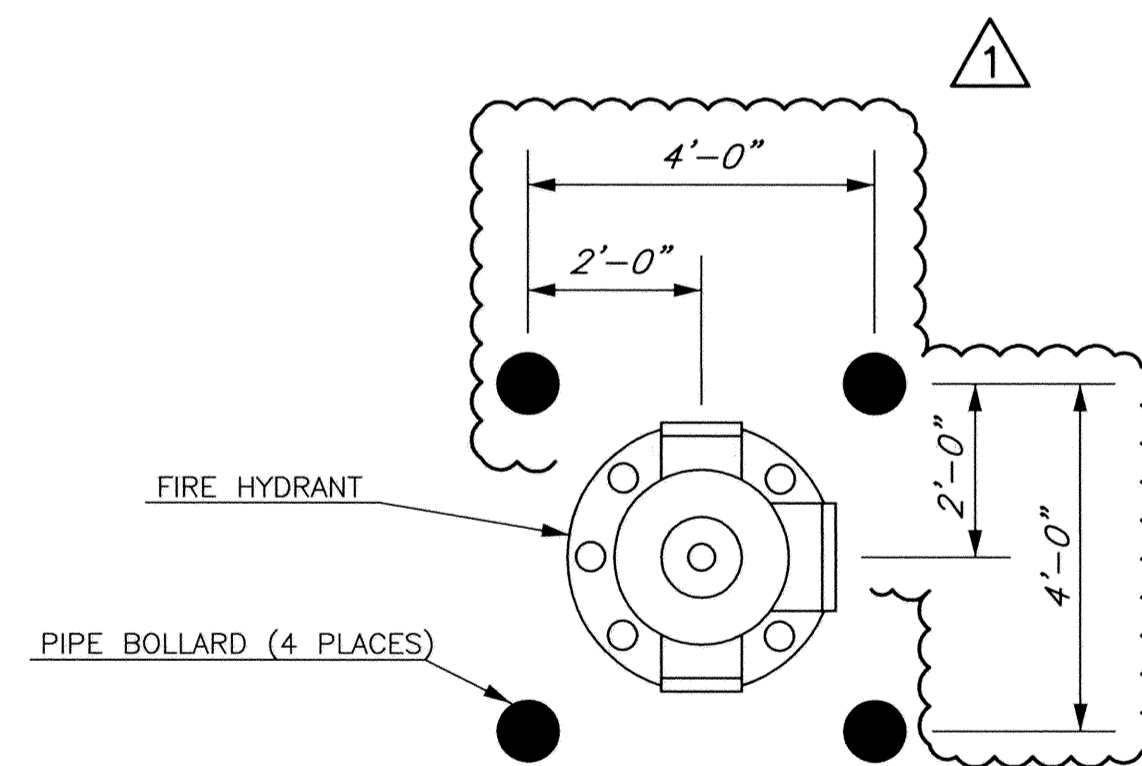


**FIRE DEPARTMENT CONNECTION DETAIL**

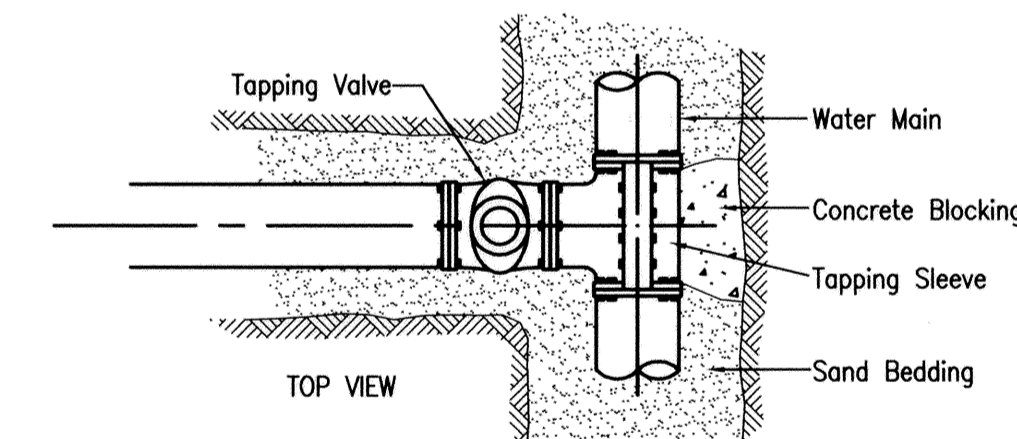
N.T.S.



