

# GENERAL NOTES:

1. Contractor will be required to provide notice to utility companies a minimum of forty-eight (48) 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
- Aquila 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 "Maintain Existing BMP's."

8. All areas disturbed during construction shall be seeded as follows (Temporary Seeding):

Seed: Rye grass (PLS)--5 lbs./1000 Sq. Ft.

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

9. Borrow material available offsite at existing excavation pit near 55th & Clifton.

10. The Developer for this project is Jay Russell (316) 722-2417.

### Construction Phasing:

Clear, Fill, & Compact the following lots first:  
1-6, A  
31-34, B

The remaining lots and streets may be filled in order to be determined by the Contractor.

### Storm Water Certification:

These construction plans were prepared in accordance with the current Storm Water Management Regulations as set forth in the City of Wichita's Storm Water Management Ordinance 16.32 and the policies/guidelines presented in the Wichita/Sedgwick County Storm Water Manual.

Disturbed Area = 17.3 ac.  
Water Quality Treatment: Provided by Snouts  
Downstream Channel Protection: N/A due to discharge into Arkansas River.

## BENCHMARKS

Chiseled square on top of catch basin, 43.5' N. & 20.4' W. of the northwest corner of Lot 24, Block B, Vassar Addition.  
Elev. = 1259.55 NGVD29

Chiseled cross on top of catch basin, 48.2' N. & 41.2' W. of the northeast corner of Lot 37, Block B, Vassar Addition.  
Elev. = 1258.46 NGVD29

Chiseled cross on walk, most easterly corner, (block corner), Lot 4, Block D, Clifton Cove Addition, 35.2' W. & 8.5' S. of the northwest corner, Lot 20, Block B, Vassar Addition.  
Elev. = 1258.62 NGVD29

### EARTH WORK TOTALS (Unadjusted)

	C.Y. EXCAVATION	C.Y. FILL
Total Mass Grading	11,961	33,301

Earthwork Quantities reflect the best available topography. The Contractor shall satisfy himself with the earthwork quantities as bid for L.S. bid item "Grading, Mass" prior to bidding. No additional payments or change orders for earthwork will be accepted.

# STORMWATER SEWER #704

to serve

# VASSAR ADDITION

## CITY OF WICHITA, KANSAS

Gary Janzen, P.E. City Engineer

Project Number

468-85091

OCA Number

751544

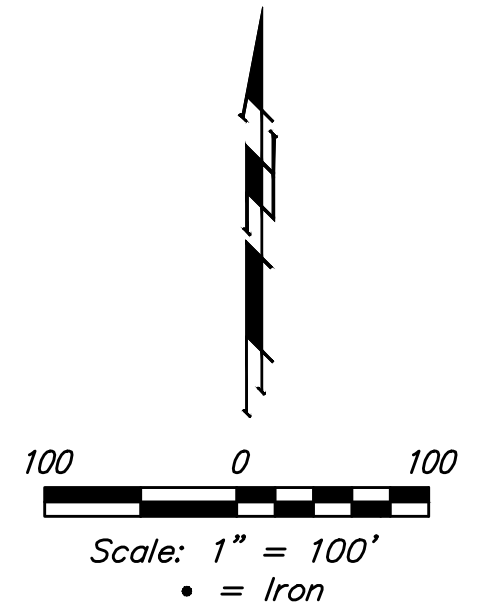
Dondlinger & Sons - Contractor

J. Wagner - City of Wichita, Field Project Engineer

M. Thom - City of Wichita, Inspector

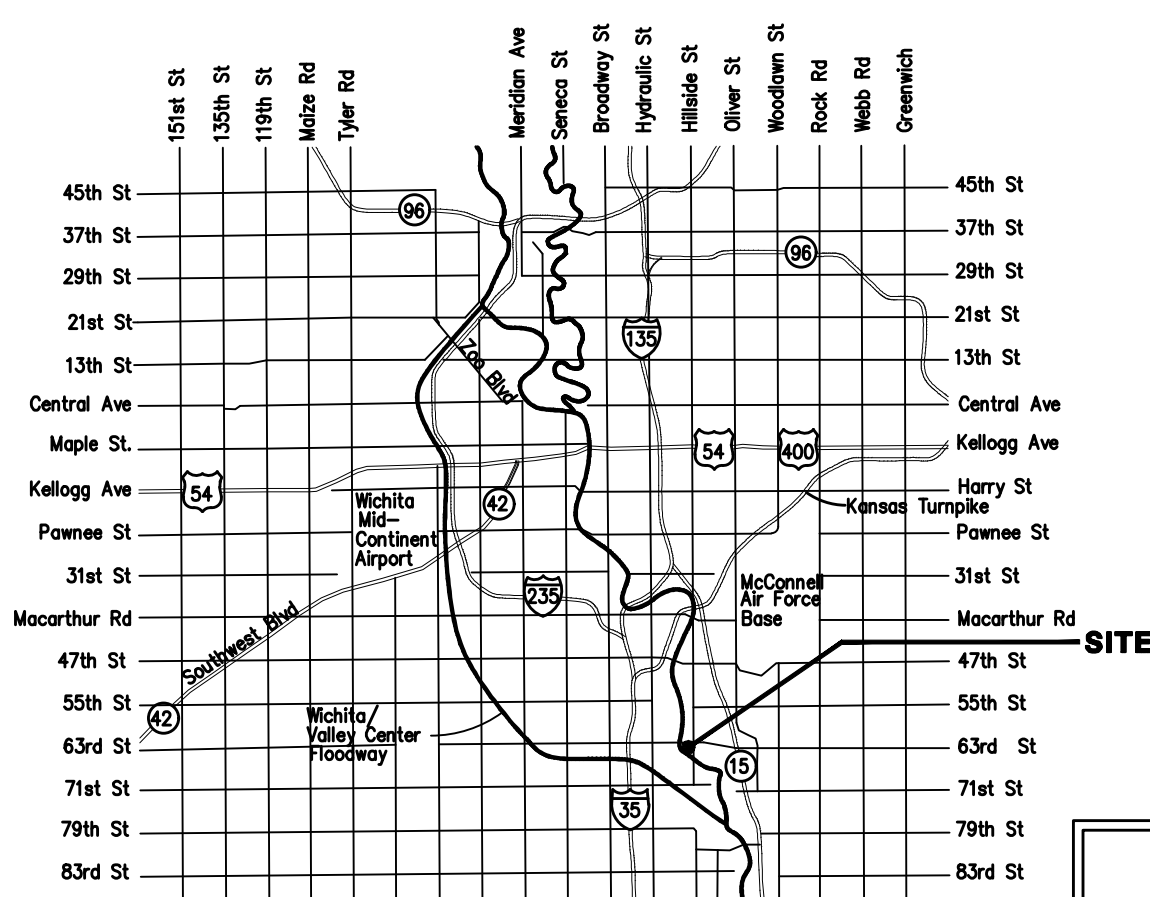
As-built

Final Acceptance Date: 12/05/2016

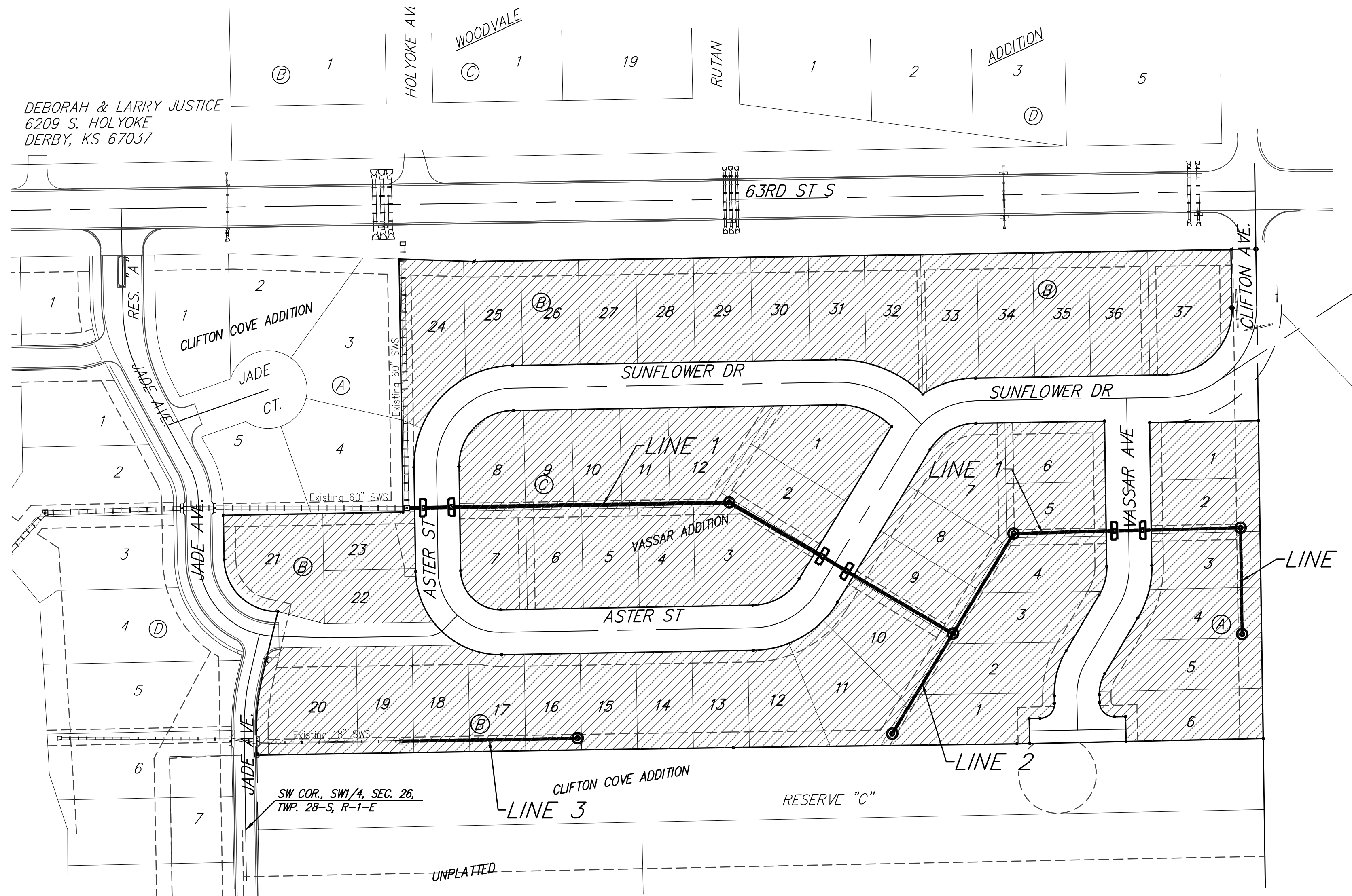


## SHEET INDEX

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## Vicinity Map



## BENEFIT DISTRICT

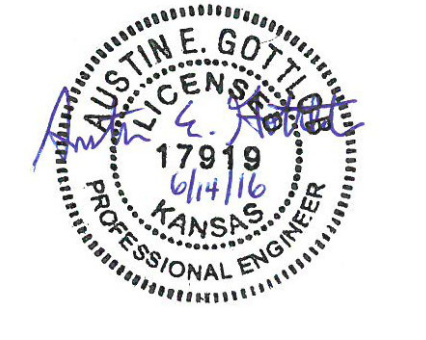
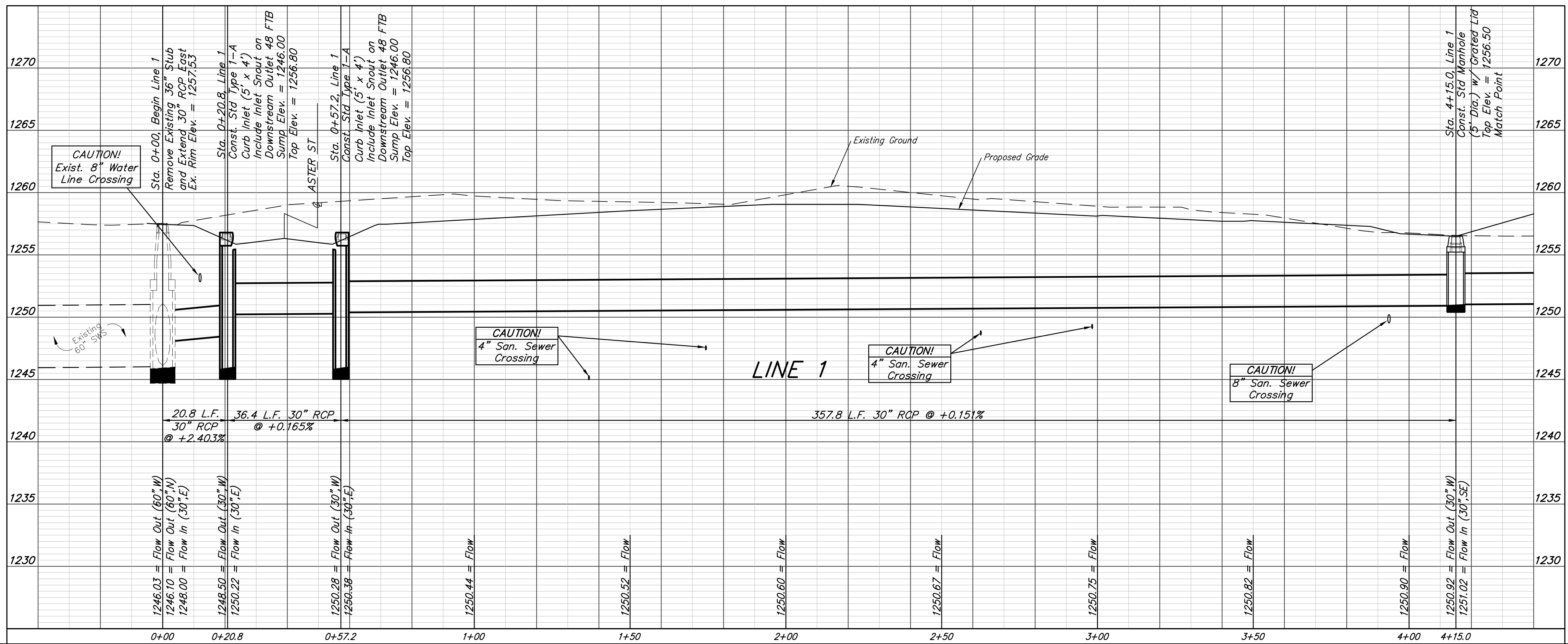
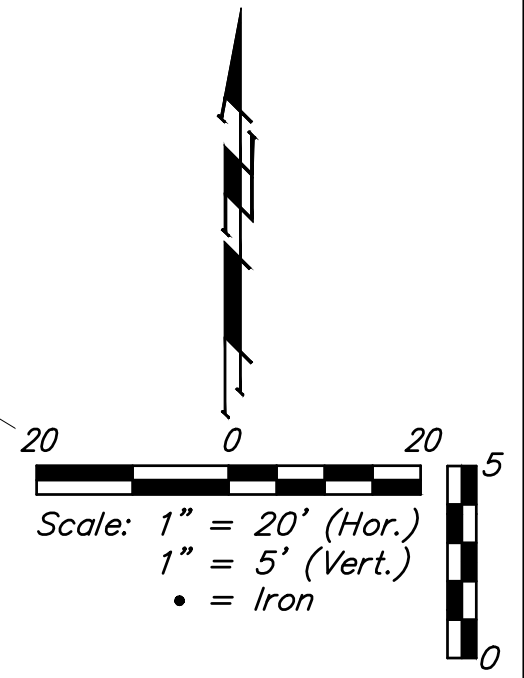
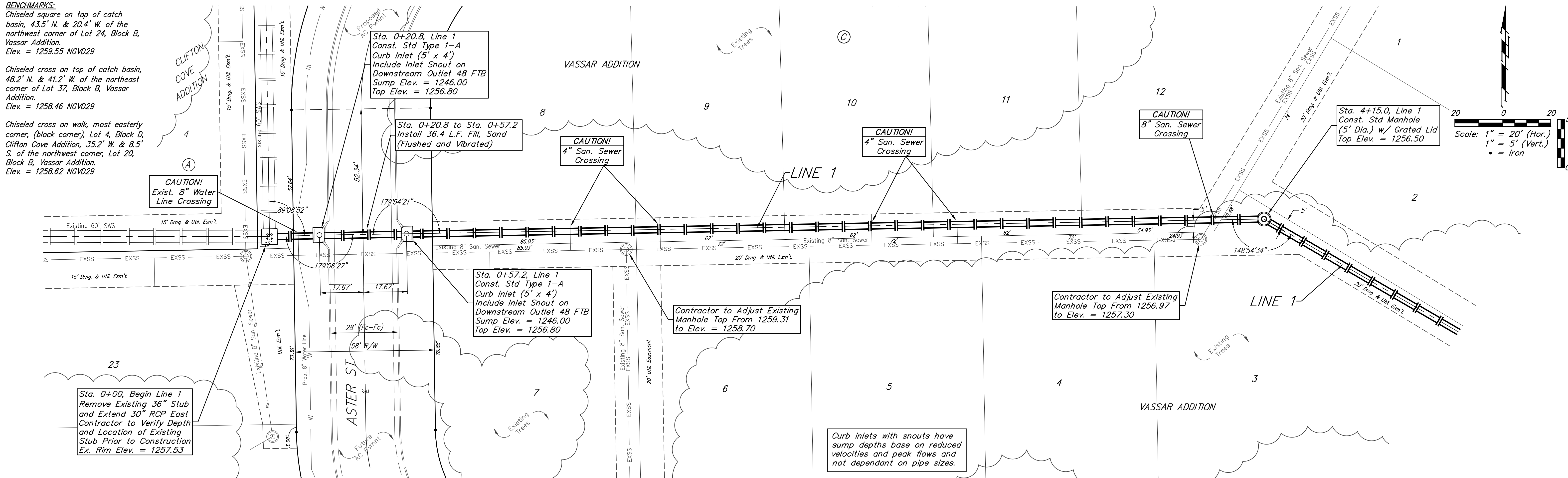


Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149  
ENGINEERING | SURVEYING | PLANNING | LANDSCAPE ARCHITECTURE

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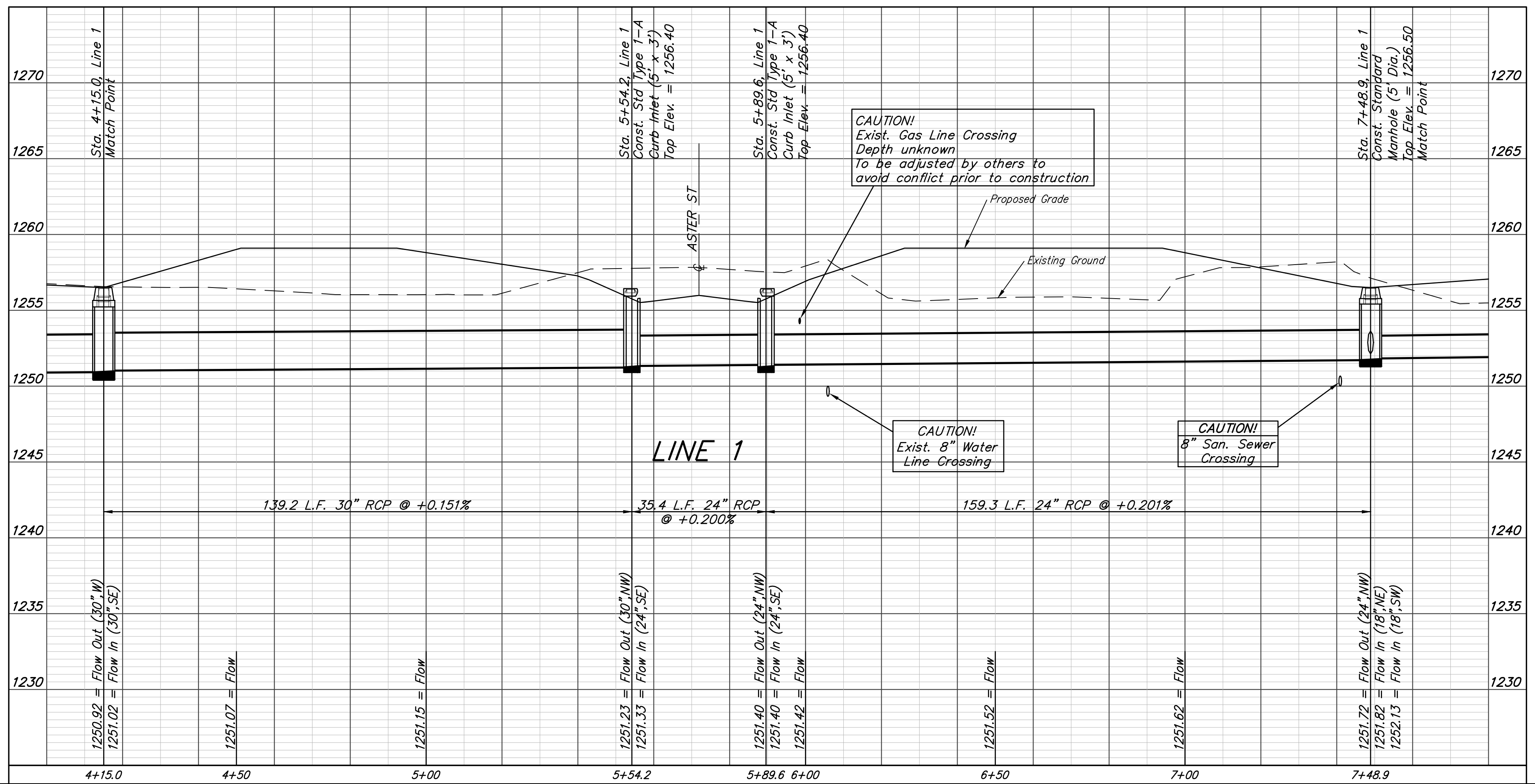
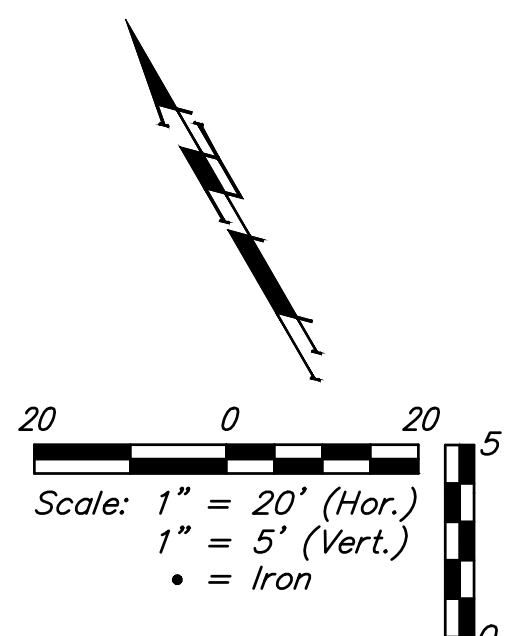
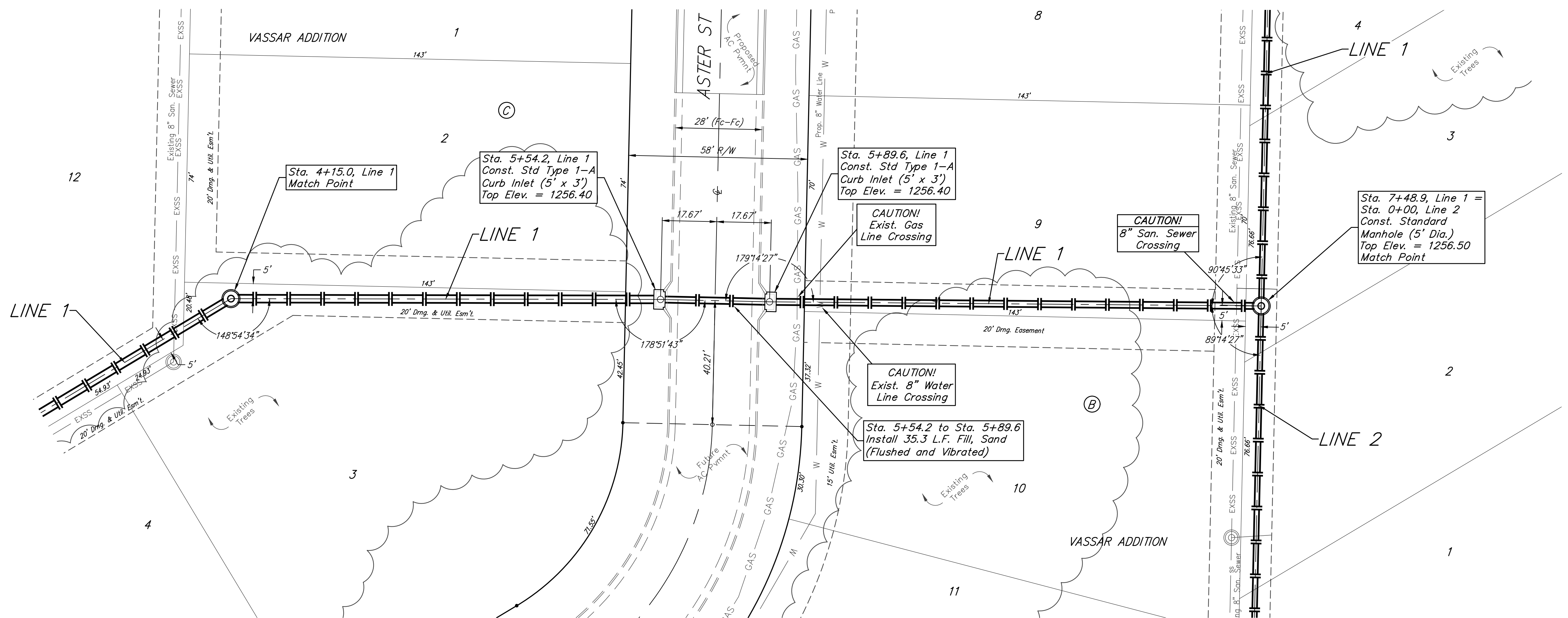


