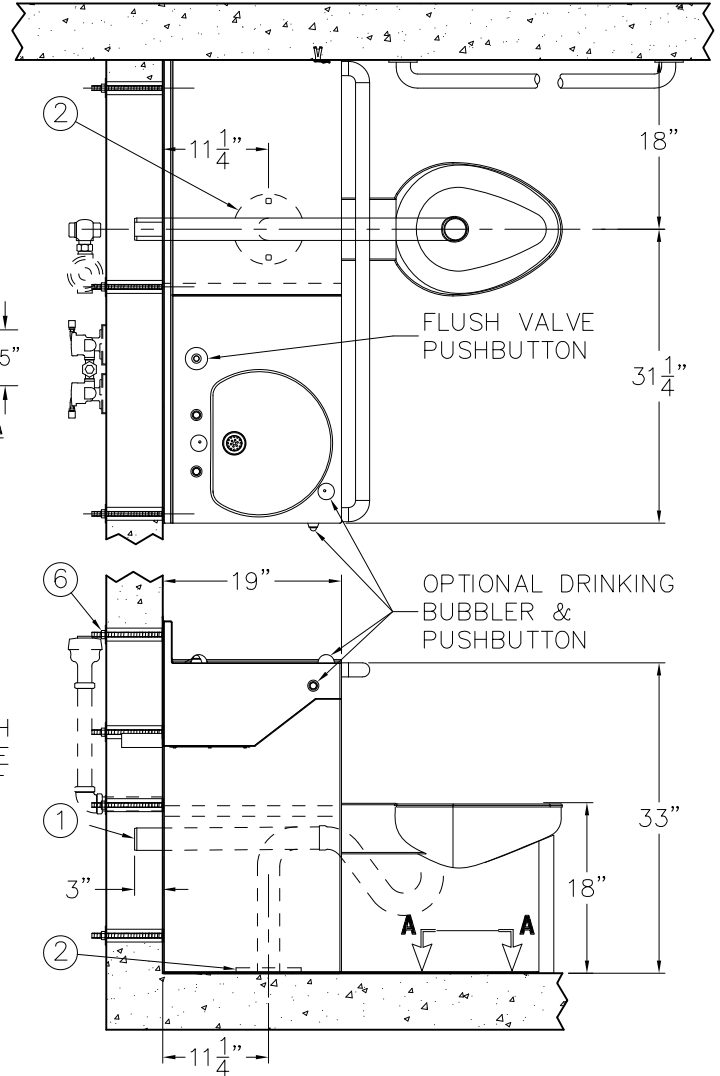
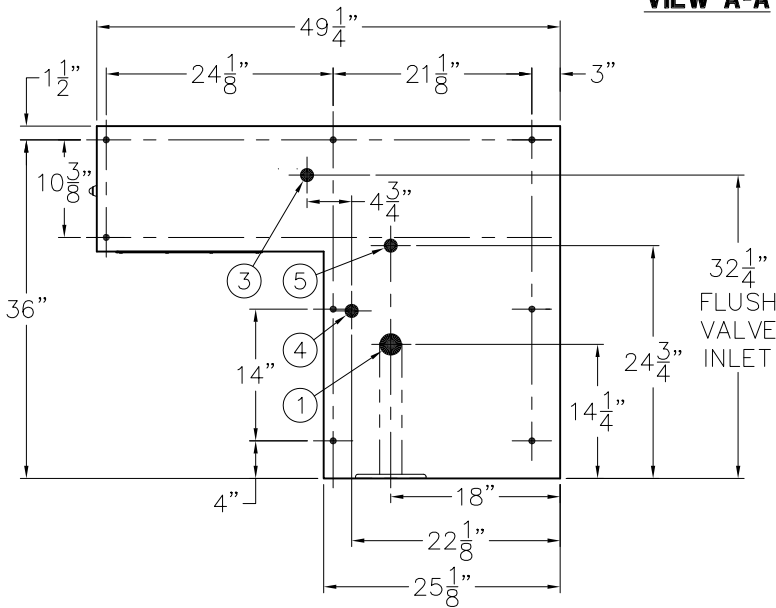
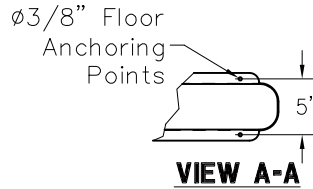




REFERENCE DRAWINGS	
ITEM	DRAWING
-04 AIR-CONTROL	9905-000-003
-03 AIR-CONTROL	9905-001-003
-SW WALL SLEEVE/-MT	9925-014-001

ROUGH-IN VIEW SHOWN FROM CELL SIDE.
-RO UNIT SHOWN, -LO UNIT OPPOSITE.



