16-8-1-14

CITY OF WICHITA, KANSAS

STREET IMPROVEMENTS

(NORTHWEST VILLAGE)

PROJECT NO. 472-76-245-81013 - 000-000-001

BENCH MARKS

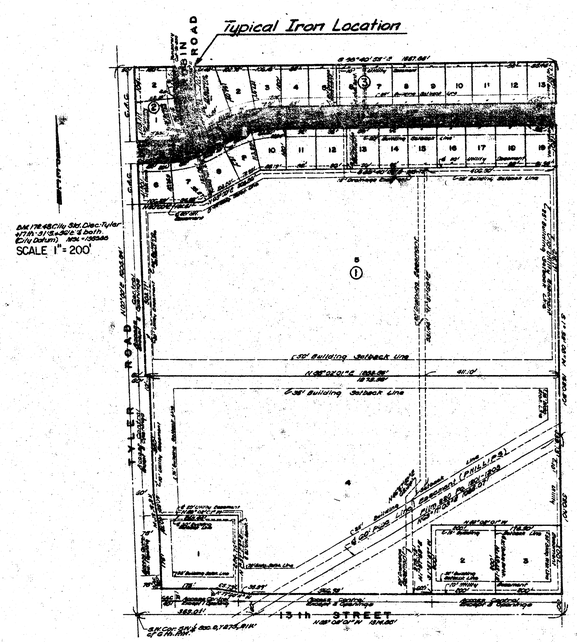
B.M. - C.O.W. standard disc. located 31' south and 36' east of W1/4 corner Sec. 9, T27S, R/W, 6th P.M. Elev. = 172.48

B.M. - Chis "D" in SW corner headwall @ concrete box approx. 50' N/ of 51/4 corner Sec. 9, 27S/W Elev. = 156.60

B.M. - Chis "D" NE corner storm drain box N/side of 13th St. approx. 1240' ± east of SW corner Sec. 9, 27S/W Elev. = 161.52

B.M. - Chis "D" SW corner concrete box which lies approx. 840' ± E/ of SW corner Sec. 9, 27S/W (N. side 13th St.) Elev. = 162.48

B.M. - NW corner 4' x 4' concrete pad with C.O.W. M.H. behind curb on NW corner of intersection Tyler & 13th St. N. Elev. = 167.55



Note: Irons as shown are existing or will be set by others prior to construction.

INDEX OF SHEETS

Note: 2,268 Cubic Yards of Contractor Furnished Borrow is required.

