SHEET NO.	TOTAL SHEETS
1	13

CITY OF WICHITA, KANSAS

MICHAEL E. LINDEBAK, P.E., CITY ENGINEER

STREET IMPROVEMENTS

16TH STREET CIRCLE - FROM W.L. OF BROADMOOR TO SERVE LOTS 20 THROUGH 36, BLOCK 1

IN

FAIRFIELD CLUB ADDITION

CITY OF WICHITA PROJECT NO. 472-76-245-81758-000-000-001

INDEX OF SHEETS

1. TITLE SHEET
2. [illegible] SHEET
3. TYPICAL 29' PAVEMENT DETAILS
4. VALLEY GUTTER AND MISCELLANEOUS PAVING DETAILS
5.-6. PAVING PLANS
7. STORM WATER SEWER PLAN AND PROFILE
8. CURB TAPER INLET DETAIL (L=6'-4")
9. MANHOLE FRAME AND COVER DETAILS
10. STANDARD DRIVE ENTRANCE DETAILS
11.-13. CROSS SECTIONS

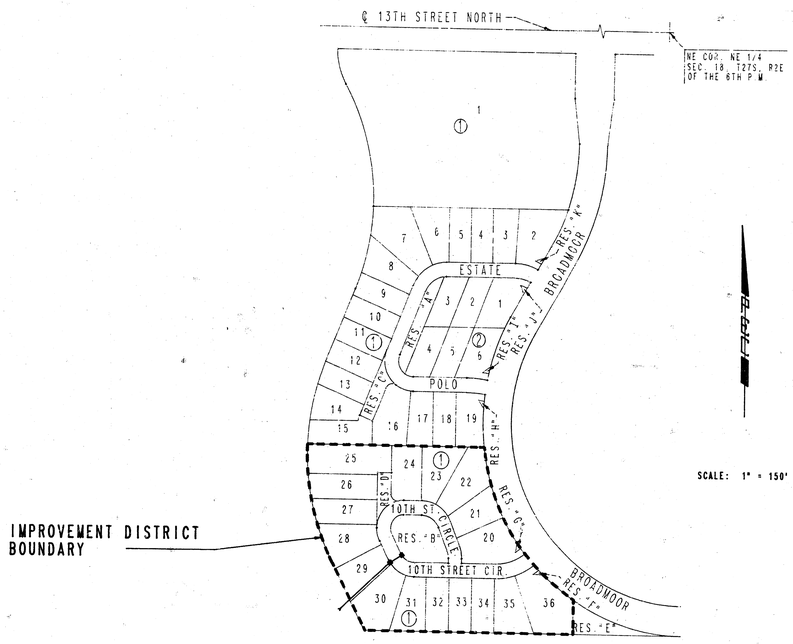
PROJECT SURVEY CONTROL

DATUM : CITY OF WICHITA DATUM

DATUM BENCH MARK: CITY OF WICHITA BENCH MARK DISC 42' NORTH AND 38' EAST OF THE INTERSECTION OF ROCK ROAD AND 13TH STREET ELEV.=186.85

BENCH MARK: CHISELED "D" ON BACK OF CURB AT SOUTHEAST CORNER LOT 19, BLOCK 1 FAIRFIELD CLUB ADDITION ELEV.=190.49

BENCH MARK: TOP 5/8" REBAR 18' WEST AND 18' SOUTH OF NORTHWEST CORNER LOT 25, BLOCK 1 FAIRFIELD CLUB ADDITION ELEV.=184.62



SCALE: 1" = 150'