INSTALLATION INSTRUCTIONS:

A- ROUGH-IN FOR THE FOLLOWING CONNECTIONS:

- TOILET WASTE WALL OUTLET: 2-3/8" OD PLAIN END (1) STANDARD. OPTIONAL 3" OD PLAIN END FOR -W03B OPTION.
- TOILET WASTE OUTLET -FLOOR: ø7-1/2" RECESSED GASKET FLANGE (2) WITH 5/16" TAPPINGS ON 6" CENTERS.
- FLUSH VALVE INLET: 1" NPTI (3). FLUSHING INLET (4) IS 1-1/2" NPTI.
- LAVY WASTE OUTLET: 1-1/2" OD PLAIN END (5). SUITABLE FOR COMPRESSION-SLIP JOINT TYPE.
- LAVY VALVE: SEE INDIVIDUAL VALVE SHEET FOR ROUGH-IN.

B- FLOOR WASTE OUTLET TYPE: BEFORE FIXING UNIT TO WALL, FIXTURE MUST BE POSITIONED ON WASTE CONNECTION (2).

- C- THREAD 1/2"-13 UNC ALL THREAD (6) INTO REAR ANCHOR TAPPINGS; MUST HAVE A MIN. OF 1/2" ENGAGEMENT. THREAD FLUSHING INLET (4) NIPPLE. THREAD LAVY WASTE CONNECTION.
- D- ALIGN ALL THREADS AND PIPES THROUGH WALL OPENINGS AND SLIDE INTO POSITION.
- E- SECURE FIXTURE TO WALL USING WASHERS AND/OR PLATES AND NUTS. INSTALL FLUSH SUPPORT PLATE ON FLUSH VALVE SIDE. TORQUE NUTS TO 60FT LBS. SEE DETAIL A.

HYDRAULIC FLUSH VALVE NOTES:

1. DO NOT CUT LENGTH OF TUBING PROVIDED.
2. DO NOT TAPE OR FIX TUBING IN A STATIONARY POSITION.

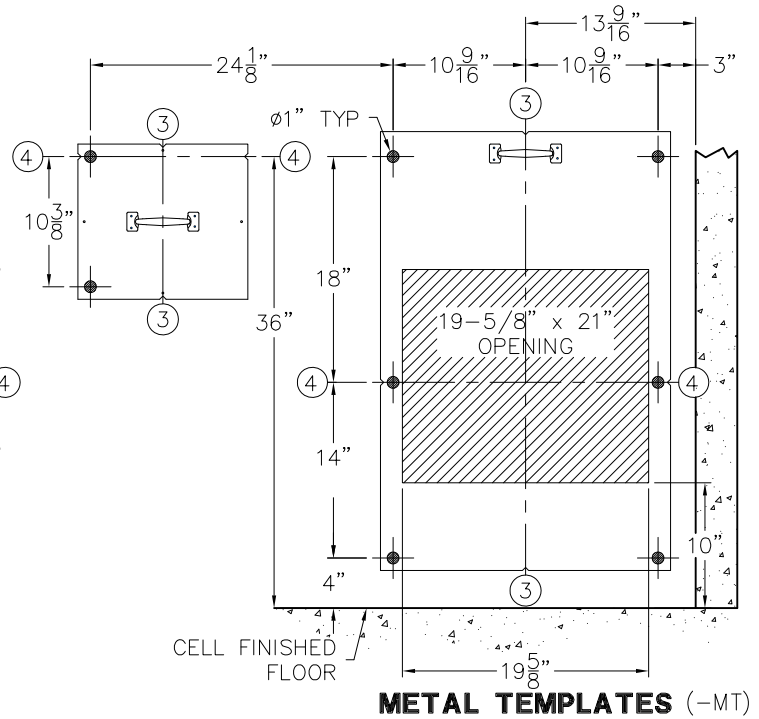
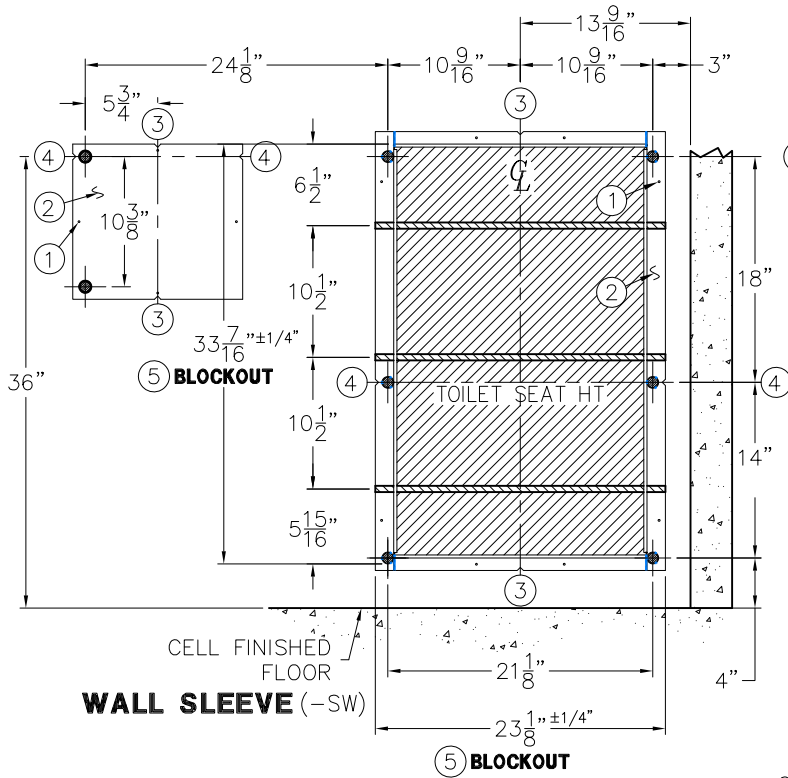


