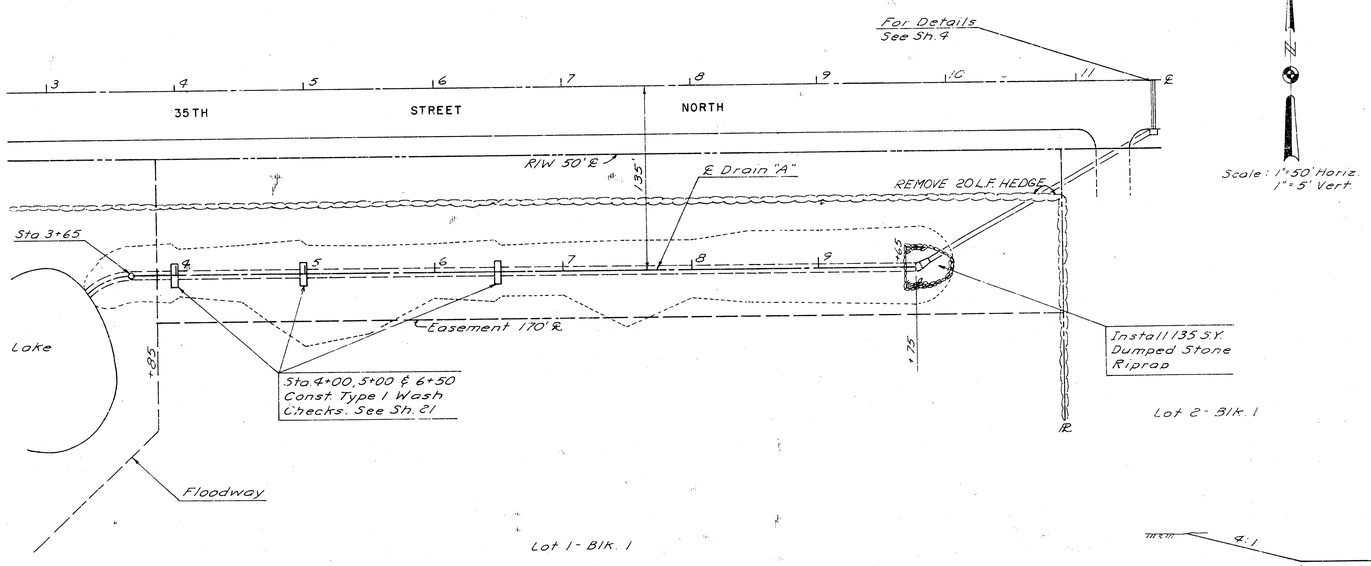
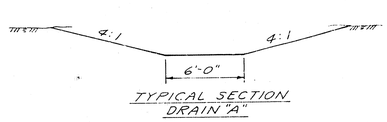
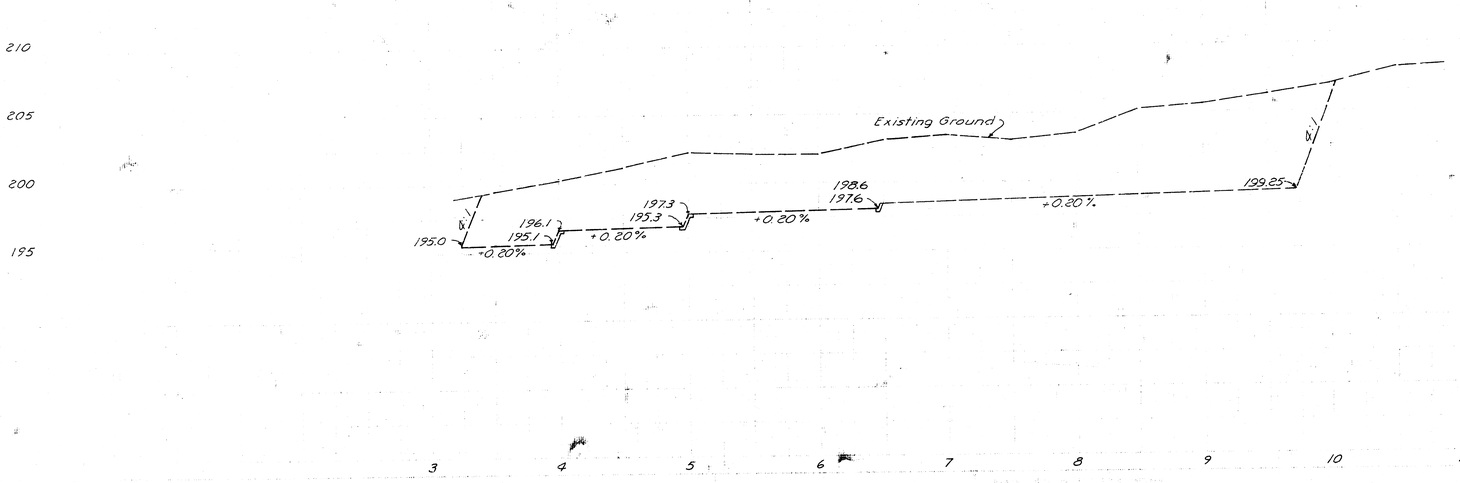
COMOTARA BUSINESS PARK
WICHITA, KS
PROJ NO 24KS
RW LINN CITY ENGINEER



Scale: 1"=50' Horiz.
1"=5' Vert.

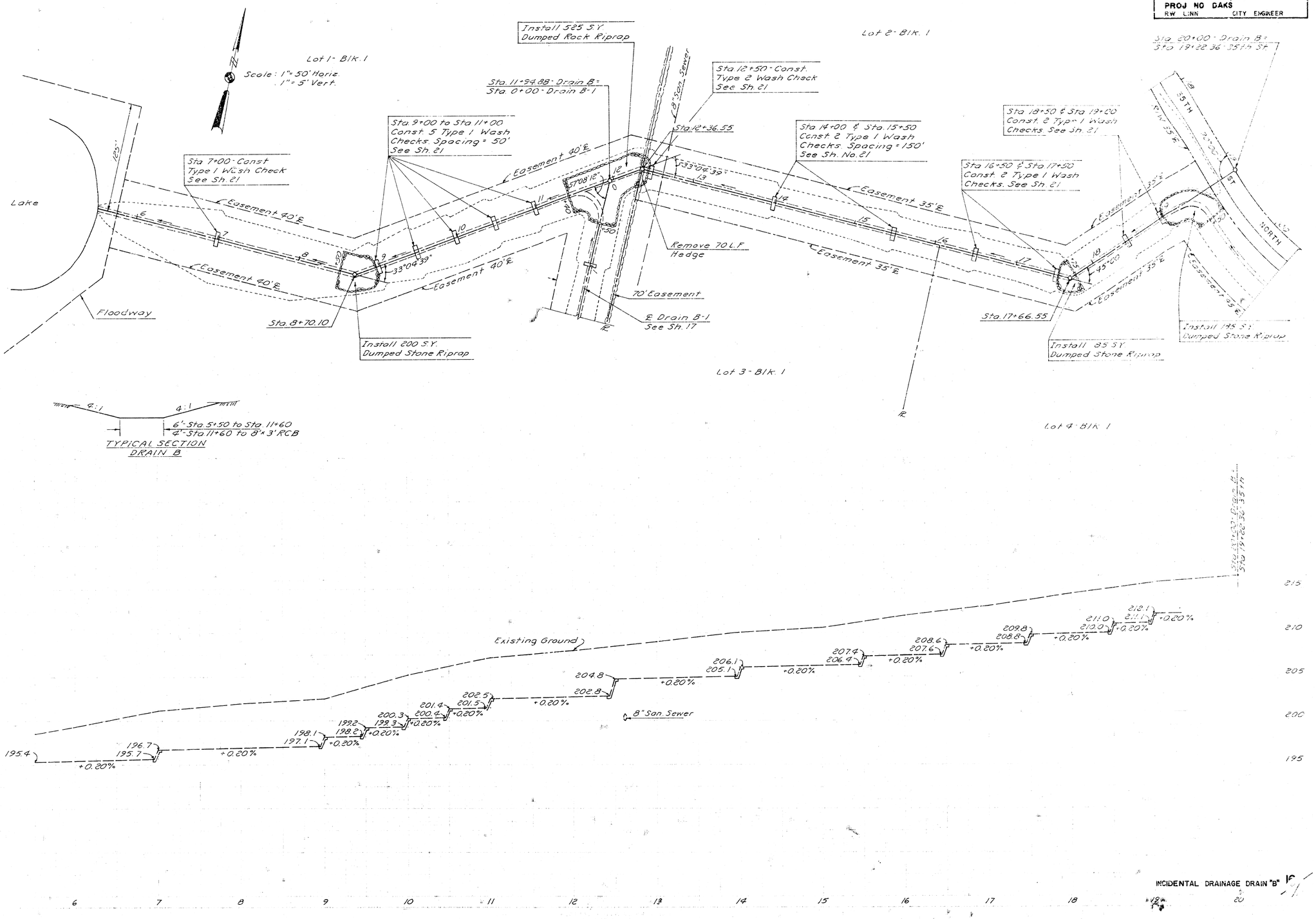


TYPICAL SECTION
DRAIN "A"



INCIDENTAL DRAINAGE DRAIN "A"

