

GENERAL NOTES:

1. The Contractor shall comply with all applicable safety regulations. All construction shall be completed following current City Standard Specifications and Special Provisions.

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

Kansas One—Call 687-2470

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

AT&T 1-800-246-8464
 Black Hills Energy 1-800-694-8989
 City of Wichita Water 1-316-268-4555
 City of Wichita Sewer 1-316-268-4073
 City of Wichita Stormwater 1-316-268-4090
 City of Wichita Traffic 1-316-268-4034
 Cox Communications 1-888-249-3530
 Kansas Gas Service 1-888-482-4950
 Westar Energy 1-800-544-4857

3. Utility service lines, poles, etc. 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.

4. 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 will 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 will require additional archaeological investigations unless buried in a previously approved borrow location.

5. 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.

6. 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.

7. 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.

8. The Water Distribution Division shall field locate water 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 Contractor at his own expense. Valve boxes and water meters within the project limits shall be adjusted to match field grades.

9. The Contractor shall notify the consultant engineer and Tom 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.

10. 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 Dept. of Transportation, Federal Highway Administration. All costs associated with construction markings and signage shall be the Contractor's responsibility.

11. All elevations shown are NAVD 88.

12. All areas disturbed during construction that will not be under proposed pavement shall be restored to match existing conditions.

14. A portion of excess excavated material shall be mounded around manholes which extend more than one (1) foot above the existing ground. Such mound shall be constructed with new development a six (6) foot diameter flat top 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.

15. Geotechnical report available upon request.

16. Contractor shall limit the extent of trench openings overnight and weekends to less than 50 feet.

17. Contractor shall provide positive drainage away from all manhole covers.

18. City maintenance of storm sewer ends at right-of-way or easement line.

19. 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.

20. The inspecting 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.

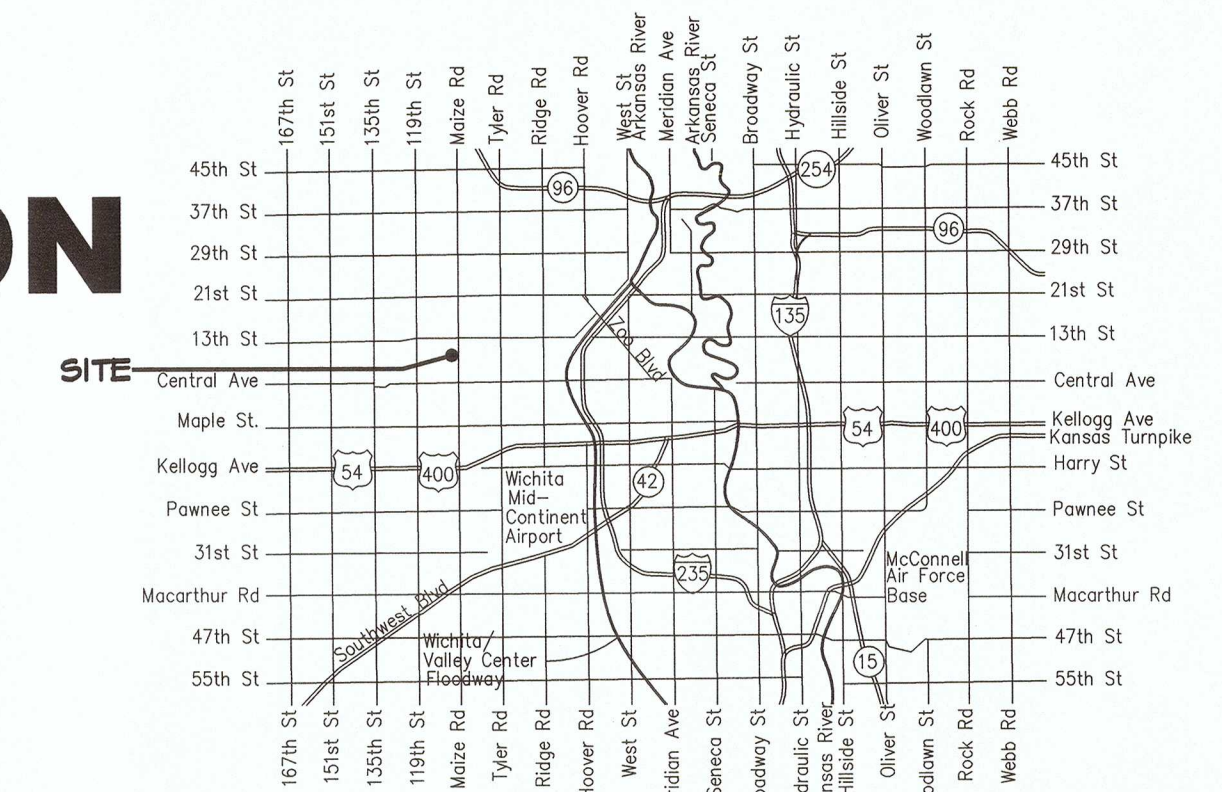
STORM SEWER IMPROVEMENTS to serve HUNTINGTON PARK ADDITION 1261 N. Maize Road

CITY OF WICHITA, KANSAS

Gary Janzen, P.E. City Engineer

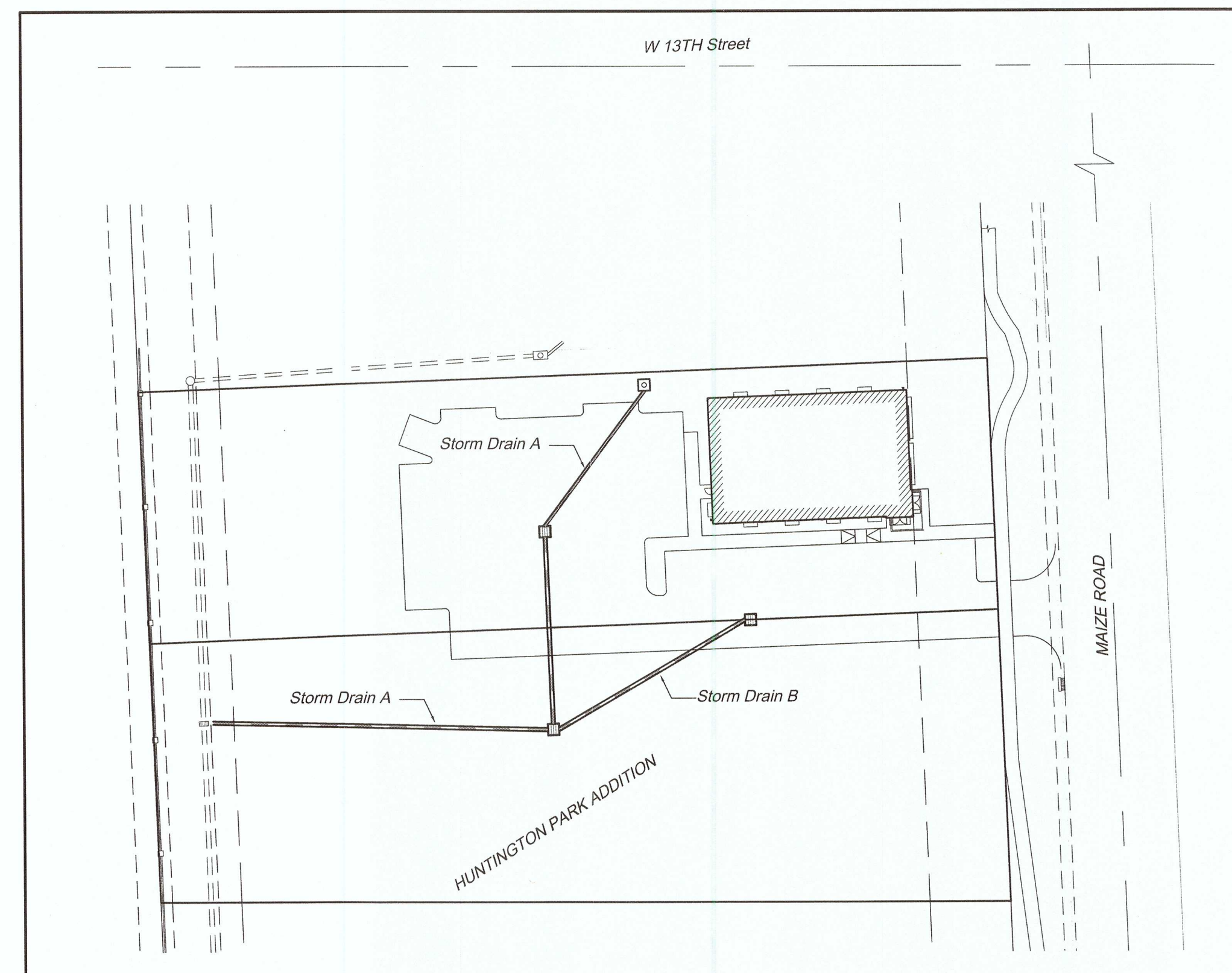
Project Number

0385 PPD (607861)



Vicinity Map

AS BUILT PLANS
CONTRACTOR: DUTTON CONSTRUCTION
INSPECTOR: DAKOTA ZIMMERMAN
RUGGLES & BOHM, P.A.
PDF BY: DGZ 7-6-16



Sheet Index

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Additional City BMP Details SW-503, 504 and 505 Can Be Found On The City's Website At:

<http://www.wichita.gov/Government/Departments/PWU/Pages/Regulations.aspx>

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 = 2.10 acres - Part of Lot 2
 Huntington Park Addition
 Water Quality Treatment: Hydrodynamic Separator
 located downstream: Permit #SW2013-0031 0185 PPD
 Downstream Channel Protection: N/A
 Detention: N/A

APPROVED AS NOTED
 BY WICHITA PUBLIC WORKS ENGINEERING
 AND STORMWATER DIVISION

Engineering *Rebecca Drif 6/12/16*

Stormwater *Joe Hickle FE 6/2/16*

NOTE TO CONTRACTORS

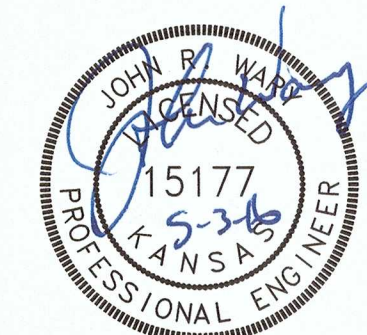
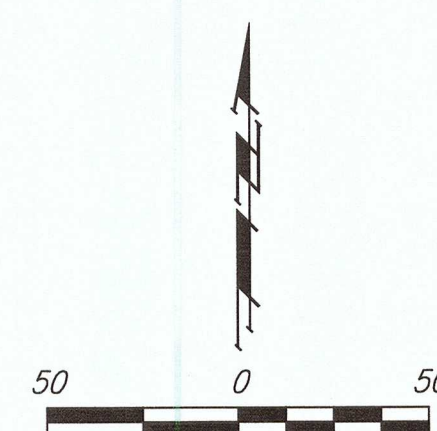
Inspection and testing for this project is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Licensed Professional Engineer in the state of Kansas. No work shall be performed the Contractor without such inspection nor shall any work be commenced without written authorization by City Engineering. All Construction and Materials shall comply with the current 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.

Benchmarks

BM#1: Existing Curb Inlet Lid, North Side, Located At Middle Of Site, North Side.