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TITLE LAV-TOILET COMBY INSTALL INSTRUCTION *1449-LO/RO		
MANUFACTURE DATE JANUARY 2015	DATE ISSUED 01/30/15	DRAWING NUMBER 9925-013-001
TO PRESENT	DATE REVISED	



VIEW FROM CELL SIDE
 -RO RIGHT OFFSET FIXTURE ROUGH-IN'S SHOWN;
 -LO LEFT OFFSET FIXTURE OPPOSITE



SHADED AREAS ARE REQUIRED WALL OPENINGS

WALL SLEEVE

SLEEVES ARE INSTALLED IN FORMS (USING NAIL HOLES ① PROVIDED) OR GROUTED INTO BLOCK WALLS, BECOMING A PERMANENT PART OF WALL.

- A. INSTALL SLEEVE WITH FLANGE ② ON CHASE SIDE OF WALL.
- B. LOCATE TOP AND BOTTOM NOTCHES AT VERTICAL CENTERLINE ③ OF PLUMBING FIXTURE OR CENTERLINE OF SLEEVE PLATE.
- C. LOCATE SIDE HORIZONTAL NOTCHES ④ AT DIMENSIONS SHOWN, MEASURED FROM THE FINISHED FLOOR ON CELL (FIXTURE) SIDE .

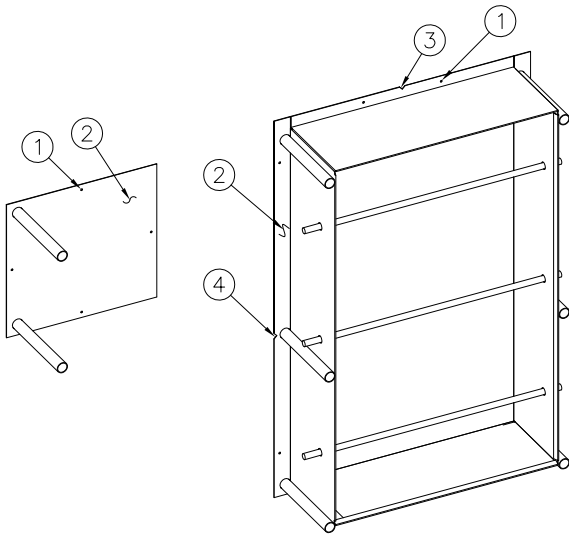
NOTES:

- 1. FOR POURED WALL CONSTRUCTION, TEMPORARY BRACING SHOULD BE INSTALLED WITHIN SLEEVE OPENING TO PREVENT DEFORMATION TO SLEEVE WHICH MAY OCCUR DURING POUR. DO NOT POUR CONCRETE DIRECTLY ON TOP OF WALL SLEEVE.
- 2. WHEN SLEEVES ARE NOT AVAILABLE BLOCKOUT FOR SLEEVE OPENING IN WALL PER DIMENSIONS SHOWN ⑤.

METAL TEMPLATES (-MT)

TEMPLATES ARE USED TO LAYOUT REQUIRED WALL OPENINGS FOR SUBSEQUENT FLAME CUTTING OR CORE DRILLING.

