

# Storm Sewer Plans to Serve GREENWICH OUTPARCEL D NORTH GREENWICH COURT

an Addition to Wichita, Sedgwick County, Kansas  
Gary Janzen, P.E., City Engineer  
0573 PPD (133119)

Sheet List Table

Sheet Number	Sheet Title
01	Title
02	Final Plat
03	General Notes & Quan
04	General Layout
05	Drainage Map & Calc
06	Storm Profile
07	Detention Basin Plan
08	Erosion Control Phase I
09	Erosion Control Phase II
10	Erosion Control Phase III
11	Standard Details
12	Standard Details
13	Standard Details
14	Standard Details
15	Standard Details
16	Standard Details

**PROJECT BENCHMARK**

Chiseled square cut, center front face of inlet East side of Greenwich Road,  
342 feet +/- South of the intersection of East 27<sup>th</sup> Street and Greenwich Road  
Project Elevation = 1377.42  
KDOT Elevation = 1378.05  
(Project Elevation is -0.63 feet from KDOT)

**BENCHMARKS:**

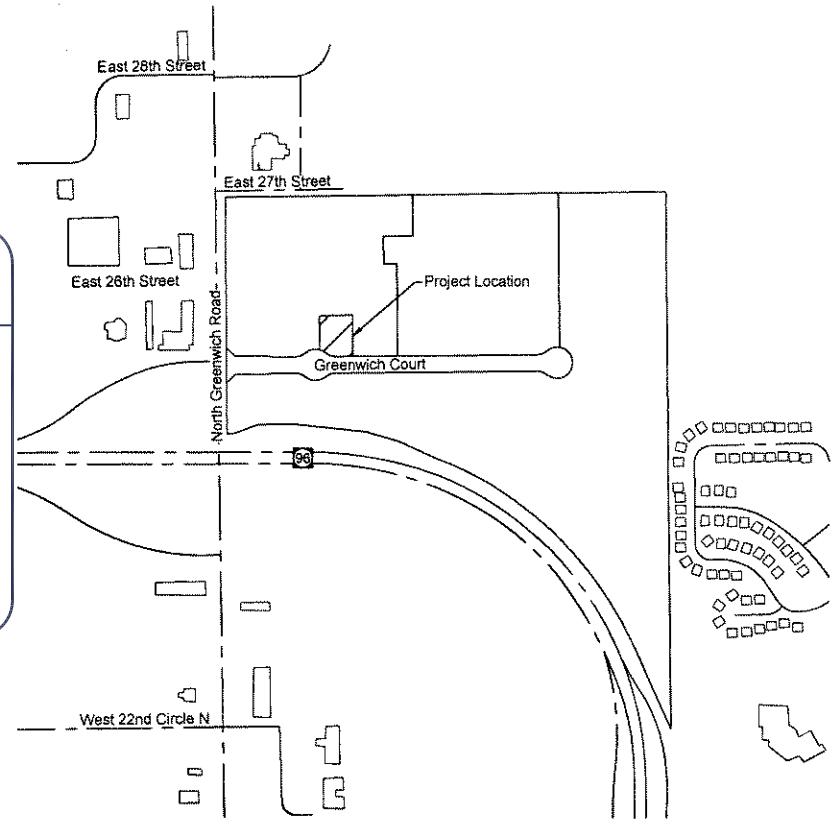
- TBM 1:**  
Chiseled Square cut on E. Curb of island in center of Greenwich Road.  
Approximately 60' S. of intersection of westbound ramp to K-96  
RIC Project Datum Elev. = 1373.08
- TBM 2:**  
Chiseled Square cut on south curb of 27th Street approximately 690 feet east  
of intersection of Greenwich Road.  
RIC Project Datum Elev. = 1378.40
- TBM 3:**  
Chiseled Square cut on south side of 27th Street approximately 330 feet east  
of intersection of Greenwich Road.  
RIC Project Datum Elev. = 1378.36

## AS BUILTS

Contractor:  
**Ewertz  
Excavation**

11/04/2019

Project Inspector:  
**Larry Gann**



LOCATION MAP  
Scale: 1" = 500'

**UTILITY SERVICE & INSTALLATION CONTACTS**

- |   |   |
|---|---|
| <b>KANSAS GAS SERVICE</b><br>Attn: Tim Hamlin<br>(316) 832-3121   | <b>WICHITA WATER</b><br>Attn: Greg Lolley<br>(316) 268-4334         |
| <b>WESTAR ENERGY</b><br>Attn: Becky Thompson<br>(316) 261-6320    | <b>AT&amp;T</b><br>Attn: Jason Edwards<br>(316) 268-2008            |
| <b>BLACK HILLS ENERGY</b><br>Attn: Daryl Keller<br>(316) 941-1654 | <b>COX COMMUNICATIONS</b><br>Attn: Mark Henderson<br>(316) 260-7745 |
| <b>NUSTAR ENERGY L.P.</b><br>Attn: Renee Davis<br>(316) 721-7059  | <b>WICHITA SEWER</b><br>Attn: LaDonna<br>(316)268-4329              |

**UTILITY EMERGENCY CONTACTS**

- |   |   |
|---|---|
| <b>KANSAS ONE-CALL</b><br>(316) 687-2470                                      | <b>AT&amp;T</b><br>1-555-1212                       |
| <b>COX COMMUNICATIONS</b><br>(316) 687-2470                                   | <b>CITY OF WICHITA WATER DEPT</b><br>(316) 268-4908 |
| <b>WESTAR ENERGY/<br/>KANSAS GAS &amp; ELECTRIC COMPANY</b><br>(800) 482-4950 | <b>CITY OF WICHITA SEWER DEPT</b><br>(316) 268-4071 |

KANSAS ONE-CALL:  
**1-800-DIG-SAFE**  
(1-800-344-7253)



Protect yourselves and your property against underground utility damage and liability.  
Find out where the underground utility lines might be buried before you dig.  
Anyone digging in Kansas must call before digging. The person who is doing the work is responsible for calling KOC. If the owner contracts with a professional excavator to do the excavation then the professional excavator is responsible for calling KOC.  
You (the digger) will need to provide information about the work site when you call. This is a FREE service.  
CALL BEFORE YOU DIG  
IT'S THE LAW.

**LEGEND**

— Existing Section Line	— Proposed Right-of-Way
- - - Existing Right-of-Way Line	— Proposed Property Line
— Existing Lot Line	— Proposed Lot Line
- - - Existing Easement Line	- U/E - Proposed Easement
— Existing Curb & Gutter	— Proposed Curb & Gutter
— Existing Sidewalk	— Proposed Sidewalk
— Existing Storm Sewer	— Proposed Storm Sewer
□ Existing Storm Structure	□ Proposed Storm Structure
— Existing Waterline	▲ Proposed Fire Hydrant
— Existing Gas Main	— Proposed Waterline
— Existing Sanitary Sewer	— Proposed Sanitary Sewer
● Existing Sanitary Manhole	● Proposed Sanitary Manhole
— Existing Contour Major	— Proposed Contour Major
— Existing Contour Minor	— Proposed Contour Minor
	----- Future Curb and Gutter

**Stormwater Certification**  
New Development

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

Disturbed Area: 1.07 Acres  
Water Quality Treatment: Detention Pond and Oil-Debris Hood for Sediment and Trash Removal.  
Downstream Channel Protection: Detention Pond  
Detention: Regional Pond

Outlet structures on this project have staged outlets to meet applicable requirements. The Existing Storm Sewer and Detention Pond were Previously Approved and Permitted under PPD No. 0260.

APPROVED AS NOTED  
BY WICHITA PUBLIC WORKS ENGINEER  
AND STORMWATER DIVISION

Engineering: *Aeth Gatchey 5.2.19*  
Stormwater: *Joseph 5-2-19*

NOTE TO CONTRACTORS

Inspection and testing for this project is 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 in the State of Kansas. 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. All Construction and Materials shall comply with the City of Wichita Specifications and Standards and Special Provisions. (on file and available at Wichita.gov).

An Approved copy of these plans signed by City staff are required on-site.



Apr 28, 2019, 3:46pm  
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# FINAL PLAT

## WICHITA DESTINATION DEVELOPMENT

### AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

#### A REPLAT OF ALL OF K96 AND GREENWICH NORTH ADDITION

Private Project Drainage Plans  
18-0266  
Panera Bread  
Wichita, Sedgwick County, KS

Final Plat

NO.	BY	DATE	REVISION
1.	DHW, DUB	June 18, 2019	City Comments
	CMW, DUB	03/12/2019	Original Submittal

**Renaissance Infrastructure Consulting**  
 913.317.9500  
 1322 ABIE AVENUE  
 KANSAS CITY, KANSAS 66103  
 WWW.RIC-CONSULT.COM  
 E-1814  
 KS Certificate of Authority:



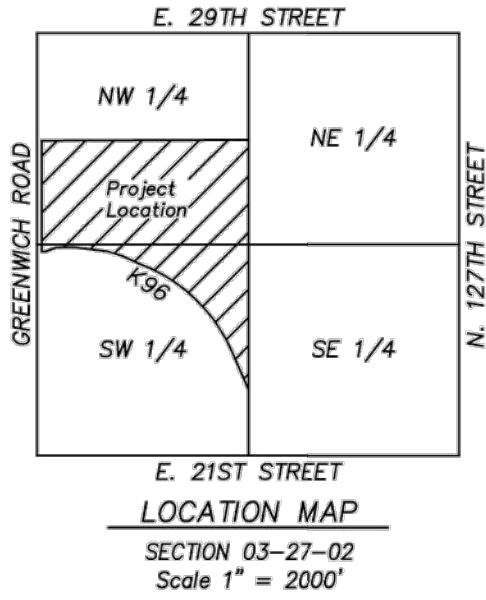
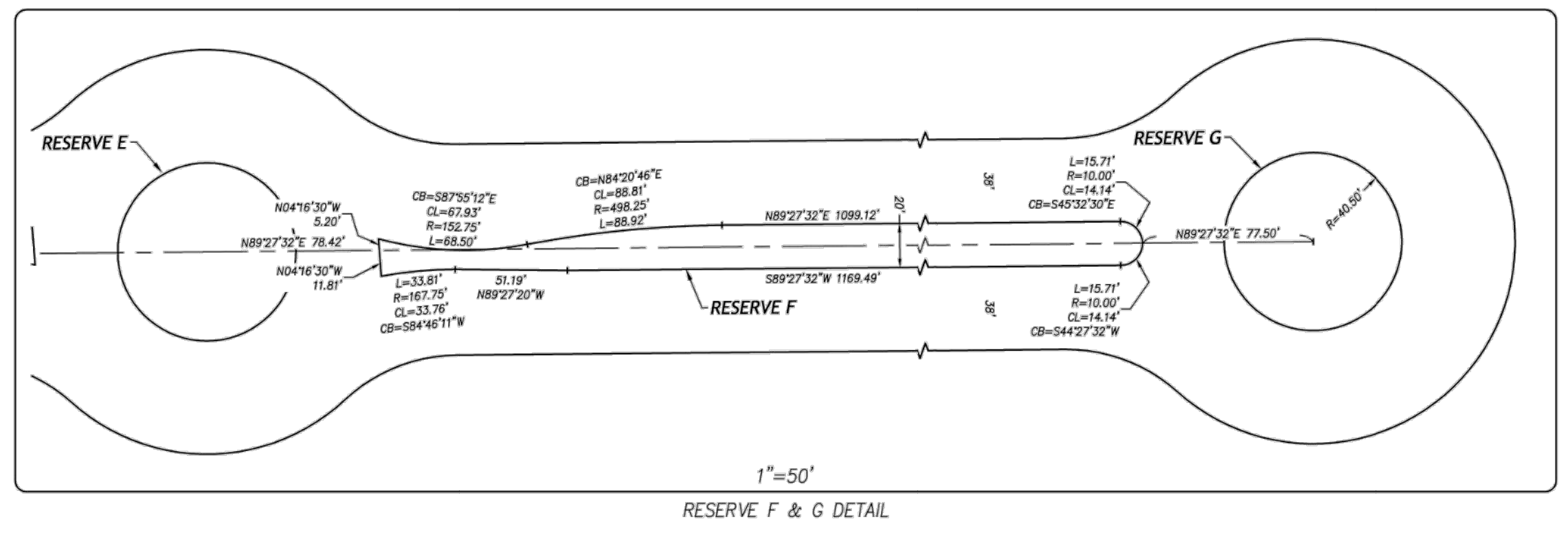
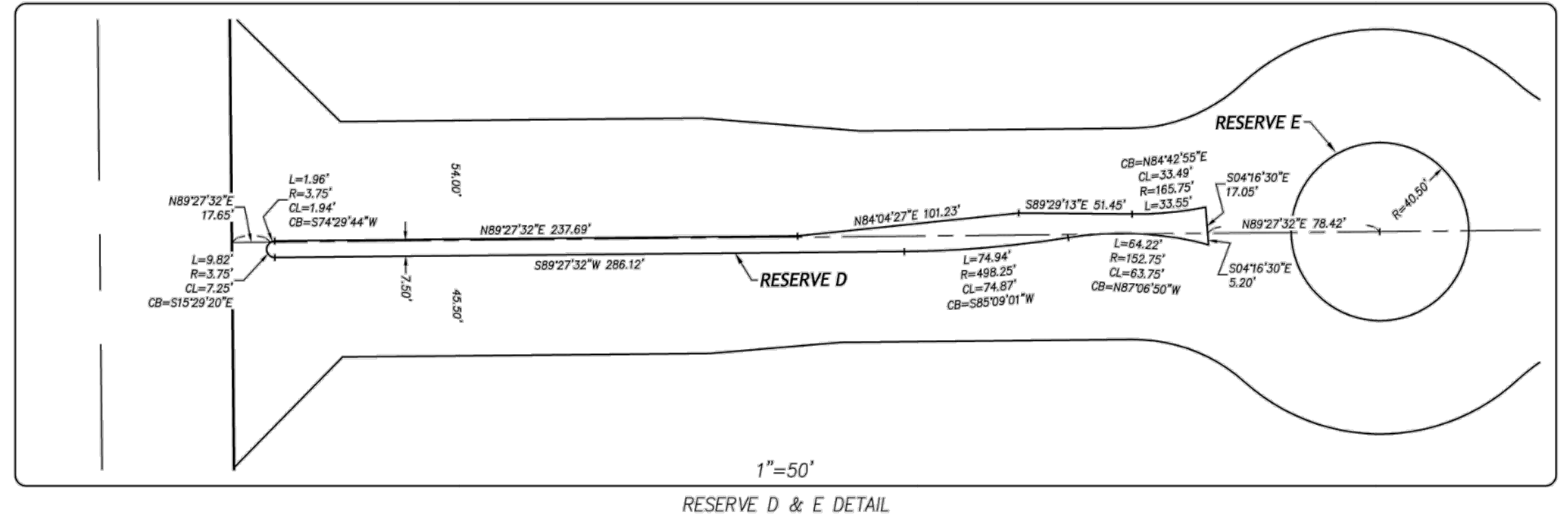
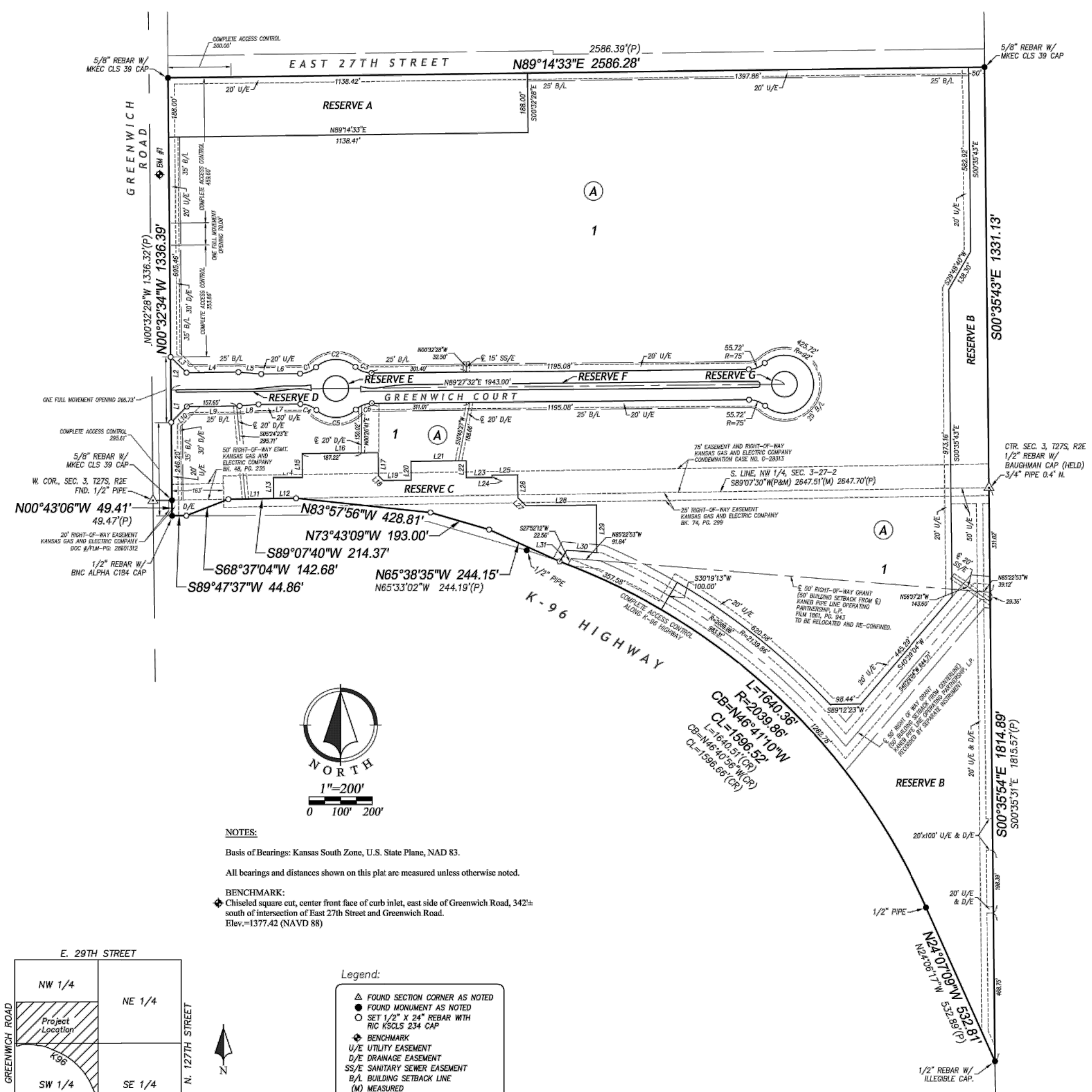
Lot No.	Elevation
1	1374.50

Line #	Direction	Length
L1	N00°32'34"W	102.36'
L2	N00°32'34"W	104.37'
L3	S45°32'28"E	70.52'
L4	N89°27'32"E	164.25'
L5	S85°22'10"E	72.11'
L6	N89°27'32"E	123.11'
L7	N89°27'32"E	132.38'
L8	N85°09'27"E	60.00'
L9	N89°27'32"E	166.97'
L10	N44°27'32"E	70.51'
L11	S89°07'40"W	143.00'
L12	N89°07'40"E	71.37'
L13	S00°52'20"E	66.14'
L14	N89°27'32"E	92.50'
L15	N00°32'28"W	75.50'
L16	N89°27'32"E	240.41'

