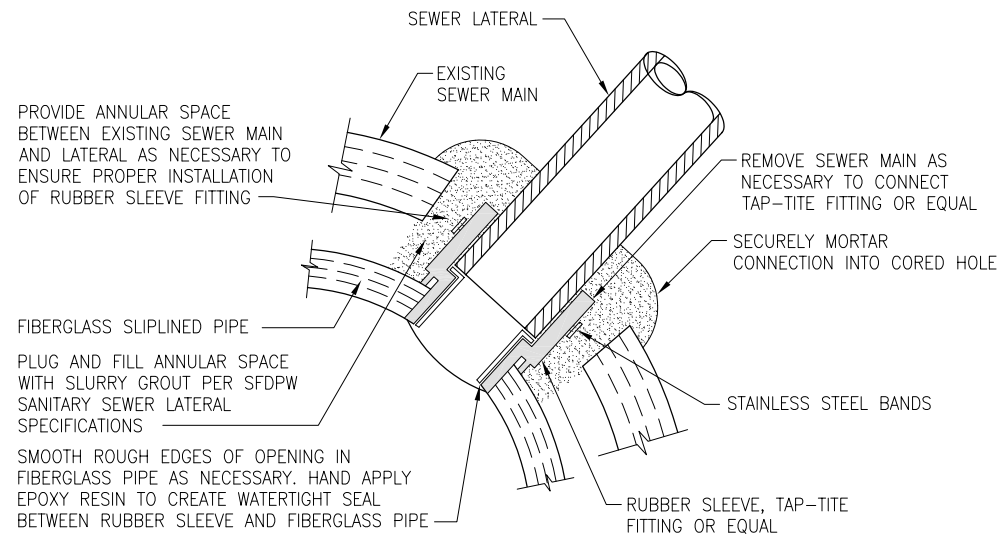
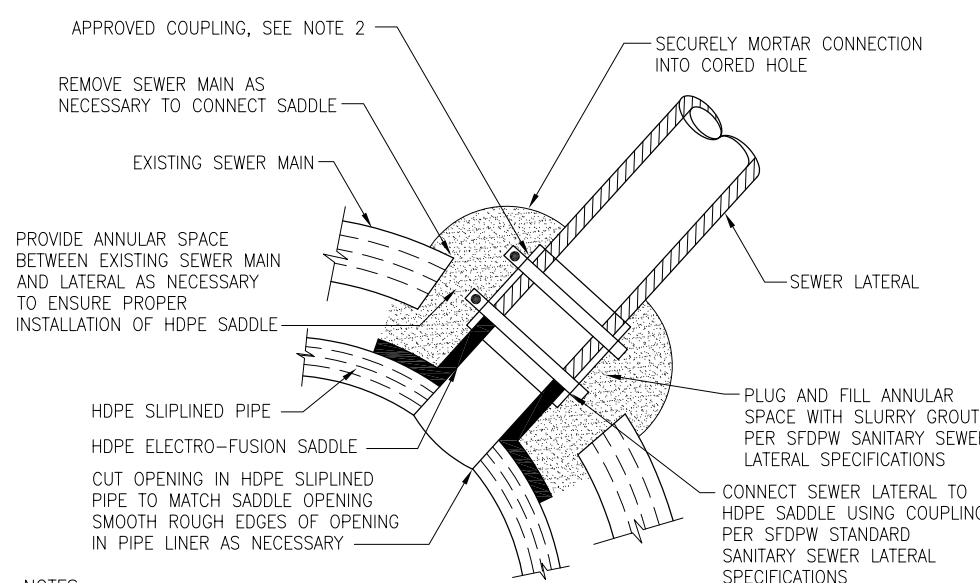


