SANTA FE COUNTY MADRID FIRE STATION

100% CONSTRUCTION DOCUMENT SET NOVEMBER 01, 2018

LOCATION MAP

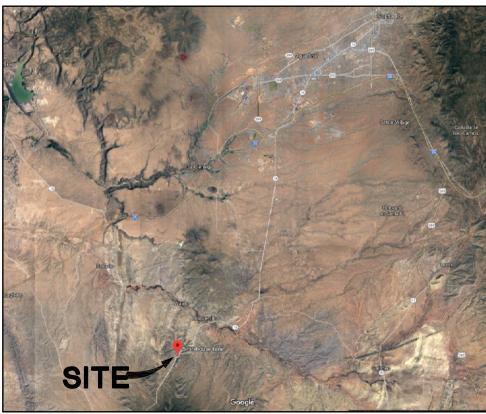


COUNTY OF SANTA FE

PUBLIC WORKS DEPARTMENT

102 GRANT AVENUE

PROJECT ADDRESS: 5 FIREHOUSE LANE



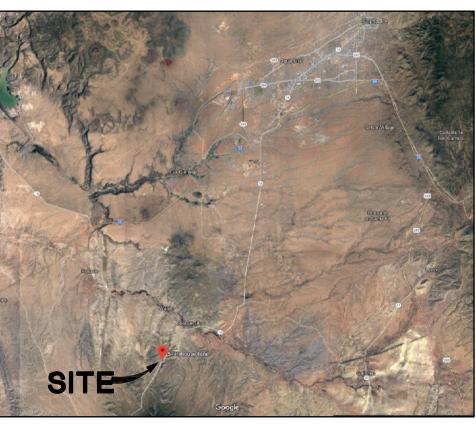
DESIGN CRITERIA

SANTA FE, NEW MEXICO 87504

MADRID, NEW MEXICO 87010

REFERENCE SHEET G-201 FOR BUILDING CODE ANALYSIS

VICINITY MAP



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ED-101 DEMOLITION ELECTRICAL PLAN
EL-101 ELECTRICAL LIGHTING PLAN EP-101 ELECTRICAL POWER PLAN



ROBERT CALVANI NO. 1053



1306 RIO GRANDE BLVD NW ALBUQUERQUE, NM 87104 505-255-6400 505-268-6954 FAX WWW.NCA-ARCHITECTS.COM SET NO.:

PROJECT: A18.04

STRUCTURAL **CHAVEZ GRIEVES** CONSULTING ENGINEERS, INC.

4700 LINCOLN NE, SUITE 102 ALBUQUERQUE, NEW MEXICO 87109 (505) 344-4080 (505) 343-8759 FAX È—MÁIL: gbradley@cg—engrs.com

MECHANICAL & PLUMBING: ARSED ENGINEERING GROUP

4700 LINCOLN NE, SUITE 101 ALBUQUERQUE, NM 87109 (505) 761-3100(505) 761-3105 FAX

ELECTRICAL:

A C ENGINEERING ENTERPRISES

120 ALISO DRIVE SE ALBUQUERQUE, NEW MEXICO 87108 (505) 842-5787 (505) 842-5797 FAX

ABBREVIATIONS

SYMBOLS USED AS ABBREVIATIONS:

HOSE BIBB

SYMBOLS USED AS ABBREVIATIONS:		_		
\angle \bot AN	IGLE		INSIDE DIAMETER	ID
¢ CE	NTERLINE		INSULATION	INSUL
			INTERIOR	INT
[с сн	IANNEL		IONIT	· T
d PE	INNY		JOINT	JT IST
l PE	RPENDICULAR		JOIST	JST
	OUND/DIAMETER		KNOCKOUT	КО
•	•		Mitolicon	NO
•	UARE FEET		LAMINATE(D)	LAM
(D) AT			LAVATORY	LAV
ADDDD//ATIONC			LINEAR FEET	LF
ABBREVIATIONS:			LINEAR METAL	LM
ABOVE FINISHED FLOOR		AFF	LOUVER	LVR
ACCESS FLOOR		ACS FLR		
ACCESSIBLE		ACC	MANUFACTURE(R)	MFR
ACOUSTICAL		ACOUS	MARKER BOARD	MB
AGGREGATE		AGGR ARCH	MASONRY	MAS
ARCHITECT(URAL)		ARCH	MASONRY OPENING	MO MATL
BEAM		ВМ	MATERIAL(S) MAXIMUM	MAX
BEARING		BRG	MECHANICAL	MECH
BELOW FINISHED FLOOR		BFF	METAL	MTL
BENCHMARK		BM	METAL THRESHOLD	MT
BOARD		BD	MINIMUM	MIN
ВОТТОМ		BOT	MISCELLANEOUS	MISC
BOTTOM OF STEEL		BOS	MUD MAT	MM
BUILDING		BLDG		
			NOMINAL	NOM
CARPET		CPT	NOT IN CONTRACT	NIC
CAST IRON		CI	NOT TO SCALE	NTS
CEILING		CLG		
CERAMIC		CER	ON CENTER(S)	OC
CHALK BOARD		CH BD	OPPOSITE	OPP
COLUMN		COL	OPPOSITE HAND SIMILAR	OHS
CONCRETE		CONC	OUTSIDE DIAMETER	OD
CONCRETE MASONRY UNIT		CMU	OWNER FURNISHED/CONTRACTOR INSTALLED	OF/CI
CONSTRUCTION		CONSTR		
CONTINUOUS OR CONTINUE		CONT	PLASTER	PLAS
CONTROL JOINT		CJ	PLATE	PL
CORRIDOR		CORR	PLYWOOD	PLYWD
			POINT	PT
DETAIL		DET	POLYVINYL CHLORIDE	PVC
DIAMETER		DIA	POUNDS PER CUBIC FOOT	PCF
DIMENSION		DIM	POUNDS PER LINEAL FOOT	PLF
DOWN		DN	POUNDS PER SQUARE FOOT	PSF
DRINKING FOUNTAIN		DF	POUNDS PER SQUARE INCH	PSI
ELECTRIC(AL)		ELEC	OHADDY THE	OT
ELECTRIC(AL) ELECTRIC WATER COOLER		EWC	QUARRY TILE	QT
ELEVATION		EL	מלווחב(מ)	DEO(D)
EXISTING		EXIST	REQUIRE(D) RETURN AIR	REQ(D) RA
EXPANSION JOINT		EJ	RIGHT OF WAY	ROW
EXPOSED		EXP	ROOF DRAIN	RD RD
EXTERIOR		EXT	ROOF LEADER	RL
EXTERIOR INSULATION &		EIFS	ROUGH OPENING	RO
FINISH SYSTEM		-		
			SECTION	SECT
FACE OF CONCRETE		FOC	SERVICE SINK	SERV SK
FACE OF MASONRY		FOM	SHEATHING	SHTHG
FACE OF STUD		FOS	SIMILAR	SIM
FACE OF SHEATHING		FOSHTHG	SOLID CORE	SC
FINISH(ED)		FIN	SPECIFICATION(S)	SPEC
FINISH FLOOR		FIN FLR	SQUARE	SQ
FIRE EXTINGUISHER (CABINET	Γ)	FE(C)	SQUARE FEET	SF or SQ
FLOOR CLEAN OUT		FC0	STRUCTURAL	STRUCT
FLOOR		FLR	SUSPENDED	SUSP
FLOORING		FLG	SYNTHETIC	SYNTH
FOOTING		FTG		
			TACKBOARD	TKBD
GALVANIZED IRON		GI	TONGUE & GROOVE	T&G
GAUGE		GA	TOP OF FOOTING	TOF
GENERAL CONTRACT(OR)		GC	TOP OF MASONRY	TOM
GLASS, GLAZING	/	GL CLZ CMU	TOP OF SLAB (OR STEEL)	TOS
GLAZED CONCRETE MASONRY	r UNII	GLZ CMU	TOP OF STUD WALL	TOSW
GYPSUM		GYP		
LIANIDICAD		ЦС	VINYL COMPOSITION TILE	VCT
HANDICAP		HC HDW	VERTICAL	VERT
HARDWOOD		HDWD		
HARDWOOD HEATING (VENTIL ATION /AIR CO		HDWD HVAC	WATER CLOSET	WC
HEATING/VENTILATION/AIR CO	טאוואטוווטאיכ	HVAC HT	WATER HEATER	WH
HOLLOW CORE		HC	WELDED WIRE FABRIC	WWF
HOLLOW METAL		НМ		
HORIZONTAL		HORIZ		
HOSE BIBB		HB		

MATERIAL INDICATIONS

EARTH	SAND
CONCRETE	GRAVEL
BRICK	WOOD (FINISH)
CONCRETE BLOCK	WOOD (THROUGH MEMBER)
STEEL	WOOD (INTERRUPTED MEMBER)
BATT INSULATION	GYPSUM BOARD PLYWOOD
RIGID INSULATION or CABINETRY	 CEILING TILE PARTICLE BOARD

GENERAL NOTES:

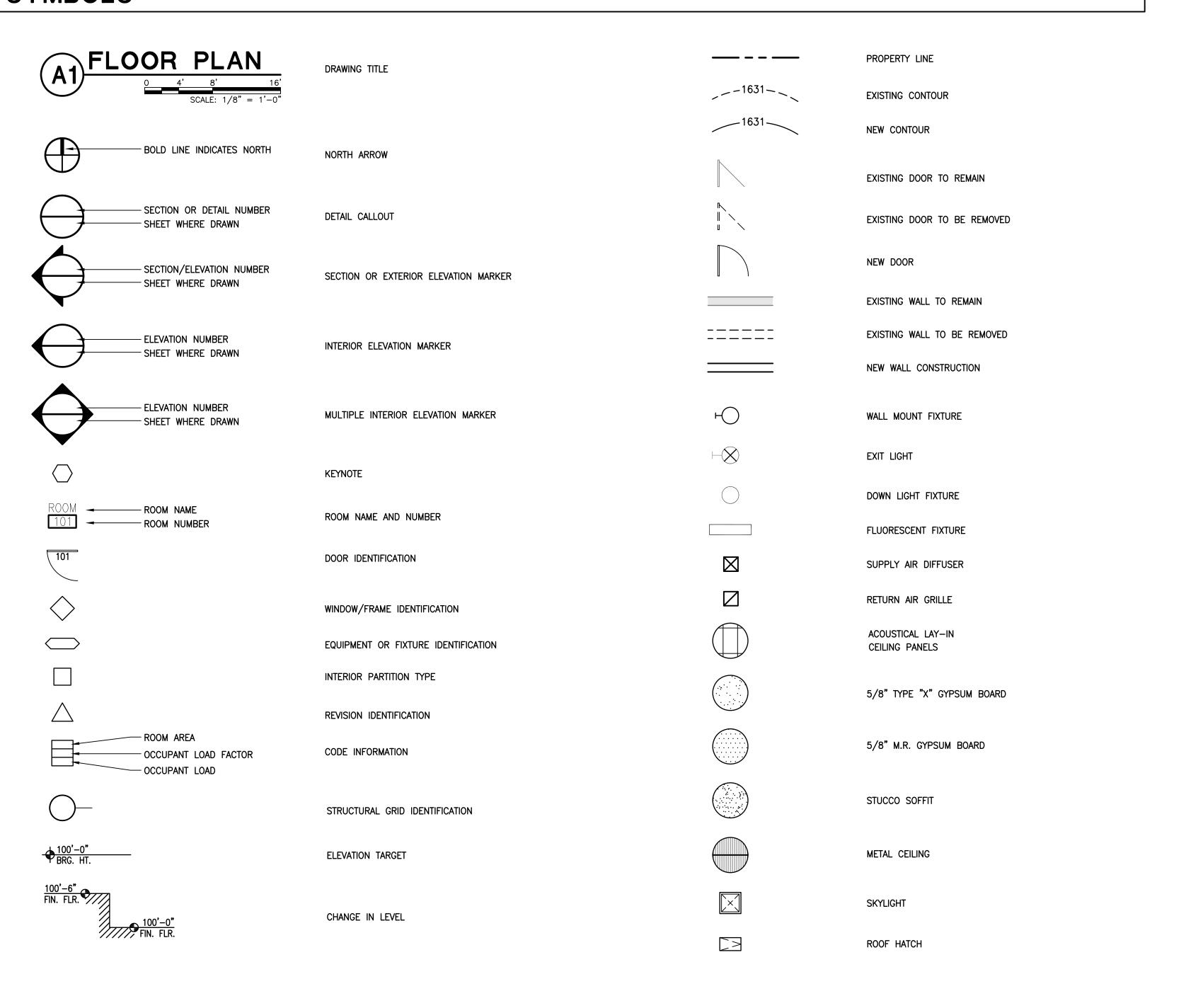
- A. DRAWINGS WERE DERIVED FROM CONSTRUCTION DOCUMENTS OF THE ORIGINAL BUILDING AS WELL AS FIELD SURVEYS BY THE ARCHITECT. THE CONTRACTOR IS TO FIELD-VERIFY ALL DIMENSIONS AND CONDITIONS OF EXISTING CONSTRUCTION, AND REPORT ANY INCONSISTENCIES
- TO THE ARCHITECT.

 B. WHERE NEW CONSTRUCTION IS ADJACENT TO EXISTING CONSTRUCTION, THE FINISH SURFACES SHOULD BE ALIGNED TO CONCEAL ALL JOINTS, ETC., OR TO MAKE AS INCONSPICUOUS AS POSSIBLE AT ALL TRANSITIONS.
- C. ALL EQUIPMENT AND OTHER ITEMS TO BE REMOVED SHALL BE SALVAGED TO TEMPORARILY HOLD AND PROTECT UNTIL OWNER IS PREPARED TO TAKE POSSESSION. COVER AND PROTECT ITEMS FROM DETERIORATION DUE TO WEATHER, ETC.
- D. CONTRACTOR TO REPAIR OR REPLACE ALL ITEMS DAMAGED AS A RESULT OF CONSTRUCTION DURING COURSE OF WORK. RESTORE ALL REPAIRED ITEMS TO CONSISTENT APPEARANCE AND TO MAINTAIN INTEGRITY OF ALL ITEMS.
- E. PREPARE ALL SURFACES, NEW AND EXISTING, AS REQUIRED TO RECEIVE NEW FINISHES AS
- INDICATED ON PLANS AND FINISH SCHEDULE.

 F. ALL ACTIVE PIPING, EQUIPMENT, ETC., SERVING FIXTURES AND EQUIPMENT TO REMAIN SHALL BE
- RELOCATED AS NECESSARY WHEN CONTAINED IN EXISTING CONSTRUCTION TO BE REMOVED.

 G. ALL ACTIVE ELECTRICAL WIRING, EQUIPMENT, ETC., SERVING LIGHTING, POWER, ETC., TO REMAIN SHALL BE RELOCATED AS NECESSARY WHEN CONTAINED IN EXISTING CONSTRUCTION TO BE
- H. ALL WIRING, PIPING, AND EQUIPMENT FOR MECHANICAL OR ELECTRICAL USES WHICH HAVE BEEN, OR ARE TO BE ABANDONED SHALL BE REMOVED AND CAPPED OFF AS NECESSARY TO CONCEAL ALL REMAINING ELEMENTS WITHIN THE CONSTRUCTION TO REMAIN.
- J. GENERAL CONTRACTOR IS RESPONSIBLE TO PATCH AND REPAIR ALL CEILINGS, WALLS, AND FLOORS AS A RESULT OF MECHANICAL AND ELECTRICAL MODIFICATIONS. RESTORE ALL ITEMS TO BE PATCHED AND/OR REPAIRED TO CONSISTENT APPEARANCE AND MAINTAIN INTEGRITY OF
- K. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR REMOVAL AND REINSTALLATION OF LIGHTS, SMOKE DETECTORS, SPEAKERS, AND DIFFUSERS.

SYMBOLS





1306 RIO GRANDE BLVD NW ALBUQUERQUE, NM 87104

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ARCHITECT



CONSULTANT

PROJECT TITLE

SANTA FE COUNTY MADRID FIRE STATION

MADRID NEW MEXICO

REVISIONS:

MK	DATE	DESCRIPTION

DRAWN BY: CHECKED BY:

BJ DP

PROJECT NUMBER:

PROJECT NUMBER: A18.04

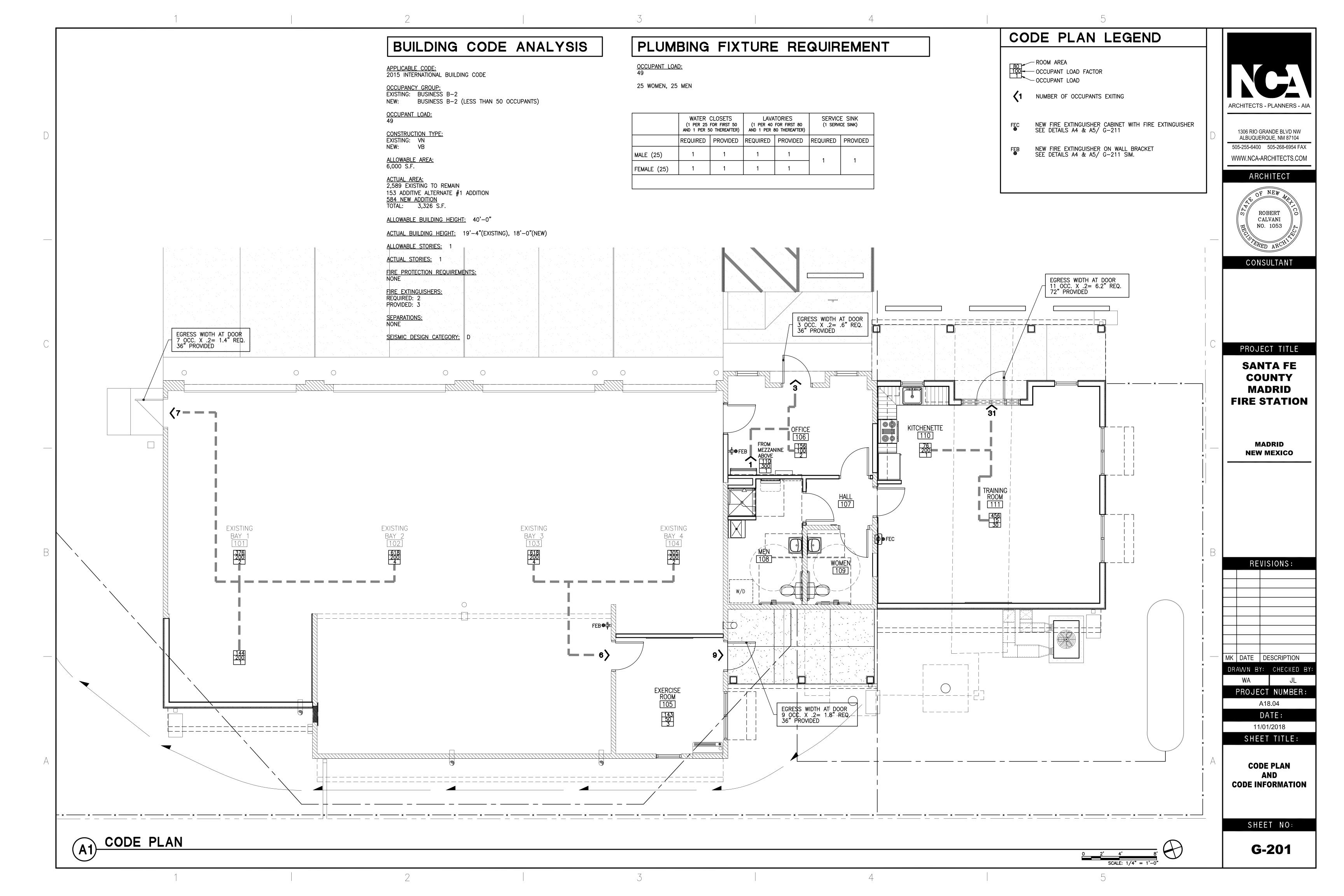
> DATE: 11/01/2018

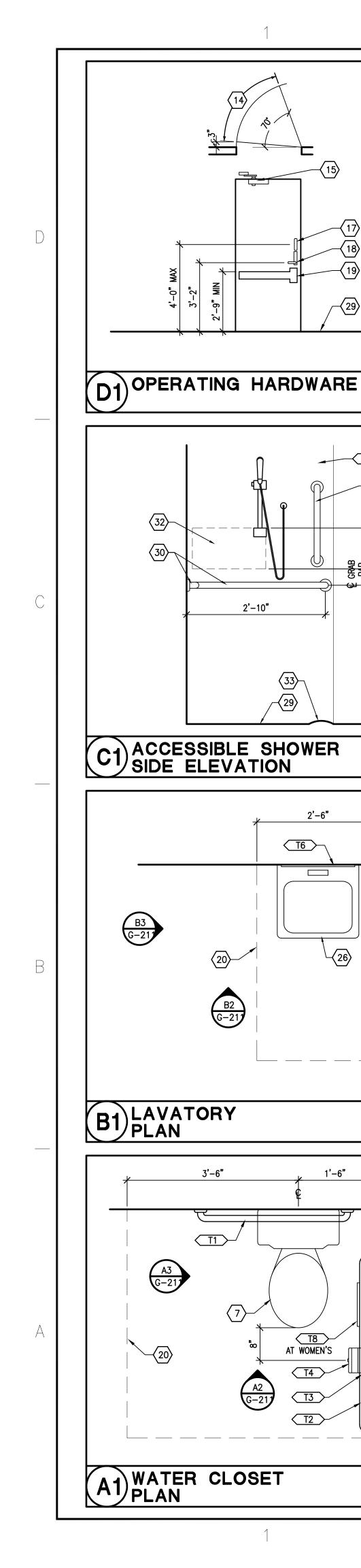
SHEET TITLE:

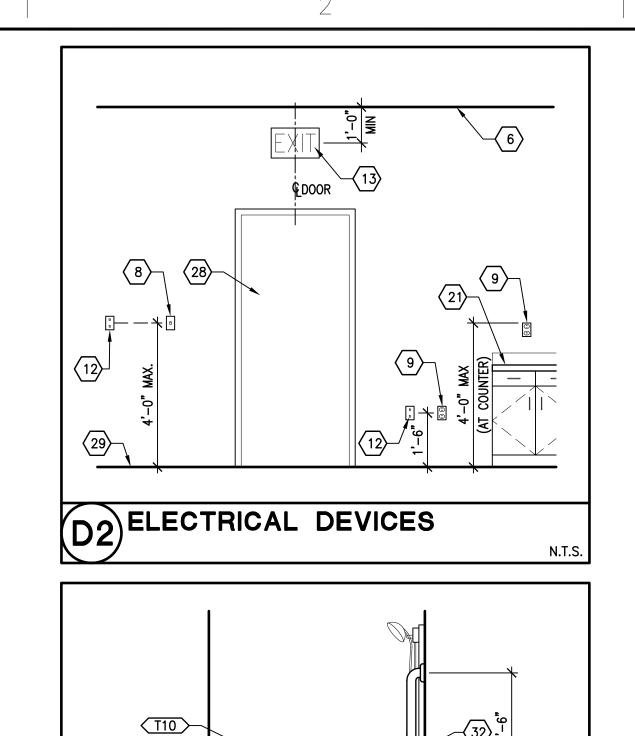
GENERAL INFORMATION

SHEET NO:

G-101







1'-6"

3/4"=1'-0"

3/4"=1'-0"

3/4"=1'-0"

T8 AT WOMEN'S

ACCESSIBLE SHOWER

FRONT ELEVATION

B2 LAVATORY FRONT ELEVATION

3**'**-0"

A2 WATER CLOSET FRONT ELEVATION

1'-0"

1'-6"

2'-0"

T1>

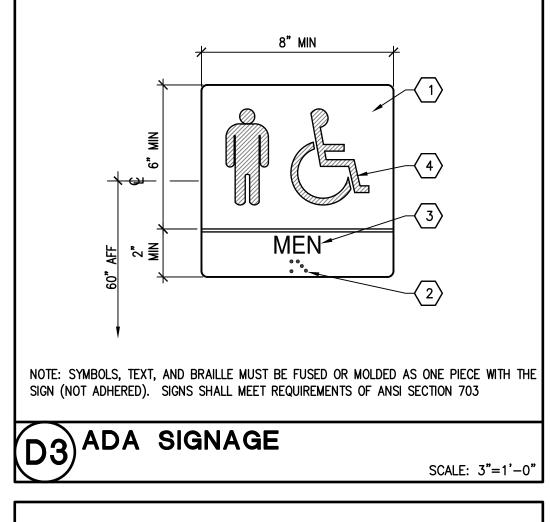
29 -

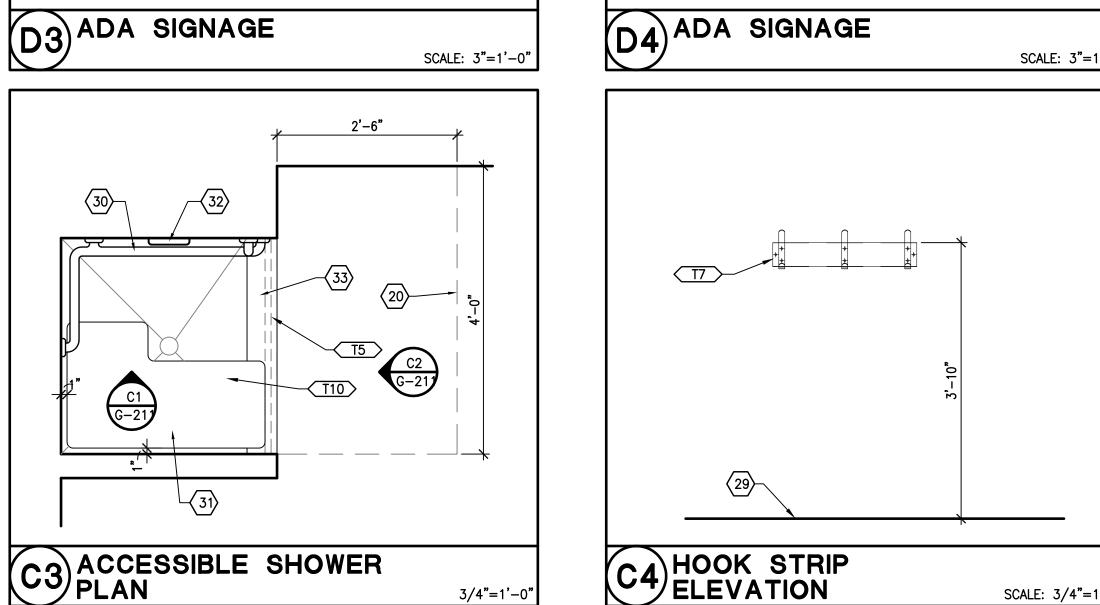
3/8"=1'-0"

3/4"=1'-0"

3/4"=1'-0"

3/4"=1'-0"





3/4"=1'-0"

3/4"=1'-0"

3/4"=1'-0"

1'-8"" MAX

11" MIN.

B3 LAVATORY SIDE ELEVATION

1'-0"

1'-6"

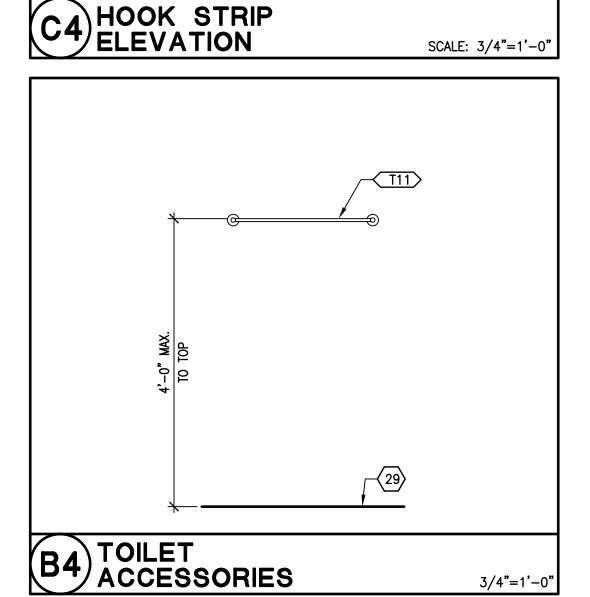
A3 WATER CLOSET SIDE ELEVATION

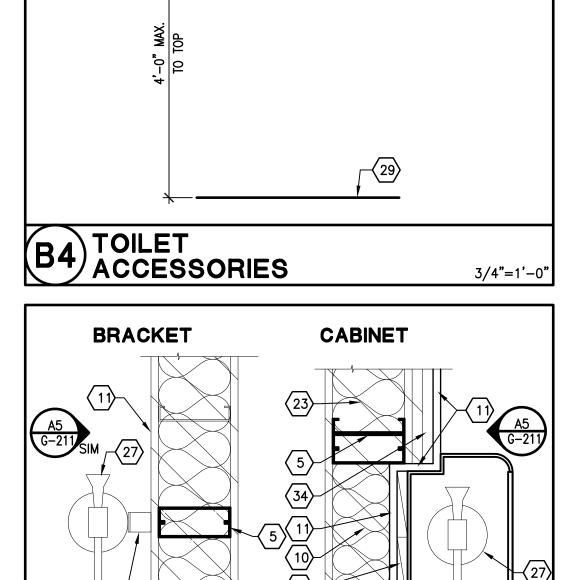
 $\langle T1 \rangle$

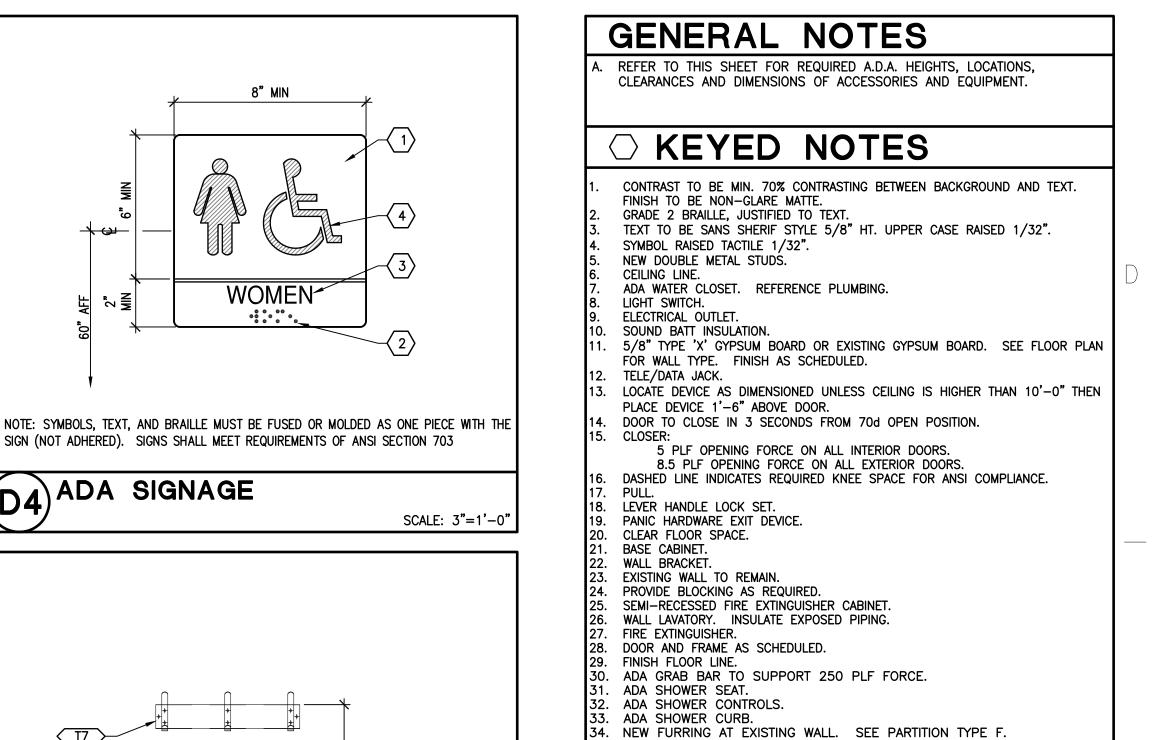
3'-4"

4'-6"

3'-6"



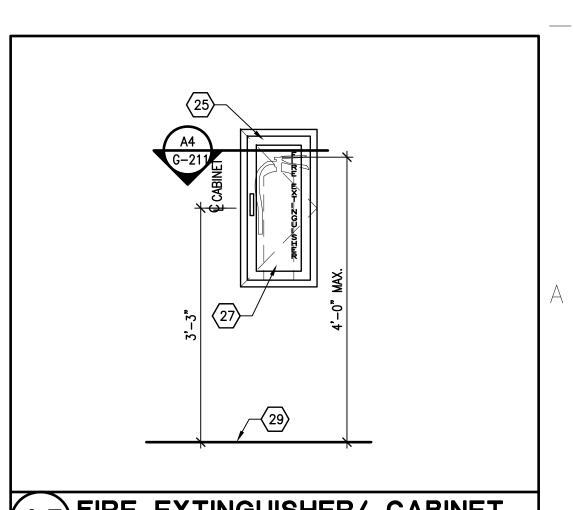




	TOILET ACCE	SSOR	Y SCHEDU	JLE
MARK	DESCRIPTION	DETAIL	MANUFACTURER	MOUNTING HEIGH
(T1)	36" GRAB BAR (HORIZ.) TO SUPPORT 250 PLF FORCE	A1, A2, A3/G-211	BOBRICK # B-6806 X 36	2'-10" AFF TO CENTER
<u>T2</u>	42" GRAB BAR (HORIZONTAL) TO SUPPORT 250 PLF FORCE	A1, A2, A3/G-211	BOBRICK # B-6806 X 42	2'-10" AFF TO CENTER
<u>T3</u>	18" GRAB BAR (VERTICAL) TO SUPPORT 250 PLF FORCE	A1, A2, A3/G-211	BOBRICK # B-6806 X 18	3'-4" AFF TO BOTTOM
<u>T4</u>	TOILET TISSUE DISPENSER	A1, A2, A3/G-211	BOBRICK # B-2888	2'-4" AFF TO TOP
<u>(T5)</u>	36" SHOWER CURTAIN ROD	B1/A-401	BOBRICK # B-6047 X 36	6'-4" AFF TO CENTER OF ROD
<u>T6</u>	24" X 36" CHANNEL FRAMED MIRROR (TEMPERED)	B1, B2, B3/G-211	BOBRICK # B-165 2436	3'-4" AFF TO BOTTOM (MAX.)
<u></u>	HOOK STRIP	C4/ G-211	BOBRICK # B-232 X 24	3'-10" AFF (MAX.) TO TOP
<u>T8</u>	SANITARY NAPKIN DISPOSAL	A1, A2, A3/G-211	BOBRICK # B-270	4'-1" AFF TO TO
<u>T9</u>	DRESSING AREA SEAT	A1/A-401	BOBRICK # B-5193	1'-6" AFF TO TOP OF SEAT
<u> (T10</u>)	36"X36"X96" ACCESSIBLE SHOWER UNIT W/ ACCESSIBLE SHOWER SEAT, GRAB BARS, HAND HELD SHOWER HEAD, CONTROLS, CURB AND DRAIN	C1, C2, C3/G-211		
(T11)	SURFACE MOUNTED TOWEL BAR	B4/ G-211	BOBRICK # B-545 X 24	4'-0" AFF TO TO

5. EXISTING WALL TO REMAIN OR EXISTING WALL OPENING INFILL. FEE

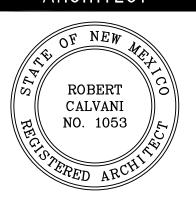
FLOOR PLAN FOR WALL TYPE.



A5 FIRE EXTINGUISHER/ CABINET 3/4"=1" 3/4"=1'-0" ARCHITECTS - PLANNERS - AIA

1306 RIO GRANDE BLVD NW ALBUQUERQUE, NM 87104 505-255-6400 505-268-6954 FAX WWW.NCA-ARCHITECTS.COM

ARCHITECT



CONSULTANT

PROJECT TITLE SANTA FE COUNTY

MADRID FIRE STATION

> **MADRID NEW MEXICO**

REVISIONS:

MK DATE DESCRIPTION DRAWN BY: CHECKED BY

PROJECT NUMBER: A18.04 DATE:

> 11/01/2018 SHEET TITLE:

A.D.A. **INFORMATION**

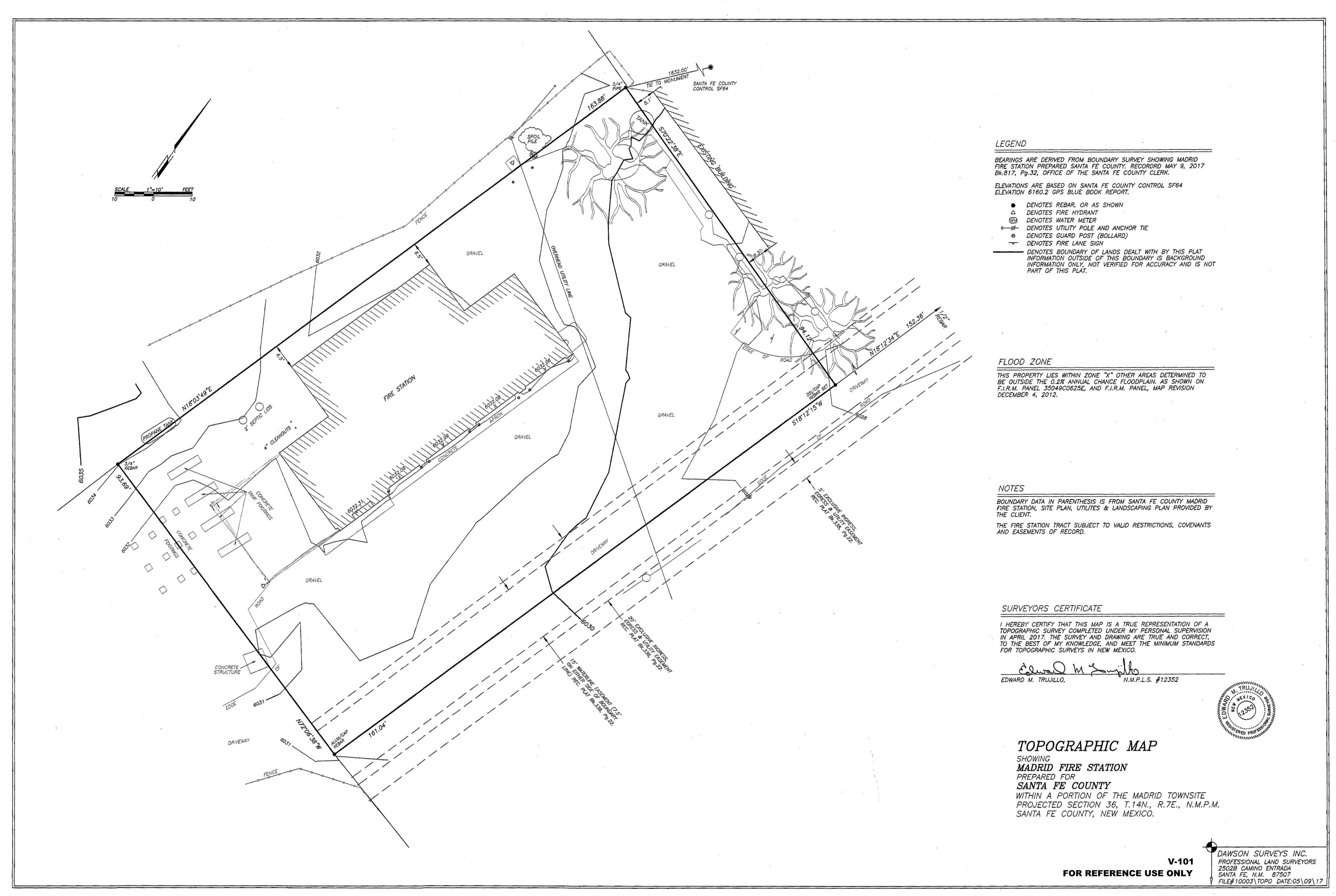
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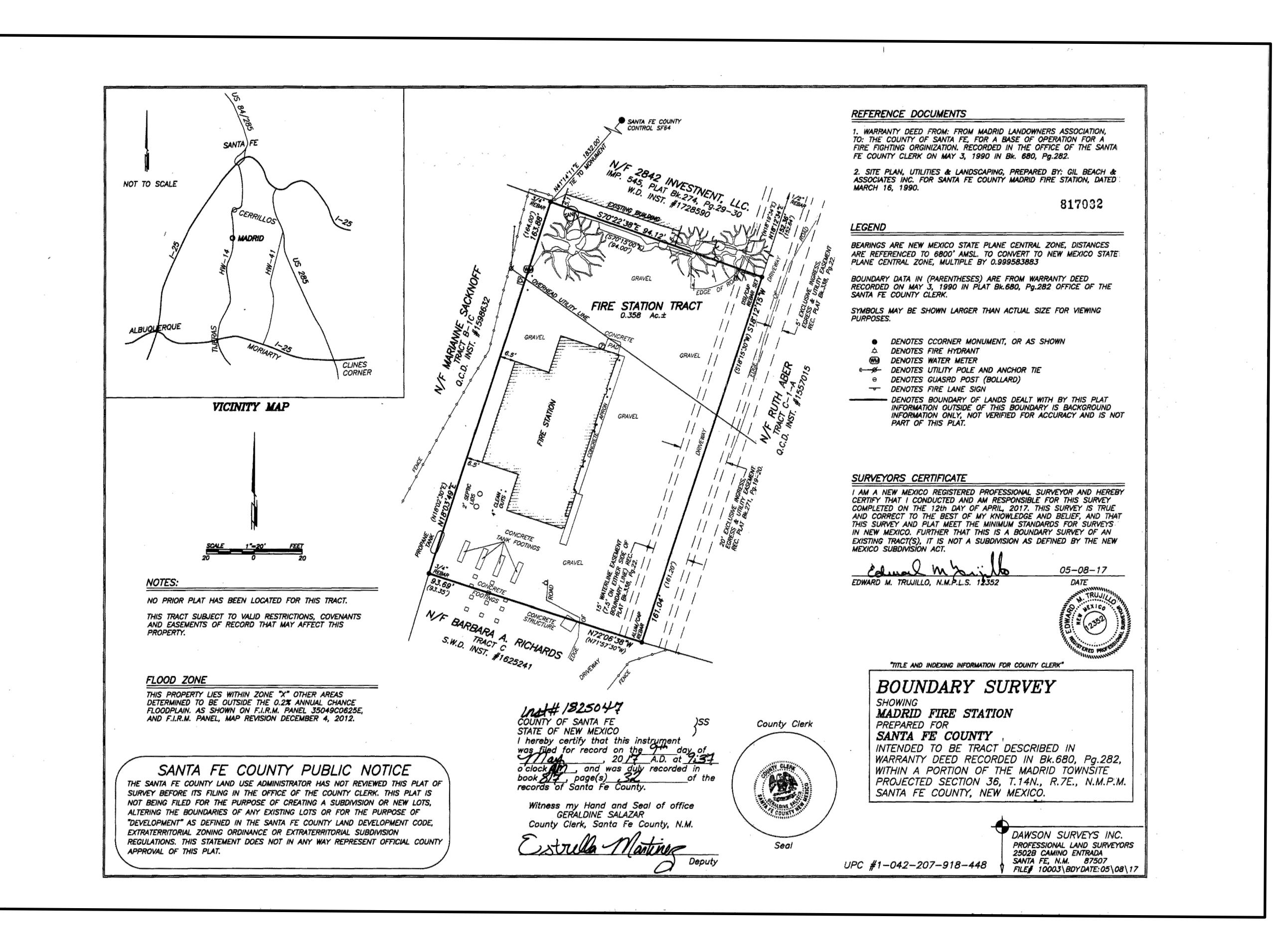
G-211

A4 FIRE EXTINGUISHER PLANS

(22)_

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







DIAMETER

DIA

SM

SMOOTH

ANGLE

GENERAL:

A SUBSURFACE SOIL INVESTIGATION HAS BEEN MADE BY WESTERN TECHNOLOGIES, JOB NO. 3228JJ061.

A REPORT OF THAT INVESTIGATION DATED JULY 24, 2018 IS AVAILABLE FOR VIEWING IN THE PROJECT MANUAL.

THE FOUNDATION SYSTEM FOR THIS PROJECT IS SPREAD FOOTINGS OVER UNDISTURBED NATIVE SOILS OR ENGINEERED FILL.

ADDITIONAL INFORMATION CONCERNING SPECIFIC SOIL CONDITIONS TO BE ENCOUNTERED IS AVAILABLE IN THE SOILS REPORTS AND SHALL BE REVIEWED BY THE CONTRACTOR.

FIELD OBSERVATION AND TESTS:

THE OWNER SHALL EMPLOY THE SERVICES OF A REGISTERED, LICENSED GEOTECHNICAL ENGINEER TO OBSERVE ALL CONTROLLED EARTHWORK. THE GEOTECHNICAL ENGINEER SHALL PROVIDE CONTINUOUS ON-SITE OBSERVATION BY EXPERIENCED PERSONNEL DURING CONSTRUCTION OF CONTROLLED EARTHWORK. THE CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER AT LEAST TWO WORKING DAYS IN ADVANCE OF ANY FIELD OPERATIONS OF THE CONTROLLED EARTHWORK.

TESTS OF MATERIALS SHALL BE MADE AT THE FOLLOWING MINIMUM RATES. THE ON-SITE GEOTECHNICAL ENGINEER SHALL DETERMINE THE ACTUAL TESTING RATES:

ONE FIELD DENSITY TEST PER 2500 SQUARE FEET OF COMPACTED SUBGRADE, PRIOR TO PLACING STRUCTURAL FILL OR SLAB-ON-GRADE, WITH A MINIMUM OF 3 TESTS.

ONE FIELD DENSITY TEST PER 2500 SQUARE FEET OF STRUCTURAL FILL PLACED OR EACH HORIZONTAL LAYER OF STRUCTURAL FILL, WHICHEVER IS GREATER.

ONE MOISTURE-DENSITY CURVE FOR EACH TYPE OF MATERIAL USED, AS INDICATED BY THE SIEVE ANALYSIS AND THE PLASTICITY INDEX.

THE GEOTECHNICAL ENGINEER SHALL SUBMIT THE RESULTS OF ALL REQUIRED TESTS.

CLEARING AND GRUBBING:

REMOVE ALL ASPHALT, BRUSH, RUBBISH, GRASS, AND GRASS ROOTS FROM THE CONSTRUCTION AREA.

REMOVE STUMPS, MATTED ROOTS AND ROOTS LARGER THAN 2 INCHES IN DIAMETER WITHIN 6 INCHES OF THE SURFACE OF AREAS ON WHICH FILL AND/OR FOOTINGS ARE TO BE CONSTRUCTED.

REMOVE ALL TOPSOIL FROM THE CONSTRUCTION AREA. THIS MATERIAL SHALL NOT BE USED AS FILL MATERIAL, BUT MAY BE STOCKPILED AND LATER USED IN THE TOP 6 INCHES OF FILL OUTSIDE THE BUILDING

SITE, SUBFLOOR AND BEARING SURFACE PREPARATION:

A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER SHALL BE PRESENT TO CONFIRM COMPLETE EXCAVATION OF ANY UNCONTROLLED FILL.

SCARIFY ALL EXPOSED SUBGRADE SOILS TO A DEPTH OF 10 INCHES, MOISTEN TO OPTIMUM MOISTURE CONTENT (+3%/-2%) AND COMPACT TO THE DENSITY SPECIFIED HEREINAFTER.

PLACE ALL STRUCTURAL FILL IN APPROXIMATELY HORIZONTAL LAYERS NOT GREATER THAN 10 INCHES IN LOOSE THICKNESS, MOISTEN TO OPTIMUM MOISTURE CONTENT (+3%/-2%) AND COMPACT TO DENSITY SPECIFIED HEREINAFTER.

ALL EARTHWORK FOR THE BUILDING PAD SHALL EXTEND A MINIMUM OF 2 FEET BEYOND THE PERIMETER FOOTINGS.

