

AS-BUILT PLANS
 COMPANY: CITY OF WICHITA
 CONTRACTOR: MIES CONSTRUCTION
 SUPERINTENDENT: ALBERT WILLIAMS
 FOREMAN: GARY CASTLE
 INSPECTOR: CALEB WILSON
 PDF BY: CFW
 DATE: 12/30/2014

STORMWATER DRAIN IMPROVEMENTS

to serve

Lot 1, Block 1, Redburn 2nd Addition
 Private Project Drainage: 0265 PPD (607861)
 CITY OF WICHITA, KANSAS

Gary Janzen, P.E. - City Engineer
 August 2014

GENERAL NOTES:

- 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
 Black Hills Energy (Gas) 1-800-303-0357
 ATT 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
- 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.
- All disturbed R/W areas not intended for pavement or sidewalk construction shall be seeded with Kansas Premium Fescue Blend at a rate of 8 lb./1000 Sq. Ft., fertilized with a 16-20-6 ratio at a rate of 4 lb./1000 Sq. Ft., and mulched with Prairie Hay at a rate of 92 lb./1000 Sq. Ft. Mulch shall be "patted" with forks or punched into soil to reduce loss due to wind.
- 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.
- Contractor shall furnish the inspector with a copy of the manufacturer's certification for any pipe used on this project after completion of pipe installation. The engineer will not certify the project to the city until pipe certification has been received.
- 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.
- All sewer lines and appurtenances shall be installed in accordance with the most recent edition of City of Wichita, Kansas Standard Specifications for the Construction of City Projects.
- Contractor shall not start work on the project until the project inspector is assigned to the project and is present on the site. Contractor shall not start on the project until all necessary bonds and permits have been obtained. Bonds may include but are not limited to Statutory, Performance & Maintenance. Any work done without inspection will be required to be uncovered for inspection.
- The Baseline for this project is the \mathcal{C} of Ohio Ave. with the intersection of 29th ST N = Station 0+00.
- This system is privately owned and maintained.

BENCHMARK

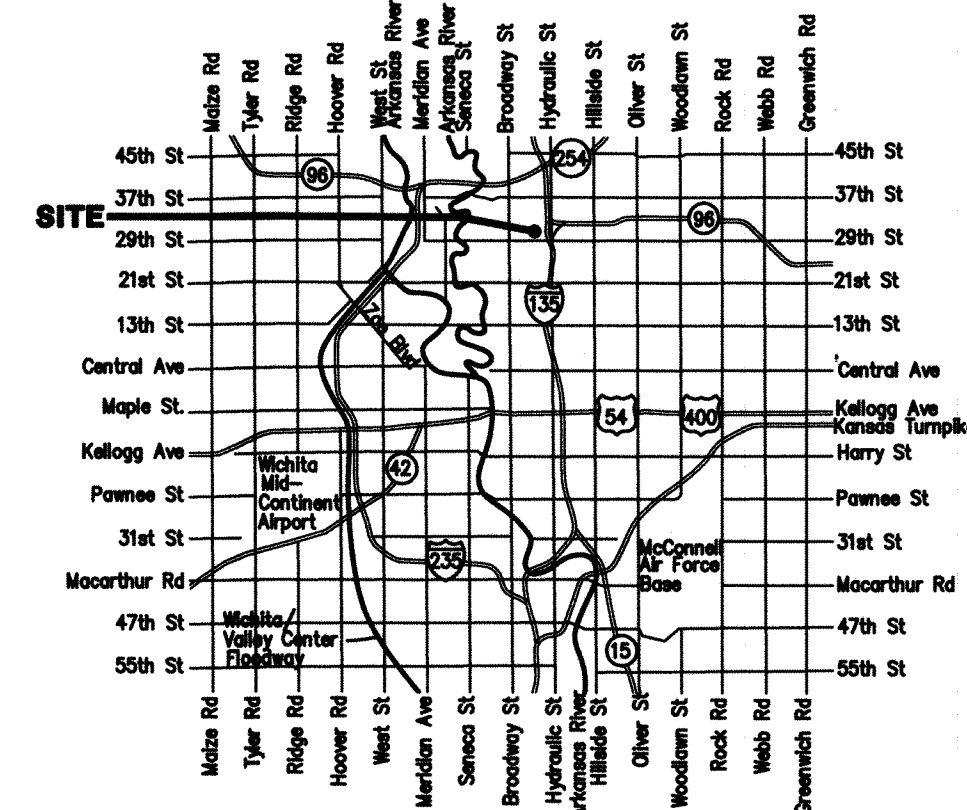
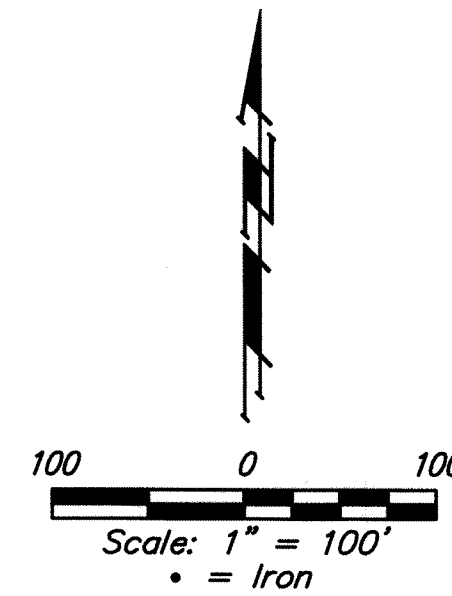
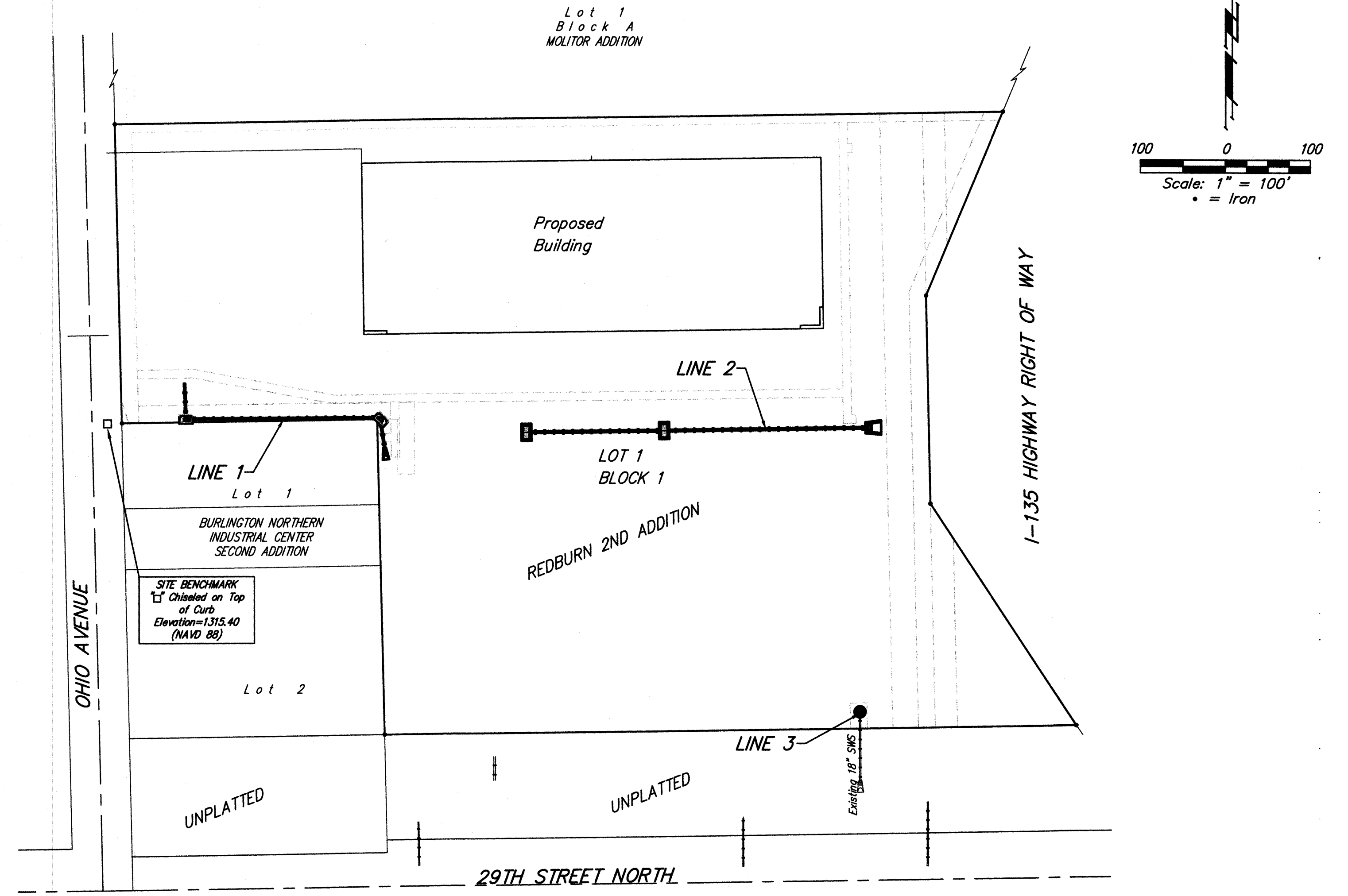
"□" cut top of curb adjacent to the southwest corner of Lot 1, Block 1, Redburn 2nd Addition.
 Elevation = 1315.40 NAVD88

SHEET INDEX:

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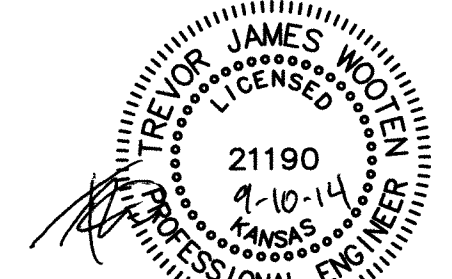
SITE INFORMATION

Total Area:	±603,735 sq. ft. (13.86 acres)
Disturbed Area:	±382,889 sq. ft. (8.79 acres)
Existing Impervious Area:	±0 sq. ft. (0.00 acres)
New Impervious Area:	±208,453 sq. ft. (2.79 acres)
Building Area:	108,000 sq. ft.



APPROVED AS NOTED
 BY CITY ENGINEER OF WICHITA
 Engineering *Rebecca Steil*
 Stormwater *Jim Handley*
 NOTE TO CONTRACTORS

Installation, 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. 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 (on file and available in the City Engineer's Office).

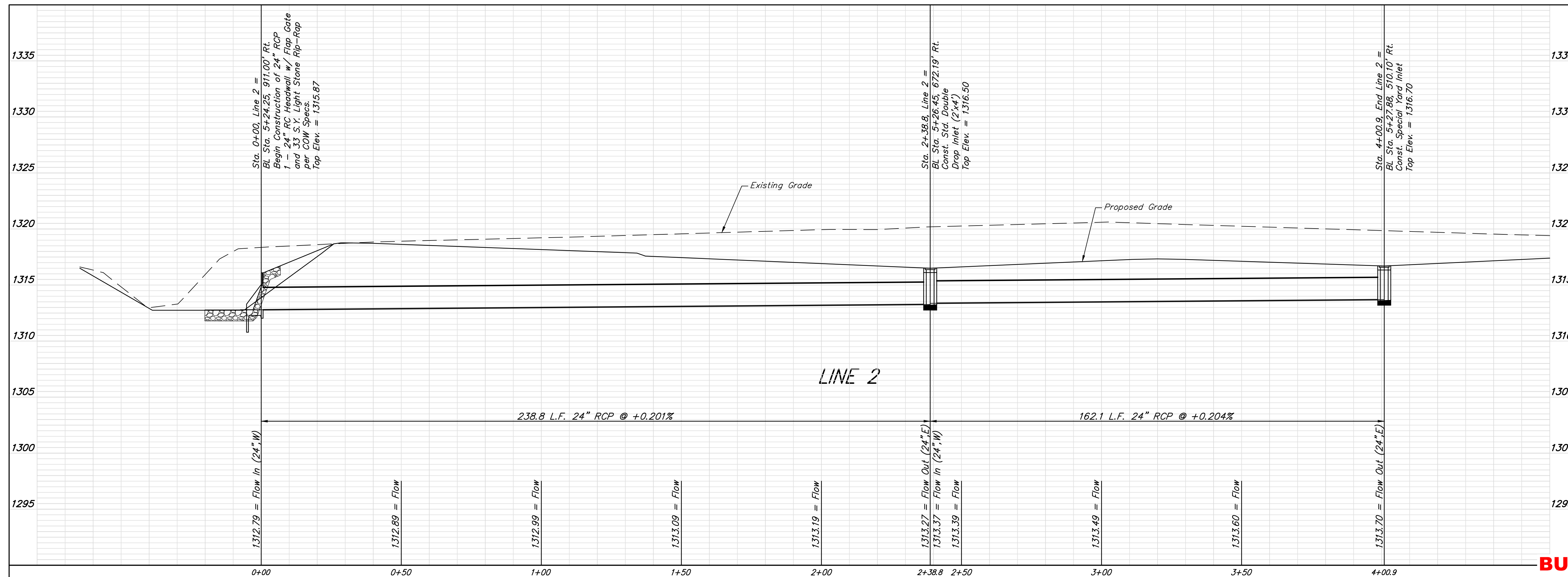
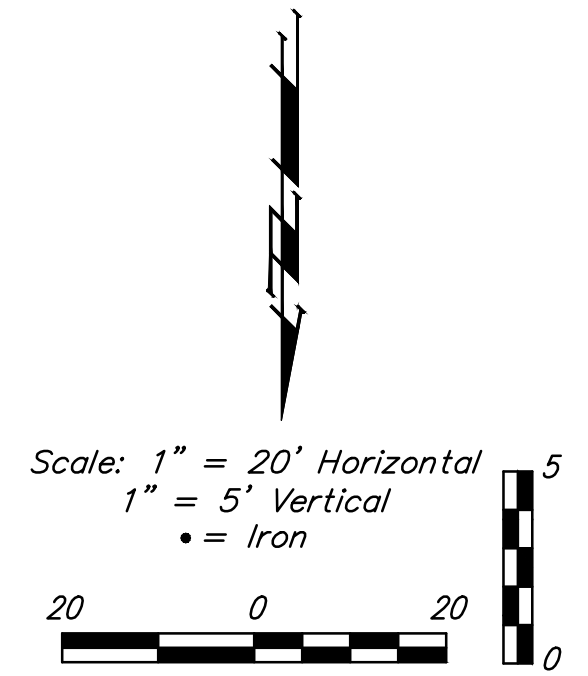
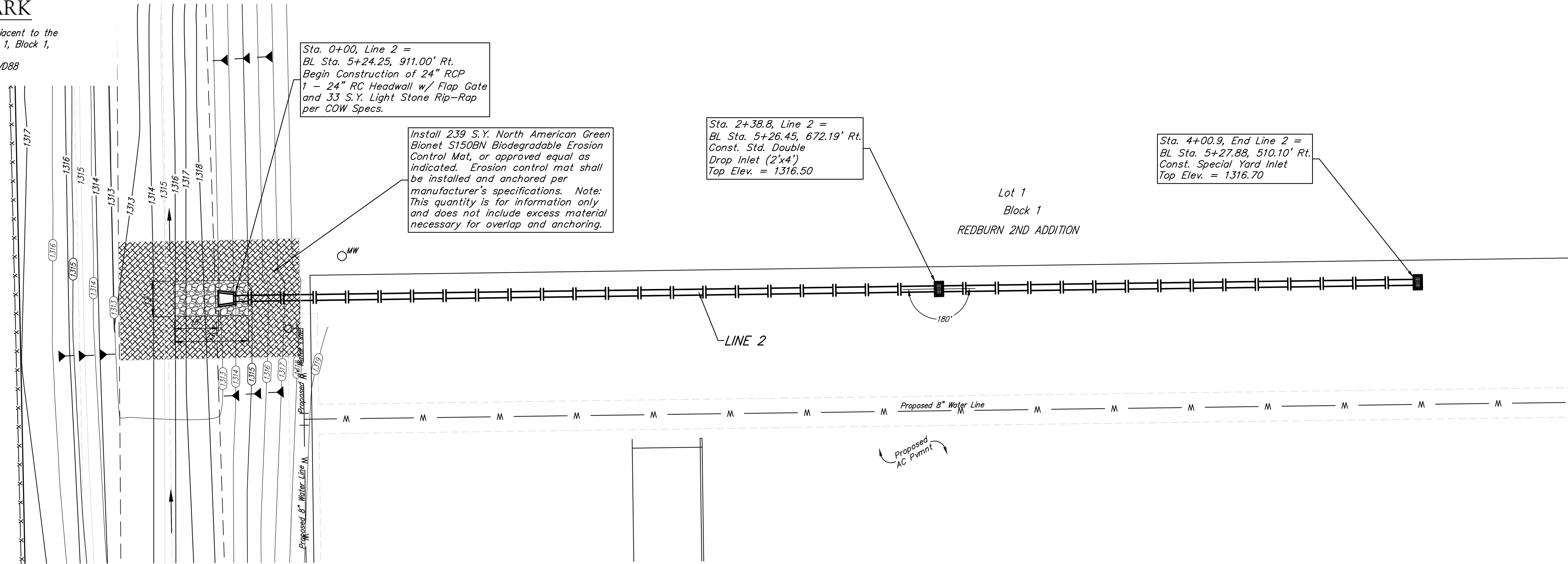