GENERAL NOTES

1. UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.
2. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED.
3. CONTRACTOR SHALL SATISFY HIMSELF OF SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION.
4. TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.
5. LIMITS OF EARTHWORK SHALL MATCH EXISTING GROUND ELEVATIONS AT THE STREET EASEMENT LINE UNLESS OTHERWISE NOTED ON THE PLANS WITH A NEW FINISHED GRADE ELEVATION. WHEN A NEW FINISHED GRADE ELEVATION IS SHOWN, THE EARTHWORK SHALL EXTEND ONE FOOT BEYOND THE STREET EASEMENT LINE AND THEN SLOPED UP OR DOWN USING PERMISSABLE SLOPES TO MATCH THE EXISTING GROUND SURFACE.
6. THE CONTRACTOR WILL BE PERMITTED TO BID ONLY ONE OF THE ALTERNATE TYPES OF SUBGRADE TREATMENT. THE TYPE BID BY THE SUCCESSFUL BIDDER WILL BE THE TYPE OF SUBGRADE TREATMENT USED TO CONSTRUCT THE PROJECT.
7. WIDENED GUTTER SECTION OF COMBINED CURB AND GUTTER AT INTERSECTIONS WILL NOT BE PAID FOR DIRECTLY, AND THIS COST SHALL BE CONSIDERED AS SUBSIDIARY TO THE OTHER CONTRACT PAY ITEMS OF WORK.
8. THIS PROJECT INCLUDES A CERTAIN AMOUNT OF ROLL TYPE CURB CONSTRUCTION. ROLL CURBS SHALL BE DEPRESSED THROUGH ALL DRIVEWAY OPENINGS WHERE REQUESTED BY OWNER. DOWEL BARS SHALL BE INSTALLED PER STANDARD DRIVE ENTRANCE DETAILS, SEE SHEET NO. 10.
9. CONTRACTOR SHALL SEED, MULCH AND FERTILIZE PER CITY SPECIFICATIONS ALL AREAS WITHIN RESERVE "A" FAIRFIELD ESTATES DISTURBED BY STORM WATER SEWER CONSTRUCTION. THIS WORK SHALL BE SUBSIDIARY TO OTHER BID ITEMS.
10. CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF TWENTY-FOUR (24) HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

SOUTHWESTERN BELL TELEPHONE COMPANY	1-316-571-2611
CABLEVISION	262-4270 OR 283-2061
KPL GAS SERVICE	263-7591
KANSAS GAS & ELECTRIC	264-1141
CITY OF WICHITA WATER DEPARTMENT	268-4508
CITY OF WICHITA SEWER DEPARTMENT	268-4071
ARKLA GAS COMPANY	942-8350 OR 263-8161

EARTHWORK

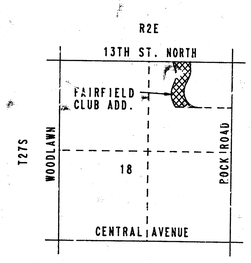
EXCAVATION

X-SECTIONS	706 CU. YDS.
10%	71 CU. YDS.
TOTAL	777 CU. YDS.

COMPACTED FILL

X-SECTIONS	0 CU. YDS.
10%	0 CU. YDS.
TOTAL	0 CU. YDS.

SUBGRADE MANIPULATION= 2,239.68 S.Y.



VICINITY MAP

CHARLES S. BROWN LICENSED 7581 KANSAS PROFESSIONAL ENGINEER

MARCH, 1988

PLANS PREPARED BY

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.