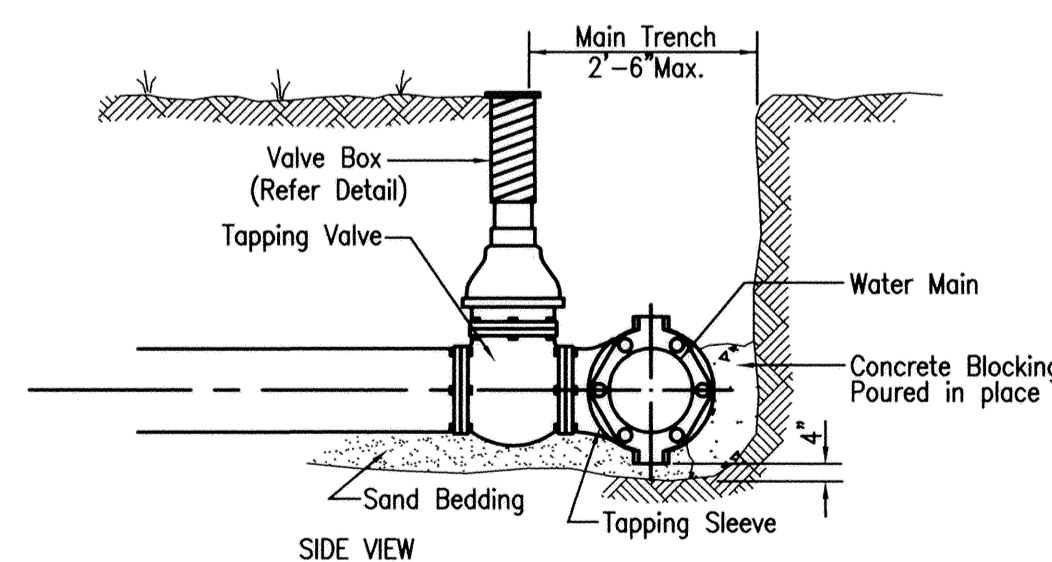
**FIRE HYDRANT PROTECTION DETAIL**

N.T.S.

CONSTRUCT PIPE BOLLARDS TO PROTECT FIRE HYDRANT IN PARKING LOT AREA TO PREVENT DAMAGE TO FIRE HYDRANT.



TOP VIEW



SIDE VIEW

**TAPPING TEE DETAIL**

N.T.S.

