APPLICABLE CODES

ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING:
LIST OF 2016 CALIFORNIA CODE OF REGULATIONS (C.C.R.)
APPLICABLE CODES AS OF JULY 1 2016.
PROJECT SHALL COMPLY WITH DSRSD REGULATIONS.

APPLICABLE CODES:

PART 1– 2016 CALIFORNIA STANDARDS ADMINISTRATIVE CODE, TITLE 24 C.C.R.
PART 2– 2016 CALIFORNIA BUILDING CODE (CBC), TITLE 24, C.C.R., VOLUMES 1,2, AND 2B. (WITH 2016 U.B.C. FOR VOL. 1 AND 2 AND 2010 U.B.C. FOR VOL. 2B.)
PART 3– 2016 CALIFORNIA ELECTRICAL CODE, TITLE 24, C.C.R. (WITH 2011 NATIONAL ELECTRICAL CODE OF NATIONAL FIRE PROTECTION ASSOCIATION)
PART 4– 2016 CALIFORNIA PLUMBING CODE, TITLE 24, C.C.R. (WITH 2012 UNIFORM PLUMBING CODE OF INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICALS.)
PART 5– 2016 CALIFORNIA ENERGY CODE, TITLE 24 C.C.R & PART 7.
PART 6– 2016 CALIFORNIA ELEVATOR SAFETY CONSTRUCTION CODE, TITLE 24 C.C.R.
PART 8– 2016 CALIFORNIA FIRE CODE, TITLE 24, C.C.R. (WITH 2009 UNIFORM FIRE CODE OF INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS AND THE WESTERN FIRE CHIEFS ASSOCIATION.)
PART 10– 2016 CALIFORNIA REFERENCE STANDARDS CODE, TITLE 24 C.C.R.
PART 11– 2016 CALIFORNIA GREEN BUILDING CODE, TITLE 24 C.C.R.
PART 11– 2016 CALIFORNIA MECHANICAL CODE, PART 5.

TITLE 24 AND APPLICABLE CODES

1. ALL HOT WATER PIPING SHALL BE INSULATED WITH "THERMACEL" OR APPROVED EQUAL, 1" THICK FOR SIZE UP TO 2"; 1½" THICK FOR SIZE UP TO 2½" AND LARGER. MINIMUM THERMAL RESISTANCE SHALL BE R=4.0 TO 4.6" PER INCH.
2. ALL PLUMBING WORK, FIXTURES, EQUIPMENTS, AND MATERIALS SHALL COMPLY WITH THE FOLLOWING CODES AS ADOPTED AND AMENDED BY THE INSPECTING AUTHORITY. NOTHING IN THESE DRAWINGS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR OTHERS APPLICABLE TO THIS PROJECT.

– TITLE 24 PART 1 & 2 OF CODE OF REGULATION 2016 WITH CALIFORNIA AMENDMENT PARTS 1, 2, 3, 4, 5, 9 AND 12.

– APPLICABLE CODES:
2016 CBC 2016 T-24 ENEGRY STANDARDS
2016 CEC 2016 CFC
2016 CMC

– TITLE 19, C.C.R. PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.

STANDARD ABBREVIATION

AP	ACCESS PANEL
ARCH	ARCHITECT OR ARCHITECTURAL
BEL	BELOW
CI	CAST IRON
CLG	CEILING
DN	DOWN
(E)	EXISTING
FT	FOOT, FEET
FT	FLUSH TANK
GPM	GALLONS PER MINUTE
HP	HORSE POWER
HZ	HERTZ
KW	KILOWATT
MAX	MAXIMUM
MECH.	MECHANICAL
MIN	MINIMUM
SOV	SHUT OFF VALVE
V	VENT
VTR	VENT TO ROOF

STANDARD PLUMBING LEGEND

SYMBOL	ABBREVIATIONS	DESCRIPTION
	CW	COLD WATER
	HW	HOT WATER
	V	VENT
	W or S	WASTE OR SOIL (ABOVE FLOOR)
	W or S	WASTE OR SOIL (BELOW FLOOR)
	FCO	FLOOR CLEANOUT
	WCO	WALL CLEANOUT
	SOV	SHUT–OFF VALVE
	SOV	SHUT–OFF VALVE ON RISER
	WHA	WATER HAMMER ARRESTOR
	P.O.C.	POINT OF CONNECTION

PIPE MATERIAL SCHEDULE

SERVICE			TYPE 'L' COPPER	TYPE 'K' COPPER	SCHEDULE 80 PVC	(X) BAND NO-HUB CAST IRON	ABS	SCHEDULE 40 BLACK STEEL	SCHEDULE 40 GALVANIZED STEEL	CAST FLEXIBLE GAS PIPE	CPVC	PVC	PEX TUBING (POLYETHYLENE)	CAST IRON PRESSURE PIPE	NOTES
WATER	INSIDE HOT AND COLD	ABOVE FLOOR									●		●		CPVC BUILDING RISERS PEX ONLY INSTALLED INSIDE THE UNITS
		UNDER SLAB										●			MUST BE SLEEVED PER CPC 2016
		THRU SLAB										●			
	OUTSIDE					●									REFER TO CIVIL PLANS FOR CONFIRMATION
WASTE/VENT	RISERS THRU ALL FLOORS					●	●								
	BELOW FLOOR											●			PVC DWV SHALL BE USED WHERE SOIL IS CORROSIVE AS APPROVED BY AUTHORITY HAVING JURISDICTION
GAS PIPING	INSIDE							●							
	OUTSIDE ABOVE FLOOR								●						PROVIDE DOUBLE WALL PIPING W/VENT IF INSTALLED BELOW SLAB
	EXPOSED TO WEATHER								●						
CONDENSATE DRAIN	ABOVE FLOOR											●			
STORM DRAIN	ABOVE FLOOR					●									AS APPROVED BY AUTHORITY HAVING JURISDICTION
	BELOW FLOOR											●			AS APPROVED BY AUTHORITY HAVING JURISDICTION
PUMP DISCHARGE	ABOVE FLOOR								●						AS APPROVED BY AUTHORITY HAVING JURISDICTION
	BELOW FLOOR													●	AS APPROVED BY AUTHORITY HAVING JURISDICTION
INDIRECT WASTE	ABOVE FLOOR											●			

– INSTALLATION OF CAST IRON FOR WASTE PIPE SHALL COMPLY WITH SECTION 701.1.6 CPC 2016. FOR MORE THAN 2 STORY
– INSTALLATION OF PEX WATER PIPING SHALL COMPLY WITH SECTION 604.1.2 PEX, CPC 2016.
– INSTALLATION OF GAS PIPING SHALL COMPLY WITH SECTION 1209.5.4, CPC 2016.
– INSTALLATION OF CPVC WATER PIPING SHALL COMPLY WITH SECTION 604.1.1, CPC 2016.
– ALL CPVC PIPING INSTALLATIONS SHALL BE INSTALLED PER CHAPTER 15 FOR "FIRESTOP PROTECTION" WHERE NEEDED.
– USE FLOWGUARD GOLD CPVC (SDR 11) PIPE & FITTING FOR WATER PIPE SIZE OF 2 INCH AND SMALLER.
– USE CORZAN CPVC SCHEDULE 80 FOR WATER PIPE SIZE OF 2–1/2" AND LARGER.
– ALL EXPOSED GAS PIPING SHALL BE PROTECTED AGAINST CORROSION BY COATING OR WRAPPING WITH AN INERT MATERIAL APPROVED FOR SUCH APPLICATION.

FOR THE USE OF CPVC SUPPLY PIPING, CONTRACTOR SHALL PROVIDE SPECIFICATIONS FOR THE CERTIFICATION OF COMPLIANCE AND THE WORKER SAFETY PROGRAM, PER 2016 CPC 604.1.1 (d) & (e). FOR THE PEX PIPING, CONTRACTOR SHALL PROVIDE SPECIFICATIONS FOR THE CERTIFICATION OF INSTALLATION PER 2016 CPC SEC. 604.1.2.

PLUMBING FIXTURE SCHEDULE

ITEM	FIXTURE	ROUGH–IN SERVICES				DESCRIPTION
		COLD WATER	HOT WATER	WASTE	VENT	
WC 1	WATER CLOSET	3/4"	––	3"	2"	COMPLIANCE W/ UPC SECTION 402, 408.2.2, 413.1, WATER CONSERVATION & AB 1953 LEAD FREE CONSULT WITH ARCHITECT/OWNER FOR SPECIFICATION, REQUIREMENT & COLOR
L 1	LAVATORY	1/2"	1/2"	2"	2"	AMERICAN STANDARD CADET PRO ELONGATED, 1.28 GPF, ADA COMPLIANT. COLOR: WHITE
L 2	LAVATORY	1/2"	1/2"	2"	2"	KOHLER BRYANT 20 1/8" X 16 1/2" OVAL WHITE, DROP–IN. K26994–4–0 DELTA SINGLE HANDLE FAUCET #523LFHDF ADA.
BT 1	BATHTUB	3/4"	3/4"	2"	2"	AMERICAN STANDARD LUCERNE WALL–HUNG LAVATORY, WHITE 4" CENTER HOLE #0356.041 DELTA SINGLE HANDLE FAUCET #523LFHDF ADA.
BT 2	BATHTUB	3/4"	3/4"	2"	2"	AS SPECIFIED BY DEVELOPER, ANGLE STOPS SHALL BE 1/4" TURN BALL VALVE STYLE. DELTA #R10000–UNWS, SHOWER HEAD NOT TO EXCEED 1.5 GPM
SH 1	SHOWER	3/4"	3/4"	2"	2"	AS SPECIFIED BY DEVELOPER, ANGLE STOPS SHALL BE 1/4" TURN BALL VALVE STYLE. DELTA #R10000–UNWS, SHOWER HEAD NOT TO EXCEED 1.5 GPM
R/O 1	RANGE/ OVEN	––	––	––	––	AS SPECIFIED BY DEVELOPER.
KS 1	KITCHEN SINK 1–COMPART.	3/4"	3/4"	2"	2"	33" X 22" DOUBLE BOWL, DROP–IN, SELF RIMMING, 8" DEEP, THREE HOLE STAINLESS STEEL. HDS #500872. DELTA SINGLE HANDLE #100LFWF, NO SPRAY HOSE. DELTA AERATOR FLOW TO BE LESS THAN 1.5 GPM. INSINK ERATOR BADGER 500 1/2" WITH CORD GARBAGE DISPOSAL.
S 1	LAUNDRY SINK 1–COMPART.	3/4"	3/4"	2"	2"	AS SPECIFIED BY DEVELOPER.
CW 1	CLOTH WASHER	3/4"	3/4"	2"	2"	ENERGY STAR. COMPLY WITH CCBC 4.303.3 ENERGY STAR MAXIMUM USE. SPECIFIED BY DEVELOPER.
CD 1	CLOTH DRYER STACKED	––	––	––	––	ENERGY STAR. SPECIFIED BY DEVELOPER.
TP 1	TRAP PRIMER	1/2"	––	––	––	PRECISION PLUMBING PRODUCTS PR01–500.