NOVEMBER, 1980

BRENT E. REMSBERG LICENSED 8169 KANSAS PROFESSIONAL ENGINEER

No.	Revision	By	Date

CITY OF WICHITA, KANSAS

TITLE SHEET

STREET IMPROVEMENTS

PROJ. NO. 472-76-245-81013-000-000-001

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

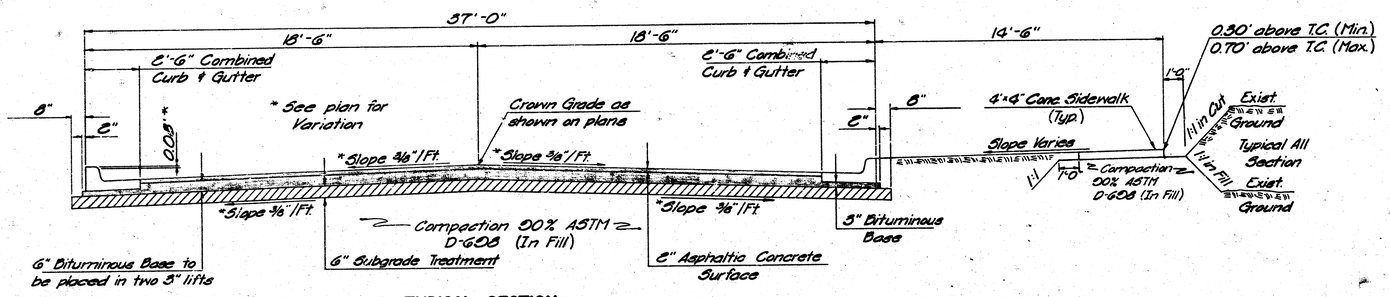
ENGINEERS

WICHITA, KANSAS

Designed by DD, CSB, BER | Job No. 80305 | Sht. 1 of 11

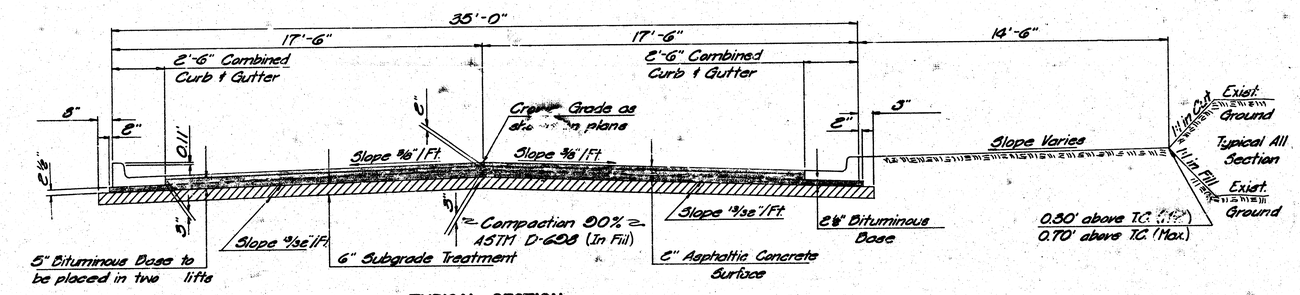
Drawn by GRH | Date Nov. 1980

SHEET NO.	TOTAL SHEETS
2	11



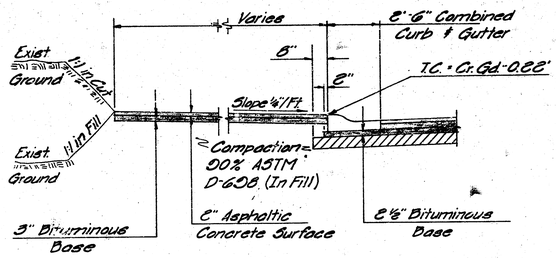
TYPICAL SECTION

37' ASPHALTIC CONCRETE PAVEMENT WITH BITUMINOUS BASE



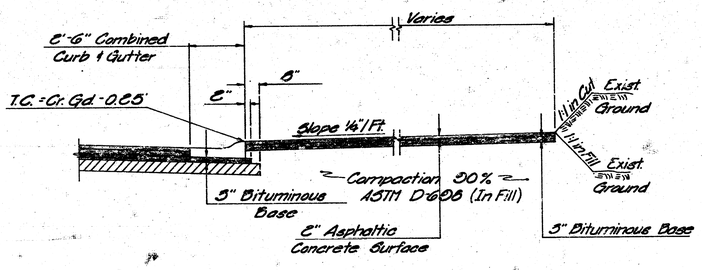
TYPICAL SECTION

35' ASPHALTIC CONCRETE PAVEMENT WITH BITUMINOUS BASE



PARTIAL SECTION

35' ASPHALTIC CONCRETE PAVEMENT WITH BITUMINOUS BASE
at Temporary Cul-de-sac



PARTIAL SECTION

37' ASPHALTIC CONCRETE PAVEMENT WITH BITUMINOUS BASE
at Temporary Cul-de-sac

GENERAL NOTES

1. A TACK COAT OF EMULSIFIED ASPHALT (SS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE 0.05 GALLONS PER SQUARE YARD BETWEEN LIFTS OF ASPHALTIC MATERIALS WHEN ORDERED BY THE ENGINEER. TACK COAT WILL NOT BE PAID FOR DIRECTLY AND SHALL BE CONSIDERED AS SUBSIDIARY TO PRICE BID FOR ASPHALTIC PAVEMENT.

   BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR CROWN AND GRADE. CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF 1 FOOT WITH JOINTS IN PRECEDING LIFTS AND SUCH THAT A JOINT WILL BE CONSTRUCTED ON THE PAVEMENT CENTERLINE IN THE TOP LIFT.

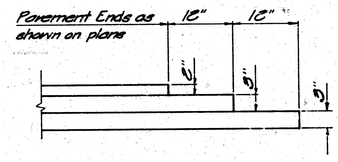
2. THE A.C. PAVEMENT BETWEEN COMBINED CURB AND GUTTER ON 37' BACK TO BACK STREETS SHALL BE PAID AS SQUARE YARDS 8" A.C. PAVEMENT (6" BITUMINOUS BASE). THE BITUMINOUS BASE UNDER THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS 3" BITUMINOUS BASE. THE A.C. PAVEMENT BETWEEN COMBINED CURB AND GUTTER ON 35' BACK TO BACK STREETS SHALL BE PAID AS SQUARE YARDS 7" A.C. PAVEMENT (5" BITUMINOUS BASE). THE BITUMINOUS BASE UNDER THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS 2-1/2" BITUMINOUS BASE.

3. SIDEWALKS INDICATED ON THE TYPICAL SECTION ARE FOR LOCATION ON THAT SECTION ONLY. SIDEWALKS SHALL BE CONSTRUCTED WHERE SHOWN ON THE PLAN SHEETS AS PART OF THIS PROJECT.

4. CONTRACTION JOINTS MAY BE CONSTRUCTED IN INTEGRAL CURB BY SAWING WITH AN APPROVED CONCRETE SAW. THE SAW SHALL EXTEND THROUGH THE CURB TO THE PAVEMENT. SAWED CONTRACTION JOINTS SHALL HAVE A MAXIMUM SPACING OF 10'.

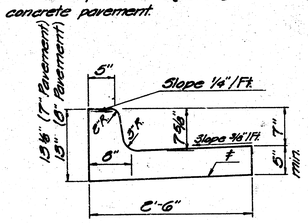
5. INTEGRAL CURB SHALL BE TIED TO THE PAVEMENT BASE WITH SHORT DEFORMED DOWEL BARS SPACED AT 2'-6" INTERVALS. THESE DOWEL BARS SHALL NOT BE LESS THAN 1/2" NOR MORE THAN 3/4" IN DIAMETER, AND SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED SUBSIDIARY TO INTEGRAL CURB.

