

GENERAL NOTES:

1. Contractor will be required to provide notice to utility companies a minimum of seventy-two (72) hours prior to any excavation, as follows:

Kansas One-Call 687-2470

The Contractor must notify the following in case of an emergency:

Cox Communications 262-4270
 Kansas Gas Service 1-888-482-4950
 Westar Energy 383-8650
 Black Hills Energy 1-800-303-0357
 AT&T 268-2245
 City of Wichita Water Dept. 268-4563
 City of Wichita Sewer Maint. 268-4024
 City of Wichita Storm Sewer Maint. 268-4090
 City of Wichita Traffic Maint. 268-4034
 Conoco Phillips Pipeline Co. 1-877-267-2290
 Southern Star Pipeline Co. 529-6600
 Kinder-Morgan Pipeline Co. 1-888-844-5658

2. Utility service lines, poles, valve boxes, meters, and etcetera are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless the plans specifically identify a utility to be adjusted by its owner during construction. Existing utilities and their location, as shown on the plans, represent the best information obtainable for design. The Contractor will be required to work around existing utilities within the right-of-way which do not conflict with proposed construction.

3. Rubble from the removal of miscellaneous structures and excess excavation which is to be wasted shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Engineer as to suitability, appearance and site location. Locations, in the opinion of the Engineer, that will leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or wetlands is subject to U.S. Corps of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional archaeological investigations unless buried in a previously approved borrow location.

4. Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval. Trees and shrubs which are not in direct conflict with proposed new construction shall be saved and protected from damage.

5. The Contractor shall give all property owners and/or tenants of developed property abutting the construction of this project a minimum of ten (10) days notice prior to start of construction.

6. The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws.

7. All existing and proposed erosion control measures including silt fencing, erosion control mat, straw bales, inlet barriers, and const. entrance shall be maintained throughout construction by the contractor and until project is accepted by the City of Wichita. The on-site engineer shall complete weekly reports on the status of erosion control measures. The contractor shall be required to comply with maintenance and/or replacement of erosion control measures as determined by the on-site engineer until project is accepted by City of Wichita. Maintenance and/or replacement of erosion control measures to be paid by L.S. bid item "Site Restoration".

8. All excess excavation shall remain on-site and shall be stockpiled or spread at a location determined by the engineer.

9. All areas disturbed during construction shall be seeded, mulched, and fertilized as follows (Permanent Seeding):

Seed: Kansas Premium Fescue Blend: 8 lbs./1000 sq. ft.

Mulch: Prairie Hay: 2 tons/acre

Fertilizer: 12-24-12: 850 lbs./acre

All costs associated with seeding, mulching, and fertilizing shall be included in bid item "Seeding". All seeding operations shall conform to City of Wichita Standard Specifications.

10. All required testing shall be incidental to "Site Clearing & Restoration".

AS BUILT PLANS

Contractor: Nowak
 Inspector: Don Eddingfield, Baughman Co.
 pdf's by: KEK, 10/7/14

STORM WATER SEWER IMPROVEMENTS

to serve

CASTLEGATE ADDITION

CITY OF WICHITA, KANSAS

Gary Janzen, P.E. City Engineer

Project Number
 0238 PPD (607861)

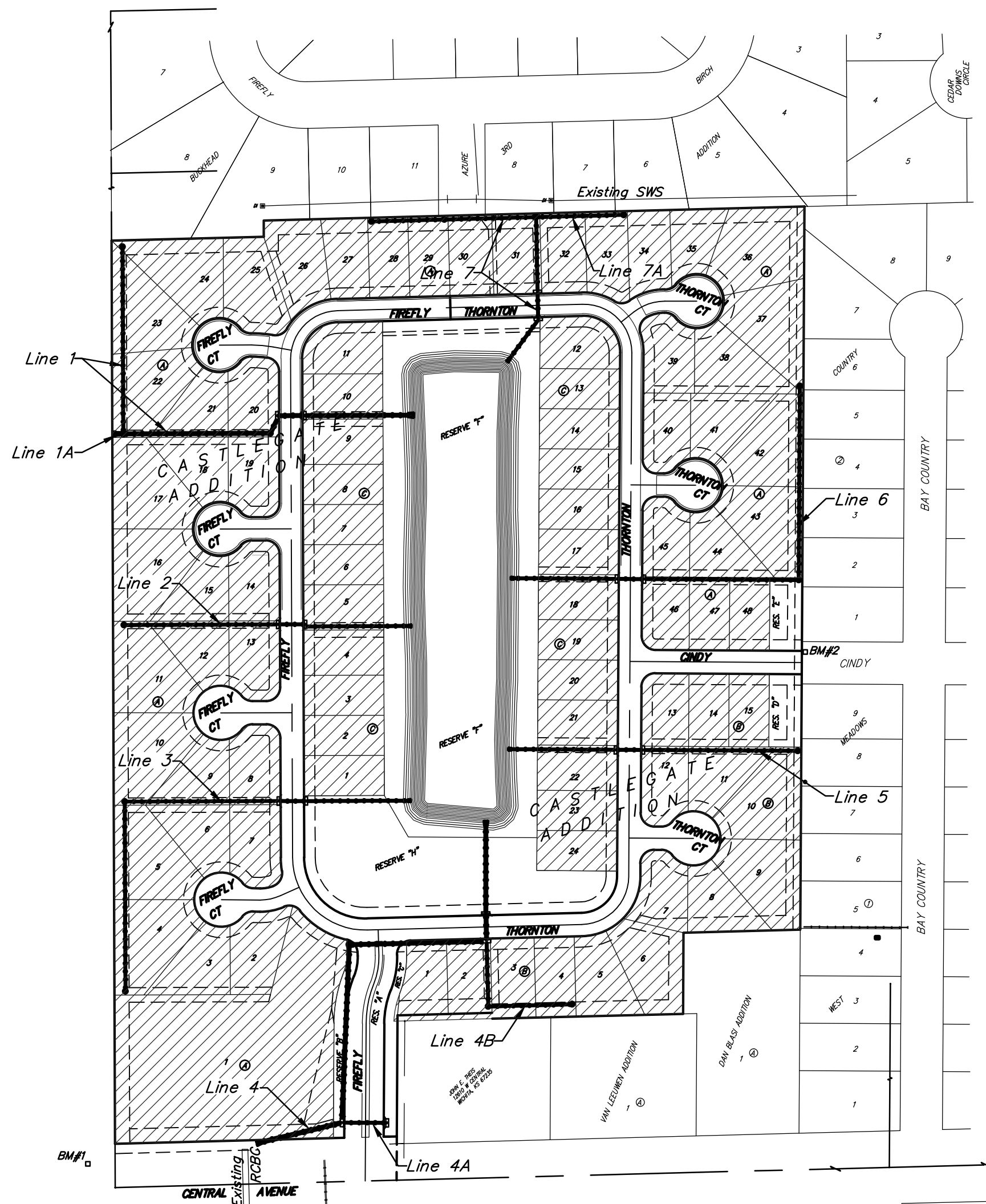
Benchmarks

BM #1: "X" on top of curb inlet north side of Central, 30' east of the intersection of Central & Firefly
 Elev. = 1341.99 (NAVD 88)

BM #2: Top of curb on the N. side of existing Cindy Street curb return, one joint west of existing edge of pavement.
 Elev. = 1342.31 (NAVD 88)

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WATER QUALITY MEASURES

Disturbed Area: 25.24 acres
 WQv: 1.29 ac. ft.
 Detm: 11.6 ac. ft.
 CPv: 2.7 ac. ft.

Downstream Channel Protection per the Castlegate Addition Drainage Plan. The storm water sewer system, including all pipe and inlets, have been addressed by this PPD.

Water Quality Requirements have been addressed with the previous 0235 PPD (607861). These improvements have been developed to satisfy Section 16.32 of the City Code.

APPROVED AS NOTED
 BY CITY ENGINEER OF WICHITA

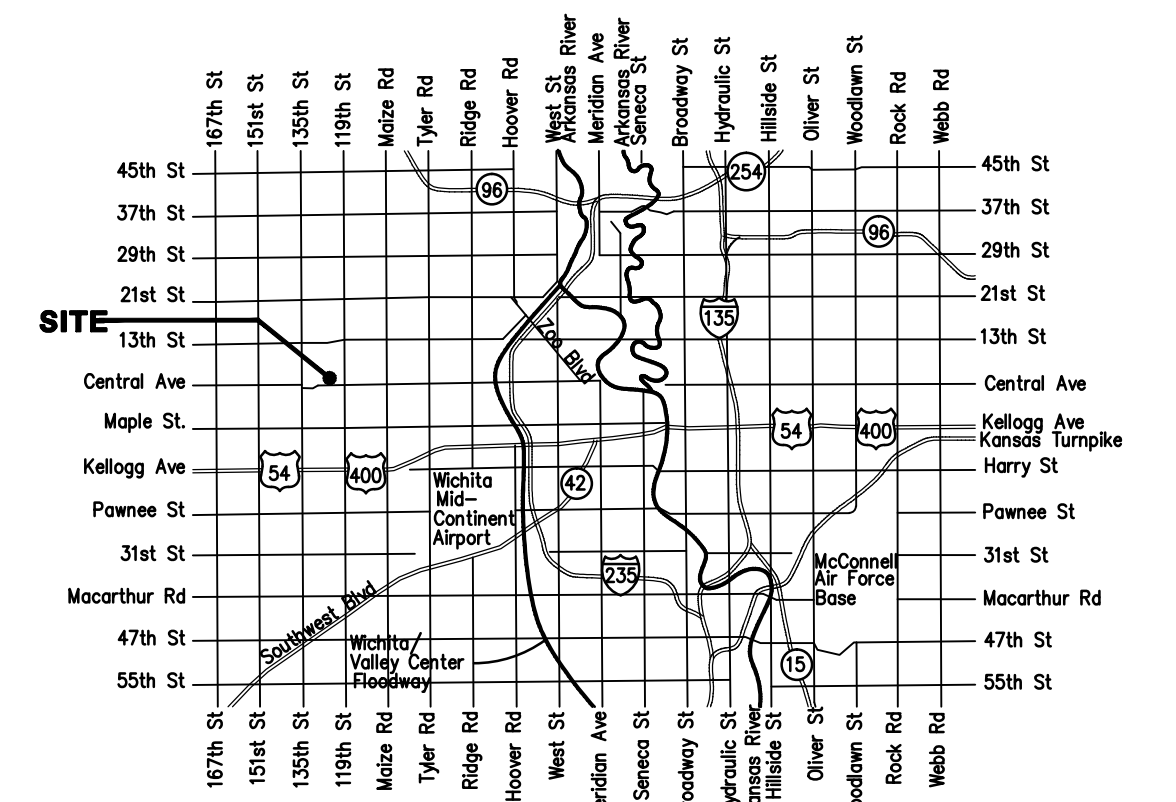
Engineering: *Rebecca Duff* 5/29/14
 Stormwater: *AKC* 5-29-14

NOTE TO CONTRACTORS

Inspection and testing for this project are to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection, nor shall any work be commenced without written authorization by the City Engineer.



Benefit District



Vicinity Map

Baughman

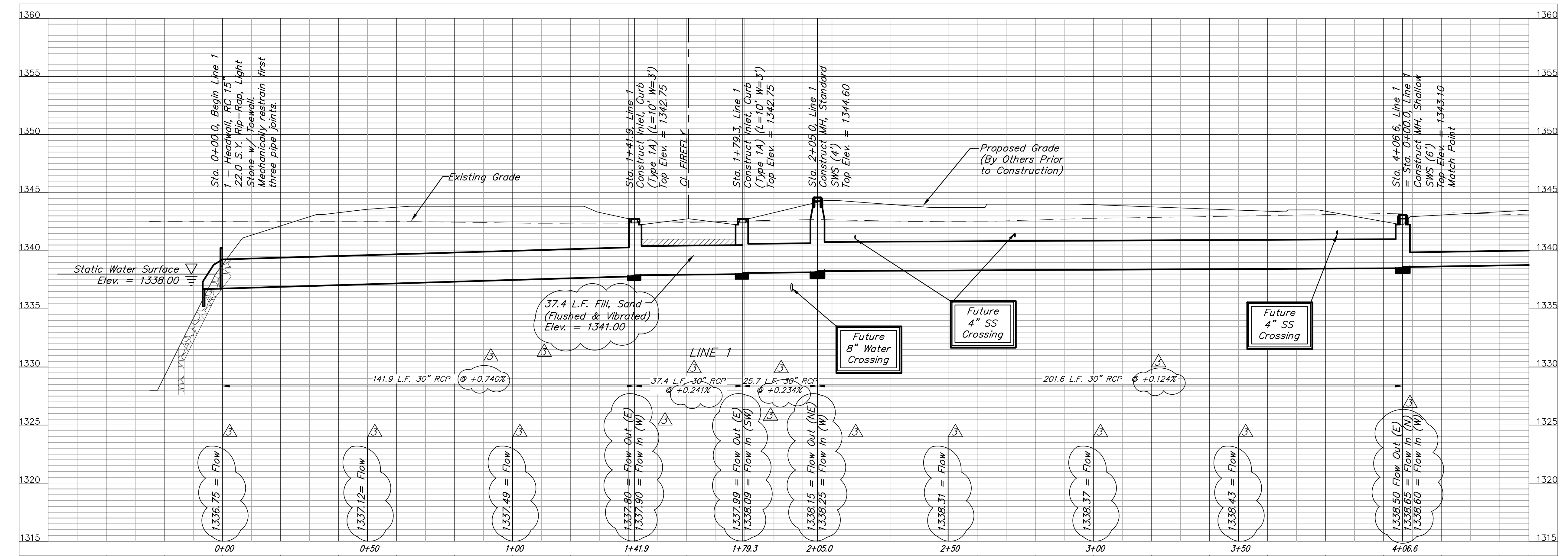
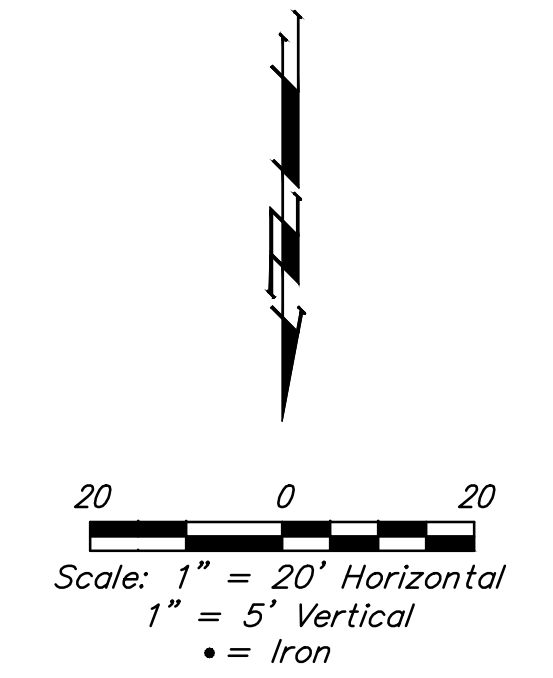
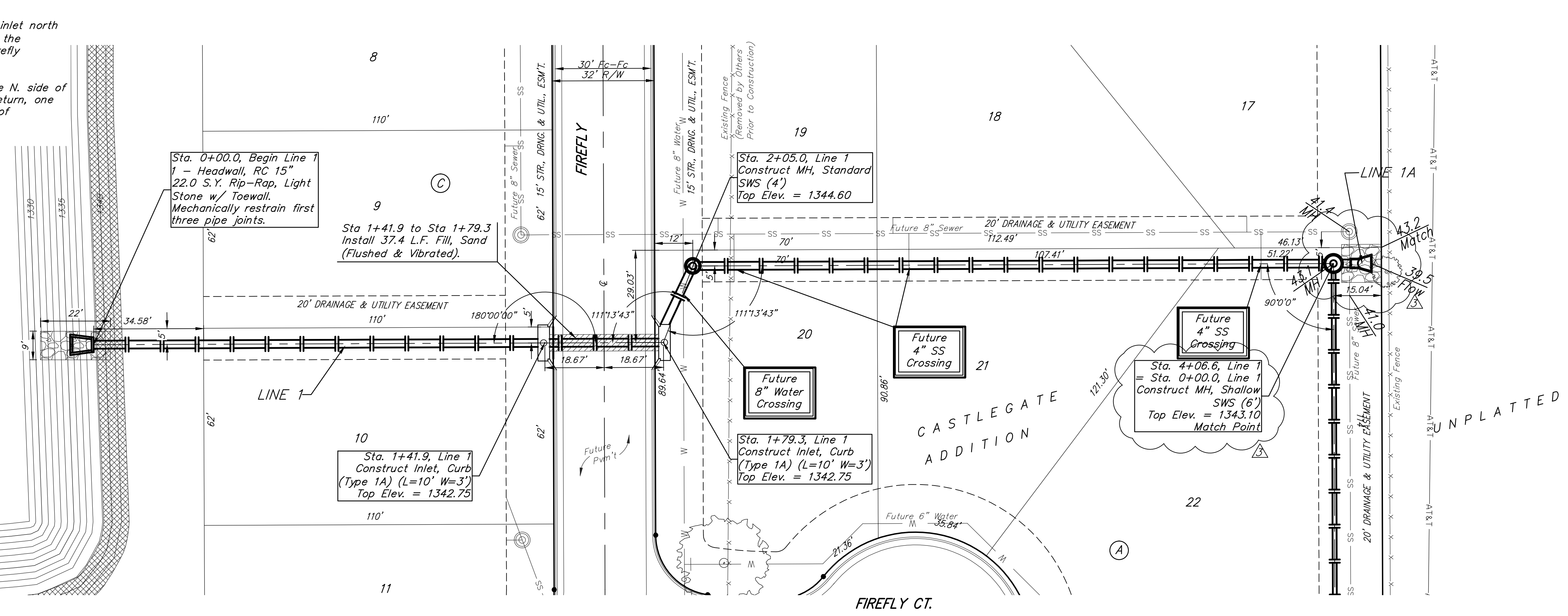
Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149
 ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

BENCHMARK:
 BM #1: "X" on top of curb inlet north side of Central, 30' east of the intersection of Central & Firefly Elev. = 1341.99 (NAVD 88)

BM #2: Top of curb on the N. side of existing Cindy Street curb return, one joint west of existing edge of pavement. Elev. = 1342.31 (NAVD 88)

Proposed Pond
 RESERVE "F"

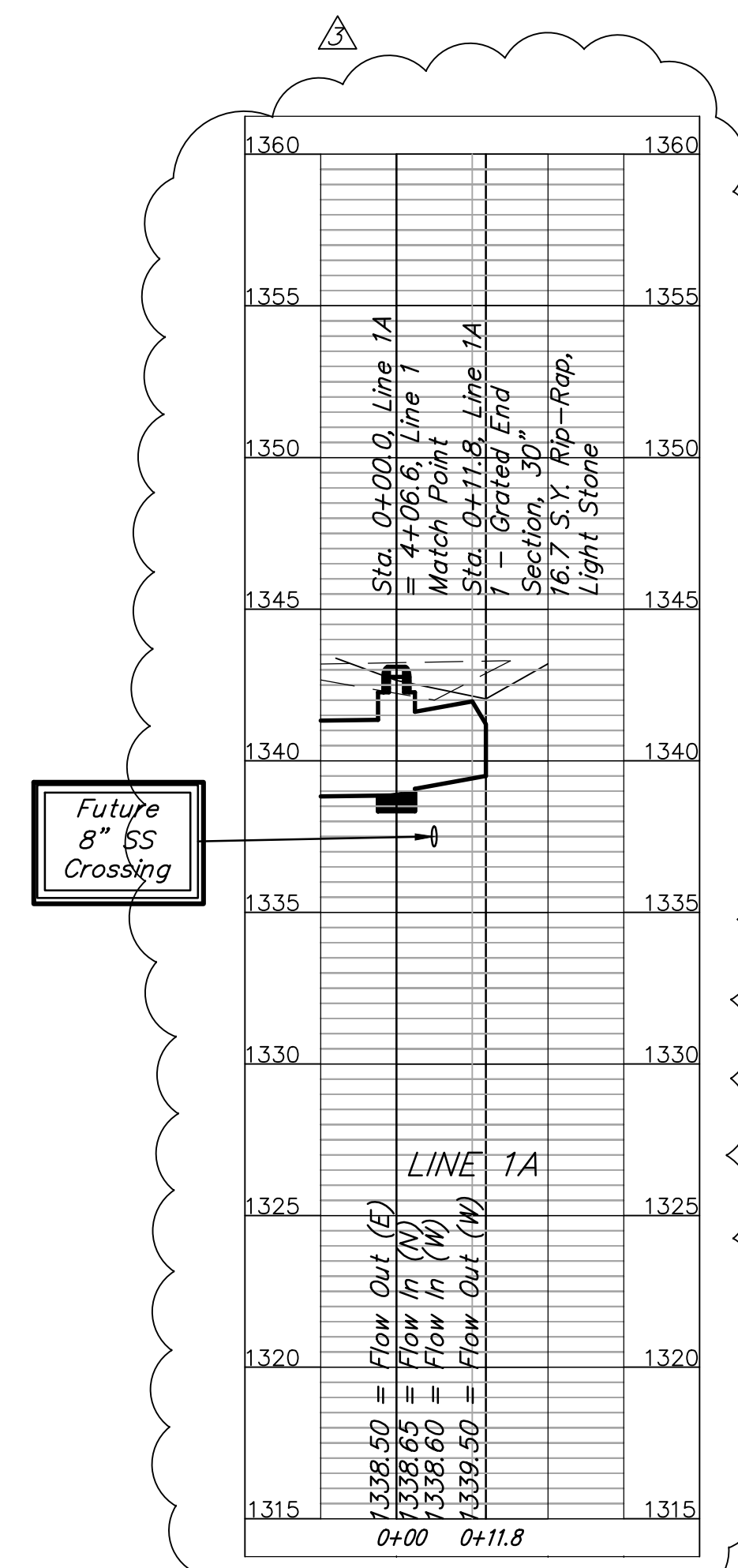
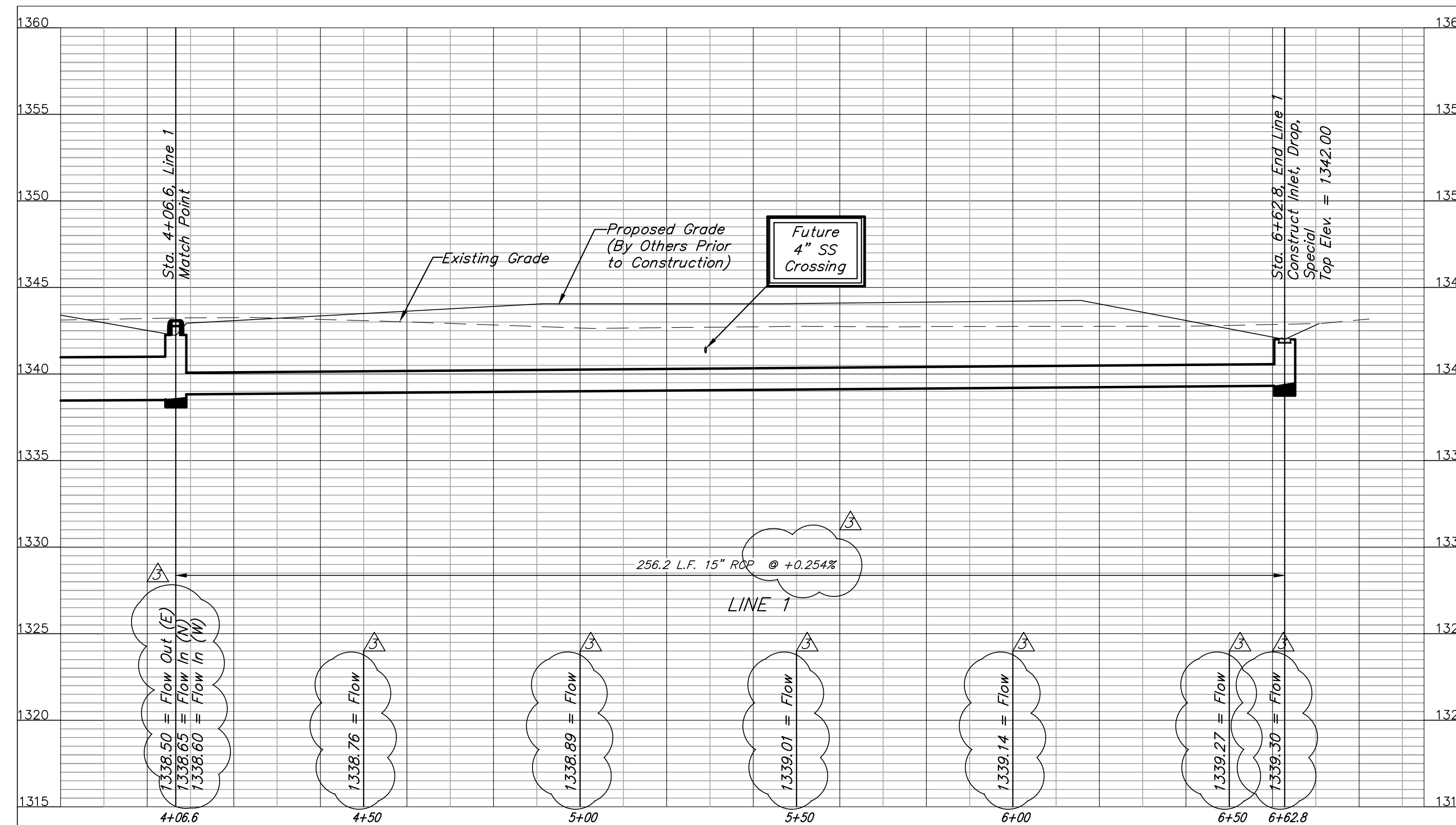
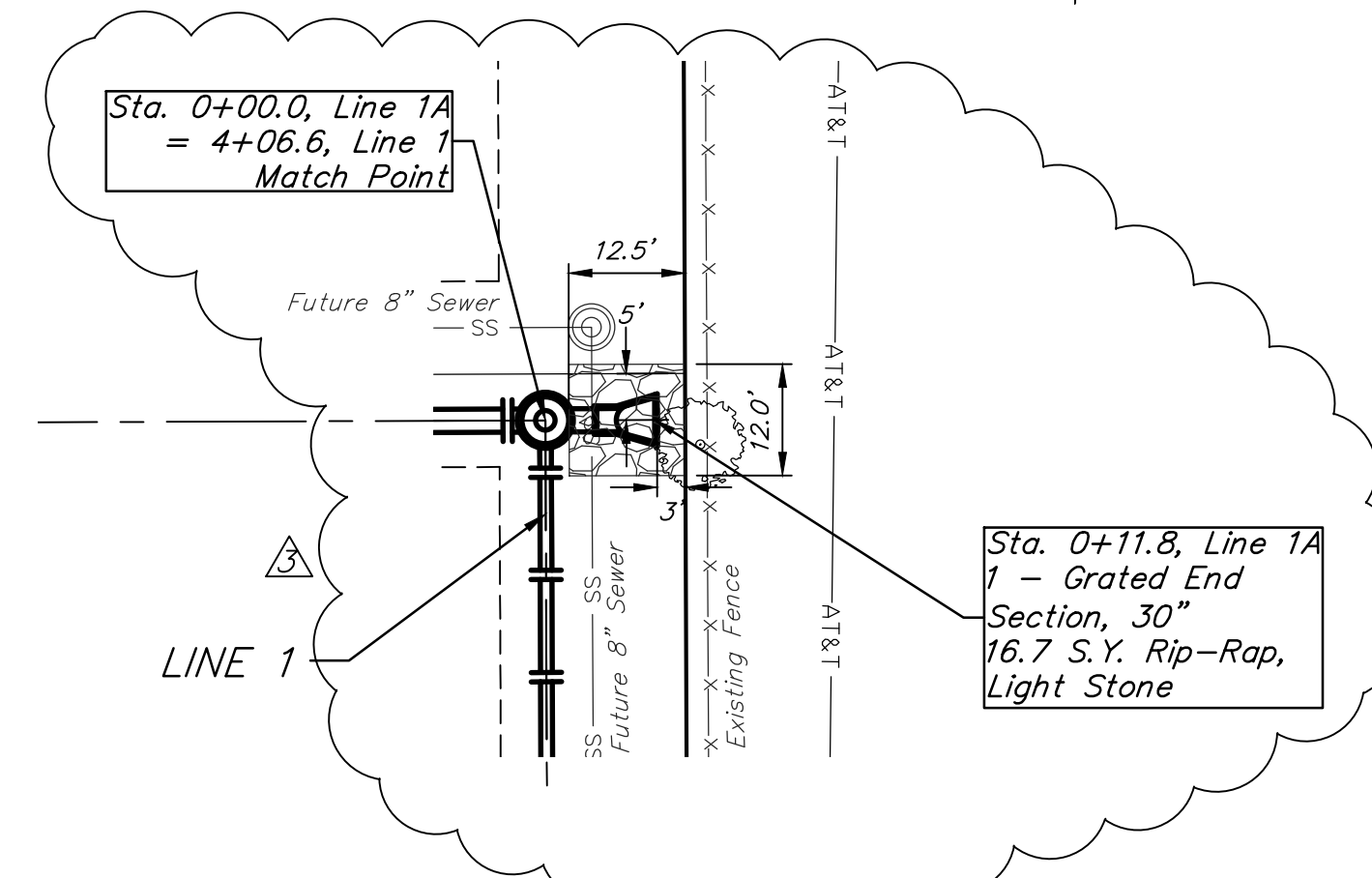
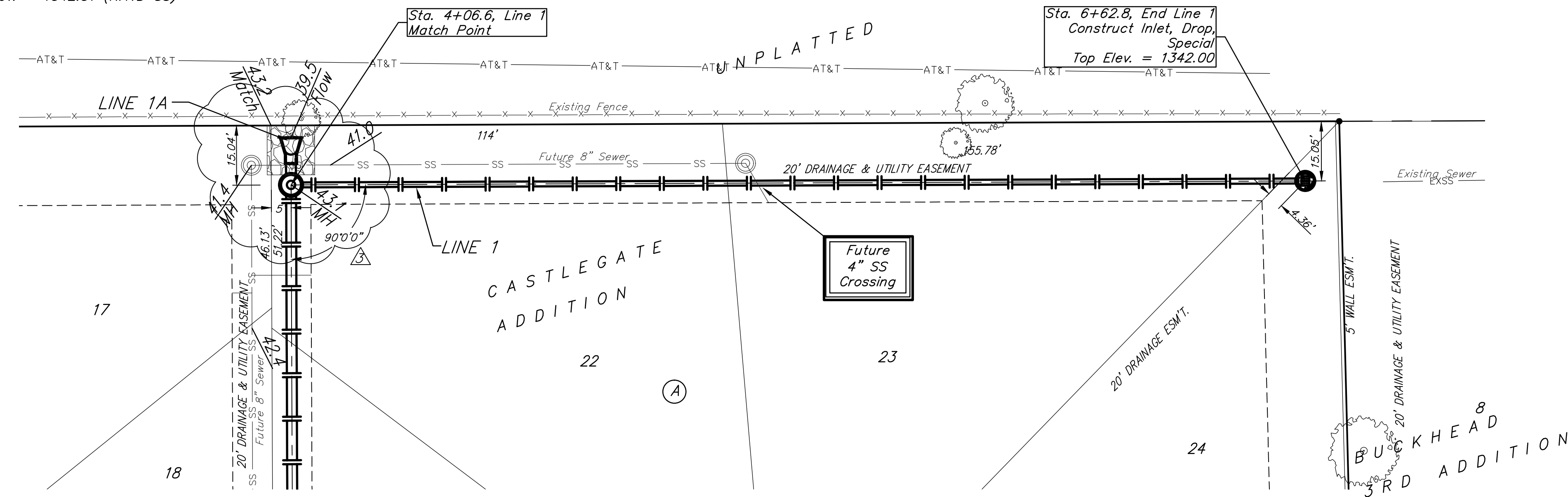
STATIC WATER SURFACE ELEV. = 1338.00



	CASTLEGATE ADDITION LINE 1 STORM WATER SEWER IMPROVEMENTS	
	<small>Baughman Company, P.A. 315 Ellis St., Wichita, KS 67211 P 316-262-2771 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE</small>	
<small>PROJECT NUMBER</small> SWS-14	<small>DESIGN</small> NBW/JS	<small>DRAWN</small> TMS
<small>REVISIONS:</small> 5/16/14 JCS <small>SWS Up Size 30\"/> </small>	<small>APPROVED</small> DATE 04/14	<small>SCALE</small> Noted <small>SHEET</small> 2 OF 27

BENCHMARK:
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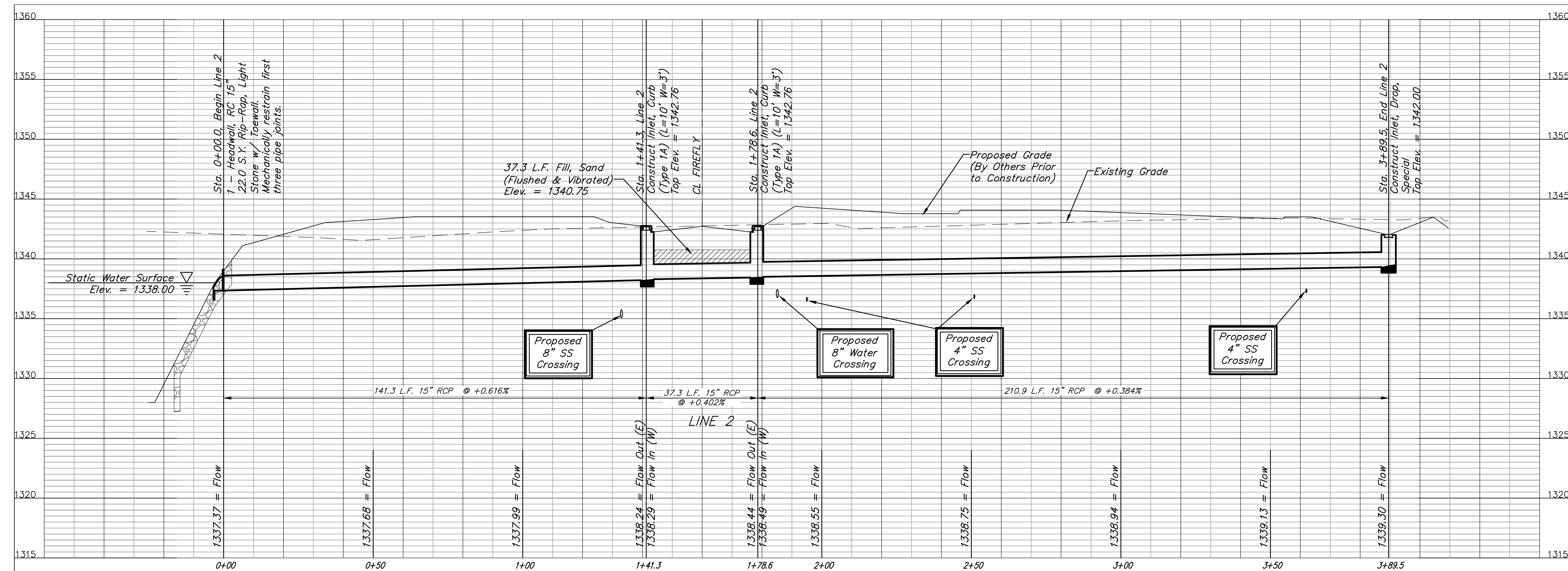
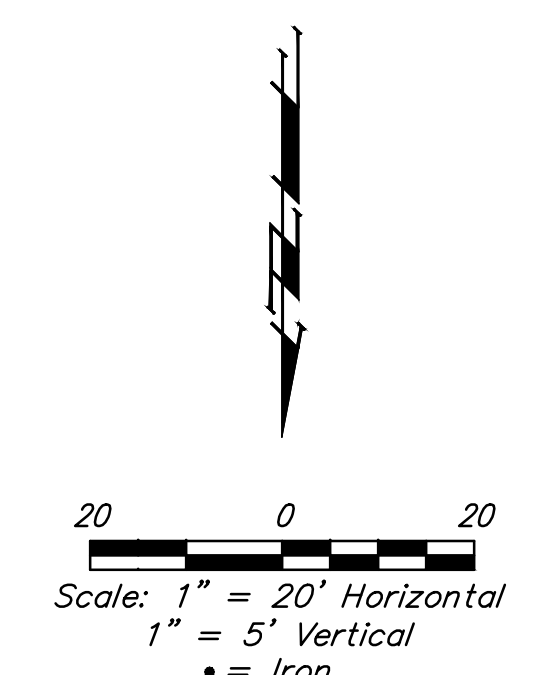
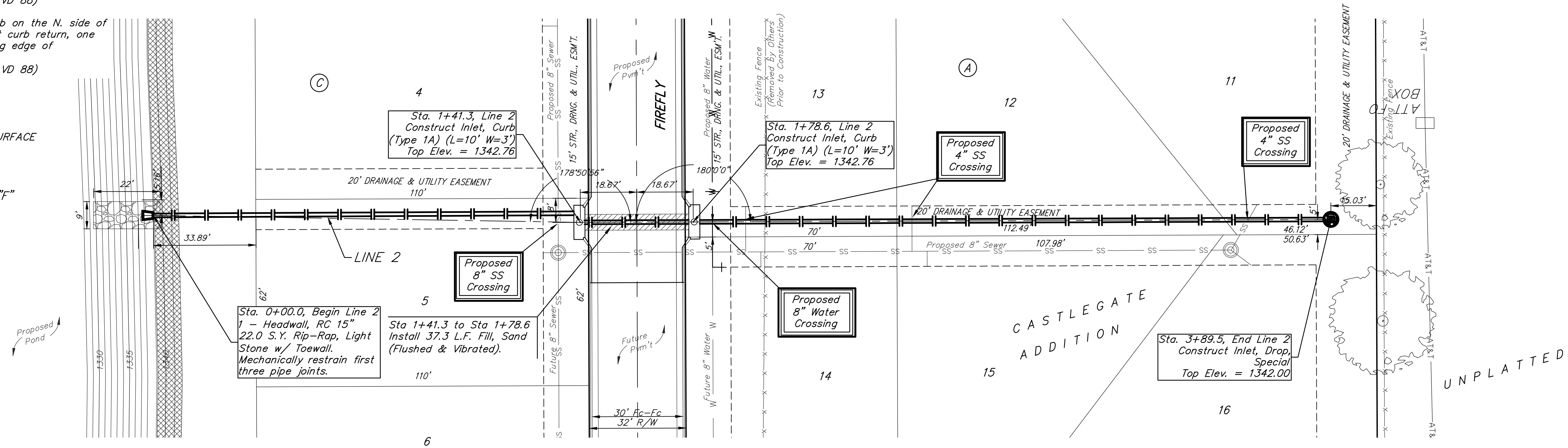
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	<small>Baughman Company, P.A. 315 Ellis St., Wichita, KS 67211 P 316-262-2771 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE</small>	
PROJECT NUMBER REVISIONS: 5/16/14 SWS Up Size 30" Headwall End Section	DESIGN NBW/JS APPROVED Noted SHEET	DRAWN TMS DATE 04/14 SCALE Noted SHEET 3 OF 27

