTING CODE

EQUIPMENT CONNECTIONS:

THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY CONDUIT, WIRE, DISCONNECTS, MOTOR STARTERS AND CONNECTIONS REQUIRED FOR MECHANICAL AND OWNER FURNISHED EQUIPMENT FOR THE PROJECTS RATED AT 120 VOLTS OR ABOVE IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION AND INTERCONNECTION OF LOW VOLTAGE CONTROL WIRING AND CONDUIT WITH THE MECHANICAL CONTRACTOR OR OWNER PRIOR TO BIDDING THE PROJECT.

THE CONTRACTOR SHALL COORDINATE ALL MECHANICAL AND OWNER FURNISHED EQUIPMENT ELECTRICAL REQUIREMENTS PRIOR TO THE BID OR THE START OF CONSTRUCTION.

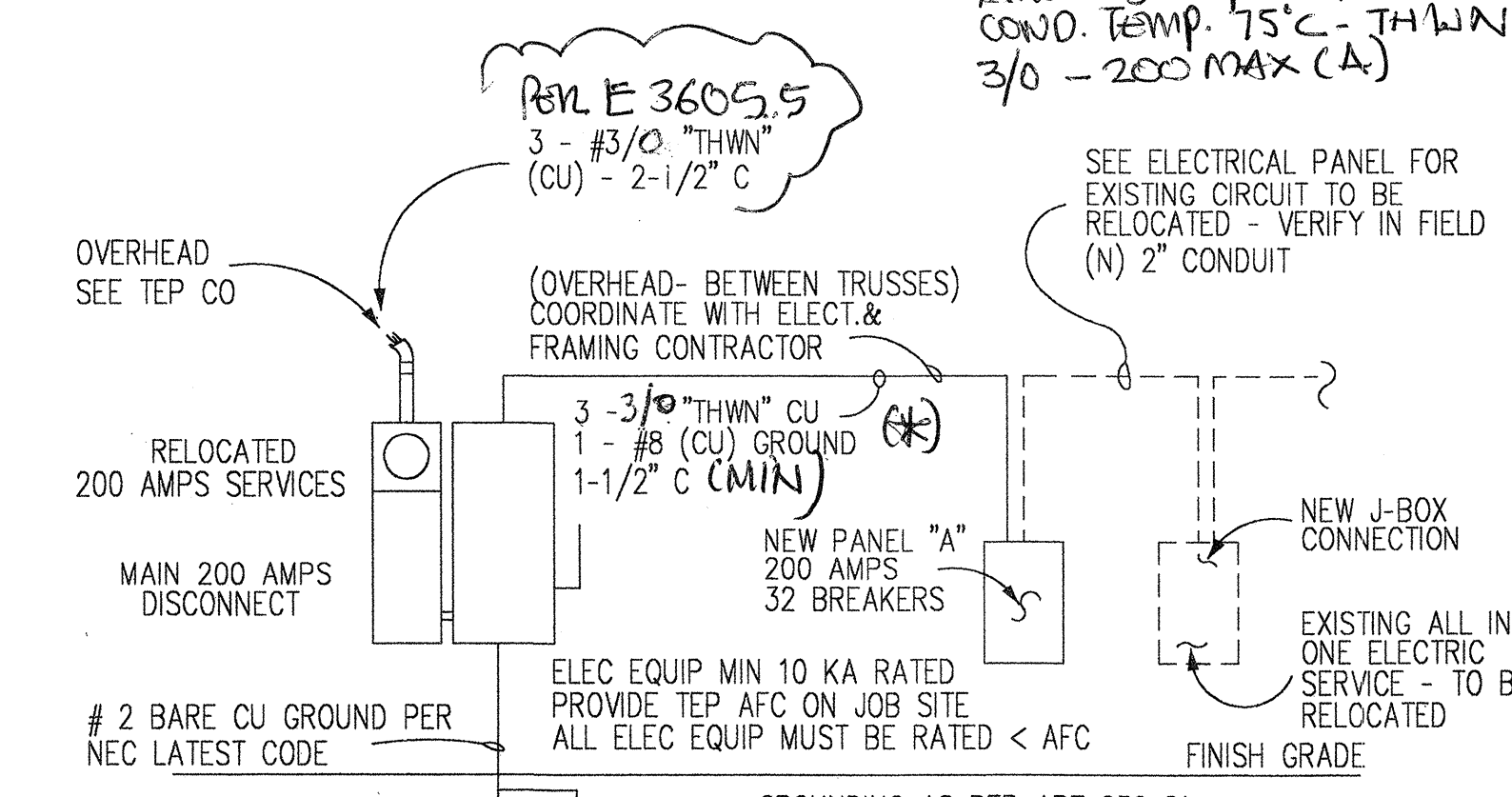
WIRING:

ALL WIRING SHALL BE SOLID COPPER, TYPE "NM", FOR ALL CIRCUITING CONCEALED WITHIN WALL AND OTHER BUILDING SPACES. IN EXPOSED LOCATIONS, BELOW SIX FEET TO FINISHED FLOOR OR FINISHED GRADE, OR IN WET LOCATIONS, WIRING SHALL BE TYPE THHN/THWN INSTALLED IN GALVANIZED IMC CONDUIT. UNDERGROUND SERVICE FEEDERS SHALL BE TYPE "SE" CABLE, UNDERGROUND PANEL OR EQUIPMENT FEEDERS SHALL BE TYPE "UF" CABLE.

MINIMUM WIRE SIZE SHALL BE #12 AWG UNLESS NOTED OTHERWISE ON THE DRAWINGS.

ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. RECOMMENDED WIRE PULLING TENSIONS (WHERE CONDUIT IS USED), TAKING INTO ACCOUNT CONDUIT SIZE, CONDUIT BENDS AND WIRE LAY, SHALL NOT BE EXCEEDED.

NOTE: PER TABLE E 3605.1 ALLOWED CAPACITY MAX COND. TEMP. 75°C - THWN 3/0 - 200 MAX (A)



ELEC. SINGLE RISER DIAGRAM
COORDINATE WITH TEP/ELECT CONTRACTOR & INSPECTOR

LOAD CALCULATIONS 2,245 SF LA.

GENERAL LIGHTING (2,245 SF LA) x 3 = 6,735 VA	6,735 V.A.
(30) RECPTS X 180 WATTS/RECPTS	5,400 V.A.
SUB-TOTAL	12,135 V.A.
KITCHEN AREA	
(4) - SMALL APPLIANCE CIRCUITS AT 1500 V.A. E.A.	6,000 V.A.
REFRIGERATOR	1,500 V.A.
DISHWASHER/GARGABE DISPOSAL	1,500 V.A.
SUB-TOTAL	9,000 V.A.
LAUNDRY AREA	
(1) - SMALL APPLIANCE CIRCUITS AT 1500 V.A. E.A.	1,500 V.A.
WASHER (1/20 A)	1,500 V.A.
DRYER (2/30 A)	6,000 V.A.
(1) - SMALL APPLIANCE CIRCUITS AT 1500 V.A. E.A.	1,500 V.A.
GARAGE AREA	
SUB-TOTAL	9,000 V.A.
SUB-TOTAL (12,135 VA + 9,000 VA + 9,000 VA)	30,135 V.A.
100% FOR FIRST 10,000 VA	10,000 V.A.
(20, 135 VA X 40%) = 8,054 VA	8,054 V.A.
SUB-TOTAL (10,000 VA + 8,054 VA) = 18,054 VA	18,054 V.A.
MECHANICAL UNIT	
WATER HEATER (GAS)	
FURNACE (GAS)	1,200 V.A.
COMPRESSOR (CU-1) 7,500 VA X 65% = 4,875 VA	4,875 V.A.
(E) MECHANICAL UNIT	
HEAT PUMP (GAS HEATER)	4,225 V.A.
SUB-TOTAL (1,200 VA + 4,875 VA + 4,225 VA)	10,300 V.A.
TOTAL ELECTRICAL LOAD	
18,054 VA + 10,300 VA = 28,354 VA / 240 = 118 AMPS	

