PRIVATE PAVING & INCIDENTAL DRAINAGE FOR

27TH STREET NORTH

AN ADDITION TO THE CITY OF WICHITA
SEDGWICK COUNTY, KANSAS

PROJECT NO. PPP-0233
OCA 607879
PROJECT NO. PPD-243
OCA 607861

GARY L. JANZEN, P.E. - CITY ENGINEER

JEFFERY T. CARTWRIGHT
LICENSED
12-21-14
14371
KANSAS
PROFESSIONAL ENGINEER

AS-BUILT PLANS - AUGUST 2015

CONSTRUCTED BY: DONDLINGER CONSTRUCTION (APAC-PAVING)
SUPERINTENDENT: RANDY ELLIOTT
INSPECTED BY: GENE RATH, MKEC ENGINEERING INC

GENERAL NOTES

1. UNLESS SHOWN OR STATED OTHERWISE ON THESE DRAWINGS, MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF WICHITA CONCRETE PAVEMENT AND ASPHALTIC CONCRETE PAVEMENT SPECIFICATIONS.

2. CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF SEVENTY-TWO (72) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:
   KANSAS ONE-CALL 1-800-344-7233
   OR 687-2470 (LOCAL WICHITA)
   THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

SBC (TELEPHONE)	800-870-8390
COX COMMUNICATIONS (CABLE)	262-0661
WESTAR (ELECTRIC)	383-8600
KANSAS GAS SERVICE (GAS)	832-3101
CITY OF WICHITA PUBLIC WORKS & UTILITIES	262-6000
BLACK HILLS ENERGY (GAS)	800-303-0357

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 IN ACCORDANCE WITH STATE LAWS.

4. EXISTING UTILITIES AND THEIR LOCATIONS, AS SHOWN ON THE PLANS REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.

5. 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 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 FLOOD PLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

6. THIS PROJECT INCLUDES A CERTAIN AMOUNT OF ROLL TYPE CURB CONSTRUCTION. ROLL CURBS SHALL BE DEPRESSED THROUGH ALL DRIVEWAY OPENINGS WHEN SUCH DRIVES ARE CONSTRUCTED AS A PART OF THE PROJECT. NO MORE THAN 2 DRIVES 20 FEET IN WIDTH OR EQUIVALENT COMBINATIONS THEREOF ARE TO BE CONSTRUCTED WITH THIS PROJECT.

7. TRANSITION CURB FROM FULL HEIGHT COMBINATION CURB AND GUTTER TO ROLL TYPE COMBINATION CURB AND GUTTER IS TO BE PAID AS BID FOR LINEAL FEET COMBINED CURB AND GUTTER (3-5/8" ROLL).

8. A SAW CUT OF AT LEAST ONE-HALF THE DEPTH OF THE EXISTING SURFACE COURSES OR ONE-FOURTH THE DEPTH OF THE EXISTING TOTAL PAVEMENT THICKNESS SHALL BE PROVIDED AT LOCATIONS WHERE PROPOSED CONSTRUCTION ABUTS AN EXISTING SURFACE OR PAVEMENT FOR WHICH PARTIAL REMOVAL OF THAT SURFACE OR PAVEMENT IS REQUIRED. SAW JOINT TO FACILITATE REMOVAL WITHIN THREE (3) FEET OF EXISTING JOINTS WILL NOT BE PERMITTED AND FOR SUCH INSTANCES THE LIMITS OF REMOVAL SHALL EXTEND TO THE EXISTING JOINT. SUCH SAW CUTS WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE CONSIDERED AS SUBSIDIARY TO THE REMOVAL OF SURFACE OR PAVEMENT.

9. CONTRACTOR SHALL RESEED AND MULCH ALL DISTURBED AREAS. COST SHALL BE CONSIDERED SUBSIDIARY TO SITE RESTORATION.

10. UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

11. THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, ROAD SHOULDERS, ENTRANCES AND BANK LINES TO THEIR ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE.

12. REMOVE TOPSOIL FROM EXCAVATION AREA AND STOCKPILE UNTIL EXCAVATION IS COMPLETE THEN REPLACE OVER DISTURBED AREA. COST SUBSIDIARY TO EARTHWORK.

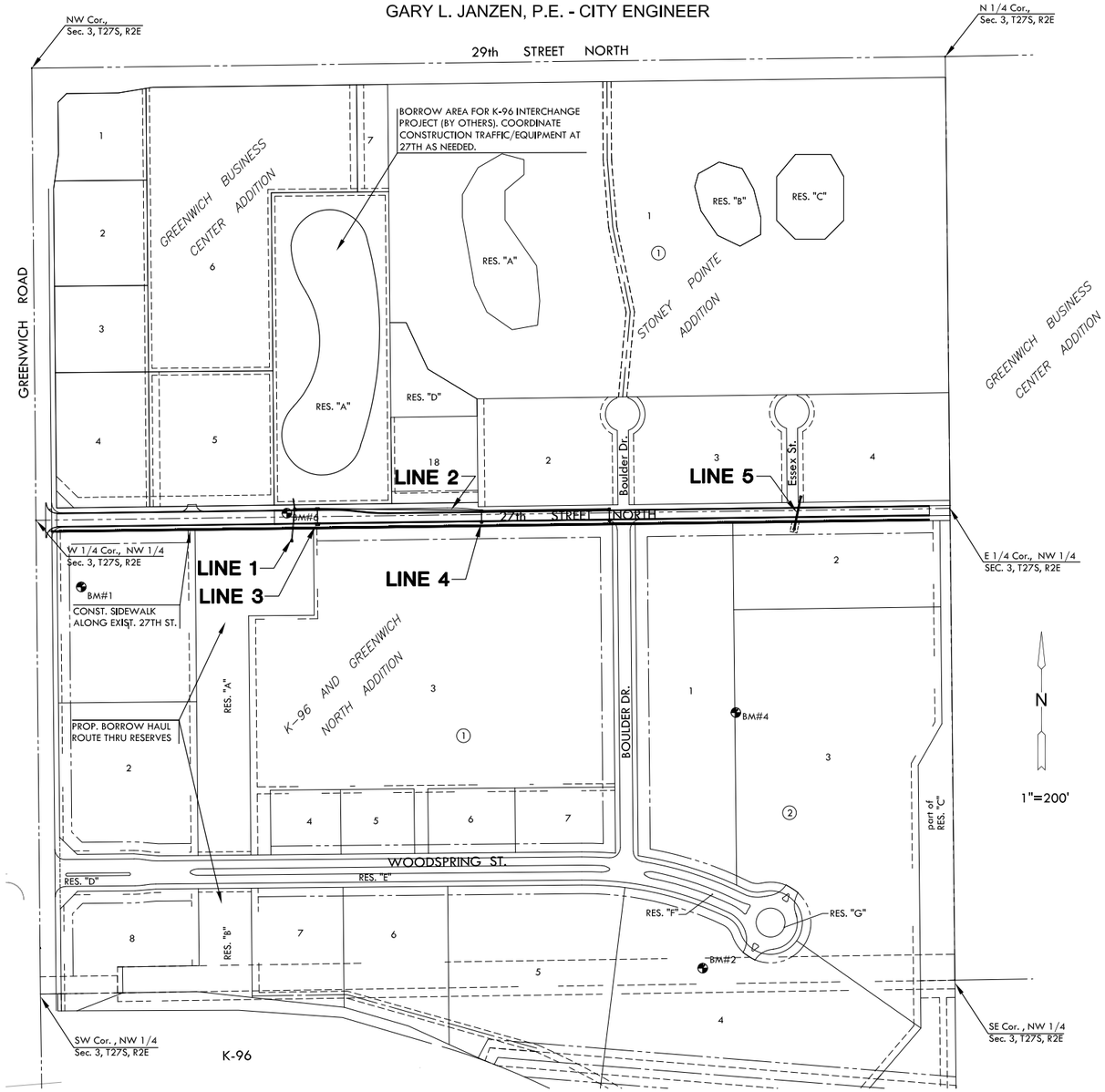
13. DEVELOPER FOR THIS PROJECT IS: SEE ATTACHED PLATS

WATER QUALITY STATEMENT

WQ_V & CP_V FOR THE AREA SERVED BY SWS LINES 1-4 IS PROVIDED BY DETENTION PONDS LOCATED WITHIN RES. A GREENWICH BUSINESS CENTER ADDITION.

WQ_V & CP_V FOR THE AREA SERVED BY SWS LINE 5 WILL BE PROVIDED BY DETENTION AND VEGETATED CHANNELS PROVIDED WITHIN RESERVE "C", K-96 AND GREENWICH NORTH ADDITION

THIS OVERALL PROJECT SATISFIES CHAPTER 16.32 OF THE CITY CODE THROUGH THE CONSTRUCTION OF THE DETENTION AREAS REFERENCED ABOVE.

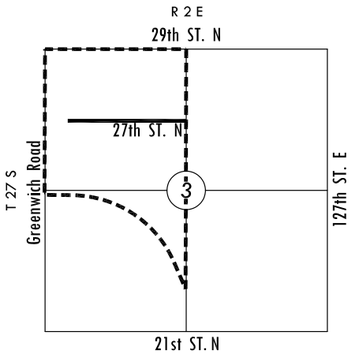


BENCHMARKS

BM#1 TOP OF "T" POST 129.17' EAST AND 1177.81' NORTH OF W. 1/4, COR, SEC 3, T27S, R2E, 6TH P.M. ELEV=1376.5 (NAVD 88)

BM#2 TOP OF "T" POST 729.87' WEST AND 35.53' NORTH OF NE COR, SW 1/4 SEC 3, 27S, R2E, 6TH P.M. ELEV=1391.3 (NAVD 88)

BM#4 TOP OF "T" POST 626.03' WEST AND 780.86' NORTH OF NE COR, SW 1/4, SEC 3, T27S, R2E, 6TH P.M. ELEV=1400.7 (NAVD 88)



VICINITY MAP
No Scale

INDEX TO DRAWINGS

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA,
BY WICHITA WATER & SEWER DEPARTMENT

Storm Water _____
(Public Works)

Paving _____
(Public Works)

NOTE TO CONTRACTORS

Public Property:

Inspection and supervision of testing is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said Inspection to be in accordance with the City of Wichita Standard Construction Engineering Practices and certified by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of way by the Contractor without such inspection, nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City of Wichita Specifications and Standards (on file and available in the City Engineer's Office).

EARTHWORK SUMMARY

EXCAVATION	2,760 C.Y.
FILL*	3,080 C.Y.
ON-SITE BORROW	616 C.Y.

* 20% SHRINK/SWELL FACTOR ADDED

INITIAL WASTE FROM SWS INSTALLATION SHALL BE PLACED IN BERM FORM WITHIN RESERVE 'A', GREENWICH BUSINESS CENTER ADDITION AS DEPICTED ON GRADING PLAN. THIS IS TO PROTECT CONSTRUCTION ACTIVITIES IN CASE OF STORM EVENT.

MKEC
Wichita, KS • 316-684-9600

PRIVATE PAVING & INCIDENTAL DRAINAGE FOR
27TH STREET NORTH
WICHITA, KANSAS

TITLE SHEET

PROJECT NO.	1201010283
DATE	FEB. 2014
SCALE	AS SHOWN

DESIGNED	DRAWN	CHECKED
JTC	LES	GJA

NO.	REVISION	DATE
0	FOR C.O.W. APPROVAL	05/30/14

SHEET NO.
01 OF 31

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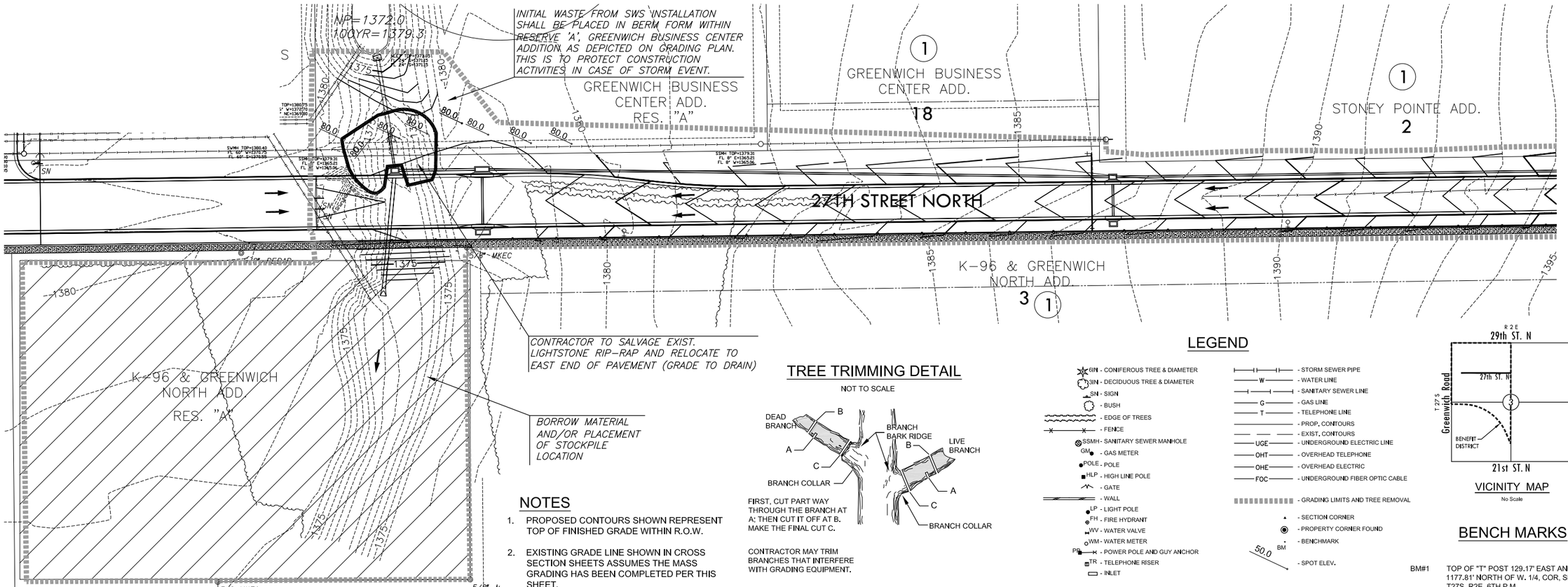


TREE TRIMMING DETAIL

NOT TO SCALE

FIRST, CUT PART WAY THROUGH THE BRANCH AT A; THEN CUT IT OFF AT B. MAKE THE FINAL CUT C.

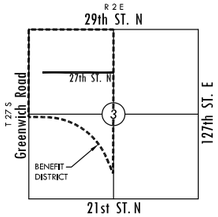
CONTRACTOR MAY TRIM BRANCHES THAT INTERFERE WITH GRADING EQUIPMENT.

NOTES

1. PROPOSED CONTOURS SHOWN REPRESENT TOP OF FINISHED GRADE WITHIN R.O.W.
2. EXISTING GRADE LINE SHOWN IN CROSS SECTION SHEETS ASSUMES THE MASS GRADING HAS BEEN COMPLETED PER THIS SHEET.
3. CONTRACTOR TO REMOVE TREES WITHIN GRADING LIMITS. COST SUBSIDIARY TO SITE CLEARING.
4. SEE PAVING AND SWS SHEETS FOR EXIST. AND PROP. STRUCTURE INFO.

LEGEND

- CIN - CONIFEROUS TREE & DIAMETER
- DIN - DECIDUOUS TREE & DIAMETER
- SN - SIGN
- BUSH
- EDGE OF TREES
- FENCE
- SSMH - SANITARY SEWER MANHOLE
- GM - GAS METER
- POLE - POLE
- HLP - HIGH LINE POLE
- GATE
- WALL
- LP - LIGHT POLE
- FH - FIRE HYDRANT
- WV - WATER VALVE
- WM - WATER METER
- PP - POWER POLE AND GUY ANCHOR
- TR - TELEPHONE RISER
- INLET
- STORM SEWER PIPE
- W - WATER LINE
- SANITARY SEWER LINE
- G - GAS LINE
- T - TELEPHONE LINE
- PROP. CONTOURS
- EXIST. CONTOURS
- UGE - UNDERGROUND ELECTRIC LINE
- OHT - OVERHEAD TELEPHONE
- OHE - OVERHEAD ELECTRIC
- FOC - UNDERGROUND FIBER OPTIC CABLE
- GRADING LIMITS AND TREE REMOVAL
- SECTION CORNER
- PROPERTY CORNER FOUND
- BENCHMARK
- 50.0 BM - SPOT ELEV.



VICINITY MAP

No Scale

BENCH MARKS

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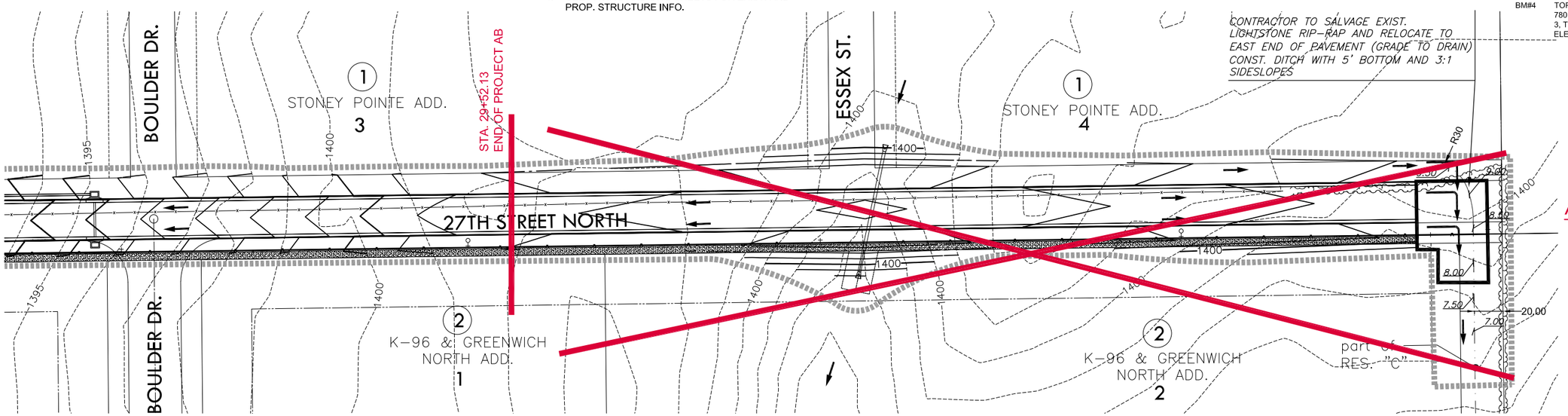
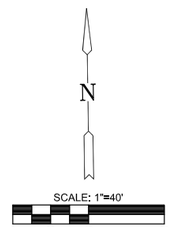


AS-BUILT PLANS



MKEC
Wichita, KS · 316-684-9300

GRADING PLANS FOR

27TH STREET NORTH

WICHITA, KANSAS

GRADING PLAN

PROJECT NO.	1201010283
DATE	FEB. 2014
SCALE	AS SHOWN

DESIGNED	DRAWN	CHECKED
JTC	SPE	GJA

NO.	REVISION	DATE
0	FOR C.O.W. APPROVAL	05/30/14

SHEET NO.

02 OF 31

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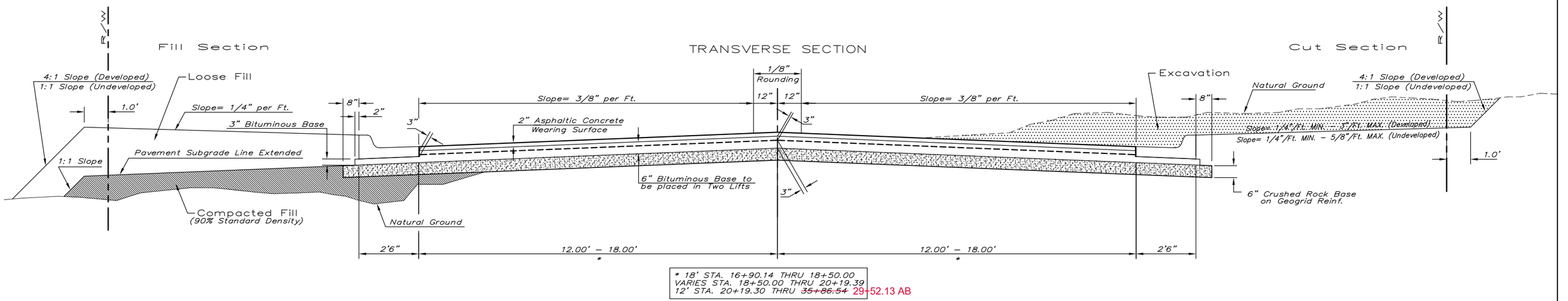
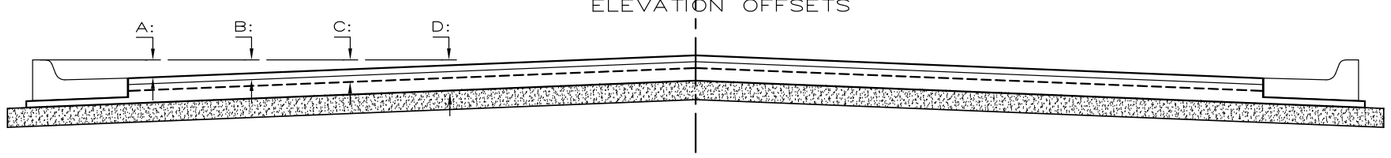
TYPICAL 8'' ASPHALT PAVEMENT ON CRUSHED ROCK BASE

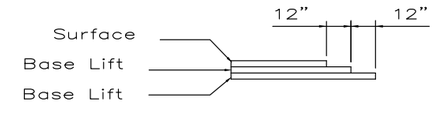
TRANSVERSE SECTION



* 18' STA. 16+90.14 THRU 18+50.00
VARIES STA. 18+50.00 THRU 20+19.39
12' STA. 20+19.30 THRU ~~35+86.54~~ 29+52.13 AB

ELEVATION OFFSETS





TRANSVERSE CONSTRUCTION JOINTS

Transverse construction joints shall be constructed in flexible base pavements at locations where pavement joins existing flexible base pavement as shown by the detail. All costs associated with the construction of the transverse joint shall be included in the bid price for Square Yards 8" ASPHALTIC CONCRETE (6" BITUMINOUS BASE).

Type II – Combined Curb & Gutter (6 5/8")

	Distance from Back of Curb toward Center Line											
	8" beyond	Back of Curb	2.5	4.5	6.5	8.5	10.5	12.5	14.5	14.5 CL of 29' pavement	16.5	18.5 CL of 37' pavement
A: Top of Curbs to Top of Surface Lift	–	–	0.50	0.44	0.38	0.31	0.25	0.19	0.13	0.14	0.06	0.01
B: Top of Curbs to Top of Upper Base Lift	–	–	0.67	0.60	0.54	0.48	0.42	0.35	0.29	0.29	0.23	0.17
C: Top of Curbs to Top of Lower Base Lift	–	1.00	0.92	0.85	0.79	0.73	0.67	0.60	0.54	0.54	0.48	0.42
D: Top of Curbs to Top of Rock Base	1.27	1.25	1.17	1.10	1.04	0.98	0.92	0.85	0.79	0.79	0.73	0.67

Type I – Combined Curb & Gutter (6")

	Distance from Back of Curb toward Center Line											
	8" beyond	Back of Curb	2.5	4.5	6.5	8.5	10.5	12.5	14.5	14.5 CL of 29' pavement	16.5	18.5 CL of 37' pavement
A: Top of Curbs to Top of Surface Lift	–	–	0.35	0.29	0.23	0.17	0.10	0.04	−0.02	−0.01	−0.08	−0.14
B: Top of Curbs to Top of Upper Base Lift	–	–	0.52	0.46	0.40	0.33	0.27	0.21	0.15	0.15	0.08	0.02
C: Top of Curbs to Top of Lower Base Lift	–	–	0.77	0.71	0.65	0.58	0.52	0.46	0.40	0.40	0.33	0.27
D: Top of Curbs to Top of Subgrade	1.12	1.10	1.02	0.96	0.90	0.83	0.77	0.71	0.65	0.65	0.58	0.52

General Notes

THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 8" ASPHALTIC CONCRETE W/ (6" BITUMINOUS BASE.)

A TACK COAT OF EMULSIFIED ASPHALT (SC–1H OR CSS–1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.

BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR LINE AND GRADE.

CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF ONE (1) FOOT FROM JOINTS IN PRECEDING LIFTS AND PLACED SO THAT A JOINT WILL BE CONSTRUCTED ON THE CENTERLINE OF THE TOP LIFT.

CONTRACTOR TO BID ONLY ONE SUBGRADE TREATMENT ALTERNATE WHEN ALTERNATES ARE PROVIDED IN THE PROPOSAL AND CONTRACT. THE ALTERNATE CHOSEN BY THE SUCCESSFUL BIDDER SHALL BE USED IN CONSTRUCTING THIS PROJECT.