– REFER TO ARCHITECTURAL DRAWINGS FOR DESIGNATION OF ADA UNITS.
– VALVES, PIPING, PLUMBING FIXTURES, & EQUIPMENT SHALL COMPLY WITH AB1953 LEAD FREE REQUIREMENT.
– ALL FIXTURE SHALL MEET HIGH EFFICIENCY ORDINANCE.
– ALL NEW PLUMBING FIXTURES AND FITTINGS SHALL NOT EXCEED THE MAXIMUM ALLOWABLE FLOW RATES SPECIFIED TABLE BELOW.

FIXTURE FLOW RATE TABLE

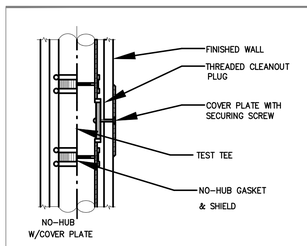
FIXTURE TYPE	MAXIMUM FLOW RATE
SHOWERHEADS	1.75 GPM @ 80 PSI
LAVATORY FAUCET, RESIDENTIAL	1.5 GPM @ 60 PSI
KITCHEN FAUCETS	1.5 GPM @ 60 PSI
GRAVITY TANK–TYPE WATER CLOSETS	1.28 GALLONS/FLUSH
FLUSHOMETER TANK WATER CLOSETS	1.28 GALLONS/FLUSH
FLUSHOMETER VALVE WATER CLOSETS	1.28 GALLONS/FLUSH
ELECTROMECHANICAL HYDRAULIC WATER CLOSETS	1.28 GALLONS/FLUSH
URINALS	0.5 GALLONS/FLUSH

1. INCLUDES SINGLE AND DUAL FLUSH WATER CLOSETS WITH AN EFFECTIVE FLUSH OF 1.28 GALLONS OR LESS.
   SINGLE FLUSH TOILETS – THE EFFECTIVE FLUSH VOLUME SHALL NOT EXCEED 1.28 GALLONS (4.8 LITERS). THE EFFECTIVE FLUSH VOLUME IS THE AVERAGE FLUSH VOLUME WHEN TESTED IN ACCORDANCE WITH ASME A112.19.233.2.

   DUAL FLUSH TOILETS – THE EFFECTIVE FLUSH VOLUME SHALL NOT EXCEED 1.28 GALLONS (4.8 LITERS). THE EFFECTIVE FLUSH VOLUME IS DEFINED AS THE COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH. FLUSH VOLUME SHALL BE TESTED TESTED IN ACCORDANCE WITH ASME A112.19.2. AND ASME A112.19.
2. LAVATORY FAUCETS SHALL NOT HAVE A FLOW RATE LESS THAN 0.8 GPM AT 20 PSI.

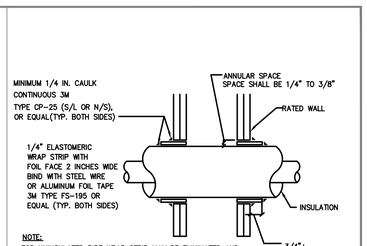
PLUMBING GENERAL NOTES

1. BEFORE COMMENCEMENT OF WORK, VERIFY THE EXACT LOCATIONS, ELEVATIONS AND CHARACTERISTICS OF ALL EXISTING UTILITIES AND PIPING. IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
2. EXACT LOCATIONS AND MOUNTING HEIGHTS OF PLUMBING FIXTURES SHALL BE OBTAINED FROM THE ARCHITECTURAL DRAWINGS.
3. SEE ARCHITECTURAL DRAWINGS FOR ADA FIXTURE LOCATIONS AND MOUNTING HEIGHTS.
4. ALL PLUMBING WORK SHALL BE INSTALLED SO AS TO AVOID INTERFERENCE WITH ELECTRICAL AND MECHANICAL EQUIPMENT AND STRUCTURAL FRAMING.
5. PROVIDE WATER, SEWER, AND DRAIN SYSTEMS TO A POINT OF CONNECTION SHOWN.
6. ALL CLEANOUTS SHALL BE INSTALLED WHERE READILY ACCESSIBLE. COORDINATE ALL CLEANOUT LOCATIONS WITH EQUIPMENT, CABINETS, ETC., AND THE ARCHITECT PRIOR TO ANY INSTALLATION.
7. ALL VALVES, UNIONS, ETC. TO BE SAME SIZE AS PIPE UNLESS OTHERWISE INDICATED ON DRAWINGS.
8. UNIONS SHALL BE PROVIDED AND INSTALLED AFTER EACH SCREW–TYPE VALVE AND PRIOR TO EQUIPMENT CONNECTIONS.
9. THE CONTRACTOR SHALL COORDINATE PLACEMENT OF ALL UNDERGROUND PIPING PRIOR TO CONSTRUCTION.
10. WHERE BRACING DETAILS ARE NOT SHOWN ON THE DRAWINGS OR IN THE GUIDELINES, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL SMACNA REQUIREMENT OF THE MECHANICAL ENGINEER.
11. BEFORE FABRICATION OR INSTALLATION, THIS CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT AND EQUIPMENT PROVIDED UNDER ANOTHER SECTION OF SPECIFICATIONS. EXACT ROUGH–IN LOCATIONS AND REQUIREMENTS SHALL BE COORDINATED IN FIELD.
12. ALL WASTE, DRAIN AND VENT PIPING SHALL SLOPE AT 1/4 INCH PER FOOT UNLESS OTHERWISE INDICATED. (CPC 2016––SEC. 708.0)
13. ALL VALVES, TRAP PRIMERS, WATER HAMMER ARRESTERS OR OTHER EQUIPMENT SHOWN IN WALLS OR ABOVE NON–ACCESSIBLE CEILINGS SHALL BE INSTALLED BEHIND A STAINLESS STEEL ACCESS PANEL.
14. ALL HOT WATER PIPING SHALL BE INSULATED WITH "MICRO–LOK" 850–APT, 1" THICK FOR SIZES UP TO 2": 1½" THICK
15. ALL WORK AND MATERIAL SHALL BE IN COMPLIANCE WITH THE FOLLOWING CODES AS ADOPTED AND AMENDED BY THE AUTHORITY HAVING JURISDICTION. NOTHING IN THESE DRAWINGS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR OTHERS APPLICABLE TO THIS PROJECT. SEE APPLICABLE CODES ON THIS SHEET
16. THE CONTRACTOR SHALL COORDINATE ALL REQUIREMENTS FOR ALL POINTS OF CONNECTION WITH ALL TRADES PRIOR TO BID.
17. (WHERE APPLICABLE) ALL PATCHING AND REPAIRING OF EXISTING FLOORING IS UNDER ANOTHER SECTION OF THESE SPECIFICATIONS. (PLUMBER SHALL COORDINATE WITH GENERAL CONTRACTOR PRIOR TO BID.)
18. ALL CONNECTIONS TO EXISTING SERVICES SHALL BE MADE SUCH THAT INTERRUPTION TIME WILL BE AS SHORT AS POSSIBLE.
19. ALL EXISTING PIPING DAMAGED DURING EXCAVATION SHALL BE REPAIRED WITH MATERIALS TO MATCH EXISTING.
20. (WHERE APPLICABLE) ALL EXISTING PIPING AND EQUIPMENT THAT IS REMOVED SHALL BE DISPOSED OFF AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
21. (WHERE APPLICABLE) ALL CUTTING OF EXISTING FLOORING SHALL BE BY MACHINE SAW CUTTING. HOLES FOR PIPES IN CONCRETE WALLS OR FLOORS SHALL BE DONE BY CORE DRILLING EQUIPMENT.
22. CONNECTION BETWEEN INCOMPATIBLE MATERIALS ABOVE GRADE AND INSIDE BUILDING SHALL BE MADE WITH TWO (2) DIELECTRIC UNIONS SEPARATED BY A 12" SECTION OF RED BRASS PIPE.
23. THE SEISMIC ANCHORAGE OF MECH AND ELECTRICAL EQUIPMENT SHALL CONFIRM TO "APPLICABLE CODES" INDICATED ON THIS SHEET.
24. THE CONTRACTOR SHALL VERIFY THE EXACT DEPTH AND LOCATION OF EXISTING DRAINAGE SYSTEM LATERALS PRIOR TO INSTALLATION OF ANY PIPING.
25. HOT WATER PIPING INSULATION SHALL BE IN ACCORDANCE WITH SECTION 123 TABLE 1–G OF THE TITLE 24 REGULATIONS CCR.
26. ALL NEW PLUMBING FIXTURES AND EQUIPMENT SHALL BE CERTIFIED BY THE CALIFORNIA STATE ENERGY COMMISSION TO COMPLY WITH EFFICIENCY STANDARDS.
27. CLEANOUTS REQUIRED AT THE UPPER TERMINAL FOR EACH HORIZONTAL DRAINAGE PIPE, EACH AGGREGATED CHANGE IN DIRECTION EXCEEDING 135 DEGREES, AND AT 100 FT. INTERVALS. THEY SHOULD BE READILY ACCESSIBLE AND SIZED PER (2016 CPC TABLE 7–6, SEC. 706 & 707).
28. EACH PLUMBING FIXTURE TRAP SHALL BE VENTED IN ACCORDANCE WITH THE CODE. UNLESS PROHIBITED BY STRUCTURAL CONDITIONS EACH VENT SHALL RISE VERTICALLY TO A POINT NOT LESS THAN SIX (6) INCHES ABOVE FLOOD LEVEL RIM OF FIXTURE BEFORE OFFSETTING HORIZONTALLY. (2016 CPC––SEC. 906.3) THE DISTANCE BETWEEN THE TRAP AND VENT SHALL BE AS SHOWN IN TABLE 10–1 AND SEC. 1002.0 (CPC 2016).
29. ALL FIXTURES SHALL CONFORM IN QUALITY AND DESIGN TO NATIONALLY RECOGNIZED APPLICABLE STANDARDS OR TO OTHER APPROVED STANDARDS ACCEPTABLE TO THE ADMINISTRATIVE AUTHORITY. (CPC SEC. 401.0)
30. BEFORE ANY DEVICE IS INSTALLED FOR THE PREVENTION OF BACKFLOW OR SIPHONING IT SHALL HAVE FIRST BEEN APPROVED BY THE ADMINISTRATIVE AUTHORITY. (2016 CPC SEC. 603.1).
31. PUBLIC LAVATORIES SHALL HAVE CONTROLS TO LIMIT THE WATER TEMPERATURE TO 110° F. (TITLE 24 PART 6 110.3(c) 3)
32. SPACING OF CLEANOUTS AND MANHOLES SHALL BE PER (2016 CPC SEC. 719.0).
33. INSTALL PIPES AS HIGH AS POSSIBLE TO UNDERSIDE OF STRUCTURE. NO HORIZONTAL PIPE SHALL TOUCH THE SLAB
34. PROVIDE ACOUSTICAL PIPE SUPPORT SYSTEM AS MANUFACTURED BY HUBBARD (THE HOLD–RITE SILENCER SYSTEM) ON PIPES RUNING ON STUD WALLS.
35. SLEEVES SHALL BE PROVIDED FOR PIPING PASSING THROUGH CONCRETE OR MASONRY FLOORS AND EXTERIOR BEARING WALLS
36. EACH PLUMBING VENT SHALL TERMINATE NOT LESS THAN TEN (10) FEET FROM OR AT LEAST THREE (3) FEET ABOVE ANY WINDOW, DOOR, OPENING, AIR INTAKE OR VENT SHAFT.
37. ALL REQUIRED CLEANOUTS SHALL BE INSTALLED PER SEC. 707.0 AND 719.0 OF THE 2016 CALIFORNIA PLUMBING CODE.
38. COMBUSTIBLE PIPING INSTALLATIONS SHALL BE INSTALLED PER CHAPTER 15 OF 2016 CALIFORNIA PLUMBING CODE FOR "FIRESTOP PROTECTION".
39. NEW OR REPAIRED POTABLE WATER SYSTEMS SHALL BE DISINFECTED PRIOR TO USE ACCORDING TO THE METHOD SET IN SECTION 609.9 OF THE PLUMBING CODE.
40. SHOWERS AND TUB–SHOWER COMBINATIONS SHALL BE PROVIDED WITH INDIVIDUAL CONTROL VALVES OF THE PRESSURE BALANCE, THERMOSTATIC, OR COMBINATION PRESSURE BALANCE/THERMOSTATIC MIXING VALVE TYPE. HANDLE POSITION STOPS SHALL BE ADJUSTED TO DELIVER A MAXIMUM MIXED WATER SETTING OF 120° F.