Line #	Direction	Length
L17	S00°32'28"E	72.50'
L18	S45°32'28"E	21.21'
L19	N89°27'32"E	90.00'
L20	N00°32'28"W	59.50'
L21	N89°27'32"E	174.00'
L22	S00°32'28"E	53.50'
L23	N89°27'32"E	81.26'
L24	N00°32'28"W	7.50'
L25	N89°27'32"E	81.24'
L26	S00°32'28"E	72.50'
L27	S45°32'28"E	35.36'
L28	N89°27'32"E	223.00'
L29	S00°32'28"E	150.59'
L30	N85°22'53"W	95.75'
L31	S32°31'45"W	42.36'

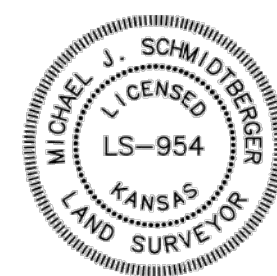
Curve #	Length	Radius	Chord
C1	55.716	75,000	N68°10'38"E 54.44'
C2	136.689	92,000	S89°27'32"W 124.46'
C3	55.716	75,000	S69°15'34"W 54.44'
C4	55.716	75,000	N69°15'34"W 54.44'
C5	136.689	92,000	N89°27'32"E 124.46'
C6	55.716	75,000	S69°10'38"W 54.44'

Lot #	Sq. Ft.	Ac.
RESERVE A	3,364,628	77.241
RESERVE B	214,022	4.913
RESERVE C	612,416	14.059
RESERVE D	149,150	3.424
RESERVE E	3,944	0.091
RESERVE F	5,153	0.118
RESERVE G	24,390	0.560
RESERVE H	5,153	0.118



**NOTES:**  
 Basis of Bearings: Kansas South Zone, U.S. State Plane, NAD 83.  
 All bearings and distances shown on this plat are measured unless otherwise noted.  
**BENCHMARK:**  
 Chiseled square cut, center front face of curb inlet, east side of Greenwich Road, 342'± south of intersection of East 27th Street and Greenwich Road.  
 Elev. = 1377.42 (NAVD 88)

- Legend:**
- ▲ FOUND SECTION CORNER AS NOTED
  - FOUND MONUMENT AS NOTED
  - SET 1/2" X 24" REBAR WITH RIC KSL5 234 CAP
  - ◆ BENCHMARK
  - U/E UTILITY EASEMENT
  - D/E DRAINAGE EASEMENT
  - S/S SANITARY SEWER EASEMENT
  - B/A BUILDING SETBACK LINE
  - (M) MEASURED
  - (P) PLATTED
  - L LENGTH OF CURVE
  - R RADIUS OF CURVE
  - CL CHORD LENGTH
  - CB CHORD BEARING



**WICHITA DESTINATION DEVELOPMENT** 14-0112

Prepared For:  
 Wichita Destination Developers, Inc.  
 1707 N. Waterfront Parkway  
 Wichita, KS 67206  
 (316) 685-5341

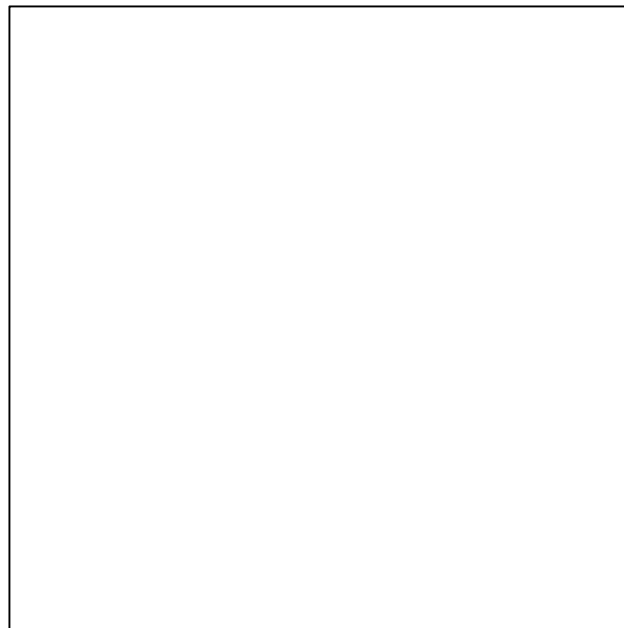
Date of Preparation:  
 May 28, 2014

**Renaissance Infrastructure Consulting**  
 913.317.9500  
 1138 W. CAMBRIDGE CIRCLE DRIVE  
 KANSAS CITY, KANSAS 66103  
 WWW.RIC-CONSULT.COM

May 01, 2019 3:07pm  
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GENERAL NOTES

- The Contractor shall comply with all applicable safety regulations. All construction shall be completed following current City Standard Specifications and Special Provisions.
- 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 316.687.2470  
The Contractor must notify the following in case of an emergency:  
AT&T 1.800.246.8464  
Black Hills Energy 1.800.694.8989  
City of Wichita Water 316.268.4555  
City of Wichita Sewer 316.268.4073  
City of Wichita Stormwater 316.268.4090  
City of Wichita Traffic 316.268.4034  
Cox Communication 1.888.249.3530  
Kansas Gas Service 1.888.482.4950  
Westar Energy 1.800.544.4857
- Utility service lines, poles, ect. 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.
- 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 the site location. Locations, in the opinion of the Engineer, that will leave an unsightly appearance will not be approved. All disposable 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 buried or stockpiled beyond approved construction limits would require an additional archeological investigation unless buried in a previously approved borrow location.
- 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.
- 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 the start of construction.
- The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-established any property irons which are damage or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor in accordance with state laws.
- The Water Distribution Division shall field locate valves one time during construction when requested by the Contractor. It shall be the Contractor's responsibility to preserve such field locations during the construction process. Water valves, valve boxes or fire hydrants damaged during construction shall be repaired by the Contractor at their own expense. Valve boxes and water meters within the project limits shall be adjusted to match field grades.
- The Contractor shall notify the consultant engineer and Tim Mason with the City at 316.268.4574 with the anticipated construction start date and notify them of project completion. Staking and inspection for this project will be the responsibility of the Contractor.
- If traffic is impacted by construction, a traffic control plan must be submitted and approved by the City Traffic Engineer, Brian Coon at traffic@wichita.gov before construction can begin. The Contractor shall be responsible for all traffic control measures to facilitate construction. All construction zone markings and signage shall conform to the latest version of the Manual on Uniform Traffic Control Devices (MUTCD) as published by the US Department of Transportation, Federal Highway Administration. All cost associated with construction markings and signage shall be the Contractors responsibility.
- All elevations shown are Project Datum (Project Datum = NAVD 88 - 0.63')
- All areas disturbed during construction that will not be under proposed pavement shall be restored to match existing conditions.
- A portion of excess excavated material shall be mounded around manholes which extent more than one (1) foot above the existing ground. Such mound shall be constructed with new development a six (6) foot diameter with 4 to 1 side slopes down to the original ground. The elevation of the flat top of the mound shall be 0.4 foot below the top of the manhole.
- Geotechnical report available upon request.
- Contractor shall limit the extent of trench openings overnight and weekends to less than 50 feet.
- Contractor shall provide positive drainage away from all manhole covers.
- City maintenance of storm sewer ends at right-of-way or easement line.
- Any sidewalk, drive approach or street pavement removed to construct project, must have a pavement cut permit and be replaced by the City contractor. Permits can be obtained by calling 316.268.4501 or 316.268.4480.
- The inspection firm shall submit to the City Stormwater Maintenance Division a Digital copy of the CCTV inspection of the conduits and structures following construction. The digital file formation shall be compatible with the City input template. A copy of the template is available upon request at 316.268.4090



BENCHMARKS:

TBM 1:  
Chiseled Square cut on E. Curb of island in center of Greenwich Road.  
Approximately 60' S. of intersection of westbound ramp to K-96.  
RIC Project Datum Elev. = 1373.08

TBM 2:  
Chiseled Square cut on south curb of 27th Street approximately 690 feet east of intersection of Greenwich Road.  
RIC Project Datum Elev. = 1378.40

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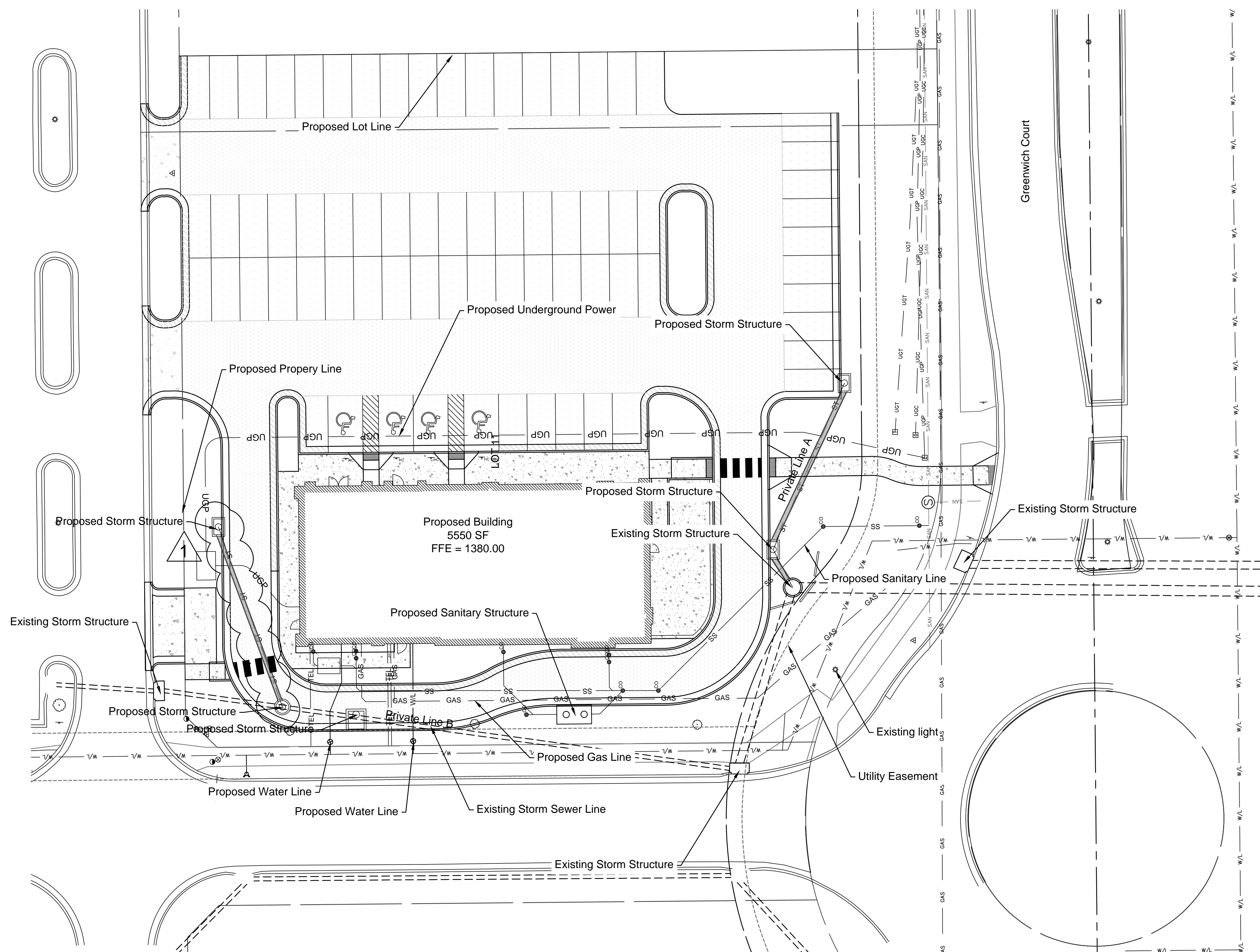
SUMMARY OF QUANTITIES			
ITEM	DESCRIPTION	QUANTITY	UNIT
1	12" HDPE	61	LF
2	15" HDPE	71	LF
3	5' x 3' Type I Curb Inlet	3	EA
4	7' x 5' Special Type II Inlet/Manhole	1	EA
5	Seeding	1	LS
6	Erosion Control	1	LS
7	Connection to Existing Storm Sewer	3	LS

Quantities are for Information Only. Contractor to Verify all Quantities Prior to Construction.

1.	CHK	DUB	JUN18/2019	City Comments
	CHK	DUB	JUN12/2019	Original Submittal
	NO.	BY	DATE	REVISION

**Renaissance Infrastructure Consulting**  
1322 ABBIE AVENUE  
KANSAS CITY, KANSAS 66103  
913.317.9500  
WWW.RIC-CONSULT.COM





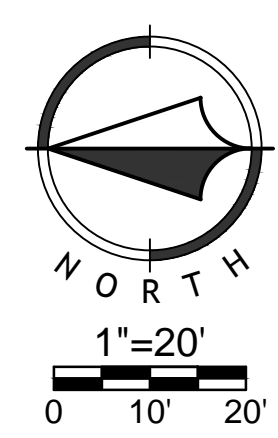
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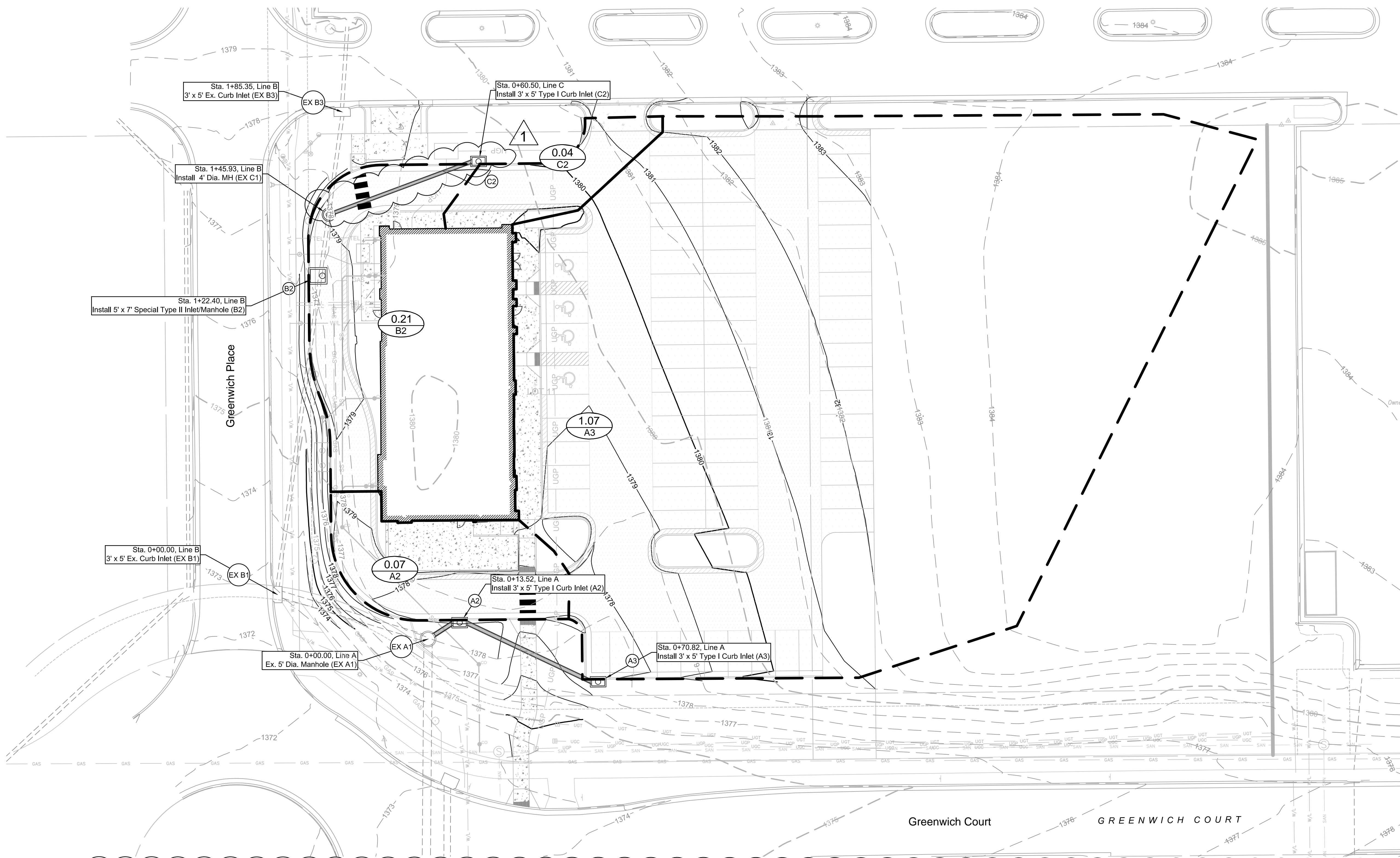
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NO.	BY	CD	DATE	REVISION
1.	CMW	DUB	06/18/2019	City Comments
	CMW	DUB	03/12/2019	Original Submittal

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1322 ABBIE AVENUE  
KANSAS CITY, KANSAS 66103  
913.317.9500  
WWW.RIC-CONSULT.COM



KS Certificate of Authority: E-1814



10-Year Calculations

LineNo.	InletD	Drainage Area (ac)	InletTime (min)	Iinlet (in/hr)	Runoff Coeff (C)	IncrQ (cfs)	QCaptured (cfs)	QBypass (cfs)	JunctType	ThroatH (in)	StructLength (ft)	InletDepth (ft)	GutterDepth (ft)	GutterSpread (ft)	DnStrmLine No.	LineSize (in)	LineLength (ft)	FlowRate (cfs)	InvertDn (ft)	InvertUp (ft)	LineSlope (%)	n-valuePipe	Capacity Full (cfs)	HGLDn (ft)	HGLUp (ft)	HGLJct (ft)	DepthDn (ft)	DepthUp (ft)	VelAve (ft/s)	Hw (ft)	J-LossCoeff
1	B2	0.21	5	7.99	0.9	1.51	1.51	0	Curb	12.00	5	0.76	0.26	8.42	Outfall	15	122.405	11.93	1369.7	1372.65	2.41	0.012	10.86	1370.92	1374.29	1375.02	1.22	1.25	9.76	2.37	0.5
2	EX C1	0	5	0.00	0.90	0.00	0.00	0.00	MH	4.00	4.00	0.00	0.00	0.00	1	15	23.53	10.65	1372.65	1373.190	2.29	0.012	10.6	1375.02	1375.57	1376.63	1.25	1.25	8.68	3.44	0.91
3	C2	0.04	5	7.99	0.90	0.29	0.29	0.00	Curb	12.00	3.00	0.65	0.15	2.78	2	12	60.50	0.29	1373.25	1374.000	1.24	0.012	4.3	1376.63	1376.64	1376.64	1.00	1.00	0.37	2.64	1
4	EX B3	0	5	0.00	0.90	10.40	10.40	0.00	Curb	12.00	3.00	1.20	0.70	30.47	2	15	39.42	10.40	1373.19	1374.170	2.49	0.012	11.03	1376.63	1377.51	1378.62	1.25	1.25	8.48	4.45	1
5	A2	0.07	5	7.99	0.90	0.50	0.50	0.00	Curb	12.00	3.00	0.67	0.17	4.04	Outfall	15	13.53	8.12	1370.23	1370.500	2.00	0.012	9.88	1371.35	1371.36	1371.36	1.12	0.86 s	8.00	0.86	1.21 z
6	A3	1.070	5.00	7.99	0.9	7.70	7.70	0.00	Curb	12.00	3.000	1.09	0.59	24.94	5.00	15	57.30	7.70	1371.00	1372.56	2.72	0.012	11.54	1371.75	1373.31	1373.31	0.75	0.75 s	10.07	0.75	1.00 z