Storm Water Certification
 This improvements were prepared in accordance with the current Storm Water Management Regulations as set forth in the City of Wichita's Storm Water Management Ordinance 16.32 and the policies/guidelines presented in the Wichita/Sedgwick County Storm Water Manual.
 Drainage Area: 8.79 acres
 WQv = 23,292 cubic feet.
 Water Quality Requirements will be addressed with the installation of a Hydroguard Water Quality Device.

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

BENCHMARK

"□" cut top of curb adjacent to the southwest corner of Lot 1, Block 1, Redburn 2nd Addition.
Elevation = 1315.40 NAVD88



BUILT TO PLAN

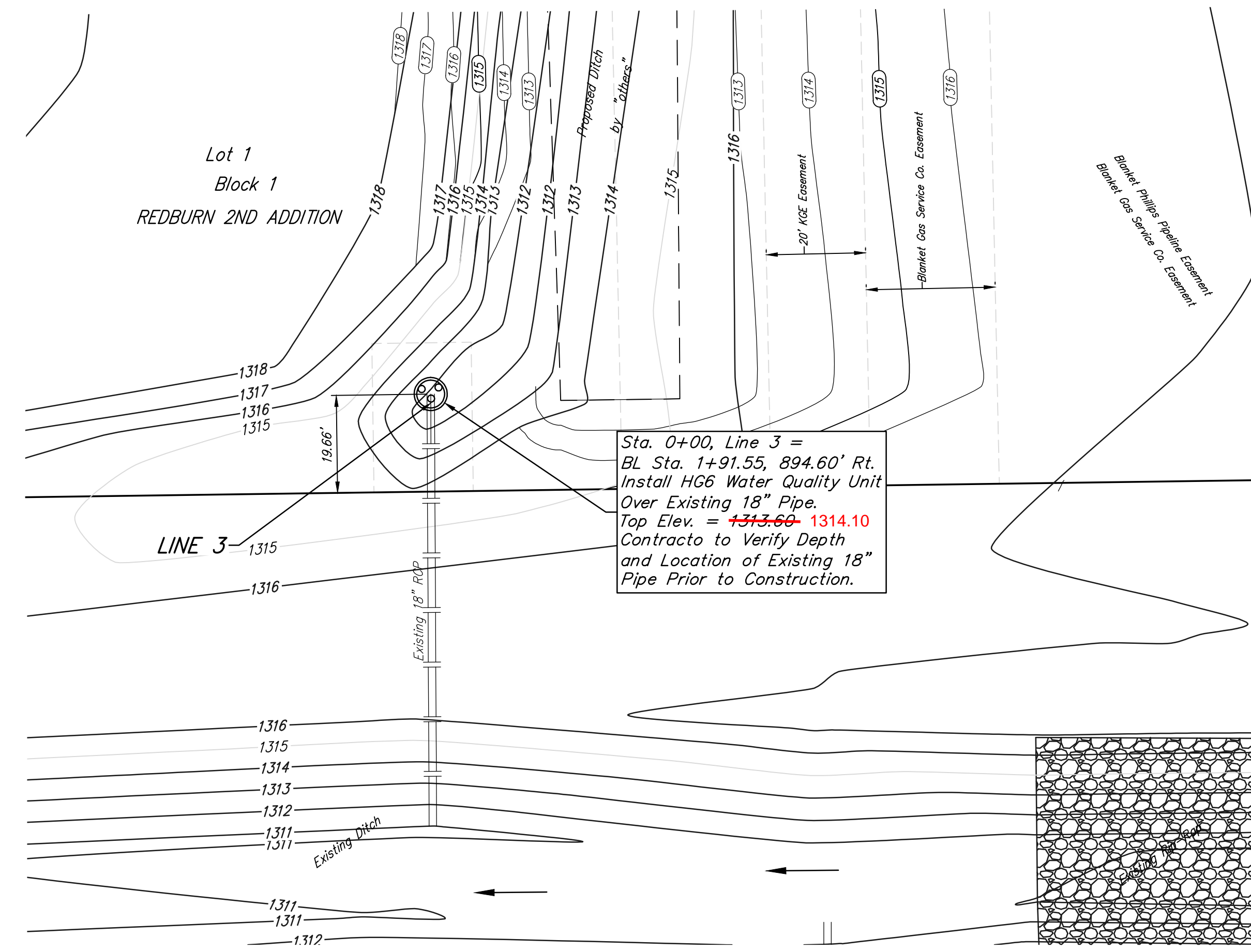
Baughman Company, P.A.
 115 E. Duane St., Suite 200, Raleigh, NC 27601
 Phone: 919.833.1111 Fax: 919.833.1112
 www.baughmanpa.com

Redburn 2nd Addition
LINE 2
 Storm Water Sewer Improvements

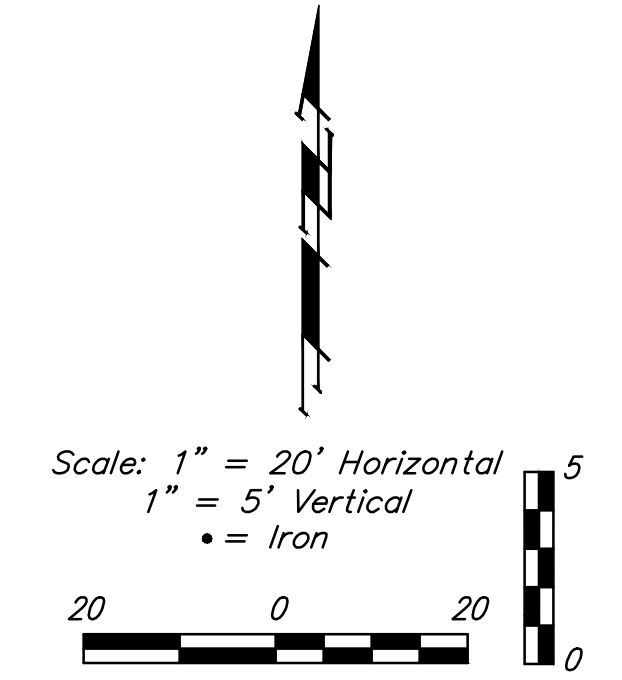
SHEET
 4
 OF
 13

BENCHMARK

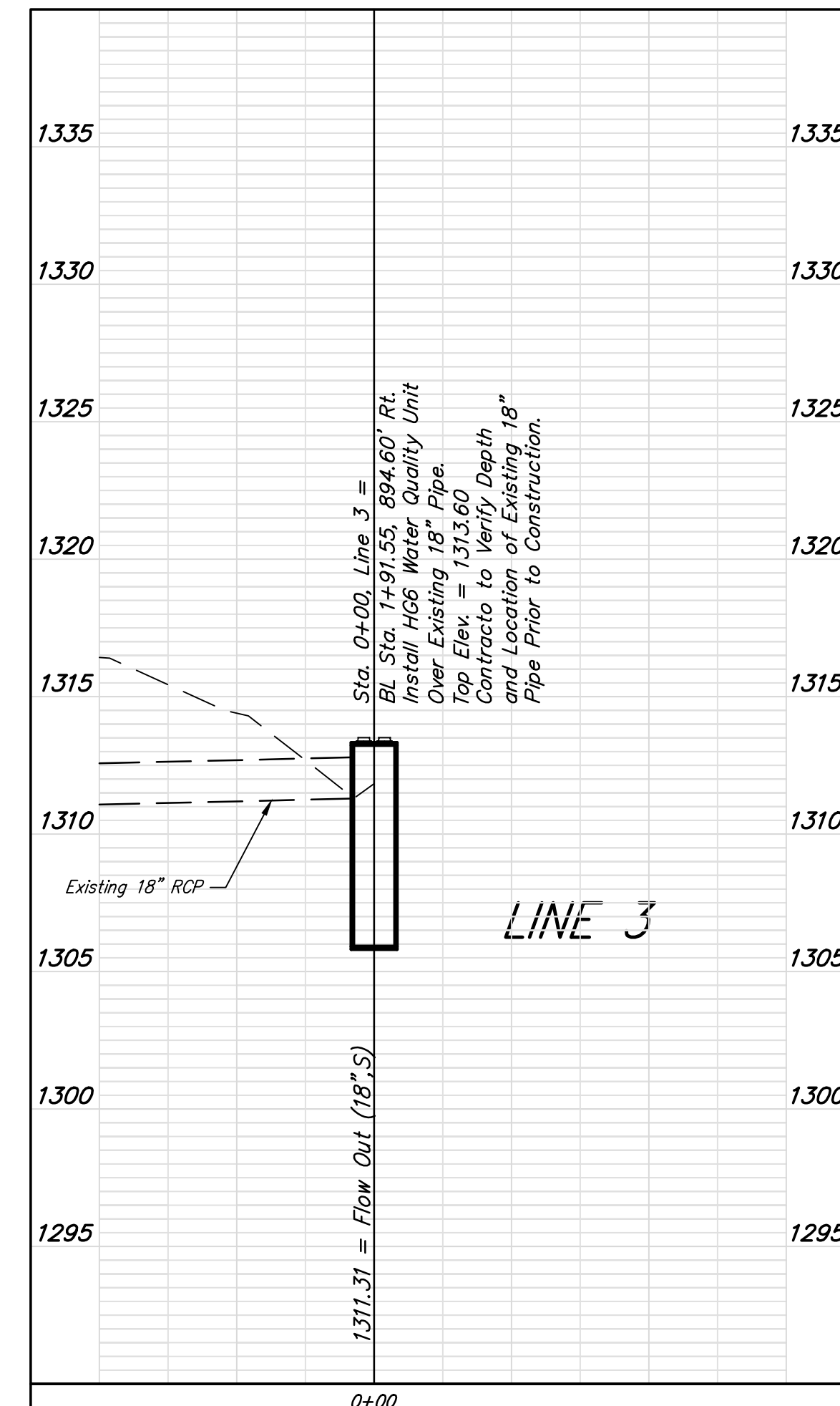
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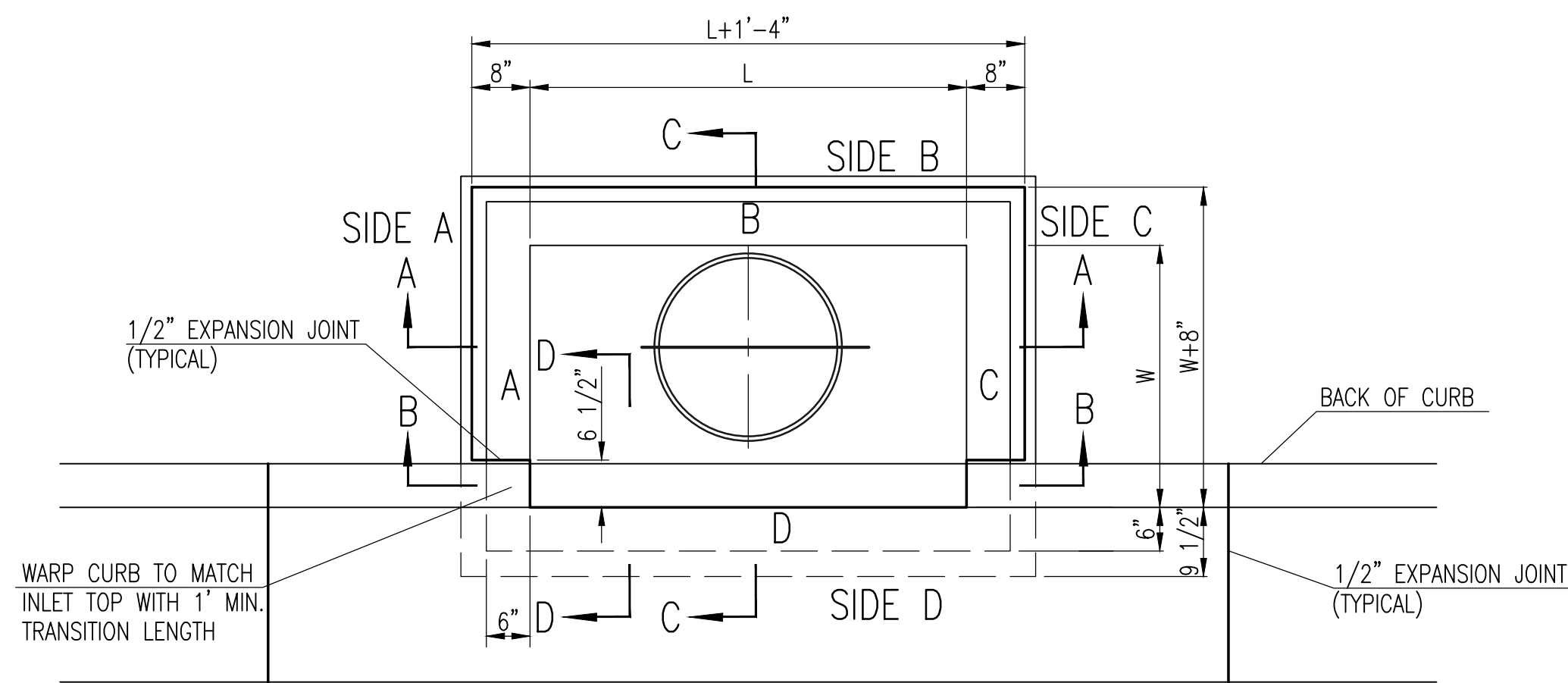