STRUCTURAL FILL REQUIREMENTS:

GRADATION (ASTM D422):

<u>SIEVE SIZE</u>	PERCENT PASSING BY WEIG
6"	100
4"	85-100
3/4"	70-100
NO. 4	50-100
NO. 200	30 MAXIMUM
PLASTICITY INDEX (ASTM D4318	
MAXIMUM SOLUBLE SULFATES:	0.10%

MATERIAL LARGER THAN 6 INCHES SHALL NOT BE PLACED IN THE STRUCTURAL FILL, AND MATERIAL LARGER THAN 4 INCHES SHALL NOT BE PLACED WITHIN TWELVE INCHES OF THE BEARING SURFACES OF SLABS OR FOUNDATIONS.

NO BRUSH, SOD, FROZEN MATERIAL OR OTHER UNSUITABLE MATERIAL SHALL BE PLACED IN THE STRUCTURAL FILL. MATERIAL SHALL BE PLACED IN SUCH A MANNER AS TO RESULT IN A UNIFORMLY COMPACTED FILL.

IMPORTED FILL OR EXISTING SOILS MAY BE USED FOR THE STRUCTURAL FILL. HOWEVER. IN ORDER TO MEET THE ABOVE CRITERIA, THE ON SITE SOILS WILL PROBABLY NEED TO BE MIXED WITH IMPORTED FILL. IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE MOST APPROPRIATE METHOD TO PROVIDE THE REQUIRED STRUCTURAL FILL.

COMPACTION REQUIREMENTS:

IN ACCORDANCE WITH ASTM D1557 (MODIFIED PROCTOR), SUBGRADE SOILS AND STRUCTURAL FILL MATERIALS SHALL BE COMPACTED TO THE FOLLOWING PERCENTAGES OF THE MAXIMUM DRY DENSITY AT + 3%/-2% OPTIMUM MOISTURE CONTENT:

<u>MATERIAL</u>	MINIMUM PERCENT COMPACTION
STRUCTURAL FILL IN THE BUILDING AREA	95
SUBBASE FOR SLAB SUPPORT	95
SUBGRADE BELOW STRUCTURAL FILL	95
MISCELLANEOUS BACKFILL	90

CODES AND MANUALS:

IBC-15 INTERNATIONAL BUILDING CODE 2015

ASCE/SEI 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES AISI S100-12 NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL

ACI 318-14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE ACI 530-13 BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES ACI 530.1-13 SPECIFICATIONS FOR MASONRY STRUCTURES

NDS-15 NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION WITH 2015 SUPPLEMENT AWS D1.3-98 STRUCTURAL WELDING CODE - SHEET STEEL

DESIGN CRITERIA:

VERTICAL

ROOF LIVE LOAD: LR = 20*R1*R2	20 PSF
REDUCTION FACTOR BASED ON TRIB	S AREA R1=1.0
REDUCTION FACTOR BASED ON ROOF SLOPE	R2=1.0
SNOW LOAD GROUND SNOW LOAD FLAT ROOF SNOW LOAD** SNOW EXPOSURE FACTOR SNOW LOAD IMPORTANCE FACTOR THERMAL FACTOR **INCLUDES 5 PSF RAIN-ON SNOW SU	PG=30 PSF PF=25 PSF CE=1.0 IS=1.2 CT=1.0 IRCHARGE LOAD

HORIZONTAL:

VVIIVD		
	ULTIMATE DESIGN WIND SPEED	120 MF
	RISK CATEGORY	IV
	EXPOSURE	С
SEISM	IC	

SEISMIC IMPORTANCE FACTOR IS = 1.5MAPPED SPECTRAL RESPONSE ACCELERATIONS SHORT PERIOD SS=0.410G 1 SECOND PERIOD S1=0.125G SITE CLASS

SPECTRAL RESPONSE COEFFICIENTS SHORT PERIOD SDS=0.328G 1 SECOND PERIOD SD1=0.140G SEISMIC DESIGN CATEGORY

BEARING WALL SYSTEM - LIGHT FRAME WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE SEISMIC RESPONSE COEFFICIENT CS=0.076

RESPONSE MODIFICATION FACTOR R = 6.5DESIGN BASE SHEAR V = 0.076WANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE

ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF

BASIC SEISMIC FORCE RESISTING SYSTEM:

FROST DEPTH = 24 INCHES

FUTURE BUILDING EXPANSION: NONE

GENERAL:

STRUCTURAL DRAWINGS ARE NOT STAND-ALONE DOCUMENTS AND ARE INTENDED TO BE USED IN CONJUNCTION WITH CIVIL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND DRAWINGS FROM OTHER DISCIPLINES. THE CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS INTO THE SHOP DRAWINGS AND FIELD WORK.

COORDINATE DIMENSIONS OF ALL OPENINGS. DEPRESSIONS. BLOCKOUTS. ETC. WITH ARCHITECTURAL DRAWINGS, DRAWINGS FROM OTHER DISCIPLINES, PROJECT SHOP DRAWINGS, AND FIELD CONDITIONS PRIOR TO SHOP DRAWING SUBMITTAL. THE STRUCTURAL DRAWINGS ONLY REPRESENT A PORTION OF THE REQUIREMENTS FOR THE PROJECT.

SEE ARCHITECTURAL PLANS FOR INTERIOR NON-BEARING PARTITION WALLS. PARTITION FRAMING SHALL BE CONNECTED TO THE PRIMARY STRUCTURE TO ALLOW FOR VERTICAL LIVE LOAD DEFLECTIONS OF SPAN/360 FOR FLOOR FRAMING AND SPAN/240 FOR ROOF FRAMING.

CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD.

SHOP DRAWINGS SHALL BE FURNISHED AND REVIEWED BEFORE ANY FABRICATION OR ERECTION IS STARTED. THE CONTRACTOR SHALL REVIEW AND APPROVE SHOP DRAWINGS PRIOR TO SUBMITTAL TO THE ARCHITECT FOR REVIEW. POORLY EXECUTED SHOP DRAWINGS WILL BE REJECTED AND SHALL BE RESUBMITTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE AND ADEQUATE SHORING FOR ALL PARTS OF THE STRUCTURE DURING CONSTRUCTION.

TEMPORARY PROVISIONS SHALL BE MADE FOR STRUCTURAL STABILITY DURING CONSTRUCTION. THE STRUCTURE SHOWN ON THE DRAWINGS HAS BEEN DESIGNED FOR STABILITY UNDER FINAL CONFIGURATION.

NOTCHING OR CUTTING ANY STRUCTURAL MEMBER IN THE FIELD IS PROHIBITED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADHERING TO ALL APPLICABLE STANDARDS SET FORTH BY

PROTECTION: PROPER PRECAUTIONS SHALL BE TAKEN AT ALL TIMES TO PROTECT VEHICULAR AND PEDESTRIAN TRAFFIC FROM ANY DAMAGE OR INJURY WHICH MAY BE CAUSED, EITHER DIRECTLY OR INDIRECTLY, BY THE WORK INCLUDED ON THESE DRAWINGS. SUCH PRECAUTIONS SHALL INCLUDE THE ERECTION AND MAINTENANCE OF FENCES. BARRICADES. RAILINGS. GUARDS. SIGNS. COVERINGS. LIGHTS. AND OTHER PRECAUTIONS AS MAY BE REQUIRED. IF AT ANY TIME, IN THE OPINION OF THE OWNER OR THE OWNER'S REPRESENTATIVE, PROPER PRECAUTIONS ARE NOT BEING TAKEN TO SECURE THIS PROTECTION, THE CONTRACTOR SHALL AT NO ADDITIONAL COST TO THE OWNER, INSTALL AND MAINTAIN SUCH ADDITIONAL PROTECTION AS MAY BE DIRECTED BY THE OWNER.

POLLUTION CONTROLS: USE WATER SPRINKLING, TEMPORARY ENCLOSURES, AND OTHER SUITABLE METHODS TO LIMIT DUST AND DIRT RISING AND SCATTERING IN THE AIR TO LOWEST PRACTICAL LEVEL. COMPLY WITH GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.

TYPICAL DETAIL SHEETS:

THE S-700 SERIES SHEETS IN THESE DRAWINGS CONTAIN TYPICAL STRUCTURAL DETAILS FOR VARIOUS BUILDING MATERIALS. SOME OF THESE DETAILS MAY NOT BE PART OF THIS PROJECT.

GENERAL STRUCTURAL NOTES

DRAWINGS:

DO NOT SCALE DRAWINGS.

WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN. DETAILS ON DRAWINGS TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. DETAILS NOTED "TYPICAL" APPLY TO ALL SIMILAR CONDITIONS. WHERE NO SPECIFIC DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ELSEWHERE ON THE PROJECT.

CAST-IN-PLACE CONCRETE:

ALL CONCRETE SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURAL CONCRETE, ACI 301-10.

ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/4" CHAMFER UNLESS NOTED OTHERWISE.

NORMALWEIGHT CONCRETE:

- A. F'C = 4500 PSI @ 28 DAYS ALL CONCRETE EXPOSED TO FREEZE/THAW CYCLES AND OCCASIONAL MOISTURE, INCLUDING CONCRETE FLAT WORK, EXPOSED BUILDING STEM WALLS, SITE WALLS, ETC. EXTERIOR CONCRETE SHALL MEET EXPOSURE CATEGORY AND CLASS F1 ACCORDING TO ACI 318 TABLE
- B. F'C = 3000 PSI @ 28 DAYS ALL INTERIOR CONCRETE (I.E. FOOTINGS, PEDESTALS, ETC.).

C. F'C = 3000 PSI @ 28 DAYS - ALL INTERIOR SLABS ON GRADE, UNLESS NOTED OTHERWISE.

CONCRETE MIX DESIGNS (INCLUDING AIR CONTENT, WATER TO CEMENT RATIOS, AND OTHER CRITERIA) SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN ACI 318 TABLE 4.3.1, BASED ON THE EXPOSURE CATEGORIES AND CLASSES DEFINED IN ACI 318 TABLE 4.2.1. USE AIR ENTRAINING ADMIXTURE IN ALL EXTERIOR CONCRETE. AIR CONTENT IN FIRE RATED SLABS SHALL ALSO COMPLY WITH THE REQUIREMENTS IN THE SPECIFIED UL LISTING.

COLD WEATHER CONCRETING: PROTECT CONCRETE WORK FROM PHYSICAL DAMAGE OR REDUCED STRENGTH CAUSED BY FROST, FREEZING OR LOW TEMPERATURES. COMPLY WITH ACI 306.1.

HOT WEATHER CONCRETING: WHEN HOT WEATHER CONDITIONS EXIST THAT WOULD IMPAIR THE QUALITY AND STRENGTH OF THE CONCRETE, REDUCE DELIVERY TIME OF READY MIX CONCRETE, LOWER THE TEMPERATURE OF MATERIALS, OR ADD RETARDER TO ENSURE THAT THE CONCRETE IS PLASTIC. RETEMPERING WITH WATER IS NOT ALLOWED. COMPLY WITH ACI 305R.

SLAB CURING: ALL INTERIOR CONCRETE SLABS, EXCEPT EXPOSED INTEGRALLY COLORED SLABS, ARE TO BE CURED WITH A MOISTURE RETAINING COVER FOR THE FIRST 7 DAYS (MINIMUM) AFTER PLACEMENT.

THE CONTRACTOR IS ALLOWED TO CAST FOUNDATIONS AGAINST EXCAVATED SOIL SURFACES, PROVIDED THE FOLLOWING IS ADHERED TO:

- A. THE SIDE SLOPES OF THE EXCAVATION SHALL BE ABLE TO MAINTAIN VERTICAL SLOPE WITHOUT SOIL
- B. $\,$ THE BOTTOM WIDTH OF THE EXCAVATION SHALL BE ONE INCH WIDER MINIMUM ON EACH SIDE THAN THE SPECIFIED FOOTING WIDTH.
- C. THE SIDE WALLS OF THE EXCAVATION SHALL BE BATTERED A MINIMUM OF ONE INCH HORIZONTAL TO TWELVE INCHES VERTICAL.
- IF SANDY OR LOOSE MATERIALS ARE ENCOUNTERED, THE FOOTING MUST BE FORMED
- E. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY SOIL SLOUGHAGE FROM THE WET CONCRETE DURING THE CASTING OPERATION.
- THE CONTRACTOR AGREES TO REMOVE AND RECAST ANY FOOTING WHERE THE ABOVE CONDITIONS ARE NOT MET.

EXPOSED SITE WALLS, RETAINING WALLS, AND STEM WALLS GREATER THAN 30 FEET IN LENGTH SHALL HAVE CONTROL JOINTS INSTALLED AT THE FOLLOWING MAXIMUM SPACING:

12'-0" ON CENTER FOR WALLS 6'-0" MAXIMUM HEIGHT 18'-0" ON CENTER FOR WALLS 10'-0" MAXIMUM HEIGHT

20'-0" ON CENTER FOR WALLS GREATER THAN 10'-0" IN HEIGHT

ALL CONCRETE EXPOSED TO GROUND SHALL BE MANUFACTURED WITH PORTLAND CEMENT TYPE II OR TYPE

SEE SHEET S-711 FOR TYPICAL CONCRETE DETAILS.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE FABRICATED AND PLACED IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-08), AND DETAILS AND DETAILING OF CONCRETE REINFORCEMENT (ACI 315-99).

ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60; EXCEPT STIRRUPS, TIES AND INDICATED FIELD-BENT BARS, WHICH SHALL CONFORM TO ASTM A615 GRADE 40.

TENSION AND COMPRESSION LAPS IN REINFORCING SHALL CONFORM TO THE LAP SPLICE SCHEDULE ON SHEET S-101 AND BE IN ACCORDANCE WITH ACI 318, CHAPTER 12, UNLESS NOTED OTHERWISE.

ALL HORIZONTAL REINFORCING IN FOOTINGS, WALLS AND BEAMS SHALL BE CONTINUOUS AROUND CORNERS OR HAVE BENT (CORNER) BARS OF THE SAME SIZE AND SPACING AS THE HORIZONTAL BARS AND LAP 30 BAR DIAMETERS (24" MINIMUM).

CONCRETE COVER FOR REINFORCING SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED: {Fire Rated Slabs May Require Additional Cover

- A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"
- B. CONCRETE CAST AGAINST FORMS BUT EXPOSED TO EARTH OR WEATHER: 1. BARS LARGER THAN NO. 5: 2"
- 2. BARS NO. 5 OR SMALLER: 1 1/2" C. SLAB ON GRADE: 1 1/2" FROM TOP OF SLAB

FORM TIES SHALL BE EITHER OF THE THREADED OR SNAP-OFF TYPE SO THAT NO METAL WILL BE LEFT WITHIN 1 INCH OF THE SURFACE OF THE WALL. FOLLOWING REMOVAL OF FORM TIES, RECESSES ARE TO BE CAREFULLY FILLED AND POINTED WITH MORTAR.

REINFORCING SHALL NOT BE TACK WELDED OR WELDED IN ANY MANNER UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL PLANS.

BAR SUPPORTS AND SPACERS FOR REINFORCING SHALL BE PROVIDED IN ACCORDANCE WITH ACI 315-99. REINFORCING SHALL BE SECURELY TIED TO SUPPORTS.

CHAIRS WITH 22 GAGE SAND PLATES OR PRECAST BLOCKS SHALL BE PROVIDED FOR ALL REINFORCING OF CONCRETE IN CONTACT WITH GRADE.

POST INSTALLED ANCHORS:

THE STRUCTURAL DESIGN IS BASED ON THE POST INSTALLED ANCHORING SYSTEMS NOTED BELOW. SINCE ANCHOR CAPACITIES VARY BY MANUFACTURER. THE CONTRACTOR SHALL USE ONLY THE SYSTEMS NOTED BELOW UNLESS AN ALTERNATE IS APPROVED BY THE ENGINEER OF RECORD. ALTERNATE ANCHORING SYSTEMS MAY REQUIRE RE-DESIGN TO VERIFY ANCHOR QUANTITIES, SPACING, AND EMBED DEPTHS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY ADDITIONAL CONSTRUCTION AND RE-DESIGN COSTS ASSOCIATED WITH THE ALTERNATE ANCHORING SYSTEM.

ALL ADHESIVE (EPOXY) FOR POST INSTALLED ANCHORS AND/OR REBAR INTO CONCRETE SHALL BE HILTI HIT-RE 500 V3 OR HIT-HY 200 EPOXY ADHESIVE ANCHORING SYSTEM, HILTI HIT-RE 100 OR HIT-HY 200 EPOXY ADHESIVE SYSTEM. SIMPSON SET-XP EPOXY-TIE ANCHORING SYSTEM. ITW RED HEAD EPCON G5 ADHESIVE ANCHORING SYSTEM, DEWALT PURE110+ (STANDARD CURE EPOXY) OR AC200+ (FAST CURE ADHESIVE.

ALL POST INSTALLED MECHANICAL ANCHORS INTO CONCRETE SHALL BE [HILTI KWIK BOLT TZ EXPANSION ANCHOR, SIMPSON STRONG BOLT WEDGE ANCHOR, ITW RED HEAD TRUBOLT + WEDGE ANCHOR, DEWALT POWER-STUD+SD2. INSTALLATION SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

ANCHOR LENGTHS SHOWN FOR ATTACHMENT TO CONCRETE AND/OR MASONRY ARE REQUIRED EMBEDMENT LENGTHS. THE CONTRACTOR SHALL PROVIDE ANCHORS WITH ADDITIONAL LENGTH TO FACILITATE THE REQUIRED CONNECTION.

SUBMIT ALL PROPOSED ANCHORING SYSTEMS INCLUDING ICC-ES REPORTS TO STRUCTURAL ENGINEER FOR REVIEW PRIOR TO INSTALLATION. THE ICC-ES FORMS SHALL MEET THE REQUIREMENTS OF THE IBC REFERENCED IN THESE NOTES.

COLD-FORMED METAL FRAMING (43 MILS OR HEAVIER):

INSTALLATION SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.

ALL COLD-FORMED METAL FRAMING SHALL CONFORM TO THE LATEST EDITION OF AISI STANDARD S100 "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS".

WALLS SHALL BE PROVIDED WITH MANUFACTURER'S STANDARD BRIDGING: (EITHER WELDED 2 1/2" x 43 MILS STUD OR CLIPPED COLD-ROLLED CHANNEL 1 1/2" x 54 MILS). PROVIDE BRIDGING AT 4'-0" ON CENTER MAXIMUM FOR LOAD BEARING WALLS AND EXTERIOR WALLS.

PROVIDE ALL MISCELLANEOUS ACCESSORIES AND FOLLOW ERECTION PROCEDURES AS PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS UNLESS NOTED OTHERWISE.

COLD-FORMED METAL FRAMING SHALL MEET THE MINIMUM PROPERTIES AS SHOWN IN THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) SPECIFICATIONS.

ALL TRACK SHALL BE ANCHORED TO CONCRETE WITH 1/2" DIAMETER x 3 1/2" EMBED EXPANSION ANCHORS SPACED AT 4'-0" ON CENTER UNLESS SHOWN OTHERWISE ON PLANS.

SECURE STUDS TO TOP AND BOTTOM TRACKS BY WELDING AT BOTH INSIDE AND OUTSIDE FLANGES OR WITH A MINIMUM OF 1-#10 SELF-DRILLING SCREW PER LOCATION UNLESS NOTED OTHERWISE.

ALL COMPONENTS OF BUILT-UP STUD SECTIONS, INCLUDING COLUMNS, HEADERS, ETC. SHALL BE WELDED TOGETHER UTILIZING 1/8" FILLET WELDS, 1" LONG AT 12" OC, ALONG THE FULL LENGTH OF EACH FLANGE TO FLANGE CONNECTION.

FASTEN WELD CLIPS TO STUDS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND LOAD DATA TO PROVIDE AN ALLOWABLE LOAD OF 700# MINIMUM IN THE HORIZONTAL DIRECTION AND 700# MINIMUM IN THE VERTICAL DIRECTION. SEE SHEET S-731 FOR TYPICAL WELD CLIP DETAIL.

FASTEN SLIDE CLIPS TO STUDS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND LOAD DATA TO PROVIDE AN ALLOWABLE LOAD OF 700# MINIMUM IN THE HORIZONTAL DIRECTION. SEE SHEET S-731 FOR TYPICAL SLIDE CLIP DETAIL.

SEE SHEET S-731 FOR TYPICAL COLD-FORMED DETAILS.

WOOD FRAMING:

ALL SAWN LUMBER (2"-4" THICK, 2" & WIDER) EXCEPT STUDS SHALL BE HEM FIR, NO. 2 OR BETTER, WITH THE FOLLOWING ALLOWABLE STRESSES:

MAXIMUM FIBER STRESS IN BENDING FB= 850 PSI FT= 525 PSI TENSION PARALLEL TO GRAIN FC= 1300 PSI COMPRESSION PARALLEL TO GRAIN COMPRESSION PERPENDICULAR TO GRAIN FC= 405 PSI HORIZONTAL SHEAR FV= 150 PSI MODULUS OF ELASTICITY E= 1,300,000 PSI

ALL SAWN LUMBER (5"x5" OR LARGER BEAMS AND STRINGERS) SHALL BE HEM FIR. NO. 2 OR BETTER. WITH THE

FOLLOWING ALLOWABLE STRESSES: MAXIMUM FIBER STRESS IN BENDING: FB= 675 PSI TENSION PARALLEL TO GRAIN: FT= 350 PSI COMPRESSION PERPENDICULAR TO GRAIN FC= 405 PSI HORIZONTAL SHEAR FV= 140 PSI MODULUS OF ELASTICITY: E= 1,100,000 PSI

ALL SAWN LUMBER (5"x5" OR LARGER POSTS AND TIMBERS) SHALL BE HEM FIR, NO. 2 OR BETTER, WITH THE

FOLLOWING ALLOWABLE STRESSES: MAXIMUM FIBER STRESS IN BENDING FB= 575 PSI FT= 375 PSI TENSION PARALLEL TO GRAIN COMPRESSION PARALLEL TO GRAIN FC= 575 PSI COMPRESSION PERPENDICULAR TO GRAIN FC= 405 PSI HORIZONTAL SHEAR FV= 140 PSI MODULUS OF ELASTICITY E= 1,100,000 PSI

STUDS (2"-4" THICK, 2" & WIDER) SHALL BE SPRUCE-PINE-FIR, NO. 2 OR BETTER, WITH THE FOLLOWING

ALLOWABLE STRESSES: MAXIMUM FIBER STRESS IN BENDING FB= 875 PSI TENSION PARALLEL TO GRAIN FT= 450 PSI COMPRESSION PARALLEL TO GRAIN FC= 1150 PSI COMPRESSION PERPENDICULAR TO GRAIN FC= 425 PSI HORIZONTAL SHEAR FV= 135 PSI MODULUS OF ELASTICITY E= 1,400,000 PSI

APA SPAN RATED SHEATHING:

SEE PLANS FOR GRADE, THICKNESS, AND LOCATIONS OF SHEATHING.

ROOF AND WALL SHEATHING SHALL BE CONTINUOUS OVER 2 SPANS MINIMUM. ENDS OF PANELS SHALL OCCUR DIRECTLY OVER SUPPORTS.

WOOD CONNECTIONS:

NAILING SHALL BE IN ACCORDANCE WITH THE NAILING SCHEDULE ON SHEET S-311 UNLESS OTHERWISE NOTED. COMMON OR BOX NAILS MAY BE USED EXCEPT WHERE OTHERWISE NOTED.

JOIST HANGERS SHALL BE BY SIMPSON STRONG-TIE CO. OR EQUAL WITH CONNECTIONS INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

BOLTS AND LAG BOLTS (OR SCREWS) SHALL BE ASTM A307. STEEL SIDE PLATES SHALL BE ASTM A36.

LAG BOLTS (OR SCREWS) SHALL BE INSTALLED IN PRE-DRILLED HOLES. THE SIZE OF THE PRE-DRILLED HOLES SHALL BE PER THE LATEST EDITION OF THE LATEST EDITION OF THE NATIONAL DESIGN SPECIFICATION FOR

WOOD CONSTRUCTION. SPECIAL INSPECTION:

THE OWNER SHALL PROVIDE FOR SERVICES OF A CERTIFIED INSPECTOR (APPROVED BY THE BUILDING OFFICIAL OR THE ENGINEER OF RECORD) IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE FOR THE SPECIAL INSPECTION ITEMS NOTED ON SHEET S-003.

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100% CONSTRUCTION DOCUMENTS

> MADRID NEW MEXICO

Chavez-Grieves

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REVISIONS:

MK DATE DESCRIPTION DRAWN BY: CHECKED BY

> A18.04 DATE:

> > 11-01-18

PROJECT NUMBER:

SHEET TITLE: **GENERAL** STRUCTURAL

NOTES

S-002

SHEET NO:

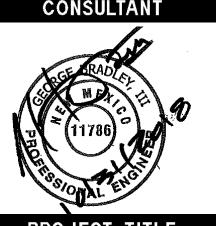
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PROJECT TITLE

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REVISIONS:									

MK DATE DESCRIPTION DRAWN BY: CHECKED BY PROJECT NUMBER:

> A18.04 DATE: 11-01-18

SHEET TITLE: **GENERAL**

STRUCTURAL NOTES

SHEET NO:

S-003

SCHEDULE OF STRUCTURAL SPECIAL INSPECTIONS

1. SPECIAL INSPECTIONS / TESTING - "SPECIAL STRUCTURAL INSPECTION" SHALL NOT RELIEVE THE OWNER OR THEIR AGENT FROM HAVING THE INSPECTIONS OF THE JURISDICTION BUILDING DEPARTMENT PER SECTION 110 OF THE IBC PERFORMED. BOTH THE JURISDICTION BUILDING DEPARTMENT INSPECTIONS AND "SPECIAL STRUCTURAL INSPECTION" SHALL BE PERFORMED.

2. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE JURISDICTION BUILDING OFFICIAL AND SPECIAL INSPECTOR WHEN WORK IS READY FOR INSPECTION.

3. REPORTING FOR SPECIAL INSPECTION - SPECIAL INSPECTION AND TESTING REPORTS SHALL BE COMPLETED AND DISTRIBUTED AT THE COMPLETION OF EACH TASK. IF A TASK IS TO TAKE LONGER THAN THREE (3) DAYS, PROVIDE REPORTS FOR EACH DAY. PROVIDE COPIES OF REPORTS TO CONTRACTOR, OWNER, ARCHITECT AND STRUCTURAL ENGINEER OF RECORD. SPECIAL INSPECTOR TO KEEP A NON-COMPLIANCE LIST DOCUMENTING ITEMS INSPECTED NOT MEETING APPROVED CONSTRUCTION DOCUMENTS AND WHEN / HOW RESOLVED.

4. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING CONSTRUCTION DOCUMENTS FOR ADDITIONAL NON-STRUCTURAL SPECIAL INSPECTION ITEMS.

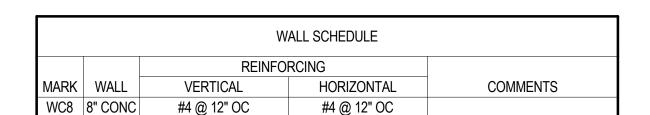
5. SPECIAL INSPECTION OF SHOP FABRICATED MEMBERS AND ASSEMBLIES SHALL BE IN ACCORDANCE WITH SECTION 1704.2, UNLESS FABRICATOR IS APPROVED TO PERFORM WORK WITHOUT SPECIAL INSPECTION.

6. IN ACCORDANCE WITH IBC CHAPTER 17, THE OWNER OR THE OWNER'S AGENT, OTHER THAN THE CONTRACTOR, SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PROVIDE SPECIAL INSPECTIONS AND TESTS, DURING CONSTRUCTION FOR THE TYPES OF WORK LISTED BELOW THESE SPECIAL INSPECTIONS AND TESTS ARE IN ADDITION TO THE INSPECTIONS BY THE BUILDING OFFICIAL IDENTIFIED IN IBC SECTION 110

7. DEFINITIONS: * SPECIAL INSPECTION: INSPECTION AS HEREIN REQUIRED BY A QUALIFIED SPECIAL INSPECTOR COMPETENT WITH THE MATERIALS, INSTALLATION, FABRICATION, ERECTION OR PLACEMENT OF COMPONENTS AND CONNECTIONS REQUIRING SPECIAL EXPERTISE TO ENSURE COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS (SEE SECTION 1704). * CONTINUOUS SPECIAL INSPECTION: FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED.

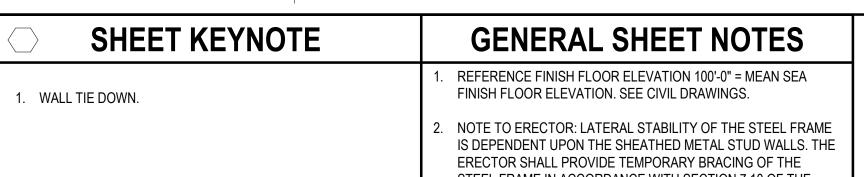
* PERIODIC SPECIAL INSPECTION: THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK.

ITEM	DESCRIPTION OF REQUIREMENTS	REQUIRED (YES/NO)
SPECIAL INSPECTION OF STRUCTURAL STEEL	TO BE PERFORMED IN ACCORDANCE WITH CHAPTER N OF AISC360-10	NO
SPECIAL INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION OTHER THAN STRUCTURAL STEEL	TO BE PERFORMED IN ACCORDANCE WITH IBC SECTION 1705.2.2	NO
SPECIAL INSPECTIONS AND VERIFICATIONS FOR CONCRETE CONSTRUCTION	TO BE PERFORMED IN ACCORDANCE WITH IBC SECTION 1705.3	NO
SPECIAL INSPECTIONS AND VERIFICATIONS FOR MASONRY CONSTRUCTION	TO BE PERFORMED IN ACCORDANCE WITH IBC SECTION 1705.4 AND REFERENCED STANDARDS	NO
SPECIAL INSPECTIONS AND VERIFICATIONS FOR WOOD CONSTRUCTION	TO BE PERFORMED IN ACCORDANCE WITH IBC SECTION 1705.5	YES
SPECIAL INSPECTIONS AND VERIFICATIONS OF SOILS	TO BE PERFORMED IN ACCORDANCE WITH IBC SECTION 1705.6, THE GEOTECHNICAL REPORT LISTED IN THE GENERAL FOUNDATION NOTES, AND ANY OTHER REQUIREMENTS LISTED IN THE GENERAL FOUNDATION NOTES	YES
SPECIAL INSPECTIONS AND VERIFICATIONS FOR DEEP FOUNDATIONS (DRIVEN PILES, CAST-IN-PLACE, OR HELICAL PILES AS APPLICABLE)	TO BE PERFORMED IN ACCORDANCE WITH IBC SECTIONS 1705.7-1705.9 AS APPLICABLE, THE GEOTECHNICAL REPORT LISTED IN THE GENERAL FOUNDATION NOTES, AND ANY OTHER REQUIREMENTS LISTED IN THE CONSTRUCTION DOCUMENTS	NO
SPECIAL INSPECTIONS FOR WIND RESISTANCE (REQUIRED ONLY FOR Vult= 155MPH OR GREATER IN EXPOSURE CATEGORY B, OR Vult=142MPH OR GREATER IN EXPOSURE CATEGORY C OR D)	TO BE PERFORMED IN ACCORDANCE WITH IBC SECTION 1705.11	NO
SPECIAL INSPECTIONS AND VERIFICATIONS FOR SEISMIC RESISTANCE (REQUIRED FOR STRUCTURES ASSIGNED TO CATEGORIES C, D, E, OR F)	TO BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE PORTIONS OF IBC SECTIONS 1705.12 AND 1705.13	YES



CONTINUOUS FOOTING SCHEDULE						
	SI	ZE	REINFO	DRCING		
MARK	WIDTH	DEPTH	CONTINUOUS	TRANSVERSE	COMMENTS	
CF24	2' - 0"	1' - 0"	3 - #4	#4 @ 32" OC		

REINFORCEMENT TYPE		#6 AND SMALLER (#db)			#7 AND LARGER (#db)		MINIMUM LENGTH (IN)	COMMENTS
		3000 PSI 4000 PSI 5000 PSI						
CONTINUOUS WALL FOOTINGS AND STEMWALLS	30	30	30	30	30	30	18	
RETAINING WALLS AND BASEMENT WALL VERTICAL REINFORCING	57	50	45	72	62	56	12	
RETAINING WALLS AND BASEMENT WALL HORIZONTAL REINFORCING	57	50	45	72	62	56	12	
CONCRETE COLUMNS NOT SUPPORTING LATERAL FORCES	30	30	30	30	30	30	12	
CONCRETE COLUMNS SUPPORTING LATERAL FORCES	57	50	45	72	62	56	12	
TOP FLEXURAL REINFORCEMENT, INCLUDING BEAMS, GRADE BEAMS, AND COMBINED COLUMN FOOTING AT BRACED FRAME AND MOMENT FRAMES	57	50	45	72	62	56	12	
BOTTOM FLEXURAL REINFORCEMENT, INCLUDING BEAMS, GRADE BEAMS, AND COMBINED COLUMN FOOTING AT BRACED FRAME AND MOMENT FRAMES	57	50	45	55	62	56	12	
SLABS-ON-GRADE	30	30	30	30	30	30	12	
MINIMUM EMBEDMENT OF STANDARD HOOKS INTO CONCRETE BASE	16	14	12	16	14	14	n	INCREASE LENGTH FOR # 11 BARS AN LARGER BY A FACTOR OF 1.4
ALL REBAR LAPS IN CMU		72	•		72		12	



OTHERWISE.

DETAILS.

DRAWINGS.

BEFORE PROCEEDING.

4. EXISTING CONSTRUCTION IS PER AVAILABLE EXISTING

DRAWINGS. ALL EXISTING CONSTRUCTION AND DIMENSIONS

CONDITIONS VARY FROM THOSE SHOWN, CONTACT ENGINEER

AREA OF THE CONTROL JOINT SHALL NOT EXCEED A 2.1 RATIO. CONTROL JOINTS SHALL BE LOCATED AT COLUMN LINES WHERE THE LAYOUT PERMITS. AT RE-ENTRANT CORNERS THAT DO NOT HAVE CONTROL JOINTS, PROVIDE 2-#4 x 3'-0"

SHALL BE VERIFIED PRIOR TO CONSTRUCTION. SHOULD

PROVIDE SLAB JOINTS AT 12'-0" ON CENTER MAXIMUM. THE

. SEE SHEET S-301 FOR TYPICAL FOUNDATION SECTIONS AND

7. ALL EXTERIOR WALLS TO BE SHEATHED W/ 7/16" OSB FIRE RATED SHEATHING. ATTACH TO ALL SUPPORTS W/ #10 SELF-

8. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL

DIAGONAL TO THE RE-ENTRANT CORNER.

DRILLING SCREWS @ 12" OC.

FINISH FLOOR ELEVATION. SEE CIVIL DRAWINGS.

NOTE TO ERECTOR: LATERAL STABILITY OF THE STEEL FRAME IS DEPENDENT UPON THE SHEATHED METAL STUD WALLS. THE ERECTOR SHALL PROVIDE TEMPORARY BRACING OF THE STEEL FRAME IN ACCORDANCE WITH SECTION 7.10 OF THE AISC CODE OF STANDARD PRACTICES.

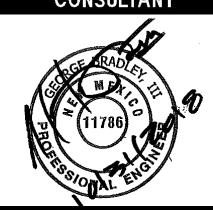
DIMENSIONS ARE TO THE FACE OF CONCRETE UNLESS NOTED

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CONSULTANT



PROJECT TITLE

SANTA FE
COUNTY MADRID
FIRE STATION

100% CONSTRUCTION DOCUMENTS

MADRID NEW MEXICO

(CG)

Chavez-Grieves consulting engineers, inc. 4700 Lincoln Road NE, Suite 102 Albuquerque, NM 87109 505-344-4080 · 505-343-8759 (fax)

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NEVISIONS.

MK DATE DESCRIPTION

DRAWN BY: CHECKED BY:
PS GB

PROJECT NUMBER:
A18.04

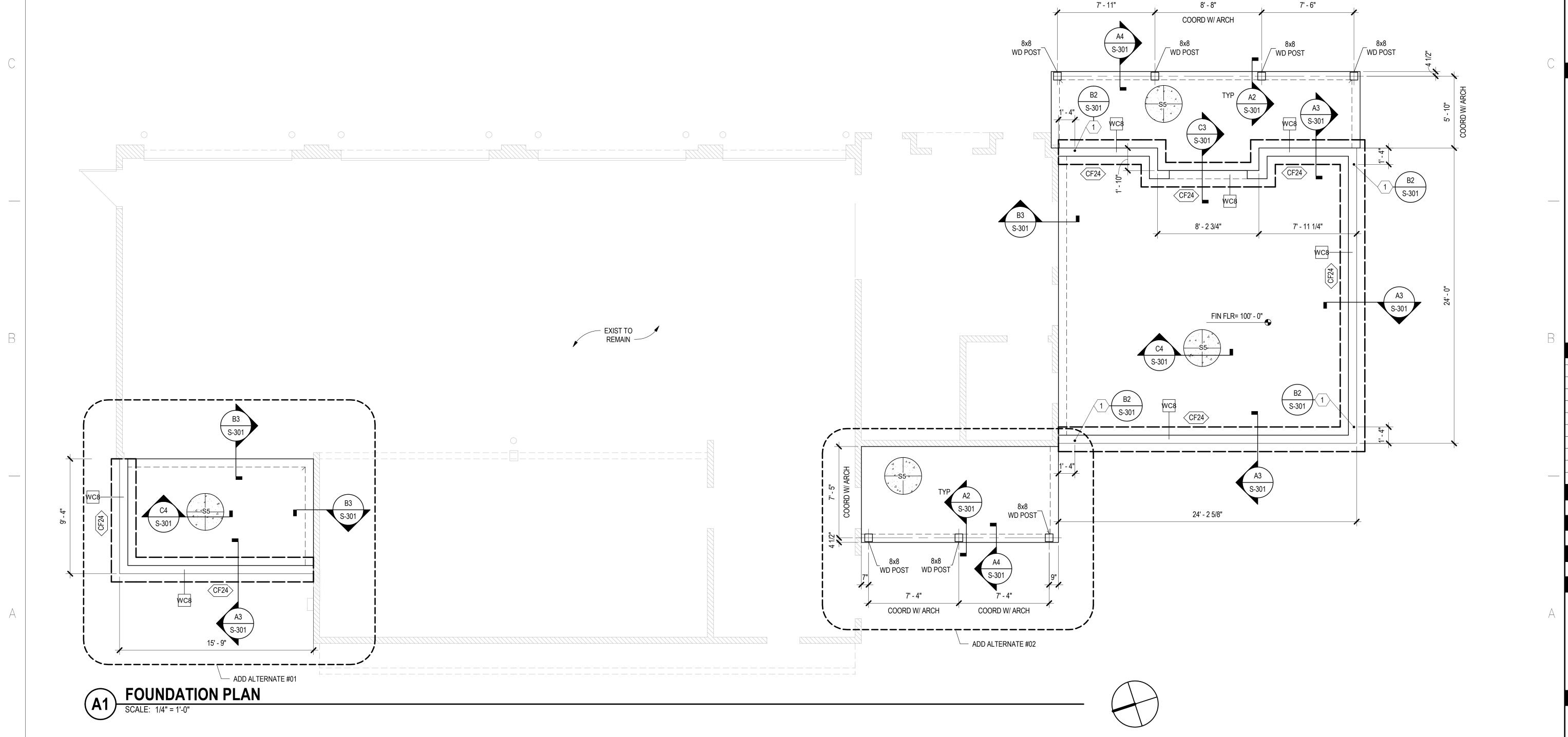
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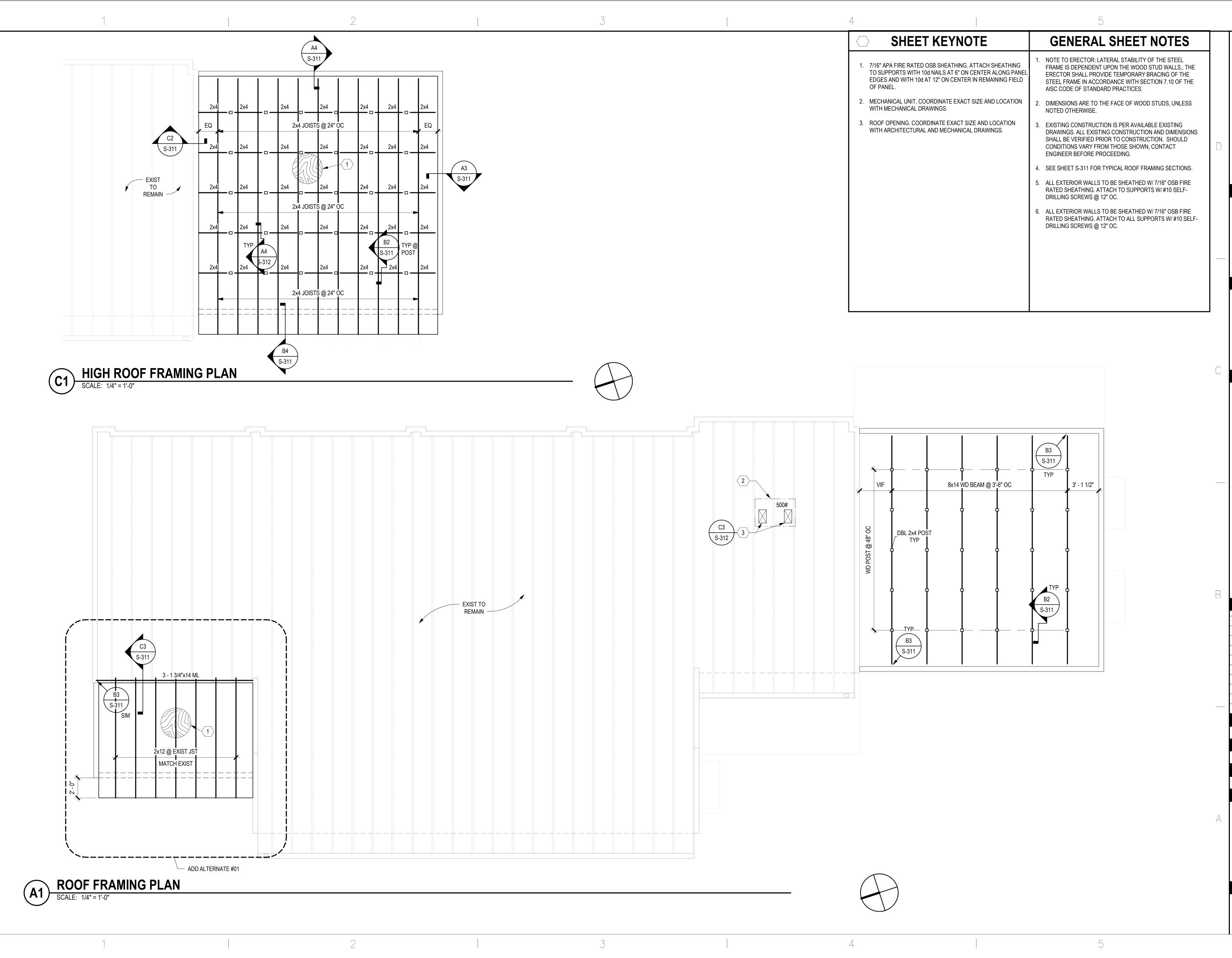
SHEET TITLE:

FOUNDATION PLAN

SHEET NO:

S-101





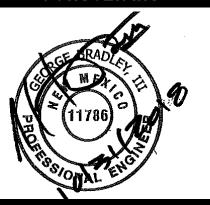
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consulting engineers, inc.
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> PROJECT NUMBER: A18.04

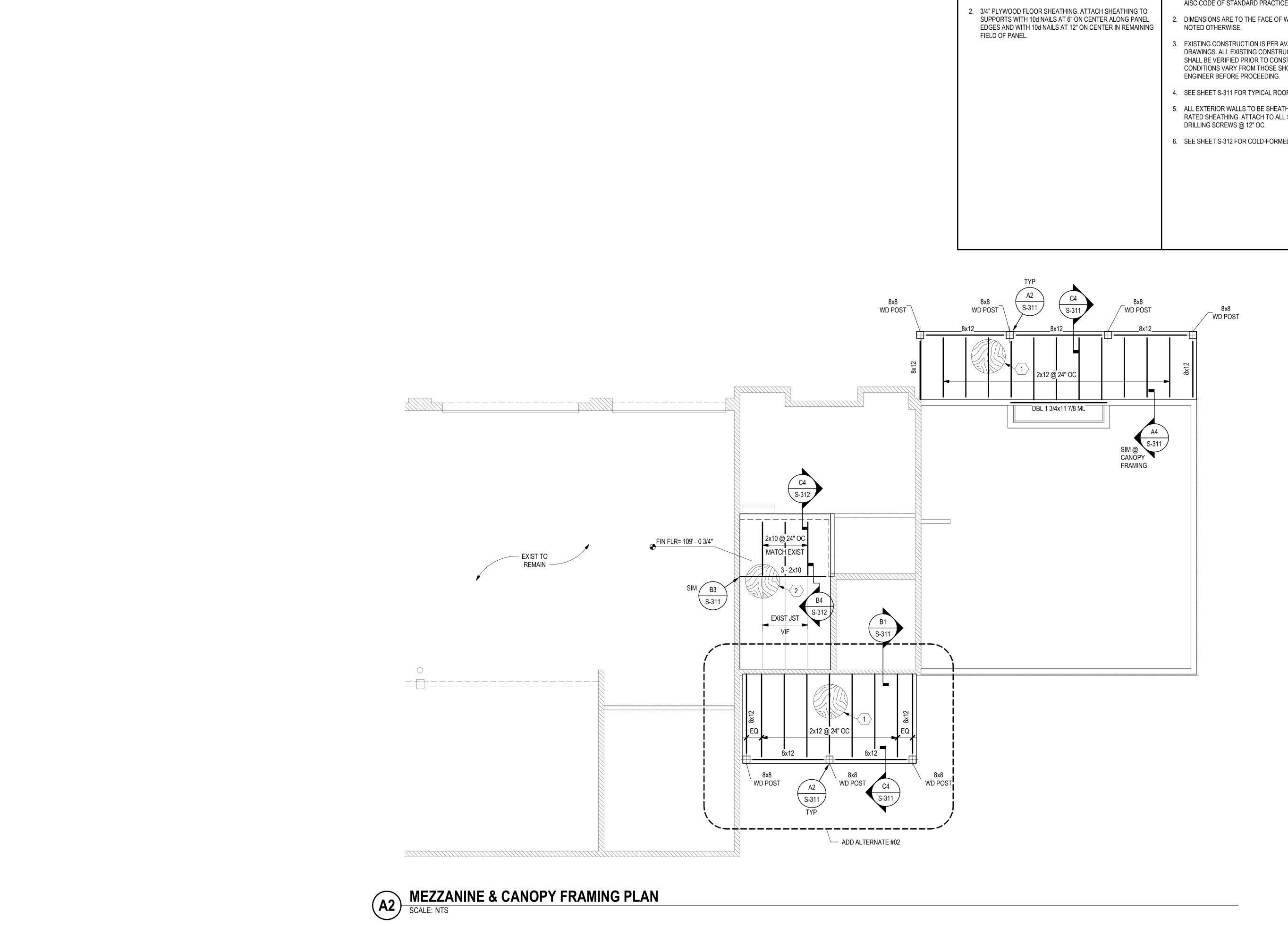
> > DATE: 11-01-18

SHEET TITLE:

ROOF FRAMING

SHEET NO:

S-111



SHEET KEYNOTE **GENERAL SHEET NOTES**

NOTE TO ERECTOR: LATERAL STABILITY OF THE STEEL 1. 7/16" APA FIRE RATED OSB SHEATHING. ATTACH SHEATHING TO SUPPORTS WITH 10d NAILS AT 6" ON CENTER ALONG PANEL EDGES AND WITH 10d NAILS AT 12" ON CENTER IN REMAINING FIELD OF PANEL.

FRAME IS DEPENDENT UPON THE WOOD STUD WALLS,. THE ERECTOR SHALL PROVIDE TEMPORARY BRACING OF THE STEEL FRAME IN ACCORDANCE WITH SECTION 7.10 OF THE AISC CODE OF STANDARD PRACTICES.