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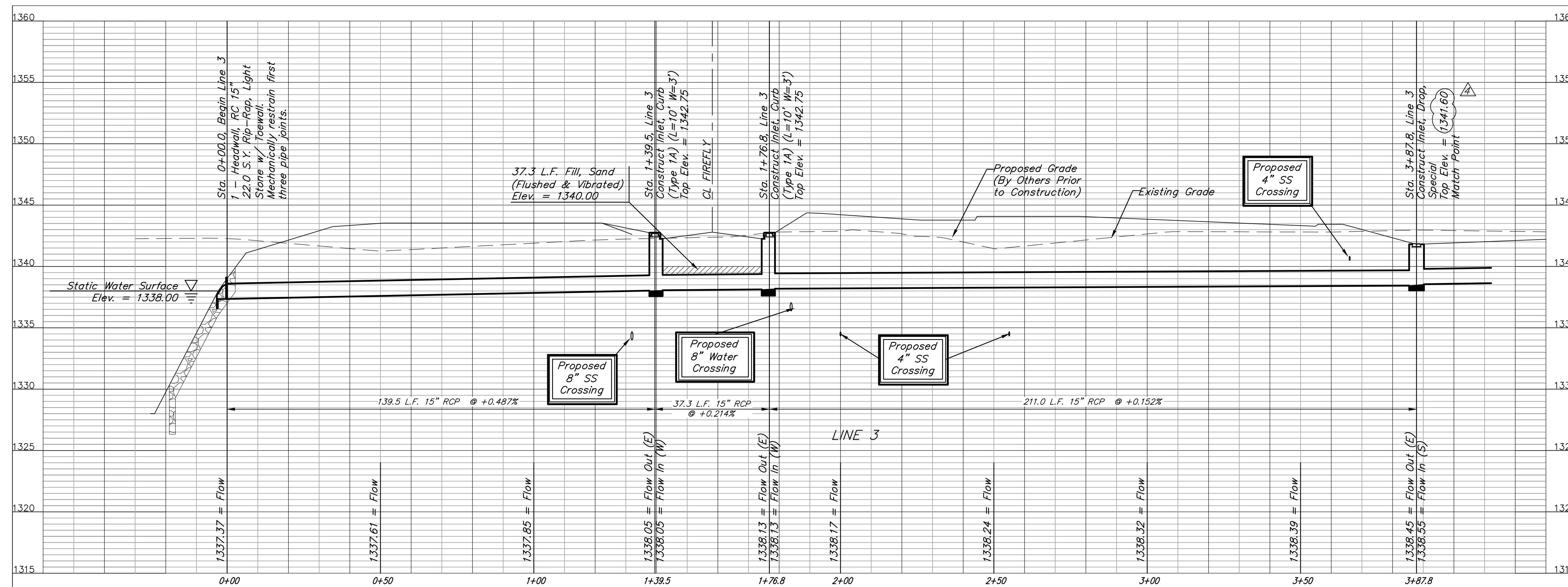
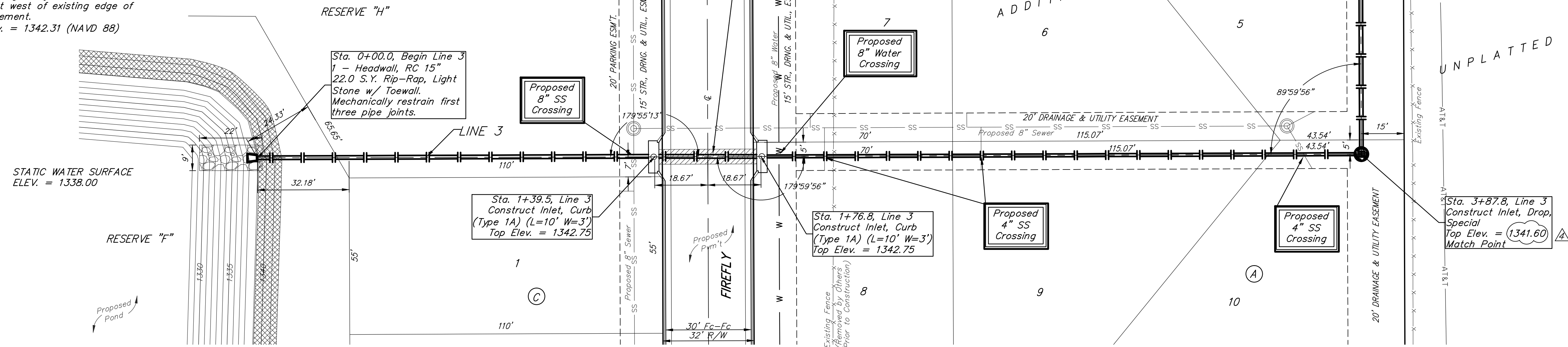
RES. "F"



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PROJECT NUMBER	DESIGN	DATE	DRAWN
REVISIONS:	NBW/JS	04/14	TMS
	APPROVED		
	SCALE		
	Noted		
	SHEET	4 OF 27	
SWSa.dwg		14-01-E004	

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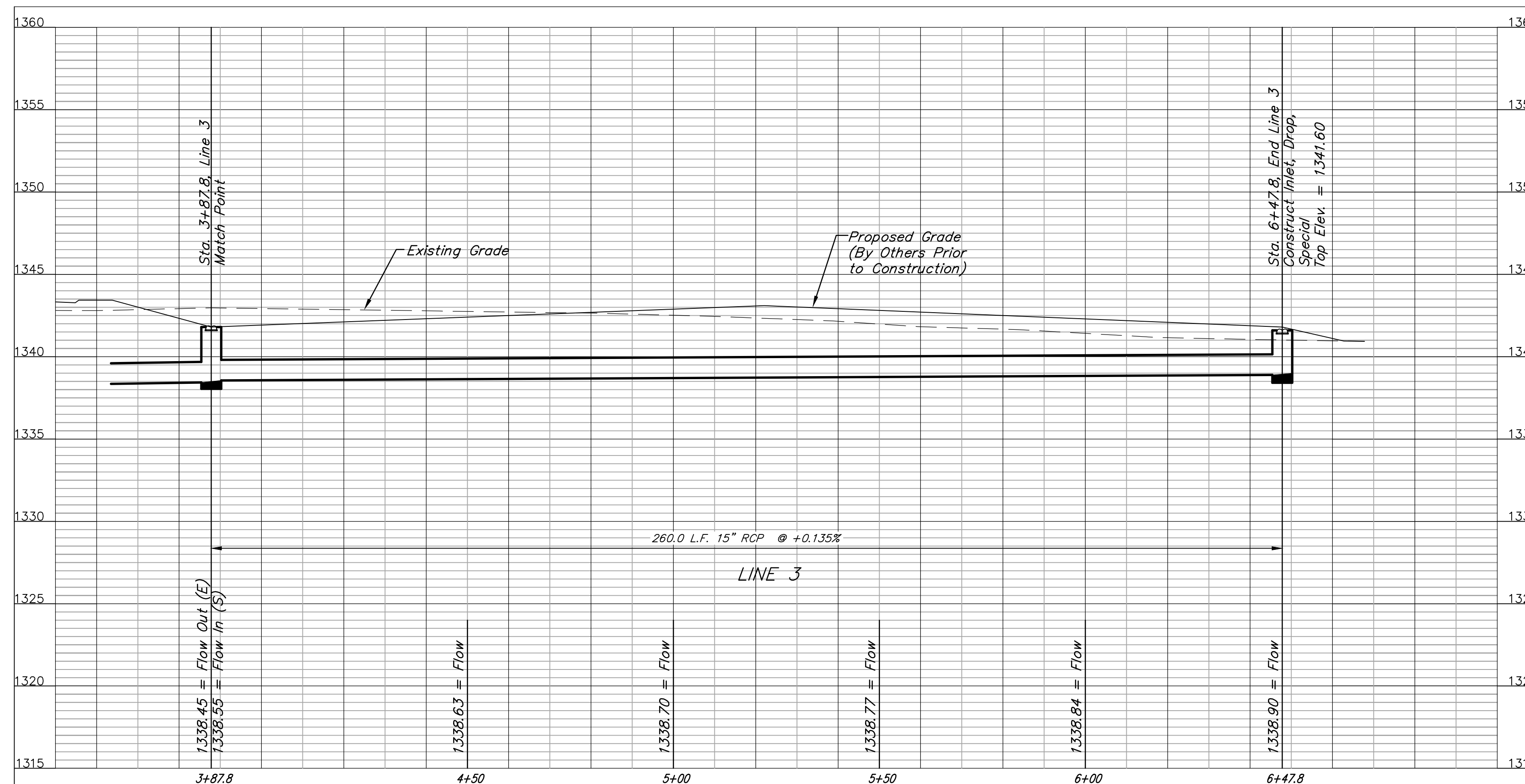
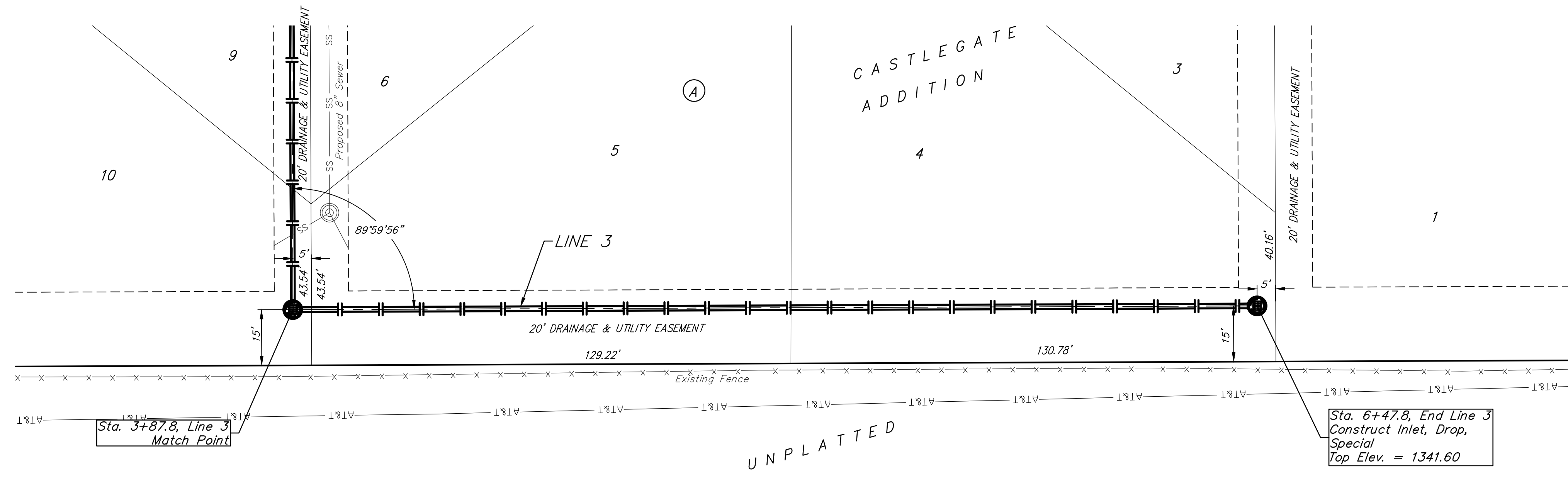
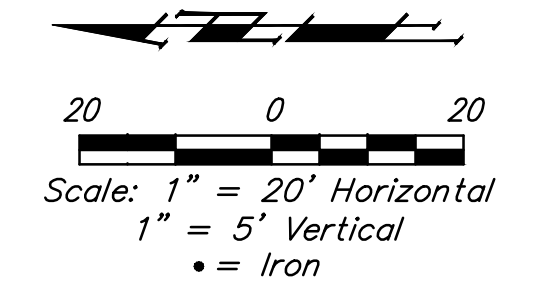


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		<small>Baughman Company, P.A. 315 Ellis St., Wichita, KS 67211 P 316-262-7271 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE</small>	
PROJECT NUMBER REVISIONS: 5/30/14 JCS <small>Exam / Issue Top-Grade Changes</small>	DESIGN: NBW/JS DRAWN: TMS APPROVED: DATE 04/14 SCALE: Noted SHEET:	5 OF 27	
<small>SWSa.dwg</small>		<small>14-01-E004</small>	

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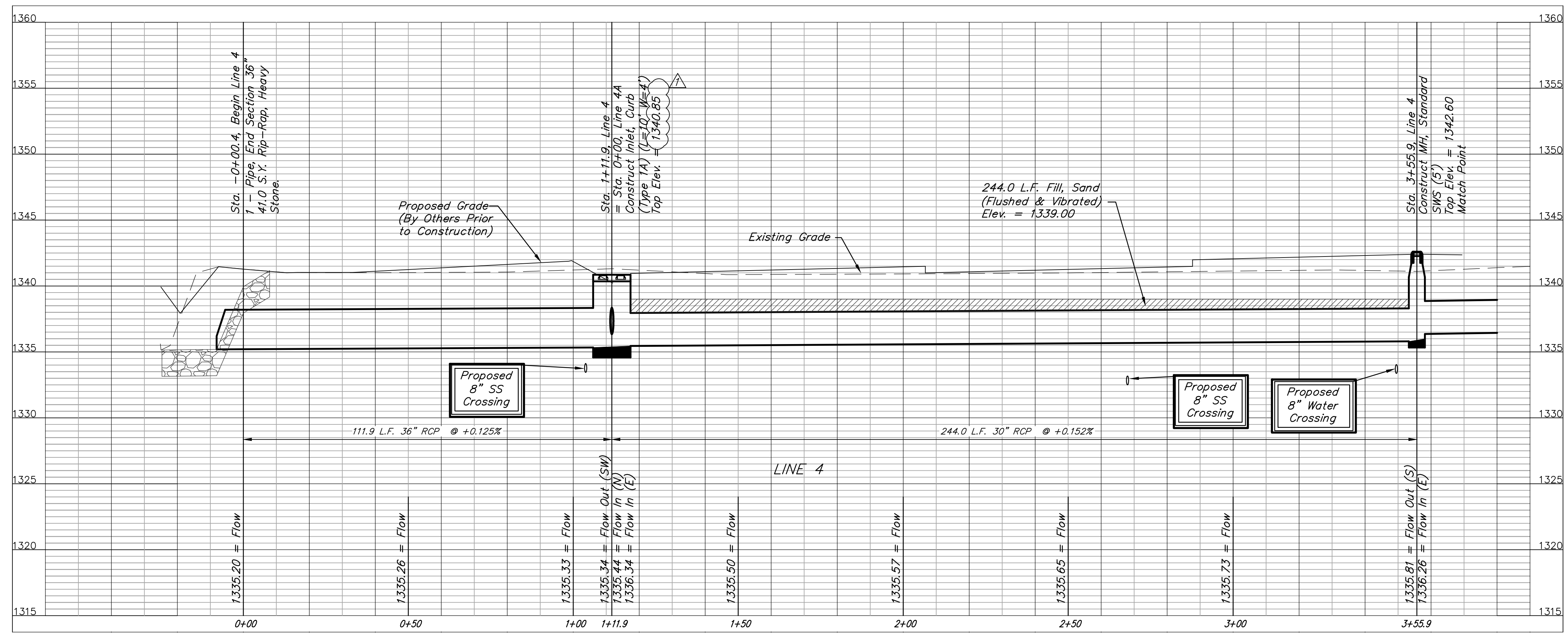
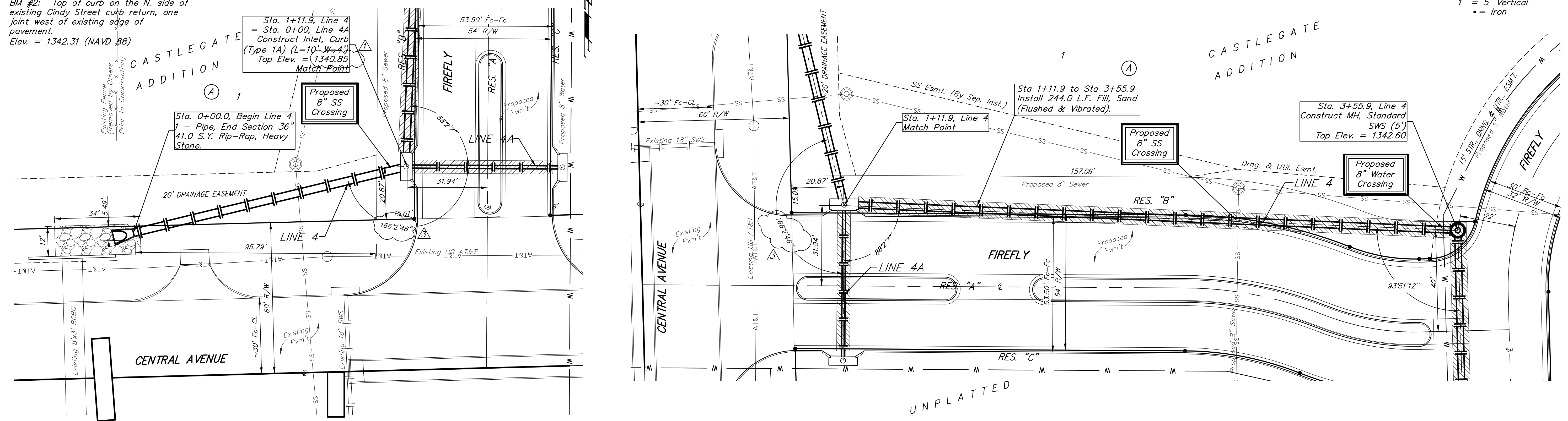
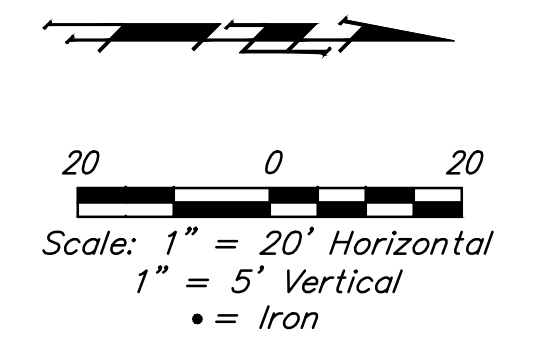
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PROJECT NUMBER	DESIGN NBW/JS	DRAWN TMS	APPROVED DATE 04/14
REVISIONS:	SCALE Noted		SHEET 6 OF 27
<small>SWSs.dwg</small>		<small>14-01-E004</small>	

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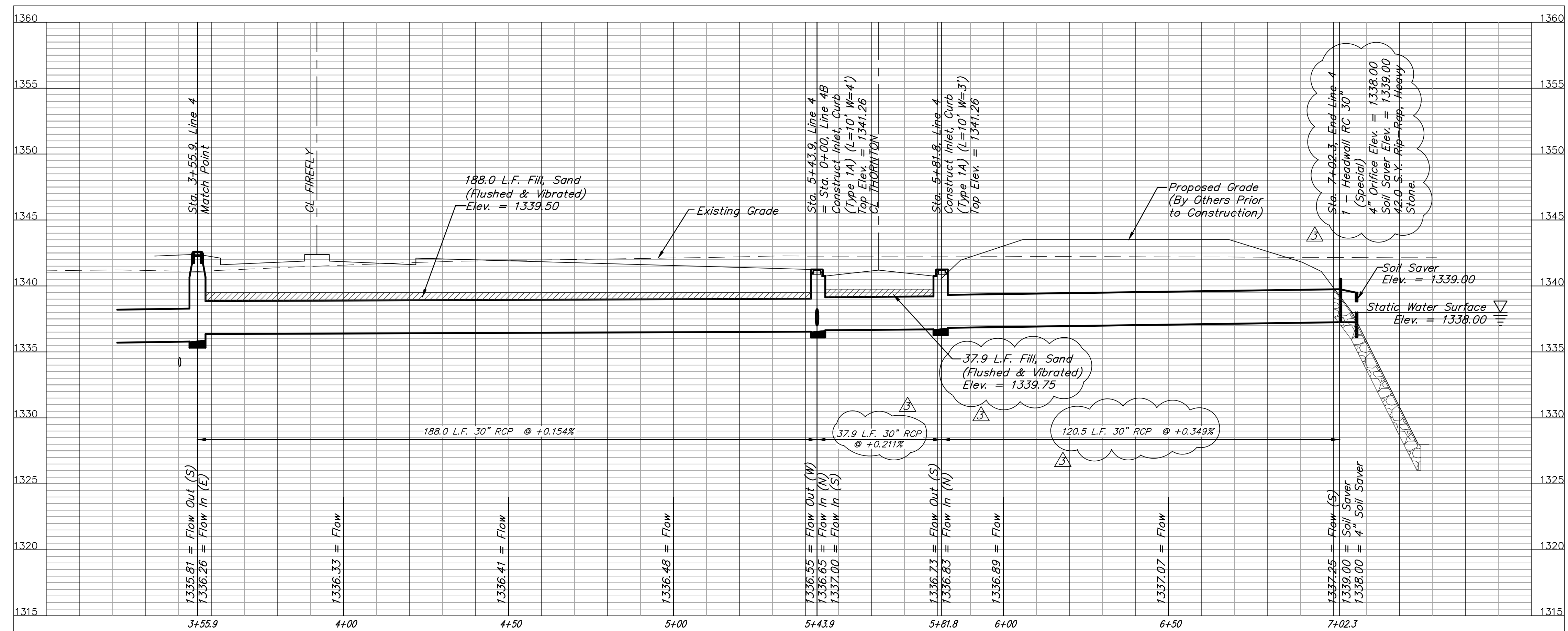
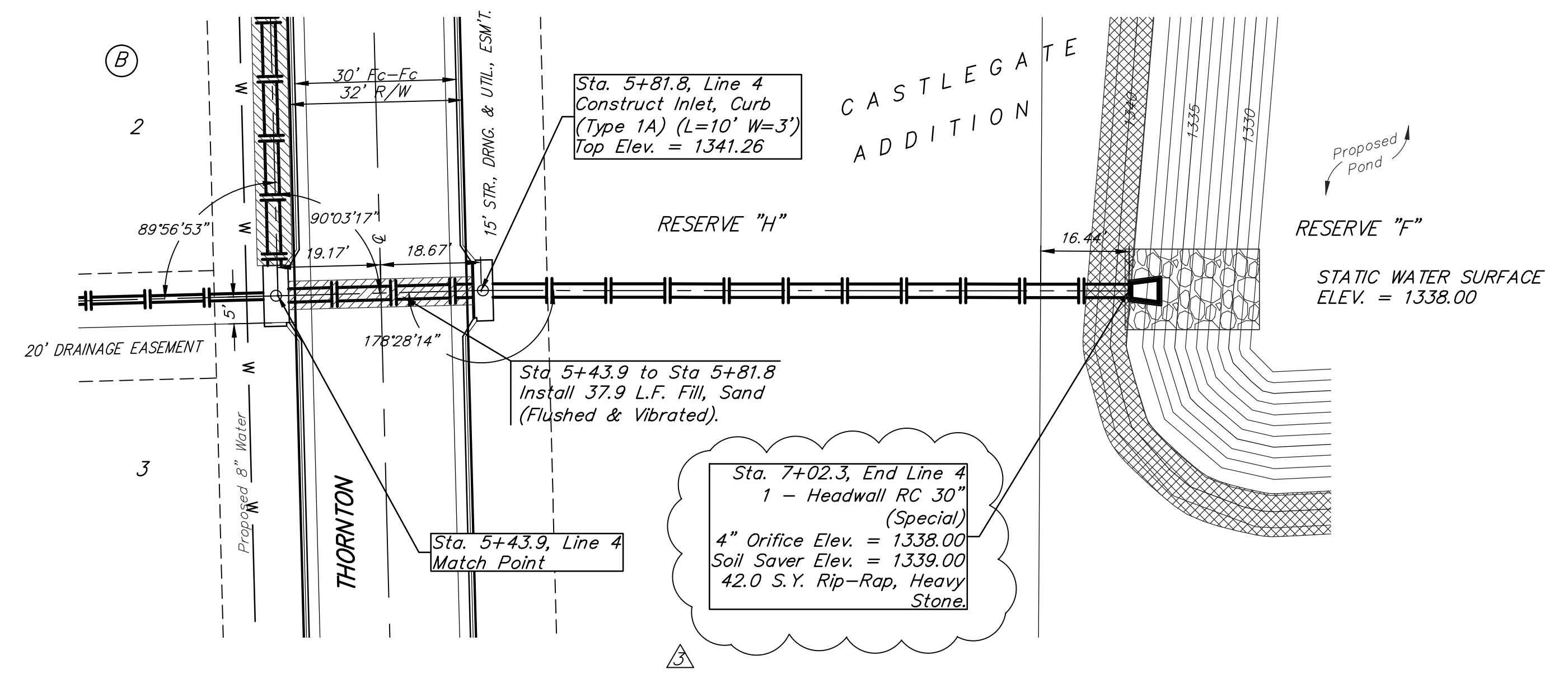
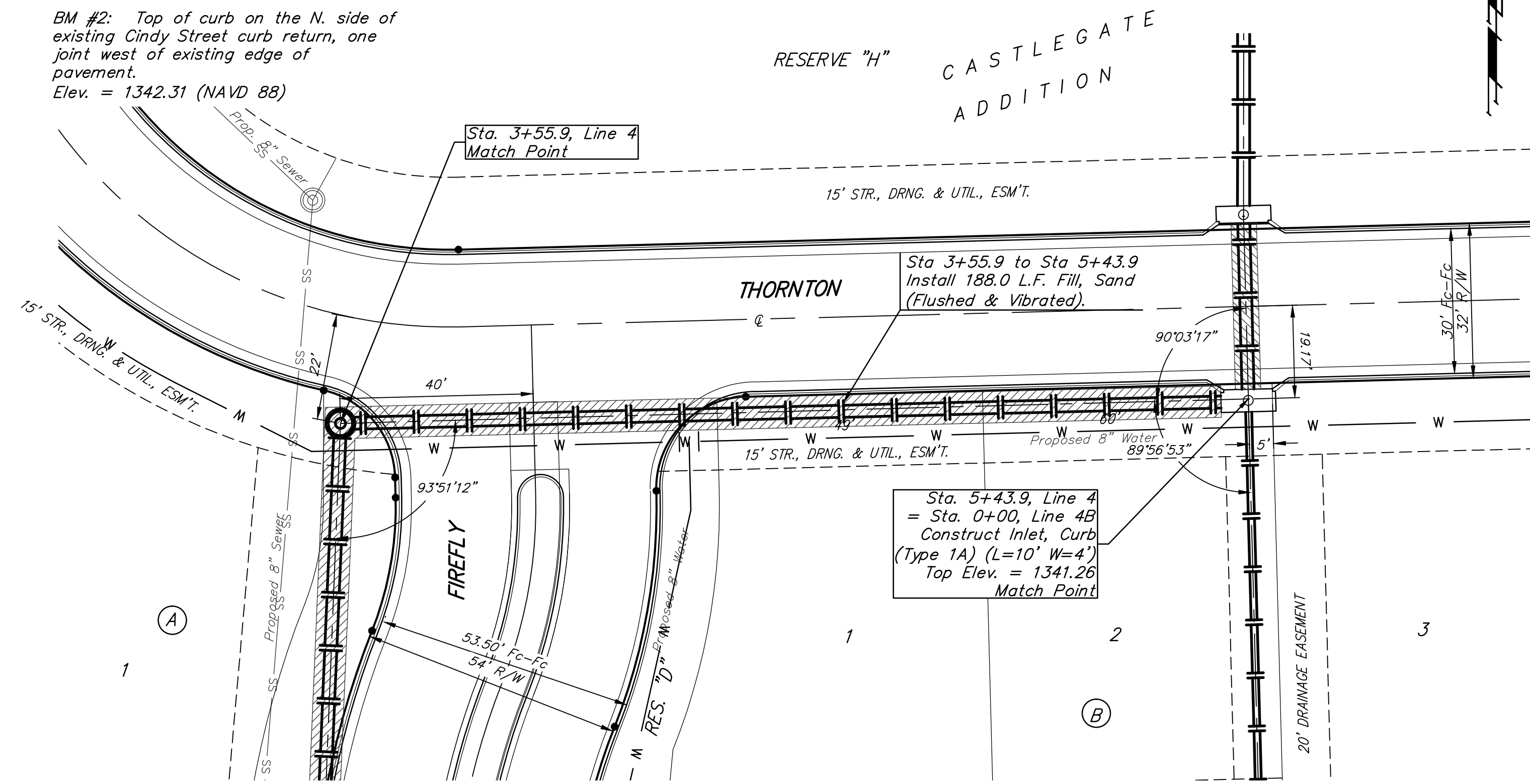
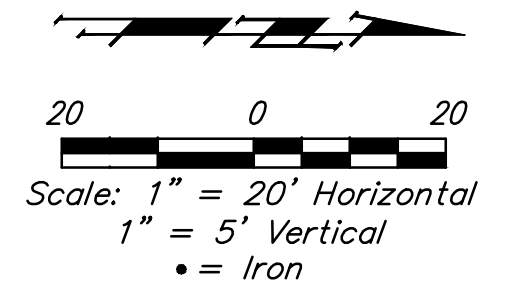
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		CASTLEGATE ADDITION	
		LINE 4	
STORM WATER SEWER IMPROVEMENTS		Baughman Company, P.A. 315 Ellis St., Wichita, KS 67211 P 316-262-7271 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE	
PROJECT NUMBER	DESIGN	DRAWN	
	NBW/JS	TMS	
REVISIONS:	APPROVED	DATE	
05/07/14 TMS		04/14	
5/16/14 JCS	SCALE	Noted	
SWS Up/Stor XP Headwall/ End Section	SHEET		
	7 OF 27		

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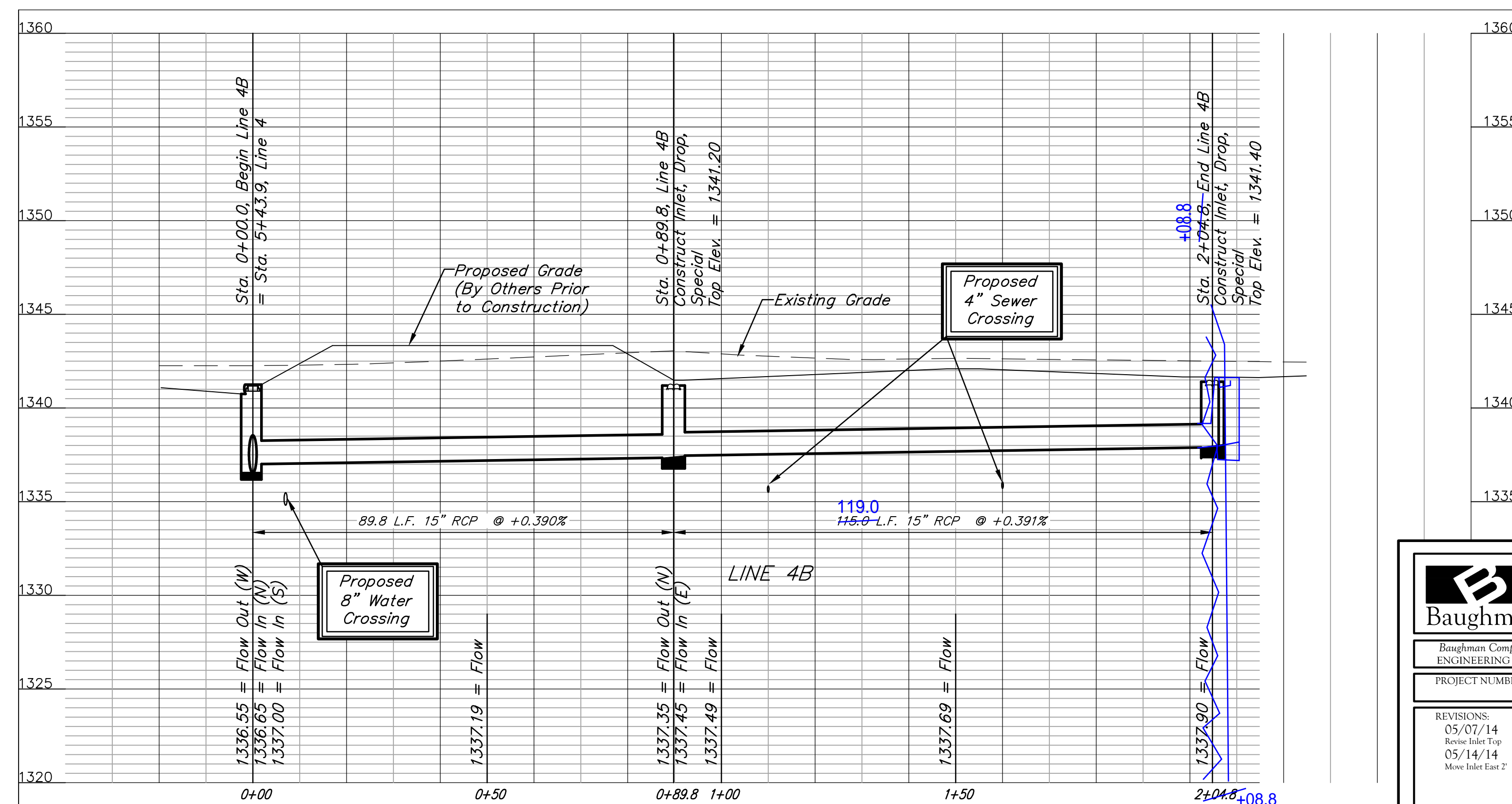
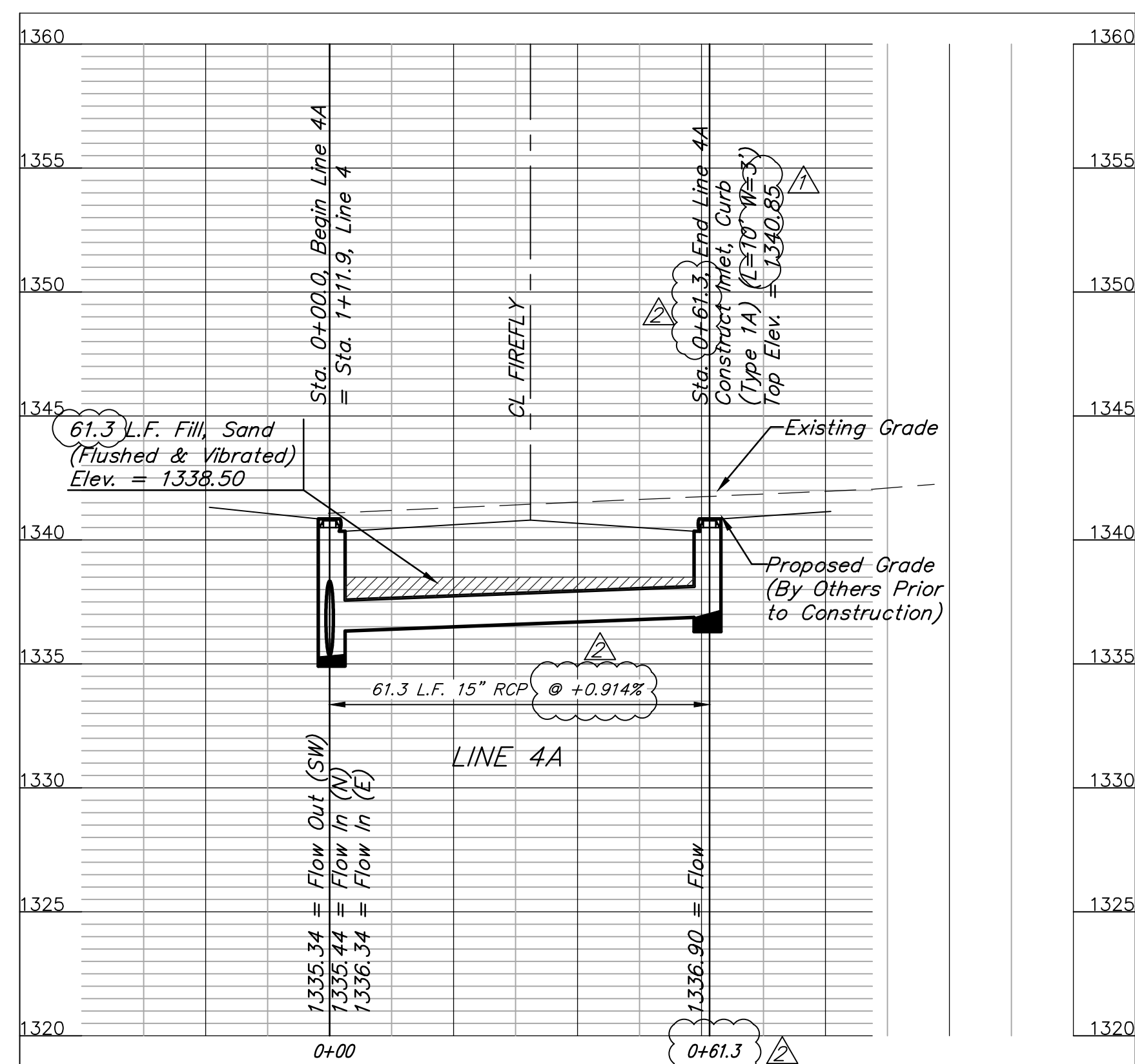
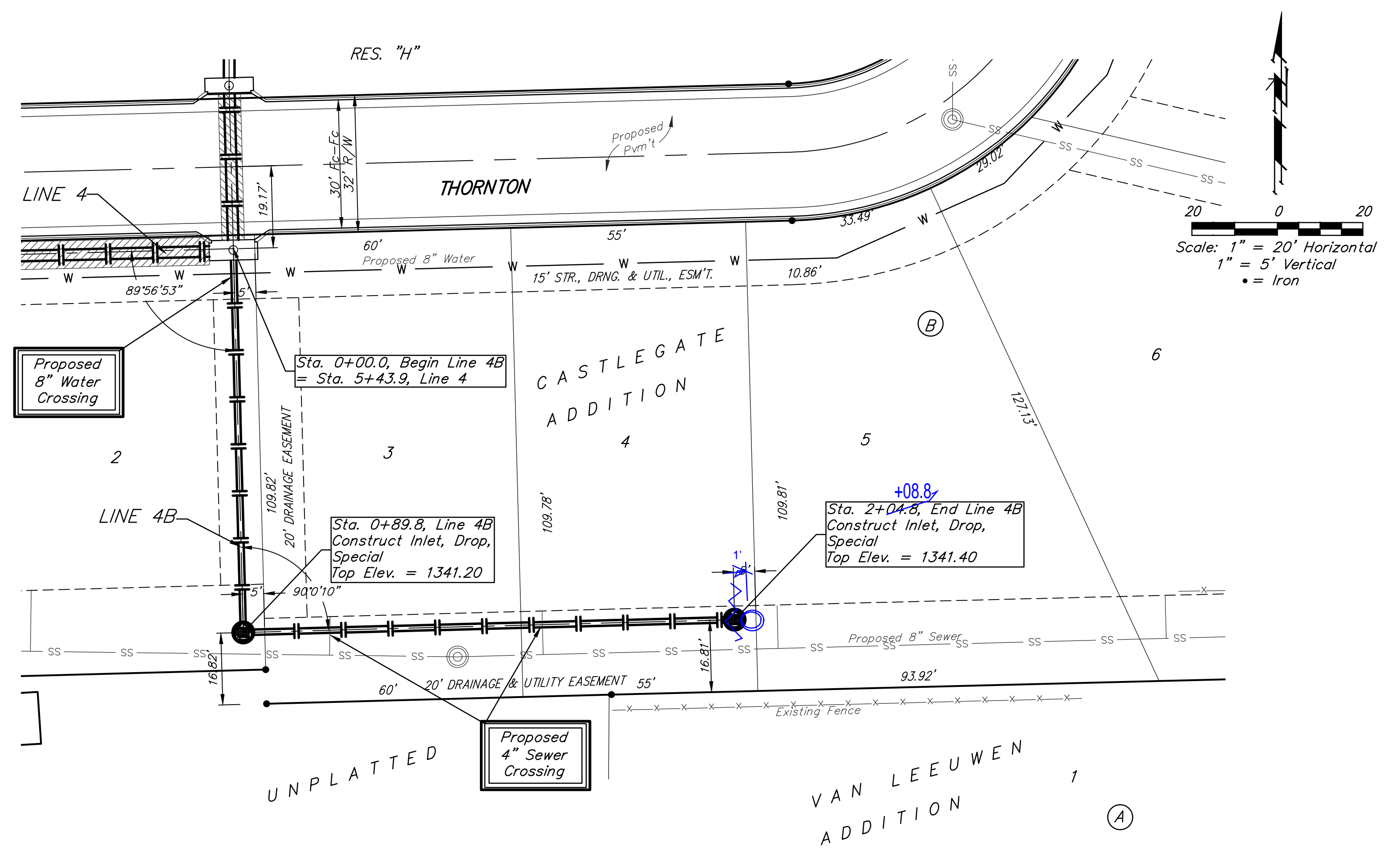
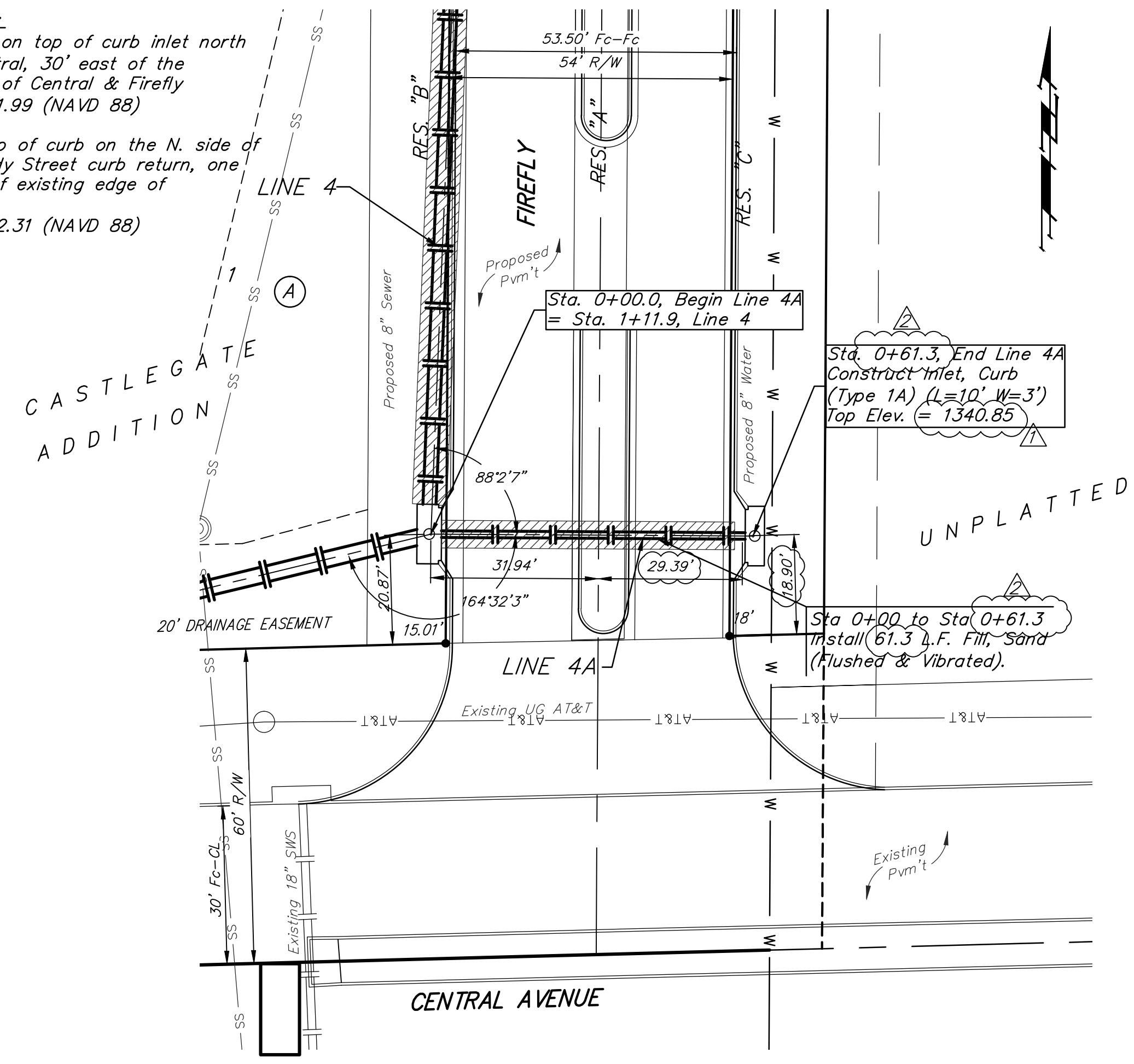