PANELBOARD SUB-PANEL (A)						
PANELBOARD: SQUARE "D"		VOLTAGE: 120/240 1 PH. 3 WIRE		10 K MIN AIC		
TYPE: NEMA 3R ALL-IN-ONE		MOUNTING: SURFACE		LUGS ONLY		
		RECESSED		BREAKER		
BRANCH CIRCUITS						
CIRCUIT DESCRIPT.	CKT NO.	C/B	WIRE/PHASE		C/B	CIRCUIT DESCRIPT.
			A	B		
(E)HP-1 RELOCATED	1	50A	8	12	20A 1P	(E) BEDROOM-1 & 2/BATH-1 LITE & RECPTS
(E) KITCHEN (RELOCATED) RECPT - GFCI	3	2P	12	12	20A 1P	(E) BATHROOM RECPT (GFCI)
(E) LIVING ROOM LITE/RECPTS	5	20A 1P	12	12	20A 1P	(E) REFRIG (RELOCATED)
(E) SMOKE DETECTOR RECPT-LOW VOLT	7	20A 1P	12	12	20A 1P	SMALL APPLIANCE RECPT (GFCI)
DISHWASHER/GARG DISP.	9	15A 1P	14	12	20A 1P	SMALL APPLIANCE RECPT (GFCI)
(E) OUTDOOR LITE (E) LITE & ADDITION	11	20A 1P	12	12	20A 1P	SMALL APPLIANCE RECPT (GFCI)
(E) OUTDOOR RECPT (GFCI) (E) RECPTS & ADDITION	13	20A 1P	12	12	20A 1P	(E)SERV ON WALL RECPT (GFCI/WP)
	15	20A 1P	12	12	20A 1P	LIVING RM/DINING/KITCHEN LITE
	17					18
GARAGE, UTILITY LITE	19	20A 1P	12	12	20A 1P	FURNACE RECPT
GARAGE RECPT (GFCI/WP)	21	20A 1P	12	12	20A 1P	LAUNDRY RECPT (GFCI)
STUDY ROOM RECPT/LITE	23	20A 1P	12	12	20A 1P	LAUNDRY/HALLWAY/BAH-2 RECPT/LITE
M-BEDROOM/BATH RECPT/LITE	25	20A 1P	12	12	20A 1P	BEDROOM-3 & 4 LITE/RECPT
WASHER RECPT	27	20A 1P	12	12	20A 1P	BATH-2 RECPT (GFCI)
DRYER RECPT	29	30A			50A	CU-1
	31	2P	10	8	2P	32

- 1 PROVIDE HANDLE LOCK OUT DEVICE.
- 2 CIRCUIT BREAKER SHALL BE RATED FOR ARC FAULT CURRENT INTERRUPTING
- 3 GFI RATED CIRCUIT BREAKER

APPROVED
6.8.11
Bldg. Permit Specialist

DRAWING INDEX:
A-00 SITE PLAN
A-01 FLOOR PLAN
A-02 ELEVATIONS
S-01 FOUND. PLAN
S-02 WALL/ROOF PLAN
S-03 SECTION/DETAIL
S-04 PLUMB'G WALL
MP-1 MECH. PLAN
MP-2 ELECTR. PLAN
MP-3 GEN. NOTES
GN-1

PROJECT:
FAMILY RESID. ADDITION
2049 EAST 9TH STREET
TUCSON, ARIZONA 85719
AMERICAN VILLA RESUB
LOT 16 BLK 2
PARCEL 129-04-0870
BOOK 3 PAGE 10
T 14 S RANGE 14 E SEC 8
SHEET NO. 8
OF 11

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SPECIFICATION NOTES

INTERNATIONAL RESIDENTIAL CODE - IRC 2006 & UNIFORM PLUMBING CODE - UPC-2006

Structural

CHAPTER 4 - FOUNDATION

All work must conform to all requirements of the International Residential Code 2006 edition. Comply with all laws, ordinances, codes, rules & regulations of authorities having jurisdiction. Codes are minimal acceptable standards & do not relieve the contractor from complying with the more stringent requirements of the plans.

1. DESIGN LOADS

- Design Loads 20 PSF
- Horizontal Wind loads 15 PSF
- Seismic Loading Zone C
- Allowable Soil Pressure 1500 PSF Assumed

11. FOUNDATION AND EARTHWORK

- All footing shall be founded at the depths indicated on construction drawings.
- All earth fill under footing, floors, and other paved areas shall be machine compacted in 6 inch layers to the following maximum densities, at optimum moisture content; in accordance with ASTM D698-58T, Method D:
 - A. Below foundation level 95% compaction
 - B. Floor slab support & backfill 90% compaction
 - C. Floor base course 95% compaction
- Floor slab base course shall be 4 inches of well-graded sand and gravel base course material.

