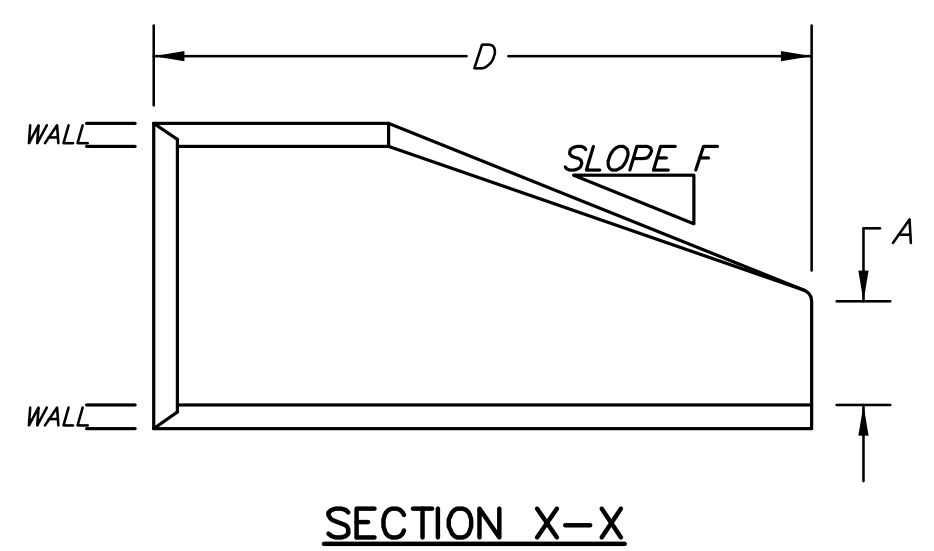
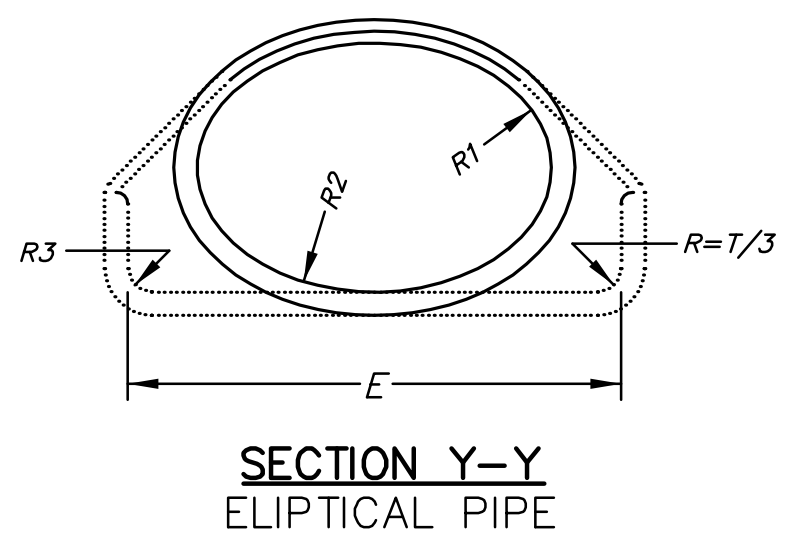
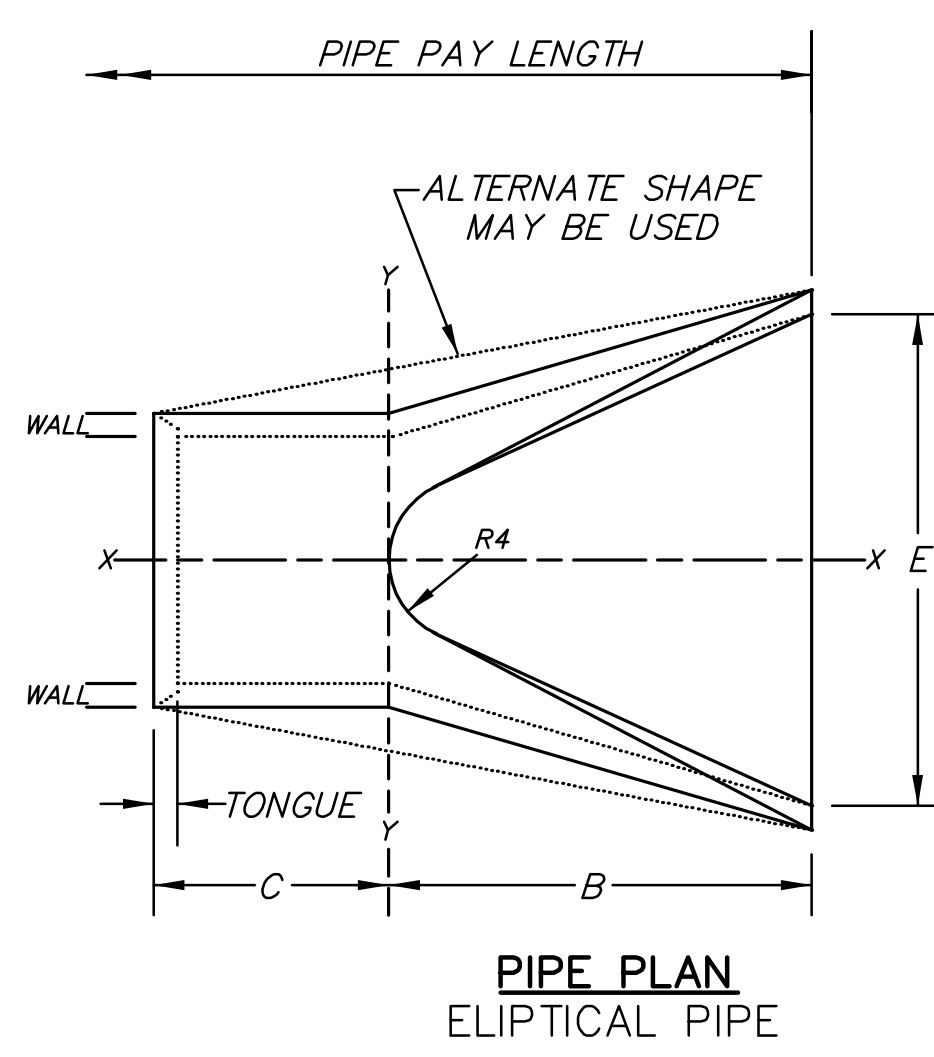