ENGINEERS

WICHITA, KANSAS

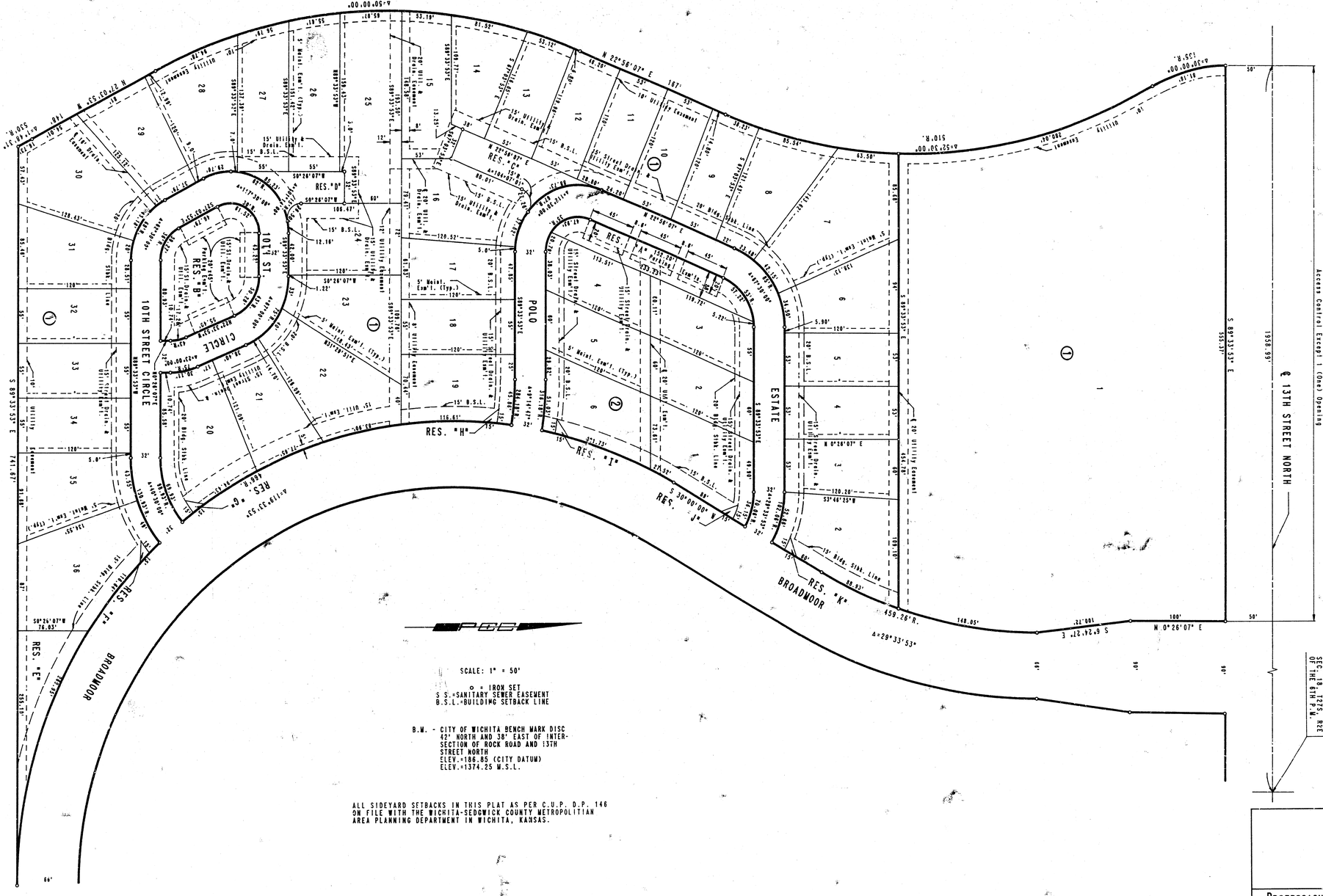
1/13

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PROJECT NO.	SHEET NO.	TOTAL SHEETS
472-78-245-81758-000-000-001	2	4

FAIRFIELD CLUB ADDITION

TO WICHITA, SEDGWICK COUNTY, KANSAS



ALL SIDEYARD SETBACKS IN THIS PLAT AS PER C.U.P. D.P. 146 ON FILE WITH THE WICHITA-SEDGWICK COUNTY METROPOLITIAN AREA PLANNING DEPARTMENT IN WICHITA, KANSAS.

FAIRFIELD CLUB-PHASE I

PLAT

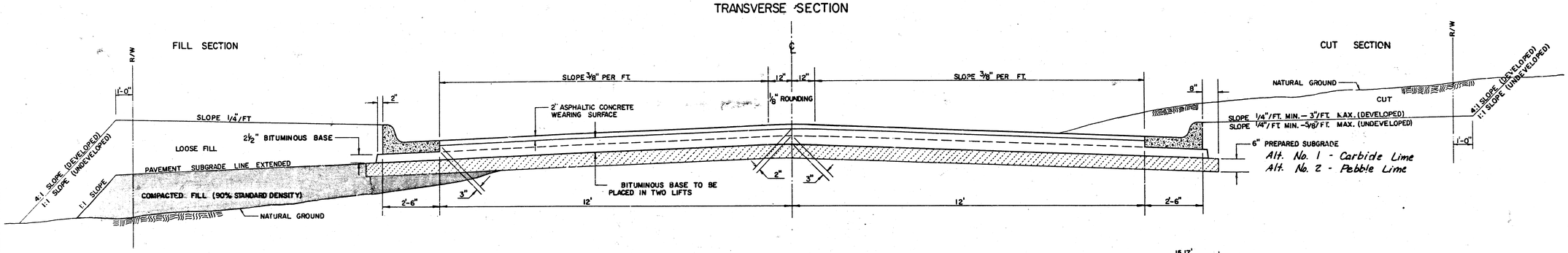
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by		Checked by		2/13
Drawn by	DEP	Date MAR., 1988	Job No. 87629	

