STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	159	1055

PROJ. 54-87 KA-2382-01
NHPP-A238(201)

GRADING
SURFACING
CONCRETE PAVEMENT
STORM SEWER
SANITARY SEWER
WATERLINE
WALLS
BRIDGES
SEEDING
SODDING
ROADSIDE IMPROVEMENT
LIGHTING
TRAFFIC SIGNALIZATION
ITS
SIGNING
PAVEMENT MARKING

INDEX OF SHEETS

VOLUME 1 - ROADWAY
VOLUME 2 - DRAINAGE, SEWER, WATER
VOLUME 3 - RETAINING WALLS, BRIDGES
VOLUME 4 - SUMMARY OF QUANTITIES, POLLUTION CONTROL LANDSCAPING, LIGHTING, SIGNAL, ITS
VOLUME 5 - PAVEMENT MARKING, SIGNING, CONSTRUCTION SEQUENCE, TRAFFIC CONTROL, RIGHT-OF-WAY
VOLUME 6 - CROSS SECTIONS
SEE SHEET NO. 160 FOR INDEX SHEET

STATE OF KANSAS

DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE OF PROPOSED

STATE HIGHWAY

FEDERAL AID PROJECT

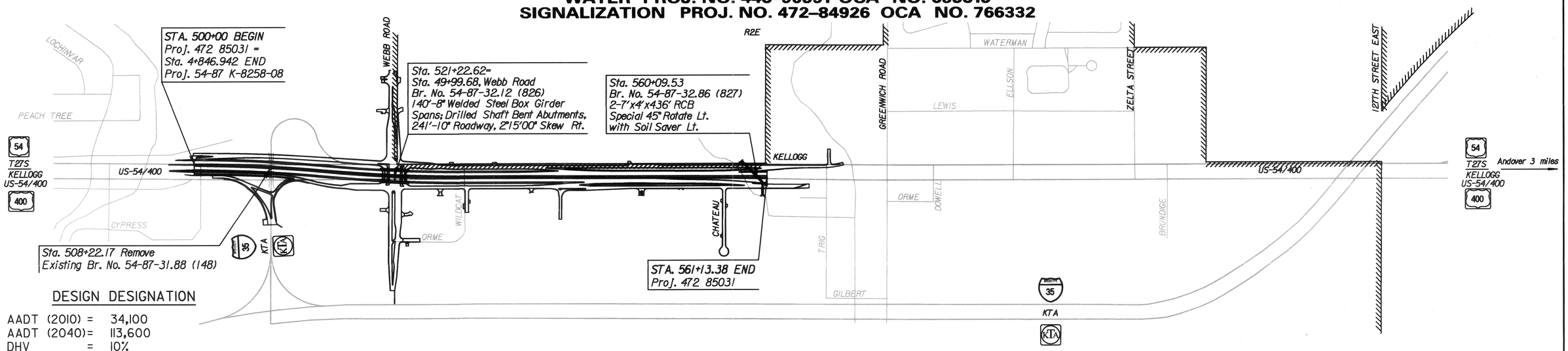
CITY OF WICHITA

SEDGWICK COUNTY

EAST KELLOGG (US-54/400) – WEBB/KTA INTERCHANGE

PAVING PROJ. NO. 472-85031 OCA NO. 705011
SEWER PROJ. NO. 468-84876 OCA NO. 624107
WATER PROJ. NO. 448-90591 OCA NO. 635815
SIGNALIZATION PROJ. NO. 472-84926 OCA NO. 766332

SCALE
500' 0 500' 1000'

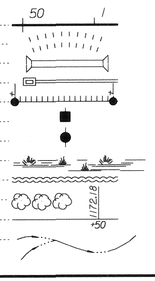


DESIGN DESIGNATION

AADT (2010)	=	34,100
AADT (2040)	=	113,600
DHV	=	10%
D	=	0.5 (EB)
T	=	7%
V	=	70 MPH (US54)
V	=	40 MPH (FR. RDS. & SIDEROADS)
C of A	=	FULL
Clear Zone	=	6' FROM BACK OF CURB (FR. RDS. & SIDEROADS)
Clear Zone	=	34' (US-54)

CONVENTIONAL SIGNS

COUNTY LINE		CENTER LINE OF PROJECT	
CITY LIMITS		TERRACE	
STATE OR NATIONAL LINE		CULVERTS	
TOWNSHIP, SECTION or GRANT LINE		DROP INLET & STORM SEWER	
PROPERTY LINE		ACCESS CONTROL	
HIGHWAY FENCE		POWER POLE	
EXISTING FENCE		TELEPHONE POLE	
GUARD FENCE		MARSH	
CONSTRUCTION LIMITS		HEDGE	
RIGHT OF WAY LINE		TREES	
TRAVELED WAY		PROFILE ELEVATION	
RAILROADS		STREAM or CREEK	



CITY OF WICHITA
POPULATION 366,046

GROSS LENGTH OF PROJECT	6,113.38 FT.		
EXCEPTIONS	0.00		
ADDITIONS	0.00		
NET LENGTH OF PROJECT	6,113.38 FT.	1.158	MILES
NET LENGTH OF BRIDGES	0.00 FT.	0.00	MILES
NET LENGTH OF ROAD	6,113.38 FT.	1.158	MILES

NOTE:
Traffic for US-54 to be carried through construction.
See Sheet No's. 724- 826 for Construction Sequence.

RONALD NUESSEN LICENSED 13738 04-16-15 KANSAS PROFESSIONAL ENGINEER

ABDEL HAMADA LICENSED 14148 04-16-2015 KANSAS PROFESSIONAL ENGINEER

PLANS PREPARED BY :
PARSONS BRINCKERHOFF
Baughman
TranSystems
SRE Consulting Group, Inc. Engineers Planners Designers
VICKI SCURI SITEWORKS

APPROVED - DATE
04/16/15
GARY JANZEN, P.E. CITY ENGINEER
CITY OF WICHITA, KANSAS

DATE | BY
SURVEY
CADD TECHNICIAN
DESIGNERS
SQUAD

Drawn By :
Plotted :4/15/2015
File : T:\3576SA\Cadd\Sheets\Packages\General\EK1WLTSHDPA.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	160	1055

VOLUME 1

1	Title Sheet
2	Index Sheet
3	General Notes
4-21	Typical Sections
22	Foundation Treatment & Compaction of Earthwork
23-33	Plan & Profile (Mainline)
34-53	Plan & Profile (Frontage Road)
54-64	Plan & Profile (Sideroad)
65-75	Plan & Profile (Ramp)
76-77	Plan & Profile (Permanent Crossover)
78-87	Plan & Profile (Temporary Road)
88- 99	Benchmarks & Survey Coordinates
100-118	Intersection Details
119-140	Paving Details
141-158	Pavement Details

VOLUME 2

159	Title Sheet
160	Index Sheet
161-175	Inlet and Manhole Details
176-178	RCB Details
179-200	Storm Sewer Plan & Profile (Mainline)
201-227	Strom Sewer Plan & Profile (Frontage Road)
228-234	Storm Sewer Plan & Profile (Sideroad)
235-237	Storm Sewer Plan & Profile (Ramp)
238-242	Schedule of Storm Sewer Conduits
243-246	Schedule of Inlets and Manholes
247	Ditch Lining
248-250	Underdrains
251-252	Sanitary Sewer Manhole Details
253-256	Sanitary Sewer Plan & Profile
257	Sanitary Sewer Summary
258-262	Water Line Details
263- 271	Water Line Plan & Profile (Mainline)
272-274	Water Line Plan & Profile (Sideroad)
275	Water Line Summary
276-290	Concrete Safety Barrier
291	Impact Attenuator
292-294	End Sections
295	Miscellaneous Pipe Culvert Details
296	Summary of Pipe Culverts
297	Drainage Data Sheet

VOLUME 3

298	Title Sheet
299	Index Sheet
300-338	Retaining Walls
339-368	Pattern Mapping
369-375	Bridge No. 54-87-32.86 (827)
376-452	Bridge No. 54-87-32.12 (826)
453	Standard Pile Details
454	Bridge Excavation
455	Supports and Spacers for Reinforcing Steel

VOLUME 4

456	Title Sheet
457	Index Sheet
458-463	Summary of Quantities
464- 481	Temporary Erosion and Pollution Control Plan
482- 486	Erosion Control Details
487	Sidewalk Plan and Profile
488- 490	Roadside Improvement
491- 516	Landscaping
517- 537	Lighting
538	Traffic Volumes
539- 558	Traffic Signal
559- 565	Communication Duct Bank
566- 614	ITS

VOLUME 5

615	Title Sheet
616	Index Sheet
617- 629	Pavement Marking
630- 721	Signing
723	Project Surfacing
724-826	Construction Sequence
827-848	Traffic Control
849-853	Concrete Safety Barrier (Temporary)
854	Impact Attenuator (Temporary)
855	Inertial Barrier
856	Type III Barricades
857- 867	Right-of-Way
868	Drainage Map

VOLUME 6

869	Title Sheet
870	Index Sheet
871- 872	Earthwork Computations
873- 910	Cross Sections (Mainline)
911- 972	Cross Sections (Frontage Road)
973- 1001	Cross Sections (Sideroad)
1002-1035	Cross Sections (Ramp)
1036-1039	Cross Sections (Permanent Crossover)
1040-1055	Cross Sections (Temporary Road)

CITY OF WICHITA

INDEX SHEET

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
-	-	-	-	-	-	-	-

7:52:05 PM
4/16/2015
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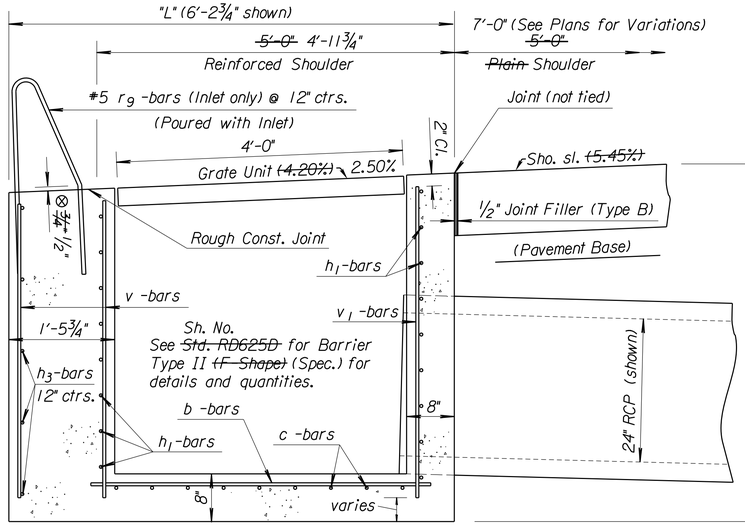
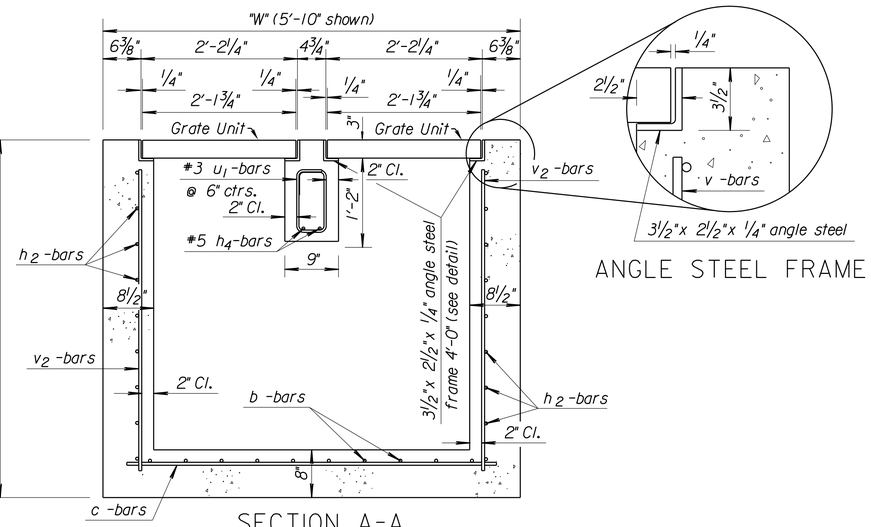
Note to Designer: Perform a structural design of both inlet and grate for dimensions larger in any direction than those listed.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	161	1055



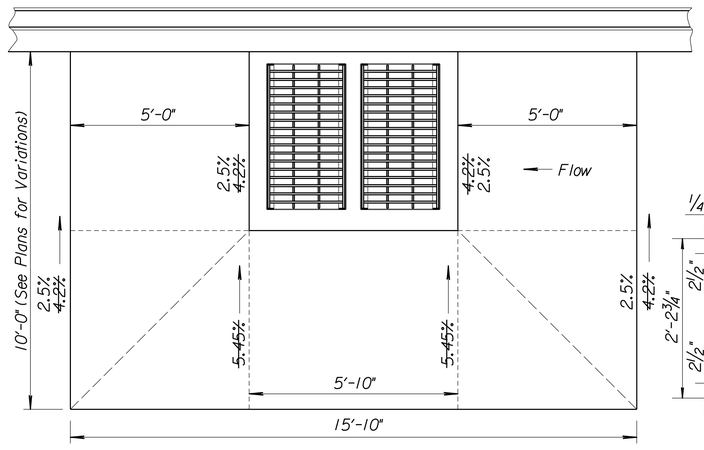
SECTION B-B



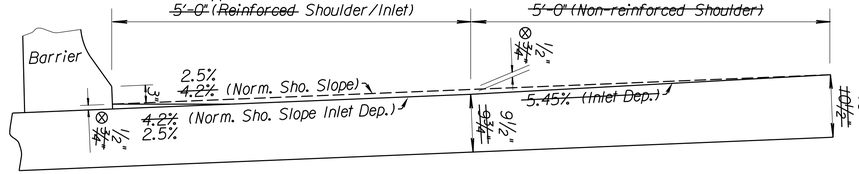
SECTION A-A

ANGLE STEEL FRAME

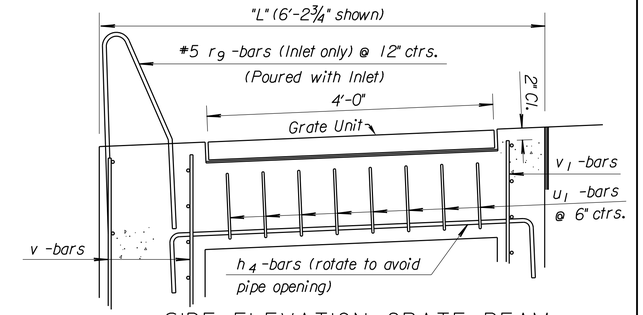
⊗ Inlet recessed ~~¾"~~ ½" to normal flowline and shaped to drain.



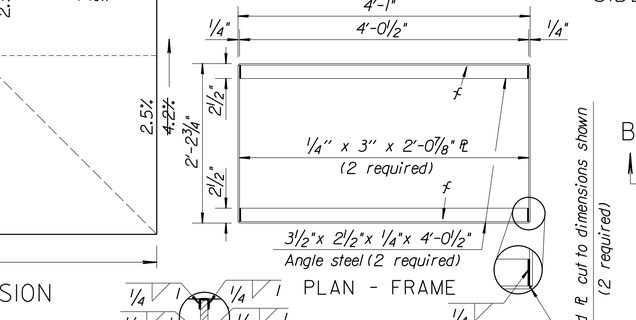
PLAN - INLET DEPRESSION



SIDE ELEVATION - INLET DEPRESSION



SIDE ELEVATION GRATE BEAM

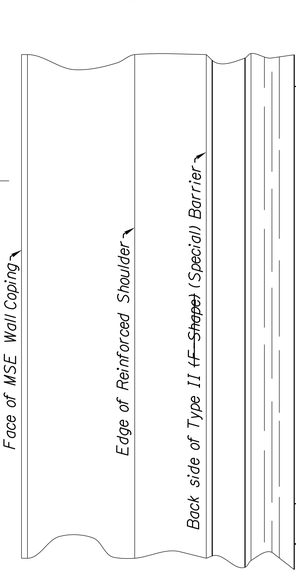


PLAN - FRAME

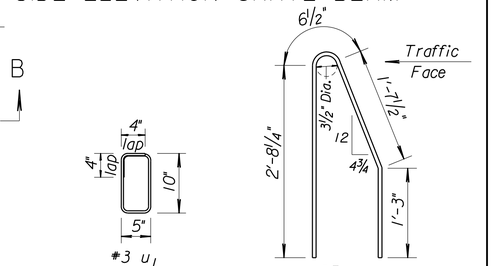
ELEV. - GRATE

PLAN - GRATE

GRATE (I-280#) AND FRAME (I-50#) each



PLAN



BENDING DIAGRAMS

Note: All dimensions are out to out of bars.

BILL OF MATERIALS FOR AREA INLET (SPECIAL)
(For information only)

"L" 6'-2¾" x "W" 5'-10" x "H" 5'-0"

Bar	No.	Size	Length	Bar	No.	Size	Length
b	10	#4	4'-10"	r_9	6	#5	6'-1¼"
c	9	#4	5'-3"	u_1	8	#3	3'-2"
h_1	17	#4	5'-3"	v	22	#4	4'-1¾"
h_2	18	#4	4'-10"	v_1	11	#4	4'-4"
h_3	5	#4	5'-3"	v_2	20	#4	3'-10¾"
h_4	2	#5	6'-9"				

Conc. Grade 3.0	4	Cu.Yd.
Reinf. steel	400	Lbs.
Structural steel	660	Lbs.

GENERAL NOTE

Use Concrete Grade 3.0, Concrete Grade 3.0 (AE), or Concrete Pavement Mix, (Contractor's Option) for Inlet construction. No reduction in concrete quantities for pipe openings. Finish all exposed edges with an edging tool.

Shape inlet floor per ~~examples on Reinforced Concrete Manhole Standard Drawing RD633.~~ "Typical Manhole Floor Shaping" on Sh. No. 171. No additions in concrete quantities for shaping floor of inlet.

Use #4 bar reinforcing steel, Grade 60, @ 6" ctrs. unless otherwise shown. Keep a minimum reinforcing steel clear distance of 1½" unless otherwise shown. Bend reinforcing bars around pipes where possible.

See sheet entitled "Reinforcing Steel for Inlets and Manholes" for details and quantities.

Install steps on manhole where specified in plans ~~or when "H" is equal to or greater than six feet. See Standard Drawing RD633 for additional notes and details on steps.~~ Steps shall comply with the requirements of the KDOT Standard Specifications.

Cast-in-place Inlet/Manhole Special for Concrete Safety Barrier on MSE wall. Any change to inlet size shown requires revision of this standard.

Details of Grate and Frame shown are for illustration and may not be an exact detail.

Specify an (Alternate) Grate and Frame when directional collection or bicycle safety is a concern.

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

KANSAS DEPARTMENT OF TRANSPORTATION

AREA INLET for CONCRETE SAFETY BARRIER TYPE II (SPECIAL) (~~F-SHAPE~~)

~~RD625E~~

FHWA APPROVAL	8-30-2011	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. Kling

Plotted: 4/16/2015
Drawn By: _
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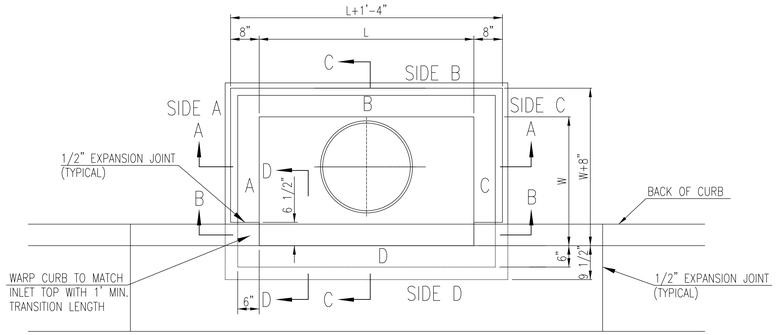


TOP VIEW

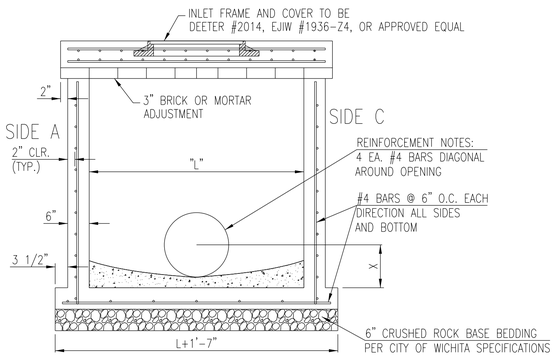
BAR SCHEDULE		
INLET OPENING	B1 BARS	SPACING
5'-0"	#4	4"
10'-0"	#6	3.5"

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"

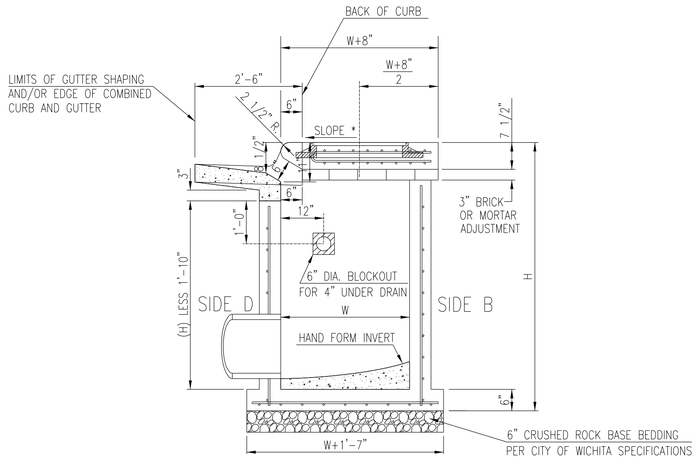
** FOR PIPES PERPENDICULAR TO INLET WALL

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.
7. CURB WARPING TO MATCH INLET SHALL BE PAID FOR AS "INLET HOOKUP"
8. LOCATION POINT SHOWN ON PLNAS IS TO CENTER OF STRUCTURE.

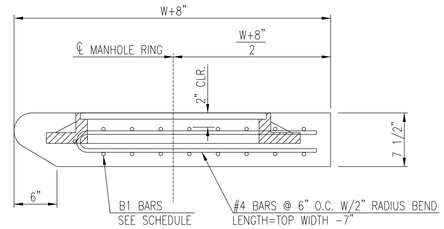


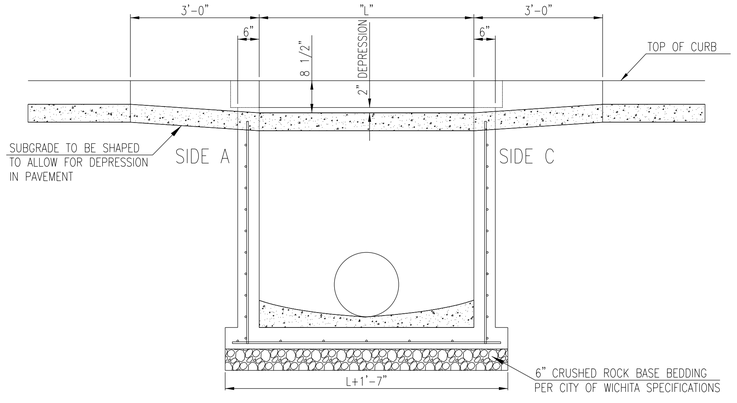
SECTION "A-A"



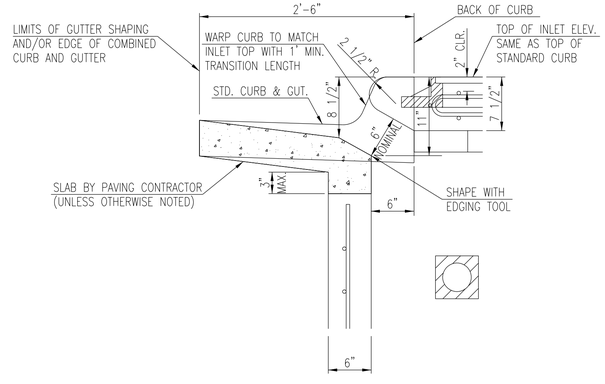
SECTION "C-C"

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





SECTION "B-B"



SECTION "D-D"

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

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

CITY ENGINEER
GARY JANZEN, P.E.

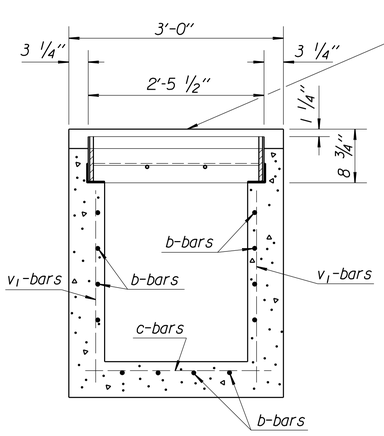
PROJECT NUMBER	OCA NUMBER	DATE
472-85031	705011	11/2010

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

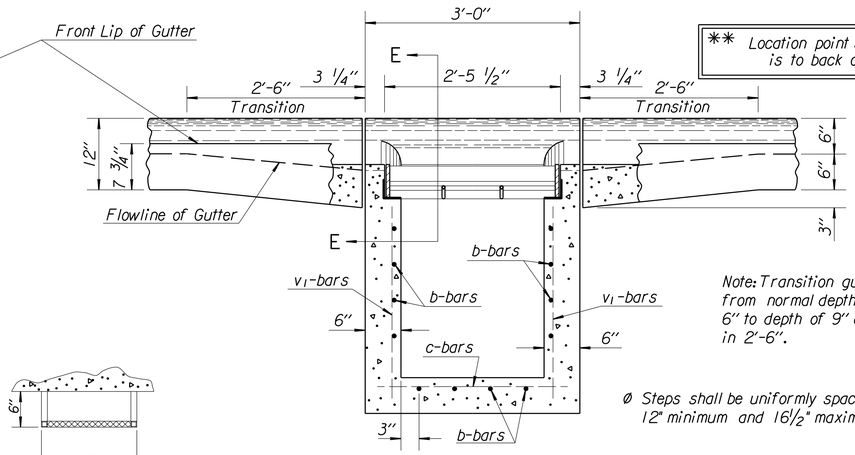
SHEET
162 of 1055

SW-101

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	163	1055



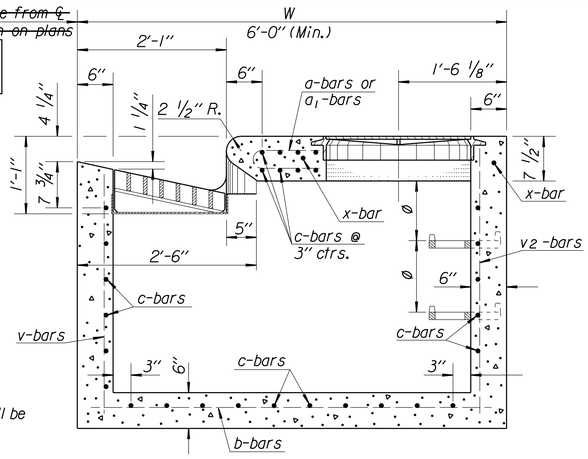
SECTION D-D



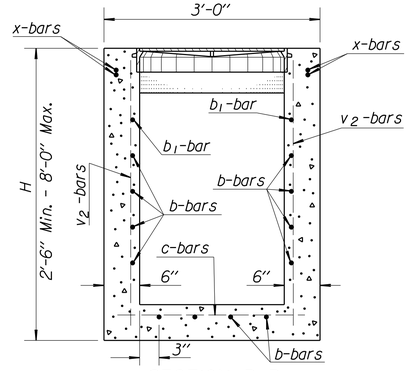
SECTION C-C

Note: Transition gutter from normal depth of 6" to depth of 9" at inlet in 2'-6".

** Location point shown on plans is to back of curb

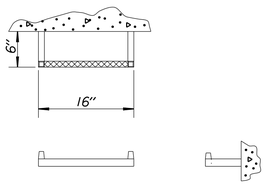


SECTION A-A



SECTION B-B

Ø Steps shall be uniformly spaced. Spacing shall be 12" minimum and 16½" maximum.



STEP DETAILS

Note: All reinforcing shall be #4 at 6" centers except where noted. Minimum clear distance to reinforcement shall be 1½".

Notes:

Concrete Grade 3.0, Concrete Grade 3.0 (AE), or the mix used in Concrete Pavement, at the Contractor's option, shall be used throughout.

All exposed edges shall be finished with an edging tool.

Reinforcing bars shall be bent around pipe.

No reduction in concrete quantities shall be made for pipe openings.

When directed by the Engineer, a small opening in the back of the inlet shall be provided in order to drain a low area. Reinforcing bars shall extend through the opening. No reduction in concrete quantities will be made for this opening.

When directed by the Engineer, the top of the inlet shall be sloped slightly to approximately fit the ground line or other conditions.

The floor of the inlet shall be shaped as shown in ~~various "EXAMPLES"~~ "Typical Manhole Floor Shaping" on ~~Reinforced Concrete Manhole Standard Drawing RD633~~ Sh. No. 171.

No addition in concrete quantities shall be made for shaping floor of inlet.

No reduction in pay length of curb, gutter, or curb & gutter will be made through the inlet area, including transition.

All exposed structural steel shall be painted with a coat of inorganic zinc primer and then with a topcoat or a field coat of organic zinc, each coat to be 3 to 4 mils. As an alternate, the grate and frame may be hot dip galvanized after fabrication in accordance with the Standard Specifications.

All structural steel shall comply with ASTM A-36, A-242, or A-441.

All castings shall be gray iron and shall comply with the KDOT Standard Specifications.

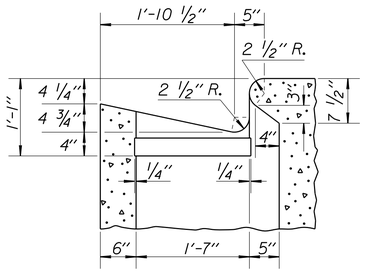
The weight of castings includes no allowance for fillets and overruns.

Curb and Gutter sections shall be shaped as shown where required by the installation of curb inlets. This work shall be ~~subsidiary to other bid items.~~ paid for as "Inlet Hookup".

See sheet entitled "Reinforcing Steel for Inlets and Manholes" for details and quantities.

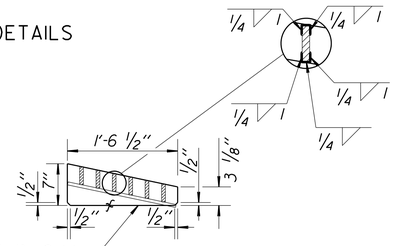
Steps shall be installed in all storm sewer inlets when specified in the plans ~~or when "H" is equal to or greater than six feet.~~ Steps shall comply with the requirements of the KDOT Standard Specification.

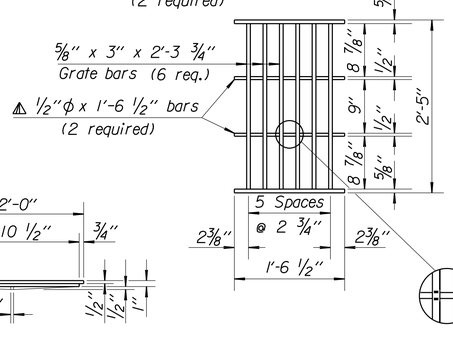
~~For additional notes and details on Light Type Cast Iron Manhole Cover and Ring Type C, and Cast Iron Steps, see Std. Drawing RD633 "Reinforced Concrete Manhole."~~

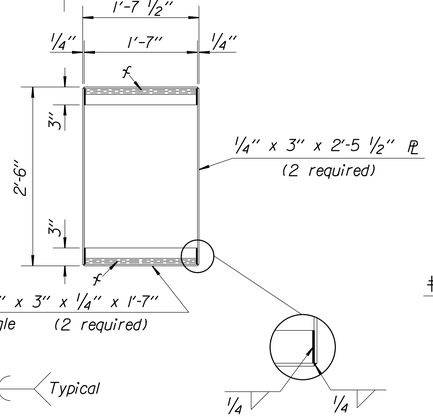


SECTION E-E

Reinforcing steel not shown.







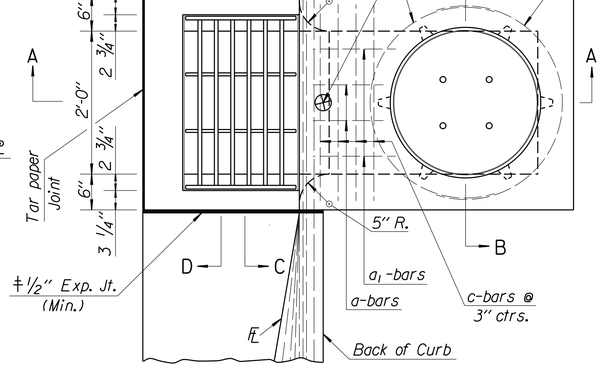
GRATE AND FRAME

Welded Structural Steel Grate & Frame
⚠ Weight = 152 lbs. Each (With Cross-bars)

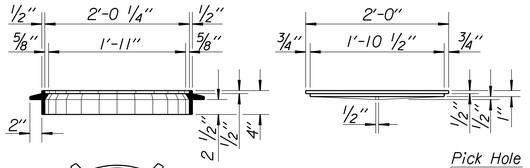
Note: To prevent grate from rocking on bearing angles, machine finish surfaces indicated thus: ℄".

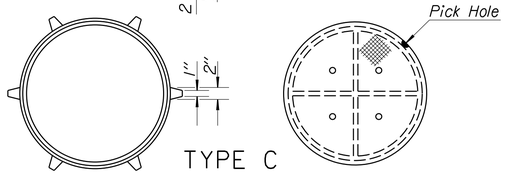
⚠ On all interstate projects and rural area projects, the two ½"ϕ x 1'-6 ½" bars are to be omitted. The weight of the grate and frame without these bars is 150 lbs. of structural steel.

‡ Hot or cold poured joint sealing compound, or premolded Exp. Jt. Filler (Nonextruding, Type B).



PLAN AND PART SECTION



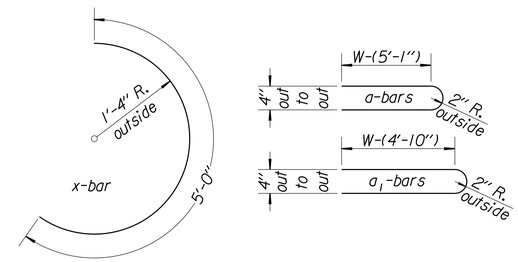


TYPE C

CAST IRON MANHOLE RING
Weight = 53 lbs.

CAST IRON MANHOLE COVER
Weight = 64 lbs.

LIGHT TYPE MANHOLE COVER & RING



BENDING DIAGRAMS

NO.	DATE	REVISIONS	BY	APP'D
13	1-28-05	Changed Class to Grade concrete	S.W.K.	J.O.B.
12	3- 2-99	Added hot dipped galvanized option.	R.J.S.	J.O.B.
11	12-11-97	Revised step spacing	R.J.S.	J.O.B.
10	5-18-95	Delete ASTM on casting	R.J.S.	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

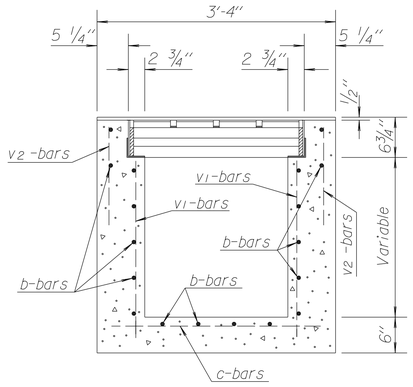
TYPE 12 CURB INLET

~~RD643~~

FHWA APPROVAL	6-10-05	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED B.N.B.
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. R.J.S.

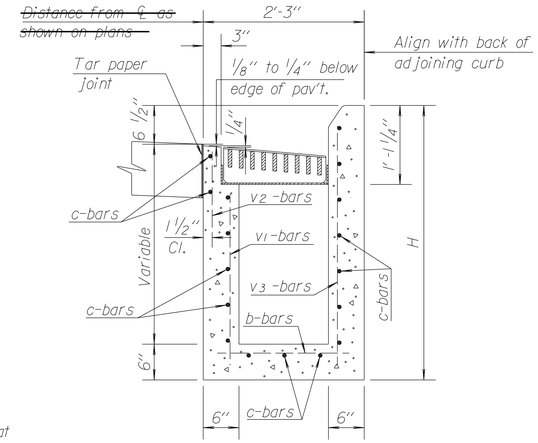
Plotted : 4/16/2015
Drawn By : _____
File : T:\35765A\Cadd\Sheets\Package1\Standards\KDOT\EK1STDRD643A.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	164	1055



SECTION D-D

** Location point shown on plans is to center of structure



SECTION A-A

Note: All reinforcing shall be #4 at 6" centers. Minimum clear distance to reinforcement shall be 1 1/2".

Notes:

Concrete Grade 3.0, Concrete Grade 3.0 (AE), or the mix used in Concrete Pavement, at the Contractor's option, shall be used throughout.

All exposed edges shall be finished with an edging tool.

Reinforcing bars shall be bent around pipe.

No reduction in concrete quantities shall be made for pipe openings.

When directed by the Engineer, a small opening in the back of the inlet shall be provided in order to drain a low area. Reinforcing bars shall extend through the opening. No reduction in concrete quantities will be made for this opening.

The floor of the inlet shall be shaped as shown in ~~various "EXAMPLES"~~ "Typical Manhole Floor Shaping" on ~~Reinforced Concrete Manhole Standard Drawing RD633~~ Sh. No. 171.

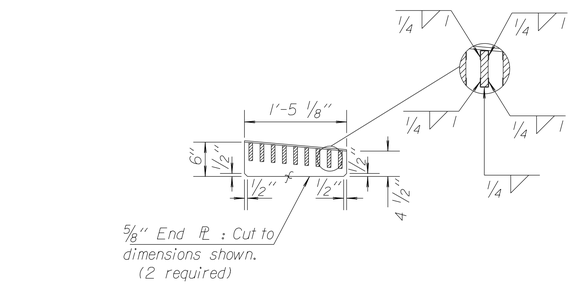
No addition in concrete quantities shall be made for shaping floor of inlet.

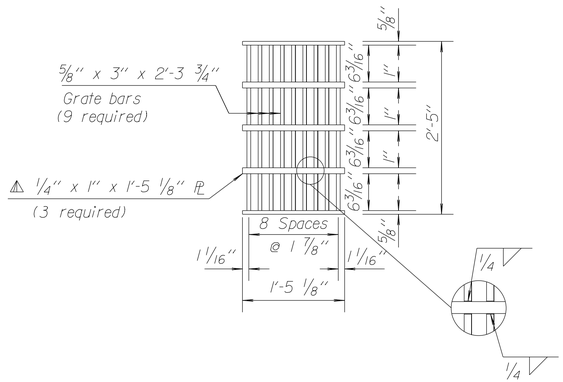
No reduction in pay length of curb, gutter, or curb & gutter will be made through the inlet area, including transition.

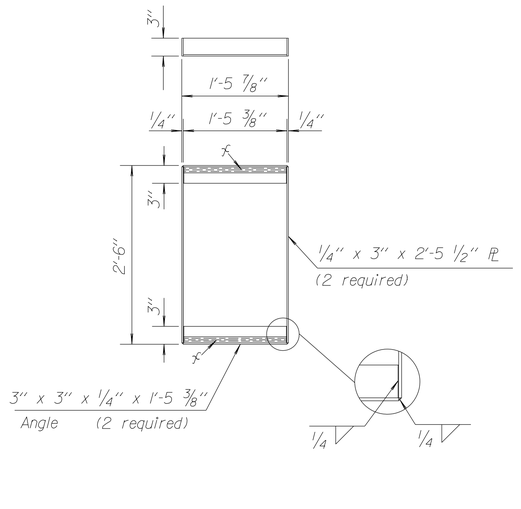
All exposed structural steel shall be painted with a coat of inorganic zinc primer and then with a topcoat or a field coat of organic zinc, each coat to be 3 to 4 mils. As an alternate, the grate and frame may be hot dip galvanized after fabrication in accordance with the Standard Specifications.

All structural steel shall comply with ASTM A-36, A-242, or A-441.

Curb and Gutter sections shall be shaped as shown where required by the installation of curb inlets. This work shall be ~~subsidiary to other bid items.~~ paid for as "Inlet Hookup".





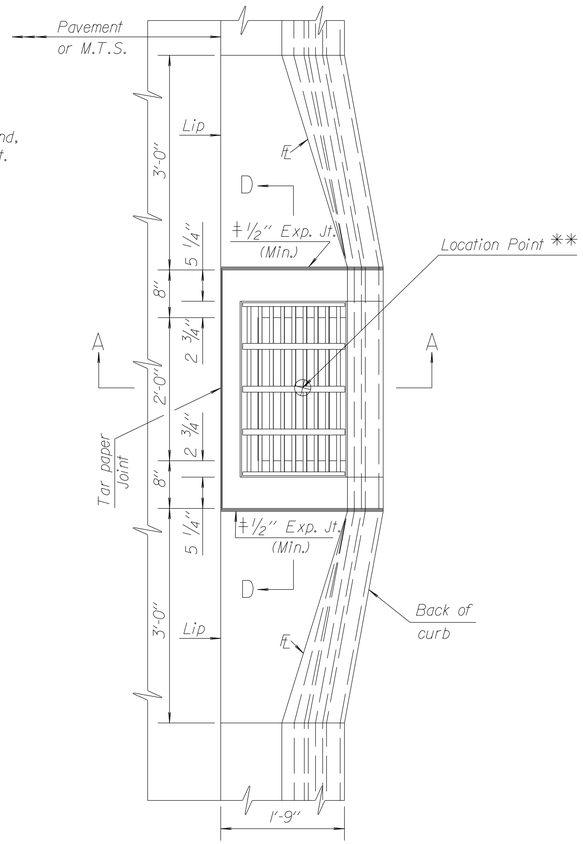


GRATE AND FRAME

Welded Structural Steel Grate & Frame.
⚠ Weight = 195 lbs. each.

Note: To prevent grate from rocking on bearing angles, machine finish surfaces indicated thus "F".

‡ Hot or cold poured Joint sealing compound, or premolded Exp. Jt. Filler (Nonextruding, Type B).



PLAN

NO.	DATE	REVISIONS	BY	APP'D
10	1-28-05	Changed Class to Grade concrete	S.W.K.	J.O.B.
9	3-2-99	Added hot dipped galvanized option.	R.J.S.	J.O.B.
8	12-27-93	Delete paint on cast iron	R.J.S.	J.O.B.
7	4-10-90	Revised paint note	R.J.S.	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

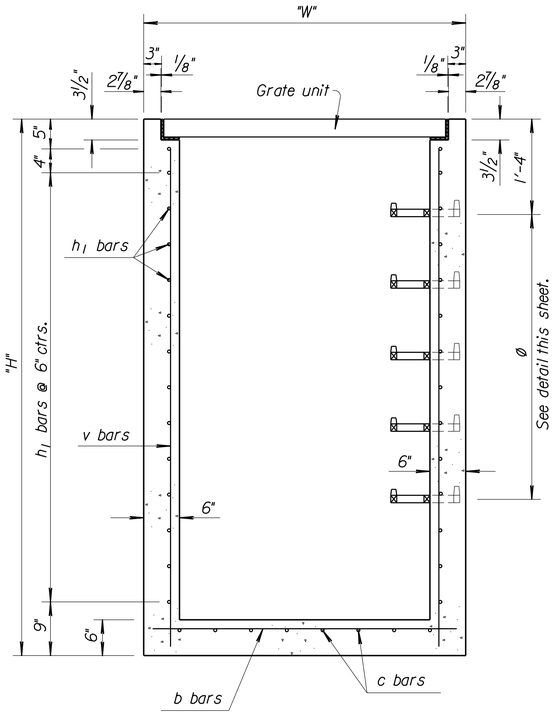
INLET, GUTTER, (SPECIAL) TYPE III, (8'' CURB)

~~RD647~~

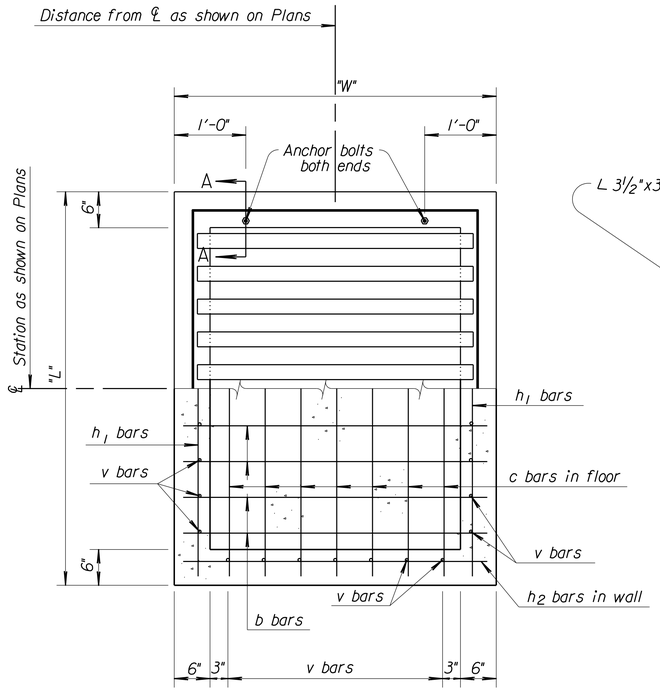
FHWA APPROVAL	6-10-05	APP'D.	James O. Brewer		
DESIGNED	DETAILED	QUANTITIES		TRACED	B.N.B.
DESIGN CK.	DETAIL CK.	QUAN.CK.		TRACE CK.	R.J.S.

Plotted : 4/16/2015
Drawn By : _____
File : T:\35765A\Cadd\Sheets\Package1\Standards\KDOT\EK1STDRD647A.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	165	1055

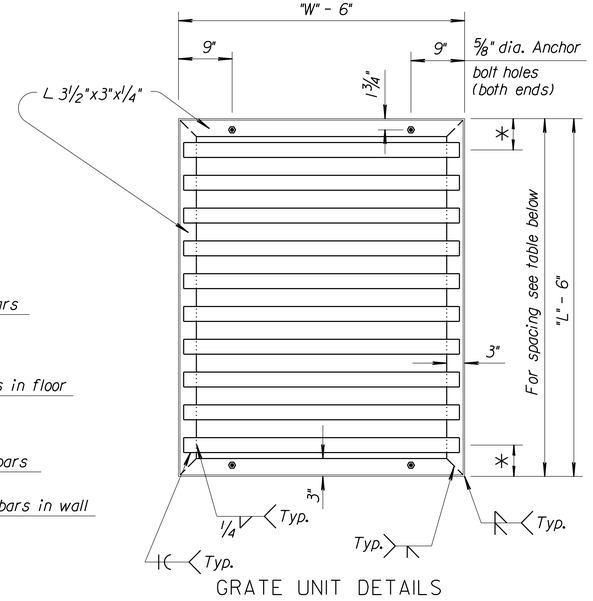


SECTION



PLAN AND SECTION

Ø Steps shall be uniformly spaced. Spacing shall be 12" minimum and 16½" maximum.



GRATE UNIT DETAILS

GENERAL NOTE

Use Concrete Grade 3.0 throughout. All exposed edges shall be finished with an edging tool.

At the contractors option, Concrete Grade 3.0 (AE) or mix used in concrete pavement may be used throughout.

In general, pipes will enter and leave the manhole at various positions. Where possible bend bars around pipes.

Floor of inlet shall be shaped as shown in ~~various "Examples" on Reinforced Concrete Manhole Standard Drawing RD633~~. "Typical Manhole Floor Shaping" on Sh. No. 171. Concrete used for shaping shall be unreinforced Concrete Grade 3.0 or concrete pavement mix. No addition in concrete quantities shall be made for shaping of floor of inlets.

Manhole steps, where used, shall be placed to afford easy access to top of shaped invert.

No deductions in concrete quantities shall be made for pipe openings.

All bars are #4 @ 6" spacing and shall have a minimum clearance of 1½" unless otherwise noted on the plans.

The top of the manhole shall be sloped slightly to approximately fit the ground line or other conditions as directed by the Engineer.

Steps shall be installed on all storm sewer inlets when specified in the plans ~~or when "H" is equal to or greater than six feet~~. Steps shall comply with the KDOT Standard Specification.

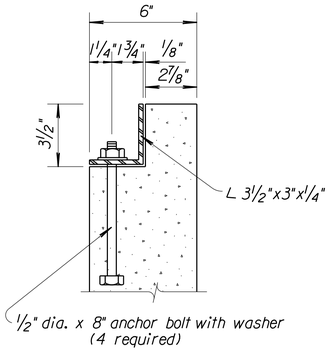
The grade shall be fabricated from standard or commercial grade structural steel and black steel pipe. The unit shall be hot dipped, galvanized after fabrication, in accordance with ASTM A123 except the weight of coating shall average not less than 2.0 ounces per square foot of actual surface and no individual test shall show less than 1.8 ounces of coating per square foot of actual surface area.

BILL OF MATERIALS FOR INLET-MANHOLE (SPECIAL)

"L" 4'-6" x "W" 4'-6" x "H" 3'-6"				"L" 7'-6" x "W" 4'-6" x "H" 7'-6"															
Bar	No.	Size	Length	Bar	No.	Size	Length	Bar	No.	Size	Length	Bar	No.	Size	Length	Bar	No.	Size	Length
v	28	#4	3'-0"	v	40	#4	7'-0"	v		#4		v		#4		v		#4	
c	7	#4	4'-3"	c	7	#4	7'-3"	c		#4		c		#4		c		#4	
b	7	#4	4'-3"	b	13	#4	4'-3"	b		#4		b		#4		b		#4	
h_1	12	#4	4'-3"	h_1	28	#4	7'-3"	h_1		#4		h_1		#4		h_1		#4	
h_2	12	#4	4'-3"	h_2	28	#4	4'-3"	h_2		#4		h_2		#4		h_2		#4	
Conc. Grade 3.0	1.23	Cu.Yd.		Conc. Grade 3.0	3.42	Cu.Yd.		Conc. Grade 3.0		Cu.Yd.		Conc. Grade 3.0		Cu.Yd.		Conc. Grade 3.0		Cu.Yd.	
Reinf. steel	164	Lbs.		Reinf. steel	473	Lbs.		Reinf. steel		Lbs.		Reinf. steel		Lbs.		Reinf. steel		Lbs.	
Struct. steel	260	Lbs.		Struct. steel	430	Lbs.		Struct. steel		Lbs.		Struct. steel		Lbs.		Struct. steel		Lbs.	
Class III Excav.	5	Cu.Yd.		Class III Excav.	17	Cu.Yd.		Class III Excav.		Cu.Yd.		Class III Excav.		Cu.Yd.		Class III Excav.		Cu.Yd.	

BILL OF MATERIALS FOR INLET-MANHOLE (SPECIAL)

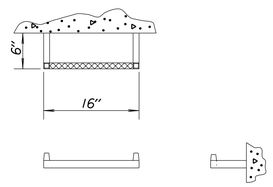
"L" 4'-6" x "W" 4'-6" x "H" 6'-0"				"L" 5'-6" x "W" 4'-6" x "H" 7'-6"				"L" 4'-0" x "W" 4'-0" x "H" 4'-6"				"L" 4'-6" x "W" 4'-6" x "H" 4'-0"				"L" 4'-6" x "W" 4'-6" x "H" 5'-0"				"L" 5'-6" x "W" 4'-6" x "H" 5'-0"			
Bar	No.	Size	Length	Bar	No.	Size	Length	Bar	No.	Size	Length	Bar	No.	Size	Length	Bar	No.	Size	Length	Bar	No.	Size	Length
v	28	#4	5'-6"	v	32	#4	7'-0"	v	24	#4	4'-0"	v	28	#4	3'-6"	v	28	#4	4'-0"	v	32	#4	4'-6"
c	7	#4	4'-3"	c	7	#4	5'-3"	c	6	#4	3'-9"	c	7	#4	4'-3"	c	7	#4	4'-3"	c	7	#4	5'-3"
b	7	#4	4'-3"	b	9	#4	4'-3"	b	6	#4	3'-9"	b	7	#4	4'-3"	b	7	#4	4'-3"	b	9	#4	4'-3"
h_1	22	#4	4'-3"	h_1	28	#4	5'-3"	h_1	16	#4	3'-9"	h_1	14	#4	4'-3"	h_1	16	#4	4'-3"	h_1	18	#4	5'-3"
h_2	22	#4	4'-3"	h_2	28	#4	4'-3"	h_2	16	#4	3'-9"	h_2	14	#4	4'-3"	h_2	16	#4	4'-3"	h_2	18	#4	4'-3"
Conc. Grade 3.0	1.95	Cu.Yd.		Conc. Grade 3.0	2.75	Cu.Yd.		Conc. Grade 3.0	1.30	Cu.Yd.		Conc. Grade 3.0	1.37	Cu.Yd.		Conc. Grade 3.0	1.52	Cu.Yd.		Conc. Grade 3.0	1.91	Cu.Yd.	
Reinf. steel	268	Lbs.		Reinf. steel	377	Lbs.		Reinf. steel	174	Lbs.		Reinf. steel	185	Lbs.		Reinf. steel	205	Lbs.		Reinf. steel	261	Lbs.	
Struct. steel	260	Lbs.		Struct. steel	315	Lbs.		Struct. steel	206	Lbs.		Struct. steel	260	Lbs.		Struct. steel	260	Lbs.		Struct. steel	315	Lbs.	
Class III Excav.	9	Cu.Yd.		Class III Excav.	14	Cu.Yd.		Class III Excav.	6	Cu.Yd.		Class III Excav.	6	Cu.Yd.		Class III Excav.	7	Cu.Yd.		Class III Excav.	9	Cu.Yd.	



½" dia. x 8" anchor bolt with washer (4 required)

SECTION A-A

Note: Anchor bolts are subsidiary to the bid item "Inlet-Manhole, Special".



STEP DETAILS

PIPE DIMENSIONS AND SPACING

L x W	No. of Bars	Dia. x Length x Spacing	✳
7'-6"x4'-6"	13	2½"Ø x 3'-10¼" pipes @ 6" ctrs.	6"
5'-6"x4'-6"	10	2½"Ø x 3'-10¼" pipes @ 5½" ctrs.	5¼"
4'-6"x4'-6"	8	2½"Ø x 3'-10¼" pipes @ 5½" ctrs.	4¾"
4'-0"x4'-0"	7	2½"Ø x 3'- 4¼" pipes @ 5½" ctrs.	4½"

NO.	DATE	REVISIONS	BY	APP'D
10	6-13-12	Revised Concrete Quantity	S.W.K.	J.O.B.
9	1-28-05	Chaned Class to Grade Concrete	S.W.K.	J.O.B.
8	12-5-00	Added Note to Designer	R.J.S.	J.O.B.

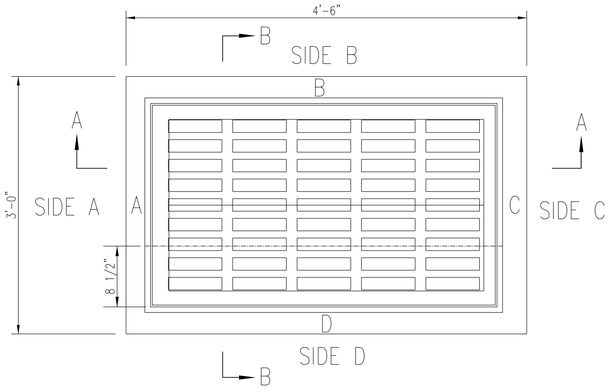
KANSAS DEPARTMENT OF TRANSPORTATION

INLET - MANHOLE, SPECIAL

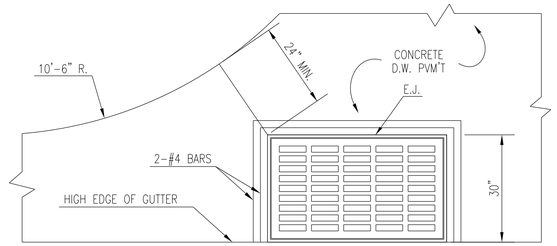
~~RD648~~

FHWA APPROVAL	06-25-12	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED B.N.B.
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. R.J.S.

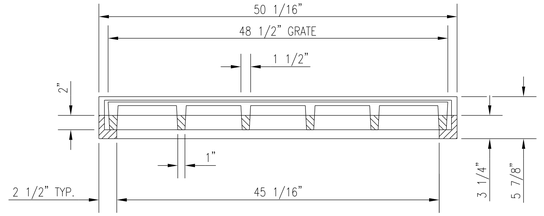
Plotted : 4/16/2015
Drawn By :
File : T:\35765A\Cadd\Sheets\Package1\Standards\KDOT\EK1STDRD648A.dgn



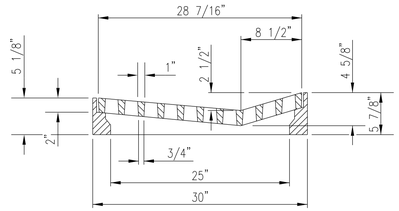
TOP VIEW



PLAN



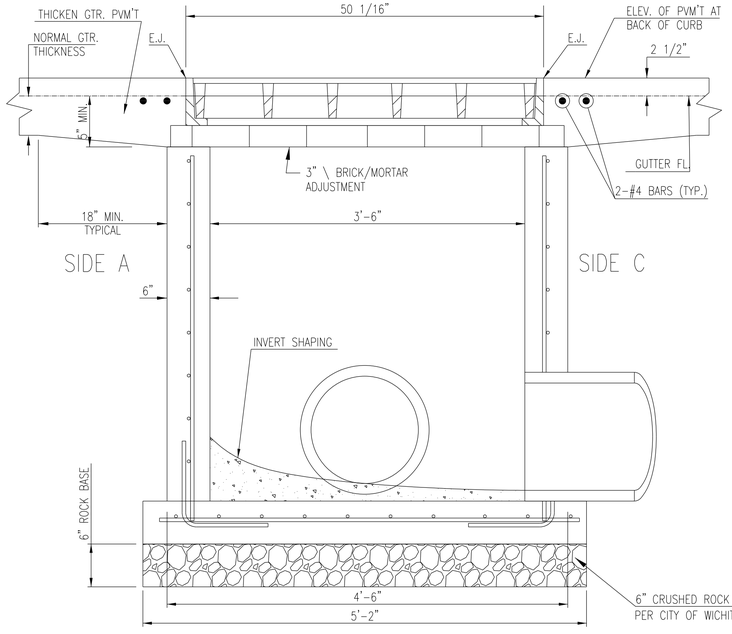
SECTION A–A



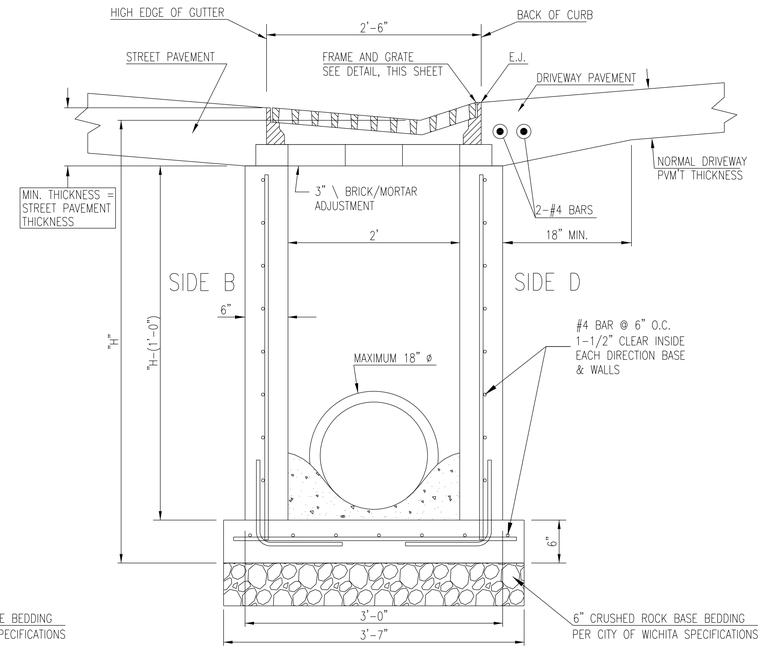
SECTION B–B

FRAME & GRATE

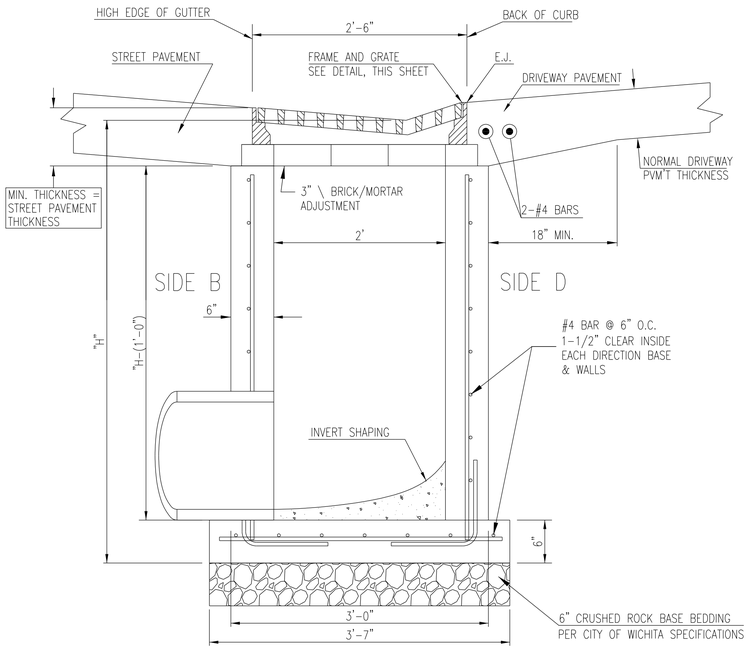
DEETER #2095 TOTAL WEIGHT: 705 LBS.
EJIW #7392 TOTAL WEIGHT: 675 LBS.



SECTION "A–A"



SECTION "B–B"
END OUTLET



SECTION "B–B"
SIDE OUTLET

GENERAL NOTES

1. GRATE FRAME TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK. CONCRETE USED FOR INLET CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
2. CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALL BETWEEN THE CONCRETE INLET BASE AND TOP OF THIS INLET WHEN 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 GRATE TO BE DEETER #2095, EJIW #7392, OR APPROVED EQUAL.
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.
7. CURB WARPING TO MATCH INLET SHALL BE PAID FOR AS "INLET HOOKUP"
8. LOCATION POINT SHOWN ON PLNAS IS TO CENTER OF STRUCTURE.

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

GRATED DRIVEWAY INLET (SINGLE)

CITY ENGINEER
GARY JANZEN, P.E.

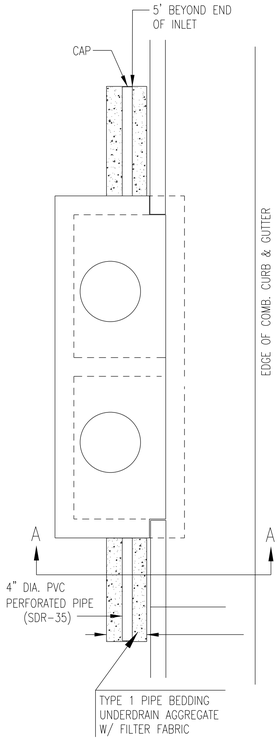
PROJECT NUMBER	OCA NUMBER	DATE
472-85031	705011	11/2010

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

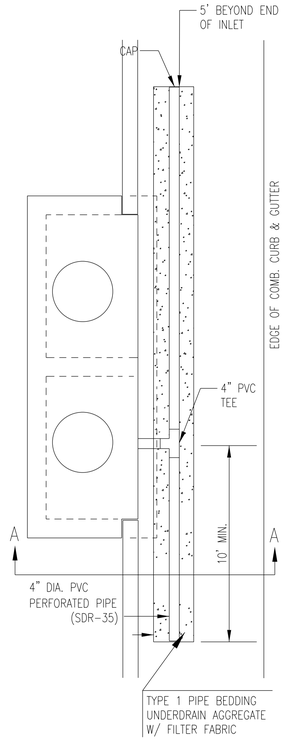
SHEET
166 of 1055

SW-108

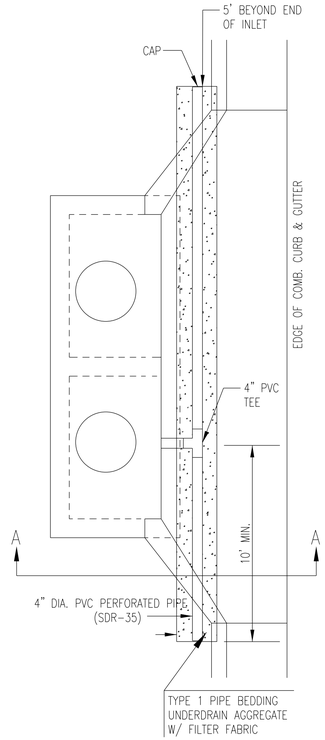
PAVEMENT UNDERDRAIN SHALL BE INSTALLED ON ALL CURB INLETS.



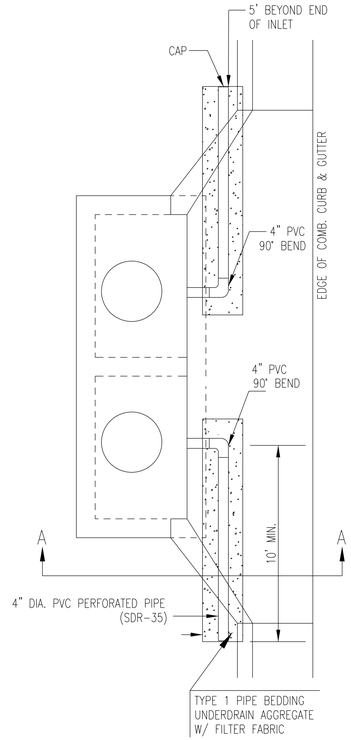
TYPE 1
OPTION 1



TYPE 1
OPTION 2



TYPE 1-A INLET
OPTION 1



TYPE 1-A INLET
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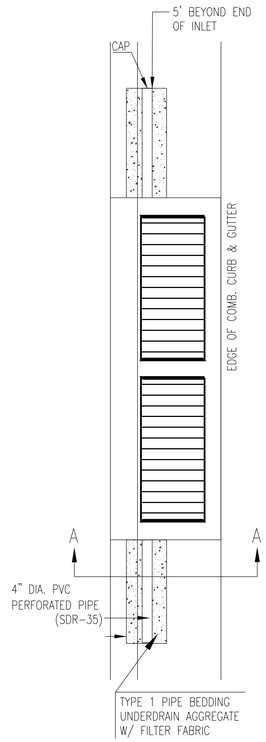
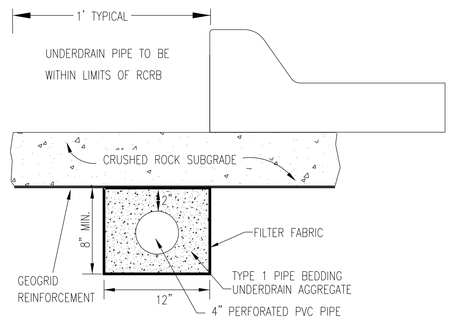


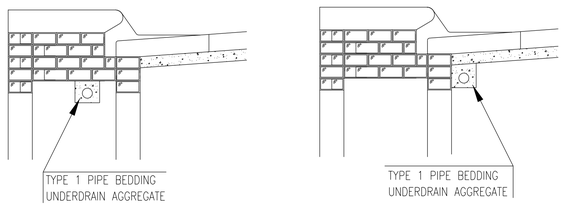
TYPE 2



SECTION A-A (TYPICAL)

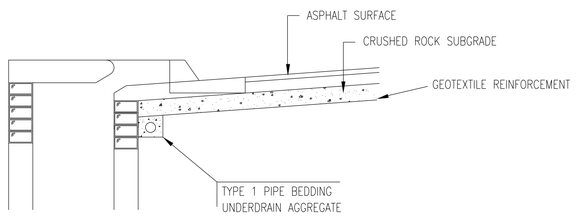
GENERAL NOTES

1. PAVEMENT CONTRACTOR WILL BE REQUIRED TO INSTALL SDR 35, 4" PERFORATED DRAIN PIPE AND TEE AS INDICATED IN THE DETAILS.
2. WHEN SWS 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.
2. UNDERDRAIN PIPE SHALL BE PAID AS A MEASURED QUANTITY BY THE LINEAL FOOT.



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

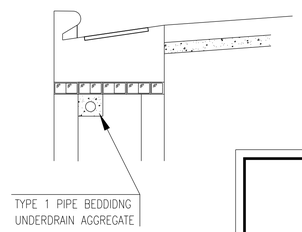
SECTION A-A



SECTION A-A

PAVEMENT UNDERDRAIN DETAIL

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



SECTION A-A

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

CURB INLET
PAVEMENT UNDERDRAIN
DETAIL

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85031	705011	10/2012

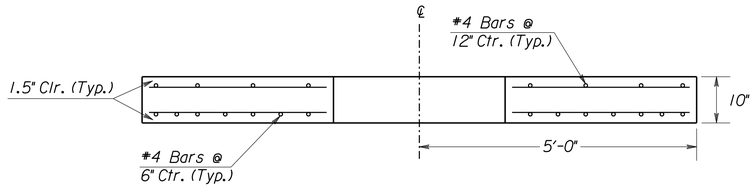
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
167 of 1055

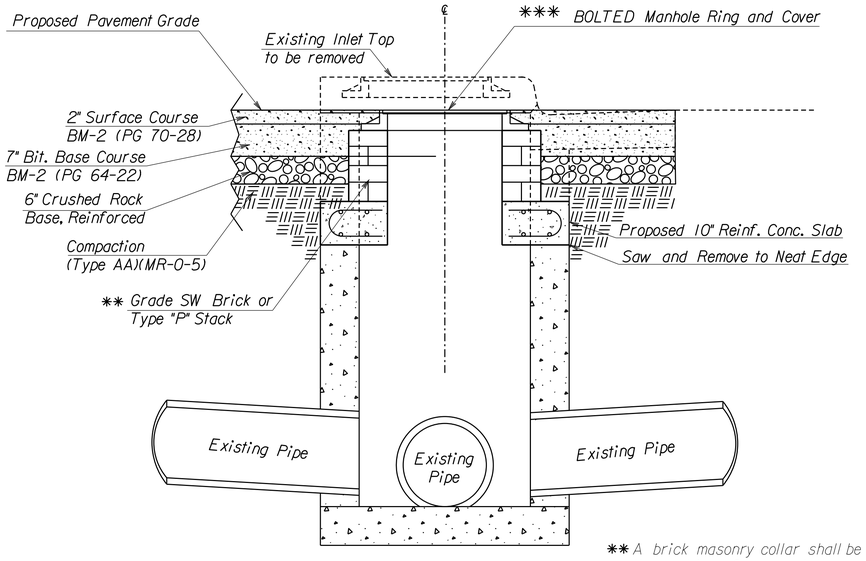
SW-111

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	168	1055

*** Bolted Manhole Ring & Cover		
Station	Side	Type
569+46	45' Lt.	Deeter #1943 or approved equal
570+42	42' Lt.	Deeter #1261 or EJIW #1936-Z1
570+42	49' Lt.	Deeter #1943 or approved equal



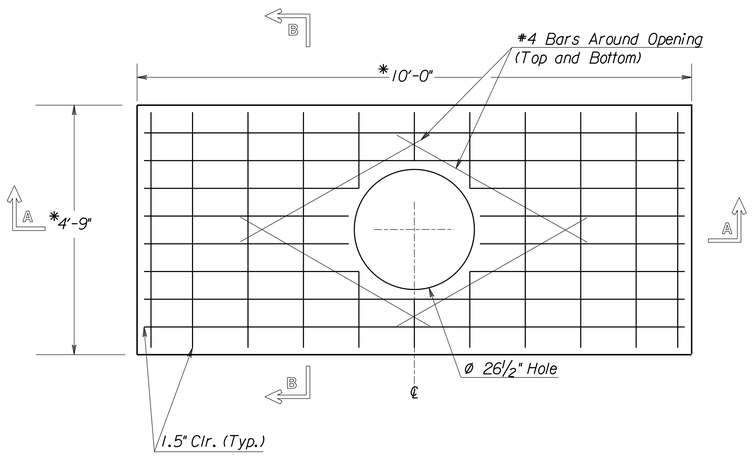
SECTION A-A



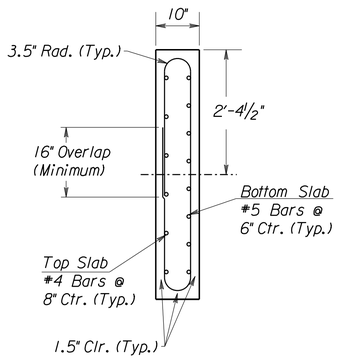
NOTE: Slope top of Manhole to match Roadway.

SECTION AT CENTER WALL

** A brick masonry collar shall be installed between the cast iron frame and the concrete slab as needed. The collar will have 8" walls and a vertical height of 6" minimum and 18" maximum. A 1" coat of mortar will be plastered on the outside of the collar. The use of pre-cast concrete spacers for manhole top adjustment is also allowed. Mortar used in masonry construction shall be Class III.



CONCRETE SLAB



SECTION B-B

* Contractor to verify existing inlet dimensions prior to fabrication of pre-cast concrete slab.

GENERAL NOTES

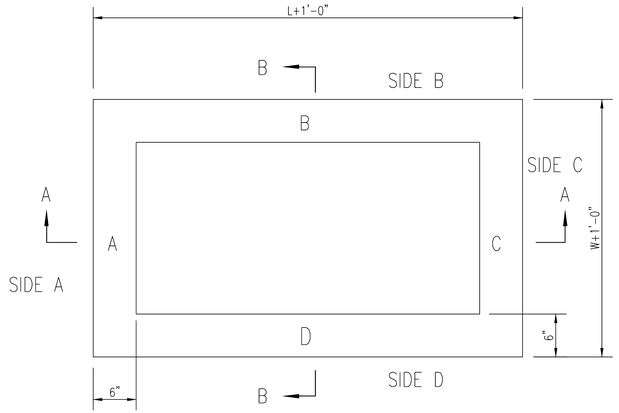
1. Concrete shall be Class I. All exposed edges shall be finished with an edging tool.
2. Concrete tops to be installed on thin mortar cushion to insure full support along inlet walls. Concrete tops may be cast in place or precast.
3. Inlet Retrofit shall be paid for as "Inlet, Retrofit" and include all work and materials required to convert curb inlet to manhole/grate inlet as detailed. Removal of the existing top and any adjustments to the existing inlet shall be considered subsidiary.
4. Location point shown on plans is to center of structure.

CITY OF WICHITA

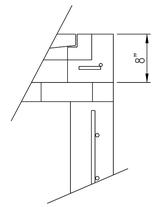
INLET, RETROFIT

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
-	-	-	-	-	-	-	-

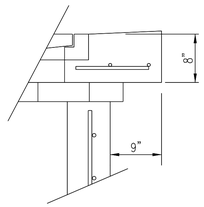
7:52:35 PM
4/16/2015
T:\35765A\Cadd\Sheets\Package\Drainage\EKINRET01A.dgn



TOP VIEW

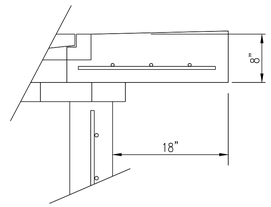


FLUSH STYLE TOP
NO APRON



9" APRON

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



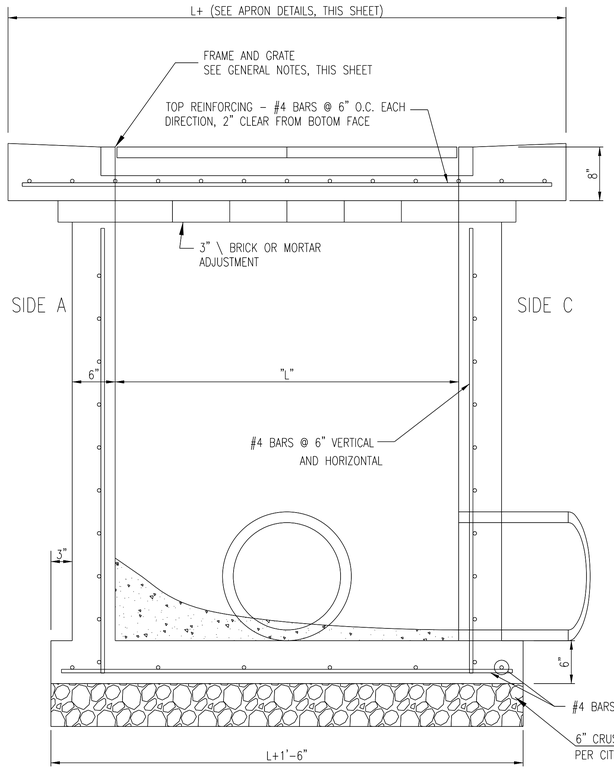
18" APRON

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

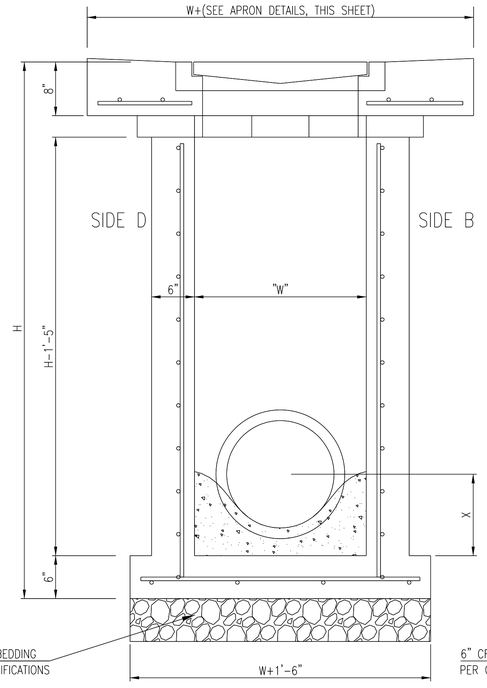
The structure(s) on this detail sheet are designed for HS-20 loading at these specific dimensions only. If larger dimensions are required, the ENGINEER shall provide a project specific structure design for approval by the City Engineer's office.

GENERAL NOTES

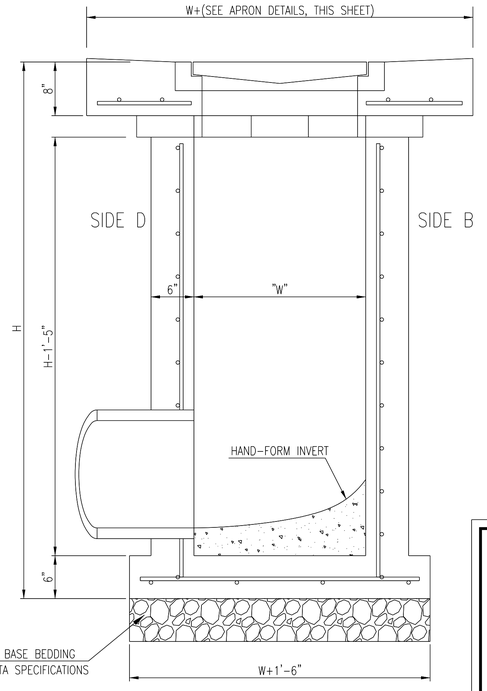
1. GRATE FRAME TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK. CONCRETE USED FOR INLET CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
2. INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
3. THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.
4. INLET FRAME AND GRATE TO BE DEETER #2433, EJIW #5391-Z1 OR APPROVED EQUAL FOR 2'x2' SINGLE DROP INLET AND DEETER #2434, EJIW #5391 Z3 OR APPROVED EQUAL FOR 2'x4' DOUBLE DROP INLET.
5. CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN INLET WALL SHALL BE GROUTED FLUSH TO THE INLET WALL WITH HYDRAULIC CEMENT AFTER THE INLET IS IN PLACE. LIFTING HOLES THRU THE INLET WALL WILL NOT BE ACCEPTED.
6. LOCATION POINT SHOWN ON PLNAS IS TO CENTER OF STRUCTURE.



SECTION "A-A"



SECTION "B-B"
END OUTLET



SECTION "B-B"
SIDE OUTLET

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

SINGLE/DOUBLE DROP INLET

CITY ENGINEER
GRAY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85031	705011	05/2011

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

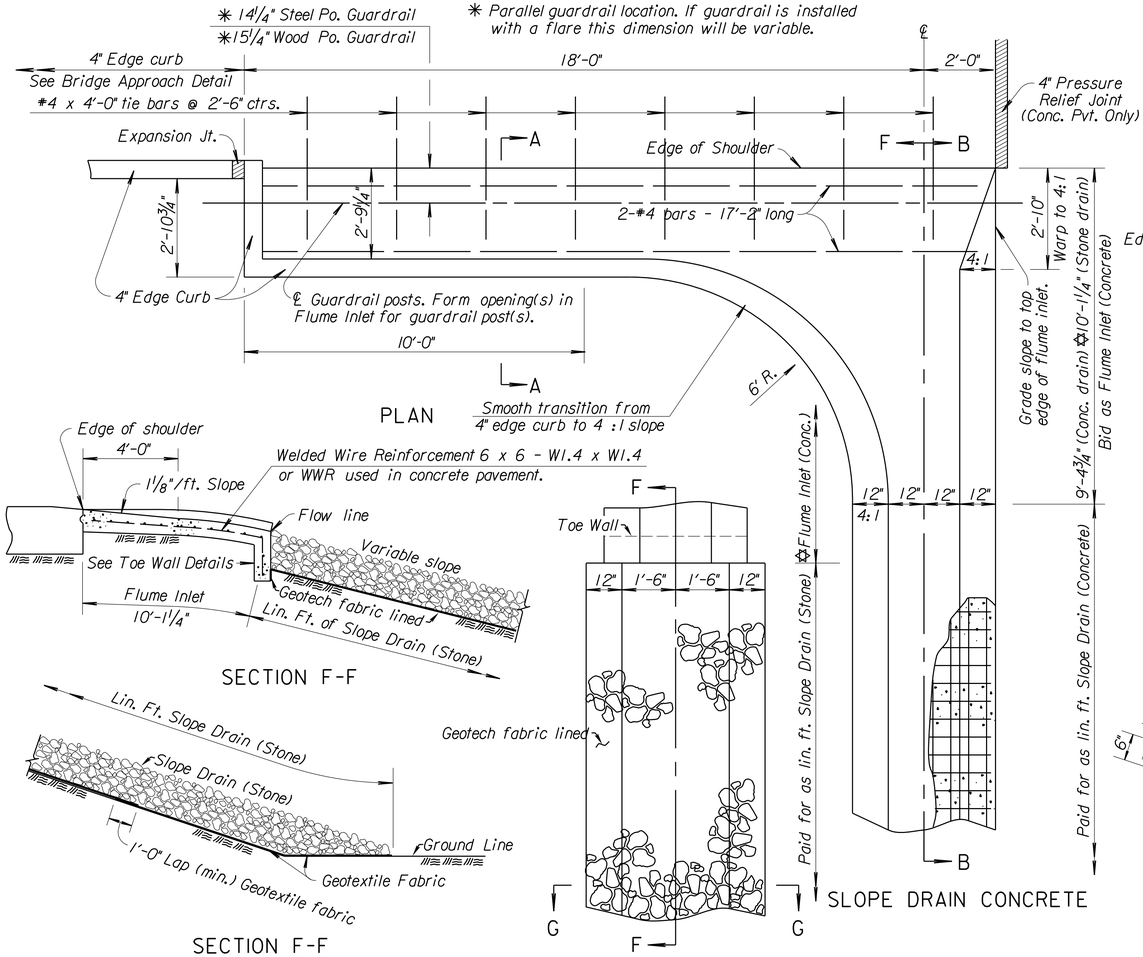
SHEET
169 of 1055

SW-201

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	170	1055

✳ 14¼" Steel Po. Guardrail
✳15¼" Wood Po. Guardrail

✳ Parallel guardrail location. If guardrail is installed with a flare this dimension will be variable.



PLAN

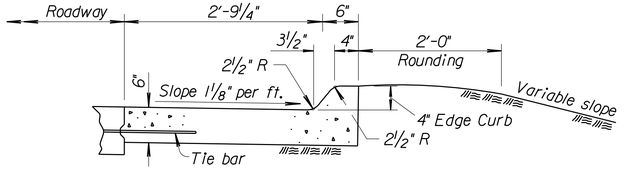
Smooth transition from 4" edge curb to 4 :1 slope

SECTION F-F

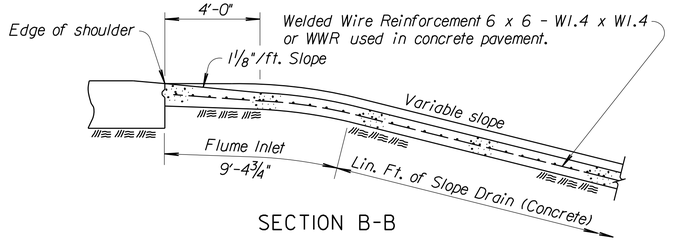
SECTION F-F

SLOPE DRAIN CONCRETE

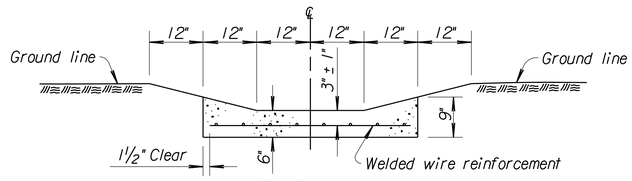
SLOPE DRAIN STONE



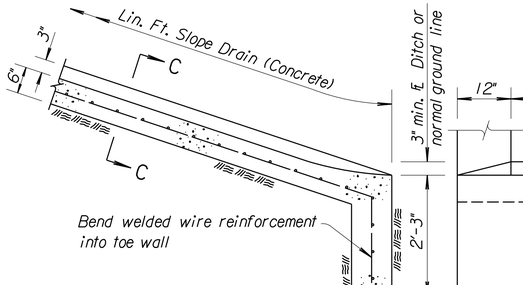
SECTION A-A



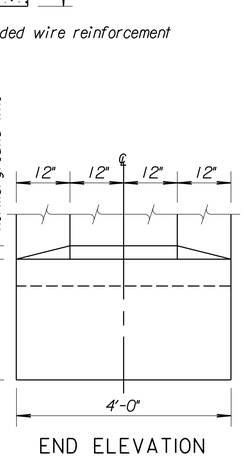
SECTION B-B



SECTION C-C



SIDE ELEVATION



END ELEVATION

SLOPE DRAIN & TOE WALL DETAILS

Slope Drain is shown with (STONE) or (CONCRETE) option, type to be determined by the Designer.

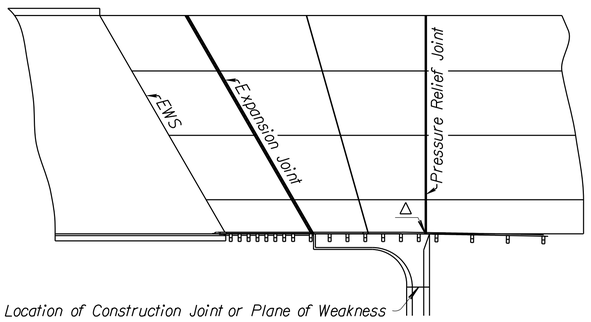
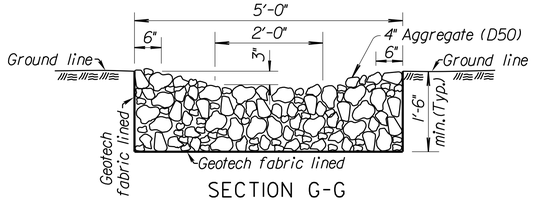
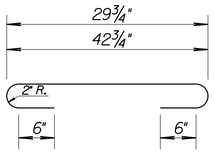


DIAGRAM of FLUME INLET at PRESSURE RELIEF JOINT

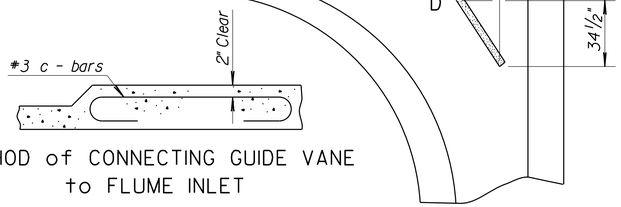
△ On projects with concrete paved shoulders where, due to skew of the bridge, the flume inlet extends beyond the 4" pressure relief joint of the special concrete bridge approach, the portion of inlet or gutter extending beyond the pressure relief joint shall not be tied to the concrete shoulder with tie bars.



SECTION G-G

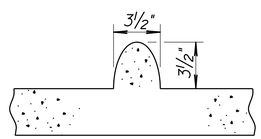


#3 c - bars
Bending Diagram
(Bend one bar each length)

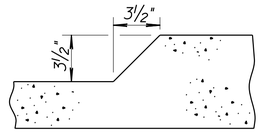


METHOD of CONNECTING GUIDE VANE to FLUME INLET

PARTIAL PLAN with GUIDE VANE



SECTION D-D
(Guide Vane formed monolithic)



SECTION E-E
(Typical both ends of vane)

GENERAL NOTE

Flume Inlets shall be paid for by unit price per each. Slope Drains (Stone or Concrete) shall be paid for by unit price per linear foot.

Reinforcing steel & welded wire reinforcement are subsidiary to Flume Inlet and Slope Drain.

Flume Inlets will be constructed without Guide Vanes except at locations noted in plans or as directed by the Engineer. Construction of guide vanes, when required, shall be subsidiary to the bid item "Flume Inlet".

The entire area of the Flume Inlet & Slope Drain shall be placed monolithic and struck off with a uniform thickness of 6 inches.

Guide Vanes may be formed monolithic with the Flume Inlet or tied to the Flume Inlet in the manner shown if constructed separately. Alternate methods of constructing Guide Vanes may be used with approval of the Engineer.

Concrete Grade 3.0 (AE) shall be used in Flume Inlet and Slope Drain. On concrete pavement projects, the contractor may substitute the mix used in concrete pavement.

Transverse expansion and contraction joints of same type in pavement are to extend through the flume inlet and 4" edge curb, omitting load transfer devices. The edge curb section will be made continuous through any expansion joint by using a filler material approved by the Engineer to fill the void to the full height of the curb. Joints will not extend into the Slope Drain.

All exposed edges shall be finished with an edging tool.

For details of 4" edge curb see Standard Drawing RD711.

No adjustment of guardrail post spacing will be permitted.

Flume inlet shall only be constructed adjacent to concrete pavement. Flume inlet shall be tied to the pavement with #4 x 4'-0" tie bars at 2'-6" centers. Tie bars shall be subsidiary to the Flume Inlet.

Shape of guide vane shown is approximate and may be altered slightly to simplify construction. Height and width dimension shall be as shown regardless of shape.

Aggregate for the Slope Drain (STONE) shall meet the reqirements of stone for Aggregate Ditch Lining and have a D_{50} of 4" unless otherwise noted on the plans. The Contractor shall place stone from bottom to the top of slope to produce a well graded mass without segregation of material sizes. Placement, measurement, and payment shall conform to KDOT Standard Specifications.

Slope Drain (STONE) shall be underlain with geotextile fabric that meets the KDOT Standard Specification. All work and materials for the geotextile fabric shall be subsidiary to the Slope Drain (STONE).

QUANTITIES (For information only)

SLOPE DRAIN (CONCRETE)

Flume Inlet Concrete:
1.9 cu. yds. Concrete ❀
42 lbs. reinf. steel and WWR
Slope Drain (CONCRETE):
0.0833 cu. yds. Concrete per lin. ft.
0.79 lbs. WWR per lin. ft.
Toe wall shall be paid for as 1.5 lin. ft. of Slope drain.

SLOPE DRAIN (STONE)

Flume Inlet & Toe Wall Concrete:
2.2 cu. yds. Concrete ❀
44 lbs. reinf. steel and WWR
Slope Drain (STONE): 4" Aggregate (D50)
0.25 cu. yds. 4" Agg. (D50) per lin. ft.
0.90 sq. yds. Geotextile fabric per lin. ft.

❀ Does not include guide vanes.

NO.	DATE	REVISIONS	BY	APP'D
5	9-12-07	Reorg. sheet, add. slope drain stone	S.W.K.	J.O.B.
4	1-28-05	Chg. Class to Grade conc., reinf.	S.W.K.	J.O.B.
3	7-26-04	Revised guard fence to guardrail	S.W.K.	J.O.B.

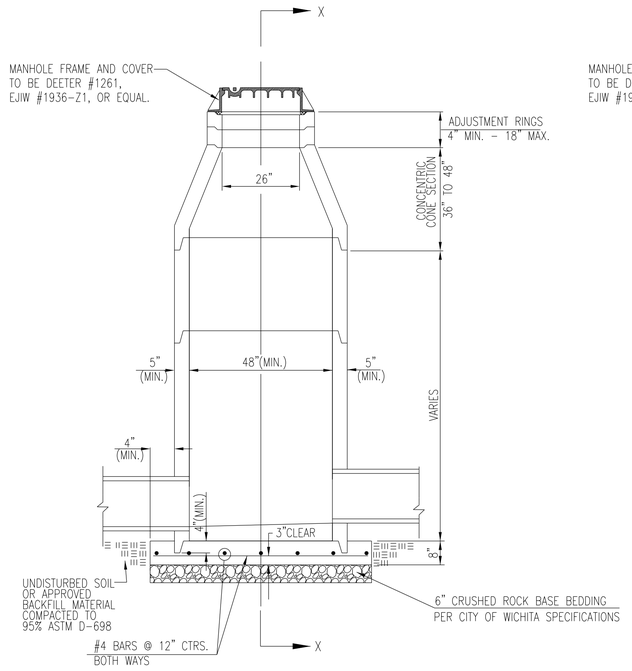
KANSAS DEPARTMENT OF TRANSPORTATION

FLUME INLET and SLOPE DRAIN (CONCRETE/STONE)

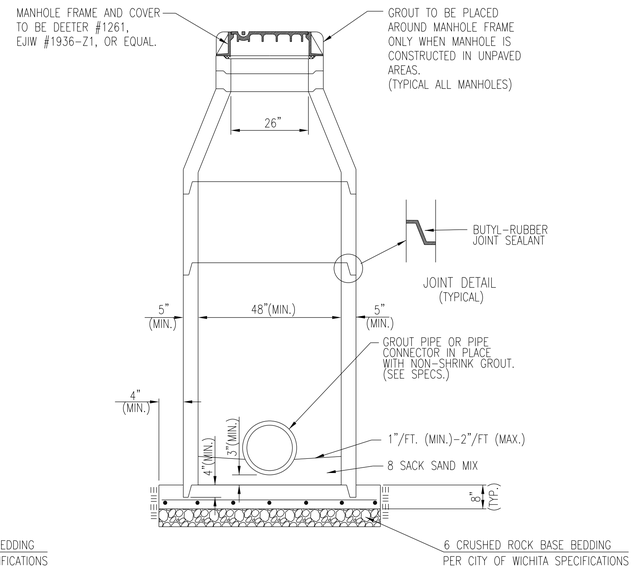
RD628

FHWA APPROVAL	11-20-07	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. King

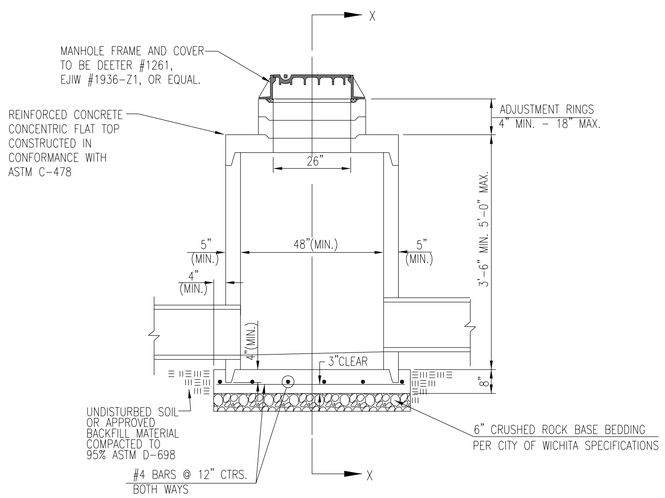
Plotted : 4/16/2015
Drawn By :
File : T:\35765A\Cadd\Sheets\Package1\Standards\KDOT\EK1STDRD628A.dgn



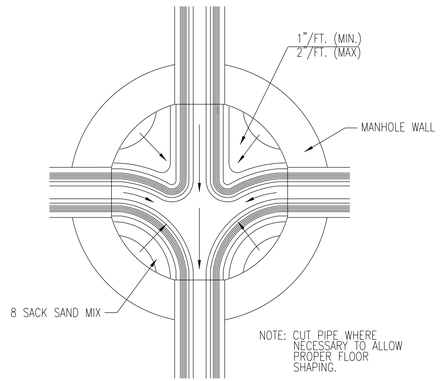
PRECAST
STANDARD MANHOLE
TYPE "A"



SECTION X-X
(TYPICAL)



PRECAST
SHALLOW MANHOLE
TYPE "B"



TYPICAL MANHOLE
FLOOR SHAPING

GENERAL NOTES

1. IF, IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR WILL HAVE THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
2. STEEL REINFORCING WILL BE REQUIRED IN ALL MANHOLE BASES.
3. ALL MANHOLE CONSTRUCTION SHALL BE WATER TIGHT.
4. TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
5. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION OF ASTM C-478 AS MODIFIED BY THE SPECIFICATIONS.
6. CONCRETE USED FOR MANHOLE CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO MANHOLE BASE.
8. MANHOLES WITH PIPE SIZES 24" AND LARGER SHALL HAVE 5 FOOT INSIDE DIAMETER (MIN.)
9. MANHOLES WITH PRECAST BASES MAY BE USED AT THE CONTRACTORS OPTION. THESE MANHOLES SHALL HAVE AN 8" MINIMUM BASE THICKNESS AND SHALL BE PLACED ON AN 8" MIN. CRUSHED ROCK BASE. PIPES SHALL BE ENCASED WITH CRUSHED ROCK TO AT LEAST 3 FEET FROM THE MANHOLE WALL.
10. CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN MANHOLE WALL SHALL BE GROUTED FLUSH TO THE MANHOLE WALL WITH HYDRAULIC CEMENT AFTER THE MANHOLE IS IN PLACE. LIFTING HOLES THRU THE MANHOLE WALL WILL NOT BE ACCEPTED.
11. THE ENDS OF ALL PIPES IN MANHOLES SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE MANHOLE WALL.
12. MANHOLE INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE MANHOLE WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
13. MANHOLE FRAME AND COVER TO BE DEETER #1261, EJIW #1936-Z1, OR APPROVED EQUAL, SEE SW-303.
14. FOR FLAT GRATED INLET APPLICATION, GRATE TO BE DEETER #1933, EJIW #1205 MDI, OR APPROVED EQUAL.
15. FOR BEEHIVE GRATE APPLICATION, GRATE TO BE DEETER #4495, EJIW #120545, OR APPROVED EQUAL.
16. LOCATION POINT SHOWN ON PLANS IS TO CENTER OF STRUCTURE.

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

PRECAST CONCRETE MANHOLE (STORM SEWER)

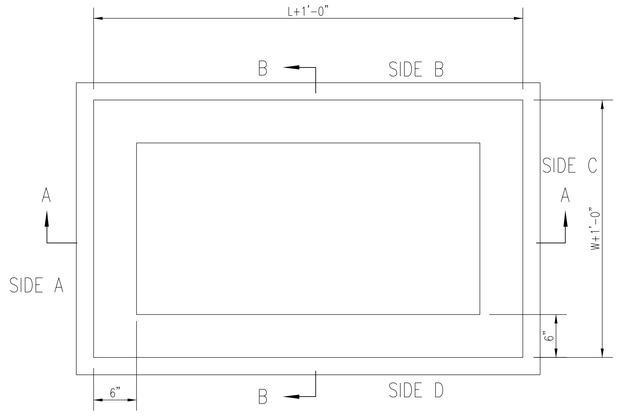
CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85031	705011	11/2010

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

SHEET
171 of 1055

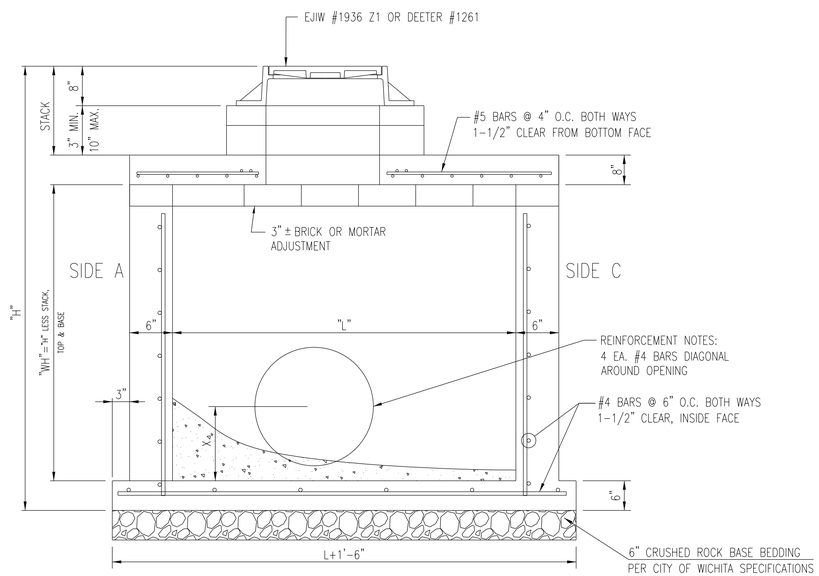
~~SW-301~~



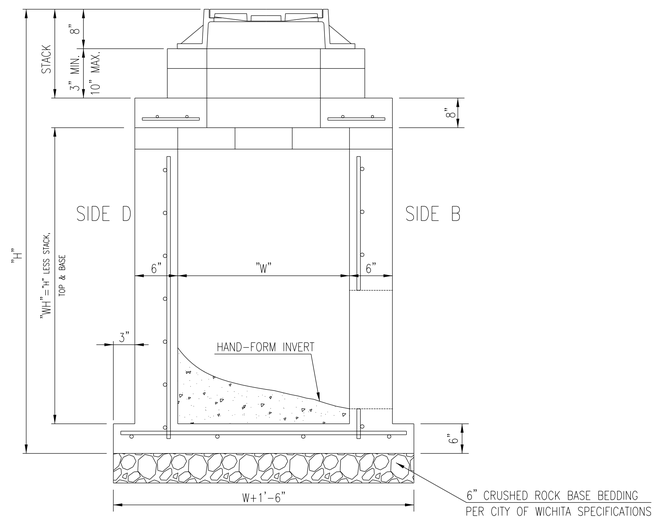
TOP VIEW

GENERAL NOTES

1. GRATE FRAME TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK. CONCRETE USED FOR INLET CONSTRUCTION SHALL CONFORM TO CITY OF WICHITA SPECIFICATIONS FOR CONCRETE PAVEMENT MIX.
2. INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.
3. THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.
4. INLET FRAME AND GRATE TO BE DEETER #1261, EJIW #1936-Z1 OR APPROVED EQUAL, SEE SW-303.
5. CONTRACTOR SHALL REMOVE LIFTING HOOKS AFTER INSTALLATION. RECESSES IN MANHOLE WALL SHALL BE GROUTED FLUSH TO THE MANHOLE WALL WITH HYDRAULIC CEMENT AFTER THE MANHOLE IS IN PLACE. LIFTING HOLES THRU THE MANHOLE WALL WILL NOT BE ACCEPTED.
6. LOCATION POINT SHOWN ON PLANS IS TO CENTER OF STRUCTURE.



SECTION "A-A"



SECTION "B-B"

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

REINFORCED CONCRETE MANHOLE (STORM SEWER)

CITY ENGINEER
GARY JANZEN, P.E.