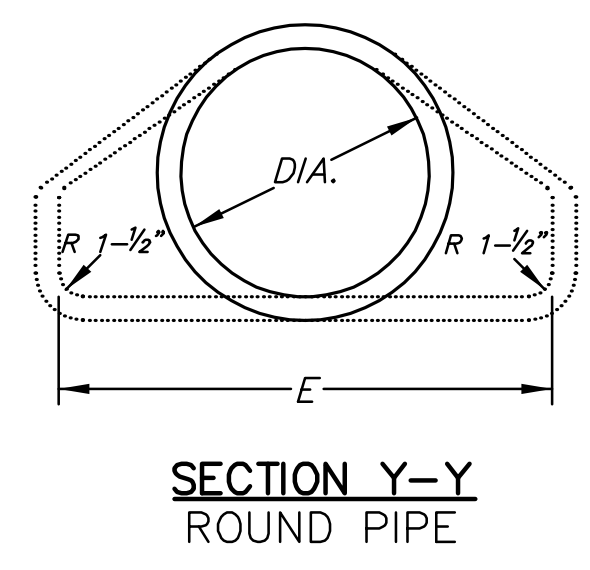
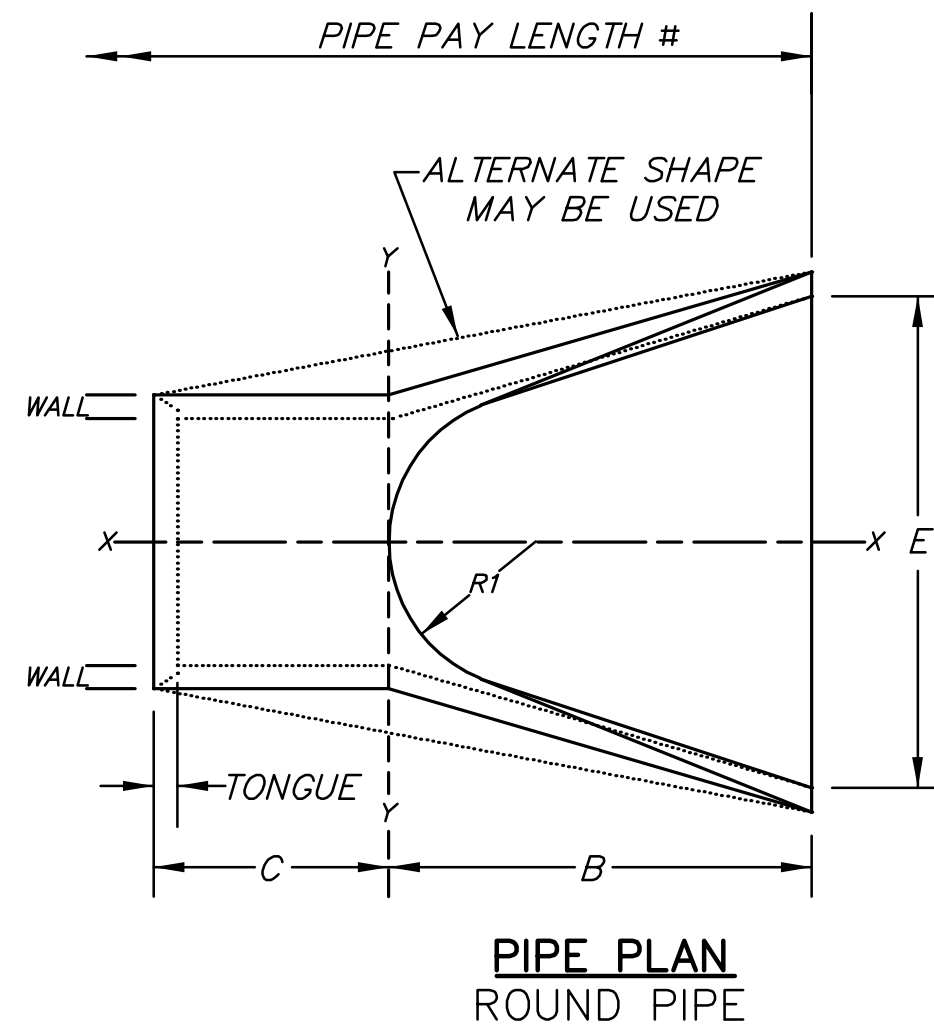


STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	87 N-0615-01	2017	66	183



STREET IMPROVEMENTS FOR
127TH STREET EAST
 FROM 13TH STREET NORTH TO 21ST STREET NORTH

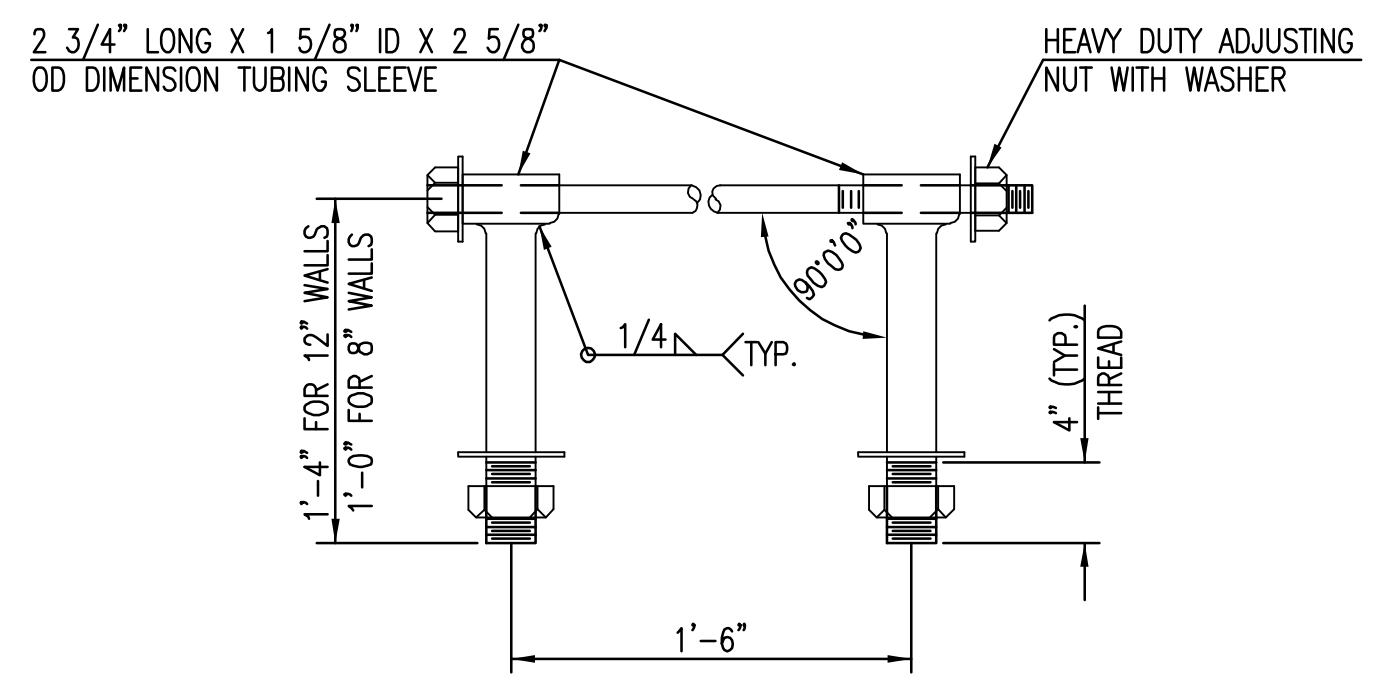
END SECTIONS ARE NOT PAID FOR SEPARATELY BUT ARE INCLUDED IN THE OVERALL PIPE LENGTH.