Elevation = 1343.66 (NAVD88)

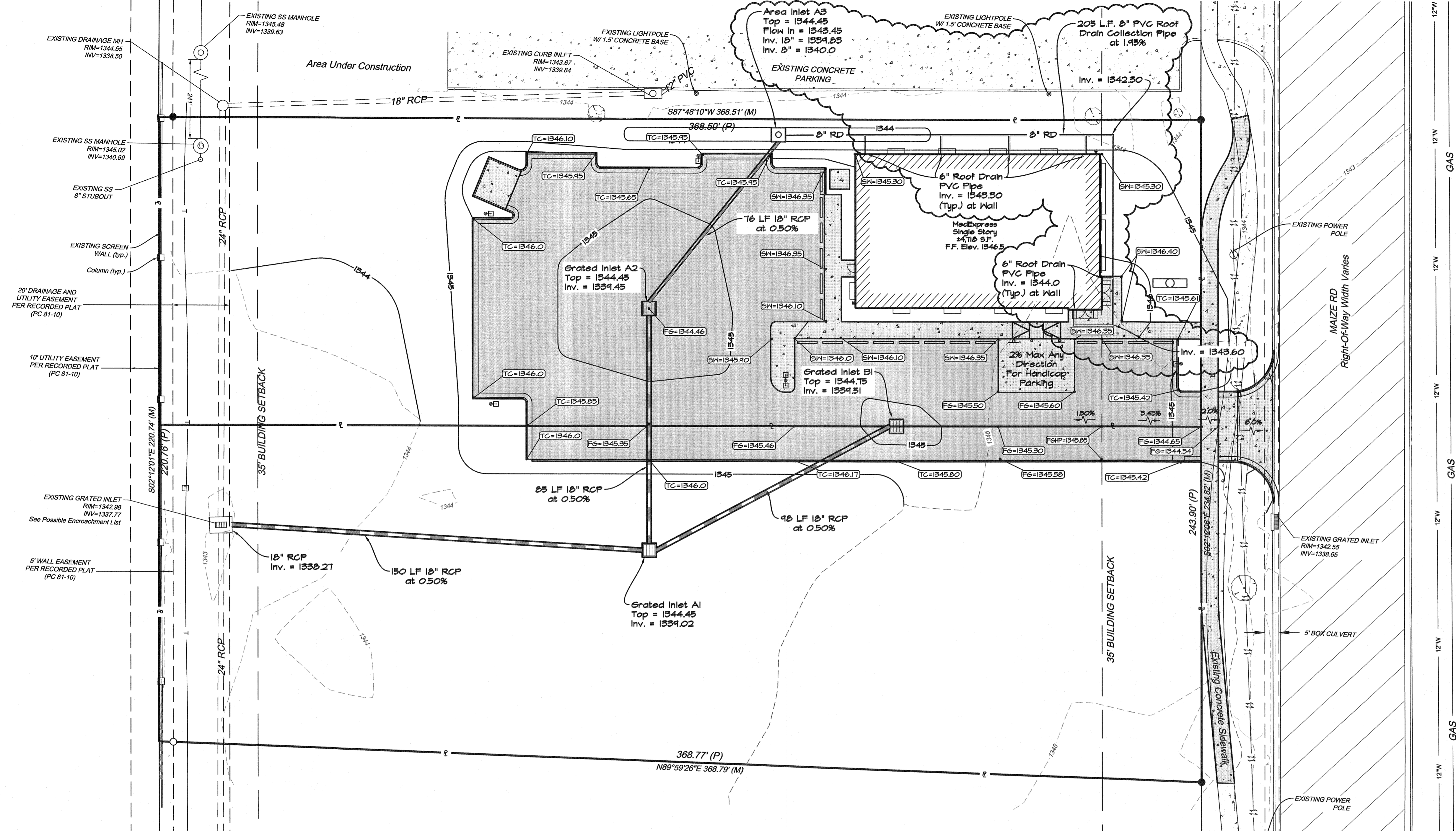
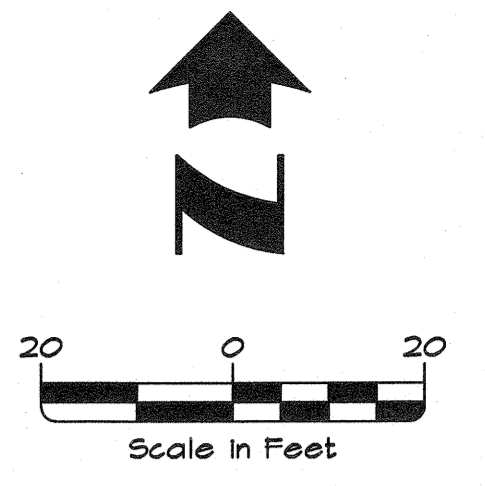
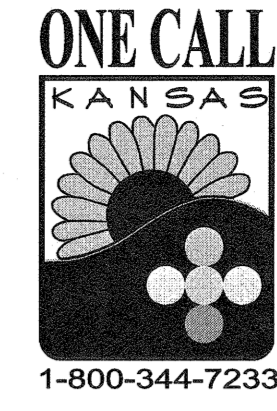


MORRISON SHIPLEY

ENGINEERS ■ SURVEYORS

2407 SE Cottonwood Street • Bentonville, AR 72712 • 479.273.2209 • morrisonshiple.com

C.O.A. #1474 Exp. Date: 12/31/17



LEGEND

- Easement Line
- Proposed Building
- Proposed Asphalt Pavement W/Conc. Curb & Gutter
- Proposed Concrete Sidewalk
- Proposed Handicap Ramp
- Light Pole, Re. Lighting Plan
- Utility Easement
- Proposed Transformer
- Proposed Sidewalk Elevation
- Proposed Finished Surface Elevation
- Proposed Finished Grade Contour Line
- Finished Grade Slope
- Proposed Curb Inlet
- Proposed Drainage Pipe
- Proposed Root Drain Line, Refer To M.E.P. Plans
- Proposed Gas Line
- Proposed Underground Electric
- Proposed Sanitary Sewer Line
- Proposed Telephone Line
- Proposed Domestic Water Line
- Proposed Gas Meter
- Proposed Electric Meter
- Property Line
- Right-of-Way Easement
- Existing Fence Line
- Existing Asphalt
- Existing Concrete
- Existing Building
- Existing Overhead Electric
- Existing Underground Electric
- Existing Gas Line
- Existing Telephone Line
- Existing Fiberoptic Line
- Existing Gas Meter
- Existing Telephone
- Existing Power Pole
- Existing Light Pole
- Existing Water Meter
- Existing Sanitary Sewer Manhole
- Existing Contours

Site Grading and Drainage General Notes:

- No Land Clearing Shall Begin Until All Erosion Control Measures Have Been Installed. The Contractor Shall Take All Precautions To Prevent Soil Sediment From Leaving The Site. All Erosion Control Measures Shall Be Maintained Until All Contributing Areas Are Graded And Stabilized.
- All Disturbed Areas And Slopes Shall Be Graded Smooth, Receive 4" Topsoil And Sod. Refer To The Landscape Plan.
- All Existing Utility Vaults, Valves, Meters, And Boxes To Be Adjusted To Finished Grades In Accordance With City Of Wichita Regulations And To The Corresponding Utility Companies Requirements.
- No Finished Grade Slopes Shall Exceed 3:1.
- All Soils Under The Building And Pavement Shall Be Structural Fill Approved By The Soils Engineer. Contractor Will Be Required To Provide Proctor Tests To Be Reviewed/Approved By The Soils Engineer.
- Refer To The Architectural Plans For Roof Drain And Canopy Drain Locations (Typical).

Site General Notes:

- Existing Utilities Across Or Along The Line Of The Proposed Work Are Shown Only In An Approximate Location On These Plans. The Contractor Shall Call The State One-call System Prior To Construction @ 1-800-482-8998. The Contractor Shall, On His Own Initiative And At No Additional Cost, Locate All Underground Lines And Structures As Necessary. The Contractor Shall Verify And Calculate All Points Of Connection And All Utility Crossings And Inform Morrison-Shipley Engineers, Inc. And/or The Owner Of Any Conflicts Or Required Deviations From The Plans. Morrison-shipley Engineers, Inc. Shall Be Held Harmless In The Event The Contractor Fails To Make Such Notification.
- It Shall Be Distinctly Understood That Failure To Specifically Indicate Work Which Is Required To Complete This Project Shall Not Relieve The Contractor Of His Responsibility To Perform Such.

Flood Certification:

Based upon review of FEMA FIRM, Sedgwick County, Kansas and Incorporated Areas, Map Number 2013C0365E, Effective Date 02/02/2007 And By Graphic Plotting Only, The Subject Property Lies Within Zone X

Site Benchmark:
Ex Curb Inlet Lid, North Rim,
Located At Middle Of Site,
North Side.
Elevation = 1343.66 (NAVD88)

Revision	By	Date
Revision #1 - Per City Comments	img	04-14-16

MORRISON SHIPLEY
ENGINEERS • SURVEYORS

C.O.A. #1474 Exp. Date: 12/31/17
2407 SE Cottonwood Street • Bentonville, AR 72712 • 479.273.2209 • morrisonshipley.com



Drawn By:	LMG
Approved By:	LMG
Date:	03.16.16
Project No.:	AED-12a
Vertical Scale:	—
Horizontal Scale:	1" = 20'
Plotting Scale:	1
Drawing Name:	Plan Sheets

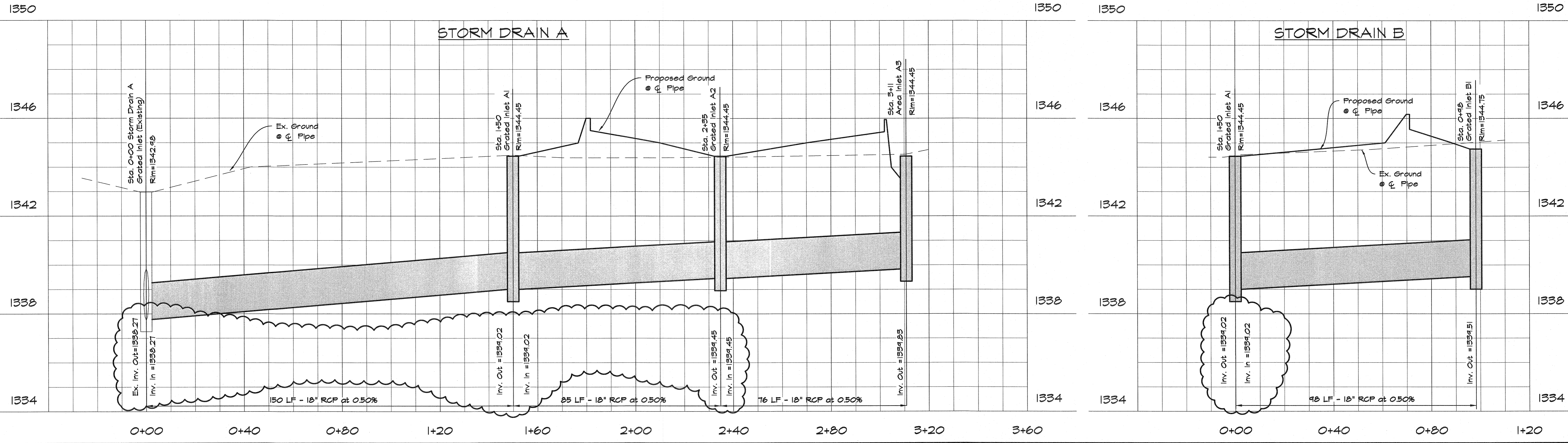
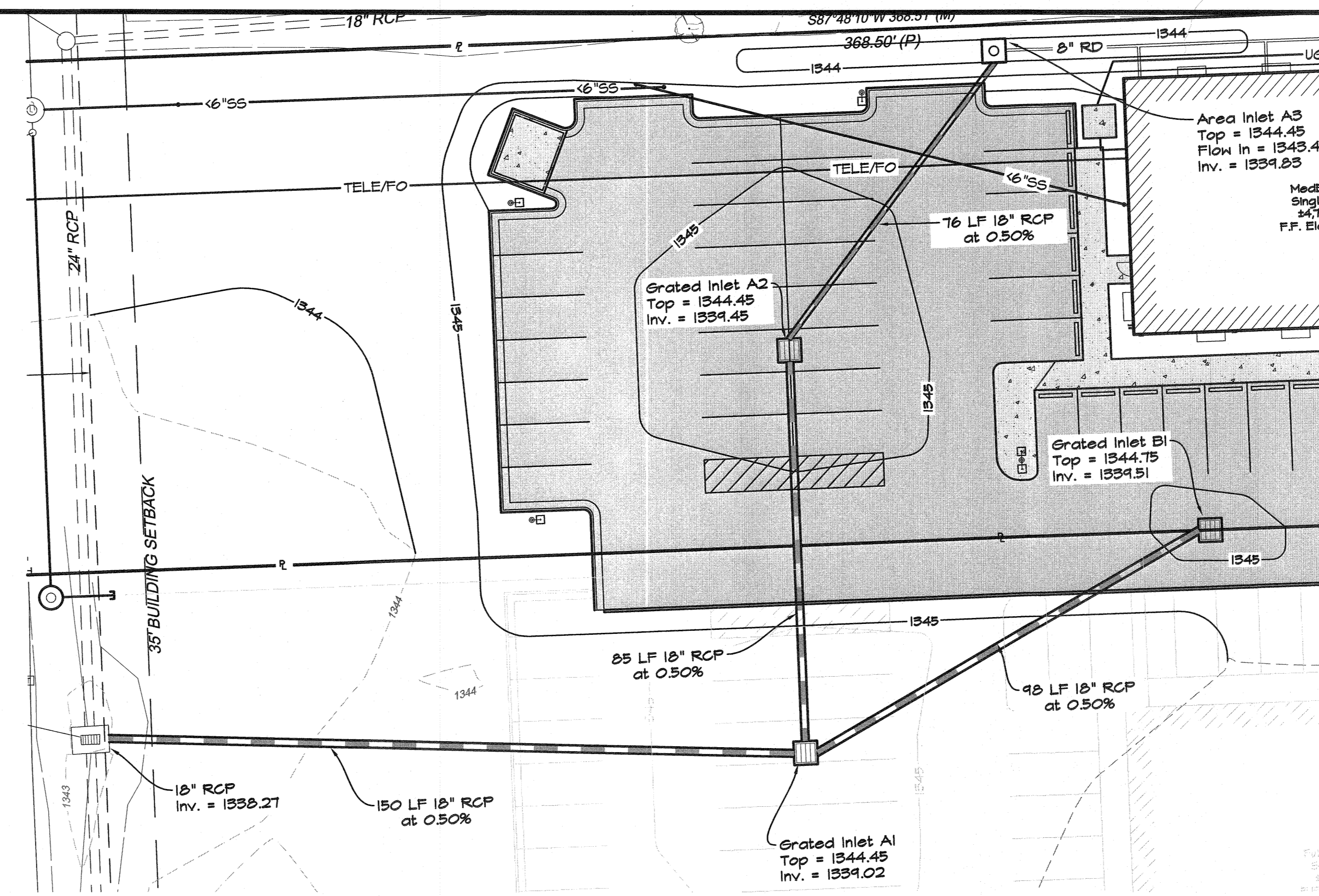
MEDEXPRESS
1261 N. Maize Road
Wichita, Sedgwick County, Kansas