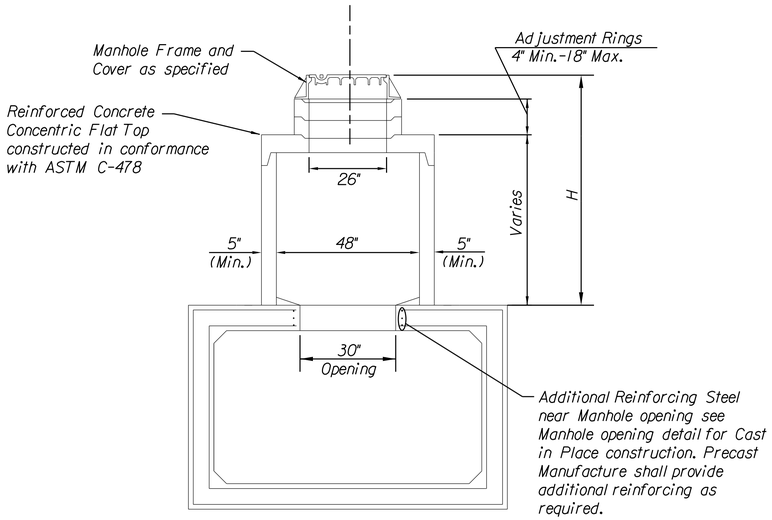
PROJECT NUMBER	OCA NUMBER	DATE
472-85031	705011	11/2010

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

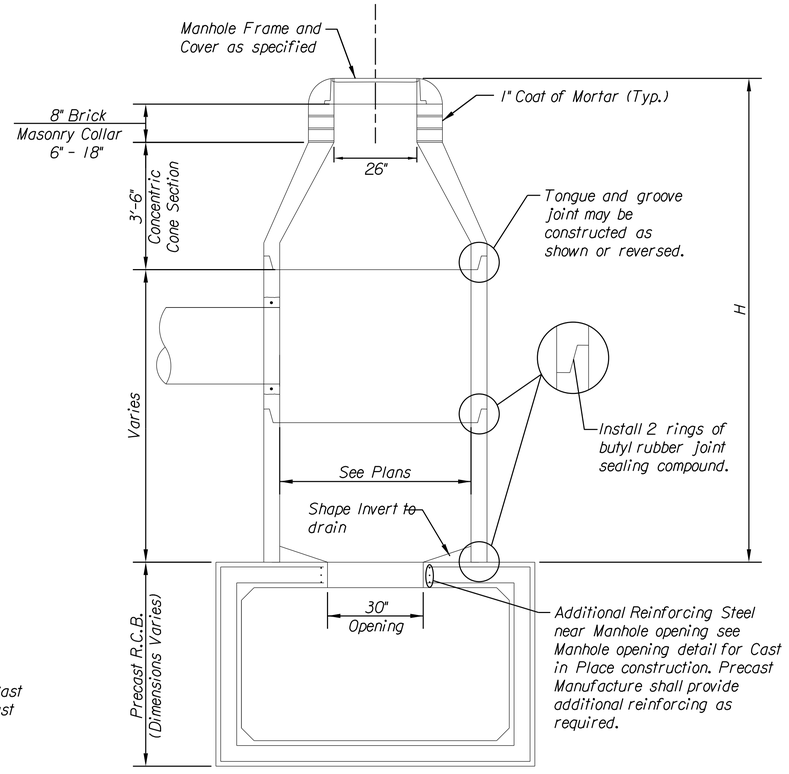
SHEET
172 of 1055

SW-302

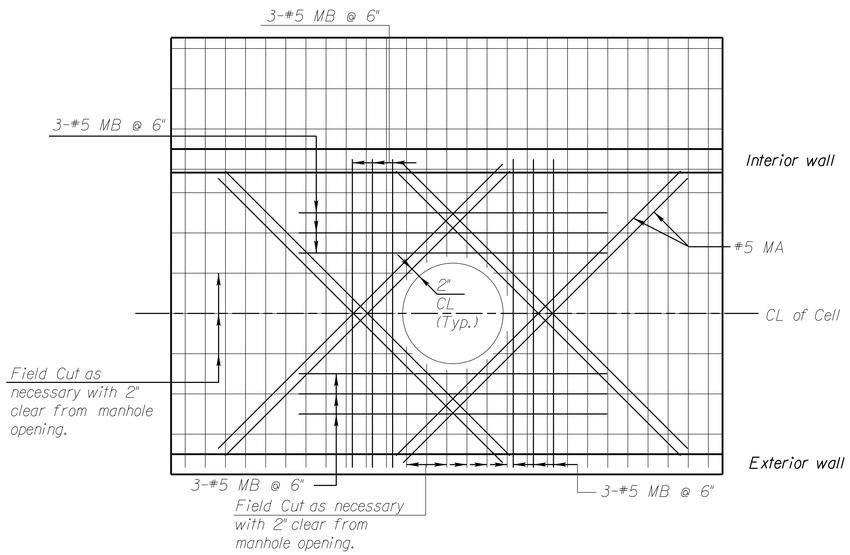
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	173	1055



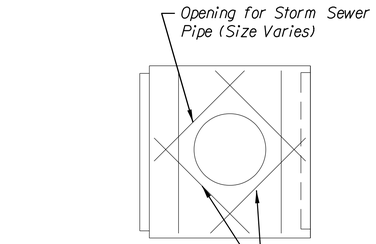
SHALLOW MANHOLE STACK



MANHOLE STACK DETAIL



MANHOLE OPENING DETAIL (CAST IN PLACE) (TYPICAL)



PIPE OPENING IN PRE-CAST RCB DETAIL

BAR SCHEDULE							
MA				MB			
Size	Spa.	No.	Length	Size	Spa.	No.	Length
5	3"	56	10'-0"	5	6"	84	7'-8"

GENERAL NOTES

1. All Pre-Cast Concrete Manhole Stacks shall conform to the City of Wichita's Standard Specifications and the General Notes on the Standard Pre-Cast Manhole detail.

2. Non-shrink grout shall be non-metallic type.

3. All inside surfaces of any concrete manhole which could be exposed to sewer gas shall be coated with 2 coats Tnemec Series 66 hi-build epoxoline, dry thickness of 8 mils (min.) or approved equal.

4. Exterior manhole walls shall be coated with 1 coat Mobilarma 633 bituminous coating or approved equal.

5. Joint sealing compound shall be Kent Seal No. 2 or approved equal.

6. Lifting holes shall be filled with non-shrink grout and the Interior surface coated as specified.

7. Mortar used in masonry construction shall contain 8 sacks of cement per cubic yard.

8. Manholes constructed where inflowing pipe sizes are smaller than 24" shall have an inside diameter of 4.0'. Manholes constructed where pipe sizes are 24" to 30" shall have an inside diameter of 5.0', and manholes constructed where pipe sizes are 36" and larger shall have an inside diameter of 6.0' or will require a reinforced concrete manhole. Completed manhole shall be without leaks and water tight.

9. Manhole cover castings and manhole frame castings shall conform to the requirements as indicated in the Standard Specifications and as shown in the standard detail drawing.

10. The bid item "Manhole Stack" shall include all material, painting, cast iron, excavation, backfilling, equipment, tools, and all other incidentals necessary to complete the work.

11. Pipes installed within the excavation made for the manhole shall be cradled with concrete to the limits of the manhole excavation. Cost of cradle within manhole excavation shall be included in the unit price bid for the manhole.

12. Sewer pipe joined to the manhole wall shall be grouted into the opening using an approved non shrink grout for the full manhole wall thickness. The exterior of the completed connection shall be sealed with an approved bituminous coating such that the connection will be water tight. The sewer pipe shall be supported with concrete encasement a minimum of 3 feet from the manhole wall.

13. All Shallow Stacks shall have 4'-0" inside diameter and will not receive Storm Sewer pipes.

14. No designation between Shallow Stacks and Standard Stacks will be made. Payment shall be paid for each Stack installed in conformance with these plans.

15. Location point of Stack shown on the plans is to center of Structure.

* Reinforcing Steel required for Manhole Opening Shall be part of the bid item "Pipe, SWS, RCBC (2-7'x4')"

QUANTITIES (For Information Only)		
Reinforcing Steel (Gr. 60)		
Manhole Opening *	1256	Lbs.

CITY OF WICHITA

MANHOLE STACK DETAIL AND RCB CUT-OUT

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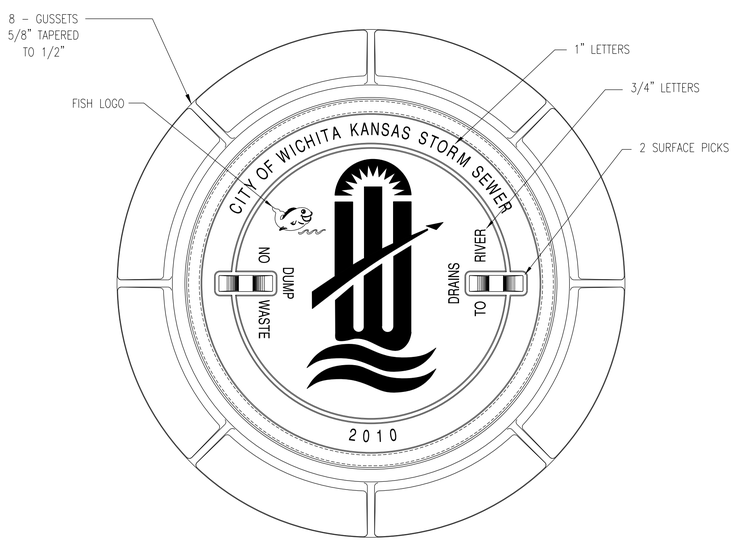
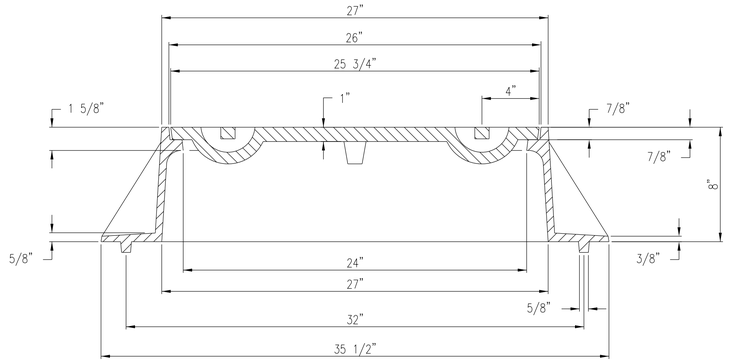
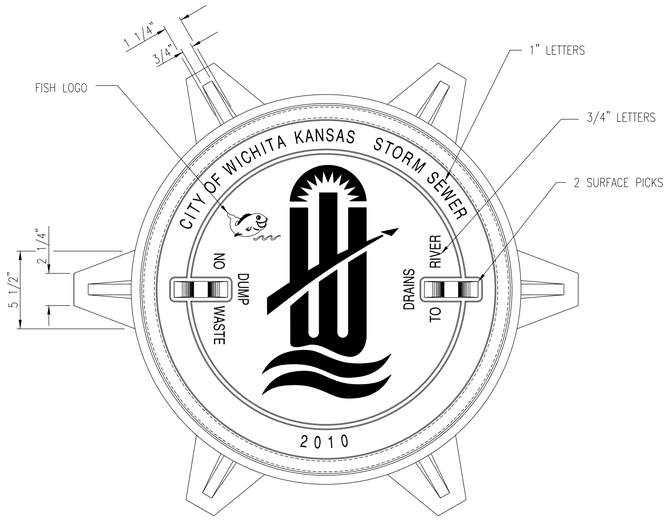


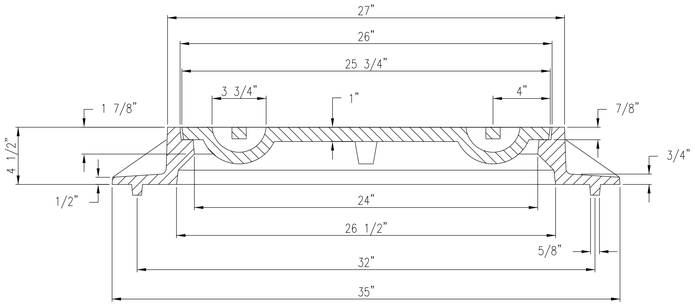


MANHOLE FRAME

DEETER #1261 OR EJIW #1936-Z1

NOTE:
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.
2. COVER TO BE DEETER #1261 OR EJIW #1936A.





INLET FRAME

DEETER #2014 OR EJIW #1936-Z4

NOTE:
1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACES.
2. NOT TO BE USED UNDER PAVEMENT.
3. COVER TO BE DEETER #1261 OR EJIW #1936A.

CITY OF WICHITA

PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

MANHOLE/INLET FRAME AND COVER (STORM SEWER)

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85031	705011	11/2010

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

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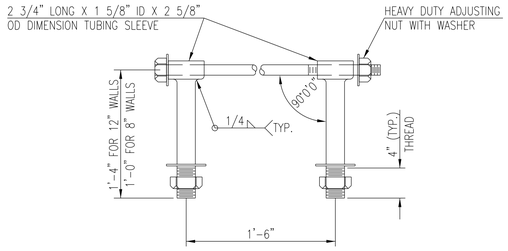
SW-303

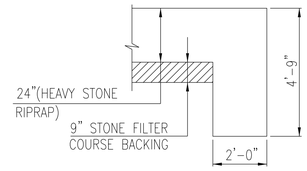


HEAVY DUTY (H.D.) COUPLER

NO SCALE

NOTES

1. BOLTS TO BE A-36 1 1/2" DIAMETER.
2. BOLTS, NUTS, WASHERS AND SLEEVES TO BE ZINC PLATED.
3. WASHERS TO BE 3 1/2" O.D. X 7 GAUGE.
4. SHIP WITH NUTS AND WASHERS PLACED ON BOLTS.



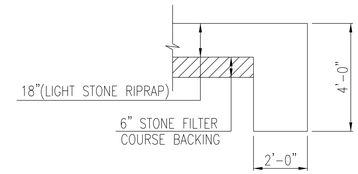
TYPICAL SECTION THRU TOEWALL

NO SCALE

NOTES

1. ALL RIPRAP FOR THIS PROJECT SHALL BE NATURAL STONE. NEITHER BROKEN CONCRETE, FABRIC ENVELOPE, NOR PREMIXED DRY PACKAGED CONCRETE BAG ALTERNATES WILL BE ALLOWED, UNLESS INDICATED OTHERWISE.
2. TOEWALLS SHALL BE INSTALLED ALONG ALL UNPROTECTED EDGES OF STONE RIPRAP.
3. GROUTING OF THE SURFACE OF THE RIPRAP SHALL NOT BE PERFORMED, UNLESS INDICATED OTHERWISE. GROUTING OF THE TOEWALLS SHALL BE PERFORMED PER CITY SPECIFICATIONS.

HEAVY STONE RIPRAP DETAILS



TYPICAL SECTION THRU TOEWALL

NO SCALE

NOTES

1. ALL RIPRAP FOR THIS PROJECT SHALL BE NATURAL STONE. NEITHER BROKEN CONCRETE, FABRIC ENVELOPE, NOR PREMIXED DRY PACKAGED CONCRETE BAG ALTERNATES WILL BE ALLOWED, UNLESS INDICATED OTHERWISE.
2. TOEWALLS SHALL BE INSTALLED ALONG ALL UNPROTECTED EDGES OF STONE RIPRAP.
3. GROUTING OF THE SURFACE OF THE RIPRAP SHALL NOT BE PERFORMED, UNLESS INDICATED OTHERWISE. GROUTING OF THE TOEWALLS SHALL BE PERFORMED PER CITY SPECIFICATIONS.

LIGHT STONE RIPRAP DETAILS

CITY OF WICHITA

PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

MISCELLANEOUS DETAILS (STORM SEWER)

CITY ENGINEER

GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85031	705011	11/2010

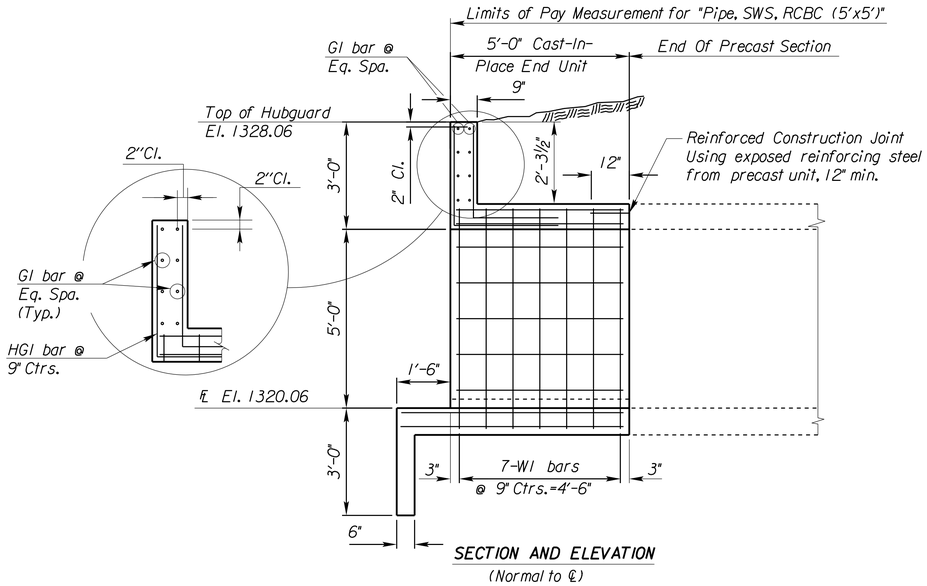
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET

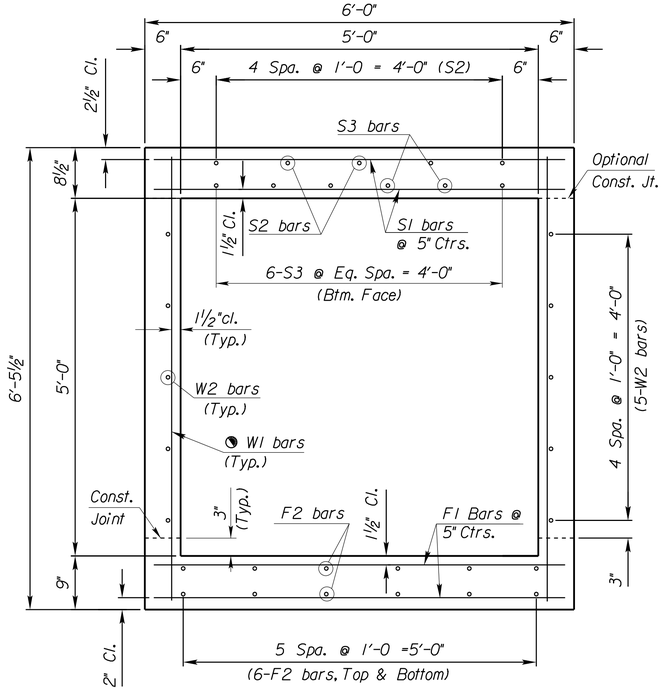
175 of 1055

SW-401

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	176	1055

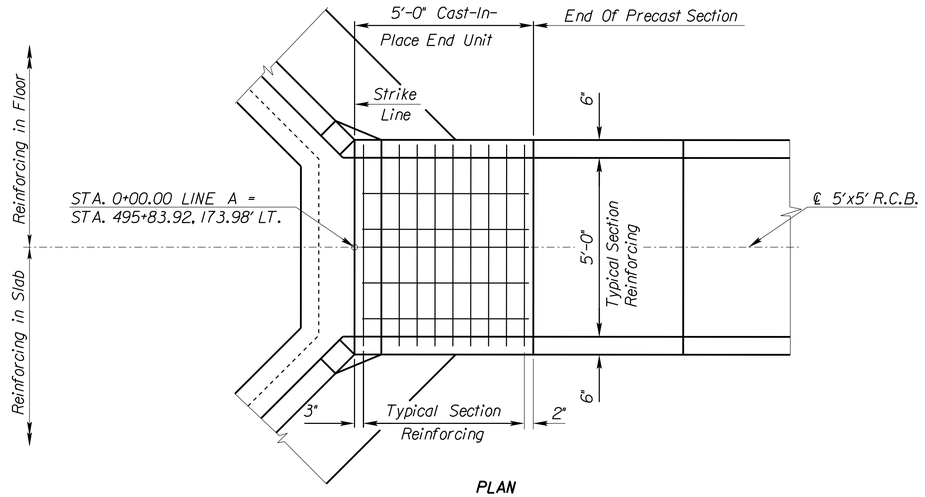


SECTION AND ELEVATION
(Normal to ℄)

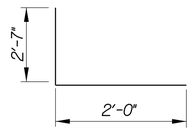


TYPICAL SECTION

◔ See RCB Auxiliary Details for Optional Splice.
Note: Use only cast-in-place construction at this location.



PLAN



HGI

BENDING DIAGRAM

(All dimensions are out to out of bars.)

GENERAL NOTES

LOADING: AASHTO LRFD Spec., 7th Edition with 2015 Interims.
UNIT STRESSES: Grade 4.0 Concrete; f'c = 4,000 p.s.i.
Reinforcing Steel; fy = 60,000 p.s.i.
FILL HEIGHT: Unless otherwise noted, the Design Fill Height is measured from the riding surface at the culvert and shall include the surfacing.
CONCRETE: Grade 4.0 Concrete shall be used throughout. Bevel all exposed edges with a ¾ inch triangular moulding. Where Grade 4.0 Concrete (AE) is specified, it shall be placed in the top slab above the Construction Joint.
REINFORCING: All reinforcing shall conform to ASTM A615, Grade 60. All dimensions relative to reinforcing steel shall be to centerline of bar unless otherwise noted.
SEAL COURSE: A Seal Course may be required by the Engineer. The Seal Course shall be unreinforced Concrete (Commercial Grade) to a minimum depth of 3 inches or as determined by the Engineer.
FOUNDATION STABILIZATION: The Foundation Stabilization quantity has been calculated to the limits shown on the "RCB Auxiliary Details" sheet. The depth may be increased by the Engineer. Use Foundation Stabilization on all wingwalls unless founded on rock or granular material. Construct 154 C.Y. of Foundation Stabilization below precast RCBC which shall be Subsidiary to the bid item "Pipe, SWS, RCBC (5'x5')".
GRANULAR BACKFILL (WINGWALLS): Special backfill procedures may be required at the direction of the Engineer. See Auxiliary Details Sheet.
STRIKE LINE: Wingwalls and that portion of the RCB outside the Strike Line shall be constructed level. Footing for wingwalls shall be constructed with the culvert floor. See wingwall detail sheet.

NOTE:
The Cast-In-Place RCB end unit, including wing wall construction, shall be Subsidiary to the Bid Item "Pipe, SWS, RCBC (5'x5')". See Schedule of Storm Sewer Conduits for additional information concerning this item.

⧗ For design purposes ONLY. Do NOT use for Construction ◔ includes any apron welded wire fabric

CULVERT SUMMARY												
Floor Elev.	Crown Gr. Elev.	⧗Design Fill Ht.	Skew	Wings	Scour Apron	Soil Saver	Concrete			Reinf. Steel (Gr. 60)		
							Barrel (Cu.Yds.)	Wings (Cu.Yds.)	Total (Cu.Yds.)	Barrel (Lbs.)	◔Wings (Lbs.)	Total (Lbs.)
1320.06	--	0	0	FLARED	NO	NO	2.93	11.02	13.95	692	1,076	1,768

BAR SCHEDULE																															
F1				F2				S1				S2				S3			W1				W2				G1			HG1			
Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	No.	Length	Size	Spa.	No.	Length	Size	Spa.	No.	Length	Size	No.	Length	Size	Spa.	No.	Length
5	5"	24	5'-8"	5	12"	12	4'-8"	5	5"	24	5'-8"	5	12"	5	4'-8"	5	6	4'-8"	5	9"	14	6'-2"	5	12"	10	4'-8	5	8	5'-8"	6	9"	16	4'-7"

Minimum Splice Lengths	
#4	1'-4"
#5	1'-8"
#6	2'-0"

SUMMARY OF QUANTITIES for CAST-IN-PLACE END UNIT (For Information Only)	
Concrete (Grade 4.0)	14.0 C.Y.
Reinforcing Steel (Gr. 60)	1,768 Lbs.
Foundation Stabilization	4.5 C.Y.
Class III Excavation	47 C.Y.
Concrete for Seal Course	2 C.Y.
Granular Backfill (Wingwalls)	29

CITY OF WICHITA
EAST KELLOGG
R.C.B. BARREL DETAILS
5 FT. RISE
STA. 495+83.92, 173.98' LT.

SURV.	--	PLOT	CADD	DES.	AH/BS	DR.	GB/CP	TR.	--	CKD.	SB/NW	APP.	--

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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
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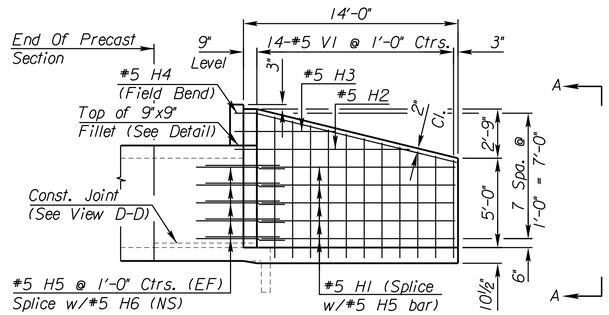
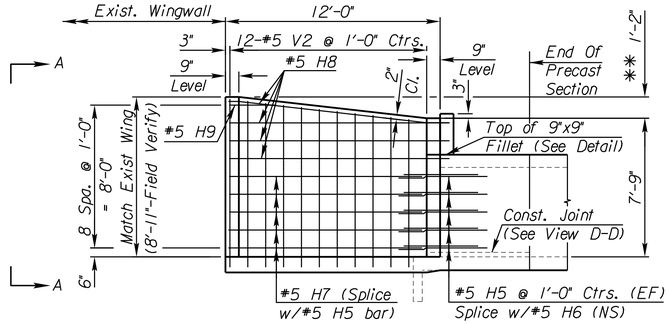


ELEVATION OF NORTH WINGWALL

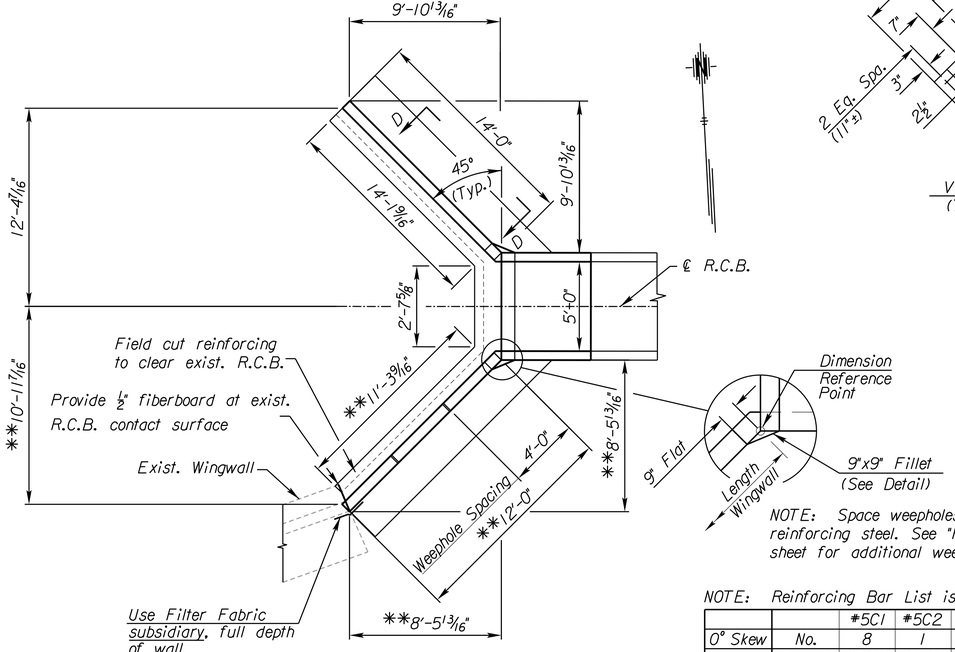
(Backface Shown)



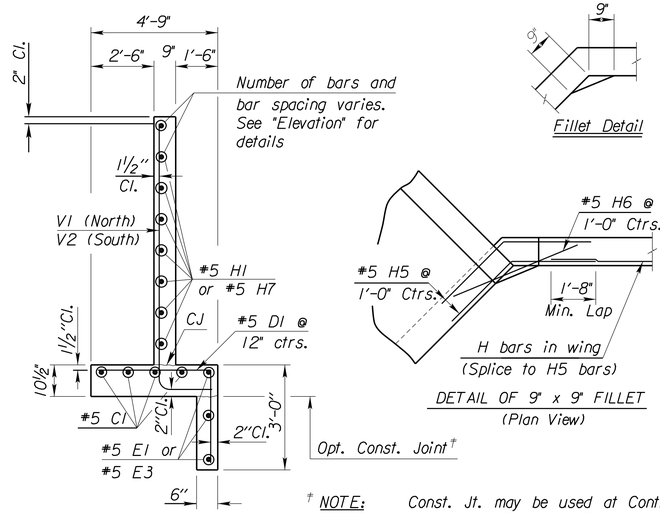
ELEVATION OF SOUTH WINGWALL

(Backface Shown)

** Dimensions shown are approximate, and shall be verified in the field.



WING DIMENSIONS

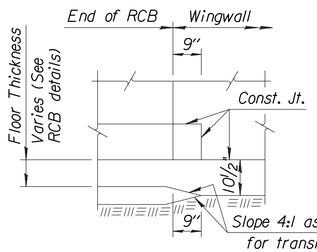


SECTION A-A

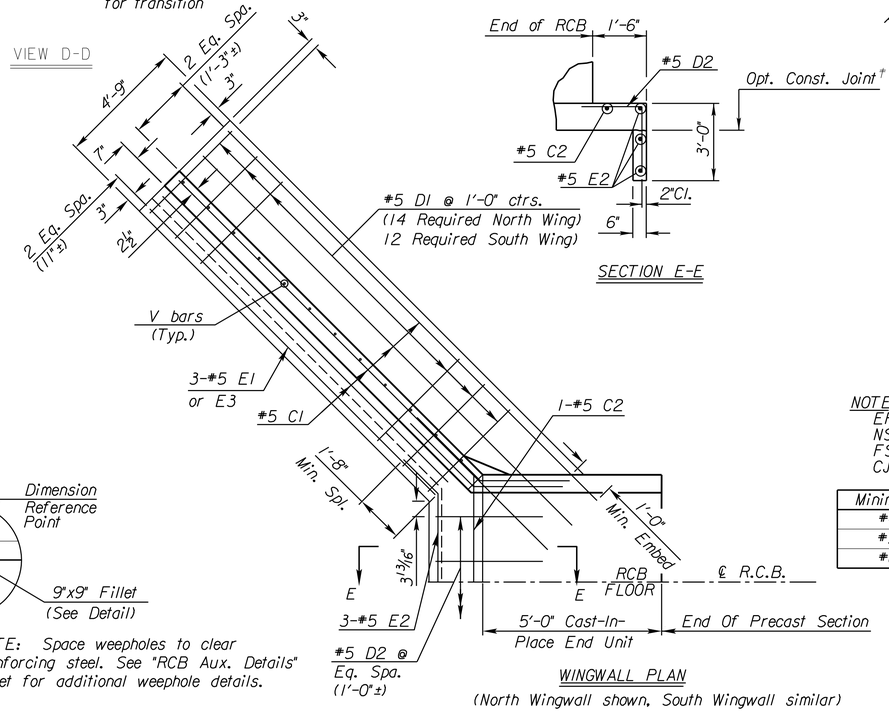
DETAIL OF 9" x 9" FILLET

(Plan View)

† NOTE: Const. Jt. may be used at Contractor's option when approved by the Engineer. DI bars or mesh may be spliced thus ⌐¬: Minimum overlap shall be 1'-3". No increase in quantities or cost shall be allowed when Contractor elects this option.

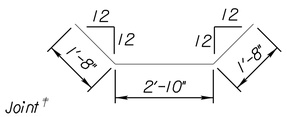


See "RCB Aux. Details" sheet for requirements of Wingwall Subbase.



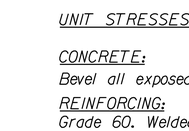
WINGWALL PLAN

(North Wingwall shown, South Wingwall similar)

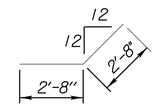


SECTION E-E

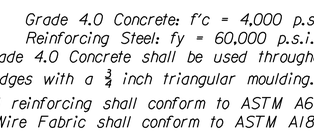
E2



D1,D2



H5



V1, V2

(Cut one each length)

BENDING DIAGRAM

(All dimensions are out to out of bars.)

NOTE:
EF = Each Face
NS = Near Side
FS = Far Side
CJ = Const. Joint

Minimum Splice Lengths	
#4	1'-4"
#5	1'-8"
#6	2'-0"

Quantities listed below are included in the Summary of Quantities shown on the RCB details.

WINGWALL QUANTITIES [One End Only] (For Information Only)		
	Foundation Stabilization (C.Y.)	Concrete (Gr. 4.0) (C.Y.)
Wingwalls	3.5	11.02
Reinforcing Steel (Gr. 60)		1,076 Lbs.
Granular Backfill (Wingwalls)		29.11 C.Y.

NOTE: Reinforcing Bar List is for both wings at end of box.

* See Bending Diagram

		#5C1	#5C2	#5D1	#5D2	#5E1	#5E2	#5E3	#5H1	#5H2	#5H3	#5H4	#5H5	#5H6	#5H7	#5H8	#5H9	#5V1	#5V2
0° Skew	No.	8	1	26 *	3 *	3	3 *	3	5	1	1	1	20 *	10	5	4	1	14	12
	Length	17'-1"	6'-0"	7'-1"	5'-8"	14'-1"	6'-2"	12'-1"	12'-10"	11'-4"	6'-6"	14'-8"	5'-4"	2'-11"	10'-10"	12'-5"	2'-9"	*	*

GENERAL NOTES

UNIT STRESSES: Grade 4.0 Concrete: f'c = 4,000 p.s.i.
Reinforcing Steel: fy = 60,000 p.s.i.

CONCRETE: Grade 4.0 Concrete shall be used throughout. Bevel all exposed edges with a ¾ inch triangular moulding.

REINFORCING: All reinforcing shall conform to ASTM A615, Grade 60. Welded Wire Fabric shall conform to ASTM A185. All dimensions relative to reinforcing steel shall be to center-line of bar unless otherwise noted.

QUANTITIES: Wingwall Quantities include all quantities outside the neat lines of the box, excluding the hubguard.

APRON: A 5" concrete slab shall be constructed between the downstream wings in locations subject to scour only when specified on the plans or by the Engineer. Wire Reinforcing mesh shall be electrically welded and shall be composed of 6 x 6-W1.4 x W1.4 welded wire fabric and shall be classified as pounds of reinforcing.

BACKFILL MATERIAL: Soils judged as high plasticity clays, fat clays, expansive clays, or organic clays are unsuitable for backfill material for wingwalls and will not be used. Where these conditions exist, use Granular Backfill (Wingwalls).

FOUNDATION STABILIZATION: Use Foundation Stabilization on all wingwalls unless founded on rock or granular material.

CITY OF WICHITA

EAST KELLOGG

R.C.B. WINGWALL DETAILS

STA. 495+83.92, 173.98' LT.

SURV.	--	PLOT	CADD	DES.	AH/BS	DR.	GB/CP	TR.	--	CKD.	SB/NW	APP.	--

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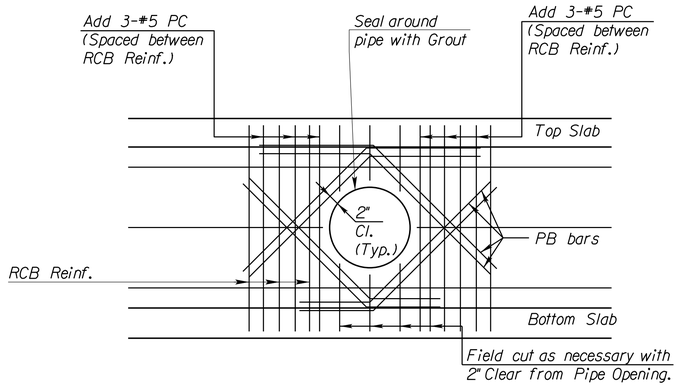
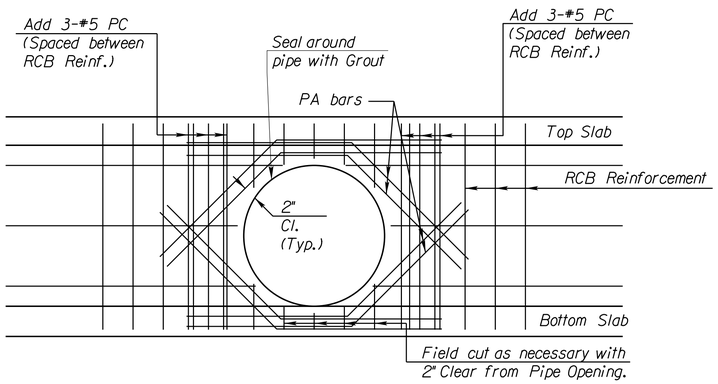


TYPICAL RCP PIPE PENETRATION DETAIL
(FOR PIPE DIAMETER FROM 18" TO 24")



TYPICAL RCP PIPE PENETRATION DETAIL
(FOR PIPE DIAMETER FROM 30" TO 42")

GENERAL NOTES

UNIT STRESSES: Reinforcing Steel; fy = 60,000 p.s.i.

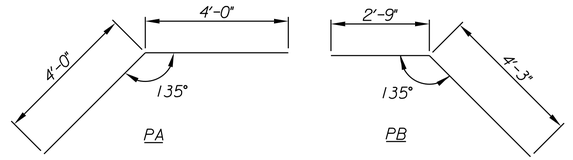
REINFORCING: All reinforcing shall conform to ASTM A615, Grade 60. All dimensions relative to reinforcing steel shall be to centerline of bar unless otherwise noted.

Minimum Splice Lengths	
#4	1'-4"
#5	1'-8"
#6	2'-0"

BAR SCHEDULE								
PA Δ			PB Δ			PC		
Size	No.	Length	Size	No.	Length	Size	No.	Length
6	24	8'-0"	6	32	7'-0"	5	42	5'-1"

** Pipe Opening Reinforcement will be part of the Bid Item "Pipe SWS, (RCBC 2-7'x4')"

QUANTITIES (For Information Only)	
Reinforcing Steel (Gr. 60)	
Pipe Opening **	848 Lbs.



BENDING DIAGRAM
(All dimensions are out to out of bars.)

CITY OF WICHITA
EAST KELLOGG
SWS PIPE TO R.C.B. JUNCTURE

SURV.	--	PLOT	CADD	DES.	AH/BS	DR.	GB/CP	TR.	--	CKD.	SB/NW	APP.	--

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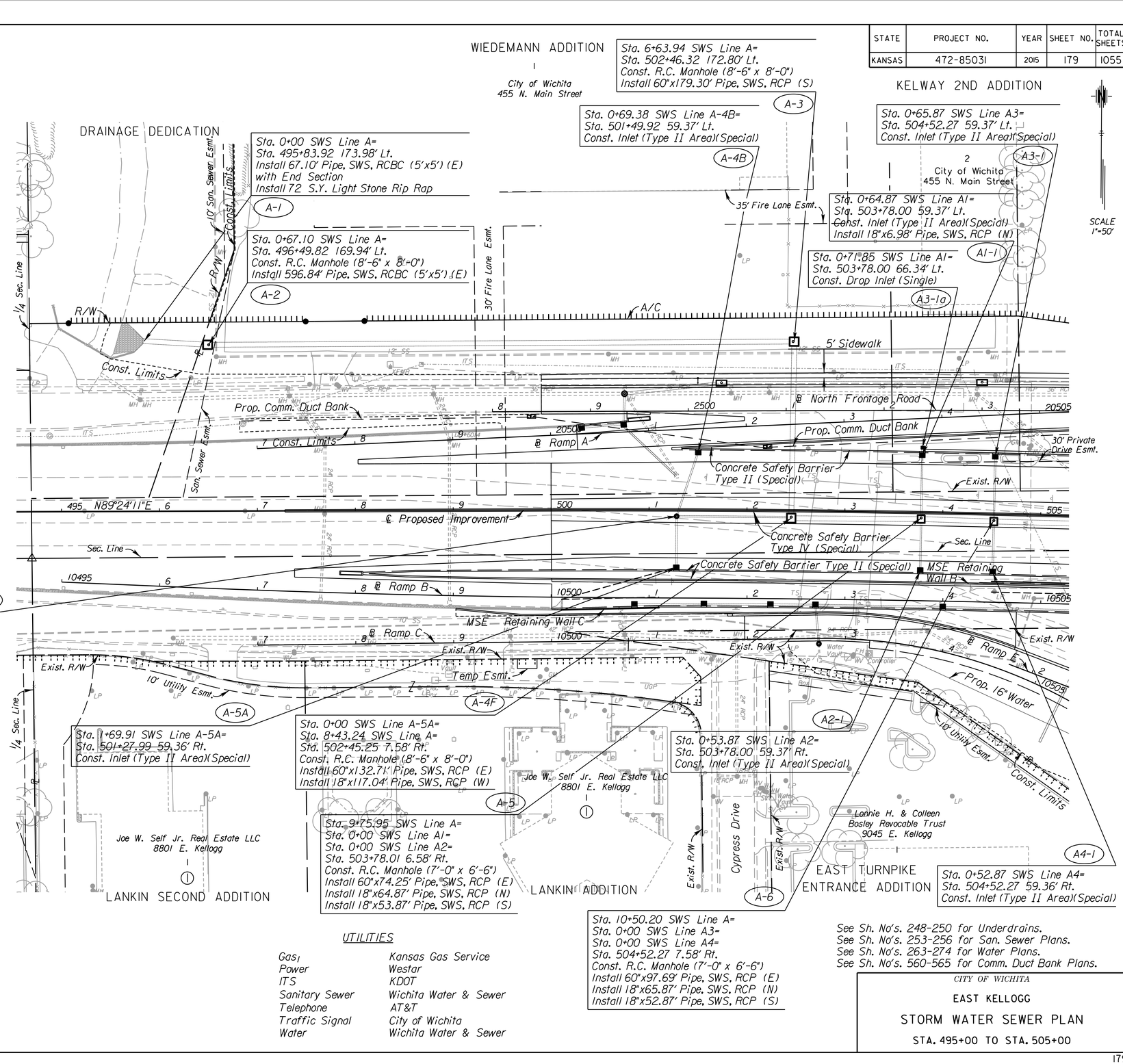
KANSAS	472-85031	2015	179	1055



UTILITIES

Gas	Kansas Gas Service
Power	Westar
ITS	KDOT
Sanitary Sewer	Wichita Water & Sewer
Telephone	AT&T
Traffic Signal	City of Wichita
Water	Wichita Water & Sewer

See Sh. No's. 248-250 for Underdrains.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PLAN

STA. 495+00 TO STA. 505+00

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.

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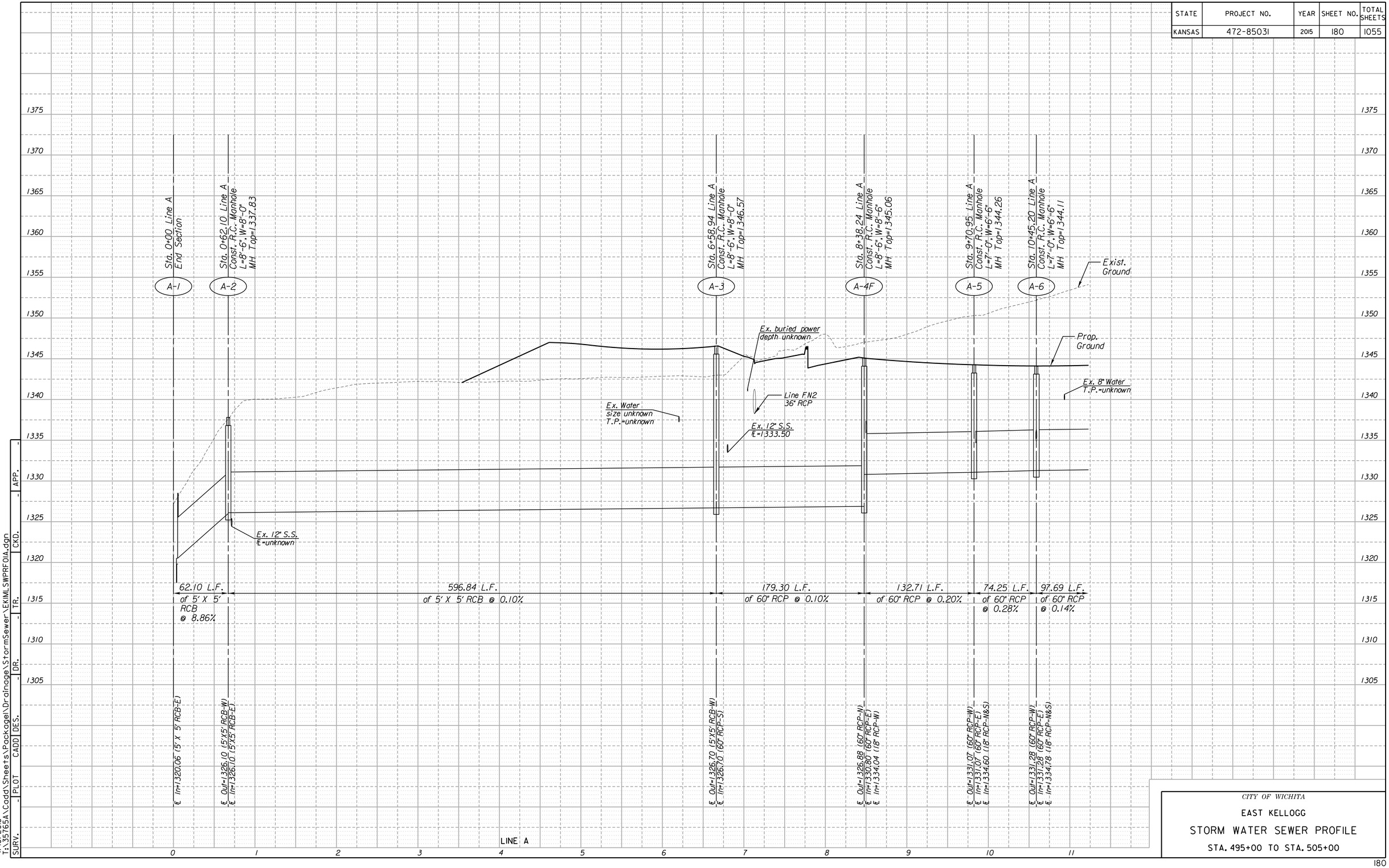
KANSAS	472-85031	2015	180	1055



PLOT | CADD | DES. | DR. | TR. | CKD. | APP. | SURV.

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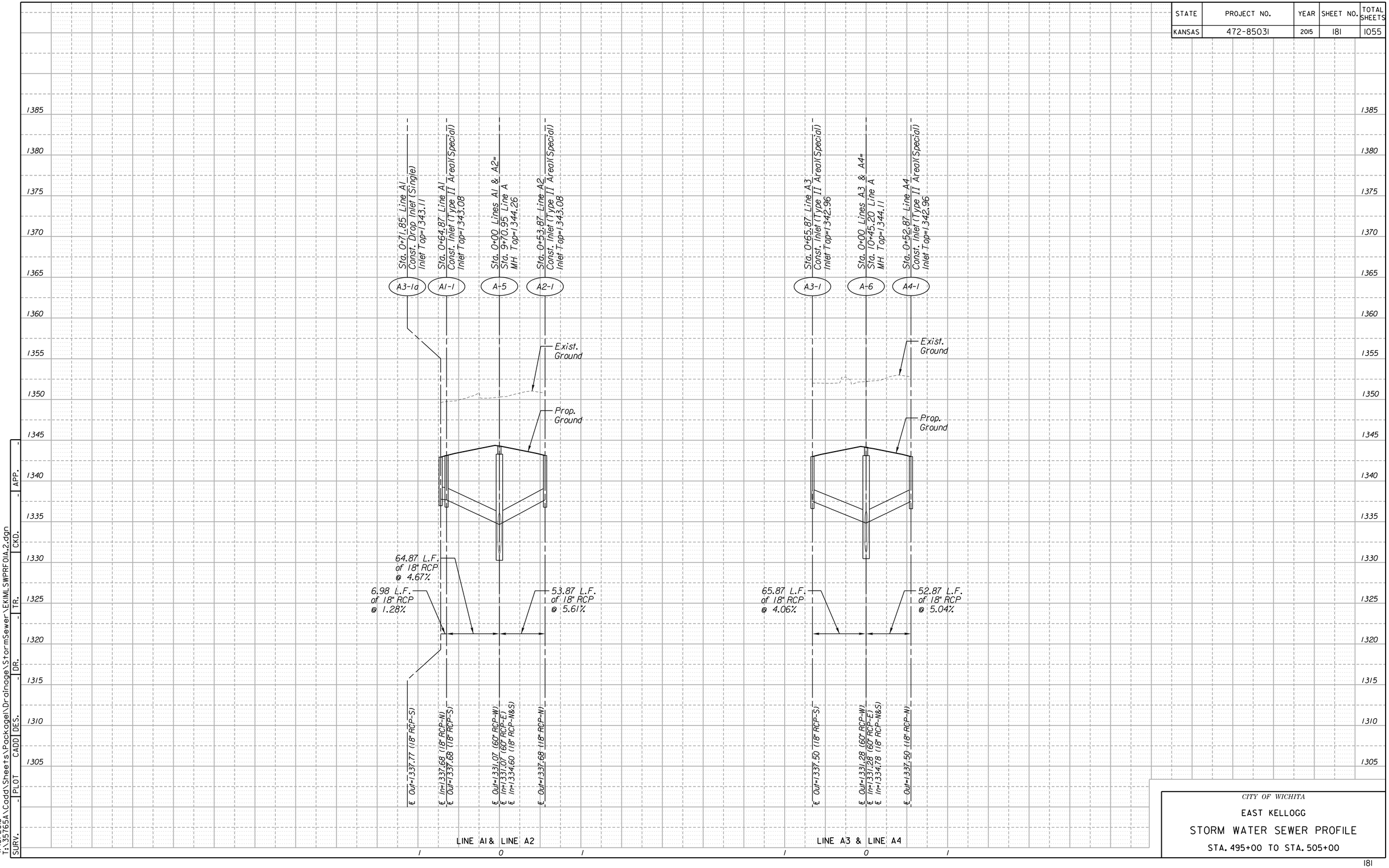
CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 495+00 TO STA. 505+00

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	181	1055



CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 495+00 TO STA. 505+00

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
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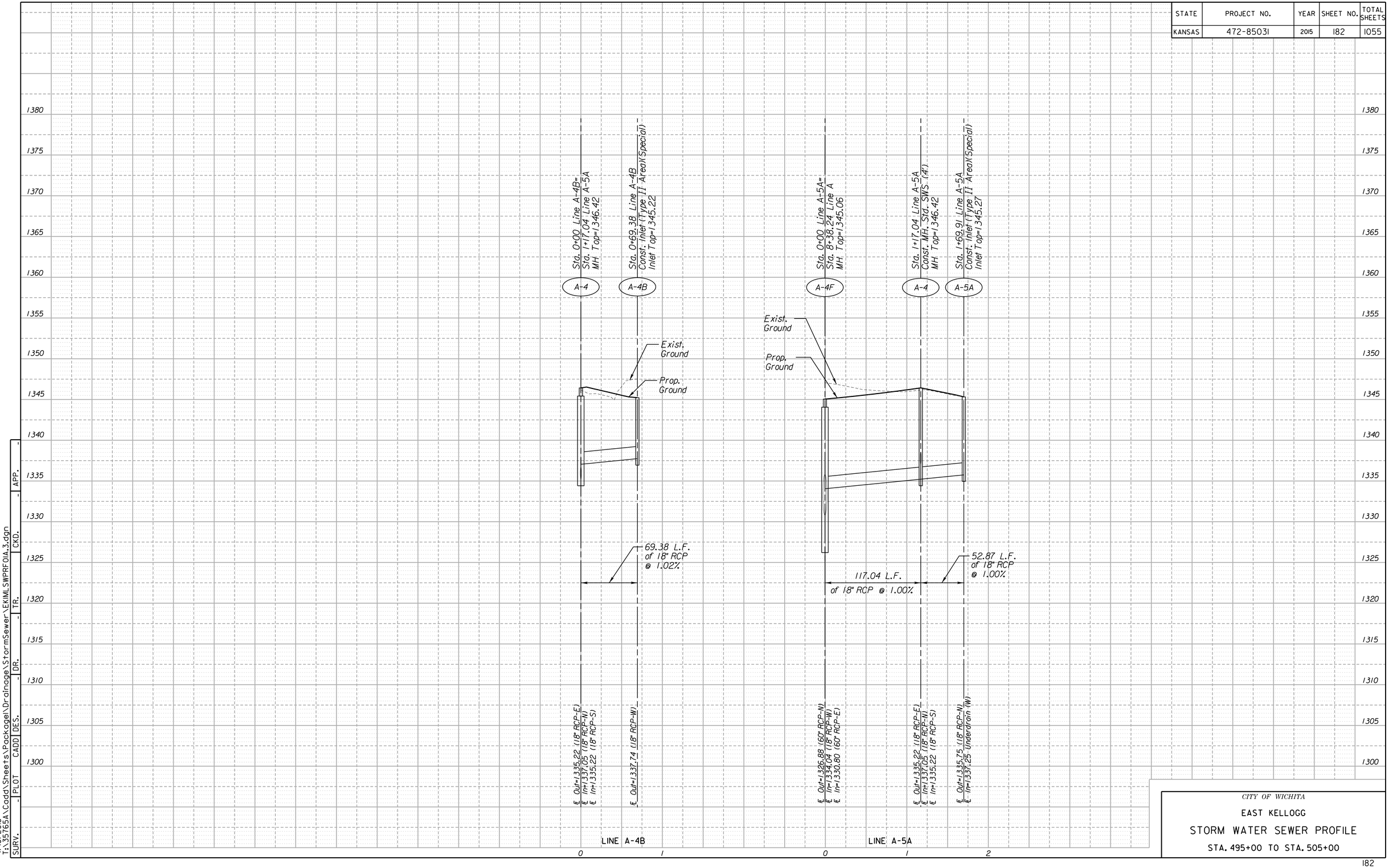
KANSAS	472-85031	2015	182	1055



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SURV.	-	PLOT	CADD	DES.	-	DR.	-	TR.	-	CKD.	-	APP.	-

CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 495+00 TO STA. 505+00

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	183	1055

Sta. 0+65.86 SWS Line A7=
Sta. 507+75.00 59.36' Lt.
Const. Inlet (Type II Area)(Special)

Sta. 0+65.87 SWS Line A9=
Sta. 508+67.00 59.36' Lt.
Const. Inlet (Type II Area)(Special)
Install 18"x6.98' Pipe, SWS, RCP (N)

Sta. 0+65.87 SWS Line A13=
Sta. 510+75.00 59.37' Lt.
Const. Inlet (Type II Area)(Special)

Sta. 0+65.86 SWS Line A15=
Sta. 511+90.00 59.37' Lt.
Const. Inlet (Type II Area)(Special)

Sta. 0+72.85 SWS Line A9=
Sta. 508+67.00 66.34' Lt.
Const. Drop Inlet (Single)

Sta. 15+57.72 SWS Line A=
Sta. 0+00 SWS Line A11=
Sta. 0+00 SWS Line A12=
Sta. 509+60.01 7.58' Rt.
Const. R.C. Manhole (7'-0" x 6'-6")
Install 60"x114.96' Pipe, SWS, RCP (E)
Install 18"x65.87' Pipe, SWS, RCP (N)
Install 18"x52.87' Pipe, SWS, RCP (S)

Sta. 0+65.87 SWS Line A11=
Sta. 509+60.00 59.36' Lt.
Const. Inlet (Type II Area)(Special)

Sta. 0+65.86 SWS Line A19=
Sta. 515+50.00 59.37' Lt.
Const. Inlet (Type II Area)(Special)

Sta. 0+72.85 SWS Line A17=
Sta. 514+25.00 66.35' Lt.
Const. Drop Inlet (Single)

Sta. 0+65.86 SWS Line A17=
Sta. 514+25.00 59.36' Lt.
Const. Inlet (Type II Area)(Special)
Install 18" X 6.99' Pipe, SWS, RCP (N)

Sta. 0+65.86 SWS Line A21=
Sta. 516+75.00 59.36' Lt.
Const. Inlet (Type II Area)(Special)

Sta. 0+65.87 SWS Line A25=
Sta. 519+25.00 59.36' Lt.
Const. Inlet (Type II Area)(Special)

Sta. 0+65.86 SWS Line A23=
Sta. 518+00.00 59.37' Lt.
Const. Inlet (Type II Area)(Special)

Sta. 0+65.87 SWS Line A5=
Sta. 505+50.00 59.36' Lt.
Const. Inlet (Type II Area)(Special)

Kansas Turnpike Authority
9401 E. Kellogg

City of Wichita
455 N. Main Street

Phillip G. Ruffin
453 S Webb

5 Star Hotel Management Wichita LLC
411 S. Webb

Shiv-Kishan Inc.
465 S. Webb

E&P Financing Ltd Partnership
527 S. Webb

City of Wichita
515 S. Webb

City of Wichita
505 S. Webb

KELWAY 2ND ADDITION

F.N.I.C. ADDITION

R.V.C. ADDITION

DAVIS-MOORE ADDITION

EAST TURNPIKE ENTRANCE ADDITION

Kellogg Avenue (US 54)

@ Ramp A
@ Ramp B
@ Ramp C
@ Ramp D
@ Ramp E
@ North Frontage Road
@ South Frontage Road
℄ Proposed Improvement

MSE Retaining Wall A
MSE Retaining Wall B
Soldier Pile Retaining Wall G
Soldier Pile Retaining Wall H
Concrete Safety Barrier Type II (Special)
Concrete Safety Barrier Type IV (Special)

Prop. 10" San. Sewer
Prop. Comm. Duct Bank
Prop. 16" Water

30' Private Drive Esmt.
10' Utility Esmt.
20' Fire Lane Esmt.
20' Utility Esmt.
20' Private Waterline Esmt.
San. Sewer Esmt.
KGE Esmt.
Temp Esmt.
Const. Limits
Exist. R/W
R/W
A/C
A/C=Proj. R/W
5' Sidewalk
6' Sidewalk
10' KGE Esmt.
Sec. Line

A7-1 A9-1 A9-1a A13-1 A10 A11-1 A15-1 A19-1 A17-1a A17-1 A21-1 A25-1 A23-1 A5-1

Sta. 0+52.87 SWS Line A8=
Sta. 507+75.00 59.37' Rt.
Const. Inlet (Type II Area)(Special)

Sta. 0+52.87 SWS Line A12=
Sta. 509+60.00 59.37' Rt.
Const. Inlet (Type II Area)(Special)

Sta. 0+52.87 SWS Line A16=
Sta. 511+90.00 59.37' Rt.
Const. Inlet (Type II Area)(Special)

Sta. 0+52.87 SWS Line A20=
Sta. 515+50.00 59.37' Rt.
Const. Inlet (Type II Area)(Special)

Sta. 0+52.87 SWS Line A24=
Sta. 518+00.00 59.37' Rt.
Const. Inlet (Type II Area)(Special)

Sta. 0+52.87 SWS Line A26=
Sta. 519+25.00 59.37' Rt.
Const. Inlet (Type II Area)(Special)

A8-1 A12-1 A16-1 A20-1 A24-1 A26-1

Sta. 13+72.80 SWS Line A=
Sta. 0+00 SWS Line A7=
Sta. 0+00 SWS Line A8=
Sta. 507+75.00 7.58' Rt.
Const. R.C. Manhole (7'-0" x 6'-6")
Install 60"x91.96' Pipe, SWS, RCP (E)
Install 18"x65.86' Pipe, SWS, RCP (N)
Install 18"x52.87' Pipe, SWS, RCP (S)

Sta. 16+72.68 SWS Line A=
Sta. 0+00 SWS Line A13=
Sta. 0+00 SWS Line A14=
Sta. 510+75.01 7.58' Rt.
Const. R.C. Manhole (7'-0" x 6'-6")
Install 60"x114.96' Pipe, SWS, RCP (E)
Install 18"x65.87' Pipe, SWS, RCP (N)
Install 18"x52.87' Pipe, SWS, RCP (S)

Sta. 17+87.64 SWS Line A=
Sta. 0+00 SWS Line A15=
Sta. 0+00 SWS Line A16=
Sta. 511+90.01 7.58' Rt.
Const. R.C. Manhole (7'-0" x 6'-6")
Install 54"x234.94' Pipe, SWS, RCP (E)
Install 18"x65.86' Pipe, SWS, RCP (N)
Install 18"x52.87' Pipe, SWS, RCP (S)

Sta. 21+47.63 SWS Line A=
Sta. 0+00 SWS Line A19=
Sta. 0+00 SWS Line A20=
Sta. 515+51.08 6.49' Rt.
Const. R.C. Manhole (7'-0" x 6'-6")
Install 54"x125.05' Pipe, SWS, RCP (E)
Install 18"x65.86' Pipe, SWS, RCP (N)
Install 18"x52.87' Pipe, SWS, RCP (S)

Sta. 23+97.73 SWS Line A=
Sta. 0+00 SWS Line A23=
Sta. 0+00 SWS Line A24=
Sta. 518+01.08 6.51' Rt.
Const. R.C. Manhole (7'-0" x 6'-6")
Install 54"x125.05' Pipe, SWS, RCP (E)
Install 18"x65.86' Pipe, SWS, RCP (N)
Install 18"x52.87' Pipe, SWS, RCP (S)

Sta. 25+22.78 SWS Line A=
Sta. 0+00 SWS Line A25=
Sta. 0+00 SWS Line A26=
Sta. 519+26.08 6.51' Rt.
Const. R.C. Manhole (7'-0" x 6'-6")
Install 54"x125.05' Pipe, SWS, RCP (E)
Install 18"x65.87' Pipe, SWS, RCP (N)
Install 18"x52.87' Pipe, SWS, RCP (S)

A6-1 A8 A10-1 A14-1a A18-1a A14 A18-1 A22-1 A-14 A-15 A-16 A-17

Sta. 0+52.86 SWS Line A6=
Sta. 505+50.00 59.36' Rt.
Const. Inlet (Type II Area)(Special)

Sta. 0+52.87 SWS Line A10=
Sta. 508+67.00 59.37' Rt.
Const. Inlet (Type II Area)(Special)

Sta. 0+59.83 SWS Line A14=
Sta. 510+75.00 66.32' Rt.
Const. Drop Inlet (Single)

Sta. 0+59.82 SWS Line A18=
Sta. 514+25.00 66.32' Rt.
Const. Drop Inlet (Single)

Sta. 0+52.86 SWS Line A18=
Sta. 514+25.00 59.36' Rt.
Const. Inlet (Type II Area)(Special)
Install 18"x6.96' Pipe, SWS, RCP (S)

Sta. 0+52.86 SWS Line A22=
Sta. 516+75.00 59.36' Rt.
Const. Inlet (Type II Area)(Special)

A-7 A-9 A14-1 A-13

Sta. 11+47.89 SWS Line A=
Sta. 0+00 SWS Line A5=
Sta. 0+00 SWS Line A6=
Sta. 505+50.00 7.58' Rt.
Const. R.C. Manhole (7'-0" x 6'-6")
Install 60"x224.91' Pipe, SWS, RCP (E)
Install 18"x65.87' Pipe, SWS, RCP (N)
Install 18"x52.86' Pipe, SWS, RCP (S)

Sta. 14+64.76 SWS Line A=
Sta. 0+00 SWS Line A9=
Sta. 0+00 SWS Line A10=
Sta. 508+67.01 7.58' Rt.
Const. R.C. Manhole (7'-0" x 6'-6")
Install 60"x92.96' Pipe, SWS, RCP (E)
Install 18"x65.87' Pipe, SWS, RCP (N)
Install 18"x52.87' Pipe, SWS, RCP (S)

Sta. 0+52.87 SWS Line A14=
Sta. 510+75.00 59.37' Rt.
Const. Inlet (Type II Area)(Special)
Install 18"x6.96' Pipe, SWS, RCP (S)

Sta. 20+22.58 SWS Line A=
Sta. 0+00 SWS Line A17=
Sta. 0+00 SWS Line A18=
Sta. 514+26.08 6.48' Rt.
Const. R.C. Manhole (7'-0" x 6'-6")
Install 54"x125.05' Pipe, SWS, RCP (E)
Install 18"x65.86' Pipe, SWS, RCP (N)
Install 18"x52.86' Pipe, SWS, RCP (S)

Sta. 22+72.68 SWS Line A=
Sta. 0+00 SWS Line A21=
Sta. 0+00 SWS Line A22=
Sta. 516+76.08 6.50' Rt.
Const. R.C. Manhole (7'-0" x 6'-6")
Install 54"x125.05' Pipe, SWS, RCP (E)
Install 18"x65.87' Pipe, SWS, RCP (N)
Install 18"x52.86' Pipe, SWS, RCP (S)

UTILITIES

Cable	Cox Communications
Gas	Kansas Gas Service
Power	Westar
ITS	KDOT
Sanitary Sewer	Wichita Water & Sewer
Telephone	AT&T
Traffic Signal	City of Wichita
Water	Wichita Water & Sewer

See Sh. No's. 248-250 for Underdrains.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PLAN

STA. 505+00 TO STA. 520+00

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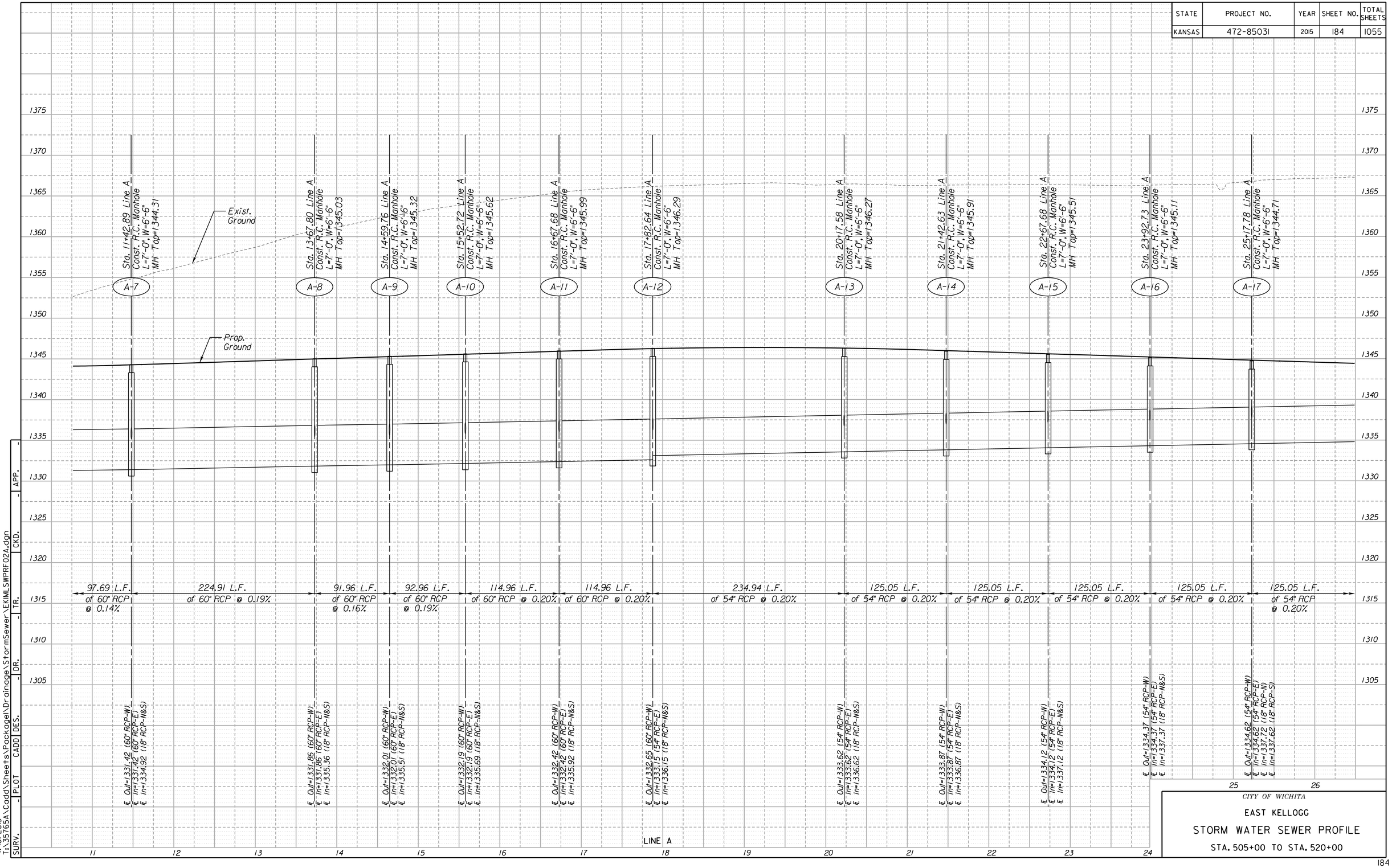
SURV. | PLOT | CADD | DES. | DR. | TR. | CKD. | APP.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	184	1055



CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 505+00 TO STA. 520+00

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
				-		-	-

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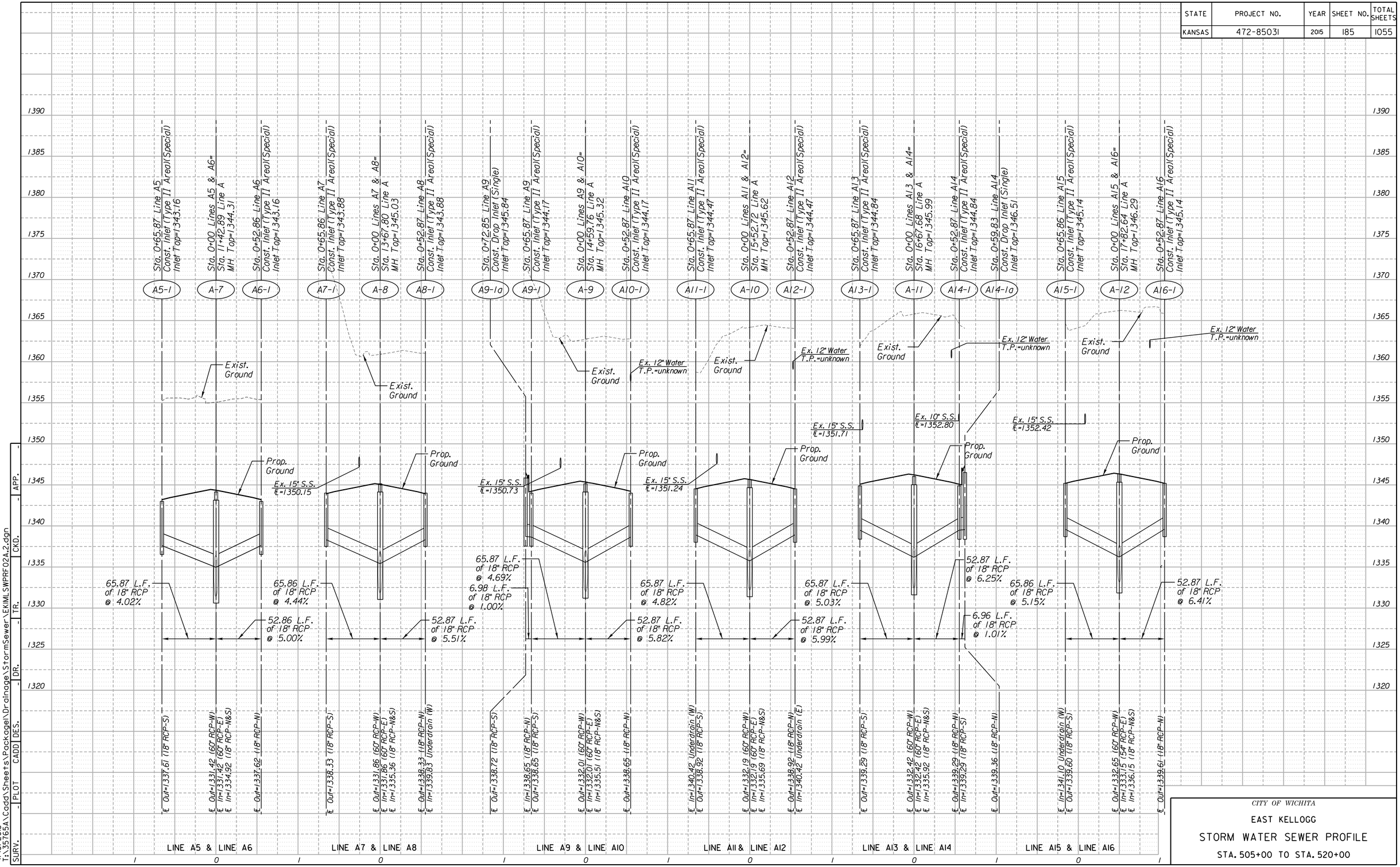
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	185	1055



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SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
-	-	-	-	-	-	-	-

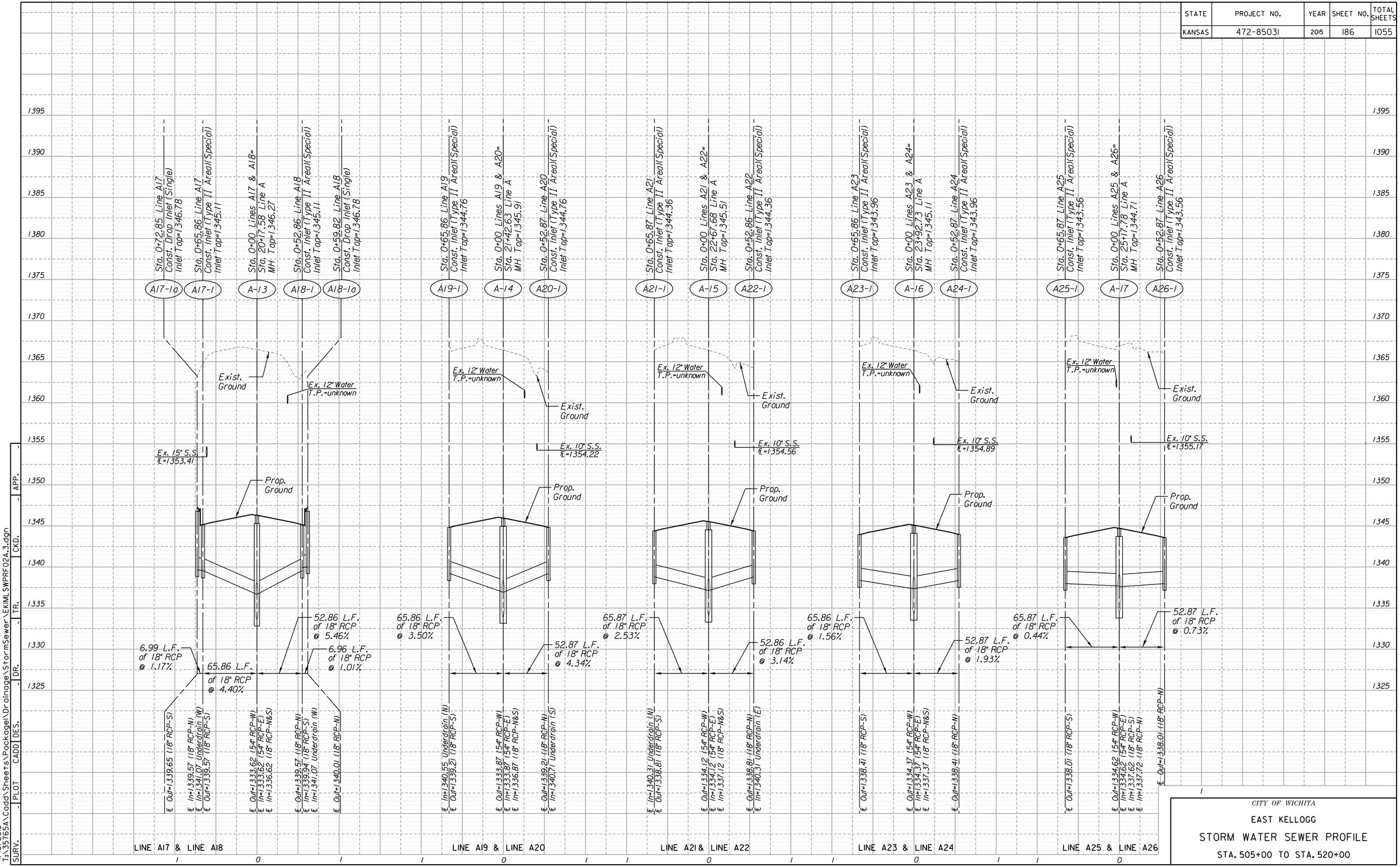
CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 505+00 TO STA. 520+00

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	186	1055



CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 505+00 TO STA. 520+00

PLOT | CADD | DES. | DR. | TR. | CKD. | APP. | SURV.

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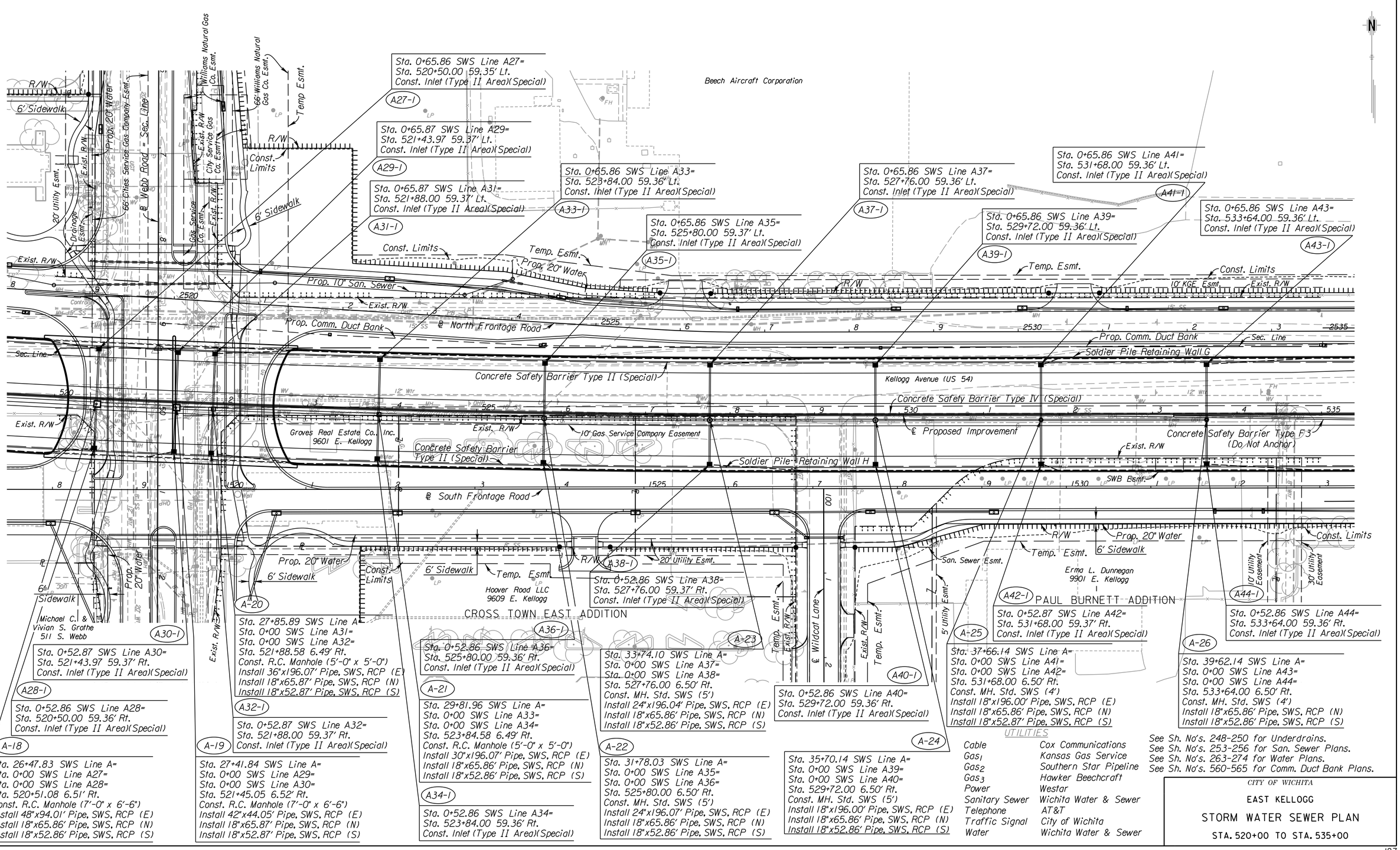
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	187	1055



SURV. | PLOT | CADD | DES. | DR. | TR. | CKD. | APP.

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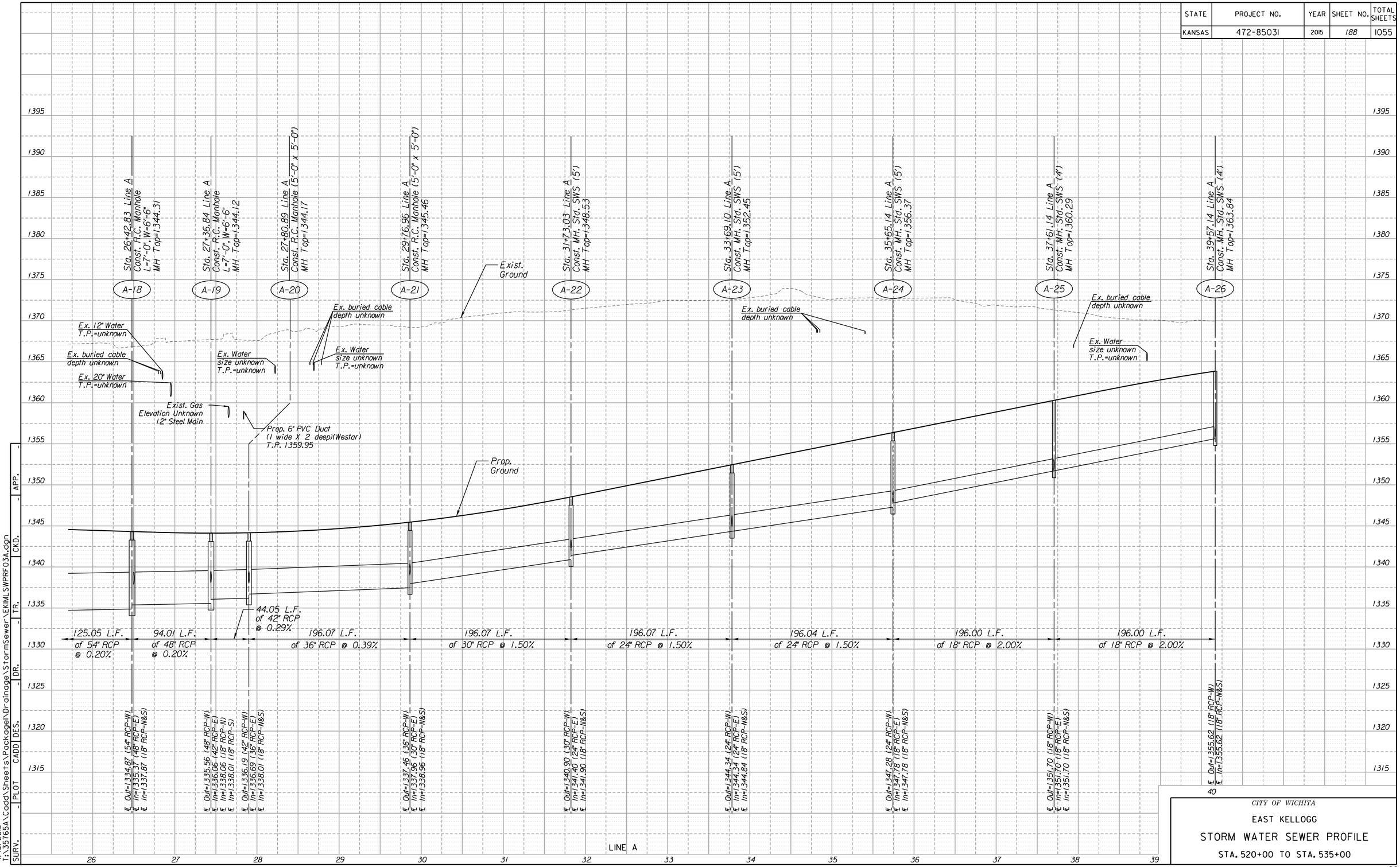
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	188	1055



CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 520+00 TO STA. 535+00

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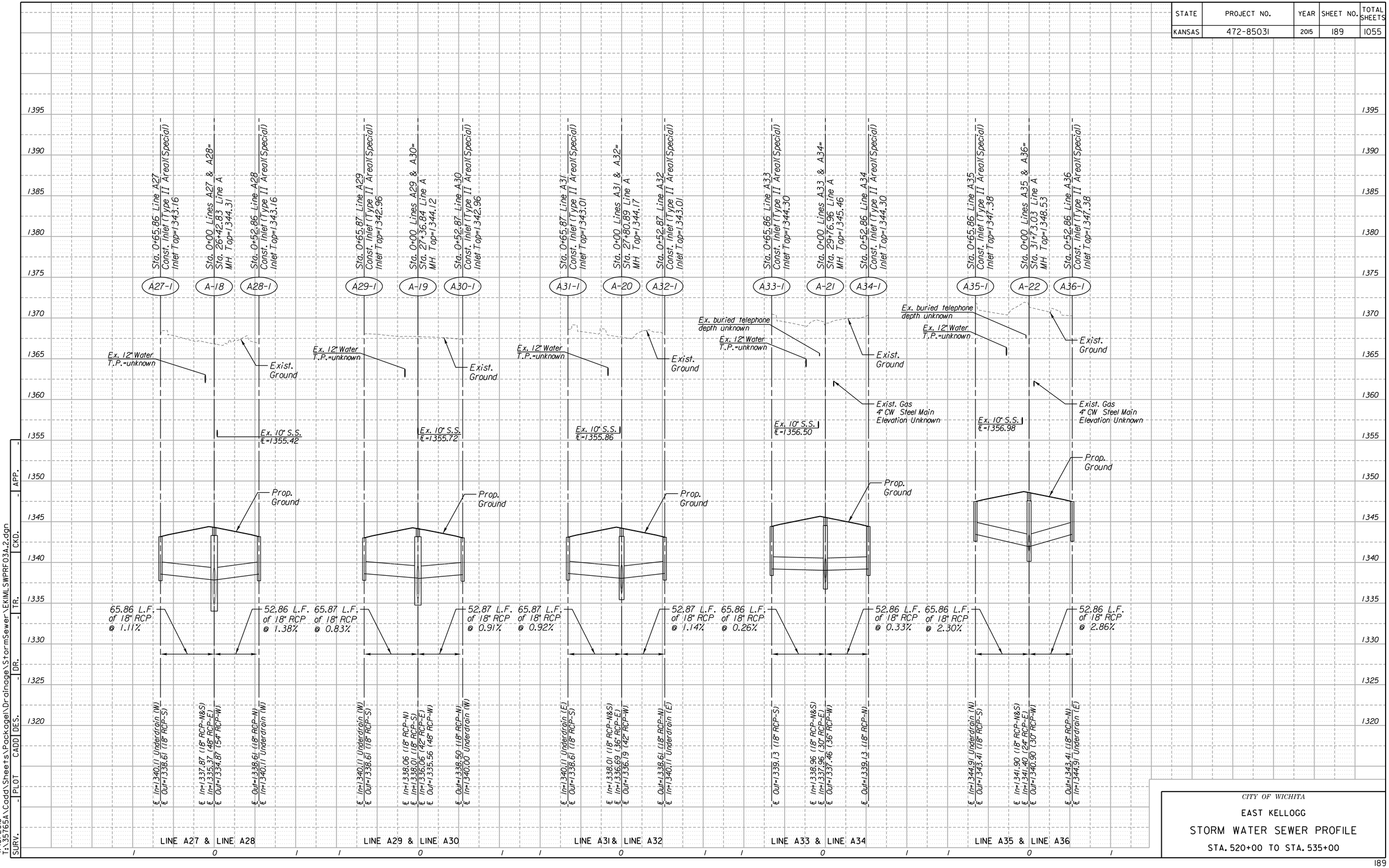
SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
-	-	-	-	-	-	-	-

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	189	1055



CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 520+00 TO STA. 535+00

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
-	-	-	-	-	-	-	-

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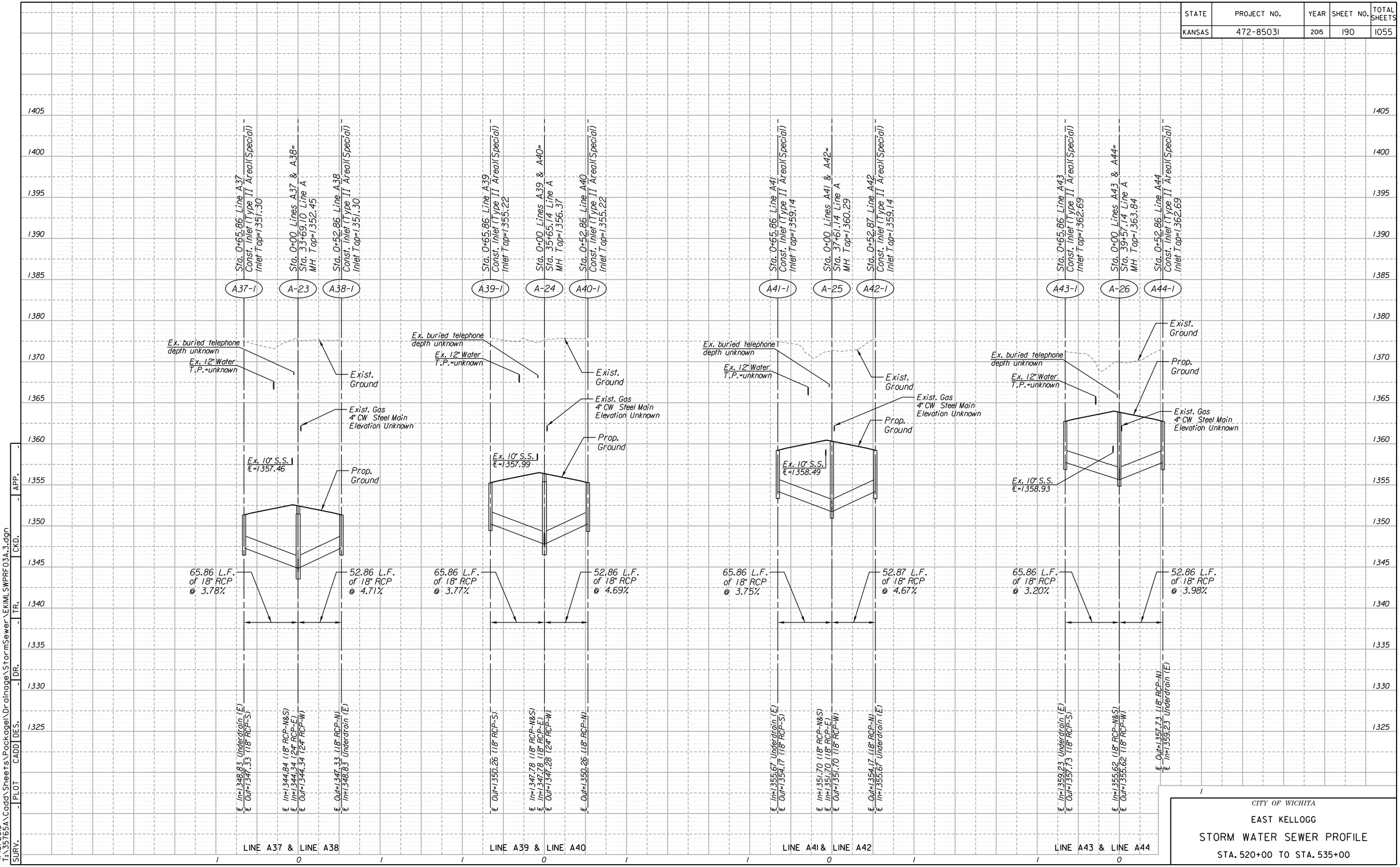
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	190	1055



CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 520+00 TO STA. 535+00

SURV. - PLOT - CADD DES. - DR. - TR. - CKD. - APP. -

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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	191	1055

Sta. 0+75.99 SWS Line B34=
Sta. 20543+19.85 6.12' Lt.
@ Ramp G
Const. Inlet (Type II Area)(Special)
Install 18"x95.04' Pipe, SWS, RCP (W)
B29-1

Sta. 0+73.86 SWS Line B27=
Sta. 547+10.00 67.36' Lt.
Const. Inlet (Type II Area)(Special)
Install 18"x90.00' Pipe, SWS, RCP (W)
B21-1

Beech Aircraft Corporation

Sta. 1+71.03 SWS Line B34=
Sta. 20542+24.74 6.12' Lt.
@ Ramp G
Const. Inlet (Type II Area)(Special)
Install 18"x90.06' Pipe, SWS, RCP (W)
B31-1

Sta. 1+63.86 SWS Line B27=
Sta. 546+20.00 67.36' Lt.
Const. Inlet (Type II Area)(Special)
Install 18"x100.00' Pipe, SWS, RCP (W)
B23-1

Sta. 1+83.86 SWS Line B19=
Sta. 549+25.00 67.36' Lt.
Const. Inlet (Type II Area)(Special)
Install 18"x100.00' Pipe, SWS RCP (W)
B19-1

Sta. 2+61.09 SWS Line B34=
Sta. 20541+34.61 6.12' Lt.
@ Ramp G
Const. Inlet (Type II Area)(Special)
Install 18x85.11' Pipe, SWS, RCP (W)
B33-1

Sta. 2+63.86 SWS Line B27=
Sta. 545+20.00 67.36' Lt.
Const. Inlet (Type II Area)(Special)
Install 18"x100.00' Pipe, SWS, RCP (W)
B25-1

Sta. 2+83.86 SWS Line B19=
Sta. 548+25.00 67.36' Lt.
Const. Inlet (Type II Area)(Special)
B19-1A

Sta. 3+46.20 SWS Line B34=
Sta. 20540+49.44 6.11' Lt.
@ Ramp G
Const. Inlet (Type II Area)(Special)
B34-1

Sta. 3+63.86 SWS Line B27=
Sta. 20544+19.93 6.11' Lt.
@ Ramp G
Const. Inlet (Type II Area)(Special)
B27-1

Sta. 0+76.87 SWS Line B41=
Sta. 537+82.00 62.44' Lt.
Const. Inlet (Type II Area)(Special)
B41-1

℄ Hawker Beechcraft Ent.

1/4 Sec. Line

Temp. Esmt.

10' KGE Esmt.

Exist. R/W

Const. Limits

R/W

Prop. 20" Water

Sec. Line

Soldier Pile Retaining Wall G

Ramp G

Kellogg Avenue (US 54)

℄ North Frontage Road

Concrete Safety Barrier Type II (Special)

Ingress & Egress Esmt.

Concrete Safety Barrier Type IV (Special)

Prop. Comm. Duct Bank

℄ Proposed Improvement

10' Gas Service Company Esmt.

Concrete Safety Barrier Type F3 (Do Not Anchor)

SWB Esmt.

Ramp H

℄ South Frontage Road

Soldier Pile Retaining Wall H

Prop. 16" Water

Temp. Esmt.

6' Sidewalk

B-22

℄ Tractor Supply Ent.

10' Utility Esmt.

10' Waterline Esmt.

B38-1

B40-1

B36-1

B-20

B32-1

B30-1

B-16

B28-1

B26-1

B24-1

B22-1

B-12

℄ Carmax Ent.

B20-1

B20-1A

Sta. 21+89.73 SWS Line B=
Sta. 0+00 SWS Line B41=
Sta. 0+00 SWS Line B40=
Sta. 538+16.00 6.50' Rt.
Const. MH. Std. SWS (4')
Install 18"x76.87' Pipe, SWS, RCP (N)
Install 18"x52.86' Pipe, SWS, RCP (S)

Sta. 0+52.86 SWS Line B40=
Sta. 538+16.00 59.36' Rt.
Const. Inlet (Type II Area)(Special)

Sta. 1+00.90 SWS Line B38=
Sta. 538+95.00 59.37' Rt.
Const. Inlet (Type II Area)(Special)

Sta. 0+66.90 SWS Line B38=
Sta. 539+29.00 59.37' Rt.
Const. Inlet (Type II Area)(Special)
Install 18"x34.00' Pipe, SWS, RCP (W)

Sta. 20+35.73 SWS Line B=
Sta. 0+00 SWS Line B38=
Sta. 539+70.00 6.50' Rt.
Const. MH. Std. SWS (5')
Install 18"x154.00' Pipe, SWS, RCP (W)
Install 18"x66.90' Pipe, SWS, RCP (SW)

Sta. 1+45.24 SWS Line B32=
Sta. 10542+38.00 7.95' Rt.
@ Ramp H
Const. Inlet (Type II Area)(Special)

Sta. 0+63.46 SWS Line B32=
Sta. 10543+19.83 6.14' Rt.
@ Ramp H
Const. Inlet (Type II Area)(Special)
Install 18"x81.78' Pipe, SWS, RCP (W)

Sta. 16+85.73 SWS Line B=
Sta. 0+00 SWS Line B34=
Sta. 0+00 SWS Line B32=
Sta. 543+20.00 6.50' Rt.
Const. MH. Std. SWS (5')
Install 24"x350.00' Pipe, SWS, RCP (W)
Install 18"x75.99' Pipe, SWS, RCP (N)
Install 18"x63.46' Pipe, SWS, RCP (S)

Sta. 3+50.86 SWS Line B28=
Sta. 10544+19.92 6.14' Rt.
@ Ramp H
Const. Inlet (Type II Area)(Special)

Sta. 2+50.82 SWS Line B28=
Sta. 10545+20.03 6.14' Rt.
@ Ramp H
Const. Inlet (Type II Area)(Special)
Install 18"x100.04' Pipe, SWS, RCP (W)

Sta. 1+50.86 SWS Line B28=
Sta. 546+20.00 67.36' Rt.
Const. Inlet (Type II Area)(Special)
Install 18"x99.96' Pipe, SWS, RCP (W)

Sta. 0+60.86 SWS Line B28=
Sta. 547+10.00 67.36' Rt.
Const. Inlet (Type II Area)(Special)
Install 18"x90.00' Pipe, SWS, RCP (W)

Sta. 12+95.73 SWS Line B=
Sta. 0+00 SWS Line B27=
Sta. 0+00 SWS Line B28=
Sta. 547+09.41 6.50' Rt.
Const. R.C. Manhole (5'-0" x 5'-0")
Install 30"x390.00' Pipe, SWS, RCP (W)
Install 18"x73.86' Pipe, SWS, RCP (N)
Install 18"x60.86' Pipe, SWS, RCP (S)

Sta. 1+70.86 SWS Line B20=
Sta. 549+25.00 67.36' Rt.
Const. Inlet (Type II Area)(Special)
Install 18"x100.00' Pipe, SWS, RCP (W)

Sta. 2+70.86 SWS Line B20=
Sta. 548+25.00 67.36' Rt.
Const. Inlet (Type II Area)(Special)

See Sh. No's. 248-250 for Underdrains.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

UTILITIES

Gas,	Kansas Gas Service
Power	Westar
Sanitary Sewer	Wichita Water & Sewer
Telephone	AT&T
Water	Wichita Water & Sewer

CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PLAN

STA. 535+00 TO STA. 550+00

SURV. | PLOT | CADD | DES. | DR. | TR. | CKD. | APP.

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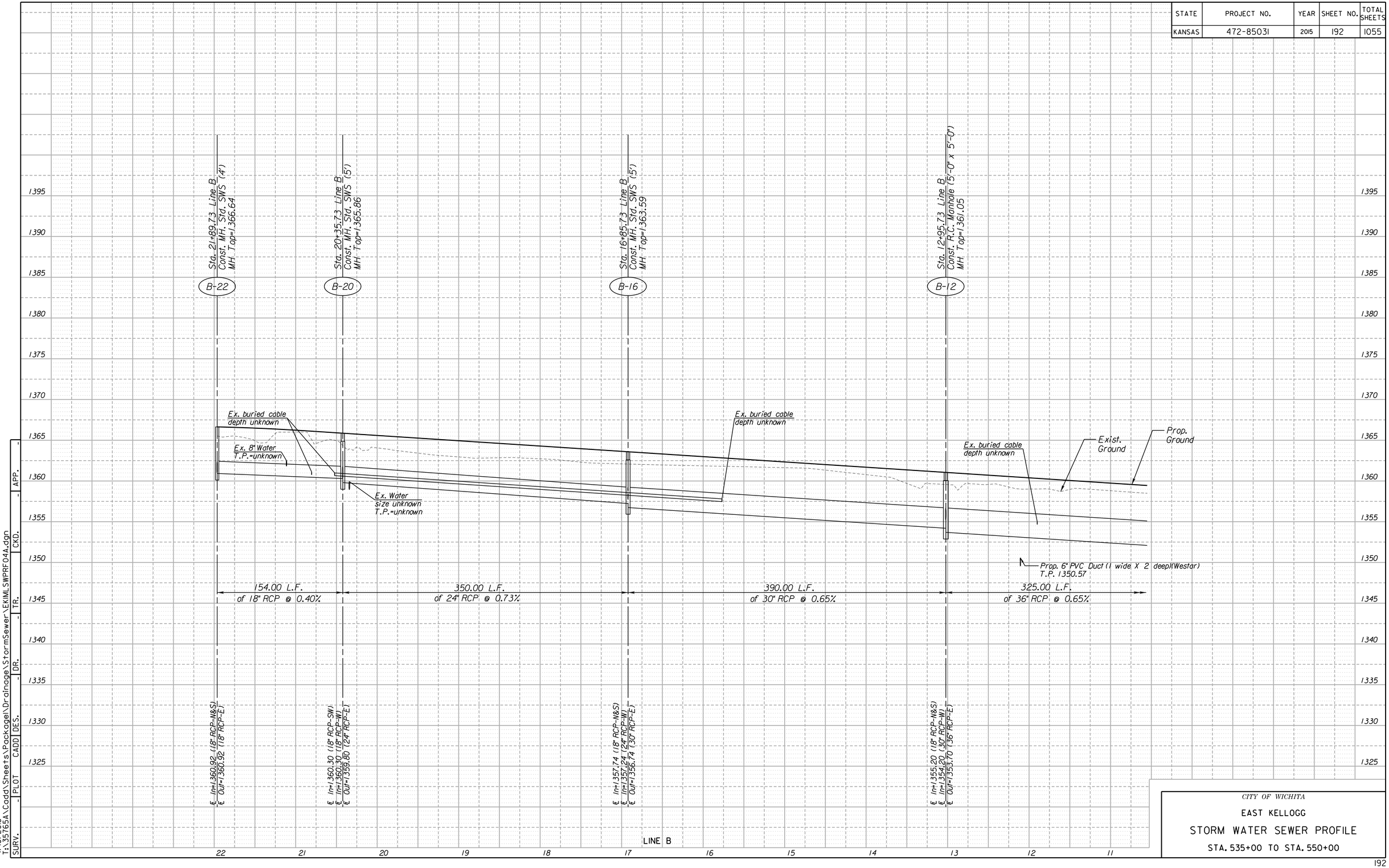
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	192	1055



SURV. - PLOT - CADD DES. - DR. - TR. - CKD. - APP. -

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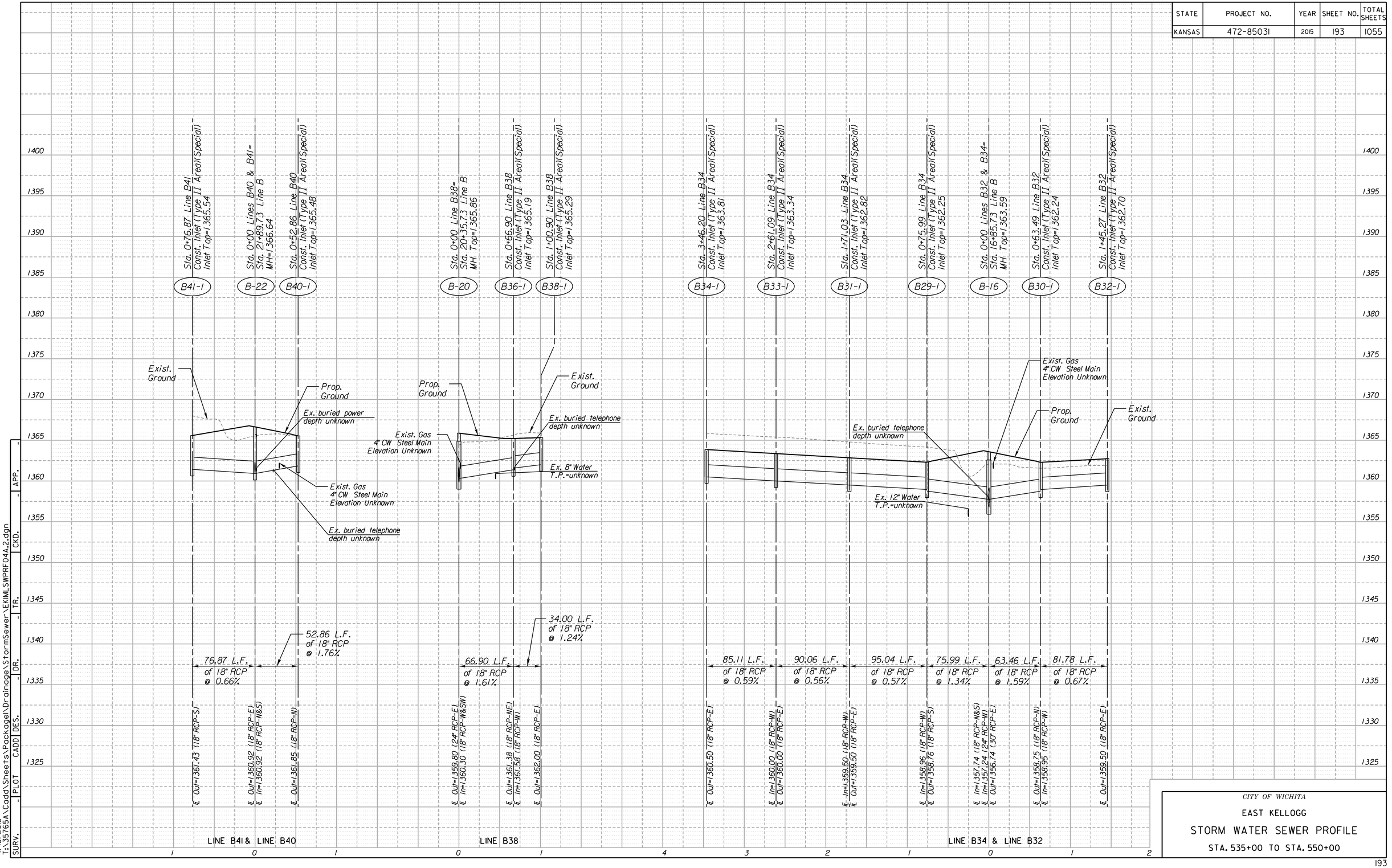
CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 535+00 TO STA. 550+00

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	193	1055



CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 535+00 TO STA. 550+00

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.

