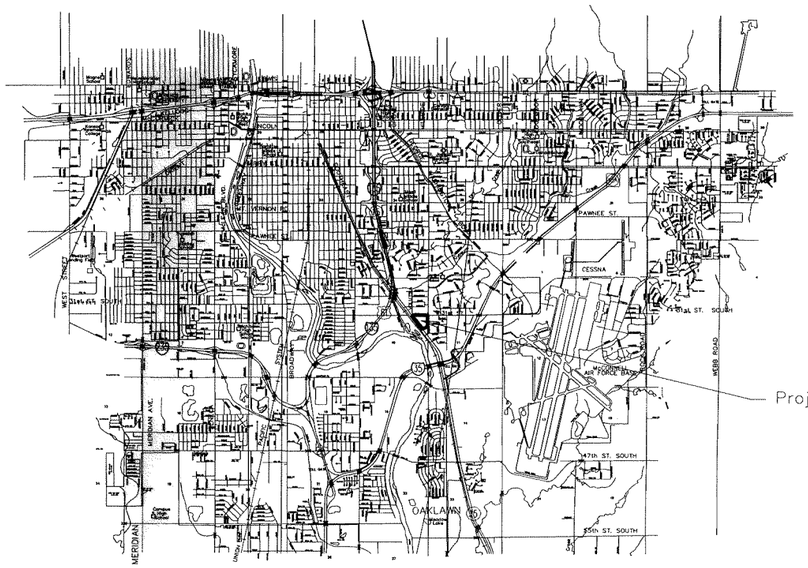
DRAINAGE PRIVATE PROJECT PLANS FOR

QUIKTRIP STORE #0313

K-15 AND 31ST STREET SOUTH
WICHITA, SEDGWICK COUNTY, KS.
201 PPD (O.C.A. NO. 607861)
GARY JANZEN, P.E., CITY ENGINEER
AUGUST 2013



GENERAL NOTES:

UTILITY SERVICE LINES, POLES, VALVE BOXES, METERS, 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.

CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY-EIGHT (48) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

KANSAS ONE CALL	811
COX COMMUNICATIONS (CABLE)	316-262-0661
AT&T (TELEPHONE)	316-268-2008
WESTAR ENERGY (ELECTRIC)	316-261-6512
KANSAS GAS SERVICE (GAS)	316-832-3126
BLACK HILLS ENERGY (GAS)	316-722-1808
CITY OF BEL AIRE PUBLIC WORKS (WATER, SEWER)	316-744-2888
CITY OF WICHITA (WATER)	316-268-4555
SEDGWICK RURAL WATER DISTRICT #1	316-775-0100

3. 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 OR A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH STATE LAWS. ALL COSTS FOR THIS WORK SHALL BE CONSIDERED SUBSIDIARY TO OTHER BID ITEMS.
4. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY ABUTTING THE PROJECT LIMITS A MINIMUM OF TEN (10) DAYS ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.
5. NO SOIL BORINGS HAVE BEEN PERFORMED FOR THIS PROJECT. THE CONTRACTOR SHALL BEAR THE COSTS, AND RESPONSIBILITY FOR, ANY SOILS INVESTIGATION DEEMED NECESSARY FOR EXECUTION OF THE WORK.
6. ALL CONSTRUCTION AND MATERIALS, UNLESS OTHERWISE NOTED, TO COMPLY WITH CITY OF BEL AIRE SPECIFICATION AND STANDARDS.
7. NO SERVICES WILL BE INSTALLED AS PART OF THIS PROJECT.
8. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL; TWO-WAY TRAFFIC MUST BE MAINTAINED THROUGHOUT THE PROJECT. TRAFFIC CONTROL DEVICES AND SIGNING SHALL BE IN ACCORDANCE OF THE LATEST ADDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
9. ANY FENCE REMOVED FOR CONSTRUCTION SHALL BE REPAIRED IN A CONDITION EQUAL TO, OR BETTER THAN, ORIGINAL AT NO ADDITIONAL COST TO THE OWNER. THIS COST SHALL BE CONSIDERED SUBSIDIARY TO OTHER BID ITEMS.
10. RUBBLE REMOVAL – RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURE 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 THAT, IN THE OPINION OF THE ENGINEER, 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 US 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. THE COST OF DISPOSING OF RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION, INCLUDING LOADING AND HAULING SHALL BE SUBSIDIARY TO THE OTHER BID ITEMS.
11. 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. THIS COST IS SUBSIDIARY TO OTHER BID ITEMS.
12. CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR IS ASSIGNED TO THE PROJECT AND IS PRESENT ON THE SITE.
13. THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, SHOULDERS, AND ENTRANCES TO THE ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE.
14. UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS AND RESTORE THE PROJECT TO A CONDITION COMPARABLE TO EXISTING. DISTURBED AREAS OUTSIDE PAVEMENT SHALL BE RESTORED WITH THE SAME GRASS/SEED AS EXISTING SEEDING SHALL INCLUDE TOP SOIL PREPARATION, SEEDING AND MULCHING.
15. CONTRACTOR WILL BE REQUIRED TO COMPLY WITH THE EROSION CONTROL PLAN AND STORMWATER POLLUTION PREVENTION PLAN (SWPP) AS FILED WITH THE NOTICE OF INTENT (NOI) AND DETAILED IN THE PROJECT PLANS. BMP's SHALL BE MAINTAINED BY THE CONTRACTOR DURING CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING RECORDS OF THE REQUIRED INSPECTIONS AND MAINTENANCE PER THE SWPP SUBMITTED WITH THE NOI.
16. OPENING AND CLOSING OF WATER VALVES SHALL BE DONE BY CITY OF BEL AIRE PERSONNEL ONLY.

A. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.
B. CONTRACTOR SHALL BE RESPONSIBLE FOR RAVING AND REMOVAL OF THE EXISTING STRUCTURES, RELATED UTILITIES, PAVING, AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED. REF. SITE WORK SPECIFICATIONS.
C. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS, DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.
D. THE GENERAL CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
E. ALL CONSTRUCTION IN STATE HIGHWAY DEPARTMENT RIGHT-OF-WAY SHALL BE COORDINATED WITH THE HIGHWAY DEPARTMENT RESIDENT MAINTENANCE ENGINEER. SPECIFICATIONS ADOPTED BY U.S.A. DEPARTMENT OF TRANSPORTATION, MARCH 1, 1993, AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS SHALL GOVERN ON THIS PROJECT.
F. ALL SITE WORK FOR THIS PROJECT SHALL MEET OR EXCEED THE SPECIFICATIONS OF THE REVELANT UTILITY COMPANY OR REGULATORY AUTHORITY, AND THE SPECIFICATIONS FOR THE CONSTRUCTION OF THE EXISTING IMPROVEMENTS WHICH ARE BEING ALTERED OR REPLACED. CONTRACTOR SHALL CONTRACT THE ENGINEER FOR SPECIFICATION SECTIONS FOR ITEMS SUCH AS LANDSCAPING AND IRRIGATION THAT ARE AFFECTED BY THE WORK BUT NOT COMPLETELY DETAILED OR SPECIFIED ON THIS PLANS.

WETLANDS NOTICE:

ANY DEVELOPMENT, EXCAVATION, CONSTRUCTION, OR FILLING IN A U.S. CORPS OF ENGINEERS DESIGNATED WETLAND IS SUBJECT TO LOCAL, STATE AND FEDERAL APPROVALS. THE CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS AND/OR RESTRICTIONS AND ANY VIOLATION WILL BE SUBJECT TO FEDERAL PENALTY. THE CONTRACTOR SHALL HOLD THE OWNER/DEVELOPER, THE ENGINEER AND THE LOCAL GOVERNING AGENCIES HARMLESS AGAINST SUCH VIOLATION.

WARRANTY/DISCLAIMER

THE DESIGNS REPRESENTED IN THE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER THE ENGINEER NOR ITS PERSONNEL CAN OR DO WARRANT THESE DESIGNS OR PLANS AS CONSTRUCTED EXCEPT IN THE SPECIFIC CASES WHERE THE ENGINEER INSPECTS AND CONTROLS THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

NOTICE CERTIFICATION

ALL QUESTIONS REGARDING THE PREPARATION OF THE GENERAL CONTRACTOR'S BID SHALL BE DIRECTED TO THE OWNER'S CONSTRUCTION DEPARTMENT AT 918-615-7816. SUBCONTRACTORS MUST DIRECT THEIR QUESTIONS THROUGH THE GENERAL CONTRACTOR. THE CONSULTING ARCHITECT AND/OR THE CONSULTING ENGINEER SHALL NOT BE CONTACTED DIRECTLY WITHOUT PRIOR AUTHORIZATION FROM THE OWNER/DEVELOPER.

FLOOD CERTIFICATION:

THIS PROPERTY LIES IN ZONE "X" AND DOES LOCATE WITHIN ANY PRESENTLY ESTABLISHED 100-YEAR FLOOD PLAIN, AS SHOWN BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP FOR WICHITA, SEDGWICK COUNTY, KANSAS COMMUNITY

SHEET INDEX

APPROVED AS NOTED By
CITY ENGINEER OF WICHITA

Storm Sewers
by City Engineer _____ 10/29/13

by Storm Water Engineer _____ 10/29/13

NOTE TO CONTRACTOR

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 LICEASED PROFESSIONAL ENGINEER. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR THE PUBLIC RIGH-OF-WAY BY THE CONTRACTOR WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER.

MUNICIPAL CONTACT LIST:

CITY OF WICHITA

OFFICE OF CENTRAL INSPECTION DEPARTMENT – PLANNING DIVISION
CITY HALL, 7TH FLOOR
455 N. MAIN
WICHITA, KS, 67202
TEL: (316) 268-4477
FAX: (316) 268-4663
CONTACT: PAUL HAYS

CAPITAL IMPROVEMENT PROJECTS/ ENGINEERING DEPARTMENT
CITY HALL, 7TH FLOOR
455 N. MAIN
WICHITA, KS, 67202
TEL: (316) 268-4236
FAX: (316) 268-4114
CONTACT: JULIANNE KALLMAN, P.E.

CITY OF WICHITA STORM WATER MANAGEMENT DEPARTMENT
CITY HALL, 8TH FLOOR
455 N. MAIN
WICHITA, KS. 67202
TEL: (316) 268-4498
CONTACT: SCOTT LINDEBAK, P.E.

CITY FIRE DEPARTMENT
CITY HALL, 11TH FLOOR
455 N. MAIN
WICHITA, KS, 67202
TEL: (316) 268-4510
FAX: (316) 858-7702
CONTACT: CHIEF ROBERT THOMPSON

OFFICE OF CENTRAL INSPECTION DEPARTMENT – INSPECTIONS DIVISION
CITY HALL, 7TH FLOOR
455 N. MAIN
WICHITA, KS, 67202
TEL: (316) 268-4648
FAX: (316) 268-4663
CONTACT: PAUL HAYS

CITY TRAFFIC ENGINEER
CITY HALL, 7TH FLOOR
455 N. MAIN
WICHITA, KS, 67202
TEL: (316) 268-4393
FAX: (316) 268-4114
CONTACT: PAUL GUNZELMAN, P.E.

CITY OF WICHITA WATER & SEWER UTILITIES
CITY HALL, 8TH FLOOR
455 N. MAIN
WICHITA, KS, 67202
TEL: (316) 268-4555
CONTACT: KERRY GIBSON
ALT. CONTACTS: GREG LOLLEY
OR LaDONNA LAWRENZ
TEL: (316) 268-4501

PRIVATE UTILITIES LIST:

ELECTRIC COMPANY (WESTAR ENERGY)
TEL: (316) 261-6315
CONTACT: SHANE PRICE
EMAIL: SHANE.PRICE@WESTARENERGY.COM

GAS COMPANY (KANSAS GAS SERVICE)
TEL: (316) 261-831-5664
CONTACT: CINDY LITTLEJOHN
EMAIL: CINDY.LITTLEJOHN@ONEOK.COM

GAS COMPANY (BLACK HILLS ENERGY)
TEL: (316) 941-1654
CONTACT: DARYL KELLER
EMAIL: DARYL.KELLER@BLACKHILLSCORP.COM

TELEPHONE COMPANY (AT&T)
TEL: (316) 268-2762
CONTACT: JIM TOBEN
EMAIL: JT7372@ATT.COM

CABLE COMPANY (COX COMMUNICATIONS)
TEL: (316) 260-7475
CONTACT: JEFF CAPPS
EMAIL: JEFF.CAPPS@COX.COM

PROJECT CONTACT LIST:

SURVEYOR OF RECORD
SAVOY COMPANY, P.A.
MARK A. SAVOY, L.S.
433 S. HYDRALIC
WICHITA, KS 67211
TEL: (316) 265-0005

ENGINEER OF RECORD
SCHWAB-EATON
ANNE STEPHENS, P.E.
8615 W. FRAZIER LANE, SUITE 2
WICHITA, KS 67212
TEL: (316) 722-4472

As Built Plans
Contractor: CK Contracting, Inc.
Superintendent: Curtis Fry (Riverside Group)
Foreman: Terry Henry (CK Contracting)
Client: City of Wichita
Inspector: Eric Strecker & Caleb Wilson, Schwab-Eaton, PA
PDF by: ELS, 10/16/14

QT REAL ESTATE MANAGER
QUIKTRIP CORPORATION
JOE KIM
4705 S. 129TH EAST AVE.
TULSA, OK 74134
TEL: (918) 615-7140
FAX: (918) 606-8139

QT CIVIL PROJECT MANAGER
QUIKTRIP CORPORATION
MATT BAER, R.L.A.
4705 S. 129TH EAST AVE.
TULSA, OK 74134
TEL: (918) 615-7381
FAX: (918) 615-7451

BENCHMARKS:

Site Benchmark #1
Square Cut on Top of Headwall at the South end of R.C.B.C. located 41' SE & 20' SW of the Westerly most N.W. Corner of subject Property.
Elev: 1283.71 NAVD88

Site Benchmark #2
Square Cut on Top of Curb located 40.5' E. & 2.3' N. of the N.E. Corner of subject Property.
Elev: 1283.65 NAVD88

Site Benchmark #3
Square Cut at N.W. Corner Concrete Pad fro Mailboxes located 1.34' N. & 48' E. of the S.E. Corner of subject Property.
Elev: 1284.14 NAVD88

STORMWATER COMPLIANCE

TOTAL DISTURBED AREA
- 3.83 ACRES

PRE-DEVELOPED IMPERVIOUS AREA
- 1.92 ACRES

PRE-DEVELOPED PERVIOUS AREA
- 1.92 ACRES

POST-REDEVELOPMENT IMPERVIOUS AREA
- 2.26 ACRES

POST-REDEVELOPMENT PERVIOUS AREA
- 1.57 ACRES

DETENTION NOT REQUIRED DUE TO NOT MORE THAN 1 ACRE OF IMPERVIOUS SURFACE CREATED.

STORMWATER QUALITY
- SITE COMPLIES WITH SECTION 16.32 OF CITY CODE
- ACHIEVED BY FLOGARD DUAL-VORTEX HYDRODYNAMIC SEPERATOR DVS-8454, MANUFACTURED BY KRISTAR ENTERPRISES, INC. DRAINAGE AREA = 5.91 ACRES

RENE STEPHENS
LICENSED
19298
KANSAS
PROFESSIONAL ENGINEER

PROJECT NO.: 13.W008

Schwab Eaton
8615 W. Frazier, Suite 2
Wichita, Kansas
p. 316.722.4472
f. 316.722.4479

QuikTrip No. 0313R
K-15 & 31ST STREET SOUTH
Lot 1, Block A, QuikTrip 14th Addition, an Addition to Wichita, Sedgwick County, Kansas

PROTOTYPE: P-74 (2/01/13)
DIVISION: WICHITA
VERSION: 001
DESIGNED BY: AS
DRAWN BY: AL
REVIEWED BY: MB

REV	DATE	DESCRIPTION
1	9/6/13	QT COMMENT REVISIONS
2	10/7/13	ADDED WEST DITCH LINER TO K-15 NCB

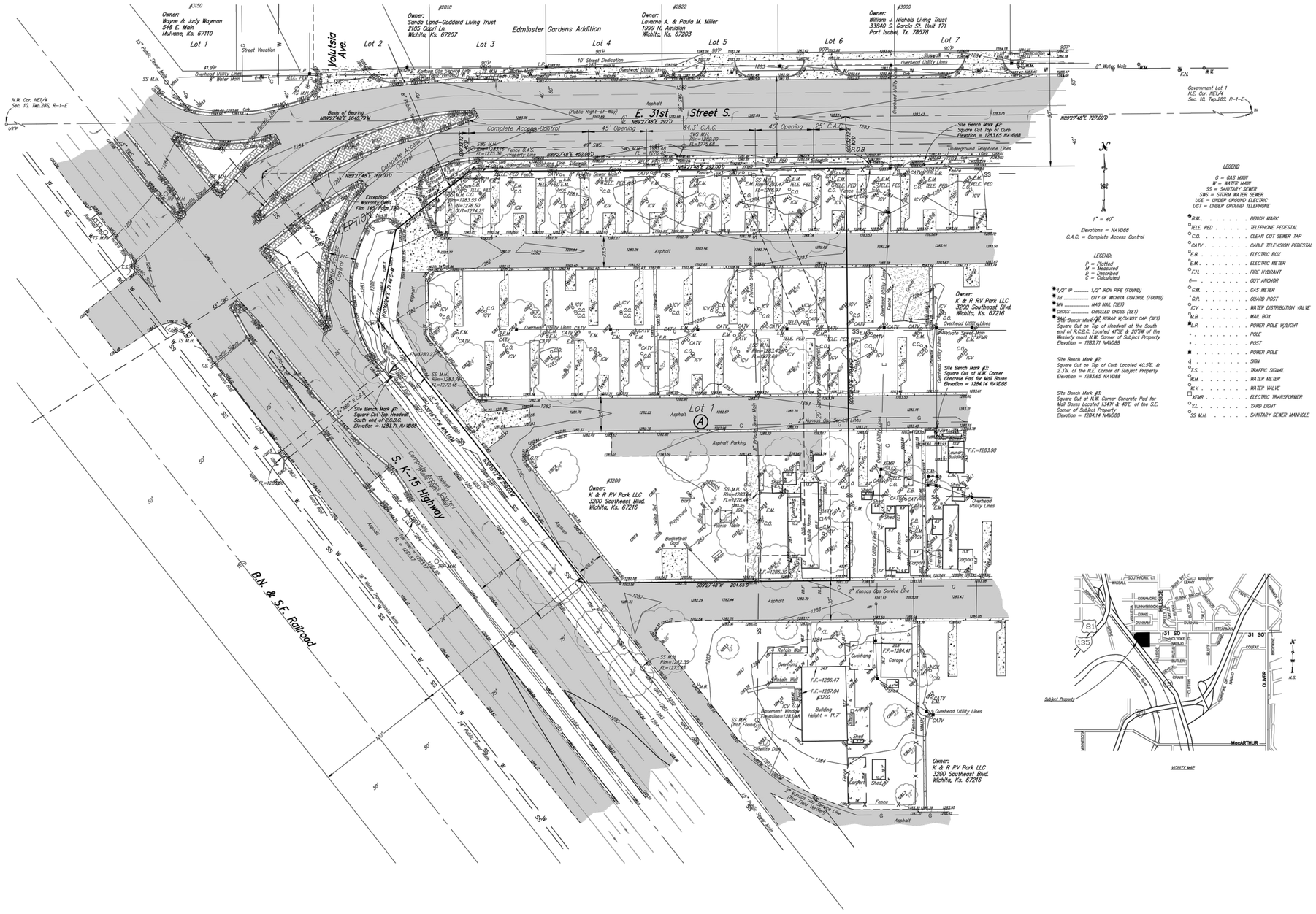
ORIGINAL ISSUE DATE: 08/26/13

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
1

PRELIMINARY PLAT
QUIKTRIP 14TH ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS



VICINITY MAP

Legal Description:

Part of Government Lot 1 in the Northeast Quarter of Section 10, Township 28 South, Range 1 East of the Sixth Principal Meridian, Sedgwick County, Kansas, described as Commencing at the N.E. Corner thereof; thence S89°27'48"W, along the North line of said NE1/4, 727.09 feet; thence S00°32'12"E, perpendicular to the North line of said NE1/4, 40 feet to South right-of-way line of 31st Street South for a point of beginning; thence continuing S00°32'12"E, 319.65 feet; thence S89°27'48"W, parallel with the North line of said NE1/4, 204.65 feet to a point on the East right-of-way line of Highway K-15; thence N38°16'12"W, along said East right-of-way line, 404.18 feet to a point 40 feet South of the North line of said NE1/4; thence N89°27'48"E, 452 feet to the point of beginning, Except that part deeded for street purposes recorded on Film 145 Page 190, Beginning at the intersection of the South right-of-way line of 31st Street South extended to the West and the Easterly right-of-way line of Highway K-15; thence N89°27'48"E, along said South line of extended 31st Street South, 160 feet; thence S51°25'24"W, 72.57 feet; thence S10°46'24"W, 71.46 feet to a point on the Easterly right-of-way line of Highway K-15; thence N38°16'12"W, along said Easterly right-of-way line, 145.15 feet to the point of beginning.