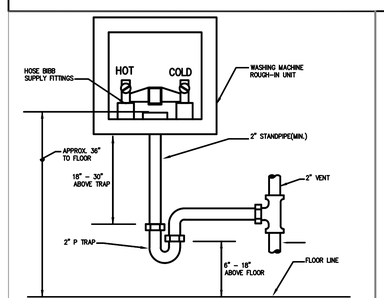


COORDINATE FINISHES, COLOR, AND LOCATION W/ARCHITECT PRIOR TO INSTALLATION

WALL CLEAN-OUT DETAIL — SCALE NONE — C



PIPE THRU WALL DETAIL — SCALE NONE — A



WASHING MACHINE ROUGH-IN — SCALE NONE — B

SHEET INDEX

SHEET NO.	DESCRIPTION
P0.0	PLUMBING LEAD SHEET
P0.1	PLUMBING DETAILS
P1.0	PLUMBING GROUND FLOOR PLAN
P1.1	PLUMBING SECOND FLOOR PLAN
P1.2	PLUMBING UNIT PLANS TYPICAL
P1.3	PLUMBING UNIT PLANS TYPICAL
P1.4	PLUMBING UNIT PLANS TYPICAL
P1.5	PLUMBING UNIT PLANS TYPICAL

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AME NO. : 18012

Stamp:

REGISTERED PROFESSIONAL ENGINEER — CHARLES ACQUIRE PICK — No. M31795 — EXP. 06-30-19 — MECHANICAL — STATE OF CALIFORNIA

DRAWING REVISION LOG

SUBMITTAL	12/12/17
PC SUBMITTAL	05.07.2018
PLAN CHECK 1 CORRECTIONS	08.06.2018

PROJECT NAME:

DESERT HAVEN (QUEENS MOTEL) RE-DEVELOPMENT

PROJECT LOCATION:

16959 STODDARD RD.
VICTORVILLE, CA 92395

SHEET TITLE:

PLUMBING LEAD SHEET

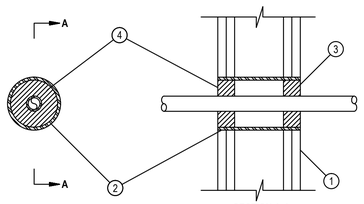
P0.0

WL 2186

System No. W-L-2186

F Ratings — 1 and 2 Hr (See Items 1 and 4)
T Ratings — 1/2 and 1 Hr (See Items 3 and 4)
L Rating at Ambient - Less Than 1 CFM/sq ft
L Rating at 400 F - 2 CFM/sq ft

Classified by Underwriters Laboratories, Inc. to UL 1479



SECTION A-A

1. Wall Assembly — The 1 or 2 hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) . Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — For 1 hr assembly, one layer of min 5/8 in. (16 mm) thick gypsum board as required in the individual Wall and Partition Design. For 2 hr assembly, two layers of min 5/8 in. (16 mm) thick gypsum board as required in the individual Wall and Partition Design. Max diam of opening is 3 in. (76 mm).
   The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.
2. Steel Sleeve — (Optional) - Max 3 in. (76 mm) diam Schedule 40 (or heavier) steel pipe sleeve friction-fit into circular opening core drilled through wall. Length of steel sleeve to be equal to thickness of wall.
3. Through Penetrant — One nom 1 in. (25 mm) diam (or smaller) SDR 9 cross-linked polyethylene (PEX) tubing for use in closed (process or supply) piping systems. The tubing installed concentrically or eccentrically within the opening. The annular space between the tube and the steel sleeve or wall opening shall be min 1/2 in. (13 mm) to max 1-3/8 in. (35 mm). Tube to be rigidly supported on both sides of wall assembly. When steel sleeve (Item 2) is not provided, tube may be installed at an angle not greater than 45 degrees from perpendicular.
   The hourly T Rating is 1/2 Hr and 1 Hr for 1 Hr and 2 Hr fire rated wall assemblies, respectively.
4. Fill, Void or Cavity Material*-Sealant — Min 5/8 in. (16 mm) and 1-1/4 in. (32 mm) thickness of fill material applied within annulus, flush with both surfaces of wall assembly for 1 and 2 hr rated walls, respectively. When a steel sleeve (Item 2) is provided for assemblies with L Ratings, sealant shall be applied around periphery of opening to cover the exposed ends of the sleeve and to lap min 1/4 in. (6 mm) onto gypsum board on each side of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

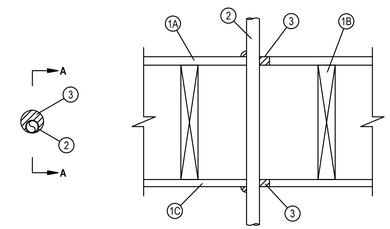
Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. January 22, 2015

FC 2334

System No. F-C-2334

F Rating — 1 Hr
T Rating — 1 Hr

Classified by Underwriters Laboratories, Inc. to UL 1479



SECTION A-A

1. Floor-Ceiling Assembly — The 1 hr fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Designs in the UL Fire Resistance Directory, as summarized below:
   A. Flooring System — Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Max diam of floor opening is 2 in. (51mm).
   B. Wood Joists — Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped.
   C. Gypsum Board* — Nom 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. Gypsum board secured to joists as specified in the individual Floor-Ceiling Design. Max diam of opening is 2 in. (51 mm).
2. Through Penetrants — One nonmetallic pipe to be installed either concentrically or eccentrically within the firestop system. The annular space within the firestop system shall be min 0 in. (point contact) to max 7/8 in. (22 mm). Pipe to be rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of nonmetallic pipes may be used:
   A. Crosslinked Polyethylene (PEX) Tubing — Nom 1 in. (25 mm) diam (or smaller) SDR 9 PEX tubing for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
3. Firestop System — The firestop system shall consist of the following:
   A. Fill, Void or Cavity Material* - Sealant — Min 3/4 in. (19 mm) thickness of fill material applied within annulus, flush with top surface of subfloor. Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with bottom surface of ceiling. At point contact locations, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the penetrant/gypsum board and penetrant/flooring interface.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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FIRESTOP DETAILS — SCALE NONE — 2

Table 2

FlowGuard Gold Pipe SDR 11 (ASTM D 2846)
Calculated Loop (Offset) Lengths with ΔT of approx. 80°F

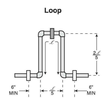
Nominal Pipe Size (in)	Length of Run in Feet				
	40	60	80	100	120
	Loop Length („) in Inches				
1/2"	23	28	33	36	40
3/4"	27	33	39	43	47
1"	31	38	44	49	54
1¼"	34	42	48	54	59
1½"	37	45	53	59	64
2"	42	52	60	67	74

Table 3

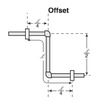
Corsan Pipe Schedule 80 (ASTM F 441)
Calculated Loop (Offset) Lengths with ΔT of approx. 80°F

Nominal Pipe Size (in)	Length of Run in Feet				
	40	60	80	100	120
	Loop Length („) in Inches				
1/2"	27	33	38	42	46
3/4"	30	37	42	47	52
1"	33	41	47	53	58
1¼"	38	46	53	59	65
1½"	40	49	57	64	70
2"	45	55	64	71	78
2½"	49	61	70	78	86
3"	55	67	77	86	94
4"	62	76	87	98	107
6"	75	92	106	119	130
8"	86	105	121	135	148
10"	96	117	135	151	165
12"	104	127	147	165	180

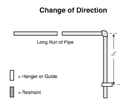
Loop



Offset



Change of Direction



Expansion Loop and Offset Configurations

Thermal expansion and contraction, page 2

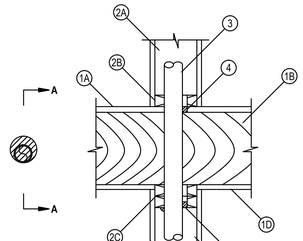
CPVC THERMAL EXPANSION/CONTRACTION DETAIL — SCALE NONE — 4