AS-BUILT PLANS

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

8" ASPHALTIC CONCRETE ON CRUSHED ROCK BASE

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
1201010283	607879	12/2001

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

DESIGN | DRAWN

SHEET
03 of 31

PV-106

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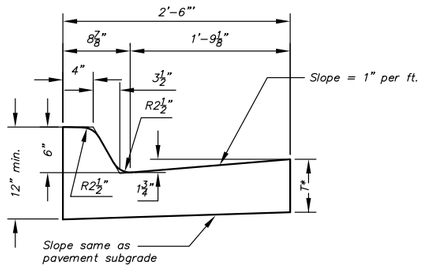
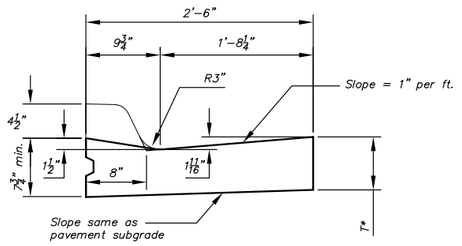
TYPE 1
(Arterial curb)

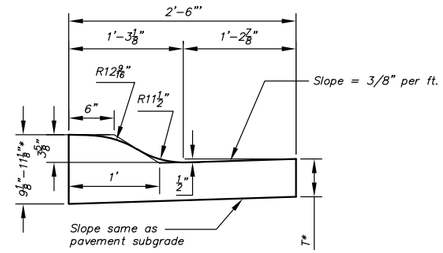


Combined Curb & Gutter (6")

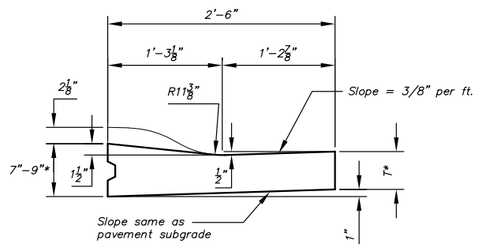


Combined Curb & Gutter (1 1/2")

TYPE 2
(Roll curb)

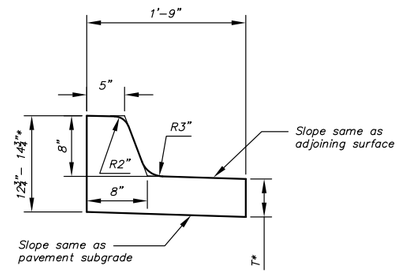


Combined Curb & Gutter (3 5/8")

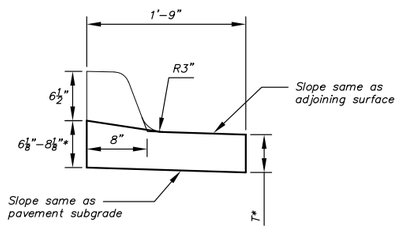


Combined Curb & Gutter (1 1/2")

TYPE 3
(Median curb)

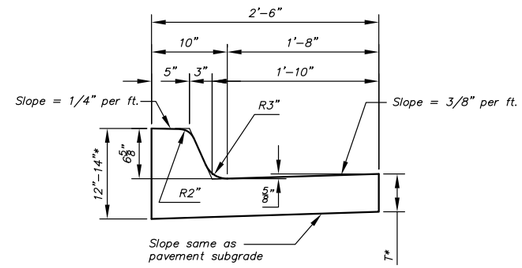


Combined Curb & Gutter (8")

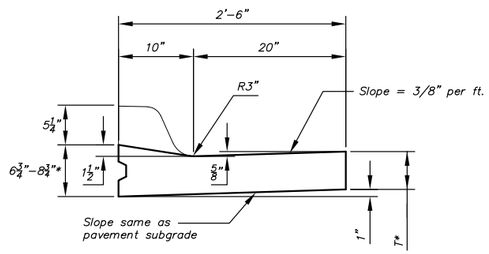


Combined Curb & Gutter (1 1/2")

TYPE 4
(Residential curb)

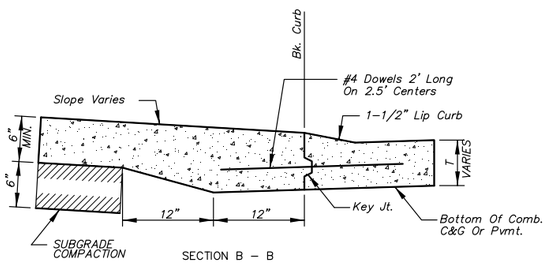


Combined Curb & Gutter (6 5/8")

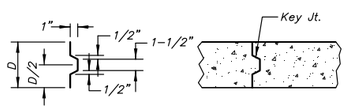


Combined Curb & Gutter (1 1/2")

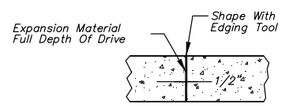
T* = Thickness of curb to adjust with pavement thickness



BACK OF CURB DETAIL



ALT. LONGITUDINAL CONSTRUCTION JOINT



EXPANSION JOINT (E.J.)

GENERAL NOTES

1. *Expansion (isolation) joints shall be constructed a maximum of 300' apart and at all PIs, PCs, cul-de-sac quadrants, and ends of returns.*

2. *Contraction joints shall be constructed a minimum of 12' apart.*

3. *Joint sealer shall be required at all joints on arterial and industrial streets and at intersections on residential streets.*

AS-BUILT PLANS

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

CURB & GUTTER DETAILS

CITY ENGINEER
GARY L. JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
1201010283	607879	12/2010

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

DESIGN	DRAWN

SHEET 04 of 31

PV-101

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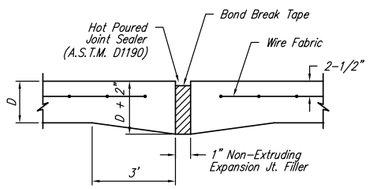
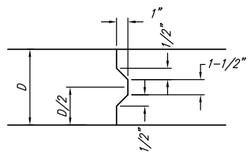
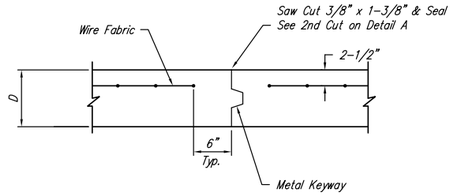


EXPANSION JOINT

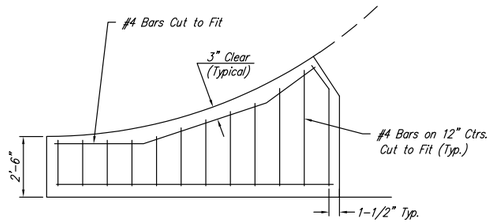
NOTE: Extra Thickness to be Subsidiary to Price of Square Yards Pavement



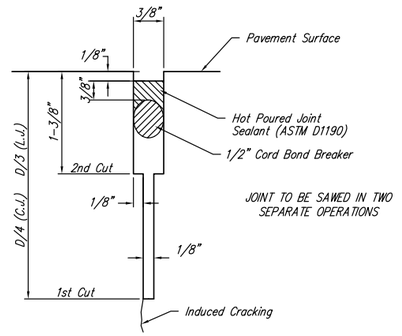
KEYWAY DETAIL



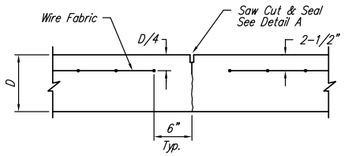
OPTIONAL CONTRACTION JOINT



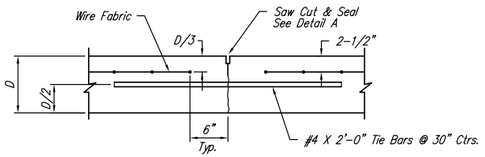
WING REINFORCING DETAIL



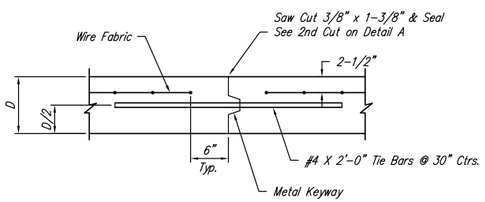
SAW JOINT DETAIL



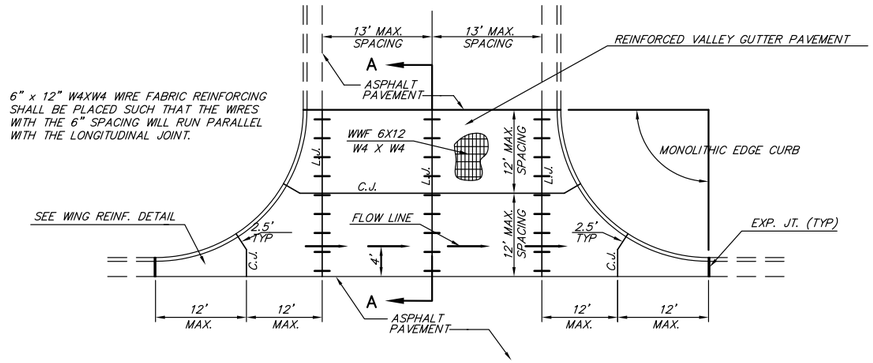
CONTRACTION JOINT DETAIL (C.J.)



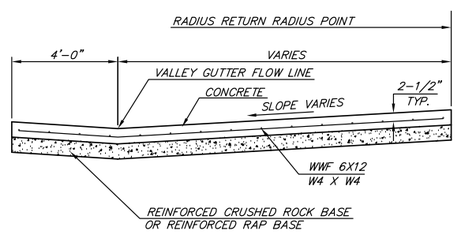
LONGITUDINAL JOINT DETAIL (L.J.)



OPTIONAL LONGITUDINAL JOINT DETAIL (L.J.)



PLAN

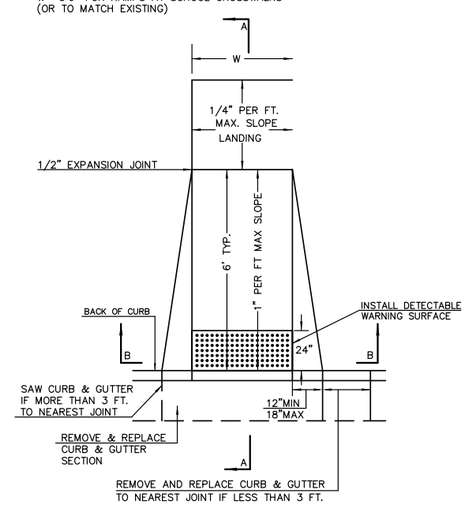


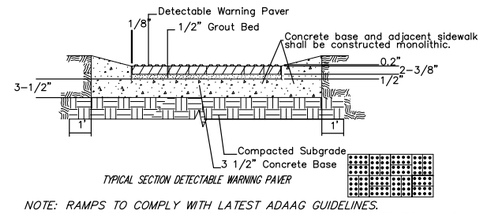
SECTION A–A

REINFORCED VALLEY GUTTER DETAIL

(TYPE A) STANDARD WHEELCHAIR RAMP WITH DETECTABLE WARNING CONSTRUCTION DETAIL FOR STREETS WITH COMBINED CURB & GUTTER

W= 4'0" FOR STANDARD RAMP
W= 5'0" FOR RAMPS AT SCHOOL CROSSWALKS
(OR TO MATCH EXISTING)



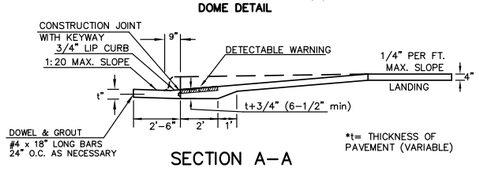


TYPICAL SECTION DETECTABLE WARNING PAVER

NOTE: RAMPS TO COMPLY WITH LATEST ADAAG GUIDELINES. PAVESTONE DETECTABLE WARNING PAVERS (OR AN APPROVED EQUAL) SHALL BE USED IN ALL WHEELCHAIR RAMPS. THE RED PAVER SHALL BE INSTALLED USING A BASKET WEAVE/PARQUET PATTERN. OTHER PATTERNS MAY BE USED WITH APPROVAL OF ENGINEER. SAND FILL JOINTS. ALIGN DOMES IN THE DIRECTION OF PEDESTRIAN TRAVEL.

SECTION B–B

DOME DETAIL



SECTION A–A

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

VALLEY GUTTER DETAILS
WHEELCHAIR RAMP
DETAILS

CITY ENGINEER
GARY L. JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
1201010283	607879	

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

DESIGN	DRAWN

SHEET
05 of 31

AS-BUILT PLANS

PV-109

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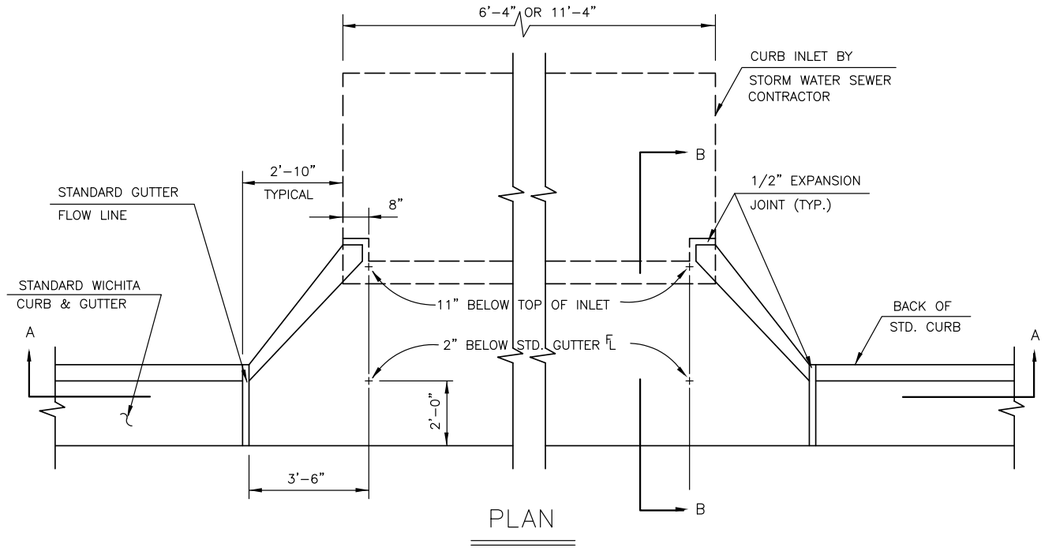
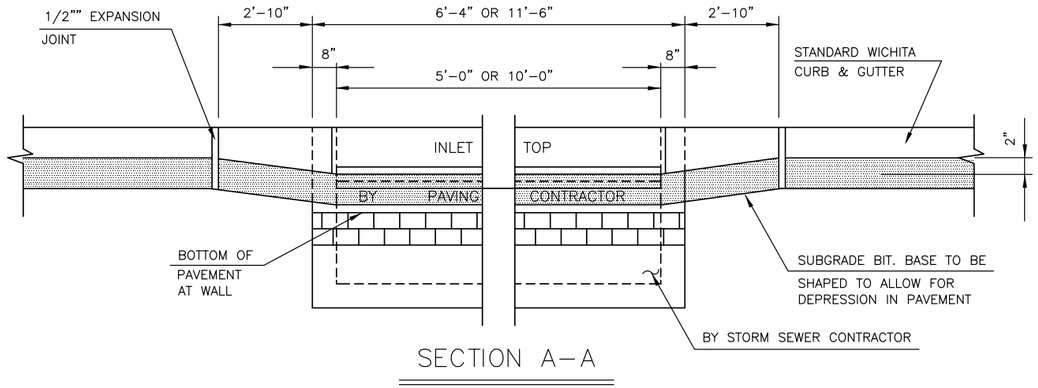


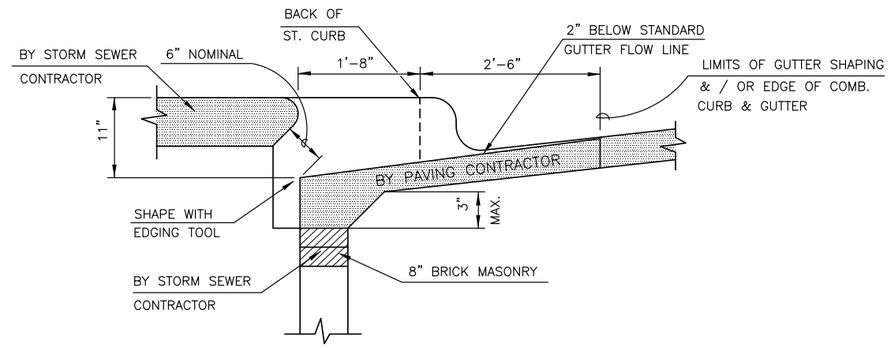
PLAN

GENERAL NOTES

1. USE THE CONCRETE MIX SPECIFIED FOR CITY OF WICHITA CONCRETE PAVEMENT. ALL EXPOSED EDGES SHALL BE FINISHED WITH AN EDGING TOOL.
2. TYPE 1A INLET HOOKUP WILL BE PAID EACH REGARDLESS OF SIZE.
3. ADDITIONAL CURB & GUTTER CONSTRUCTION NECESSARY TO CONNECT SET BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET



SECTION A–A



SECTION B–B

TYPE 1A INLET HOOKUP

(BY PAVING CONTRACTOR)

AS-BUILT PLANS

MKEC
Wichita, KS · 316-684-9300

PAVING & INCIDENTAL DRAINAGE FOR

27TH STREET NORTH

WICHITA, KANSAS

TYPE 1A INLET HOOKUP

PROJECT NO.	1201010283
DATE	FEB. 2014
SCALE	NO SCALE

DESIGNED	DRAWN	CHECKED
MKEC	MKEC	MKEC

NO.	REVISION	DATE
#	----	###/###/###

SHEET NO.

06 OF 31

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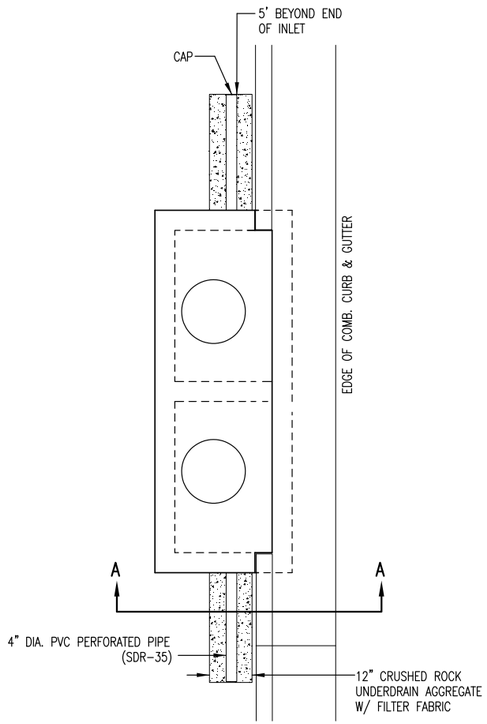
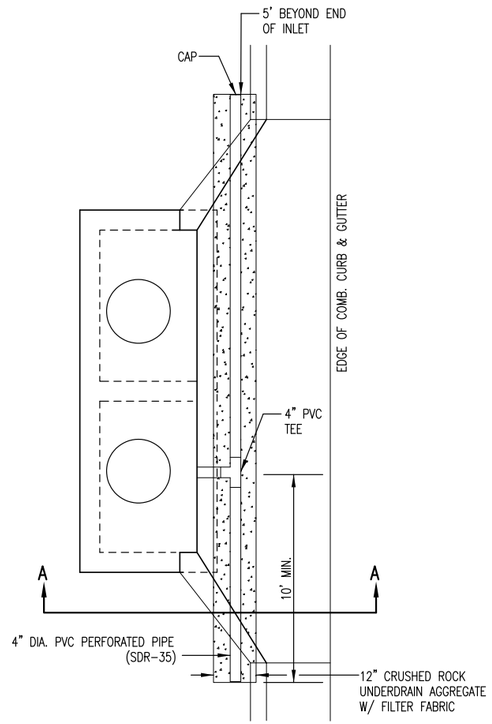
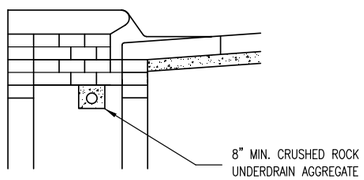


TYPE 1 & 2 INLET



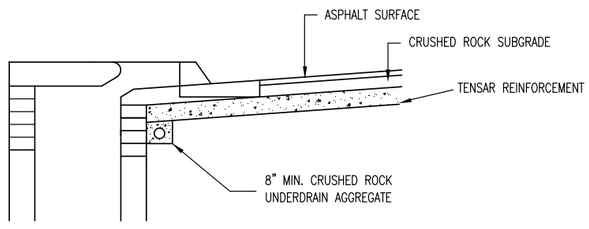
TYPE 1-A INLET

BID ITEM TO BE PROVIDED PER 4" PERFORATED UNDERDRAIN PIPE.



(MIN. 16 PERFORATIONS PER LIN. FT. @ 1/4" DIA.)
PERFORATIONS TO BE ON BOTTOM HALF

SECTION A-A



CRUSHED ROCK GRADATION REQUIREMENTS
PERCENT OF AGGREGATE RETAINED

1 1/2" 0

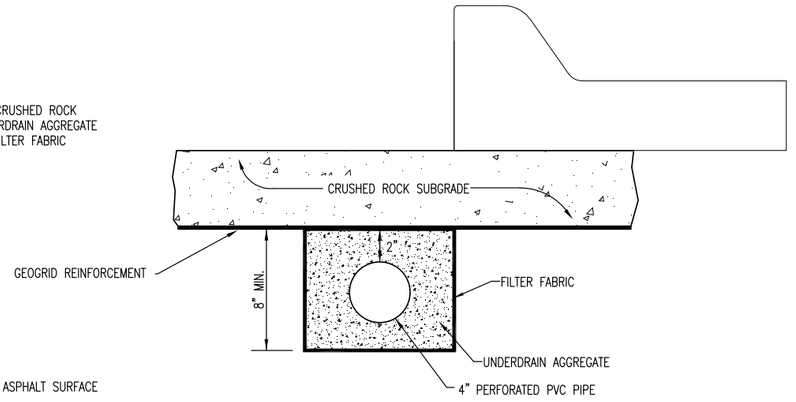
3/4" 15-60

4 40-80

#40 74-92

P-200 4-12

ROCK QUALITY SHALL BE THE SAME AS SPECIFIED
FOR COARSE AGGREGATE FOR ASPHALT CONCRETE MIXES.



SECTION A-A

GENERAL NOTES

1. PAVEMENT CONTRACTOR WILL BE REQUIRED TO INSTALL SDR 35, 4" PERFORATED DRAIN PIPE AND TEE AS INDICATED IN THE DETAILS ABOVE. A PIPE STUB HAS BEEN INSTALLED THROUGH WALLS OF CURB INLETS BY OTHERS IN A MANNER ALLOWING CONNECTION OF ADDITIONAL DRAIN PIPE AND TEE AS REQUIRED BY DETAILS ABOVE.

2. WHEN SWD CONSTRUCTED BY SEPARATE PROJECT, SWS CONTRACTOR SHALL INSTALL SDR 35, 4" DRAIN PIPE STUB ONLY THROUGH WALLS OF CURB INLETS AND CAP TO ALLOW FUTURE CONNECTION OF TEE AND ADDITIONAL DRAIN PIPE BY OTHERS.