		CASTLEGATE ADDITION	
		LINE 4	
STORM WATER SEWER IMPROVEMENTS		Baughman Company, P.A. 315 Ellis St., Wichita, KS 67211 P 316-262-7271 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE	
PROJECT NUMBER	DESIGN	DRAWN	
	NBW/JS	TMS	
REVISIONS:	JCS	APPROVED	DATE
5/16/14		Noted	04/14
SWS Up Size 30" Headwall End Section		SCALE	
		Noted	
		SHEET	
		8 OF 27	
SWS.dwg		14-01-E004	

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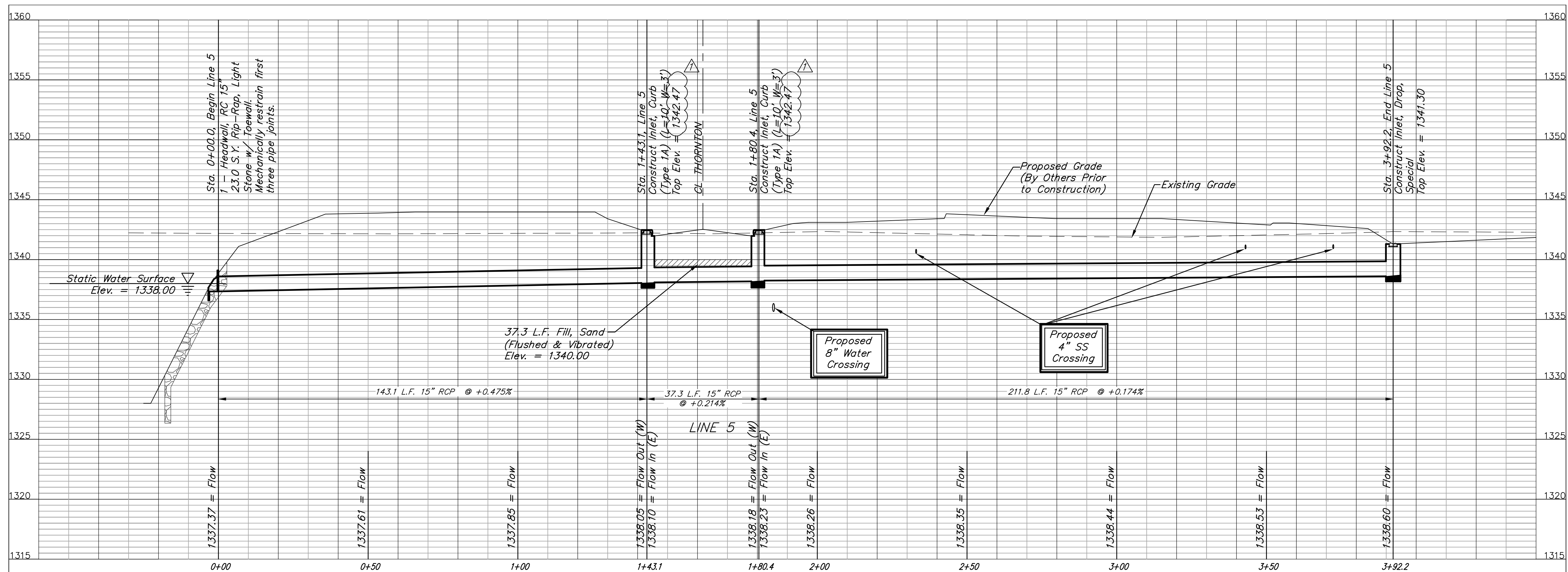
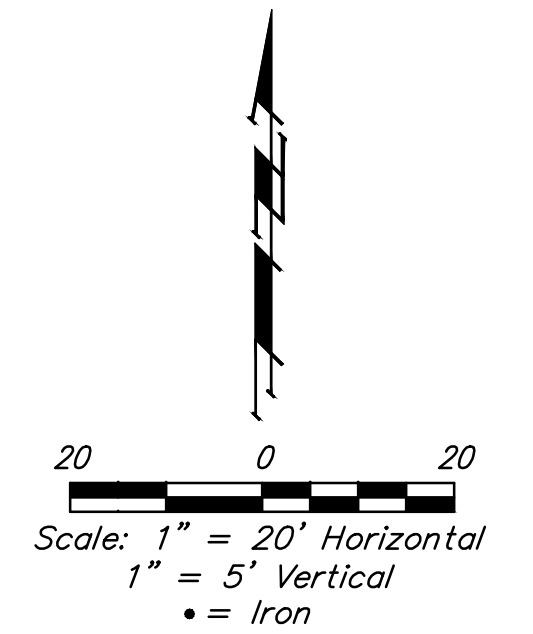
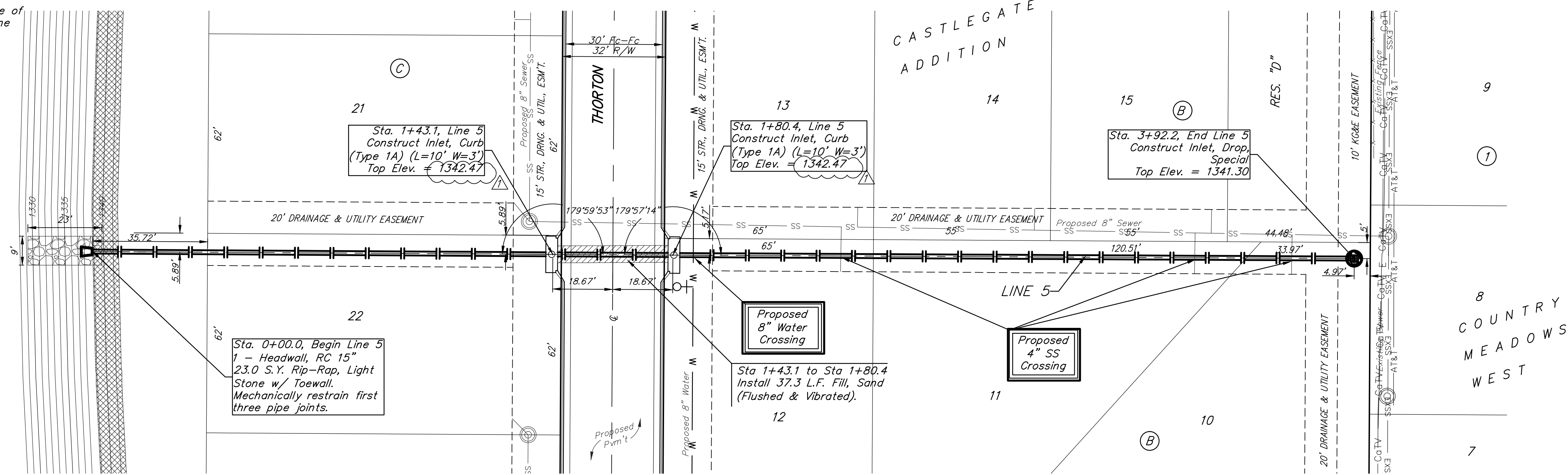
Baughman		CASTLEGATE ADDITION LINES 4A & 4B STORM WATER SEWER IMPROVEMENTS	
<small>Baughman Company, P.A. 315 Ellis St., Wichita, KS 67211 P 316-262-7271 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE</small>			
PROJECT NUMBER	DESIGN	DRAWN	
	NBW/JS	TMS	
REVISIONS:		APPROVED	DATE
05/07/14	TMS		04/14
05/14/14	TMS	SCALE	Noted
		SHEET	9 OF 27

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STATIC WATER SURFACE
 ELEV. = 1338.00

RES. "F"

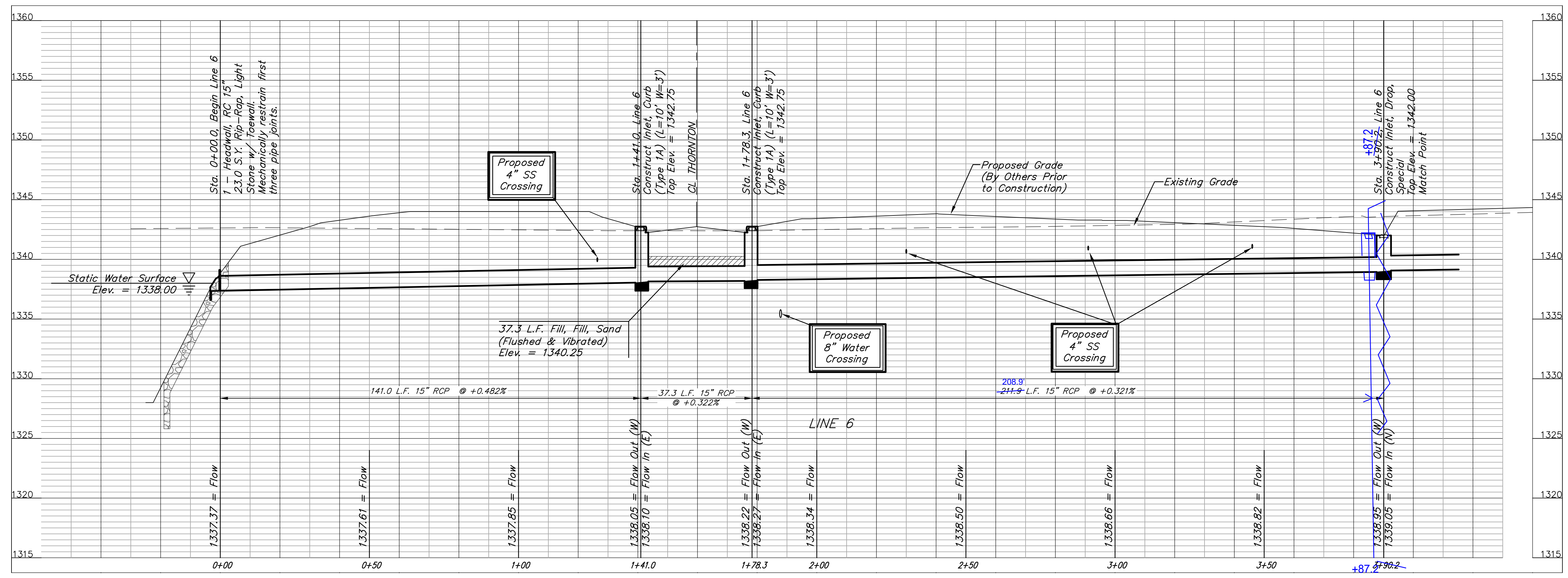
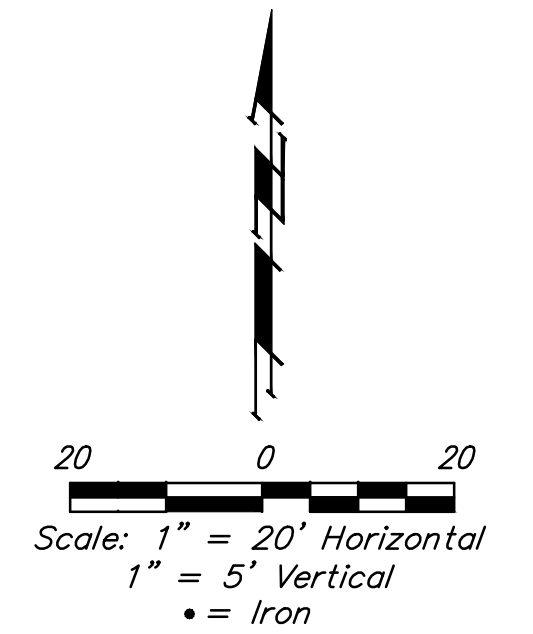
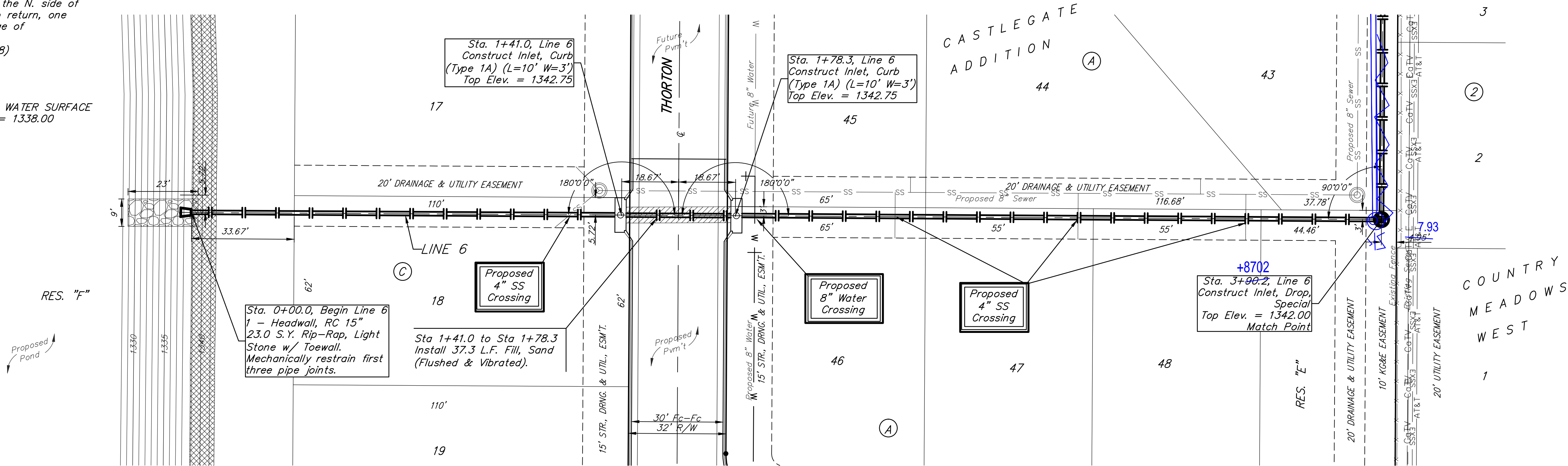


B Baughman		CASTLEGATE ADDITION LINE 5 STORM WATER SEWER IMPROVEMENTS	
Baughman Company, P.A. 315 Ellis St., Wichita, KS 67211 P 316-262-2771 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE			
PROJECT NUMBER	DESIGN	DRAWN	
05/07/14	NBW/JS	TMS	
REVISIONS	TMS	APPROVED	DATE
05/07/14			04/14
Revise Inlet Top		SCALE	Noted
		SHEET	10 OF 27
SWSa.dwg		14-01-E004	

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STATIC WATER SURFACE
 ELEV. = 1338.00

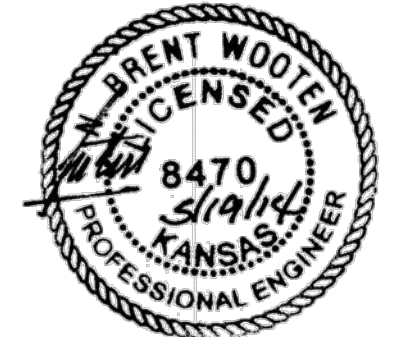
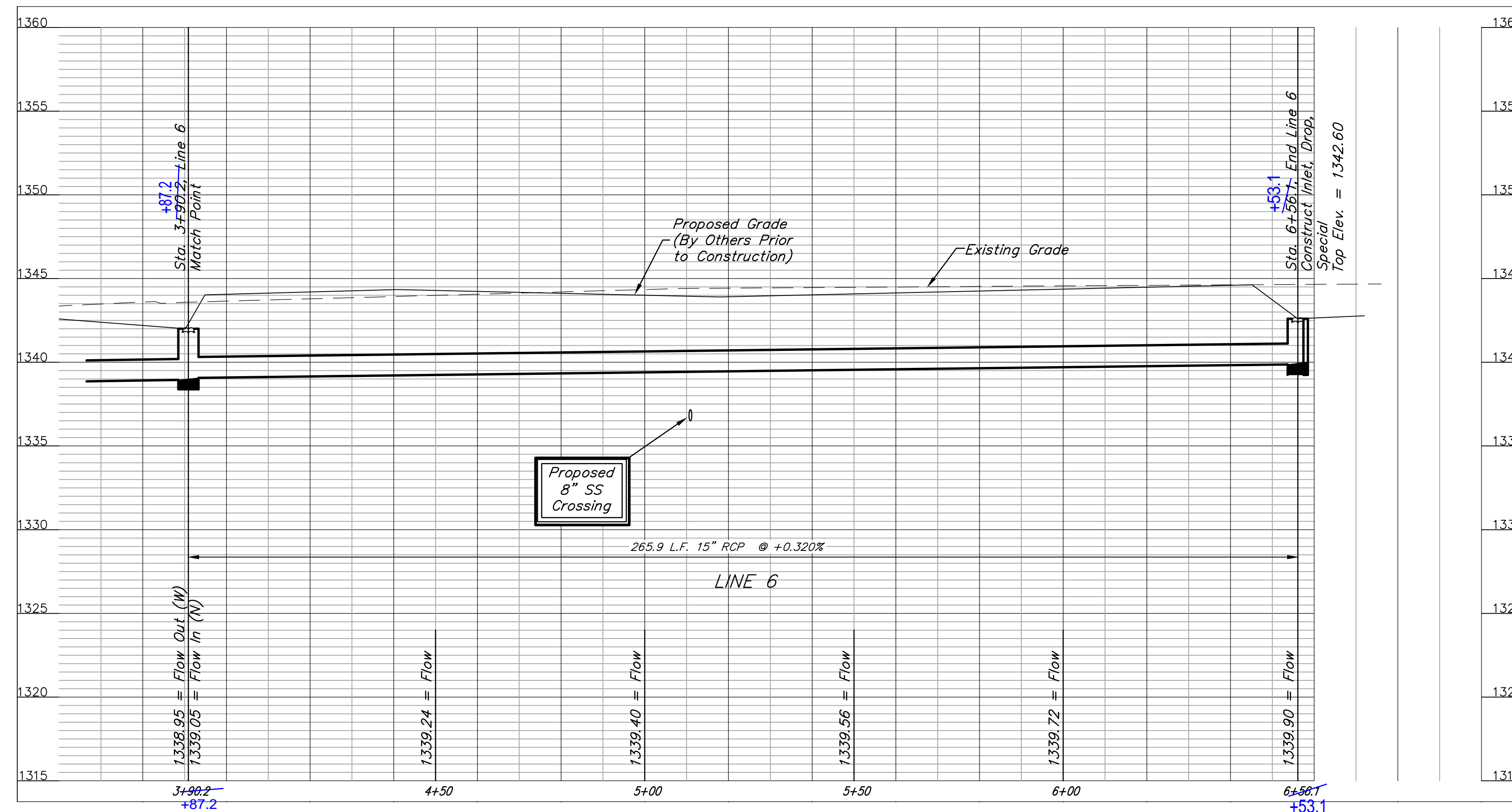
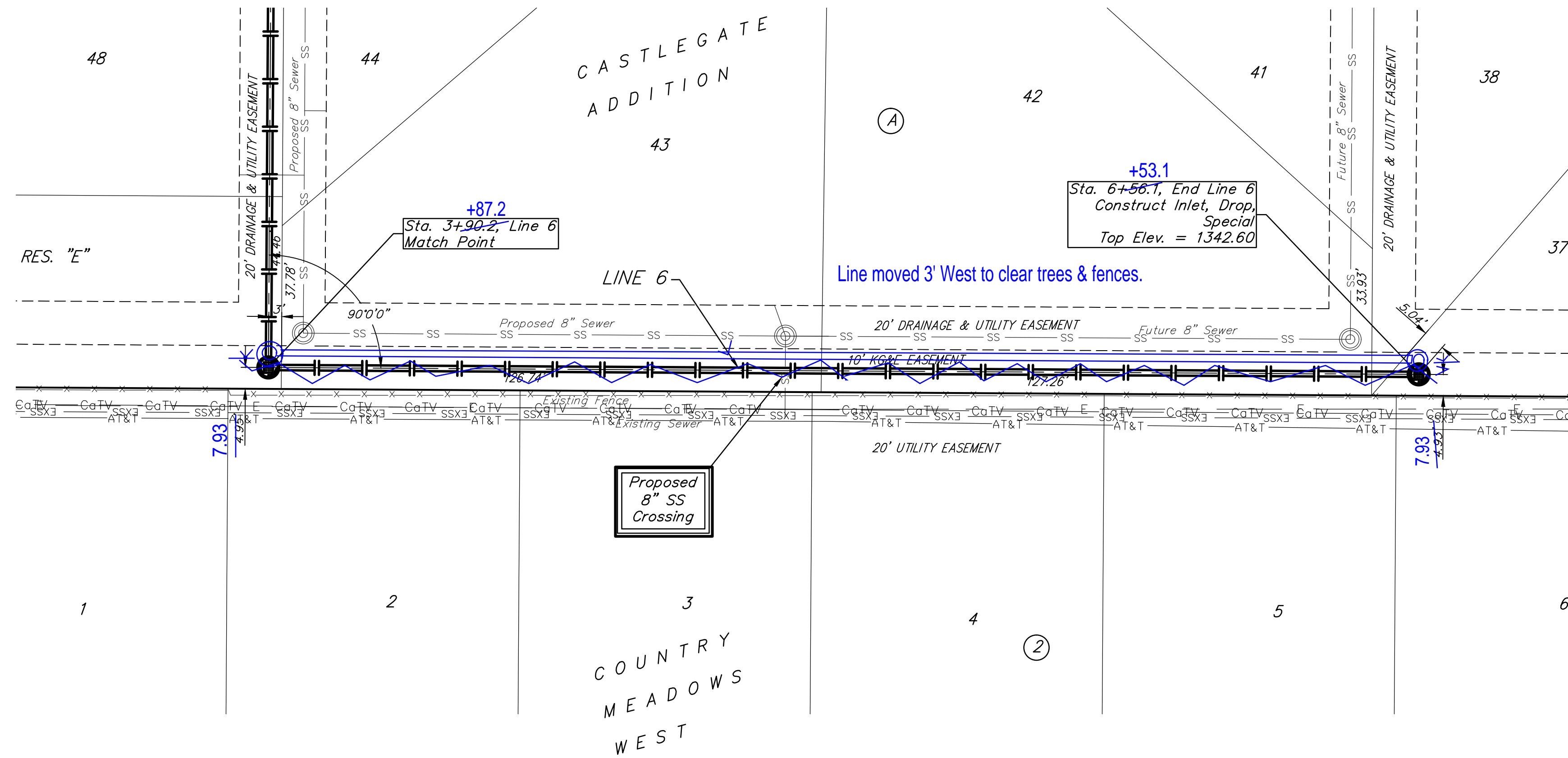
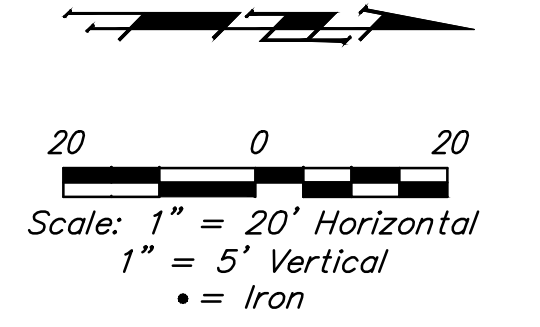


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		<small>Baughman Company, P.A. 315 Ellis St., Wichita, KS 67211 P 316-262-7271 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE</small>	
PROJECT NUMBER	DESIGN	DRAWN	
	NBW/JS	TMS	
REVISIONS:	APPROVED	DATE	
	Noted	04/14	
SCALE		SHEET	
Noted		11 OF 27	
SWSa.dwg		14-01-EC04	

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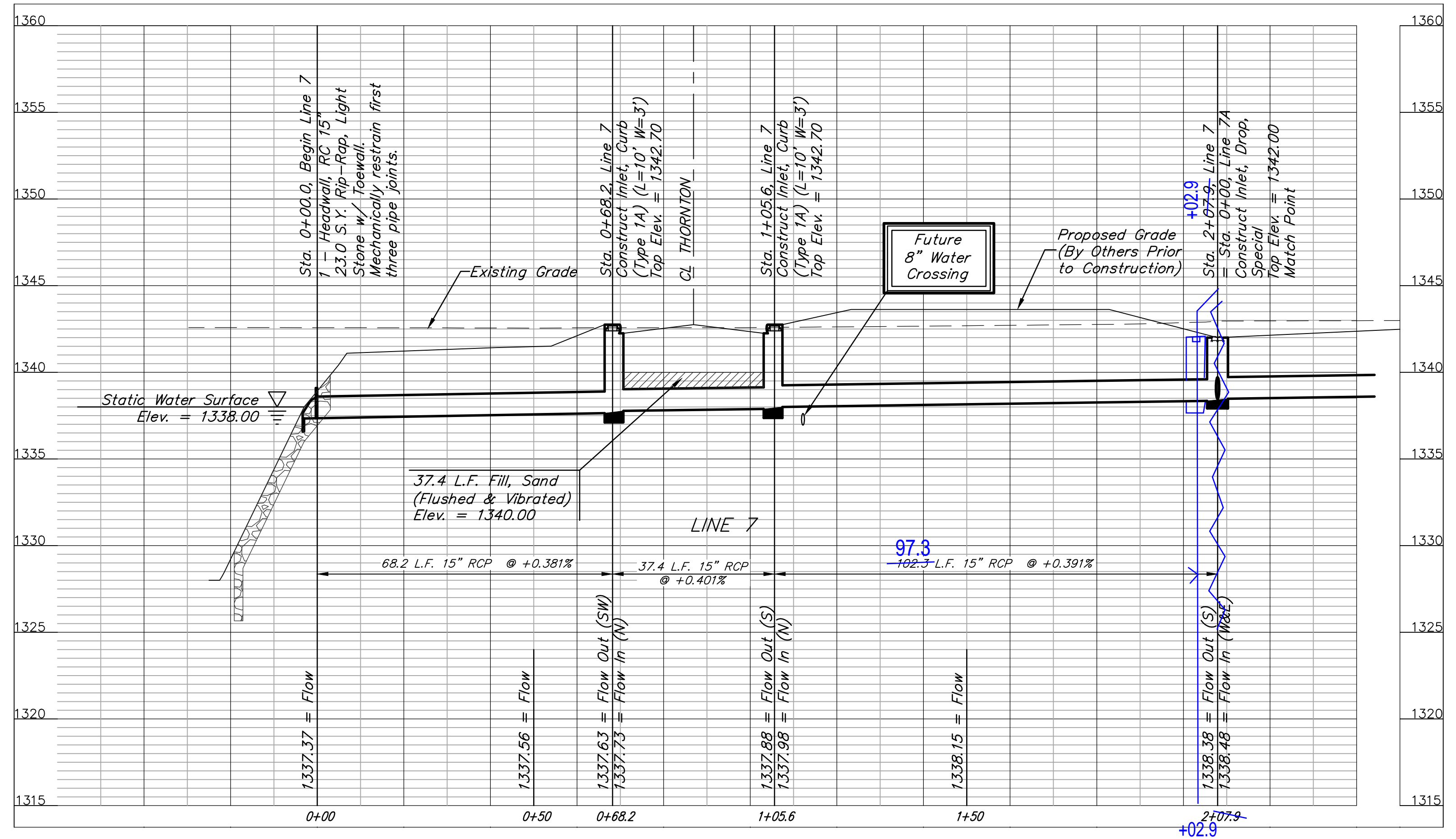
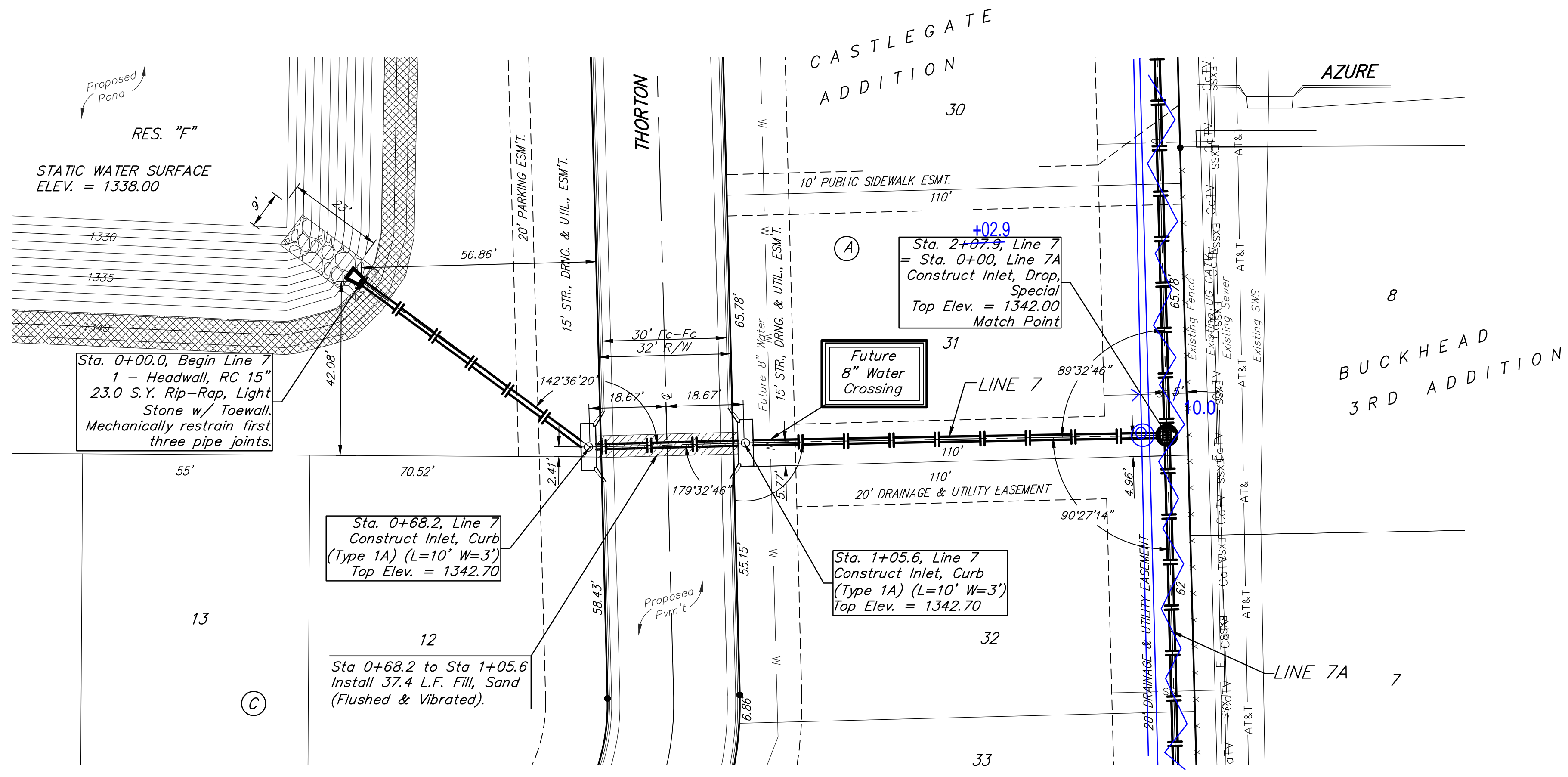
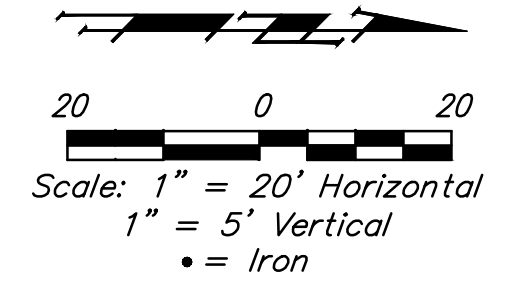


B Baughman	CASTLEGATE ADDITION	
	LINE 6 STORM WATER SEWER IMPROVEMENTS	
Baughman Company, P.A. 315 Ellis St., Wichita, KS 67211 P 316-262-7271 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE		
PROJECT NUMBER	DESIGN NBW/JS	DRAWN TMS
REVISIONS:	APPROVED	DATE 04/14
	SCALE Noted	SHEET
	12 OF 27	
SWSa.dwg		14-01-E004

BENCHMARK:

BM #1: "X" on top of curb inlet north side of Central, 30' east of the intersection of Central & Firefly Elev. = 1341.99 (NAVD 88)