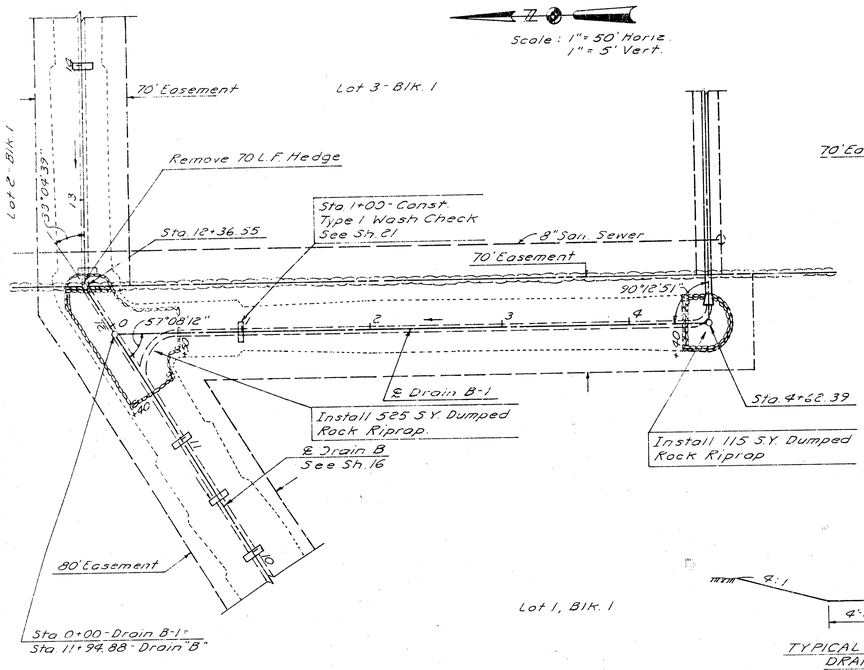
COMOTARA BUSINESS PARK
WICHITA, KS
PROJ NO DAKS
R.W. LINN CITY ENGINEER

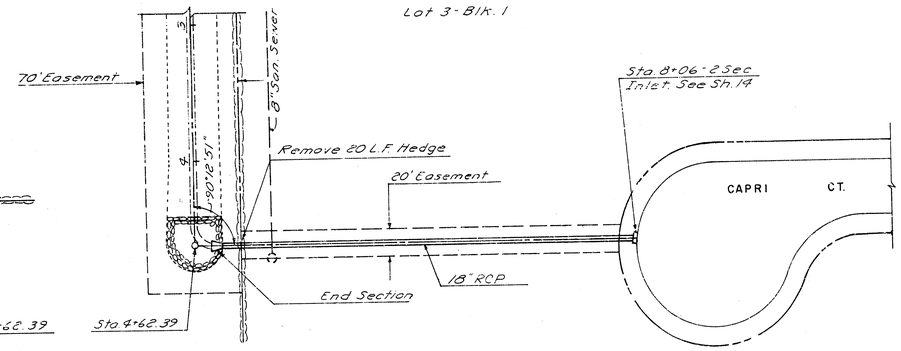


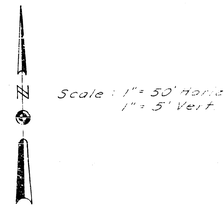
4:1 4:1
6'-Sta 5+50 to Sta. 11+60
2'-Sta 11+60 to 8'x3' RCB
TYPICAL SECTION
DRAIN B

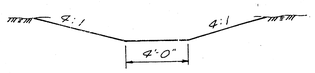
INCIDENTAL DRAINAGE DRAIN "B" 16

COMOTARA BUSINESS PARK
WICHITA, KS
PROJ NO DAKS
RW LINN CITY ENGINEER

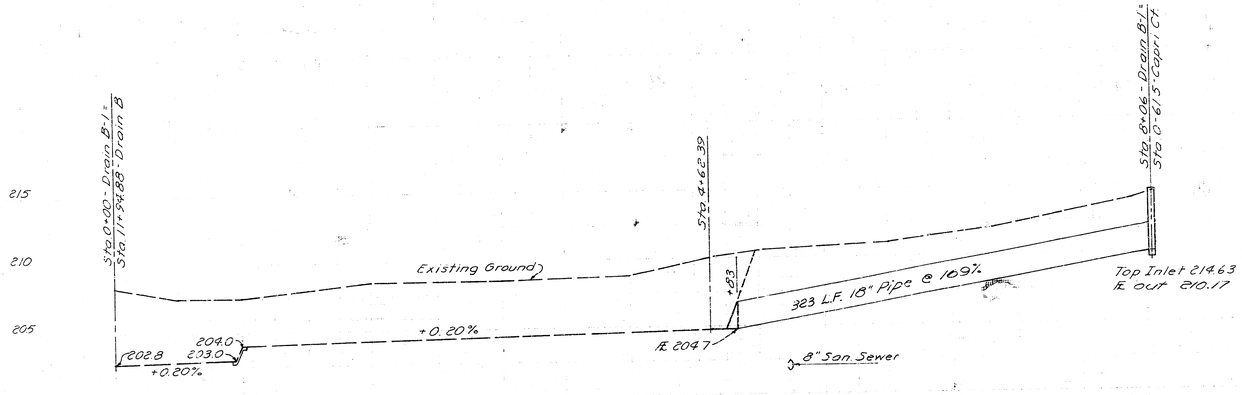






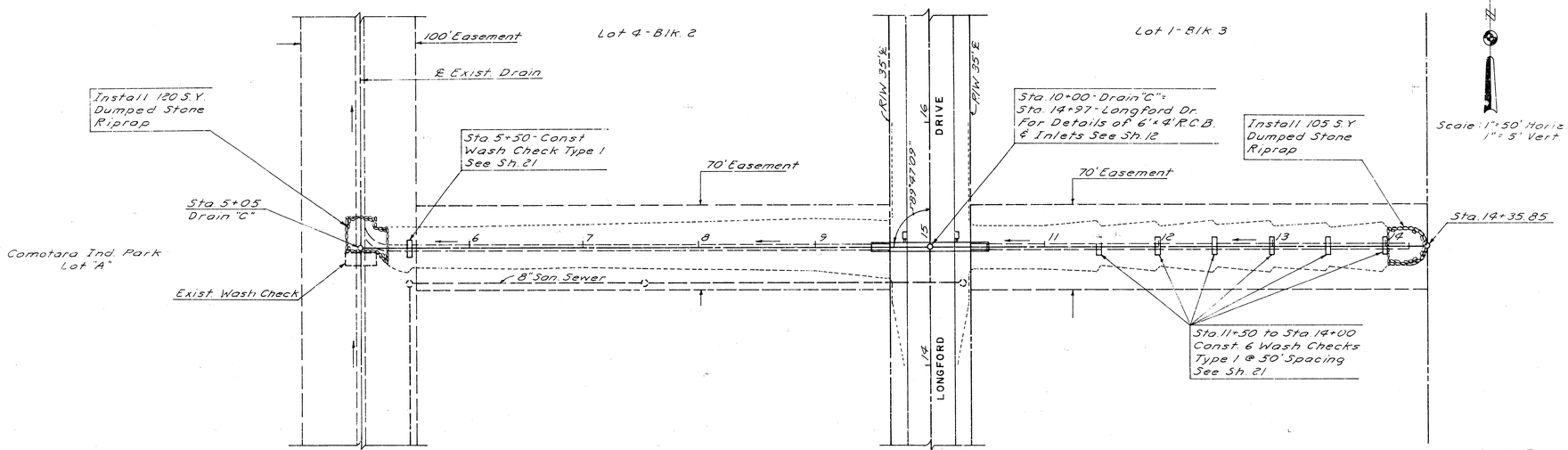


TYPICAL SECTION
DRAIN B-1

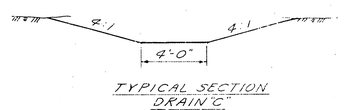


INCIDENTAL DRAINAGE DRAIN "B-1"

