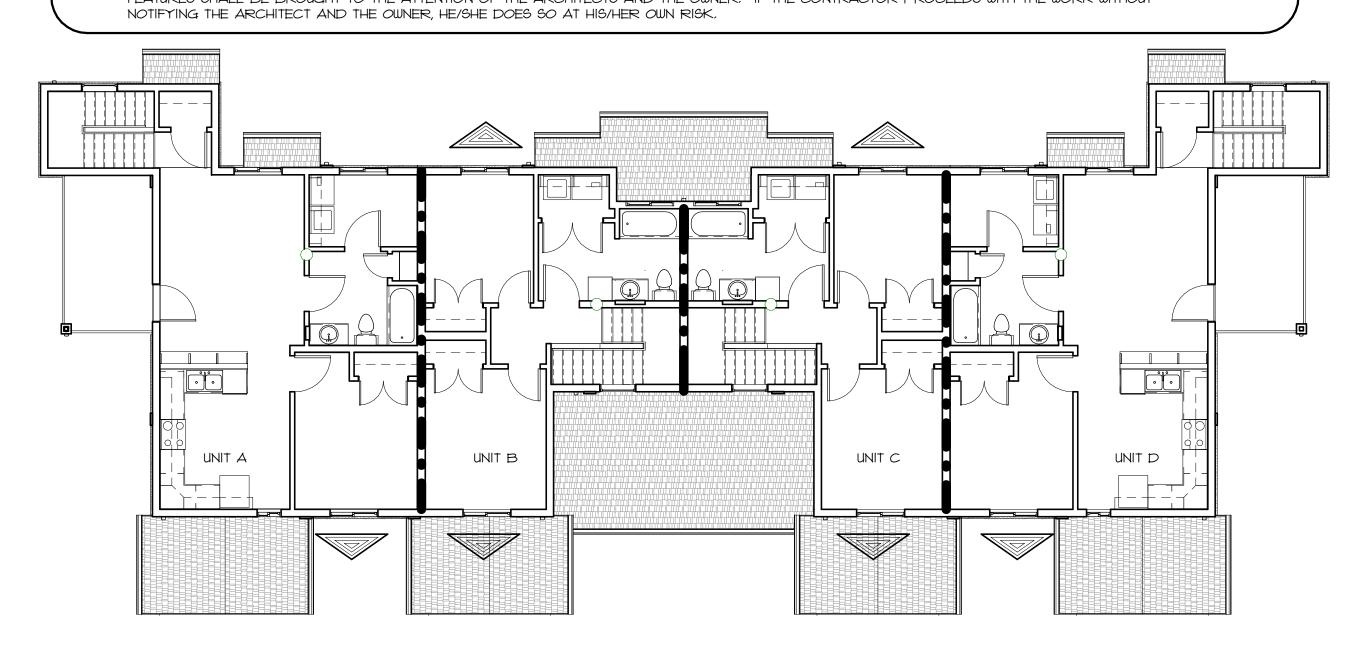
MOUNTAIN VIEW TOWNHOMES

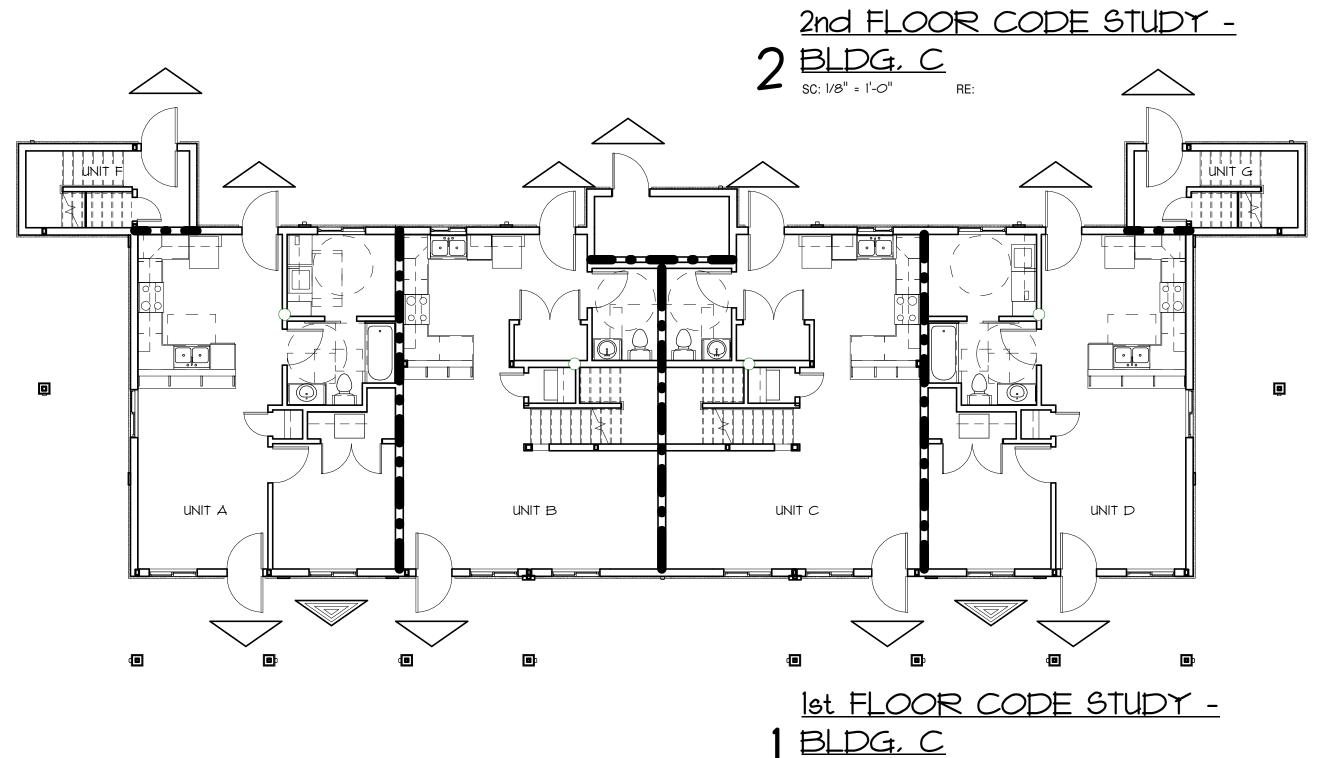
PROJECT No.: I.F.B. 19-522-RAD

ACERO AVE. and SPRAGUE AVE. PUEBLO, COLORADO

	BLDG, C	CODE S	TUDY SUM	IMAR7					
APPLICABLE CODES:		2015 INTERNATIONAL B UNIFORM FEDERAL AC	WILDING CODE CESSIBLITY STANDARDS						
PROJECT DESCRIPTION:		NEW CONSTRUCTION - ,	APARTMENT BUILDING						
OCCUPANCY CLASSIFICATION 2015 IBC CHAPTER 3	\ :	R-2: RESIDENTIAL, APARTMENT HOMES							
TYPE of CONSTRUCTION: 2015 IBC TABLE 601		TYPE V-B with a MIN, FIRE-SEPARATION DISTANCE of 10'-0"							
FIRE RESISTANCE RATING RE 2015 IBC TABLE 601	EQ6, for BLDG, ELEMENTS	PRIMARY STRUCTURA BEARING WALLS EXTE BEARING WALLS INTER NONBEARING EXTERIC INTERIOR NONBEARIN FLOOR CONSTRUCTION ROOF CONSTRUCTION	RIOR: O RIOR: O DR WALLS: O G WALLS: O N: O						
TABULAR ALLOWABLE AREA 2015 IBC TABLE 506.2,	per FLOOR:	R-2 913R At (6Q,FT=) 7000		R-2 ACTUAL AR	EA: 2841 SQ, FT, MAX (1st FL.)				
TABULAR ALLOWABLE HEIGH 2015 IBC TABLE 504,3 and 50		R-2, 613R: 60 FEET, 3	STORY	R-2 ACTUAL HEI	GHT: 2 STORY, 22,5 FEET				
FLOOR AREA, GROSS: 2015 IBC SECTION 202 - DEFIN	NITIONS	FIRST FLOOR:	2841 SQ, FT,						
		SECOND FLOOR:	2543 SQ. FT.						
OCCUPANT LOAD:		2015 IBC TABLE 1004.	1.2						
FUNCTION of SPACE	S,F,	LOAD FACTOR:(per oc	c.) GROSS/ NET	OCC, LOAD	NOTES:				
STORAGE - 1st FI,		300 SQ. FT,	GR066	.28	ACCESSORY:EA AREA LESS than 100 SF				
RESIDENTIAL - 1st FI,	2758 SQ, FT,	200 SQ. FT.	GROSS	13.79	CHAIT ICC OI				
RESIDENTIAL - 2nd Fl.	2543 SQ, FT,	200 SQ. FT.	GROSS	12.72					
			TOTAL	26.79	ROUNDED: 27				
OCCUPANCY SEPARATION: 2015 IBC SECTION 420 INCIDENTAL USES SEPARATIO	nh i		ELLING UNITS from EACH OTH IES SHALL be FIRE PARTITIC		EPARATING DWELLING UNITS				
2015 IBC SECTION 509, TABLE CORRIDORS:		N/A							
2015 IBC SECTION 1020		IVA							
NUMBER OF EXITS: 2015 IBC TABLE 1006,3,1		2- EXITS REQUIRE							
TRAVEL DISTANCE: 2015 IBC TABLE 1017.2		R-2 with SPRINKLER SY ACTUAL MAX, TRAVEL							
AUTOMATIC SPRINKLER SYST 2015 IBC SECTION 420,5	EM:			~	ut with an AUTOMATIC SPRINKLE PRINKLER MONITORING SYSTEM				
FIRE ALARM SYSTEM: 2015 IBC SECTION 907		R-2, 2 STORY with 4 DW	ELLING UNITS: NOT REQUIRED)					
ACCESSIBLITY: 2015 IBC SECTION 1107.6,2 UFAS SECTION 4,34		R-2, PER IBC: TYPE A UNITS: 2% of TOTAL UNITS on SITE REQUIRED to be TYPE A ACCESSIBLE. GROUND FLOOR of ALL OTHER UNITS REQUIRED to be TYPE B ACCESSIBLE, PER UFAS: 5% of TOTAL UNITS on SITE REQUIRED to be ACCESSIBLE (SIM, to TYPE A & in IBC) TOTAL UNITS on SITE: 51 TOTAL TYPE A ACCESSIBLE UNITS on SITE: 3 UNITS (SHOWN in BLDG, D) 1st FLOOR of ALL UNITS are TYPE B ACCESSIBLE							
PLUMBING FIXTURES:		2015 IBC TABLE 2902.1 ar	nd 2015 IPC TABLE 403,1 and	SECT, 419,2					
PLUMBING FIXTURES per OCC				I					
OCCUPANCY TYPE: R-2 RES	DIDENTIAL	REQU	# of FIXTURES F	REQ.	PROVIDED # of FIXTURES PROVIDED				
W.C.s/URINALS	l na	er DWELLING UNIT	6		8				
LAVATORIES	· ·	er DWELLING UNIT	6		8				
BATHTUBS/SHOWERS	'	er DWELLING UNIT	6		6				
OTHER FIXTURES		NK per DWELLING UNIT, IER CONNECTION per 20 U	6 KIT, SINK I CLOTHES WAS CONNECTION	HER 60	6 KIT, SINKS LOTHES WASHER CONNECTIONS				

GENERAL NOTES COORDINATE ALL WORK with ALL DISCIPLINES INCLUDING, but NOT LIMITED to ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, CIVIL and PROVIDE 3/4" RADIUS BULLNOSE CORNER BEAD at ALL EXPOSED GYP, BD, OUTSIDE WALL CORNERS on INTERIOR of BUILDING. EACH UNIT SHALL HAVE A FIRE EXTINGUISHER INSTALLED ON the FIRST FLOOR, EACH STORAGE ROOM AND WATER ENTRY ROOM SHALL HAVE A FIRE EXTINGUISHER INSTALLED in the ROOM. NORTH ARROW NOT SHOWN ON FLOOR PLANS ALL DIMENSION STRINGS ON ARCHITECTURAL FLOOR PLANS, RFC PLANS, ELEVATIONS, SECTIONS, INT. ELEVATIONS are ROUNDED to 1/8"





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

BUILDING C SHEET INDEX

GI.OC	BLDG, C COVER
A1.1C A1.2C A1.3C	BLDG, C let FLOOR PLAN and DETAILS BLDG, C 2nd FLOOR PLAN BLDG, C REFL, CEILING PLANS, ROOF PLAN and DETAILS
A2.IC A3.IC A3.2C A3.3C A3.4C A3.5C A4.IC A5.IC A5.2C A5.3C SIC S2C S3C S4C	BLDG, C ELEVATIONS and BLDG, SECTION BLDG, C BLDG, SECTIONS BLDG, C BLDG, SECTIONS BLDG, C WALL SECTIONS BLDG, C WALL SECTIONS BLDG, C WALL SECTIONS and DETAILS BLDG, C WALL SECTIONS and DETAILS BLDG, C DOOR and WINDOW SCHEDULE and DETAILS BLDG, C FINISH SCHED, and INTERIOR ELEV, BLDG, C INTERIOR ELEV, BLDG, C INTERIOR ELEV, BLDG, C FOUNDATION PLAN BLDG, C MAIN FLOOR FRAMING PLAN BLDG, C WPPER FLOOR & LOW ROOF FRAMING PLAN BLDG, C HIGH ROOF FRAMING PLAN
95C 96C MOOIC MOO2C MIIIC	BLDG, C GENERAL NOTES, DETAILS BLDG, C DETAILS BLDG, C MECHANICAL BUILDING C NOTES AND LEGEND BLDG, C MECHANICAL BUILDING C SPECIFICATIONS BLDG, C MECHANICAL BUILDING C HVAC PLAN
M112C M131C M132C M500C M610C	BLDG, C MECHANICAL BUILDING C HVAC PLAN BLDG, C MECHANICAL BUILDING C GAS PLAN BLDG, C MECHANICAL BUILDING C GAS PLAN BLDG, C MECHANICAL BUILDING C DETAILS BLDG, C MECHANICAL BUILDING C SCHEDULES
POOIC PIIIC PII2C PI2IC PI22C P500C P610C	BLDG, C PLUMBING NOTES AND LEGEND BLDG, C PLUMBING BUILDING C WATER PLAN FIRST FLOOR BLDG, C PLUMBING BUILDING C WATER PLAN SECOND FLOOR BLDG, C PLUMBING BUILDING C SANITARY PLAN FIRST FLOOR BLDG, C PLUMBING BUILDING C SANITARY PLAN SECOND FLOOR BLDG, C PLUMBING BUILDING C DETAILS BLDG, C PLUMBING BUILDING C SCHEDULES
EI.OC EI.IC EI.2C	BLDG, C FIXTURE SCHEDULE, LEGENDS & DETAILS BLDG, C FIRST FLOOR ELECTRICAL PLAN AND DETAILS BLDG, C SECOND FLOOR ELECTRICAL PLAN & UNIT PANELS

PROJECT TEAM

THE HOUSING AUTHORITY OF PUEBLO 201 S. VICTORIA PUEBLO, CO 81003 PH: 719-586-8976 ARCHITECT: HGF ARCHITECTS, INC. 2602 N, ELIZABETH ST PUEBLO, COLORADO 81003 PH: 719-543-7600

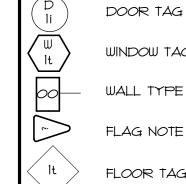
FX: 719-545-2910 ELECTRICAL ENGINEER: KOHNERT ELECTRICAL ENGINEERS 911 S. 8TH, ST. SUITE 200 COLORADO SPRINGS, CO 80906 PH: 719-633-2637

MECHANICAL ENGINEER: PLANT ENGINEERING CONSULTANTS 320 W. FILLMORE ST. COLORADO SPRINGS, CO 80907 PH: 719-473-7077

STRUCTURAL ENGINEER VALENTINE ENGINEERING 415 N. GREENWOOD PUEBLO, CO 81003 PH: 719-542-9230

CIVIL ENGINEER: MATRIX DESIGN GROUP 2435 RESEARCH PKWY, SUITE 300 COLORADO SPRINGS, CO 80920 PH: 719-575-0100

DRAWING LEGEND



WINDOW TAG

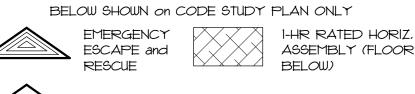


Room name ROOM NAME and

NUMBER TAG



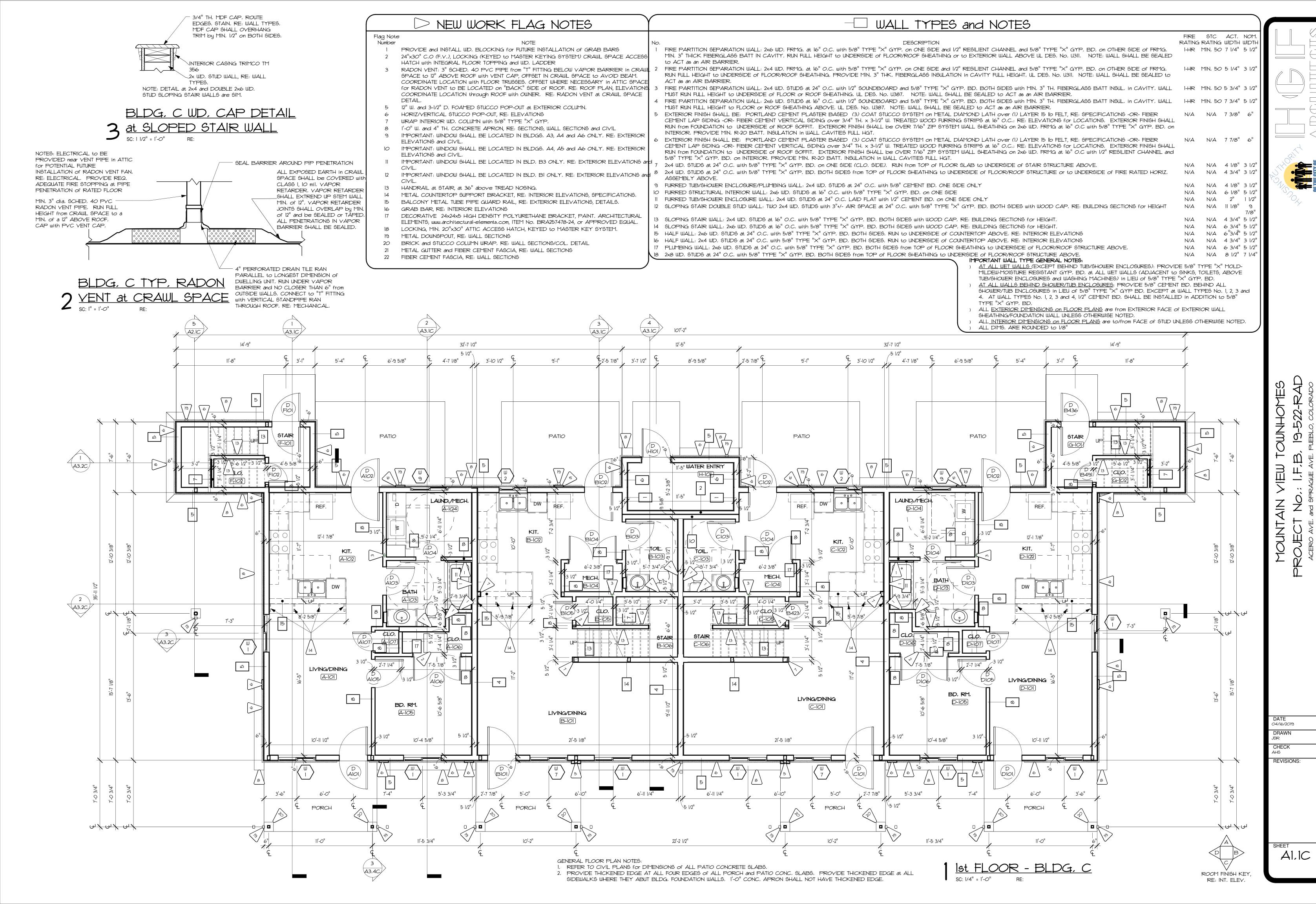


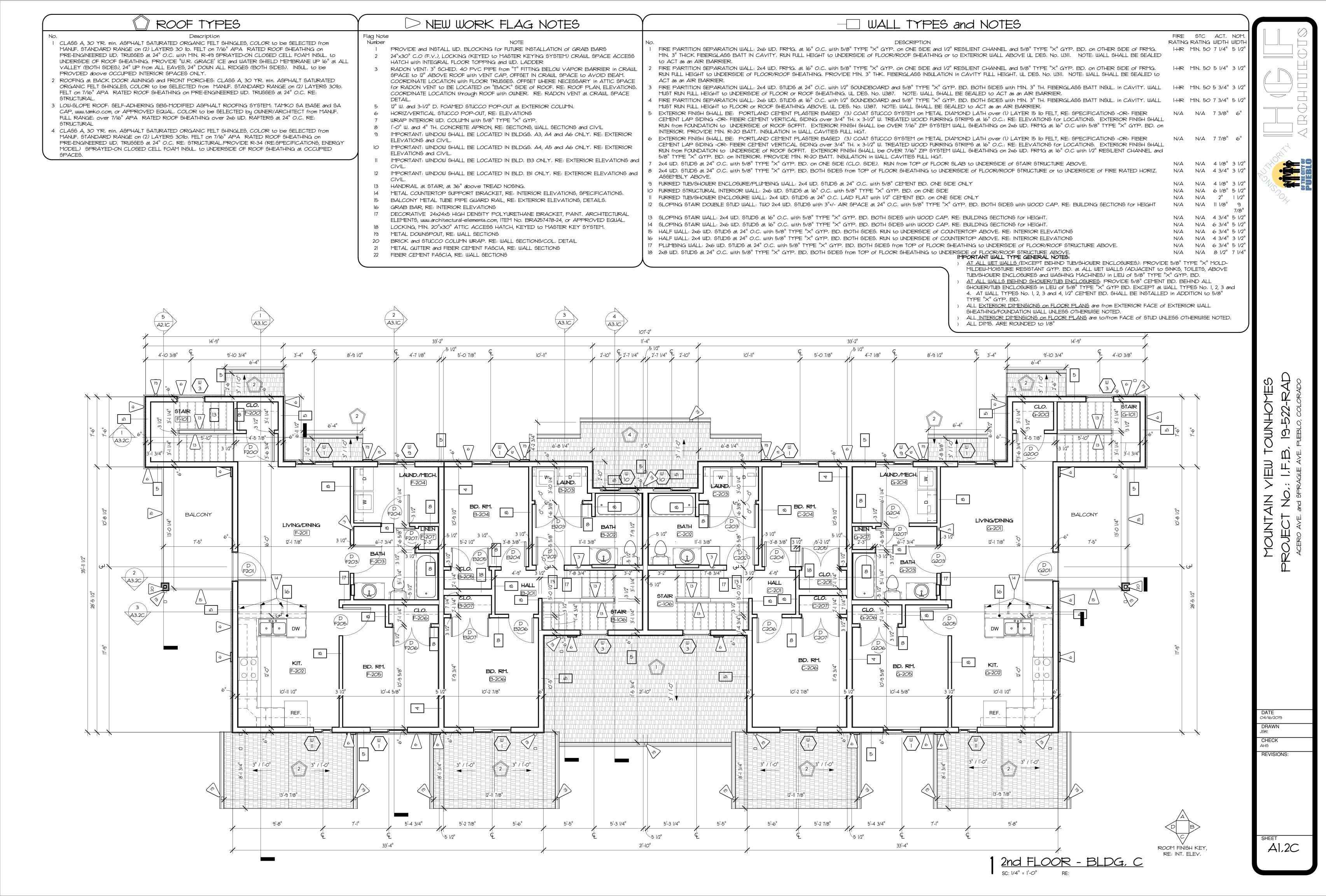


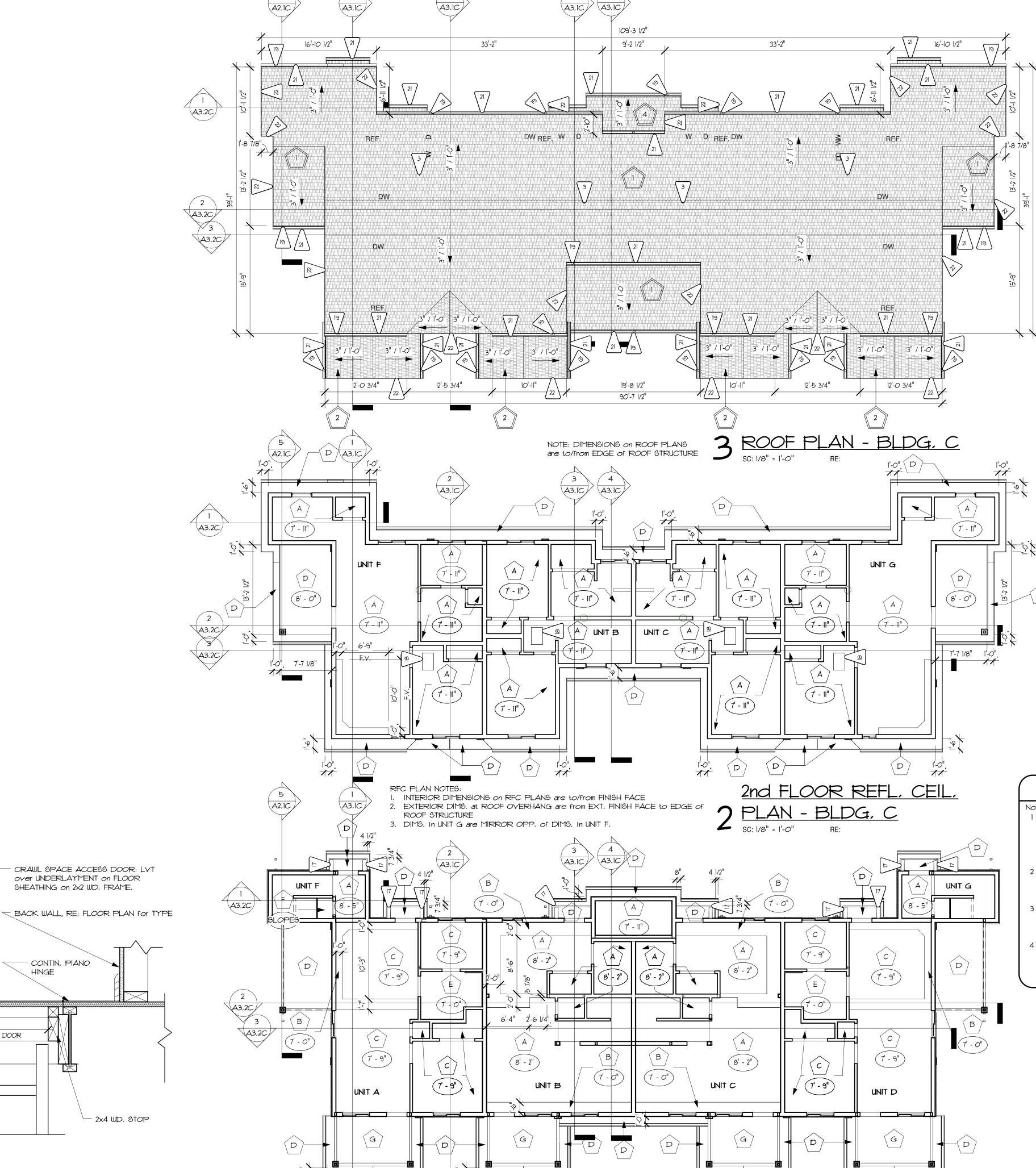
04/16/2019 REVISIONS:

10UNTAIN

GI.OC







1. INTERIOR DIMENSIONS on RFC PLANS are to/from FINISH FACE

3. DIMS, in UNIT C are MIRROR OPP, of DIMS, in UNIT B,

4. DIMS, in UNIT D are MIRROR OPP, of DIMS, in UNIT A.

2. EXTERIOR DIMS, at ROOF OVERHANG are from EXT, FINISH FACE to EDGE of ROOF STRUCTURE

1st FLOOR REFL, CEIL,

PLAN - BLDG, C

NEW WORK FLAG NOTES

Number

PROVIDE and INSTALL WD. BLOCKING for FUTURE INSTALLATION of GRAB BARS 24"x30" C.O (F.V.), LOCKING (KEYED to MASTER KEYING SYSTEM) CRAWL SPACE ACCESS HATCH with INTEGRAL FLOOR TOPPING and WD, LADDER

RADON VENT: 3" SCHED, 40 PVC PIPE from "T" FITTING BELOW VAPOR BARRIER IN CRAWL SPACE to 12" ABOVE ROOF with VENT CAP, OFFSET IN CRAWL SPACE to AVOID BEAM. COORDINATE LOCATION with FLOOR TRUSSES, OFFSET WHERE NECESSARY IN ATTIC SPACE for RADON VENT to BE LOCATED on "BACK" SIDE of ROOF, RE: ROOF PLAN, ELEVATIONS COORDINATE LOCATION through ROOF with OWNER, RE: RADON VENT at CRAWL SPACE

12" W. and 3-1/2" D. FOAMED STUCCO POP-OUT at EXTERIOR COLUMN.

HORIZ/VERTICAL STUCCO POP-OUT, RE: ELEVATIONS

WRAP INTERIOR WD. COLUMN with 5/8" TYPE "X" GYP. 1'-0" W. and 4" TH. CONCRETE APRON, RE: SECTIONS, WALL SECTIONS and CIVIL IMPORTANT: WINDOW SHALL BE LOCATED IN BLDGS, A3, A4 and A6 ONLY, RE: EXTERIOR

ELEVATIONS and CIVIL. IMPORTANT: WINDOW SHALL BE LOCATED IN BLDGS, A4, A5 and A6 ONLY, RE: EXTERIOR

ELEVATIONS and CIVIL.

CIVIL

HANDRAIL at STAIR, at 36" above TREAD NOSING.

METAL COUNTERTOP SUPPORT BRACKET, RE: INTERIOR ELEVATIONS, SPECIFICATIONS. BALCONY METAL TUBE PIPE GUARD RAIL, RE: EXTERIOR ELEVATIONS, DETAILS.

GRAB BAR, RE: INTERIOR ELEVATIONS DECORATIVE 24x24x5 HIGH DENSITY POLYURETHANE BRACKET, PAINT, ARCHITECTURAL

ELEMENTS, www.architectural-elements.com, ITEM No. BRA257478-24, or APPROVED EQUAL. LOCKING, MIN. 20"x30" ATTIC ACCESS HATCH, KEYED to MASTER KEY SYSTEM.

METAL DOWNSPOUT, RE: WALL SECTIONS

BRICK and STUCCO COLUMN WRAP, RE: WALL SECTIONS/COL, DETAIL

21 METAL GUTTER and FIBER CEMENT FASCIA, RE: WALL SECTIONS 22 FIBER CEMENT FASCIA, RE: WALL SECTIONS

ROOF TYPES

Description CLASS A, 30 YR. min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF, STANDARD RANGE on (2) LAYERS 30 lb, FELT on 7/16" APA RATED ROOF SHEATHING on PRE-ENGINEERED WD, TRUSSES at 24" O.C., with MIN, R-49 SPRAYED-ON CLOSED CELL FOAM INSUL, to UNDERSIDE OF ROOF SHEATHING, PROVIDE "W.R. GRACE" ICE and WATER SHIELD MEMBRANE UP 16" at AL VALLEY (BOTH SIDES), 24" UP from ALL EAVES, 24" DOWN ALL RIDGES (BOTH SIDES). INSUL, to be PROVDED above OCCUPIED INTERIOR SPACES ONLY.

ROOFING at BACK DOOR AWNINGS and FRONT PORCHES: CLASS A, 30 YR, min, ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF, STANDARD RANGE on (2) LAYERS 301b. FELT ON 7/16" APA RATED ROOF SHEATHING ON PRE-ENGINEERED WD, TRUSSES at 24" O.C., RE:

LOW-SLOPE ROOF: SELF-ADHERING SBS-MODIFIED ASPHALT ROOFING SYSTEM; TAMKO SA BASE and SA CAP, www.tamko.com, or APPROYED EQUAL. COLOR to be SELECTED by OWNER/ARCHITECT from MANUF. FULL RANGE; over 7/16" APA RATED ROOF SHEATHING over 2x6 WD, RAFTERS at 24" O.C., RE:

CLASS A, 30 YR, min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF, STANDARD RANGE on (2) LAYERS 301b, FELT on 7/16" APA RATED ROOF SHEATHING on PRE-ENGINEERED WD. TRUSSES at 24" O.C. RE: STRUCTURAL.PROVIDE R-34 (RE:SPECIFICATIONS, ENERGY MODEL) SPRAYED-ON CLOSED CELL FOAM INSUL, to UNDERSIDE OF ROOF SHEATHING at OCCUPIED



Description

A 5/8" TYPE "X" GYP, BD, ATTACHED to UNDERSIDE of

FLOOR/ROOF FRMG, B INTERIOR SOFFIT: 5/8" TYPE "X" GYP, BD, ATTACHED

to 2x WD, FRMG, at 16" O.C. C CEILING at FIRE RATED FLOOR ASSEMBLY UL L570: 1/2" RESILIENT CHANNEL at 12" O.C. and TWO (2) LAYERS of 1/2" TYPE "X" GYP, BD, ATTACHED to

TYPES, BLDG, SECTIONS, WALL SECTIONS D EXTERIOR FIBER CEMENT SOFFIT: 5/8" FIBER CEMENT SOFFIT ATTACHED to UNDERSIDE of ROOF FRAMING,

UNDERSIDE of FLOOR/ROOF FRMG, RE: FLOOR

E SUSPENDED GYP, BD, CEILING: 5/8" TYPE "X" GYP, BD. ATTACHED to 2x WD. FRMG at 16" O.C., CEILING TYPE "C" SHALL RUN CONTIN, THROUGHOUT UNIT

ABOVE this SUSPENDED CEILING, F 5/8" TYPE "X" GYP, BD, ATTACHED to UNDERSIDE of

STAIR FRAMING G EXTERIOR FIBER CEMENT SOFFIT at PORCH: 5/8" FIBER CEMENT BEADBOARD SOFFIT ATTACHED to UNDERSIDE of ROOF FRAMING, PAINT,

04/16/2019

REVISIONS:

A1.3C

TYP, DETAIL at CRAWL SPACE ACCESS

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

2'-0" C.O. (F.Y.)

x 2'-6" C.O. (F.V.) at ACCESS DOOR

RECESSED HEAVY DUTY RING PULL HANDLE with -

HOOK HOLD-OPEN at BACK WALL,

KEYED CAM LATCH with REMOVABLE

CORE, KEY to MASTER KEY SYSTEM

INSTALL COVING CAP IN LVT ALL

AROUND DOOR

DOOR, RE: FLOOR PLAN,

DOOR SCHED, for TYPE

WOOD FRAMED LADDER, 2x6 RAILS with 2x4 RUNGS, ANCHOR to BLOCKING at TOP and EXTEND to

CRAWL SPACE at BOTTOM

and BRACE AGAINST FLOOR in

2x8 WD, BLOCKING

CRAWL SPACE ACCESS DOOR: LYT

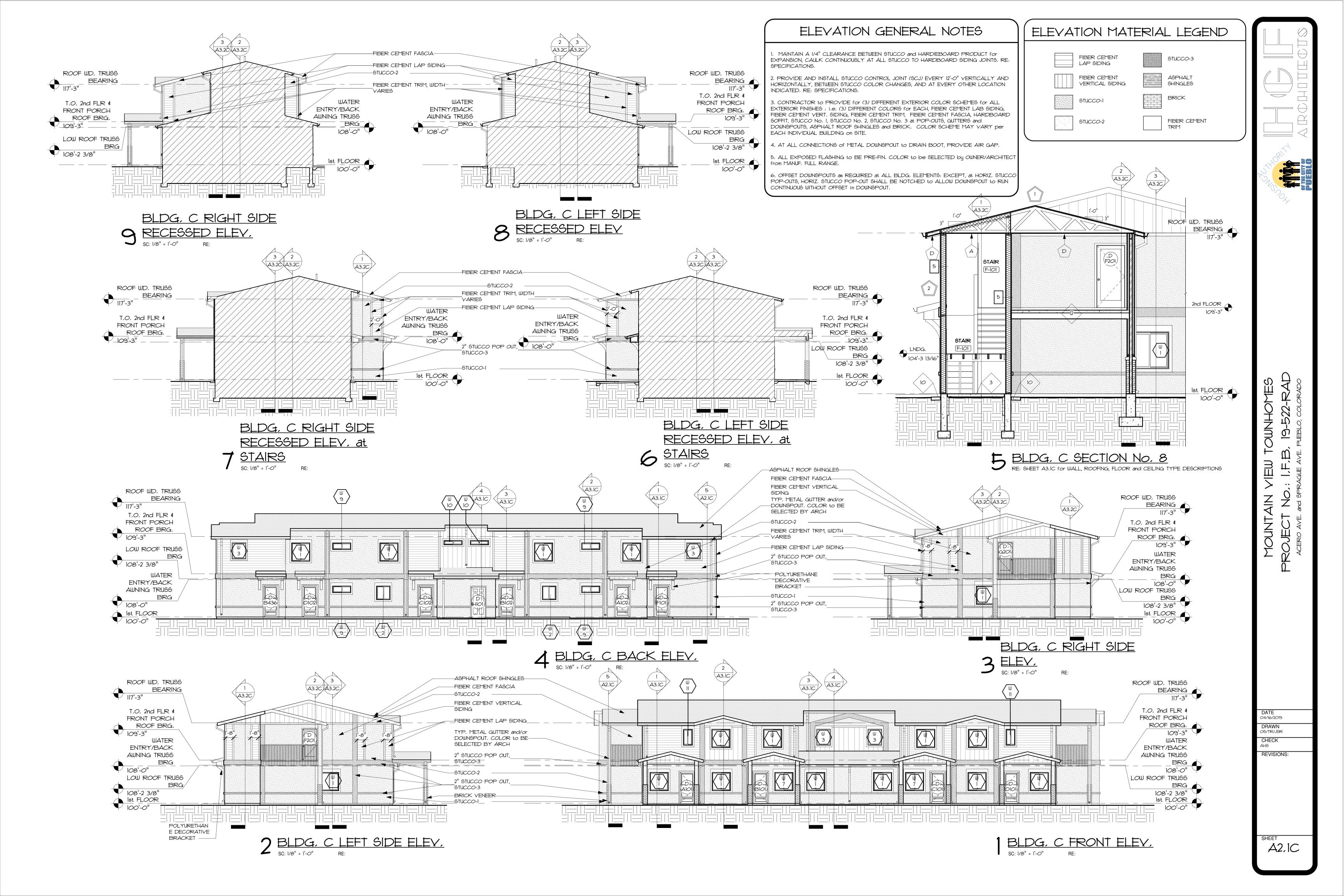
- 2x4 WD, STOP

over UNDERLAYMENT on FLOOR

SHEATHING on 2x2 WD, FRAME,

- CONTIN, PIANO

HINGE

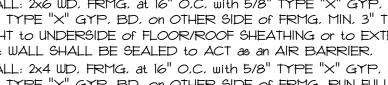


CHECK

REVISIONS:

SHEET

A3.1C



A 5/8" TYPE "X" GYP, BD, ATTACHED to UNDERSIDE of FLOOR/ROOF FRMG, B INTERIOR SOFFIT: 5/8" TYPE "X" GYP, BD, ATTACHED to 2x WD, FRMG, at 16" O.C. C CEILING AT FIRE RATED FLOOR ASSEMBLY UL L570: 1/2" RESILIENT CHANNEL AT 12" O.C., and TWO (2) LAYERS of 1/2" TYPE "X" GYP, BD, ATTACHED to UNDERSIDE of

TYPE

MARK

CEILING TYPES at SECTION

FLOOR/ROOF FRMG, RE: FLOOR TYPES, BLDG, SECTIONS, WALL SECTIONS

D EXTERIOR FIBER CEMENT SOFFIT: 5/8" FIBER CEMENT SOFFIT ATTACHED to

F 5/8" TYPE "X" GYP, BD, ATTACHED to UNDERSIDE of STAIR FRAMING

SOFFIT ATTACHED to UNDERSIDE of ROOF FRAMING, PAINT,

E SUSPENDED GYP, BD, CEILING: 5/8" TYPE "X" GYP, BD, ATTACHED to 2x WD, FRMG at 16" O.C., CEILING TYPE "C" SHALL RUN CONTIN, THROUGHOUT UNIT

G EXTERIOR FIBER CEMENT SOFFIT at PORCH: 5/8" FIBER CEMENT BEADBOARD

UNDERSIDE of ROOF FRAMING, PAINT,

ABOYE this SUSPENDED CEILING,

Description

I FIRE PARTITION SEPARATION WALL: 2x6 WD, FRMG, at 16" O.C. with 5/8" TYPE "X" GYP, on ONE SIDE and 1/2" RESILIENT CHANNEL and 5/8" TYPE "X" GYP, BD, on OTHER SIDE of FRMG, MIN, 3" THICK FIBERGLASS BATT IN CAVITY, RUN FULL HEIGHT to UNDERSIDE of FLOOR/ROOF SHEATHING or to EXTERIOR WALL ABOVE UL DES, No. U311. NOTE: WALL SHALL BE SEALED to ACT as an AIR BARRIER. FIRE PARTITION SEPARATION WALL: 2x4 WD, FRMG, at 16" O.C., with 5/8" TYPE "X" GYP, on ONE SIDE and

- WALL TYPES at SECTION

- 1/2" RESILIENT CHANNEL and 5/8" TYPE "X" GYP, BD, on OTHER SIDE of FRMG, RUN FULL HEIGHT to UNDERSIDE OF FLOOR/ROOF SHEATHING, PROVIDE MIN, 3" THK, FIBERGLASS INSULATION IN CAVITY FULL HEIGHT, UL DES, No. U311, NOTE: WALL SHALL BE SEALED to ACT as an AIR BARRIER,
- FIRE PARTITION SEPARATION WALL: 2x4 WD, STUDS at 24" O.C., with 1/2" SOUNDBOARD and 5/8" TYPE "X" GYP, BD, BOTH SIDES with MIN, 3" TH, FIBERGLASS BATT INSUL, IN CAVITY, WALL MUST RUN FULL HEIGHT to UNDERSIDE of FLOOR or ROOF SHEATHING, UL DES, No. U387, NOTE: WALL SHALL BE SEALED to ACT as an AIR BARRIER.

DESCRIPTION

- FIRE PARTITION SEPARATION WALL: 2x6 WD, STUDS at 16" O.C. with 1/2" SOUNDBOARD and 5/8" TYPE "X" GYP, BD, BOTH SIDES with MIN, 3" TH, FIBERGLASS BATT INSUL, in CAVITY, WALL MUST RUN FULL HEIGHT to FLOOR OF ROOF SHEATHING ABOVE, UL DES, No. U387, NOTE: WALL SHALL BE SEALED to ACT as an AIR
- EXTERIOR FINISH SHALL BE: PORTLAND CEMENT PLASTER BASED (3) COAT STUCCO SYSTEM ON METAL DIAMOND LATH over (1) LAYER 15 16 FELT, RE: SPECIFICATIONS -OR- FIBER CEMENT LAP SIDING -OR-FIBER CEMENT VERTICAL SIDING over 3/4" TH, x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C.; RE ELEVATIONS for LOCATIONS, EXTERIOR FINISH SHALL RUN from FOUNDATION to UNDERSIDE of ROOF SOFFIT. EXTERIOR FINISH SHALL be OVER 7/16" ZIP SYSTEM WALL SHEATHING on 2x6 WD. FRMG at 16" O.C with 5/8" TYPE "X" GYP, BD, on INTERIOR, PROVIDE MIN, R-20 BATT, INSULATION IN WALL CAVITIES FULL
- 6 EXTERIOR FINISH SHALL BE: PORTLAND CEMENT PLASTER BASED (3) COAT STUCCO SYSTEM ON METAL DIAMOND LATH over (1) LAYER 15 1b FELT, RE: SPECIFICATIONS -OR- FIBER CEMENT LAP SIDING -OR-FIBER CEMENT VERTICAL SIDING over 3/4" TH. x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C.; RE: ELEVATIONS for LOCATIONS. EXTERIOR FINISH SHALL RUN from FOUNDATION to UNDERSIDE of ROOF SOFFIT, EXTERIOR FINISH SHALL be OVER 7/16" ZIP SYSTEM WALL SHEATHING on 2x6 WD, FRMG at 16" O.C with 1/2" RESILIENT CHANNEL and 5/8" TYPE "X" GYP, BD, on INTERIOR, PROVIDE MIN, R-20 BATT, INSULATION IN WALL CAYITIES FULL HGT.
- 7 2x4 WD, STUDS at 24" O.C., with 5/8" TYPE "X" GYP, BD, on ONE SIDE (CLO, SIDE), RUN from TOP of FLOOR SLAB to UNDERSIDE of STAIR STRUCTURE ABOVE.
- 2x4 WD, STUDS at 24" O.C., with 5/8" TYPE "X" GYP, BD, BOTH SIDES from TOP of FLOOR SHEATHING to UNDERSIDE of FLOOR/ROOF STRUCTURE or to UNDERSIDE of FIRE RATED HORIZ, ASSEMBLY ABOVE,
- FURRED TUB/SHOWER ENCLOSURE/PLUMBING WALL: 2x4 WD, STUDS at 24" O.C. with 5/8" CEMENT BD, ONE 10 FURRED STRUCTURAL INTERIOR WALL: 2x6 WD, STUDS at 16" O.C., with 5/8" TYPE "X" GYP, BD, on ONE SIDE
- II FURRED TUB/SHOWER ENCLOSURE WALL: 2x4 WD, STUDS at 24" O.C., LAID FLAT with 1/2" CEMENT BD, on ONE 12 SLOPING STAIR DOUBLE STUD WALL: TWO 2x4 WD, STUDS with 3"+/- AIR SPACE at 24" O.C., with 5/8" TYPE
- "X" GYP, BD, BOTH SIDES with WOOD CAP, RE: BUILDING SECTIONS FOR HEIGHT 13 SLOPING STAIR WALL: 2x4 WD, STUDS at 16" O.C., with 5/8" TYPE "X" GYP, BD, BOTH SIDES with WOOD
- CAP, RE: BUILDING SECTIONS for HEIGHT, 14 SLOPING STAIR WALL: 2x6 WD, STUDS at 16" O.C. with 5/8" TYPE "X" GYP, BD, BOTH SIDES with WOOD
- CAP, RE: BUILDING SECTIONS for HEIGHT, 15 HALF WALL: 2x6 WD, STUDS at 24" O.C. with 5/8" TYPE "X" GYP, BD, BOTH SIDES, RUN to UNDERSIDE of COUNTERTOP ABOVE, RE: INTERIOR ELEVATIONS
- 16 HALF WALL: 2x4 WD, STUDS at 24" O.C. with 5/8" TYPE "X" GYP, BD, BOTH SIDES, RUN to UNDERSIDE of COUNTERTOP ABOVE, RE: INTERIOR ELEVATIONS
- PLUMBING WALL: 2x6 WD, STUDS at 24" O.C. with 5/8" TYPE "X" GYP, BD, BOTH SIDES from TOP of FLOOR SHEATHING to UNDERSIDE of FLOOR/ROOF STRUCTURE ABOVE.
- 18 2x8 WD, STUDS at 24" O.C. with 5/8" TYPE "X" GYP, BD, BOTH SIDES from TOP of FLOOR SHEATHING to UNDERSIDE of FLOOR/ROOF STRUCTURE ABOVE.