6. THE 6" SUBGRADE TREATMENT SHALL BE PAID FOR PER SQUARE YARD OF MANIPULATION AND PER TON OF LIME OR CEMENT, COMPUTED AT THE RATE OF 25 POUNDS PER SQUARE YARD. THE ACTUAL RATE OF LIME OR CEMENT SHALL BE DETERMINED BY THE ENGINEER AND NO ALTERATION OF THE UNIT PRICE BID FOR LIME OR CEMENT WILL BE MADE. IF THE ENGINEER DETERMINES, BASED UPON SOIL TESTS OF THE SUBGRADE MATERIAL IN PLACE, THAT NO SUBGRADE TREATMENT IS REQUIRED, THE TOP 6" OF THE SUBGRADE SHALL BE COMPACTED TO 90% ASTM D-1557 OR 95% ASTM D-698. IN THIS EVENT, THE BID ITEMS OF MANIPULATION AND LIME OR CEMENT SHALL BE UNDERRUN AND THE BID ITEM COMPACTED FILL SHALL BE INCREASED BY THE AMOUNT OF MANIPULATED FILL SHOWN ON THE PLANS.



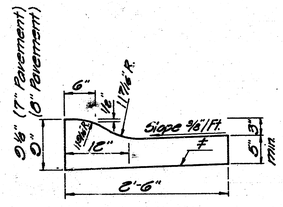
DETAIL OF TRANSVERSE CONSTRUCTION JOINTS

Transverse Construction Joints shall be constructed in flexible base pavements at locations where pavement temporarily ends to facilitate future pavement construction as shown by detail. The cost of constructing the Transverse Construction Joints shall not be measured or paid for directly but shall be included in the bid price for square yards of asphaltic concrete pavement.



* Slope 3/16"/Ft. (6" Pavement)
* Slope 7/16"/Ft. (7" Pavement)

STANDARD CURB & GUTTER DETAIL



ROLL TYPE CURB & GUTTER DETAIL

CITY OF WICHITA, KANSAS

TYPICAL SECTIONS

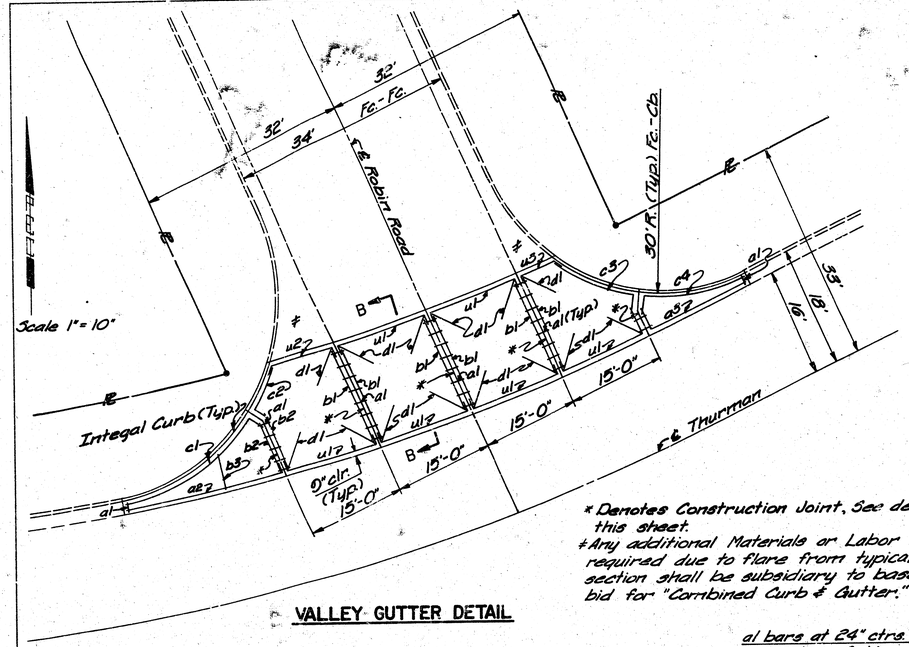
STREET IMPROVEMENTS
NORTHWEST VILLAGE
PROJ. NO. 472-76-245-81013-000-000-001

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by	CSB, BER	Checked by		
Drawn by	DS	Date	Job No.	30305

Sheet 2 of 11

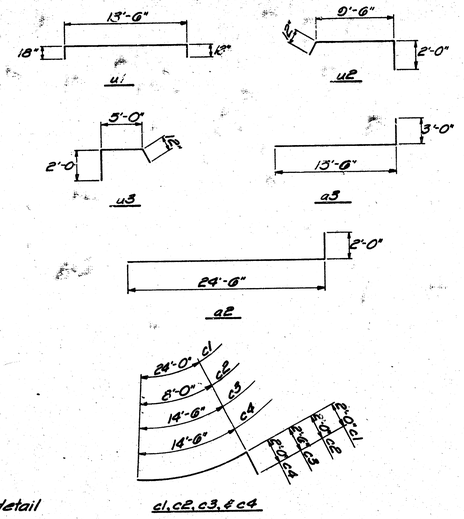
SHEET NO.	TOTAL SHEETS
3	11



VALLEY GUTTER DETAIL

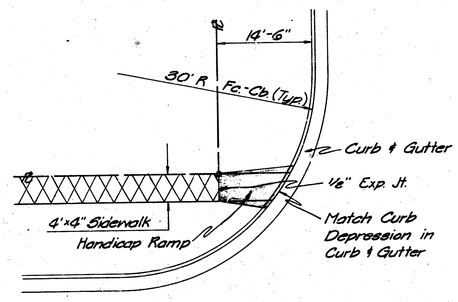
* Denotes Construction Joint, See detail this sheet.