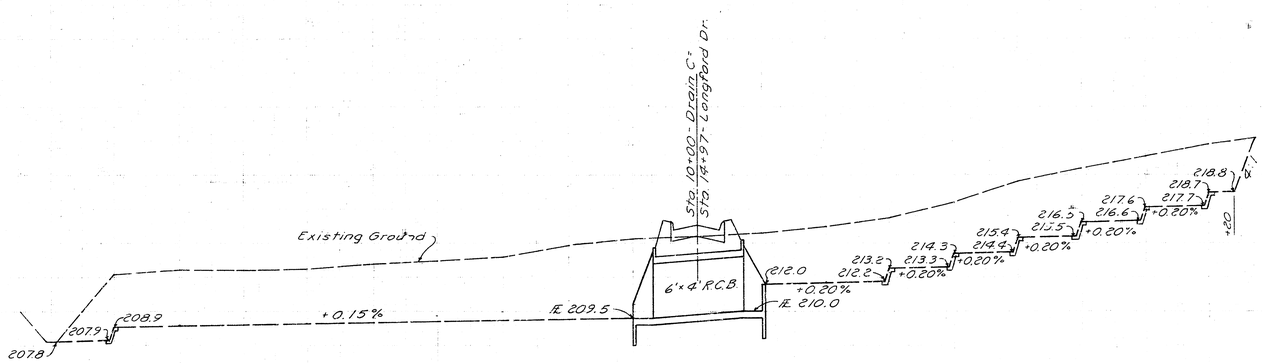
COMOTARA BUSINESS PARK
WICHITA, KS
PROJ NO DAKS
RW LINN CITY ENGINEER



Scale: 1"=50' Horiz.
1"=5' Vert

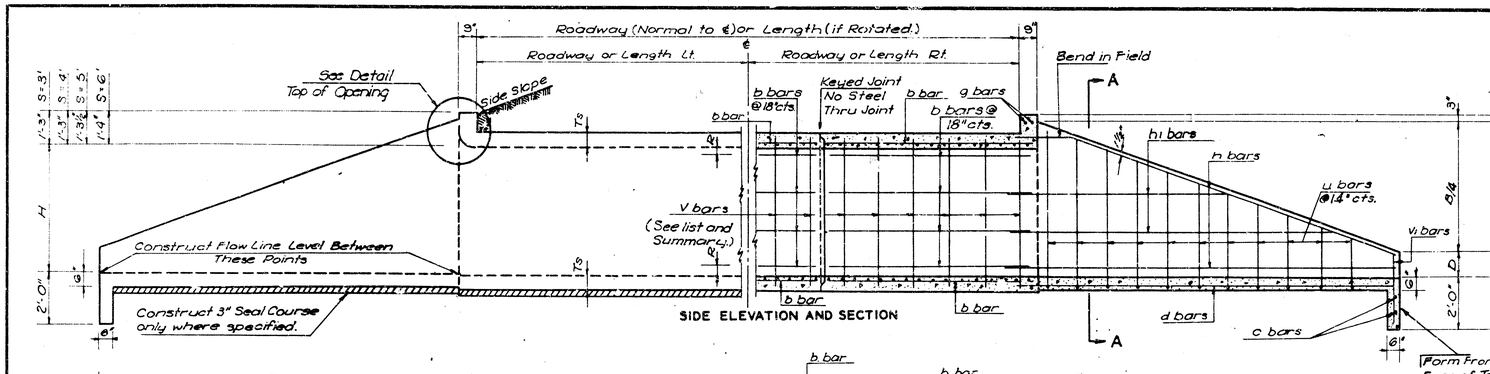


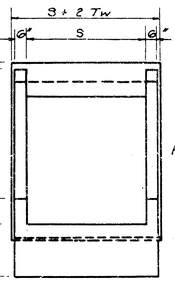
TYPICAL SECTION
DRAIN "C"

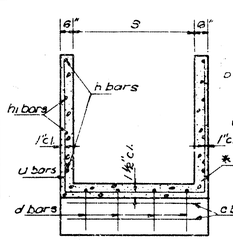


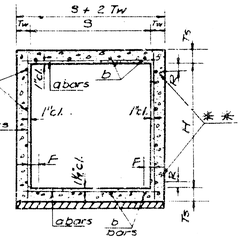
INCIDENTAL DRAINAGE DRAIN "C"

FHWA REG. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS			19	41









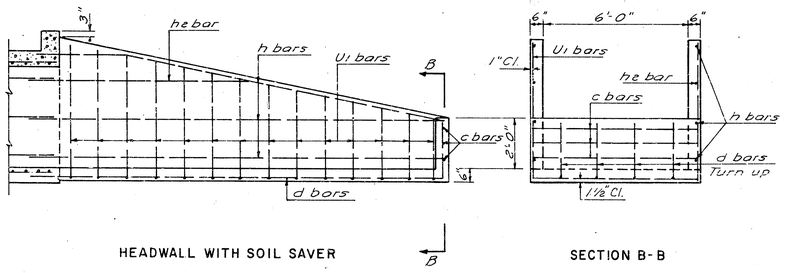
** Optional Construction Joints (May be constructed at the Contractors option.)

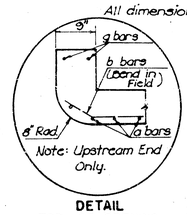
H	d bars	d1 bars	Increase this dim. by 6'-0" incr. from above length. Cut 4 Each h1 bars	Decr. this dim. by 3½" clear from above length Cut 2 Ea. U & U1 bars
2'	9'-0"	5'-8"	3'-2"	3'-10"
3'	13'-0"	7'-8"	4'-2"	4'-10"
4'	17'-0"	6'-8"	5'-2"	5'-10"
5'	21'-0"	5'-8"	6' 2"	6'-10"
6'	25'-0"	7'-8"	7'-2"	7'-10"

* 2½" for U1 bars

BENDING DIAGRAMS

All dimensions are out to out.





LIST OF BARS AND DIMENSIONS

3' x 2'	Hdwl. Conc. (Two) 2.748 C.Y.									
Letter	B	D	F	H	R	S	Ts	Tw		
Dimension	8'-0"	1'-0"	9"	2'-0"	3"	3'-0"	*	6"		
Bar	a	b	c	d	g	h	h1	u	V	V1
No.	*	*	4	4	4	8	4	14	*	4
Length	3'-9"	*	3'-10"	10'-3"	3'-9"	9'-0"	*	*	*	2'-9"

3½ x 3'	Hdwl. Conc. (Two) 4.578 C.Y.									
Letter	B	D	F	H	R	S	Ts	Tw		
Dimension	12'-0"	1'-0"	9"	3'-0"	9"	3'-6"	*	6"		
Bar	a	b	c	d	g	h	h1	u	V	V1
No.	*	*	4	4	4	8	4	20	*	4
Length	3'-9"	*	3'-10"	14'-3"	3'-9"	13'-2"	*	*	*	2'-9"

4' x 2'	Hdwl. Conc. (Two) 3.139 C.Y.									
Letter	B	D	F	H	R	S	Ts	Tw		
Dimension	8'-0"	1'-0"	6"	2'-0"	3"	4'-0"	*	6"		
Bar	a	b	c	d	g	h	h1	u	V	V1
No.	*	*	4	6	4	8	8	14	*	4
Length	4'-9"	*	4'-10"	10'-3"	4'-9"	9'-0"	*	*	*	2'-9"

4' x 3'	Hdwl. Conc. (Two) 4.917 C.Y.									
Letter	B	D	F	H	R	S	Ts	Tw		
Dimension	12'-0"	1'-0"	6"	3'-0"	9"	4'-0"	*	6"		
Bar	a	b	c	d	g	h	h1	u	V	V1
No.	*	*	4	6	4	8	4	20	*	4
Length	4'-9"	*	4'-10"	14'-3"	4'-9"	13'-2"	*	*	*	2'-9"

4' x 4'	Hdwl. Conc. (Two) 6.991 C.Y.									
Letter	B	D	F	H	R	S	Ts	Tw		
Dimension	16'-0"	1'-0"	6"	4'-0"	6"	4'-0"	*	6"		
Bar	a	b	c	d	g	h	h1	u	V	V1
No.	*	*	4	6	4	8	8	28	*	4
Length	4'-9"	*	4'-10"	18'-3"	4'-9"	17'-4"	*	*	*	2'-9"

5' x 2'	Hdwl. Conc. (Two) 3.553 C.Y.									
Letter	B	D	F	H	R	S	Ts	Tw		
Dimension	8'-0"	1'-0½"	3"	2'-0"	3"	5'-0"	*	6"		
Bar	a	b	c	d	g	h	h1	u	V	V1
No.	*	*	4	8	4	8	4	14	*	4
Length	5'-9"	*	5'-10"	10'-3"	5'-9"	9'-0"	*	*	*	2'-9"

5' x 3'	Hdwl. Conc. (Two) 5.421 C.Y.									
Letter	B	D	F	H	R	S	Ts	Tw		
Dimension	12'-0"	1'-0½"	3"	3'-0"	9"	5'-0"	*	6"		
Bar	a	b	c	d	g	h	h1	u	V	V1
No.	*	*	4	8	4	8	4	20	*	4
Length	5'-9"	*	5'-10"	14'-3"	5'-9"	13'-2"	*	*	*	2'-9"

* See Culvert Summary for these values.