SITE GRADING AND DRAINAGE PLAN
Issued for Review - 04.14.16

Sheet No:
SD.1

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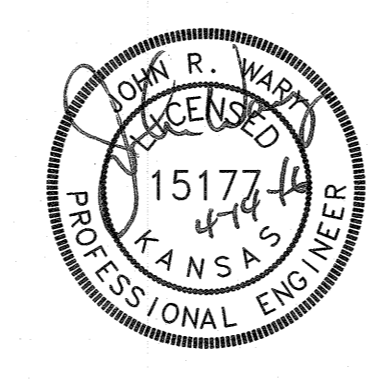
AS BUILT PLANS
 CONTRACTOR: DUTTON CONSTRUCTION
 INSPECTOR: DAKOTA ZIMMERMAN
 RUGGLES & BOHM, P.A.
 PDF BY: DGZ 7-6-16



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Revision	By	Date
Revision #1 - Per City Comments	lmg	04-14-16

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 C.O.A. #1474 Exp. Date: 12/31/17
 2407 SE Cottonwood Street • Bentonville, AR 72712 • 479.273.2209 • morrisonshipley.com

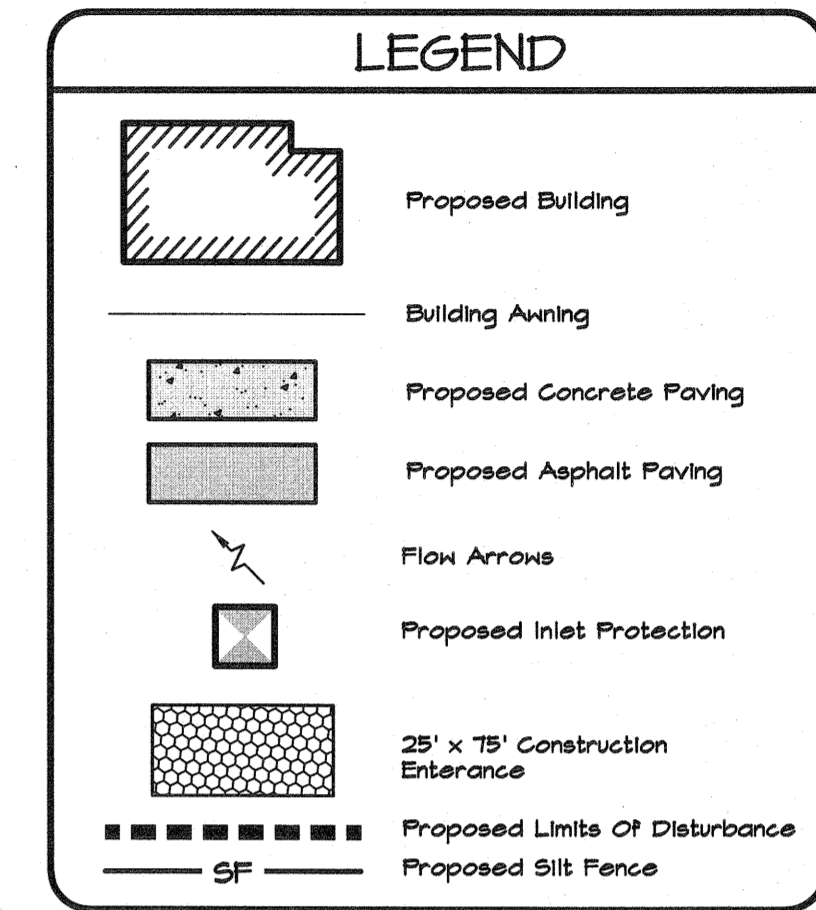
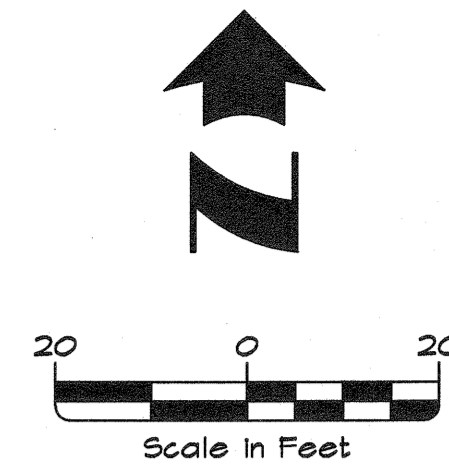
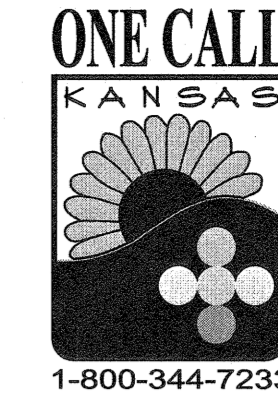


Drawn By: LMG	Vertical Scale: -
Approved By: LMG	Horizontal Scale: 1" = 20'
Date: 03.16.16	Plotting Scale: 1
Project No: AED-12a	Drawing Name: Plan Sheets

MEDEXPRESS
 1261 N. Maize Road
 Wichita, Sedgwick County, Kansas

Storm Sewer Profiles
 Issued for Review - 04.14.16

Sheet No:
SD.2



Sequence Of Construction:

Upon Implementation And Installation Of The Following Areas: Trailer, Parking, Lay Down, Porta-Potty, Wheel Wash, Concrete Washout, Mason's Area, Material Storage Containers, Solid Waste Container, Etc. Immediately Denote Them On The Site Maps And Note Any Changes In Location As They Occur Throughout The Construction Process. In Addition, Note Any Off-Site Areas Where Fill Is Imported From Or Soil Is Exported To On The Erosion Control Plans.

- 1. Install Temporary Construction Entrance For Construction Traffic At Location Shown In The Plans.
2. Install Silt Fence, Inlet Protection, And Other Erosion Control Measures.
3. Begin Demolition. Rough-grade The Driveways, Parking Lots, And Building Pad. Perform Mass Grading Of The Site.
4. Install Storm Sewer, Water, Sanitary Sewer, And Other Utility Lines. When Underground Utility Installation Is Complete, Fine-grade The Paved Areas To Subgrade And Install The Stone Base Course. Construct The Curb And Gutter And Backfill The Curb. Install The Concrete Pavement For The Project.
5. As These Phases Progress, Intermittent Storm Water Controls Should Be Installed To Prevent Silt From Washing Off The Construction Site And Entering The Streets, Storm Sewer System, Or Adjacent Properties.
6. Finish Grade The Site And Perform Final Cleanup. Spread Topsoil And Seed/Sod All Areas Disturbed By Construction That Will Not Be Paved.
7. Remove Temporary Erosion Control Measures After Permanent Stand Of Vegetation Is Established.

Note: The Contractor May Complete Construction-Related Activities Concurrently Only If Preceding BMP's Have Been Completely Installed.

Note To Contractor:

All Erosion Control Shown Functions As A Guide. It Is The Contractor's Responsibility To Ensure That The Requirements Of The Arkansas Department Of Environmental Quality's General Permit Are Maintained. Actual Erosion Control Devices May Vary Due To The Contractor's Sequence Of Demolition And Construction. Additional Measures May Become Necessary During Construction.

GRADING START DATE: _____

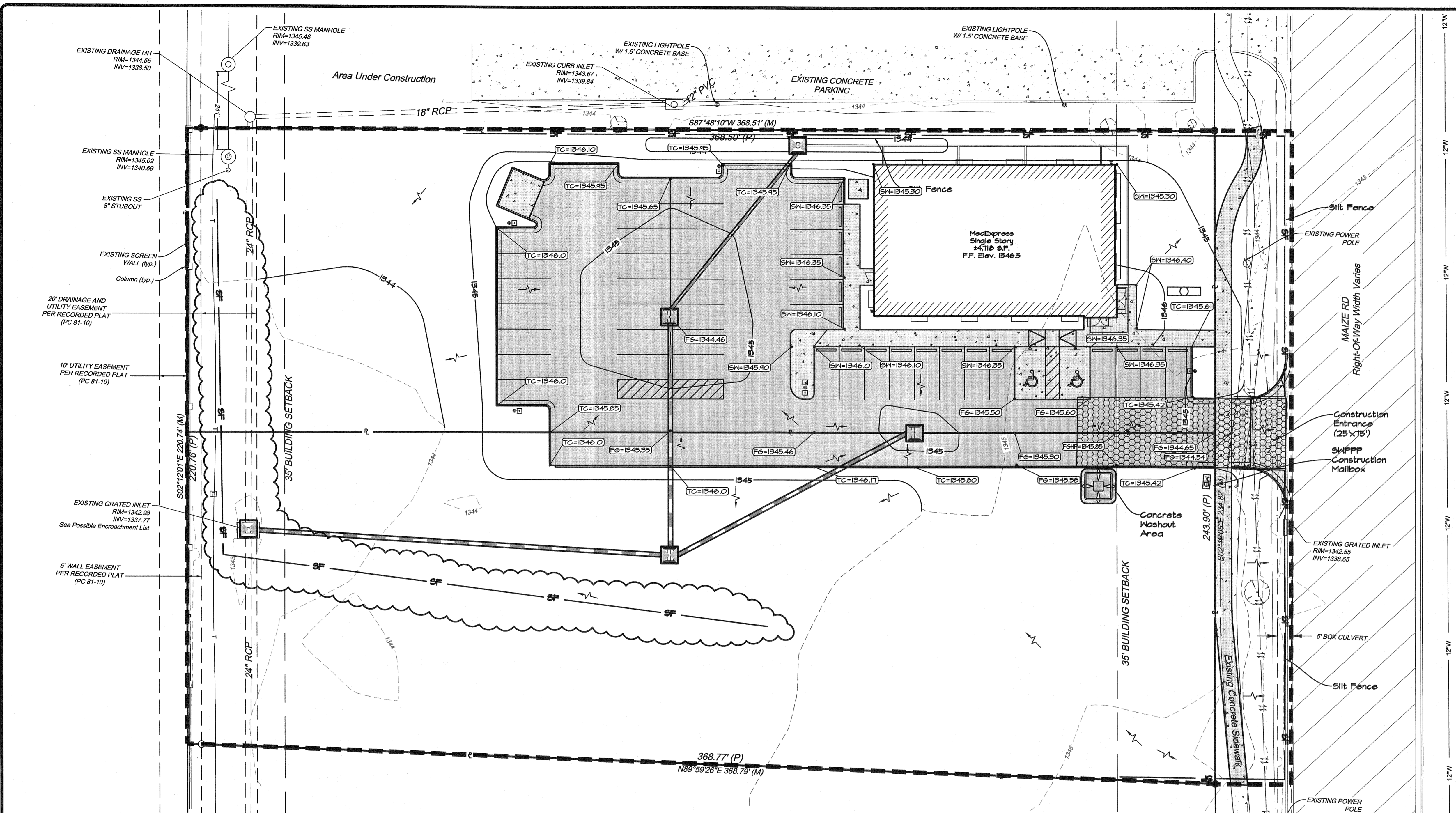
GRADING ACTIVITIES CEASE (TEMP) _____

GRADING ACTIVITIES COMPLETE: _____

STABILIZATION INITIATION DATE: _____

Total Site Area = 1.93 Acres
Disturbed Area = 2.10 Acres

Site Benchmark:
Ex Curb Inlet Lid, North Rim,
Located At Middle Of Site,
North Side.
Elevation = 1343.66 (NAVD88)



- Site Grading and Drainage General Notes:
1. No Land Clearing Shall Begin Until All Erosion Control Measures Have Been Installed.
2. All Disturbed Areas And Slopes Shall Be Graded Smooth, Receive 4" Topsoil And Seed/Sod.
3. Existing Water Valves Will Be Adjusted If Necessary To New Final Grade In Accordance With City Of Pine Bluff Standards And Specifications.
4. All Storm Sewer Distances Are From Center Of Inlet To Center Of Inlet And End Of Flared Ends.
5. All Existing Utility Vaults, Valves, Meters, Manholes, And Boxes To Be Adjusted To Finished Grades In Accordance With City Of Pine Bluff Details And Specifications And To The Corresponding Utility Companies Requirements.
6. Existing Drainage Patterns Shall Be Maintained During And After Construction.
7. All Soils Under The Building And Pavement Shall Be Structural Fill Approved By The Soils Engineer.