FC 2142

System No. F-C-2142

F Rating — 1 Hr
T Rating — 0 Hr

Classified by Underwriters Laboratories, Inc. to UL 1479



SECTION A-A

1. Floor-Ceiling Assembly — The fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction details of the floor-ceiling assembly are summarized below:
   A. Flooring System — Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Diam of opening shall be 1 in. (25 mm) larger than the nom diam of through-penetrant (Item 3).
   B. Wood Joists — Nom 2 by 10 in. (51 by 254 mm) lumber joists spaced 16 in. (406 mm) OC with nom 1 by 3 in. (25 by 76 mm) lumber bridging and with ends firestopped. As an alternate to lumber joists, nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required with ends firestopped.
   C. Furring Channels — (Not shown) — Resilient galv steel furring installed perpendicular to wood joists (Item 1B) between wallboard (Item 1D) and wood joists as required in the individual Floor-Ceiling Design.
   D. Gypsum Board* — Nom 4 ft (1.2 m) wide by 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. Diam of opening shall be 1 in. (25 mm) larger than the nom diam of through-penetrant (Item 3).
2. Chase Wall — (Optional) - The through penetrant (Item 3) may be routed through a 1 hr fire-rated single, double or staggered wood stud/gypsum wallboard chase wall constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Nom 2 by 4 in. (51 by 102 mm) lumber studs.
   B. Sole Plate — Nom 2 by 4 in. (51 by 102 mm) lumber plates. Diam of opening shall be 1 in. (25 mm) larger than the nom diam of through-penetrant (Item 3).
   C. Top Plate — The double top plate shall consist of two nom 2 by 4 in. (51 by 102 mm) lumber plates. Diam of opening shall be 1 in. (25 mm) larger than the nom diam of through-penetrant (Item 3).
   D. Gypsum Board* — Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.

Hilti Firestop Systems

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Page: 1 of 2

FC 2142

System No. F-C-2142

3. Through — Penetrants — One nonmetallic pipe to be installed either eccentrically or concentrically within the firestop system. The annular space between the through penetrant and the periphery of the opening shall be a min 0 in. (point contact) to a max of 5/8 in. (16 mm). Pipe to be rigidly supported on both sides of the floor-ceiling assembly. The following types and sizes of nonmetallic pipes may be used:
   A. Polyvinyl Chloride (PVC) Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 cellular or solid core PVC pipe for use in closed (process or supply) or vented (drain, waste, or vent) piping systems.
   B. Acrylonitrile Butadine Styrene (ABS) Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 40 cellular or solid core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
   C. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 2 in. (51 mm) diam (or smaller) SDR17 CPVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
4. Fill, Void or Cavity Material* — Sealant — Min 3/4 in. (19 mm) thickness of fill material applied within the annulus, flush with both surfaces of floor or sole plate. Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with and flush with bottom surface of ceiling or of lower top plate.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

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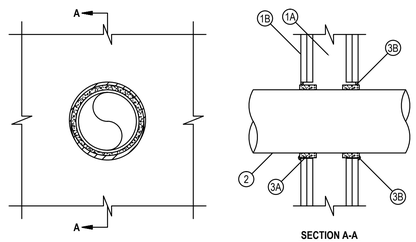
Page: 2 of 2

FIRESTOP DETAILS — SCALE NONE — 1



SECTION A-A

1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-1/2 in. (89 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — One or two layers of nom 5/8 in. (16 mm) thick gypsum board, as specified in the individual Wall and Partition Design. See Table under Item 3B for max diam of opening.
2. Through-Penetrants — One nonmetallic pipe installed within the firestop system. See Table under Item 3B for annular space required in the firestop system. Pipe to be rigidly supported on both sides of wall assembly. The following types and sizes of nonmetallic pipes may be used:
   A. Polyvinyl Chloride (PVC) Pipe — Nom 6 in. (152 mm) diam (or smaller) Schedule 40 cellular or solid core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.
   B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 6 in. (152 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping system.
   C. Acrylonitrile Butadiene Styrene (ABS) Pipe — Nom 4 in. (102 mm) diam (or smaller) Schedule 40 cellular or solid core ABS pipe for use in closed (process or supply) or vented (drain, waste or vent) piping system.
   The T Rating for 2 hr fire-rated walls is 0 hr. The T Rating for 1 hr fire-rated walls is 3/4 hr for nom 1-1/2, 2 and 3 in. (38, 51 and 76 mm) diam through penetrants. The T Rating for 1 hr fire-rated walls is 1/2 hr for nom 4 and 6 in. (102 and 152 mm) diam through penetrants.

3. Firestop System — The firestop system shall consist of the following:
   A. Fill, Void or Cavity Material* — Wrap Strip — See Table under Item 3B for min size of intumescent wrap strip. The wrap strip is continuously wrapped around the outer circumference of the pipe once and slid into the annular space such that approx 1/8 in. (3 mm) of the wrap strip protrudes from the wall surface. Wrap strip is held in place with integral fastening tape. Wrap strip installed on each surface of wall. HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 648S - 1.5" US, CP 648S - 2" US, CP 648S - 3" US, CP 648S - 4" US and CP 648S - 6" US
   B. Fill, Void or Cavity Material* — Caulk — Min 1/4 in. (6 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. For 2 hr fire-rated walls, 1/4 in. (6 mm) bead fill material also applied at wrap strip/gypsum wall interface. In 1 hr fire-rated walls, fill material is optional for nom 1-1/2, 2, 3 and 4 in. (38, 51, 76 and 102 mm) diam penetrants. In 2 hr fire-rated walls, fill material is optional for nom 1-1/2, 2 and 3 in. (38, 51 and 76 mm) diam penetrants. Fill material is required to be used to attain L Ratings.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant or FS-ONE MAX Intumescent Sealant

Nom Pipe Diam, in. (mm)	Wrap Strip	Min Wrap Strip Size, Width, in. (mm)	Nom Annular Space, in. (mm)	Annular Space, in. (mm)	
				Min	Max
1-1/2 (38)	CP 648S - 1.5" US	3/16 x 1 (5 x 25)	2-3/8 (60)	3/16 (5)	5/16 (8)
2 (51)	CP 648S - 2" US	3/16 x 1 (5 x 25)	3 (76)	3/16 (5)	5/16 (8)
3 (76)	CP 648S - 3" US	3/16 x 1-3/4 (5 x 44)	4 (102)	3/16 (5)	5/16 (8)
4 (102)	CP 648S - 4" US	3/8 x 1-3/4 (10 x 44)	5-3/8 (137)	3/8 (10)	1/2 (13)
6 (152)	CP 648S - 6" US	1/2 x 1-3/4 (13 x 44)	8 (203)	9/16 (14)	13/16 (21)

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

FIRESTOP DETAILS — SCALE NONE — 3

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REGISTERED PROFESSIONAL ENGINEER — CHARLES PICK — No. M31795 — EXP. 06-30-19 — MECHANICAL — STATE OF CALIFORNIA

DRAWING REVISION LOG

SUBMITTAL	12/12/17
PC SUBMITTAL	05.07.2018
PLAN CHECK 1 CORRECTIONS	08.06.2018

PROJECT NAME:

DESERT HAVEN
(QUEENS MOTEL)
RE-DEVELOPMENT

PROJECT LOCATION:

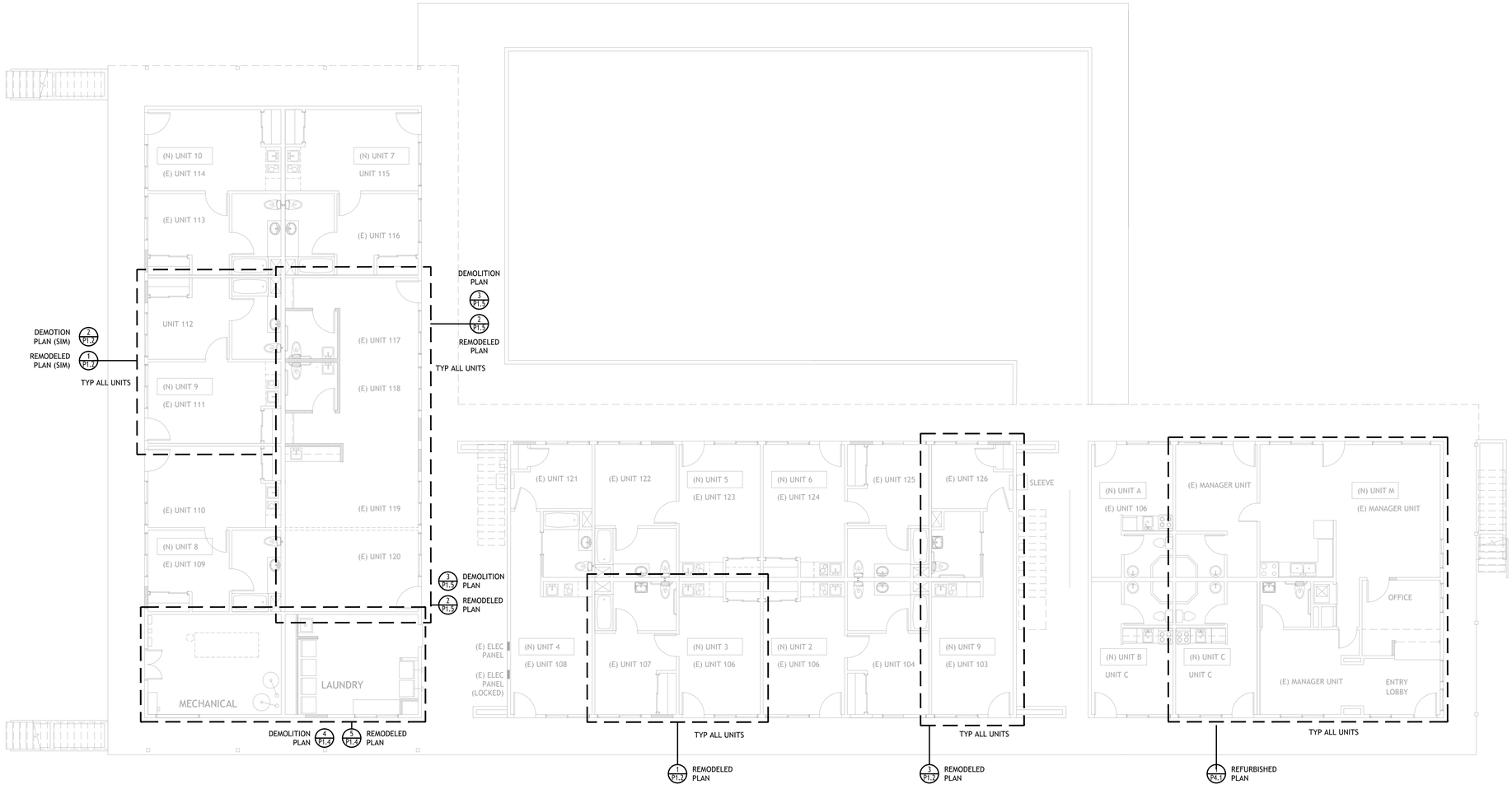
16959 STODDARD RD.
VICTORVILLE, CA 92395