ROOF TYPES at SECTION

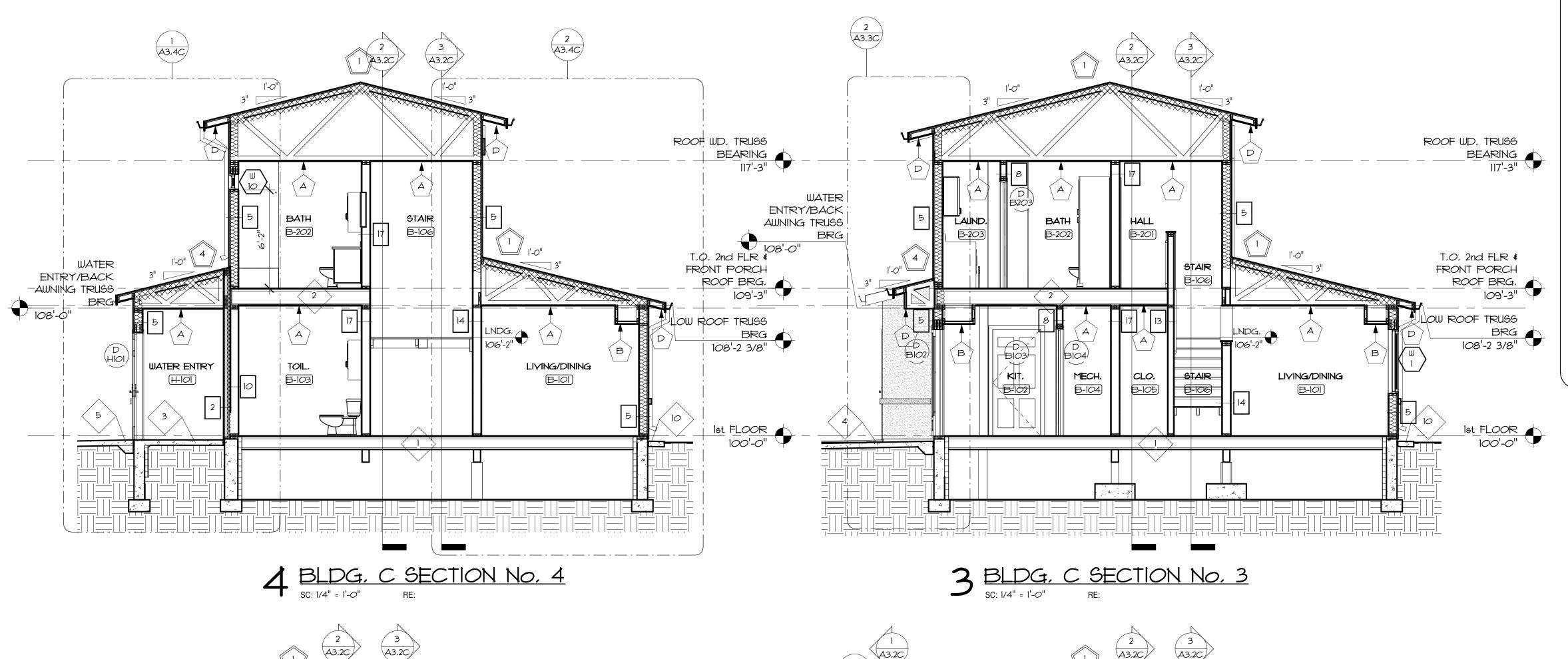
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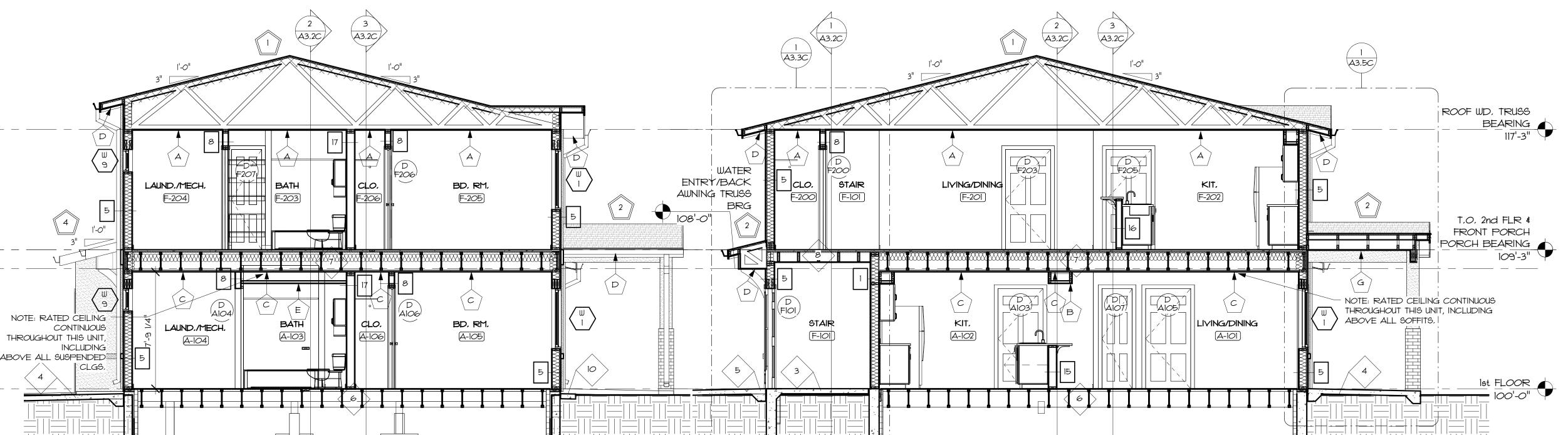
- I CLASS A, 30 YR, min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF, STANDARD RANGE on (2) LAYERS 30 lb, FELT on 7/16" APA RATED ROOF SHEATHING ON PRE-ENGINEERED WD, TRUSSES at 24" O.C. with MIN, R-49 SPRAYED-ON CLOSED CELL FOAM INSUL, to UNDERSIDE OF ROOF SHEATHING, PROVIDE "W.R. GRACE" ICE and WATER SHIELD MEMBRANE UP 16" at ALL VALLEY (BOTH SIDES), 24" UP from ALL EAVES, 24" DOWN ALL RIDGES (BOTH SIDES), INSUL, to be PROVDED above OCCUPIED INTERIOR SPACES
- ROOFING at BACK DOOR AWNINGS and FRONT PORCHES: CLASS A, 30 YR. min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF, STANDARD RANGE on (2) LAYERS 301b, FELT on 7/16" APA RATED ROOF
- SHEATHING ON PRE-ENGINEERED WD. TRUGGES at 24" O.C. RE: STRUCTURAL. LOW-SLOPE ROOF: SELF-ADHERING SBS-MODIFIED ASPHALT ROOFING SYSTEM TAMKO SA BASE and SA CAP, www.tamko.com, or APPROVED EQUAL. COLOR to be SELECTED by OWNER/ARCHITECT from MANUF, FULL RANGE; over 7/16" APA
- RATED ROOF SHEATHING over 2x6 WD, RAFTERS at 24" O.C. RE: STRUCTURAL CLASS A, 30 YR, min. ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF, STANDARD RANGE on (2) LAYERS 30lb, FELT on 7/16" APA RATED ROOF SHEATHING ON PRE-ENGINEERED WD. TRUSSES at 24" O.C., RE: STRUCTURAL.PROVIDE R-34 (RE:SPECIFICATIONS, ENERGY MODEL) SPRAYED-ON CLOSED CELL FOAM INSUL, to UNDERSIDE OF ROOF SHEATHING at OCCUPIED

FLOOR TYPES at SECTION Type Mark

- 1 3/4" PLYWOOD over 9-1/2" WD, 1-JOISTS at 16" O.C. RE: STRUCTURAL
- 2 3/4" PLYWOOD over 11-7/8" WD. 1-JOISTS at 16 O.C., RE: STRUCTURAL. 3 4" INTERIOR CONC, SLAB on GRADE, REFER to CIVIL for ACTUAL F.F., ELEV, at
- EACH BLDG, on SITE, RE: STRUCTURAL and CIVIL 4 4" CONCRETE SLAB at PORCH/PATIO, SLOPE at MIN, 1/4" per FOOT, REFER to
- CIVIL for F.F. ELEV. of ALL CONC. SLABS, RE: CIVIL and STRUCTURAL
- 5 4" CONC. WALK, SLOPE MIN. 1/4" per FOOT. RE: CIVIL and STRUCTURAL 6 3/4" PLYWOOD over 14" WOOD 1-JOISTS at 16" O.C. RE: STRUCTURAL IHR FIRE RATED HORIZ, ASSEMBLY: I-I/4" GYPSUM "GYPCRETE" FLOOR
- TOPPING over 1/4" SOUND REDUCTION MAT over 3/4" T&G SHEATHING over WD. I-JOISTS at 14" O.C. (RE: STRUCTURAL) with 1/2" RESILIENT CHANNEL at 12" O.C. and TWO (2) LAYERS of 1/2" TYPE "X" GYP, BD, at CEILING, 6" TH, FIBERGLASS BATT INSULATION IN CAVITY DRAPE OVER RES, CHANNELS, FULL HORIZ, ASSEMBLY SHALL be CONTIN, from EXT, WALL/FIRE PARTITION SEP, WALL to EXT, WALL/FIRE PARTITION SEP, WALL, MIN, 50 STC, MIN, 50 IIC, UL DES, No. L570/GA FILE No. FC 5011
- 8 1-1/4" GYPSUM "GYPCRETE" FLOOR TOPPING over 1/4" SOUND REDUCTION MAT over 3/4" T&G SHEATHING over WD, 2x8 JOISTS at 16" O.C. RE: STRUCTURAL
- 10 4" TH, CONCRETE APRON, SLOPE at MIN, 1/4" per FOOT, REFER to CIVIL for F.F. ELEV, at APRON, RE: CIVIL and STRUCTURAL RAISED FLOOR IN LINEN CLO. 3/4" PLYWOOD over 2x6 WD. JOISTS at 16" O.C.
- RE: STRUCTURAL EXT, BALCONY FLOOR: MIN, 3" TH, CONC, over 60 mil, RUBBER WATEROPROOF MEMBRANE over 3/4" EXT. RATED PLYWOOD SHEATHING over 2x8 WD. JOISTS at 12" O.C., RE: STRUCTURAL. CONC. SHALL be SEALED, ANTI-SLIP and BROOM FINISH, SLOPE CONC, at 2% AWAY from FACE of EXT, WALL,
-) AT ALL EXTERIOR SLABS LOCATED DIRECTLY ADJACENT to BUILDING FOUNDATIONS: TIE CONC. PAD to FOUNDATION with #4

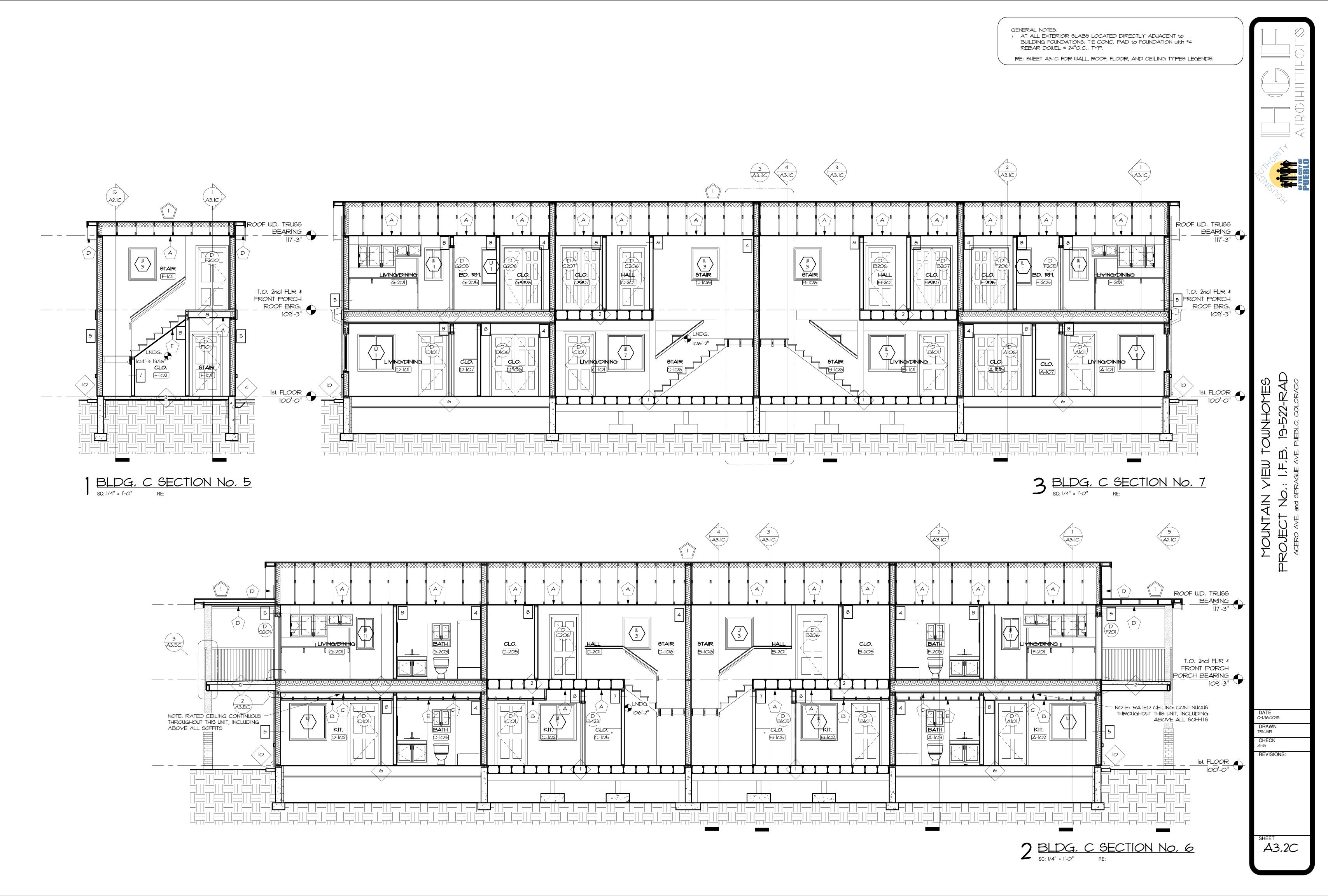
REBAR DOWEL @ 24"O.C., TYP.

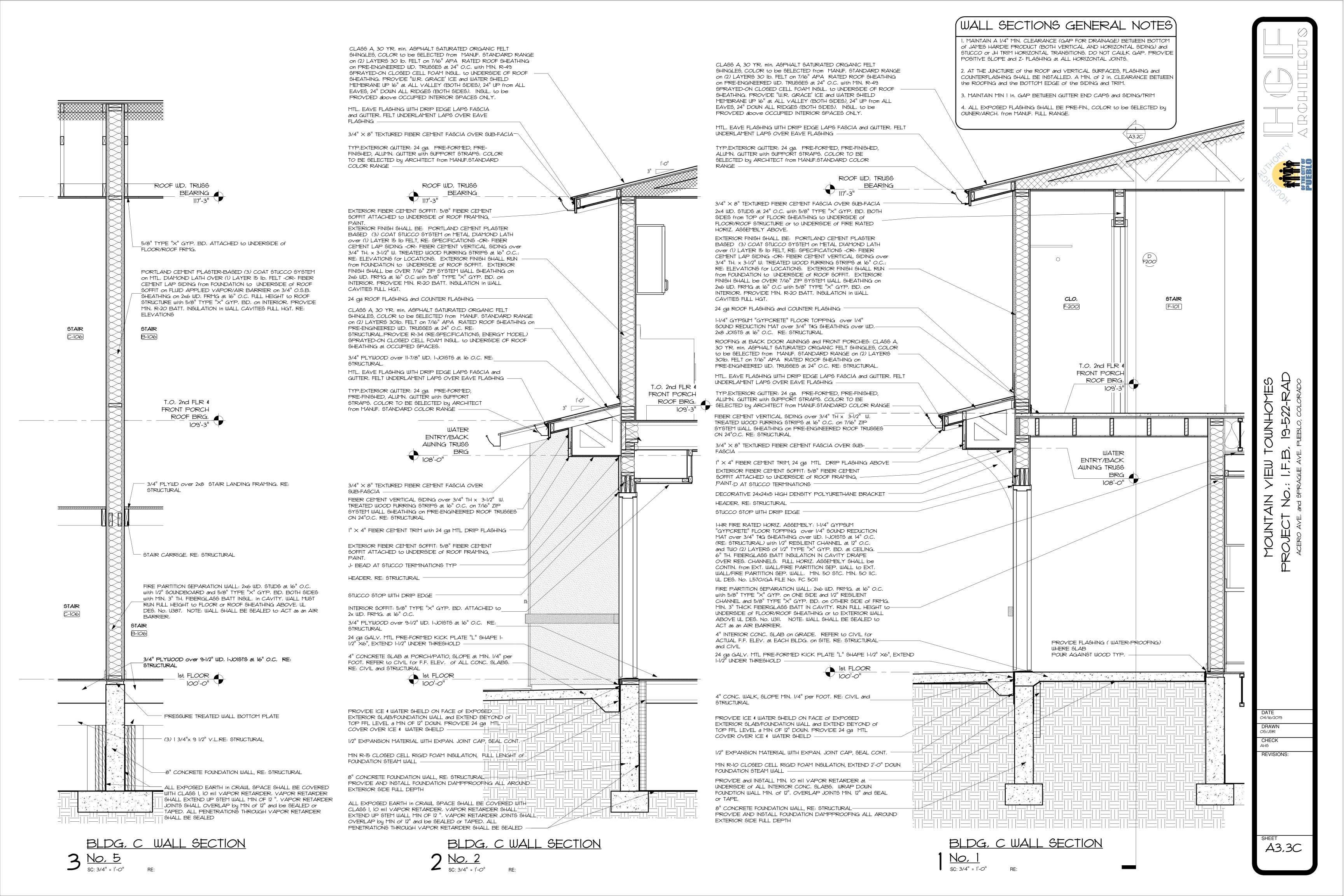


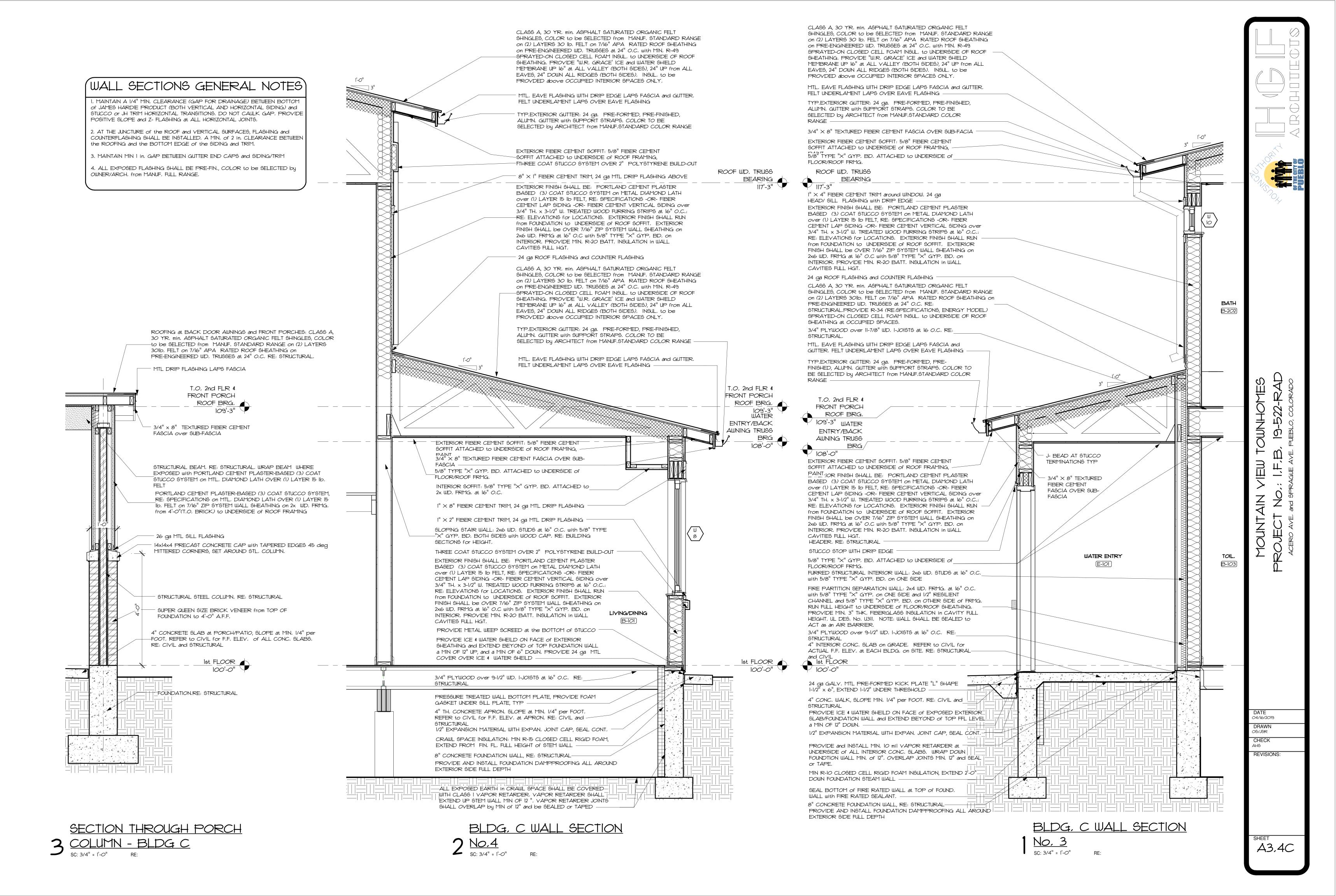


2 BLDG, C SECTION No. 2
SC: 1/4" = 1'-0" RE:

BLDG, C SECTION No. 1







H H \square **IOUNTAIN**

WALL SECTIONS GENERAL NOTES 1. MAINTAIN A 1/4" MIN, CLEARANCE (GAP FOR DRAINAGE) BETWEEN BOTTOM

ROOF WD, TRUSS

MTL, EAVE FLASHING WITH DRIP EDGE LAPS FASCIA

T.O. 2nd FLR &

ROOF BRG. 109'-3"

FRONT PORCH

3/4"x 8" TEXTURED FIBER CEMENT FASCIA OVER

EXTERIOR FIBER CEMENT SOFFIT: 5/8" FIBER CEMENT

FIBER CEMENT VERTICAL SIDING over 3/4" TH x 3-1/2" W.

TREATED WOOD FURRING STRIPS at 16" O.C. on 7/16" ZIP

SYSTEM WALL SHEATHING ON PRE-ENGINEERED ROOF TRUSSES

PORTLAND CEMENT PLASTER-BASED (3) COAT STUCCO SYSTEM, RE: SPECIFICATIONS on MTL. DIAMOND LATH OVER (1) LAYER 15 "Ib. FELT on 7/16" ZIP SYSTEM WALL SHEATHING on 2x WD. FRMG.

14x14x4 PRECAST CONCRETECAP with TAPERED EDGES 45 deg

SUPER QUEEN SIZE BRICK VENEER from TOP of FOUNDATION to

1st FLOOR

100'-0"

from 4'-0"(T.O. BRICK) to UNDERSIDE of ROOF FRAMING

-SOFFIT ATTACHED to UNDERSIDE of ROOF FRAMING,

--- 1" imes 4" FIBER CEMENT TRIM with DRIP FLASHING.

PLASTER-BASED(3) COAT STUCCO SYSTEM over

MITTERED CORNERS, SET AROUND STL. COLUMN.

- WRAP HEADER with PORTLAND CEMENT

SUB-FASCIA

ON 24"O.C. RE: STRUCTURAL

(1) LAYER 15 lb FELT,

BEARING _

of JAMES HARDIE PRODUCT (BOTH VERTICAL AND HORIZONTAL SIDING) and STUCCO OR JH TRIM HORIZONTAL TRANSITIONS, DO NOT CAULK GAP, PROVIDE POSITIVE SLOPE and Z-FLASHING at ALL HORIZONTAL JOINTS.

2, AT THE JUNCTURE of the ROOF and VERTICAL SURFACES, FLASHING and COUNTERFLASHING SHALL BE INSTALLED, A MIN, of 2 in, CLEARANCE BETWEEN the ROOFING and the BOTTOM EDGE of the SIDING and TRIM.

3, MAINTAIN MIN I in. GAP BETWEEN GUTTER END CAPS and SIDING/TRIM

4. ALL EXPOSED FLASHING SHALL BE PRE-FIN., COLOR to be SELECTED by OWNER/ARCH, from MANUF, FULL RANGE,

PRE-FINISHED I" SQ, TUBE BALUSTER at 4" O.C. FINISH COLOR SHALL be SELECTED by ARCH, ATT, to 2" SQ, TUBE TOP and BOTTOM, PRE-FINISHED 2" SQ, STEEL TUBE POST at 4'-0" O.C. and at EACH END of RAILING, FINISH COLOR SHALL be SELECTED by ARCH, WELD at BOTTOM to HSS. AT EACH END of RAILING ATT, with PRE-FINISHED 3"x2"x3/16" STEEL ANGLE to COL/WALL, WRAP WATERPROOF MEMBRANE UP AROUND TUBE and SEAL PRE-FINISHED 2" SQ, STEEL TUBE BOTTOM RAIL, FINISH COLOR SHALL be SELECTED by ARCH, MOUNT to STEEL

PRE-FINISHED 2" SQ, STEEL TUBE GUARDRAIL

FINISH COLOR SHALL be SELECTED by ARCH,

MOUNT to STEEL POST,

ALUM, T-BAR on SHIM SPACER at EACH FASTENER LOCATION to ALLOW WATER to DRAIN BELOW T-BAR and ABOVE WATERPROOF MEMBRANE

EXT. BALCONY FLOOR: MIN. 3" TH. CONC. over 60 mil. RUBBER WATEROPROOF MEMBRANE over 3/4" EXT., RATED PLYWOOD SHEATHING over 2x8 WD. JOISTS at 12" O.C., RE: STRUCTURAL, CONC. SHALL be SEALED, ANTI-SLIP and BROOM FINISH, SLOPE CONC, at 2% AWAY from FACE of EXT, WALL,

WRAP 60 mil. RUBBER WATERPROOF MEMBRANE over EXT. SHEATHING and DOWN FACE of HSS, UNDER T-BAR, SPACED BETWEEN TO ALLOW DRAINAGE ABOVE MEMBRANE

HSS TUBE, RE: STRUCTURAL, HIGH-PERFORANCE COATING

EXTERIOR FIBER CEMENT SOFFIT: 5/8" FIBER CEMENT -SOFFIT ATTACHED to UNDERSIDE of ROOF FRAMING,

SEAL PERIMETER of FIBER CEMENT SOFFIT

BLDG, C - DETAIL at BALCONY 3 EDGE/GUARDRAIL
SC: 1 1/2" = 1'-0" RE:

T.O. 2nd FLR &

FRONT PORCH

109'-3"

ROOF BRG,

1-HR FIRE RATED HORIZ, ASSEMBLY: 1-1/4" GYPSUM "GYPCRETE" FLOOR TOPPING over 1/4" SOUND REDUCTION MAT over 3/4" T&G SHEATHING over WD, I-JOISTS at 14" O.C. (RE: STRUCTURAL) with 1/2" RESILIENT CHANNEL at 12" O.C. and TWO (2) LAYERS of 1/2" TYPE "X" GYP, BD, at CEILING, 6" TH. FIBERGLASS BATT INSULATION IN CAVITY DRAPE OVER RES, CHANNELS, FULL HORIZ, ASSEMBLY SHALL be CONTIN. from EXT. WALL/FIRE PARTITION SEP. WALL to EXT. WALL/FIRE PARTITION SEP, WALL, MIN, 50 STC, MIN, 50 IIC, UL DES, No. L570/GA FILE No. FC 5011 SHEET METAL PAN FLASHING, SEAL to WATERPROOF MEMBRANE EXT. BALCONY FLOOR: MIN. 3" TH. CONC. over 60 mil. T.O. 2nd FLR & RUBBER WATEROPROOF MEMBRANE over 3/4" EXT. RATED FRONT PORCH PLYWOOD SHEATHING over 2x8 WD. JOISTS at 12" O.C., RE: ROOF BRG. STRUCTURAL, CONC. SHALL be SEALED, ANTI-SLIP and BROOM FINISH, SLOPE CONC, at 2% AWAY from FACE of 109'-3" EXT, WALL, 1/2" EXPAN, MATERIAL with EXPAN, JOINT CAP,

SEAL CONTIN, -WRAP 60 mil MEMBRANE UP FACE of SHEATHING

and UNDER METAL SILL PAN FLASHING MEMBRANE FILLET -

RE: STRUCTURAL for BALCONY ATTACHMENT to WALL/RIM JOIST -

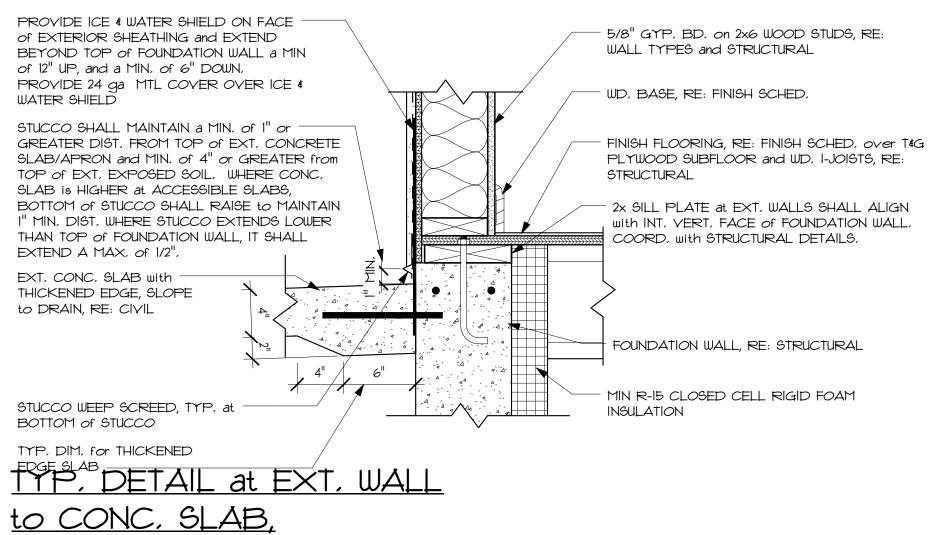
EXTERIOR FINISH SHALL BE: PORTLAND CEMENT PLASTER BASED (3) COAT STUCCO SYSTEM ON METAL DIAMOND LATH over (1) LAYER 15 lb FELT, RE: SPECIFICATIONS -OR- FIBER CEMENT LAP SIDING -OR- FIBER CEMENT VERTICAL SIDING over 3/4" TH. x 3-1/2" W. TREATED WOOD FURRING STRIPS at 16" O.C.; RE: ELEVATIONS for LOCATIONS. EXTERIOR FINISH SHALL RUN from FOUNDATION to UNDERSIDE of ROOF SOFFIT, EXTERIOR FINISH SHALL be OVER 7/16" ZIP SYSTEM WALL SHEATHING ON 2x6 WD, FRMG at 16" O,C with 5/8" TYPE "X" GYP, BD, on INTERIOR, PROVIDE MIN, R-20 BATT, INSULATION IN WALL CAVITIES FULL HGT.

> BLDG, C - DETAIL at BALCONY and EXTERIOR 2 DOOR SILL
> SC: 1 1/2" = 1'-0" RE:

NOTE: DETAIL is SIM, at EXT, WALL to 4" TH, x 1'-0" W, CONC. APRON, CONC. APRON SHALL NOT HAVE THICKENED EDGE.

NON-ACCESSIBLE

SC: 1 1/2" = 1'-0" RE:



PROVIDE ICE& WATER SHEILD, WHERE SLAB POUR AGAIST 1/2" EXPANSION MATERIAL WITH EXPAN, JOINT CAP, SEAL CONT.

BALCONY BRG,

108'-0 1/2"

WALL SECTION THROUGH

FRONT PORCH - BLDG C

EXTERIOR FIBER CEMENT SOFFIT: 5/8" FIBER CEMENT

EXTERIOR FINISH SHALL BE: PORTLAND CEMENT PLASTER BASED (3) COAT STUCCO SYSTEM ON METAL DIAMOND LATH over (1) LAYER 15 lb FELT, RE: SPECIFICATIONS -OR- FIBER

CEMENT LAP SIDING -OR- FIBER CEMENT VERTICAL SIDING over

3/4" TH, imes 3-1/2" W, TREATED WOOD FURRING STRIPS at 16" O.C.;

-RE: ELEVATIONS for LOCATIONS, EXTERIOR FINISH SHALL RUN

from FOUNDATION to UNDERSIDE of ROOF SOFFIT, EXTERIOR

FINISH SHALL be OVER 7/16" ZIP SYSTEM WALL SHEATHING on

ROOFING at BACK DOOR AWNINGS and FRONT PORCHES: CLASS A,

30 YR, min, ASPHALT SATURATED ORGANIC FELT SHINGLES, COLOR to be SELECTED from MANUF, STANDARD RANGE on (2) LAYERS ---

2x6 WD, FRMG at 16" O,C with 5/8" TYPE "X" GYP, BD, on

INTERIOR, PROVIDE MIN, R-20 BATT, INSULATION IN WALL

301b, FELT on 7/16" APA RATED ROOF SHEATHING on

24 GA MTL ROOF FLASHING and COUNTERFLASHING

EXTERIOR FIBER CEMENT SOFFIT at PORCH: 5/8" FIBER

STRUCTURAL BEAM, RE: STRUCTURAL, WRAP BEAM WHERE EXPOSED with PORTLAND CEMENT PLASTER-BASED (3) COAT

STUCCO SYSTEM ON MTL, DIAMOND LATH OVER (1) LAYER 15 lb.

4" CONCRETE SLAB at PORCH/PATIO, SLOPE at MIN. 1/4" per

FOOT, REFER to CIVIL for F.F. ELEV. of ALL CONC. SLABS.

ROOF FRAMING, PAINT,

RE: CIVIL and STRUCTURAL

-CEMENT BEADBOARD SOFFIT ATTACHED to UNDERSIDE of

PRE-ENGINEERED WD, TRUSSES at 24" O.C. RE: STRUCTURAL,

CAVITIES FULL HGT.

-SOFFIT ATTACHED to UNDERSIDE of ROOF FRAMING,

SC: 3/4" = 1'-0"

04/16/2019 DRAWN OS/JSR CHECK

REVISIONS:

A3,5C

COMPOSITE HORIZONTAL COMPOSITE HORIZONTAL COMPOSITE FIXED, COLOR COMPOSITE FIXED COLOR COMPOSITE FIXED COLOR COMPOSITE HORIZONTAL EXISTING OWNER STORED COMPOSITE HORIZONTAL COMPOSITE HORIZONTAL COMPOSITE HORIZONTAL COMPOSITE HORIZONTAL COMPOSITE HORIZONTAL

STANDARD RANGE, RE:

INSECT SCREEN,

TEMPERED

SPECIFICATIONS, WITH

to be SELECTED from

MANUFACTURER'S

SPECIFICATIONS

MANUFACTURER'S STANDARD COLOR RANGE, STANDARD RANGE, RE: STANDARD COLOR RANGE,

SLIDER COLOR to be SLIDER COLOR to be to be SELECTED from

MANUFACTURER'S

TEMPERED

SELECTED from

STANDARD RANGE, RE: STANDARD RANGE, RE: RE: SPECIFICATIONS,

INSECT SCREEN

SPECIFICATIONS, WITH SPECIFICATIONS, WITH

SELECTED from

MANUFACTURER'S

INSECT SCREEN, EGRESS

WINDOW where INDICATED

ON CODE STUDY PLAN,

(3) COAT STUCCO SYSTEM with

STUCCO STOP, RE: WALL TYPES

and SPECIFICATIONS

to be SELECTED from

RE: SPECIFICATIONS,

MANUFACTURER'S

TEMPERED

SELECTED from to F.V. DIMENSIONS and

MANUFACTURER'S MAX, U-FACTOR of .32

SELECTED from

MANUFACTURER'S

INSECT SCREEN,

TEMPERED

STANDARD RANGE, RE: STANDARD RANGE, RE: STANDARD RANGE, RE: STANDARD RANGE, RE:

SPECIFICATIONS, WITH SPECIFICATIONS, WITH SPECIFICATIONS, WITH

SLIDER COLOR to be COMPOSITE WINDOW, G.C. SLIDER COLOR to be SLIDER COLOR to be SLIDER COLOR to be

SELECTED from

MANUFACTURER'S

INSECT SCREEN

SELECTED from

MANUFACTURER'S

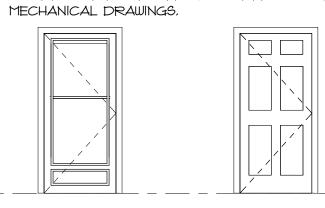
INSECT SCREEN

THE STATE OF THE S

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DOOR and FRAME TYPES

GENERAL NOTES: COORDINATE DOOR SIZES and UNDERCUTTING of DOORS with 2. HEIGHT of DOOR SILLS at WATER ETNRY ROOMS/EXTERIOR STORAGE ROOMS SHALL MATCH HEIGHT of INT, FLOOR SLAB, RE: CIVIL for SLAB ELEY, HEIGHT, FOUNDATION WALL At SUCH DOORS SHALL BE NOTCHED to ALLOW INSTALLATION of DOOR, RE; CIYIL AND STRUCTURAL



SD-1, 3068 LARSON HM-1, INSUL. HOLLOW METAL WD-1, MASONITE 6 PANEL HMV-1, INSUL. HOLLOW BD-1, BARN DOOR 36"x84" HMF-1, HOLLOW METAL WF-1, PRE-HUNG FINGER GYP-1, GYPSUM BD. TEXTURED DOOR, METAL DOOR with FULL MATTE BLACK HARDWARE FRAME - FACTORY PRIMED JOINTED PINE FRAME with WRAPPED OPENING, 3/4 PRE-HUNG, PAINT with (2) VISION LITE, PREP, per (2) COATS SEMI-GLOSS and FINISH with (2) COATS TRIMCO TM356 CASING,

ARTISAN HARDWARE" Z STEELCRAFT GRAINTECH or SLIDING BARN DOOR,

PAINTED,

ENAMEL PAINT,

BLDG, C - DOOR SCHED,

PRIME and PAINT with (2) CORNERS, FACTORY COATS of LATEX ENAMEL FINISHED DOOR TRACT and SEMI-GLOSS,

BULLNOSE OUTSIDE HARDWARE by MANUF, 2'-8 x 6'-8" CLEAR OPENING

SELECTED from

MANUFACTURER'S

INSECT SCREEN,

TEMPERED

MANUFACTURING STORM DOOR, PREP per DOOR DOOR, MODEL 830-80, COLOR WHITE, SATIN CHROME, INSTALL with STEELCRAFT GRAINTECH HINGES INSIDE of HMF-1, EMBOSSED or EQUAL, HARDWARE by FINISH to be SELECTED by

with HMF-1

5/8" GYP, BD, on 2x6 WD,

STRUCTURAL

INSUL, H.M. DOOR

INSUL, HEADER

RUN CAULKING BEAD

BETWEEN GYP, BD, and

FRMG, all AROUND DOOR

WHERE EXT, CONC, SLAB IS

LOWER THAN SHOWN at

ENTRANCES: PROVIDE

GALVANIZED METAL "L"

and 6" VERTICALLY TO

BELOW CONCRETE SLAB.

KICKPLATE, INSTALL 1-1/2"

HORIZ, UNDER THRESHOLD

FINISH FLOORING, RE: FINISH SCHED, over T&G

PLYWOOD SUBFLOOR and WD. I-JOISTS, RE:

FOUNDATION WALL, RE: STRUCTURAL

MIN R-15 CLOSED CELL RIGID FOAM

NON-ACCESSIBLE

SHAPE FLASHING

CAULK UNDER the

THRESHOLD,

STRUCTURAL

INSULATION

HEAD ADDITIONAL 26 ga.

FRMG., RE: WALL TYPES and

FINISH HARDWARE, PRE-FINISHED, MANUFACTURER, F.V. ARCH, from MANUF, FULL THICKNESS and COORD, RANGE, MAX, U-FACTOR:

COATS OF SEMI-GLOSS DOOR FINISH HARDWARE, LATEX ENAMEL, EQUAL to LATEX ENAMEL, PRE-FINISHED, EQUAL, FINISH to be

SELECTED by ARCH, from MANUF, FULL RANGE DOOR HARDWARE SETS

STRIP, STOP, 1/12 PAIR HINGES, ADA APPROVED THRESHOLD, ROCKWOOD # 620 VIEWER INSTALL at 60 A.F.F..STORM DOOR to HAVE FACTORY HARDWARE and WIND CHAIN, SET B (BEDROOMS, CLOSETS with SINGLE DOOR)

PRE-HUNG HINGES by MFG.: FIO ELAN LEVER, 626, PASSAGE, STOP.

SET C _ (TOILET & BATH ROOMS) F40 ELAN, 626, PRIVACY, STOP

SET A (FRONT & BACK ENTRY DOORS)

SET D (CLOSETS with DOUBLE DOORS) PRE-HUNG HINGES by MFG.: DUMMY TRIM F170 ELAN LEVER, SPRING CATCHES (EACH LEAF), (1) FLOOR and (1) HINGE STOP, ADJUSTABLE BALL CATCH, SATIN CHROME FINISH

DEADBOLT BC 160R, E 626 REMOVABLE CORE, FIO ELAN LEVER PASSAGE, WEATHER

<u>SET E (EXTERIOR STORAGE and WATER ENTRY DOORS):</u> DEADBOLT BC 160R, E 626 REMOVABLE CORE, FIO ELAN LEVER PASSAGE, WEATHER STRIP, STOP, 1 1/2 PAIR HINGES, ADA APPROVED THRESHOLD.

SET F (BARN DOOR): HARDWARE by MANUFACTURER, COLOR BLACK, PULL RE: INTERIOR DOOR TYPES,

SET G (FRONT & BACK ENTRY DOORS ACESSIBLE UNITS): DEADBOLT BC 160R, E626 REMOVABLE CORE, FIO ELAN LEVER PASSAGE, WEATHER STRIP, STOP, I 1/2 PAIR HINGES, KICK PLATES ADA APPROVED THRESHOLD, ROCKWOOD #620 VIEWER, INSTALL (2) VIEWERS at ENTRY DOORS INSTALL VIEWER at 43" A.F.F., and at 60" A.F.F. KICK PLATE MOUNT at EXTERIOR of DOOR (VERIFY with OWNER), STORM DOOR HARDWARE per MANUF, INCLUDING but NOT LIMITED to: HINGES, LEVER HANDLE, DROP CAP, SCREEN DOOR CLOSER, WEATHER STRIPPING, and WIND CHAIN.

<u>SET H</u> <u>(EXTERIOR BALCONY DOORS)</u> DEADBOLT BC 160R, E 626 REMOVABLE CORE. FIO ELAN LEVER PASSAGE, WEATHER STRIP, STOP, 1/12 PAIR HINGES.

NOTES: at DOORS, STOP, ROCKWOOD 1/2" BASE, DOME STOPE #442, 626 UNLESS INDICATED OTHERWISE and EXCEPT at CARPET FLOOR FINISHES and WHERE DOORS are UNDERCUT per MECHANICAL PROVIDE WALL STOP IN LIEU OF FLOOR STOP, WHERE WALL STOP IS NOT POSSIBLE PROVIDE RISER ON DOME STOP, RE: INTERIOR FINISH SCHED, CONTRACTOR to F.V. REQ. WIDTH of THRESHOLD at EXTERIOR DOORS.

EN-1 ENAMEL (EN)

DOOR COLOR NOTES:

DOORS and FRAMES: LE-1 LATEX ENAMEL (LE): APPROVED MANUFACTUER COLOR to be SELECTED from the MANUFACTURER'S TOTAL COLOR RANGE, RE: SPECIFICATIONS,

APPROVED MANUFACTUER COLOR to be SELECTED from the MANUFACTURER'S TOTAL COLOR RANGE, RE: SPECIFICATIONS,

NOTE: CONTRACTOR to ALLOW for (4) EXTERIOR BUILDING COLOR SCHEMES at FRONT and BACK ENTRY DOORS, INTERIOR of FRAMES to MATCH

H101

6'-8"

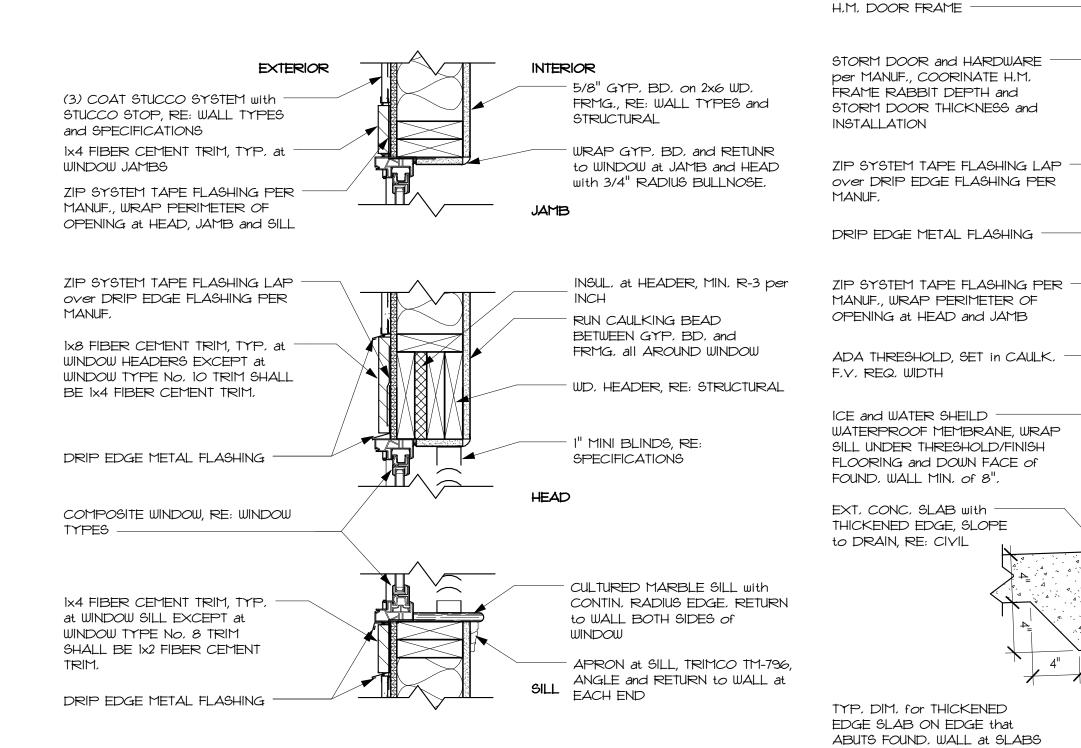
- 1				1, C - DOOK			
	MARK	HEIGHT	WIDTH	DOOR TYPE and FINISH	FRAME TYPE and FINISH	Fire Rating	HARDWAR SET
-	AlOI	6'-8"	3'-0"	HM-1 x H,M, x PRE-FIN, with SD-1	HMF-1 × H.M. × EN.	N/A	SET A
ŀ	A102	6'-8"	3'-0"	HM-1 x H,M, x PRE-FIN, with SD-1	HMF-1 × H,M, × EN,	N/A	SET A
	A103 A104	6'-8"	3'-0"	WD-1 x MASONITE x LE BD-1 x WOOD x LE	WF-1 × WOOD × EN GYPF × GYP, × EN,	N/A	SET C
ŀ	A105	6'-8"	3'-0"	WD-1 × MASONITE × LE	WF-1 x WOOD x EN	N/A	SET B
Ì	A106	6'-8"	5'-0"	WD-1 × MASONITE × LE	WF-1 × WOOD × EN	N/A	SET D
ľ	A107	6'-8"	2'-0"	WD-1 x MASONITE x LE	WF-1 × WOOD × EN	N/A	SET B
Ī	BIOI	6'-8"	3'-0"	HM-1 x H,M, x PRE-FIN, with SD-1	HMF-1 × H,M, × EN,	N/A	SET A
	BlO2	6'-8"	3'-0"	HM-1 x H,M, x PRE-FIN, with SD-1	HMF-1 × H,M, × EN,	N/A	SET A
	B103	6'-8"	3'-0"	WD-1 x MASONITE x LE	WF-1 × WOOD × EN	N/A	SET C
	B104	6'-8"	5'-0"	WD-1 × MASONITE × LE	WF-1 × WOOD × EN	N/A	SET D
	B105	6'-8"	2'-0"	WD-1 × MASONITE × LE	WF-1 × WOOD × EN	N/A	SET B
	B202	6'-8"	3'-0"	WD-1 × MASONITE × LE	WF-1 × WOOD × EN	N/A	SET C
	B2O3	6'-8"	5'-0"	WD-1 × MASONITE × LE	WF-1 x WOOD x EN	N/A	SET D
	B204	6'-8"	2'-8"	WD-1 × MASONITE × LE	WF-1 x WOOD x EN	N/A	SET B
ı	B205	6'-8"	4'-0"	WD-1 × MASONITE × LE	WF-1 x WOOD x EN	N/A	SET D
ŀ	B206	6'-8"	2'-8"	WD-1 × MASONITE × LE	WF-1 x WOOD x EN	N/A	SET B
ŀ	B207	6'-8" 6'-8"	4'-0" 2'-0"	WD-1 x MASONITE x LE	WF-1 x WOOD x EN	N/A	SET D
ŀ	B423 B436	6'-8"	3'-0"	WD-1 x MASONITE x LE HM-1 x H.M. x PRE-FIN, with SD-1	WF-1 × WOOD × EN HMF-1 × H.M. × EN.	N/A N/A	SET B SET A
ŀ	B491	6'-8"	2'-0"	WD-1 x MASONITE x LE	WF-1 x WOOD x EN	N/A	SET B
ŀ	CIOI	6'-8"	3'-0"	HM-1 x H,M, x PRE-FIN, with SD-1	HMF-1 × H,M, × EN,	N/A	SET A
ŀ	C102	6'-8"	3'-0"	HM-1 x H,M, x PRE-FIN, with SD-1	HMF-1 × H.M. × EN.	N/A	SET A
Ì	C103	6'-8"	3'-0"	WD-1 x MASONITE x LE	WF-1 x WOOD x EN	N/A	SET C
ı	C104	6'-8"	5'-0"	WD-1 x MASONITE x LE	WF-1 × WOOD × EN	N/A	SET D
ı	C2O2	6'-8"	3'-0"	WD-1 × MASONITE × LE	WF-1 × WOOD × EN	N/A	SET C
Ī	C2O3	6'-8"	5'-0"	WD-1 x MASONITE x LE	WF-1 × WOOD × EN	N/A	SET D
Л	C2O4	6'-8"	2'-8"	WD-1 × MASONITE × LE	WF-1 × WOOD × EN	N/A	SET B
-	C2O5	6'-8"	4'-0"	WD-1 × MASONITE × LE	WF-1 × WOOD × EN	N/A	SET D
ļ	C2O6	6'-8"	2'-8"	WD-1 x MASONITE x LE	WF-1 x WOOD x EN	N/A	SET B
ļ	C2O7	6'-8"	4'-0"	WD-1 × MASONITE × LE	WF-1 x WOOD x EN	N/A	SET D
	DIOI	6'-8"	3'-0"	HM-1 x H.M. x PRE-FIN, with SD-1	HMF-1 × H,M, × EN,	N/A	SET A
	D102	6'-8"	3'-0"	HM-1 x H,M, x PRE-FIN, with SD-1	HMF-1 × H,M, × EN,	N/A	SET A
ŀ	D103	6'-8"	3'-0"	WD-1 x MASONITE x LE	WF-1 x WOOD x EN	N/A	SET C
ŀ	D104 D105	6'-8"	3'-0"	BD-1 x WOOD x LE WD-1 x MASONITE x LE	GYPF x GYP, x EN, WF-1 x WOOD x EN	N/A	SET F SET B
ŀ	D106	6'-8"	5'-0"	WD-1 x MASONITE x LE	WF-1 x WOOD x EN	N/A	SET D
ŀ	D107	6'-8"	2'-0"	WD-1 × MASONITE × LE	WF-1 x WOOD x EN	N/A	SET B
	FIOI	6'-8"	3'-0"	HM-1 x H,M, x PRE-FIN, with SD-1	HMF-1 × H,M, × EN,	N/A	SET A
ŀ	F102	6'-8"	2'-0"	WD-1 x MASONITE x LE	WF-1 × WOOD × EN	N/A	SET B
ı	F200	6'-8"	3'-0"	WD-1 × MASONITE × LE	WF-1 × WOOD × EN	N/A	SET B
ı	F201	6'-8"	3'-0"	HMV-1 x H.M. x PRE-FIN.	HMF-1 × H.M. × EN.		SET H
ı	F2O3	6'-8"	3'-0"	WD-1 × MASONITE × LE	WF-1 × WOOD × EN	N/A	SET C
ı	F204	6'-8"	3'-0"	WD-1 × MASONITE × LE	WF-1 × WOOD × EN	N/A	SET B
	F205	6'-8"	3'-0"	WD-1 x MASONITE x LE	WF-1 × WOOD × EN	N/A	SET B
人	F206	6'-8"	4'-0"	WD-1 x MASONITE x LE	WF-1 x WOOD x EN	N/A	SET D
	F207	6'-8"	2'-0"	WD-1 x MASONITE x LE	WF-1 x WOOD x EN	N/A	SET B
	G200	6'-8"	3'-0"	WD-1 × MASONITE × LE	WF-1 x WOOD x EN	N/A	SET B
	G201	6'-8"	3'-0"	HMV-1 x H,M, x PRE-FIN,	HMF-1 × H,M, × EN,		SET H
	G2O3	6'-8"	3'-0"	WD-1 × MASONITE × LE	WF-1 x WOOD x EN	N/A	SET C
ļ	G204	6'-8"	3'-0"	WD-1 × MASONITE × LE	WF-1 x WOOD x EN	N/A	SET B
ļ	G205	6'-8"	3'-0"	WD-1 x MASONITE x LE	WF-1 x WOOD x EN	N/A	SET B
ŀ	G206	6'-8" 6'-8"	4'-0" 2'-0"	WD-1 x MASONITE x LE	WF-1 x WOOD x EN	N/A	SET D
ŀ	G207	6-8"	2-0"	WD-1 x MASONITE x LE	WF-1 x WOOD x EN	N/A	SET B
	1 117 11	1/- 4	(4 /)				

HM-1 x H,M, x PRE-FIN,

HMF-1 × H,M, × EN,

N/A

SET E



DETAIL at WINDOW HEAD, SILL and JAMB SC: 1 1/2" = 1'-0"

DETAIL at EXT, DOOR HEADER, JAMB and SILL at ACCESSIBLE ENTRANCE

THAT are at the SAME F.F.

ELEY, of BUILDING

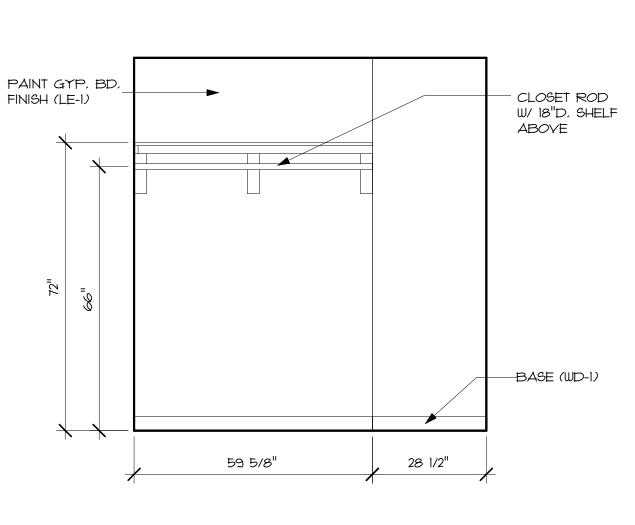
SC: 1 1/2" = 1'-0"

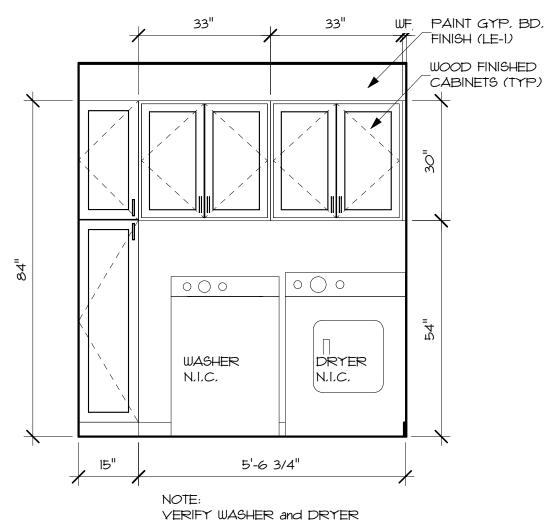
SHEET

04/16/2019

DRAWN

CHECK





BLDG, C - CLO, A-107 INT, BLDG, C - CLO, A-106 INT, 8 ELEV. B
SC: 1/2" = 1'-0"

7 ELEV. A
SC: 1/2" = 1'-0"

BLOCKING for

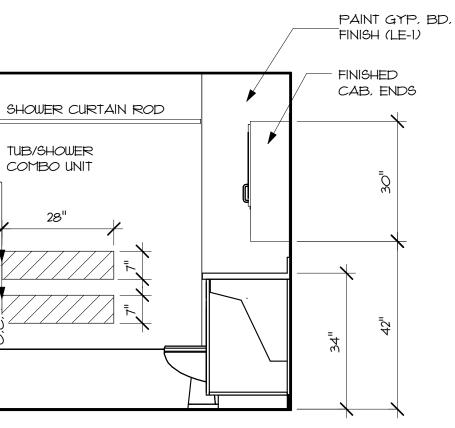
BLDG, C - LAUND, MECH, 6 A-104 INT, ELEV, D
SC: 1/2" = 1'-0" RE:

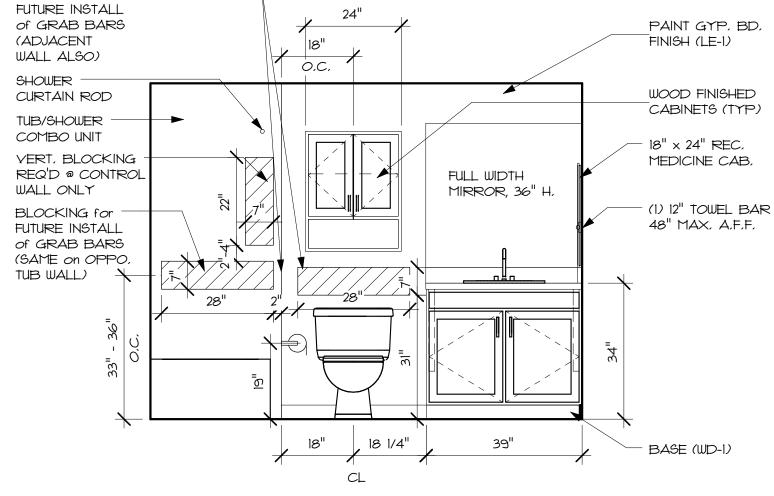
LOCATIONS W/ FLOOR PLANS and PLUMBING DRAWINGS

BLOCKING for

FUTURE INSTALL

of GRAB BARS





BLDG, C - TOIL, A-103 INT, 5 ELEV. B
SC: 1/2" = 1'-0"

BLDG, C - BATH A-103 INT. 4 ELEV. C
SC: 1/2" = 1'-0"

ROOM FINISH NOTES:

SLR: SEALER ON CONC. by APPROVED MANUF.