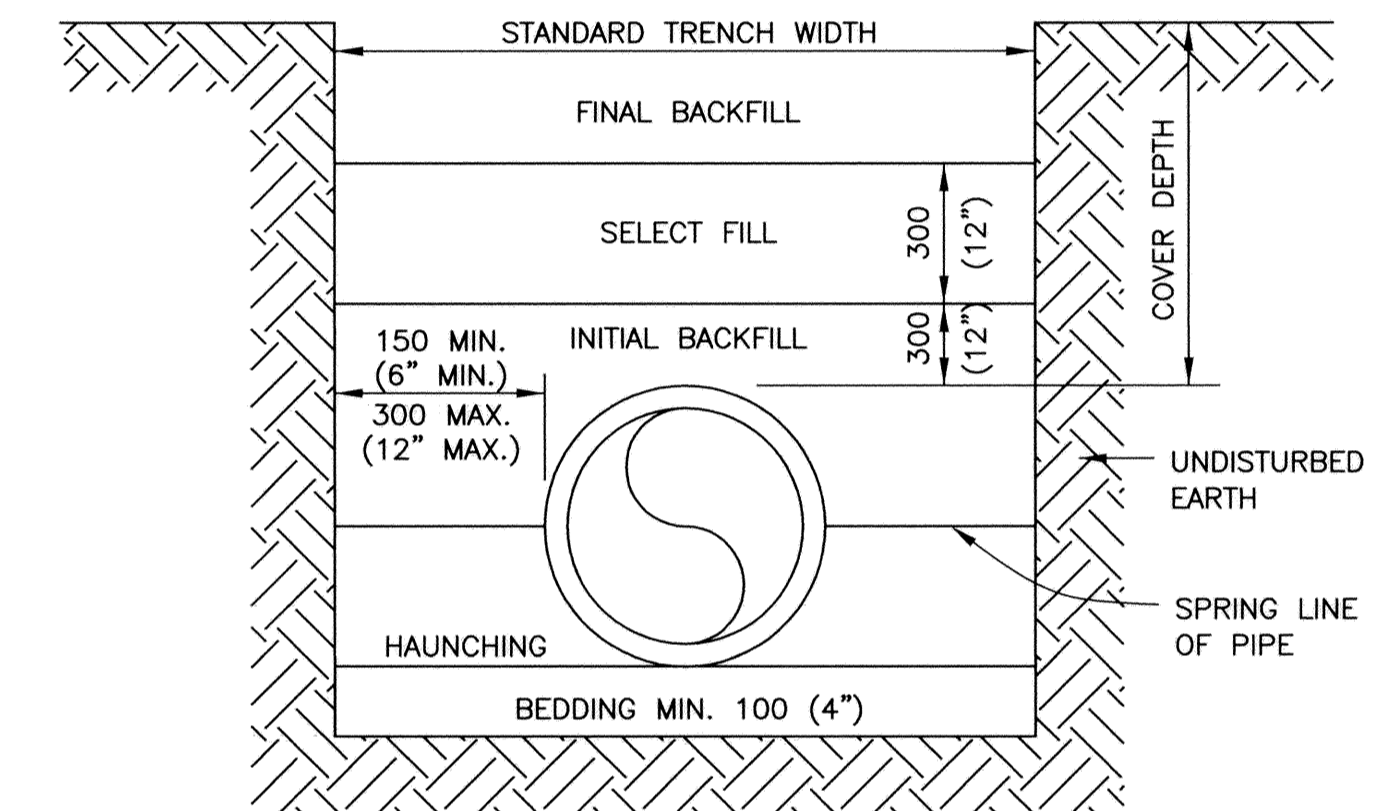
BEDDING MATERIALS						
BACKFILL DESCRIPTION	NON-PAVED AREAS			PAVED AREAS (See Note 7)		
	P V C	DUCTILE IRON	H D P E	P V C	DUCTILE IRON	H D P E
FINAL BACKFILL	EXCAVATED MATERIAL	EXCAVATED MATERIAL	EXCAVATED MATERIAL	SBM	SBM	SBM
SELECT BACKFILL	SELECT FILL	SELECT FILL	SELECT FILL	SBM	SBM	SBM
INITIAL BACKFILL	COVER ≤ 10'-SAND OR SBM > 10'-SBM	SELECT FILL	COVER ≤ 10'-SAND OR SBM > 10'-SBM	SBM	SBM	SBM
HAUNCHING	COVER ≤ 10'-SAND OR SBM > 10'-SBM	SELECT FILL	COVER ≤ 10'-SAND OR SBM > 10'-SBM	SBM	SBM	SBM
BEDDING	See Note 3	See Note 3	See Note 3	See Note 3	See Note 3	See Note 3