SHEET TITLE:

1

PLUMBING
DETAILS

P0.1



NORTH

PLUMBING GROUND FLOOR PLAN

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

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16959 STODDARD RD.
VICTORVILLE, CA 92395

SHEET TITLE:

PLUMBING GROUND FLOOR PLAN

P1.0

NORTH

PLUMBING SECOND FLOOR PLAN

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

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STATE OF CALIFORNIA

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PROJECT NAME:

DESERT HAVEN
(QUEENS MOTEL)
RE-DEVELOPMENT

PROJECT LOCATION:

16959 STODDARD RD.
VICTORVILLE, CA 92395

SHEET TITLE:

PLUMBING SECOND FLOOR PLAN

P1.1

SANITARY SEWER PLUMBING CALCULATIONS

MARK	PLUMBING FIXTURES	QUANTITY	TRAP SIZE	SAN. F.U. EACH	SAN. F.U. TOTAL
WC	WATER CLOSET (FLUSH TANK)	1	3"	3	3
L	LAVATORY	1	1-1/2"	1	1
KS	KITCHEN SINK	1	1-1/2"	2	2
BT	BATHTUB	1	2"	2	2
	TOTALS	4			8
TYPICAL SIDE BY SIDE UNIT PLANS					SAN FU

DOMESTIC WATER SIZING CALCULATIONS

DEMAND LOAD WATER SUPPLY

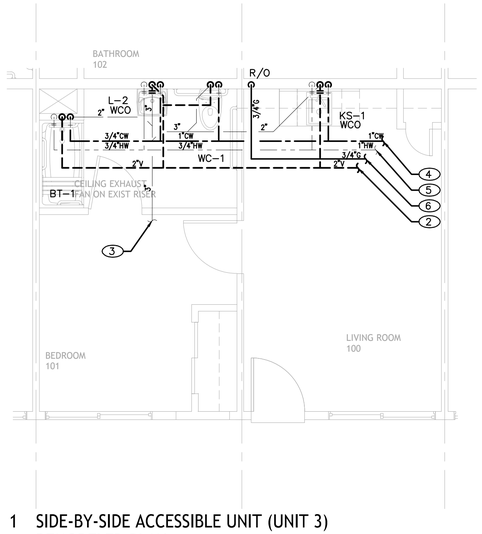
MARK	PLUMBING FIXTURES	QUANTITY	BRANCH PIPE SIZE	C.W.F.U.	H.W.F.U.	TOTAL F.U.
WC	WATER CLOSET	1	3/4"	2.5	-	2.5
L	LAVATORY	1	1/2"	0.75	0.75	.75
KS	KITCHEN SINK	1	1/2"	1.5	1.5	1.5
BT	BATHTUB	1	3/4"	3	3	3
	TOTAL FIXTURE UNITS					7.75
TYPICAL SIDE BY SIDE UNIT PLANS						8 GPM

PLUMBING GENERAL NOTES

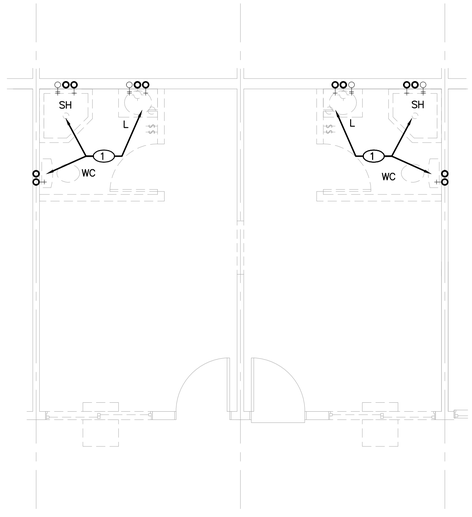
1	THE EXISTING CONDITIONS ARE BASED ON "AS-BUILT" DRAWINGS AND/OR LIMITED FIELD VERIFICATIONS. THE CONTRACTOR SHALL ADJUST TO ACTUAL FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO THE PROJECT. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY EXTRAS DUE TO THE CONTRACTOR'S FAILURE TO VISIT THE PROJECT SITE AND/OR PREDETERMINATION OF EXISTING CONDITIONS PRIOR TO SUBMITTING THE BID. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION.
2	THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE INCIDENTAL DEMOLITION WORK PRIOR TO BIDDING AND COMMENCEMENT OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF ALL EXISTING EQUIPMENT AS REQUIRED FOR THE INSTALLATION/CONSTRUCTION OF NEW WORK.[LM1]
3	ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE GOVERNMENTAL AND LOCAL CODE REQUIREMENTS.
4	PLUMBING CONTRACTOR SHALL COORDINATE RESPONSIBILITY OF SAW CUTTING PATCHING AND REPAIRING OF FLOORS, CEILINGS AND WALLS RELATED TO HIS/HER SCOPE OF WORK WITH THE GENERAL CONTRACTOR /OWNER/ARCHITECT AS RELATES TO HIS/HER PLUMBING SCOPE CONTRACTUAL WORK.
5	ALL HORIZONTAL WASTE PIPING SMALLER THAN 4" DIAMETER SHALL SLOPE AT 2%; ALL WASTE PIPING 4" DIAMETER AND LARGER TO BE SLOPPED AT 2% OR 1% WITH THE APPROVAL OF AUTHORITY HAVING JURISDICTION.
6	EXISTING HOT & COLD WATER LINES IN THE UNITS SHALL BE REPLACED WITH CPVC MAIN DOWNSTREAM FROM THE SHUT OFF VALVE GOING INTO THE RESIDENTIAL UNIT AND PEX FOR DISTRIBUTION TO FIXTURES.
7	PROVIDE TEMPORARY COVERS, CAPS, OR PLUGS ON SANITARY SEWER SYSTEM THROUGHOUT THE DURATION OF CONSTRUCTION. RAG WADS, DUCT TAPE, OR OTHER SIMILAR METHODS OF TEMPORARY COVERS SHALL NOT BE UTILIZED. UPON COMPLETION OF CONSTRUCTION, COMPLETELY REMOVE ANY AND ALL OBSTRUCTIONS INSIDE THE ENTIRE SYSTEM BY SNAKING, RODING, OR JETTING THE SYSTEM IMMEDIATELY PRIOR TO PROJECT TURNOVER TO THE OWNER.

PLUMBING SHEET NOTES

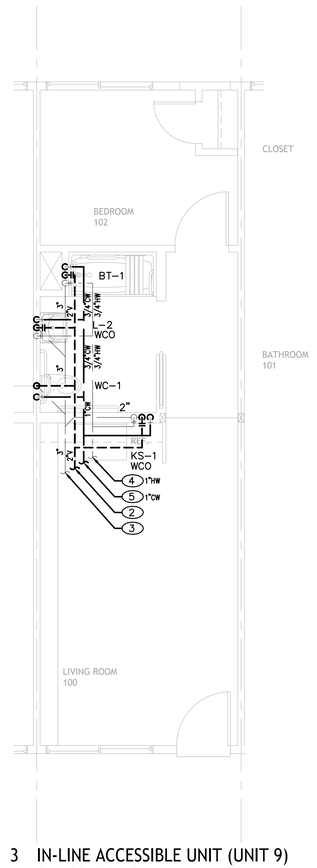
1	DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURE. REMOVE AND CAP COLD AND HOT WATER, WASTE AND VENT PIPING IN WALL. PATCHING AND REPARING PER GENERAL NOTE ON THIS SHEET.
2	CONNECT THE NEW VENT TO THE EXISTING VENT SYSTEM TERMINATING THROUGH THE ROOF. FIELD VERIFY THE EXACT SIZE AND LOCATION OF THE EXISTING VENT THROUGH ROOF PRIOR TO SUBMITTING BID AND COMMENCING CONSTRUCTION.
3	CONNECT THE NEW SANITARY SEWER TO THE EXISTING SANITARY SEWER OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION, SIZE, AND INVERT ELEVATION OF THE EXISTING SANITARY SEWER PRIOR TO CONSTRUCTION. ADJUST THE NEW SANITARY SEWER AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING SANITARY SEWER SYSTEM. MAINTAIN CODE MINIMUM PIPE SLOPES.
4	CONNECT THE NEW DOMESTIC COLD WATER LINE TO AN EXISTING COLD WATER LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION AND SIZE OF THE EXISTING WATER LINE PRIOR TO CONSTRUCTION. ADJUST THE NEW WATER LAYOUT AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING WATER SYSTEM.
5	CONNECT THE NEW DOMESTIC HOT WATER LINE TO AN EXISTING HOT WATER LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION AND SIZE OF THE EXISTING WATER LINE PRIOR TO CONSTRUCTION. ADJUST THE NEW WATER LAYOUT AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING WATER SYSTEM.
6	CONNECT THE NEW GAS LINE TO AN EXISTING GAS LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION AND SIZE OF THE EXISTING WATER LINE PRIOR TO CONSTRUCTION. ADJUST THE NEW GAS LAYOUT AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING GAS SYSTEM.