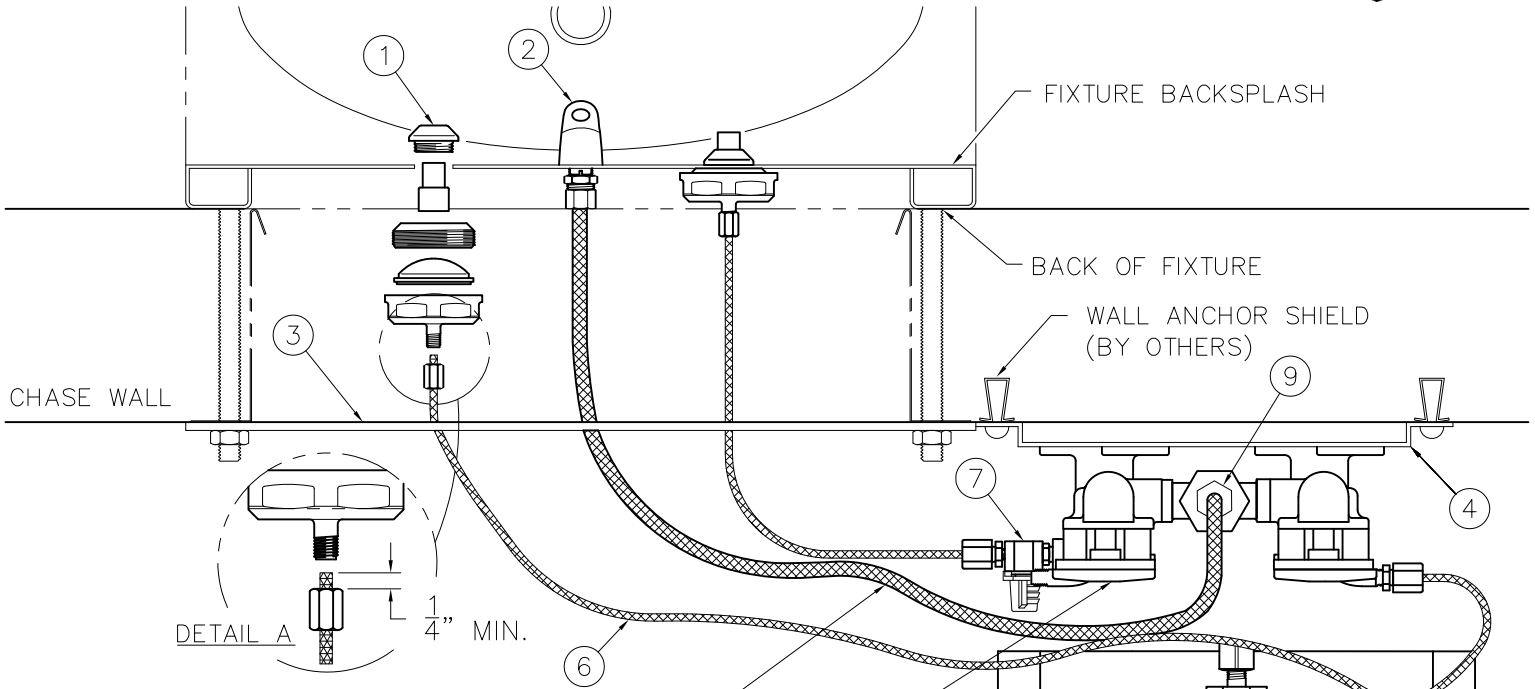
- A. STRIKE A HORIZONTAL CHALKLINES ④ ON THE WALL AT DIMENSIONS SHOWN, MEASURED FROM THE FINISHED FLOOR ON CELL (FIXTURE) SIDE. THIS WILL LOCATE CENTERLINE FOR HORIZONTAL NOTCHES ON TEMPLATES.
- B. STRIKE A VERTICAL CHALKLINE ③ ON THE WALL AT DIMENSIONS SHOWN. THIS WILL LOCATE CENTERLINE FOR VERTICAL NOTCHES ON METAL TEMPLATE.
- C. PLACE TEMPLATE AGAINST WALL. LOCATE NOTCHES ALONG CHALKLINES. MARK WALL FOR REQUIRED OPENING.



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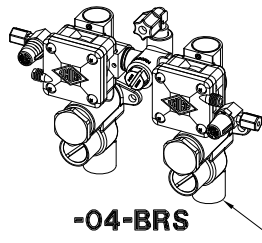
TITLE **(-SW) WALL SLEEVE & (-MT) METAL TEMPLATE- CAT. #1449-LO/RO**

MANUFACTURE DATE JANUARY 2015 TO PRESENT	DATE ISSUED 01/31/15	DRAWING NUMBER 9925-014-001
	DATE REVISED	



NOTE: THIS VALVE SHOWN w/ (-MH) METERING, HOT SIDE ONLY

REFERENCE DRAWINGS	
ASSEMBLIES	NUMBER
VALVE BODY	9955-005-003
CHECKSTOP	9956-040-003
FIXTURE TRIM	9957-050-001
-PBH/BPH TRIM	9957-060-001
AIR-CONTROL SERVOMOTORS	
METERING	9955-000-003
NON-METERING	9955-001-003



INSTALLATION INSTRUCTIONS:

- A- PRIOR TO INSTALLATION OF THE FIXTURE, MOUNT PUSHBUTTONS ① AND BUBBLER ② TO THE BACKSPLASH.
- B- INSTALL THE PLUMBING FIXTURE TO THE WALL INCLUDING UPPER SUPPORT PLATE ③.
- C- MOUNT THE AIR-CONTROL VALVE ASSEMBLY ④. LOCATE AS REQUIRED. MAXIMUM ALLOWABLE DISTANCE BETWEEN PUSHBUTTON ① AND AIR-CONTROL SERVOMOTOR ⑤ IS 10 FEET. WALL ANCHORING HARDWARE ARE BY OTHERS.
- D- CONNECT 1/8" O.D. POLYETHYLENE AIR LINES ⑥ TO PUSHBUTTONS ① AND SERVOMOTOR ⑤. HAND TIGHTEN USING FERRULE NUTS PROVIDED. SEE DETAIL A. NOTE: WHEN METERING VALVES ARE SPECIFIED, AIR LINES CONNECT DIRECTLY TO VALVE TIMER ⑦.
- E- CONNECT 1/4" O.D. POLYETHYLENE WATER LINE ⑧ TO BUBBLER ② AND COMPRESSION NUT ⑨. HAND TIGHTEN USING FERRULE NUTS PROVIDED.