- Site Erosion Control General Notes:
1. Stabilization Measures Shall Be Initiated As Soon As Practicable In Portions Of The Site Where Construction Activities Have Temporarily Or Permanently Ceased.
2. All Sediment And Erosion Control Devices Shall Be Inspected Every Seven (7) Days Or Every 14 Days.
3. Provide Temporary Construction Entrance, Silt Fence, Inlet Protection, And Other Erosion Control Devices.
4. All Erosion Control Devices Shall Be Properly Maintained Until The Completion Of All Phases Of Construction.

- 5. All Areas Not To Be Paved Or Landscape Beds Shall Be Seeded/Sodded.
6. The Contractor Shall Inspect, Repair, And Add Stone To The Stabilized Construction Entrance.
7. The Topsoil Stockpile Shall Be Graded To Drain And Seeded With A Temporary Seed Mix.
8. Dust Control On-site Shall Be Minimized By Spraying Water On Dry Areas.
9. If The Majority Of Mud Or Dirt Is Not Removed From Traffic Exits.
10. All Erosion And Sedimentation Controls Shown On The Plans Shall Be Constructed In Accordance With Governing Authorities.

Table with 3 columns: Revision #, By, Date. Row 1: Revision #1 - Per City Comments, img, 04-14-16

MORRISON SHIPLEY ENGINEERS & SURVEYORS logo and contact information: 2407 SE Cottonwood Street, Bentonville, AR 72712



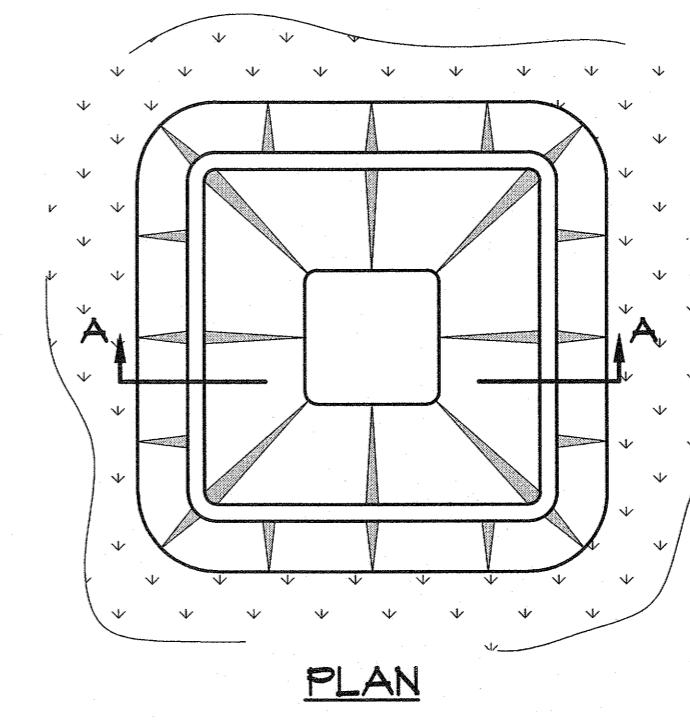
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MEDEXPRESS logo and address: 1261 N. Maize Road, Wichita, Sedgwick County, Kansas

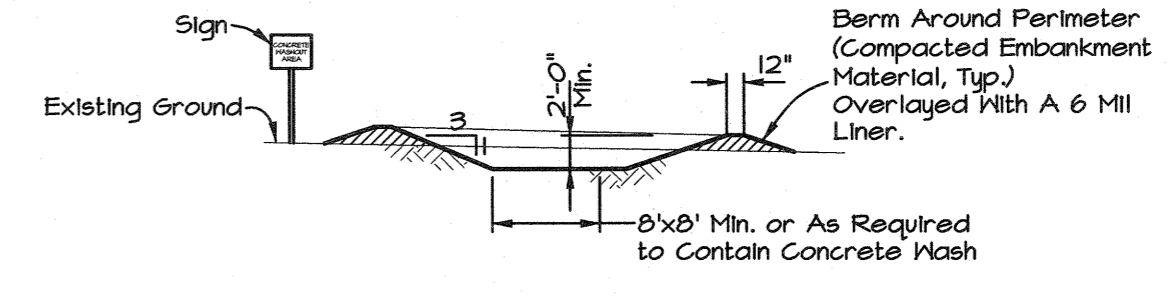
EROSION CONTROL PLAN Issued for Review - 04.14.16

Sheet No: SD.3

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PLAN

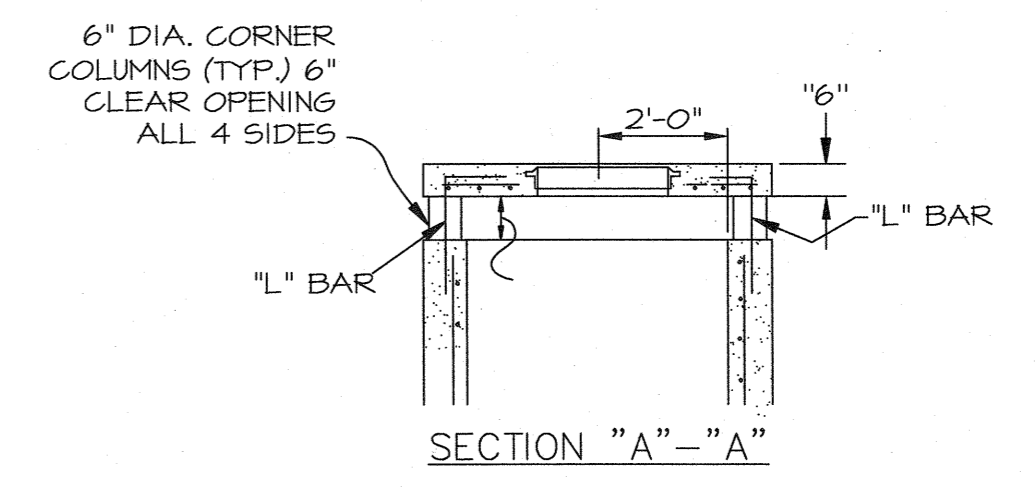


SECTION "A-A"

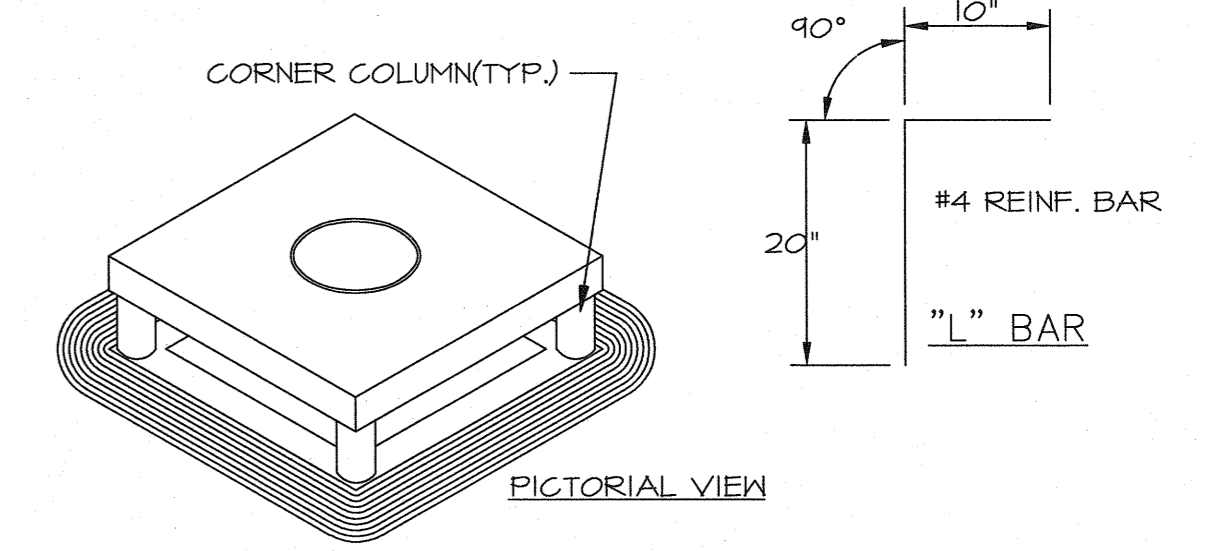
NOTES:

1. Concrete Washout Area Shall be Installed Prior to Any Concrete Placement on Site.
2. Vehicle Tracking Control is Required at Concrete Washout Entrance if Access to Concrete Washout Area is Off Pavement.
3. The Concrete Washout Area Shall be Repaired and/or Enlarged as Necessary to Maintain Capacity for Waste Concrete.
4. Waste Material From Concrete Washout Operations Must Be Removed and Legally Disposed of When it has Accumulated Two-Thirds of the Net Storage Capacity of the Structure.
5. At the End of Construction, All Concrete Shall Be Removed From the Site and Legally Disposed of at an Approved Waste Site.
6. When the Concrete Washout Area is Removed, the Disturbed Area Shall Be Seeded and Mulched or Otherwise Stabilized.

EC-50: CONCRETE WASHOUT AREA
Not to Scale 4-21-10



SECTION "A"-A"

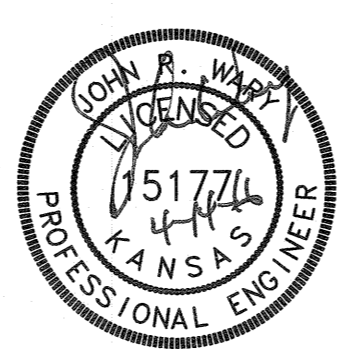


AREA INLET TOP DETAIL
N.T.S

Revision	By	Date
Revision #1 - Per City Comments	img	04-14-16

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Drawn By:	LMG	Vertical Scale:	-
Approved By:	LMG	Horizontal Scale:	1" = 20'
Date:	03.16.16	Plotting Scale:	1
Project No:	AED-12a	Drawing Name:	Plan Sheets

MEDEXPRESS
1261 N. Maize Road
Wichita, Sedgwick County, Kansas

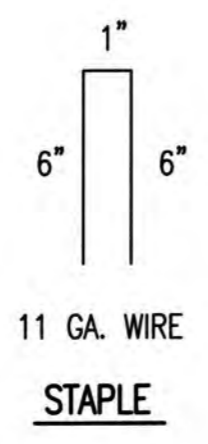
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SD.4

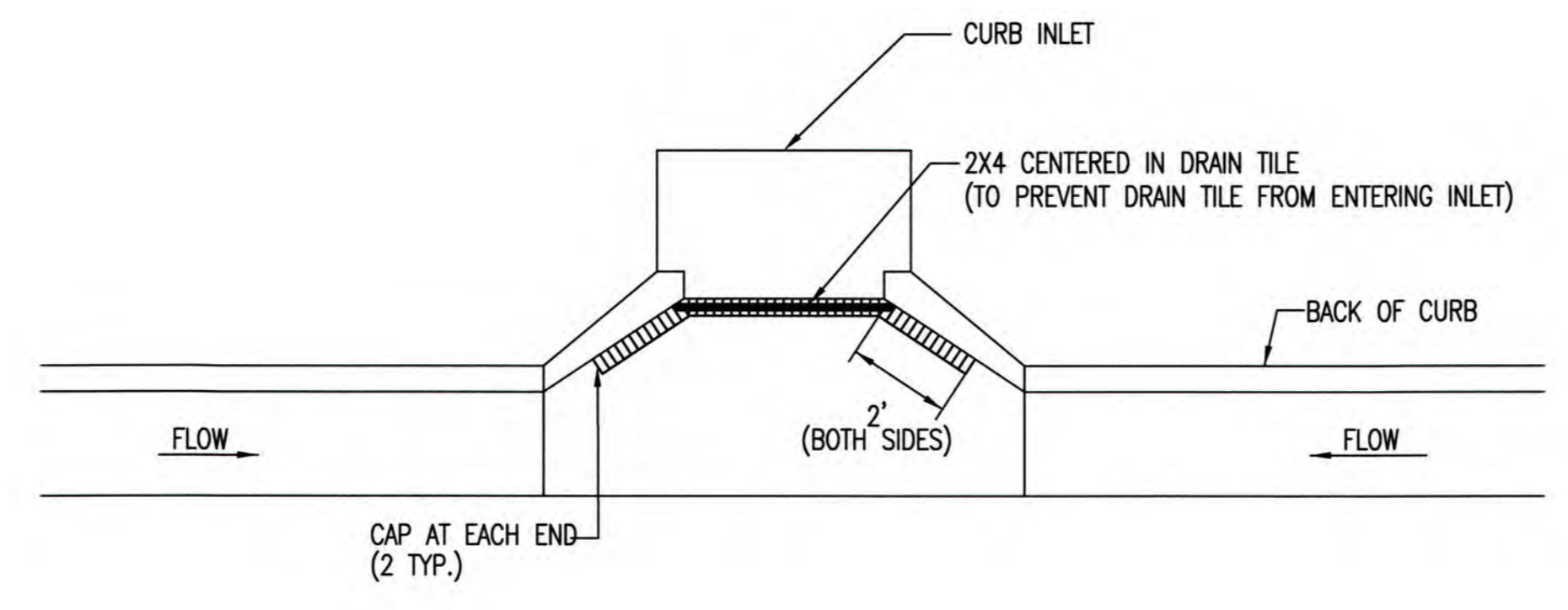


- GENERAL NOTES**
- EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
 - EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
 - AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE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