LUXURY VINYL TILE: NOTE: ALL VINYL FLOORING SHALL MEET SCIENTIFIC CERTIFICATION SYSTEM'S FLOORSCORE PROGRAM CRITERIA

LYT-1: LUXURY VINYL TILE (LYT) APPROVED MANUF, COLOR and PATTERN to be SELECTED FROM MANUFACTURER'S STANDARD COLOR RANGE, RE: SPECIFICATIONS to BE INSTALLED OVER "ULTRAPLY" PREMIUM UNDERLAYMENT by MORELAND CO.

YST-1: YINYL STAIR TREAD and STRINGER (YST) by BURKE (or APPROVED MANUF.) COLOR / PATTERN as SELECTED by OWNER / ARCHITECT,

SHEET VINYL:NOTE: ALL VINYL FLOORING SHALL MEET SCIENTIFIC CERTIFICATION SYSTEM'S FLOORSCORE PROGRAM CRITERIA

5V-1: APPROVED MANUF, COLOR and PATTERN to be SELECTED FROM MANUFACTURER'S STANDARD COLOR RANGE, RE: SPECIFICATIONS, to BE INSTALLED OVER "ULTRAPLY" PREMIUM UNDERLAYMENT by MORELAND CO.

CARPET: NOTE: ALL CARPET, PAD and CARPET ADHESIVES to MEET CARPET and RUG INSTITUTE'S GREEN LABEL or GREEN LABEL PLUS CERTIFICATION.

CPT-1: APPROVED MANUF, COLOR and PATTERN to be SELECTED FROM MANUFACTURER'S STANDARD COLOR RANGE, RE: SPECIFICATIONS to BE INSTALLED OVER "ULTRAPLY" PREMIUM UNDERLAYMENT by MORELAND CO.

WOOD BASE (WD), TRIMCO MILLWORK 444, 9/16"X3 1/4" PAINT with LE-1, SEMI-GLOSS

RB-1: RUBBER BASE (RB) by APPROVED MANUF, COLOR as SELECTED by OWNER / ARCHITECT

PAINT (LATEX ENAMEL): NOTE: ALL PAINT SHALL be LOW/NO VOC

LATEX ENAMEL FIELD COLOR, APPROVED MANUF, COLOR and PATTERN to be SELECTED FROM MANUFACTURER'S TOTAL COLOR RANGE,

LE-2: LATEX ENAMEL ACCENT WALL, APPROVED MANUF, COLOR and PATTERN to be SELECTED FROM MANUFACTURER'S TOTAL COLOR RANGE,

WOOD BASE and WALL CABINETS, LOW/NO FORMALDEYHYDE PLYWOOD, LOW-YOC STAIN

COUNTERTOPS: PLASTIC LAMINATE:

PL-1: PLASTIC LAMINATE (PL) APPROVED MANUF. COLOR and PATTERN to be SELECTED FROM MANUFACTURER'S STANDARD TOTAL COLOR RANGE OF SOLIDS and PATTERNS, RE: SPECIFICATIONS

ROOM FINISH NOTES: 1. SPECIALTIES: GRAB BARS, TOWEL BAR(S), RECESSED MEDICINE CABINET, MIRROR, TOILET PAPER HOLDER, SHOWER

2. SPECIALTIES: TOWEL BAR(S), RECESSED MEDICINE

CABINET, MIRROR, TOILET PAPER HOLDER 3. SPECIALTIES: TOWEL BAR(S), TWO DOOR MEDICINE

CABINET, TOILET PAPER HOLDER, SHOWER CURTAIN ROD

4. SPECIALTIES: ROBE HOOK, RECESSED MEDICINE CABINET, MIRROR, TOILET PAPER HOLDER, SHOWER CURTAIN ROD 5. SPECIALTIES: GRAB BAR(S) ROBE HOOK, RECESSED

MEDICINE CABINET, MIRROR, TOILET PAPER HOLDER, SHOWER CURTAIN ROD

6. SPECIALTIES: ROBE HOOK, TOWEL BAR(S) RECESSED MEDICINE CABINET, MIRROR, TOILET PAPER HOLDER, SHOWER CURTAIN ROD

GENERAL NOTES:

) ALL FLOORING, FINISH WOOD, PAINT and STAIN, CASEWORK/PLYWOOD SHALL MEET GREEN COMMUNITIES

INTERIOR SIDE of ALL WINDOWS SHALL HAVE SOLID SURFACE SILLS and WINDOW BLINDS,

CLOSET NOTES

BEDROOM CLOSETS: INSTALL (1) 3/4" PARTICLE BOARD SHELF ON 1 x 2 CLEATS WITH 1 x 4 CLEAT AT (3) LOCATIONS FOR SHELF BRACKETS, INSTALL ON (3) METAL SHELF BRACKETS PER CLOSET WITH WOOD DOWEL ROD ON POLE SOCKETS 1 5/16",

BLDG, C - ROOM FINISH SCHEDULE

CASEWORK

						I.	ALLS 			CAS		
BUILDING TYPE	ROOM NUMBER	ROOM NAME	FLOOR FINISH	BASE FINISH	WALL FINISH	B WALL FINISH	C WALL FINISH	D WALL FINISH	CEILING FINISH	CASE WORK	COUNTER TOPS	SPECIALTIES
BLDG, C	A-101	LIVING/DINING	LVT-1	WD-1	LE-1	LE-2	LE-1	LE-1	LE-1			
BLDG, C	A-102	KIT.	SV-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1	WOOD	PL-1	
BLDG, C	A-103	BATH	SV-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1	MOOD		SEE RM, FIN NOTE 6
BLDG, C	A-104	LAUND./MECH.	SV-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1	WOOD		
BLDG, C	A-105	BD, RM,	LVT-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	A-106	CLO.	LVT-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	A-107	CLO.	LVT-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	B-101	LIVING/DINING	LVT-1	WD-1	LE-1	LE-2	LE-1	LE-1	LE-1			
BLDG, C	B-102	KIT,	SV-1	WD-1	LE-1	LE-I	LE-1	LE-1	LE-1	WOOD		
BLDG, C	B-103	TOIL,	SV-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-I	WOOD		SEE RM, FIN NOTE 2
BLDG, C	B-104	MECH,	SV-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	B-105	CLO,	LVT-1	WD-1	LE-1	LE-1	LE-1	LE-I	LE-1			
BLDG, C	B-106	STAIR	VST-1	WD-1	LE-1	LE-1	LE-1	LE-I	LE-1			
BLDG, C	B-106	STAIR	√ST-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	B-201	HALL	LVT-1	WD-1	LE-1	LE-1	LE-1	LE-I	LE-1	WOOD.	DI 1	CEE DM EN
BLDG, C	B-202	BATH	SV-1	WD-1	LE-1	LE-1		LE-1	LE-1	WOOD		SEE RM, FIN NOTE 3
BLDG, C	B-203	LAUND,	SV-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1	MOOD		
BLDG, C	B-204	BD, RM,	CPT-1	WD-1	LE-1	LE-I	LE-I	LE-I	LE-1			
BLDG, C	B-205	CLO,	CPT-I	WD-1	LE-1	LE-I	LE-1	LE-I	LE-1			
BLDG, C	B-206	BD, RM,	CPT-1	WD-1	LE-1	LE-I	LE-1	LE-1	LE-1			<u> </u>
BLDG, C	B-207	CLO,	CPT-1	WD-1	LE-1	LE-I	LE-1	LE-1	LE-1			
BLDG, C	C-101	LIVING/DINING	LVT-1	WD-1	LE-1	LE-1	LE-1	LE-2	LE-1			
BLDG, C	C-102	KIT,	SV-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1	MOOD		
BLDG, C	C-103	TOIL.	SV-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1	MOOD		SEE RM, FIN NOTE 2
BLDG, C	C-104	MECH,	SV-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	C-105	CLO.	LVT-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	C-106	STAIR	∨ST-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	C-106	STAIR	∨ST-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	C-201	HALL	L∨T-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	C-2O2	BATH	SV-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1	WOOD	1	SEE RM, FIN NOTE 3
BLDG, C	C-203	LAUND,	SV-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1	WOOD		
BLDG, C	C-204	BD, RM,	CPT-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	C-205	CLO.	CPT-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	C-206	BD, RM,	CPT-I	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	C-207	CLO.	CPT-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	D-101	LIVING/DINING	LVT-1	WD-1	LE-1	LE-1	LE-1	LE-2	LE-1			
BLDG, C	D-102	KIT,	SV-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1	WOOD		
BLDG, C	D-103	BATH	SV-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1	WOOD		SEE RM, FIN NOTE 6
BLDG, C	D-104	LAUND./MECH.	SV-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1	WOOD		
BLDG, C	D-105	BD, RM,	LVT-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	D-106	CLO,	LVT-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	D-107	CLO.	LVT-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
BLDG, C	F-101	STAIR	∨ST-1	WD-1	LE-1	LE-1	LE-1	LE-1	LE-1			
		10 ± 11 to						LE-1	LE-1			L
BLDG, C	F-101	STAIR	VST-1	WD-1	LE-1	LE-1	LE-1				-	
BLDG, C	F-102	CLO.	LVT-1	WD-1	LE-1	LE-I	LE-1	LE-1	LE-1			
BLDG, C BLDG, C	F-102 F-200	CLO.	LVT-1	WD-1	LE-I LE-I	LE-1 LE-1	LE-1 LE-1	LE-1 LE-1	LE-1			
BLDG, C BLDG, C BLDG, C	F-102 F-200 F-201	CLO, CLO, LIVING/DINING	LVT-1 LVT-1 LVT-1	WD-1 WD-1 WD-1	LE-1 LE-1 LE-1	LE-1 LE-1 LE-2	LE-1 LE-1 LE-1	LE-1 LE-1 LE-1	LE-1 LE-1 LE-1			
BLDG, C BLDG, C BLDG, C BLDG, C	F-102 F-200 F-201 F-202	CLO, CLO, LIVING/DINING KIT,	LVT-1 LVT-1 LVT-1 SV-1	WD-1	LE-1 LE-1 LE-1 LE-1	LE-1 LE-1	LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1	WOOD		
BLDG, C	F-102 F-200 F-201	CLO, CLO, LIVING/DINING	LVT-1 LVT-1 LVT-1	WD-1 WD-1 WD-1	LE-1 LE-1 LE-1	LE-1 LE-1 LE-2	LE-1 LE-1 LE-1	LE-1 LE-1 LE-1	LE-1 LE-1 LE-1	WOOD	PL-1	SEE RM, FIN NOTE 4
BLDG, C BLDG, C BLDG, C BLDG, C BLDG, C	F-102 F-200 F-201 F-202 F-203	CLO. CLO. LIVING/DINING KIT. BATH LAUND./MECH.	LVT-1 LVT-1 LVT-1 SV-1 SV-1	WD-1 WD-1 WD-1 WD-1 WD-1	LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-2 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1	LE-I LE-I LE-I LE-I LE-I	LE-I LE-I LE-I LE-I LE-I		PL-1	
BLDG, C	F-102 F-200 F-201 F-202 F-203 F-204 F-205	CLO. CLO. LIVING/DINING KIT. BATH LAUND./MECH. BD. RM.	LVT-1 LVT-1 LVT-1 SV-1 SV-1 CPT-1	WD-1 WD-1 WD-1 WD-1 WD-1 WD-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-2 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	MOOD	PL-1	
BLDG, C	F-102 F-200 F-201 F-202 F-203 F-204 F-205 F-206	CLO, CLO, LIVING/DINING KIT, BATH LAUND,/MECH, BD, RM, CLO,	LVT-I LVT-I LVT-I SV-I SV-I CPT-I	WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-2 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-I LE-I LE-I LE-I LE-I LE-I LE-I	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	MOOD	PL-1	
BLDG. C	F-102 F-200 F-201 F-202 F-203 F-204 F-205 F-206 F-207	CLO, CLO, LIVING/DINING KIT, BATH LAUND./MECH, BD, RM, CLO, LINEN	LVT-I LVT-I SV-I SV-I CPT-I CPT-I	WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-2 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	MOOD	PL-1	
BLDG. C	F-102 F-200 F-201 F-202 F-203 F-204 F-205 F-206 F-207 G-101	CLO, CLO, LIVING/DINING KIT, BATH LAUND./MECH, BD, RM, CLO, LINEN STAIR	LVT-1 LVT-1 SV-1 SV-1 SV-1 CPT-1 CPT-1 SV-1 VST-1	WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-2 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	MOOD	PL-1	
BLDG. C	F-102 F-200 F-201 F-202 F-203 F-204 F-205 F-206 F-207 G-101	CLO, CLO, LIVING/DINING KIT, BATH LAUND,/MECH, BD, RM, CLO, LINEN STAIR STAIR	LVT-I LVT-I SV-I SV-I SV-I CPT-I CPT-I SV-I VST-I	WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-2 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	MOOD	PL-1	
BLDG. C	F-102 F-200 F-201 F-202 F-203 F-204 F-205 F-206 F-207 G-101 G-101	CLO, CLO, LIVING/DINING KIT, BATH LAUND,/MECH, BD, RM, CLO, LINEN STAIR STAIR CLO,	LVT-I LVT-I SV-I SV-I SV-I CPT-I CPT-I VST-I VST-I LVT-I	WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-2 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	MOOD	PL-1	
BLDG. C	F-102 F-200 F-201 F-202 F-203 F-204 F-205 F-206 F-207 G-101 G-101 G-102	CLO, CLO, LIVING/DINING KIT, BATH LAUND./MECH, BD, RM, CLO, LINEN STAIR STAIR CLO, CLO, CLO,	LVT-I LVT-I SV-I SV-I SV-I CPT-I CPT-I VST-I VST-I LVT-I	WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-2 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	MOOD	PL-1	
BLDG. C	F-102 F-200 F-201 F-202 F-203 F-204 F-205 F-206 F-207 G-101 G-101 G-102 G-200 G-201	CLO, CLO, LIVING/DINING KIT, BATH LAUND,/MECH, BD, RM, CLO, LINEN STAIR STAIR CLO, CLO, LIVING/DINING	LVT-I LVT-I SV-I SV-I SV-I CPT-I CPT-I VST-I VST-I LVT-I LVT-I	WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-2 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	WOOD	PL-I	
BLDG. C	F-102 F-200 F-201 F-202 F-203 F-204 F-205 F-206 F-207 G-101 G-101 G-102 G-200 G-201 G-202	CLO, CLO, LIVING/DINING KIT, BATH LAUND,/MECH, BD, RM, CLO, LINEN STAIR STAIR CLO, CLO, LIVING/DINING KIT,	LVT-I LVT-I SV-I SV-I SV-I CPT-I CPT-I VST-I VST-I LVT-I LVT-I SV-I	WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-2 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	WOOD	PL-1	NOTE 4
BLDG. C	F-102 F-200 F-201 F-202 F-203 F-204 F-205 F-206 F-207 G-101 G-101 G-102 G-200 G-201	CLO, CLO, LIVING/DINING KIT, BATH LAUND,/MECH, BD, RM, CLO, LINEN STAIR STAIR CLO, CLO, LIVING/DINING	LVT-I LVT-I SV-I SV-I SV-I CPT-I CPT-I VST-I VST-I LVT-I LVT-I	WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-2 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	WOOD	PL-1 PL-1 PL-1	
BLDG. C	F-102 F-200 F-201 F-202 F-203 F-204 F-205 F-206 F-207 G-101 G-101 G-102 G-200 G-201 G-202 G-203 G-204	CLO, CLO, LIVING/DINING KIT, BATH LAUND,/MECH, BD, RM, CLO, LINEN STAIR STAIR CLO, CLO, LIVING/DINING KIT, BATH LAUND,/MECH,	LVT-I LVT-I SV-I SV-I SV-I CPT-I SV-I VST-I LVT-I LVT-I SV-I SV-I SV-I SV-I SV-I SV-I	WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-2 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	WOOD	PL-1 PL-1 PL-1	NOTE 4 SEE RM, FIN
BLDG. C	F-102 F-200 F-201 F-202 F-203 F-204 F-205 F-206 F-207 G-101 G-101 G-102 G-200 G-201 G-202 G-203 G-204 G-205	CLO, CLO, LIVING/DINING KIT, BATH LAUND,/MECH, BD, RM, CLO, LINEN STAIR STAIR CLO, CLO, LIVING/DINING KIT, BATH LAUND,/MECH, BD, RM,	LVT-I LVT-I SV-I SV-I SV-I CPT-I SV-I VST-I LVT-I LVT-I SV-I SV-I SV-I SV-I CPT-I CPT-I CPT-I CPT-I CPT-I CPT-I CPT-I CPT-I CPT-I	WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-2 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	WOOD	PL-1 PL-1 PL-1	NOTE 4 SEE RM, FIN
BLDG. C	F-102 F-200 F-201 F-202 F-203 F-204 F-205 F-206 F-207 G-101 G-101 G-102 G-200 G-201 G-202 G-203 G-204	CLO, CLO, LIVING/DINING KIT, BATH LAUND,/MECH, BD, RM, CLO, LINEN STAIR STAIR CLO, CLO, LIVING/DINING KIT, BATH LAUND,/MECH,	LVT-I LVT-I SV-I SV-I SV-I CPT-I SV-I VST-I LVT-I LVT-I SV-I SV-I SV-I SV-I SV-I SV-I	WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1 WD-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-2 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1 LE-1	WOOD	PL-1 PL-1 PL-1	NOTE 4 SEE RM, FIN

GENERAL NOTES:

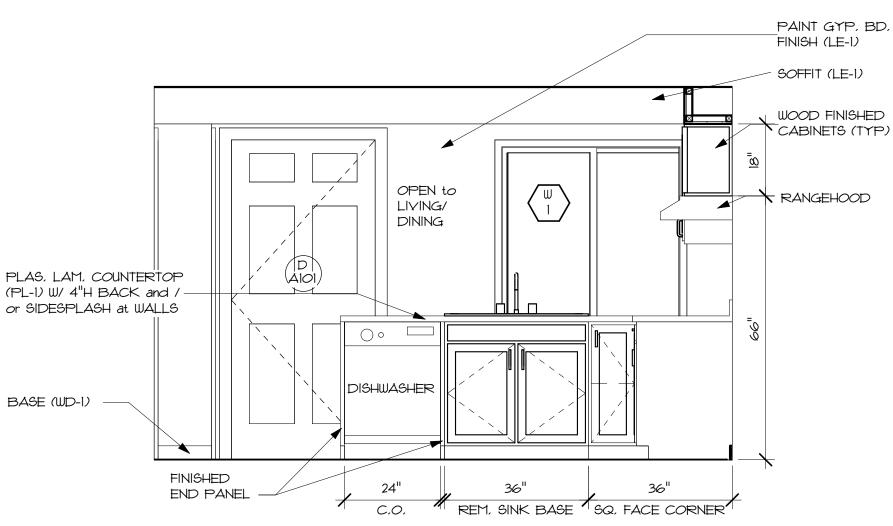
I. BACK SIDE OF ALL TRIM SHALL BE PRIMED OR PAINTED (COLOR AS SELECTED BY OWNER / ARCHITECT,

2. ALL MEDICINE CABINETS SHALL BE RECESSED.

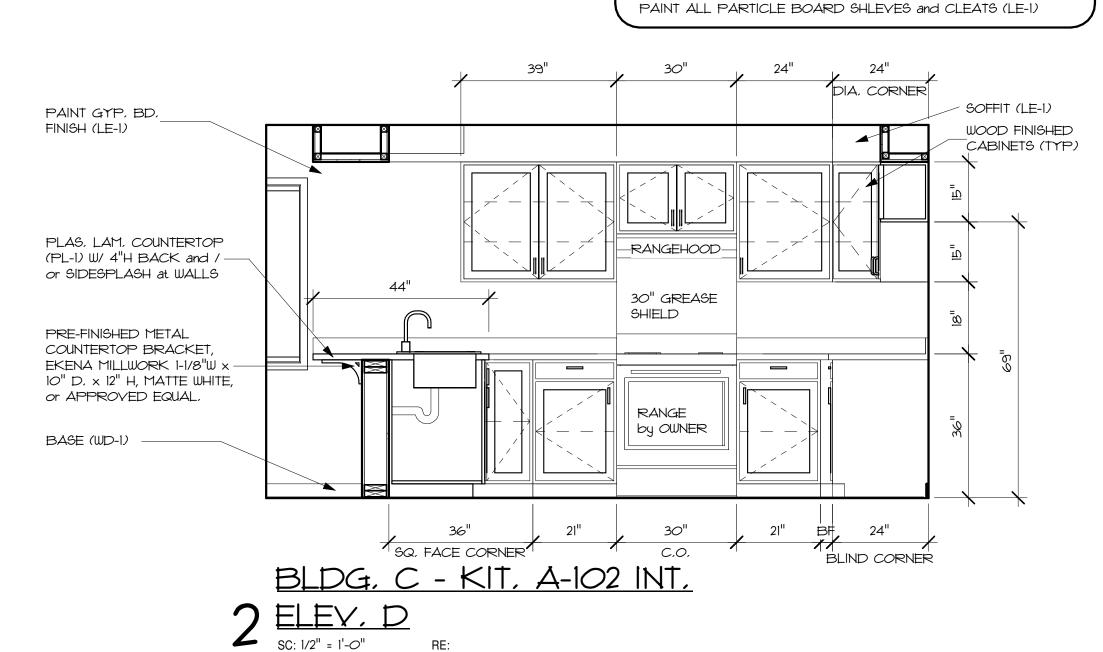
3. REFRIGERATORS and RANGES SHALL BE OWNER PROVIDED and OWNER INSTALLED. 4. ALL FIRST FLOOR BATHROOMS SHALL HAVE BLOCKING INSTALLED FOR CURRENT AND FUTURE INSTALLATION OF GRAB BARS.

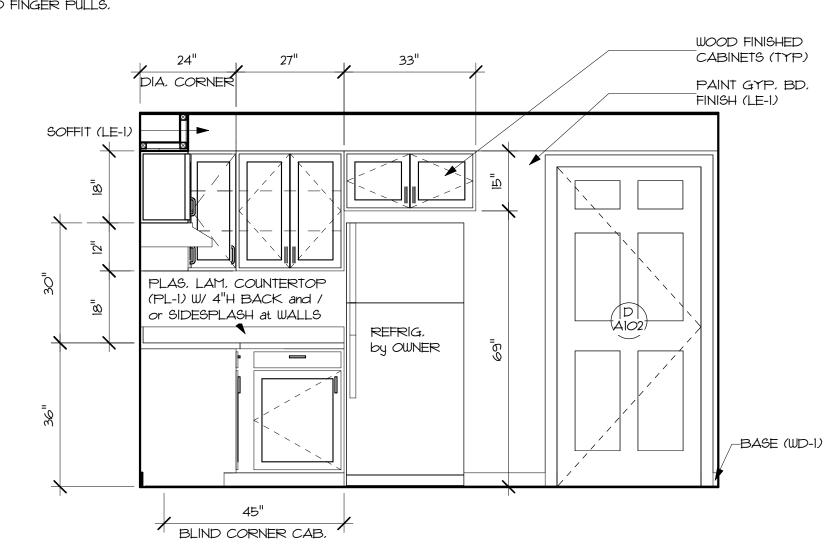
5. CABINETS SHALL HAVE FINISHED ENDS at ALL APPLICABLE LOCATIONS.

6. CABINET HARDWARE SHOWN for DOOR and DRAWER CLARIFICATION ONLY. ALL CABINETS SHALL BE MANUFACTURED WITH INTEGRATED FINGER PULLS,



BLDG, C - KIT, A-102 INT, 3 ELEV. C SC: 1/2" = 1'-0" RE:





BLDG, C - KIT, A-102 INT, 1 ELEV. A
SC: 1/2" = 1'-0"

REVISIONS:

04/16/2019

DRAWN

KY/JSR

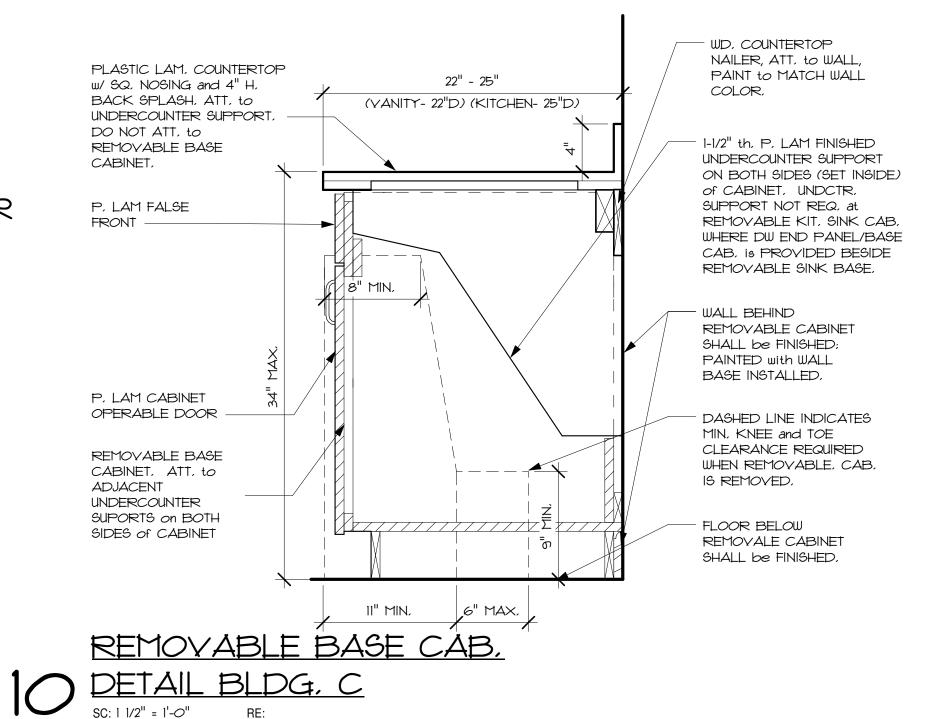
CHECK

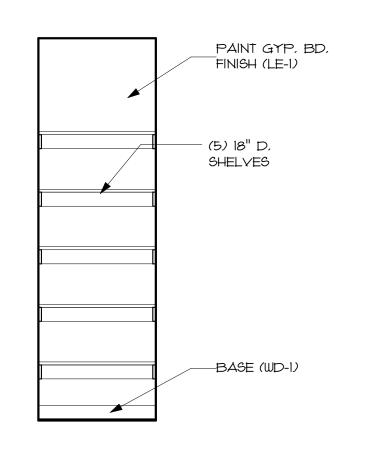
OHNMO

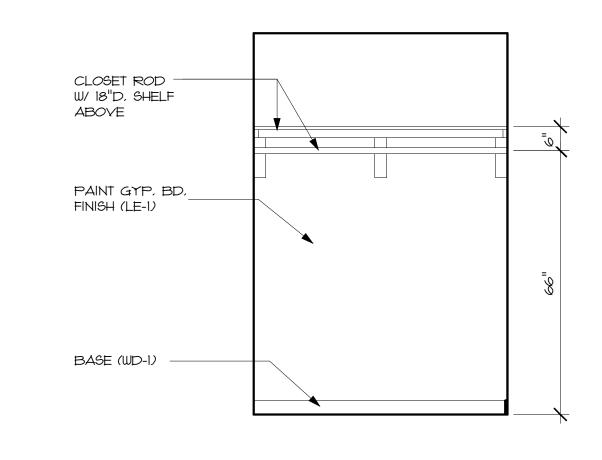
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A5,1C

I. CABINET HARDWARE SHOWN FOR DOOR and DRAWER CLARIFICATION ONLY. ALL CABINETS SHALL BE MANUFACTURED WITH INTEGRATED FINGER PULLS.







BLDG, C - LINEN F-207 INT,

ELEV, B

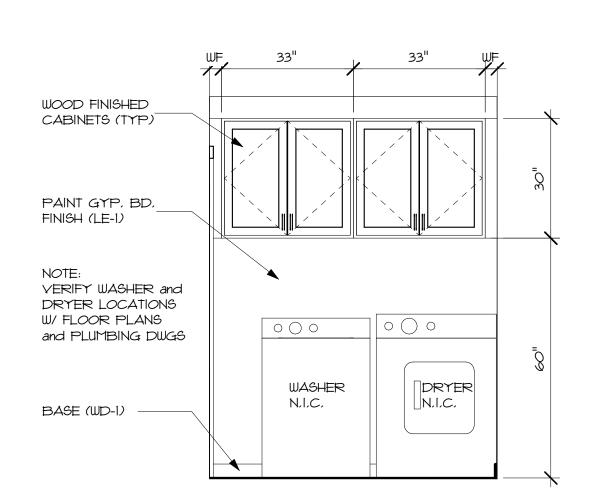
SC: 1/2" = 1'-0"

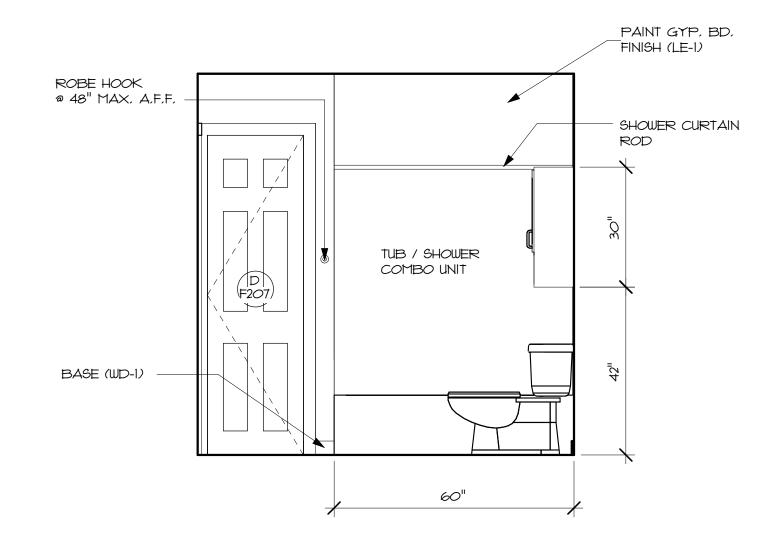
RE:

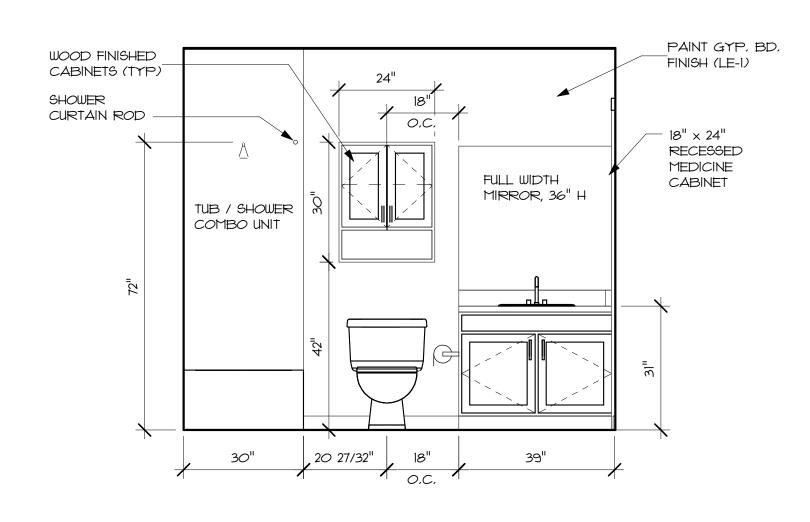
BLDG, C - CLO, F-206 INT,

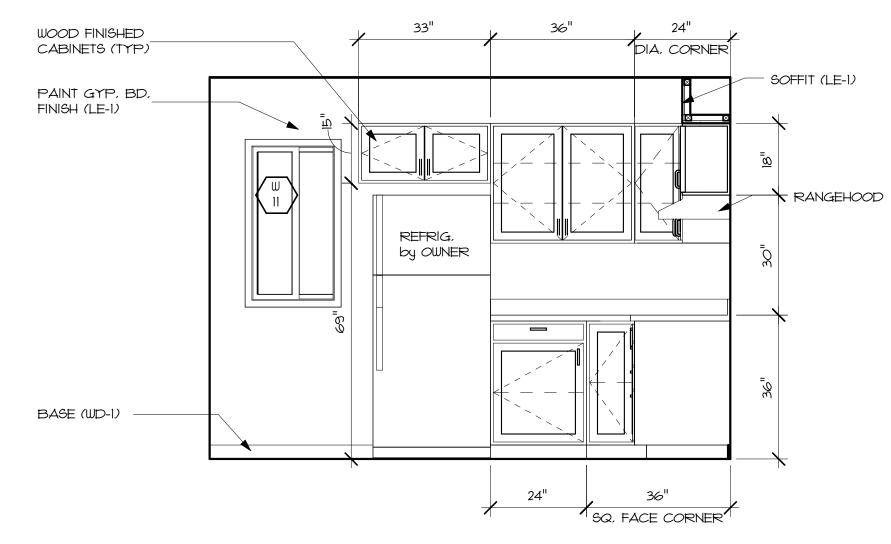
ELEV, A

SC: 1/2" = 1'-0" RE:





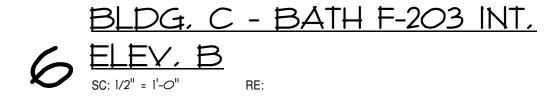


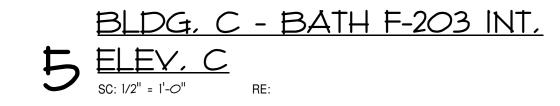


BLDG, C - LAUND,/MECH,

F-204 INT, ELEY, D

SC: 1/2" = 1'-0" RE:

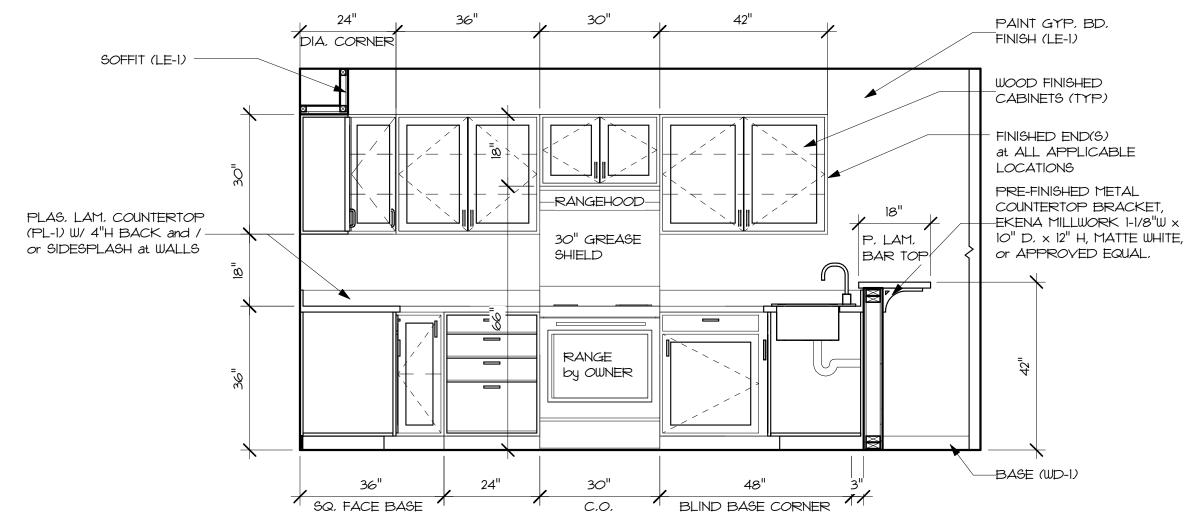


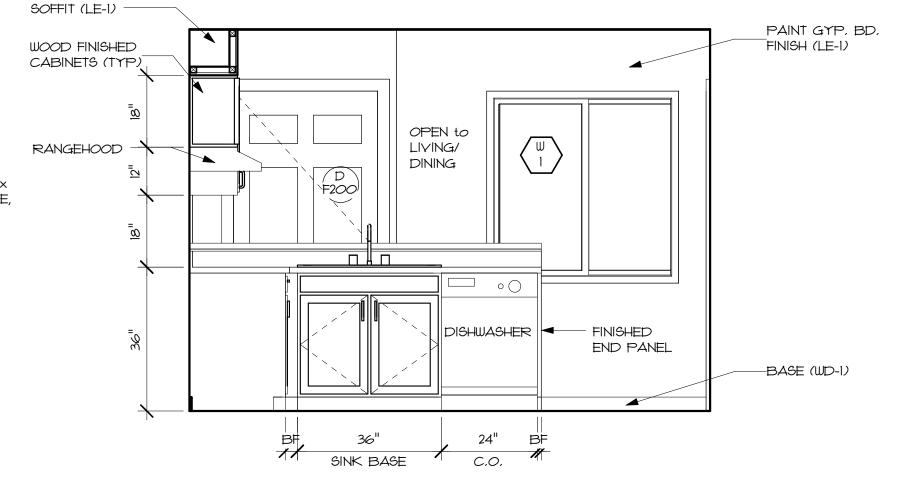


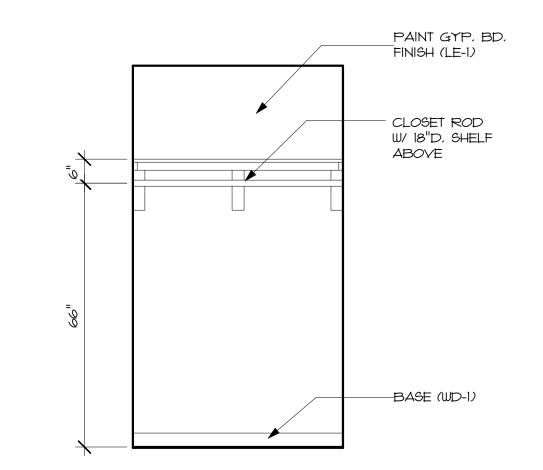
BLDG, C - KIT, F-202 INT,

ELEV, C

SC: 1/2" = 1'-0" RE:







BLDG, C - KIT, F-202 INT,

BLEV, D

SC: 1/2" = 1'-0" RE:

BLDG, C - KIT, F-202 INT,

2 ELEV, A
SC: 1/2" = 1'-0" RE:

BLDG, C - CLO, F-200 INT, ELEV, A SC: 1/2" = 1'-0" RE: DATE
04/16/2019

DRAWN
KV/JSR

CHECK
AHS

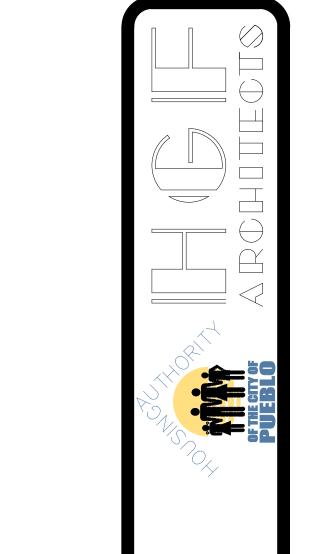
REVISIONS:

TOMNHOT

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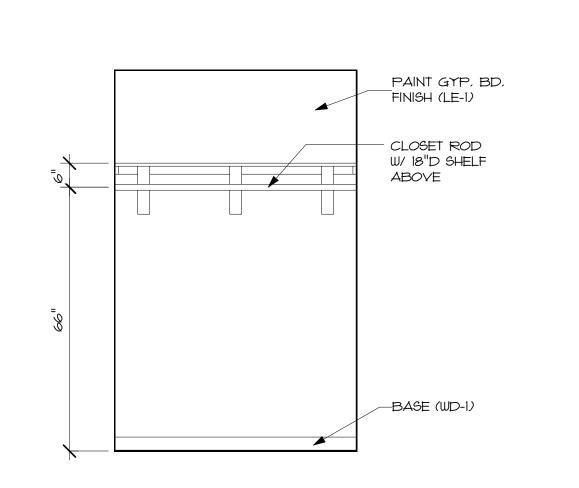
MOUNTAIN

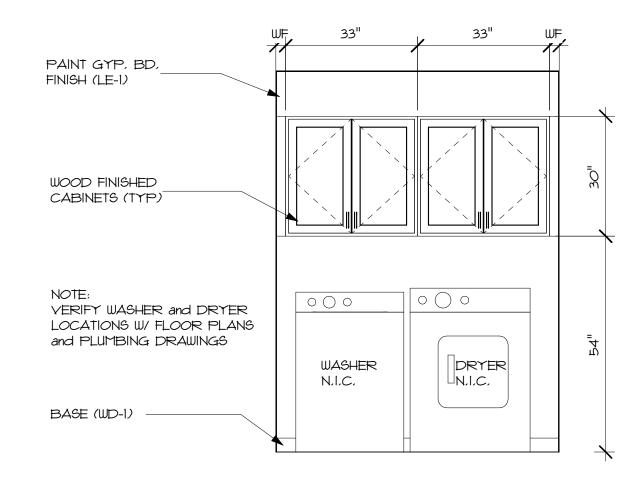
45.2C



TOWNHOM

MOUNTAIN

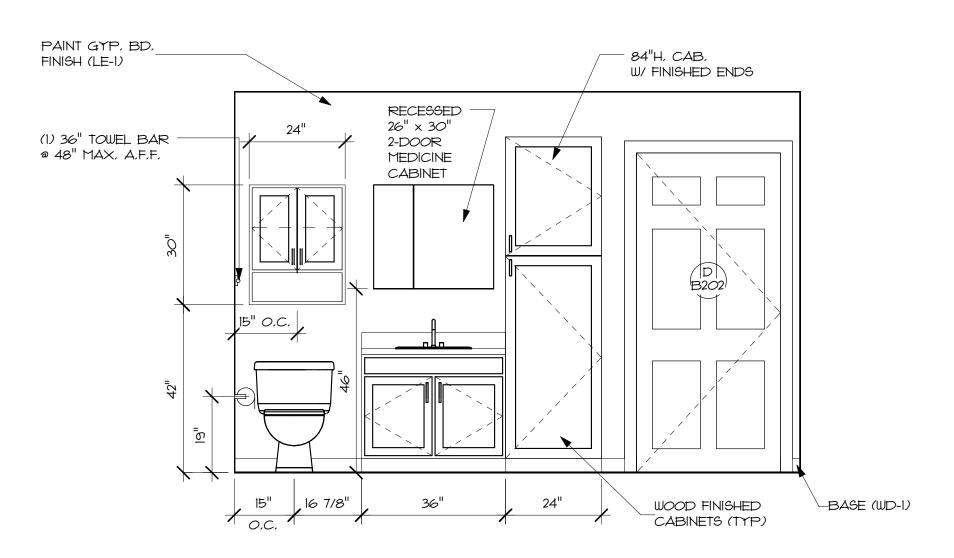




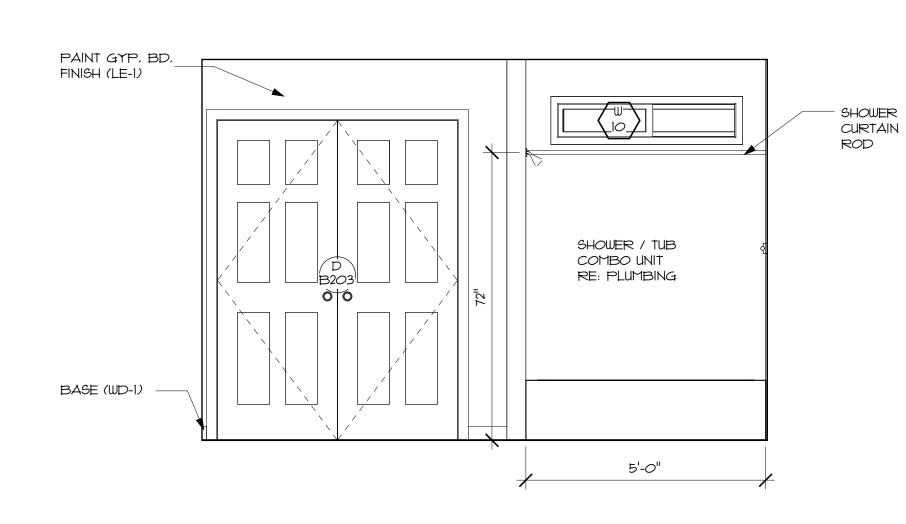
BLDG, C - CLO, B-205 INT,

ELEV, C

SC: 1/2" = 1'-0" RE:



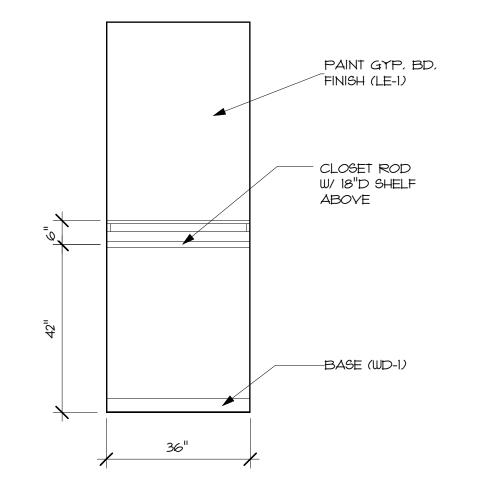




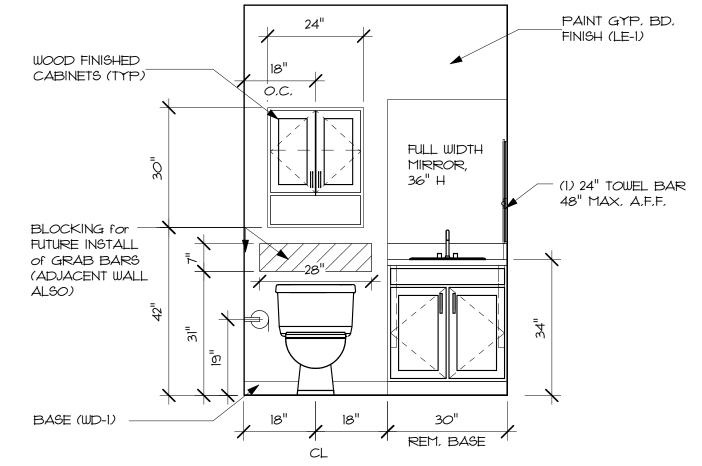
BLDG, C - BATH B-202 INT,

ELEV, A

SC: 1/2" = 1'-0" RE:

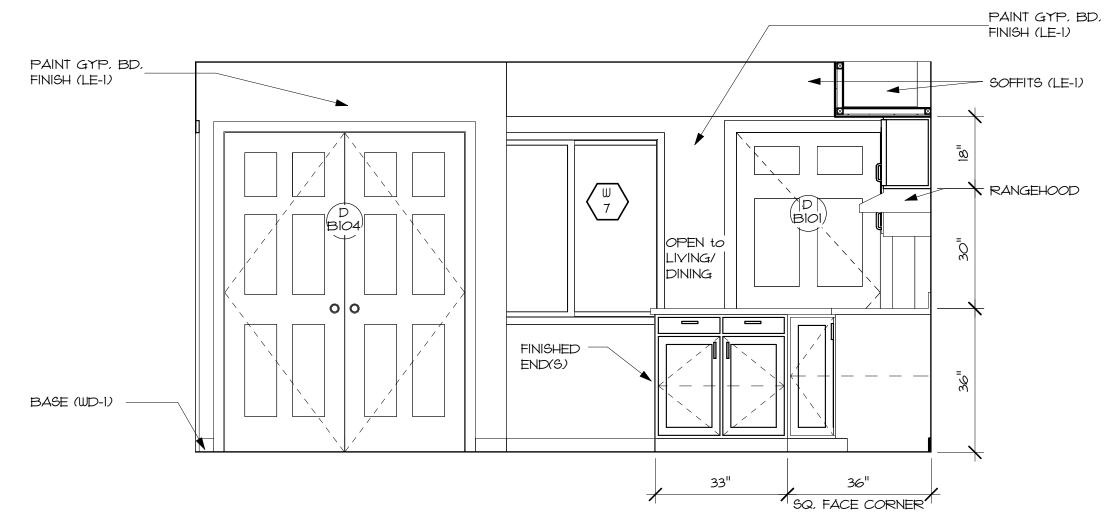




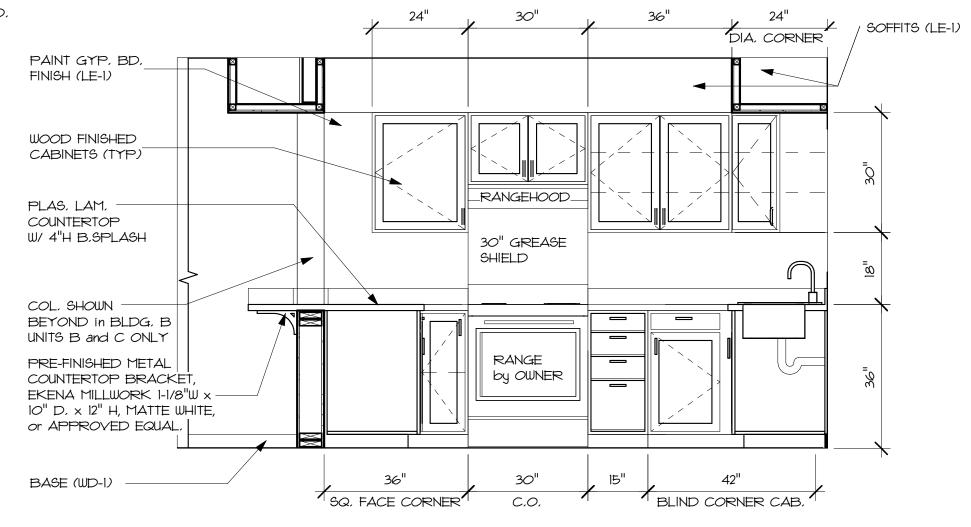


BLDG, C - TOIL, B-103 INT,

ELEV, C
SC: 1/2" = 1'-0" RE:



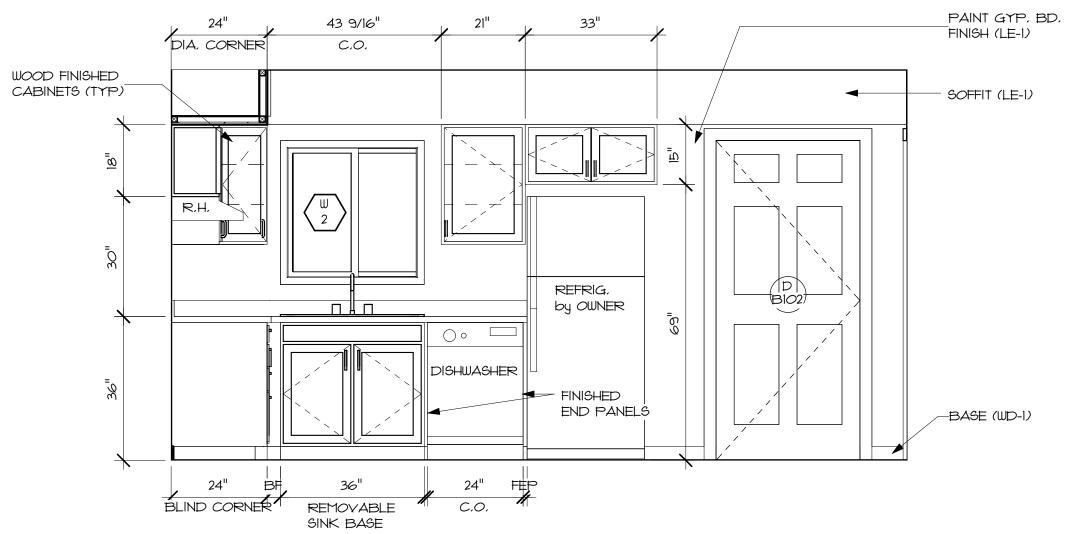




BLDG, C - KIT, B-102 INT,

2 ELEV, D

SC: 1/2" = 1'-0" RE:



DATE
04/16/2019

DRAWN
KV/JGR

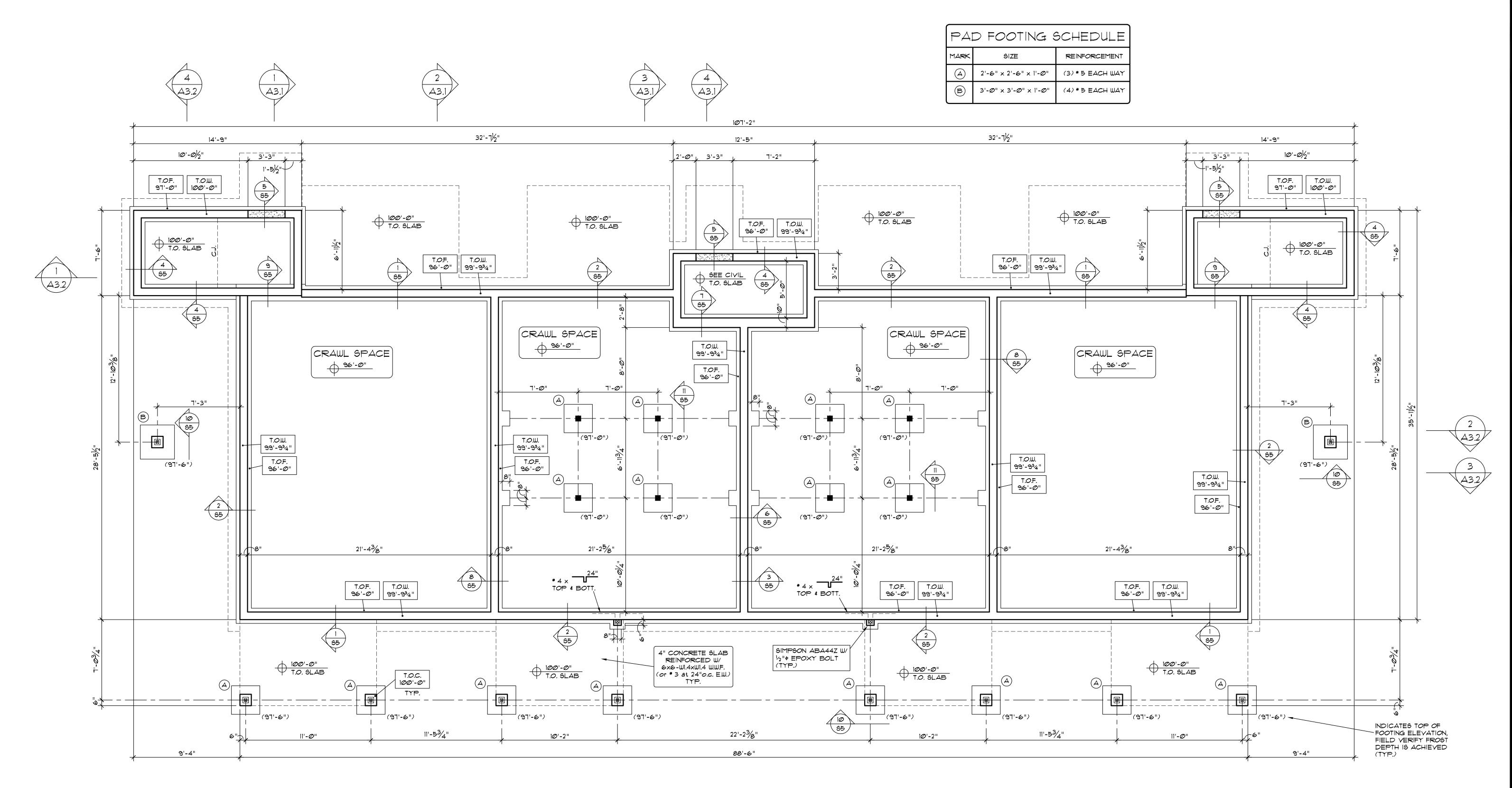
CHECK
AHG

REVISIONS:

45.3C

CHECK JRY REVISIONS:

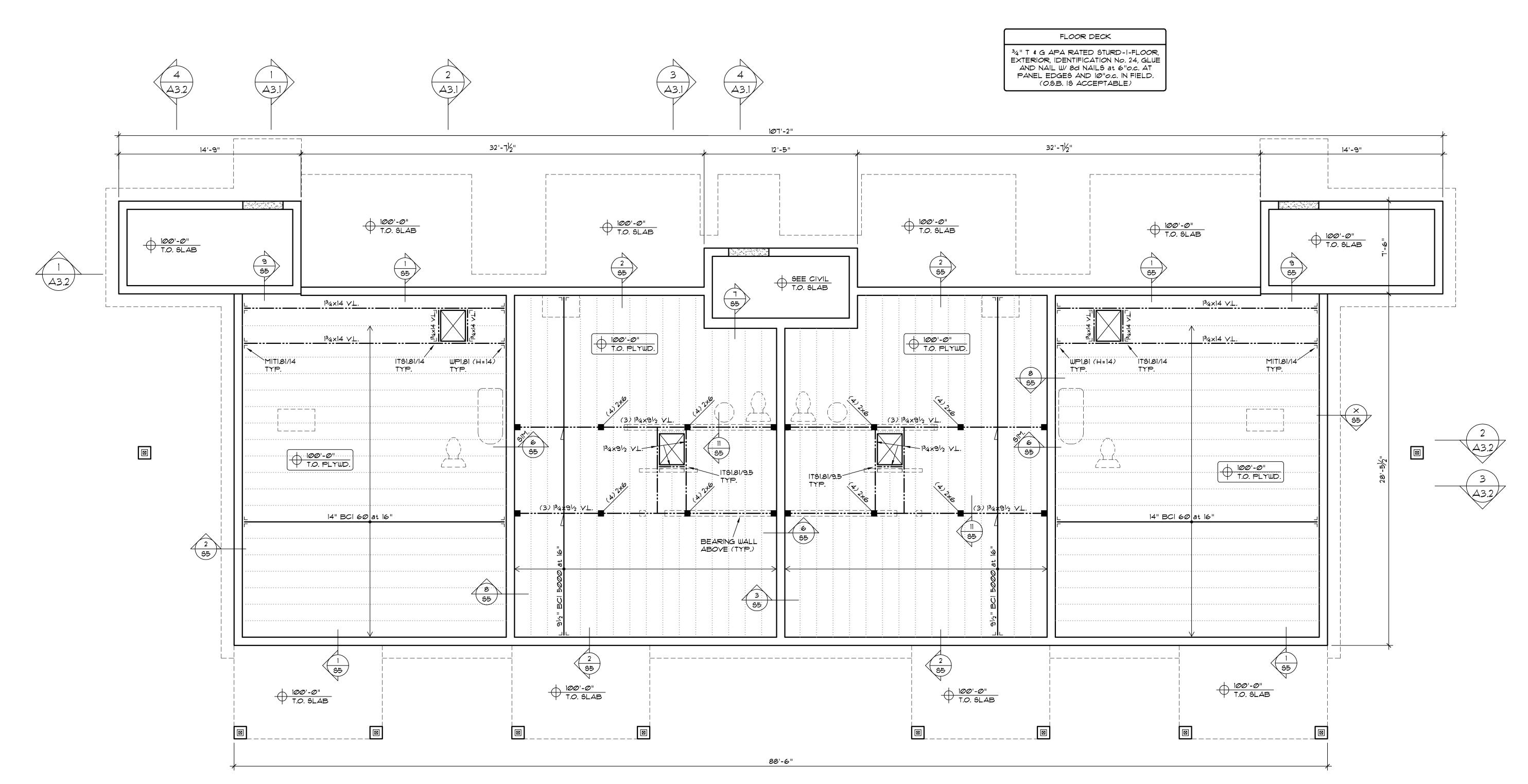




FOUNDATION PLAN

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

CHECK JRY REVISIONS:

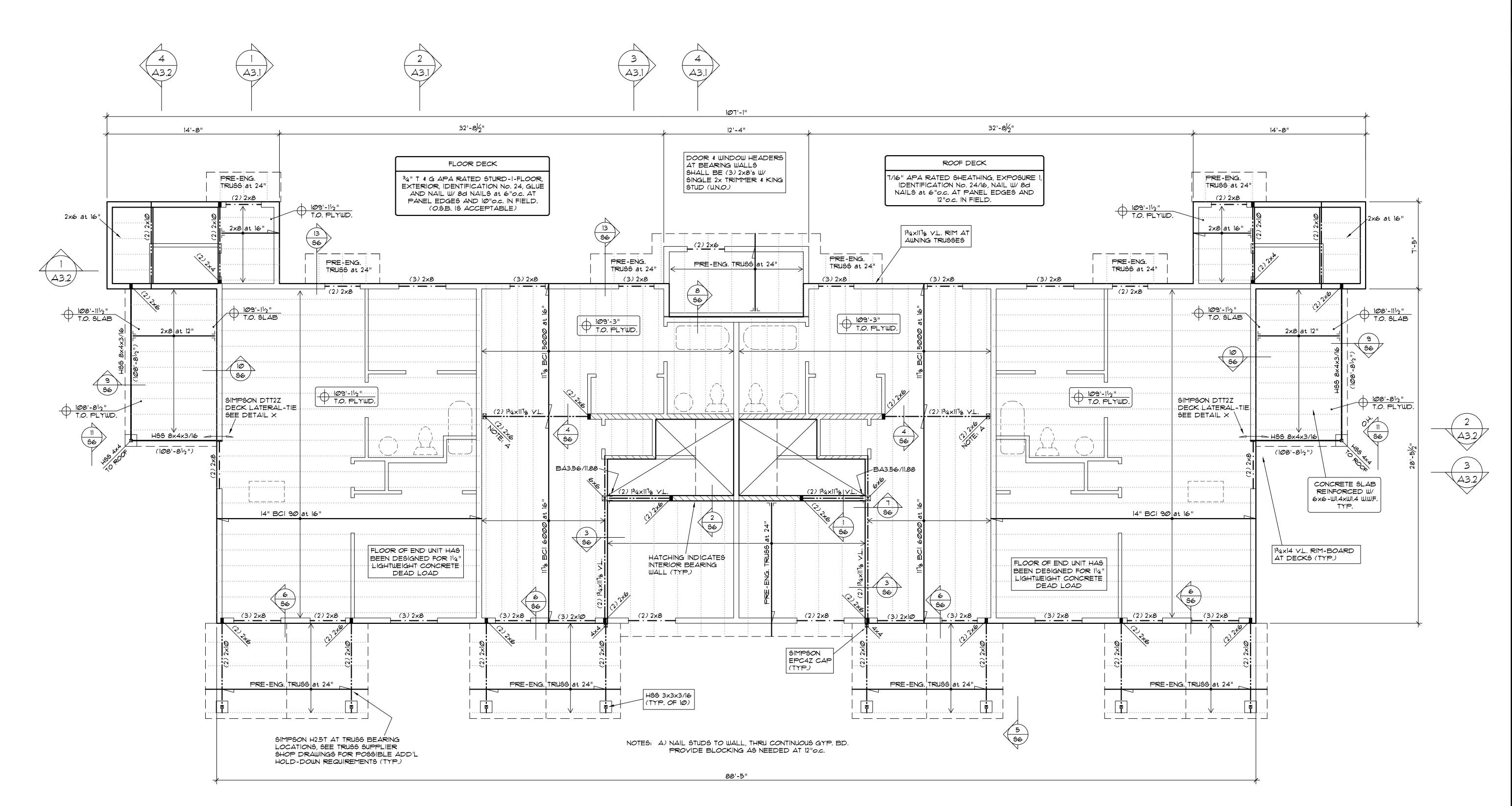


MAIN FLOOR FRAMING PLAN

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

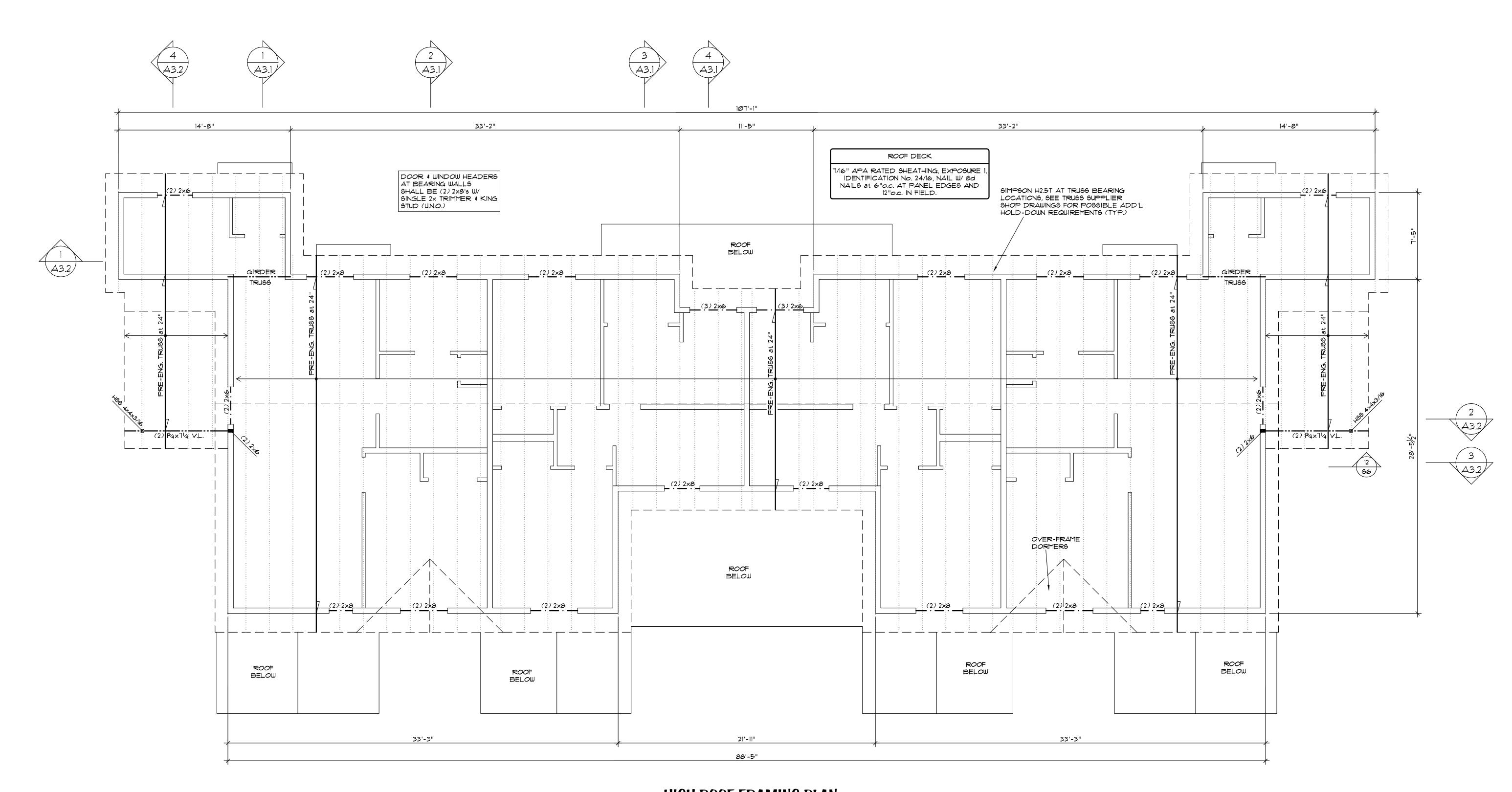
CHECK JRY REVISIONS:

SHEET



UPPER FLOOR / LOW ROOF FRAMING PLAN

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



HIGH ROOF FRAMING PLAN

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

on at least 24 inches of structural fill with a maximum bearing pressure of 3,000 psf.

B. Minimum frost depth of footings shall be 30" (top of grade to bottom of footing). Field verify all top of footing

elevations.

C. Refer to soil report # SC03229-125, dated June 1, 2016 (prepared by CTL Thompson) for additional information.

5. Concrete:

A. Concrete has been designed and shall be constructed in accordance with the American Concrete Institute "Building Code Requirements for Structural Concrete" (ACI 318). All concrete shall be of stone aggregate, unless noted otherwise.

Minimum 28 day compressive strength shall be:

(3) All other concrete: 3000 psi

B. Reinforcing shall be new billet steel ASTM A615, grade 60, except stirrups, ties and bars to be welded shall be grade 40. Provide corner bars to match all horizontal reinforcing. Provide (2) # 5 around all openings in concrete and extend bars 24" past edges of openings.

C. Lap Splices shall be Class B. Use the following lap lengths, U.N.O.:
(1) No. 6 bars and smaller:
a. 57 bar diameters for 3,000 psi concrete.

b. 50 bar diameters for 4,000 psi concrete.
D. Reinforcing placement: Provide chairs, standees, additional reinforcement, and accessories necessary to support reinforcement at position shown. Support of reinforcement on form ties, brick, or other unacceptable material will not be allowed.

F. Anchor rods (Anchor bolts) shall be grade 36, conforming to ASTM F1554, and shall have a minimum concrete embedment of 7" with a 2" hook, unless noted otherwise.
G. Exterior slabs/sidewalks shall be 4" thick (minimum) reinforced

(3) Concrete not exposed to earth or weather . . . 3/4 inches

 Exterior slabs/sidewalks shall be 4" thick (minimum) reinforced with 6x6-W1.4xW1.4 w.w.f.

Steel:

 A. Structural steel shall be detailed and erected in accordance with the American Institute of Steel Construction Specifications and Code of Standard Practice. Minimum yield strength: 50 ksi for square/rectangular HSS (ASTM A500, GR. C)

36 ksi for all other members (ASTM A36)

B. Connections:

(1) Use standard framed beam connections meeting the requirements of the "Manual of Steel Construction-ASD", latest edition. Use 3/4" diameter, A325-N bolts, minimum, snug-tightened; or ASTM F1852 tension-control (TC) bolts.

(2) Minimum welds per AISC Specification and AWS D1.1,

snug-tightened; or ASTM F1852 tension-control (TC) bolts.

Minimum welds per AISC Specification and AWS D1.1,
not less than continuous 3/16" fillet, E70XX electrodes,
unless noted otherwise. Welding of reinforcing to embeds shall
be done to develop 1.5 times the yield strength of the

reinforcing.

C. Column base plates that require grout shall bear on non-shrink grout.

(3) Joists/Rafters Hem-fir # 2

B. Wood construction shall be in conformance with the "National Design Specification for Stress Grade Lumber and its Fastenings."

C. Stainless steel (or galvanized) connectors, fasteners and anchors shall be used with preservative-treated woods.D. Exterior walls shall be fully sheathed with 7/16" ZIP-System, manufactured by Huber.

E. Plywood web joists and Versa-lam LVL (2.0E - noted V.L. on plans) shall be manufactured by Boise Cascade, or approved equivalent. Joists and beams shall not be modified without the written consent of the Structural Engineer.
F. Locate floor joists so that they do not interfere with plumbing.

G. Roof trusses shall be designed by a registered professional engineer (Colorado). Live load deflections shall not exceed 1/240 of the span. Calculations and shop drawings bearing the seal and signature of the design engineer shall be reviewed by the Structural Engineer prior to truss fabrication. Shop drawings shall show location of all trusses, connection plate capacity, and the size and grade of lumber used. Truss manufacturer shall provide blocking and bridging as required for stability, and bearing blocks if needed. Truss supplier shall provide all hangers and connectors needed.

Trusses to be designed for future solar panels, verify locations and weights with Owner.

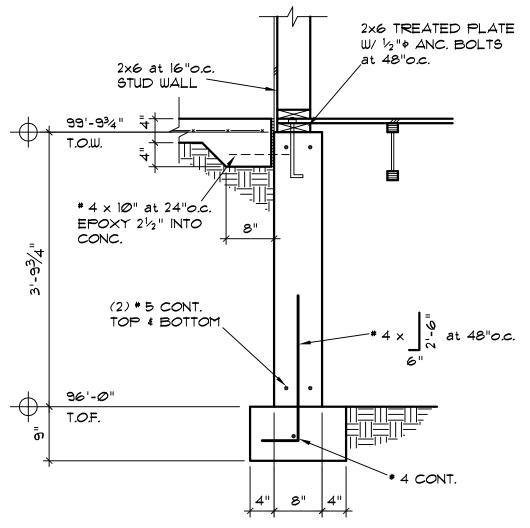
8. Drawing Coordination:

A. Dimensions on these Structural drawings shall be verified with the Architectural drawings and any discrepancy shall be brought to the Architect's attention.

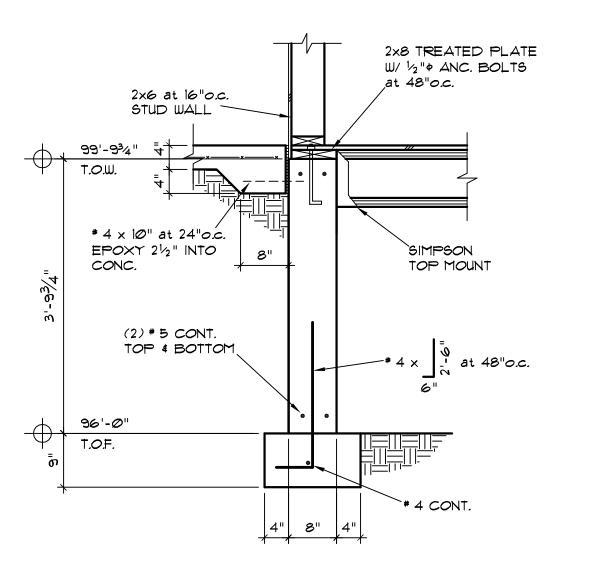
B. DRAWINGS SHALL NOT BE SCALED. Written dimensions shall take precedence over scaled measurements.

C. Shop drawings shall be prepared and drawn by the fabricator. Copying these drawings for shop drawing use will not be permitted.

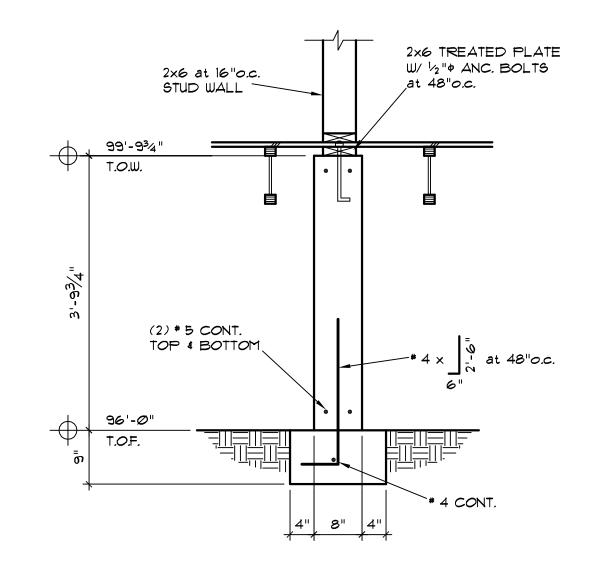
D. Any and all material substitutions shall be approved by the Structural Engineer prior to construction.



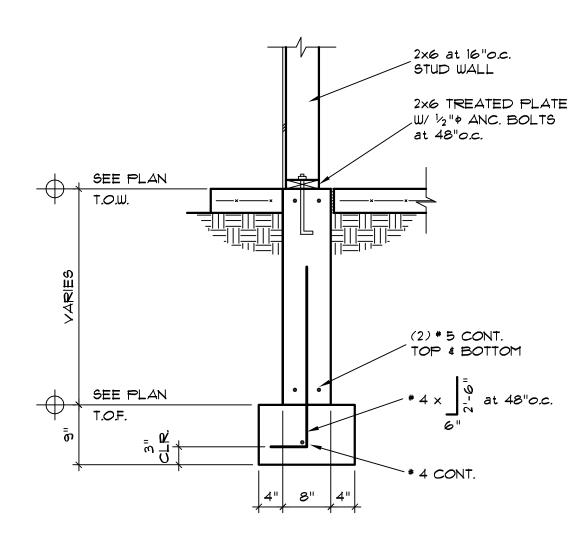
SCALE: 3/4"=1'-0"



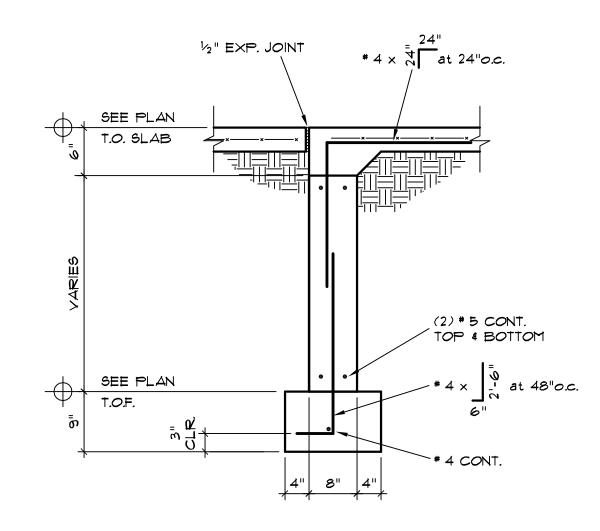
2 SCALE: 3/4"=1'-@"



9CALE: 3/4"=1'-0"

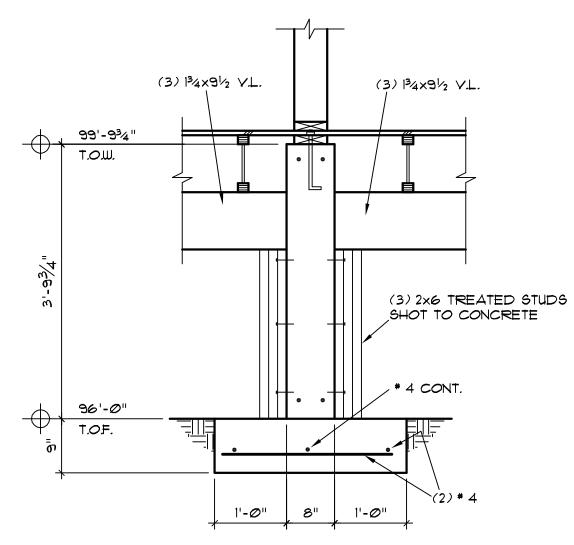


6CALE: 3/4"=1'-@"

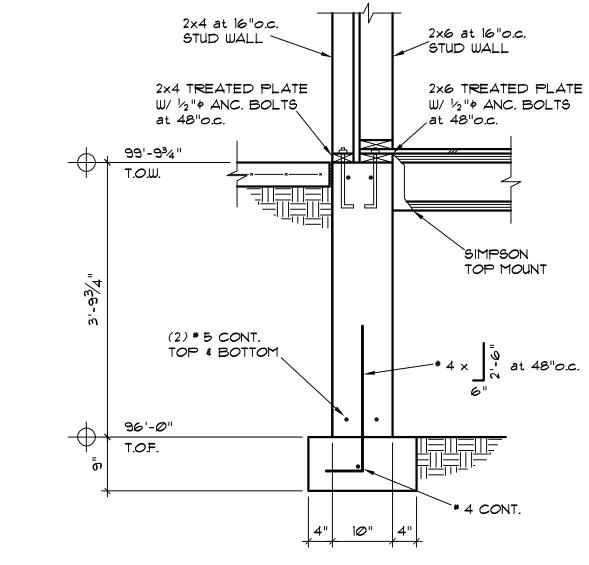


SCALE: 3/4"=1'-@"

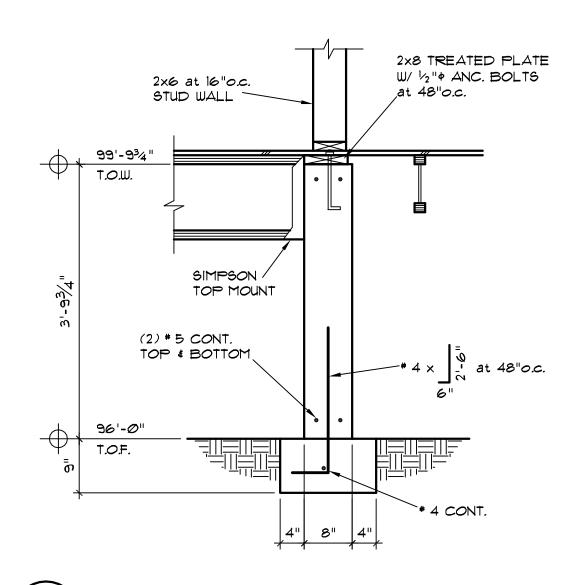
SCALE: 3/4"=1'-@"



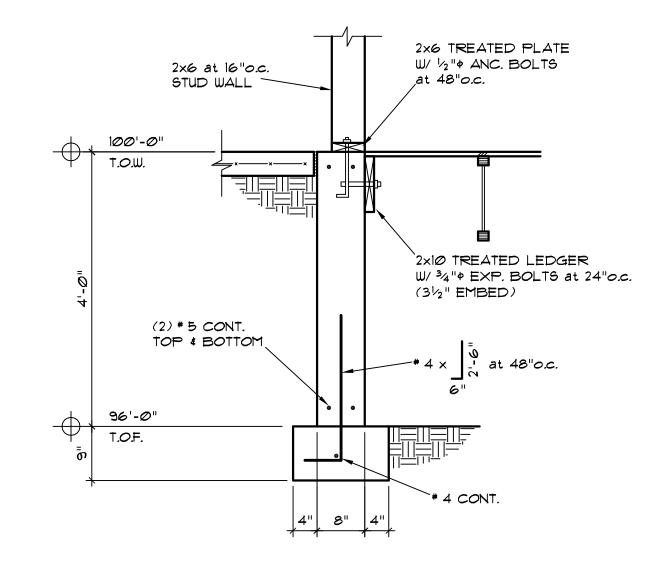
6 SCALE: 3/4"=1'-@"



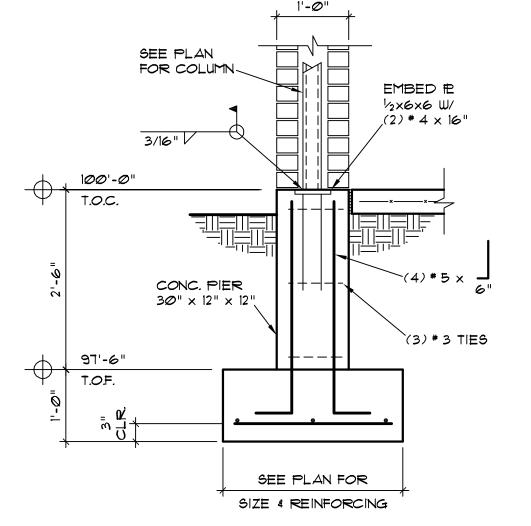
9CALE: 3/4"=1'-@"



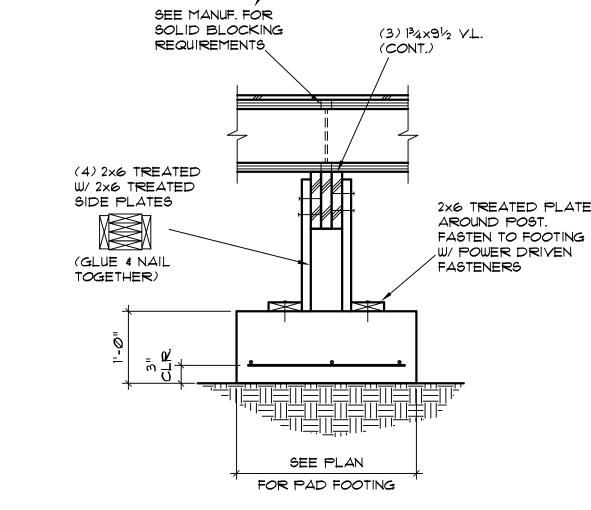
9CALE: 3/4"=1'-@"



SCALE: 3/4"=1'-0"



SCALE: 3/4"=1'-0"



PROVIDE BLOCKING

UNDER BEARING WALLS

SCALE: 3/4"=1'-0"



DATE
04-16-2019

DRAWN
JRV

CHECK
JRV

REVISIONS:

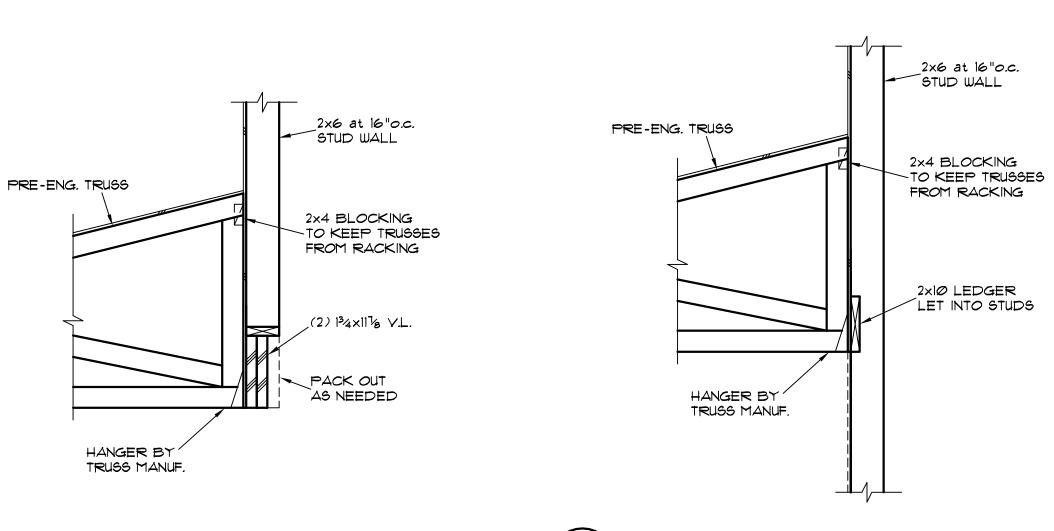
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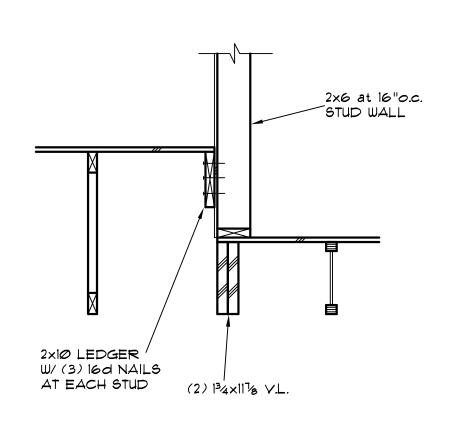
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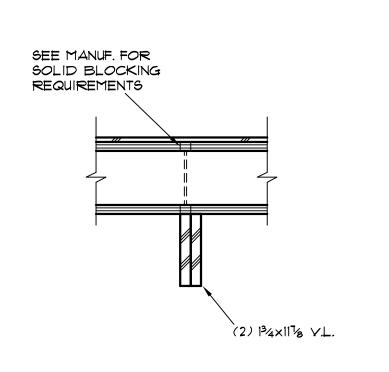
PROJECT **18.068 DATE** 04-16-2019

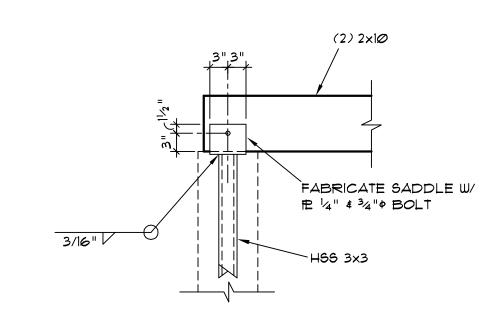
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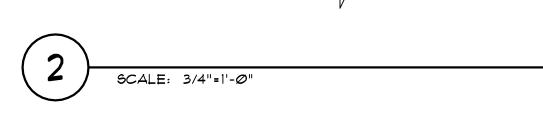
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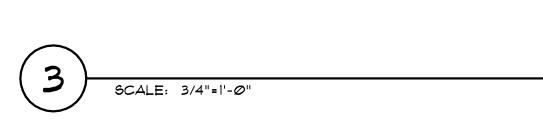


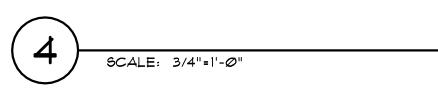




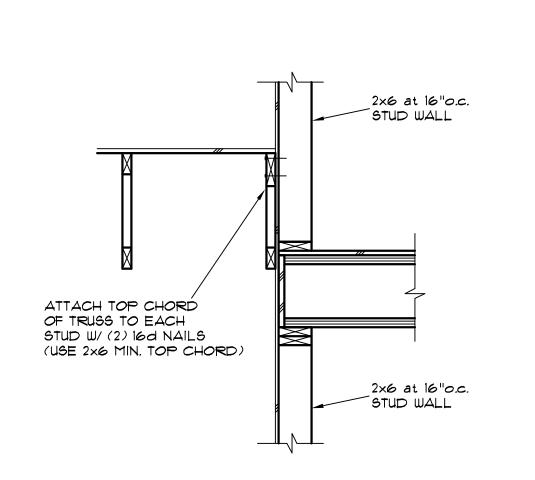








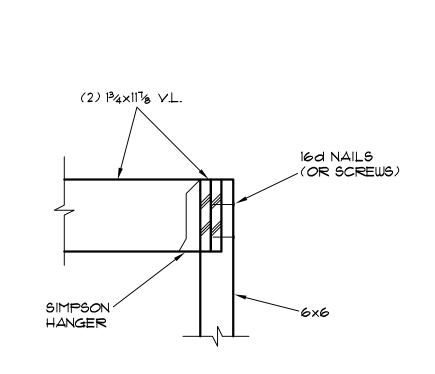


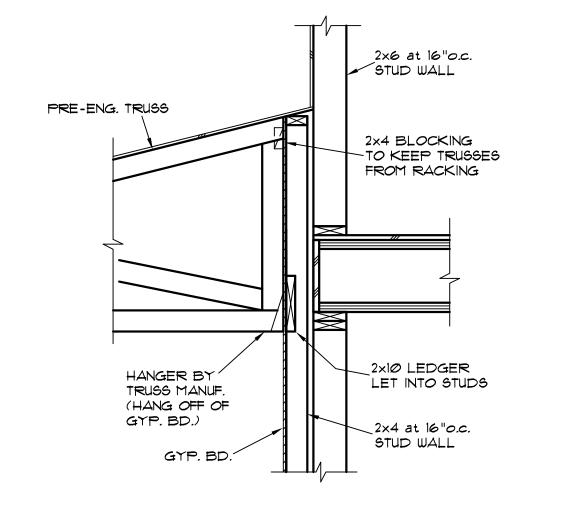


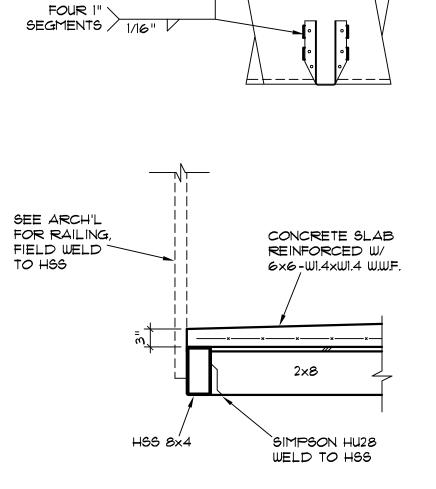
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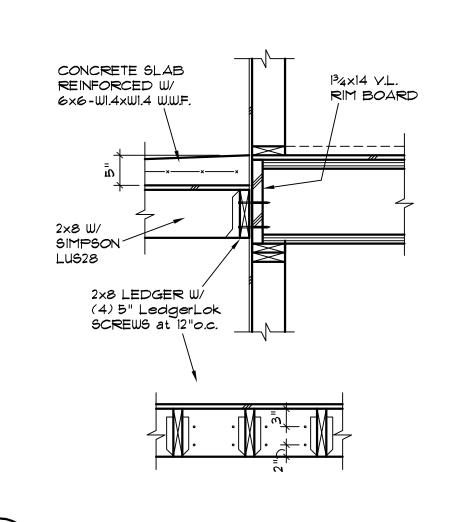
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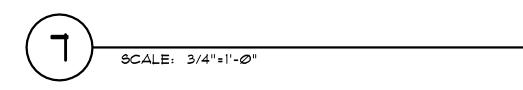


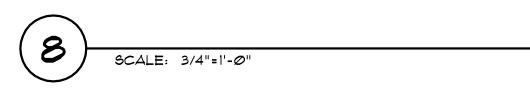




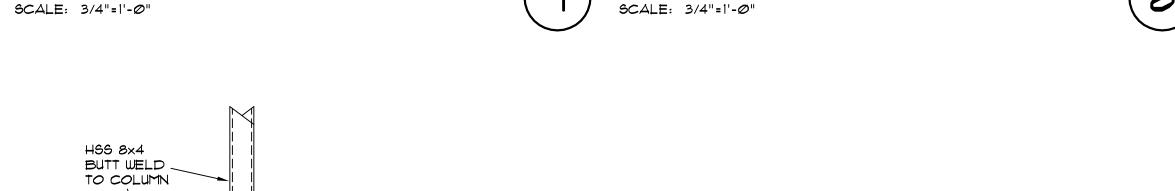


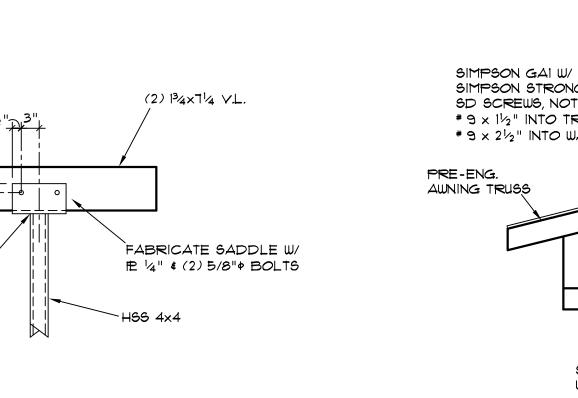
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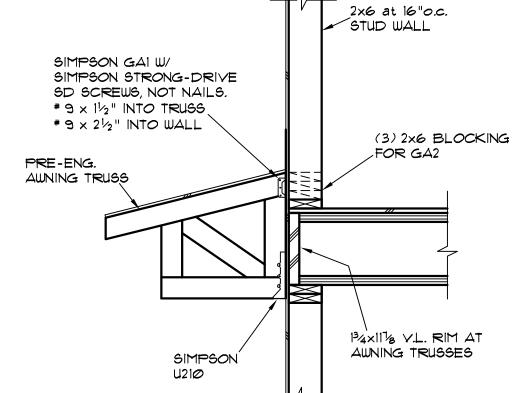














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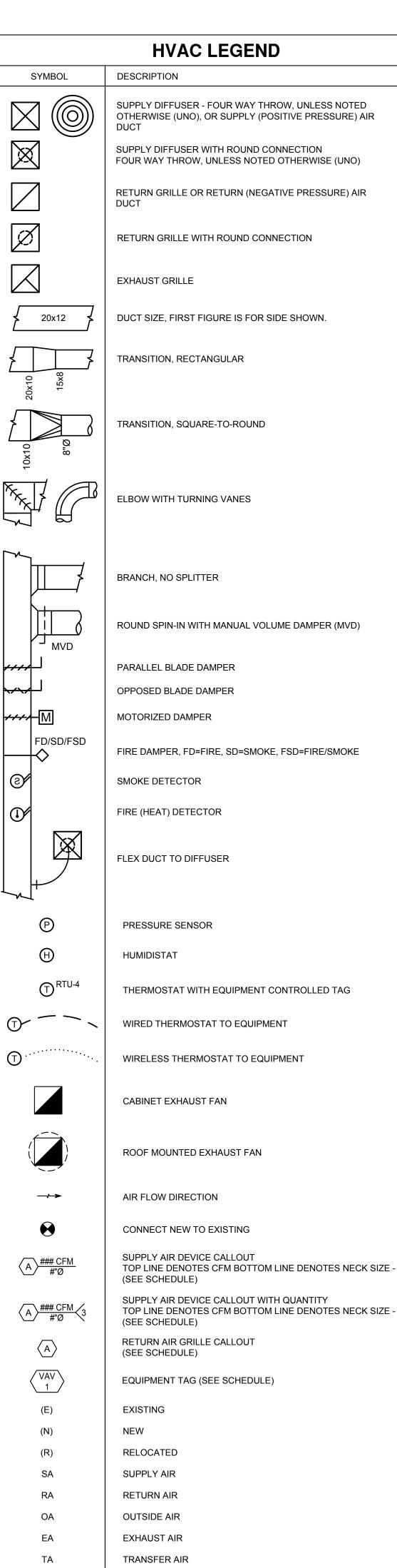
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2015 INTERNATIONAL ENERGY CONSERVATION CODE COMPLIANCE

- HVAC EQUIPMENT PERFORMANCE REQUIREMENTS. EQUIPMENT SHALL MEET THE MINIMUM EFFICIENCY REQUIREMENTS OF TABLES C403.2.3(1) THROUGH C403.2.3(9), WHEN TESTED AND RATED IN ACCORDANCE WITH THE APPLICABLE TEST PROCEDURE. PLATE-TYPE LIQUID-TO-LIQUID HEAT EXCHANGERS SHALL MEET THE MINIMUM REQUIREMENTS OF TABLE C403.2.3(10). THE EFFICIENCY SHALL BE VERIFIED THROUGH CERTIFICATION UNDER AN APPROVED CERTIFICATION PROGRAM OR, IF NO CERTIFICATION PROGRAM EXISTS, THE EQUIPMENT EFFICIENCY RATINGS SHALL BE SUPPORTED BY DATA FURNISHED BY THE MANUFACTURER. WHERE MULTIPLE RATING CONDITIONS OR PERFORMANCE REQUIREMENTS ARE PROVIDED, THE EQUIPMENT SHALL SATISFY ALL STATED REQUIREMENTS. WHERE COMPONENTS, SUCH AS INDOOR OR OUTDOOR COILS, FROM DIFFERENT MANUFACTURERS ARE USED, CALCULATIONS AND SUPPORTING DATA SHALL BE FURNISHED BY THE DESIGNER THAT DEMONSTRATES THAT THE COMBINED EFFICIENCY OF THE SPECIFIED COMPONENTS MEETS THE REQUIREMENTS HEREIN.
- C403.2.9 DUCT AND PLENUM INSULATION AND SEALING. SUPPLY AND RETURN AIR DUCTS AND PLENUMS SHALL BE INSULATED WITH A MINIMUM OF R-6 INSULATION WHERE LOCATED IN UNCONDITIONED SPACES AND WHERE LOCATED OUTSIDE THE BUILDING WITH A MINIMUM OF R-8 IN CLIMATE ZONES 1 THROUGH 4 AND A MINIMUM OF R-12 FOR CLIMATE ZONES 5 THROUGH 8. WHERE LOCATED WITHIN A BUILDING ENVELOPE ASSEMBLY, THE DUCT OR PLENUM SHALL BE SEPARATED FROM THE BUILDING EXTERIOR OR UNCONDITIONED OR EXEMPT SPACES BY A MINIMUM OF R-8 INSULATION IN CLIMATE ZONES 1 THROUGH 4 AND A MINIMUM OF R-12 INSULATION IN CLIMATE ZONES 5 THROUGH 8.
- C403.2.4.2.1 THERMOSTATIC SETBACK CAPABILITIES. THERMOSTATIC SETBACK CONTROLS SHALL HAVE THE CAPABILITY TO SET BACK OR TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN ZONE TEMPERATURES DOWN TO 55°F (13°C) OR UP TO 85°F (29°C).
- C403.2.4.2.2 AUTOMATIC SETBACK AND SHUTDOWN CAPABILITIES. AUTOMATIC TIME CLOCK OR PROGRAMMABLE CONTROLS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK AND RETAINING THEIR PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR AT LEAST 10 HOURS. ADDITIONALLY, THE CONTROLS SHALL HAVE: A MANUAL OVERRIDE THAT ALLOWS TEMPORARY OPERATION OF THE SYSTEM FOR UP TO 2 HOURS, A MANUALLY OPERATED TIMER CAPABLE OF BEING ADJUSTED TO OPERATE THE SYSTEM FOR UP TO 2 HOURS, OR AN OCCUPANCY SENSOR.
- MECHANICAL SYSTEMS AND SERVICE WATER-HEATING SYSTEM COMMISSIONING AND COMPLETION REQUIREMENTS. PRIOR TO THE FINAL MECHANICAL AND PLUMBING INSPECTIONS, THE REGISTERED DESIGN PROFESSIONAL OR APPROVED AGENCY SHALL PROVIDE EVIDENCE OF MECHANICAL SYSTEMS COMMISSIONING AND COMPLETION IN ACCORDANCE THE PROVISIONS OF THIS SECTION. CONSTRUCTION DOCUMENT NOTES SHALL CLEARLY INDICATE PROVISIONS FOR COMMISSIONING AND COMPLETION REQUIREMENTS IN ACCORDANCE WITH THIS SECTION AND ARE PERMITTED TO REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS. COPIES OF ALL DOCUMENTATION SHALL BE GIVEN TO THE OWNER AND MADE AVAILABLE TO THE CODE OFFICIAL UPON REQUEST IN ACCORDANCE WITH SECTIONS C408.2.4 AND C408.2.5.
- C408.2.2.1 AIR SYSTEM BALANCING.
 EACH SUPPLY AIR OUTLET AND ZONE TERMINAL DEVICE SHALL BE EQUIPPED WITH MEANS FOR AIR BALANCING IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 6 OF THE INTERNATIONAL MECHANICAL CODE.
 DISCHARGE DAMPERS ARE PROHIBITED ON CONSTANT VOLUME FANS AND VARIABLE VOLUME FANS WITH MOTORS 10 HP AND LARGER. AIR SYSTEMS SHALL BE BALANCED IN A MANNER TO FIRST MINIMIZE THROTTLING LOSSES THEN, FOR FANS WITH SYSTEM POWER OF GREATER THAN 1HP, FAN SPEED SHALL BE ADJUSTED TO MEET DESIGN FLOW CONDITIONS.
- C408.2.5.2 MANUALS
- AN OPERATING AND MAINTENANCE MANUAL SHALL BE PROVIDED AND INCLUDE ALL OF THE FOLLOWING:
 - 1. SUBMITTAL DATA STATING EQUIPMENT SIZE AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE
 - 2. MANUFACTURER'S OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE, EXCEPT EQUIPMENT NOT FURNISHED AS PART OF THE PROJECT. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.
 - NAME AND ADDRESS OF AT LEAST ONE SERVICE AGENCY.
 HVAC CONTROLS SYSTEM MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS,
 - 4. HVAC CONTROLS SYSTEM MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS SCHEMATICS, AND CONTROL SEQUENCE DESCRIPTIONS. DESIRED OR FIELD-DETERMINED SETPOINTS SHALL BE PERMANENTLY RECORDED ON CONTROL DRAWINGS AT CONTROL DEVICES OR, FOR DIGITAL CONTROL SYSTEMS, IN SYSTEM PROGRAMING INSTRUCTIONS.
 - 5. A NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE, INCLUDING RECOMMENDED SETPOINTS.