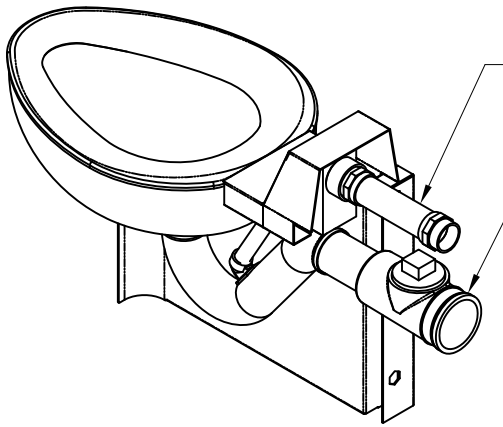
- F- AFTER THOROUGHLY FLUSHING THE SUPPLY LINES, MAKE-UP 1/2" NPS FEMALE SUPPLY CONNECTIONS. NOTE: SUPPLY INLET CONNECTION WILL ACCOMODATE 1/2" NPT MALE ADAPTER. THREAD FLEX CONNECTOR HOSE ⑩ TO CHECKSTOPS ⑪ AND TO SUPPLY STUB OUTS. FOR OPTIONAL -04-BRS BRASS BODY VALVE, MAKE UP CONNECTION TO CHECK STOPS ⑫.
- G- SEE APPROPRIATE SERVOMOTOR REFERENCE DRAWING FOR DETAILS AND TIMING INSRUCTIONS.

NOTE:
 MAXIMUM RECOMMENDED WORKING WATER PRESSURE IS 100 PSI; TEMPERATURE IS 130° F; OUTLET TEMPERATURE IS RECOMMENDED AT A MAXIMUM OF 105° F.
 WARNING:
 PRIOR TO MAKING INSTALLATION, SUPPLY LINES MUST BE FLUSHED OF ALL FOREIGN MATERIAL SUCH AS PIPE DOPE, CHIPS, SOLDER, ETC. VALVE MUST BE DRAINED PRIOR TO BEING SUBJECTED TO FREEZING TEMPERATURES. MAXIMUM RECOMMENDED OUTLET WATER TEMPERATURE IS 105° F.



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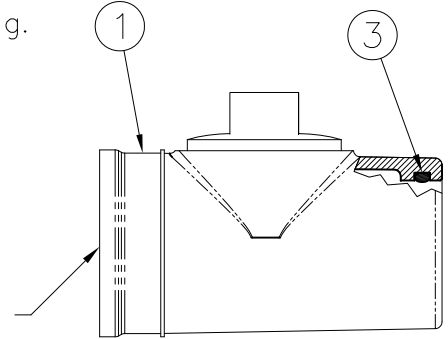
TITLE (04-SERIES) HOT & COLD AIR-CONTROL VALVE ASSEMBLY - NEW STYLE		
MANUFACTURE DATE SEPT 1995 TO PRESENT	DATE ISSUED 11/1/95	DRAWING NUMBER 9905-000-003
	DATE REVISED 11/18/13 F	



Optional -FVT Flush Valve Thru Wall Connection. Shown For Reference.

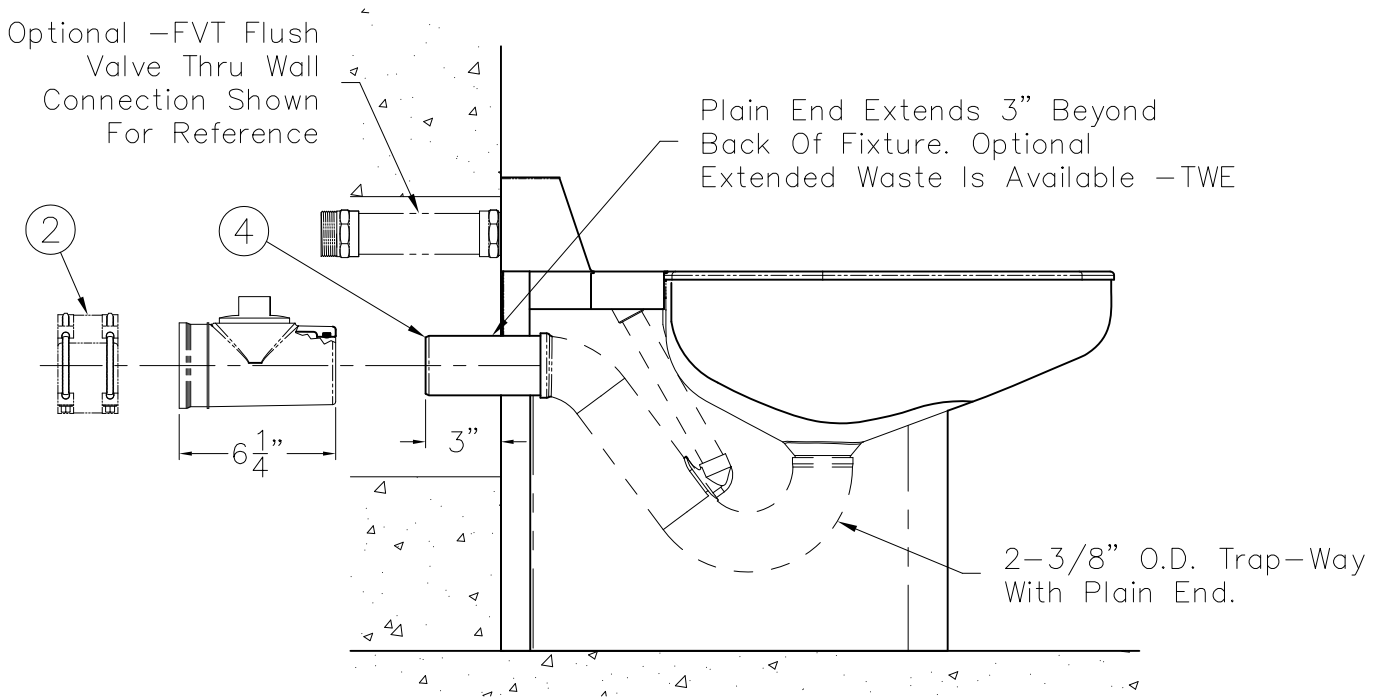
Optional -CO1 Waste Fitting. Shown For Reference.