100-Year Calculations

LineNo.	InletD	Drainage Area (ac)	InletTime (min)	Iinlet (in/hr)	Runoff Coeff (C)	IncrQ (cfs)	QCaptured (cfs)	QBypass (cfs)	JunctType	ThroatH (in)	StructLength (ft)	InletDepth (ft)	GutterDepth (ft)	GutterSpread (ft)	DnStrmLine No.	LineSize (in)	LineLength (ft)	FlowRate (cfs)	InvertDn (ft)	InvertUp (ft)	LineSlope (%)	n-valuePipe	Capacity Full (cfs)	HGLDn (ft)	HGLUp (ft)	HGLJct (ft)	DepthDn (ft)	DepthUp (ft)	VelAve (ft/s)	Hw (ft)	J-LossCoeff
1	B2	0.21	5	11.32	0.9	2.14	2.14	0	Curb	12.00	5	0.8	0.30	10.61	Outfall	15	122.405	12.67	1369.7	1372.65	2.41	0.012	10.86	1370.92	1374.74	1375.57	1.22	1.25	10.35	2.92	0.5
2	EX C1	0	5	0.00	0.90	0.00	0.00	0.00	MH	4.00	4.00	0.00	0.00	0.00	1	15	23.53	10.76	1372.65	1373.190	2.29	0.012	10.6	1375.57	1376.12	1377.21	1.25	1.25	8.77	4.02	0.91
3	C2	0.04	5	11.32	0.90	0.41	0.41	0.00	Curb	12.00	3.00	0.66	0.16	3.51	2	12	60.50	0.41	1373.25	1374.000	1.24	0.012	4.3	1377.21	1377.22	1377.22	1.00	1.00	0.52	3.22	1
4	EX B3	0	5	0.00	0.90	10.40	10.40	0.00	Curb	12.00	3.00	1.20	0.70	30.47	2	15	39.42	10.40	1373.19	1374.170	2.49	0.012	11.03	1377.21	1378.08	1379.2	1.25	1.25	8.48	5.03	1
5	A2	0.07	5	11.32	0.9	0.71	0.71	0	Curb	12	3	0.69	0.19	5.1	Outfall	15	13.525	11.53	1370.23	1370.5	2	0.012	9.88	1371.44	1371.81	1373.47	1.21	1.25	9.44	2.97	1.21
6	A3	1.07	5	11.32	0.9	10.9	10.9	0	Curb	12	3	1.22	0.72	31.44	5	15	57.299	10.9	1371	1372.56	2.72	0.012	11.54	1373.47	1374.86	1376.09	1.25	1.25	8.88	3.53	1



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NO.	BY	DATE	REVISION
1.	DMK	Dub June 2019	City Comments
	DMK	Dub 03/12/2019	Original Submittal

**Renaissance Infrastructure Consulting**  
913.317.9500  
132 ABBIE AVENUE  
KANSAS CITY, KANSAS 66103  
WWW.RIC-CONSULT.COM

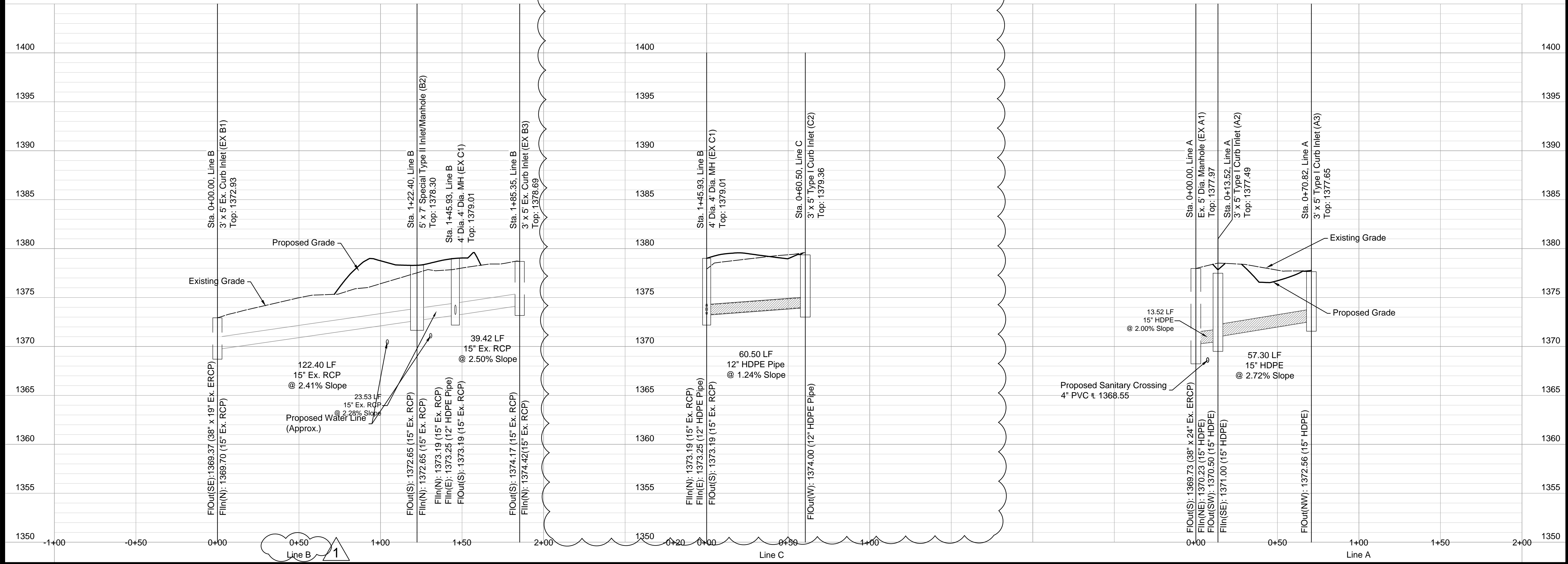
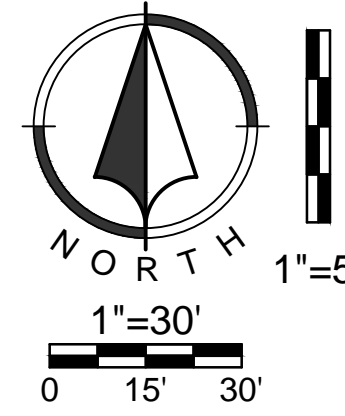
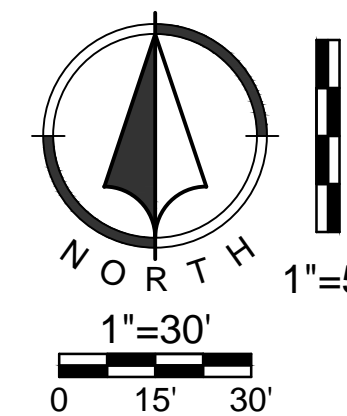
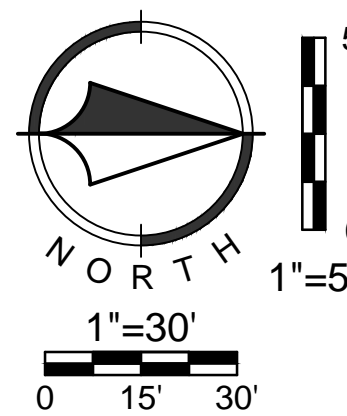
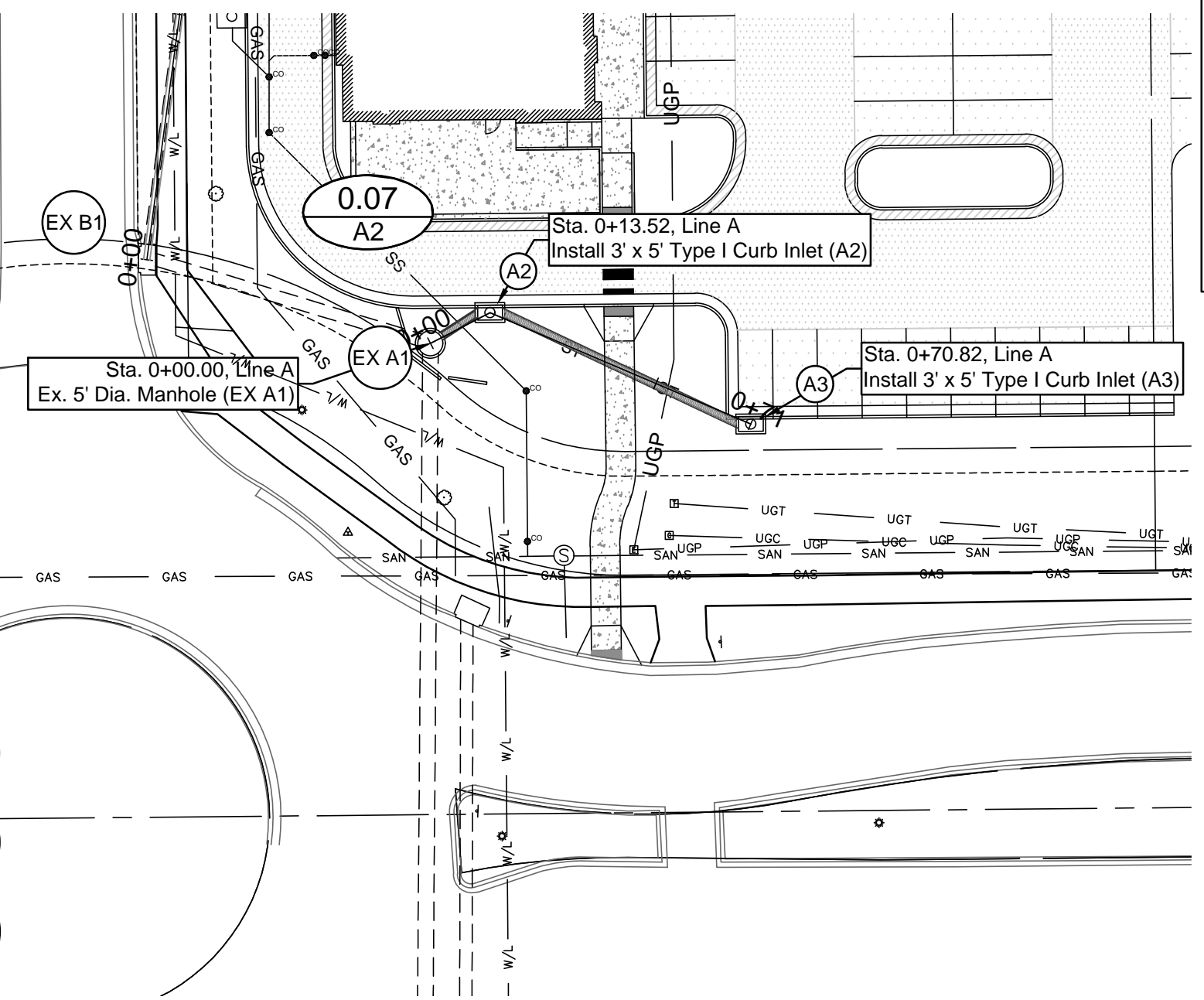
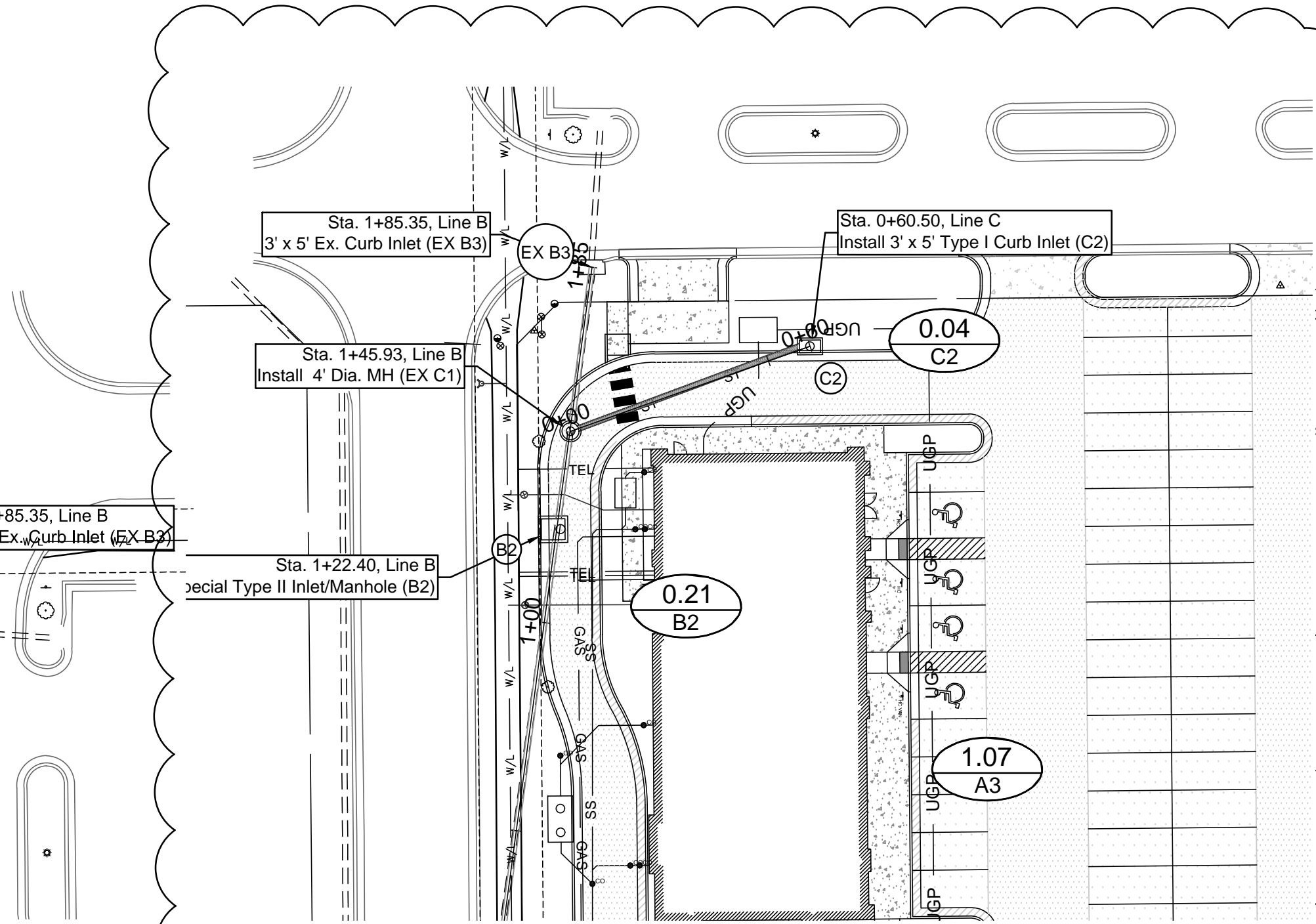
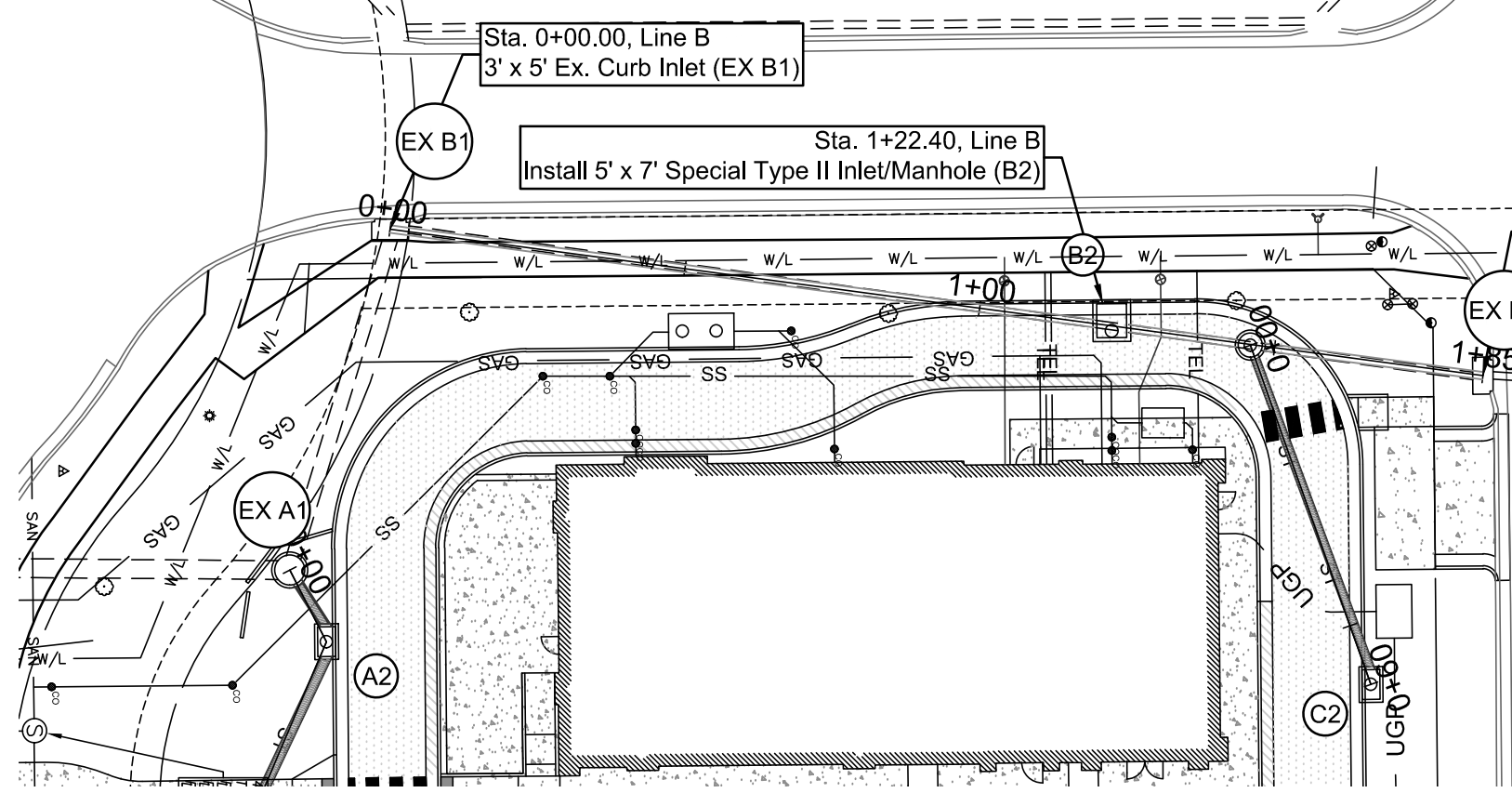
Professional Engineer  
DUSTIN J. BURTON  
LICENSED  
22013  
KANSAS

KS Certificate of Authority: E-1814

**AS BUILTS**



**KEMILLER ENGINEERING PA**  
 117 E. Lewis,  
 Wichita, KS 67202 (316)264-0242



NO.	BY	DATE	REVISION	City Comments
1.	DMK, DUB	June 2019		Original Submittal
	DMK, DUB	10/12/2019		REVISION

**Renaissance Infrastructure Consulting**  
 132 ABBIE AVENUE  
 KANSAS CITY, KANSAS 66103  
 913.317.9500  
 WWW.RIC-CONSULT.COM