11.1. CONCRETE

- All concrete shall be ready-mixed, conforming with ASTM-C94, and attain the following minimum 28-day compressive strengths:
 - A- Footing, stemwalls and slabs on grade 28 00 psi (max)
 - B- Curbs, sidewalks 2500 psi
- Concrete work shall conform with the latest editions of the following ACI STANDARDS OF RECOMMENDED PRACTICE & THE 2006 IBC
 - A- ACI 318-71 Building Code Requirements for reinforced concrete.
 - B- ACI 605-59 Practice for Hot Weather Concreting
 - C- ACI 614-59 Practice for Measuring, Mixing & Placing.
 - D- ACI 347-67 Practice of Formwork
- All concrete shall have a minimum cement content of 5-1/2 sacks per cubic yard, and a maximum water content of 6 gallons per sack of cement. Maximum slump shall be 4 inches.
- All concrete shall contain pozzolith water reducing agent.
- All concrete slabs shall be cured with Edco®1002 Curing Compound. All other concrete surfaces shall be kept moist and cured for a minimum of 7 days.

1V. REINFORCING STEEL

- Reinforcing steel shall conform to ASTM Specification A615, Grade 40
- Welded wire fabric shall have minimum strength of 65,000 PSI and conform with ASTM designation A-185
- Minimum concrete protection, except as noted:
 - A- Slabs.....3/4 inches.
 - B- Walls & Columns.....1-1/2 inches.
 - C- Footings.....3 inches.
- Lap all reinforcing steel splices, dowels, wall corners, and footing corners, at minimum of 50 diameters. Min. lap for masonry splices shall be 50 diameters.
- See Section VII - Masonry, Paragraph 7, below.

V. MISCELLANEOUS STEEL

- All miscellaneous steel shapes shall conform to ASTM A36 with a minimum yield strength of 36,000 PSI.
- Steel tubes to conform with ASTM A500.

VI. LUMBER CONSTRUCTION

- All wood construction shall conform to Chapter 6 of the International Residential Code 2006
- All joists, nailers, studs, plates, and blocking shall be 1450 1-1. GE material.
- Glu lams DF/DF 24 F-V4.
- Place 2" solid blocking between joist & rafters @ supports.
- Place bolts in wood not less than 7 Dia. from end & 4 Dia. from the edge. Place bolts not less than 4 Dia. on center.

VII. MASONRY

- All masonry shall be constructed in accordance with International Residential Code 2006
- Solid masonry units shall conform to ASTM C62, Grade MW, with a compressive strength of 2,000 PSI.
- Concrete masonry units shall be hollow load bearing conforming to ASTM C90, type I, grade U-1, with a minimum 28-day net compressive strength of 2,000 PSI.
- Masonry mortar shall conform to ASTM C270-68, Type "S", with a minimum 28-day compressive strength of 2,000 PSI.
- Masonry grout shall conform to ASTM C476, coarse grout with a minimum 28-day compressive strength of 2,000 PSI.
- All masonry shall be reinforced with truss type "Dur-o-Wall" horizontally at 16 inches o.c. unless indicated otherwise. Vertical reinforcement shall be shown on the drawings.
- Provide on #4 vertical rebar at all wall corners and intersections and jambs of at all wall openings and ends of walls.
- Provide "Dur-O-Wall" wide flange vertical expansion joints in masonry at maximum 32 feet o.c. or as indicated on drawings.

Plumbing

IPC-2006 & LOCAL AMENDMENTS

All work must conform to all requirements of the International Plumbing Code, 2006 Edition. Comply with all laws, ordinances, codes, rules & regulations of authorities having jurisdiction. Code are minimal acceptable standards & do not relieve the contractor from complying with the more stringent requirements of the plans.