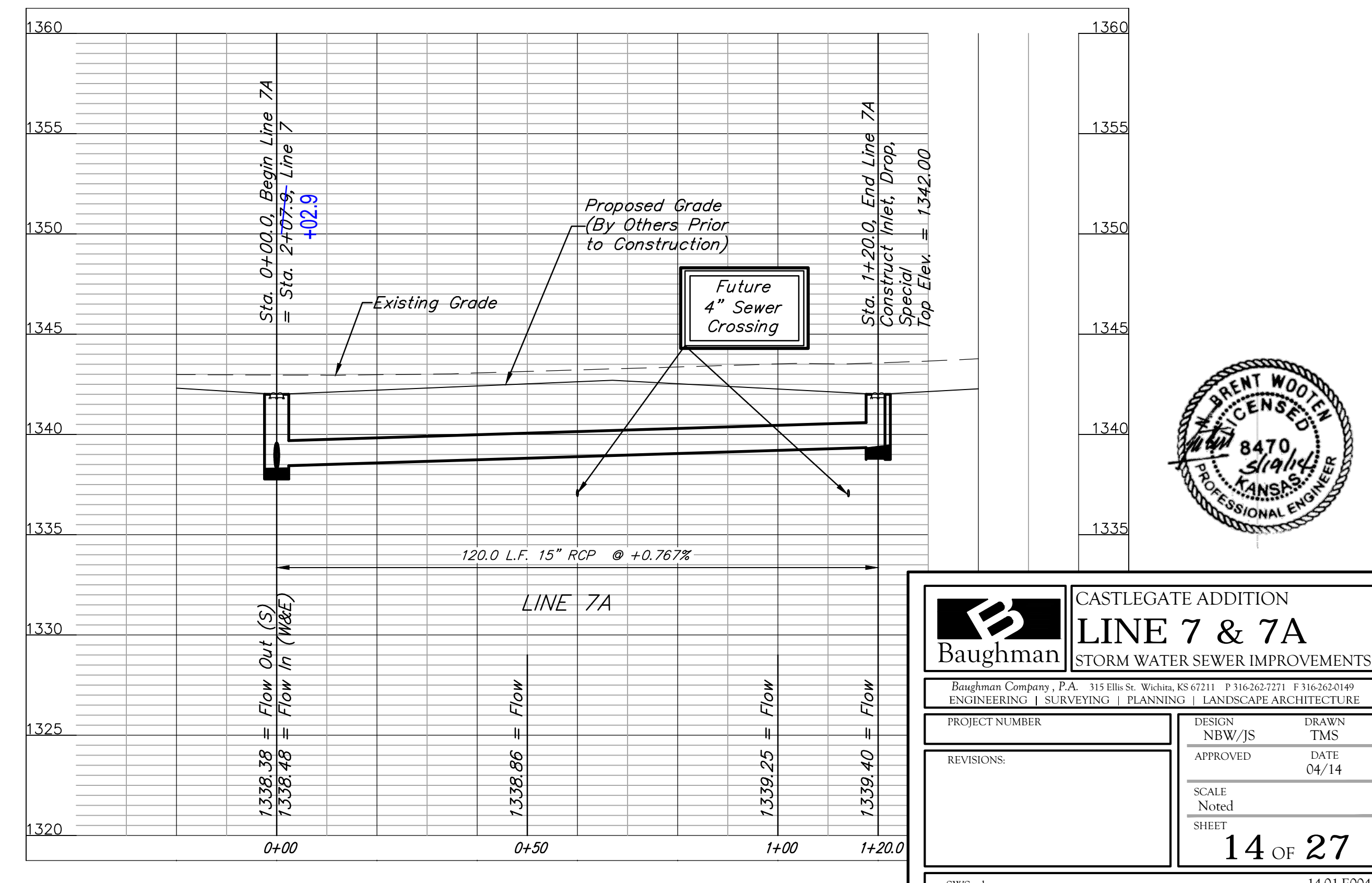
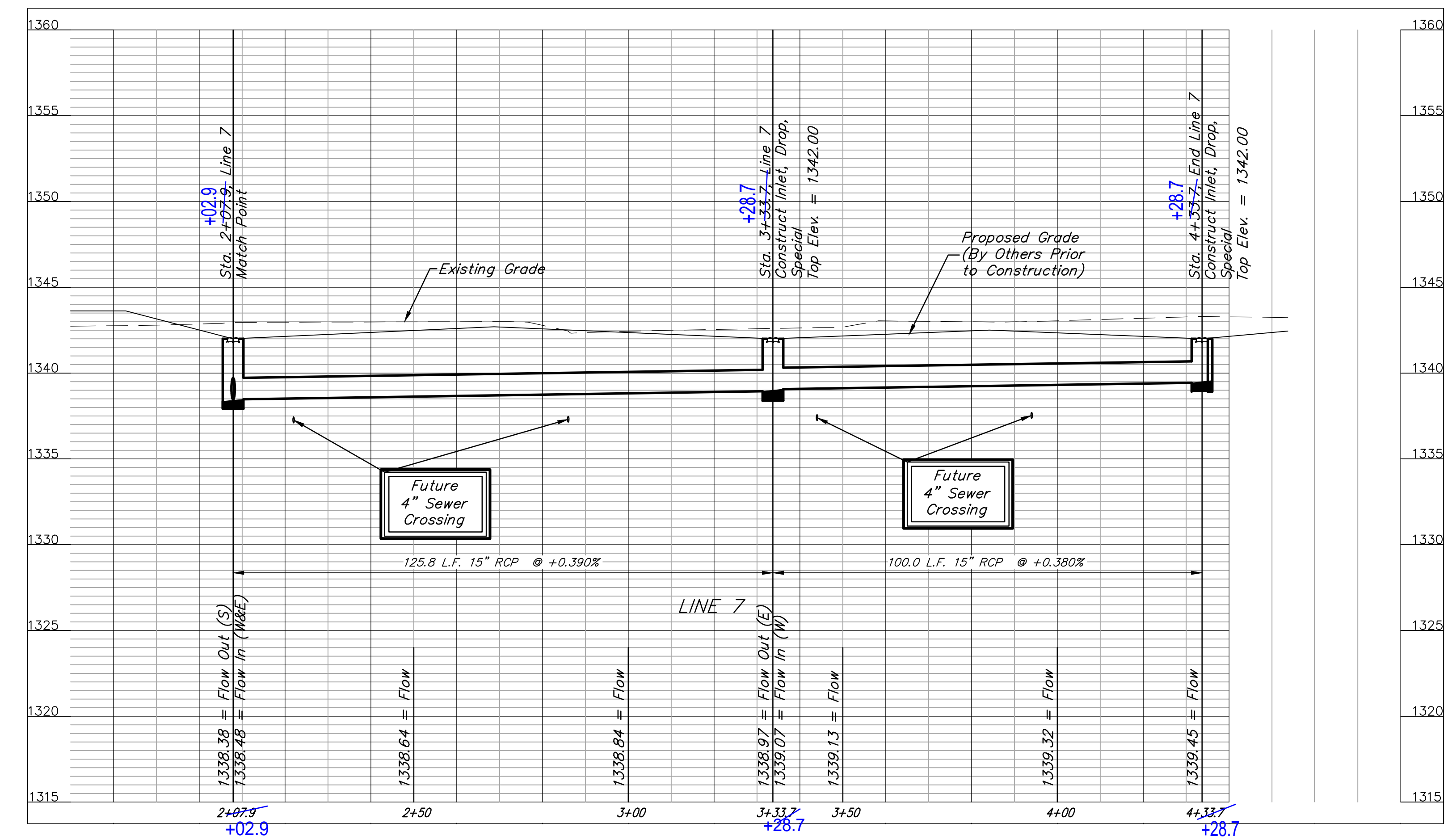
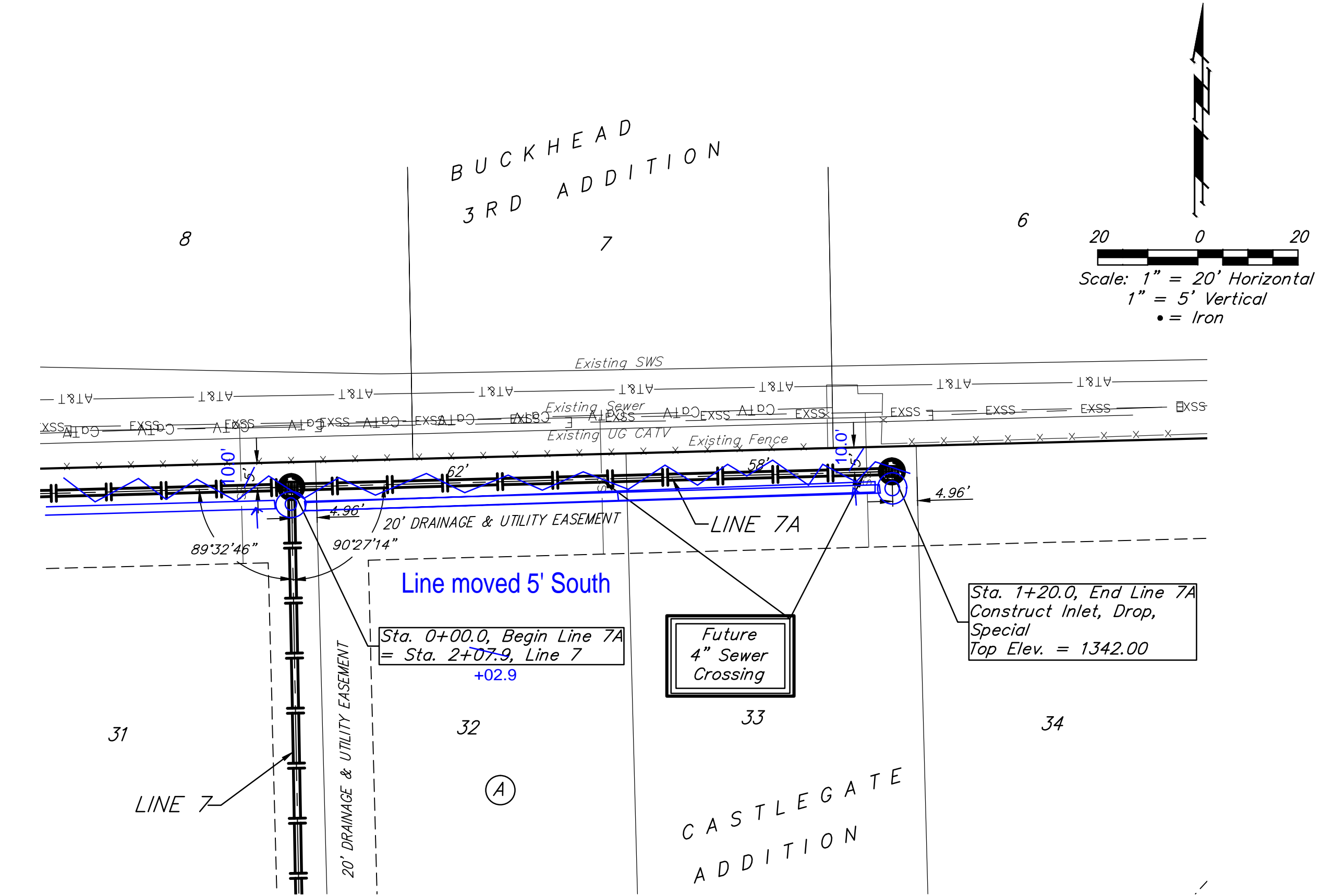
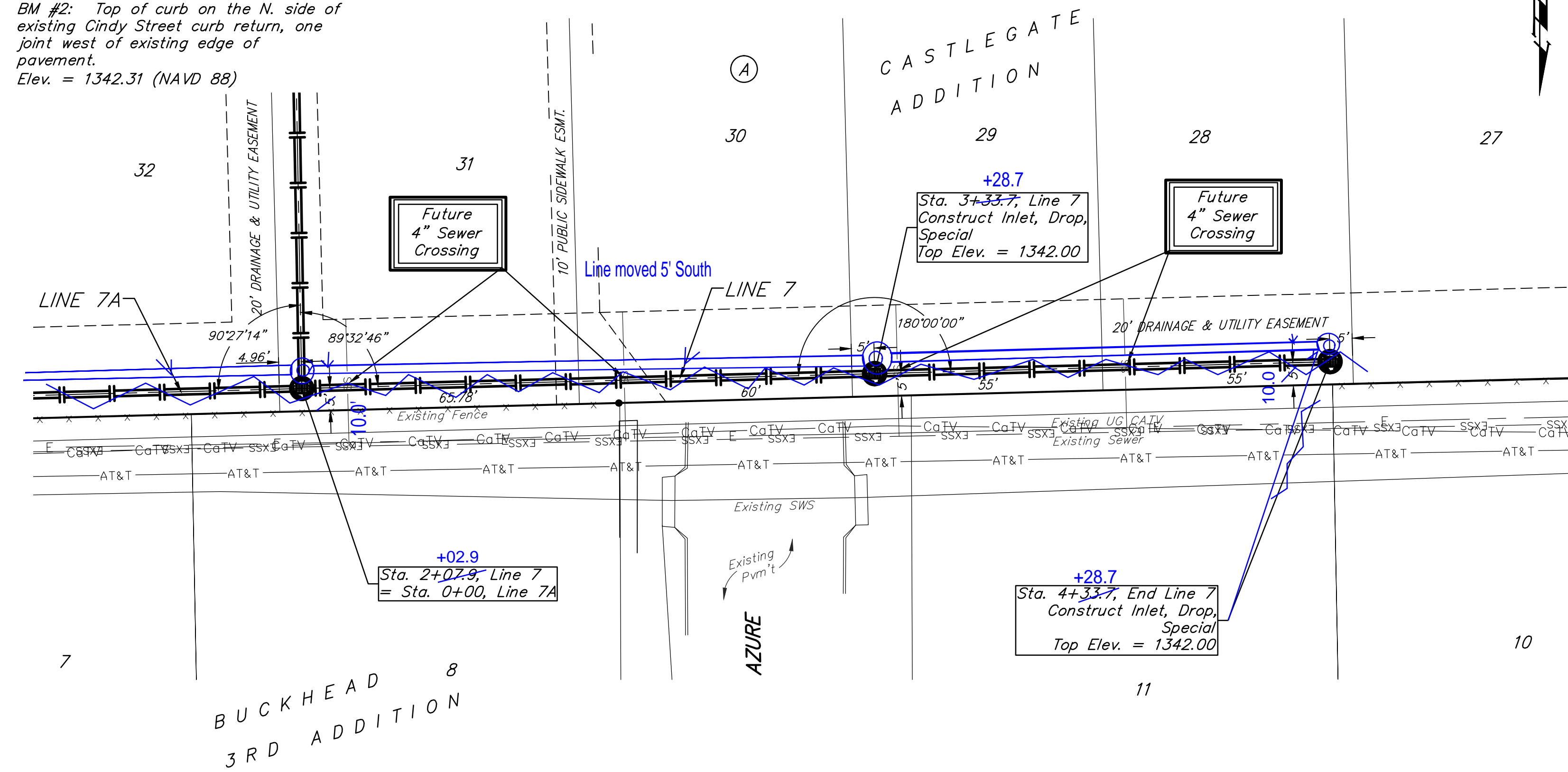
BM #2: Top of curb on the N. side of existing Cindy Street curb return, one joint west of existing edge of pavement. Elev. = 1342.31 (NAVD 88)



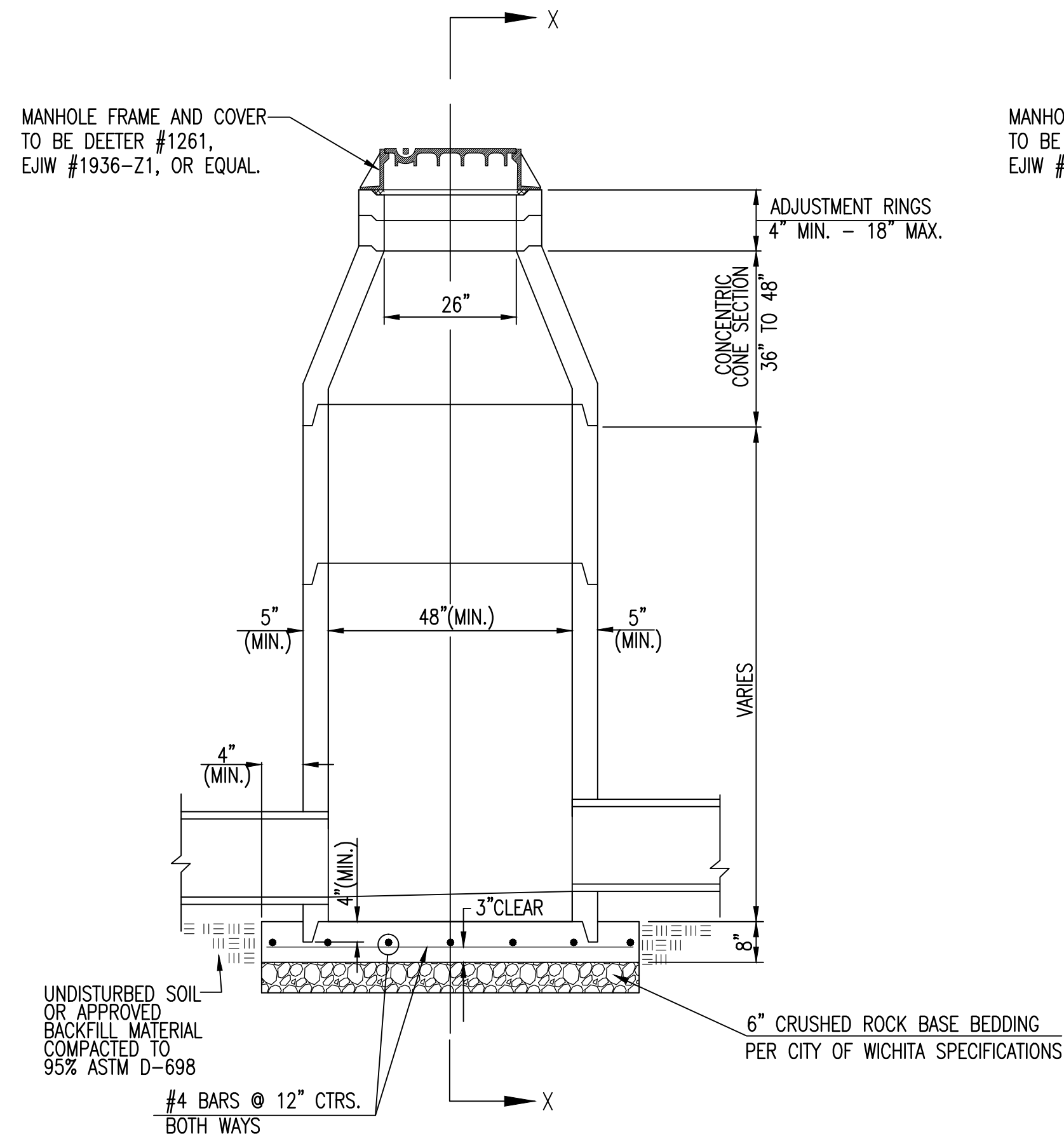
		CASTLEGATE ADDITION	
		LINE 7	
PROJECT NUMBER		DESIGN	DRAWN
REVISIONS:		NBW/JS	TMS
		APPROVED	DATE
			04/14
		SCALE	
		Noted	
		SHEET	
		13 OF 27	
SWSa.dwg		14-01-E004	

BENCHMARK:
 BM #1: "X" on top of curb inlet north side of Central, 30' east of the intersection of Central & Firefly
 Elev. = 1341.99 (NAVD 88)

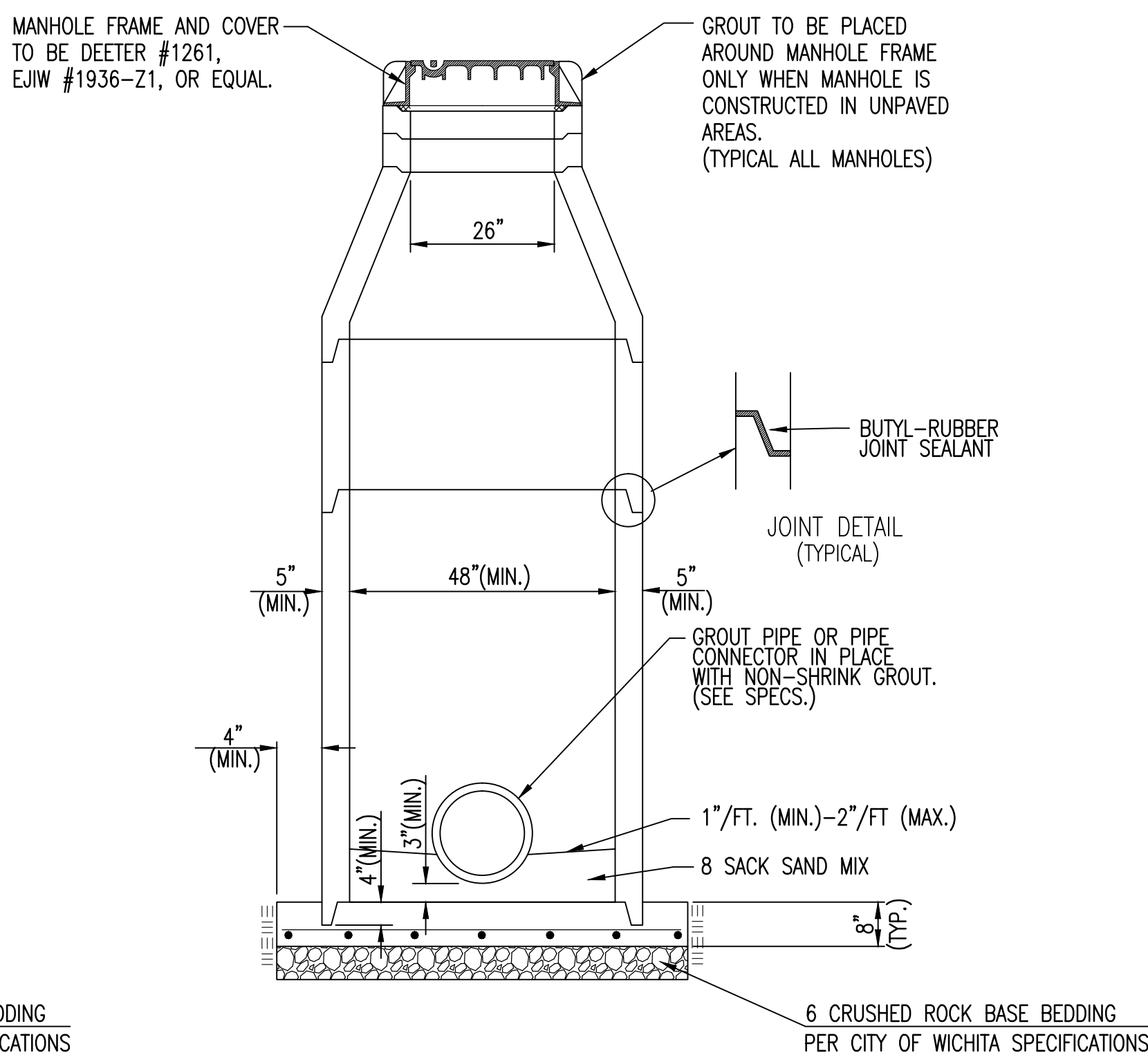
BM #2: Top of curb on the N. side of existing Cindy Street curb return, one joint west of existing edge of pavement.
 Elev. = 1342.31 (NAVD 88)



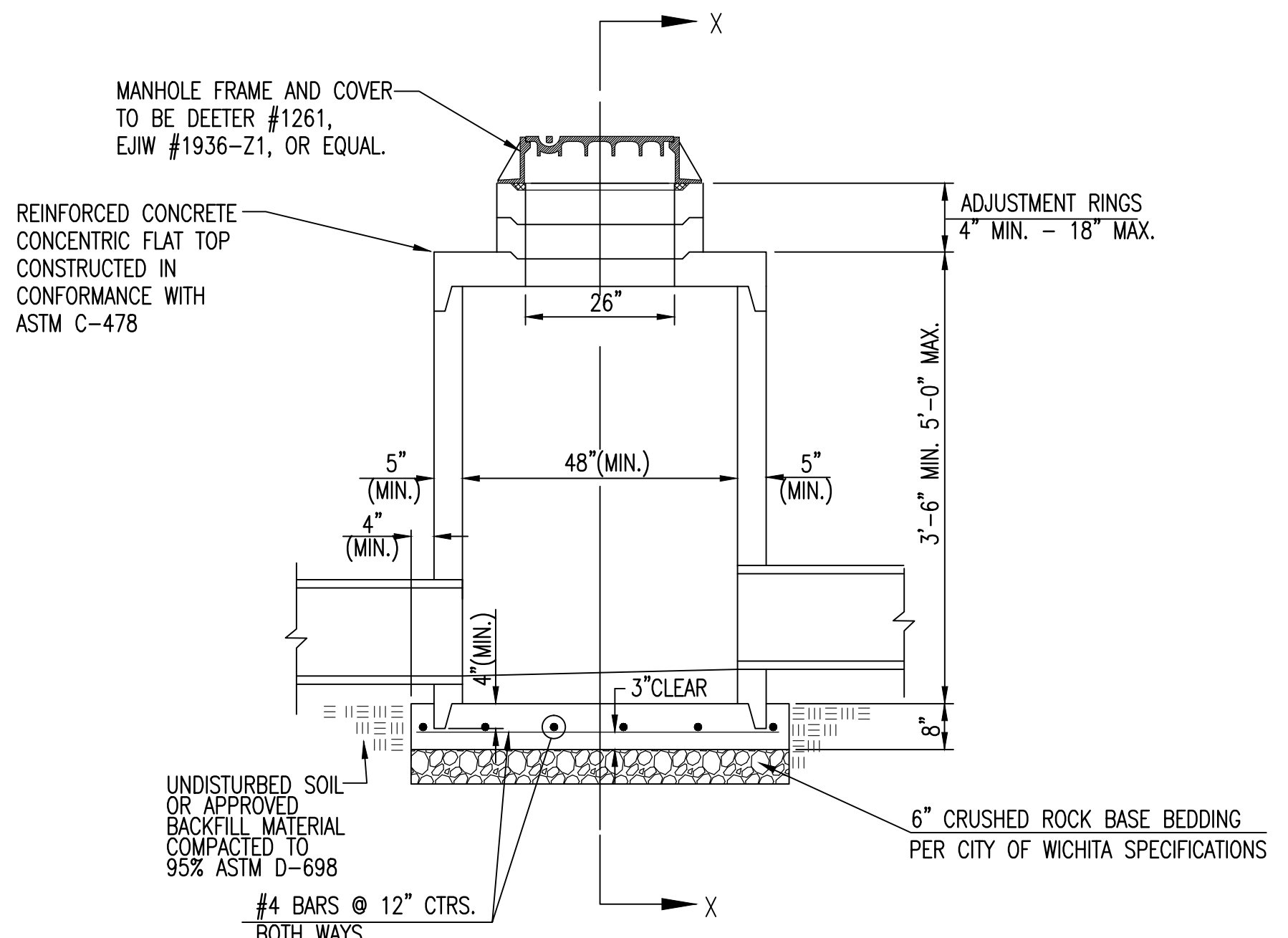
Baughman		CASTLEGATE ADDITION LINE 7 & 7A STORM WATER SEWER IMPROVEMENTS	
Baughman Company, P.A. 315 Ellis St., Wichita, KS 67211 P 316-262-2771 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE			
PROJECT NUMBER	DESIGN	DRAWN	
	NBW/JS	TMS	
REVISIONS:	APPROVED	DATE	
	Noted	04/14	
	SCALE		
	1" = 20' Horizontal		
	1" = 5' Vertical		
	• = Iron		
		14 OF 27	
SWSa.dwg		14-01-E004	



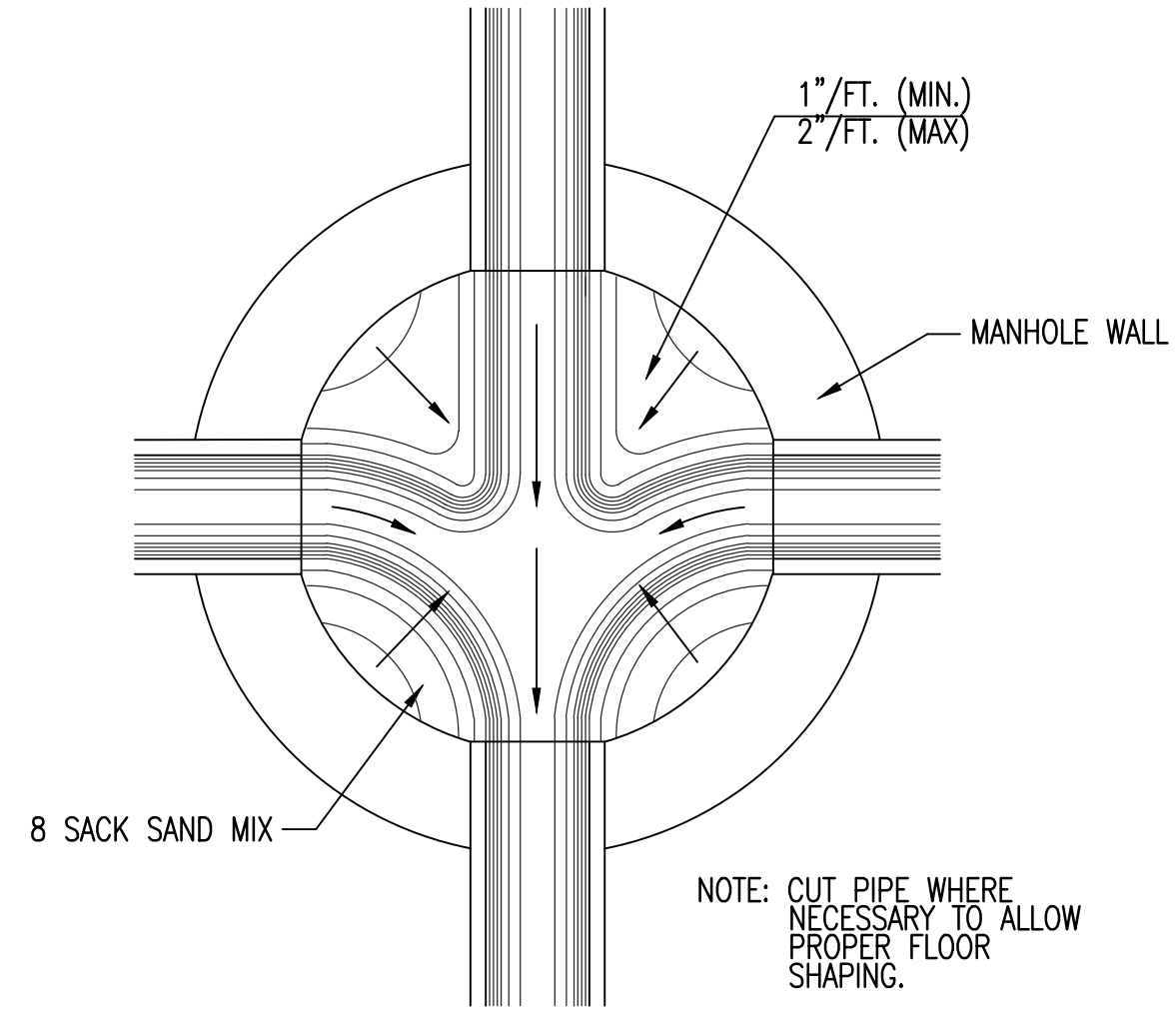
PRECAST STANDARD MANHOLE TYPE "A"



SECTION X-X (TYPICAL)




PRECAST SHALLOW MANHOLE TYPE "B"

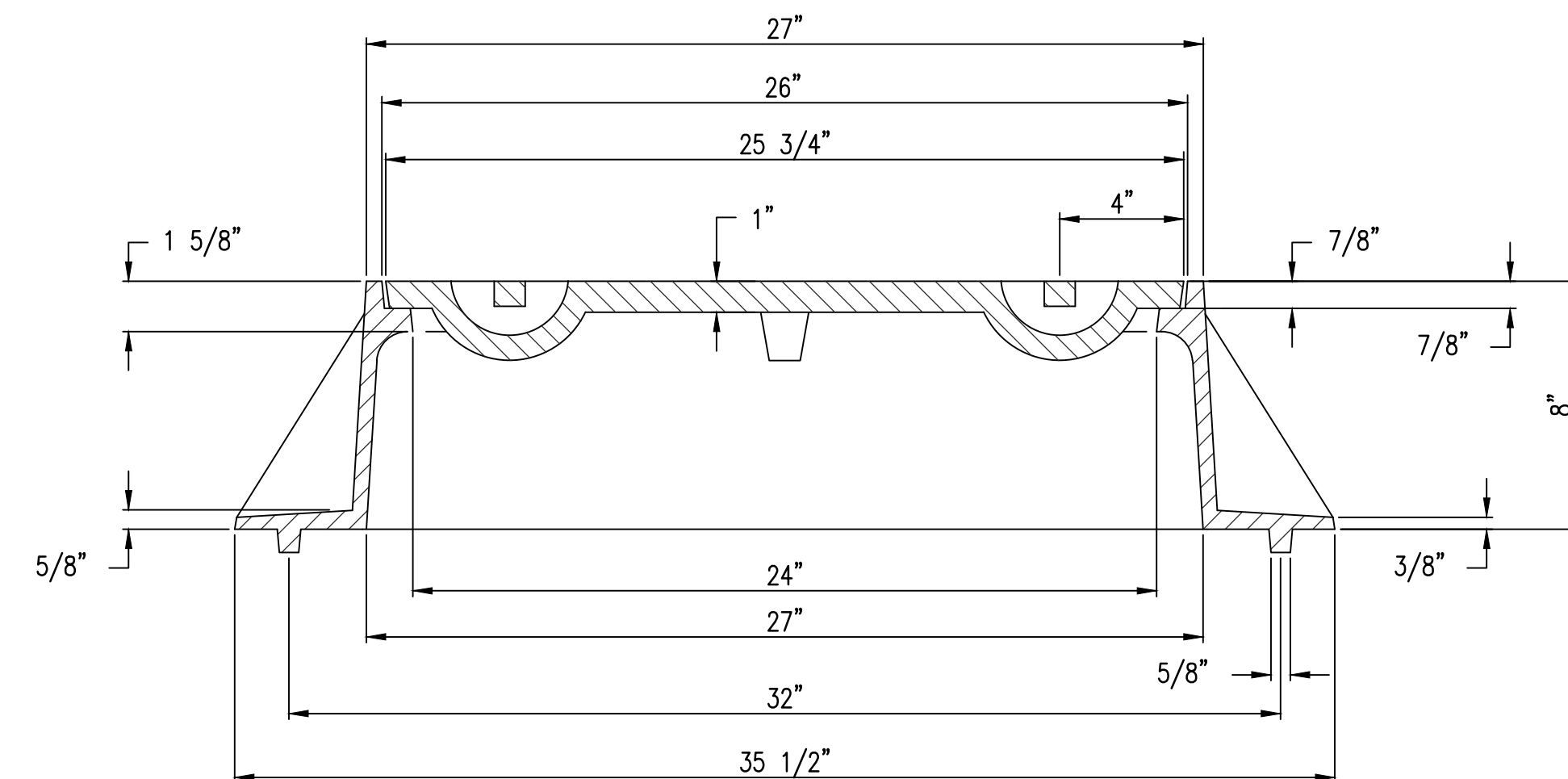
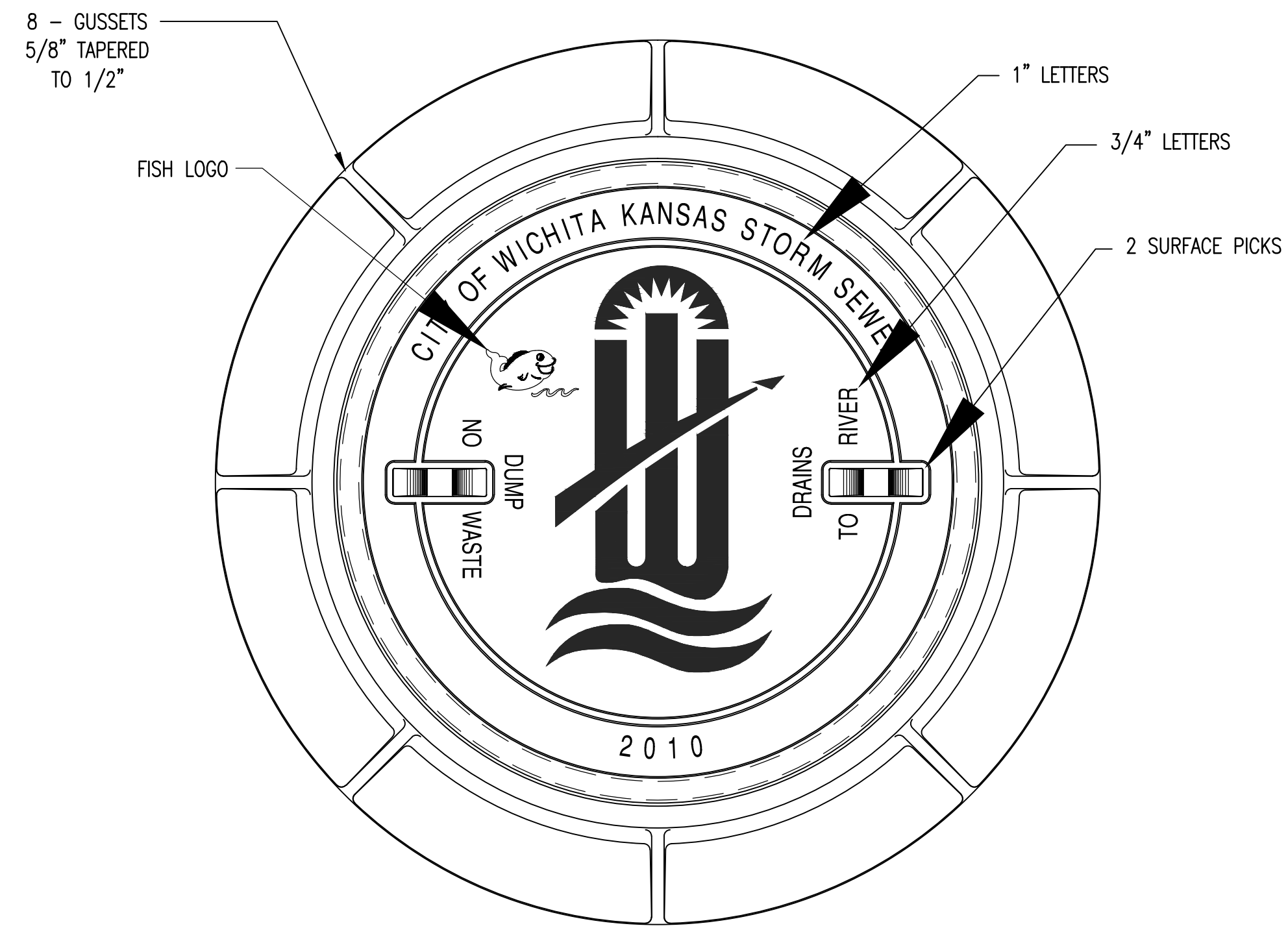