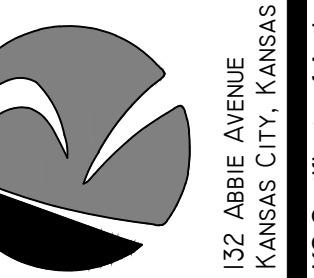


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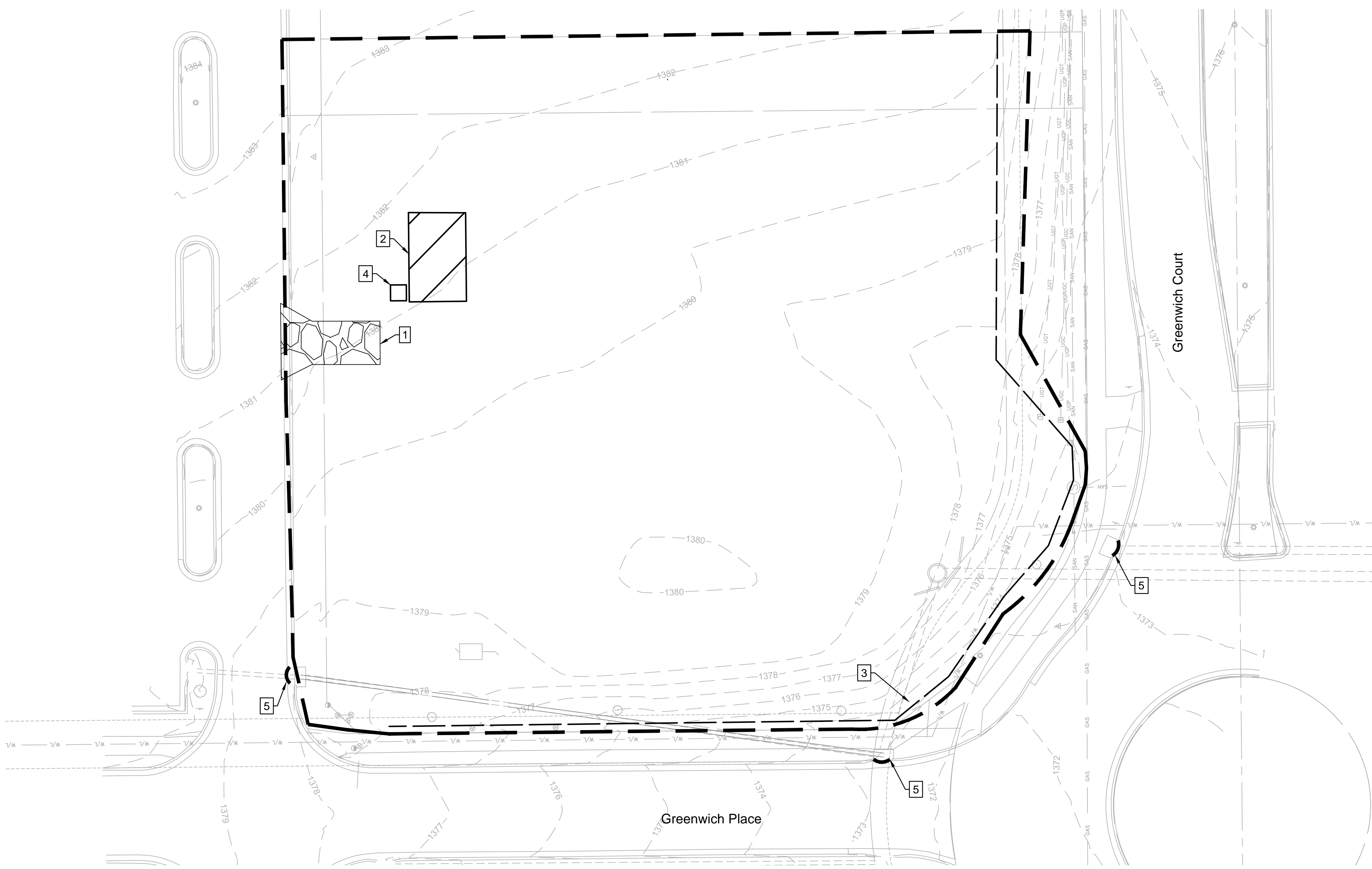


NO.	BY	DATE	REVISION
1.	DMK, DUB	June 8, 2019	City Comments
	DMK, DUB	June 12, 2019	Original Submittal

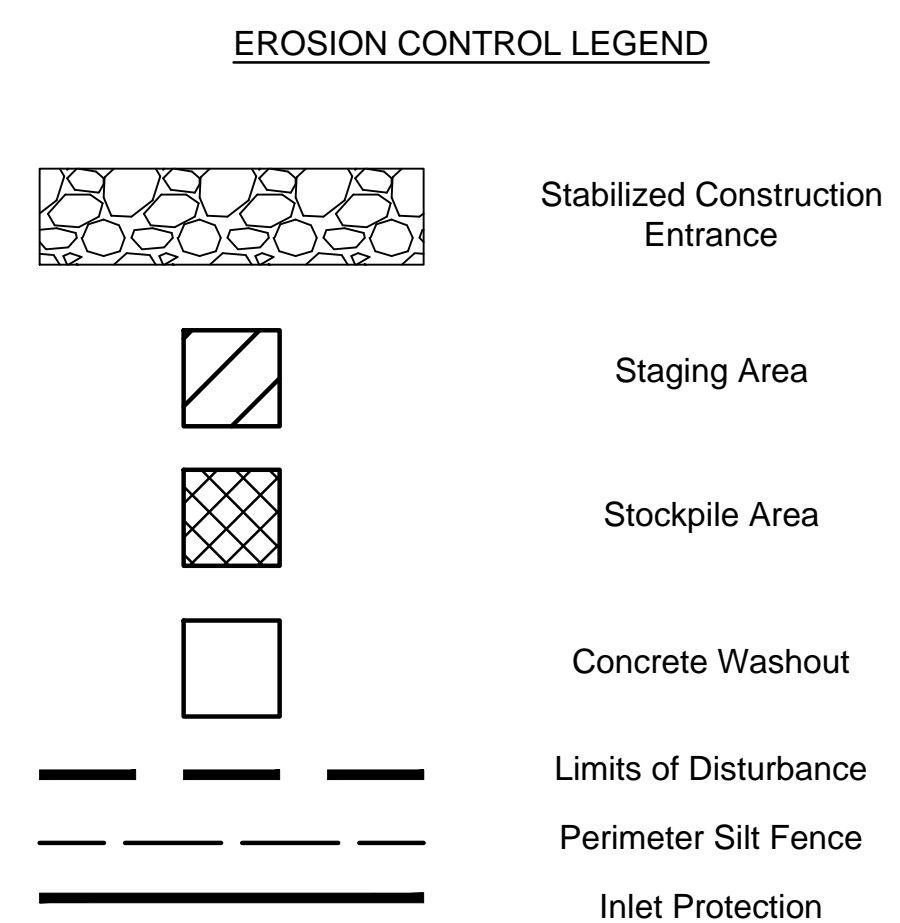
**Renaissance Infrastructure Consulting**  
1322 ABILEE AVENUE  
KANSAS CITY, KANSAS 66103  
913.317.9500  
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KS Certificate of Authority: E-1814



- EROSION CONTROL NOTES**
- Erosion control plan modifications shall be required if the plan fails to substantially control erosion and offsite sedimentation.
  - The retention of access controls and sediment controls shall be required for areas where seed has not established 70% cover.
  - The contractor shall temporarily seed and mulch all disturbed areas if soil disturbing activities cease and will not resume for more than 14 days. Stabilization activities must also be completed within 14 days.
  - Install "J" Hooks on silt fence every 100 LF



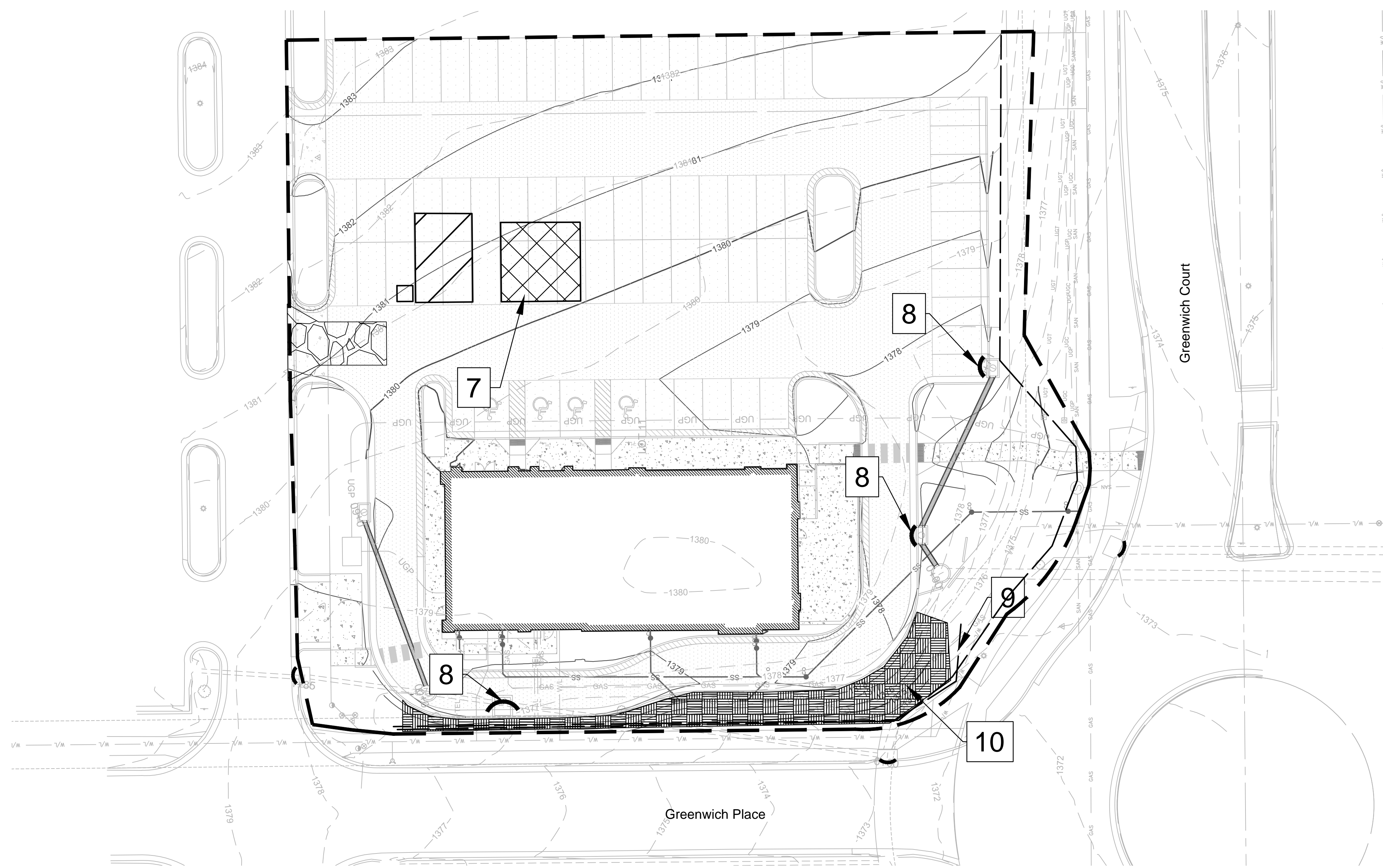
- WRITTEN SEQUENCING**
- Implement Pre-Clearing Plan:**  
All temporary structural BMP's shown on the pre-clearing plan must be in place before the general clearing operations. Clearing necessary to place temporary structural BMP's is the minimum required for installation. Coordinate clearing necessary to place temporary structural BMP's with local weather forecast so that clearing and placement may be completed within a forecast dry period. Stabilize all erosion control measures after installation. Temporary Barrier Fence shall be in Place, around areas not to be disturbed, prior to any construction activities. This area includes Stream Corridor.
  - Clear and Stabilize Work Areas:**  
Grade contractor areas and place all-weather surface on contractor areas.
  - Clearing and Grubbing:**  
After Phase I BMP's are installed, contractor may clear, grub, and demo required areas as necessary.

Disturbed Area for Site Improvements : 1.07 Acres

**ESTIMATED EARTHWORK**  
Cut: 318.15 CY  
Fill: 271.19 CY

Earthwork calculations are informational only. Contractor shall be responsible for their own earthwork calculations and perform all necessary earthwork shown herein without additional cost to the owner if quantities differ than above. Earthwork numbers are unadjusted.

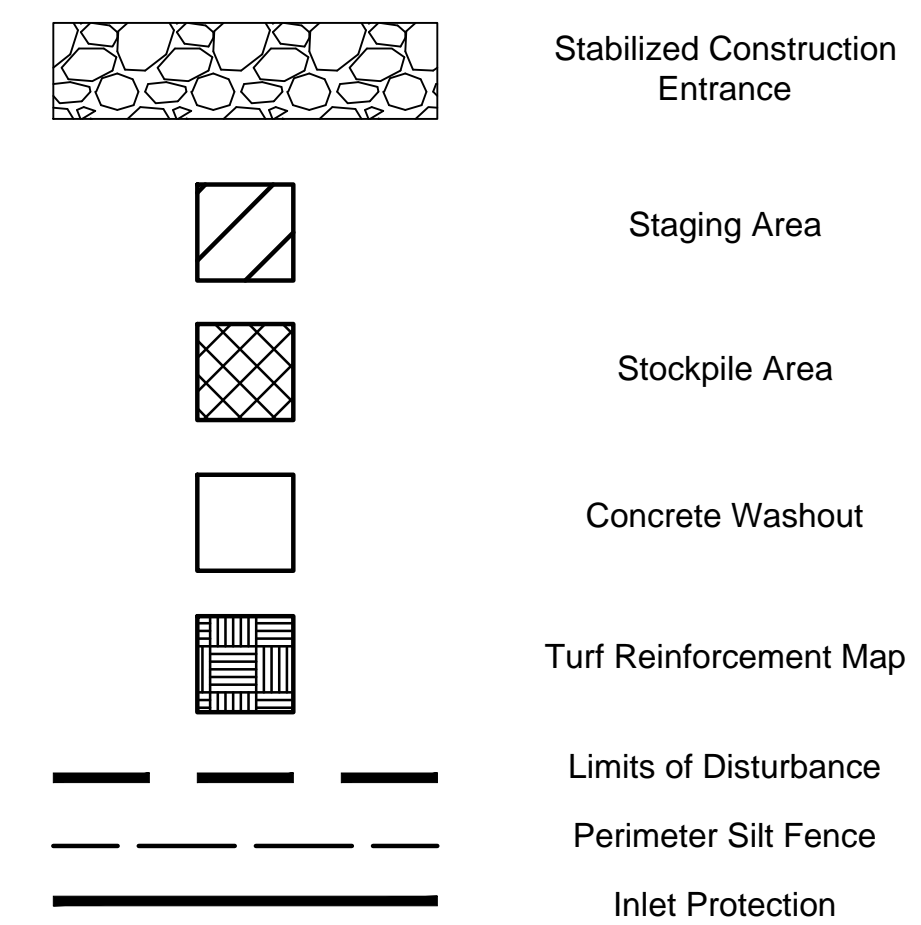
PROJECT STAGE	PLAN REFERENCE NUMBER	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES
Phase I A-Prior to Land Disturbance	1	Construction Entrance	C	Install Construction Entrance, as shown on Plans
	2	Staging Area	D	Install Staging Area
	3	Perimeter Sediment Fence	D	Install Perimeter Silt Fence, as shown on Plans.
	4	Concrete Washout	D	Install Concrete Washout as Shown on Plans Prior to Pouring Any Concrete
	5	Curb Inlet Protection	D	Install Filter Bags around Existing Curb Inlets
	6	Area Inlet Protection	D	Install Filter Bags around Existing Area Inlets
Phase II B-Site Grading C-Site Construction	7	Stockpile Area	D	Install Sediment Fence a Minimum 5' Beyond Toe of Slope
	8	Curb Inlet Protection	C	Install Filter Around Proposed Curb Inlet
	9	Sediment Fence	D	Install Sediment Fence, as shown on Plans
Phase III D-Final Stabilization	10	Turf Reinforcement Mat	D	Install Turf Reinforcement Mat in area shown on Plans
	11	Seeding	N/A	Redistribute Topsoil and Seed and Mulch all Disturbed Area. Sod Right-of-Way and areas shown on Plans. Stabilization Complete when 100% of Disturbed Area is Established with Perennial Vegetation with a Density of 70%



**EROSION CONTROL NOTES**

1. Erosion control plan modifications shall be required if the plan fails to substantially control erosion and offsite sedimentation.
2. The retention of access controls and sediment controls shall be required for areas where seed has not established 70% cover.
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4. Install "J" Hooks on silt fence every 100 LF

**EROSION CONTROL LEGEND**



**WRITTEN SEQUENCING**

1. **Implement Pre-Clearing Plan:**  
All temporary structural BMP's shown on the pre-clearing plan must be in place before the general clearing operations. Clearing necessary to place temporary structural BMP's is the minimum required for installation. Coordinate clearing necessary to place temporary structural BMP's with local weather forecast so that clearing and placement may be completed within a forecast dry period. Stabilize all erosion control measures after installation. Temporary Barrier Fence shall be in Place, around areas not to be disturbed, prior to any construction activities. This area includes Stream Corridor.
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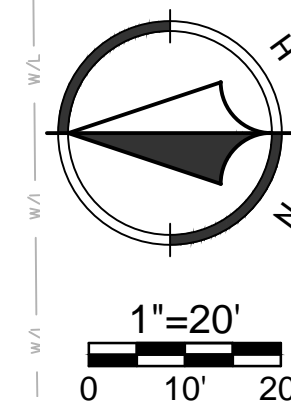
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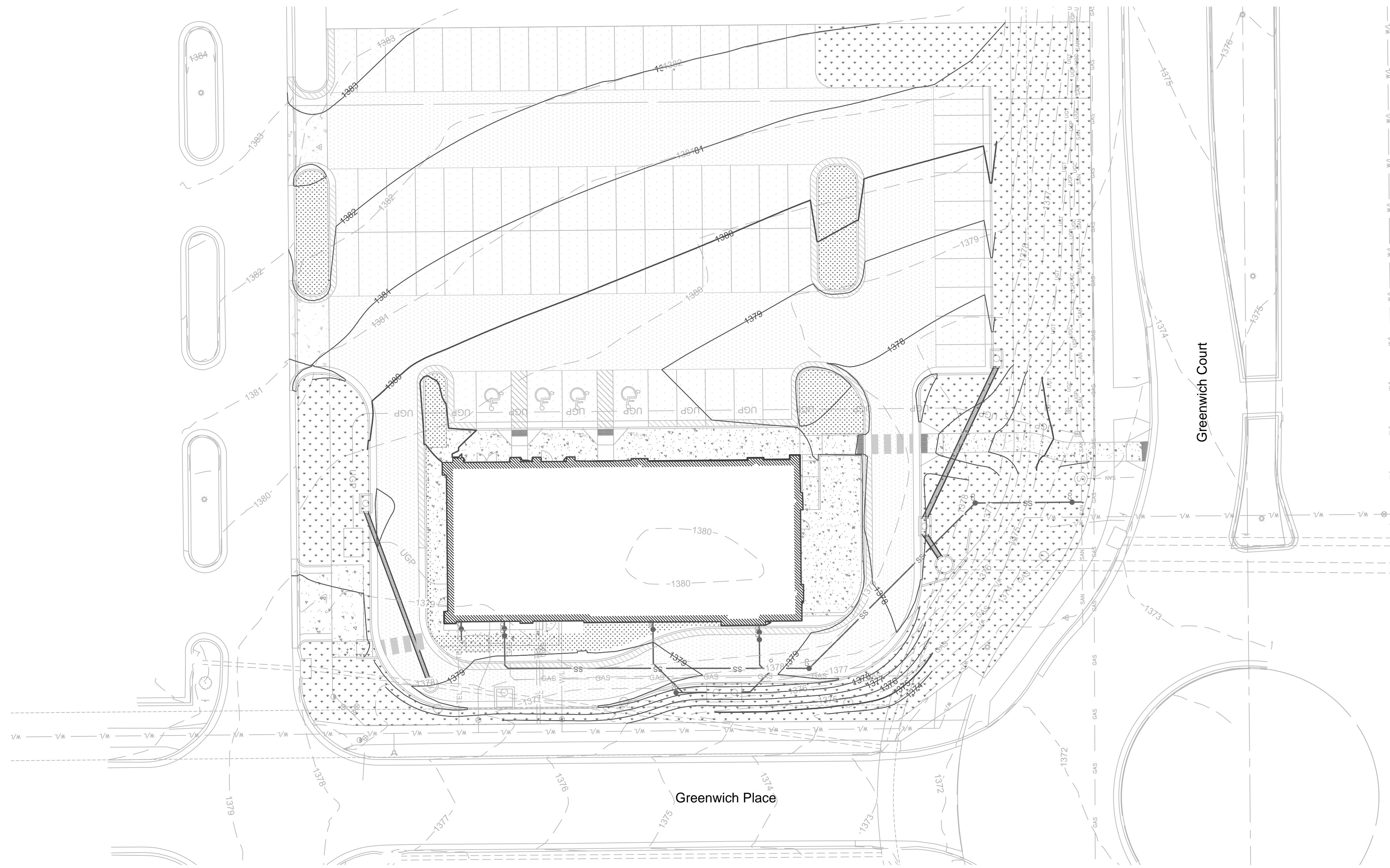
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Phase II	B-Site Grading	7	Stockpile Area	D	Install Sediment Fence a Minimum 5' Beyond Toe of Slope
	C-Site Construction	8	Curb Inlet Protection	C	Install Filter Around Proposed Curb Inlet
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Phase III	D-Final Stabilization	10	Turf Reinforcement Mat	D	Install Turf Reinforcement Mat in area shown on Plans
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NO.	BY	DATE	REVISION
1.	DMK, DUB	June 18, 2019	City Comments
	DMK, DUB	10/12/2019	Original Submittal
			REVISION