AS-BUILT PLANS

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

CURB INLET PAVEMENT UNDERDRAIN DETAIL

INTERIM CITY ENGINEER
GARY L. JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
1201010283	607879	11/2010

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

DESIGN	DRAWN

SHEET
07 of 31

SW-111

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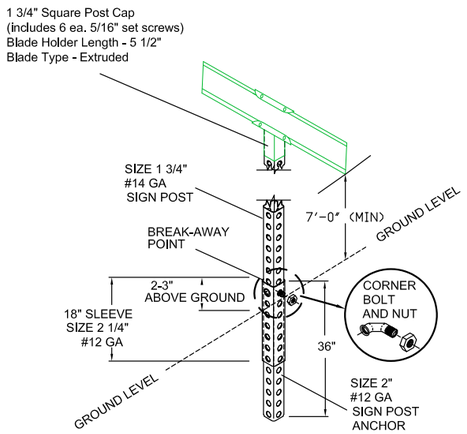

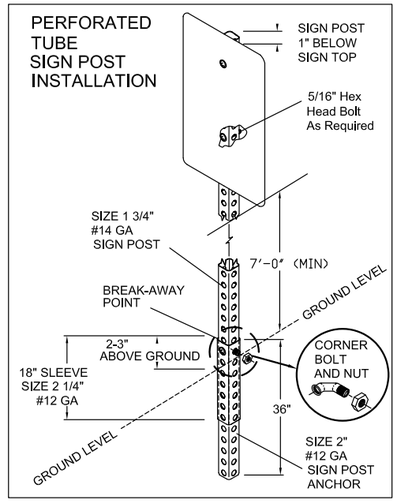

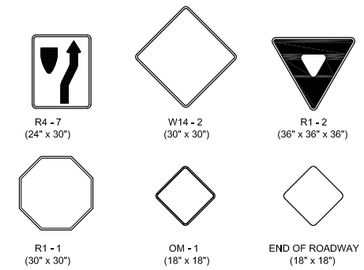

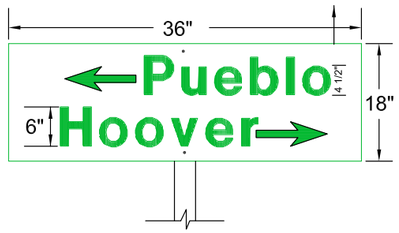

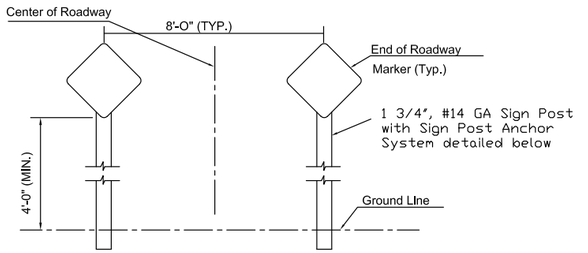

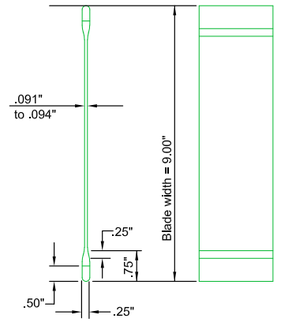

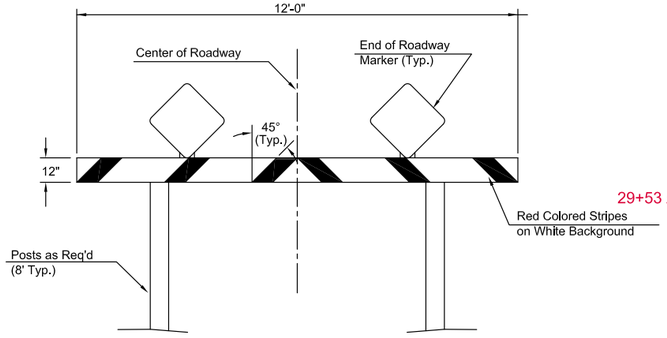

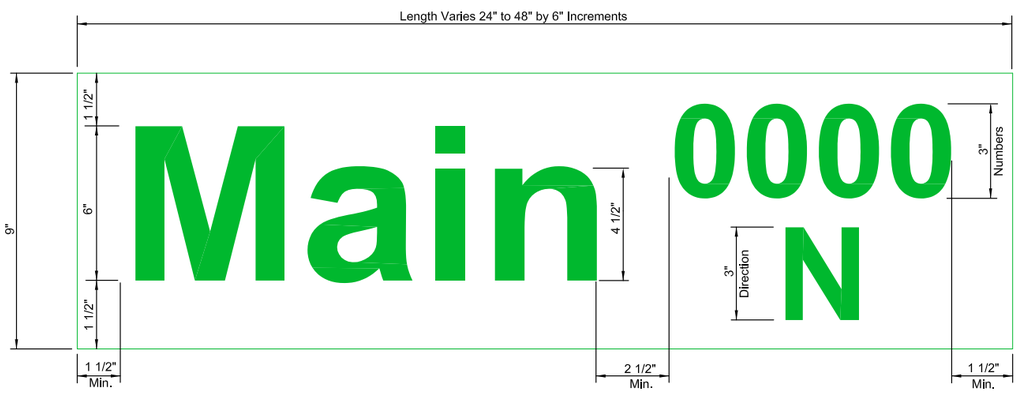

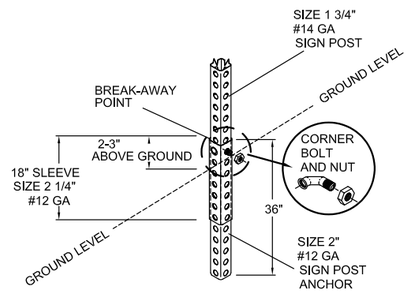

FHWA REG NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	SHEETS
7	KANSAS				

TYPICAL TRAFFIC CONTROL AND STREET NAME SIGN MOUNTING INSTALLATION

CURB AND GUTTER SECTION

* IN NO CASE SHALL THE SPECIFICATIONS BE LESS THAN REQUIRED BY THE CURRENT MUTCD.

FLAT PLATE STREET NAME SIGN

TYPICAL END OF ROADWAY SIGN MOUNTING INSTALLATION

STREET NAME SIGN

BLADE DETAILS

DETAIL A
9" STANDARD

TYPE I BARRICADE DETAIL W/ E.O.R. MARKERS

SIGN ASSEMBLY TABLE			
STATION	OFFSET	SIGN	QUANTITY*
~~35+90~~ 29+53 AB	CL	E.O.R.	RELOCATE
TOTAL			

DETAIL B
9" METRO

SIGN POST ANCHOR SYSTEM

STREET NAME	NO. BLADES REQ'D	
	6 3/4" STD.	9" METRO

AS-BUILT PLANS

NOTE: REFERENCES BELOW TO "STANDARD SPECIFICATIONS" DENOTE "STANDARD SPECIFICATION FOR STATE ROAD AND BRIDGE CONSTRUCTION EDITION 1990" BY THE KANSAS DEPARTMENT OF TRANSPORTATION.

* IN NO CASE SHALL THE SPECIFICATIONS BE LESS THAN REQUIRED BY THE CURRENT MUTCD.

1. POST ANCHORS: POSTS SHALL BE ANCHORED WITH A YIELDING BASE POST SUPPORT AS DETAILED.

2. POSTS FOR TRAFFIC CONTROL SIGNS: POSTS SHALL BE GALVANIZED AND CONFORM TO THE REQUIREMENTS OF SUBSECTION 1620 OF THE STANDARD SPECIFICATIONS, EXCEPT THAT ALL POSTS SHALL WEIGH 3 LBS./FT. MINIMUM.

3. POSTS FOR STREET NAME SIGNS (SNS): POSTS SHALL BE 9 FEET LONG, CONSTRUCTED FROM #14 GALVANIZED STEEL PIPE AND SHALL BE 1 3/4" SQUARE WEIGHING A MINIMUM OF 3 LBS/FT. POSTS SHALL BE POSITIONED SO THAT THE BOTTOM BLADE IS 7 FEET ABOVE GRADE.

4. POSTS FOR END OF ROADWAY SIGN TO BE 8' LONG AND INSTALLED A MINIMUM OF 4' FROM ROADWAY TO BOTTOM OF SIGN.

5. SIGN BLANKS FOR TRAFFIC CONTROL SIGNS: SIGN BLANKS SHALL BE FABRICATED FROM 0.080" ALUMINUM ALLOY 6063-T6 CONFORMING TO THE REQUIREMENTS OF SUBSECTION 1626 OF THE STANDARD SPECIFICATIONS.

6. SIGN BLADES FOR STREET NAME SIGNS: EXTRUDED ALUMINUM BLADES SHALL BE ALUMINUM ALLOY CONFORMING TO 6063-T6 OR 5052-H38 (ASTM SPECIFICATION B221, LATEST ISSUE). BLADES SHALL HAVE AN ALODINE OR PHOSPHATE ETCHED FINISH. BLADES SHALL HAVE SQUARE CORNERS AND NO HOLES.

   MINIMUM BLADE LENGTH SHALL BE 24". MAXIMUM BLADE LENGTH SHALL BE 48". LENGTH VARIES BY INCREMENTS OF 6".

   BLADES BEARING THE STREET NAMES SHALL BE FIRMLY ATTACHED TO THE MOUNTING BRACKETS USING ALLEN-TYPE CONICAL SET SCREWS. THE BLADES SHALL BE ORIENTED PARALLEL TO THE STREET.

7. MOUNTING BRACKETS FOR SIGNS: DIE-CAST ALUMINUM BRACKETS SHALL BE ALUMINUM ALLOY 360 HAVING A TENSILE STRENGTH OF 44,000 PSI. THE BRACKETS SHALL BE SMOOTHLY FINISHED FREE OF PITS, BURRS, AND FLAWS. EACH BRACKET SHALL BE TAPPED AND DRILLED FOR 5/16" ZINC-PLATED ALLEN-TYPE SET SCREWS HAVING SELF-LOCKING SAW-TOOTH ENDS.

8. FASTENERS: ALL STEEL FASTENERS FOR TRAFFIC CONTROL SIGNS SHALL BE GALVANIZED AND SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 1614 OF THE STANDARD SPECIFICATIONS.

9. REFLECTIVE SHEETING: REFLECTIVE SHEETING SHALL BE A MINIMUM OF HIGH INTENSITY PRISMATIC.

10. PROCESS INK: ALL PROCESS INK SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 2202 OF THE STANDARD SPECIFICATIONS.

11. FABRICATION AND INSTALLATION OF ALL SIGNS SHALL CONFORM TO THE LATEST ADDITION OF THE MUTCD.

12. DETAILS - SNS: THE REFLECTIVE SHEETING FOR THE 9" STANDARD SIZE SNS IS TO BE THE HIGHWAY GREEN BACKGROUND WITH SILVER-WHITE #2 COPY WITH 6" UPPER CASE AND 4 1/2" LOWER CASE PRIMARY COPY AND SUFFIX COPY. BOTH SERIES "C". FACES TO TRIM TO A 8 1/2". (SEE DETAIL A.)

    THE REFLECTIVE SHEETING FOR THE 9" METRO SIZE SNS IS TO BE THE HIGHWAY GREEN BACKGROUND WITH SILVERWHITE #2 COPY WITH 6" UPPER CASE AND 4 1/2" LOWER CASE PRIMARY COPY AND SUFFIX COPY, BOTH SERIES "C". THE CARDINAL DIRECTION CENTERED DIRECTLY BELOW THE BLOCK NUMBER SHALL BE AN UPPER CASE, 3" SERIES "C" LETTER. FACES TO TRIM TO A 8 1/2" WIDTH. (SEE DETAIL B.)

    FOR CUL-DE-SAC STREETS, A 9" METRO SIZE BLADE SHALL BE USED WITH THE BLOCK NUMBERS DISPLAYED BENEATH THE STREET NAME.

    IF BLOCK NUMBERS ARE NOT SHOWN ON THE PLANS THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEER AT 268-4501 PRIOR TO MANUFACTURING THE SIGN.

    SHOP DRAWINGS OF LAYOUT FOR SNS SHALL BE SUBMITTED TO THE TRAFFIC ENGINEERING DIVISION OF THE CITY OF WICHITA FOR APPROVAL PRIOR TO FABRICATION. THE FINISHED SIGNS AS SUPPLIED SHALL BE OF GOOD APPEARANCE, FREE FROM RAGGED EDGES, CRACKS SCALES OR BLISTERS AND SHALL BE CLEAN-CUT. SIGNS SHALL BE PACKED IN SUCH MANNER AS TO PREVENT DAMAGE OR DEFACEMENT DURING SHIPMENT OR STORAGE.

13. PERMANENT TRAFFIC CONTROL AND SNS: PERMANENT TRAFFIC CONTROL AND SNS SHALL BE MEASURED AND PAID FOR AT THE LUMP SUM PRICE FOR SIGNING. THE PAYMENT AS SET FORTH ABOVE SHALL BE CONSIDERED FULL COMPENSATION FOR ALL EXCAVATION, BACKFILLING. POSTS, ANCHORS, FASTENERS, MATERIALS, LABOR, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK.

C I T Y ■ O F
WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

SIGN
DETAILS

TRAFFIC ENGINEER
PAUL GUNZELMAN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
1201010283	607879	10/2012

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

DESIGN	DRAWN

SHEET
08 of 31

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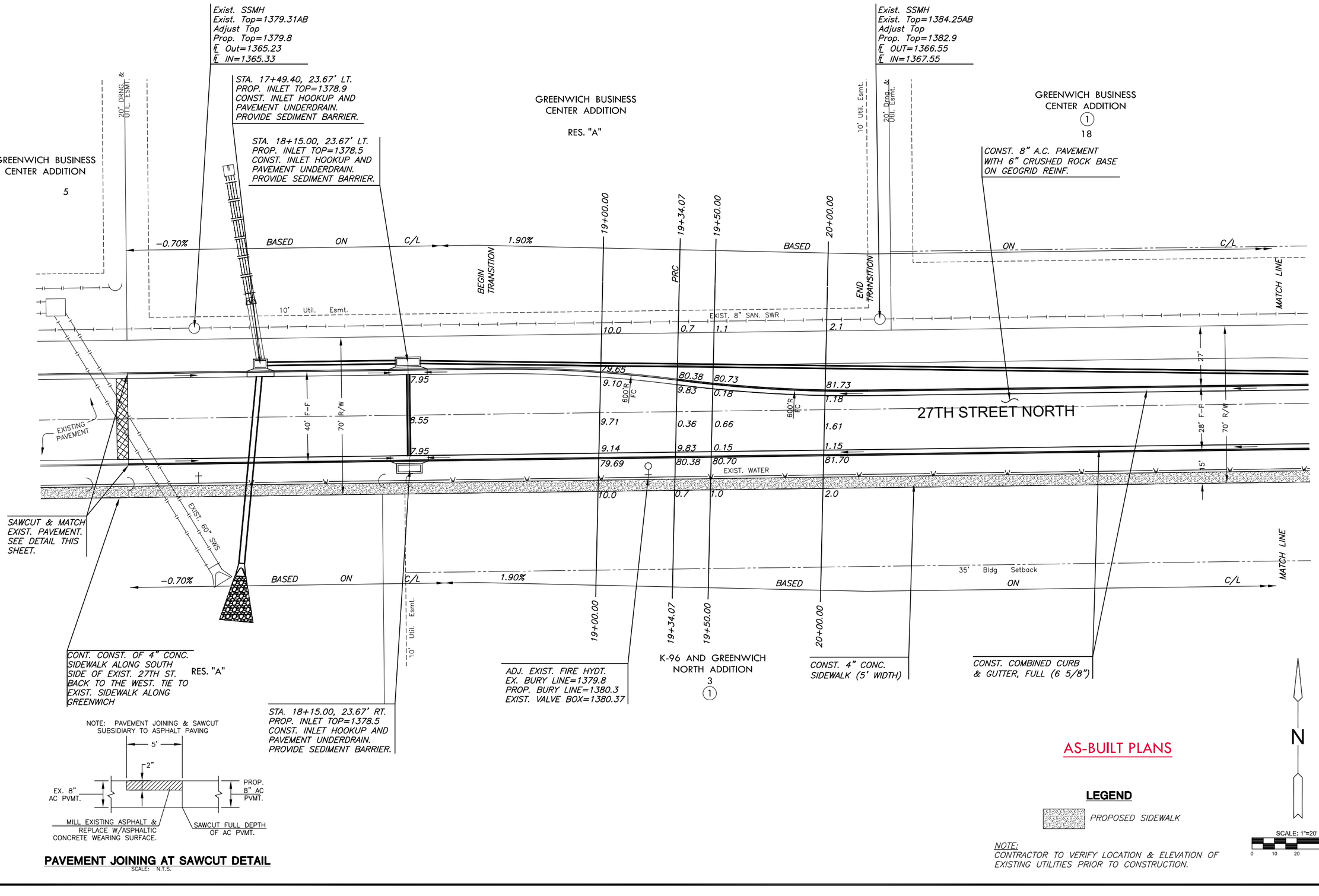

NOTE: PAVEMENT JOINING & SAWCUT SUBSIDIARY TO ASPHALT PAVING

PAVEMENT JOINING AT SAWCUT DETAIL
SCALE: N.T.S.

AS-BUILT PLANS

LEGEND

PROPOSED SIDEWALK

NOTE:
CONTRACTOR TO VERIFY LOCATION & ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

MKEC
Wichita, KS · 316-684-9300

PRIVATE PAVING & INCIDENTAL DRAINAGE FOR

27TH STREET NORTH

WICHITA, KANSAS

27TH STREET

PROJECT NO.	1201010283
DATE	FEB. 2014
SCALE	1"=20'

DESIGNED	DRAWN	CHECKED
JTC	BKS	GJA

NO.	REVISION	DATE
0	FOR C.O.W. APPROVAL	05/30/14

SHEET NO.
09 OF 31

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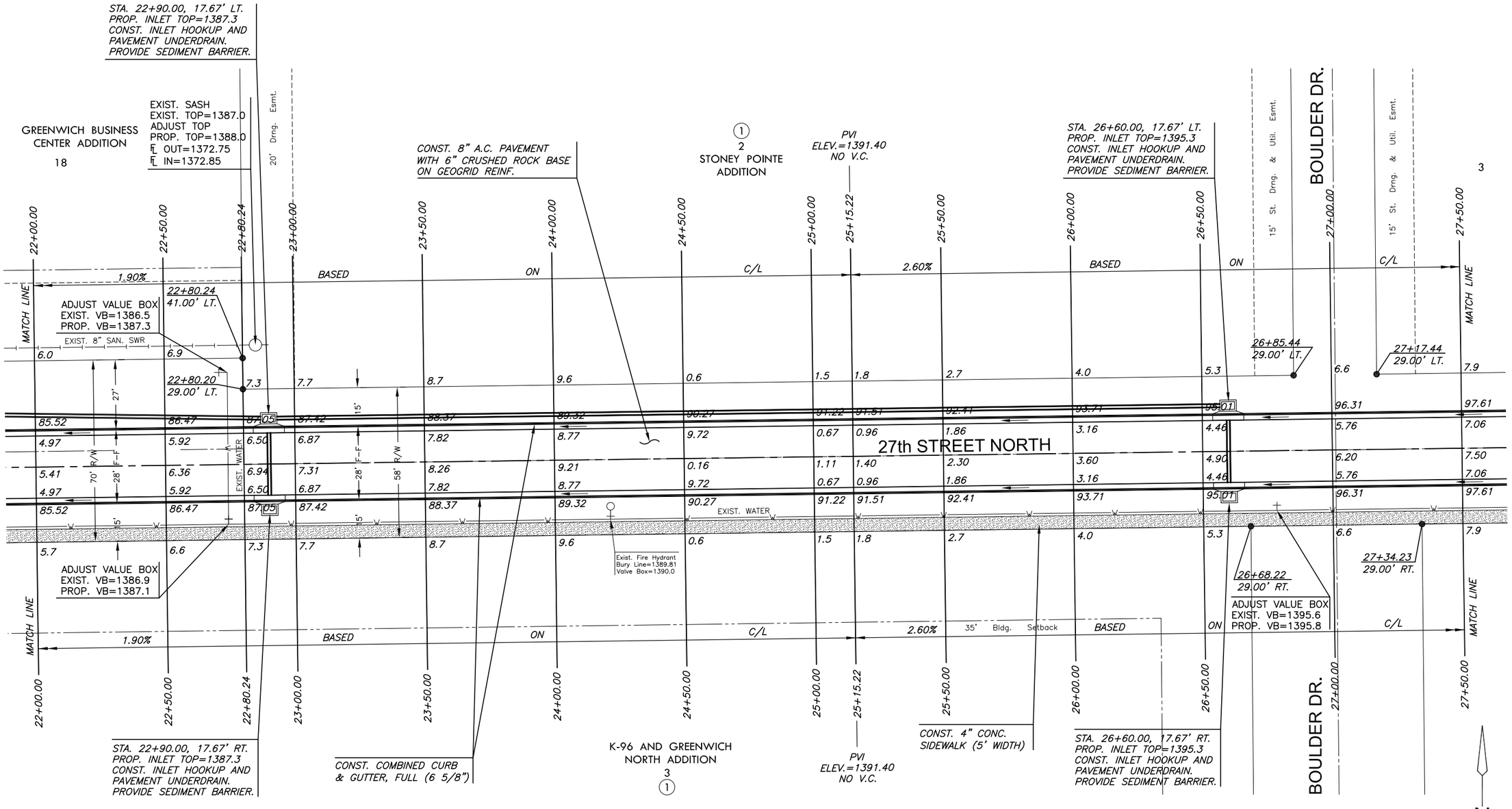

AS-BUILT PLANS

LEGEND

PROPOSED SIDEWALK

NOTE:
CONTRACTOR TO VERIFY LOCATION & ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

MKEC
Wichita, KS • 316-684-9300

PRIVATE PAVING & INCIDENTAL DRAINAGE FOR

27TH STREET NORTH

WICHITA, KANSAS

27TH STREET

PROJECT NO.	1201010283
DATE	FEB. 2014
SCALE	1"=20'

DESIGNED	DRAWN	CHECKED
JTC	BKS	GJA

NO.	REVISION	DATE
0	FOR C.O.W. APPROVAL	05/30/14

SHEET NO.

10 OF 31

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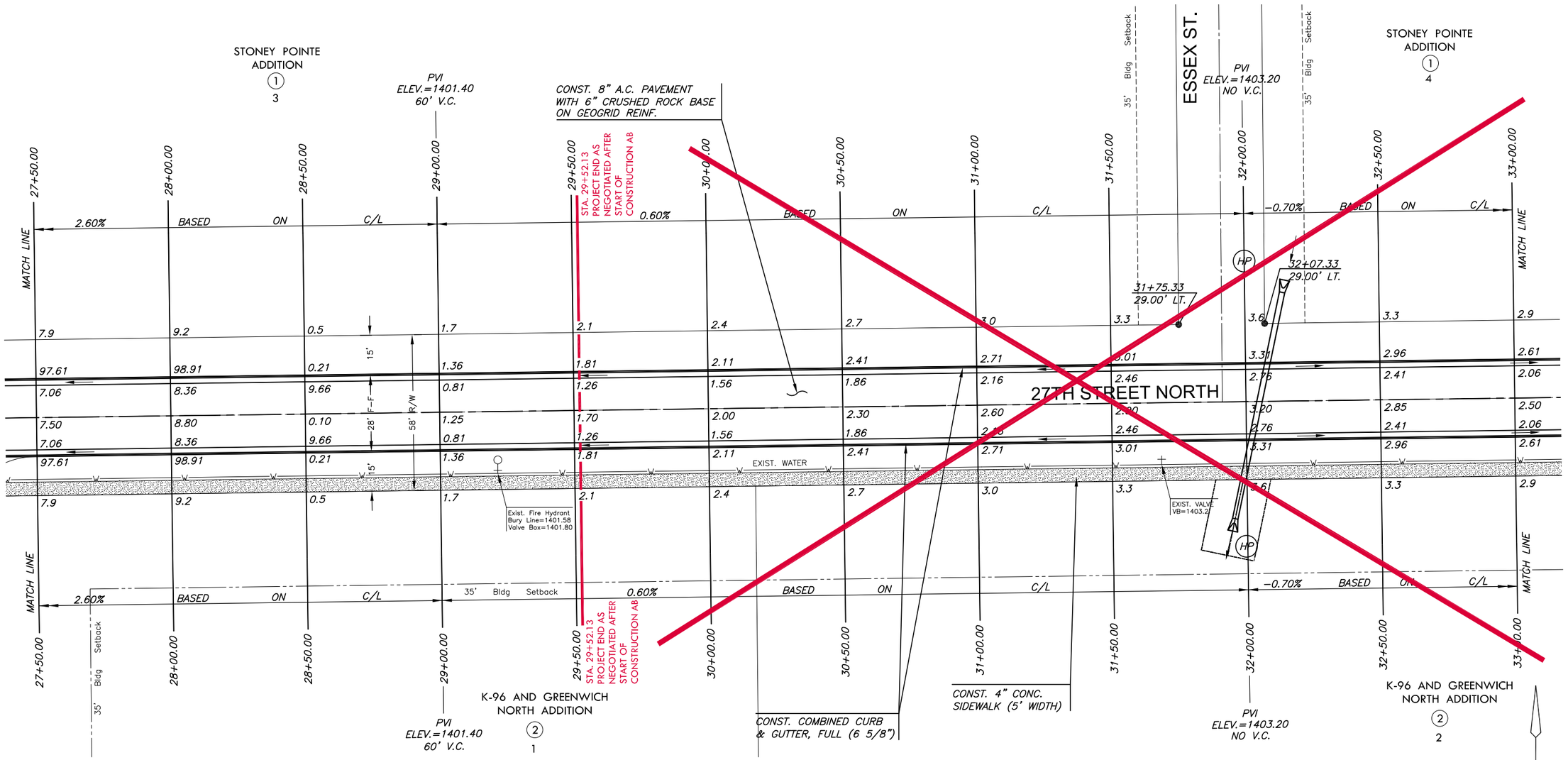

AS-BUILT PLANS

LEGEND

PROPOSED SIDEWALK

NOTE:
CONTRACTOR TO VERIFY LOCATION & ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

MKEC
Wichita, KS · 316-684-9300

PRIVATE PAVING & INCIDENTAL DRAINAGE FOR

27TH STREET NORTH

WICHITA, KANSAS

27TH STREET

PROJECT NO.	1201010283
DATE	FEB. 2014
SCALE	1"=20'

DESIGNED	DRAWN	CHECKED
JTC	BKS	GJA

NO.	REVISION	DATE
0	FOR C.O.W. APPROVAL	05/30/14

SHEET NO.