<b>Baughman</b>		Vassar Addition	
<b>LINE 1</b>		Stormwater Sewer #704	
Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149 ENGINEERING   SURVEYING   PLANNING   LANDSCAPE ARCHITECTURE			
PROJECT NUMBER 468-85091	DESIGN AEG	DRAWN JAK	DATE 6/14/16
REVISIONS:	APPROVED	SCALE Noted	SHEET
		<b>2 OF 19</b>	

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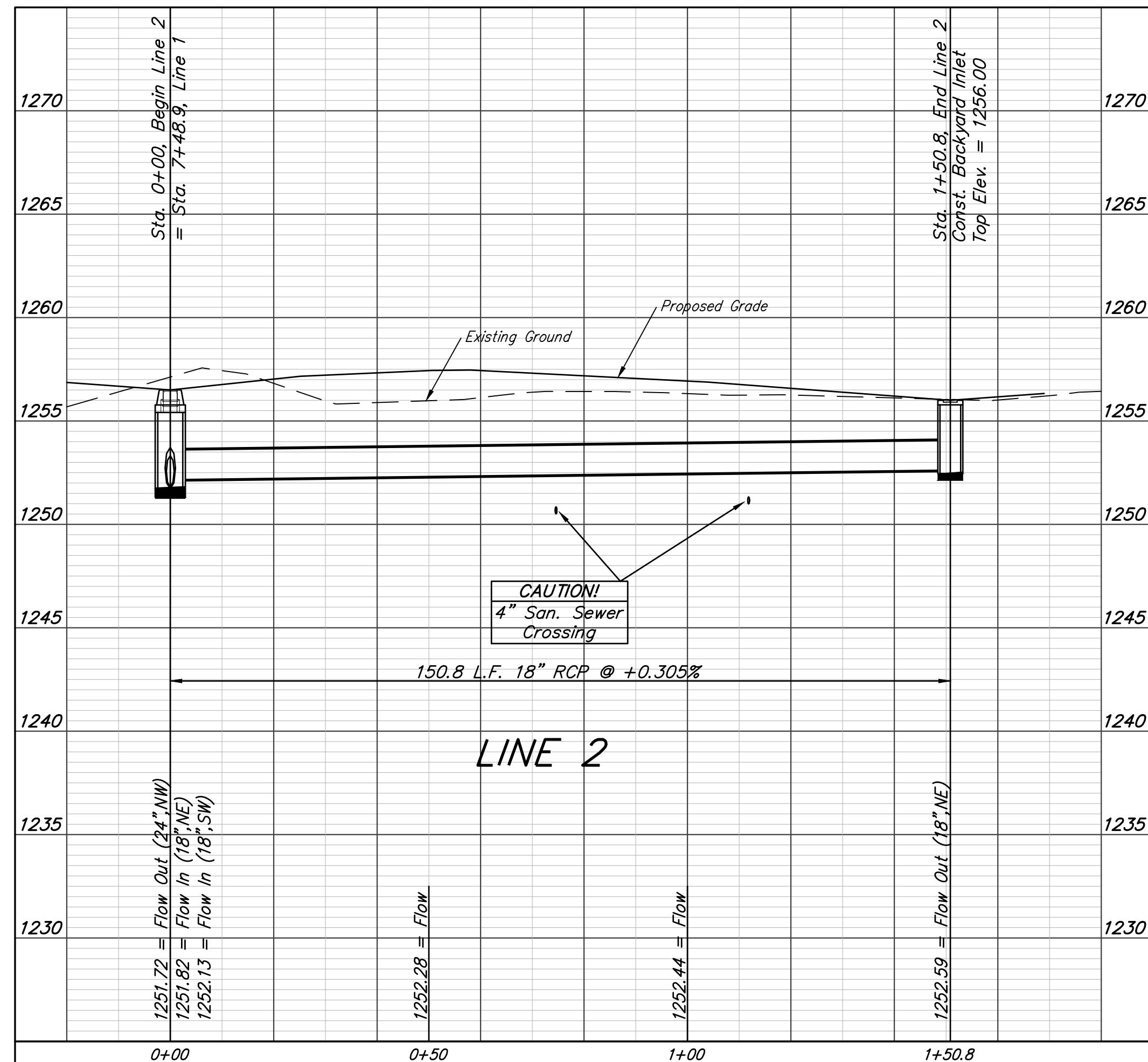
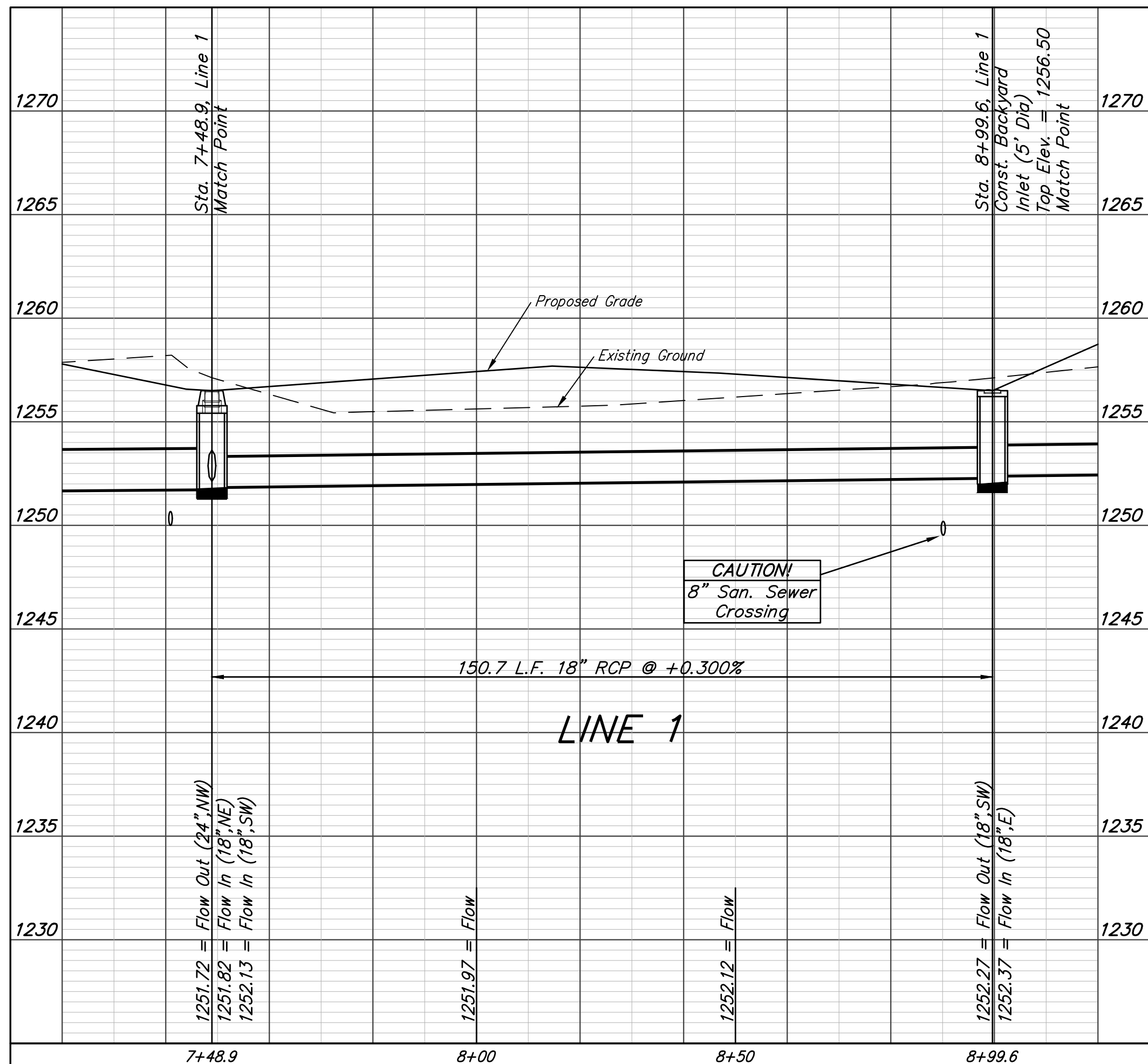
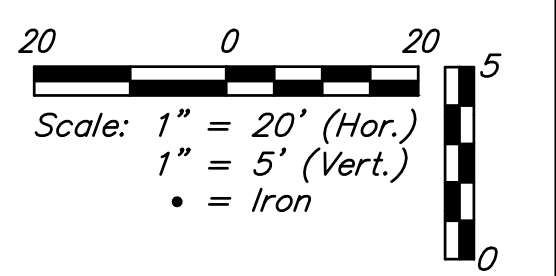
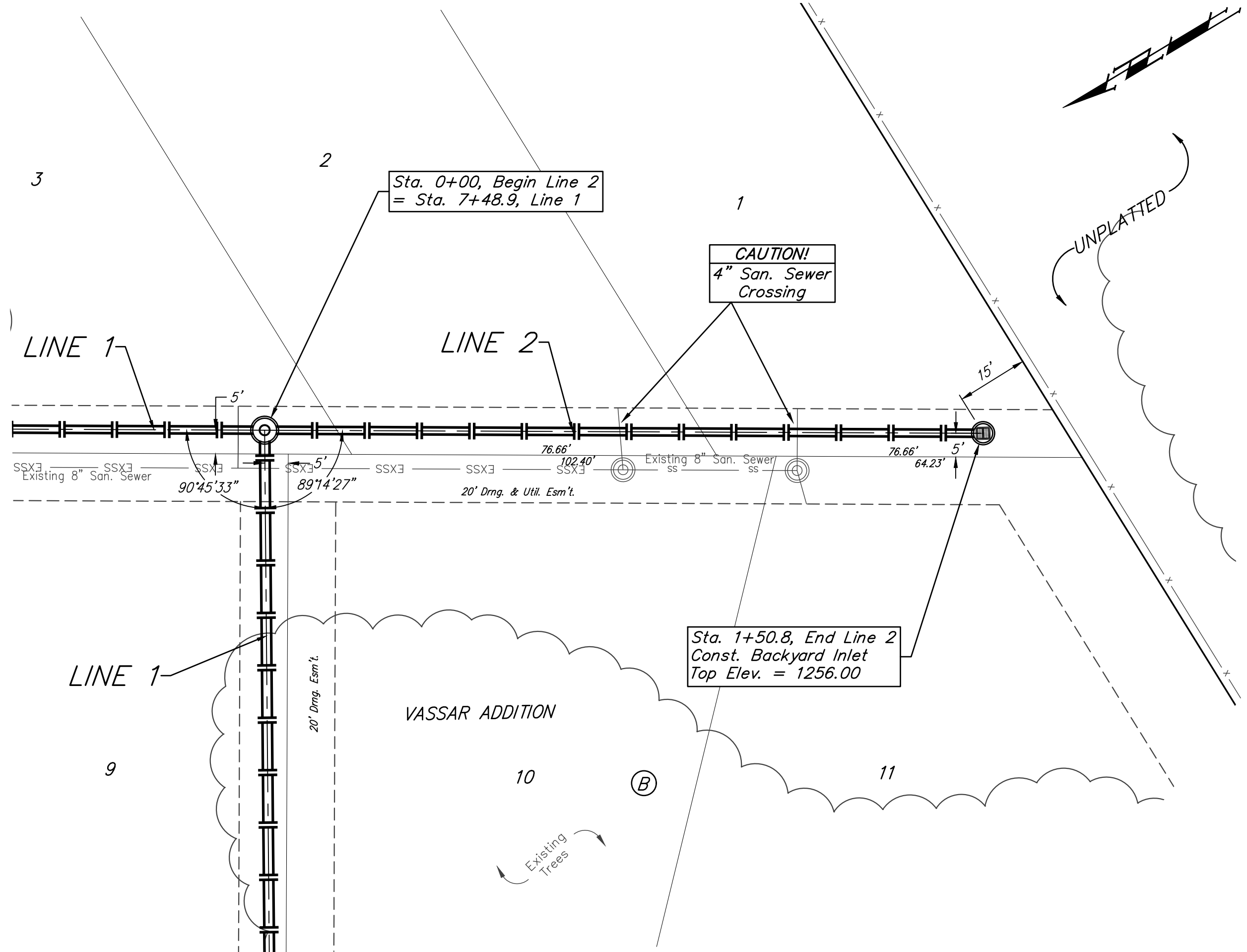
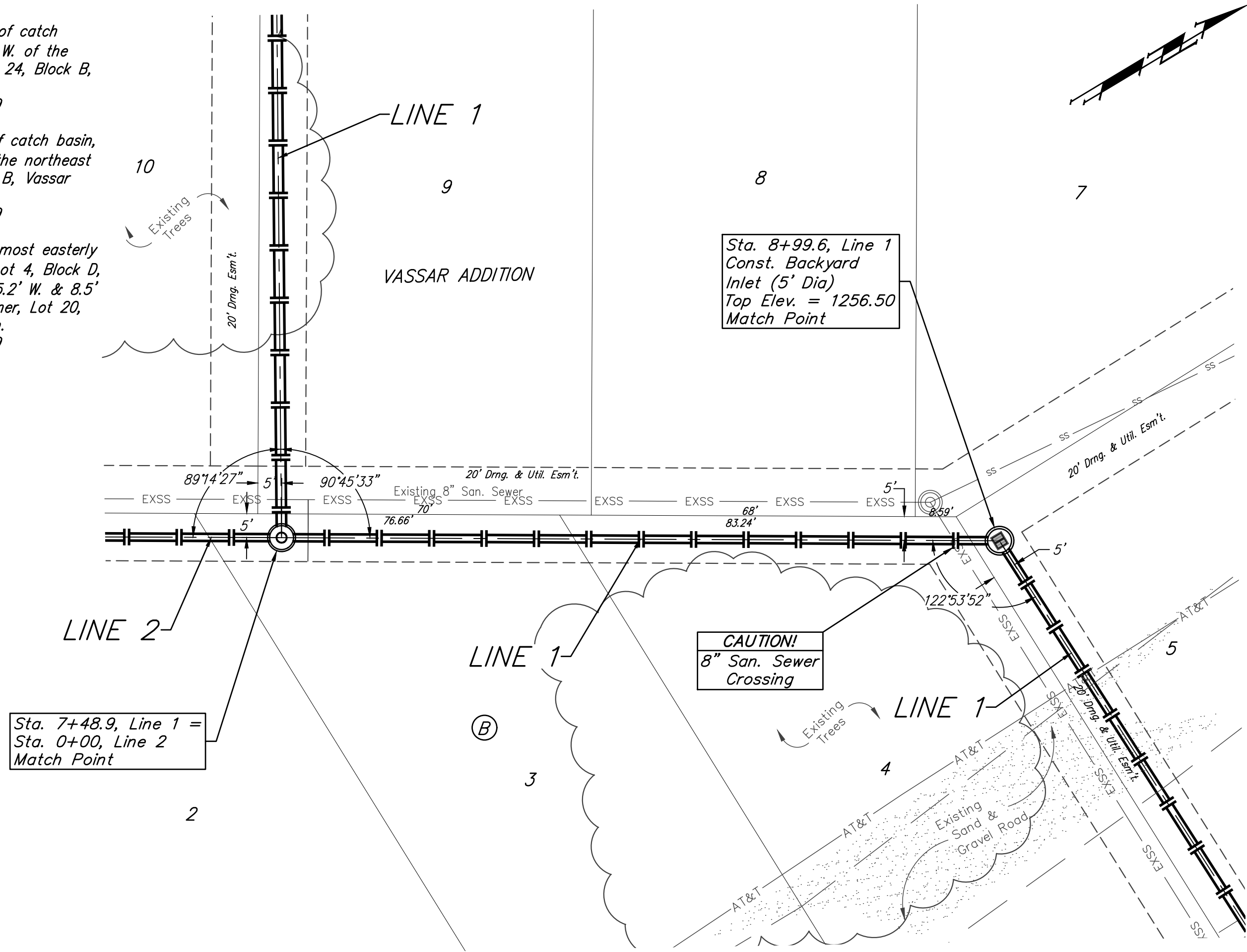
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		Vassar Addition	
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<small>Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149          ENGINEERING   SURVEYING   PLANNING   LANDSCAPE ARCHITECTURE</small>			
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			<b>3 OF 19</b>



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**Baughman** Vassar Addition  
**LINE 1 & LINE 2**  
 Stormwater Sewer #704

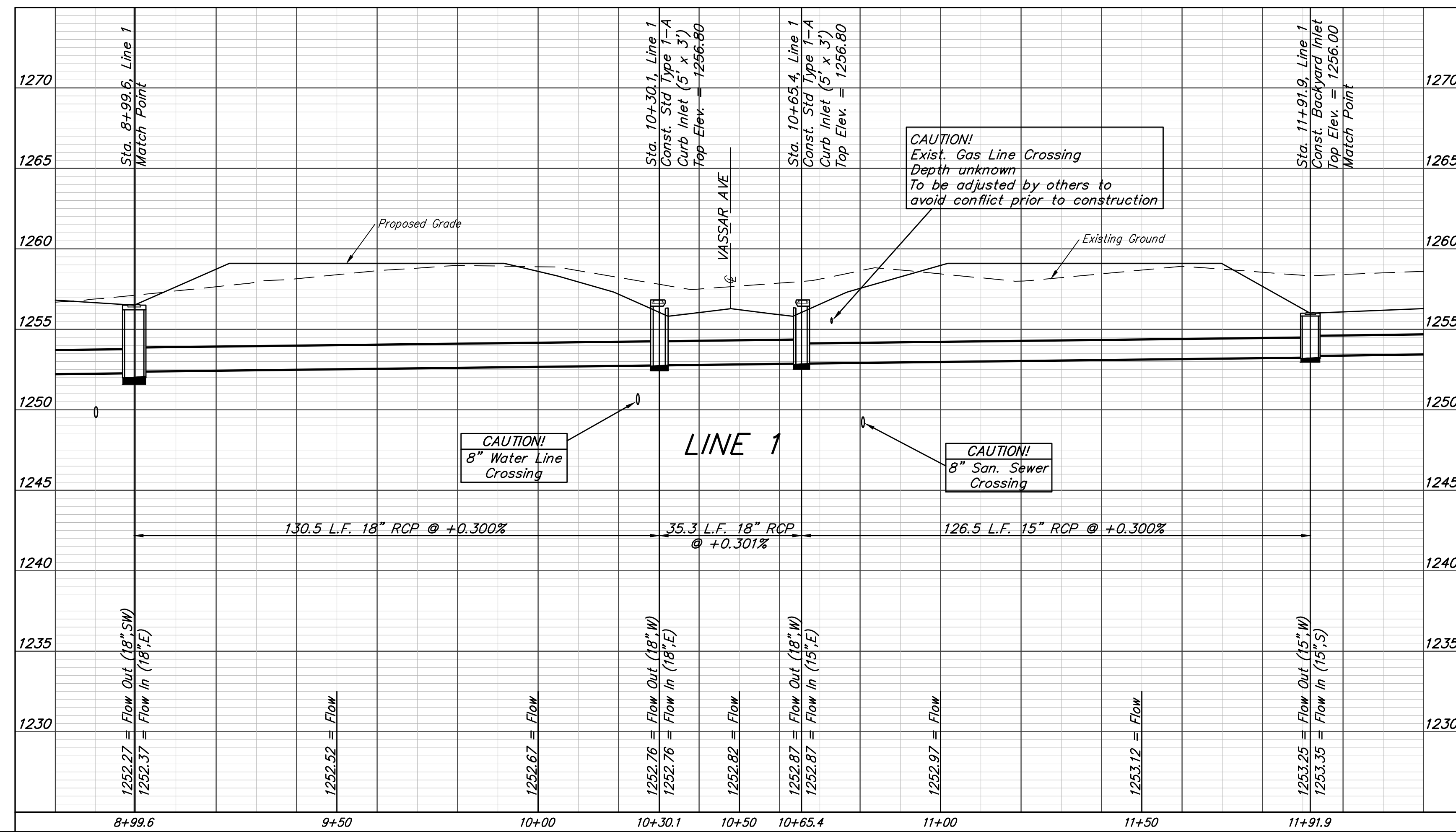
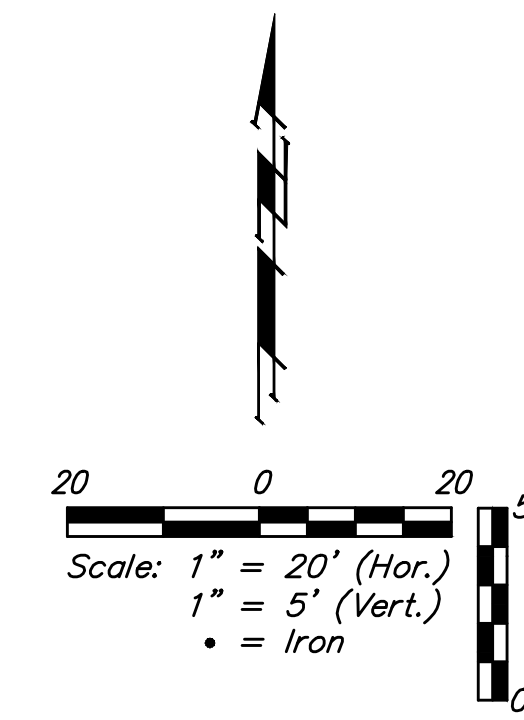
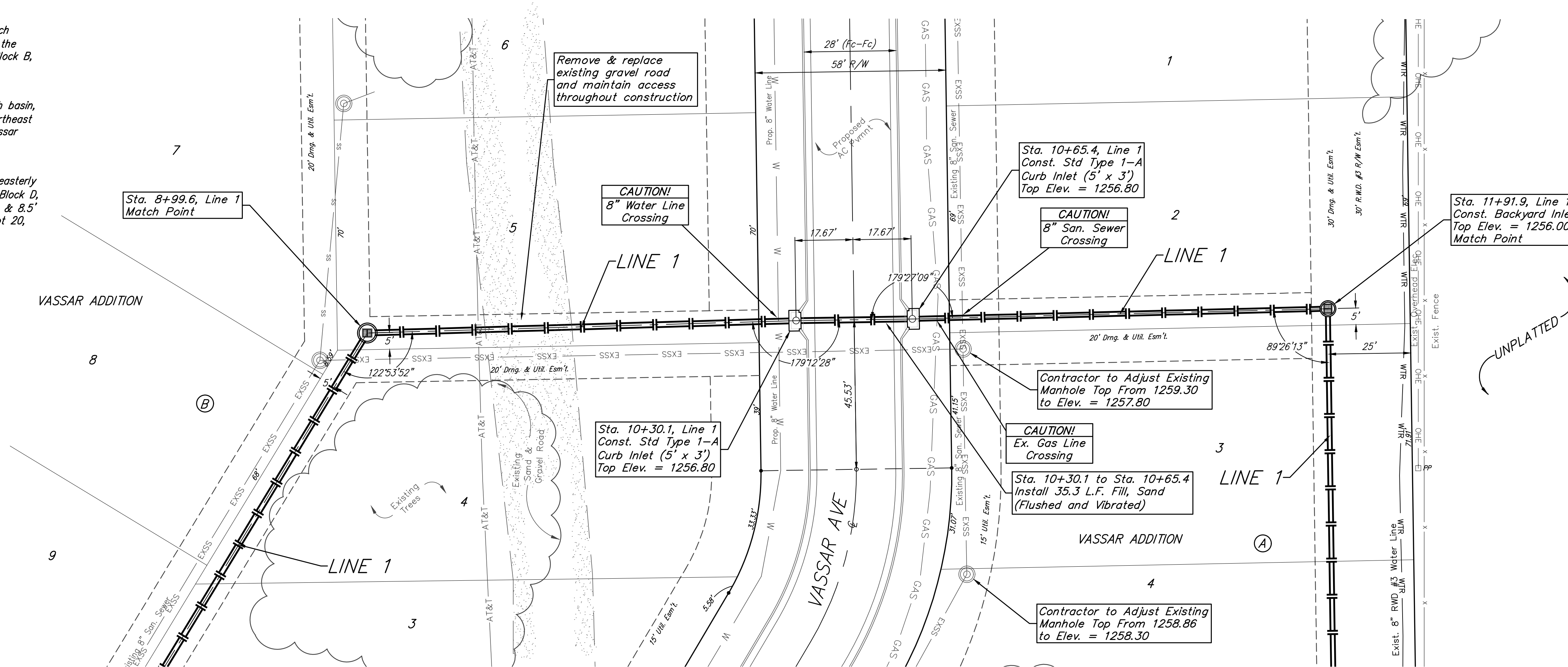
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REVISIONS:	APPROVED	DATE 6/14/16
	SCALE Noted	SHEET 4 OF 19