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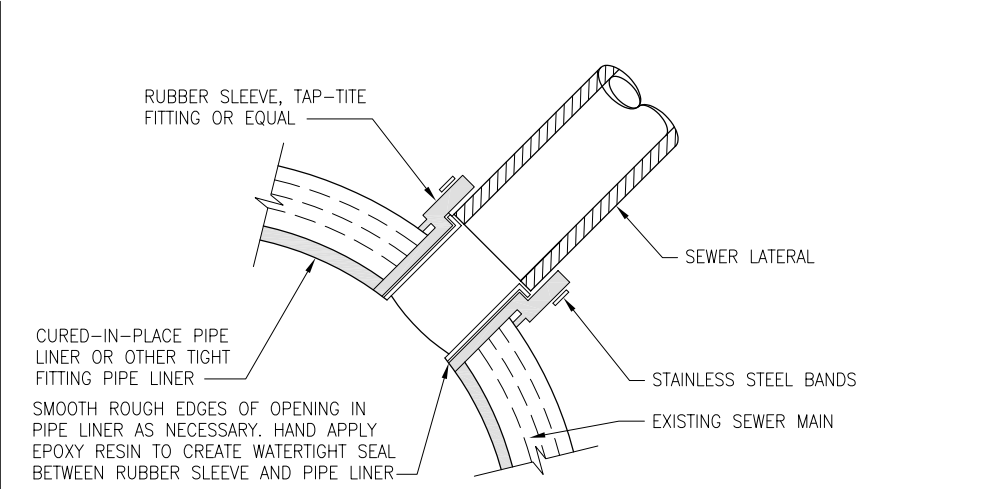
- NOTES:**
1. FITTING SHALL BE TRIMMED NEAT WITH INTERIOR OF FIBERGLASS SLIPLINED PIPE.
 2. THIS DETAIL CAN BE USED FOR NEW SEWER LATERALS CONNECTING TO EXISTING SEWER MAINS THAT WERE PREVIOUSLY SLIPLINED WITH FIBERGLASS PIPE.
 3. THIS DETAIL CAN BE USED TO CONNECT EXISTING SEWER LATERALS TO SEWER MAINS BEING SLIPLINED WITH FIBERGLASS PIPE. THIS CONFIGURATION WOULD REQUIRE A NEW SHORT PIPE STUB BETWEEN THE TAP-TITE AND THE EXISTING SEWER LATERAL. THE PIPE STUB AND THE EXISTING LATERAL WOULD BE CONNECTED USING AN APPROVED COUPLING.

TYPE 11 - TAP-TITE FITTING (OR EQUAL) FOR FIBERGLASS SLIPLINED CONNECTION (SEWER MAIN REHABILITATION) 11
NOT TO SCALE



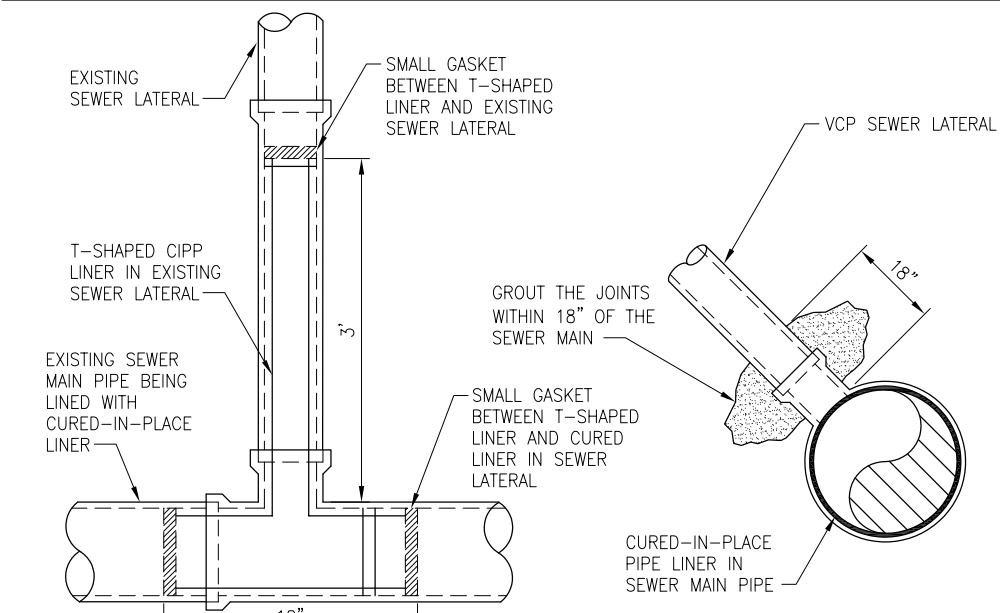
- NOTES:**
1. THIS DETAIL CAN BE USED FOR NEW SEWER LATERALS CONNECTING TO EXISTING SEWER MAINS THAT WERE PREVIOUSLY SLIPLINED WITH HDPE PIPE.
 2. THIS DETAIL CAN BE USED TO CONNECT EXISTING LATERALS TO SEWER MAINS BEING SLIPLINED WITH HDPE PIPE. THIS CONFIGURATION WOULD REQUIRE A NEW SHORT PIPE STUB BETWEEN THE SADDLE AND THE EXISTING SEWER LATERAL. THE PIPE STUB AND THE EXISTING SEWER LATERAL SHALL BE CONNECTED USING AN APPROVED COUPLING OR IN THE CASE OF HDPE LATERALS SHALL BE FUSED.