**Renaissance Infrastructure Consulting**  
1322 ABBIE AVENUE  
KANSAS CITY, KANSAS 66103  
913.317.9500  
WWW.RIC-CONSULT.COM





**EROSION CONTROL NOTES**

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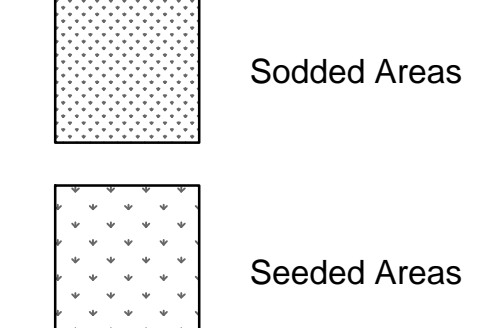
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**LEGEND**



**WRITTEN SEQUENCING**

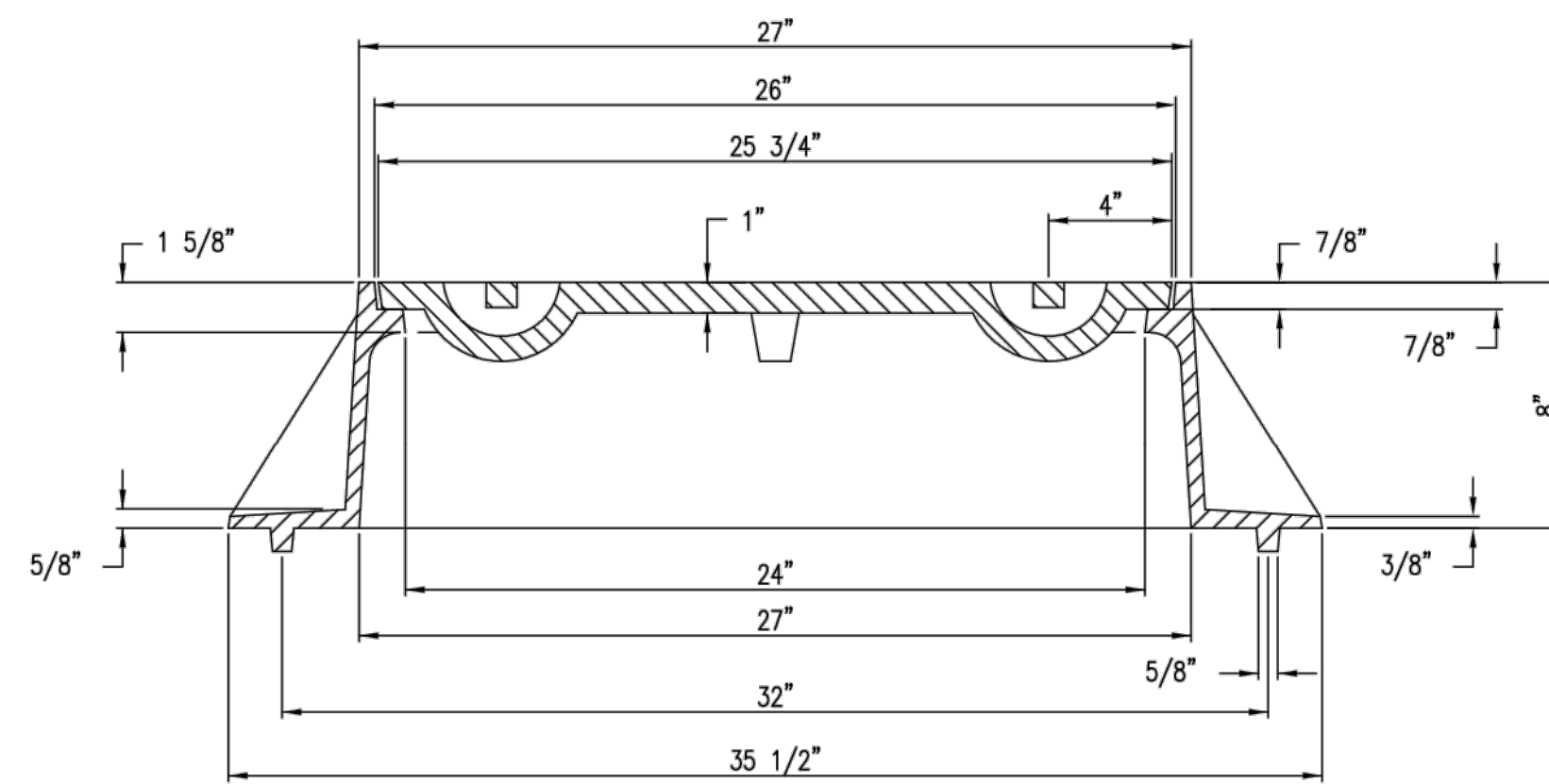
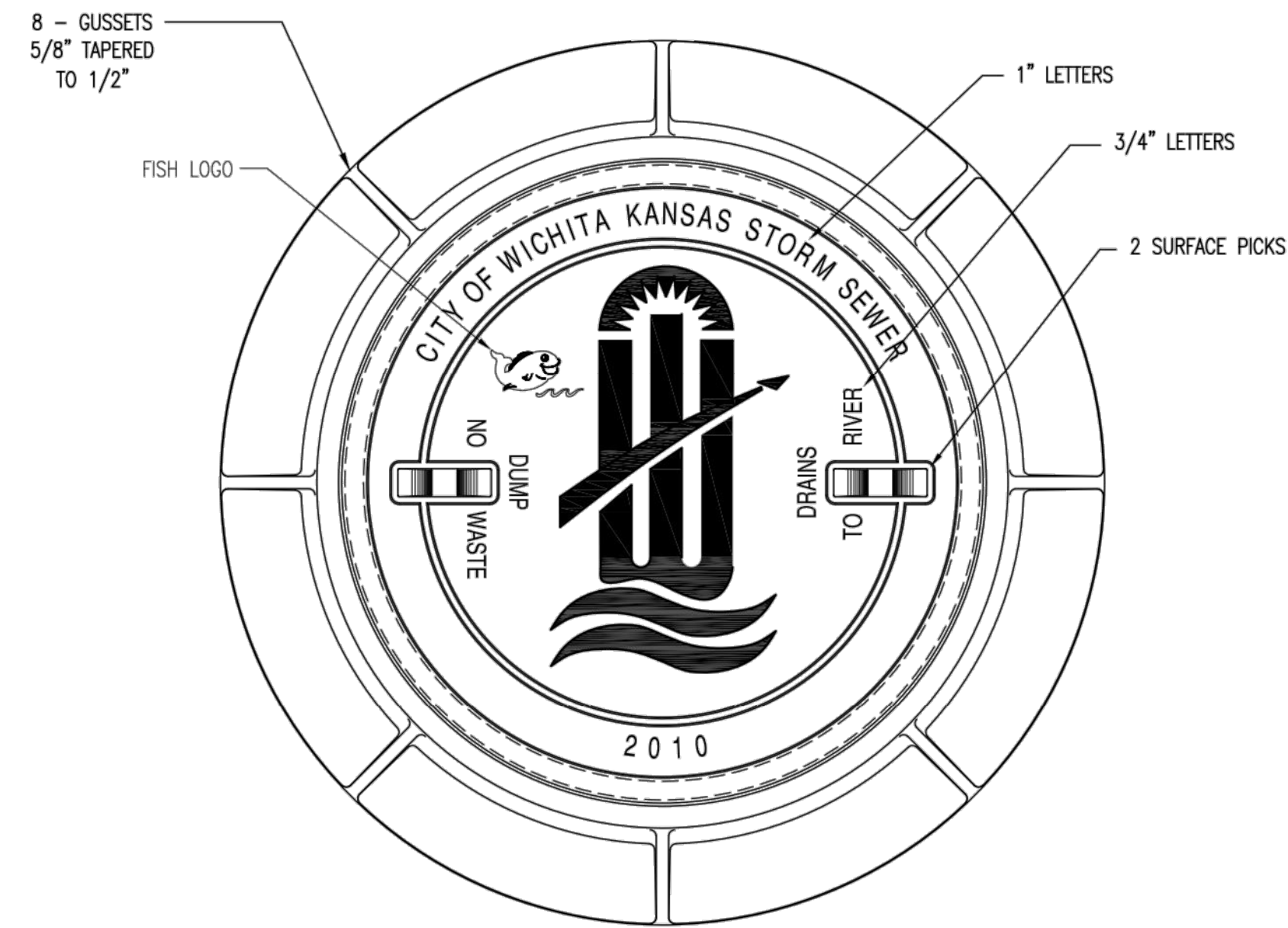
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	8	Curb Inlet Protection	C	Install Filter Around Proposed Curb Inlet
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NO.	BY	DATE	REVISION
1.	DMK, DUB	06/18/2019	City Comments
	DMK, DUB	03/12/2019	Original Submittal

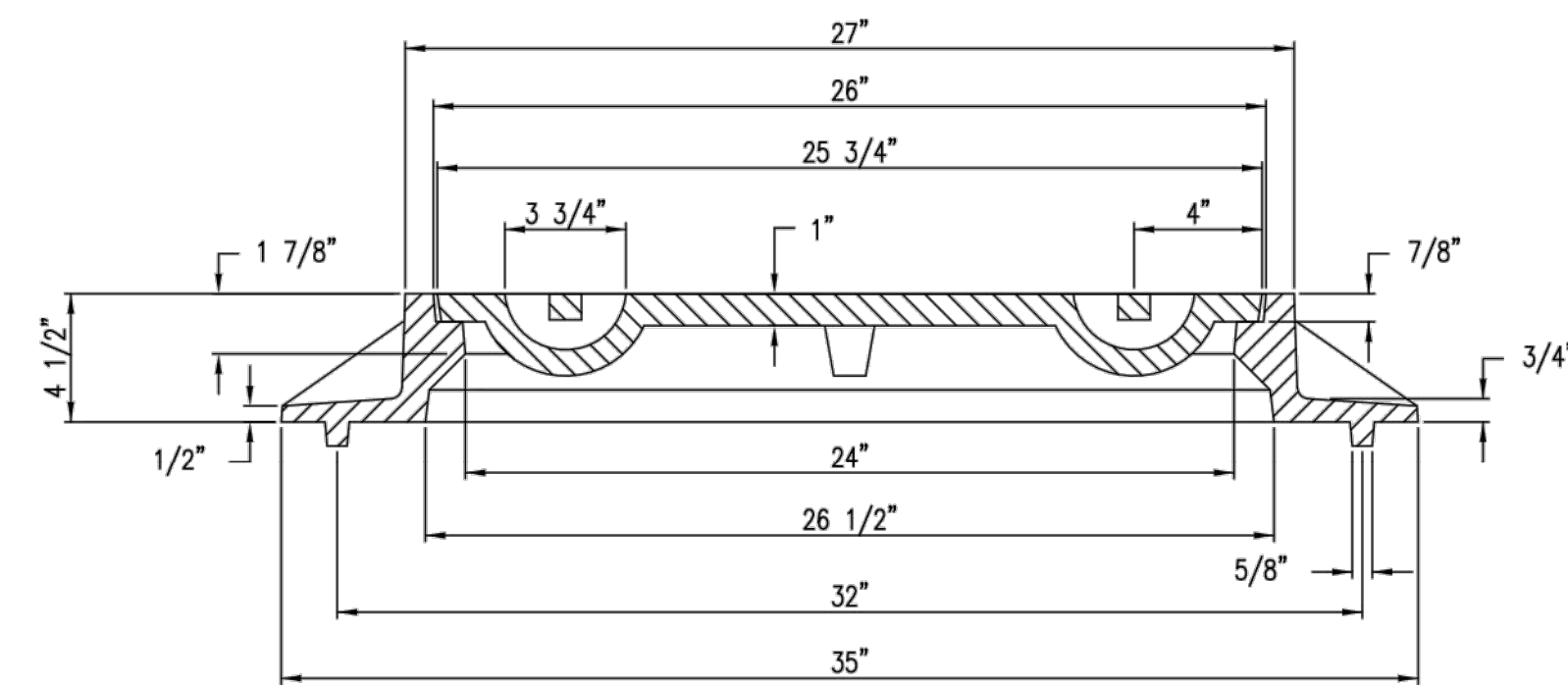
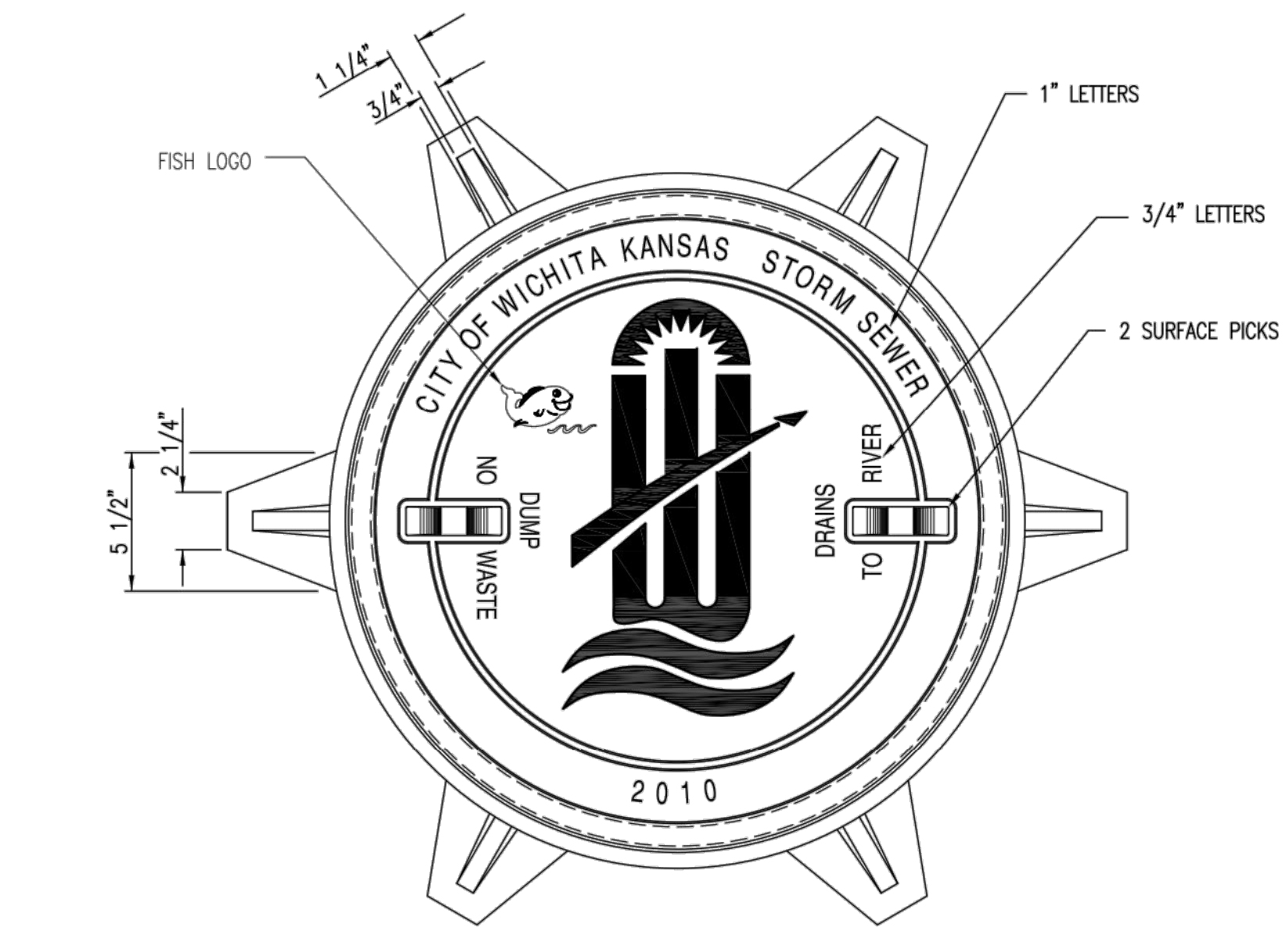
**Renaissance Infrastructure Consulting**  
913.317.9500  
132 ABBIE AVENUE  
KANSAS CITY, KANSAS 66103  
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**MANHOLE FRAME**  
DEETER #1261 OR EJIW #1936-Z1

- 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 <b>GARY JANZEN, P.E.</b>		
PROJECT NUMBER	OCA NUMBER	DATE
		11/2010
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET

SW-303

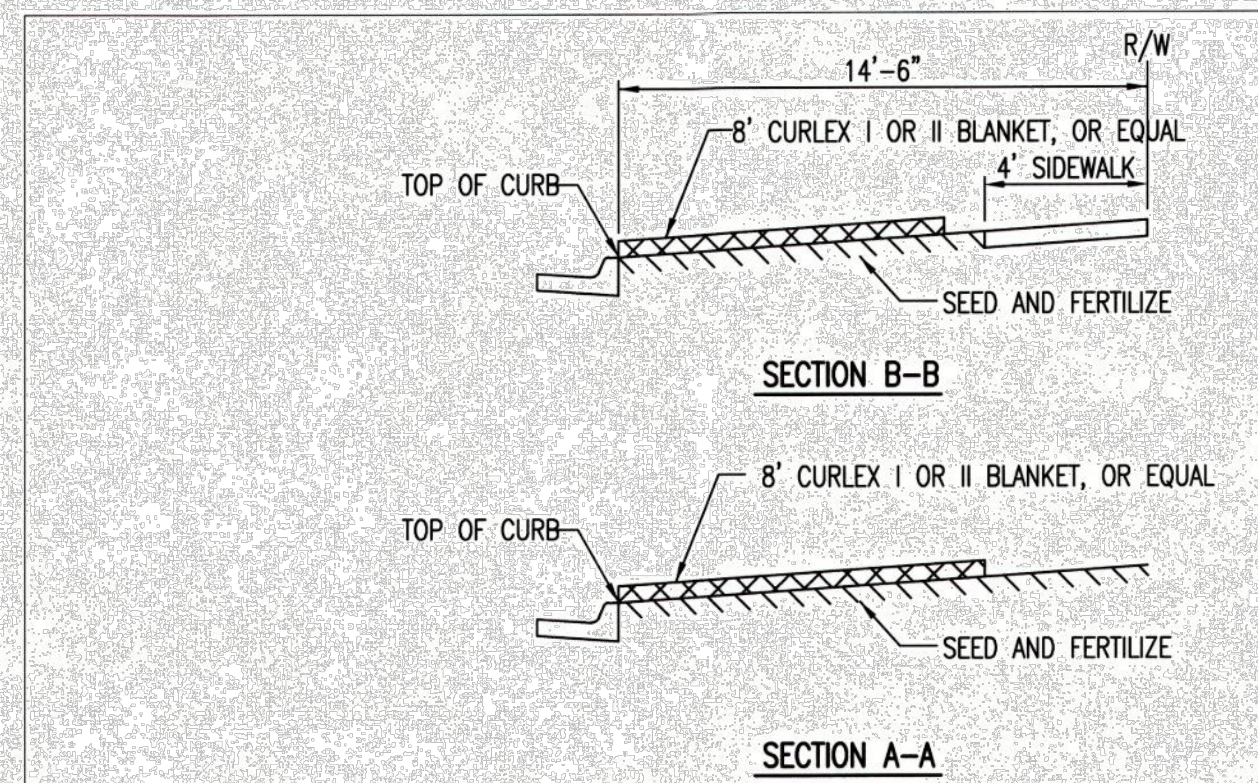
NO.	BY	GD	DATE	REVISION	City Comments
1.	CHW	DUB	10/18/2019	Original Submittal	
	CHW	DUB	10/12/2019	REVISION	

**Renaissance Infrastructure Consulting**  
913.317.9500  
WWW.RIC-CONSULT.COM

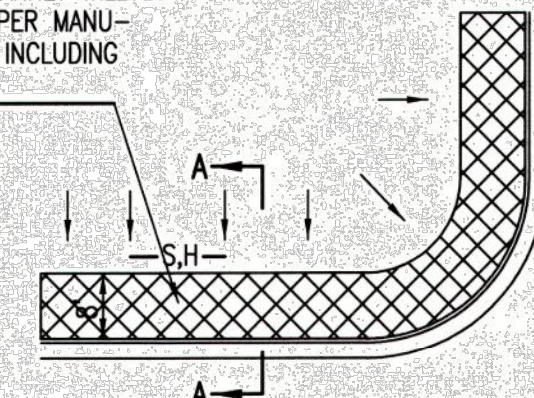
132 ABBIE AVENUE  
KANSAS CITY, KANSAS 66103

Professional Engineer  
DUSTIN J. BURTON  
LICENSED  
22013  
KANSAS

KS Certificate of Authority: E-1814



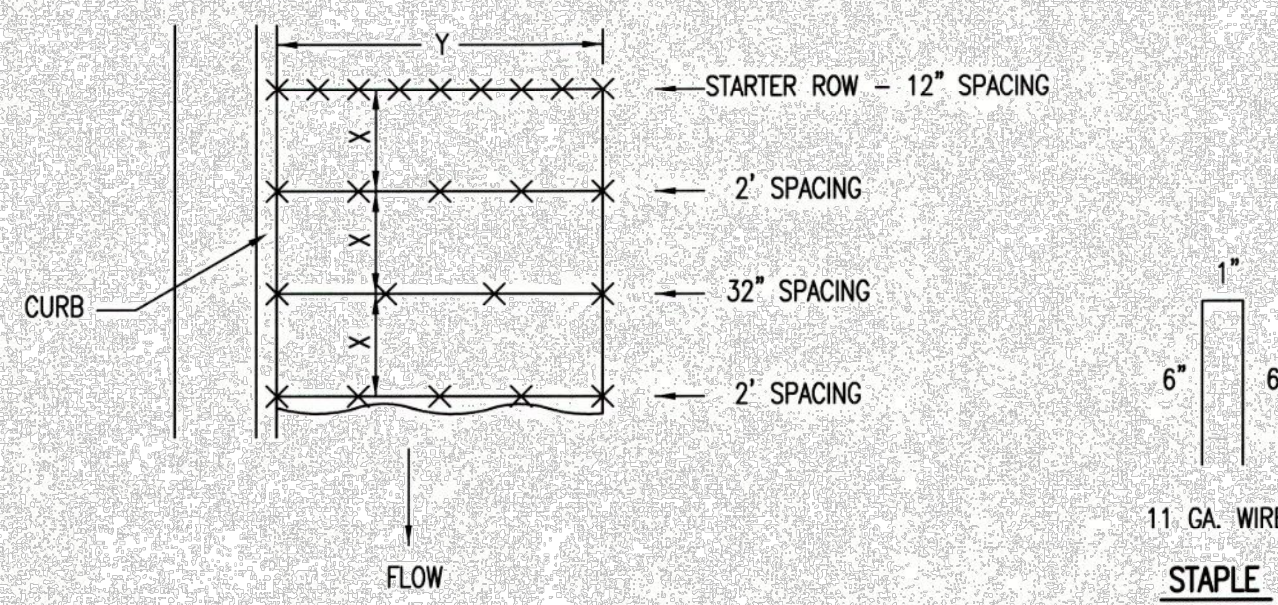
INSTALL 8" WIDE CURLEX I OR II EXCELSIOR BLANKET, OR EQUAL, ON PREPARED SURFACE BACK OF CURB. EDGE OF BLANKET WILL BE AT BACK OF CURB. INSTALL PER MANUFACTURER'S RECOMMENDATION, INCLUDING STAPLES. (SEE DETAIL)



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 MANUFACTURER'S RECOMMENDATION, INCLUDING STAPLES. (SEE DETAIL)

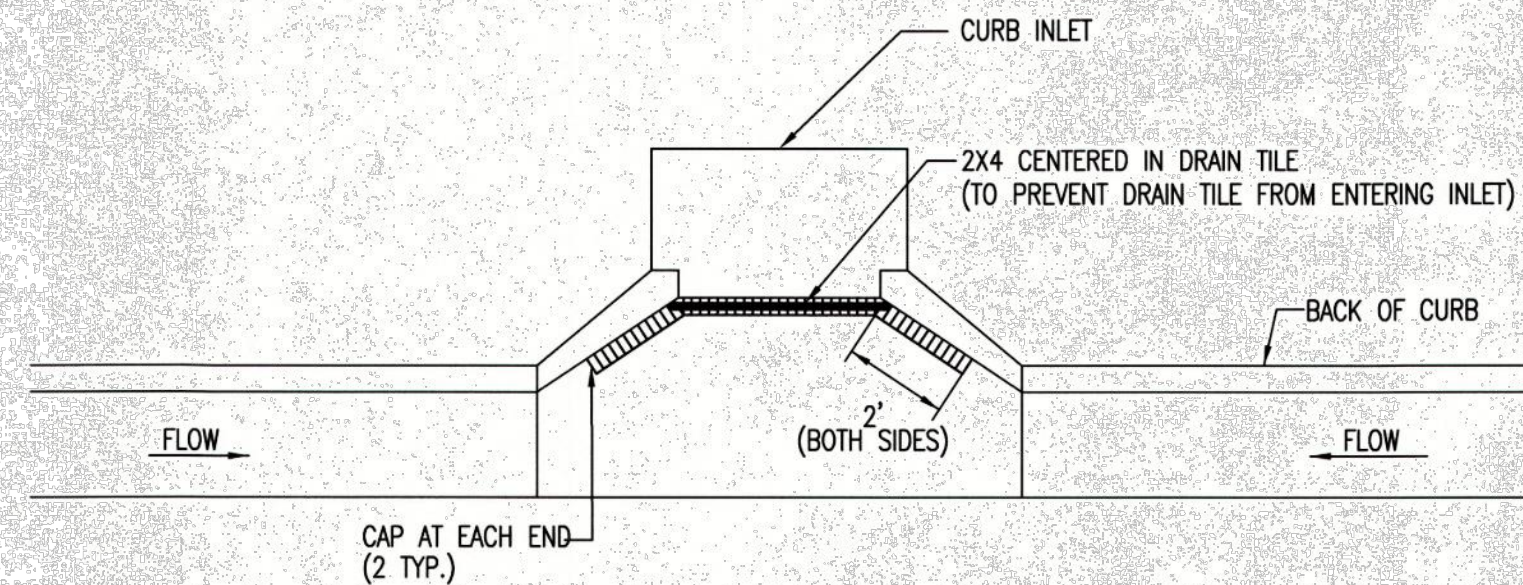
- GENERAL NOTES**
- EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
  - EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
  - AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE 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**



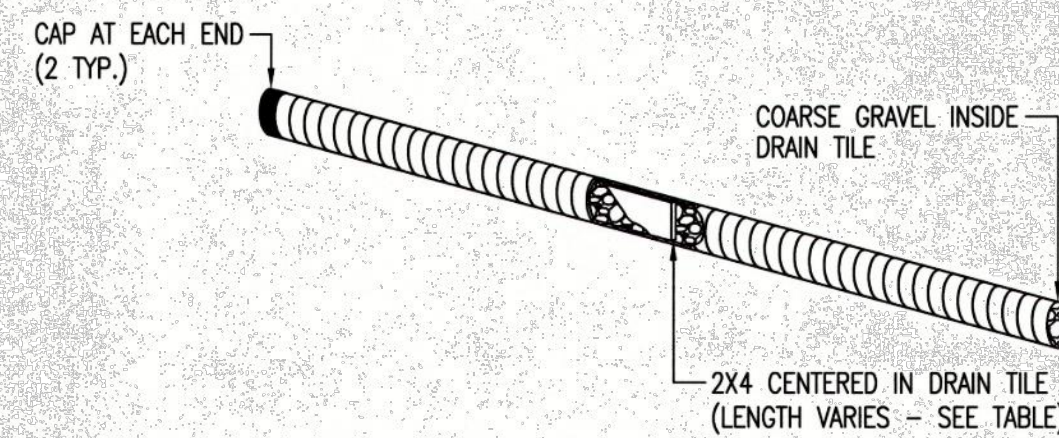
**STAPLE PATTERN**  
NOTES: USE 6" SEAM OVERLAP  
(X & Y = RECOMMENDED BY MANUFACTURE)

**DETAILS FOR APPROVED EROSION CONTROL MAT**

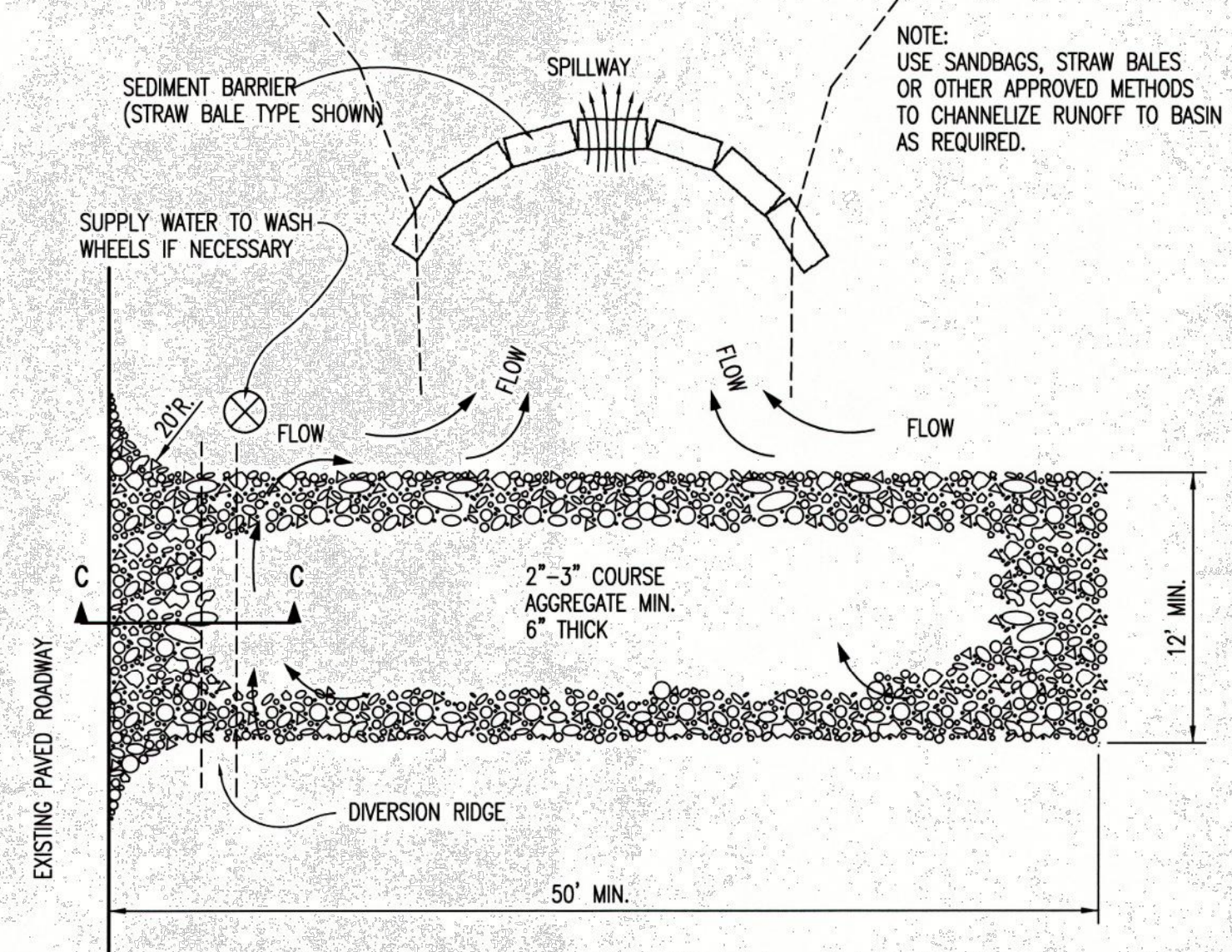
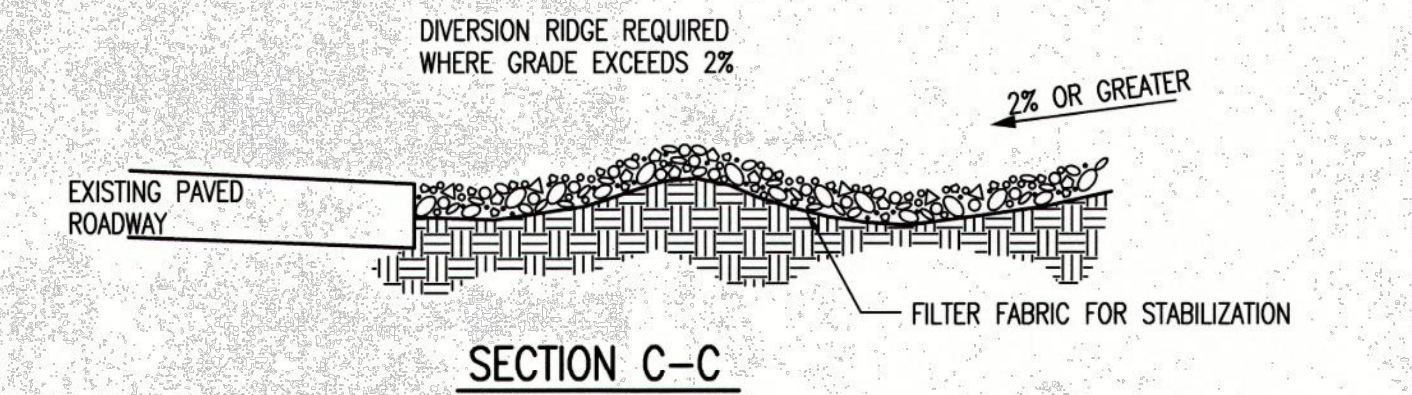


NOTE: PLACE 4" PERFORATED PVC PIPE, FILLED WITH 1/2"-1" DIA. GRAVEL, IN FRONT OF CURB INLET AS SHOWN.

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



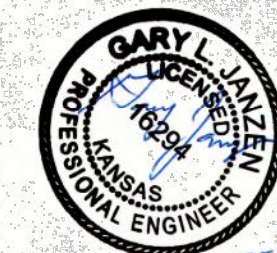
**CURB INLET PROTECTION**  
4" PERFORATED PIPE W/ GRAVEL



**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



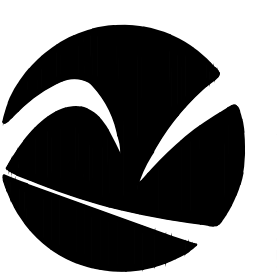
**BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE**

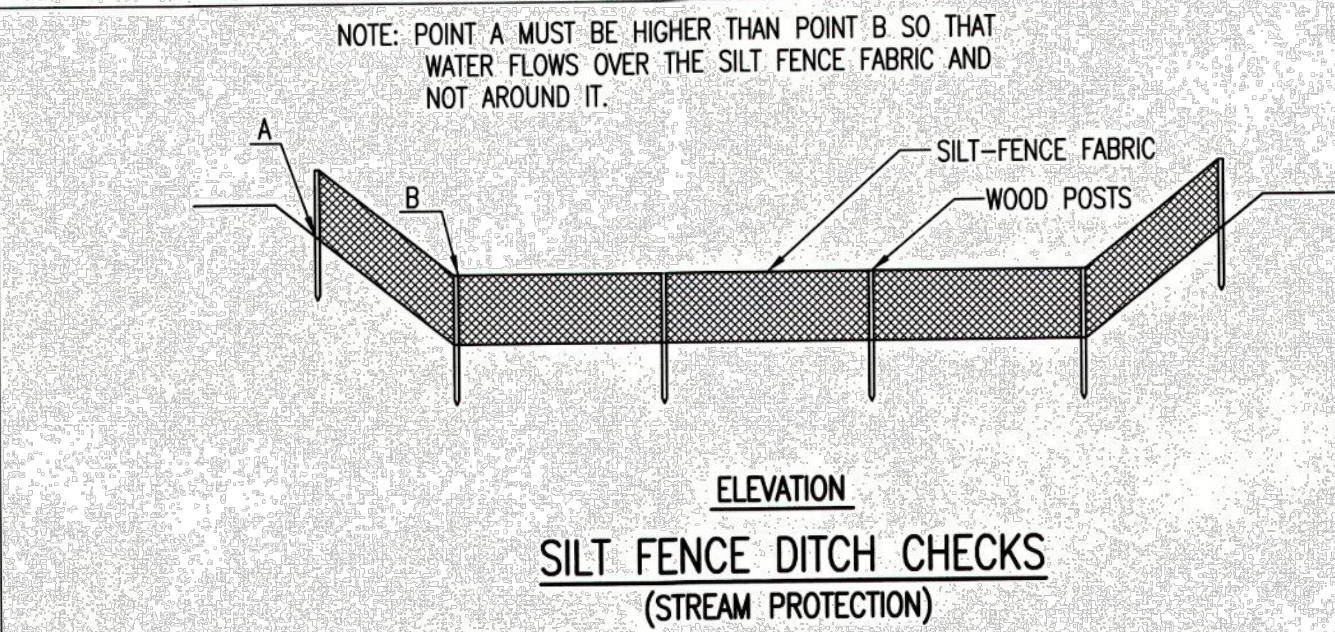
CITY ENGINEER  
**GARY JANZEN, P.E.**

PROJECT NUMBER    OCA NUMBER    DATE

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

SW-501





**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 DOWNSTREAM 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 DOWNSTREAM 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.

