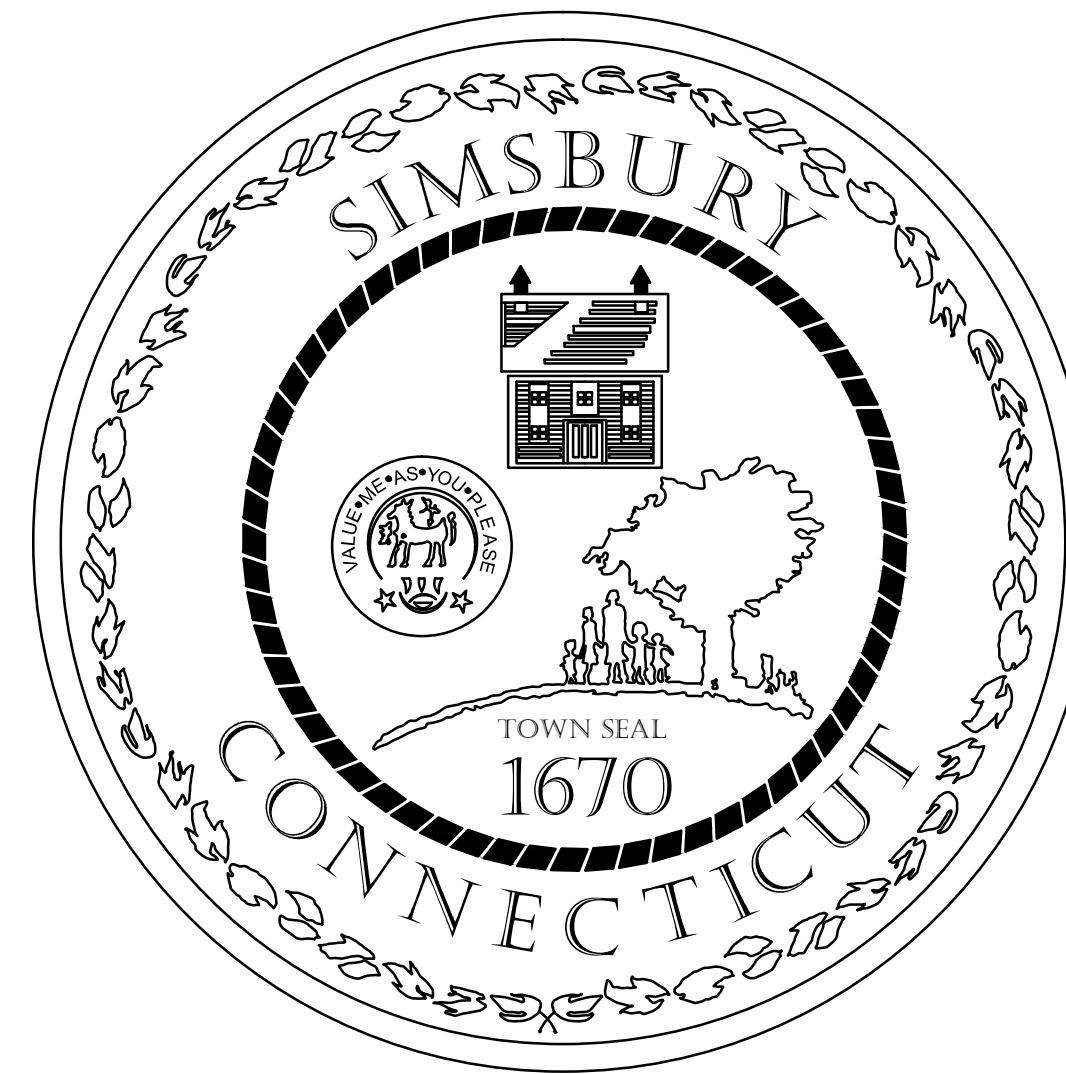
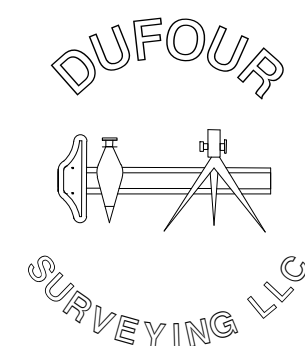


# SANITARY SEWER IMPROVEMENTS MASSACO STREET

DEPARTMENT OF WATER POLLUTION CONTROL  
36 DRAKE HILL ROAD  
SIMSBURY, CONNECTICUT



Survey Prepared By:

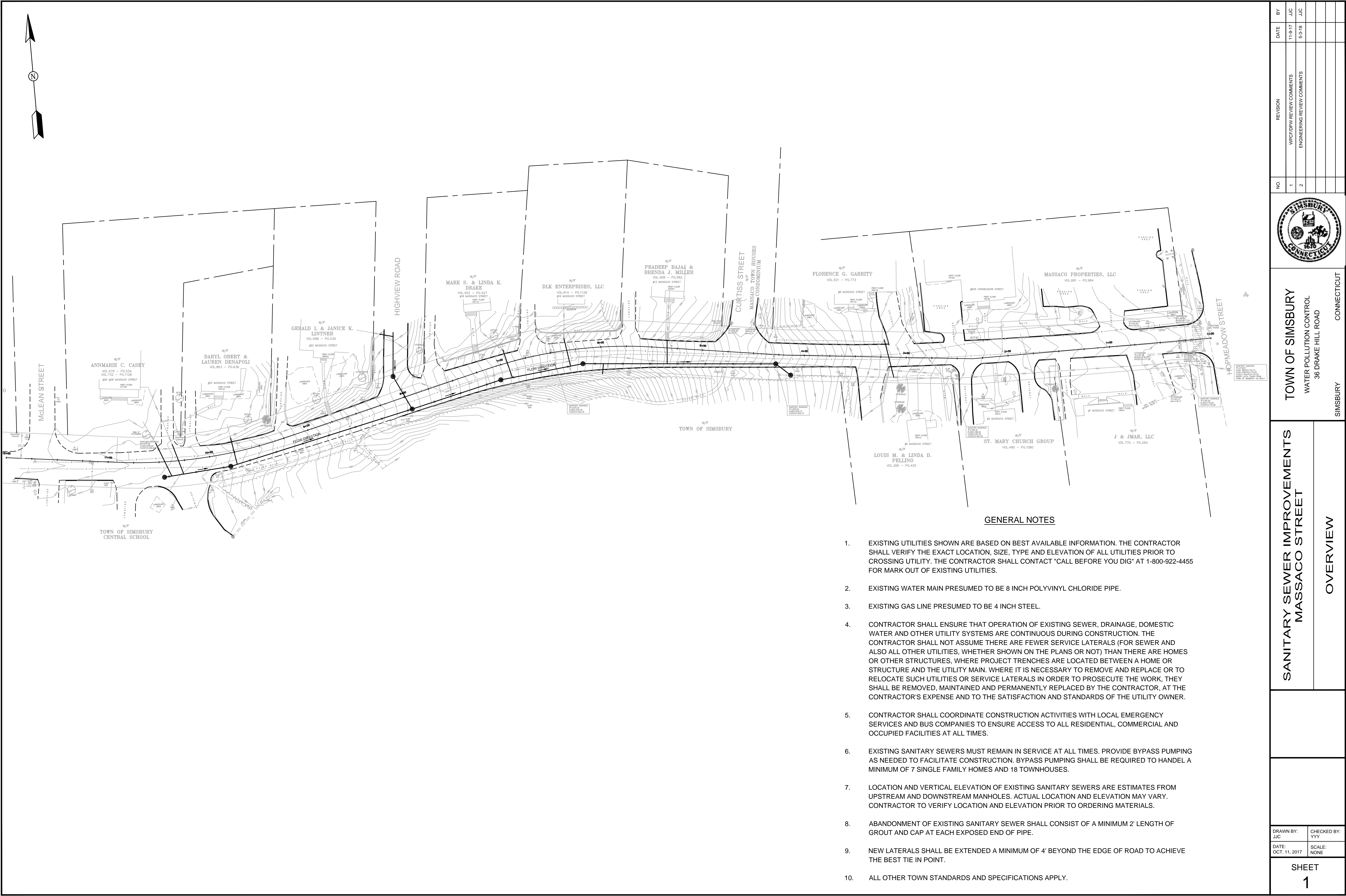



DUFOUR SURVEYING LLC  
575 NORTH MAIN STREET  
BRISTOL, CONNECTICUT 06010  
860-314-0502 860-738-0222

Design Prepared By:

SIMSBURY DEPARTMENT OF WATER POLLUTION CONTROL  
36 DRAKE HILL ROAD  
SIMSBURY, CONNECTICUT 06070  
860-658-3258



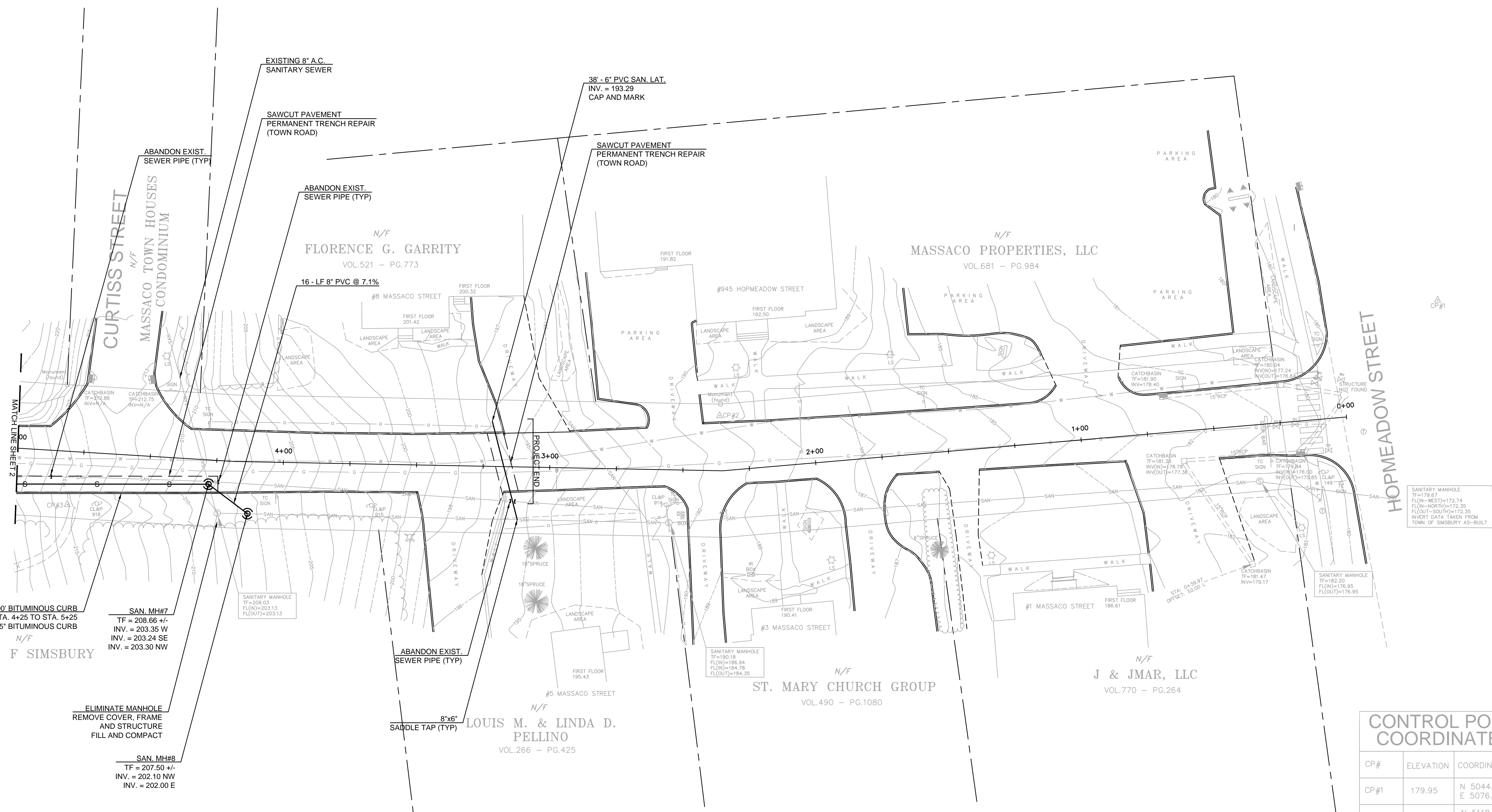


|   |  |  |  |   |     |                             |     |         |
|---|--|--|--|---|-----|-----------------------------|-----|---------|
| <div><div>SANITARY SEWER IMPROVEMENTS<br/>MASSACO STREET</div><div>OVERVIEW</div></div> |  | <div><div>TOWN OF SIMSBURY</div><div>WATER POLLUTION CONTROL</div><div>36 DRAKE HILL ROAD</div><div>SIMSBURY CONNECTICUT</div></div> |  |  | NO. | REVISION                    | BY  | DATE    |
|   |  |  |  |   | 1   | WPC/DPW REVIEW COMMENTS     | JJC | 11-9-17 |
|   |  |  |  |   | 2   | ENGINEERING REVIEW COMMENTS | JJC | 5-3-18  |
|   |  |  |  |   |     |                             |     |         |
|   |  |  |  |   |     |                             |     |         |
| DRAWN BY:<br>JJC  |  | CHECKED BY:<br>YYY   |  | SHEET<br>1  |     |                             |     |         |
| DATE:<br>OCT. 11, 2017  |  | SCALE:<br>NONE   |  |   |     |                             |     |         |






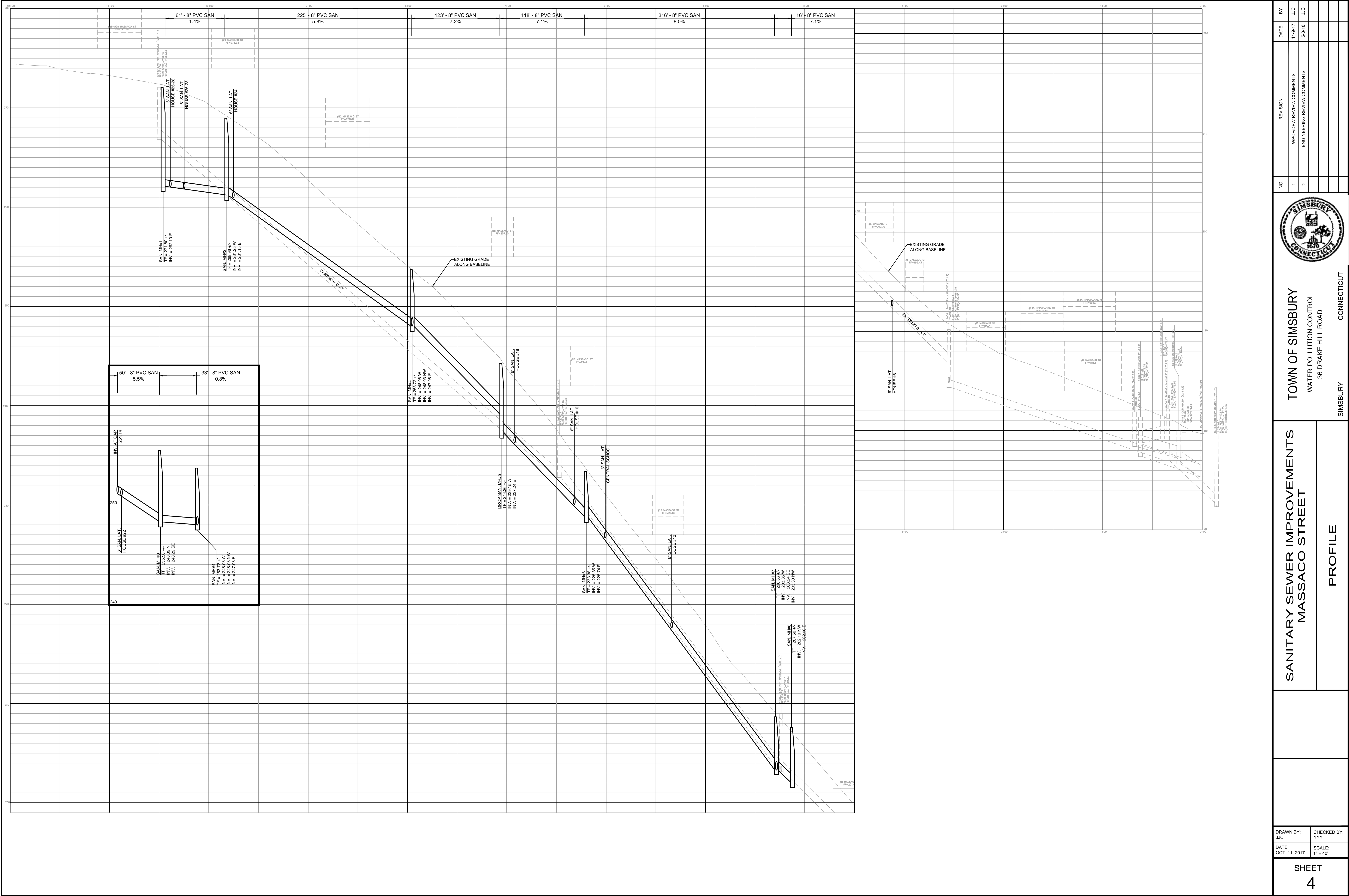





| CONTROL POINT COORDINATES |           |                            |
|---------------------------|-----------|----------------------------|
| CP#                       | ELEVATION | COORDINATES                |
| CP#1                      | 179.95    | N 5044.4746<br>E 5076.0461 |
| CP#2                      | 189.51    | N 5118.9732<br>E 4813.4153 |
| CP#3                      | 215.21    | N 5192.2984<br>E 4577.3871 |
| CP#4                      | 246.15    | N 5304.3339<br>E 4369.6887 |
| CP#5                      | 267.71    | N 5299.2060<br>E 4119.6718 |