TYPICAL MANHOLE FLOOR SHAPING

GENERAL NOTES

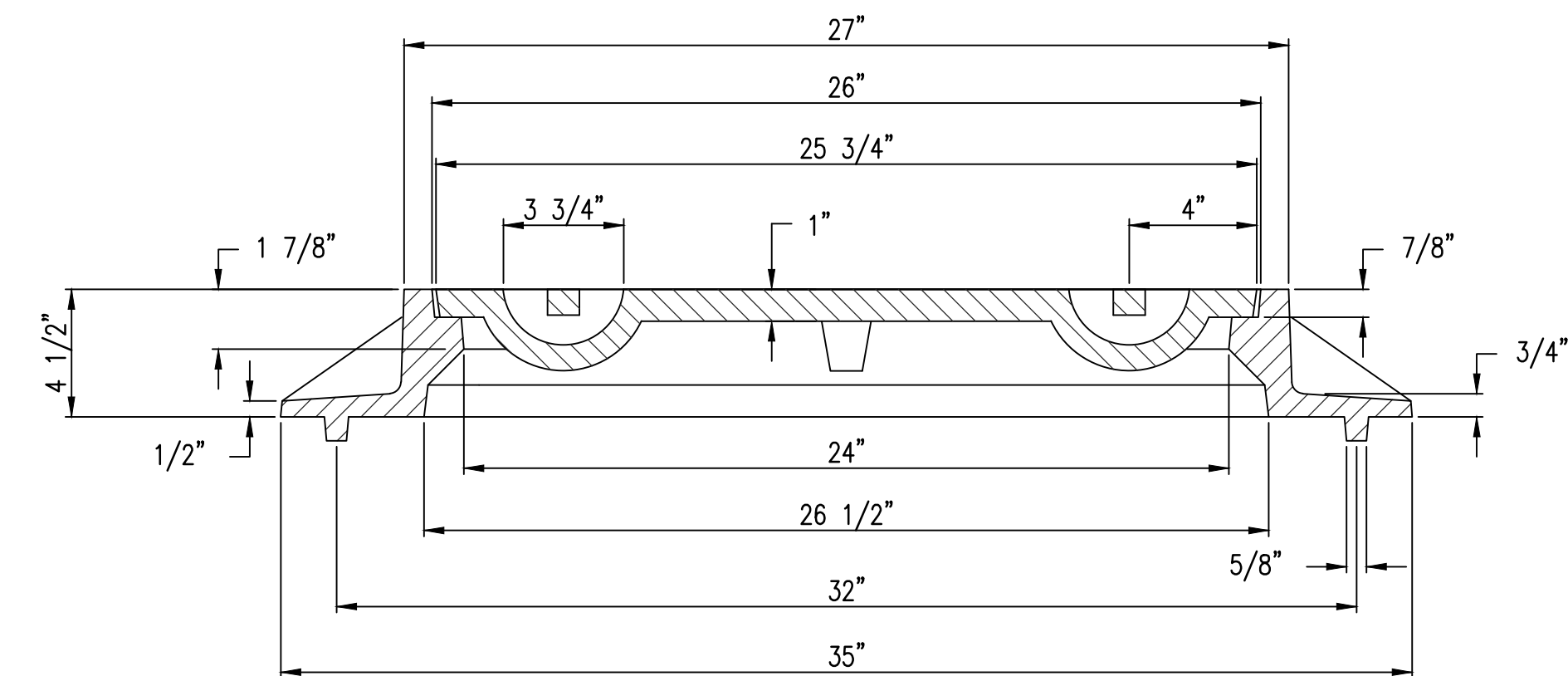
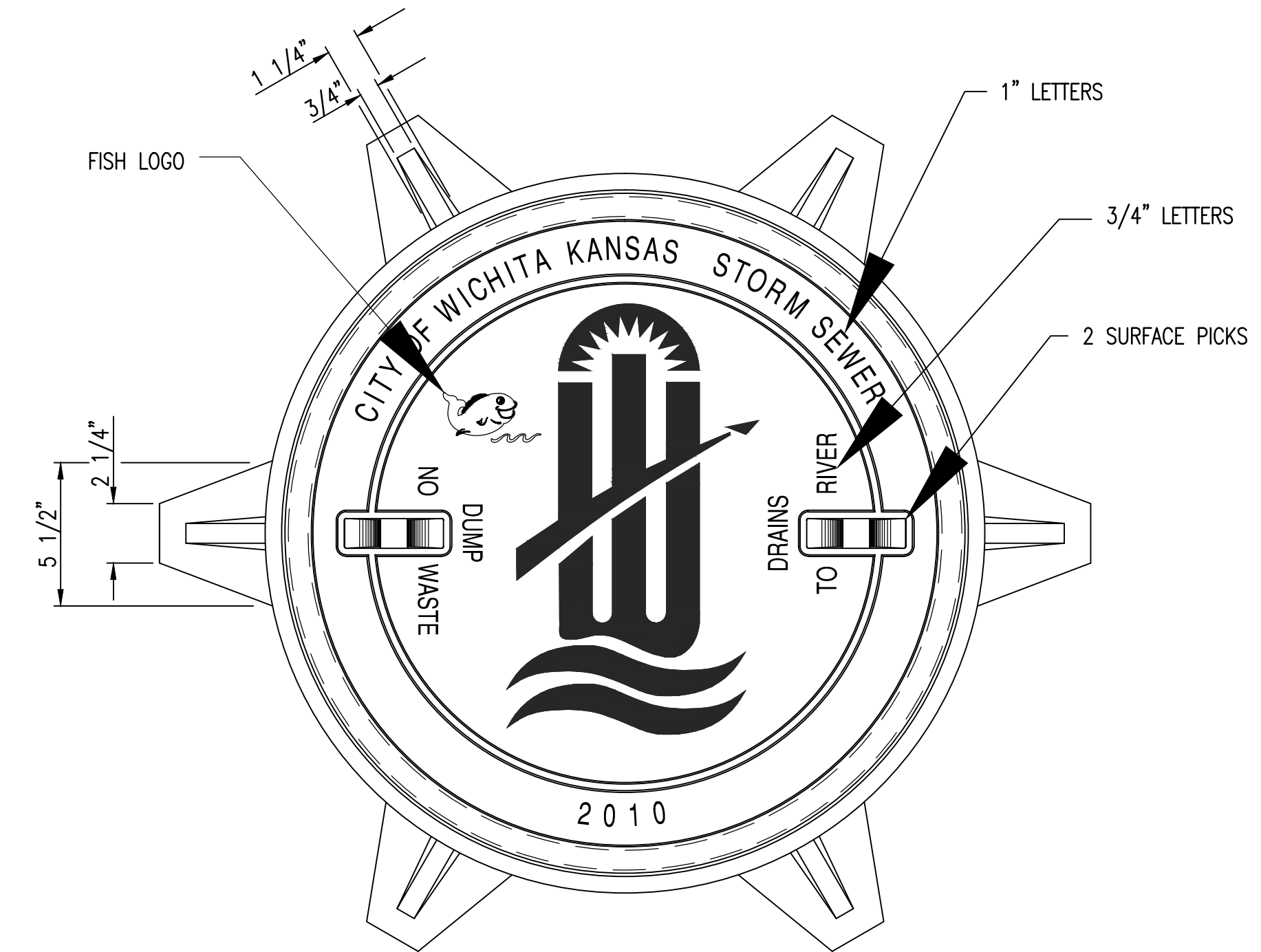
1. IF, IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR WILL HAVE THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
2. STEEL REINFORCING WILL BE REQUIRED IN ALL MANHOLE BASES.
3. ALL MANHOLE CONSTRUCTION SHALL BE WATER TIGHT.
4. TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
5. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION OF ASTM C-478 AS MODIFIED BY THE SPECIFICATIONS.
6. CONCRETE USED FOR MANHOLE CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO MANHOLE BASE.
8. MANHOLES WITH PIPE SIZES 24" AND LARGER SHALL HAVE 5 FOOT INSIDE DIAMETER (MIN.)
9. MANHOLES WITH PRECAST BASES MAY BE USED AT THE CONTRACTORS OPTION. THESE MANHOLES SHALL HAVE AN 8" MINIMUM BASE THICKNESS AND SHALL BE PLACED ON AN 8" MIN. CRUSHED ROCK BASE. PIPES SHALL BE ENCASED WITH CRUSHED ROCK TO AT LEAST 3 FEET FROM THE MANHOLE WALL.
10. CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN MANHOLE WALL SHALL BE GROUTED FLUSH TO THE MANHOLE WALL WITH HYDRAULIC CEMENT AFTER THE MANHOLE IS IN PLACE. LIFTING HOLES THRU THE MANHOLE WALL WILL NOT BE ACCEPTED.
11. THE ENDS OF ALL PIPES IN MANHOLES SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE MANHOLE WALL.
12. MANHOLE INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE MANHOLE WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
13. MANHOLE FRAME AND COVER TO BE DEETER #1261, EJIW #1936-Z1, OR APPROVED EQUAL, SEE SW-303.
14. FOR FLAT GRATED INLET APPLICATION, GRATE TO BE DEETER #1933, EJIW #1205 MDI, OR APPROVED EQUAL.
15. FOR BEEHIVE GRATE APPLICATION, GRATE TO BE DEETER #4495, EJIW #120545, OR APPROVED EQUAL.

 <p>CITY OF WICHITA PUBLIC WORKS & UTILITIES ENGINEERING DIVISION</p>			<p>PRECAST CONCRETE MANHOLE (STORM SEWER)</p>		
			<p>CITY ENGINEER GARY JANZEN, P.E.</p>		
PROJECT NUMBER	OCA NUMBER	DATE			
		04/14			
CITY ENGINEER'S OFFICE			SHEET		
CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501			16 of 27		



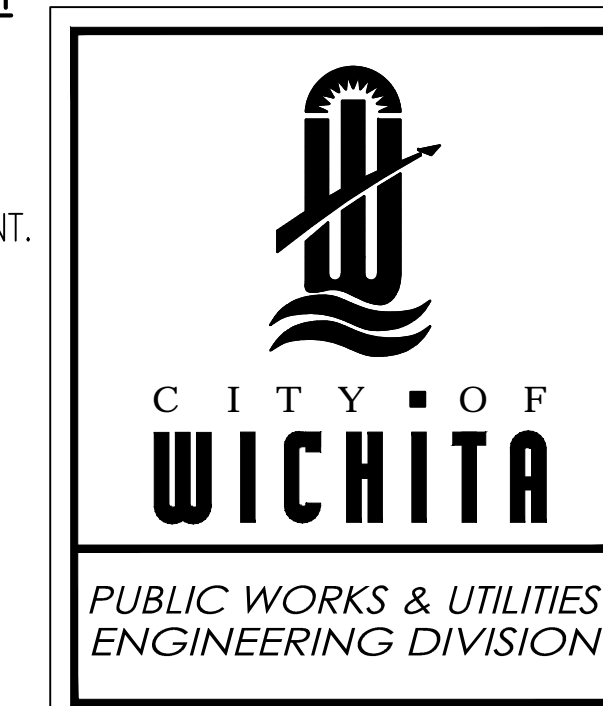
MANHOLE FRAME
DEETER #1261 OR EJIW #1936-Z1

- NOTE:
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.
 2. COVER TO BE DEETER #1261 OR EJIW #1936A.

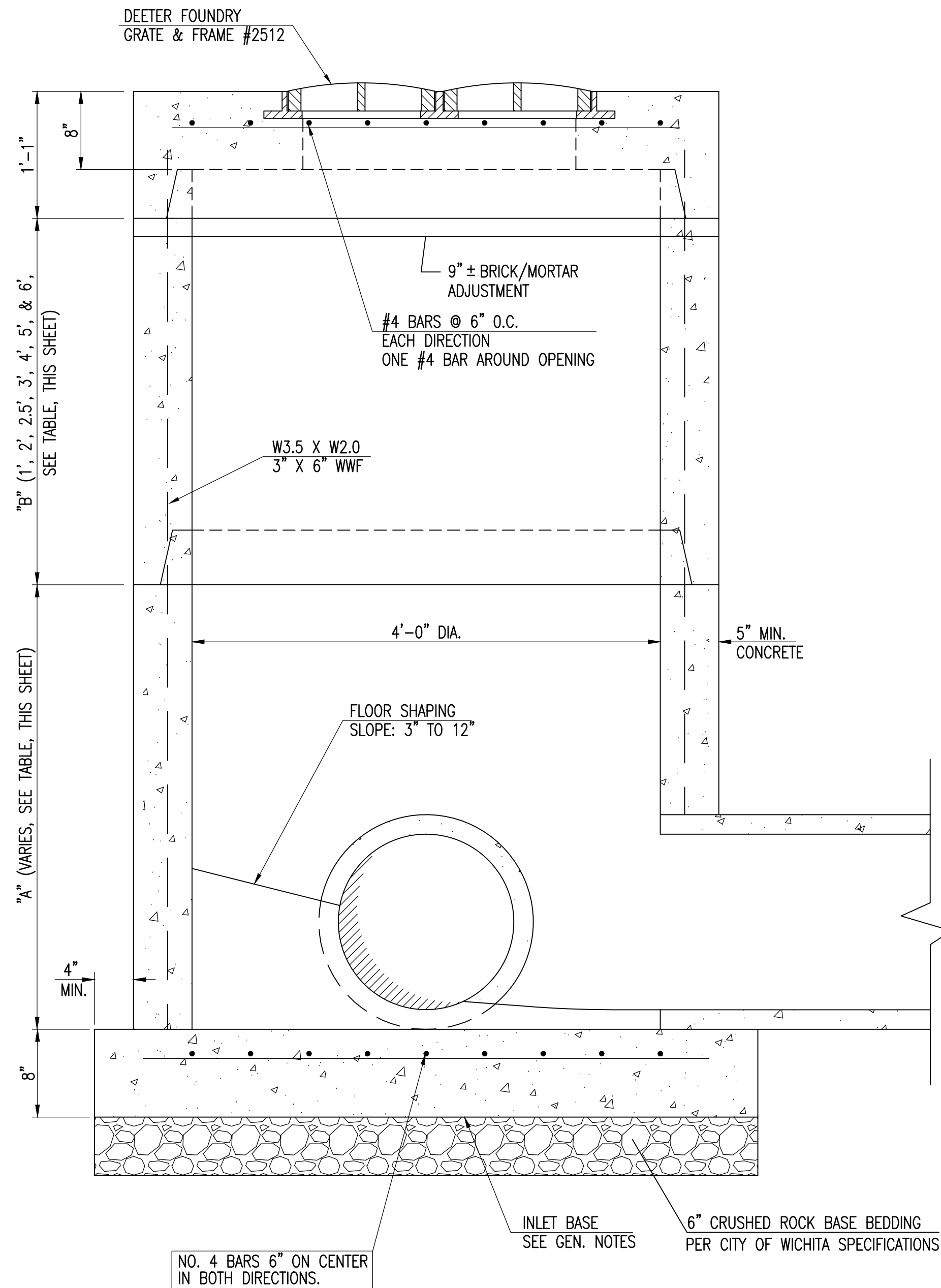


INLET FRAME
DEETER #2014 OR EJIW #1936-Z4

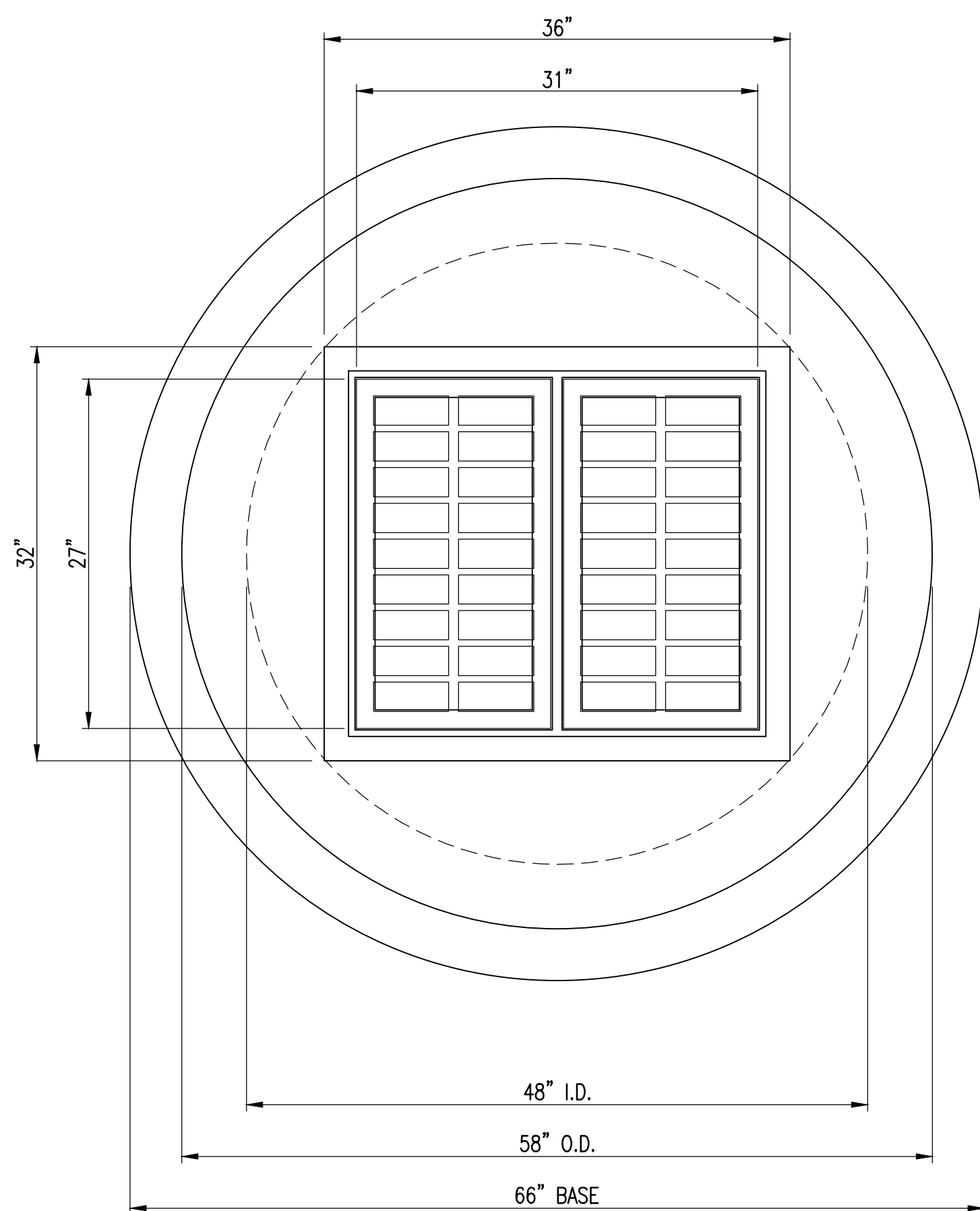
- NOTE:
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACES.
 2. NOT TO BE USED UNDER PAVEMENT.
 3. COVER TO BE DEETER #1261 OR EJIW #1936A.



MANHOLE/INLET FRAME AND COVER (STORM SEWER)		
CITY ENGINEER GARY JANZEN, P.E.		
PROJECT NUMBER	OCA NUMBER	DATE 04/14
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET 17 of 27



BACKYARD INLETS SHALL NOT BE USED UNDER PAVEMENT

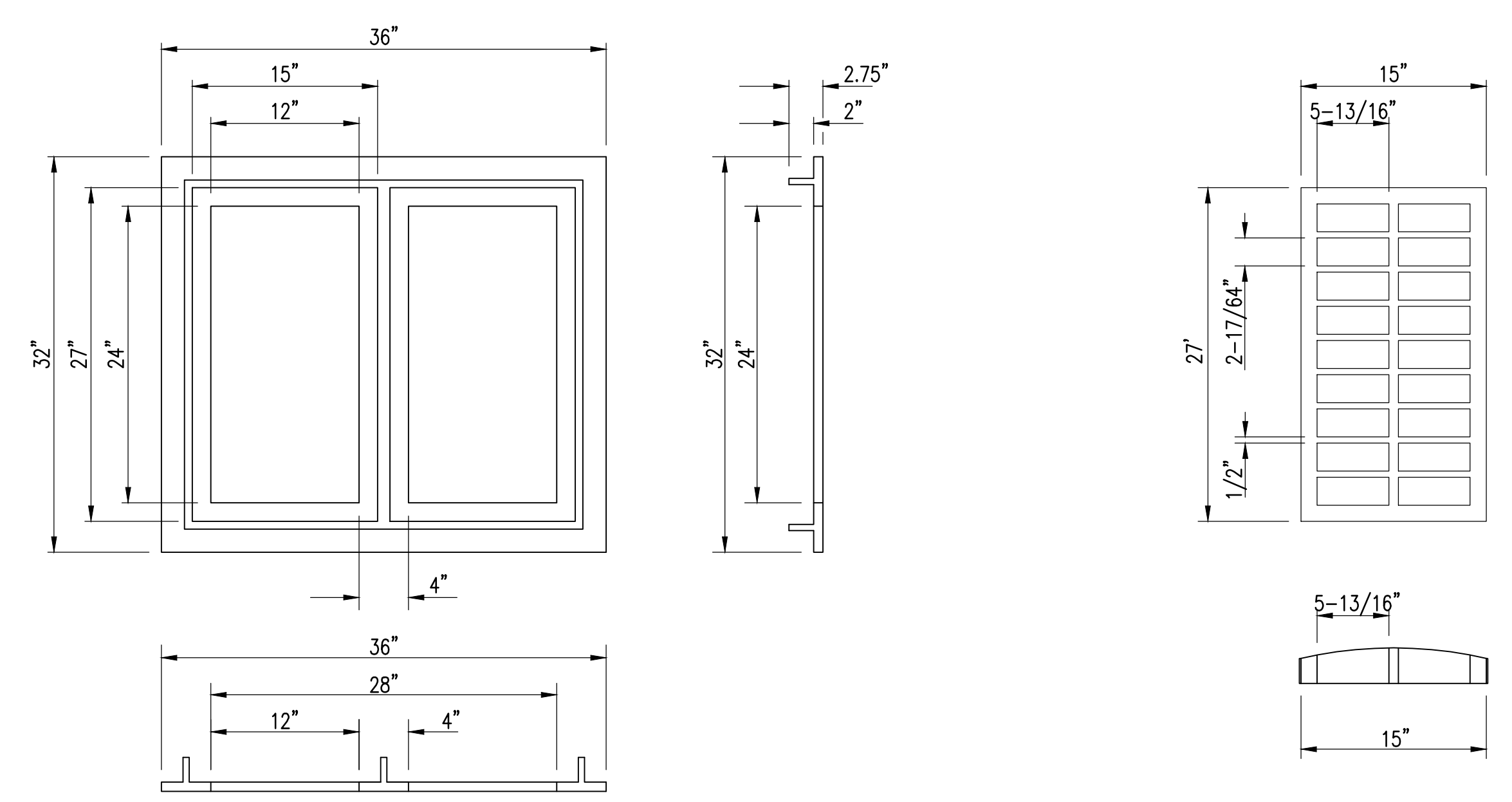


GENERAL NOTES

- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN BACKYARD INLET BASES SHALL CONFORM TO THE REQUIREMENTS FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE CEMENT MIX WITHOUT AIR ENTRAINING.
- REINFORCING STEEL SHALL BE INSTALLED IN THE BACKYARD INLET BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE BACKYARD INLET BASE REINFORCEMENT SHALL BE PLACED 6" ABOVE THE BOTTOM OF THE BACKYARD INLET BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE BACKYARD INLET.
- THE FLOORS OF ALL BACKYARD INLET SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE INLETS WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS. INLET FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH INLETS SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE INLET. INLET FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
- PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE INLET SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE INLET EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE INLET. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN INLET EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO INLET SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE INLET.
- INLET GRATE CASTINGS AND INLET FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
- THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
- JOINTS BETWEEN INLET SECTIONS TO BE SEALED WITH TWO WRAPS OF EXTRUDED BUTYL RUBBER JOINT MASTIC MEETING CITY OF WICHITA TYPE "A" MANHOLE SPECIFICATIONS.
- BACKYARD INLETS SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH. ALL STANDARD BACKYARD INLET DIAMETERS WILL BE 4'.
- CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN INLET WALL SHALL BE GROUTED FLUSH TO THE INLET WALL WITH HYDRAULIC CEMENT AFTER THE INLET IS IN PLACE. LIFTING HOLES THRU THE INLET WALL WILL NOT BE ACCEPTED.

BACKYARD INLET

LINE #	STA.	TOP OF INLET	INLET FLOW	"A"	"B"
1	4+06.6	1342.00	1338.76	2.36'	-
1	6+62.8	1342.00	1339.30	1.82'	-
2	3+89.5	1342.00	1339.30	1.82'	-
3	3+87.8	1341.80	1338.45	2.47'	-
3	6+47.8	1341.60	1338.90	1.82'	-
4B	0+89.8	1341.20	1337.35	2.97'	-
4B	2+04.8	1341.40	1337.90	2.62'	-
5	3+92.2	1341.30	1338.60	1.82'	-
6	3+90.2	1342.00	1338.95	2.17'	-
6	6+56.1	1342.60	1339.90	1.82'	-
7	2+07.9	1342.00	1338.38	2.74'	-
7	3+33.7	1342.00	1338.97	2.15'	-
7	4+33.7	1342.00	1339.45	1.67'	-
7A	1+20.0	1342.00	1339.40	1.72'	-

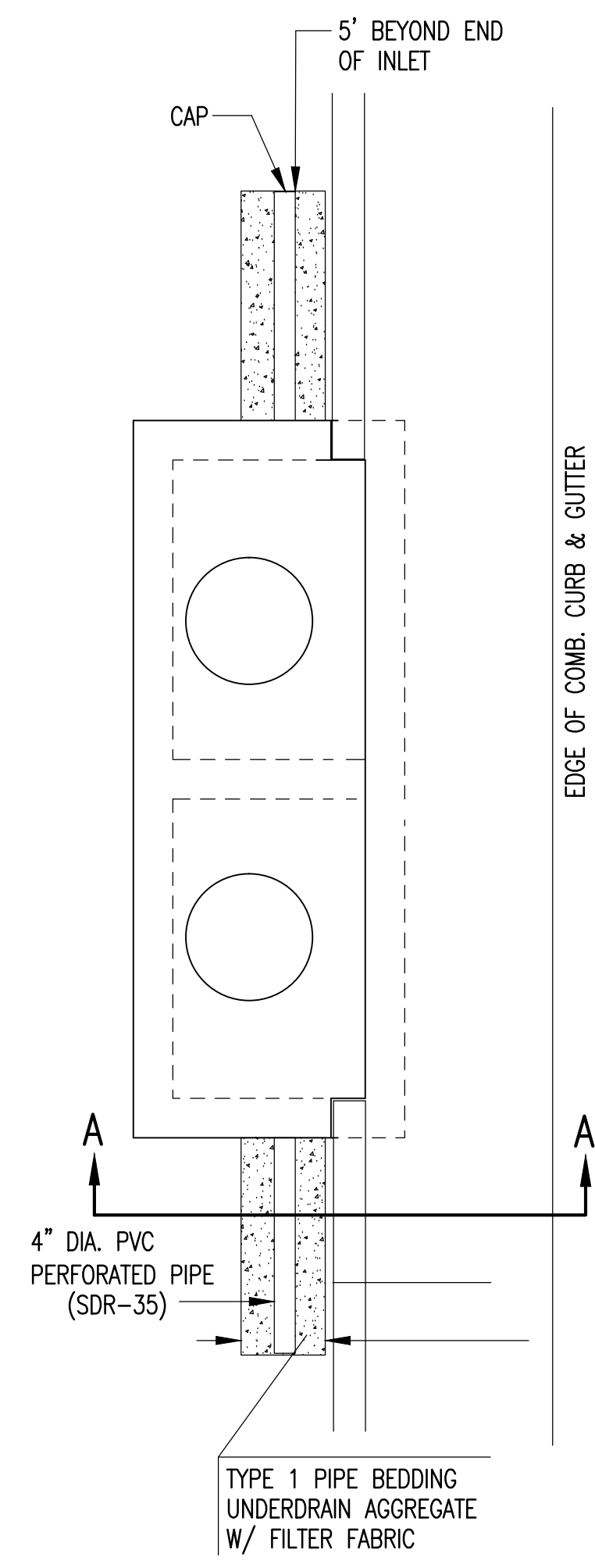


DEETER #2512 CATCH BASIN INLET GRATE & FRAME

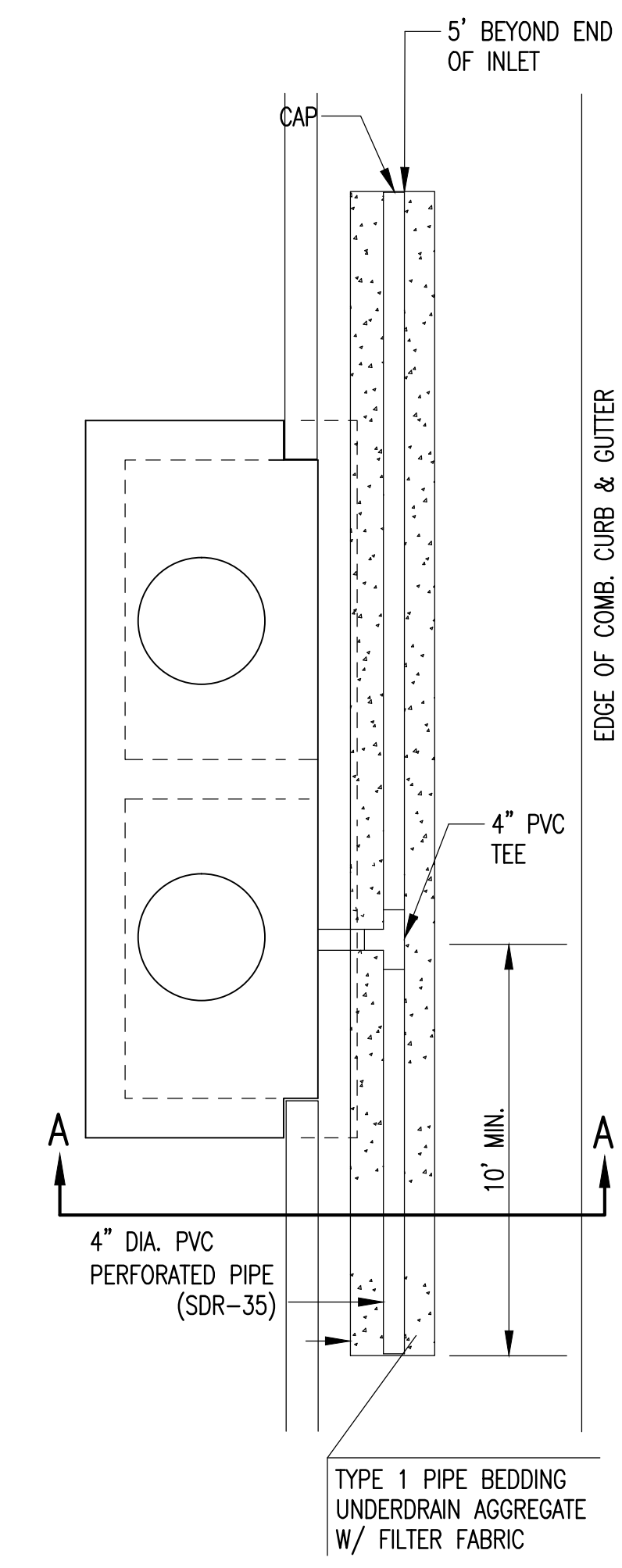


BACKYARD INLET		
CITY ENGINEER Gary Janzen, P.E. City Engineer		
PROJECT NUMBER	OCA NUMBER	DATE 04/14
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		DESIGN Staff DRAWN Staff
		SHEET 18 of 27

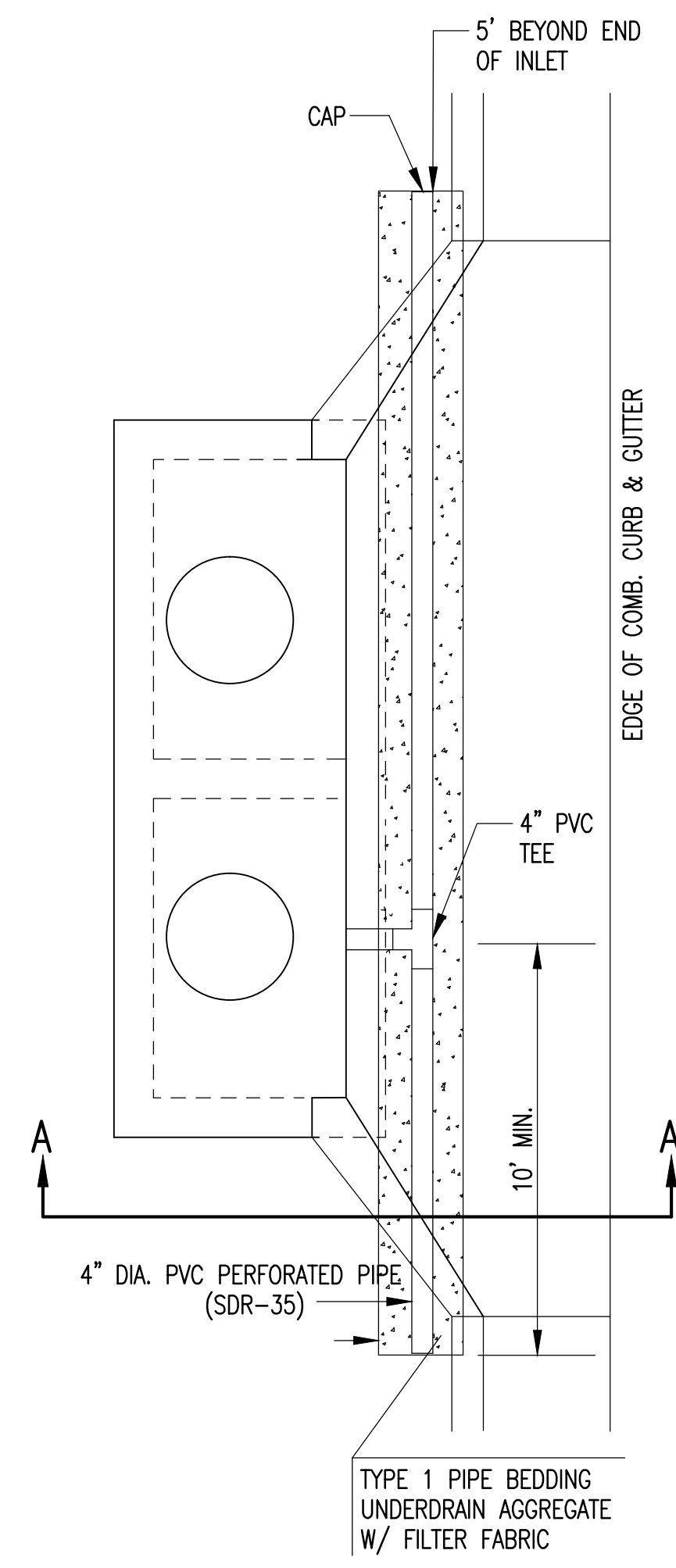
PAVEMENT UNDERDRAIN SHALL BE INSTALLED ON ALL CURB INLETS.