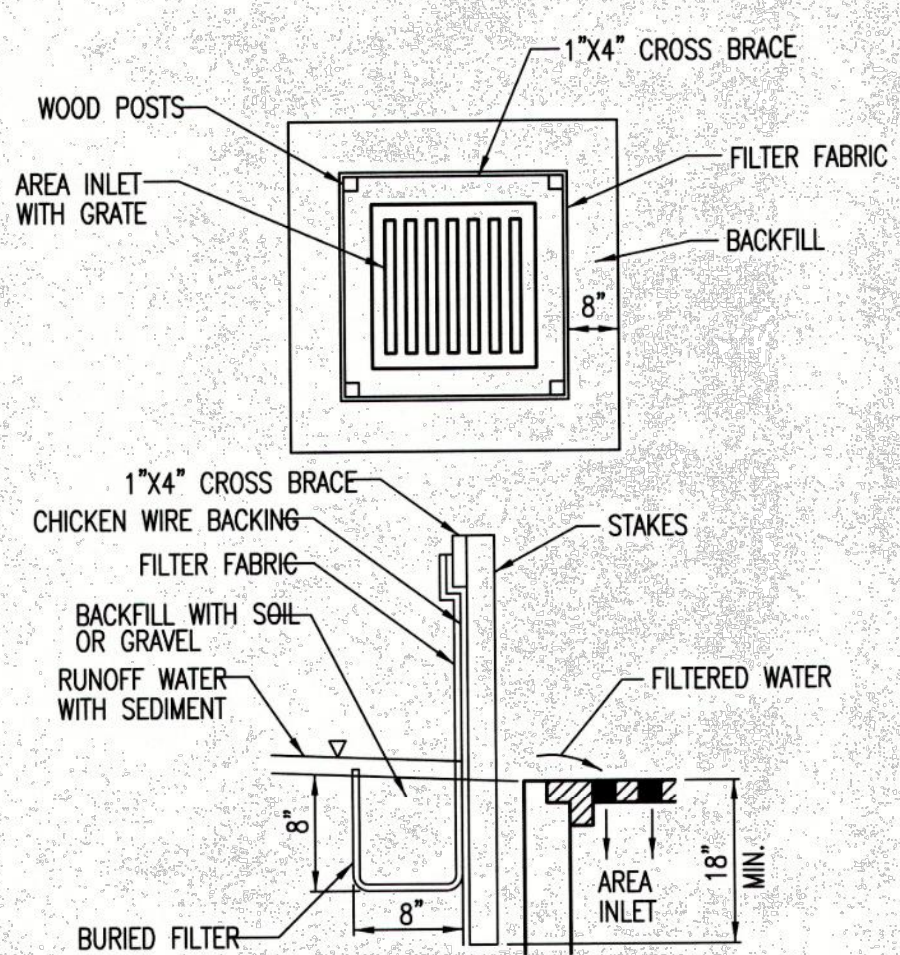
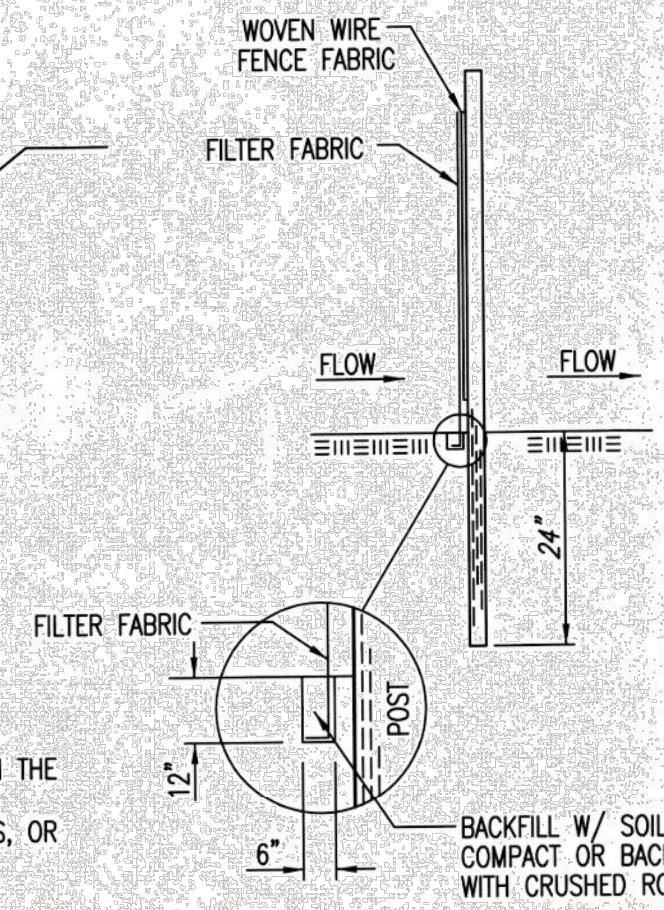
**LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:**

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?



**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.

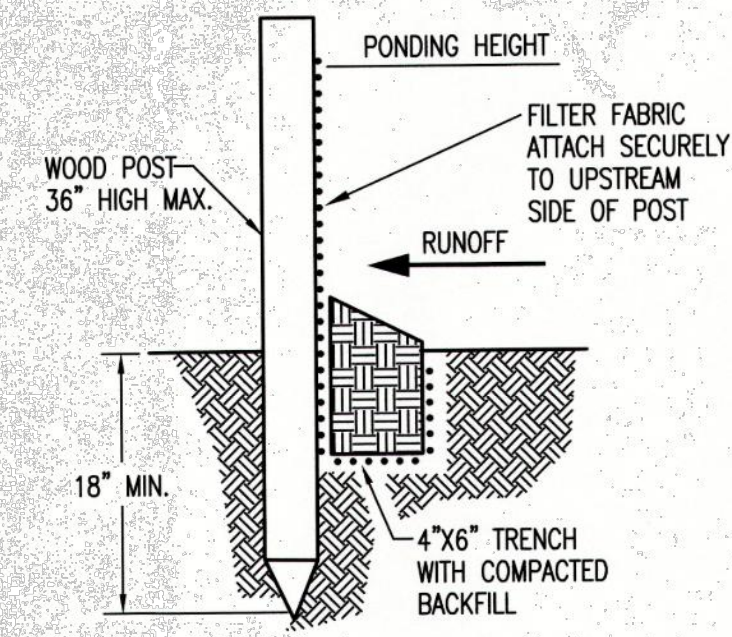
**LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:**

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?



**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:**

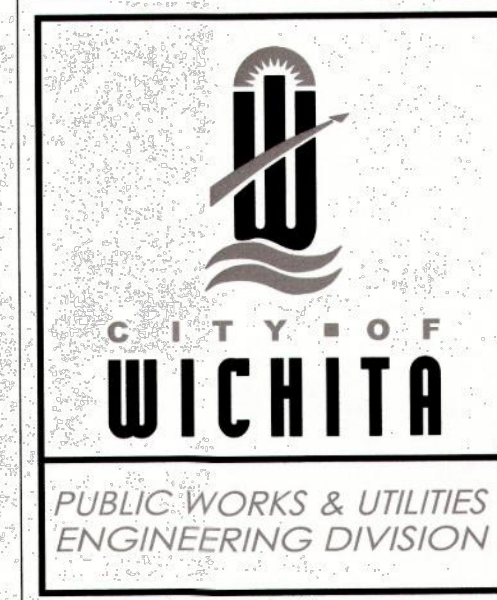
WHEN PRACTICABLE, DO NOT PLACE SILT FENCE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. WHEN THE FLOW CONCENTRATES, IT OVERTOPS THE BARRIER AND THE SILT FENCE SLOPE BARRIER QUICKLY DETERIORATES. DO NOT PLACE SILT-FENCE POSTS ON THE UPSLOPE 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?
- DOES 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.**

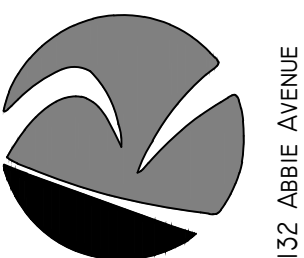
PROJECT NUMBER: OCA NUMBER: DATE:

CITY ENGINEER'S OFFICE  
CITY HALL - SEVENTH FLOOR  
455 NORTH MAIN STREET  
WICHITA, KANSAS 67202-1620  
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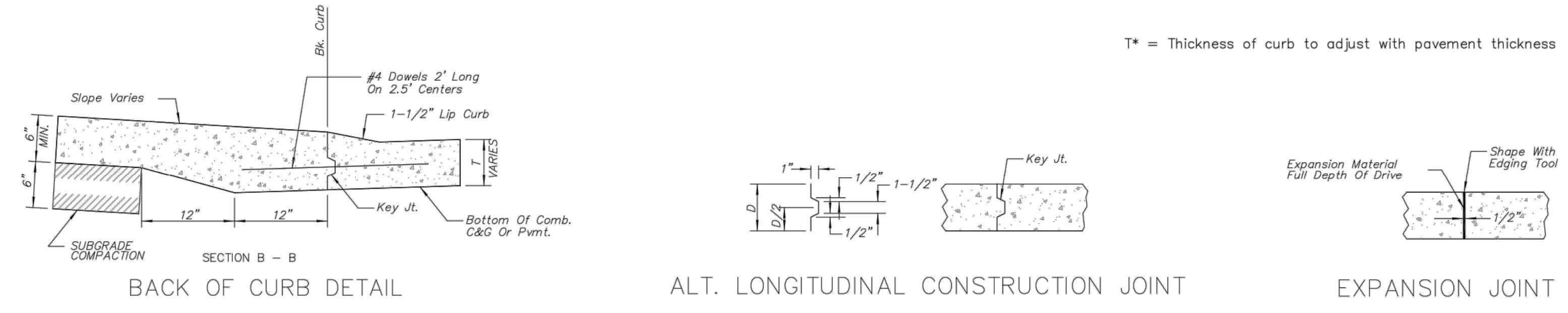
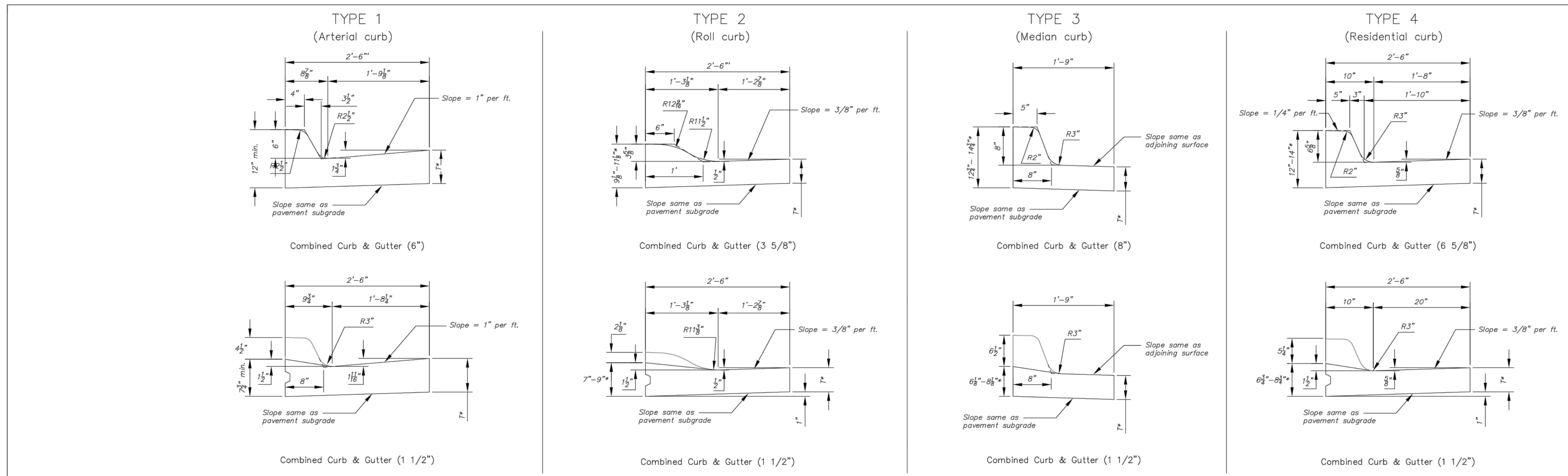
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Consulting

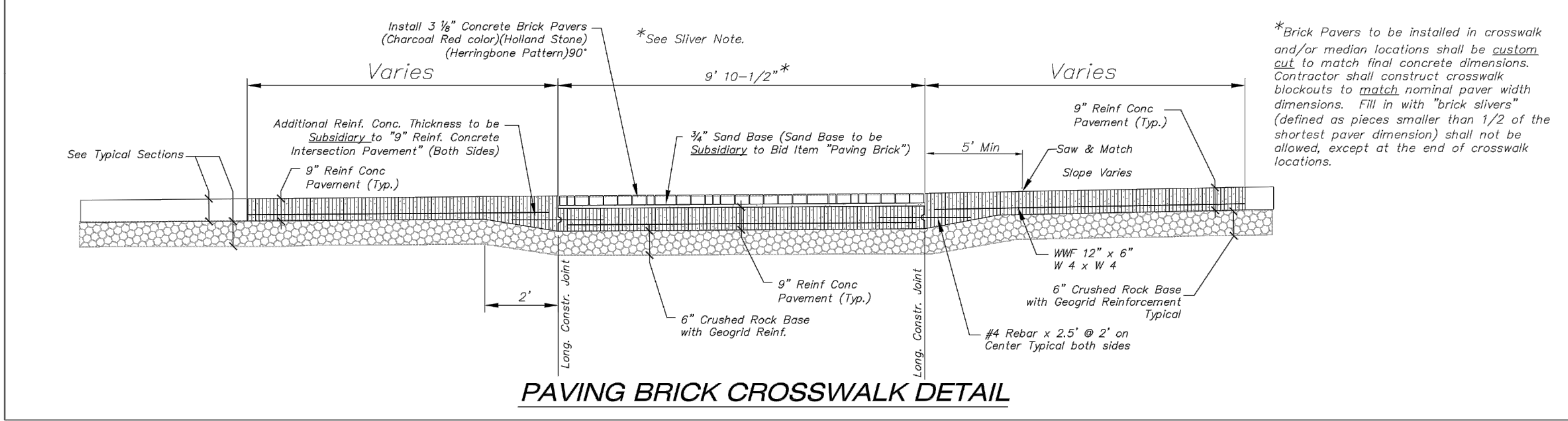


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KANSAS CITY, KANSAS 66103  
E-1814





- GENERAL NOTES**
- Expansion (isolation) joints shall be constructed a maximum of 300' apart and at all PIs, PCs, cul-de-sac quadrants, and ends of returns.
  - Contraction joints shall be constructed a minimum of 12' apart.
  - Joint sealer shall be required at all joints on arterial and industrial streets and at intersections on residential streets.



REVISED: OCTOBER 2015

**CURB & GUTTER & PAVING BRICK CROSSWALK DETAILS**

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

PROJECT NUMBER    OCA NUMBER    DATE

CITY ENGINEER'S OFFICE  
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455 NORTH MAIN STREET  
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PV-101

NO.	BY	DATE	REVISION
1.	DJM	01/18/2019	Original Submittal
	DJM	03/12/2019	REVISION

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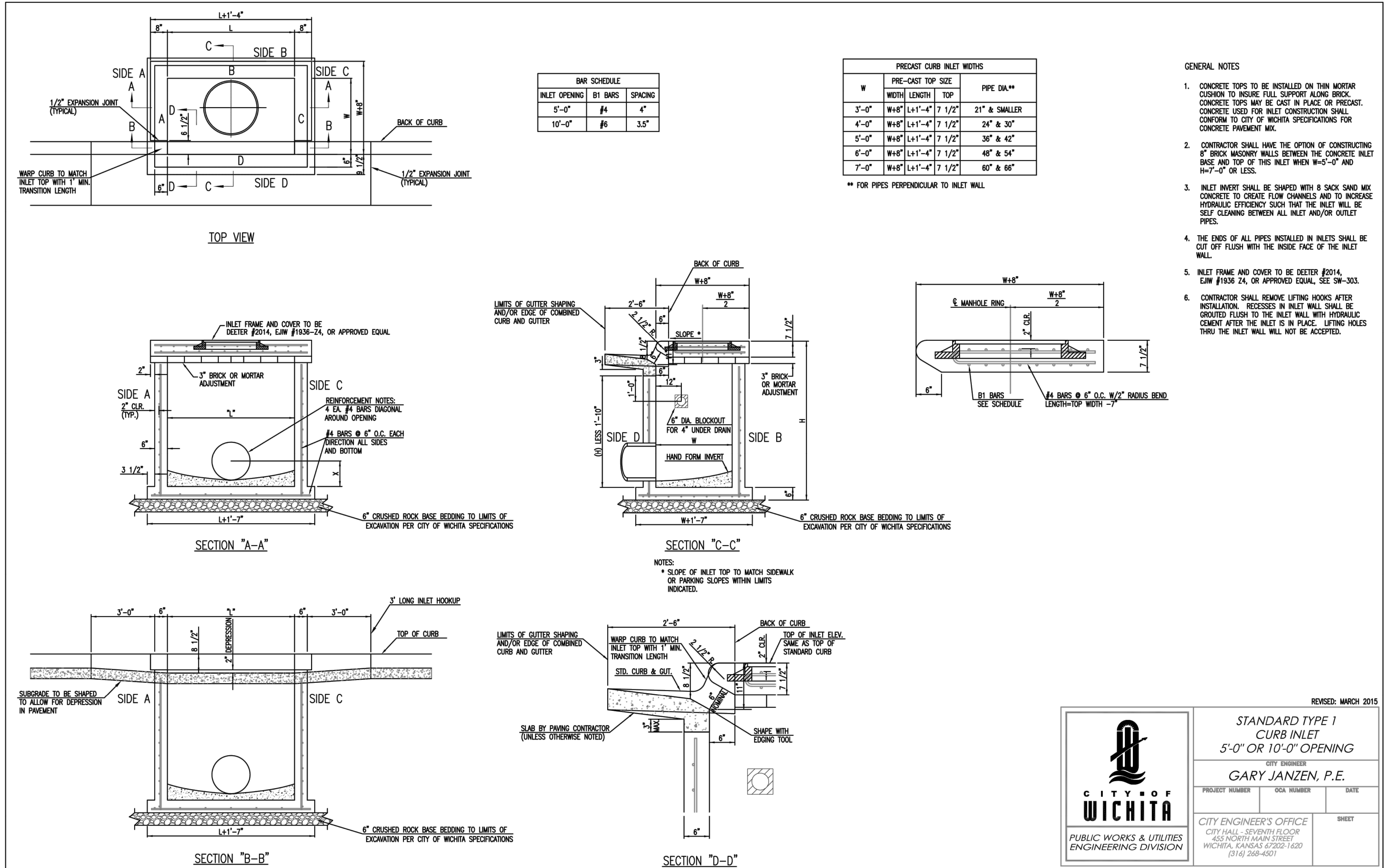
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132 ABBIE AVENUE  
KANSAS CITY, KANSAS 66103

KS Certificate of Authority: E-1814



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NO.	BY	DATE	REVISION
1.	DMK	01/18/2019	Original Submittal
	DMK	03/12/2019	REVISION