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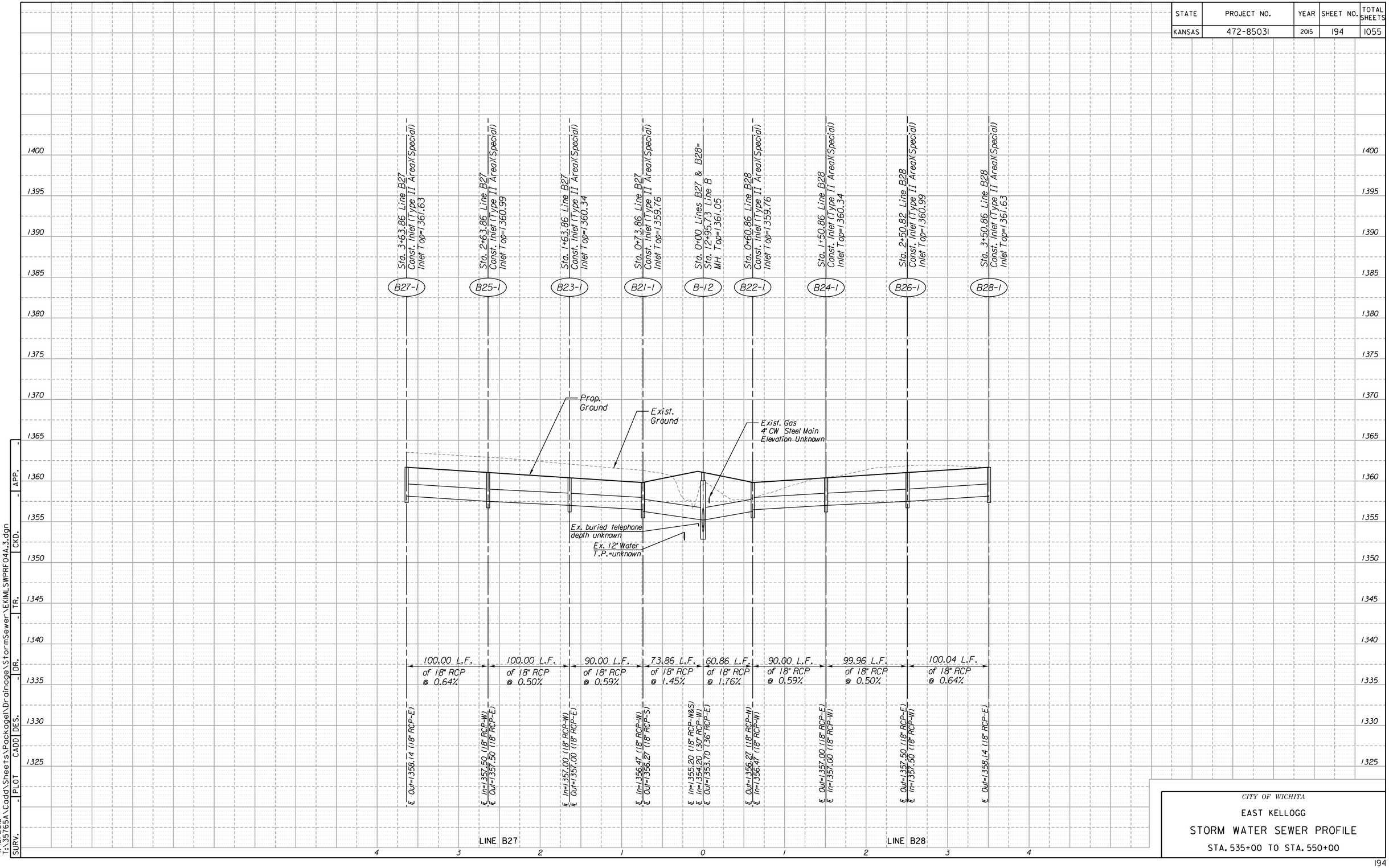
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	194	1055



PLOT | CADD | DES. | DR. | TR. | CKD. | APP. | SURV.

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CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 535+00 TO STA. 550+00

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	195	1055

Sta. 1+83.86 SWS Line B15=
Sta. 552+55.00 67.36' Lt.
Const. Inlet (Type II Area)(Special)
Install 18"x110.00' Pipe, SWS, RCP (W)
B13-1

Sta. 2+93.86 SWS Line B15=
Sta. 551+45.00 67.36' Lt.
Const. Inlet (Type II Area)(Special)
B15-1

Sta. 0+73.86 SWS Line B19=
Sta. 550+35.00 67.36' Lt.
Const. Inlet (Type II Area)(Special)
Install 18"x110.00' Pipe, SWS, RCP (W)
B17-1

Sta. 0+73.86 SWS Line B15=
Sta. 553+65.00 67.36' Lt.
Const. Inlet (Type II Area)(Special)
Install 18"x110.00' Pipe, SWS, RCP (W)
B11-1

Sta. 2+51.37 SWS Line B9=
Sta. 20554+75.02 6.13' Lt.
@ Ramp J
Const. Inlet (Type II Area)(Special)
B9-1

Sta. 1+51.36 SWS Line B9=
Sta. 20555+75.10 6.19' Lt.
@ Ramp J
Const. Inlet (Type II Area)(Special)
Install 18"x100.01' Pipe, SWS, RCP (W)
B7-1

Sta. 0+76.34 SWS Line B9=
Sta. 20556+50.17 6.12' Lt.
@ Ramp J
Const. Inlet (Type II Area)(Special)
Install 18"x75.02' Pipe, SWS, RCP (W)
B5-1

Sta. 1+76.27 SWS Line B3=
Sta. 20556+95.22 6.12' Lt.
@ Ramp J
Const. Inlet (Type II Area)(Special)
B3-1

Sta. 0+80.89 SWS Line B3=
Sta. 20557+90.67 6.12' Lt.
@ Ramp J
Const. Inlet (Type II Area)(Special)
Install 18"x95.38' Pipe, SWS, RCP (W)
B1-1

Sta. 0+72.51 SWS Line B(1)=
Sta. 20558+45.43 6.11' Lt.
@ Ramp J
Const. Inlet (Type II Area)(Special)
B(1)-3

Sta. 0+17.38 SWS Line B(1)=
Sta. 20559+00.59 7.08' Lt.
@ Ramp J
Const. Inlet (Type II Area)(Special)
Install 18"x55.13' Pipe, SWS, RCP (W)
B(1)-2

Sta. 0+00 SWS Line B(1)=
Sta. 559+23.72 80.25' Lt.
Const. Manhole Stack (4') Over 2-7'x4' RCBC
Install 18"x17.38' Pipe, SWS, RCP (W)
Connect to 2-7'x4' RCBC
B(1)-Out

Sta. 0+65.75 SWS Line C1=
Sta. 560+90.29 59.25' Lt.
Const. Inlet (Type II Area)(Special)
C1-1

CHELSEA BROOKE ADDITION
A
Jeffrey S. Greenberg & Lynne Greenberg & Chelsea Brooke Greenberg

Drain. Esmt.
Const. Limits
R/W
Exist. R/W
Gas Service Esmt.
Beech Aircraft Corporation
@ North Frontage Road
Sec. Line
Concrete Safety Barrier Type II (Special)
Kellogg Avenue (US 54)
℄ Proposed Improvement
Concrete Safety Barrier Type IV (Special)
Ramp J
Prop. Comm. Duct Bank
10' Gas Service Company Esmt.
Kellogg Drive
Concrete Safety Barrier Type F3 (Do Not Anchor)
Ramp K
@ South Frontage Road
Prop. 16" Water
Temp. Esmt.
20' Utility Esmt.
15' Waterline Esmt.
Davis-Moore Real Estate, LLC
10603 E. Kellogg
A
DAVIS-MOORE 14TH ADDITION
Vanders Investments LLC
10727 E. Kellogg
3
K.T. WIEDEMANN BUSINESS PARK
Carport LLC
10851 E. Kellogg
HOLSTED ADD.
A/C
6' Sidewalk
Carport LLC
10909 E. Kellogg
℄ Chateau Street
Crossover A

B14-1
Sta. 1+71.46 SWS Line B16=
Sta. 552+55.00 67.36' Rt.
Const. Inlet (Type II Area)(Special)
Install 18"x110.00' Pipe, SWS, RCP (W)

B16-1
Sta. 2+81.46 SWS Line B16=
Sta. 551+45.00 67.36' Rt.
Const. Inlet (Type II Area)(Special)

B18-1
Sta. 0+60.86 SWS Line B20=
Sta. 550+35.00 67.36' Rt.
Const. Inlet (Type II Area)(Special)
Install 18"x110.00' Pipe, SWS, RCP (W)

B-10
Sta. 9+70.73 SWS Line B=
Sta. 0+00 SWS Line B19=
Sta. 0+00 SWS Line B20=
Sta. 550+34.41 6.50' Rt.
Const. R.C. Manhole (5'-0" x 5'-0")
Install 36"x325.00' Pipe, SWS, RCP (W)
Install 18"x73.86' Pipe, SWS, RCP (N)
Install 18"x60.86' Pipe, SWS, RCP (S)

B12-1
Sta. 0+61.46 SWS Line B16=
Sta. 10553+65.07 6.12' Rt.
@ Ramp K
Const. Inlet (Type II Area)(Special)
Install 18"x110.00' Pipe, SWS, RCP (W)

B-7
Sta. 6+40.73 SWS Line B=
Sta. 0+00 SWS Line B15=
Sta. 0+00 SWS Line B16=
Sta. 553+64.42 6.50' Rt.
Const. R.C. Manhole (5'-0" x 5'-0")
Install 36"x330.00' Pipe, SWS, RCP (W)
Install 18"x73.86' Pipe, SWS, RCP (N)
Install 18"x61.46' Pipe, SWS, RCP (S)

B10-1
6' Sidewalk
Sta. 2+44.70 SWS Line B10=
Sta. 10554+75.17 6.12' Rt.
@ Ramp K
Const. Inlet (Type II Area)(Special)

B8-1A
Sta. 1+89.68 SWS Line B10=
Sta. 10555+30.23 6.12' Rt.
@ Ramp K
Const. Inlet (Type II Area)(Special)
Install 18"x55.02' Pipe, SWS, RCP (W)

B8-1
Sta. 1+39.65 SWS Line B10=
Sta. 10555+80.30 6.11' Rt.
@ Ramp K
Const. Inlet (Type II Area)(Special)
Install 18"x50.03' Pipe, SWS, RCP (W)

B-4
Sta. 3+55.73 SWS Line B=
Sta. 0+00 SWS Line B9=
Sta. 0+00 SWS Line B10=
Sta. 556+49.42 6.50' Rt.
Const. R.C. Manhole (5'-0" x 5'-0")
Install 36"x285.00' Pipe, SWS, RCP (W)
Install 18"x76.34' Pipe, SWS, RCP (N)
Install 18"x69.59' Pipe, SWS, RCP (S)

B4-1
Sta. 0+71.54 SWS Line B4=
Sta. 10557+19.00 6.14' Rt.
@ Ramp K
Const. Inlet MH (5.5'x4.5')(Special)

B4-1A
Sta. 0+42.05 SWS Line B4=
Sta. 10556+92.49 6.11' Rt.
@ Ramp K
Const. Inlet (Type II Area)(Special)
Install 18"x29.49' Pipe, SWS, RCP (E)

B6-1
Sta. 0+00 SWS Line B4=
Sta. 0+69.59 SWS Line B10=
Sta. 10556+50.41 6.12' Rt.
@ Ramp K
Const. Inlet (Type II Area)(Special)
Install 18"x70.06' Pipe, SWS, RCP (W)
Install 18"x42.05' Pipe, SWS, RCP (E)

B-Out
Sta. 0+00 SWS Line B=
Sta. 560+08.19 4.02' Rt.
Const. Manhole Stack (4') Over 2-7'x4' RCBC
Install 36"x215.32' Pipe, SWS, RCP (W)
Connect to 2-7'x4' RCBC

B-2
Sta. 2+15.32 SWS Line B=
Sta. 0+00 SWS Line B3=
Sta. 557+89.83 6.50' Rt.
Const. R.C. Manhole (5'-0" x 5'-0")
Install 36"x140.41' Pipe, SWS, RCP (W)
Install 18"x80.89' Pipe, SWS, RCP (N)

C2-1
Sta. 0+54.78 SWS Line C2=
Sta. 560+94.26 61.12' Rt.
Const. Inlet MH (5.5'x4.5')(Special)

C-2
Sta. 0+63.70 SWS Line C=
Sta. 0+00 SWS Line C1=
Sta. 560+90.00 6.50' Rt.
Const. MH. Std. SWS (5')
Install 30"x43.39' Pipe, SWS, RCP (E)
Install 18"x65.75' Pipe, SWS, RCP (N)
Install 18"x54.78' Pipe, SWS, RCP (S)

C-Out
Sta. 0+00 SWS Line B(1)=
Sta. 560+23.85 8.96' Rt.
Const. Manhole Stack (4') Over 2-7'x4' RCBC
Install 30"x63.70' Pipe, SWS, RCP (E)
Connect to 2-7'x4' RCBC

C-JT
Sta. 1+07.09 SWS Line C=
Sta. 561+31.37 6.39' Rt.
Const. Drop Inlet (Double)

LEGEND
Crossover Pavement, See Sh. No's. 76-77
Eradication of Traveled Way

UTILITIES

Gas,	Kansas Gas Service
Power	Westar
Telephone	AT&T
Water	Wichita Water & Sewer

See Sh. No's. 248-250 for Underdrains.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

CITY OF WICHITA
EAST KELLOGG
STORM WATER SEWER PLAN
STA. 550+00 TO STA. 565+00

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SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	196	1055

Sta. 9+70.73 Line B
Const. R.C. Manhole (5'-0" x 5'-0")
MH Top=1358.94
B-10

Sta. 6+40.73 Line B
Const. R.C. Manhole (5'-0" x 5'-0")
MH Top=1356.80
B-7

Sta. 3+55.73 Line B
Const. R.C. Manhole (5'-0" x 5'-0")
MH Top=1355.10
B-4

Sta. 2+15.32 Line B
Const. R.C. Manhole (5'-0" x 5'-0")
MH Top=1354.91
B-2

Sta. 0+00 Line B
Connect to 2-7'x4' RCBC
Const. Manhole Stack (4')
MH Top=1355.77
B-OUT

Sta. 0+00 Line C
Connect to 2-7'x4' RCBC
Const. Manhole Stack (4')
MH Top=1355.82
C-OUT

Sta. 0+63.70 Line C
Const. MH: Std. SWS (5')
MH Top=1356.43
C-2

Sta. 1+07.09 Line C
Const. Drop Inlet (Double)
Inlet Top=1351.42
C-JT

Ex. buried cable depth unknown

Ex. Water size unknown T.P.-unknown

Ex. Water size unknown T.P.-unknown

Ex. Water size unknown T.P.-unknown

Prop. Ground

Exist. Ground

Ex. Water size unknown T.P.-unknown

Prop. Ground

Exist. Ground

325.00 L.F. of 36" RCP @ 0.65%

330.00 L.F. of 36" RCP @ 0.64%

285.00 L.F. of 36" RCP @ 0.40%

140.41 L.F. of 36" RCP @ 0.39%

215.32 L.F. of 36" RCP @ 0.40%

63.70 L.F. of 30" RCP @ 4.69%

43.39 L.F. of 30" RCP @ 0.62%

℄ In=1353.09 (18" RCP-N&S)
℄ In=1351.59 (36" RCP-W)
℄ Out=1351.59 (36" RCP-E)

℄ In=1350.95 (18" RCP-N&S)
℄ In=1349.46 (36" RCP-W)
℄ Out=1349.46 (36" RCP-E)

℄ In=1349.49 (18" RCP-N&S)
℄ In=1348.32 (36" RCP-W)
℄ Out=1348.32 (36" RCP-E)

℄ In=1348.92 (18" RCP-N)
℄ In=1347.76 (36" RCP-W)
℄ Out=1346.74 (36" RCP-E)

℄ In=1345.88 (36" RCP-W)

℄ In=1346.09 (30" RCP-E)

℄ Out=1349.08 (30" RCP-W)
℄ In=1349.08 (30" RCP-E)
℄ In=1350.08 (18" RCP-N&S)

℄ Out=1349.35 (30" RCP-W)

LINE B

LINE C

CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 550+00 TO STA. 565+00

SURV. | PLOT | CADD | DES. | DR. | TR. | CKD. | APP.

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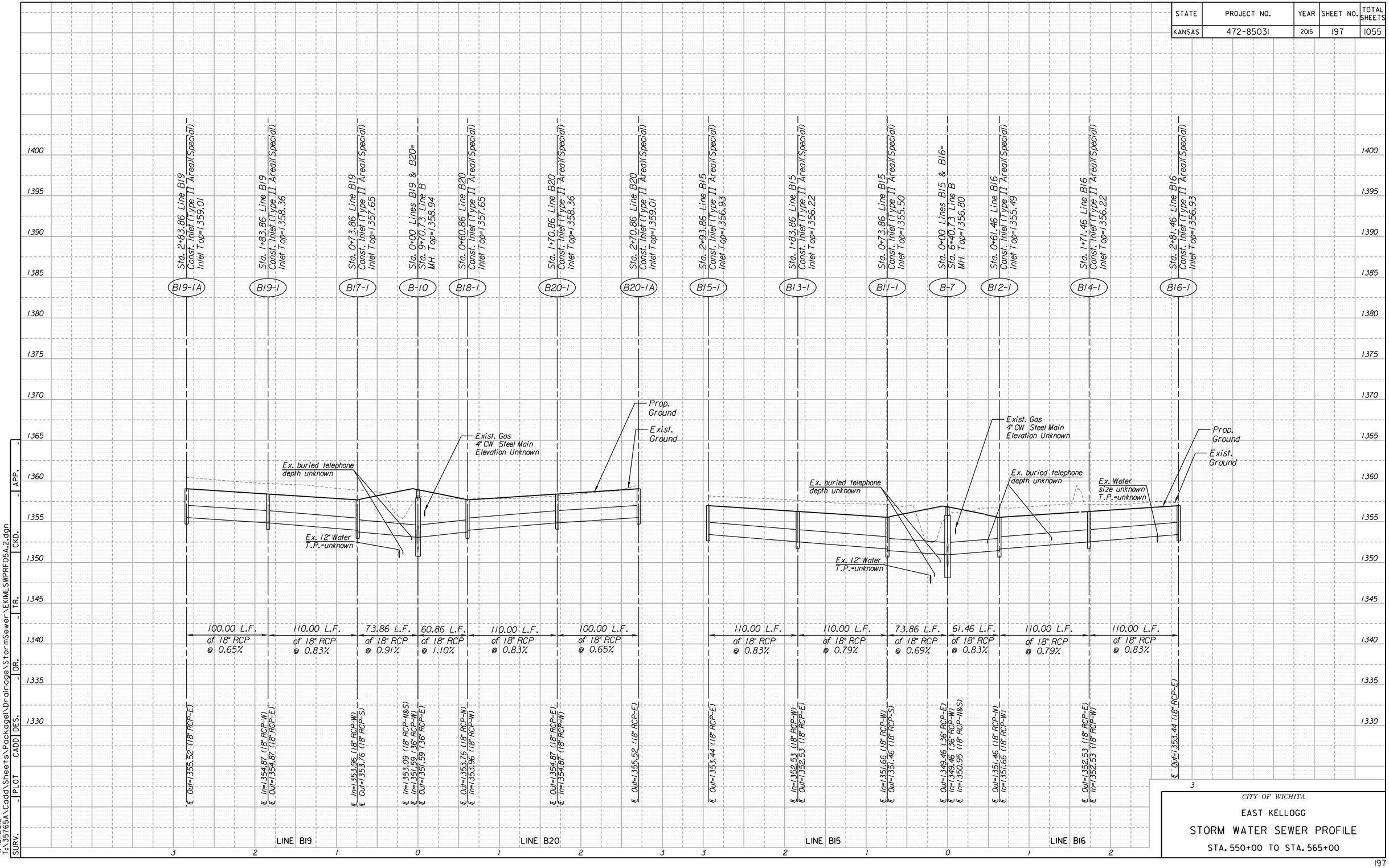
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	197	1055



CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 550+00 TO STA. 565+00

3

197

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SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
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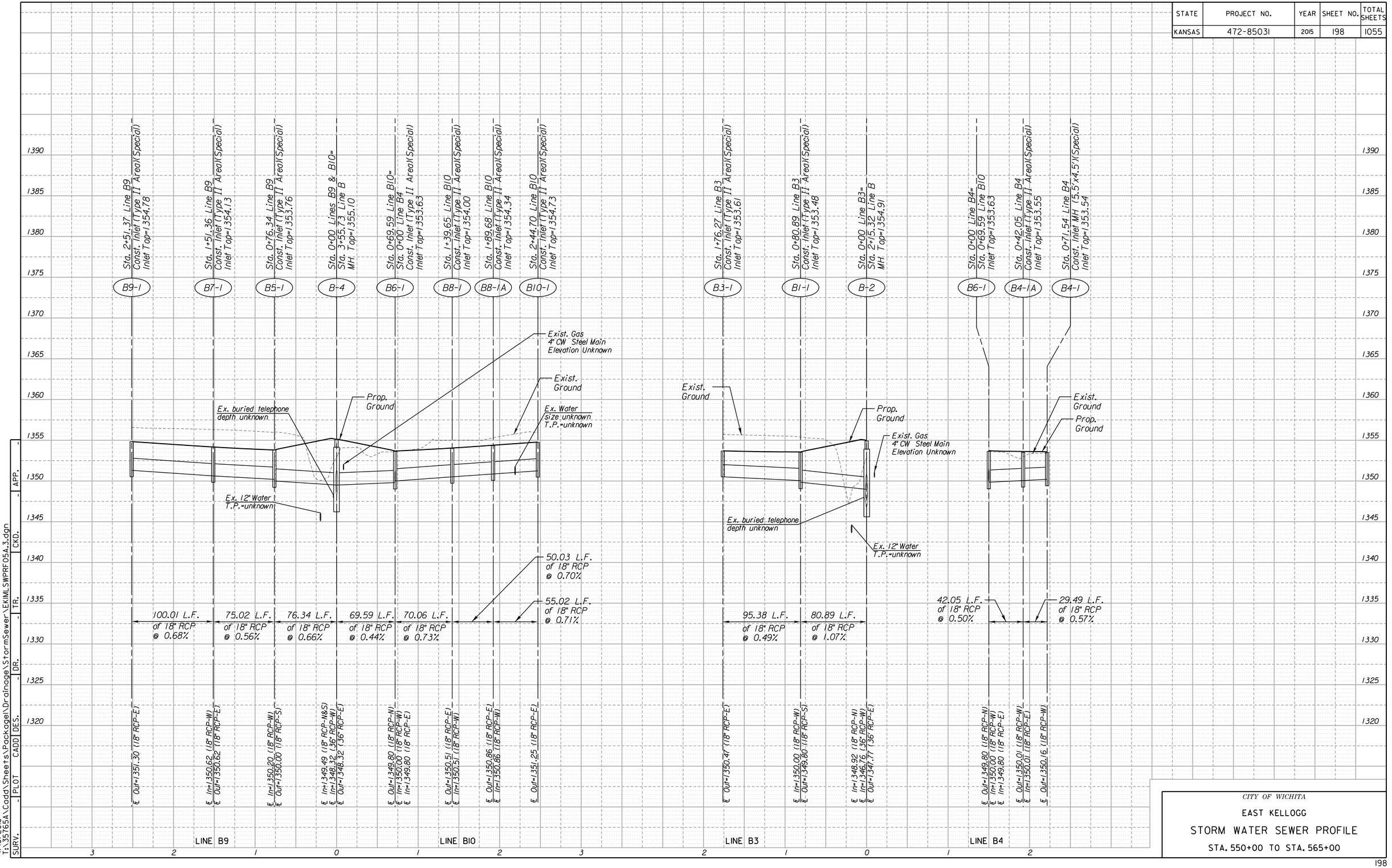
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	198	1055



CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 550+00 TO STA. 565+00

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.

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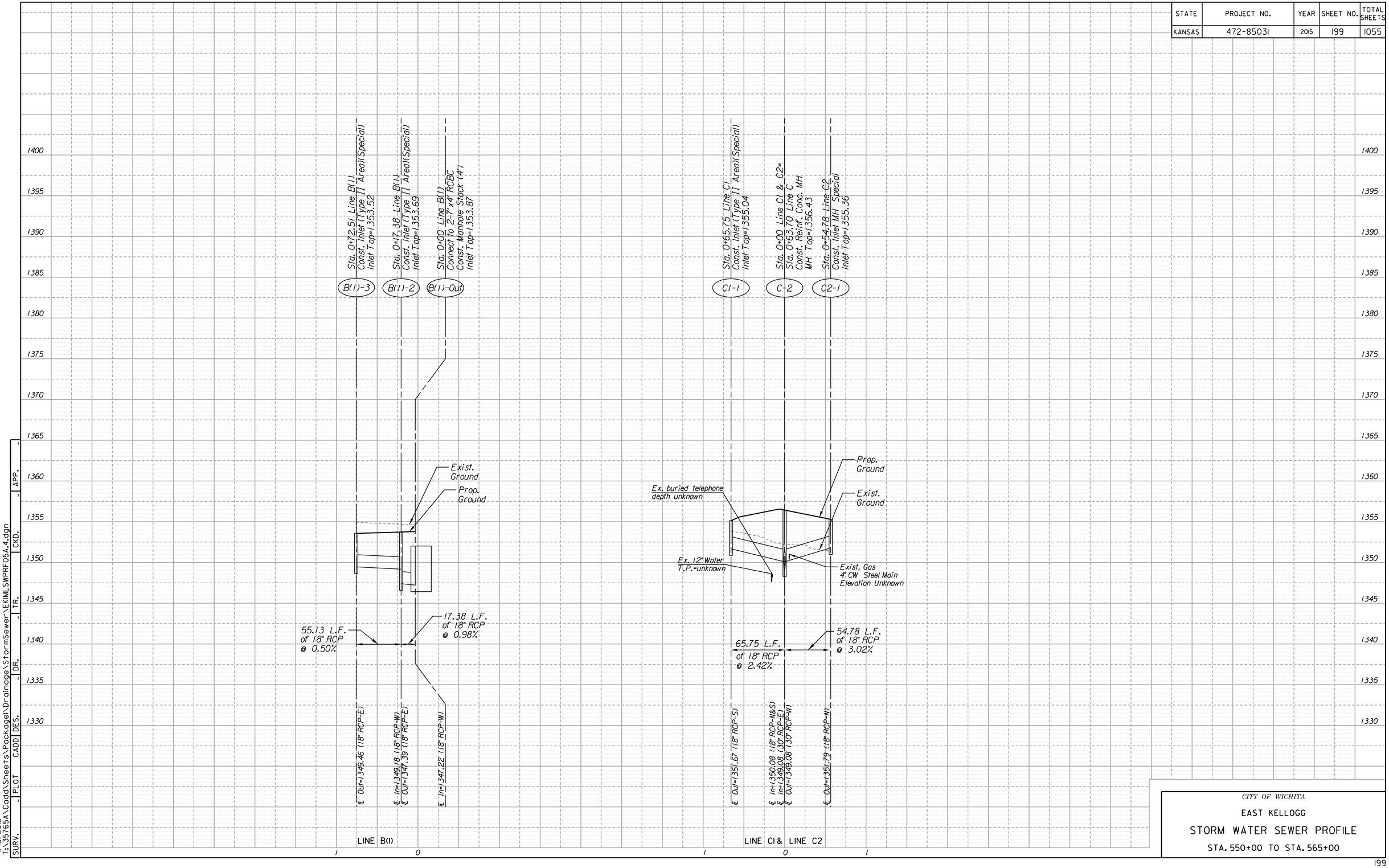
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	199	1055



CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PROFILE

STA. 550+00 TO STA. 565+00

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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	200	1055

CHELSEA BROOKE ADDITION

Jeffrey S. Greenberg & Lynne Greenberg & Chelsea Brooke Greenberg

GOLDEN CORRAL ADDITION

Corral Group LP
11006 E. Kellogg

GLADYS WIEDEMANN ADDITION

Gorges & Wittman
11212 E. Kellogg

Universal Motor Fuels Inc.
433 S. Greenwich

Sta. 570+42.00 49' Lt.
Retrofit Inlet
T-7

Sta. 570+42.00 42' Lt.
Retrofit Inlet
T-6

Sta. 569+46.00 45' Lt.
Retrofit Inlet
T-5

RESERVE "A"

Temp. Esmt.
Drain. Esmt.
Const. Limits
15' Drainage Esmt.
20' Utility Esmt.
Exist. R/W
℄ Golden Corral Ent.
Ingress-Egress Esmt.
10' Utility Esmt.
45' Drain. Esmt.
Drainage Esmt.
10' Utility Esmt.
Joint Access Esmt.
℄ Greenwich Road
A/C-Exist. R/W
40' Drainage Esmt.
20' Utility Esmt.
10' KGE Right-of-Way Esmt.
Concrete Safety Barrier Type F3
Prop. Comm. Duct Bank
Sec. Line
Prop. 15" San. Sewer
Crossover B
Kellogg Avenue (US 54)
P.R.C. 105.56
Crossover A
℄ Proposed Improvement
℄ North Frontage Road
℄ South Frontage Road
P.I. 71.79
Sec. Line
Exist. R/W
Prop. 10" San. Sewer
Prop. 15" San. Sewer
Prop. 16" Water
Const. Limits
R/W
6' Sidewalk
A/C
℄ Trig Street
0-60F
Drainage Esmt.
25' Utility Esmt.
20' Utility Esmt.

Carport LLC
10909 E. Kellogg

Environmental LLC
10929 E. Kellogg

ROWLEY ADDITION

CARPORT LLC
11051 E. Kellogg

Green Lantern Inc.
535 S. Greenwich

EAST KELLOGG ACRES

Stevens 3rd Addition LLC
11211 E. Kellogg

STEVENS 3RD ADDITION

Sta. 9+68.93 ℄ Crossover A2=
Sta. 566+25.11, 30' Rt.
Install 3-18"x137.32' RCP
with End Sections
See Sh. No's. 293 & 295 - 297

Sta. 10+39.98, 12.94' Rt. ℄ Crossover A2=
Sta. 566+94.91, 30.87' Rt.
Remove Existing End Section
Install 15"x31.86' RCP
with End Section
See Sh. No's. 293 & 295 - 297

Sta. 13+88.02, 27.03' Rt. ℄ Crossover A2=
Sta. 570+41.14, 42.89' Rt.
Install 30"x17.38' RCP
with End Sections
Tie to Existing Culvert
See Sh. No's. 293 & 295 - 297

Sta. 11+04.14, 20.24' Rt. ℄ Crossover A2=
Sta. 567+61.32, 30.62' Rt.
Install 30"x19"x55.97' HERCP (24")
with End Sections
See Sh. No's. 294 - 297

Sta. 574+21.18=
Sta. 50+00 ℄ Greenwich Road

LEGEND

Crossover Pavement, See Sh. No's. 76 - 77

Eradication of Traveled Way

UTILITIES

Cable	Cox Communications
Gas	Kansas Gas Service
Power	Westar
Sanitary Sewer	Wichita Water & Sewer
Telephone	AT&T
Traffic Signal	City of Wichita
Water	Wichita Water & Sewer

All stations and offsets are to back of curb unless otherwise noted.

See Sh. No's. 179-237 for SWS Plans.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

CITY OF WICHITA

EAST KELLOGG

STORM WATER SEWER PLAN

STA. 565+00 TO STA. 580+00

SURV. - PLOT - CADD - DES. - DR. - TR. - CKD. - APP.

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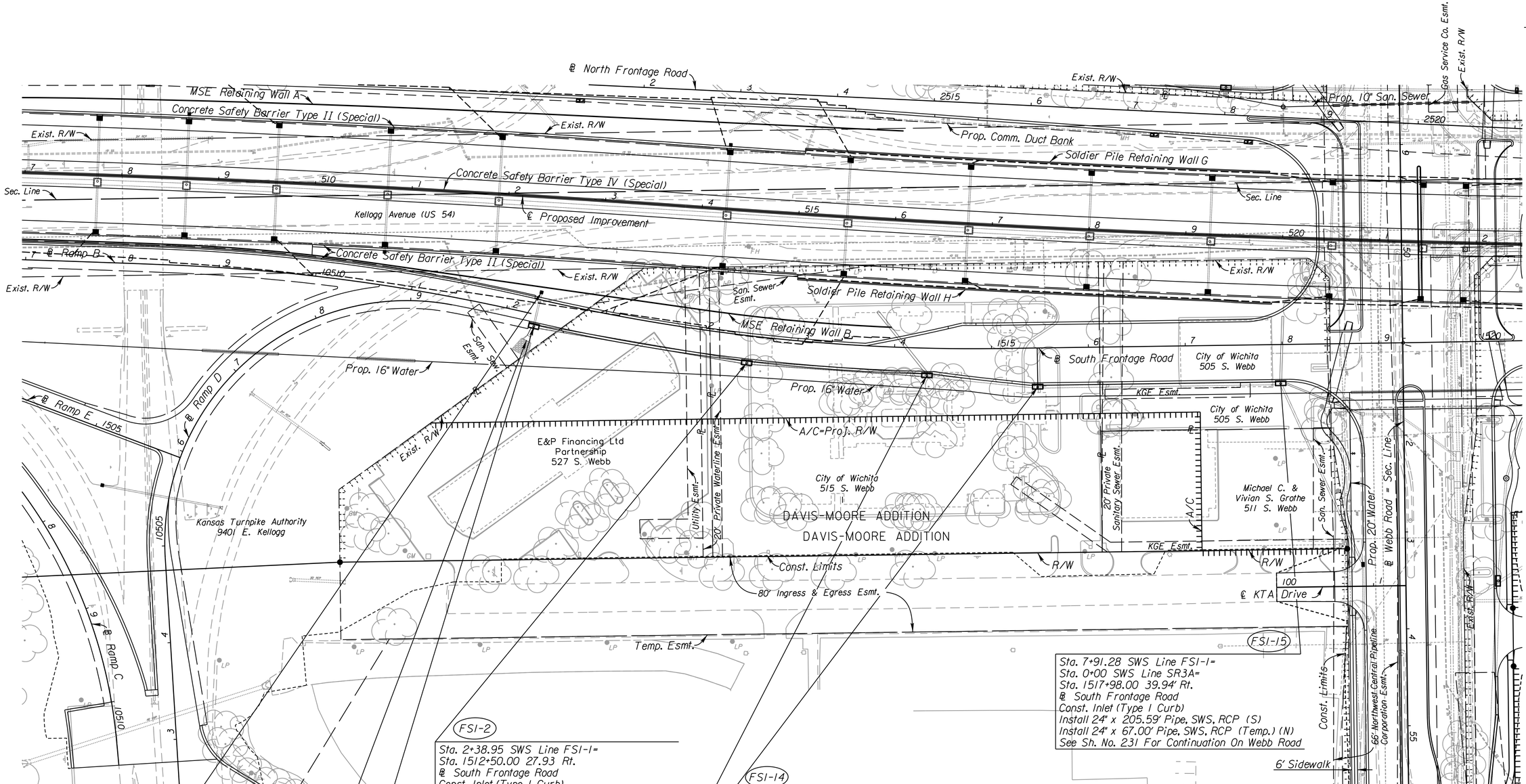
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	201	1055



UTILITIES

Cable	Cox Communications
Gas1	Kansas Gas Service
Gas2	Southern Star Pipeline
Gas3	Hawker Beechcraft
Power	Westar
ITS	KDOT
Sanitary Sewer	Wichita Water & Sewer
Telephone	AT&T
Traffic Signal	City of Wichita
Water	Wichita Water & Sewer

See Sh. No's. 119-140 for Paving Details.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

CITY OF WICHITA

SOUTH FRONTAGE ROAD

STORM WATER SEWER PLAN

STA. 1505+00 TO STA. 1520+00

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
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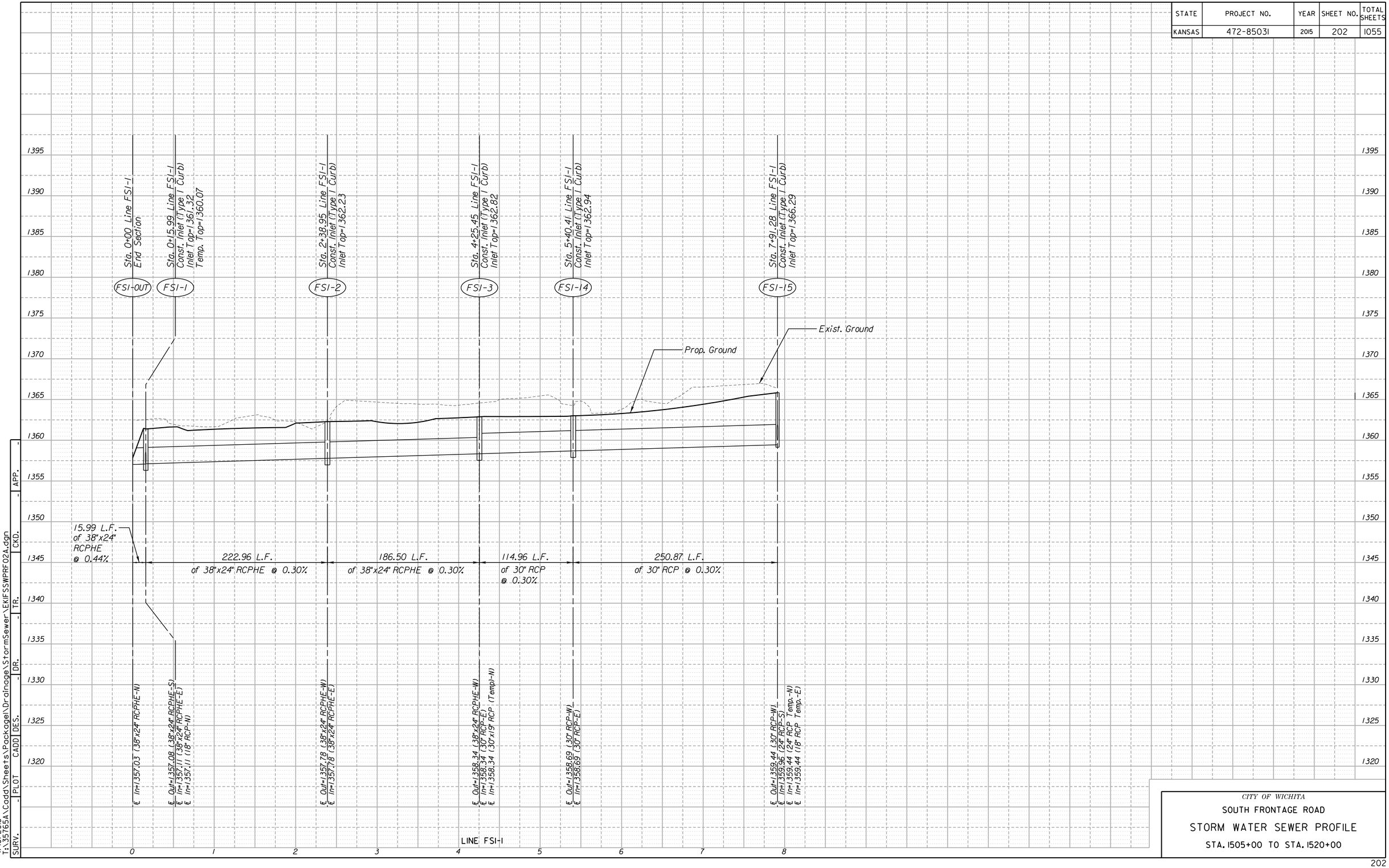
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	202	1055



CITY OF WICHITA

SOUTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 1505+00 TO STA. 1520+00

SURV. - PLOT - CADD DES. - DR. - TR. - CKD. - APP. -

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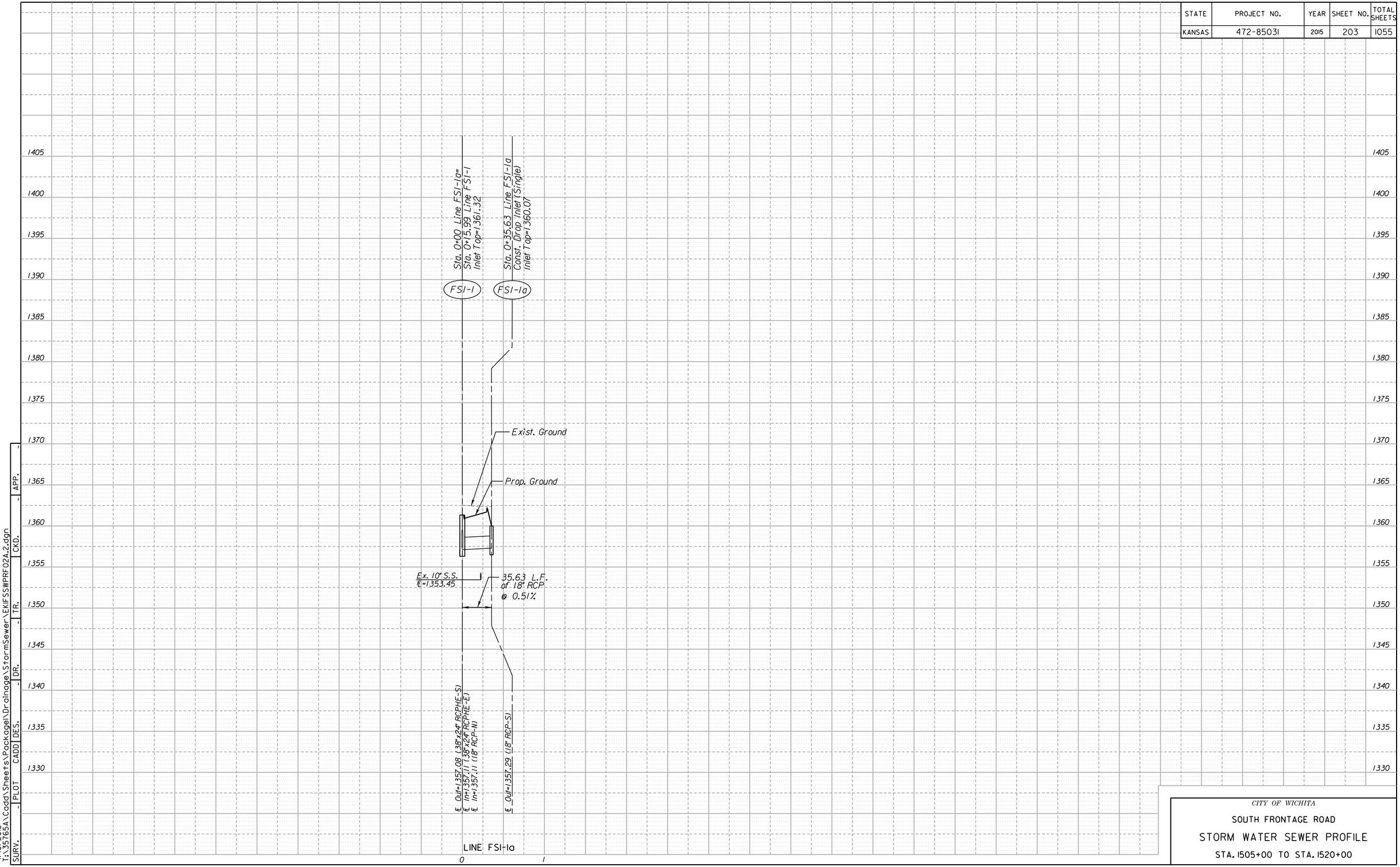
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	203	1055



CITY OF WICHITA

SOUTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 1505+00 TO STA. 1520+00

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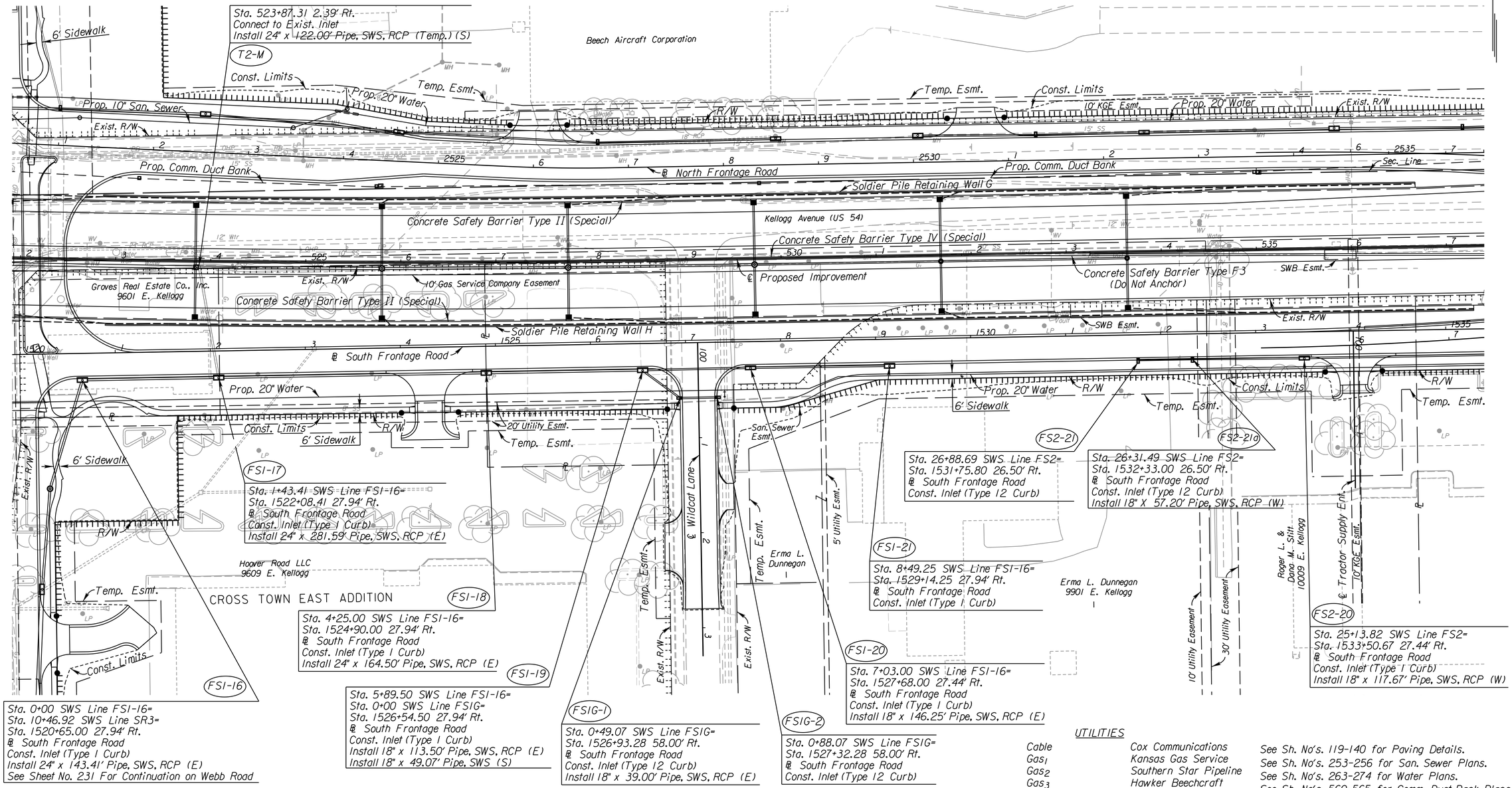
PLOT | CADD | DES. | DR. | TR. | CKD. | APP. | SURV.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	204	1055



UTILITIES

Cable	Cox Communications
Gas1	Kansas Gas Service
Gas2	Southern Star Pipeline
Gas3	Hawker Beechcraft
Power	Westar
ITS	KDOT
Sanitary Sewer	Wichita Water & Sewer
Telephone	AT&T
Traffic Signal	City of Wichita
Water	Wichita Water & Sewer

See Sh. No's. 119-140 for Paving Details.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

CITY OF WICHITA

SOUTH FRONTAGE ROAD

STORM WATER SEWER PLAN

STA. 1520+00 TO STA. 1535+00

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
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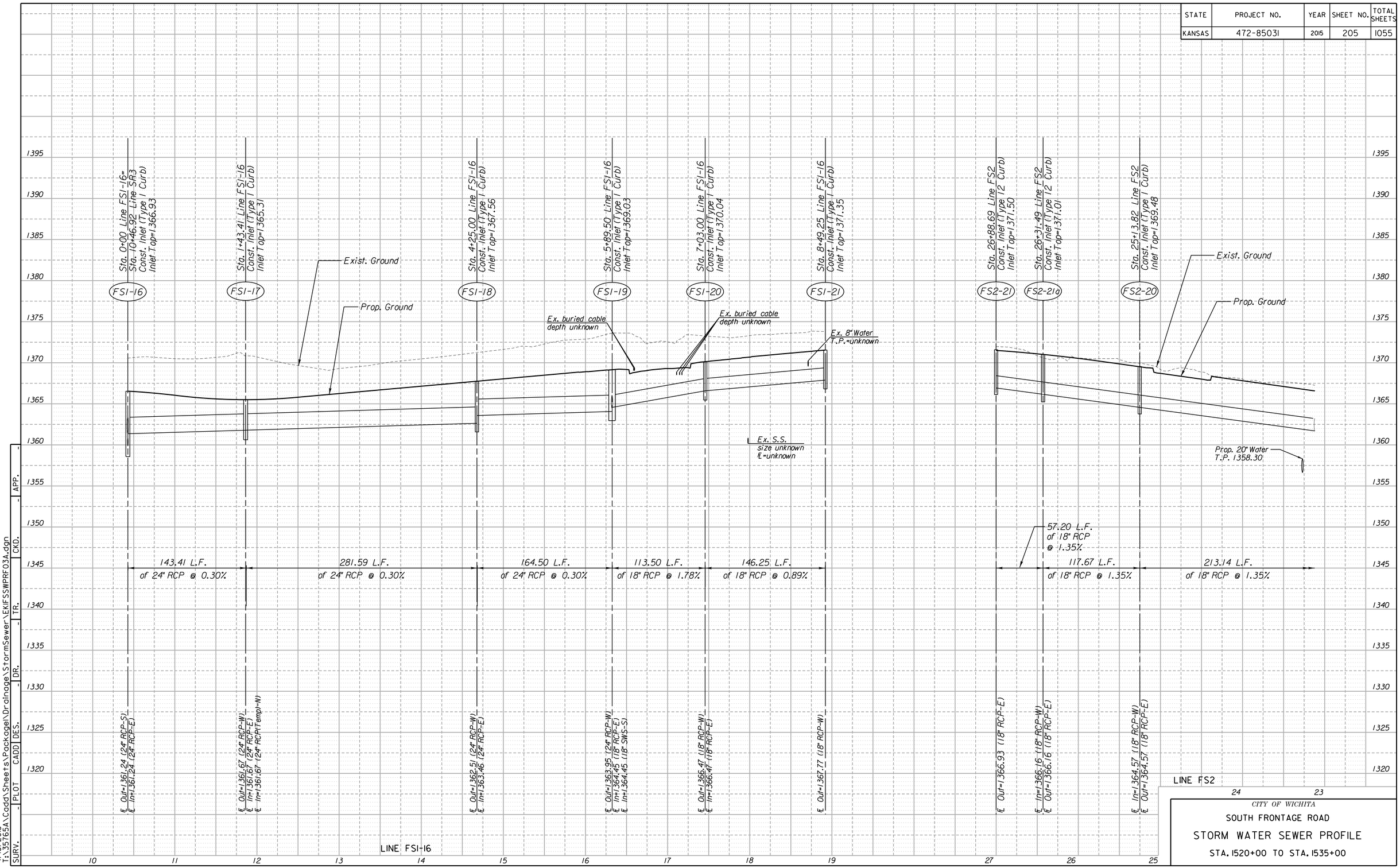
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	205	1055



CITY OF WICHITA

SOUTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 1520+00 TO STA. 1535+00

PLOT | CADD | DES. | DR. | TR. | CKD. | APP. | SURV.

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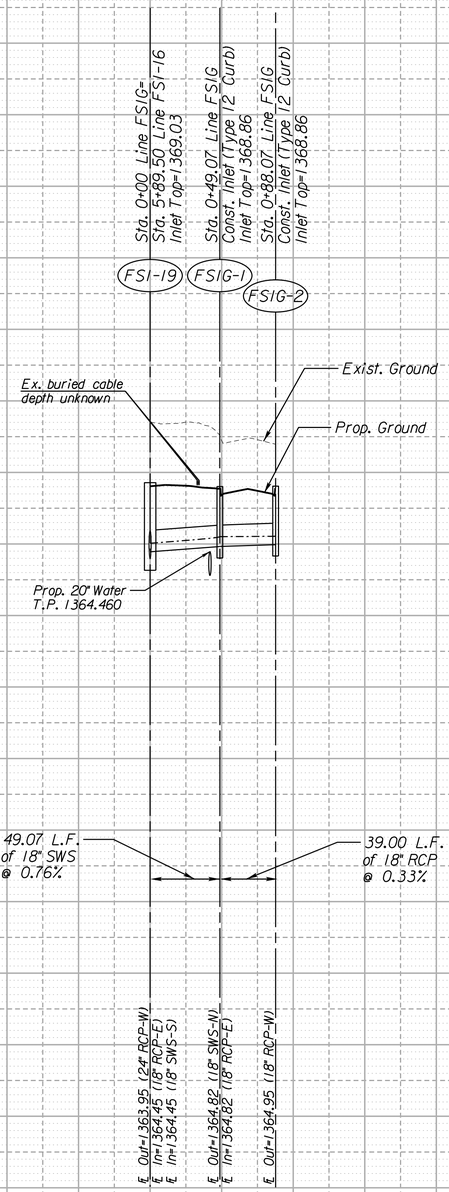
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	206	1055



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SURV. | PLOT | CADD | DES. | DR. | TR. | CKD. | APP.

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CITY OF WICHITA

SOUTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 1520+00 TO STA. 1535+00

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	207	1055

Sta. 0+45.77 Line FS2-19=
Sta. 10537+60.00 26.00' Lt.
℄ Ramp H
Const. Drop Inlet (Single)

FS2-19a

Const. Limits | R/W | Exist. R/W | Prop. 20" Water | Prop. Comm. Duct Bank | Concrete Safety Barrier Type II (Special) | 10' Gas Service Company Esmt. | ℄ Proposed Improvement | ℄ Ramp H | ℄ South Frontage Road | Prop. 16" Water | 6' Sidewalk | Temp. Esmt. | 10' Utility Esmt. | 55' x 520' Ingress & Egress Esmt. | ℄ Club Rodeo Ent. | Const. Limits | 20' Waterline Esmt. | ℄ Carmax Ent. | 31' Reciprocal Esmt. | 10' Utility Esmt. | 19' Ingress & Egress Esmt. | ¼ Sec. Line | 50' Utility Esmt. | 20' San. Sewer Esmt. | 15' Waterline Esmt. | 20' Utility Esmt.

FS2-19
Sta. 0+00 SWS Line FS2-19=
Sta. 23+00.68 SWS Line FS2=
Sta. 1535+63.81 27.44' Rt.
℄ South Frontage Road
Const. Inlet (Type I Curb)
Install 18" x 45.77' Pipe, SWS, RCP (N)
Install 18" x 213.14' Pipe, SWS, RCP (W)

Heritage Properties LP
10011 E. Kellogg
2

FS2-18
Sta. 22+16.69 SWS Line FS2=
Sta. 0+00 SWS Line FS2-18a=
Sta. 1536+47.57 33.68' Rt.
℄ South Frontage Road
Const. Inlet (Type I Curb)
Install 18" x 83.99' Pipe, SWS, RCP (W)
Install 15" x 27.46' Pipe, SWS (SE)

E.M. STEVENS ADDITION

FS2-18a
Sta. 0+26.95 SWS Line FS2-18a=
Sta. 1536+71.07 47.89' Rt
℄ South Frontage Road
Const. Drop Inlet (Single)

FS2C-2
Sta. 0+91.70 SWS Line FS2C=
Sta. 1536+94.19 94.39' Rt.
℄ South Frontage Road
Const. Inlet (Type 12 Curb)

FS2C-1
Sta. 0+55.19 SWS Line FS2C=
Sta. 1537+30.70 94.78' Rt.
℄ South Frontage Road
Const. Inlet (Type 12 Curb)
Install 15" x 36.51' Pipe, SWS, RCP (W)

FS2-12
Sta. 16+64.71 SWS Line FS2
Sta. 1541+98.93 37.68' Rt.
℄ South Frontage Road
Const. Inlet (Type I Curb)
Install 30" x 196.07' Pipe, SWS, RCP (W)

FS2-13
Sta. 18+60.78 SWS Line FS2
Sta. 1540+03.00 45.02' Rt.
℄ South Frontage Road
Const. Inlet (Type I Curb)
Install 30" x 38.01' Pipe, SWS, RCP (W)

FS2D-1
Sta. 0+19.94 SWS Line FS2D=
Sta. 1539+65.00 25.29' Rt.
℄ South Frontage Road
Const. Inlet Gutter (Special)

FS2-14
Sta. 18+98.79 SWS Line FS2=
Sta. 0+00 Line FS2D=
Sta. 1539+65.00 45.94' Rt.
℄ South Frontage Road
Const. Inlet (Type I Curb)
Install 30" x 80.05' Pipe, SWS, RCP (W)
Install 18" x 19.94' Pipe, SWS, RCP (N)

FS2-15
Sta. 19+78.84 SWS Line FS2
Sta. 1538+84.95 45.94' Rt.
℄ South Frontage Road
Const. Inlet (Type I Curb)
Install 30" x 76.78' Pipe, SWS, RCP (W)

FS2-16
Sta. 20+55.62 SWS Line FS2
Sta. 1538+08.17 45.94' Rt.
℄ South Frontage Road
Const. Inlet (Type I Curb)
Install 30" x 72.71' Pipe, SWS, RCP (W)

FS2-17
Sta. 21+28.33 SWS Line FS2=
Sta. 0+00 Line FS2C
Sta. 1537+35.72 39.82' Rt.
℄ South Frontage Road
Const. MH. Std. SWS (5')
Install 24" x 88.36' Pipe, SWS, RCP (W)
Install 15" x 55.19' Pipe, SWS, RCP (S)

Carmax Auto Superstores
10221 E. Kellogg
Ⓐ

PIZZA HUT SECOND ADDITION

FS2-11
Sta. 14+64.58 SWS Line FS2
Sta. 1543+98.92 30.18' Rt.
℄ South Frontage Road
Const. Inlet (Type I Curb)
Install 30" x 200.13' Pipe, SWS, RCP (W)

FS2-11a
Sta. 13+76.42 SWS Line FS2
Sta. 1544+87.00 26.50' Rt.
℄ South Frontage Road
Const. Inlet (Type 12 Curb)
Install 30" x 88.16' Pipe, SWS, RCP (W)

FS2-8
Sta. 10+39.58 SWS Line FS2=
Sta. 1548+23.83 28.44' Rt.
℄ South Frontage Road
Const. Inlet (Type I Curb)
Install 36" x 185.86' Pipe, SWS, RCP (W)

FS2-9
Sta. 12+25.44 SWS Line FS2=
Sta. 1546+37.98 26.50' Rt.
℄ South Frontage Road
Const. Inlet (Type 12 Curb)
Install 30" X 150.98' Pipe, SWS, RCP (W)

Davis-Moore Real Estate, LLC
10603 E. Kellogg

DAVIS-MOORE 14TH ADDITION

FS2-7a
Sta. 09+20.26 SWS Line FS2=
Sta. 1549+43.13 26.50' Rt.
℄ South Frontage Road
Const. Inlet (Type 12 Curb)
Install 36" x 119.32' Pipe, SWS, RCP (W)

See Sh. No's. 119-140 for Paving Details.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

UTILITIES

Gas	Kansas Gas Service
Power	Westar
Sanitary Sewer	Wichita Water & Sewer
Telephone	AT&T
Water	Wichita Water & Sewer

CITY OF WICHITA

SOUTH FRONTAGE ROAD

STORM WATER SEWER PLAN

STA. 1535+00 TO STA. 1550+00

SURV. | PLOT | CADD | DES. | DR. | TR. | CKD. | APP.

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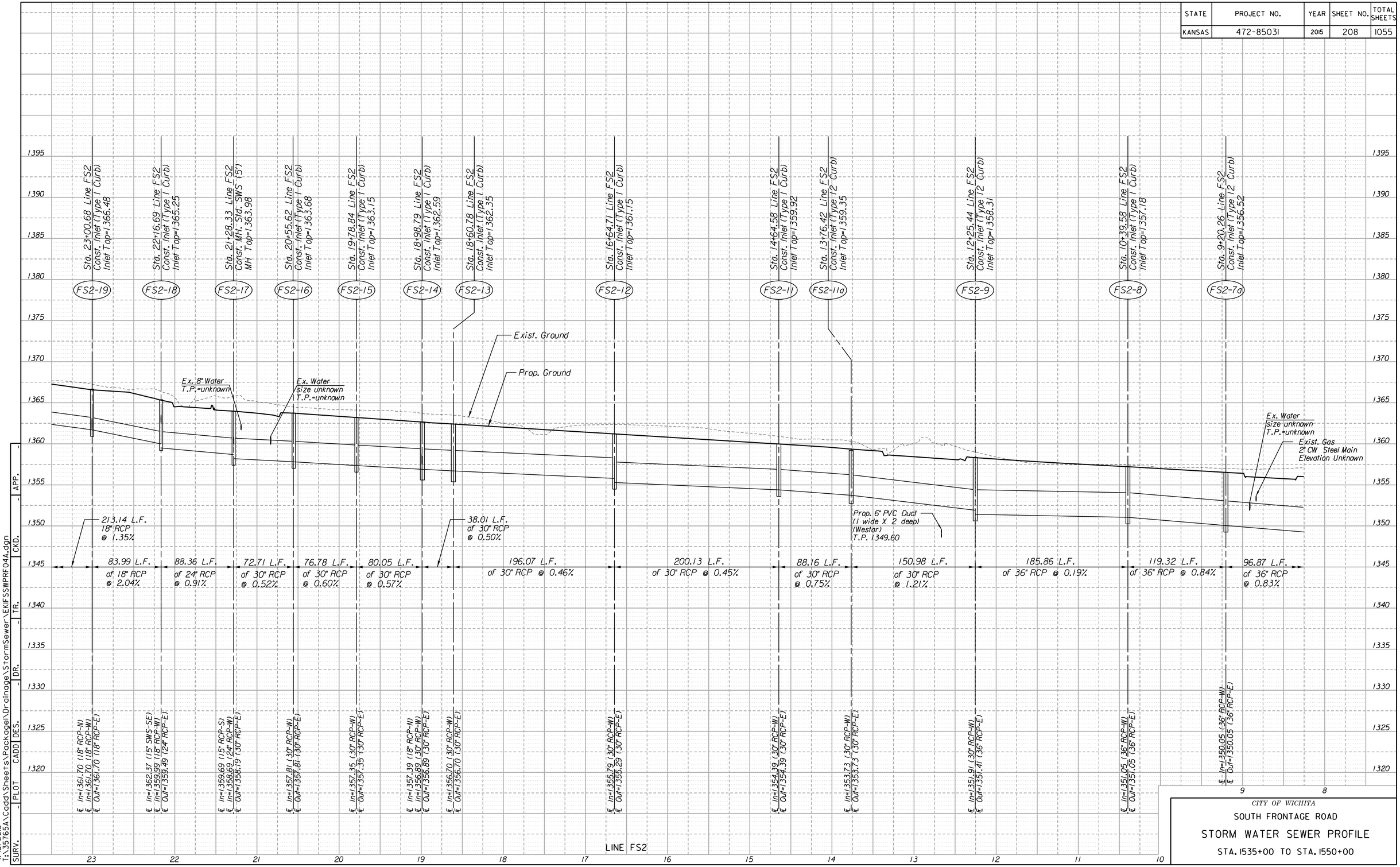
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	208	1055



LINE FS2

CITY OF WICHITA

SOUTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 1535+00 TO STA. 1550+00

SURV. | PLOT | CADD | DES. | DR. | TR. | CKD. | APP.

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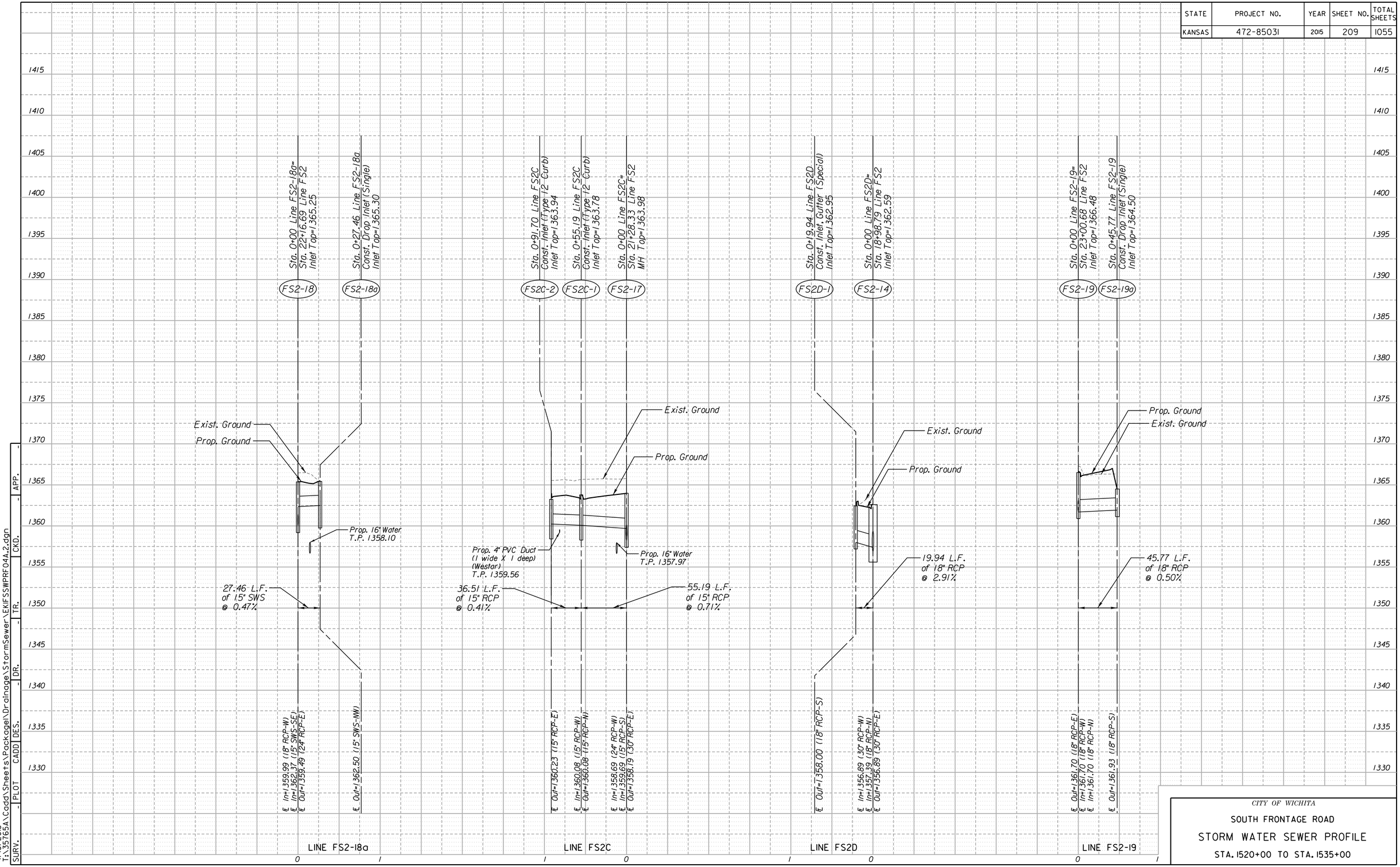
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	209	1055



CITY OF WICHITA

SOUTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 1520+00 TO STA. 1535+00

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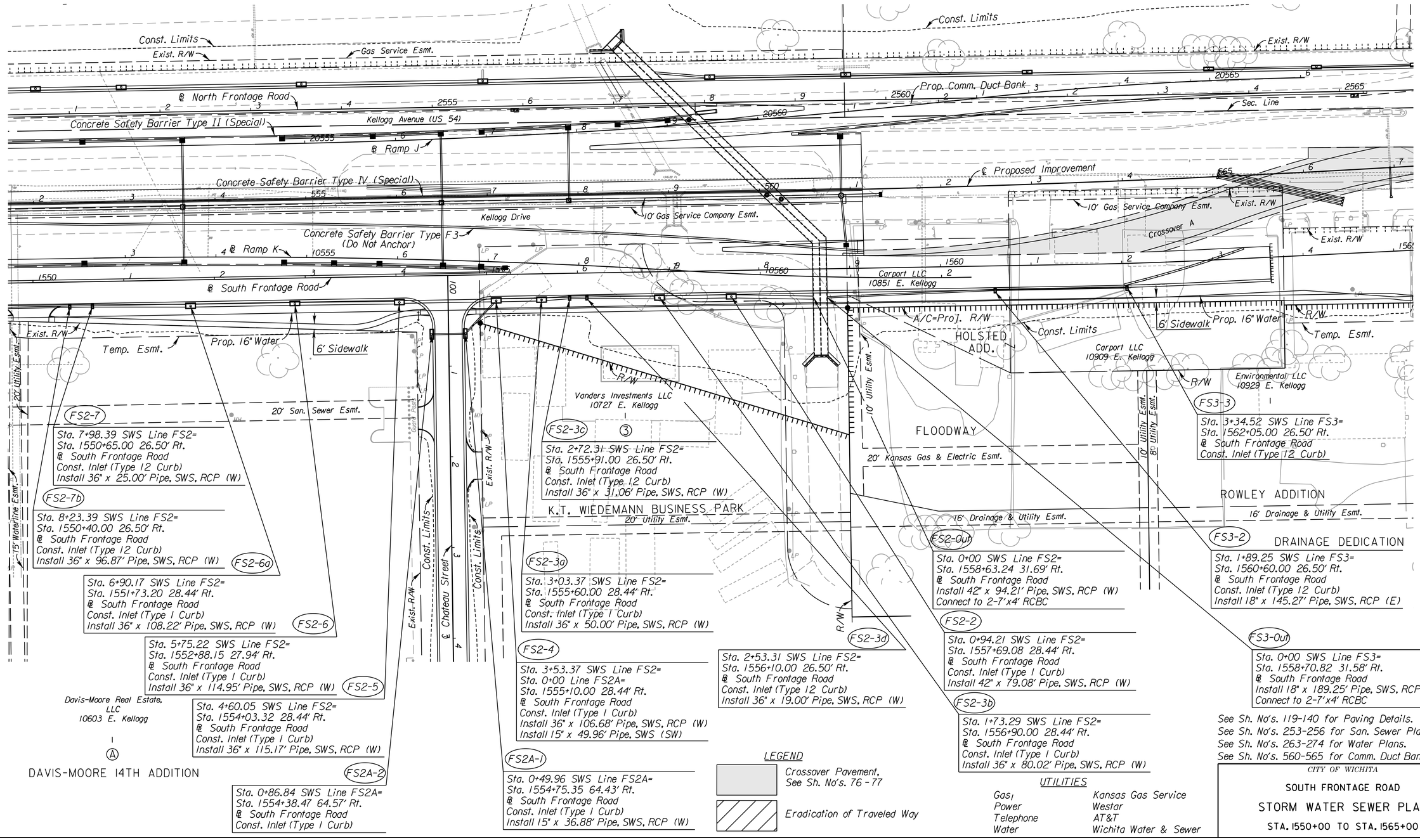
SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
-	-	-	-	-	-	-	-

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	210	1055



CITY OF WICHITA

SOUTH FRONTAGE ROAD

STORM WATER SEWER PLAN

STA. 1550+00 TO STA. 1565+00

See Sh. No's. 119-140 for Paving Details.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

SURV.	PLOT	CADD	DES.	-	DR.	-	TR.	-	CKD.	-	APP.

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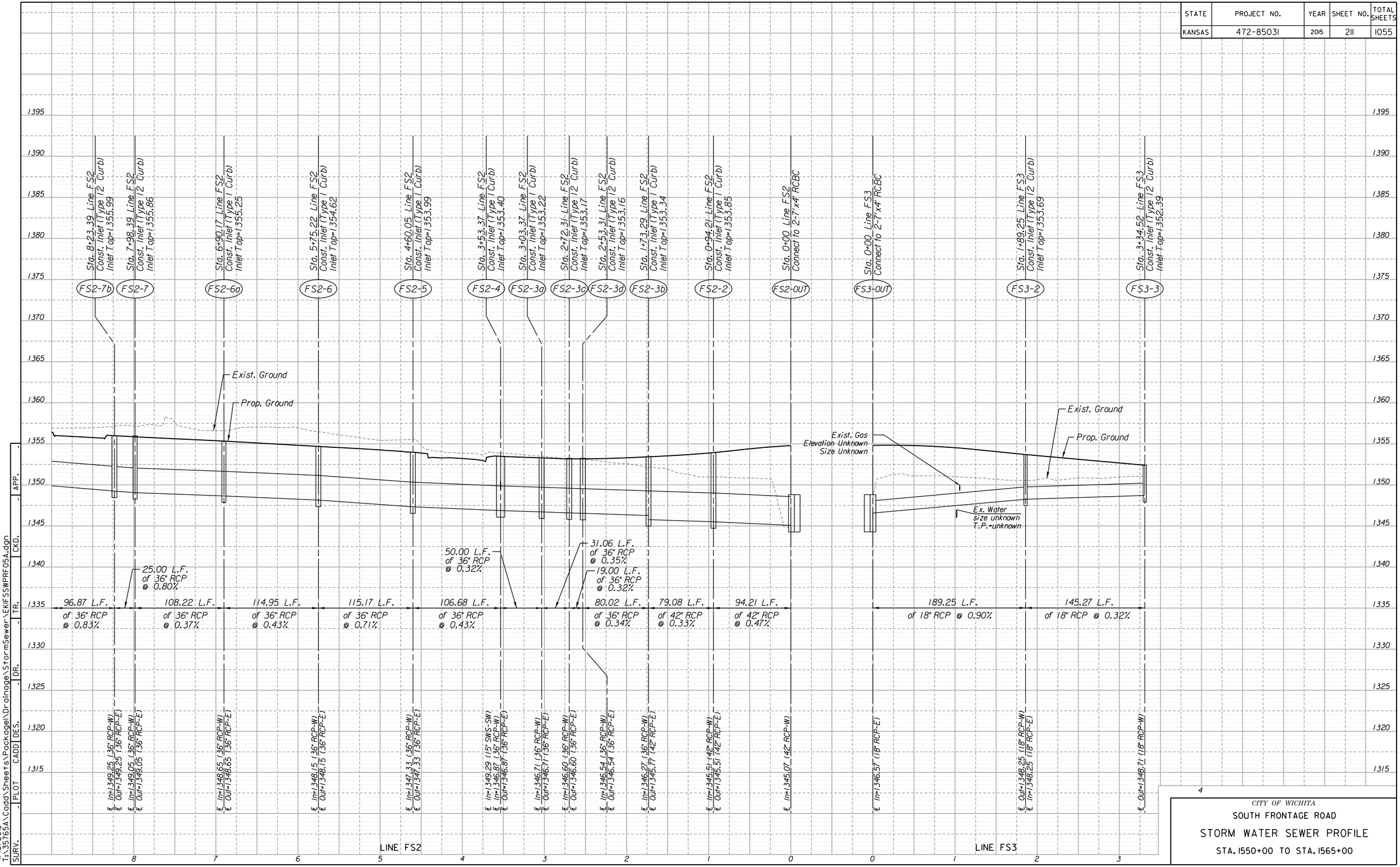
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	211	1055



CITY OF WICHITA

SOUTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 1550+00 TO STA. 1565+00

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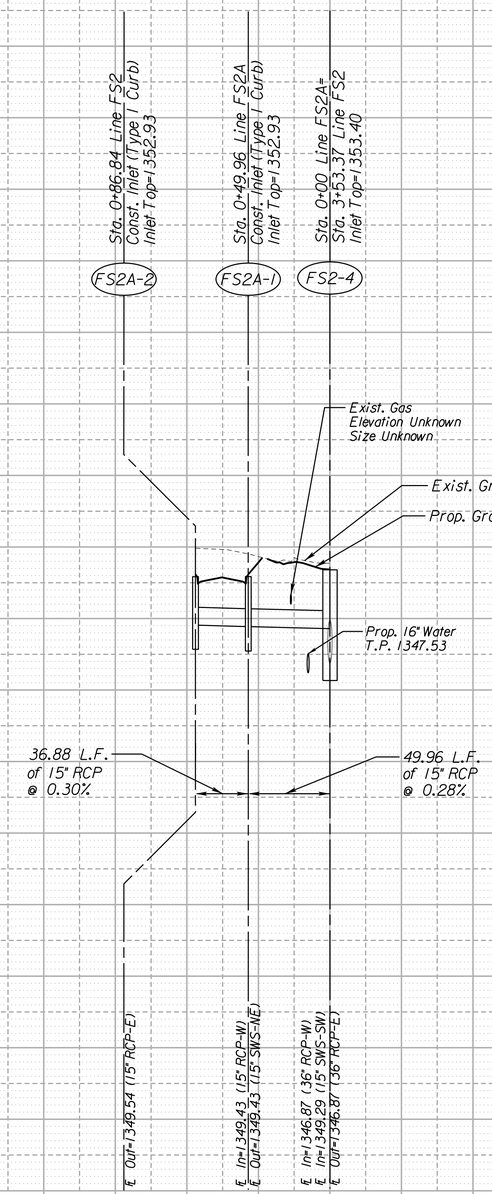
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	212	1055



CITY OF WICHITA

SOUTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 1550+00 TO STA. 1565+00

212

PLOT | CADD | DES. | DR. | TR. | CKD. | APP. | SURV.

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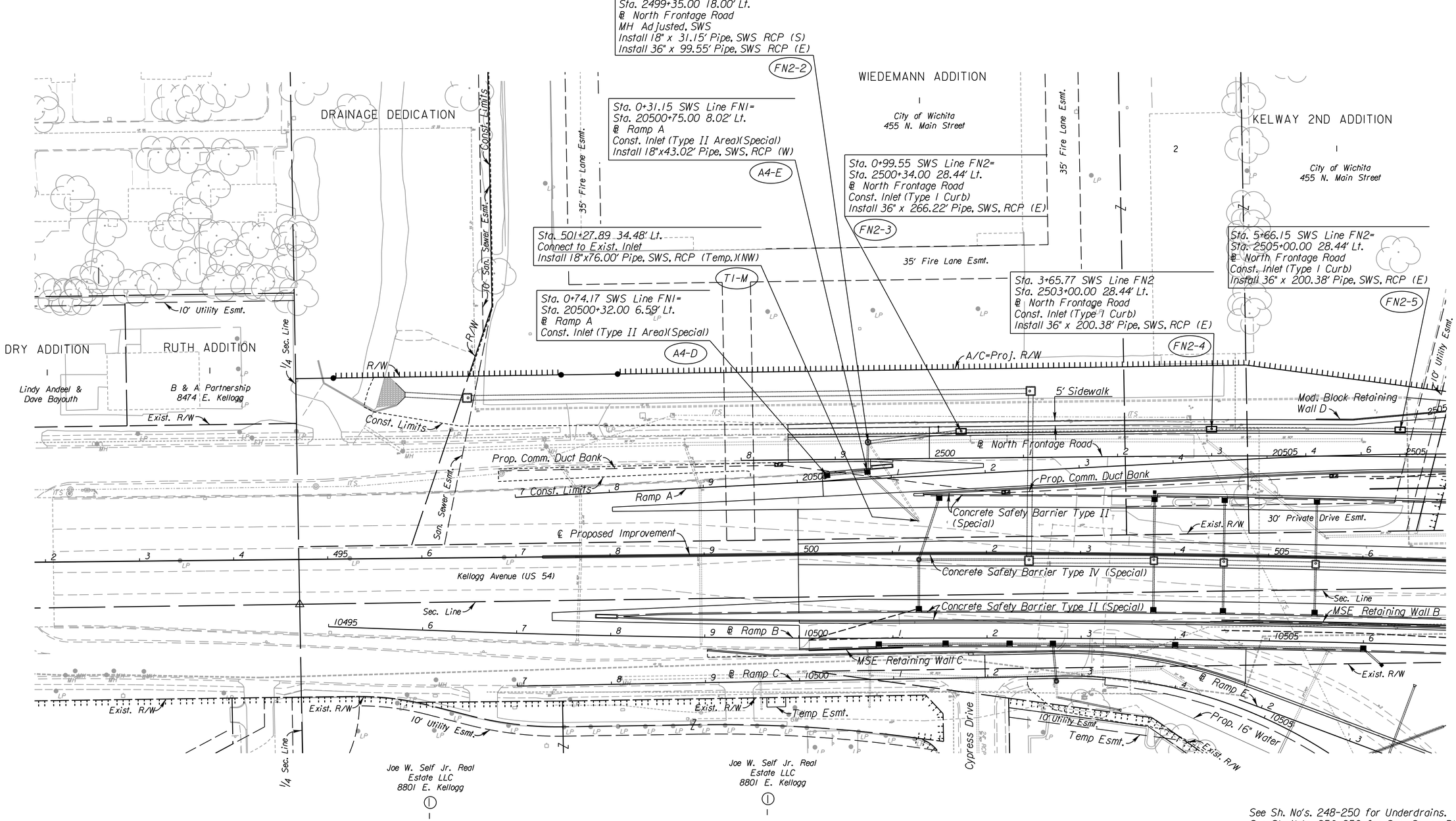
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	213	1055



UTILITIES

Gas	Kansas Gas Service
Power	Westar
ITS	KDOT
Sanitary Sewer	Wichita Water & Sewer
Telephone	AT&T
Traffic Signal	City of Wichita
Water	Wichita Water & Sewer

See Sh. No's. 248-250 for Underdrains.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

CITY OF WICHITA

NORTH FRONTAGE ROAD

STORM WATER SEWER PLAN

STA. 2498+50 TO STA. 2505+00

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
-	-	-	-	-	-	-	-

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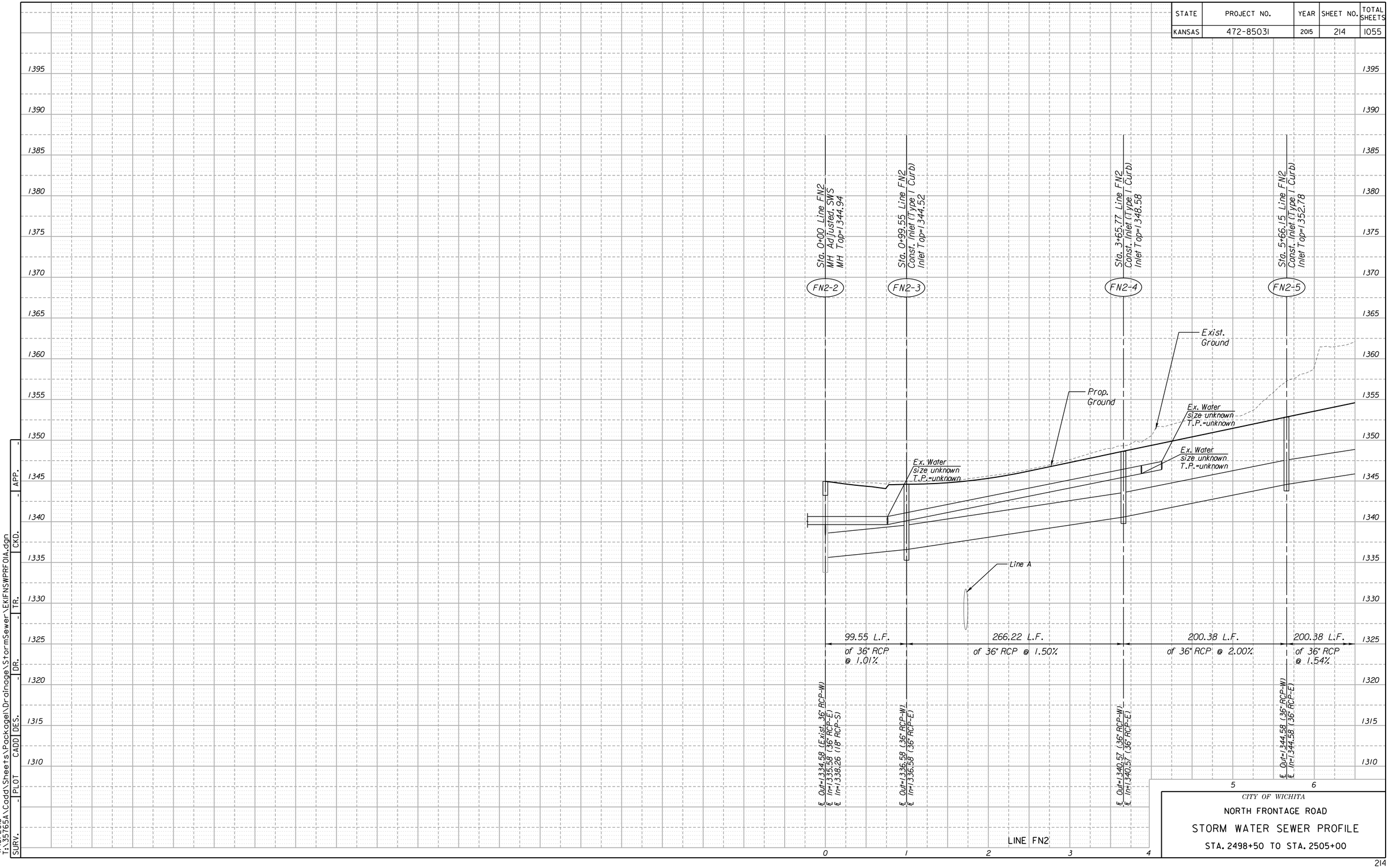
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	214	1055



LINE FN2

CITY OF WICHITA

NORTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 2498+50 TO STA. 2505+00

SURV.	PLOT	CADD	DES.	DR.	-	TR.	-	CKD.	-	APP.	-

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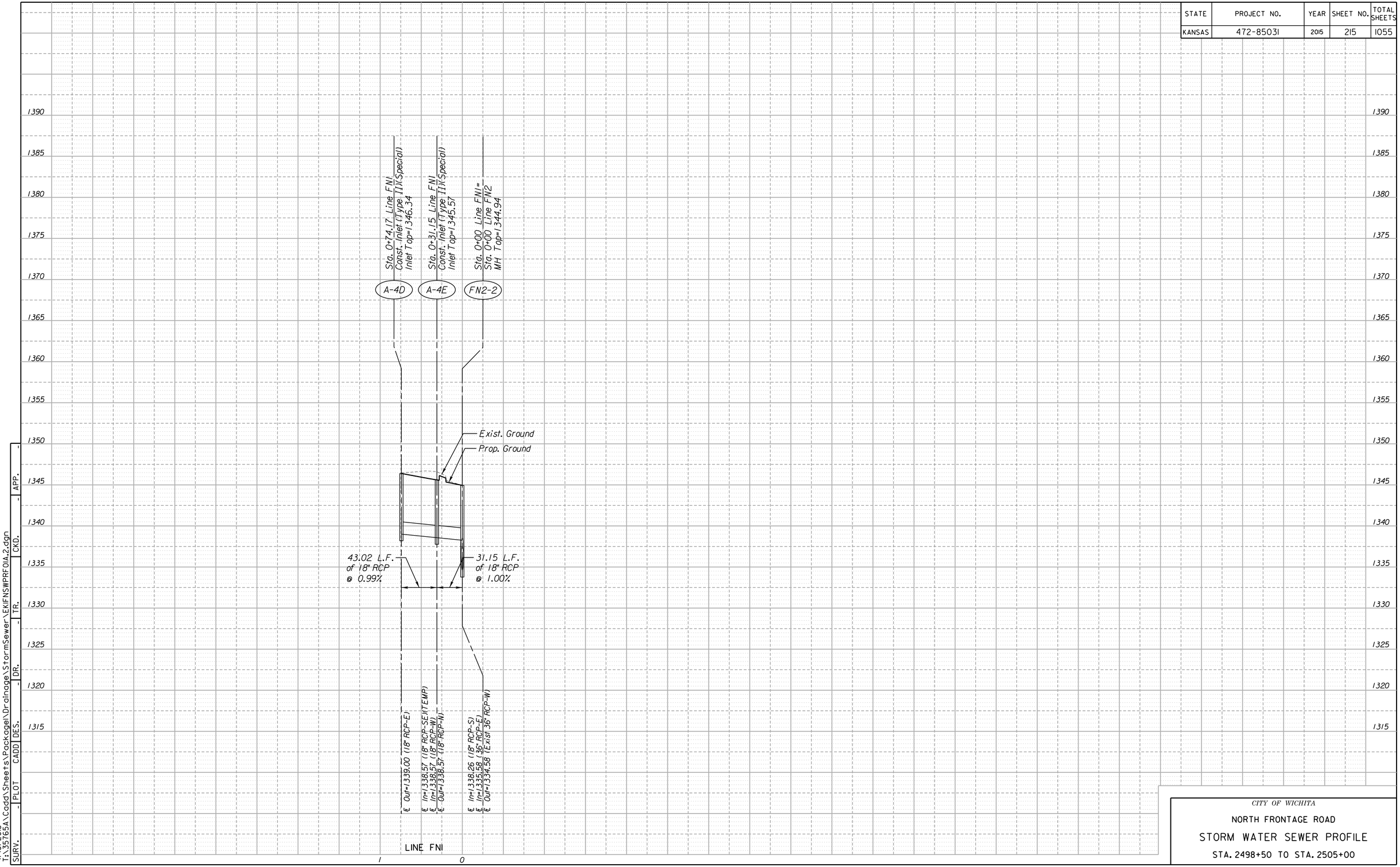
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	215	1055



CITY OF WICHITA

NORTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 2498+50 TO STA. 2505+00

SURV. - PLOT - CADD - DES. - DR. - TR. - CKD. - APP. -

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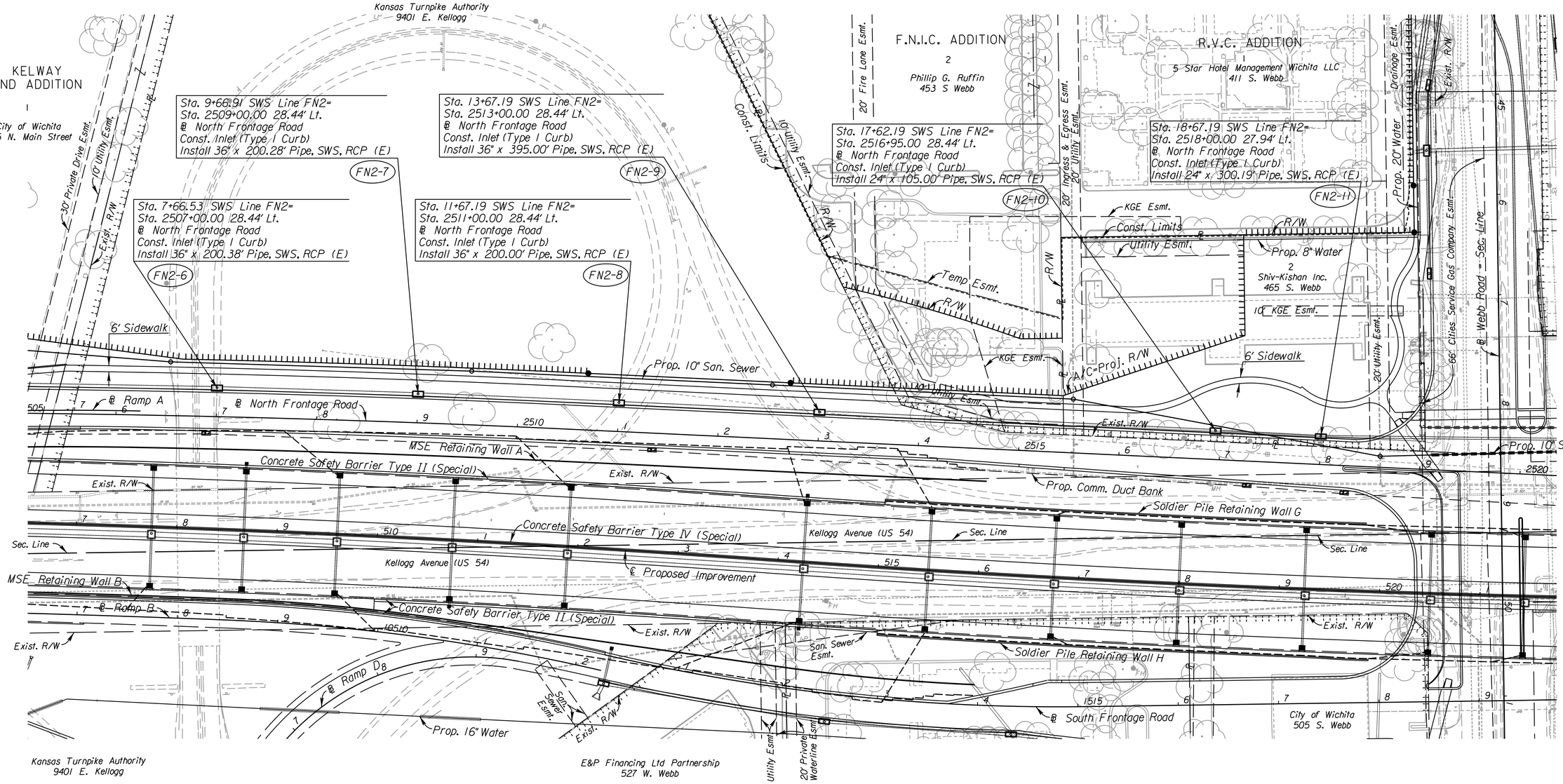
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	216	1055



UTILITIES

Cable	Cox Communications
Gas	Kansas Gas Service
Power	Westar
ITS	KDOT
Sanitary Sewer	Wichita Water & Sewer
Telephone	AT&T
Traffic Signal	City of Wichita
Water	Wichita Water & Sewer

See Sh. No's. 248-250 for Underdrains.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

CITY OF WICHITA

NORTH FRONTAGE ROAD

STORM WATER SEWER PLAN

STA. 2505+00 TO STA. 2520+00

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
-	-	-	-	-	-	-	-

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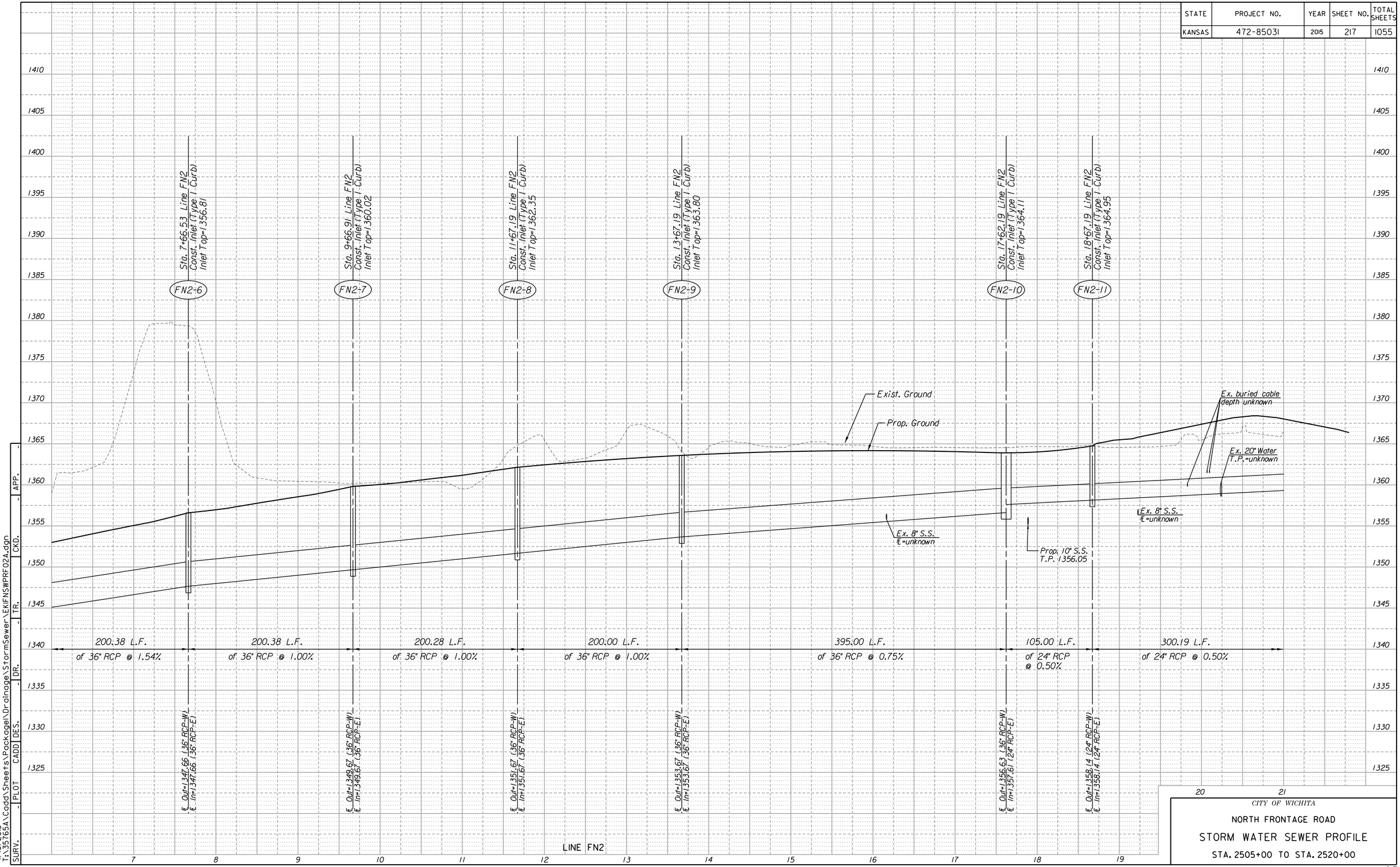
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	217	1055



CITY OF WICHITA

NORTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 2505+00 TO STA. 2520+00

SURV. | PLOT | CADD | DES. | DR. | TR. | CKD. | APP.