5' x 4'	Hdwl. Conc. (Two) 7.726 C.Y.									
Letter	B	D	F	H	R	S	Ts	Tw		
Dimension	16'-0"	1'-0½"	3"	4'-0"	6"	5'-0"	*	6"		
Bar	a	b	c	d	g	h	h1	u	V	V1
No.	*	*	4	8	4	8	8	28	*	4
Length	5'-9"	*	5'-10"	18'-3"	5'-9"	17'-4"	*	*	*	2'-9"

5' x 5'	Hdwl. Conc. (Two) 10.257 C.Y.									
Letter	B	D	F	H	R	S	Ts	Tw		
Dimension	20'-0"	1'-0½"	3"	5'-0"	3"	5'-0"	*	*		
Bar	a	b	c	d	g	h	h1	u	V	V1
No.	*	*	4	8	4	8	12	34	*	4
Length	5'-9"	*	5'-10"	22'-3"	5'-9"	21'-6"	*	*	*	2'-9"

6' x 2'	Hdwl. Conc. (Two) 3.968 C.Y.									
Letter	B	D	F	H	R	S	Ts	Tw		
Dimension	8'-0"	1'-1"	9"	2'-0"	3"	6'-0"	*	6"		
Bar	a	b	c	d	g	h	h1	u	V	V1
No.	*	*	4	8	4	8	4	14	*	4
Length	6'-9"	*	6'-10"	10'-3"	6'-9"	9'-0"	*	*	*	2'-9"

6' x 3'	Hdwl. Conc. (Two) 6.067 C.Y.									
Letter	B	D	F	H	R	S	Ts	Tw		
Dimension	12'-0"	1'-1"	9"	3'-0"	9"	6'-0"	*	6"		
Bar	a	b	c	d	g	h	h1	u	V	V1
No.	*	*	4	8	4	8	4	20	*	4
Length	6'-9"	*	6'-10"	14'-3"	6'-9"	13'-2"	*	*	*	2'-9"

14+97-Longford-70'x 6' x 4'	Hdwl. Conc. (Two) 8.763 C.Y.											
Letter	B	D	F	H	R	S	Ts	Tw				
Dimension	16'-0"	1'-1"	9"	4'-0"	6"	6'-0"	*	6"				
Bar	a	b	c	d	g	h	h1	u	V	V1	he	U1
No.	*	*	5	8	4	10	4	14	*	4	2	14
Length	6'-9"	*	6'-10"	18'-3"	6'-9"	17'-4"	*	*	*	2'-9"	10'-0"	*

8' x 5'	Hdwl. Conc. (Two) 11.153 C.Y.									
Letter	B	D	F	H	R	S	Ts	Tw		
Dimension	20'-0"	1'-1"	9"	5'-0"	3"	6'-0"	*	*		
Bar	a	b	c	d	g	h	h1	u	V	V1
No.	*	*	4	8	4	8	12	34	*	4
Length	6'-9"	*	6'-10"	22'-3"	6'-9"	21'-6"	*	*	*	2'-9"

8' x 6'	Hdwl. Conc. (Two) 14.144 C.Y.									
Letter	B	D	F	H	R	S	Ts	Tw		
Dimension	24'-0"	1'-1"	9"	6'-0"	9"	6'-0"	*	*		
Bar	a	b	c	d	g	h	h1	u	V	V1
No.	*	*	4	8	4	8	12	42	*	4
Length	6'-10"	*	6'-10"	26'-3"	6'-10"	25'-8"	*	*	*	2'-9"

* See Bending Diagrams for these lengths.

CULVERT SUMMARY

Station	Size	Crown Grade Elev.	Flow Line Lt.	Flow Line Rt.	Horizontal Roadway Lt.	Horizontal Roadway Rt.	Degree of Rotation	Length along Box Lt.	Length along Box Rt.	No. of Sect.	Section Length	Ts	Tw	"a" Bars No.	"a" Bars Size	"a" Bars Spac.	"b" Bars No.	"b" Bars Length	"V" Bars No.	"V" Bars Size	"V" Bars Spac.	"V" Bars Length	Design Fill Ft.	Class A Conc. Cu. Yds	Reinf. Steel Lbs
14+97 (Longford Dr.)	6' x 4'	216.35	209.5	210.0	34'-3"	34'-3"	90°	34'-3"	34'-3"	2	35'-0"	7"	6"	280	5	6"	28	34'-9"	96	4	18"	4'-11"	10'	*67.20	3210
																							* Incl. 6.61 Cu. Yds for Seal Course		

NO.	DATE	REVISIONS	BY	APP'D.

STATE HIGHWAY COMMISSION OF KANSAS

R.C. BOX CULVERT 3'-4'-5' & 6' SPANS

STD. NO. 310 A

SHEET NO. OF SCALE:

DESIGNED BY Richard DATE 10-20 DETAILED BY Schwartz TRACED BY: P

CHECKED BY Hecht APPROVED BY K. Brancaster DATE 12-

19/41

GENERAL NOTES

LOADING: H-20-44 AASHO Specifications, Edition of 1969.

UNIT STRESSES: fc = 1200 psi; fc' = 3000 psi; fs = 20,000 psi.

Class A Concrete shall be used thruout. Bevel all exposed edges with a ¾" triangular molding, unless otherwise noted.

All dimensions are to center-line of bar unless otherwise noted.

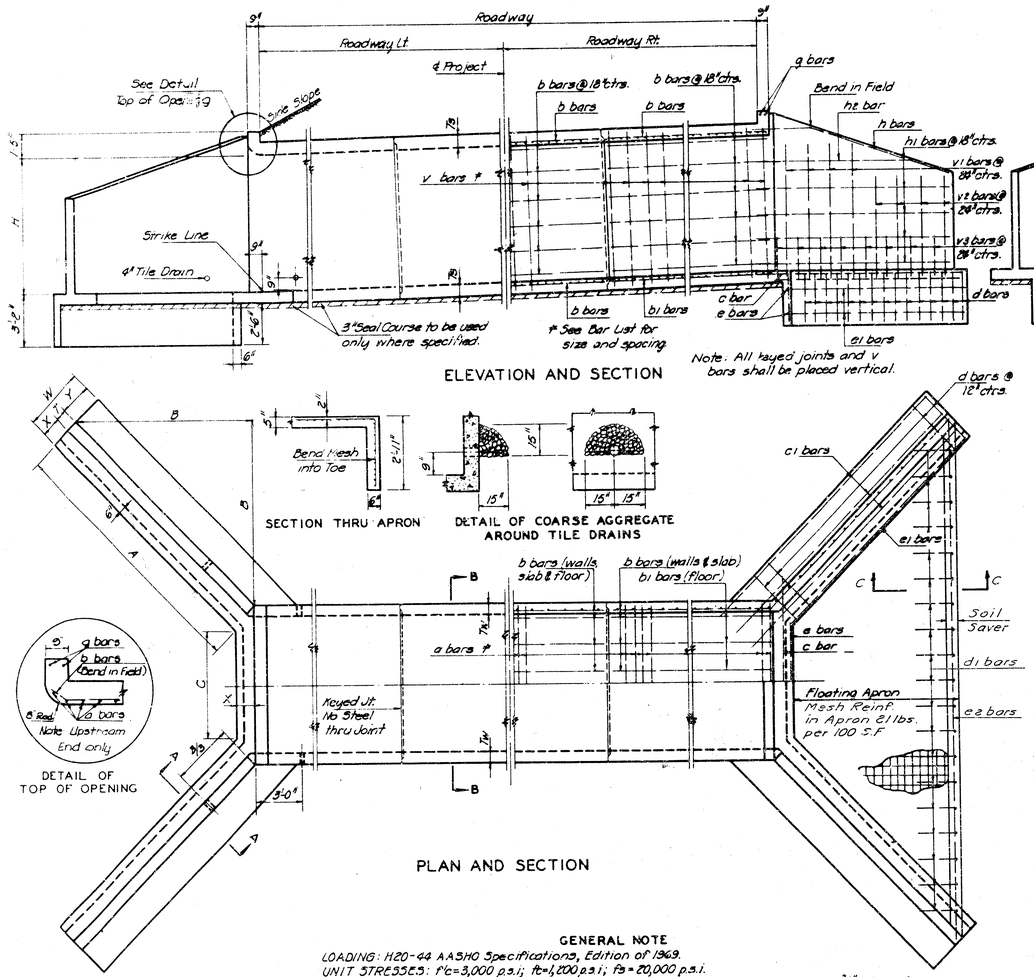
Keyed joint shall be provided as shown on 3', 4', 5' and 6' span culverts which are 40' or more in box length. The number of joints shall be as follows: 40' to 80' - 1 joint; 80' to 120' 2 joints; 120' to 160' - 3 joints, etc.

Seal Course consisting of 3" of Class A Concrete shall be constructed only where specified on the Plans or by the Engineer. No reinforcing shall be placed until Seal Course has gained sufficient strength to permit working upon it without injury. Payment for additional quantities, resulting from including Seal Course as a change in the original Plans, shall be made at the unit price bid for the various items involved.

See Standard No. 671.1 (Woven Wire) or Standard No. 672.1 (Barbed Wire) for details of attachment to culvert wings.

Where Soil Saver is specified, rotate d bars, omit toewall and construct wing wall on upstream end of culvert, bend V1 bars into floor.

F.H.W.A. REGION NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
7	KANSAS			20	41



LIST OF BARS AND DIMENSIONS

Capri Lane - 20+75 — 8'x3'x70'

Apron Steel (One) 15 Lbs | Seal Course 5.92 C.Y. | Howl. Concrete (One) 6.166 C.Y.
Apron Concrete (One) 1.1 C.Y. | Apron Seal Course 0.66 C.Y. | Concrete for Ft. of Box 0.55555 C.Y.

Letter	A	B	C	H	R	T	Ts	Tw	W	X	Y	Bar	a	v
Dimension	8'-3"	5'-10"	8'-9 1/8"	3'-0"	3"	6"	8"	6"	2'-6"	1'-0"	1'-0"	Space	6 1/2"	19"

Bar	a		b	b1	c	c1	d	e	e1	g	h	h1	he	v	v1	v2	v3	d1	e2
Number	260		32	12	2	12	12	4	8	4	8	8	-	96	8	12	-	18	3
Size	#6		#4	#4	#4	#4	#4	#4	#4	#4	#5	#5	#6	#6	#4	#4	#4	#4	#4
Length	8'-9"		34'-9"	38'-7"	11'-0"	10'-0"	5'-0"	9'-0"	8'-3"	9'-5"	9'-5"	9'-6"			4'-1"	5'-0"	3'-10"		3'-8"	13'-2"

8'x4'x

Apron Steel (One) 34 Lbs | Seal Course C.Y. | Howl. Concrete (Two) 9.117 C.Y.
Apron Concrete (One) 2.553 C.Y. | Apron Seal Course C.Y. | Concrete Per Ft. of Box C.Y.