TYPE 12 - HDPE SADDLE FOR HDPE SLIPLINED PIPE CONNECTION (SEWER MAIN REHABILITATION) 12
NOT TO SCALE



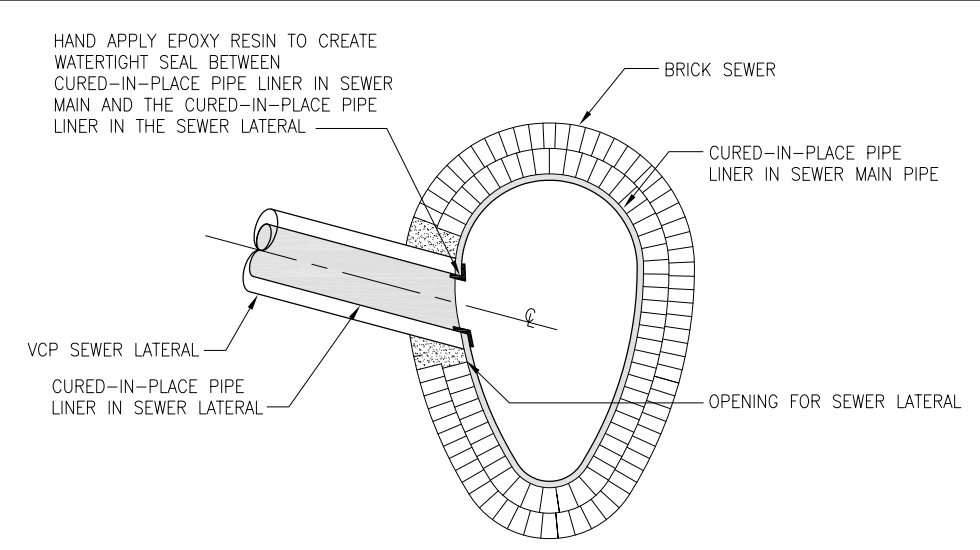
- NOTES:**
1. FITTING SHALL BE TRIMMED NEAT WITH INTERIOR OF CURED-IN-PLACE PIPE.
 2. THIS DETAIL CAN BE USED FOR NEW SEWER LATERALS CONNECTING TO EXISTING SEWER MAINS THAT WERE PREVIOUSLY LINED WITH CURED-IN-PLACE PIPE (OR OTHER TIGHT FITTING LINER).
 3. IF PERMITTED BY THE PROJECT DOCUMENTS, THIS DETAIL CAN BE USED TO CONNECT EXISTING SEWER LATERALS TO SEWER MAINS BEING LINED WITH CURED-IN-PLACE PIPE LINER. THIS CONFIGURATION WOULD REQUIRE EXCAVATION AT EACH SEWER LATERAL. THIS CONFIGURATION WOULD ALSO REQUIRE A NEW SHORT PIPE STUB BETWEEN THE RUBBER SLEEVE AND THE EXISTING SEWER LATERAL. THE PIPE STUB AND THE EXISTING SEWER LATERAL WOULD BE CONNECTED USING AN APPROVED COUPLING.