OWNER:
K&R RV Park LLC, a Kansas Limited Liability Company
% QuikTrip Corporation
Joe Kim
4705 S. 129th E Avenue
Tulsa, OK 74134
Ph 918-615-7140

GROSS SIZE
97454.62 Sq. Ft.
2.24 Acres±

NET SIZE
94470.72 Sq. Ft.
2.17 Acres±

MINIMUM LOT SIZE
94470.72 Sq. Ft.
2.17 Acres±

ZONING
LC – Limited Commercial

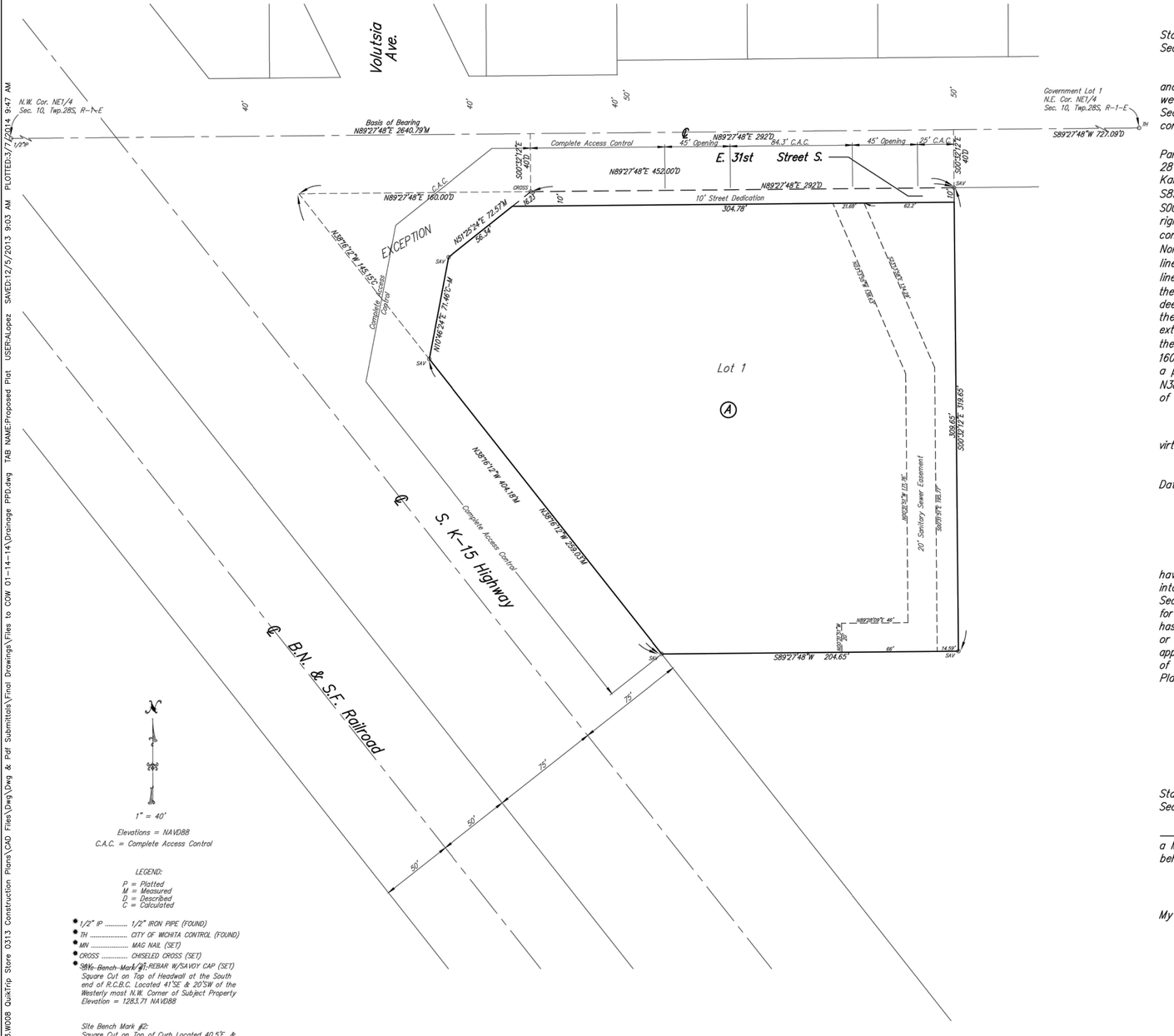
CONTROL NUMBER
167730

Note: The Original Drawing Has Been Reduced to Fit Sheet Dimensions and is not to scale.

Savoy Company, P.A.
Land Surveyors
433 S. Hydraulic, Wichita, KS 67211-1911
PH (316) 265-0005
FAX (316) 265-0275
www.savoyco.com

PROJECT NO. 13HH13868 P

16 AUG 2013



LEGEND:

P = Platted
M = Measured
D = Described
C = Calculated

- 1/2" IP ..... 1/2" IRON PIPE (FOUND)
- TH ..... CITY OF WICHITA CONTROL (FOUND)
- MN ..... MAG NAIL (SET)
- CROSS ..... CHISELED CROSS (SET)
- SAV ..... 1/2" REBAR W/SAVOY CAP (SET)

Site Bench Mark #1:
Square Cut on Top of Headwall at the South end of R.C.B.C. Located 41'SE & 20'SW of the Westerly most N.W. Corner of Subject Property
Elevation = 1283.71 NAVD88

Site Bench Mark #2:
Square Cut on Top of Curb Located 40.5'E. & 2.3'N. of the N.E. Corner of Subject Property
Elevation = 1283.65 NAVD88

Site Bench Mark #3:
Square Cut at N.W. Corner Concrete Pad for Mail Boxes Located 1.34'N & 48'E. of the S.E. Corner of Subject Property
Elevation = 1284.14 NAVD88

QUIKTRIP 14TH ADDITION

WICHITA, SEDGWICK COUNTY, KANSAS

State of Kansas) SS
Sedgwick County)

We, Savoy Company, P.A., Surveyors in aforesaid county and state do hereby certify that, under the supervision of the undersigned, we have surveyed and platted "QUIKTRIP 14TH ADDITION" Wichita, Sedgwick County, Kansas and that the accompanying plat is a true and correct exhibit of the property surveyed, described as:

Part of Government Lot 1 in the Northeast Quarter of Section 10, Township 28 South, Range 1 East of the Sixth Principal Meridian, Sedgwick County, Kansas, described as Commencing at the N.E. Corner thereof; thence S89°27'48"W, along the North line of said NE1/4, 727.09 feet; thence S00°32'12"E, perpendicular to the North line of said NE1/4, 40 feet to South right-of-way line of 31st Street South for a point of beginning; thence continuing S00°32'12"E, 319.65 feet; thence S89°27'48"W, parallel with the North line of said NE1/4, 204.65 feet to a point on the East right-of-way line of Highway K-15; thence N38°16'12"W, along said East right-of-way line, 404.18 feet to a point 40 feet South of the North line of said NE1/4; thence N89°27'48"E, 452 feet to the point of beginning, Except that part deeded for street purposes recorded on Film 145 Page 190, Beginning at the intersection of the South right-of-way line of 31st Street South extended to the West and the Easterly right-of-way line of Highway K-15; thence N89°27'48"E, along said South line of extended 31st Street South, 160 feet; thence S51°25'24"W, 72.57 feet; thence S10°46'24"W, 71.46 feet to a point on the Easterly right-of-way line of Highway K-15; thence N38°16'12"W, along said Easterly right-of-way line, 145.15 feet to the point of beginning.

All Public easements and dedications being vacated by virtue of K.S.A. 12-512b.

Savoy Company, P.A.

Date

Surveyor
Mark A. Savoy RLS #788

Know all men by these presents that We, the undersigned, have caused the land described in the surveyor's certificate to be platted into a Lot and a Block to be known as "QUIKTRIP 14TH ADDITION" Wichita, Sedgwick County, Kansas. The Sanitary Sewer easement is hereby granted for the construction and maintenance of a sanitary sewer. A drainage plan has been developed for this plat and all drainage easements, rights-of-way, or reserves shall remain at established grades, or as modified with the approval of the City Engineer, and unobstructed to allow for the conveyance of stormwater. Access Control is hereby granted as shown on face of the Plat.

K&R RV Park LLC, a Kansas Limited Liability Company

Member

State of Kansas) SS
Sedgwick County)

The foregoing instrument acknowledged before me, this ____ day of ____ 2013, by ____, a Member of K&R RV Park LLC, a Kansas Limited Liability Company, on behalf of the company.

Notary Public

My App't. Exp. ____

This plat of "QUIKTRIP 14TH ADDITION", Wichita, Sedgwick County, Kansas, has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas.

Dated this ____ day of ____, 2013.

Wichita-Sedgwick County Metropolitan Area Planning Commission

Chair
David Dennis

Secretary
John L. Schlegel

This plat approved and all dedications shown hereon, accepted by the City Council of the City of Wichita, Kansas, this ____ day of ____, 2013.

Mayor
Carl Brewer

City Clerk
Karen Sublett

Reviewed in accordance with K.S.A. 58-2005 on this ____ day of ____, 2013.

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

Entered on transfer record this ____ day of ____, 2013.

County Clerk
Kelly B. Arnold

State of Kansas) SS
Sedgwick County)

This is to certify that this plat has been filed for record in the office of the Register of Deeds, this ____ day of ____, 2013, at o'clock ____M: and is duly recorded.

Register of Deeds
Bill Meek

Deputy
Tonya Buckingham

Note: The Original Drawing Has Been Reduced to Fit Sheet Dimensions and is not to scale.

PROJECT NO. 13HH13868 P

Savoy Company, P.A.
Land Surveyors
433 S. Hydraulic, Wichita, KS 67211-1911
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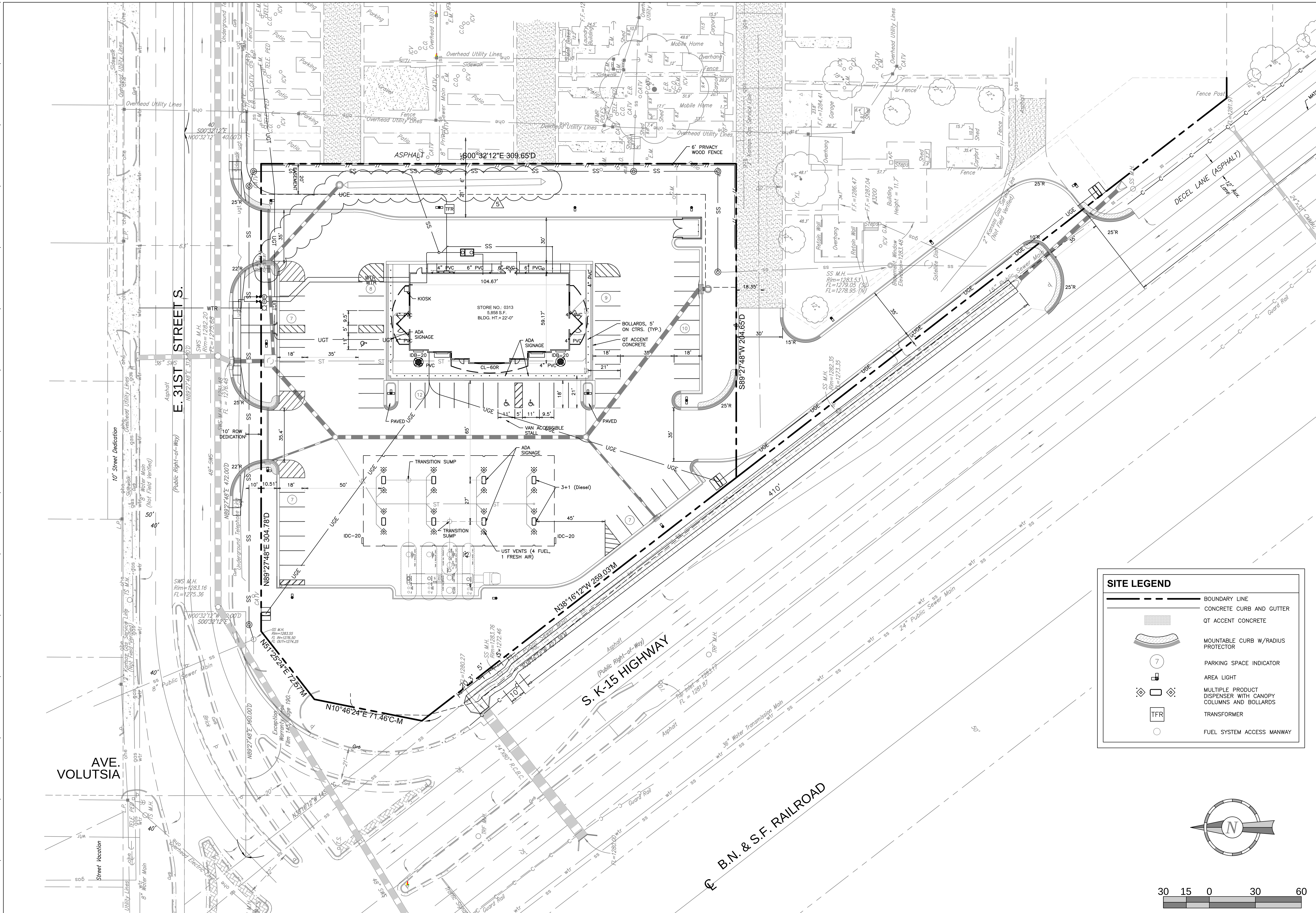


SITE LEGEND

- BOUNDARY LINE
- CONCRETE CURB AND GUTTER
- QT ACCENT CONCRETE
- MOUNTABLE CURB W/RADIUS PROTECTOR
- PARKING SPACE INDICATOR
- AREA LIGHT
- MULTIPLE PRODUCT DISPENSER WITH CANOPY COLUMNS AND BOLLARDS
- TRANSFORMER
- FUEL SYSTEM ACCESS MANWAY

ANNE STEPHENS LICENSED PROFESSIONAL ENGINEER 19295 KANSAS

PROJECT NO.: 13.W008

Schwab Eaton
8615 W. Frazier, Suite 2
Wichita, Kansas
p. 316.722.4472
f. 316.722.4479

QuikTrip No. 0313R

2821 E 31ST S
Lot 1, Block A, QuikTrip 14th Addition, an Addition to Wichita, Sedgwick County, Kansas

QT

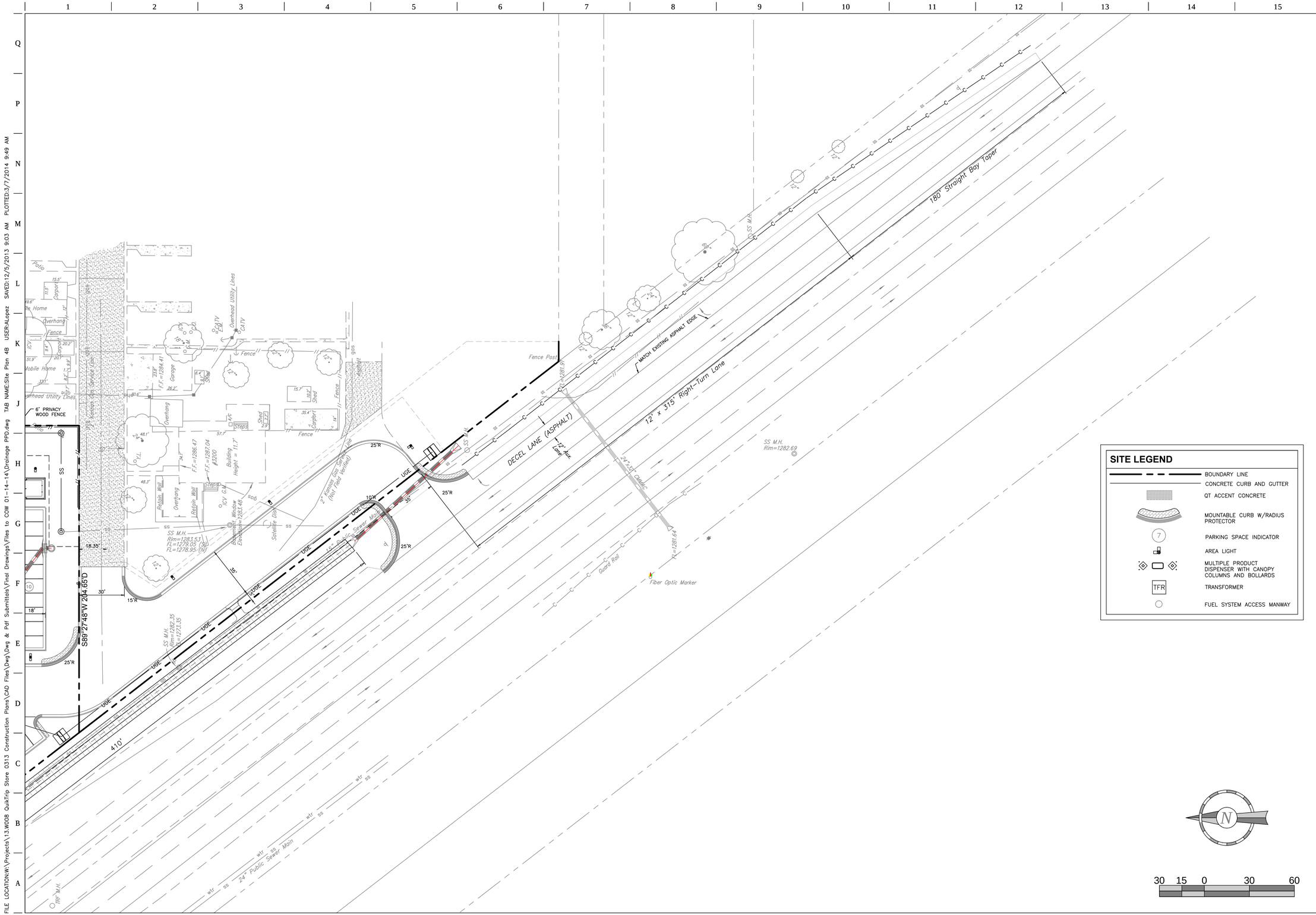
PROTOTYPE: P-74 (2/01/13)
DIVISION: WICHITA
VERSION: 001
DESIGNED BY: AS
DRAWN BY: AL
REVIEWED BY: MB