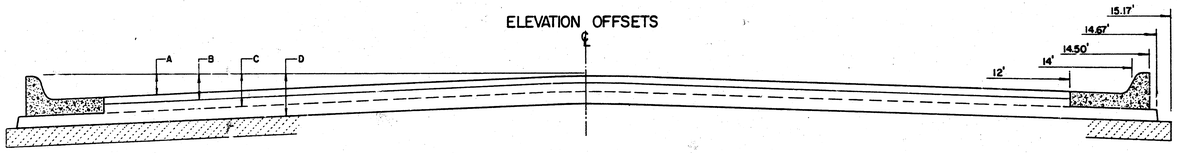
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TYPICAL 29' PAVEMENT DETAILS

TRANSVERSE SECTION

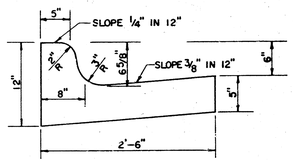


ELEVATION OFFSETS

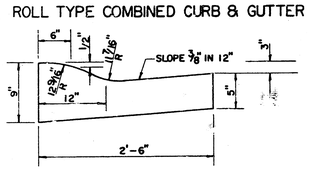


	DISTANCE FROM CENTERLINE (LT. & RT.)											
	0'	2'	4'	6'	7'	8'	10'	12'	14'	14.5'	14.67'	15.17'
A: TOP OF CURBS TO TOP OF SURFACE LIFT	0.13	0.18	0.24	0.30	0.33	0.36	0.43	0.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	0.30	0.35	0.41	0.47	0.50	0.53	0.60	0.66	—	—	—	—
C: TOP OF CURBS TO TOP OF LOWER BASE LIFT	0.47	0.52	0.60	0.68	0.71	0.75	0.83	0.90	0.98	1.00	1.01	—
D: TOP OF CURBS TO TOP OF SUBGRADE	0.72	0.77	0.84	0.91	0.94	0.98	1.05	1.12	1.19	1.21	1.21	1.23

COMBINED CURB & GUTTER



ROLL TYPE COMBINED CURB & GUTTER



GENERAL NOTES

1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).

2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 2 1/2" BITUMINOUS BASE.

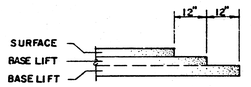
3) A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.

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

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

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

TRANSVERSE CONSTRUCTION JOINTS



TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINS EXISTING FLEXIBLE BASE PAVEMENT AS SHOWN BY THE DETAIL. ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE TRANSVERSE JOINT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).