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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	218	1055

Sta. 21+67.34 Line FN2=
Sta. 2521+00.00 38.50' Lt.
@ North Frontage Road
Const. Inlet (Type 12 Curb)
Install 24" x 153.01' Pipe, SWS, RCP (E)
Install 18"x12"x201.00' Pipe, SWS, (Temp) (N)
FN2-11A

Sta. 23+20.35 SWS Line FN2=
Sta. 2522+53.00 39.94' Lt.
@ North Frontage Road
Const. Inlet (Type 1 Curb)
Install 18" x 204.20' Pipe, SWS, RCP (E)
FN2-12

Sta. 25+24.55 SWS Line FN2=
Sta. 2524+57.00 30.82' Lt.
@ North Frontage Road
Const. Inlet (Type 1 Curb)
Install 18" x 209.40' Pipe, SWS, RCP (E)
FN2-13

Sta. 27+33.95 SWS Line FN2=
Sta. 2526+68.00 26.50' Lt.
@ North Frontage Road
Const. Inlet (Type 12 Curb)
Install 18" x 187.22' Pipe, SWS, RCP (E)
FN2-14

Sta. 29+21.17 SWS Line FN2=
Sta. 2528+55.38 27.44' Lt.
@ North Frontage Road
Const. Inlet (Type 1 Curb)
Connect to Exist. 10" PVC (N)
FN2-15

Sta. 26+02.69 SWS Line FN3=
Sta. 2531+29.00 26.50' Lt.
@ North Frontage Road
Const. Inlet (Type 12 Curb)
Install 18" x 124.01' Pipe, SWS, RCP (W)
FN3-15a

Sta. 27+26.70 SWS Line FN3=
Sta. 2530+05.00 27.94' Lt.
@ North Frontage Road
Const. Inlet (Type 1 Curb)
FN3-16

Sta. 24+88.69 SWS Line FN3=
Sta. 2532+43.00 27.44' Lt.
@ North Frontage Road
Const. Inlet (Type 1 Curb)
Install 18" x 114.00' Pipe, SWS, RCP (W)
FN3-15

Sta. 22+88.69 SWS Line FN3=
Sta. 2534+43.00 27.94' Lt.
@ North Frontage Road
Const. Inlet (Type 1 Curb)
Install 18" x 200.00' Pipe, SWS, RCP (W)
FN3-14

@ Webb Road = Sec. Line
Exist. R/W
Williams Natural Gas Co. Esmt.
Const. Limits
66' Williams Natural Gas Co. Esmt.
City Service Gas Co. Esmt.
Gas Service Co. Esmt.
Exist. R/W
6' Sidewalk
R/W
Const. Limits
Temp. Esmt.
R/W
Prop. 10" San. Sewer
Prop. 20" Water
Exist. R/W
Prop. Comm. Duct Bank
@ North Frontage Road
Soldier Pile Retaining Wall G
Concrete Safety Barrier Type II (Special)
Kellogg Avenue (US 54)
Concrete Safety Barrier Type IV (Special)
Concrete Safety Barrier Type F3 (Do Not Anchor)
@ Proposed Improvement
Groves Real Estate Co., Inc.
9601 E. Kellogg
Exist. R/W
10' Gas Service Company Easement
Concrete Safety Barrier Type II (Special)
Soldier Pile Retaining Wall H
@ South Frontage Road
Beech Aircraft Corporation
Const. Limits
10' KGE Esmt.
Exist. R/W
R/W
Temp. Esmt.
@ Ramp G
Prop. Comm. Duct Bank
Sec. Line
SWB Esmt.
Exist. R/W
@ Ramp H
Prop. 20" Water
Const. Limits
6' Sidewalk
R/W
Temp. Esmt.
Gas Service Co. Esmt.
Exist. R/W
6' Sidewalk
R/W
Prop. 20" Water
Const. Limits
6' Sidewalk
R/W
20' Utility Esmt.
Temp. Esmt.
Hoover Road LLC
9609 E. Kellogg
CROSS TOWN EAST ADDITION
10' Beech Aircraft Corp. Pipeline Esmt.
Temp. Esmt.
Exist. R/W
@ Wildcat Lane
San. Sewer Esmt.
Exist. R/W
Temp. Esmt.
Erma L. Dunnegan
5' Utility Esmt.
Erma L. Dunnegan
9901 E. Kellogg
10' Utility Easement
30' Utility Easement
Roger L. & Dana M. Stitt
10009 E. Kellogg
PAUL BURNETT ADDITION

UTILITIES	
Cable	Cox Communications
Gas1	Kansas Gas Service
Gas2	Southern Star Pipeline
Gas3	Hawker Beechcraft
Power	Westar
Sanitary Sewer	Wichita Water & Sewer
Telephone	AT&T
Traffic Signal	City of Wichita
Water	Wichita Water & Sewer

See Sh. No's. 248-250 for Underdrains.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

CITY OF WICHITA

NORTH FRONTAGE ROAD

STORM WATER SEWER PLAN

STA. 2520+00 TO STA. 2535+00

SURV.	-	PLOT	CADD	DES.	-	DR.	-	TR.	-	CKD.	-	APP.	-

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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	219	1055

Sta. 21+67.34 Line FN2
Const. Inlet (Type 12 Curb)
Inlet Top=1367.00
FN2-11A

Sta. 23+20.39 Line FN2
Const. Inlet (Type 1 Curb)
Inlet Top=1365.17
FN2-12

Sta. 25+24.59 Line FN2
Const. Inlet (Type 1 Curb)
Inlet Top=1367.91
FN2-13

Sta. 27+33.99 Line FN2
Const. Inlet (Type 12 Curb)
Inlet Top=1370.30
FN2-14

Sta. 29+21.21 Line FN2
Const. Inlet (Type 1 Curb)
Inlet Top=1370.28
FN2-15

Sta. 27+26.70 Line FN3
Const. Inlet (Type 1 Curb)
Inlet Top=1369.26
FN3-16

Sta. 26+02.69 Line FN3
Const. Inlet (Type 12 Curb)
Inlet Top=1368.40
FN3-15a

Sta. 24+88.69 Line FN3
Const. Inlet (Type 1 Curb)
Inlet Top=1367.61
FN3-15

Sta. 22+98.69 Line FN3
Const. Inlet (Type 1 Curb)
Inlet Top=1366.21
FN3-14

12'x6'x7' Communication Manhole w/ 3.5' Access Manhole

Exist. Gas
Elevation Unknown
Size Unknown

Exist. Gas
Elevation Unknown
6" Steel Main

Ex. 20" Water
T.P.=unknown

Prop. 6" PVC Duct
(1 wide X 2 deep)(Westar)
T.P. 1357.54

Prop. 8" S.S
T.P. 1359.05

Ex. 8" S.S.
t=unknown

Prop. 4" PVC Duct (3 wide X 3 deep)(AT&T)

Ex. buried power
depth unknown

Ex. buried power
depth unknown

Exist.
Ground

Prop.
Ground

Prop. 20" Water

Prop. 4" PVC Duct
(3 wide X 3 deep)(AT&T)

12'x6'x7' Communication Manhole w/ 3.5' Access Manhole

Exist.
Ground

Prop.
Ground

Prop. 4" PVC Duct
(3 wide X 3 deep)(AT&T)

300.19 L.F. of 24" RCP @ 0.50%	153.01 L.F. of 24" RCP @ 0.50%	204.20 L.F. of 18" RCP @ 0.50%	209.40 L.F. of 18" RCP @ 0.73%	187.22 L.F. of 18" RCP @ 0.73%	124.01 L.F. of 18" RCP @ 0.55%	114.00 L.F. of 18" RCP @ 0.54%	200.00 L.F. of 18" RCP @ 0.65%	135.01 L.F. of 24" RCP @ 0.75%

℄ Out=1359.65 (24" RCP-W)
℄ In=1359.65 (24" RCP-E)

℄ Out=1359.65 (18"x12" (Temp)-N)

℄ Out=1360.41 (24" RCP-W)
℄ In=1360.91 (18" RCP-E)

℄ Out=1361.93 (18" RCP-W)
℄ In=1363.73 (18" RCP-E)

℄ Out=1365.26 (18" RCP-W)
℄ In=1365.26 (18" RCP-E)

℄ Out=1366.62 (18" RCP-W)
℄ In=1369.27 (Exist. 10" PVC-N)

℄ Out=1364.80 (18" RCP-E)

℄ In=1364.12 (18" RCP-W)
℄ Out=1364.12 (18" RCP-E)

℄ In=1363.50 (18" RCP-W)
℄ Out=1363.50 (18" RCP-E)

℄ In=1362.20 (18" RCP-W)
℄ Out=1361.70 (24" RCP-E)

LINE FN2

LINE FN3

CITY OF WICHITA

NORTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 2520+00 TO STA. 2535+00

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APP. | CKD. | TR. | DR. | DES. | CADD | PLOT | SURV.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	220	1055

Sta. 20+31.67 SWS Line FN3=
Sta. 2537+00.00 27.96' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 24" x 122.01' Pipe, SWS, RCP (W)
FN3-13

Sta. 21+53.68 SWS Line FN3=
Sta. 2535+78.00 26.50' Lt.
@ North Frontage Road
Const. Inlet (Type 12 Curb)
Install 24" x 135.01' Pipe, SWS, RCP (W)
FN3-14a

Sta. 18+88.67 SWS Line FN3=
Sta. 2538+43.00 27.96' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 24" x 143.00' Pipe, SWS, RCP (W)
FN3-12

Sta. 16+88.67 SWS Line FN3=
Sta. 2540+43.00 27.96' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 24" x 200.00' Pipe, SWS, RCP (W)
FN3-11

Sta. 14+88.67 SWS Line FN3=
Sta. 2542+43.00 28.44' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 24" x 200.00' Pipe, SWS, RCP (W)
FN3-10

Sta. 12+88.67 SWS Line FN3=
Sta. 2544+43.00 27.94' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 36" x 200.00' Pipe, SWS, RCP (W)
FN3-9

Sta. 11+81.00 SWS Line FN3=
Sta. 2545+50.00 39.94' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 36" x 107.67' Pipe, SWS, RCP (W)
FN3-8

Sta. 9+67.00 SWS Line FN3=
Sta. 0+0.00 SWS Line FN3A=
Sta. 2547+64.00 39.94' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 36" x 214.00' Pipe, SWS, RCP (W)
Install 18" x 24.36' Pipe, SWS (N)
FN3-7

Sta. 7+75.18 SWS Line FN3=
Sta. 2549+55.00 27.94' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 36" x 80.01' Pipe, SWS, RCP (W)
FN3-6

Sta. 8+55.19 SWS Line FN3=
Sta. 2548+75.00 26.50' Lt.
@ North Frontage Road
Const. Inlet (Type 12 Curb)
Install 36" x 111.81' Pipe, SWS, RCP (W)
FN3-7a

Sta. 0+24.36 SWS Line FN3A=
Sta. 2547+67.78 64.00' Lt.
@ North Frontage Road
Const. Drop Inlet (Single)
FN3A-1

Beech Aircraft Corporation

Beech Aircraft Corporation

℄ Hawker Beechcraft Ent.

1/4 Sec. Line

Temp. Esmt.

Drain. Esmt.

Exist. R/W

Const. Limits

R/W

Prop. 20" Water

Prop. Comm. Duct Bank

@ North Frontage Road

@ Ramp G

Sec. Line

Concrete Safety Barrier Type II (Special)

Concrete Safety Barrier Type IV (Special)

Concrete Safety Barrier Type F3 (Do Not Anchor)

10' Gas Service Company Esmt.

℄ Proposed Improvement

@ Ramp H

@ South Frontage Road

Prop. 16" Water

6' Sidewalk

20' Waterline Esmt.

10' Waterline Esmt.

55' x 520' Ingress & Egress Esmt.

10' Utility Esmt.

20' San. Sewer Esmt.

Davis-Moore Real Estate, LLC
10603 E. Kellogg

Heritage Properties LP
10011 E. Kellogg

Carmax Auto Superstores
10221 E. Kellogg

℄ Club Rodeo Ent.

℄ Carmax Ent.

31' Reciprocal Esmt.

19' Ingress & Egress Esmt.

50' Utility Esmt.

E.M. STEVENS ADDITION

PIZZA HUT SECOND ADDITION

DAVIS-MOORE 14TH ADDITION

See Sh. No's. 119-140 for Paving Details.
See Sh. No's. 179-237 for SWS Plans.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

UTILITIES

Gas,	Kansas Gas Service
Power	Westar
Sanitary Sewer	Wichita Water & Sewer
Telephone	AT&T
Water	Wichita Water & Sewer

CITY OF WICHITA

NORTH FRONTAGE ROAD

STORM WATER SEWER PLAN

STA. 2535+00 TO STA. 2550+00

SURV. | PLOT | CADD | DES. | DR. | TR. | CKD. | APP.

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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	221	1055

Sta. 21+53.68 Line FN3
Const. Inlet (Type 12 Curb)
Inlet Top=1365.27
FN3-14a

Sta. 20+31.67 Line FN3
Const. Inlet (Type 1 Curb)
Inlet Top=1364.43
FN3-13

Sta. 18+88.67 Line FN3
Const. Inlet (Type 1 Curb)
Inlet Top=1363.44
FN3-12

Sta. 16+88.67 Line FN3
Const. Inlet (Type 1 Curb)
Inlet Top=1362.07
FN3-11

Sta. 14+88.67 Line FN3
Const. Inlet (Type 1 Curb)
Inlet Top=1360.69
FN3-10

Sta. 12+88.67 Line FN3
Const. Inlet (Type 1 Curb)
Inlet Top=1359.32
FN3-9

Sta. 11+81.00 Line FN3
Const. Inlet (Type 1 Curb)
Inlet Top=1358.39
FN3-8

Sta. 9+67.00 Line FN3
Const. Inlet (Type 1 Curb)
Inlet Top=1357.29
FN3-7

Sta. 8+55.19 Line FN3
Const. Inlet (Type 12 Curb)
Inlet Top=1357.11
FN3-7a

Sta. 7+75.18 Line FN3
Const. Inlet (Type 1 Curb)
Inlet Top=1356.83
FN3-6

12'x6'x1' Communication Manhole w/15' Access Manhole

Exist. Ground

Prop. Ground

Prop. 20" Water
T.P. 1358.30

Prop. 6" PVC Duct
(1 wide X 2 deep)
(Westar)
T.P. 1351.89

135.01 L.F. of 24" RCP @ 0.75%	122.01 L.F. of 24" RCP @ 0.75%	143.00 L.F. of 24" RCP @ 0.76%	200.00 L.F. of 24" RCP @ 0.75%	200.00 L.F. of 24" RCP @ 0.75%	200.00 L.F. of 36" RCP @ 0.50%	107.67 L.F. of 36" RCP @ 0.50%	214.00 L.F. of 36" RCP @ 0.50%	111.81 L.F. of 36" RCP @ 0.50%	80.01 L.F. of 36" RCP @ 0.50%	108.21 L.F. of 36" RCP @ 0.50%

℄ In=1360.69 (24" RCP-W)
℄ Out=1360.69 (24" RCP-E)

℄ In=1359.78 (24" RCP-W)
℄ Out=1359.78 (24" RCP-E)

℄ In=1358.70 (24" RCP-W)
℄ Out=1358.70 (24" RCP-E)

℄ In=1357.20 (24" RCP-W)
℄ Out=1357.20 (24" RCP-E)

℄ In=1355.70 (24" RCP-W)
℄ Out=1354.70 (36" RCP-E)

℄ In=1353.70 (36" RCP-W)
℄ Out=1353.70 (36" RCP-E)

℄ In=1353.16 (36" RCP-W)
℄ Out=1353.16 (36" RCP-E)

℄ In=1353.24 (18" SWS-W)
℄ In=1352.09 (36" RCP-W)
℄ Out=1352.09 (36" RCP-E)

℄ In=1351.53 (36" RCP-W)
℄ In=1351.53 (36" RCP-E)

℄ In=1351.13 (36" RCP-W)
℄ Out=1351.13 (36" RCP-E)

LINE FN3

CITY OF WICHITA

NORTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 2535+00 TO STA. 2550+00

221

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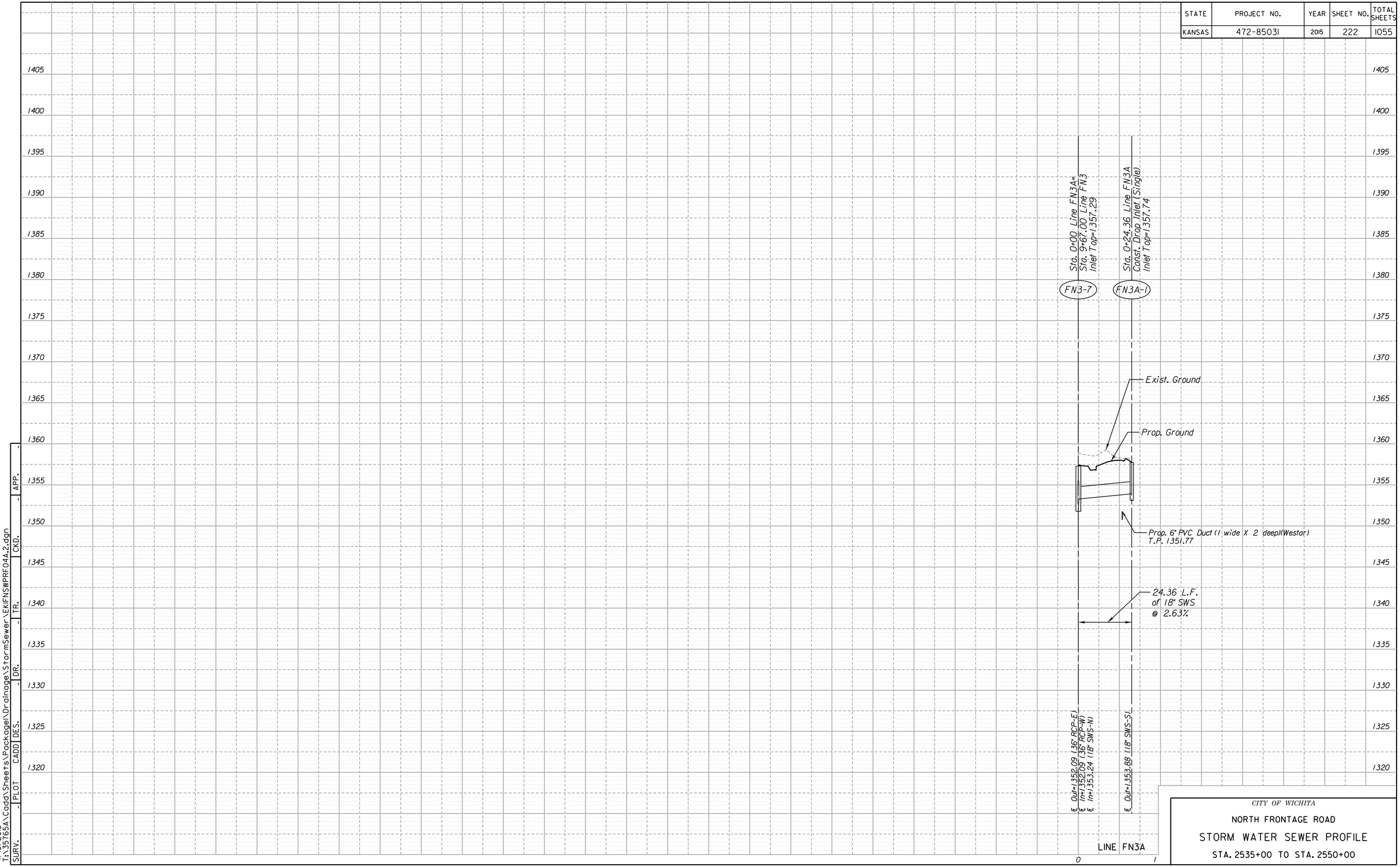
SURV. - PLOT - CADD - DES. - DR. - TR. - CKD. - APP. -

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	222	1055



CITY OF WICHITA

NORTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 2535+00 TO STA. 2550+00

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SURV.	PLOT	CADD	DES.	DR.	-	TR.	-	CKD.	-	APP.	-

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	223	1055

Sta. 6+66.97 SWS Line FN3=
Sta. 2550+63.21 27.94' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 36" x 108.21' Pipe, SWS, RCP (W)
FN3-5

Sta. 5+72.48 SWS Line FN3=
Sta. 2551+57.70 27.94' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 36" x 94.49' Pipe, SWS, RCP (W)
FN3-4

Sta. 3+73.97 SWS Line FN3=
Sta. 2553+56.21 27.94' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 36" x 198.51' Pipe, SWS, RCP (W)
FN3-3

Sta. 1+73.97 SWS Line FN3=
Sta. 2555+56.21 27.94' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 36" x 200.00' Pipe, SWS, RCP (W)
FN3-2

Sta. 2555+56.42 40.61' Lt.
@ North Frontage Road
Install 24" x 13.00' Pipe, SWS, (Temp.) (S)
T2-FN

Sta. 0+60.66 SWS Line FN4=
Sta. 2558+06.21 27.94' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 24" x 150.00' Pipe, SWS, RCP (E)
FN4-2

Sta. 0+00 SWS Line FN4=
Sta. 2557+45.85 33.96' Lt.
@ North Frontage Road
Install 24" x 60.66' Pipe, SWS, RCP (E)
Connect to 2-7'x4' RCBC
FN4-Out

Sta. 0+00 SWS Line FN3=
Sta. 2557+30.18 29.00' Lt.
@ North Frontage Road
Install 36" x 173.97' Pipe, SWS, RCP (W)
Connect to 2-7'x4' RCBC
FN3-Out

Sta. 2+10.66 SWS Line FN4=
Sta. 2559+56.21 27.94' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 18" x 200.00' Pipe, SWS, RCP (E)
FN4-3

Sta. 4+10.66 SWS Line FN4=
Sta. 2561+56.21 27.44' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
FN4-4

Sta. 2+61.45 SWS Line FN6=
Sta. 2564+75.00 27.44' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 18" x 118.79' Pipe, SWS, RCP (W)
FN6-4

Sta. 3+80.24 SWS Line FN6=
Sta. 2563+56.21 27.44' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
FN6-5

CHELSEA BROOKE ADDITION
Ⓐ
Jeffrey S. Greenberg & Lynne Greenberg & Chelsea Brooke Greenberg

Beech Aircraft Corporation

Temp. Esmt.
Drain. Esmt.
Const. Limits
Exist. R/W
Gas Service Esmt.
Prop. Comm. Duct Bank
℄ North Frontage Road
Sec. Line
Concrete Safety Barrier Type II (Special)
Kellogg Avenue (US 54)
℄ Proposed Improvement
Concrete Safety Barrier Type IV (Special)
10' Gas Service Company Esmt.
Concrete Safety Barrier Type II (Special)
Kellogg Drive
Concrete Safety Barrier Type F3 (Do Not Anchor)
℄ Ramp K
℄ South Frontage Road
℄ Ramp J
Crossover A
Carport LLC 10851 E. Kellogg
Carport LLC 10909 E. Kellogg
A/C=Proj. R/W
HOLSTED ADD.
Prop. 16" Water
6' Sidewalk
Temp. Esmt.
15' Water Line Esmt.
20' Utility Esmt.
10' Utility Esmt.
℄ Chateau Street
FLOODWAY
R/W

Davis-Moore Real Estate, LLC
10603 E. Kellogg
Ⓐ
DAVIS-MOORE 14TH ADDITION

Vanders Investments LLC
10727 E. Kellogg
③
K.T. WIEDEMANN BUSINESS PARK

LEGEND
Crossover Pavement, See Sh. No's. 76 - 77
Eradication of Traveled Way

UTILITIES

Gas,	Kansas Gas Service
Power	Westar
Telephone	AT&T
Water	Wichita Water & Sewer

See Sh. No's. 119-140 for Paving Details.
See Sh. No's. 179-237 for SWS Plans.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

CITY OF WICHITA
NORTH FRONTAGE ROAD
STORM WATER SEWER PLAN
STA. 2550+00 TO STA. 2565+00

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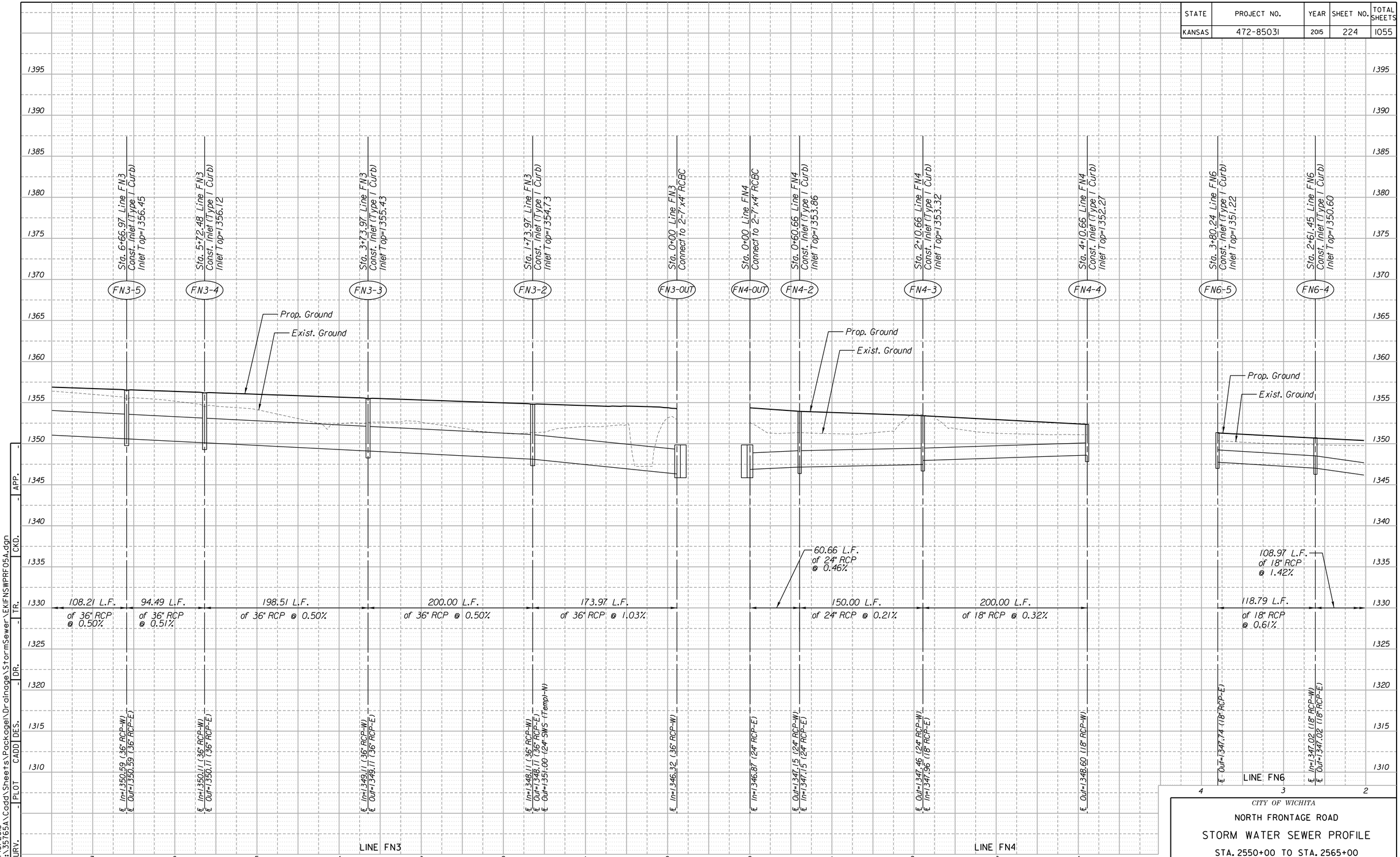
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	224	1055



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CITY OF WICHITA

NORTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 2550+00 TO STA. 2565+00

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	225	1055

Sta. 1+52.48 SWS Line FN6=
Sta. 2565+85.00 27.45' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 18" x 108.97' Pipe, SWS, RCP (W)

FN6-3

Sta. 0+96.59 SWS Line FN5=
Sta. 2566+00.38 84.63' Lt.
@ North Frontage Road

FN5-4

Sta. 0+71.77 SWS Line FN5=
Sta. 2566+23.61 72.06' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 18" x 24.82' Pipe, SWS (NW)
with End Section

FN5-3

Sta. 0+40.88 SWS Line FN5=
Sta. 2566+56.90 71.87' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 18" x 30.89' Pipe, SWS, RCP (W)

FN5-2

Sta. 0+00 SWS Line FN5=
Sta. 2566+97.94 87.53' Lt.
@ North Frontage Road
Install 18" x 40.88' Pipe, SWS (SW)
with End Section

FN5-1

Sta. 0+00 SWS Line FN6=
Sta. 2567+27.25 63.78' Lt.
@ North Frontage Road
Install 18" x 51.79' Pipe, SWS (SW)
with End Section

FN6-1

Sta. 0+51.79 SWS Line FN6=
Sta. 2566+88.58 27.44' Lt.
@ North Frontage Road
Const. Inlet (Type I Curb)
Install 18" x 100.69' Pipe, SWS, RCP (W)

FN6-2

GOLDEN CORRAL ADDITION
A
1

Corral Group LP
11006 E. Kellogg

RESERVE "A"

Universal Motor Fuels Inc.
453 S. Greenwich
2

PARKING

GLADYS WIEDEMANN ADDITION
Gorges & Wittman
11212 E. Kellogg

@ Greenwich Road = Sec. Line

℄ Golden Corral Ent.
Exist. R/W
20' Utility Esmt.
Ingress, Egress Esmt.
15' Drainage Esmt.
10' Utility Esmt.
Temp. Esmt.
45' Drain. Esmt.
Drainage Esmt.
10' Utility Esmt.
Exist. R/W
℄ Greenwich Road
Exist. R/W
Const. Limits
40' Drainage Esmt.
Temp. Esmt.
R/W
Exist. R/W
10' KGE Right-of-Way Esmt.
Exist. R/W
℄ North Frontage Road
Prop. 21" San. Sewer
Crossover B
Kellogg Avenue (US 54)
Crossover A
Sec. Line
℄ Proposed Improvement
Exist. R/W
Exist. R/W
Prop. 15" San. Sewer
Prop. 10" San. Sewer
Prop. 16" Water
Exist. R/W
Drainage Esmt.
℄ South Frontage Road
Exist. R/W
Exist. R/W
R/W
Temp. Esmt.
Const. Limits
R/W
6' Sidewalk
Temp. Esmt.
℄ Trig Street
Exist. R/W
℄ 25' Utility Esmt.
Exist. R/W
Exist. R/W
20' Utility Esmt.

Environmental LLC
10929 E. Kellogg
1

CARPORT LLC
11051 E. Kellogg
2

Green Lantern Inc.
535 S. Greenwich

PARKING

Stevens 3rd Addition LLC
11211 E. Kellogg
A
1

ROWLEY ADDITION

EAST KELLOGG ACRES

STEVENS 3RD ADDITION

LEGEND

Crossover Pavement, See Sh. No's. 76 - 77

Eradication of Traveled Way

UTILITIES

Cable	Cox Communications
Gas	Kansas Gas Service
Power	Westar
Sanitary Sewer	Wichita Water & Sewer
Telephone	AT&T
Traffic Signal	City of Wichita
Water	Wichita Water & Sewer

See Sh. No's. 119-140 for Paving Details.
See Sh. No's. 179-237 for SWS Plans.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

CITY OF WICHITA

NORTH FRONTAGE ROAD

STORM WATER SEWER PLAN

STA. 2565+00 TO STA. 2580+00

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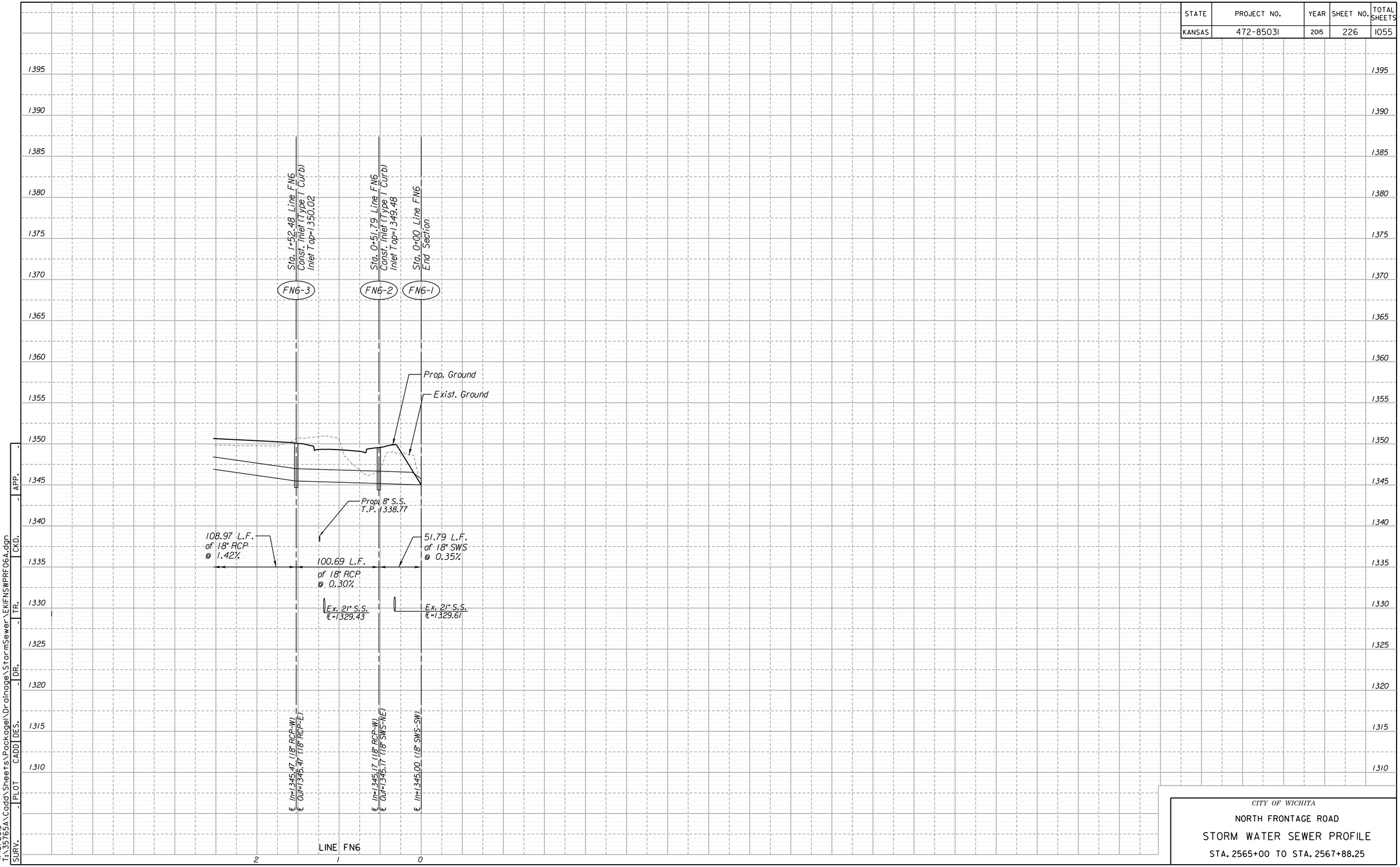
KANSAS	472-85031	2015	226	1055



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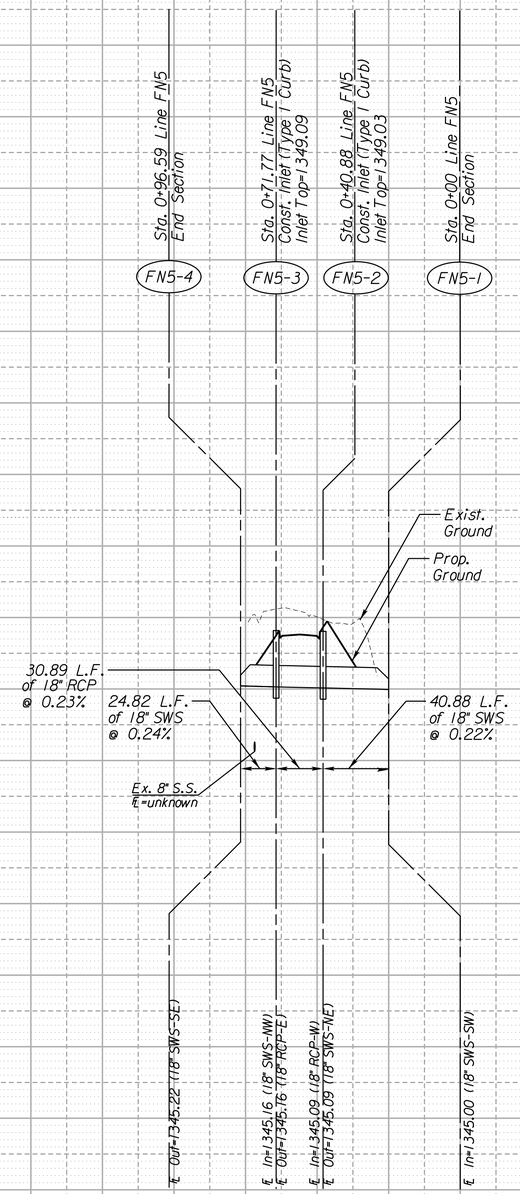
CITY OF WICHITA

NORTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 2565+00 TO STA. 2567+88.25

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	227	1055



CITY OF WICHITA

NORTH FRONTAGE ROAD

STORM WATER SEWER PROFILE

STA. 2565+00 TO STA. 2567+88.25

227

SURV. | PLOT | CADD | DES. | DR. | TR. | CKD. | APP.

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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	228	1055

Revised Plans

Sta. 0+37.25 SWS Line SRI-2A=
Sta. 39+28.32 64.61' Lt.
@ Webb Road
Connect to Exist. 15" RCP (E)

SRI-2A

Beech Aircraft Corporation

Sta. 02+89.98 SWS Line SRI=
Sta. 41+97.58 48.44' Lt.
@ Webb Road
Const. Inlet (Type I Curb)

SRI-3

Sta. 42+46 Lt.
@ Webb Road
Plug and Fill 27 L.F. of Pipe
Plug Inlet ✳

Sta. 1+86.99 SWS Line SR2C=
Sta. 43+67.00 56.11' Lt.
@ Webb Road
Const. Inlet (Type I Curb)
Install 36" x 89.37' Pipe, SWS, RCP (N)

SR2C-2

Sta. 1+03.36 SWS Line SR2C=
Sta. 44+50.36 62.77' Lt.
@ Webb Road
Const. Inlet (Type I Curb)
Install 36" x 83.63' Pipe, SWS, RCP (N)

SR2C-1

Sta. 1+53.23 SWS Line SR2=
Sta. 0+00 SWS Line SR2C=
Sta. 0+00 SWS Line SR2D=
Sta. 45+53.44 70.39' Lt.
@ Webb Road
Const. Inlet (Type I Curb)
Install 36" x 103.36' Pipe, SWS, RCP (N)
Install 18" x 97.50' Pipe, SWS, RCP (S)

SR2-2

Sta. 0+97.50 SWS Line SR2D=
Sta. 46+50.74 76.56' Lt.
@ Webb Road
Const. Inlet (Type I Curb)

SR2D-1

Sta. 1+45.40 SWS Line SRI=
Sta. 0+00 Line SRIA
Sta. 40+53.00 48.44' Lt.
@ Webb Road
Const. Inlet (Type I Curb)
Install 18" x 144.58' Pipe, SWS, RCP (S)
Install 21" x 93.03' Pipe, SWS, RCP (W)

SRI-2

Sta. 0+22.95 SWS Line SR2C-4=
Sta. 42+65.14 64.30' Lt.
@ Webb Road
Connect to Exist. 24" RCP (E)

SR2C-4

Sta. 2+76.36 SWS Line SR2C=
Sta. 0+00 SWS Line SR2C-4=
Sta. 42+77.87 49.52' Lt.
@ Webb Road
Const. Inlet (Type I Curb)
Install 24" x 22.95' Pipe, SWS, RCP (E)

SR2C-3

Sta. 0+00 SWS Line SRI=
Sta. 0.00 SWS Line SRI-2A
Sta. 39+08.09 36.60' Lt.
@ Webb Road
Const. Inlet (Type I Curb)
Install 21" x 145.40' Pipe, SWS, RCP (S)
Install 15" x 37.25' Pipe, SWS, RCP (E)
Connect to Exist. 21" RCP (N)

SRI-1

Sta. 39+45 Lt.
@ Webb Road
Plug Inlet ✳

66' Williams Natural Gas Co. Esmt.
Const. Limits
R/W
Exist. R/W
6' Sidewalk
Temp Esmt.
City Service Gas Co. Esm't
Prop. 20" Water
Williams Natural Gas Co. Esmt.
Exist. R/W
Gas Service Co. Esmt.
Temp. Esmt.
Prop. 10" San. Sewer
Exist. R/W
6' North Frontage Road
Prop. Comm. Duct Bank
℄ Proposed Improvement
Exist. R/W
Const. Limits
R/W
Williams Natural Gas Co. Esmt.

35 6 7 8 9 3 40 1 2 2 3 4 45 6 7 8 9 50

@ Webb Road - Sec. Line
66' Cities Service Gas Company Esmt.
Prop. 20" Water
Exist. R/W
Exist. R/W
Temp Esmt.
23' Northwest Pipeline Corp. Esmt.
Sta. 39+65.65 @ Webb Rd. =
Sta. 203+00 ℄ Corporate Hills Drive
20' Drainage Esmt.
Maxwell Family Trust
2
1
MAXWELL 2ND ADDITION
Douglas Webb Co. L.P.
333 S. Webb
3
1
10' Drainage Esmt.
℄ Corporate Hills Drive
Ingress, Egress, Drainage & Utility Esmt.
200
20' Drainage & Utility Esmt.
Prop. 20" Water
Const. Limits
Temp Esmt.
Beechcraft Employees Credit Union
9555 E. Corporate Hills
1
1
MAXWELL 3RD ADDITION
℄ 10' Utility Esmt.
Comfort Inn & Hampton Inn
9525 E. Corporate Hills
2
1
MAXWELL 4TH ADDITION
6' Sidewalk
30' Drainage Esmt.
200
40' Private Road Esmt.
℄ Maxwell Addition Drive
10' Utility Esmt.
20' Drainage & Utility Esmt.
R/W
Drainage Esmt.
Temp Esmt.
Const. Limits
6' Sidewalk
5 Star Hotel Management Wichita LLC
411 S. Webb
1
R.V.C. ADDITION
Prop. 8" Water
Const. Limits
Utility Esmt.
10' KGE Esmt.
20' Utility Esmt.
6' Sidewalk
A/C=
Proj. R/W
R/W
Shiv-Kishan Inc.
465 S. Webb
2
Const. Limits
Prop. 10" San. Sewer
Sec. Line
Exist. R/W
Exist. R/W
540
525
2520

Sta. 2+32.41 SWS Line SRIA=
Sta. 41+97.58 44.44' Rt.
@ Webb Road
Const. Inlet (Type I Curb)

SRIA-2

Sta. 1+99.45 SWS Line SR2A=
Sta. 43+57.66 45.68' Rt.
@ Webb Road
Const. Inlet (Type I Curb)

SRIA-1

Sta. 0+93.03 SWS Line SRIA=
Sta. 40+58.20 44.44' Rt.
@ Webb Road
Const. Inlet (Type I Curb)
Install 18" x 139.38' Pipe, SWS, RCP (S)

Sta. 0+65.43 SWS Line SR2A=
Sta. 44+90.00 66.85' Rt.
@ Webb Road
Const. Inlet (Type I Curb)
Install 18" x 134.02' Pipe, SWS, RCP (N)

SR2B-2

Sta. 0+13.39 SWS Line SR2=
Sta. 0+00 SWS Line SR2A=
Sta. 0+00 SWS Line SR2B=
Sta. 45+55.38 69.44' Rt.
@ Webb Road
Const. Inlet (Type I Curb)
Install 36" x 139.84' Pipe, SWS, RCP (E)
Install 18" x 65.43' Pipe, SWS, RCP (N)
Install 18" x 122.62' Pipe, SWS, RCP (S)

SR2-1

Sta. 0+00 SWS Line SR2=
Sta. 45+56.46 81.01' Rt.
@ Webb Road
Install 36" x 13.39' Pipe, SWS, RCP (E)
Connect to Exist. Inlet

SR2-0

Sta. 1+22.62 SWS Line SR2B=
Sta. 46+78.00 68.44' Rt.
@ Webb Road
Const. Inlet (Type I Curb)

SR2B-1

✳ - Subsidiary. Plug inlet as approved by Engineer

3 6/08/2015 Revised Sanitary Sewer Label

See Sh. No's. 248-250 for Underdrains.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

UTILITIES

Cable	Cox Communications
Gas1	Kansas Gas Service
Gas2	Southern Star Pipeline
Power	Westar
Storm Water Sewer	Wichita Water & Sewer
Telephone	AT&T
Water	Wichita Water & Sewer

CITY OF WICHITA

WEBB ROAD

STORM WATER SEWER PLAN

STA. 35+00 TO STA. 50+00

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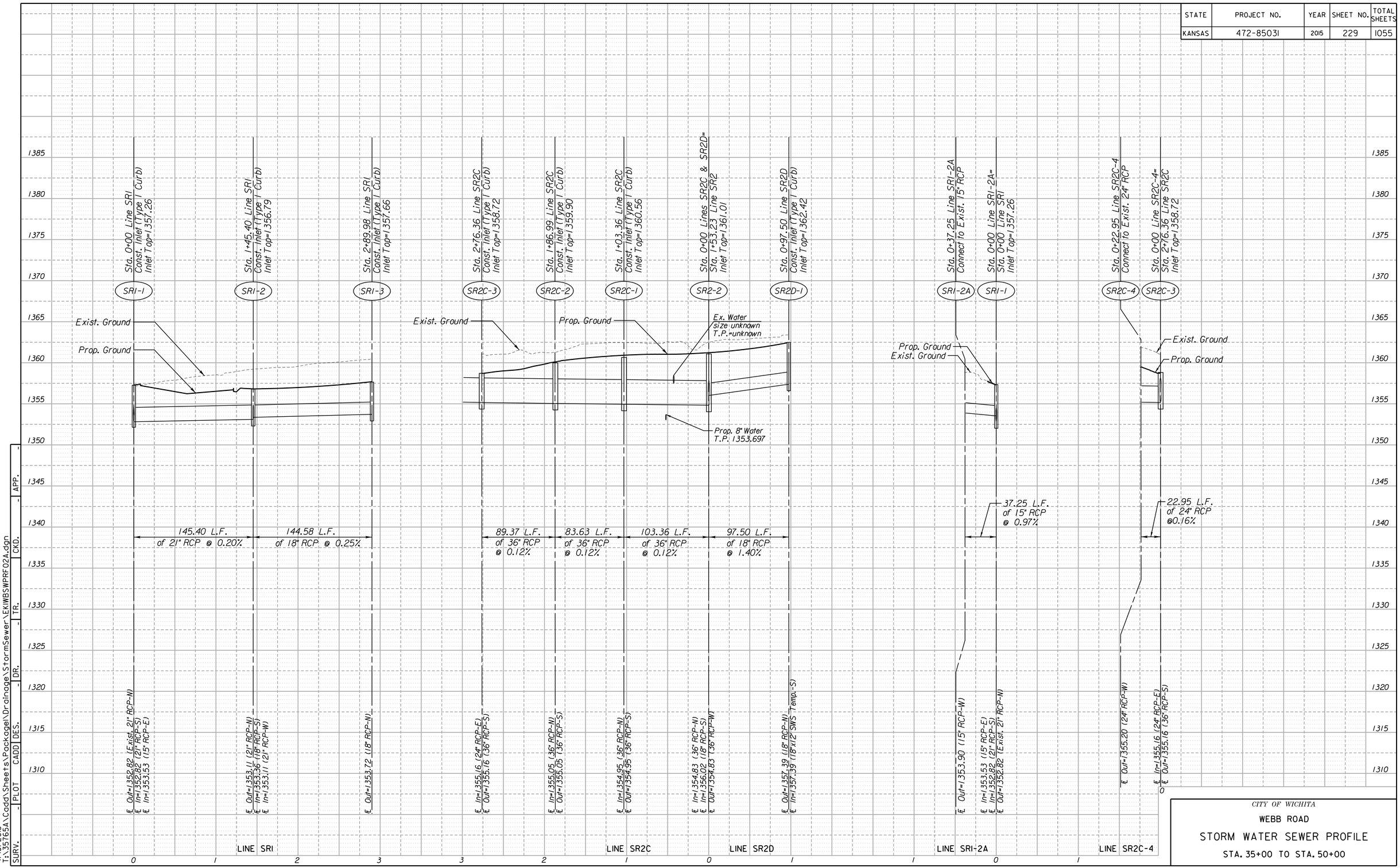
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	229	1055



CITY OF WICHITA

WEBB ROAD

STORM WATER SEWER PROFILE

STA. 35+00 TO STA. 50+00

SURV. | PLOT | CADD | DES. | DR. | TR. | CKD. | APP.

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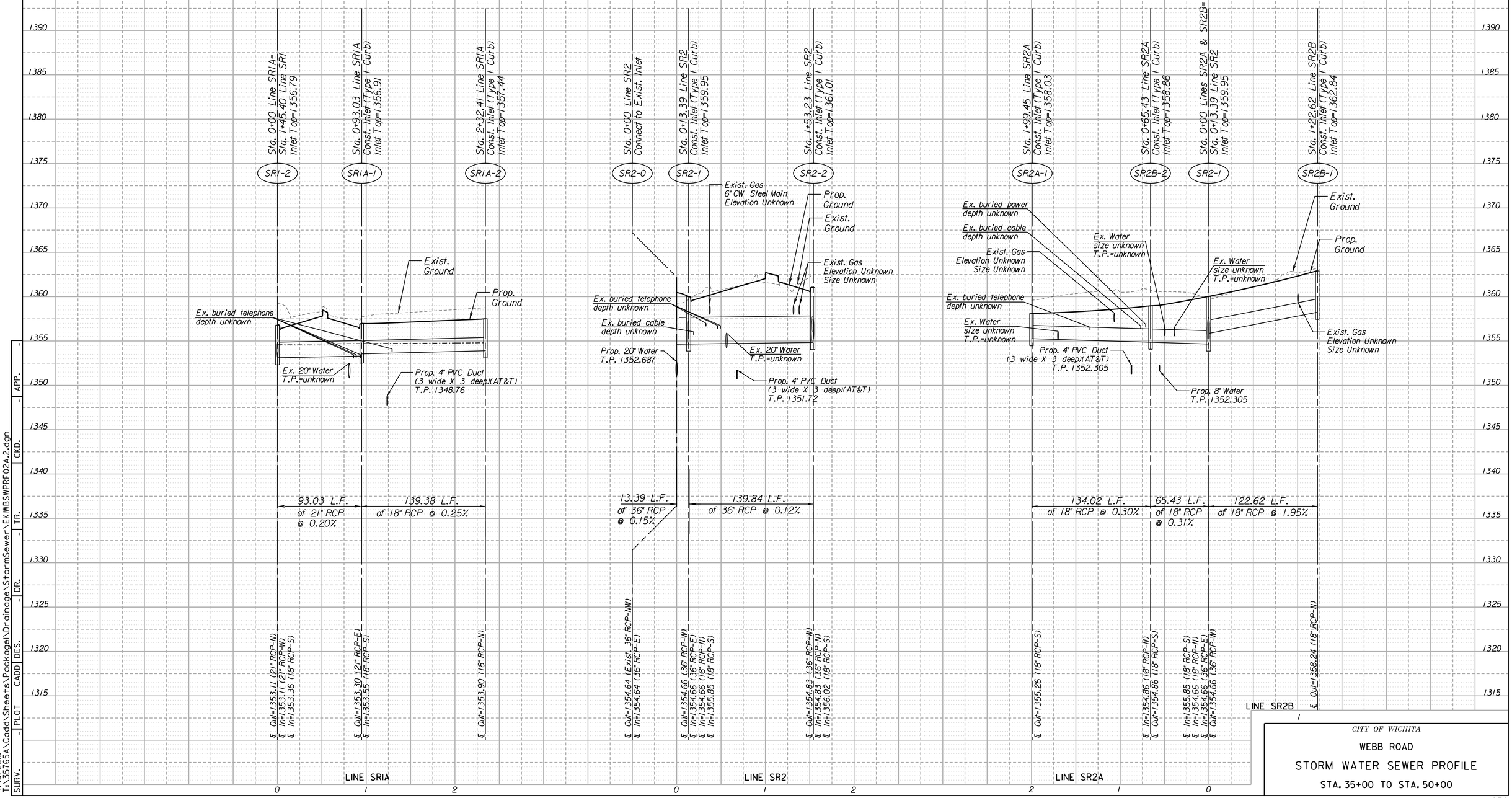
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	230	1055



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SURV.

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CITY OF WICHITA

WEBB ROAD

STORM WATER SEWER PROFILE

STA. 35+00 TO STA. 50+00

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	231	1055

Revised Plans

Sta. 9+27.51 SWS Line SR3=
Sta. 52+46.00 105.00' Lt.
@ Webb Road
Const. MH. Std. SWS (5')
Install 24" X 119.41' Pipe, SWS (N)
See Sheet No. 204 for
Continuation on South Frontage Road

SR3-5a

Sta. 5+49.19 SWS Line SR3=
Sta. 56+23.51 81.46' Lt.
@ Webb Road
Const. Inlet (Type I Curb)
Install 48" x 272.12' Pipe, SWS, RCP (N)
Connect to Exist. 30" RCP (E)

SR3-4

Sta. 1+08.49 SWS Line SR3C=
Sta. 102+27.71 21.69' Rt.
@ Orme Road
Const. Inlet (Type I Curb)
Connect to Exist. 24" RCP (E)

SR3C-1

Sta. 1+01.03 SWS Line SR3B=
Sta. 101+19.00 21.19' Lt.
@ Orme Road
Const. Inlet (Type I Curb)

SR3B-2

Sta. 4+32.38 SWS Line SR3=
Sta. 0+00 SWS Line SR3B=
Sta. 57+40.00 72.81' Lt.
@ Webb Road
Const. Inlet (Type I Curb)
Install 48" x 116.81' Pipe, SWS, RCP (N)
Install 36" x 57.65' Pipe, SWS (E)

3

SR3-3

Sta. 2+69.94 SWS Line SR3=
Sta. 59+02.00 60.80' Lt.
@ Webb Road
Const. Inlet (Type I Curb)
Install 54" x 162.44' Pipe, SWS, RCP (N)

SR3-2

Sta. 0+00 SWS Line SR3=
Sta. 61+62.45 107.04' Lt.
@ Webb Road
Install 54" x 269.94' Pipe, SWS, RCP (N)
with End Section
Install 74 S.Y. Light Stone Rip Rap

SR3-1

Sta. 0+57.65 SWS Line SR3B=
Sta. 0+00 SWS Line SR3C=
Sta. 101+19.22 22.19' Rt.
@ Orme Road
Const. Inlet (Type I Curb)
Install 18" x 43.38' Pipe, SWS, RCP (N)
Install 24" x 108.49' Pipe, SWS, RCP (E)

SR3B-1

Sta. 8+21.31 SWS Line SR3=
Sta. 53+51.72 94.94' Lt.
@ Webb Road
Const. Inlet (Type I Curb)
Install 24" x 106.20' Pipe, SWS, RCP (N)
Connect to Exist. 30" RCP (E)

SR3-5

Sta. 2+05.59 SWS Line SR3A=
Sta. 53+33.00 44.00' Rt.
@ Webb Road
Const. Grated Driveway Inlet (Single)
Install 18" x 362.00' Pipe, SWS, RCP (S)
See Sheet No. 201 for
Continuation on South Frontage Road

SR3A-1

Sta. 5+67.59 SWS Line SR3A=
Sta. 56+95.00 44.94' Rt.
@ Webb Road
Const. Inlet (Type I Curb)
Install 18" x 207.00' Pipe, SWS, RCP (S)

SR3A-2

Sta. 7+74.59 SWS Line SR3A=
Sta. 59+02.00 44.44' Rt.
@ Webb Road
Const. Inlet (Type I Curb)

SR3A-3

T1-W

Sta. 51+77.67 42.28' Rt.
@ Webb Road
Connect to Exist. Inlet
Install 18" x 91.00' Pipe, SWS, RCP (Temp.)(E)

T2-W

Sta. 57+69.66 29.51' Rt.
@ Webb Road
Connect to Exist. Inlet
Install 12" x 76.00' Pipe, SWS (Temp.)(N)

T3-W

Sta. 58+91.95 27.99' Rt.
@ Webb Road
Connect to Exist. Inlet
Install 15" x 19.00' Pipe, SWS (Temp.)(W)

CROSS TOWN EAST ADDITION
Hoover Road LLC
9609 E. Kellogg

ROSSON ADDITION

Hoover Road LLC
9609 E. Kellogg

Groves Real Estate Co., Inc.
9601 E. Kellogg

Realty Resources LLC
9707 E. Orme

Realty Resources LLC

Steven Chrysler Plymouth Inc.
650 S. Webb

Kansas Turnpike Authority
9401 E. Kellogg

City of Wichita
505 S. Webb

Michael C. & Vivian S. Grothe
511 S. Webb

@ Webb Road = Sec. Line

South Frontage Road
20' Utility Esmt.
Const. Limits
6' Sidewalk
Temp. Esmt.
Prop. 20" Water
R/W
Exist. R/W
10' Gas Service Company Easement
Exist. R/W
Gas Service Co. Esmt.
Perm. KTA Esmt.
Prop. 20" Water
70" Beech Aircraft Corp. Pipeline Esmt.
66" Northwest Central Pipeline Corporation Esmt.
San. Sewer Esmt.
Temp. Esmt.
6' Sidewalk
Exist. R/W
Const. Limits
Drive
KTA
KGE Esmt.
Prop. 16" Water
A/C
20' Private San. Sewer Esmt.
Exist. R/W
Const. Limits
Temp. Esmt.
Exist. R/W
Orme Street
Exist. R/W
Temp. Esmt.
R/W
Const. Limits
Exist. R/W
Exist. R/W
Kansas Turnpike Authority - I-35

3 6/08/2015 Revised SWS Pipe Callout

See Sh. No's. 119-140 for Paving Details.

UTILITIES

Cable	Cox Communications
Gas1	Kansas Gas Service
Gas2	Southern Star Pipeline
Power	Westar
Storm Water Sewer	Wichita Water & Sewer
Telephone	AT&T
Water	Wichita Water & Sewer

CITY OF WICHITA

WEBB ROAD

STORM WATER SEWER PLAN

STA. 50+00 TO STA. 62+10

231

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SURV.	-	PLOT	CADD	DES.	-	DR.	-	TR.	-	CKD.	-	APP.	-

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	232	1055

Revised Plans

Sta. 10+46.92 Line SR3=
Sta. 0+00 Line FS1-16
Const. Inlet (Type I Curb)
Inlet Top=1366.93

Sta. 9+27.51 Line SR3
Const. MH. Std. SWS (5')
Inlet Top=1366.39

Sta. 8+21.31 Line SR3
Const. Inlet (Type I Curb)
Inlet Top=1363.83

Sta. 5+49.19 Line SR3
Const. Inlet (Type I Curb)
Inlet Top=1365.33

Sta. 4+32.38 Line SR3
Const. Inlet (Type I Curb)
Inlet Top=1364.81

Sta 2+69.94 Line SR3
Const. Inlet (Type I Curb)
Inlet Top=1367.31

Sta. 0+00 Line SR3
End Section

FS1-16 | SR3-5a | SR3-5 | SR3-4 | SR3-3 | SR3-2 | SR3-1

1400 1395 1390 1385 1380 1375 1370 1365 1360 1355 1350 1345 1340 1335 1330 1325

Exist. Ground

Prop. Ground

Ex. 8" Water
T.P.-unknown

Ex. 8" S.S.
℄-unknown

Prop. 20" Water
T.P. 1359.80

Prop. 6" PVC Duct
(1 wide X 2 deep)
(Westar)
T.P. 1358.63

Prop. 4" PVC Duct
(1 wide X 1 deep)
(Westar)
T.P. 1358.44

Exist. Gas
Elevation Unknown
Size Unknown

Prop. 8" Water
T.P. 1357.00

Ex. 8" S.S.
℄-unknown

Ex. 8" S.S.
℄-unknown

Prop. 4" PVC Duct
(1 wide X 1 deep)
(Westar)
T.P. 1355.53

Exist. Gas
Elevation Unknown
Size Unknown

Exist. Gas
Elevation Unknown
Size Unknown

Exist. Gas
Elevation Unknown
Size Unknown

Ex. buried power
depth unknown

Prop. 4" PVC Duct
(1 wide X 1 deep)
(Westar)
T.P. 1355.08

119.41 L.F.	106.20 L.F.	272.12 L.F.	116.81 L.F.	162.44 L.F.	269.94 L.F.
of 24" SWS @ 0.35%	of 24" RCP @ 0.35%	of 48" RCP @ 0.12%	of 48" RCP @ 0.12%	of 54" RCP @ 0.12%	of 54" RCP @ 0.12%

℄ In=1361.24 (24" RCP-E)
℄ Out=1361.24 (24" SWS-S)

In=1360.82 (24" SWS-N)
℄ Out=1360.82 (24" RCP-S)

℄ In=1360.63 (Exist. 30" RCP-E)
℄ In=1360.45 (24" RCP-N)
℄ Out=1358.41 (48" RCP-S)

℄ In=1361.20 (Exist. 30" RCP-E)
℄ In=1358.08 (48" RCP-N)
℄ Out=1358.08 (48" RCP-S)

℄ In=1358.94 (36" SWS-E)
℄ In=1357.94 (48" RCP-N)
℄ Out=1357.94 (54" RCP-S)

℄ In=1357.75 (54" RCP-N)
℄ Out=1357.75 (54" RCP-S)

℄ In=1357.43 (54" RCP-N)

3

LINE SR3

11 10 9 8 7 6 5 4 3 2 1 0

SURV. | PLOT | CADD | DES. | DR. | TR. | CKD. | APP.

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3 6/08/2015 Revised SWS Pipe Callout

CITY OF WICHITA

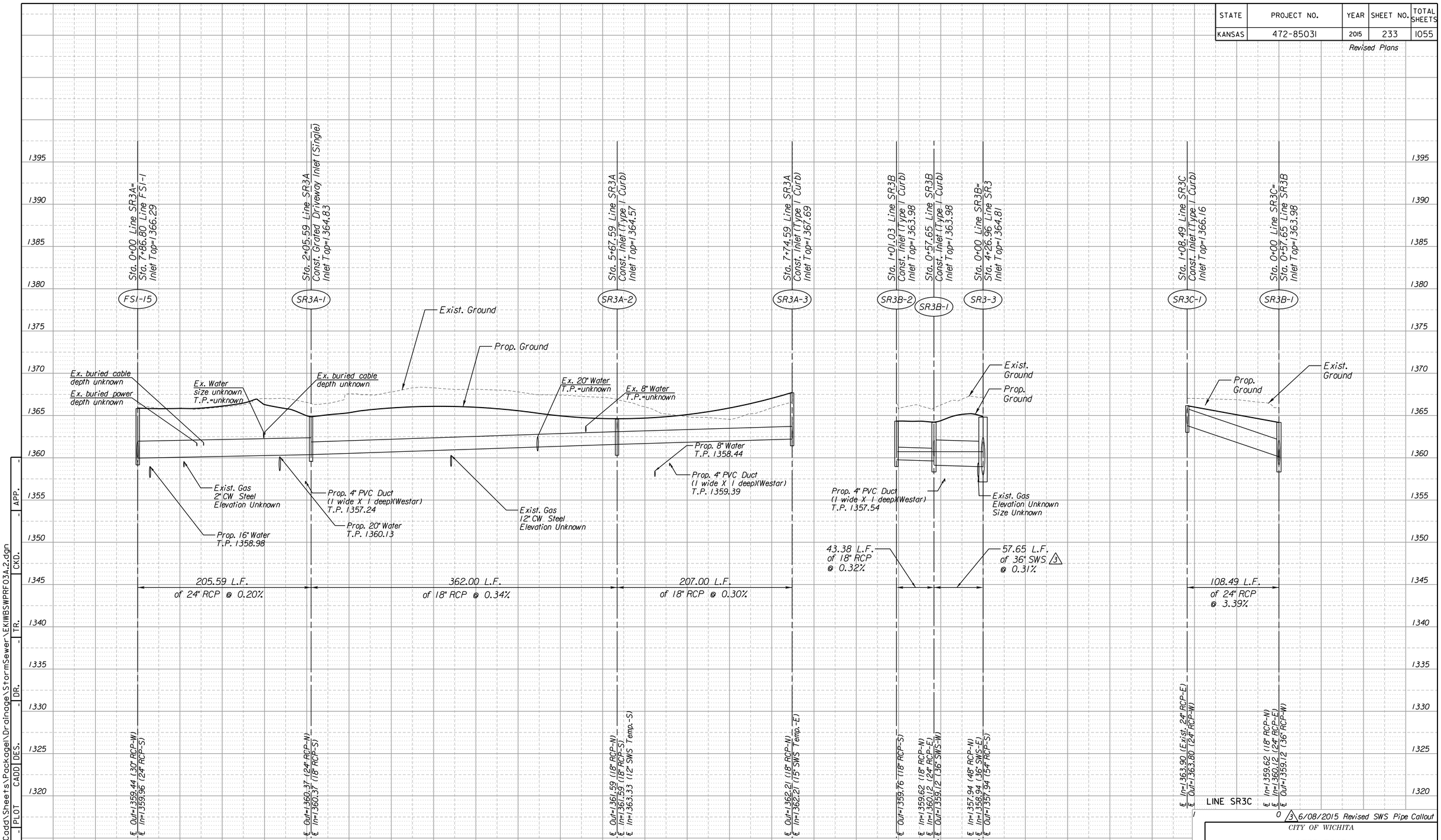
WEBB ROAD

STORM WATER SEWER PROFILE

STA. 50+00 TO STA. 62+10

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	233	1055

Revised Plans



3 6/08/2015 Revised SWS Pipe Callout

CITY OF WICHITA

WEBB ROAD

STORM WATER SEWER PROFILE

STA. 35+00 TO STA. 50+00

PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
-	-	-	-	-	-	-

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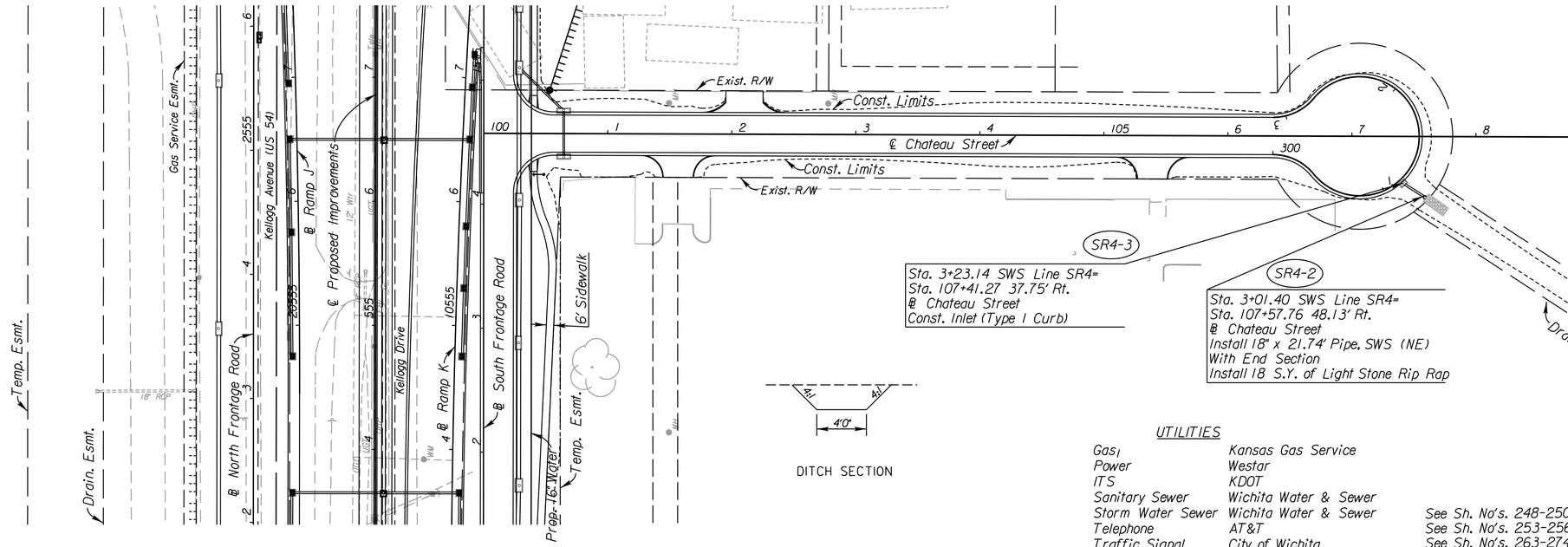
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	234	1055



DITCH SECTION

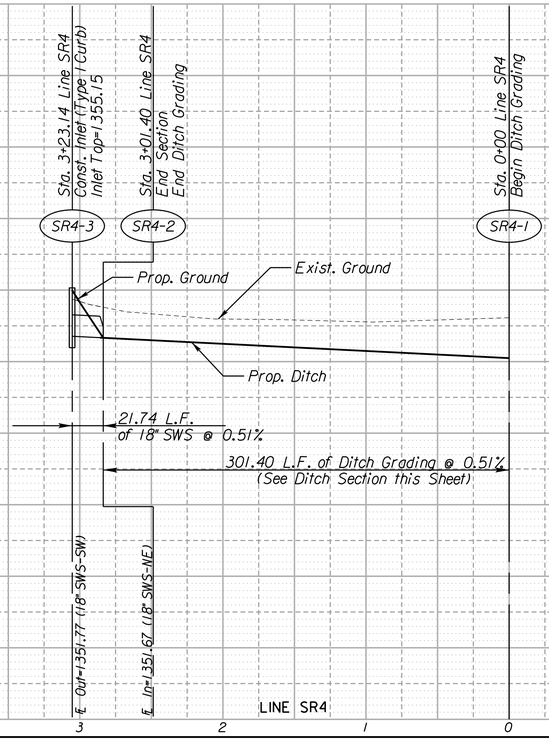
NOTE:
All Excavation for the Construction of the Drainage Ditch at 10603 E Kellogg shall be Stockpiled outside of the limits of the Drainage Easement on the adjacent property. The Contractor shall coordinate the stockpile location with the property owner prior to beginning excavation. All coordination, labor and materials to stockpile the excavation shall be SUBSIDIARY to the bid item "Common Excavation".

UTILITIES

Gas	Kansas Gas Service
Power	Westar
ITS	KDOT
Sanitary Sewer	Wichita Water & Sewer
Storm Water Sewer	Wichita Water & Sewer
Telephone	AT&T
Traffic Signal	City of Wichita
Water	Wichita Water & Sewer

See Sh. No's. 248-250 for Underdrains.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

CAUTION: EXIST. UTILITIES! CONTRACTOR TO COORDINATE AND CONFIRM CLEARANCE WITH IMPROVEMENTS.



CITY OF WICHITA

CHATEAU STREET

STORM WATER SEWER PLAN & PROFILE

STA. 0+00 TO STA. 3+24.90

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SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	235	1055

Sta. 1+84.96 SWS Line RB-1=
Sta. 10500+85.00 6.80' Rt.
@ Ramp B
Const. Inlet (Type II Area)(Special)

RB-1

Sta. 1+13.96 SWS Line RB-1=
Sta. 10501+56.00 6.10' Rt.
@ Ramp B
Const. Inlet (Type II Area)(Special)
Install 18" x 71.00' Pipe, SWS, RCP (W)

RB-2

Sta. 0+45.98 SWS Line RB-1=
Sta. 10502+24.00 6.10' Rt.
@ Ramp B
Const. Inlet (Type II Area)(Special)
Install 18" x 67.98' Pipe, SWS, RCP (W)

RB-3

Sta. 1+29.95 SWS Line RB-6=
Sta. 10504+00.00 6.10' Rt.
@ Ramp B
Const. Inlet (Type II Area)(Special)
Install 18" x 199.93' Pipe, SWS, RCP (E)

RB-4

Sta. 3+29.88 SWS Line RB-6=
Sta. 10506+00.00 6.10' Rt.
@ Ramp B
Const. Inlet (Type II Area)(Special)
Install 18" x 26.17' Pipe, SWS, RCP (E)

RB-5

Sta. 3+56.05 SWS Line RB-6=
Sta. 10506+20.00 23.00' Rt.
@ Ramp B
Const. Drop Inlet (Single)

RB-6

Sta. 0+00 SWS Line RE=
Sta. 1503+44.36 78.08' Lt.
@ Ramp E
with End Section
Install 18" x 89.00' Pipe, SWS, RCP (S)

RE-1-Out

Concrete Safety Barrier Type II (Special)
MSE Retaining Wall B
MSE Retaining Wall C
Const. Limits
Temp Esmt.
10' Utility Esmt.
Prop. 16" Water
Exist. R/W
Exist. R/W
Exist. R/W
Exist. R/W
Exist. R/W
@ Ramp B
@ Ramp C
@ Ramp D
@ Ramp E
10500
10505
1505
01501
Cypress Drive
LANKIN ADDITION
EAST TURNPIKE ENTRANCE ADDITION
Joe W. Self Jr. Real Estate LLC
8801 E. Kellogg
Lonnie H. & Colleen Bosley Revocable Trust
9045 E. Kellogg

RB-3A

Sta. 0+00 SWS Line RB-1=
Sta. 0+00 SWS Line RB-6=
Sta. 0+39.77 Line RB-3A=
Sta. 10502+70. 6.00' Rt.
@ Ramp B
Const. Inlet (Type II Area)(Special)
Install 18" x 45.98' Pipe, SWS, RCP (W)
Install 18" x 129.95' Pipe, SWS, RCP (E)

RE-1

Sta. 0+89.00 SWS Line RE=
Sta. 1503+44.36 8.67' Rt.
@ Ramp E
Const. Inlet (Type I Curb)

RB-6-Out

Sta. 0+00 SWS Line RB-3A=
Sta. 10502+72.92, 5.36' Rt.
@ Ramp C
MH. Adjusted, SWS
Install 18" x 39.77' Pipe, SWS, RCP (N)

RC-1-Out

Sta. 0+00 SWS Line RC=
Sta. 10502+74.09 22.54' Rt.
@ Ramp C
Connect to Exist. Inlet

RD-1

Sta. 1+26.25 SWS Line RD=
Sta. 10505+50.00 70.00' Lt.
@ Ramp D
Const. Drop Inlet (Single)

RD-1-Out

Sta. 0+00 SWS Line RD=
Sta. 10505+50.00, 54.00' Rt.
@ Ramp D
Install 18" x 126.25' Pipe, SWS, RCP (W)
with End Section

RC-1

Sta. 0+69.41 SWS Line RC=
Sta. 10503+43.42 32.89' Rt.
@ Ramp C
Install 15" x 69.41' Pipe, SWS (W)
with End Section

UTILITIES

Gas	Kansas Gas Service
Power	Westar
ITS	KDOT
Sanitary Sewer	Wichita Water & Sewer
Telephone	AT&T
Traffic Signal	City of Wichita
Water	Wichita Water & Sewer

See Sh. No's. 119-140 for Paving Details.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

CITY OF WICHITA

RAMP

STORM WATER SEWER PLAN

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
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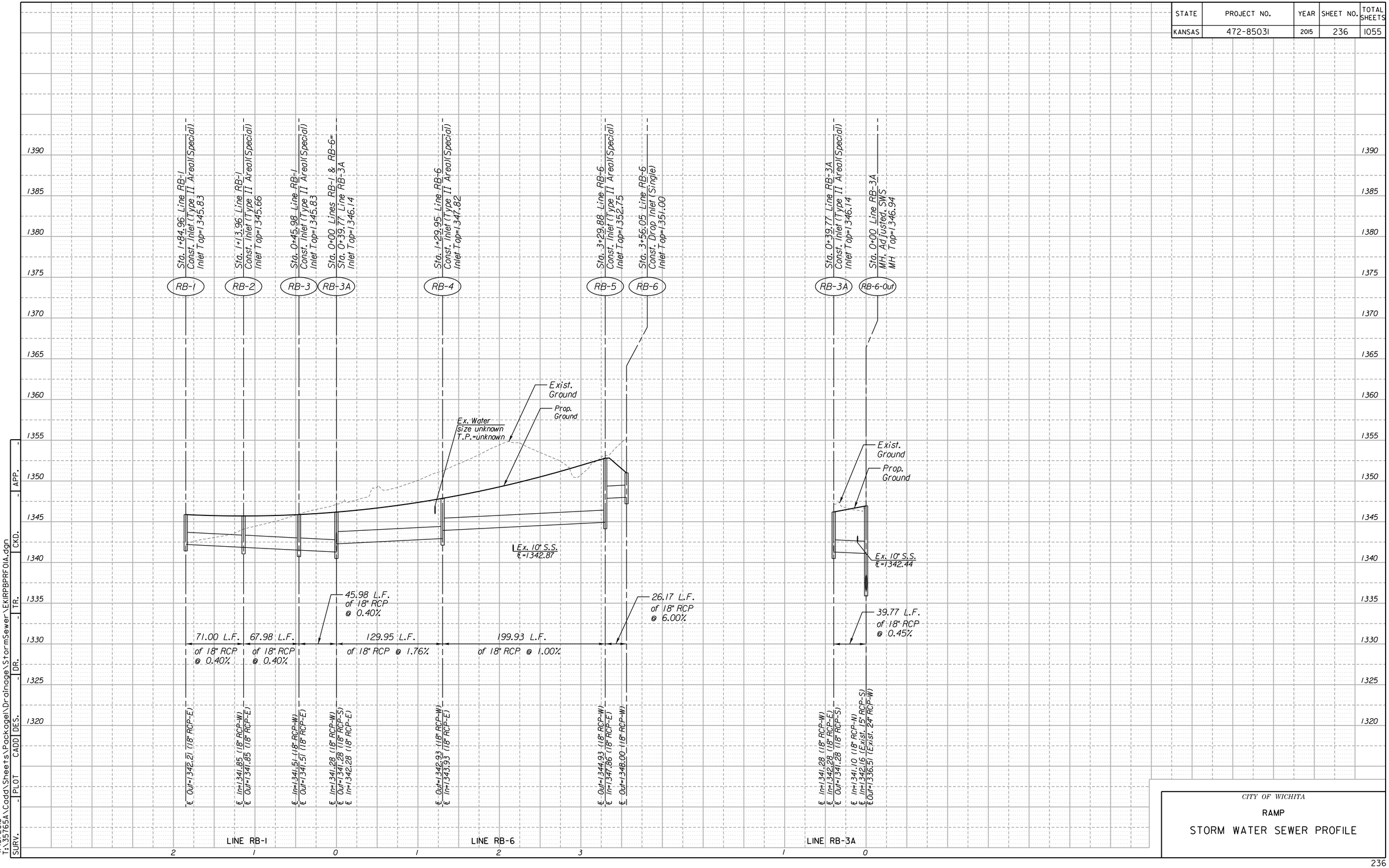
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	236	1055



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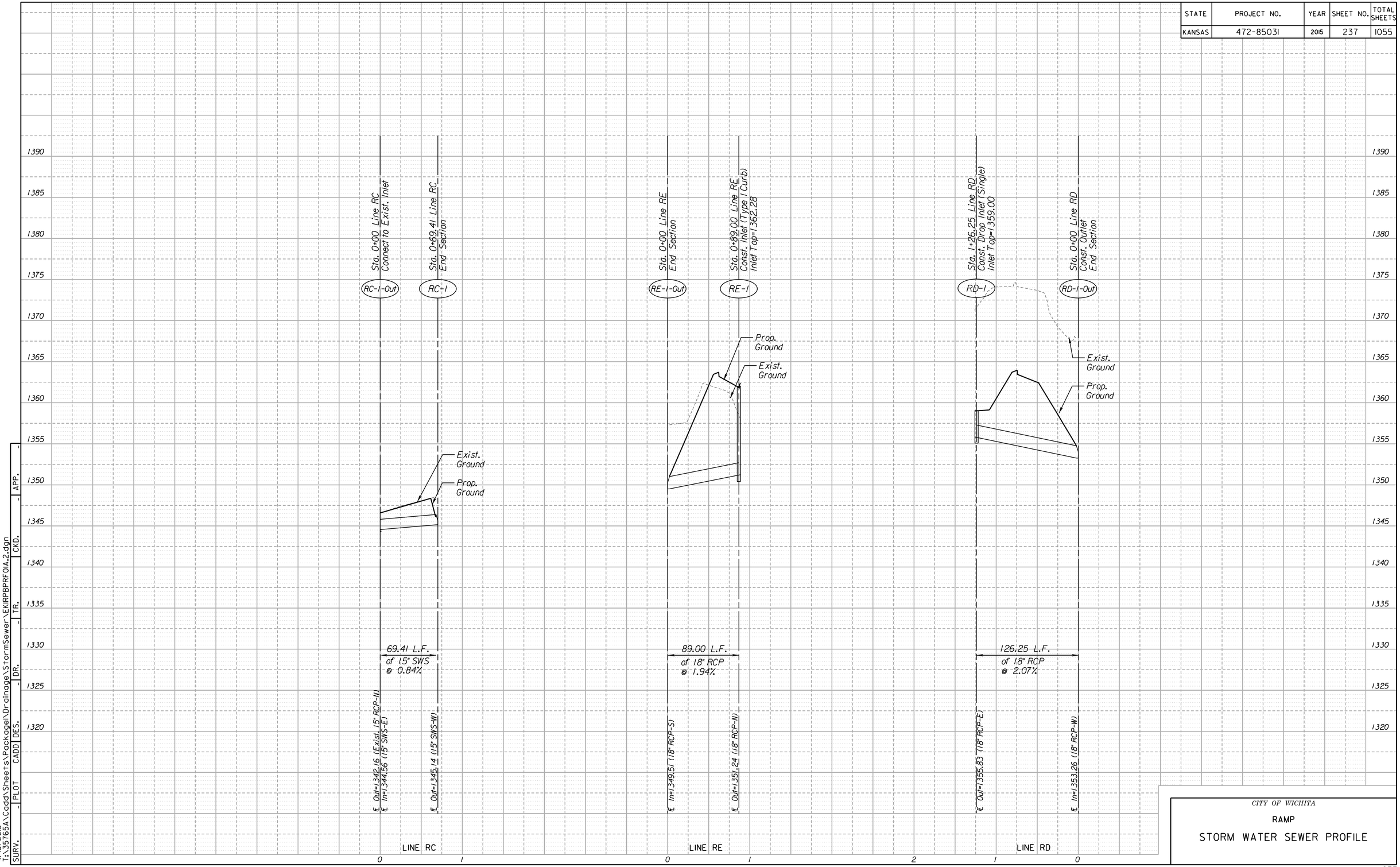
CITY OF WICHITA

RAMP

STORM WATER SEWER PROFILE

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	237	1055



CITY OF WICHITA

RAMP

STORM WATER SEWER PROFILE

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4/16/2015
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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	238	1055

SCHEDULE OF STORM SEWER CONDUITS - TABLE 1

ROUTING SEQUENCE		LOCATIONS OF INSTALLATION			CONSTRUCT. OR INSTALL TYPE OF CONDUIT			CONDUIT FLOWLINES																				PIPE END SECTIONS				
FROM	TO	STATION	ROUTE IDENTIFICATION	DISTANCE LT/RT (FT.)	SIZE (IN.)	MATERIAL	LENGTH (FT.)	INFLOW ELEV.	OUTFLOW ELEV.	PIPE, SWS 15" (FT.)	PIPE, SWS 15" (RCP) (FT.)	PIPE, SWS 18" (FT.)	PIPE, SWS 18" (RCP) (FT.)	PIPE, SWS 30"x19" (HERCP) (FT.)	PIPE, SWS 21" (RCP) (FT.)	PIPE, SWS 24" (FT.)	PIPE, SWS 24" (RCP) (FT.)	PIPE, SWS 30" (FT.)	PIPE, SWS 30" (RCP) (FT.)	PIPE, SWS 36" (FT.)	PIPE, SWS 36" (RCP) (FT.)	PIPE, SWS 42" (RCP) (FT.)	PIPE, SWS 48" (RCP) (FT.)	PIPE, SWS 54" (FT.)	PIPE, SWS 54" (RCP) (FT.)	PIPE, SWS 60" (RCP) (FT.)	PIPE, SWS 38"x24" (HERCP) (FT.)	PIPE, SWS 5'x5' (RCBC) (FT.)	SAND BACKFILL AND VIBRATION (FT.)	15"	18"	38"x24"	30"	54"
A-10	A-9	509+60.01	MAINLINE	7.58 RT	60	RCP	92.96	1332.19	1332.01																	92.96			92.96					
A10-1	A-9	508+67.00	MAINLINE	59.37 RT	18	RCP	52.87	1338.65	1335.51				52.87																52.87					
A1-1	A-5	503+78.00	MAINLINE	59.37 LT	18	RCP	64.87	1337.68	1334.60				64.87																64.87					
A-11	A-10	510+75.01	MAINLINE	7.58 RT	60	RCP	114.96	1332.42	1332.19																	114.96			114.96					
A11-1	A-10	509+60.00	MAINLINE	59.36 LT	18	RCP	65.87	1338.92	1335.69				65.87																65.87					
A-12	A-11	511+90.01	MAINLINE	7.58 RT	60	RCP	114.96	1332.65	1332.42																	114.96			114.96					
A12-1	A-10	509+60.00	MAINLINE	59.37 RT	18	RCP	52.87	1338.92	1335.69				52.87																52.87					
A-13	A-12	514+26.08	MAINLINE	6.48 RT	54	RCP	234.94	1333.62	1333.15																234.94				234.94					
A13-1	A-11	510+75.00	MAINLINE	59.37 LT	18	RCP	65.87	1339.29	1335.92				65.87																65.87					
A-14	A-13	515+51.08	MAINLINE	6.49 RT	54	RCP	125.05	1333.87	1333.62																125.05				125.05					
A14-1	A-11	510+75.00	MAINLINE	59.37 RT	18	RCP	52.87	1339.29	1335.92				52.87																52.87					
A-15	A-14	516+76.08	MAINLINE	6.50 RT	54	RCP	125.05	1334.12	1333.87																125.05				125.05					
A15-1	A-12	511+90.00	MAINLINE	59.37 LT	18	RCP	65.86	1339.60	1336.15				65.86																65.86					
A-16	A-15	518+01.08	MAINLINE	6.51 RT	54	RCP	125.05	1334.37	1334.12																125.05				125.05					
A16-1	A-12	511+90.00	MAINLINE	59.37 RT	18	RCP	52.87	1339.61	1336.15				52.87																52.87					
A-17	A-16	519+26.08	MAINLINE	6.51 RT	54	RCP	125.05	1334.62	1334.37																125.05				125.05					
A17-1	A-13	514+25.00	MAINLINE	59.36 LT	18	RCP	65.86	1339.57	1336.62				65.86																65.86					
A-18	A-17	520+51.08	MAINLINE	6.51 RT	54	RCP	125.05	1334.87	1334.62																125.05				125.05					
A18-1	A-13	514+25.00	MAINLINE	59.36 RT	18	RCP	52.86	1339.57	1336.62				52.86																52.86					
A-19	A-18	521+45.05	MAINLINE	6.52 RT	48	RCP	94.01	1335.56	1335.37														94.01						94.01					
A19-1	A-14	515+50.00	MAINLINE	59.37 LT	18	RCP	65.86	1339.21	1336.87				65.86																65.86					
A-2	A-1	496+49.82	MAINLINE	169.94 LT	5x5	RCBC	62.10	1326.10	1320.06																			62.10						
A-20	A-19	521+88.58	MAINLINE	6.49 RT	42	RCP	44.05	1336.19	1336.06													44.05							44.05					
A20-1	A-14	515+50.00	MAINLINE	59.37 RT	18	RCP	52.87	1339.21	1336.87				52.87																52.87					
A2-1	A-5	503+78.00	MAINLINE	59.37 RT	18	RCP	53.87	1337.68	1334.60				53.87																53.87					
A-21	A-20	523+84.58	MAINLINE	6.49 RT	36	RCP	196.07	1337.46	1336.69												196.07								196.07					
A21-1	A-15	516+75.00	MAINLINE	59.36 LT	18	RCP	65.87	1338.81	1337.12				65.87																65.87					
A-22	A-21	525+80.00	MAINLINE	6.50 RT	30	RCP	196.07	1340.90	1337.96										196.07										196.07					
A22-1	A-15	516+75.00	MAINLINE	59.36 RT	18	RCP	52.86	1338.81	1337.12				52.86																52.86					
A-23	A-22	527+76.00	MAINLINE	6.50 RT	24	RCP	196.07	1344.34	1341.40								196.07												196.07					
A23-1	A-16	518+00.00	MAINLINE	59.37 LT	18	RCP	65.86	1338.41	1337.37				65.86																65.86					
A-24	A-23	529+72.00	MAINLINE	6.50 RT	24	RCP	196.04	1347.28	1344.34								196.04												196.04					
A24-1	A-16	518+00.00	MAINLINE	59.37 RT	18	RCP	52.87	1338.41	1337.37				52.87																52.87					
A-25	A-24	531+68.00	MAINLINE	6.50 RT	18	RCP	196.00	1351.70	1347.78				196.00																196.00					
A25-1	A-17	519+25.00	MAINLINE	59.36 LT	18	RCP	65.87	1338.01	1337.72				65.87																65.87					
A-26	A-25	533+64.00	MAINLINE	6.50 RT	18	RCP	196.00	1355.62	1351.70				196.00																196.00					
A26-1	A-17	519+25.00	MAINLINE	59.37 RT	18	RCP	52.87	1338.01	1337.62				52.87																52.87					
A27-1	A-18	520+50.00	MAINLINE	59.35 LT	18	RCP	65.86	1338.61	1337.87				65.86																65.86					
A28-1	A-18	520+50.00	MAINLINE	59.36 RT	18	RCP	52.86	1338.61	1337.87				52.86																52.86					
A29-1	A-19	521+43.97	MAINLINE	59.37 LT	18	RCP	65.87	1338.61	1338.06				65.87																65.87					
A-3	A-2	502+46.32	MAINLINE	172.80 LT	5x5	RCBC	596.84	1326.70	1326.10																			596.84						
A3-1a	A1-1	503+78.00	MAINLINE	66.34 LT	18	RCP	6.98	1337.77	1337.68				6.98																6.98					
A30-1	A-19	521+43.97	MAINLINE	59.37 RT	18	RCP	52.87	1338.50	1338.01				52.87																52.87					
A3-1	A-6	504+52.27	MAINLINE	59.37 LT	18	RCP	65.87	1337.50	1334.78				65.87																65.87					
A31-1	A-20	521+88.00	MAINLINE	59.37 LT	18	RCP	65.87	1338.61	1338.01				65.87																65.87					
A32-1	A-20	521+88.00	MAINLINE	59.37 RT	18	RCP	52.87	1338.61	1338.01				52.87																52.87					
A33-1	A-21	523+84.00	MAINLINE	59.36 LT	18	RCP	65.86	1339.13	1338.96				65.86																65.86					
A34-1	A-21	523+84.00	MAINLINE	59.36 RT	18	RCP	52.86	1339.13	1338.96				52.86																52.86					
A35-1	A-22	525+80.00	MAINLINE	59.37 LT	18	RCP	65.86	1343.41	1341.90				65.86																65.86					
A36-1	A-22	525+80.00	MAINLINE	59.36 RT	18	RCP	52.86	1343.41	1341.90				52.86																52.86					
A37-1	A-23	527+76.00	MAINLINE	59.36 LT	18	RCP	65.86	1347.33	1344.84				65.86																65.86					
A38-1	A-23	527+76.00	MAINLINE	59.37 RT	18	RCP	52.86	1347.33	1344.84				52.86																52.86					
A39-1	A-24	529+72.00	MAINLINE	59.36 LT	18	RCP	65.86	1350.26	1347.78				65.86																65.86					
A-4	A-4F	501+28.16	MAINLINE	6.50 RT	18	RCP	117.04	1335.22	1334.04				117.04																117.04					
A40-1	A-24	529+72.00	MAINLINE	59.36 RT	18	RCP	52.86	1350.26	1347.78				52.86																52.86					
A4-1	A-6	504+52.27	MAINLINE	59.36 RT	18	RCP	52.87	1337.50	1334.78				52.87																52.87					
A41-1	A-25	531+68.00	MAINLINE	59.36 LT	18	RCP	65.86	1354.17	1351.70				65.86																65.86					
A42-1	A-25	531+68.00	MAINLINE	59.37 RT	18	RCP	52.87	1354.17	1351.70				52.87																52.87					
A43-1	A-26	533+64.00	MAINLINE	59.36 LT	18	RCP	65.86	1357.73	1355.62				65.86																65.86					
A44-1	A-26	533+64.00	MAINLINE	59.36 RT	18	RCP	52.86	1357.73	1355.62				52.86																52.86					
A-4B	A-4	501+49.92	MAINLINE	59.37 LT	18	RCP	69.38	1337.74	1337.05				69.38																69.38					
A-4D	A-4E	20500+32.00	RAMP A	6.59 LT	18	RCP	43.02	1339.00	1338.57				43.02																43.02					
A-4E	FN2-2	20500+75.00	RAMP A	8.02 LT	18	RCP	31.15	1338.57	1338.26				31.15																31.15					
A-4F	A-3	502+45.25	MAINLINE	7.58 RT	60	RCP	179.30	1326.88	1326.70																	179.30			179.30					
A-5	A-4F	503+78.01	MAINLINE	6.58 RT	60	RCP	132.71	1331.07	1330.80																	132.71			132.71					
A5-1	A-7	505+50.00	MAINLINE	59.36 LT	18	RCP	65.87	1337.61	1334.92				65.87																65.87					
A-5A	A-4	501+27.99	MAINLINE	59.36 RT	18	RCP	52.87	1335.75	1335.22				52.87																52.87					
A-6	A-5	504+52.27	MAINLINE	7.58 RT	60	RCP	74.25	1331.28	1331.07																	74.25			74.25					
A6-1	A-7	505+50.00	MAINLINE	59.36 RT	18	RCP	52.86	1337.62	1334.92				52.86																52.86					
A-7	A-6	505+50.00	MAINLINE	7.58 RT	60	RCP	97.69	1331.42	1331.28																	97.69			97.69					
A7-1	A-8	507+75.00	MAINLINE	59.36 LT	18	RCP	65.86	1338.33	1335.36				65.86																65.86					
A-8	A-7	507+75.00	MAINLINE	7.58 RT	60	RCP	224.91	1331.86	1331.42																	224.91			224.91					
A8-1	A-8	507+75.00	MAINLINE	59.37 RT	18	RCP	52.87	1338.33	1335.36				52.87																52.87					
A-9	A-8	508+67.01	MAINLINE	7.58 RT	60	RCP	91.96	1332.01	1331.86																	91.96			91.96					
A9-1	A-9	508+67.00	MAINLINE	59.36 LT	18	RCP	65.87	1338.65	1335.51				65.87																65.87					
B(1)-2	B(1)-Out	20559+00.59	RAMP J	7.08 LT	18	RCP	17.38	1347.39	1347.22				17.38																17.38					
B(1)-3	B(1)-2	20558+45.43	RAMP J	6.11 LT	18	RCP	55.13	1349.46	1349.18				55.13																55.13					
B-10	B-7	550+34.41	MAINLINE	6.50 RT	36	RCP	330.00	1351.59	1349.46												330.00								330.00					
TOTALS TABLE 1										**0.00**	**0.00**	**0.00**	**3,397.02**	**0.00**	**0.00**	**0.00**	**392.11**	**0.00**	**196.07**	**0.00**	**526.07**	**44.05**	**94.01**	**0.00**	**860.19**	**1,123.70**	**0.00**	**658.94**	**6,633.22**	**0**	**0**	**0**	**0**	**0**

SURV. - PLOT - CADD - DES. - DR. - TR. - CKD. - APP. -

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CITY OF WICHITA

EAST KELLOGG

SCHEDULE OF STORM SEWER CONDUITS

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	239	1055

Revised Plans

SCHEDULE OF STORM SEWER CONDUITS - TABLE 2

| ROUTING SEQUENCE | | LOCATIONS OF INSTALLATION | | | CONSTRUCT. OR INSTALL TYPE OF CONDUIT | | | CONDUIT FLOWLINES | | |

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-8503	2016	240	1055

Revised Plans

SCHEDULE OF STORM SEWER CONDUITS - TABLE 3

ROUTING SEQUENCE		LOCATIONS OF INSTALLATION		CONSTRUCT. OR INSTALL		CONDUIT FLOWLINES			PIPE, SWS 15" (RCP.) (FT.)	PIPE, SWS 15" (RCP) (FT.)	PIPE, SWS 18" (FT.)	PIPE, SWS 18" (RCP) (FT.)	PIPE, SWS 30"x19" (HERCP) (FT.)	PIPE, SWS 21" (RCP) (FT.)	PIPE, SWS 24" (FT.)	PIPE, SWS 24" (RCP) (FT.)	PIPE, SWS 30" (FT.)	PIPE, SWS 30" (RCP) (FT.)	PIPE, SWS 36" (FT.)	PIPE, SWS 36" (RCP) (FT.)	PIPE, SWS 42" (RCP) (FT.)	PIPE, SWS 48" (RCP) (FT.)	PIPE, SWS 54" (FT.)	PIPE, SWS 54" (RCP) (FT.)	PIPE, SWS 60" (RCP) (FT.)	PIPE, SWS 38"x24" (HERCP) (FT.)	PIPE, SWS 5'x3' (RCBC) (FT.)	SAND BACKFILL AND VIBRATION (FT.)	PIPE END SECTIONS				
FROM	TO	STATION	ROUTE IDENTIFICATION	DISTANCE LT/RT (FT.)	TYPE OF CONDUIT SIZE (IN.)	MATERIAL	LENGTH (FT.)	INFLOW ELEV.	OUTFLOW ELEV.																							15"	18"	38"x24"	30"	54"
FN3-6	FN3-5	2549+55.00	North Frontage Rd.	27.94 LT	36	RCP	108.21	1351.13	1350.59																					108.21					
FN3-7a	FN3-6	2548+75.00	North Frontage Rd.	26.5 LT	36	RCP	80.01	1351.53	1351.13																					80.01					
FN3-7	FN3-7a	2547+64.00	North Frontage Rd.	39.94 LT	36	RCP	111.81	1352.09	1351.53																					111.81					
FN3-8	FN3-7	2545+50.00	North Frontage Rd.	39.94 LT	36	RCP	214.00	1353.16	1352.09																					214.00					
FN3-9	FN3-8	2544+43.00	North Frontage Rd.	27.94 LT	36	RCP	107.67	1353.70	1353.16																					107.67					
FN3A-1	FN3-7	2547+67.78	North Frontage Rd.	64 LT	18		24.36	1353.88	1353.24			24.36																		24.36					
FN4-2	FN4-Out	2558+06.21	North Frontage Rd.	27.94 LT	24	RCP	60.66	1347.15	1346.87							60.66														60.66					
FN4-3	FN4-2	2559+56.21	North Frontage Rd.	27.94 LT	24	RCP	150.00	1347.46	1347.15							150.00														150.00					
FN4-4	FN4-3	2561+56.21	North Frontage Rd.	27.44 LT	18	RCP	200.00	1348.60	1347.96				200.00																	200.00					
FN5-2	FN5-1	2546+56.90	North Frontage Rd.	71.87 LT	18		40.88	1345.09	1345.00			40.88																		40.88	1				
FN5-3	FN5-2	2566+23.61	North Frontage Rd.	72.06 LT	18	RCP	30.89	1345.16	1345.09				30.89																	30.89					
FN5-4	FN5-3	2566+60.38	North Frontage Rd.	84.63 LT	18		24.82	1345.22	1345.16			24.82																		24.82	1				
FN6-2	FN6-1	2566+88.58	North Frontage Rd.	27.44 LT	18		51.79	1345.17	1345.00			51.79																		51.79	1				
FN6-3	FN6-2	2565+85.00	North Frontage Rd.	27.45 LT	18	RCP	100.69	1345.47	1345.17				100.69																	100.69					
FN6-4	FN6-3	2564+75.00	North Frontage Rd.	27.44 LT	18	RCP	108.97	1347.02	1345.47				108.97																	108.97					
FN6-5	FN6-4	2563+56.21	North Frontage Rd.	27.44 LT	18	RCP	118.79	1347.74	1347.02				118.79																	118.79					
FS1-1	FS1-Out	1510+30.00	South Frontage Rd.	27.93 RT	38 x 24	RCPHE	15.99	1357.08	1357.03																			15.99		15.99		1			
FS1-14	FS1-3	1515+47.13	South Frontage Rd.	39.94 RT	30	RCP	114.96	1358.69	1358.34								114.96													114.96					
FS1-15	FS1-14	1517+98.00	South Frontage Rd.	39.94 RT	30	RCP	250.87	1359.44	1358.69								250.87													250.87					
FS1-16	SK3-5a	1520+65.00	South Frontage Rd.	27.94 RT	24		119.41	1361.24	1360.82						119.41															119.41					
FS1-17	FS1-16	1522+08.41	South Frontage Rd.	27.94 RT	24	RCP	143.41	1361.67	1361.24							143.41														143.41					
FS1-18	FS1-17	1524+90.00	South Frontage Rd.	27.94 RT	24	RCP	281.59	1362.51	1361.67							281.59														281.59					
FS1-19	FS1-18	1526+54.50	South Frontage Rd.	27.94 RT	24	RCP	164.50	1363.95	1363.46							164.50														164.50					
FS1-1a	FS1-1	1510+30.00	South Frontage Rd.	7.70 LT	18	RCP	35.63	1357.29	1357.11				35.63																	35.63					
FS1-2	FS1-1	1512+50.00	South Frontage Rd.	27.93 RT	38 x 24	RCPHE	222.96	1357.78	1357.11																			222.96		222.96					
FS1-20	FS1-19	1527+68.00	South Frontage Rd.	27.44 RT	18	RCP	113.50	1366.47	1364.45				113.50																	113.50					
FS1-21	FS1-20	1529+14.25	South Frontage Rd.	27.94 RT	18	RCP	146.25	1367.77	1366.47				146.25																	146.25					
FS1-3	FS1-2	1514+34.00	South Frontage Rd.	27.93 RT	38 x 24	RCPHE	186.50	1358.34	1357.78																			186.50		186.50					
FS1G-1	FS1-19	1526+93.28	South Frontage Rd.	58 RT	18		49.07	1364.82	1364.45			49.07																		49.07					
FS1G-2	FS1G-1	1527+32.28	South Frontage Rd.	58 RT	18	RCP	39.00	1364.95	1364.82				39.00																	39.00					
FS2-11a	FS2-9	1544+87.00	South Frontage Rd.	26.50 RT	30	RCP	150.98	1353.73	1351.91								150.98													150.98					
FS2-11	FS2-11a	1543+98.92	South Frontage Rd.	30.18 RT	30	RCP	88.16	1354.39	1353.73								88.16													88.16					
FS2-12	FS2-11	1541+98.93	South Frontage Rd.	37.68 RT	30	RCP	200.13	1355.29	1354.39								200.13													200.13					
FS2-13	FS2-12	1540+03.00	South Frontage Rd.	45.02 RT	30	RCP	196.07	1356.70	1355.79								196.07													196.07					
FS2-14	FS2-13	1539+65.00	South Frontage Rd.	45.94 RT	30	RCP	38.01	1356.89	1356.70								38.01													38.01					
FS2-15	FS2-14	1538+84.95	South Frontage Rd.	45.94 RT	30	RCP	80.05	1357.35	1356.89								80.05													80.05					
FS2-16	FS2-15	1538+08.17	South Frontage Rd.	45.94 RT	30	RCP	76.78	1357.81	1357.35								76.78													76.78					
FS2-17	FS2-16	1537+35.72	South Frontage Rd.	39.82 RT	30	RCP	72.71	1358.19	1357.81								72.71													72.71					
FS2-18	FS2-17	1536+47.57	South Frontage Rd.	33.68 RT	24	RCP	88.36	1359.69	1358.69							88.36														88.36					
FS2-18a	FS2-18	1536+71.07	South Frontage Rd.	47.89 RT	15		27.46	1362.50	1362.37	27.46																				27.46					
FS2-19	FS2-18	1535+63.81	South Frontage Rd.	27.44 RT	18	RCP	83.99	1361.70	1359.99			⚠0.00	⚠83.99																	83.99					
FS2-19a	FS2-19	10537+60.00	Ramp H	26.00 LT	18	RCP	45.77	1361.93	1361.70				45.77																	45.77					
FS2-20	FS2-19	1533+50.67	South Frontage Rd.	27.44 RT	18	RCP	213.14	1364.57	1361.70				213.14																	213.14					
FS2-21a	FS2-20	1532+33.00	South Frontage Rd.	26.50 RT	18	RCP	117.67	1366.16	1364.57				117.67																	117.67					
FS2-21	FS2-21a	1531+75.80	South Frontage Rd.	26.50 RT	18	RCP	57.20	1366.93	1366.16				57.20																	57.20					
FS2-2	FS2-Out	1557+60.08	South Frontage Rd.	28.44 RT	42	RCP	94.21	1345.51	1345.07													94.21								94.21					
FS2-3b	FS2-2	1556+90.00	South Frontage Rd.	28.44 RT	42	RCP	79.08	1345.77	1345.51													79.08								79.08					
FS2-3d	FS2-3b	1556+10.00	South Frontage Rd.	26.50 RT	36	RCP	80.02	1346.54	1346.27												80.02									80.02					
FS2-3c	FS2-3d	1555+91.00	South Frontage Rd.	26.50 RT	36	RCP	19.00	1346.60	1346.54												19.00									19.00					
FS2-3a	FS2-3c	1555+60.00	South Frontage Rd.	28.44 RT	36	RCP	31.06	1346.71	1346.60												31.06									31.06					
FS2-4	FS2-3a	1555+10.00	South Frontage Rd.	28.44 RT	36	RCP	50.00	1346.87	1346.71												50.00									50.00					
FS2-5	FS2-4	1554+43.32	South Frontage Rd.	28.44 RT	36	RCP	106.68	1347.33	1346.87												106.68									106.68					
FS2-6	FS2-5	1552+88.15	South Frontage Rd.	27.94 RT	36	RCP	115.17	1348.15	1347.33												115.17									115.17					
FS2-6a	FS2-6	1551+73.20	South Frontage Rd.	28.44 RT	36	RCP	114.95	1348.65	1348.15												114.95									114.95					
FS2-7	FS2-6a	1550+65.00	South Frontage Rd.	26.50 RT	36	RCP	108.22	1349.05	1348.65												108.22									108.22					
FS2-7b	FS2-7	1550+40.00	South Frontage Rd.	26.50 RT	36	RCP	25.00	1349.25	1349.05												25.00									25.00					
FS2-7a	FS2-7b	1549+41.13	South Frontage Rd.	26.50 RT	36	RCP	96.87	1350.05	1349.25												96.87									96.87					
FS2-8	FS2-7a	1548+23.83	South Frontage Rd.	28.44 RT	36	RCP	119.32	1351.05	1350.05												119.32									119.32					
FS2-9	FS2-8	1546+37.98	South Frontage Rd.	26.50 RT	36	RCP	185.86	1351.41	1351.05												185.86									185.86					
FS2A-1	FS2-4	1554+75.35	South Frontage Rd.	64.43 RT	15		49.96	1349.43	1349.29	49.96																				49.96					
FS2A-2	FS2A-1	1554+38.47	South Frontage Rd.	64.57 RT	15	RCP	36.88	1349.54	1349.43		36.88																			36.88					
FS2C-1	FS2-17	1537+30.70	South Frontage Rd.	54.78 RT	15	RCP	55.19	1360.08	1359.69		55.19																			55.19					
FS2C-2	FS2C-1	1536+94.19	South Frontage Rd.	94.39 RT	15	RCP	36.51	1360.23	1360.08		36.51																			36.51					
FS2D-1	FS2-14	1539+65.00	South Frontage Rd.	25.29 RT	18	RCP	19.94	1358.00	1357.39				19.94																	19.94					
FS3-2	FS3-Out	1560+60.00	South Frontage Rd.	26.50 RT	18	RCP	189.25	1348.25	1346.57				189.25																	189.25					
FS3-3	FS3-2	1562+05.00	South Frontage Rd.	26.50 RT	18	RCP	145.27	1348.71	1348.25				145.27																	145.27					
RB-1	RB-2	10500+85.00	RAMP B	6.80 RT	18	RCP	71.00	1342.21	1341.85				71.00																	71.00					
RB-2	RB-3	10501+56.00	RAMP B	6.10 RT	18	RCP	67.98	1343.85	1341.51				67.98																	67.98					
RB-3	RB-3A	10502+24.00	RAMP B	6.10 RT	18	RCP	45.98	1341.51	1341.28				45.98																	45.98					
RB-4	RB-3A	10504+00.00	RAMP B	6.10 RT	18	RCP	129.95	1342.93	1342.28				129.95																	129.95					
RB-5	RB-4	10506+00.00	RAMP B	6.10 RT	18	RCP	199.93	1344.93	1343.93				199.93																	199.93					
RB-6	RB-5	10506+29.00	RAMP B	23.00 RT	18	RCP	26.17	1348.00	1347.86				26.17																	26.17					
RB-3A	RB-4-Out	10502+70.00	RAMP B	6.00 RT	18	RCP	39.77	1341.28	1341.10				39.77																	39.77					
RC-1	RC-1-Out	10503+43.42	RAMP C	32.89 RT	15		69.41	1345.14	1344.56	69.41																				69.41	1				
RD-1	RD-1-Out	10505+50.00	RAMP D	70.00 LT	18	RCP	126.25	1355.83	1353.26				126.25																	126.25		1			
RE-1	RE-1-Out	1503+44.36	RAMP E	8.67 RT	18	RCP	89.00	1351.24	1349.51				89.00																	89.00		1			
SR1-2	SR1-1	40+53.00	Webb Road	48.44 LT	21	RCP	145.40	1353.11	1352.82						145.40															145.40					
SR1-3	SR1-2	41+97.58	Webb Road	48.44 LT	18	RCP	144.58	1353.72	1353.36				144.58																	144.58					
				TOTALS TABLE 3			146.83	128.58	⚠190.92	⚠706.56	0.00	145.40	119.41	888.52	0	1,260.72	0.00	1,673.85	173.29	0.00	0.00	0.00	0.00	425.45	0.00	7,867.53	1	5	1	0	0