REV	DATE	DESCRIPTION
1	9/6/13	QT COMMENT REVISIONS
2	10/2/13	ADDED WEST DITCH LINER TO K-15 RCB
5	11/6/13	QT FINAL COMMENT REVISIONS
6	11/26/13	QT COMMENT REVISIONS

ORIGINAL ISSUE DATE: 08/26/13

SHEET TITLE:
SITE PLAN

SHEET NUMBER:
4A



SITE LEGEND

- BOUNDARY LINE
- CONCRETE CURB AND GUTTER
- QT ACCENT CONCRETE
- MOUNTABLE CURB W/RADIUS PROTECTOR
- PARKING SPACE INDICATOR
- AREA LIGHT
- MULTIPLE PRODUCT DISPENSER WITH CANOPY COLUMNS AND BOLLARDS
- TRANSFORMER (TFR)
- FUEL SYSTEM ACCESS MANWAY

30 15 0 30 60

JAMIE STEPHEN LICENSED KANSAS PROFESSIONAL ENGINEER 19295 12/31/2014

PROJECT NO.: 13.W008

Schwab Eaton
8615 W. Frazier, Suite 2
Wichita, Kansas
p. 316.722.4472
f. 316.722.4479

QuikTrip No. 0313R

2821 E 31ST S
Lot 1, Block A, QuikTrip 14th Addition, an Addition to Wichita, Sedgwick County, Kansas

PROTOTYPE:	P-74 (2/01/13)
DIVISION:	WICHITA
VERSION:	001
DESIGNED BY:	AS
DRAWN BY:	AL
REVIEWED BY:	MB

REV	DATE	DESCRIPTION
1	9/6/13	QT COMMENT REVISIONS
2	10/2/13	ADDED WEST DITCH LINER TO K-15 RCB
5	11/6/13	QT FINAL COMMENT REVISIONS
6	11/26/13	QT COMMENT REVISIONS

ORIGINAL ISSUE DATE: 08/26/13

SHEET TITLE:
SITE PLAN
(Decel Lane)

SHEET NUMBER:
4B

FILE LOCATION:W:\Projects\13.W008 QuikTrip Store 0313 Construction Plans\CAD Files\Dwg\Dwg & Pdf Submittals\Final Drawings\Files to COW 01-14-14\Drainage PPD.dwg TAB NAME:Site Plan 4B USER:ALopez SAVED:12/5/2013 9:03 AM PLOTTED:3/7/2014 9:49 AM

Drainage Summary Chart					
Drainage Basin ID	Basin Area (acres)	Percent Impervious	C Factor 100 yr	Tc (min)	100 yr Discharge (cfs)
A (off–site)	7.4	36%	0.59	14	30.1
A (on–site)	2.1	50%	0.67	10	12.3
B	0.2	13%	0.440	5	0.9

SITE DRAINAGE LEGEND

- X — DRAINAGE AREA LABEL
- STORM PIPE (> 12" EXISTING)
- MAJOR CONTOUR (EXISTING)
- MINOR CONTOUR (EXISTING)
- DRAINAGE AREA BOUNDARY
- Project Boundary

PROJECT NO.: 13.W008

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QuikTrip No. 0313R

2821 E 31ST S
Lot 1, Block A, QuikTrip 14th Addition, an Addition to Wichita, Sedgwick County, Kansas

PROTOTYPE: P-74 (2/01/13)
DIVISION: WICHITA
VERSION: 001
DESIGNED BY: AS
DRAWN BY: AL
REVIEWED BY: MB

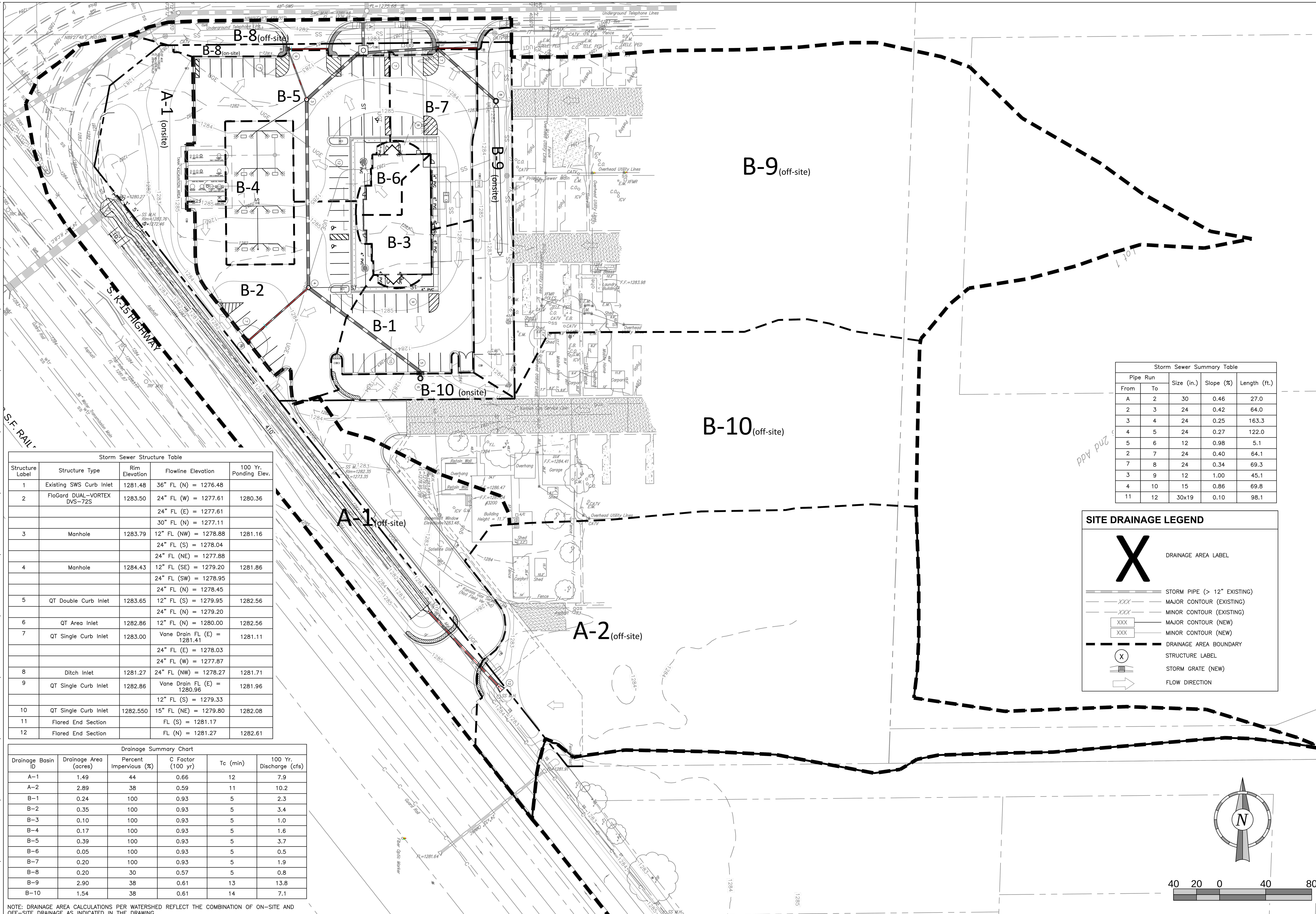
REV	DATE	DESCRIPTION
1	9/6/13	QT COMMENT REVISIONS
2	10/2/13	ADDED WEST DITCH LINER TO K-15 RCB
5	11/6/13	QT FINAL COMMENT REVISIONS
6	11/26/13	QT COMMENT REVISIONS

ORIGINAL ISSUE DATE: 08/26/13

SHEET TITLE: Pre-Development Drainage Map

SHEET NUMBER: 5

FILE LOCATION:W:\Projects\13.W008 QuikTrip Store 0313 Construction Plans\CAD Files\Dwg\Dwg & Pdf Submittals\Final Drawings\Files to COW 01-14-14\Drainage PPD.dwg TAB NAME:Pre Deve Map 5 USER:ALopez SAVED:12/5/2013 9:03 AM PLOTTED:3/7/2014 9:50 AM



SITE DRAINAGE LEGEND

X	DRAINAGE AREA LABEL
	STORM PIPE (> 12" EXISTING)
XXX	MAJOR CONTOUR (EXISTING)
XXX	MINOR CONTOUR (EXISTING)
XXX	MAJOR CONTOUR (NEW)
XXX	MINOR CONTOUR (NEW)
	DRAINAGE AREA BOUNDARY
X	STRUCTURE LABEL
	STORM GRATE (NEW)
	FLOW DIRECTION

Storm Sewer Structure Table

Structure Label	Structure Type	Rim Elevation	Flowline Elevation	100 Yr. Ponding Elev.
1	Existing SWS Curb Inlet	1281.48	36" FL (N) = 1276.48	
2	FloGard DUAL–VORTEX DVS–72S	1283.50	24" FL (W) = 1277.61	1280.36
			24" FL (E) = 1277.61	
			30" FL (N) = 1277.11	
3	Manhole	1283.79	12" FL (NW) = 1278.88	1281.16
			24" FL (S) = 1278.04	
			24" FL (NE) = 1277.88	
4	Manhole	1284.43	12" FL (SE) = 1279.20	1281.86
			24" FL (SW) = 1278.95	
			24" FL (N) = 1278.45	
5	QT Double Curb Inlet	1283.65	12" FL (S) = 1279.95	1282.56
			24" FL (N) = 1279.20	
6	QT Area Inlet	1282.86	12" FL (N) = 1280.00	1282.56
7	QT Single Curb Inlet	1283.00	Vane Drain FL (E) = 1281.41	1281.11
			24" FL (E) = 1278.03	
			24" FL (W) = 1277.87	
8	Ditch Inlet	1281.27	24" FL (NW) = 1278.27	1281.71
9	QT Single Curb Inlet	1282.86	Vane Drain FL (E) = 1280.96	1281.96
			12" FL (S) = 1279.33	
10	QT Single Curb Inlet	1282.550	15" FL (NE) = 1279.80	1282.08
11	Flared End Section		FL (S) = 1281.17	
12	Flared End Section		FL (N) = 1281.27	1282.61

Drainage Summary Chart

Drainage Basin ID	Drainage Area (acres)	Percent Impervious (%)	C Factor (100 yr)	Tc (min)	100 Yr. Discharge (cfs)
A–1	1.49	44	0.66	12	7.9
A–2	2.89	38	0.59	11	10.2
B–1	0.24	100	0.93	5	2.3
B–2	0.35	100	0.93	5	3.4
B–3	0.10	100	0.93	5	1.0
B–4	0.17	100	0.93	5	1.6
B–5	0.39	100	0.93	5	3.7
B–6	0.05	100	0.93	5	0.5
B–7	0.20	100	0.93	5	1.9
B–8	0.20	30	0.57	5	0.8
B–9	2.90	38	0.61	13	13.8
B–10	1.54	38	0.61	14	7.1

NOTE: DRAINAGE AREA CALCULATIONS PER WATERSHED REFLECT THE COMBINATION OF ON–SITE AND OFF–SITE DRAINAGE AS INDICATED IN THE DRAWING.

Storm Sewer Summary Table

Pipe Run		Size (in.)	Slope (%)	Length (ft.)
From	To			
A	2	30	0.46	27.0
2	3	24	0.42	64.0
3	4	24	0.25	163.3
4	5	24	0.27	122.0
5	6	12	0.98	5.1
2	7	24	0.40	64.1
7	8	24	0.34	69.3
3	9	12	1.00	45.1
4	10	15	0.86	69.8
11	12	30x19	0.10	98.1

FILE LOCATION:W:\Projects\13.W008 QuikTrip Store 0313 Construction Plans\CAD Files\Dwg\Dwg & Pdf Submittals\Final Drawings\Files to COW 01-14-14\Drainage PPD.dwg TAB NAME:Post Deve Map 6 USER:ALopez SAVED:12/5/2013 9:03 AM PLOTTED:3/7/2014 9:50 AM

ANNE STEPHENS LICENSED 19295 KANSAS PROFESSIONAL ENGINEER

PROJECT NO.: 13.W008

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QuikTrip No. 0313R

2821 E 31ST S
Lot 1, Block A, QuikTrip 14th Addition, an Addition to
Wichita, Sedgwick County, Kansas

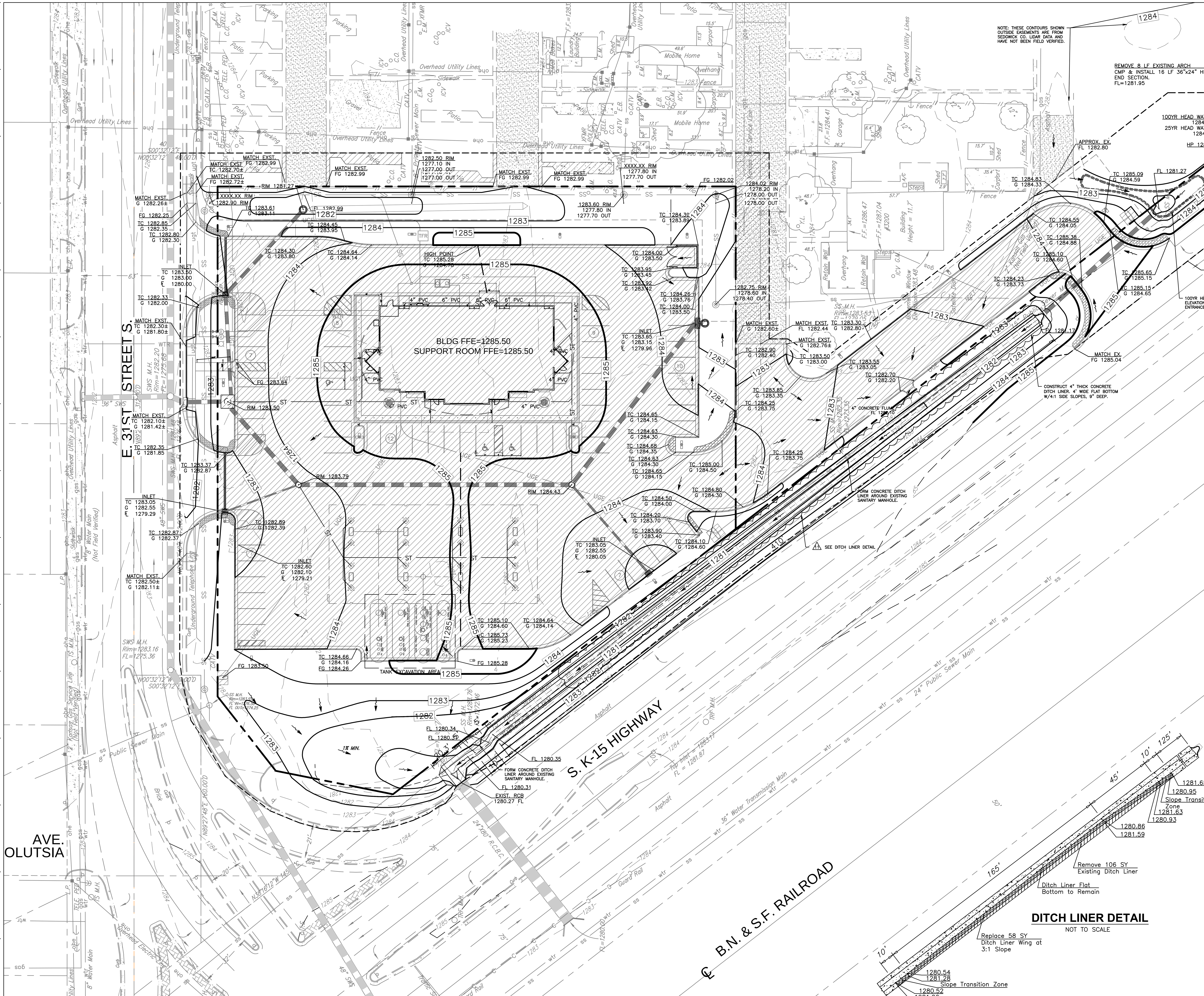
PROTOTYPE: P-74 (2/01/13)
DIVISION: WICHITA
VERSION: 001
DESIGNED BY: AS
DRAWN BY: AL
REVIEWED BY: MB

REV	DATE	DESCRIPTION
1	9/6/13	QT COMMENT REVISIONS
2	10/2/13	ADDED WEST DITCH LINER TO K-15 RCB
5	11/6/13	QT FINAL COMMENT REVISIONS
6	11/26/13	QT COMMENT REVISIONS