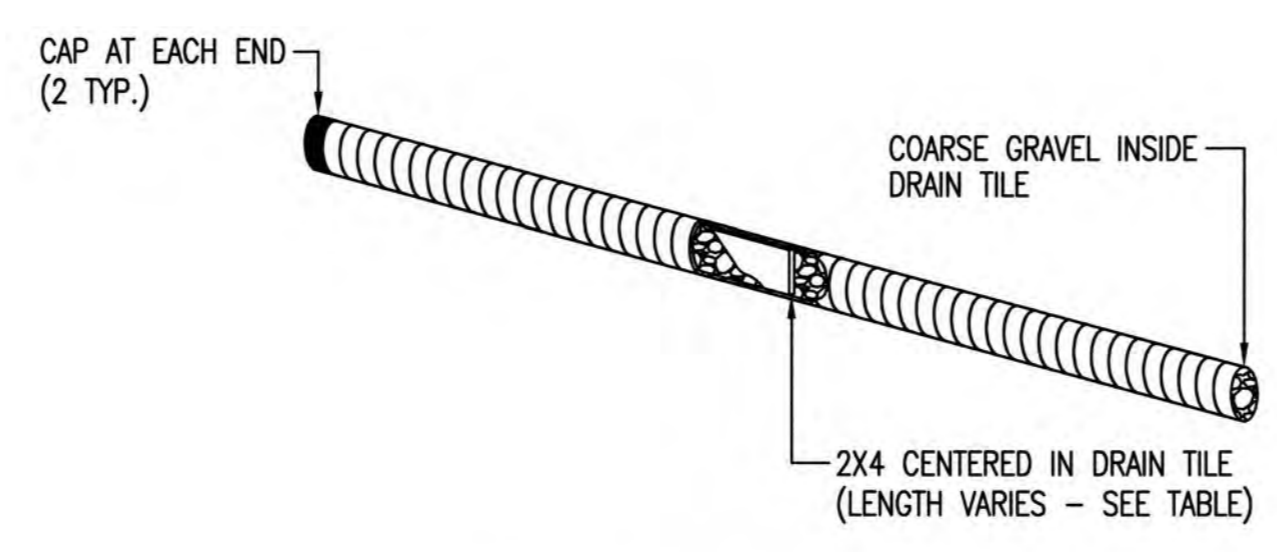


DETAILS FOR APPROVED EROSION CONTROL MAT

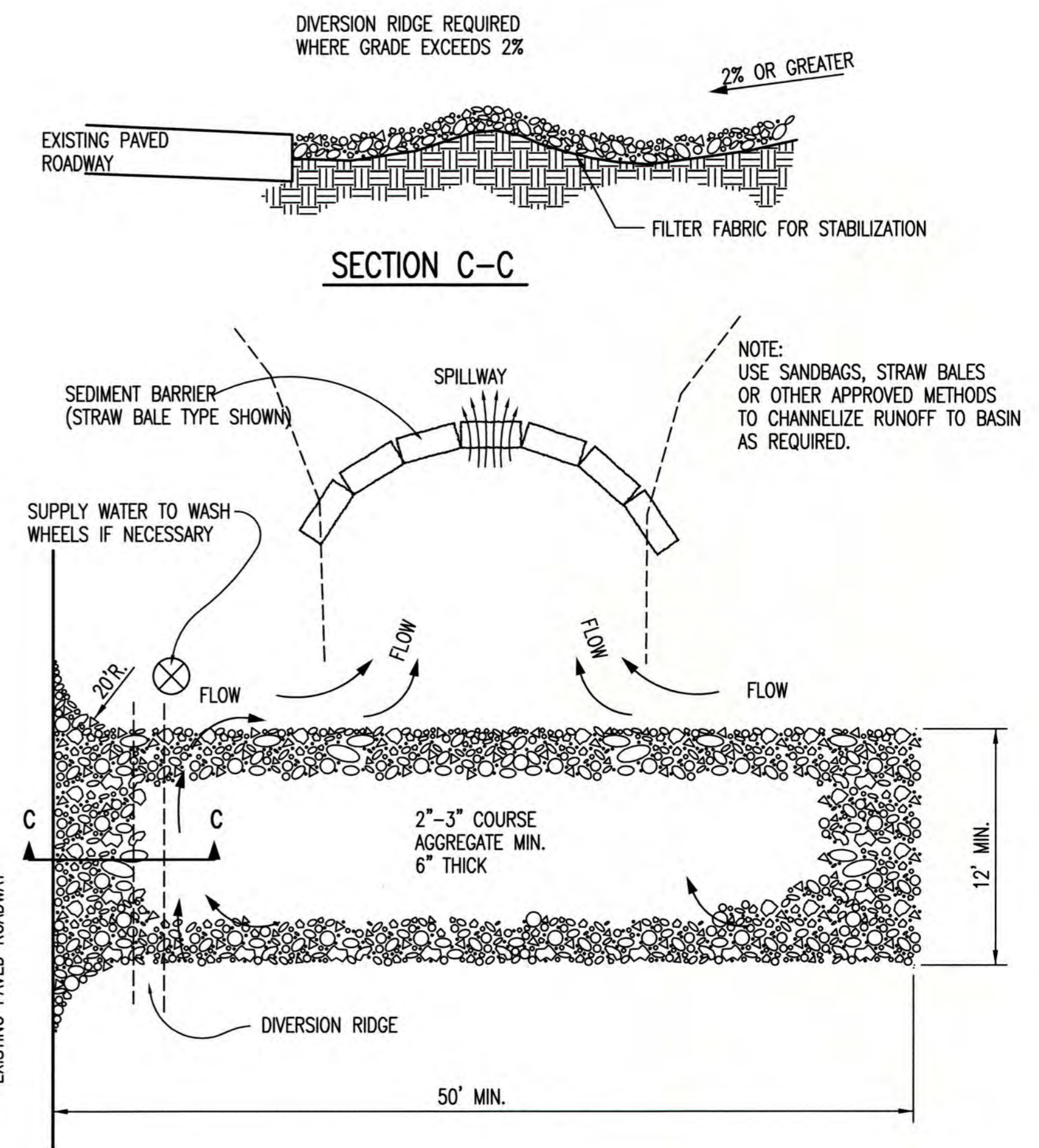


NOTE: PLACE 4" PERFORATED PVC PIPE, FILLED WITH 1/2"-1" DIA. GRAVEL, IN FRONT OF CURB INLET AS SHOWN.

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



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
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET SD.5



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.

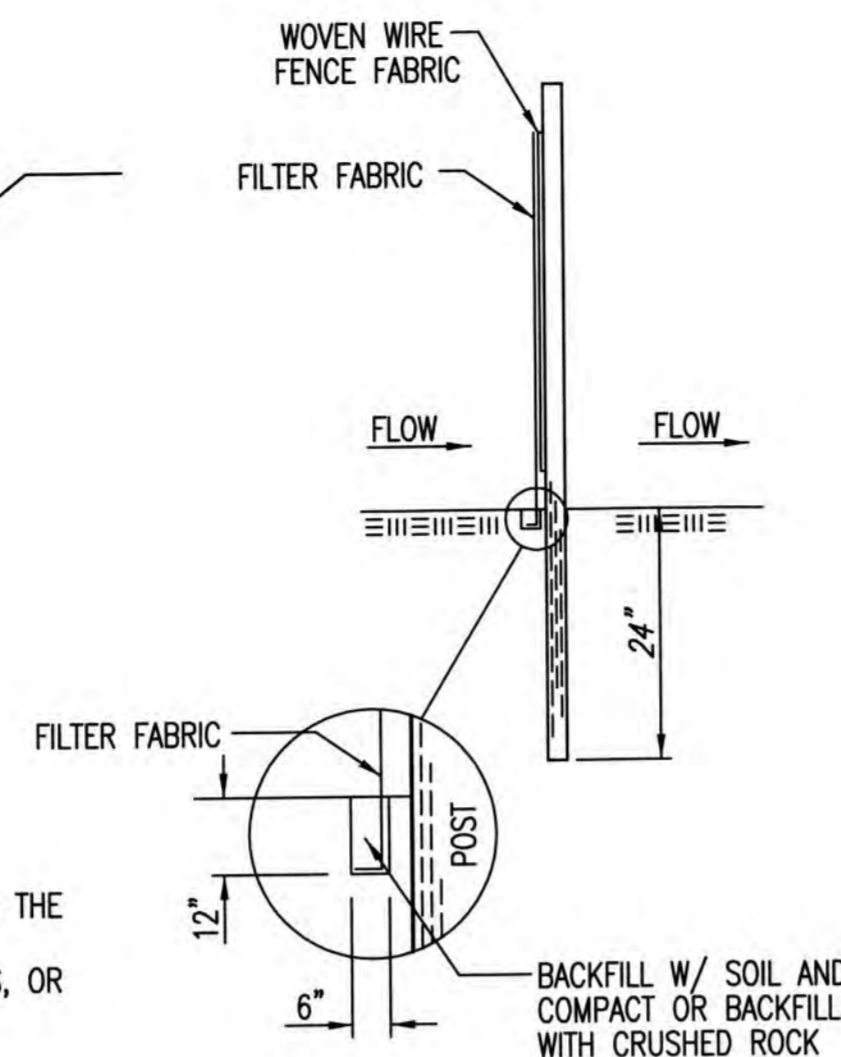
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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.

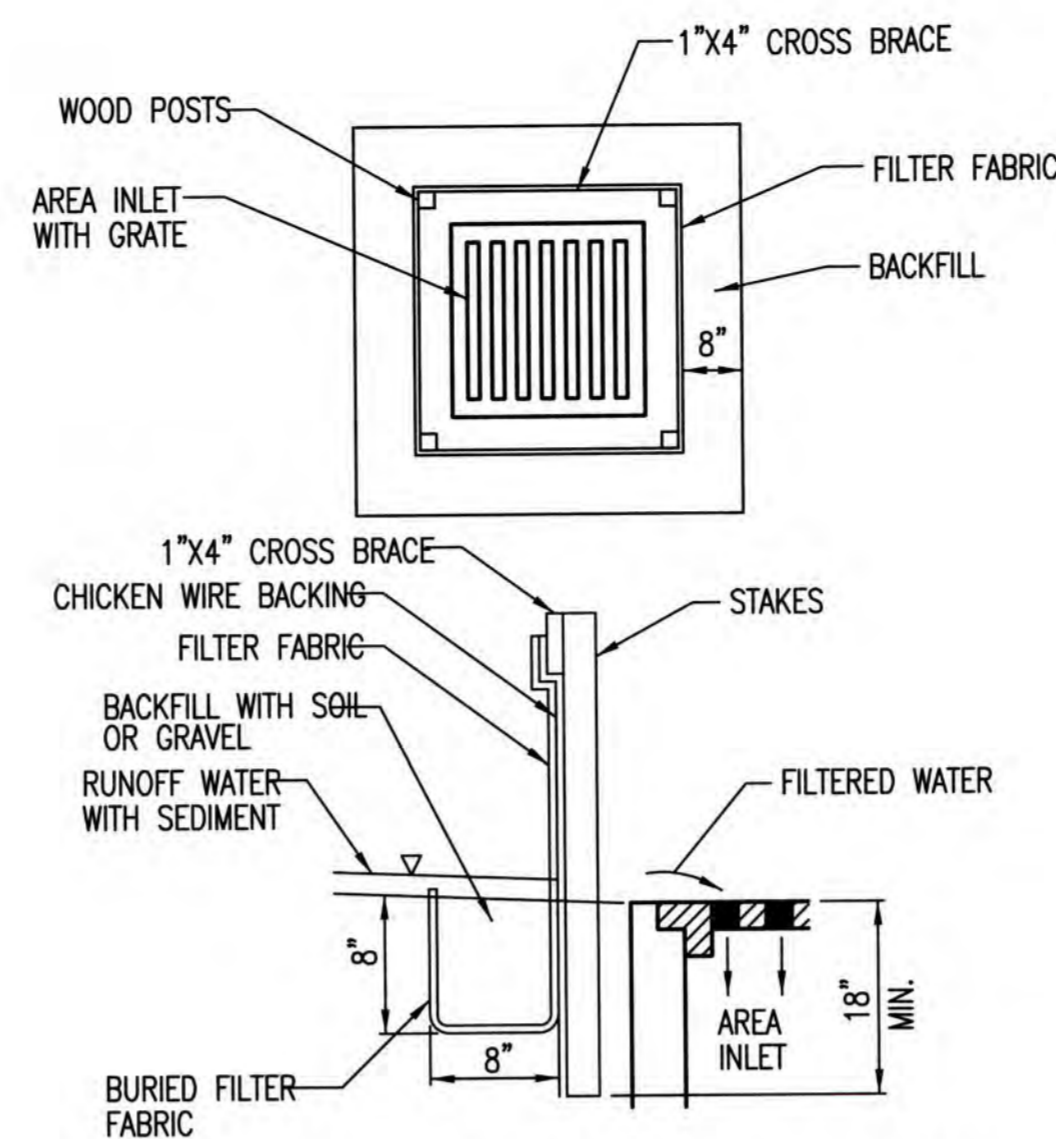
INSPECTION AND MAINTENANCE:

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.