2. DIMENSIONS ARE TO THE FACE OF WOOD STUDS, UNLESS

3. EXISTING CONSTRUCTION IS PER AVAILABLE EXISTING DRAWINGS. ALL EXISTING CONSTRUCTION AND DIMENSIONS SHALL BE VERIFIED PRIOR TO CONSTRUCTION. SHOULD CONDITIONS VARY FROM THOSE SHOWN, CONTACT

4. SEE SHEET S-311 FOR TYPICAL ROOF FRAMING SECTIONS.

5. ALL EXTERIOR WALLS TO BE SHEATHED W/ 7/16" OSB FIRE RATED SHEATHING. ATTACH TO ALL SUPPORTS W/ #10 SELF-

6. SEE SHEET S-312 FOR COLD-FORMED LINTEL SCHEDULE.

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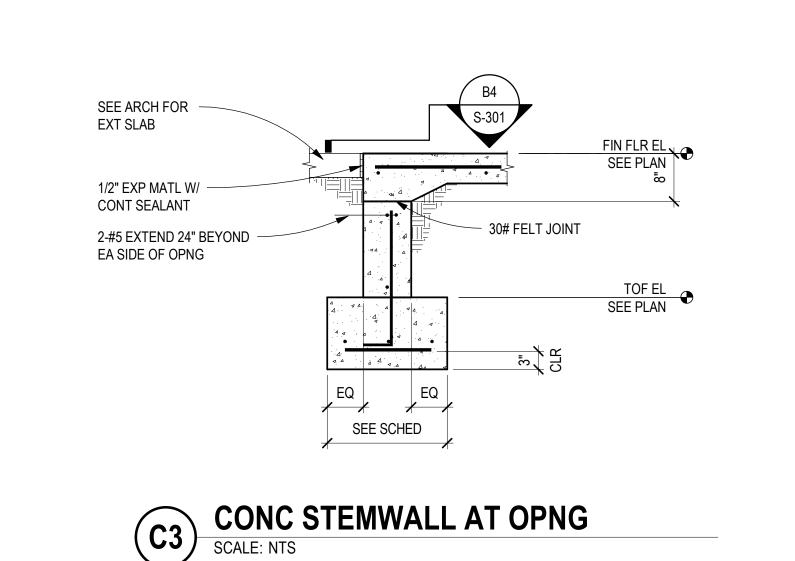
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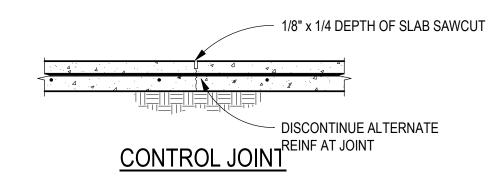
MEZZANINE & CANOPY FRAMING PLAN

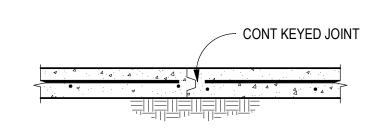
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S-112



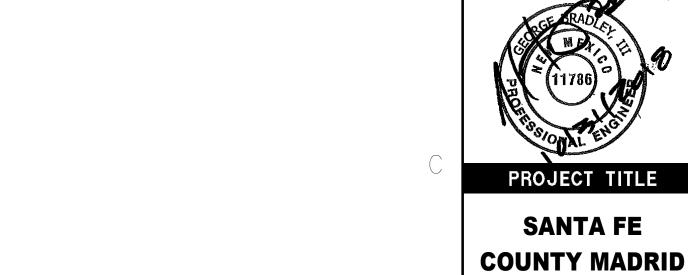
NOTE: AT CONTRACTOR'S OPTION A PLASTIC JOINT FORMER MAY BE INSTALLED INSTEAD OF THE SAWCUT

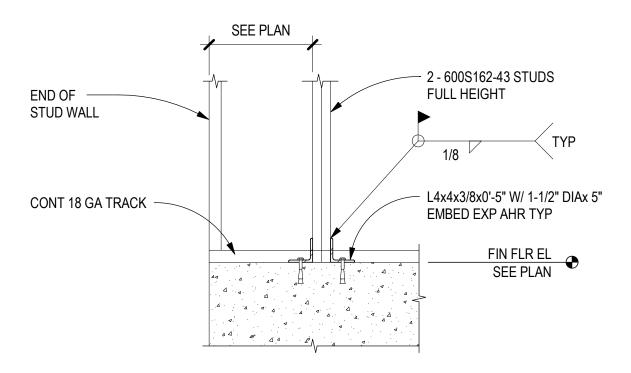


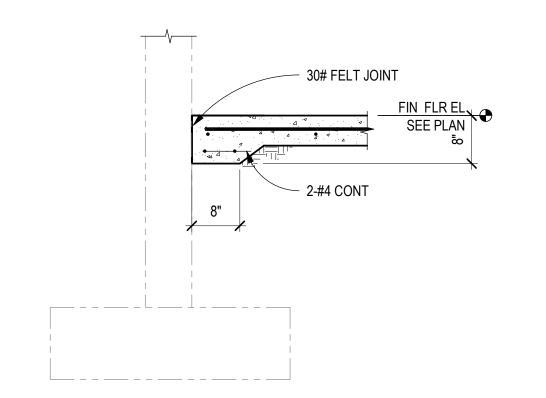


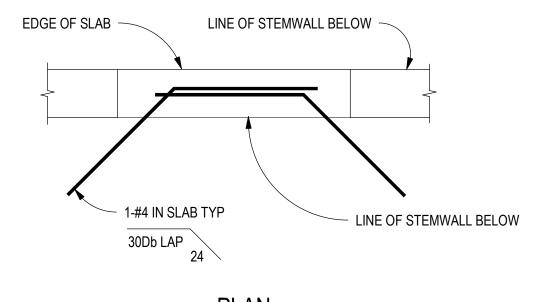
CONSTRUCTION JOINT

TYPICAL SLAB JOINT

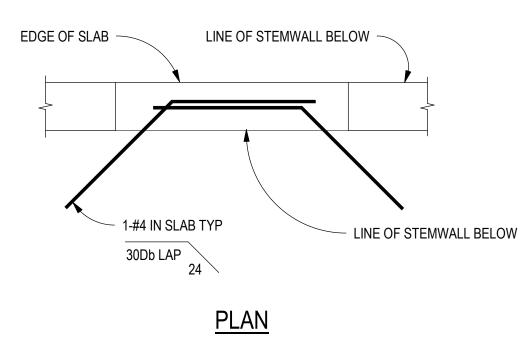








TYPICAL SLAB REINF AT OPNG
SCALE: NTS



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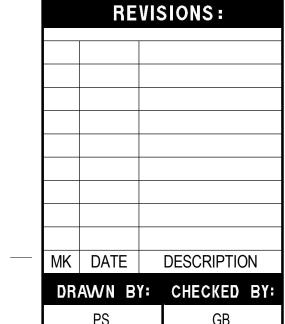
FIRE STATION

100% CONSTRUCTION

DOCUMENTS

MADRID

NEW MEXICO



PROJECT NUMBER:

A18.04 DATE: 11-01-18

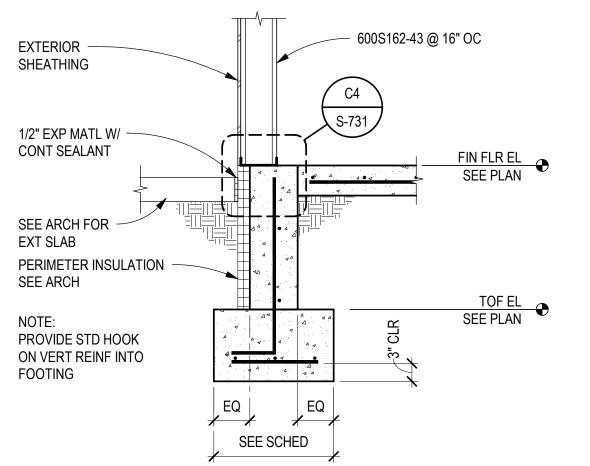
SHEET TITLE:

FOUNDATION SECTIONS AND DETAILS

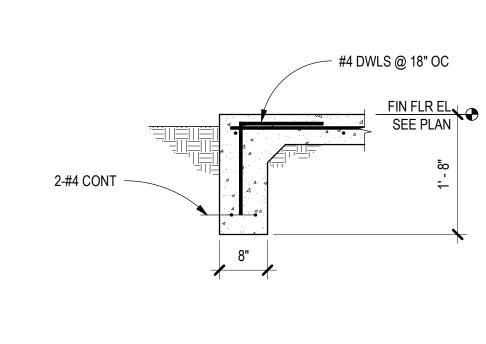
SHEET NO:

S-301

B2 TIE DOWN DETAIL
SCALE: NTS THICKENED SLAB AT EXISTING
SCALE: NTS



FOUNDATION SECTION



FOUNDATION SECTION

FOUNDATION SECTION

WD POST

2 - #4 VERT

2 - #4 CONT

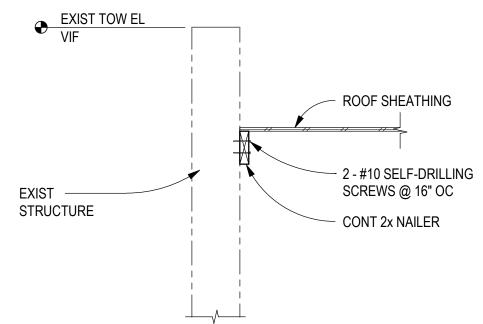
SIMPSON CPS POST

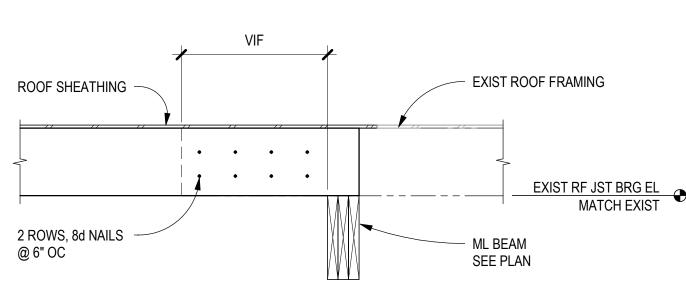
BASE OR EQUAL

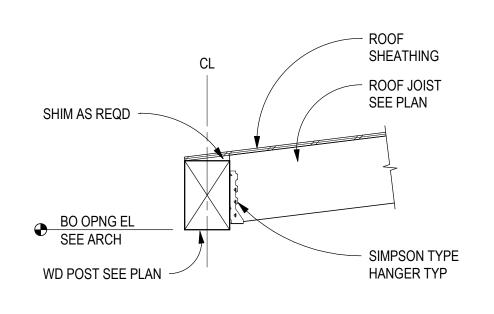
3/4" CHAMFER TYP

9" SQUARE PEDESTAL

FIN FLR EL SEE PLAN







SHIM AS REQD

SIMPSON H1

@ EA JOIST

CONT 2x DBL

- 600S162-43 @ 16" OC

CONT 600T125-43

2 - #10 SELF-DRILLING SCREWS @ 16" OC

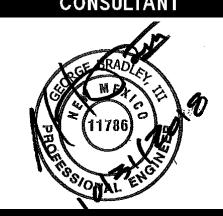
TOP PLATE



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SANTA FE **COUNTY MADRID FIRE STATION**

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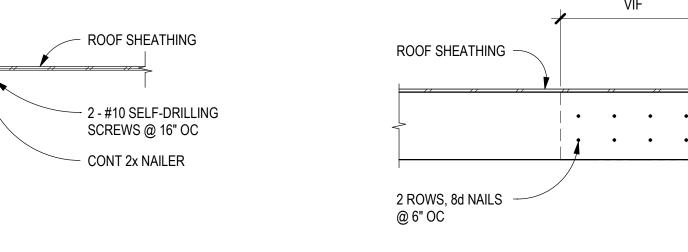
> MADRID NEW MEXICO

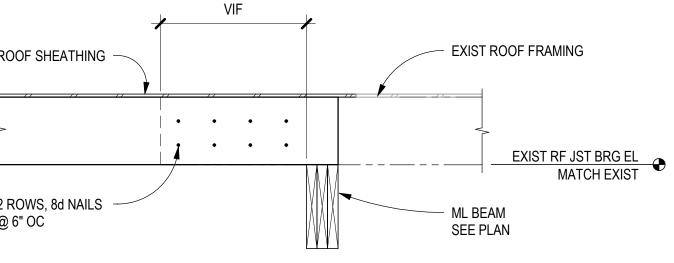
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PROJECT NUMBER: A18.04

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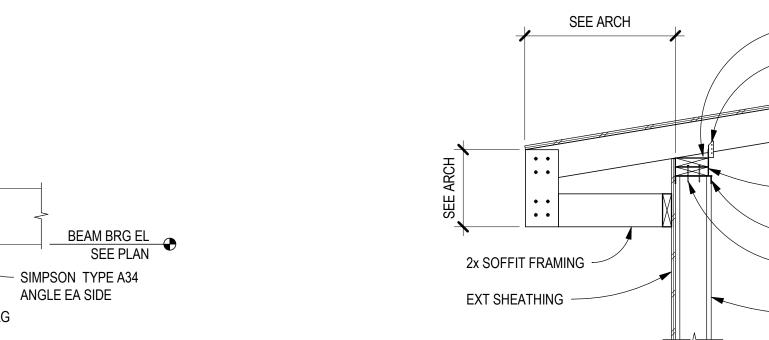
ROOF FRAMING SECTIONS

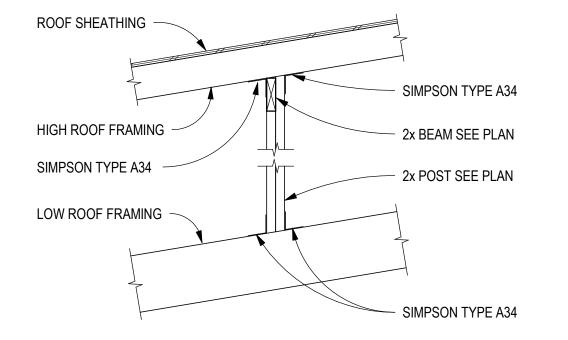












ROOF FRAMING SECTION

SCALE: NTS



2 - 2x6 NAILER —

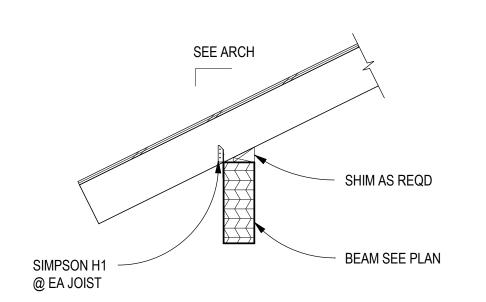
BLOCKING BTWN

FULL HEIGHT STUDS

600T125-43



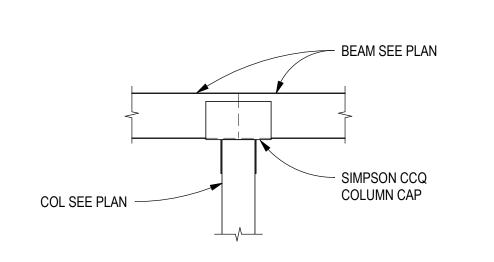
ROOF FRAMING SECTION
SCALE: NTS

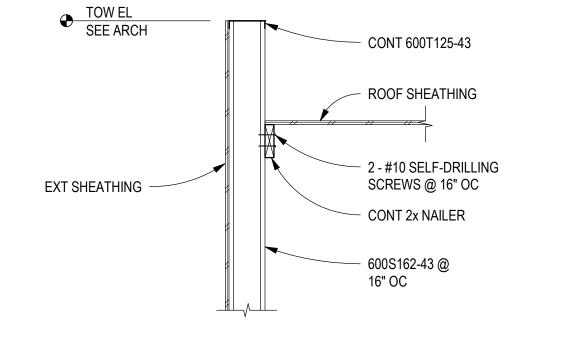


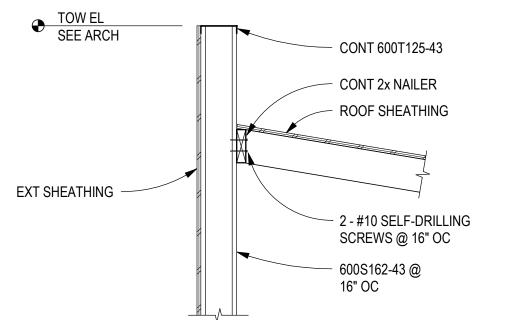
ROOF FRAMING SECTION

SCALE: NTS

EXIST WALL









CONT 2x NAILER

ROOF SHEATHING

SCREWS @ 16" OC

FRAMING DETAIL

SCALE: NTS



ROOF FRAMING SECTION SCALE: NTS

ROOF FRAMING SECTION
SCALE: NTS

ROOF CONNECTION DETAIL
SCALE: NTS

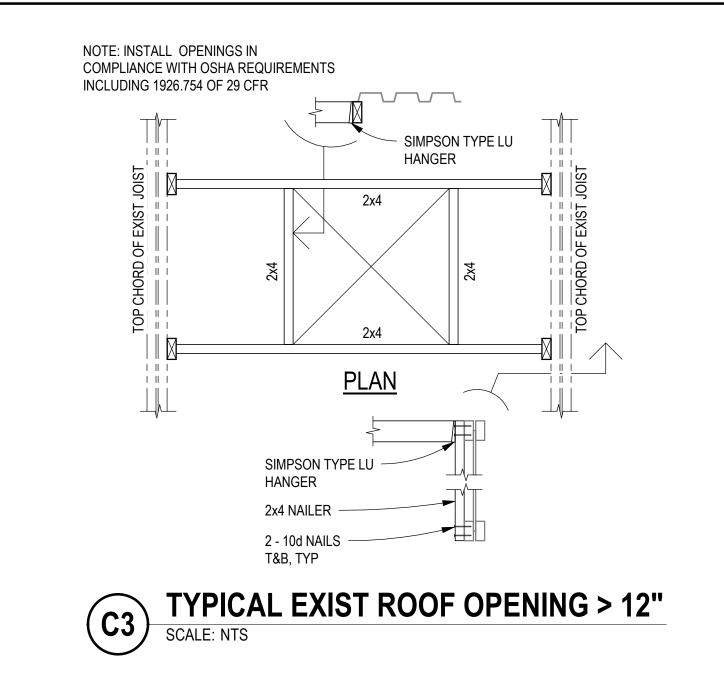
S-311

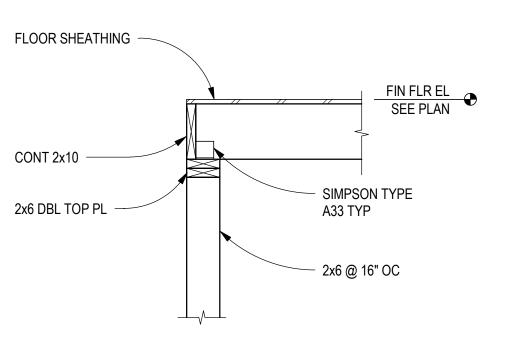
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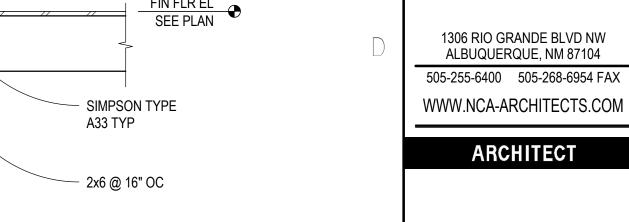
MK DATE DESCRIPTION DRAWN BY: CHECKED BY

> DATE: 11-01-18

SHEET NO:







FRAMING SECTION SCALE: NTS

FLOOR SHEATHING

EXIST FRAMING

- SIMPSON TYPE LU HANGER TYP

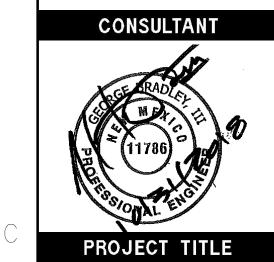
- 2x LINTEL SEE

FIN FLR EL SEE PLAN

SIMPSON H1 @ EA JOIST

SIMPSON TYPE A34 TYP

- 2x BEAM SEE PLAN



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SHEET TITLE:

FRAMING SECTIONS AND DETAILS

SHEET NO:

S-312

SCHED FULL
HEIGHT STUDS SCHED STUDS -AT BRG FIN FLR EL SEE PLAN CONT 43 MIL TRACK

LIGHTGAGE LINTEL SCHEDULE
SIZE STUDS AT BEARING FULL HEIGHT STUDS

2 - 600S162-43

2 - 600S162-43

3-600S162-43 2 - 600S162-43



TYPICAL LINTEL SECTION

SEE SCHED FOR LINTEL SIZE

2-CONT STUDS TO — MATCH WALL STUD SIZE

ROOF SHEATHING

HIGH ROOF FRAMING

ROOF FRAMING SECTION

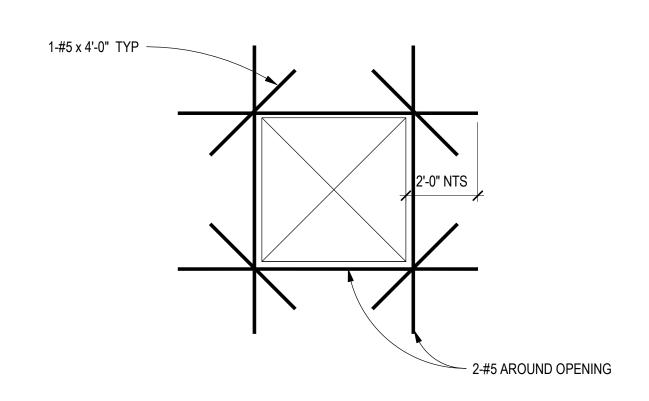
FRAMING SECTION
SCALE: NTS

CONT 600T125-43

- CONT 600T125-43

TYPICAL FND EXCAVATION DETAIL

SCALE: NTS



TYPICAL OPNG IN CONC WALL DETAIL

2 BARS TO MATCH VERT

WALL REINF

SEE SCHED

END WALL

WALL TEE INTERSECTION

WALL CORNER

NOTE: REINFORCING SHOWN ON FOUNDATION SECTIONS AND SPECIFICALLY REFERENCED DETAILS SHALL TAKE GOVERN

TYPICAL SINGLE MAT WALL REINF

OVER REINFORCING IN STANDARD DETAILS.

CORNER BARS TO

REINF

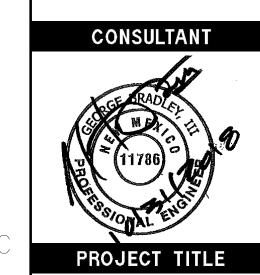
MATCH HORIZ WALL

SEE SCHED

CORNER BARS TO

MATCH HORIZ WALL

REINF



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11-01-18 SHEET TITLE:

TYPICAL CONCRETE

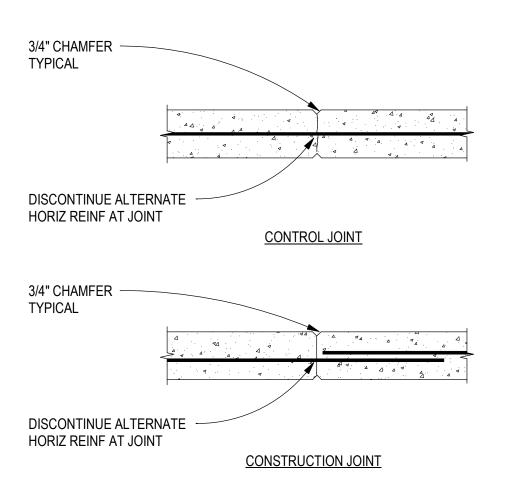
DETAILS

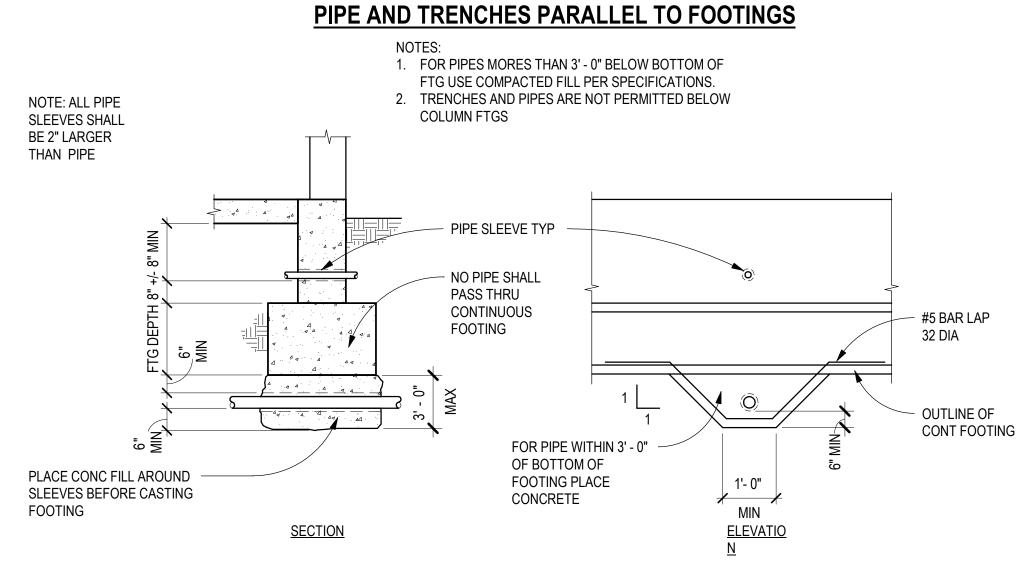
SHEET NO:

S-711

- 1-#4 CONT TOF EL SEE PLAN Z BARS TO MATCH SIZE AND SPACING OF CONT FTG REINF 30 BAR DIA 1' - 6" MIN

TYPICAL STEPPED FOOTING DETAIL
SCALE: NTS





PIPE AND TRENCHES TRANSVERSE TO FOOTINGS

TYPICAL PIPE PENETRATION AND TRENCH DETAILS

PIPE TRENCHES PARALLEL TO

BELOW THIS LINE, UNLESS APPROVED BY THE STRUCTURAL

ENGINEER

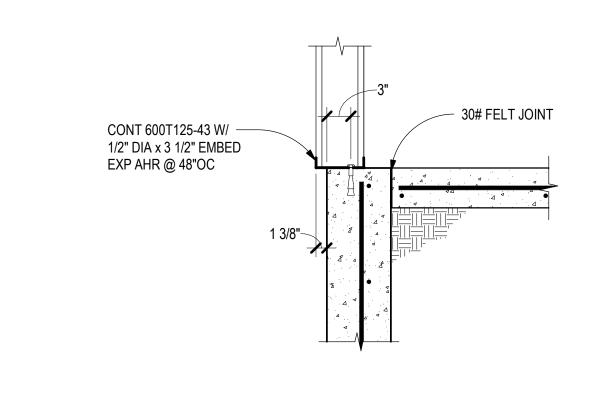
FOOTINGS ARE NOT PERMITTED

TYPICAL WALL JOINT DETAIL

WHERE PIPE DEPTH IS FIXED, LOWER FTG AS

NECESSARY TO MEET REQUIREMENT

- BACKFILL PER SPECIFICATIONS



C4 TYPICAL STUDS AT STEMWALL

SCALE: 1" = 1'-0"

STUD TO BOTTOM TRACK CONNECTION

STUD TO TOP TRACK CONNECTION

20 GAGE

18 GAGE

16 GAGE

14 GAGE

12 GAGE

TYPICAL STUDS TO TRACK DETAIL

1 - #10 SCREW @

MILS TO GAGE

CONVERSION CHART

EA FLANGE

OR

1 - #10 SCREW @

STEEL STUDS

EA FLANGE

CONT BOT TRACK

NOTES FOR MILS

CONT TOP TRACK

REFER TO SECTION NOTES FOR MILS

REFER TO SECTION



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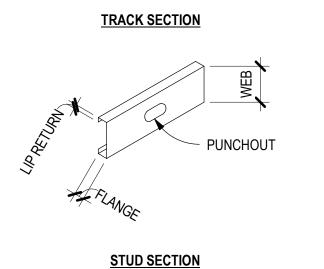
SHEET TITLE:

TYPICAL COLD-FORMED DETAILS

SHEET NO:

S-731

STEEL STUDS TYP L 1 1/4"x1 1/4"x 54 MILS x STUD WIDTH - 1/2" @ EA STUD W/ 1 - #10 SCREW EA 1 - #10 SCREW @ SOLID BLOCKING @ 10' - 0" OC -AND AT WALL OPENINGS OR SIDE EA STUD 1 1/2"x54 MILS x 1' - 0" -LONG @ SPLICE CORNERS CONT 1 1/2" x 54 MILS LOCATIONS W/ 6 - #10 1 - 0.157"DIA POWDER DRIVEN FASTENER @ EA FLAT STRAPPING SCREWS (3 EA END) ATTACHED TO BOTH SIDE OF STRUCT STEEL **FLANGES** COLUMN 2-#10 SCREWS @ CLIP ATTACH STRAPPING TO BLOCKING WITH 4 - #10 SCREW EA FACE STEEL STUDS TYP 8" MAX STUD DEPTH **COLD ROLLED CHANNEL OPTION** STRAP AND BLOCK OPTION 1 - #10 SCREW @ EA SIDE @ EA CLIP ANGLE CLARK-DIETRICH TRADEREADY SPAZZER 5400 L 1 1/4"x1 1/4"x 54 MILS x L 1 1/4"x1 1/4"x 54 MILS x STUD WIDTH MINUS 1/2" @ STUD WIDTH MINUS 1/2" SPACER BAR OR EA STUD APPROVED EQUAL INSTALL PER MFR 1 1/2" x 54 MILS COLD ROLLED 1 1/2"x 54 MILS RECOMMENDATIONS 1 1/2" x 54 -MILS COLD ROLLED COLD ROLLED CHANNEL CHANNEL 2 - #10 SCREWS @ EA CLIP ANGLE CHANNEL 6" MAX STUD DEPTH STUD DEPTH STUD DEPTH STUD DEPTH **SPAZZER BAR ATTACHMENT SCREW ATTACHMENT WELD ATTACHMENT WELD ATTACHMENT TYPICAL BRIDGING DETAILS**



TYPE

S = STUD T = TRACK

MEMBER WEB IN INCHES (IE. - 600 = 6")(IE. - 362 = 3 5/8") (IE. - 250 = 2 1/2") **MEMBER**

600S162-43 (50 KSI)

33 MILS

43 MILS

54 MILS

68 MILS

97 MILS

FLANGE WIDTH OF MEMBER IN INCHES (IE. - 162 = 1 5/8") (IE. - 200 = 2")

TYPICAL COLD-FORMED MEMBER DESIGNATION

TYPICAL STUD JAMB ATTACHMENT DETAILS

2 - #10 SCREWS @ 12" OC

BEARING TRACK TO MATCH

BEARING STUD SIZE AND MILS

W/ 2 - #10 SCREWS EA FLANGE

BEARING STUDS SEE SCHED

ATTACH JAMB STUDS TOGETHER W/ 2 - #10 SCREWS AT 12" OC

TRACK SECTION TO MATCH STUD

CLIP, AND BASE CLIP ATTACHMENT.

REFER TO SECTIONS FOR NUMBER

DEPTH AND MILS AS REQD FOR

HEADER, SILL, VERTICAL SLIDE

FULL HEIGHT JAMB STUDS TYP

REFER TO SECTION NOTES

REQD, SIZE, AND MILS

SCREW OPTION

FULL HEIGHT STUDS

SEE SCHED

TYPICAL HEADER / JAMB DETAIL

ATTACH JAMB STUDS TOGETHER

W/ 2 - #10 SCREWS AT 12" OC

- CLOSURE TRACK ATTACHMENT

3 - #10 SCREWS AT EA FLANGE

DEPTH AND MILS AS REQD FOR

HEADER, SILL, VERTICAL SLIDE

REFER TO SECTION NOTES

REQD, SIZE, AND MILS

SCREW OPTION

TRACK SECTION TO MATCH STUD

CLIP, AND BASE CLIP ATTACHMENT.

FULL HEIGHT JAMB STUDS TYP

REFER TO SECTIONS FOR NUMBER

1@12

FULL HEIGHT JAMB STUDS TYP

REQD, SIZE, AND MILS

WELD OPTION

REFER TO SECTIONS FOR NUMBER

MEMBER THICKNESS

(ONLY SHOWN WHEN

MEMBER IS 50 KSI)

GRADE OF STEEL

IN MILS

FULL HEIGHT JAMB STUDS TYP

REQD, SIZE, AND MILS

WELD OPTION

REFER TO SECTIONS FOR NUMBER

5' EXCLUSIVE INGRESS,— — 20' EXCLUSIVE INGRESS, FIREHOUSE LANE EGRESS & UTILITY EASEMENT EGRESS & UTILITY EASEMENT REC. PLAT Bk.271 Pg.19-20 REC. PLAT Bk.338, Pg.22 S18°12'15"W 161.04 — 15' WATERLINE EASEMENT \((7.5' ON EITHER SIDE OF ROUNDARY LINE) REC. PDAT Bk.338 Pg.22 8'-0" N18'03'49"E

○ KEYED NOTES

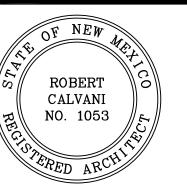
- 1. EXISTING FIRE STATION BUILDING TO REMAIN. SEE DEMOLITION FLOOR
- 2. EXISTING CONCRETE PAVING TO REMAIN.
- 3. EXISTING GRAVEL DRIVE TO REMAIN.
- 4. EXISTING BOLLARD TO REMAIN. 5. EXISTING PIPE EXTENSION FOR DRAINAGE (FROM METAL DOWNSPOUT)
- TO REMAIN.
- 6. EXISTING METAL DOWNSPOUT TO REMAIN. 7. EXISTING CONCRETE STOOP/ STEPS TO REMAIN.
- 8. DEMO AND PREP AS REQUIRED FOR NEW SEEPAGE PIT. FIELD VERIFY DEMO WORK CLEARS EXISTING WATER LINE TO REMAIN.
- 9. DEMO AND PREP AS REQUIRED FOR NEW SEEPAGE PIT SEWER LINE. 10. REMOVE AND DISPOSE OF EXISTING PIPE EXTENSION FOR DRAINAGE (FROM METAL DOWNSPOUT).
- 11. GENERAL CONTRACTOR TO REMOVE EXISTING WATER TANK CONCRETE FOOTINGS, SUPPORT STRUCTURE AND TANK.
- 12. REMOVE AND DISPOSE OF EXISTING CONCRETE RAMP. 13. REMOVE AND DISPOSE OF PORTION OF EXISTING CONCRETE PAVING AS
- REQUIRED FOR NEW WORK. 14. DEMO AND PREP AS REQUIRED FOR NEW ADDITION.
- 15. ADDITIVE ALTERNATE #1: EXTEND BAY 1.
- 16. ADDITIVE ALTERNATE #2: NEW PORTAL ADDITION. 17. EXISTING GRAVEL ROÄD.
- 18. REMOVE AND RELOCATE EXISTING FIRE HYDRANT. SEE SITE PLAN FOR NEW LOCATION.
- 19. (7) EXISTING PARKING SPACES (GRAVEL) TO REMAIN.
- 20. ÈXÍSTING PROPANE TANK TO REMAIN. 21. EXISTING PROPANE GAS LINE TO REMAIN. PROTECT DURING
- DEMOLITION. 22. APPROXIMATE LOCATION OF EXISTING SEPTIC TANK. FIELD VERIFY. 23. APPROXIMATE LOCATION OF EXISTING LEACH FIELD TO BE PREPPED AS
- REQUIRED FOR NEW ADDITION. FIELD VERIFY.
- 24. APPROXIMATE LOCATION AND ROUTE OF EXISTING WATER LINE. FIELD VERIFY. PROTECT DURING DEMOLITION AND NEW CONSTRUCTION.
- 25. APPROXIMATE LOCATION OF EXISTING D-BOX TO REMAIN.
- 26. EXISTING SWALE TO DRAIN LOCATION TO REMAIN.
- 27. EXISTING TELEPHONE PEDESTAL TO REMAIN.

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CONSULTANT

PROJECT TITLE

SANTA FE COUNTY **MADRID FIRE STATION**

> **MADRID NEW MEXICO**

REVISIONS:

MK DATE DESCRIPTION

DRAWN BY: CHECKED BY

PROJECT NUMBER

A18.04 DATE:

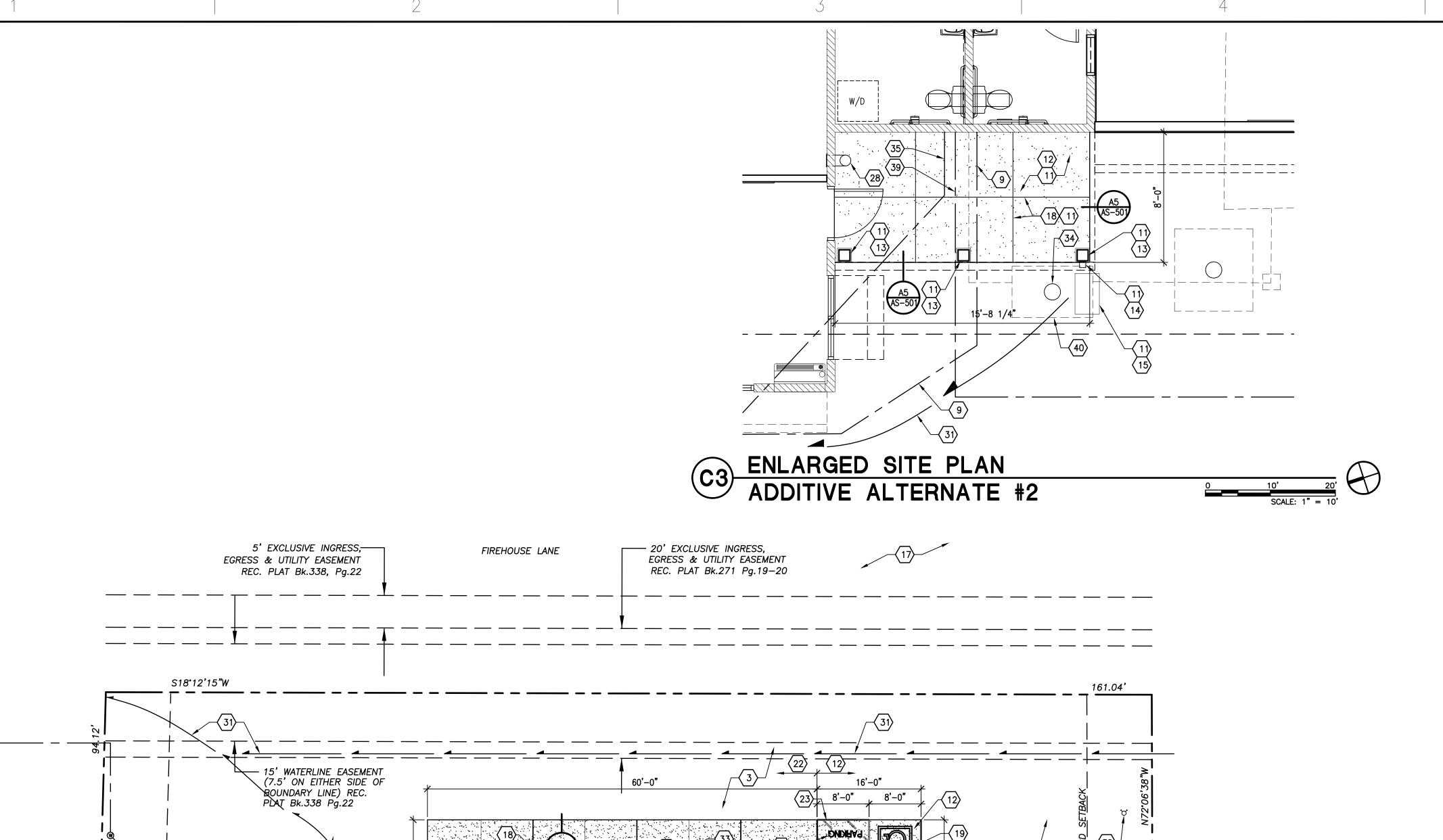
SHEET TITLE:

SITE DEMOLITION **PLAN**

SHEET NO:

ASD-101

SITE DEMOLITION PLAN



AT ADD. ALT.#2

GENERAL NOTES

A. GENERAL CONTRACTOR TO HIRE LANDSCAPE ARCHITECT/ CONTRACTOR TO DESIGN AND INSTALL LANDSCAPING PER COUNTY OF SANTA FE REQUIREMENTS.

○ KEYED NOTES

1. EXISTING FIRE STATION BUILDING TO REMAIN.

EXISTING CONCRETE PAVING TO REMAIN. EXISTING GRAVEL DRIVE TO REMAIN.

EXISTING BOLLARD TO REMAIN, PAINT.
 EXISTING PIPE EXTENSION FOR DRAINAGE (FROM METAL DOWNSPOUT)

6. EXISTING METAL DOWNSPOUT TO REMAIN.

EXISTING CONCRETE STOOP/ STEPS TO REMAIN.

NEW SEEPAGE PIT. FIELD VERIFY SEEPAGE PIT CLEARS EXISTING

WATER LINE TO REMAIN.

9. NEW SEEPAGE PIT 4" PVC SEWER LINE.

10. ADDITIVE ALTERNATE #1: EXTEND BAY 1.

11. ADDITIVE ALTERNATE #2: NEW PORTAL ADDITION.12. NEW CONCRETE PAVING.

13. NEW PORTAL WOOD POST WITH SIMPSON CPS BASE AND BASE PLATE TO SIT ON 10 1/2"X10 1/2"X4" HIGH CONCRETE BASE.

ORNAMENTAL WOOD TIES (OWT) 8X8 LAREDO SUNSET FAUX POST BASE PLATE BY OZCO BUILDING PRODUCTS, (469) 916-7503 MAIN NUMBER, ITEM NUMBER: 56691 (8X8-FPB-LS).

14. NEW METAL DOWNSPOUT.15. NEW CONCRETE SPLASHBLOCK. SEE DETAIL B3/AS-501.

16. NEW BUILDING ADDITION.

17. EXISTING GRAVEL ROAD TO REMAIN.18. NEW EXPANSION JOINT AS PER DETAIL B1/AS-501.

NEW ACCESSIBLE PARKING PAINTED SYMBOL. SEE DETAIL A3/AS-501.
 NEW ACCESSIBLE PARKING SIGN. SEE A2/AS-501.

NEW ACCESSIBLE CONCRETE RAMP. SEE A1/AS-501.
 NEW CONCRETE DRIVE PAD FOR TRUCK BAYS. 8" CONCRETE SLAB WITH 6" BASE COURSE ON COMPACTED SUB-GRADE. SCARIFY EXPOSED SOIL A MINIMUM OF 12" AND RE-COMPACT. 1/2"

EXPANSION JOINTS @ 16'-0"O.C. (FIELD VERIFY TO ALIGN WITH COLUMN BETWEEN DOORS). SEAL EXPANSION JOINTS WITH SILICONE

SEALANT.
23. NEW 4" PARKING STRIPING WITH TRAFFIC GRADE PAINT AS

SHOWN. 24. NEW 2" TRAFFIC GRADE PAINTED LETTERING TO READ "NO

PARKING".

25. NEW CONCRETE PARKING BUMPER. SECURE IN CONCRETE PAD WITH #4 REBAR SET IN CONCRETE.

26. (7) EXISTING PARKING SPACES (GRAVEL) TO REMAIN. 27. EXISTING GRAVEL PAVING TO REMAIN.

28. EXHAUST PORTS. SEE MECHANICAL.

29. ELECTRICAL METER. SEE ELECTRICAL

30. EXISTING TELEPHONE PEDESTAL TO REMAIN.

31. EXISTING SWALE TO DRAIN LOCATION TO REMAIN.32. NEW LOCATION OF FIRE HYDRANT. COORDINATE WITH FIRE

DEPARTMENT CHIEF.

33. NEW CONTROL JOINT AS PER DETAIL B1/AS-501.

34. EXISTING SEPTIC TANK LID.35. SUPPOSED LOCATION OF EXISTING WATER LINE (FIELD VERIFY).

36. MECHANICAL UNIT WITH CONCRETE PAD (TURNDOWN EDGES SEE DETAIL B2/AS-501). VERIFY WITH MANUFACTURER REQUIREMENTS FOR

CONCRETE PAD SIZE AND LOCATION.

37. NEW WOOD PICKET FENCE. 4X4 WOOD POSTS @ 8'-0"O.C. WITH 2X RAILS (3) AND WOOD PICKET FENCE VERTICALS (PROVIDE STAIN AND SEALER AS APPROVED BY ARCHITECT). ALL WOOD TO BE PRESSURE TREATED CEDAR WOOD. STAIN AND SEALER COATED.

38. EXISTING PROPANE TANK TO REMAIN.
39. EXISTING PROPANE GAS LINE TO REMAIN. PROTECT DURING NEW

39. EXISTING PROPANE GAS LINE TO REMAIN. PROTECT DURING NEW CONSTRUCTION.40. EXISTING SEPTIC TANK TO REMAIN. FIELD VERIFY ADDITIVE ALTERNATE.

#2 PORTAL ADDITION DOES NOT INTERFERE WITH EXISTING SEPTIC TANK LOCATION. NOTIFY ARCHITECT OF ANY DISCREPANCIES.

41. EXISTING D-BOX TO REMAIN.42. EXISTING SEPTIC TANK TO REMAIN.

SEE SECTION C3/AS-501.

PARKING CALCULATIONS

OFFICE AREA (INCLUDES KITCHENETTE, TRAINING ROOM, EXERCISE ROOM AND OFFICE):

1 SPACE PER 200 SQUARE FEET OF NET LEASABLE AREA ON GROUND

REQUIRED STANDARD PARKING (832/200)= 4

WAREHOUSE AREA (TRUCK PARKING GARAGE):

1 SPACE PER 2,000 SQUARE FEET OF NET LEASABLE AREA.

REQUIRED STANDARD PARKING (2,187/2000)= 2

TOTAL REQUIRED STANDARD PARKING: 6
TOTAL PROVIDED STANDARD PARKING: 10 (7 EXISTING, 3 NEW)

TOTAL REQUIRED DESIGNATED ACCESSIBLE PARKING: 1

TOTAL REQUIRED DESIGNATED ACCESSIBLE PARKING: 1

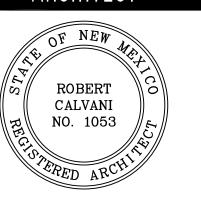


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ARCHITECT

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CONSULTANT

PROJECT TITLE

SANTA FE COUNTY MADRID FIRE STATION

MADRID NEW MEXICO

REVISIONS:

NEVISIONS.