7 INCH RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH 5 INCH BITUMINOUS BASE

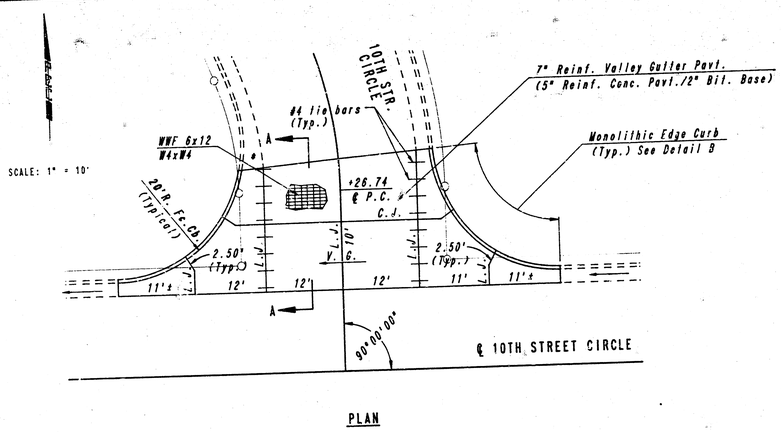
CITY OF WICHITA, KANSAS

PROJECT NUMBER

472 76 243 81 758 000 000 001

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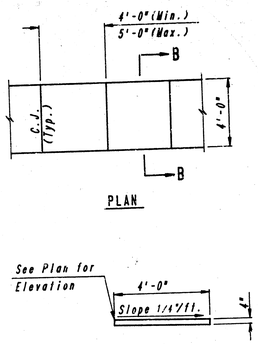
PROJECT NO.	SHEET NO.	TOTAL SHEETS
472-76-245-81758-009-000-001	4	13



PLAN

TYPICAL REINFORCED VALLEY GUTTER

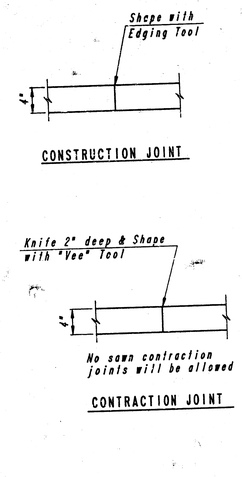
* TO BE POURED MONOLITHIC WITH ADJACENT COMBINED CURB AND GUTTER. SUBSIDIARY TO UNIT PRICE BID FOR ADJACENT COMBINED CURB AND GUTTER.

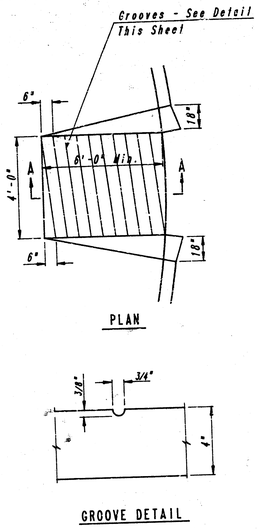


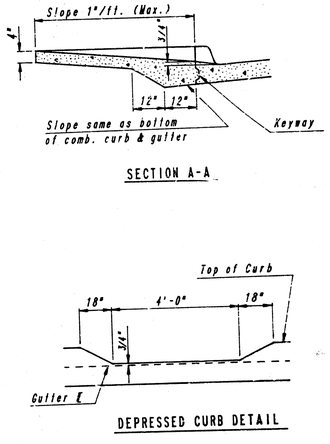
PLAN

SECTION B-B

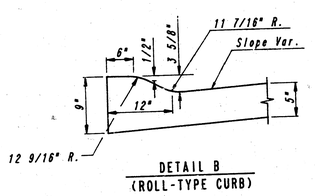
SIDEWALK DETAILS



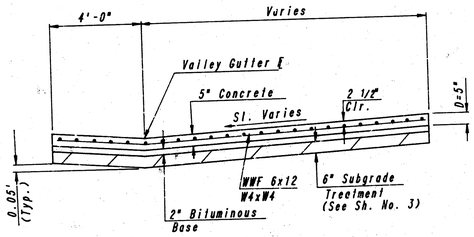




STANDARD WHEELCHAIR RAMP

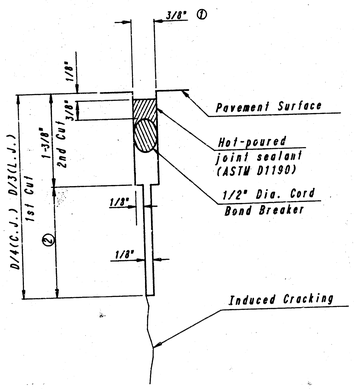


DETAIL B
(ROLL-TYPE CURB)



SECTION A-A

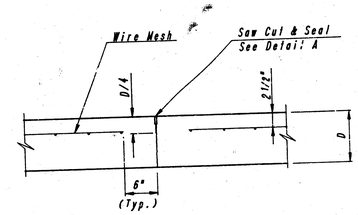
NOTE: OMIT REINFORCING MESH AT ALL JOINTS