Letter	A	B	C	H	R	T	Ts	Tw	W	X	Y	Bar	a	v
Dimension	10'-3"	7'-5"	5'-9 1/2"	4'-0"	6"	6"			2'-6"	1'-0"	1'-0"	Space		

Bar	a		b	b1	c	c1	d	e	e1	g	h	h1	he	v	v1	v2
Number				12	2	12	44	4	8	4	8	8	4		12	12
Size			#4	#4	#4	#4	#4	#4	#4	#4	#5	#5	#4	#4	#4	#4	#4
Length				11'-0"	12'-5"	5'-2"	9'-0"	10'-3"	8'-9"	11'-5"	11'-2"	5'-8"			5'-11"	4'-8"

8'x5'x

Apron Steel (One) 43 Lbs | Seal Course C.Y. | Howl. Concrete (Two) 11.662 C.Y.
Apron Concrete (One) 3.181 C.Y. | Apron Seal Course C.Y. | Concrete Per Ft. of Box C.Y.

Letter	A	B	C	H	R	T	Ts	Tw	W	X	Y	Bar	a	v
Dimension	12'-5"	9'-8"	8'-9 1/2"	5'-0"	3"	6"			2'-9"	1'-0"	1'-3"	Space		

Bar	a		b	b1	c	c1	d	e	e1	g	h	h1	he	v	v1	v2
Number				12	2	12	52	4	8	4	8	12	4		16	12
Size			#4	#4	#4	#4	#4	#4	#4	#4	#5	#5	#4	#4	#4	#4	#4
Length				11'-0"	14'-5"	5'-3"	9'-0"	12'-3"	8'-9"	15'-5"	15'-6"	7'-6"			15'-6"	5'-8"

8'x6'x

Apron Steel (One) 52 Lbs | Seal Course C.Y. | Howl. Concrete (Two) 15.079 C.Y.
Apron Concrete (One) 3.873 C.Y. | Apron Seal Course C.Y. | Concrete Per Ft. of Box C.Y.

Letter	A	B	C	H	R	T	Ts	Tw	W	X	Y	Bar	a	v
Dimension	14'-3"	10'-0"	8'-7 1/8"	6'-0"	9"	6"			3'-0"	1'-0"	1'-5"	Space		

Bar	a		b	b1	c	c1	d	e	e1	g	h	h1	he	v	v1	v2	v3
Number				12	2	12	60	4	8	4	8	12	4		20	12	20
Size			#4	#4	#4	#4	#4	#4	#4	#4	#5	#5	#4	#4	#4	#4	#4
Length				11'-0"	17'-8"	5'-8"	9'-0"	11'-3"	8'-10"	16'-8"	15'-5"	10'-0"			17'-0"	5'-3"	5'-6"

8'x7'x

Apron Steel (One) 63 Lbs | Seal Course C.Y. | Howl. Concrete (Two) 19.439 C.Y.
Apron Concrete (One) 4.439 C.Y. | Apron Seal Course C.Y. | Concrete Per Ft. of Box C.Y.

Letter	A	B	C	H	R	T	Ts	Tw	W	X	Y	Bar	a	v
Dimension	16'-3"	11'-5 7/8"	9'-6 1/2"	7'-0"	6"	7"			3'-3"	1'-0"	1'-0"	Space		

Bar	a		b	b1	c	c1	d	e	e1	g	h	h1	he	v	v1	v2	v3
Number				12	2	12	68	4	8	4	8	16	4		20	16	32
Size			#4	#4	#4	#4	#5	#4	#5	#5	#5	#4	#4		#4	#4	#4
Length				11'-0"	15'-6"	6'-1"	8'-11"	16'-5"	8'-11"	18'-0"	17'-7"	8'-10"			8'-1"	6'-5"	3'-9"

8'x8'x

Apron Steel (One) 74 Lbs | Seal Course C.Y. | Howl. Concrete (Two) 24.583 C.Y.
Apron Concrete (One) 5.408 C.Y. | Apron Seal Course C.Y. | Concrete Per Ft. of Box C.Y.

Letter	A	B	C	H	R	T	Ts	Tw	W	X	Y	Bar	a	v
Dimension	18'-3"	12'-10 5/8"	10'-5 3/4"	8'-0"	3"	7 7/8"			3'-10"	1'-2"	2'-0 3/8"	Space		

Bar	a		b	b1	c	c1	d	e	e1	g	h	h1	he	v	v1	v2	v3
Number				12	2	12	76	4	8	4	8	16	4		20	20	36
Size			#4	#4	#4	#4	#4	#4	#4	#4	#5	#5	#4	#4	#4	#4	#4
Length				11'-0"	22'-0"	6'-6"	8'-10"	18'-3"	9'-0"	20'-3"	19'-8"	8'-3"			18'-1"	17'-0"	6'-0"

8'x

Apron Steel (One) Lbs | Seal Course C.Y. | Howl. Concrete (Two) C.Y.
Apron Concrete (One) C.Y. | Apron Seal Course C.Y. | Concrete Per Ft. of Box C.Y.

Letter	A	B	C	H	R	T	Ts	Tw	W	X	Y	Bar	a	v
Dimension												Space		

Bar	a		b	b1	c	c1	d	e	e1	g	h	h1	he	v	v1	v2	v3
Number				12	2	12		4	8	4	8						
Size			#4	#4	#4	#4	#4	#4	#4	#5	#5	#4	#4		#4	#4	#4
Length				11'-0"													

CULVERT SUMMARY

Station	Size	Crown Gr. Elev.	Flowline Elev. Lt.	Flowline Elev. Rt.	Rdwy Horiz. Lt.	Rdwy Horiz. Rt.	Lgth along Box Lt.	Lgth along Box Rt.	Sections No.	Sections Length	Apron	Soil Saver	Design Fill Ft.	C.I.A. Conc. Cu Yds	Reinf. Steel Lbs.
Capri Lane															
20+75	8'x3'x70'	218.43	213.0	212.5	34'-3"	34'-3"	34'-3"	34'-3"	2	35'-0"	1.10	0.69	8'	*97.69	5260
												* Includes Apron, Seal Course, Soil Saver & Headwalls			

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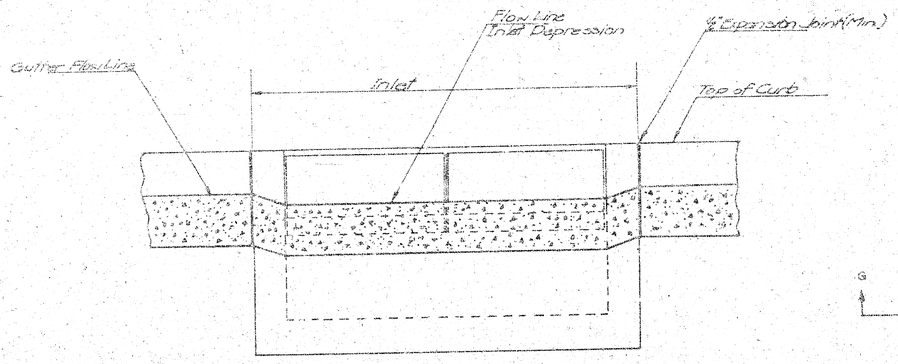
NO	DATE	REVISIONS	BY	APP'D
3	9-10-73	Wire Reinf. Mesh Changed to W1.4 W.L.H.	K.G.L.	
2	10-27-72	Wire Size AASHO Des. M32-72	W.L.H.	K.G.L.
1	5-15-72	Removed 12' Uniform Bbl. Sections	W.L.H.	K.G.L.

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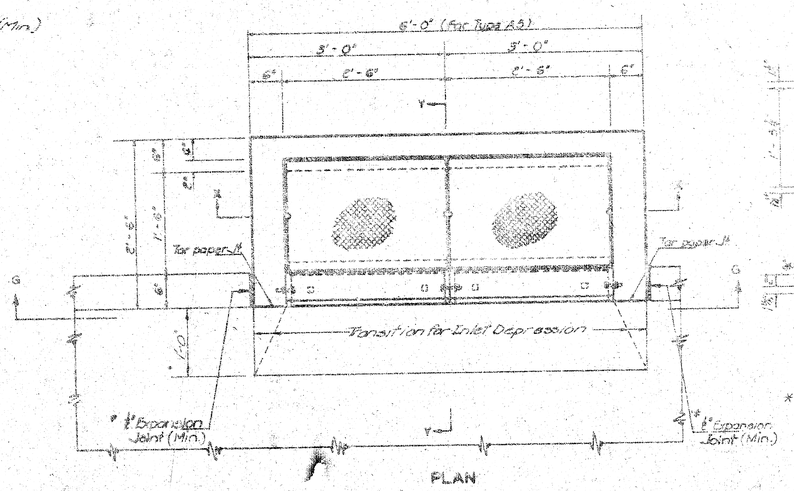
R.C. BOX CULVERT 8 FT. SPAN

STD. NO. 315.2

SHEET NO.	OF	SCALE		APP'D K. D. Marcus
DESIGNED Paynton		DETAILED Richards	QUANTITIES Richards	TRACED Booth
DESIGN CK Latham		DETAIL CK Schmarts	QUAN. CK Clenon	TRACE CK Hecht

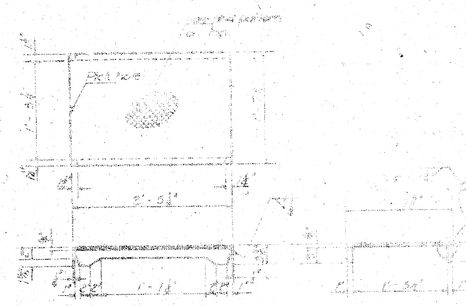


SECTION G-G



PLAN

* Hot or cold poured joint sealing compound, or Premoulded Exp. Jt. Filler (Non-extruding, Type B).