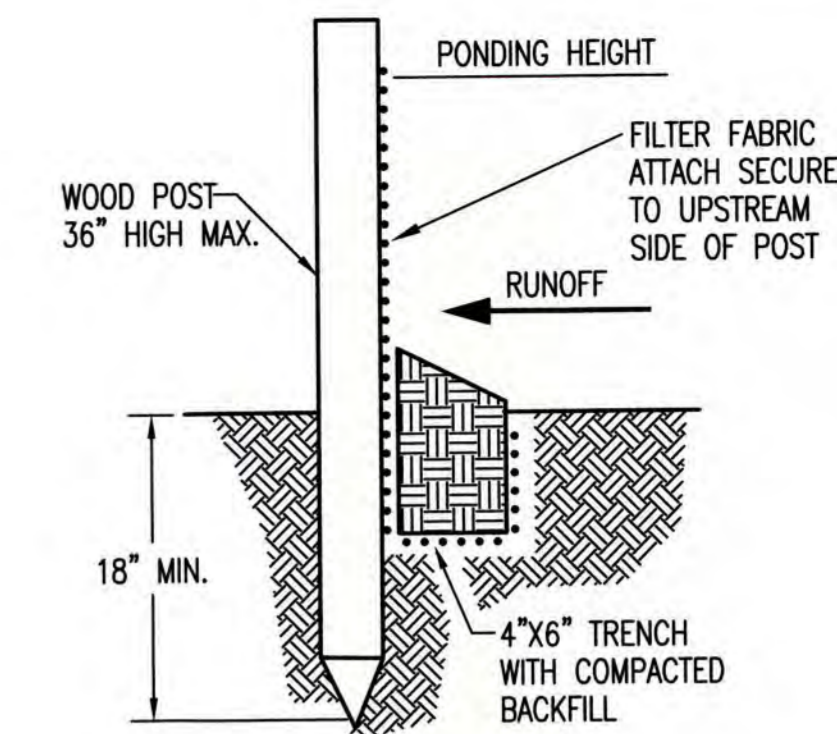
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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 RESISTED 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



CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

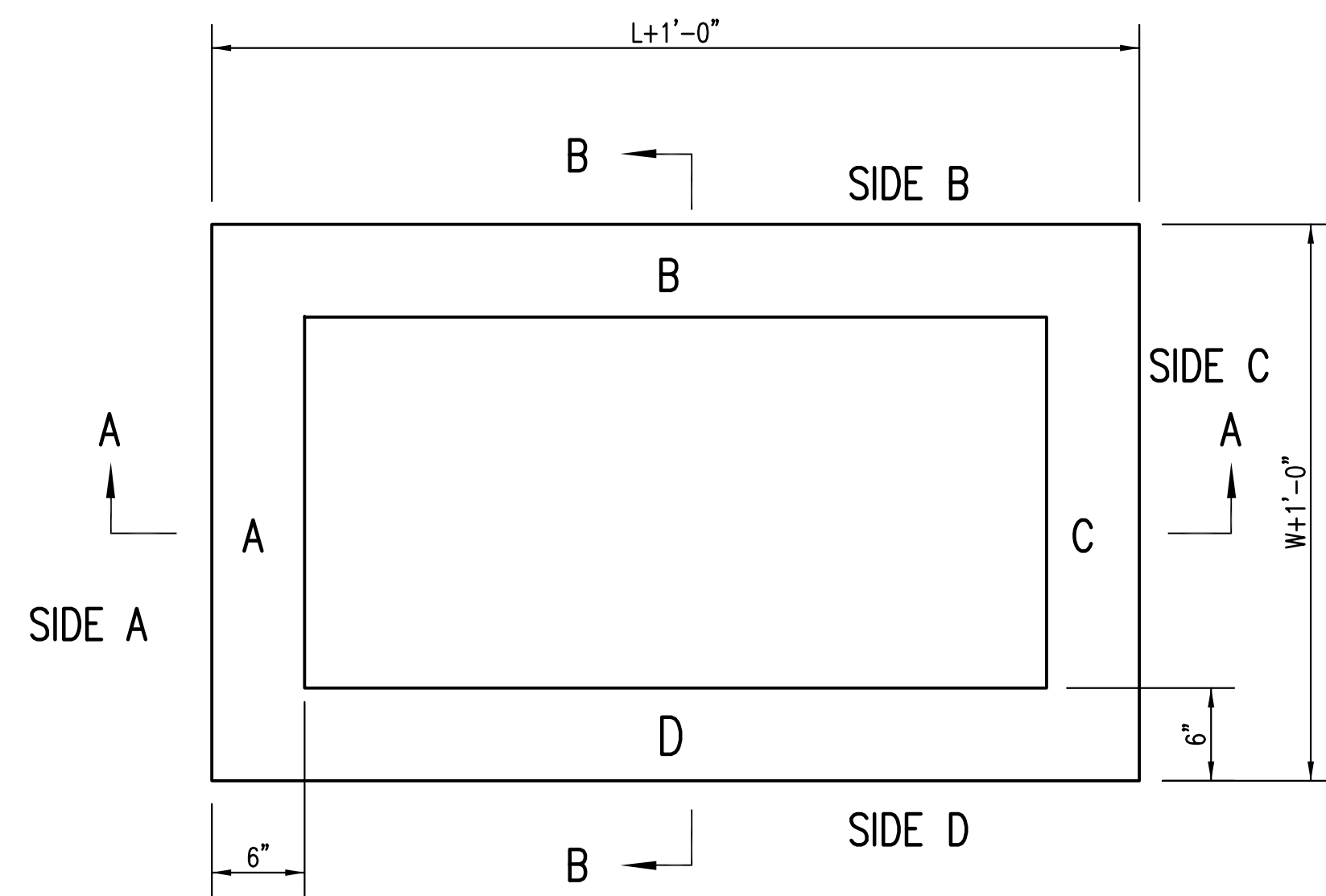
SILT FENCE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

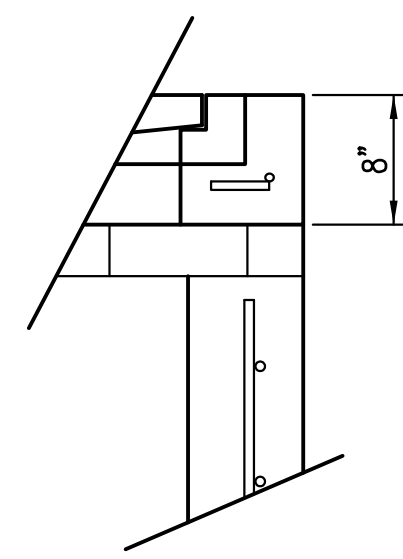
PROJECT NUMBER	OCA NUMBER	DATE
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CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