|  |  |                   |   |   |   |     |                             |         |     |
|--|--|-------------------|---|---|---|-----|-----------------------------|---------|-----|
| DRAWN BY:<br>JJC<br><br>DATE:<br>OCT. 11, 2017 | CHECKED BY:<br>YYY<br><br>SCALE:<br>1" = 20' | SHEET<br><b>3</b> | SANITARY SEWER IMPROVEMENTS<br>MASSACO STREET<br><br>PLAN | TOWN OF SIMSBURY<br>WATER POLLUTION CONTROL<br>36 DRAKE HILL ROAD<br><br>SIMSBURY CONNECTICUT |  | NO. | REVISION                    | DATE    | BY  |
|  |  |                   |   |   |   | 1   | WPC/DPM REVIEW COMMENTS     | 11-8-17 | JJC |
|  |  |                   |   |   |   | 2   | ENGINEERING REVIEW COMMENTS | 5-3-18  | JJC |
|  |  |                   |   |   |   |     |                             |         |     |





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|---|--|--------------------|--|--|--|---|--|---|--|
| DRAWN BY:<br>JJC                              |  | CHECKED BY:<br>YYY |  | DATE:<br>OCT. 11, 2017   |  | SCALE:<br>1" = 40'  |  | SHEET<br>4  |  |
| SANITARY SEWER IMPROVEMENTS<br>MASSACO STREET |  | PROFILE            |  | TOWN OF SIMSBURY<br>WATER POLLUTION CONTROL<br>36 DRAKE HILL ROAD<br>Simsbury<br>CONNECTICUT |  |  |  | NO.      REVISION      BY      DATE                   |  |
|   |  |                    |  |  |  |   |  | 1      WPC/DPW REVIEW COMMENTS      JJC      11-17    |  |
|   |  |                    |  |  |  |   |  | 2      ENGINEERING REVIEW COMMENTS      JJC      5-18 |  |
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TOP STEP TO BE  
 20" MAX. BELOW  
 TOP PF FRAME  
 24"Ø  
 36"  
 12"  
 36"  
 5" MIN  
 18" MIN  
 6" MIN  
 6" MIN  
 48"Ø  
 4"  
 3" 1/2"

STANDARD MANHOLE FRAME  
 AND COVER  
 FRAME TO BE SET IN FULL  
 BED OF MORTAR  
 ADJUST TO GRADE WITH NOT MORE  
 THEN 12" OF RED SEWER BRICK AND  
 MORTAR (CONCRETE GRADE RINGS  
 NOT ACCEPTABLE)  
 STANDARD MANHOLE RUNG  
 (SEE DETAIL BELOW)  
 36"x48" ECCENTRIC PRECAST  
 MANHOLE CONE  
 SPIGOT & BELL REINFORCEMENT  
 SHALL BE CONNECTED TO  
 BARREL REINFORCEMENT  
 EXTERIOR DAMPPROOFING  
 SEAL ALL JOINTS WITH APPROVED  
 PRE-FORMED GASKET MATERIAL  
 SHELF ELEVATION TO  
 1/2 DIAMETER OF PIPE  
 MONOLITHIC BASE  
 MINIMUM 6" OF 3/4" CRUSHED STONE

MULTIPLES 12",  
 24", 36" OR 48"  
 AS REQUIRED  
 PIPE DIA.  
 + 24" MIN.  
 SLOPE 1/4" FT  
 6" MIN  
 6" MIN  
 RED BRICK AND  
 MORTAR (TYP)  
 SEWER BRICK  
 (INVERT BRICK ON  
 EDGE)  
 B  
 B

1. FLAT SLAB MANHOLE TOPS SHALL NOT BE USED UNLESS AUTHORIZED BY THE WPCA OR ITS TECHNICAL CONSULTANT.
2. THE MINIMUM ELEVATION DROP FROM INVERT IN TO INVERT OUT SHALL BE 0.10 FEET.
3. GROUT THE ENTIRE INSIDE AND OUTSIDE SURFACES OF ALL MANHOLE SECTION JOINTS.
4. RUBBER PLUGS TO BE USED INSIDE MANHOLE SECTION LIFTING HOLES. GROUT THE INSIDE AND OUTSIDE SURFACES OF THE LIFTING HOLES.
5. ROCK TO BE EXCAVATED 10 FEET BEYOND THE WALLS OF THE MANHOLE.
6. WHERE MANHOLES ARE INSTALLED IN CROSS COUNTRY EASEMENT AREAS, THE FRAMES AND COVERS SHALL BE 6" TO 12" ABOVE FINISHED GRADE.
7. INTERIOR MANHOLE LINING SYSTEM TO BE USED AT ALL FORCE MAIN AND LOW PRESSURE SEWER DISCHARGE STRUCTURES.



1. "DOG HOUSE" MANHOLES SHALL ONLY BE USED UPON APPROVAL BY THE WPCA OR ITS TECHNICAL CONSULTANT.
2. PROPOSED PIPE SHALL BE TESTED AND APPROVED PRIOR TO BREAKING INTO THE EXISTING PIPE.
3. GROUT THE ENTIRE INSIDE AND OUTSIDE SURFACES OF ALL MANHOLE SECTION JOINTS.