ABBREVIATIONS AAV/AV AIR VENT AIR COMPRESSOR/ AIR CONDITIONER ACU AIR CONDENSING UNIT AD AIR DRIER ABOVE FINISHED FLOOR ABOVE FINISHED GRADE AIRFLOW STATION AIR HANDLING UNIT AIR PURIFIER AIR TANK **BATTERY COOLING UNIT BACK FLOW PREVENTER** BOD BOTTOM OF DUCT COMPRESSED AIR CHILLED WATER PUMP CHILLED WATER RETURN CHWS CHILLED WATER SUPPLY CIRC CIRCULATION CRAC COMPUTER ROOM AIR CONDITIONER COOLING TOWER **CONDENSING UNIT** CUH CABINET UNIT HEATER DRAIN DCW DOMESTIC COLD WATER **DUAL DUCT TERMINAL BOX** DDC DIRECT DIGITAL CONTROLLER DHW DOMESTIC HOT WATER DOMESTIC TEMPERED WATER DTW (E), EX EXISTING **EXHAUST AIR** EDH ELECTRIC DUCT HEATER EF/EX EXHAUST FAN EHC **ELECTRICAL HEATING CABINET** FILTER BOX FAN COIL NATURAL GAS DOMESTIC HOT WATER RECIRCULATION HOT WATER PUMP **HWR** HOT WATER RETURN HWS HOT WATER SUPPLY MAKEUP AIR UNIT MINIMATE A/C UNIT MECHANICAL ROOM MANUAL VOLUME DAMPER MZU MULTI ZONE UNIT NOT AVAILABLE OA **OUTSIDE AIR** PENTHOUSE PACKAGED WALL UNIT RETURN AIR REFRIGERANT DISCHARGE **RETURN FAN** RADIANT PANEL REST ROOM REFRIGERANT SUCTION RTU **ROOF TOP UNIT** SUPPLY AIR TRANSFER AIR TRANSFER FAN TOD TOP OF DUCT **UNIT HEATER** UNO **UNLESS NOTED OTHERWISE** VARIABLE AIR VOLUME

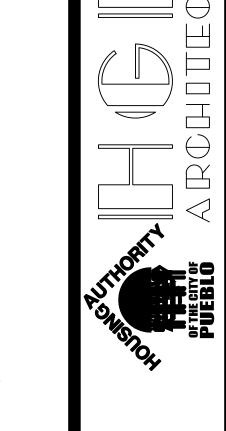
SYMBOL	ABBR.	DESCRIPTION
HWS	HWS	HOT WATER SUPPLY
	HWR	HOT WATER RETURN
	CHWS	CHILLED WATER SUPPLY
CHWR-	CHWR	CHILLED WATER RETURN
	С	CONDENSER WATER SUPPLY
	CR	CONDENSER WATER RETURN
D	D	CONDENSATE OR EQUIPMENT DRAIN
	RD	REFRIGERANT DISCHARGE
RS	RS	REFRIGERANT SUCTION
		REFRIGERANT LINE SET (SUCTION AND DISCHARGE)
G	G	NATURAL GAS
CA——	CA	COMPRESSED AIR
HPS —	HPS	HIGH PRESSURE STEAM HIGH PRESSURE CONDENSATE
HPC	MPS	MEDIUM PRESSURE STEAM
MPC	MPC	MEDIUM PRESSURE CONDENSATE
LPC	LPS	LOW PRESSURE STEAM
LPC —	LPC	LOW PRESSURE CONDENSATE
		EXISTING PIPING
		HATCH DENOTES TO BE REMOVED
C		ELBOW DOWN
0		ELBOW UP
		TEE DOWN
		TEE UP
		STRAINER WITH BLOWOFF VALVE
		REDUCER
		BALL VALVE
/		BUTTERFLY VALVE
		DIAPHRAGM VALVE
\bowtie		GATE VALVE
		GLOBE VALVE
		ANGLE VALVE
		PLUG VALVE
		CHECK VALVE
	CBV	CALIBRATED BALANCING VALVE
		SOLENOID ACTUATOR
M		MOTOR ACTUATOR
		PNEUMATIC ACTUATOR
	PRV	PRESSURE REGULATING VALVE
	PSV	PRESSURE RELIEF VALVE



MECHANICAL GENERAL NOTES

- A. NOT ALL EXISTING DUCTWORK, PIPING, AND ACCESSORIES ARE NECESSARILY SHOWN ON THIS DRAWING, BUT WHAT IS DEEMED NECESSARY TO SHOW INTENT OF WORK INVOLVED IN THIS PROJECT. REFER TO ALL PLANS, SECTIONS, DETAILS, SCHEDULES, AND SPECIFICATIONS FOR COMPLETE SYSTEM REQUIREMENTS.
- B. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO ORDERING, FABRICATION OF MATERIAL, OR PERFORMING ANY NEW WORK. DEVIATIONS FROM CONDITIONS SHOWN IN THESE PLANS SHALL BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY AND NO WORK SHALL BE PERFORMED IN THIS AREA UNTIL A RESOLUTION HAS BEEN ESTABLISHED. SITE CONDITIONS DIFFERING FROM THOSE SHOWN ON THESE PLANS WILL NOT BE GENERALLY CONSIDERED A BASIS FOR CONTRACT MODIFICATION AS THE CONTRACTOR SHALL TAKE INTO ACCOUNT WORST CASE SITE CONDITIONS WHEREVER POSSIBLE.
- C. COORDINATE ALL PENETRATIONS OF FLOOR, ROOF, WALLS, ETC. WITH GENERAL CONTRACTOR. ALL PENETRATIONS THROUGH FIRE/SMOKE RATED CONSTRUCTION SHALL BE SEALED WITH A FIRE RATED CAULK EQUAL TO OR EXCEEDING THE CONSTRUCTION FIRE RATING.
- D. ALL NEW MATERIALS IN THE RETURN AIR PLENUM SHALL HAVE A MAXIMUM FLAME SPREAD RATING OF 25 AND A MAXIMUM SMOKE DEVELOPED RATING OF 50 IN ACCORDANCE WITH SECTION 602.2.1 OF THE 2015 INTERNATIONAL MECHANICAL CODE.
- E. FLEXIBLE AIR DUCTS SHALL CONFORM TO UL181 IN ACCORDANCE WITH SECTION 603.6 OF THE 2015 INTERNATIONAL MECHANICAL CODE. LENGTH OF FLEX DUCT SHALL NOT EXCEED 5 FT.
- F. ALL MECHANICAL EQUIPMENT SHALL BE LABELED AS TO THE AREA(S) SERVED IN ACCORDANCE WITH SECTION 304.12 OF THE 2015 INTERNATIONAL MECHANICAL CODE.
- G. PROVIDE ACCESS DOORS OR OTHER MEANS OF APPROVED ACCESS TO ALL FIRE AND FIRE/SMOKE DAMPERS. ACCESS DOORS SHALL BE LABELED ON THE ACCESS DOOR AND ON THE CEILING BELOW.
- H. PROVIDE AND INSTALL A BALANCING DAMPER AT EACH BRANCH TAKEOFF FOR THE SUPPLY AND EXHAUST AIR SYSTEMS. PROVIDE AND INSTALL A BALANCING DAMPER AT EACH BRANCH TAKEOFF FOR THE RETURN AIR SYSTEM WHERE INDICATED. BALANCING DAMPERS LOCATED ABOVE GYPSUM BOARD OR OTHER INACCESSIBLE CEILINGS SHALL BE INSTALLED WITH A CONCEALED DAMPER REGULATOR AND COVER PLATE, PAINTED TO MATCH CEILING COLOR.
- I. MOUNT SPACE TEMPERATURE SENSORS, THERMOSTATS, AND REMOTE CONTROL DEVICES WITH CENTERLINE AT 48" ABOVE FINISH FLOOR (AFF) UNLESS OTHERWISE INDICATED.
- J. PROVIDE BALANCE REPORT TO INSPECTOR AT TIME OF HEATING FINAL IN ACCORDANCE WITH 2015 INTERNATIONAL MECHANICAL CODE. SUBMIT TO ARCHITECT FOR FINAL APPROVAL.
- K. DUCTWORK SHALL BE SEALED IN ACCORDANCE WITH THE SPECIFICATIONS AND THE 2015 EDITION OF THE INTERNATIONAL MECHANICAL CODE, SECTION 603.9.
- L. DUCT SIZES SHOWN REPRESENT CLEAR INSIDE DIMENSIONS
- M. ALL RECTANGULAR DUCT ELBOWS OR CHANGES IN DIRECTION OF 45 DEGREES OR GREATER, OTHER THAN BRANCH CONNECTIONS, SHALL INCLUDE DOUBLE THICKNESS AIRFOIL SHAPED TURNING VANES.
- N. UNLESS NOTED OTHERWISE, DIFFUSER/GRILLE/REGISTER NECK SIZE SHOWN ON DRAWINGS INDICATES SIZE OF DUCT TO DIFFUSER/GRILLE/REGISTER.
- O. COORDINATE FINAL LOCATION OF DUCTWORK, PIPING, DIFFUSERS, ETC. WITH ALL OTHER TRADES BEFORE FABRICATION OR INSTALLATION.
- P. CONTRACTOR SHALL PROVIDE ALL REQUIRED OFFSETS, TRANSITIONS, AND FITTINGS FOR DUCTWORK AND PIPING FOR COMPLETE SYSTEM.
- Q. UNLESS NOTED OTHERWISE, PROVIDE BELL MOUTH SPIN-IN FITTING WITH A 2" STAND-OFF BRACKET AND LOCKING QUADRANT VOLUME DAMPER FOR ALL DIFFUSER CONNECTIONS.
- R. COORDINATE LOCATION OF ALL WALL/CEILING MOUNTED DIFFUSERS AND GRILLES WITH ALL TRADES AND GENERAL CONTRACTOR.
- S. PROVIDE AND INSTALL 1/4" BIRD-SCREEN ON OPENINGS FREELY COMMUNICATING WITH THE OUTDOORS.
- T. FOR AIR HANDLING EQUIPMENT WITH A CAPACITY OF 2,000 CFM OR GREATER, A
- SMOKE DETECTOR SHALL BE INSTALLED IN THE RETURN AIR STREAM.
- U. PROVIDE 115V MAINTENANCE RECEPTACLE WITHIN 25'-0" OF ROOF TOP EQUIPMENT.
- V. BUILDING EXHAUST AND VENTS SHALL BE INSTALLED A MINIMUM OF 10'-0" FROM VENTILATION INTAKES.

MEC	CHANICAL SHEET INDEX
SHEET	TITLE
M001C	MECHANICAL BUILDING C NOTES AND LEGEND
M002C	MECHANICAL BUILDING C SPECIFICATIONS
M111C	MECHANICAL BUILDING C HVAC PLAN
M112C	MECHANICAL BUILDING C HVAC PLAN
M131C	MECHANICAL BUILDING C GAS PLAN
M132C	MECHANICAL BUILDING C GAS PLAN
M500C	MECHANICAL BUILDING C DETAILS
M610C	MECHANICAL BUILDING C SCHEDULES



DATE **04-16-2019**DRAWN **PLANT**

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1.01 GENERAL

- A. ALL PROVISIONS OF THE CONTRACT DOCUMENTS APPLY TO THE WORK OF THIS
- B. ALL DIVISION 23 SECTIONS ARE SUBJECT TO THE PROVISIONS OF THIS SECTION

1.02 SUMMARY OF WORK

A. WORK INCLUDED: PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTAL ITEMS NECESSARY FOR COMPLETELY FINISHED AND OPERATIONAL MECHANICAL SYSTEMS. EXAMINE DOCUMENTS OF OTHER TRADES FOR ANY ADDITIONAL WORK WHICH MAY BE REQUIRED OF THE MECHANICAL CONTRACTOR.

1.03 DEFINITIONS

- EXPOSED: EXPOSED IN MECHANICAL ROOMS OR ROOMS WITH FINISHED WALLS OR CEILINGS. DOES NOT INCLUDE EXTERIOR
- B. CONCEALED: LOCATED IN PIPE CHASES, FURRED SPACES, ATTICS, CRAWL SPACES, ABOVE SUSPENDED CEILINGS, OR ALL OTHER LOCATIONS NOT EXPOSED TO VIEW.
- PROVIDE: FURNISHED AND INSTALL D. EXTERIOR: LOCATED OUTSIDE OF BUILDING ENVELOPE.

1.04 DIVISION OF RESPONSIBILITY

SPECIFICATION FORMATTING WHICH INDICATES A DIVISION IN THE MECHANICAL WORK IS FOR CONVENIENCE ONLY. IT IS NOT INTENDED TO DELINEATE LINES OF RESPONSIBILITY BETWEEN SUBCONTRACTORS AND/OR SUPPLIERS. SUCH DELINEATION RESTS ENTIRELY WITH THE CONTRACTOR.

1.05 PLANS AND SPECIFICATIONS

PLANS ARE DIAGRAMMATIC. THEY INDICATE GENERAL INTENT, DESIGN AND ARRANGEMENT OF SYSTEMS. PROVIDE ALL MINOR INCIDENTALS SUCH AS OFFSETS, FITTINGS, ETC., AS MAY BE REQUIRED EVEN THOUGH NOT SHOWN. PROVIDE ISOLATION VALVES AND UNIONS AS CALLED FOR IN THESE SPECIFICATIONS WHETHER OR NOT SHOWN ON DRAWINGS. DO NOT SCALE THE PLANS; TAKE DIMENSIONS FROM ACTUAL FIELD CONDITIONS.

1.06 CODES AND REGULATIONS

A. CONFORM TO CODES AND REGULATIONS APPLICABLE AT THE PROJECT SITE B. CALL FOR INSPECTIONS FROM LOCAL AUTHORITIES AS REQUIRED IF DISCREPANCIES OCCUR BETWEEN CONTRACT DOCUMENTS AND LOCAL REGULATIONS, THE MORE STRINGENT REQUIREMENT APPLIES

1.07 FEES AND PERMITS

A. OBTAIN REQUIRED PERMITS. B. PAY PERMIT FEES, CONSTRUCTION FEES, TAP FEES, INSPECTION FEES.

C. DEVELOPMENT FEES ARE PAID BY OWNER.

1.08 COORDINATION

A. COORDINATE WITH OTHER TRADES TO ASSURE ORDERLY PROGRESS OF THE WORK

AND TO ASSURE PROPER FIT IN CONFINED SPACES. B. REPORT TO THE ARCHITECT ANY CONSTRUCTION DEFECTS WHICH AFFECT THE MECHANICAL WORK; PROCEED WITH MECHANICAL WORK ONLY AFTER DEFECTS HAVE BEEN CORRECTED.

1.09 QUALITY ASSURANCE A. PERFORM WORK IN ACCORDANCE WITH GOOD TRADE PRACTICE AND IN A NEAT MANNER. COMPLY WITH ARCHITECT'S DIRECTION CONCERNING FINISHED

B. ADHERE TO MANUFACTURER'S RECOMMENDATIONS.

1.10 PROTECTION

A. OF PEOPLE: ARRANGE BARRIERS, SIGNS, ETC. AS REQUIRED TO MINIMIZE THE HAZARD TO PEOPLE. COMPLY WITH APPLICABLE SAFETY AND HEALTH REGULATIONS.

B. OF WORK: TAKE ALL MEASURES NECESSARY TO PROTECT THE WORK BOTH BEFORE AND AFTER INSTALLATION, TO ASSURE THAT IT WILL BE IN CLEAN, UNDAMAGED, UNBLEMISHED CONDITION WHEN TURNED OVER TO THE OWNER. REPAIR/REPLACE WORK DAMAGED DURING CONSTRUCTION.

C. OF EXISTING MECHANICAL: PROVIDE TEMPORARY FILTERS AT ALL EXISTING RETURN AIR DEVICES AND OPENINGS DURING CONSTRUCTION.

A. SUBMIT PRODUCT DATA FOR THE FOLLOWING ITEMS:

1. GRILLES, REGISTERS, DIFFUSERS, SPIN-IN, FLEX, DUCT INSULATION, THERMOSTAT, HVAC EQUIPMENT AND OTHER MISC HVAC ITEMS. 2. ALL PLUMBING FIXTURES, ACCESSORIES AND PIPE INSULATION.

1.12 RECORD DOCUMENTS

B. SUBMIT PDF THROUGH GENERAL CONTRACTOR TO ENGINEER.

A. MAINTAIN AT JOB SITE: CONTRACT DOCUMENTS, REVIEWED SUBMITTALS, FIELD TEST B. AS-BUILT DRAWINGS: NEATLY REVISE THE DESIGN DRAWINGS TO REFLECT THE

AS-BUILT CONDITION. DIMENSIONALLY LOCATE SITE UTILITIES AND UNDER SLAB WORK. DELIVER AS-BUILT DRAWINGS TO ENGINEER AT PROJECT COMPLETION.

1.13 OPERATING & MAINTENANCE MANUAL A. FORMAT: PDF

B. CONTENTS: EACH SECTION SET OFF BY INDEX TABS. INCLUDE:

1. TABLE OF CONTENTS. 2. EXECUTED WARRANTIES.

3. NAME, ADDRESS AND TELEPHONE NUMBER OF INSTALLING CONTRACTORS AND SUBCONTRACTORS, ALONG WITH BRIEF DESCRIPTION OF THEIR PROJECT RESPONSIBILITY.

4. NAME, ADDRESS AND TELEPHONE NUMBER OF MATERIAL AND EQUIPMENT SUPPLIERS, ALONG WITH LISTING OF ITEMS SUPPLIED.

5. EQUIPMENT TABS, MINIMUM ONE TAB FOR EACH APPLICABLE DIVISION 23 SECTION, ARRANGED IN THE SAME ORDER AS THE SPECIFICATIONS. INCLUDE FOR ALL **EQUIPMENT SUPPLIED:**

REVIEWED SUBMITTALS.

INSTALLATION INSTRUCTIONS. OPERATING INSTRUCTIONS

MAINTENANCE INSTRUCTIONS PARTS LISTS.

TEST AND BALANCE REPORT CERTIFICATES OF INSPECTION

AT PROJECT COMPLETION SUBMIT ONE COPY OF MANUAL TO ENGINEER FOR REVIEW. MAKE ANY CORRECTIONS REQUIRED. TRANSMIT THREE CORRECTED COPIES TO GENERAL CONTRACTOR FOR DELIVERY TO OWNER.

1.14 WARRANTIES

A. PROVIDE ONE (1) YEAR WARRANTY ADDRESSED TO OWNER COVERING ALL DIVISION 23 WORK. PROVIDE ADDITIONAL FOUR (4) YEAR WARRANTY COVERING ALL REFRIGERANT COMPRESSORS.

INCLUDE EXECUTED WARRANTIES IN OPERATING & MAINTENANCE MANUALS.

DURING WARRANTY PERIOD, PROVIDE LABOR AND MATERIALS, INCLUDING SHIPPING, TO REPAIR OR REPLACE DEFECTS IN DIVISION 23 WORK. PAY FOR DAMAGE TO OTHER WORK RESULTING FROM DEFECTS IN DIVISION 23 WORK.

1.15 DEMONSTRATIONS

A. CONDUCT DEMONSTRATIONS WHEN SYSTEMS ARE COMPLETE AND OPERATIONAL AND READY TO BE TURNED OVER TO THE OWNER, AND AFTER THE OPERATING AND MAINTENANCE MANUAL IS COMPLETE

B. INSTRUCT THE OWNER'S REPRESENTATIVE ONCE ON THE PROPER OPERATION AND MAINTENANCE OF THE MECHANICAL SYSTEMS. PAY PARTICULAR ATTENTION TO NORMAL AND EMERGENCY START-UP AND SHUT-DOWN PROCEDURES, SEASONAL CHANGE OVER, SAFETY DEVICES, AND TEMPERATURE CONTROL SYSTEMS.

END OF SECTION 23 01 00

SECTION 23 05 00 - BASIC MATERIALS AND METHODS

PART 1 GENERAL 1.01 WORK INCLUDED

THIS SECTION DESCRIBES MATERIALS AND METHODS COMMON TO THE WORK IN GENERAL FOR DIVISION 23.

PART 2 PRODUCTS

2.01 MOTORS, STARTERS, MISC. ELECTRICAL

A. MOTORS: MINIMUM HORSEPOWER AS INDICATED HEREIN OR ON DRAWINGS, CONSTRUCTED FOR OPERATION AT SITE ALTITUDE, RUST PROOF/LEAK PROOF BEARING RINGS, BUILT TO NEMA STANDARDS, FACTORY BALANCED, OPEN DRIP PROOF, THERMAL OVERLOAD PROTECTED, 1.15 SERVICE FACTOR AT ALTITUDE, POWER FACTOR CORRECTED IN ACCORDANCE WITH APPLICABLE ENERGY CODE, SUITABLE FOR OPERATION ON VOLTAGE INDICATED.

SECTION 23 05 00 - BASIC MATERIALS AND METHODS (cont'd)

B. STARTERS: STARTERS OR SMALL MOTORS WITHOUT STARTERS SHALL HAVE THERMAL OVERLOAD PROTECTION IN EACH PHASE. ALL MAGNETIC STARTERS SHALL BE FURNISHED WITH TRANSFORMERS THAT PROVIDE 120V CONTROL VOLTAGE UNLESS ESTABLISHED BY OTHER MEANS. STARTERS SHALL INCLUDE TWO SETS OF AUXILIARY CONTACTS.

2.02 PIPE SCHEDULE

A. GENERAL: ALL EXTERIOR EXPOSED GAS PIPING SHALL BE PAINTED

B. NATURAL GAS: STEEL PIPE, ASTM A53 SCH. 40 WITH ASME B16.3 MALLEABLE IRON OR

ASTM A234 FORGED STEEL THREADED OR WELDED FITTINGS. C. REFRIGERANT: COPPER ACR TUBING ASTMB280, NITROGENIZED, TYPE L, HARD

2.03 PIPE HANGERS AND SUPPORTS

A. INSERTS: STEEL CASE AND EXPANDER PLUG FOR THREADED CONNECTION WITH LATERAL ADJUSTMENT, TOP SLOT FOR REINFORCING RODS AND LUGS FOR

ATTACHING TO FORMS. SIZE TO MATCH HANGER ROD. B. EXPANSION ANCHORS: LEAD SHIELD OR SLIDING EXPANSION TYPE WITH MACHINE

BOLT. SIZE TO MATCH HANGER ROD. C. BEAM CLAMPS: STEEL WITH CLAMPING BOLT AND JAMB NUT, CONFIGURED TO

ATTACH SECURELY TO BEAM. D. CLIP ANGLES: SHORT SECTION OF STEEL ANGLE WITH SUITABLE FASTENERS.

E. HANGER RODS: STEEL ALL-THREAD. 1. INDIVIDUAL HANGERS: ADJUSTABLE WROUGHT STEEL RING FOR PIPING THROUGH

1-1/2". ADJUSTABLE WROUGHT STEEL CLEVIS FOR PIPING 2" AND LARGER. CHAIN OR PERFORATED STRAP HANGERS NOT PERMITTED. 2. TRAPEZE: INVERTED STEEL CHANNELS WITH WELDED PIPE SPACERS. PIPING MAY REST DIRECTLY ON TRAPEZE. SIZE HANGER RODS ONE SIZE LARGER THAN

REQUIRED FOR LARGEST PIPE ON TRAPEZE. UNIFORMLY SPACE HANGER RODS

MAXIMUM 3' ON CENTER. LOCATE PIPING ON TRAPEZE TO ALLOW FOR INSULATION AND THERMAL EXPANSION. SEE SECTION 23 07 00 - INSULATION G. WALL SUPPORTS: CAST IRON HOOK FOR PIPING THROUGH 3". WELDED STEEL WALL BRACKET WITH WROUGHT STEEL CLAMP FOR COLD PIPING 4" TO 6". SIZE IN

ACCORDANCE WITH CODE AND TO ALLOW FOR INSULATION. SEE SECTION 23 07 00 -INSULATION H. RISER CLAMPS: STEEL, BOLT-TOGETHER, WITH SUPPORTING TABS. SIZE FOR

UNINSULATED PIPE. I. FLOOR STANDS:

BASE: CONCRETE PIER OR STEEL SUPPORT.

2. STAND: CAST IRON ADJUSTABLE SADDLE WITH PIPE NIPPLE RISER, LOCKNUT AND FLOOR FLANGE FOR PIPING THROUGH 5". ADJUSTABLE STEEL STAND AND CAST IRON ROLLER FOR PIPING 6" AND LARGER. SIZE IN ACCORDANCE WITH CODE AND TO ALLOW FOR INSULATION. SEE SECTION 23 07 00 - INSULATION.

J. MATERIALS: METALLIC PIPE HANGERS SHALL BE OF SAME MATERIAL AS BASE METAL OF PIPE OR INSTALL WEAR PADS FOR DISSIMILAR METALS.

2.04 SLEEVES, SAFING, AND ESCUTCHEONS

A. SLEEVES: 1. ROUND: STEEL PIPE SIZED LARGE ENOUGH TO ALLOW FOR UNINTERRUPTED INSULATION AND FOR MOVEMENT.

2. RECTANGULAR: GALVANIZED STEEL, REINFORCED TO PREVENT DEFORMATION.

1. WATERPROOF: ELASTIC MASTIC, SILICONE, ETC.

2. FIREPROOF: PLASTER, GROUT, OTHER MATERIAL AS APPROVED BY LOCAL C. ESCUTCHEONS

1. PIPING: ADJUSTABLE CHROME-PLATED, SOLID OR SPLIT, FLAT OR DISHED TO SUIT 2. DUCTWORK: FABRICATED SHEET METAL.

A. ACCEPTABLE MANUFACTURERS: CRANE, HAMMOND, JENKINS, KENNEDY, NIBCO, POWELL, STOCKHAM, GRINNELL B. GENERAL: ALL VALVES OF THE SAME TYPE SHALL BE OF ONE MANUFACTURER. USE

VALVES LISTED WITH THE MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTING INDUSTRY. G. GAS PLUG VALVES: UNDER 2-1/2": CAST IRON BODY, 150 #, BUILT IN STOP.

2. 2-1/2" AND LARGER: MSS SP-78, 150 #, CWP, CAST IRON BODY AND PLUG, PRESSURE LUBRICATED, TEFLON OR BUNA N PACKING.

2.06 UNIONS

1. 2" AND SMALLER: 150# MALLEABLE IRON GROUND JOINT, THREADED ENDS 2. 2-1/2" AND LARGER: GRADE 1 150# FORGED STEEL SLIP ON OR WELD-NECK FLANGES IN ACCORDANCE WITH ASTM 181. REGULAR SQUARE-HEAD MACHINE

BOLTS WITH HEAVY HEXAGONAL NUTS IN ACCORDANCE WITH ASTM A307 GRADE B,

1. UNION WITH GALVANIZED OR PLATED STEEL THREADED END, COPPER SOLDER END, WATER IMPERVIOUS ISOLATION BARRIER.

1/16" THICK PRE-FORMED SYNTHETIC GASKETS.

PART 3 - EXECUTION

3.01 MOTORS, STARTERS, AND MISC, ELECTRICAL PROVIDE MOTORS OF MINIMUM HORSEPOWER INDICATED, COMPLETE WITH STARTERS, AND ACCESSORIES AS REQUIRED.

SECTION 23 05 00 - BASIC MATERIALS AND METHODS (cont'd)

3.02 PIPE HANGERS, SUPPORTS

A. GENERAL: ADEQUATELY SUPPORT PIPING FROM BUILDING STRUCTURE, TO MAINTAIN REQUIRED GRADES, TO PREVENT SAGGING. SUPPORT PIPING INDEPENDENTLY OF EQUIPMENT SO ITS WEIGHT WILL NOT BE SUPPORTED BY THE EQUIPMENT. PROVIDE SWAY BRACING WHERE NECESSARY. ISOLATE HANGERS AND SUPPORTS COMING IN CONTACT WITH BARE COPPER PIPE; USE DIELECTRIC HANGER CONNECTORS OR WRAP WITH NON-CONDUCTIVE TAPE.

B. HANGER SPACING: 1. SPACING SHALL BE IN ACCORDANCE WITH IMC TABLE 305.4

2. TO PROVIDE 1/2" MINIMUM CLEARANCE BETWEEN INSULATION AND ADJACENT

3. SUPPORT HORIZONTAL CAST IRON PIPING NEAR EACH JOINT, MAXIMUM 5' ON CENTER. 4. SUPPORT VERTICAL CAST IRON PIPING AT EACH FLOOR INDEPENDENTLY OF

CONNECTING HORIZONTAL PIPING WHERE PRACTICAL C. INSERTS: USE FOR CAST-IN-PLACE CONCRETE. SET IN PLACE PRIOR TO CONCRETE POUR. ATTACH INSERT TO RE-BAR IF INSERT WILL CARRY PIPING 4" AND OVER.

WHERE CONCRETE WILL REMAIN EXPOSED, FINISH INSERTS FLUSH WITH EXPOSED

D. EXPANSION ANCHORS: USE FOR PRECAST AND EXISTING CONCRETE. DRILL APPROPRIATE SIZE HOLE AND SECURELY SET ANCHOR. DO NOT CUT STRESSED CONCRETE REINFORCING. WHERE ARCHITECT ALLOWS, MAY DRILL THROUGH CONCRETE SLAB FROM BELOW AND PROVIDE HANGER ROD WITH RECESSED

SQUARE STEEL PLATE AND NUT ABOVE SLAB. E. BEAM CLAMPS: USE FOR STEEL BEAMS AND JOISTS, CLAMPED IN PLACE. F. CLIP ANGLES: USE FOR STEEL BEAMS, WELDED IN PLACE. USE FOR WOOD BEAMS

AND JOISTS, THROUGH-BOLTED IN PLACE WITH BACKER PLATE AND LOCK NUT. G. HANGER RODS: SUSPENDED FROM INSERTS AND ANCHORS WITH JAMB NUT. SUSPENDED FROM CLAMPS AND ANGLES WITH TOP AND BOTTOM LOCK NUTS. H. HANGERS: SUSPEND FROM RODS WITH TOP AND BOTTOM LOCK NUTS. ALLOW FOR

AT LEAST 1-1/2" VERTICAL ADJUSTMENT. I. WALL SUPPORTS: SECURELY ATTACH TO WALL USING INSERTS, EXPANSION ANCHORS, BOLTS, ETC. AS SUITS THE APPLICATION AND TO ASSURE A PERMANENT

J. RISER CLAMPS: LOCATE AT EACH FLOOR FOR RISERS WHICH EXTEND THROUGH MORE THAN ONE FLOOR AND FOR PIPING WHICH IS NOT ADEQUATELY SUPPORTED

K. FLOOR STANDS: USE FOR HORIZONTAL PIPING SUPPORTED FROM THE FLOOR. PROVIDE GENERAL CONTRACTOR WITH ANCHOR BOLTS AND SETTING TEMPLATES FOR CONCRETE PIERS.

3.03 SLEEVES, SAFING, AND ESCUTCHEONS

A. MAKE PENETRATIONS THROUGH BUILDING ELEMENTS AS FOLLOWS:

1. NEW CONCRETE: USE INDIVIDUAL SLEEVES CAST IN PLACE. ONLY ONE PIPE OR DUCT TO A SLEEVE; MULTIPLE PIPES/DUCTS IN A SLEEVE NOT ALLOWED. EXTENDED FLOOR SLEEVES 2" ABOVE FINISHED FLOOR, NOTCHED AS REQUIRED FOR RISER CLAMPS. CUT WALL SLEEVES FLUSH WITH WALL

2. PRE-CAST AND EXISTING CONCRETE, SLEEVES NOT REQUIRED. SAW CUT OR CORE

DRILL CONCRETE AS IN ACCORDANCE WITH CUTTING AND PATCHING HEREIN. 3. NEW MASONRY: SAME AS NEW CONCRETE

4. EXISTING MASONRY: SAME AS EXISTING CONCRETE. 5. FRAME: SAME AS EXISTING CONCRETE.

B. PROVIDE SAFING IN ANNULAR SPACE BETWEEN PIPE/DUCT/INSULATION AND SLEEVE/OPENING AS FOLLOWS: 1. FOR UN-RATED CONCRETE FLOORS AND FOUNDATION WALLS USE WATERPROOF

2. FOR FIRE-RATED CONSTRUCTION USE FIREPROOF TYPE FOR FULL THICKNESS OF THE CONSTRUCTION.

C. PROVIDE ESCUTCHEONS FOR PIPES AND DUCTS PASSING THROUGH WALLS, FLOORS AND CEILINGS IN FINISHED AREAS. PROVIDE TO COMPLETELY CONCEAL THE PENETRATION, TO BUTT TIGHTLY AGAINST THE WALL/FLOOR/CEILING AND THE PIPE/DUCT, AND TO YIELD A NEATLY FINISHED APPEARANCE. INSTALL PLATED ESCUTCHEONS AFTER WALL/FLOOR/CEILING HAS BEEN PAINTED.

A. ORIENTATION: INSTALL WITH STEMS UPRIGHT OR HORIZONTAL, NOT INVERTED INSTALL SWING CHECKS HORIZONTALLY OR IN UPFLOW VERTICAL PIPING, NOT B. SHUT-OFF AND ISOLATION: PROVIDE WHERE SHOWN, AT INLET AND OUTLET TO EACH PIECE OF EQUIPMENT, TO ISOLATE MAJOR HORIZONTAL BRANCHES, AT BASE OF

VERTICAL RISERS. MAY OMIT WHERE BALANCING VALVE CAN BE USED FOR SHUT-OFF. C. BALANCING: PROVIDE BALANCING VALVES WHERE SHOWN.

ACCESSIBLE POINTS WITHIN THE PIPING SYSTEM. USE DRAIN VALVES.

3.05 UNIONS A. PROVIDE WHERE SHOWN, AT ALL EQUIPMENT AND CONTROL VALVE CONNECTIONS, FOR CONNECTION TO OTHER ITEMS REQUIRING REMOVAL FOR

D. DRAINS: PROVIDE WHERE SHOWN, AT MAIN SHUT-OFF VALVES, AT LOW POINTS OF

PIPING AND EQUIPMENT. TO ASSURE COMPLETE SYSTEM DRAIN-DOWN, LOCATE AT

SERVICE/REPLACEMENT. B. PROVIDE DIELECTRIC TYPE AT JUNCTIONS OF DISSIMILAR METALS.

3.06 PIPING SPECIALTIES A. PRESSURE AND TEMPERATURE RELIEF VALVES: PROVIDE WHERE SHOWN AND TO ADEQUATELY PROTECT FIRED AND UNFIRED PRESSURE VESSELS AND PIPING SYSTEMS DESIGNED FOR OPERATION AT REDUCED PRESSURE. PIPE DISCHARGE TO A SAFE LOCATION. DO NOT PROVIDE ISOLATION VALVE BETWEEN RELIEF VALVE AND

SYSTEM BEING PROTECTED. B. THERMOMETERS: PROVIDE WHERE SHOWN, AT INLET AND OUTLET TO ALL FIRED PRESSURE VESSELS EXCEPT RESIDENTIAL-SIZED DOMESTIC WATER HEATERS, AT OUTLET FROM DOMESTIC WATER STORAGE TANKS AND STORAGE WATER HEATERS. AT PRIMARY AND SECONDARY INLET AND OUTLET TO CONVERTERS AND HEAT EXCHANGERS, DOWNSTREAM OF MAJOR MIXING VALVES. OMIT ON STEAM AND CONDENSATE SYSTEMS.

3.07 PIPE INSTALLATION A. LOCATION: ROUTE PIPING GENERALLY AS INDICATED, PARALLEL WITH BUILDING ELEMENTS, IN AN ORDERLY MANNER. LOCATE CONCEALED UNLESS INDICATED OTHERWISE. ARRANGE TO CONSERVE HEADROOM AND TO CLEAR DOORS, WINDOWS

AND OTHER OPENINGS. B. INSTALLATION: INSTALL WITHOUT SPRING OR FORCING UNLESS COLD-SPRINGING IS INDICATED. MAKE CHANGES IN DIRECTION WITH FITTINGS. PROVIDE NECESSARY OFFSETS TO ACCOMMODATE OTHER WORK AND AS REQUIRED FOR EQUIPMENT FIT-UP. REAM AND CLEAN PRIOR TO JOINING. CAP OPEN ENDS TO PREVENT ENTRANCE OF FOREIGN MATERIAL.

C. GRADES: SLOPE ALL PIPING TO ALLOW FOR DRAINAGE, MINIMUM 1" IN 40' OR AS PRESCRIBED BY CODE OR SPECIFIED IN OTHER DIVISION 23 SECTIONS.

D. DRAINS: PROVIDE AT LOW POINTS IN WATER PIPING. E. CLEARANCES: ALLOW FOR APPLICATION OF INSULATION AND FOR ACCESS TO VALVES, VENTS, DRAINS AND UNIONS. ALLOW FOR MINIMUM 1/2" CLEARANCE

BETWEEN PIPES AFTER INSTALLATION. F. BUILDING SETTLEMENT: PROVIDE SWING JOINTS AS NECESSARY TO PERMIT FREE BUILDING MOVEMENT WITHOUT CAUSING UNDUE PIPE STRESS OR DAMAGE TO BUILDING. PAY PARTICULAR ATTENTION TO PIPING CROSSING BUILDING EXPANSION JOINTS AND TO PIPING PENETRATING FLOORS, FOUNDATIONS, AND ROOF.

G. CONNECTIONS: 1. COPPER: SWEAT OR BRAZED AS IN ACCORDANCE WITH APPLICABLE DIVISION 23 SECTIONS.

3.08 PIPE TESTING

A. NEW PIPING: TEST ALL PIPING INSTALLED UNDER DIVISION 23. CONDUCT TESTS PRIOR TO CONCEALMENT OR INSULATING. NOTIFY ARCHITECT PRIOR TO CONDUCTING TESTS, TO ALLOW HIM TO OBSERVE TEST. PROVIDE ALL INSTRUMENTS AND EQUIPMENT REQUIRED TO CONDUCT TESTS. SEE APPROPRIATE DIVISION 23 SECTIONS FOR TESTING SPECIFICS AND PRESSURES.

FLANGES, ETC. REPAIR ANY EXISTING PIPING DAMAGED DURING TESTING. C. FIXTURES, EQUIPMENT: ISOLATE FROM TEST PRESSURES IF SUCH PRESSURE MAY DAMAGE THE FIXTURE/EQUIPMENT. USE ISOLATION VALVES, CAPS, ETC. D. DURATION: HOLD HYDROSTATIC TESTS FOR 15 MINUTES MINIMUM WITHOUT

PRESSURE LOSS. AIR TEST MAY BE SUBSTITUTED FOR HYDROSTATIC TEST IF

PRESSURE LOSS. HOLD AIR TESTS FOR 15 MINUTES MINIMUM WITHOUT SIGNIFICANT

B. EXISTING PIPING: ISOLATE FROM TEST PRESSURES USING ISOLATING VALVES, BLIND

APPROVED BY ARCHITECT. D. RE-TESTING: CORRECT ANY WORK FAILING THE INITIAL TEST. RE-TEST IN ACCORDANCE WITH INITIAL TEST PROCEDURES.

E. FIELD RECORDS: MAINTAIN FOR ALL TESTS. SUBMIT TO ARCHITECT IN TRIPLICATE.

SECTION 23 05 00 - BASIC MATERIALS AND METHODS (cont'd)

3.09 FLASHING AND COUNTERFLASHING

ROOF PENETRATIONS: FLASH AND COUNTERFLASH ROOF PENETRATION IN ACCORDANCE WITH ROOFING MANUFACTURER'S RECOMMENDATIONS.

3.10 CUTTING AND PATCHING

E. GENERAL: PERFORM AS REQUIRED FOR DIVISION 23 WORK. KEEP TO A MINIMUM THROUGH PROPER SCHEDULING, WHERE UNAVOIDABLE, PERFORM IN

ACCORDANCE WITH APPLICABLE DIVISIONS. SEE DIVISION 1 F. CUTTING: OBTAIN ARCHITECT'S APPROVAL PRIOR TO CUTTING OR DRILLING TO

STRUCTURAL ELEMENTS. USE SAW OR ROTARY DRILL: DO NOT USE PNEUMATIC G. PATCHING: SEAL OPENINGS, REPAIR, REFINISH, RESTORE DAMAGED ELEMENTS TO

ORIGINAL CONDITIONS. COMPLY WITH PROVISIONS OF APPLICABLE DIVISIONS. 3.11 ACCESS PANELS

FURNISH IN ACCORDANCE WITH DIVISION 8 AND WITH FIRE RATING COMPATIBLE WITH CEILING OR PARTITION RATING. FURNISH WHERE INDICATED AND AT LOCATIONS WHERE REQUIRED FOR ACCESS TO CONCEALED VALVES, DAMPERS, CLEANOUTS, CONTROL DEVICES, EQUIPMENT, OTHER ITEMS REQUIRING SERVICE/MAINTENANCE. DELIVER TO GENERAL CONTRACTOR FOR INSTALLATION UNDER OTHER DIVISIONS. PROVIDE INSTRUCTIONS FOR LOCATION.

3.12 ITEMS FURNISHED BY OTHERS INSTALL IN ACCORDANCE WITH MANUFACTURES' DIRECTIONS AND AS REQUIRED BY APPLICABLE DIVISION 23 SECTIONS.

END OF SECTION 23 05 00

SECTION 23 07 00 - INSULATION

PART 1 - GENERAL

1.01 WORK INCLUDED PROVIDE INSULATION AS SHOWN AND SPECIFIED HEREIN.

1.02 QUALITY ASSURANCE

A. FIRE HAZARD CLASSIFICATION: TESTED AS A COMPOSITE IN ACCORDANCE WITH ASTM E84 OR NFPA 255 OR UL723 AND SO LABELED. MAXIMUM FLAME SPREAD = 25, MAXIMUM SMOKE DEVELOPED = 50.

B. ENERGY CONSERVATION: COMPLY WITH 2015 INTERNATIONAL ENERGY CONSERVATION CODE

C. PROHIBITED MATERIALS: PRODUCTS OR MATERIALS CONTAINING ASBESTOS ARE EXPRESSLY PROHIBITED.

PART 2 - PRODUCTS

2.01 PIPE INSULATION - MATERIALS A. ACCEPTABLE MANUFACTURERS: MANVILLE, CERTAINTEED, OWENS-CORNING, AND

B. FIBERGLASS: ASTM C547 TYPE 1. MAXIMUM K/INCH = 0.27 AT MEAN TEMPERATURE OF 75 DEGREES F. ALL SERVICE JACKET WITH SELF-SEALING LAPS. PRE-MOLDED FITTING AND VALVE COVERS WITH FIBERGLASS INSERTS.

2.02 DUCT INSULATION - MATERIALS

A. ACCEPTABLE MANUFACTURERS: CERTAIN TEED, JOHNS MANVILLE, KNAUF, AND B. WRAP (UNCONDITIONED SPACES): MINERAL-FIBER BLANKET IN ACCORDANCE WITH

ASTM C553, TYPE I, 2" THICK, MIN. R-6 PER 2015 IECC. 0.75 LB/FT3 DENSITY WITH K=0.29. FSK FACING. C. WRAP (SUPPLY IN PLENUM): MINERAL-FIBER BLANKET IN ACCORDANCE WITH ASTM C553, TYPE I, 2" THICK, MIN. R-4.2. 0.75 LB/FT3 DENSITY WITH K=0.29. FSK FACING. D. LINER (UNCONDITIONED SPACES): RETURN DUCT ONLY. MINERAL-FIBER DUCT LINER

LB/FT3 DENSITY WITH COATING ON AIR-SIDE SURFACE RATED TO 6,000 FPM. E. LINER (PLENUM NOISE CONTROL): SAME AS ABOVE F. EXTERIOR: MINERAL-FIBER BOARD IN ACCORDANCE WITH ASTM C612, TYPE IA, 2" THICK, MIN. R-12 FOR CLIMATE ZONE 5-8 PER 2015 IECC. 6 LB/FT3 DENSITY WITH

H. EXPOSED IN CONDITIONED SPACE: R-6 FIBERGLASS LINER PER LETTER D ABOVE.

K=0.22. ASJ FACING. G. EXTERIOR (ALTERNATE): MINERAL-FIBER DUCT LINER IN ACCORDANCE WITH ASTM C1071, TYPE II, MIN. R-12 FOR CLIMATE ZONE 5-8 PER 2015 IECC. 2" THICK, K=0.13, 1.5 LB/FT3 DENSITY WITH COATING ON AIR-SIDE SURFACE RATED TO 6,000 FPM.

IN ACCORDANCE WITH ASTM C1071, TYPE II. MIN. R-6 PER 2015 IECC. 1.5" THICK. 1.5

PART 3 - EXECUTION

3.01 GENERAL

A. APPLY INSULATION AFTER SYSTEMS HAVE BEEN TESTED.

B. COMPLY WITH MANUFACTURER RECOMMENDATIONS REGARDING AMBIENT AND SYSTEM TEMPERATURES AND APPLICATION METHODS.

C. APPLY INSULATION TO CLEAN, DRY SURFACES. D. APPLY INSULATION WITH SECTIONS OR EDGES FIRMLY BUTTED TOGETHER. E. RUN INSULATION CONTINUOUS THROUGH SLEEVES AND OPENINGS IN WALLS AND

F. MAINTAIN INTEGRITY OF VAPOR BARRIER ON COLD SYSTEMS. AVOID THE USE OF STAPLES ON VAPOR BARRIER. SEAL ALL VAPOR BARRIER PENETRATIONS. G. REPAIR INSULATION DAMAGED DUE TO STRAIN OR POOR WORKMANSHIP.

I. INSULATION WHICH HAS BEEN APPLIED IN AN UNSIGHTLY MANNER WILL BE ORDERED REPLACED.

3.02 PIPE INSULATION - INSTALLATION

H. LEAVE SURFACE CLEAN AND READY FOR PAINTING.

A. GENERAL

 INSULATE PIPE, FITTINGS AND VALVES. 2. DO NOT INSULATE UNIONS, FLANGES, STRAINERS, FLEXIBLE CONNECTIONS, EXPANSION JOINTS. TERMINATE INSULATION NEATLY WITH INSULATION AND

FINISHING CEMENT TROWELED ON A BEVEL. 3. INSULATE THROUGH HANGERS AND SUPPORTS. USE HEAVY DENSITY INSERT AND SHEET METAL SHIELD. 4. FOR COLD PIPING, SEAL FITTING/VALVE COVERS AT EACH END AND THROAT.

1. INDOORS, ABOVE GROUND: FIBERGLASS WITH LONGITUDINAL SEAMS LOCATED AWAY FROM NORMAL LINES OF SIGHT. 2. OUTDOORS, ABOVE GROUND: FIBERGLASS WITH METAL JACKET SECURED WITH DRAW BANDS 12" ON CENTER AND SEALED WEATHER TIGHT. FOR HORIZONTAL PIPING LOCATE LONGITUDINAL SEAM AND DRAWBAND CLAMP ON UNDERSIDE OF

AROUND THE LOWER SECTION. 3. INDOORS, BURIED: a. 2" AND SMALLER: FLEXIBLE CLOSE CELL ELASTOMERIC WITH ALL JOINTS

PIPE. FOR GIRTH JOINTS IN VERTICAL PIPING, WRAP UPPER JACKET SECTION

SEALED WATERTIGHT WITH CONTACT ADHESIVE. MITER INSULATION AT b. 2-1/2" AND LARGER: MINERAL FIBER INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PROVIDE MINERAL FIBER CUSHIONS AT ALL ELBOWS AND TEES TO ALLOW TAKE-UP SPACE FOR THERMAL EXPANSION. INSTALL RISERS AND WALL PENETRATIONS IN ACCORDANCE WITH

MANUFACTURER'S RECOMMENDATIONS. 4. OUTDOORS, BURIED: MINERAL POWDER SAME AS FOR INDOORS BURIED. C. THICKNESS: INSULATE PIPING SYSTEMS IN ACCORDANCE WITH 2015 IECC TABLE C403.2.1 UNLESS NOTED OTHERWISE.

3.03 DUCT INSULATION - INSTALLATION

END OF SECTION 23 07 00

A. LINER: INTERNALLY INSULATE ALL RETURN DUCTWORK WITH DUCT LINER UNLESS INDICATED OTHERWISE. APPLY LINER WITH COATED SURFACE FACING THE AIR STREAM. APPLY LINER WITH 100% ADHESIVE COVERAGE. BUTTER ALL RAW EDGES WITH ADHESIVE. ADHERE TO MANUFACTURER'S RECOMMENDATIONS REGARDING MECHANICAL FASTENERS AND NOSINGS.

B. WRAP: 1-1/2" THICK. ADHERE TO DUCT EXTERIOR PER MANUFACTURER'S

RECOMMENDATIONS. SEAL ALL JOINTS AND PUNCTURES TO MAINTAIN INTEGRITY OF VAPOR BARRIER ON COLD AIR DUCTS, APPLY TO ALL SUPPLY AIR AND OUTSIDE AIR DUCT WORK. AT CONTRACTOR'S OPTION, ALL DUCTS MAY BE LINED IN LIEU OF DUCT WRAP C. EXPOSED RECTANGULAR DUCT: ALL EXPOSED DUCT WITHIN BUILDING SHALL BE

D. EXPOSED SPIRAL DUCT: SHALL BE UNINSULATED UNLESS OTHERWISE NOTED.

INTERNALLY LINED UNLESS NOTED OTHERWISE.

SECTION 23 33 00 - AIR DISTRIBUTION

PART 1 - GENERAL

PART 2 - PRODUCTS

2.01 DUCTWORK MATERIALS

1.01 WORK INCLUDED A. FURNISH AND INSTALL DUCTWORK AND SHEET METAL ACCESSORIES AS SHOWN AND SPECIFIED HERE-IN.

1.02 QUALITY ASSURANCE

A. COMPLY WITH APPLICABLE NFPA AND SMACNA STANDARDS, ASHRAE HANDBOOK, UL 181, AND IMC.

A. IN ADDITION TO ALL ITEMS SCHEDULED ON THE DRAWINGS, FURNISH

SUBMITTALS ON ALL ITEMS SPECIFIED HERE-IN.

A. GALVANIZED STEEL 1. GAUGE: AS PRESCRIBED BY SMACNA.

2. FLAT SHEETS: ASTM A527. ROUND: a. FABRICATION FOR CONCEALED: PIPE LOCK LONGITUDINAL

SEAMS WITH BEADED CRIMP TRANSVERSE JOINTS SECURED WITH SHEET METAL SCREWS b. FABRICATION FOR EXPOSED: SPIRAL PIPE WITH JOINTS SECURED WITH SHEET METAL SCREWS. USE DUCT SEALANT THAT IS NEATLY APPLIED AND MATCHES COLOR OF DUCT. c. FITTINGS: ADJUSTABLE 4 - SEGMENT ELBOWS, MANUFACTURED

CONICAL TEE FITTINGS AND TAPS (SADDLE TAPS NOT

PERMITTED), MANUFACTURED REGISTER BOOTS AND STACK

B. FLEX DUCT: 1. ACCEPTABLE MANUFACTURERS: FLEXMASTER, THERMAFLEX. 2. CLASSIFICATION: NFPA 90A - CLASS 1, UL 181 LABELED. 3. LOW PRESSURE: FLEXMASTER TYPE 5 - INSULATED WITH MIN R-8 INSULATION. FACTORY FABRICATED ASSEMBLY CONSISTING OF A ZINC-COATED SPRING STEEL HELIX, SEAMLESS INNER LINER WRAPPED WITH A NOMINAL 1" THICK ONE-POUND DENSITY FIBERGLASS INSULATION ALL ASSEMBLED IN A VAPOR BARRIER

JACKET. RATED FOR PRESSURES TO +10" WG.

4. SPIN-INS: WITH BALANCING DAMPER AND 2" INSULATION STAND-OFF BRACKET.

2.02 DUCTWORK SPECIALTIES A. TURNING VANES 1. CONSTRUCTION: DOUBLE-THICKNESS AIR FOIL, NONADJUSTABLE.

B. BALANCING DAMPERS 1. CONSTRUCTION: RIGID BEARINGS AND LOCKING QUADRANTS WHERE USED IN CONJUNCTION WITH DUCT-MOUNTED COILS, PROVIDE OPPOSED-BLADE TYPE WITH MAX 2" WIDE BLADES.

1. HINGED DOOR WITH HOUSING FRAME, SASH-TYPE CLOSURES,

F. TEST HOLE FOR LOW VELOCITY DUCTWORK: DRILLED HOLE WITH

H. WATER-BASED DUCT SEALANT TO COMPLY WITH UL 181A OR 181B

A. ACCEPTABLE MANUFACTURERS: NAILOR, PRICE, TITUS, METAL-AIRE.

C. FIRE/SMOKE DAMPERS 1. CONSTRUCTION: CONSTRUCTION AND INSTALLATION SHALL CONFORM TO UL LISTINGS AND MANUFACTURER'S INSTRUCTIONS. D. ACCESS DOORS.