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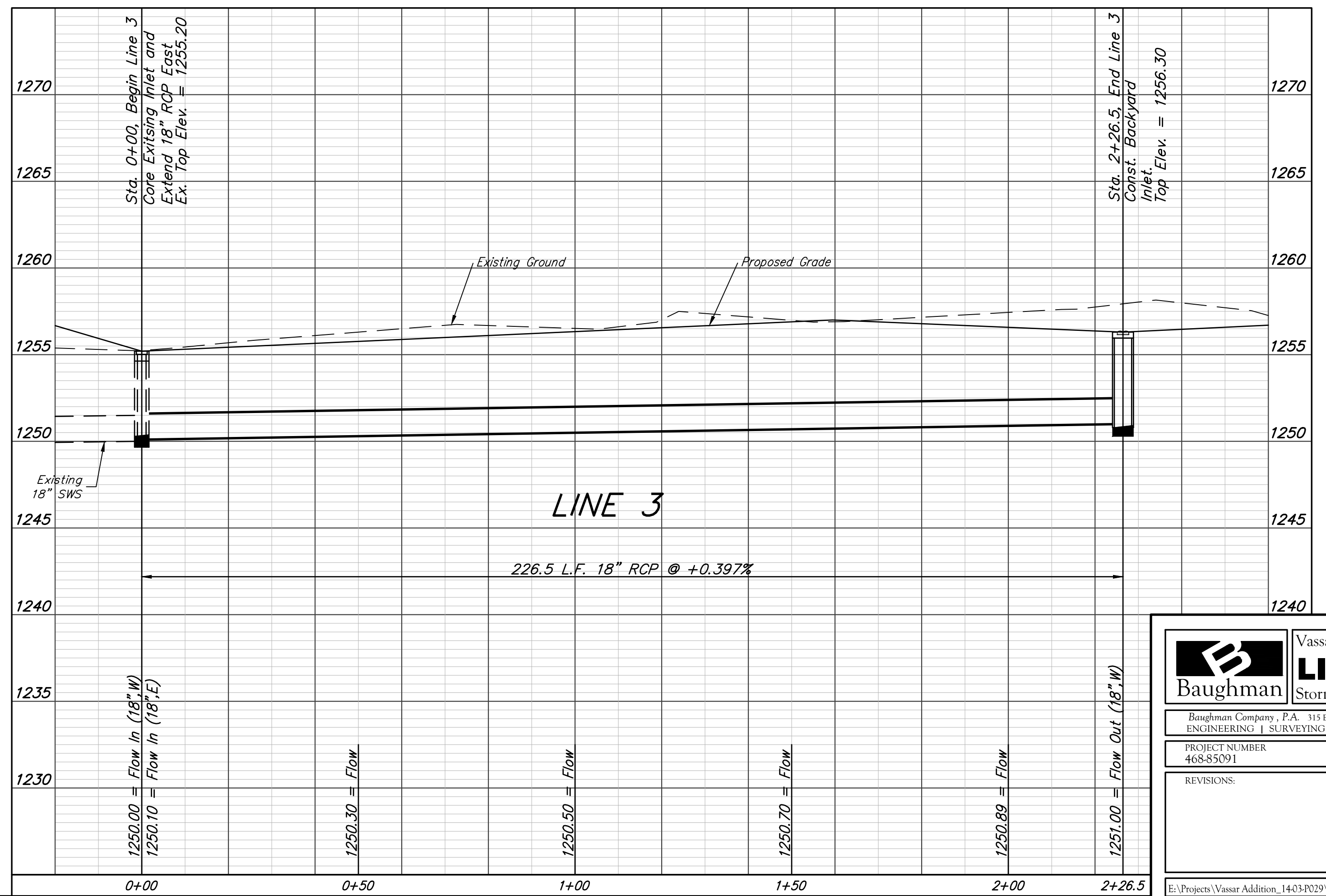
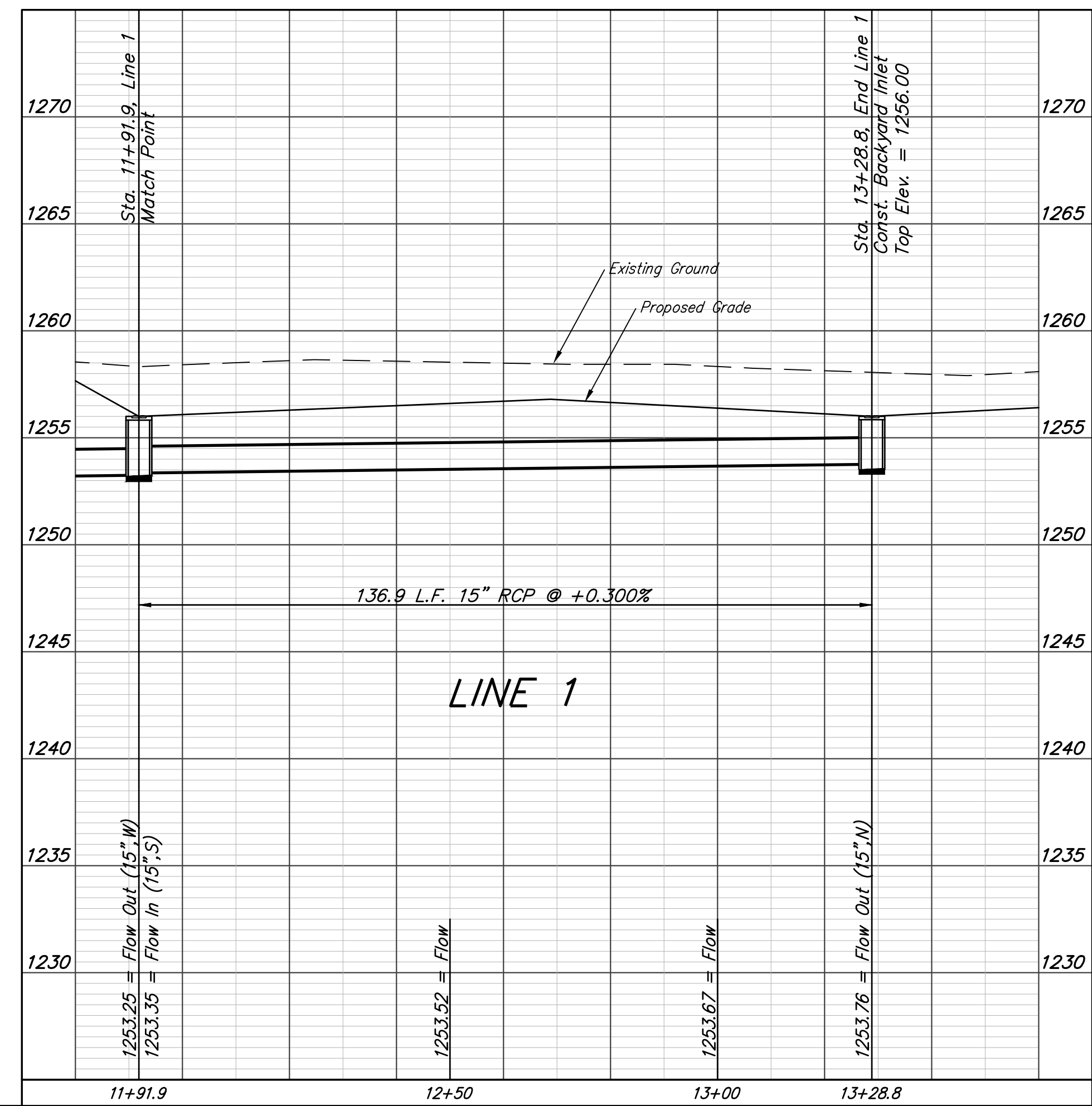
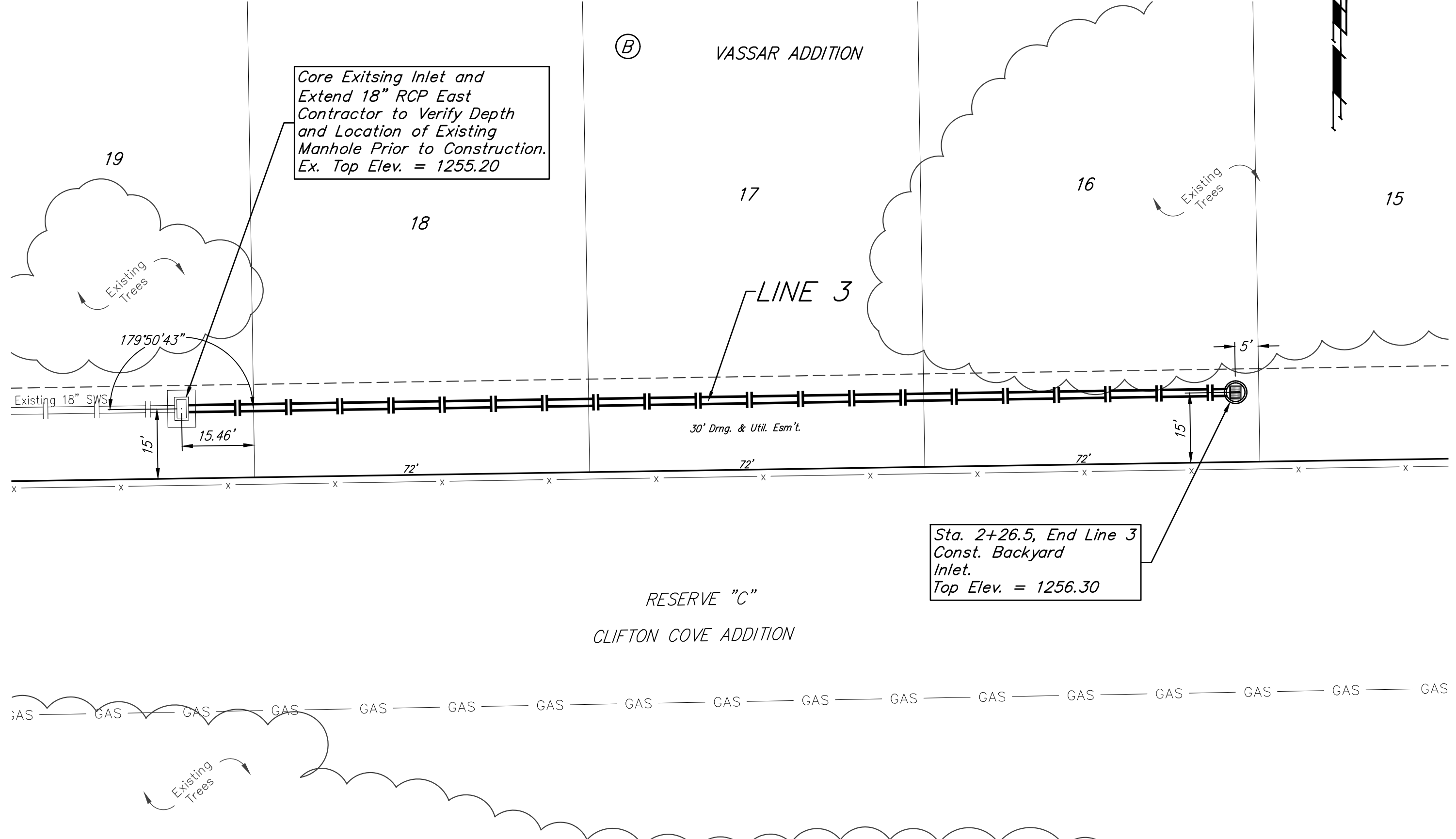
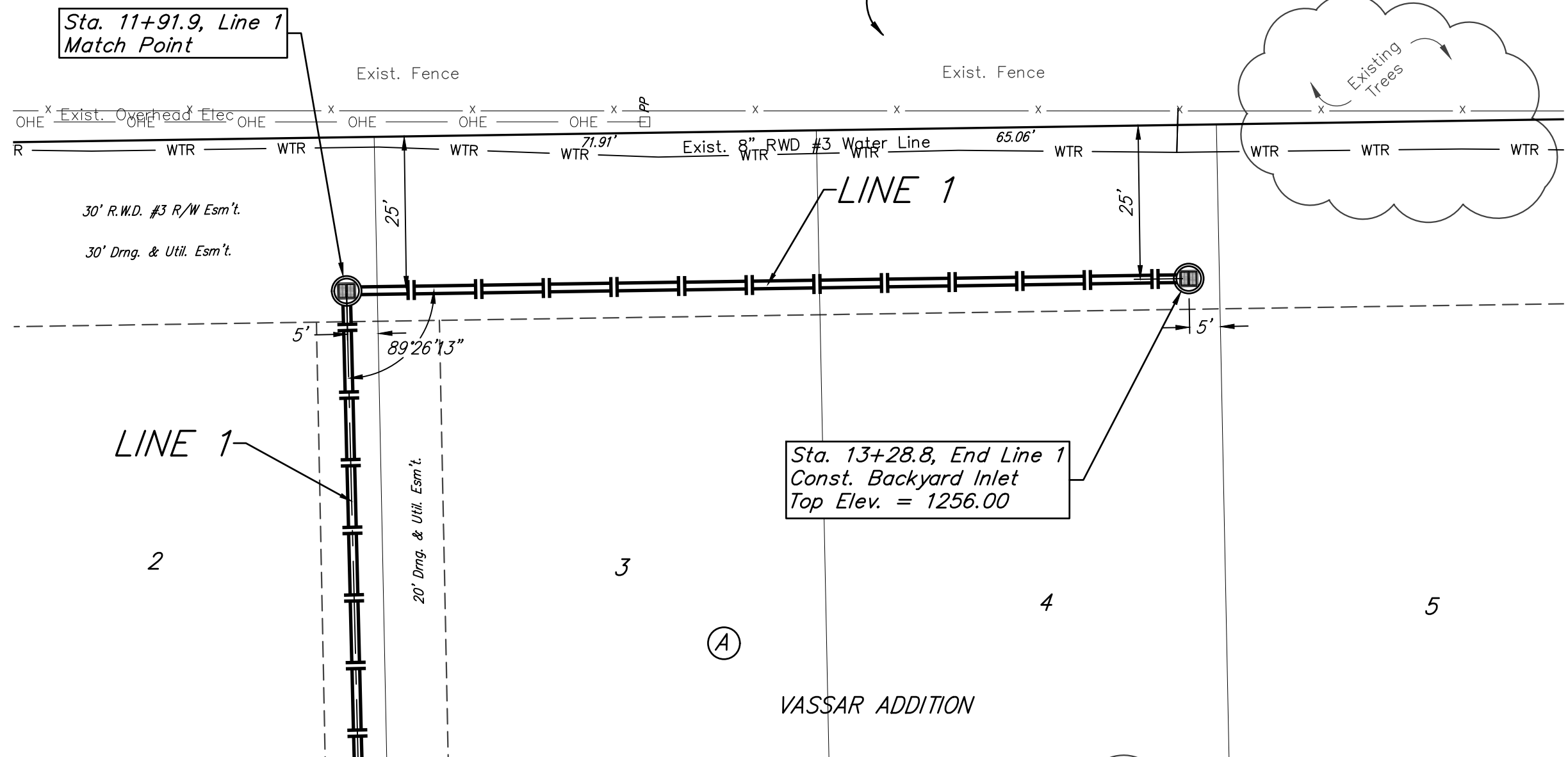
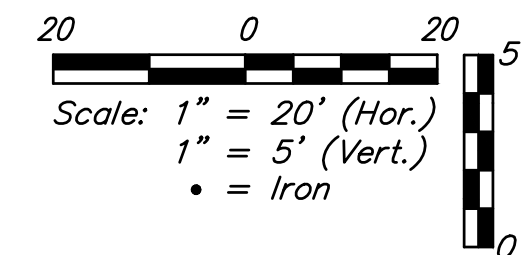


		Vassar Addition <b>LINE 1</b> Stormwater Sewer #704	
		Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149 ENGINEERING   SURVEYING   PLANNING   LANDSCAPE ARCHITECTURE	
PROJECT NUMBER 468-85091	DESIGN AEG	DRAWN JAK	APPROVED DATE 6/14/16
REVISIONS:	SCALE Noted SHEET	<b>5 OF 19</b>	

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**Baughman** Vassar Addition  
**LINE 1 & LINE 3**  
 Stormwater Sewer #704

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: 468-85091  
 DESIGN: AEG  
 DRAWN: JAK  
 APPROVED: [Signature]  
 DATE: 6/14/16  
 SCALE: Noted  
 SHEET: 6 OF 19

REVISIONS:

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COMPACTION TESTING TABLE

Lot	Block	Location		Pad Elev.	Compaction % and Test Elevation				
		Northing	Eastng		1256	1257	1258	1259	1260
1	A	25183.87	49882.44	1259.10	X	X	X		X
2	A	25123.88	49883.34	1259.10	X	X	X		X
3	A	25045.81	49884.51	1259.10	X	X	X	X	X
4	A	24979.97	49880.64	1259.20	X	X	X	X	X
5	A	24914.20	49853.82	1259.50	X	X			X
6	A	24849.93	49850.93	1260.00	X				X
1	B	24844.30	49607.85	1260.00					
2	B	24909.39	49640.56	1259.50					X
3	B	24975.82	49662.59	1259.20	X				X
4	B	25040.92	49701.00	1259.10	X	X	X		X
5	B	25119.00	49707.38	1259.10	X	X	X		X
6	B	25181.46	49706.45	1259.10	X	X	X		X
7	B	25147.75	49582.52	1259.10	X	X	X		X
8	B	25084.59	49544.21	1259.10	X	X	X		X
9	B	25028.58	49510.22	1259.10	X				X
10	B	24960.29	49468.70	1259.10	X				X
11	B	24905.13	49413.96	1259.10	X	X			X
12	B	24877.20	49343.77	1259.10	X	X			X
13	B	24873.51	49269.20	1259.30	X	X			X
14	B	24872.25	49197.74	1259.70	X	X	X		X
15	B	24870.96	49124.82	1260.20	X	X	X	X	X
16	B	24870.96	49124.82	1260.20	X	X	X	X	X
17	B	24869.73	49055.15	1260.00	X	X	X	X	X
18	B	24868.46	48983.18	1259.50	X	X	X		X
19	B	24880.90	48909.94	1259.50	X	X			X
20	B	24879.62	48837.47	1260.20	X	X	X		X
21	B	24878.15	48754.55	1260.80	X	X	X	X	X
22	B	25060.06	48690.32	1259.50	X	X	X	X	X
23	B	25004.21	48819.38	1260.20	X	X	X	X	X
24	B	25067.66	48818.43	1259.50	X				X
25	B	25341.35	48906.20	1259.30	X				X
26	B	25358.81	48979.45	1259.50	X				X
27	B	25360.08	49051.19	1259.70	X	X	X		X
28	B	25361.42	49127.11	1260.20	X	X	X		X
29	B	25362.71	49200.03	1260.70	X	X			X
30	B	25364.04	49275.12	1260.70	X	X			X
31	B	25365.32	49347.89	1260.30	X	X			X
32	B	25366.63	49421.64	1259.90	X				X
33	B	25361.16	49490.91	1259.50					X
34	B	25342.63	49568.04	1259.50					X
35	B	25343.47	49638.08	1259.80	X				X
36	B	25344.75	49710.55	1260.10	X				X
37	B	25345.99	49780.69	1260.50	X				X
1	C	25360.75	49866.44	1260.30					X
2	C	25184.08	49398.70	1259.10					X
3	C	25124.63	49362.63	1259.10	X	X	X	X	X
4	C	25049.70	49277.54	1259.10	X	X	X	X	X
5	C	25048.32	49199.35	1259.70	X	X	X	X	X
6	C	25047.07	49129.00	1260.20	X	X	X	X	X
7	C	25045.86	49060.55	1260.00	X	X	X	X	X
8	C	25054.59	48984.13	1259.50	X	X	X	X	X
9	C	25166.25	48985.04	1259.50					X
10	C	25184.02	49049.79	1260.00	X				X
11	C	25185.10	49111.08	1260.00	X	X			X
12	C	25186.22	49174.01	1260.40	X	X	X		X

BENCHMARKS:

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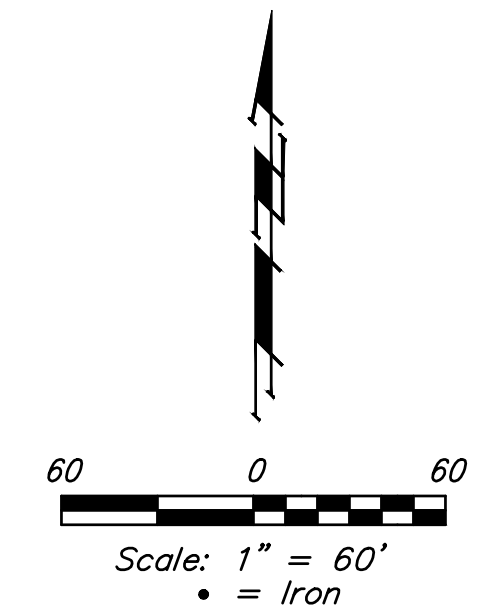
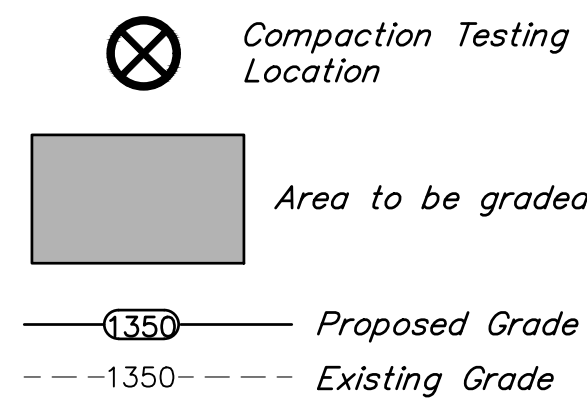
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Notes:

- All cost associated with lot fill, street fill, mass grading, compaction, and compaction testing shall be incidental to lump sum bid item "Grading, Mass".
- Contractor to strip top 4-6" of soil within street right-of-way and proposed compaction areas. Topsoil may be spread in areas not under proposed pavement and on lots above compaction testing elevation.
- Compaction of 95% Std. Proctor Density shall be obtained in all street R/W's and within specified lots up to the plan elevations as shown. Compaction testing shall be performed at one location in each lot and for each foot of compacted fill placed up to the elevation listed on the table. All compaction test results shall be submitted to the design Engineer along with the completed compaction testing table shown on this sheet.
- It shall be the Contractor's responsibility to protect existing utilities during mass grading. Any damage done to these systems by Contractor or subcontractor shall be repaired at no additional cost to the project.
- All areas disturbed by construction shall be seeded as indicated in the cover sheet general notes.

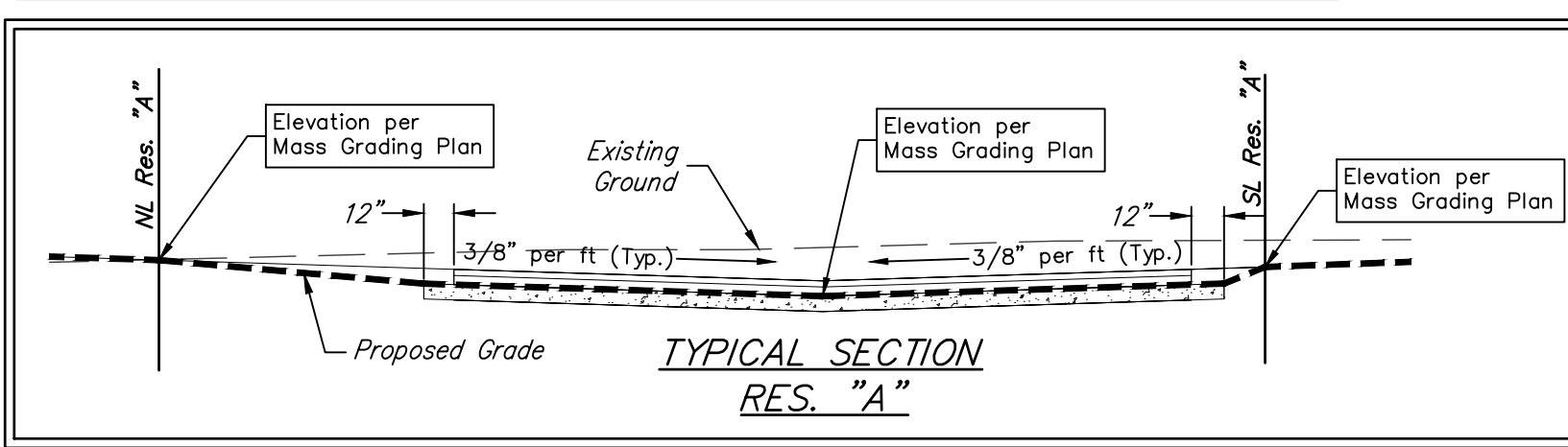
The Contractor shall be responsible to collect soil samples from two locations within each lot. The soil samples are to come from the diagonal corners of the building pads as shown on Sheet 7. The samples shall be collected at a depth of 18" below the pad elevation listed on Sheet 7. Each soil sample shall be approximately 8 oz. to 12 oz. in weight and sealed in a zip-lock plastic bag. The soil samples shall be used for Atterberg Limits testing (ASTM D4318, "Liquid Limit, Plastic Limit, and Plasticity Index of Soils") to determine the PI ("Plasticity Index") of the sample. The contractor shall deliver the soil samples to a licensed soils testing laboratory for Atterberg Limits testing. The test results shall be delivered to the Project Engineer as the tests are completed. The contractor shall be responsible for all costs associated with collecting soil, refilling the test holes, labeling the soil samples, transporting the soil, costs of testing, and delivering the test results. All costs associated with the Atterberg Limits testing are to be included in the bid item, "Testing". There are 55 lots (1 building pad per lot) to be tested at two locations for a total of 110 test.



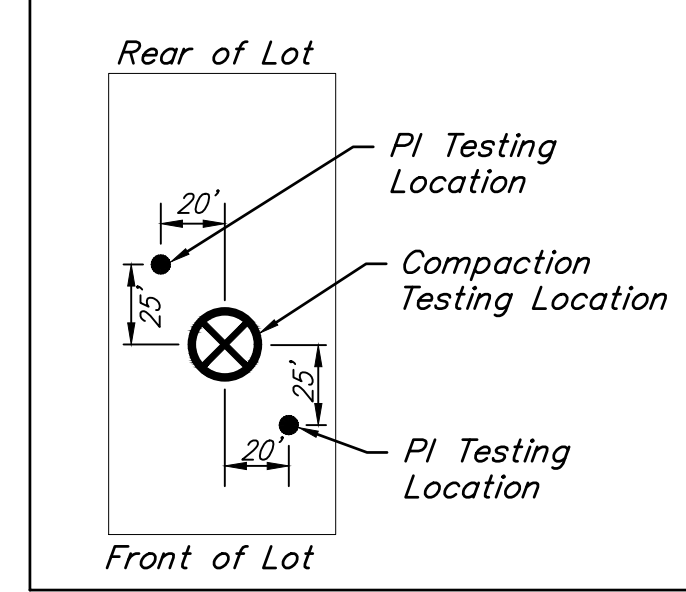
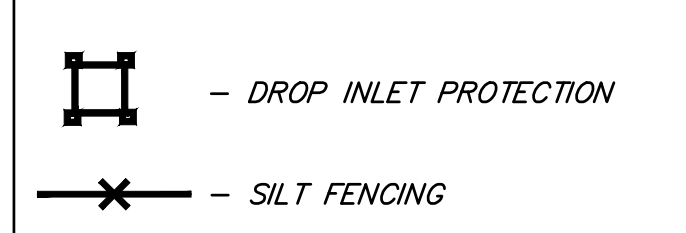
EARTH WORK TOTALS (Unadjusted)

	C.Y. EXCAVATION	C.Y. FILL
Total Mass Grading	11,961	34,301

Earthwork Quantities reflect the best available topography. The Contractor shall satisfy himself with the earthwork quantities as bid for L.S. bid item "Grading, Mass" prior to bidding. No additional payments or change orders for earthwork will be accepted.