- Secure & pay for permits, inspections & certificates required by authorities having jurisdiction.
- Provide labor, materials, tools, machinery & equipment necessary for the construction of the plumbing system including miscellaneous items required for proper execution.
- Drawings are diagrammatic & intended to show approximate location of outlets, equipment & piping.
- Guarantee work to be free from defects in workmanship & material for a period of one year from date of final acceptance. Promptly repair or replace materials or equipment which prove defective within that period without cost to the owner.
- Pipe & Pipe fittings. ABS (sch 40) & PVC (sch 40) may be used where approv. by code.
- Install cleanouts where indicated on the drawings & as required by the plumbing code. Distance between cleanouts not to exceed 75 feet.
- Fixtures & trims as selected by Owner, furnished & installed by plumbing contractor, unless otherwise noted.
- Wrap copper pipes leaning on or touching steel with poly-mithylene tape.
- Connection to Fixtures:
 - A. Make connections to all plumbing fixtures & other plumbing equipment indicated on the drawings.
 - B. Install joints between closets & flanges with asbestos composition gaskets or Bol-Max gaskets. Gaskets shall be germicidal, gastight, watertight & stainproof.
- Tests:
 - A. Make tests on water piping with hydrostatic pressure for a period of not less than an hour using an approved pressure gauge.
 - B. Remove all items which may be damage by test pressure & replace after tests have been approved.
 - C. Promptly repair leaks & repeat test.
 - D. Test pressures shall be as follows:
 - All water 150 PSI Hydrostatic
 - Sewer 10 PSI Hydrostatic

Nailing Schedule

CHAPTER 6 - WALL CONSTRUCTION

NAILING SCHEDULE: IRC 2006

All framing to comply with CONNECTION

CONNECTION	NAILING
1. Joist to sill or girder, toe-nail.	3-8d
2. Bridging to joists, toe-nail each end.	2-8d
3. 1"x6" (25mm x 152mm) subfloor to ea. joist, face nail.	2-8d
4. Wider than 1"x6" subfloor to each joist, face nail.	3-8d
5. 2" (51mm) subfloor to joist or girder, blind and face nail.	2-16d
6. Sole plate to joist or blocking, face nail.	16d @ 16" (406mm) o.c.
7. Sole plate to joist or blocking, at braced wall panels	S-16d per 16" (406mm)
8. Top plate to stud, end nail.	2-16d
9. Stud to sole plates.	4-8d toe-nail or 2-16d, end-nail
10. Doubled studs, face wall.	16d @ 24" (610mm) o.c.
11. Doubled top plates, typical face nail.	16d @ 16" (406mm) o.c.
12. Double top plates, lap splice.	8-16d
13. Blocking between joists or rafters to top plate, toe-nail	5-8d
14. Rim joist to top plate, toenail.	8d @ 6" (152mm) o.c.
15. Top plates, laps and intersections, face nail.	2-16d
16. Continuous header, two pieces.	16d @ 16" (406mm) o.c. along each edge
17. Ceiling joists to plate, toenail.	3-8d
18. Continuous header to stud, toenail.	4-8d
19. Ceiling joists, laps over partitions, face nail.	3-16d
20. Ceiling joists to parallel rafters, face nail.	3-16d
21. Rafter to plate, toenail.	3-8d
22. 1"(25mm) brace to each stud and plate, face nail	2-8d
1"x8" (25mm x 203mm) sheathing or less to each bearing, face nail.	2-8d
Wider than 1"x8" (25mm x 203mm) sheathing to each bearing, face nail.	3-8d
23. Built-up corner studs.	16d @ 24" o.c.
24. Built-up girder and beams.	20d @ 32" (815mm) o.c. @ top bottom and staggered
25. 2" (51mm) planks	2-20d at ends & at each splice. 2-16d at each bearing

OTHER NOTES

ALL STRUCTURAL FRAMING MEMBERS TO BE # 2 OR BETTER DOUG. FIR.

HVAC

PART V - MECHANICAL CHAPTER 12 - 23

All work must conform to all requirements of the International Residential Code 2006 edition. Comply with all laws, ordinances, codes, rules & regulations of authorities having jurisdiction. Codes are minimal acceptable standards & do not relieve the contractor from complying with the more stringent requirements of the plans.