DOOR OF TWO GAUGES HEAVIER THAN DUCT, SPONGE RUBBER GASKETS CEMENTED IN PLACE. E. FLEX CONNECTIONS EQUAL TO VENTFABRICS VENTGLAS

FRICTION-FIT PLASTIC CAP ON METAL DUCT.

PER 2015 IECC C403.2.9.

2.03 GRILLES, REGISTERS, DIFFUSERS

B. SIZES, TYPES: SEE SCHEDULE ON DRAWINGS. PART 3 - EXECUTION

3.01 LOW VELOCITY DUCTWORK A. APPLICATION: ALL DUCTWORK IS CLASSIFIED AS LOW VELOCITY UNLESS INDICATED OTHERWISE.

FOR TRANSVERSE JOINTS IN RECTANGULAR GALVANIZED STEEL

B. FABRICATION: 1. IN ACCORDANCE WITH SMACNA AND ASHRAE STANDARDS FOR LOW VELOCITY DUCTWORK. 2. MANUFACTURED DUCT CONNECTION SYSTEM MAY BE LITH 17FD

MANUFACTURER'S RECOMMENDATIONS.

C. MATERIALS: EXPOSED: GALVANIZED STEEL.

OTHERWISE.

2. CONCEALED: GALVANIZED STEEL D. FLEX: LOW PRESSURE TYPE, PLENUM RATED. 3.02 DUCTWORK FABRICATION AND INSTALLATION A. GENERAL 1. FABRICATE AND INSTALL TO MEET JOB CONDITIONS FROM

DUCTWORK. PROVIDE IN STRICT ACCORDANCE WITH

TRANSITION AS REQUIRED TO AVOID INTERFERENCE; MAINTAIN REQUIRED CROSS-SECTIONAL AREA.

2. FABRICATE AND INSTALL SO NO UNDUE NOISE OR VIBRATION 3. DO NOT PROVIDE HOLES IN THE DUCT SYSTEMS FOR THE INSTALLATION OF HANGERS, CONDUIT, PIPES, ETC.

4. DUCT DIMENSIONS ON DRAWINGS ARE CLEAR INSIDE DIMENSION;

DIMENSIONS TAKEN FROM JOB SITE AND SHOP DRAWINGS.

INCREASE SHEET METAL DIMENSIONS TO ACCOMMODATE LINER. 5. LOCATE ALL DUCTWORK CONCEALED UNLESS INDICATED

B. ELBOWS 1. CURVED: CENTER LINE RADIUS EQUAL TO 1-1/2 TIMES THE DUCT 2. SQUARE: FITTED WITH TURNING VANES WHEN DUCT SIZE INTO THE ELBOW IS THE SAME AS DUCT SIZE OUT. FITTED WITH FIXED

EXTRACTOR WHEN DUCT SIZE INTO THE ELBOW IS DIFFERENT

FROM DUCT SIZE OUT. C. TAKE-OFFS: 45 DEGREE TAKE-OFF WHERE OTHER MEANS OF CONTROL ARE NOT INDICATED OR USED, AND IN DUCTWORK BEHIND SIDEWALL SUPPLY REGISTERS.

D. HANGERS AND SUPPORTS 1. HORIZONTAL DUCTS: PROVIDE HANGERS OF TYPE AND SPACING AS RECOMMENDED BY SMACNA. 2. VERTICAL DUCTS THROUGH FLOORS: PROVIDE GALVANIZED STEEL

ANGLES ON AT LEAST TWO SIDES OF THE DUCT; FASTEN

SECURELY TO DUCT AND FLOOR. E. BALANCING DAMPERS: PROVIDE FOR PROPER ADJUSTMENT AND CONTROL OF AIR DISTRIBUTION. MARK DAMPER ROD TO INDICATE THE RELATIVE POSITION OF THE DAMPER BLADES WITH RESPECT TO

F. FIRE/SMOKE DAMPERS: PROVIDE WHERE SHOWN.

DUCT LENGTH SHALL NOT EXCEED SIX (6) FEET.

AUTOMATIC DAMPERS, FIRE DAMPERS, COILS, OTHER ITEMS REQUIRING MAINTENANCE OR INSPECTION. PROVIDE 12"x12" DOORS WHERE PERMITTED BY DUCT SIZE; WHERE DUCT IS TOO SMALL, PROVIDE AS LARGE A DOOR AS POSSIBLE. H. FLEX DUCT: USE MINIMUM LENGTHS NECESSARY TO MAKE CONNECTION WITHOUT PINCHING OR KINKING. SUSPEND

HORIZONTAL RUNS WITH 3/4" WIDE FLAT STEEL BAND AT 36" OC.

K. PAINTING: WHERE INTERIOR OF DUCT IS VISIBLE THROUGH GRILLES,

719 473 7077

LOUVERS, ETC., PAINT VISIBLE INSIDE PORTION OF DUCT WITH FLAT

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MAKE END CONNECTIONS WITH STEEL DRAW BANDS. MAXIMUM FLEX

G. ACCESS DOORS: PROVIDE IN DUCTWORK FOR ACCESS TO ALL

FLEX CONNECTIONS: PROVIDE AT INLET AND OUTLET TO ALL FANS. J. TEST HOLES: PROVIDE ON BRANCH AND MAIN DUCT TO PROVIDE OPENINGS THROUGH DUCT WALLS FOR THE INSERTION OF TEST EQUIPMENT. LOCATE TO ENABLE TRAVERSE READINGS PER ASHRAE

END OF SECTION 23 33 00

BLACK PAINT.

THE ROD.

04-16-2019 PLANT

B. FAN COIL UNIT HAS A HYDRONIC HEATING COIL. SEE PIPING DIAGRAM AND PLUMBING DRAWINGS FOR CONNECTION REQUIREMENT TO TANKLESS WATER HEATER.

C. ALL SA AND RA DUCTWORK TO BE ROUTED HIGH BETWEEN JOISTS WHERE POSSIBLE.

D. DUCTWORK SHOWN DASHED IS TO BE RUN IN THE CRAWLSPACE

MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS ARE TO COORDINATE ALL SYSTEMS IN WALLS.

F. COORDINATE ROOF PENETRATIONS WITH OWNER.

G. CONTRACTOR TO REFER TO SITE PLAN AND ARCHITECTURAL FOR EXACT CONDENSER LOCATIONS.

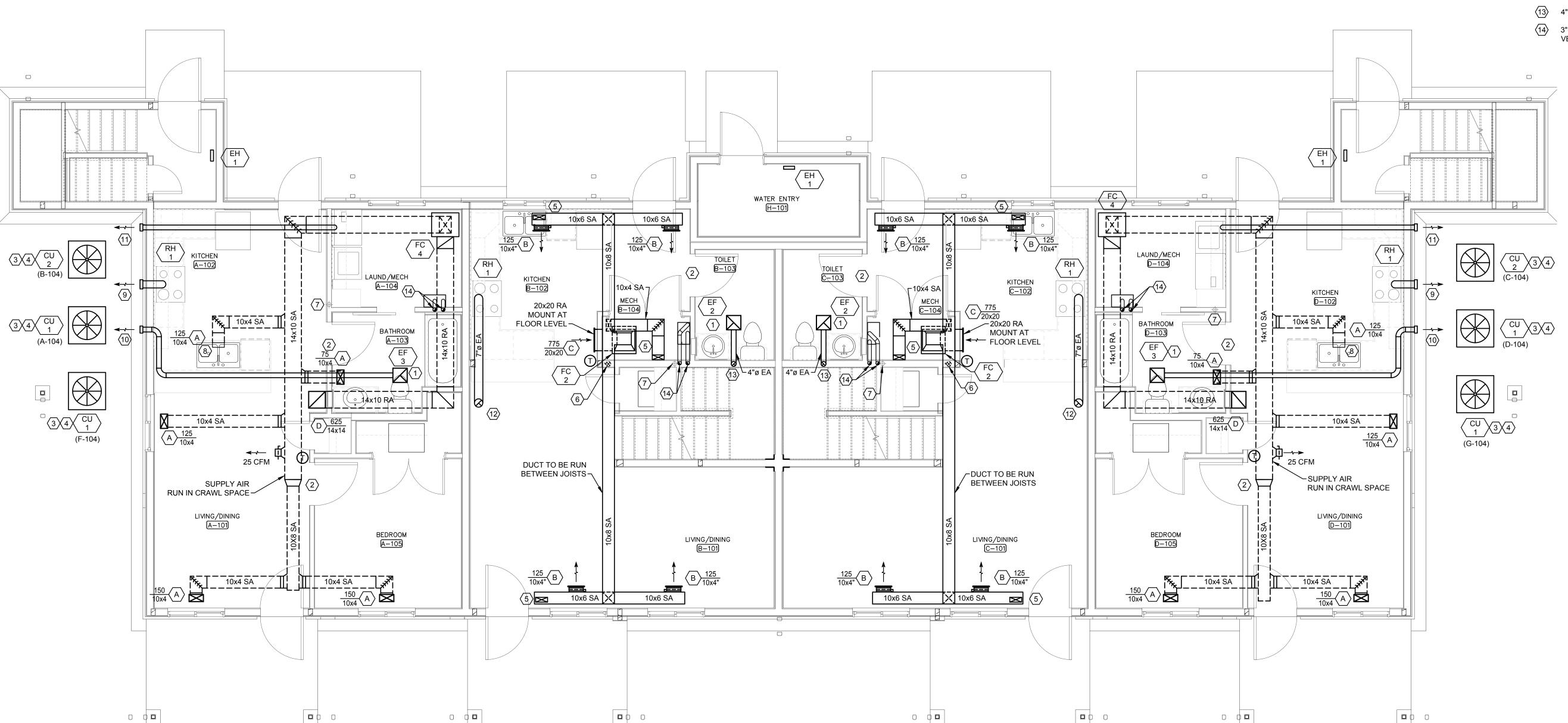
H. CONTRACTOR IS TO FIX SUPPLY DAMPERS IN POSITION AFTER TEST AND BALANCE ON SYSTEM IS ACCOMPLISHED.

I. CONDENSING UNITS ARE REQUIRED TO BE 3 FEET FROM GAS REGULATORS. COORDINATE IN FIELD.

- INSTALL ALL COMPONENTS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. COORDINATE WITH ELECTRICAL FOR WALL SWITCH. FAN RUNS CONTINUOUSLY ON LOW, BUT WILL INCREASE TO HIGH WITH SWITCH.
 - 2 UNDERCUT DOOR BY APPROXIMATELY 1".

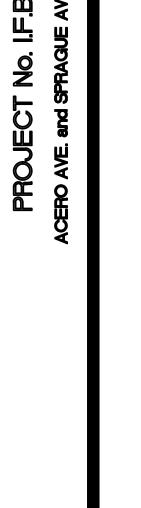
KEYED NOTES

- SET THE CONDENSING UNIT ON A 3" LEVEL EQUIPMENT PAD.
- PROVIDE LINE SETS SIZED PER MANUFACTURER'S RECOMMENDATIONS. COVER BOTH LIQUID AND SUCTION LINES WITH CLOSED CELL INSULATION THEN WRAP WITH WATER PROOF COVER. SLEEVE FOUNDATION APPROXIMATELY 9" BELOW GRADE WITH (2) 3" DIAMETER
- (5) 4x10 SA UP TO 2ND FLOOR
- 6 DROP A 4"ø DUCT INTO THE CRAWL SPACE FOR APPROXIMATELY 25
- (7) RADON MITIGATION VENT INSTALLED BY OTHERS. COORDINATE WITH OTHER TRADES IN WALL SPACE.
- 8 INSTALL 10x4 SA GRILLE IN TOE KICK OF CABINETRY
- 9 7"ø EA FROM RH-1. ROUTE OUT THROUGH THE SIDEWALL AND TERMINATE PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS
- 4"ø EA FROM EF-1 ROUTED TO THE OUTDOORS THROUGH THE WALL. FERMINATE PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS
- 4"ø DRYER EXHAUST. LOCATE HIGH THROUGH WALL. CONFIRM IN THE FIELD THAT THE DUCT RUN IS WITHIN THE ALLOWABLE LIMIT FOR THE OWNER SELECTED DRYER. IF NOT, CONTACT THE ENGINEER TO DETERMINE ALTERNATE ROUTING. ROUTE TO THE WALL AND TERMINATE PER THE DRYER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 7"ø EA UP TO THE 2ND FLOOR
- (13) 4" EA UP TO THE 2ND FLOOR
- (14) 3"ø CA & FLUE UP TO 2ND FLOOR. COORDINATE WITH RADON EXHAUST









DATE **04-16-2019**

DRAWN **PLANT**

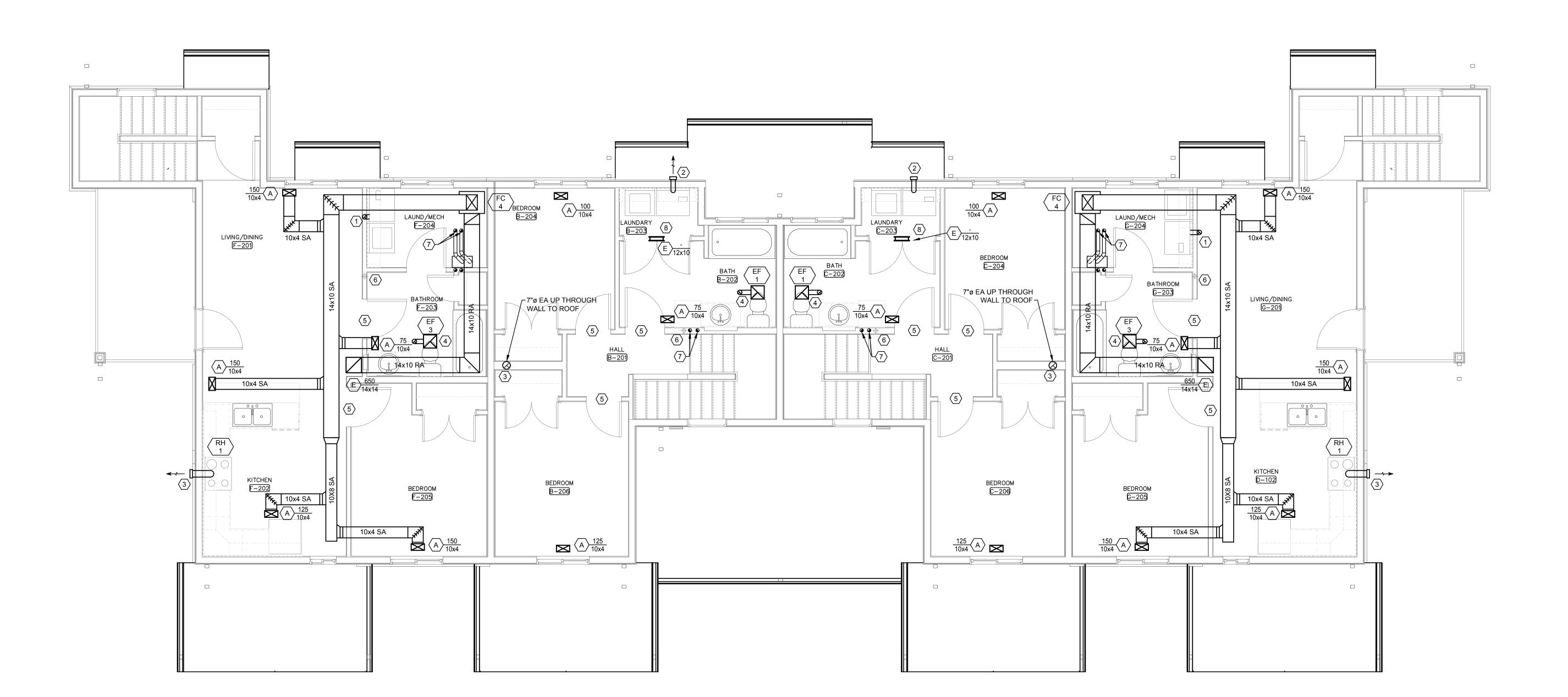
TANKLESS WATER HEATER.

- A. FAN COIL UNIT TO BE SUPPLIED BY MECHANICAL CONTRACTOR. COORDINATE WITH PLUMBING CONTRACTOR FOR PIPING
- CONNECTIONS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. B. FAN COIL UNIT HAS A HYDRONIC HEATING COIL. SEE PIPING DIAGRAM AND PLUMBING DRAWINGS FOR CONNECTION REQUIREMENT TO
- C. ALL SA AND RA DUCTWORK TO BE ROUTED HIGH BETWEEN JOISTS WHERE POSSIBLE.
- D. DUCTWORK SHOWN DASHED IS TO BE RUN IN THE CRAWLSPACE
- E. MECHANICAL, ELECTRICAL, AND PLUMBING CONTRACTORS ARE TO COORDINATE ALL SYSTEMS IN WALLS.
- F. COORDINATE ROOF PENETRATIONS WITH OWNER.
- G. CONTRACTOR IS TO FIX SUPPLY DAMPERS IN POSITION AFTER TEST AND BALANCE ON SYSTEM IS ACCOMPLISHED.

- 4" DRYER VENT HIGH THROUGH THE ROOF. TERMINATE PER THE DRYER MANUFACTURER'S INSTALLATION INSTRUCTIONS
- 4" DRYER VENT THROUGH THE WALL. TERMINATE PER THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

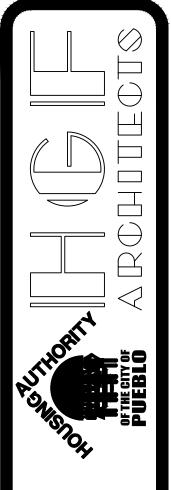
KEYED NOTES

- 7" EA FROM RH-1. TERMINATE PER THE HOOD MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 4 INSTALL ALL COMPONENTS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. COORDINATE WITH ELECTRICAL FOR WALL SWITCH. FAN RUNS CONTINUOUSLY ON LOW, BUT WILL INCREASE TO HIGH WITH SWITCH.
- (5) UNDERCUT DOOR BY APPROXIMATELY 1".
- (6) RADON MITIGATION VENT. COORDINATE WITH OTHER TRADES IN WALL
- 3" CA & FLUE FROM WATER HEAT UP TO ATTIC SPACE. TERMINATE THROUGH ROOF WITH A MANUFACTURER PROVIDED CONCENTRIC VENT
- 8 12x10" TRANSFER AIR DUCT FOR DRYER. LOCATE HIGH IN WALL ABOVE DOOR. PROVIDE 2 GRILLES.











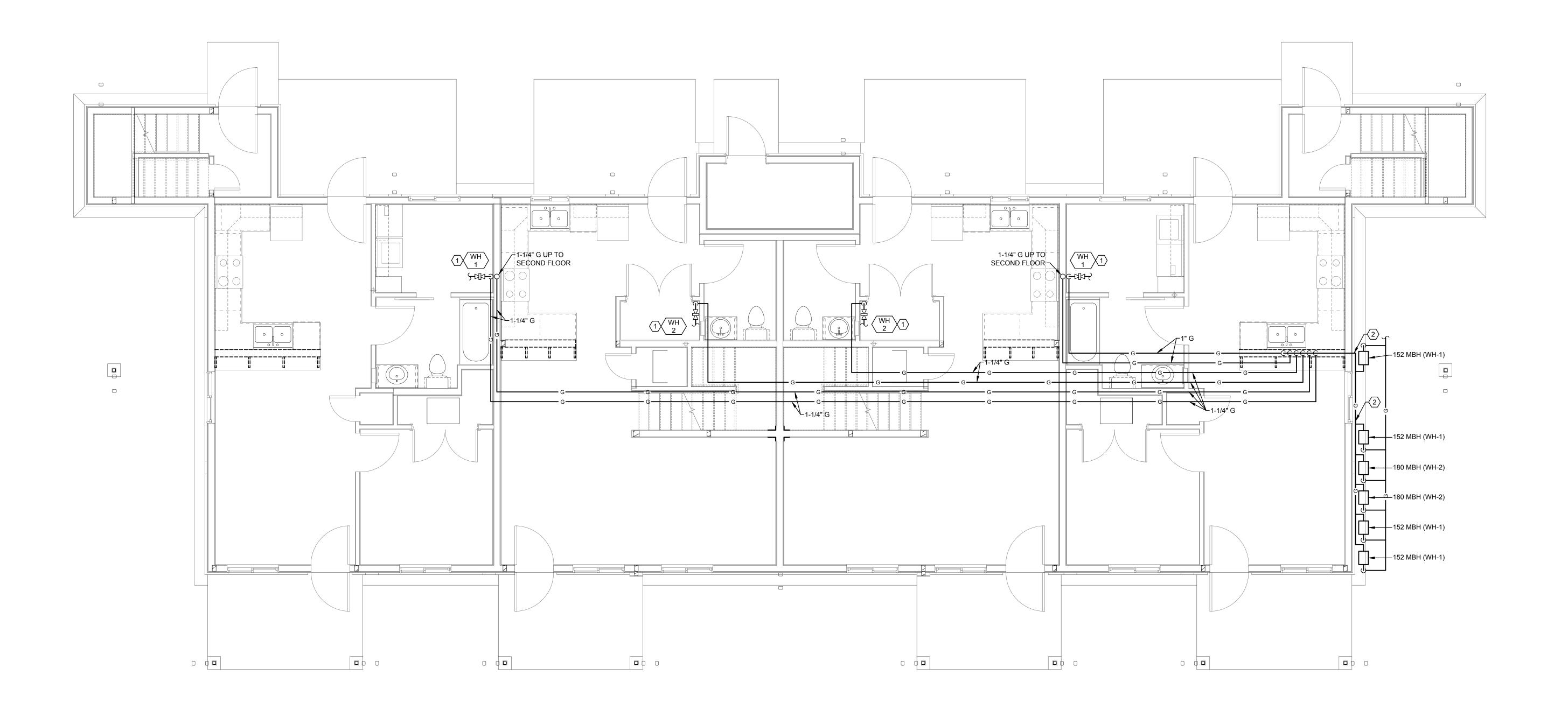
A. CONTRACTOR TO ADHERE TO 2015 IFGC.

GENERAL NOTES

- B. SERVICE TO METERS BY UTILITY CONTRACTOR.
- C. GAS REGULATORS ARE REQUIRED TO BE 3 FEET FROM CONDENSING UNITS. COORDINATE WITH MECHANICAL CONTRACTOR.
- D. REFER TO SITE PLANS FOR BUILDING ORIENTATION AND GAS METER LOCATION. MIRROR GAS PLAN AS NEEDED TO LOCATE GAS METERS ON EITHER SIDE OF BUILDING.
- E. COORDINATE METERS TO NOT BE LOCATED UNDER WINDOWS.

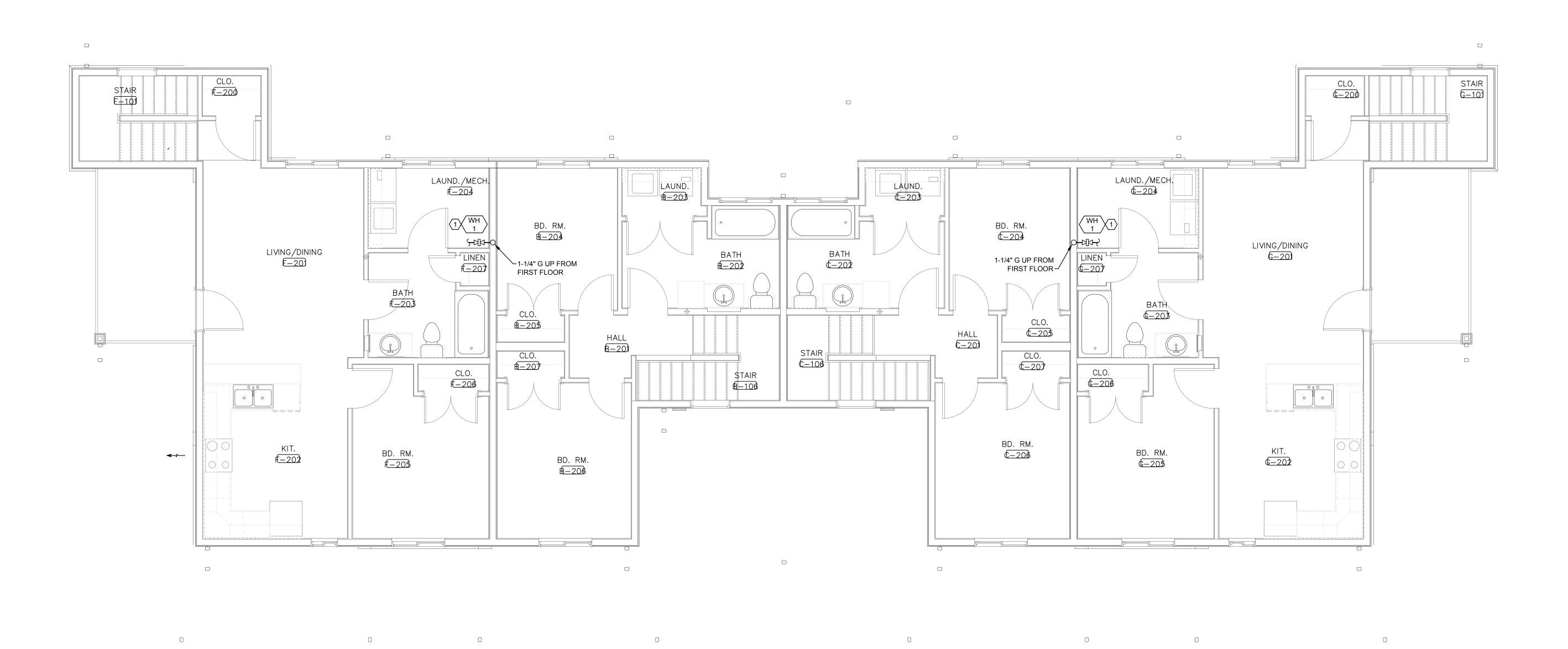
KEYED NOTES

- (1) SEE DETAIL 4/M500C FOR WATER HEATER GAS CONNECTION DETAIL.
- 2 ROUTE GAS PIPING FROM METERS STACKED VERTICALLY ON EXTERIOR WALL. TURN AND PENETRATE PIPING INTO HALF HEIGHT WALL BELOW KITCHEN COUNTERTOP/BAR. ROUTE PIPING DOWN HALF HEIGHT WALL AND INTO CRAWL SPACE. SEE DETAIL 5/M500C









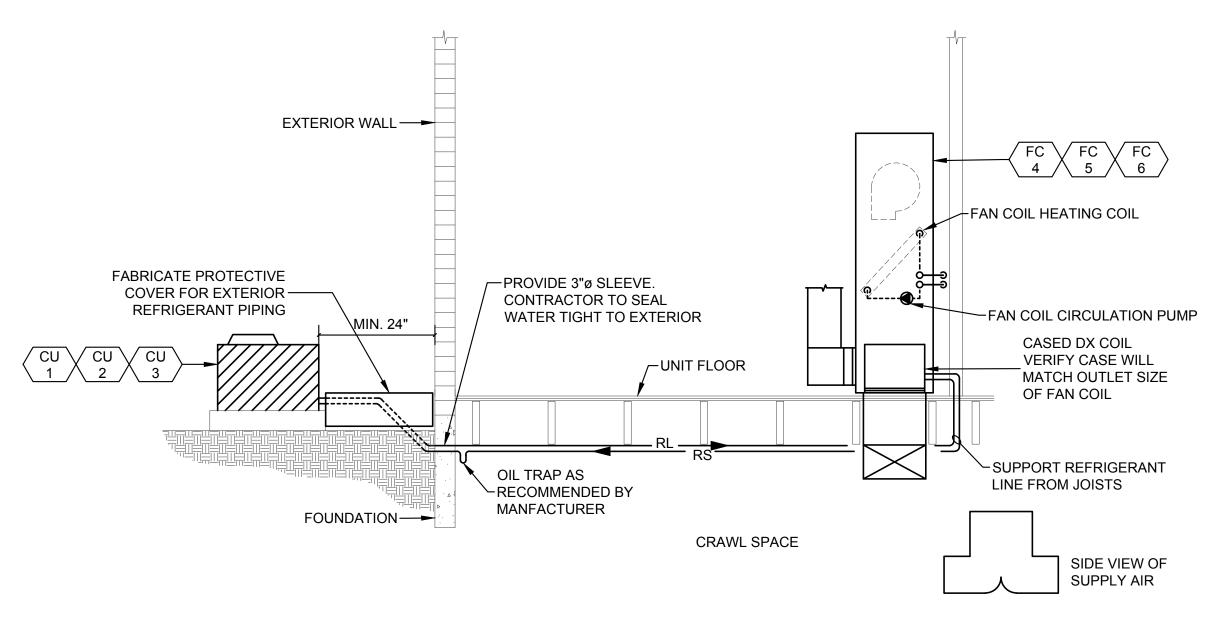




DATE **04-16-2019**

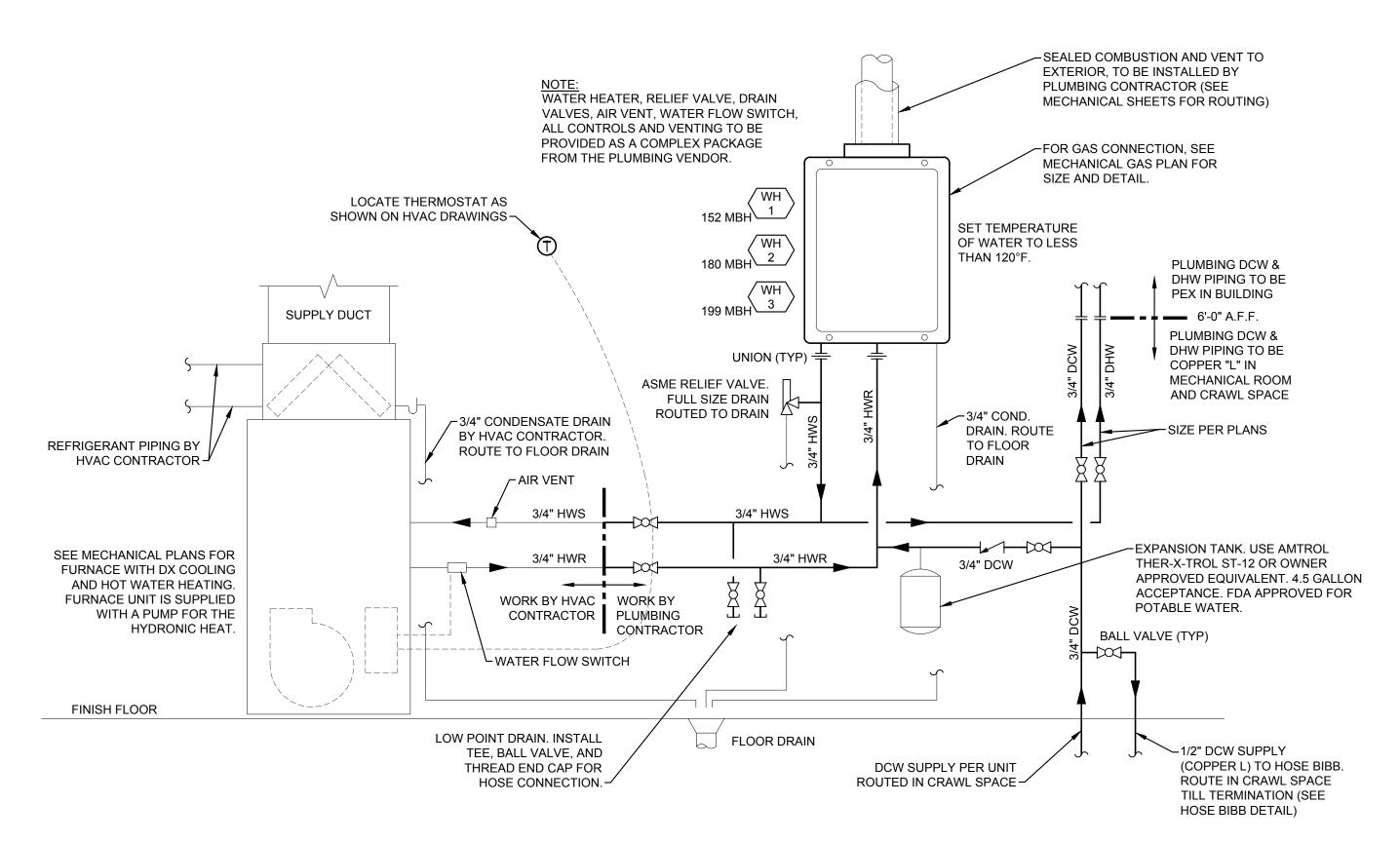
DRAWN **PLANT**

REFRIGERATION PIPING DIAGRAM

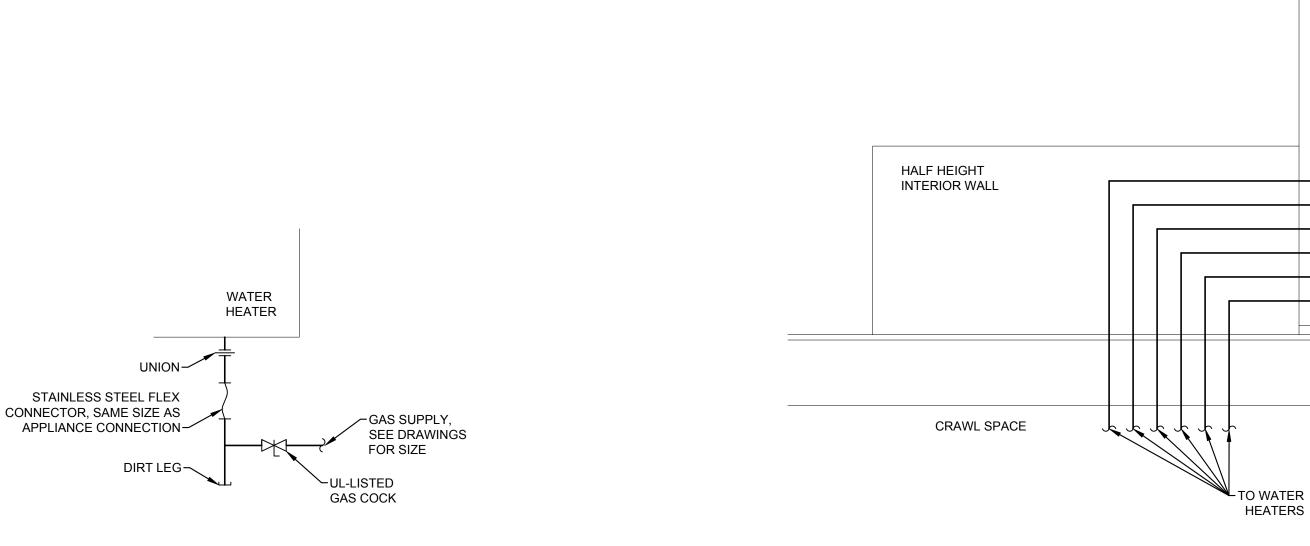


REFRIGERATION PIPING DIAGRAM

NOT TO SCALE



2 DOMESITC HYDRONIC PIPING DIAGRAM NOT TO SCALE



GAS CONNECTION DETAIL





DATE **04-16-2019** DRAWN **PLANT**

REVISIONS:



__EXTERIOR

FROM WALL HUNG GAS METERS

	FAN COIL SCHEDULE														
TAG	I MANUICACTURED	MODEL	CFM	ECD.	LIVEDONIC HEAT COIL		T	T	CIDC DUMP			FLECTRICAL	1	LWEIGHT	NOTEC
TAG	MANUFACTURER	MODEL	CFIM	ESP	HYDRONIC HEAT COIL		BLOWER		CIRC. PUMP			ELECTRICAL		WEIGHT	NOTES
				"WC	MBH	GPM	HP	HP	RLA	INLET WATER	MCA	VOLTS/ø	MAX. FUSE	(LBS)	
FC-1	AIRMARK	GFM 18/19	650	0.3	30.5	3.5	1/3	1/40	0.57	140	4.1	115/1	15	100	1,3,4,5,6,7,8,9,10,11
FC-2	AIRMARK	GFM 24/25	800	0.3	35.3	3.5	1/3	1/40	0.57	140	4.1	115/1	15	100	1,3,4,5,6,7,8,9,10,11
FC-3	AIRMARK	GFM 30/31	1050	0.3	39.1	3.5	1/2	1/40	0.57	140	7.4	115/1	20	120	1,3,4,5,6,7,8,9,10,11
FC-4	AIRMARK	GFM 18/19	650	0.3	30.5	3.5	1/3	1/40	0.57	140	4.1	115/1	15	100	2,3,4,5,6,7,8,9,10,11,12
FC-5	AIRMARK	GFM 24/25	800	0.3	35.3	3.5	1/3	1/40	0.57	140	4.1	115/1	15	100	2,3,4,5,6,7,8,9,10,11,12
FC-6	AIRMARK	GFM 30/31	1050	0.3	39.1	3.5	1/2	1/40	0.57	140	7.4	115/1	20	120	2,3,4,5,6,7,8,9,10,11,12

NOTES

- 1. UPFLOW CONFIGURATION
- 2. DOWN FLOW CONFIGURATION
- 3. DISPOSABLE FILTER
- 4. EC MOTOR ON BLOWER
- 5. MICRO-PROCESSOR CIRCUIT BOARD
- 6. FACTORY MOUNTED 410A COOLING COIL WITH EXPANSION VALVE
- 7. UNIT SUPPLIED AND SET IN PLACE WITH CONDENSING UNIT BY HVAC CONTRACTOR
- 8. PROGRAMMABLE THERMOSTAT
- 9. PLUMBER TO MAKE HYDRONIC PIPING CONNECTIONS PER DETAIL 2/M500
- 10. PROVIDE WITH 3-ROW HEATING COIL. TACO 006 CIRC. PUMP, CHECK VALVE, AND SCHRADER PORTS
- 11. INTEGRAL PUMP OPERATES FOR 60 SECONDS EVERY 6 HOURS
- 12. REARRANGEMENT OF DX COIL REQUIRED.

GRILLE, RE	GISTER, AND DIFFUSER	SCHEDULE		
TAG	MANUFACTURER	MODEL	DESCRIPTION	NOTES
Α	HART & COOLEY	450/421	SUPPLY DIFFUSER 2-WAY DEFLECTION, STEEL CONSTRUCTION, FLOOR MOUNT	1,2,3
В	PRICE	510D	SUPPLY DIFFUSER, STEEL, SIDEWALL	2,3,4
С	HART & COOLEY	650	RETURN GRILLE, 35" DEFLECTION, 1/2",SPACING, STEEL CONSTRUCTION, SIDEWALL MOUNT	1,3
D	PRICE	LBPH	14x14 FLOOR GRILLE	4
E	PRICE	530	LOUVERED GRILLE	4

NOTES

- 1. STANDARD FACTORY BROWN FINISH
- 2. VOLUME DAMPER
- 3. SEE DRAWING FOR NECK SIZE AND AIR QUANTITY
- 4. COORDINATE FINISH WITH ARCHITECT

RANGE HOO	RANGE HOOD SCHEDULE										
TAG	MANUFACTURER	MODEL	TYPE	CFM	SONES	VOLTS/ø	MCA	NOTES			
RH-1	BROAN	42300	7"ø VENTED	190	60	120/1	2.5	1,2,3,4,5			

NOTES

- 1. INCLUDES BACKDRAFT DAMPER
- 2. 30" WIDTH
- 3. 75 WATT LIGHT
- 4. 2-SPEED
- 5. OWNER TO CHOOSE COLOR

C	CONDENSING UNIT AND DX COOLING COIL SCHEDULE												
	TAG	MANUFACTURER	CU	NOMINAL		ELECTRICAL		WEIGHT	SERVES	NOTES			
			MODEL	TONS	VOLTS/ø	MCA	MOP	(LBS)					
	CU-1	CARRIER	24ANB618A003	1.5	230/1	11.7	20	184	FC-1,4	1,2,3,4,5,6,7,8			
	CU-2	CARRIER	24ANB624A003	2	230/1	17.5	25	186	FC-2,5	1,2,3,4,5,6,7,8			
	CU-3	CARRIER	24ANB630A003	2.5	230/1	18	25	193	FC-3,6	1,2,3,4,5,6,7,8			

NOTES

- 1. PROVIDE REFRIGERATION PIPING ACCORDING TO MANFACTURERS RECOMMENDATIONS.
- 2. SCROLL COMPRESSOR
- 3. 16 SEER
- 4. R-410A REFRIGERANT
- 5. CURVED LOUVER PANELS. 6. LIQUID LINE 3/8", SUCTION LINE 3/4"
- 7. CC IS INTEGRAL TO FAN COIL
- 8. CONTRACTOR TO PROVIDE MANUF. RECOMMENDED PAD. CONDENSER PAD IS NOT TO BE SET TILL FINAL GRADE IS SET

ELECTRIC H	ELECTRIC HEATER SCHEDULE											
TAG	MANUFACTURER MODEL KW BTU VOLTS/Ø NOTES											
EH-1	RAYWALL	E3323TD-RP	1.5	5120	120/1	1,2,3,4,5						

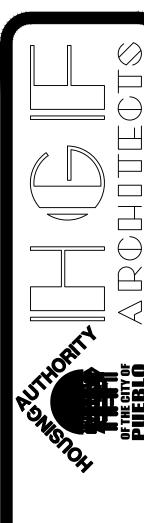
NOTES

- INTEGRAIL THERMOSTAT
- 2. SEMI-RECESSED MOUNT
- 3. DISCONNECT SWITCH 4. MOUNT 12" A.F.F
- 5. HEAVY DUTY GRILLE

EXHAUST FA	EXHAUST FAN SCHEDULE												
TAG	MANUFACTURER	MODEL	CFM MIN/MAX	ESP "WC	TYPE	DRIVE	SONES	WATTS	VOLTS/ø	NOTES			
EF-1	PANASONIC	FV-05-11VK2	50	0.25	CEILING	DIRECT	0.5	25	120/1	1,2,3,5			
EF-2	PANASONIC	FV-05-11VKS2	30	0.25	CEILING	DIRECT	0.5	25	120/1	1,2,3,6			
EF-3	PANASONIC	FV-05-11VKS2	30/80	0.25	CEILING	DIRECT	0.5	25	120/1	1,2,3,4,7			

NOTES

- 1. INCLUDES WHITE PLASTIC GRILLE
- 2. MEETS ENERGY STAR RATINGS AND ASHRAE STD 62.2
- 3. BACKDRAFT DAMPER
- 4. INCLUDE GRILLE MOUNTED OCCUPANCY SENSOR TO CONTROL FAN
- 5. SWITCH WITH LIGHT SWITCH
- 6. SET FAN TO OPERATE CONTINUOUSLY AT 30CFM
- 7. SET FAN TO OPERATE CONTINUOUSLY AT 30 CFM UNOCCUPIED AND 80 WHEN OCCUPIED



DATE **Ø4-16-2Ø19**

DRAWN **PLANT**

REVISIONS:

ENGINEERING CONSULTANTS 320 W FILLMORE SUITE 100 COLORADO SPRINGS CO 80907

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FIRE PROTECTION GENERAL NOTES

- A. FIRE PROTECTION CONTRACTOR SHALL PROVIDE A NEW HYDRAULICALLY CALCULATED FIRE SPRINKLER SYSTEM IN ACCORDANCE WITH THE LATEST EDITIONS OF UBC, UFC, AND NFPA-13R. COVERAGE WILL INCLUDE LIVING SPACES, MECHANICAL SPACES, AND ATTIC SPACES.
- B. FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF THE SYSTEM AND SHALL FURNISH TO THE ARCHITECT ALL DESIGN CALCULATIONS, SHOP DRAWINGS OF THE SYSTEM, AND CATALOG DATA OF ALL EQUIPMENT AS PART OF REQUIRED SUBMITTAL DATA IN SPECIFICATIONS.
- C. SHOP DRAWINGS SHALL INDICATE THE LOCATION OF ALL SPRINKLER HEAD AND PIPING COORDINATED WITH THE LOCATION OF ALL STRUCTURAL MEMBERS, HVAC EQUIPMENT, LIGHT FIXTURES, CEILING DIFFUSERS, REGISTERS AND PIPING.
- D. THE LAYOUT DESIGN, SUPERVISION, AND INSTALLATION OF FIRE PROTECTION SYSTEMS IS A TRADE IN ITSELF AND SHALL BE PERFORMED ONLY BY FULLY SKILLED, EXPERIENCED, AND RESPONSIBLE PARTIES. THE PROSPECTIVE FIRE PROTECTION CONTRACTOR MAY BE REQUIRED TO SHOW, TO THE SATISFACTION OF THE ARCHITECT, SUCH SKILL, EXPERIENCE, AND RESPONSIBILITY
- E. THE FIRE PROTECTION CONTRACTOR SHALL PERFORM WORK IN STRICT COMPLIANCE WITH THESE SPECIFICATIONS AND DRAWINGS, THE REQUIREMENTS OF THE STATE CERTIFIED SUPPRESSION INSPECTOR, AND ALL APPLICABLE CODES, ORDINANCES, STANDARDS, AND STATUTES IN EFFECT AT THE BUILDING SITE.
- F. ADHERE TO THE MOST RECENT EDITION OF THE FOLLOWING PUBLICATIONS: TOGETHER WITH THE LATEST REVISIONS, SUPPLEMENTS, AND AMENDMENTS THERETO:
- 1. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARD 13.
- UNDERWRITERS' LABORATORIES, INC. (UL), FIRE PROTECTION EQUIPMENT LIST.
 CITY OF PUEBLO FIRE AUTHORITY.
- G. THE FIRE PROTECTION CONTRACTOR SHALL OBTAIN AND PAY FOR ALL NECESSARY PERMITS PRIOR TO STARTING WORK. OBTAIN CERTIFICATES, APPROVALS, AND/OR ACCEPTANCES OF ALL INTERESTED PARTIES AND AUTHORITIES HAVING JURISDICTION.
- H. PIPING TO BE IRON, STEEL, OR CPVC, IN WEIGHTS AND GAUGES APPROVED BY NFPA 13 FOR USE IN FIRE PROTECTION SYSTEMS. FITTINGS SHALL BE APPROVED FOR USE WITH THE INSTALLED SPRINKLER PIPING, WITH A MINIMUM WORKING PRESSURE OF 175 PSI.
- I. NOTIFY OWNER, ARCHITECT, AND ALL AUTHORITIES HAVING JURISDICTION, NOT LESS THAN SEVENTY-TWO (72) HOURS PRIOR TO FINAL TESTING. DO NOT PERMIT INTERIOR PIPING TO BE CONCEALED IN ANY WAY UNTIL ALL HYDROSTATIC AND OTHER TESTS AND INSPECTIONS HAVE BEEN SATISFACTORILY COMPLETED. CONDUCT ALL TESTS IN ACCORDANCE WITH NFPA STANDARDS AND ALL APPLICABLE CODES AND ORDINANCES. PROVIDE ALL NECESSARY PERSONNEL, CORRECT ALL DEFECTS, DEFICIENCIES, REPAIR ALL LEAKS AND RE-TEST AS REQUIRED.
- J. REFER TO DRAWING P500# FOR WATER ENTRY DETAIL AND P111# FOR THE LOCATION OF THE WATER ENTRY ROOM. REFER TO WATER ENTRY DETAIL FOR SOLENOID THAT SHUTS OFF DOMESTIC SUPPLY IN THE EVENT OF A FIRE WATER EVENT. SOLENOID SHALL BE PIPED BY PLUMBING CONTRACTOR AND WIRED BY THE ELECTRICAL CONTRACTOR. GENERAL CONTRACTOR SHALL CONFIRM RESPONSIBILITY OF WORK TO GET SOLENOID WIRED AND WORKING. SOLENOID VALVE SHALL BE A 24VDC POWERED SOLENOID.

ABBREVIATIONS

ADDI	LVIATIONS
AAV/AV	AIR VENT
AC	AIR COMPRESSOR/ AIR CONDITIONER
ACU	AIR CONDENSING UNIT
AD	AIR DRIER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFS	AIRFLOW STATION
AHU	AIR HANDLING UNIT
AP	AIR PURIFIER
AT	AIR TANK
BCU	BATTERY COOLING UNIT
BFP	BACK FLOW PREVENTER
BOD	BOTTOM OF DUCT
CA	COMPRESSED AIR
CHWP	CHILLED WATER PUMP
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
CIRC	CIRCULATION
CRAC	COMPUTER ROOM AIR CONDITIONER
CT	COOLING TOWER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
DCW	DRAIN DOMESTIC COLD WATER
DCW DD	DUAL DUCT TERMINAL BOX
DDC	DIRECT DIGITAL CONTROLLER
DHW	DOMESTIC HOT WATER
DTW	DOMESTIC TEMPERED WATER
(E), EX	EXISTING
EA	EXHAUST AIR
EDH	ELECTRIC DUCT HEATER
EF/EX	EXHAUST FAN
EHC	ELECTRICAL HEATING CABINET
FB	FILTER BOX
FC	FAN COIL
G	NATURAL GAS
HWC	DOMESTIC HOT WATER RECIRCULATION
HWP	HOT WATER PUMP
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
MAU	MAKEUP AIR UNIT
MM	MINIMATE A/C UNIT
MR	MECHANICAL ROOM
MVD	MANUAL VOLUME DAMPER
MZU	MULTI ZONE UNIT
NA	NOT AVAILABLE
OA P	OUTSIDE AIR PUMP
•	PENTHOUSE
PENT PWU	PACKAGED WALL UNIT
RA	RETURN AIR
RD	REFRIGERANT DISCHARGE
RF	RETURN FAN
RP	RADIANT PANEL
RR	REST ROOM
RS	REFRIGERANT SUCTION
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
TA	TRANSFER AIR
TF	TRANSFER FAN
TOD	TOD OF DUCT

TOP OF DUCT UNIT HEATER

UNLESS NOTED OTHERWISE VARIABLE AIR VOLUME

PLUMBING LEGEND DESCRIPTION SYMBOL SOIL, WASTE, OR SANITARY ABOVE GRADE OR FLOOR SAN SOIL, WASTE, OR SANITARY _____ BELOW GRADE OR FLOOR _____ STORM DRAIN GW **GREASE WASTE** _____ VENT COLD WATER CW HOT WATER (110°F) HOT WATER CIRCULATING HWC TEMPERED WATER (110°F) NATURAL GAS **EXISTING PIPING** HATCH DENOTES TO BE REMOVED **ELBOW DOWN** ELBOW UP TEE DOWN TEE UP VALVE IN RISER UNION STRAINER WITH BLOWOFF VALVE REDUCER \bowtie BALL VALVE **BUTTERFLY VALVE** \bowtie GATE VALVE GLOBE VALVE ANGLE VALVE PLUG VALVE CHECK VALVE CALIBRATED BALANCING VALVE PRV PRESSURE REGULATING VALVE PRESSURE RELIEF VALVE BACKFLOW PREVENTER, DOUBLE CHECK DCBFP BACKFLOW PREVENTER, REDUCED PRESSURE WATER HAMMER ARRESTER FD FLOOR DRAIN FS FLOOR SINK FCO FLOOR CLEANOUT FDC FIRE DEPARTMENT CONNECTION WALL CLEANOUT WCO **HOSE BIBB** FLOOR OR WALL PENETRATION (ISOMETRIC) CONNECT NEW TO EXISTING FIXTURE OR EQUIPMENT CALLOUT (SEE SCHEDULE) (E) **EXISTING**

NEW

RELOCATED

PLUMBING GENERAL NOTES (2015)

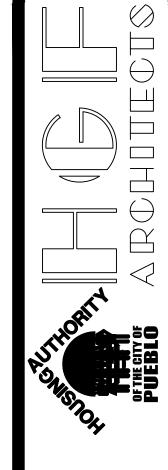
- A. ALL PLUMBING SHALL BE INSTALLED IN ACCORDANCE WITH 2015 INTERNATIONAL PLUMBING CODE (INCLUDE FOR LOCAL) AND PPRBD AMENDMENTS.
- B. NOT ALL EXISTING PIPING, AND ACCESSORIES ARE NECESSARILY SHOWN ON THIS DRAWING, BUT WHAT IS DEEMED NECESSARY TO SHOW INTENT OF WORK INVOLVED IN THIS PROJECT. REFER TO ALL PLANS, SECTIONS, DETAILS, SCHEDULES AND SPECIFICATIONS FOR COMPLETE SYSTEM REQUIREMENTS.
- C. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO ORDERING OR FABRICATION OF MATERIAL OR PERFORMING ANY NEW WORK. DEVIATIONS FROM CONDITIONS SHOWN IN THESE PLANS SHALL BE REPORTED TO THE PROJECT MANAGER IMMEDIATELY AND NO WORK SHALL BE PERFORMED IN THIS AREA UNTIL A RESOLUTION HAS BEEN ESTABLISHED. SITE CONDITIONS DIFFERING FROM THOSE SHOWN ON THESE PLANS WILL NOT BE GENERALLY CONSIDERED A BASIS FOR CONTRACT MODIFICATION AS THE CONTRACTOR SHALL TAKE INTO ACCOUNT WORST CASE SITE CONDITIONS WHEREVER POSSIBLE.
- D. COORDINATE ALL PENETRATIONS OF FLOOR, ROOF, WALLS, ETC. WITH GENERAL CONTRACTOR. ALL PENETRATIONS THROUGH FIRE/SMOKE RATED CONSTRUCTION SHALL BE SEALED IN ACCORDANCE WITH SECTION 717 OF THE 2015 INTERNATIONAL BUILDING CODE. ALL PIPING PENETRATIONS THROUGH FLOORS SHALL BE SEALED WATER TIGHT BY GROUTING PERIMETER GAP BETWEEN PIPE AND FLOOR STRUCTURE, OR BY USING APPROVE UL SLEEVE AND SEALER SYSTEM. PENETRATIONS OF RATED WALLS SHALL USE SLEEVE WITH UL APPROVED FIRE SEALANT.