ORIGINAL ISSUE DATE: 08/26/13

SHEET TITLE:
POST-DEVELOPMENT DRAINAGE MAP

SHEET NUMBER:
6



GRADING LEGEND

ST	STORM PIPE (< 10" NEW)
	STORM PIPE (> 12" NEW)
	STORM PIPE (> 12" EXISTING)
FD	FRENCH DRAIN
CD	BACK OF CURB DRAIN
	MAJOR CONTOUR (NEW)
	MINOR CONTOUR (NEW)
XXX	MAJOR CONTOUR (EXISTING)
XXX	MINOR CONTOUR (EXISTING)
	LIMITS OF DISTURBANCE
TC XXXX.XX / G XXXX.XX	TOP OF CURB ELEVATION (NEW) / GUTTER ELEVATION (NEW)
FG XXXX.XX	FINISHED GRADE ELEVATION (NEW)
CC XXXX.XX / FG XXXX.XX	CANOPY CLEARANCE ELEVATION (NEW) / FINISHED GRADE ELEVATION (NEW)
TI XXXX.XX / TP XXXX.XX	TOP OF ISLAND ELEVATION (NEW) / TOP OF PAVEMENT ELEVATION (NEW) / TOP OF FOOTING ELEVATION (NEW)
	STORM GRATE (NEW)

CANOPY COLUMN EXTENDED FOOTING — STANDARD CANOPY COLUMN FOOTING

MULTIPLE PRODUCT DISPENSER WITH CANOPY COLUMNS AND BOLLARDS

MISCELLANEOUS GRADING NOTES

1. GAS CANOPY INSTALLER SHALL INSTALL THE CANOPY COLUMN DRAIN PIPE AND OVERFLOW FITTING. THE STORM WATER INSTALLER SHALL CONNECT THEIR PIPING TO THE GAS INSTALLER'S OVERFLOW FITTING.
2. TO AVOID ANY DEFINED CRESTS OR SUMPS, "GRADE BREAKS" SHALL BE CONSTRUCTED AS A "VERTICAL CURVE". SURVEYOR & CONTRACTOR SHALL CONFER WITH QUIKTRIP CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION STAKING OR CONCRETE PLACEMENT RELATIVE TO ANY GRADE BREAKS.
3. WHEN PLAN GRADES DEPICT RUNOFF TO BE DIRECTED AWAY FROM THE CURB, USE DRAIN AWAY CURB ALTERNATE. (RE: "CURB DETAIL–BARRIER" PD009A00X DETAIL)

30 15 0 30 60

ANNE STEPHENS LICENSED 19299 KANSAS PROFESSIONAL ENGINEER — July 24, 2014

PROJECT NO.: 13.W008

Schwab Eaton
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QuikTrip No. 0313R

K-15 & 31ST STREET SOUTH
Lot 1, Block A, QuikTrip 14th Addition, an Addition to Wichita, Sedgwick County, Kansas

PROTOTYPE: P-76 (8/01/13)
DIVISION: WICHITA
VERSION: 001
DESIGNED BY: AS
DRAWN BY: AL
REVIEWED BY: MB

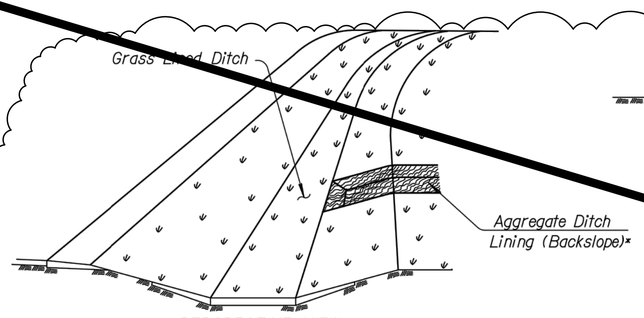
REV	DATE	DESCRIPTION
4	10/16/13	REVISION TO ADA DETAIL F11, SHEET C510
5	11/6/13	QT FINAL COMMENT REVISIONS
6	11/26/13	KDOT COMMENT REVISIONS
7	03/11/14	PPP # ON TITLE SHEET
8	06/11/14	REVISED RADIUS @ DECEL ENTRANCE
9	06/18/14	REVISED FL @ DECEL ENTRANCE
10	06/25/14	UPDATE QT SIGN
11	07/24/14	REVISIONS TO CONCRETE DITCH LINER

ORIGINAL ISSUE DATE: 08/26/2013

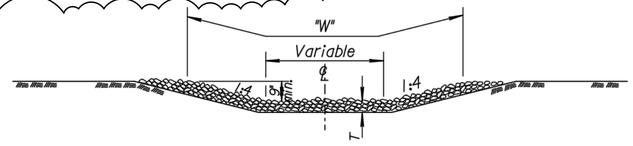
SHEET TITLE: GRADING PLAN

SHEET NUMBER: 7

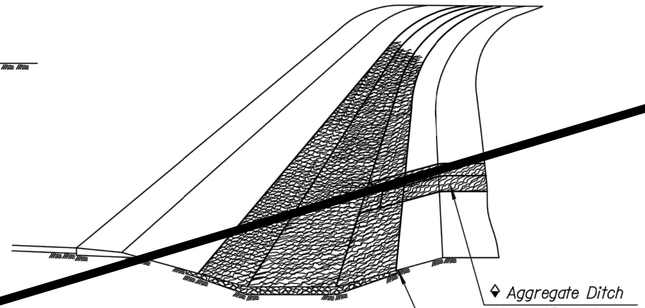
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS				



PERSPECTIVE VIEW
(Backslope Dt. Lining without Highway Dt. Lining)



CROSS SECTION (Backslope)



Where select soil is specified adjust slopes to match edge of aggregate lining.

PERSPECTIVE VIEW

GENERAL NOTE

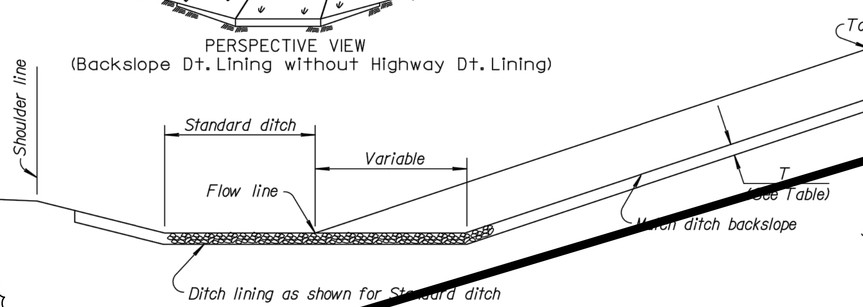
All work and materials required for this construction shall be paid for by the ton of "Aggregate Ditch Lining (D_{50})".

Dumped aggregate shall be spread in reasonable conformity with the ditch section as shown and as directed by the Engineer.

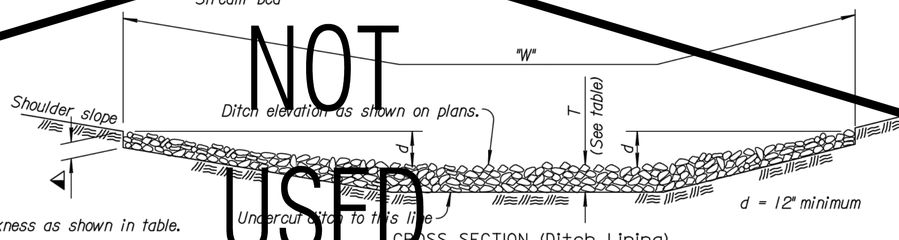
Aggregate Ditch Lining shall be measured and paid for by the ton in the vehicle at the location designated by the Engineer and shall be full compensation for excavation for undercutting, furnishing, hauling, placing and maintaining the material as specified to complete the work.

The weight of the aggregate is based on a standard density of 120 PCF. When the standard density of the material is more or less than 120 PCF, the thickness may vary correspondingly.

♦ Backslope aggregate ditch lining, constructed as indicated on this sheet, shall be paid for by the ton of "Aggregate Ditch Lining (D_{50})."



LONGITUDINAL SECTION (Backslope)



▲ Feather edges to nominal thickness as shown in table.

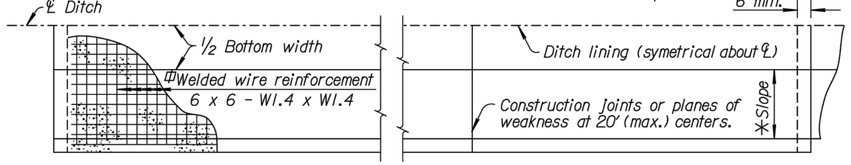
CROSS SECTION (Ditch Lining)

			QUANTITIES FOR TYPICAL 10' DITCH with 6:1 shoulder slope & 4:1 backslope			
			Approx. Excavation per Station (cu.yd.)			
D_{50}	T	▲	d = 1.0	d = 2.0	d = 3.0	d = 4.0
4"	12"	8"	68	99	130	161
6"	18"	12"	102	148	195	241

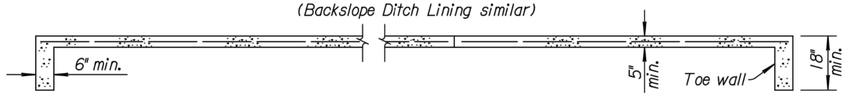
Note: Quantities provided for information only.

AGGREGATE DITCH LINING (D_{50})

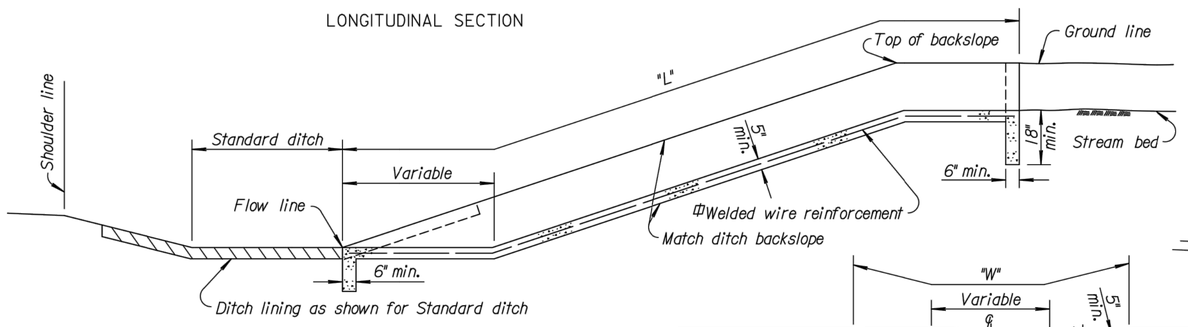
5



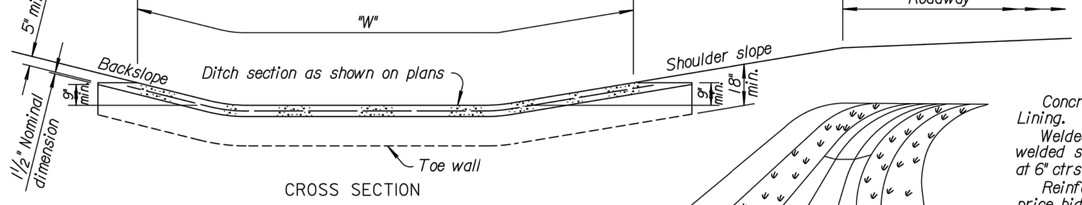
HALF PLAN
(Backslope Ditch Lining similar)



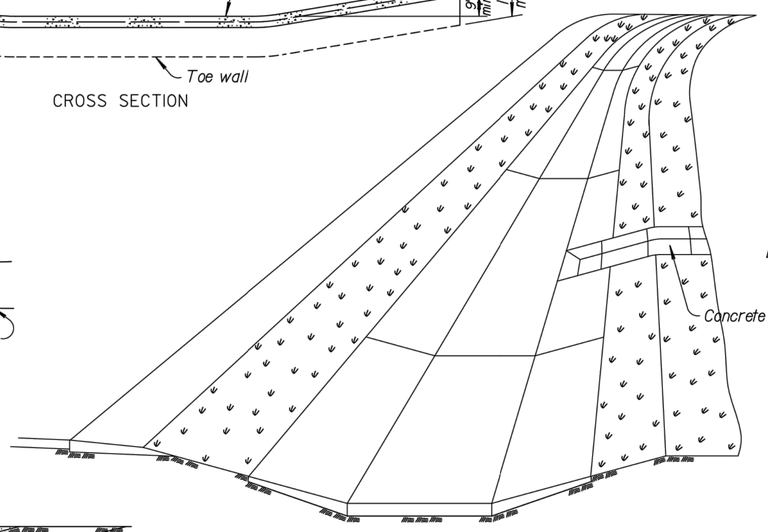
LONGITUDINAL SECTION



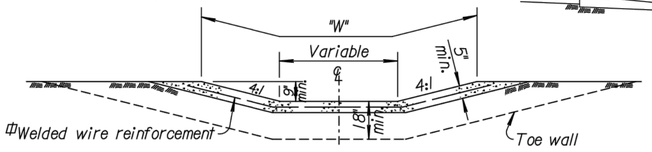
LONGITUDINAL SECTION (Backslope)



CROSS SECTION



PERSPECTIVE VIEW



CROSS SECTION (Backslope)

GENERAL NOTE

Concrete Grade 3.0 shall be used in Concrete Ditch Lining.

Welded wire reinforcement shall be of the electrically welded square mesh type with No. W1.4 wires spaced at 6" ctrs. each way.

Reinforcement as shown is included in the unit price bid for "Concrete Ditch Lining".

Measurements of Concrete Ditch Lining shall be in sq. yds. of outside surface area. Add 1'-6" times "W" for each toewall.

The exact location and dimensions may be adjusted, if required, by the Engineer at the time of construction.

Longitudinal construction joints may be constructed at the Contractor's option.

Welded wire can be substituted with micro fiber reinforcement. See Standard Specifications for micro fiber and application rate requirements.

CONCRETE DITCH LINING

NO.	DATE	REVISIONS	BY	APP'D
9	8-1-12	Revised General Note	S.W.K.	J.O.B.
8	3-20-08	Rev. agg. edge thickness and quant.	S.W.K.	J.O.B.
7	11-07-07	Revised aggregate to 120 PCF	S.W.K.	J.O.B.
6	3-22-05	Changed conc. grade, reinforcing	S.W.K.	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

DITCH LINING

RD502 7A

FHWA APPROVAL	9-10-12	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. King

KDOT Graphics Certified 09-11-2012

KDOT Graphics Certified

Plotted : 11-SEP-2012 12:40

Drawn By : trhoads
File : rd502.dgn

EROSION CONTROL PHASE 1 LEGEND

—— XXX ——	MAJOR CONTOUR (EXISTING)
—— XXX ——	MINOR CONTOUR (EXISTING)
—— SF ——	SILT FENCE
— — — — —	LIMITS OF DISTURBANCE
▭ ▭ ▭	DRIVE ENTRANCE BARRICADE
▩	INLET PROTECTION
⬡	TEMPORARY STABILIZED CONSTRUCTION ENTRANCE

ACREAGE SUMMARY

IMPERVIOUS AREA	±0.89 ACRES
LANDSCAPE AREA	±1.66 ACRES
TOTAL DISTURBED	±2.55 ACRES

OWNERSHIP / CONTRACTOR SUMMARY

OWNER/DEVELOPER:
QUIKTRIP CORPORATION
4705 S 129th East Ave
Tulsa, OK 74134–7008
(918) 615–7381

SITE OPERATOR/GENERAL CONTRACTOR:
TBD

SUPERINTENDENT:
TBD

ANNE STEPHENS
LICENSED
19299
KANSAS
PROFESSIONAL ENGINEER
12.8.2013

PROJECT NO.: 13.W008

Schwab Eaton
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QuikTrip No. 0313R

2821 E 31ST S
Lot 1, Block A, QuikTrip 14th Addition, an Addition to
Wichita, Sedgwick County, Kansas

QT

PROTOTYPE: P-74 (2/01/13)
DIVISION: WICHITA
VERSION: 001
DESIGNED BY: AS
DRAWN BY: AL
REVIEWED BY: MB

REV	DATE	DESCRIPTION
1	9/6/13	QT COMMENT REVISIONS
2	10/2/13	ADDED WEST DITCH LINER TO K-15 RCB
5	11/6/13	QT FINAL COMMENT REVISIONS
6	11/26/13	QT COMMENT REVISIONS

ORIGINAL ISSUE DATE: 08/26/13

SHEET TITLE:
EROSION CONTROL
PHASE 1

SHEET NUMBER:
8

FILE LOCATION:W:\Projects\13.W008 QuikTrip Store 0313 Construction Plans\CAD Files\Dwg\Dwg & Pdf Submittals\Final Drawings\Files to COW 01-14-14\Drainage PPD.dwg TAB NAME:ErosionControl Ph 2 9 USER:ALopez SAVED:12/5/2013 9:03 AM PLOTTED:3/7/2014 9:53 AM

EROSION CONTROL PHASE 2 LEGEND

—— XXX ——	MAJOR CONTOUR (EXISTING)
—— XXX ——	MINOR CONTOUR (EXISTING)
————	MAJOR CONTOUR (NEW)
————	MINOR CONTOUR (NEW)
▥	STORM GRATE (NEW)
—— SF ——	SILT FENCE
— — — —	LIMITS OF DISTURBANCE
▭ ▭ ▭	DRIVE ENTRANCE BARRICADE
▩	INLET PROTECTION
⬡	TEMPORARY STABILIZED CONSTRUCTION ENTRANCE

ACREAGE SUMMARY

IMPERVIOUS AREA	±2.07 ACRES
LANDSCAPE AREA	±0.49 ACRES
TOTAL DISTURBED	±2.56 ACRES

OWNERSHIP / CONTRACTOR SUMMARY

OWNER/DEVELOPER:
QUIKTRIP CORPORATION
4705 S 129th East Ave
Tulsa, OK 74134–7008
(918) 615–7381

SITE OPERATOR/GENERAL CONTRACTOR:
TBD

SUPERINTENDENT:
TBD

ANNE STEPHENS
LICENSED
19299
PROFESSIONAL ENGINEER
KANSAS
Nov 8 2013

PROJECT NO.: 13.W008

Schwab Eaton
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QuikTrip No. 0313R

2821 E 31ST S
Lot 1, Block A, QuikTrip 14th Addition, an Addition to
Wichita, Sedgwick County, Kansas

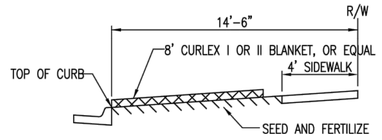
PROTOTYPE: P-74 (2/01/13)
DIVISION: WICHITA
VERSION: 001
DESIGNED BY: AS
DRAWN BY: AL
REVIEWED BY: MB

REV	DATE	DESCRIPTION
1	9/6/13	QT COMMENT REVISIONS
2	10/2/13	ADDED WEST DITCH LINER TO K-15 RCB
5	11/6/13	QT FINAL COMMENT REVISIONS
6	11/26/13	QT COMMENT REVISIONS

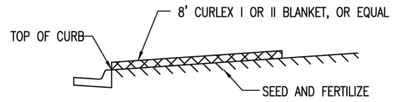
ORIGINAL ISSUE DATE: 08/26/13

SHEET TITLE:
EROSION CONTROL
PHASE 2

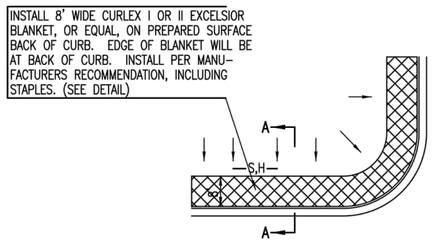
SHEET NUMBER:



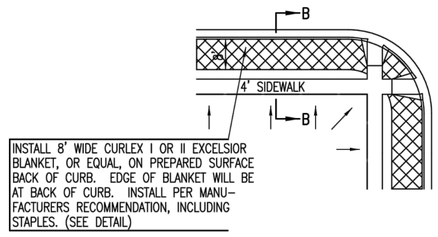
SECTION B-B



SECTION A-A



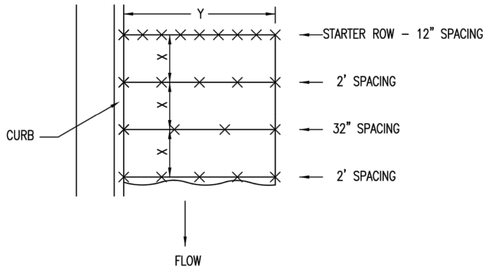
SOUTH STREET

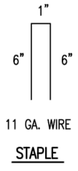


GENERAL NOTES

1. EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
2. EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
3. 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



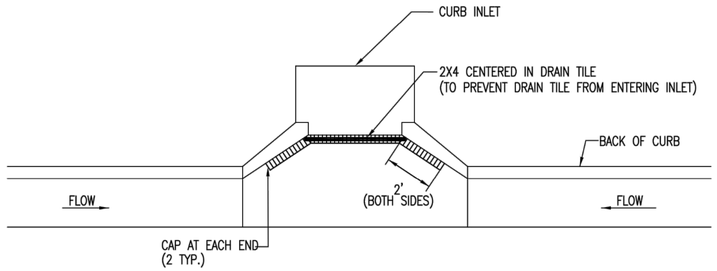


STAPLE

STAPLE PATTERN

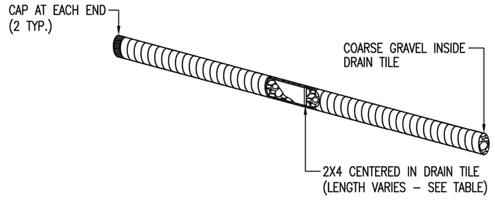
NOTES: USE 6" SEAM OVERLAP
(X & Y = RECOMMENDED BY MANUFACTURE)

DETAILS FOR APPROVED EROSION CONTROL MAT



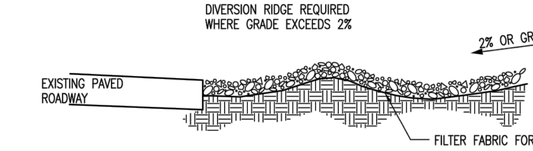
NOTE:
PLACE 4" PERFORATED PVC PIPE, FILLED WITH 1/2"-1" DIA. GRAVEL, IN FRONT OF CURB INLET AS SHOWN.

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



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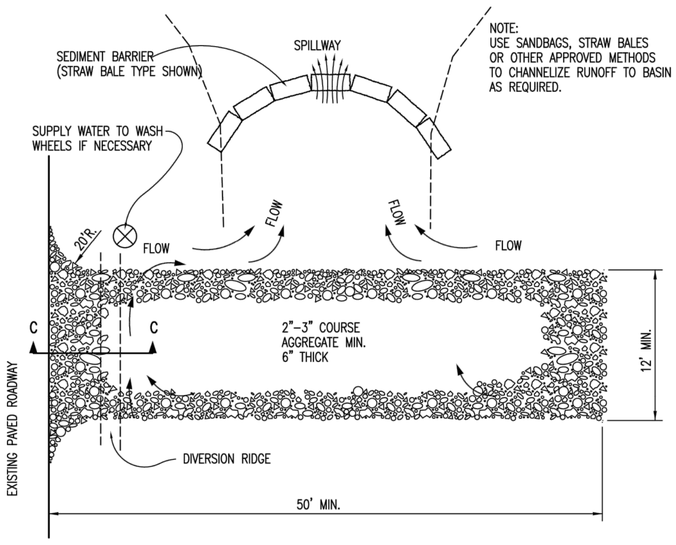


STABILIZED CONSTRUCTION ENTRANCE

GENERAL NOTES

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

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

BACK OF CURB PROTECTION, CURB INLET PROTECTION AND CONSTRUCTION ENTRANCE

CITY ENGINEER
GARY JANZEN, P.E.

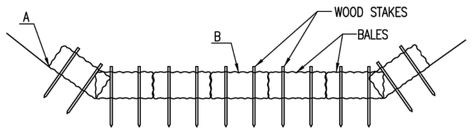
PROJECT NUMBER	OCA NUMBER	DATE
		08/2012

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

SHEET 10

SW-501

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



STRAW BALE DITCH CHECKS

MATERIAL SPECIFICATION:

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

PLACEMENT:

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

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

PROPER INSTALLATION METHOD:

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

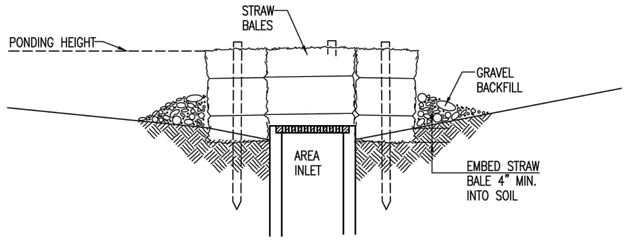
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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

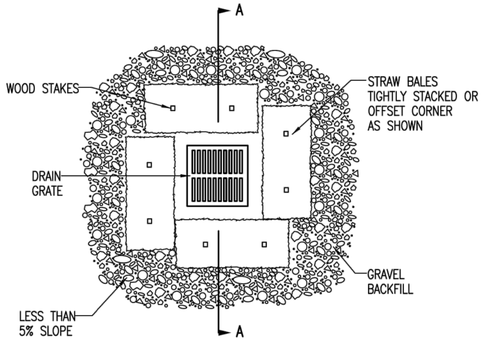
INSPECTION AND MAINTENANCE:

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

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



SECTION A-A



STRAW BALE BARRIERS FOR AREA INLETS

(INLET PROTECTION)

MATERIAL SPECIFICATION:

BALE AREA INLET BARRIERS SHOULD BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE.
THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG.
TWINE SHOULD BE USED TO BIND BALES. THE USE OF WIRE BINDING IS PROHIBITED BECAUSE IT DOES NOT BIODEGRADE READILY.

PLACEMENT:

BALE AREA INLET BARRIERS SHOULD BE PLACED DIRECTLY AROUND THE PERIMETER OF A DROP INLET.
WHEN A BALE AREA INLET BARRIER IS LOCATED NEAR AN INLET THAT HAS STEEP APPROACH SLOPES, THE STORAGE CAPACITY BEHIND THE BARRIER IS DRASTICALLY REDUCED. TIMELY REMOVAL OF SEDIMENT MUST OCCUR FOR A BARRIER TO OPERATE PROPERLY IN THIS LOCATION.

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH AROUND THE PERIMETER OF THE AREA INLET THAT IS AT LEAST 4" DEEP BY A BALE'S WIDTH WIDE.
PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. SOME BALES MAY NEED TO BE SHORTENED TO FIT INTO THE TRENCH AROUND THE AREA INLET. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS.
STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND.
ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE RECEIVING SIDE OF THE BARRIER AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP.
NOTE: WHEN A BALE AREA INLET BARRIER IS PLACED IN A SHALLOW MEDIAN DITCH, MAKE SURE THAT THE TOP OF THE BARRIER IS NOT HIGHER THAN THE PAVED ROAD. IN THIS CONFIGURATION, WATER MAY SPREAD ONTO THE ROADWAY CAUSING A HAZARDOUS CONDITION.

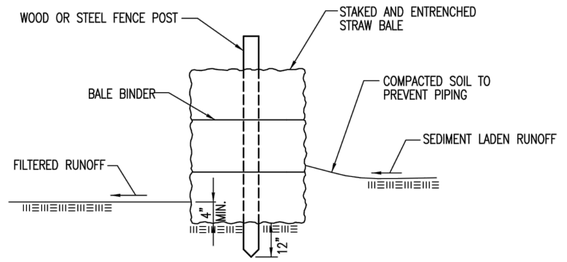
LIST OF COMMON PLACEMENT INSTALLATION MISTAKES TO AVOID:

BALES SHOULD BE PLACED DIRECTLY AGAINST THE PERIMETER OF THE AREA INLET. THIS ALLOWS OVERTOPPING WATER TO FLOW DIRECTLY INTO THE INLET INSTEAD OF ONTO NEARBY SOIL CAUSING SCOUR.
BALE AREA INLET BARRIERS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE BARRIER.

INSPECTION AND MAINTENANCE:

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

DOES WATER FLOW UNDER THE AREA INLET BARRIER?
DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
ARE ANY BALES DISLODGED?
ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE AREA INLET BARRIER?



STRAW BALE BARRIERS

MATERIAL SPECIFICATION:

BALE SLOPE BARRIERS MAY BE CONSTRUCTED OF WHEAT STRAW, OAT STRAW, PRAIRIE HAY, OR BROMEGRASS HAY THAT IS FREE OF WEEDS DECLARED NOXIOUS BY THE KANSAS STATE BOARD OF AGRICULTURE.
THE STAKES USED TO ANCHOR THE BALES SHOULD BE A HARDWOOD MATERIAL WITH THE FOLLOWING MINIMUM DIMENSIONS: 2" SQUARE (NOMINAL) BY 4' LONG.
TWINE SHOULD BE USED TO BIND BALES. THE USE OF WIRE BINDING IS PROHIBITED BECAUSE IT DOES NOT BIODEGRADE READILY.

PLACEMENT:

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

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 4" DEEP AND A BALE'S WIDTH WIDE. MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE.
PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE ALONG THE CENTERLINE OF THE DITCH CHECK, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND.
ONCE ALL THE BALES HAVE BEEN INSTALLED AND ANCHORED, PLACE THE EXCAVATED SOIL AGAINST THE UPSLOPE SIDE OF THE CHECK AND COMPACT IT. THE COMPACTED SOIL SHOULD BE NO MORE THAN 3" TO 4" DEEP.

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

WHEN PRACTICAL, DO NOT PLACE BALE SLOPE BARRIERS ACROSS CONTOURS. SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. CONCENTRATED FLOW OVER A SLOPE BARRIER CREATES A SCOUR HOLE ON THE DOWNSLOPE SIDE OF THE BARRIER. THE SCOUR HOLE EVENTUALLY UNDERMINES THE BALES AND THE BARRIER FAILS.
DO NOT PLACE BALE SLOPE BARRIERS IN AREAS WITH SHALLOW SOILS UNDERLAIN BY ROCK. IF THE BARRIER IS NOT ANCHORED SUFFICIENTLY, IT WILL WASH OUT.
BALE SLOPE BARRIERS MUST BE DUG INTO THE GROUND. BALES AT GROUND LEVEL DO NOT WORK BECAUSE THEY ALLOW WATER TO FLOW UNDER THE BARRIER.

INSPECTION AND MAINTENANCE:

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

ARE THERE ANY POINTS ALONG THE SLOPE BARRIER WHERE WATER IS CONCENTRATING?
DOES WATER FLOW UNDER THE SLOPE BARRIER?
DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
ARE ANY BALES DISLODGED?
ARE BALES DECOMPOSING DUE TO AGE AND/OR WATER DAMAGE?
DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

STRAW BALE DITCH CHECK AND BARRIER DETAILS

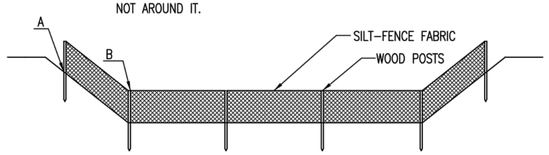
CITY ENGINEER
GARY JANZEN, P.E.

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

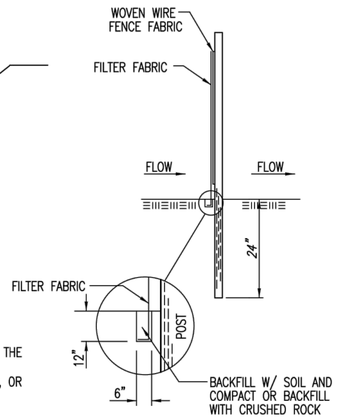
SHEET 11

NOTE: POINT A MUST BE HIGHER THAN POINT B SO THAT WATER FLOWS OVER THE SILT FENCE FABRIC AND NOT AROUND IT.



ELEVATION

SILT FENCE DITCH CHECKS
(STREAM PROTECTION)



ANCHOR TRENCH DETAIL

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.

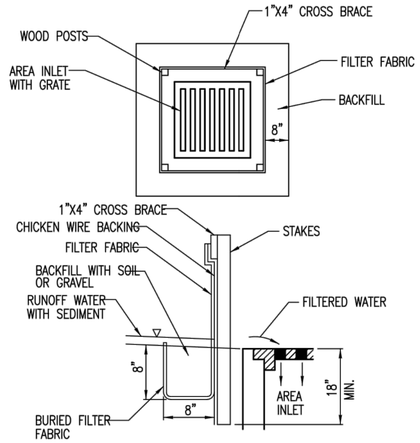
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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?



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.

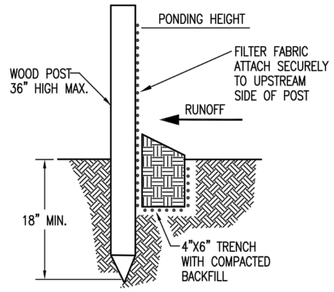
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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?

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

SILT FENCE DITCH CHECK AND BARRIER DETAILS

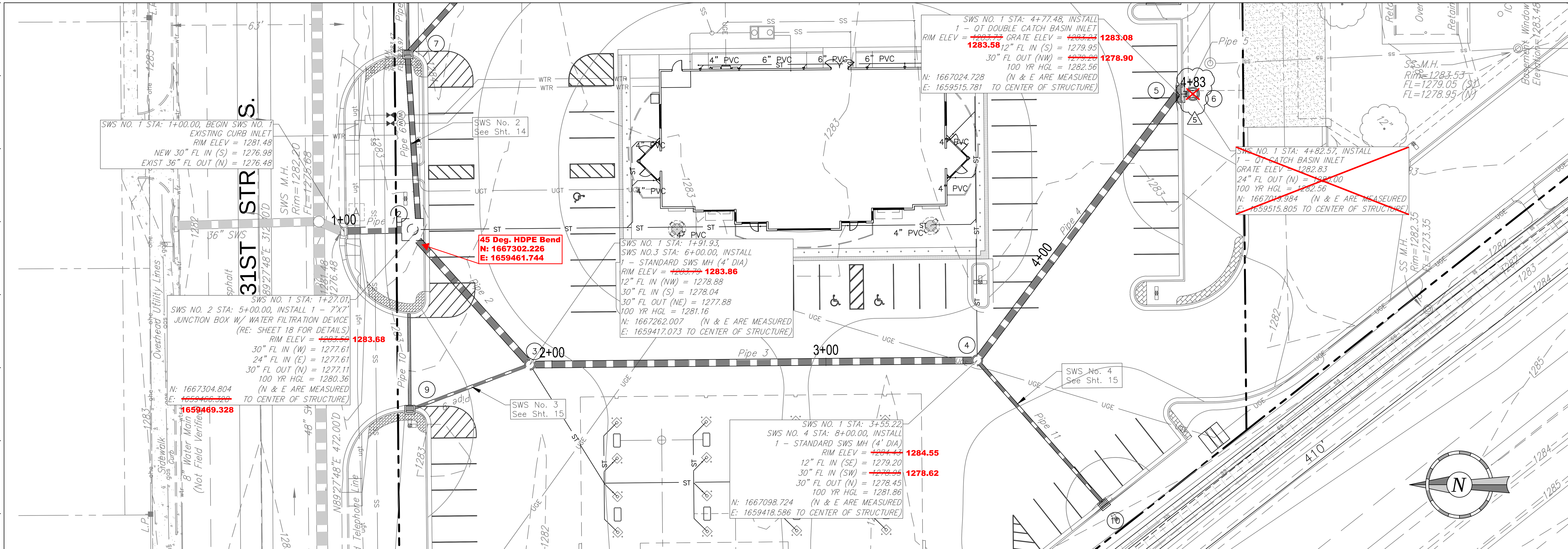
CITY ENGINEER
GARY JANZEN, P.E.