⚠ 6/02/2015 Revised Quantities

CITY OF WICHITA

EAST KELLOGG

SCHEDULE OF STORM SEWER CONDUITS

240

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6/2/2015
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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	241	1055

Revised Plans

SCHEDULE OF STORM SEWER CONDUITS - TABLE 4

ROUTING SEQUENCE		LOCATIONS OF INSTALLATION			CONSTRUCT. OR INSTALL TYPE OF CONDUIT			CONDUIT FLOWLINES																				PIPE END SECTIONS				
FROM	TO	STATION	ROUTE IDENTIFICATION	DISTANCE LT/RT (FT.)	SIZE (IN.)	MATERIAL	LENGTH (FT.)	INFLOW ELEV.	OUTFLOW ELEV.	PIPE, SWS 15" (FT.)	PIPE, SWS 15" (RCP) (FT.)	PIPE, SWS 18" (FT.)	PIPE, SWS 18" (RCP) (FT.)	PIPE, SWS 30"x19" (HERCP) (FT.)	PIPE, SWS 21" (RCP) (FT.)	PIPE, SWS 24" (FT.)	PIPE, SWS 24" (RCP) (FT.)	PIPE, SWS 30" (FT.)	PIPE, SWS 30" (RCP) (FT.)	PIPE, SWS 36" (FT.)	PIPE, SWS 36" (RCP) (FT.)	PIPE, SWS 42" (RCP) (FT.)	PIPE, SWS 48" (RCP) (FT.)	PIPE, SWS 54" (FT.)	PIPE, SWS 54" (RCP) (FT.)	PIPE, SWS 60" (RCP) (FT.)	PIPE, SWS 38"x24" (HERCP) (FT.)	PIPE, SWS 5'x5' (RCBC) (FT.)	SAND BACKFILL AND VIBRATION (FT.)	15"	18"	38"x24"	30"	54"
SR1A-1	SR1-2	40+58.20	Webb Road	44.44 RT	21	RCP	93.03	1353.30	1353.11						93.03														93.03					
SR1A-2	SR1A-1	41+97.58	Webb Road	44.44 RT	18	RCP	139.38	1353.90	1353.55				139.38																139.38					
SR2-1	SR2-0	45+55.38	Webb Road	69.44 RT	36	RCP	13.39	1354.66	1354.64												13.39								13.39					
SR2-2	SR2-1	45+53.44	Webb Road	70.39 LT	36	RCP	139.84	1354.83	1354.66												139.84								139.84					
SR2A-1	SR2B-2	43+57.66	Webb Road	45.68 RT	18	RCP	134.02	1355.26	1354.86				134.02																134.02					
SR2B-1	SR2-1	46+78.00	Webb Road	68.44 RT	18	RCP	122.62	1358.24	1355.85				122.62																122.62					
SR2B-2	SR2-1	44+90.00	Webb Road	66.85 RT	18	RCP	65.43	1354.86	1354.66				65.43																65.43					
SR2C-1	SR2-2	44+50.36	Webb Road	62.77 LT	36	RCP	103.36	1354.95	1354.83												103.36								103.36					
SR2C-2	SR2C-1	43+67.00	Webb Road	56.11 LT	36	RCP	83.63	1355.05	1354.95												83.63								83.63					
SR2C-3	SR2C-2	42+77.87	Webb Road	49.52 LT	36	RCP	89.37	1355.16	1355.05												89.37								89.37					
SR2D-1	SR2-2	46+50.74	Webb Road	76.56 LT	18	RCP	97.50	1357.39	1356.02				97.50																97.50					
SR3-2	SR3-1	59+02.00	Webb Road	60.8 LT	54	RCP	269.94	1357.75	1357.43																269.94				269.94					1
SR3-3	SR3-2	57+40.00	Webb Road	72.81 LT	54	RCP	162.44	1357.94	1357.75																162.44				162.44					
SR3-4	SR3-3	56+23.51	Webb Road	81.46 LT	48	RCP	116.81	1358.08	1357.94														116.81						116.81					
A9-1a	A9-1	508+67.00	MAINLINE	66.34 LT	18	RCP	6.98	1338.72	1338.65				6.98																6.98					
A14-1a	A14-1	510+75.00	MAINLINE	66.32 RT	18	RCP	6.96	1339.36	1339.29				6.96																6.96					
A17-1a	A17-1	514+25.00	MAINLINE	66.35 LT	18	RCP	6.99	1339.65	1339.57				6.99																6.99					
A18-1a	A18-1	514+25.00	MAINLINE	66.32 RT	18	RCP	6.96	1340.01	1339.94				6.96																6.96					
SR3-5	SR3-4	53+51.72	Webb Road	94.94 LT	48	RCP	272.12	1358.41	1358.08														272.12						272.12					
SR3-5a	SR3-5	52+46.00	Webb Road	105.00 LT	24	RCP	106.20	1360.82	1360.45								106.20												106.20					
SR3A-1	FS1-15	53+33.00	Webb Road	44.00 RT	24	RCP	205.59	1360.37	1359.96								205.59												205.59					
SR3A-2	SR3A-1	56+95.00	Webb Road	44.94 RT	18	RCP	362.00	1361.59	1360.37				362.00																362.00					
SR3A-3	SR3A-2	59+02.00	Webb Road	44.44 RT	18	RCP	207.00	1362.21	1361.59				207.00																207.00					
SR3B-1	SR3-3	101+19.22	Orme Road	22.19 RT	36	3	57.65	1359.12	1358.94											57.65									57.65					
SR3B-2	SR3B-1	101+19.00	Orme Road	21.19 LT	18	RCP	43.38	1359.76	1359.62				43.38																43.38					
SR3C-1	SR3B-1	102+27.71	Orme Road	21.69 RT	24	RCP	108.49	1363.80	1360.12								108.49												108.49					
SR4-3	SR4-2	107+41.27	Chateau Street	37.75 RT	18		21.74	1351.77	1351.67			21.74																	21.74		1			
SR1-2A	SR1-1	39+28.32	Webb Road	64.61 LT	15	RCP	37.25	1353.90	1353.53		37.25																		37.25					
SR2C-4	SR2C-3	42+65.14	Webb Road	64.30 LT	24	RCP	22.95	1355.20	1355.16								22.95												22.95					
TOTALS TABLE 4										0.00	37.25	21.74	1,199.22	0.00	93.03	0.00	443.23	0.00	0.00	57.65	429.59	0.00	388.93	0.00	432.38	0.00	0.00	0.00	3,103.02	0	1	0	0	1
TOTALS TABLE 1										0.00	0.00	0.00	3,397.02	0.00	0.00	0.00	392.11	0.00	196.07	0.00	526.07	44.05	94.01	0.00	860.19	1,123.70	0.00	658.94	6,633.22	0	0	0	0	0
TOTALS TABLE 2										0.00	0.00	0.00	4,624.07	0.00	0.00	0.00	2 1,708.22	0.00	2 497.09	0.00	3,594.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10,424.27	0	0	0	0	0
TOTALS TABLE 3										146.83	128.58	2 190.92	2 2,706.56	0.00	145.40	119.41	888.52	0.00	1,268.72	0.00	1,673.85	173.29	0.00	0.00	0.00	0.00	425.45	0.00	7,867.53	1	5	1	0	0
PROJECT TOTALS										146.83	165.83	2 212.66	2 11,926.87	0.00	238.43	119.41	2 3,432.08	0.00	2 1,961.88	57.65	6,224.40	217.34	482.94	0.00	1,292.57	1,123.70	425.45	658.94	28,028.04	1	6	1	0	1

3 6/08/2015 Revised SWS Material Callout

2 6/02/2015 Revised Quantities

CITY OF WICHITA

EAST KELLOGG

SCHEDULE OF STORM SEWER CONDUITS

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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	242	1055

SCHEDULE OF STORM SEWER CONDUITS - TABLE 5

ROUTING SEQUENCE		LOCATIONS OF INSTALLATION			CONSTRUCT. OR INSTALL TYPE OF CONDUIT		CONDUIT FLOWLINES											
FROM	TO	STATION	ROUTE IDENTIFICATION	DISTANCE LT/RT (FT.)	SIZE (IN.)	MATERIAL	LENGTH (FT.)	INFLOW ELEV.	OUTFLOW ELEV.	PIPE, SWS 12" (TEMP) (FT.)	PIPE, SWS 15" (TEMP) (FT.)	PIPE, SWS 18" (RCP) (TEMP) (FT.)	PIPE, SWS 24" (TEMP) (FT.)	PIPE, SWS 24" (RCP) (TEMP) (FT.)	PIPE, SWS 18"x12" (TEMP) (FT.)	PIPE, SWS 30"x19" (RCPHE) (TEMP) (FT.)	SAND BACKFILL AND VIBRATION (FT.)	REMARKS
	FS1-3	1513+80.68	South Frontage Rd.	35.87 LT	30x19	RCP	82.00	1360.16	1358.34							82.00	49.00	Partial abandon per phasing requirements
	FS1-15	1518+01.16	South Frontage Rd.	29.09 LT	24	RCP	67.00	1360.88	1359.44					67.00			67.00	Partial abandon per phasing requirements
FN2-11A	SR2D-1	2521+00.00	North Frontage Rd.	38.50 LT	18 x 12		201.00	1359.65	1357.39						201.00			Reconstruct invert to permanent flowlines when Temp. Pipe is removed; Subsidiary
T2-FN	FN3-2	2555+56.42	North Frontage Rd.	40.61 LT	24		13.00	1351.00	1350.90				13.00					
T1-M	A4-E	501+27.89	MAINLINE	34.48 LT	18	RCP	76.00	1339.00	1338.57			76.00					76.00	Partial abandon per phasing requirements
T2-M	FS1-17	523+87.31	MAINLINE	2.39 RT	24	RCP	122.00	1366.69	1361.67					122.00			55.00	Partial abandon per phasing requirements
T1-W	FS1-15	51+77.67	Webb Road	42.28 RT	18	RCP	91.00	1362.99	1359.44			91.00					20.00	Partial abandon per phasing requirements
T2-W	SR3A-2	57+69.66	Webb Road	29.51 RT	12		76.00	1363.60	1363.33	76.00							76.00	Partial abandon per phasing requirements
T3-W	SR3A-3	58+91.95	Webb Road	27.99 RT	15		19.00	1363.45	1362.21		19.00						19.00	Partial abandon per phasing requirements
									TOTALS TABLE 5	76.00	19.00	167.00	13.00	189.00	201.00	82.00	362.00	

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CITY OF WICHITA

EAST KELLOGG

SCHEDULE OF STORM SEWER CONDUITS

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	243	1055

SCHEDULE OF INLETS & MANHOLES - TABLE 1

	LOCATIONS OF INSTALLATION			CONSTRUCT. OR INSTALL																			DIMENSIONS					ELEVATIONS	INFLOW CONDUITS						OUTFLOW CONDUITS		REMARKS
STRUC. ID	STATION	ROUTE IDENTIFICATION	DISTANCE LT/RT (FT.)	INLET (TYPE II AREA) (SPECIAL)	INLET GUTTER (SPEC.)	INLET, DROP (DOUBLE)	INLET (TYPE 12 CURB)	INLET, CURB (TYPE 1) (L=10' W=3')	INLET, CURB (TYPE 1) (L=10' W=4')	INLET, CURB (TYPE 1) (L=10' W=5')	INLET, CURB (TYPE 1) (L=10' W=6')	INLET, GRTD. DRIVE-WAY (SINGLE)	INLET, DROP (SINGLE)	INLET, MH (SPEC.)	MH, REINF. CONC.	MH, STND. SWS (4')	MH, STND. SWS (5')	MH, STACK (4')	INLET ADJ.	INLET RETRO-FIT	MH ADJ., SWS	INLET HOOKUP	4" PERF. U.D. PIPE (FT.)	L (FT.)	W (FT.)	H (FT.)	DIA. (FT.)	WH (FT.)	TOP	SIZE DIRECT.	FLOWLINE ELEV.	SIZE DIRECT.	FLOWLINE ELEV.	SIZE DIRECT.	FLOWLINE ELEV.	SIZE DIRECT.	FLOWLINE ELEV.	
A-2	496+49.82	MAINLINE	169.94 LT												1								8.5	8	12.73			1337.83	5' x 5' RCBC-E	1326.10					5' x 5' RCBC-W	1326.10	
A-3	502+46.32	MAINLINE	172.80 LT												1								8.5	8	20.87			1346.57	60" RCP-S	1326.70					5' x 5' RCBC-W	1326.70	
A-4	501+28.16	MAINLINE	6.50 RT													1									12.33	4		1346.42	18" RCP-N	1337.05	18" RCP-S	1335.22			18" RCP-E	1335.22	
A-5	503+78.01	MAINLINE	6.58 RT												1								7	6.5	14.19			1344.26	60" RCP-E	1331.07	18" RCP-N	1334.60	18" RCP-S	1334.60	60" RCP-W	1331.07	
A-6	504+52.27	MAINLINE	7.58 RT												1								7	6.5	13.83			1344.11	60" RCP-E	1331.28	18" RCP-N	1334.78	18" RCP-S	1334.78	60" RCP-W	1331.28	
A-7	505+50.00	MAINLINE	7.58 RT												1								7	6.5	13.89			1344.31	60" RCP-E	1331.42	18" RCP-N	1334.92	18" RCP-S	1334.92	60" RCP-W	1331.42	
A-8	507+75.00	MAINLINE	7.58 RT												1								7	6.5	14.17			1345.03	60" RCP-E	1331.86	18" RCP-N	1335.36	18" RCP-S	1335.36	60" RCP-W	1331.86	
A-9	508+67.01	MAINLINE	7.58 RT												1								7	6.5	14.31			1345.32	60" RCP-E	1332.01	18" RCP-N	1335.51	18" RCP-S	1335.51	60" RCP-W	1332.01	
B-Out	560+08.19	MAINLINE	4.02 RT															1							5.65	4		1355.77										
B-2	557+89.83	MAINLINE	6.50 RT												1								5	5	9.00			1354.91	36" RCP-W	1347.76	18" RCP-N	1348.92			36" RCP-E	1346.74	
B-4	556+49.42	MAINLINE	6.50 RT												1								5	5	7.62			1355.10	36" RCP-W	1348.32	18" RCP-N	1349.49	18" RCP-S	1349.49	36" RCP-E	1348.32	
B-7	553+64.42	MAINLINE	6.50 RT												1								5	5	8.17			1356.80	36" RCP-W	1349.46	18" RCP-N	1350.95	18" RCP-S	1350.95	36" RCP-E	1349.46	
C-Out	560+23.85	MAINLINE	8.96 RT															1							5.74	4		1355.82										
C-2	560+90.00	MAINLINE	6.50 RT														1								8.56	5		1356.43	30" RCP-E	1349.08	18" RCP-N	1350.08	18" RCP-S	1350.08	30" RCP-W	1349.08	
A-10	509+60.01	MAINLINE	7.58 RT												1								7	6.5	14.43			1345.62	60" RCP-E	1332.19	18" RCP-N	1335.69	18" RCP-S	1335.69	60" RCP-W	1332.19	
A-11	510+75.01	MAINLINE	7.58 RT												1								7	6.5	14.57			1345.99	60" RCP-E	1332.42	18" RCP-N	1335.92	18" RCP-S	1335.92	60" RCP-W	1332.42	
A-12	511+90.01	MAINLINE	7.58 RT												1								7	6.5	14.64			1346.29	54" RCP-E	1333.15	18" RCP-N	1336.15	18" RCP-S	1336.15	60" RCP-W	1332.65	
A-13	514+26.08	MAINLINE	6.48 RT												1								7	6.5	13.60			1346.27	54" RCP-E	1333.62	18" RCP-N	1336.62	18" RCP-S	1336.62	54" RCP-W	1333.62	
A-14	515+51.08	MAINLINE	6.49 RT												1								7	6.5	13.00			1345.91	54" RCP-E	1333.87	18" RCP-N	1336.87	18" RCP-S	1336.87	54" RCP-W	1333.87	
A-15	516+76.08	MAINLINE	6.50 RT												1								7	6.5	12.35			1345.51	54" RCP-E	1334.12	18" RCP-N	1337.12	18" RCP-S	1337.12	54" RCP-W	1334.12	
A-16	518+01.08	MAINLINE	6.51 RT												1								7	6.5	11.70			1345.11	54" RCP-E	1334.37	18" RCP-N	1337.37	18" RCP-S	1337.37	54" RCP-W	1334.37	
A-17	519+26.08	MAINLINE	6.51 RT												1								7	6.5	11.05			1344.71	54" RCP-E	1334.62	18" RCP-N	1337.72	18" RCP-S	1337.62	54" RCP-W	1334.62	
A-18	520+51.08	MAINLINE	6.51 RT												1								7	6.5	10.40			1344.31	48" RCP-E	1335.37	18" RCP-N	1337.87	18" RCP-S	1337.87	54" RCP-W	1334.87	
A-19	521+45.05	MAINLINE	6.52 RT												1								7	6.5	9.48			1344.12	42" RCP-E	1336.06	18" RCP-N	1338.06	18" RCP-S	1338.01	48" RCP-W	1335.56	
A-20	521+88.58	MAINLINE	6.49 RT												1								5	5	9.27			1344.17	36" RCP-E	1336.69	18" RCP-N	1338.01	18" RCP-S	1338.01	42" RCP-W	1336.19	
A-21	523+84.58	MAINLINE	6.49 RT												1								5	5	9.25			1345.46	30" RCP-E	1337.96	18" RCP-N	1338.96	18" RCP-S	1338.96	36" RCP-W	1337.46	
A-22	525+80.00	MAINLINE	6.50 RT														1								8.84	5		1348.53	24" RCP-E	1341.40	18" RCP-N	1341.90	18" RCP-S	1341.90	30" RCP-W	1340.90	
A-23	527+76.00	MAINLINE	6.50 RT														1								9.27	5		1352.45	24" RCP-E	1344.34	18" RCP-N	1344.84	18" RCP-S	1344.84	24" RCP-W	1344.34	
A-24	529+72.00	MAINLINE	6.50 RT														1								10.25	5		1356.37	18" RCP-E	1347.78	18" RCP-N	1347.78	18" RCP-S	1347.78	24" RCP-W	1347.28	
A-25	531+68.00	MAINLINE	6.50 RT													1									9.71	4		1360.29	18" RCP-E	1351.70	18" RCP-N	1351.70	18" RCP-S	1351.70	18" RCP-W	1351.70	
A-26	533+64.00	MAINLINE	6.50 RT													1									9.35	4		1363.84	18" RCP-N	1355.62	18" RCP-S	1355.62			18" RCP-W	1355.62	
A-4B	501+49.92	MAINLINE	59.37 LT	1																			6.23	5.83	8.48			1345.22							18" RCP-S	1337.74	
A-4D	20500+32.00	RAMP A	6.59 LT	1																			6.23	5.83	8.34			1346.34							18" RCP-E	1339.00	
A-4E	20500+75.00	RAMP A	8.02 LT	1																			6.23	5.83	8.00			1345.57	18" RCP-W	1338.57	18" TEMP-S	1338.57			18" RCP-N	1338.57	
A-4F	502+45.25	MAINLINE	7.58 RT												1								8.5	8	19.18			1345.06	18" RCP-W	1334.04	60" RCP-E	1330.80			60" RCP-N	1326.88	
A-5A	501+27.99	MAINLINE	59.36 RT	1																			6.23	5.83	10.52			1345.27	UD-W	1337.25					18" RCP-N	1335.75	
A1-1	503+78.00	MAINLINE	59.37 LT	1																			6.23	5.83	6.40			1343.08	18" RCP-N	1337.68					18" RCP-S	1337.68	
A2-1	503+78.00	MAINLINE	59.37 RT	1																			6.23	5.83	6.40			1343.08							18" RCP-N	1337.68	
A3-1	504+52.27	MAINLINE	59.37 LT	1																			6.23	5.83	6.46			1342.96							18" RCP-S	1337.50	
A4-1	504+52.27	MAINLINE	59.36 RT	1																			6.23	5.83	6.46			1342.96							18" RCP-N	1337.50	
A5-1	505+50.00	MAINLINE	59.36 LT	1																			6.23	5.83	6.55			1343.16							18" RCP-S	1337.61	
A6-1	505+50.00	MAINLINE	59.36 RT	1																			6.23	5.83	6.54			1343.16							18" RCP-N	1337.62	
A7-1	507+75.00	MAINLINE	59.36 LT	1																			6.23	5.83	6.55			1343.88							18" RCP-S	1338.33	
A8-1	507+75.00	MAINLINE	59.37 RT	1																			6.23	5.83	6.55			1343.88	UD-W	1339.83					18" RCP-N	1338.33	
A9-1	508+67.00	MAINLINE	59.36 LT	1																			6.23	5.83	6.52			1344.17	18" RCP-N	1338.65					18" RCP-S	1338.65	
B-10	550+34.41	MAINLINE	6.50 RT												1								5	5	8.35			1358.94	36" RCP-W	1351.59	18" RCP-N	1353.09	18" RCP-S	1353.09	36" RCP-E	1351.59	
B-12	547+09.41	MAINLINE	6.50 RT												1								5	5	8.35			1361.05	30" RCP-W	1354.20	18" RCP-N	1355.20	18" RCP-S	1355.20	36" RCP-E	1353.70	
B-16	543+20.00	MAINLINE	6.50 RT														1								8.06	5		1363.59	24" RCP-W	1357.24	18" RCP-N	1357.74	18" RCP-S	1357.74	30" RCP-E	1356.74	
B-20	539+70.00	MAINLINE	6.50 RT														1								7.23	5		1365.86	18" RCP-W	1360.30	18" RCP-SW	1360.30			24" RCP-E	1359.80	
B-22	538+16.00	MAINLINE	6.50 RT													1									6.84	4		1366.64	18" RCP-N	1360.92	18" RCP-S	1360.92			18" RCP-E	1360.92	
B1-1	20557+90.67	RAMP J	6.12 LT	1																			6.23	5.83	4.68			1353.48	18" RCP-W	1350.00					18" RCP-S	1349.80	
B3-1	20556+95.22	RAMP J	6.12 LT	1																			6.23	5.83	4.14			1353.61							18" RCP-E	1350.47	
B4-1	10557+19.00	RAMP K	6.14 RT											1									5.5	4.5	4.38			1353.54							18" RCP-W	1350.16	
B5-1	20556+50.17	RAMP J	6.12 LT	1																			6.23	5.83	4.76			1353.76	18" RCP-W	1350.20					18" RCP-S	1350.00	
B6-1	10556+50.41	RAMP K	6.12 RT	1																			6.23	5.83	4.83			1353.63	18" RCP-W	1350.00	18" RCP-E	1349.80			18" RCP-N	1349.80	
B7-1	20555+75.10	RAMP J	6.19 LT	1																			6.23	5.83	4.51			1354.13	18" RCP-W	1350.62					18" RCP-E	1350.62	
B8-1	10555+80.30	RAMP K	6.11 RT	1																			6.23	5.83	4.49			1354.00	18" RCP-W	1350.51					18" RCP-E	1350.51	
B9-1	20554+75.02	RAMP J	6.13 LT	1																			6.23	5.83	4.48			1354.78							18" RCP-E	1351.30	
C-JT	561+31.37	MAINLINE	6.39 RT			1																	4	2	3.17			1351.42							30" RCP-W	1349.35	
C1-1	560+90.29	MAINLINE	59.25 LT	1																			6.23	5.83	4.80			1355.04							18" RCP-S	1351.67	
C2-1	560+94.26	MAINLINE	61.12 RT											1									5.50	4.50	4.61			1355.36							18" RCP-N	1351.79	
RB-1	10500+85.00	RAMP B	6.80 RT	1																			6.23	5.83	4.62			1345.83							18" RCP-E	1342.21	
RB-2	10501+56.00	RAMP B	6.10 RT	1																			6.23	5.83	4.81			1345.66	18" RCP-W	1341.85					18" RCP-E	1341.85	
RB-3	10502+24.00	RAMP B	6.10 RT	1																			6.23	5.83	5.32			1345.83	18" RCP-W	1341.51					18" RCP-E	1341.51	
RB-4	10504+00.00	RAMP B	6.10 RT	1																			6.23	5.83	5.89			1347.82	18" RCP-E	1343.93					18" RCP-W	1342.93	
RB-5	10506+00.00	RAMP B	6.10 RT	1																			6.23	5.83	8.82			1352.75	18" RCP-E	1347.86					18" RCP-W	1344.93	
RB-6	10506+20.00	RAMP B	23.00 RT										1										2	2	3.71			1351.00							18" RCP-W	1348.00	
RB-6-Out	10502-72.92	RAMP C	5.36 RT																		1							1346.94	18" RCP-N	1341.10	15" RCP-S	1342.16			24" RCP-W	1336.51	
RD-1	10505+50.00	RAMP D	70.00 LT										1										2	2	3.88			1359.00							18" RCP-E	1355.83	
RE-1	1503+44.36	RAMP E	8.67 RT					1														1	10	10	3	12.46			1362.28							18" RCP-N	1351.24	
A10-1	508+67.00	MAINLINE	59.37 RT	1																			6.23	5.83	6.52			1344.17							18" RCP-N	1338.65	
A11-1	509+60.00	MAINLINE	59.36 LT	1																			6.23	5.83	6.55			1344.47	UD-W	1340.42					18" RCP-S	1338.92	
A12-1	509+60.00	MAINLINE	59.37 RT	1																			6.23	5.83	6.55			1344.47	UD-E	1340.42					18" RCP-N	1338.92	
A13-1	510+75.00	MAINLINE	59.37 LT	1																			6.23	5.83	6.55			1344.84							18" RCP-S	1339.29	
A14-1	510+75.00	MAINLINE	59.37 RT	1																			6.23	5.83	6.55			1344.84	18" RCP-S	1339.29					18" RCP-N	1339.29	
A15-1	511+90.00	MAINLINE	59.37 LT	1																			6.23	5.83	6.54			1345.14	UD-W	1341.10					18" RCP-S	1339.60	
			TOTALS TABLE 1	32	0	1	0	1	0	0	0	0	2	2	25	4	6	2	0	0	1	1	10															

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CITY OF WICHITA

EAST KELLOGG

SCHEDULE OF INLETS AND MANHOLES

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	244	1055

SCHEDULE OF INLETS & MANHOLES - TABLE 2

	LOCATIONS OF INSTALLATION			CONSTRUCT. OR INSTALL																				DIMENSIONS					ELEVATIONS	INFLOW CONDUITS						OUTFLOW CONDUITS		REMARKS
STRUC. ID	STATION	ROUTE IDENTIFICATION	DISTANCE LT/RT (FT.)	INLET (TYPE II AREA) (SPECIAL)	INLET GUTTER (SPEC.)	INLET, DROP (DOUBLE)	INLET (TYPE 12 CURB)	INLET, CURB (TYPE 1) (L=10' W=3')	INLET, CURB (TYPE 1) (L=10' W=4')	INLET, CURB (TYPE 1) (L=10' W=5')	INLET, CURB (TYPE 1) (L=10' W=6')	INLET, GRTD. DRIVE-WAY (SINGLE)	INLET, DROP (SINGLE)	INLET, MH (SPEC.)	MH, REINF. CONC.	MH, STND. SWS (4')	MH, STND. SWS (5')	MH, STACK (4')	INLET ADJ.	INLET RETRO-FIT	MH ADJ., SWS	INLET HOOKUP	4" PERF. U.D. PIPE (FT.)	L (FT.)	W (FT.)	H (FT.)	DIA. (FT.)	WH (FT.)	TOP	SIZE DIRECT.	FLOWLINE ELEV.	SIZE DIRECT.	FLOWLINE ELEV.	SIZE DIRECT.	FLOWLINE ELEV.	SIZE DIRECT.	FLOWLINE ELEV.	
A16-1	511+90.00	MAINLINE	59.37 RT	1																			6.23	5.83	6.53			1345.14							18" RCP-N	1339.61	
A17-1	514+25.00	MAINLINE	59.36 LT	1																			6.23	5.83	6.54			1345.11	18" RCP-N	1339.57	UD-W	1341.07			18" RCP-S	1339.57	
A18-1	514+25.00	MAINLINE	59.36 RT	1																			6.23	5.83	6.54			1345.11	18" RCP-S	1339.94	UD-W	1341.07			18" RCP-N	1339.57	
A19-1	515+50.00	MAINLINE	59.37 LT	1																			6.23	5.83	6.55			1344.76	UD-N	1340.55					18" RCP-S	1339.21	
A20-1	515+50.00	MAINLINE	59.37 RT	1																			6.23	5.83	6.55			1344.76	UD-S	1340.71					18" RCP-N	1339.21	
A21-1	516+75.00	MAINLINE	59.36 LT	1																			6.23	5.83	6.55			1344.36	UD-N	1340.31					18" RCP-S	1338.81	
A22-1	516+75.00	MAINLINE	59.36 RT	1																			6.23	5.83	6.55			1344.36	UD-E	1340.31					18" RCP-N	1338.81	
A23-1	518+00.00	MAINLINE	59.37 LT	1																			6.23	5.83	6.55			1343.96							18" RCP-S	1338.41	
A24-1	518+00.00	MAINLINE	59.37 RT	1																			6.23	5.83	6.55			1343.96							18" RCP-N	1338.41	
A25-1	519+25.00	MAINLINE	59.36 LT	1																			6.23	5.83	6.55			1343.56							18" RCP-S	1338.01	
A26-1	519+25.00	MAINLINE	59.37 RT	1																			6.23	5.83	6.55			1343.56							18" RCP-N	1338.01	
A27-1	520+50.00	MAINLINE	59.35 LT	1																			6.23	5.83	5.55			1343.16	UD-W	1340.11					18" RCP-S	1338.61	
A28-1	520+50.00	MAINLINE	59.36 RT	1																			6.23	5.83	5.55			1343.16	UD-W	1340.11					18" RCP-N	1338.61	
A29-1	521+43.97	MAINLINE	59.37 LT	1																			6.23	5.83	5.35			1342.96	UD-W	1340.11					18" RCP-S	1338.61	
A3-1a	503+78.00	MAINLINE	66.34 LT										1										2	2	6.05			1343.11							18" RCP-S	1337.77	
A30-1	521+43.97	MAINLINE	59.37 RT	1																			6.23	5.83	5.46			1342.96	UD-W	1340.00					18" RCP-N	1338.50	
A31-1	521+88.00	MAINLINE	59.37 LT	1																			6.23	5.83	5.40			1343.01	UD-E	1340.11					18" RCP-S	1338.61	
A32-1	521+88.00	MAINLINE	59.37 RT	1																			6.23	5.83	5.40			1343.01	UD-E	1340.11					18" RCP-N	1338.61	
A33-1	523+84.00	MAINLINE	59.36 LT	1																			6.23	5.83	6.17			1344.30							18" RCP-S	1339.13	
A34-1	523+84.00	MAINLINE	59.36 RT	1																			6.23	5.83	6.17			1344.30							18" RCP-N	1339.13	
A35-1	525+80.00	MAINLINE	59.37 LT	1																			6.23	5.83	4.97			1347.38	UD-N	1344.91					18" RCP-S	1343.41	
A36-1	525+80.00	MAINLINE	59.36 RT	1																			6.23	5.83	4.97			1347.38	UD-E	1344.91					18" RCP-N	1343.41	
A37-1	527+76.00	MAINLINE	59.36 LT	1																			6.23	5.83	4.97			1351.30	UD-E	1348.83					18" RCP-S	1347.33	
A38-1	527+76.00	MAINLINE	59.37 RT	1																			6.23	5.83	4.97			1351.30	UD-E	1348.83					18" RCP-N	1347.33	
A39-1	529+72.00	MAINLINE	59.36 LT	1																			6.23	5.83	5.96			1355.22							18" RCP-S	1350.26	
A40-1	529+72.00	MAINLINE	59.36 RT	1																			6.23	5.83	5.96			1355.22							18" RCP-N	1350.26	
A41-1	531+68.00	MAINLINE	59.36 LT	1																			6.23	5.83	5.97			1359.14	UD-E	1355.67					18" RCP-S	1354.17	
A42-1	531+68.00	MAINLINE	59.37 RT	1																			6.23	5.83	5.97			1359.14	UD-E	1355.67					18" RCP-N	1354.17	
A43-1	533+64.00	MAINLINE	59.36 LT	1																			6.23	5.83	5.96			1362.69	UD-E	1359.23					18" RCP-S	1357.73	
A44-1	533+64.00	MAINLINE	59.36 RT	1																			6.23	5.83	5.96			1362.69	UD-E	1359.23					18" RCP-N	1357.73	
B10-1	10554+75.17	RAMP K	6.12 RT	1																			6.23	5.83	4.48			1354.73							18" RCP-E	1351.25	
B11-1	553+65.00	MAINLINE	67.36 LT	1																			6.23	5.83	5.04			1355.50	18" RCP-W	1351.66					18" RCP-S	1351.46	
B12-1	10553+65.07	RAMP K	6.12 RT	1																			6.23	5.83	5.03			1355.49	18" RCP-W	1351.66					18" RCP-N	1351.46	
B13-1	552+55.00	MAINLINE	67.36 LT	1																			6.23	5.83	4.69			1356.22	18" RCP-W	1352.53					18" RCP-E	1352.53	
B14-1	552+55.00	MAINLINE	67.36 RT	1																			6.23	5.83	4.69			1356.22	18" RCP-W	1352.53					18" RCP-E	1352.53	
B15-1	551+45.00	MAINLINE	67.36 LT	1																			6.23	5.83	4.49			1356.93							18" RCP-E	1353.44	
B16-1	551+45.00	MAINLINE	67.36 RT	1																			6.23	5.83	4.49			1356.93							18" RCP-E	1353.44	
B17-1	550+35.00	MAINLINE	67.36 LT	1																			6.23	5.83	4.89			1357.65	18" RCP-W	1353.96					18" RCP-S	1353.76	
B18-1	550+35.00	MAINLINE	67.36 RT	1																			6.23	5.83	4.89			1357.65	18" RCP-W	1353.96					18" RCP-N	1353.76	
B19-1	549+25.00	MAINLINE	67.36 LT	1																			6.23	5.83	4.49			1358.36	18" RCP-W	1354.87					18" RCP-E	1354.87	
B20-1	549+25.00	MAINLINE	67.36 RT	1																			6.23	5.83	4.49			1358.36	18" RCP-W	1354.87					18" RCP-E	1354.87	
B21-1	547+10.00	MAINLINE	67.36 LT	1																			6.23	5.83	4.49			1359.76	18" RCP-W	1356.47					18" RCP-S	1356.27	
B22-1	547+10.00	MAINLINE	67.36 RT	1																			6.23	5.83	4.49			1359.76	18" RCP-W	1356.47					18" RCP-N	1356.27	
B23-1	546+20.00	MAINLINE	67.36 LT	1																			6.23	5.83	4.34			1360.34	18" RCP-W	1357.00					18" RCP-E	1357.00	
B24-1	546+20.00	MAINLINE	67.36 RT	1																			6.23	5.83	4.34			1360.34	18" RCP-W	1357.00					18" RCP-E	1357.00	
B25-1	545+20.00	MAINLINE	67.36 LT	1																			6.23	5.83	4.49			1360.99	18" RCP-W	1357.50					18" RCP-E	1357.50	
B26-1	10545+20.03	RAMP H	6.14 RT	1																			6.23	5.83	4.49			1360.99	18" RCP-W	1357.50					18" RCP-E	1357.50	
B27-1	20544+19.93	RAMP G	6.12 LT	1																			6.23	5.83	4.49			1361.63							18" RCP-E	1358.14	
B28-1	10544+19.92	RAMP H	6.14 RT	1																			6.23	5.83	4.49			1361.63							18" RCP-E	1358.14	
B29-1	20543+19.85	RAMP G	6.12 LT	1																			6.23	5.83	4.49			1362.25	18" RCP-W	1358.96					18" RCP-S	1358.76	
B30-1	10543+19.83	RAMP H	6.14 RT	1																			6.23	5.83	4.49			1362.24	18" RCP-W	1358.95					18" RCP-N	1358.75	
B31-1	20542+24.74	RAMP G	6.12 LT	1																			6.23	5.83	4.32			1362.82	18" RCP-W	1359.50					18" RCP-E	1359.50	
B32-1	10542+38.00	RAMP H	7.95 RT	1																			6.23	5.83	4.20			1362.70							18" RCP-E	1359.50	
B33-1	20541+34.61	RAMP G	6.12 LT	1																			6.23	5.83	4.34			1363.34	18" RCP-W	1360.00					18" RCP-E	1360.00	
B34-1	20540+49.44	RAMP G	6.11 LT	1																			6.23	5.83	4.31			1363.81							18" RCP-E	1360.50	
B36-1	539+29.00	MAINLINE	59.37 RT	1																			6.23	5.83	4.81			1365.19	18" RCP-W	1361.58					18" RCP-NE	1361.38	
B38-1	538+95.00	MAINLINE	59.37 RT	1																			6.23	5.83	4.29			1365.29							18" RCP-E	1362.00	
B4-1A	10556+92.49	RAMP K	6.11 RT	1																			6.23	5.83	4.54			1353.55	18" RCP-E	1350.01					18" RCP-W	1350.01	
B40-1	538+16.00	MAINLINE	59.36 RT	1																			6.23	5.83	4.63			1365.48							18" RCP-N	1361.85	
B41-1	537+82.00	MAINLINE	62.44 LT	1																			6.23	5.83	5.11			1365.54							18" RCP-S	1361.43	
B8-1A	10555+30.23	RAMP K	6.12 RT	1																			6.23	5.83	4.48			1354.34	18" RCP-W	1350.86					18" RCP-E	1350.86	
FN2-3	2500+34.00	North Frontage Rd.	28.44 LT							1											1	10	10	5	9.48			1344.52	36" RCP-E	1336.58					36" RCP-W	1336.58	
FN2-4	2503+00.00	North Frontage Rd.	28.44 LT							1											1	10	10	5	9.55			1348.58	36" RCP-E	1340.57					36" RCP-W	1340.57	
FN2-5	2505+00.00	North Frontage Rd.	28.44 LT							1											1	10	10	5	9.74			1352.78	36" RCP-E	1344.58					36" RCP-W	1344.58	
FN2-6	2507+00.00	North Frontage Rd.	28.44 LT							1											1	10	10	5	10.69			1356.81	36" RCP-E	1347.66					36" RCP-W	1347.66	
FN2-7	2509+00.00	North Frontage Rd.	28.44 LT							1											1	10	10	5	11.89			1360.02	36" RCP-E	1349.67					36" RCP-W	1349.67	
FN2-8	2511+00.00	North Frontage Rd.	28.44 LT							1											1	10	10	5	12.22			1362.35	36" RCP-E	1351.67					36" RCP-W	1351.67	
FN2-9	2513+00.00	North Frontage Rd.	28.44 LT							1											1	10	10	5	11.67			1363.80	36" RCP-E	1353.67					36" RCP-W	1353.67	
FN3-2	2555+56.21	North Frontage Rd.	27.94 LT						1												1	10	10	4	8.16			1354.73	36" RCP-W	1348.11					36" RCP-E	1348.11	
																																				24" TEMP-N	1351.00	
FN3-3	2553+56.21	North Frontage Rd.	27.94 LT						1												1	10	10	4	7.86			1355.43	36" RCP-W	1349.11					36" RCP-E	1349.11	
FN3-4	2551+57.70	North Frontage Rd.	27.94 LT						1												1	10	10	4	7.55			1356.12	36" RCP-W	1350.11					36" RCP-E	1350.11	
FN3-5	2550+63.21	North Frontage Rd.	27.94 LT						1												1	10	10	4	7.40			1356.45	36" RCP-W	1350.59					36" RCP-E	1350.59	
FN3-6	2549+55.00	North Frontage Rd.	27.94 LT						1												1	10	10	4	7.24			1356.83	36" RCP-W	1351.13					36" RCP-E	1351.13	
FN3-7a	2548+75.00	North Frontage Rd.	26.50 LT				1														1	10	3	6	7.20			1357.11	36" RCP-W	1351.53					36" RCP-E	1351.53	
FN3-7	2547+64.00	North Frontage Rd.	39.94 LT						1												1	10	10	4	6.74			1357.29	36" RCP-W	1352.09	18" SWS-N	1353.24			36" RCP-E	1352.09	
FN3-8	2545+50.00	North Frontage Rd.	39.94 LT						1												1	10	10	4	6.77			1358.39	36" RCP-W	1353.16					36" RCP-E	1353.16	
FN3-9	2544+43.00	North Frontage Rd.	27.94 LT						1												1	10	10	4	7.16			1359.32	36" RCP-W	1353.70					36" RCP-E	1353.70	
		TOTALS TABLE 2		60	0	0	1	0	8	7	0	0	1	0	0	0	0	0	0	0	0	16	160														

CITY OF WICHITA

EAST KELLOGG

SCHEDULE OF INLETS AND MANHOLES

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4/16/2015
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SURV. - PLOT - CADD - DES. - DR. - TR. - CKD. - APP. -

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	245	1055

Revised Plans

SCHEDULE OF INLETS & MANHOLES - TABLE 3

	LOCATIONS OF INSTALLATION			CONSTRUCT. OR INSTALL																			DIMENSIONS					ELEVATIONS	INFLOW CONDUITS						OUTFLOW CONDUITS		REMARKS
STRUC. ID	STATION	ROUTE IDENTIFICATION	DISTANCE LT/RT (FT.)	INLET (TYPE II AREA) (SPECIAL)	INLET GUTTER (SPEC.)	INLET, DROP (DOUBLE)	INLET (TYPE 12 CURB)	INLET, CURB (TYPE 1) (L=10' W=3')	INLET, CURB (TYPE 1) (L=10' W=4')	INLET, CURB (TYPE 1) (L=10' W=5')	INLET, CURB (TYPE 1) (L=10' W=6')	INLET, GRTD. DRIVE-WAY (SINGLE)	INLET, DROP (SINGLE)	INLET, MH (SPEC.)	MH, REINF. CONC.	MH, STND. SWS (4')	MH, STND. SWS (5')	MH, STACK (4')	INLET ADJ.	INLET RETRO-FIT	MH ADJ., SWS	INLET HOOKUP	4" PERF. U.D. PIPE (FT.)	L (FT.)	W (FT.)	H (FT.)	DIA. (FT.)	WH (FT.)	TOP	SIZE DIRECT.	FLOWLINE ELEV.	SIZE DIRECT.	FLOWLINE ELEV.	SIZE DIRECT.	FLOWLINE ELEV.	SIZE DIRECT.	FLOWLINE ELEV.	
FN4-2	2558+06.21	North Frontage Rd.	27.94 LT						1													1	10	10	4	8.17			1353.86	24" RCP-E	1347.15					24" RCP-W	1347.15	
FN4-3	2559+56.21	North Frontage Rd.	27.94 LT						1													1	10	10	4	7.32			1353.32	18" RCP-E	1347.96					24" RCP-W	1347.46	
FN4-4	2561+56.21	North Frontage Rd.	27.44 LT					1														1	10	10	3	5.09			1352.27							18" RCP-W	1348.60	
FN5-2	2566+56.90	North Frontage Rd.	71.87 LT					1														1	10	10	3	5.36			1349.03	18" RCP-W	1345.09					18" SWS-NE	1345.09	
FN5-3	2566+23.61	North Frontage Rd.	72.06 LT					1														1	10	10	3	5.35			1349.09	18" SWS-NW	1345.16					18" RCP-E	1345.16	
FN6-2	2566+88.58	North Frontage Rd.	27.44 LT					1														1	10	10	3	5.73			1349.48	18" RCP-W	1345.17					18" SWS-NE	1345.17	
FN6-3	2565+85.00	North Frontage Rd.	27.45 LT					1														1	10	10	3	5.97			1350.02	18" RCP-W	1345.47					18" RCP-E	1345.47	
FN6-4	2564+75.00	North Frontage Rd.	27.44 LT					1														1	10	10	3	5.00			1350.60	18" RCP-W	1347.02					18" RCP-E	1347.74	
FN6-5	2563+56.21	North Frontage Rd.	27.44 LT					1														1	10	10	3	4.90			1351.22							18" RCP-E	1347.74	
FS1-1	1510+30.00	South Frontage Rd.	27.93 RT						1										1			1	10	10	4	5.74			1361.32	38"x24" RCP-E	1357.11	18" RCP-N	1357.11			38"x24" RCP-S	1357.08	TEMP Top = 1360.07
FS1-2	1512+50.00	South Frontage Rd.	27.93 RT							1												1	10	10	5	5.95			1362.23	38"x24" RCP-E	1357.78					38"x24" RCP-W	1357.78	
FS1-3	1514+34.00	South Frontage Rd.	27.93 RT							1												1	10	10	5	5.98			1362.82	30" RCP-E	1358.34	30"x19" TEMP-N	1358.34			38"x24" RCP-W	1358.34	
FS2-2	1557+69.08	South Frontage Rd.	28.44 RT							1												1	10	10	5	9.92			1353.85	42" RCP-W	1345.51					42" RCP-E	1345.51	
FS2-4	1555+10.00	South Frontage Rd.	28.44 RT							1												1	10	10	5	8.07			1353.40	36" RCP-W	1346.87	15" SWS-SW	1349.29			36" RCP-E	1346.87	
FS2-5	1554+03.32	South Frontage Rd.	28.44 RT							1												1	10	10	5	8.20			1353.99	36" RCP-W	1347.33					36" RCP-E	1347.33	
FS2-6	1552+88.15	South Frontage Rd.	27.94 RT						1													1	10	10	4	8.01			1354.62	36" RCP-W	1348.15					36" RCP-E	1348.15	
FS2-7	1550+65.00	South Frontage Rd.	26.50 RT				1															1	10	3	6	8.00			1355.86	36" RCP-W	1349.05					36" RCP-E	1349.05	
FS2-8	1548+23.83	South Frontage Rd.	28.44 RT							1												1	10	10	5	7.67			1357.18	36" RCP-W	1351.05					36" RCP-E	1351.05	
FS2-9	1546+37.98	South Frontage Rd.	26.50 RT				1															1	10	3	6	8.09			1358.31	30" RCP-W	1351.91					36" RCP-E	1351.41	
FS3-2	1560+60.00	South Frontage Rd.	26.50 RT				1															1	10	3	6	6.50			1353.69	18" RCP-E	1348.25					18" RCP-W	1348.25	
FS3-3	1562+05.00	South Frontage Rd.	26.50 RT				1															1	10	3	6	4.74			1352.39							18" RCP-W	1348.71	
RB-3A	10502+70.00	RAMP B	6.00 RT	1																				6.23	5.83	5.86			1346.14	18" RCP-W	1341.28	18" RCP-E	1342.28			18" RCP-S	1341.28	
SR1-1	39+08.09	Webb Road	36.60 LT					1														1	10	10	3	5.88			1357.26	21" RCP-S	1352.82	15" RCP-E	1353.53			21" RCP-N	1352.82	
SR1-2	40+53.00	Webb Road	48.44 LT					1														1	10	10	3	5.12			1356.79	18" RCP-S	1353.36	21" RCP-W	1353.11			21" RCP-N	1353.11	
SR1-3	41+97.58	Webb Road	48.44 LT					1														1	10	10	3	5.36			1357.66							18" RCP-N	1353.72	
SR2-1	45+55.38	Webb Road	69.44 RT							1												1	10	10	5	6.83			1359.95	36" RCP-E	1354.66	18" RCP-N	1354.66	18" RCP-S	1355.85	36" RCP-W	1354.66	
SR2-2	45+53.44	Webb Road	70.39 LT							1												1	10	10	5	7.72			1361.01	36" RCP-N	1354.83	18" RCP-S	1356.02			36" RCP-W	1354.83	
SR3-2	59+02.00	Webb Road	60.80 LT								1											1	10	10	6	11.23			1367.31	54" RCP-N	1357.75					54" RCP-S	1357.75	
SR3-3	57+40.00	Webb Road	72.81 LT								1											1	10	10	6	8.54			1364.81	48" RCP-N	1357.94	△3 36" SWS-E	1358.94			54" RCP-S	1357.94	
SR3-4	56+23.51	Webb Road	81.46 LT								1											1	10	10	6	8.88			1365.33	48" RCP-N	1358.08	30" RCP-E	1361.20			48" RCP-S	1358.08	
SR3-5	53+51.72	Webb Road	94.94 LT								1											1	10	10	6	7.04			1363.83	24" RCP-N	1360.45	30" RCP-E	1360.63			48" RCP-S	1358.41	
SR4-3	107+41.27	Chateau Street	37.75 RT					1														1	10	10	3	4.80			1355.15							18" SWS-SW	1351.77	
A9-1a	508+67.00	MAINLINE	66.34 LT										1											2	2	7.83			1345.84							18" RCP-S	1338.72	
A14-1a	510+75.00	MAINLINE	66.32 RT										1											2	2	7.86			1346.51							18" RCP-N	1339.36	
A17-1a	514+25.00	MAINLINE	66.35 LT										1											2	2	7.84			1346.78							18" RCP-S	1339.65	
A18-1a	514+25.00	MAINLINE	66.32 RT										1											2	2	7.48			1346.78							18" RCP-N	1340.01	
B(1)-Out	559+23.72	MAINLINE	80.25 LT															1								3.45	4		1353.87									
B(1)-2	20559+00.59	RAMP J	7.08 LT	1																				6.23	5.83	7.30			1353.69	18" RCP-W	1349.18					18" RCP-E	1347.39	
B(1)-3	20558+45.43	RAMP J	6.11 LT	1																				6.23	5.83	5.06			1353.52							18" RCP-E	1349.46	
B19-1A	548+25.00	MAINLINE	67.36 LT	1																				6.23	5.83	4.49			1359.01							18" RCP-E	1355.52	
B20-1A	548+25.00	MAINLINE	67.36 RT	1																				6.23	5.83	4.49			1359.01							18" RCP-E	1355.52	
FN2-10	2516+95.00	North Frontage Rd.	28.44 LT							1												1	10	10	5	9.02			1364.11	24" RCP-E	1357.61					36" RCP-W	1356.63	
FN2-11	2518+00.00	North Frontage Rd.	27.94 LT						1													1	10	10	4	8.27			1364.95	24" RCP-E	1358.14					24" RCP-W	1358.14	
FN2-11A	2521+00.00	North Frontage Rd.	38.50 LT				1															1	10	3	6	8.41			1367.00	24" RCP-E	1359.65					24" RCP-W	1359.65	
																																				18"x12" TEMP-N	1359.65	
FN2-12	2522+53.00	North Frontage Rd.	39.94 LT						1													1	10	10	4	6.22			1365.17	18" RCP-E	1360.91					24" RCP-W	1360.41	
FN2-13	2524+57.00	North Frontage Rd.	30.82 LT					1														1	10	10	3	7.40			1367.91	18" RCP-E	1363.73					18" RCP-W	1361.93	
FN2-14	2526+68.00	North Frontage Rd.	26.50 LT				1															1	10	3	6	6.18			1370.30	18" RCP-E	1365.26					18" RCP-W	1365.26	
FN2-15	2528+55.38	North Frontage Rd.	27.44 LT					1														1	10	10	3	5.08			1370.28	10" PVC-N	1369.27					18" RCP-W	1366.62	
FN3-10	2542+43.00	North Frontage Rd.	28.44 LT							1												1	10	10	5	7.53			1360.69	24" RCP-W	1355.70					36" RCP-E	1354.70	
FN3-11	2540+43.00	North Frontage Rd.	27.96 LT						1													1	10	10	4	6.33			1362.07	24" RCP-W	1357.20					24" RCP-E	1357.20	
FN3-12	2538+43.00	North Frontage Rd.	27.96 LT						1													1	10	10	4	6.20			1363.44	24" RCP-W	1358.70					24" RCP-E	1358.70	
FN3-13	2537+00.00	North Frontage Rd.	27.96 LT						1													1	10	10	4	6.11			1364.43	24" RCP-W	1359.78					24" RCP-E	1359.78	
FN3-14a	2535+78.00	North Frontage Rd.	26.50 LT				1															1	10	3	6	5.68			1365.27	24" RCP-W	1360.69					24" RCP-E	1360.69	
FN3-14	2534+43.00	North Frontage Rd.	27.94 LT						1													1	10	10	4	5.97			1366.21	18" RCP-W	1362.20					24" RCP-E	1361.70	
FN3-15	2532+43.00	North Frontage Rd.	27.44 LT					1														1	10	10	3	5.53			1367.61	18" RCP-W	1363.50					18" RCP-E	1363.50	
FN3-15a	2531+29.00	North Frontage Rd.	26.50 LT				1															1	10	3	6	5.42			1368.40	18" RCP-W	1364.12					18" RCP-E	1364.12	
FN3-16	2530+05.00	North Frontage Rd.	27.94 LT						1													1	10	10	4	5.88			1369.26							18" RCP-E	1364.80	
FN3A-1	2547+67.78	North Frontage Rd.	64.00 LT										1											2	2	4.57			1357.74							18" SWS-S	1353.88	
FS1-14	1515+47.13	South Frontage Rd.	39.94 RT						1													1	10	10	4	5.75			1362.94	30" RCP-E	1358.69					30"RCP-W	1358.69	
FS1-15	1517+98.00	South Frontage Rd.	39.94 RT						1													1	10	10	4	8.35			1366.29	24" RCP-S	1359.96	24" TEMP-N	1359.44	18" TEMP-E	1359.44	30"RCP-W	1359.44	
FS1-16	1520+65.00	South Frontage Rd.	27.94 RT						1													1	10	10	4	7.15			1366.93	24" RCP-E	1361.24					24" SWS-S	1361.24	
FS1-17	1522+08.41	South Frontage Rd.	27.94 RT						1													1	10	10	4	5.10			1365.31	24" RCP-E	1361.67	24" TEMP-N	1361.67			24" RCP-W	1361.67	
FS1-18	1524+90.00	South Frontage Rd.	27.94 RT						1													1	10	10	4	6.51			1367.56	24" RCP-E	1363.46					24" RCP-W	1362.51	
FS1-19	1526+54.50	South Frontage Rd.	27.94 RT						1													1	10	10	4	6.54			1369.03	18" RCP-E	1364.45	18" SWS-S	1364.45			24" RCP-W	1363.95	
FS1-1a	1510+30.00	South Frontage Rd.	7.70 LT										1											2	2	3.49			1360.07							18" RCP-S	1357.29	
FS1-20	1527+68.00	South Frontage Rd.	27.44 RT					1														1	10	10	3	4.99			1370.04	18" RCP-E	1366.47					18" RCP-W	1366.47	
FS1-21	1529+14.25	South Frontage Rd.	27.94 RT						1													1	10	10	4	5.00			1371.35							18" RCP-W	1367.77	
FS1G-1	1526+93.28	South Frontage Rd.	58.00 RT				1															1	10	3	6	5.10			1368.86	18" RCP-E	1364.82					18" SWS-N	1364.82	
FS1G-2	1527+32.28	South Frontage Rd.	58.00 RT				1															1	10	3	6	4.97			1368.86							18" RCP-W	1364.95	
FS2-11a	1544+87.00	South Frontage Rd.	26.50 RT				1															1	10	3	6	6.77			1359.35	30" RCP-W	1353.73					30" RCP-E	1353.73	
FS2-11	1543+98.92	South Frontage Rd.	30.18 RT						1													1	10	10	4	7.03			1359.92	30" RCP-W	1354.39					30" RCP-E	1354.39	
FS2-12	1541+98.93	South Frontage Rd.	37.68 RT						1													1	10	10	4	7.36			1361.15	30" RCP-W	1355.79					30" RCP-E	1355.29	
FS2-13	1540+03.00	South Frontage Rd.	45.02 RT						1													1	10	10	4	7.15			1362.35	30" RCP-W	1356.70					30" RCP-E	1356.70	
FS2-14	1539+65.00	South Frontage Rd.	45.94 RT						1													1	10	10	4	7.20			1362.59	30" RCP-W	1356.89	18" RCP-N	1357.39			30" RCP-E	1356.89	
FS2-15	1538+84.95	South Frontage Rd.	45.94 RT						1													1	10	10	4	7.30			1363.15	30" RCP-W	1357.35					30" RCP-E	1357.35	
FS2-16	1538+08.17	South Frontage Rd.	45.94 RT						1													1	10	10	4	7.37			1363.68	30" RCP-W	1357.81					30" RCP-E	1357.81	
FS2-17	1537+35.72	South Frontage Rd.	39.82 RT														1									7.00	5		1363.98	24" RCP-W	1358.69	15" RCP-S	1359.69			30" RCP-E	1358.19	
		TOTALS TABLE 3		5	0	0	11	15	24	10	4	0	6	0	0	0	1	1	1	0	0	64	640														

△3 6/08/2015 Revised SWS Material Callout

CITY OF WICHITA

EAST KELLOGG

SCHEDULE OF INLETS AND MANHOLES

I:3I:34 PM
6/8/2015
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SURV. - PLOT - CADD - DES. - DR. - TR. - CKD. - APP. -

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	246	1055

Revised Plans

SCHEDULE OF INLETS & MANHOLES - TABLE 4

	LOCATIONS OF INSTALLATION			CONSTRUCT. OR INSTALL																			DIMENSIONS					ELEVATIONS	INFLOW CONDUITS						OUTFLOW CONDUITS		REMARKS
STRUC. ID	STATION	ROUTE IDENTIFICATION	DISTANCE LT/RT (FT.)	INLET (TYPE II AREA) (SPECIAL)	INLET GUTTER (SPEC.)	INLET, DROP (DOUBLE)	INLET (TYPE 12 CURB)	INLET, CURB (TYPE 1) (L=10' W=3')	INLET, CURB (TYPE 1) (L=10' W=4')	INLET, CURB (TYPE 1) (L=10' W=5')	INLET, CURB (TYPE 1) (L=10' W=6')	INLET, GRTD. DRIVE-WAY (SINGLE)	INLET, DROP (SINGLE)	INLET, MH (SPEC.)	MH, REINF. CONC.	MH, STND. SWS (4')	MH, STND. SWS (5')	MH, STACK (4')	INLET ADJ.	INLET RETRO-FIT	MH ADJ., SWS	INLET HOOKUP	4" PERF. U.D. PIPE (FT.)	L (FT.)	W (FT.)	H (FT.)	DIA. (FT.)	WH (FT.)	TOP	SIZE DIRECT.	FLOWLINE ELEV.	SIZE DIRECT.	FLOWLINE ELEV.	SIZE DIRECT.	FLOWLINE ELEV.	SIZE DIRECT.	FLOWLINE ELEV.	
FS2-18	1536+47.57	South Frontage Rd.	33.68 RT					1														1	10	10	3	7.22			1365.25	18" RCP-W	1359.99	15" RCP-SE	1362.37			24" RCP-E	1359.49	
FS2-18a	1536+71.07	South Frontage Rd.	47.89 RT										1											2	2	3.72			1365.30							15" RCP-N	1362.50	
FS2-19	1535+63.81	South Frontage Rd.	27.44 RT					1														1	10	10	3	6.20			1366.48	18" RCP-W	1361.70	18" RCP-N	1361.70			18" RCP-E	1361.70	
FS2-19a	10537+60.00	RAMP H	26.00 LT										1											2	2	3.28			1364.50							18" RCP-S	1361.93	
FS2-20	1533+50.67	South Frontage Rd.	27.44 RT					1														1	10	10	3	6.33			1369.48	18" RCP-W	1364.57					18" RCP-E	1364.57	
FS2-21a	1532+33.00	South Frontage Rd.	26.50 RT				1															1	10	3	6	5.91			1371.01	18" RCP-W	1366.16					18" RCP-E	1366.16	
FS2-21	1531+75.80	South Frontage Rd.	26.50 RT				1															1	10	3	6	5.63			1371.50							18" RCP-E	1366.93	
FS2-3a	1555+60.00	South Frontage Rd.	28.44 RT							1												1	10	10	5	8.05			1353.22	36" RCP-W	1346.71					36" RCP-E	1346.71	
FS2-3b	1556+90.00	South Frontage Rd.	28.44 RT							1												1	10	10	5	9.15			1353.34	42" RCP-W	1346.27					42" RCP-E	1345.77	
FS2-3c	1555+91.00	South Frontage Rd.	26.50 RT				1															1	10	3	6	7.76			1353.17	36" RCP-W	1346.60					36" RCP-E	1346.60	
FS2-3d	1556+10.00	South Frontage Rd.	26.50 RT				1															1	10	3	6	7.81			1353.16	36" RCP-W	1346.54					36" RCP-E	1346.54	
FS2-6a	1551+73.20	South Frontage Rd.	28.44 RT							1												1	10	10	5	8.14			1355.25	36" RCP-W	1348.65					36" RCP-E	1348.65	
FS2-7a	1549+43.13	South Frontage Rd.	26.50 RT				1															1	10	3	6	7.66			1356.52	36" RCP-W	1350.05					36" RCP-E	1350.05	
FS2-7b	1550+40.00	South Frontage Rd.	26.50 RT				1															1	10	3	6	7.93			1355.99	36" RCP-W	1349.25					36" RCP-E	1349.25	
FS2A-1	1554+75.35	South Frontage Rd.	64.43 RT					1														1	10	10	3	4.90			1352.93	15" RCP-W	1349.43					15" SWS-NE	1349.43	
FS2A-2	1554+38.47	South Frontage Rd.	64.57 RT					1														1	10	10	3	4.79			1352.93							15" RCP-E	1349.54	
FS2C-1	1537+30.70	South Frontage Rd.	94.78 RT				1															1	10	3	6	4.74			1363.78	15" RCP-W	1360.08					15" RCP-N	1360.08	
FS2C-2	1536+94.19	South Frontage Rd.	94.39 RT				1															1	10	3	6	5.75			1363.94							15" RCP-E	1360.23	
FS2D-1	1539+65.00	South Frontage Rd.	25.29 RT		1																	1	10	2	1.25	5.66			1362.95							18" RCP-S	1358.00	
SR1A-1	40+58.20	Webb Road	44.44 RT					1														1	10	10	3	5.05			1356.91	18" RCP-S	1353.55					21" RCP-E	1353.30	
SR1A-2	41+97.58	Webb Road	44.44 RT					1														1	10	10	3	4.96			1357.44							18" RCP-N	1353.90	
SR2A-1	43+57.66	Webb Road	45.68 RT					1														1	10	10	3	4.19			1358.03							18" RCP-S	1355.26	
SR2B-1	46+78.00	Webb Road	68.44 RT					1														1	10	10	3	6.02			1362.84							18" RCP-N	1358.24	
SR2B-2	44+90.00	Webb Road	66.85 RT					1														1	10	10	3	5.42			1358.86	18" RCP-N	1354.86					18" RCP-S	1354.86	
SR2C-1	44+50.36	Webb Road	62.77 LT							1												1	10	10	5	7.15			1360.56	36" RCP-N	1354.95					36" RCP-S	1354.95	
SR2C-2	43+67.00	Webb Road	56.11 LT						1													1	10	10	4	6.39			1359.90	36" RCP-N	1355.05					36" RCP-S	1355.05	
SR2C-3	42+77.87	Webb Road	49.52 LT						1													1	10	10	4	5.10			1358.72	24" RCP-E	1355.16					36" RCP-S	1355.16	
SR2D-1	46+50.74	Webb Road	76.56 LT					1														1	10	10	3	6.45			1362.42	18"x12" TEMP-SE	1357.39					18" RCP-N	1357.39	
SR3A-1	53+33.00	Webb Road	44.00 RT									1										1	10	3.5	2	5.21			1364.83	18" RCP-S	1360.37					24" RCP-N	1360.37	
SR3A-2	56+95.00	Webb Road	44.94 RT						1													1	10	10	4	4.40			1364.57	18" RCP-S	1361.59	12" TEMP-S	1363.33			18" RCP-N	1361.59	
SR3A-3	59+02.00	Webb Road	44.44 RT					1														1	10	10	3	6.90			1367.69	15" TEMP-E	1362.21					18" RCP-N	1362.21	
SR3B-1	101+19.22	Orme Road	22.19 RT							1												1	10	10	5	6.40			1363.98	18" RCP-N	1359.62	24" RCP-E	1360.12			3 36" SWS-W	1359.12	
SR3B-2	101+19.00	Orme Road	21.19 LT					1														1	10	10	3	5.64			1363.98							18" RCP-S	1359.76	
SR3C-1	102+27.71	Orme Road	21.69 RT						1													1	10	10	4	3.82			1366.16	24" RCP-E	1363.90					24" RCP-W	1363.80	
SR3-5a	52+46.00	Webb Road	105.00 LT														1									6.78	5		1366.39	24" SWS-N	1360.82					24" RCP-S	1360.82	
FN2-2	2499+35.00	North Frontage Rd.	18.00 LT																		1								1344.94	36" RCP-E	1335.58	18" RCP-S	1338.26			36" RCP-W	1334.58	
T-5	569+46.00	MAINLINE	45.00 LT																	1																		
T-6	570+42.00	MAINLINE	42.00 LT																	1																		
T-7	570+42.00	MAINLINE	49.00 LT																	1																		
TOTALS TABLE 4				**0**	**1**	**0**	**8**	**13**	**4**	**5**	**0**	**1**	**2**	**0**	**0**	**0**	**1**	**0**	**0**	**3**	**1**	**32**	**320**															
TOTALS TABLE 1				**32**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**0**	**2**	**2**	**25**	**4**	**6**	**2**	**0**	**0**	**1**	**1**	**10**															
TOTALS TABLE 2				**60**	**0**	**0**	**1**	**0**	**8**	**7**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**16**	**160**															
TOTALS TABLE 3				**5**	**0**	**0**	**11**	**15**	**24**	**10**	**4**	**0**	**6**	**0**	**0**	**0**	**1**	**1**	**1**	**0**	**0**	**64**	**640**															
PROJECT TOTALS				**97**	**1**	**1**	**20**	**29**	**36**	**22**	**4**	**1**	**11**	**2**	**25**	**4**	**8**	**3**	**1**	**3**	**2**	**113**	**1,130**															

3 6/08/2015 Revised SWS Material Callout

CITY OF WICHITA

EAST KELLOGG

SCHEDULE OF INLETS AND MANHOLES

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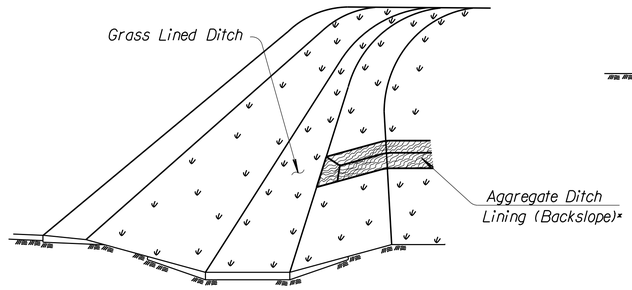
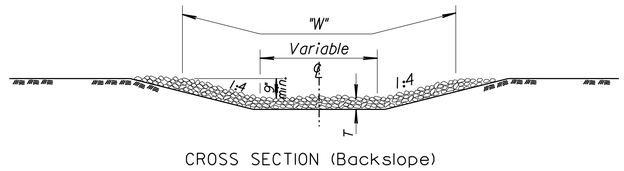
6/8/2015
T:\35765A\Cadd\Sheets\Package\Drainage\StormSewer\EKISTDRD653Hd01A.dgn
SURV. - PLOT - CADD - DES. - DR. - TR. - CKD. - APP. -

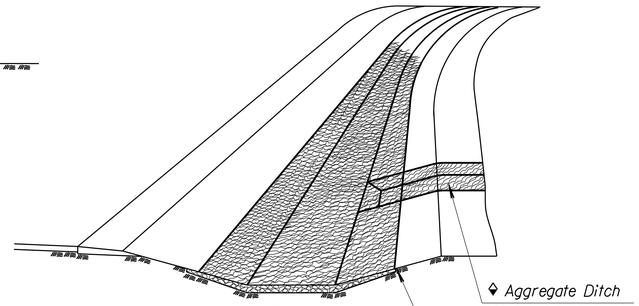
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	247	1055



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



CROSS SECTION (Backslope)



PERSPECTIVE VIEW

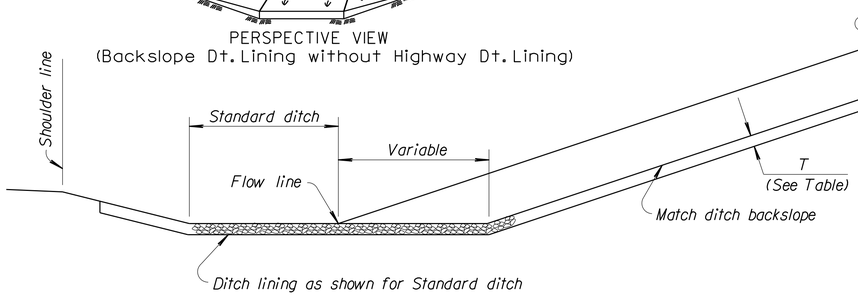
GENERAL NOTE

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

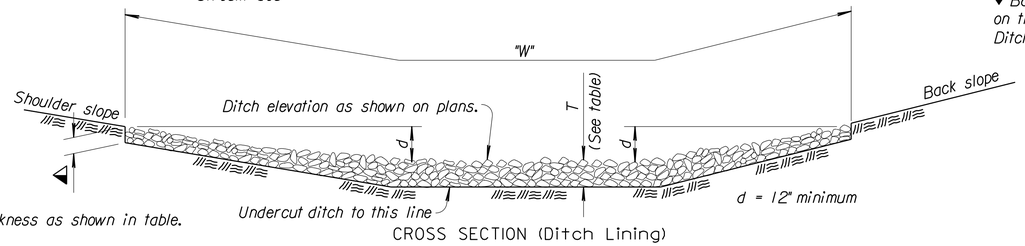
Dumped aggregate shall be spread in reasonable conformity with the ditch section as shown and as directed by the Engineer.

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

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



LONGITUDINAL SECTION (Backslope)



CROSS SECTION (Ditch Lining)

◭ Feather edges to nominal thickness as shown in table.

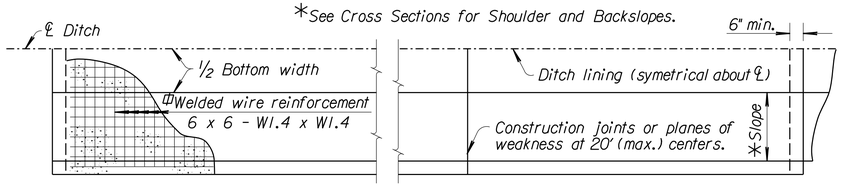
◆ Backslope aggregate ditch lining, constructed as indicated on this sheet, shall be paid for by the ton of "Aggregate Ditch Lining (D_{50})."

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

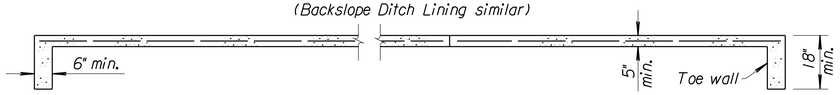
Note: Quantities provided for information only.

AGGREGATE DITCH LINING (D_{50})

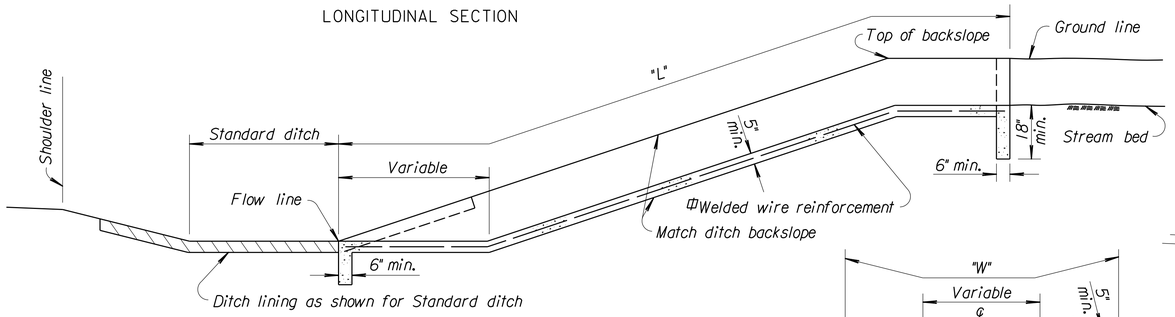
*See Cross Sections for Shoulder and Backslopes.



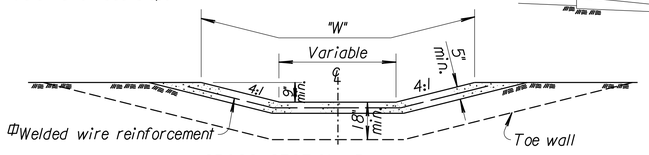
HALF PLAN
(Backslope Ditch Lining similar)



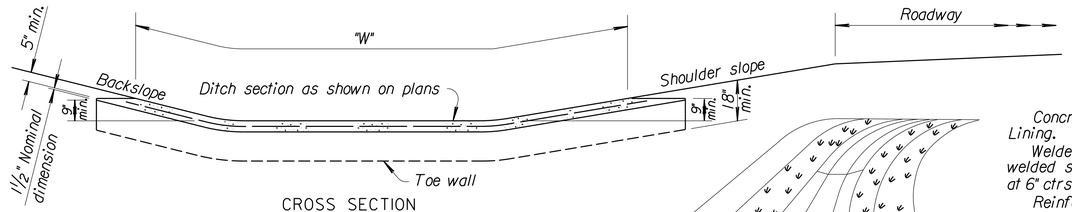
LONGITUDINAL SECTION



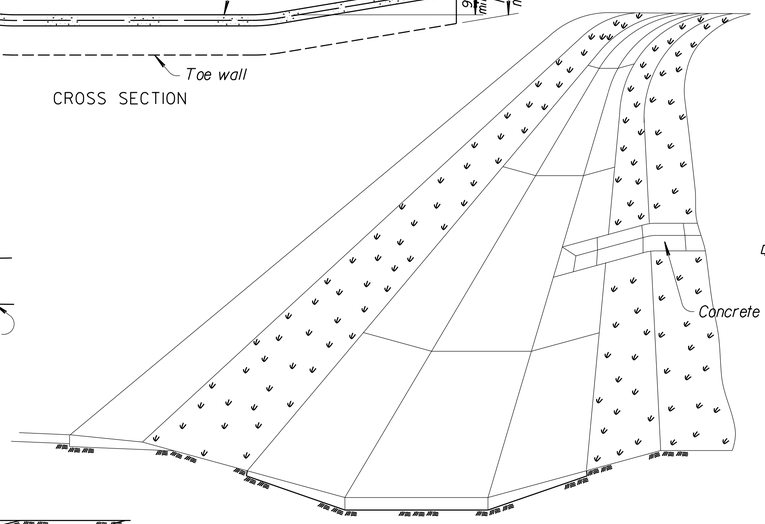
LONGITUDINAL SECTION (Backslope)



CROSS SECTION (Backslope)



CROSS SECTION



PERSPECTIVE VIEW

GENERAL NOTE

Concrete Grade 3.0 shall be used in Concrete Ditch Lining.

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

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

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

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

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

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

CONCRETE DITCH LINING

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

KANSAS DEPARTMENT OF TRANSPORTATION

DITCH LINING

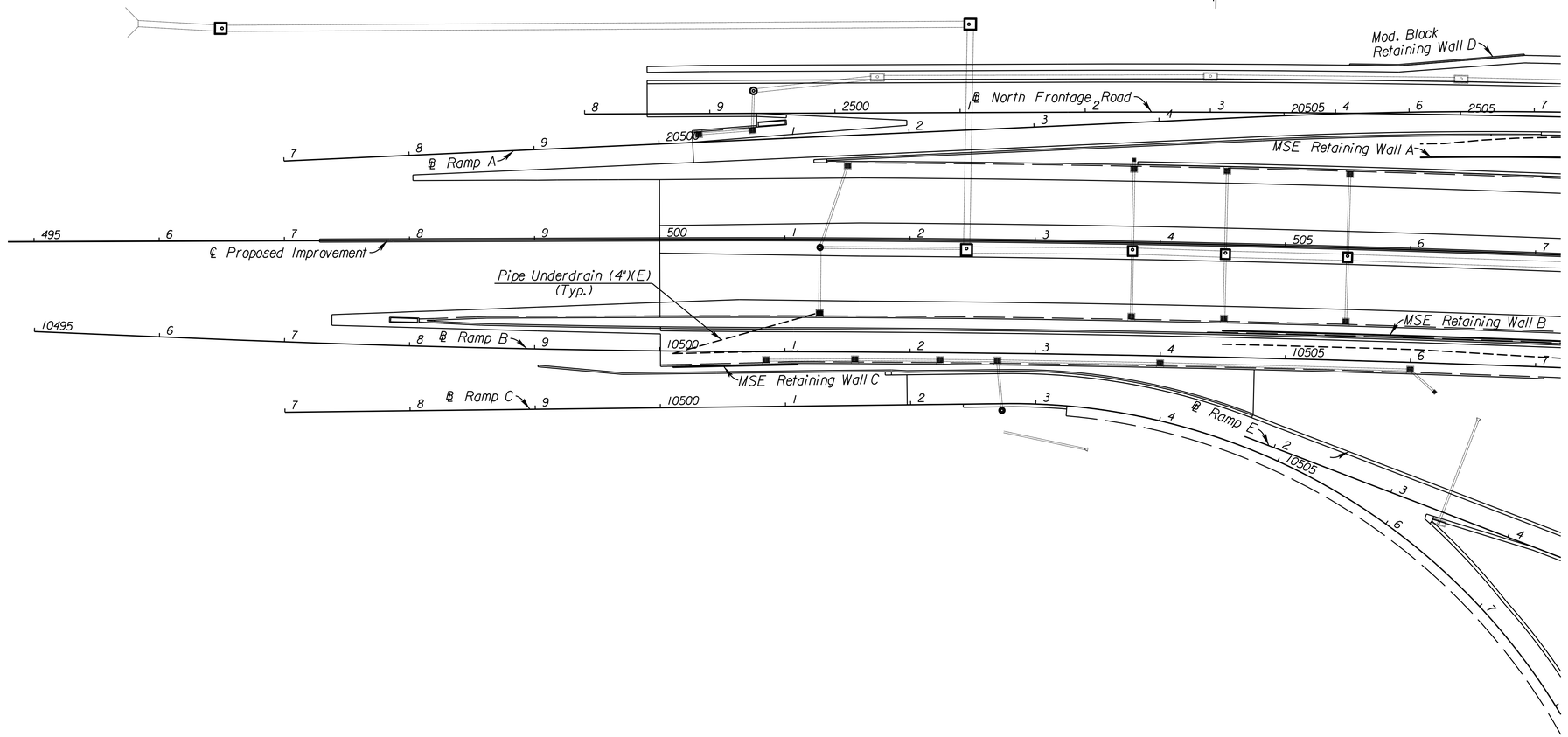
RD502

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

Plotted : 4/16/2015
Drawn By : ___
File : T:\35765A\Cadd\Sheets\Package1\Standards\KDOT\EK1STDRD502A

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	248	1055

Scale: 1"=20'



UNDERDRAIN CONNECTIONS

STATION	SIDE	INLET NO.	CONNECTION		
			◔ 4" UNDERDRAIN PIPE (E)		FROM WALL
				LIN. FT	
Mainline					
501+28	*Rt.*	*A-5A*	*X*	*119*	*C*

◔ *All work and materials required to connect the wall underdrains to the Storm Water Sewer Inlets shall be paid for as "4" Dia. Pipe Underdrain (E)". For details See Sh. No's. 308 & 337*

See Sh. No's. 179-237 for SWS Plans.
See Sh. No's. 300-334 for Retaining Wall Plans.
See Sh. No's. 491-502 for Landscape Plans.

CITY OF WICHITA

PLAN

UNDERDRAINS

STA. 495+00 TO STA. 507+00

SURV.	-	PLOT	CADD	DES.	-	DR.	-	TR.	-	CKD.	-	APP.	-

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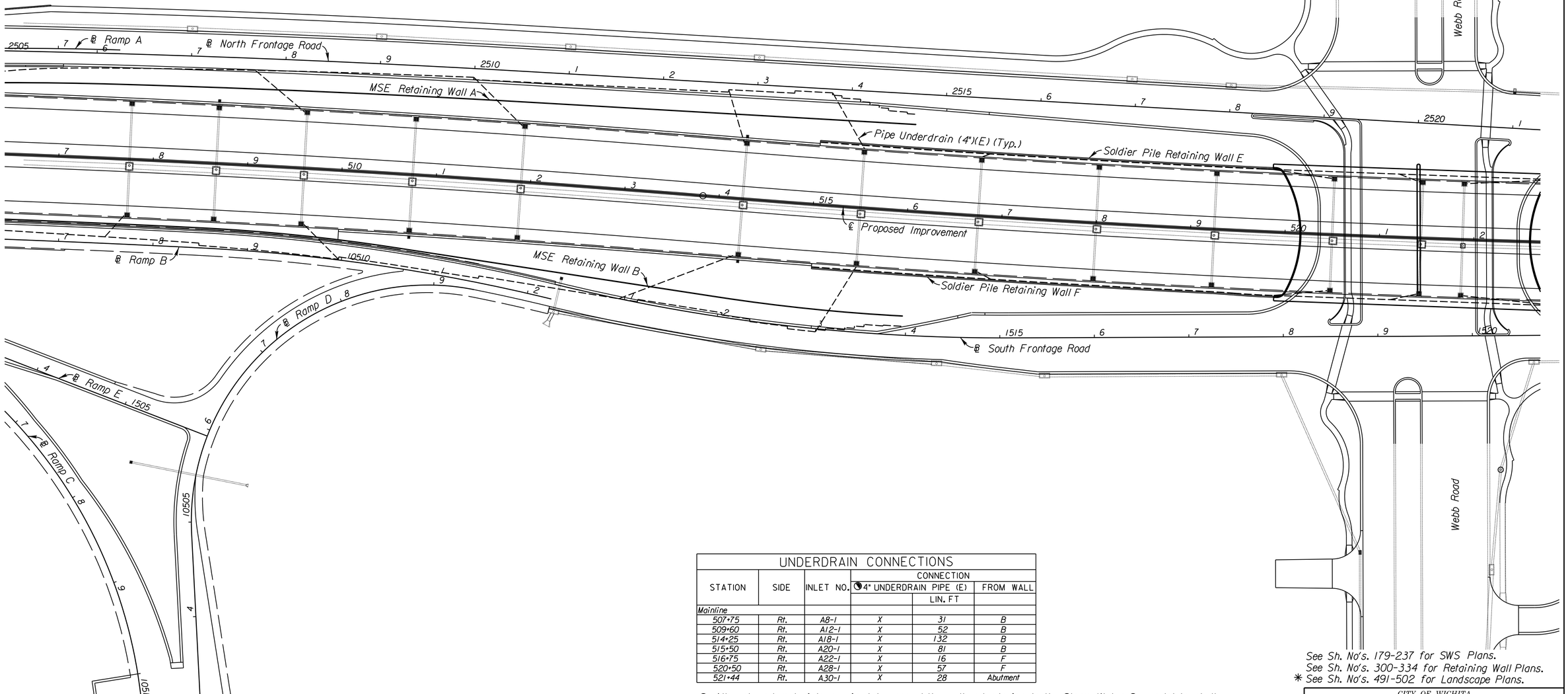
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	249	1055

UNDERDRAIN CONNECTIONS

STATION	SIDE	INLET NO.	CONNECTION ◔ 4" UNDERDRAIN PIPE (E) LIN. FT	FROM WALL
Mainline				
509+60	Lt.	A11-1	X	68	A
511+90	Lt.	A15-1	X	73	A
514+25	Lt.	A17-1	X	58	A
515+50	Lt.	A19-1	X	68	A
516+75	Lt.	A21-1	X	9	E
520+50	Lt.	A27-1	X	63	E
521+44	Lt.	A29-1	X	24	Abutment



UNDERDRAIN CONNECTIONS

STATION	SIDE	INLET NO.	CONNECTION ◔ 4" UNDERDRAIN PIPE (E) LIN. FT	FROM WALL
Mainline				
507+75	Rt.	A8-1	X	31	B
509+60	Rt.	A12-1	X	52	B
514+25	Rt.	A18-1	X	132	B
515+50	Rt.	A20-1	X	81	B
516+75	Rt.	A22-1	X	16	F
520+50	Rt.	A28-1	X	57	F
521+44	Rt.	A30-1	X	28	Abutment

◔ All work and materials required to connect the wall underdrains to the Storm Water Sewer Inlets shall be paid for as "4" Dia. Pipe Underdrain (E)". For details See Sh. No's. 308 & 337

See Sh. No's. 179-237 for SWS Plans.
See Sh. No's. 300-334 for Retaining Wall Plans.
✳ See Sh. No's. 491-502 for Landscape Plans.

CITY OF WICHITA

PLAN

UNDERDRAINS

STA. 507+00 TO STA. 522+00

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.

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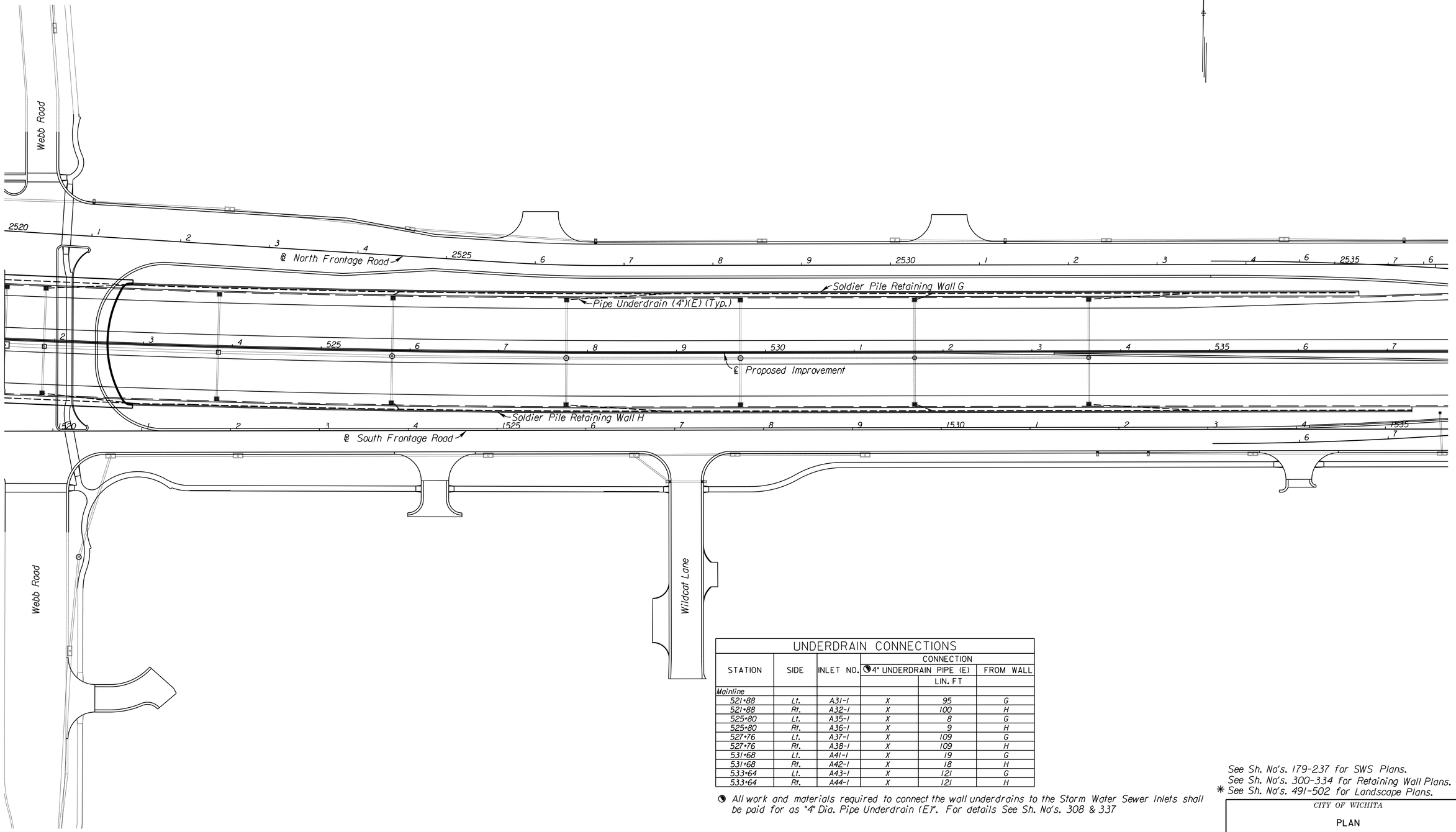

UNDERDRAIN CONNECTIONS					
STATION	SIDE	INLET NO.	CONNECTION		
			◔ 4" UNDERDRAIN PIPE (E)		FROM WALL
				LIN. FT	
Mainline					
521+88	*Lt.*	*A31-1*	*X*	*95*	*G*
521+88	*Rt.*	*A32-1*	*X*	*100*	*H*
525+80	*Lt.*	*A35-1*	*X*	*8*	*G*
525+80	*Rt.*	*A36-1*	*X*	*9*	*H*
527+76	*Lt.*	*A37-1*	*X*	*109*	*G*
527+76	*Rt.*	*A38-1*	*X*	*109*	*H*
531+68	*Lt.*	*A41-1*	*X*	*19*	*G*
531+68	*Rt.*	*A42-1*	*X*	*18*	*H*
533+64	*Lt.*	*A43-1*	*X*	*121*	*G*
533+64	*Rt.*	*A44-1*	*X*	*121*	*H*

◔ *All work and materials required to connect the wall underdrains to the Storm Water Sewer Inlets shall be paid for as "4" Dia. Pipe Underdrain (E)". For details See Sh. No's. 308 & 337*

See Sh. No's. 179-237 for SWS Plans.
See Sh. No's. 300-334 for Retaining Wall Plans.
✳ *See Sh. No's. 491-502 for Landscape Plans.*

CITY OF WICHITA

PLAN

UNDERDRAINS

STA. 522+00 TO STA. 537+00

SURV.	-	PLOT	CADD	DES.	-	DR.	-	TR.	-	CKD.	-	APP.

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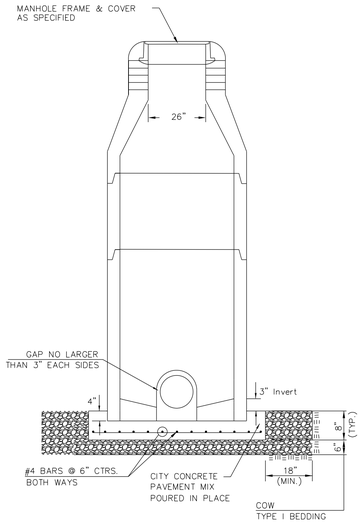
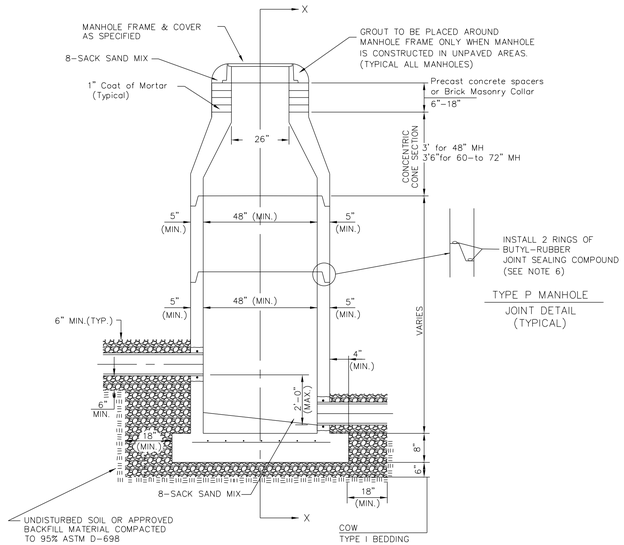
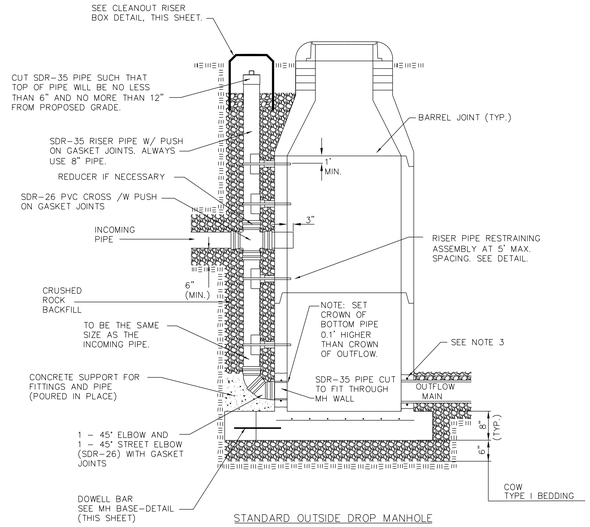


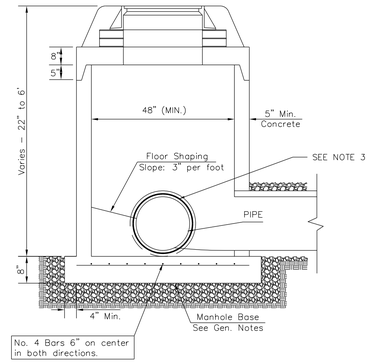
DOG HOUSE MANHOLE
(OVER EXISTING PIPE)
Not to Scale



STANDARD MANHOLE
Not to Scale



STANDARD OUTSIDE DROP MANHOLE
Not to Scale

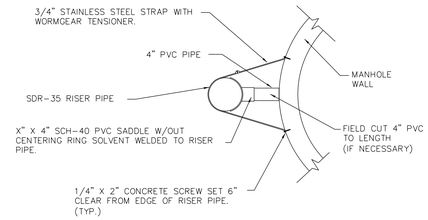


SHALLOW MANHOLE
Not to Scale

= COW TYPE I BEDDING = UNDISTURBED SOIL

PRECAST MANHOLE GENERAL NOTES

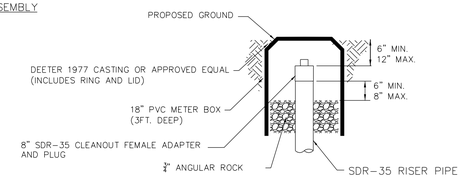
1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISIONS OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
2. NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
3. APPROVED FLEXIBLE WATERSTOP SHALL BE INSTALLED TO JOIN THE SEWER PIPE TO THE MANHOLE WALL. THE SEWER PIPE SHALL BE SUPPORTED WITH CRUSHED ROCK A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
4. ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED PER SECTION 804.4 OF STANDARD SPECIFICATIONS.
5. EXTERIOR MANHOLE WALLS SHALL BE COATED PER SECTION 804.4 OF STANDARD SPECIFICATIONS.
6. JOINT SEALING COMPOUND SHALL BE PER 804.4 OF STANDARD SPECIFICATIONS.
7. ALL MANHOLE SECTION JOINTS THAT WILL BE IN GROUNDWATER OR GREATER THAN 12' DEEP SHALL BE WRAPPED WITH AN EXTERNAL JOINT SEAL PER SECTION 804.4 OF STANDARD SPECIFICATIONS. AS INDICATED BY THE PLANS.
8. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE FOR DOG HOUSE MANHOLES.
9. TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
10. LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
11. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACE AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
12. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO.4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
13. WALL THICKNESS SHALL BE 1" GREATER THAN MANHOLE DIAMETER IN FEET.
14. OPENINGS SHALL BE CORE DRILLED INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS DRILLED INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. PIPE. THE NEW PIPE SHALL BE GROUTED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
15. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
16. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
17. THE VERTICAL DROP IN STANDARD MANHOLES SHALL NOT EXCEED 2' REGARDLESS OF PIPE SIZE. THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
18. STANDARD MANHOLES SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
19. PRECAST CONCRETE SPACERS OR BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.
20. THE FULL DIAMETER OF THE MANHOLE SHALL EXTEND THE ENTIRE DEPTH OF THE MANHOLE TO THE CONE SECTION. NO REDUCTION IN MANHOLE DIAMETER WILL BE ALLOWED.
21. REFER TO PLANS FOR SIZE OF OUTSIDE DROP RISER, SADDLES AND CROSS.



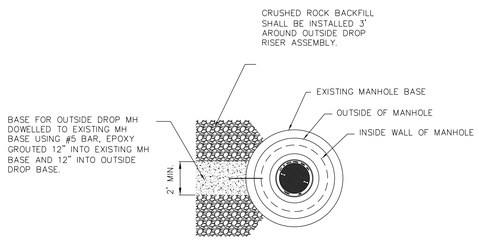
RISER PIPE RESTRAINING ASSEMBLY
Not to Scale

SANITARY SEWER MANHOLE DIAMETERS

DIAMETER	DEPTH	PIPE SIZE
4'	0'-15'	8"-18"
5'	>15'-30'	21"-30"
6'	>30'	36"-60"



CLEANOUT RISER BOX DETAIL
Not to Scale



MH BASE DETAIL
Not to Scale

REVISED JANUARY 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

PRECAST SANITARY SEWER MANHOLE

CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85031	705011	

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

SHEET
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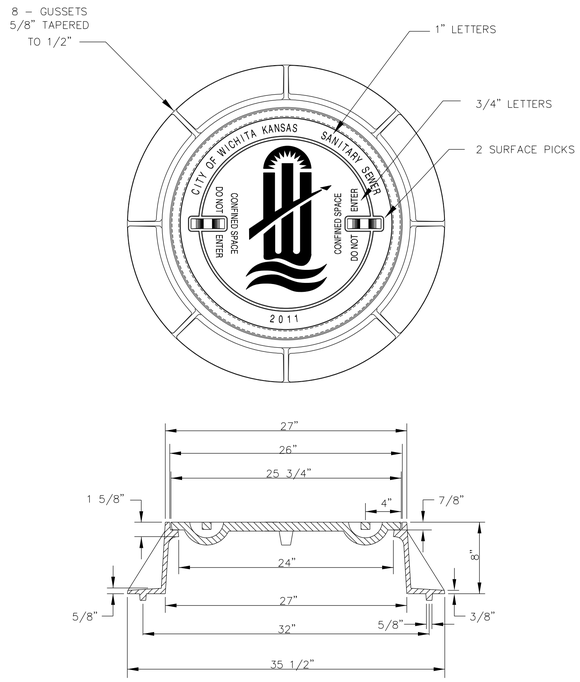
SS-101

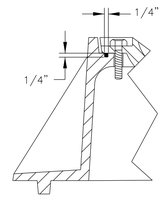


STANDARD MANHOLE FRAME & COVER

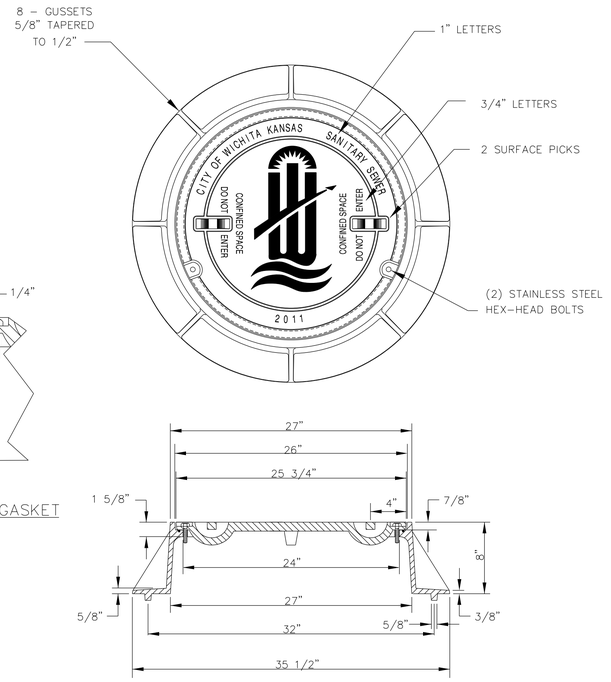
DEETER #1261 OR EJIW #1936–Z1

NOTE:

1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.