SEAL ROOF PENETRATIONS WATERTIGHT WITH ROOF SYSTEM COMPATIBLE WITH ROOFING.

- E. MOUNT HANDICAPPED FIXTURES AT HEIGHTS ABOVE THE FINISHED FLOOR AS DIRECTED BY AMERICANS WITH DISABILITIES ACT AND STATE BUILDING CODES, INCLUDE OFFSET TAILPIECE AND TRUBRO LAV-GUARD INSULATION KIT.
- F. INSULATE ALL HOT AND COLD WATER TO FIXTURES IN ACCORDANCE WITH 2015 INTERNATIONAL ENERGY CODE. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL INSULATION REQUIREMENTS.
- G. FURNISH AND INSTALL INDIVIDUAL STOPS (SHUT-OFF VALVES) FOR EACH PLUMBING FIXTURE.
- H. PROVIDE ACCESS DOORS OR OTHER MEANS OF APPROVED ACCESS TO ALL ISOLATION VALVES, TRAP PRIMERS, AND WATER HAMMER ARRESTORS.
- I. COLD WATER PIPING LOCATED IN CRAWL SPACE TYPE L HARD DRAWN COPPER TUBING CONFORMING TO ASTM B-88 WITH SWEAT JOINTS AND CAST OR WROUGHT FITTINGS. JOINTS SHALL BE MADE WITH LEAD FREE SOLDER. WATER PIPING PENETRATIONS SHALL BE PROTECTED WITH PLASTIC SLEEVES. ALL DISTRIBUTION PIPING LOCATED WITHIN INDIVIDUAL UNITS SHALL BE CROSS LINKED PEX PIPING WITH SPECIFIC MANUFACTURER FITTINGS.
- J. SANITARY PIPING SHALL BE SCHEDULE 40 DWV PVC WITH SOLVENT JOINTS. ALL SANITARY PIPING SHALL BE SLOPED AT 1/4" PER FOOT MINIMUM. PVC PIPING SHALL NOT BE USED IN RETURN AIR PLENUM
- K. FIELD VERIFY ACTUAL LOCATIONS OF EXISTING PIPING FOR NEW TIE-INS. FIELD VERIFY AND COORDINATE WITH CIVIL ENGINEERING DRAWINGS FOR LOCATION AND INVERT ELEVATION OF EXISTING SANITARY AND WATER PIPING.
- L. FURNISH AND INSTALL ALL REQUIRED COMPONENTS INCLUDING TRAPS, TAIL-PIECES, CARRIERS AND SUPPORTS. PROVIDE ALL FLOOR DRAINS AND FLOOR SINKS WITH TRAP GUARDS.
- M. PLUMBING CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND PAY ALL FEES RELATED TO PROJECT
- N. COORDINATE FINAL LOCATION OF PIPING WITH ALL OTHER TRADES BEFORE FABRICATION OR INSTALLATION.
- O. INSULATE DOMESTIC WATER LINES IN ACCORDANCE WITH 2015 IECC.
- P. ALL SANITARY LINES SHALL BE VENTED IN ACCORDANCE WITH 2015 INTERNATIONAL PLUMBING CODE.
- Q. IN ACCORDANCE WITH 2015 INTERNATIONAL PLUMBING CODE SECTION 603.1, BUILDING SUPPLY PIPING LESS THAN 3/4" NOT ALLOWED. MINIMUM SIZES OF WATER SUPPLY PIPES TO FIXTURES SHALL BE PER 2015 IPC TABLE 604.5.
- R. ALL HOSE BIBBS AND WALL HYDRANTS SHALL BE EQUIPPED WITH APPROVED AND PROPERLY INSTALLED ATMOSPHERIC TYPE VACUUM BREAKER.
- S. ALL VENTS THROUGH ROOF SHALL BE MINIMUM OF THREE FEET VERTICALLY AND TEN FEET HORIZONTALLY FROM AIR CONDITIONING EQUIPMENT FRESH AIR INTAKES, WINDOW, DOOR OR OTHER OPENINGS
- T. SEPARATE 8-1/2"X11" SPECIFICATIONS FORM A PART OF THESE DOCUMENTS.
- U. TRENCHES INSTALLED PARALLEL TO FOOTINGS SHALL NOT EXTEND BELOW THE 45° BEARING PLANE OF THE FOOTING WALL.
- V. SEE ARCHITECTURAL DRAWINGS FOR EXACT PLUMBING FIXTURE LOCATIONS AND QUANTITIES.
- W. CLEANOUTS SHALL BE INSTALLED PER 2015 INTERNATIONAL PLUMBING CODE.
- X. CONTRACTOR SHALL KEEP HIS WORK, AND ADJACENT AREAS AFFECTED, FREE AND CLEAR FROM ALL DEBRIS CAUSED BY THE WORK OF THIS SECTION. DURING AND UPON COMPLETION OF WORK HEREIN SPECIFIED, REMOVE FROM BUILDING AND SITE ALL DEBRIS, UNUSED MATERIALS, AND EQUIPMENT CAUSED BY WORK OF THIS SECTION AND LEAVE WORK IN A CLEAN, ACCEPTABLE
- Y. ALL FLAT VENTS SHALL HAVE CLEANOUTS PER 2015 INTERNATIONAL PLUMBING CODE.
- Z. ALL FLOOR SINKS, FLOOR DRAINS, AND FUNNEL DRAINS RECEIVING THE DISCHARGE OF INDIRECT WASTE PIPES SHALL BE LOCATED WHERE THEY ARE READILY ACCESSIBLE.

PLUMBING SHEET INDEX								
SHEET	TITLE							
PLUMBING BUILD	ING TYPE C							
P001C	PLUMBING NOTES AND LEGEND							
P111C	PLUMBING BUILDING C WATER PLAN FIRST FLOOR							
P112C	PLUMBING BUILDING C WATER PLAN SECOND FLOOR							
P121C	PLUMBING BUILDING C SANITARY PLAN FIRST FLOOR							
P122C	PLUMBING BUILDING C SANITARY PLAN SECOND FLOOR							
P500C	PLUMBING BUILDING C DETAILS							
P610C	PLUMBING BUILDING C SCHEDULES							





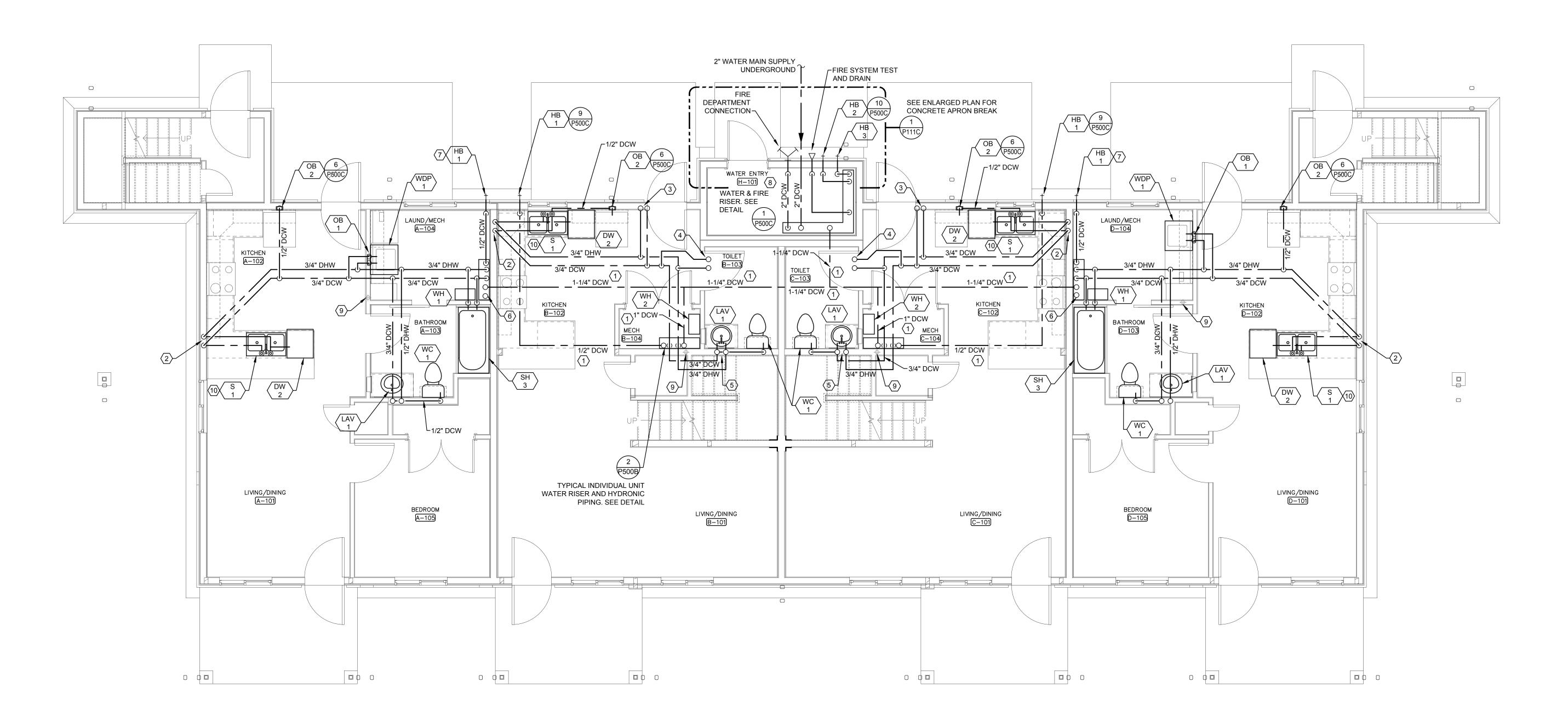
MOUNTAIN VIEW TOWNH PROJECT No. I.F.B. 19-522-F

04-16-2019

PLANT

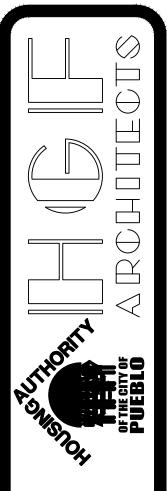
KEYED NOTES

- PIPE IS ROUTED IN CRAWL SPACE. ROUTE PIPE HIGH AND TIGHT IN CRAWL SPACE AND SUPPORT PIPE FROM CRAWL SPACE CEILING. DOMESTIC WATER SUPPLY PIPE IN CRAWL SPACE SHALL BE COPPER TYPE L PIPE MATERIAL.
- 2 3/4" DCW/DHW PIPING ROUTED DOWN INTERIOR WALL AND UNDER KITCHEN CASEWORK TO SUPPLY SINK, DISHWASHER, AND REFRIGERATOR OUTLET BOX FIXTURES.
- (3) 1/2" DCW/DHW SUPPLY UP TO OUTLET BOX FIXTURE. ROUTE PIPE IN CEILING AND UP INTO SECOND FLOOR WALL. SEE CONTINUATION ON SECOND FLOOR PLAN.
- 4 1/2" DCW/DHW SUPPLY UP TO SHOWER FIXTURE. ROUTE PIPE IN CEILING AND UP INTO SECOND FLOOR WALL. SEE CONTINUATION ON SECOND FLOOR PLAN.
- 3/4" DCW/DHW SUPPLY UP TO SECOND FLOOR BATHROOM (WATER CLOSET AND LAVATORY FIXTURE). ROUTE PIPE UP IN WALL INTO SECOND FLOOR WALL. SEE CONTINUATION ON SECOND FLOOR PLAN.
- THE WATER RISER ON THE FIRST FLOOR SHALL PROVIDE A 1" DCW SUPPLY TO SECOND FLOOR UNIT WATER RISER. SEE NOTE IN DETAIL 2 ON SHEET P500C.
- HOSE BIBB SUPPLY PIPING IS ROUTED IN MECHANICAL SPACE AND NOT IN CRAWL SPACE. PIPE SHALL BE EXPOSED ON INTERIOR WALL.
- ELECTRICAL, IRRIGATION, FIRE, PLUMBING CONTRACTORS (AND OTHERS IF THEY APPLY) SHALL COORDINATE THE LOCATION OF EQUIPMENT IN THE WATER ENTRY ROOM. EQUIPMENT AND PIPE ROUTING SHALL BE CONSISTENT BETWEEN THE DIFFERENT BUILDINGS AND BUILDING TYPES.
- RADON PIPE FROM CRAWL SPACE TO ROOF. SEE ARCHITECTURAL SHEETS FOR LOCATION AND SIZE. COORDINATE LOCATION OF RADON VENT PIPE WITH PLUMBING PIPING IN WALL.
- KITCHEN SINKS HAVE TWO BASINS, ONE WITH A GARBAGE DISPOSAL AND ONE WITHOUT. CONTRACTOR SHALL MAKE
 THE NON GARBAGE DISPOSAL BASIN TO BE CONSTRUCTED SO THAT A FUTURE MODIFICATION CAN BE DONE TO MAKE
 IT ADA COMPLIANT (RECESSED CASEWORK, OFFSET P-TRAP AND DRAIN, AND INSULATION). OWNER SHALL NOTE THAT
 SINK BASINS WITH GARBAGE DISPOSAL SHALL NOT BE ADA COMPLIANT UNLESS GARBAGE DISPOSAL IS REMOVED.









MOUNTAIN VIEW LOWINHOME;
PROJECT No. I.F.B. 19-522-RAD

DATE Ø4-16-2019 DRAWN PLANT CHECK

CHECK RL REVISIONS:

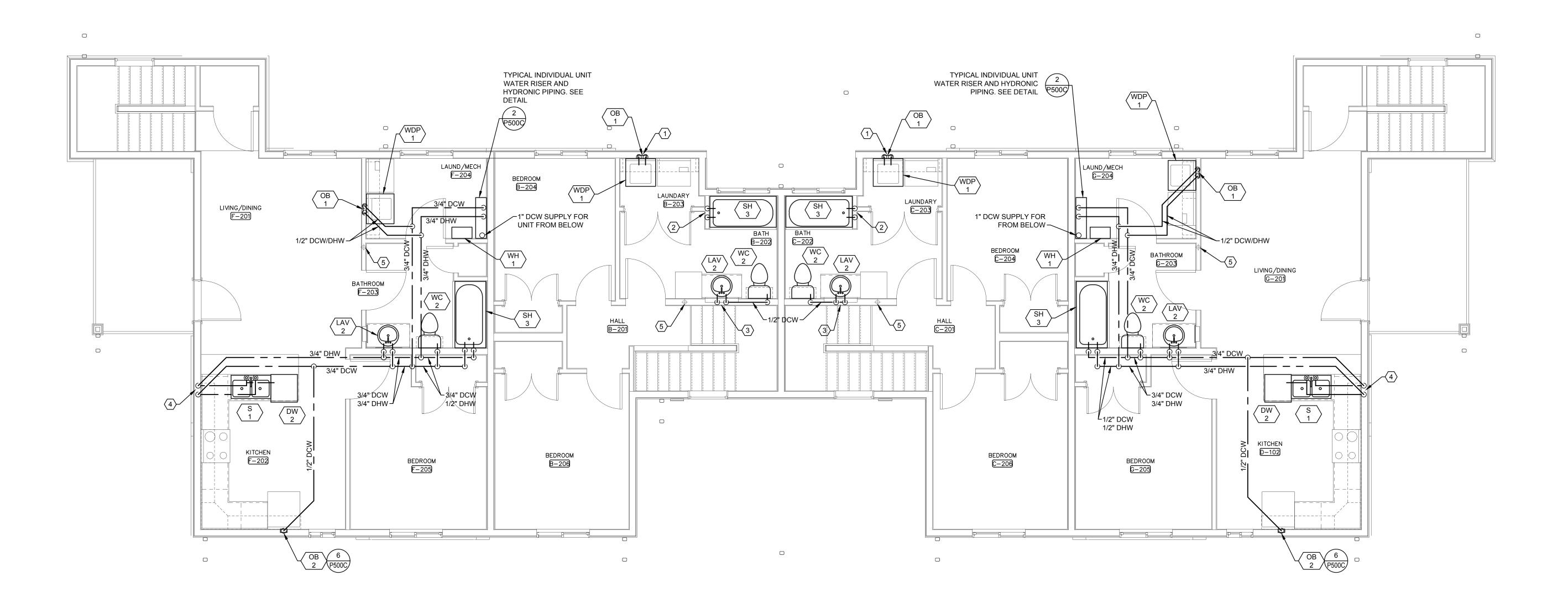


2 1/2" DCW/DHW SUPPLY FROM BELOW. FEED PIPE FROM CEILING OF FIRST FLOOR UP TO SHOWER FIXTURE. SEE FIRST FLOOR PLAN.

3/4" DCW/DHW SUPPLY FROM BELOW. FEED PIPE FROM CEILING OF FIRST FLOOR UP TO WATER CLOSET AND LAVATORY FIXTURE. SEE FIRST FLOOR PLAN.

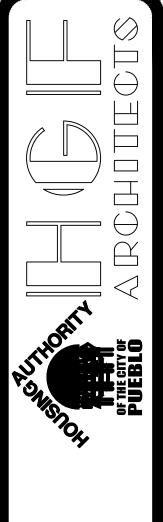
3/4" DCW/DHW PIPING ROUTED DOWN INTERIOR WALL AND UNDER KITCHEN CASEWORK TO SUPPLY SINK, DISHWASHER, AND REFRIGERATOR OUTLET BOX FIXTURES.

RADON PIPE FROM CRAWL SPACE TO ROOF. SEE ARCHITECTURAL SHEETS FOR LOCATION AND SIZE. COORDINATE LOCATION OF RADON VENT PIPE WITH PLUMBING PIPING IN WALL.



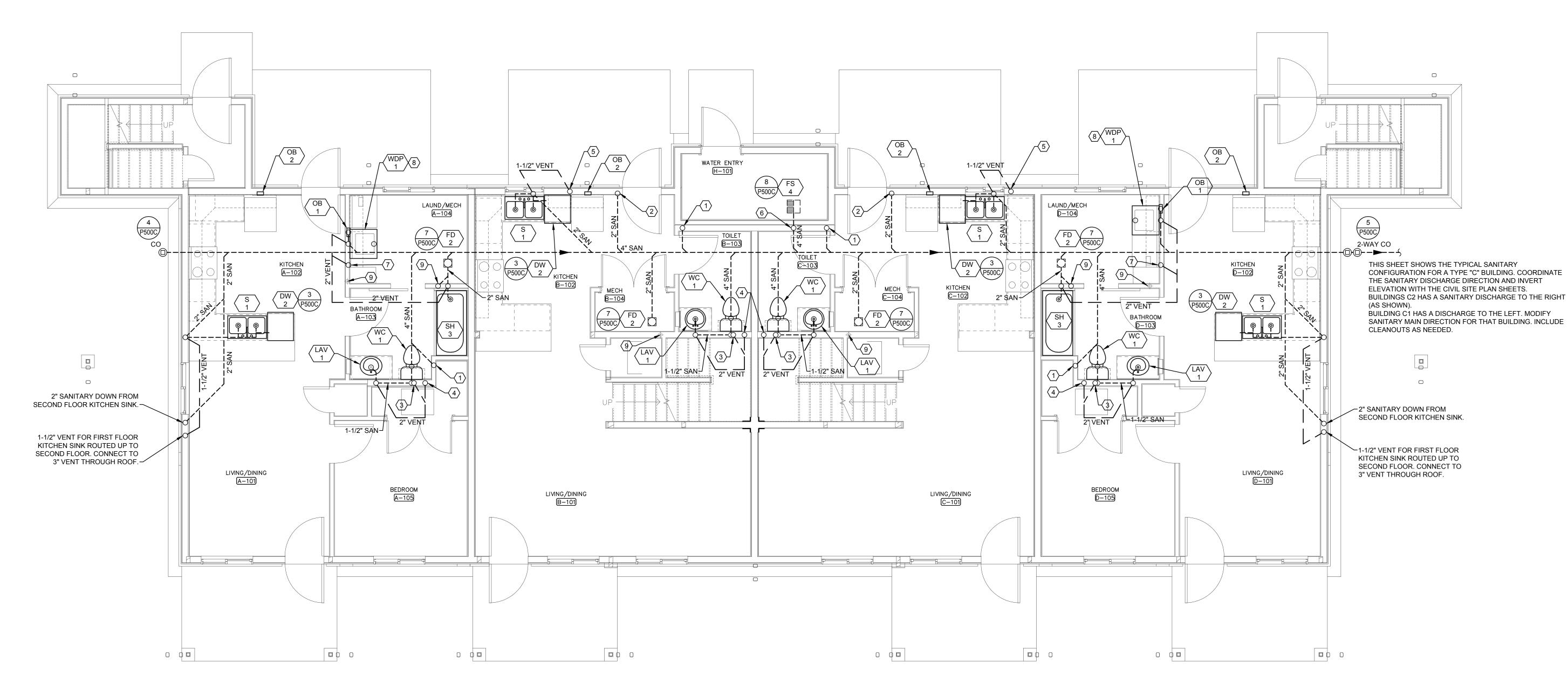






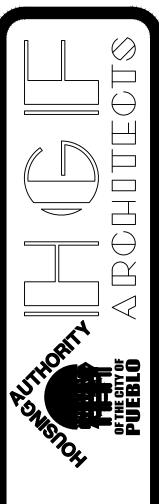
DATE **04-16-2019** DRAWN **PLANT**

- 2" SANITARY UP TO SHOWER ON SECOND FLOOR. SEE SECOND FLOOR PLAN.
- 2" SANITARY UP TO CLOTHES WASHER OUTLET BOX. SEE SECOND FLOOR PLAN.
- 4" SANITARY UP TO WATER CLOSET AND LAVATORY ON SECOND FLOOR. SEE SECOND FLOOR PLAN.
- 2" VENT PIPE FOR FIRST FLOOR WATER CLOSET AND LAVATORY ROUTED UP TO SECOND FLOOR. COMBINE WITH SECOND FLOOR WATER CLOSETS AND LAVATORIES, AND CONNECT TO 3" VENT THROUGH ROOF.
- 5 1-1/2" VENT PIPE FOR FIRST FLOOR KITCHEN SINK ROUTED UP TO SECOND FLOOR. COMBINE WITH CLOTHES WASHER AND SHOWER VENT PIPE, AND CONNECT TO 3" VENT THROUGH ROOF.
- 6 2" VENT PIPE FOR WATER ENTRY ROOM FLOOR SINK ROUTED UP TO SECOND FLOOR. CONNECT TO 3" VENT THROUGH ROOF.
- 2" VENT PIPE FOR FIRST FLOOR CLOTHES WASHER AND OTHER FIXTURES ROUTED UP TO SECOND FLOOR. CONNECT TO 3" VENT THROUGH ROOF.
- (8) 1" WASHER DRAIN PAN IS BELOW BUILDING GRADE. PAN SHALL DRAIN TO GRADE IN CRAWLSPACE.
- PADON PIPE FROM CRAWL SPACE TO ROOF. SEE ARCHITECTURAL SHEETS FOR LOCATION AND SIZE. COORDINATE LOCATION OF RADON VENT PIPE WITH PLUMBING PIPING IN WALL.





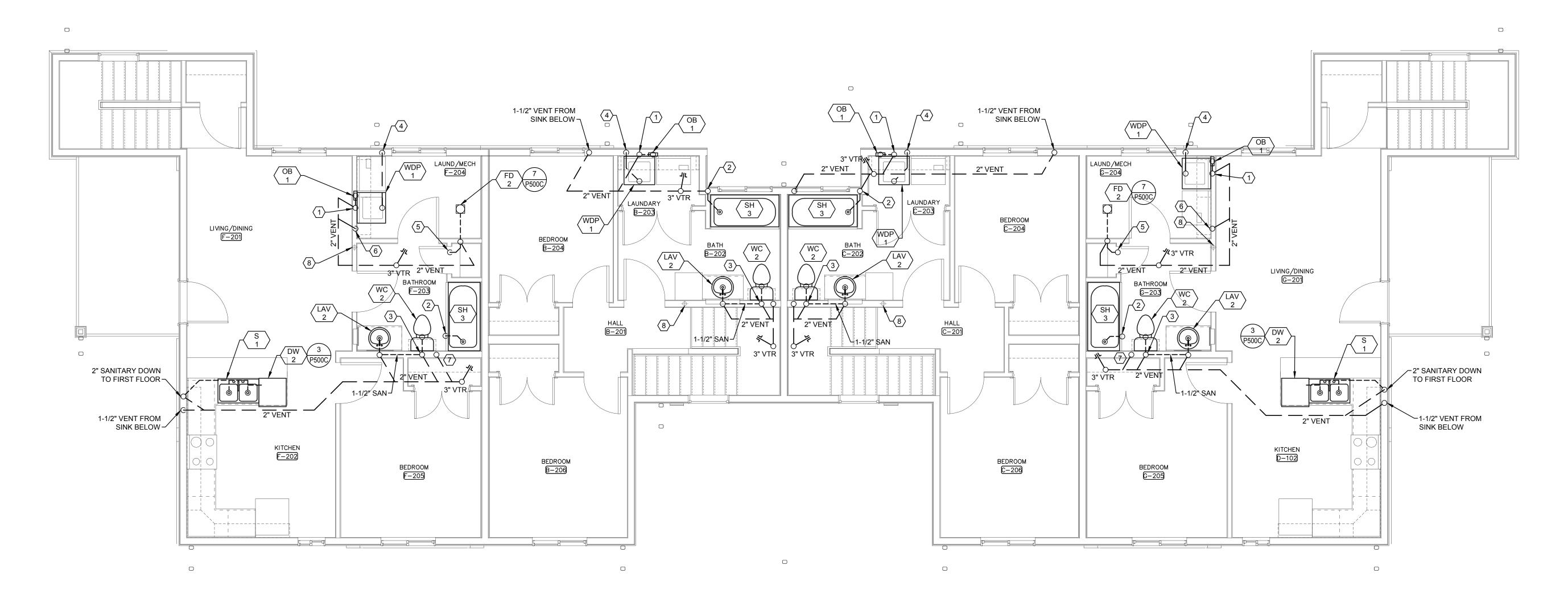




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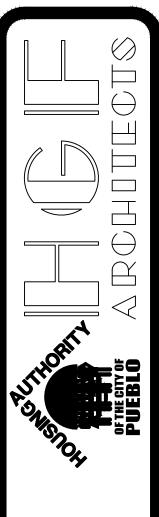
SHEET P121C

- ROUTE 2" SANITARY DOWN TO LOWER FLOOR FOR CLOTHES WASHER OUTLET BOX. SEE FIRST FLOOR PLAN. ROUTE 1-1/2" VENT UP TO 2" COMMON VENT PIPE.
- ROUTE 2" SANITARY DOWN TO LOWER FLOOR FOR SHOWER . SEE FIRST FLOOR PLAN. ROUTE 1-1/2" VENT UP TO 2" COMMON VENT PIPE.
- ROUTE 4" SANITARY DOWN TO LOWER FLOOR FOR WATER CLOSET AND LAVATORY AND/OR SHOWER. SEE FIRST FLOOR PLAN. ROUTE VENT PIPE UP TO 2" COMMON VENT PIPE.
- ROUTE 1" WASHER DRAIN PAN LINE THROUGH JOISTS, DOWN WALLS, AND DAYLIGHT NEAR GRADE.
- (5) ROUTE 5" SANITARY DOWN FROM FLOOR DRAIN TO LOWER FLOOR. SEE FIRST FLOOR PLAN.
- 6 2" VENT UP FROM FIRST FLOOR CLOTHES WASHER OUTLET BOX, SHOWER, AND FLOOR DRAIN. SEE FIRST FLOOR PLAN.
- 2" VENT FROM BELOW. CONNECT TO 2" VENT COMMON VENT PIPE AND TO 3" VENT THROUGH ROOF.
- RADON PIPE FROM CRAWL SPACE TO ROOF. SEE ARCHITECTURAL SHEETS FOR LOCATION AND SIZE. COORDINATE LOCATION OF RADON VENT PIPE WITH PLUMBING PIPING IN WALL.









MOUNIAIN VIEW IOWNHOMES
PROJECT No. I.F.B. 19-522-RAD

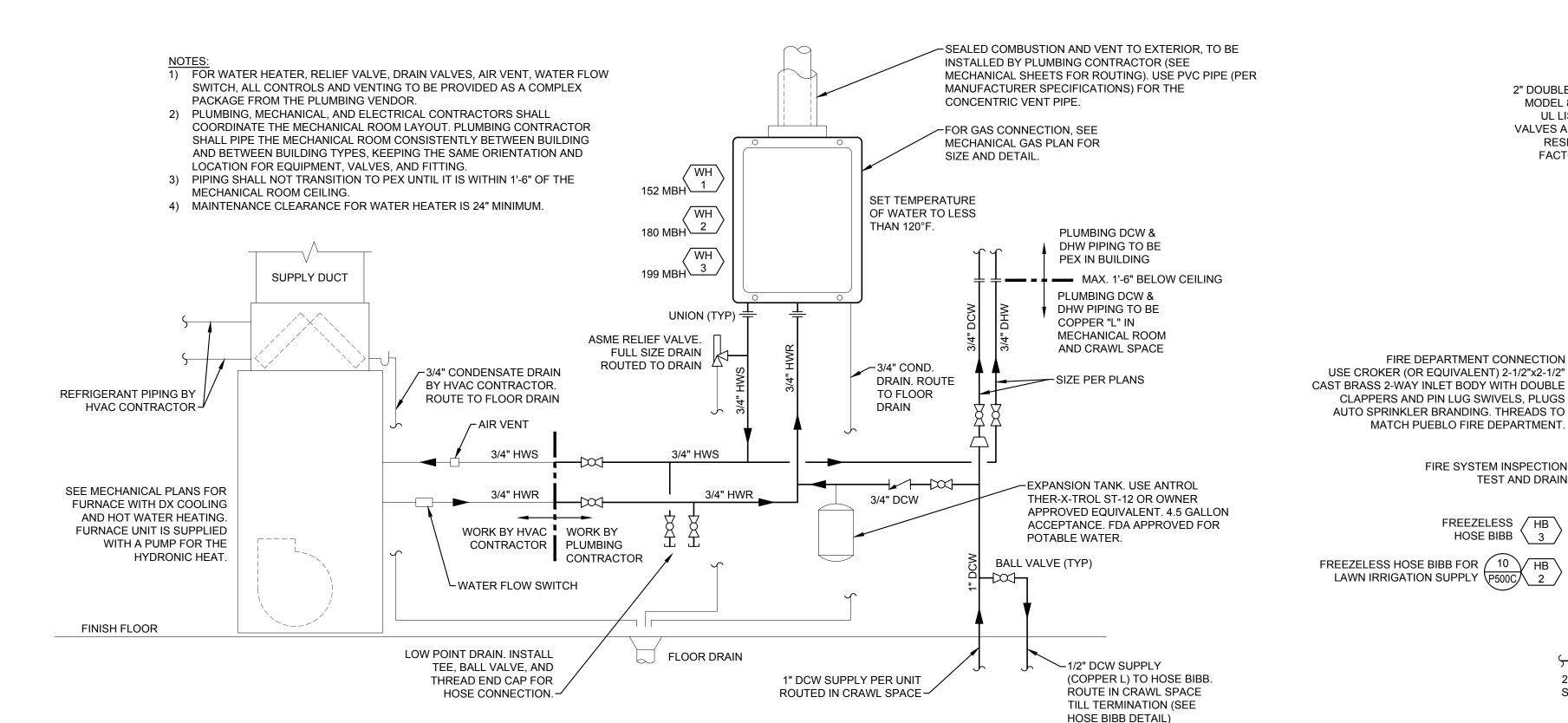
DATE Ø4-16-2019 DRAWN PLANT CHECK

REVISIONS:

SHEET P122C

PLANT REVISIONS:

www.planteci.com



✓ DCW SUPPLY WITH INTEGRAL WATER

FINISH FLOOR

OUTLET BOX

· 表示公司的 1000 (1000) · 数据 1000 (1000) · 数据 1000 (1000)

HAMMER AND VALVE

DOMESITC HYDRONIC PIPING DIAGRAM

- FLOOR DRAIN

-SELF SEALING

FLEXIBLE TUBE

-NO HUB

RUBBER

SLEEVE

NOT TO SCALE

FLOOR DRAIN WITH TRAP GUARD SEAL

INSTALL "TRAP GUARD" PER

MANUFACTURERS INSTALLATION

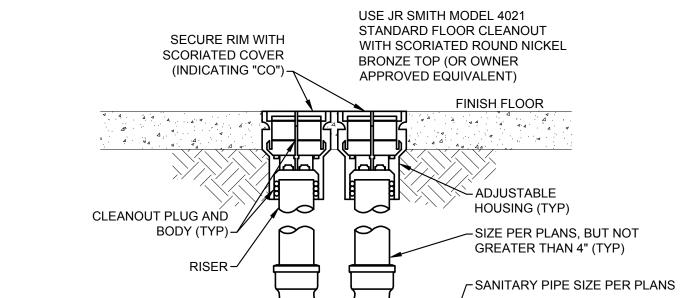
NUMBER TO MATCH FLOOR DRAIN MANUFACTURER. TRAP GUARD AS

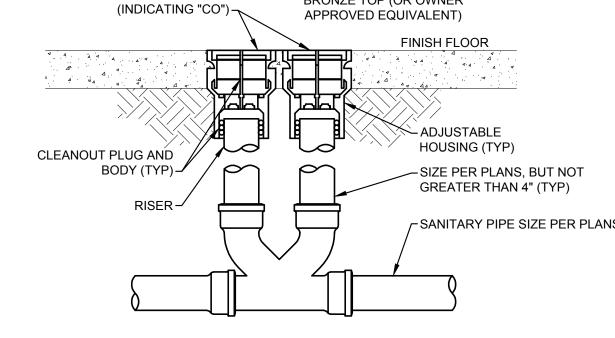
INSTRUCTIONS. PROVIDE PART

MANUFACTURED BY PROSET

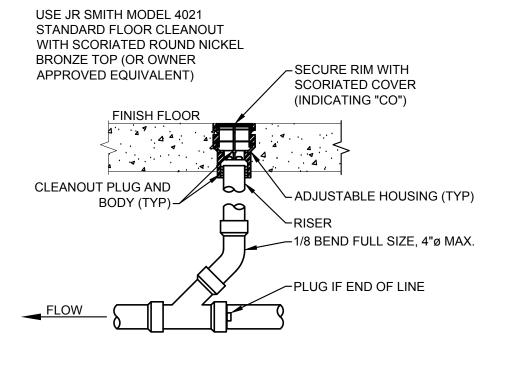
SYSTEMS INC. TEL. 800-262-5355-

NOT TO SCALE









2" DOMESTIC WATER

SUPPLY TO BUILDING

WATER ENTRY ROOM DETAIL - DCW AND FIRE PIPING

2" DOUBLE CHECK VALVE ASSEMBLY. USE FEBCO

VALVES AND CHECK VALVES WITH FOUR VANDAL

FIRE DEPARTMENT CONNECTION

USE CROKER (OR EQUIVALENT) 2-1/2"x2-1/2"

CLAPPERS AND PIN LUG SWIVELS, PLUGS <

MATCH PUEBLO FIRE DEPARTMENT. \

FIRE SYSTEM INSPECTION

FREEZELESS / HB

HOSE BIBB \ 3

TEST AND DRAIN \triangle

AUTO SPRINKLER BRANDING. THREADS TO

NOT TO SCALE

FREEZE-PROOF

HOSE BIBB

MODEL 850 2" (OR EQUIVALENT) BRONZE BODY.

UL LISTED COMPLETE ASSEMBLY WITH BALL

RESISTANT FULL PORT VALVE TEST COCKS.

FACTORY TESTED ASSEMBLED AND TESTED.-

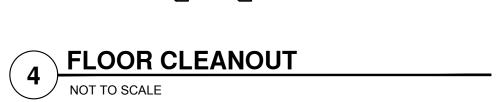
2" PIPE FOR FDC

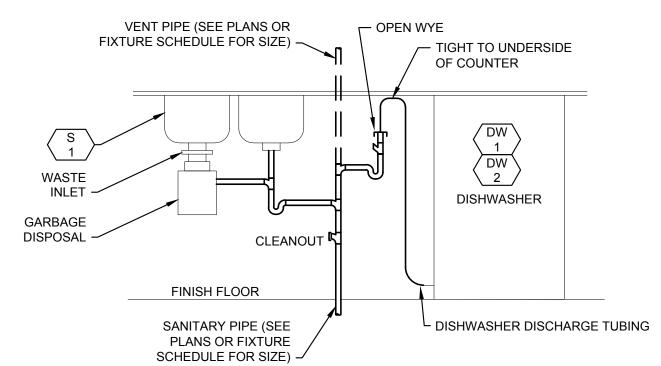
1-1/4" PIPE FOR DRAIN

STRAINER

PRESSURE

INDICATOR







FIXTURE DRAIN PIPE

AIR GAP = $2 \times Dia$

∽PVC WASTE PIPE

WATER ENTRY ROOM

FLOW

SWITCH

1-1/4" DCW

1/2" DCW

3/4" DCW

☐ FLOOR SINK

-BUTTERFLY VALVE WITH

BALL

VALVE

(TYP)

TAMPER SWITCH

2" FIRE WATER SUPPLY TO

LABEL PIPE THROUGHOUT BUILDING

INCLUDE ATTIC IN FIRE SPRINKLER

SPRINKLER SYSTEM.

AS "FIRE PIPE".

1-1/4" WATER SUPPLY TO UNITS.

COPPER "L" PIPE MATERIAL.

INDIVIDUAL MECHANICAL ROOMS.

ROUTE THROUGH CRAWL SPACE TO

DESIGN.

CHECK VALVE

WITH BALLDRIP -

L-1-1/4" SOLENOID VALVE (NORMALLY OPEN, 24VDC POWERED

FROM FIRE CONTROL PANEL). VALVE CLOSES WHEN FIRE

FLOW SWITCH IS ACTIVE. PLUMBING CONTRACTOR SHALL

PIPE VALVE AND ELECTRICAL CONTRACTOR SHALL WIRE

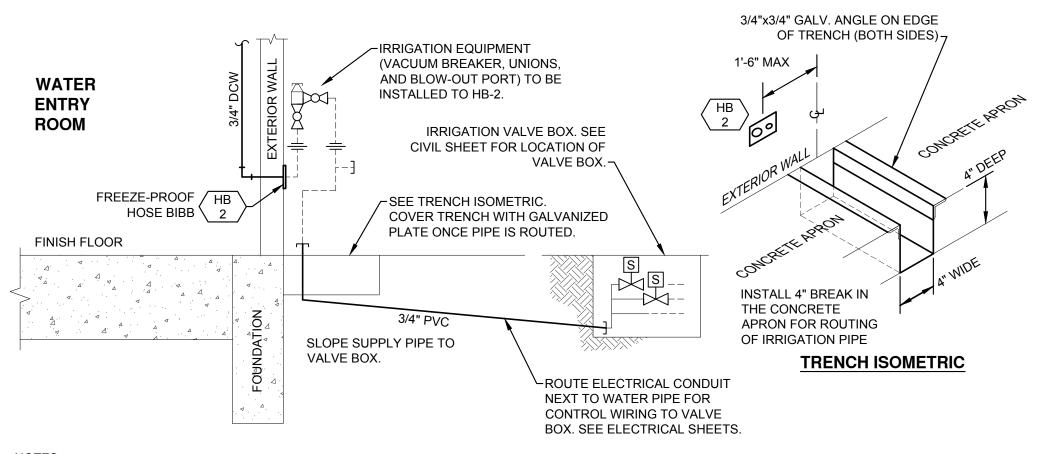
VALVE TO FIRE FLOW SWITCH. COORDINATE WITH

ELECTRICAL SHEETS.

AIR GAP FUNNEL

TO FLOOR

DRAIN



1) GENERAL CONTRACTOR SHALL GET 4" BREAK IN THE CONCRETE APRON. GENERAL CONTRACTOR SHALL HAVE UNDERGROUND PIPE, FROM TRENCH TO VALVE BOX, INSTALLED AT TIME OF CONCRETE WORK. INSTALL THREADED CAP AT END THAT PENETRATES INTO THE VALVE BOX AND THREADED CAP THE OTHER PIPE END 2" ABOVE TRENCH. 2) PLUMBING CONTRACTOR SHALL PIPE AND INSTALL HB-2 ON EXTERIOR WALL. IRRIGATION

CONTRACTOR SHALL CONNECT IRRIGATION EQUIPMENT ABOVE TRENCH, AND CONNET TO UNDERGROUND PVC PIPE. LOCATE ABOVE GROUND EQUIPMENT TIGHT TO EXTERIOR WALL AND DOWN INTO TRENCH. COVER TRENCH WITH GALVANIZED SHEET.

HOSE BIBB WATER ROUTING

CRAWL SPACE

FINISH FLOOR

1/2" DCW (COPPER) ROUTED THROUGH

EXTERIOR WALL. COORDINATE WITH

SPACE. CONTRACTOR SHALL LOCATE

CRAWL SPACE AND PENETRATED THROUGH

FINISH FLOOR, THEN PENETRATES THROUGH

ARCHITECT FOR PIPE IS EXPOSED IN LIVING

EXPOSED PIPE IN CASEWORK IF POSSIBLE.-

FLOOR JOIST

1/2" DCW

FLOOR SINK W/ TRAP GUARD AND AIR GAP

FLOOR GRATE (RECESS

INCLUDE OPTION FOR

INSTALL "TRAP GUARD" PER

MANUFACTURERS INSTALLATION

INSTRUCTIONS. PROVIDE PART NUMBER

PROSET SYSTEMS INC. TEL. 800-262-5355 -

TRAP GUARD AS MANUFACTURED BY

TO MATCH FLOOR DRAIN MANUFACTURER.

REMOVABLE SEDIMENT

FLUSH WITH FLOOR) -

BUCKET ~

· 4 · 4 · 4 · 4 · 4 ·







PLUMBING FIXTURE UNIT	TABULATION -	- BUILDING (
	IABOLATION	DOILDING

	TOTAL	CW SUPPLY		HW SUPPLY		TOTAL SUPF	PLY	DRAINAGE U	INITS
FIXTURE (IPC E103.3(2) AND 709.1)	FIXTURES	PER FIXTURE	TOTAL UNITS	PER FIXTURE	TOTAL UNITS	PER FIXTURE	TOTAL UNITS	PER FIXTURE	TOTAL UNITS
BATHTUB - PRIVATE	6	1	6	1	6	1.4	8.4	2	12
DISHWASHING MACHINE	6	0	0	1.4	8.4	1.4	8.4	2	12
HOSE BIBB	4	5	20	0	0	5	20	0	0
KITCHEN ICE MAKER	6	0.25	1.5	0	0	0.25	1.5	0	0
FLOOR DRAIN - EMERGENCY	7	0	0	0	0	0	0	0	0
KITCHEN SINK - PRIVATE	6	1	6	1	6	1.4	8.4	2	12
LAVATORY	8	0.5	4	0.5	4	0.7	5.6	1	8
WASHING MACHINE - 8 LB PRIVATE	6	1	6	1	6	1.4	8.4	2	12
WATER CLOSET, FLUSH TANK, PRIVATE	8	2.2	17.6	0	0	2.2	17.6	3	24

CW FIXTURE UNITS @ 50 FEET DEVELOPMENT LENGTH PER 2015 IPC TABLE E201.1 PROVIDE 1" METER (SERVICE SIZE) AND 1-1/4" DISTRIBUTION PIPE

DRAINAGE FIXTURE UNITS

PER 2015 IPC TABLE 710.1(1) REQUIRES 4" SANITARY MAIN

PLUMBING FIXTURE SCHEDULE - BUILDING C

			MINII	MUM CONNEC	TION SIZE (in.)		
MARK	DESCRIPTION		WASTE	VENT	COLD WATER	HOT WATER	NOTES
DW-2	DISHWASHER MANUF/MODEL/COLOR	ENGERGY STAR COMPLIANT GE BUILT-IN DISHWASHER. MODEL GDF530PGMWW. WHITE.	1-1/2"	1-1/4"		1/2"	(1)
	ACCESSORIES	PROVIDE WITH DRAIN HOSE AND ELECTRICAL CONNECTION					
FD-2	FLOOR DRAIN		2"	1-1/2"			
	TYPE MANUF/MODEL/FINISH	SQUARE GRATE, MEDIUM DUTY, CAST IRON BODY J.R. SMITH. 2270Y-S-NB. SQUARE NICKEL BRONZE. 2" NO-HUB OUTLET					
	OPTIONS	INCLUDE TRAP GUARD PER DETAIL. FLOOR DRAIN WITH SEDIMENT BUCKET.					
FS-4	FLOOR SINK		4"	2"			
	TYPE MANUF/MODEL/FINISH	SQUARE CAST IRON FLANGED RECEPTOR WITH NICKEL BRONZE TOP, GENERAL SERVICE J.R. SMITH / 3151Y-12-PDBS. 4" NO HUB OUTLET. WITH SEDIMENT BUCKET					
	OPTIONS	INCLUDE TRAP GUARD PER DETAIL.					
	CI TICINO	INGEGEE TIVE GOVERN ENDETVIE.					
HB-1	HOSE BIBB				1/2"		
	TYPE	FREEZE-PROOF WALL FAUCET					
	MANUF/MODEL ACCESSORIES / NOTES	WOODFORD 25. AUTOMATIC DRAWING WITH VACUUM BREAKING. 3/4" HOSE THREAD OUTLET. HAND OPERATED WHEEL HANDLE					
	ACCESSORIES / NOTES	3/4 HOSE THREAD OUTLET. HAND OPERATED WHEEL HANDLE					
HB-2	HOSE BIBB				1/2"		
	TYPE	FREEZE-PROOF WALL HYDRANT FOR IRRIGATION SYSTEM CONNECTION.					
	MANUF/MODEL	WOODFORD 32. AUTOMATIC DRAWING WITH VACUUM BREAKING.					
	ACCESSORIES / NOTES	3/4" NPT THREADED OUTLET. LOOSE TEE KEY FOR TURNING ON/OFF.					
HB-3	HOSE BIBB	1			1/2"		
	TYPE	FREEZE-PROOF WALL HYDRANT	1		175		
	MANUF/MODEL	WOODFORD 67. AUTOMATIC DRAWING WITH VACUUM BREAKING.					
	ACCESSORIES / NOTES	3/4" HOSE THREAD OUTLET. LOOSE TEE KEY FOR TURNING ON/OFF.					
1.037.4	LAVATORY		4.4/01	4 4 / 4 !!	4 (0)	4 /0!!	(2) (4) (0)
LAV-I	LAVATORY TYPE	DROP-IN LAVATORY WITH A.D.A. INSULATION AROUND UNDERNEATH PIPING	1-1/2"	1-1/4"	1/2"	1/2"	(3) (4) (6)
	MANUF / MODEL / COLOR	MANSFIELD, ALTO MODEL 251-4. WHITE VITREOUS CHINA, 4" CENTERS					
	FAUCET MANUF / MODEL	MOEN, MODEL L4601 "CHATEAU".					
	ACCESSORIES	USE PROFLO ADA DRAIN ASSESSORIES (DRAIN PFGD100, OFFSET P-TRAP)					
	ACCESSORIES	INCLUDE ANGLE STOPS WITH HANDLE ON/OFF.					
	ADA INSULATION	INCLUDE INSULTION FOR WASTE PIPE AND SUPPLY PIPES.					
LAV-2	LAVATORY		1-1/2"	1-1/4"	1/2"	1/2"	(4) (6)
	TYPE	DROP-IN LAVATORY					(') (')
	MANUF / MODEL / COLOR	MANSFIELD, ALTO MODEL 251-4. WHITE VITREOUS CHINA, 4" CENTERS					
	FAUCET MANUF / MODEL	MOEN, MODEL L4601 "CHATEAU".					
	ACCESSORIES ACCESSORIES	USE PROFLO ASSESSORIES (DRAIN PFGD100, P-TRAP PFPTB100, INCLUDE ANGLE STOPS WITH HANDLE ON/OFF.					
	ACCESSORIES	INCLUDE ANGLE STOPS WITH HANDLE ON/OFF.					
OB-1	OUTLET BOX		2"	1-1/4"	1/2"	1/2"	
	TYPE	OUTLET BOX FOR CLOTHES WASHING MACHINE. DCW / DHW / SAN					
	MANUF/MODEL	OATEY. MODEL 38271					
	DESCRIPTION	SINGLE LEVER VALVE, PEX CONNECTION, INTEGRAL HAMMER ARRESTOR					
OB-2	OUTLET BOX			-	1/2"		
052	TYPE	OUTLET BOX FOR REFRIGERATOR WATER SUPPLY			172		
	MANUF/MODEL	OATEY. MODEL 39158					
	DESCRIPTION	QUARTER TURN VALVE, PEX CONNECTION					
0.1	Onuc		011	4.4/01	4 (0)	4 (01)	(0)
S-1	SINK TYPE	DROP-IN 20 GAUGE STAINLESS STEEL, ADA COMPLIANT	2"	1-1/2"	1/2"	1/2"	(6)
	FIXTURE MANUF/MODEL/FINISH	STERLING, MIDDLETON 14633-4. STAINLESS STEEL WITH 4 HOLES					
	FAUCET MANUF/MODEL/TYPE/FINISH	MOEN, MODEL M67430. WITH SPRAY					
	ACCESSORIES	INCLUDE GARBAGE DISPOSAL. MOEN MGXP50C. 1/2" HP. WITH POWER CORD					
011.0	OLIOWED TUB	FIVED QUOMED HEAD	0"	4.4/01	4 (0)	4 /0"	(0) (5) (0)
SH-3	SHOWER TUB TYPE	FIXED SHOWER HEAD 60" TUB WITH WALLS AND SHELVES	2"	1-1/2"	1/2"	1/2"	(2) (5) (6)
	FIXTURE MANUF/MODEL/COLOR	STERLING. MODEL 71240110 ACCORD. INCLUDES TUB AND WALL SET.					
	FAUCET MANUF/MODEL/TYPE/FINISH	MOEN. MODEL 8389EP15. 1.5 GPM. CHROME FINISH.					
	ACCESSORIES	INCLUDE PROFLO TUB DRAIN					
1410 1			4.11	0,11	4 (0)		(0) (0)
WC-1	WATER CLOSET TYPE	FLOOR MOUNT - ADA COMPLIANT	4"	2"	1/2"		(2) (6)
	FLUSH TYPE	FLUSH TANK WITH PRESSURE ASSIST SIPHON JET ACTION. 1.28 GPF	+		 		
	MANUF/MODEL/COLOR	MANSFIELD MODEL 148-155. WHITE VIRTEOUS CHINA. ELOGATED BOWL.					
	SEAT/COLOR	BEMIS 1200CT. WHITE PLASTIC					
	ACCESSORIES	INCLUDE ANGLE STOP WITH HANDLE, CONNECTING TUBING, AND WAX RING.					
WC-2	WATER CLOSET		4"	2"	1/2"		(2) (6)
	TYPE	FLOOR MOUNT			ļ		
	FLUSH TYPE	FLUSH TANK WITH PRESSURE ASSIST SIPHON JET ACTION. 1.28 GPF			<u> </u>		
	MANUF/MODEL/COLOR	MANSFIELD MODEL 146-155. WHITE VIRTEOUS CHINA. ROUND BOWL.			ļ		
	SEAT/COLOR	BEMIS OR PROFLO. WHITE PLASTIC			1		
	ACCESSORIES	INCLUDE ANGLE STOP WITH HANDLE, CONNECTING TUBING, AND WAX RING					
\\/\DD 1	WACHED DDAIN DAN		4"	1	 		
WDP-1	WASHER DRAIN PAN	CAMCO MODEL 20752 20"v22"	1"		-		
	MANUF/MODEL DESCRIPTION	CAMCO MODEL 20752, 30"x32"		-	+		
	DESCRIPTION	2.5" DEEP PAN. PLASTIC. 1" BOTTOM DRAIN CONNECTION.			I		

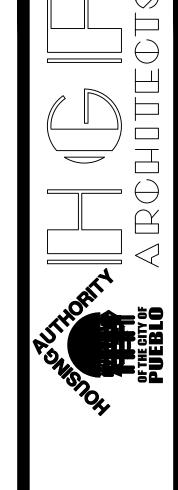
- (1) ALTERNATE SUBSTITUTIONS TO BE APPROVED BY OWNER.
- (2) REFER TO PLANS FOR RIGHT HAND OR LEFT HAND CONFIGURATION. ORIENT FLUSH HANDLE ON OPEN SIDE OF ROOM, NOT SIDE WITH WALL. OREINT TUB AS PER PLANS.
- (3) MOUNT IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) STANDARDS. INCLUDE OFFSET TAILPIECE ON ALL ADA LAVATORIES AND TRUEBRO LAV-GUARD INSULATION KIT IN CHINA WHITE
- (4) PROVIDE GRID STRAINER, 0.5 GPM AERATOR, CHROME-PLATED BRASS ANGLE STOP VALVES, AND CHROME-PLATED P-TRAP
- (5) CEMENT BOARD IN SHOWER WALL IS 5/8" THICK AND BEHIND SHOWER ENCLOSER PANEL. CONTRACTOR SHALL PROVIDE EXTENTION OPTION FOR SHOWER VALVE.
- (6) LAVATORY FAUCET, SINK FAUCETS, SHOWER HEADS, AND WATER CLOSETS SHALL HAVE THE WATER-SENSE COMPLIANCE LABEL.
- (6) LAVATORY FAUCET, SINK FAUCETS, SHOWER HEADS, AND WATER CLOSETS SHALL HAVE THE WATER-SENSE COMPLIANCE LABEL.