- Secure & pay for permits, inspections & certificates required by authorities having jurisdiction.
- Provide labor, materials, tools, machinery & equipment necessary for the construction of the plumbing system including miscellaneous items required for proper execution & completion of work.
- Drawings are diagrammatic & intended to show approximate location of outlets, equipment, duct work & piping.
- Guarantee work to be free from defects in workmanship & material for a period of one year from date of final acceptance. Promptly repair or replace materials or equipment which prove defective within that period without cost to the owner.
- Duct sizes shown are sheet metal sizes.
- Externally insulate all supply & return duct work below the roof with 1" thick fiberglass FRK 25, sevis ED-75 insulation. Secure to duct. Insulate all lines to & from condensing units on roof.
- Grills & diffusers shall be equal to the following Krueger figure no.
 - Sidwall Grille (supply) 880v-0BD for A/C 800v coolers
 - Ceiling diffuser 183-0BD for A/C 183 coolers
 - Ceiling Grille (return) S-80 5ff with hinge
- Support ducts from above, do not rest on ceiling construction, piping or electrical conduits.
- Build ducts of galvanized steel. Gauges & construction shall be in accordance with the mechanical code & SMOA "Ton Velocity Requirements"
- Flash & counter flash all duct penetrations through roof or walls.
- Tights shall be airtight & the joints shall be taped or painted with mastic.
- Instruct the owner in the operation of the equipment.
- Balance the CFM output from all outlets with an approved instrument & make all adjustments necessary to bring the delivery within 10% of the specified quantity.
- Adjusts the blades in all supply outlets to produce air distribution satisfactory to the occupants.
- Contractor to verify all electrical characteristics of equipment prior to ordering & installing.

TABLE R602.3 FASTENER SCH. FOR STRUCTURAL MEMBERS

CHAPTER 8 - ROOF CEILING CONSTRUCTION

TABLE R802 & R802.5

HARDWARE SCHEDULE

All Hardware Strong tile by Simpson (or equal)

EXTERIOR WALLS	BEARING	NON-BEARING
WITH LEDGER OR NAILED		
Stud to sole plate	H25 every stud	H25 every other stud
Stud to ledger/nailer	A35 every stud	A35 every other stud
Stud to top plate	none	none

WITH TRUSSES OR RAFTER		
Stud to sole plate	H25 every stud	H25 every other stud
Stud to top plate	A35 every stud	A35 every other stud
Truss/rafter to top plate	H25 every stud	NA
Cable to top plate	NA	H25 Plat o/s @ 32" o.c. or A53 inside @ 52" o.c.

WINDOWS, DOORS		
Header to kingstud	H25 Plat ea. end	H25 Plat ea. end.
Kingstud/trimmer to sole pl.	2-H25 1 o/s, 1 1/2 H25 1 o/s, 1 1/2	none
Cripples under sill	none	none

INTERIOR WALLS

Bearing walls,- Same hardware as exterior nonbearing non-bearing - no hardware required.

26. Wood structural panels & partiitiboard: Subfloor, roof & wall sheathing (to framing): (1 inch = 25.4mm)	2-16d at each bearing
1/2" and less	6d (3)
19/32" - 3/4"	8d (4) or 6d (5)
7/8" - 1"	8d (3)
1-1/8" - 1-1/4"	10d (4) or 8d (5)
Combination Subfloor - underlayment (to framing): (1 inch = 25.4mm)	
3/4" and less	6d (5)
7/8" - 1"	8d (3)
1-1/8" - 1-1/4"	10d (4) or 8d (5)

27. Panel siding (to framing): 1/2" (13mm) or less	6d (6)
5/8" (16mm)	8d (6)

28. Fiberboard sheathing 1/2" (13mm)	N* 11 ga. (8) 8d (6) N* 16 ga. (9) N* 11 ga. (8) 8d (4) N* 11 ga. (9) 4d (10) 6d (11)
---	--

29. Interior paneling: 1/4" (6.4mm) 3/8" (9.5mm)	
--	--

Electrical

PART VIII - ELECTRICAL CHAPTER 33 - 42

Electrical installation shall comply with electrical codes in this area & with the National Electrical Code. All work must conform to all requirements of the Int. Residential Code 2006 edition. Comply with all laws, ordinances, codes, rules & regulations of authorities having jurisdiction. Codes are minimal acceptable standards & do not relieve the contractor from complying with the more stringent requirements of the plans.