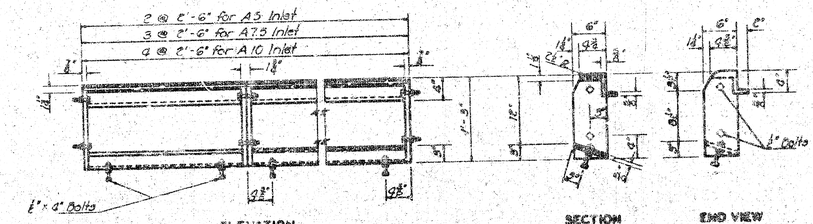


* STRUCTURAL STEEL COVER PLATE

Weight 93 Lbs Each

** At the contractors option, the supports on the out side may be those of 2" Stock with the "Tee" portions welded to the I steel bars. The weld shall be 5/16" full length, each side and ground smooth on the out side.

* Nonskid steel floor plate (Commercial grade), welded to steel (ASTM A-36, A 242 or A 441) bars.

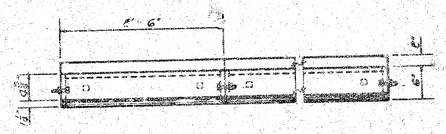


ELEVATION

TYPES A5-1, A7.5-1 & A10-1

SECTION END VIEW

TYPES A5-1 A7.5-1 & A10-1



PLAN

TYPES A5-1, A7.5-1 & A10-1

Weight 129 Lbs. per 2'-6" section

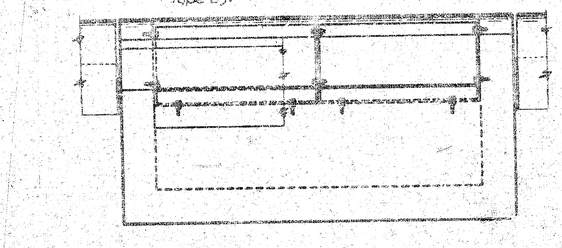
DETAILS OF CURB CASTING (IRON)

NOTE: All bolts and nuts shall be galvanized and meet the requirements of sub-section 1006.14 of the Standard Specifications.

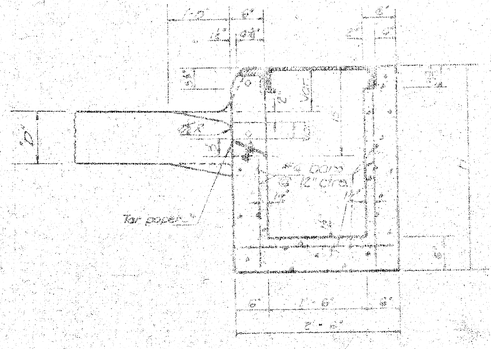
All weights of castings are calculated weights with no allowance for fillets, overruns, anchor bars and bolts.

Weights of cast iron as shown on this sheet are minimum. Heavier weights of cast iron may be used, but payment for cast iron shall be made on the weight as shown on this sheet.

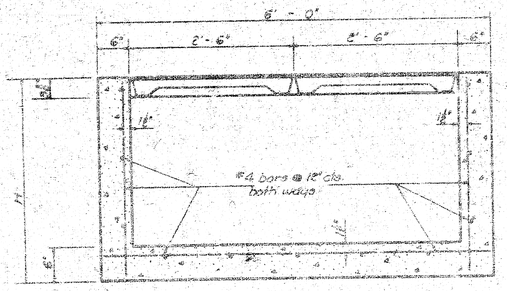
Minor variations of design will be permitted on castings.



FRONT ELEVATION



SECTION Y-Y



SECTION X-X

NOTE: See the sheet for shaping of depression at inlet. This work shall be paid for as "Concrete Pavement".

Floor of inlet shall be shaped to conform in shape to "EXAMPLES" on Reinforced Concrete Manhole Standard No. 253.

Concrete used for shaping shall be unreinforced Class 'A' concrete.

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

Note: All castings shall be gray iron and shall comply with ASTM A-48 Class 25S.

Note: Use Class A Concrete throughout. Bevel all exposed edges with a ¾" triangular moulding.

Reinforcing bars shall be bent around pipe.

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

At the contractors option Class A Concrete (AE) may be used throughout, but payment shall be made as Cu Yds of Class A Concrete miscellaneous.

A small opening may be required in the back of the inlet to drain a low area, if ordered by the Engineer. Reinforcing bars will extend through the opening. No deduction in concrete quantities will be made for this opening.

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

Structural steel cover plate and all exposed cast iron surfaces shall be painted either in the shop or in the field with one coat of a zinc dust paint, followed by two field coats of aluminum paint.

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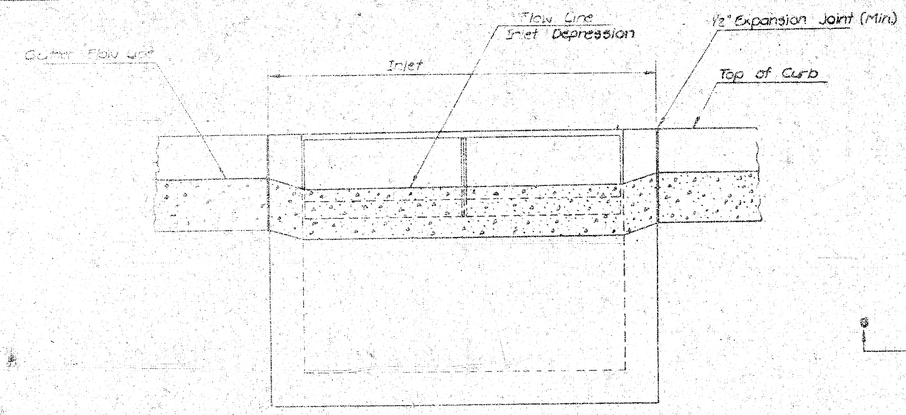
SPECIAL

TYPE 'A' CURB INLET

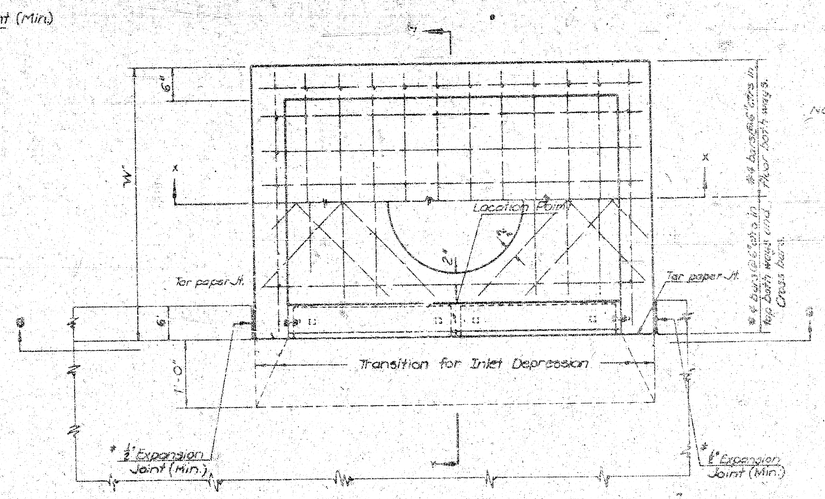
22/41

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REVISIONS	DATE	APPD. BY	APP. BY	SHEET NO.	TOTAL SHEETS
				23	41



SECTION G-G

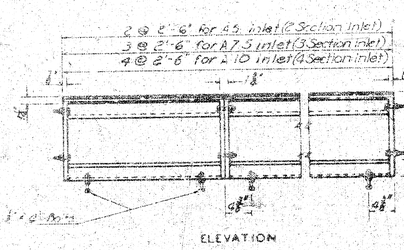


PLAN

* Hot or cold poured joint sealing compound, or Premoulded Exp. Jt. Filler (Non-extruding, Type B).

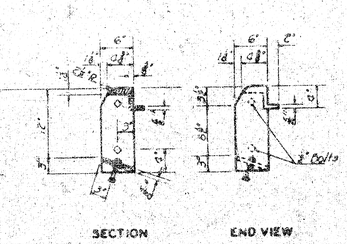
Note: Use Class A concrete throughout.
Bevel all exposed edges with 1" triangular moulding.
Reinforcing bars shall be continuous around pipe.
No deductions in concrete quantities shall be made for pipe openings.