REFERENCE DRAWING	
WASTE CONNECTION WITH CLEANOUT -CO1	9985-125-002



NOTE: Optional -CO1 Waste Fitting Available With 3" or 4" No-Hub

Scaled: X 2



MODEL #1685 SHOWN FOR REFERENCE

INSTALLATION INSTRUCTIONS

A-INSERT O-RING ③ INTO GROOVE OF WASTE FITTING ①. LUBRICATE THE O-RING ③ WITH O-RING LUBRICANT.

B-INSTALL WASTE FITTING ① TO FIXTURE P-TRAP WASTE EXTENSION ④. ENGAGEMENT IS APPROXIMATELY 1-1/4". NOTE: TOILET WASTE

EXTENSION ④ IS 3" BEYOND BACK OF FIXTURE. LONGER WASTE EXTENSION IS AVAILABLE.

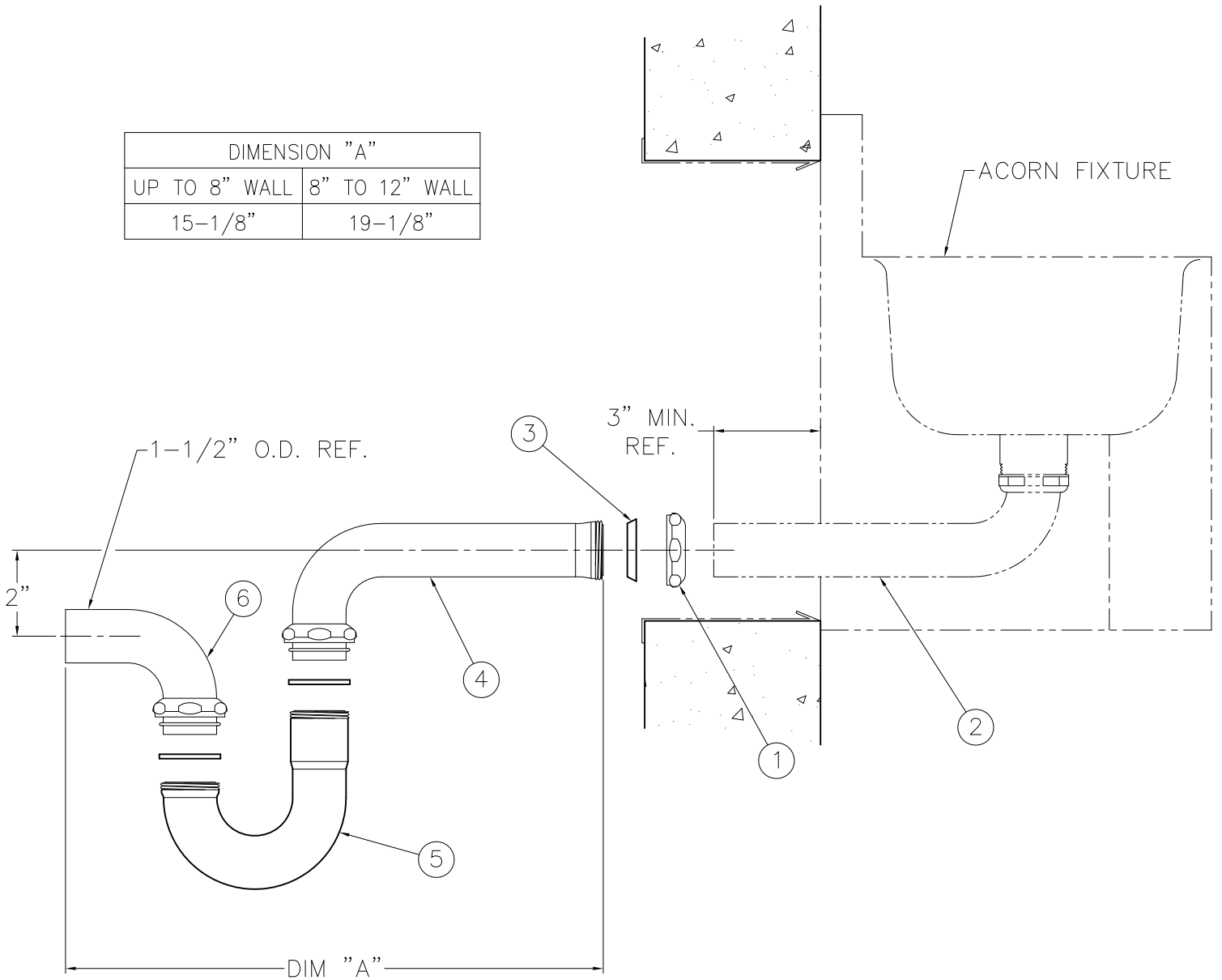
C-MAKE UP WASTE FITTING CONNECTION TO WASTE PIPING USING NO-HUB (BAND) CONNECTOR ②. BY OTHERS.