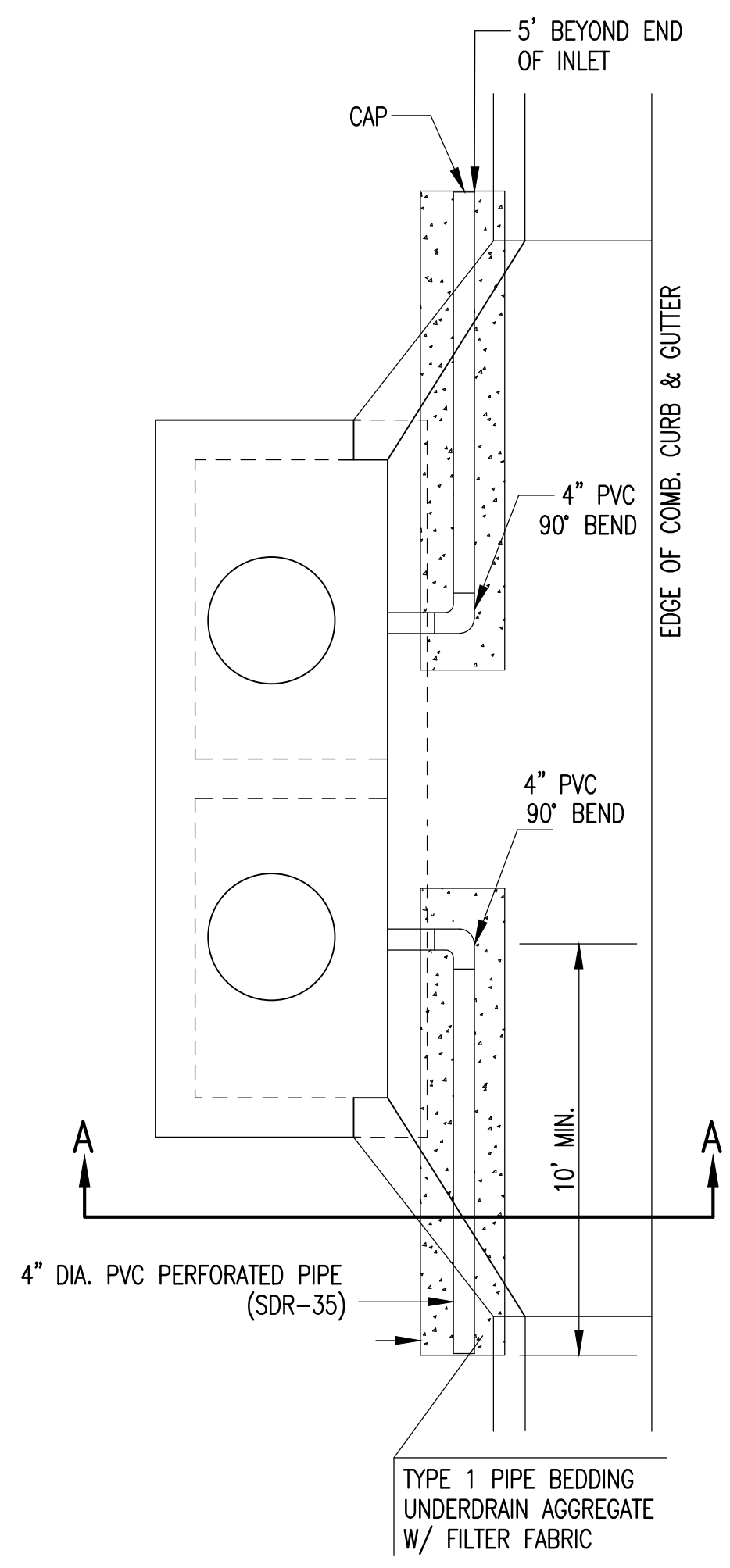
**TYPE 1
OPTION 1**



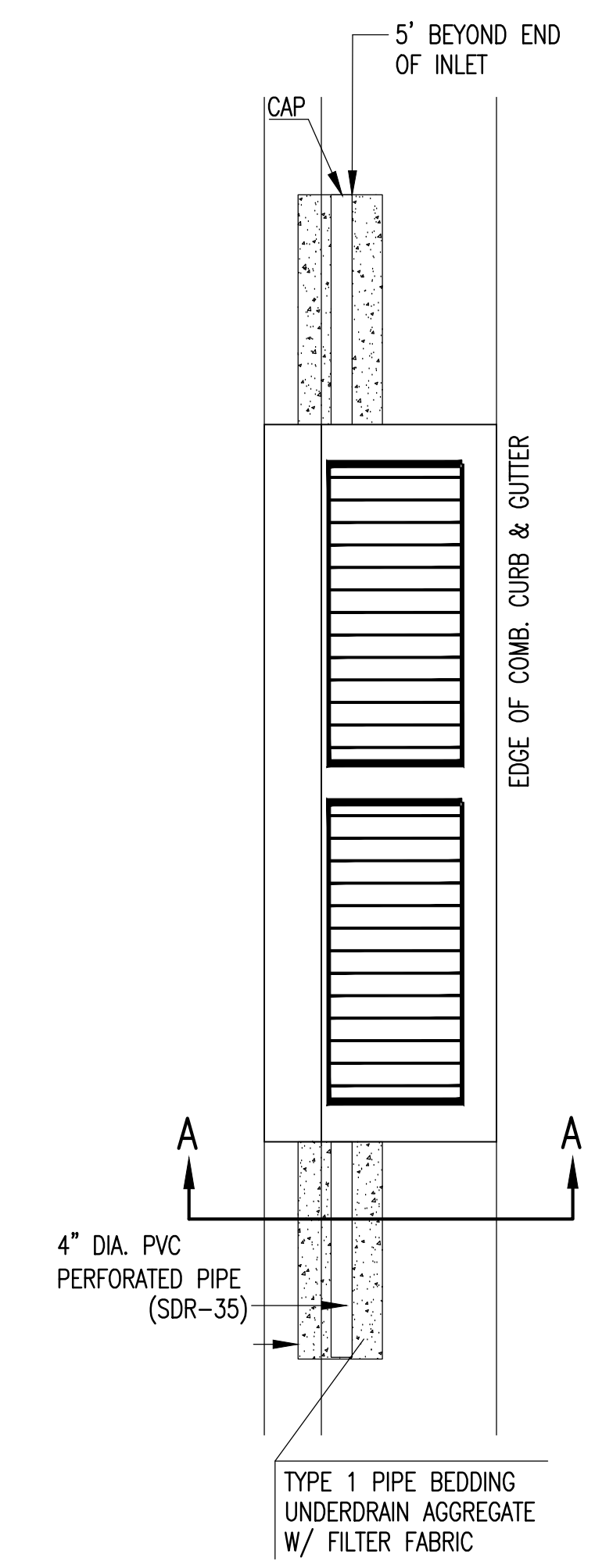
**TYPE 1
OPTION 2**



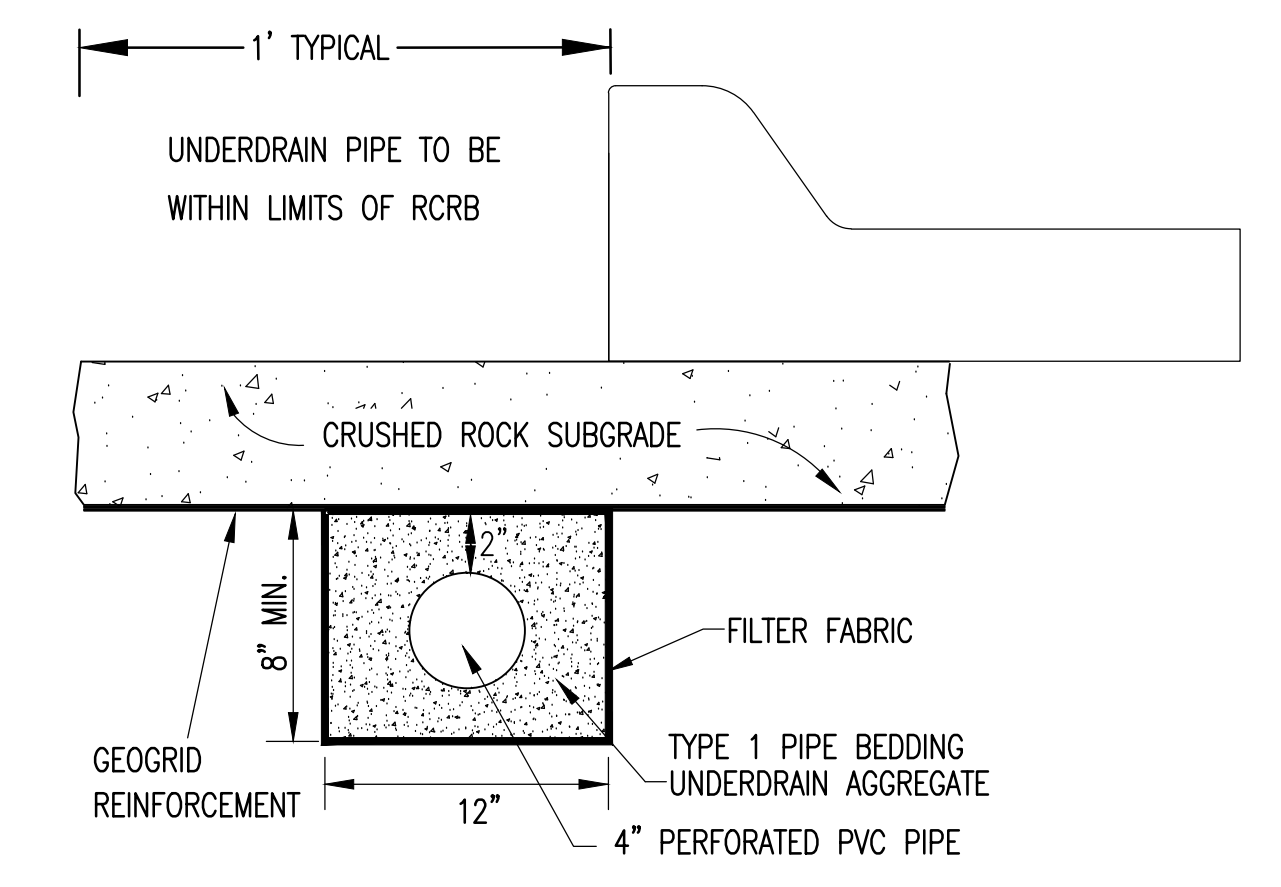
**TYPE 1-A INLET
OPTION 1**



**TYPE 1-A INLET
OPTION 2**



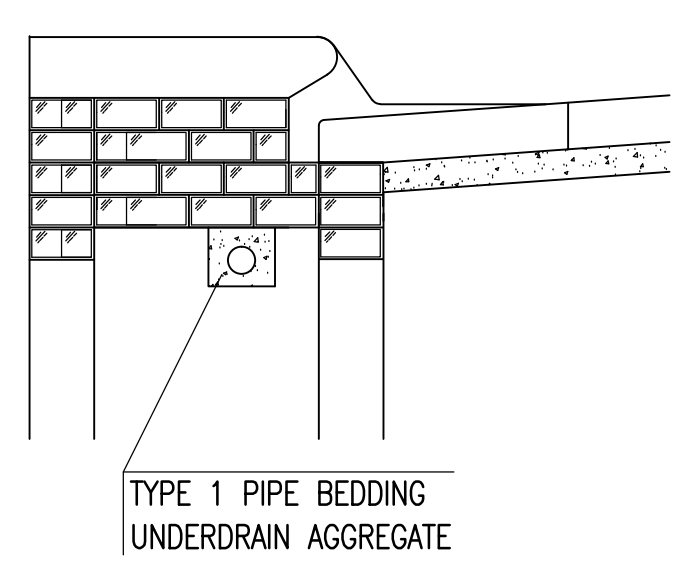
TYPE 2



SECTION A-A (TYPICAL)

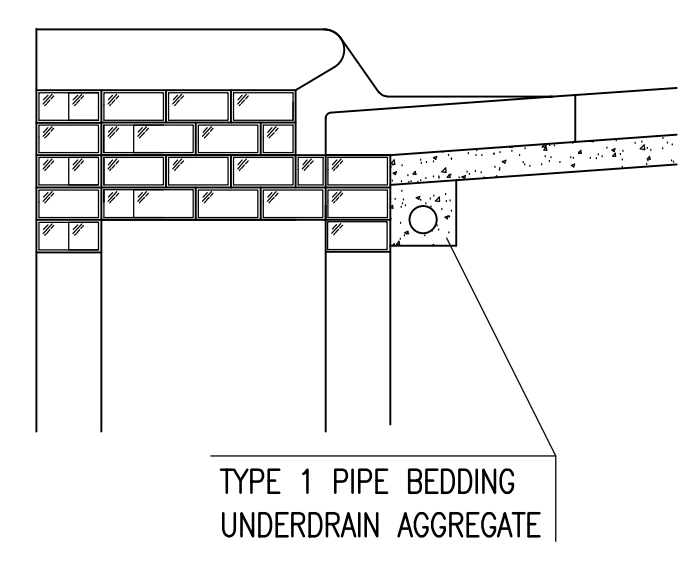
GENERAL NOTES

1. PAVEMENT CONTRACTOR WILL BE REQUIRED TO INSTALL SDR 35, 4" PERFORATED DRAIN PIPE AND TEE AS INDICATED IN THE DETAILS.
2. WHEN SWS CONSTRUCTED BY SEPARATE PROJECT, SWS CONTRACTOR SHALL INSTALL SDR 35, 4" DRAIN PIPE STUB ONLY THROUGH WALLS OF CURB INLETS AND CAP TO ALLOW FUTURE CONNECTION OF TEE AND ADDITIONAL DRAIN PIPE BY OTHERS.
2. UNDERDRAIN PIPE SHALL BE PAID AS A MEASURED QUANTITY BY THE LINEAL FOOT.

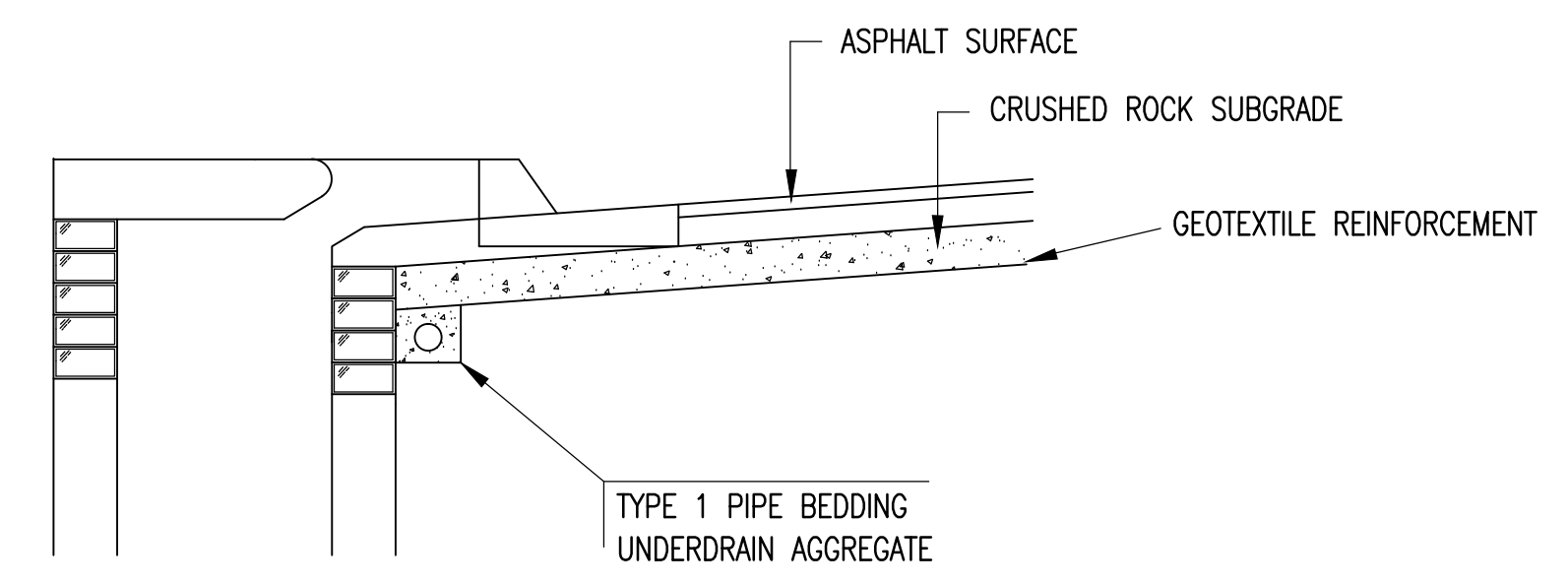


(MIN. 16 PERFORATIONS PER LIN. FT. @ 1/4" DIA.)
PERFORATIONS TO BE ON BOTTOM HALF

SECTION A-A



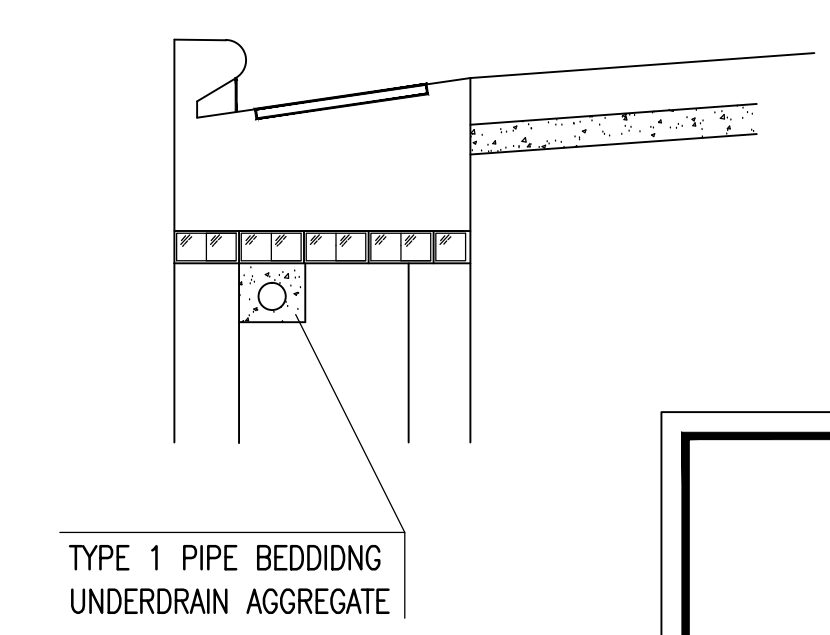
TYPE 1 PIPE BEDDING
UNDERDRAIN AGGREGATE



SECTION A-A

PAVEMENT UNDERDRAIN DETAIL

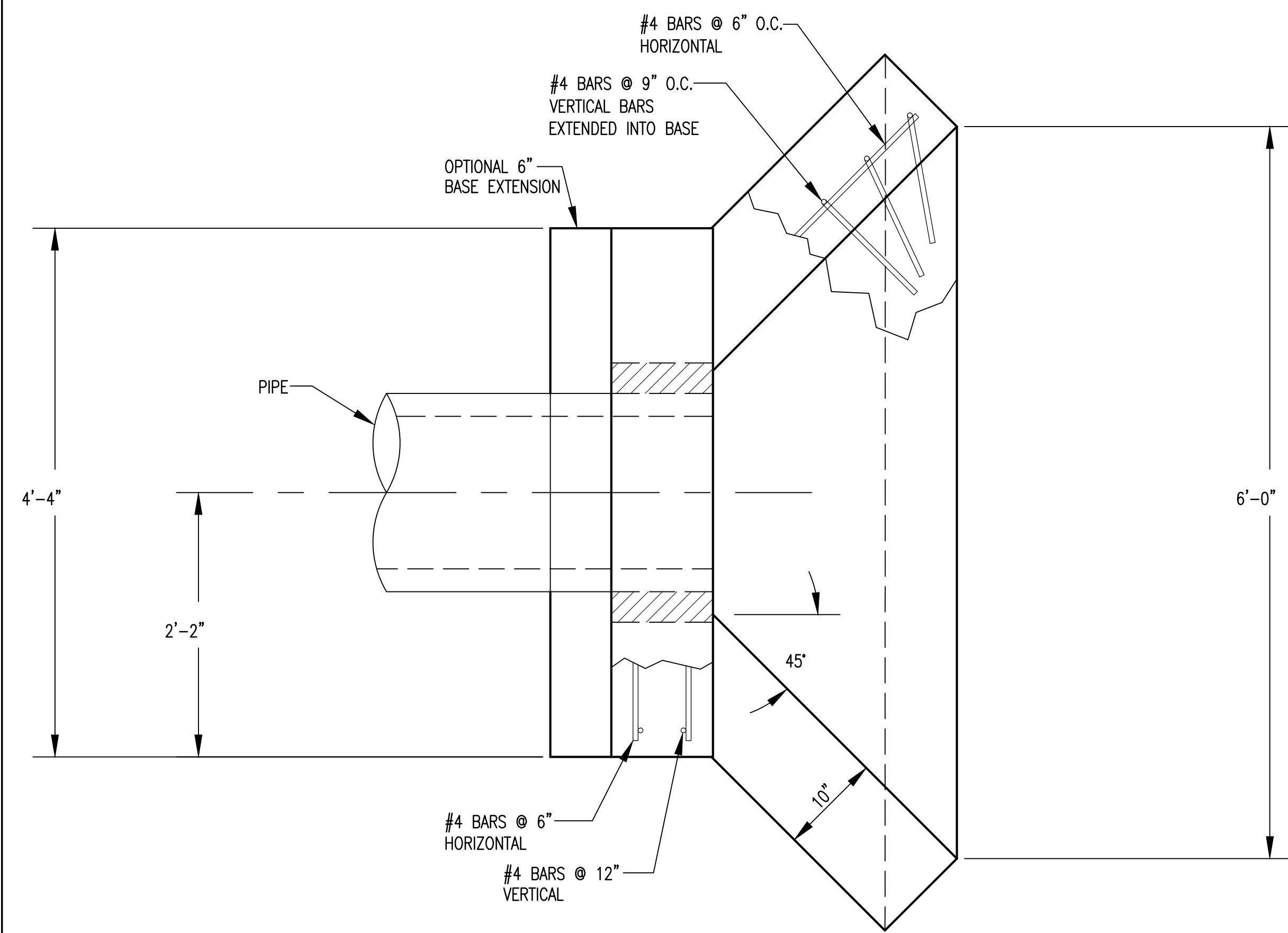
BID ITEM TO BE PROVIDED PER 4" PERFORATED UNDERDRAIN PIPE.



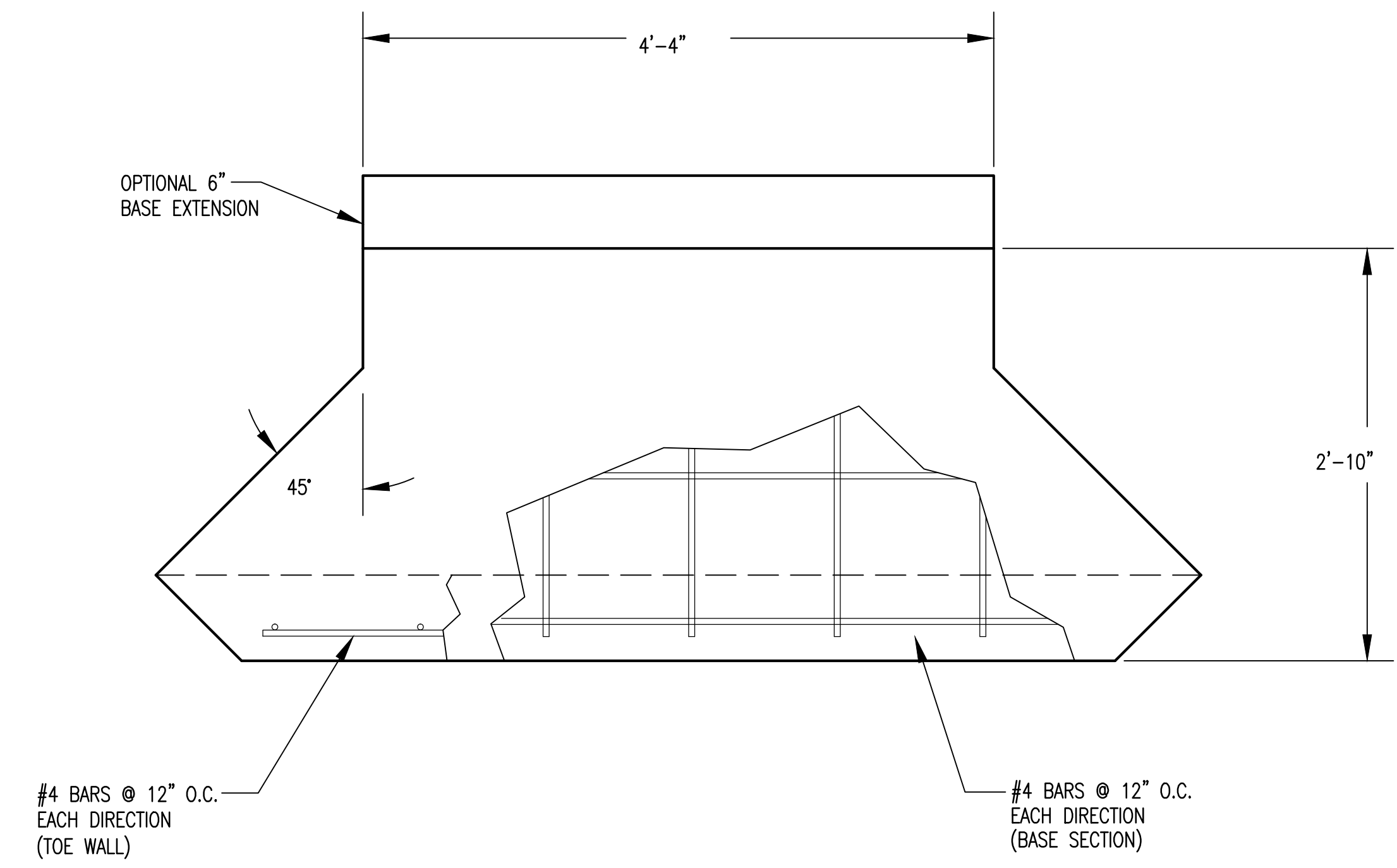
SECTION A-A

**CITY OF
WICHITA**
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

CURB INLET PAVEMENT UNDERDRAIN DETAIL		
CITY ENGINEER GARY JANZEN, P.E.		
PROJECT NUMBER	OCA NUMBER	DATE 04/14
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET 19 of 27

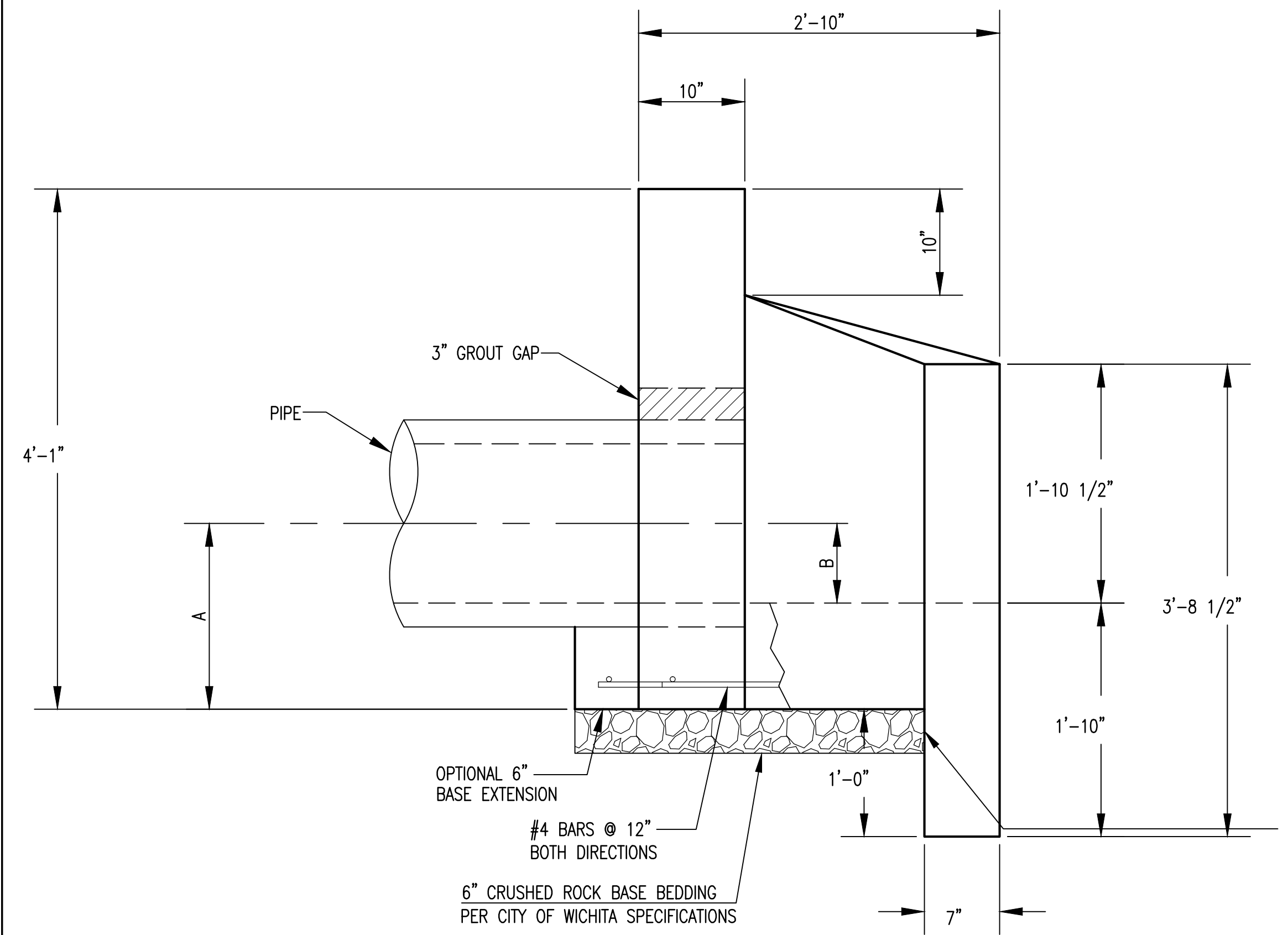


PLAN VIEW

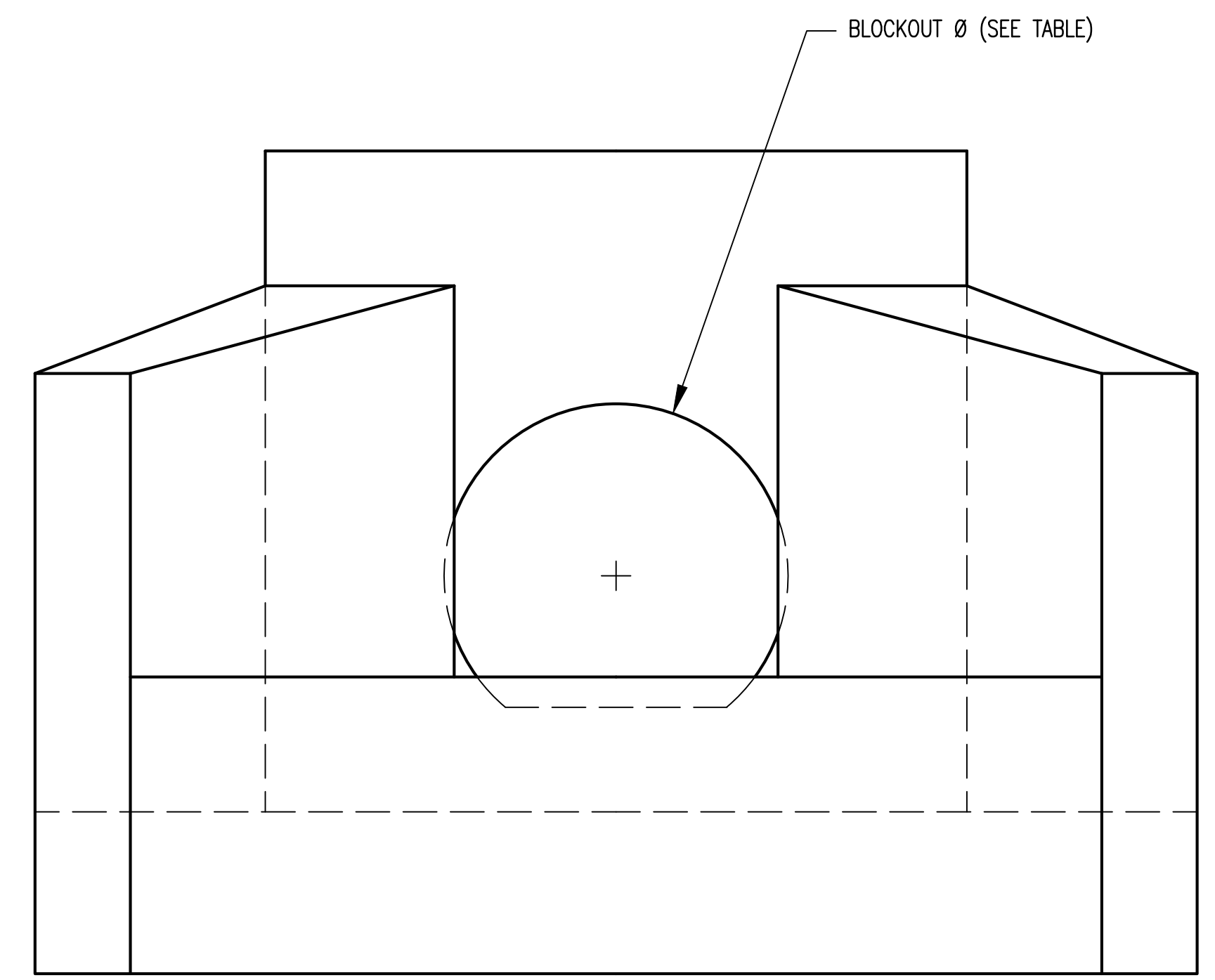


**PLAN VIEW
BASE**

PIPE Ø	A	B	BLOCKOUT Ø
15"	1'-5 1/2"	7 1/2"	2'-1 1/2"
18"	1'-7"	9"	2'-5"
24"	1'-10"	1'-0"	3'-0"




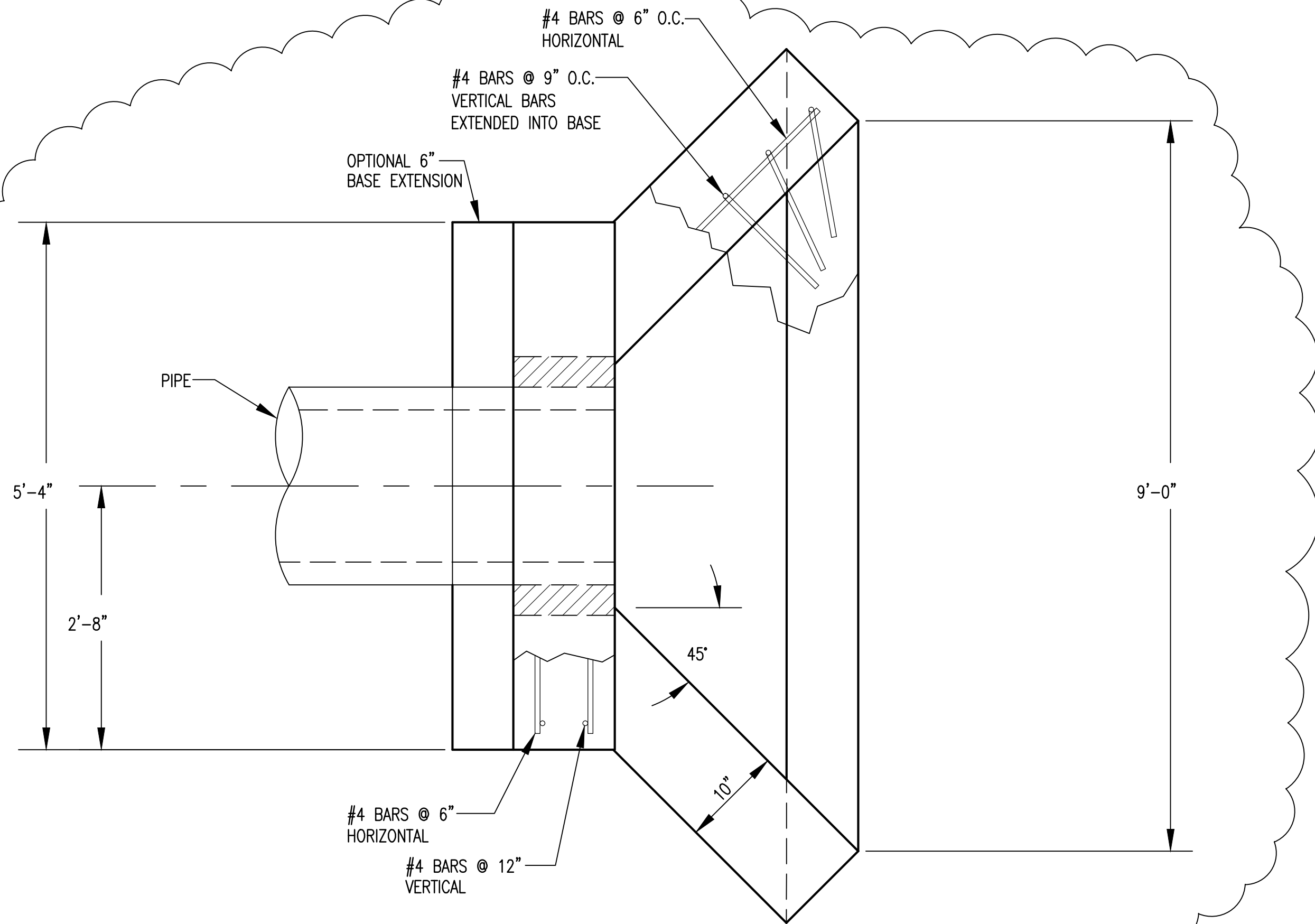
ELEVATION



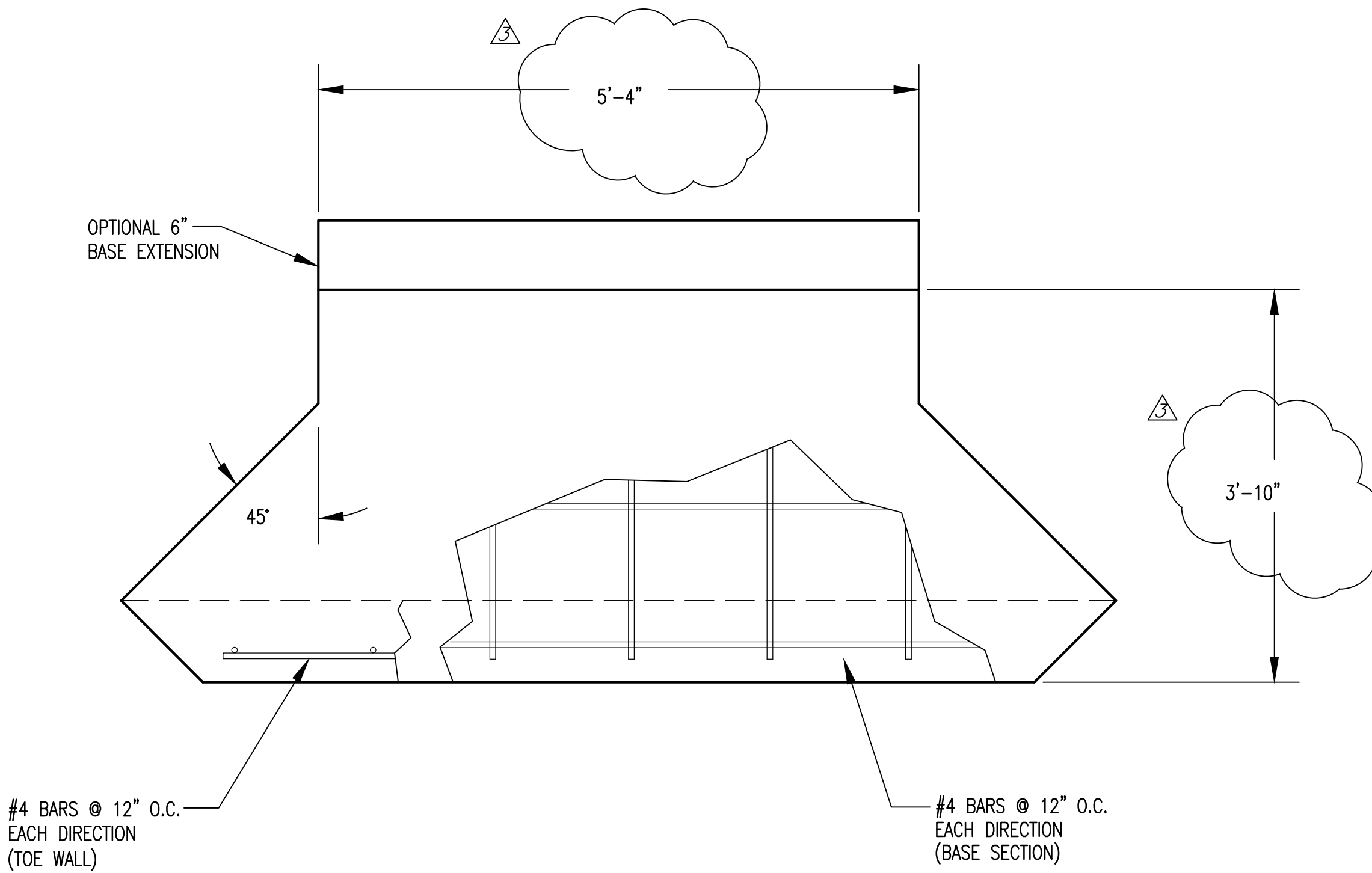
FRONT VIEW

HEADWALLS, AS SHOWN, WILL NOT SUPPORT FLAP GATE.