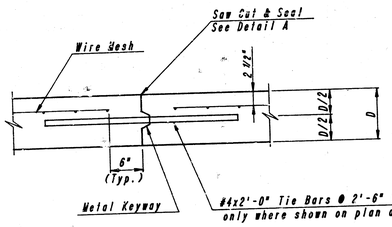
DETAIL A

1 To be accomplished in 2 cuts for Longitudinal Joints & Contraction Joints. Initial cut to be 1/8" wide.

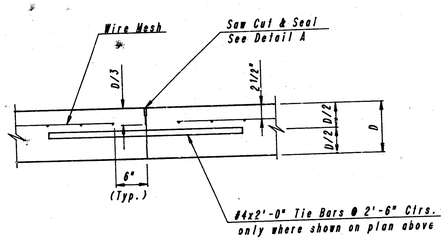
2 Eliminate bottom of cut when metal keyway is used as part of Longitudinal or Transverse Construction Joint and at Doweled Construction Joint Locations.



CONTRACTION JOINT DETAIL
REINFORCED PAVEMENT
(C.J.)



LONGITUDINAL CONSTRUCTION JOINT DETAIL
REINFORCED PAVEMENT
(TRANSVERSE SECTION)
(ALTERNATE L.J.)



LONGITUDINAL JOINT DETAIL
REINFORCED PAVEMENT
(TRANSVERSE SECTION)
(L.J.)

FAIRFIELD CLUB-PHASE I

VALLEY GUTTER AND MISCELLANEOUS PAVING DETAILS

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

4/13

Designed by	CSB, BDB	Checked by	
Drawn by	DEP	Date MAR., 1988	Job No. 87629

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PROJECT NO.	SHEET NO.	TOTAL SHEETS
472-76-245-81758-000-000-001	5	13

℄ CURVE DATA

Δ=23°00'00" D=97°06'41" R=59.00' L=23.68' T=12.00' E=1.21'

CURVE DATA BASED ON ℄ RADIUS Δ/2=11°30'00"

℄ STATION	℄ ARC LENGTH	FACE CURB LENGTH		CHORD LENGTH		DEFLECTION ANGLE	℄ TOTAL DEFLECTION
		LEFT CURB	RIGHT CURB	8" OFF LEFT FACE CURB	8" OFF RIGHT FACE CURB		
0+26.74 ℄	——	——	——	——	——	0°00'00"	0°00'00"
0+31.35 PRC RT.	4.61'	——	——	2.89'	6.33'	2°14'20"	2°14'20"
0+44.12 PCC LT.	12.77'	——	15.80'	7.99'	17.50'	6°12'06"	8°26'26"
0+50.42 PT	6.30'	4.81'	7.79'	3.95'	8.64'	3°03'34"	11°30'00"
TOTAL	23.68'	4.81'	23.59'	Defl./ft.=29.138514 min.			

℄ CURVE DATA

Δ=117°30'00" D=124°33'22" R=46.00' L=94.34' T=75.81' E=42.67'

CURVE DATA BASED ON ℄ RADIUS Δ/2=58°45'00"