At the contractor's option, Class A Concrete may be used throughout, but payment shall be made as for the Class A Concrete required.
A small opening may be required in the back of the inlet to drain a low area, if directed by the Engineer. Reinforcing bars will extend through the opening. No deduction in concrete quantities will be made for this opening.
When so ordered by the Engineer the floor of the inlet shall be sloped slightly to conform with the ground line or other conditions.
All exposed cast iron surfaces shall be painted either in the shop or in the field with one coat of a zinc dust paint, followed by two field coats of aluminum paint.
No substitutions of design will be permitted on castings.



ELEVATION

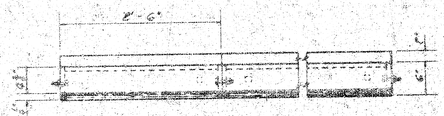
TYPE A5-1



SECTION

TYPE A5-1

END VIEW

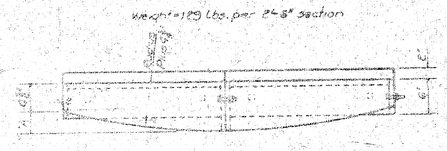


PLAN

TYPE A5-1

Weight = 129 Lbs. per 8'-6" section

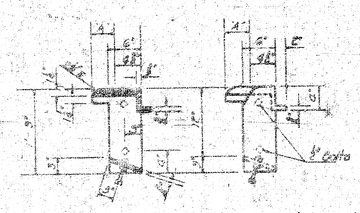
NOTE: All bolts and nuts shall be galvanized and meet the requirements of sub-section U15-2 of the 1966 Specifications.



PLAN

TYPE A5-2 SHOWN

Weight - See Tables below



SECTION AT CENTER

TYPE A5-2

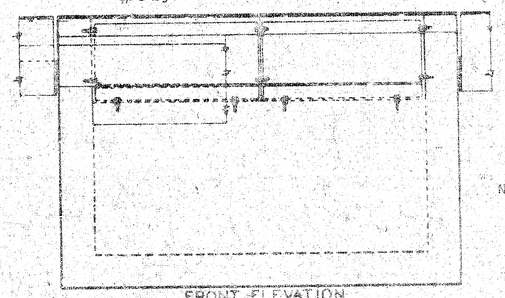
END VIEW

DETAILS OF CURB CASTING (IRON)

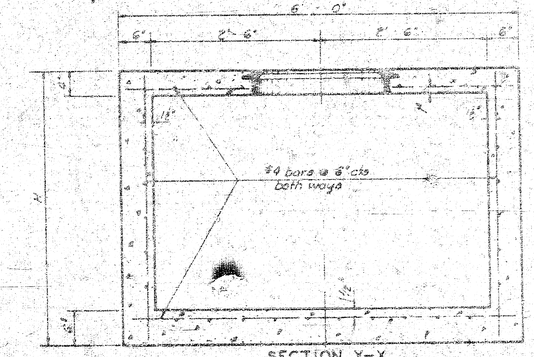
FOR TYPE A5-2 CASTINGS			
Radius	20'	25'	30'
W	1'8"	1'9"	1'10"
Weight - Lbs.	288	275	274

NOTE: Weights given in boxes above are total weights for Curb Castings only.
All weights of castings are calculated weights with no allowance for fillets, overruns, anchor bars and bolts.

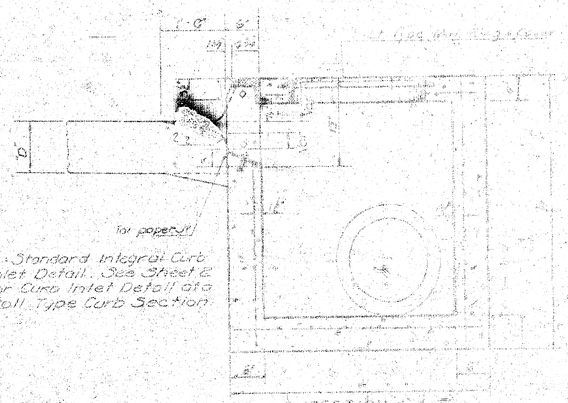
Note: All castings shall be gray iron and shall comply with ASTM A-48 Class 25B.



FRONT ELEVATION



SECTION X-X



NOTE - Standard Integral Curb Inlet Detail. See Sheet 2 for Curb Inlet Detail at a Roll Type Curb Section

SECTION Y-Y

NOTE - See "Standard Inlet" for Concrete Pads and Auxiliary Details for shaping gutter approaching and leaving inlets. This shaping will be required on A5 inlets, unless otherwise noted on the plans. This work will be paid for as follows: where combined curb & gutter is used the entire length of the shaped gutter and the curb, together with the concrete under the gutter casting, shall be paid for as "Combined Curb & Gutter, Type [ ]" where gutter, pavement and edge curb is used the shaped gutter, cradle and the edge curb together with the concrete under the gutter casting, shall be paid for as "Concrete Pavement" and "Straight Curb".
See Standard Sheet No. 241.01 for Details of Manhole Cover and Ring and Cast Iron Step.
Floor of inlet manhole shall be shaped as shown in "EXAMPLES" on Reinforced Concrete Manhole Sheet No. 450. Concrete used for shaping shall be considered in the concrete quantities and no addition in concrete quantities shall be made for shaping floor of Inlet Manhole.

NO.	DATE	REVISIONS
1	3-1-68	Revised Notes
2	1-1-69	Revised Notes

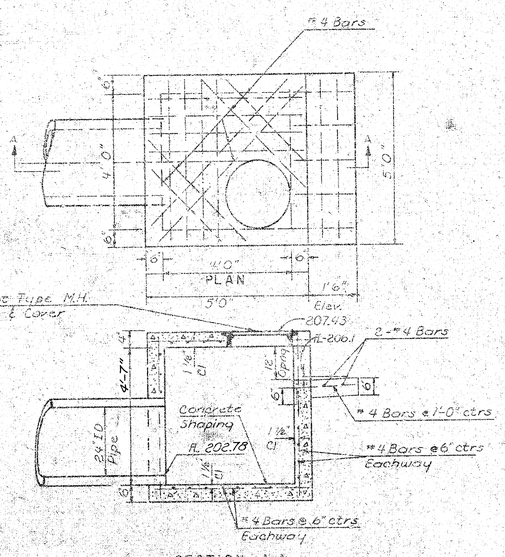
STATE HIGHWAY COMMISSION OF KANSAS

SPECIAL TYPE "A" COMBINED INLET-MANHOLE

DESIGNED BY ... DETAILED BY ... CHECKED BY ... QUANTITIES BY ... CHECKED BY ...

23/41

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SECTION A-A

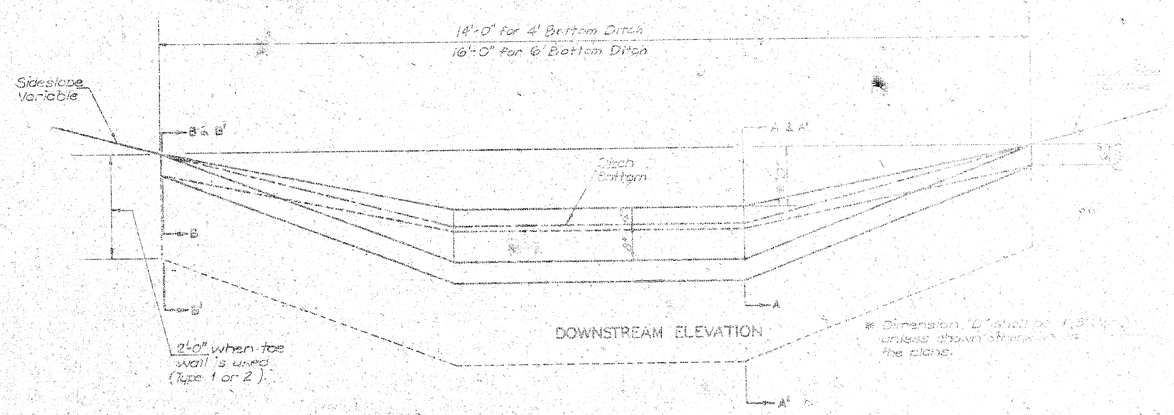
SPECIAL DITCH INLET

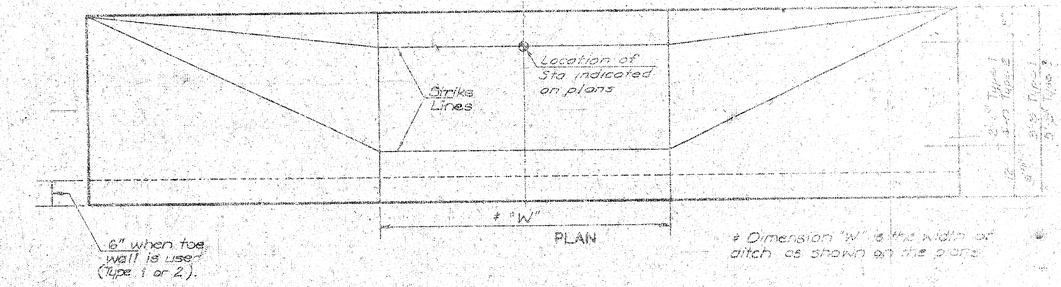
Scale: 1/2"=1'0"

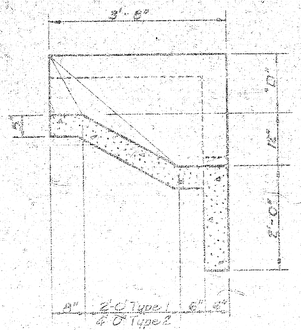


SPACING DIAGRAM

Same for each type.