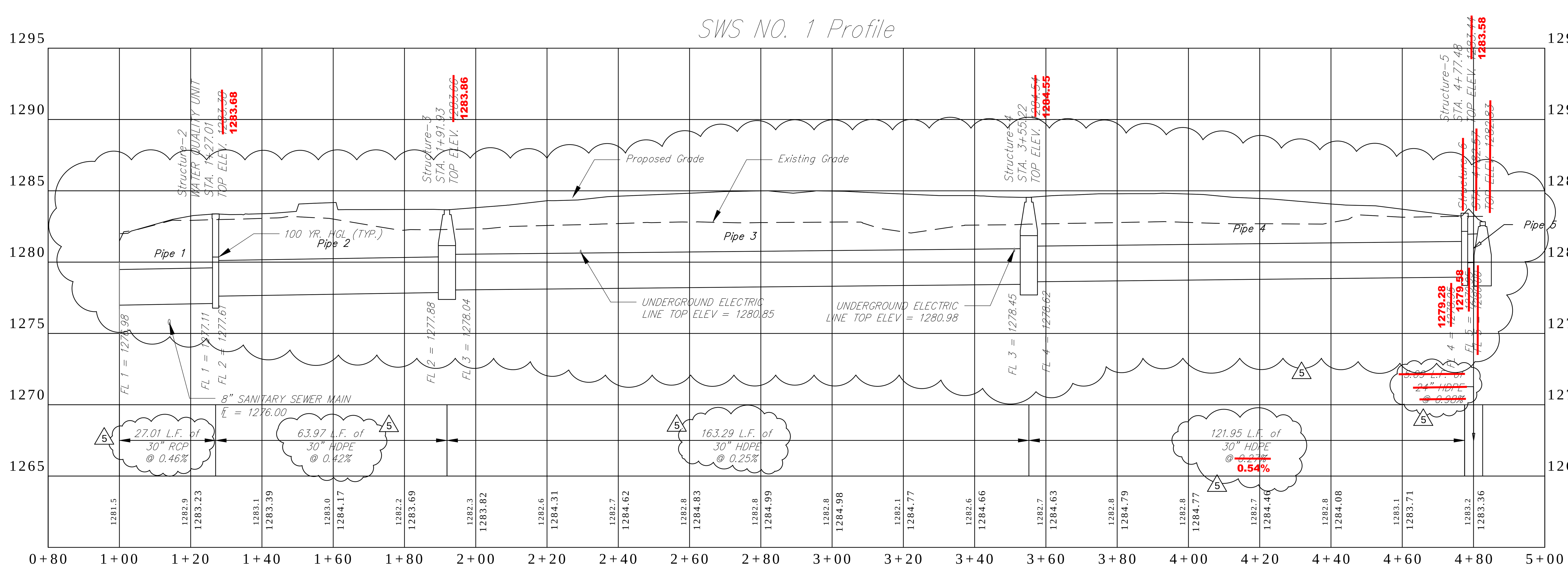
PROJECT NUMBER	OCA NUMBER	DATE
		11/2010

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

SHEET 12

SW–502





PROJECT NO.: 13.W008

Schwab Eaton

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Wichita, Kansas
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QuikTrip No. 0313R

2821 E 31ST S

Lot 1, Block A, QuikTrip 14th Addition, an Addition to Wichita, Sedgwick County, Kansas

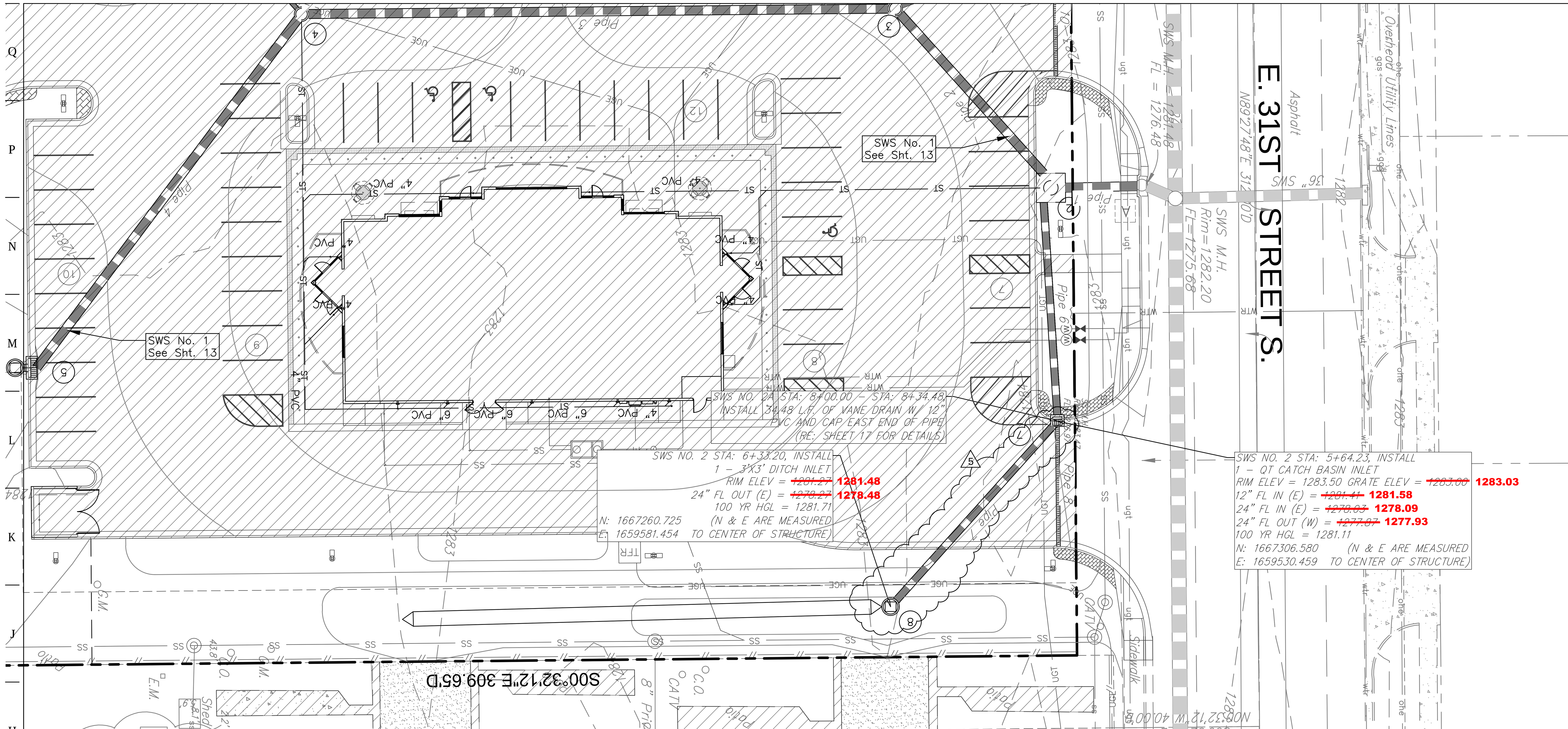
PROTOTYPE: P-74 (2/01/13)
DIVISION: WICHITA
VERSION: 001
DESIGNED BY: AS
DRAWN BY: AL
REVIEWED BY: MB

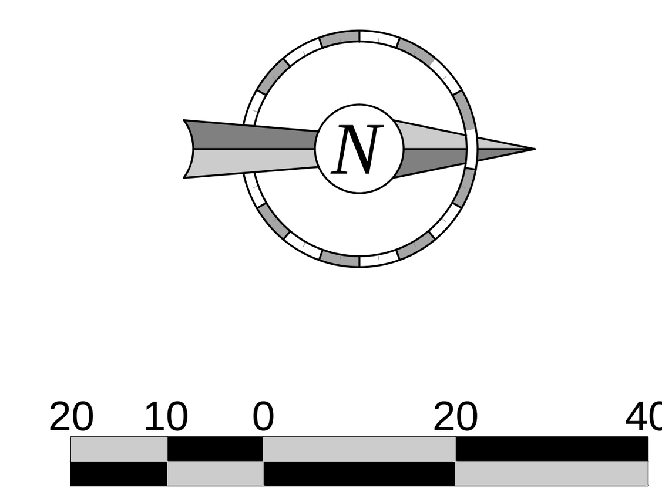
REV	DATE	DESCRIPTION
1	9/6/13	QT COMMENT REVISIONS
2	10/2/13	ADDED WEST DITCH LINER TO K-15 RCB
5	11/6/13	QT FINAL COMMENT REVISIONS
6	11/26/13	QT COMMENT REVISIONS

ORIGINAL ISSUE DATE: 08/26/13

SHEET TITLE:
SWS PLAN & PROFILE 1

SHEET NUMBER:
13





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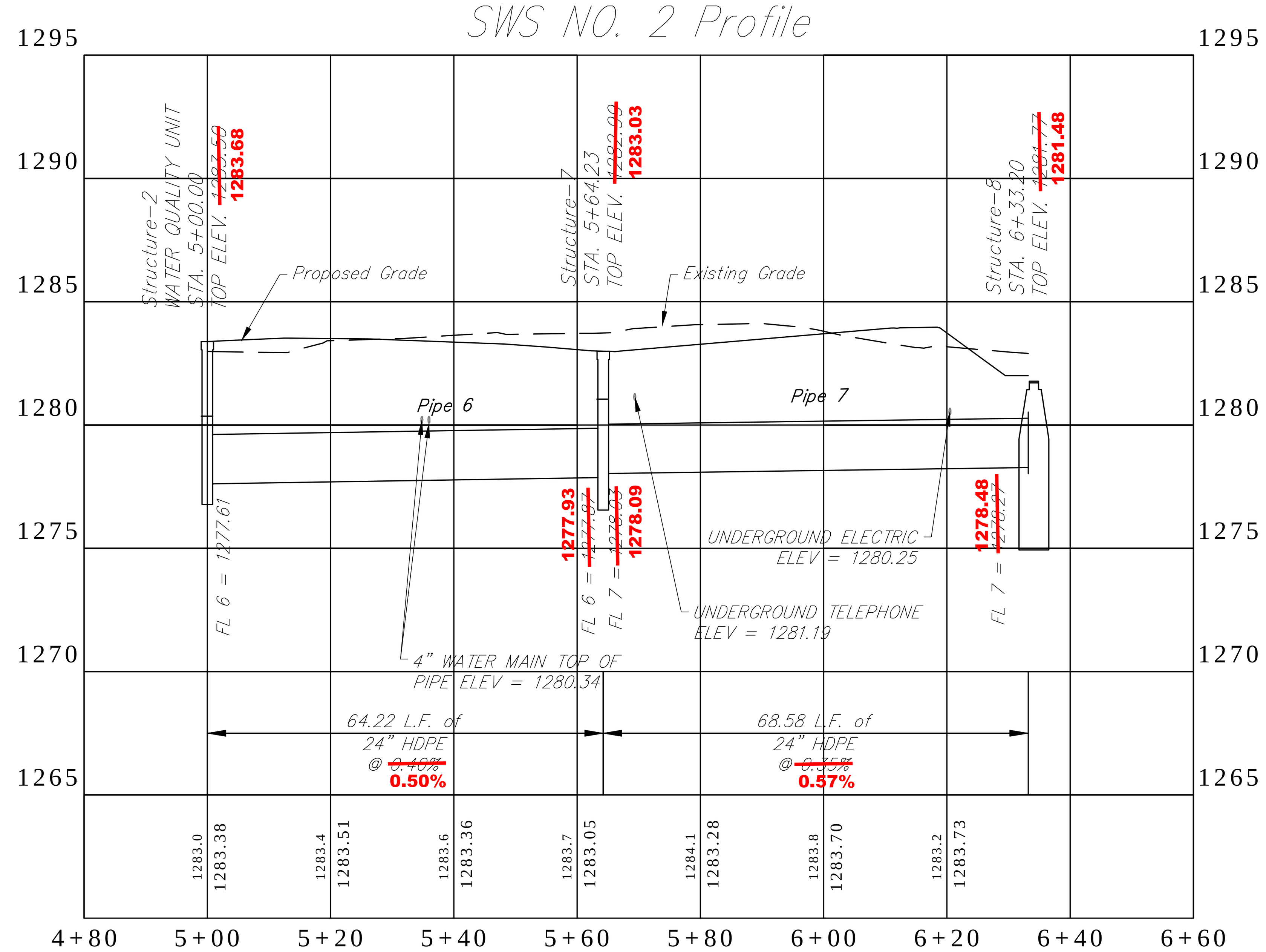

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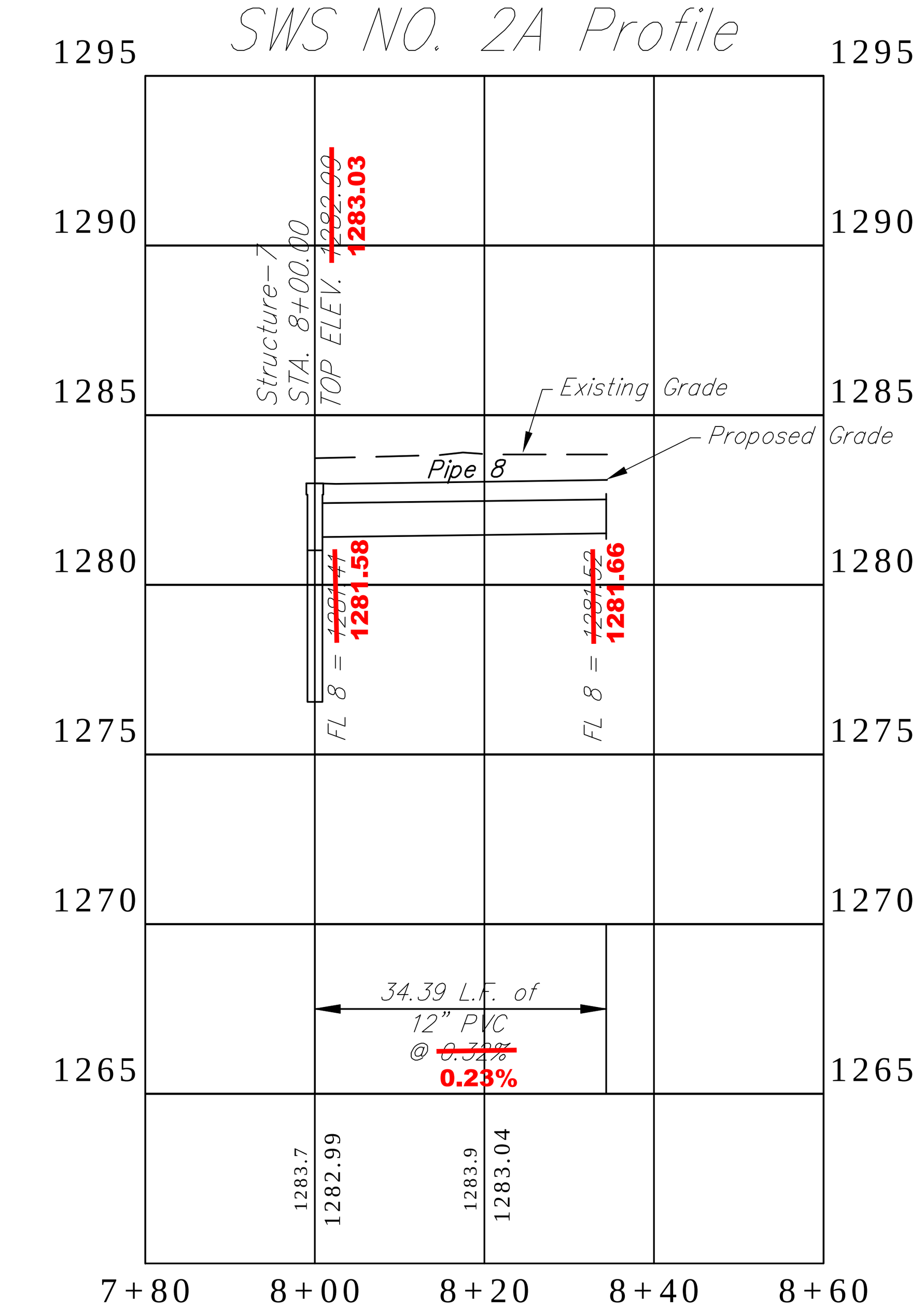

PROJECT NO.: 13.W008

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QuikTrip No. 0313R

2821 E 31ST S
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PROTOTYPE: P-74 (2/01/13)
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VERSION: 001
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DRAWN BY: AL
REVIEWED BY: MB

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6	11/26/13	QT COMMENT REVISIONS

ORIGINAL ISSUE DATE: 08/26/13

SHEET TITLE:
SWS PLAN & PROFILE 2

SHEET NUMBER:
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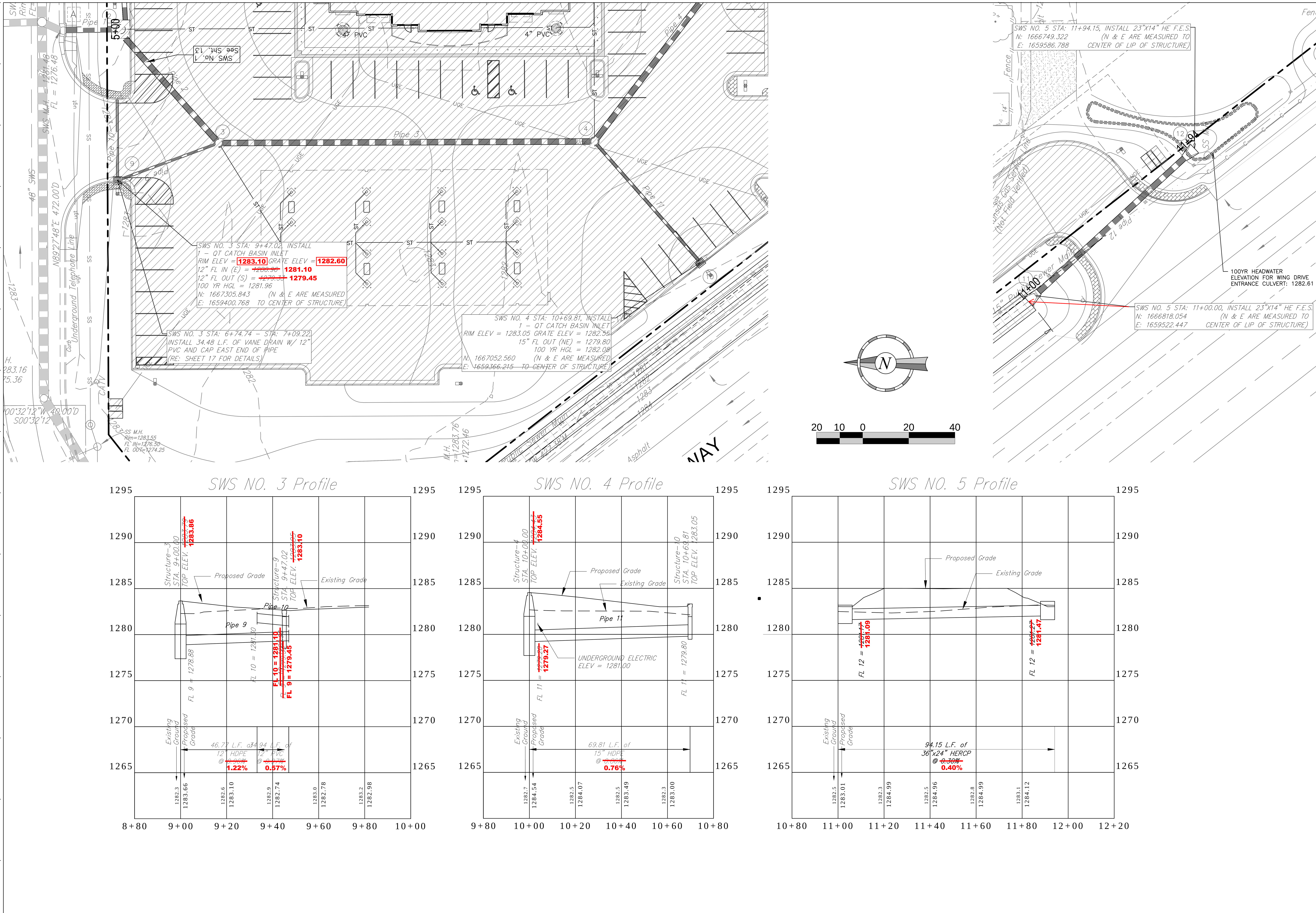

PROJECT NO.: 13.W008

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QuikTrip No. 0313R

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6	11/26/13	QT COMMENT REVISIONS