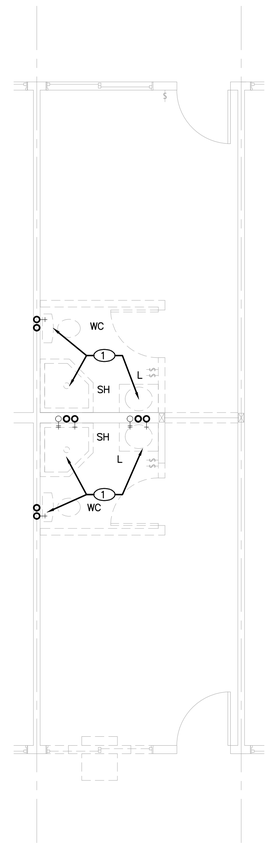
1 SIDE-BY-SIDE ACCESSIBLE UNIT (UNIT 3) REMODELED PLAN
SCALE: 1/4" = 1'-0"



2 TYPICAL SIDE BY SIDE UNIT DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



3 IN-LINE ACCESSIBLE UNIT (UNIT 9) REMODELED PLAN
SCALE: 1/4" = 1'-0"



4 TYPICAL IN-LINE UNIT DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

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MECHANICAL
STATE OF CALIFORNIA

DRAWING REVISION LOG

SUBMITTAL	12/12/17
PC SUBMITTAL	05.07.2018
PLAN CHECK 1 CORRECTIONS	08.06.2018

PROJECT NAME:

DESERT HAVEN
(QUEENS MOTEL)
RE-DEVELOPMENT

PROJECT LOCATION:

16959 STODDARD RD.
VICTORVILLE, CA 92395

SHEET TITLE:

PLUMBING UNIT PLANS
TYPICAL

P1.2

SANITARY SEWER PLUMBING CALCULATIONS

MARK	PLUMBING FIXTURES	QUANTITY	TRAP SIZE	SAN. F.U. EACH	SAN. F.U. TOTAL
WC	WATER CLOSET (FLUSH TANK)	1	3"	3	3
L	LAVATORY	1	1-1/2"	1	1
KS	KITCHEN SINK	1	1-1/2"	2	2
BT	BATHTUB	1	2"	2	2
	TOTALS	4			8
TYPICAL SIDE BY SIDE UNIT PLANS					SAN FU

DOMESTIC WATER SIZING CALCULATIONS

DEMAND LOAD WATER SUPPLY

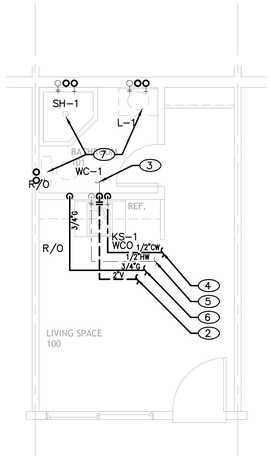
MARK	PLUMBING FIXTURES	QUANTITY	BRANCH PIPE SIZE	C.W.F.U.	H.W.F.U.	TOTAL F.U.
WC	WATER CLOSET	1	3/4"	2.5	-	2.5
L	LAVATORY	1	1/2"	0.75	0.75	.75
KS	KITCHEN SINK	1	1/2"	1.5	1.5	1.5
BT	BATHTUB	1	3/4"	3	3	3
	TOTAL FIXTURE UNITS					7.75
TYPICAL SIDE BY SIDE UNIT PLANS						8 GPM

PLUMBING GENERAL NOTES

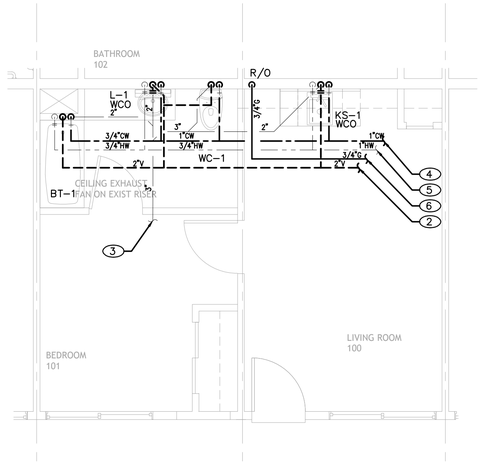
1	THE EXISTING CONDITIONS ARE BASED ON "AS-BUILT" DRAWINGS AND/OR LIMITED FIELD VERIFICATIONS. THE CONTRACTOR SHALL ADJUST TO ACTUAL FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO THE PROJECT. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY EXTRAS DUE TO THE CONTRACTOR'S FAILURE TO VISIT THE PROJECT SITE AND/OR PREDETERMINATION OF EXISTING CONDITIONS PRIOR TO SUBMITTING THE BID. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION.
2	THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE INCIDENTAL DEMOLITION WORK PRIOR TO BIDDING AND COMMENCEMENT OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF ALL EXISTING EQUIPMENT AS REQUIRED FOR THE INSTALLATION/CONSTRUCTION OF NEW WORK.[LM1]
3	ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL APPLICABLE GOVERNMENTAL AND LOCAL CODE REQUIREMENTS.
4	PLUMBING CONTRACTOR SHALL COORDINATE RESPONSIBILITY OF SAW CUTTING PATCHING AND REPAIRING OF FLOORS, CEILINGS AND WALLS RELATED TO HIS/HER SCOPE OF WORK WITH THE GENERAL CONTRACTOR /OWNER/ARCHITECT AS RELATES TO HIS/HER PLUMBING SCOPE CONTRACTUAL WORK.
5	ALL HORIZONTAL WASTE PIPING SMALLER THAN 4" DIAMETER SHALL SLOPE AT 2%; ALL WASTE PIPING 4" DIAMETER AND LARGER TO BE SLOPPED AT 2% OR 1% WITH THE APPROVAL OF AUTHORITY HAVING JURISDICTION.
6	EXISTING HOT & COLD WATER LINES IN THE UNITS SHALL BE REPLACED WITH CPVC MAIN DOWNSTREAM FROM THE SHUT OFF VALVE GOING INTO THE RESIDENTIAL UNIT AND PEX FOR DISTRIBUTION TO FIXTURES.
7	PROVIDE TEMPORARY COVERS, CAPS, OR PLUGS ON SANITARY SEWER SYSTEM THROUGHOUT THE DURATION OF CONSTRUCTION. RAG WADS, DUCT TAPE, OR OTHER SIMILAR METHODS OF TEMPORARY COVERS SHALL NOT BE UTILIZED. UPON COMPLETION OF CONSTRUCTION, COMPLETELY REMOVE ANY AND ALL OBSTRUCTIONS INSIDE THE ENTIRE SYSTEM BY SNAKING, RODING, OR JETTING THE SYSTEM IMMEDIATELY PRIOR TO PROJECT TURNOVER TO THE OWNER.

PLUMBING SHEET NOTES

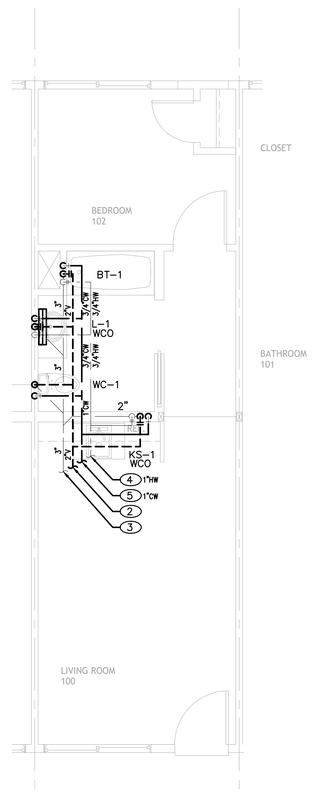
1	DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURE. REMOVE AND CAP COLD AND HOT WATER, WASTE AND VENT PIPING IN WALL. PATCHING AND REPARING PER GENERAL NOTE ON THIS SHEET.
2	CONNECT THE NEW VENT TO THE EXISTING VENT SYSTEM TERMINATING THROUGH THE ROOF. FIELD VERIFY THE EXACT SIZE AND LOCATION OF THE EXISTING VENT THROUGH ROOF PRIOR TO SUBMITTING BID AND COMMENCING CONSTRUCTION.
3	CONNECT THE NEW SANITARY SEWER TO THE EXISTING SANITARY SEWER OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION, SIZE, AND INVERT ELEVATION OF THE EXISTING SANITARY SEWER PRIOR TO CONSTRUCTION. ADJUST THE NEW SANITARY SEWER AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING SANITARY SEWER SYSTEM. MAINTAIN CODE MINIMUM PIPE SLOPES.
4	CONNECT THE NEW DOMESTIC COLD WATER LINE TO AN EXISTING COLD WATER LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION AND SIZE OF THE EXISTING WATER LINE PRIOR TO CONSTRUCTION. ADJUST THE NEW WATER LAYOUT AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING WATER SYSTEM.
5	CONNECT THE NEW DOMESTIC HOT WATER LINE TO AN EXISTING HOT WATER LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION AND SIZE OF THE EXISTING WATER LINE PRIOR TO CONSTRUCTION. ADJUST THE NEW WATER LAYOUT AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING WATER SYSTEM.
6	CONNECT THE NEW GAS LINE TO AN EXISTING GAS LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION AND SIZE OF THE EXISTING WATER LINE PRIOR TO CONSTRUCTION. ADJUST THE NEW GAS LAYOUT AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING GAS SYSTEM.
7	EXISTING PLUMBING FIXTURE TO REMAIN. CONTRACTOR SHALL REVIEW CONDITION OF EXISTING FIXTURE AND BRING TO LIKE NEW CONDITION. COORDINATE WITH OWNERS REPRESENTATIVE IF EXISTING FIXTURE NEEDS TO BE REPLACED.