Four cross-sectional diagrams of a brick chimney are shown, illustrating different internal configurations. The diagrams are arranged in a 2x2 grid. Each diagram shows a circular cross-section with a brick inner lining and a concrete outer shell. The top-left diagram shows a single vertical flue with a curved arrow indicating flow. The top-right diagram shows a Y-shaped flue with two arrows. The bottom-left diagram shows a T-shaped flue with two arrows. The bottom-right diagram shows a Y-shaped flue with two arrows. Dimensions are given: 18 inches for the top section and 30 inches for the bottom section. A legend indicates "RED BRICK & MORTAR (TYPE)".

1. DIMENSIONS SHOWN FOR STANDARD 48" DIAMETER MANHOLES AND GRAVITY SEWER CONSTRUCTION.
2. MAXIMUM CHANGE IN DIRECTION FOR FLOW STREAM SHALL BE 90 DEGREES.

TRIM PIPE TO 2" MAX. V NOTCH BOTTOM EDGE

MORTAR

COMPRESSION COUPLING

INSIDE DROP BOWL SECURED WITH STAINLESS STEEL STRAPS

FERRO FLEXIBLE COUPLING OR EQUAL

STAINLESS STEEL STRAPS OR EQUAL SECURE TO STRUCTURE WITH 2 STAINLESS STEEL BOLTS. STRAPS AT 4' INTERVALS (MIN. OF 2)

PVC SEWER PIPE

GLUE FITTING BELL & SPIGOT SWEEP ELBOW EMBEDDED IN CONC. AT 45° W/ SEWER FLOW

[illegible]

Technical drawing of the frame showing lifting holes and dimensions. The drawing includes a side view and a top view. The side view shows a frame with a central lifting hole and two side lifting holes. The top view shows the overall dimensions of the frame. The dimensions are as follows:

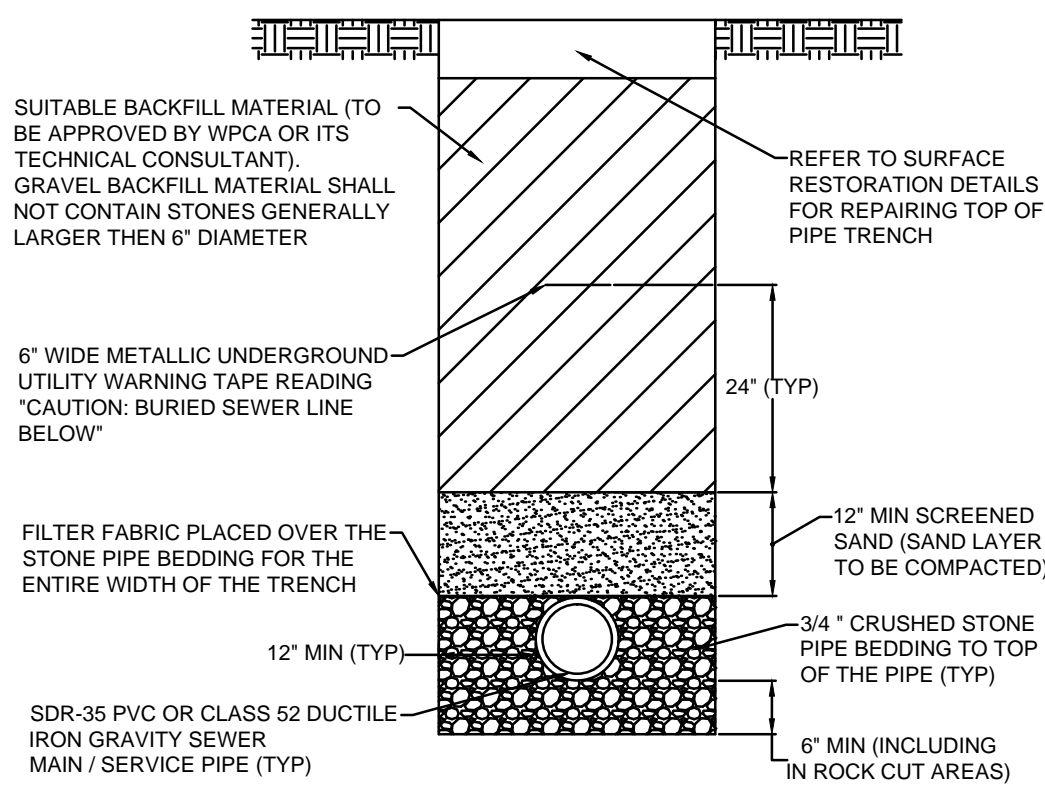
- Overall width: 48"
- Overall height: 36"
- Distance from top edge to center of lifting hole: 24 1/2"
- Distance from side edge to center of side lifting hole: 23 3/4"
- Distance from side edge to center of side lifting hole: 21 1/2"
- Distance from side edge to center of side lifting hole: 1 1/4"
- Distance from side edge to center of side lifting hole: 8"

FRAME WEIGHT NOT LESS THEN  
460 LBS.

|  |  |   |     |                             |         |     |
|--|--|---|-----|-----------------------------|---------|-----|
| SANITARY SEWER IMPROVEMENTS<br>MASSACO STREET<br><br>DETAILS |  | TOWN OF SIMSBURY<br>WATER POLLUTION CONTROL<br>36 DRAKE HILL ROAD<br><br>SIMSBURY CONNECTICUT | NO. | REVISION                    | DATE    | BY  |
|  |  |   | 1   | WPCDDPW REVIEW COMMENTS     | 11-9-17 | JUC |
|  |  |   | 2   | ENGINEERING REVIEW COMMENTS | 5-3-18  | JUC |
|  |  |   |     |                             |         |     |
|  |  |   |     |                             |         |     |