DETAIL OF T–GASKET

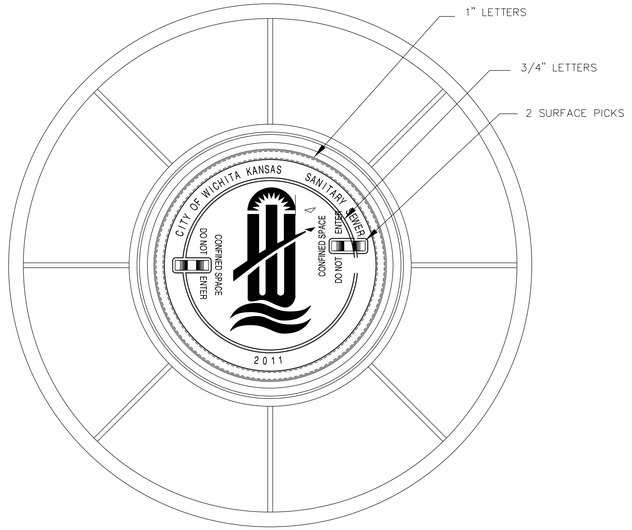


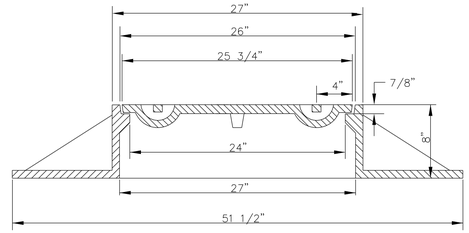
BOLT DOWN MANHOLE FRAME & COVER

DEETER #1261 OR EJIW #1936–Z1

NOTE:

1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.
2. FURNISHED WITH A T–GASKET IN THE FRAME.





WIDE FLANGED FRAME & COVER

DEETER #1261A

NOTE:

1. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.

GENERAL NOTES

1. MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A–48. DIMENSIONS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

2. MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDARY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON–ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

3. THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH THAT THESE SEATING SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUM–FERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

4. THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1 INCH IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SANITARY SEWER".
THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN WITH CITY OF WICHITA DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

MANHOLE FRAME AND COVER (SANITARY SEWER)

CITY ENGINEER
GARY JANZEN, P.E

PROJECT NUMBER	OCA NUMBER	DATE
472-85031	705011	12/2011

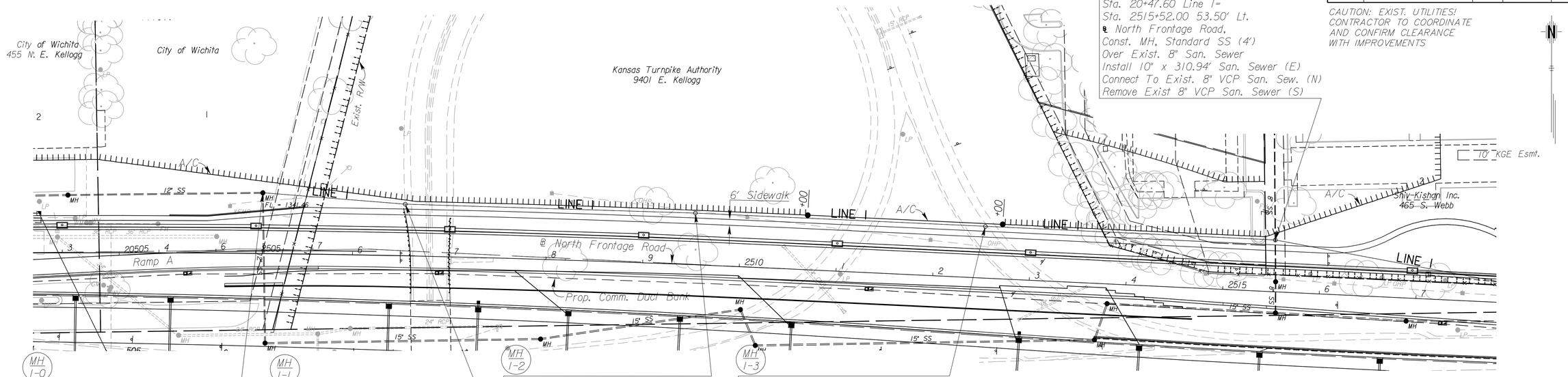
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
252 of 1055

SS-102

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	253	1055

CAUTION: EXIST. UTILITIES!
CONTRACTOR TO COORDINATE
AND CONFIRM CLEARANCE
WITH IMPROVEMENTS



MH 1-0
Sta. 10+00 Line 1=
Sta. 2505+06.67 62.92' Lt.
℄ North Frontage Road,
Tie to Exist. San. Sewer MH
Install 10" x 147.60' San. Sewer (E)
Remove Exist. 12" San. Sewer (S)
MH Invert, Reconstructed

MH 1-1
Sta. 11+47.60 Line 1=
Sta. 2506+53.40 53.50' Lt.
℄ North Frontage Road,
Const. MH, Standard SS (4')
Install 10" x 300.00' San. Sewer (E)

MH 1-2
Sta. 14+47.60 Line 1=
Sta. 2509+52.34 53.50' Lt.
℄ North Frontage Road,
Const. MH, Standard SS (4')
Install 10" x 300.00' San. Sewer (E)

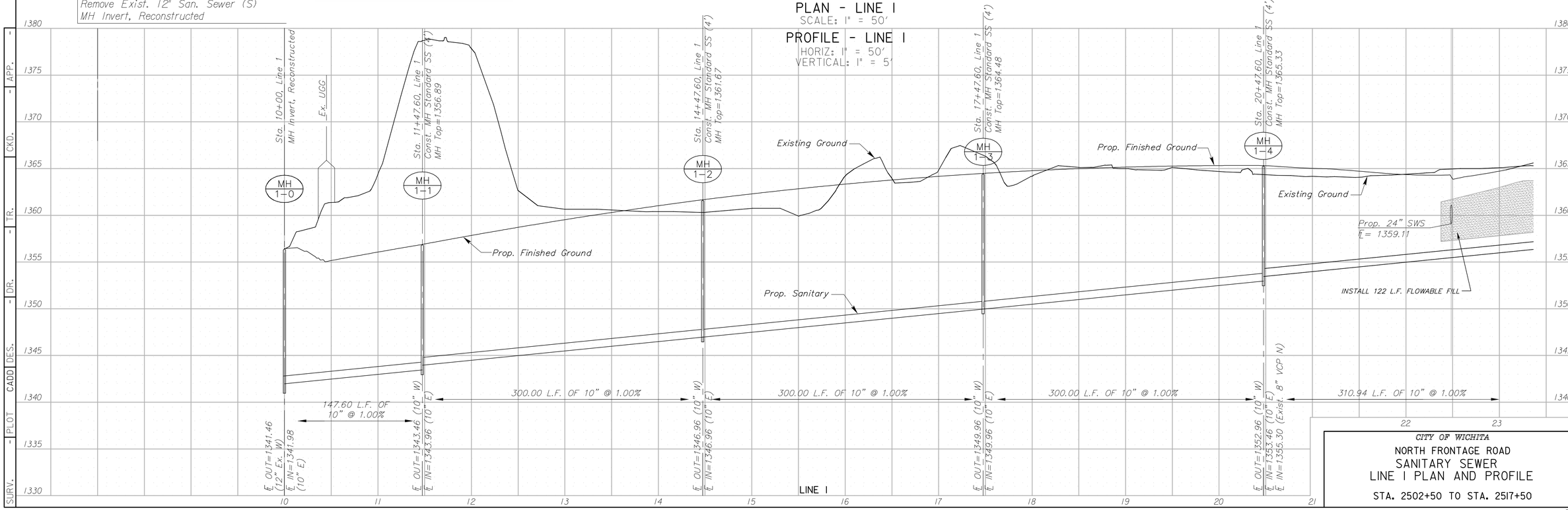
MH 1-3
Sta. 17+47.60 Line 1=
Sta. 2512+52.00 53.50' Lt.
℄ North Frontage Road,
Const. MH, Standard SS (4')
Install 10" x 300.00' San. Sewer (E)

MH 1-4
Sta. 20+47.60 Line 1=
Sta. 2515+52.00 53.50' Lt.
℄ North Frontage Road,
Const. MH, Standard SS (4')
Over Exist. 8" San. Sewer
Install 10" x 310.94' San. Sewer (E)
Connect To Exist. 8" VCP San. Sew. (N)
Remove Exist 8" VCP San. Sewer (S)

See Sh. No's. 174-237 for SWS Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

PLAN - LINE 1
SCALE: 1" = 50'

PROFILE - LINE 1
HORIZ: 1" = 50'
VERTICAL: 1" = 5'



APR. 15, 2015
APP. - CKD. - TR. - DR. - DES. - CADD - PLOT - SURV. -

CITY OF WICHITA
NORTH FRONTAGE ROAD
SANITARY SEWER
LINE 1 PLAN AND PROFILE
STA. 2502+50 TO STA. 2517+50

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	254	1055

CAUTION: EXIST. UTILITIES! CONTRACTOR TO COORDINATE AND CONFIRM CLEARANCE WITH IMPROVEMENTS

Sta. 24+10 Thru Sta. 25+50 Line 1=
Install 140' Of Casing Bored & Jacked (18" ID Min.)

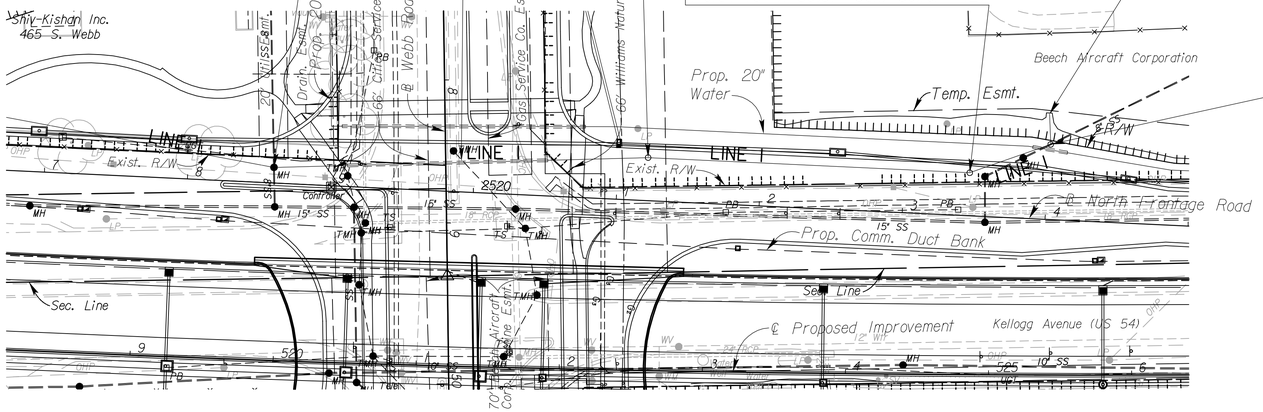
MH 1-5
Sta. 23+58.54 Line 1=
Sta. 2518+60.01 10.92' Lt.
℄ North Frontage Road,
Remove Exist. MH
Const. MH Standard SS (4')
Over Exist. 8" San. Sewer
Install 10" x 261.60' San. Sewer (E)
Connect To Exist. 8" VCP San. Sewer (N)
Remove Exist. 8" VCP San. Sewer (S)

MH 1-6
Sta. 26+20.14 Line 1=
Sta. 2521+20.92 30.00' Lt.
℄ North Frontage Road,
Const. MH Standard SS (4')
Install 10" x 224.96' San. Sewer (E)

MH 1-7
Sta. 28+45.10 Line 1=
Sta. 2523+45.87 30.00' Lt.
℄ North Frontage Road,
Const. MH Standard SS (4')
Install 10" x 59.97' San. Sewer (NE)

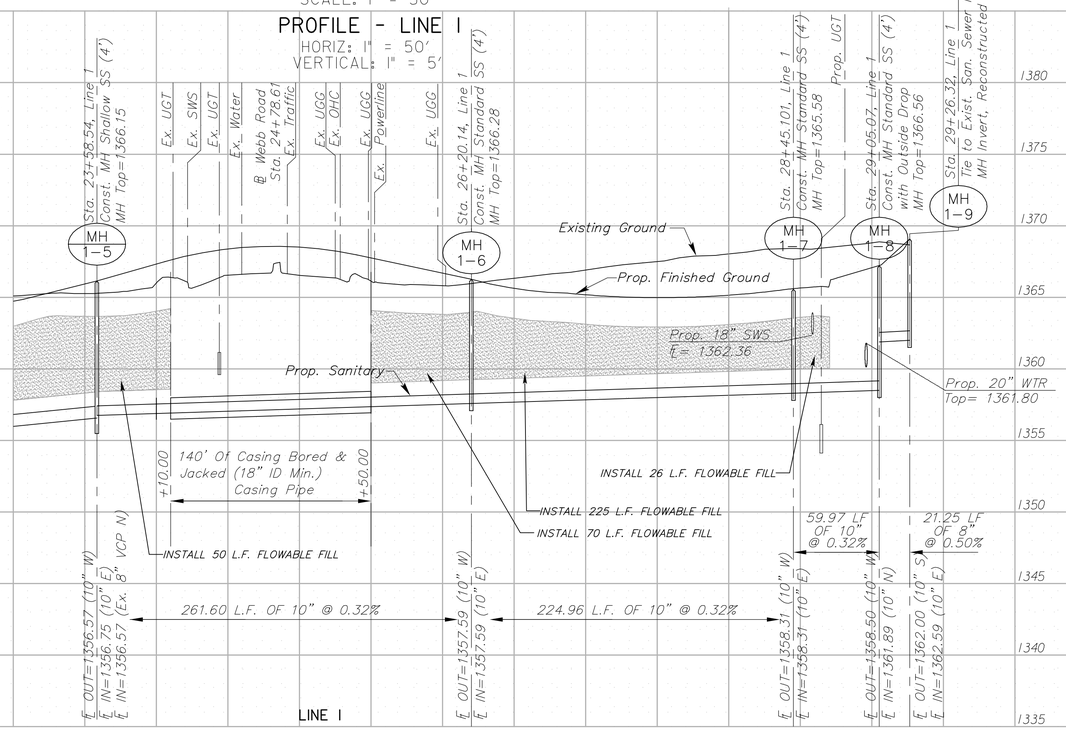
MH 1-9
Sta. 29+26.32 Line 1=
Sta. 2523+99.67 73.65' Lt.
℄ North Frontage Road,
Tie to Exist. San. Sewer MH
Remove Exist. 8" San. Sewer (SW)
MH Invert, Reconstructed

MH 1-8
Sta. 29+05.07 Line 1=
Sta. 2524+01.48 52.47' Lt.
℄ North Frontage Road,
Const. MH Standard SS (4')
With Outside Drop
Install 8" x 21.25' San. Sewer (N)



PLAN - LINE I
SCALE: 1" = 50'

PROFILE - LINE I
HORIZ: 1" = 50'
VERTICAL: 1" = 5'



LINE I

See Sh. No's. 174-237 for SWS Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

CITY OF WICHITA
NORTH FRONTAGE ROAD
SANITARY SEWER
LINE I PLAN AND PROFILE
STA. 2517+50 TO STA. 2525+00

APP. - CKD. - TR. - DR. - DES. - CADD - PLOT - SURV. -
APR. 15, 2015

CAUTION: EXIST. UTILITIES! CONTRACTOR TO COORDINATE AND CONFIRM CLEARANCE WITH IMPROVEMENTS

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	255	1055

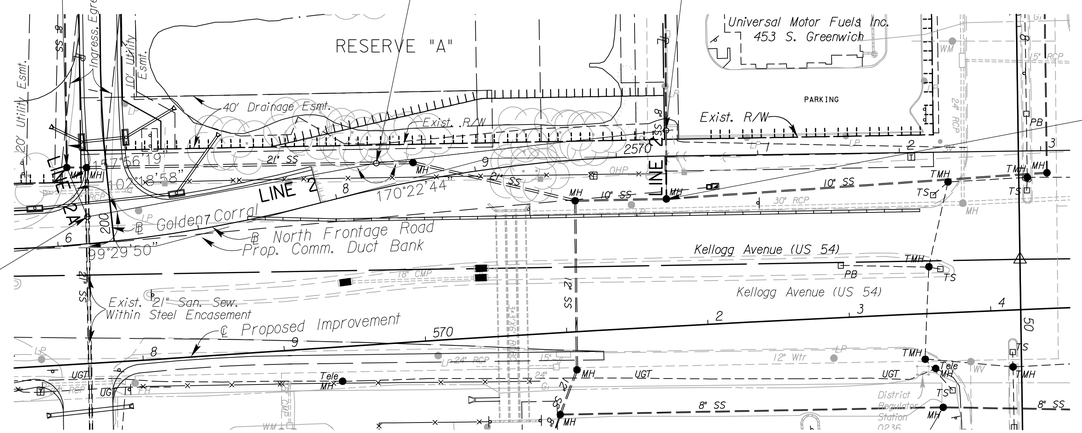
MH 2A-1
Sta. 10+37.68 Line 2A=
Sta. 2566+10.50 54.94' Lt.
℄ North Frontage Road,
Remove Exist. MH
Const. MH Standard SS (4')
Over Exist. 8" San. Sewer
Remove Exist. 8" San. Sewer (E)
Remove Exist. MH Along With
Exist. 21" San. Sewer (E&S)

MH 2-2
Sta. 12+07.65 Line 2=
Sta. 2568+32.69 18.00' Lt.
℄ North Frontage Road,
Const. MH Standard SS (4')
Install 15" x 205.98' San. Sewer (E)
Abandon Exist. 21" San. Sewer (E & W)

MH 2-3
Sta. 14+13.63 Line 2=
Sta. 2570+35.43 18.00' Lt.
℄ North Frontage Road,
Const. MH Standard SS (4')
with Outside Drop
Over Exist. 8" San. Sewer
Remove Exist. 8" San. Sewer (S)
Install 10" x 47.94' San. Sewer (S)
Install Pipe Stub 10" (E)

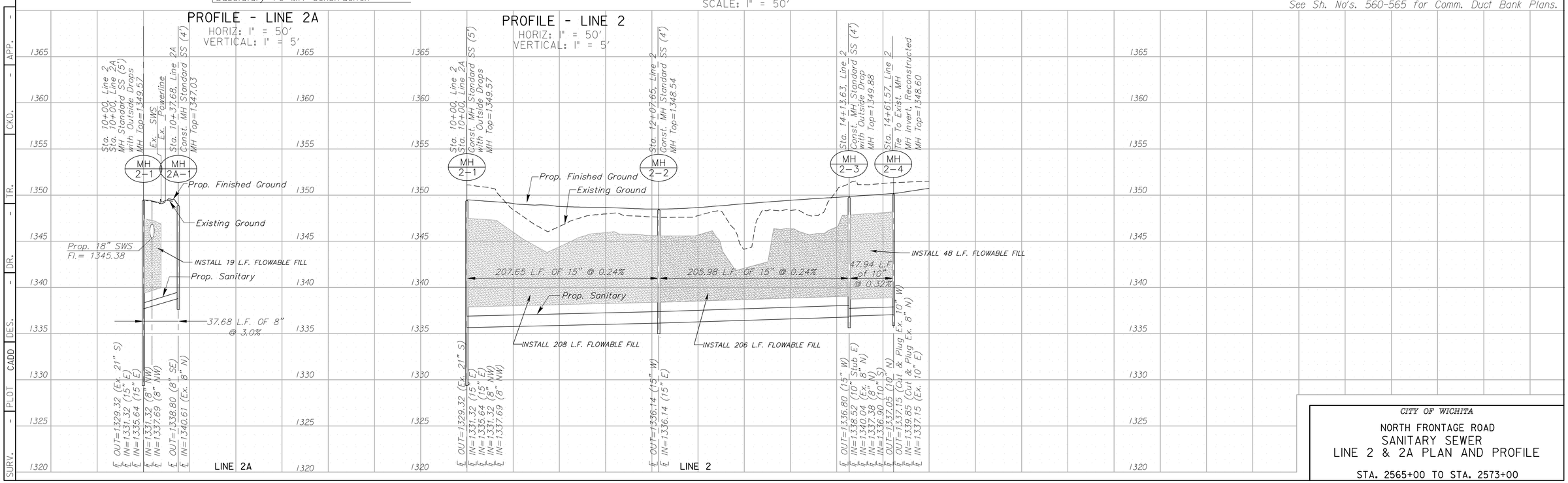
MH 2-4
Sta. 14+61.57 Line 2=
Sta. 2570+35.04 29.94' Rt.
℄ North Frontage Road,
Tie To Exist. MH
MH Invert, Reconstructed
Cut Exist. 10" San. Sewer (W) & Plug Pipe

MH 2-1
Sta. 10+00 Line 2A=
Sta. 10+00 Line 2=
Sta. 2566+22.50 19.07' Lt.
℄ North Frontage Road,
Const. MH Standard SS (5')
With Outside Drops (E & NW)
Over Exist. 21" San. Sewer
Install 15" x 207.65' San. Sewer (E)
Install 8" x 37.68' San. Sewer (NW)
Remove Exist. 21" San. Sewer (N)
Adjust Exist. Steel Encasement (S)
Subsidiary To MH Construction



PLAN - LINE 2 & 2A
SCALE: 1" = 50'

See Sh. No's. 174-237 for SWS Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.



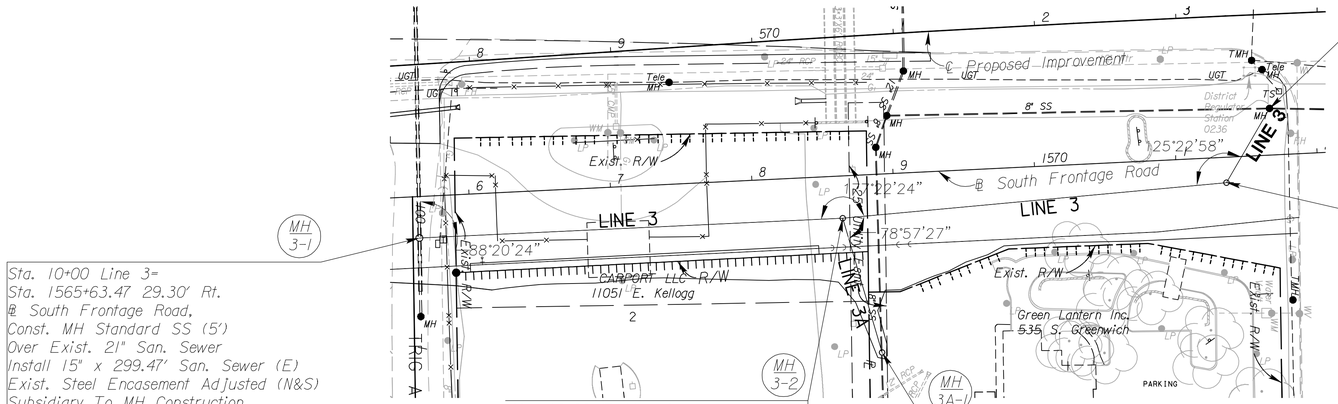
CITY OF WICHITA

NORTH FRONTAGE ROAD
SANITARY SEWER
LINE 2 & 2A PLAN AND PROFILE

STA. 2565+00 TO STA. 2573+00

CAUTION: EXIST. UTILITIES! CONTRACTOR TO COORDINATE AND CONFIRM CLEARANCE WITH IMPROVEMENTS

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	256	1055



MH 3-4

Sta. 16+32.53 Line 3=
Sta. 1571+67.97 33.01' Lt.
@ South Frontage Road,
Connect to Exist. MH
Abandon Exist. 8" (W)
MH Invert, Reconstructed

MH 3-3

Sta. 15+71.79 Line 3=
Sta. 1571+35 18.00' Rt.
@ South Frontage Road,
Const. MH Standard SS (5')
Install 10" x 60.74' San. Sewer (NE)
Install Pipe Stub, 10" (E)

MH 3-1

Sta. 10+00 Line 3=
Sta. 1565+63.47 29.30' Rt.
@ South Frontage Road,
Const. MH Standard SS (5')
Over Exist. 21" San. Sewer
Install 15" x 299.47' San. Sewer (E)
Exist. Steel Encasement Adjusted (N&S)
Subsidiary To MH Construction

MH 3-2

Sta. 12+99.47 Line 3=
Sta. 10+00 Line 3A=
Sta. 1568+62.94 29.62' Rt.
@ South Frontage Road,
Const. MH Standard SS (4')
MH Cover and Frame
Gasketed and Bolted
Install 10" x 272.32' San. Sewer (E)
Install 8" x 98.91' San. Sewer (SE)

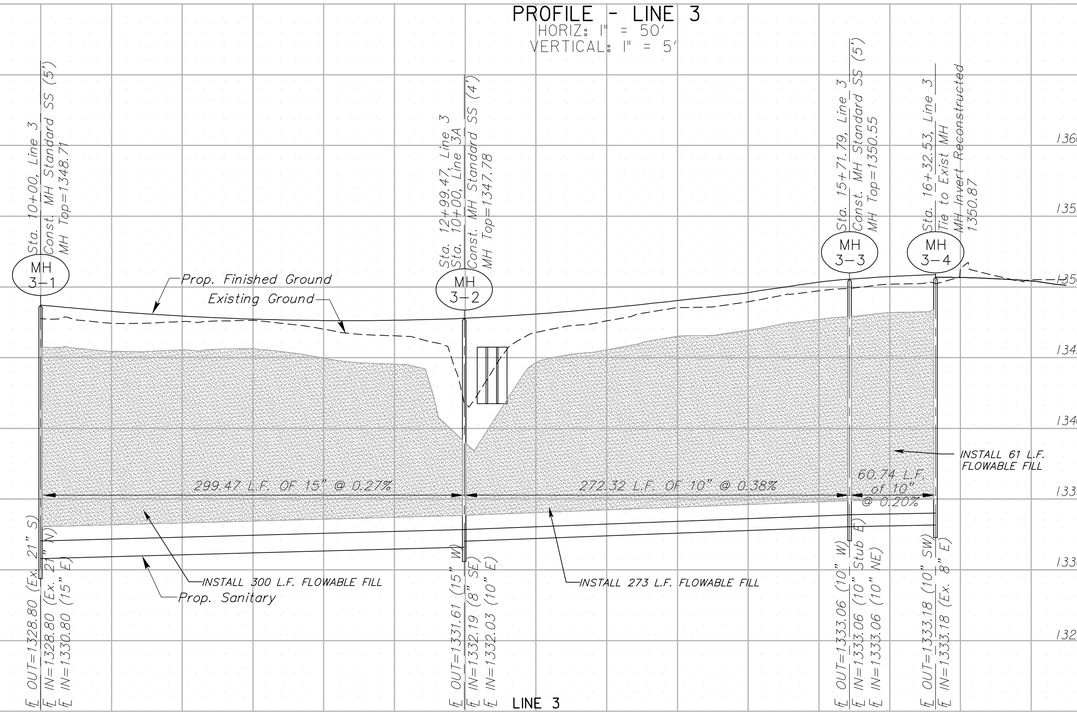
MH 3A-1

Sta. 10+98.91 Line 3A=
Sta. 1568+86.11 126.07' Rt.
@ South Frontage Road,
Const. MH Standard SS (4')
Over Exist. 8" San. Sewer
MH Cover and Frame
Gasketed and Bolted
Abandon Exist. 8" San. Sewer (N)

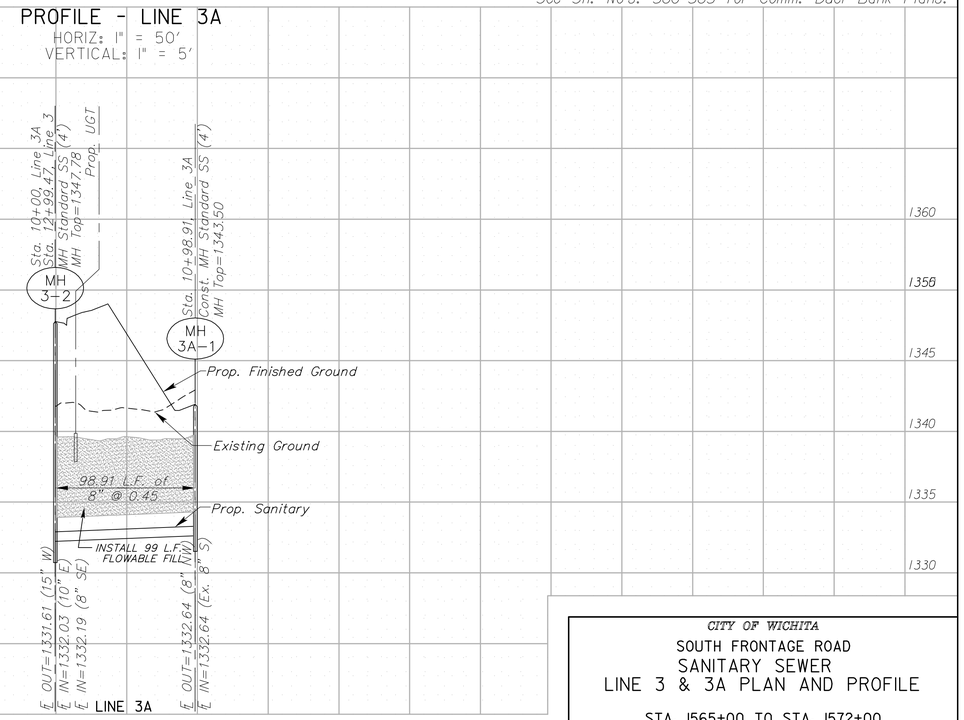
PLAN - LINE 3 & 3A
SCALE: 1" = 50'

See Sh. No's. 174-237 for SWS Plans.
See Sh. No's. 263-274 for Water Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

PROFILE - LINE 3
HORIZ: 1" = 50'
VERTICAL: 1" = 5'



PROFILE - LINE 3A
HORIZ: 1" = 50'
VERTICAL: 1" = 5'



APP. - CKD. - TR. - DR. - DES. - CADD - PLOT - SURV. -

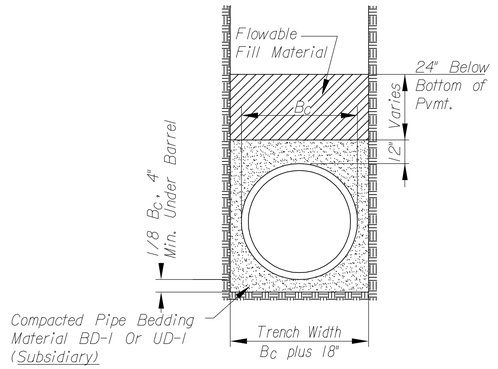
APR. 15, 2015

CITY OF WICHITA
SOUTH FRONTAGE ROAD
SANITARY SEWER
LINE 3 & 3A PLAN AND PROFILE

STA. 1565+00 TO STA. 1572+00

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	257	1055

SUMMARY OF SANITARY SEWER ITEMS													
Line No.	Pipe, SS 8" (LF)	Pipe, SS 10" (LF)	Pipe, SS 15" (LF)	Pipe Stub, SS 10" (EACH)	MH Standard SS (4') (EACH)	MH Standard SS (5') (EACH)	MH Standard SS (4') w/ Outside Drop (EACH)	MH Standard SS (5') w/ Outside Drop (EACH)	Pipe Casing (18" ID Min.) (Bored), Steel (LF)	MH Invert, Reconstructed (EACH)	MH Joint Wrap (LF)	Air Testing, SS Pipe (LF)	Fill, Flowable (LF)
Line 1	21.2	1905.1	0	0	7	0	1	0	140	2	25.2	1926.3	493
Line 2	37.7	47.9	413.6	1	2	0	1	1	0	1	68.0	499.2	481
Line 3	98.9	333.1	299.5	1	2	2	0	0	0	1	90.4	731.5	733
Total	157.8	2286.1	713.1	2	11	2	2	1	140	4	183.6	3157	1707



SANITARY SEWER TRENCH DETAIL

(Under Pavement)

SANITARY SEWER		
DESCRIPTION	UNIT	QTY
LUMP SUM BID ITEMS		
Pipe, SS 8"	LF	158
Pipe, SS 10"	LF	2287
Pipe, SS 15"	LF	714
Pipe Stub, 10"	EACH	2
MH, Standard SS (4')	EACH	11
MH, Standard SS (5')	EACH	2
MH, Standard SS (4') w/ Outside Drop	EACH	2
MH, Standard SS (5') w/ Outside Drop	EACH	1
Pipe, Casing (18" ID Min.) (Bored), Steel	LF	140
MH Invert, Reconstructed	EACH	4
Air Testing, SS Pipe	LF	3157
Fill, Flowable	LF	1707
MH Adjustment	EACH	2
MEASURED QUANTITY BID ITEMS		
MH, Joint Wrap	LF	184

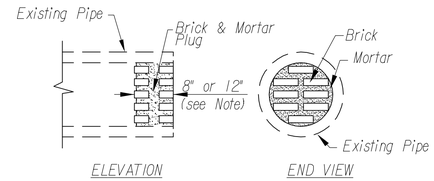
GENERAL NOTES

1. The backfill material required when the existing sanitary sewer structures are removed shall be per KDOT Specifications.

2. All manholes connecting to a 15" sanitary sewer line or larger that are new/adjusted/modified in any way shall be lined with an approved liner. Cost of the liner shall be considered subsidiary to the adjustment, modification or the new manhole.

3. Sanitary sewer manholes that are to be adjusted shall have a new ring & cover. See Table on this Sheet.

4. Sanitary sewers and sanitary sewer manholes to be abandoned shall be abandoned per City of Wichita Specifications. See Tables on this Sheet. Cost associated with the abandonment of the manholes and pipes shall be subsidiary other items in the project.



PIPE PLUGGING DETAIL

NOTE:

Pipe Plugs Shall Be Constructed Of Brick Masonry, With Construction Requirements And Materials Conforming To The Same Requirements As Specified For A Masonry Construction In The Std. Specs. Pipes Having Diameters Of 18" Or Smaller Shall Be Plugged With 8" Thick Plug. Pipes Having Diameters Larger Than 18" Shall Be Plugged With 12" Thick Plug. The Construction Of Pipe Plugs Shall Not Be Paid For Directly, But Shall Be Considered Subsidiary To Pipe Installation.

The Contractor May Use Other Methods To Plug Existing Pipe If Approved By The Project Engineer.

SANITARY SEWER MANHOLE ADJUSTMENTS		
STATION & OFFSET	EX. ELEVATION	PROP. ELEVATION
2499+18.72, 58.53' Lt.	1343.52	1346.87
2503+06.04, 59.70' Lt.	1349.93	1350.33

SANITARY SEWERS TO BE ABANDONED			
STATION & OFFSET			
UPSTREAM MH	DOWNSTREAM MH	SS SIZE (in.)	LENGTH (ft.)
2568+58.5, 13.3' Lt.	2566+23.9, 53.7' Lt.	21	230
2569+66.6, 28.7' Rt.	2568+58.5, 13.3' Lt.	21	118
2570+35.0, 29.9' Rt.	2569+66.6, 28.7' Rt.	10	65
1569+10.8, 72.1' Lt.	2569+66.6, 28.7' Rt.	12	120
1568+97.5, 41.4' Lt.	1569+10.8, 72.1' Lt.	12	34
1568+88.7, 19.0' Lt.	1568+97.5, 41.4' Lt.	8	24
1571+67.8, 33.0' Lt.	1568+97.5, 41.4' Lt.	8	271
1568+86.1, 126.1' Rt.	1568+88.7, 19.0' Lt.	8	145
FOR INFORMATION ONLY.			

SANITARY SEWER MANHOLES TO BE ABANDONED
STATION & OFFSET
2568+58.5, 13.3' Lt.
2569+66.6, 28.7' Rt.
1569+10.8, 72.1' Lt.
1568+97.5, 41.4' Lt.
1568+88.7, 19.0' Lt.
FOR INFORMATION ONLY.

SURV. - PLOT - CADD DES. - DR. - TR. - CKD. - APP. -

APR. 15, 2015

CITY OF WICHITA

EAST KELLOGG

SANITARY SUMMARY OF QUANTITIES

Notes For All Services – 3" thru 12":

1. When the standard vault dimensions are not applicable, such as when additional space is required for special pipe, fittings, additional meters, etc. the design engineer shall design a vault with the required dimensions for Public Works and Utilities approval.

2. The vault shall be poured concrete, cement blocks (voids to be completely filled with 2500 P.S.I. concrete), or approved precast structure (such as Clutter Inc. vaults approved 8/1/2000). The intent of these details shall not be limited by drawings or standards of precast structures.

3. Vault location to be determined by Public Works and Utilities prior to construction and approved by Department's field supervisor prior to installation. A final inspection will be required for acceptance. Vault location standards include but not limited to: not to be located where subjected to vehicular loads, not to be located in any right-of-way or utility easement, and must be located on the property being served.

4. The manhole ring and lid shall be Neenah R-6034 Frame with Type "C" Solid Lid and Drop Down Handle or US Foundry APS-30x30 (Aluminum). Where applicable the standard 10" Public Works and Utilities pattern meter reading lid and ring shall be located directly above water meter register. All meter registers shall have an approved lid directly vertical above. All joints of concrete to concrete or metal to concrete in the construction of the vault shall have an approved water tight mastic joint seal.

5. Any fittings or appurtenances required to achieve proper elevation of pipe through the vault shall be provided by the contractor and appropriately noted on as-builts submitted by the inspecting engineer. Such fittings shall be a minimum of 2' from the exterior wall of vault.

6. For all domestic services larger than 3" the contractor shall provide an outlet flange connection as shown 8" from the inside wall. Inlet and outlet wall sleeves shall be provided and installed by the contractor and shall be in alignment with one another. The inlet and outlet pipe shall be ductile iron pipe, cement lined, Class 150 per Standard Specifications and shall be continuous through vault wall and joint no less than 2' from the exterior wall of vault. Flanges of inlet and outlet pipes shall be in proper alignment and bolt pattern shall be rotated in such a way that valves and other fittings shall be in their proper vertical alignment when installed.

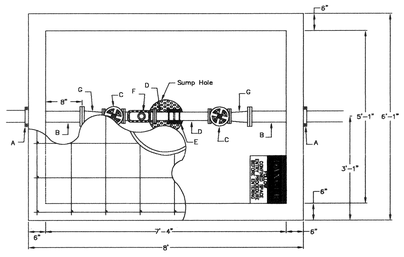
7. For all services 4" and larger the contractor shall install a mega lug, restrained joint, or approved equal on the exterior walls of the vault, which shall be manufactured of ductile iron conforming to ASTM A 536-80, heat treated to a minimum hardness of 370 BHN and have a working pressure of at least 250 P.S.I. For all services smaller than 4" the contractor shall install an approved vault clamp on the exterior walls of the vault.

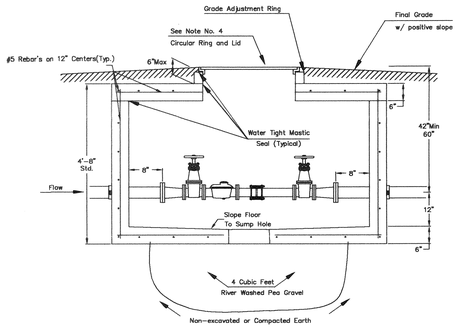
8. All valves, meters, assemblies, and fittings shall be provided with sufficient concrete or other approved supports to the vault floor.

9. The "Confined Space Warning" sign shall be fastened to the top of all vaults. If necessary for landscaping or site considerations, the sign may be fastened to the vault lid if it does not impede access to the handle. Acceptable materials: Aluminum 73415HH, Plastic 73439HH, or S.A. Vinyl 73463HH.

10. All meters shall have an electronic read register compatible with the current City of Wichita meter reading system. All detector meters shall be an 5/8 cubic foot Badger meter with ERT register or approved equal. Gallon meters shall not be accepted.

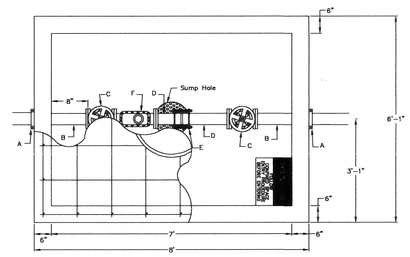
11. Additional Notes For Fire Services:
    - A. A post indicator valve (PIV) is an option for the outlet valve and may be requested by the architect or owner. The PIV is not required by City of Wichita ordinance.
    - B. When Siamese connections are required by the Wichita Fire Department, refer to the current City Code Section 15.
    - C. If due to any reason the completed vault retains ground or drainage water in excess of 4" in depth from the floor of the vault, the property owner shall be responsible for providing and installing an appropriate automatic sump pump or approved equal, as well as any other appurtenances required to make such system function as intended.
    - D. The property owner is responsible for completing an "Application for Private Fire Protection" prior to final acceptance of the project.

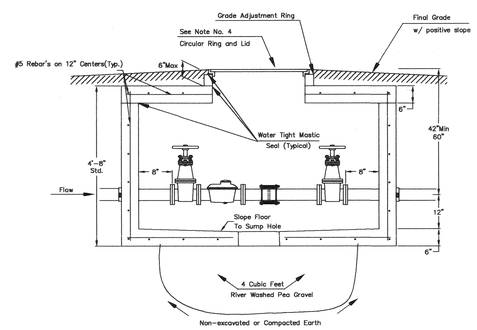




A – 4" Vault Clamp
B – Min. 3' Piece of 4" FL x PE DICL Pipe
C – 3" Flange Non-rising Stem Gate Wheel Valve
D – 3" FL x PE Pipe
E – 3" Flex Coupling
F – 3" Badger Recordall II Turbo Cubic Foot Meter with ERT Register or Sensus W-350DR Cubic Foot Meter with AMR Register.
G – 3" x 4" FL Reducer

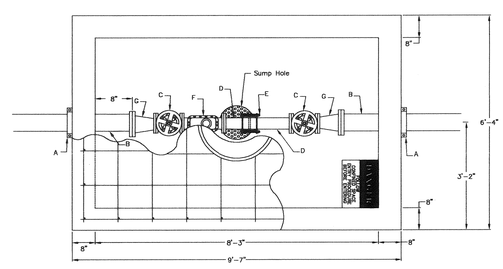
3" Domestic Service

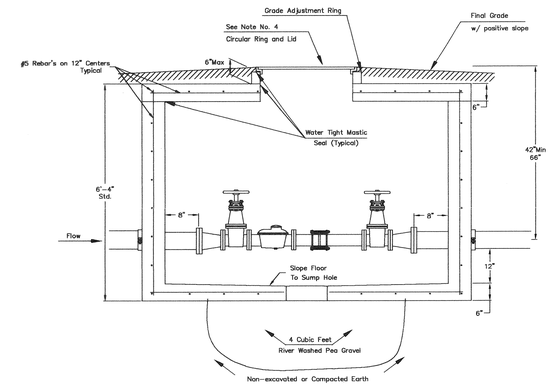




A – 4" Vault Clamp
B – Min. 3' Piece of 4" FL x PE DICL Pipe
C – 4" Flange Non-rising Stem Gate Wheel Valve
D – 4" FL x PE Pipe
E – 4" Flex Coupling
F – 4" Badger Recordall II Turbo Cubic Foot Meter with ERT Register or Sensus W-1000DR Cubic Foot Meter with AMR Register.

4" Domestic Service





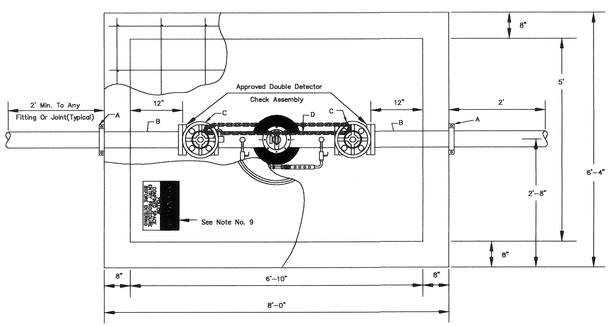
A – 6" Mega Lug (See Note 7)
B – Min. 3' Piece of 6" FL x PE DICL Pipe
C – 4" Flange Non-rising Stem Gate Wheel Valve
D – 4" FL x PE Pipe
E – 4" Flex Coupling
F – 4" Badger Recordall II Turbo Cubic Foot Meter with ERT Register or Sensus W-1000DR Cubic Foot Meter with AMR Register.
G – 6" x 4" Flange Reducer

6" Domestic Service with 4" meter

NOTE:

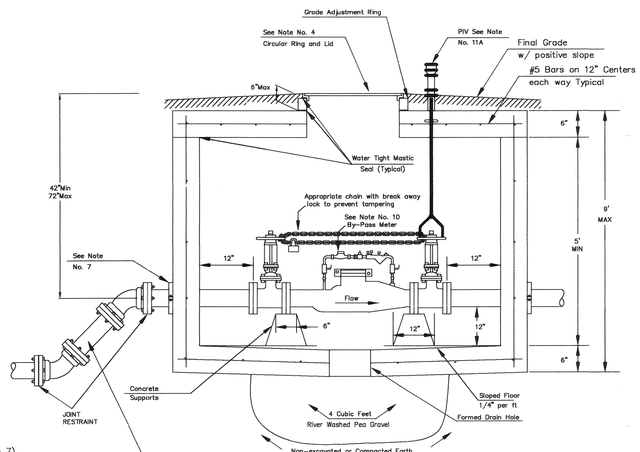
INSPECTOR FROM PUBLIC WORKS AND UTILITIES TO BE CONTACTED 24 HOURS PRIOR TO INSTALLATION TO SET VAULT.

CONTACT: 316-219-8928 OR 316-219-8929



NOTE:

Domestic Services larger than 6" shall be custom designed by Engineer.



A – Mega Lug (See Note 7)
B – Min. 3'-8" Piece of FL x PE DICL Pipe
C – Flange Gate Valve, Wheel Operated
D – Ames Model 3001SS or approved equal with metered(cubic foot) by-pass assembly

Use 45 degree fittings as necessary to keep depth of vault within 76 inch maximum. All fittings should be mega lug, restrained joint or approved equal.

4" thru 8" Fire Service

TYLER PAUL VOTH
LICENSED
7974
11-6-15
KANSAS
PROFESSIONAL ENGINEER

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

STANDARD VAULT DETAILS AND METER ASSEMBLIES

CITY ENGINEER
GARY JANZEN, P.E.

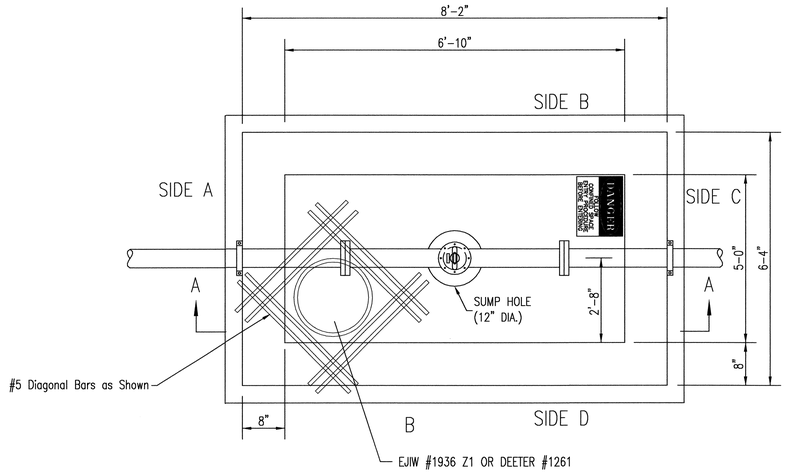
PROJECT NUMBER	OCA NUMBER	DATE
472-85031	705011	12/2011

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

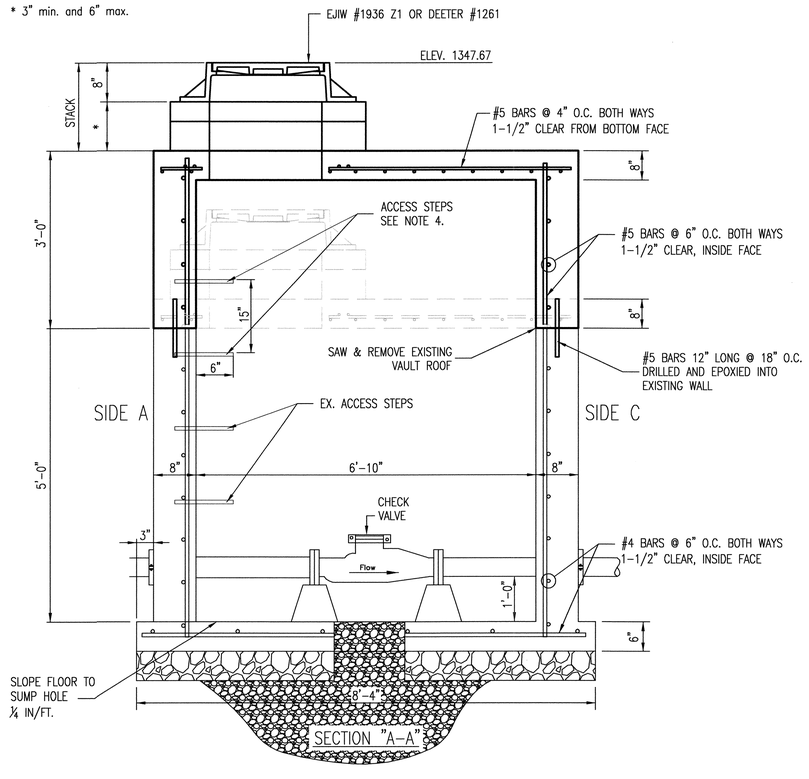
SHEET
258 of 1055

WL-103

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	259	1055



TOP VIEW



GENERAL NOTES

1. *Manhole frame to be installed on thin mortar cushion to insure full support along brick. concrete used for inlet construction shall conform to City of Wichita specifications for concrete pavement mix.*
2. *Inlet frame and grate to be Deeter #1261, EJIW #1936-z1 or approved equal, see SW-303.*
3. *The "Confined Space Warning" sign shall be fastened to the top of all vaults. If necessary for landscaping or site considerations, the sign may be fastened to the vault lid if it does not impede access to the handle. Acceptable materials: Aluminum 73415HH, Plastic 73439HH, or S.A. Vinyl 73463HH.*
4. *The Contractor shall install access steps at 15" centers and 6" for the inside wall as necessary to access vault. Approved materials shall be Clay & Bailey #2102, aluminum steps or Copolymer Polypropylene Plastic PS2-PF.*
5. *The bid item "Valve Vault, Adjustment (Special)" shall include all labor and materials necessary to adjust the vault roof deck as shown on this sheet and in accordance with the standard specifications. The work will include excavation and backfill, roof deck removal, concrete vault extension and access frame and lid.*

TYLER PAUL VOTH
LICENSED
17974
4-16-15
KANSAS
PROFESSIONAL ENGINEER

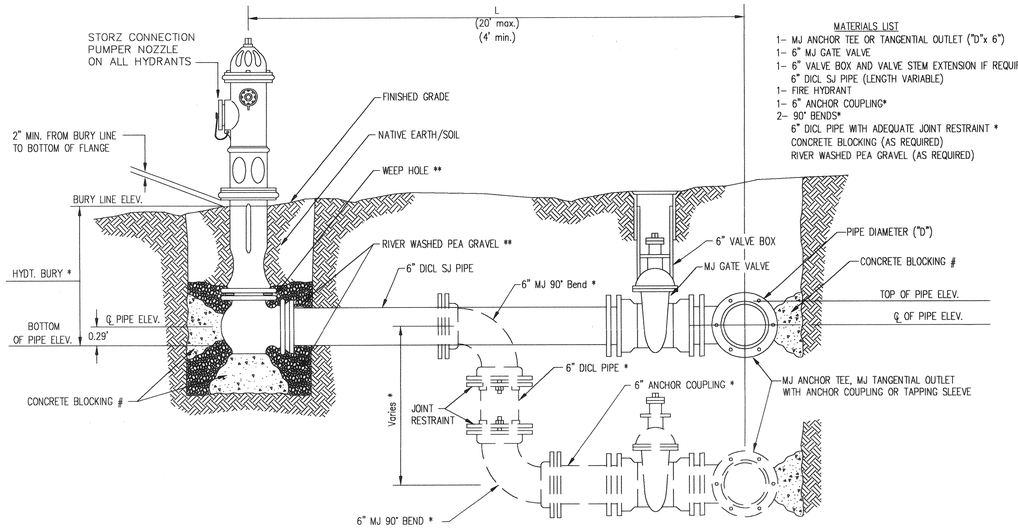
CITY OF WICHITA

EAST KELLOGG

"VALVE VAULT, ADJUSTEMENT (SPECIAL)"

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
-	-	-	-	-	-	-	-

APR. 15, 2015



MATERIALS LIST
1- MJ ANCHOR TEE OR TANGENTIAL OUTLET ("D"x 6")
1- 6" MJ GATE VALVE
1- 6" VALVE BOX AND VALVE STEM EXTENSION IF REQUIRED *
6" DICL SJ PIPE (LENGTH VARIABLE)
1- FIRE HYDRANT
1- 6" ANCHOR COUPLING*
2- 90° BENDS*
6" DICL PIPE WITH ADEQUATE JOINT RESTRAINT *
CONCRETE BLOCKING (AS REQUIRED)
RIVER WASHED PEA GRAVEL (AS REQUIRED)

* IF THE REQUIRED HYDRANT BURY IS IN EXCESS OF 5', BUT LESS THAN 7', CONTRACTOR SHALL USE STANDARD 5' HYDRANT BURY AND HYDRANT BARREL EXTENSIONS AS NECESSARY. IF THE REQUIRED HYDRANT BURY IS GREATER THAN 7', CONTRACTOR SHALL USE 5' HYDRANT BURY, 2-MJ 90° BENDS, 6" ANCHOR COUPLING AND 6" DICL PIPE AS NECESSARY FOR VERTICAL ADJUSTMENT. THE CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING AT HYDRANT AND MEGALUGS, OR SIMILAR RESTRAINT BETWEEN 90° BENDS TO SECURE ALL FITTINGS DURING TESTING AND OPERATION. THE CONTRACTOR SHALL PROVIDE A VALVE STEM EXTENSION PER DETAIL THIS SHEET.

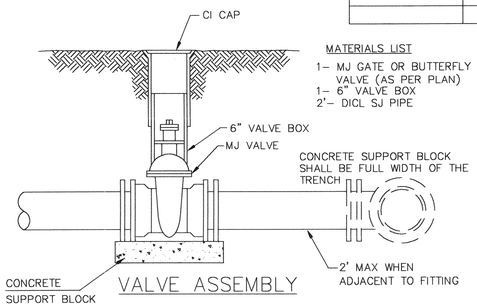
** CAUTION: WEEP HOLES TO BE KEPT CLEAR DURING CONSTRUCTION AND BACKFILL. CONCRETE FOR THRUST BLOCKING SHALL NOT OBSTRUCT WEEP HOLES. PLACE 1 CUBIC FOOT OF RIVER WASHED PEA GRAVEL AROUND EACH WEEP HOLE.

CONCRETE THRUST BLOCKING SHALL BE KEPT CLEAR OF BOLTS, NUTS, AND MJ ACCESSORIES.

FIRE HYDRANT ASSEMBLY

PER CITY OF WICHITA SPECIFICATIONS

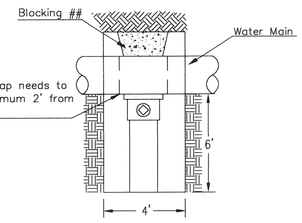
FIRE HYDRANTS REQUIRED				
STATION	BURY LINE ELEVATION	TOP OF PIPE ELEVATION	FIRE HYDRANT BURY REQUIRED*	VALVE STEM EXT. REQUIRED (ft)*
	See	Sheet No.	275	



MATERIALS LIST
1- MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1- 6" VALVE BOX
2'- DICL SJ PIPE

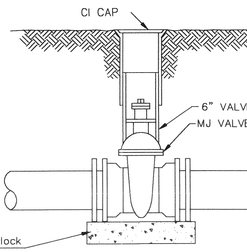
CONCRETE SHALL BE FULL WIDTH OF THE TRENCH

VALVE ASSEMBLY



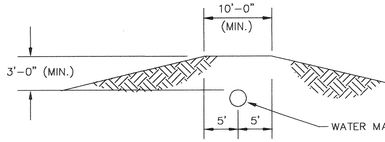
CITY TAP

When the City of Wichita makes tap, blocking is to be done by Contractor



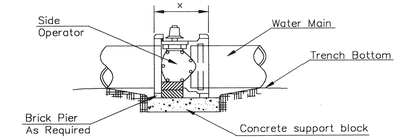
MATERIALS LIST
1-MJ GATE OR BUTTERFLY VALVE (AS PER PLAN)
1-MJ ANCHOR COUPLING (12" OR SMALLER)
1-6" VALVE BOX
CONCRETE SUPPORT BLOCK SHALL BE FULL WIDTH OF THE TRENCH

ANCHORED VALVE ASSEMBLY



PROTECTIVE FILL DETAIL

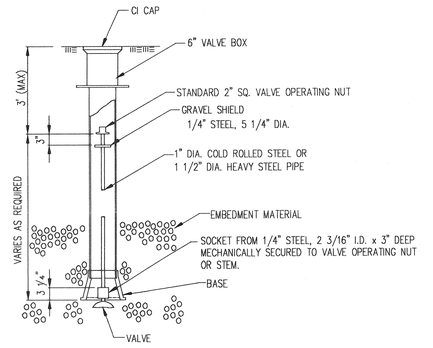
MINIMUM PROTECTIVE FILL SHALL BE PROVIDED IN ALL INSTANCES WHERE COVER OVER THE PROP. WATER LINE IS LESS THAN 3'. (COST SUBSIDIARY TO PIPE INSTALLATION)



NOTES

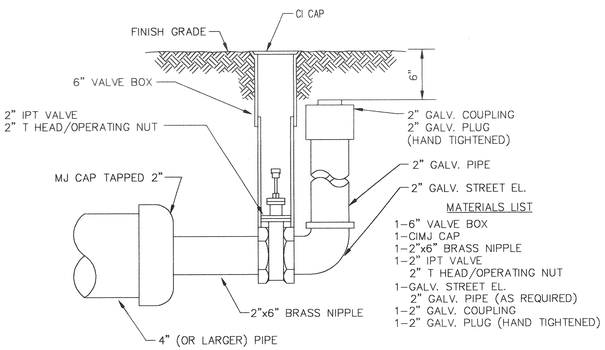
1. This detail covers Butterfly Valve installation, inclusive, regardless of type of pipe or joint used. 24" and larger lines to be detailed on plans.
2. 6" Valve Box and Cover required per City of Wichita Std. Specifications.
3. Conc. Support Block to be full width of trench.

CONCRETE SUPPORT BLOCKING FOR BUTTERFLY VALVE INSTALLATION



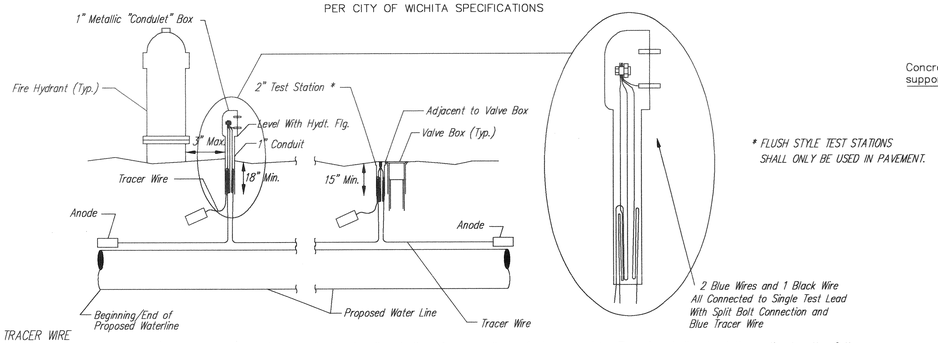
VALVE STEM EXTENSION DETAIL

NOTE: ONE VALVE STEM EXTENSION FOR EACH VALVE BURIED GREATER THAN 5'.



MATERIALS LIST
1-6" VALVE BOX
1-CIMJ CAP
1-2"x6" BRASS NIPPLE
1-2" IPT VALVE
2" T HEAD/OPERATING NUT
1-GALV. STREET EL.
2" GALV. PIPE (AS REQUIRED)
1-2" GALV. COUPLING
1-2" GALV. PLUG (HAND TIGHTENED)

2" BLOWOFF ASSEMBLY



* FLUSH STYLE TEST STATIONS SHALL ONLY BE USED IN PAVEMENT.

TRACER WIRE

Conductive type pipe locator/tracer wire shall be installed to locate all waterline pipe regardless of pipe material. The wire shall extend the entire length of the proposed pipe. The wire shall be taped to the waterline and pulled with the pipe. A waterproof connector shall be used at splice locations. Test stations shall be installed adjacent to all fire hydrants along the waterline and at blowoffs or valves near the ends of waterlines. Any exception to the location shall be approved by the engineer. At each test station, the tracer wire shall be connected to a 3 lb. Zinc or magnesium anode. Anodes shall also be attached to the tracer wire at both the beginning and the end of the proposed waterline. A typical layout of the tracer wire and test station is provided in the above figure.

WIRE

The tracer wire shall be Blue No. 12 AWG CCS with 3045 mil HDPE insulation. The isulation shall be heat, oil, and gasloine resistant as manufactured by Temple Electric or approved equal. To allow for grade adjustment, a minimum of 12" of excess wire shall be coiled at the bottom of the test station for all wires. the insulation sheathing shall be removed such that 1" bare copper wire at all points of connection. Contractor shall attach wire being installed with proposed water main to any tracer wire installed with adjacent waterline projects.

TEST STATIONS

A complete list of approved Tracer Wire can be found on City of Wichita's website at www.wichita.gov

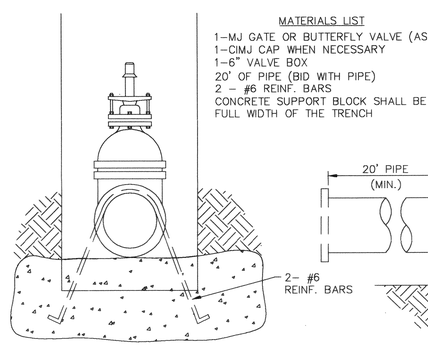
The test station for fire hydrant applications shall be a 1 inch galvanized "conduiet" style test station as manufactured by AGRA Industries with a removable solid cover having two leads extending from the face or approved equal. The test station for valve applications shall be 2 inch flush style test station T2PS3B as manufactured by HANDLEY Industries or approved equal. The "conduit" style test station shall be attached to a 1 inch rigid galvanized conduit with a minimum length of 36" and plastic end bushing. The flush style shall have the word "WATER" stamped or molded into the lid. All test stations shall be manufactured using molded blue tops or sufficiently coated with blue enamel paint. The tracer wire and the anode wire shall be installed to allow 10 inches of wire within the test station. In concrete environments such as sidewalks or in the downtown area the contractor shall use the flush style test station. The location of all test stations shall be approved by the engineer, recorded, and shown in the as-built drawings.

ANODES

The anodes shall be 3 lb. bare zinc or magnesium. The anodes shall be buried at the same elevation as the waterline at each test station. The anodes shall be connected to 12 AWG ccs which shall be extended to the test station.

TRACER WIRE DETAIL

COST IS SUBSIDIARY TO PIPE INSTALLATION



Notes:
1. Concrete Block at Valve to have sufficient bearing in undisturbed soil to prevent thrust movement as shown in table at right. Field Engineer to determine thrust loading of undisturbed soil and final size of thrust block.
2. The thrust block shall be constructed such that bolts, nuts, and other MJ accessories are kept clear of concrete.
3. All valves at dead ends and at other locations as called out on the plans shall be blocked as shown here.

THRUST AT VALVES	
VALVE	THRUST AT 150 #/in²
4"	1809 lbs.
6"	4245 lbs.
8"	7540 lbs.
12"	16965 lbs.

ANCHORED VALVE ASSEMBLY, SPECIAL

TYLER PAUL VOTH
LICENSED
21974
4-16-13
KANSAS
PROFESSIONAL ENGINEER

REVISED JANUARY 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

STANDARD WATER ASSEMBLY DETAIL

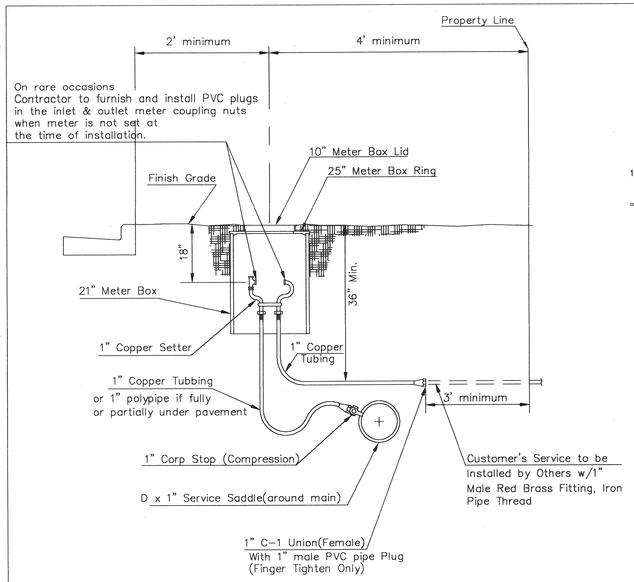
CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85031	705011	04/2013

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

SHEET
260 OF 1055

WL-101



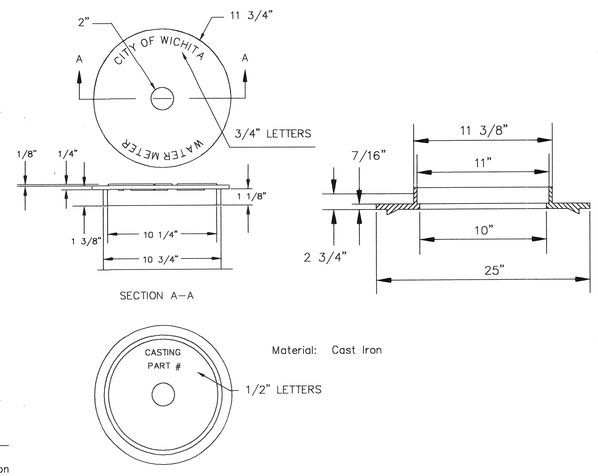
Minimum length of pigtail on consumer side is 36" of copper tubing from meter set.

Bore hole under paving shall be a maximum of 2" in diameter and a minimum of 36" below top of pavement.

Service Saddles are required on all mains.

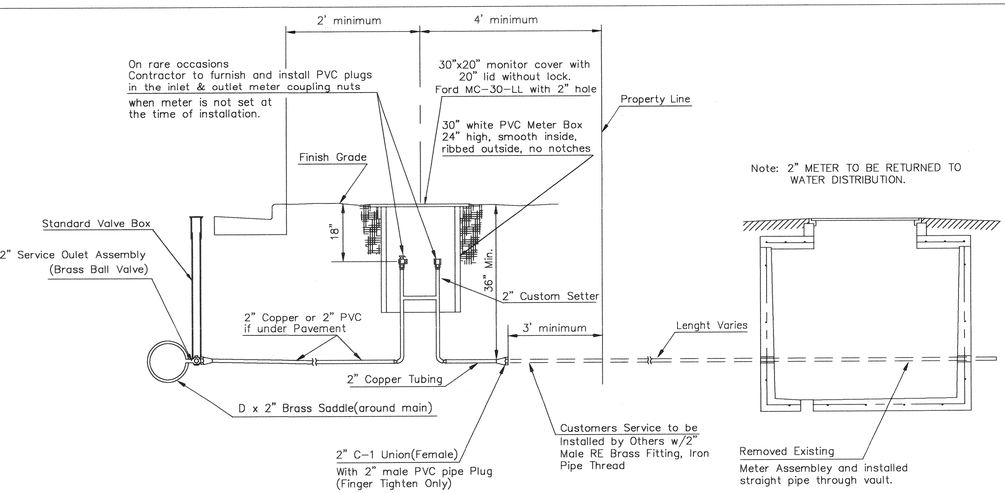
Meter boxes will be located on each lot to be served, as indicated in the SPECIAL PROVISIONS

TYPICAL 1" METER SETTING



Material: Cast Iron

NOT TRAFFIC RATED
RING & LID FOR 1" METER BOX

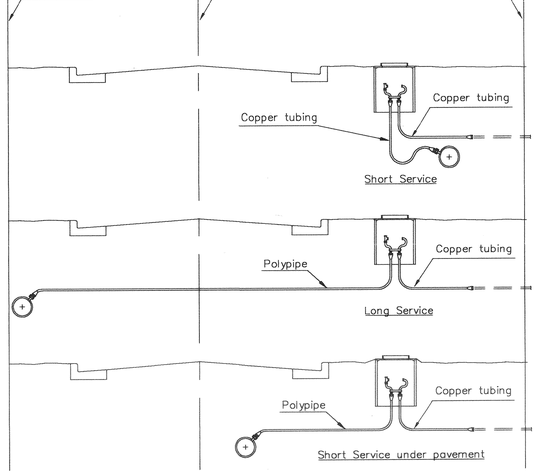


TYPICAL 2" METER SETTING

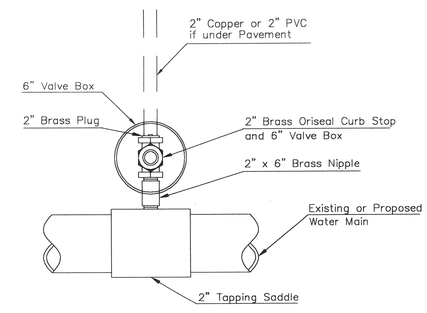
Note: ONE VALVE STEM EXTENSION FOR EACH VALVE BURIED GREATER THAN 5'.

TYPICAL 2" METER SETTING INVOLVING EXISTING 2" METER VAULT

Note: ONE VALVE STEM EXTENSION FOR EACH VALVE BURIED GREATER THAN 5'.



SERVICE TYPES



Note: Where the 2" Service Outlet Assembly is to be used to connect a 2" main to another main, the 2" valve shall be a 2" IPT Gate Valve. 2" ball or globe vavles shall not be approved for this use.

2" SERVICE OUTLET ASSEMBLY

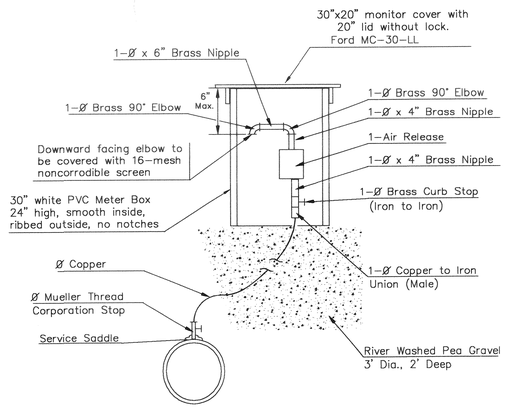
TOP VIEW

1 – Ø Mueller Thread Corporation Stop
– Ø Type "K" Copper Tubing
1 – Ø Copper to Iron Union (Male)
1 – Ø Brass Curb Stop (Iron to Iron)
2 – Øx4" Brass Nipple

Air Release
2 – Ø Brass Elbows (90°)
1 – 1"x6" Brass Nipple
1 – 30" Monitor Cover
1 – 20" Meter Lid

NOTE:

THE 1"/2" AIR RELEASE ASSEMBLY WILL TYPICALLY BE USED ON WATER MAINS 24" AND SMALLER, AS SPECIFICALLY DESIGNATED IN THE PLANS. COMBINATION AIR RELAEASE ASSEMBLIES WILL BE SPECIFICALLY DESIGNED FOR PROJECTS WITH LARGER MAINS, AND WILL BE INCLUDED IN THE PLANS.



MATERIALS FOR 1" or 2" AIR RELEASE ASSEMBLY
Ø = 1" or 2"

REVISED: JANUARY 2015

CITY OF WICHITA

PUBLIC WORKS & UTILITIES
ENGINEERING DIVISION

STANDARD
WATER SERVICE
DETAIL

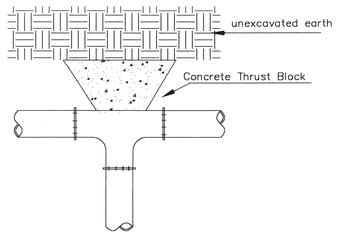
CITY ENGINEER
GARY JANZEN, P.E.

PROJECT NUMBER	OCA NUMBER	DATE
472-85031	705011	

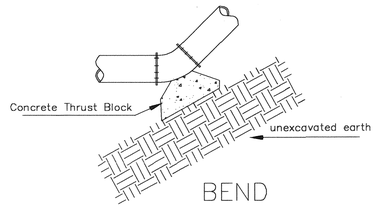
CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202-1620
(316) 268-4501

SHEET
261 of 1055

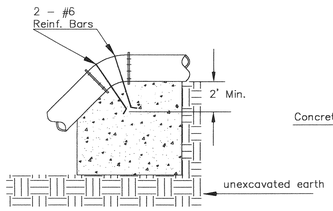
WL-102



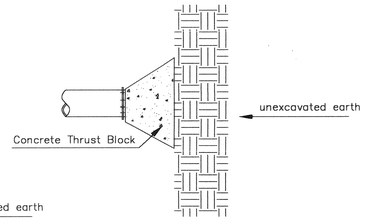
TEE



BEND



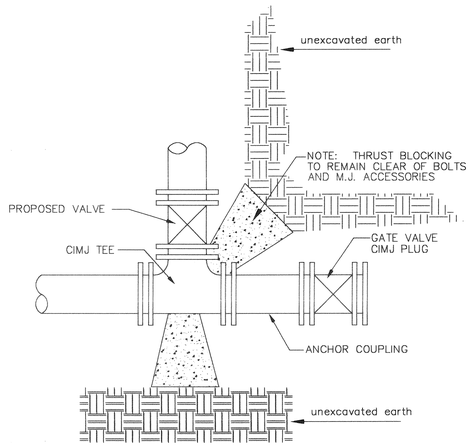
VERTICAL BEND



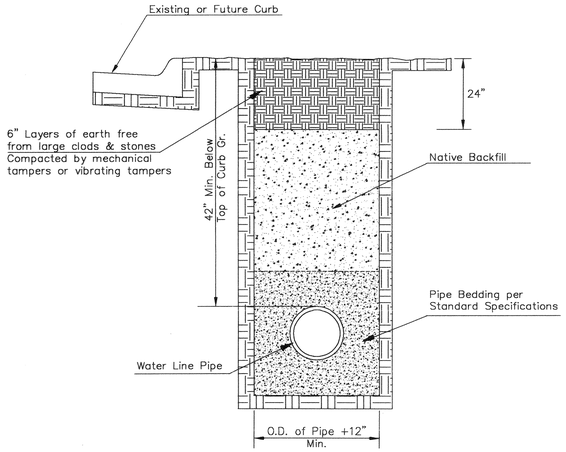
PLUG

PIPE SIZE	THRUST AT FITTINGS IN TONS–AT 150#/IN^{2}P					
	PLUG	90°	45°	22 1/2°	11 1/4°	TEE
6"	2.8	3.95	2.15	1.09	.55	2.8
8"	4.9	6.95	3.75	1.90	.96	4.9
12"	11.4	16.1	8.75	4.45	2.25	11.4
16"	20.15	28.5	15.4	7.85	3.95	20.15
20"	31.15	44.0	23.85	12.15	6.10	31.15
24"	44.55	63.0	34.1	17.4	8.75	44.55

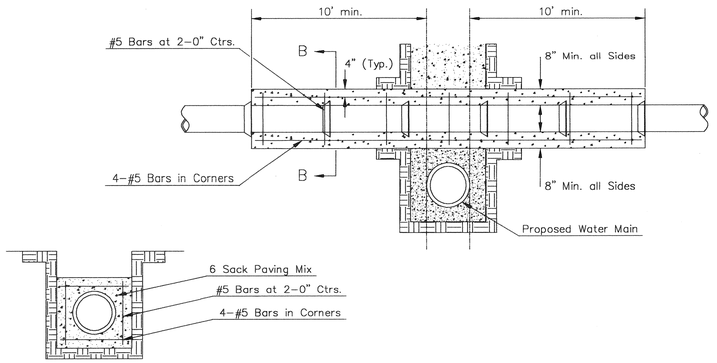
TYPICAL THRUST BLOCKS



KEY BLOCK DETAIL



TRENCH COMPACTION IN ROAD RIGHT–OF–WAY

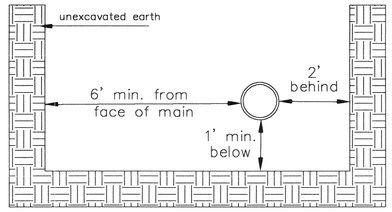


SECTION B–B

Note: Encasement to begin and end at a Bell on Sanitary Sewer Pipe.

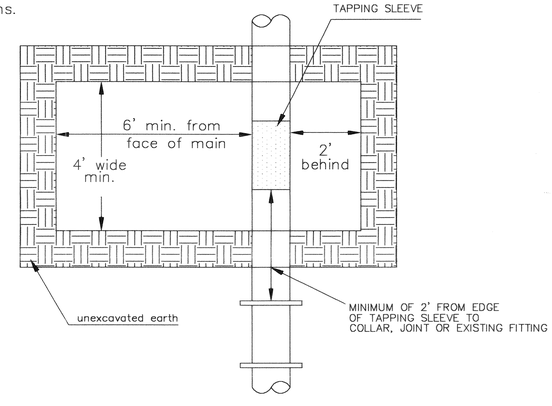
REINFORCED CONCRETE ENCASEMENT OF SANITARY SEWER

SIDE VIEW

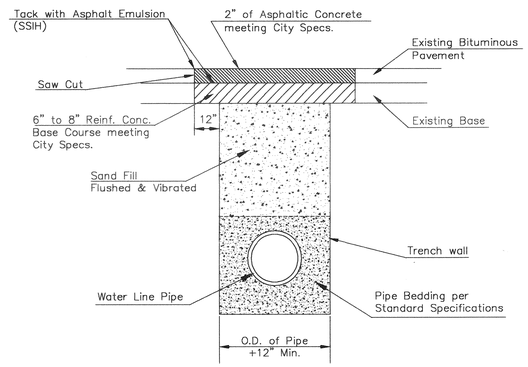


Note: When shoring is required it is to be per The City of Wichita Standard Specifications.

TOP VIEW



EXCAVATION FOR WET TAP



PAVEMENT REPLACEMENT & TRENCH COMPACTION UNDER EXISTING AND PROPOSED CITY ROADS

* PLANS GOVERN
UNLESS OTHERWISE NOTED ON PLANS

TYLER PAUL VOTH LICENSED 17874 4-6-15 KANSAS PROFESSIONAL ENGINEER

REVISED JANUARY 2015

CITY OF WICHITA
PUBLIC WORKS & UTILITIES ENGINEERING DIVISION

MISCELLANEOUS WATER DETAILS

CITY ENGINEER
GARY JANZEN, P.E..

PROJECT NUMBER	OCA NUMBER	DATE
472-85031	705011	04/2014

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

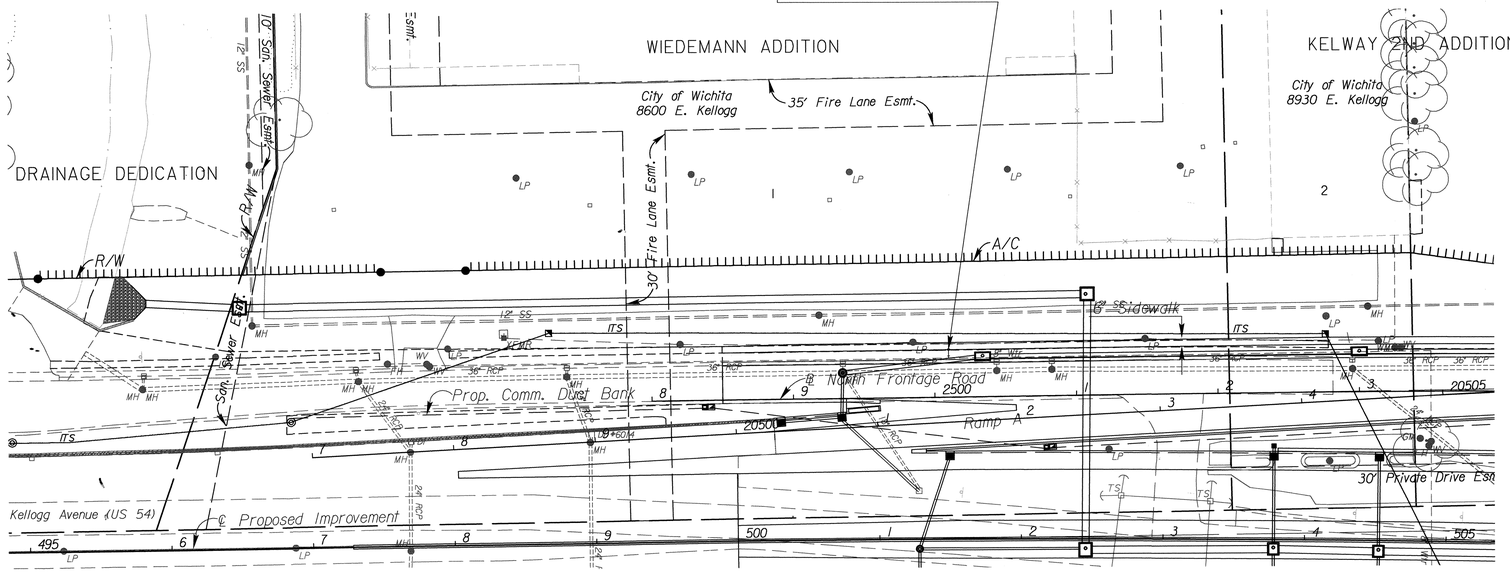
SHEET
262 of 1055

WL-104

Sta. 2500+09.94' 27.50' Lt.
℄ North Frontage Road
Exist. 8" Water
1-Fire Hydrant Assy.
L=6.0'
1-8" CIMJ Plug
Remove Pipe To The East

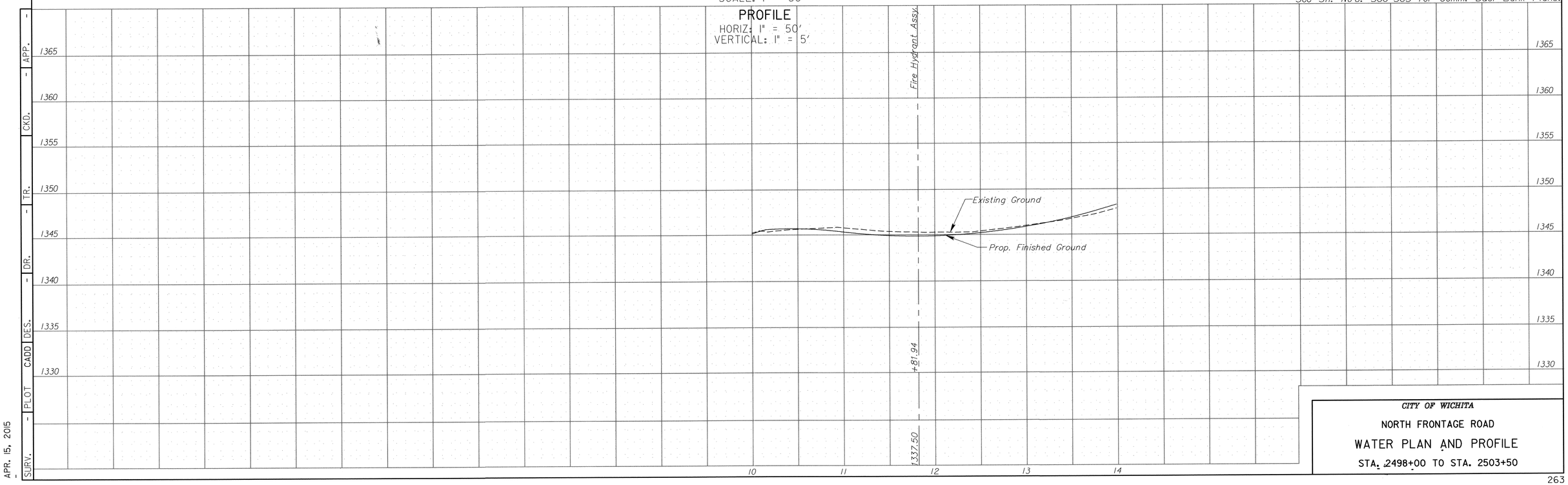
CAUTION: EXIST. UTILITIES!
CONTRACTOR TO COORDINATE
AND CONFIRM CLEARANCE
WITH IMPROVEMENTS

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	263	1055



PLAN
SCALE: 1" = 50'

PROFILE
HORIZ: 1" = 50'
VERTICAL: 1" = 5'



TYLER PAUL VOTH
LICENSED
17674
4-16-15
KANSAS
PROFESSIONAL ENGINEER

See Sh. No's. 174-237 for SWS Plans.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

APP. - CKD. - TR. - DR. - DES. - CADD - PLOT - SURV. -
APR. 15, 2015

CITY OF WICHITA
NORTH FRONTAGE ROAD
WATER PLAN AND PROFILE
STA. 2498+00 TO STA. 2503+50

CAUTION: EXIST. UTILITIES! CONTRACTOR TO COORDINATE AND CONFIRM CLEARANCE WITH IMPROVEMENTS	STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	KANSAS	472 85031	2015	264	1055

Revised Plan

Sta. 30+87.50 Line 1=
Sta. 19+51.45 Line 3=
Sta. 48+31.20 79.50' Rt.
℄ Webb Road =
Sta. 2518+98.77 41.57' Lt.
℄ North Frontage Road
1-20" DIRJ 90° Bend
1-20" Anchored Valve Assy. (E)
(RJ Butterfly Valve) Valve Box El.=1366.50

Sta. 32+86.55 Line 1=
Sta. 2520+97.62 50.50' Lt.
℄ North Frontage Road
Deflect Pipe 2°34'12.36" (Rt.)

3 Install 662.50' Of 20" Pipe

Sta. 35+78 Thru Sta. 36+03 Line 1
Install 25.00' Pipe, Casing
(30" ID Min.) (Open Cut)

Sta. 35+74.80 Line 1=
Sta. 2523+85.86 50.50' Lt.
℄ North Frontage Road
Deflect Pipe 6°50'34.08" (Rt.)

Sta. 36+70.51 Line 1=
Sta. 2524+85.86 38.50' Lt.
℄ North Frontage Road
Deflect Pipe 6°50'34.08" (Lt.)

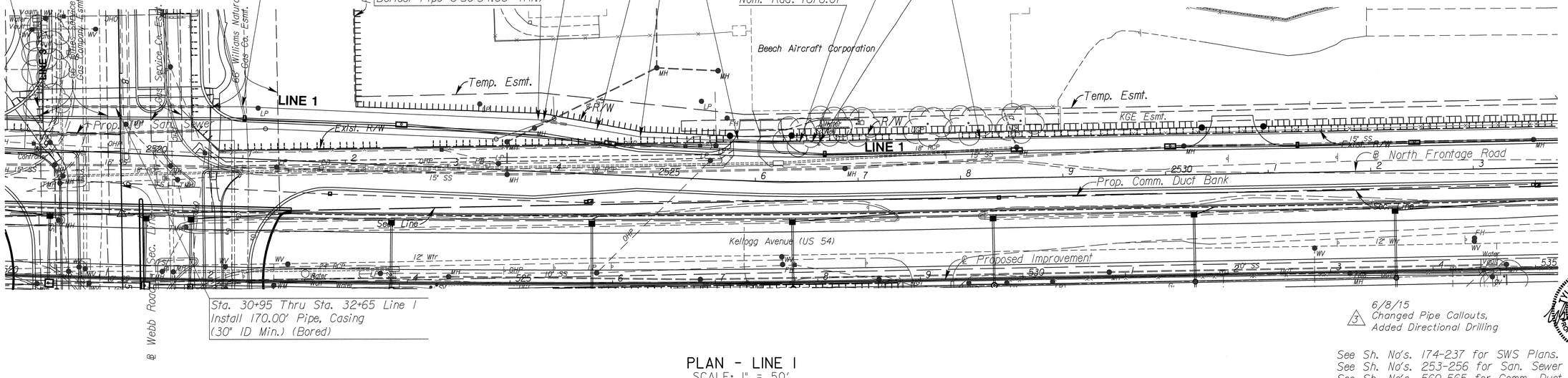
3 Sta. 37+50 Thru Sta. 38+35 Line 1
Install 85.00' of 20" Pipe by
Directional Bore

Install 15.00' Of 20" Pipe 3
Nom. Rad.=1676.07'

Sta. 38+50.00 Line 1=
Sta. 2526+62.48 38.49' Lt.
℄ North Frontage Road
1-2" Air Release Assy.

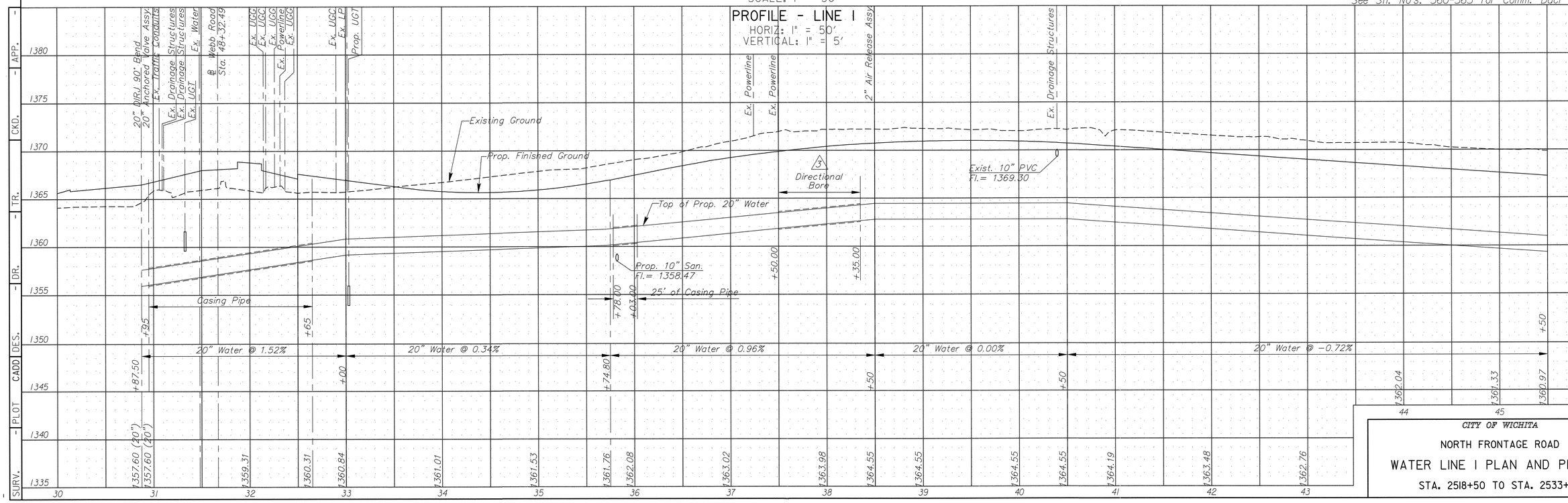
Install 700.00' Of 20" Pipe

Sta. 30+95 Thru Sta. 32+65 Line 1
Install 170.00' Pipe, Casing
(30" ID Min.) (Bored)



PLAN - LINE 1
SCALE: 1" = 50'

PROFILE - LINE 1
HORIZ: 1" = 50'
VERTICAL: 1" = 5'



APR. 15, 2015

3 6/8/15
Changed Pipe Callouts,
Added Directional Drilling

See Sh. No's. 174-237 for SWS Plans.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

TYLER PAUL WASINGER
17874
6-5-15
KANSAS
PROFESSIONAL ENGINEER

CITY OF WICHITA

NORTH FRONTAGE ROAD

WATER LINE 1 PLAN AND PROFILE

STA. 2518+50 TO STA. 2533+50

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	265	1055

CAUTION: EXIST. UTILITIES! CONTRACTOR TO COORDINATE AND CONFIRM CLEARANCE WITH IMPROVEMENTS

Sta. 47+96.07 Line 1=
Sta. 2536+08.90 38.50' Lt.
℄ North Frontage Road
1-20" DIRJ 90° Bend
1-20" Anchored Valve Assy. (S)
(RJ Butterfly Valve) Valve Box El.=1365.54

Install 262.50' Of 20" Pipe

Install 242.50' Of Pipe Casing (30" ID Min.) (Bored)

Sta. 50+58.57 Line 1=
Sta. 49+61.47 Line 2=
Sta. 2536+08.90 224.00' Rt.
℄ North Frontage Road
1-20" DIRJ Tee
3-20" Anchored Valve Assy (N,W&E)
(RJ Butterfly Valve) Valve Box El.=1367.64

Install 246.07' Of 20" Pipe

Beech Aircraft Corporation

℄ Hawker Beechcraft Entrance

Temp. Esmt.

Exist. R/W

R/W

LINE 1

LINE 2

Prop. Comm. Duct Bank

Ramp G

Ramp H

Sec. Line

Kellogg Avenue (US 54)

12" Wtr.

℄ Proposed Improvement

16" Gas Service Company Esmt.

℄ North Frontage Road

℄ South Frontage Road

City of Wichita

Trinity Christian Church Supply Entrance

Rodeo Cinema Entrance

Entrance

2535 2540 2545 535 540 545 550 1535 1540 1545 10540 10545 20540 20545

See Sh. No's. 174-237 for SWS Plans.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

PLAN - LINE 1
SCALE: 1" = 50'

PROFILE - LINE 1
HORIZ: 1" = 50'
VERTICAL: 1" = 5'

Existing Ground
Prop. Finished Ground
Top of Prop. 20" Water
Prop. 24" SWS Fl.= 1360.46
Encasement
Prop. 18" SWS Fl.= 1361.86
Casing Pipe
20" Water @ -1.09%
20" Water @ 0.00%
20" DIRJ 90° Bend
Ex. Powerline
Ex. 12" Water
Ex. UGT
Ex. Powerline
Ex. UGT
Prop. UGT
20" DIRJ Tee

1375 1370 1365 1360 1355 1350 1345 1340

+50 +96.07 +96.07 +48.57 +58.57

1360.97 1360.43 1359.34 1358.30 1358.30 1358.30 1358.30 1358.30 1358.30

46 47 48 49 50 51

APP. - CKD. - TR. - DR. - DES. - CADD - PLOT - SURV. -

APR. 15, 2015

CITY OF WICHITA

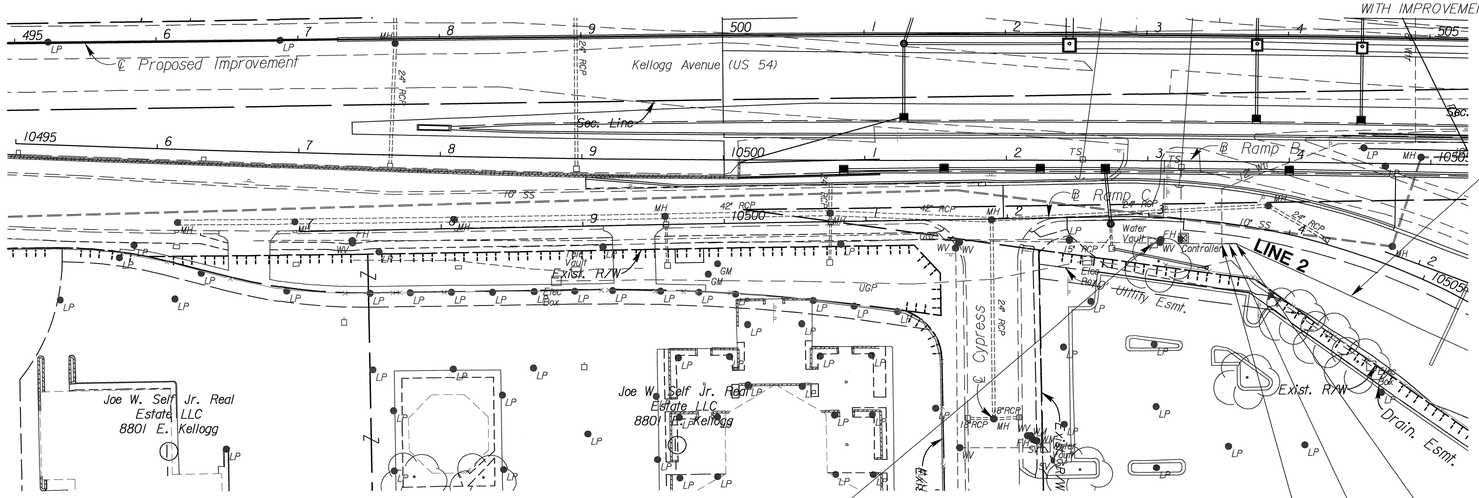
NORTH FRONTAGE ROAD

WATER LINE 1 PLAN AND PROFILE

STA. 2533+50 TO STA. 2549+50

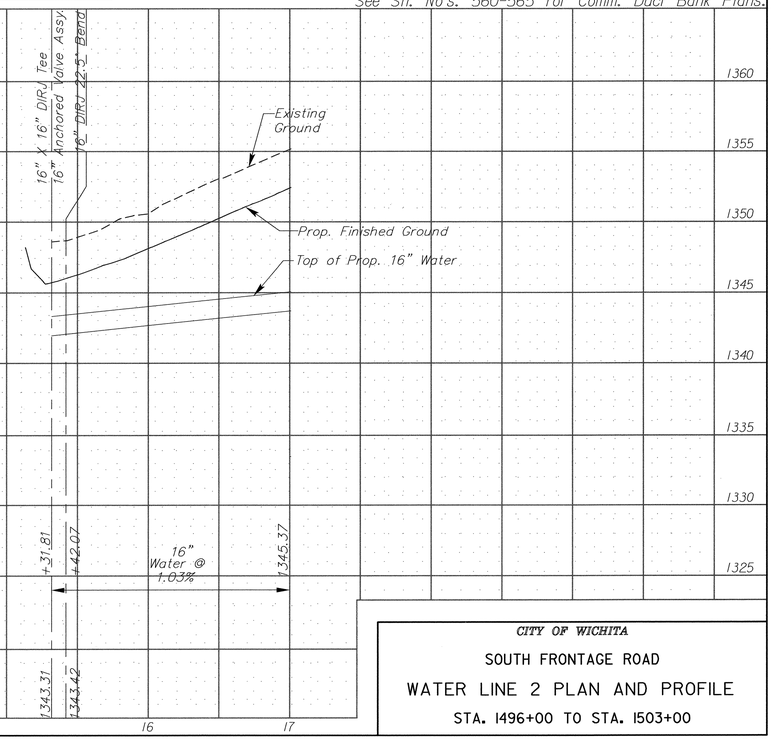
CAUTION: EXIST. UTILITIES! CONTRACTOR TO COORDINATE AND CONFIRM CLEARANCE WITH IMPROVEMENTS

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	266	1055



PLAN - LINE 2
SCALE: 1" = 50'

PROFILE - LINE 2
HORIZ: 1" = 50'
VERTICAL: 1" = 5'



See Sh. No's. 174-237 for SWS Plans.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

TYLER PAUL VOTH LICENSED 14974 4-16-15 KANSAS PROFESSIONAL ENGINEER

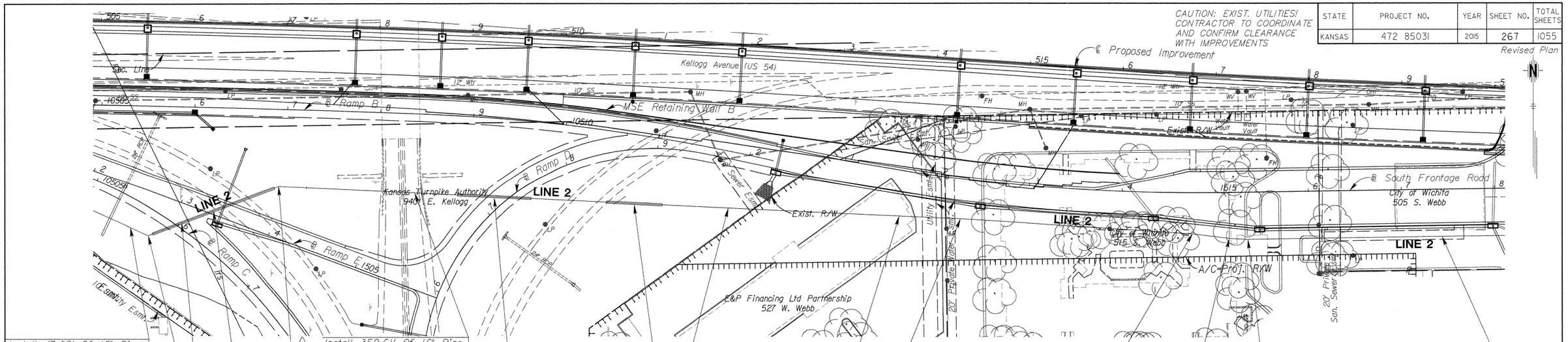
CITY OF WICHITA
SOUTH FRONTAGE ROAD
WATER LINE 2 PLAN AND PROFILE
STA. 1496+00 TO STA. 1503+00

SURV. - PLOT - CADD - DES. - DR. - TR. - CKD. - APP. -
APR. 15, 2015

CAUTION: EXIST. UTILITIES! CONTRACTOR TO COORDINATE AND CONFIRM CLEARANCE WITH IMPROVEMENTS

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	267	1055

Revised Plan



Install 47.39' Of 16" Pipe

Sta. 17+47.39 Line 2=
Sta. 10505+78.98 26.33' Rt.
℄ Ramp C
1-16" DIRJ 45° Bend
(Actual Def. 45°00'00")

Install 150.00' Of 16" Pipe

Sta. 17+47.39 Thru 18+97.39, Line 1
Install 140.00' Pipe, Casing
(24" ID Min.) (Bored)

Install 352.61' Of 16" Pipe

Sta. 20+90 Thru Sta. 21+70 Line 1
Install 80.00' Pipe, Casing
(24" ID Min.) (Open Cut)

Sta. 18+97.39 Line 2=
Sta. 10506+92.49 84.35' Rt.
℄ Ramp B
1-16" DIRJ 22.5° Bend
(Actual Def. 23°21'12")

Sta. 22+50 Thru Sta. 23+10 Line 1
Install 60.00' of 16" Pipe by
Directional Bore

Sta. 23+81.32 Line 2=
Sta. 10511+89.25 61.66' Rt.
℄ Ramp B
Def. Pipe 0°7'58" (Lt.)

Install 840.00' Of 16" Pipe

Sta. 26+31.34 Line 2=
Sta. 1512+30.82 43.74' Rt.
℄ South Frontage Road
Def. Pipe 1°0'0" (Rt.)

Sta. 28+81.34 Line 2=
Sta. 1514+75.61 43.83' Rt.
℄ South Frontage Road
Def. Pipe 3°30'0" (Rt.)

Sta. 29+21.34 Line 2=
Sta. 1515+14.48 49.10' Rt.
℄ South Frontage Road
Def. Pipe 4°0'0" (Lt.)

Sta. 29+41.34 Line 2=
Sta. 1515+34.43 50.50' Rt.
℄ South Frontage Road
Def. Pipe 4°0'0" (Lt.)