1 TYPICAL EFFICIENCY UNIT
SCALE: 1/4" = 1'-0"



2 TYPICAL SIDE-BY-SIDE STANDARD UNIT (ADAPTABLE AT FIRST FLOOR) REMODELED PLAN
SCALE: 1/4" = 1'-0"



3 TYPICAL IN-LINE STANDARD UNIT (ADAPTABLE AT FIRST FLOOR) REMODELED PLAN
SCALE: 1/4" = 1'-0"

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No. M31795
EXP. 06-30-19
MECHANICAL
STATE OF CALIFORNIA

DRAWING REVISION LOG

SUBMITTAL	12/12/17
PC SUBMITTAL	05.07.2018
PLAN CHECK 1 CORRECTIONS	08.06.2018

PROJECT NAME:

DESERT HAVEN
(QUEENS MOTEL)
RE-DEVELOPMENT

PROJECT LOCATION:

16959 STODDARD RD.
VICTORVILLE, CA 92395

SHEET TITLE:

PLUMBING UNIT PLANS
TYPICAL

P1.3

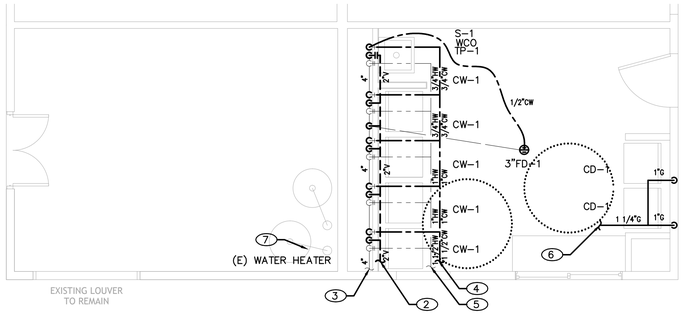
SANITARY SEWER PLUMBING CALCULATIONS

MARK	PLUMBING FIXTURES	QUANTITY	TRAP SIZE	SAN. F.U. EACH	SAN. F.U. TOTAL
CW	WASHER	4	2"	3	12
S	LAUNDRY SINK	1	1-1/2"	2	2
	TOTALS	4			14
LAUNDRY PLAN					SAN FU

DOMESTIC WATER SIZING CALCULATIONS

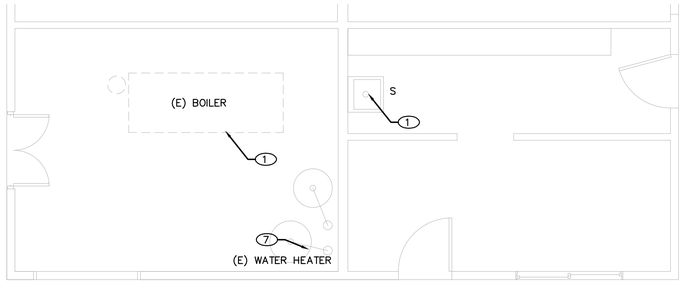
DEMAND LOAD WATER SUPPLY

MARK	PLUMBING FIXTURES	QUANTITY	BRANCH PIPE SIZE	C.W.F.U.	H.W.F.U.	TOTAL F.U.
CW	WASHER	4	3/4"	3	3	12
S	LAUNDRY SINK	1	1/2"	0.75	0.75	.75
	TOTAL FIXTURE UNITS					12.75
LAUNDRY PLAN						10 GPM



4 REMODELED COMMON LAUNDRY PLAN

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



5 EXISTING CONDITIONS AND DEMOLITION - LAUNDRY AND MECHANICAL ROOM

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

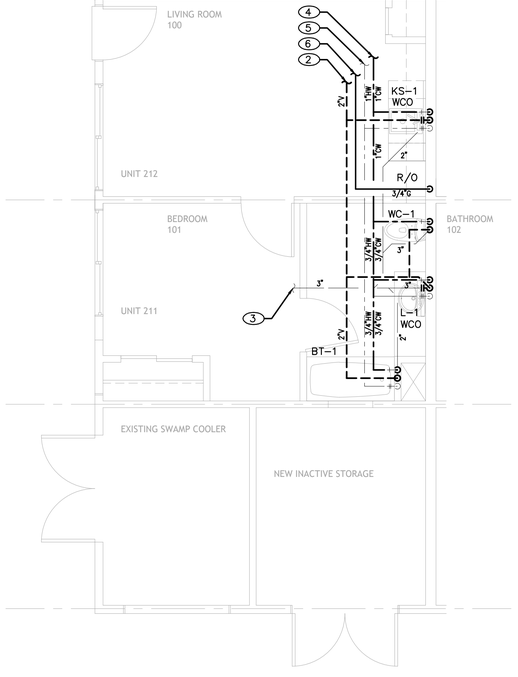
SANITARY SEWER PLUMBING CALCULATIONS

MARK	PLUMBING FIXTURES	QUANTITY	TRAP SIZE	SAN. F.U. EACH	SAN. F.U. TOTAL
WC	WATER CLOSET (FLUSH TANK)	1	3"	3	3
L	LAVATORY	1	1-1/2"	1	1
KS	KITCHEN SINK	1	1-1/2"	2	2
BT	BATHTUB	1	2"	2	2
	TOTALS	4			8
TYPICAL UNIT PLANS					SAN FU

DOMESTIC WATER SIZING CALCULATIONS

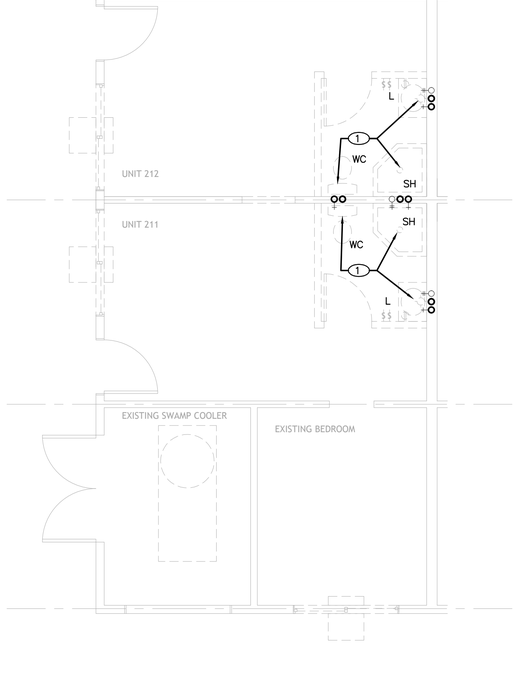
DEMAND LOAD WATER SUPPLY

MARK	PLUMBING FIXTURES	QUANTITY	BRANCH PIPE SIZE	C.W.F.U.	H.W.F.U.	TOTAL F.U.
WC	WATER CLOSET	1	3/4"	2.5	-	2.5
L	LAVATORY	1	1/2"	0.75	0.75	.75
KS	KITCHEN SINK	1	1/2"	1.5	1.5	1.5
BT	BATHTUB	1	3/4"	3	3	3
	TOTAL FIXTURE UNITS					7.75
TYPICAL UNIT PLANS						8 GPM



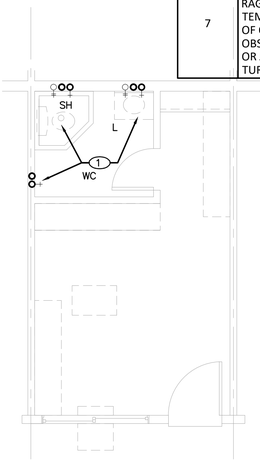
1 REMODELED PLAN UNITS 211 + 212

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



2 DEMOLITION PLAN UNITS 211 + 212

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



3 ADDITIONAL DEMOLITION REQD IN UNIT 107

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

PLUMBING SHEET NOTES

1	DISCONNECT AND REMOVE EXISTING PLUMBING FIXTURE. REMOVE AND CAP COLD AND HOT WATER, WASTE AND VENT PIPING IN WALL. PATCHING AND REPARING PER GENERAL NOTE ON THIS SHEET.
2	CONNECT THE NEW VENT TO THE EXISTING VENT SYSTEM TERMINATING THROUGH THE ROOF. FIELD VERIFY THE EXACT SIZE AND LOCATION OF THE EXISTING VENT THROUGH ROOF PRIOR TO SUBMITTING BID AND COMMENCING CONSTRUCTION.
3	CONNECT THE NEW SANITARY SEWER TO THE EXISTING SANITARY SEWER OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION, SIZE, AND INVERT ELEVATION OF THE EXISTING SANITARY SEWER PRIOR TO CONSTRUCTION. ADJUST THE NEW SANITARY SEWER AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING SANITARY SEWER SYSTEM. MAINTAIN CODE MINIMUM PIPE SLOPES.
4	CONNECT THE NEW DOMESTIC COLD WATER LINE TO AN EXISTING COLD WATER LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION AND SIZE OF THE EXISTING WATER LINE PRIOR TO CONSTRUCTION. ADJUST THE NEW WATER LAYOUT AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING WATER SYSTEM.
5	CONNECT THE NEW DOMESTIC HOT WATER LINE TO AN EXISTING HOT WATER LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION AND SIZE OF THE EXISTING WATER LINE PRIOR TO CONSTRUCTION. ADJUST THE NEW WATER LAYOUT AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING WATER SYSTEM.
6	CONNECT THE NEW GAS LINE TO AN EXISTING GAS LINE OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION AND SIZE OF THE EXISTING WATER LINE PRIOR TO CONSTRUCTION. ADJUST THE NEW GAS LAYOUT AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING GAS SYSTEM.
7	EXISTING PLUMBING FIXTURE TO REMAIN. CONTRACTOR SHALL REVIEW CONDITION OF EXISTING FIXTURE AND BRING TO LIKE NEW CONDITION. COORDINATE WITH OWNERS REPRESENTATIVE IF EXISTING FIXTURE NEEDS TO BE REPLACED.

PLUMBING GENERAL NOTES

1	THE EXISTING CONDITIONS ARE BASED ON "AS-BUILT" DRAWINGS AND/OR LIMITED FIELD VERIFICATIONS. THE CONTRACTOR SHALL ADJUST TO ACTUAL FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO THE PROJECT. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY EXTRAS DUE TO THE CONTRACTOR'S FAILURE TO VISIT THE PROJECT SITE AND/OR PREDETERMINATION OF EXISTING CONDITIONS PRIOR TO SUBMITTING THE BID. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION.
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5	ALL HORIZONTAL WASTE PIPING SMALLER THAN 4" DIAMETER SHALL SLOPE AT 2%; ALL WASTE PIPING 4" DIAMETER AND LARGER TO BE SLOPPED AT 2% OR 1% WITH THE APPROVAL OF AUTHORITY HAVING JURISDICTION.
6	EXISTING HOT & COLD WATER LINES IN THE UNITS SHALL BE REPLACED WITH CPVC MAIN DOWNSTREAM FROM THE SHUT OFF VALVE GOING INTO THE RESIDENTIAL UNIT AND PEX FOR DISTRIBUTION TO FIXTURES.
7	PROVIDE TEMPORARY COVERS, CAPS, OR PLUGS ON SANITARY SEWER SYSTEM THROUGHOUT THE DURATION OF CONSTRUCTION. RAG WADS, DUCT TAPE, OR OTHER SIMILAR METHODS OF TEMPORARY COVERS SHALL NOT BE UTILIZED. UPON COMPLETION OF CONSTRUCTION, COMPLETELY REMOVE ANY AND ALL OBSTRUCTIONS INSIDE THE ENTIRE SYSTEM BY SNAKING, RODING, OR JETTING THE SYSTEM IMMEDIATELY PRIOR TO PROJECT TURNOVER TO THE OWNER.