11 OF 31

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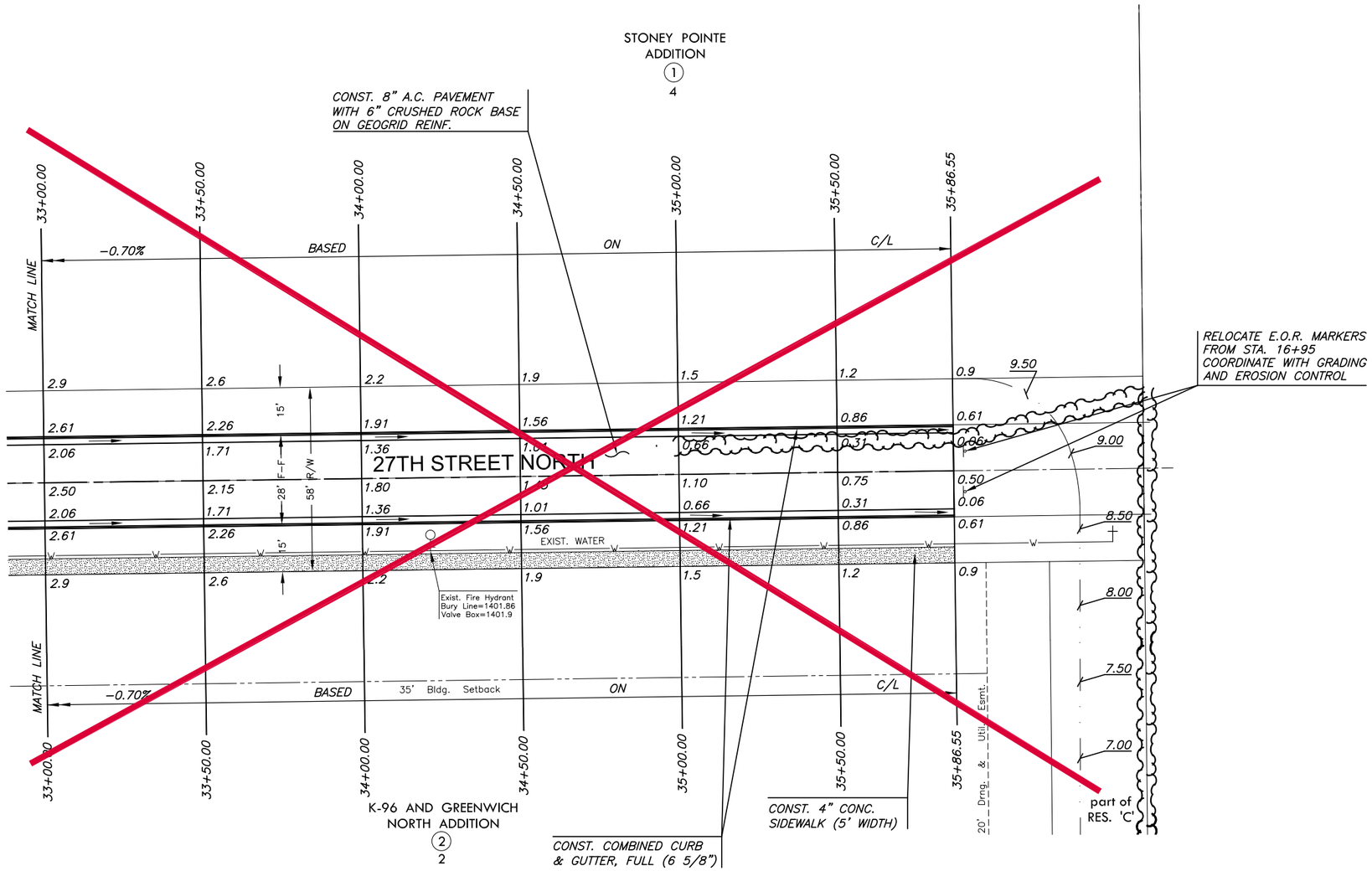

AS-BUILT PLANS

LEGEND

PROPOSED SIDEWALK

NOTE:
CONTRACTOR TO VERIFY LOCATION & ELEVATION OF EXISTING UTILITIES PRIOR TO CONSTRUCTION.

N

SCALE: 1"=20'
0 10 20 40

MKEC
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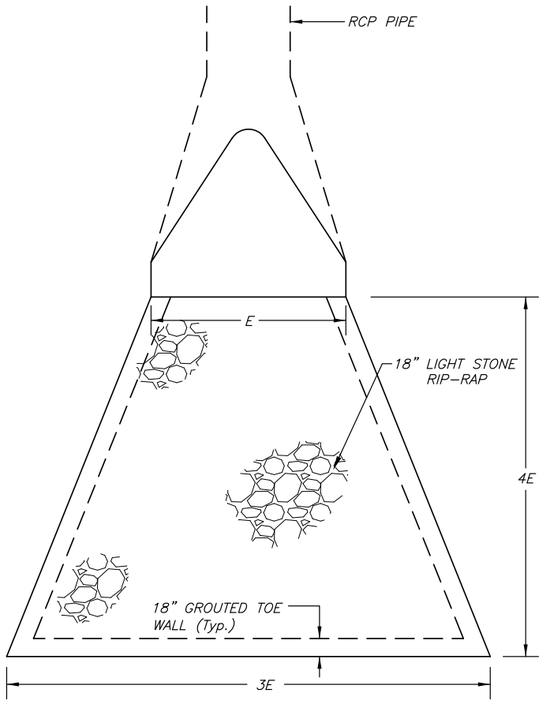
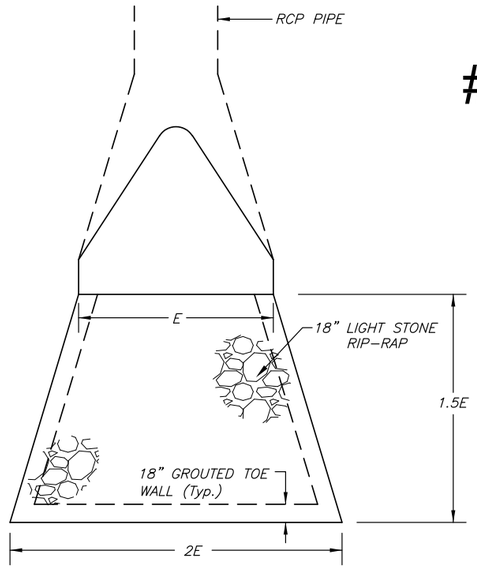
SHEET NO.

12 OF 31



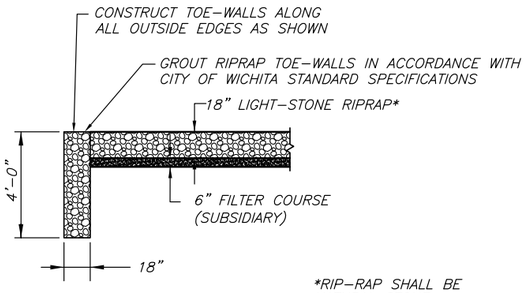
RIP-RAP PLAN PIPE OUTLET



RIP-RAP PLAN PIPE INLET

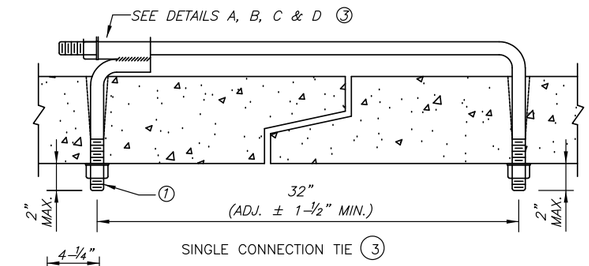
####

END SECTIONS ARE NOT PAID FOR SEPARATELY BUT ARE INCLUDED IN THE OVERALL PIPE LENGTH.

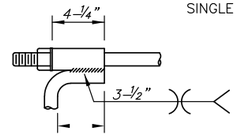


RIPRAP DETAIL

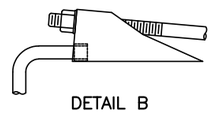
*RIP-RAP SHALL BE NATURAL STONE.



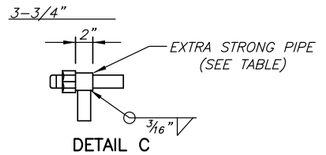
SINGLE CONNECTION TIE (3)



DETAIL A



DETAIL B



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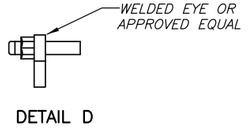
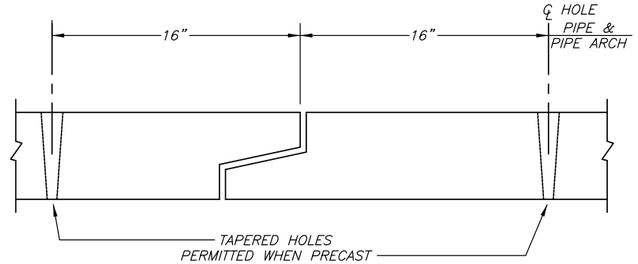
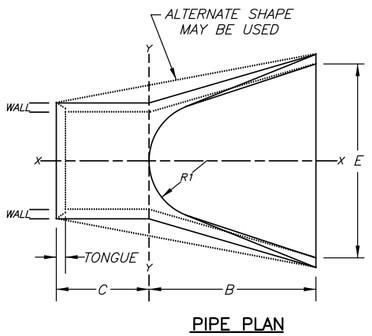


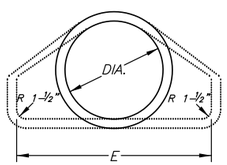
DETAIL D



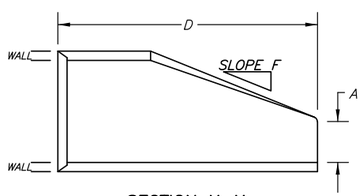
HOLES SHALL BE CAST OR DRILLED 16" FROM CENTERLINE OF JOINTS FOR BOX CULVERTS, AS SHOWN ABOVE, UNLESS FORMS ARE SET UP FOR 16" SPACING FROM OUTSIDE OF JOINT.



PIPE PLAN



SECTION Y-Y



SECTION X-X

NOTES:

FILTER COURSE AND GROUTED TOE WALL SUBSIDIARY TO "RIP RAP, LIGHT STONE".

TIES ARE SUBSIDIARY TO STORM SEWER PIPE.

TIE RODS SHALL BE GALVANIZED OR POWER WASHED AND DIPPED IN AN APPROVED ZINC RICH EPOXY PRIME PAINT AFTER FABRICATION.

RIP-RAP DIMENSIONS AT PIPE INLETS AND OUTLETS MAY BE ADJUSTED TO FIT ACTUAL FIELD CONDITIONS IF APPROVED BY THE ENGINEER.

TIES TO BE USED ONLY TO HOLD PIPE SECTIONS TOGETHER, NOT FOR PULLING SECTIONS TIGHT.

CONNECT END SECTION AND PIPE SECTIONS WITH PIPE TIES A MINIMUM OF 2 JOINTS FROM THE END SECTION.

(1) TIE ROD THREADS SHALL PROJECT TO THE INSIDE OF PIPE EXCEPT AS NOTED IN PLANS.

(2) TIE ROD THREADS SHALL BE RECESSED WHEN PIPE IS USED AS CATTLE PASS OR PEDESTRIAN TRAIL.

(3) TIES MAY BE COMPLETED WITH U-BOLT TIES, SINGLE CONNECTION TIES (AS SHOWN) OR DOUBLE CONNECTION TIES.

NOTE: SEE STORMWATER SHEETS FOR QUANTITY AND DIMENSIONS OF RIP-RAP AT EACH LOCATION.

DIAM.	A	B	C	D	E	F	R1	TONGUE	WALL
12"	4"	2' 0"	4' 0-7/8"	6' 0-7/8"	2' 0"	3:1	9"	1-1/2"	2"
15"	6"	2' 3"	3' 10"	6' 1"	2' 6"	3:1	11"	2"	2 1/4"
18"	9"	2' 3"	3' 10"	6' 1"	3' 0"	3:1	12"	2-1/2"	2 1/2"
24"	9-1/2"	3' 7-1/2"	2' 6"	6' 1-1/2"	4' 0"	3:1	14"	2-1/2"	3"
30"	1' 0"	4' 6"	1' 7-3/4"	6' 1-3/4"	5' 0"	3:1	15"	3"	3-1/2"
36"	1' 3"	5' 3"	1' 10-3/4"	8' 1-3/4"	6' 0"	3:1	20"	3-1/2"	4"
42"	1' 9"	5' 3"	2'-11"	8' 2"	6' 6"	3:1	22"	3-3/4"	4-1/2"
48"	2' 0"	6' 0"	2' 2"	8' 2"	7' 0"	3:1	22"	4-1/4"	5"
54"	2' 3"	5' 5"	2' 11"	8' 4"	7' 6"	3:1	24"	4-3/4"	5-1/2"
60"	2' 6"	5' 0"	3' 3"	8' 3"	8' 0"	2.4:1	24"	5"	6"
66"	2' 0"	6' 6"	1' 9"	8' 3"	8' 6"	2:1	24"	5-1/2"	7"
72"	2' 0"	6' 6"	1' 9"	8' 3"	9' 0"	2:1	24"	6"	7-1/2"

END AREA SQ.FT.	ROUND EQUIV.	SPAN	RISE	WALL	A	B	C	D	E	R1	R2	R3	R4
3.3	24"	30"	19"	3 1/4"	8-1/2"	3' 3"	2' 9"	6' 0"	4' 0"	8-1/4"	26-1/4"	3"	7"
4.1	27"	34"	22"	3 1/2"	9"	3' 10"	2' 2"	6' 0"	4' 6"	9-1/4"	29-17/32"	3"	8"
5.1	30"	38"	24"	3 3/4"	9-1/2"	4' 6"	1' 6"	6' 0"	5' 0"	10-1/4"	32-3/4"	3"	9"
6.3	33"	42"	27"	3 3/4"	10-3/8"	4' 9"	1' 3"	6' 0"	5' 6"	11-7/16"	36-3/16"	3"	10-1/2"
7.4	36"	45"	29"	4 1/2"	11 1/4"	5' 0"	3' 0"	8' 0"	6' 0"	12-1/4"	39-1/4"	3"	12"

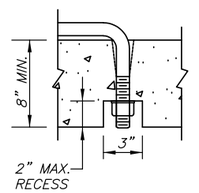
TONGUE LENGTHS BASED ON QUINN STANDARD

PIPE SIZE (INCHES)	ROD THREAD DIA.
12 - 27	5/8"
30 - 66	3/4"
72 - 108	1"

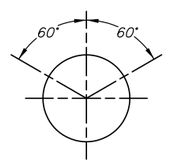
ROD THREAD DIA.	EXTRA STRONG PIPE INSIDE DIA.
5/8"	3/4"
3/4"	1"
1"	1-1/4"

PIPE SIZE LISTED IS INSIDE DIA. OF ROUND PIPE OR EQUIVALENT DIA. OF PIPE ARCH.

AS-BUILT PLANS



OPTIONAL RECESS DETAIL (2)



ROUND PIPE

MKEC
Wichita, KS · 316-684-9300

STORM WATER SEWER PLAN FOR

27TH STREET NORTH

WICHITA, KANSAS

RCP OUTFALL DETAIL

PROJECT NO.	1201010283
DATE	FEB. 2014
SCALE	N/A

DESIGNED	DRAWN	CHECKED
MKEC	MKEC	MKEC

NO.	REVISION	DATE

SHEET NO.

13 OF 31

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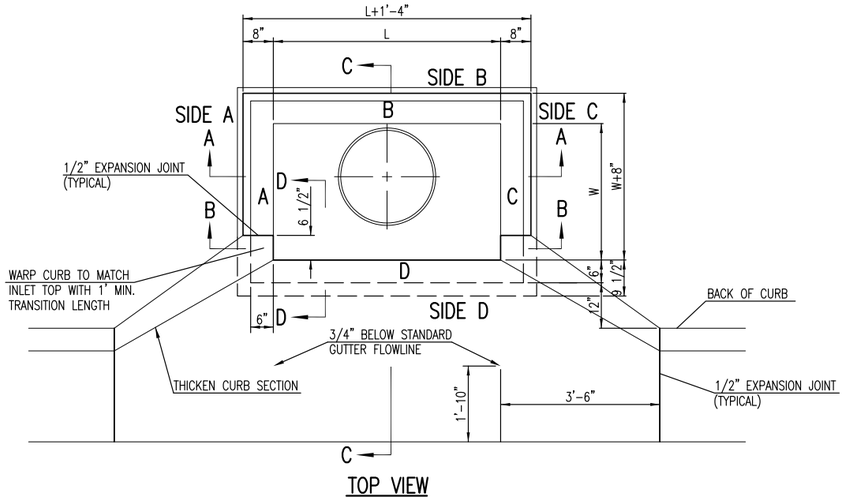


TOP VIEW

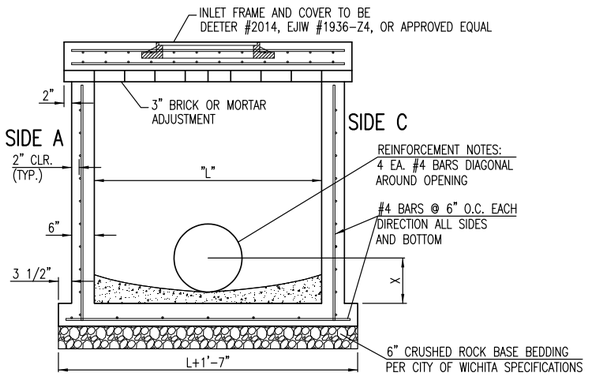
BAR SCHEDULE		
INLET OPENING	B1 BARS	SPACING
5'-0"	#4	4"
10'-0"	#6	3.5"

PRECAST CURB INLET WIDTHS				
W	PRE-CAST TOP SIZE			PIPE DIA.**
	WIDTH	LENGTH	TOP	
3'-0"	W+8"	L+1'-4"	7 1/2"	21" & SMALLER
4'-0"	W+8"	L+1'-4"	7 1/2"	24" & 30"
5'-0"	W+8"	L+1'-4"	7 1/2"	36" & 42"
6'-0"	W+8"	L+1'-4"	7 1/2"	48" & 54"
7'-0"	W+8"	L+1'-4"	7 1/2"	60" & 66"

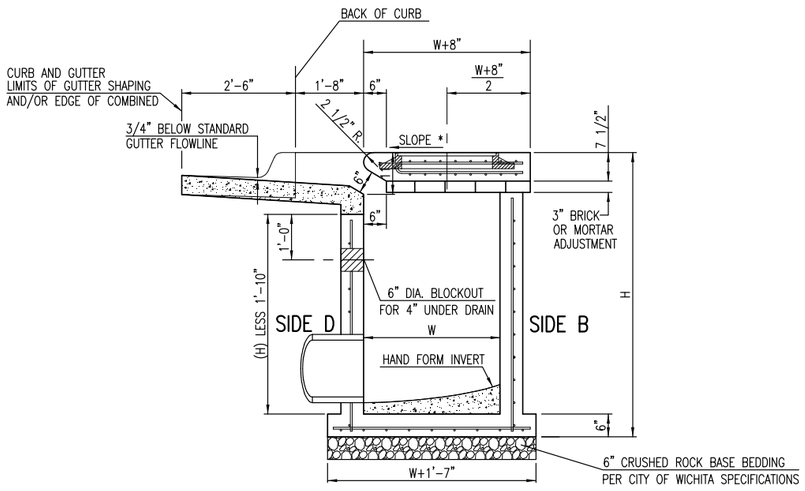
** FOR PIPES PERPENDICULAR TO INLET WALL

GENERAL NOTES

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

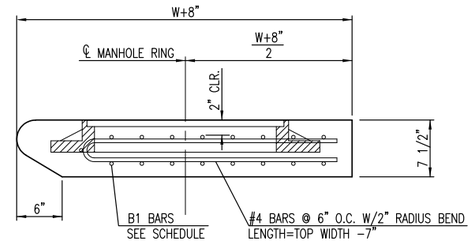


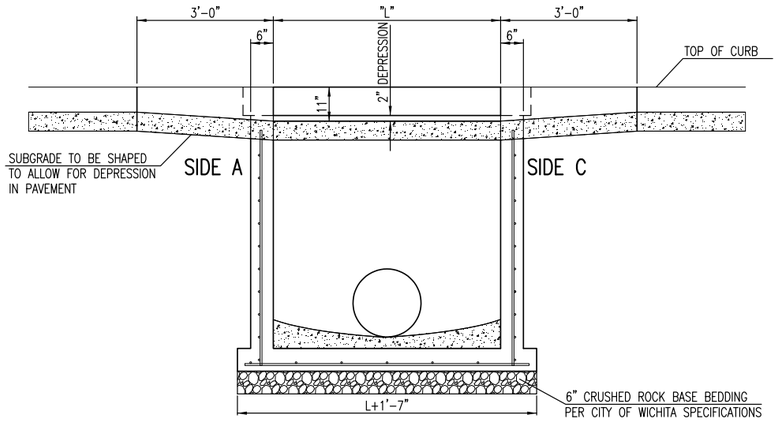
SECTION "A-A"



SECTION "C-C"

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





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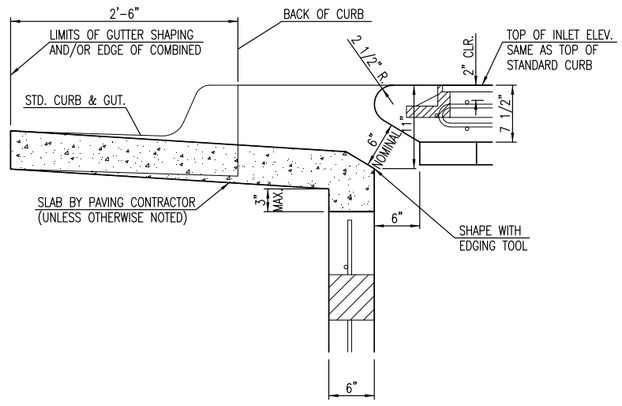

SECTION "D-D"

AS-BUILT PLANS

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

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

CITY ENGINEER
GARY L. JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
1201010283	607879	11/2010

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

DESIGN	DRAWN

SHEET
14 of 31

SW-103

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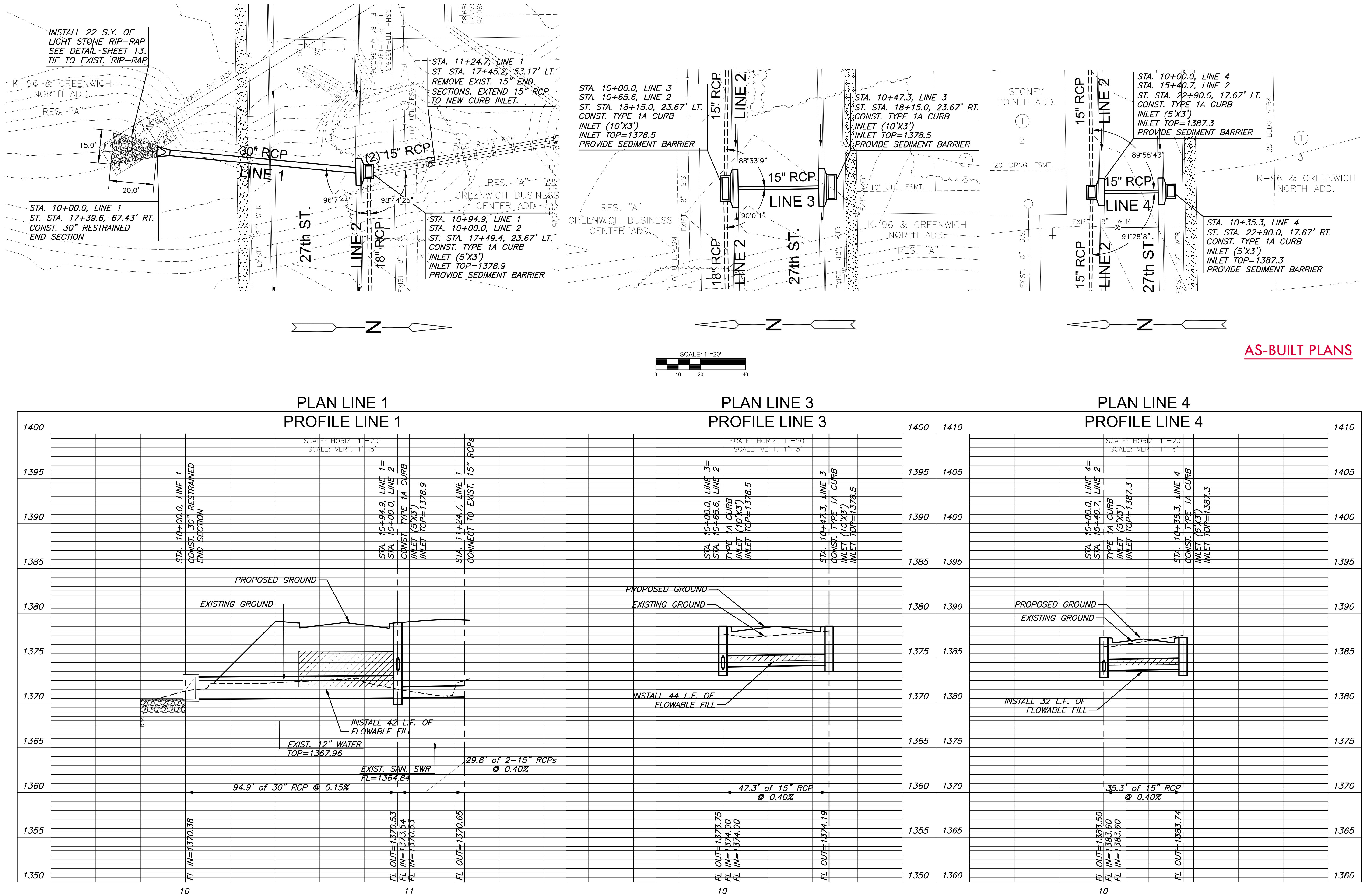