MK DATE DESCRIPTION

DRAWN BY: CHECKED BY:

PROJECT NUMBER: A18.04

DATE: 11/01/2018

SHEET TITLE:

SITE PLAN

SHEET NO:

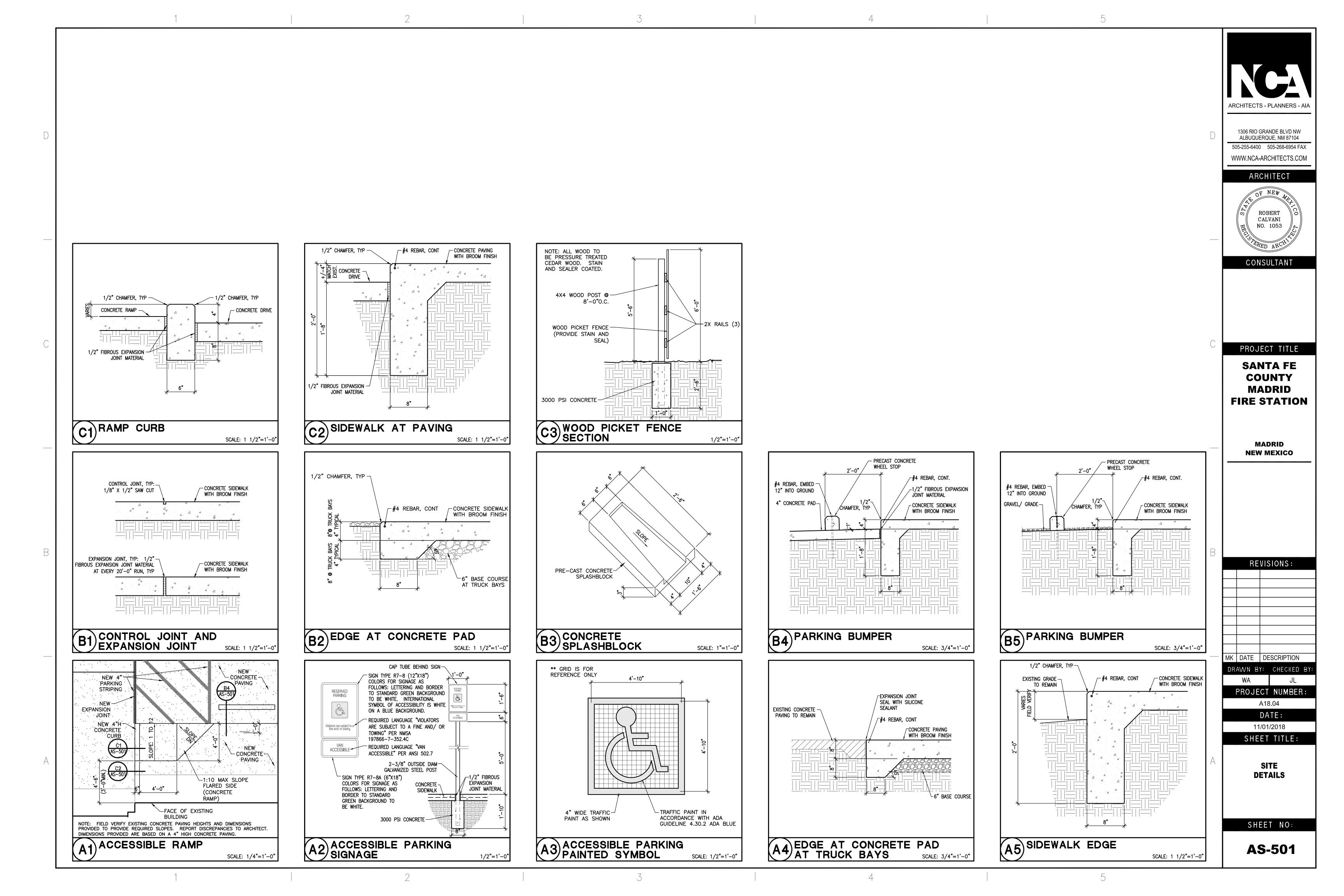
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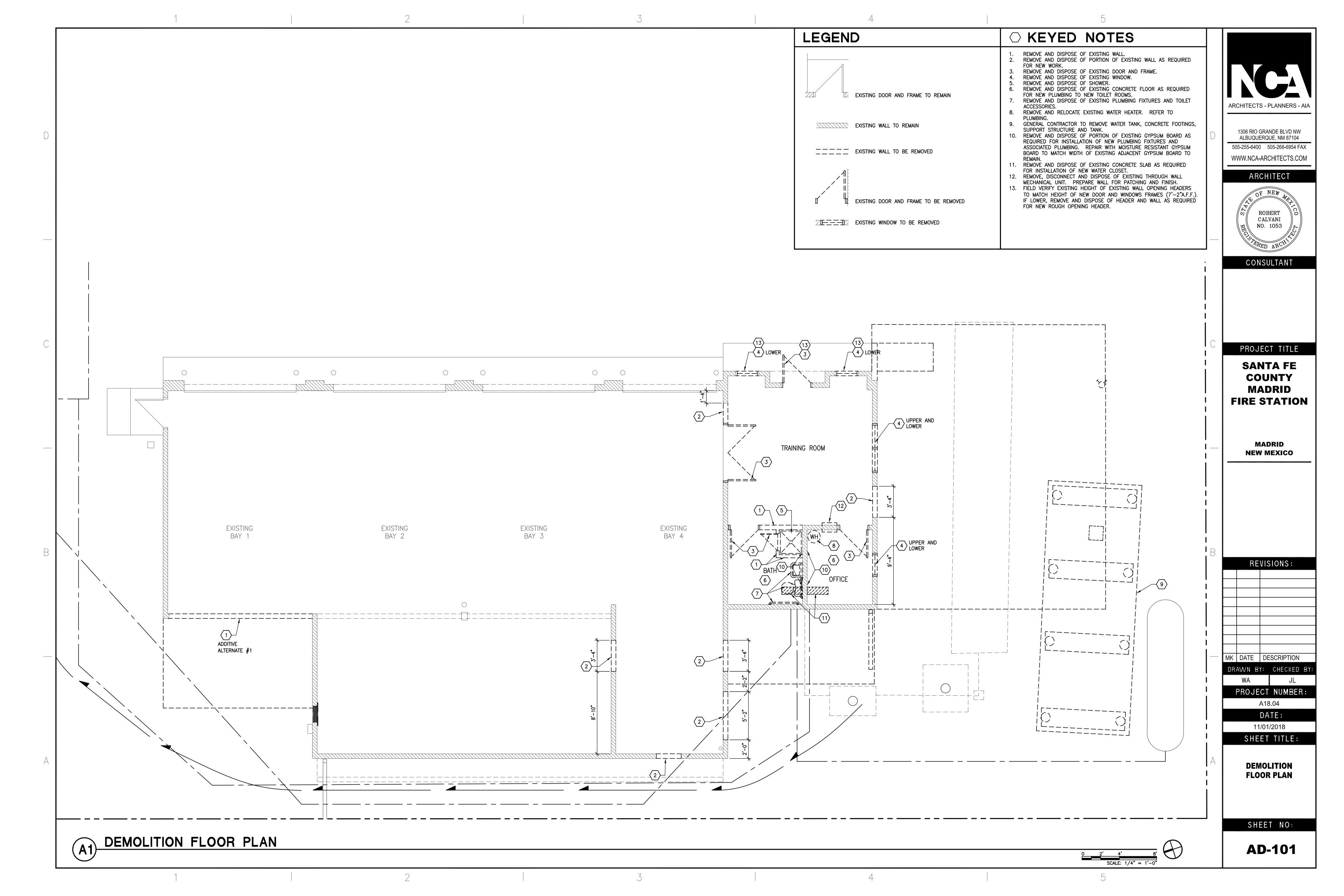
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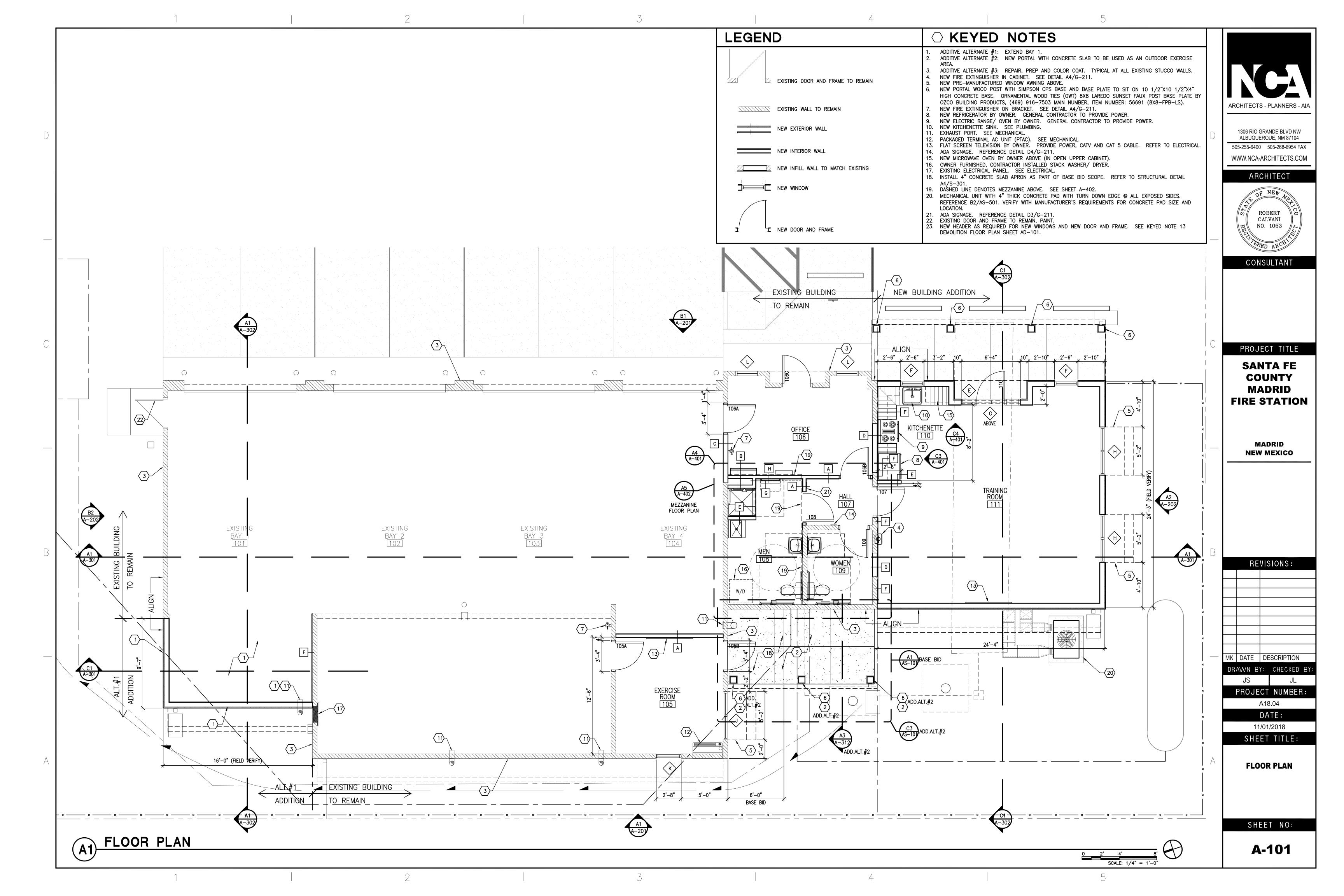
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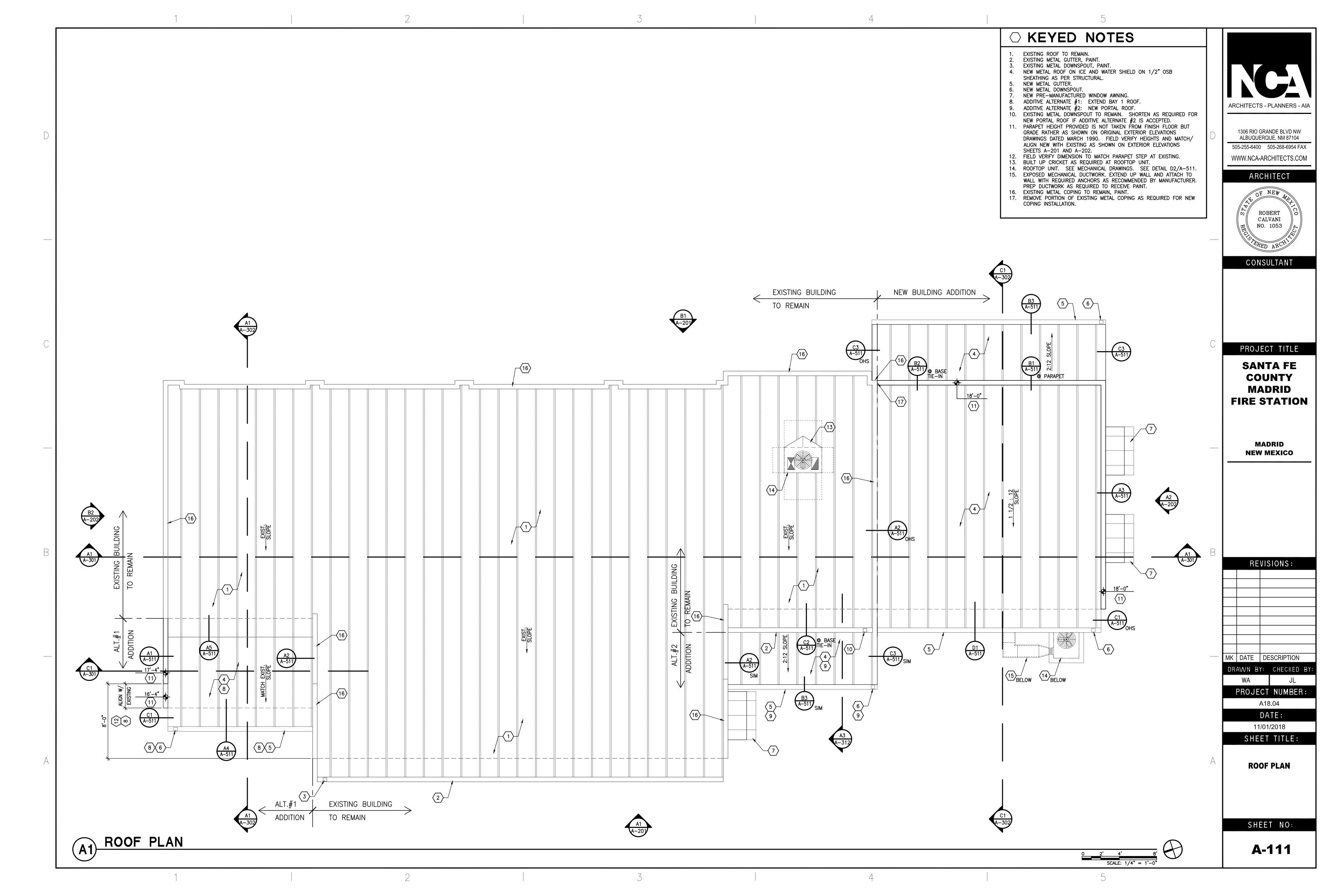
SITE PLAN

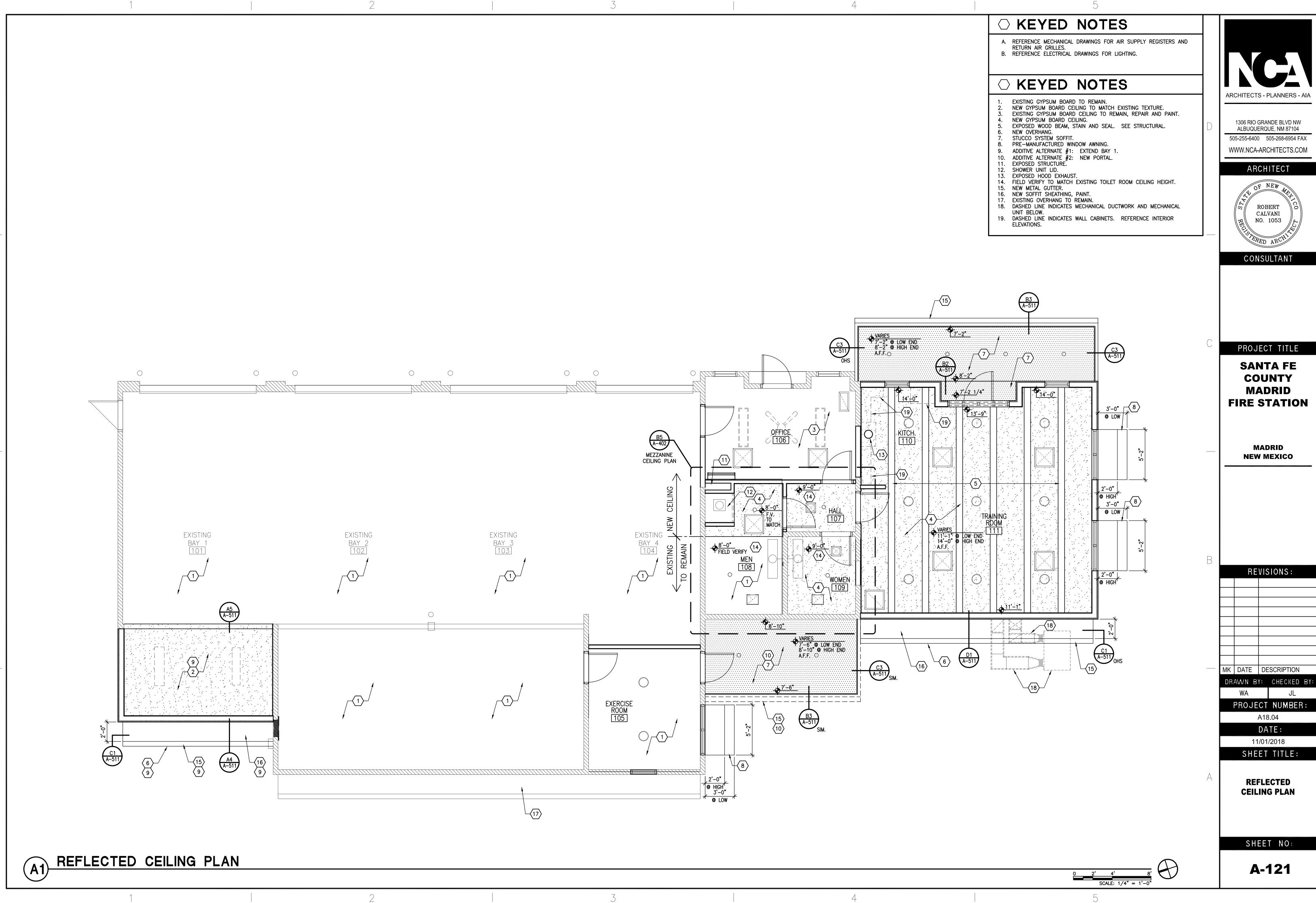
15'-0"

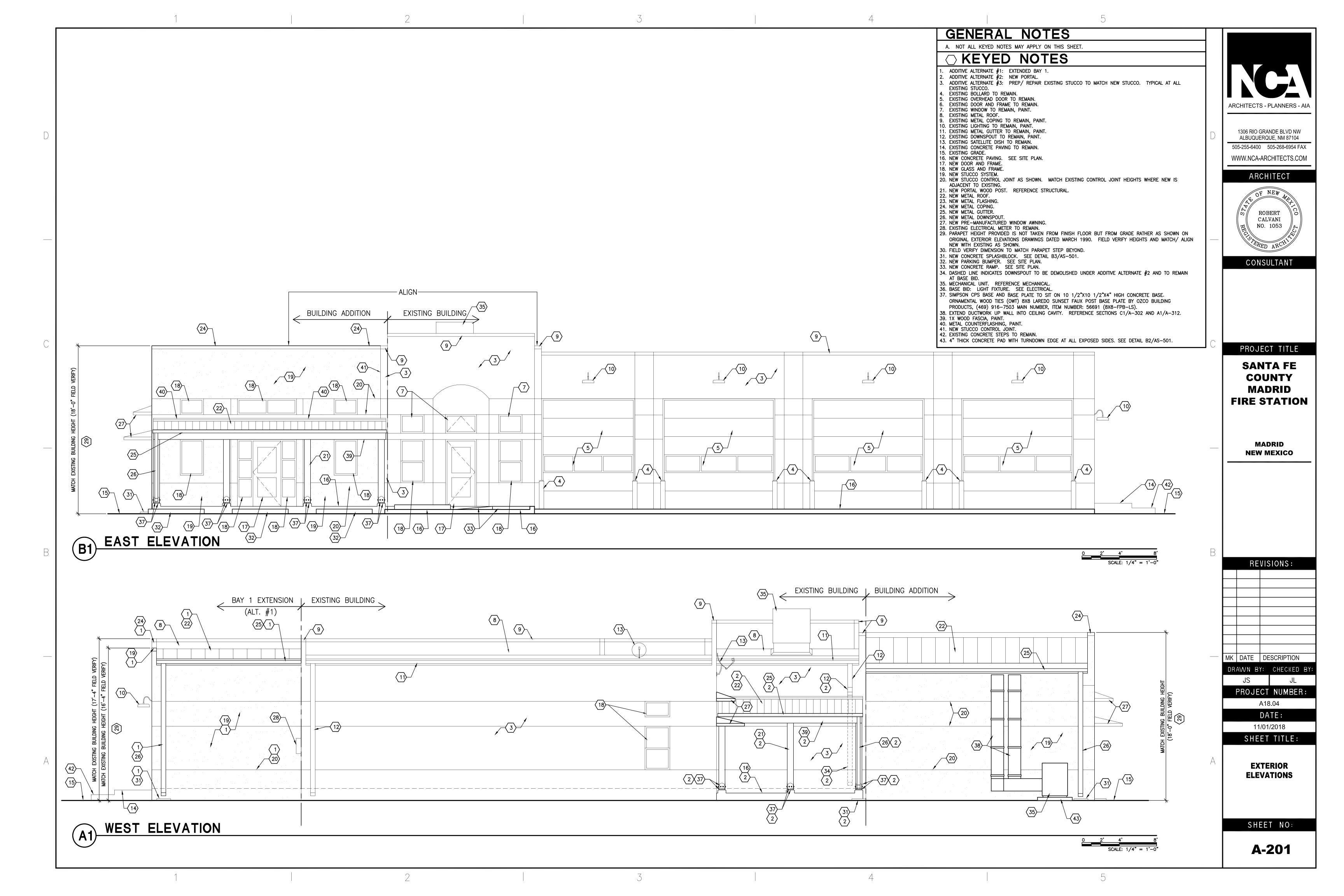


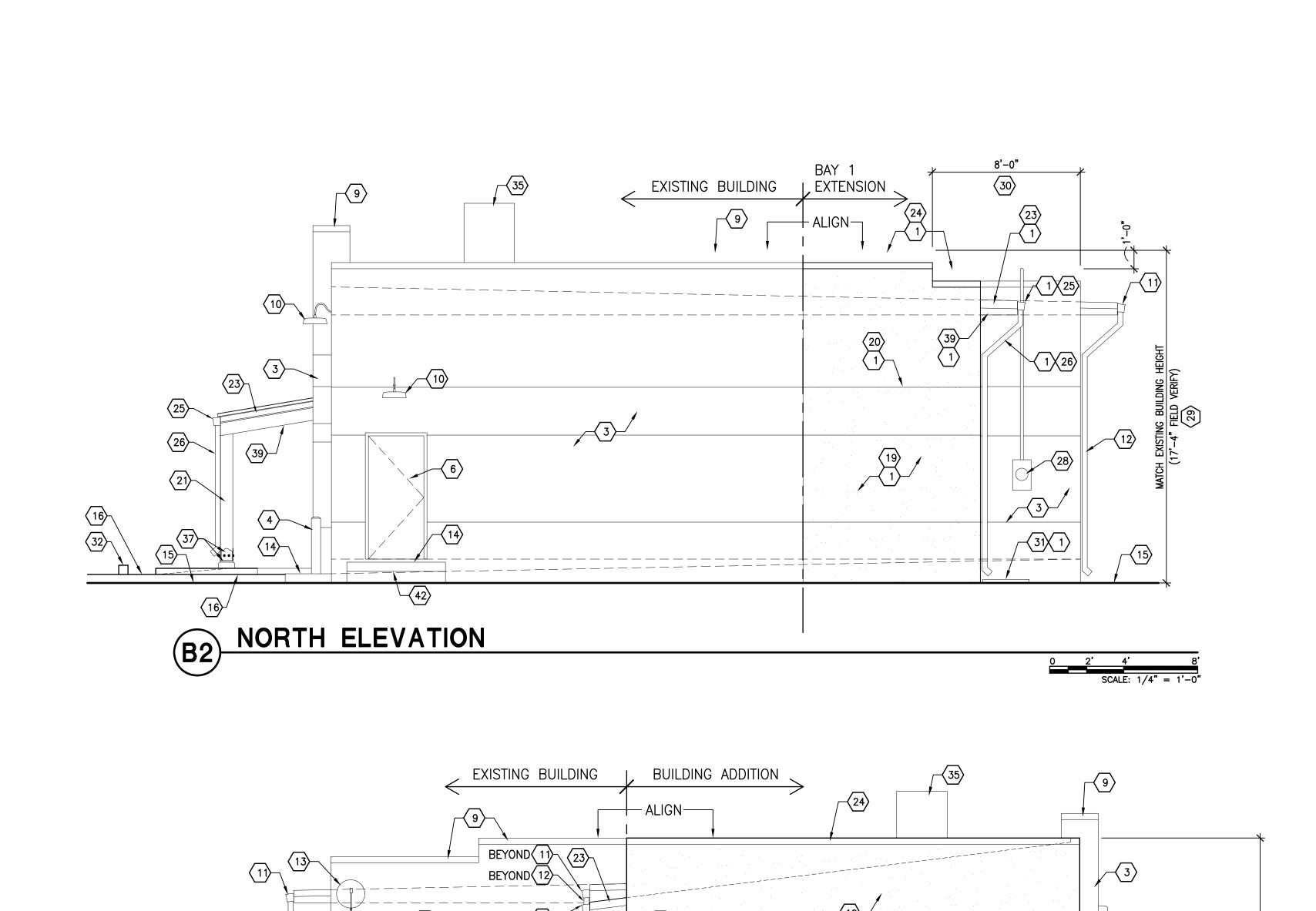












(18)

SOUTH ELEVATION

GENERAL NOTES

A. NOT ALL KEYED NOTES MAY APPLY ON THIS SHEET.

KEYED NOTES

ADDITIVE ALTERNATE #1: EXTENDED BAY 1. ADDITIVE ALTERNATE #2: NEW PORTAL. ADDITIVE ALTERNATE #3: PREP/ REPAIR EXISTING STUCCO TO MATCH NEW STUCCO. TYPICAL AT ALL

EXISTING STUCCO. EXISTING BOLLARD TO REMAIN.

EXISTING OVERHEAD DOOR TO REMAIN. EXISTING DOOR AND FRAME TO REMAIN. EXISTING WINDOW TO REMAIN, PAINT. . EXISTING METAL ROOF.

9. EXISTING METAL COPING TO REMAIN, PAINT. 10. EXISTING LIGHTING TO REMAIN, PAINT. 11. EXISTING METAL GUTTER TO REMAIN, PAINT. 12. EXISTING DOWNSPOUT TO REMAIN, PAINT. 13. EXISTING SATELLITE DISH TO REMAIN.

14. EXISTING CONCRETE PAVING TO REMAIN. 15. EXISTING GRADE. 16. NEW CONCRETE PAVING. SEE SITE PLAN.

17. NEW DOOR AND FRAME. 18. NEW GLASS AND FRAME.

19. NEW STUCCO SYSTEM.

20. NEW STUCCO CONTROL JOINT AS SHOWN. MATCH EXISTING CONTROL JOINT HEIGHTS WHERE NEW IS ADJACENT TO EXISTING.

21. NEW PORTAL WOOD POST. REFERENCE STRUCTURAL.

22. NEW METAL ROOF. 23. NEW METAL FLASHING. 24. NEW METAL COPING. 25. NEW METAL GUTTER.

26. NEW METAL DOWNSPOUT. 27. NEW PRE-MANUFACTURED WINDOW AWNING.

28. EXISTING ELECTRICAL METER TO REMAIN. 29. PARAPET HEIGHT PROVIDED IS NOT TAKEN FROM FINISH FLOOR BUT FROM GRADE RATHER AS SHOWN ON ORIGINAL EXTERIOR ELEVATIONS DRAWINGS DATED MARCH 1990. FIELD VERIFY HEIGHTS AND MATCH/ ALIGN

NEW WITH EXISTING AS SHOWN. 30. FIELD VERIFY DIMENSION TO MATCH PARAPET STEP BEYOND.

31. NEW CONCRETE SPLASHBLOCK. SEE DETAIL B3/AS-501. 32. NEW PARKING BUMPER. SEE SITE PLAN.

33. NEW CONCRETE RAMP. SEE SITE PLAN.

34. DASHED LINE INDICATES DOWNSPOUT TO BE DEMOLISHED UNDER ADDITIVE ALTERNATE #2 AND TO REMAIN AT BASE BID.

35. MECHANICAL UNIT. REFERENCE MECHANICAL. 36. BASE BID: LIGHT FIXTURE. SEE ELECTRICAL.

37. SIMPSON CPS BASE AND BASE PLATE TO SIT ON 10 1/2"X10 1/2"X4" HIGH CONCRETE BASE. ORNAMENTAL WOOD TIES (OWT) 8X8 LAREDO SUNSET FAUX POST BASE PLATE BY OZCO BUILDING

PRODUCTS, (469) 916-7503 MAIN NUMBER, ITEM NUMBER: 56691 (8X8-FPB-LS). 38. EXTEND DUCTWORK UP WALL INTO CEILING CAVITY. REFERENCE SECTIONS C1/A-302 AND A1/A-312.

39. 1X WOOD FASCIA, PAINT.

40. METAL COUNTERFLASHING, PAINT. 41. NEW STUCCO CONTROL JOINT.

42. EXISTING CONCRETE STEPS TO REMAIN.

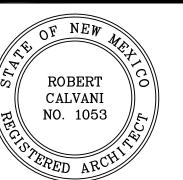
43. 4" THICK CONCRETE PAD WITH TURNDOWN EDGE AT ALL EXPOSED SIDES. SEE DETAIL B2/AS-501.

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CONSULTANT

PROJECT TITLE

SANTA FE COUNTY **MADRID FIRE STATION**

MADRID NEW MEXICO

REVISIONS:

MK DATE DESCRIPTION DRAWN BY: CHECKED B

PROJECT NUMBER: A18.04

> DATE: 11/01/2018

SHEET TITLE:

EXTERIOR ELEVATIONS

SHEET NO:

A-202

NEW R-38 BATT INSULATION. NEW METAL ROOF SYSTEM ON ICE AND WATER SHIELD ON 1/2" OSB SHEATHING AS PER STRUCTURAL. NEW CONCRETE DRIVE PAD FOR TRUCK BAYS. SEE SITE PLAN. $9\sqrt{2}$ 11. SITE PAVING OR GRADE. SEE SITE PLAN. 17'-4" 12. NEW LVL LINTEL, SEE STRUCTURAL. 13. REMOVE EXISTING WALL. PARAPET HEIGHT PROVIDED IS NOT TAKEN FROM FINISH FLOOR BUT GRADE RATHER AS SHOWN ON ORIGINAL EXTERIOR ELEVATIONS DRAWINGS DATED MARCH 1990. FIELD VERIFY HEIGHTS AND MATCH/ ALIGN NEW WITH EXISTING AS SHOWN ON EXTERIOR ELEVATIONS SHEETS A-201 AND $7\sqrt{2}$ $6\sqrt{2}$ $8\sqrt{2}$ EXPOSED WOOD BEAM. SEE STRUCTURAL. 16. 2X WOOD BEAM AND POST FRAMED CEILING SPACE CAVITY FOR MECHANICAL/ ELECTRICAL. SEE STRUCTURAL. MECHANICAL UNIT. REFERENCE MECHANICAL. 18. MECHANICAL DUCTWORK. REFERENCE MECHANICAL. 19. LIGHT FIXTURE. REFERENCE ELECTRICAL. 20. EXTEND DUCTWORK UP WALL AND INTO CEILING CAVITY. ANCHOR DUCTWORK TO WALL AS RECOMMENDED BY MANUFACTURER. PREP DUCTWORK AS REQUIRED TO RECEIVE PAINT. DUE TO DEMOLITION FOR PLUMBING WORK. REFERENCE DETAIL B2/AS-501. 23. 30# FELT JOINT. 24. THÏCKENED SLAB. SEE STRUCTURAL. 102 24 (C1) BUILDING SECTION - ADDITIVE ALTERNATE #1 1 EXISTING BAY 1 101 EXISTING BAY 2 102 EXISTING BAY 3 EXISTING BAY 4 (A1) BUILDING SECTION

GENERAL NOTES

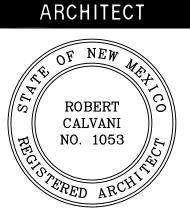
A. NOT ALL KEYED NOTES MAY APPLY ON THIS SHEET.

○ KEYED NOTES

- EXISTING BUILDING TO REMAIN.
 - ADDITIVE ALTERNATE #1: EXTENDED BAY 1.
 - ADDITIVE ALTERNATE #2: NEW PORTAL. NEW CONCRETE SLAB OVER COMPACTED SUBGRADE. SEE STRUCTURAL.
- NEW INTERIOR WALL. SEE SHEETS A-101 AND A-601. NEW CEILING AS SCHEDULED.
- NEW FRAMING. SEE STRUCTURAL.
- 21. EXISTING INTERIOR WALL TO REMAIN. PATCH AND REPAIR GYPSUM BOARD
- 22. 4" THICK CONCRETE PAD WITH TURN DOWN EDGE AT ALL EXPOSED SIDES.

- ARCHITECTS PLANNERS AIA
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PROJECT TITLE

SANTA FE COUNTY **MADRID FIRE STATION**

MADRID NEW MEXICO

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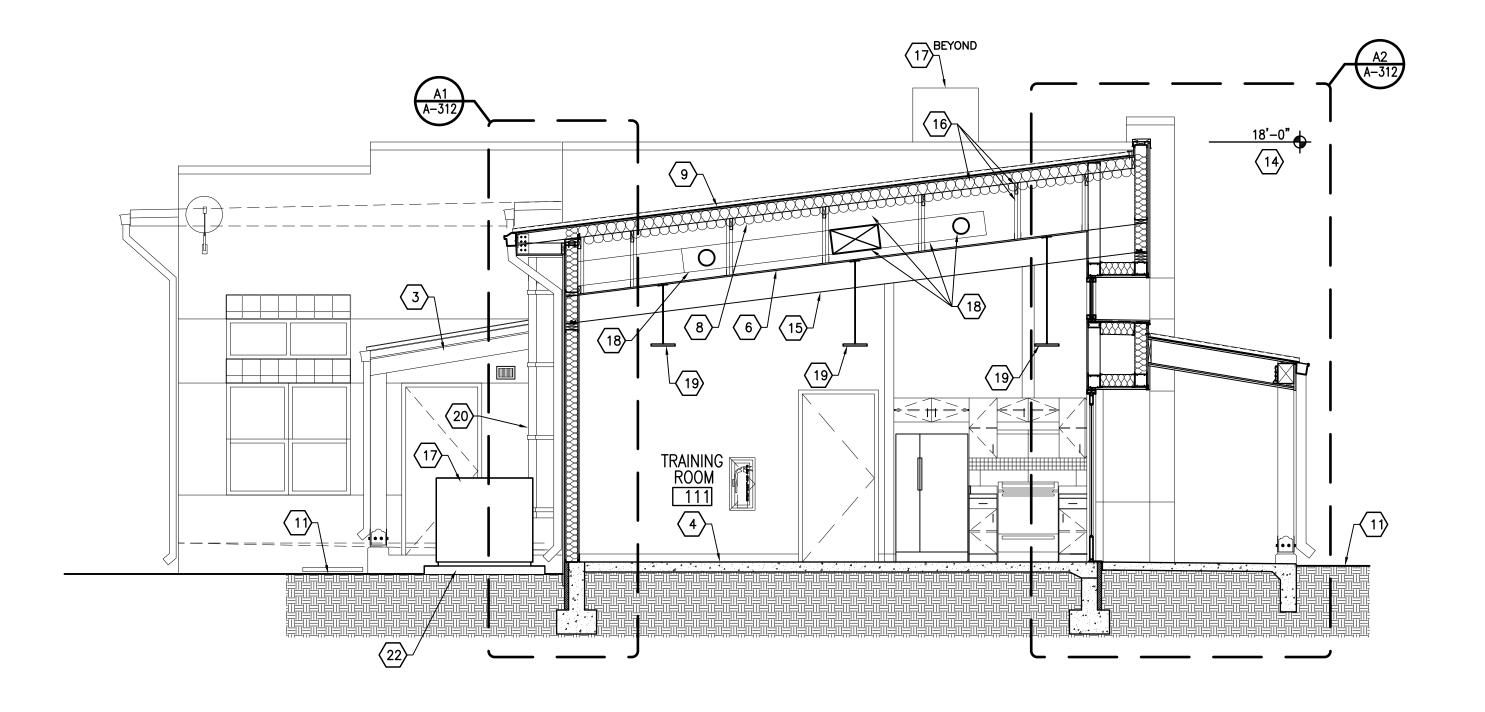
> > DATE: 11/01/2018

SHEET TITLE:

BUILDING SECTIONS

SHEET NO:

A-301



GENERAL NOTES

A. NOT ALL KEYED NOTES MAY APPLY ON THIS SHEET.

○ KEYED NOTES

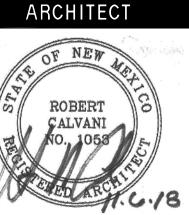
- EXISTING BUILDING TO REMAIN.
 - ADDITIVE ALTERNATE #1: EXTENDED BAY 1.
- ADDITIVE ALTERNATE #2: NEW PORTAL. NEW CONCRETE SLAB OVER COMPACTED SUBGRADE. SEE STRUCTURAL.
- NEW INTERIOR WALL. SEE SHEETS A-101 AND A-601. NEW CEILING AS SCHEDULED.
- NEW FRAMING. SEE STRUCTURAL. NEW R-38 BATT INSULATION.
- NEW METAL ROOF SYSTEM ON ICE AND WATER SHIELD ON 1/2" OSB
- SHEATHING AS PER STRUCTURAL.
- NEW CONCRETE DRIVE PAD FOR TRUCK BAYS. SEE SITE PLAN.
- 11. SITE PAVING OR GRADE. SEE SITE PLAN. 12. NEW LVL LINTEL, SEE STRUCTURAL.
- 13. REMOVE EXISTING WALL. 14. PARAPET HEIGHT PROVIDED IS NOT TAKEN FROM FINISH FLOOR BUT GRADE RATHER AS SHOWN ON ORIGINAL EXTERIOR ELEVATIONS DRAWINGS DATED MARCH 1990. FIELD VERIFY HEIGHTS AND MATCH/ ALIGN NEW WITH EXISTING AS SHOWN ON EXTERIOR ELEVATIONS SHEETS A-201 AND
- EXPOSED WOOD BEAM. SEE STRUCTURAL.
- 16. 2X WOOD BEAM AND POST FRAMED CEILING SPACE CAVITY FOR
- MECHANICAL/ ELECTRICAL. SEE STRUCTURAL. MECHANICAL UNIT. REFERENCE MECHANICAL.
- MECHANICAL DUCTWORK. REFERENCE MECHANICAL.
- 19. LIGHT FIXTURE. REFERENCE ELECTRICAL. 20. EXTEND DUCTWORK UP WALL AND INTO CEILING CAVITY. ANCHOR DUCTWORK TO WALL AS RECOMMENDED BY MANUFACTURER. PREP
- DUCTWORK AS REQUIRED TO RECEIVE PAINT. 21. EXISTING INTERIOR WALL TO REMAIN. PATCH AND REPAIR GYPSUM BOARD
- DUE TO DEMOLITION FOR PLUMBING WORK.
- 22. 4" THICK CONCRETE PAD WITH TURN DOWN EDGE AT ALL EXPOSED SIDES. REFERENCE DETAIL B2/AS-501.
- 23. 30# FELT JOINT.
- 24. THÏCKENED SLAB. SEE STRUCTURAL.



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CONSULTANT

PROJECT TITLE

SANTA FE COUNTY **MADRID FIRE STATION**

MADRID NEW MEXICO

REVISIONS:

MK DATE DESCRIPTION

DRAWN BY: CHECKED B

PROJECT NUMBER A18.04

DATE:

SHEET TITLE:

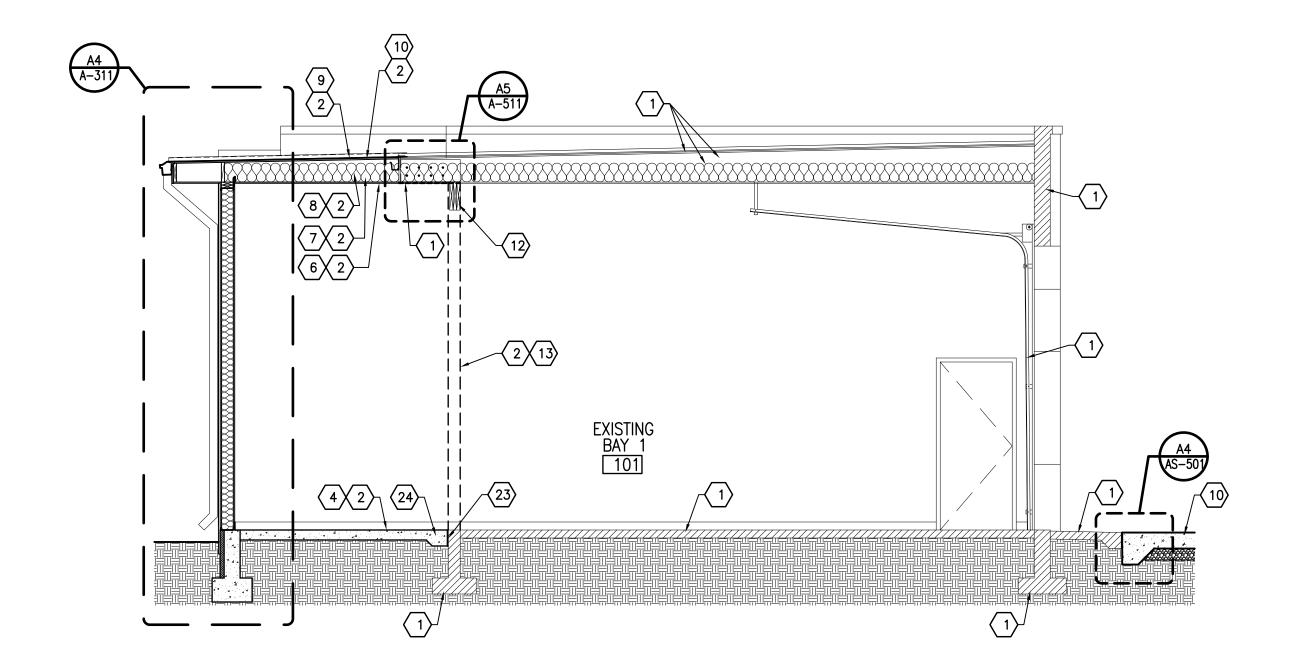
BUILDING SECTIONS

SHEET NO:

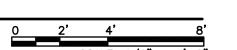
A-302

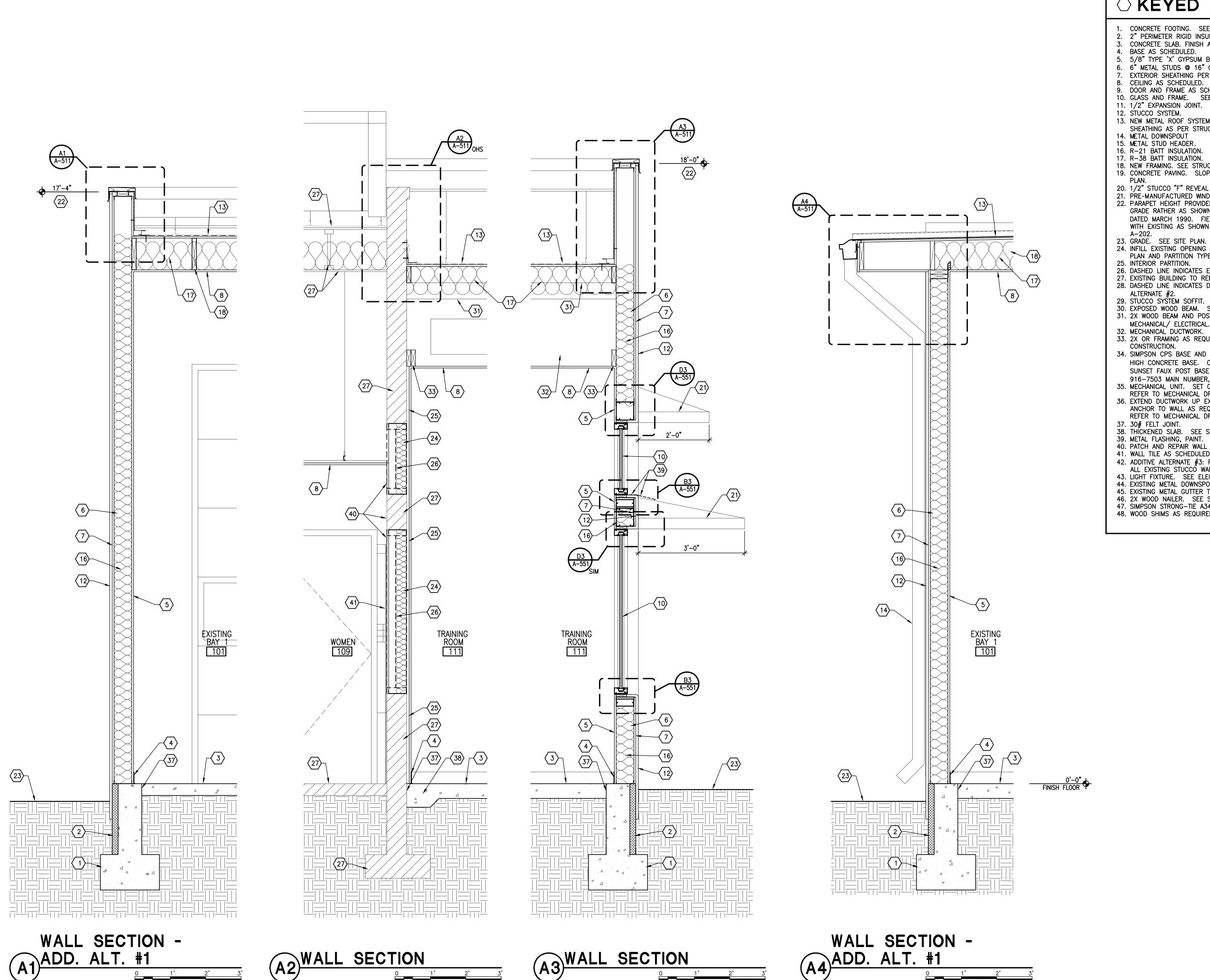
(C1) BUILDING SECTION





(A1) BUILDING SECTION - ADDITIVE ALTERNATE #1





GENERAL NOTES

A. NOT ALL KEYED NOTES MAY APPLY ON THIS SHEET.
B. REFERENCE STRUCTURAL DRAWINGS FOR JOIST BEARING HEIGHTS.

C. REFERENCE ROOF PLAN SHEET A-111 FOR ROOF SLOPE.

○ KEYED NOTES

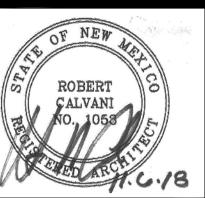
- 1. CONCRETE FOOTING. SEE STRUCTURAL.
- 2. 2" PERIMETER RIGID INSULATION. 3. CONCRETE SLAB. FINISH AS SCHEDULED. SEE STRUCTURAL.
- 5. 5/8" TYPE 'X' GYPSUM BOARD (FINISH AS SCHEDULED).
- 6. 6" METAL STUDS @ 16" O.C. 7. EXTERIOR SHEATHING PER STRUCTURAL.
- 8. CEILING AS SCHEDULED. 9. DOOR AND FRAME AS SCHEDULED. SEE DOOR DETAILS SHEETS.
- 10. GLASS AND FRAME. SEE WINDOW DETAILS SHEETS.
- 11. 1/2" EXPANSION JOINT.
- 13. NEW METAL ROOF SYSTEM ON ICE AND WATER SHIELD ON 1/2" OSB SHEATHING AS PER STRUCTURAL.
- 15. METAL STUD HEADER. 16. R-21 BATT INSULATION.
- 17. R-38 BATT INSULATION.
- 18. NEW FRAMING. SEE STRUCTURAL.
- 19. CONCRETE PAVING. SLOPE AWAY FROM BUILDING. REFERENCE SITE
- 20. 1/2" STUCCO "F" REVEAL MOLDING BY FRY REGLET.
- 21. PRE-MANUFACTURED WINDOW AWNING.
- 22. PARAPET HEIGHT PROVIDED IS NOT TAKEN FROM FINISH FLOOR BUT GRADE RATHER AS SHOWN ON ORIGINAL EXTERIOR ELEVATIONS DRAWINGS DATED MARCH 1990. FIELD VERIFY HEIGHTS AND MATCH/ ALIGN NEW WITH EXISTING AS SHOWN ON EXTERIOR ELEVATIONS SHEETS A-201 AND
- 24. INFILL EXISTING OPENING AS PER PARTITION TYPE INDICATED ON FLOOR PLAN AND PARTITION TYPE SHEET A-601.
- 25. INTERIOR PARTITION.
- 26. DASHED LINE INDICATES EXISTING WINDOW TO BE DEMOLISHED. 27. EXISTING BUILDING TO REMAIN.
- 28. DASHED LINE INDICATES DOWNSPOUT TO BE DEMOLISHED UNDER ADDITIVE ALTERNATE #2.
- 29. STUCCO SYSTEM SOFFIT.
- 30. EXPOSED WOOD BEAM. SEE STRUCTURAL.
- 31. 2X WOOD BEAM AND POST FRAMED CEILING SPACE CAVITY FOR
- MECHANICAL/ ELECTRICAL. SEE STRUCTURAL. 32. MECHANICAL DUCTWORK. REFERENCE MECHANICAL.
- 33. 2X OR FRAMING AS REQUIRED FOR GYPSUM BOARD CEILING CONSTRUCTION.
- 34. SIMPSON CPS BASE AND BASE PLATE TO SIT ON 10 1/2"X10 1/2"X4" HIGH CONCRETE BASE. ORNAMENTAL WOOD TIES (OWT) 8X8 LAREDO SUNSET FAUX POST BASE PLATE BY OZCO BUILDING PRODUCTS, (469) 916-7503 MAIN NUMBER, ITEM NUMBER: 56691 (8X8-FPB-LS).
- 35. MECHANICAL UNIT. SET ON CONCRETE PAD AND ANCHOR AS REQUIRED. REFER TO MECHANICAL DRAWINGS.
- 36. EXTEND DUCTWORK UP EXTERIOR WALL AND INTO CEILING CAVITY. ANCHOR TO WALL AS REQUIRED RECOMMENDED BY MANUFACTURER. REFER TO MECHANICAL DRAWINGS.
- 38. THÏCKENED SLAB. SEE STRUCTURAL.
- 39. METAL FLASHING, PAINT.
- 40. PATCH AND REPAIR WALL DUE TO DEMOLITION AS REQUIRED. 41. WALL TILE AS SCHEDULED.
- 42. ADDITIVE ALTERNATE #3: REPAIR, PREP AND COLOR COAT. TYPICAL AT ALL EXISTING STUCCÖ WALLS.
- 43. LIGHT FIXTURE. SEE ELECTRICAL. 44. EXISTING METAL DOWNSPOUT TO REMAIN. PAINT.
- 45. EXISTING METAL DOWNSFOOT TO REMAIN, PAINT 45. EXISTING METAL GUTTER TO REMAIN, PAINT. 46. 2X WOOD NAILER. SEE STRUCTURAL. 47. SIMPSON STRONG—TIE A34. SEE STRUCTURAL. 48. WOOD SHIMS AS REQUIRED.