EROSION CONTROL PLAN LEGEND

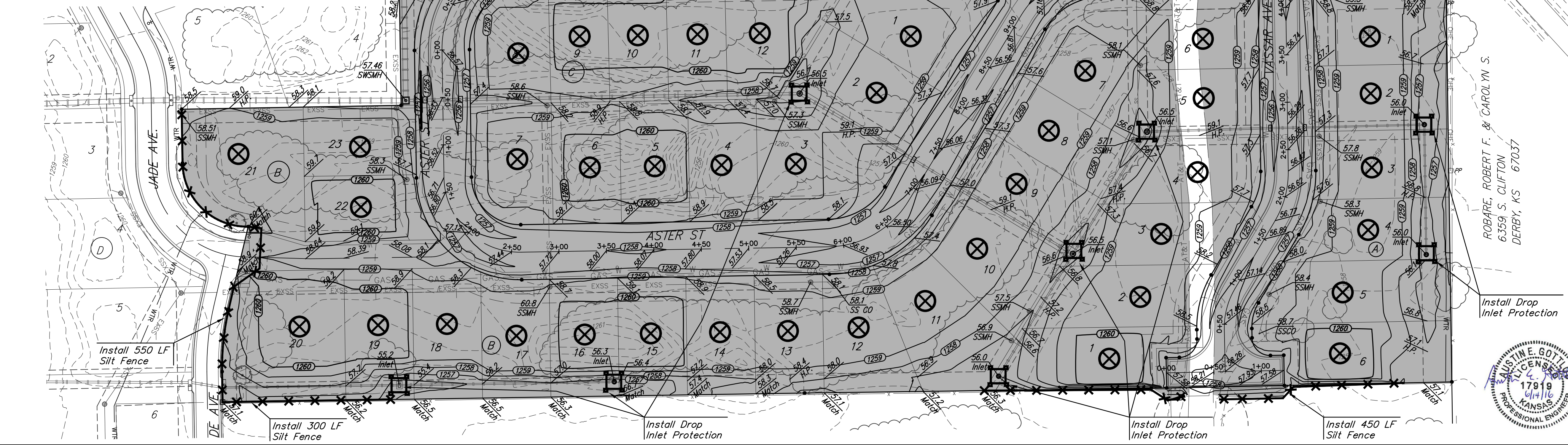


EROSION CONTROL MEASURE	INSTALL	MAINTAIN
CONSTRUCTION ENTRANCE (EA)		1
DROP INLET PROTECTION (EA)	8	
SILT FENCE (LF)	2,081	
MAINTAIN EROSION CONTROL BMP's (LS)		1

\* ALL EXISTING BMP'S INCLUDING CONSTRUCTION ENTRANCE, SEDIMENT BARRIERS, SILT FENCE, CUT-OFF TRENCH, AND EROSION CONTROL MAT SHALL BE MAINTAINED AND REPAIRED IF NECESSARY.

- NOTES:
- Contractor shall make sure all erosion control is in place before project is accepted. This plan represents the minimum standard. Any additional erosion control measures shall be installed by the Contractor as needed.
  - This Plan is Not To Be Used As A Comprehensive Grading Plan. All Spot Elevations Are Proposed & Subject To Change.
  - All areas disturbed during construction shall be seeded, mulched, and fertilized as per Cover Sheet General Notes.

Std. Proctor Density Test Result to be entered into chart above  
X - Compaction Test not Required at this elevation



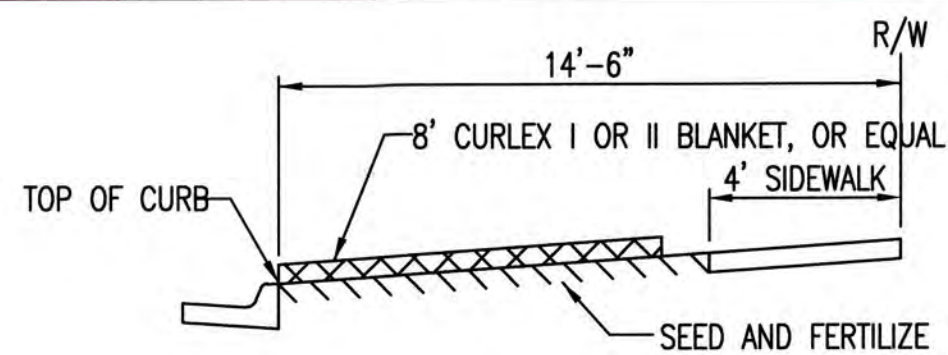
**Baughman** Vassar Addition  
**MASS GRADING / EROSION CONTROL**  
Stormwater Sewer #704

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

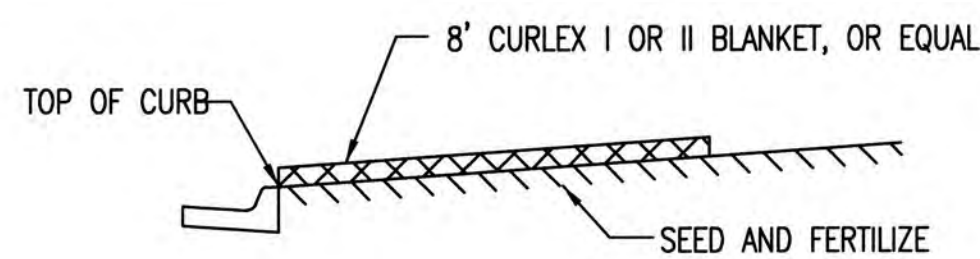
PROJECT NUMBER 468-85091	DESIGN AEG	DRAWN JAK
REVISIONS:	APPROVED	DATE 6/14/16
	SCALE Noted	SHEET

**7 OF 19**

E:\Projects\Vassar Addition\_1403P029\Engineering\Phase 1\SWS\_1603E392\SWS PLANS.dwg

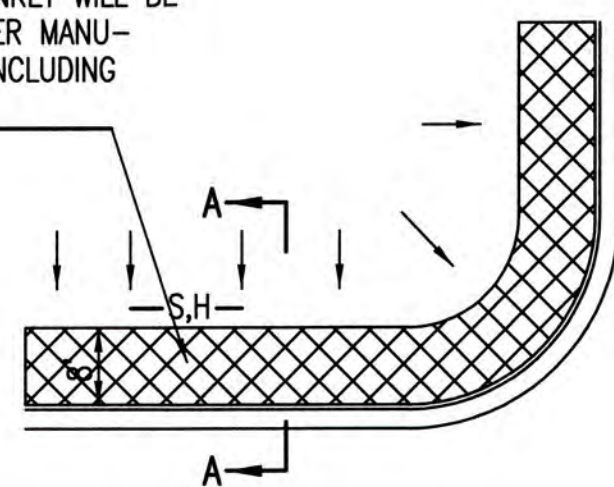


SECTION B-B

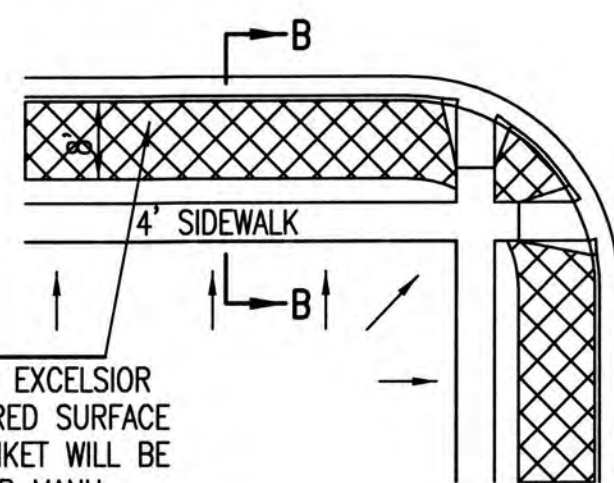


SECTION A-A

INSTALL 8' WIDE CURLEX I OR II EXCELSIOR BLANKET, OR EQUAL, ON PREPARED SURFACE BACK OF CURB. EDGE OF BLANKET WILL BE AT BACK OF CURB. INSTALL PER MANUFACTURERS RECOMMENDATION, INCLUDING STAPLES. (SEE DETAIL)



SOUTH STREET

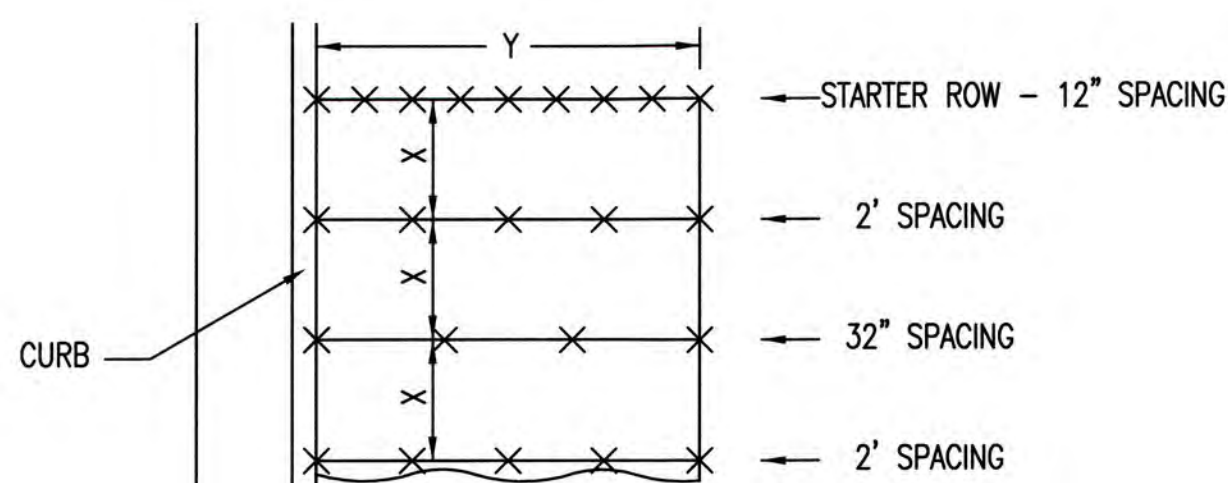


INSTALL 8' WIDE CURLEX I OR II EXCELSIOR BLANKET, OR EQUAL, ON PREPARED SURFACE BACK OF CURB. EDGE OF BLANKET WILL BE AT BACK OF CURB. INSTALL PER MANUFACTURERS RECOMMENDATION, INCLUDING STAPLES. (SEE DETAIL)

**GENERAL NOTES**

- EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
- EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND INTO THE GUTTER, SUPPLEMENTAL EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS NEEDED, TO FIX THE PROBLEM.

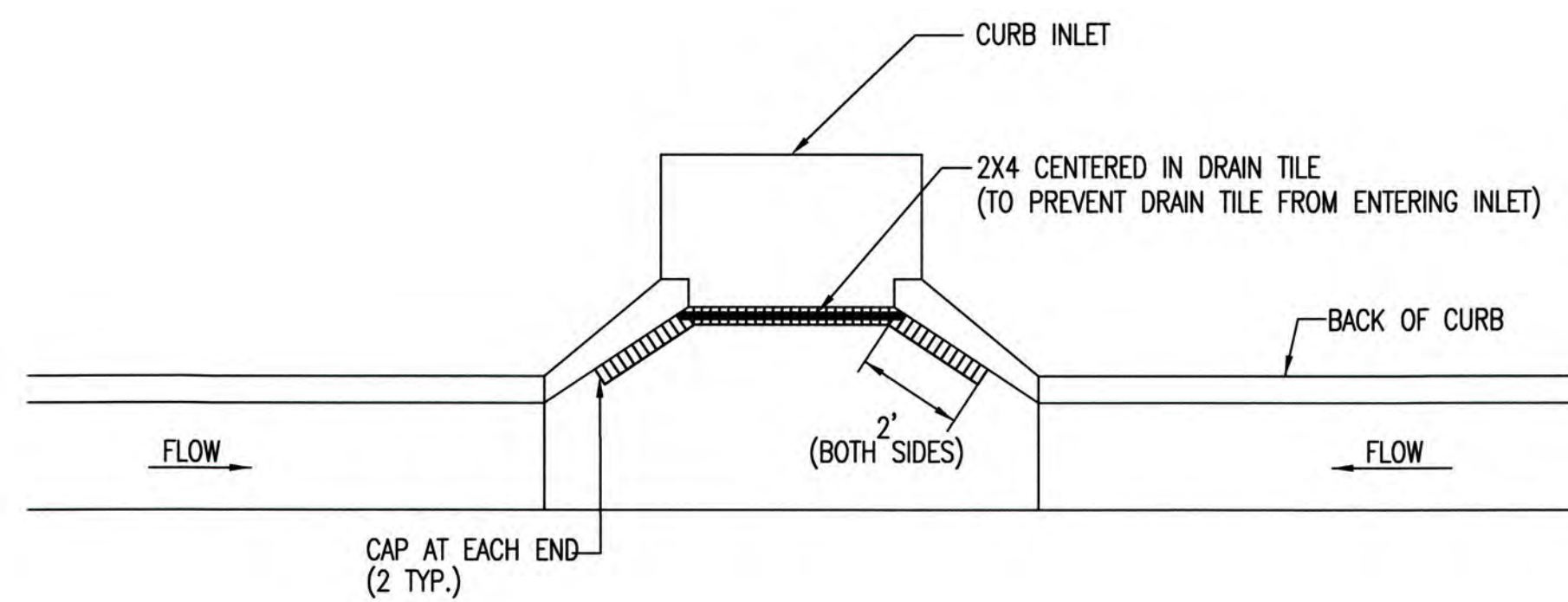
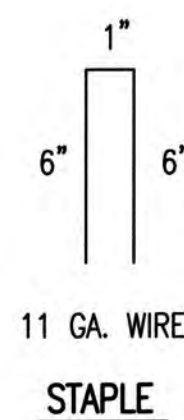
**BACK OF CURB PROTECTION DETAIL**



**STAPLE PATTERN**

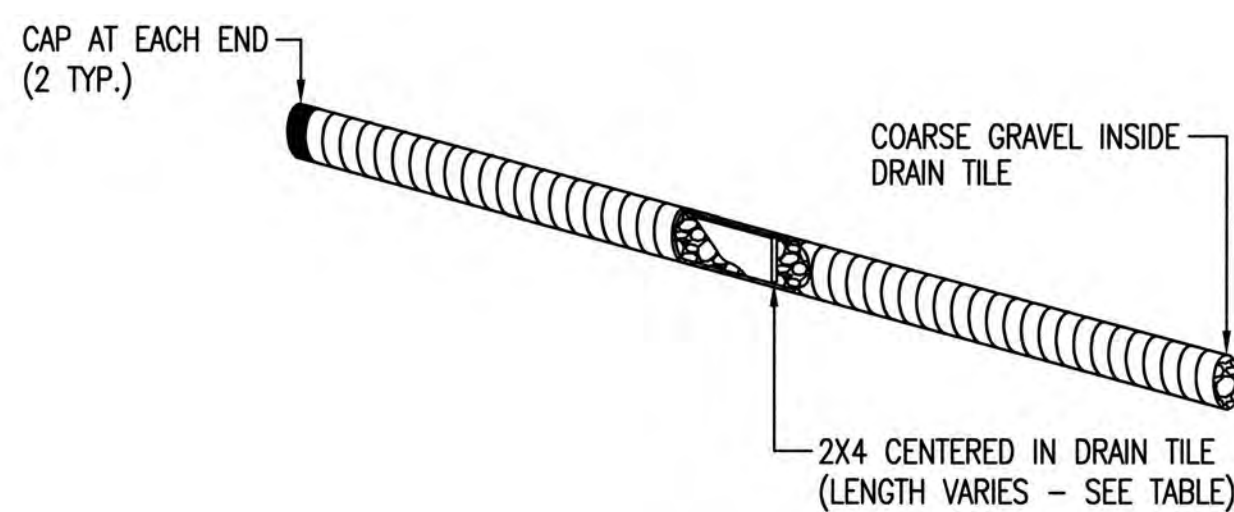
NOTES: USE 6" SEAM OVERLAP  
(X & Y = RECOMMENDED BY MANUFACTURE)

**DETAILS FOR APPROVED EROSION CONTROL MAT**

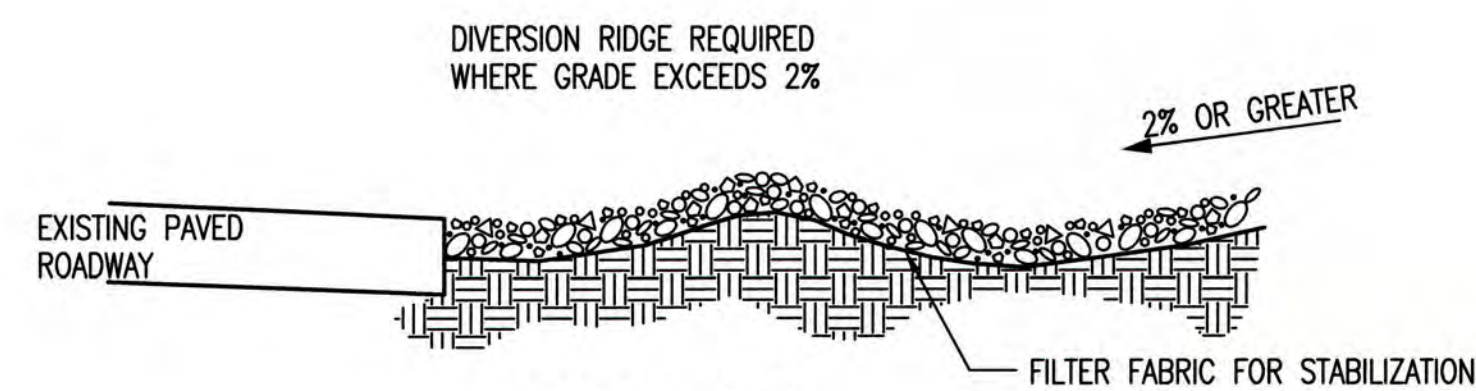


NOTE: PLACE 4" PERFORATED PVC PIPE, FILLED WITH 1/2"-1" DIA. GRAVEL, IN FRONT OF CURB INLET AS SHOWN.

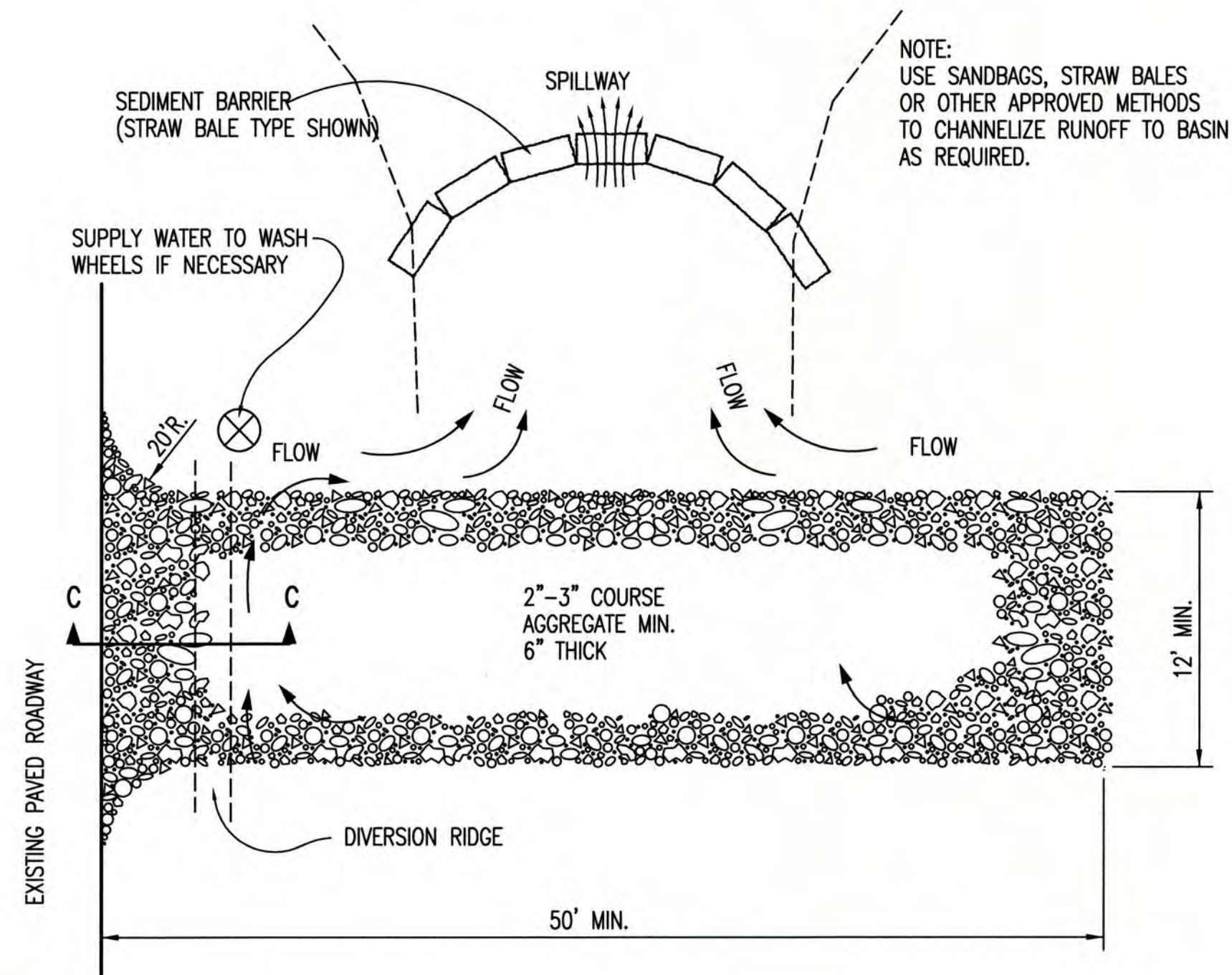
2X4 LENGTH	INLET TYPE	INLET OPENING
5'-6"	1-A	5'-0"
10'-6"	1-A	10'-0"
15'-6"	1-A	15'-0"



**CURB INLET PROTECTION**  
4" PERFORATED PIPE W/ GRAVEL



SECTION C-C



**STABILIZED CONSTRUCTION ENTRANCE**

**GENERAL NOTES**

- 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.
- WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
- 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.
- 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.

REVISION DATE: MAY 2013

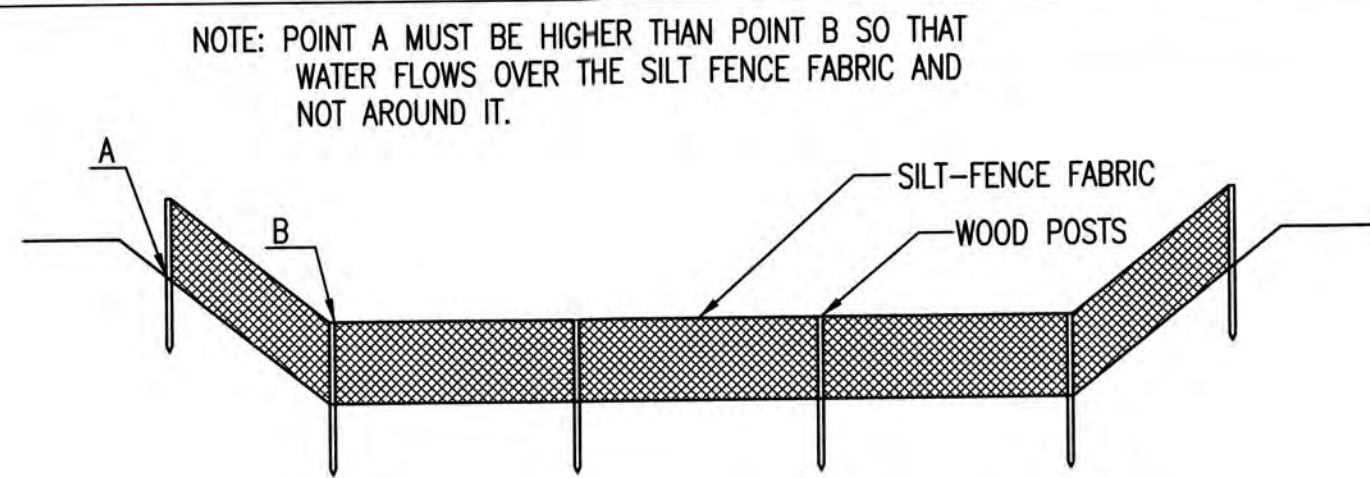


**BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE**

CITY ENGINEER  
**GARY JANZEN, P.E.**

PROJECT NUMBER: OCA NUMBER: DATE: 5/2013

CITY ENGINEER'S OFFICE: CITY HALL - SEVENTH FLOOR, 455 NORTH MAIN STREET, WICHITA, KANSAS 67202-1620, (316) 268-4501. SHEET: 8 of 19



**ELEVATION**  
**SILT FENCE DITCH CHECKS**  
(STREAM PROTECTION)

**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:**

PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK, NOT OVER IT. SILT FENCE DITCH CHECKS OFTEN FAIL WHEN OVERTOPPED. SILT FENCE DITCH CHECKS SHOULD BE PLACED PERPENDICULAR TO THE FLOWLINE OF THE DITCH. THE SILT FENCE SHOULD EXTEND FAR ENOUGH SO THAT THE GROUND LEVEL AT THE ENDS OF THE FENCE IS HIGHER THAN THE TOP OF THE LOW POINT OF THE FENCE. THIS PREVENTS WATER FROM FLOWING AROUND THE CHECK. SILT FENCE DITCH CHECKS SHOULD NOT BE PLACED IN DITCHES WHERE HIGH FLOWS ARE EXPECTED. ROCK CHECKS SHOULD BE USED INSTEAD. SILT FENCE 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 CHECK DITCH GRADE (%)	SPACING 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 AT LEAST 12" DEEP BY 6" WIDE. EXTEND THE TRENCH IN A STRAIGHT LINE ALONG THE ENTIRE LENGTH OF THE PROPOSED DITCH CHECK. PLACE THE SOIL ON THE UPSTREAM 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 UPSTREAM EDGE OF THE TRENCH. LINE TWO SIDES OF THE TRENCH WITH THE FABRIC AS SHOWN ON DETAIL. 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 ON THE UPSTREAM SIDE 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 24". PLACE POSTS NO MORE THAN 4' APART. ATTACH THE SILT FENCE TO THE ANCHORED POST WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

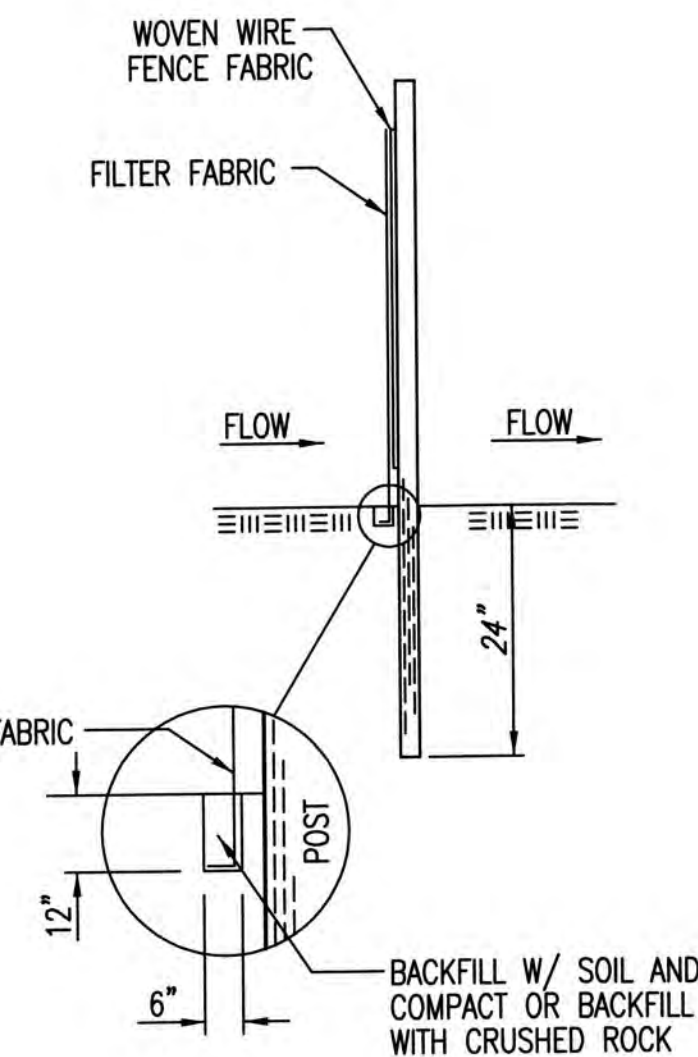
**LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:**

WATER SHOULD FLOW THROUGH A SILT FENCE DITCH CHECK—NOT OVER IT. PLACE SILT FENCE IN DITCHES WHERE IT IS UNLIKELY THAT IT WILL BE OVERTOPPED. SILT FENCE INSTALLATIONS QUICKLY DETERIORATE WHEN WATER OVERTOPS THEM. DO NOT PLACE SILT FENCE POSTS ON THE UPSTREAM 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 A SILT FENCE DITCH CHECK DIRECTLY IN FRONT OF A CULVERT OUTLET. IT WILL NOT STAND UP TO THE CONCENTRATED FLOW. DO NOT PLACE SILT FENCE 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 FENCE IS HIGHER THAN THE LOW POINT ON THE TOP OF THE FENCE. DO NOT PLACE SILT FENCE DITCH CHECKS IN CHANNELS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE CHECK IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT.