— 1316 — = Existing Ground
 - - - 1316 - - - = Proposed Grade



Sta. 0+00, Line 3 =
 BL Sta. 1+91.55, 894.60' Rt.
 Install HG6 Water Quality Unit
 Over Existing 18" Pipe.
 Top Elev. = ~~1313.60~~ 1314.10
 Contracto to Verify Depth
 and Location of Existing 18"
 Pipe Prior to Construction.





TOP VIEW

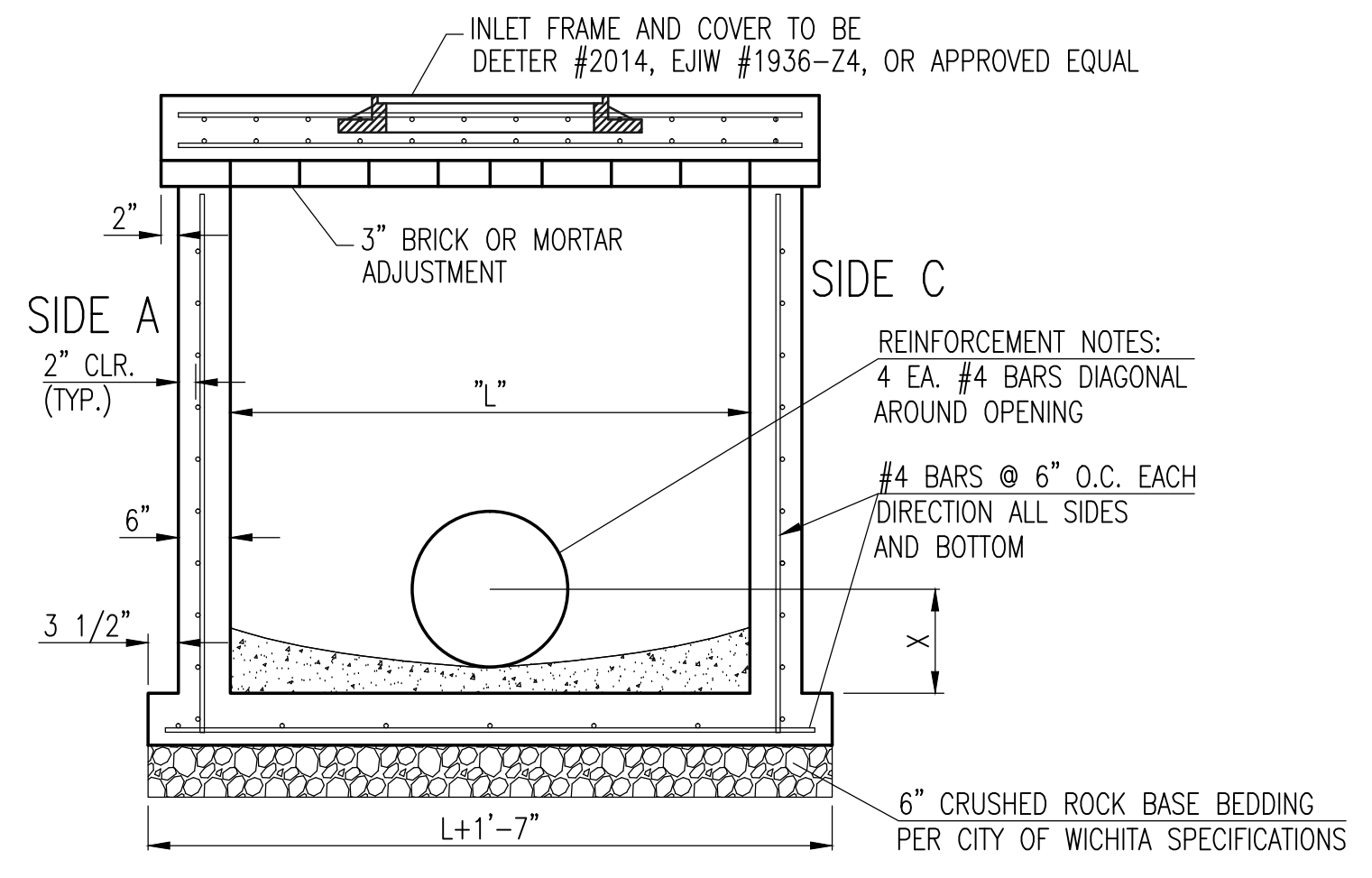
BAR SCHEDULE		
INLET OPENING	B1 BARS	SPACING
5'-0"	#4	4"
10'-0"	#6	3.5"

PRECAST CURB INLET WIDTHS			
W	PRE-CAST TOP SIZE		PIPE DIA.**
	WIDTH	LENGTH	
3'-0"	W+8"	L+1'-4"	21" & SMALLER
4'-0"	W+8"	L+1'-4"	24" & 30"
5'-0"	W+8"	L+1'-4"	36" & 42"
6'-0"	W+8"	L+1'-4"	48" & 54"
7'-0"	W+8"	L+1'-4"	60" & 66"

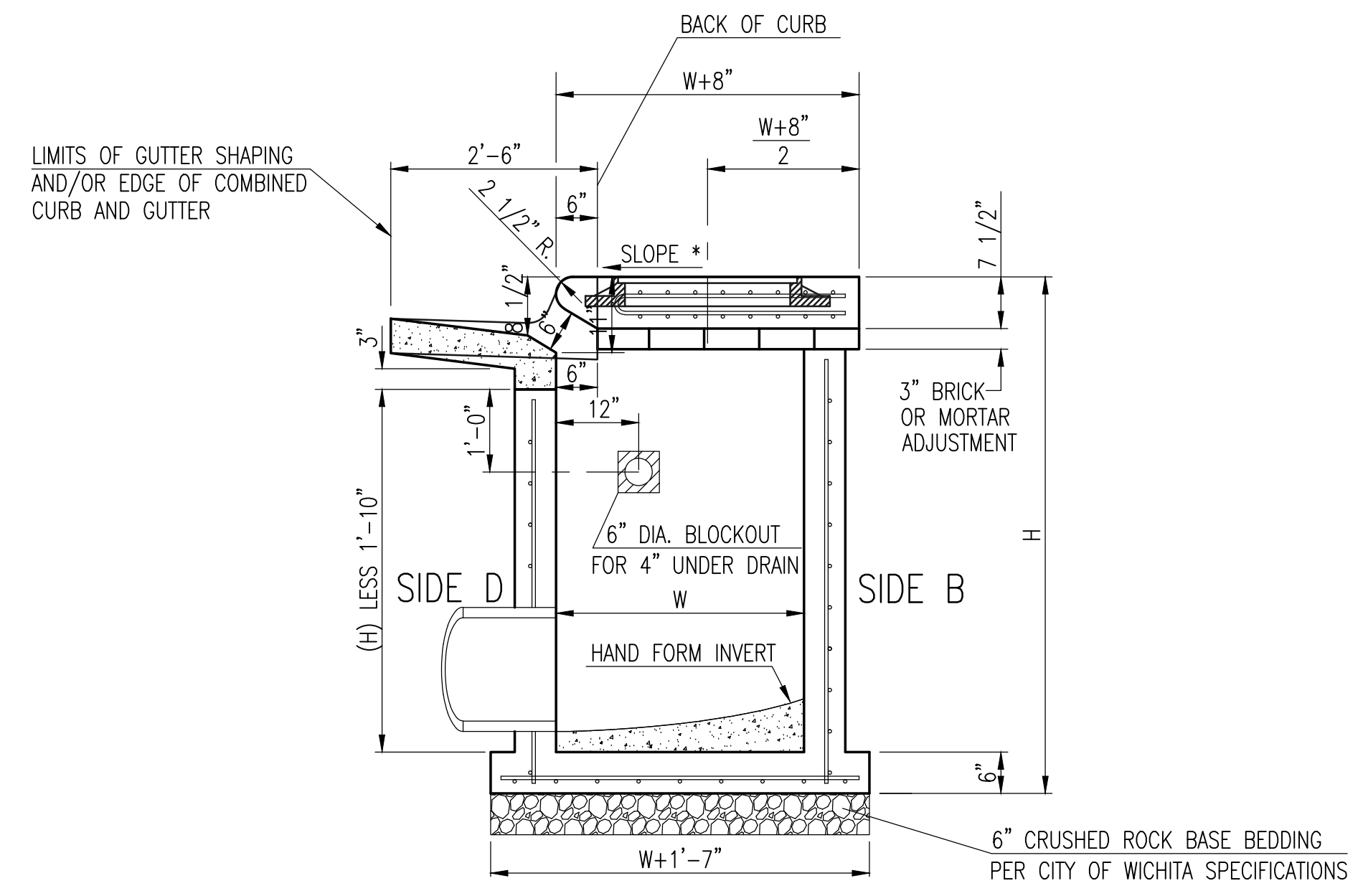
** FOR PIPES PERPENDICULAR TO INLET WALL

GENERAL NOTES

1. CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
2. CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP OF THIS INLET WHEN W=5'-0" AND H=7'-0" OR LESS.
3. INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND 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.
4. THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.
5. INLET FRAME AND COVER TO BE DEETER #2014, EJJW #1936 Z4, OR APPROVED EQUAL, SEE SW-303.
6. CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN INLET WALL SHALL BE GROUTED FLUSH TO THE INLET WALL WITH HYDRAULIC CEMENT AFTER THE INLET IS IN PLACE. LIFTING HOLES THRU THE INLET WALL WILL NOT BE ACCEPTED.