Sta. 31+50.00 Line 2=
Sta. 1517+43.11 ℄ South Frontage Road

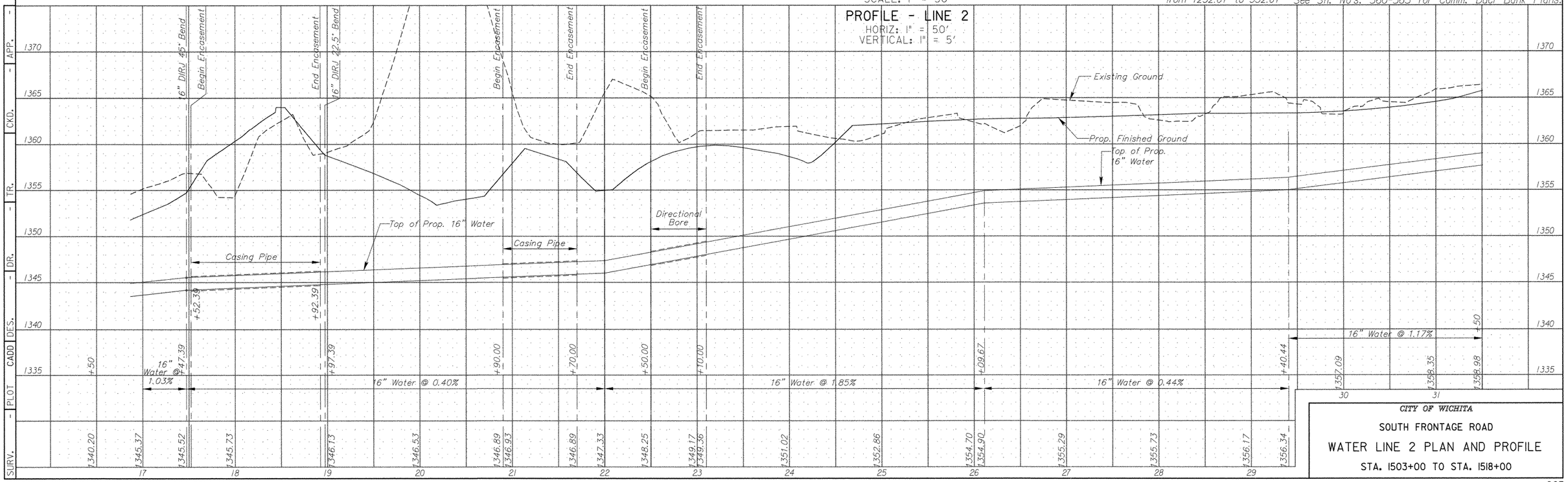
TYLER PAUL VOTH
No. 17974
STATE OF KANSAS
PROFESSIONAL ENGINEER

2 6/2/15 Changed Pipe Callout from 1252.61' to 352.61'

See Sh. No's. 174-237 for SWS Plans.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

PLAN - LINE 2
SCALE: 1" = 50'

PROFILE - LINE 2
HORIZ: 1" = 50'
VERTICAL: 1" = 5'



JUNE 2, 2015

CITY OF WICHITA

SOUTH FRONTAGE ROAD

WATER LINE 2 PLAN AND PROFILE

STA. 1503+00 TO STA. 1518+00

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	268	1055

CAUTION: EXIST. UTILITIES! CONTRACTOR TO COORDINATE AND CONFIRM CLEARANCE WITH IMPROVEMENTS

Sta. 32+75.94 Line 2=
Sta. 22+75.41 Line 3=
Sta. 51+55.20 55.50' Rt.
@ Webb Road=
Sta. 1518+69.03 50.50' Rt.
@ South Frontage Road
1-16" x 20" DIRJ Reducer (W)
1-20" x 20" DIRJ Tee
3-20" Anchored Valve Assy. (S,E&W)
(RJ Butterfly Valve) Valve Box El.=1367.20

Sta. 41+47.35 Line 2=
Sta. 1527+40.28 50.50' Rt.
@ South Frontage Road
1-Fire Hydrant Assy.
L=7.0'

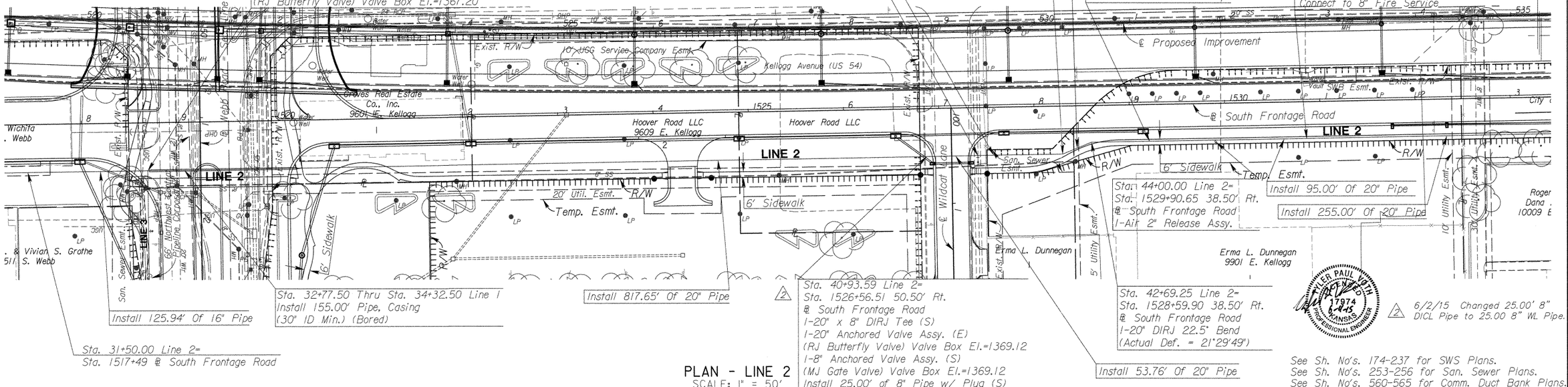
Sta. 42+36.51 Line 2=
Sta. 1528+29.44 50.50' Rt.
@ South Frontage Road
1-20" DIRJ 22.5° Bend

Install 89.16' Of 20" Pipe

Install 32.74' Of 20" Pipe

Install 130.75' Of 20" Pipe

Sta. 44+95.00 Line 2= Revised Plan
Sta. 1530+85.65 38.50' Rt.
@ South Frontage Road
1-20" x 8" DIRJ Tee (S)
1-8" Anchored Valve Assy. (S)
(MJ Gate Valve) Valve Box El.=1372.33
Connect to 8" Fire Service



Sta. 44+00.00 Line 2=
Sta. 1529+90.65 38.50' Rt.
@ South Frontage Road
1-Air 2" Release Assy.

Install 95.00' Of 20" Pipe

Install 255.00' Of 20" Pipe

Sta. 32+77.50 Thru Sta. 34+32.50 Line 1
Install 155.00' Pipe, Casing
(30" ID Min.) (Bored)

Install 125.94' Of 16" Pipe

Sta. 31+50.00 Line 2=
Sta. 1517+49 @ South Frontage Road

Install 817.65' Of 20" Pipe

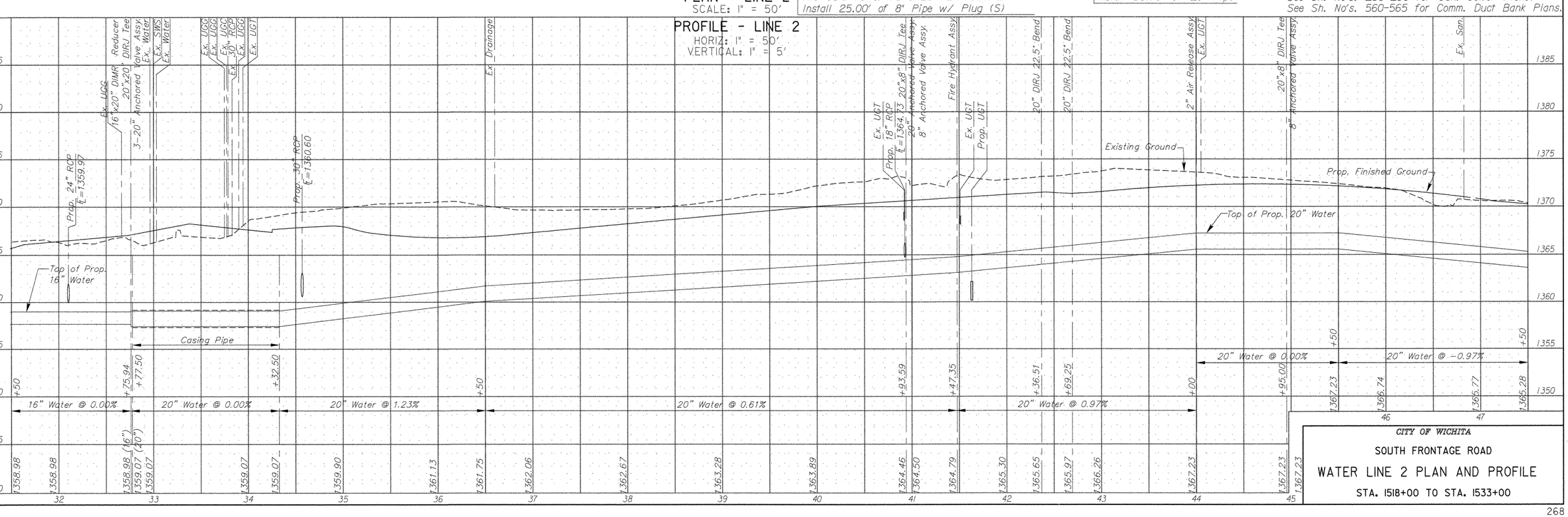
2 Sta. 40+93.59 Line 2=
Sta. 1526+56.51 50.50' Rt.
@ South Frontage Road
1-20" x 8" DIRJ Tee (S)
1-20" Anchored Valve Assy. (E)
(RJ Butterfly Valve) Valve Box El.=1369.12
1-8" Anchored Valve Assy. (S)
(MJ Gate Valve) Valve Box El.=1369.12
Install 25.00' of 8" Pipe w/ Plug (S)

Sta. 42+69.25 Line 2=
Sta. 1528+59.90 38.50' Rt.
@ South Frontage Road
1-20" DIRJ 22.5° Bend
(Actual Def. = 21°29'49")

Install 53.76' Of 20" Pipe

PLAN - LINE 2
SCALE: 1" = 50'

PROFILE - LINE 2
HORIZ: 1" = 50'
VERTICAL: 1" = 5'



2 6/2/15 Changed 25.00' 8" DICL Pipe to 25.00 8" WL Pipe.

See Sh. No's. 174-237 for SWS Plans.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

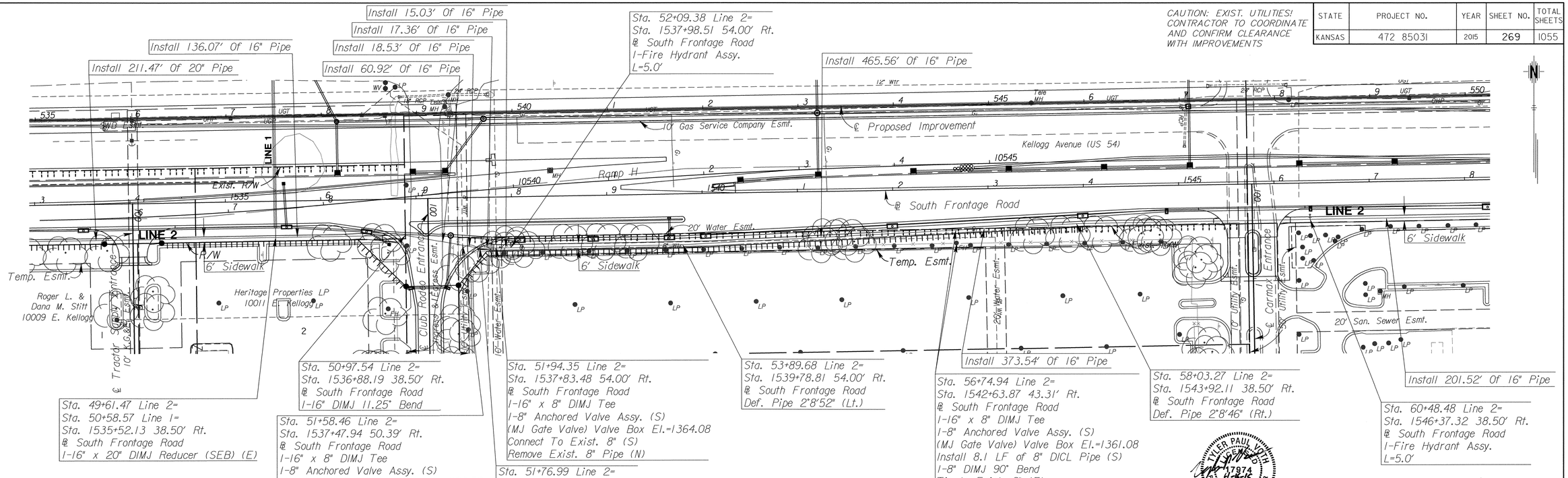
TYLER PAUL ROTH
17974
6-8-15
KANSAS
PROFESSIONAL ENGINEER

CITY OF WICHITA
SOUTH FRONTAGE ROAD
WATER LINE 2 PLAN AND PROFILE
STA. 1518+00 TO STA. 1533+00

JUNE 2, 2015

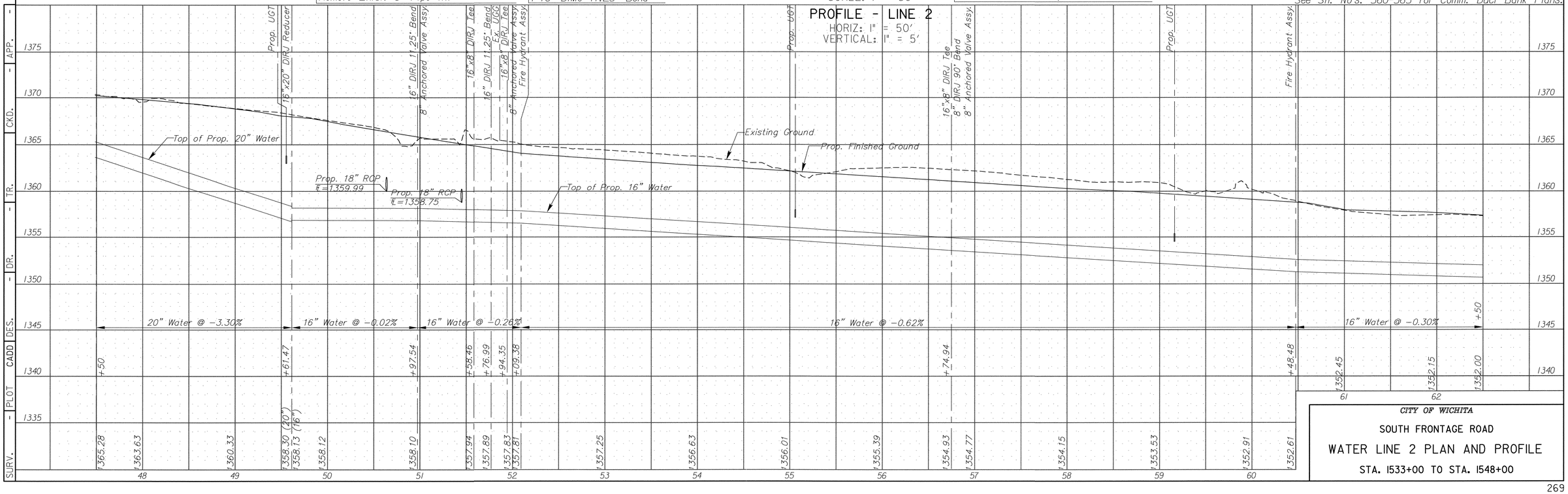
CAUTION: EXIST. UTILITIES! CONTRACTOR TO COORDINATE AND CONFIRM CLEARANCE WITH IMPROVEMENTS

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	269	1055



PLAN - LINE 2
SCALE: 1" = 50'

PROFILE - LINE 2
HORIZ: 1" = 50'
VERTICAL: 1" = 5'



TYLER PAUL VOTH
17974
4-8-15
KANSAS
PROFESSIONAL ENGINEER

See Sh. No's. 174-237 for SWS Plans.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

APR. 15, 2015

CITY OF WICHITA

SOUTH FRONTAGE ROAD

WATER LINE 2 PLAN AND PROFILE

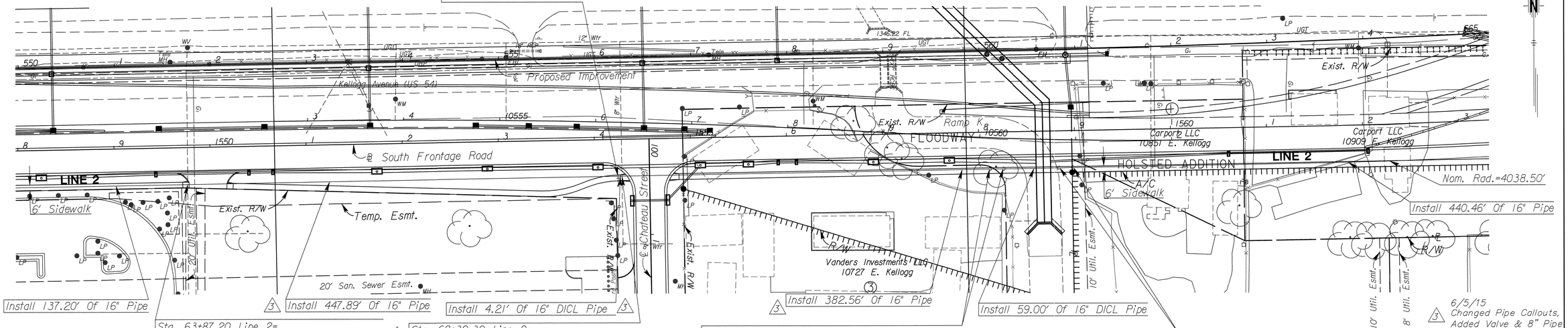
STA. 1533+00 TO STA. 1548+00

CAUTION: EXIST. UTILITIES! CONTRACTOR TO COORDINATE AND CONFIRM CLEARANCE WITH IMPROVEMENTS

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	270	1055

Revised Plan

Sta. 68+35.09 Line 2=
Sta. 1554+23.92 38.50' Rt.
℄ South Frontage Road
1-Fire Hydrant Assy.
L=10.0'



Sta. 63+87.20 Line 2=
Sta. 1549+76.04, 38.50' Rt.
℄ South Frontage Road
1-16" x 8" DIRJ Tee
1-16" Anchored Valve Assy. (E)
(MJ Butterfly Valve) Valve Box El=1356.25
1-8" Anchored Valve Assy. (S)
(MJ Gate Valve) Valve Box El=1356.25
Connect To Exist. 8" (S)
Remove Exist. 8" Pipe (N)

Sta. 68+39.30 Line 2=
Sta. 1554+28.13 38.50' Rt.
℄ South Frontage Road
1-16" x 8" DIRJ Tee
1-8" Anchored Valve Assy. (S)
(MJ Butterfly Valve) Valve Box El=1354.75
Install 21.50' Of 8" Pipe (S), Remove Ex.
45° Bend and Connect to Ex. 8" Pipe.
Cap and Abandon Ex. Water Line (N)

Sta. 72+21.86 To Sta. 72+36.20 Line 2=
Sta. 1558+10.69 To Sta. 1558+25.03, 38.50' Rt.
℄ South Frontage Road
1-16" DIRJ 22.5° Bend (Rolled)
Install 14.34' Of 16" DICL Pipe
1-16" DIRJ 22.5° Bend (Rolled)

Sta. 72+95.20 To Sta. 73+09.54 Line 2=
Sta. 1558+84.03 To Sta. 1558+98.37, 38.50' Rt.
℄ South Frontage Road
1-16" DIRJ 22.5° Bend (Rolled)
Install 14.34' Of 16" DICL Pipe
1-16" DIRJ 22.5° Bend (Rolled)

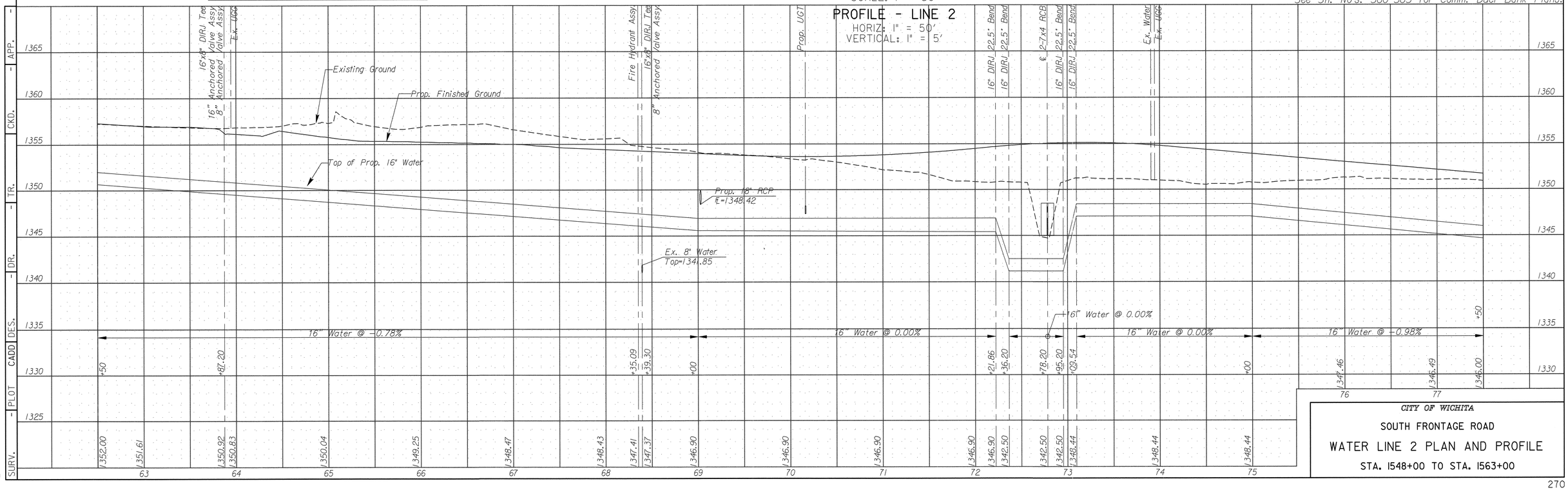
3 6/5/15
Changed Pipe Callouts, Added Valve & 8" Pipe

TYLER PAUL GENSCH 17974 6-5-15 KANSAS PROFESSIONAL ENGINEER

See Sh. No's. 174-237 for SWS Plans.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

PLAN - LINE 2
SCALE: 1" = 50'

PROFILE - LINE 2
HORIZ: 1" = 50'
VERTICAL: 1" = 5'



CITY OF WICHITA
SOUTH FRONTAGE ROAD
WATER LINE 2 PLAN AND PROFILE
STA. 1548+00 TO STA. 1563+00

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	271	1055

Sta. 78+11.59 Line 2=
Sta. 1563+99.23 38.50' Rt.
@ South Frontage Road
Def. Pipe 6°50'34.08" (Rt.)

Sta. 79+12.31 Line 2=
Sta. 1564+99.23 50.50' Rt.
@ South Frontage Road
Def. Pipe 6°50'34.08" (Lt.)

Sta. 82+66.81 To Sta. 82+75.09 Line 2=
Sta. 1568+02.01 To Sta. 1568+10.29 50.50' Rt.
@ South Frontage Road
1-16" DIRJ 22.5° Bend (Rolled)
Install 8.28' Of 16" DICL Pipe
1-16" DIRJ 22.5° Bend (Rolled)

Install 40.00' Of 16" DICL Pipe

Install 72.26' Of 16" Pipe

Sta. 85+98.19 Line 2=
Sta. 1571+84.96 44.98' Rt.
@ South Frontage Road
1-16" x 12" DIRJ Reducer
1-Tapping Sleeve & Valve 12"

Sec. Line

℄ Proposed Improvement

Kellogg Avenue (US 54)

Exist. R/W

LINE 2

℄ Trig Avenue

Temp. Esmt.

Exist. R/W

CARPORT LLC
11051 E. Kellogg

Exist. R/W

Green Lantern Inn
535(S. Greenwich

PARKING

℄ Greenwich Road = Sec. Line

℄ South Frontage Road

Exist. R/W

Stevens 3rd Addition LLC
11211 E. Kellogg

Install 245.41' Of 16" Pipe

Install 246.66' Of 16" Pipe

Sta. 83+15.09 To Sta. 83+23.37 Line 2=
Sta. 1568+53.73 To Sta. 1568+62.01 50.50' Rt.
@ South Frontage Road
1-16" DIRJ 22.5° Bend (Rolled)
Install 8.28' Of 16" DICL Pipe
1-16" DIRJ 22.5° Bend (Rolled)

Install 202.56' Of 16" Pipe

Sta. 85+25.93 Line 2=
Sta. 25+50.18 Line 3 (Project 472 84615)=
Sta. 51+51.99 108.12' Rt.
@ Greenwich Road=
Sta. 1571+12.81 48.96' Rt.
@ South Frontage Road
1-16" x 12" DIRJ Tee
2-16" Anchored Valve Assy. (E&W)
(MJ Butterfly Valve) Valve Box El.=1350.00
1-12" Anchored Valve Assy. (S)
(MJ Butterfly Valve) Valve Box El.=1350.00
1-12" DIRJ Plug (S)

Sta. 79+95.41 Line 2=
Sta. 1565+78.32 50.50' Rt.
@ South Frontage Road
1-16" x 8" DIRJ Tee
1-16" Anchored Valve Assy. (W)
(MJ Butterfly Valve) Valve Box El.=1348.07
1-8" Anchored Valve Assy. (S)
(MJ Gate Valve) Valve Box El.=1348.07
Connect To Exist. 8" (S)
Remove Exist. 8" Pipe (N)

Sta. 80+20.15 Line 2=
Sta. 1566+07.07 50.50' Rt.
@ South Frontage Road
1-Fire Hydrant Assy.
L=5.0'

Install 24.74' Of 16" Pipe

Sta. 84+97.98 Line 2=
Sta. 1570+84.91 50.50' Rt.
@ South Frontage Road
Def. Pipe 3°9'27" (Lt.)

CAUTION: EXIST. UTILITIES!
CONTRACTOR TO COORDINATE
AND CONFIRM CLEARANCE
WITH IMPROVEMENTS

See Sh. No's. 174-237 for SWS Plans.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

PLAN - LINE 2
SCALE: 1" = 50'

PROFILE - LINE 2
HORIZ: 1" = 50'
VERTICAL: 1" = 5'

Existing Ground
Future Prop. Finished Ground
Top of Prop. 16" Water

Ex. 21" Sanitary
Prop. UGT
16"x8" DIRJ Tee
16" Anchored Valve Assy
8" Anchored Valve Assy
Ex. Water
Ex. UGG
Fire Hydrant Assy.
16" DIRJ 22.5° Bend
Future 3-6x4 RCB
Ex. 8" Sanitary
2-16" Anchored Valve Assy
8" Anchored Valve Assy
16"x12" DIRJ Reducer
12" Tapping Sleeve & Valve

16" Water @ -0.98%
16" Water @ 0.00%
16" Water @ 0.00%
16" Water @ 0.40%
16" Water @ 2.23%

APP. - CKD. - TR. - DR. - DES. - CADD - PLOT - SURV. -
APR. 15, 2015

CITY OF WICHITA
SOUTH FRONTAGE ROAD
WATER LINE 2 PLAN AND PROFILE
STA. 1563+00 TO STA. 1578+00

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	272	1055

Revised Plan

Sta. 10+00 Begin Line 3=
Sta. 38+92.48 29.37' Rt.
@ Webb Road
Connect To Exist. 20" Pipe (RCCP) (N)
Using Necessary Fittings
1-20" DIRJ 45° Bend
1-DIRJ 20" Plug To
Remove Exist. 20" Pipe (S)

Install 36.97' Of 20" Pipe

Install 295.84' Of 20" Pipe

Sta. 14+67.39 Line 3=
Sta. 43+49.05 55.50' Rt.
@ Webb Road
1-Fire Hydrant Assy.
L=4.0'
1-20" DIRJ 11.25° Bend
(Actual Def. = 9°5'34.79")

2
Sta. 11+66.64 Line 3A=
Sta. 44+97.92 87.50' Lt.
@ Webb Road
1-12" DIRJ 90° Bend (Rolled)
Install 7.87' Of 12" DICL (S)

Sta. 11+74.51 Line 3A=
Sta. 45+05.79 87.42' Lt.
@ Webb Road
1-12" DIRJ 22.50° Bend (Rolled)
Remove Ex. Plug and
Connect to Ex. 12" Cross

Install 2.35' Of 20" DICL Pipe

Sta. 16+19.30 Line 3=
Sta. 44+99.05 79.50' Rt.
@ Webb Road
1-20" DIRJ 11.25° Bend
(Actual Def. = 9°5'34.79")

Install 10.70' Of 20" DICL Pipe

Sta. 19+51.45 Line 3=
Sta. 30+87.50 Line 1=
Sta. 48+31.20 79.50' Rt.
@ Webb Road=
Sta. 2518+98.77 41.57' Lt.
@ North Frontage Road
20" DIRJ 90° Bend With Valve

Install 63.89' Of 20" Pipe

Sta. 18+87.56 Line 3=
Sta. 47+67.31 79.5' Rt.
@ Webb Road
1-Fire Hydrant Assy.
L=4.0'

Sta. 10+36.97 Line 3=
Sta. 39+18.62 55.50' Rt.
@ Webb Road
1-20" DIRJ 45° Bend
1-20" Anchored Valve Assy. (N)
(RJ Butterfly Valve) Valve Box El.=1356.40
1-20" x 8" DIRJ Tee
1-8" Anchored Valve Assy. (W)
(MJ Gate Valve) Valve Box El.=1356.40
Connect To Exist. 8" (W)
Remove Exist. 8" (E)
1-20" Anchored Valve Assy. (S)
(RJ Butterfly Valve) Valve Box El.=1356.40

Install 134.58' Of 20" Pipe

Sta. 11+71.55 Line 3=
Sta. 40+53.21 55.50' Rt.
@ Webb Road
1-Fire Hydrant Assy.
L=4.0'

Sta. 15+01.02 Line 3=
Sta. 43+82.25 60.81' Rt.
@ Webb Road
1-20" x 8" DIRJ Tee
1-8" Anchored Valve Assy. (W)
(RJ Gate Valve) Valve Box El.=1358.50
Connect To Exist. 8" (W)

Install 115.93' Of 20" Pipe

Sta. 16+16.95 Line 3=
Sta. 10+00 Line 3A=
Sta. 44+96.73 79.13' Rt.
@ Webb Road
1-20" x 12" DIRJ Tee
1-12" Anchored Valve Assy. (E)
(RJ Butterfly Valve)
Valve Box El.=1359.35
Install 166.64' Of 12" Pipe (E)
By Directional Boring

Sta. 16+30.00 Line 3=
Sta. 45+09.75 79.50' Rt.
@ Webb Road
1-20" x 8" DIRJ Tee
1-8" Anchored Valve Assy. (W)
(MJ Butterfly Valve)
Valve Box El.=1359.35
Connect to Ex. 8" Fire Service
Install 4" Domestic Service

Install 151.86' Of 20" Pipe

Sta. 17+61.86 Line 3=
Sta. 13+34.50 Line 3B
Sta. 46+41.61 79.50' Rt.
@ Webb Road
1-20" x 18" DIRJ Tee
1-8" Anchored Valve Assy. (W)
(MJ Butterfly Valve)
Valve Box El.=1362.23
Install 354.50' Of 8" Pipe (W)

Install 125.70' Of 20" Pipe

2
6/2/15
Changed 7.87' 12" Pipe to 7.87 12" WL DICL Pipe.

CAUTION: EXIST. UTILITIES! CONTRACTOR TO COORDINATE AND CONFIRM CLEARANCE WITH IMPROVEMENTS

PLAN - LINES 3 & 3A
SCALE: 1" = 50'

PROFILE - LINE 3
HORIZ: 1" = 50'
VERTICAL: 1" = 5'

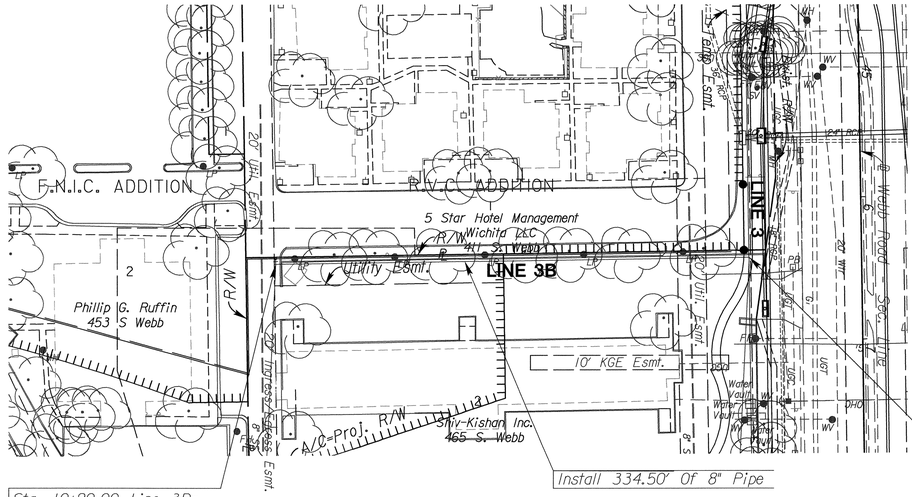
PROFILE - LINE 3A
HORIZ: 1" = 50'
VERTICAL: 1" = 5'

CITY OF WICHITA
WEBB ROAD
WATER LINE 3 & 3A PLAN & PROFILE
STA. 38+88.82 TO STA. 50+00

JUNE 2, 2015

272

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	273	1055



Sta. 10+20.00 Line 3B=
Sta. 46+41.74 414.00' Rt.
@ Webb Road
1-Fire Hydrant Assy.
L=4.0'
Plug 8" Tee (W)

Install 334.50' Of 8" Pipe

Sta. 13+34.50 Line 3B=
Sta. 17+61.86 Line 3=
Sta. 46+41.61 79.50' Rt.
@ Webb Road
Connect to Prop 8" Valve

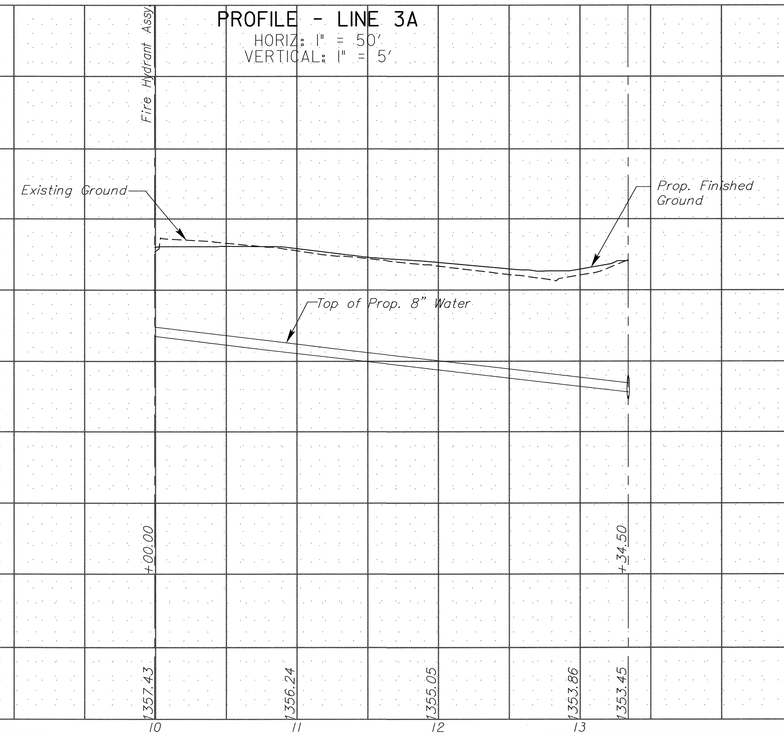
CAUTION: EXIST. UTILITIES!
CONTRACTOR TO COORDINATE
AND CONFIRM CLEARANCE
WITH IMPROVEMENTS

PLAN - LINES 3B
SCALE: 1" = 50'

See Sh. No's. 174-237 for SWS Plans.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.

TILER PAUL VOTH
LICENSED
17974
4-16-15
KANSAS
PROFESSIONAL ENGINEER

PROFILE - LINE 3A
HORIZ: 1" = 50'
VERTICAL: 1" = 5'

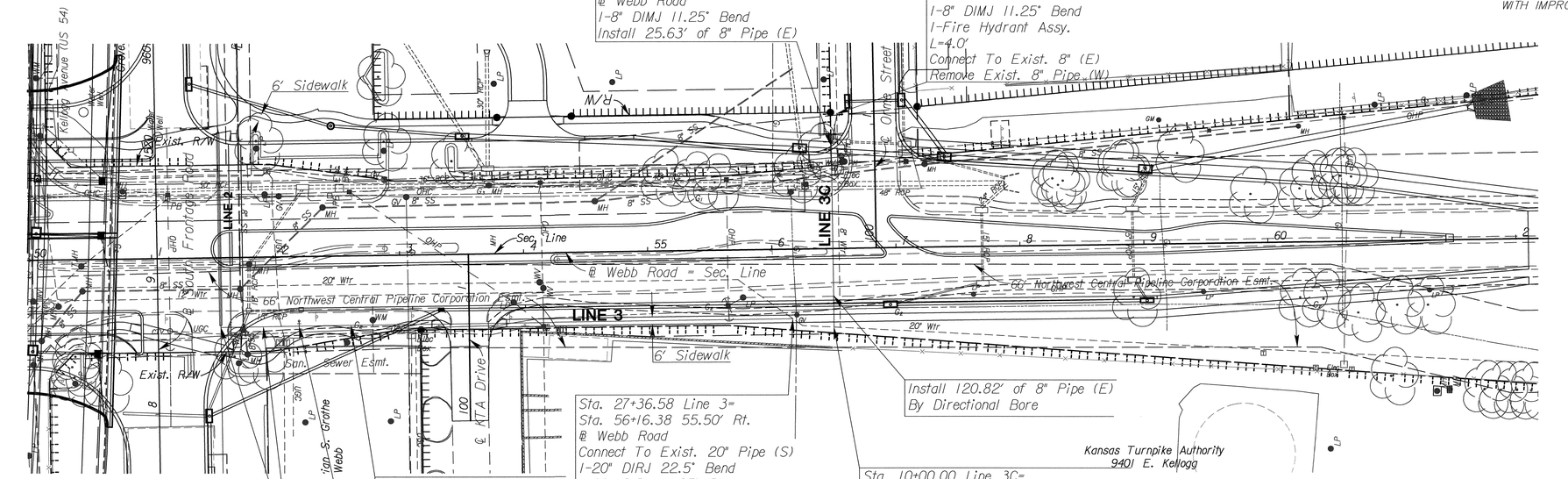


APP. - CKD. - TR. - DR. - DES. - CADD - PLOT - SURV. -
APR. 15, 2015

CITY OF WICHITA
WEBB ROAD
WATER LINE 3B PLAN & PROFILE
STA. 2515+50 TO STA. 2518+90

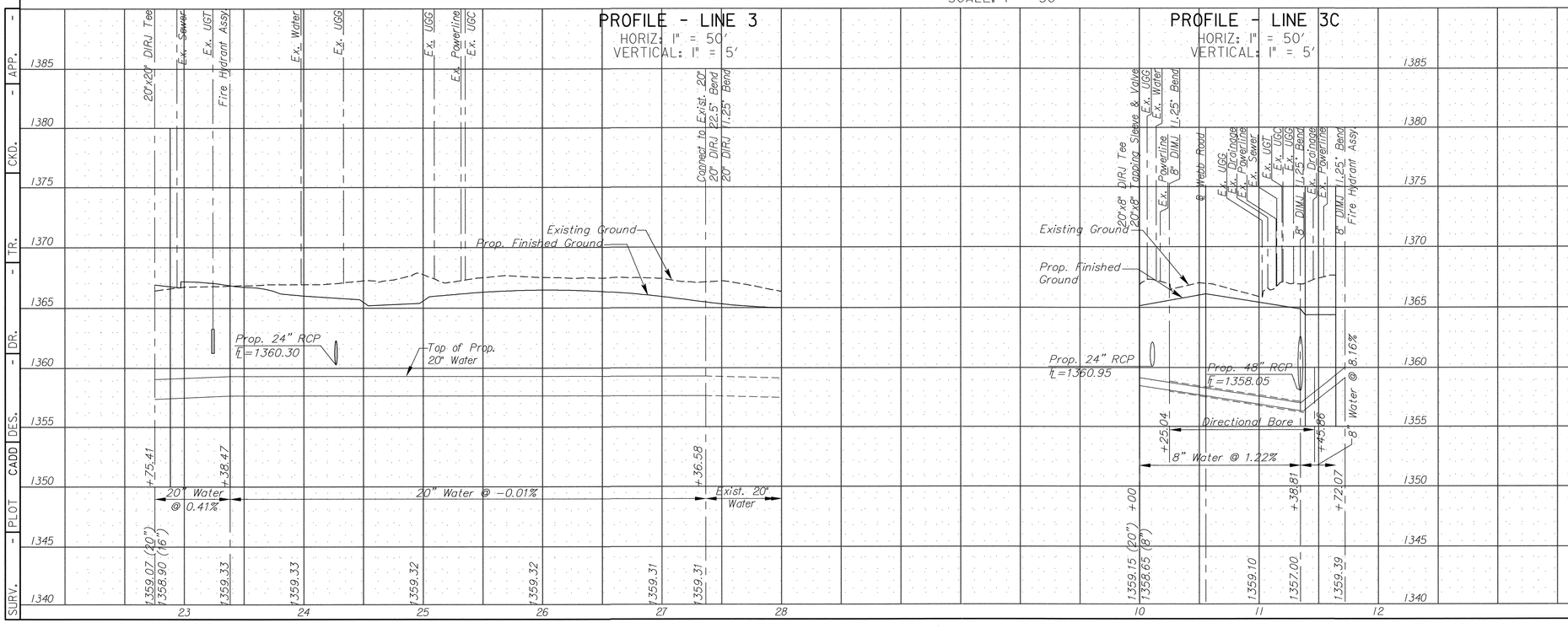
CAUTION: EXIST. UTILITIES! CONTRACTOR TO COORDINATE AND CONFIRM CLEARANCE WITH IMPROVEMENTS

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	274	1055



PLAN - LINE 3 & 3C
SCALE: 1" = 50'

See Sh. No's. 174-237 for SWS Plans.
See Sh. No's. 253-256 for San. Sewer Plans.
See Sh. No's. 560-565 for Comm. Duct Bank Plans.



TYLER PAUL VOTH
LICENSED
17874
KANSAS
PROFESSIONAL ENGINEER

CITY OF WICHITA

WEBB ROAD

WATER LINE 3 & 3C PLAN & PROFILE

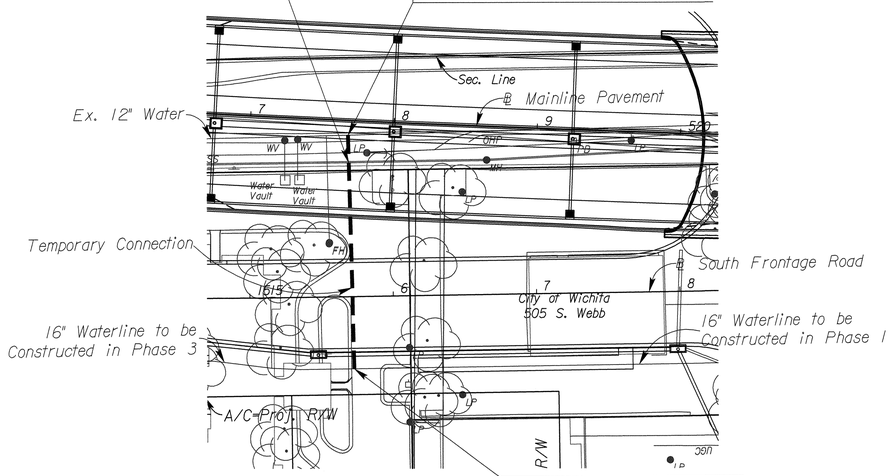
STA. 50+00 TO STA. 62+00

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472 85031	2015	275	1055

Revised Plan

The Contractor Shall Use Fittings as Necessary to Maintain a Minimum of 2' of Clearance Between the Temporary Connection and the Existing 10" Sanitary Sewer.
10" SS Flowline = 1354.8

Sta. 517+68.30 10.37' Rt.
℄ Mainline
Sta. 1515+69.60 112.76' Lt.
℄ South Frontage Road
1-12" X 12" Tapping Sleeve (W) & 12" Tapping Valve with Valve Box to be Furnished and Installed by the City of Wichita.



TEMPORARY 12" CONNECTION DETAIL

Cost to be subsidiary to Lump Sum Bid Item "12" Connection, Temporary". See General Note 6.

Sta. 29+27.94 Line 2=
Sta. 1515+72.27 50.50' Rt.
℄ South Frontage Road
1-16" x 12" DIRJ Tee (N)
Install 164 L.F. 12" Pipe (N)
Plug 16" Tee (W)

GENERAL NOTES

1. Work to be performed for the bid items "Tapping Sleeve & Valve 12"" and "20"x8" Tapping Sleeve & Valve" shall include all preparation necessary to allow the City of Wichita to perform a live line tap at the location specified in the plans. Work will include coordination and advance notice with the City of Wichita, all excavation and site preparation for the tap shall be included in the bid price. The City of Wichita will provide the tapping machine, sleeve and valve and perform the live tap. The contractor will be responsible for all water line installation, backfilling, site restoration, water line testing and disinfecting and thrust restraint. The City of Wichita will not be responsible for delays in construction caused by unsuccessful tapping operations.

2. Work to be performed for the bid items "Pipe, WL 8", Directional Bore", and "Pipe, WL 12", Directional Bore" shall include all work associated with performing the installation of water line pipe of the specified size by means of guided horizontal directional drilling in the locations specified on the drawings. The work shall be done in conformance with current industry standards by personnel that is trained and experienced in this type of work. The work shall include all pipe, boring equipment, excavations and backfills for bore pits, site preparation and restoration. Testing and disinfection of all water line installed in this manner shall be included in this bid item.

3. All Fire Hydrants with a bury depth over 7' shall be a swing hydrant as shown on sheet 260 (WL-101).

4. The Contractor shall relocate the existing pressure reading device and SCADA system (located in front of 9901 E. Kellogg) to the 1" domestic service located on Line 1 at 47+96. Contractor must coordinate this work with the Water Utility and the cost shall be considered subsidiary to the "1" Domestic Service".

5. All waterlines with a casing pipe shall be restrained joint pipe. The restrained joint pipe shall extend a minimum of 5' beyond the casing pipe on each end.

6. The City of Wichita will require a temporary water connection to the existing 12" line in Webb at Sta. 32+75.94, Water Line 2 until the proposed 16" water line can be connected to the existing water distribution at the KTA Entrance. See Detail, This Sheet. All Costs Associated with the Temporary Hook-up, including pipe, fittings, tapping fees, removal, etc. shall be considered subsidiary to the Lump Sum Bid Item "12" Connection, Temporary".

WATER		
DESCRIPTION	UNIT	QTY
Pipe, WL 8"	LF	433 △3
Pipe, WL 8", By Directional Boring	LF	121
Pipe, WL 12"	LF	0 △2
Pipe, WL 12", By Directional Boring	LF	167
Pipe, WL 16"	LF	5173 △3
Pipe, WL 16", By Directional Boring	LF	60
Pipe, WL 20"	LF	4982 △3
△3 Pipe, WL 20", By Directional Boring	LF	85
Pipe, WL DICL 8"	LF	9
△2 Pipe, WL DICL 12"	LF	8
Pipe, WL DICL 16"	LF	149 △3
Pipe, WL DICL 20"	LF	3
Fire Hydrant Assembly	Each	12
Valve Assembly, Anchored 8"	Each	12 △3
Valve Assembly, Anchored 12"	Each	2
Valve Assembly, Anchored 16"	Each	5
Valve Assembly, Anchored 20"	Each	11
Valve Assembly, Air Release	Each	2
Valve Vault, Adjustment (Special)	Each	1
Pipe, Casing (24" ID Min.) (Bored), HDPE	LF	140
Pipe, Casing (24" ID Min.), HDPE	LF	80
Pipe, Casing (30" ID Min.) (Bored), HDPE	LF	568
Pipe, Casing (30" ID Min.), HDPE	LF	25
Tapping Sleeve & Valve 12"	Each	1
20"x8" Tapping Sleeve & Valve	Each	1
12" Connection, Temporary	Each	1
1" Domestic Service	Each	7
2" Domestic Service	Each	3
4" Domestic Service	Each	1
8" Fire Service	Each	2

FIRE HYDRANT TABLE								
LINE	WATER STA.	STREET STA.	STREET OFFSET	BURY LINE	TOP OF PIPE	BURY	VALVE BOX EL	LENGTH (FT)
1		2500+09.94	27.72' L	1344.84	1341	4.5	1344.61	6 △3
2	41+47.35	1527+40.28	50.5' R	1369.10	1364.79	5.5	1369.20	7
2	52+09.38	1537+98.51	54.0' R	1363.77	1357.81	7.0	1364.00	5
2	60+48.48	1546+37.32	38.5' R	1358.59	1352.61	7.0	1358.70	5
2	68+35.09	1554+23.92	38.5' R	1354.62	1347.41	7.5	1354.44	10
2	80+20.15	1566+07.07	50.5' R	1348.84	1343.36	6.5	1349.00	5
3	11+71.55	40+53.21	55.5' R	1357.31	1351.00	7.5	1357.30	4
3	14+67.39	43+49.05	55.5' R	1358.31	1352.00	7.5	1358.40	4
3	18+87.56	47+67.31	79.5' R	1365.69	1356.38	10.5	1365.90	4
3	23+38.47	52+18.26	55.5' R	1366.64	1360.33	7.5	1366.80	4
3B	0+00.00	46+41.74	414.00' L	1362.94	1357.43	6.5	1362.95	4
3C	11+72.07	56+53.91	108.43' L	1364.22	1359.39	5.5	1364.35	4

WATER SERVICE CONNECTION SCHEDULE					
SERVICE NUMBER	ADDRESS	WATERLINE NO.	WATERLINE STATION	SERVICE TYPE	REMARKS
1	8930 E Kellogg	--	--	2" Domestic Service	Service for Field Office*
2	Landscape Irrigation Use	1	33+93	1" Domestic Service	
3	C.O.W. Water Dept. Use	1	47+96	1" Domestic Service	Pressure Reading Device
4	Landscape Irrigation Use	2	35+63	1" Domestic Service	
5	9901 E Kellogg	2	44+05	2" Domestic Service	
6	9901 E Kellogg	2	44+95	8" Fire Service	Relocate Standpipe FDC
7	10221 E Kellogg	2	52+80	2" Domestic Service	
8	10727 E Kellogg	2	70+40	1" Domestic Service	
9	10929 E Kellogg	2	78+75	1" Domestic Service	
10	411 S Webb	3	15+01	8" Fire Service	
11	411 S Webb	3	16+30	4" Domestic Service	tee off of 8" Fire Service
12	Landscape Irrigation Use	3	23+96	1" Domestic Service	
13	Landscape Irrigation Use	3B △2	13+10	1" Domestic Service	

* - The 2" Domestic Service for the Field Office shall be Located at Sta. 2500+20, 27.5' Lt. ℄ North Frontage Road.

SUMMARY OF WATERLINE ITEMS

LINE NO.	PIPE, WL 8" L.F.	PIPE, WL 8", DIRECTIONAL BORE L.F.	PIPE, WL 12" L.F.	PIPE, WL 12", DIRECTIONAL BORE L.F.	PIPE, WL 16" L.F.	PIPE, WL 16", DIRECTIONAL BORE L.F.	PIPE, WL 20" L.F.	PIPE, WL 20", DIRECTIONAL BORE L.F. △3	PIPE, WL DICL 8" L.F.	PIPE, WL DICL 12" L.F. △2	PIPE, WL DICL 16" L.F.	PIPE, WL DICL 20" L.F.	FIRE HYDRANT ASSEMBLY EACH	VALVE ASSEMBLY, ANCHORED 8" EACH	VALVE ASSEMBLY, ANCHORED 12" EACH	VALVE ASSEMBLY, ANCHORED 16" EACH	VALVE ASSEMBLY, ANCHORED 20" EACH	VALVE ASSEMBLY, AIR RELEASE EACH	VALVE VAULT, ADJUSTMENT (SPECIAL) EACH	PIPE, CASING (24" ID MIN.) (BORED), HDPE L.F.	PIPE, CASING (24" ID MIN.), HDPE L.F.	PIPE, CASING (30" ID MIN.) (BORED), HDPE L.F.	PIPE, CASING (30" ID MIN.), HDPE L.F.	TAPPING SLEEVE & VALVE 12" EACH	20"x8" TAPPING SLEEVE & VALVE	12" CONNECTION, TEMPORARY
LINE 1							1,886.07	85.00					1				5	1				412.50	25.00			
LINE 2	46.5				5,172.41	60.00	1,685.53		8.10		148.45		5	8	1	5	4	1	1	140.00	80.00	155.00		1		1
LINE 3							1,410.27					2.35	4	4	1		2									
LINE 3A			0	166.64						7.87																
LINE 3B	334.50												1													
LINE 3C	51.25	120.82											1												1	
TOTAL	432.25 △3	120.82	0 △2	166.64	5,172.41 △3	60.00	4,981.87 △3	85.00	8.10	7.87	148.45 △3	2.35	13	12 △3	2	5	11	2	1	140.00	80.00	567.50	25.00	1	1	1

NOTE:
All work and materials required to install pipe shall be paid for as "Pipe". The work shall include but is not limited to excavation, concrete placement, fittings, ties, and concrete shaping to install pipe as detailed in the various detail sheets.

△2 6/2/15 Revised Station, Revised Quantities and added Bid Item

△3 6/8/15 Revised Quantities & Fire Hydrant Table and added Bid Item

TYLER PAUL LOTH — 17974 — 6-8-15 — KANSAS — PROFESSIONAL ENGINEER

CITY OF WICHITA

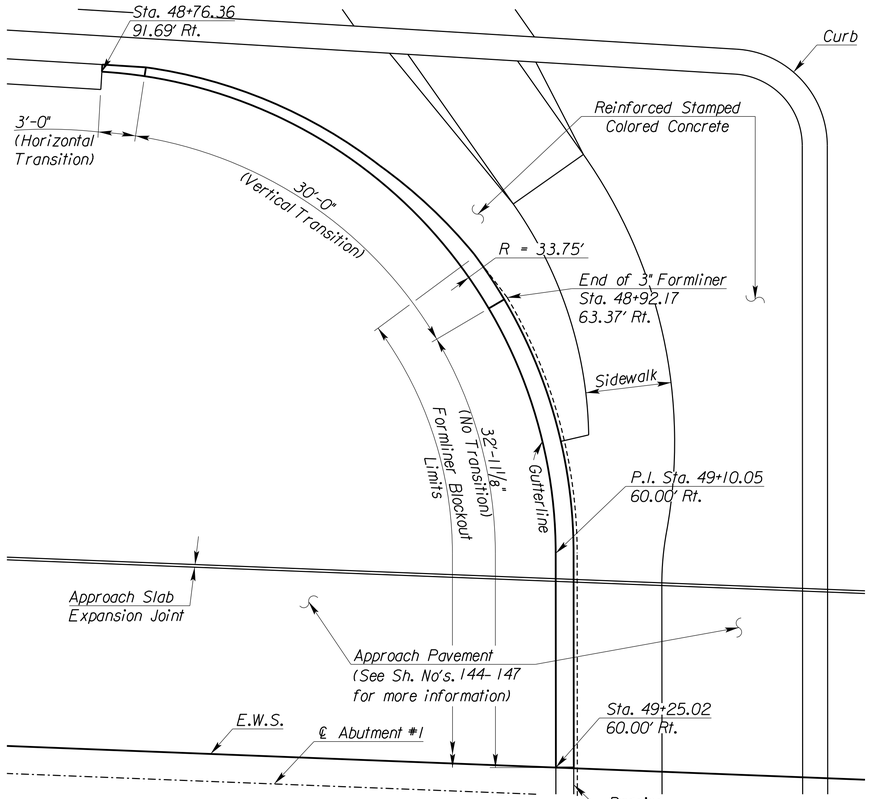
EAST KELLOGG

WATERLINE SUMMARY OF QUANTITIES

JUNE 2, 2015 - PLOT - CADD - DES. - DR. - TR. - CKD. - APP. - SURV. -

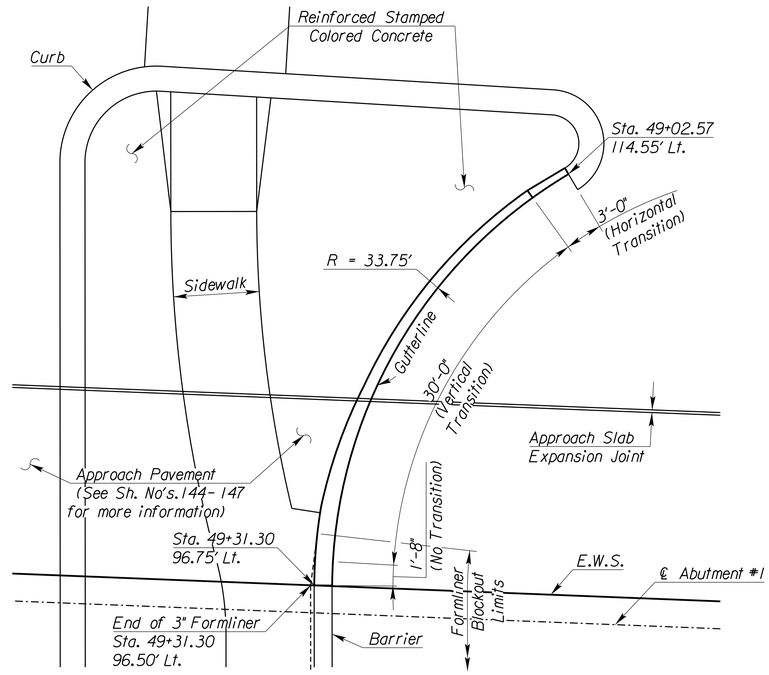
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	276	1055

Stations and offsets along ℄ Webb Rd.



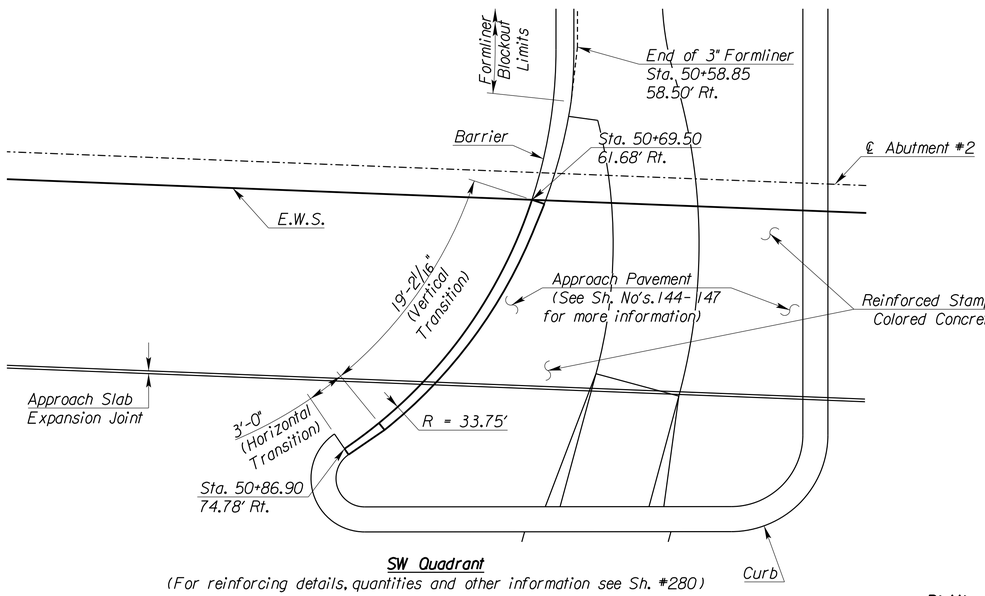
NW Quadrant

(For reinforcing details, quantities and other information see Sh. #279)



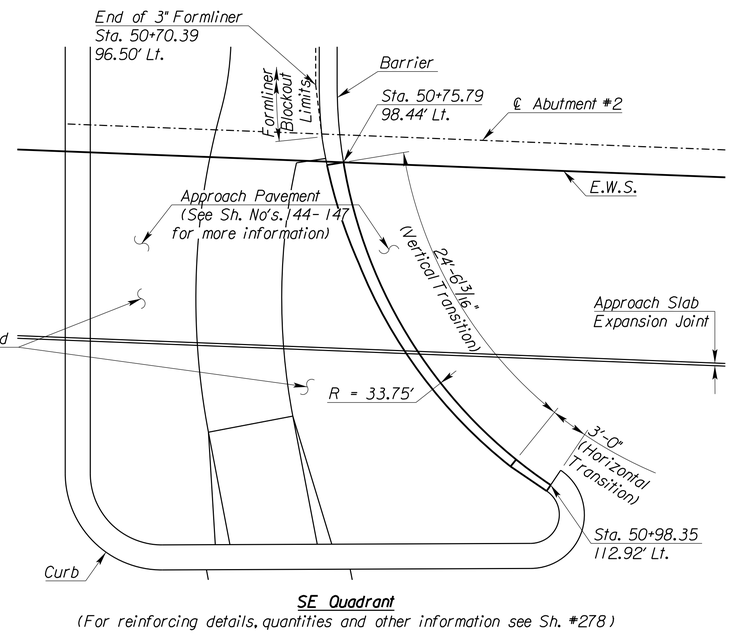
NE Quadrant

(For reinforcing details, quantities and other information see Sh. #277)



SW Quadrant

(For reinforcing details, quantities and other information see Sh. #280)



SE Quadrant

(For reinforcing details, quantities and other information see Sh. #278)

PLAN

SURV.	--	PLOT	CADD	DES.	AH/BS	DR.	GB/CP	TR.	--	CKD.	SB/NW	APP.

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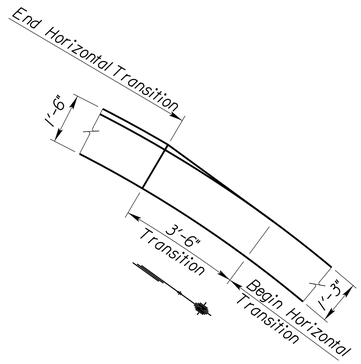
CITY OF WICHITA

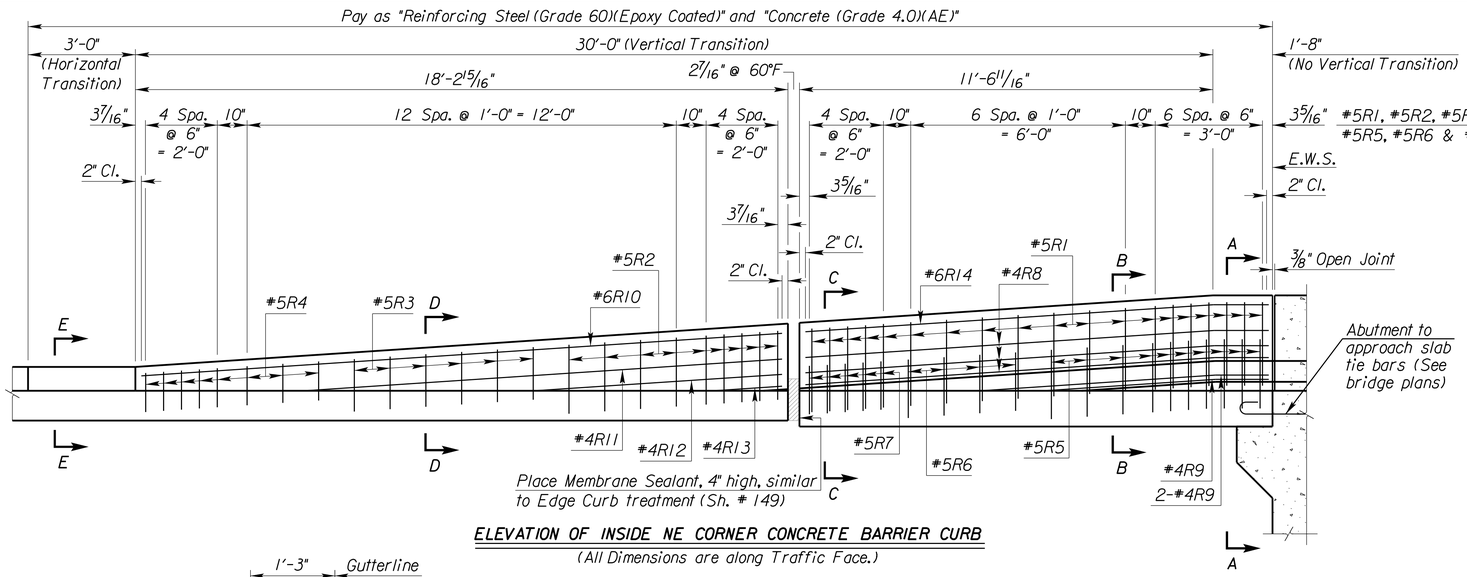
WEBB ROAD OVER EAST KELLOGG
CONCRETE SAFETY BARRIER DETAILS I

BR. NO. 54-87-32.12 (826) STA. 49+99.68

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	277	1055



PLAN
(Showing horizontal transition for formliner)



ELEVATION OF INSIDE NE CORNER CONCRETE BARRIER CURB
(All Dimensions are along Traffic Face.)

GENERAL NOTES: All Concrete shall be Grade 4.0 (AE). Bevel all exposed edges with a 3/4" triangular moulding and fillet corners where indicated. All dimensions relative to placement of reinforcing steel are to centerline of bars unless otherwise noted.

Concrete Safety Barrier shall be paid for as "Reinforcing Steel (Grade 60)(Epoxy Coated)" and "Concrete (Grade 4.0)(AE)" and include all work and material required to build the barrier as detailed on the plans.

2 7/16" Expansion Joint is subsidiary to other bid items.

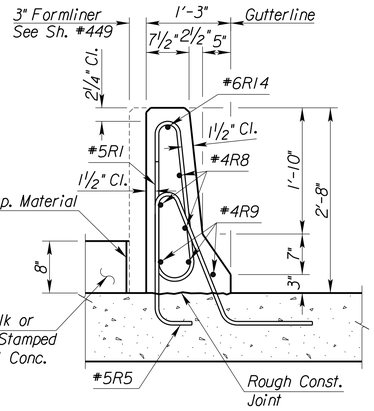
Field bend reinforcing that is mostly horizontal to place it along the curve of the barrier.

UNIT STRESSES:
Concrete (Grade 4.0)(AE) f'c = 4.0 ksi
Reinforcing Steel (Grade 60) fy = 60 ksi

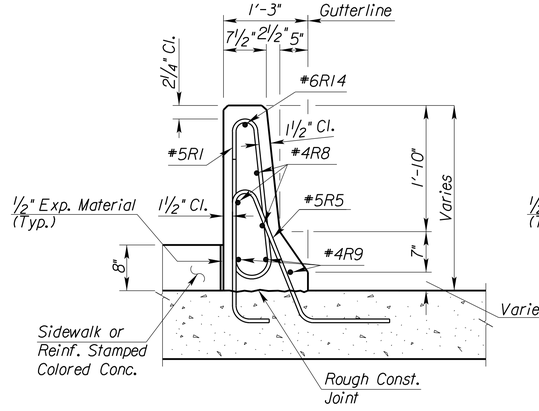
NORTHEAST CONCRETE SAFETY BARRIER
BILL OF REINFORCING STEEL
EPOXY COATED GRADE 60

Straight Bars				Bent Bars			
Mark	Size	Number	Length	Mark	Size	Number	Length
R10	#6	1	17'-11"	R14	#6	1	12'-10"
R11	#4	1	13'-4"	R1	#5	19	6'-6"
R12	#4	1	6'-11"	R2	#5	9	5'-8"
R13	#4	1	1'-11"	R3	#5	6	4'-9"
				R4	#5	8	4'-0"
				R5	#5	10	5'-11"
				R6	#5	4	5'-2"
				R7	#5	5	4'-7"
				R8	#4	3	12'-10"
				R9	#4	3	8'-0"

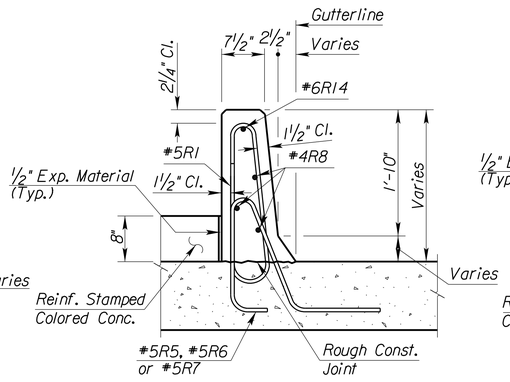
Reinforcing Steel (Grade 60)(Epoxy Coated)	455 lbs.
Concrete (Grade 4.0)(AE)	1.7 C.Y.
Concrete Masonry Surface Treatment	12.1 C.Y.



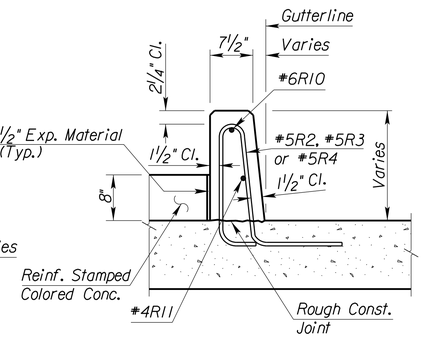
SECTION A-A



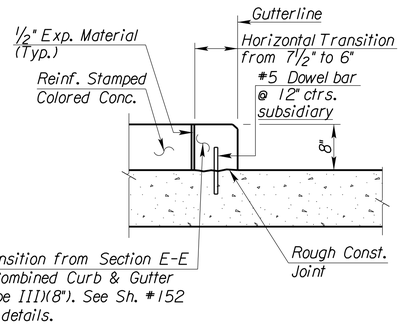
SECTION B-B



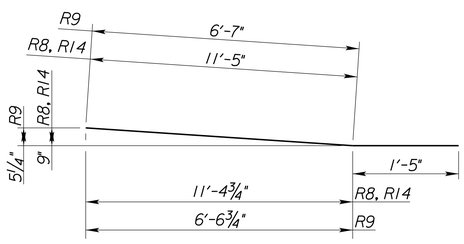
SECTION C-C



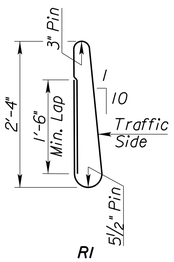
SECTION D-D



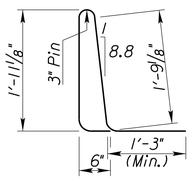
SECTION E-E



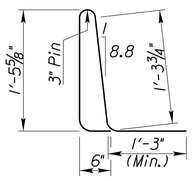
R8, R9 & R14



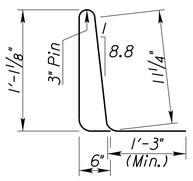
R1



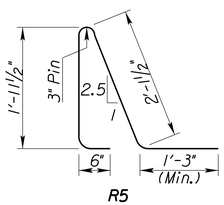
R2



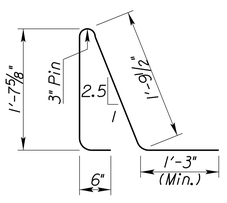
R3



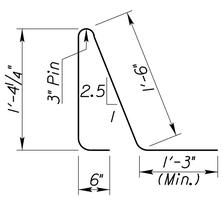
R4



R5



R6



R7

BENDING DIAGRAMS
(All dimensions are out to out of bars)

CITY OF WICHITA

WEBB ROAD OVER EAST KELLOGG
CONCRETE SAFETY
BARRIER DETAILS II

BR. NO. 54-87-32.12 (826) STA. 49+99.68

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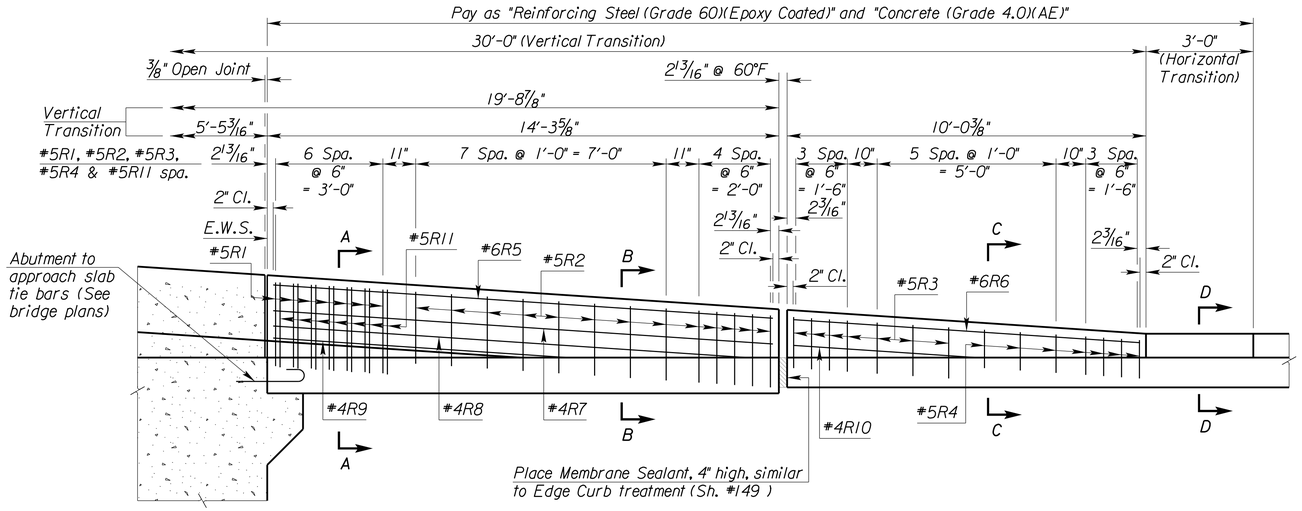
SURV.	PLOT	CADD	DES.	AH/BS	DR.	GB/CP	TR.	--	CKD.	SB/NW	APP.	--

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	278	1055



ELEVATION OF INSIDE SE CORNER CONCRETE BARRIER CURB

(All Dimensions are along Traffic Face.)

GENERAL NOTES: All Concrete shall be Grade 4.0 (AE). Bevel all exposed edges with a 3/4" triangular moulding and fillet corners where indicated. All dimensions relative to placement of reinforcing steel are to centerline of bars unless otherwise noted.

Concrete Safety Barrier shall be paid for as "Reinforcing Steel (Grade 60)(Epoxy Coated)" and "Concrete (Grade 4.0)(AE)" and include all work and material required to build the barrier as detailed on the plans.

2 13/16" Expansion Joint is subsidiary to other bid items.

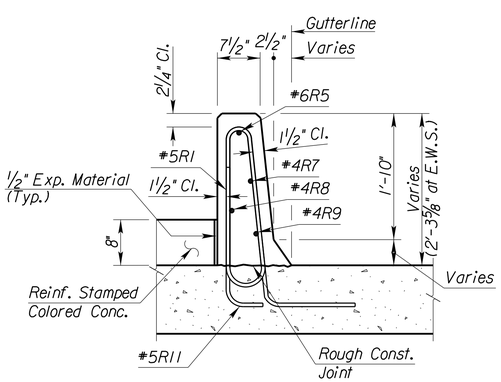
Field bend reinforcing that is mostly horizontal to place it along the curve of the barrier.

UNIT STRESSES:
Concrete (Grade 4.0)(AE) f'c = 4.0 ksi
Reinforcing Steel (Grade 60) fy = 60 ksi

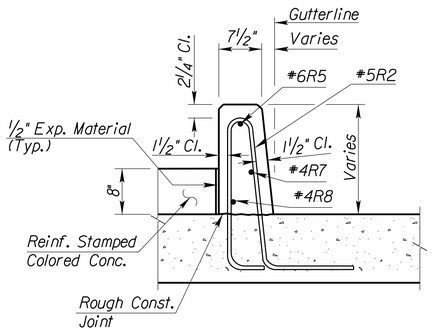
SOUTHEAST CONCRETE SAFETY BARRIER
BILL OF REINFORCING STEEL
EPOXY COATED GRADE 60

Straight Bars				Bent Bars			
Mark	Size	Number	Length	Mark	Size	Number	Length
R5	#6	1	14'-0"	R1	#5	7	6'-6"
R6	#6	1	9'-8"	R2	#5	13	5'-10"
				R3	#5	7	4'-8"
R7	#4	1	14'-0"	R4	#5	7	3'-11"
R8	#4	1	13'-3"	R11	#5	7	6'-7"
R9	#4	1	8'-3"				
R10	#4	1	5'-2"				

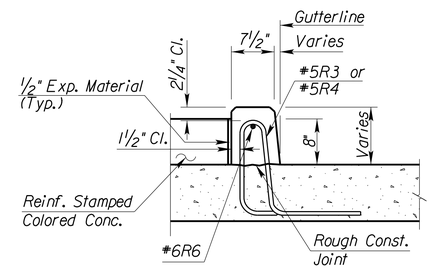
Reinforcing Steel (Grade 60)(Epoxy Coated)	300 lbs.
Concrete (Grade 4.0)(AE)	1.2 C.Y.
Concrete Masonry Surface Treatment	9.8 C.Y.



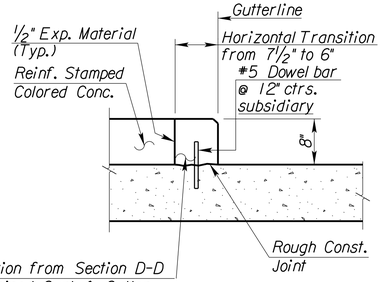
SECTION A-A



SECTION B-B

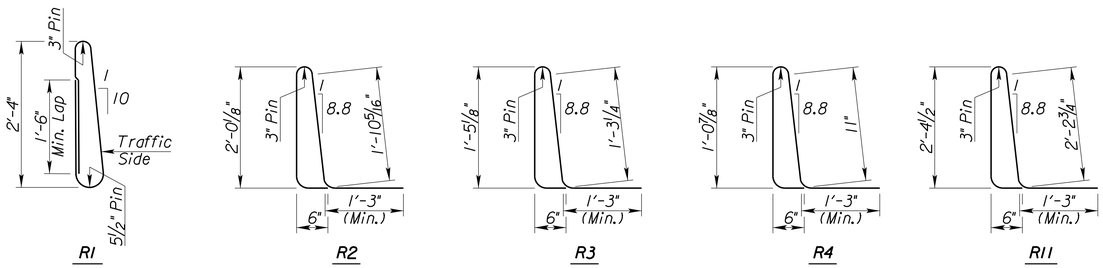


SECTION C-C



Transition from Section D-D to Combined Curb & Gutter (Type III)(8"). See Sh. #152 for details.

SECTION D-D



BENDING DIAGRAMS

(All dimensions are out to out of bars)

CITY OF WICHITA

WEBB ROAD OVER EAST KELLOGG
CONCRETE SAFETY
BARRIER DETAILS III

BR. NO. 54-87-32.12 (826) STA. 49+99.68

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4/16/2015
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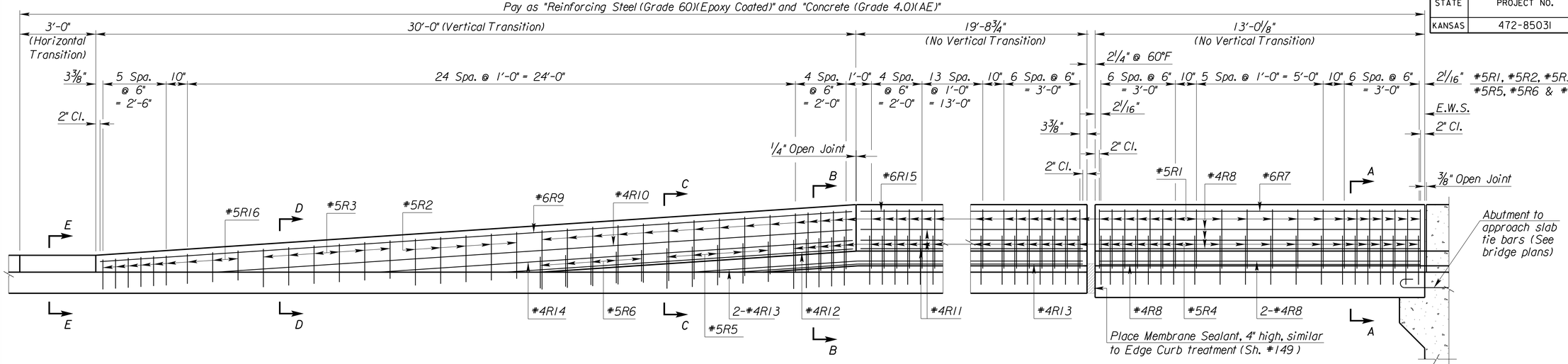
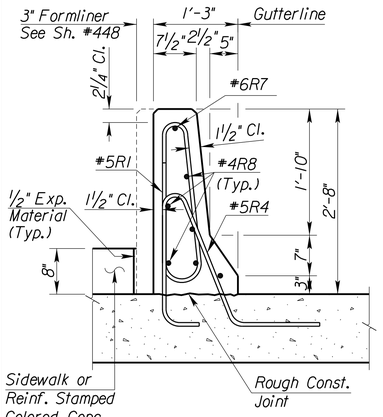
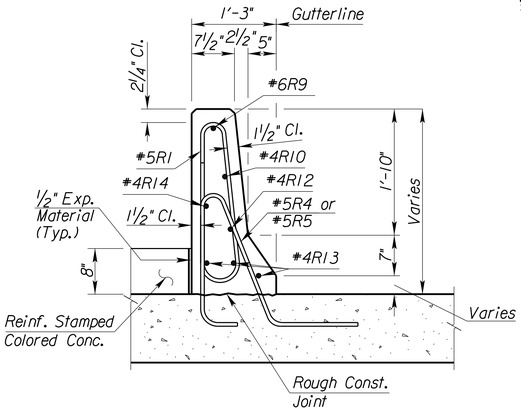
SURV.	--	PLOT	CADD	DES.	AH/BS	DR.	GB/CP	TR.	--	CKD.	SB/NW	APP.	--

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	279	1055





SECTION A-A



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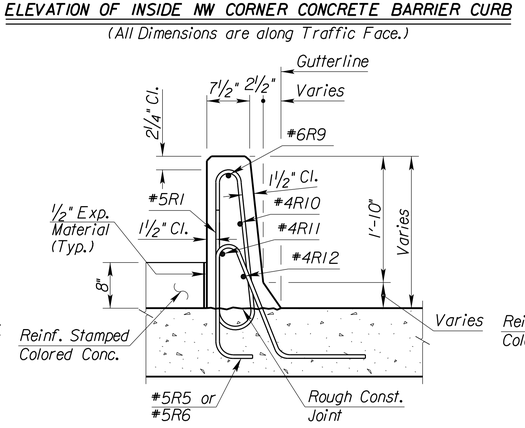
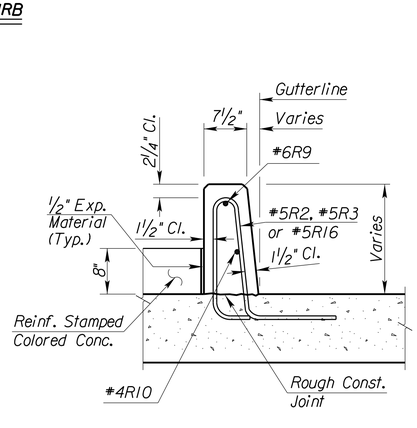


SECTION C-C



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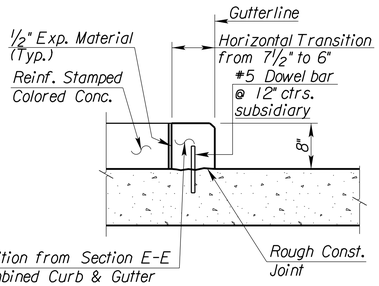

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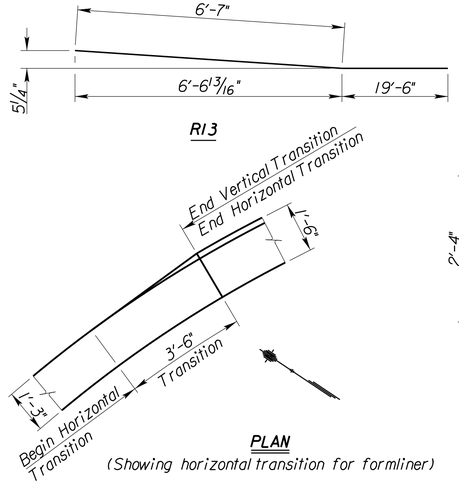
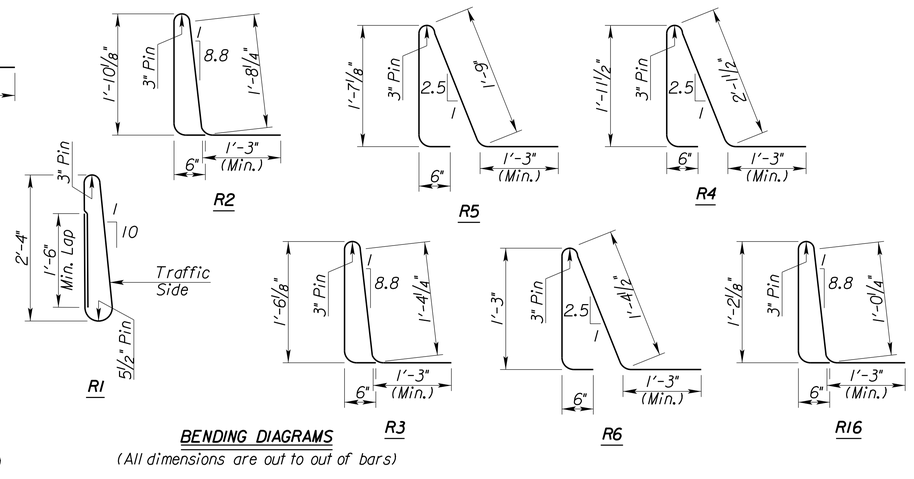


PLAN
(Showing horizontal transition for formliner)

ELEVATION OF INSIDE NW CORNER CONCRETE BARRIER CURB

(All Dimensions are along Traffic Face.)



BENDING DIAGRAMS
(All dimensions are out to out of bars)

NORTHWEST CONCRETE SAFETY BARRIER BILL OF REINFORCING STEEL EPOXY COATED GRADE 60

Straight Bars				Bent Bars			
Mark	Size	Number	Length	Mark	Size	Number	Length
R7	#6	1	12'-8"	R9	#6	1	29'-8"
R15	#6	1	19'-4"				
				R1	#5	60	6'-6"
R8	#4	6	12'-8"	R2	#5	5	5'-6"
				R3	#5	96	4'-10"
				R4	#5	50	5'-11"
				R5	#5	5	5'-1"
				R6	#5	5	4'-5"
				R16	#5	9	4'-2"
				R10	#4	1	25'-2"
				R11	#4	3	19'-4"
				R12	#4	1	13'-9"
				R13	#4	3	26'-1"
				R14	#4	1	18'-9"

Reinforcing Steel (Grade 60)(Epoxy Coated)	1590 lbs.
Concrete (Grade 4.0)(AE)	5.1 C.Y.
Concrete Masonry Surface Treatment	31.2 C.Y.

GENERAL NOTES: All Concrete shall be Grade 4.0 (AE). Bevel all exposed edges with a ¾" triangular moulding and fillet corners where indicated. All dimensions relative to placement of reinforcing steel are to centerline of bars unless otherwise noted.

Concrete Safety Barrier shall be paid for as "Reinforcing Steel (Grade 60)(Epoxy Coated)" and "Concrete (Grade 4.0)(AE)" and include all work and material required to build the barrier as detailed on the plans.

2¼" Expansion Joint is subsidiary to other bid items.

Field bend reinforcing that is mostly horizontal to place it along the curve of the barrier.

UNIT STRESSES:
Concrete (Grade 4.0)(AE) f'c = 4.0 ksi
Reinforcing Steel (Grade 60) fy = 60 ksi

CITY OF WICHITA

WEBB ROAD OVER EAST KELLOGG
CONCRETE SAFETY BARRIER DETAILS IV

BR. NO. 54-87-32.12 (826) STA. 49+99.68

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4/16/2015
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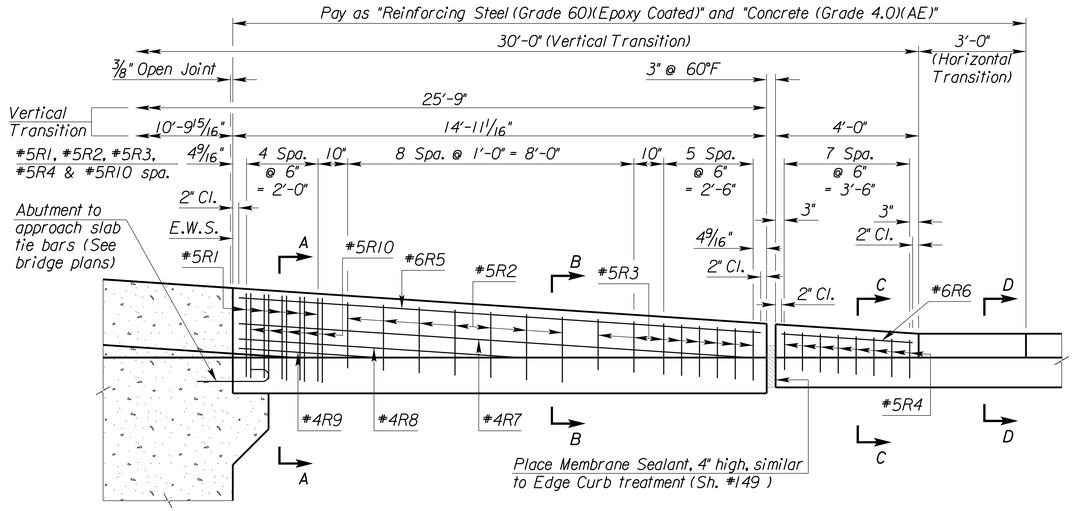
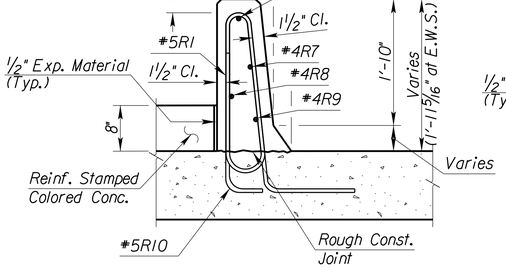
SURV. -- | PLOT | CADD | DES. | AH/BS | DR. | GB/CP | TR. | -- | CKD. | SB/NW | APP. | --

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	280	1055

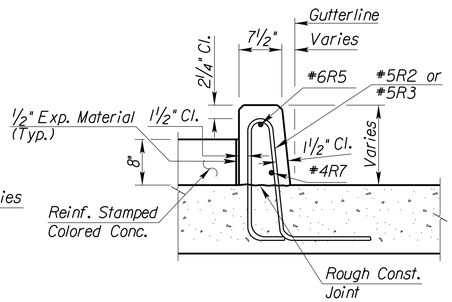


ELEVATION OF INSIDE SW CORNER CONCRETE BARRIER CURB

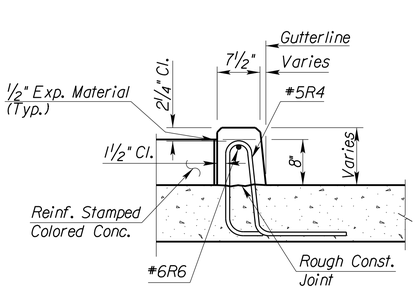
(All Dimensions are along Traffic Face.)



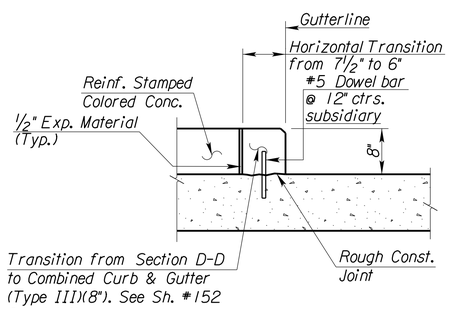
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

GENERAL NOTES: All Concrete shall be Grade 4.0 (AE). Bevel all exposed edges with a 3/4" triangular moulding and fillet corners where indicated. All dimensions relative to placement of reinforcing steel are to centerline of bars unless otherwise noted.

Concrete Safety Barrier shall be paid for as "Reinforcing Steel (Grade 60)(Epoxy Coated)" and "Concrete (Grade 4.0)(AE)" and include all work and material required to build the barrier as detailed on the plans.

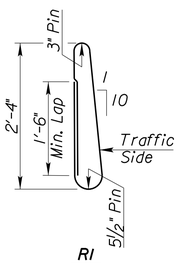
Field bend reinforcing that is mostly horizontal to place it along the curve of the barrier.

UNIT STRESSES:
Concrete (Grade 4.0)(AE) f'c = 4.0 ksi
Reinforcing Steel (Grade 60) fy = 60 ksi

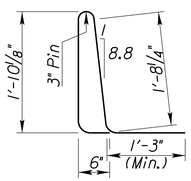
SOUTHWEST CONCRETE SAFETY BARRIER
BILL OF REINFORCING STEEL
EPOXY COATED GRADE 60

Straight Bars				Bent Bars			
Mark	Size	Number	Length	Mark	Size	Number	Length
R5	#6	1	14'-7"	R1	#5	5	6'-6"
R6	#6	1	3'-8"	R2	#5	7	5'-6"
				R3	#5	8	4'-8"
R7	#4	1	14'-3"	R4	#5	8	3'-11"
R8	#4	1	7'-10"	R10	#5	5	6'-7"
R9	#4	1	3'-11"				

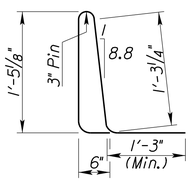
Reinforcing Steel (Grade 60)(Epoxy Coated)	225 lbs.
Concrete (Grade 4.0)(AE)	0.7 C.Y.
Concrete Masonry Surface Treatment	7.0 C.Y.



R1



R2



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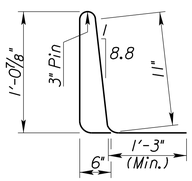
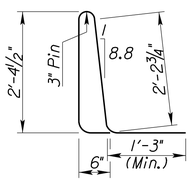


R4



R10

BENDING DIAGRAMS

(All dimensions are out to out of bars)

CITY OF WICHITA

WEBB ROAD OVER EAST KELLOGG
CONCRETE SAFETY
BARRIER DETAILS V

BR. NO. 54-87-32.12 (826) STA. 49+99.68

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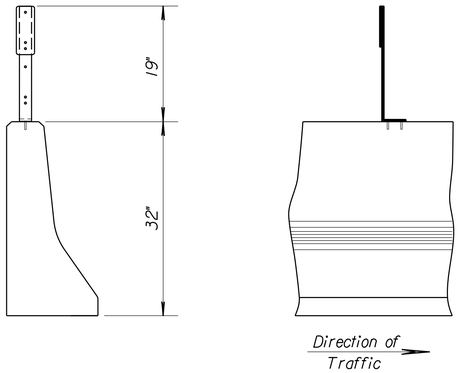
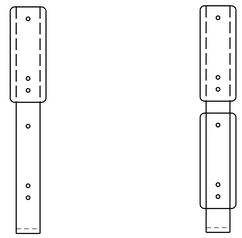
4/16/2015
T:\35765A\Cadd\Sheets\Package\Structures\Bridge\EKIWKBBDIOA.DGN

SURV.	PLOT	CADD	DES.	AH/BS	DR.	GB/CP	TR.	--	CKD.	SB/NW	APP.	--

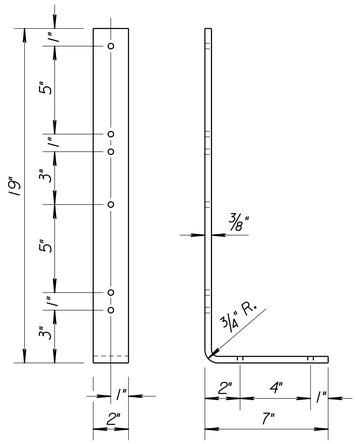
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	281	1055



TYPICAL MOUNTING DETAIL



DELINEATOR POSITION DETAILS



DELINEATOR BRACKET DETAILS

DESIGN DETAILS FOR DELINEATION ON 32" CONCRETE SAFETY BARRIER SECTION

GENERAL NOTES

The delineators shall be spaced on 200' centers, except through curves greater than 1900' radius curvature and along ramps and ramp tapers where the spacing shall be on 100' centers. Delineators should be installed back to back when used on 32" median barrier for two-way roadways. The delineator color shall be yellow when used on the left side or white when used on the right side of the roadway.

The flat sheet sign blank shall be made of the aluminum alloy and thickness shown.

The 3" x 8" delineator sign face shall be covered with high performance white or yellow retroreflective sheeting.

The type of adhesive for reflective sheeting shall be heat activated or pressure sensitive.

The delineator bracket shall be fabricated from aluminum in the thickness and sizes shown. The material for the brackets shall comply with the Standard Specifications. All holes for mounting the delineator to the bracket shall be 3/8" diameter. The holes for mounting the bracket to the barrier shall be 7/16" diameter. All burrs and sharp edges shall be smoothed off. The brackets shall not be fabricated by the use of welding.

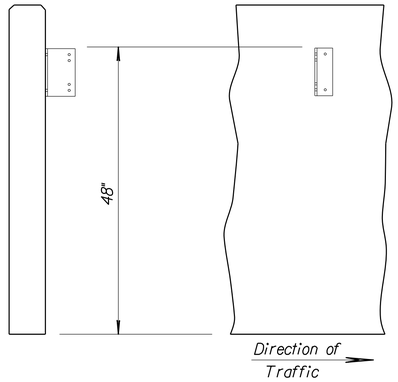
All items of the fastening accessories shall be Zinc or Cadmium plated.

The machine screws, nuts, and washers used to fasten the delineator to the bracket shall comply with the Standard Specifications.

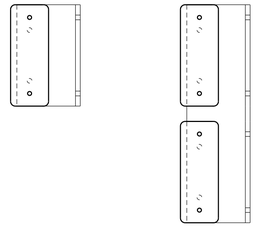
All work and materials required for the installation of the delineators shall be Subsidiary to the bid item "Concrete Safety Barrier".

When delineators are installed on median or roadside barriers approaching a bridge, they shall be installed on the bridge rail in accordance with the spacing and details on this sheet.

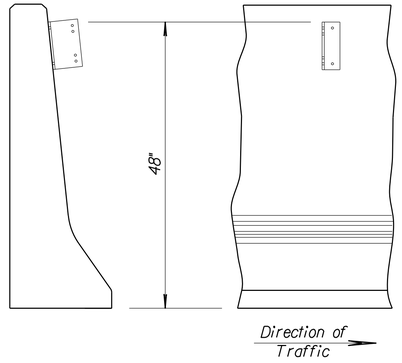
The color of delineation (white or yellow) shall match the color of the pavement marking edge line.



TYPICAL MOUNTING DETAIL FOR RETAINING WALL SECTION



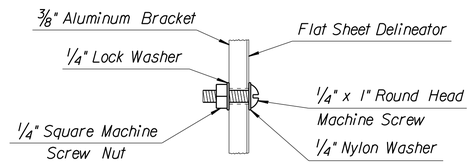
DELINEATOR POSITION DETAILS



TYPICAL MOUNTING DETAIL

Road Type	Right Edge Delineator	Left Edge Delineator
Main Line	Type "A" White	Type "A" Yellow
Acceleration Lane Deceleration Lane	Type "B" White	Type "B" Yellow
Ramp	Type "A" White	Type "A" Yellow

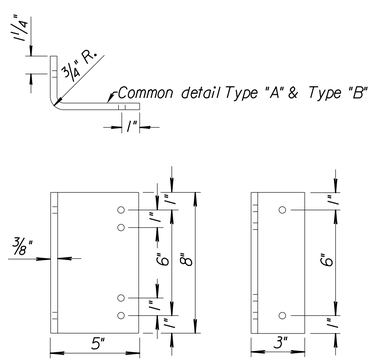
PATTERN OF DELINEATION



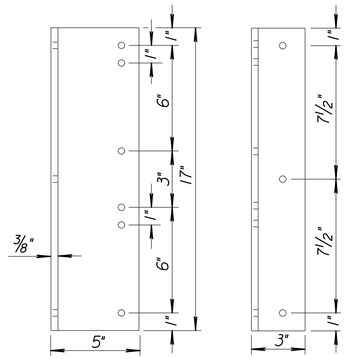
FLAT SHEET DELINEATOR MOUNTING

DETAILS FOR ATTACHING DELINEATORS TO BRACKETS

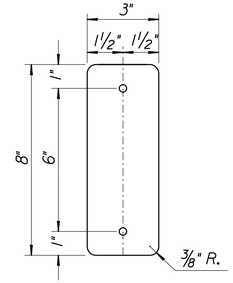
DESIGN DETAILS FOR DELINEATION ON RETAINING WALL & 51" CONCRETE SAFETY BARRIER SECTION



TYPE "A" DELINEATOR BRACKET DETAILS

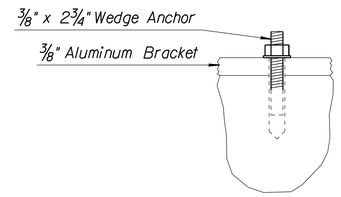


TYPE "B" DELINEATOR BRACKET DETAILS



NOTE: The aluminum sign blanks are to be ASTM B-209(H), Alloy 6061-t6, or 5154-H38, or 5052-H38. The aluminum sign blank shall be 0.040" thick. Both faces and all cut edges of sign to be degreased and etched. All holes shall be 5/16" in diameter.