MKEC

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PRIVATE PAVING & INCIDENTAL DRAINAGE FOR

27TH STREET NORTH

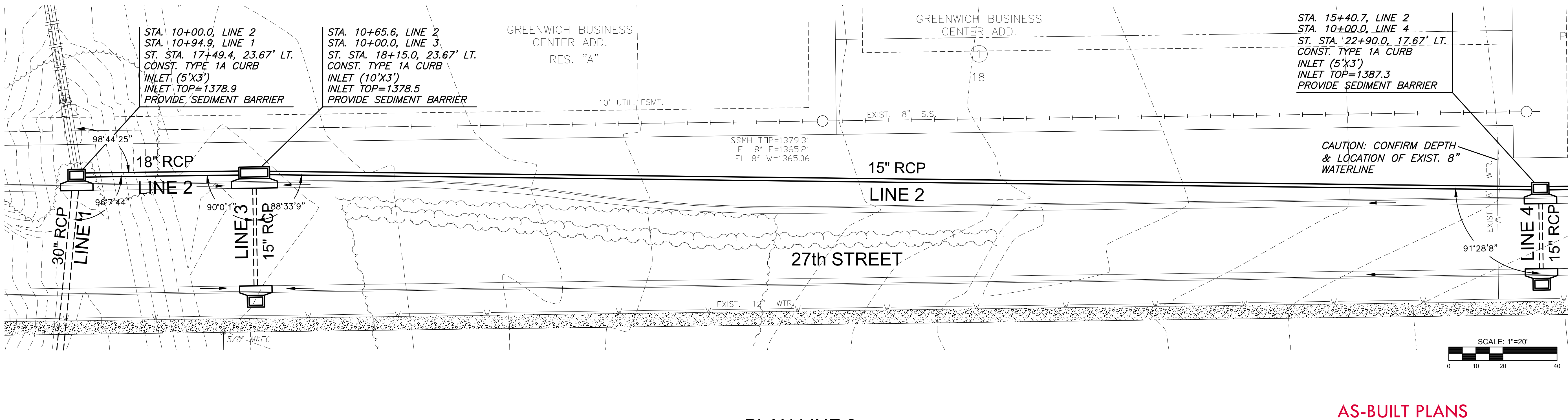
WICHITA, KANSAS

SWS LINES 1, 3 & 4

PROJECT NO.	1201010283
DATE	FEB. 2014
SCALE	AS SHOWN

DESIGNED	DRAWN	CHECKED
SPE	SPE	GJA

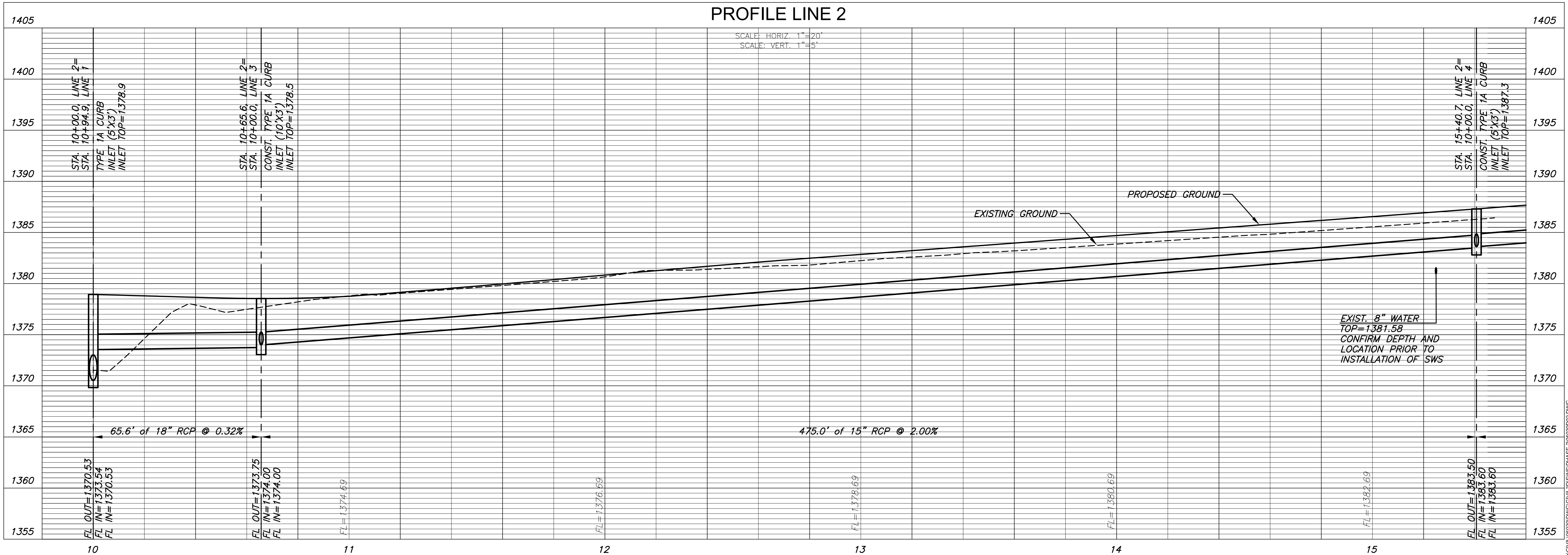
NO.	REVISION	DATE
0	FOR C.O.W. APPROVAL	05/30/14



AS-BUILT PLANS

PLAN LINE 2

PROFILE LINE 2



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PRIVATE PAVING & INCIDENTAL DRAINAGE FOR
27TH STREET NORTH
WICHITA, KANSAS

SWS LINE 2

PROJECT NO.	1201010283
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SCALE	AS SHOWN

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SPE	SPE	GJA

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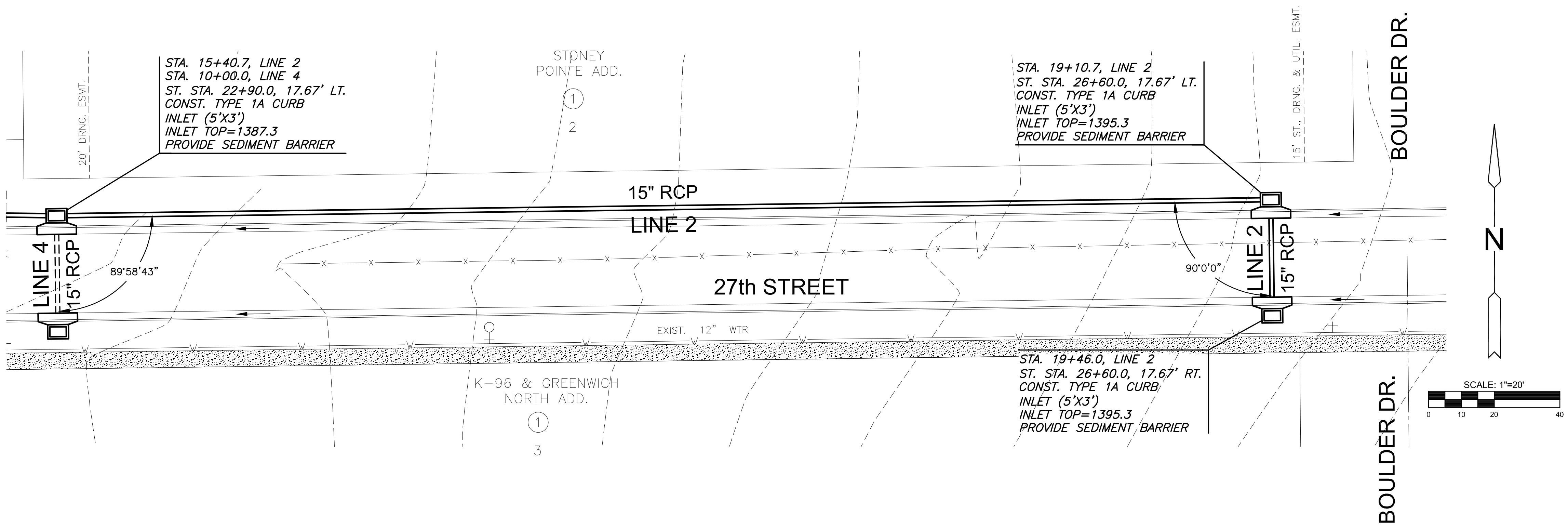
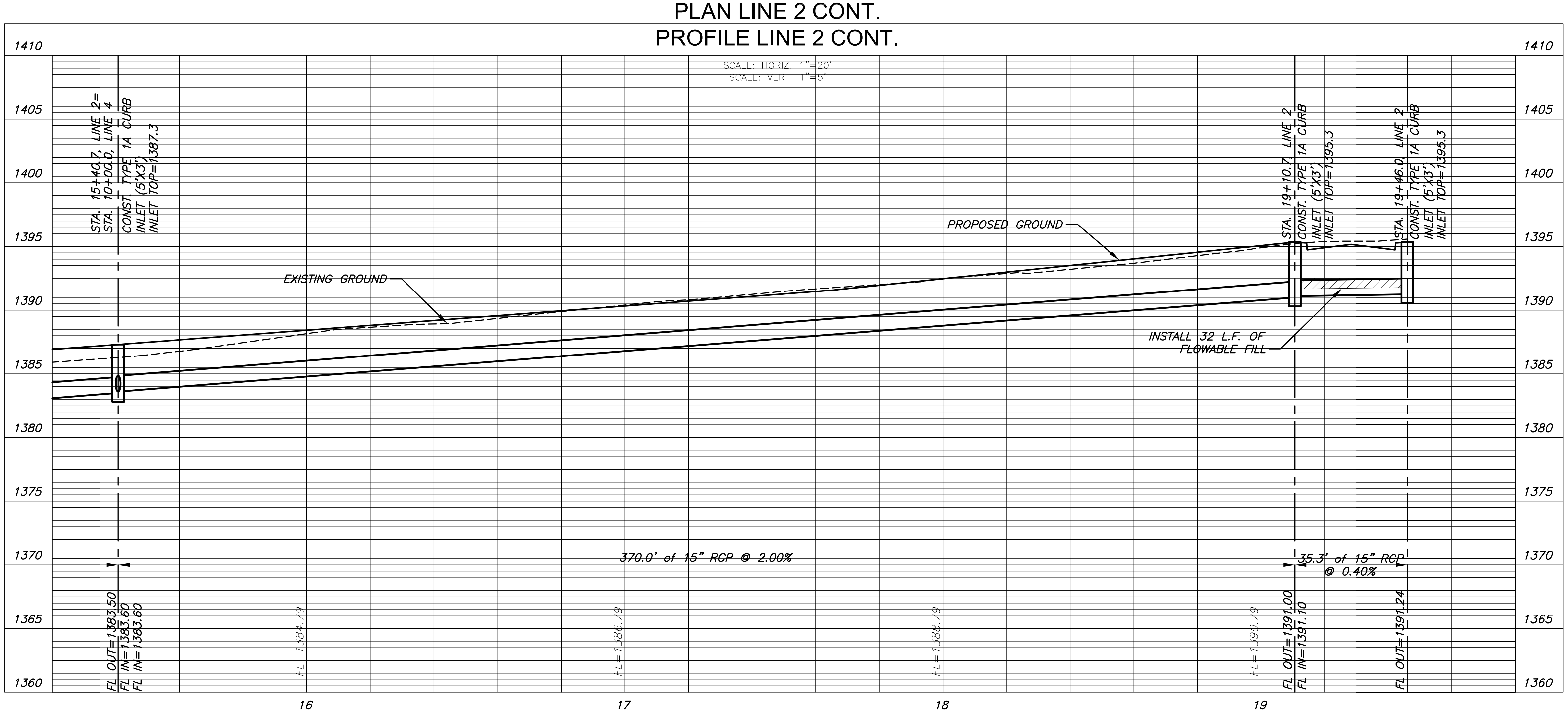
SHEET NO.



AS-BUILT PLANS

PLAN LINE 2 CONT.

PROFILE LINE 2 CONT.



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PRIVATE PAVING & INCIDENTAL DRAINAGE FOR
27TH STREET NORTH
WICHITA, KANSAS

SWS LINE 2

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NO.	REVISION	DATE
0	FOR C.O.W. APPROVAL	05/30/14

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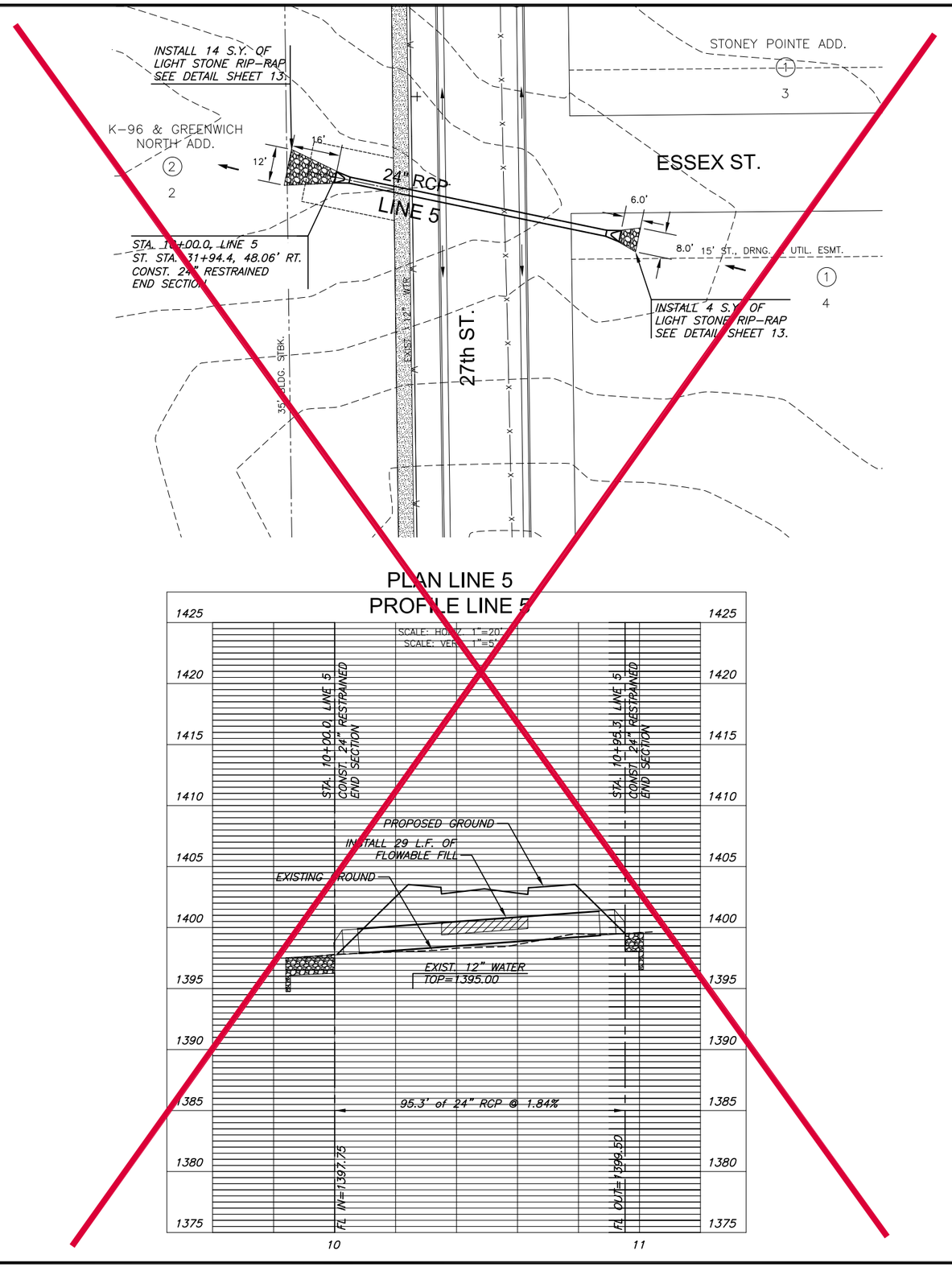

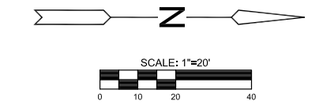

AS-BUILT PLANS

MKEC
Wichita, KS · 316-684-9300

PRIVATE PAVING & INCIDENTAL DRAINAGE FOR

27TH STREET NORTH

WICHITA, KANSAS

SWS LINE 5

PROJECT NO.	1201010283
DATE	FEB. 2014
SCALE	1"=20'

DESIGNED	DRAWN	CHECKED
SPE	SPE	GJA

NO.	REVISION	DATE
0	FOR C.O.W. APPROVAL	05/30/14

SHEET NO.

18 OF 31

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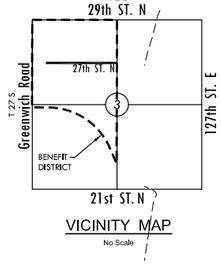
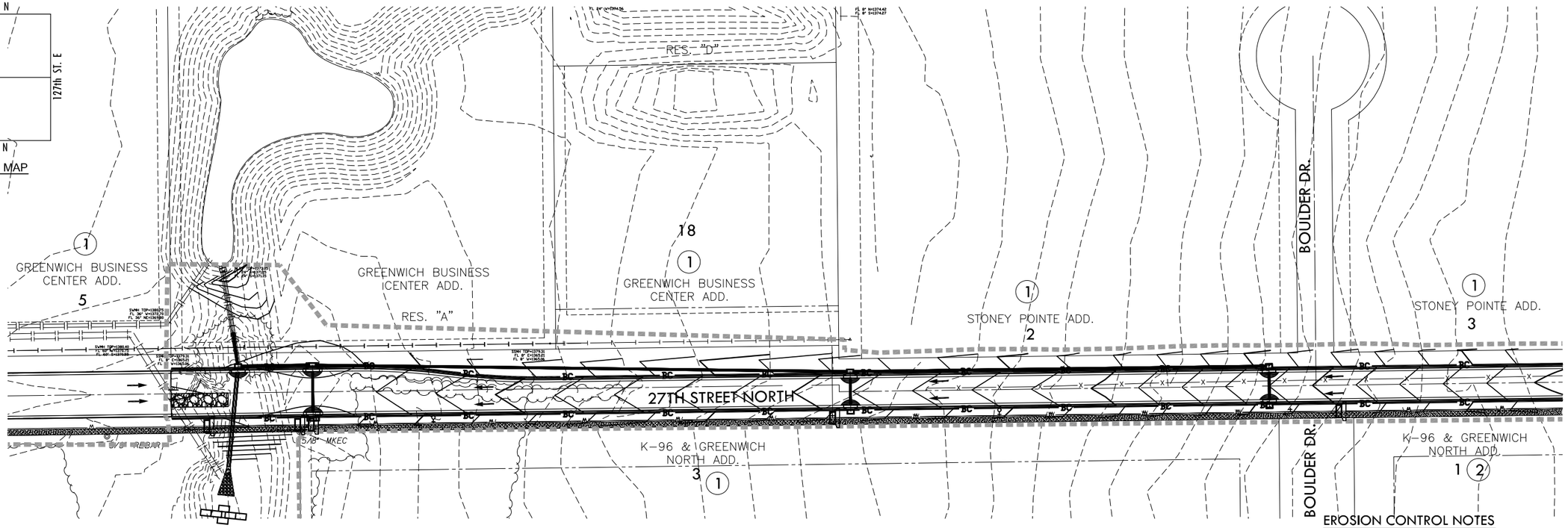
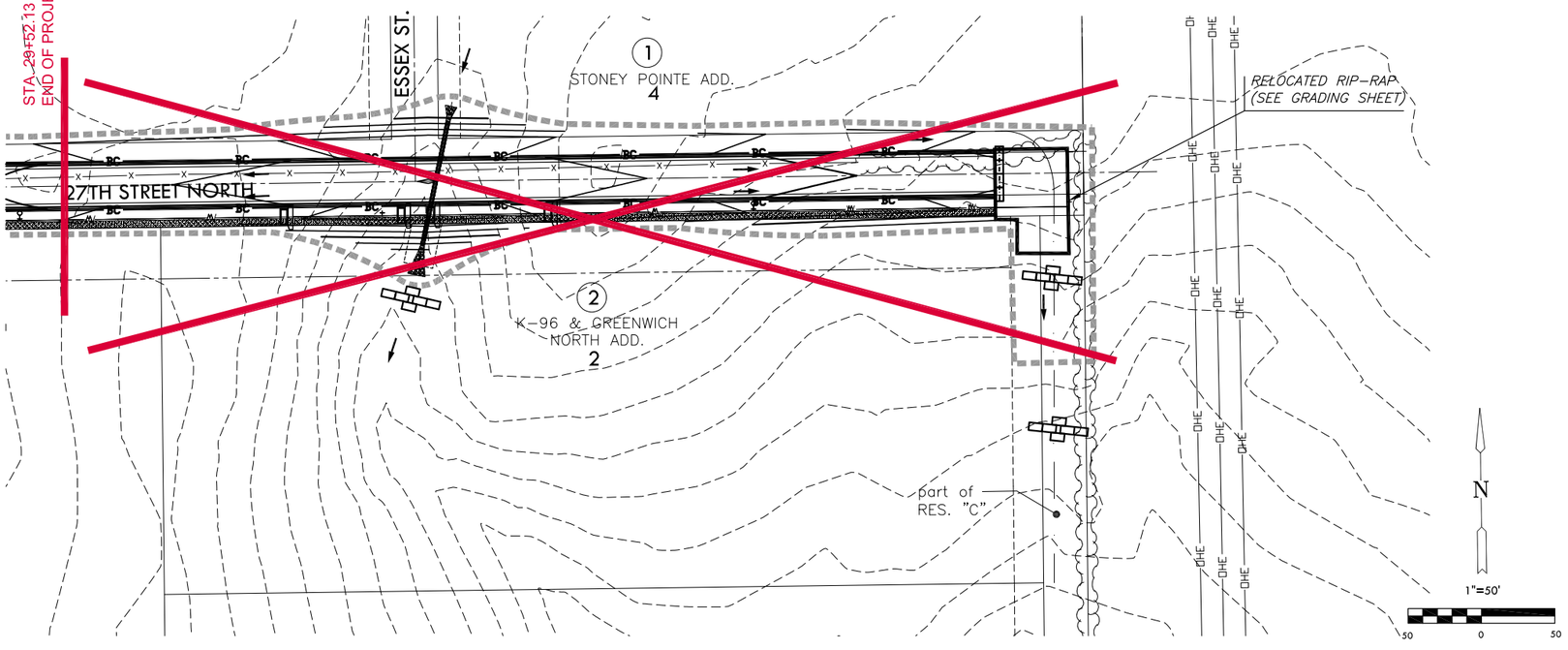


VICINITY MAP

No Scale



AS-BUILT PLANS



EROSION CONTROL NOTES

1. EROSION CONTROL IS TO MEET ALL FEDERAL, STATE, COUNTY AND LOCAL CODE STANDARDS.
2. CONTRACTOR SHALL PROVIDE AND PRESERVE EROSION PROTECTION THROUGHOUT PROJECT CONSTRUCTION. THE PLAN PROVIDED HERE IS FOR FINAL PROTECTION, VARIOUS PHASES OF THIS PLAN SHALL BE IMPLEMENTED OR MODIFIED TO CONTROL EROSION. MODIFICATIONS OF THE PLAN SHALL BE APPROVED BY THE OWNERS REPRESENTATIVE.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND IMPLEMENTING ALL EROSION CONTROL.
4. CONTRACTOR SHALL INSTALL AND MAINTAIN A STABILIZED CONSTRUCTION ENTRANCE AT A LOCATION DETERMINED BY THE ENGINEER.

CRIMPING NOTES

1. ONCE TOPSOIL HAS BEEN PLACED, DISC/SCARIFY SOIL PRIOR TO SPREADING PRAIRIE HAY.
2. SPREAD PRAIRIE HAY (2 TONS/AC.) AND IMMEDIATELY CRIMP INTO TOPSOIL WITH SUITABLE MECHANICAL EQUIPMENT.