Any additional Materials or Labor required due to flare from typical section shall be subsidiary to base bid for "Combined Curb & Gutter."

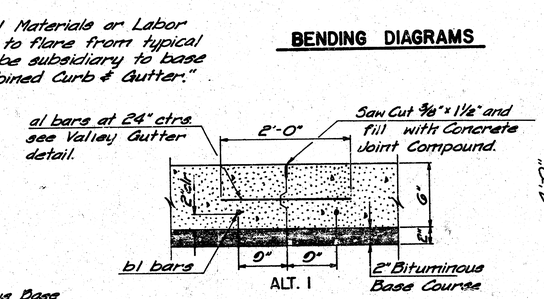


c1, c2, c3, & c4

BENDING DIAGRAMS

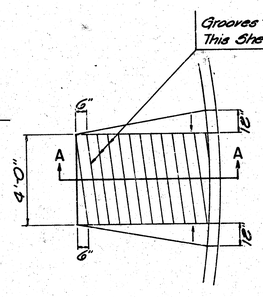


SIDEWALK & HANDICAP RAMP LAYOUT



CONSTRUCTION JOINT DETAILS

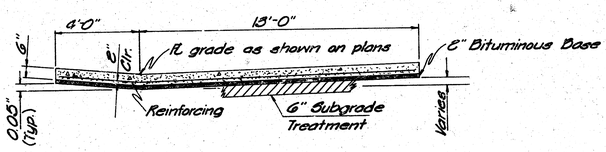
Note: Use Alt. 1 for single Panel Construction. Use Alt. 2 for Monolithic Construction.



HANDICAP RAMP DETAIL

SECTION A-A

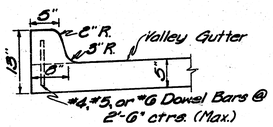
INTERSECTION SIDEWALK / HANDICAP RAMP LAYOUT DETAILS



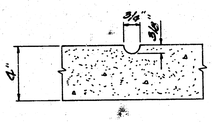
SECTION B-B

Valley Gutter Bar List			
Bar	No.	Size	Length
a1	33	#4	2'-0"
a2	1	#6	26'-6"
a3	1	#6	18'-6"
b1	6	#6	15'-6"
b2	2	#6	8'-0"
b3	1	#6	5'-0"
c1	1	#6	26'-0"
c2	1	#6	10'-6"
c3	1	#6	17'-0"
c4	1	#6	16'-6"
d1	14	#6	6'-0"
u1	6	#6	16'-6"
u2	1	#6	12'-6"
u3	1	#6	8'-0"

Reinf. Steel = 604 Lbs.



STANDARD INTEGRAL CURB & GUTTER DETAIL



GROOVE DETAIL
Grooves required only in ramp

CITY OF WICHITA, KANSAS

PAVING DETAILS

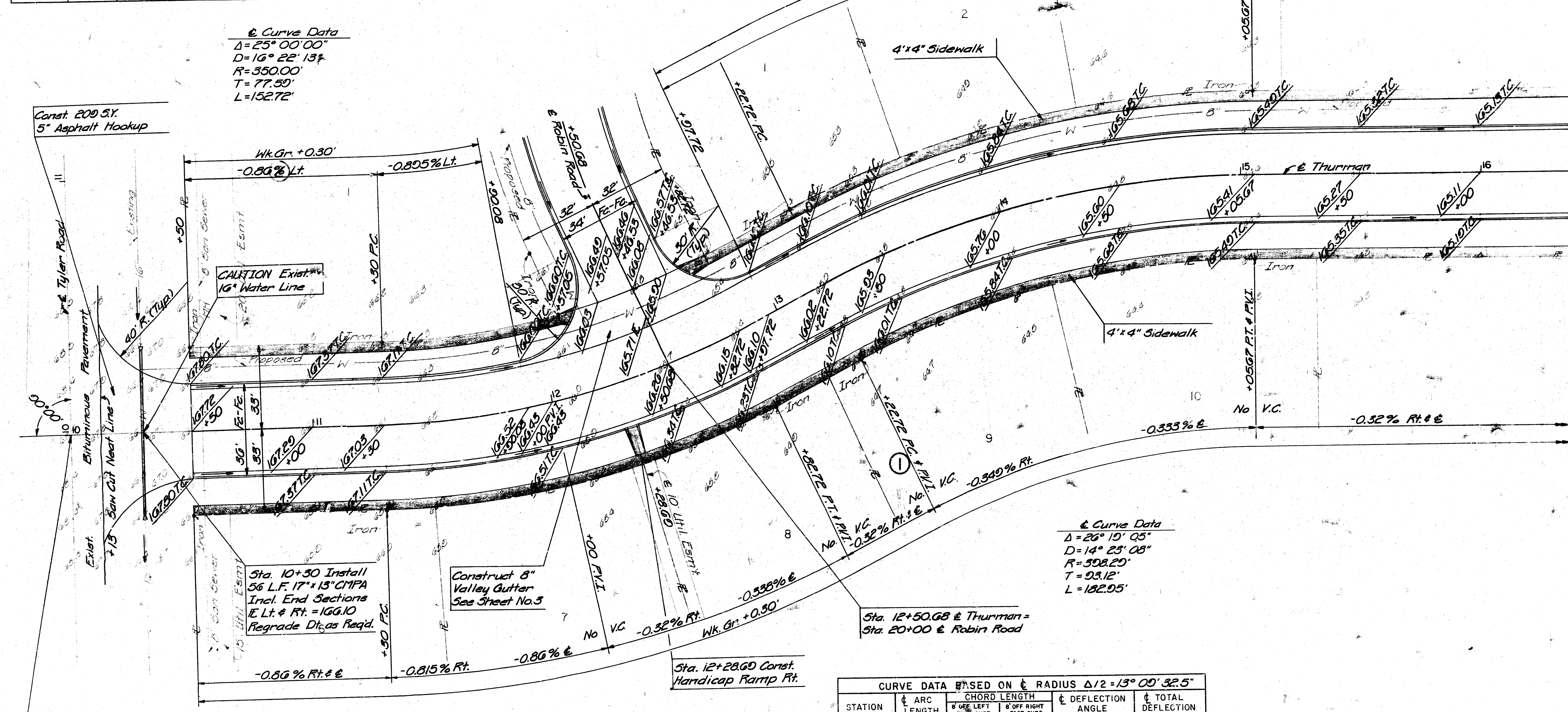
STREET IMPROVEMENTS
NORTHWEST VILLAGE
PROJ. NO. 472-76-245-81013-000-000-001