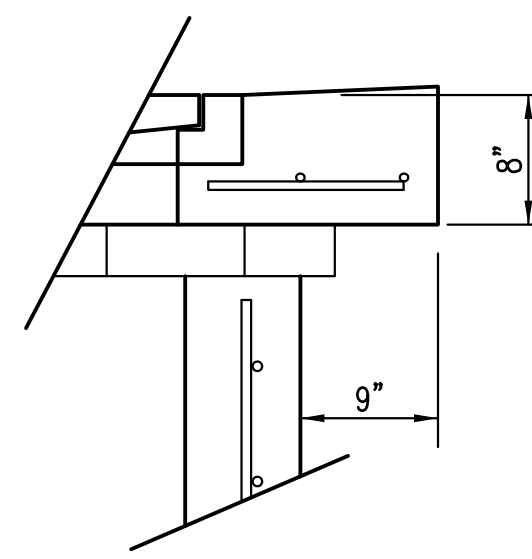
SHEET
SD.6



TOP VIEW

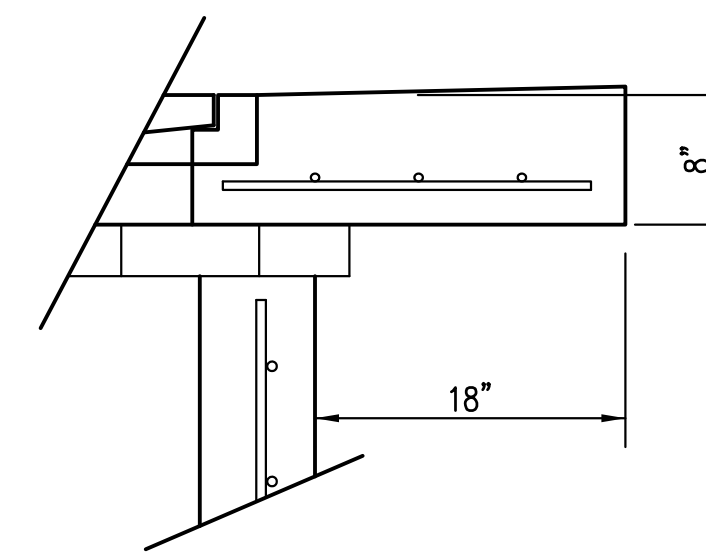


FLUSH STYLE TOP
NO APRON



9" APRON

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



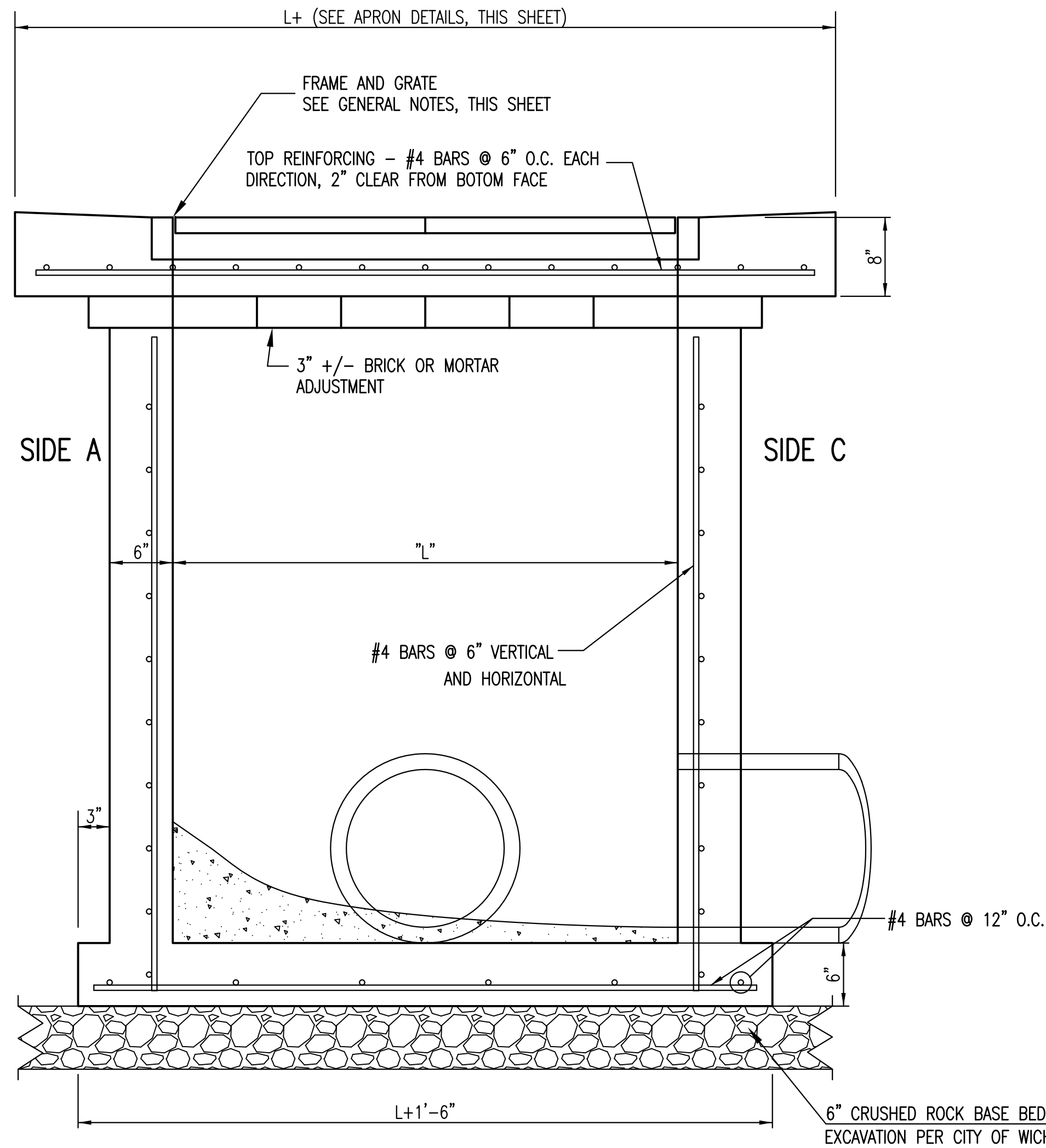
18" APRON

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

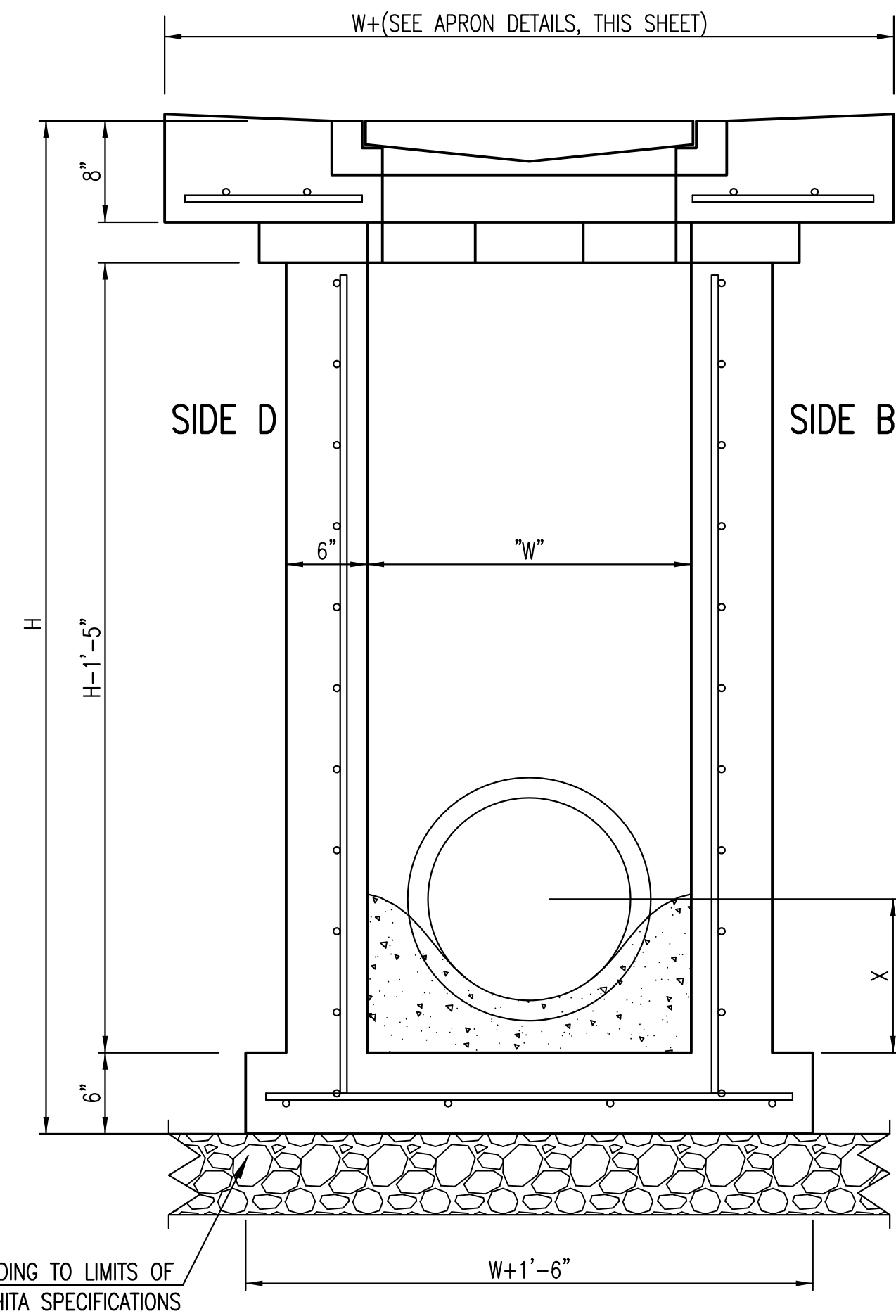
The structure(s) on this detail sheet are designed for HS-20 loading at these specific dimensions only. If larger dimensions are required, the ENGINEER shall provide a project specific structure design for approval by the City Engineer's office.

GENERAL NOTES

1. 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.
2. 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.
3. THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.
4. INLET FRAME AND GRATE TO BE DEETER #2433, EJIW #5391-Z1 OR APPROVED EQUAL FOR 2'x2' SINGLE DROP INLET AND DEETER #2434, EJIW #5391 Z3 OR APPROVED EQUAL FOR 2'x4' DOUBLE DROP INLET.
5. 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.

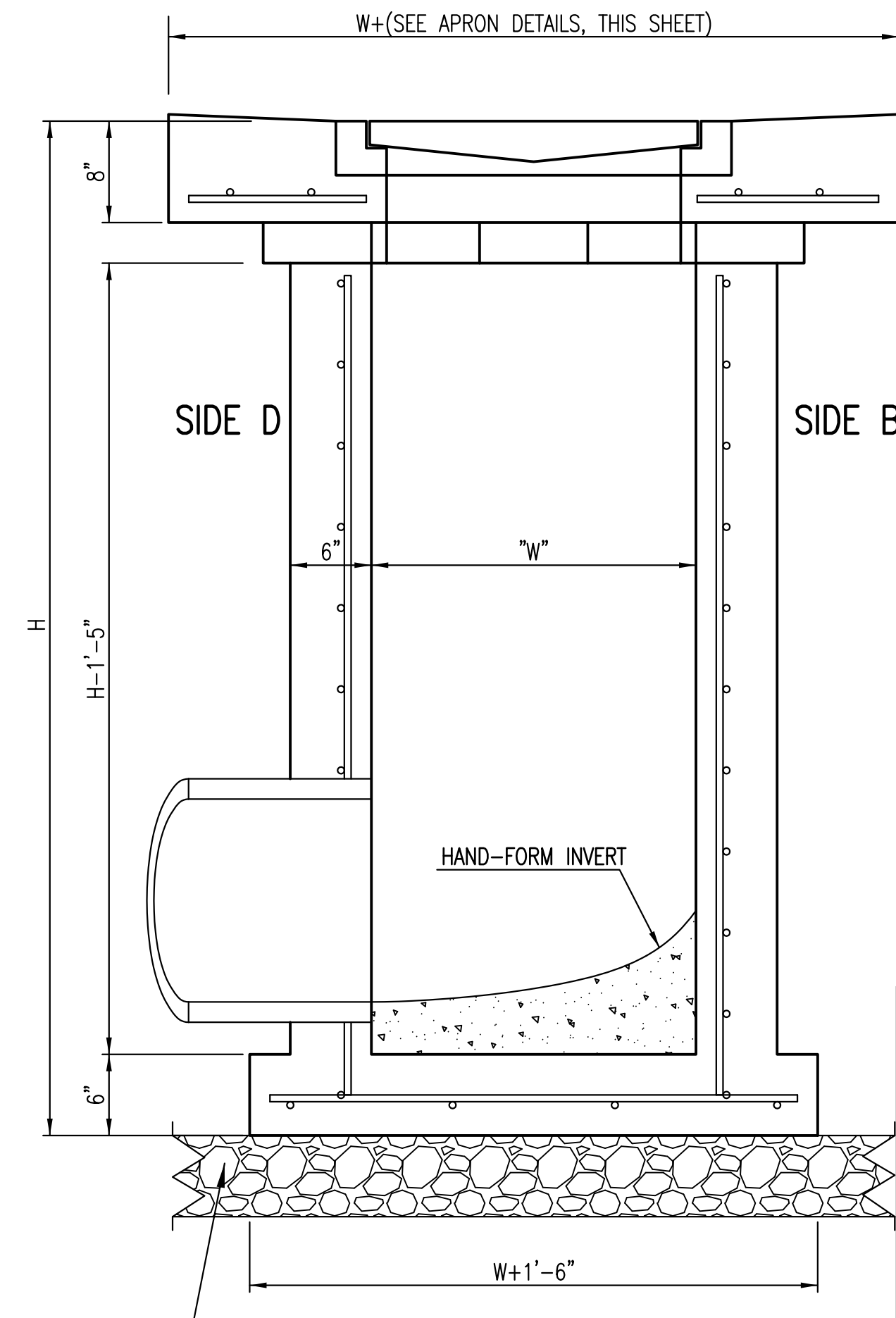


SECTION "A-A"