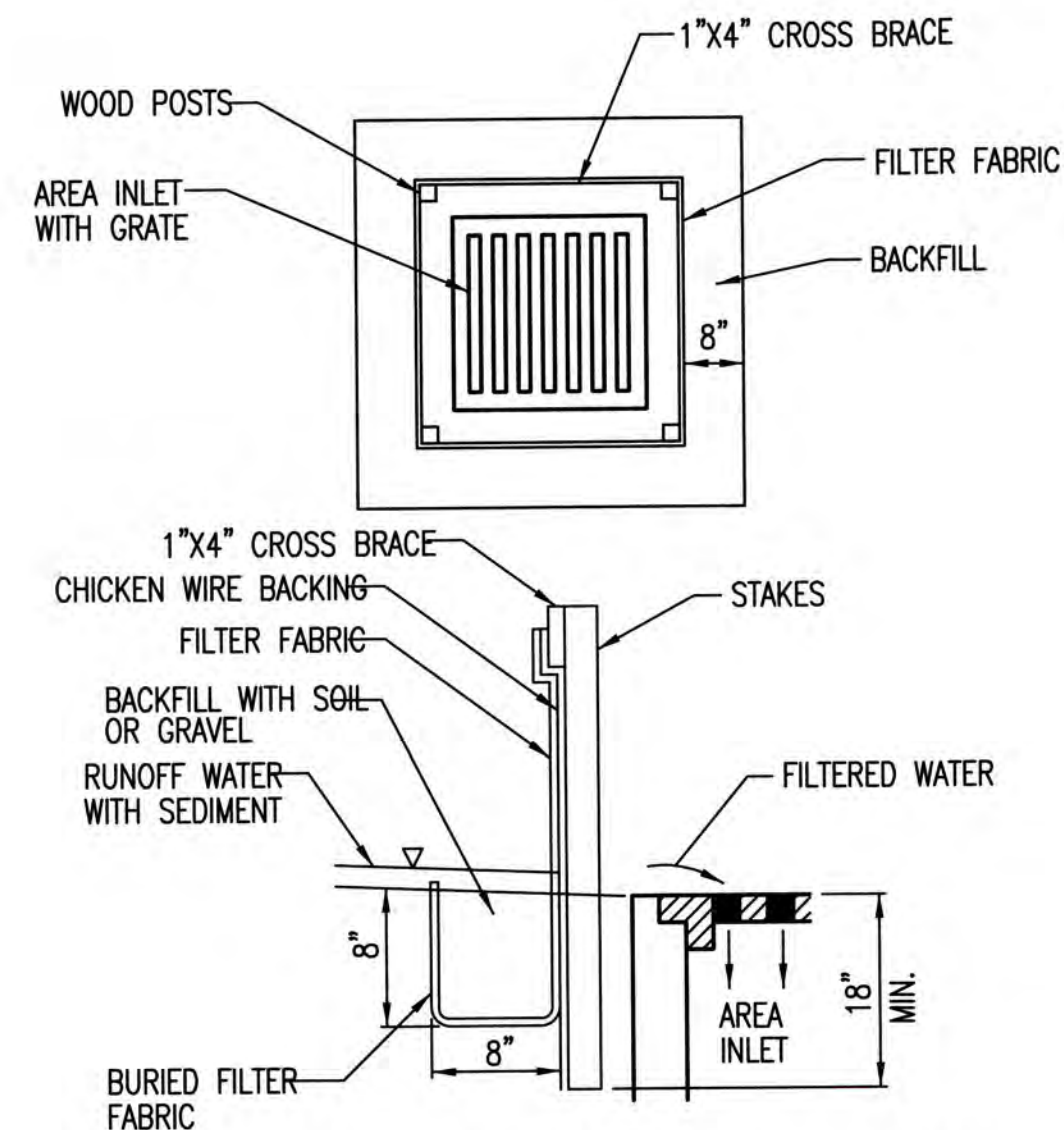
**INSPECTION AND MAINTENANCE:**

SILT FENCE 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 THE SILT FENCE SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE DITCH CHECK?



**ANCHOR TRENCH DETAIL**



**SILT FENCE BARRIERS FOR AREA INLETS**  
(INLET PROTECTION)

**MATERIAL SPECIFICATION:**

SILT FENCE FABRIC SHOULD CONFORM TO THE AASHTO M288 96 SILT FENCE SPECIFICATION. THE WIRE OR POLYMERIC MESH BACKING USED TO HELP SUPPORT THE 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. THE MATERIAL USED TO FRAME THE TOPS OF THE POSTS SHOULD BE 1" BY 4" BOARDS. SILT FENCE FABRIC AND SUPPORT BACKING SHOULD BE ATTACHED TO THE WOODEN POSTS AND FRAME WITH STAPLES, WIRE, ZIP TIES, OR NAILS.

**PLACEMENT:**

PLACE A SILT FENCE DROP INLET BARRIER IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. WATER SHOULD FLOW THROUGH SILT FENCE, NOT OVER IT. SILT FENCE BARRIERS FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED. WHEN USED AS A BARRIER FOR AREA INLETS, SILT FENCE FABRIC AND POSTS MUST BE SUPPORTED AT THE TOP BY A WOODEN FRAME. WHEN A SILT FENCE BARRIER FOR AREA INLETS 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 8" DEEP BY 8" WIDE. DRIVE POSTS TO A DEPTH OF AT LEAST 18" AROUND THE PERIMETER OF THE AREA INLET. THE DISTANCE BETWEEN POSTS SHOULD BE 4' OR LESS. IF THE DISTANCE BETWEEN TWO ADJACENT CORNER POSTS IS MORE THAN 4', ADD ANOTHER POST(S) BETWEEN THEM. CONNECT THE TOPS OF ALL THE POSTS WITH A WOODEN FRAME MADE OF 1" BY 4" BOARDS. USE NAILS OR SCREWS FOR FASTENING. ATTACH THE WIRE OR POLYMERIC-MESH BACKING TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. ROLL OUT A CONTINUOUS LENGTH OF SILT FENCE FABRIC LONG ENOUGH TO WRAP AROUND THE PERIMETER OF THE AREA INLET. ADD MORE LENGTH FOR OVERLAPPING THE FABRIC JOINT. PLACE THE EDGE OF THE FABRIC IN THE TRENCH, STARTING AT THE OUTSIDE EDGE OF THE TRENCH. 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. ATTACH THE SILT FENCE TO THE OUTSIDE OF THE POST/FRAME STRUCTURE WITH STAPLES, WIRE, ZIP TIES, OR NAILS. THE JOINT SHOULD BE OVERLAPPED TO THE NEXT POST.

NOTE: WHEN A SILT FENCE BARRIER FOR AREA INLET 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.

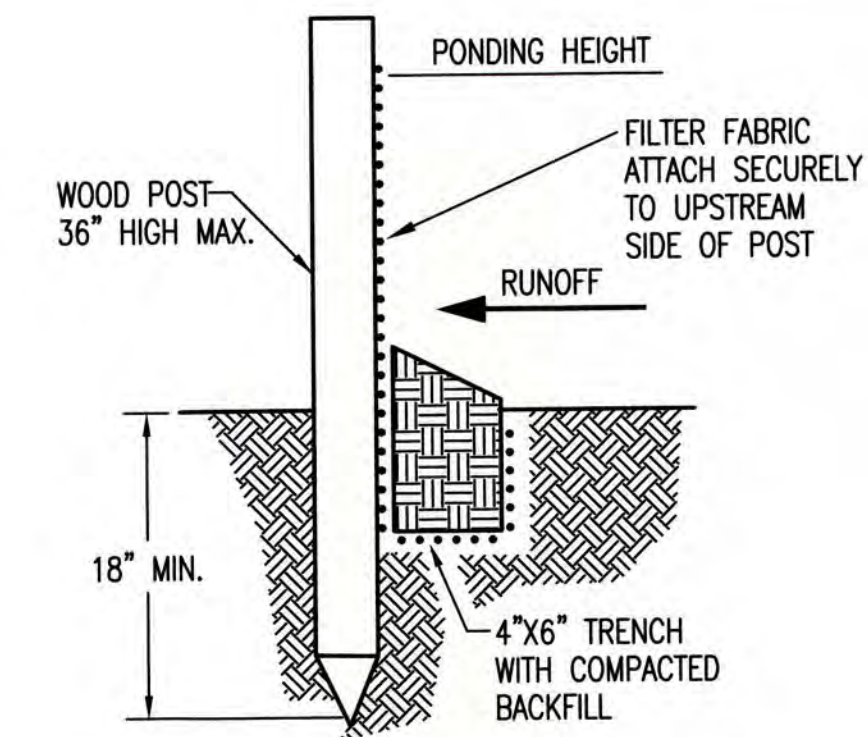
**LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:**

WATER SHOULD FLOW THROUGH A SILT FENCE BARRIER FOR AREA INLET—NOT OVER IT. PLACE A SILT FENCE BARRIER FOR AREA INLET IN A LOCATION WHERE IT IS UNLIKELY TO BE OVERTOPPED. SILT FENCE BARRIER FOR AREA INLETS OFTEN FAIL WHEN REPEATEDLY OVERTOPPED. DO NOT PLACE POSTS ON THE OUTSIDE OF THE SILT FENCE BARRIER FOR AREA INLET. 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 INSTALL SILT FENCE BARRIER FOR AREA INLETS WITHOUT FRAMING THE TOP OF THE POSTS. THE CORNER POSTS AROUND AREA INLETS ARE STRESSED IN TWO DIRECTIONS WHEREAS A NORMAL SILT FENCE IS ONLY STRESSED IN ONE DIRECTION. THIS ADDED STRESS REQUIRES MORE SUPPORT.

**INSPECTION AND MAINTENANCE:**

SILT FENCE BARRIER FOR AREA INLETS 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 UNDER THE SILT FENCE?
- DOES THE SILT FENCE SAG EXCESSIVELY?
- HAS THE SILT FENCE TORN OR BECOME DETACHED FROM THE POSTS?
- 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?

REVISION DATE: MAY 2013



**SILT FENCE DITCH CHECK AND BARRIER DETAILS**

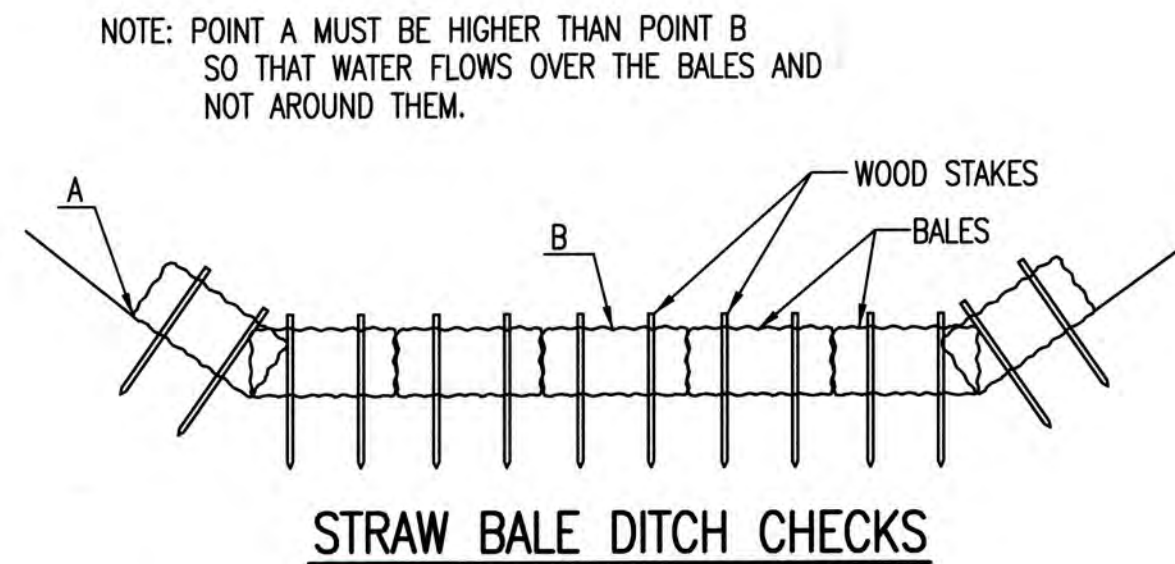
CITY ENGINEER  
**GARY JANZEN, P.E.**

PROJECT NUMBER	OCA NUMBER	DATE
		5/2013

CITY ENGINEER'S OFFICE  
CITY HALL - SEVENTH FLOOR  
455 NORTH MAIN STREET  
WICHITA, KANSAS 67202-1620  
(316) 268-4501

SHEET

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**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 CHECK SPACING 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 UPSTREAM 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 UPSTREAM EDGE OF THE EROSION-CONTROL BLANKET ALONG THE BOTTOM UPSTREAM 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 UPSTREAM 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".

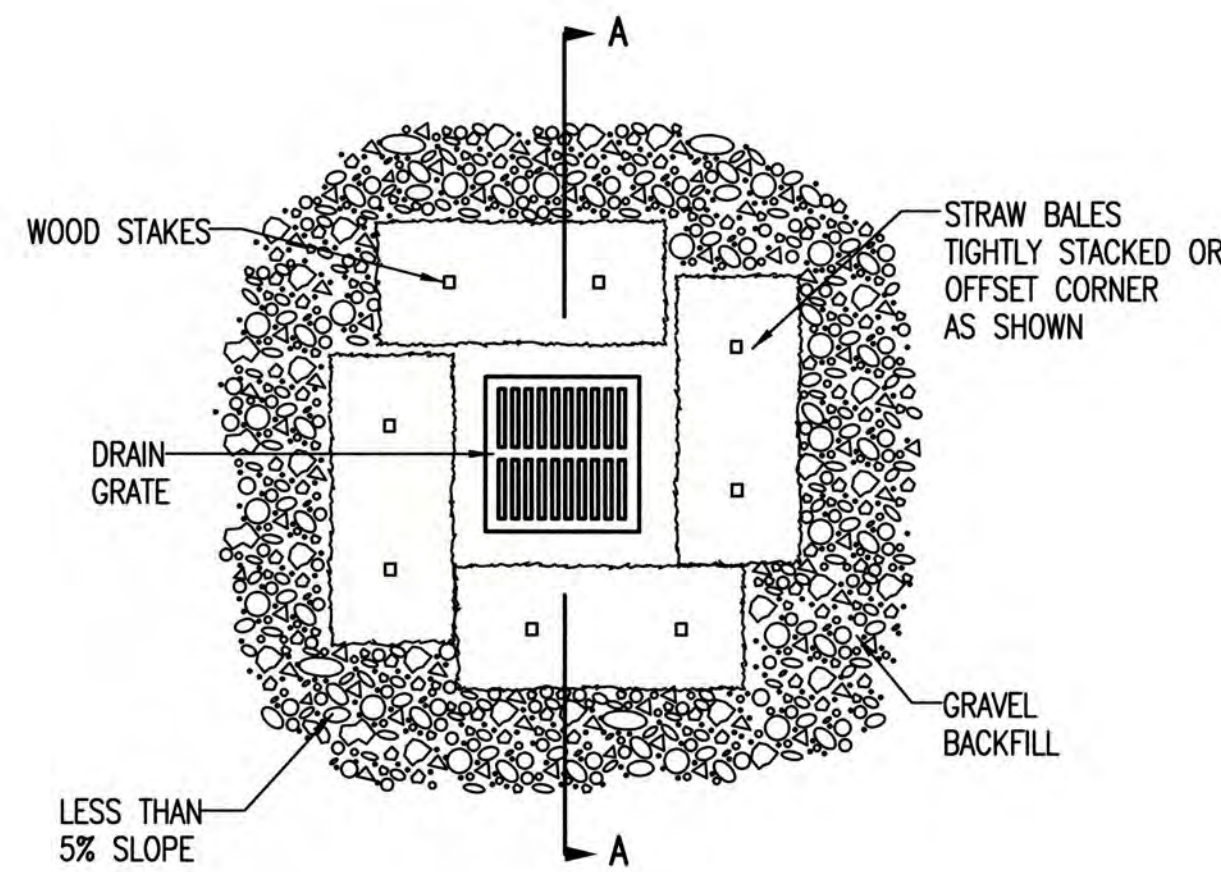
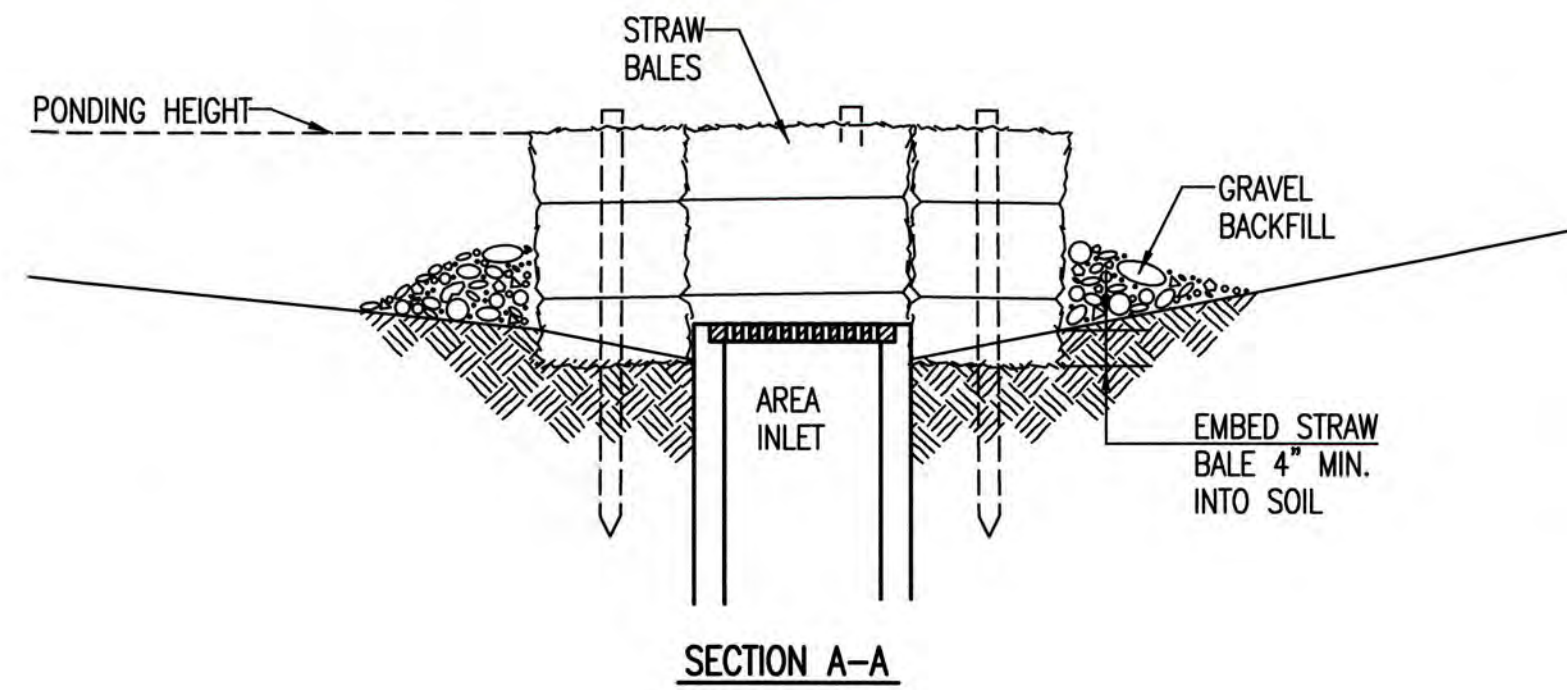
**LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:**

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?



**STRAW BALE BARRIERS FOR AREA INLETS (INLET PROTECTION)**

**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.

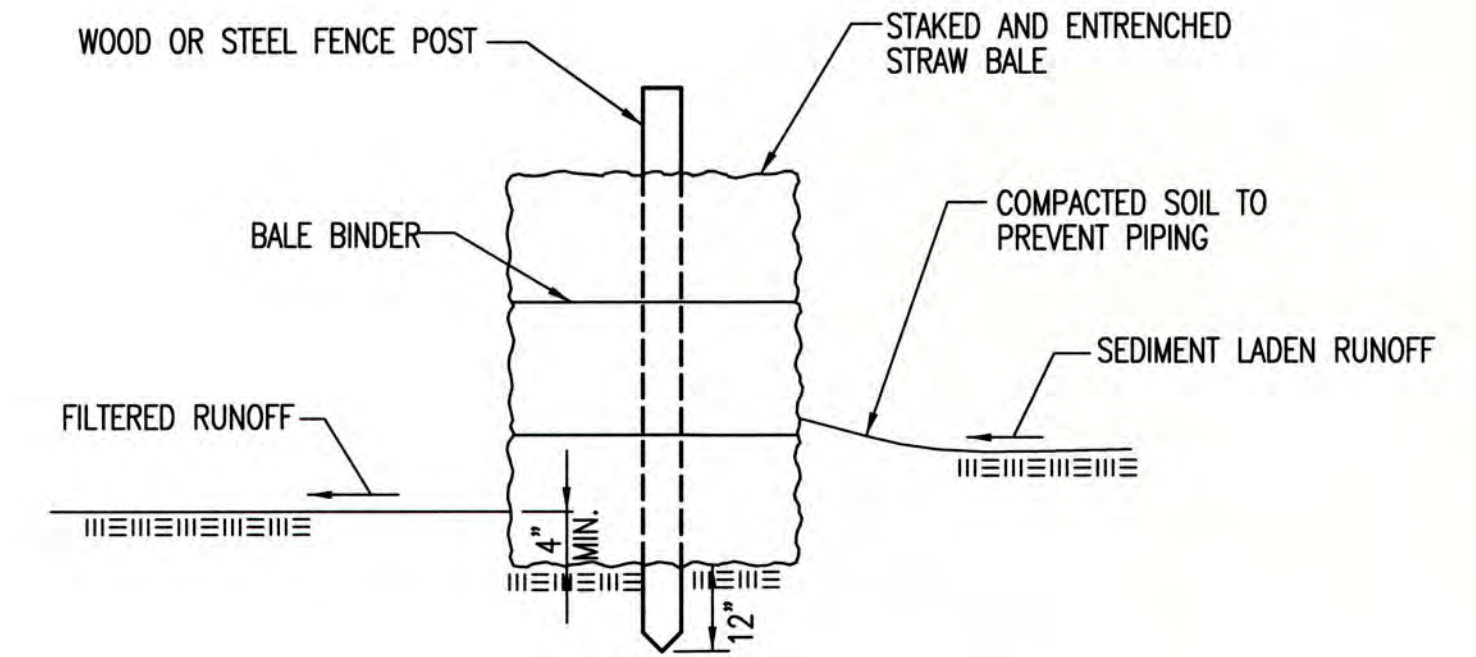
**LIST OF COMMON PLACEMENT INSTALLATION MISTAKES TO AVOID:**

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 OF 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?