ARCHITECTS - PLANNERS - AIA

1306 RIO GRANDE BLVD NW ALBUQUERQUE, NM 87104 505-255-6400 505-268-6954 FAX

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ARCHITECT



CONSULTANT

PROJECT TITLE

SANTA FE COUNTY **MADRID FIRE STATION**

> **MADRID NEW MEXICO**

REVISIONS:

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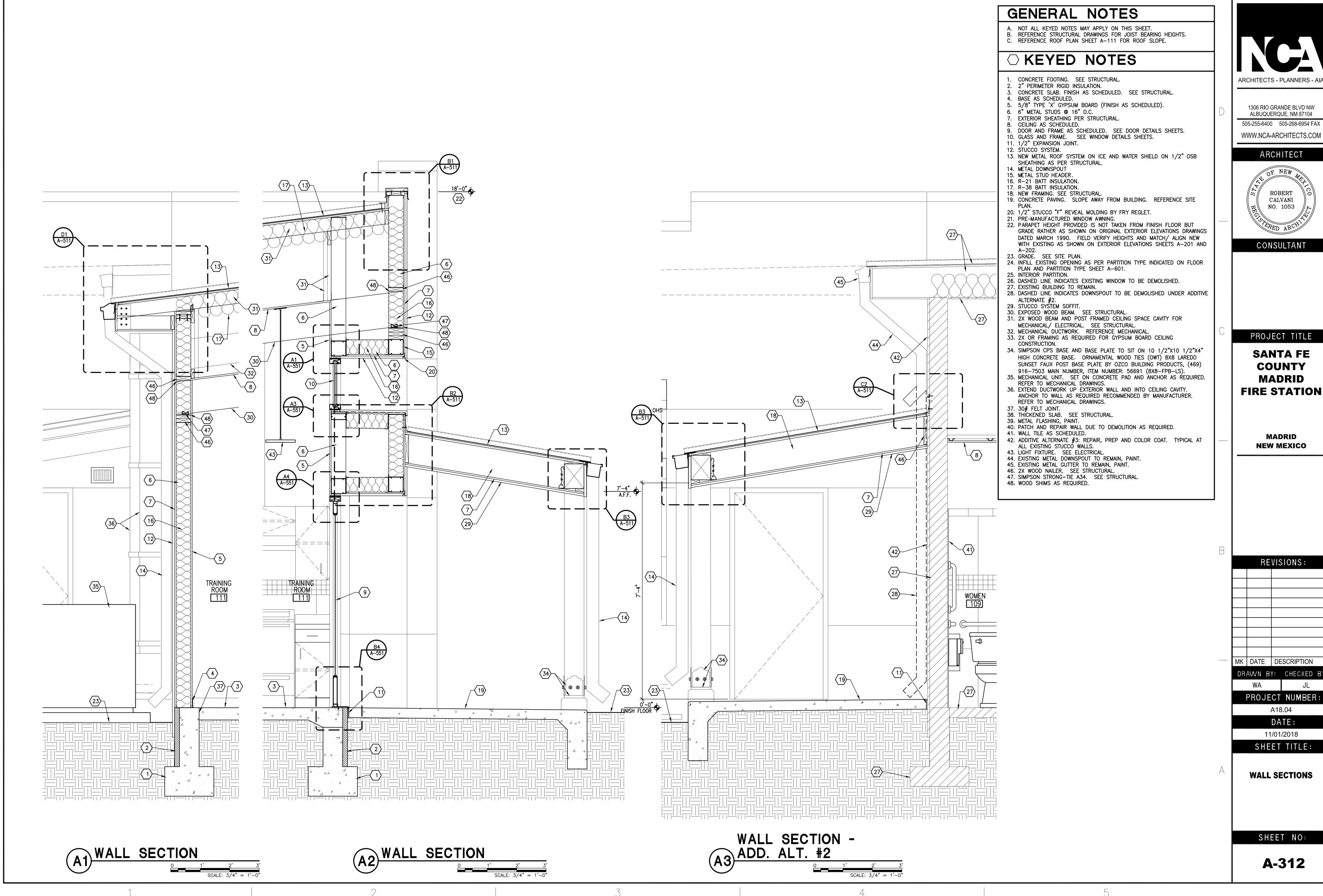
A18.04 DATE:

11/01/2018 SHEET TITLE:

WALL SECTIONS

SHEET NO:

A-311



ARCHITECTS - PLANNERS - AIA

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CONSULTANT

COUNTY **MADRID FIRE STATION**

MADRID NEW MEXICO

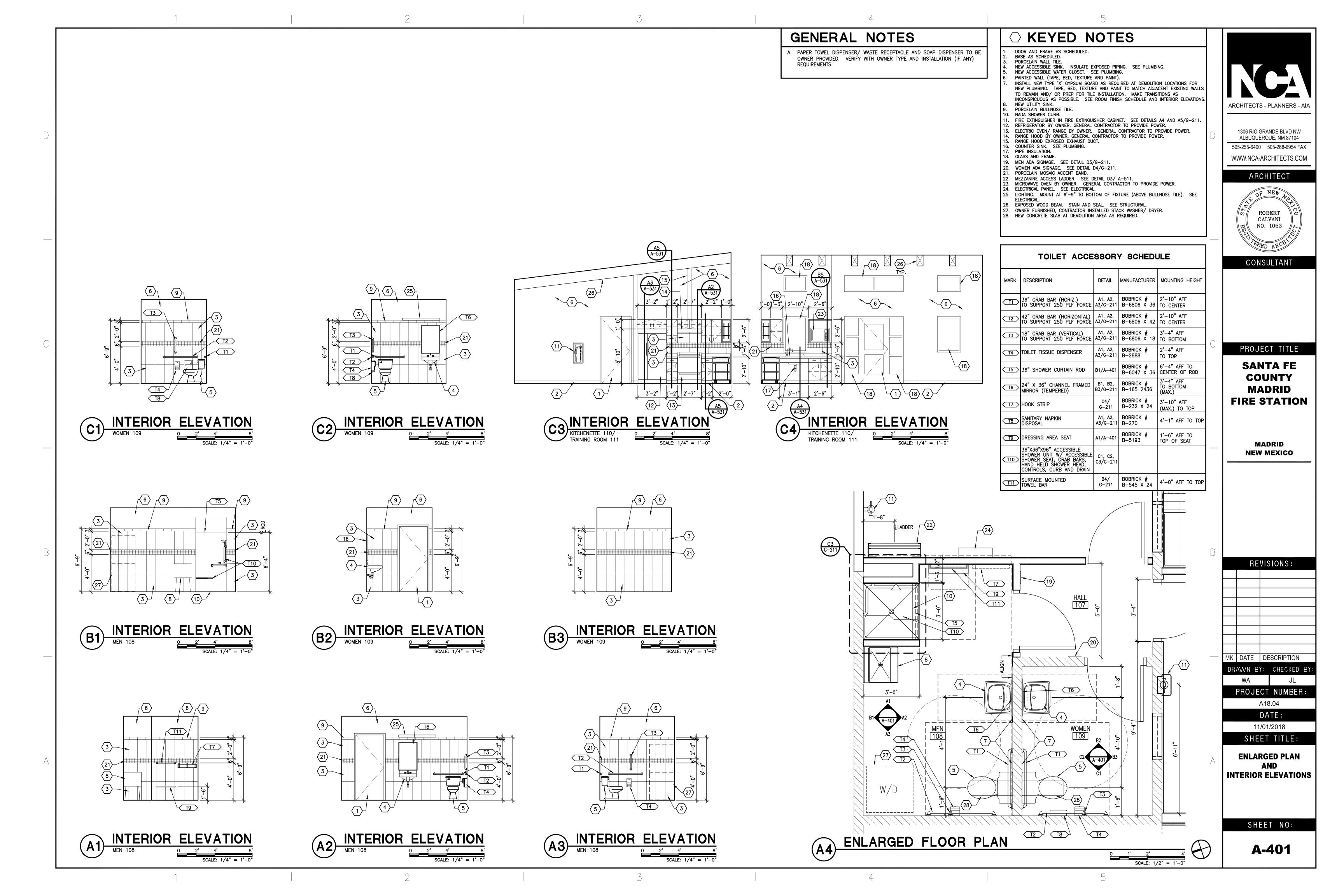
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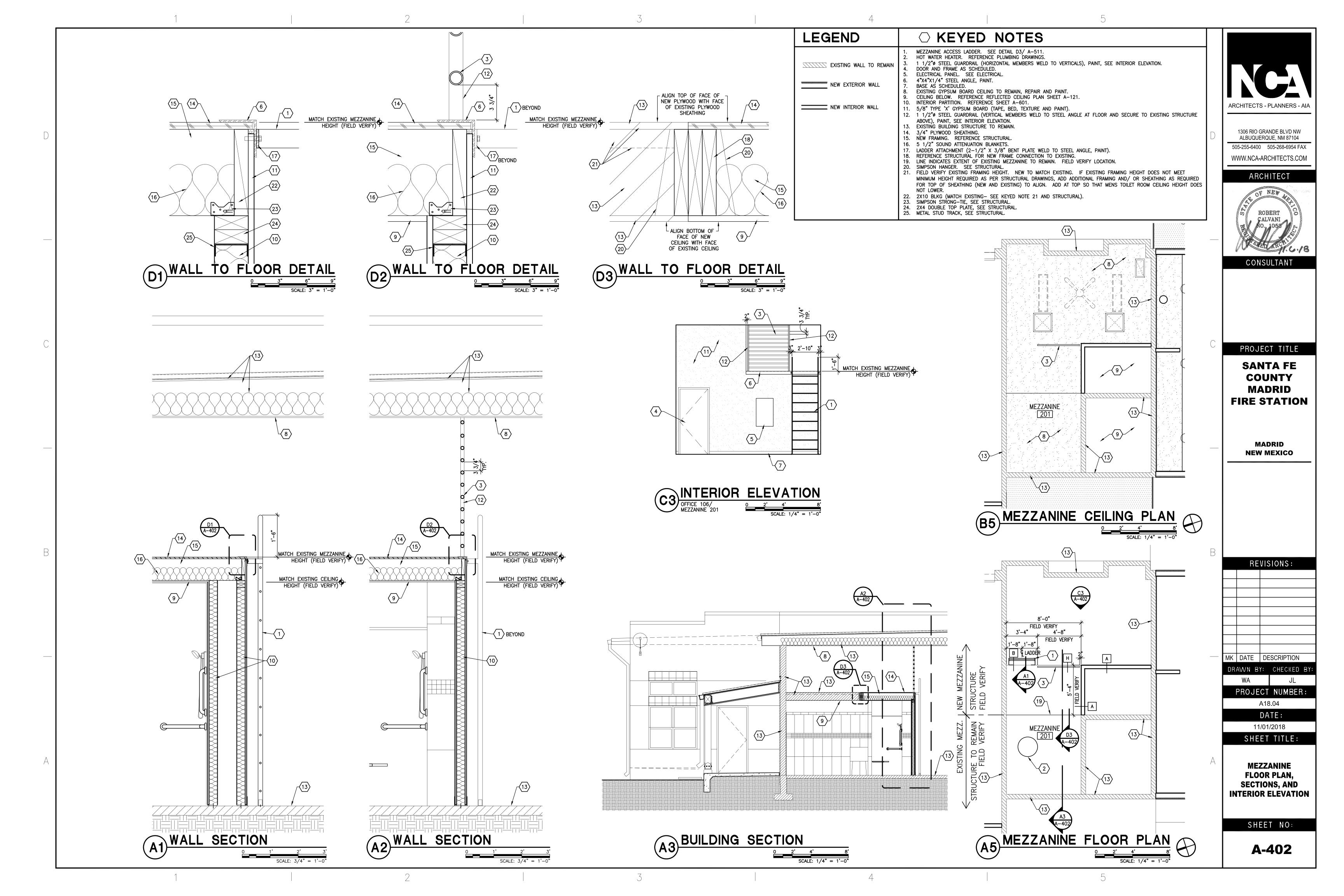
A18.04

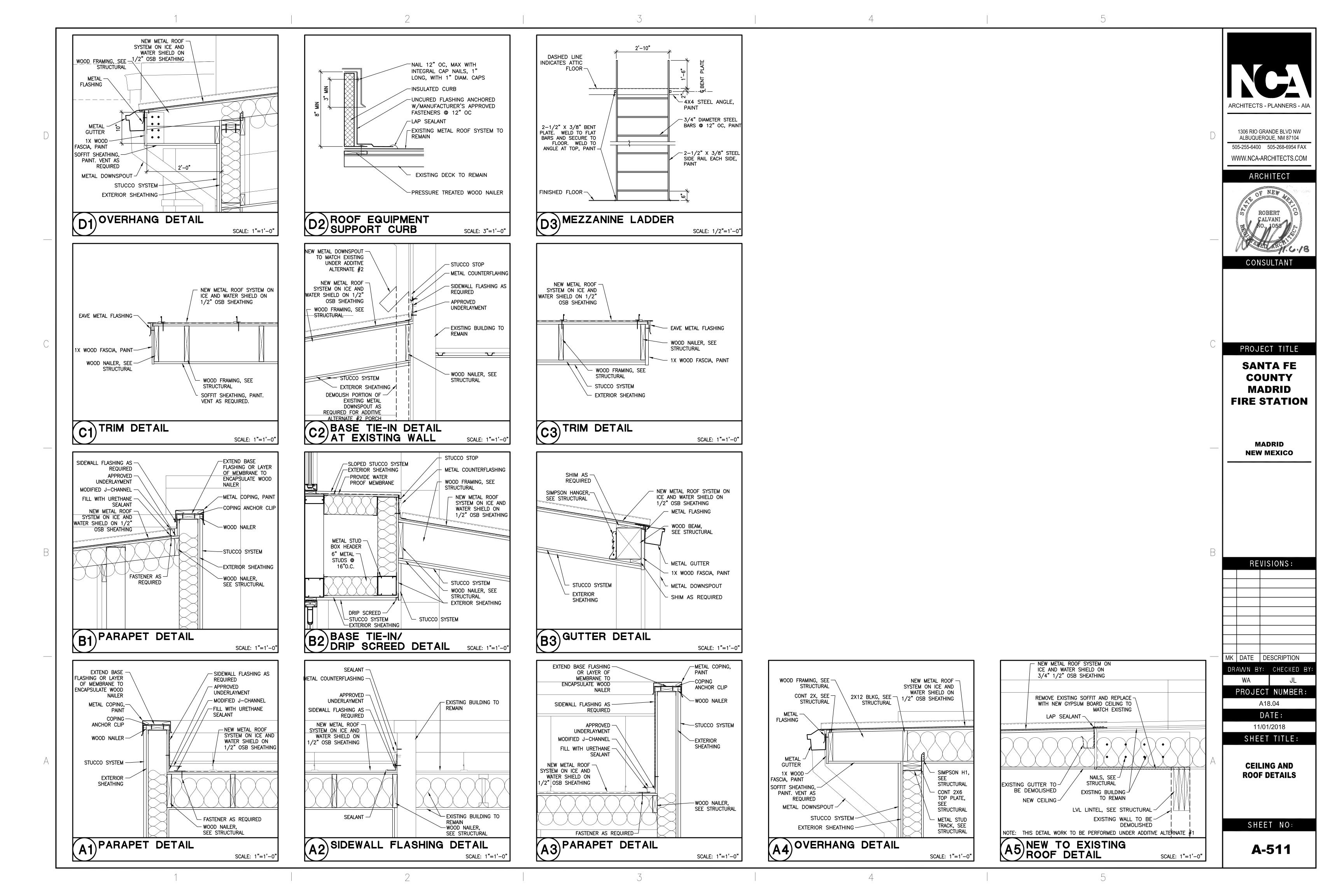
11/01/2018

SHEET TITLE:

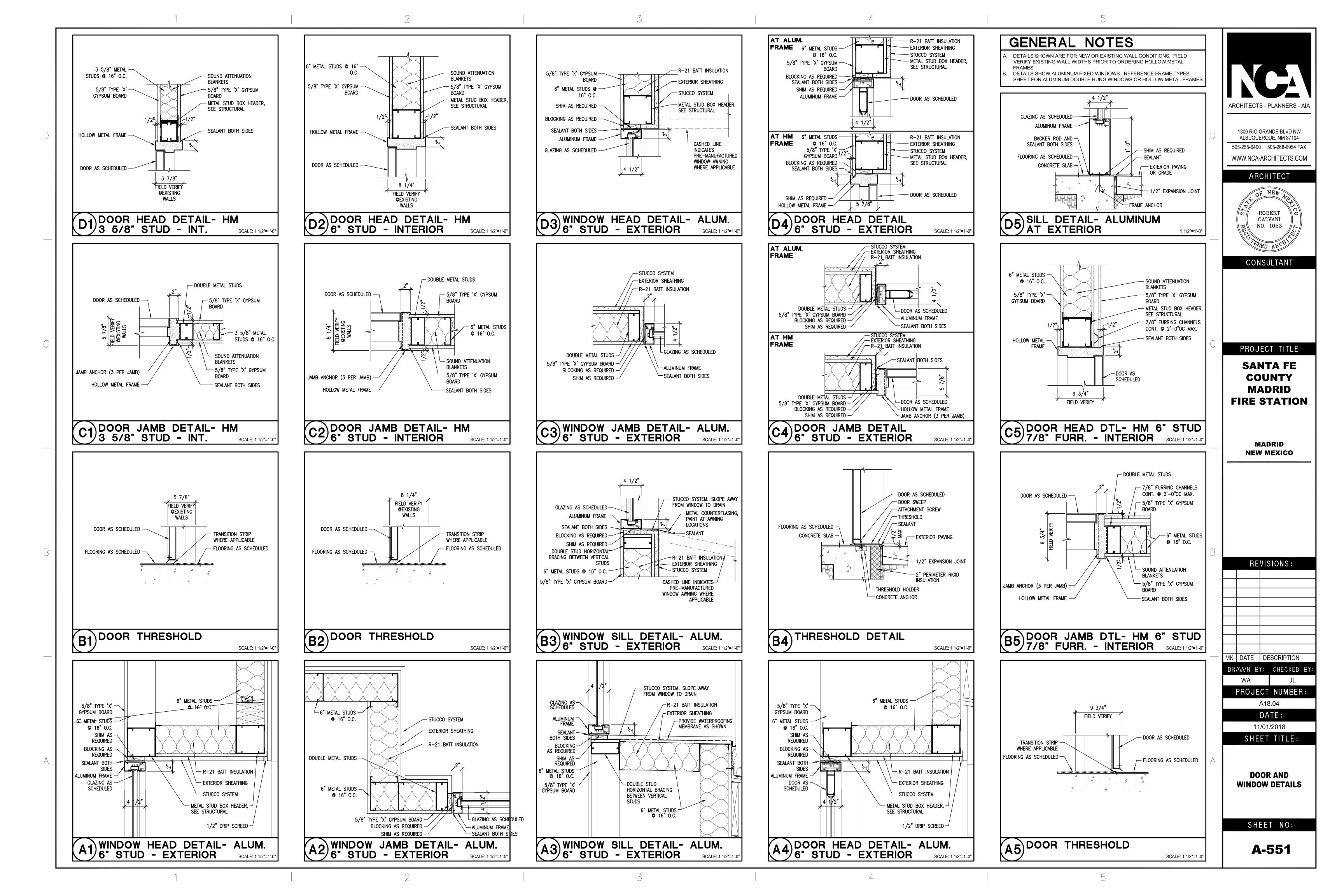
WALL SECTIONS

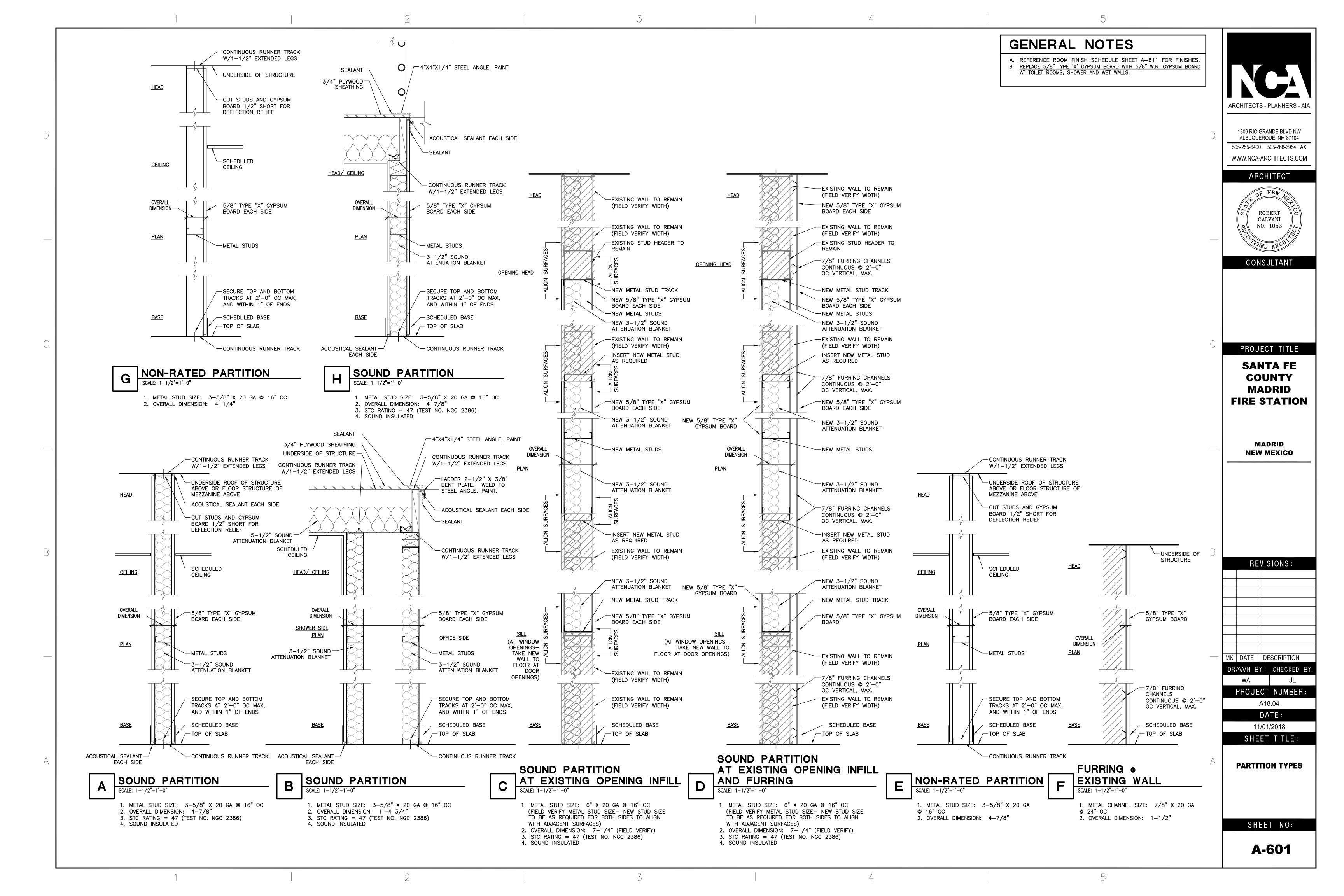






ARCHITECTS - PLANNERS - AIA 1306 RIO GRANDE BLVD NW ALBUQUERQUE, NM 87104 505-255-6400 505-268-6954 FAX WWW.NCA-ARCHITECTS.COM ARCHITECT ROBERT CALVANI NO. 1053 CONSULTANT 3/4" CABINET FRONT WITH— PLASTIC LAMINATE FINISH 3/4" CABINET BACK PROJECT TITLE WALL CABINET SANTA FE COUNTY HARDWOOD WEB FRAME √3/4" SOLID SURFACE **MADRID** COUNTERTOP A-531 \sim SEALANT **FIRE STATION** √ 3/4" SOLID SURFACE BACKSPLASH HARDWOOD WEB FRAME -3/4" CABINET BACK **MADRID** -3/4" ADJUSTIBLE SHELF BASE CABINET **NEW MEXICO** SHELF STANDARD 3/4" CABINET FRONT WITH—
PLASTIC LAMINATE FINISH BASE AS SCHEDULED-(B5) CASEWORK SECTION SCALE: 3/4"=1'-0" **REVISIONS:** -3/4" CABINET BACK - 3/4" CABINET BACK -3/4" CABINET BACK WALL CABINET WALL CABINET 3/4" Cabinet — Front With Plastic Laminate Finish - HARDWOOD WEB FRAME - HARDWOOD WEB FRAME 3/4" CABINET — FRONT WITH PLASTIC LAMINATE FINISH 3/4" CABINET — FRONT WITH PLASTIC >-- 3/4" ADJUSTIBLE SHELF 1'-0" MK DATE DESCRIPTION LAMINATE FINISH WALL CABINET DRAWN BY: CHECKED BY 1'-0" SHELF STANDARD range hood — ✓ SOLID SURFACE NOSING PROJECT NUMBER: HARDWOOD WEB FRAME 2'-0" ~ 3/4" SOLID SURFACE COUNTERTOP 3/4" SOLID SURFACE COUNTERTOP A1 A-531 /-- 3/4" SOLID SURFACE A18.04 A-531 — SEALANT ∼ SEALANT DATE: -3/4" SOLID SURFACE √ 3/4" SOLID SURFACE BACKSPLASH BACKSPLASH 11/01/2018 SHEET TITLE: HARDWOOD WEB FRAME - HARDWOOD WEB FRAME -3/4" CABINET BACK — SINK. INSULATE EXPOSED PIPING ~3/4" ADJUSTIBLE SHELF **CASEWORK** BASE CABINET PLASTIC LAMINATE ON ¾"
PARTICLE BOARD ON
VISIBLE SURFACES **DETAILS** BASE CABINET -SHELF STANDARD BEYOND —BASE AS SCHEDULED — BASE AS SCHEDULED — BASE AS SCHEDULED - HARDWOOD WEB FRAME LAMINATE 3/4" CABINET FRONT WITH—
PLASTIC LAMINATE FINISH ─ 3/4" SUBSTRATE SHEET NO: BASE AS SCHEDULED-A1 NOSING DETAIL A2 CASEWORK SECTION AT OVEN/ RANGE (A5) CASEWORK SECTION A3 CASEWORK SECTION AT REFRIGERATOR A4 CASEWORK SECTION AT SINK **A-531** SCALE: 6"=1'-0" SCALE: 3/4"=1'-0" SCALE: 3/4"=1'-0" SCALE: 3/4"=1'-0" SCALE: 3/4"=1'-0"





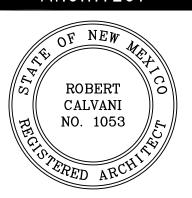
GENERAL NOTES

A. REFERENCE CEILING PLANS FOR CEILING HEIGHTS. B. MATCH EXISTING WALL AND CEILING TEXTURES AT NEW ADJACENT TO EXISTING TO REMAIN.



1306 RIO GRANDE BLVD NW ALBUQUERQUE, NM 87104 505-255-6400 505-268-6954 FAX WWW.NCA-ARCHITECTS.COM

ARCHITECT



CONSULTANT

PROJECT TITLE

SANTA FE COUNTY **MADRID FIRE STATION**

> **MADRID NEW MEXICO**

REVISIONS:

MK DATE DESCRIPTION DRAWN BY: CHECKED BY:

> PROJECT NUMBER: A18.04

> > DATE: 11/01/2018

SHEET TITLE:

ROOM FINISH SCHEDULE

SHEET NO:

A-611

			R	ООМ	FIN	IISH S	SCHE	EDUL	
RM.						/ALLS			
RM. NO	ROOM NAME	FLOOR	BASE	N	Е	S	W	CLG	REMARKS
101	EXISTING BAY 1	F1	B1/*B3	W1/*W3	W1	*W3	*W3	C1/*C2	*MATCH NEW WALL, BASE AND CEILIING @ ALTERNATE #1 EXTENSION TO EXISTING WALL, BASE AND CEILING TO REMAIN.
102	EXISTING BAY 2	F1	B1	W1	W1	_	W1	C1	
103	EXISTING BAY 3	F1	B1	_	W1	W1	W1	C1	
104	EXISTING BAY 4	F1	B1/*B3	W1	W1	W1/*W3	*W3	C1	*MATCH NEW WALL, BASE AND CEILING TO EXISTING WALL, BASE AND CEILING TO REMAIN.
105	EXERCISE ROOM	F1	B1/*B3	W1	W3	W1	W1	C1	
106	OFFICE	F3	В3	W1/*W3	W1	W1/*W3	W3	C1	*MATCH NEW WALL, BASE AND CEILING TO EXISTING WALL, BASE AND CEILING TO REMAIN.
107	HALL	F2	В3	W3	W3	W1	W1	C2	*MATCH NEW WALL, BASE AND CEILING TO EXISTING WALL, BASE AND CEILING TO REMAIN.
108	MEN	F2	B2	W2/W1	W2/*W3	W2/W1 *W3	W2/W1	C1/*C2	*MATCH NEW WALL, BASE AND CEILING TO EXISTING WALL, BASE AND CEILING TO REMAIN.
109	WOMEN	F2	B2	W2/W1	W2/W1	W2/W1 *W3 W2/W1 W3	W2/W1	C2	
110	KITCHENETTE	F4	В3	W3/W4	W3/W4		_	C3	
111	TRAINING ROOM	F4	В3	W3	W3	W3	W3	C3	
201	MEZZANINE	F5	B4	W1	_	W1/W3	W1	C1	

ARK DESCRIPTION FLOOR FINISH F1 EXISTING TO REMAIN F2 PORCELAIN TILE - 12 X 12 AF04 BROWN AFFINITY BY DALTILE F3 LUXURY VINYL TILE (LVT) F4 NEW EXPOSED POLISHED STAINED CONCRETE, SEAL F5 EXPOSED 3/4" PLYWOOD SHEATHING BASE
F1 EXISTING TO REMAIN F2 PORCELAIN TILE - 12 X 12 AF04 BROWN AFFINITY BY DALTILE F3 LUXURY VINYL TILE (LVT) F4 NEW EXPOSED POLISHED STAINED CONCRETE, SEAL F5 EXPOSED 3/4" PLYWOOD SHEATHING
PORCELAIN TILE - 12 X 12 AF04 BROWN AFFINITY BY DALTILE LUXURY VINYL TILE (LVT) REPOSED POLISHED STAINED CONCRETE, SEAL EXPOSED 3/4" PLYWOOD SHEATHING
LUXURY VINYL TILE (LVT) F4 NEW EXPOSED POLISHED STAINED CONCRETE, SEAL F5 EXPOSED 3/4" PLYWOOD SHEATHING F6 INSTRUMENT OF THE CLVT IN T
F4 NEW EXPOSED POLISHED STAINED CONCRETE, SEAL F5 EXPOSED 3/4" PLYWOOD SHEATHING
EXPOSED 3/4" PLYWOOD SHEATHING
BASE
BASE
B1 EXISTING TO REMAIN
PORCELAIN WALL TILE — SEE W2
B3 4" VINYL BASE
B4 NO BASE
WALL
W1 EXISTING TO REMAIN, REPAIR AND PAINT
PORCELAIN WALL TILE - 12 X 24 GRAY AF03 AFFINITY BY DALTILE WITH 2 X 2 BROWN AF04 MOSAIC ACCENT BY DALTILE AND 3 X 10 BROWN AF04 BULLNOSE BY DALTILE. SEE INTERIOR ELEVATIONS.
PAINTED GYPSUM BOARD (TAPE, BED, TEXTURE AND PAINT)
PORCELAIN WALL TILE AT COUNTER BACKSPLASHES - 12 X 24 GRAY AF03 AFFINITY BY DALTILE WITH 2 X 2 BROWN AF04 MOSAIC ACCENT BY DALTILE. SEE INTERIOR ELEVATIONS.
CEILING (REFERENCE REFLECTED CEILING PLAN SHEET A-121 FOR CEILING HEIGHTS)
C1 EXISTING TO REMAIN, REPAIR AND PAINT
PAINTED GYPSUM BOARD (TAPE, BED, TEXTURE AND PAINT)
PAINTED GYPSUM BOARD (TAPE, BED, TEXTURE AND PAINT) WITH EXPOSED WOOD BEAMS, STAIN AND SEAL

GENERAL NOTES

A. REFERENCE SPECIFICATIONS FOR PANIC HARDWARE AND SEE DETAIL D1/G-211 WHERE REQUIRED.

○ KEYED NOTES

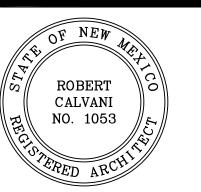
DASHED LINE INDICATES EXIT DEVICE. SEE GENERAL NOTE A ABOVE.
PRE-MANUFACTURED WINDOW COVERING.

WINDOW DETAILING TO MATCH EXISTING CONDITION.



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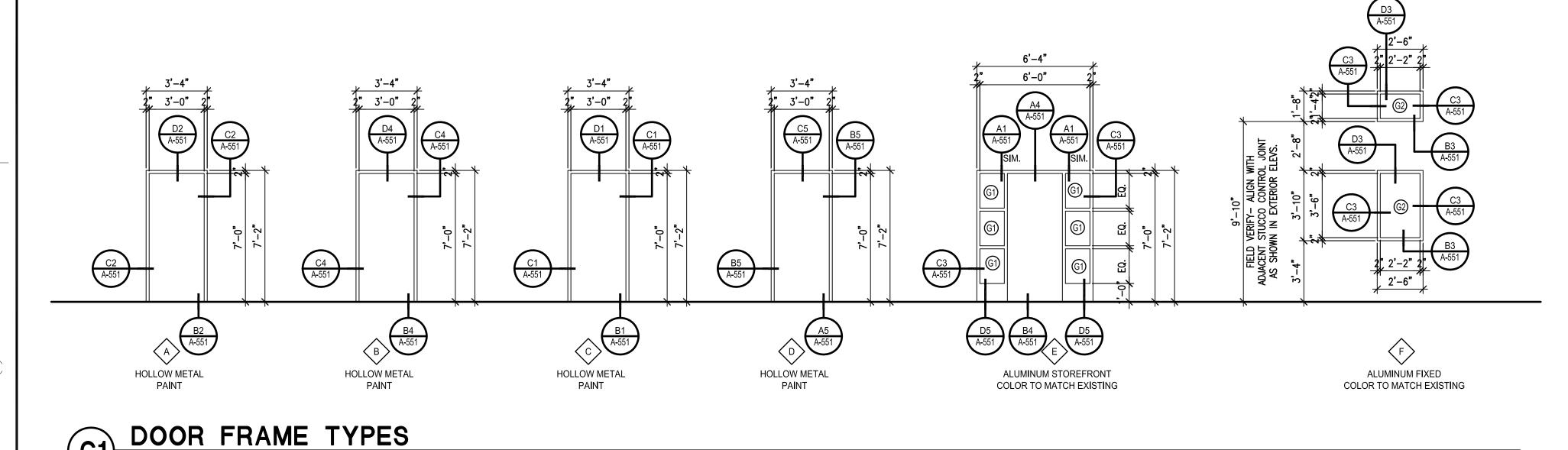
> DATE: 11/01/2018

SHEET TITLE:

DOOR AND FRAME TYPES/ **DOOR AND WINDOW** TYPES, **SCHEDULES**

SHEET NO:

A-621



			GL/	AZIN	IG '	TYF	PES							
G 1	TING WINDOWS TO REMAIN													
G 2	1	1" INSULATED GLASS, TINT TO MATCH EXISTING WINDOWS TO REMAIN												
G 3	(3) 1/4" TEMPERED CLEAR GLASS													
	•													
)R	SCH	EDULE					
DOOR	DOOR FRAME													
NO	SGL	PR	WIDTH	HEIGHT	THICK	TYPE	TYPE	RATING	REMARKS					
105A	*		3'-0"	7'-0"	1 3/4"	SC2	Α							

DOOR				DO	OR		FRAME		
NO NO	SGL	PR	WIDTH	HEIGHT	THICK	TYPE	TYPE	RATING	REMARKS
105A	*		3'-0"	7'-0"	1 3/4"	SC2	Α		
105B	*		3'-0"	7'-0"	1 3/4"	HM1	В		
106A	*		3'-0"	7'-0"	1 3/4"	SC2	Α		
106B	*		3'-0"	7'-0"	1 3/4"	SC2	С		
106C	*		3'-0"	7'-0"	1 3/4"	AL1	М		FIELD VERIFY EXISTING OPENING
107	*		3'-0"	7'-0"	1 3/4"	SC1	D		
108	*		3'-0"	7'-0"	1 3/4"	SC1	С		
109	*		3'-0"	7'-0"	1 3/4"	SC1	Α		FIELD VERIFY EXISTING OPENING
110	*		3'-0"	7'-0"	1 3/4"	AL1	Е		

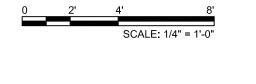
WINDOW FRAME TYPES

ALUMINUM FIXED

COLOR TO MATCH EXISTING

ALUMINUM FIXED

COLOR TO MATCH EXISTING



ALUMINUM STOREFRONT COLOR TO MATCH EXISTING

ALUMINUM SINGLE HUNG

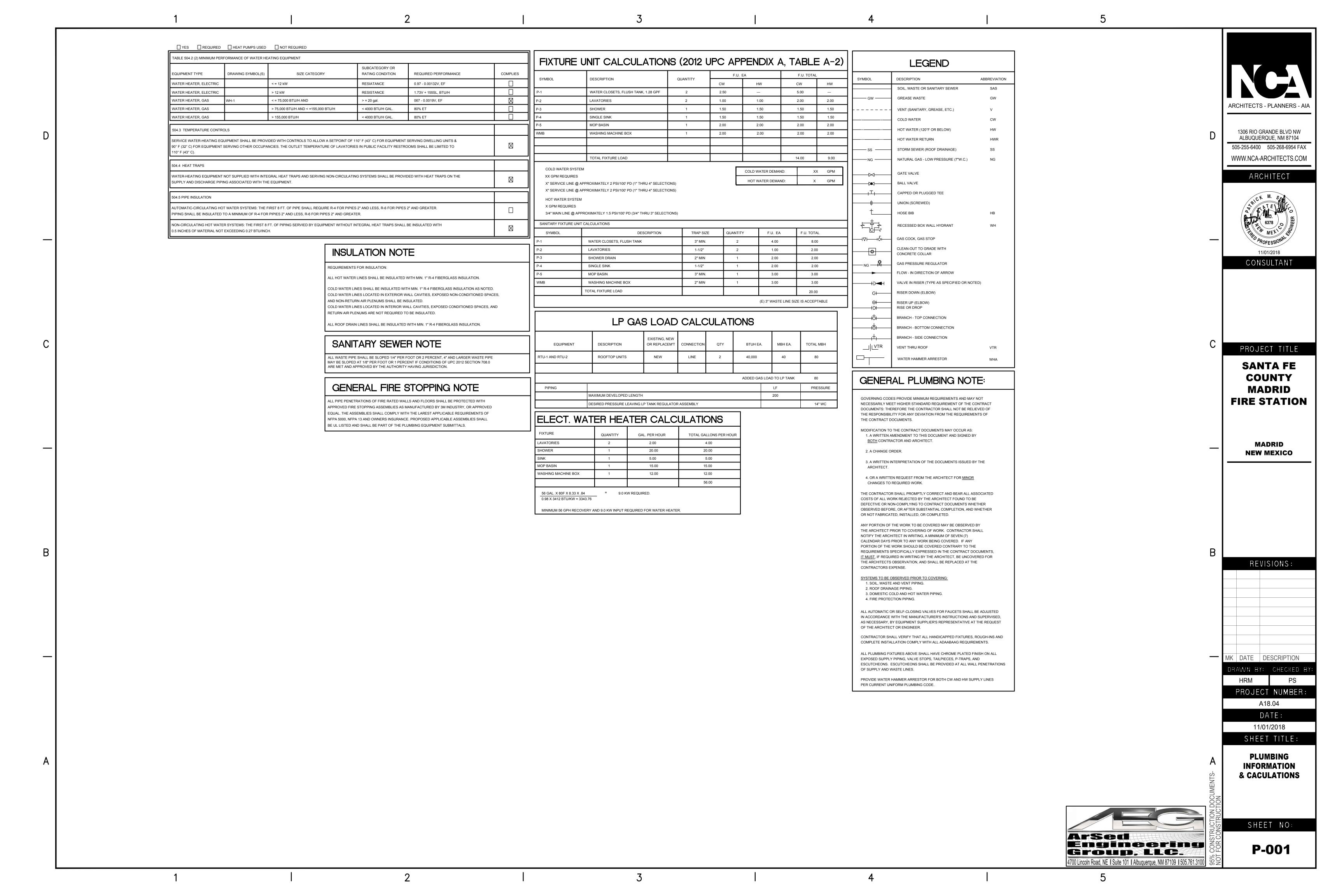
COLOR TO MATCH EXISTING

FIXED (TOP) SINGLE HUNG (BOTTOM) COLOR TO MATCH EXISTING

3'-0" 6" 2'-0" 8" 2'-0" 2'-2" 8" 2'-2" 2'-0" 6" 2'-2" 8" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6" 6"	3'-0"	3'-0"	3'-0"		
AL1	SC1	SC2	HM1		
ALUMINUM COLOR TO MATCH EXISTING	SOLID CORE WOOD VENEER	SOLID CORE WOOD VENEER	HOLLOW METAL PAINT		

FIXED (TOP) SINGLE HUNG (BOTTOM) COLOR TO MATCH EXISTING

DOOR TYPES



FLOOR MOUNTED

1/2"

MOP BASIN

PLUMBING SPECIFICATIONS:

. GENERAL:

A. PROVIDE ALL NECESSARY LABOR, MATERIALS, EQUIPMENT, SERVICES AND INSURANCES TO COMPLETE THE PLUMBING WORK WITHIN THE FULL INTENT OF THE DRAWINGS AND SPECIFICATIONS CONTAINED HEREON. PLUMBING CONTRACTOR SHALL PROVIDE ALL NECESSARY PERMITS AND FEES.

- B. ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES, RULES AND LOCAL REQUIREMENTS.
- C. GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR UNLESS NOTED OTHERWISE.
- D. DRAWINGS ARE DIAGRAMMATIC AND SHOW BASIC SIZING. CONTRACTOR TO COORDINATE THE ROUTING OF ALL NEW PIPING ABOVE THE CEILING WITH EXISTING/NEW DUCTWORK, PIPING, LIGHTING, STRUCTURE, ETC.
- E. ANY MAJOR RE-ROUTING SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE FOR APPROVAL.

2. DESCRIPTION OF WORK:

A. PROVIDE AND INSTALL WATER, WASTE, CONDENSATE, AND VENT PIPING, VALVES, PLUMBING FIXTURES, WATER HEATERS, AND ACCESSORIES, AS INDICATED.

3. SUBMITTALS:

- A. FURNISH SUBMITTALS FOR ALL BUT NOT LIMITED TO THE FOLLOWING ITEMS:
- a. PLUMBING FIXTURES,
- b. WATER HEATERS,
- c. PLUMBING FIXTURE BRASS AND SPECIALTIES,
- d. PLUMBING PIPING, e. INSULATION,
- f. HANGERS AND SUPPORTS.

- A. SANITARY SEWER AND VENT PIPING BELOW GRADE: ABS PIPE OR SCH 40 PVC. ABS PIPE SHALL BE ASTM D62661 OR ASTM D2751 WITH ABS FITTINGS. JOINTS SHALL BE ASTM D2235, SOLVENT WELD. PVC PIPE SHALL BE ASTM D2665 OR ASTM D3034. FITTINGS SHALL BE PVC ASTM D2885 SOLVENT WELD WITH ASTM D2564 SOLVENT CEMENT.
- B. SANITARY SEWER AND VENT PIPING ABOVE GRADE: SERVICE WEIGHT CAST IRON CISPI 301, HUBLESS, SERVICE WEIGHT. FITTINGS: CAST IRON. JOINTS: NEOPRENE GASKETS AND STAINLESS STEEL CLAME-AND-SHIELD ASSEMBLIES. FITTINGS LOCATED WITHIN FIRE RATED WALLS MUST HAVE FULL COVERAGE SHIELDS APPROVED
- FOR SUCH USE. C. ALL VENT PIPING LOCATED ABOVE CEILING SHALL HAVE MIN. $\frac{1}{4}$ " PER FOOT SLOPE OR AS APPROVED BY THE
- ENGINEER. D. DOMESTIC WATER PIPING SHALL BE TYPE "L" HARD DRAWN COPPER WITH WROUGHT COPPER FITTINGS. USE 100% LEAD FREE SOLDER ON PIPING 2" AND UNDER AND SILVER BRAZED JOINTS ON PIPING OVER 2". OMIT BRAZED JOINTS ON ANY
- THREAD ADAPTERS AND CAST VALVES AND FLANGES USE 95/5. E. CONDENSATE DRAIN PIPING FOR FOR HVAC SYSTEMS SHALL BE TYPE "M" HARD DRAWN COPPER WITH WROUGHT COPPER FITTINGS. COORDINATE INSTALLATION WITH ALL OTHER TRADES. PROVIDE END OF LINE CLEANOUTS AT EVERY
- 90 DEGREE ELL. COORDINATE INSTALLATION WITH THE MECHANICAL CONTRACTOR. F. ALL HOT WATER STOPS AND TRAP PIPING LOCATED BELOW EACH LAV SHALL BE INSULATED WITH PRODUCTS AS INDICATED.
- G. CONCEAL ALL PIPING WHERE POSSIBLE.
- H. ALL FITTINGS SHALL BE ACCEPTED FITTINGS FOR THE APPLICATION.
- I. INSTALL SUFFICIENT HANGERS ON ALL HORIZONTAL PIPING NOT OVER 4 FEET APART AND AT ALL TURNS. PIPING SHALL HAVE SUFFICIENT HANGERS TO KEEP SYSTEMS IN ALIGNMENT. ANCHOR PIPING AS REQUIRED.
- J. INSTALL FIRST QUALITY BALL VALVES DESIGNED FOR THE APPLICATION. KITZ AND NIBCO ARE ACCEPTABLE MANUFACTURER'S. VAVLES SHALL BE BRASS FULL PORT, TWO PIECE BLOW OUT PROOF, LEVER HANDLE SCREWED OR SOLDER JOINT MAY BE USED IN LIEU OF GATE VALVE UNDER 2" SIZE.
- K. ALL NEW PIPING SHALL BE DOMESTIC. FORIEGN PIPING WILL NOT BE ALLOWED.