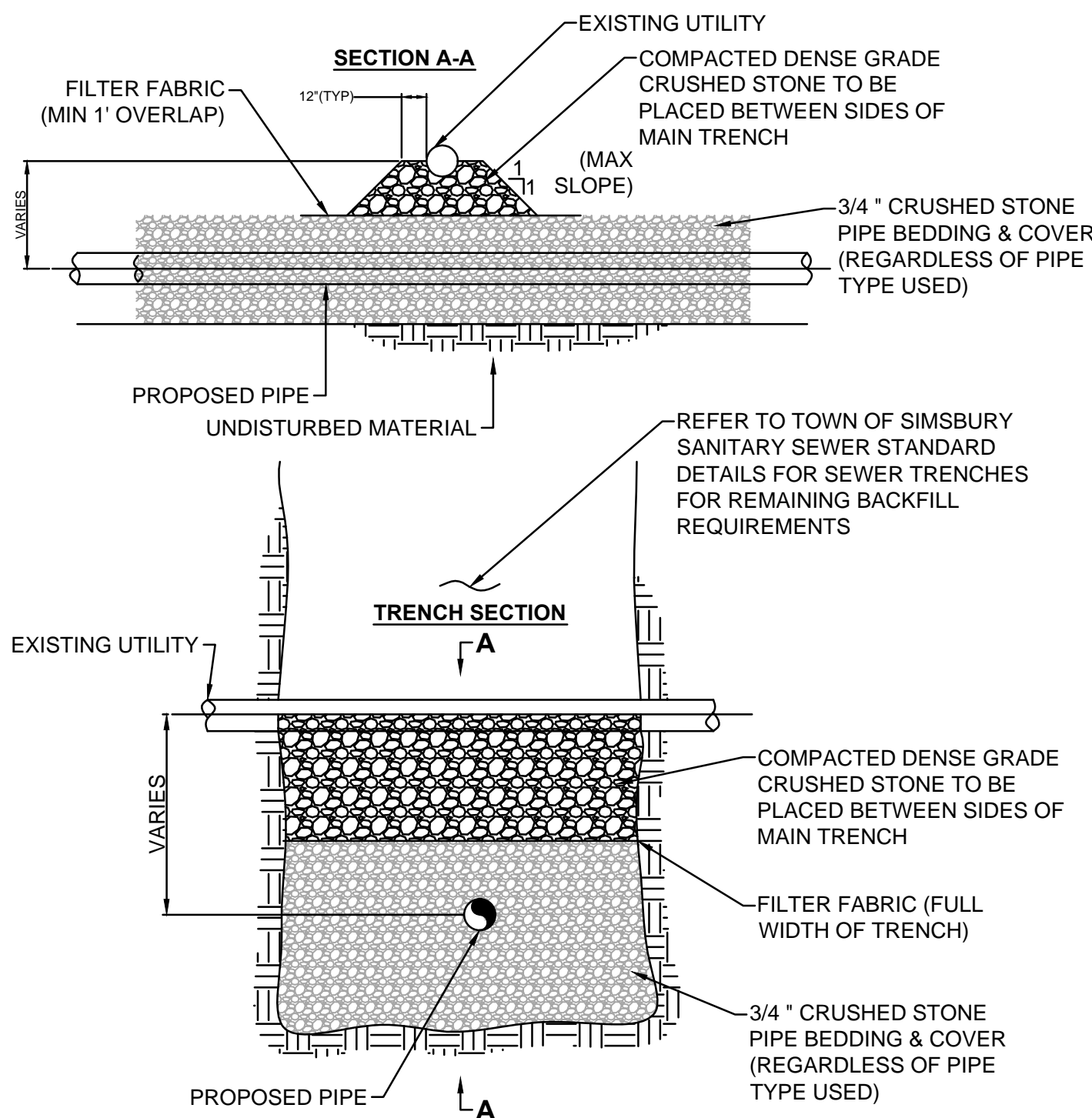
PVC/DUCTILE IRON GRAVITY  
SANITARY SEWER MAIN /  
SERVICE TRENCH



STANDARD NOTES:

1. THE 12" SAND LAYER OVER THE PIPE SHALL BE PROPERLY COMPACTED.
2. STONE BEDDING, FILTER FABRIC, AND SAND LAYER SHALL BE EXTENDED TO THE FULL WIDTH OF THE TRENCH.
3. MECHANICAL COMPACTION SHALL BE USED IN APPROPRIATE LIFTS TO OBTAIN A MINIMUM OF 95% MODIFIED PROCTOR DENSITY.