**STRAW BALE BARRIERS**

**MATERIAL SPECIFICATION:**

BALE SLOPE BARRIERS 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. TWINE SHOULD BE USED TO BIND BALES. THE USE OF WIRE BINDING IS PROHIBITED BECAUSE IT DOES NOT BIODEGRADE READILY.

**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, BALE SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. BALE 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 4" DEEP AND A BALE'S WIDTH 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. 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.

**LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:**

WHEN PRACTICAL, DO NOT PLACE BALE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. CONCENTRATED FLOW OVER A SLOPE BARRIER CREATES A SCOUR HOLE ON THE DOWNSLOPE SIDE OF THE BARRIER. THE SCOUR HOLE EVENTUALLY UNDERMINES THE BALES AND THE BARRIER FAILS. DO NOT PLACE BALE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT. BALE SLOPE 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 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?
- 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 SLOPE BARRIER?

REVISION DATE: MAY 2013



**STRAW BALE DITCH CHECK AND BARRIER DETAILS**

CITY ENGINEER  
**GARY JANZEN, P.E.**

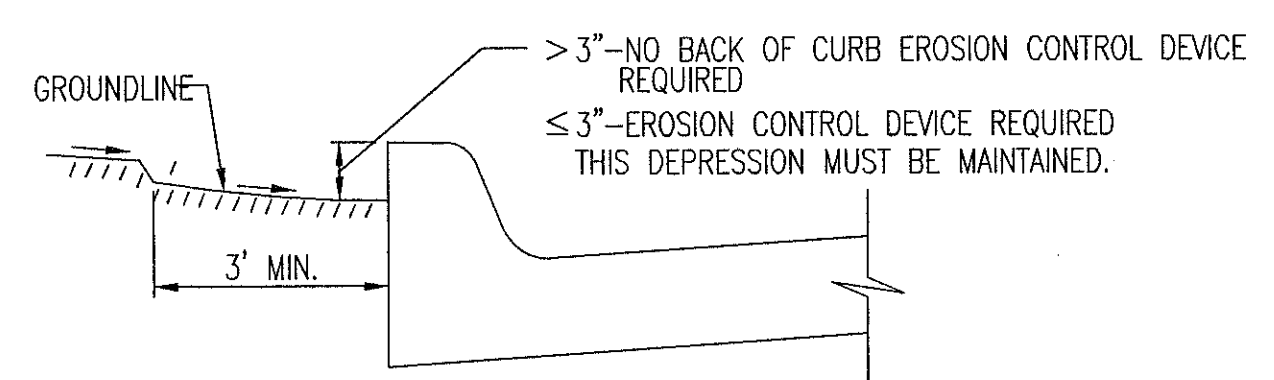
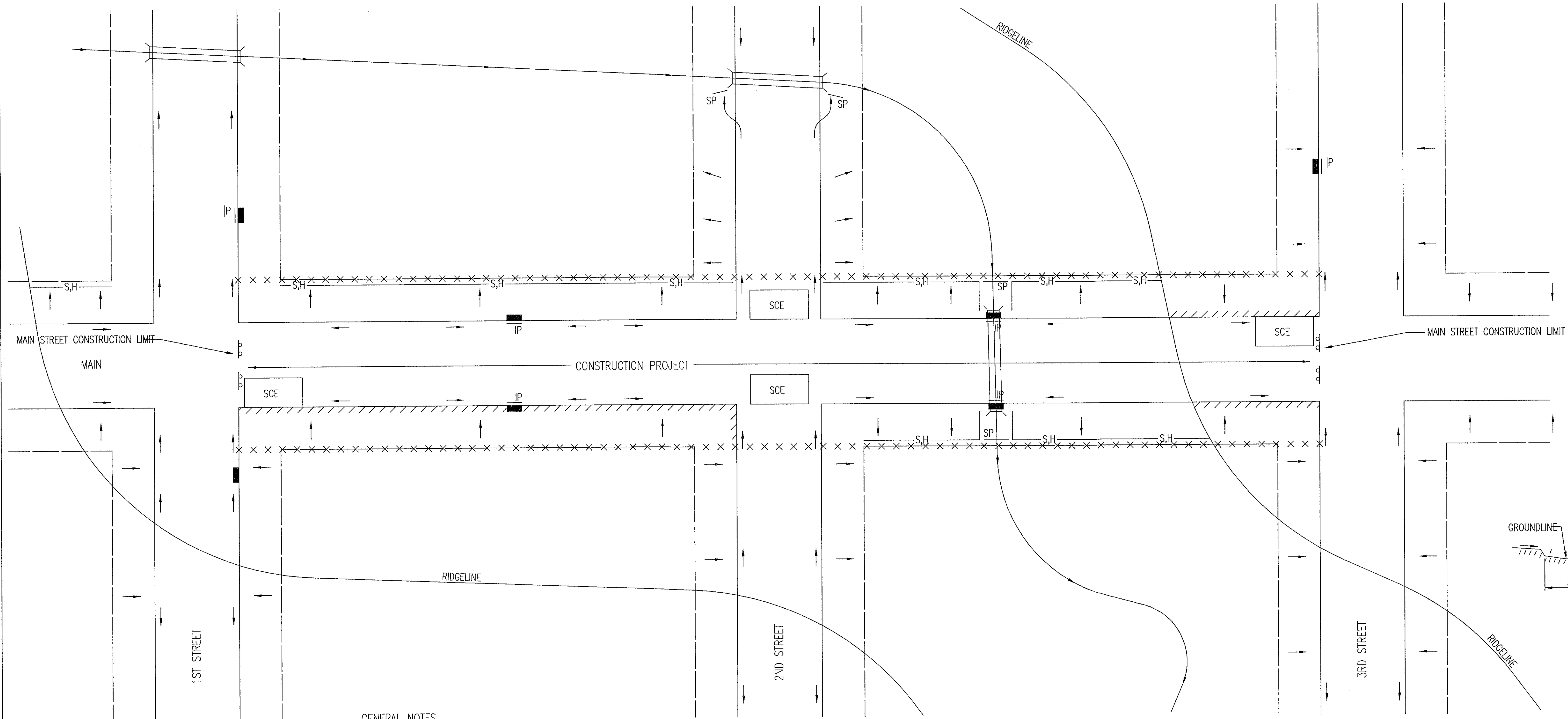
PROJECT NUMBER	OCA NUMBER	DATE
		5/2013

CITY ENGINEER'S OFFICE  
CITY HALL - SEVENTH FLOOR  
455 NORTH MAIN STREET  
WICHITA, KANSAS 67202-1620  
(316) 268-4501

SHEET  
**10 of 19**

GENERAL NOTES

1. THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPES OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
2. EROSION CONTROL DEVICES MUST BE MAINTAINED BY THE CONTRACTOR THROUGHOUT THE CONSTRUCTION PROCESS AND UNTIL THE DISTURBED EARTH IS RESTABILIZED.
3. IF THE PROJECT WILL DISTURB 1 ACRE OR MORE, A FEDERAL/STATE NPDES STORMWATER PERMIT IS REQUIRED. A DETAILED STORMWATER POLLUTION PREVENTION PLAN, IS REQUIRED. THE EROSION CONTROL DEVICES SHOWN ON THIS SHEET ARE CONSIDERED TO BE THE MINIMUM TO BE SHOWN IN THE POLLUTION PREVENTION PLAN.
4. FOR PROJECTS DISTURBING LESS THAN 1 ACRE, CONTRACTORS ARE ENCOURAGED TO PREPARE STORMWATER POLLUTION PREVENTION PLANS PRIOR TO CONSTRUCTION. EROSION CONTROL DEVICES MUST BE USED ON ALL PROJECTS.
5. FAILURE TO USE AND MAINTAIN EROSION CONTROL DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE CONTRACTOR TO THE PENALTIES PROVIDED FOR THEREIN.
6. THE APPLICATION OF EROSION CONTROL DEVICES SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE A DIFFERENT DEVICE OTHER THAN THOSE SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED AS LONG AS THEY ARE EFFECTIVE AND MAINTAINED.



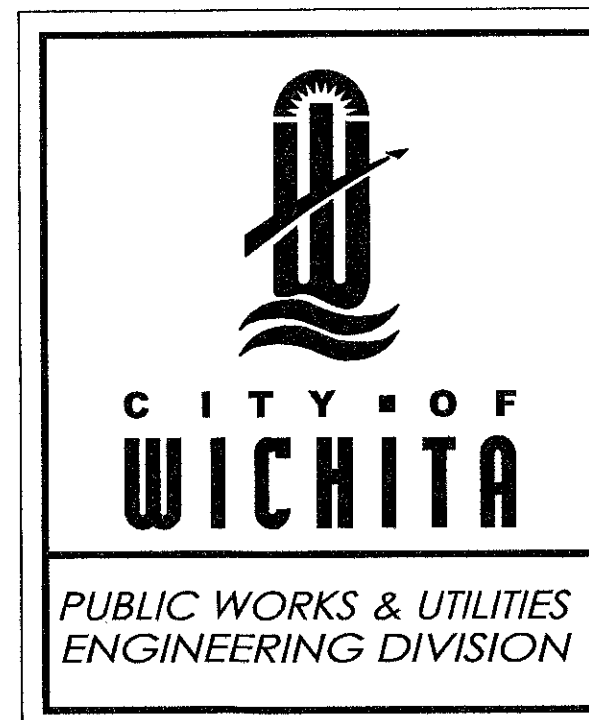
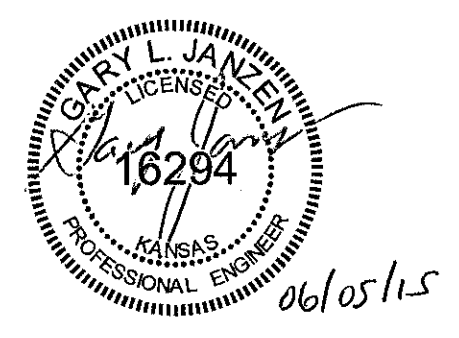
THIS IS A TEMPORARY MEASURE ONLY, WHEN APPROVED BY THE PROJECT ENGINEER. THE DIRT GRADE BEHIND THE CURB SHALL BE BROUGHT TO THE TOP OF CURB, WITH TEMPORARY EROSION CONTROL MAT OR PERMANENT VEGETATION PLACED, PRIOR TO THE COMPLETION OF ALL PROJECTS.

GENERAL NOTES

1. THE INTENT OF ALL EROSION CONTROL DEVICES IS TO KEEP ALL SEDIMENT CONFINED TO THE CONSTRUCTION SITE, AND OUT OF ALL UNDERGROUND PIPES, DITCHES, LAKES, AND OTHER DRAINAGE FACILITIES, AND OFF OF STREETS.
2. THE POINT OF COMPLIANCE IS GENERALLY THE RIGHT-OF-WAY LINES WITHIN THE LIMITS OF CONSTRUCTION.
3. EROSION CONTROL DEVICES WILL BE REQUIRED AT ALL POINTS ALONG THE PROJECT WHERE DISTURBED EARTH CAN DRAIN ONTO PRIVATE PROPERTY.
4. INLET PROTECTION DEVICES WILL BE REQUIRED WHEREVER WATER CAN DRAIN OFF THE PROJECT SITE INTO AN INLET, INCLUDING ANY SIDE STREET INLETS.
5. EROSION CONTROL DEVICES SHALL BE INSTALLED AT CREEK CROSSINGS SO AS TO PREVENT SEDIMENT FROM ENTERING THEREIN.
6. STABILIZED CONSTRUCTION ENTRANCES SHALL BE PROVIDED, AS NEEDED, TO PREVENT MUD FROM TRACKING ONTO STREETS NOT UNDER CONSTRUCTION AND ON STREETS WITHIN THE PROJECT LIMITS IF TRAFFIC IS BEING MAINTAINED THROUGH THE PROJECT.
7. ANY MUD TRACKED ONTO STREETS MUST BE REMOVED AT THE END OF EACH WORK DAY.
8. THE CONTRACTOR WILL BE REQUIRED TO PLACE EROSION CONTROL DEVICES BACK OF CURB, WHENEVER WATER CAN DRAIN OVER CURB, TO KEEP ERODED SOIL OUT OF THE GUTTERLINES, IN ACCORDANCE WITH THE FOLLOWING:
  - A. THE DEVICE REQUIRED WILL BE APPROVED EROSION CONTROL MAT LISTED ON THE CITY'S APPROVED MATERIAL LIST. SAID BLANKET SHALL BE PLACED OVER THE APPROPRIATE SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS. (SEE SOIL EROSION BMPs - BACK OF CURB SEDIMENT BARRIER DETAILS)
  - B. THIS DEVICE SHALL BE INSTALLED IMMEDIATELY WHENEVER THE CURB IS BACKFILLED TO WITHIN 3" OF THE TOP OF CURB. (SEE CURB BACKFILL DETAIL) OTHER BMP'S MAY BE REQUIRED AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB.
  - C. ADDITIONALLY, OTHER EROSION CONTROL DEVICES (HAY BALES, SILT FENCE, ETC.) WILL BE INSTALLED AT LOCATIONS OF CONCENTRATED FLOW RESULTING IN SEDIMENT OVERRUNNING THE MAT.
  - D. SHOULD THE PROJECT PLANS SPECIFY THAT THE RIGHT-OF-WAY IS TO BE SODDED, THE EXCELSIOR MAT WILL NOT BE REQUIRED SO LONG AS THE SOD IS PLACED WITHIN 48 HOURS AFTER CURB BACKFILL REACHES A HEIGHT OF 3" OR LESS FROM TOP OF CURB. (SEE CURB BACKFILL DETAIL)

LEGEND

- R-O-W LIMITS
- DRAINAGE FLOW PATH
- x x x x R/W LIMIT WITHIN CONSTRUCTION LIMIT
- STORM WATER INLETS
- IP INLET PROTECTION
- S,H SILT FENCE OR HAY BALE BARRIER
- SP STREAM PROTECTION
- SCE STABILIZED CONSTRUCTION ENTRANCE
- //// BACK OF CURB PROTECTION



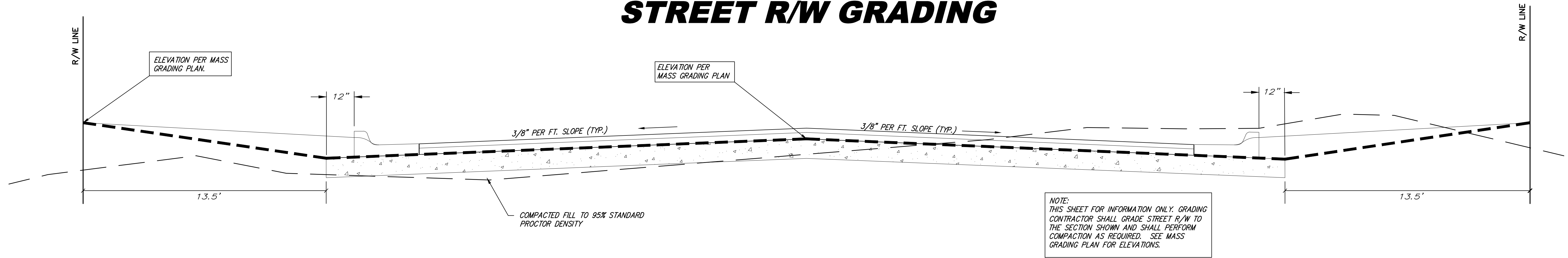
<b>STREET IMPROVEMENT PROJECTS</b>		
CITY ENGINEER <b>GARY JANZEN, P.E.</b>		
PROJECT NUMBER	OCA NUMBER	DATE 9/2015
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET <b>11 of 19</b>