A. ALL OTHER MATERIAL, NOT SPECIFICALLY DESCRIBED BUT REQUIRED FOR A COMPLETE JOB, SHALL BE NEW AND FIRST QUALITY, FURNISHED AND INSTALLED BY THE PLUMBING CONTRACTOR.

6. WORKMANSHIP:

- A. ALL WORK TO BE PERFORMED BY QUALIFIED PERSONNEL NORMALLY ENGAGED IN THE RESPECTIVE LINE OF WORK. B. THIS CONTRACTOR IS RESPONSIBLE FOR PERFORMING ALL WORK ACCEPTABLE TO THE OWNER'S REPRESENTATIVE.
- C. ENSURE THE EXPOSED ENDS OF ALL PLUMBING PIPING ARE PROVIDED WITH TEMPORARY CAPS DURING CONSTRUCTION.

7. SUPPORT:

- A. SUPPORT ALL WATER AND VENT PIPING IN PLUMBING WALLS WITH HOLD-RITE PIPE SUPPORT SYSTEM OR EQUAL. ENSURE ALL VERTICAL COPPER WATER PIPING WITHIN WALLS ARE TIGHTLY SECURED (LOSE PIPING INSTALLATION WILL NOT BE
- B. ALL PIPING AT FLUSH VALVES TO BE HELD SECURELY IN PLACE TO PREVENT MOVEMENT IN ANY DIRECTION.
- C. ALL PIPING SERVING FAUCET SET AT THE SERVICE SINK TO BE HELD SECURELY IN PLACE TO PREVENT MOVEMENT IN ANY DIRECTION.

B. ISOLATION:

- A. ISOLATE ALL DISSIMILAR METALS WITH ISOLATORS EQUALING OR EXCEEDING THE QUALITY OF "EPCO" DIELECTRIC UNIONS.
- B. ISOLATE ALL COPPER PIPING FROM DISSIMILAR SUPPORTS.
- C. ISOLATE ALL PIPING THROUGH CONCRETE WITH 1/2" CLOSED CELL FOAM.
- D. ISOLATE ALL PIPING AT STUDS WITH POLYETHYLENE PIPE INSULATORS MODEL P.I. AS MANUFACTURED BY SPECIALTY PRODUCTS COMPANY OR EQUAL.

9. CUTTING AND PATCHING:

- A. ALL WORK SHALL BE DONE BY QUALIFIED PERSONNEL NORMALLY ENGAGED IN THE RESPECTIVE WORK REQUIRED. B. CUTTING OF ALL OPENINGS AT THE EXISTING SHELL BUILDING SHALL BE COORDINATED WITH THE GENERAL
- CONTRACTOR.

10. TEST AND CHLORINATION:

- A. ALL PIPING SHALL BE TESTED IBEFORE WORK IS CONCEALED. NOTIFY THREE DAYS PRIOR TO TESTS.
- B. FLUSH ALL PIPING TO REMOVE ANY FOREIGN MATERIAL.
- C. CHLORINATE ALL NEW WATER PIPING PRIOR TO USE FOR 24-HOUR PERIOD WITH A MINIMUM OF 50 PARTS PER MILLION OR AS REQUIRED TO ACHIEVE A CHLORINE RESIDUAL OF 10 MILLIGRAMS PER LITER AT COMPLETION OF A 24-HOUR PERIOD. ALL PROCEDURES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C651 AND THE STATE HEALTH DEPARTMENT.
- D. TEST NEWLY INSTALLED WATER PIPING PRIOR TO PROJECT CLOSEOUT IN ACCORDANCE WITH THE FOLLOWING

SCHEDULE:

WATER 100 P.S.I. W/WATER 24 HOURS WASTE AND VENT 10' HIGH WATER COLUMN.

		PL	LUMBING	FIX	ΓURI	E SC	CHEC	DULE
SYMBOL	FIXTURE TYPE	MANUF/MODEL	FIXTURE MOUNTING		CONNE	ECTIONS		COMMENTS
		(OR EQUAL)	HEIGHT	CW	HW	WASTE	VENT	
P-1	WATER CLOSET (ADA)	AMERICAN STANDARD NO. XXXXXX "CADET RT-HT"	17" TOP OF RIM	1/2"		3"	2"	FLUSH TANK, FLOOR MOUNTED, ELONGATED BOWL, SIPHON JET ACTION, 1.28 GPF, WHITE FINISH. FURNISH WITH OLSONITE NO. 95 OPEN FRONT SEAT. FLUSH LVER TO BE MOUNTED ON WIDE SIDE OF STALL OR ROOM. WASTE FLOOR FLANGE, WAX RING, AND BOLT COVERS.
P-2	LAVATORY (ADA)	AMERICAN STANDARD NO. 0321.075 "DECLYN"	34" TOP OF RIM	1/2"	1/2"	2"	1-1/2"	VITREOUS CHINA, 20" X 18", CONCEALED ARM, WHITE FINISH. AS MODEL 6114.116 FAUCET WITH SINGLE HANDLE, 0.50 GPM VANDAL-RESISTANT AERATOR. PROVIDE WITH LOOSE KEY WALL STOPS AND SUPPLIES, P-TRAP, GRID STRAINER, WATTS LFMMV THERMOSTATIC MIXING VALVE PER ASSE 1070 (AT 110°F) AND TRUEBRO #102 HANDI LAV-GUARD KIT, ZURN LAV CARRIER.
P-3	SHOWER (ADA)	COMFORT DESIGN MODEL XST-3938 BF .625	STANDARD	1/2"	1/2"	2"	1-1/2"	TRANSFER SHOWER, POLYESTER GELCOATED SURFACE WITH CENTER DRAIN. ADA: GRAB BARS, L-SHAPED FOLD-UP SEAT. PROVIDE WITH AMERICAN STANDARD NO. 1662.211 PB VALVE W/ STOPS, VALVE TRIM W/ LEVER HANDLE, 1.5 GPM HANDHELD SHOWERHEAD WITH FLEXIBLE 60" METAL HOSE, WALL CONNECTION WITH FLANGE, VACUUM BREAKER, 36" SLIDE BAR-POLISHED CHROME FINISH. CURTAIN ROD AND CURTAIN WITH HOOKS BY OTHERS. PROVIDE WITH ZURN Z-415 DRAIN WITH ROUND STRAINER.
P-4	SINGLE SINK (ADA)	ELKAY MODEL LRAD2522	COUNTERTOP SEE ARCH. FOR HEIGHT	1/2"	1/2"	2"	1-1/2"	25"x22"x6.5" DEEP, SINGLE BOWL, 18 GAUGE TYPE 304 STAINLESS STEEL, 4 HOLES. LK35 DRAIN. FURNISH WITH MOEN MODEL NO. 8792 HIGH-ARC FAUCET WITH SIDE SPRAY AND 1.0 GPM AERATOR. PROVIDE WITH IN-SINK-ERATOR BADGER I 1/3 HP MOTOR, 4.0 AMPS, 120V-1 PH-60 HZ DISPOSAL. PROVIDE WITH LOOSE KEY STOPS & SUPPLIES, P-TRAP, AND TRUBRO #102 HANDI LAV-GUARD

KIT (IF REQUIRED). PROVIDE WITH 1/2" VALVED HW HOSE AND AIR GAP DRAIN

WITH 1453-BB STRAINER, NO. 832-AA HOSE AND HOSE BRACKET, STAINLESS STEEL CAPS,

NO. 889-CC MOP HANGER, MODEL 830-AA FAUCET WITH VACUUM BREAKER AND STOPS, AND

WITH DRAIN HOSÉ FOR FUTURE DISHWASHER.

SEALED AROUND WITH NO. 833-AA SILICONE SEAL.

SYMBOL	FIXTURE TYPE	MANUF/MODEL		CONNE	ECTIONS		COMMENTS
OTWIDOL	TIXTORETTE	(OR EQUAL)	CW	HW	WASTE	VENT	COMMENTO
FCO	FLOOR CLEANOUT (INSIDE BUILDING, SEE ARCH. FOR FINISH)	ZURN NO. ZN-1400 NH			SEE DWG		ZURN NO. ZN-1400-X NH, RECESSED FOR TILE. ZURN NO. ZN-1400-CF NH FOR CARPET, WITH MARKER
СО	CLEANOUT (OUTSIDE OR AT UNFINISHED AREA)	ZURN NO. Z-1400-HD NH CAST IRON TAP			SEE DWG		P.B. TOP IN OUTSIDE AREAS, CAST IRON TOP, VANDELPROOF SCREWS, GALVANIZED.
WCO	WALL CLEANOUT	ZURN NO. Z-1468 ZS			SEE DWG		INSTALL WHERE C.O. BELOW FIXTURE CONNECTION IS REQUIRED BY CODE AND WHERE SHOWN ON PLANS. BRONZE PLUG WITH STAINLESS STEEL FACE WALL PLATE, WITH VANDAL-PROOF SCREWS.
FD-1	ZURN 2" ZURN				2"	2"	ADJUSTABLE DRAIN WITH ANCHOR FLANGE (CLAMP COLLAR WITH SEEPAGE HOLES) WITH 6" MEDIUM DUTY VANDAL PROOF SECURED GRATE. PROVIDE WITH PROSET TRAP GUARD.
WHA-1	WATER HAMMER ARRESTOR	ZURN SHOKTROL	SEE DWG				SIZED PER FIXTURE UNIT LOAD, PROVIDE AT EACH TOILET GROUP.
AP	ACCESS PANEL	ELMDOR SLK 8"x8"					DRY WALL INSTALLATION, 14 GA MILD STEEL WITH PRIME COAT FINISH. PROVIDE AUTOMATIC SPRING BOLT TYPE LOCK AND KEY. INSTALL DOOR DIRECTLY IN FRONT OF WATER HAMMER ARRESTOR IN WALL.
HB-1	HOSE BIB FREEZE RESISTANT	WOODFORD MODEL B75	3/4"				NON-FREEZE, ANTI-SIPHON, AND AUTOMATIC DRAINING, WITH P.B. BOX, AND LOOSE KEY. SEE ARCH. PLAN FOR WALL THICKNESS. 18" MOUNTING HEIGHT.

SYMBOL	MANUFACTURER	MODEL	TANK CAPACITY GALLONS	FIRST HOUR RATING	KW INPUT	ELEMENTS	FLA	VOLTAGE	COMMENTS
EWH-1	AO SMITH	DSE-50-9	50	56 GALLONS	9 KW	1	25.0 43.3	208V-3PH 208V-1PH	COMMERCIAL 99% ELECTRIC ENERGY SAVER, COMPLETE WITH IMMERSION TYPE THERMOSTAT, COMPLETELY PRE-WIRED, SCREW-IN TYPE ELEMENTS AND T&P RELIEF VALVE. ROUTE T&P DRAIN FULL SIZE TO FLOOR SINK. PROVIDE WITH AMTROL ST-5 EXPANSION TANK, SUPPORT STAND, DRAIN PAN, HEAT TRAPS, & SEISMIC RESTRAINTS.



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> **MADRID NEW MEXICO**

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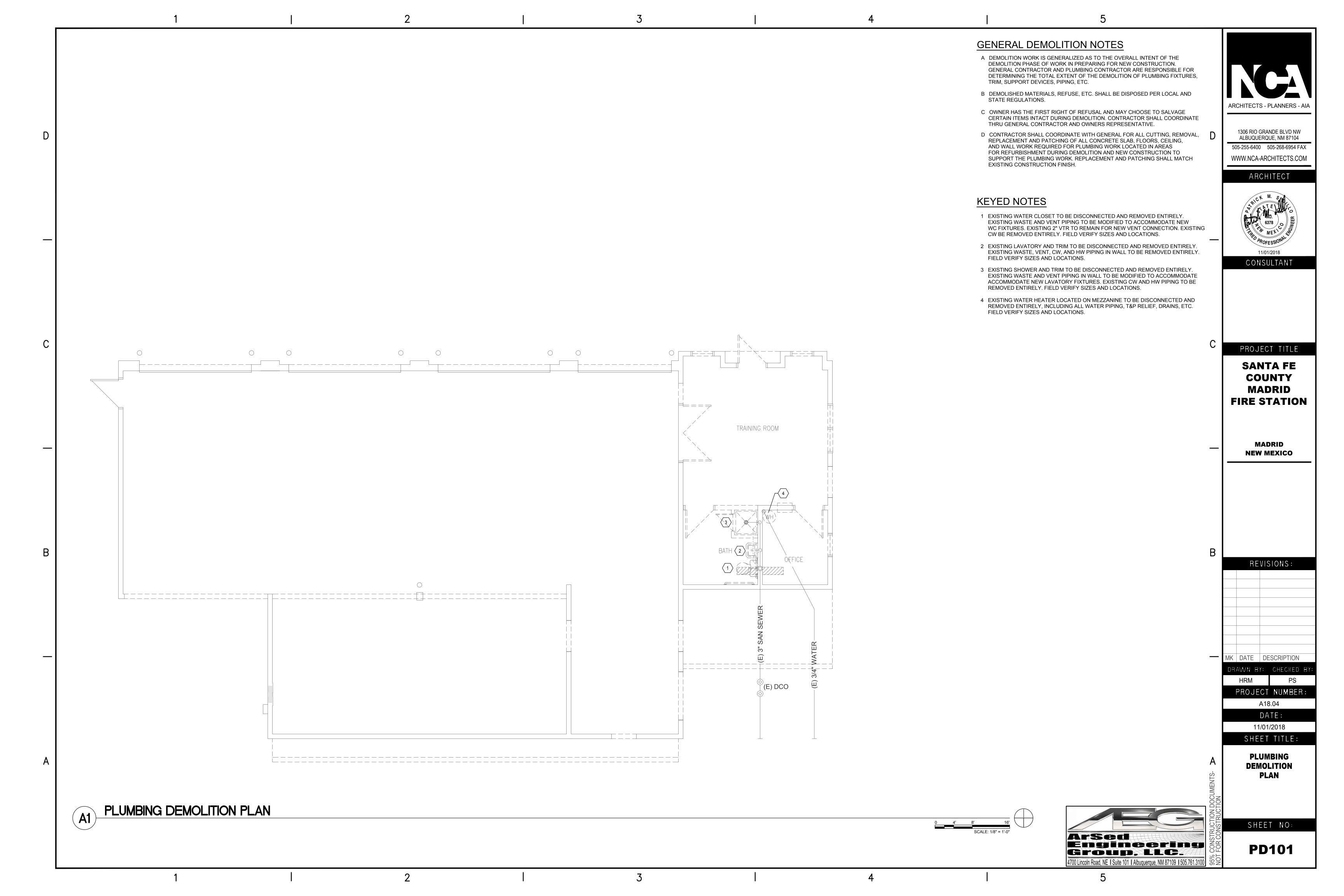
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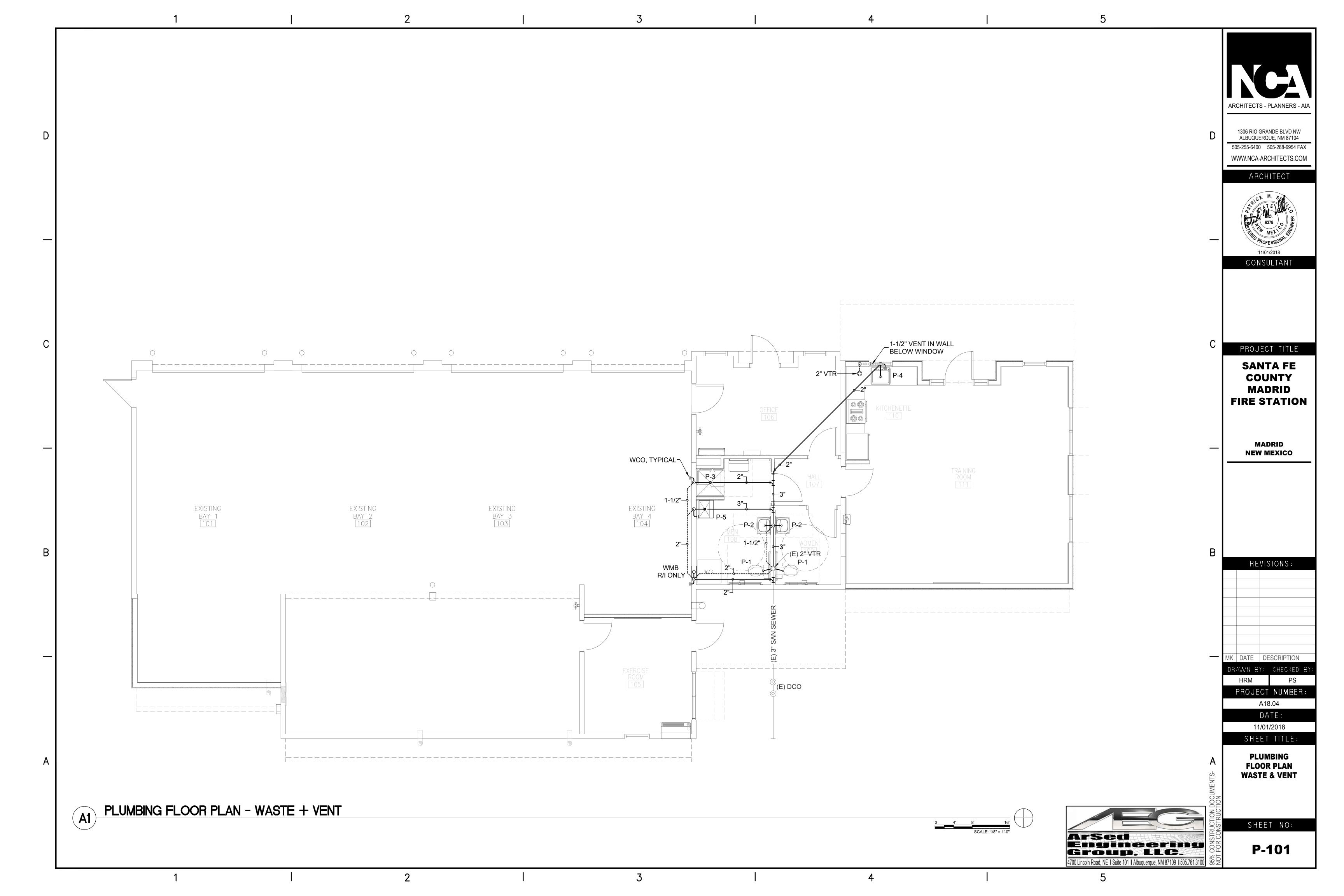
> **PLUMBING SCHEDULES**

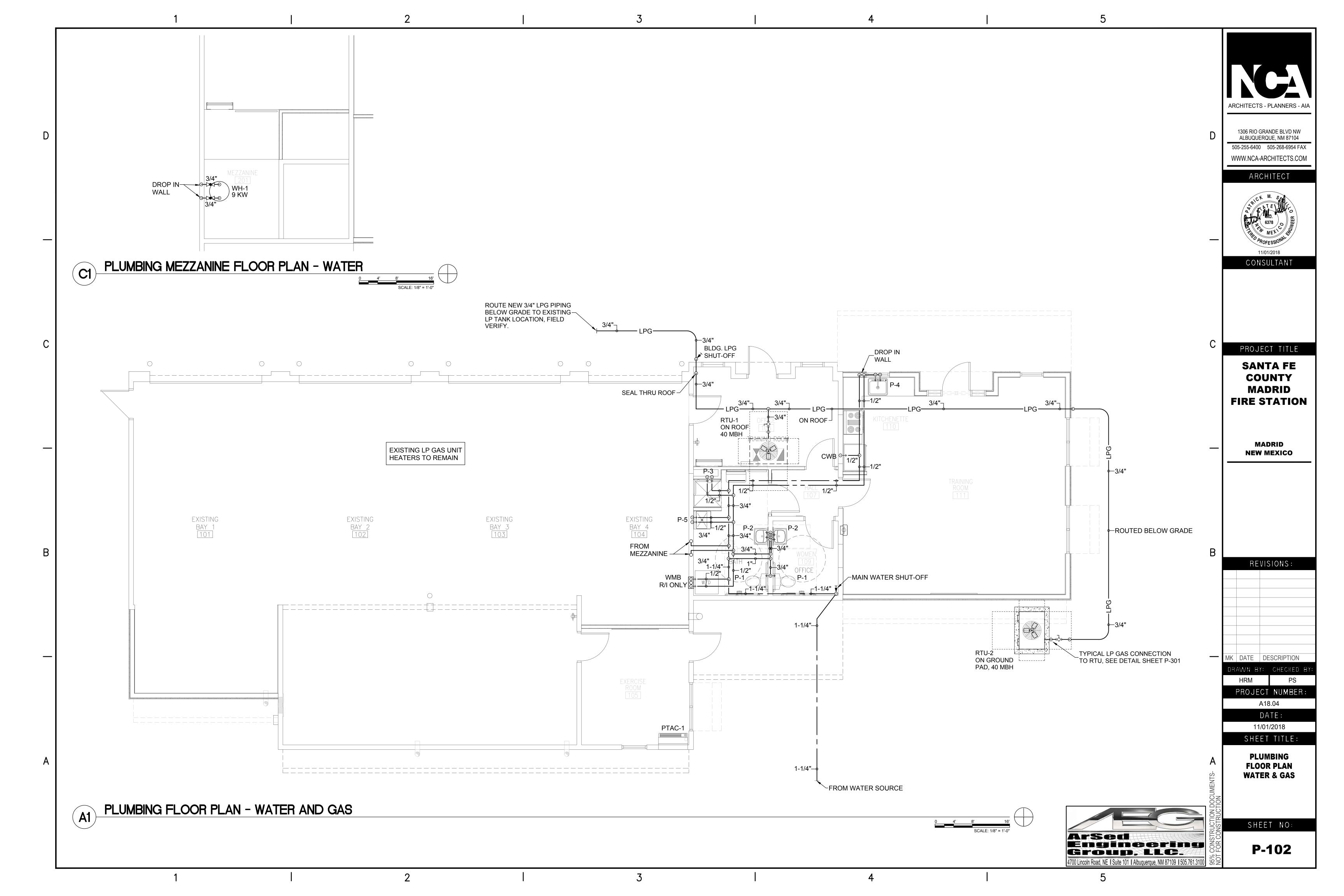
SHEET TITLE:

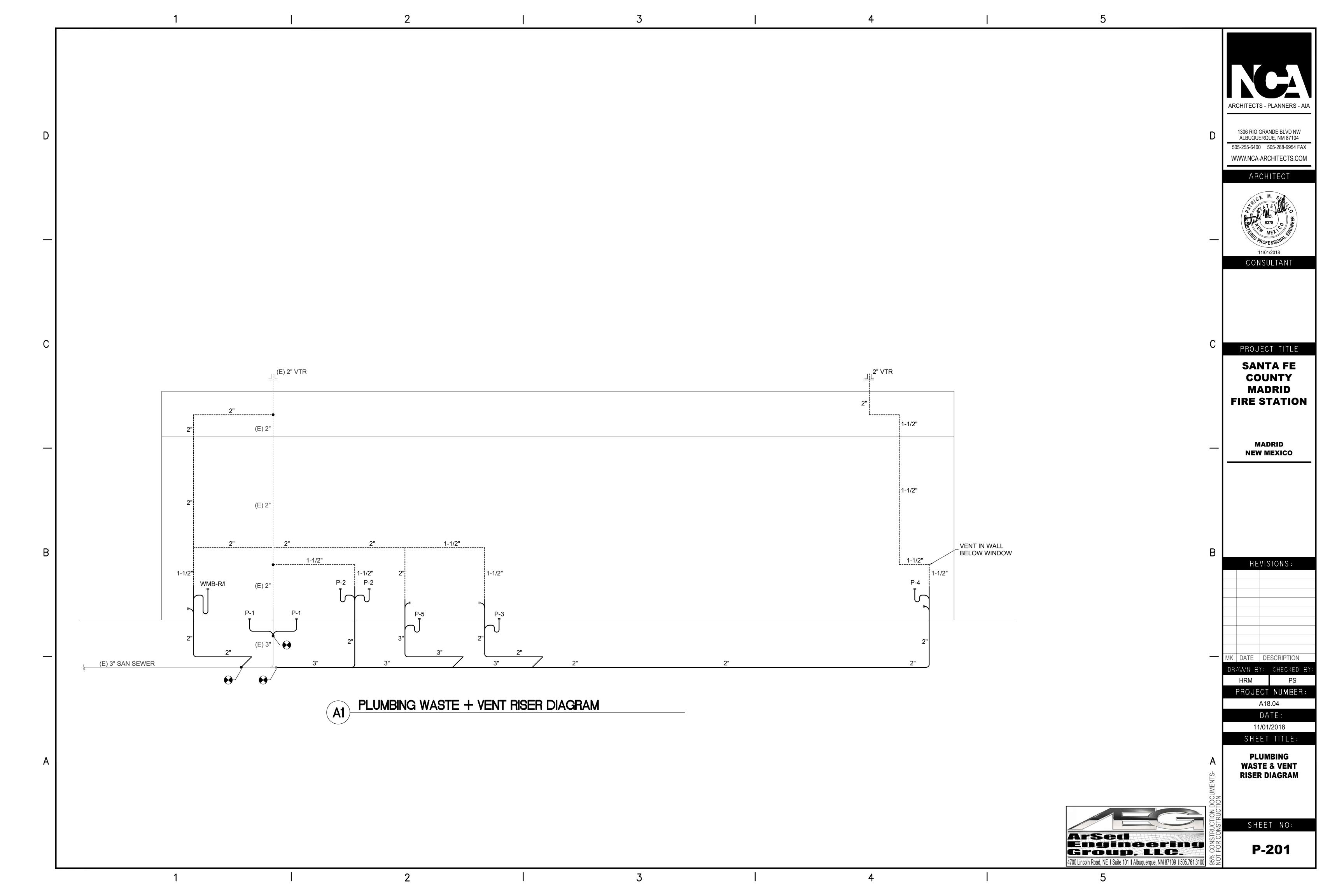
Arsed Engineering Group, LLC. 4700 Lincoln Road, NE | Suite 101 | Albuquerque, NM 87109 | 505.761.3100

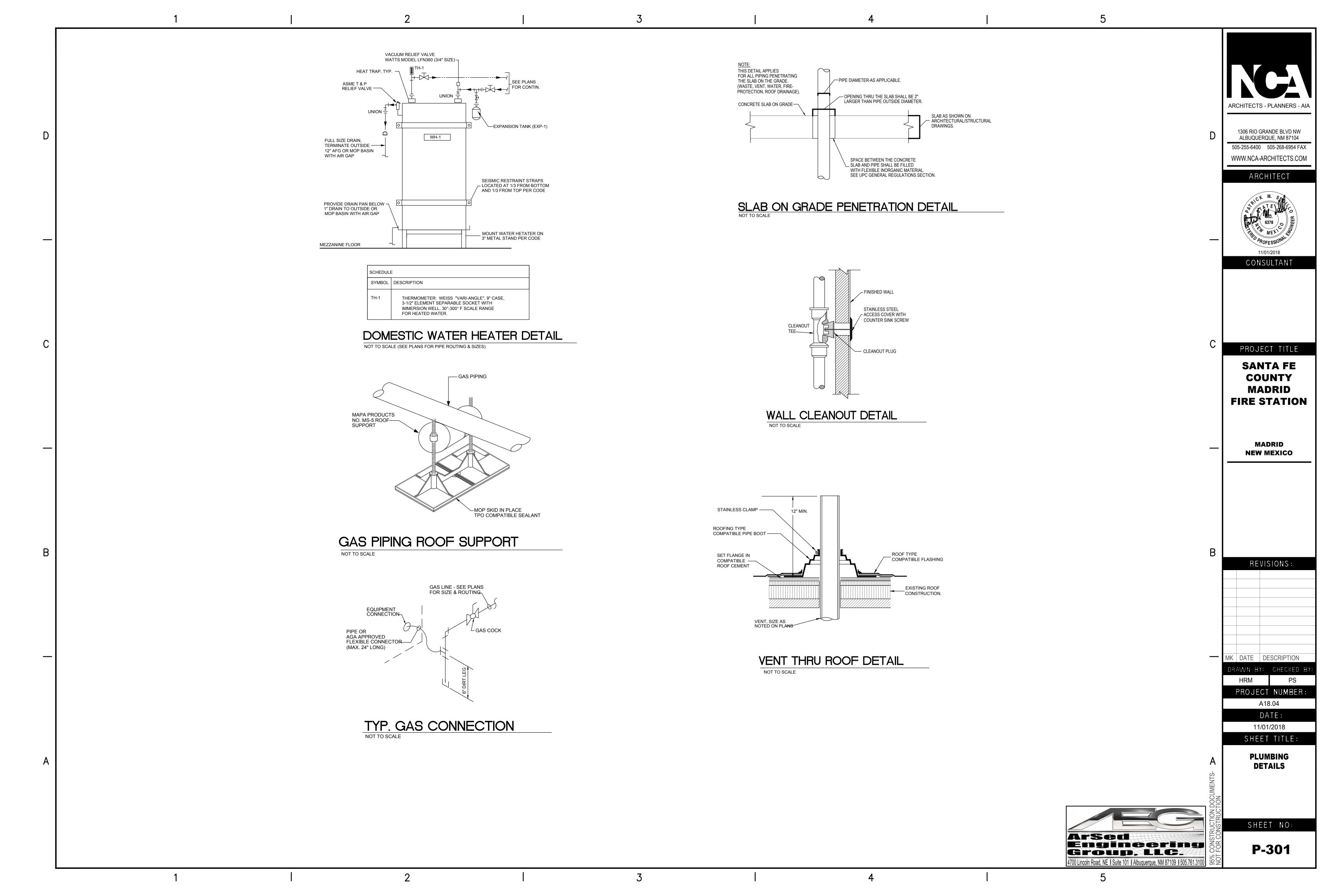
SHEET NO: P-002











MECHANICAL SPECIFICATIONS

- A. PROVIDE ALL NECESSARY LABOR, MATERIALS, EQUIPMENT, SERVICES AND INSURANCES TO COMPLETE THE AIR CONDITIONING WORK WITHIN THE FULL INTENT OF THE DRAWINGS AND SPECIFICATIONS CONTAINED HEREON AND TO THE ENTIRE SATISFACTION OF THE ARCHITECT/ENGINEER.
- B. CONTRACTOR TO COORDINATE WITH OWNER'S REPRESENTATIVE FOR OBSERVATIONS REQUIRED ABOVE THE CEILINGS. C. ALL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES, RULES AND LOCAL REQUIREMENTS.
- D. AIR CONDITIONING WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE I.B.C., U.M.C., U.P.C., AND ALL APPLICABLE CODES, RULES AND LOCAL REQUIREMENTS.
- E. GUARANTEE ALL WORK AND MATERIALS FOR A PERIOD OF ONE YEAR.

. SUBMITTALS:

- A. SPECIFICATION SHEETS WILL BE REQUIRED ON ALL NEW EQUIPMENT TO BE INSTALLED AND SHALL BE PRESENTED TO THE OWNER'S REPRESENTATIVE BEFORE INSTALLATION. FURNISH SUBMITTALS FOR:
- a. PACKAGED ROOFTOP UNIITS b. EXHAUST FANS

d. AIR TERMINALS

c. DUCTLESS SPLIT SYSTEM

. EQUIPMENT: A. ALL EQUIPMENT SHALL BE AS SCHEDULED ON DRAWINGS.

- B. AT CONTRACTORS OPTION EQUIPMENT OF EQUAL QUALITY, CONSTRUCTION AND CAPACITIES CAN BE SUBMITTED FOR APPROVAL AT TIME. CONTRACTOR MUST SUBMIT A ITEM-BY-ITEM LIST OF CAPACITY AND CONSTRUCTION FEATURES TO SHOW
- THAT SUBSTITUTED EQUIPMENT IS EQUAL OR BETTER THAN THAT SPECIFIED. C. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED MECHANICAL, ARCHITECTURAL, STRUCTURAL AND ELECTRICAL CHANGES NECESSARY TO ACCOMMODATE THE SUBSTITUTED EQUIPMENT.

. HVAC WORK:

- A. ADHERE TO GENERAL ROUTING AND METHODS OF DISTRIBUTION SHOWN, FURNISHING ALL LABOR AND MATERIALS AND APPURTENANCES AS REQUIRED FOR SATISFACTORY OPERATION FOR THE VARIOUS SYSTEMS.
- B. INSTALL IN MOST DIRECT, NEAT AND WORKMANLIKE MANNER EMPLOYING ONLY MECHANICS SKILLED IN EACH TRADE. RUN EXPOSED LINES PARALLEL WITH OR PERPENDICULAR TO BUILDING LINES. GROUP LINES FOR EASY SERVICE.

A. OTHER MATERIAL, NOT SPECIFICALLY DESCRIBED BUT REQUIRED FOR A COMPLETE JOB, SHALL BE NEW AND FIRST QUALITY, FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.

- A. ALL WORK TO BE PERFORMED BY A QUALIFIED PERSONNEL NORMALLY ENGAGED IN THE RESPECTIVE LINE OF WORK. B. PERFORM ALL WORK IN A MANNER NOT TO DISTURB THE NORMAL OPERATION OF THE DATA ROOM OPERATION. COORDINATE
- ALL WORK THE GENERAL CONTRACTOR AND OWNER. C. DEMOLITION WORK SHALL NOT CREATE ANY DUST PROBLEMS IN THE DATA ROOM. CONTRACTOR SHALL PROVIDE TEMPORARY
- BOUNDARY MATERIAL AS REQUIRED. D. COORDINATE DEMOLITION OF SYSTEMS WITH THE GENERAL CONTRACTOR AND OWNER.
- E. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A NEAT AND CLEAN WORK SITE DURING CONSTRUCTION. F. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF OTHER TRADES AND WORK SHALL BE ACCEPTABLE TO THE MECHANICAL ENGINEER AND OWNER.

CUTTING, PATCHING, AND PAINTING:

- A. ALL NECESSARY CUTTING AND PATCHING TO BE PERFORMED BY THE GENERAL CONTRACTOR OR PRIME CONTRACTOR. B. ALL WORK SHALL BE DONE BY QUALIFIED PERSONNEL NORMALLY ENGAGED IN THE RESPECTIVE WORK REQUIRED AND SHALL
- HAVE LICENSE AND INSURANCE FOR SUCH WORK. C. CUTTING OF ALL OPENINGS SHALL BE COORDINATED WITH THE OWNER'S ENGINEERING REPRESENTATIVE PRIOR TO

COMMENCEMENT OF CUTTING.

- A. PROTECTION: USE ALL MEANS NECESSARY TO PROTECT THE MATERIALS OF THIS SECTION BEFORE, DURING, AND AFTER
- INSTALLATION AND SHALL PROTECT THE MATERIALS AND WORK OF THE OTHER TRADES. B. REPLACEMENTS: IN THE EVENT OF DAMAGE, IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY TO THE APPROVAL OF THE ENGINEER AND OWNER AT NO ADDITIONAL COST TO THE OWNER.

TEST AND BALANCE OF SYSTEMS:

A. AFTER COMPLETION OF THE INSTALLATION WORK, TEST AND REGULATE ALL COMPONENTS OF THE NEW SYSTEMS AND MODIFIED SYSTEMS TO THE SATISFACTION OF THE MECHANICAL ENGINEER AND OWNER.

10. OPERATIONAL TEST AND ADJUSTMENTS:

- A. CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADDITIONAL ITEMS NOTED BELOW:
- B. TESTING AND START-UP OF MECHANICAL EQUIPMENT AND SYSTEMS WILL BE REQUIRED UPON PROJECT COMPLETION. ALL PERSONNEL AND INSTRUMENTS REQUIRED SHALL BE FURNISHED BY THE CONTRACTOR. MECHANICAL CONTRACTORS SHALL COOPERATE WITH EACH OTHER AND THE OWNER'S REPRESENTATIVES IN CONDUCTING TESTS ${f C}$. ANY FINAL ADJUSTMENTS OR BALANCING FOUND NECESSARY TO BE MADE TO THE EQUIPMENT OR SYSTEMS SO THAT THEY
- WILL BE PLACED IN ACCEPTABLE OPERATING CONDITIONS AND MEET THE SPECIFIED PERFORMANCE SHALL BE MADE DURING ANY OR ALL OF THE TESTS SPECIFIED HEREIN.
- D. ANY EQUIPMENT, SYSTEMS, OR WORK FOUND DEFICIENT DURING ANY TESTS SHALL BE REPLACED OR REVISED AS REQUIRED . BEFORE STARTING OR OPERATING ANY EQUIPMENT OF SYSTEMS. A THOROUGH CHECK SHALL BE MADE TO DETERMINE THAT ALL SYSTEMS HAVE BEEN FLUSHED AND CLEANED AS REQUIRED AND THAT ALL EQUIPMENT HAS BEEN PROPERLY INSTALLED,
- . DURING TEST PERIOD, FINAL ADJUSTMENTS AND BALANCING SHALL BE MADE TO EQUIPMENT, SYSTEMS, CONTROLS, AND CIRCUITS SO THAT ALL ARE PLACED IN FIRST-CLASS OPERATING CONDITION.
- G. UPON COMPLETION OF THE MECHANICAL WORK, OR AT SUCH A TIME PRIOR TO COMPLETION AS MAY BE DETERMINED BY THE ENGINEER OF RECORD, ALL MECHANICAL EQUIPMENT AND SYSTEMS SHALL BE OPERATED AND TESTED FOR A PERIOD OF AT LEAST FIVE CONSECUTIVE 8 HOUR DAYS TO DEMONSTRATE THE SATISFACTORY OVERALL OPERATION OF THE BUILDING OR PROJECT AS A COMPLETED UNIT.
- H. CONTRACTOR SHALL PROVIDE THREE (3) PRINTED COPIES AND AN ELECTRONIC COPY OF OPERATION AND MAINTENANCE
- MANUEL FOR ALL NEW EQUIPMENT PROVIDED ON PROJECT. OPENING IN HARD CEILINGS MUST BE LARGE ENOUGH TO REMOVE EXISTING TERMINAL UNITS. IF EXISTING ACCESS PANELS
- ARE INADEQUATE, A LARGER OPENING MUST BE MADE. NEW OPENING SHALL BE DEALING WITH NEW ACCESS PANELS LARGE ENOUGH TO COVER OPENINGS. IN LIEU OF ACCESS PANELS, OPENINGS CAN BE MADE TO ACCOMMODATE 2'x4' LAY-IN CEILING GRID WITH ACOUSTIC TILES.

GENERAL NOTES

- **EQUIPMENT CAPACITIES BASED FOR OPERATION AT SITE ELEVATION**
- DUCT DIMENSIONS SHOWN ON DRAWINGS ARE NET INSIDE DIMENSIONS. EXACT LOCATION OF ALL GRILLES, DIFFUSERS, AND REGISTERS SHALL BE COORDINATED WITH LIGHTING AND REFLECTED
- CEILING PLANS. WHERE INSTALLATIONS CONFLICT, FINAL LOCATION SHALL BE APPROVED AND OBTAINED FROM ARCHITECT.
- PROVIDE TURNING VANES IN ALL SQUARE (90 DEGREE) ELBOWS (EXCEPT R.A. DUCTWORK). EACH ROUND BRANCH TAKE-OFF SHALL BE MADE WITH SPIN-IN DAMPER FITTING.
- FLEXIBLE ROUND DUCT BRANCHES TO SUPPLY DIFFUSERS IN LAY-IN CEILINGS SHALL BE PRE INSULATED AND SHALL NOT EXCEED 5 FOOT IN TOTAL LENGTH. ROUND BRANCH DUCTS AND DROPS TO CEILING MOUNTED DIFFUSERS SHALL BE THE SAME NOMINAL SIZE AS THE SCHEDULED DIFFUSER NECK SIZE, UNLESS OTHERWISE NOTED ON DRAWING.
- JOINTS AND SEAMS ON LOW VELOCITY SUPPLY, RETURN AND EXHAUST DUCTS, ROUND OR RECTANGULAR, MUST BE SEALED AIR
- CONTRACTOR SHALL COORDINATE AIR CONDITIONING DUCTWORK, PLUMBING, AND SPRINKLER PIPING WITH OTHER TRADES, TO AVOID CONFLICTS AND MAINTAIN EQUIPMENT ACCESS AND SERVICEABILITY TO VALVES AND EQUIPMENT.
- CONTRACTOR SHALL FURNISH ALL NECESSARY STRUCTURES, INSERTS, SLEEVES, AND HANGING DEVICES FOR INSTALLATION OF MECHANICAL AND PLUMBING EQUIPMENT, DUCTWORK AND PIPING, ETC. CONTRACTOR SHALL COORDINATE INSTALLATION OF SUCH DEVICES WITH GENERAL CONTRACTOR. CONTRACTOR MUST FURTHER VERIFY WITH THE STRUCTURAL ENGINEER THAT THE DEVICES ARE ADEQUATE AS INTENDED AND DO NOT OVERLOAD THE BUILDING'S STRUCTURAL COMPONENTS IN ANY WAY.
- INSULATE DOMESTIC HOT WATER PIPING WITH 1" THICK FIBERGLASS INSULATION.
- EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL NECESSARY FITTINGS FOR RISES AND OFFSETS IN DUCTWORK AND PIPING, WHETHER OR NOT SHOWN, FOR PROPER INSTALLATION.
- BRANCH DUCT EXTENSIONS TO AIR TERMINAL UNITS SHALL BE AS SCHEDULED ON THE MECHANICAL EQUIPMENT SCHEDULE, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- PROVIDE ACCESS PANELS OR DOORS IN INACCESSIBLE CEILINGS AND/OR CHASES FOR ALL VALVES, TRAPS, DAMPERS, CLEANOUTS, COILS, FANS CONTROLS, ETC. THEY SHALL BE FURNISHED UNDER DIVISION 15 AND INSTALLED UNDER THE ARCHITECTURAL SPECIFICATIONS.
- PROVIDE DUCT ACCESS DOORS TO ALL DUCT FIRE/SMOKE DAMPERS WHERE DAMPERS ARE NOT ACCESSIBLE BY ANY OTHER MEANS. SEE DETAIL.
- . CONTRACTOR SHALL PROVIDE RETURN AIR OR TRANSFER AIR OPENINGS IN CEILING SPACE AT FULL HEIGHT WALLS SIZED AT 500 FPM (UNLESS OTHERWISE SPECIFICALLY SHOWN ON THE DRAWINGS) TO CREATE AND/OR MAINTAIN A RETURN AIR PATH. FIRE/SMOKE DAMPERS SHALL BE PROVIDED IN SUCH OPENINGS WHERE REQUIRED. SEE PLANS FOR FIRE/SMOKE DAMPER LOCATIONS. COORDINATE THE LOCATIONS OF ALL DUCTWORK WITH ANY PLUMBING LINES AND ELECTRICAL CONDUIT.
- THE SPACE ABOVE THE CEILING IS LIMITED. IN THE EVENT THAT ANY DUCT CANNOT BE ROUTED AS SHOWN ON THE CONTRACT DRAWINGS, THE CONTRACTOR SHALL MODIFY THE DUCT AS REQUIRED, MAINTAINING THE SAME NET FREE AREA AS THE DESIGNED DUCT. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING THE PROPOSED CHANGES FOR APPROVAL. THIS SHALL BE DONE AT NO COST TO THE OWNER.
- THERMOSTATS SHALL BE WALL MOUNTED 4'-0" ABOVE FINISHED FLOOR. COORDINATE THE LOCATION OF ALL ROOF AND FLOOR PENETRATIONS WITH EXISTING STRUCTURAL CONDITIONS.
- FRAME AROUND EACH PENETRATION PER ARCHITECTURAL / STRUCTURAL DRAWINGS.
- 20. DUCTWORK CONNECTIONS TO ALL AIR HANDLING EQUIPMENT SHALL BE MADE WITH WEATHERPROOF FLEXIBLE CONNECTIONS, SEE SPECIFICATIONS.

SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
2111	CEILING SUPPLY DIFFUSER (LAY-IN CEILING)	Ф	ROOM THERMOSTAT (ELECTRIC)
F	CEILING SUPPLY DIFFUSER (FIXED CEILING)	7	KEYED NOTE SYMBOL
	CEILING RETURN AIR GRILLE	250	CFM QUANTITY S=SUPPLY DIFFUSER
	EXHAUST REGISTER	250 S S	R=RETURN GRILLE E=EXHAUST GRILLE NECK SIZE
A.L.	DUCT ACOUSTIC LINING		NECK SIZE
SA	SUPPLY AIR	ACU-4	EQUIPMENT SYMBOL
RA	RETURN AIR	`8,000 CFM′	CAPACITY
├	SIDEWALL SUPPLY REGISTER		DIRECTION OF FLOW
	SIDEWALL EXHAUST REGISTER		TOP PIPE CONNECTION, 45° OR 90°
	VANED ELBOW OR MITERED ELBOW		BOTTOM PIPE CONNECTION,
	RETURN AIR OR EXHAUST DUCT THRU LOWER OR UPPER LEVEL		45° OR 90°
\boxtimes	SUPPLY AIR DUCT THRU LOWER OR UPPER LEVEL		FIRE DAMPER
\bigcirc	ROUND DUCT THRU LOWER OR UPPER LEVEL	FD	
DROP	DROP IN DUCT IN DIRECTION OF AIR FLOW		
12"x10"	DUCT WIDTH BY DEPTH (IN INCHES)		

VENTILATION CALCULATIONS Using default Table Enter value for Density People People zone Value Calculated Value If ea population #11000 From Table Not People Outdoor Outdoor Discharge Distribute Outside Handling ? SF) Table Used Automatic Rate Rate Air Flow Effctivnss Air Flow Unit Occupancy Category Az (Yes/NO) Pz Rp Ra Vbz Ez Voz Airflow Office space 258 No 5 0.0 5 5.0 5.0 0.06 40.5 0.8 51 RTU-1 Office Area RTU-2 Training Conference / meeting 537 Yes 50 26.9 0 26.9 5.0 0.06 166.5 0.8 208 | 146 | No | 5 | 0.0 | 2 | 2.0 | 5.0 | 0.06 | 18.8 | 0.8 | 23 | PTAC Office Area

EXHAUST FAN SCHEDULE **ACCESSORIES** AMCA CERTIFIED MANUFACTURE AREA SOUND SYMBOL (OR APPROVED MODEL CFM (IN. SERVED LEVEL RPM EQUAL) np watts volt/ph/hz SONES CEF-1 SP-B150 148 0.5 129 115/1/60 Greenheck Toilet 1,050 4.0 CEF-2 SP-A510-vg 250 0.5 Greenheck 1,015

NE	W R	OOF	TOF	'UNI	T S	CHI	EDL	JLE	=									
					NOM	SUPPLY	ESP					TOTAL		INPUT HEATING	MOTOR OPER	ELECTR	ICAL UNIT	WGHT
SYMBOL	MFG'R OR EQUAL	MODEL	ARI EER	ARI SEER	TONS	AIR CFM	(IN. W.C.)	db °F	wb °F	db °F	wb °F	MBh	MBh	CAPACITY BTUH		VOLTAGE	MCA	(LBS)
RTU-1	CARRIER	48VLC-240		13.2	2.0	800	0.50	80.0	67.0	60.2	58.4	26.04	23.59	40	0.31	208/1/60	21.3	500
RTU-2	CARRIER	48VLC-360	13.2		3.0	1200	0.50	80.0	67.0	60.2	58.4	26.04	23.59	40	0.31	208/1/60	27.4	800
	LANEOUS	FACT	TORY 14" (CURB									В	ELT GUARDS	S	CRAN	NKCASE H	HEATERS
ITEMS T FURNISI	_	⊠ BEL1	DRIVE			⊠ MAN	IUFACTUF ITROLS	RER'S	ECON	OMIZE	R		Н	HAIL GUARDS		LOW	AMBIENT	CONTROLS
MECHAN CONTRA	_	⊠ FAN	AND MOT	OR ISOLATO	RS		KE DETE					OCFM)	⊠ L	OW LEAK DA	MPERS	ECON	NOMIZER	SECTION
330		∑ FILTI	ERS			PRO	GRAMMA -AUTO" AI	BLE T	HERM STEM	OSTAT	WITH	I FAN		USED DISCO)a REFRIC	GERANT

DIFFUSER, REGISTER & GRILLE SCHEDULE

LPG HEATING

YMIMFGR IMODELI USE I IYPE ICOMMENIS

ELECTRICAL DISCONNECTS / STARTERS BY

SUBSTITUTE MANUFACTURERS MUST BE APPROVED

ELECTRICAL CONTRACTOR

PRIOR TO PURCHASE

SRILLES, REGISTERS, AND DIFFUSERS SHALL BE FABRICATED OF STEEL OR ALUMINUM, AS NOTED. ONLY ALUMINUM SHALL BE USED ON EXHAUST/RETURN REGISTERS OR GRILLES WHERE HEAVY CONCENTRATIONS OF MOISTURE ARE PRESENT (I.E. SHOWER ROOMS, CARTWASHER, ETC.) STEEL GRILLES, REGISTERS, AND DIFFUSERS SHALL BE PROVIDED WITH ZINC PHOSPHATE PRIME COAT AND BAKED WHITE ENAMEL FINISH. ALUMINUM GRILLES, REGISTERS, AND DIFFUSERS SHALL BE FINISHED WITH BAKED WHITE ENAMEL. THE TYPE OF GRILLE, REGISTER, OR DIFFUSER IS SHOWN BY SYMBOL ON THE DRAWINGS. ALL SYMBOLS SHALL BE COORDINATED BY THE CONTRACTOR WITH THE ARCHITECTURAL ROOM FINISH SCHEDULE, WHICH GOVERNS IN THE EVENT OF A CONFLICT. DISCREPANCIES WILL BE CLEARLY NOTED ON THE SUBMITTALS. FURNISH ADDITIONAL T-BAR FRAMING, AS REQUIRED TO SUPPORT CEILING MOUNTED GRILLES, REGISTERS, AND DIFFUSERS. ALL UNITS SHALL BE PROVIDED WITH CONCEALED TYPE FASTENING FRAMES. EQUIPMENT MANUFACTURED BY PRICE, KRUEGER, AND TITUS, ARE ACCEPTABLE. OTHER MANUFACTURERS SHALL BE ACCEPTED BY PRIOR APPROVAL ONLY. (ALL SECURITY GRILLES AND REGISTERS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO BID SUBMITTAL.) GRILLES, REGISTERS, AND DIFFUSERS REQUIRING FIRE RADIATION DAMPER ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS, AT LOCATIONS SHOWN ON THE DRAWINGS.