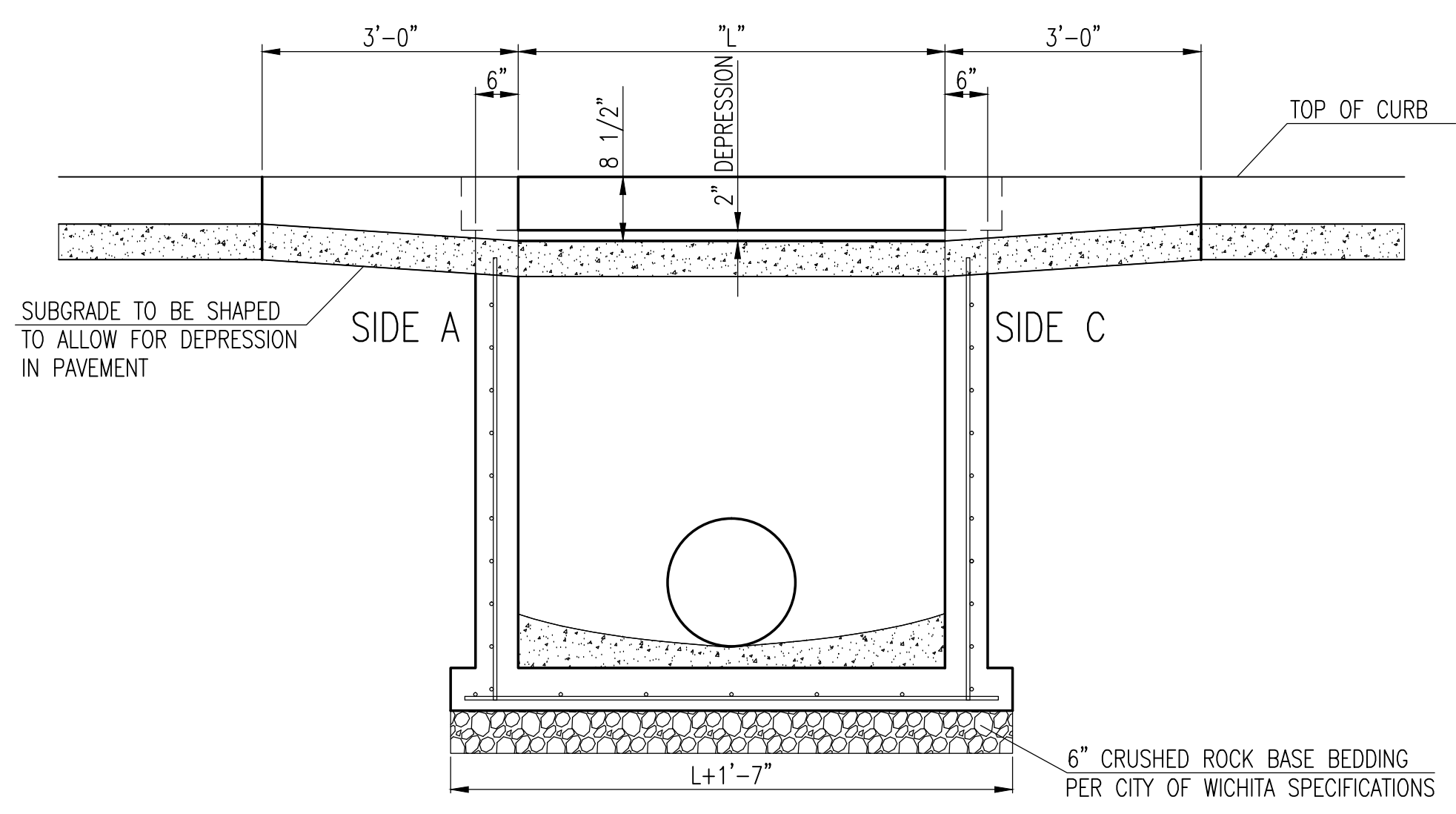
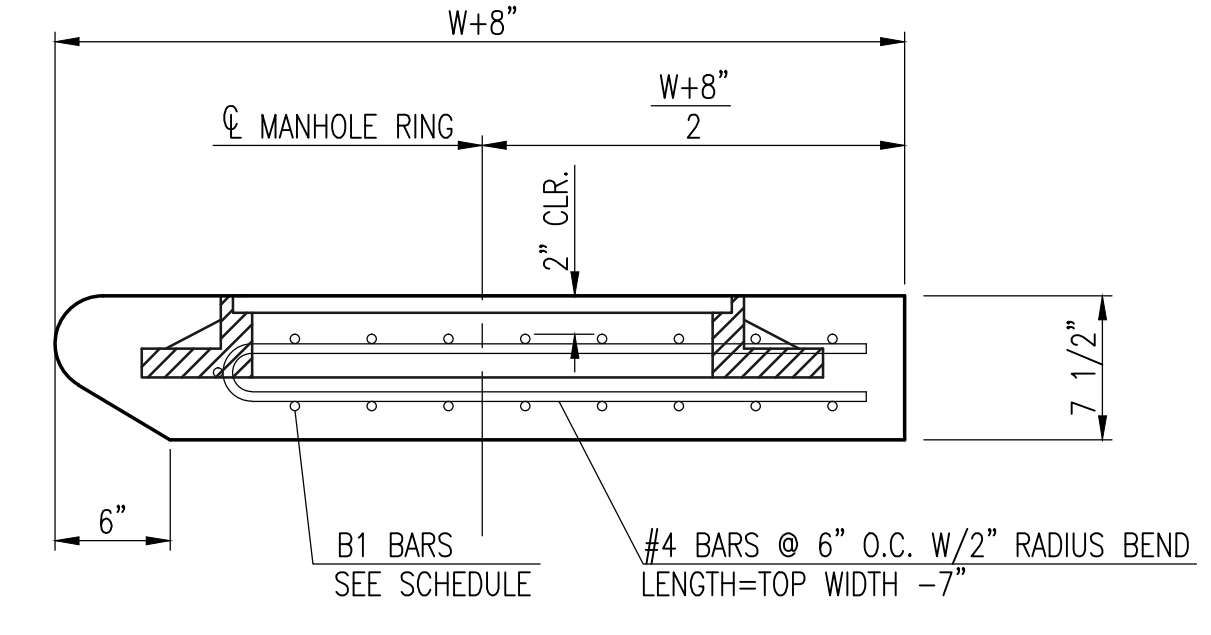


SECTION "A-A"

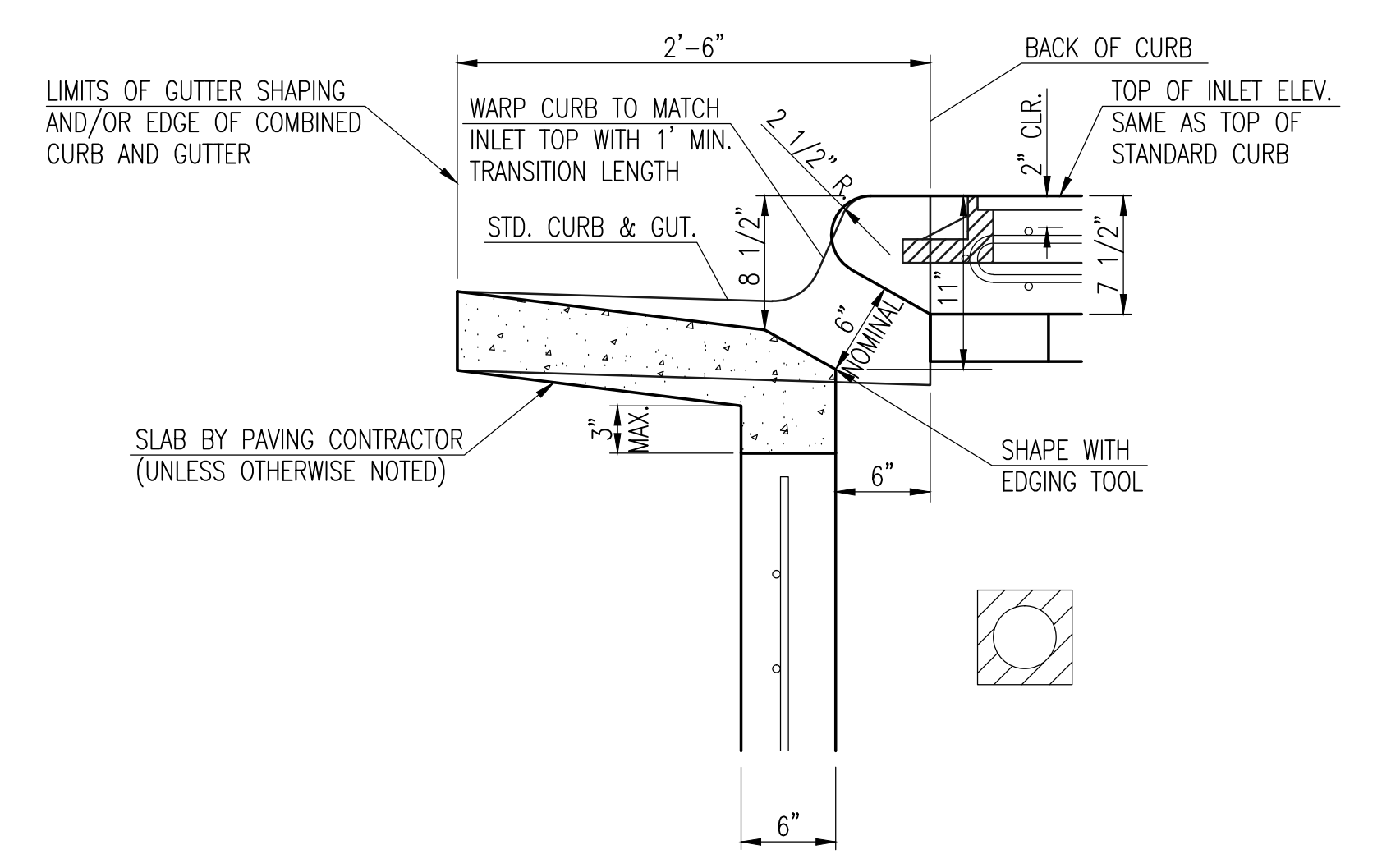


SECTION "C-C"

NOTES:
* SLOPE OF INLET TOP TO MATCH SIDEWALK OR PARKING SLOPES WITHIN LIMITS INDICATED.



SECTION "B-B"



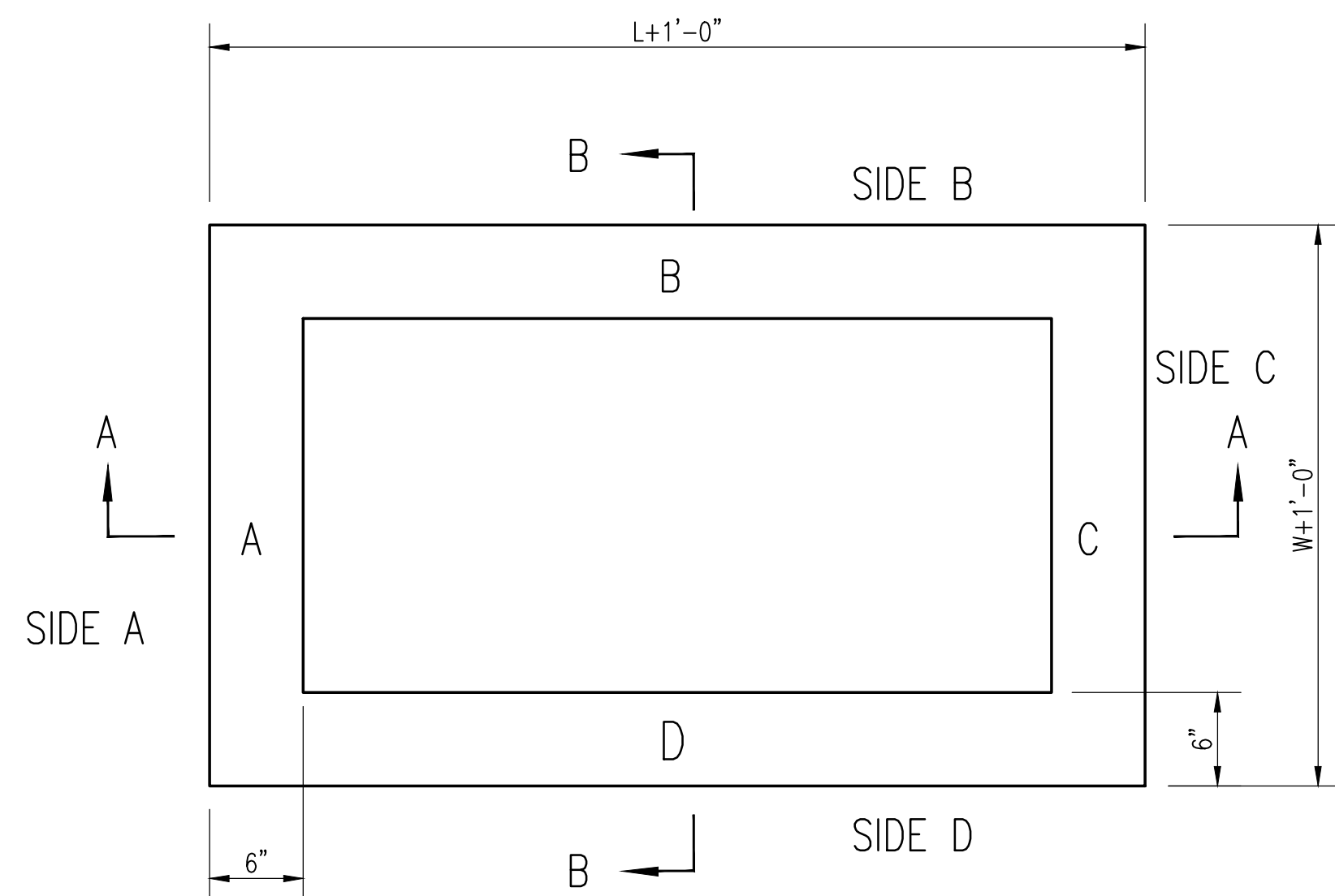
SECTION "D-D"



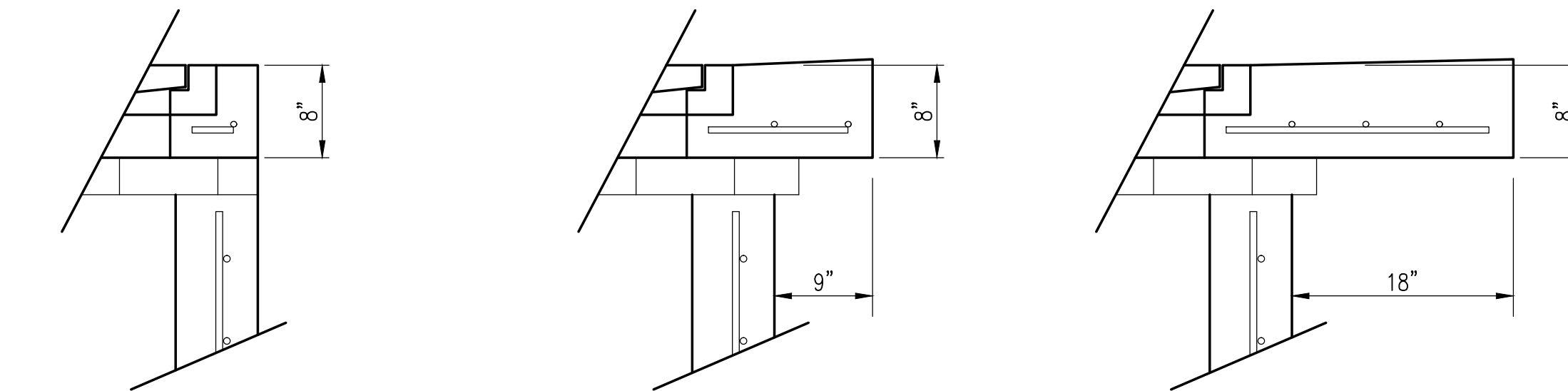
STANDARD TYPE 1 CURB INLET
5'-0" OR 10'-0" OPENING

CITY ENGINEER
Gary Janzen, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
		4/2012
CITY ENGINEER'S OFFICE	DESIGN	DRAWN
CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501	Staff	Staff
	SHEET	6 of 13



TOP VIEW



FLUSH STYLE TOP
NO APRON

9" APRON
* APRON TO EXTEND ON ALL 4 SIDES OF INLET.
DESIGNER TO DESIGNATE APRON SIZE.