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by	CSB, BER	Checked by		Job No. 80305
Drawn by	BB	Date		

Sheet 3 of 11

CURVE DATA BASED ON ℄ RADIUS Δ/2 = 12°30'00"					
STATION	℄ ARC LENGTH	CHORD LENGTH: 8' OFF LEFT FACE CURB	CHORD LENGTH: 8' OFF RIGHT FACE CURB	℄ DEFLECTION ANGLE	℄ TOTAL DEFLECTION
11+30.00	—	—	—	0° 00' 00"	0° 00' 00"
11+50.00	20.00'	18.51'	21.48'	1° 38' 13.0"	1° 38' 13.0"
11+75.00	25.00'	23.14'	26.85'	2° 02' 46.6"	3° 40' 59.6"
11+90.08	15.08'	13.96'	—	1° 14' 04"	—
12+00	25.00'	23.14'	26.85'	2° 02' 46.6"	5° 43' 46.2"
12+25	"	"	"	" " "	7° 46' 32.8"
12+50	"	"	"	" " "	9° 49' 19.4"
12+75	25.00'	23.14'	26.85'	2° 02' 46.6"	11° 52' 06.0"
12+82.72	7.72'	7.15'	8.29'	0° 37' 54.0"	12° 30' 00"



EARTHWORK			
	EXCAVATION	COMPACTED FILL	MANIPULATION
PROPERTY	61.52 C.Y.	287.93 C.Y.	2,125.03 S.Y.
10%	6.15 C.Y.	28.79 C.Y.	212.50 S.Y.
Total	67.67 C.Y.	316.72 C.Y.	2,337.53 S.Y.
CITY	71.07 C.Y.	13.22 C.Y.	574.72 S.Y.
10%	7.11 C.Y.	1.32 C.Y.	57.47 S.Y.
Total	78.18 C.Y.	14.54 C.Y.	632.19 S.Y.

Note: Construct 4'x4" Conc. Sidewalk Rt. & Lt. on Thurman as shown.

CURVE DATA BASED ON ℄ RADIUS Δ/2 = 13° 09' 32.5"					
STATION	℄ ARC LENGTH	CHORD LENGTH: 8' OFF LEFT FACE CURB	CHORD LENGTH: 8' OFF RIGHT FACE CURB	℄ DEFLECTION ANGLE	℄ TOTAL DEFLECTION
13+22.72	—	—	—	0° 00' 00"	0° 00' 00"
13+50.00	27.28'	29.06'	25.49'	1° 57' 43.5"	1° 57' 43.5"
13+75	25.00'	26.63'	23.36'	1° 47' 53.5"	3° 45' 37.0"
14+00	"	"	"	" " "	5° 33' 30.5"
14+25	"	"	"	" " "	7° 21' 24.0"
14+50	"	"	"	" " "	9° 09' 17.5"
14+75	"	"	"	" " "	10° 57' 11.0"
15+00	25.00'	26.63'	23.36'	1° 47' 53.5"	12° 45' 04.5"
15+05.67	5.67'	6.04'	5.30'	0° 24' 28"	13° 09' 32.5"

No.	Revision	By	Date

CITY OF WICHITA, KANSAS

THURMAN

STREET IMPROVEMENTS

PROJ. NO. 472-76-245-81013-000-000-001

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by DD, BER | Job No. 80305 | Sht. 4 4/7
Drawn by GRH | Date Nov., 1980

SCALE 1" = 20'

Wk. Gr. +0.30'

-0.38 % Lt. | +0.32 % Lt. | -0.35 % Lt.

No V.C. | No V.C. | No V.C.

E 20' Drain Esmt.

+37.76 P.V.I. Lt. 230' SW3 by others

E 10' Util. Esmt.

+09.76 P.V.I.

4'x4" Sidewalk

5 6 7 8 9 10 11

(3)

Proposed Inlet

8" W 8" W 8" W Proposed

16 17 18 19 20 21 22

℄ Thurman

33' 30' 30' 33'

+05.24 P.V.I. ℄

+10.51 P.V.I. Rt. 236' SW3 by others

E 20' Drain Esmt.