 <p>CITY OF WICHITA PUBLIC WORKS & UTILITIES ENGINEERING DIVISION</p>	<p>HEADWALL DETAILS FOR 15", 18", AND 24" PIPE</p>		
	<p>CITY ENGINEER GARY JANZEN, P.E.</p>		
	PROJECT NUMBER	OCA NUMBER	DATE
		04/14	
CITY ENGINEER'S OFFICE		SHEET	
CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		20 of 27	

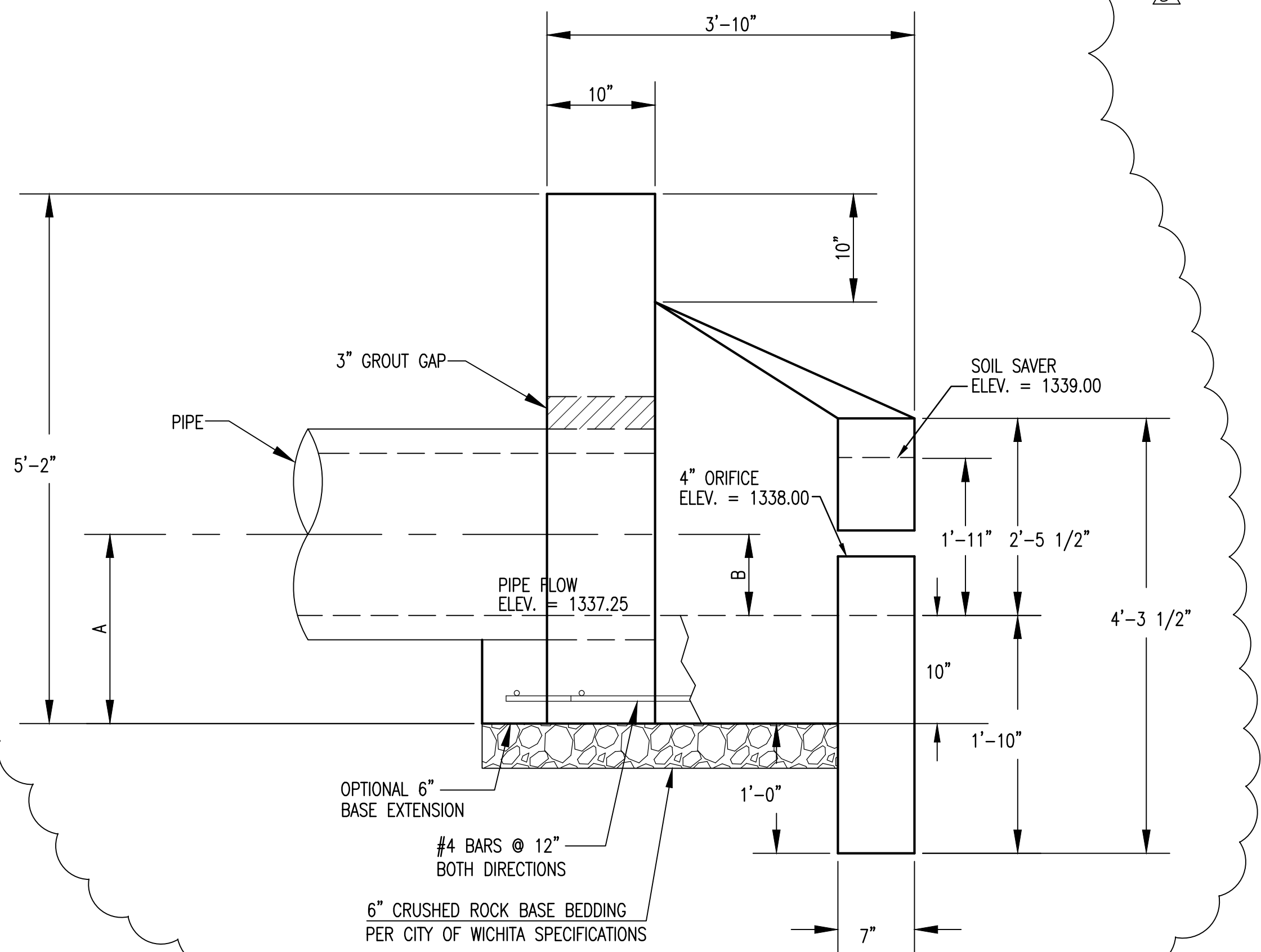


PLAN VIEW

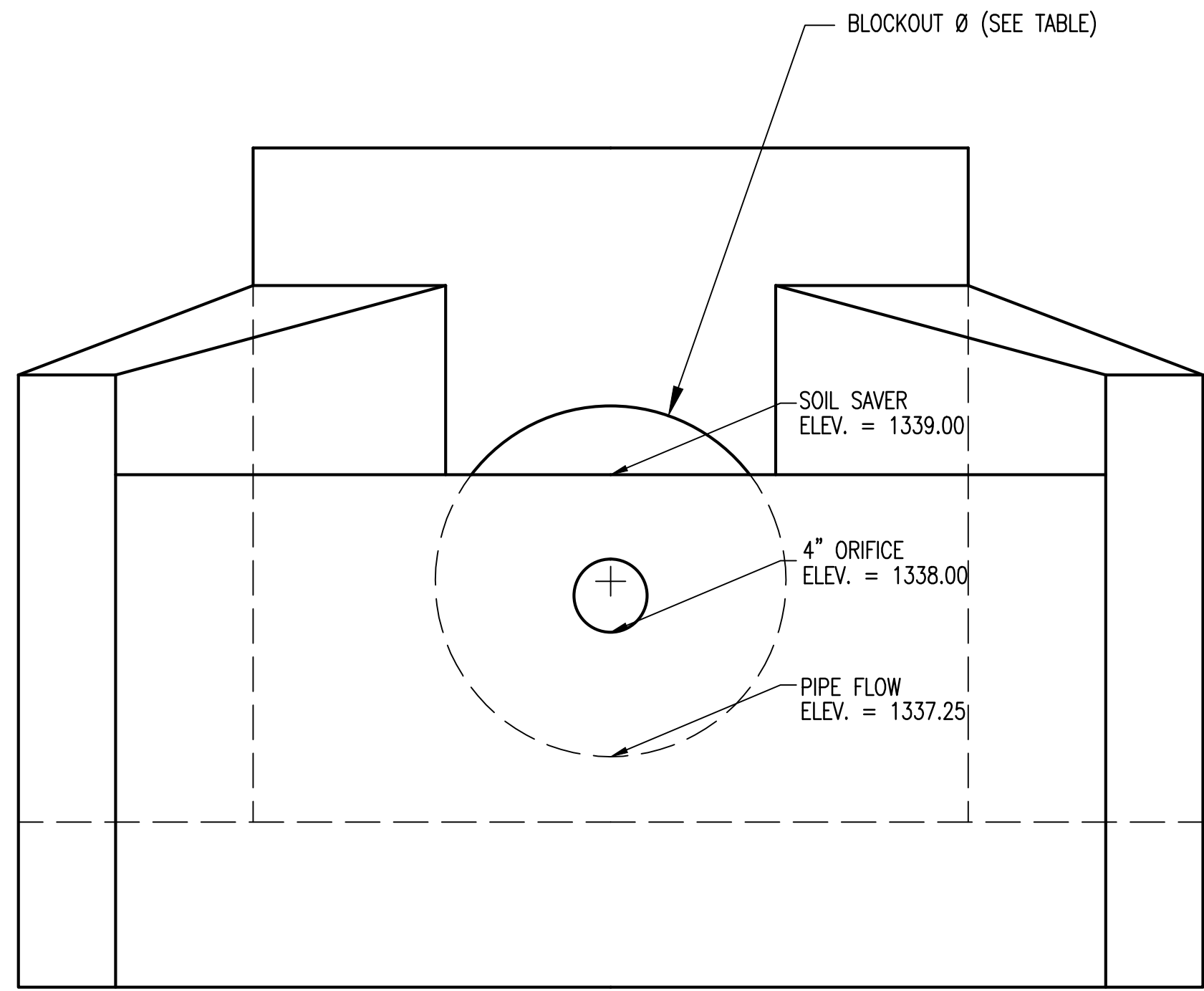


PLAN VIEW
BASE

PIPE Ø	A	B	BLOCKOUT Ø
30"	2'-1"	1'-3"	3'-7"
36"	2'-4"	1'-6"	4'-2"



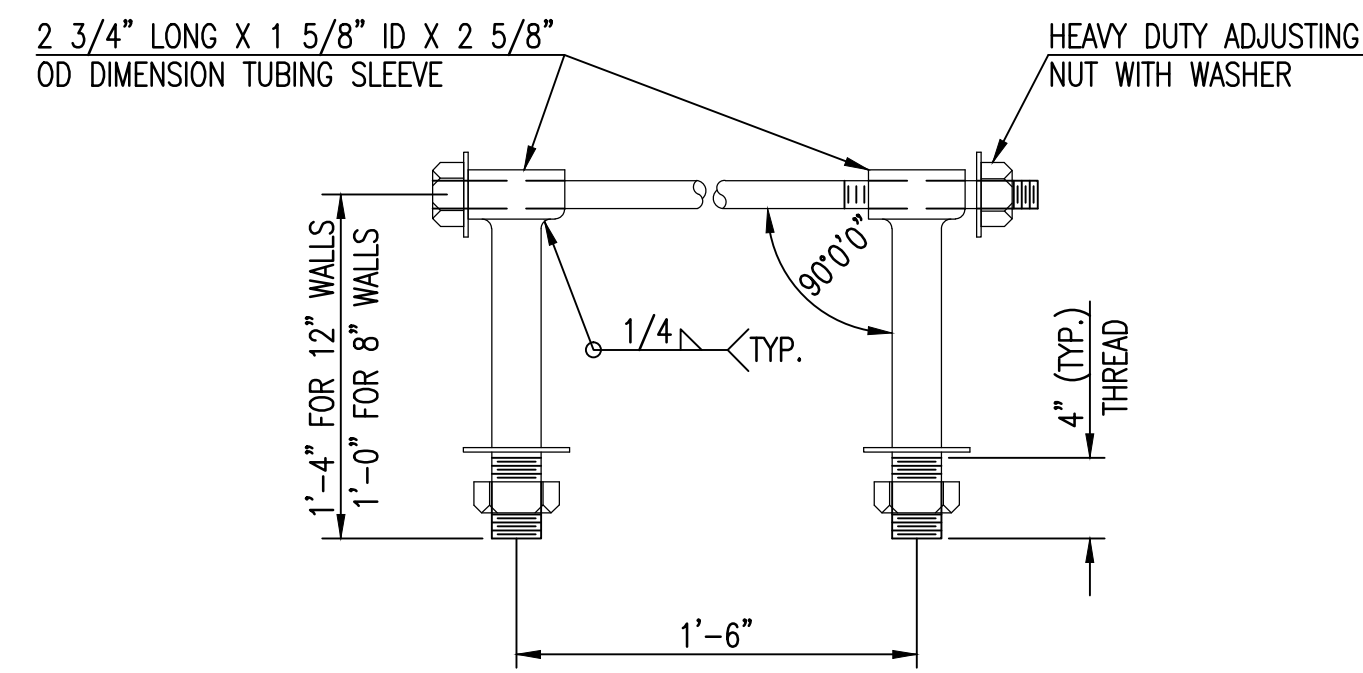
ELEVATION



FRONT VIEW



	CASTLEGATE ADDITION SPECIAL 30" HEADWALL STORM WATER SEWER IMPROVEMENTS	
	<small>Baughman Company, P.A. 315 Ellis St., Wichita, KS 67211 P 316-263-7771 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE</small>	
PROJECT NUMBER 	DESIGN NBW/JS	DRAWN TMS
REVISIONS: 5/16/14 SWS Up Size 30" Headwall/ End Section	APPROVED 	DATE
SCALE Noted	SHEET 	
		21 OF 27

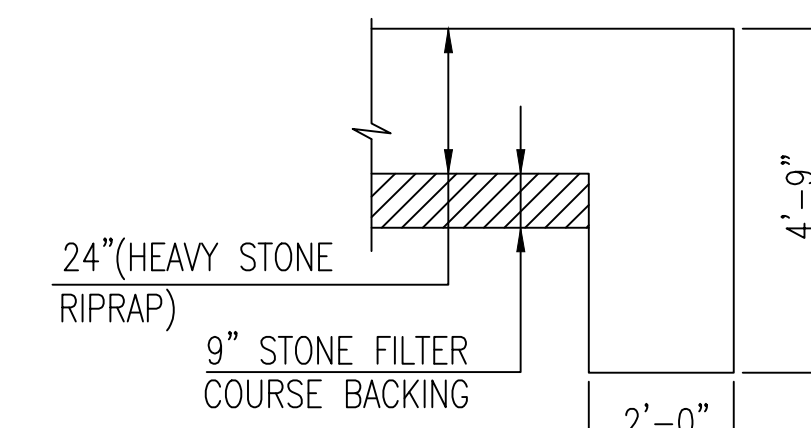


HEAVY DUTY (H.D.) COUPLER

NO SCALE

NOTES

1. BOLTS TO BE A-36 1 1/2" DIAMETER.
2. BOLTS, NUTS, WASHERS AND SLEEVES TO BE ZINC PLATED.
3. WASHERS TO BE 3 1/2" O.D. X 7 GAUGE.
4. SHIP WITH NUTS AND WASHERS PLACED ON BOLTS.



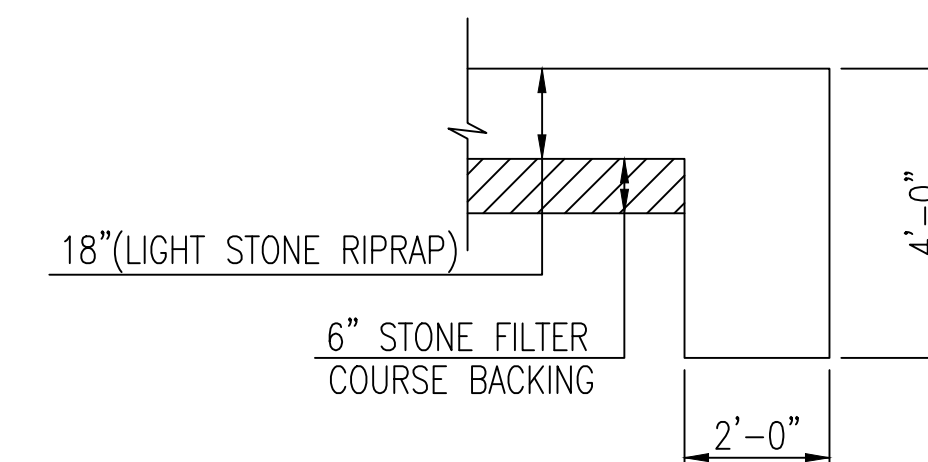
TYPICAL SECTION THRU TOEWALL

NO SCALE

NOTES

1. 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.
2. TOEWALLS SHALL BE INSTALLED ALONG ALL UNPROTECTED EDGES OF STONE RIPRAP.
3. GROUTING OF THE SURFACE OF THE RIPRAP SHALL NOT BE PERFORMED, UNLESS INDICATED OTHERWISE. GROUTING OF THE TOEWALLS SHALL BE PERFORMED PER CITY SPECIFICATIONS.

HEAVY STONE RIPRAP DETAILS



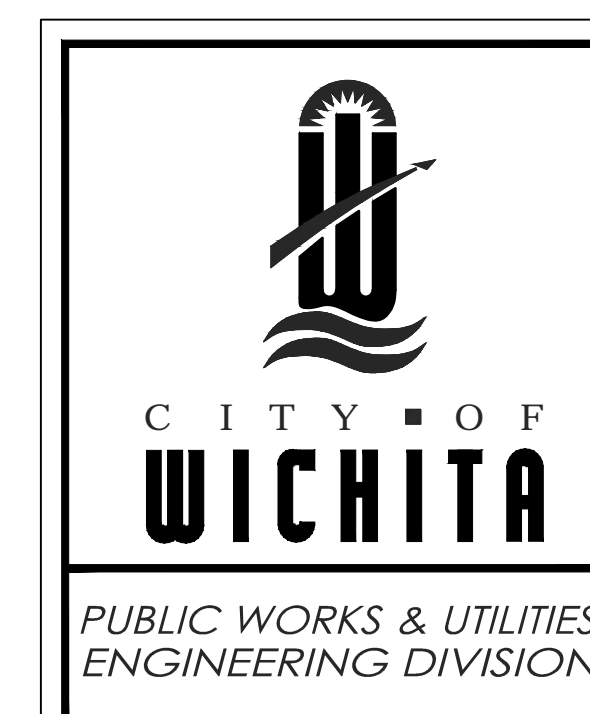
TYPICAL SECTION THRU TOEWALL

NO SCALE

NOTES

1. 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.
2. TOEWALLS SHALL BE INSTALLED ALONG ALL UNPROTECTED EDGES OF STONE RIPRAP.
3. 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



**MISCELLANEOUS
DETAILS
(STORM SEWER)**

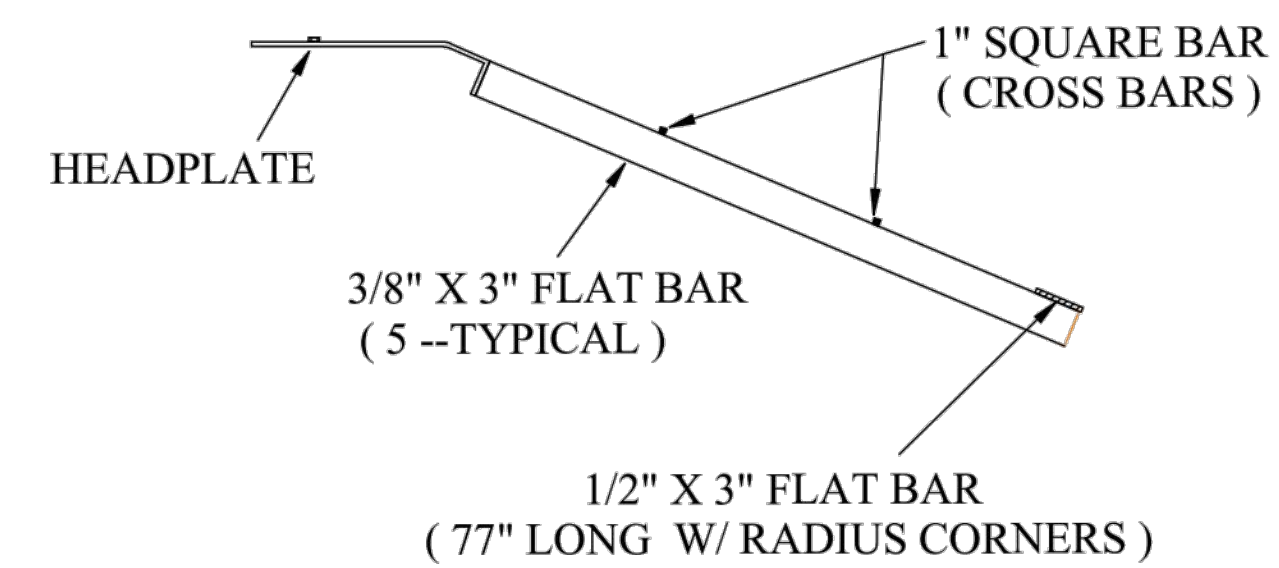
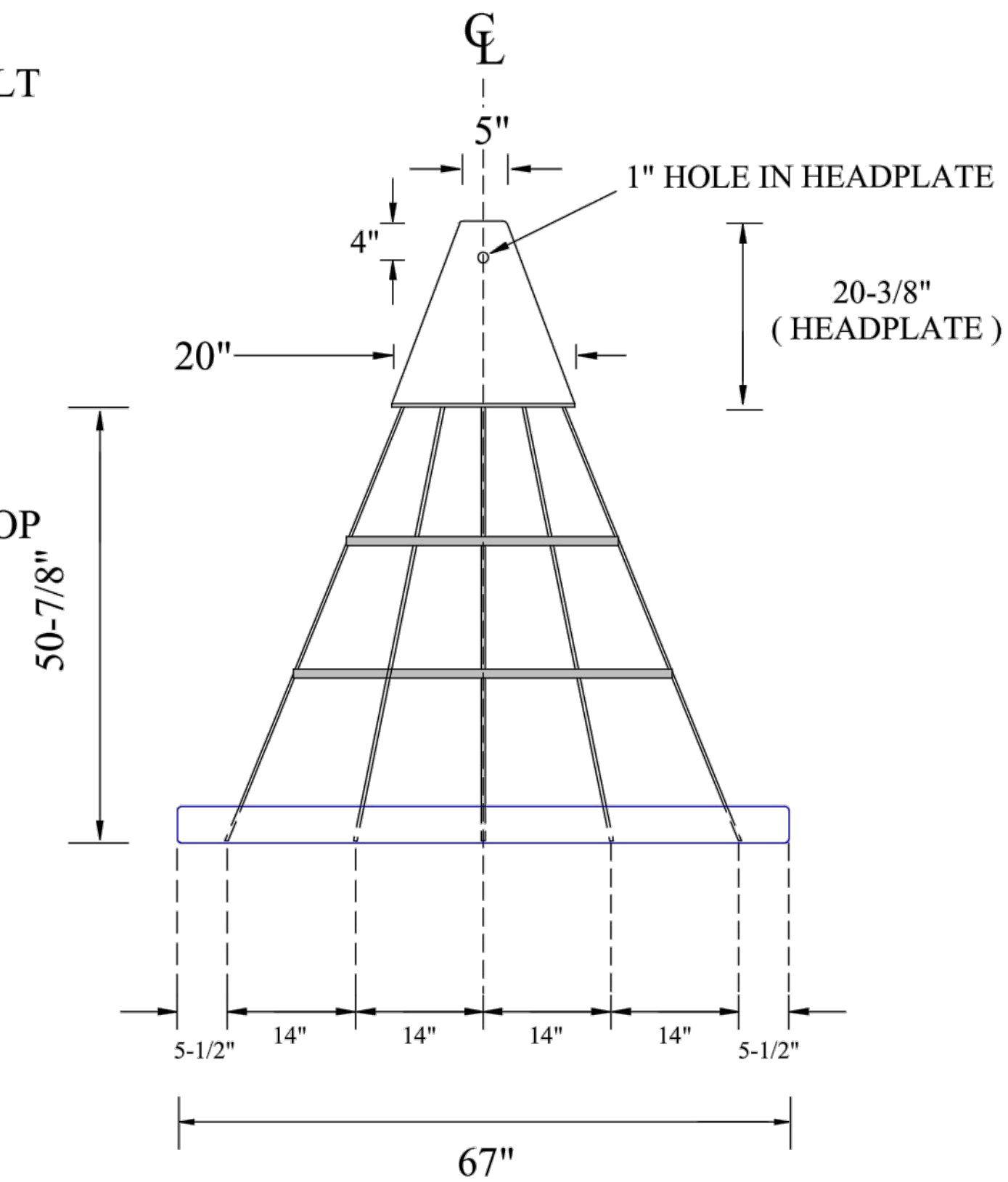
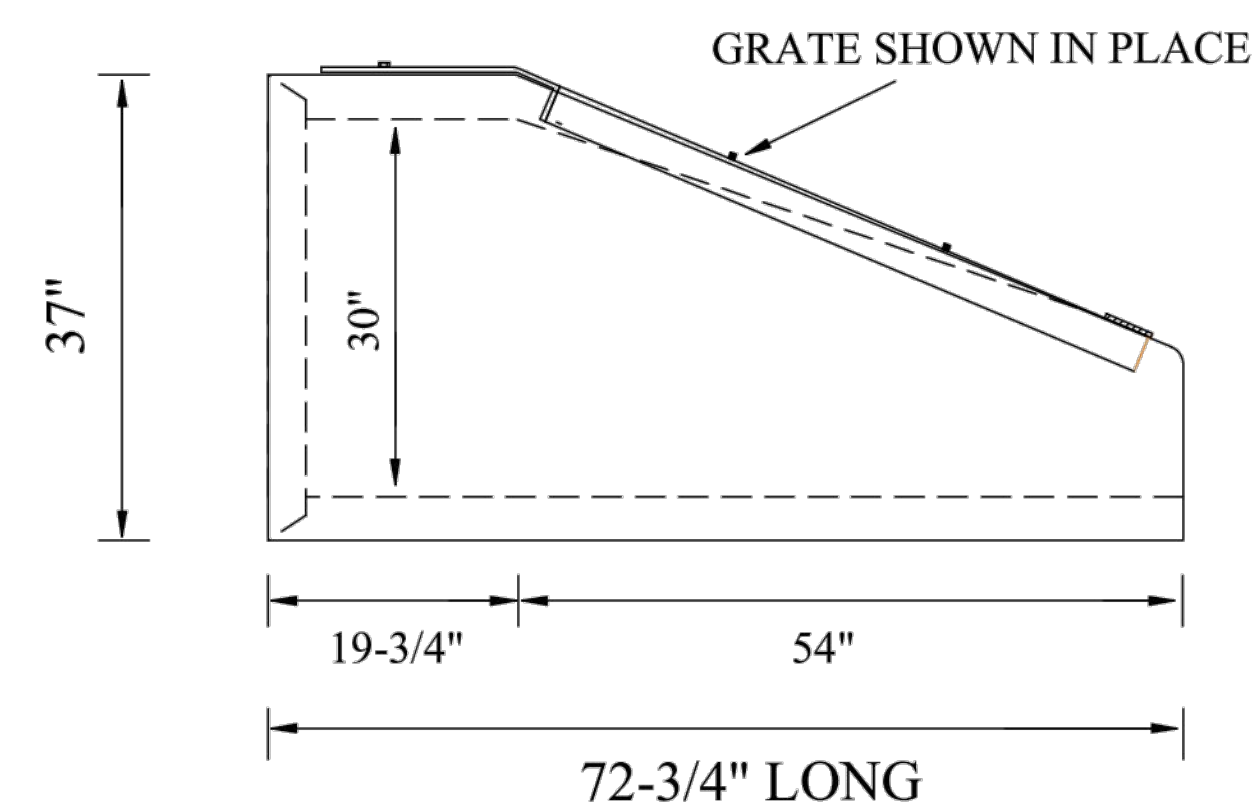
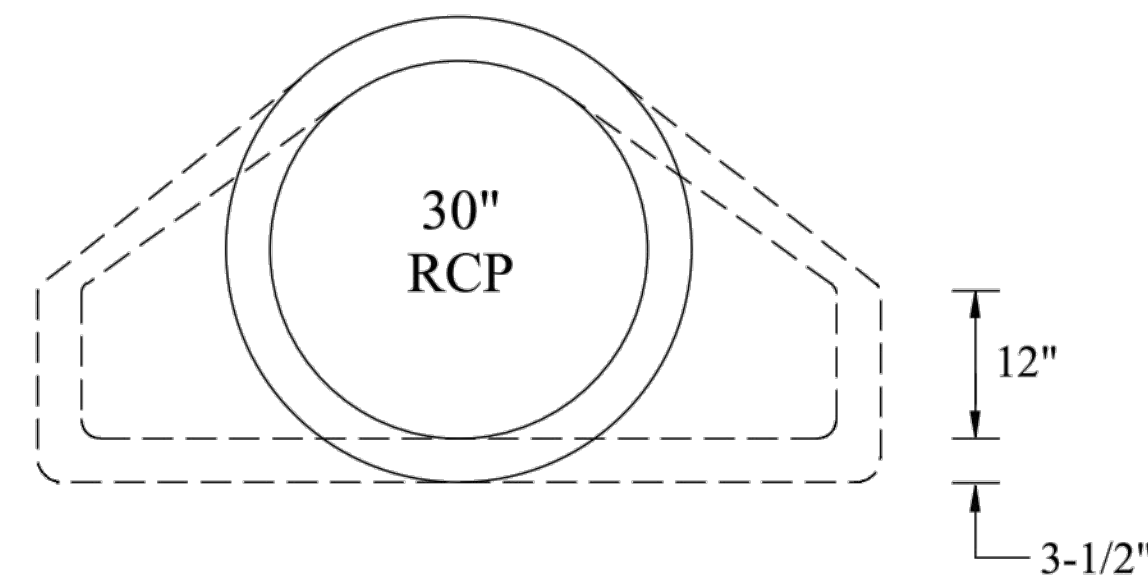
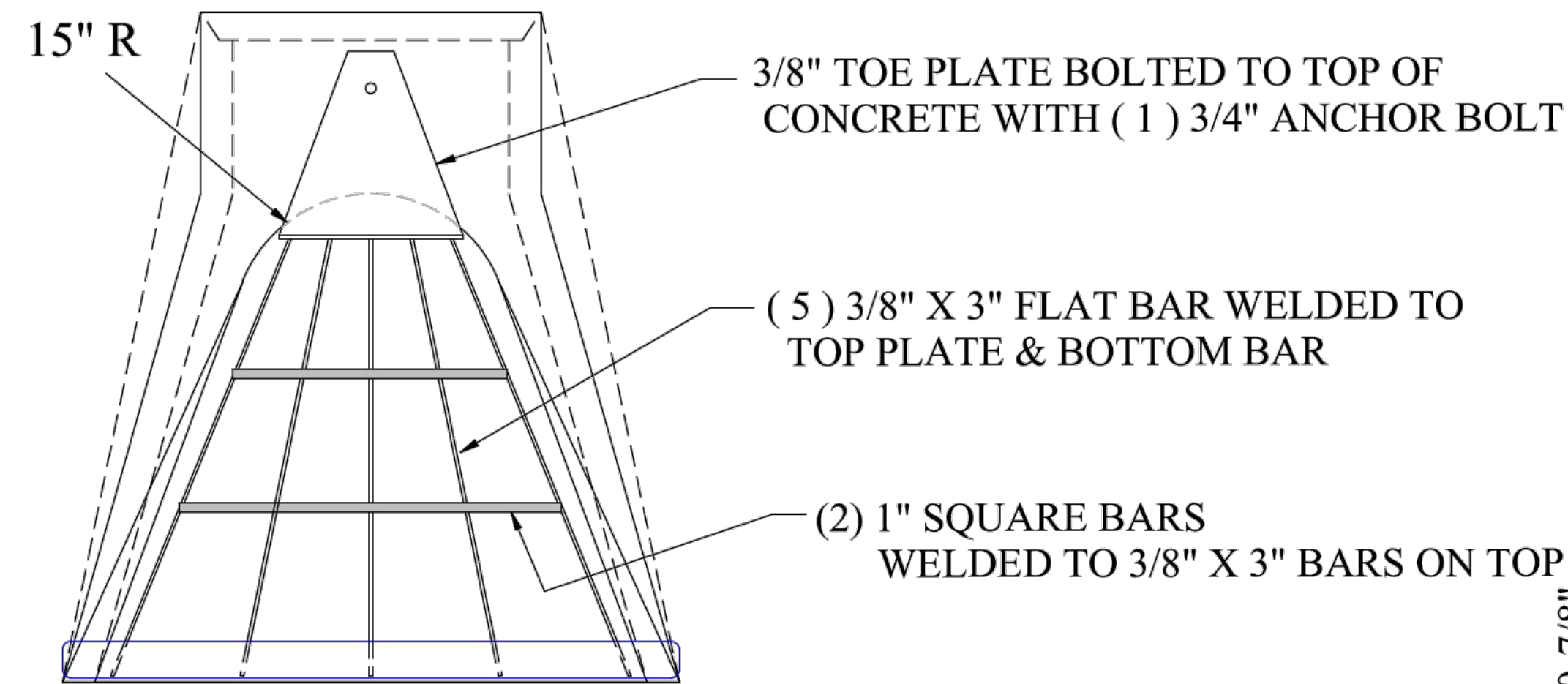
CITY ENGINEER		
Gary Janzen, P.E.		City Engineer
PROJECT NUMBER	OCA NUMBER	DATE
		04/14
CITY ENGINEER'S OFFICE		DESIGN
CITY HALL - SEVENTH FLOOR		Staff
455 NORTH MAIN STREET		DRAWN
WICHITA, KANSAS 67202-1620		Staff
(316) 268-4501		SHEET
		22 of 27

To: Wichita Concrete Pipe
 Attn: Jeff

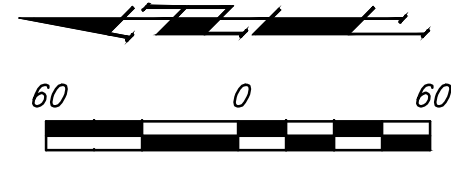
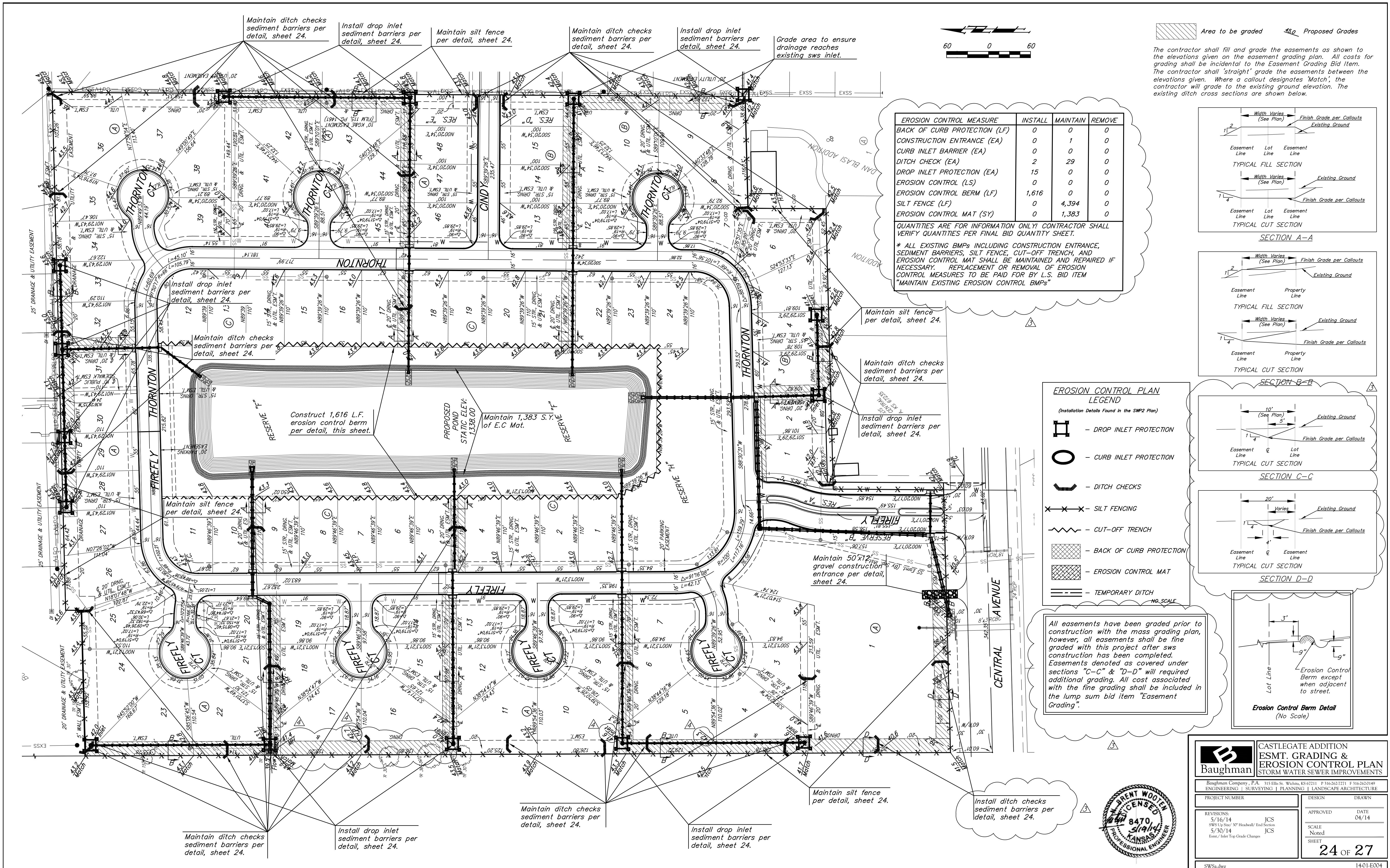
K & B Steel
 5-16-2014

Hot Dip Galvanized

30"
 ES GRATE



	CASTLEGATE ADDITION 30" End Section Grate Detail STORM WATER SEWER IMPROVEMENTS	
	<small>Baughman Company, P.A. 315 Ellis St., Wichita, KS 67211 P 316-262-7771 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE</small>	
PROJECT NUMBER	DESIGN	DRAWN
REVISIONS:	APPROVED	DATE 04/14
	SCALE Noted	
	SHEET	23 OF 27
<small>SWSs.dwg</small>		<small>14-01-E004</small>



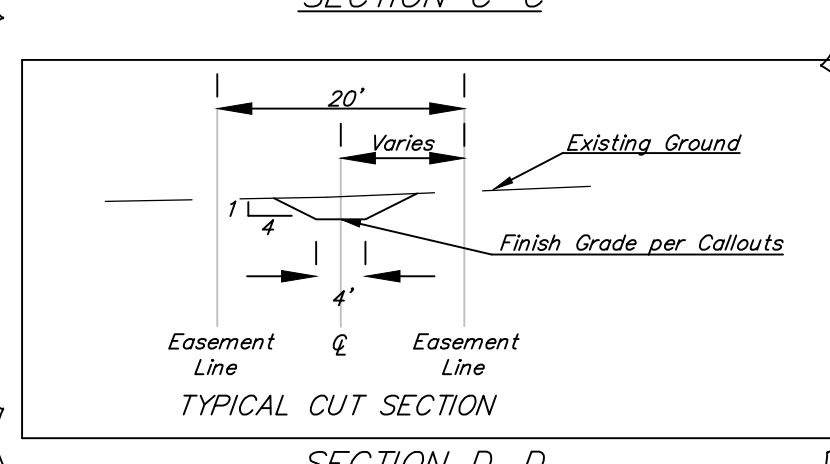
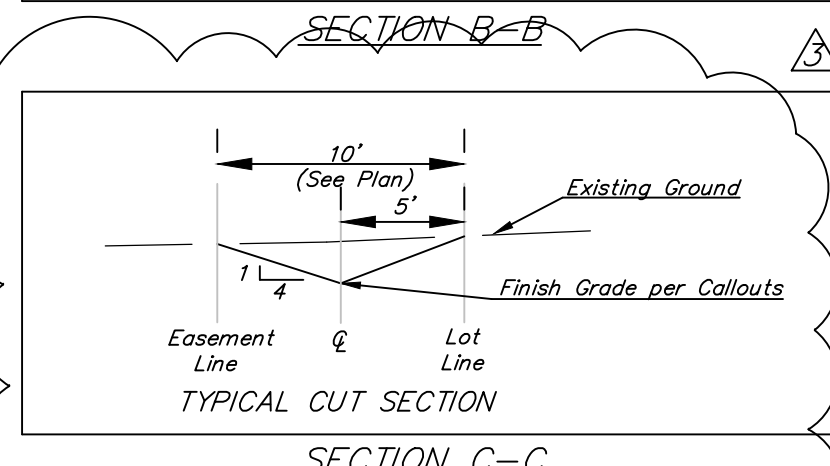
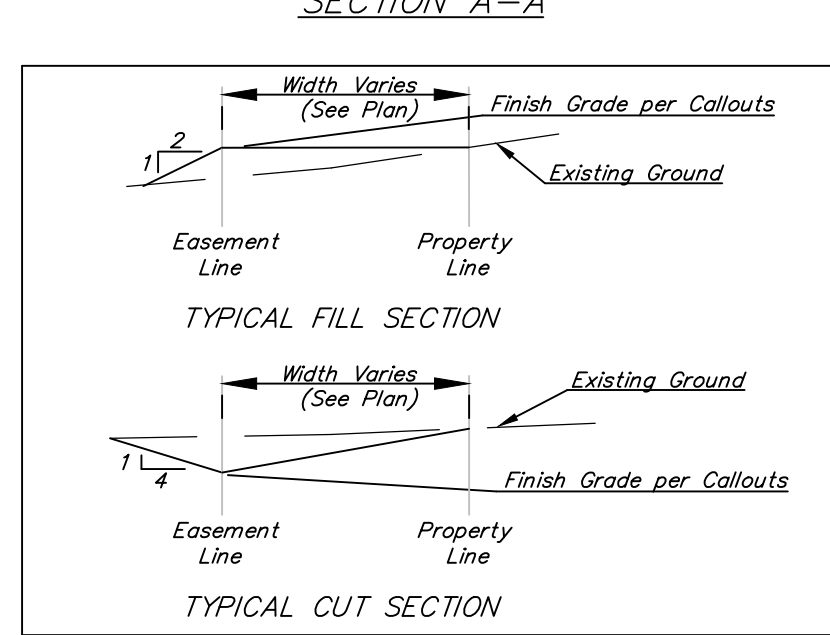
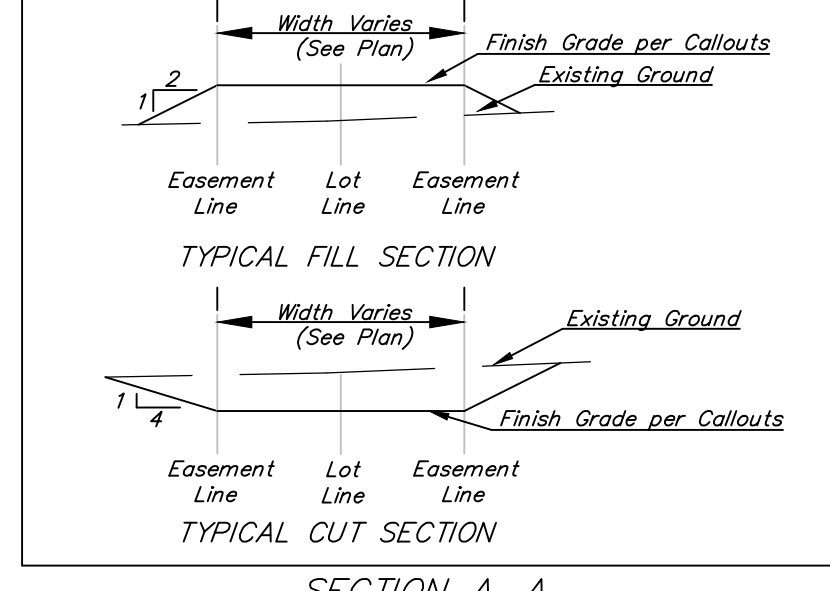
Area to be graded Proposed Grades

The contractor shall fill and grade the easements as shown to the elevations given on the easement grading plan. All costs for grading shall be incidental to the Easement Grading Bid Item. The contractor shall 'straight' grade the easements between the elevations given. Where a callout designates 'Match', the contractor will grade to the existing ground elevation. The existing ditch cross sections are shown below.