TITLE NO-HUB WASTE CONNECTION WITH CLEANOUT -CO1		
MANUFACTURE DATE JULY 1975 PRESENT	DATE ISSUED 1/29/96	DRAWING NUMBER 9925-054-001
	DATE REVISED 11/08/13 D	



DIMENSION "A"	
UP TO 8" WALL	8" TO 12" WALL
15-1/8"	19-1/8"



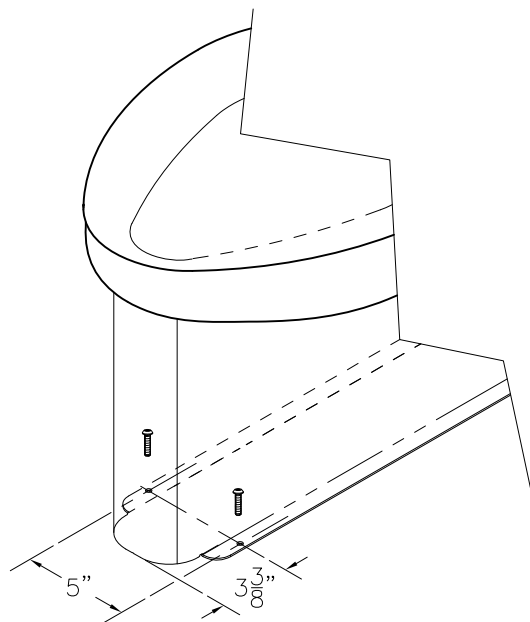
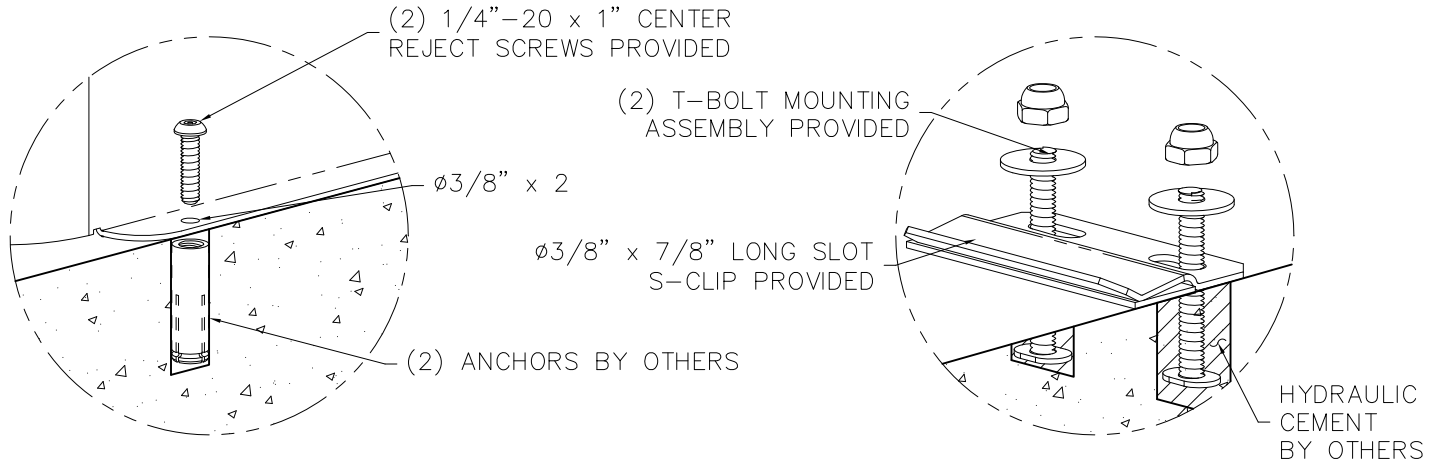
INSTALLATION INSTRUCTIONS:

A- AFTER INSTALLING ACORN UNIT ON FINISHED WALL, SLIP COMPRESSION NUT ① OVER 1-1/2" O.D. PLAIN END WASTE ②. USING COMPRESSION GASKET ③, AND NUT ① MAKE-UP COMPRESSION CONNECTION WITH SLIP JOINT ELBOW ④.