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CHARLES ALEXANDER PICK
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EXP. 06-30-19
MECHANICAL
STATE OF CALIFORNIA

DRAWING REVISION LOG

SUBMITTAL	12/12/17
PC SUBMITTAL	05.07.2018
PLAN CHECK 1 CORRECTIONS	08.06.2018

PROJECT NAME:

DESERT HAVEN
(QUEENS MOTEL)
RE-DEVELOPMENT

PROJECT LOCATION:

16959 STODDARD RD.
VICTORVILLE, CA 92395

SHEET TITLE:

PLUMBING UNIT PLANS
TYPICAL

P1.4

SANITARY SEWER PLUMBING CALCULATIONS

MARK	PLUMBING FIXTURES	QUANTITY	TRAP SIZE	SAN. F.U. EACH	SAN. F.U. TOTAL
WC	WATER CLOSET (FLUSH TANK)	1	3"	3	3
L	LAVATORY	1	1-1/2"	1	1
KS	KITCHEN SINK	1	1-1/2"	2	2
BT	BATHTUB	1	2"	2	2
	TOTALS	4			8
MANAGERS UNIT					SAN FU

DOMESTIC WATER SIZING CALCULATIONS

DEMAND LOAD WATER SUPPLY

MARK	PLUMBING FIXTURES	QUANTITY	BRANCH PIPE SIZE	C.W.F.U.	H.W.F.U.	TOTAL F.U.
WC	WATER CLOSET	1	3/4"	2.5	-	2.5
L	LAVATORY	1	1/2"	0.75	0.75	.75
KS	KITCHEN SINK	1	1/2"	1.5	1.5	1.5
BT	BATHTUB	1	3/4"	3	3	3
	TOTAL FIXTURE UNITS					7.75
MANAGERS UNIT						8 GPM

SANITARY SEWER PLUMBING CALCULATIONS

MARK	PLUMBING FIXTURES	QUANTITY	TRAP SIZE	SAN. F.U. EACH	SAN. F.U. TOTAL
WC	WATER CLOSET (FLUSH TANK)	2	3"	3	6
L	LAVATORY	2	1-1/2"	1	2
KS	KITCHEN SINK	1	1-1/2"	2	2
	TOTALS	5			10
COMMUNITY ROOM					SAN FU

DOMESTIC WATER SIZING CALCULATIONS

DEMAND LOAD WATER SUPPLY

MARK	PLUMBING FIXTURES	QUANTITY	BRANCH PIPE SIZE	C.W.F.U.	H.W.F.U.	TOTAL F.U.
WC	WATER CLOSET	2	3/4"	2.5	-	5
L	LAVATORY	2	1/2"	0.75	0.75	1.5
KS	KITCHEN SINK	1	1/2"	1.5	1.5	1.5
	TOTAL FIXTURE UNITS					8
COMMUNITY ROOM						8 GPM

PLUMBING GENERAL NOTES

1	THE EXISTING CONDITIONS ARE BASED ON "AS-BUILT" DRAWINGS AND/OR LIMITED FIELD VERIFICATIONS. THE CONTRACTOR SHALL ADJUST TO ACTUAL FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO THE PROJECT. NO ADDITIONAL COMPENSATION WILL BE PROVIDED FOR ANY EXTRAS DUE TO THE CONTRACTOR'S FAILURE TO VISIT THE PROJECT SITE AND/OR PREDETERMINATION OF EXISTING CONDITIONS PRIOR TO SUBMITTING THE BID. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ARCHITECT/ENGINEER FOR RESOLUTION.
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PLUMBING SHEET NOTES

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2	CONNECT THE NEW VENT TO THE EXISTING VENT SYSTEM TERMINATING THROUGH THE ROOF. FIELD VERIFY THE EXACT SIZE AND LOCATION OF THE EXISTING VENT THROUGH ROOF PRIOR TO SUBMITTING BID AND COMMENCING CONSTRUCTION.
3	CONNECT THE NEW SANITARY SEWER TO THE EXISTING SANITARY SEWER OF EQUAL OR GREATER SIZE. FIELD VERIFY THE EXACT LOCATION, SIZE, AND INVERT ELEVATION OF THE EXISTING SANITARY SEWER PRIOR TO CONSTRUCTION. ADJUST THE NEW SANITARY SEWER AS REQUIRED TO ALLOW FOR CONNECTION TO THE EXISTING SANITARY SEWER SYSTEM. MAINTAIN CODE MINIMUM PIPE SLOPES.
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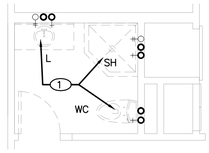
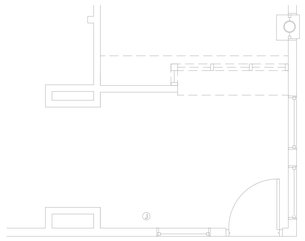
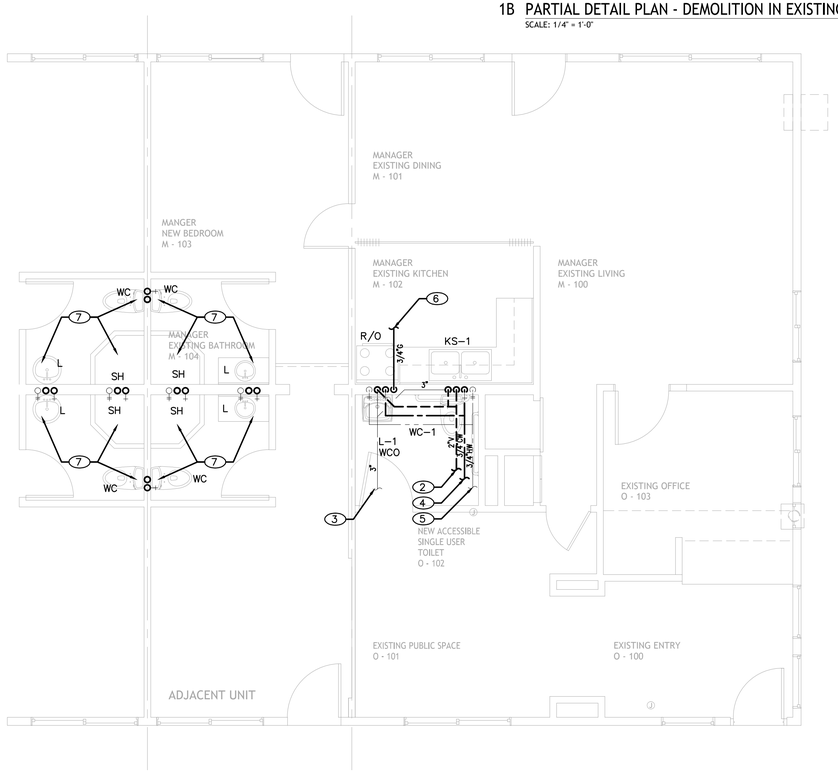


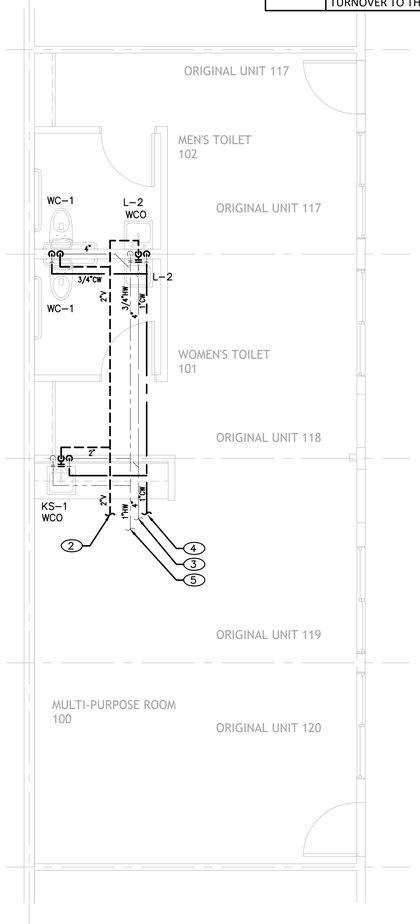
1A PARTIAL DETAIL PLAN
DEMOLITION IN EXISTING TOILET ROOM
SCALE: 1/4" = 1'-0"



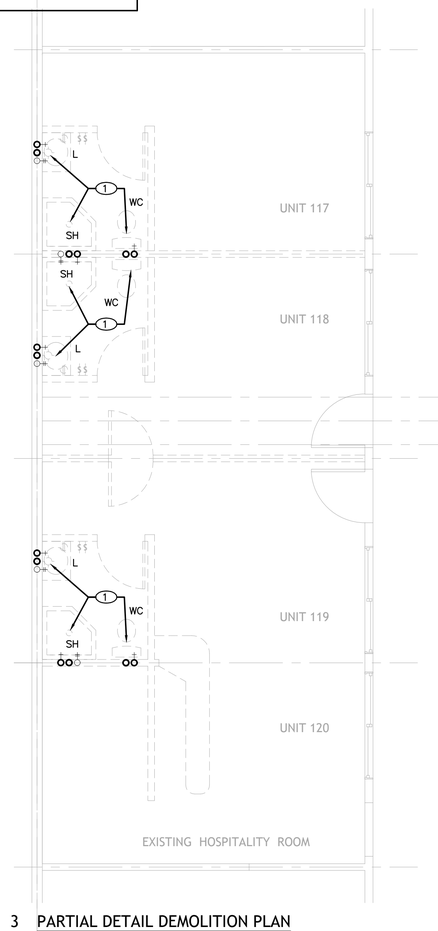
1B PARTIAL DETAIL PLAN - DEMOLITION IN EXISTING LOBBY
SCALE: 1/4" = 1'-0"



1 PARTIAL DETAIL REMODELED PLAN OF MANAGER'S UNIT
SCALE: 1/4" = 1'-0"



2 PARTIAL DETAIL REMODELED COMMUNITY ROOM PLAN
SCALE: 1/4" = 1'-0"



3 PARTIAL DETAIL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

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DRAWING REVISION LOG

SUBMITTAL	12/12/17
PC SUBMITTAL	05.07.2018
PLAN CHECK 1 CORRECTIONS	08.06.2018

PROJECT NAME:

DESERT HAVEN
(QUEENS MOTEL)
RE-DEVELOPMENT

PROJECT LOCATION:

16959 STODDARD RD.
VICTORVILLE, CA 92395

SHEET TITLE:

PLUMBING UNIT PLANS
TYPICAL

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