REVISED: MARCH 2015

**STANDARD TYPE 1 CURB INLET**  
5'-0" OR 10'-0" OPENING

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

PROJECT NUMBER	DCA NUMBER	DATE
CITY ENGINEER'S OFFICE	SHEET	

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

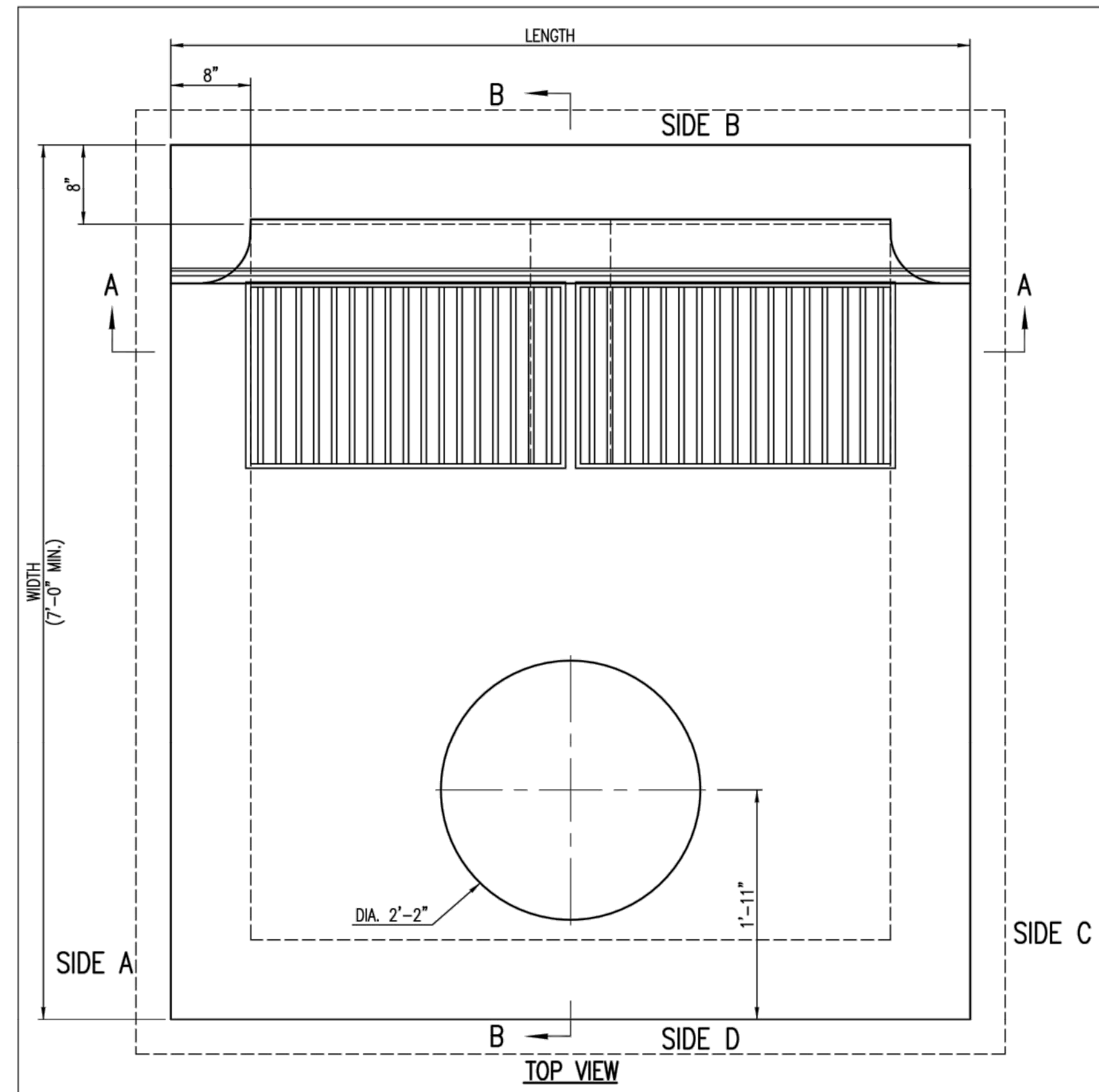
**CITY OF WICHITA**  
PUBLIC WORKS & UTILITIES  
ENGINEERING DIVISION

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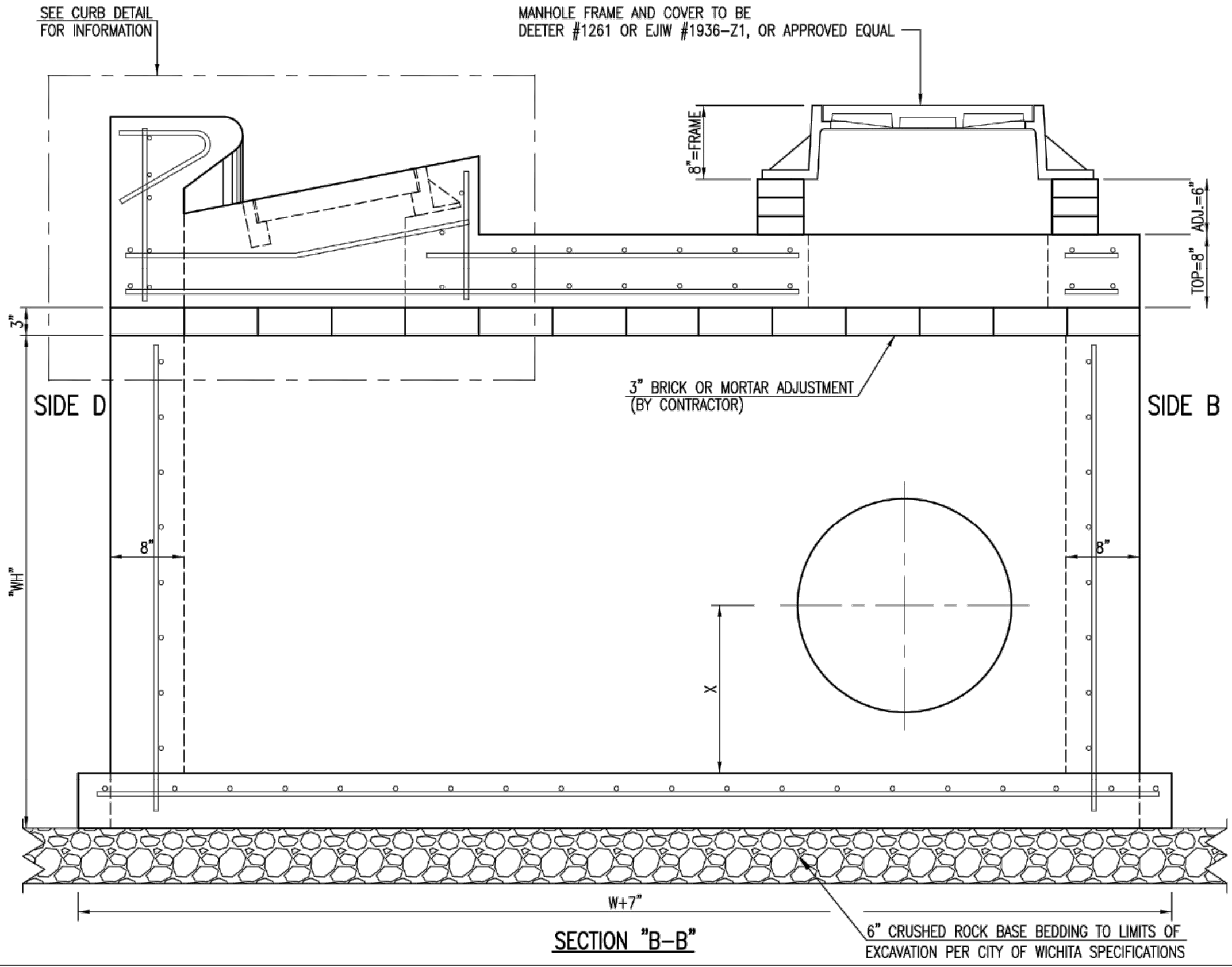
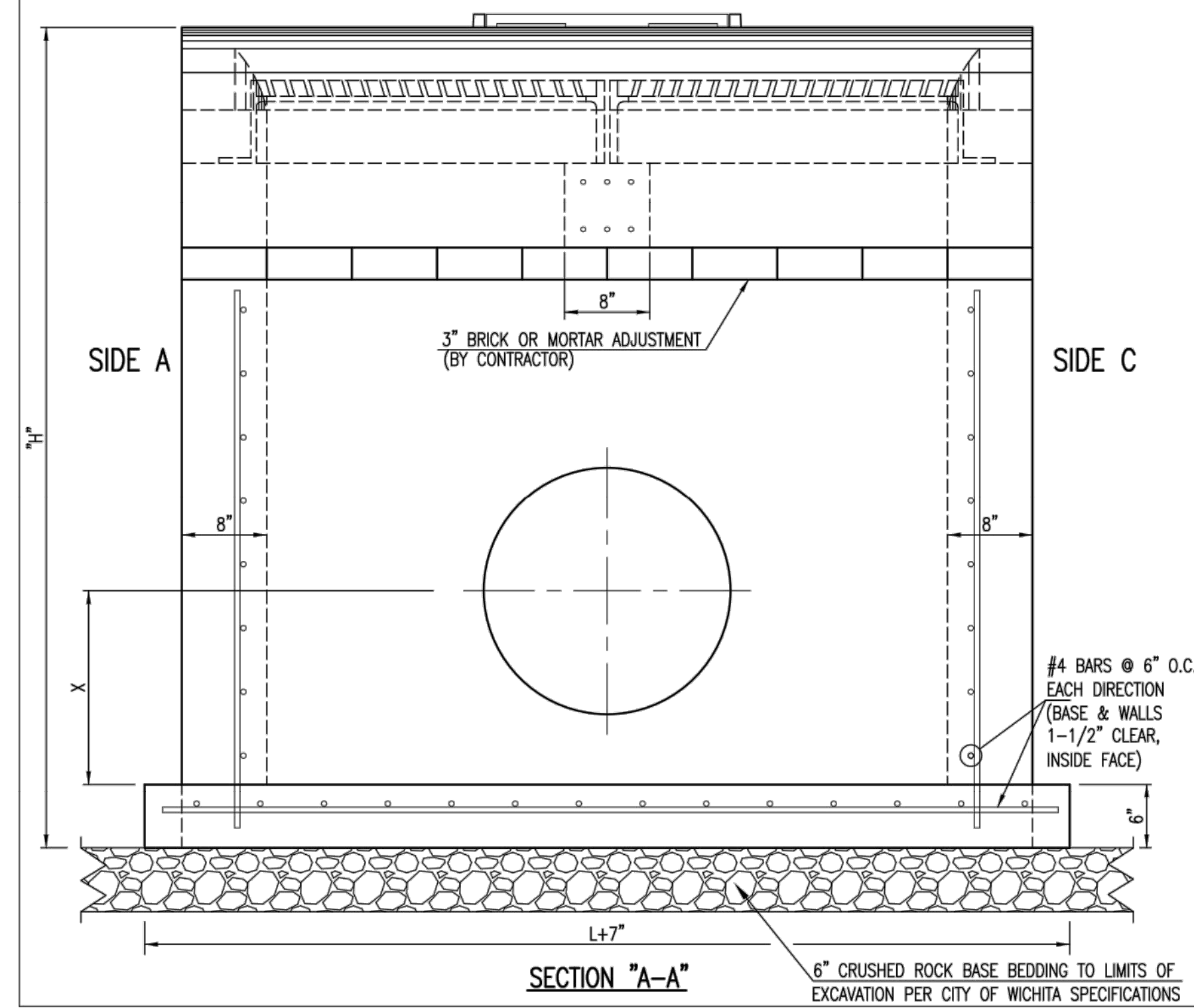
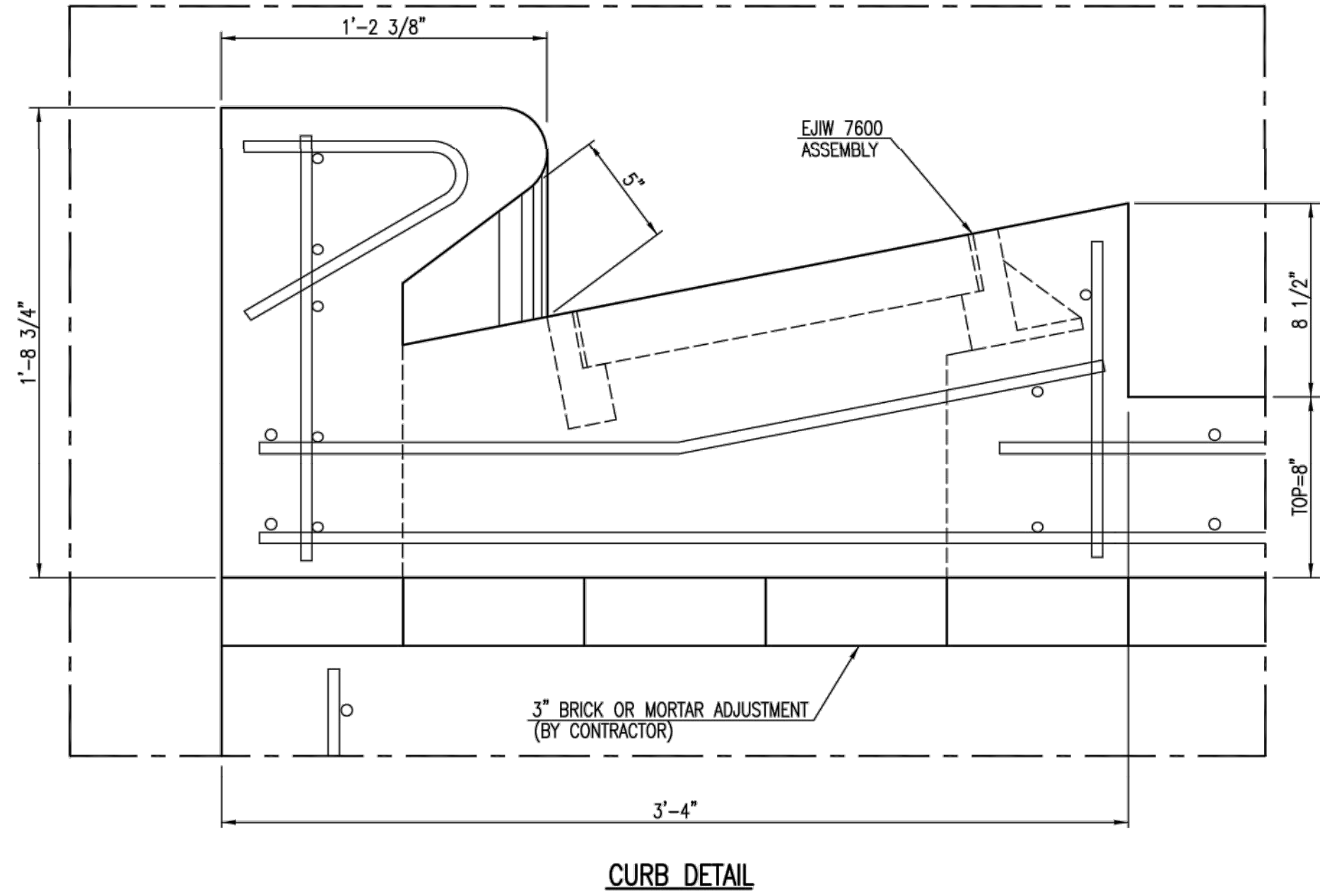
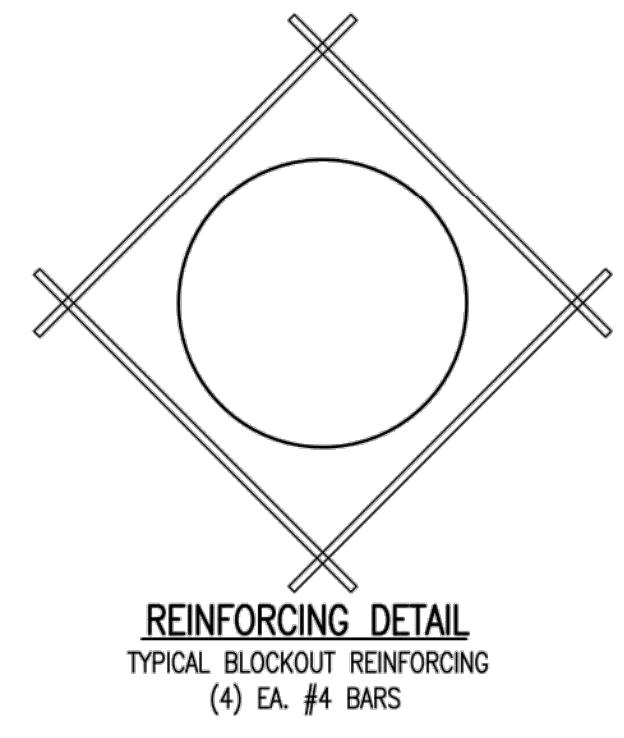
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**DUSTIN J. BURTON**  
LICENSED PROFESSIONAL ENGINEER  
22013  
KANSAS

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**\*\*ALL REINFORCING TO BE #4 BARS @ 6" O.C.**



**GENERAL NOTES**

- USE THE CONCRETE MIX SPECIFIED FOR THE CITY OF WICHITA CONCRETE PAVEMENT THROUGHOUT. ALL EXPOSED EDGES SHALL BE FINISHED WITH AN EDGING TOOL. REINFORCING BARS SHALL BE BENT AROUND PIPE.
- INLET/MANHOLE INVERT SHALL BE SHAPED WITH 8 SACK MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
- ALL BARS ARE #4 WITH 6" SPACING AND SHALL HAVE A MINIMUM CLEARANCE OF 1 1/2" INCHES UNLESS OTHERWISE NOTED ON THE PLANS.
- NO DEDUCTIONS WILL BE MADE IN PAY LENGTH OF CURB, GUTTER, OR CURB AND GUTTER THROUGH THE INLET AREA.
- USE DEETER FOUNDRY, INC. CASTING NO. 2442/43 OR EJW 7600Z LEFT SIDE, 7600 RIGHT SIDE IN INLET FRAME AND GRATE WITH STYLE H GRATE. INLET FRAME TO BE PROOF LOAD TESTED TO 40,000 LBS. ON UNSUPPORTED SIDE.
- RING AND COVER SHALL BE DEETER #1261 OR EJW #1936-Z1, OR APPROVED EQUAL, SEE SW-303.
- REINFORCING BARS SHALL BE CUT OR BENT AROUND PIPES. NO DEDUCTION IN CONCRETE QUANTITIES SHALL BE MADE FOR PIPE OPENINGS.
- THE VANES OF THE GRATE SHALL BE ORIENTED WITH RESPECT TO THE FLOW ARROWS SHOWN ON THE PLANS.
- AROUND INLET/MANHOLE OPENING IN TOP SLAB USE #5 BAR @ 45° ANGLE TO OTHER BARS. LENGTH = MH OPENING + 2'-0"
- CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN INLET/MANHOLE WALL SHALL BE GROUTED FLUSH TO THE INLET/MANHOLE IS IN PLACE. LIFTING HOLES THRU THE INLET/MANHOLE WALL WILL NOT BE ACCEPTED.



REVISED: MARCH 2015

**SPECIAL TYPE II INLET/MANHOLE**

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

PROJECT NUMBER	OCA NUMBER	DATE

CITY ENGINEER'S OFFICE  
CITY HALL - SEVENTH FLOOR  
455 NORTH MAIN STREET  
WICHITA, KANSAS 67202-1620  
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1.	CMW	03/12/2019	Original Submittal
	BY	03	REVISION

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