FLAT SHEET SIGN BLANK DETAILS



DETAILS FOR ATTACHING BRACKETS TO SAFETY BARRIER

NO.	DATE	REVISIONS	BY	APP'D
3	6-03-09	Removed button & diamond details	S.W.K.	J.O.B.
2	6-05-07	Changed degree of curve to radius	S.W.K.	J.O.B.
1	2-28-03	Revised layout and details.	S.W.K.	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

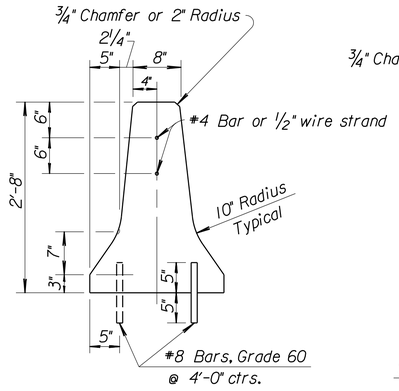
DESIGN DETAILS FOR DELINEATION ON CONCRETE SAFETY BARRIER

RD624

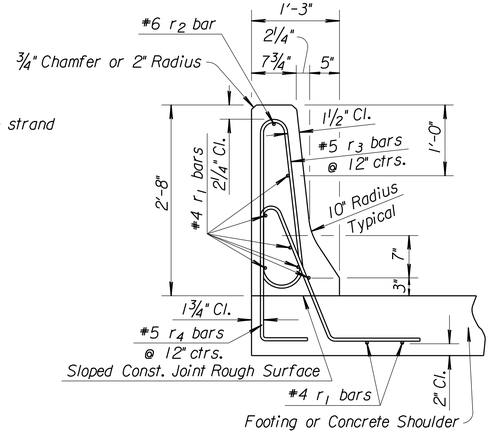
FHWA APPROVAL	12-18-09	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. King

Plotted : 4/16/2015
Drawn By :
File : T:\35765A\Cadd\Sheets\Package11\Standards\KDOT\EK1STDRD624A.dgn

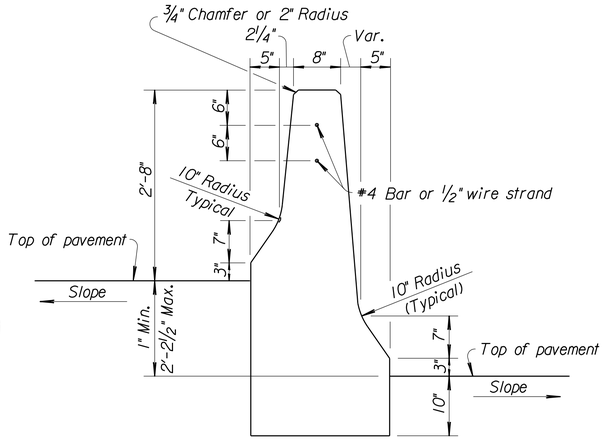
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	282	1055



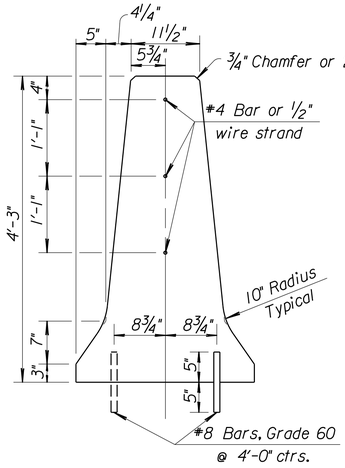
TYPE I



TYPE II (SPECIAL)

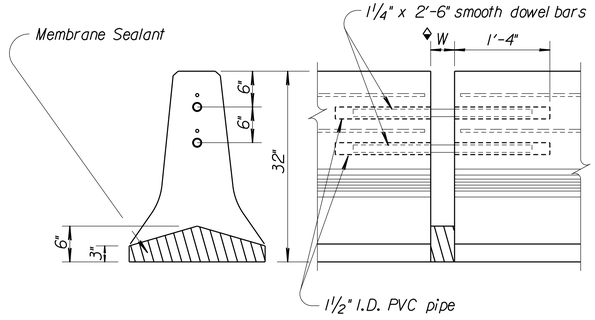


TYPE III



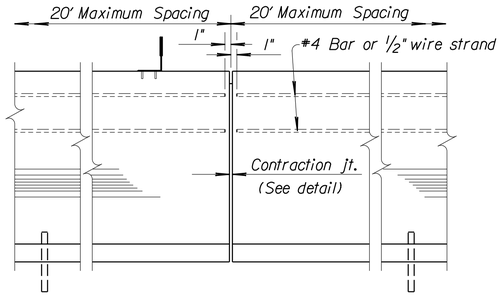
TYPE IV (SPECIAL)

◆ W= Formed Concrete Opening Size - See "Temperature Expansion/Pressure Relief Joint Width Table", Standard Drawing RD712.

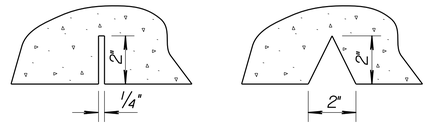


PRESSURE RELIEF/EXPANSION JOINT (Bridge Ends)

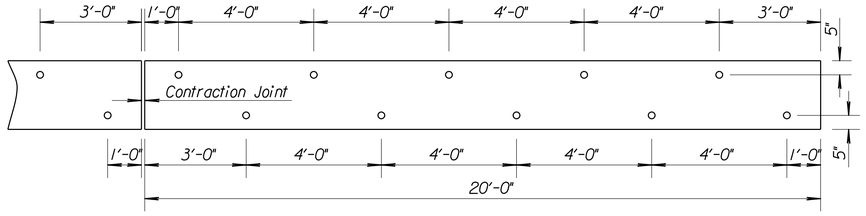
Pressure relief joint will match relief joint in bridge approach slab. Dowel bar placement shown (Type I) is typical to all barrier types. Adjust reinforcing steel at barrier ends to avoid PVC pipe and smooth dowel location.



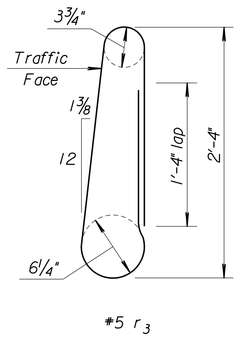
CONTRACTION JOINT DETAIL



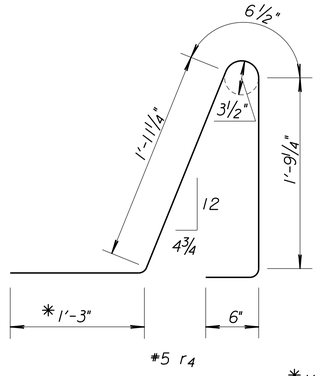
OPTION A OPTION B
CONTRACTION JOINT DETAIL



DOWEL PLACEMENT DETAIL
(TYPE I & IV)



#5 r3



#5 r4

BENDING DIAGRAMS

Note: All dimensions are out to out of bars.

*May be omitted at inlet locations

GENERAL NOTE

Use Concrete Grade 3.0 (AE) or Concrete Pavement Mix (Contractor's Option).

Construct drainage slots where specified in the plans, inlet locations or Engineer's direction.

Use epoxy coated reinforcing steel, Grade 60. See details for spacing, keep a minimum reinforcing steel clear distance of 1 1/2".

Payment for all reinforcing bars, joint material, median barrier filler material, reflectors and supporting materials, associated work, etc., is Subsidiary.

The section furnished must generally comply with the dimensions shown. Requests for minor variations in section geometry may be submitted for review.

Permanent Concrete barriers are cast in place or slip formed construction only. Precast barriers are not permitted.

CONSTRUCTION JOINTS

Place Joint Material (Nonextruding, Type B) where shown for structures and at the end of day construction joint.

CONTRACTION JOINTS

Form or saw Contraction joints on 20' centers maximum. Where barrier is on or adjacent to concrete pavement space joints to match contraction joints and definite transverse cracks in the pavement. Contraction joints not to exceed 20' centers.

BARRIER BASE

Where barrier is not paved full width, place barrier on a 10"x2'-0" bed of Concrete Grade 3.0, or the mix used in concrete pavement or asphalt base course (Contractor's option, Engineer approval) to assure proper alignment.

APPROACH SLAB EXPANSION/PRESSURE RELIEF JOINT

Install Membrane Sealant expansion joint material with a lubricant adhesive, cut to the shape shown. Construct joint to match pressure relief joint of concrete pavement approach slabs.

See Standard Drawing RD712 for Expansion/Pressure Relief Joint details.

See standard specifications to cut and epoxy coat dowel bars.

Coat approximately three- fifths length of each dowel bar with hard grease prior to installation.

Work and materials required for installation of joint material is subsidiary to Concrete Safety Barrier and conforms to standard specifications.

DELINEATION

See Standard Drawing RD624 for details of barrier delineation.

NO.	DATE	REVISIONS	BY	APP'D
5	4-28-11	Rev. I,II,III & IV dimen. & notes	S.W.K	J.O.B.
4	5-28-09	Revised Type III dimensions	S.W.K	J.O.B.
3	1-10-07	Changed bituminous to asphalt	S.W.K	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

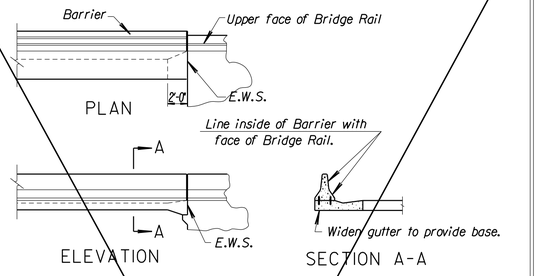
PERMANENT CONCRETE SAFETY BARRIER TYPE I,II,III &IV (F-SHAPE)

~~RD625~~

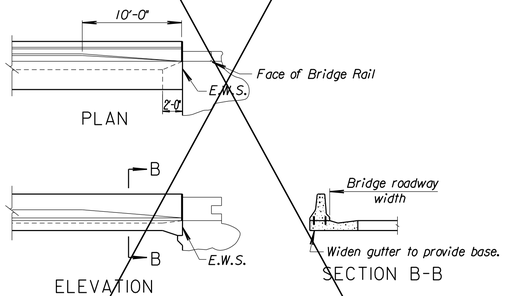
FHWA APPROVAL	5-26-11	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. King

Plotted : 4/16/2015
Drawn By :
File : T:\35765A\Cadd\Sheets\Package1\Standards\KDOT\EK1STDRD625A.dgn

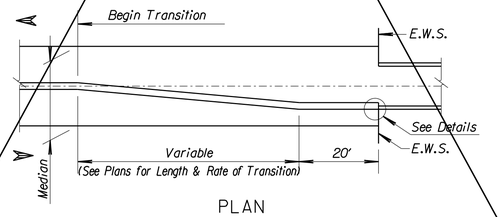
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	283	1055



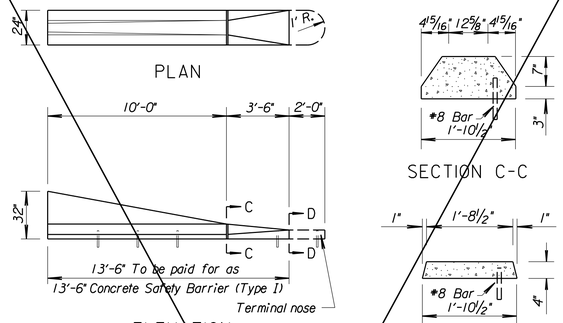
DETAIL FOR BRIDGE
WITH SAFETY TYPE RAIL

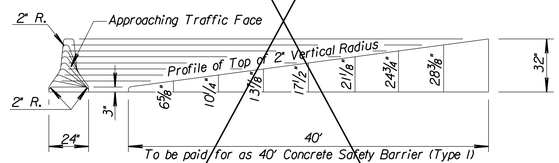


DETAIL FOR BRIDGE
WITHOUT SAFETY TYPE RAIL



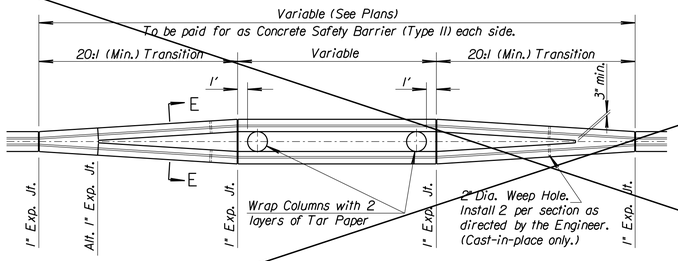
TRANSITION AT BRIDGE END

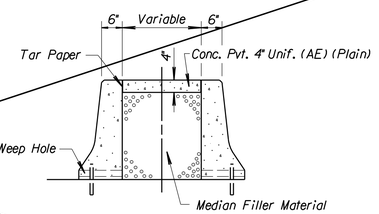




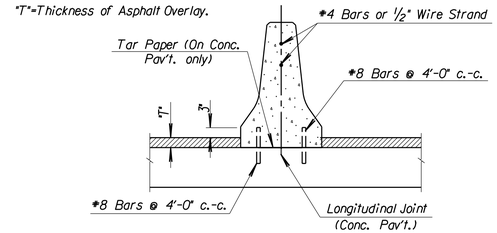
TYPE A BARRIER
BARRIER TERMINAL TRANSITIONS

Note: Type A & B barrier transitions shall be used only for low speed (40 mph or less) applications or where a barrier terminates beyond the roadway clear zone. Where a barrier terminates within the clear zone of a high speed roadway, an appropriate impact attenuator shall be installed on the approach end.



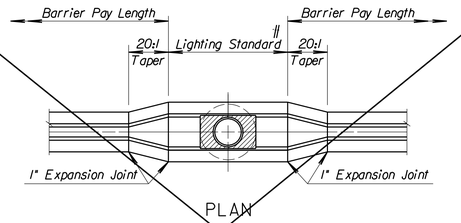


TRANSITION AT BRIDGE COLUMNS OR SIGN SUPPORTS

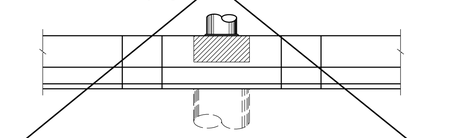


Note: All *8 Bars may be omitted when a 1" Min. thickness of Bituminous Overlay is to be placed adjacent to both sides of the Barrier.

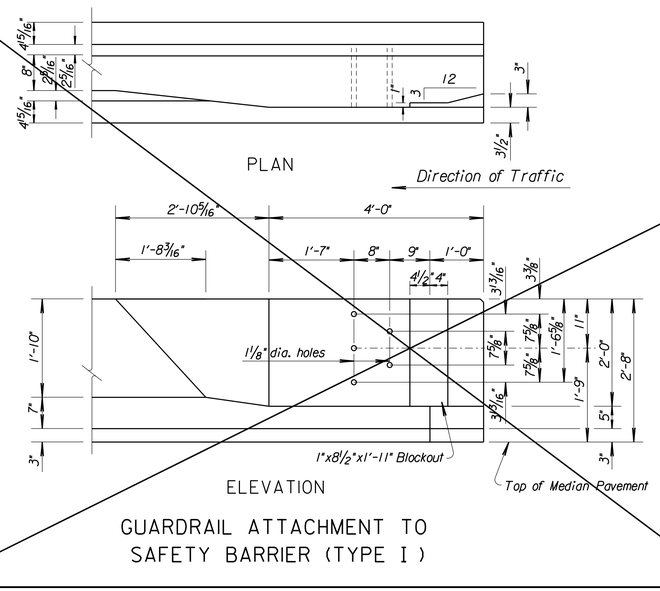
DETAILS FOR PLACING
ON EXISTING PAVEMENT



‖ See Roadway Light Standard Base Sheet for details.



TRANSITION AT ROADWAY LIGHT STANDARD BASE



GUARDRAIL ATTACHMENT TO
SAFETY BARRIER (TYPE I)

NO.	DATE	REVISIONS	BY	APP'D
3				
2	1-10-07	Changed bituminous to asphalt	S.W.K.	J.O.B.
1	7-23-04	Revised guard fence to guardrail	S.W.K.	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

CONCRETE SAFETY BARRIER AUXILIARY DETAILS

~~RD625A~~

FHWA APPROVAL	11-02-04	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. Seltz

Plotted : 4/16/2015
Drawn By : ___
File : T:\35765A\Cadd\Sheets\Package1\Standards\KDOT\EK1STDRD625AA.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
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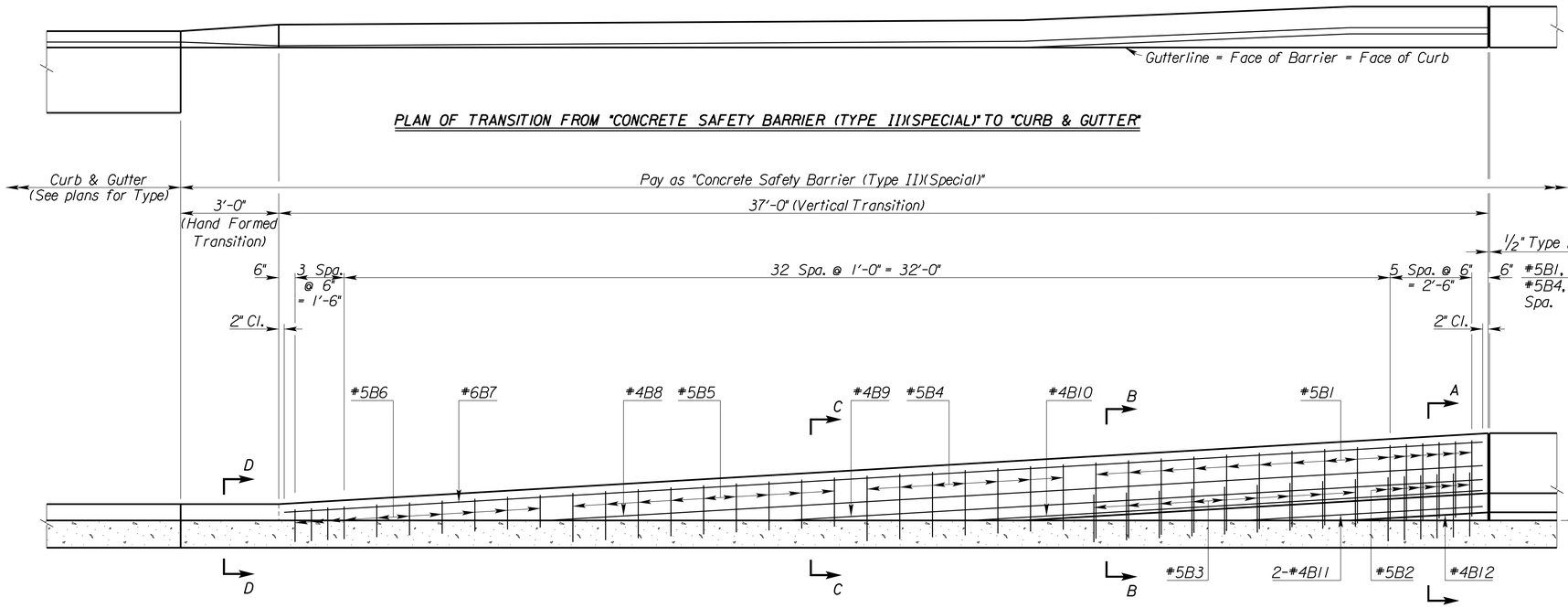


PLAN OF TRANSITION FROM "CONCRETE SAFETY BARRIER (TYPE II)(SPECIAL)" TO "CURB & GUTTER"

ELEVATION OF TRANSITION FROM "CONCRETE SAFETY BARRIER (TYPE II)(SPECIAL)" TO "CURB & GUTTER"

TYPE II (SPECIAL) CONC. SAFETY BARRIER TRANSITION
BILL OF REINFORCING STEEL
EPOXY COATED GRADE 60

Straight Bars				Bent Bars			
Mark	Size	Number	Length	Mark	Size	Number	Length
B7	#6	1	36'-8"	B1	#5	15	6'-7"
				B2	#5	6	6'-0"
B8	#4	1	28'-8"	B3	#5	9	4'-11"
B9	#4	1	21'-4"	B4	#5	7	5'-10"
B10	#4	1	15'-8"	B5	#5	9	4'-10"
B11	#4	2	7'-3"	B6	#5	10	3'-10"
B12	#4	1	4'-0"				
Reinforcing Steel (Grade 60)(Epoxy Coated)							426 lbs.
Concrete (Grade 3.0)(AE)							1.7 C.Y.

GENERAL NOTES:

Quantities shown for information only. Concrete quantity may vary, based on horizontal curvature of barrier transition, and type of curb to transition to. No additional payment will be made for extra concrete.

Details shown as standard only. Adjust for actual geometry on plans for each individual transition barrier.

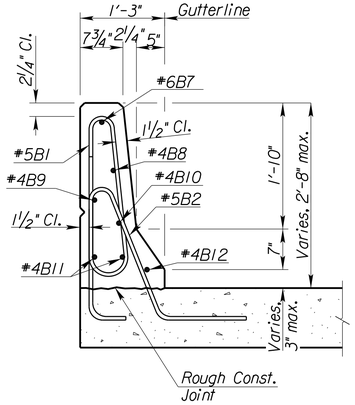
All Concrete shall be Grade 3.0 (AE) or Concrete Pavement Mix (Contractor's Option). Bevel all exposed edges with a 3/4" triangular moulding and fillet corners where indicated. All dimensions relative to placement of reinforcing steel are to centerline of bars unless otherwise noted.

See Sh. No. 282 for additional notes. See Sh. No.152 for Curb sections.

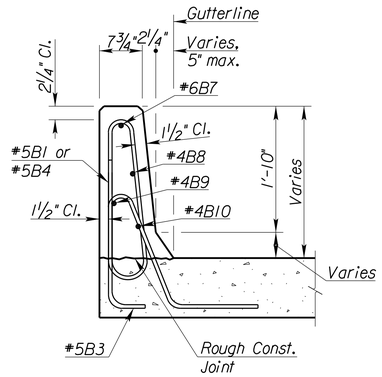
Concrete Safety Barrier transition shall be paid for as "Concrete Safety Barrier (Type II)(Special)" and include all work and material required to build the barrier as detailed on the plans.

1/2" Type B Expansion Joint is subsidiary to other bid items.

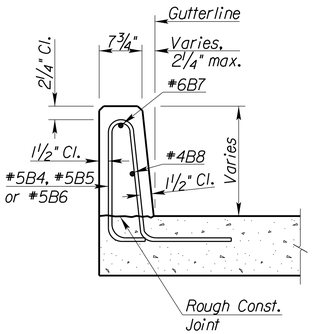
UNIT STRESSES:
Concrete (Grade 3.0)(AE) f'c = 3.0 ksi
Reinforcing Steel (Grade 60) fy = 60 ksi



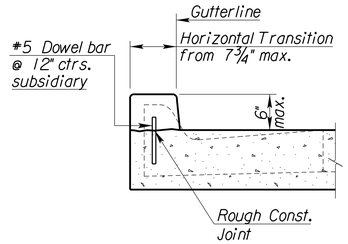
SECTION A-A



SECTION B-B

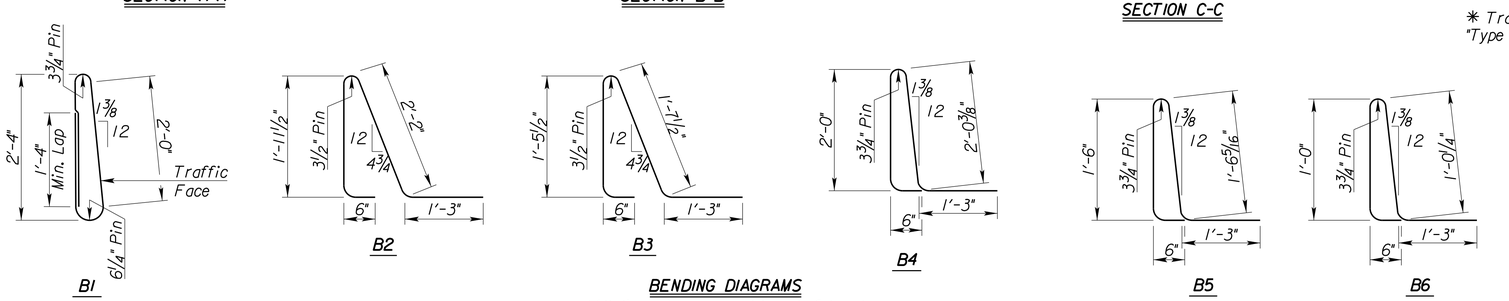


SECTION C-C



SECTION D-D

* Transition to Curb & Gutter. "Type I" shown; other types similar.



BENDING DIAGRAMS
(All dimensions are out to out of bars)

* For Transition to pavement; omit horizontal transition and maintain slope of vertical transition.

CITY OF WICHITA

TRANSITION DETAILS FOR CONCRETE SAFETY BARRIER TYPE II (SPECIAL)

SURV.	--	PLOT	CADD	DES.	AH/BS	DR.	GB/CP	TR.	--	CKD.	SB/NW	APP.	--

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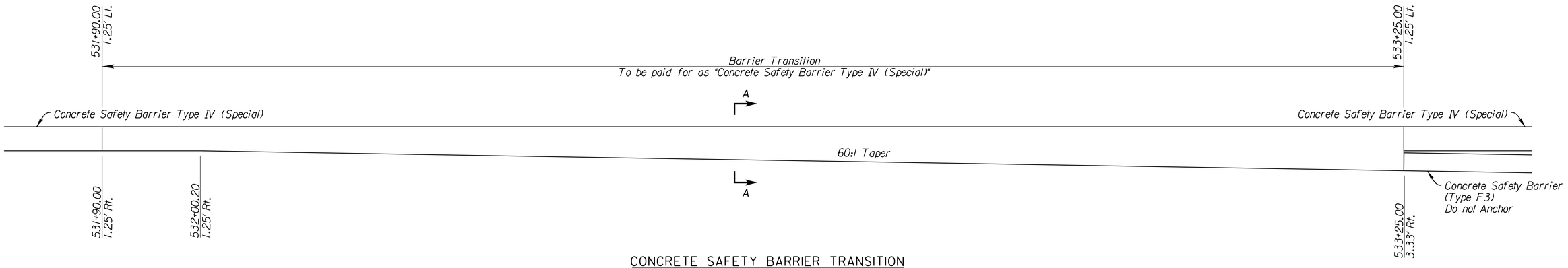
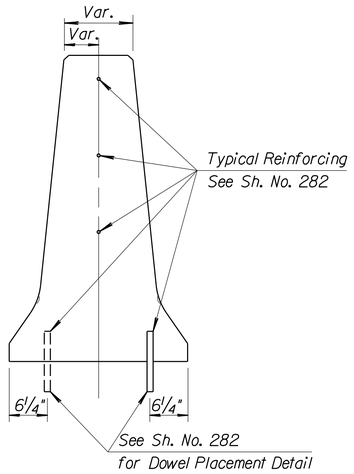


CONCRETE SAFETY BARRIER TRANSITION
STA. 531+90.00 TO STA. 533+25.00



SECTION A-A

Note:
Stations and Offsets are to front face of Barrier

CITY OF WICHITA

TRANSITION DETAILS FOR
CONCRETE SAFTEY BARRIER

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SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
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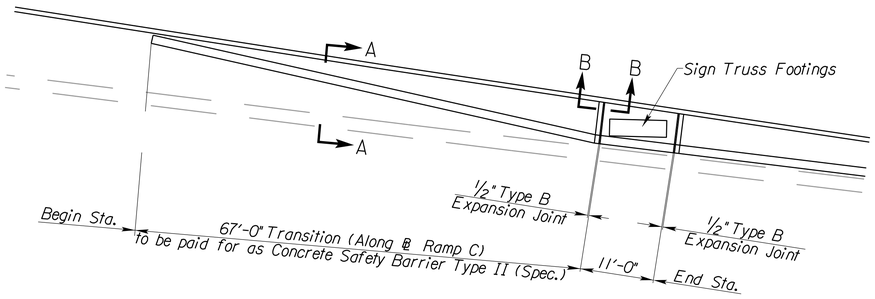
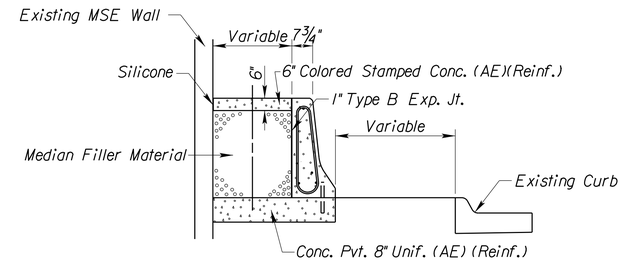
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	286	1055

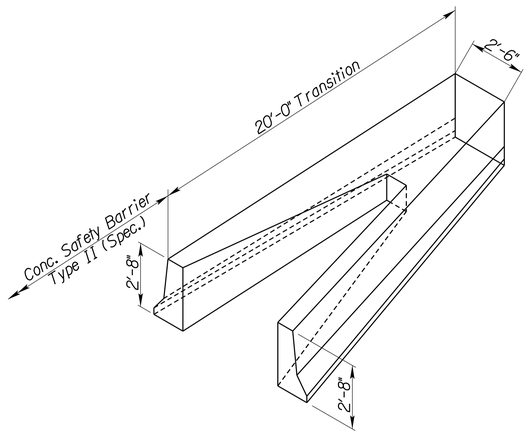


C.S.B. TREATMENT AT OVERHEAD SIGN SUPPORT
RAMP C STA. 10499+03 TO STA. 10499+81

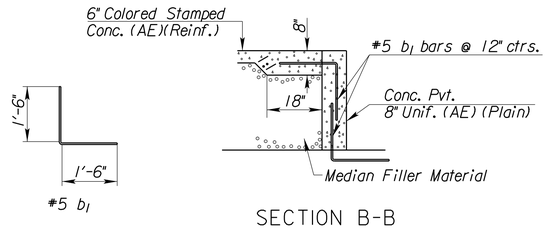


SECTION A-A

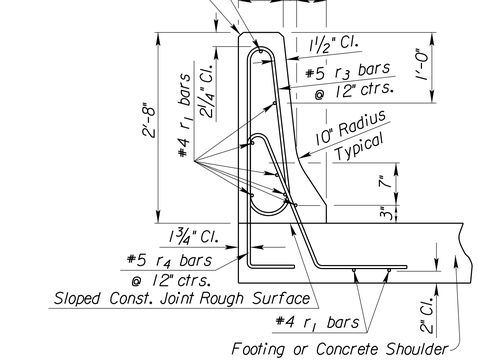
Note: Reinforce as per Sh. No. 282
Omit r1 and r4 bars. Place 10" #8 dowel bars, Grade 60 at 4'-0" ctrs.



C.S.B. TYPE II (SPEC.) TO
OVERHEAD SIGN SUPPORT
BARRIER TRANSITION

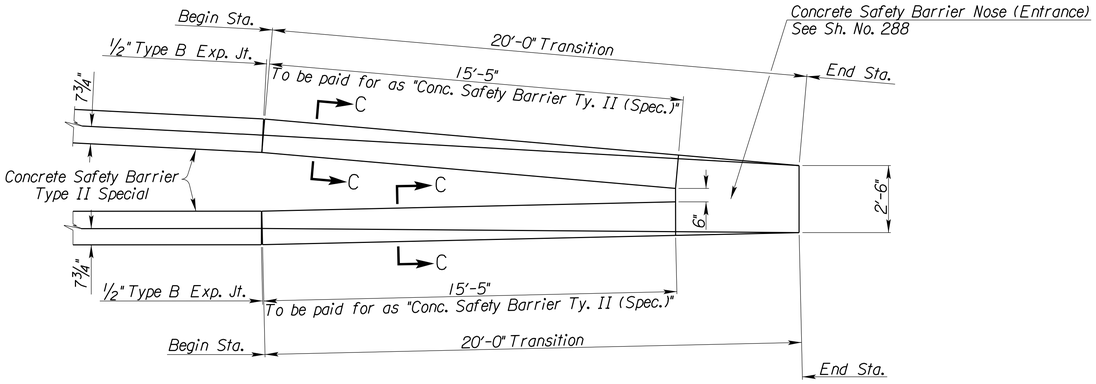


SECTION B-B



SECTION C-C

Note: Horizontal Curvature not shown.
Adjust as necessary to achieve actual
Geometry described on Plans.



PLAN

C.S.B. Type II (SPEC.) TREATMENT AT OVERHEAD SIGN SUPPORT
RAMP K STA. 10556+96.38 TO STA. 10557+16.38

See Sh. No. 282 for Barrier Details & General Notes.
See Sh. No. 707 for Sign Support Details.

CITY OF WICHITA

SIGN SUPPORT TRANSITION FOR
CONCRETE SAFETY BARRIER
TYPE II (SPECIAL)

SURV. - | PLOT - | CADD DES. - | DR. - | TR. - | CKD. - | APP. -

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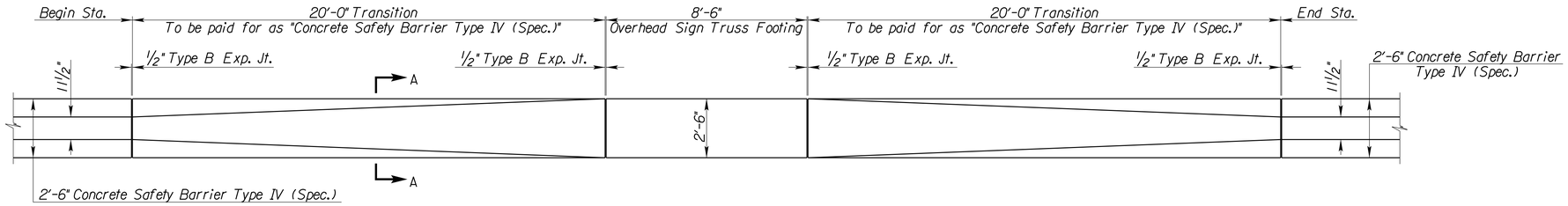
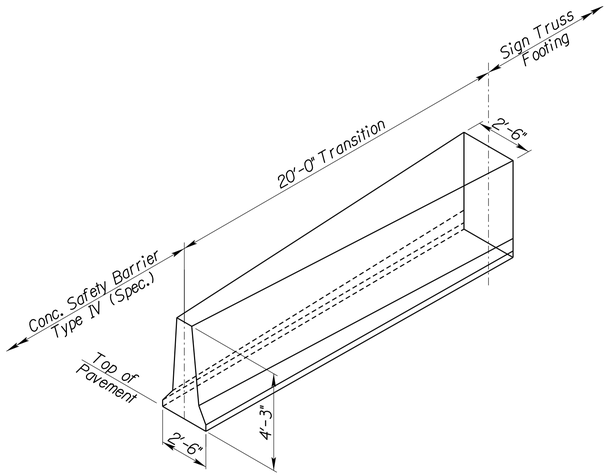
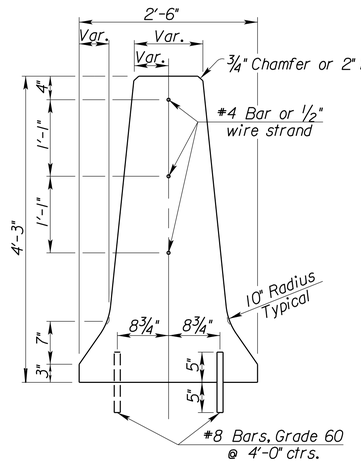


PLAN

C.S.B. TYPE IV (SPEC.) TREATMENT AT OVERHEAD SIGN SUPPORT
STA. 545+25.67 TO STA. 545+74.33
STA. 553+55.67 TO STA. 554+04.33



C.S.B. TYPE IV (SPEC.) TO OVERHEAD SIGN SUPPORT



SECTION A-A

Note: Horizontal Curvature not shown. Adjust as necessary to achieve actual Geometry described on Plans.

See Sh. No. 282 for Barrier Details & General Notes.
See Sh. No. 707 for Sign Support Details.

CITY OF WICHITA

SIGN SUPPORT TRANSITION FOR CONCRETE SAFETY BARRIER TYPE IV (SPECIAL)

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
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STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
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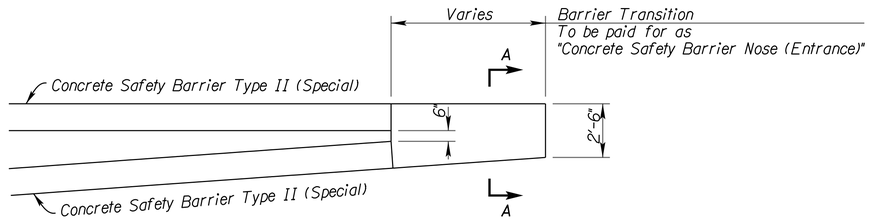
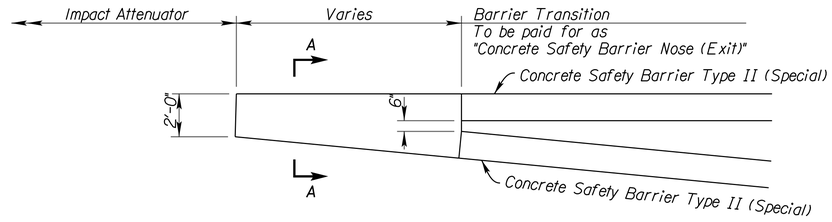


CONCRETE SAFETY BARRIER NOSE (ENTRANCE)



CONCRETE SAFETY BARRIER NOSE (EXIT)

GENERAL NOTES:

Use Concrete Grade 3.0 (AE) or Concrete Pavement Mix (Contractors's Option).

Construct drainage slots where specified in the plans, inlet locations or Engineer's direction.

Use epoxy coated reinforcing steel, Grade 60. See details for spacing, keep a minimum reinforcing steel clear distance of 1 1/2".

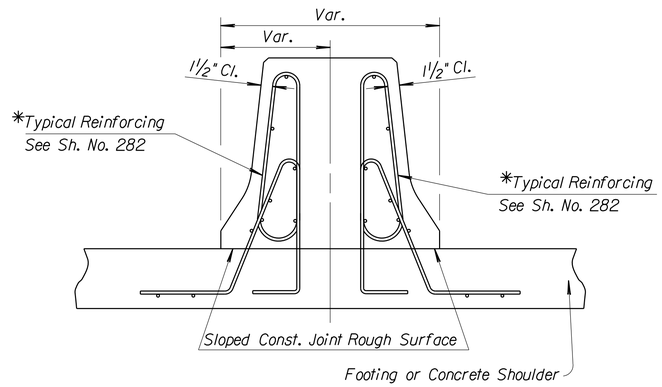
Payment for all reinforcing bars, joint material, median barrier filler material, reflectors and supporting materials, associated work, etc., is Subsidiary.

The section furnished must generally comply with the dimensions submitted for review.

Permanent Concrete barriers are cast in place or slip formed construction only. Precast barriers are not permitted.

See Sh. No. 282 for joint, barrier base and delineation requirements.

Concrete Safety Barrier noses shall be paid for as "Concrete Safety Barrier Nose (Entrance)" and "Concrete Safety Barrier Nose (Exit)" and include all work and material required to build the barrier as detailed on the plans.



SECTION A-A

*Adjust steel reinforcement as needed to construct transition.

CITY OF WICHITA

CONCRETE SAFTEY BARRIER NOSE

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SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
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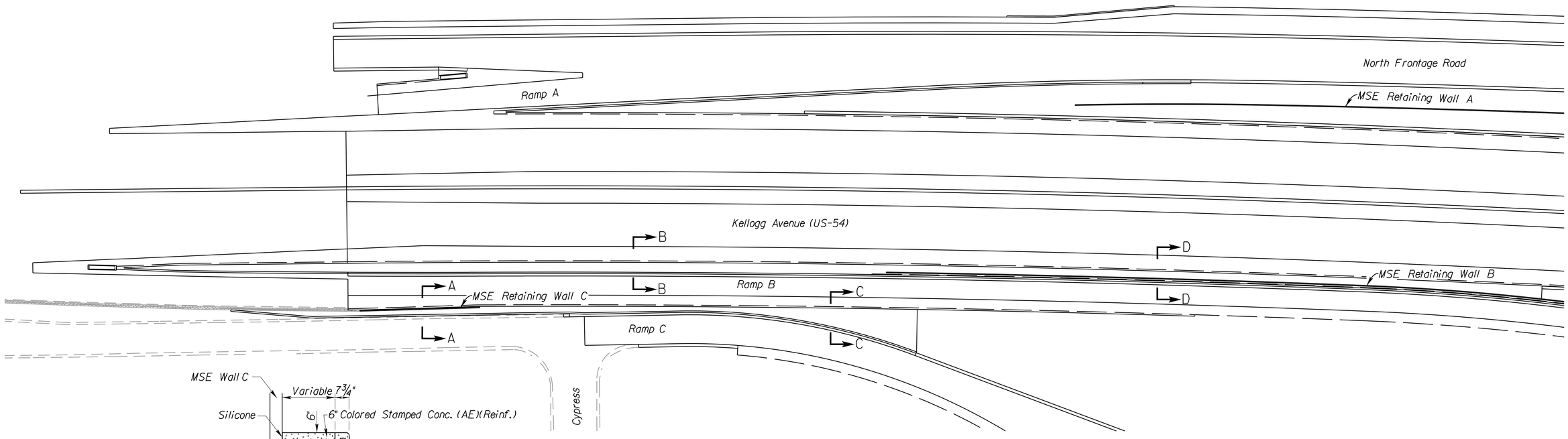
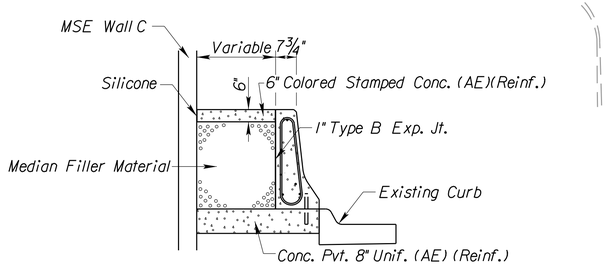
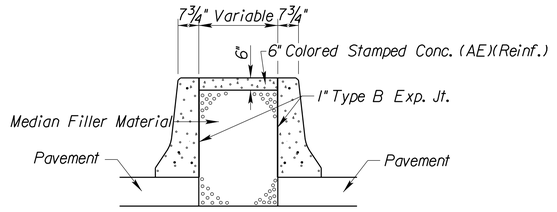
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	289	1055





SECTION A-A

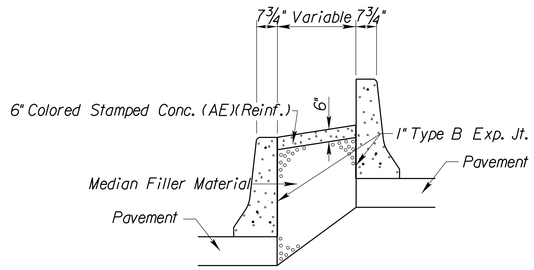
Note: Omit r1 and r4 bars. Place 10" #8 dowel bars, Grade 60 at 4'-0" ctrs.



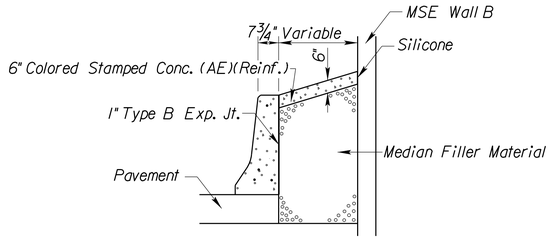
SECTION B-B

Quantities for Information Only	
* Median Filler Material	4,111 Cubic Yds.

* Includes areas detailed on Retaining Wall Sheets



SECTION C-C



SECTION D-D

Notes:
Horizontal Curvature not shown. Adjust as necessary to achieve actual Geometry described on Plans.
Reinforce Concrete Barrier as per Sh. No. 282
Median Filler shall be compacted to Type B (MR-90) compaction requirements. Contractor shall be responsible for any damage incurred during the compaction of material.
All labor and materials for fill, including Type B Filler, Median Filler, compaction and silicone are subsidiary to the bid item "Colored Concrete Pavement (6" Uniform) (AE) (Reinf)."

See Sh. No. 282 for Barrier Details & General Notes.

CITY OF WICHITA

CONCRETE SAFETY BARRIER
TYPE II (SPECIAL)

SURV.	PLOT	CADD	DES.	DR.	TR.	CKD.	APP.
-	-	-	-	-	-	-	-

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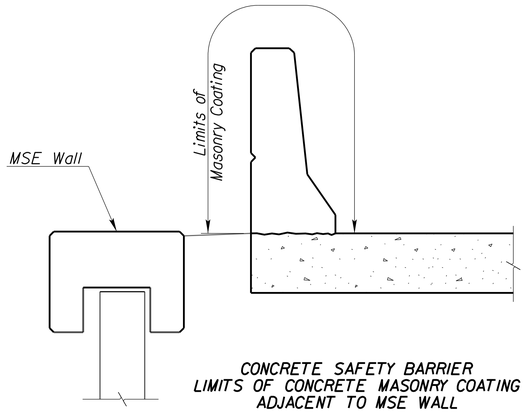
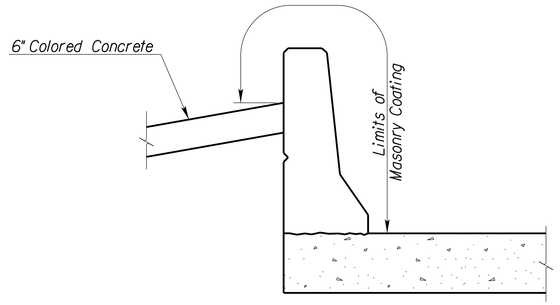
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	290	1055

NOTES CONCRETE MASONRY SURFACE TREATMENT: Coat all exposed surfaces of the concrete safety barrier with an approved pigmented sealer (uniform color). All surfaces to be coated shall be prepared with a light brush sandblast prior to application. The form release agent used on concrete surfaces to be coated, shall be compatible with the color stain product to be applied to the surface. Use of curing compound on surfaces to be coated is prohibited.

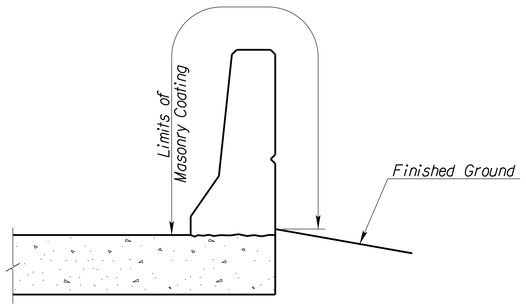
See Project Special Provisions for process for Color Selection.



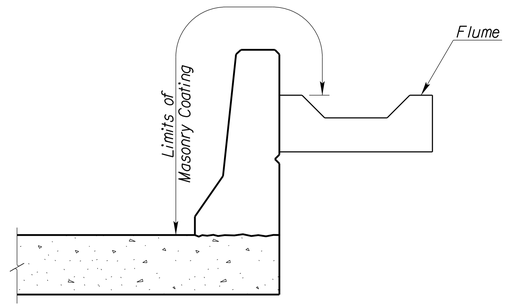
CONCRETE SAFETY BARRIER
LIMITS OF CONCRETE MASONRY COATING
ADJACENT TO MSE WALL



CONCRETE SAFETY BARRIER
LIMITS OF CONCRETE MASONRY COATING
ADJACENT TO 6" COLORED CONCRETE



CONCRETE SAFETY BARRIER
LIMITS OF CONCRETE MASONRY COATING
ADJACENT TO FINISHED GROUND



CONCRETE SAFETY BARRIER
LIMITS OF CONCRETE MASONRY COATING
ADJACENT TO CONCRETE FLUME

See Sh. No. 282 for Barrier Details.
See Sh. No. 284 for Transition Details.
See Sh. No. 286 for Barrier Treatment at Sign Support.

CITY OF WICHITA

CONCRETE MASONRY
SURFACE TREATMENT
CONCRETE SAFETY BARRIER

SURV.	-	PLOT	CADD	DES.	-	DR.	-	TR.	-	CKD.	-	APP.	-

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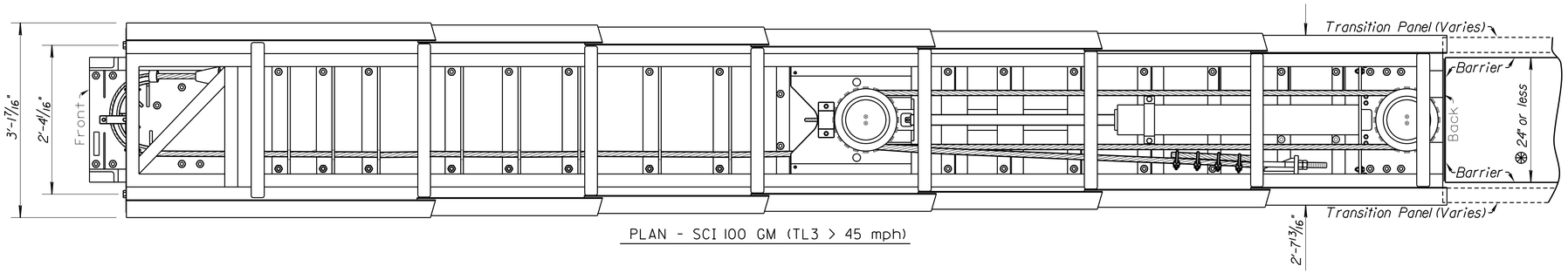
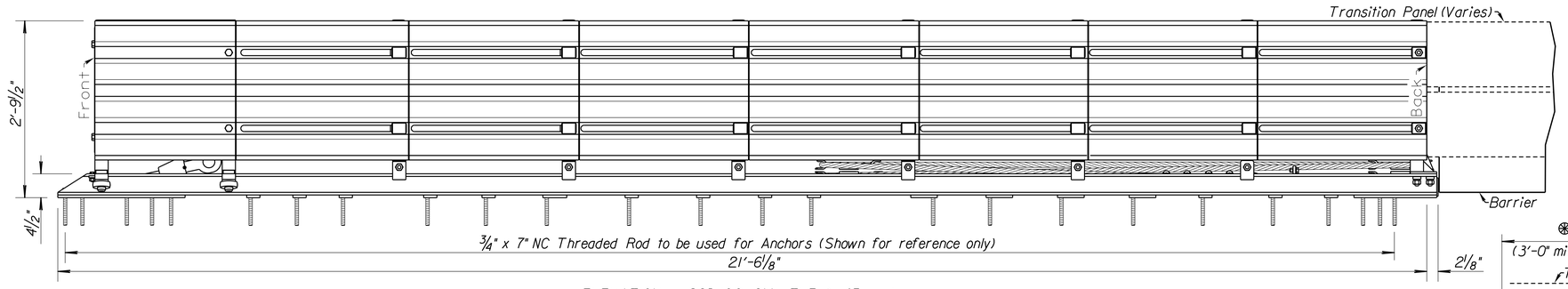
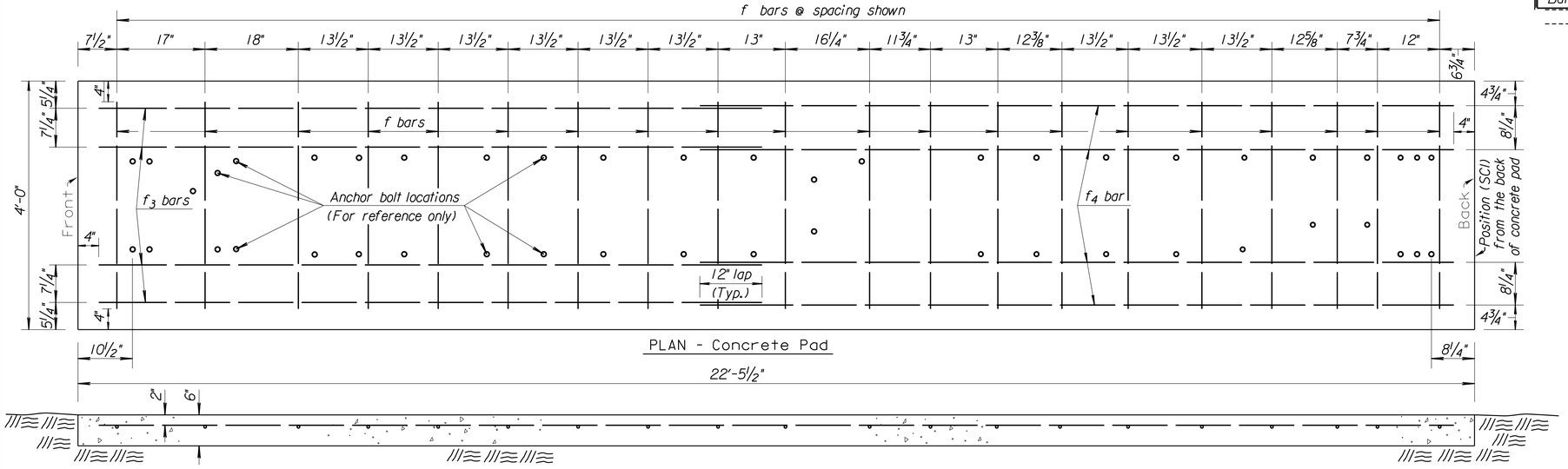
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	291	1055



PLAN - SCI 100 GM (TL3 > 45 mph)

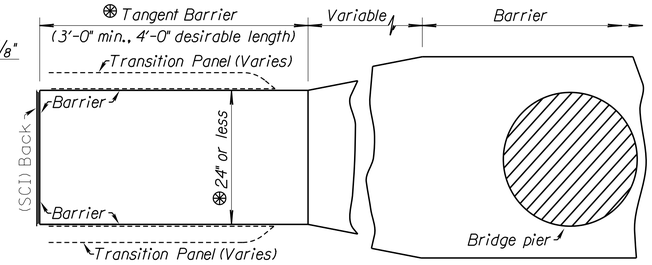


ELEVATION - SCI 100 GM (TL3 > 45 mph)



PLAN - Concrete Pad

ELEVATION - Concrete Pad



EXAMPLE MEDIAN BARRIER PLAN

GENERAL NOTES

Details shown on this sheet of SCI 100 GM are for Information Only and may not be an exact detail of SCI 100 GM. See the manufacturer's Installation Manual furnished to the Engineer for details of components and installation for the SCI 100 GM.

Concrete shall have a minimum compressive strength of 4000 p.s.i.

Maximum cross-slope is 8.0%. If cross-slope varies more than 2% over the length of the system, the concrete pad will require leveling.

The installation area should be free from elevated objects or depressions.

The SCI 100 GM system should be approximately parallel with the barrier or ℄ of merging barriers.

⊛ The Side Panel may travel up to 30" beyond the last terminal brace at the back of cushion. This area must be clear to allow for motion, performance and not cause undue damage to the crash cushion.

The unit shown on this sheet abuts a barrier up to 24" wide with transition panels. The SCI can be connected to permanent or temporary F-Shape Barrier. Refer to the manufacturer's Installation Manual for these transition connections along with other connections. A barrier that is greater than 24" wide requires a special design.

All work and material required for installation of this attenuator shall be paid under the bid item "Impact Attenuator (TL3)" or "Impact Attenuator (Severe Duty)".

For temporary installations, the unit can be placed on a 8" Asphalt Pad. All work and material to installl and remove the unit will be paid under the bid item "Impact Attenuator (Temporary)".

BILL OF MATERIALS

Conc. Pad SCI 100 GM

Bar	No.	Length	
f	20	3'-4"	
f_3	4	10'-8"	
f_4	4	12'-2"	
Conc. Gr. 4.0		1.7 Cu.Yd.	
Reinf. Steel		106 lbs.	

NOTE: ALL REINFORCING BARS ARE SIZE #4.

NO.	DATE	REVISIONS	BY	APP'D
2	11-16-09	Revised Temporary Bid Item	S.W.K.	J.O.B.
1	12-16-08	General Note temporary use	S.W.K.	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

IMPACT ATTENUATOR
(SCI-TL3/Severe Duty)

RD627A

FHWA APPROVAL	12-18-09	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. King

Plotted : 4/16/2015
Drawn By :
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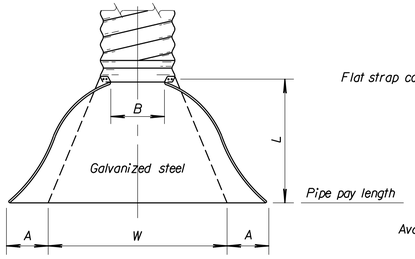
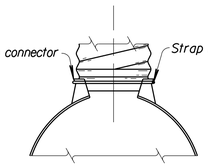
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	292	1055

Note: End Sections will not be paid for separately. Length of pipe includes length of end section.



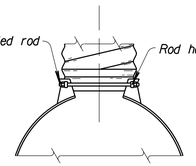
PLAN

(Illustrated with Type #3 Connection)



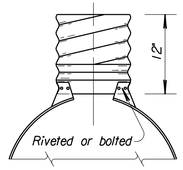
TYPE 1

Available in sizes 12" through 24" only.



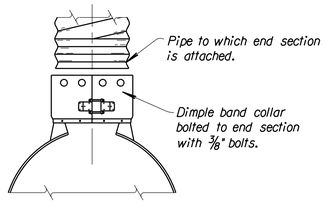
TYPE 2

Available in sizes 30" and 36" Round and 17"x13" through 57"x38" Pipe-Arches.



TYPE 3

Available in sizes 42" through 96" Round and 60"x46" through 81"x59" Pipe-Arches.



TYPE 5

Available for all Round and equivalent Pipe-Arch sizes. (Type 1 and Type 2 connections are recommended for the smaller sizes with annular ends).

Note: Type 3 connection may be furnished instead of Type 1 or Type 2 for smaller round or arch pipe.

GENERAL NOTE for END SECTIONS

End section material shall follow KDOT Pipe Policy for geographic location. Location shall govern use of CS (Galvanized), ACS (Aluminized) or CA (Aluminum) (Type I) End Section. Pipe material and End Section material shall be the same with no mixing of types per location.

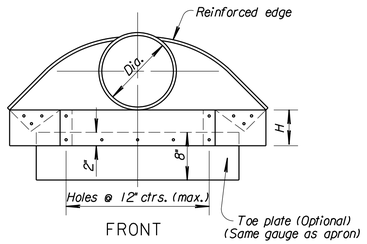
Toe plate extension, when specified, is an accessory and shall be the same gauge and metal as end section. Toe plate shall be punched to match holes in apron lip and attached with furnished ⅜" diameter nuts & bolts.

W + 10" for 12" to 30" diameter pipes inclusive.
W + 20" for 36" to 84" diameter pipes inclusive.
W + 10" for pipe-arches with a rise of 13" to 29" inclusive.
W + 20" for pipe-arches with a rise of 33" to 59" inclusive.

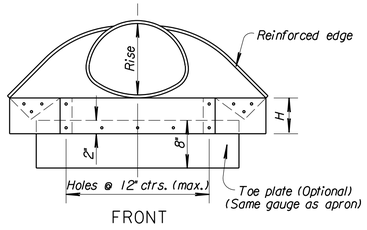
Multiple panel end sections may contain dual gauges of like metal and shall have lap seams which are tightly joined with rivets or bolts. For 60" and larger diameter round pipe end sections and 77"x52" arch pipe end sections, the reinforced edges are supplemented with stiffener angles. The angles are attached with nuts and bolts. Angle reinforcement may be required uder the center panel seams of 73"x55" and larger arch pipe end sections depending on manufacturer.

Other approved designs may be used in lieu of type shown.

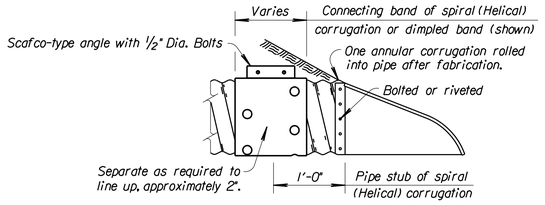
Connection of end sections by welding will not be permitted.



FRONT



FRONT



SPIRAL (HELICAL) CORRUGATION

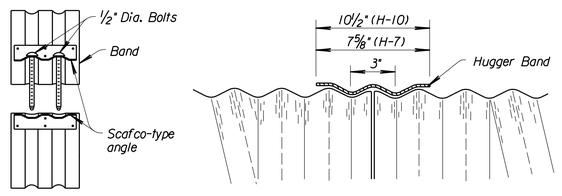
For all sizes of round and arch culvert pipes having Spiral (Helical) corrugations, the end sections and connecting bands shall be as shown above.

Thickness CSP/ACSP	Thickness CAP	Gauge
0.064"	0.060"	16 ga.
0.079"	0.075"	14 ga.
0.109"	0.105"	12 ga.
0.138"	0.135"	10 ga.
0.168"	0.164"	8 ga.

Pipe Dia. (In.)	CS,ACS or CA Gauge	Dimensions in Inches A (min.)	B (max.)	H (min.)	L (+/-2")	W (min.)	Approx. Slope
12"	16	5	7	6	21	22	2½:1
15"	16	6	8	6	26	28	2½:1
18"	16	7	10	6	31	34	2½:1
21"	16	8	12	6	36	40	2½:1
24"	16	9	13	6	41	46	2½:1
30"	14	11	16	8	51	55	2½:1
36"	14	13	19	9	60	70	2½:1
42"	12	15	25	10	69	82	2½:1
48"	12	17	29	12	78	88	2¼:1
54"	12	17	33	12	84	100	2¼:1
60"	12/10	17	36	12	87	112	2:1
66"	12/10	17	39	12	87	118	2:1
72"	12/10	17	44	12	87	120	2:1
78"	12/10	17	48	12	87	130	1½:1
84"	12/10	17	52	12	87	136	1½:1
90"	12/10	17	58	12	87	142	1½:1
96"	12/10	17	58	12	87	144	1½:1

Bid Designation Sq. Ft.	Nom. W.W. Area Sq. Ft.	Pipe Arch Span & Rise	Dimensions in Inches 2⅔"x ½" Corrugations CS.ACS or CA Gauge	A (min.)	B (max.)	H (min.)	L (+/-2")	W (min.)	Dimensions in Inches 3" x 1" or 5" x 1" Corr. CS.ACS or CA Gauge	A (min.)	B (max.)	H (min.)	L (+/-2")	W (min.)	Approx. Slope
1.0	1.1	17" x 13"	16	5	9	6	20	28							2½:1
1.5	1.6	21" x 15"	16	6	11	6	24	34							2½:1
2.0	2.2	24" x 18"	16	7	12	6	28	40							2½:1
2.5	2.9	28" x 20"	16	7	16	6	32	46							2½:1
3.0 or 4.0	4.5	35" x 24"	14	9	16	6	39	58							2½:1
5.0 or 6.0	6.5	42" x 29"	14	11	18	7	46	73							2½:1
7.0 or 8.5	8.9	49" x 33"	12	12	21	9	53	82							2½:1
10.0 or 11.0	11.7	53" x 41"							12	17	26	12	63	88	2 :1
10.0 or 11.0	11.6	57" x 38"	12	16	26	12	62	88							2 :1
12.5 or 14.0	15.6	60" x 46"							12	17	36	12	70	100	2 :1
12.5 or 14.0	14.7	64" x 43"	12	17	30	12	69	100							2 :1
16.5	19.3	66" x 51"							12/10	17	36	12	70	112	1½:1
16.5	18.1	71" x 47"	12/10	17	36	12	77	112							1½:1
21.0	23.2	73" x 55"							12/10	17	36	12	77	124	1½:1
21.0	21.9	77" x 52"	12/10	17	36	12	77	124							1½:1
25.0	27.4	81" x 59"							12/10	17	44	12	77	136	1½:1
25.0	26.0	83" x 57"	12/10	17	44	12	77	130							1½:1
32.0	32.1	87" x 63"							12/10	17	44	12	77	136	1½:1
36.0	37.0	95" x 67"							12/10	17	44	12	87	160	1½:1
42.0	42.4	103" x 71"							12/10	17	44	12	87	172	1½:1
47.0	48.0	112" x 75"							12/10	17	44	12	87	172	1½:1

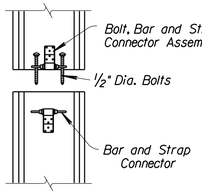
(Information listed in these tables are nominal and may vary by manufacturer.)



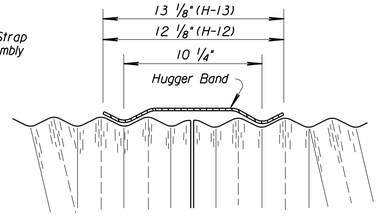
CONNECTION DETAIL
H-7 or H-10 BAND

UNIVERSAL REFORMED END with
H-7 or H-10 HUGGER BAND

DETAILS FOR H-7 HUGGER BAND (12" thru 36")
or H-10 HUGGER BAND (12" thru 120")

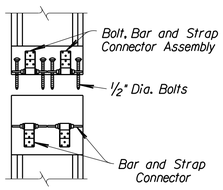


CONNECTION DETAIL
SINGLE HARNESS



UNIVERSAL REFORMED END with
HUGGER BAND

DETAILS FOR H-12 or H-13 HUGGER BAND



CONNECTION DETAIL
DOUBLE HARNESS

Pipe Dia. Inches	Minimum Gauge of Round Pipe 2⅔"x ½" Corr. CSP or ACSP	3" x 1" Corr. CSP or ACSP	5" x 1" Corr. CSP or ACSP	2⅔"x ½" Corr. CAP	3" x 1" Corr. CAP
12"	14			16	
15"	14			16	
18"	14			16	
21"	14			16	
24"	14			16	
30"	14			14	
36"	14			14	16
42"	14			12	16
48"	12	14 16	14 16	12	16
54"	12	14 16	14 16	12	16
60"	10	14 16	14 16	10	16
66"	10	14 16	14 16	8	16
72"	10	14 16	14 16	8	16
78"	8	14 14	14 14		14
84"	8	14 14	14 14		12
90"		14 14	14 14		12
96"		12 12	12 12		12
102"		12 12	12 12		10
108"		12 12	12 12		10
114"		12 12	12 12		8
120"		10 10	10 10		8

Bid Designation Sq. Ft.	Pipe Dimension Span & Rise	Sq. Ft.	Equiv. Round Pipe Diameter	Minimum Gauge of Arch Pipe 2⅔"x ½" Corr. CSP or ACSP	3" x 1" Corr. CSP or ACSP	5" x 1" Corr. CSP or ACSP	2⅔"x ½" Corr. CAP	3" x 1" Corr. CAP
1.0	17" x 13"	1.1	15"	14			16	
1.5	21" x 15"	1.6	18"	14			16	
2.0	24" x 18"	2.2	21"	14			16	
2.5	28" x 20"	2.9	24"	14			14	
3.0 or 4.0	35" x 24"	4.5	30"	14			14	
5.0 or 6.0	42" x 29"	6.5	36"	14			12	
7.0 or 8.5	49" x 33"	8.9	42"	14			12	
10.0 or 11.0	53" x 41"	11.7	48"		14			
10.0 or 11.0	57" x 38"	11.6	48"	12			10	
12.5 or 14.0	60" x 46"	15.6	54"		14			14
12.5 or 14.0	64" x 43"	14.7	54"	12			10	
16.5	66" x 51"	19.3	60"		14			14
16.5	71" x 47"	18.1	60"	10			8	
21.0	73" x 55"	23.2	66"		14			14
21.0	77" x 52"	21.9	66"	8				
25.0	81" x 59"	27.4	72"		14	12		12
25.0	83" x 57"	26.0	72"	8				
32.0	87" x 63"	32.1	78"		12	12		12
36.0	95" x 67"	37.0	84"		12	12		12
42.0	103" x 71"	42.4	90"		12	12		10
47.0	112" x 75"	48.0	96"		12	12		8
54.0	117" x 79"	54.2	102"		10	10		
60.0	128" x 83"	60.5	108"		10	10		
67.0	137" x 87"	67.4	114"		10	10		
74.0	142" x 91"	74.5	120"		8	8		

GENERAL NOTE for METAL PIPE

Culvert "Type" listed may be CSP, ACSP, CAP, RCP, PVCP & PEP within guidelines of KDOT Pipe Policy for geographic location. More than one pipe "Type" may be acceptable for a design location with allowable types listed for each site.

There shall be no payment for gain in pipe length due to fit of pipe at connecting band.

When Hugger Bands are used, the H-7 Hugger Band may be used on circular pipes 36" diameter and smaller or pipe arches 42"x 29" and smaller. The H-10 Hugger Band may be used on 12" thru 120" pipe. The H-12 or H-13 Hugger Band are for pipe sizes larger than 36" diameter or 42"x29" arch pipe.

Ⓜ Pipe gauge listed in the tables on this sheet are minimum for E'=750 p.s.i. soil. Pipe gauge will be determined for each site based on the Design Manual Volume I- Part C Fill Height Tables and shall shall be listed in the Pipe Culvert Summary. Gauges shown on this Standard Drawing are KDOT minimum and may not be industry minimum gauge.

In geographic areas that allow CSP (24" or smaller arched or round pipe) for entrance and side road installation with less than 3,000 AADT, 16 gauge ACSP may be substituted for 14 gauge CSP.

Aluminum or aluminized pipes or end sections shall be coated with an asphaltic paint when in contact with fresh concrete in accordance with the Standard Specifications.

NO.	DATE	REVISIONS	BY	APP'D
4	9-10-09	Rev. Round and Arch tables, add. Alum.	S.W.K.	J.O.B.
3	1-20-09	Rev. Round Pipe Gauges	S.W.K	J.O.B.
2	4-18-08	Rev. layout, details, tables and notes	S.W.K.	J.O.B.
1	4-27-98	Added pipe corrugation option note	R.J.S.	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

METAL END SECTION FOR ROUND & ARCH METAL CULVERTS (TYPE I) & PIPE GAUGE TABLES

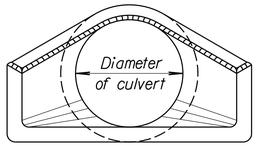
~~RD660~~

FHWA APPROVAL	12-16-09	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. King

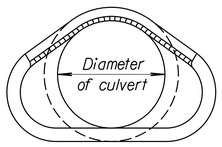
Note to Designer: KDOT Pipe Policy provides guidance in identifying the prohibited and/or restricted uses of CSP, ACSP, PEP, PVCP, CAP & RCP. Provide end sections of the same type and coating as the pipe. Exceptions to this are noted in the Standard Specifications. Refer to the KDOT Design Manual, Volume 1 (Part C), Road Section, "Elements of Drainage & Culvert Design" for structural pipe design information which includes: corrugations, sizes, gauges, maximum/minimum fill heights and classes of pipe.

Drawn By: ____
Plotted: 4/16/2015
File: T:\35765A\Cadd\Sheets\Package1\Standards\KDOT\EK1STDRD660A.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	293	1055

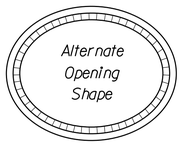


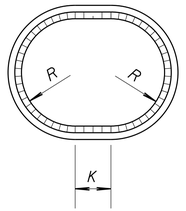
END ELEVATION (TYPE I)



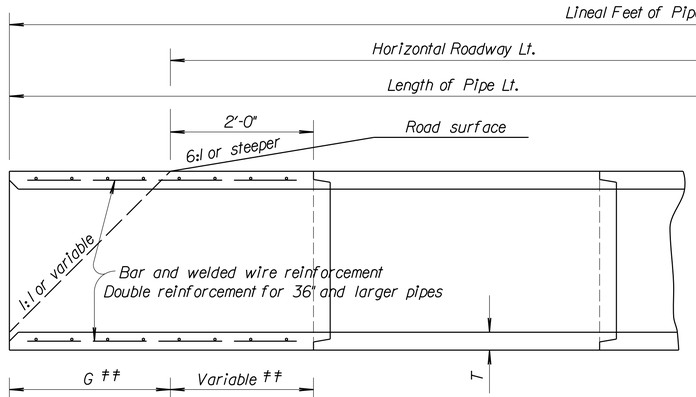
SECTION A-A

Showing rounding of inside edge of end section.



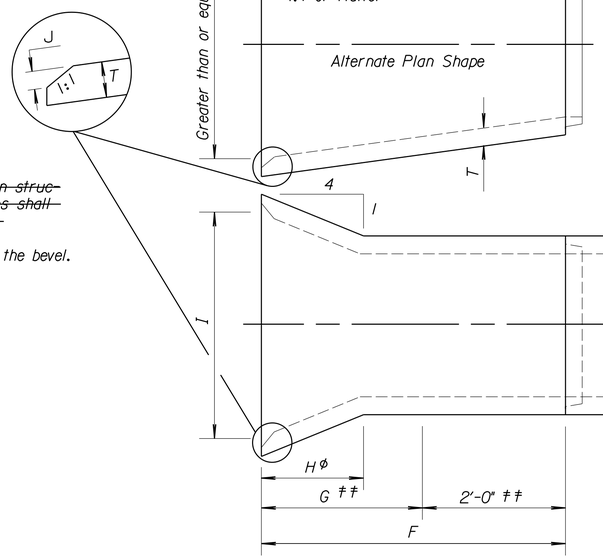


END ELEVATION (TYPE III)



ELEVATION SECTION

Note: There shall be no payment for gain in length due to joint fit tolerance.



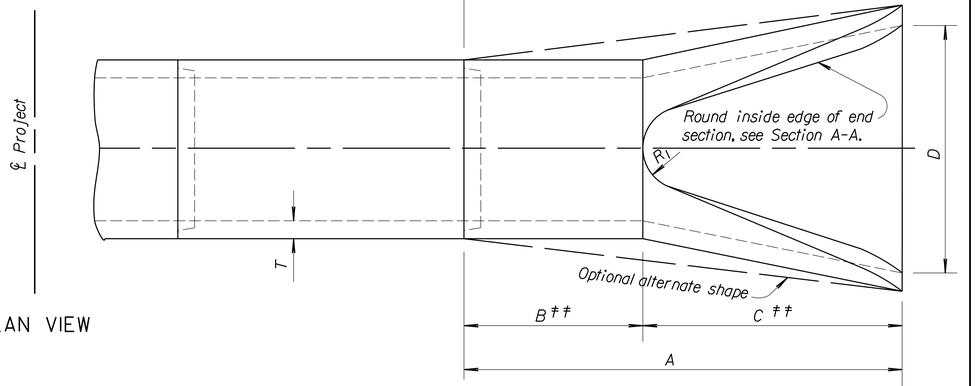
ø *Transition to round pipe.*

~~ǂ *Paid for as separate item of End Section, except when structures shall bid as alternates. In that case End Sections shall be subsidiary to bid item. "Drainage Structure No. ".*~~

ǂǂ *Included in pay length of pipe.*

⚹ *Minimum waterway area is calculated at the inside of the bevel.*

Note: Length of pipe includes length of end section.



PLAN VIEW

END SECTION (TYPE I) NOMINAL DIMENSIONS								
Diam.	A	B ǂǂ	C ǂǂ	D	E	R_1	Slope	T
12"	6'-0 7/8"	4'-0 7/8"	2'-0"	2'-0"	4"	9	3:1	2"
15"	6'-1"	3'-10"	2'-3"	2'-6"	6"	11	3:1	2 1/4"
18"	6'-1"	3'-10"	2'-3"	3'-0"	9"	12	3:1	2 1/2"
24"	6'-1 1/2"	2'-6"	3'-7 1/2"	4'-0"	9 1/2"	14	3:1	3"
30"	6'-1 3/4"	1'-7 3/4"	4'-6"	5'-0"	1'-0"	15	3:1	3 1/2"
36"	8'-1 3/4"	2'-10 3/4"	5'-3"	6'-0"	1'-3"	20	3:1	4"
42"	8'-2"	2'-11"	5'-3"	6'-6"	1'-9"	22	3:1	4 1/2"
48"	8'-2"	2'-2"	6'-0"	7'-0"	2'-0"	22	3:1	5"
54"	8'-2 1/4"	2'-9 1/4"	5'-5"	7'-6"	2'-3"	24	2.4 :1	5 1/2"
60"	8'-3"	3'-3"	5'-0"	8'-0"	2'-11"	24	2:1	6"
72"	8'-3"	1'-9"	6'-6"	9'-0"	3'-0"	24	1.86 :1	7"
84"	9'-3 1/2"	1'-9"	7'-6 1/2"	10'-0"	3'-0"	24	1.6 :1	8"

SIDE TAPERED INLET SECTION (TYPE III)-NOMINAL DIMENSIONS									
Diam.	Min. W.W. ⚹ Area Sq.Ft.	F	G	H	I	J	K	R	T
24"	4.5	4'-3"	2'-3"	1'-5 1/8"	2'-8"	1 1/2"	8"	1'-0"	3"
30"	7.0	4'-9 1/2"	2'-9 1/2"	1'-9 1/2"	3'-4"	2"	10"	1'-3"	3 1/2"
36"	10.1	5'-4"	3'-4"	2'-1 1/2"	4'-0"	2"	1'-0"	1'-6"	4"
42"	13.7	5'-10 1/2"	3'-10 1/2"	2'-5 7/8"	4'-8"	2 1/2"	1'-2"	1'-9"	4 1/2"
48"	17.9	6'-5"	4'-5"	2'-10 1/8"	5'-4"	3"	1'-4"	2'-0"	5"
54"	22.7	6'-11 1/2"	4'-11 1/2"	3'-2 1/2"	6'-0"	3 1/2"	1'-6"	2'-3"	5 1/2"
60"	28.0	7'-6"	5'-6"	3'-6 7/8"	6'-8"	4"	1'-8"	2'-6"	6"
72"	40.3	8'-7"	6'-7"	4'-3 5/8"	8'-0"	5"	2'-0"	3'-0"	7"
84"	54.8	9'-8"	7'-8"	5'-0 3/8"	9'-4"	6"	2'-4"	3'-6"	8"

Dimensions for alternate shapes shall be equal to or greater than those shown in the table, unless otherwise shown.

NO.	DATE	REVISIONS	BY	APP'D
2	4-18-08	Added ref. to KDOT Pipe Policy	S.W.K.	J.O.B.
1	4- 5-05	Revised reinforcement callout	S.W.K.	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

CONCRETE END SECTIONS FOR CONCRETE PIPES TYPE I & SIDE TAPERED INLET SECTION (TYPE III)

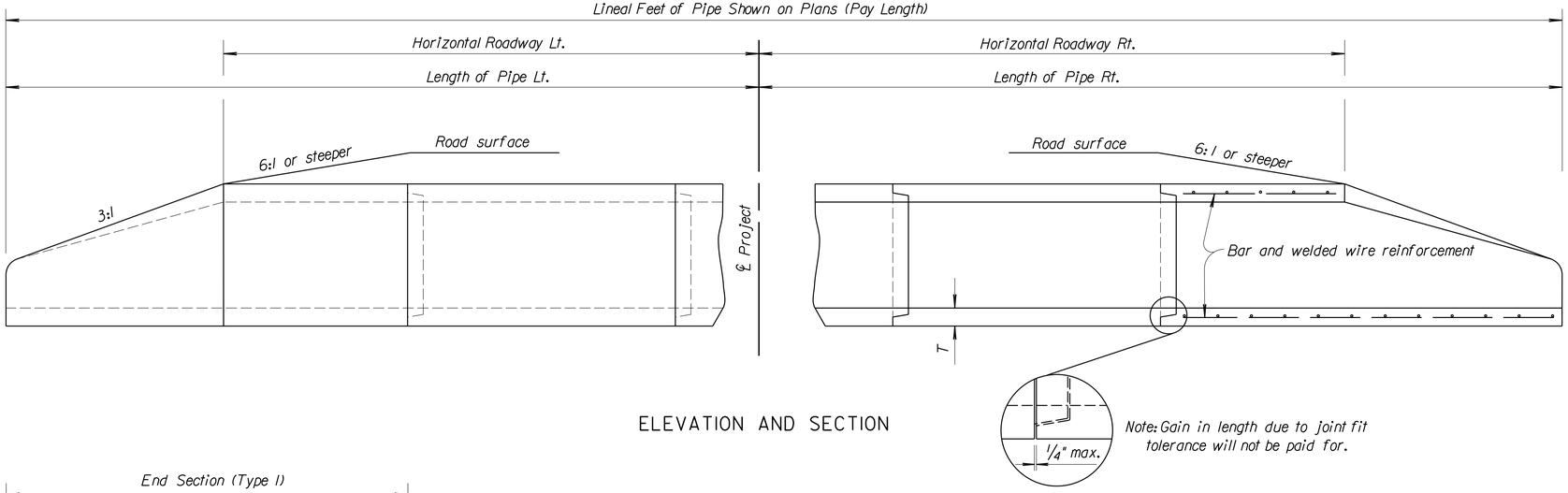
~~RD662~~

FHWA APPROVAL	6-27-08	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. King

Note to Designer: KDOT Pipe Policy provides guidance in identifying the prohibited and/or restricted uses of CSP, ACSP, PEP, PVCP, CAP & RCP. Provide end sections of the same type and coating as the pipe. Exceptions to this are noted in the Standard Specifications. Refer to the KDOT Design Manual, Volume I (Part C), Road Section, "Elements of Drainage & Culvert Design" for structural pipe design information which includes: corrugations, sizes, gauges, maximum/minimum fill heights and classes of pipe.

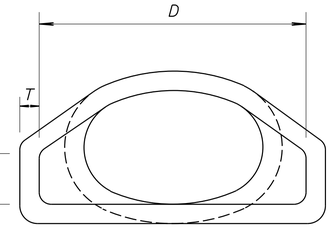
Drawn By : ——
File : T:\35765A\Cadd\Sheets\Package1\Standards\KDOT\EK1STDRD662A.dgn
Plotted : 4/16/2015

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	294	1055

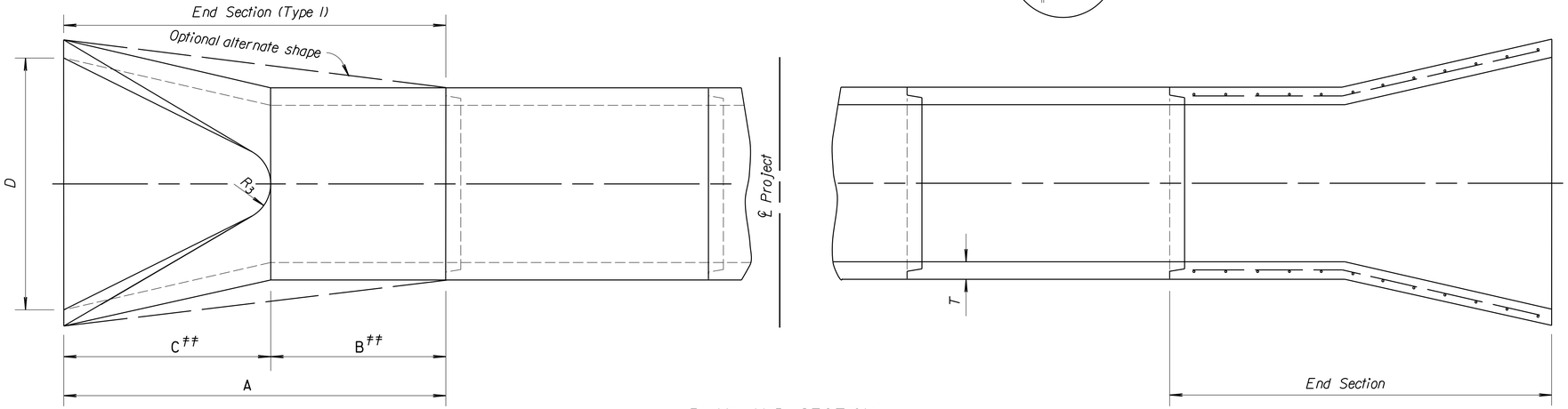


ELEVATION AND SECTION

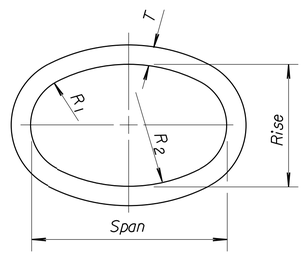
Note: Gain in length due to joint fit tolerance will not be paid for.



FLARED END SECTION ELEVATION



PLAN AND SECTION



END ELEVATION

END SECTION (TYPE I) NOMINAL DIMENSIONS												
Bid Designation Sq. Ft.	Min. W.W. Area Sq. Ft.	Span	Rise	Overall Length A	Barrel Length B ‡‡	C ‡‡	D	E	R_1	R_2	R_3	T
1.0 or 1.5	1.8	23"	14"	6'-0"	3'-9"	2'-3"	3'-0"	8"	6"	20"	6"	2 3/4"
2.0,2.5 or 3.0	3.3	30"	19"	6'-0"	2'-9"	3'-3"	4'-0"	8 1/2"	8 1/4"	26 1/4"	7"	3 1/4"
4.0	4.1	34"	22"	6'-0"	2'-2"	3'-10"	4'-6"	9"	9 1/4"	29 17/32	8"	3 1/2"
5.0	5.1	38"	24"	6'-0"	1'-6"	4'-6"	5'-0"	9 1/2"	10 1/4"	32 3/4"	9"	3 3/4"
6.0	6.3	42"	27"	6'-0"	1'-3"	4'-9"	5'-6"	10 3/8"	11 7/16"	36 3/16"	10 1/2"	3 3/4"
7.0	7.4	45"	29"	8'-0"	3'-0"	5'-0"	6'-0"	11 1/4"	12 1/4"	39 1/4"	12"	4 1/2"
8.5	8.8	49"	32"	8'-0"	3'-0"	5'-0"	6'-3"	12"	13 9/16"	42 21/32	12 1/2"	4 3/4"
10.0	10.2	53"	34"	8'-0"	3'-0"	5'-0"	6'-6"	15 3/4"	14 3/4"	46"	13"	5"
11.0 or 12.5	12.9	60"	38"	8'-0"	3'-0"	5'-0"	7'-0"	21"	16 1/2"	51 3/4"	14"	5 1/2"
14.0 or 16.5	16.6	68"	43"	8'-0"	3'-0"	5'-0"	7'-6"	25 1/2"	18 21/32	58 13/32	16"	6"

~~‡ Paid for as separate item of "End Sections".~~

‡‡ Included in pay length of pipe.

Note: Length of pipe includes length of end section.

Design of end section shall conform to standard reinforced concrete horizontal elliptical pipe. Slight variations in the dimensions specified will be allowed.

Note: Reinforced concrete pipe extensions are based on the surveyed end of pipe. Replacement of any additional pipe length required due to the removal of the existing end section will not be paid for directly, but will be subsidiary to the bid item "Removal of Existing Structures".

NO.	DATE	REVISIONS	BY	APP'D
4	5-17-13	Added Note, Pipe Extensions Subsidiary	S.W.K.	J.O.B.
3	4-18-08	Added ref. to KDOT Pipe Policy	S.W.K.	J.O.B.
2	4- 6-05	Revised reinforcement callout	S.W.K.	J.O.B.
1	6-16-95	Revised table & labeling	R.J.S.	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

CONCRETE END SECTION FOR REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE TYPE I

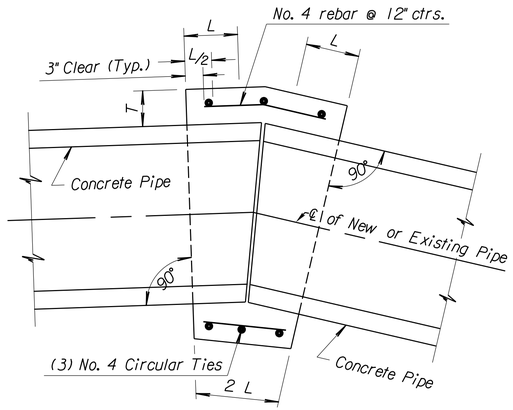
~~RD663~~

FHWA APPROVAL	9-4-14	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. King

Note to Designer: KDOT Pipe Policy provides guidance in identifying the prohibited and/or restricted uses of CSP, ACSP, PEP, PVCP, CAP & RCP. Provide end sections of the same type and coating as the pipe. Exceptions to this are noted in the Standard Specifications. Refer to the KDOT Design Manual, Volume I (Part C), Road Section, "Elements of Drainage & Culvert Design" for structural pipe design information which includes: corrugations, sizes, gauges, maximum/minimum fill heights and classes of pipe.

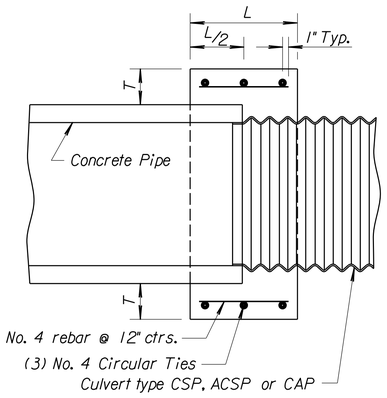
Drawn By: _____
Plotted: 4/16/2015
File: T:\35765A\Cadd\Sheets\Package1\Standards\KDOT\EK1STDRD663A.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	295	1055



PIPE COLLAR AT CHANGE IN ALIGNMENT

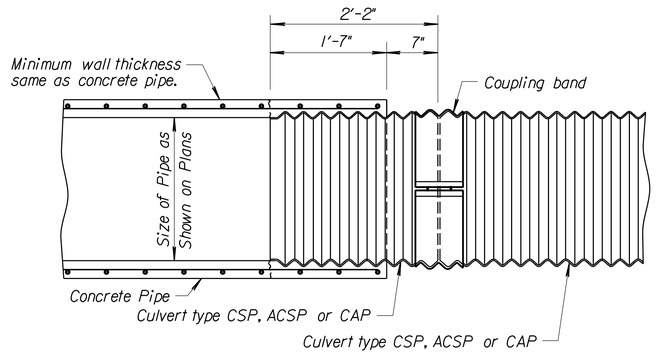
TYPE A COLLAR



PIPE COLLAR AT CHANGE IN PIPE MATERIAL

TYPE B COLLAR

CONCRETE PIPE COLLAR		
Pipe Dia.	L	T
18"	1'-0"	6"
24"	1'-0"	6"
36"	1'-6"	8"
48"	1'-6"	10"
60"	1'-9"	11"



(CONCRETE PIPE CONNECTED TO CORRUGATED METAL PIPE)

TYPE C COLLAR ⚠

⚠ *A section of concrete pipe (6'-0" min.) is cast 1'-7" short with the re-steel protruding. Tack weld the re-steel to the 2'-2" section of CMP and finish casting the remaining 1'-7" of RCP around the CMP. This is an approved connection provided it is fabricated as an intergral part of a section of concrete pipe.*

PIPE COLLARS

General Notes:

Pipe collar shall be used to join pipes of different diameters or materials or where change in alignment or grade exceeds that allowed for ordinary joints.

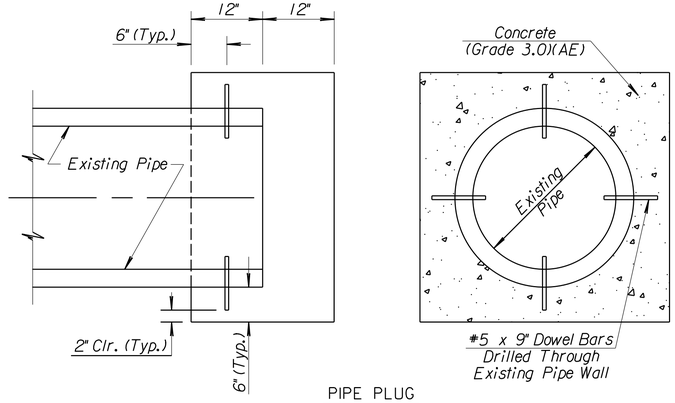
All concrete shall be Concrete Grade 3.0.
All reinforcing steel shall be Grade 60 and shall have a minimum of 2" of cover.

The diameter of the circular ties shall be the outside diameter of the larger pipe plus "T".
The maximum allowable distance between the ends of the pipes at any point is 2".

All labor, materials and incidentals required to construct the pipe collar Type A, B or C shall not be paid for directly but shall be subsidiary to the individual pipe bid items.

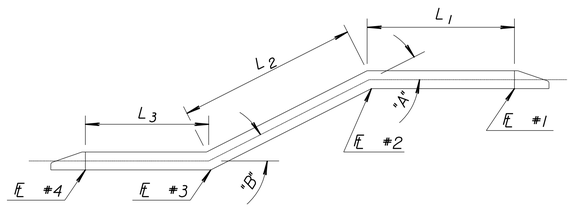
Aluminum or aluminized pipes or end sections shall be coated with an asphaltic paint when in contact with fresh concrete in accordance with the Standard Specifications.

Pipe ends shall be trimmed such that the maximum distance between pipes at any point is 2".



PIPE PLUG

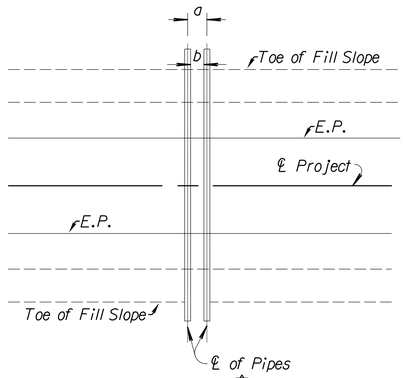
All materials & labor associated with pipe plug shall be Subsidiary.



Sketch Along ℄ CRP (CMP)

Broken-Back

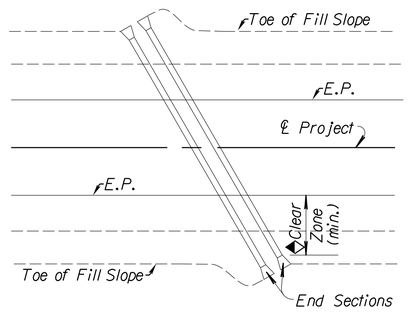
SUMMARY OF BROKEN BACK PIPES											
STATION	SIZE	FLOW LINES				LENGTH			ANGLES		REMARKS
		#1	#2	#3	#4	L_1	L_2	L_3	A	B	



a = Face width of end section ✡ + 1'.
✡ Face width is equal to the following dimension shown on the end section std. drawing.
Type I Concrete = D
Type III Concrete = I
Type I CM = W+ 2A
Type III CM = G
Type IV = W+ 2A

b = Pipe diameter or span (3' min.)
Spacing shall be equal to the larger of dimensions a or b.
Spacing for three or more pipes shall be determined using a similar method.

MULTIPLE PIPE SPACING



PLACEMENT OF ROTATED PIPES

RELATIVE TO FILL SLOPE

AND CLEAR ZONE

♦ *Pipe culverts 2'-0" or less in height may terminate within the clear zone with Type I or Type III End Section. Any size pipe may terminate within the clear zone with a Type IV End Section.*

NO.	DATE	REVISIONS	BY	APP'D
1	5-17-13	Rev. Dimension, Type B Collar	S.W.K.	J.O.B.
4	4-18-08	Added asphaltic paint note	S.W.K.	J.O.B.
3	1-28-05	Changed Class to Grade concrete	S.W.K.	J.O.B.
2	8-12-04	Revised dimension	S.W.K.	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS PIPE CULVERT DETAILS

~~RD668~~

FHWA APPROVAL	10-8-13	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. King

Plotted : 4/16/2015
Drawn By :
File : T:\35765A\Cadd\Sheets\Package1\Standards\KDOT\EK1STDRD668A.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	296	1055

Revised Plans

Note to Designer: KDOT Pipe Policy provides guidance in identifying the prohibited and/or restricted uses of CSP, ACSP, PEP, PVCP, CAP & RCP. Provide end sections of the same type and coating as the pipe. Exceptions to this are noted in the Standard Specifications. Refer to the KDOT Design Manual, Volume I (Part C), Road Section, "Elements of Drainage & Culvert Design" for structural pipe design information which includes: corrugations, sizes, gauges, maximum/minimum fill heights and classes of pipe.

Plotted: 6/8/2015
Drawn By: ___
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PIPE CULVERT SUMMARY

Station (Center of Culvert)	Type	Size or Bid Designation Sq. Ft.	Crown Grade Elev.	Inlet End		Outlet End		Lin. Ft. of Pipe*	Height of Fill (max) Ft.	Concrete Pipe	Pipe Guage		Pipe Corrugations		Remarks
				Station	Flowline Elevation	Station	Flowline Elevation			Class No.	Steel	Alum.	Steel	Alum.	
East Kellogg Mainline:															
555+67.67, 12.73 Lt.	RCP	3-18"	1355.49	555+67.67, 12.73' Lt.	1351.53	557+04.02, 5.10' Lt.	1350.36	137	3.8	III					Temporary
558+34.17, 132.13 Lt.	CMMAC	2-71"x47"	1354.86	558+24.36, 149.56' Lt.	1347.96	558+47.92, 107.74' Lt.	1347.82	48	3.3	N/A					Temporary
Ramp BB															
6+86.34	RCP	24"	1367.25	6+86.34, 27.45' Rt.	1357.88	6+86.34, 46.95 Rt.	1356.88	13.00	3.0	III					Temporary
Ramp C															
10505+30	RCP	24"	1357.29	10505+30.17, 10.02' Lt.	1349.11	10505+32.63, 50.67 Rt.	1348.85	62.00	3.0	III					Temporary
Crossover A															
9+68.93	RCP	3-18"	1350.5	9+84.93, 8.53' Rt.	1348.78	8+75.19, 57.16' Lt.	1347.93	137.32	0.9	III					
3 10+39.98, 12.94' Rt.	RCP	15"	1351.5	10+42.80, 18.70' Lt.	1346.73	10+38.47, 15.02' Rt.	1346.39	31.86	1.0	III					
11+04.14, 20.24' Rt.	RCP	30" x 19" (24")	1350.5	11+27.74, 21.15' Rt.	1346.91	10+80.57, 18.84' Rt.	1345.82	55.97	1.9	III					
3 13+88.02, 27.03' Rt.	RCP	30"	1374.0	13+85.40, 26.81' Rt.	1344.31	13+96.14, 26.75' Rt.	1344.11	17.38	1.0	III					Connect to Existing Culvert

SUMMARY OF PIPE CULVERTS

	ITEM	QUANTITY	UNIT
3	Pipe, RCP 15"	32	Lin. Ft.
	Pipe, RCP 18"	412	Lin. Ft.
	Pipe, RCP 18" (Temp.)	411	Lin. Ft.
	Pipe, RCP 24" (Temp.)	75	Lin. Ft.
	Pipe, HERCP 30" x 19" (24")	56	Lin. Ft.
3	Pipe, RCP 30"	17	Lin. Ft.
	Pipe, CMMAC 71" x 24" (Temp.)	96	Lin. Ft.

◔ *Unless otherwise noted, minimum pipe gauge & corrugations to be as shown in RD660. See Summary of Quantities for End Section information.*

Type	ALLOWABLE LOCATION ⚠				
	Mainline	Side Road	Entrance	Storm Sewer Under ML	Storm Sewer Not Under ML
✡ PVCP	–	–	X	–	X
🚌 PEP	–	–	X	–	X
CSP	–	–	–	–	–
ACSP	–	–	X	–	–
CAP	–	–	–	–	–
RCP	X	X	X	X	X

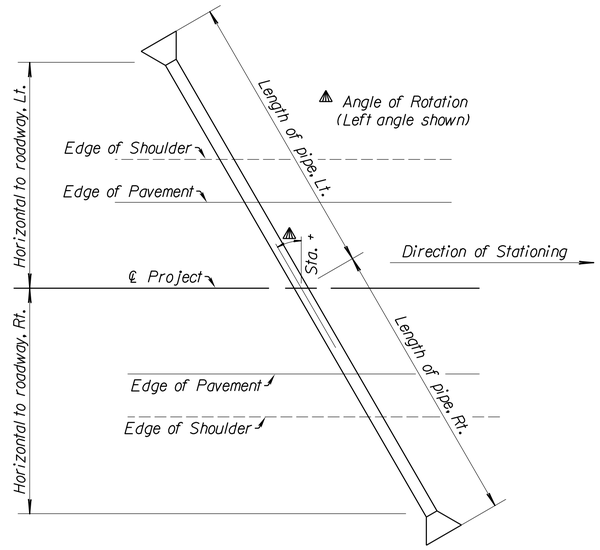
✡ *When inside diameter of pipe is 36" or less.*

⚠ *Unless otherwise specified in the plans. Some pipe types may not be allowed at a location if the fill height exceeds the maximum allowable or is less than the minimum allowable cover.*

🚌 *When inside diameter of pipe is 60" or less.*

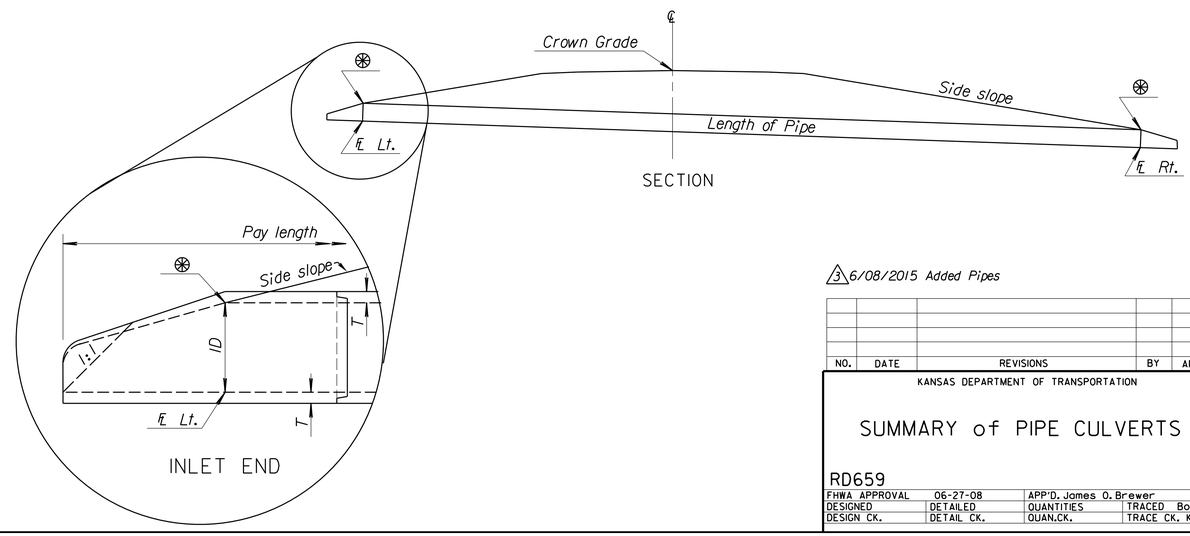
Type	ALLOWABLE END SECTIONS			
	♦ CS	♦ ACS	CA	RC
PVCP				
PEP				
RCP				
ACSP CAP CSP	Provide End Sections of the same material and coating type as the pipe.			

♦ *Type IV End Sections are only made of CS or ACS.*



PLAN
(Showing Rotation about ℄)

✡ *Design side slope to intersect inside diameter of pipe outside of Clear Zone.*



3 6/08/2015 Added Pipes

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

SUMMARY of PIPE CULVERTS

RD659

FHWA APPROVAL	06-27-08	APP'D. James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED Bowser
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. King

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-85031	2015	297	1055

Revised Plans

	SITE DATA						HYDROLOGY				HYDRAULICS	
	DRAINAGE STRUCTURE NUMBER	LOCATION STATION	DRAINAGE AREA NUMBER	DRAINAGE AREA ACREAGE	RECURRENCE INTERVAL YEARS	A.H.W. ELEVATION FEET	REMARKS	METHOD	DATA	Q	REMARKS	H.W. ELEVATION FEET	REMAKRS
	1623	560+09.53		446	50	1352.9	2-7X4 RCB FL=1346.0 L=436' FL=1344.9	HEC-HMS	PROJECT PHOTOGRAM	Q5 278		1350.0	HY8
										Q10 321		1350.4	
										Q50 421		1351.4	
	CROSSOVER A	9+68.93		2.4	50	1351.44	CROSSOVER PAVEMENT			Q50 23.0	3-18" @ 0.62%	1350.3	
							3-18" RCP CULVERT*						
3		10+39.98, 12.94' RT.		0.2	5	1350.42	CROSSOVER PAVEMENT			Q5 1.1	1-15" @ 1.07%	1348.78	
							15" RCP CULVERT*						
		11+04.14, 20.24' RT.		3.5	5	1350.20	CROSSOVER PAVEMENT			Q5 20.1	1-30" x 19" (24") @ 0.88%	1348.8	
							30" x 19" (24") RCP CULVERT*						
3		13+88.02, 27.03' RT.		5.6	5	1350.15	CROSSOVER PAVEMENT			Q5 32.1	1-30" @ 1.19%	1346.81	
							30" RCP CULVERT*						
	T1-RD	6+86.34		1.7	50	1364.1	TEMPORARY PAVEMENT			Q50 12.4	1-24" @ 7.69%	1360.2	
	RAMP BB						24" RCP CULVERT*						
	T1-RC	10505+30		1.4	50	1354.8	TEMPORARY PAVEMENT			Q50 10.4	1-24" @ 0.29%	1351.3	
	RAMP C						24" (RCP) CULVERT*						
	T3-M	555+67.67, 12.73 LT		11.6	50	1354.2	TEMPORARY PAVEMENT			Q50 46.9	3-18" @ 0.85%	1354.0	
	MAINLINE						3-18" (RCP) CULVERT*						
	T4-M	558+34.17, 132.13 LT		446	50	1354.8	TEMPORARY PAVEMENT			Q50 421	2-71"x47" @ 0.29%	1353.9	
	MAINLINE						2-71"x47" (CMMAC) CULVERT*						

*SEE SUMMARY OF PIPE CULVERTS

3 6/08/2015 Added Pipes

NO.	DATE	REVISIONS	BY	APP'D
2	10-8-90	Detailed on CADD, no change	R.J.S.	J.O.B.
1	5-29-80	Assigned standard number	W.L.H.	J.O.B.

KANSAS DEPARTMENT OF TRANSPORTATION

DRAINAGE DATA SHEET

RD653

FHWA APPROVAL 1-17-91		APP'D James O. Brewer	
DESIGNED	DETAILED	QUANTITIES	TRACED B.N.B.
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK. R.J.S.

Drawn By : __ Plotted : 6/8/2015
File : T:\35765A\Cadd\Sheets\Package1\Standards\KDOT\EK1STDRD653A.dgn