REVISION: JUNE 2015

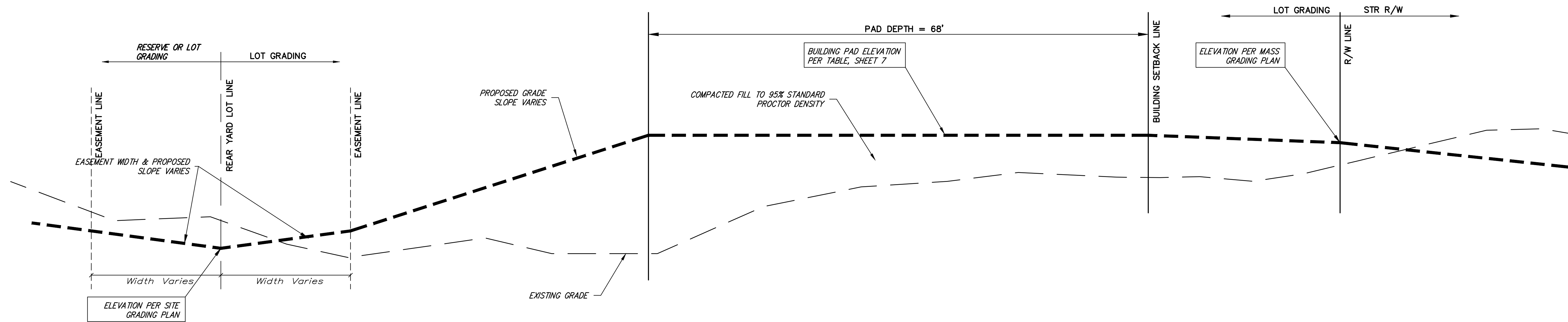


# TYPICAL MASS GRADING DETAIL

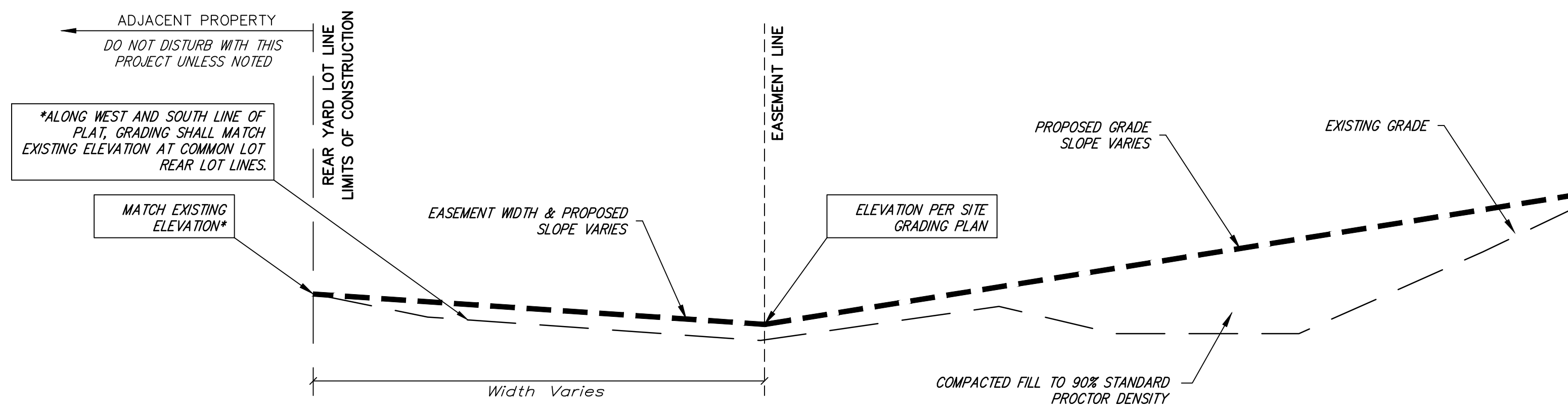
## STREET R/W GRADING




## LOT FILL GRADING INTERIOR PLATTED LOT SECTION



## EXTERIOR PLATTED LOT SECTION

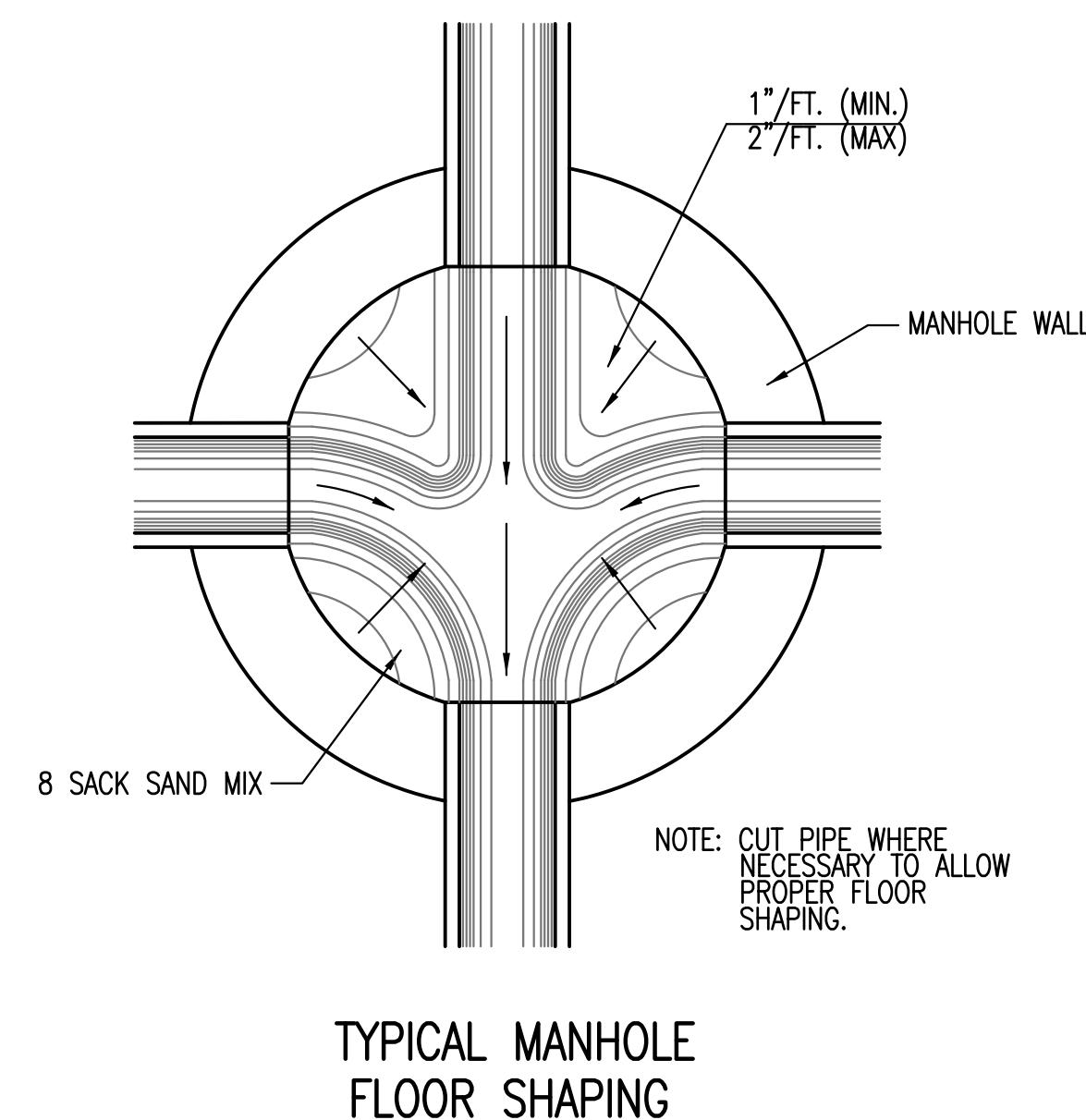
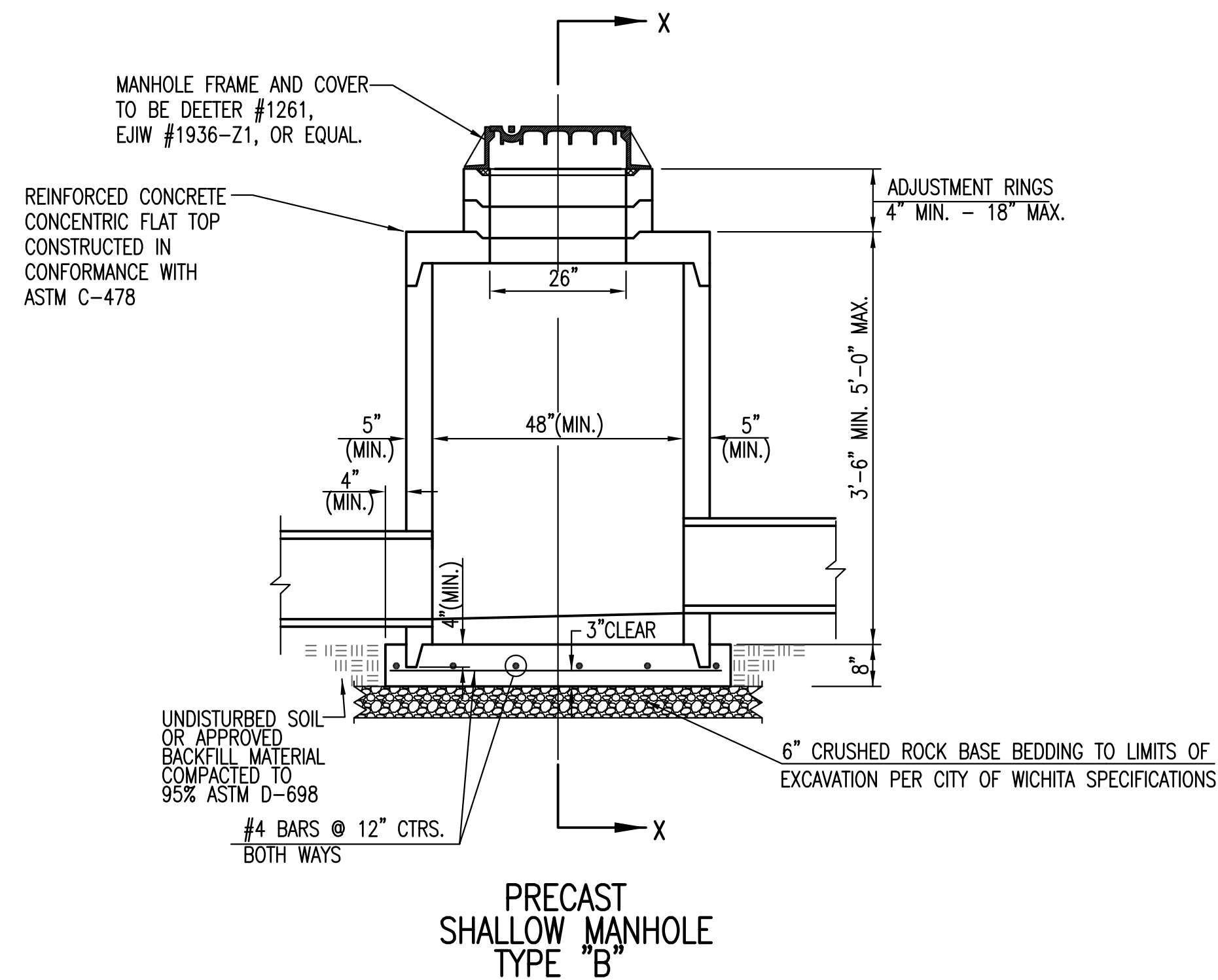
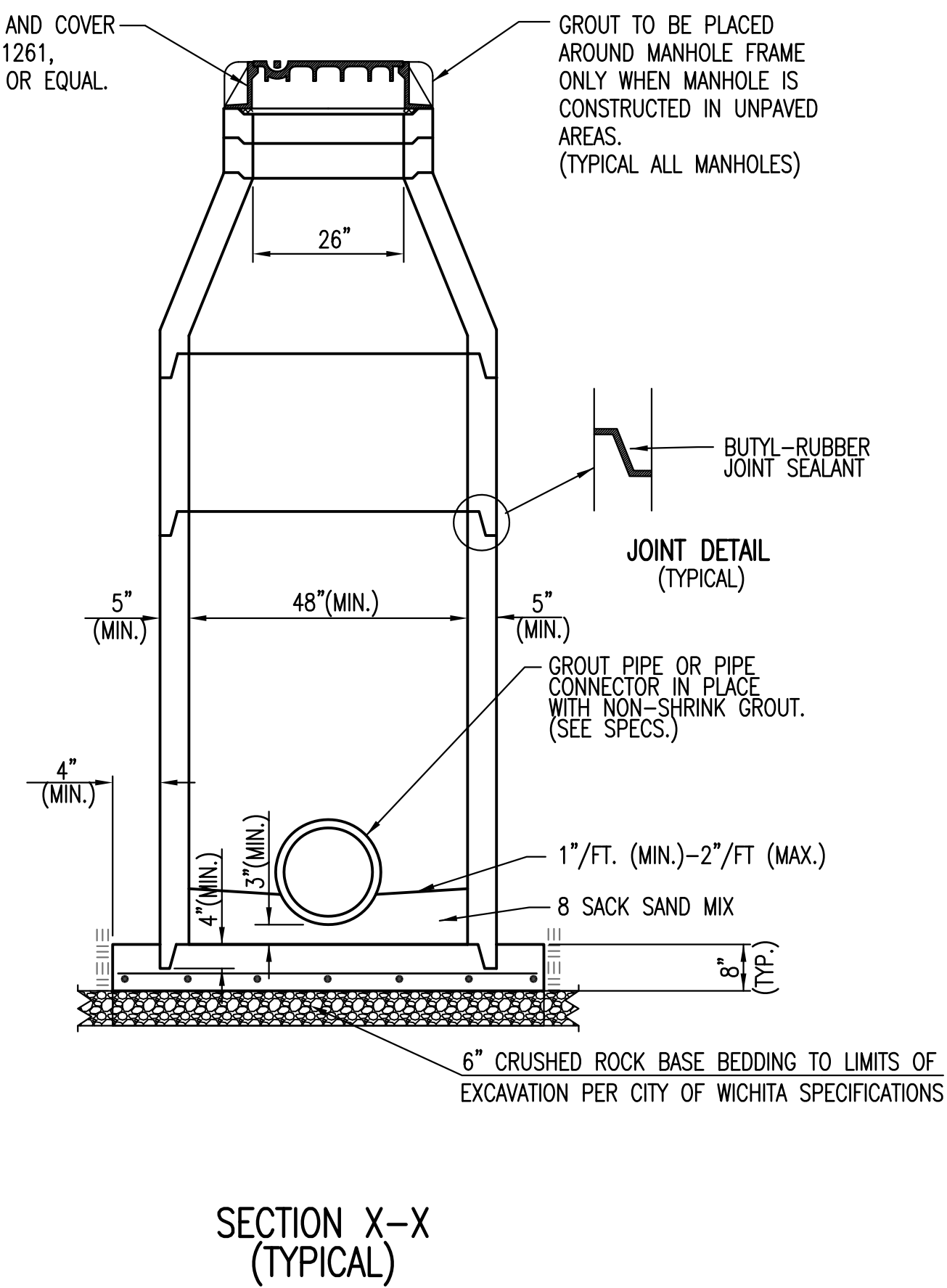
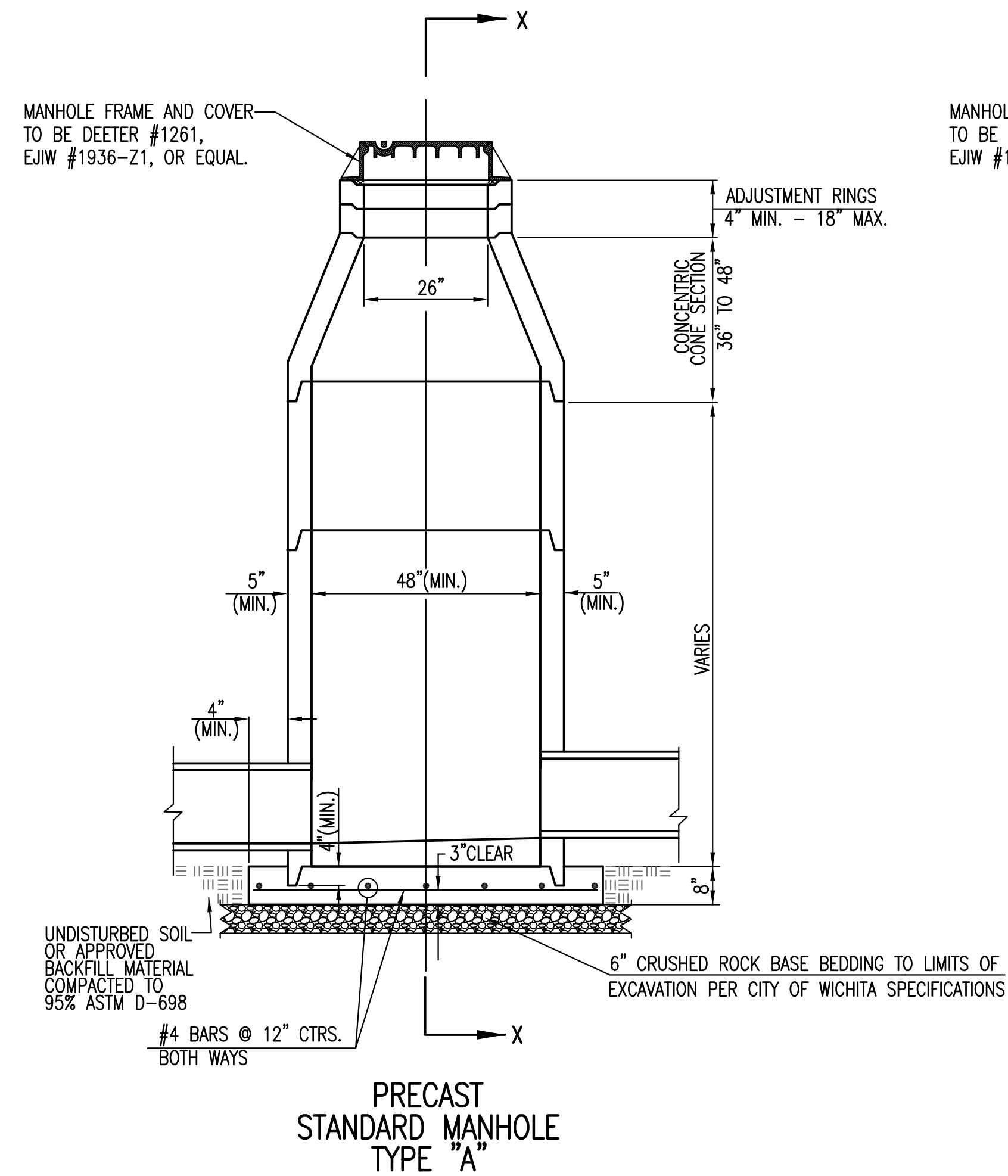


 <b>Vassar Addition MASS GRADING TYPICAL SECTION</b> Stormwater Sewer #	
<small>Baughman Company, P.A. 315 Ellis St. Wichita, KS 67211 P 316-262-7271 F 316-262-0149 ENGINEERING   SURVEYING   PLANNING   LANDSCAPE ARCHITECTURE</small>	
PROJECT NUMBER 468-	DESIGN AEG
REVISIONS:	DRAWN JAK
APPROVED	DATE 3/21/16
SCALE Noted	SHEET <b>13 OF 19</b>









**GENERAL NOTES**

- 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.
- STEEL REINFORCING WILL BE REQUIRED IN ALL MANHOLE BASES.
- ALL MANHOLE CONSTRUCTION SHALL BE WATER TIGHT.
- 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.
- ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION OF ASTM C-478 AS MODIFIED BY THE SPECIFICATIONS.
- CONCRETE USED FOR MANHOLE CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
- PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO MANHOLE BASE.
- MANHOLES WITH PIPE SIZES 24" AND LARGER SHALL HAVE 5 FOOT INSIDE DIAMETER (MIN.).
- 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.
- 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.
- THE ENDS OF ALL PIPES IN MANHOLES SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE MANHOLE WALL.
- 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.
- MANHOLE FRAME AND COVER TO BE DEETER #1261, EJIW #1936-Z1, OR APPROVED EQUAL, SEE SW-303.
- FOR FLAT GRATED INLET APPLICATION, GRATE TO BE DEETER #1933, EJIW #1205 MDI, OR APPROVED EQUAL.
- FOR BEEHIVE GRATE APPLICATION, GRATE TO BE DEETER #4495, EJIW #120545, OR APPROVED EQUAL.

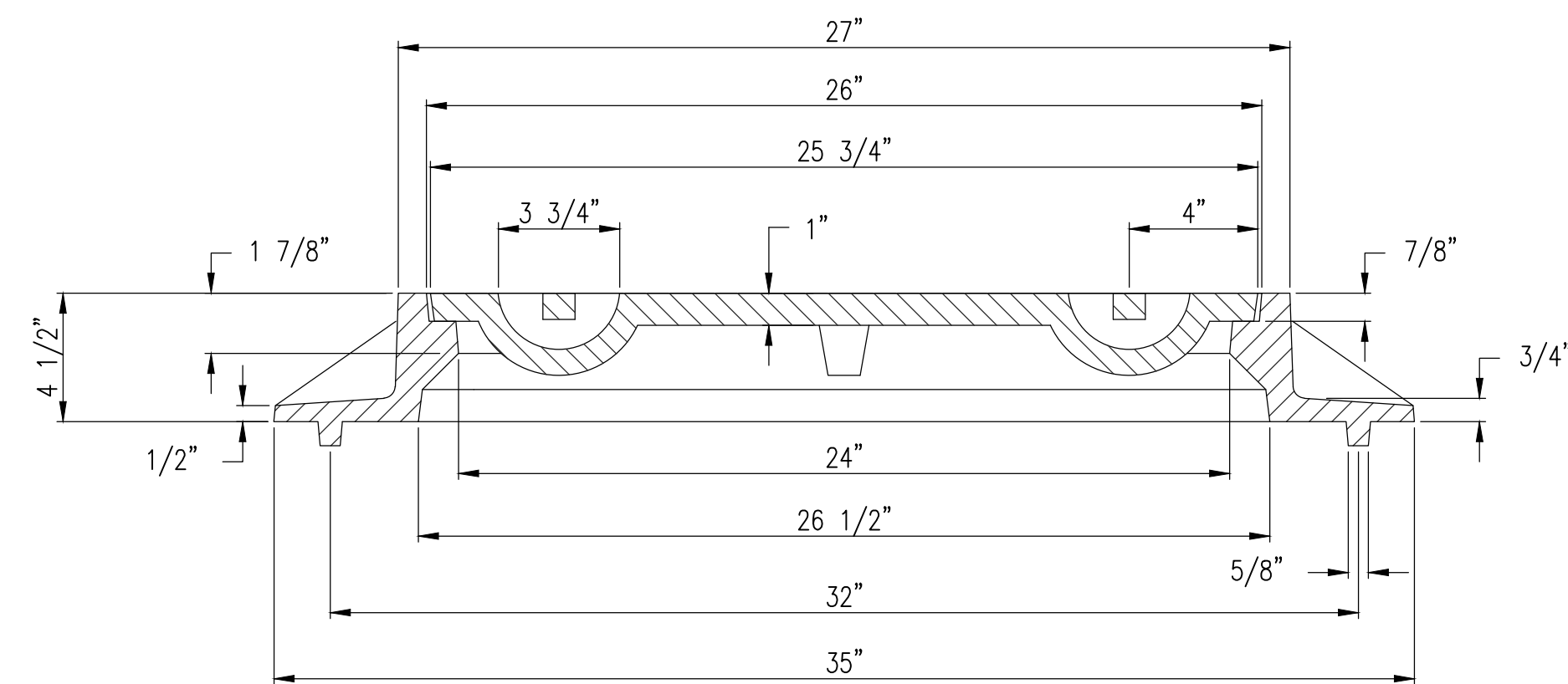
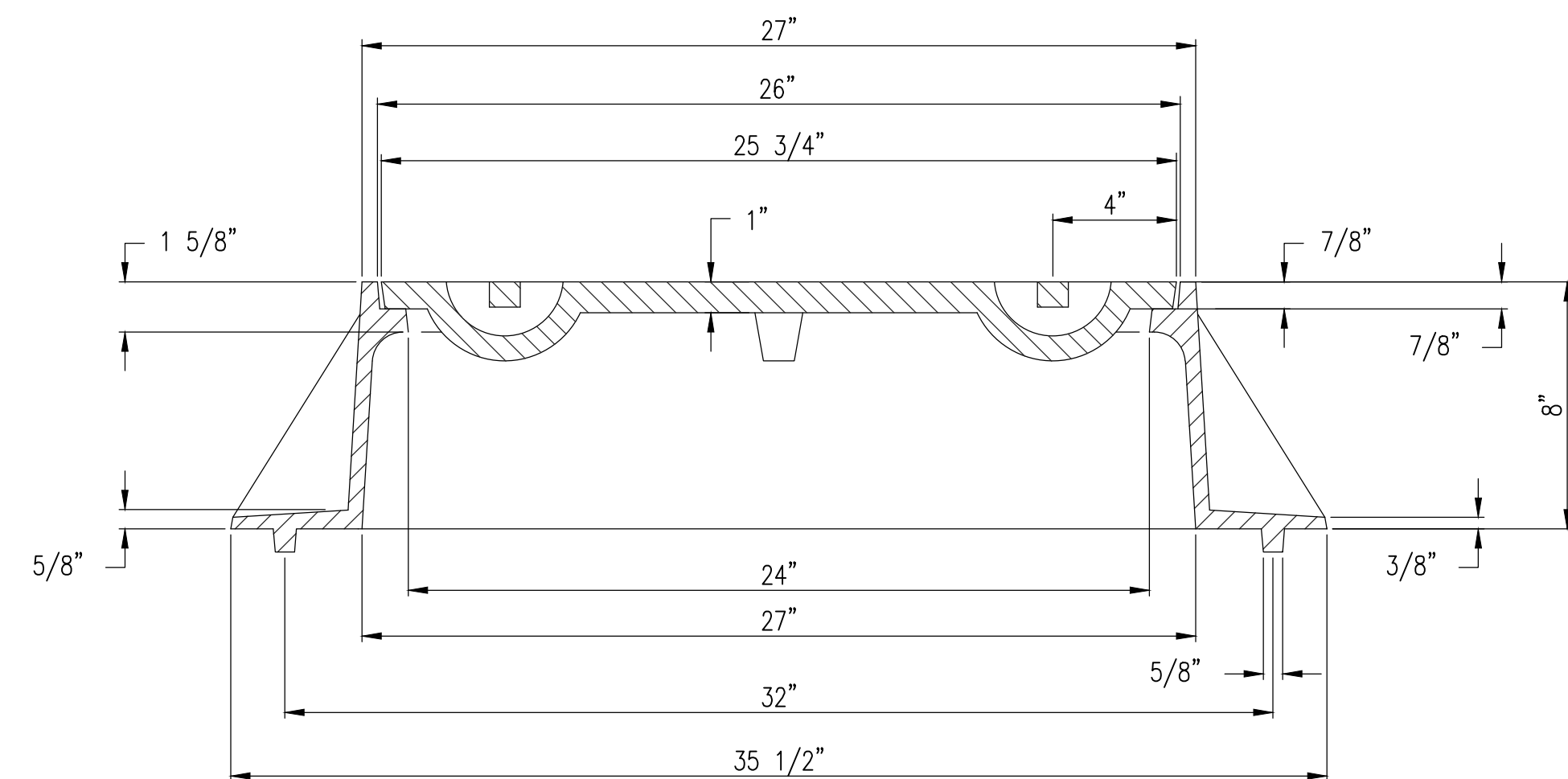
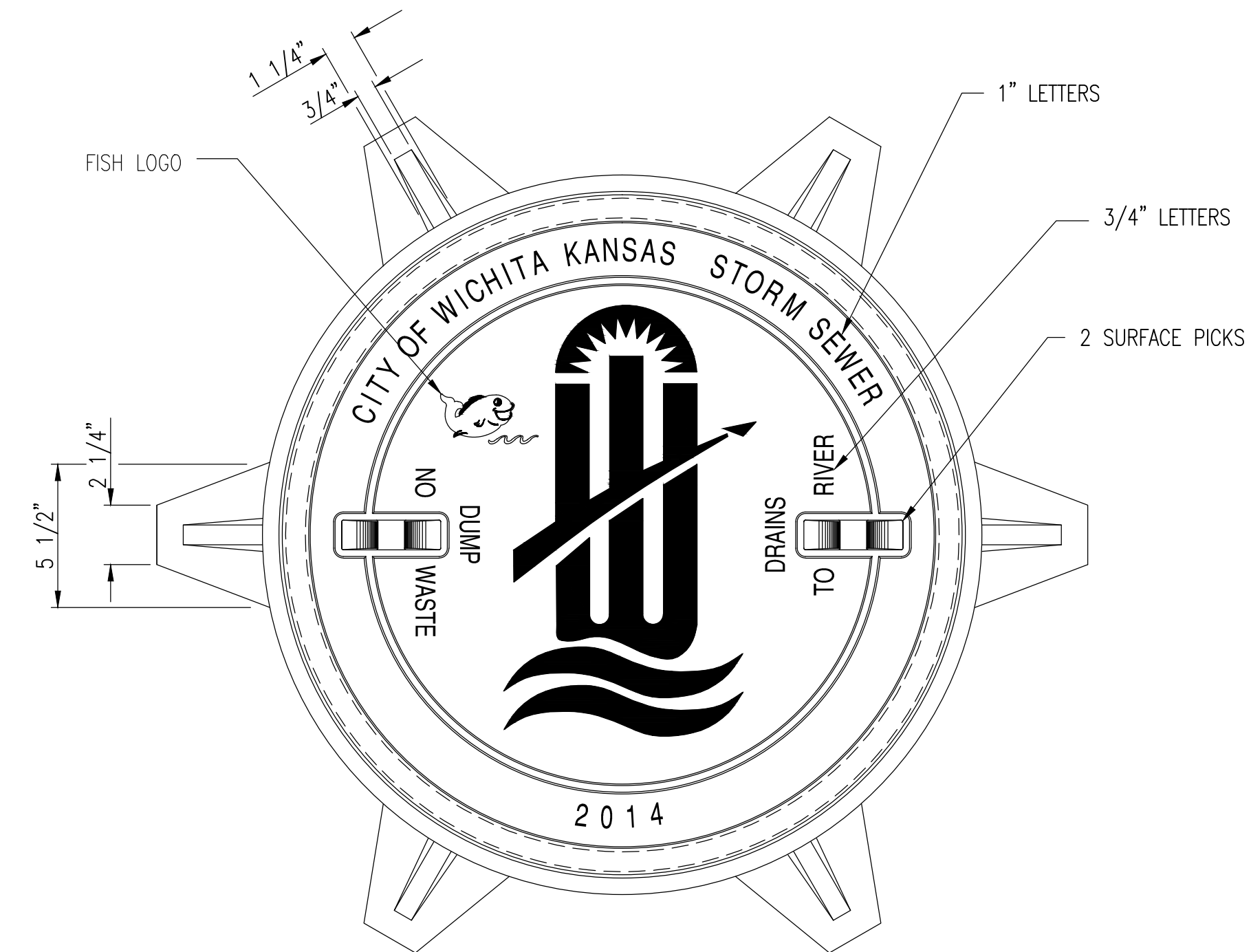
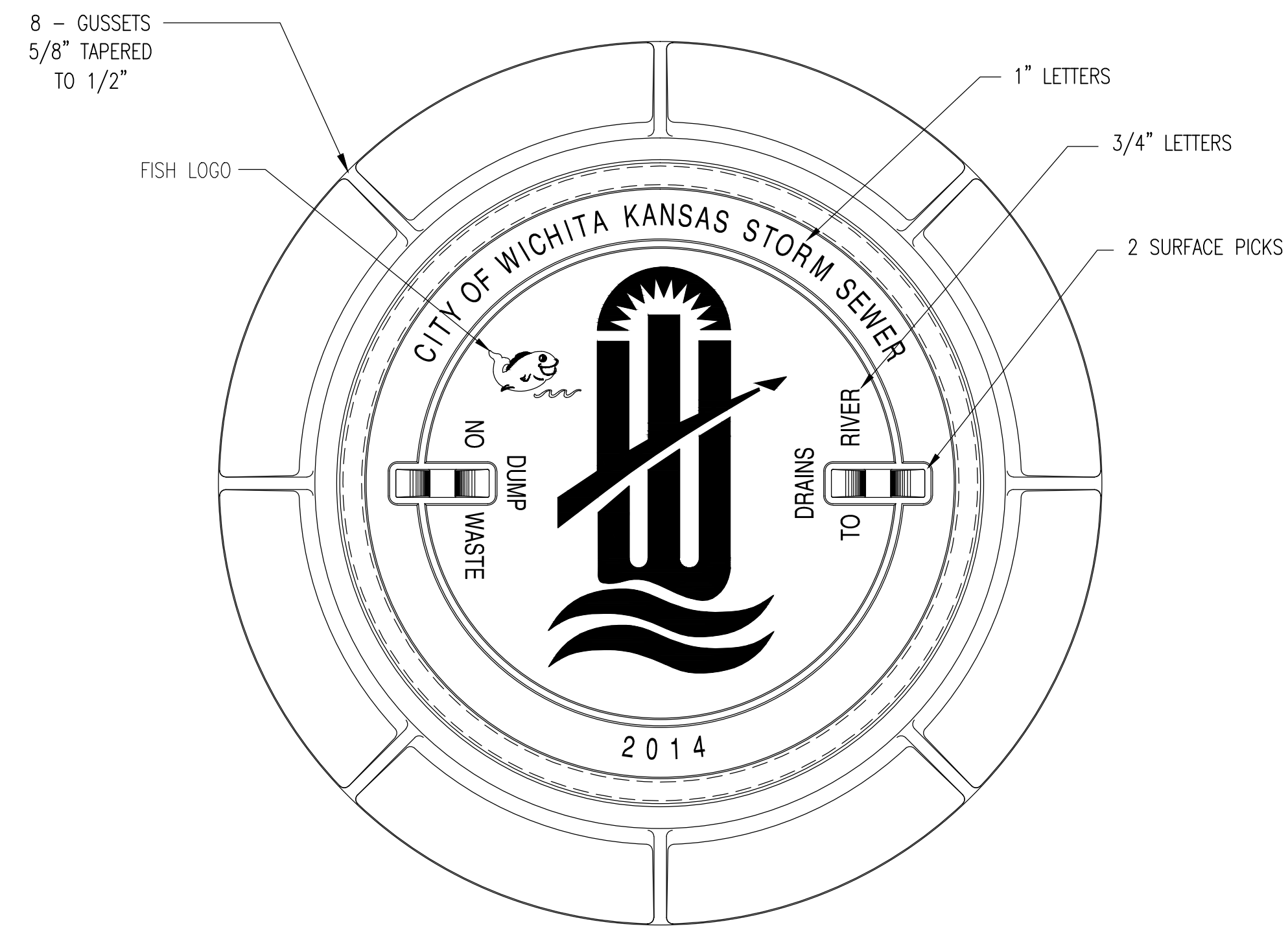
REVISED: MARCH 2015



**PRECAST CONCRETE  
MANHOLE  
(STORM SEWER)**

CITY ENGINEER  
**GARY JANZEN, P.E.**

PROJECT NUMBER	OCA NUMBER	DATE
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET <b>16 of 19</b>



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
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501	DESIGN Staff	DRAWN Staff
SHEET		17 of 19

VASSAR SWS

**BENCHMARKS:**

Chiseled square on top of catch basin, 43.5' N. & 20.4' W. of the northwest corner of Lot 24, Block B, Vassar Addition.  
Elev. = 1259.55 NGVD29

Chiseled cross on top of catch basin, 48.2' N. & 41.2' W. of the northeast corner of Lot 37, Block B, Vassar Addition.  
Elev. = 1258.46 NGVD29

Chiseled cross on walk, most easterly corner, (block corner), Lot 4, Block D, Clifton Cove Addition, 35.2' W. & 8.5' S. of the northwest corner, Lot 20, Block B, Vassar Addition.  
Elev. = 1258.62 NGVD29