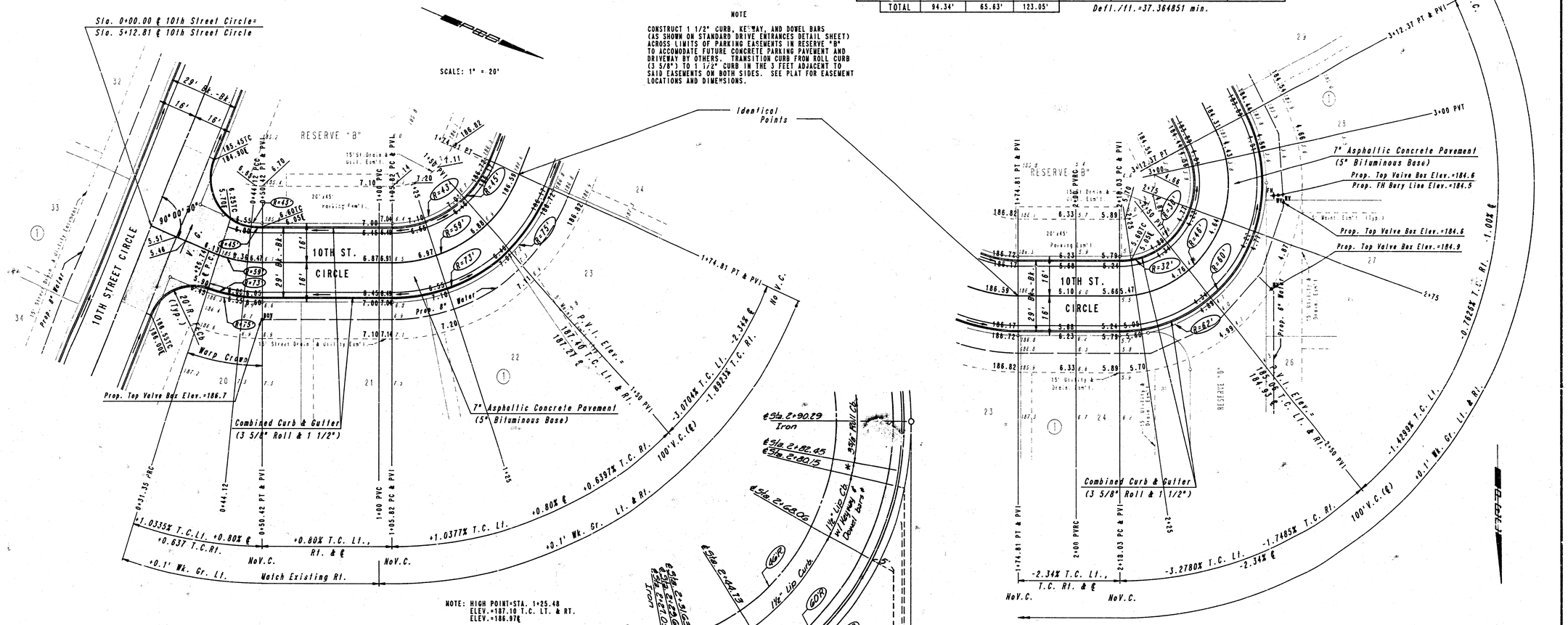
℄ STATION	℄ ARC LENGTH	FACE CURB LENGTH		CHORD LENGTH		DEFLECTION ANGLE	℄ TOTAL DEFLECTION
		LEFT CURB	RIGHT CURB	8" OFF LEFT FACE CURB	8" OFF RIGHT FACE CURB		
2+18.03 PC	——	——	——	——	——	0°00'00"	0°00'00"
2+25	6.97'	4.85'	9.09'	3.63'	10.29'	4°20'26"	4°20'26"
2+50	25.00'	17.39'	32.61'	12.88'	36.50'	15°34'07"	19°54'33"
2+75	25.00'	17.39'	32.61'	12.88'	36.50'	15°34'07"	35°28'40"
3+00	25.00'	17.38'	32.61'	12.88'	36.50'	15°34'07"	51°02'47"
3+12.37 PC	12.37'	17.39'	32.61'	6.43'	18.23'	7°42'13"	58°45'00"
TOTAL	94.34'	65.63'	123.05'	Defl./ft.=37.364851 min.			

Sta. 0+00.00 ℄ 10th Street Circle=
Sta. 5+12.81 ℄ 10th Street Circle

SCALE: 1" = 20'

NOTE

CONSTRUCT 1 1/2" CURB, KEYWAY, AND DOWEL BARS (AS SHOWN ON STANDARD DRIVE ENTRANCES DETAIL SHEET) ACROSS LIMITS OF PARKING EASEMENTS IN RESERVE "B" TO ACCOMODATE FUTURE CONCRETE PARKING PAVEMENT AND DRIVEWAY BY OTHERS. TRANSITION CURB FROM ROLL CURB (3 5/8") TO 1 1/2" CURB IN THE 3 FEET ADJACENT TO SAID EASEMENTS ON BOTH SIDES. SEE PLAT FOR EASEMENT LOCATIONS AND DIMENSIONS.