HEAT-COOL-OFF-AUTO

	_					
S1	TITUS (or equal)	TMS series	SUPPLY DIFFUSER		CEILING SUPPLY DIFFUSER: STEEL, STAMPED FACE, LAY-IN TYPE FRAME FOR T-BAR CEILING MOUNTING, ROUND NECK, ADJUSTABLE PANEL VANED WITH ADJUSTABLE PATTERN TABS, AND REMOVABLE CORE. TITUS TMS-3; PRICE SCDA; KRUEGER 1400-23, OR APPROVED EQUAL. WHITE POWDER COAT FINISH, OR COLOR AS SELECTED BY ARCHITECT.	
R2	TITUS (or equal)	50F series	RETURN GRILLE	GYPSUM BOARD	CEILING RETURN OR TRANSFER GRILLE: ALUMINUM CONSTRUCTION, 1/2"x1/2"x1/2" SQUARE EGGCRATE CORE WITH BORDER/FRAME FOR GYPSUM BOARD CEILING MOUNTING AND CONCEALED FASTENING. TITUS 50F; PRICE 80-TB; KRUEGER EGC-F23, OR APPROVED EQUAL.	
	TITUS (or equal)	300 RL series	SUPPLY DIFFUSER	SIDE WALL	SIDEWALL SUPPLY REGISTER: STEEL CONSTRUCTION, DOUBLE DEFLECTION TYPE WITH HORIZONTAL FRONT AND VERTICAL REAR DEFLECTION VANES, OPPOSED BLADE DAMPER, 1-1/4"(32) FLAT MARGIN, CONCEALED FASTENING, 3/4" (19) BAR SPACING, AND STEEL CONSTRUCTION. SIZES AND CAPACITIES AS SHOWN ON DRAWINGS. TITUS 300 RL, PRICE 520-L; KRUEGER 880-H, OR APPROVED EQUAL. COLOR TO WHITE POWDER COAT FINISH, OR AS SELECTED BY ARCHITECT.	
R1	TITUS (or equal)	50F series	RETURN GRILLE	LAY-IN	CEILING RETURN OR TRANSFER GRILLE: ALUMINUM CONSTRUCTION, 1/2"x1/2"x1/2" SQUARE EGGCRATE CORE WITH LAY-IN TYPE FRAME FOR T-BAR CEILING MOUNTING AND CONCEALED FASTENING. PRICE 80-TB; KRUEGER EGC-F23, TITUS 50F, OR APPROVED EQUAL.	
R2	TITUS (or equal)	50F series	RETURN GRILLE	GYPSUM BOARD	CEILING EXHAUST REGISTER: ALUMINUM CONSTRUCTION, 1/2"x1/2"x1/2" (13x13x13) SQUARE EGGCRATE TYPE WITH 1-1/4" (32) MARGIN FRAME FOR FIXED CEILING MOUNTING, CONCEALED FASTENING, AND ADJUSTABLE OPPOSED BLADE DAMPER. COLOR WHITE POWDER COAT FINISH, OR AS SELECTED BY ARCHITECT.	

PACKAGED TERMINAL AC UNIT (PTAC) SCHEDULE

symbol	AMANA (mf	g'r) model no EER		COOLING HEATING ELECTRICAL		CAL			
			AIRFLOW	total BTH	total BTH	voltage V/HZ/PH	MCA	electric heat	equip. weight
			LOW/HIGH CFM			V/HZ/PH		(watts)	weigin
PTAC-1	PMH123G	10.4	270/360	12,000	11,300	208/60/1	15	205	132 lbs

MISCELLANEOUS ITEMS AND OPTIONS TO BE **FURNISHED BY MECHANICAL CONTRACTOR**

WALL MOUNTED T-STAT CONDENSATE DRAIN KIT INSULATED, FACTORY WALL SLEEVE

REPLACEABLE FILTERS LATERAL AIR DEFLECTOR ELECTRIC SUB-BASE KIT OUTDOOR GRILLE

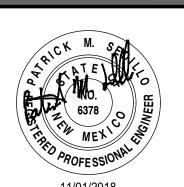
LOUVER FURNISHED BY WINDOW MANUFACTURER TO MATCH WINDOW SECTIONS. OUTSIDE AIR INTAKE TO BE AT 40cfm.

GFI DUPLEX COURTESY OUTLET



1306 RIO GRANDE BLVD NW ALBUQUERQUE, NM 87104 505-255-6400 505-268-6954 FAX

WWW.NCA-ARCHITECTS.COM ARCHITECT



CONSULTANT

PROJECT TITLE

SANTA FE COUNTY **MADRID** FIRE STATION

> **MADRID NEW MEXICO**

REVISIONS

JJS PS PROJECT NUMBER: A18.04

> DATE: 11/01/2018 SHEET TITLE

MECHANICAL SCHEDULES

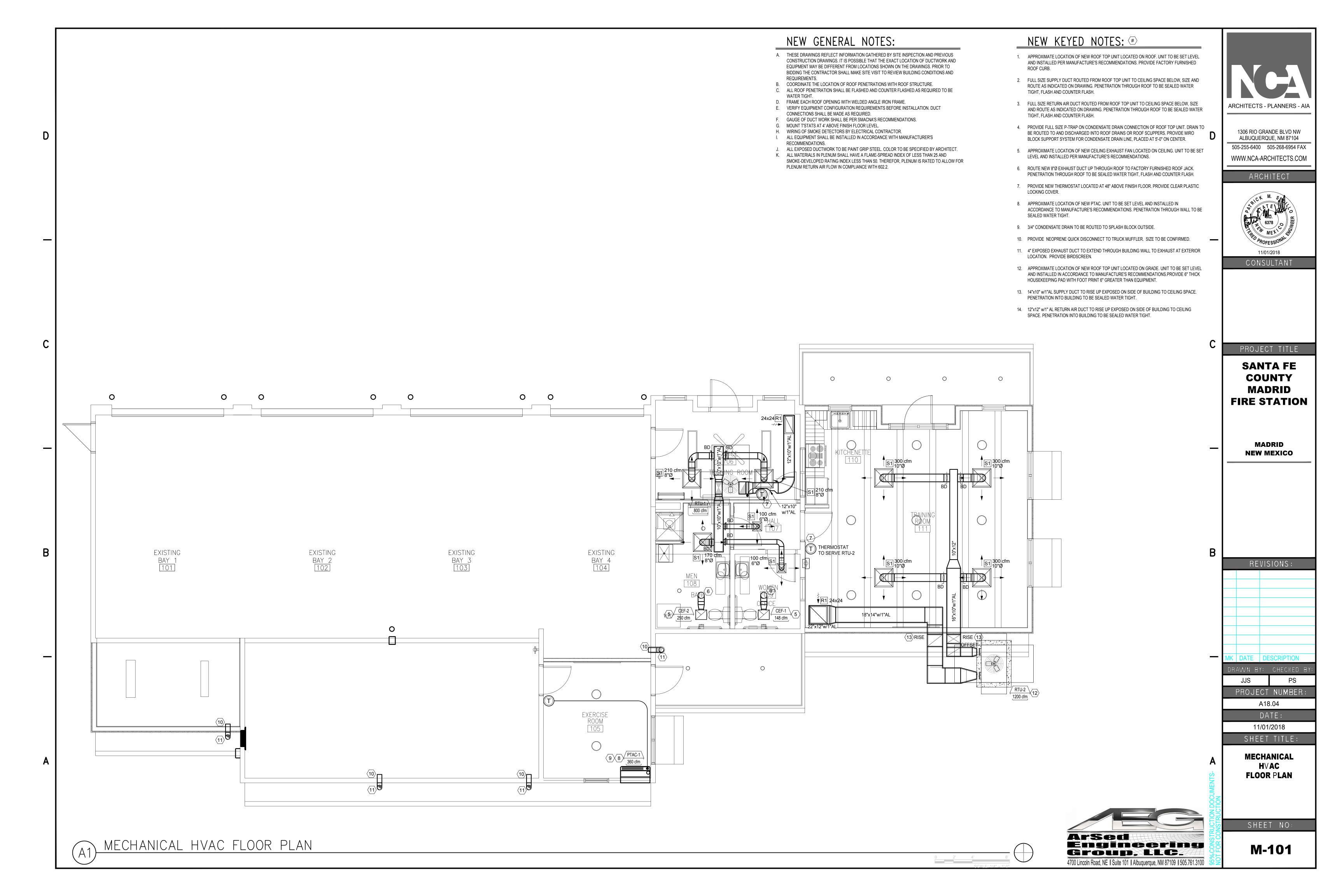
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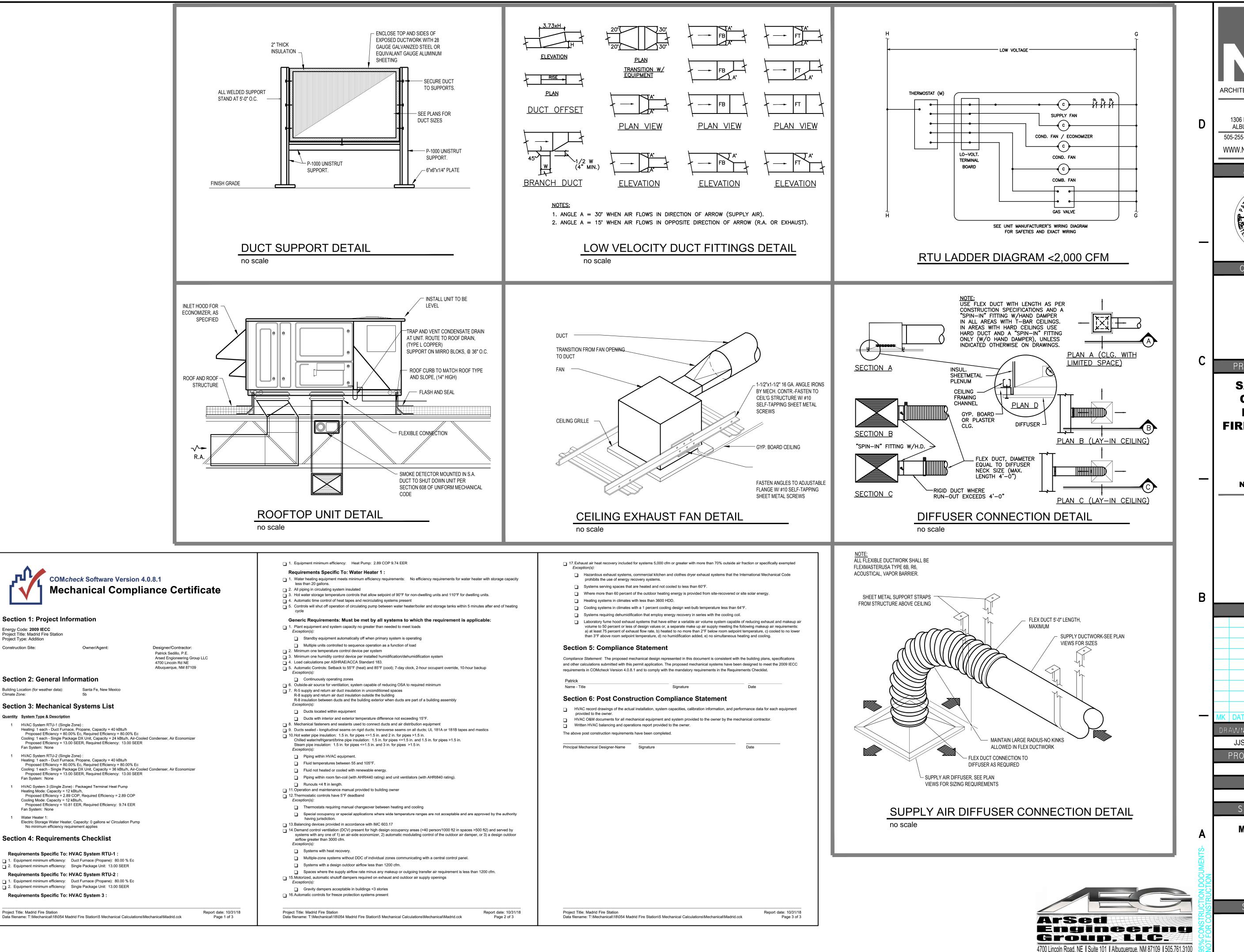
Group, LLC.

4700 Lincoln Road, NE | Suite 101 | Albuquerque, NM 87109 | 505.761.3100

SHEET NO

M-001





Energy Code: **2009 IECC**Project Title: Madrid Fire Station

Building Location (for weather data):

Quantity System Type & Description

1 HVAC System RTU-1 (Single Zone):

Cooling Mode: Capacity = 12 kBtu/h,

Fan System: None

1 Water Heater 1:

Project Title: Madrid Fire Station

Project Type: Addition

Construction Site:

ARCHITECTS - PLANNERS - AIA

1306 RIO GRANDE BLVD NW ALBUQUERQUE, NM 87104 505-255-6400 505-268-6954 FAX

WWW.NCA-ARCHITECTS.COM



CONSULTANT

PROJECT TITLE SANTA FE COUNTY **MADRID FIRE STATION**

> MADRID **NEW MEXICO**

REVISIONS

RAWN BY: CHECKED E

JJS PS PROJECT NUMBER: A18.04

DATE: 11/01/2018 SHEET TITLE

MECHANICAL

DETAILS

SHEET NO

M-201

		HTING FIXTURE SCH BERS ARE SERIES TYPE ONLY. PROVIDE T		OUNTING TO	LUDATAT	
		BERS ARE SERIES TYPE ONLY. PROVIDE I BY THE SPECIFICATIONS AND PROJECT OF				
TYPE:	DESCRIPTION:	MANUFACTURER AND	VOLTAGE:	LAMP:	WATTS PER	REMARKS:
		CATALOG NO.:			LUMINAIRE:	
Α	12" LED DECORATIVE PENDANT	CONTECH LIGHTING	120V	LED	60W	CEILING,
		#CGL129030KMVD2AFC-S				PENDANT/CABLE CEILING, PENDANT SURFACE, CEILING SURFACE, WALL SURFACE, WALL SURFACE, WALL UNIVERSAL, WALL/CEILING
	SILVER HOUSING/SILVER CORD OPTION BY OWNER/ARCH.					
A1	12" LED PENDANT	LITON LIGHTING	120V	LED	22W	Contraction of the Contraction o
		#LCMPD12RP-FBA-LU10-T40				PENDANT
		EDA-EINIOU DV A DOLUTEOT				
	7/ POLIND CUREAGE MOLINT LED DOMAN JOHT	FBA=FINISH BY ARCHITECT.	420)/	LED	4510/	CUDEACE
В	7" ROUND SURFACE MOUNT LED DOWNLIGHT	LIGHTOLIER #S7R-8-40K-10	120V	LED	15W	
		#5 / R-0-40R-10				OLILING
		COLOR BY ARCHITECT.				
С	5" ROUND SURFACE MOUNT LED SHOWER DOWNLIGHT	LIGHTOLIER	120V	LED	10W	SURFACE
		#S5R-8-40K-7				
		COLOR BY ARCHITECT.				
D	LED VANITY LIGHT	DAYBRITE	120V	LED	32W	SURFACE,
		#FSWEZ-4-40L-840				WALL
		COLOR BY ARCHITECT.				
D LI	10" ROUND SURFACE MOUNT LED DOWNLIGHT	LIGHTOLIER	120V	LED	24W	SURFACE
	TO TROUB CONTINUE MOONT LED BOWNLIGHT	#S10R-8-40K-22	1204		2-111	
		FBA=FINISH BY ARCHITECT				
Н	EXTERIOR WALL MOUNT WITH EMERGENCY BACKUP CAPABILITY	MULE	120V	LED	17W	SURFACE,
		#MERU-LED-AC/ACEM-FBA				WALL
	(DACE DID)	EDA-EINIGH BY ABOU				
X	(BASE BID) EXIT LIGHT WITH BATTERY BACK-UP	FBA=FINISH BY ARCH. MULE	120V	LED		LINIVEDEAL
^	EXILEMIN WITH BATTER! BAOK-UP	#M X-B-R-U	1200	LED		
		min to the				WALL OLILING
FV.	EXIT LIGHT AND FROG EYES WITH BATTERY BACK-UP	MULE	120V	LED		LINID/EDCAL
EX	ENT LIGHT AND FROG ETES WITH BATTERT BACK-UP	#SQRXU-SD	1200	LED	-	WALL/CEILING
		#3Q(\\0'-3D				WALDCLILING
EM	EMERGENCY FIXTURE WITH EMERGENCY BACK-UP.	MULE	120V	LED	_	SURFACE,
LIVI	EWENCENOT INIONE WITH LIVENGENOT BACK-OF,	#SQ-LED-W-SD	1200	LLD	-	WALL
		110 % EED-W-0D				**/ \L
NOTES:						
1	DUAL-LEVEL SWITCHED FIXTURES SHALL BE PROVIDED WITH 2-DRIVERS. COORDINATE EXACT QUANTITIES WITH LIGHTING PLANS.					

ELECTRICAL GENERAL NOTES

A. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND PROVIDING ALL WORK INDICATED BY THESE DRAWINGS, INCLUDING; FURNISHING ALL EQUIPMENT, SUPPLIES, MATERIALS AND LABOR, TO PROVIDE A COMPLETE ELECTRICAL SYSTEM AS SHOWN/INTENDED. THE CONTRACTOR SHALL PERFORM ALL OPERATIONS INCLUDING; CUTTING, PATCHING, CHANNELING, TRENCHING, COMPACTION AND BACKFILLING THAT ARE NECESSARY FOR THE INSTALLATION OF COMPLETE POWER, LIGHTING, OR OTHER ELECTRICAL SYSTEMS REPRESENTED IN THESE DRAWINGS.

- B. THE CONTRACTOR IS TO PERFORM ALL ELECTRICAL WORK IN NEAT WORKMANLIKE MANNER IN FULL COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, LOCAL CODES; INCLUDING BUT NOT LIMITED TO; THE 2017 NATIONAL ELECTRICAL CODE (NEC), ANY APPLICABLE STATE ELECTRICAL CODES, NFPA, NFPA-70E, UBC AND ADA. FAILURE TO COMPLY WITH THESE CODES WILL BE REMEDIED AT CONTRACTOR EXPENSE
- SHOULD THE CONTRACTOR DETECT DISCREPANCIES BETWEEN CONTRACT DOCUMENTS AND ANY ASSOCIATED LEGAL OR SAFETY REQUIREMENTS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING. ONCE NOTIFIED THE ENGINEER SHALL MODIFY THE CONTRACT DOCUMENTS ACCORDINGLY. IF THE CONTRACTOR PROCEEDS WITH ANY WORK THAT IS IN VARIANCE OR CONFLICT OF KNOWN CODE, LEGAL OR SAFETY REQUIREMENTS, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THIS WORK. FURTHERMORE, UPON NOTIFICATION FROM THE ENGINEER, THE CONTRACTOR SHALL PROMPTLY CORRECT THE WORK, WITHOUT ADDITIONAL COST TO THE PROJECT. ANY IMPROPER WORK THAT CAUSES DAMAGE OR INJURY TO PERSONS ON PROPERTY, IS THE SOLE RESPONSIBILITY TO THE CONTRACTOR.
- D. FIELD VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE PROCEEDING/INSTALLING. NO CLAIM FOR ADDITIONAL MONIES/COST OR TIME EXTENSION WILL BE ALLOWED WITHOUT PROPER NOTICE AND PRIOR DETERMINATION OF TIME AND COST TO THE PROJECT.
- AFTER COMPLETION OF THE INSTALLATION, THE ENTIRE SYSTEM SHALL BE THOROUGHLY CLEANED, REMOVING ALL FOREIGN MATERIAL, PAINT, DIRT, GREASE AND UNNEEDED LABELS OR STICKERS FROM FIXTURES, DEVICES AND EQUIPMENT. REMOVE ALL RUBBISH AND DEBRIS THAT HAS ACCUMULATED DURING INSTALLATION
- ALL PHASES OF THE ELECTRICAL WORK SHALL BE COORDINATED WITH THE ARCHITECT, OWNER AND THE GENERAL CONTRACTOR. WORK SHALL BE PERFORMED TO CAUSE AS LITTLE INCONVENIENCE AS POSSIBLE TO THE OWNER.
- G. THE ELECTRICAL CONTRACTOR SHALL VERIFY ALL ELECTRICAL DEVICE LOCATIONS WITH ARCHITECTURAL CASE WORK DETAILS PRIOR TO ROUGH-IN. FURTHERMORE, THE CONTRACTOR SHALL OBTAIN FROM ALL SYSTEM SUPPLIERS, ALL APPLICABLE WIRING DIAGRAMS FOR ALL EQUIPMENT PRIOR TO ANY ROUGH-IN. ANY INCORRECT WIRING OR DEVICES INSTALLED BY ELECTRICAL CONTRACTOR WITHOUT APPROPRIATE WIRING DIAGRAM SHALL BE CORRECTED AT THE ELECTRICAL CONTRACTOR'S EXPENSE.
- THE ELECTRICAL CONTRACTOR SHALL VERIFY THE FINAL LOCATIONS OF ALL SINKS AND PLUMBING FIXTURES WITH THE PROJECT PLUMBING CONTRACTOR PRIOR TO ROUGH-IN. ANY ELECTRICAL DEVICES LOCATED BEHIND THE FINAL LOCATIONS OF COUNTERS, SINKS OR OTHER PLUMBING FIXTURES, SHALL BE SHIFTED A MINIMUM OF 8" (INCHES) TO EITHER SIDE OF THE SINK OR OBSTRUCTION. ANY ELECTRICAL DEVICES LEFT BEHIND A COUNTER, SINK OR OTHER PERMANENT PLUMBING FIXTURE AT THE TIME OF FINAL ELECTRICAL WALK-THRU. SHALL BE RELOCATED AT THE ELECTRICAL CONTRACTOR'S EXPENSE.
- PRIOR TO INSTALLATION, THE OWNER RESERVES THE RIGHT TO RELOCATE ANY ELECTRICAL DEVICE, UP TO A DISTANCE OF 12" (INCHES) WITHOUT ADDITIONAL
- THE EXACT LOCATION OF ALL SYSTEMS AND EQUIPMENT SHALL BE FIELD VERIFIED AND COORDINATED WITH OTHER TRADES PRIOR TO ANY INSTALLATION. WHERE EXACT LOCATIONS ARE NECESSARY, THEY ARE DIMENSIONED ON THE DRAWINGS. WHERE THERE IS A QUESTION OF ADEQUATE CLEARANCE OR COORDINATION BETWEEN TRADES, THE ELECTRICAL CONTRACTOR SHALL PREPARE "AS-BUILT" DRAWINGS APPLICABLE TO THE SITUATION FOR ENGINEERS REVIEW.
- SIZE ALL BOXES AND ENCLOSURES PER THE NATIONAL ELECTRICAL CODE. WORKING SPACE FOR AND AROUND ALL ELECTRICAL EQUIPMENT AND DEVICES SHALL BE DEFINED BY THE NATIONAL ELECTRICAL CODE.
- THE ELECTRICAL CONTRACTOR MUST COORDINATE WITH ALL OTHER TRADES TO INSURE THAT ALL REQUIRED COMPONENTS OF "CONTROL WORK" ARE INCLUDED AND FULLY UNDERSTOOD IN ORDER TO PROVIDE A COMPLETE AND OPERATING SYSTEM. NO ADDITIONAL COST SHALL BE ACCRUED BY THE OWNER AS A RESULT OF LACK OF SUCH COORDINATION.
- M. THE ELECTRICAL CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS ON THE PROJECT PRIOR TO SUBMITTING A BID, IN ORDER TO ALLOW THE CONTRACTOR TO SUBMIT A COMPLETE BID WITHIN THE SCOPE OF THE PLANS AND SPECIFICATIONS. THE CONTRACTOR, BY SUBMITTING A BID, IMPLIES THAT HE HAS INVESTIGATED THE EXISTING PROJECT CONDITIONS TO HIS/HER SATISFACTION. ANY QUESTIONS ARISING DURING THE BID PERIOD WITH REGARDS TO THE CONTRACTOR'S FUNCTIONS, RESPONSIBILITIES, SCOPE OF WORK, OR ANY OTHER ISSUE RELATING TO THIS PROJECT SHALL BE BROUGHT UP PRIOR TO THE ACTUAL BID WITH THE ENGINEER FOR CLARIFICATION, NOT AFTER THE CONTRACT HAS BEEN
- ALL NEW MATERIAL INSTALLED ON THIS PROJECT IS TO BE "UL" LISTED, OR LISTED BY ANOTHER AGENCY THAT IS RECOGNIZED BY AUTHORITY HAVING JURISDICTION. SPECIAL OR CUSTOM BUILT DEVICES OR CONTROL PANELS ARE TO BE ASSEMBLED USING "LISTED" COMPONENTS, AND ARE REQUIRED TO BE RE-CERTIFIED TO PERFORM A CERTAIN TASK BY A "NATIONALLY RECOGNIZED TESTING LAB" (NRTL).
- O. ALL WIRING SHALL BE ROUTED IN CONDUIT AND SHALL BE CONCEALED IN WALLS AND ABOVE CEILINGS UNLESS OTHERWISE INDICATED. THE CONDUIT RUNS AS SHOWN ON THE PLANS ARE APPROXIMATE. EXACT LOCATIONS AND ROUTING SHALL BE PER EXISTING FIELD CONDITIONS. GENERALLY, CONDUIT SHALL BE "EMT", 1/2 " MINIMUM UNLESS NOTED OTHERWISE. WHERE REQUIRED TO PROTECT FROM PHYSICAL DAMAGE, CONDUIT SHALL BE "GALVANIZED RIGID CONDUIT" (GRC) OR "GALVANIZED INTERMEDIATE CONDUIT" (IMC) TYPE. USE "FLEXIBLE METALLIC CONDUIT" ONLY WHERE INDICATED, OR IN FINAL CONNECTION POINT FOR MECHANICAL EQUIPMENT. ALL FINAL CONNECTION TO MECHANICAL EQUIPMENT SHALL BE MADE USING "LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT" USING STRANDED WIRE, OF WHICH THE LENGTH IS TO BE FIVE FEET (5'). SURFACE MOUNTED RACEWAY SHALL BE USED ONLY WHERE INDICATED ON DRAWINGS AND SHALL BE "WIREMOLD" TYPE OR EQUAL, OR AS SPECIFIED. SURFACE MOUNTED RACEWAYS SHOULD BE MOUNTED IN CORNER OF THE WALL OR CEILING, UNLESS OTHERWISE SHOWN. ALL EXPOSED RACEWAYS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO ROUGH-IN.
- CONDUIT ROUGH-IN SHALL BE COORDINATED WITH THE MECHANICAL WORK TO AVOID LOCATION CONFLICTS. PRIOR TO ROUGH-IN, CONDUIT LOCATIONS SHOULD BE DISCUSSED WITH; THE MECHANICAL SUB-CONTRACTOR, THE CONTROLS SUB-CONTRACTOR, AND THE MECHANICAL AND/OR ELECTRICAL ENGINEER. INSTALL EXTERIOR WIRING IN APPROPRIATE, UTILIZING WEATHERPROOF FITTINGS, BOXES AND COVERS. SUPPORT ALL CONDUIT FROM THE BUILDING STRUCTURE. DO NOT SUPPORT CONDUIT FROM; VENTILATING DUCTS, MECHANICAL PIPING, SUSPENDED CEILING GRIDS, OR THEIR HANGERS. USE ONLY ACCEPTABLE/LISTED MEANS OF SUPPORT. EACH CONDUIT TERMINATION IS TO BE PROVIDED WITH AN INSULATED PLASTIC BUSHING OR A CONNECTOR WITH AN INSULATED THROAT. NO EXCEPTIONS.
- PROVIDE ALL CONDUIT, BOXES AND WIRING FOR THE AUDIO/VISUAL SYSTEM, THEATRICAL EQUIPMENT, AND ANY OTHER SPECIAL SYSTEMS AS SPECIFIED BY THE DRAWINGS AND/OR SPECIFICATIONS. REFER TO APPROPRIATE DRAWING FOR SPECIFICS. COORDINATE THE LOCATIONS, ELECTRICAL EQUIPMENT, AND WIRING REQUIREMENTS FOR A COMPLETE AND OPERATIONAL SYSTEM.

THE CONTRACTOR SHALL REPAIR ALL DAMAGE TO WALLS, CEILING, ETC. IN A PROFESSIONAL MANNER. ALL REPAIRS SHALL BE MADE USING MATCHING MATERIALS AND SHALL BE PROFESSIONALLY FINISHED TO MATCH THE EXISTING

- ROOF PENETRATIONS SHALL BE OF THE TYPE APPROVED BY THE ARCHITECT, OWNER, AND ENGINEER. CONDUITS INSTALLED ON ROOFS SHALL BE SUPPORTED AT FOUR FEET (4') ON CENTERS, AND ASSOCIATED WIRING SHALL BE AMPACITY ADJUSTED PER NEC TABLE 310.15(B)(3)(c) (AMBIENT TEMPERATURE ADJUSTMENTS FOR RACEWAY AND CABLES EXPOSED TO SUNLIGHT ON OR ABOVE ROOFTOPS). ROOFTOP CONDUIT SUPPORTS ARE TO BE AS PRE-APPROVED BY THE ARCHITECT OWNER AND ENGINEER. COORDINATE EXTERIOR CONDUIT ROUTING WITH MECHANICAL AND PLUMBING UTILITIES. ALL ROOF CONDUIT SHALL BE "IMC" OR "GRC". AND SHALL BE RUN PARALLEL AND PERPENDICULAR TO THE BUILDING EXTERIOR WALLS AND PARAPETS.
- ALL EMT FITTINGS (COUPLING AND CONNECTORS) ARE TO BE "STEEL, COMPRESSION TYPE". THE USE OF "DIE-CAST OR SET SCREW" FITTINGS IS NOT ALLOWED. IN DAMP OR WET LOCATIONS, EMT FITTINGS SHOULD BE "WP" WEATHERPROOF FITTING AND MARKED.
- THE INSTALLATION OF ALL ELECTRICAL DEVICES SHALL COMPLY WITH THE "AMERICANS WITH DISABILITIES ACT" (ADA) AS ADOPTED BY THE STATE OF NEW
- ALL BRANCH CIRCUITS OVER 100 FEET IN LENGTH WILL UTILIZE #10 CONDUCTORS
- INSTALL ELECTRICAL EQUIPMENT AS NECESSARY OR AS INDICATED ON THE DRAWINGS. EXTEND ALL CONDUIT AND CONDUCTORS AND MAKE ALL FINAL CONNECTIONS MECHANICAL AND OWNER FURNISHED EQUIPMENT AS REQUIRED. LEAVE ALL EQUIPMENT OPERABLE CONDITION WITH APPROPRIATE OVERLOAD AND SERVICE DISCONNECT PROTECTION AS REQUIRED BY APPLICABLE CODES. FOLLOW THE MANUFACTURER'S INSTALLATION GUIDELINES WHERE APPLICABLE.
- EXPOSED CONDUIT WILL NOT BE ACCEPTED EXCEPT IN "UTILITY AREAS, OR WHERE SPECIFICALLY CALLED FOR ON THE DRAWINGS.
- IN ADDITION TO RACEWAY BONDING REQUIRED BY THE CODE AND OUTLET BOX BONDING JUMPERS. THE CONTRACTOR SHALL INSTALL A GREEN EQUIPMENT "GROUNDING" CONDUCTOR FOR EACH BRANCH CIRCUIT. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE BONDED AT ALL; JUNCTION BOXES, PULL BOXES, DISCONNECT SWITCHES, STARTERS, VFD'S AND MECHANICAL EQUIPMENT CABINETS, OR OTHER APPLICABLE EQUIPMENT.
- PLEASE NOTE: ALL INDIVIDUAL CIRCUITS ARE REQUIRED TO HAVE THEIR OWN SEPARATE/DEDICATED "NEUTRAL". THE SHARING OF NEUTRALS BETWEEN CIRCUITS <u>WILL NOT BE ACCEPTABLE</u> UNDER ANY CIRCUMSTANCES.
- AA. PROVIDE A 20 AMP, 120 VOLT "GFCI" PROTECTED RECEPTACLE WITH A THREADED WEATHERPROOF BOX AND WEATHERPROOF COVER, MOUNTED ON A PIECE OF PROPERLY SUPPORTED "IMC" CONDUIT WITHIN TWENTY-FIVE FEET (25') OF EACH ROOFTOP MECHANICAL UNIT.
- AB. WIRING DEVICES SHALL BE RATED FOR THE GIVEN APPLICATION AS REQUIRED BY CODE. ALL SWITCHES AND RECEPTACLES SHALL BE RATED A MINIMUM OF 20 AMPS, AND SHALL BE EQUAL TO THE "HUBBELL CR AND CS" SERIES.
- AC. ALL CONDUCTORS SHALL BE COPPER, RATED FOR 600 VOLTS WITH TYPE "THHN/THWN" INSULATION, UNLESS OTHERWISE INDICATED OR SPECIFIED. MINIMUM WIRE SIZE SHALL BE #12 AWG (SOLID OR STRANDED). WIRE SIZED #10 AWG AND LARGER IS TO BE "STRANDED". ALL WIRING, INCLUDING LOW-VOLTAGE AND CONTROL WIRING IS TO BE RUN IN CONDUIT, UNLESS OTHERWISE NOTED.
- AD. ALL WIRES SHALL BE TAGGED AT ALL EQUIPMENT BOXES, JUNCTION BOXES, PULL BOXES, AND CABINETS WITH APPROVED PLASTIC TAGS BY "ACTION CRAFT", "BRADY", OR APROVED EQUAL.
- AE. PULL/JUNCTION BOXES ARE TO BE PROVIDED AS SHOWN OR AS REQUIRED BY THE
- AF. ALL PANELBOARDS ARE TO BE COPPER BUS, AND DOOR-IN-DOOR WITH INDICATED "AIC" RATING AND NUMBER OF CIRCUITS AS SHOWN ON THE DRAWINGS. ALL CIRCUIT BREAKERS ARE TO BE THE "BOLT-IN" TYPE. THE USE OF "LOADCENTERS" WITH "STAB-IN" BREAKERS IS PROHIBITED. ALL PANELBOARDS ARE TO BE FURNISHED WITH BOTH A "NEUTRAL BAR" AND A "GROUNDING BAR", EACH WITH THE CAPACITY TO SERVE ALL CIRCUITS WITHIN THE PANELBOARD. PROPERLY INDENTIFY ALL PANELBOARDS WITH A LAMINATE LABEL SHOWING THE PANEL NAME, VOLTAGE, AND WHERE IT IS FED FROM. PROVIDE THE APPROPRIATE CIRCUIT BREAKERS, USING "HACR" FOR HEATING AND AIR CONDITIONING LOADS. PROVIDE "GFCI" CIRCUIT BREAKERS AS REQUIRED. PANEL DIRECTORIES ARE TO BE TYPE WRITTEN, AND SHOULD SHOW THE DEVICES AND THEIR APPROXIMATE LOCATION (I.E.: "RECEPTACLES, N. WALL, ROOM 115"). WHERE THE DIRECTORY IS TO DENOTE "SPARES" OR "SPACES", IT SHOULD BE DONE SO IN PENCIL TO ALLOW FOR LATER INSTALLATIONS. PANELBOARD BUS RATINGS WILL INDICATED ON THE PANEL SCHEDULES. SHORT CIRCUIT RATINGS OF PANELBOARDS AND OVER-CURRENT PROTECTION SHALL BE COORDINATED WITH UPSTREAM OVER-CURRENT PROTECTION AND AVAILABLE SHORT CIRCUIT ANALYSIS.
- AG. ALL DISCONNECT SWITCHES, STARTERS, VFD'S AND OTHER "CONTROLLING DEVICES" SHALL BE PROVIDED WITH ENGRAVED MICARTA NAMEPLATES INDICATING THE EQUIPMENT CONTROLLED, THE CIRCUIT IT IS INSTALLED ON, AND THE PANEL LOCATION IT IS FED FROM. NAMEPLATES ARE TO BE ATTACHED WITH SCREWS, NOT ADHESIVES.
- AH. INTERIOR EXHAUST FAN SWITCHES SHALL BE 20 AMP-SINGLE POLE TOGGLE TYPE WITH A PILOT LIGHT. LABEL ALL INTERIOR EXHAUST FAN SWITCHES WITH ENGRAVED MICARTA NAMEPLATES READING "EXHAUST FAN". SEE THE SPECIFICATIONS TO DETERMINE IF OTHER LABELING IS REQUIRED, WHICH SHALL TAKE PRECEDENCE.
- PHASE PROTECTION: ALL NEW MOTORS 1 HP AND ABOVE USING 3 PHASE POWER, AND 3 PHASE HVAC UNITS SHALL HAVE PROTECTION AGAINST PHASE REVERSAL. IT SHALL PROTECT AGAINST LOSS OF PHASE OR PHASE IMBALANCE OF 10% OR GREATER ON ANY ONE PHASE. THE UNIT SHALL BE AS MANUFACTURED BY "CUTLER HAMMER", PART #"D60" OR EQUAL.
- AJ. THE FIRE ALARM SYSTEM SHALL BE APPROVED BY THE LOCAL AUTHORITY HAVING JURISDICTION PRIOR TO ROUGH-IN. ANY MODIFICATIONS OR ADDITIONS REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION SHALL BE INCLUDED IN THE ELECTRICAL CONTRACTOR BID. THE FAILURE TO INCLUDE ITEMS REQUIRED BY THE THE LOCAL AUTHORITY HAVING JURISDICTION IN THE CONTRACTOR'S BID WILL NOT BE CAUSE TO ADJUST THE CONTRACT AMOUNT.
- AK. ALL NEW OR EXISTING SMOKE DETECTOR'S SHALL BE BAGGED OR REMOVED DURING CONSTRUCTION. IF REMOVED, THEY SHOULD BE STORED IN A SEALED BAG UNTIL ALL WORK IS COMPLETE. IF THE SMOKE DETECTORS ARE NOT BAGGED OR REMOVED PRIOR TO THE COMMENCEMENT OF WORK, AND ARE DAMAGED, THEY SHALL BE REPLACED WITH NEW DETECTORS AT THE CONTRACTOR'S EXPENSE AT THE PROJECT COMPLETION.
- THE CONTRACTOR SHALL PREPARE AND SUBMIT A COMPLETE SET OF "AS-BUILT" DRAWINGS DOCUMENTING ANY AND ALL WIRING AND EQUIPMENT LOCATIONS, CONDITIONS AND CHANGES WHILE PERFORMING THIS PROJECT. SUBMIT 1 (ONE) HARD COPY, AND 2 (TWO) ELECTRONIC (FLASH DRIVE) COPIES AT THE TIME OF SUBSTANTIAL COMPLETION.
- AM. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO ADHERE TO THE 2014 NEC CODE ARTICLE 240.87 "ARC ENERGY REDUCTION" WHICH REQUIRES AN INDEPENDENT TESTING LABORATORY TEST AND PROVIDE THE CORRECT TRIP SETTINGS ON ANY OVER CURRENT DEVICE INSTALLED IN A CIRCUIT BREAKER THAT IS RATED OR THAT CAN BE ADJUSTED TO 1200 AMPS OR HIGHER. COPIES OF THIS DOCUMENTATION SHALL BE PROVIDED TO THE ELECTRICAL ENGINEER, THE FACILITY OWNER, AND THE AUTHORITY HAVING JURISDICTION (CODE OFFICIAL) AT OR PRIOR TO THE "FINAL INSPECTION".

SYMBOL LEGEND CEILING OR WALL BRACKET FIXTURE. SEE FIXTURE SCHEDULE. FLUORESCENT OUTLET AND FIXTURE. SEE FIXTURE SCHEDULE. 2X4 FLUORESCENT OUTLET AND FIXTURE. SEE FIXTURE SCHEDULE. 2X2 SURFACE MOUNTED FLUORESCENT 1X4 WALL MOUNT FLOURESCENT FIXTURE EXIT LIGHT. ARROWS INDICATE DIRECTIONAL ARROW ON FIXTURE. EMERGENCY EGRESS LIGHTING FIXTURE WITH BATTERY PACK, SEE LIGHTING FIXTURE SCHEDULE, MH= 7'- 6" TO BOTTOM EMERGENCY EXIT LIGHTING FIXTURE WITH BATTERY PACK SEE LIGHTING FIXTURE SCHEDULE, MH= ABOVE DOOR EXIT SINGLE POLE WALL SWITCH, UP +48". THERMAL O.L. SWITCH OCCUPANCY SENSOR SWITCH UP AT STANDARD HEIGHT. DIMMER SWITCH. SEE PLANS AND SPECS FOR CHARACTERISTICS

DUPLEX CONVENIENCE OUTLET, GROUNDING TYPE, UP +18"

FOURPLEX CONVENIENCE OUTLET, GROUNDING TYPE, UP +18"

250V-2P-4W SPECIAL PURPOSE GROUNDING OUTLET. AMPERAGE

JUNCTION BOX FLUSH IN WALL WITH CONNECTION TO EQUIPMENT.

J-BOX ABOVE LAY-IN CEILING W/ FLEX CONDUIT TO LAY-IN FIXTURES

TELEPHONE OUTLET, UP +18" UNLESS OTHERWISE INDICATED.

COMBINATION DATA/VOICE, TWO GANG BOX MOUNTED +18" AFF

OR COUNTER TOP OR AS NOTED. PROVIDE 3/4" EMPTY CONDUIT

TELEPHONE CONDUIT TO BACKBOARD, 1" MIN. WITH PULL WIRE.

SPECIAL SYSTEMS CABINET W/ HINGED DOOR AND KEYED LOCK

WITH PULLSTRING TO ABOVE ACCESSIBLE CEILING SPACE.

DATA/VOICE CABLING AND DEVICE BY OWNER

COMPUTER CONDUIT, 1" MIN. WITH PULL WIRE.

TELEVISION CONDUIT, 1" MIN. WITH PULL WIRE.

DISCONNECT SWITCH. SIZE AND POLES FOR LOAD

SURFACE MOUNTED PANEL. SEE PANEL SCHEDULE FOR

MOTOR CONNECTION, FRACTIONAL H.P (LESS THAN 1/3 HP)

BRANCH CIRCUIT IN WALLS OR CEILING WITH CONDUCTORS

BRANCH CIRCUIT IN WALLS OR UNDER FLOOR, CONDUCTORS

HOME RUN TO PANEL, WITH BRANCH CIRCUIT NUMBERS INDICATED.

INDICATED. (NEUTRAL, HOT, SWITCHED, AND GROUNDING

FLUSH MOUNTED PANEL. SEE PANEL SCHEDULE FOR

SINGLE OUTLET, ISOLATED GROUNDING TYPE, UP +18"

KEYED SWITCH, UP +48". SEE PLANS

UNLESS OTHERWISE INDICATED

UNLESS OTHERWISE INDICATED

UNLESS OTHERWISE INDICATED

AS INDICATED.

CONNECTED.NEMA 3R

CHARACTERISTICS.

CHARACTERISTICS.

CONDUCTOR-LEFT TO

RIGHT RESPECTIVELY)

KEYED NOTE SYMBOL

MECHANICAL EQUIPMENT SYMBOL

GROUND

INDICATED.

PAD MOUNTED TRANSFORMER

MOTOR CONNECTION WITH HP INDICATED.

THREE WAY SWITCH. UP +48" TO CENTER.

CONSULTANT



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ARCHITECT

PROJECT TITLE

SANTA FE COUNTY **MADRID** FIRE STATION

> **MADRID NEW MEXICO**

		RE	REVISIONS:				
_	MK	DATE	DE	SCRIPTION			
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ACE PROJECT NUMBER:

A18.11 DATE:

9/25/18 SHEET TITLE:

FIXTURE SCHEDULE. **GENERAL NOTES & LEGEND**

SHEET NO:

E-001

120 Aliso Drive, SE Albuquerque, New Mexico 87108

Phone 505.842.5787

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PART 1 - GENERAL

1.01 SCOPE OF WORK

A. CONFORM WITH APPLICABLE PROVISIONS OF THE GENERAL PROVISIONS, SPECIAL CONDITIONS AND GENERAL REQUIREMENTS.

1.02 <u>REQUIREMENTS</u>

A. FURNISH ALL LABOR, MATERIALS, SERVICE, EQUIPMENT AND APPLIANCES REQUIRED TO COMPLETE THE INSTALLATION OF THE COMPLETE ELECTRICAL SYSTEM IN ACCORDANCE WITH THE SPECIFICATIONS AND CONTRACT DRAWINGS.

REQUIREMENTS OF REGULATORY AGENCIES AND STANDARDS

- A. REGULATORY AGENCIES: INSTALLATION, MATERIALS, EQUIPMENT AND WORKMANSHIP SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC) - LATEST EDITION OF THE NEW MEXICO STATE CODE, THE NATIONAL ELECTRICAL SAFETY CODE (NESC), AND THE TERMS AND THE CONDITIONS OF THE AUTHORITIES HAVING LAWFUL JURISDICTION PERTAINING TO THE WORK REQUIRED. ALL MODIFICATIONS REQUIRED BY THESE CODES, RULES, REGULATIONS AND AUTHORITIES SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL CHARGE TO THE OWNER.
- B. UNDERWRITER'S LABORATORIES (UL): ALL MATERIALS, APPLIANCES, EQUIPMENT OR DEVICES SHALL CONFORM TO THE APPLICABLE STANDARDS OF UNDERWRITER'S LABORATORIES, INC. THE LABEL OF, OR LISTING BY, UL IS REQUIRED.