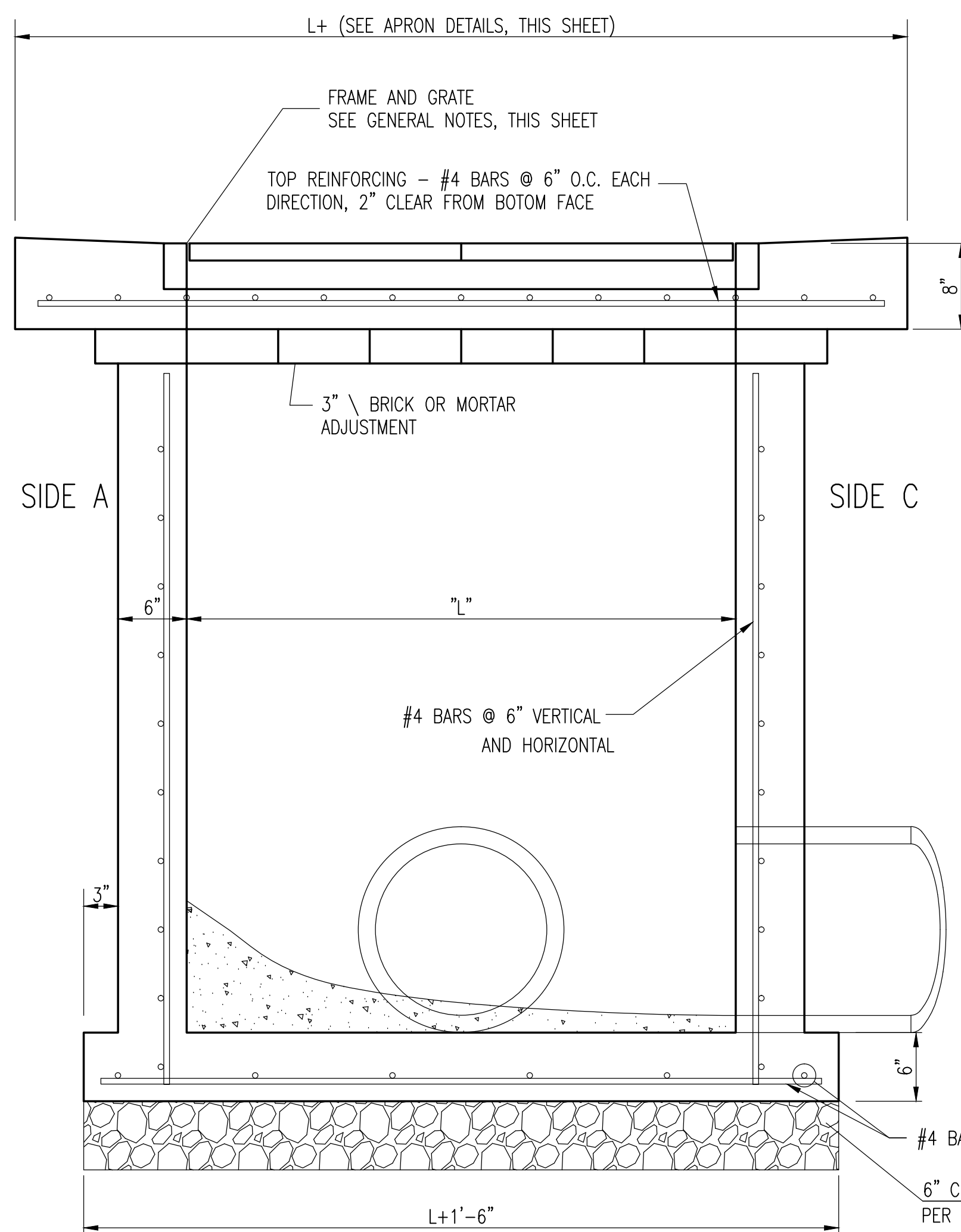
18" APRON

W=2' and L=2' for SINGLE DROP INLET
W=2' and L=4' for DOUBLE DROP INLET

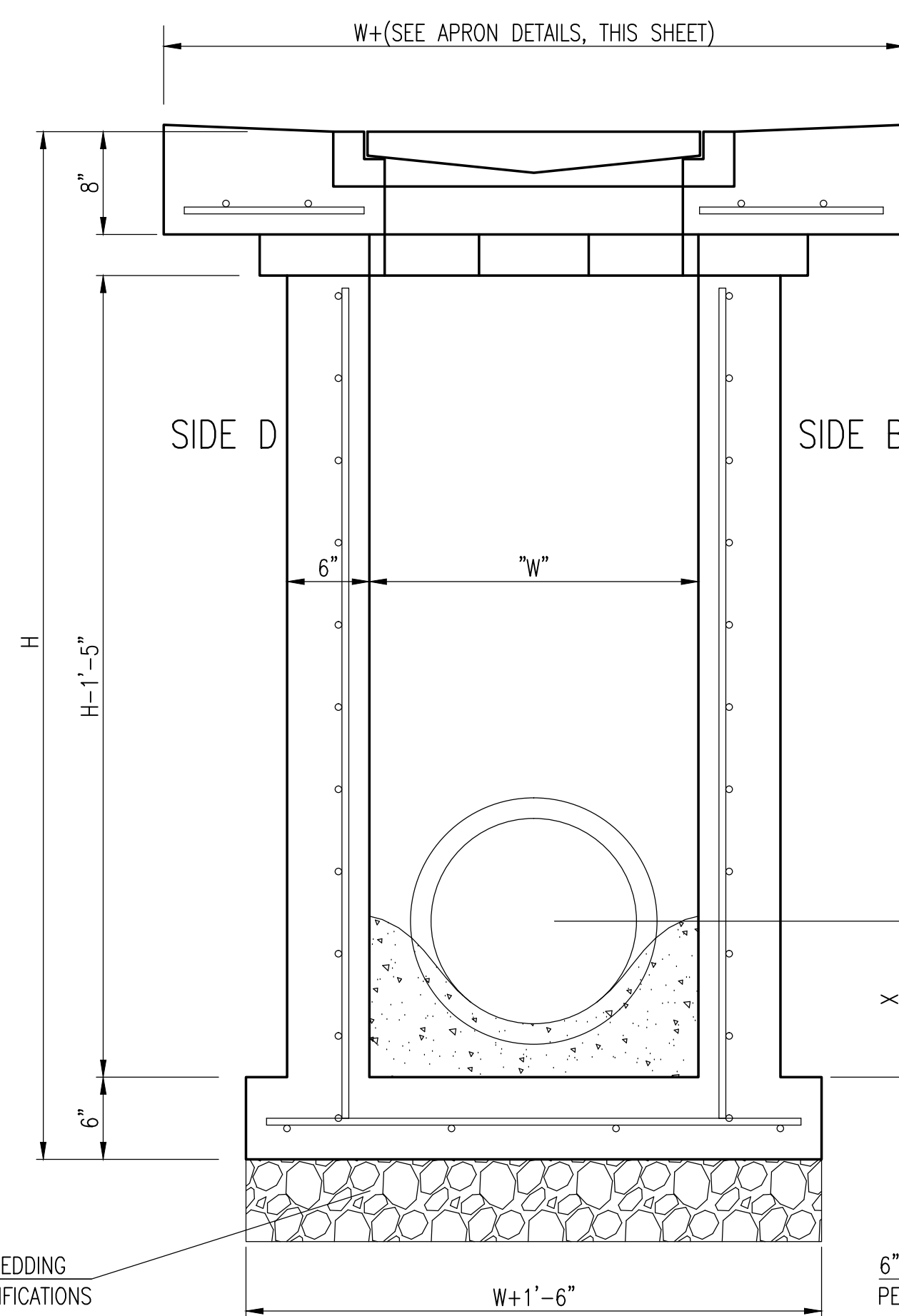
The structure(s) on this detail sheet are designed for HS-20 loading at these specific dimensions only. If larger dimensions are required, the ENGINEER shall provide a project specific structure design for approval by the City Engineer's office.

GENERAL NOTES

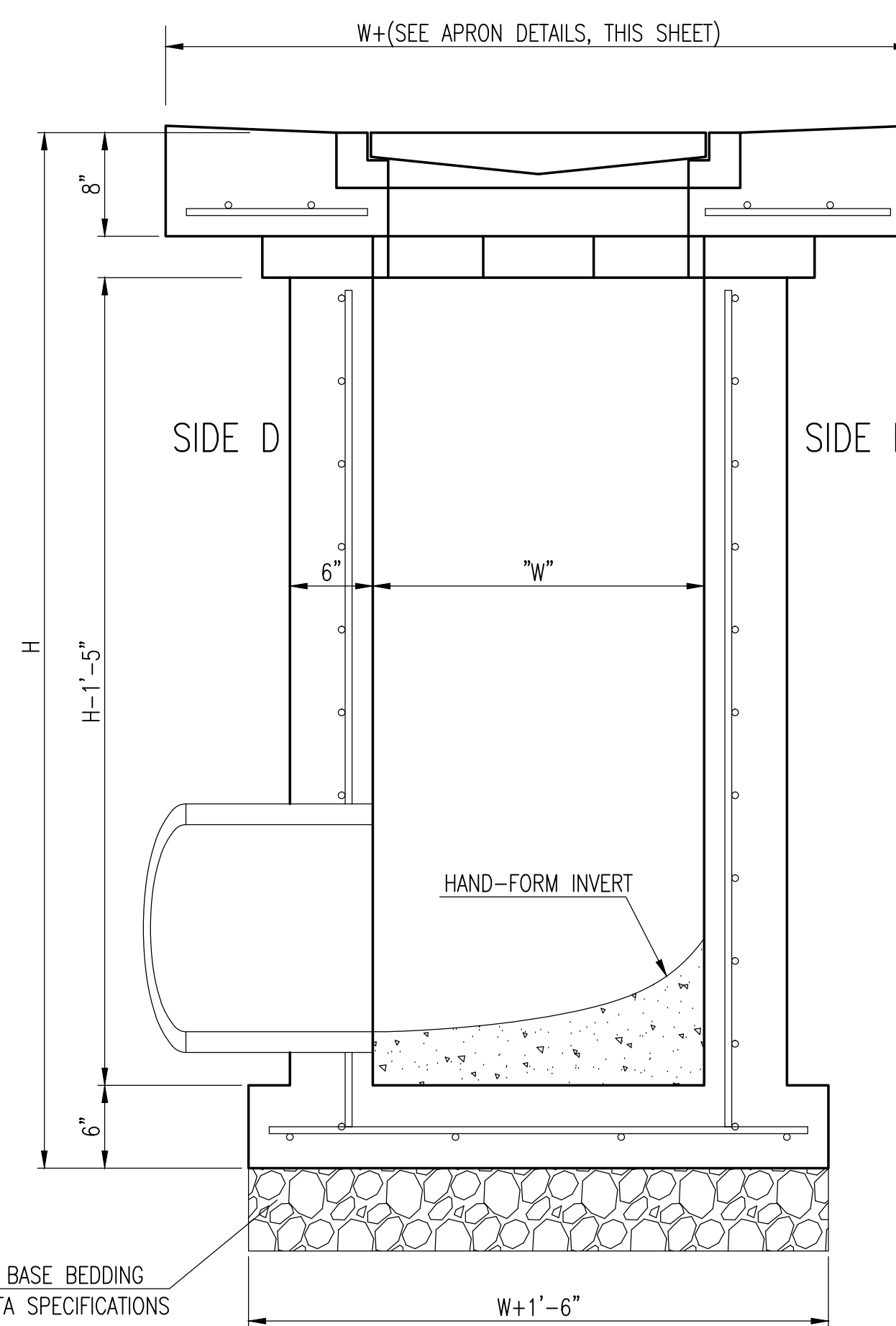
- GRATE FRAME TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK. CONCRETE USED FOR INLET CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
- INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
- THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.
- INLET FRAME AND GRATE TO BE DEETER #2433, EJIW #5391-21 OR APPROVED EQUAL FOR 2'x2' SINGLE DROP INLET AND DEETER #2434, EJIW #5391 Z3 OR APPROVED EQUAL FOR 2'x4' DOUBLE DROP INLET.
- CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN INLET WALL SHALL BE GROUTED FLUSH TO THE INLET WALL WITH HYDRAULIC CEMENT AFTER THE INLET IS IN PLACE. LIFTING HOLES THRU THE INLET WALL WILL NOT BE ACCEPTED.