TANKLESS GAS WATER HEATER SCHEDULE

			TEMP.	VENT	COMB. AIR	STORAGE	FLOWRATE		GAS HEATING D	ATA				
MARK	MANUF.	MODEL	SETPOINT	CONN.	INTAKE CONN.	(GAL)	(GPM)	MBH INPUT	мвн оитрит	MIN. EFFIC.	GAS CONN. (in.)	ELECTRICAL	ELEVATION	NOTES
WH-1	RINNAI	RUC80	120F	3"	3"	NONE	8.0	152	122	96%	3/4"	120V/1PH/60HZ	6,400	(1) (2) (3) (4) (5) (6) (7) (8)
WH-2	RINNAI	RUC90	120F	3"	3"	NONE	9.0	180	145	96%	3/4"	120V/1PH/60HZ	6,400	(1) (2) (3) (4) (5) (6) (7) (8)
WH-3	RINNAI	RUC98	120F	3"	3"	NONE	9.8	199	161	95%	3/4"	120V/1PH/60HZ	6,400	(1) (2) (3) (4) (5) (6) (7) (8)
													-	

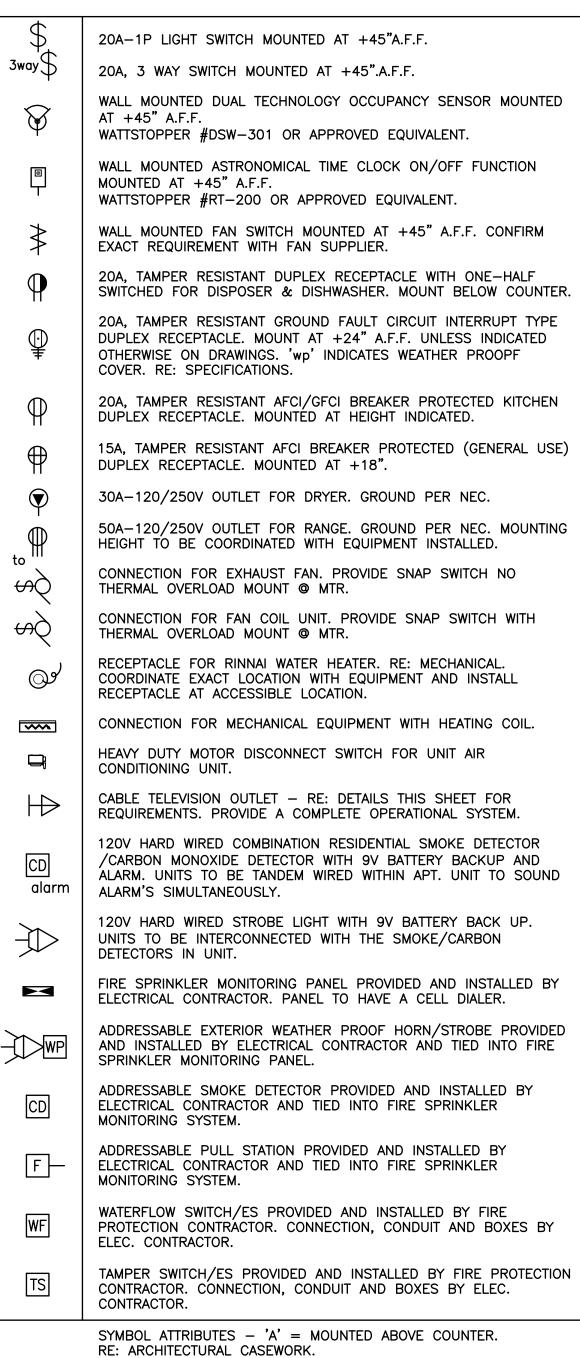
- (1) PROVIDE VERTICAL CONCENTRIC VENT KIT. USE PVC PIPE FOR VENT SYSTEM. REFER TO MECHANICAL SHEETS AND DETAIL FOR EXHAUST DUCTWORK. (2) PROVIDE AND EXPANSION TANK SUPPORTED FROM BUILDING WITH UNISTRUT. SEE PLUMBING DETAIL.
- (3) WATER HEATER IS HIGH-EFFICIENCY CONDENSING UNIT. DO NOT PROVIDE NEUTRALIZATION KIT FOR DRAIN DISCHARGE.
- (4) A ONE BEDROOM UNIT REQUIRES A WH-1. A TWO BEDROOM UNIT REQUIRES A WH-2. A THREE BEDROOM UNIT REQUIRES A WH-3.
- (5) PROVIDE WITH HEAT TRAP AND VALVES.
- (6) PROVIDE PRIORITY DEMAND TO DOMESTIC HOT WATER SYSTEM. (7) EQUIPMENT REQUIRES ELECTRICAL CONNECTION. COORDINATE WITH ELECTRICAL FOR 120V OUTLET TO PLUG INTO.
- (8) PROJECT SITE IS AT HIGH ELEVATION. INCLUDE OPTION FOR HIGH ALTITUDE GAS KIT.

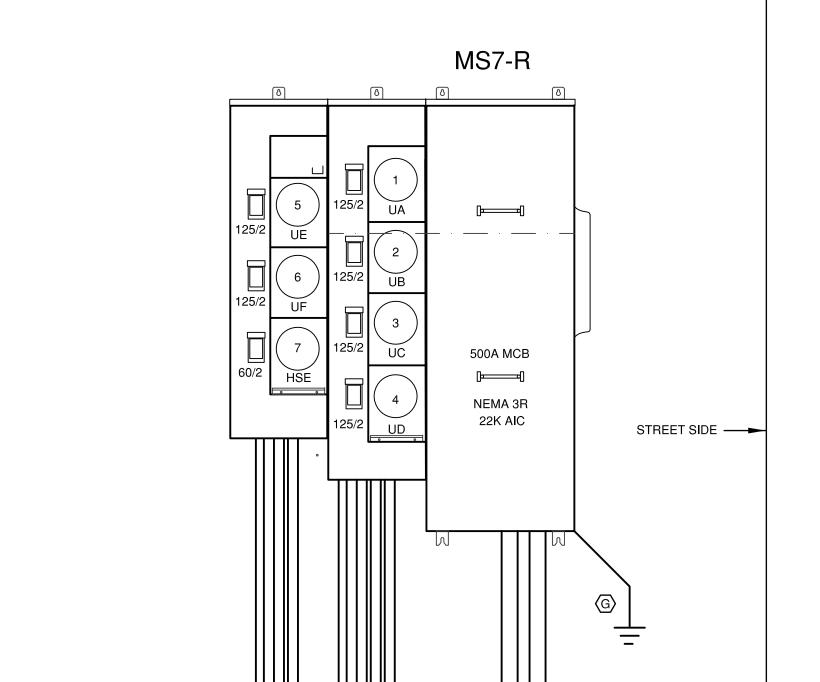




04-16-2019 DRAWN **PLANT**

ALL HEIGHTS INDICATED IS TO CENTER OF FIXTURE/DEVICE.





MS7-L

500A MCB

NEMA 3R

22K AIC

→ STREET SIDE

UA

UC

HSE

HSE

125/2 UB

GOUNDING ELECTRODE SYSTEM

Meterstacks MS7 Style

PROVIDE A 1/0cu GROUNDING ELECTRODE, UFER GROUND AND G FINAL CONNECTION TO COLD WATER

FEEDER SCHEDULE:

Building C : Load Summary : 600a Service

Code

Ltg

Rec

Mech

GL

RG

Othr

Load Type

Gen Use Rec

Mechanical Equip

Geneneral Lighting

Lighting

Dryer

Othr

Range

Demand Kva

Demand Amps

1. HOUSE LOADS 'Ltg', 'Rec', 'Mech'

2. UNIT LOADS 'GL', 'D', 'RG', Othr'

Load | Conn | Demand | Dmd

0.5 | 10+50%

70.1 3+35%

Kva

0.5

1.5

35.0

40.0

28.2

Demand Kva

Demand Amps

Factor

125%

125%

85%

45%

100%

Kva

0.6

22.5

20.6

33.5

104.6

435.9

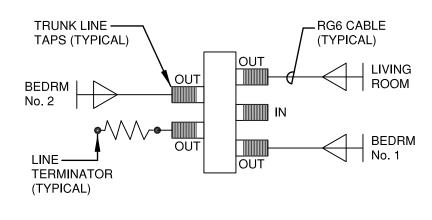
SERVICE LATERAL METERS TO XFMR 2 SETS PARALLEL (3#250,cu, 2 1/2"c.) TYPICAL UNIT PANEL 3#1/0,al+#4,al g, 1 1/2"c.

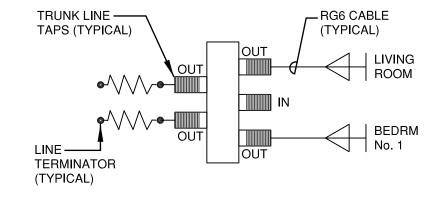
TYPICAL HOUSE PANEL

GENERAL NOTE:

METERSTACK TO HAVE 500A MAIN CIRCUIT BREAKER.

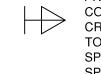
	SCHEDULE	FO	R F	$\supset \nearrow$	NE	L	HSE	
VOL	LTS/PHASE/WIRE 120	/240/	1ph-3	w		MAIN	DEVICE 60a MLO	
MO	UNTING <u>SURFACE</u>					S.C. I	RATING <u>10,000 AIC</u>	
NO	TES: N/A							
	N/A							
D. A	by/Demand Load to Calculated Dec N	IFC . 14-	Cmn II	ł., I	\#= % AC	al 1950	5, Rec @ 10 + 50% and Othr @100	97
	W/Demana Loga is Calculatea Per N	WPL : 110.		ta. I	MIT AT AL	at 123%	s. Rec we to + 30% and other we too.	76
Dut		og,	, Omp, 11	٠ , .				
Duc	PHASE A (KVA) <u>3.7</u>		·		CON	NECTE	D KVA <u>3.64</u>	•
Duc	PHASE A (KVA) <u>3.7</u> PHASE B (KVA) <u>0.9</u>		·	.,,	CON LOA	INECTE D FAC	TD KVA 3.64 TOR 1.14	•
Duc	PHASE A (KVA) <u>3.7</u>		·	.9,	CON LOA	INECTE D FAC	D KVA <u>3.64</u>	
Duc	PHASE A (KVA) <u>3.7</u> PHASE B (KVA) <u>0.9</u>				CON LOA DUT	INECTE D FAC Y/DEM	TD KVA 3.64 TOR 1.14 IAND KVA 4.15	
#	PHASE A (KVA) 3.7 PHASE B (KVA) 0.9 PHASE C (KVA) N/A			ı D	CON LOA DUT UTY/DI	INECTE D FAC Y/DEM	TD KVA 3.64 TOR 1.14 IAND KVA 4.15	
	PHASE A (KVA) 3.7 PHASE B (KVA) 0.9 PHASE C (KVA) N/A AVERAGE AMPS/LE	G BAS	ED ON	ı D	CON LOA DUT UTY/DI	INECTE D FAC Y/DEM EMAND LOAD	D KVA 3.64 TOR 1.14 IAND KVA 4.15 KVA 17.3 DESCRIPTION	#
	PHASE A (KVA) 3.7 PHASE B (KVA) 0.9 PHASE C (KVA) N/A AVERAGE AMPS/LE DESCRIPTION	G BAS	ED ON BRKR	D PH	CON LOA DUT UTY/DI BRKR	INECTE D FAC Y/DEM EMAND LOAD 350	TO KVA 3.64 TOR 1.14 IAND KVA 4.15 KVA 17.3 DESCRIPTION	#
# 1	PHASE A (KVA) 3.7 PHASE B (KVA) 0.9 PHASE C (KVA) N/A AVERAGE AMPS/LE DESCRIPTION Rec: Wtr Entry + Exter	G BAS	ED ON BRKR 20/1	D PH	CON LOA DUT UTY/DI BRKR 20/1	INECTE D FAC Y/DEM EMAND LOAD 350	D KVA 3.64 TOR 1.14 IAND KVA 4.15 KVA 17.3 DESCRIPTION Othr: Fire Prot Sys Pnl	# 2
# 1 3	PHASE A (KVA) 3.7 PHASE B (KVA) 0.9 PHASE C (KVA) N/A AVERAGE AMPS/LE DESCRIPTION Rec: Wtr Entry + Exter Ltg: Exterior Bldg	G BAS LOAD 900 540	ED ON BRKR 20/1 20/1	D PH A B	CON LOA DUT UTY/DI BRKR 20/1 20/1	INECTE D FAC Y/DEM EMAND LOAD 350	D KVA 3.64 TOR 1.14 IAND KVA 4.15 KVA 17.3 DESCRIPTION Othr: Fire Prot Sys Pnl Othr: Irrigation Control	#
# 1 3 5	PHASE A (KVA) 3.7 PHASE B (KVA) 0.9 PHASE C (KVA) N/A AVERAGE AMPS/LE DESCRIPTION Rec: Wtr Entry + Exter Ltg: Exterior Bldg Mech: Wtr Entry	G BAS LOAD 900 540	ED ON BRKR 20/1 20/1 20/1	D PH A B	CON LOA DUT UTY/DI BRKR 20/1 20/1 20/1	INECTE D FAC Y/DEM EMAND LOAD 350	TOR 3.64 TOR 1.14 AND KVA 4.15 KVA 17.3 DESCRIPTION Othr: Fire Prot Sys Pnl Othr: Irrigation Control Spare	# 2 2 4 6 E 10





TYPICAL 2 BEDROOM APT

TYPICAL 1 BEDROOM APT



PROVIDE SINGLE GANG BACKBOX, RG6 CABLE AND COAX JACK WITH PLATE. STUB CONDUIT DOWN INTO CRAWLSPACE (1ST FLOOR) & ATTIC (2ND FLOOR). CABLE TO BE ROUTED IN CRAWLSPACE AND ATTIC BACK TO SPLITTER IN WATER ENTRY ROOM. SPLITTERS TO BE MOUNTED IN A NEAT AND WORKMAN LIKE MANNER ON TELEPHONE BOARD. PROVIDE FINAL TESTING REPORT FOR ALL CABLES.

COAX CABLING DETAIL

	FIXTURE SCH	łΕ	DULE			
TYPE	DESCRIPTION & MANUFACTURES CATALOGUE NUMBERS ALL BALLASTS ARE 120V	NOTES	FINISH	LOCATION	NO.	LAMP(S)
A	NOMINAL 18"w x 4' LONG FLUORESCENT FIXTURE W. WHITE FINISH, FROSTED WHITE ACRYLIC LENS AND 120V ELECTRONIC BALLAST. KICHLER LIGHTING #8300K-10303WH OR APPROVED EQUIVALENT.	1	WHITE	KITCHEN	4	82 CRI F32T8/83 3000 Deg
В	6" ROUND IC RATED LED CAN LIGHT WITH 30K LAMP COLOR AND WHITE TRIM RING. PRESCOLITE #LB6LEDA10L-30K-WH-DBXQL OR APPROVED EQUIVALENT.	1	WHITE	VARIOUS	_	12W/ 1000LUM, 3000 Deg
С	NOMINAL 6" DIAMETER SURFACE MOUNTED (ROUND) LED LIGHT WITH STANDARD HIGH IMPACT POLYCARBONATE DIFFUSER, COMPLIANT WITH NEC 410.16(A)(3) & (C)(5) PROVIDE WITH APPROPRIATE BACK BOX. HALO #SLD612830WH OR APPROVED EQUIVALENT.	1	WHITE	VARIOUS	-	15W/ 1150LUM/ 3000 Deg
D	SURFACE MOUNTED NOMIMAL 15"DIA. x 5.5" HIGH LED FIXTURE WITH BRUSHED NICKEL TRIM AND ETCHED ALABASTER STYLE GLASS. SEA GULL LIGHTING #75943EN3-962 OR APPROVED EQUIVALENT.	1	NICKEL	VARIOUS	3	80 CRI 9.5W/A19 3000 Deg
E	SURFACE MOUNTED NOMIMAL 13"DIA. x 5" HIGH LED FIXTURE WITH BRUSHED NICKEL TRIM AND ETCHED ALABASTER STYLE GLASS. SEA GULL LIGHTING #75942EN3-962 OR APPROVED EQUIVALENT.	1	NICKEL	DINING	2	80 CRI 9.5W/A19 3000 Deg
F1	SURFACE MOUNTED NOMIMAL 14"DIA. x 5" HIGH LED FIXTURE WITH FROSTED WHITE ACRYLIC DIFFUSER. SEA GULL LIGHTING #5639493S-15 OR APPROVED EQUIVALENT.	1	NICKEL	VARIOUS	_	80 CRI 23W/ 3000 Deg
F2	SURFACE MOUNTED NOMIMAL 16.5"DIA. x 5" HIGH LED FIXTURE WITH FROSTED WHITE ACRYLIC DIFFUSER. SEA GULL LIGHTING #5739493S-15 OR APPROVED EQUIVALENT.	1	NICKEL	VARIOUS	-	80 CRI 34W/ 3000 Deg
G	SURFACE MOUNTED 52" DIA CEILING FAN W/(5) BLADES, TWO LIGHT FAN LIGHT KIT WITH SWIRL ALABASTER STYLE GLASS. HUNTER #53251 WITH LIGHT KIT OR APPROVED EQUIVALENT.	1	WHITE	LIVING	2	80 CRI 13W-GU2 ⁴ 3000 Deg
Н	OWNER PROVIDED 24" WIDE OVER MIRROR LIGHT WITH BRUSHED NICKEL FINISH AND WHITE TEXTURED POLYCARB. DIFFUSER. KICHLER #8300K-11142NILED	1	NICKEL	RESTROOMS	-	20W/ 1410LUM 3000 Deg
J	1 LIGHT DECORATIVE SCONCE WITH LED BULB, NICKEL FINISH AND WHITE GLASS. SEA GULL LIGHTING #41036EN3-999 OR APPROVED EQUIVALENT.	1	NICKEL	HALL	1	80 CRI 9.5W/A19 3000 Deg
K	SMALL LED EXTERIOR WALL SCONCE OPERATED VIA ASTRONOMICAL TIME SWITCH. MOUNT AT 6'-6" TO CENTER. KICHLER # 8300K-49278XXXLED OR APPROVED EQUIV.	1	BY ARCH	EXTERIOR	_	8W/ 720LUM/ 3000 Deg
L	DARK SKY COMPLIANT LED ADDRESS LIGHT OPERATED VIA BLDG MOUNTED PHOTOCELL. MOUNT LV TRANSF. IN ACCESSIBLE SPACE. PROVIDE WITH ADDRESS NUMBERS AND ALL NECESSARY COMPONENTS REQUIRED FOR AN OPERATIONAL SYSTEM. KICHLER #8300K-43800XXLED OR APPROVED EQUIV.	1	BY ARCH	EXTERIOR	-	4W/ 250LUM/ 3000 Deg
AA	EXTERIOR LED WALL SCONCE WITH TYPE III DISTR. WIRED VIA BLDG MOUNTED PHOTOCELL. HUBBEL #TRP1-12L-15-3K7-3-U-XX-PCU OR APPROVED EQUIVALENT.	1	BY ARCH	EXTERIOR	_	15W/ 1477LUM/ 3000 Deg
BB	EXTERIOR SMALL LED WALL SCONCE OPERATED VIA BUILDING MOUNTED PHOTOCELL. BEGA #22 261-XX-3000K OR APPROVED EQUIVALENT.	1	BY ARCH	EXTERIOR	_	6W/ 362LUM/ 3000 Deg
	SELF-CONTAINED EMERGENCY LIGHT WITH INJECTION MOLDED HOUSING, 2 HEADS, SELF-DIAGNOSTIC FEATURE (120V)	2	WHITE	VARIOUS	2	BY MFGR

NOTES:

1. SUBSTITUTIONS PRIOR TO BID REQUIRED - ENGINEER MUST RECEIVE PRODUCT DATA 10 DAYS PRIOR TO BID - ONLY PRODUCT LISTED IN AN ADDENDUM WILL BE ACCEPTED.

FIXTURES TO BE ENERGY STAR RATED OR UTILIZE ENERGY EFFICIENT LAMPS AS LISTED IN GREEN COMMUNITY STANDARDS

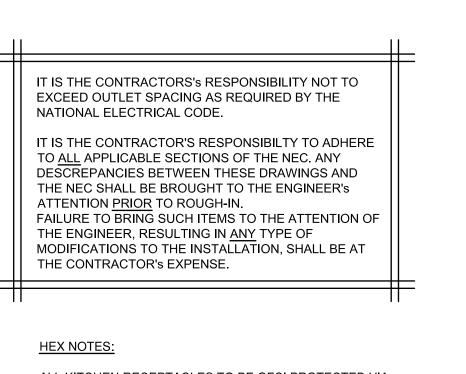
> IT IS THE CONTRACTORS'S RESPONSIBILITY NOT TO EXCEED OUTLET SPACING AS REQUIRED BY THE NATIONAL ELECTRICAL CODE. IT IS THE CONTRACTOR'S RESPONSIBILTY TO ADHERE TO ALL APPLICABLE SECTIONS OF THE NEC. ANY DESCREPANCIES BETWEEN THESE DRAWINGS AND THE NEC SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO ROUGH-IN. FAILURE TO BRING SUCH ITEMS TO THE ATTENTION OF THE ENGINEER, RESULTING IN ANY TYPE OF MODIFICATIONS TO THE INSTALLATION, SHALL BE AT THE CONTRACTOR'S EXPENSE.

04/16/19

MSK

REVISIONS:

3/4"c. TO SITE FIXTURES. RE: SITE PLAN



- MOUNT ABOVE

DOOR (TYPICAL)

ALL KITCHEN RECEPTACLES TO BE GFCI PROTECTED VIA

MOUNT ABOVE

HSE-3

MOUNT ABOVE

DOOR (TYPICAL) —

DOOR (TYPICAL) -

ELEC HTR -

hood|

ROUTE IN WALL-

IN HALFWALL

(TYPICAL)

AND TURN DOWN

U3B-11

BB **–––** +7'-6"

(18,20)

(18,20)

(18,20)

BLDG C2

EXHAUST FAN SHALL BE WIRED HOT TO RUN CONTINUOSLY AT THE SPEED SET BY MECHANICAL. WIRE TO CIRCUIT INDICATED.

COMBINATION AFCI/GFCI BREAKERS LOCATED IN PANEL.

- EXHAUST FAN SHALL BE WIRED VIA OCCUPANCY SENSOR AND
- BE ENERGIZED WITH THE LIGHT. WIRE TO CIRCUIT INDICATED.
- EXHAUST FAN SHALL BE WIRED HOT AND RUN CONTINUOSLY AT SPEED SET BY MECHANICAL. UPON ACTIVATION OF OCCUPANCY SENSOR LOCATED ON FAN, FAN TO RUN HIGH UNTIL TIMED OUT. WIRE TO CIRCUIT INDICATED. OBTAIN WIRING DIAGRAM FROM EQUIPMENT SUPPLIER.
- INSTALL TYPE C FIXTURE AT A MINIMUM OF 12" AWAY FROM DEFINED STORAGE AREA, I.E SHELVING ETC, PER NEC 410.16.
- COORDINATE WITH OTHER TRADES TO MAINTAIN NEC CLEARANCES ABOUT ELECTRICAL PANEL.

BLDG C: FIRST FLOOR - ELECTRICAL PLAN

- REFER TO 1/2

SCALE DRAWING

FOR THIS ROOM.

MOUNT ABOVE

— DOOR (TYPICAL)

alarm

MOUNT ABOVE

DOOR (TYPICAL)

CONDUCTOR LEGEND

× NOTIFICATION CIRCUIT(S) - No. AS REQUIRED BY

SYSTEM MANUFACTURER

2#14 APPLIANCE

MOUNT ABOVE

alarm

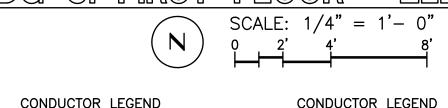
-MOUNT ABOVE

DOOR (TYPICAL)

PREVIOUS

BUILDING

DOOR (TYPICAL) -



CONDUCTOR LEGEND 2#18 SHIELDED − AS REQUIRED BY SYSTEM MANUFACTURER - MAPNET

CONDUCTOR LEGEND 2#14 DEVICE POWER REQUIRED BY SYSTEM

 \triangle CIRCUIT(S) - 24VDC - AS MANUFACTURER

PHOTOELECTRIC SMOKE DETECTOR CD **GENERAL NOTES:** 1. FINAL LAYOUT OF EQUIPMENT TO BE ADDRESSABLE PULLSTATION 24VDC

FIRE SPRINKLER MONITOR PNL

WITH NETWORK CARD

DETERMINED IN THE FIELD. COORDINATE EXACT LOCATIONS OF EQUIPMENT WITH FIRE SPRINKLER CONTRACTOR AND OTHER TRADES. 2. ALL FIRE PROTECTION SYSTEM WIRING TO BE (THHN) INSULATION. 3. ACTIVATION OF FLOW SWITCH SHALL DIAL OUT, ACTIVATE HORN/STROBE AND CLOSE THE DOMESTIC WATER SERVICE SOLENOID. **TAMPER SWITCH** 4. SYSTEM TO BE A NETWORKED SYSTEM TIED WITH FIBER BETWEEN BLDGS. RE: ELEC SITE ADDRESSABLE MONITOR MODULE WF WATER FLOW SWITCH AUDIO/VISUAL

5. EQUIPMENT SUPPLIER TO PROVIDE SHOP DRAWINGS WITH WIRING DIAGRAM, EQUIPMENT AND CALCULATION AND SUBMIT TO THE PUEBLO FIRE DEPARTMENT FOR PERMIT. DIGITAL BLDG C1 ONLY **ELECTRICAL CONTRACTOR ROUGH-IN:**

COMMUN. ONLY PROVIDE 4S BOXES AND 1/2"c. FOR FPS MONITORING CABLES. TO NEXT BUILDING - 6 STRANDED MULTIMODE FIBER

WITH SC CONNECTORS TYPICAL TO & FROM BLDGS

NEW SIMPLEX 4010ES (BLDG C1) NEW SIMPLEX 4007ES (BLDG C2) OR APPROVED EQUIVALENT

_ ABOVE _TO TYPE L (2) 2"c. MIN. 10' —— DOOR —1"c. WITH PULLSTRING **FIXTURES** BÉYOND BUILDING 5' BEYOND BUILDING. RE: SITE PLAN (FOR INCOMING COAX) (FOR IRRIGATION CNTRL) RE: SITE PLAN RE: SITE PLAN ✓── HSE-3 APPROX 7'-6" A.F.F PNL HSE-F EH-02 HSE-4 1.5Kw HSE-5 F2 WF TS —FIRE PROT. HSE-2 WIRE HOT AHEAD OF LOCAL SW.

FINAL LAYOUT OF ROOM TO

DO NOT RUN WATER LINES

REFER TO DIAGRAM FOR WIRING OF

FIRE SPRINKLER CONTROL DEVICES

BE COORDINATED WITH

OVER POWER PANEL.

EQUIPMENT.

DOOR (TYPICAL)

MOUNT ABOVE

— DOOR (TYPICAL)

HSE-3

HSE-3

(18,20)

A/C

(18,20)

(18,20)

SERVICE-

BLDG C1

-ROUTE IN WALL

IN HALFWALL

(TYPICAL)

AND TURN DOWN

MOUNT ABOVE :

DOOR (TYPICAL)

BLDG C: WATER ENTRY ROOM

FIRE PROTECTION WIRING DIAGRAM

ELECTRICAL CONTRACTOR TO CONFIRM ALL MECHANCIAL EQUIPMENT CONNECTIONS PRIOR TO ROUGH-IN. ELECTRICAL CONTRACTOR SHALL REFER TO ARCHITECTURAL CASEWORK DRAWINGS PRIOR TO ROUGH-IN. ALL CONDUITS FOR LOW VOLTAGE SYSTEMS TO HAVE

INSULATED BUSHINGS. RE: COAX WIRING DETAIL FOR ADDITIONAL REQUIREMENTS.

POWER BRANCH CIRCUIT REQUIREMENTS

APARTMENT UNIT WIRING ONLY.

GENERAL NOTES:

ADDENDUM WILL BE ACCEPTED.

15a GENERAL LIGHTING BRANCH CIRCUITS (x#14+a).

20a GENERAL LIGHTING BRANCH CIRCUITS (x#12+g). 30a A/C UNIT & DRYER BRANCH CIRCUIT (2#10+g). 50a ELECTRIC RANGE BRANCH CIRCUIT (3#6+g).

WIRING METHODS IN UNITS MAY BE MC OR FLEXIBLE

ALL 'AFCI' CIRCUITS REQUIRE A DEDICATED NEUTRAL

ONLY APPROVED PRODUCTS LISTED ON DRAWINGS OR IN AN

EXACT LOCATION OF ALL MECHANICAL EQUIPMENT.

REFER TO MECHANICAL/CIVIL DRAWINGS AND ADDENDUMS FOR

NON METALLIC CONDUIT SYSTEMS AS ALLOWED BY THE NATIONAL ELECTRICAL CODE. NMC ALLOWED FOR

ALL KITCHEN RECEPTACLES TO BE TAMPER RESISTANT GFI PROTECTED RECEPTACLES THRU COMBINATION AFCI/GFCI BREAKER IN PANEL. RE: PANEL SCHEDULE.

THE ENTIRE ELECTRICAL INSTALLATION SHALL CONFORM TO

THE 2017 NEC. 8. THIS PROJECT SHALL MEET THE 2015 ENTERPRISE GREEN

COMMUNITIES CRITERIA. PROVIDE A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM AS WELL AS COMPLETE AND OPERATIONAL LOW VOLTAGE

SYSTEM. ALL NECESSARY COMPONENT MAY NOT BE INDICATED. 10. CONTRACTOR TO REFER TO CODE STUDY FOR RATINGS OF WALLS, FLOORS AND CEILINGS. ADJUST INSTALLATION AS

REQUIRED TO MAINTAIN RATING OR UTILIZE UL LISTED METHODS TO MAINTAIN THE FIRE RATING.

11. SLEEVE AS REQUIRED BETWEEN UNIT CRAWL SPACES AND

ATTIC SPACES. ALL SLEEVES TO BE FIRE CAULKED TO MAINTAIN

12. ALL TYPE L FIXTURES ARE TO BE WIRED VIA BUILDING PHOTOCELL AND TIED INTO BUILDING LIGHT CIRCUIT. RE: SITE

13. REFER TO SITE PLAN FOR WIRING OF TYPE AA & BB FIXTURES.

FLAG NOTES:

PROVIDE (2) LED UTILITY FIXTURES (EQUAL TO SYLVANIA #LED/700/CL/827/RP), (1) GFCI RECEPTACLE AND (1) SWITCH IN CRAWLSPACE. WIRE TO CIRCUIT INDICATED. LOCATE SWITCH AND RECEPTACLE AT ACCESS LOCATION. FIXTURES TO BE UNIFORMLY SPACED IN AREA.

PROVIDE (2) LED UTILITY FIXTURES (EQUAL TO SYLVANIA #LED/700/CL/827/RP), (1) GFCI RECEPTACLE AND (1) SWITCH IN ATTIC SPACE. WIRE TO CIRCUIT INDICATED. LOCATE SWITCH AND RECEPTACLE AT ACCESS LOCATION. FIXTURES TO BE UNIFORMLY SPACED IN AREA.

(3)→ NOT USED

4→ NOT USED

PROVIDE A 4'Wx4'H PLYWOOD BACKBOARD FOR INCOMING PHONE/CATV. COORDINATE EXACT REQUIREMENTS WITH SERVICE PROVIDERS. PROVIDE GROUND PER NEC. REFER TO ADDITIONAL WORK REQUIRED FOR PHONE/CATV DESCRIBED ON PLANS AND WORK NOTED.

PROVIDE 120V CONNECTION FOR IRRIGATION CONTROLS. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT SUPPLIER. WIRE TO CIRCUIT HSE-4. CONFIRM EXACT LOCATION WITH OWNER/IRRIGATION CONTRACTOR PRIOR TO ROUGH-IN.

PROVIDE 1" CONDUIT SLEEVE INTO ACCESSIBLE CRAWLSPACE. (FOR COAX CABLES 1ST FLOORS).

PROVIDE 1" CONDUIT SLEEVE INTO ACCESSIBLE ATTIC SPACE. (FOR COAC CABLES 2ND FLOORS).

PROVIDE LIGHTING PULL BOX WITH 1/2"c. TO PHOTO CELL AND

POWER BRANCH CIRCUIT REQUIREMENTS

APARTMENT UNIT WIRING <u>ONLY</u>.

15a GENERAL LIGHTING BRANCH CIRCUITS (x#14+g). 20a GENERAL LIGHTING BRANCH CIRCUITS (x#12+g). 30a A/C UNIT & DRYER BRANCH CIRCUIT (2#10+g). 50a ELECTRIC RANGE BRANCH CIRCUIT (3#6+g).

WIRING METHODS IN UNITS MAY BE MC OR FLEXIBLE NON METALLIC CONDUIT SYSTEMS AS ALLOWED BY THE NATIONAL ELECTRICAL CODE. NMC ALLOWED FOR

ALL 'AFCI' CIRCUITS REQUIRE A DEDICATED NEUTRAL

1. ONLY APPROVED PRODUCTS LISTED ON DRAWINGS OR IN AN

ELECTRICAL CONTRACTOR TO CONFIRM ALL MECHANCIAL

ELECTRICAL CONTRACTOR SHALL REFER TO ARCHITECTURAL

ALL KITCHEN RECEPTACLES TO BE TAMPER RESISTANT GFI PROTECTED RECEPTACLES THRU COMBINATION AFCI/GFCI

7. THE ENTIRE ELECTRICAL INSTALLATION SHALL CONFORM TO

8. THIS PROJECT SHALL MEET THE 2015 ENTERPRISE GREEN

9. PROVIDE A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM AS WELL AS COMPLETE AND OPERATIONAL LOW VOLTAGE SYSTEM. ALL NECESSARY COMPONENT MAY NOT BE INDICATED.

10. CONTRACTOR TO REFER TO CODE STUDY FOR RATINGS OF WALLS, FLOORS AND CEILINGS. ADJUST INSTALLATION AS REQUIRED TO MAINTAIN RATING OR UTILIZE UL LISTED

11. SLEEVE AS REQUIRED BETWEEN UNIT CRAWL SPACES AND

12. ALL TYPE L FIXTURES ARE TO BE WIRED VIA BUILDING

PROVIDE (2) LED UTILITY FIXTURES (EQUAL TO SYLVANIA

PROVIDE A 4'Wx4'H PLYWOOD BACKBOARD FOR INCOMING

PHONE/CATV. COORDINATE EXACT REQUIREMENTS WITH

PROVIDE 120V CONNECTION FOR IRRIGATION CONTROLS.

COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT

CONFIRM EXACT LOCATION WITH OWNER/IRRIGATION

PROVIDE 1" CONDUIT SLEEVE INTO ACCESSIBLE CRAWLSPACE. (FOR COAX CABLES 1ST FLOORS).

SERVICE PROVIDERS. PROVIDE GROUND PER NEC. REFER TO

ADDITIONAL WORK REQUIRED FOR PHONE/CATV DESCRIBED ON

UNIFORMLY SPACED IN AREA.

UNIFORMLY SPACED IN AREA.

PLANS AND WORK NOTED.

SUPPLIER. WIRE TO CIRCUIT HSE-4.

CONTRACTOR PRIOR TO ROUGH-IN.

ATTIC SPACES. ALL SLEEVES TO BE FIRE CAULKED TO MAINTAIN

PHOTOCELL AND TIED INTO BUILDING LIGHT CIRCUIT. RE: SITE

#LED/700/CL/827/RP), (1) GFCI RECEPTACLE AND (1) SWITCH IN

CRAWLSPACE. WIRE TO CIRCUIT INDICATED. LOCATE SWITCH

#LED/700/CL/827/RP), (1) GFCI RECEPTACLE AND (1) SWITCH IN

ATTIC SPACE. WIRE TO CIRCUIT INDICATED. LOCATE SWITCH AND RECEPTACLE AT ACCESS LOCATION. FIXTURES TO BE

AND RECEPTACLE AT ACCESS LOCATION. FIXTURES TO BE

PROVIDE (2) LED UTILITY FIXTURES (EQUAL TO SYLVANIA

13. REFER TO SITE PLAN FOR WIRING OF TYPE AA & BB FIXTURES.

METHODS TO MAINTAIN THE FIRE RATING.

EXACT LOCATION OF ALL MECHANICAL EQUIPMENT.

EQUIPMENT CONNECTIONS PRIOR TO ROUGH-IN.

CASEWORK DRAWINGS PRIOR TO ROUGH-IN.

BREAKER IN PANEL. RE: PANEL SCHEDULE.

5. ALL CONDUITS FOR LOW VOLTAGE SYSTEMS TO HAVE INSULATED BUSHINGS. RE: COAX WIRING DETAIL FOR

REFER TO MECHANICAL/CIVIL DRAWINGS AND ADDENDUMS FOR

ADDENDUM WILL BE ACCEPTED.

ADDITIONAL REQUIREMENTS.

THE 2017 NEC.

RATINGS.

FLAG NOTES:

(3)→ NOT USED

(4)→ NOT USED

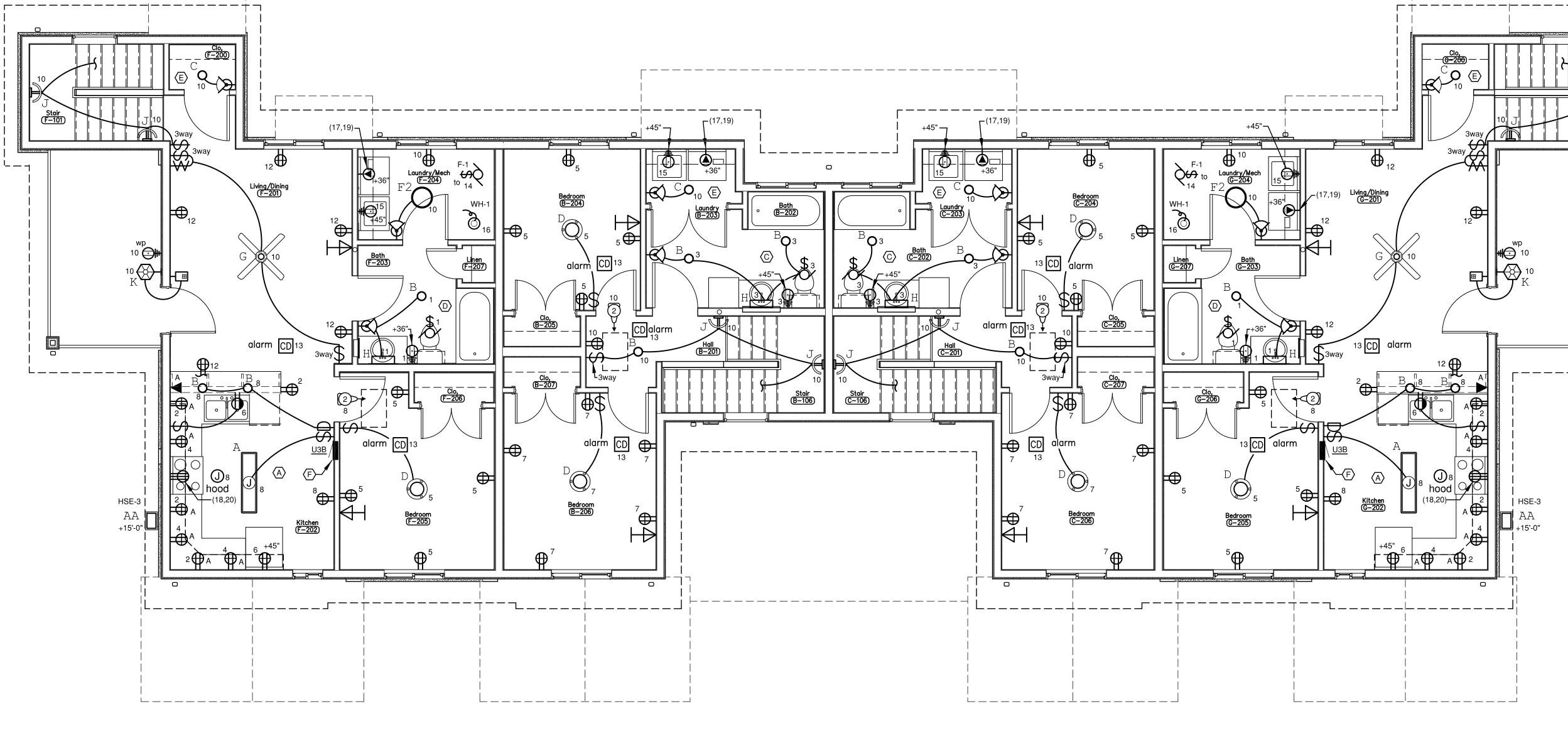
DRAWN CHECK MSK

REVISIONS:

PROVIDE 1" CONDUIT SLEEVE INTO ACCESSIBLE ATTIC SPACE.

(FOR COAC CABLES 2ND FLOORS).

PROVIDE LIGHTING PULL BOX WITH 1/2"c. TO PHOTO CELL AND 3/4"c. TO SITE FIXTURES. RE: SITE PLAN



BLDG C: SECOND FLOOR - ELECTRICAL PLAN SCALE: 1/4" = 1' - 0"

U3A

MAIN DEVICE <u>125a MLO</u>

VO	MOUNTING FLUSH S.C. RATING 10,000 AIC									
MC	JUNTING <u>FLUSH</u>					5.C. r	RATING TO,000 AIC			
NC	OTES: Provide with (2) ed N/A	ich Spo	are 3/	'4"c	. into	Attic	& Crawlspaces			
D	uty/Demand Load is Calculated Per	NEC : Lte	g, Cmp, I	Htg,	Mtr & A	C at 1259	%, Rec @ 10 + 50% and Othr @10			
	PHASE A (KVA) 17.2				CON	NECTE	D KVA 32.35			
					LOA	D FAC	TOR 0.78			
	PHASE B (KVA) 16.7 PHASE C (KVA) N/A						AND KVA 25.24			
				ו ה		-				
	AVERAGE AMPS/LE									
#	DESCRIPTION	LOAD	BRKR	-		LOAD	DESCRIPTION			
1	GL : 1st Flr Toilet	1,500		-			GL : Kit Appliance			
3	GL : 2nd Flr Bath	1,500	A20/1	В	C20/1	1,500	GL : Kit Appliance			
5	GL: Bedrm 1	765	A20/1	Α	C20/1	1,540	GL : Disp/DW/Fridge			
7	GL: Bedrm 2	940	A20/1	В	A20/1	1,185	GL : Kit + Hall Lts			
9	Spare		A20/1	Α	A20/1	1,080	GL : Living Rm Rec			
11	Spare		A20/1	В	A20/1	920	GL : Living Rm Rec			
13	Othr : Smoke Detectors	600	A20/1	Α	A15/1	495	Othr : Furnace			
15	GL : Laundry Washer	1,500	A20/1	В	A20/1	960	Othr : Water Heater			
17	Othr : Dryer	2,500	30/2	Α	20/2	1,680	Othr : Condensing Unit			
19	Do	2,500	Do	В	Do	1,680	Do			
	Space			Α	50/2	4,000	Othr : Range			
21				В	Do	4,000	Do			

U2

NO. CIRCUITS: 24

SCHEDULE FOR PANEL

'A'	INDICATES ARC FAULT CIRCUIT BREAKER
'C'	INDICATES COMBINATION ARC FAULT CIRCUIT/ GROUND FAULT
	CIRCUIT INTERUPTER BREAKER.

CLASS OF EQUIPMENT: LOADCENTER

М	OUNTING <u>FLUSH</u>					S.C. I	RATING <u>10,000 AIC</u>			
Z	OTES: Provide with (1) ea N/A	ch Spo	are 3/	'4 " c	c. into	Attic	& Crawlspaces			
Duty/Demand Load is Calculated Per NEC : Ltg, Cmp, Htg, Mtr & AC at 125%, Rec @ 10 + 50% and Othr @10										
	PHASE A (KVA) 16.1 PHASE B (KVA) 13.4 PHASE C (KVA) N/A				LOA	D FAC	D KVA <u>28.05</u> TOR <u>0.85</u> AND KVA <u>23.80</u>			
	AVERAGE AMPS/LE	G BAS	ED ON	l D	UTY/DI	EMAND	KVA <u>99.2</u>			
#	DESCRIPTION	LOAD	BRKR	PH	BRKR	LOAD	DESCRIPTION	#		
1	GL : 1st Flr Toilet	1,500	A20/1	Α	C20/1	1,500	GL : Kit Appliance	\Box		
3	Spare		A20/1	В	C20/1	1,500	GL : Kit Appliance	Ľ		
5	GL: Bedrm 1	765	A20/1	Α	C20/1	1,540	GL : Disposer/DW			
7	Spare		A20/1	В	A20/1	910	GL : Kit + Lndry Lts	7		

VOLTS/PHASE/WIRE <u>120/240/1ph-3w</u>

SCHEDULE FOR PANEL

#	DESCRIPTION	LOAD	BRKR	PH	BRKR	LOAD	DESCRIPTION	
1	GL : 1st Flr Toilet	1,500	A20/1	Α	C20/1	1,500	GL : Kit Appliance	Т
3	Spare		A20/1	В	C20/1	1,500	GL : Kit Appliance	
5	GL: Bedrm 1	765	A20/1	Α	C20/1	1,540	GL : Disposer/DW	
7	Spare		A20/1	В	A20/1	910	GL : Kit + Lndry Lts	
9	Spare		A20/1	Α	A20/1	910	GL : Living Rm Lts	1
11	Spare		A20/1	В	A20/1	910	GL : Living Rm Rec	1
13	Othr : Smoke Detectors	300	A20/1	Α	A15/1	495	Othr : Furnace	1
15	Othr : Laundry	1,500	A20/1	В	A20/1	960	Othr : Water Heater	1
17	D : Dryer	2,500	30/2	Α	20/2	1,130	Othr : Condensing Unit	1
19	Do	2,500	Do	В	Do	1,130	Do	2
21	Space			Α	50/2	4,000	RG : Range	2
23	Space			В	Do	4,000	Do	2

'A' INDICATES ARC FAULT CIRCUIT BREAKER INDICATES COMBINATION ARC FAULT CIRCUIT/ GROUND FAULT CIRCUIT INTERUPTER BREAKER.

VOLTS/PHASE/WIRE <u>120/240/1ph-3w</u> MAIN DEVICE <u>125a MLO</u> MOUNTING FLUSH S.C. RATING <u>10,000 AIC</u> NOTES: Provide with (1) each Spare 3/4"c. into Attic & Crawlspaces Duty/Demand Load is Calculated Per NEC : Ltg, Cmp, Htg, Mtr & AC at 125%, Rec @ 10 + 50% and Othr @100% PHASE A (KVA) <u>16.2</u> CONNECTED KVA 29.56 LOAD FACTOR 0.86 DUTY/DEMAND KVA 25.31 PHASE B (KVA) 14.9 PHASE C (KVA) N/A AVERAGE AMPS/LEG BASED ON DUTY/DEMAND KVA 105.4 LOAD BRKR PH BRKR LOAD DESCRIPTION 1,500 | A20/1 | A | C20/1 | 1,500 | GL : Kit Appliance GL: 1st Flr Toilet | A20/1| B | C20/1| 1,500| GL : Kit Appliance Spare 765 A20/1 A C20/1 1,540 GL : Disposer/DW GL: Bedrm 1 A20/1 B A20/1 915 GL : Kit + Lndry Lts Spare | A20/1 | A | A20/1 | 925 | GL : Living Rm Lts GL: Living Rm Rec Othr : Elec Htr 1,500 | A20/1 | B | A20/1 | 900 | 300 | A20/1 | A | A15/1 | 495 | Othr: Smoke Detectors 1,500 A20/1 B A20/1 960 Othr: Laundry Othr : Water Heater 2,500 | 30/2 | A | 20/2 | 1,130 | Othr : Condensing Unit 2,500 Do B Do 1,130 Do Do A 50/2 4,000 RG : Range Space B Do 4,000 Space ENCLOSURE TYPE: NEMA 1 BREAKER TYPE: PLUG ON

U3B

NO. CIRCUITS: 24

SCHEDULE FOR PANEL

'A' INDICATES ARC FAULT CIRCUIT BREAKER INDICATES COMBINATION ARC FAULT CIRCUIT/ GROUND FAULT CIRCUIT INTERUPTER BREAKER.

CLASS OF EQUIPMENT: LOADCENTER

IT IS THE CONTRACTORS'S RESPONSIBILITY NOT TO EXCEED OUTLET SPACING AS REQUIRED BY THE NATIONAL ELECTRICAL CODE.

IT IS THE CONTRACTOR'S RESPONSIBILTY TO ADHERE TO ALL APPLICABLE SECTIONS OF THE NEC. ANY DESCREPANCIES BETWEEN THESE DRAWINGS AND THE NEC SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO ROUGH-IN. FAILURE TO BRING SUCH ITEMS TO THE ATTENTION OF THE ENGINEER, RESULTING IN ANY TYPE OF MODIFICATIONS TO THE INSTALLATION, SHALL BE AT THE CONTRACTOR'S EXPENSE.

HEX NOTES:

- EXHAUST FAN SHALL BE WIRED HOT TO RUN CONTINUOSLY AT THE SPEED SET BY MECHANICAL. WIRE TO CIRCUIT INDICATED.
- EXHAUST FAN SHALL BE WIRED VIA OCCUPANCY SENSOR AND
- EXHAUST FAN SHALL BE WIRED HOT AND RUN CONTINUOSLY AT SPEED SET BY MECHANICAL. UPON ACTIVATION OF OCCUPANCY SENSOR LOCATED ON FAN, FAN TO RUN HIGH UNTIL TIMED OUT. WIRE TO CIRCUIT INDICATED. OBTAIN WIRING DIAGRAM FROM
- COORDINATE WITH OTHER TRADES TO MAINTAIN NEC

\	ALL KITCHEN RECEPTACLES TO BE GFCI PROTECTED VIA
/	COMBINATION AFCI/GFCI BREAKERS LOCATED IN PANEL.

- BE ENERGIZED WITH THE LIGHT. WIRE TO CIRCUIT INDICATED.
- EQUIPMENT SUPPLIER.
- INSTALL TYPE C FIXTURE AT A MINIMUM OF 12" AWAY FROM DEFINED STORAGE AREA, I.E SHELVING ETC, PER NEC 410.16.
- CLEARANCES ABOUT ELECTRICAL PANEL.