ORIGINAL ISSUE DATE: 08/26/13

SHEET TITLE:
SWS PLAN & PROFILE 3

SHEET NUMBER:
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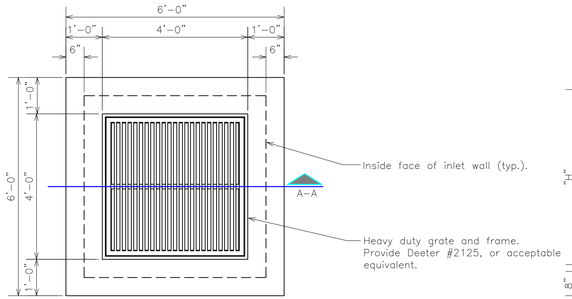
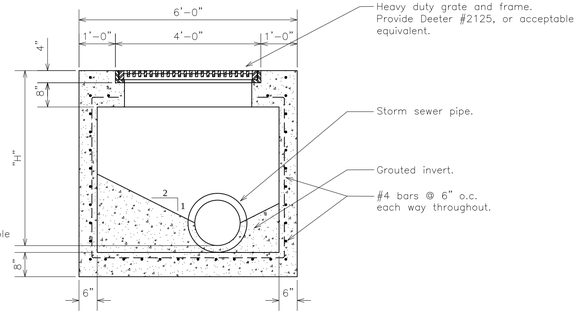
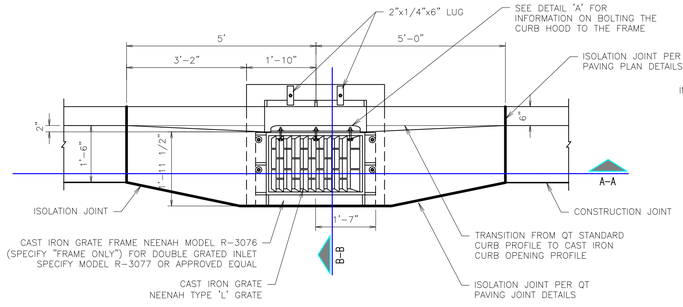


PLAN VIEW - DITCH INLET

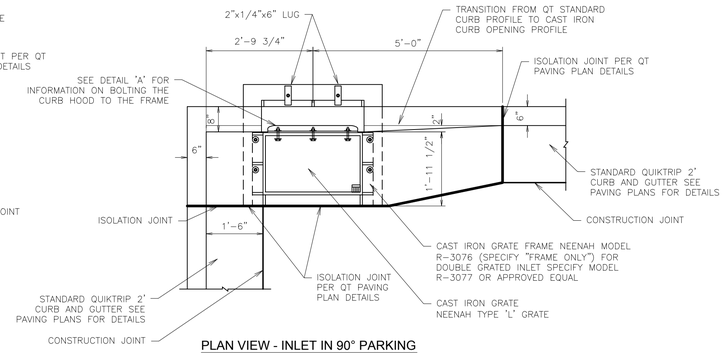


SECTION A-A

L1	DITCH INLET DETAIL
NTS	14

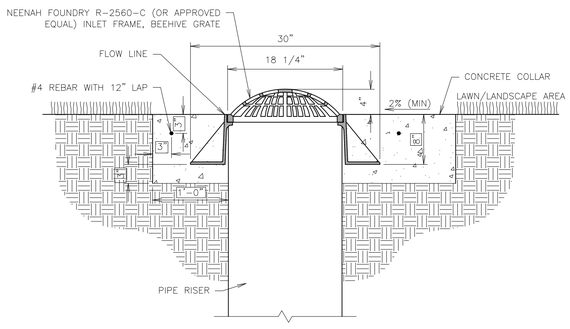


PLAN VIEW - INLET ON CONTINUOUS GRADE

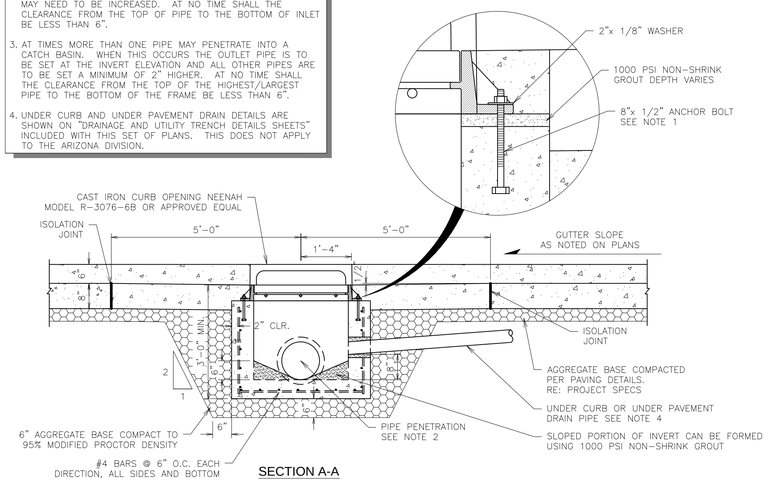


PLAN VIEW - INLET IN 90° PARKING

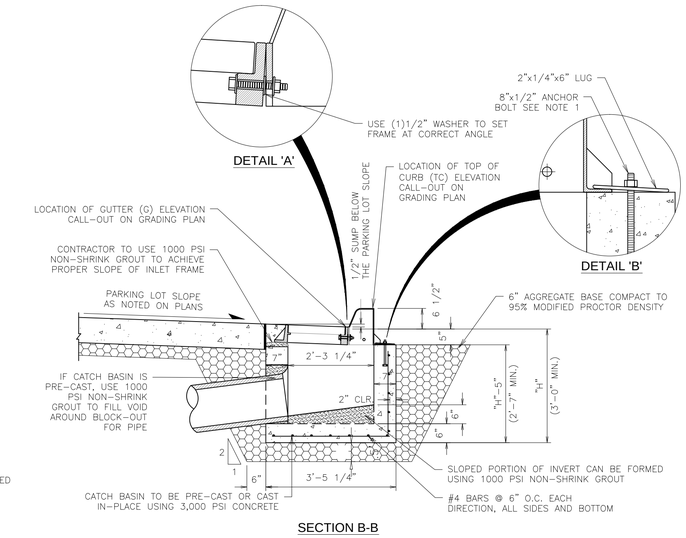
1. CONTRACTOR CAN SUBSTITUTE HILTI DRILLED BOLT SYSTEM FOR ANCHOR BOLT SET IN CONCRETE FOR EASE OF CONSTRUCTION
2. 12" PIPE IS THE MINIMUM PIPE SIZE ACCEPTED BY QUIKTRIP. PIPE TYPE MAY VARY BY REGION AND MUNICIPALITY. IF HYDRAULICS REQUIRES A LARGER PIPE, DEPTH OF THE INLET MAY NEED TO BE INCREASED. AT NO TIME SHALL THE CLEARANCE FROM THE TOP OF PIPE TO THE BOTTOM OF INLET BE LESS THAN 6".
3. AT TIMES MORE THAN ONE PIPE MAY PENETRATE INTO A CATCH BASIN. WHEN THIS OCCURS THE OUTLET PIPE IS TO BE SET AT THE INVERT ELEVATION AND ALL OTHER PIPES ARE TO BE SET A MINIMUM OF 2" HIGHER. AT NO TIME SHALL THE CLEARANCE FROM THE TOP OF THE HIGHEST/LARGEST PIPE TO THE BOTTOM OF THE FRAME BE LESS THAN 6".
4. UNDER CURB AND UNDER PAVEMENT DRAIN DETAILS ARE SHOWN ON "DRAINAGE AND UTILITY TRENCH DETAILS SHEETS" INCLUDED WITH THIS SET OF PLANS. THIS DOES NOT APPLY TO THE ARIZONA DIVISION.



A1	BEEHIVE INLET R-2560-C - CONCRETE COLLAR DETAIL
NTS	SN: DD018B001



SECTION A-A



SECTION B-B

A6	CATCH BASIN INLET DETAIL (SINGLE)
NTS	SN: DD001A007

JAMIE STEPHENS
LICENSED PROFESSIONAL ENGINEER
1929
12/18/2013
KANSAS
PROFESSIONAL ENGINEER

PROJECT NO.: 13.W008

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QuikTrip No. 0313R

2821 E 31ST S

Lot 1, Block A, QuikTrip 14th Addition, an Addition to Wichita, Sedgwick County, Kansas

PROTOTYPE:	P-74 (2/01/13)
DIVISION:	WICHITA
VERSION:	001
DESIGNED BY:	AS
DRAWN BY:	AL
REVIEWED BY:	MB

REV	DATE	DESCRIPTION
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2	10/2/13	ADDED WEST DITCH LINER TO K-15 RCB
5	11/6/13	QT FINAL COMMENT REVISIONS
6	11/26/13	QT COMMENT REVISIONS

ORIGINAL ISSUE DATE: 08/26/13

SHEET TITLE:

QT DRAINAGE DETAILS 1

SHEET NUMBER:

16

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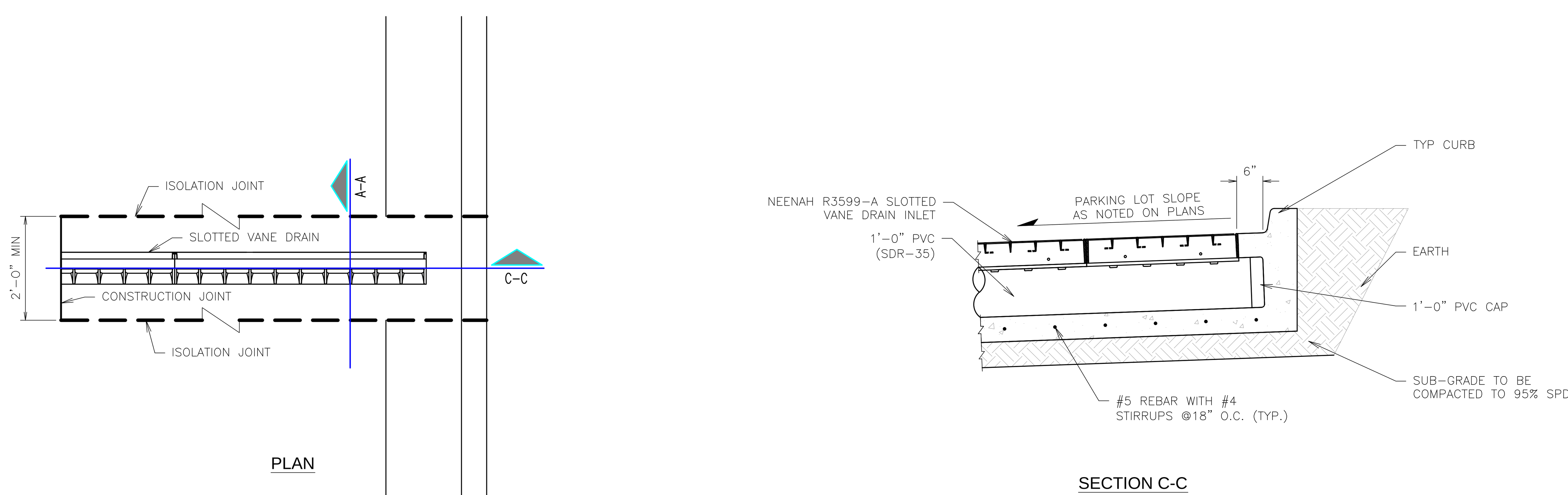
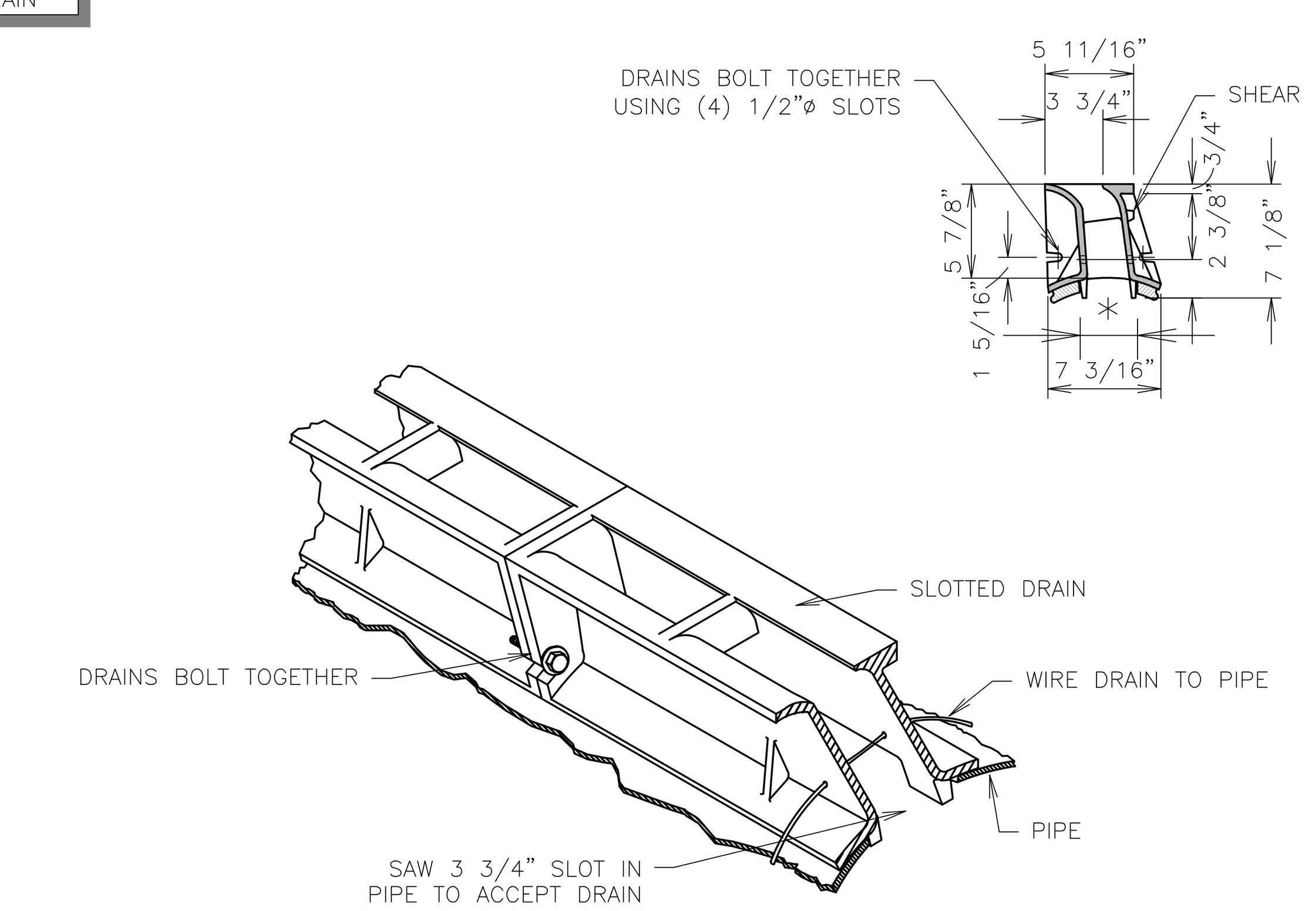


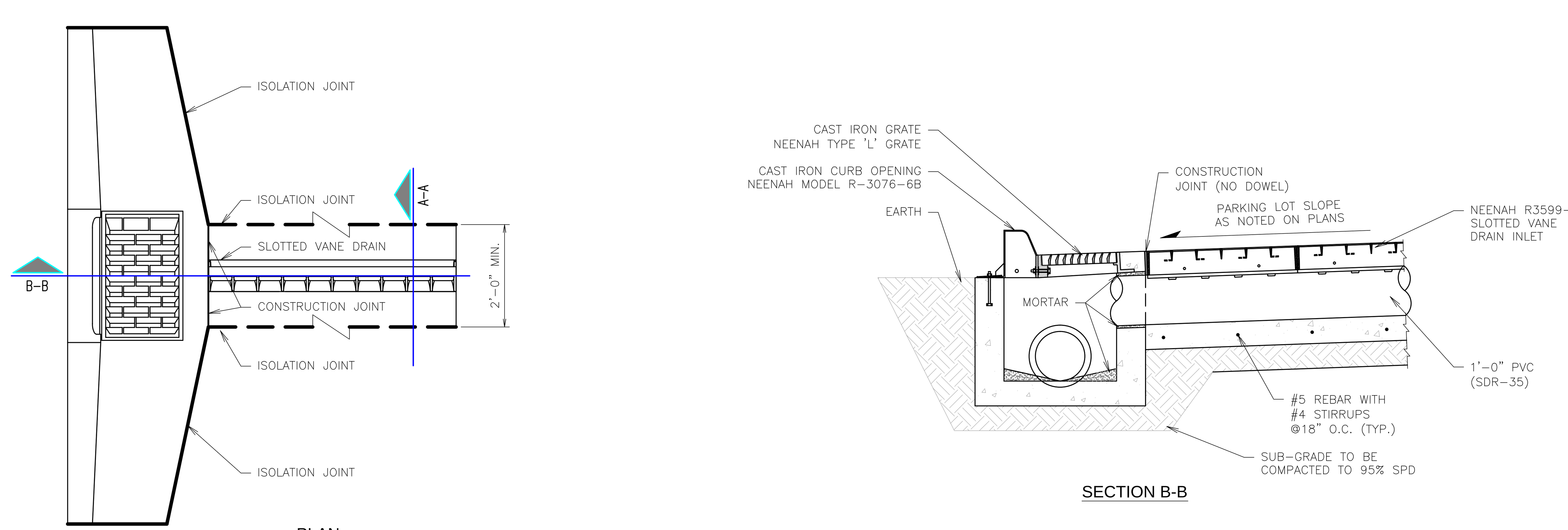
F1	SLOTTED VANE DRAIN INSTALLATION DETAIL
NTS	SN: DD005A003

*CUT 3 3/4" SLOT IN PIPE TO ACCEPT DRAIN

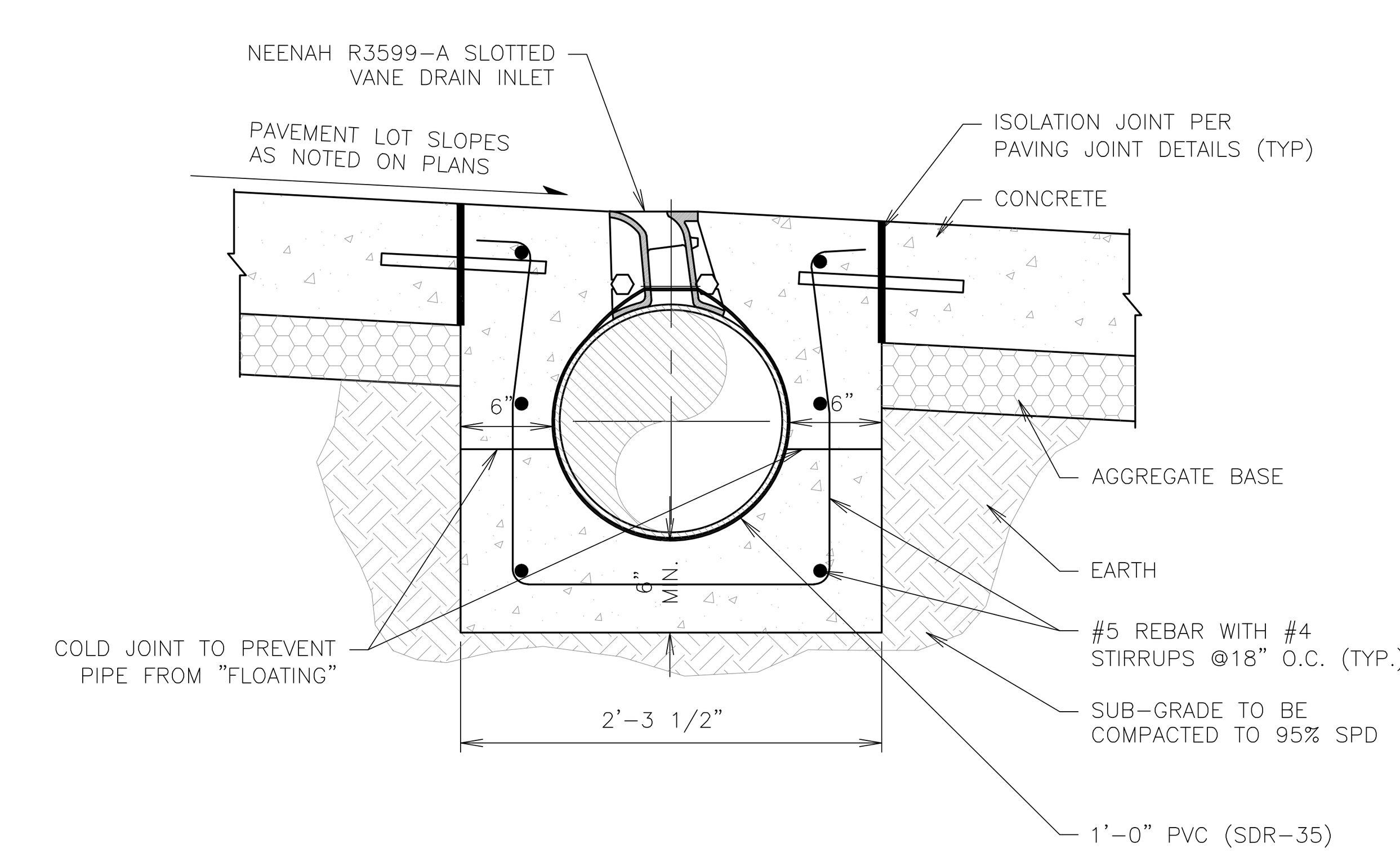


F11	SLOTTED VANE DRAIN (ISOMETRIC VIEW)
NTS	SN: DD007A003

STANDARD QT CATCH BASIN LOCATED AT LOW END OF STRIP VANE DRAIN (UNLESS NOTED OTHERWISE)