EROSION CONTROL LEGEND

- SEEDING LIMITS SHALL EXTEND TO LIMITS OF DISTURBANCE
  ANNUAL RYE 200 LBS/ACRE (3.0 AC)
  FERTILIZE 10-20-10 @ 150 LBS/ACRE
  (QUANTITIES GIVEN FOR INFORMATION ONLY)
- BC — BACK OF CURB PROTECTION
- PROPOSED STORM SEWER LINE
- 1360 — EXISTING CONTOURS
- 1360 — PROPOSED CONTOURS
- EXISTING CURB INLET FILTER
- EXISTING INLET PROTECTION
- CURB INLET FILTER
- INLET PROTECTION
- HAYBALE DITCH CHECK
- HAYBALE AT END OF PAVEMENT W/ STAKES
- STABILIZED ENTRANCE

MKEC
Wichita, KS · 316-684-9600

EROSION CONTROL PLAN FOR

27TH STREET NORTH

WICHITA, KANSAS

EROSION CONTROL PLAN

PROJECT NO.	1201010283
DATE	FEB. 2014
SCALE	AS SHOWN

DESIGNED	DRAWN	CHECKED
JTC	LES	GJA

NO.	REVISION	DATE
0	FOR C.O.W. APPROVAL	05/30/14

SHEET NO.

19 OF 31

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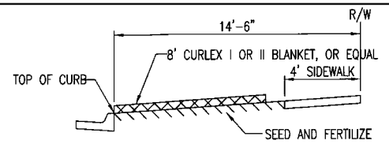
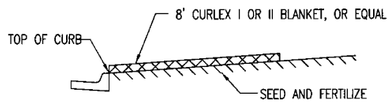
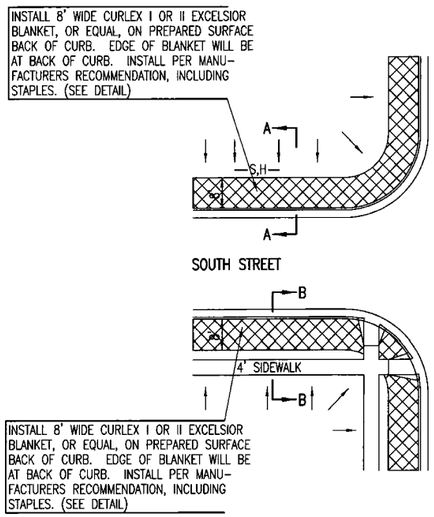


SECTION B-B



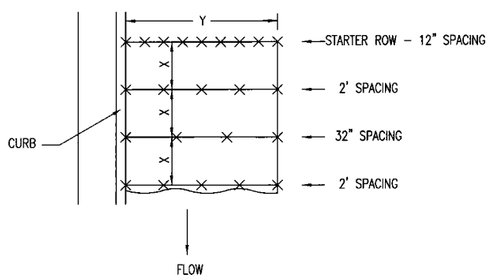
SECTION A-A



GENERAL NOTES

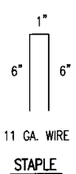
1. EXCELSIOR MAT TO BE INSTALLED WHEN SOD IS NOT SPECIFIED ON PROJECT.
2. EXCELSIOR BLANKET TO BE INSTALLED OVER SEED AND FERTILIZER, AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
3. AFTER INSTALLATION OF EXCELSIOR BLANKET, AT LOCATIONS WHERE CONCENTRATED FLOW CARRIES SEDIMENT OVER THE CURB AND INTO THE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

BACK OF CURB PROTECTION DETAIL



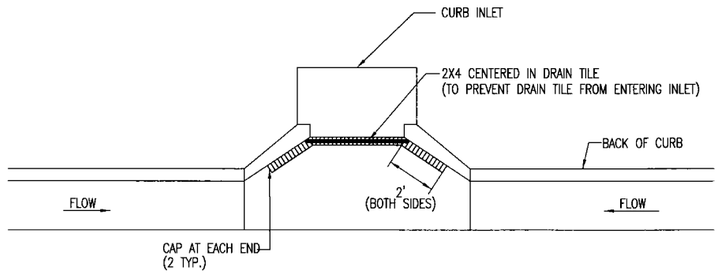
STAPLE PATTERN

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



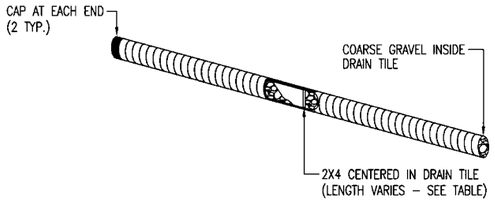
STAPLE

DETAILS FOR APPROVED EROSION CONTROL MAT

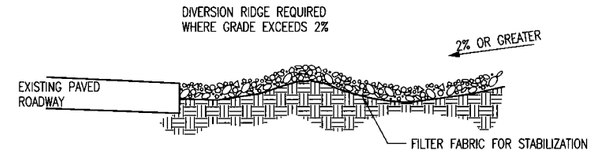


NOTE:
PLACE 4" PERFORATED PVC PIPE, FILLED WITH 1/2"-1" DIA. GRAVEL, IN FRONT OF CURB INLET AS SHOWN.

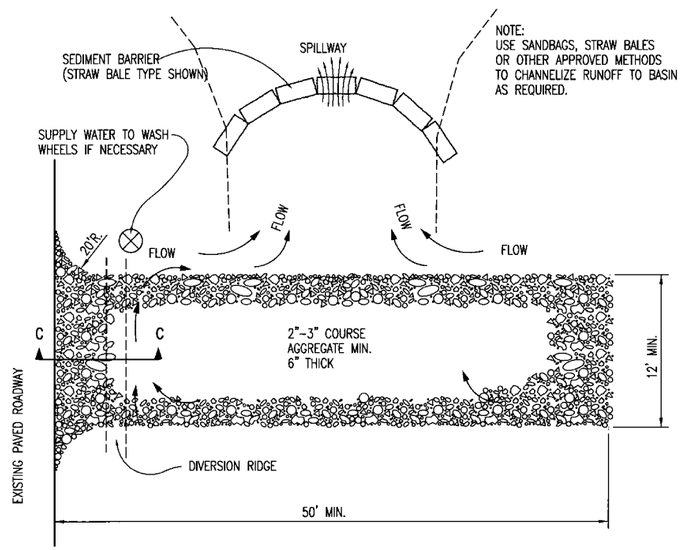
2X4 LENGTH	INLET TYPE	INLET OPENING
5'-6"	1-A	5'-0"
10'-6"	1-A	10'-0"
15'-6"	1-A	15'-0"



CURB INLET PROTECTION
4" PERFORATED PIPE W/ GRAVEL



SECTION C-C



STABILIZED CONSTRUCTION ENTRANCE

GENERAL NOTES

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.

REVISION DATE: MAY 2013

GARY L. JANZEN LICENSED 16204 PROFESSIONAL KANSAS ENGINEER
05/31/13

AS-BUILT PLANS

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
1201010283	607879	08/2012

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

SHEET
20 of 31

SW-501

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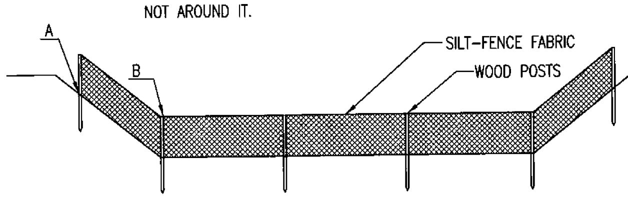
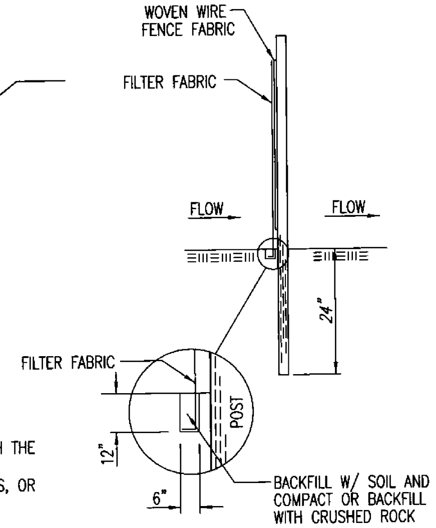
NOTE: POINT A MUST BE HIGHER THAN POINT B SO THAT WATER FLOWS OVER THE SILT FENCE FABRIC AND NOT AROUND IT.



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.

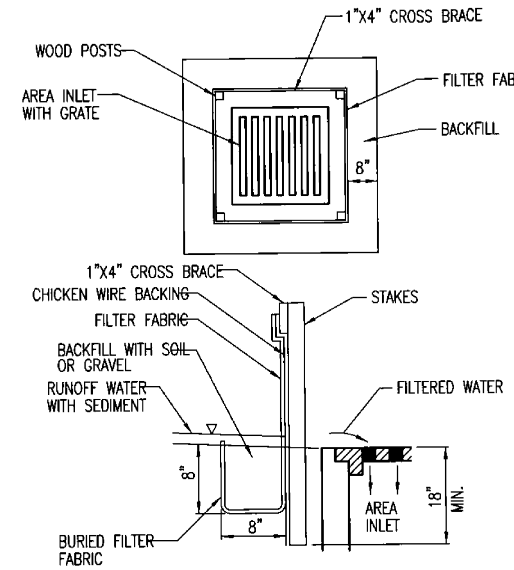
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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.

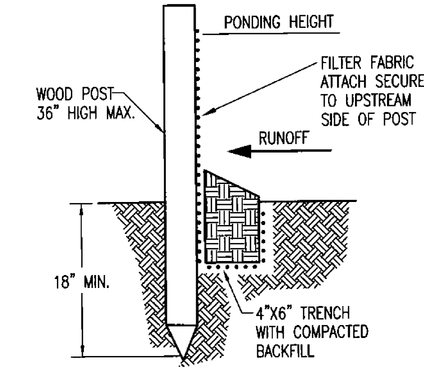
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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?

REVISION DATE: MAY 2013

GARY L. JANZEN LICENSED 16294 KANSAS PROFESSIONAL ENGINEER

AS-BUILT PLANS

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

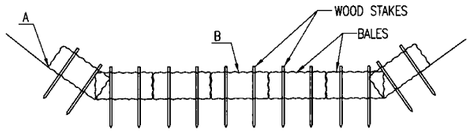
SILT FENCE DITCH CHECK AND BARRIER DETAILS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
1201010283	607879	11/2010

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

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 CHECK SPACING

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

PROPER INSTALLATION METHOD:

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

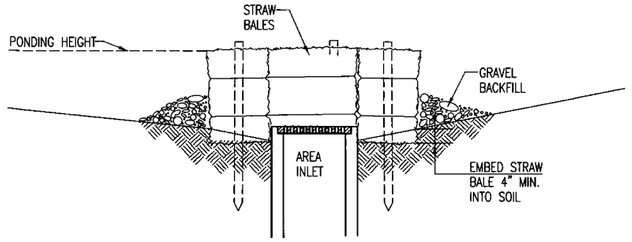
LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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

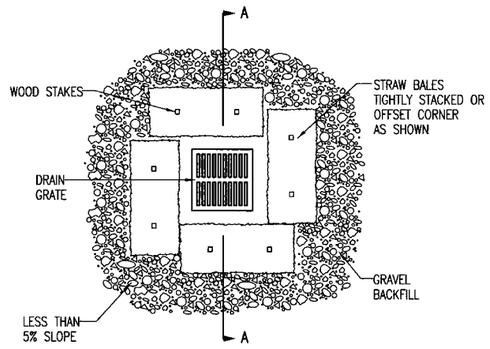
INSPECTION AND MAINTENANCE:

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

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



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.

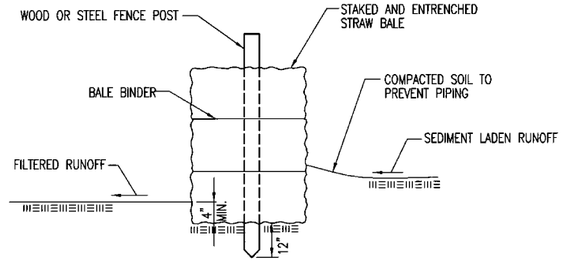
LIST OF COMMON PLACEMENT INSTALLATION MISTAKES TO AVOID:

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 OF 1/2" OR MORE. THE FOLLOWING IS A LIST OF QUESTIONS THAT SHOULD BE ADDRESSED DURING EACH INSPECTION:

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



STRAW BALE BARRIERS

MATERIAL SPECIFICATION:

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

PLACEMENT:

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

PROPER INSTALLATION METHOD:

EXCAVATE A TRENCH THE LENGTH OF THE PLANNED SLOPE BARRIER THAT IS 4" DEEP AND A BALE'S WIDTH WIDE. MAKE SURE THAT THE TRENCH IS EXCAVATED ALONG A SINGLE CONTOUR. WHEN PRACTICABLE, SLOPE BARRIERS SHOULD BE PLACED ALONG CONTOURS TO AVOID A CONCENTRATION OF FLOW. PLACE THE SOIL ON THE UPSLOPE SIDE OF THE TRENCH FOR LATER USE.
PLACE THE BALES IN THE TRENCH, MAKING SURE THAT THEY ARE BUTTED TIGHTLY. TWO STAKES SHOULD BE DRIVEN THROUGH EACH BALE ALONG THE CENTERLINE OF THE DITCH CHECK, APPROXIMATELY 6" TO 8" IN FROM THE BALE ENDS. STAKES SHOULD BE DRIVEN AT LEAST 12" INTO THE GROUND.
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LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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

INSPECTION AND MAINTENANCE:

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

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

REVISION DATE: MAY 2013

GARY L. JANZEN LICENSED 16294 PROFESSIONAL ENGINEER KANSAS 05/31/13

AS-BUILT PLANS

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
1201010283	607879	11/2010

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

SHEET
22 of 31

SW-503

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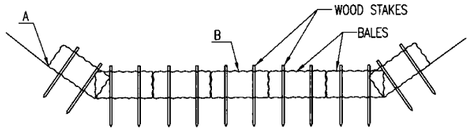
NOTE: POINT A MUST BE HIGHER THAN POINT B
SO THAT WATER FLOWS OVER THE BALES AND
NOT AROUND THEM.



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 CHECK SPACING

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

PROPER INSTALLATION METHOD:

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

LIST OF COMMON PLACEMENT/INSTALLATION MISTAKES TO AVOID:

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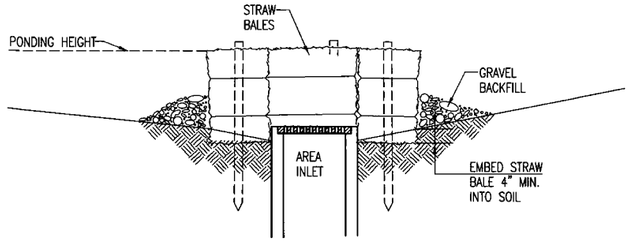
INSPECTION AND MAINTENANCE:

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?



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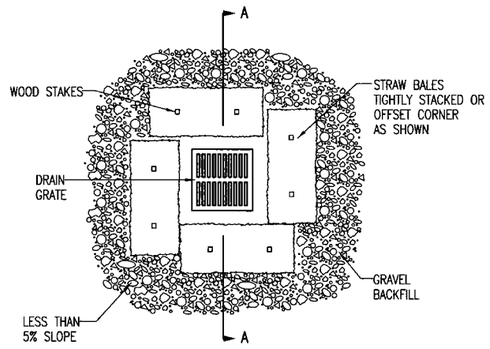

STRAW BALE BARRIERS FOR AREA INLETS
(INLET PROTECTION)

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.
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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:

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DOES WATER FLOW UNDER THE AREA INLET BARRIER?
DOES WATER FLOW THROUGH SPACES BETWEEN ABUTTING BALES?
ARE ANY BALES DISLODGED?
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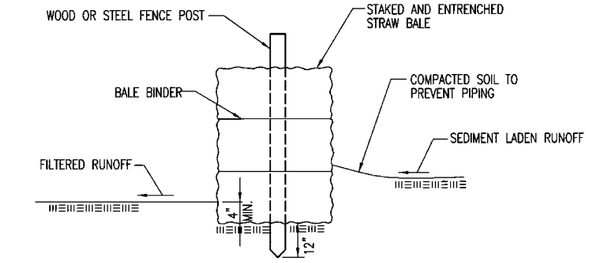
DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE AREA INLET BARRIER?



STRAW BALE BARRIERS

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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.
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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.
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DOES SEDIMENT NEED TO BE REMOVED FROM BEHIND THE SLOPE BARRIER?

GARY L. JANZEN LICENSED 16294 KANSAS PROFESSIONAL ENGINEER
05/13/13

AS-BUILT PLANS

REVISION DATE: MAY 2013

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
1201010283	607879	08/2012

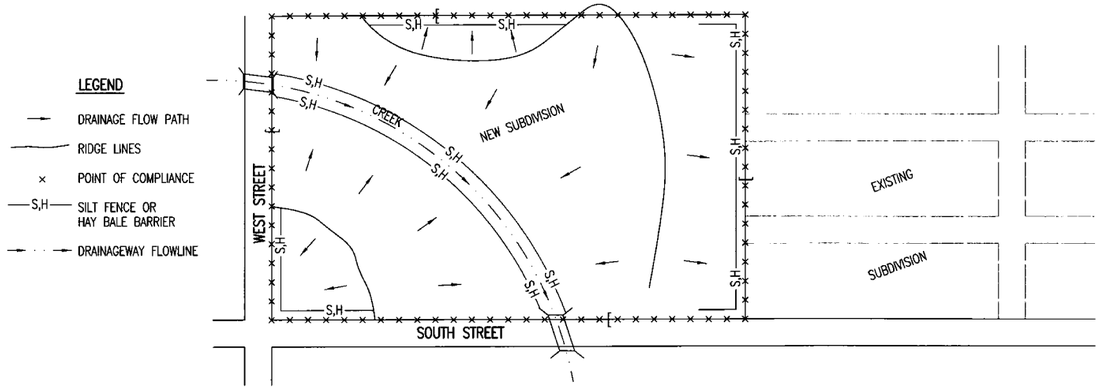
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
23 of 31

SW-504

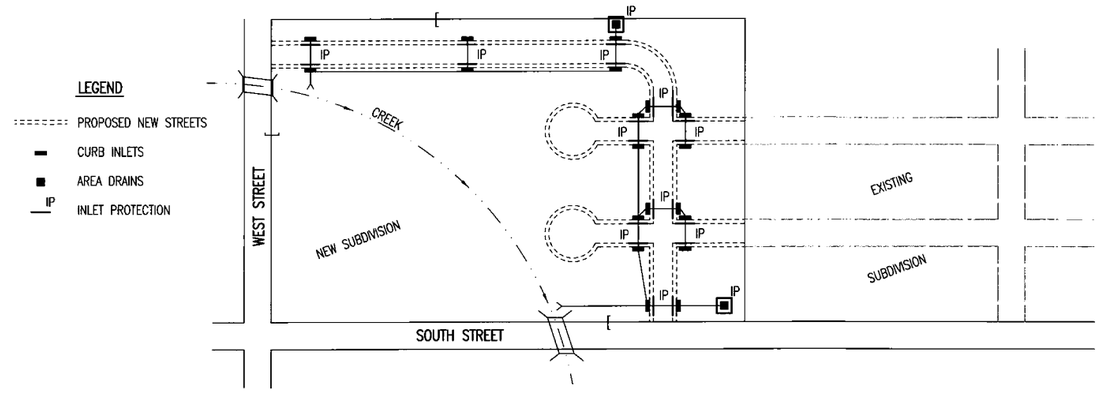
J:\Civil\050339.dwg\Civil3D\gov\Phase 2\050339_BMP4.dwg

PHASE 1 – INITIAL EARTHWORK AND UTILITIES (EXCEPT STORM SEWER)



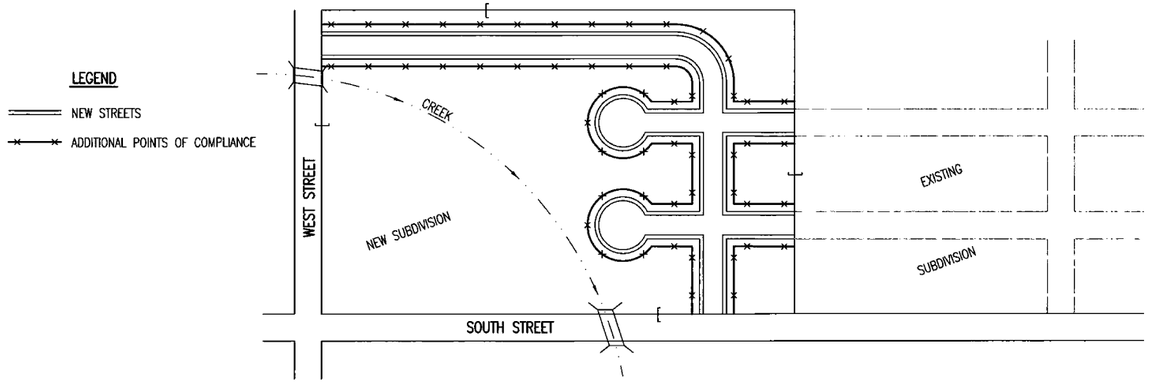
1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR FROM THE SITE. SHOULD LAKES BE CONSTRUCTED WITHIN THE SUBDIVISION THAT WILL DISCHARGE DURING STORMS, THEY ARE ALSO A POINT OF COMPLIANCE.
2. HAY BALES OR SILT FENCE MUST BE CONSTRUCTED ALONG THE PROPERTY LINE WHERE ON SITE WATER CAN DRAIN OFF THE PROPERTY. THESE EROSION CONTROL DEVICES WILL ALSO BE INSTALLED ALONG ANY DRAINAGE DITCH OR LAKE THAT CAN DISCHARGE.
3. SHOULD SILT OR SEDIMENT ENTER THE DITCHES OR STREETS ON THE ADJACENT BOUNDARY STREETS, APPROPRIATE EROSION CONTROL DEVICES WILL BE PLACED WITHIN THE SUBDIVISION TO PREVENT THIS.
4. ANY MUD TRACKED ONTO ADJACENT STREETS WILL BE REMOVED WITHIN 48 HOURS OR BY FRIDAY AT 6:00 PM, WHICHEVER IS EARLIER.
5. CONTRACTORS WORKING WITHIN THE SITE WILL NOT BE REQUIRED TO USE INDIVIDUAL EROSION CONTROL DEVICES AS LONG AS THOSE SPECIFIED ABOVE ARE IN PLACE AND EFFECTIVE. CONTRACTORS WORKING ON THE BOUNDARY LINE STREETS OR ON ADJACENT PROPERTIES TO EXTEND UTILITIES ARE EXPECTED TO USE EROSION CONTROL DEVICES AT THEIR WORK LOCATIONS, AS NEEDED.
6. UTILIZE STABILIZED CONSTRUCTION ENTRANCE AT ENTRANCE AND EXIT ONTO ANY EXISTING PUBLIC STREETS.
7. IF THE INITIAL EARTH WORK AND UTILITIES ARE DONE AS PART OF A PUBLIC IMPROVEMENT PROJECT, THESE EROSION CONTROL DEVICES WILL BE INSTALLED BY THE CONTRACTOR AS SPECIFIED IN THE INDIVIDUAL PROJECT CONTRACTS. THE CONTRACTOR WILL MAINTAIN THE DEVICES UNTIL COMPLETION OF THE CONTRACT, AT WHICH TIME THE DEVELOPER WILL ASSUME MAINTENANCE RESPONSIBILITIES. IF THESE CONTRACTS ARE NOT PUBLIC IMPROVEMENT PROJECTS, THE DEVELOPER WILL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THESE DEVICES.
8. WITHIN 14 DAYS OF COMPLETION OF EARTHWORK ACTIVITIES IN ANY GIVEN AREA, THAT AREA SHALL BE TEMPORARILY OR PERMANENTLY SEEDED AND MULCHED.

PHASE 2 – INSTALLATION OF STORM SEWER



1. DURING THIS PHASE OF SUBDIVISION DEVELOPMENT, ALL EROSION CONTROL DEVICES REQUIRED IN PHASE 1 SHALL REMAIN IN PLACE AND BE MAINTAINED.
2. AS NEW STORM SEWERS, WITH INLETS, ARE INSTALLED, THE STORM SEWERS MUST NOW BE PROTECTED SO ALL NEW INLETS BECOME POINTS OF COMPLIANCE.
3. AREA DRAINS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, HAY BALE OR SILT FENCE PROTECTION WILL BE INSTALLED AROUND THEM.
4. CURB OPENING INLETS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, INLET PROTECTION DEVICES MUST BE INSTALLED. IF WATER CANNOT FLOW INTO CURB INLETS UNTIL STREET CONSTRUCTION IS COMPLETE, THEN STREET CONTRACTOR WILL INSTALL INLET PROTECTION. SEE PHASE 3 – STREET CONSTRUCTION.
5. THE STORM SEWER CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING THESE DEVICES.
6. THE SUBDIVISION DEVELOPER WILL MAINTAIN THESE EROSION CONTROL DEVICES ONCE INSTALLED.
7. ALL DISTURBED GROUND WILL BE FINAL GRADED AND TEMPORARILY OR PERMANENTLY SEEDED WITHIN 14 DAYS IF COMPLETION OF WORK IN ANY GIVEN PART OF THE SUBDIVISION.
8. ONCE ALL DISTURBED GROUND DRAINING TO AN INLET HAS BEEN RESTABILIZED WITH GRASS OR SOD, THE SUBDIVISION DEVELOPER WILL BE RESPONSIBLE FOR PERMANENTLY REMOVING THE INLET PROTECTION.