- Electrical panels shall be square "D" type "QD" or equivalent.
- Minimum wire size shall be # 14 (cu) in Kitchen, Dining Room, Rec/Family Room install #1 2 (cu). All branch circuit wire shall be "TW"
- Verify exact location of mech. equipment, T-stats & control wiring, size of equip. eg. (HP, amps, voltage, etc) prior to rough-in & comply as required.
- Electrical contr. shall do all wiring necessary & connect all special controls furnished by mech. contr.
- Fuses of A/C units & motors shall be type "FRN". Fuses for panel feeders shall be type "KTR".
- All disconnect switches for motors shall be HP rated. Motors shall be protected with proper sized fusetrons
- If electrical conductors used are aluminum, terminate & splice as recommended by mfr. & as follows:
 - A. Clean conductors with a wire brush & apply "NO-OX-ID" "grade A" special (sealing paste) thoroughly as soon as conductors are cleaned.
 - B. Use AL/CU type lugs. Connectors etc. with factory filled connector paste.
- The following items may be used where permitted by code:
 - A. Non-metallic type cable.
 - B. Non-metallic device boxes.
 - C. Alluminum conductors.
- Verify the telephone co. as to conduit & trenching requirements & comply as required for entire job.
- Switches & receptacles shall be Leviton, Slater or equal flush wit ivory plates of proper gang as required.
- Light fixtures as selected by owner, furnished & installed by electrical contractor unless otherwise noted.
- All wire shall be THMW/THWN or THWN INSULATION. optional

GENERAL CONSTRUCTION NOTES

- LOCATIONS OF LUMINAIRES SHALL BE COORDINATED WITH THE OWNER PRIOR TO ANY ROUGH IN WORK. OWNER HAS THE AUTHORITY TO CHANGE LOCATION AND TYPE IN FIELD. ADDITIONAL LUMINAIRES SHALL BE COORDINATED WITH ELECTRICAL ENGINEER PRIOR TO ANY ROUGH IN.
- EACH LUMINAIRE LOCATION SHALL NOT EXCEED 150 WATTS. OWNER SHALL COORDINATE WITH G.C./OWNER AND OBTAIN APPROVAL IF LUMINAIRES ARE GREATER THAN 150 WATTS OR IF ADDITIONAL LUMINAIRES ARE TO BE INSTALLED.
- CONTRACTOR SHALL PROVIDE JUNCTION BOX FOR CEILING FAN AS REQUIRED PER NEC 370-27C AND IRC-E4001.6. CEILING FAN WITHOUT CEILING FAN LIGHT KIT SPECIFIED BY ARCHITECT AND CONTRACTOR INSTALLED.
- EACH CEILING FAN SHALL BE CONTROLLED WITH 1 SWITCH. CEILING FANS SHALL NOT BE INSTALLED WITH LIGHTING KITS UNLESS OTHERWISE NOTED.
- ALL LUMINAIRES INSTALLED OVER SHOWERS OR TUBS SHALL BE UL LISTED FOR "WET" INSTALLATION. LUMINAIRES CORD CONNECTED, HANGING, TRACK, PENDANT OR SUSPENDED PADDLE FANS ARE NOT PERMITTED.
- ALL LUMINAIRES INSTALLED OUTDOORS UNDER EAVES SHALL BE UL LISTED FOR "DAMP" INSTALLATION. ALL LUMINAIRES INSTALLED OUTDOORS AND IN DIRECT CONTACT TO RAIN SHALL BE UL LISTED FOR "WET" INSTALLATION.
- ALL LUMINAIRES SHALL COMPLY WITH THE CURRENT OUTDOOR LIGHTING ORDINANCES.
- ALL CIRCUITRY SHALL BE CONCEALED WITHIN WALL OR CEILINGS. NO CIRCUITRY SHALL BE EXPOSED UNLESS NOTED OTHERWISE OR DIRECTED BY OWNER
- ALL HOME RUNS SHALL BE CONCEALED BACK TO PANEL.
- CONTRACTOR SHALL INTERCONNECT DEVICES THAT ARE SHOWN AS BEING ON THE SAME CIRCUIT.
- PROVIDE EMPTY 1/2" (WITH PULL STRING) FROM HVAC UNIT TO RESPECTIVE UNIT CONTROLLER FOR INTERLOCK/CONTROL CABLING. COORDINATE EXACT LOCATIONS AND REQUIREMENTS WITH MECHANICAL PLANS.
- CONTRACTOR SHALL PROVIDE FUSIBLE SAFETY DISCONNECTS WITH FRN-R FUSES SIZED PER MECHANICAL EQUIPMENT NAMEPLATE DATA WHERE INDICATED. SIZE OF DISCONNECT AS INDICATED ON PLAN.
- STARTERS FOR ALL HVAC EQUIPMENT SHALL BE FURNISHED WITH HVAC EQUIPMENT COORDINATE WITH MECHANICAL PLANS AND MECHANICAL CONTRACTOR OF RECORD FOR EXACT REQUIREMENTS.
- CONTRACTOR SHALL MOUNT HVAC UNIT DISCONNECT TO NEW METAL CHANNEL SUPPORTS. CONTRACTOR SHALL OBTAIN APPROVAL IN WRITING FROM OWNER IF NEW DISCONNECT CAN BE MOUNTED TO SIDE OF HVAC UNIT PRIOR TO ROUGH-IN.
- CONTRACTOR SHALL COORDINATE WITH OWNER EXACT TYPE OF ELECTRICAL REQUIREMENTS (GAS OR ELECTRIC) FOR APPLIANCES PRIOR TO ANY ROUGH IN. PLANS INDICATE ALL DEVICES TO BE ELECTRICAL. MAKE ADJUSTMENTS IN FIELD AS NECESSARY FOR A COMPLETE AND FUNCTIONAL SYSTEM.
- CONTRACTOR SHALL COORDINATE WITH OWNER AND MILL WORK
- CONTRACTOR FOR EXACT MOUNTING HEIGHTS OF RECEPTACLES ABOVE AND BELOW COUNTERS AND LOCATED AT ALL ISLANDS/PENINSULA PRIOR TO ROUGH IN.
- CONTRACTOR SHALL COORDINATE WITH G.C. EXACT MOUNTING HEIGHTS AND LOCATIONS OF ALL DATA, TELEPHONE AND CABLE TV OUTLETS PRIOR TO ROUGH IN. INSTALL ADJACENT TO POWER OUTLET.