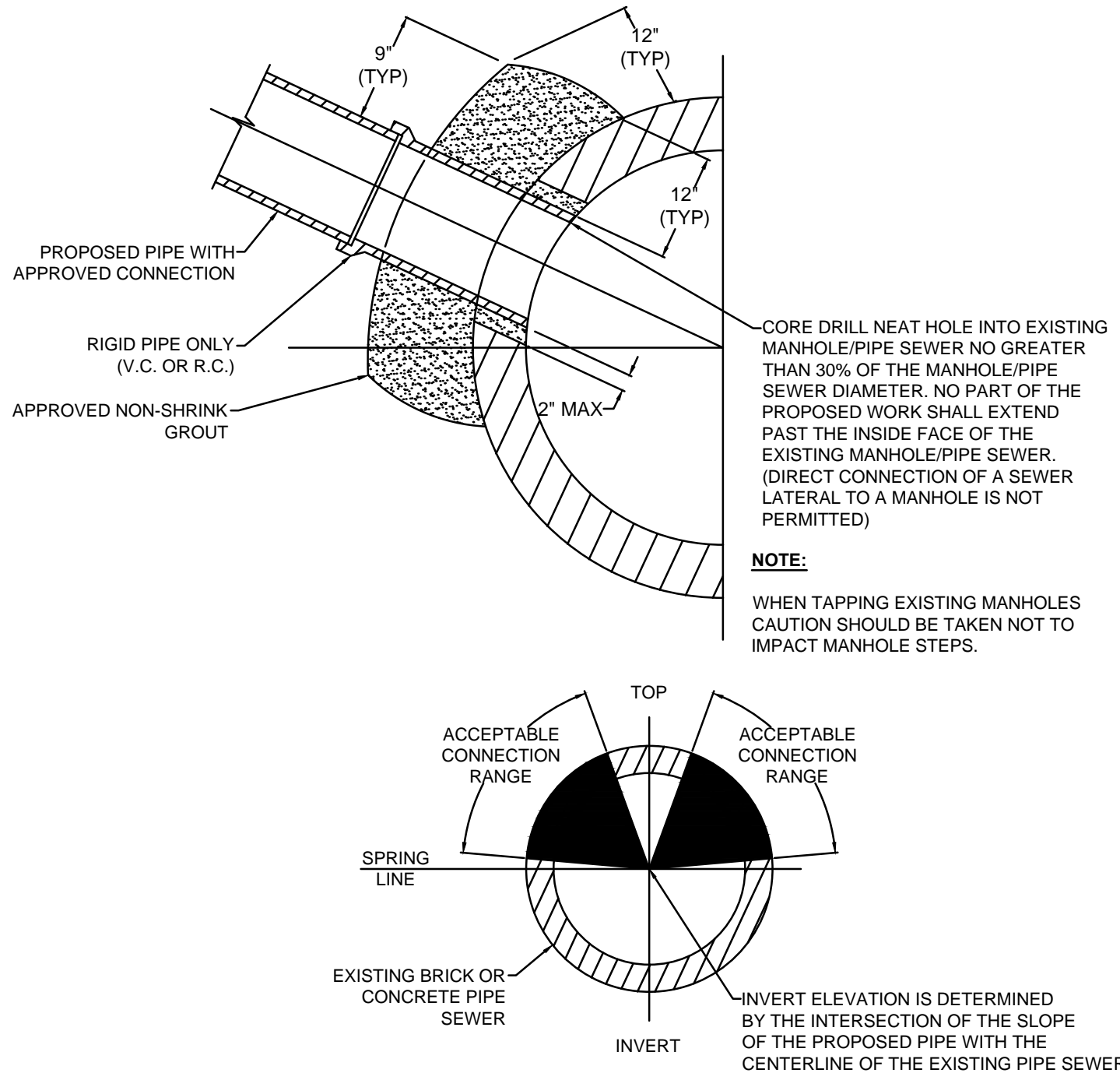
PIPE SUPPORT UTILITY CROSSING



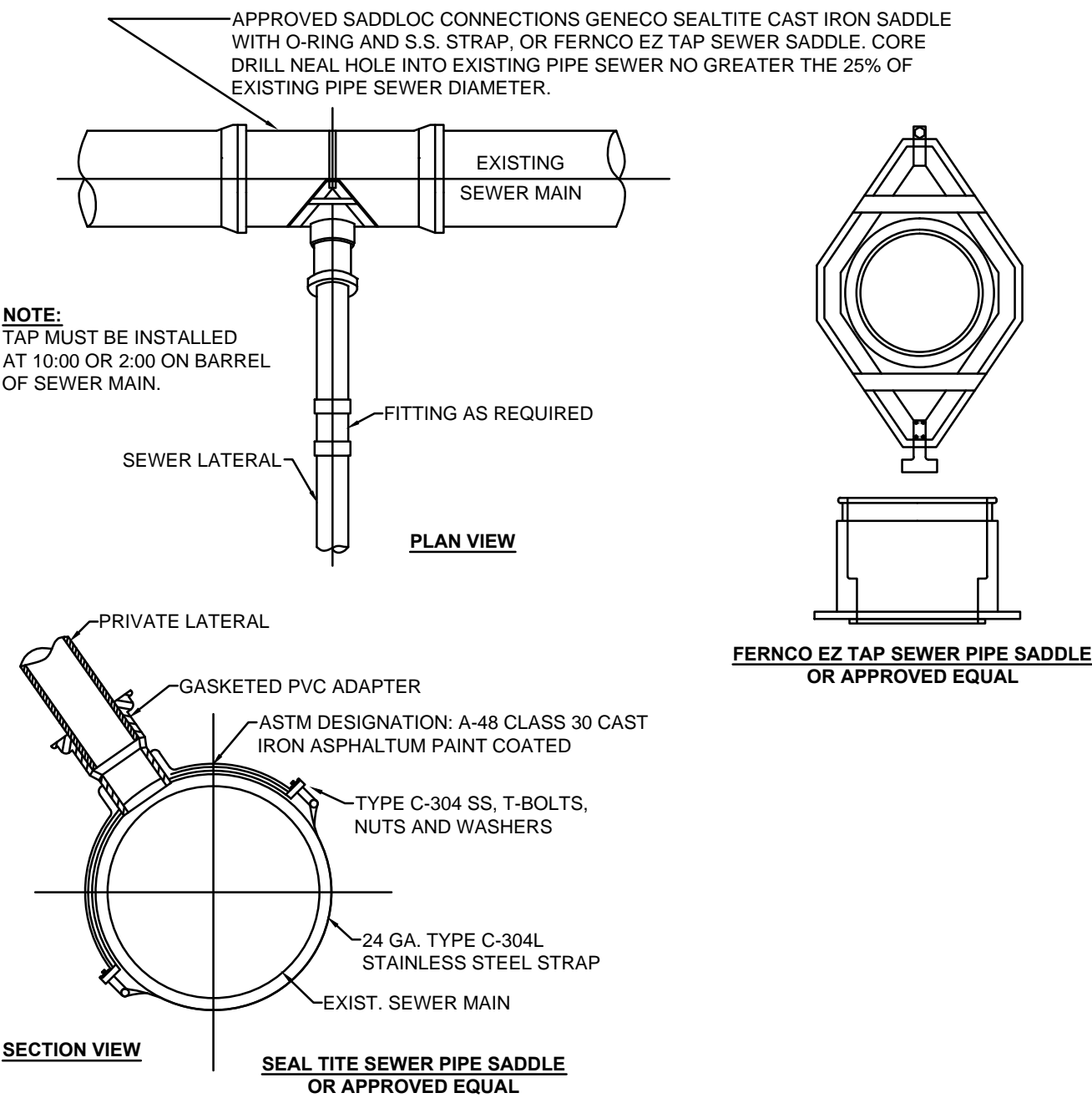
STANDARD NOTES:

1. PLACE 6" UNDERGROUND UTILITY WARNING TAPE UNDER THE EXISTING UTILITY REGARDLESS OF THE DISTANCE BETWEEN THE PIPES. IF LESS THE 2' BETWEEN THE PIPES, PROVIDE AN ADDITIONAL LAYER OF WARNING TAPE ABOVE THE EXISTING PIPE.
2. PROVIDE THE APPROPRIATE UNDERGROUND UTILITY WARNING TAPE OVER THE EXISTING UTILITY PIPE THAT HAS BEEN DISTURBED DURING INSTALLATION OF THE SANITARY SEWER. PROVIDE WARNING TAPE REGARDLESS IF EXISTING TAPE WAS NOT DISCOVERED.

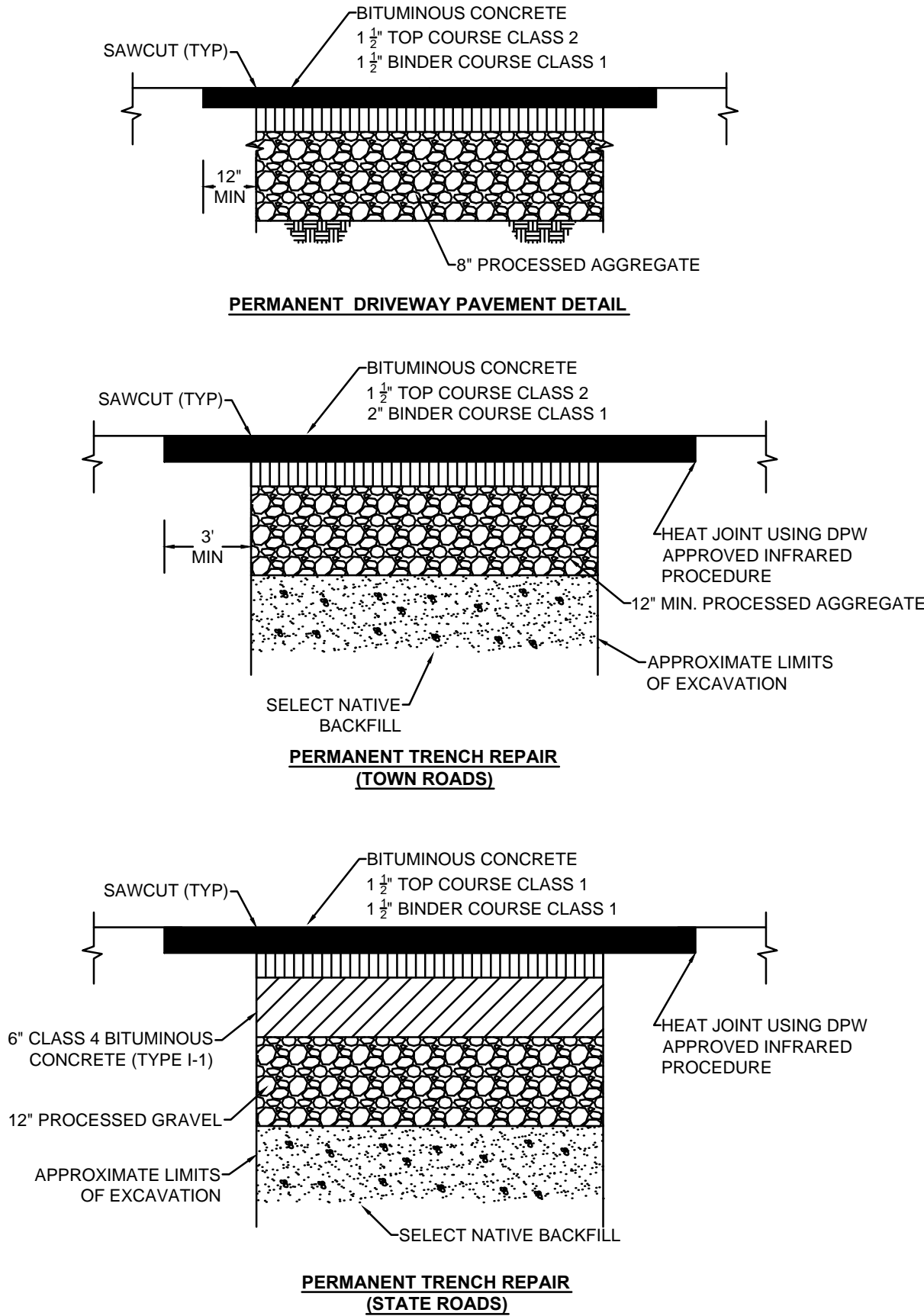
MANHOLE/PIPE SEWER ZONE CONNECTION




SEWER SADDLE TAP



PERMANENT TRENCH REPAIR



|   |  |  |  |
|---|--|--|--|
| SANITARY SEWER IMPROVEMENTS<br>MASSACO STREET |  | TOWN OF SIMSBURY<br>WATER POLLUTION CONTROL<br>36 DRAKE HILL ROAD<br>Simsbury, Connecticut |  |
| DETAILS                                       |  |         |  |
| DRAWN BY:<br>J. Corley                        |  | NO.  |  |
| CHECKED BY:<br>YYY                            |  | 1  |  |
| SCALE:<br>NONE                                |  | 2  |  |
|   |  | REVISION   |  |
|   |  | DATE   |  |
|   |  | BY   |  |
|   |  | JUC  |  |
|   |  | 11-9-17  |  |
|   |  | ENGINEERING REVIEW COMMENTS  |  |
|   |  | 5-3-18   |  |
|   |  | JUC  |  |
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