Point #	Northing	Eastng	Elev	Description
2000	25169.69	48904.82	1256.57	0+00
2001	25217.82	48916.33	1256.87	0+50
2002	25294.54	48949.50	1257.18	1+00
2003	25270.86	48996.21	1257.49	1+50
2004	25271.97	49046.19	1257.75	2+00
2005	25272.86	49096.18	1258.02	2+50
2006	25273.74	49146.18	1258.28	3+00
2007	25274.62	49196.17	1258.55	3+50
2008	25275.51	49246.16	1258.72	4+00
2009	25276.39	49296.15	1258.47	4+50
2010	25277.28	49346.14	1258.20	5+00
2011	25278.16	49396.14	1257.94	5+50
2012	25278.29	49445.99	1257.67	6+00
2013	25257.56	49492.00	1257.38	6+50
2014	25303.70	49446.95	1257.13	13+74.85
2015	25119.70	48905.59	1256.33	0+50
2016	25069.71	48906.35	1256.55	1+00
2017	25019.83	48908.63	1256.83	1+50
2018	24977.22	48933.21	1257.12	2+00
2019	24957.04	48978.07	1257.41	2+50
2020	24957.27	49028.04	1257.70	3+00
2021	24958.16	49078.04	1257.99	3+50
2022	24959.04	49128.03	1258.07	4+00
2023	24959.92	49178.02	1257.80	4+50
2024	24960.81	49228.01	1257.53	5+00

Point #	Northing	Eastng	Elev	Description
2025	24961.69	49278.00	1257.26	5+50
2026	24963.77	49327.91	1256.94	6+00
2027	24964.04	49373.05	1256.52	6+50
2028	25022.97	49403.88	1256.10	7+00
2029	25065.71	49428.82	1256.06	7+50
2030	25108.46	49455.75	1256.31	8+00
2031	25151.21	49481.69	1256.56	8+50
2032	25193.96	49507.62	1256.82	9+00
2033	25232.92	49538.41	1257.17	9+50
2034	25253.27	49583.52	1257.49	10+00
2035	25255.37	49633.42	1257.76	10+50
2036	25256.25	49683.41	1258.01	11+00
2037	25257.14	49733.41	1258.26	11+50
2038	25258.02	49783.40	1258.50	12+00
2039	25258.91	49833.39	1258.23	12+50
2040	25265.79	49882.63	1257.87	13+00
2041	25290.16	49926.12	1257.41	13+50
2042	24928.37	48968.60	1257.58	0+00.50
2043	24880.68	48929.17	1257.46	0+50
2044	24927.20	49745.68	1257.14	1+00
2045	24970.26	49771.08	1256.89	1+50
2046	25014.92	49793.13	1256.62	2+00
2047	25064.62	49796.15	1256.36	2+50
2048	25114.62	49795.40	1256.38	3+00
2049	25164.61	49794.64	1256.74	3+50

Point #	Northing	Eastng	Elev	Description
2050	25214.60	49793.89	1257.10	4+00
2051	24830.44	49718.09	1258.32	0+50
2052	24831.51	49768.08	1258.00	1+00
2053	24830.69	49730.08	1258.45	0+00
2054	24832.02	49791.57	1257.58	1+23.50
2055	25091.62	49795.74	1256.29	2+77.00-PW
2056	25271.21	49003.04	1257.52	1+56.84PW
2057	25275.37	49238.16	1258.73	3+92.00-PW
2058	24958.72	49110.03	1258.12	3+82.00-PW
2059	25278.57	49419.62	1257.82	5+73.49PW
2060	25246.15	49506.81	1257.27	6+68.71
2061	25041.78	49415.29	1256.00	7+22.00-PW
2062	25258.20	49793.24	1258.50	12+09.84-PW
2063	24917.91	49740.20	1257.20	0+89.21-PW
2064	24989.84	49782.63	1256.77	1+72.73-PW
2065	24962.30	49312.54	1257.07	5+84.54-PW
2066	25042.15	49796.48	1257.12	2+27.52-PW
2067	25035.33	48906.88	1256.74	1+34.38
2068	25206.65	49515.32	1256.89	9+14.84-PW
2069	25240.42	49549.19	1257.27	6+63.13-PW
2070	25254.76	49598.05	1257.58	10+15.62-PW
2071	25014.15	49941.00	1256.80	
2072	25224.29	49793.75	1257.17	4+09.69
2073	25258.80	49827.14	1258.27	12+43.75-PW
2074	25259.12	49845.71	1258.14	12+62.32-PW

Point #	Northing	Eastng	Elev	Description
2075	25278.00	49907.39	1257.67	13+27.67-PW
2076	25311.66	49859.20	1256.96	13+89.45
2077	24949.09	49941.96	1256.05	
2078	24884.06	49942.92	1256.75	
2079	24851.66	49943.39	1257.10	
2080	24865.56	49909.56	1256.56	
2081	24876.18	49516.01	1256.71	
2082	24908.95	49535.89	1257.20	
2083	24941.73	49555.77	1256.78	
2084	24953.11	49562.68	1256.63	
2085	25007.27	49595.54	1257.32	
2086	25012.96	49598.99	1257.40	
2087	25071.09	49634.26	1256.69	
2088	25078.44	49638.72	1256.60	
2089	25148.43	49637.67	1257.60	
2090	25114.15	49019.72	1258.20	
2091	25115.25	49081.70	1258.90	
2092	25115.42	49091.71	1258.78	
2093	25116.34	49143.70	1258.14	
2094	25116.69	49163.69	1257.89	
2095	25117.44	49205.69	1257.38	
2096	25117.97	49235.68	1257.01	
2097	25118.41	49260.61	1256.70	
2098	25135.92	49271.23	1256.70	
2099	25199.19	49309.62	1257.50	

Point #	Northing	Eastng	Elev	Description
2100	25417.23	48857.02	1256.84	
2101	25414.51	48940.12	1258.00	
2102	25415.04	49013.71	1258.00	
2103	25416.19	49087.70	1258.00	
2104	25417.35	49161.69	1258.00	
2105	25418.51	49235.69	1258.00	
2106	25419.66	49309.41	1258.00	
2107	25420.82	49383.67	1258.00	
2108	25421.95	49455.66	1258.00	
2109	25423.08	49528.17	1258.00	
2110	25424.21	49600.63	1258.00	
2111	25425.06	49672.62	1258.01	
2112	25425.88	49744.62	1258.03	
2113	25427.59	49820.60	1258.00	
2114	25429.09	49912.87	1258.00	
2115	25155.04	49938.92	1256.70	
2116	24815.47	48803.34	1257.72	
2117	24816.56	48875.34	1255.38	
2118	24817.65	48947.33	1256.19	
2119	24818.73	49019.32	1256.99	
2120	24820.04	49091.31	1256.40	
2121	24820.91	49163.30	1257.18	
2122	24822.00	49235.30	1258.00	
2123	24822.54	49271.29	1258.40	
2124	24823.09	49307.29	1258.00	

Point #	Northing	Eastng	Elev	Description
2125	24824.58	49405.74	1256.93	
2126	24838.17	48801.47	1258.20	
2127	24839.30	48873.46	1258.90	
2128	24967.54	48760.68	1258.50	
2129	25036.42	48759.63	1258.80	
2130	25108.15	48680.52	1259.00	
2131	25109.27	48743.59	1258.30	
2132	25109.53	48758.51	1258.10	
2133	25001.35	49483.17	1257.50	
2134	25087.68	49350.74	1257.50	
2135	24951.30	48873.27	1258.08	
2136	24950.17	48801.28	1258.39	
2137	24949.54	48760.96	1258.64	

Point #	Northing	Eastng	Description
7000	25117.11	48889.45	cen 1/2 fc
7001	25117.61	48921.79	cen 1/2 fc
7002	25123.78	49281.61	MH
7003	25053.18	49403.30	cen 1/2 fc
7004	25036.41	49430.95	cen 1/2 fc
7005	24954.79	49569.55	MH
7006	25083.64	49647.72	INLET
7007	25087.43	49779.63	cen 1/2 fc
7008	25087.91	49811.97	cen 1/2 fc
7009	25091.04	49939.86	INLET
7010	24954.09	49941.88	INLET
7011	24825.85	49491.32	INLET
7012	24819.96	49086.31	INLET

Point #	Northing	Eastng	Description
1	25434.09	48953.09	Iron
2	25449.32	49227.58	Iron
3	25374.36	49288.68	Iron
4	25288.12	49451.19	Iron
5	25283.76	49598.54	Iron
6	25228.69	49764.68	Iron
7	25225.77	49598.56	Iron
8	25283.25	49533.99	Iron
9	25221.69	49490.53	Iron
10	25191.61	49540.12	Iron
11	25149.59	49420.13	Iron
13	25300.21	49002.53	Iron
14	25242.21	49003.55	Iron
15	25170.14	48933.82	Iron
16	25050.44	48631.40	Iron
17	25034.89	48877.88	Iron
18	25035.78	48935.87	Iron
19	24985.16	48987.77	Iron
20	24927.57	48988.79	Iron
21	24808.09	49286.94	Iron
22	24813.01	49651.94	Iron
23	24813.36	49668.44	Iron
24	24816.03	49792.41	Iron
25	24845.36	49667.75	Iron
26	24845.66	49681.75	Iron
27	24965.96	49700.34	Iron
28	24974.42	49700.12	Iron
29	24932.64	49715.22	Iron
30	24930.17	49765.17	Iron
31	24876.16	49758.11	Iron
32	24866.31	49758.32	Iron
33	24847.72	49777.73	Iron
34	24848.01	49791.73	Iron
35	24819.31	49968.87	Iron
36	24991.30	49312.03	Iron
37	24933.31	49313.05	Iron
38	24995.37	49421.06	Iron
39	25025.46	49371.48	Iron
40	25303.42	49457.75	Iron
48	25449.82	49595.58	mag set
50	25229.21	49962.82	Iron
51	25437.25	48856.73	Iron
52	25169.24	48875.82	Iron
53	25111.35	48861.71	Iron
55	25226.71	49822.71	Iron
57	25042.60	49825.49	Iron
58	25041.72	49767.50	Iron
59	24975.08	49807.60	Iron
60	25004.57	49757.64	Iron
66	24983.47	48700.58	Iron
67	24920.21	48685.51	cross set
68	24896.55	48680.05	Iron
69	24830.75	48673.07	Iron
70	24798.45	48673.60	mag set in conc Inpost
71	25107.27	48630.53	Iron

# VASSAR ADDITION WICHITA, SEDGWICK COUNTY, KANSAS

Know all men by these presents that we, the undersigned, have caused the land in the surveyors certificate to be known as "VASSAR ADDITION", Wichita, Sedgwick County, Kansas. The utility easements are hereby granted as indicated for the construction and maintenance of all public utilities. The drainage and utility easements are hereby granted as indicated for drainage purposes and for the construction and maintenance of all public utilities. The drainage easements are hereby granted as indicated for drainage purposes. The street, drainage, and utility easements are hereby granted as indicated for street purposes, including sidewalks, for drainage purposes, and for the construction and maintenance of all public utilities. The streets are hereby dedicated to and for the use of the public. Reserve "A" is reserved for open space, landscaping, drainage purposes, an emergency access drive, signage, gates, a private access drive, recreational uses, and utilities as confined to easement. Reserve "AA" is reserved for open space, fences, landscaping, drainage purposes, and utilities as confined to easement. Reserve "A" shall be owned and maintained by the homeowners association for the addition. Reserve "AA" shall be owned and maintained by the homeowner of Lot 4, Block A, Clifton Cove Addition. Access controls shall be as depicted on the face of the plat and are hereby granted to the City of Wichita, Kansas. FEMA floodplain boundaries are subject to periodic change, and such change may affect the intended land use within the subdivision. The Minimum Building Pad Elevations for the lowest opening to the structures shall be as indicated on the face of the plat.

Coywood, L.L.C.,  
a Kansas limited liability company  
  
\_\_\_\_\_, Member  
Jay W. Russell

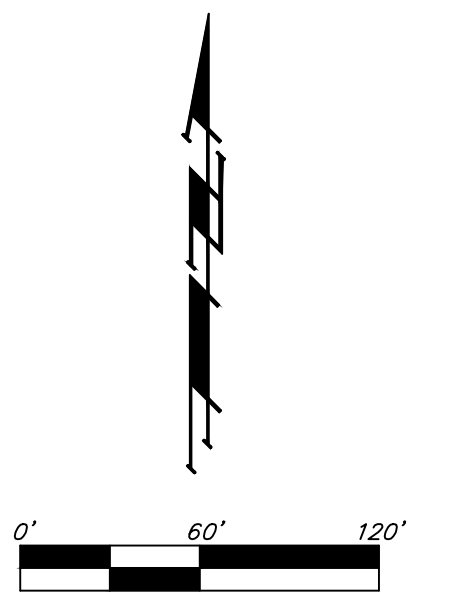
State of Kansas) SS The foregoing instrument acknowledged before me, this \_\_\_\_\_ day of \_\_\_\_\_, by Jay W. Russell, Member of Coywood, L.L.C., a Kansas limited liability company, on behalf of the limited liability company.

My App't. Exp. \_\_\_\_\_, Notary Public

State of Kansas) SS We, Baughman Company, P.A., Surveyors in aforesaid county and state do hereby certify that we have surveyed and platted "VASSAR ADDITION", Wichita, Sedgwick County, Kansas and that the accompanying plat is a true and correct exhibit of the property surveyed, described as and being a replat of all of Lots 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, and 30, Block A, TOGETHER with all of Lots 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16, Block B, TOGETHER with all of Lots 1, 2, 3, and 4, Block C, TOGETHER with all of Clifton Ave., Vassar Ave., and Sunflower Ct., all as platted and dedicated in Clifton Cove Addition, Wichita, Sedgwick County, Kansas, TOGETHER with that part of Sunflower Dr. as dedicated in said Clifton Cove Addition lying generally east of and abutting the following described line: Beginning at the northwest corner of Lot 1 in said Block B; thence N13°24'39"E, 65.05 feet to the point of curvature in the south line of Lot 6 in said Block A, and for a point of termination.

Existing public easements, building setbacks, access controls, and dedications, if any, being vacated by virtue of K.S.A. 12-512b, as amended.  
Baughman Company, P.A.

\_\_\_\_\_, Surveyor  
Michael G. Conrey



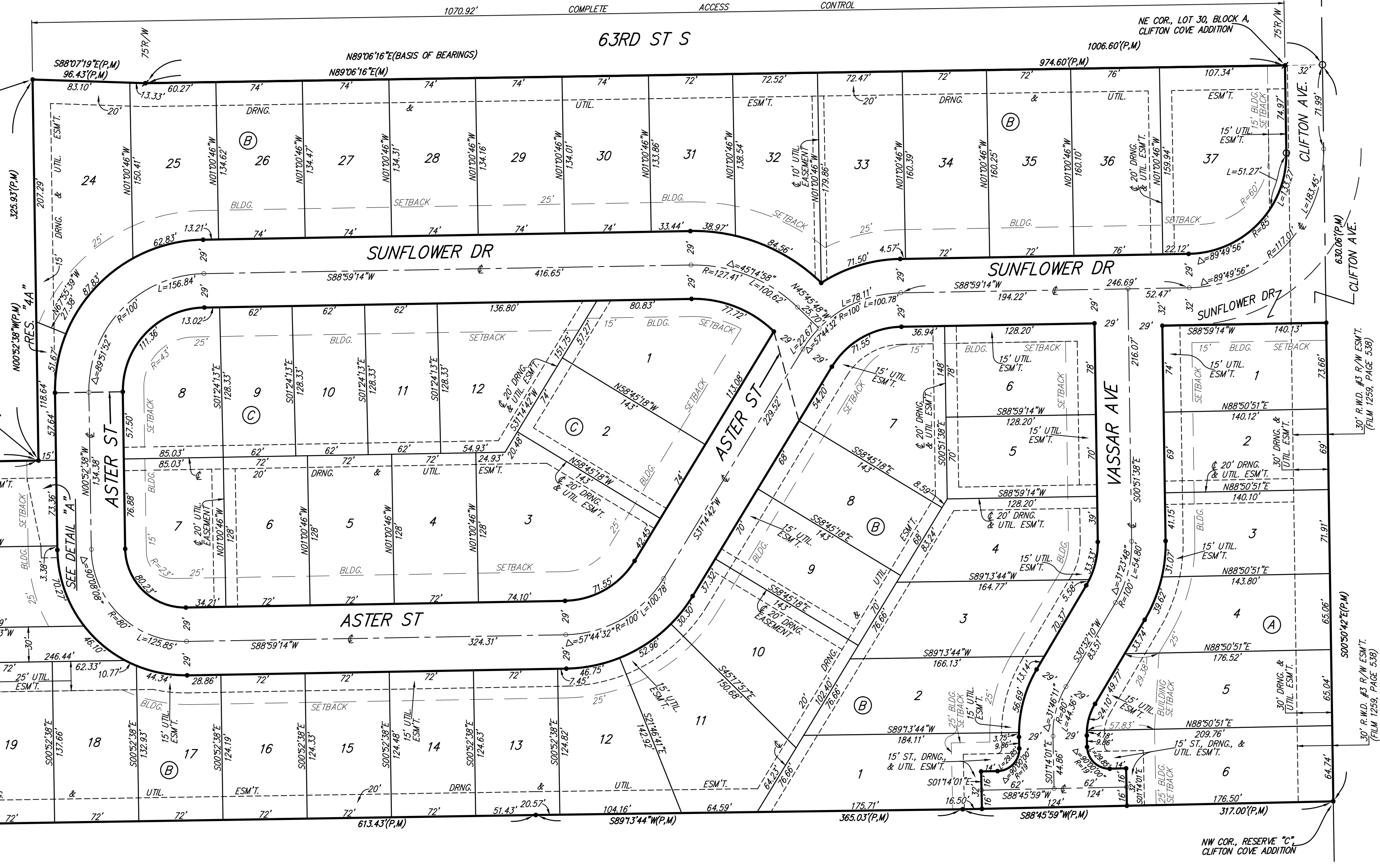
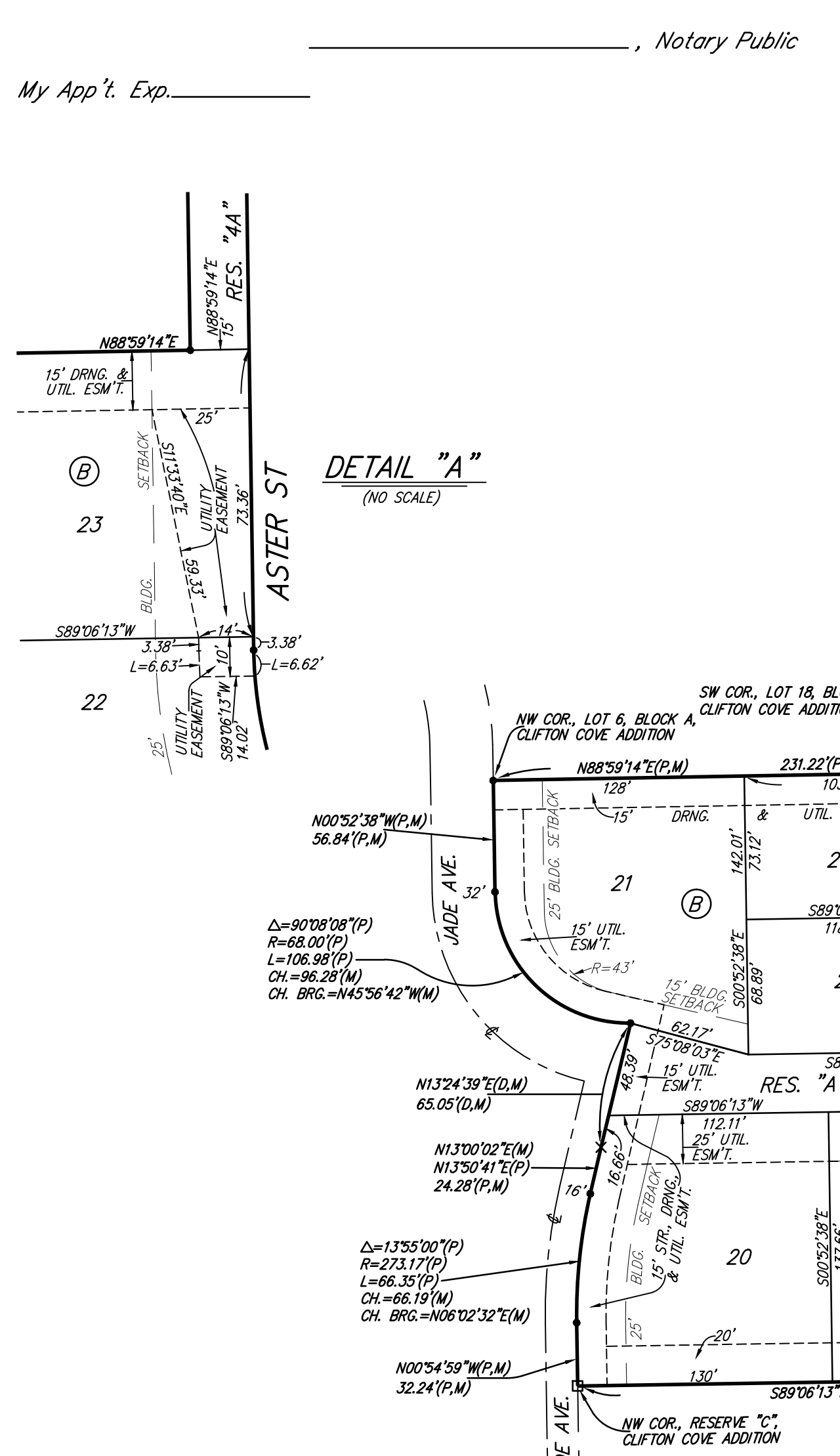
LOT	BLOCK	ELEVATION
1-6	A	1259.5
1-37	B	1259.5
1-12	C	1259.5

BENCHMARK: CHISELED SQUARE ON TOP OF CATCH BASIN, 43.5' N. & 20.4' W. OF THE NORTHWEST CORNER OF LOT 24, BLOCK B, VASSAR ADDITION. ELEV. = 1258.55 NGVD29

BENCHMARK: CHISELED CROSS ON TOP OF CATCH BASIN, 48.2' N. & 41.2' W. OF THE NORTHEAST CORNER OF LOT 24, BLOCK B, VASSAR ADDITION. ELEV. = 1258.46 NGVD29

BENCHMARK: CHISELED CROSS ON WALK, MOST EASTERLY CORNER (BLOCK CORNER), LOT 4, BLOCK D, CLIFTON COVE ADDITION, 35.2' W. & 8.5' S. OF THE NORTHWEST CORNER, LOT 20, BLOCK B, VASSAR ADDITION. ELEV. = 1258.62 NGVD29

- = #4 REBAR W/ "BAUGHMAN" CAP (SET)
- = #4 REBAR W/ "BAUGHMAN" CAP (FOUND)
- = MAG NAIL IN CONC. FOOTING
- = MAG NAIL (FOUND)
- × = CHISELED CROSS (FOUND)
- (M) = MEASURED
- (P) = PLATTED
- (D) = DESCRIBED



We, the undersigned holders of a mortgage on the above described property, do hereby consent to this plat of "VASSAR ADDITION", Wichita, Sedgwick County, Kansas.

Legacy Bank  
\_\_\_\_\_, (Title)

State of Kansas) SS The foregoing instrument acknowledged before me, this \_\_\_\_\_ day of \_\_\_\_\_, by \_\_\_\_\_ of Legacy Bank, on behalf of the bank.  
\_\_\_\_\_, (Title)

\_\_\_\_\_, Notary Public  
My App't. Exp. \_\_\_\_\_

This plat of "VASSAR ADDITION", Wichita, Sedgwick County, Kansas has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, Wichita-Sedgwick County Metropolitan Area Planning Commission

\_\_\_\_\_, Chair  
Carol Chapman Neugent  
\_\_\_\_\_, Secretary  
Date Miller

This plat approved and all dedications shown hereon accepted by the City Council of the City of Wichita, Kansas, this \_\_\_\_\_ day of \_\_\_\_\_.

\_\_\_\_\_, Mayor  
Jeff Longwell  
\_\_\_\_\_, City Clerk  
Karen Sublett

Reviewed in accordance with K.S.A. 58-2005 on this \_\_\_\_\_ day of \_\_\_\_\_.

Tricia L. Robello, L.S. #1246  
Deputy County Surveyor  
Sedgwick County, Kansas

Entered on transfer record this \_\_\_\_\_ day of \_\_\_\_\_.

\_\_\_\_\_, County Clerk  
Kelly B. Arnold

State of Kansas) SS This is to certify that this plat has been filed for record in the office of the Register of Deeds, this \_\_\_\_\_ day of \_\_\_\_\_, at \_\_\_\_\_ o'clock \_\_\_\_\_ M.; and is duly recorded.

\_\_\_\_\_, Register of Deeds  
Bill Meek  
\_\_\_\_\_, Deputy  
Tonya Buckingham

NOTE: PRIOR TO CONSTRUCTION, LOT OWNERS SHALL VERIFY EXISTING LOT ELEVATIONS AS COMPARED TO CORRECT FEMA FLOODPLAIN ELEVATIONS TO DETERMINE IF ANY FEMA REMOVALS OR PERMITTING IS NECESSARY.

NOTE: 10 FOOT WIDE RIGHT-OF-WAY GRANT, (FILM 189, PAGE 909), IN FAVOR OF CHARLES W. HAWTHORNE AND WINTA M. HAWTHORNE, AND NOW ASSIGNED TO SHELLEY GAS GATHERING, INC., (FILM 350, PAGE 807), AFFECTS A PORTION OF THIS PLAT AND IS IN THE PROCESS OF BEING RELEASED.

NOTE: 16 FOOT WIDE RIGHT-OF-WAY GRANT, (MISC. BOOK 96, PAGE 969), IN FAVOR OF DONNIE E. COOK AND NORMA J. COOK, AND NOW ASSIGNED TO SHELLEY GAS GATHERING, INC., (FILM 350, PAGE 807), AFFECTS A PORTION OF THIS PLAT AND IS IN THE PROCESS OF BEING RELEASED.

NOTE: 16 FOOT WIDE RIGHT-OF-WAY GRANT, (MISC. BOOK 86, PAGE 1315), IN FAVOR OF DONNIE E. COOK AND NORMA J. COOK, AND NOW ASSIGNED TO SHELLEY GAS GATHERING, INC., (FILM 350, PAGE 807), AFFECTS A PORTION OF THIS PLAT AND IS IN THE PROCESS OF BEING RELEASED.