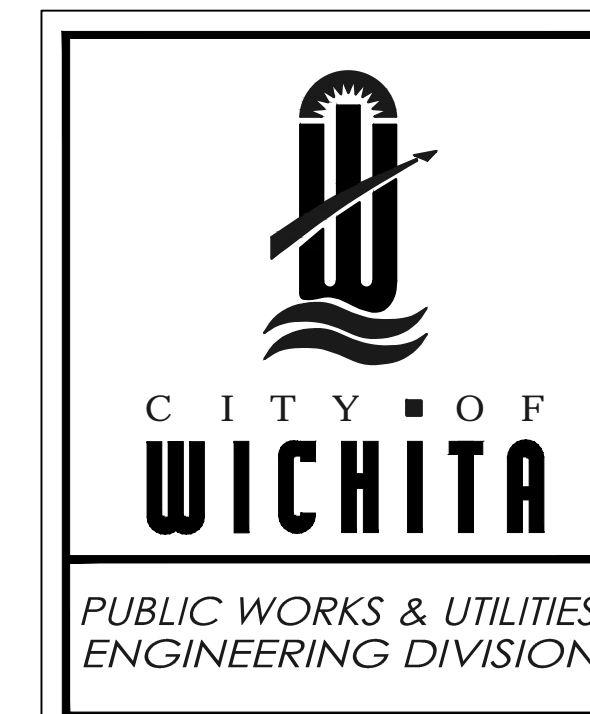
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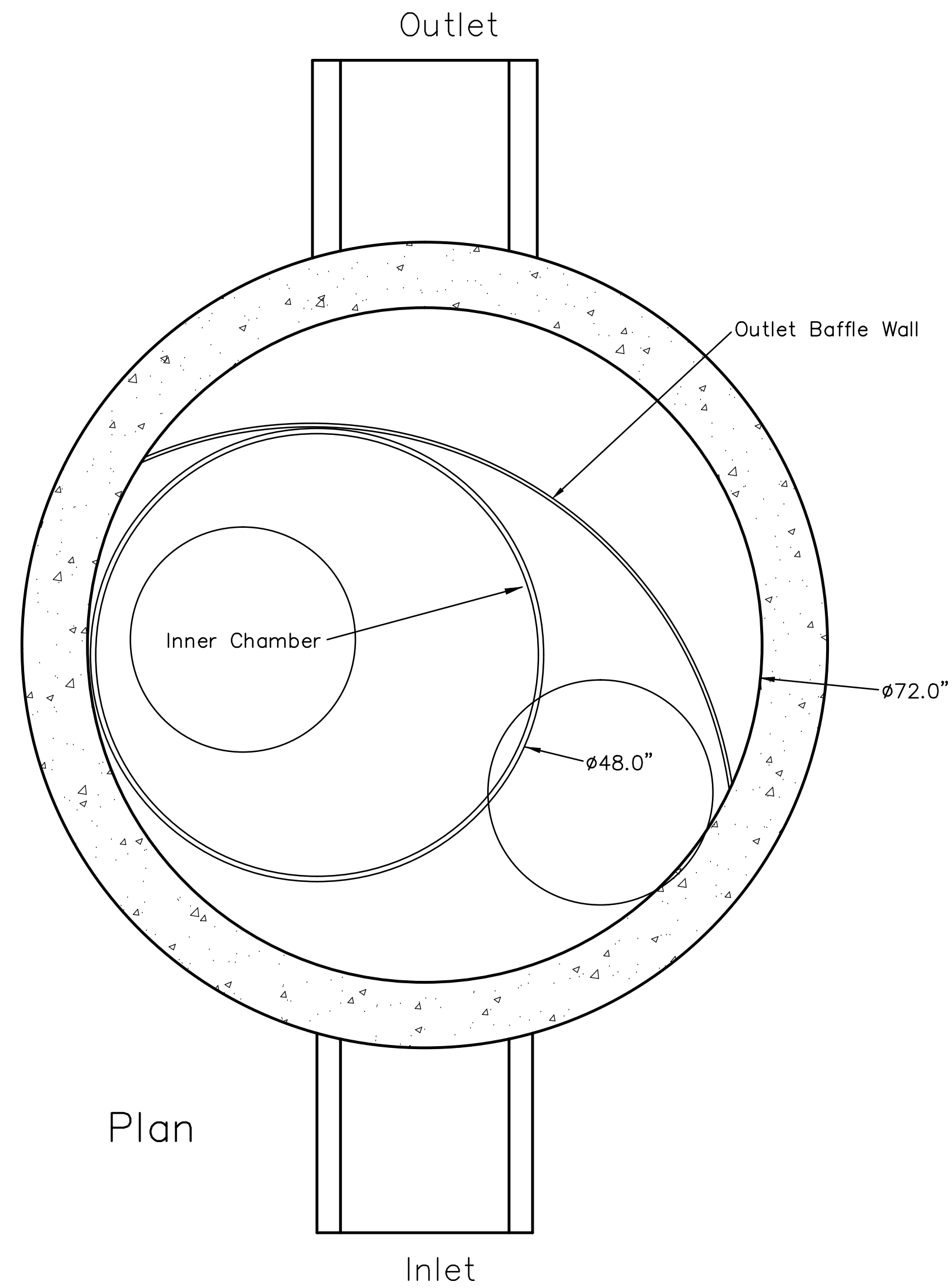
SECTION "B-B"
END OUTLET



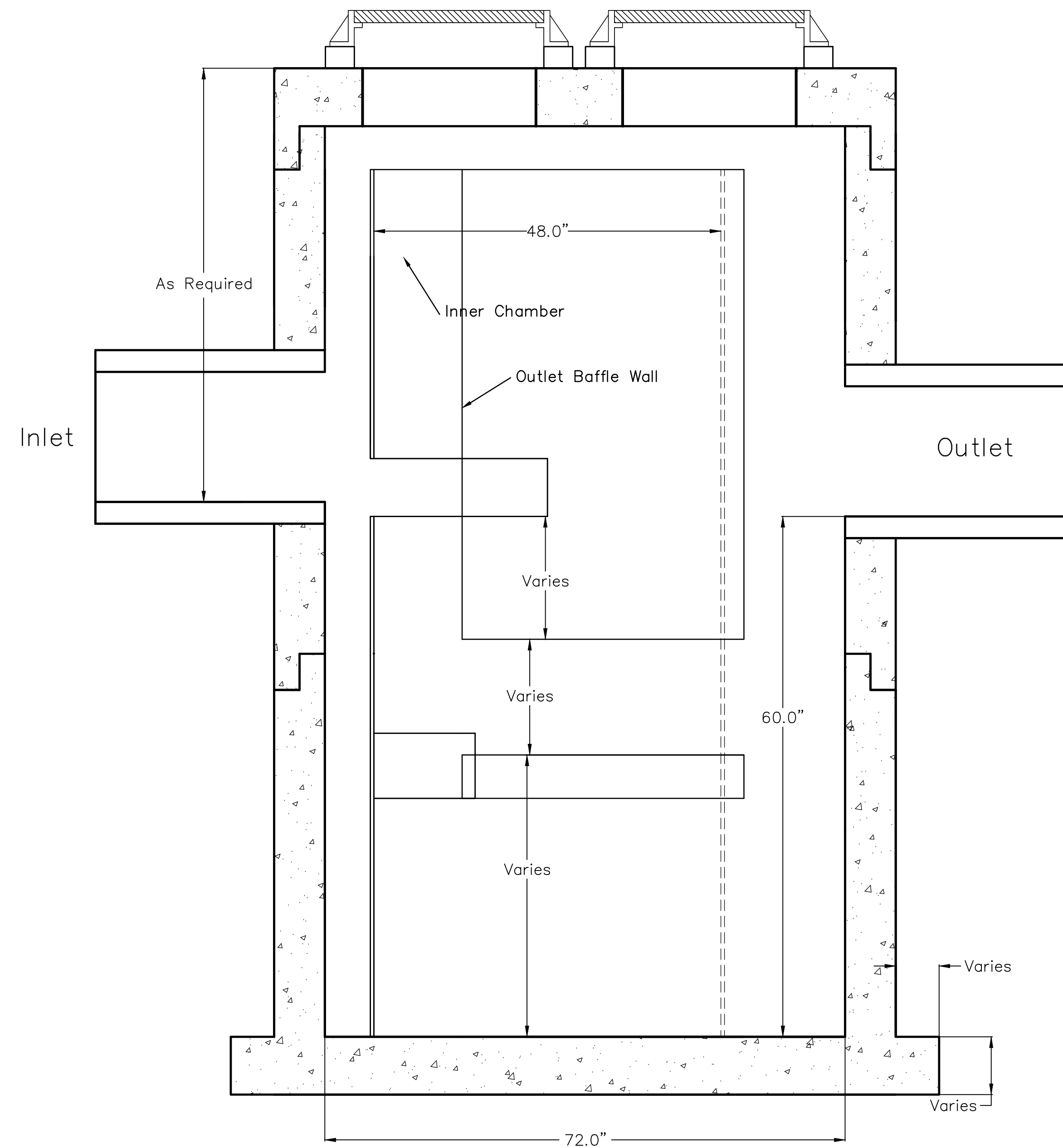
SECTION "B-B"
SIDE OUTLET



REVISED 05/10/2011 - GJ			
SINGLE/DOUBLE DROP INLET			
CITY ENGINEER Gary Janzen, P.E.			
PROJECT NUMBER	OCA NUMBER	DATE 4/2012	
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		DESIGN Staff	DRAWN Staff
		SHEET 7 of 13	



Plan



Profile

U.S. Patent No. 6,951,619

Dimensions in inches
 Permanent Pool Volume = 1250 US gallons
 The Hydroguard must be cleaned after the construction period if it is used as a sediment and erosion control measure
 The Hydroguard should be inspected once per year for stabilized sites
 Inspection will determine the maintenance frequency (annual maintenance or once every two years typical for stabilized sites)
 Sites with unstable conditions (exposed soil or materials storage) will require more frequent inspection and maintenance

Hydroworks, LLC
 50 S. 21st St., Kenilworth, NJ 07033
 Phone: 888-290-7900 Fax: 888-783-7271
 Web: www.hydroworks.com

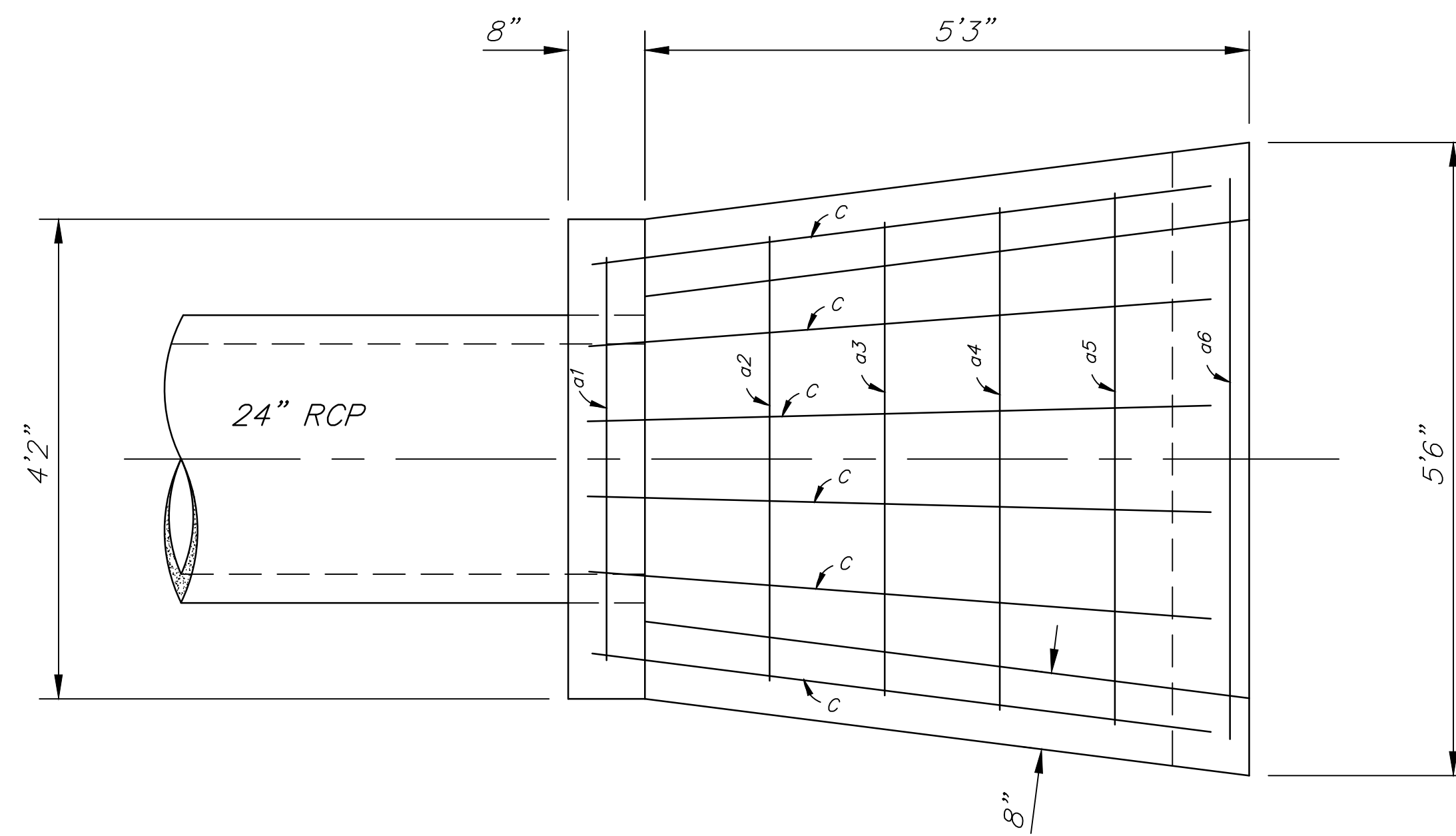
Hydroworks HG6 (72"φ)

