

**LEGEND**

I.D. - NOMINAL PIPE SIZE  
 O.D. - OUTSIDE DIAMETER OF PIPE  
 H - COVER ABOVE TOP OF PIPE  
 A - EMBEDDED BELOW PIPE (SEE TABLE)

TAMPED BACK FILL  
 COMPACTED BACK FILL  
 GRANULAR BEDDING

**TABLE OF EMBEDDED DEPTHS BELOW PIPE**

I.D.	A MIN. SOIL	A MIN. ROCK
27" & SMALLER	3"	6"

GRANULAR BEDDING SHALL BE CRUSHED ROCK OR PEA GRAVEL WITH NOT LESS THAN 95% PASSING 1/2" (95% PASSING 3/4" FOR 30" AND LARGER PIPE) AND NOT LESS THAN 90% RETAINED ON A #4, TO BE PLACED IN NOT MORE THAN 6" LAYERS AND COMPACTED BY SLICING WITH A SHOVEL OR VIBRATING.

COMPACTED BACK FILL SHALL BE FINELY DIVIDED JOB EXCAVATED MATERIAL FREE FROM DEBRIS, ORGANIC MATERIAL AND STONES, PLACED IN UNIFORM LAYERS NOT MORE THAN 6" THICK, COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY A.S.T.M. D1556, OR GRADED AGGREGATE. GRANULAR BACK FILL MATERIAL MAY BE SUBSTITUTED FOR ALL OR PART OF COMPACTED BACK FILL.

TAMPED BACK FILL SHALL BE FINELY DIVIDED JOB EXCAVATED MATERIAL FREE FROM DEBRIS, ORGANIC MATERIAL AND STONES, HAND PLACED IN UNIFORM LAYERS NOT MORE THAN 8" THICK AND TAMPED AROUND CONDUIT PIPE. GRANULAR BACK FILL MATERIAL MAY BE SUBSTITUTED FOR ALL OR PART OF TAMPED BACK FILL.

TRENCH BACK FILL SHALL BE AS REQUIRED IN THE "LAYING AND BACK FILL" SECTION OF THE DETAILED SPECIFICATIONS.

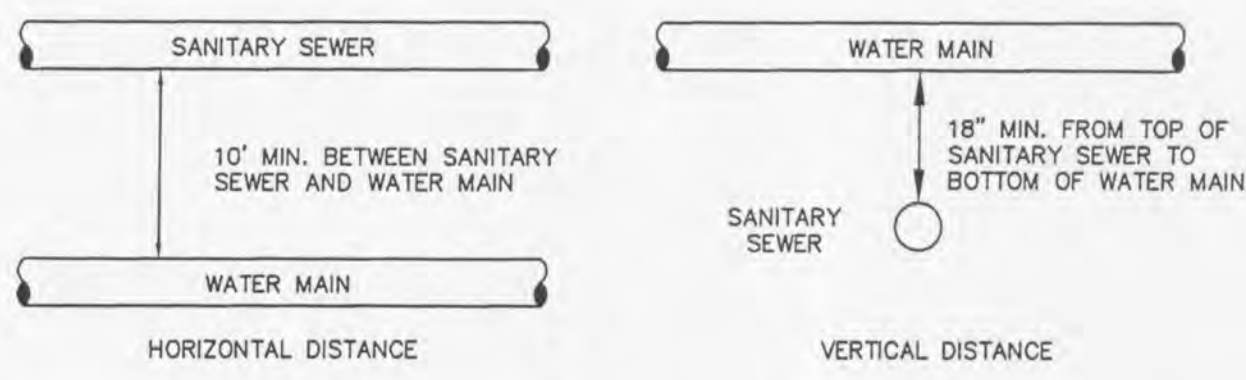
EMBEDDED THE TYPE OF EMBEDDED TO BE USED SHALL BE AS SPECIFIED IN THE PLANS AND SPECIFICATIONS.