APPROVED

10/6/08

Blg. Permit Specialist

GENERAL CONSTRUCTION NOTES

- CONTRACTOR SHALL COORDINATE ALL DEDICATED POWER OUTLETS REQUIREMENTS WITH EQUIPMENT PRIOR TO PURCHASE OF OUTLET. INSTALL FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM.
- CABLE, JACKS, AND FACE PLATES FOR TELEPHONE, DATA, AND CABLE TV SHALL BE INSTALLED UNDER SEPARATE CONTRACT. CONTRACTOR SHALL INSTALL INFRASTRUCTURE AND BLANK COVER PLATES THIS PROJECT. IDENTIFY FUNCTION OF BOX INSIDE EACH BACK BOX WITH PERMANENT INK.
- CONTRACTOR SHALL COORDINATE WITH LOCAL CABLE COMPANY FOR EXACT REQUIREMENTS BETWEEN CABLE TV UTILITY COMPANY AND CONTRACTOR RESPONSIBILITIES. SYSTEM SHALL BE INSTALLED COMPLETE AND FULLY FUNCTIONAL.
- CONTRACTOR SHALL COORDINATE WITH LOCAL PHONE COMPANY FOR EXACT REQUIREMENTS BETWEEN TELEPHONE UTILITY COMPANY AND CONTRACTOR RESPONSIBILITIES. SYSTEM SHALL BE INSTALLED COMPLETE AND FULLY FUNCTIONAL.
- TELEVISION CABLE OUTLETS TO BE PROVIDED WITH COAX CABLE. 75 OHM OUTLETS AND WIRED PER TELEVISION COMPANIES REQUIREMENTS.
- LOCATE AND SPACE RECEPTACLES PER IRC SECTION 3801.
- FUSE ALL MECHANICAL EQUIPMENT DISCONNECTS PER EQUIPMENT MANUFACTURERS RECOMMENDATIONS.
- SMOKE DETECTORS ARE TO BE LOCATED PER IRC R 317 AND BE RATED 120 VOLT WITH BATTERY BACKUP AND WITH AUDIBLE LOCAL ALARM.
- ALL RECEPTACLES IN BATHROOMS, KITCHENS, GARAGES AND CARPORTS ARE TO BE GFCI RATED PER E3802.
- CEILING FAN JUNCTION BOXES ARE TO BE RATED PER E4001.6. LIGHT FIXTURES IN CLOSETS ARE TO BE INSTALLED PER E3903.11.
- ALL OUTDOOR LIGHTS ARE TO BE RATED LESS THAN 155 WATTS EACH. INSTALL MIDWEST A/C DISCONNECT BOX AT EACH UNIT.
- RECESSED LIGHTS WHERE REQUIRED SHALL BE INSTALLED PER IRC E3904.8 AND E3904.9.
- CONDUCTORS NO. 8 AND LARGER ARE TO BE STRANDED PER IRC 3306.4.

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B-04	DETAILS
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