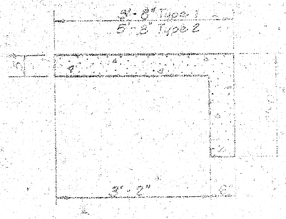




SECTION A-A'

With Toe Wall

TYPE 1 or 2



SECTION B-B'

With Toe Wall

TYPE 1 or 2

STATE HIGHWAY COMMISSION OF KANSAS

WASH CHECKS TYPE 1 & 2

SPECIAL DITCH INLET

21/33

FILMED FROM THE BEST

35th St. North - Sta. 11+88 to Sta. 16 - 79.18 - Lt. Curb
Δ = 54°22'46" R = To BK.Cb. T = 281.16' L = 519.45'

Curve Data Based on 547.31'R. Δ/2 = 27°11'23"					
℄ Sta.	℄ Arc	Chord Length 7.5 Lt. B.C.		Deflection	Total Deflection
11+88					
12+00	12.00	13.00		0°40'18"	0°40'18"
12+25	25.00	27.09		1°23'58"	2°04'16"
12+50	25.00	27.09		1°23'58"	3°28'13"
12+75	25.00	27.09		1°23'58"	4°52'11"
13+00	25.00	27.09		1°23'58"	6°16'09"
13+25	25.00	27.09		1°23'58"	7°40'06"
13+50	25.00	27.09		1°23'58"	9°04'04"
13+75	25.00	27.09		1°23'58"	10°28'01"
14+00	25.00	27.09		1°23'58"	11°51'59"
14+25	25.00	27.09		1°23'58"	13°15'57"
14+50	25.00	27.09		1°23'58"	14°39'54"
14+75	25.00	27.09		1°23'58"	16°03'52"
15+00	25.00	27.09		1°23'58"	17°27'50"
15+25	25.00	27.09		1°23'58"	18°51'47"
15+37	12.00	13.0		0°40'18"	19°32'05"
15+50	13.00	14.09		0°43'40"	20°15'45"
15+75	25.00	27.09		1°23'58"	21°39'43"
16+00	25.00	27.09		1°23'58"	23°03'40"
16+25	25.00	27.09		1°23'58"	24°27'38"
16+50	25.00	27.09		1°23'58"	25°51'35"
16+73.76	23.76	25.75		1°19'48"	27°11'23"

35th St. North - Sta. 11+88 to Sta. 15+37.16 - Rt. Curb
Δ = 39°05'14" R = To BK.Cb. T = 169.08' L = 324.94'

Curve Data Based on 476.31'R Δ/2 = 19°32'37"					
℄ Sta.	℄ Arc	Chord Length 7.5 Rt. B.C.		Deflection	Total Deflection
11+88					
12+00	12.00		10.99	0°40'18"	0°40'18"
12+25	25.00		22.89	1°23'58"	2°04'16"
12+50	25.00		22.89	1°23'58"	3°28'13"
12+75	25.00		22.89	1°23'58"	4°52'11"
13+00	25.00		22.89	1°23'58"	6°16'09"
13+25	25.00		22.89	1°23'58"	7°40'06"
13+50	25.00		22.89	1°23'58"	9°04'04"
13+75	25.00		22.89	1°23'58"	10°28'01"
14+00	25.00		22.89	1°23'58"	11°51'59"
14+25	25.00		22.89	1°23'58"	13°15'57"
14+50	25.00		22.89	1°23'58"	14°39'54"
14+75	25.00		22.89	1°23'58"	16°03'52"
15+00	25.00		22.89	1°23'58"	17°27'50"
15+25	25.00		22.89	1°23'58"	18°51'47"
15+37.16	12.16		11.13	0°40'50"	19°32'37"

35th St. North - Sta. 16 + 80.96 to Sta. 17+39.97 - Rt. Curb
Δ = 5°54'47" R = To BK.Cb. T = 29.59' L = 59.13'

Curve Data Based on 572.96'R. Δ/2 = 2°57'23.5"					
BK.Cb. Sta.	BK.Cb. Arc	Chord Length 7.5 Rt. B.C.		Deflection	Total Deflection
16+80.84					
17+00	19.16		18.90'	0°57'29"	0°57'29"
17+25	25.00		24.67	1°15'00"	2°12'29"
17+39.97	14.97		14.77	0°44'55"	2°57'23.5"

35th St. North - Sta. 16+79.18 to Sta. 17+72.58 - Lt. Curb
Δ = 9°52'55" R = To BK.Cb. T = 49.53' L = 98.82'

Curve Data Based on 572.96'R. Δ/2 = 4°56'27.5"					
BK.Cb. Sta.	BK.Cb. Arc	Chord Length 7.5 Lt. B.C.		Deflection	Total Deflection
16+73.76					
16+75	1.24	1.22		0°03'43"	0°03'43"
17+00	25.00	24.67		1°15'00"	1°18'43"
17+25	25.00	24.67		1°15'00"	2°33'43"
17+50	25.00	24.67		1°15'00"	3°48'43"
17+72.58	22.58	22.28		1°07'44"	4°56'27.5"

~~35th St. North - Longford Dr. to East~~
~~Δ = 8°31'04" ℄R = 1432.40 T = 106.37' L = 208.78'~~

Curve Data Based on 1432.40'R. Δ/2 = 4°10'32"

℄ Sta.	℄ Arc	Chord Length 7.5 Lt. B.C.	7.5 Rt. B.C.	Deflection	Total Deflection
1+67.02					
1+75	7.98	7.86	8.13	0°09'35"	0°09'35"
2+00	25.00	24.51	25.48	0°30'00"	0°39'35"
2+25	25.00	24.51	25.48	0°30'00"	1°09'35"
2+50	25.00	24.51	25.48	0°30'00"	1°39'35"
2+75	25.00	24.51	25.48	0°30'00"	2°09'35"
3+00	25.00	24.51	25.48	0°30'00"	2°39'35"
3+25	25.00	24.51	25.48	0°30'00"	3°09'35"
3+50	25.00	24.51	25.48	0°30'00"	3°39'35"
3+74	25.00	24.51	25.48	0°30'00"	4°09'35"
3+75.80	0.80	0.79	0.79	0°00'57"	4°10'32"

Capri Lane
Δ = 44°47'09" ℄R = 358.10 T = 147.55' L = 279.91'

Curve Data Based on 358.10'R Δ/2 = 22°23'34.5"					
℄ Sta.	℄ Arc	Chord Length 7.5 Lt. B.C.	7.5 Rt. B.C.	Deflection	Total Deflection
19+22.36					
19+25	2.64	2.64	2.43	0°12'40"	0°12'40"
19+50	25.00	26.94	23.04	2°00'00"	2°12'40"
19+73.18	23.18	24.98	21.35	1°51'16"	4°03'56"
19+75	1.82	1.96	1.68	0°08'44"	4°12'40"
20+00	25.00	24.98	23.04	2°00'00"	6°12'40"
20+25	25.00	24.98	23.04	2°00'00"	8°12'40"
20+50	25.00	24.98	23.04	2°00'00"	10°12'40"
20+75	25.00	24.98	23.04	2°00'00"	12°12'40"
20+91.53	16.53	17.82	15.22	1°19'21"	13°32'01"
21+00	8.47	9.13	7.81	0°40'39"	14°12'40"
21+25	25.00	24.98	23.04	2°00'00"	16°12'40"
21+50	25.00	24.98	23.04	2°00'00"	18°12'40"
21+75	25.00	24.98	23.04	2°00'00"	20°12'40"
22+00	25.00	24.98	23.04	2°00'00"	22°12'40"
22+02.27	2.27	2.45	2.09	0°10'05"	22°23'34.5"

Longford Drive
Δ = 62°48'51" ℄R = 200.00' T = 122.11 L = 219.26'

Curve Data Based on 200.00'R. Δ/2 = 31°24'25.5"					
℄ Sta.	℄ Arc	Chord Length 7.5 Lt. B.C.	7.5 Rt. B.C.	Deflection	Total Deflection
3+24.34					
3+25	0.66	0.56	0.75	0°05'40"	0°05'40"
3+50	25.00	21.48	28.48	3°34'52"	3°40'32"
3+75	25.00	21.48	28.48	3°34'52"	7°15'23"
4+00	25.00	21.48	28.48	3°34'52"	10°50'15"
4+25	25.00	21.48	28.48	3°34'52"	14°25'07"
4+50	25.00	21.48	28.48	3°34'52"	17°59'58"
4+60.96	10.96	9.42	12.49	1°34'12"	19°34'10"
4+75	14.04	12.06	15.99	2°00'40"	21°34'50"
5+00	25.00	21.48	28.48	3°34'52"	25°09'41"
5+25	25.00	21.48	28.48	3°34'52"	28°44'33"
5+43.60	18.60	15.98	21.19	2°39'53"	31°24'25.5"

DESIGN	COMOTARA BUSINESS PARK WICHITA, KANSAS
DR. BY	
CK. BY	CURVE STAKING INFORMATION
DATE	
JOB NO	
	VAN DOREN-HAZARD-STALLINGS-SCHNACKE ENGINEERS-ARCHITECTS · · · TOPEKA, KANSAS
	SHEET 26 OF

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