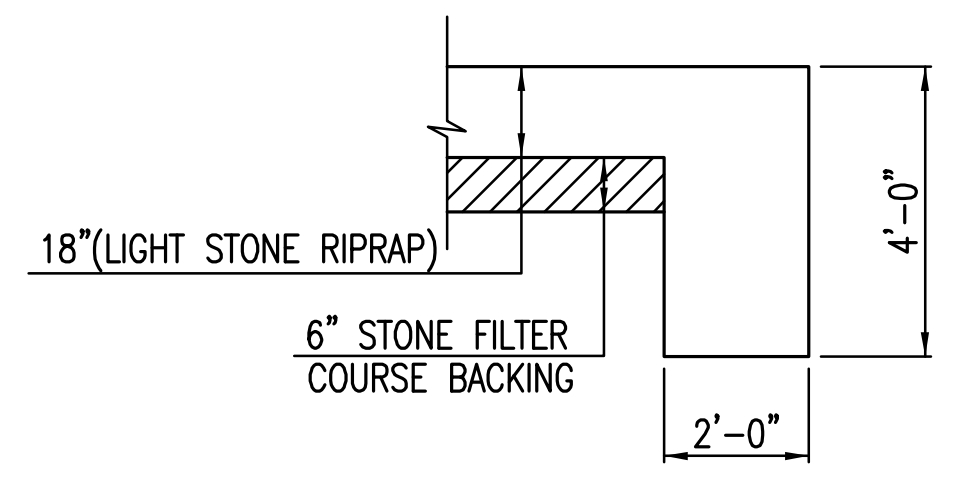
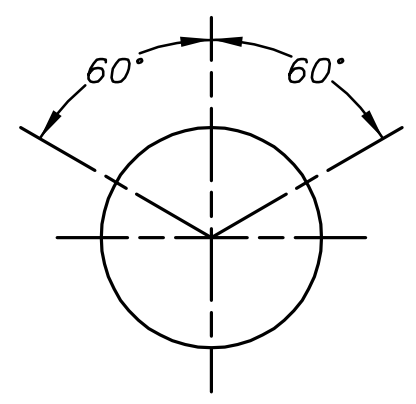
DIAM.	A	B	C	D	E	F	R1	TONGUE	WALL
42"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	3:1	22"	3-3/4"	4-1/2"

END AREA SQ.FT.	ROUND EQUIV.	SPAN	RISE	WALL	A	B	C	D	E	R1	R2	R3	R4
16.6	54"	68"	43"	6"	25-1/2"	5'-0"	3'-0"	8'-0"	7'-6"	18-21/32"	58-15/32"	6"	16"

TONGUE LENGTHS BASED ON QUINN STANDARD



- NOTES
- BOLTS TO BE A-36 1 1/2" DIAMETER.
 - BOLTS, NUTS, WASHERS AND SLEEVES TO BE ZINC PLATED.
 - WASHERS TO BE 3 1/2" O.D. X 7 GAUGE.
 - SHIP WITH NUTS AND WASHERS PLACED ON BOLTS.
 - INSTALL PIPE COUPLER AT ALL STORM SEWER PIPE OUTFALLS. COUPLE A MINIMUM OF THREE JOINTS FROM THE END OF THE LINE.
 - TIES ARE SUBSIDIARY TO STORM SEWER INSTALLATIONS.



- NOTES
- ALL RIPRAP FOR THIS PROJECT SHALL BE NATURAL STONE. NEITHER BROKEN CONCRETE, FABRIC ENVELOPE, NOR PREMIXED DRY PACKAGED CONCRETE BAG ALTERNATES WILL BE ALLOWED, UNLESS INDICATED OTHERWISE.
 - TOEWALLS SHALL BE INSTALLED ALONG ALL UNPROTECTED EDGES OF STONE RIPRAP.
 - GROUTING OF THE SURFACE OF THE RIPRAP SHALL NOT BE PERFORMED, UNLESS INDICATED OTHERWISE. GROUTING OF THE TOEWALLS SHALL BE PERFORMED PER CITY SPECIFICATIONS.

LIGHT STONE RIPRAP DETAILS

©2017 MKEC Engineering All Rights Reserved www.mkec.com
 These drawings and their contents, including, but not limited to, all concepts, designs, & ideas are the exclusive property of MKEC Engineering (MKEC), and may not be used or reproduced in any way without the express consent of MKEC.

OUTFALL DETAILS

PROJECT NO.	472-85158	
DATE	11/29/17	
SCALE	NTS	
DESIGNED	DRAWN	CHECKED
JRA	WNJ	JRA

NO.	REVISION	DATE
-----	----------	------

SHEET NO.
66 OF 183

PLOTTED: Wednesday, November 29, 2017 @ 02:55PM
 J:\PROJECTS\2017\1401040290 - COM_127THE 13TH TO 21ST\05-CIVIL\CAD\DWG\14260-007.DWG