4'x4" Sidewalk

12 13 14 15 16 17

(1)

-0.32 % Rt. & ℄ | -0.32 % Rt. & +0.32 % ℄ | +0.338 % Rt. +0.32 % ℄ | -0.35 % Rt. & ℄

Wk. Gr. +0.30'

EARTHWORK			
	EXCAVATION	COMPACTED FILL	MANIPULATION
PROPERTY	106.71 C.Y.	427.78 C.Y.	2422.22 S.Y.
10%	10.67 C.Y.	42.78 C.Y.	242.22 S.Y.
Total	117.38 C.Y.	470.56 C.Y.	2664.44 S.Y.
CITY	14.56 C.Y.	4.17 C.Y.	133.33 S.Y.
10%	1.44 C.Y.	0.42 C.Y.	13.33 S.Y.
Total	16.00 C.Y.	4.59 C.Y.	146.66 S.Y.

No.	Revision	By	Date

CITY OF WICHITA, KANSAS

THURMAN

STREET IMPROVEMENTS

PROJ. NO. 472-76-245-81013-000-000-001

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

ENGINEERS

WICHITA, KANSAS

Designed by D.D. BEAR | Job No. 80305 | Sht. 5 of 7

Drawn by GRH | Date Nov., 1980

SCALE 1" = 20'

SCALE 1" = 20'

*Note: Const. Temp. Ditch. Cost Of Ditch Is Incidental To Asphalt Hook up.

Transition from Std. C&G. to Roll Type C&G Lt. & Rt. (Paid as Std. Type C&G)

Roll Type C. & G. Rt. & Lt.

Wk. Gr. +0.30'

+0.32% Lt. & ℄

-0.35% Lt. & ℄

No V.C.

4'x4' Sidewalk

Temporary Cul-de-sac

8" Valley Gutter See Sheet No. 4

Sta. 22+25.64 ℄ Thurman = Sta. 10+00.00 ℄ Evergreen

90°13'03"

℄ Thurman

℄ Evergreen

Future Pavement

34' Fc-Fc

32'

Sta. 20+00 ℄ Robin Rd. = Sta. 12+50.68 ℄ Thurman

20'x66' Temp. Const. Esmt.

Sta. 23+67.64 END Street Construction

+0.32% Lt.

+65.15 P.T.

+74.54

+65.48 P.C.

+57.03

℄ Robin Road

50' R (Temp)

+0.32% Rt. & ℄

Sta. 22+33.13 END Street Construction

Const. 167.2 S.Y. 5" Asphaltic Conc. Pav't. (Temp. Cul-de-sac) See Sheet No. 2

No. V.C. +0.32% ℄ +0.32% Rt. & ℄

Wk. Gr. +0.30'

+0.338% Rt.

Wk. Gr. +0.30'

-0.35% Rt.

Wk. Gr. +0.30'

℄ Curve Data

Δ = 26°19'05"

D = 26°24'22"

R = 216.08'

T = 50.73'

L = 99.67'

CURVE DATA BASED ON ℄ RADIUS Δ/2 = 13°09'32.5"

STATION	℄ ARC LENGTH	CHORD LENGTH 8' OFF LEFT FACE CURB	CHORD LENGTH 8' OFF RIGHT FACE CURB	℄ DEFLECTION ANGLE	℄ TOTAL DEFLECTION
20+65.48	—	—	—	0° 00' 00"	0° 00' 00"
20+75	9.52'	10.62'	8.42'	1° 15' 24.5"	1° 15' 24.5"
21+00	25.00'	27.87'	22.11'	3° 18' 02.5"	4° 33' 27.0"
21+25	"	"	"	" " "	7° 51' 29.5"
21+50	25.00'	27.87'	22.11'	3° 18' 02.5"	11° 09' 32.0"
21+65.13	15.15'	16.89'	13.40'	2° 00' 00.5"	13° 09' 32.5"

EARTHWORK

	EXCAVATION	COMPACTED FILL	MANIPULATION
PROPERTY	0.00 C.Y.	154.44 C.Y.	582.11 S.Y.
10%	0.00 C.Y.	15.44 C.Y.	58.21 S.Y.
Total	0.00 C.Y.	169.88 C.Y.	640.32 S.Y.
CITY	0.00 C.Y.	52.96 C.Y.	252.87 S.Y.
10%	0.00 C.Y.	5.30 C.Y.	25.29 S.Y.
Total	0.00 C.Y.	58.26 C.Y.	278.16 S.Y.
		REV. 3-24-81	

EARTHWORK

	EXCAVATION	COMPACTED FILL	MANIPULATION
PROPERTY	61.90 C.Y.	30.47 C.Y.	814.63 S.Y.
10%	6.19 C.Y.	3.05 C.Y.	81.46 S.Y.
Total	68.09 C.Y.	33.52 C.Y.	896.09 S.Y.
CITY	2.17 C.Y.	0.00 C.Y.	8.30 S.Y.
10%	0.22 C.Y.	0.00 C.Y.	0.83 S.Y.
Total	2.39 C.Y.	0.00 C.Y.	9.13 S.Y.