EROSION CONTROL MEASURE	INSTALL	MAINTAIN	REMOVE
BACK OF CURB PROTECTION (LF)	0	0	0
CONSTRUCTION ENTRANCE (EA)	0	1	0
CURB INLET BARRIER (EA)	0	0	0
DITCH CHECK (EA)	2	29	0
DROP INLET PROTECTION (EA)	15	0	0
EROSION CONTROL (LS)	0	0	0
EROSION CONTROL BERM (LF)	1,616	0	0
SILT FENCE (LF)	0	4,394	0
EROSION CONTROL MAT (SY)	0	1,383	0

QUANTITIES ARE FOR INFORMATION ONLY! CONTRACTOR SHALL VERIFY QUANTITIES PER FINAL BID QUANTITY SHEET.

* ALL EXISTING BMPs INCLUDING CONSTRUCTION ENTRANCE, SEDIMENT BARRIERS, SILT FENCE, CUT-OFF TRENCH, AND EROSION CONTROL MAT SHALL BE MAINTAINED AND REPAIRED IF NECESSARY. REPLACEMENT OR REMOVAL OF EROSION CONTROL MEASURES TO BE PAID FOR BY L.S. BID ITEM "MAINTAIN EXISTING EROSION CONTROL BMPs"

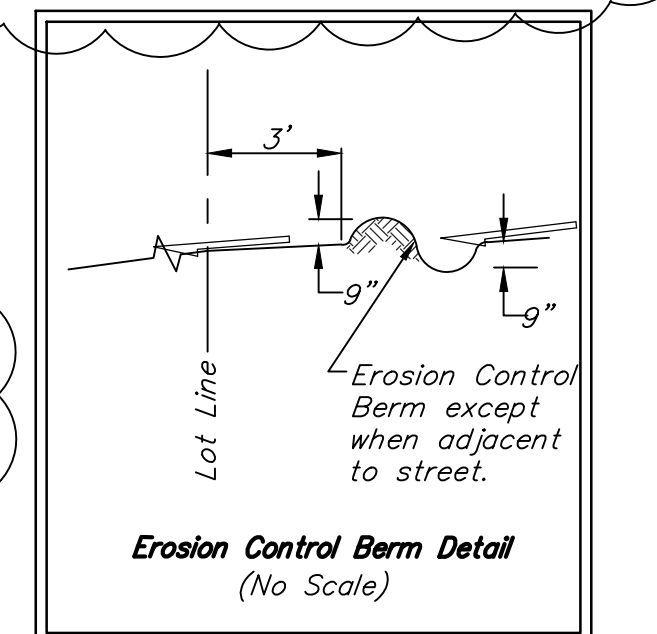


EROSION CONTROL PLAN LEGEND
(Installation Details Found in the SMP2 Plan)

- DROP INLET PROTECTION
- CURB INLET PROTECTION
- DITCH CHECKS
- SILT FENCING
- CUT-OFF TRENCH
- BACK OF CURB PROTECTION
- EROSION CONTROL MAT
- TEMPORARY DITCH

NO SCALE

All easements have been graded prior to construction with the mass grading plan, however, all easements shall be fine graded with this project after sws construction has been completed. Easements denoted as covered under sections "C-C" & "D-D" will require additional grading. All cost associated with the fine grading shall be included in the lump sum bid item "Easement Grading".



Baughman CASTLEGATE ADDITION
ESMT. GRADING &
EROSION CONTROL PLAN
STORM WATER SEWER IMPROVEMENTS

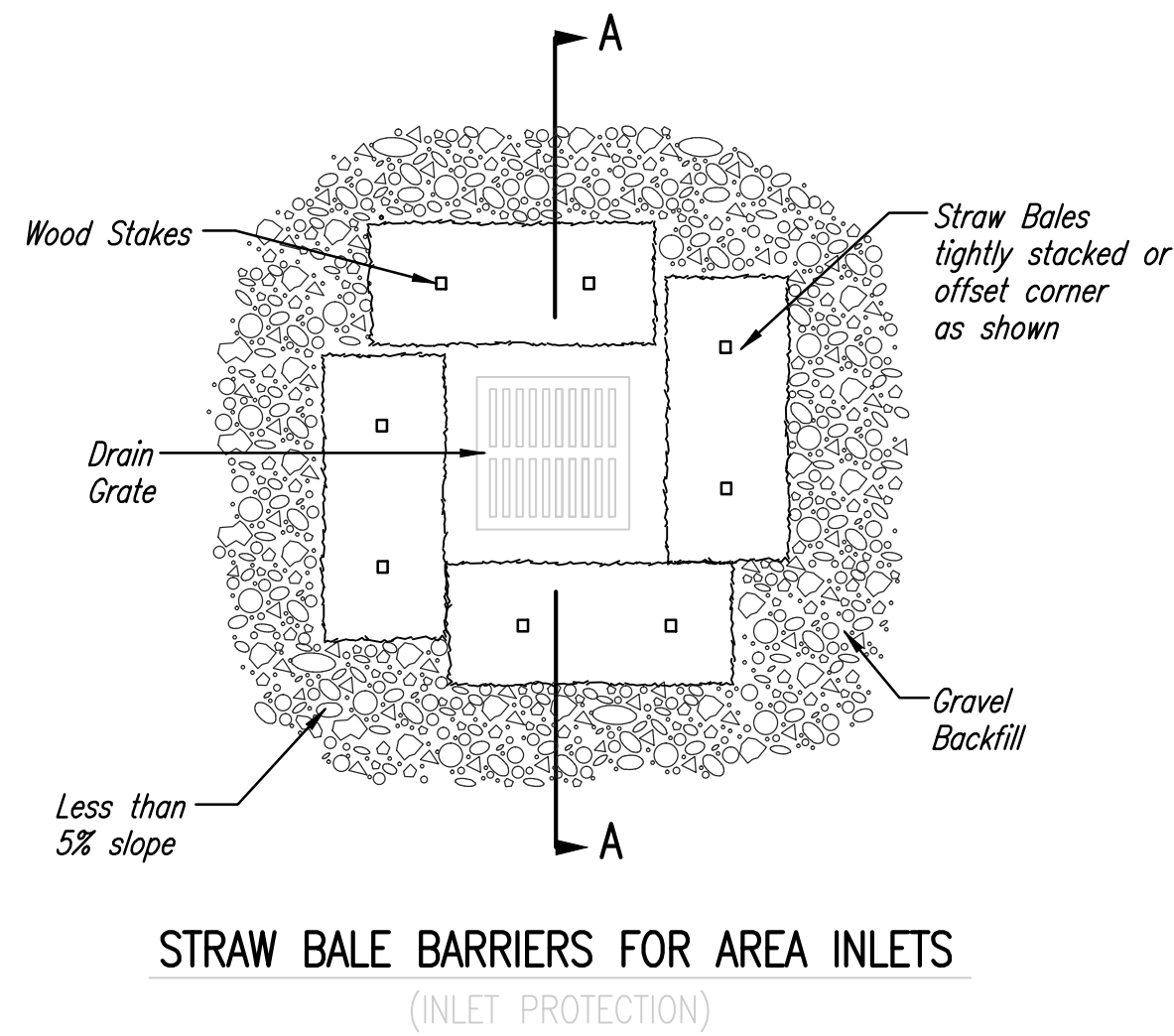
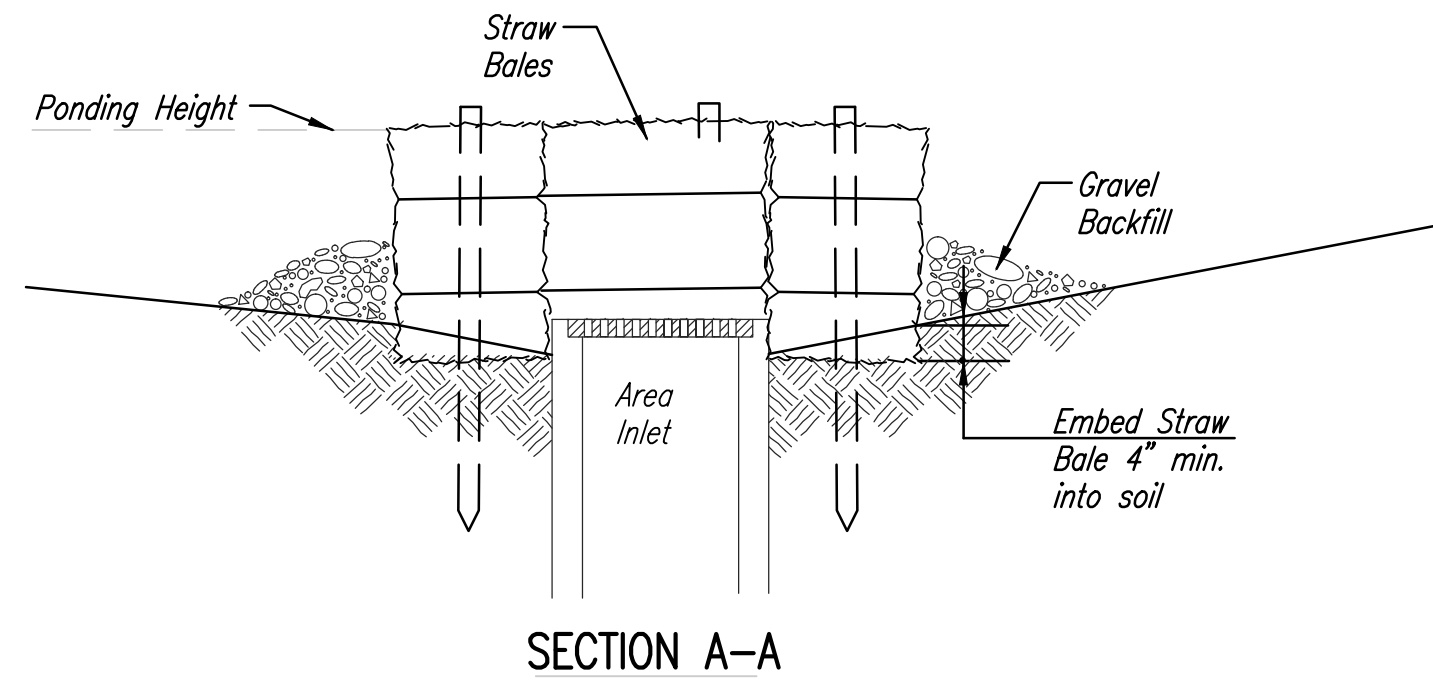
Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-263-2771 F 316-262-0149
ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

PROJECT NUMBER	DESIGN	DRAWN
REVISIONS:	APPROVED	DATE
5/16/14 JCS		04/14
SWS Up Size 30" Headwall/ End Section	SCALE	
5/30/14 JCS	Noted	
Issue/ Issue Top Grade Changes	SHEET	

24 OF 27

SWSs.dwg 14-01-E004





Material Specification:

Bale area inlet barriers should be constructed of wheat straw, oat straw, prairie hay, or bromegrass hay that is free of weeds declared noxious by the Kansas State Board of Agriculture. The stakes used to anchor the bales should be a hardwood material with the following minimum dimensions: 2" square (nominal) by 4' long. Twine should be used to bind bales. The use of wire binding is prohibited because it does not biodegrade readily.

Placement:

Bale area inlet barriers should be placed directly around the perimeter of a drop inlet. When a bale area inlet barrier is located near an inlet that has steep approach slopes, the storage capacity behind the barrier is drastically reduced. Timely removal of sediment must occur for a barrier to operate properly in this location.

Proper Installation Method:

Excavate a trench around the perimeter of the area inlet that is at least 4" deep by a bale's width wide. Place the bales in the trench, making sure that they are butted tightly. Some bales may need to be shortened to fit into the trench around the area inlet. Two stakes should be driven through each bale, approximately 6" to 8" in from the bale ends. Stakes should be driven at least 12" into the ground. Once all the bales have been installed and anchored, place the excavated soil against the receiving side of the barrier and compact it. The compacted soil should be no more than 3" to 4" deep. Note: When a bale area inlet barrier is placed in a shallow median ditch, make sure that the top of the barrier is not higher than the paved road. In this configuration, water may spread onto the roadway causing a hazardous condition.

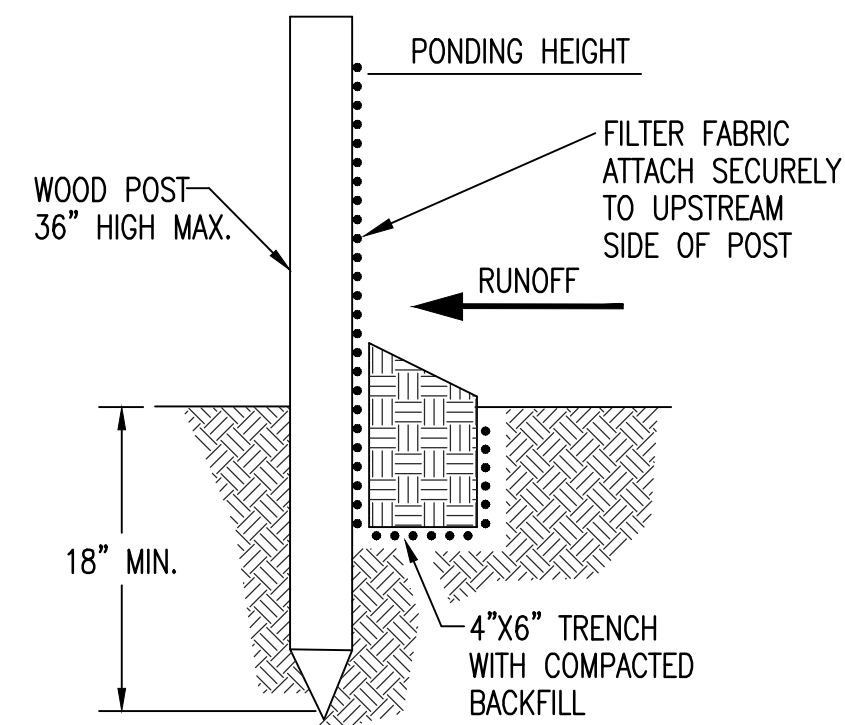
List of common placement installation mistakes to avoid:

Bales should be placed directly against the perimeter of the area inlet. This allows overtopping water to flow directly into the inlet instead of onto nearby soil causing scour. Bale area inlet barriers must be dug into the ground. Bales at ground level do not work because they allow water to flow under the barrier.

Inspection and Maintenance:

Bale area inlet barriers should be inspected every 7 days and within 24 hours of a rainfall 1/2" or more. The following is a list of questions that should be addressed during each inspection:

- Does water flow under the area inlet barrier?
- Does water flow through spaces between abutting bales?
- Are any bales dislodged?
- Are bales decomposing due to age and/or water damage?
- Does sediment need to be removed from behind the area inlet barrier?



SILT FENCE BARRIERS

MATERIAL SPECIFICATION:

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE POSTS USED TO SUPPORT THE SILT FENCE FABRIC SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. SILT FENCE FABRIC SHOULD BE ATTACHED TO THE WOODEN POSTS WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

PLACEMENT:

A SLOPE BARRIER SHOULD BE USED AT THE TOE OF A SLOPE WHEN A DITCH DOES NOT EXIST. THE SLOPE BARRIER SHOULD BE PLACED ON NEARLY LEVEL GROUND 5' TO 10' AWAY FROM THE TOE OF A SLOPE. THE BARRIER IS PLACED AWAY FROM THE TOE OF THE SLOPE TO PROVIDE ADEQUATE STORAGE FOR SETTLING OUT SEDIMENT. WHEN PRACTICABLE, SILT FENCE SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. SILT FENCE SLOPE BARRIERS CAN ALSO BE PLACED ALONG RIGHT-OF-WAY FENCE LINES TO KEEP SEDIMENT FROM CROSSING ONTO ADJACENT PROPERTY. WHEN PLACED IN THIS MANNER, THE SLOPE BARRIER WILL NOT LIKELY FOLLOW CONTOURS.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 6" DEEP BY 4" WIDE. MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC ON THE DOWNSLOPE SIDE OF THE TRENCH. PLACE THE EDGE OF THE FABRIC IN THE TRENCH STARTING AT THE TOP UPSLOPE EDGE. LINE ALL THREE SIDES OF THE TRENCH WITH THE FABRIC. BACKFILL OVER THE FABRIC IN THE TRENCH WITH THE EXCAVATED SOIL AND COMPACT. AFTER FILLING THE TRENCH, APPROXIMATELY 24" TO 36" OF SILT-FENCE FABRIC SHOULD REMAIN EXPOSED. LAY THE EXPOSED SILT FENCE UPSLOPE OF THE TRENCH TO CLEAR AN AREA FOR DRIVING IN THE POSTS. JUST DOWNSLOPE OF THE TRENCH, DRIVE POSTS INTO THE GROUND TO A DEPTH OF AT LEAST 18". PLACE POSTS NO MORE THAN 4' APART. ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

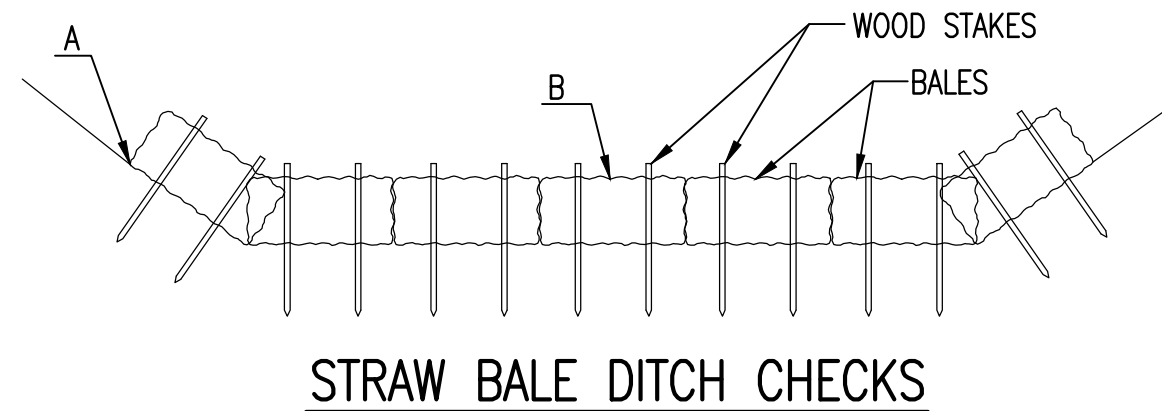
WHEN PRACTICABLE, DO NOT PLACE SILT FENCE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. WHEN THE FLOW CONCENTRATES, IT OVERTOPS THE BARRIER AND THE SILT FENCE SLOPE BARRIER QUICKLY DETERIORATES. DO NOT PLACE SILT-FENCE POSTS ON THE UPSLOPE SIDE OF THE SILT FENCE FABRIC. IN THIS CONFIGURATION, THE FORCE OF THE WATER IS NOT RESTRICTED BY THE POSTS, BUT ONLY BY THE STAPLES (WIRE, ZIP TIES, NAILS, ETC.). THE SILT FENCE WILL RIP AND FAIL. DO NOT PLACE SILT FENCE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT SUFFICIENTLY ANCHORED, IT WILL WASH OUT. SILT FENCE SLOPE BARRIERS MUST BE DUG INTO THE GROUND—SILT FENCE AT GROUND LEVEL DOES NOT WORK BECAUSE WATER WILL FLOW UNDERNEATH.

INSPECTION AND MAINTENANCE:

SILT FENCE SLOPE BARRIERS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- ARE THERE ANY POINTS ALONG THE SLOPE BARRIER WHERE WATER IS CONCENTRATING?
- DOES WATER FLOW UNDER THE SLOPE BARRIER?
- DO THE SILT FENCES SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?

NOTE: POINT A MUST BE HIGHER THAN POINT B SO THAT WATER FLOWS OVER THE BALES AND NOT AROUND THEM.



STRAW BALE DITCH CHECKS

MATERIAL SPECIFICATION:

BALE DITCH CHECKS MAY BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE. THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG. OPTIONAL: THE DOWNSTREAM SCOUR APRON SHOULD BE CONSTRUCTED OF A DOUBLE-NETTED STRAW EROSION-CONTROL BLANKET AT LEAST 6' WIDE. OPTIONAL: THE METAL LANDSCAPE STAPLES USED TO ANCHOR THE EROSION-CONTROL BLANKET SHOULD BE AT LEAST 8" LONG.

PLACEMENT:

BALE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. THE DITCH CHECK SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE CHECK IS HIGHER THAN THE TOP OF THE LOWEST CENTER BALE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK. STRAW BALE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD. BALES SHOULD BE PLACED IN DITCHES WITH SLOPES OF 6% OR LESS. FOR SLOPES STEEPER THAN 6%, ROCK CHECKS SHOULD BE USED. THE FOLLOWING TABLE PROVIDES CHECK SPACING FOR A GIVEN DITCH GRADE:

DITCH GRADE (%)	CHECK SPACING (FEET)
0.5	200
1.0	200
2.0	100
3.0	65
4.0	50
5.0	40
6.0	30

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH PERPENDICULAR TO THE DITCH FLOWLINE THAT IS 4" DEEP AND A BALE'S WIDTH WIDE. EXTEND THE TRENCH IN A STRAIGHT LINE ALONG THE ENTIRE LENGTH OF THE PROPOSED DITCH CHECK. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH—IT WILL BE USED LATER. OPTIONAL: ON THE DOWNSTREAM SIDE OF THE TRENCH, ROLL OUT A LENGTH OF EROSION-CONTROL BLANKET (SCOUR APRON) EQUAL TO THE LENGTH OF THE TRENCH. PLACE THE UPSLOPE EDGE OF THE EROSION-CONTROL BLANKET ALONG THE BOTTOM UPSLOPE EDGE OF THE TRENCH. THE EROSION CONTROL BLANKET SHOULD BE ANCHORED IN THE TRENCH WITH ONE ROW OF 8" LANDSCAPE STAPLES PLACED ON 18" CENTERS. THE REMAINDER OF THE EROSION-CONTROL BLANKET (THE PORTION THAT IS NOT LYING IN THE TRENCH) WILL SERVE AS THE DOWNSTREAM SCOUR APRON. THIS SECTION OF THE BLANKET SHOULD BE ANCHORED TO THE GROUND WITH 8" LANDSCAPE STAPLES PLACED AROUND THE PERIMETER OF THE BLANKET ON 18" CENTERS. THE REMAINDER OF THE BLANKET SHOULD BE ANCHORED USING TWO EVENLY SPACED ROWS OF 8" LANDSCAPE STAPLES ON 18" CENTERS PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE ALONG THE CENTERLINE OF THE DITCH CHECK, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND. ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE UPSLOPE SIDE OF THE CHECK AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP AND EXTEND UPSTREAM NO MORE THAN 24".

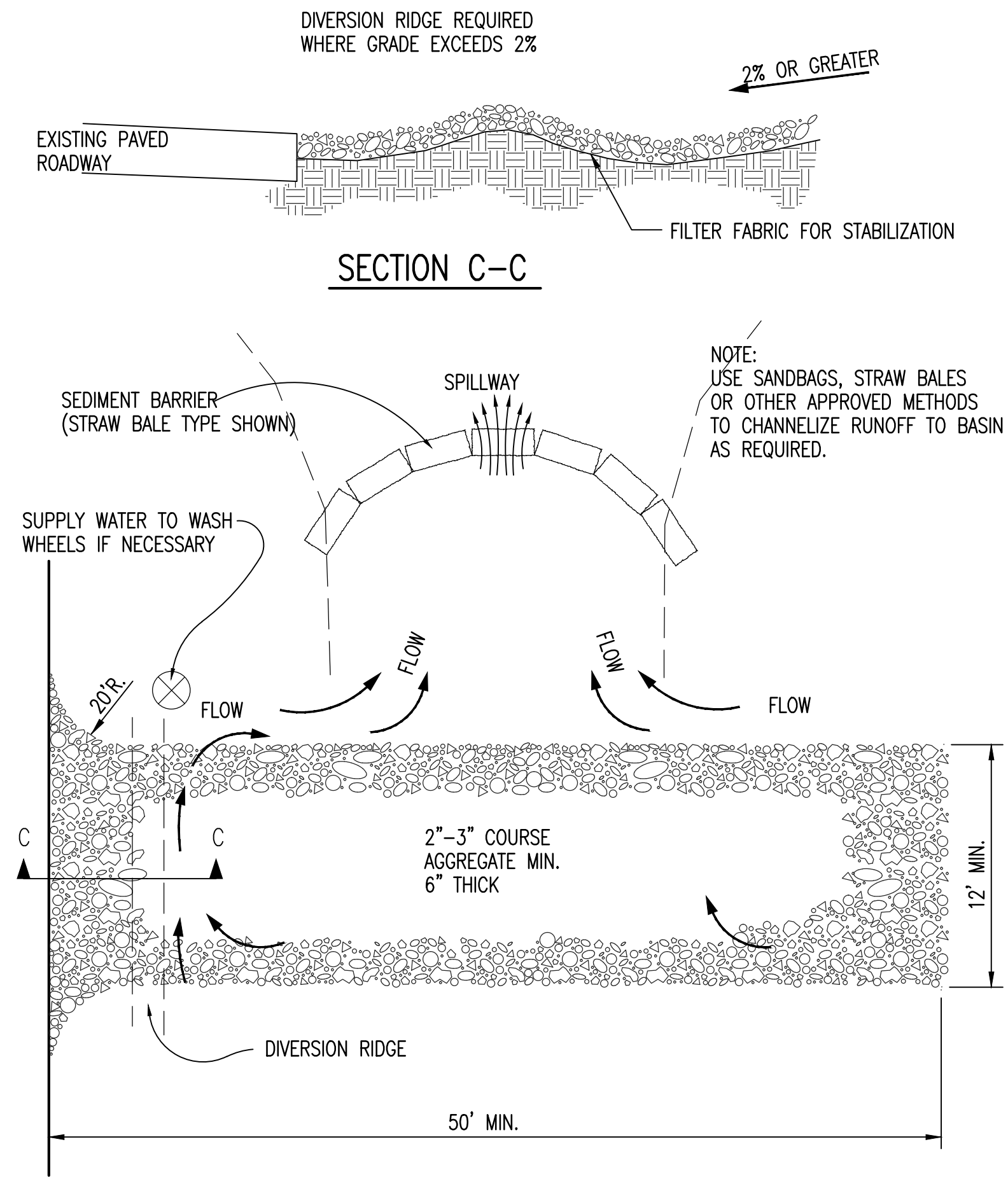
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

DO NOT PLACE A BALE DITCH CHECK DIRECTLY IN FRONT OF A CULVERT OUTLET. IT WILL NOT STAND UP TO THE CONCENTRATED FLOW. DO NOT PLACE BALE DITCH CHECKS IN DITCHES THAT WILL LIKELY EXPERIENCE HIGH FLOWS. THEY WILL NOT STAND UP TO CONCENTRATED FLOW. FOLLOW PRESCRIBED DITCH-CHECK SPACING GUIDELINES. IF SPACING GUIDELINES ARE EXCEEDED, EROSION WILL OCCUR BETWEEN THE DITCH CHECKS. DO NOT ALLOW WATER TO FLOW AROUND THE DITCH CHECK. MAKE SURE THAT THE DITCH CHECK IS LONG ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE CHECK IS HIGHER THAN THE TOP OF THE LOWEST CENTER BALE. DO NOT PLACE BALE DITCH CHECKS IN CHANNELS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE CHECK IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT. BALE DITCH CHECKS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE CHECK.

INSPECTION AND MAINTENANCE:

BALE DITCH CHECKS SHOULD BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF A RAINFALL OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

- DOES WATER FLOW AROUND THE DITCH CHECK?
- DOES WATER FLOW UNDER THE DITCH CHECK?
- DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
- ARE ANY BALES AND/OR SCOUR APRONS (OPTIONAL) DISLODGED?
- ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE DITCH CHECK?



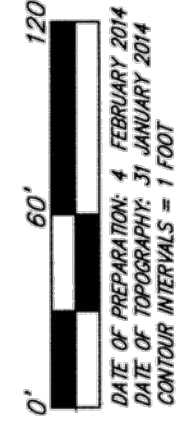
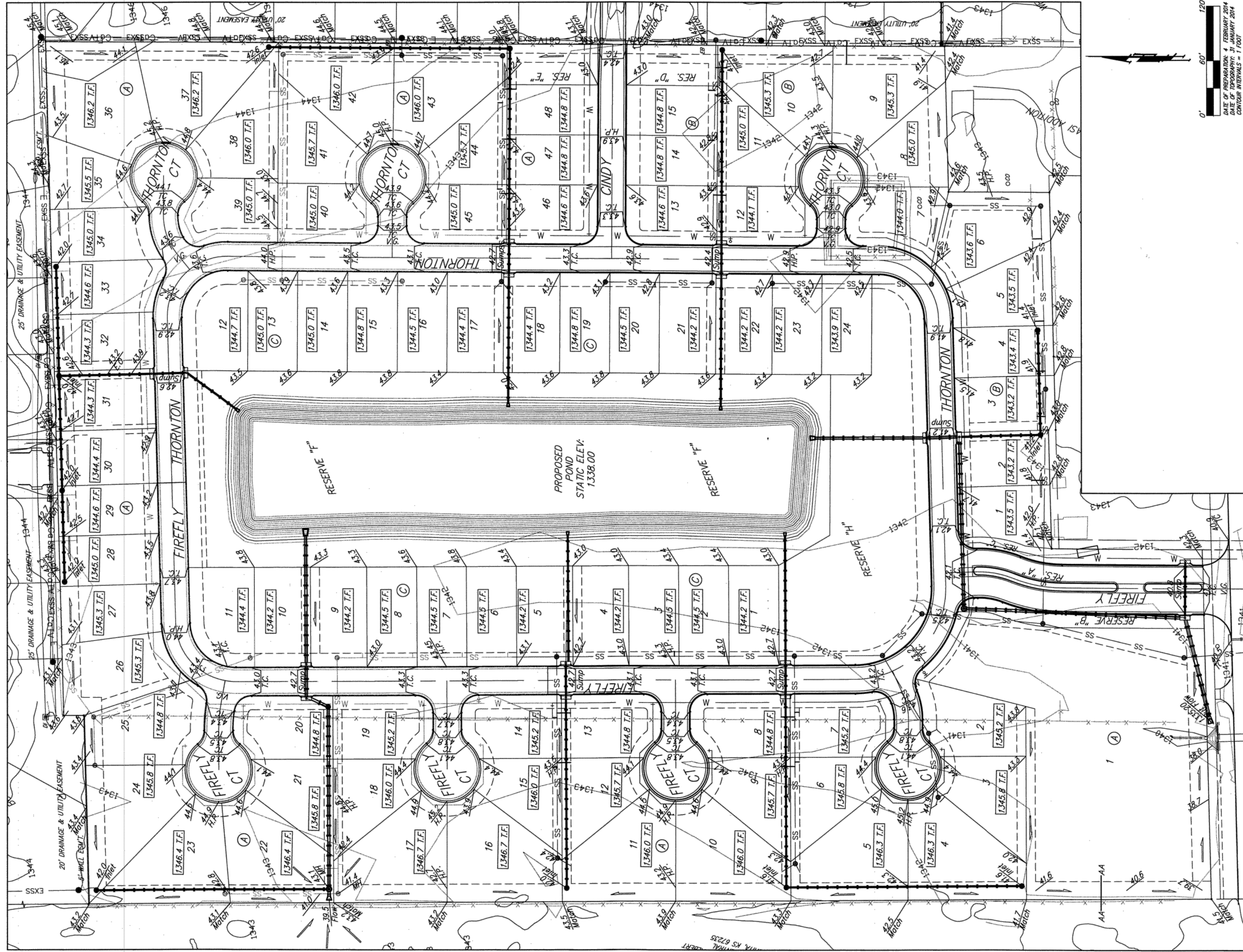
STABILIZED CONSTRUCTION ENTRANCE

GENERAL NOTES

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
4. DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.

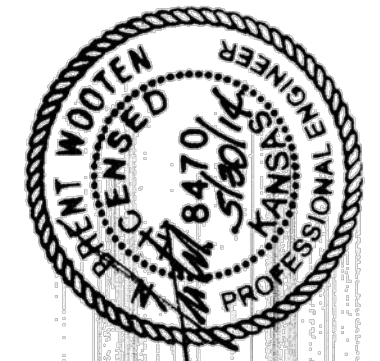
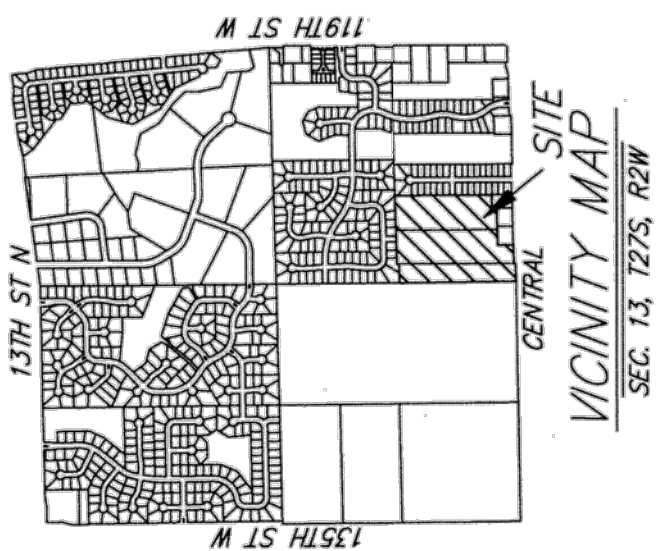


CASTLEGATE ADDITION	
EROSION CONTROL DETAILS	
STORM WATER SEWER IMPROVEMENTS	
<small>Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 F 316-343-7771 F 316-262-0149 ENGINEERING SURVEYING PLANNING LANDSCAPE ARCHITECTURE</small>	
PROJECT NUMBER	DESIGN DRAWN
REVISIONS:	APPROVED DATE 04/14
	SCALE Noted
	SHEET 25 OF 27
<small>E:\Projects\Castlegate Addition_13-12-PO08\Engineering\Phase 1\SWs_14401-8004.dwg</small>	

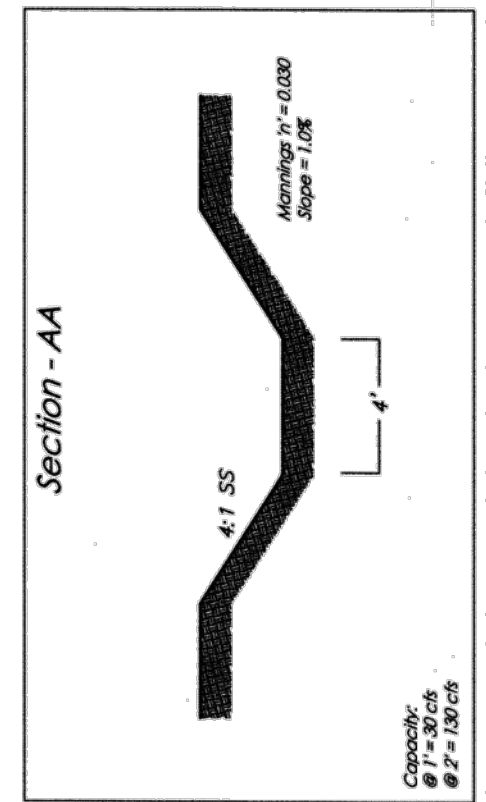


NOTES:

1. PROPOSED TOP OF FOUNDATION ELEVATIONS ARE SHOWN ON PLANS. CONTRACTOR TO SET FINISHED FLOOR AND GARAGE FLOOR ELEVATIONS. ALL STREET ELEVATIONS SHOWN ON PLANS ARE FOR TOP OF CURB (FULL-HEIGHT).
2. THIS GRADING PLAN IS DESIGNED WITH SLAB FOUNDATIONS. ELEVATIONS SHOWN AS XX.X T.F. DEPICT SLAB FOUNDATION STRUCTURES.
3. ALL LOTS SHALL MEET MINIMUM PAD REQUIREMENT AS SHOWN ON THE RECORDED PLAN.
4. LOT DIMENSIONS HAVE BEEN OMITTED ON THIS PLAN. REFER TO THE RECORDED PLAT FOR FINAL DIMENSION, EASEMENT, & BUILDING SETBACK INFORMATION.
5. A DRAINAGE PLAN HAS BEEN DEVELOPED FOR THIS SUBDIVISION AND IS ON FILE WITH THE CITY OF WICHITA, KANSAS. DRAINAGE INTENT SHALL REMAIN AS DEPICTED OR AS MODIFIED WITH THE APPROVAL OF THE CITY ENGINEER OF THE CITY OF WICHITA, KANSAS. NO OBSTRUCTIONS WHICH IMPED THE FLOW OF THIS DRAINAGE PLAN SHALL BE ALLOWED.
6. ALL ELEVATIONS ARE SHOWN IN NAVD 88 DATUM.
7. ALL LOTS WITHIN CASTLEGATE SHALL HAVE A 5' FOOT INTERIOR SIDEYARD SETBACK.



TYPICAL DETAIL - PROPOSED CHANNEL



- Legend
- Sanitary Sewer
 - Storm Water Sewer
 - Water Line
 - Utility Pedestals
 - Existing Contour
 - Existing Fence

NO SCALE

REVISIONS
REV. DESCRIPTION
REV. DESCRIPTION
REV. DESCRIPTION

SHEET 1 OF 1

CASTLEGATE ADDITION
MASTER GRADING PLAN

Baughman Company, P.A.
1315 W. 15th St., Suite 101
Wichita, KS 67203
Tel: 316.262.2211 Fax: 316.262.0409
www.baughmanpa.com
Professional Engineer License No. 11452
Professional Engineer License No. 11452
Professional Engineer License No. 11452

MINIMUM BUILDING PAD ELEVATIONS FOR LOWEST OPENING TO THE STRUCTURES	LOT	BLOCK	ELEVATION
	1-24	C	1340.0