1.04 <u>DEFINITIONS</u>

- A "INSTALL" SHALL MEAN TO PLACE FIX IN POSITION SECURE ANCHOR FTC. INCLUDING NECESSARY APPURTENANCES AND LABOR SO THE EQUIPMENT OR INSTALLATION WILL FUNCTION AS SPECIFIED AND INTENDED.
- "PROVIDE" SHALL MEAN "FURNISH AND INSTALL". D. "OR APPROVED EQUAL" SHALL MEAN EQUAL IN TYPE, DESIGN, QUALITY, ETC., AS DETERMINED BY THE ARCHITECT.

B. "SUPPLY" SHALL MEAN TO PURCHASE AND SUPPLY EQUIPMENT OR COMPONENTS.

PART 2 - PRODUCTS

2.01 <u>EQUIPMENT REQUIREMENTS</u>

A. THE ELECTRICAL REQUIREMENTS FOR EQUIPMENT SPECIFIED OR INDICATED ON THE DRAWINGS ARE BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. IF EQUIPMENT FURNISHED FOR INSTALLATION HAS ELECTRICAL REQUIREMENTS OTHER THAN INDICATED ON THE ELECTRICAL DRAWINGS, THE CONTRACTOR SHALL MAKE ALL ADJUSTMENTS TO WIRE AND CONDUIT SIZE, CONTROLS, OVERCURRENT PROTECTION AND INSTALLATION AS REQUIRED TO ACCOMMODATE THE EQUIPMENT SUPPLIED, WITHOUT ADDITIONAL CHARGE TO THE OWNER. THE COMPLETE RESPONSIBILITY AND COSTS FOR SUCH ADJUSTMENTS SHALL BE ASSIGNED TO THE RESPECTIVE SECTION OF THIS SPECIFICATION UNDER WHICH THE EQUIPMENT IS

2.02 <u>MATERIALS</u>

- A. ALL SIMILAR MATERIALS AND EQUIPMENT SHALL BE THE PRODUCT OF THE SAME MANUFACTURER.
- B. WHERE NO SPECIFIC MATERIAL, APPARATUS OR APPLIANCE IS MENTIONED, ANY FIRST-CLASS PRODUCT MADE BY A REPUTABLE MANUFACTURER MAY BE USED, PROVIDING IT CONFORMS TO THE CONTRACT REQUIREMENTS AND MEETS THE APPROVAL OF THE ENGINEER.
- C. MATERIAL AND EQUIPMENT SHALL BE THE STANDARD PRODUCTS OF MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTIONS OF SUCH MATERIAL AND SHALL BE THE
- MANUFACTURER'S CURRENT AND STANDARD DESIGN. D. ALTITUDE: EQUIPMENT AFFECTED BY ALTITUDE SHALL PERFORM SATISFACTORILY FOR THE
- FUNCTION INTENDED AT AN ALTITUDE OF THE PROJECT SITE.

PART 3 - EXECUTION

3.01 GENERAL

B. FABRICATION, ERECTION AND INSTALLATION OF THE COMPLETE ELECTRICAL SYSTEM SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER BY QUALIFIED PERSONNEL EXPERIENCED IN SUCH WORK AND SHALL PROCEED IN AN ORDERLY MANNER SO AS NOT TO HOLD UP PROGRESS OF THE PROJECT. THE ELECTRICAL CONTRACTOR SHALL CHECK ALL AREAS AND SURFACES WHERE ELECTRICAL EQUIPMENT MATERIAL IS TO BE INSTALLED, REMOVED OR RELOCATED AND REPORT ANY UNSATISFACTORY CONDITIONS BEFORE STARTING WORK. COMMENCEMENT OF WORK SIGNIFIES THIS CONTRACTOR'S ACCEPTANCE OF EXISTING CONDITIONS. IN THE ACCEPTANCE OR REJECTION OF THE FINISHED INSTALLATION, NO ALLOWANCE WILL BE MADE FOR LACK OF SKILL ON THE PART OF WORKMEN.

PERFORMANCE TESTS

A THOROLIGHLY TEST ALL FIXTURES SERVICES AND ALL CIRCUITS FOR PROPER OPERATING CONDITION AND FREEDOM FROM GROUNDS AND SHORT CIRCUITS BEFORE ACCEPTANCE IS REQUESTED. ALL FOLIPMENT APPLIANCES AND DEVICES SHALL BE OPERATED LINDER LOAD CONDITIONS

3.03 AS-BUILT DRAWINGS

A. DURING PROGRESS OF THE WORK, MAINTAIN AN ACCURATE RECORD OF THE INSTALLATION OF THE SYSTEM, LOCATING EACH CIRCUIT PRECISELY BY DIMENSION. UPON COMPLETION OF THE INSTALLATION, TRANSFER ALL RECORD DATA TO BLUE LINE PRINTS OF THE ORIGINAL

3.04 <u>DRAWINGS</u>

A. GENERAL: THE ELECTRICAL DRAWINGS SHOW THE GENERAL ARRANGEMENT OF ALL CONDUIT, EQUIPMENT, ETC. AND SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHER TRADES WILL PERMIT. THE ARCHITECTURAL DRAWINGS SHALL BE CONSIDERED AS PART OF THE WORK INSOFAR AS THESE DRAWINGS FURNISH THE CONTRACTOR WITH INFORMATION RELATING TO THE DESIGN AND CONSTRUCTION OF THE BUILDING. ARCHITECTURAL DRAWING SHALL TAKE PRECEDENCE OVER ELECTRICAL DRAWINGS. BECAUSE OF THE SMALL SCALE OF THE ELECTRICAL DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS AND ACCESSORIES WHICH MAY BE REQUIRED. THE CONTRACTOR SHALL INVESTIGATE THE STRUCTURAL AND FINISH CONDITIONS AFFECTING THE WORK AND SHALL ARRANGE HIS WORK ACCORDINGLY, PROVIDING SUCH FITTINGS, ELBOW, PULLBOXES, AND ACCESSORIES AS MAY BE REQUIRED TO MEET SUCH CONDITIONS

B. FIELD MEASUREMENTS: THE CONTRACTOR SHALL VERIFY THE DIMENSIONS GOVERNING THE ELECTRICAL WORK AT THE BUILDING. NO EXTRA COMPENSATION SHALL BE CLAIMED OR ALLOWED ON ACCOUNT OF DIFFERENCES BETWEEN ACTUAL DIMENSIONS AND THOSE INDICATED ON THE DRAWINGS.

END OF SECTION 16010

SECTION 16110 - RACEWAYS, BOXES AND FITTINGS

PART 1 - GENERAL

1.01 CONFORMANCE

A. CONFORM WITH APPLICABLE PROVISIONS OF THE GENERAL CONDITIONS, SPECIAL CONDITIONS AND GENERAL REQUIREMENTS.

1.02 RELATED WORK IN OTHER SECTIONS

A. SECTION 16010, GENERAL PROVISIONS; SECTION 16450, GROUNDING. PART 2 - PRODUCTS

2.01 CONDUITS

- A. ELECTRICAL METALLIC TUBING (EMT): MILD STEEL, ZINC COATED ON THE OUTSIDE AND EITHER ZINC COATED OR COATED WITH AN APPROVED CORROSION RESISTANT COATING ON THE INSIDE. MAXIMUM, SIZE 2 INCH ELECTRICAL TRADE SIZE UNLESS NOTED ON THE DRAWINGS OR SPECIFICALLY APPROVED.
- B. FLEXIBLE CONDUIT: COMMERCIAL GREENFIELD, GALVANIZED STEEL, WITH A SEPARATE GROUNDING BOND WIRE INSTALLED IN THE CONDUIT IN ADDITION TO OTHER WIRES. C. LIQUID TIGHT FLEXIBLE CONDUIT: FLEXIBLE GALVANIZED STEEL TUBING WITH EXTRUDED LIQUID TIGHT PVC OUTER JACKET AND A CONTINUOUS COPPER BONDING CONDUCTOR WOUND SPIRALLY BETWEEN THE CONVOLUTIONS. WHERE A SEPARATE GROUNDING CONDUCTOR IS

INSTALLED IN THE CONDUIT, BONDING CONDUCTOR IN THE CONVOLUTIONS MAY BE OMITTED. 2.02 CONDUIT FITTINGS

- A. CONNECTORS AND COUPLINGS: EMT COUPLINGS AND CONNECTORS EITHER STEEL OR MALLEABLE IRON ONLY. CONNECTORS TO HAVE INSULATED THROATS.
- B. BUSHINGS: INSULATED TYPE, DESIGNED TO PREVENT ABRASION OF WIRES WITHOUT IMPAIRING THE CONTINUITY OF THE CONDUIT GROUNDING SYSTEM, FOR CONNECTORS FOR EMT. C. EMT FITTINGS: IRON OR STEEL ONLY.
- D. LIQUID TIGHT FLEXIBLE CONDUIT FITTINGS: WITH THREADED GROUNDING CONE, A STEEL, NYLON OR EQUAL PLASTIC COMPRESSION RING AND A GLAND FOR TIGHTENING. EITHER STEEL OR MALLEABLE IRON ONLY WITH INSULATED THROATS AND MALE THREAD AND LOCKNUT OR MALE BUSHING WITH OR WITHOUT "O" RING SEAT. EACH CONNECTOR SHALL PROVIDE A LOW RESISTANCE GROUND CONNECTION BETWEEN THE FLEXIBLE CONDUIT AND THE OUTLET BOX,
- CONDUIT OR OTHER EQUIPMENT TO WHICH IT IS CONNECTED. E. FLEXIBLE CONDUIT FITTINGS (COMMERCIAL GREENFIELD): EITHER STEEL OR MALLEABLE IRON ONLY, WITH INSULATED THROATS.

PART 3 - EXECUTION

3.01 CONDUIT INSTALLATIONS

A. CONDUIT SYSTEMS: EMT CONDUIT UNLESS NOTED. USE FLEXIBLE CONDUIT ONLY FOR MOTOR OR EQUIPMENT CONNECTIONS AND THEN ONLY TO THE EXTENT OF MINIMUM LENGTHS REQUIRED FOR CONNECTIONS. INSTALL FLEXIBLE CONDUIT CONNECTIONS AT ALL RESILENT MOUNTED EQUIPMENT. PROVIDE LIQUID TIGHT FLEXIBLE CONDUIT IN EXTERIOR, WET OR DAMP LOCATIONS AND FOR CONNECTIONS TO THE PIPE MECHANICAL SYSTEM. USE CONDUIT ONY WHERE APPLICABLE: AT SERVICE ENTRANCE, ETC. USE NM, NMC AND UF CABLING WHERE PERMITTED BY NEC.

3.02 CONDUIT SUPPORTS

- A. SUPPORTS: PROVIDE SUPPORTS FOR HORIZONTAL CONDUITS AND EMT NOT MORE THAN 8 FEET APART WITH NOT LESS THAN TWO SUPPORTS FOR EACH 10 FOOT STRAIGHT LENGTH AND ONE SUPPORT NEAR EACH ELBOW OR BEND INCLUDING RUNS ABOVE SUSPENDED CEILINGS
- AND WITHIN 3 FEET OF ALL JUNCTION BOXES, SWITCHES, FITTINGS, ETC. B. STRAPS: INSTALL ONE HOLE PIPE STRAPS ON CONDUITS 1 1/2 INCH OR SMALLER. INSTALL INDIVIDUAL PIPE HANGERS FOR CONDUITS LARGER THAN 1 1/2 INCH. SPRING STEEL FASTENERS WITH HANGER RODS MAY BE USED IN DRY LOCATIONS IN LIEU OF PIPE STRAPS.

END OF SECTION 16110 SECTION 16120 - CONDUCTORS

PART 1 - GENERAL

1.01 <u>CONFORMANCE</u>

A. CONFORM WITH APPLICABLE PROVISIONS OF THE GENERAL CONDITIONS, SPECIAL CONDITIONS, AND GENERAL REQUIREMENTS

PART 2 - PRODUCTS

2.01 WIRES AND CABLES (600 VOLTS)

- A. TYPE: COPPER CONDUCTORS WITH 600 VOLTS INSULATION UNLESS OTHERWISE SPECIFIED OR
- B. USE OF ALUMINUM CONDUCTORS WILL NOT BE PERMITTED, UNLESS OTHERWISE NOTED. C. INSULATION: TYPE THHN/THWN INSULATION, AND SMALLER UNLESS OTHERWISE SPECIFIED OR NOTED ON THE DRAWINGS
- D. SIZE: NO. 12 MINIMUM UNLESS OTHERWISE SPECIFIED OR NOTED ON THE DRAWINGS. E. COLOR CODING: COLOR CODING SHALL BE A-BLACK, B-RED, C-BLUE, N-WHITE, FOR 120/208 VOLTS, WITH GREEN FOR ALL GROUND CONDUCTORS. F. TYPE NM, NMC AND UF CABLES SHALL BE PERMITTED IN ALL CONCEALED AREAS, AND WHERE

2.02 CONNECTORS AND LUGS

PERMITTED BY NEC

- A. FOR COPPER CONDUCTORS NO. 6 AND SMALLER: 3M SCOTCH-LOK OR T & B STA-KON COMPRESSION OR INDENT TYPE CONNECTORS WITH INTEGRAL OR SEPARATE INSULATING B. FOR COPPER CONDUCTORS LARGER THAN NO. 6: SOLDERLESS, INDENT, HEX SCREW OR BOLT
- TYPE PRESSURE CONDUCTORS, PROPERLY TAPED OR INSULATED.

PART 3 - EXECUTION 3.01 <u>SPLICES</u>

A. PERMITTED ONLY AT OUTLETS OR ACCESSIBLE ENCLOSURES.

3.02 <u>CABLE BENDS</u>

A. RADIUS OF ENDS NOT LESS THAN 10 TIMES THE OUTER DIAMETER OF THE CABLE

END OF SECTION 16120

PART 1 - GENERAL

SECTION 16140 - WIRING DEVICES AND PLATES

1.01 CONFORMANCE A. CONFORM WILL APPLICABLE PROVISIONS OF THE GENERAL CONDITIONS, SPECIAL CONDITIONS

PART 2 - PRODUCTS

SNAP SWITCHES

A. UNLESS OTHERWISE SPECIFIED, EACH SNAP SWITCH (FLUSH TUMBLER-TOGGLE) SHALL BE OF THE A.C. GENERAL USE TYPE FOR MOUNTING IN A SINGLE GANG SPACING, FULLY RATED 20 AMPERES MINIMUM AT 120/277 VOLTS. IVORY COLOR HANDLES UNLESS OTHERWISE INDICATED

- ON THE DRAWINGS. SILVER OR SILVER ALLOY CONTACTS. A. GENERAL: FIRE RESISTANT, NON-ABSORPTIVE, HOT WELDED, PHENOLIC COMPOSITION OR
- MEMBER). IVORY COLOR UNLESS OTHERWISE NOTED ON THE DRAWINGS. DOUBLE GRIP CONTACTS FOR EACH PRONG. B. GROUNDING TYPE: ALL RECEPTACLES SHALL BE GROUNDING TYPE WITH A GREEN COLORED HEXAGONAL EQUIPMENT GROUND SCREW OF ADEQUATE SIZE TO ACCOMODATE AN INSULATED GROUNDING JUMPER

EQUAL BODIES AND BASES WITH METAL PLASTER EARS (INTEGRAL WITH THE SUPPORTING

2.03 <u>DEVICE PLATES</u>

A. GENERAL: PROVIDE IVORY PHENOLIC DEVICE PLATES FOR EACH SWITCH, RECEPTACLE, SIGNAL

END OF SECTION 16140

SECTION 16160 - PANELBOARDS PART 1 - GENERAL

1.01 <u>CONFORMANCE</u>

GENERAL REQUIREMENTS.

A. SUBMIT COMPLETE SHOP DRAWINGS WITH OUTLINE DIMENSIONS, DESCRIPTIVE LITERATURE AND COMPLETE DESCRIPTIONS OF THE FRAME SIZE, TRIP SETTING, CLASS AND INTERRUPTING RATING OF

A. CONFORM WITH APPLICABLE PROVISIONS OF THE GENERAL PROVISIONS, SPECIAL CONDITIONS, AND

PART 2 - PRODUCTS

A. DEAD FRONT, SAFETY TYPE WITH VOLTAGE RATINGS AS SCHEDULED. PANELBOARDS SHALL BE OF THE LOADCENTER TYPE REQUIRED FOR THE SHORT CIRCUIT AND DUTY RATINGS INDICATED ON TH DRAWINGS OR SPECIFIED. ALL PANELBOARDS SHALL HAVE A NEUTRAL BUS AND A GROUND BUS.

2.02 BRANCH CIRCUIT PANELS

- A. ALL BRANCH CIRCUIT PANELS FOR LIGHTING AND SINGLE PHASE LOADS SHALL BE "QUICK-LAG" CIRCUIT BREAKERS WITH 10,000 AMPS INTERRUPTING CAPACITY, MAIN LUGS OR MAIN BREAKER AS INDICATED ON
- B BREAKERS: MOLDED CASE AS SCHEDULED OR REQUIRED. PROVIDE QUICK MAKE AND QUICK BREAK TOGGLE MECHANISM, INVERSE TIME TRIP CHARACTERISTICS AND TRIP FREE OPERATION ON OVERLOAD OR SHORT CIRCUIT.
- C. DIRECTORIES: PROVIDE TYPEWRITTEN CIRCUIT DESCRIPTIONS.

ALL OVERCURRENT DEVICES. IDENTIFY AVAILABLE SPACE.

PART 3 - EXECUTION

3.01 <u>CIRCUIT NUMBERING</u>

A. CIRCUIT NUMBERING SHOWN ON THE DRAWINGS IS BASED ON POLE POSITION IN THE PANELBOARD AND NOT CONSECUTIVE NUMBERING.

END OF SECTION 16160 SECTION 16450 - GROUNDING

PART 1 - GENERAL

1.01 RELATED WORK IN OTHER SECTIONS

A. SECTION 16010, GENERAL PROVISIONS; SECTION 16110, RACEWAYS, BOXES AND FITTINGS; SECTION 16120. CONDUCTORS: SECTION 16133. CABINETS: SECTION 16140. WIRING DEVICES AND PLATES; SECTION 16160, PANELBOARDS; SECTION 16170, MOTOR AND CIRCUIT DISCONNECTS: SECTION 16400. SERVICE AND DISTRIBUTION.

PART 2 - PRODUCTS

2.01 GROUNDING SYSTEM

A. MATERIALS, EQUIPMENT AND DEVICES RELATED TO THE GROUNDING SYSTEM ARE SPECIFIED UNDER OTHER SECTIONS OF THESE SPECIFICATIONS

PART 3 - EXECUTION

3.01 GENERAL

A. INSTALL TWO SEPARATE GROUNDING SYSTEMS: A SERVICE GROUNDING SYSTEM AND AN EQUIPMENT GROUNDING SYSTEM. THE SERVICE EQUIPMENT, CONDUIT SYSTEMS, SUPPORTS, CABINETS, EQUIPMENT, AND NEUTRAL CONDUCTOR SHALL BE GROUNDED IN ACCORDANCE WITH THE MINIMUM CODE REQUIREMENTS AND AS FURTHER INDICATED ON THE DRAWINGS OR SPECIFIED. CONNECT THE TWO GROUNDING SYSTEMS TOGETHER ONLY AT THE MAIN SERVICE EQUIPMENT AND AT THE SECONDARY TERMINALS OF TRANSFORMERS CREATING SEPARATELY DERIVED DISTRIBUTION SYSTEMS SUCH AS DRY-TYPE TRANSFORMERS.

3.02 <u>SERVICE GROUNDING SYSTEM</u>

A. GENERAL: THE SERVICE GROUNDING SYSTEM IS PROVIDED FOR THE AC SERVICE NEUTRAL GROUND. CURRENT RETURN CONDUCTORS, SUCH AS NEUTRALS OF THE SERVICE ENTRANCE FEEDER CIRCUITS AND BRANCH CIRCUITS SHALL NOT BE USED FOR EQUIPMENT GROUNDING. CARE MUST BE EXERCISED TO INSURE THAT NEUTRAL BARS ARE NOT BONDED TO THE ENCLOSURES OF PANELBOARDS, ETC., WHICH ARE NOT PART OF THE MAIN SERVICE EQUIPMENT. EXCEPT FOR SEPARATELY DERIVED SYSTEMS, THE NEUTRAL CONDUCTORS SHALL BE GROUNDED ONLY IN THE MAIN SERVICE EQUIPMENT.

3.03 <u>EQUIPMENT GROUNDING SYSTEM</u>

A. GENERAL: PROVIDE A COMPLETE EQUIPMENT GROUNDING SYSTEM IN ACCORDANCE WITH THE MINIMUM CODE REQUIREMENTS AND AS FURTHER INDICATED ON THE DRAWINGS OR SPECIFIED. THE EQUIPMENT GROUND (GREEN CONDUCTOR) CONSISTS OF METALLIC CONDITIONS TO GROUND OF NON-CURRENT CARRYING METAL PARTS OF THE WIRING SYSTEM OR APPARATUS CONNECTED TO THE SYSTEM. THE PRIMARY PURPOSE OF EQUIPMENT GROUNDING IS TO PROVIDE GREATER SAFETY BY LIMITING THE ELECTRICAL POTENTIAL BETWEEN NON-CURRENT CARRYING PARTS OF THE SYSTEM TO PROVIDE A LOW IMPEDANCE PATH TO GROUND FOR POSSIBLE GROUND FAULT CURRENTS.

3.04 GROUNDING ELECTRODES

A. THE SERVICE GROUND ELECTRODES SHALL BE UTILIZED. ONE SHALL BE THE MAIN COLD WATER METALLIC WATER PIPING SYSTEM AND THE OTHER SHALL BE A MADE ELECTRODE CONSISTING OF NOT LESS THAT TWENTY FEET OF BARE COPPER CONDUCTOR ENCASED ALONG THE BOTTOM OF A CONCRETE FOUNDATION FOOTING WHICH IS IN DIRECT CONTACT WITH THE EARTH (NEC 250-83A). MAKE THE CONNECTIONS TO THE COLD WATER PIPE INSIDE THE BUILDING AT THE POINT OF ENTRANCE. THE GROUNDING ELECTRODE FOR SEPARATELY DERIVED SYSTEMS SHALL BE APPROVED FOR THIS APPLICATION.

3.05 GROUNDING CONDUCTORS

A. THE GROUNDING CONDUCTORS FOR BOTH SERVICE GROUND ELECTRODES SHALL BE INSULATED OR BARE COPPER, SIZED IN ACCORDANCE WITH NEC 250-94(A), INCLUDING THE CONDUCTOR FOR THE MADE ELECTRODE. THE CONDUCTORS SHALL BE CONTINUOUS WITHOUT JOINT OR SPLICE AND SHALL BE INSTALLED IN CONDUIT WITH THE CONDUIT BONDED TO THE CONDUCTOR AT EACH END. INSTALL THE CONDUCTOR TO PERMIT THE SHORTEST AND MOST DIRECT PATH AND TERMINATE IN THE MAIN SERVICE EQUIPMENT ON THE COMMON GROUND POINT. EQUIPMENT GROUNDING CONDUCTORS SHALL BE GREEN INSULATED CONDUCTORS EQUIVALENT TO THE INSULATION ON THE ASSOCIATED PHASE CONDUCTOR, BUT NOT LESS THAN TYPE TW. THE EQUIPMENT GROUNDING CONDUCTOR OR STRAPS SHALL BE SIZED IN ACCORDANCE WITH NEC. WHERE ONE FEEDER SERVES A SERIES OF PANELBOARDS OR TRANSFORMERS, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES. GROUNDING CONDUCTORS SHALL NOT BE INSTALLED THROUGH METAL-SHEATHED HOLES. ALL CONNECTIONS SHALL BE AVAILABLE FOR INSPECTION AND MAINTENA

3.06 GROUND CONNECTIONS

A. CLEAN SURFACES THOROUGHLY BEFORE APPLYING GROUND LUGS OR CLAMPS. IF SURFACE IS COATED THE COATING MUST BE REMOVED DOWN TO THE BARE METAL. AFTER THE COATING HAS BEEN REMOVED, APPLY A NON-CORROSIVE APPROVED COMPOUND TO CLEANED SURFACE AND INSTALL LUGS OR CLAMPS. WHERE GALVANIZING IS REMOVED FROM METAL, IT SHALL BE PAINTED OR TOUCHED UP WITH "GALVANOX", OR EQUAL.

3.07 <u>TESTS</u>

A. TEST THE COMPLETED GROUNDING SYSTEM WITH A MEGGAR AT THE SERVICE GROUND BAR AND SUBMIT A WRITTEN REPORT TO THE ARCHITECT FOR APPROVAL. THE SERVICE SHALL NOT BE ENERGIZED IF THE TEST SHOWS MORE THAN 5 OHMS, UNLESS APPROVED BY THE

END OF SECTION 16450

SECTION 16500 - LIGHTING EQUIPMENT

PART 1 - GENERAL

1.01 <u>CONFORMANCE</u>

A. CONFORM WITH APPLICABLE PROVISIONS OF THE GENERAL CONDITIONS, SPECIAL CONDITIONS, AND GENERAL REQUIREMENTS.

1.02 <u>SUBMITTALS</u>

A. SUBMIT FOR APPROVAL COMPLETE SHOP DRAWINGS, CATALOG CUTS, SPECIAL INSTALLATION INSTRUCTIONS, PHOTOMETRIC DATA AND DESCRIPTIVE LITERATURE.

A. FURNISH ALL LIGHTING FIXTURES THROUGHOUT THE TYPE INDICATED ON THE DRAWINGS,

COMPLETE WITH LAMPS, SOCKETS, WIRING, FITTERS, HANGERS, PLASTER RINGS, CANOPIES,

2.01 GENERAL

PART 2 - PRODUCTS

ETC., AS REQUIRED. 2.02 <u>LAMPS</u>

A. FLUORESCENT LAMPS SHALL BE SYLVANIA OCTRON T8, SIMILAR AND EQUAL. B. INCANDESCENT LAMPS SHALL BE INSIDE FROSTED, MEDIUM BASE, EXTENDED SERVICE, 130 VOLT UNLESS OTHERWISE NOTED.

A. BALLASTS FOR ALL FLUORESCENT FIXTURES SHALL BE OF THE ELECTRONIC SOLID STATE

2.04 <u>FLUORESCENT FIXTURES</u>

A. ALL FIXTURES, BALLASTS, AND SUPPORTS SHALL BE QUIET IN OPERATION. LOUVERS, SHIELDS, REFLECTORS AND ALL SECTIONS OF THE CHANNEL STRUCTURE SHALL BE SECURELY HELD IN

PART 3 - EXECUTION

3.01 <u>SUPPORTS</u> A. SUPPORT CEILING FIXTURES TO METAL SUPPORTS PROVIDED FOR THAT PURPOSE OF SUITABLE STRENGTH AND STABILITY, ADEQUATELY ATTACHED TO AND SUPPORTED BY JOISTS,

TRUSSES, OR OTHER STRUCTURAL MEMBERS.

A. AT FINAL INSPECTION ALL FIXTURES AND LIGHTING EQUIPMENT SHALL BE IN FIRST CLASS OPERATING ORDER, IN PERFECT CONDITION AS TO FINISH AND FREE FROM DEFECTS, COMPLETELY LAMPED, CLEAN AND FREE FROM DUST, PLASTER OR PAINT SPOTS AND COMPLETE WITH THE REQUIRED GLASSWARE, REFLECTORS, SIDE PANELS, LOUVERS OR

OTHER COMPONENTS NECESSARY TO COMPLETE THE FIXTURES.

END OF SECTION 16500



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SANTA FE COUNTY **MADRID** FIRE STATION

> **MADRID NEW MEXICO**

REVISIONS:

MK DATE DESCRIPTION DRAWN BY: CHECKED B PROJECT NUMBER

A18.11

DATE: 9/25/18

SPECIFICATIONS

SHEET TITLE:

120 Aliso Drive, SE SHEET NO:

Albuquerque, New Mexico 87108 Phone 505.842.5787 Facsimile 505.842.5797

EXISTING PEDESTAL-EXISTING PANEL "MFS"-**EXISTING** -ELECTRICAL SITE PLAN
SCALE: 1"=10'-0"

PANEL SCHED GENERAL NOTES

- ALL 120/240V BRANCH CIRCUIT PANELS WITH BOLT ON CIRCUIT BREAKER CONSTRUCTION SHALL BE SQ "D" QO, SIMILAR AND EQUAL.
- ALL 120/240V PANEL BOARDS SHALL HAVE MINIMUM 10KAIC RATING, UNLESS OTHERWISE NOTED.
- ALL PANEL BOARDS SHALL HAVE COPPER BUS, BOLT-IN BREAKERS, AND DOOR-IN-DOOR CONSTRUCTION. ALL SURFACE PANELS IN THE FINISHED AREAS SHALL BE PROVIDED WITH SKIRTS FLOOR-TO-CEILING (FIELD VERIFY DIMENSIONS), AND ELSEWHERE AS NOTED ON THE PLANS.
- ALL PANEL BOARDS SHALL HAVE TYPED CIRCUIT DIRECTORIES, PLACED BEHIND CLEAR PLASTIC PROTECTIVE COVER. DESIGNATIONS ON DIRECTORY SHALL BE MORE DESCRIPTIVE THAN AS SHOWN ON THE DRAWING PANEL SCHEDULES. "SPARES" AND "SPACES" SHALL BE INDICATED ON DIRECTORY WITH ERASABLE PENCIL (NOT TYPED).
- ALL PANEL BOARDS SHALL BE PROVIDED WITH NAMEPLATES SECURED TO EQUIPMENT WITH SELF-TAPPING STEEL SCREWS. NAMEPLATES SHALL BE LAMINATED PLASTIC WITH ENGRAVED 1/2" WHITE LETTERS ON BLACK BACKGROUND AND SHALL INDICATE PANEL DESIGNATION, VOLTAGE, PHASE, AND AMPACITY AND LOCATION OF OVER CURRENT PROTECTIVE DEVICE FEEDING PANEL.
- ALL PANEL BOARDS SHALL BE PROVIDED WITH GROUND BUS/GROUND STRIP MOUNTED ON A CLEAN SURFACE OF THE PANEL BOARD CAN. GROUND CONDUCTOR SHALL BE PROVIDED TO THE PANEL BOARD GROUND BUS FROM THE GROUND SYSTEM IN THE SERVICE ENTRANCE SECTION OF DISTRIBUTION SECTION.
- ALL PANEL BOARDS SHALL HAVE FACTORY FURNISHED CIRCUIT BREAKER NUMBERING. PUNCHED TAPE OR MARKERS WILL NOT BE PERMITTED. BRANCH CIRCUIT BREAKER NUMBER ON PANEL BOARDS SHALL MATCH NUMBERING AS SHOWN ON THE PLANS.
- ALL BRANCH CIRCUIT CONDUCTORS EXTENDING FROM PANEL BOARDS TO RESPECTIVE DEVICES SHALL BE COLOR CODED AND SHALL BE INSTALLED CONTINUOUS IN EACH RUN AND SHALL HAVE A TAG DESIGNATING THE BRANCH CIRCUIT NUMBERS LOCATED AT ALL JUNCTION BOXES. THE COLOR CODE SCHEME SHALL BE AS FOLLOWS:
 - 1.) FOR 120/240V: PHASE A BLACK, PHASE B -RED, NEUTRAL - WHITE, EQUIPMENT GROUND - GREEN.

PANEL SCHEDULE

VOLTS: 120 / 240

10 KA MINIMUM INTERRUPTING CAP.

540 R 20A/1P 1 1 A 2 1 20A/1P R 720

LOAD TYPE BRKR P CKT PH CKT P BRKR TYPE LOAD DESCRIPTION

 600
 R
 20A/1P
 1
 9
 A
 10
 2
 20A
 R
 1500
 EXERCISE ROOM-PTAC

 3500
 R
 50A
 2
 11
 B
 12
 2P
 R
 1500
 208V-1PH., 15 MCA

 3500
 R
 2P
 13
 A
 14
 1
 20A/1P
 L
 96
 BUILDING LIGHTS

 20A/1P
 1
 15
 B
 16
 1
 20A/1P
 SPARE

 20A/1P
 1
 17
 A
 18
 1
 20A/1P
 SPARE

 20A/1P
 1
 19
 B
 20
 1
 20A/1P
 SPARE

CONNECTED

PHASE LOADING

11345.0

23.5 KVA

PHASE A:

PHASE B:

MAX. DEMAND

0.5

0.75

23.5 KVA

2000 M 30A 2 21 A 22 2 30A M 2000 RTU-2, 208V-1 PH., 21.3 MCA

2000 M 2P 23 B 24 2P M 2000 2 #10 THWN + 1 #10 GR. IN 1/2" C.

540 R 20A/1P 1 3 B 4 1 20A/1P R 725 MEZZ. LTS. RECEPT & RESTROOMS-FANS

600 A 20A/1P 1 5 A 6 1 20A/1P R 600 TRAINING ROOM-GARBAGE DISPOSAL 540 R 20A/1P 1 7 B 8 1 20A/1P L 540 TRAINING ROOM & KITCHENETTE

MAIN LUG ONLY

MOUNTING: SURFACE

EST. MAX. DEM .:

0% SPARE:

E M.D. + SPARE:

POWER FACTOR:

EST. MAX. DEM .:

ALL CONDUCTORS IN PANEL BOARDS SHALL BE NEATLY INSTALLED AND TIE-WRAPPED WITHIN PANEL BOARDS.

○ SHEET KEYNOTES

- EXISTING POWER POLE AND POLE MOUNTED TRANSFORMER TO REMAIN. NO WORK, SHOWN FOR REFERENCE ONLY.
- EXISTING WEATHERHEAD/RISER TO 120/240V-1Ø METER ON BUILDING, 3-#3/0 THWN IN 2"C. NO WORK, SHOWN FOR REFERENCE ONLY.
- EXISTING FEEDER TO EXISTING 200A, 120/240V-1Ø-3W PANEL TO REMAIN. RENAME PANEL TO "MFS", SHOWN FOR REFERENCE ONLY.
- EXISTING PANEL "MFS" TO REMAIN (MADRID FIRE STATION). SHOWN FOR REFERENCE.
- 5. ROUTE 3 #3 THHN/THWN & 1 #8 CU. GRD. IN 1.25" C. IN CEILING SPACE.
- 6. PROVIDE NEW PANEL. SEE PANEL SCHEDULE.

LOAD SUMMARY -- 120/240V - 1PH - 3W

LOAD		CONNECTED LOAD	DEMAND LOAD		
	LIGHTING LOAD	4.3 KW	5.5 KW		
	RECEPTACLE LOAD	33.5 KW	26.7 KW		
	HVAC LOAD	8.0 KW	8.0 KW		
	TOTAL	45.8 KW	40.2 KW = 168 AMPERES	_	

THE EXISTING 200A SERVICE IS ADEQUATELY RATED FOR THE PROPOSED NEW DEMAND LOAD

SHORT CIRCUIT CALCULATIONS

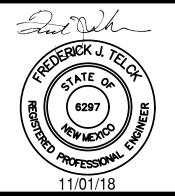
ASSUME 75 KVA PAD MOUNT TRANSFORMER WITH 2%Z. MAXIMUM LET THROUGH SHORT CIRCUIT CURRENT AT THE SECONDARY TERMINALS OF THE POLE MOUNT TRANSFORMER = 9,422 AMPERES. MAXIMUM CALCULATED FAULT CURRENT AT NEW PANEL "M" = 8,145A. NEW PANEL "M" SHALL BE PROVIDED WITH MINIMUM 10KAIR CIRCUIT BREAKERS.



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PROJECT TITLE

SANTA FE COUNTY **MADRID FIRE STATION**

> MADRID **NEW MEXICO**

REVISIONS:

MK DATE DESCRIPTION

DRAWN BY: CHECKED BY

PROJECT NUMBER: A18.11

DATE:

9/25/18 SHEET TITLE:

ELECTRICAL

SITE PLAN

SHEET NO:

ES-101

PANEL SCHEDULE **NEW PANEL: M** EXISTING PANEL: MFS VOLTS: 120 / 240 200A MAIN CIRCUIT BREAKER NO. POLES: 24 NO. POLES: 42 BUSRATING: 200 10 KA MINIMUM IN TERRUPTING CAP. MOUNTING: RECESSED BUS RATING: 125 VIN TAGE-SIEMENS "ITE" LOAD CENTER #G4040ML1200 DESCRIPTION LOAD TYPE BRKR P CKT PH CKT P BRKR TYPE LOAD DESCRIPTION HALL & RESTROOMS TRAINING ROOM-RECEF SPACE 20A/1P TRAINING ROOM-REFRIG. 8 1 20A/1P SPACE TRAINING ROOM-COUNTER 640 L 20A/1P 1 9 A 10 1 20A/1P R 1000 (EX) GARAGE DOOR1 TRAINING ROOM-MICROWAVE 11 B 12 1 20A/1P R 1000 (EX) GARAGE DOOR 2 20A/1P TRAINING ROOM-ELECTRIC STOVE 640 L 20A/1P 1 13 A 14 1 20A/1P 640 L 20A/1P 1 15 B 16 1 20A/1P SPARE 540 R 20A/1P 1 17 A 18 1 20A/1P R 540 TRAINING RM. 111, PROJECTOR SPARE 1000 R 20A/1P 1 21 A 22 2 30A R 2000 (EX) DRYERWASHER RTU-1, 208V-1 PH., 21.3 MCA 1000 R 20A/1P 1 23 B 24 2P R 2000 2#10 THWN + 1#10 GR. IN 1/2" C. 540 L 20A/1P 1 25 A 26 2 30A 640 L 20A/1P 540 R 20A/1P 1 29 A 30 1 20A/1P 20A/1P 1 31 B 32 1 20A/1P 1 33 A 34 2 60A R 4500 EWH-1, ELECTRIC WATER HEATER 1 35 B 36 2P R 4500 9KW, 43.3 A 37 A 38 1 SPACE 1 39 B 40 2 100A P 12156 NEWPANEL"M" 1 41 A 42 2P P 11345 FACTOR 0.80 MAX. DEMAND PHASE LOADING LOAD SUMMARY TOTAL 38.1 KVA P=PANELS
0.0 KVA L=LIGHTING PHASE B: 23116.0 0% SPARE: 38.1 KVA R=RECEPTACLES E M.D. + SPARE: 0.90 A=APPLIANCES A=APPLIANCES POWER FACTOR: 176.2 AMPS M=MOTORS M=MOTORS 0=SPARE 46.4 KVA 38.1 KVA

DESCRIPTION SERVICE DISCONNECT (EX) LIGHTS BAY 1 (EX) LIGHTS BAY 2 (EX) RECEPTACLES, LIGHTS-NORTH (EX) LIGHTS BAY 3 (EX) RECEPTACLES WEST (EX) RECEPTACLES, UNIT HEATER-SOUTH 540 R 20A/1P 1 19 B 20 1 20A/1P SPARE (EX) GARAGE DOOR 3 (EX) GARAGE DOOR 4 (EX) OFFICE LIGHTS (EX) LIGHTS BAY 4 (EX) H2O HEAT LOAD SUMMARY L=LIGHTING R=RECEPTACLES 0=SPARE

(INTERIOR)

POWER RISER DIAGRAM

(EXTERIOR)

FINISHED GRADE

120/240V-1Ø-3W

FINISHED ROOF

EXISTING

PANEL "MFS"

200A, 120/240V-1Ø

FINISHED FLOOR

NEW

PANEL "M"

100A, 120/240V-1Ø

21.4 KVA 0.0 KVA 21.4 KVA 0.90

99.0 AMPS

Phone 505.842.5787 Facsimile 505.842.5797

A C Engineering Enterprises, LLC

120 Aliso Drive, SE

Albuquerque, New Mexico 87108

ALL ELECTRICAL APPPARATUS TO REMAIN. NO WORK IN THESE AREAS, UNLESS NOTED OTHERWISE.

REQUIRED. SEE NEW WORK DRAWING.

#1 (ALT. #1).

REQUIREMENTS.

REMOVE ALL EXISTING DEVICES, BACKBOXES, LIGHTING INDICATED WITH AN

EXISTING TO REMAIN IS INDICATED WITH AN "E". UTILIZE EXISTING BACKBOX AND CONDUIT SYSTEM AND PROVIDE NEW WIRE, FACEPLATE/DEVICE'S AS

LOCATION. FAN AND TWO LIGHT FIXTURES TO BE CENTERED IN NEW OFF. 106. AND TWO LIGHT FIXTURE AT BOTTOM TO BE CENTERED IN EXTENSION OF BAY

EXISTING LIGHTING TO BE RELOCATED. SEE NEW WORK DRAWING FOR

- DEMO GENERAL NOTES THE CONTRACTOR SHALL VERIFY EXTENT OF DEMOLITION WITH EXISTING CONDITIONS, PRIOR TO BID, AND SHALL INCLUDE ALL WORK REQUIRED
- WHERE REQUIRED. COMPUTER/DATA/PHONE CABLES SHALL BE REROUTED IF NECESSARY. CABLES SHALL BE RELOCATED PER OWNER REPRESENTATIVE

TO COMPLETELY DISCONNECT ASSOCIATED EQUIPMENT AND TO

COMPLETELY REMOVE ALL ASSOCIATED BRANCH CIRCUIT WIRING,

- THE OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ELECTRICAL EQUIPMENT TO BE REMOVED.
- ALL EQUIPMENT REMOVED, NOT CLAIMED BY THE OWNER, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND THE CONTRACTOR SHALL BE RESPONSIBLE TO PROPERLY DISPOSE OF ELECTRICAL EQUIPMENT REMOVED.
- NOT ALL BUILDING DETAILS AND BRANCH CIRCUIT CONDUIT/WIRING TO BE REMOVED ARE SHOWN ON THE PLANS. THE CONTRACTOR MAY REQUEST, AT HIS DISCRETION, TO REVIEW EXISTING ELECTRICAL, MECHANICAL, AND ARCHITECTURAL PLANS, AT THE OFFICE OF THE
- COORDINATE DEMOLITION FOR EXISTING ELECTRICAL EQUIPMENT BEING REMOVED. ALL ELECTRICAL EQUIPMENT DOWNSTREAM, WHICH REMAIN, AND OUT OF THE DEMOLITION AREA, SHALL REMAIN "ON" AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE GENERAL DEMOLITION WITH THE OWNER TO AVOID PROBLEMS WITH CIRCUITS BEING DISCONNECTED AND REMOVED WHICH MAY AFFECT OTHER AREAS OUTSIDE OF THE WORK AREA.
- THE CONTRACTOR SHALL FIELD SURVEY OUTLETS TO REMOVE AND WHICH OUTLETS OR DEVICES REMAIN PRIOR TO BID. NOT ALL OUTLETS/DEVICES TO BE REMOVED ARE SHOWN ON THE PLAN. DURING DEMO PROCESS, COORDINATE REMOVALS WITH ARCHITECT IN THE FIELD. RE-FEED ALL OUTLETS THAT ARE DISCONNECTED DURING DEMO THAT SHALL REMAIN TO NEAREST AVAILABLE RECEPTACLE CIRCUIT. THE CONTRACTOR SHALL DETERMINE AND FIELD VERIFY CAPACITY OF CIRCUITS TO COMBINE NEW AND EXISTING RECEPTACLES AND INTERCEPTED CIRCUITS. COMPLY AS REQUIRED FOR CODE RESTRICTIONS AND SPECS.
- THE CONTRACTOR SHALL SURVEY SPACES ABOVE CEILING FOR UPGRADE WORK OF DEFICIENT EXISTING ELECTRICAL EQUIPMENT. THIS REMEDIAL ABOVE CEILING WORK MAY INCLUDE PROVIDING ADEQUATE CONDUIT SUPPORTS, REPLACING CODE DEFICIENT FLEXIBLE ELECTRICAL POWER CABLE, PROVIDING MISSING JUNCTION BOX COVERS, REPAIRING BROKEN OR SEPARATED CONDUIT, AND PROVIDING EXTENSION RINGS FOR OVER-CROWDED JUNCTION BOXES. ALL THIS WORK SHALL BE INCLUDED IN THE BID PRICE.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO RESOLVE DEFICIENT CABLE RELATED WORK IN EXPOSED CEILING AREAS. THIS MAY INCLUDE ITEMS SUCH AS SUPPORT OF EXISTING CABLE AND REPLACEMENT OF NON-PLENUM RATED CABLE OR REMOVAL OF ABANDONED CABLES.
- NOT ALL OUTLETS/DEVICES TO REMAIN ARE SHOWN ON THE PLAN. DURING THE DEMO PROCESS, COORDINATE REMAINING DEVICES WITH ARCHITECT IN THE FIELD. RE-FEED ALL OUTLETS/DEVICES TO REMAIN THAT ARE DISCONNECTED DURING DEMO.
- M. EVERYWHERE IN THIS AREA, FOR THE DURATION OF THE PROJECT, THE CONTRACTOR IS RESPONSIBLE FOR DISCONNECT AND RECONNECT OF BRANCH CIRCUITS AND REPLACEMENT OF ELECTRICAL MATERIALS AND LABOR TO RESTORE COMPLETE AND OPERATIONAL SYSTEMS. THIS INCLUDES THE CORRECTION OF ANY CODE DEFICIENCIES RELATED TO RENOVATIONS ON THIS PROJECT.
- COORDINATE WITH ARCHITECT/ENGINEER AND FIELD VERIFY STATUS OF DEVICES, OUTLETS, CONDUIT AND WIRE AS A RELOCATION, DEMOLITION, OR TO REMAIN. FIELD VERIFY RE-FEEDING EXISTING DEVICES, RE-ROUTING OR NEW CIRCUITING. FIELD VERIFY CAPACITY OF CIRCUITS TO COMBINE NEW AND EXISTING RECEPTACLES AND INTERCEPTED CIRCUITS. COMPLY AS REQUIRED FOR CODE RESTRICTIONS AND SPECS.
- PROVIDE NEW CIRCUIT BREAKERS OF THE SAME TYPE OR BLANK SPACE COVERS AS MAY BE NECESSARY TO FILL PANEL FOR SAFETY. FIELD SURVEY CIRCUITS THAT MAY BE ABANDONED. RELOCATE, IF NECESSARY, CIRCUIT RUNS EXPOSED BY DEMO WORK THAT SHALL BE KEPT OPERATIONAL.
- Q. DISCONNECT POWER TO ELECTRICAL CIRCUITS AND EQUIPMENT IN THESE AREAS ENTIRELY BACK TO PANEL CIRCUIT BREAKER. DISCONNECT AND REMOVE ALL EXISTING CONDUIT, CONDUCTORS, CABLE, CONTROLS, AND BOXES, ETC. FOR THIS DEMO. THE ONLY EXCEPTION WILL BE FOR NEW CONTROLS AND DEVICES WHERE EXISTING AND UNDAMAGED BOXES/CONDUIT CAN BE UTILIZED BY THE CONTRACTOR. THE CONTRACTOR SHALL REFER TO NEW WORK PLANS AND SPECIFICATIONS IN ALL DIVISIONS THAT RELATE TO ELECTRICAL WORK IN THIS PROJECT. COORDINATE DEMOLITION AND INSTALLATION WITH FIELD CONDITIONS AS THEY MAY APPLY. ALL EQUIPMENT SHALL BE MADE OPERATIONAL-NO EXCEPTIONS. COORDINATE WITH REPRESENTATIVES OF THE OWNER, ARCHITECT, AND ENGINEERS FOR CONDUIT LOCATION AND TERMINATION POINTS IF NOT SPECIFIED ON
- WALLS TO BE REMOVED AND ARCHITECTURAL

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ARCHITECT

CONSULTANT



PROJECT TITLE

SANTA FE COUNTY **MADRID FIRE STATION**

> **MADRID NEW MEXICO**

REVISIONS:

MK DATE DESCRIPTION

DRAWN BY: CHECKED BY ACE

PROJECT NUMBER: A18.11

> DATE: 9/25/18

SHEET TITLE:

DEMOLITION ELECTRICAL PLAN

SHEET NO:

ED-101

ALL ELECTRICAL SHOWN IS EXISTING. COORDINATE WITH ALL NOTES. A C Engineering Enterprises, LLC 120 Aliso Drive, SE Albuquerque, New Mexico 87108 Phone 505.842.5787 Facsimile 505.842.5797

DEMOLITION ELECTRICAL PLAN

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