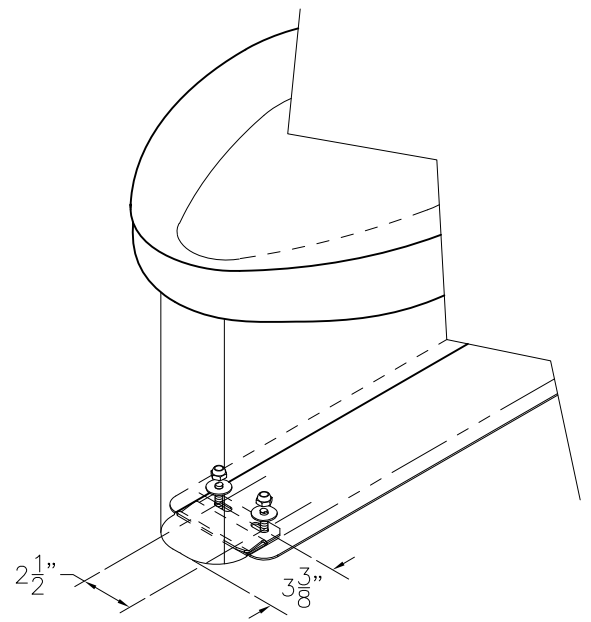
B- REMOVABLE TUBULAR P-TRAP ⑤ CONNECTS TO SLIP JOINT ELBOW ④ AND PLAIN END ELBOW ⑥ WITH COMPRESSION CONNECTIONS AS SHOWN.

NOTE: TUBULAR P-TRAP IS REMOVABLE IN ORDER TO ALLOW FOR WASTE CLEANOUT.

ACORN ENGINEERING COMPANY P.O. BOX 3527 Industry, CA 91744 15125 Proctor Ave Industry, CA 91746 (626) 336-4561 FAX (626) 961-2200	TITLE LAVATORY THRU-WALL WASTE CONNECTION w/ P-TRAP & CLEANOUT CAT. # -LW1		
	MANUFACTURE DATE APRIL 30, 1998 TO PRESENT	DATE ISSUED 3/19/98	DRAWING NUMBER 9925-065-002
		DATE REVISED 4/23/98	



FLANGE MOUNTING



S-CLIP MOUNTING

-SS-SPS SUICIDE RESISTANT SKIRT OPTION IS PROVIDED WITH ADDITIONAL MOUNTING POINTS NOT NORMALLY PROVIDED WITH OUR STANDARD FIXTURES AND COME IN TWO STYLES AS INDICATED BELOW.

FIXTURES w/ FLANGE MOUNTING:

- A-AFTER ROUGHING IN AS REQUIRED, PLACE FIXTURE IN POSITION AND USE AS TEMPLATE TO LOCATE AND MARK FLANGE POINTS ON FLOOR.
- B-REMOVE FIXTURE AND INSTALL FLOOR ANCHORS BY OTHERS FOR 3/8" DIAMETER FLANGE PUNCHING.
- C-ALIGN WALL AND FLOOR ANCHORING POINTS AND COMPLETE FIXTURE INSTALLATION AS INDICATED BY THE FIXTURE INSTALLATION SHEET PROVIDED.

FIXTURES w/ S-CLIP:

- A-AFTER ROUGHING IN AS REQUIRED, PLACE FIXTURE IN POSITION AND USE AS A TEMPLATE TO LOCATE AND MARK S-CLIP MOUNTING LOCATION ON FLOOR AS INDICATED.
- B-REMOVE FIXTURE, INSTALL T-BOLTS FOR S-CLIP 3/8" x 7/8" LONG MOUNTING SLOTS AND SECURE WITH HYDRAULIC CEMENT (BY OTHERS)
- C-INSTALL S-CLIP
- D-PLACE FIXTURE ON FLOOR POSITIONING THE "NOSE" OF THE SKIRT SEVERAL INCHES IN FRONT OF S-CLIP MOUNTING LOCATION, SLIDE FIXTURE INTO PLACE ENGAGING THE S-CLIP AND ALIGNING WALL MOUNTING LOCATIONS. COMPLETE FIXTURE INSTALLATION AS INDICATED BY THE FIXTURE INSTALLATION SHEET PROVIDED.



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TITLE -SPS MOUNTING DETAIL		
MANUFACTURE DATE AUGUST 2012 TO PRESENT	DATE ISSUED 08/15/12	DRAWING NUMBER 9925-007-001
	DATE REVISED 11/05/13 A	