	Revision	By	Date
1	Add Evergreen, delete temp Cul-de-sac		

CITY OF WICHITA, KANSAS

THURMAN & ROBIN ROAD

STREET IMPROVEMENTS

PROJ. NO. 472-76-245-810** -000-000-001

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

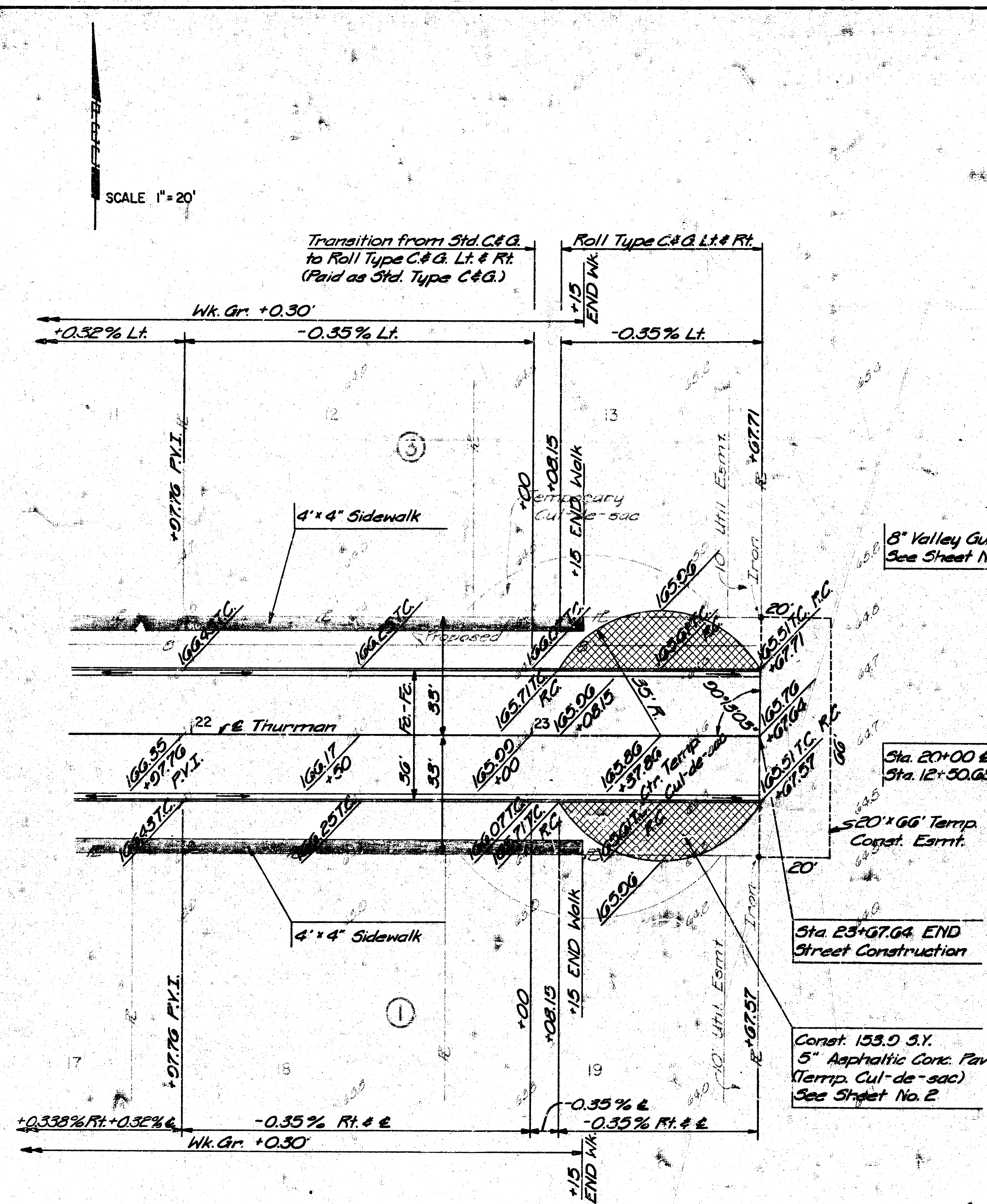
ENGINEERS

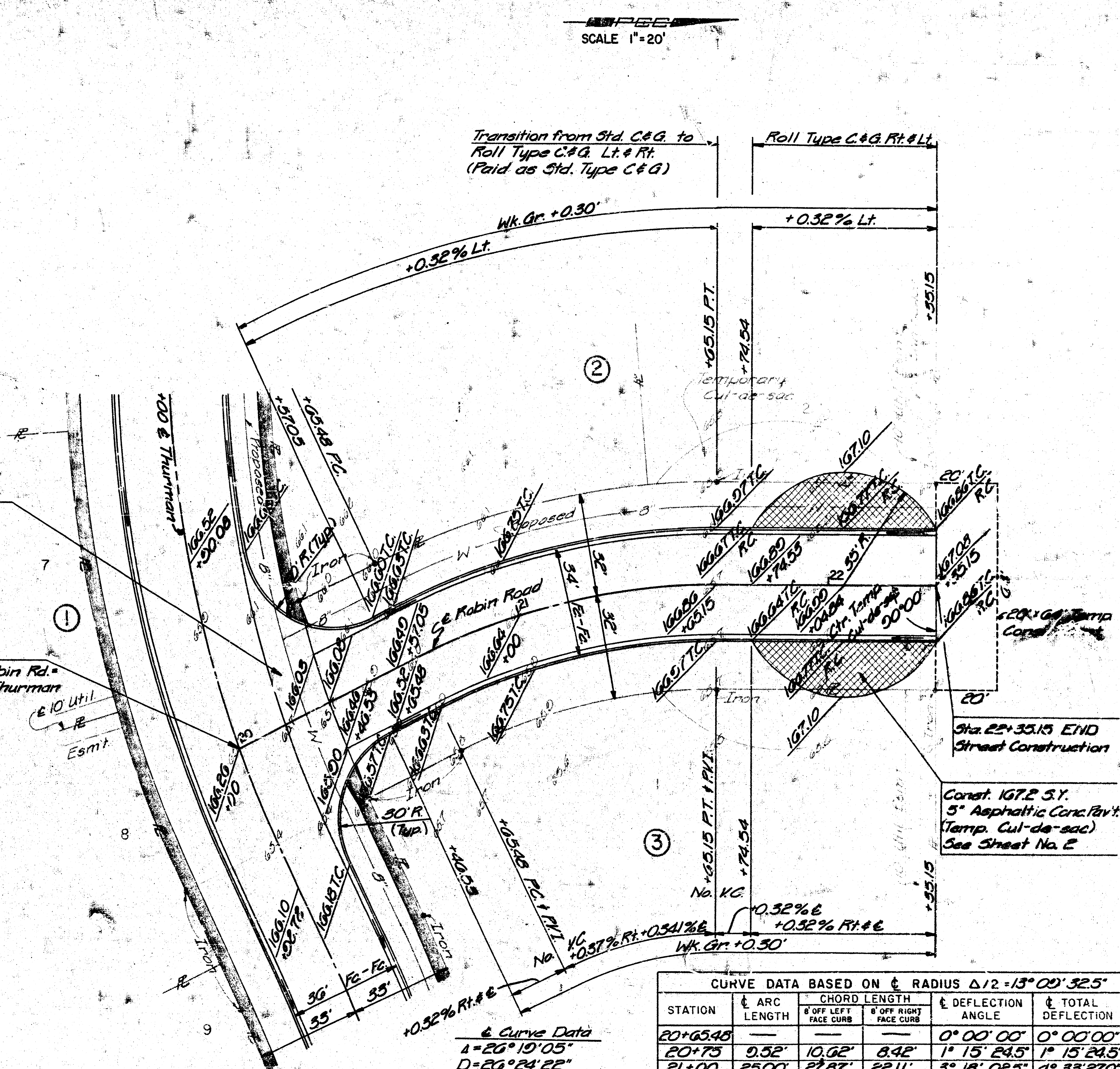
WICHITA, KANSAS

Designed by DD, BER | Job No. 80305 | Sht. G

Drawn by GRH | Date Nov. 1980

471





℄ Curve Data
Δ=26°19'05"
D=26°24'22"
R=216.98'
T=50.73'
L=99.67'

CURVE DATA BASED ON ℄ RADIUS Δ/2 =13°09'32.5"					
STATION	℄ ARC LENGTH	CHORD LENGTH 8' OFF LEFT FACE CURB	CHORD LENGTH 8' OFF RIGHT FACE CURB	℄ DEFLECTION ANGLE	℄ TOTAL DEFLECTION
20+65.48	—	—	—	0° 00' 00"	0° 00' 00"
20+75	9.52'	10.62'	8.42'	1° 15' 24.5"	1° 15' 24.5"
21+00	25.00'	27.87'	22.11'	3° 18' 02.5"	4° 33' 27.0"
21+25	"	"	"	" " "	7° 51' 29.5"
21+50	25.00'	27.87'	22.11'	3° 18' 02.5"	11° 09' 32.0"