PHASE 3 – STREET CONSTRUCTION

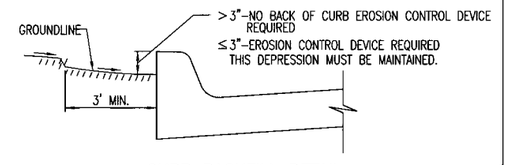


1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, NEW STREETS ARE INSTALLED. ALL EROSION CONTROL DEVICES INSTALLED DURING PHASE 1 AND 2 MUST STILL BE MAINTAINED. THE POINT OF COMPLIANCE NOW SHIFTS TO THE BACK OF CURB ALONG EACH STREET.
2. CURB OPENING INLET PROTECTION:
   A. SUMP AREAS – INLET PROTECTION SHALL BE PROVIDED WHEN STREET SUBGRADE WORK IS COMPLETED.
   B. NON-SUMP LOCATIONS – PROVIDE INLET PROTECTION AS SOON AS BASE COURSE ASPHALT IS INSTALLED, BEFORE THE SURFACE COURSE LIFT.
3. EROSION CONTROL DEVICES WILL BE REQUIRED BACK OF CURB WHEREVER WATER CAN FLOW OVER THE CURB AND THE CURB HAS BEEN BACKFILLED TO WITHIN 3" OR LESS OF THE TOP OF CURB (SEE CURB BACKFILL DETAIL). FOR CURBS NOT YET ENTIRELY BACKFILLED (3" OR MORE BELOW TOP OF CURB), ADDITIONAL DEVICES WILL BE REQUIRED AT POINTS WHERE WATER BREAKS OVER CURB WHICH COULD RESULT IN THE PLACEMENT OF SEDIMENT IN THE GUTTER.
4. SEE DETAIL SHEET FOR BACK OF CURB PROTECTION.
5. THE BACK OF CURB PROTECTION SPECIFIED ON THIS PLAN MAY HAVE TO BE SUPPLEMENTED WITH HAY BALE OR SILT FENCE EROSION CONTROL DEVICES AT LOCATIONS WHERE CONCENTRATED FLOW RESULTS IN SEDIMENT BEING CARRIED OVER THE EXCELSIOR MATS.
6. THE STREET CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING BACK OF CURB EROSION CONTROL DEVICES.
7. THE INDIVIDUAL LOT OWNERS WILL BE RESPONSIBLE FOR MAINTAINING THE BACK OF CURB EROSION CONTROL DEVICES IN FRONT OF THEIR LOTS UNTIL SUCH TIME AS ADJACENT DISTURBED EARTH IS STABILIZED WITH GRASS OR SOD.

GENERAL NOTES

1. THE INTENT OF ALL EROSION CONTROL DEVICES IS TO PREVENT ERODED SOIL FROM ENTERING DITCHES, STORM SEWERS, LAKES, STREETS OR ANY OTHER OTHER DRAINAGE FEATURE.
2. THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPE OF EROSION CONTROL DEVICES WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
3. EROSION CONTROL DEVICES SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS TO REMAIN EFFECTIVE. MAINTENANCE SHALL BE AS INDICATED ON SOIL EROSION BMP'S DETAIL SHEETS.
4. PERSONS DESTROYING EROSION CONTROL DEVICES SHALL BE RESPONSIBLE FOR IMMEDIATELY REPAIRING THEM OR INSTALLING SUITABLE REPLACEMENT DEVICES.
5. THE DEVELOPMENT OF ANY SUBDIVISION THAT DISTURBS 1 ACRE OR MORE WILL REQUIRE A FEDERAL/STATE NPDES STORMWATER PERMIT. THE PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN IS REQUIRED. EROSION CONTROL DEVICES ARE REQUIRED. THE DETAILS SHOWN ON THIS SHEET ARE THE MINIMUM STANDARDS TO BE SHOWN ON POLLUTION PREVENTION PLANS.
6. FOR SUBDIVISIONS SMALLER THAN 1 ACRE, SOIL EROSION DEVICES ARE REQUIRED. ALSO, DEVELOPERS AND CONTRACTORS ARE ENCOURAGED TO DEVELOP POLLUTION PREVENTION PLANS FOR EACH PROJECT PRIOR TO CONSTRUCTION.
7. FAILURE TO USE AND MAINTAIN SOIL EROSION DEVICES IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE SUBDIVISION DEVELOPER AND CONTRACTORS TO THE PENALTIES PROVIDED THEREIN.
8. THE APPLICATION OF EROSION CONTROL DEVICES SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE DEVICES OTHER THAN THAT SHOWN. EROSION CONTROL DEVICES, OTHER THAN THOSE SHOWN, MAY BE UTILIZED SO LONG AS THEY ARE EFFECTIVE AND MAINTAINED.
9. A STABILIZED EARTH SURFACE IS DEFINED AS ONE THAT IS HARD SURFACED WITH CONCRETE, ASPHALT, OR THE LIKE, OR ONE ON WHICH 70% OF THE GRASS HAS GERMINATED ON THE ENTIRE SURFACE.

SEE DETAIL SHEET FOR BACK OF CURB PROTECTION DETAIL



CURB BACKFILL DETAIL (STREET CONSTRUCTION ONLY)

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

AS-BUILT PLANS

GARY L. JANZEN LICENSED 16294 PROFESSIONAL ENGINEER KANSAS
05.13.13

REVISION DATE: MAY 2013

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

SUBDIVISION DEVELOPMENT PROCESS

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
1201010283	607879	08/2012

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

SHEET
24 of 31

SW-505

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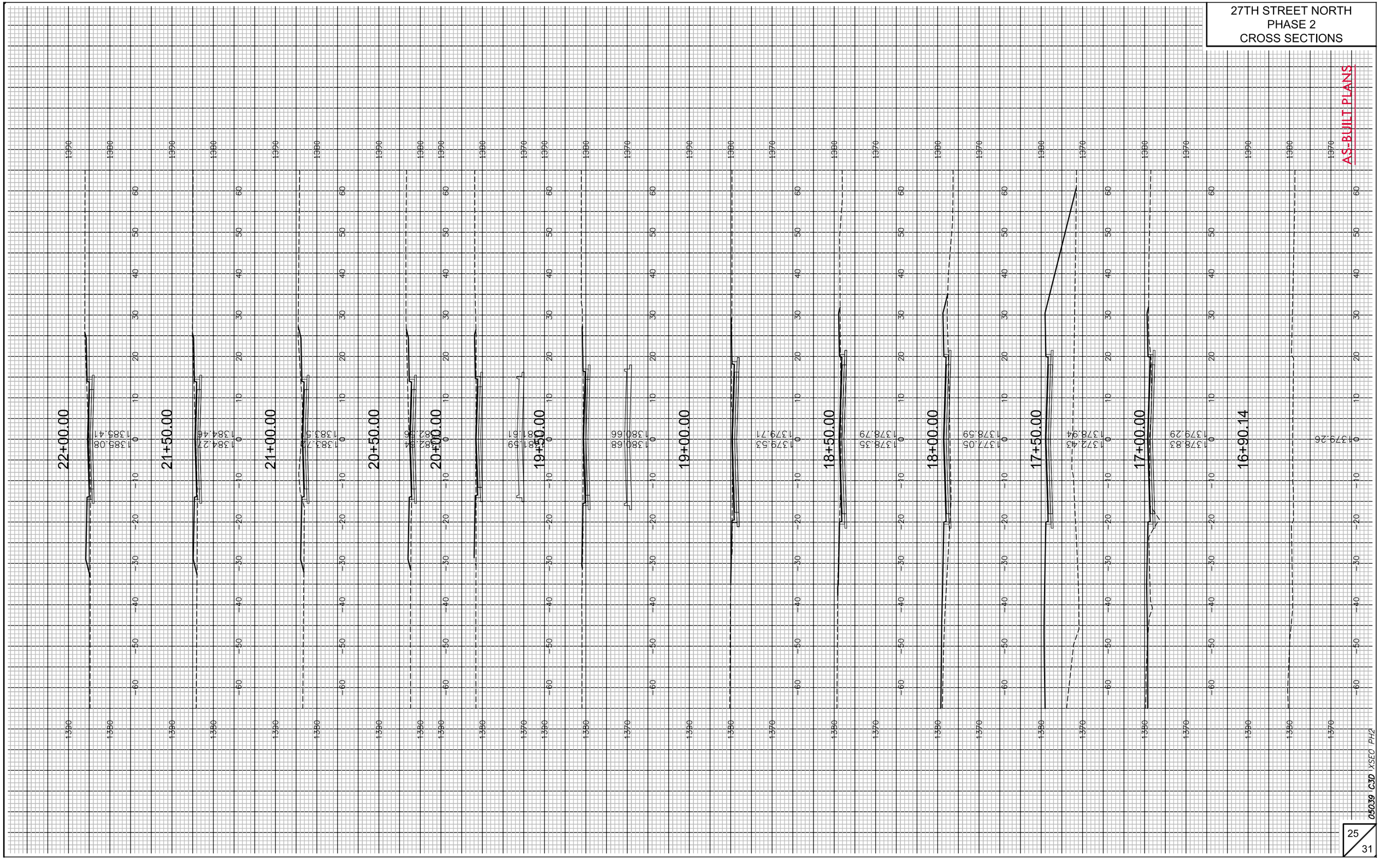
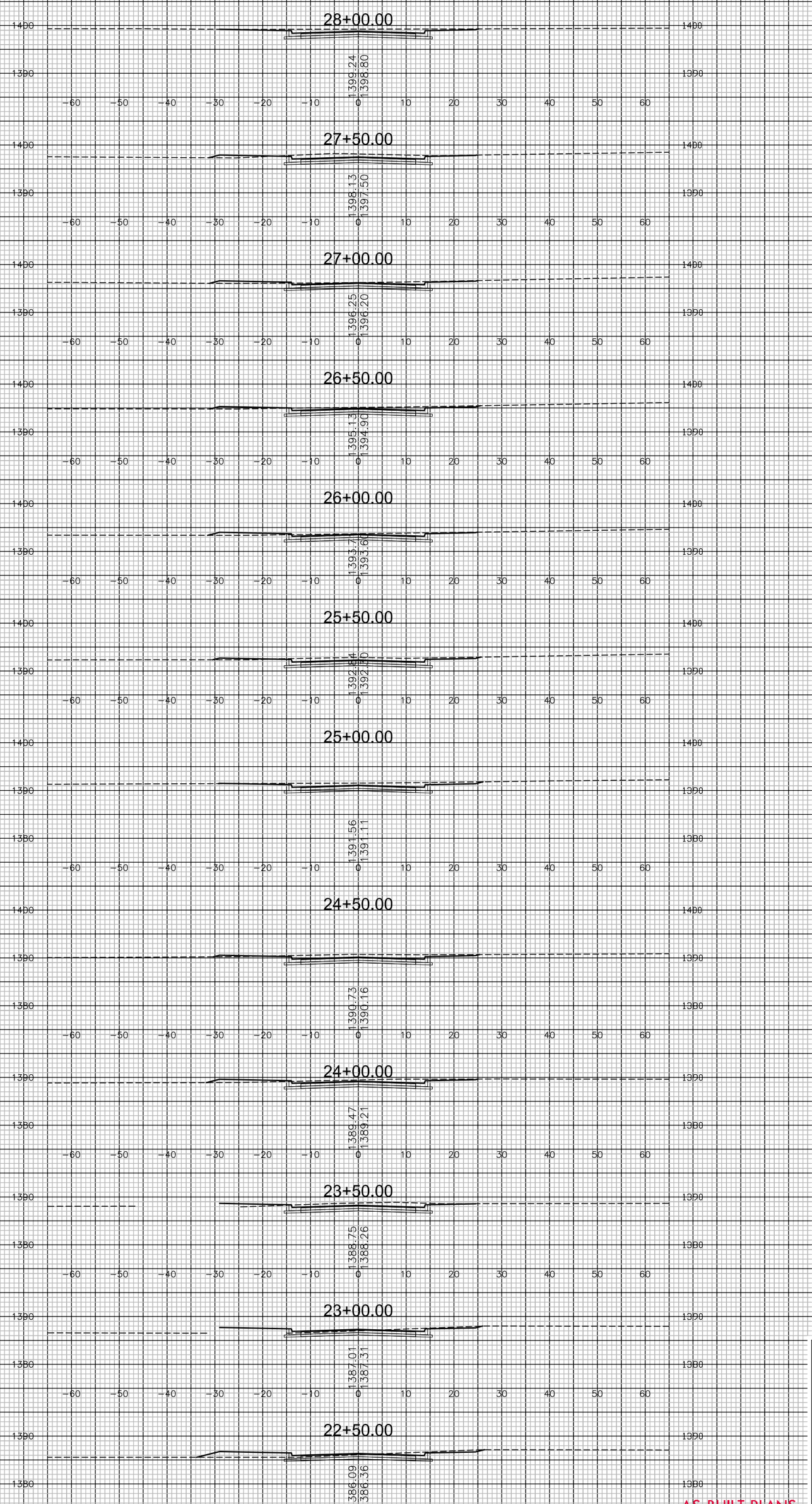
27TH STREET NORTH
PHASE 2
CROSS SECTIONS

AS-BUILT PLANS



05039 C3D XSEC PH2



27TH STREET NORTH
PHASE 2
CROSS SECTIONS

AS-BUILT PLANS

05039 C3D XSEC PH2

27TH STREET NORTH
PHASE 2
CROSS SECTIONS

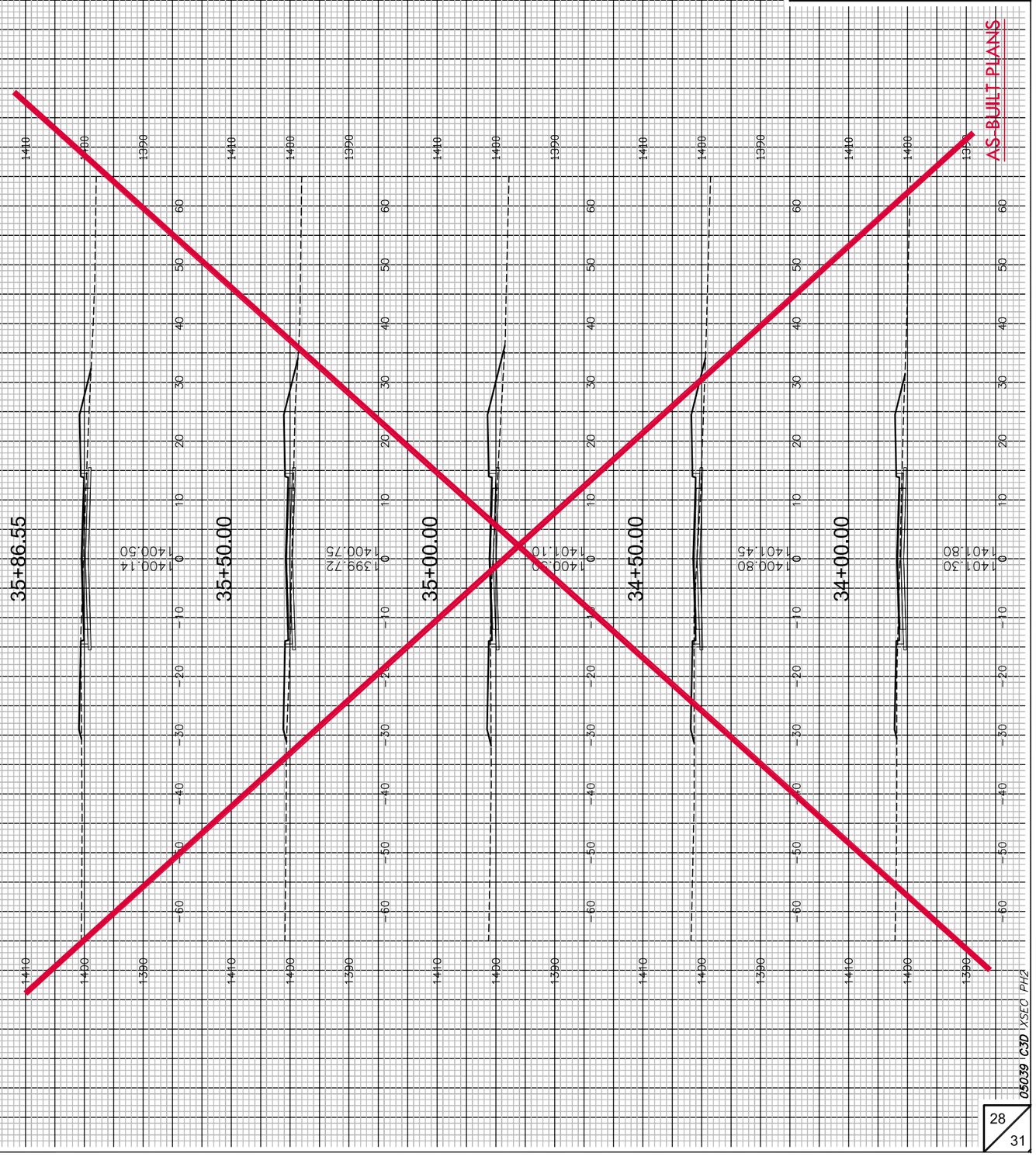
AS-BUILT PLANS

33+50.00 33+00.00 32+50.00 32+00.00 31+50.00 31+00.00 30+50.00 30+00.00 29+50.00 29+00.00 28+50.00

05039 C3D XSEC PH2

27TH STREET NORTH
PHASE 2
CROSS SECTIONS

AS-BUILT PLANS



FINAL PLAT
GREENWICH BUSINESS CENTER ADDITION
AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

I, Gregory J. Allison, a registered land surveyor in Kansas, do hereby certify that I have been in responsible charge of surveying and platting of "GREENWICH BUSINESS CENTER ADDITION" an addition to Wichita, Sedgwick County, Kansas, into Lots, Blocks, Reserves, and Streets, the same being accurately set forth in the accompanying plat and described herein:

A tract of land lying within a portion North Half of Section 3, Township 27 South, Range 2 East of the 6th P.M., Sedgwick County, Kansas, said tract being described as follows:
All of Government Lot 2, and the West Half of the South Half of the Northeast Quarter, said Section 3;
TOGETHER WITH,
All of Government Lots 3 and 4, said Section 3,
Said tract of land being more particularly described as follows:
BEGINNING at the Northwest corner of the of said Section 3, being coincident with the Northwest corner of said Government Lot 4, thence along the North line of said Section 3 and said Government Lots 4 and 3 on a Kansas Coordinate System 1983 South Zone grid bearing of N89°16'15"E, 2645.11 feet to the Northwest corner of said Government Lot 2; thence along the North line of said Government Lot 2 and said Section 3, N88°52'42"E, 1325.94 feet to the Northeast corner of said Government Lot 2; thence along the East line of said Government Lot 2 extended, S00°33'27"E, 2679.83 feet to the South line of said Northeast Quarter; thence along the said South line, being coincident with the North line of The Fairmont, an addition to Wichita, Sedgwick County, Kansas, S89°07'06"W, 1324.14 feet to the Center Quarter corner being the Northwest corner of said The Fairmont; thence along the West line of said Northeast Quarter, N00°35'43"W, 1321.13 feet to the Southeast corner of said Government Lot 3; thence along the South lines of said Government Lots 3 and 4, S89°14'33"W, 2646.39 feet to the Southwest corner of said Government Lot 4 being coincident with the West line of said Section 3; thence along said West line N00°32'28"W, 1344.46 feet to the POINT OF BEGINNING.

All reserves, streets, utility easements, building setbacks, access control, together with that part of a right-of-way agreement recorded Misc. Book 601, Page 385, together with that part of Road Record Book B, Page 394, together with any and all other public dedication, rights-of-way, and or easements within the above described property are hereby vacated and replatted by virtue of K.S.A. 12-512(b).

I hereby certify that the details of this plat are correct to the best of my knowledge and belief this 20th day of September 2007.

GREGORY J. ALLISON LICENSED LS-1257 9/20/07 KANSAS LAND SURVEYOR

Gregory J. Allison, PE, LS #1257
MKEC Engineering Consultants, Inc.
411 North Webb Road
Wichita, Kansas 67206

Know all men by these presents that we the undersigned property owners of the land above set forth in the Registered Land Surveyor's Certificate, have caused the same to be surveyed and platted into Lots, Blocks, Reserves, and Streets the same to be known as "GREENWICH BUSINESS CENTER ADDITION," an addition to Wichita, Sedgwick County, Kansas. This plat shall adhere and conform to the recitals of P.O. #153 and #74 as approved and recorded at the Wichita-Sedgwick County Metropolitan Area Planning Department.

Easements for the construction and maintenance of public utilities and drainage, as indicated on the accompanying plat are hereby granted to the public. The streets are hereby dedicated to and for the use of the public.

All abutters right to access to or from Greenwich Road over and across the West line of "GREENWICH BUSINESS CENTER ADDITION," are hereby granted to the appropriate governing body, provided however, Lots 1, 2, 3, and 4, Block 1, shall have access to Greenwich Road as indicated hereon; And all abutters right to access to or from 29th Street over and across the North line of "GREENWICH BUSINESS CENTER ADDITION," are hereby granted to the appropriate governing body, provided however, Lots 1, 6, 7, 8, and 9, Block 1 shall have access to 29th Street as indicated hereon and as specified within the access control note as shown.

A drainage plan has been developed for this plat and all drainage easements, right-of-way, or reserves shall remain at established grades or as modified with the approval of the applicable City or County Engineer, and unobstructed to allow for the conveyance of storm water.

Lots 5, 6, 7, 16, 17, and 18, Block 1, and Lots 2, 3, 10-17 inclusive, Block 3, are required to adhere to the minimum pad elevation as shown on the "Minimum Pad Elevations" table.

Reserves "A" and "B" are platted for drainage, signs, landscaping, irrigation, pergolas and or gazebos, open space, berms, and monuments. Reserves "C", "D", "E", "F", "G" are platted for berms, monuments, signs, drainage, landscaping, and irrigation. The The Reserves shall be owned and maintained by the Lot Owner Association, provided however, that the undersigned or Lot Owner's Association as the undersigned successors in interest may, at its discretion deed parcels of said Reserves to an owner(s) of an adjoining lot subject to the obligation to maintain such deeded parcel in compliance with the provisions hereof and in compliance with the maintenance covenants of any applicable restrictive covenants or regulations.

NORTH GREENWICH/29TH LLC, a Kansas limited liability company
and
GREENWICH 4/LLC, a Kansas limited liability company
and
RITCHIE DEVELOPMENT CORPORATION

Rob Ramseyer, Vice President
Rob Ramseyer, Vice President
Ritchie Development Corporation, manager

STATE OF KANSAS, SEDGWICK COUNTY} ss:

This instrument was acknowledged before me on this 27th day of September, 2007, Rob Ramseyer, Vice President, Ritchie Development Corporation, Manager, North Greenwich/29th LLC, a Kansas limited liability company; and manager of Greenwich 4/LLC, a Kansas limited liability company.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year last above written.

CYNTHIA A WOMACK Notary Public, State of Kansas My Appt. Expires 2-11-2009

Cynthia A. Womack, Notary Public
Notary Public: Cynthia A Womack
Print below
My Term Expires: Feb. 7, 2009

STATE OF KANSAS, SEDGWICK COUNTY} ss:

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

Dated this 17th day of November, 2005 2007

WICHITA-SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION

Darrell A. Downing, Chair
Attest: John L. Schlegel, Secretary

SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION SEAL KANSAS Affix Seal

INTRUST Bank, N.A. holders of a mortgage on the above described property, does hereby consent to the plat of "GREENWICH BUSINESS CENTER ADDITION."

INTRUST Bank, N.A.

Gary D. Schmitt, Executive Vice President

This instrument was acknowledged before me on this 27th day of September, 2007, by Gary D. Schmitt, Executive Vice President, INTRUST Bank, N.A..
IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day and year last above written.

CYNTHIA A WOMACK Notary Public, State of Kansas My Appt. Expires 2-11-2009

Cynthia A. Womack, Notary Public
Notary Public: Cynthia A Womack
Print below
My Term Expires: Feb. 7, 2009

This plat of "GREENWICH BUSINESS CENTER ADDITION" has been submitted to and approved by the City Council of the City of Wichita, Sedgwick County, Kansas. The easements, rights-of-way and other public dedications are accepted by the City Council.
Dated this 6 day of NOV, 2007.
At the direction of the City Council.