SECTION "B-B"
END OUTLET

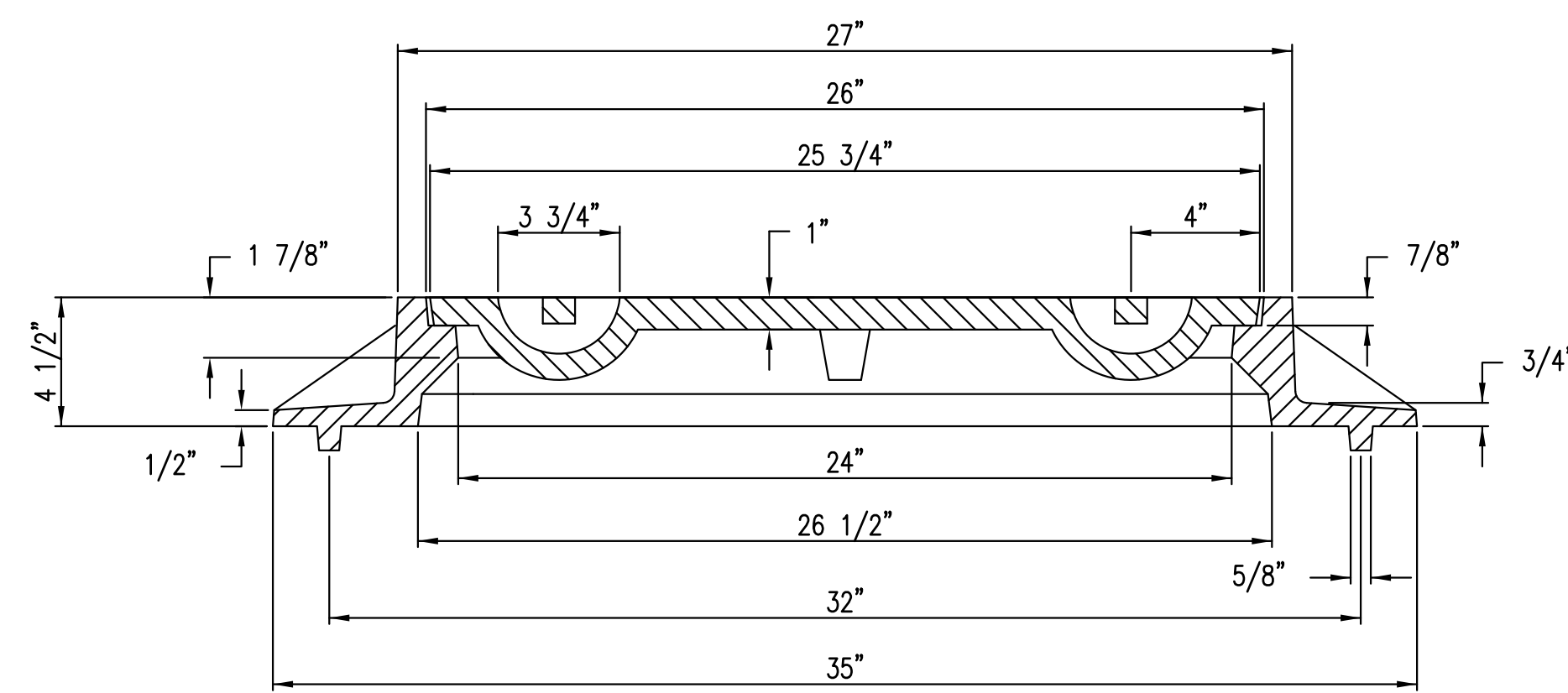
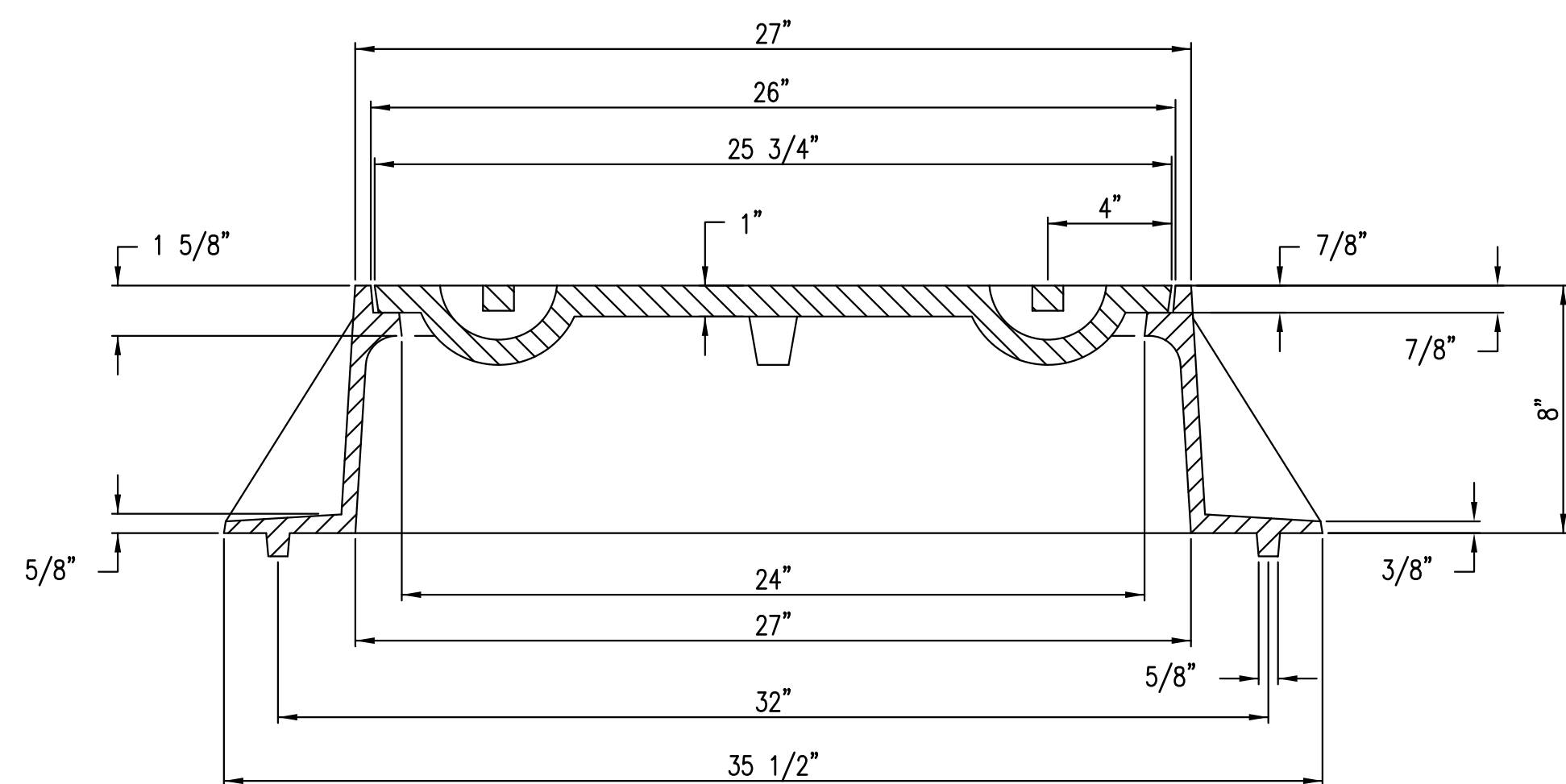
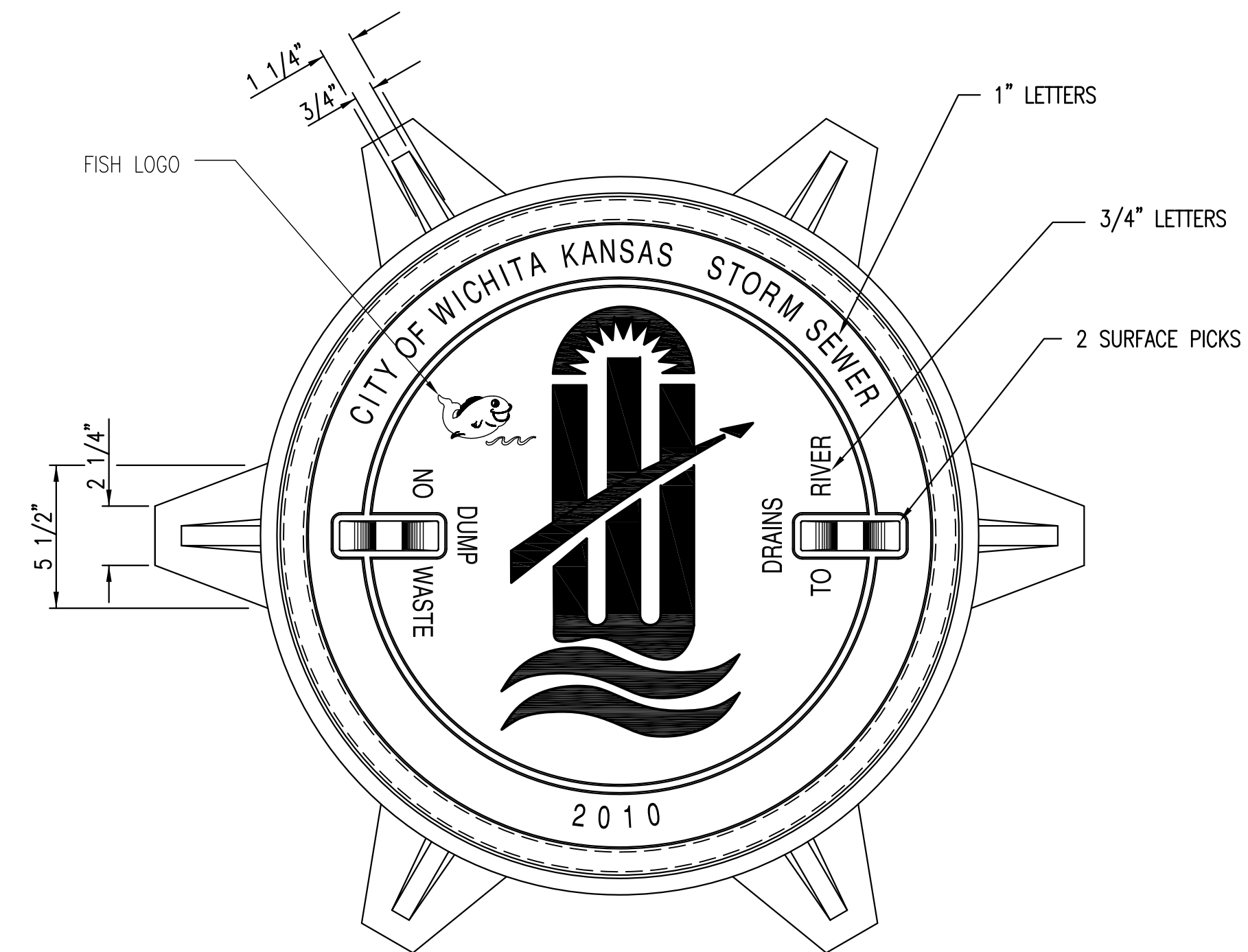
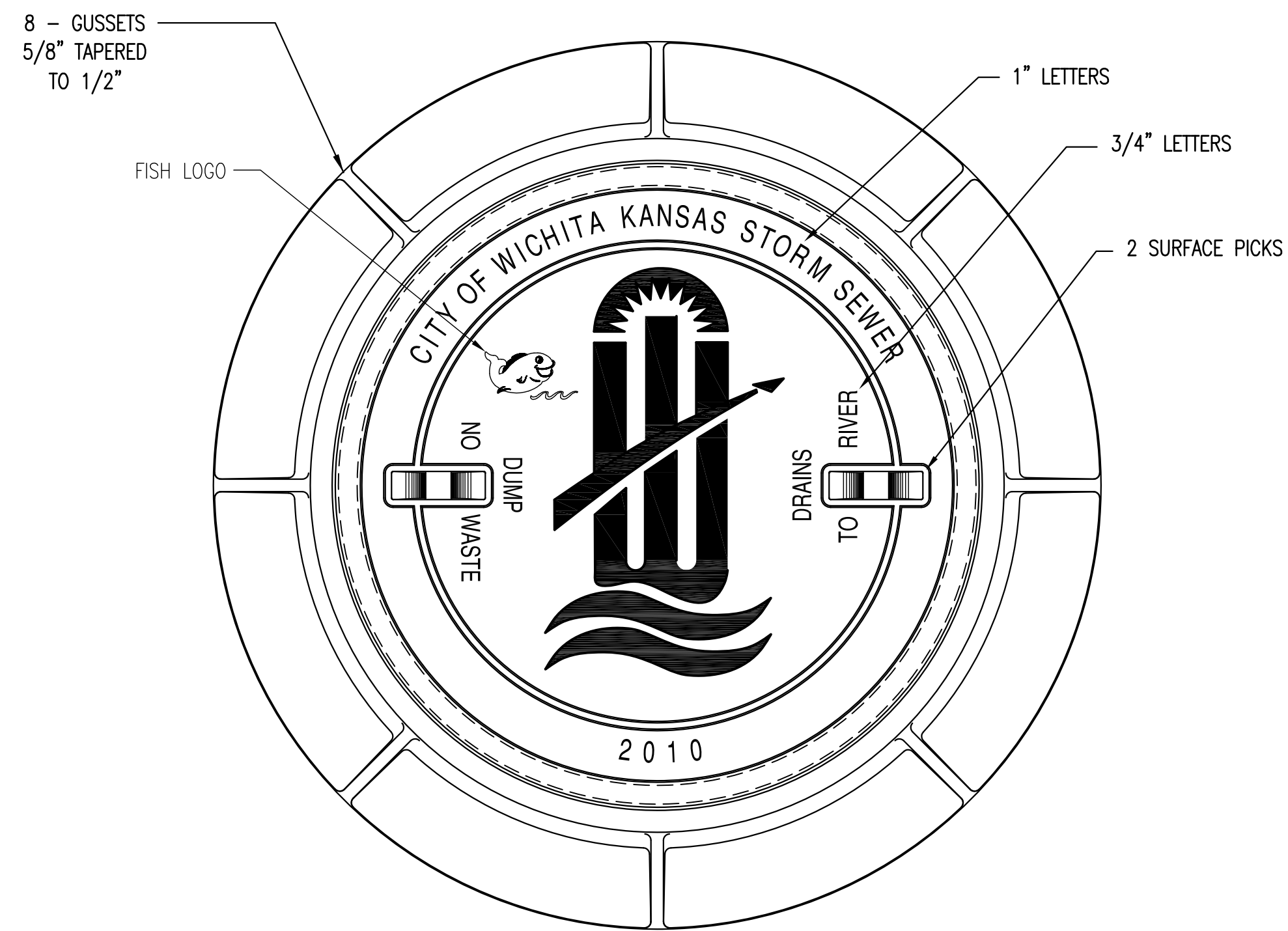
6" CRUSHED ROCK BASE BEDDING TO LIMITS OF EXCAVATION PER CITY OF WICHITA SPECIFICATIONS



SECTION "B-B"
SIDE OUTLET



REVISD: MARCH 2015		
SINGLE/DOUBLE DROP INLET		
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 SD.7



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 11/2010
CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 455 NORTH MAIN STREET WICHITA, KANSAS 67202-1620 (316) 268-4501		SHEET SD.8