TRACER WIRE REQUIRED ON ALL WATER MAINS

**WATER MAIN EMBEDDED**  
NOT TO SCALE

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 ENGINEERING DEPARTMENT  
 O'FALLON, MISSOURI

**WATER MAIN EMBEDDED**

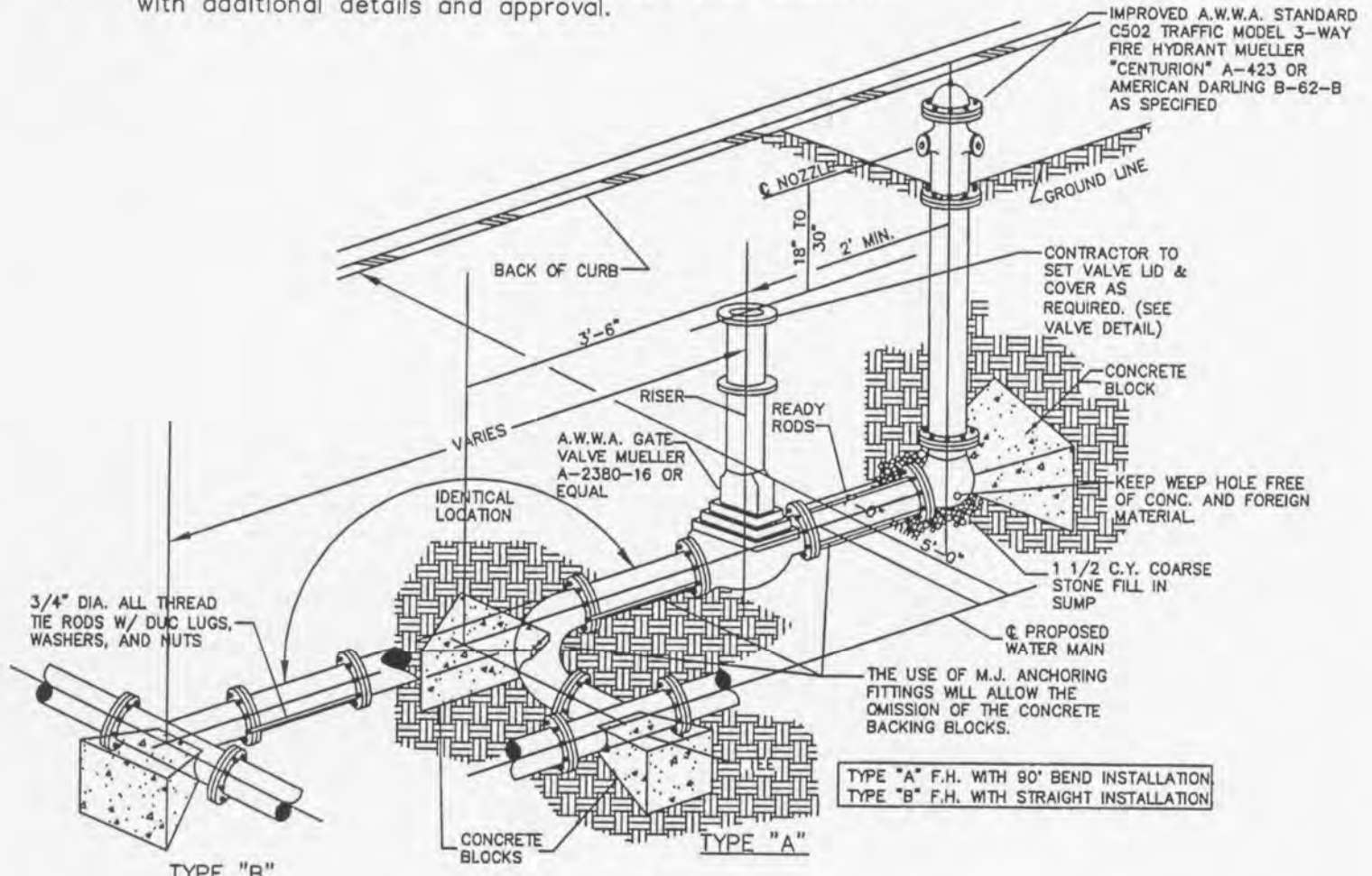


**TYPICAL WATER AND SEWER SEPARATION**  
NOT TO SCALE

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 ENGINEERING DEPARTMENT  
 O'FALLON, MISSOURI

**WATER AND SEWER SEPARATION DETAIL**

Note: Other connections such as anchor coupling are allowable with additional details and approval.