PIPE INSIDE DIAMETER		STANDARD TRENCH WIDTH	
MM	IN.	MM	IN.
150	6	450	18
200	8	600	24
250	10	750	30
300	12	750	30
375	15	900	36
450	18	900	36
525	21	1,050	42
600	24	1,050	42
675	27	1,200	48
750	30	1,200	48
900	36	1,350	54
1,050	42	1,500	60
1,200	48	1,650	66

**NOTES:**

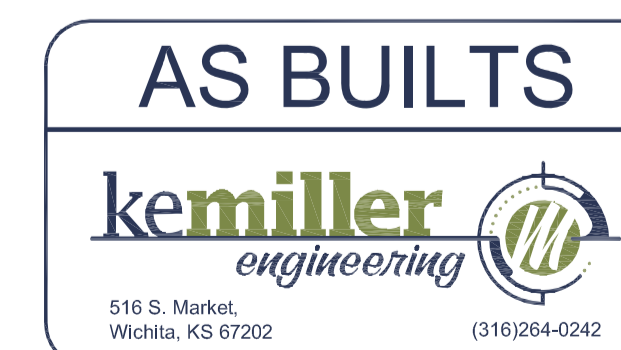
- INSTALLATION AND BACK FILLING SHALL MEET MANUFACTURERS RECOMMENDATIONS.
- SELECT FILL CONSISTS OF EXCAVATED MATERIALS CONTAINING NO ROCKS LARGER THAN 50 MM (2").
- STANDARD BEDDING MATERIAL (SBM) SHALL CONFORM TO KDOT AB-3 AGGREGATE BASE OR FLOWABLE FILL OR APPROVED EQUAL.
- COMPACTION REQUIREMENTS: 95% MAXIMUM STANDARD PROCTOR DENSITY.
- IN SANDY SOIL, CONTRACTOR MAY BACKFILL WITH NATIVE MATERIAL AND USE WARNING TAPE 18" ABOVE PIPE.
- NO WATER JETTING ALLOWED.
- THE BACKFILL MATERIAL SHALL EXTEND A MINIMUM OF 2- FEET BEHIND THE BACK OF CURB, OR THE EDGE OF PAVEMENT WHERE NO CURB EXISTS.

(METRIC UNITS ARE IN MM WITH ENGLISH UNITS IN PARENTHESIS, UNLESS INDICATED OTHERWISE.)



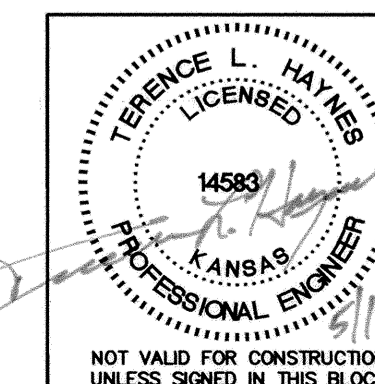
**WATER PIPE TRENCHING AND BEDDING**

N.T.S.



CHANGE DIRECTIVE #1 ~ 05/19/11

<b>WATER LINE DETAILS</b>			
<b>WALMART MARKET #5991-00</b>			
<b>31st STREET &amp; S. SENECA WICHITA, KANSAS</b>			
<b>SMC Consulting Engineers, P.C.</b> 815 West Main - Oklahoma City, OK 73106 PH: 405-232-7715 Fax: 405-232-7859			
KANSAS CERTIFICATE OF AUTHORIZATION NO. E-335 EXP. DEC. 31, 2011			
No.	Revision	By	Date
1	Change Directive #1	TAG	05/19/11
DATE: 01/20/11		SCALE:	SHEET NO.
DRAWN BY: MDS		N.T.S.	C-11.1
PROJECT NO.: 4966.00		ENGINEER: TERENCE L. HAYNES, P.E. #14583	



NOT VALID FOR CONSTRUCTION UNLESS SIGNED IN THIS BLOCK