A1	SLOTTED VANE DRAIN INSTALLATION @ CATCH BASIN DETAIL
NTS	SN: DD004A003



A11	SLOTTED VANE DRAIN INSTALLATION CROSS SECTION "A-A"
NTS	SN: DD006A005

PROJECT NO.: 13.W008

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DESIGNED BY: AS
DRAWN BY: AL
REVIEWED BY: MB

REV	DATE	DESCRIPTION
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6	11/26/13	QT COMMENT REVISIONS

ORIGINAL ISSUE DATE: 08/26/13

SHEET TITLE:
QT DRAINAGE DETAILS 2

SHEET NUMBER:
17

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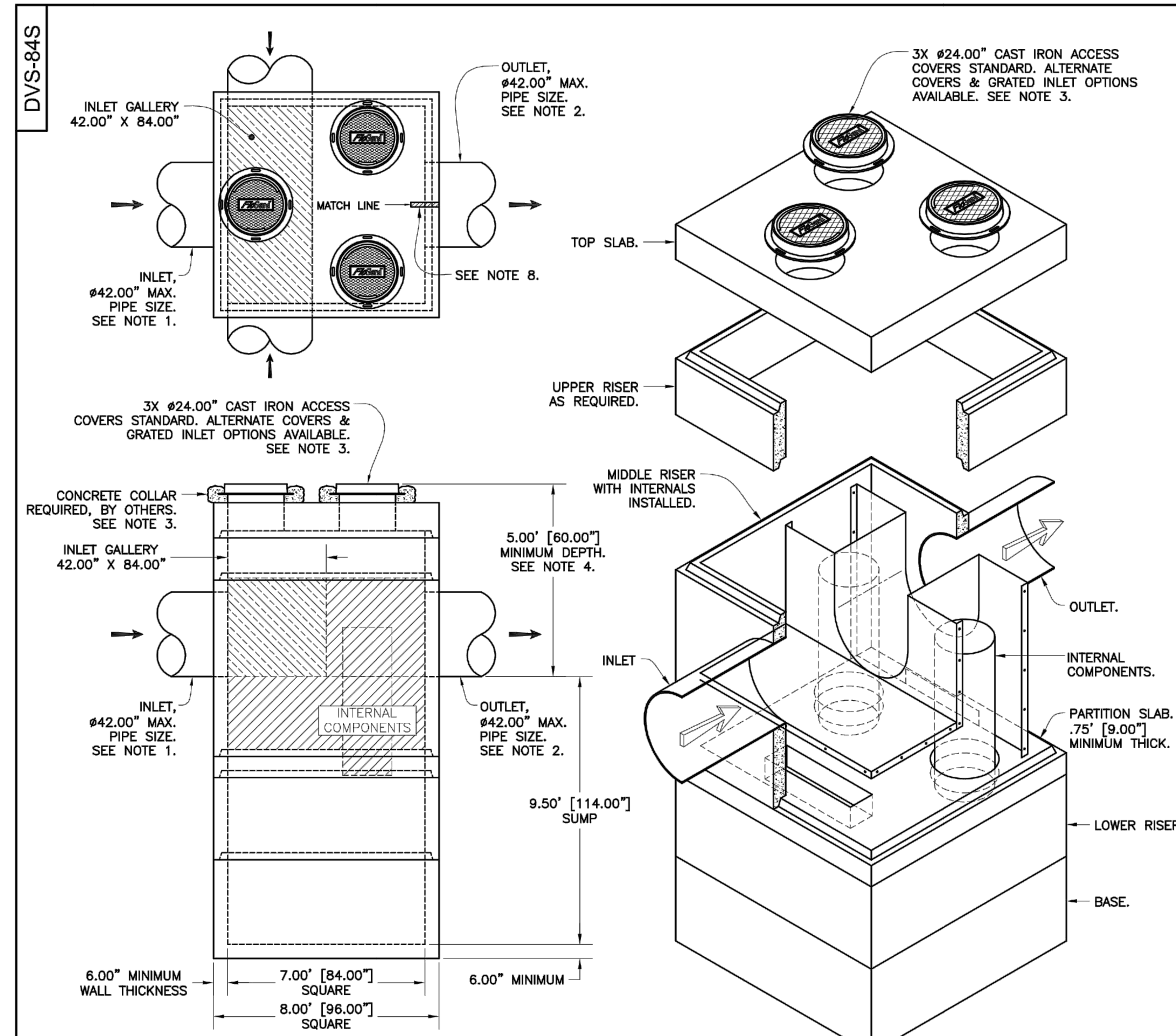
DVS-84S



NOTES:

1. ALL INLET PIPES MUST ENTER SEPARATOR AT INLET GALLERY, (OBLIQUE ANGLES ALLOWED).
2. STANDARD OUTLET PIPE CONFIGURATION TO EXIT SEPARATOR AT THE CENTER LINE, (OBLIQUE ANGLES ALLOWED). CUSTOM OUTLET CONFIGURATIONS AVAILABLE UPON REQUEST.
3. BOLTED & GASKETED MANHOLE ACCESS COVER ELEVATION MAY BE ADJUSTED TO GRADE. FIELD POURED CONCRETE COLLAR AS REQUIRED BY OTHERS. INLET GRATES & ALTERNATE COVER OPTIONS AVAILABLE.
4. FOR DEPTHS LESS THAN THE MINIMUM SHOWN CONTACT KRISTAR ENTERPRISES FOR ENGINEERING ASSISTANCE.
5. CONCRETE COMPONENTS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM DESIGNATION C858.
6. SUMP PARTITION MAY BE MADE AS A CONCRETE SLAB AS SHOWN, OR FROM ALTERNATIVE MATERIALS: E.G. STAINLESS STEEL, FIBERGLASS COMPOSITE, ETC.
7. REMOVABLE INTERNAL COMPONENTS MAY BE AVAILABLE TO FACILITATE MAINTENANCE. CONTACT KRISTAR ENTERPRISES FOR DETAILS.
8. MATCH LINES PROVIDED TO FACILITATE PROPER ALIGNMENT OF ALL CONCRETE COMPONENTS DURING ASSEMBLY.

TITLE

FloGard® DUAL-VORTEX
HYDRODYNAMIC SEPARATOR
SQUARE STRUCTURE
DVS-84S

KriStar Enterprises, Inc.
360 Sutton Place, Santa Rosa, CA 95407
Ph: 800.579.8819, Fax: 707.524.8186, www.kristar.com

DRAWING NO.	REV	ECO	DATE	
DVS-84S	A	0103 JPR 4/10/12	JPR 4/25/11	SHEET 1 OF 1

ANNE STEPHENS LICENSED 19299 KANSAS PROFESSIONAL ENGINEER 12.8.2013

PROJECT NO.: 13.W008

Schwab Eaton
8615 W. Frazier, Suite 2
Wichita, Kansas
p. 316.722.4472
f. 316.722.4479

QuikTrip No. 0313R
2821 E 31ST S
Lot 1, Block A, QuikTrip 14th Addition, an Addition to Wichita, Sedgwick County, Kansas

QT

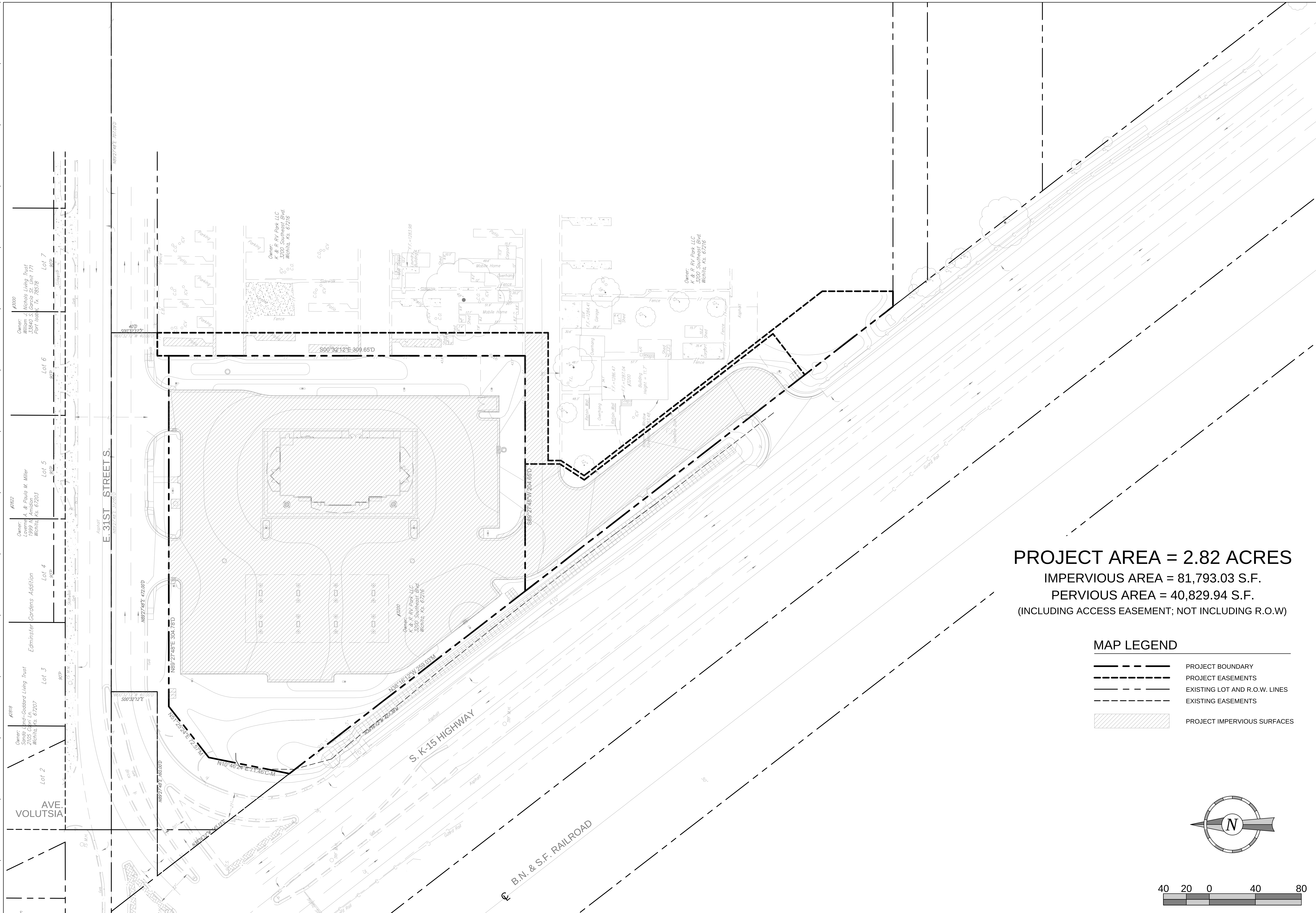
PROTOTYPE: P-74 (2/01/13)
DIVISION: WICHITA
VERSION: 001
DESIGNED BY: AS
DRAWN BY: AL
REVIEWED BY: MB

REV	DATE	DESCRIPTION
1	9/6/13	QT COMMENT REVISIONS
2	10/2/13	ADDED WEST DITCH LINER TO K-15 RCB
5	11/6/13	QT FINAL COMMENT REVISIONS
6	11/26/13	QT COMMENT REVISIONS

ORIGINAL ISSUE DATE: 08/26/13

SHEET TITLE:
WATER QUALITY STRUCTURE DETAIL

SHEET NUMBER:
18



PROJECT NO.: 13.W008

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QuikTrip No. 0313R

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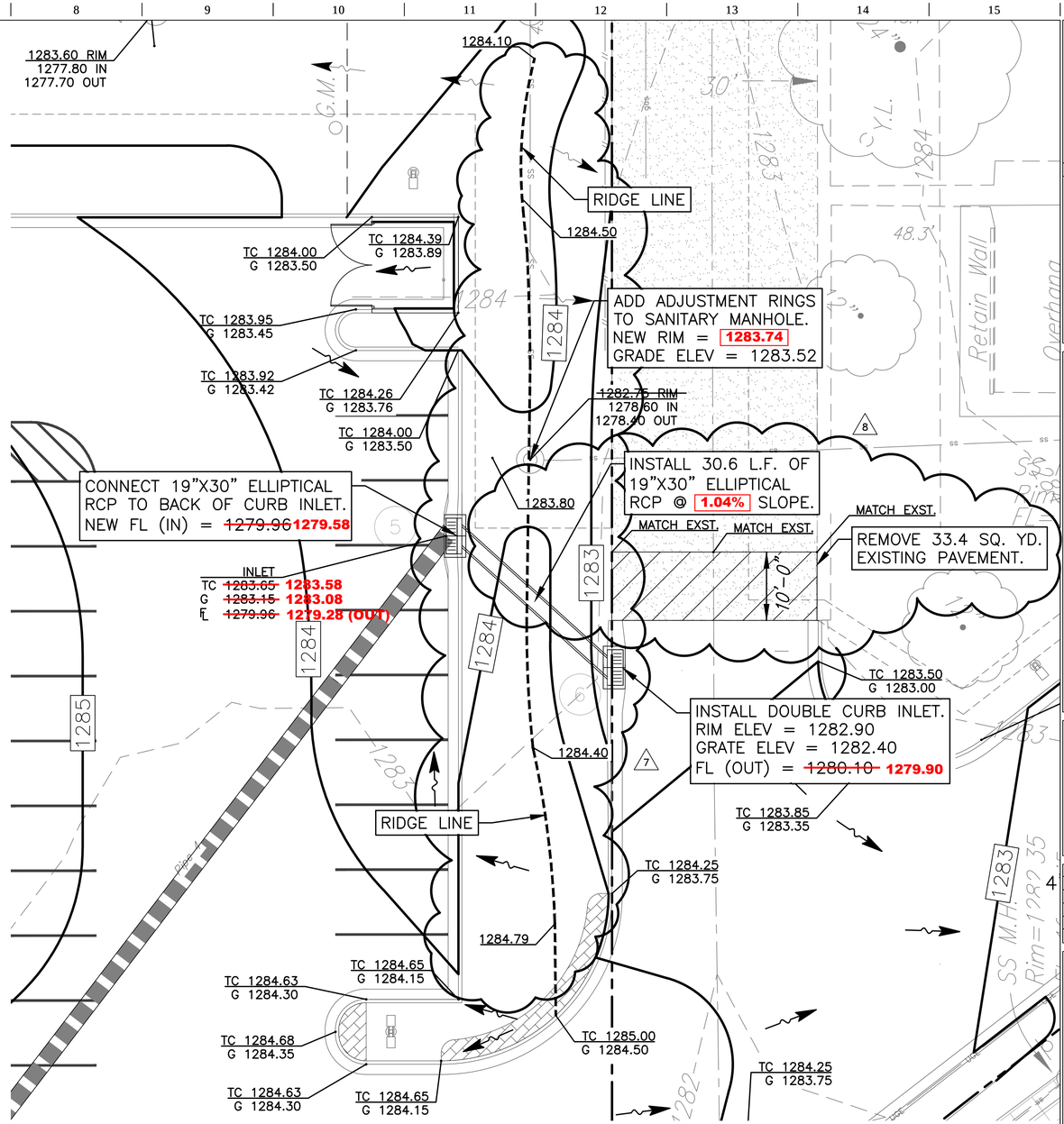
6	11/26/13	QT COMMENT REVISIONS

ORIGINAL ISSUE DATE: 08/26/13

SHEET TITLE:
EQUIVALENT RESIDENTIAL UNITS

SHEET NUMBER:
19



FILE LOCATION:W:\Projects\13.W008 QuikTrip Store 0313 Construction Plans\CAD Files\Drainage PPD - CHANGE ORDER.dwg TAB NAME:SWS CHANGE ORDER USER:dlopez SAVED:5/13/2014 3:33 PM PLOTTED:5/13/2014 4:00 PM

ANNE STEPHENSON LICENSED PROFESSIONAL ENGINEER 19299 KANSAS May 13 2014

PROJECT NO.: 13.W008

Schwab Eaton
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DRAWN BY:	AL
REVIEWED BY:	MB

REV	DATE	DESCRIPTION
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5	11/6/13	QT FINAL COMMENT REVISIONS
6	11/26/13	QT COMMENT REVISIONS
7	4/2/14	RELOCATION OF SWS STRUCTURE 6
8	5/12/14	ADDITIONAL PAVEMENT REMOVAL

ORIGINAL ISSUE DATE: 08/26/13

SHEET TITLE:
SWS STRUCTURE 6 RELOCATION

SHEET NUMBER:
20