Carl Brewer, Mayor
Attest: Karen Sublett, CMC, City Clerk
Karen Sublett, City Clerk

STATE OF KANSAS, SEDGWICK COUNTY} ss:

Entered on transfer record this 9th day of November, 2007

Don Brace, County Clerk

CLERK OF SEDGWICK COUNTY SEDGWICK COUNTY KANSAS Affix Seal

This is to certify that this instrument was filed for record in the Register of Deeds office this 9th day of November, 2007, at 9:11:46 o'clock AM; and is duly recorded.

Sedgwick County
Register of Deeds - Bill Meek
DOC.#/FLM-PG: 28931124
Receipt #: 1672089
Pages Recorded: 1
Cashier Initials: JP
Recording Fee: $20.00
Authorized By:

Date Recorded: 11/9/2007 9:11:46 AM

Bill Meek, Register of Deeds

Attest: Affix Seal

Tonya E. Buckingham, Deputy

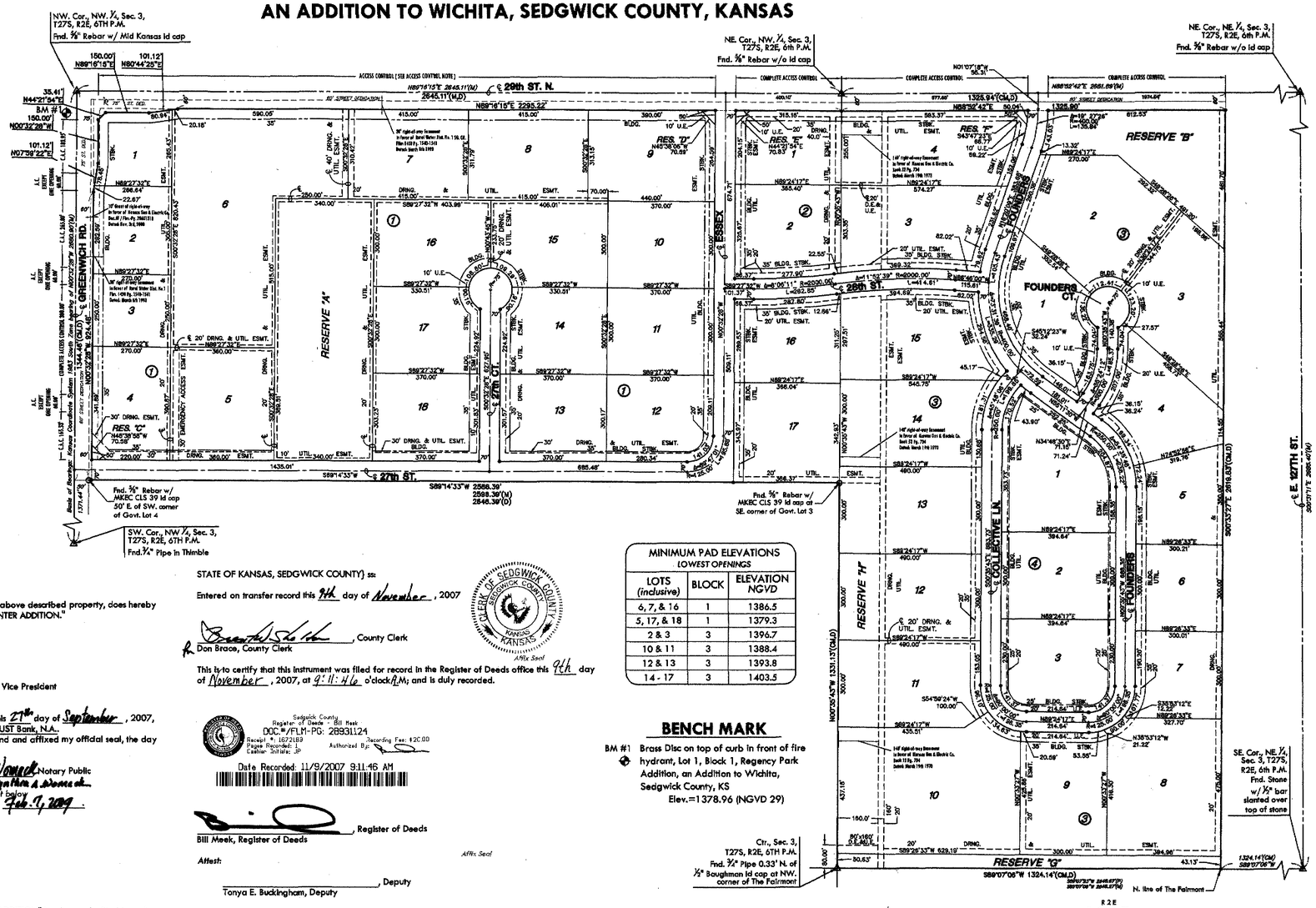
Reviewed in accordance with K.S.A. 58-2007 on this 3rd day of October, 2007.

TRICIA L. ROBELLO LICENSED LS-1246 10-3-07 KANSAS LAND SURVEYOR

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

ACCESS CONTROL NOTE

29th Street - The minimum distance between full turning movement drives shall be 400'. The minimum distance between a right-in/right-out drive and either another right-in/right-out drive or a full movement drive shall be 200'.



MINIMUM PAD ELEVATIONS LOWEST OPENINGS		
LOTS (inclusive)	BLOCK	ELEVATION NGVD
6, 7, & 16	1	1386.5
5, 17, & 18	1	1379.3
2 & 3	3	1396.7
10 & 11	3	1388.4
12 & 13	3	1393.8
14 - 17	3	1403.5

BENCH MARK

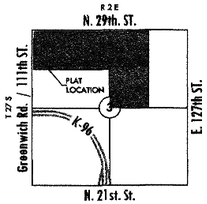
BM #1 Brass Disc on top of curb in front of fire hydrant, Lot 1, Block 1, Regency Park Addition, an Addition to Wichita, Sedgwick County, KS
Elev.=1378.96 (NGVD 29)

LEGEND

- △ = Section Corner Monument Found
- ○ = Found Survey Monument ⅝" Rebar w/ MKEC CLS 39 Id cap EXCEPT where annotated
- ● = Set ⅝" Rebar w/ MKEC CLS 39 id. cap
- (M) = Measured
- (D) = Deeded
- (CM) = Calculated from measured

N
1"=200' / 1 : 2400
200 0 200

Basis of Bearings: Kansas Coordinate System 1983 South Zone bearing of N00°32'28"W along the W. line of the NW. 1/4, Sec. 3, T27S, R2E, 6th P.M.

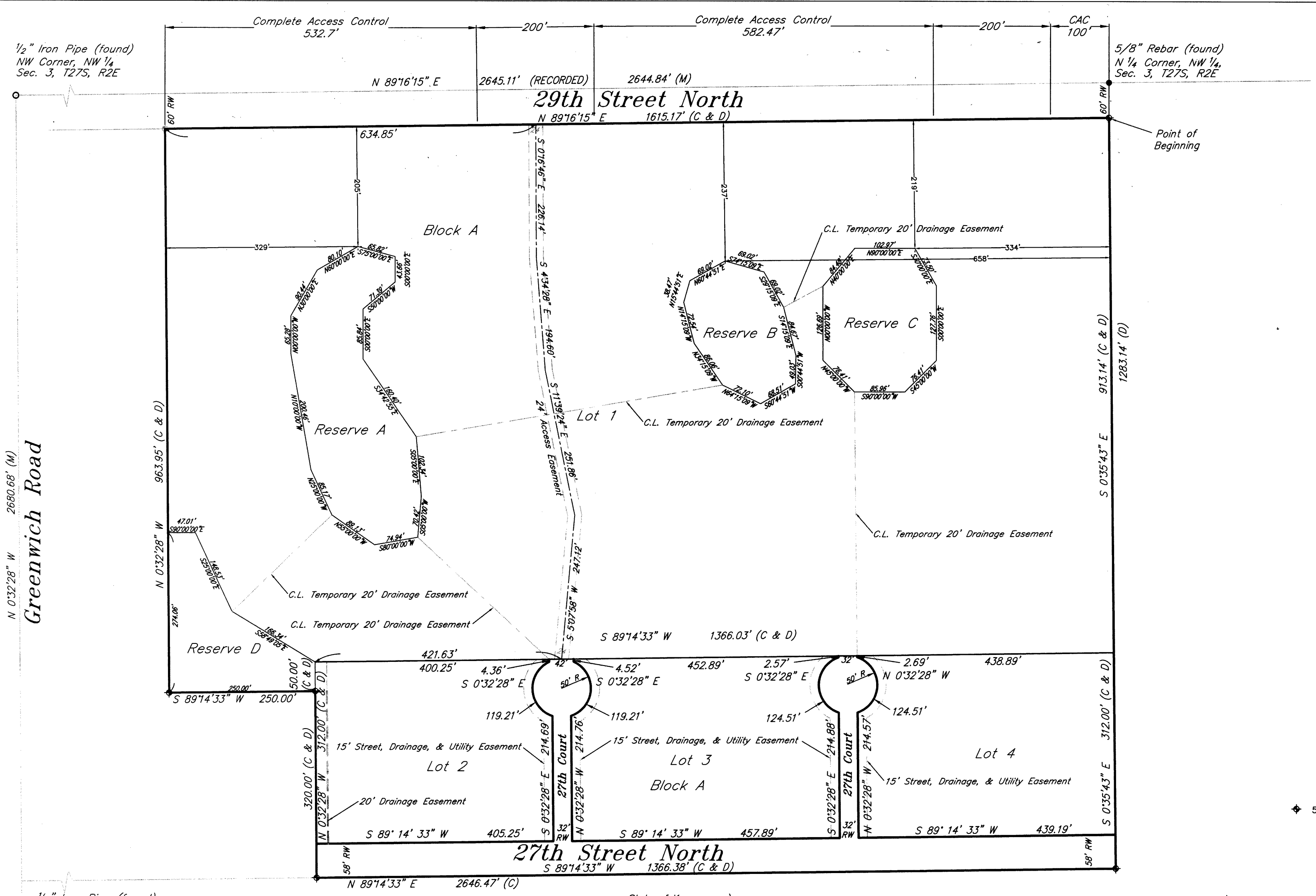


VICINITY MAP

MKEC ENGINEERING CONSULTANTS, INC.
411 N. WEBB ROAD
WICHITA, KS. 67206
316 - 684 - 9600

Stoney Pointe Addition
Wichita, Sedgwick County, Kansas

Part of the NW 1/4, Section 3
Township 27 South, Range 2 East, of the 6th. P.M.



100 50 0 100
(IN FEET)
1 inch = 100 ft.

5/8" Rebar (set) KEMPA CLS #157

State of Kansas
County of Sedgwick } SS

I, Bradley C. Ward, a licensed land surveyor of the State of Kansas, do hereby certify that the following described tract of land was surveyed on the 12th day of October, 2010, and the accompanying final plat prepared and that all the monuments shown herein actually exist and their positions are correctly shown to the best of my knowledge and belief:

LEGAL DESCRIPTION

A tract of land lying within a portion of Greenwich Business Center Addition, an addition to Wichita, Sedgwick County, Kansas; said tract being described as, Lots 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and portions of Lots 7 and 18, Block 1, TOGETHER with, Lots 1 and 2, Block 2, TOGETHER with, Lots 16 and 17, Block 3, TOGETHER with, 27th Street Court, Essex Street, 28th Street North and part of 27th Street North rights-of-way being vacated, TOGETHER with, Reserves D and E, being more particularly described as follows:

Beginning at the Northeast corner of said Lot 1, Block 2, said addition; thence along the East line of Lots 1 and 2, Block 2, and extended along the East lines of Lots 16 and 17, Block 3, along a platted bearing of S 0°35'43" E, a distance of 1283.14 feet to the Southeast corner of said Lot 17, Block 3; thence along the Southerly line of said addition, S 89°14'33" W, a distance of 1366.38 feet; thence parallel with the West line of said Lot 18, N 0°32'28" W, a distance of 320.00 feet; thence parallel with the Southerly line of said addition S 89°14'33" W, a distance of 250.00 feet, to said West line of Lot 18; thence along the West line of Lots 18, 17 and 16, Block 1 and extended to the North line of said Lot 7, N 0°32'28" W, a distance of 963.95 feet; thence along the North line of Lots 7, 8, 9 and Reserve D, Block 1 and extended along the North line of Reserve E and Lot 1, Block 2, on a platted bearing of N 89°16'15" E, a distance of 1615.17 feet the Point of Beginning.

Said tract contains 45.77 acres ±.

All easements and rights-of-way within said tract are hereby vacated by virtue of KSA 12-512(b) amended.

BRADLEY C. WARD LICENSED LS-920 KANSAS LAND SURVEYOR

Bradley C. Ward, L.S. #920 — 3-7-11 — Date
Not original unless signed in blue ink.

Benchmark:
Brass disc on top of curb in front of fire hydrant, Lot 1, Block 1, Regency Park Addition to Wichita, Sedgwick County , Kansas
Elevation=1378.96 (NGVD 29) (191.56 City of Wichita datum)

Notes:
1. This Addition is subject to conditions of Protective Overlay No. 74.
2. Developer shall provide and record with the appropriate governing body permanent drainage and access easements at the time of construction to allow access to the reserves through and from public and or private streets and easements.

Sedgwick County
Register of Deeds - Bill Meek
DOC.#/FLM-PG: 29212158
Receipt #: 1779308
Pages Recorded: 1
Cashier Initials: JP
Authorized By:
Recording Fee: $20.00
Date Recorded: 4/12/2011 9:24:37 AM

State of Kansas
County of Sedgwick } SS

Know all men by these presents, that we, the undersigned, have caused the land described in the surveyor's certificate to be platted into Lots and a Block, reserves and streets to be known as Stoney Pointe Addition, Wichita, Sedgwick County, Kansas. The streets are hereby dedicated to and for the use of the public. The streets, drainage and utility easements are hereby granted as indicated for street and drainage purposes and for the construction and maintenance of all public utilities. Temporary drainage easements are hereby granted for the conveyance of storm water and shall automatically vacate at such time as the conveyance of storm water is confined to permanent 20' drainage easements, to be accepted by the City and recorded by separate instrument with the Sedgwick County Register of Deeds. The access easement is hereby dedicated for the benefit of the adjoining properties. Reserves A, B, C, and D are dedicated for storm water detention, landscaping, irrigation and beautification. A drainage plan has been developed for the plat and all drainage easements, rights-of-way, and reserves A, B, C, and D shall remain at established grades or as modified with the approval of the applicable City or County Engineer, and unobstructed to allow for the conveyance of storm water. Minimum pad elevations for Lot 1 are detailed on the master grading plan. Reserves A, B, C and D shall be owned and maintained by the owner of Lot 1, for the use as a drainage reserve and utility easement. Complete access control except for 2 openings shall be as shown on the plat. And further, that the land contained herein is held and shall be conveyed subject to any applicable restrictions, reservations and covenants now on file or hereafter filed in the Office of the Register of Deeds of Sedgwick County, Kansas.

By: NORTH GREENWICH / 29TH LLC, a Kansas limited liability company

3/7/2011
Kevin Mullen, President, Ritchie Investment Company, Inc., Manager of NORTH GREENWICH/ 29TH, LLC, a Kansas limited liability company — Date

State of Kansas
County of Sedgwick } SS

This instrument was acknowledged before me on this 7th day of March 2011, by Kevin Mullen, President, Ritchie Investment Company, Inc., Manager of North Greenwich/29th LLC, a Kansas limited liability company
IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day last above written.

Angie M. Sizemore
Notary Public
My Commission Expires: 7/25/11

ANGIE M. SIZEMORE
Notary Public - State of Kansas
My Appt. Expires 7/25/11

State of Kansas
County of Sedgwick } SS

Intrust Bank, N.A. holders of a mortgage on the above decribed property, does hereby consent to the plat of Stoney Pointe Addition.

Intrust Bank, N.A.
Gary Schmitt, Executive Vice President

State of Kansas
County of Sedgwick } SS

This instrument was acknowledged before me on this 7th day of March 2011, by Gary D. Schmitt, Executive Vice President of Intrust Bank, N.A.
IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, the day last above written.

Susan K. Cook
Notary Public
My Commission Expires: 11/3/12

SUSAN K. COOK
Notary Public - State of Kansas
My Appt. Expires 11/3/12

State of Kansas
City of Wichita } SS

This plat of Stoney Pointe Addition, Wichita, Sedgwick County, Kansas, has been submitted to and approved by the Wichita-Sedgwick County Metropolitan Area Planning Commission, Wichita, Kansas. Dated this 12TH day of December 2010.
Wichita-Sedgwick County Metropolitan Area Planning Commission.

Debra Miller Stevens, Chair
John L. Schlegel, Secretary

WICHITA-SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION SEAL KANSAS

State of Kansas
City of Wichita } SS

This plat approved and all dedications shown hereon accepted by the City Council of the City of Wichita, Kansas, this 5TH day of April, 2011.

At the Direction of the City Council
Carl Brewer, Mayor
Karen Sublett, City Clerk

Entered on transfer record this 12 day of April, 2011.
Kelly B. Arnold, County Clerk

CLERK OF SEDGWICK COUNTY SEDGWICK COUNTY KANSAS

State of Kansas
County of Sedgwick } SS

This is to certify that this plat has been filed for record in the Office of the Register of Deeds this 12th day of April, 2011, at 9:24:37 o'clock AM; and is duly recorded.

Bill Meek, Register of Deeds
Tonya Buckingham, Deputy

Reviewed in accordance with K.S.A. 58-2005 on this ___ day ___, 2011.

TRICIA L. ROBELLO LICENSED LS-1246 KANSAS LAND SURVEYOR

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

Filename: 10088\Stoney Pointe Final Plat.dwg
Prepared: 2-3-11

kemiller engineering
516 S. Market, Wichita, KS 67202 316/264-0242

PC 226-5

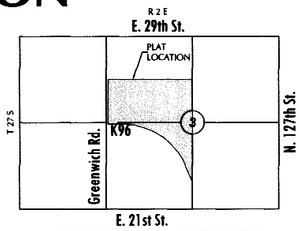
PC 242-7A

FINAL PLAT

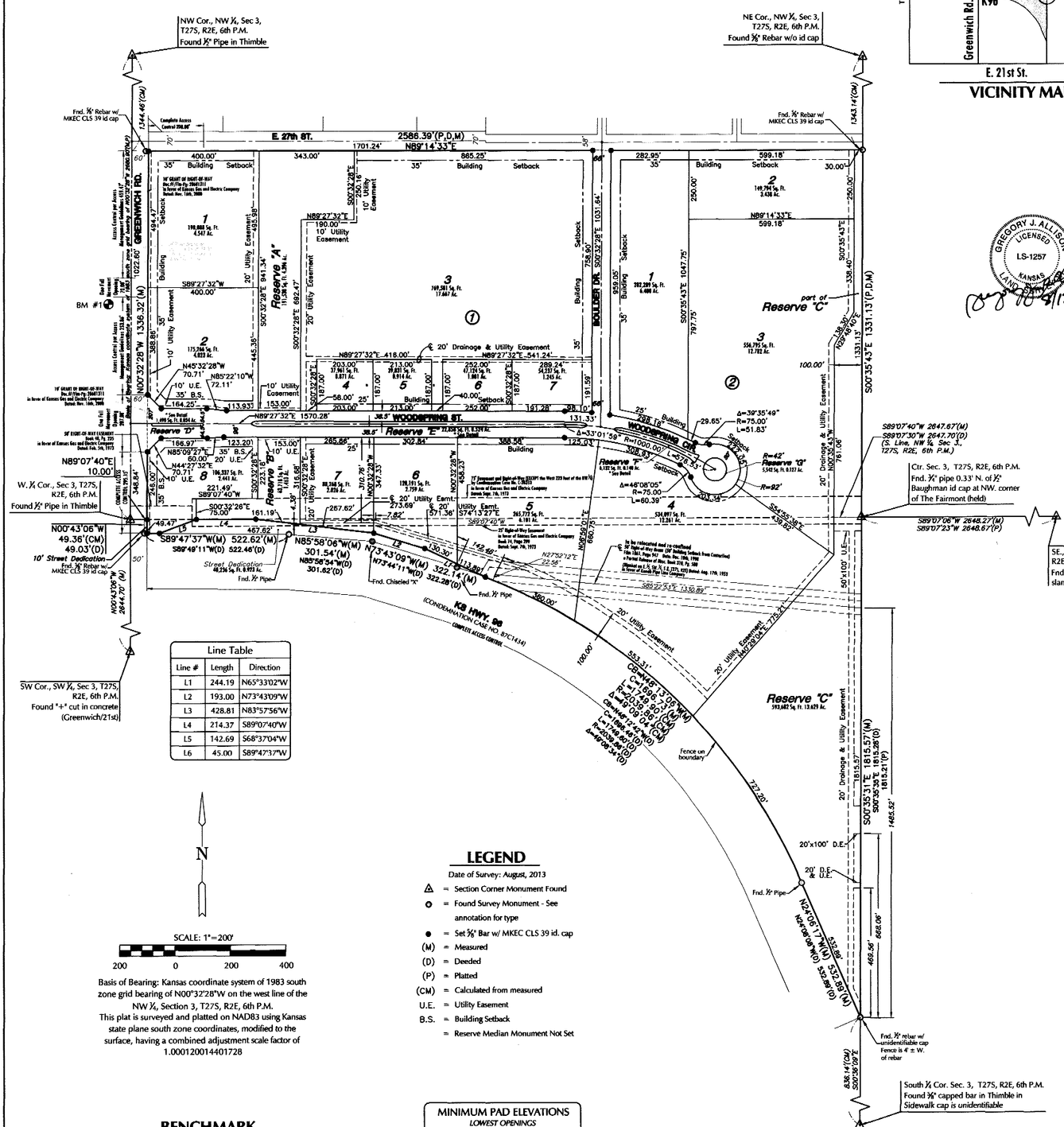
K96 AND GREENWICH NORTH ADDITION

AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

A portion of the Northwest and Southwest Quarter, Section 3, Township 27 South, Range 2 East, of the 6th Principal Meridian



VICINITY MAP



Line Table		
Line #	Length	Direction
L1	244.19	N65°33'02"W
L2	193.00	N73°43'09"W
L3	428.81	N83°57'56"W
L4	214.37	S89°07'40"W
L5	142.69	S68°37'04"W
L6	45.00	S89°47'37"W

Basis of Bearing: Kansas coordinate system of 1983 south zone grid bearing of N00°32'28"W on the west line of the NW ¼, Section 3, T27S, R2E, 6th P.M.
This plat is surveyed and platted on NAD83 using Kansas state plane south zone coordinates, modified to the surface, having a combined adjustment scale factor of 1.000120014401728

LEGEND

Date of Survey: August, 2013

- △ = Section Corner Monument Found
- ○ = Found Survey Monument - See annotation for type
- ● = Set ⅝" Bar w/ MKEC CLS 39 id. cap
- (M) = Measured
- (D) = Deeded
- (P) = Platted
- (CM) = Calculated from measured
- U.E. = Utility Easement
- B.S. = Building Setback
- ⊙ = Reserve Median Monument Not Set

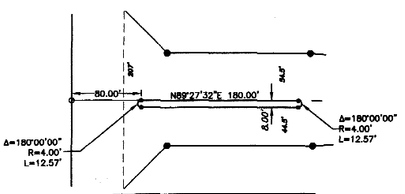
BENCHMARK

BM #1 Brass disc in top of south curb of 26th Street North, 67' west of centerline Greenwich Road, 20' south of centerline 26th Street. Elev.= 1379.44 (NAVD 88)

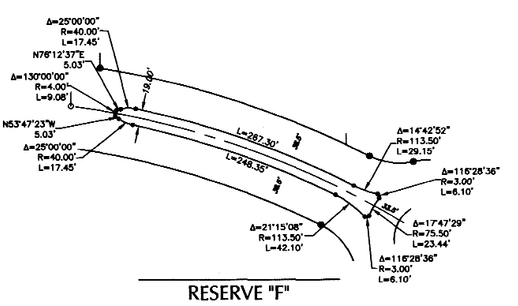
MINIMUM PAD ELEVATIONS *LOWEST OPENINGS*		
LOTS	BLOCK	ELEVATION *NAVD 88*
1, 2, 3, 4	1	1380.0
2, 3 , 4	2	1381.1
7, 8	2	1375.0

DETAIL NOTE

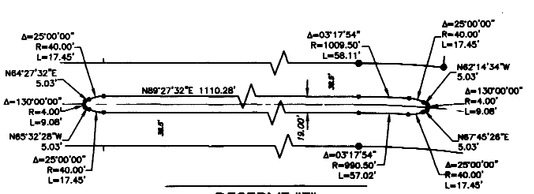
⊙ = Reserve Median Monument Not Set



RESERVE "D" DETAIL
1"=50'



RESERVE "F" DETAIL
1"=50'



RESERVE "E" DETAIL
1"=50'

MKEC
Wichita, KS • 316.684.9600

1/2

PC 242-7A

J:\Civil\05039\DWG\CIVIL3D\PAV\PHASE 2W-96 GW N ADD.DWG

J:\Civil 05039\dwg\Prop\05039a.dwg 8/15/2007 9:42:18 AM CDT