PROJECT: REDBURN 2ND ADDITION

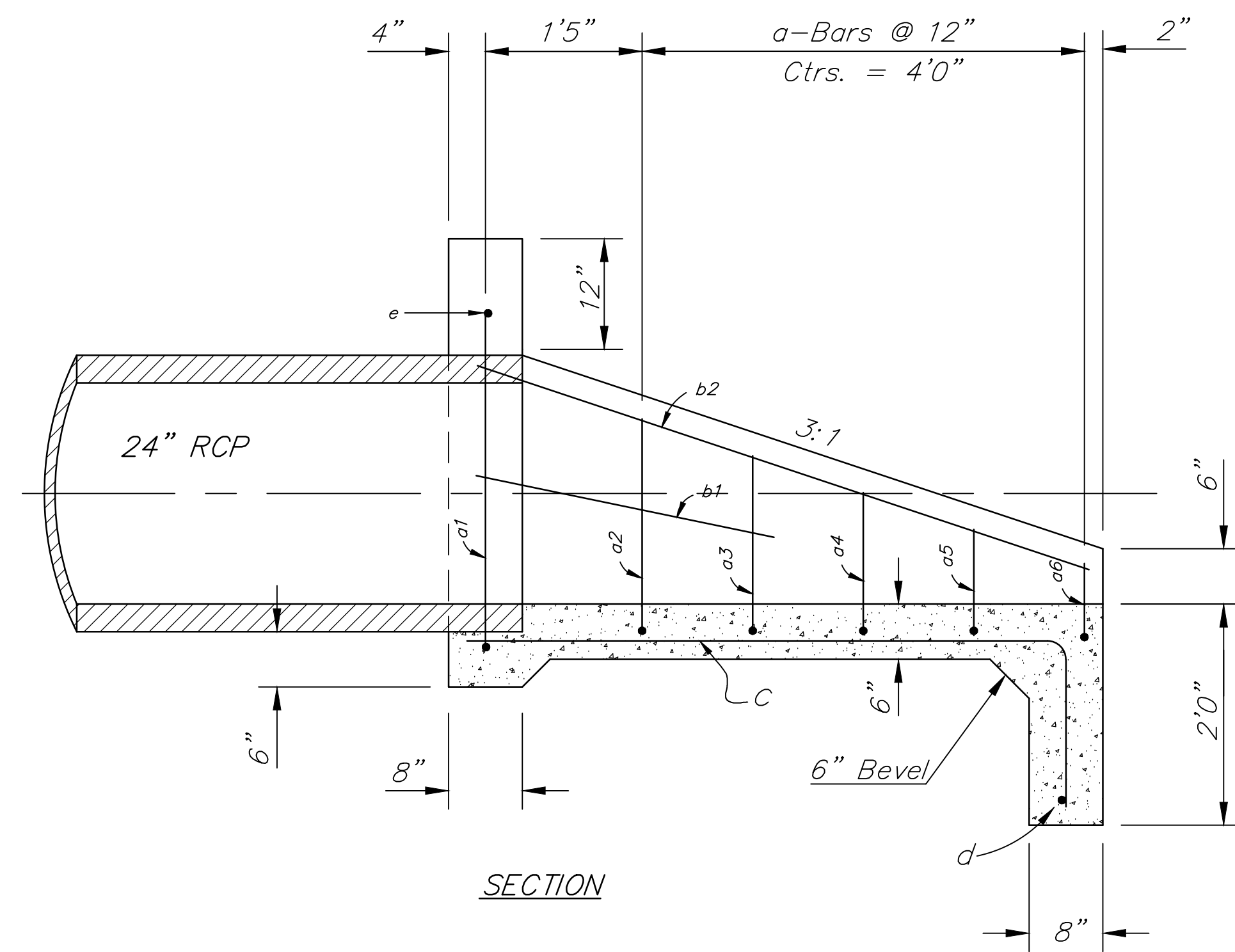
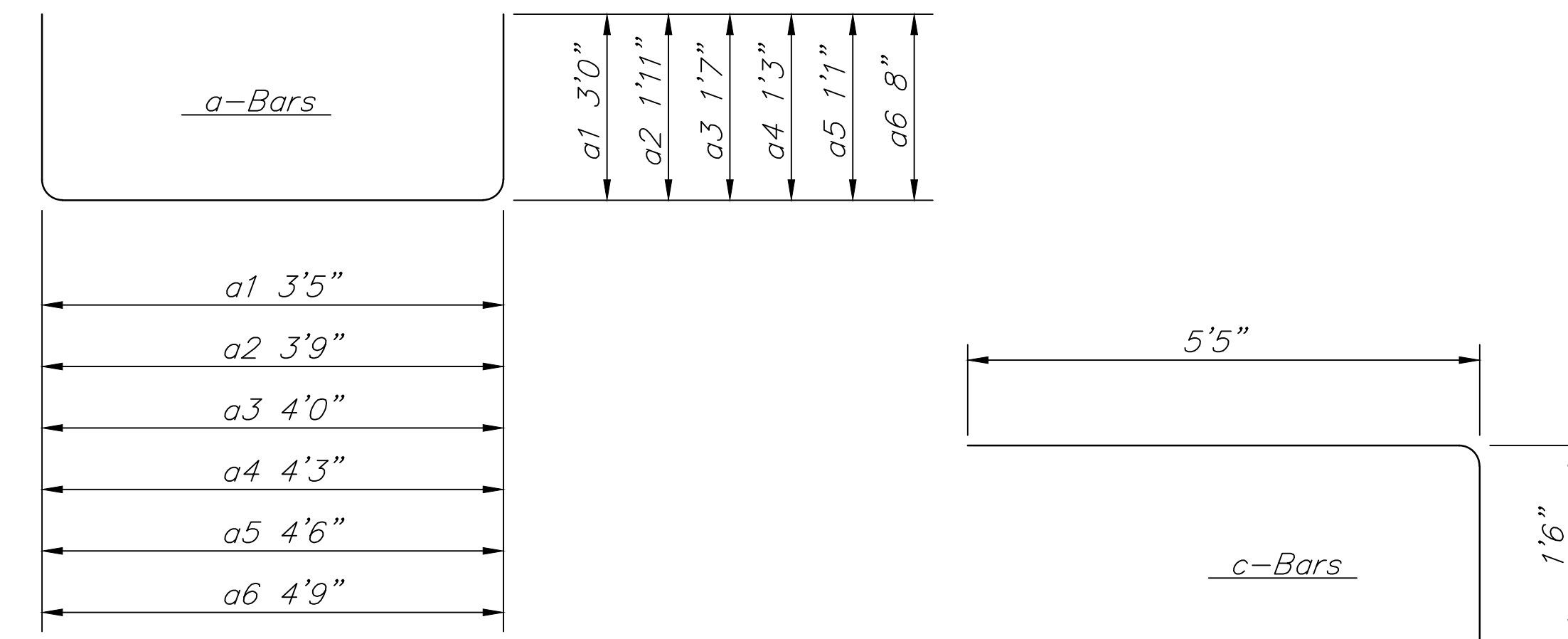
LOCATION: WICHITA, KS

REVISION DATE: 02/10/2011





PLAN



SECTION

HEADWALL FOR 24" RCP

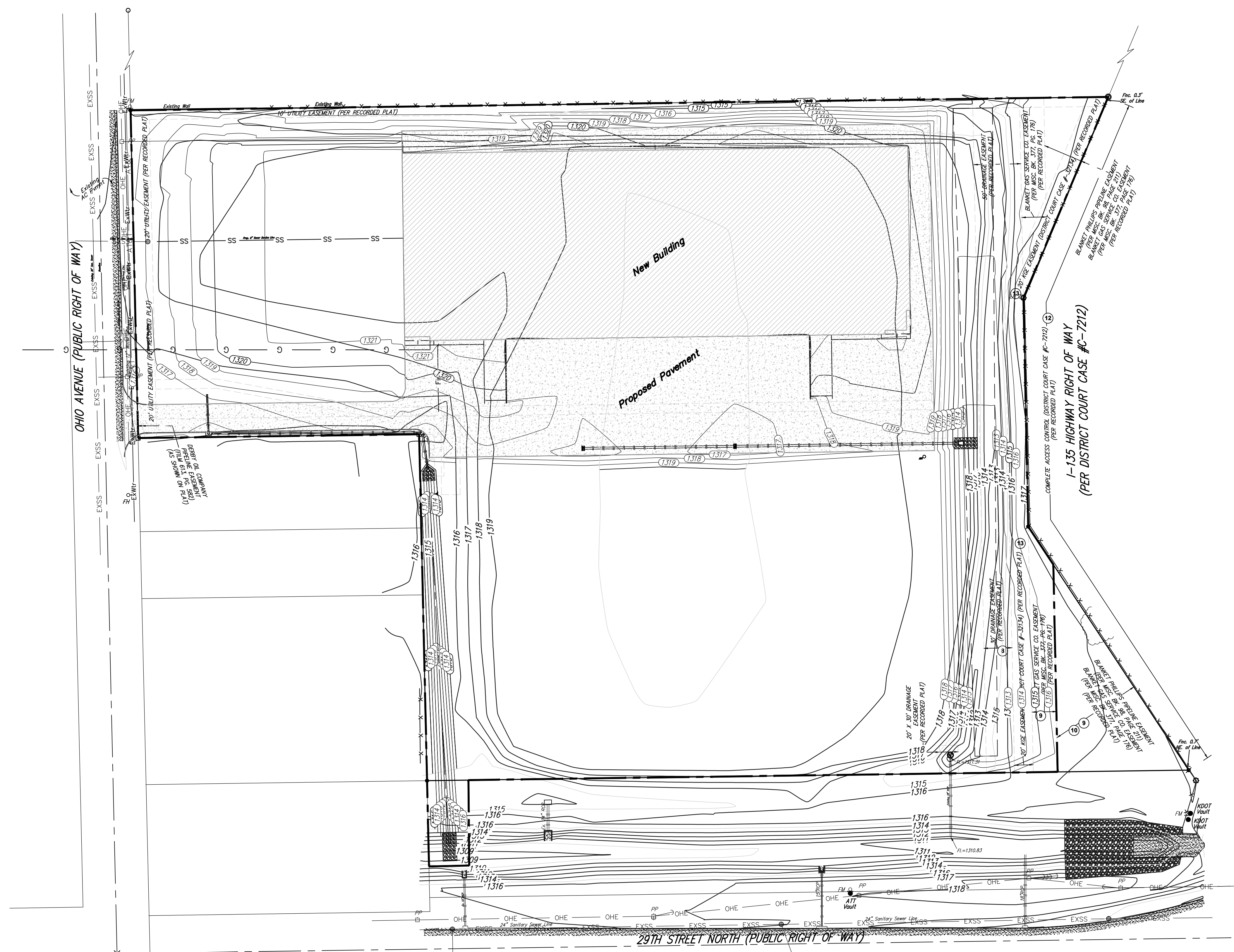
REBAR SCHEDULE

Bar	Shape	No.	Length	Weight
a1	□	1	9'5"	6.29
a2	□	1	7'7"	5.07
a3	□	1	7'2"	4.79
a4	□	1	6'9"	4.51
a5	□	1	6'4"	4.23
a6	□	1	6'1"	4.06
b1	□	2	2'9"	3.67
b2	□	2	5'10"	7.79
c	□	6	6'11"	27.72
d	□	1	5'0"	3.37
e	□	1	3'10"	2.56
Total Rebar			74.03 Lbs.	
Concrete			1.40 C.Y.	

A Deduction in Concrete Quantities Has Been Made for Pipe Openings Through the Headwall
 * Field Bend or Cut Reinforcing as Required for Clearance.
 All Concrete Reinforcement to be #4 Rebar
 All Rebar to Have Min. of 1 1/2" Conc. Cover

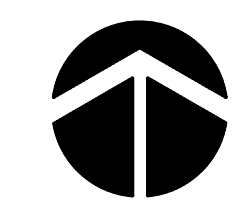
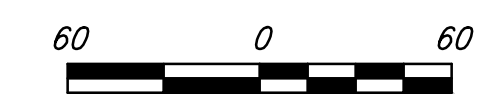
GENERAL NOTES

- All pipes shall be flush cut prior to being cast into concrete headwall.
- Concrete used in headwall construction shall be same as per city standard paving mix except that it shall have a minimum 28 day compressive strength of 4000 psi.
- All exposed edges shall be beveled 1/2".
- Reinforcing steel shall comply to a.s.t.m. designation a615 grade 60. All dimensions relative to reinforcing steel are to centerline of bar unless otherwise noted.
- The "Rein. Conc. Headwall" shall be paid for at the unit price bid per each in place which shall include all labor, materials, excavation, concrete, reinforcing steel and all other incidental items necessary to complete the work. Material quantities shown are for information only.
- A deduction in concrete quantities has been made for pipe openings through the headwall.
- All concrete reinforcement to be #4 Rebar.
- All rebar to have min. of 1 1/2" conc. cover.



ERU PLAN

Scale 1" = 60'-0"



ERU LEGEND

- = Project Limits
- = Prop. Impervious Area.

BENCHMARK

"□" Chiseled in concrete top of curb, approximately 14.5' west of furthest north SW corner of Lot 1, Block 1, Redburn 2nd Addition to Wichita, Sedgwick County, KS.
Elevation=1315.40 NAVD88.

LEGAL DESCRIPTION

Lot 1, Block 1, Redburn 2nd Addition to Wichita, Sedgwick County, Kansas.

SITE INFORMATION

Total Area:	±603,735 sq. ft. (13.86 acres)
Disturbed Area:	±382,889 sq. ft. (8.79 acres)
Existing Impervious Area:	±0 sq. ft. (0.00 acres)
New Impervious Area:	±208,453 sq. ft. (2.79 acres)
Building Area:	108,000 sq. ft.

Baughman Company, P.A.
 1515 E. S. Wichita, KS 67211 P 316.262.2171 F 316.262.4149
 baughman.com baughman.com/permissions

Redburn 2nd Addition
ERU PLAN
 Storm Water Drain Improvements

GRADING NOTES

- Contractor shall be required to provide notice to Kansas One Call at 887-2470 a minimum of three (3) working days prior to any excavation or work adjacent to utilities.
- The Contractor must notify the following in case of an emergency:
 Kansas Gas Service (Gas).....1-888-482-4950
 Black Hills Energy (Gas).....1-800-303-0357
 Westar Energy (Electric).....383-8650
 Cox Communications (Telecommunication).....282-4270
 AT&T (Telecommunication).....268-2759
 City of Wichita Water Dept. (Water).....268-4563
 or 268-4908
 City of Wichita Sewer Maint.(San. Sewer).....268-4024
 or 262-6000
 City of Wichita Storm Sewer Maint. (Storm Sewer).....268-4090
 City of Wichita Traffic Maint.(Trat. Control).....268-4034
 or 268-4203
 Conoco Pipeline Co. (Petroleum).....1-800-231-2551
 Williams Pipeline Co. (Petroleum).....329-6600
 or 1-800-324-8686
 Phillips Pipeline Co. (Petroleum).....1-800-766-8230
- Existing utilities and their locations, as shown on the plans, represent the best information obtainable for design. Location information has been obtained from the various utility companies and is either from company record drawings or company provided field locations. The Contractor will be required to work around existing utilities which do not conflict with proposed construction.
- Traffic affected by demolition on this project shall be handled in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
- The Contractor shall provide appropriate signage throughout the sequence of construction clearly stating where construction entrances are.
- The Contractor shall take all necessary precautions to protect the general public during the construction and demolition process. This may include the use of fences and signage.