TYPE 13 - TAP-TITE FITTING (OR EQUAL) FOR CURED-IN-PLACE LINER CONNECTION (SEWER MAIN REHABILITATION) 13
NOT TO SCALE



- NOTE:**
ALTERNATIVE 1 SHOWN IN PLAN VIEW
- ALTERNATIVE 1: T-SHAPED CIPP LINER** NOT TO SCALE
- ALTERNATIVE 2: SEAL JOINTS USING GROUT** NOT TO SCALE

TYPE 14 - CONNECTION BETWEEN EXISTING SEWER LATERAL AND SMALL SEWER MAIN BEING LINED 14
NOT TO SCALE



- NOTE:**
1. THIS DETAIL CAN BE USED TO CONNECT EXISTING SEWER LATERALS BEING LINED WITH CURED-IN-PLACE PIPE LINER TO SEWER MAINS BEING LINED WITH CURED-IN-PLACE PIPE LINER.

TYPE 15 - CONNECTION BETWEEN EXISTING SEWER LATERAL AND LARGE SEWER MAIN BEING LINED 15
NOT TO SCALE

- NOTES:**
1. IF CONNECTING A NEW SEWER LATERAL TO AN EXISTING SMALL DIAMETER VCP SEWER THAT WAS PREVIOUSLY LINED WITH CURED-IN-PLACE PIPE, USE A TYPE 5 CONNECTION. HAND APPLY EPOXY RESIN TO SEAL CUT EDGE ON CURED-IN-PLACE PIPE LINER WHERE IT ABUTS AGAINST FITTING.
 2. IF CONNECTING A NEW SEWER LATERAL TO AN EXISTING ISP SEWER THAT WAS PREVIOUSLY LINED WITH CURED-IN-PLACE PIPE, USE A TYPE 6 CONNECTION. HAND APPLY EPOXY RESIN TO SEAL CUT EDGE ON CURED-IN-PLACE PIPE LINER WHERE IT ABUTS AGAINST PVC TRANSITION PIECE.
 3. IF CONNECTING A NEW SEWER LATERAL TO AN EXISTING BRICK SEWER THAT WAS PREVIOUSLY LINED WITH CURED-IN-PLACE PIPE, USE A TYPE 7 OR TYPE 8 CONNECTION. HAND APPLY EPOXY RESIN TO SEAL CUT EDGE ON CURED-IN-PLACE PIPE LINER. HAND APPLY EPOXY RESIN TO COVER ANY EXPOSED PIPE WALL ON THE INSIDE OF THE MAIN SEWER PIPE BETWEEN THE LATERAL PIPE AND THE CUT LINER.
 4. IF CONNECTING A NEW SEWER LATERAL TO AN EXISTING LARGE DIAMETER SEWER THAT WAS PREVIOUSLY LINED WITH CURED-IN-PLACE PIPE, USE A TYPE 9 OR TYPE 10 CONNECTION. HAND APPLY EPOXY RESIN TO SEAL CUT EDGE ON CURED-IN-PLACE PIPE LINER. HAND APPLY EPOXY RESIN TO COVER ANY EXPOSED PIPE WALL ON THE INSIDE OF THE MAIN SEWER PIPE BETWEEN THE SEWER LATERAL PIPE AND THE CUT LINER.

TYPE 16 - CONNECTION BETWEEN NEW SEWER LATERAL AND LINED SEWER MAIN 16
NOT TO SCALE

APPLICABLE TO BOTH COMBINED AND SANITARY SEWER SYSTEMS



SEWER LATERAL STANDARD DETAILS
SAN FRANCISCO PUBLIC UTILITIES COMMISSION

DATE MAY 2017	REVISION 1.0	REVISED
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SEWER LATERAL CONNECTION TYPES 11-16