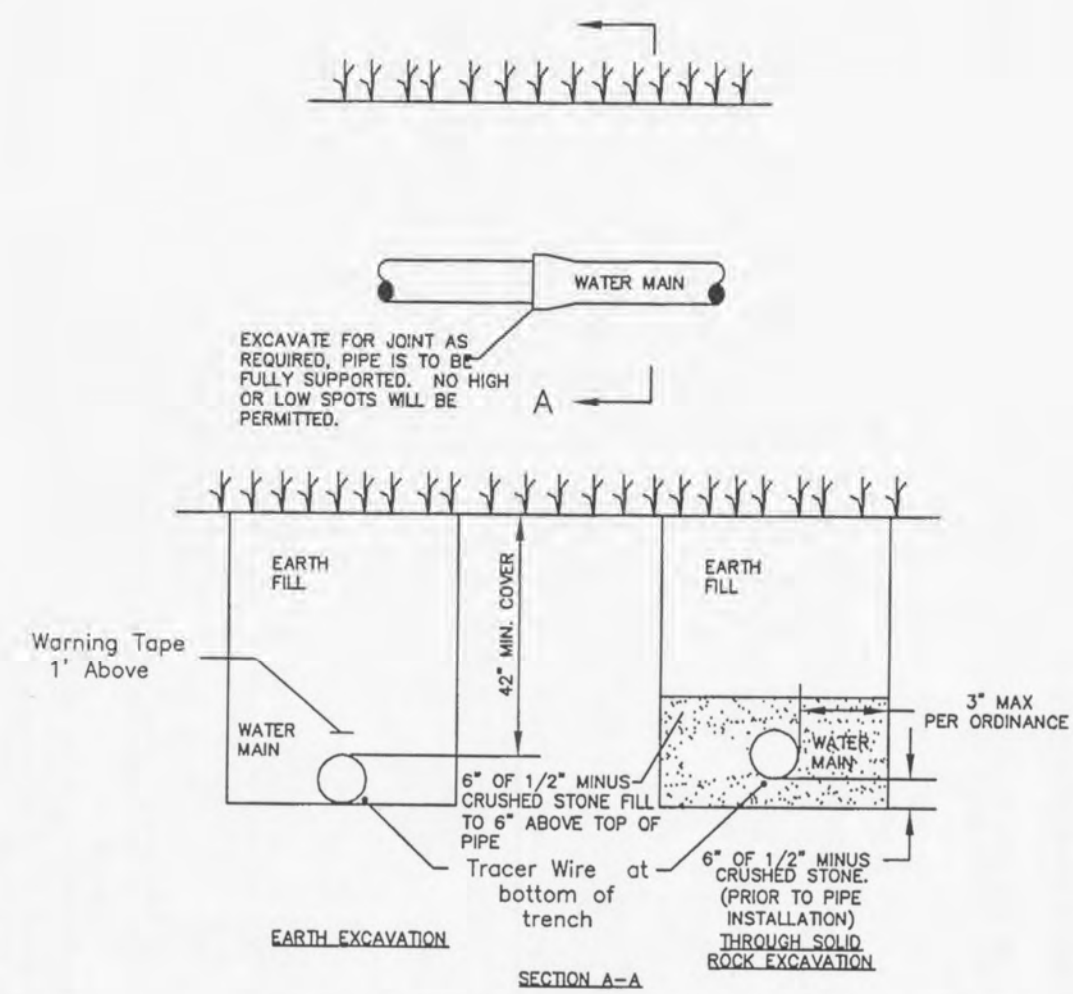
**FIRE HYDRANT DETAIL**  
NOT TO SCALE

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 O'FALLON, MISSOURI

**FIRE HYDRANT DETAILS**

**ISSUE REMARKS/DATE**

1	1-9-13	REVISED PER CITY COMMENTS
2	2-7-13	REVISED PER CITY COMMENTS
3	3-20-13	REVISED PER CITY COMMENTS
4	4-9-13	REVISED PER CITY COMMENTS



**TYPICAL WATER MAIN INSTALLATION DETAILS**  
NOT TO SCALE

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 O'FALLON, MISSOURI

**WATER MAIN INSTALLATION DETAIL**

Ductile Iron Pipe installation shall follow the Ductile Iron Research Association (DIPRA) guide line.  
 The Installation of PVC Pipe shall follow the Uni-Bell PVC Pipe Association Handbook of PVC Design and Construction.

PROJECT TITLE

**WEATHERBY LANDING**  
O'FALLON, MISSOURI

**THE STERLING CO.**  
 ENGINEERS & SURVEYORS  
 5055 New Baumgartner Road  
 St. Louis, Missouri 63129  
 Ph. 314-487-0440 Fax 314-487-8944  
 www.sterling-eng-sur.com  
 Corporate Certificate of Authority #001348

The Professional Engineer's seal and signature offered to this sheet applies only to the work and items shown on this sheet. All drawings, statements or other documents prepared by this engineer, and the engineer expressly disclaims any and all responsibility for such drawings or documents not exhibiting this seal and signature.



Date: 4/9/2013  
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CITY OF O'FALLON WATER DETAILS

P+Z No. 1305.05  
 City No.  
 Date: 11/12/2012  
 Job No. 12-05-127

Page No.

**CD4**

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