- GRADING**
- Refer to Landscape Plan for Treatment of All Disturbed Areas.
 - Signaling and striping shall be installed in accordance with Local City Specifications and Codes. Striping shall be painted markings in conformance with the latest edition of the Standard Specifications for State Road and Bridge Construction by the Kansas Department of Transportation.
 - Paved Lot to be constructed with Paving as shown. Subgrade to be compacted to 98% Standard Proctor Density and treated with 4 to 6 percent lime or 14 to 16 percent class "C" fly ash. Refer to pavement details to verify depths and Paving type.
 - Cross-Slopes on sidewalks shall not exceed 1/4" per foot (or 2%). Notify Engineer of any discrepancies prior to forming of walks.

SITE GRADING PLAN
 Scale 1" = 30'-0"



LEGEND

Existing Contours	Proposed Contours
1390	1389
1390	1389

BENCHMARK

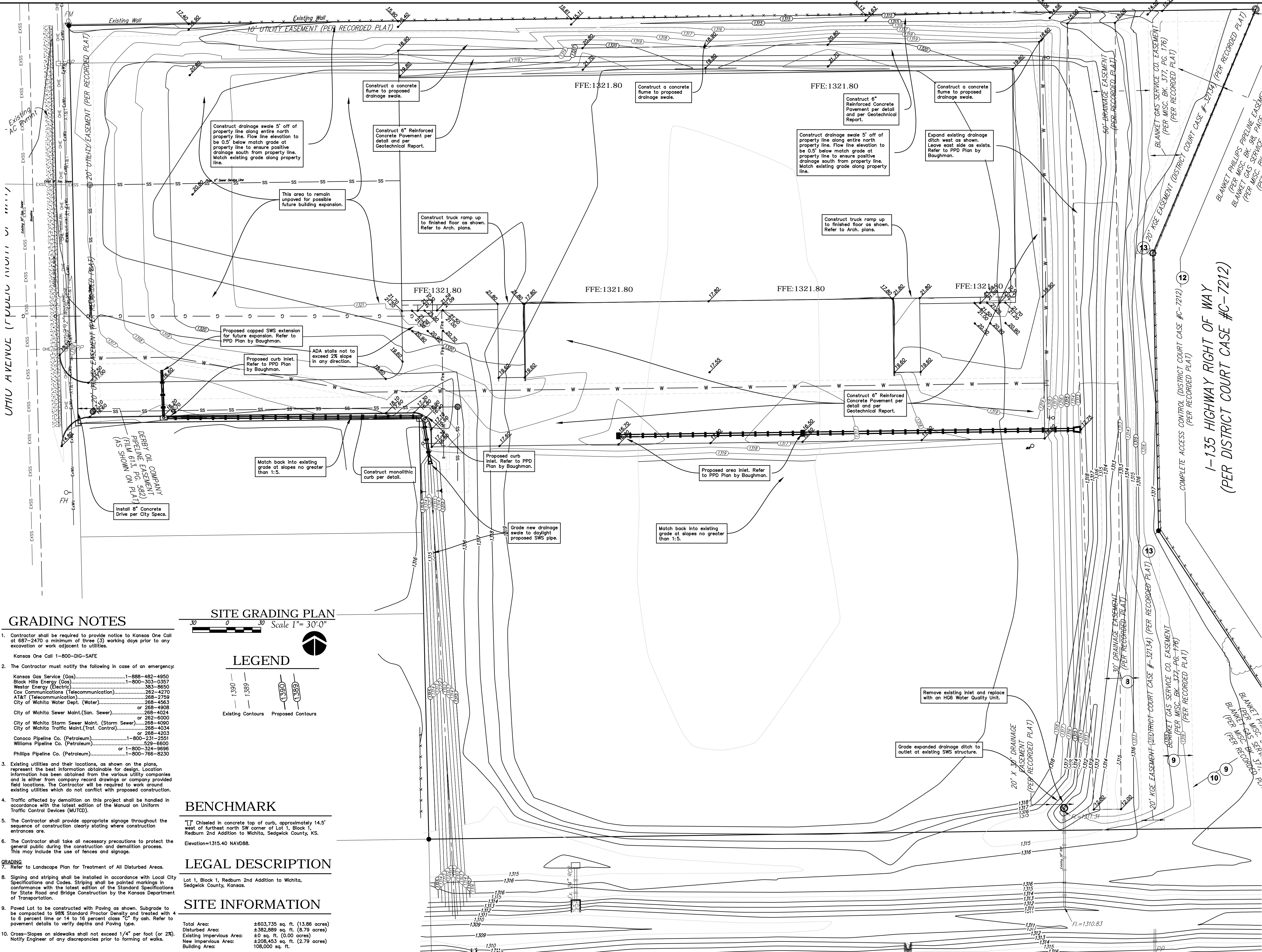
[T] Chiseled in concrete top of curb, approximately 14.5' west of furthest north SW corner of Lot 1, Block 1, Redburn 2nd Addition to Wichita, Sedgwick County, KS.
 Elevation=1315.40 NAVD88.

LEGAL DESCRIPTION

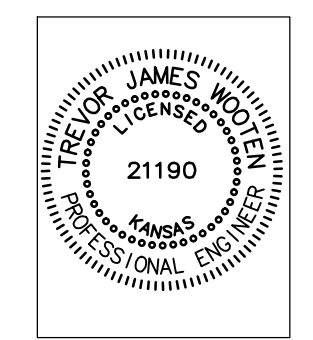
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Building Area:	108,000 sq. ft.



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



Baughman Project No.: 14-04-E053 GRADING PLAN
PAWNEE INDUSTRIAL II
 NORTH OHIO ST.

Drawing File: ###
 Design: TJW
 Drawn: TJW
 Approved: TJW
 Scale: NOTED

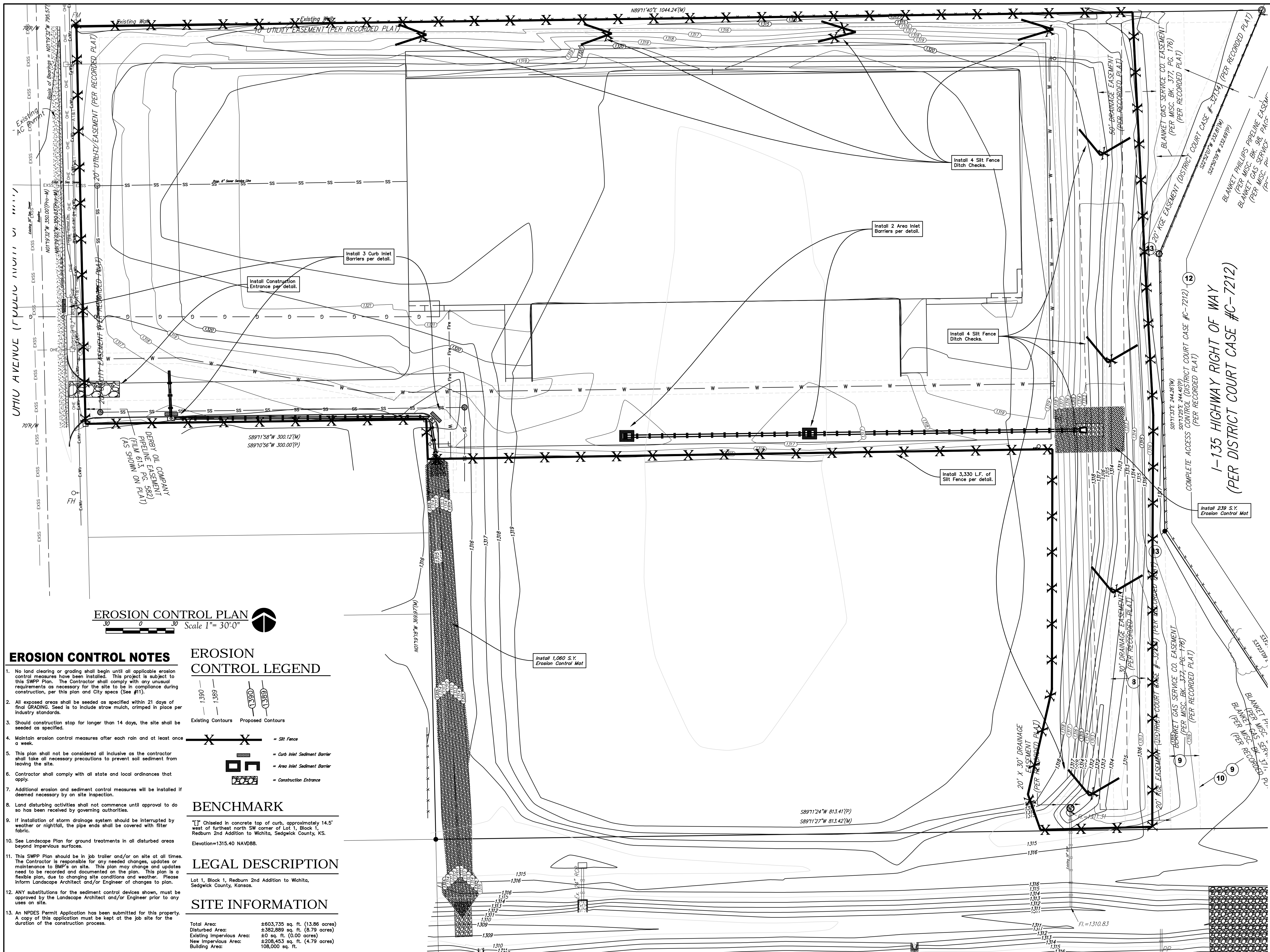
DATE
C2.0

**FOR REFERENCE ONLY
 SEE APPROVED FINAL SITE
 PLANS FOR CONSTRUCTION**

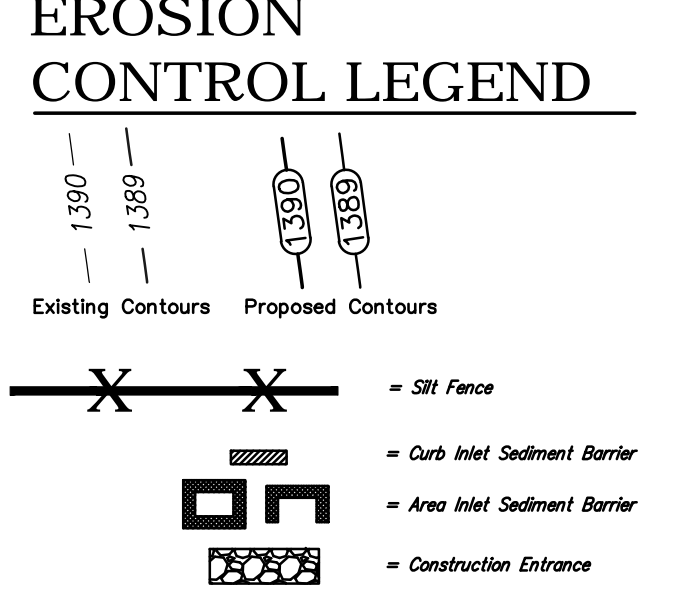
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Redburn 2nd Addition
Grading Ref.
 Storm Water Drain Improvements

SHEET
 OF
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- ### EROSION CONTROL NOTES
- No land clearing or grading shall begin until all applicable erosion control measures have been installed. This project is subject to this SWPP Plan. The Contractor shall comply with any unusual requirements as necessary for the site to be in compliance during construction, per this plan and City specs (See #11).
 - All exposed areas shall be seeded as specified within 21 days of final GRADING. Seed is to include straw mulch, crimped in place per industry standards.
 - Should construction stop for longer than 14 days, the site shall be seeded as specified.
 - Maintain erosion control measures after each rain and at least once a week.
 - This plan shall not be considered all inclusive as the contractor shall take all necessary precautions to prevent soil sediment from leaving the site.
 - Contractor shall comply with all state and local ordinances that apply.
 - Additional erosion and sediment control measures will be installed if deemed necessary by on site inspection.
 - Land disturbing activities shall not commence until approval to do so has been received by governing authorities.
 - If installation of storm drainage system should be interrupted by weather or nighttime, the pipe ends shall be covered with filter fabric.
 - See Landscape Plan for ground treatments in all disturbed areas beyond impervious surfaces.
 - This SWPP Plan should be in job trailer and/or on site at all times. The Contractor is responsible for any needed changes, updates or maintenance to BMP's on site. This plan may change and updates need to be recorded and documented on the plan. This plan is a flexible plan, due to changing site conditions and weather. Please inform Landscape Architect and/or Engineer of changes to plan.
 - ANY substitutions for the sediment control devices shown, must be approved by the Landscape Architect and/or Engineer prior to any uses on site.
 - An NPDES Permit Application has been submitted for this property. A copy of this application must be kept at the job site for the duration of the construction process.



BENCHMARK

Chiselled in concrete top of curb, approximately 14.5' west of furthest north SW corner of Lot 1, Block 1, Redburn 2nd Addition to Wichita, Sedgwick County, KS.
 Elevation=1315.40 NAVD88.

LEGAL DESCRIPTION

Lot 1, Block 1, Redburn 2nd Addition to Wichita, Sedgwick County, Kansas.

SITE INFORMATION

Total Area:	±603,735 sq. ft. (13.86 acres)
Disturbed Area:	±382,889 sq. ft. (8.79 acres)
Existing Impervious Area:	±0 sq. ft. (0.00 acres)
New Impervious Area:	±208,453 sq. ft. (4.79 acres)
Building Area:	108,000 sq. ft.

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 Scale: NOTED

Baughman Project No.: 14-04-E053 EROSION CONTROL PLAN
PAWNEE INDUSTRIAL II
 NORTH OHIO ST.

DATE: **C4.0**

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