21+65.15	15.15'	16.89'	13.40'	2° 00' 00.5"	13° 09' 32.5"

The Sheet void as of 3-24-81

EARTHWORK	EXCAVATION	COMPACTED FILL	MANIPULATION
PROPERTY	0.00 C.Y.	219.26 C.Y.	676.76 S.Y.
10%	0.00 C.Y.	21.93 C.Y.	67.68 S.Y.
Total	0.00 C.Y.	241.19 C.Y.	744.44 S.Y.
CITY	0.00 C.Y.	4.17 C.Y.	37.25 S.Y.
10%	0.00 C.Y.	0.42 C.Y.	3.73 S.Y.
Total	0.00 C.Y.	4.59 C.Y.	40.98 S.Y.

EARTHWORK	EXCAVATION	COMPACTED FILL	MANIPULATION
PROPERTY	61.90 C.Y.	30.47 C.Y.	814.63 S.Y.
10%	6.19 C.Y.	3.05 C.Y.	81.46 S.Y.
Total	68.09 C.Y.	33.52 C.Y.	896.09 S.Y.
CITY	2.17 C.Y.	0.00 C.Y.	8.39 S.Y.
10%	0.22 C.Y.	0.00 C.Y.	0.84 S.Y.
Total	2.39 C.Y.	0.00 C.Y.	9.23 S.Y.

No.	Revision	By	Date

CITY OF WICHITA, KANSAS

THURMAN & ROBIN ROAD

STREET IMPROVEMENTS

PROJ. NO. 472-76-245-81013-000-000-001

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by D.D., BER | Job No. 80305 | Sht. 6 7/7
Drawn by GRH | Date Nov., 1980