NOTE: HIGH POINT=STA. 1+25.48
ELEV.=187.10 T.C. LT. & RT.
ELEV.=186.97℄

℄ CURVE DATA

Δ=67°00'00" D=97°06'41" R=59.00' L=68.99' T=39.05' E=11.75'

CURVE DATA BASED ON ℄ RADIUS Δ/2=33°30'00"

℄ STATION	℄ ARC LENGTH	FACE CURB LENGTH		CHORD LENGTH		DEFLECTION ANGLE	℄ TOTAL DEFLECTION
		LEFT CURB	RIGHT CURB	8" OFF LEFT FACE CURB	8" OFF RIGHT FACE CURB		
1+05.82 PC	——	——	——	——	——	0°00'00"	0°00'00"
1+25	19.18'	14.63'	23.73'	11.98'	26.22'	9°18'48"	9°18'48"
1+50	25.00'	19.07'	30.93'	15.56'	34.07'	12°08'22"	21°27'10"
1+74.81 PT	24.81'	18.92'	30.70'	15.44'	33.81'	12°02'50"	33°30'00"
TOTAL	68.99'	52.62'	85.36'	Defl./ft.=29.134657 min.			

COMBINED CURB & GUTTER TRANSITION PLAN
Sta. 2+27.05 to Sta. 2+90.29 (Rt.)

* 3'(@Fc. Cb.) Transition
* Keyway & Dowel Bars to be installed by Paving Contractor per details on Sheet No. 10. This work shall be considered subsidiary to other items.

NOTE: THIS STREET TO BE CONSTRUCTED WITH ROLL-TYPE CURB. TOP OF CURB ELEVATIONS GIVEN ARE FOR FULL HEIGHT CURB.

FAIRFIELD CLUB-PHASE I

10TH STREET CIRCLE

STA. 0+00.00 TO STA. 3+12.33

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

Designed by	CSG, GDD	Checked by		
Drawn by	DEP	Date MAR., 1988	Job No.	87629

5/13

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PROJECT NO.	SHEET NO.	TOTAL SHEETS
472-76-245-81755-000-000-001	6	13

℄ CURVE DATA

Δ=62°30'00" D=110°11'03" R=52.00' L=56.72' T=31.55' E=8.82'

CURVE DATA BASED ON ℄ RADIUS Δ/2=31°15'00"

℄ STATION	℄ ARC LENGTH	FACE CURB LENGTH		CHORD LENGTH		DEFLECTION ANGLE	℄ TOTAL DEFLECTION
		LEFT CURB	RIGHT CURB	8" OFF LEFT FACE CURB	8" OFF RIGHT FACE CURB		
3+59.16 PC	———	———	———	———	———	0°00'00"	0°00'00"
3+75	15.84'	11.58'	20.10'	9.10'	22.46'	8°43'37"	8°43'37"
4+00	25.00'	18.27'	31.73'	14.28'	35.24'	13°46'26"	22°30'03"
4+15.88 PT	15.88'	11.60'	20.16'	9.13'	22.51'	8°44'57"	31°15'00"
TOTAL	56.72'	41.45'	71.99'				

Defl./ft.=33.057123 min.

℄ CURVE DATA

Δ=40°30'00" D=49°51'10" R=114.93' L=81.24' T=42.40' E=7.57'

CURVE DATA BASED ON ℄ RADIUS Δ/2=20°15'00"

℄ STATION	℄ ARC LENGTH	FACE CURB LENGTH		CHORD LENGTH		DEFLECTION ANGLE	℄ TOTAL DEFLECTION
		LEFT CURB	RIGHT CURB	8" OFF LEFT FACE CURB	8" OFF RIGHT FACE CURB		
6+14.39 PC	———	———	———	———	———	0°03'00"	0°00'00"
6+25	10.61'	9.32'	11.90'	8.58'	12.64'	2°38'41"	2°38'41"
6+50	25.00'	21.95'	28.05'	20.17'	29.73'	[illegible]	8°52'35"
6+74.21 PCC LT.	24.21'	21.26'	27.16'	19.54'	28.79'	[illegible]05"	14°54'39"
6+85.99 PRC RT.	11.78'	———	13.21'	9.5[illegible]	14.03'	2°56'11"	17°50'50"
6+95.63 PT ℄	9.64'	———	———	7.7[illegible]	11.48'	2°24'10"	20°15'00"
TOTAL	81.24'	52.53'	80.32'				

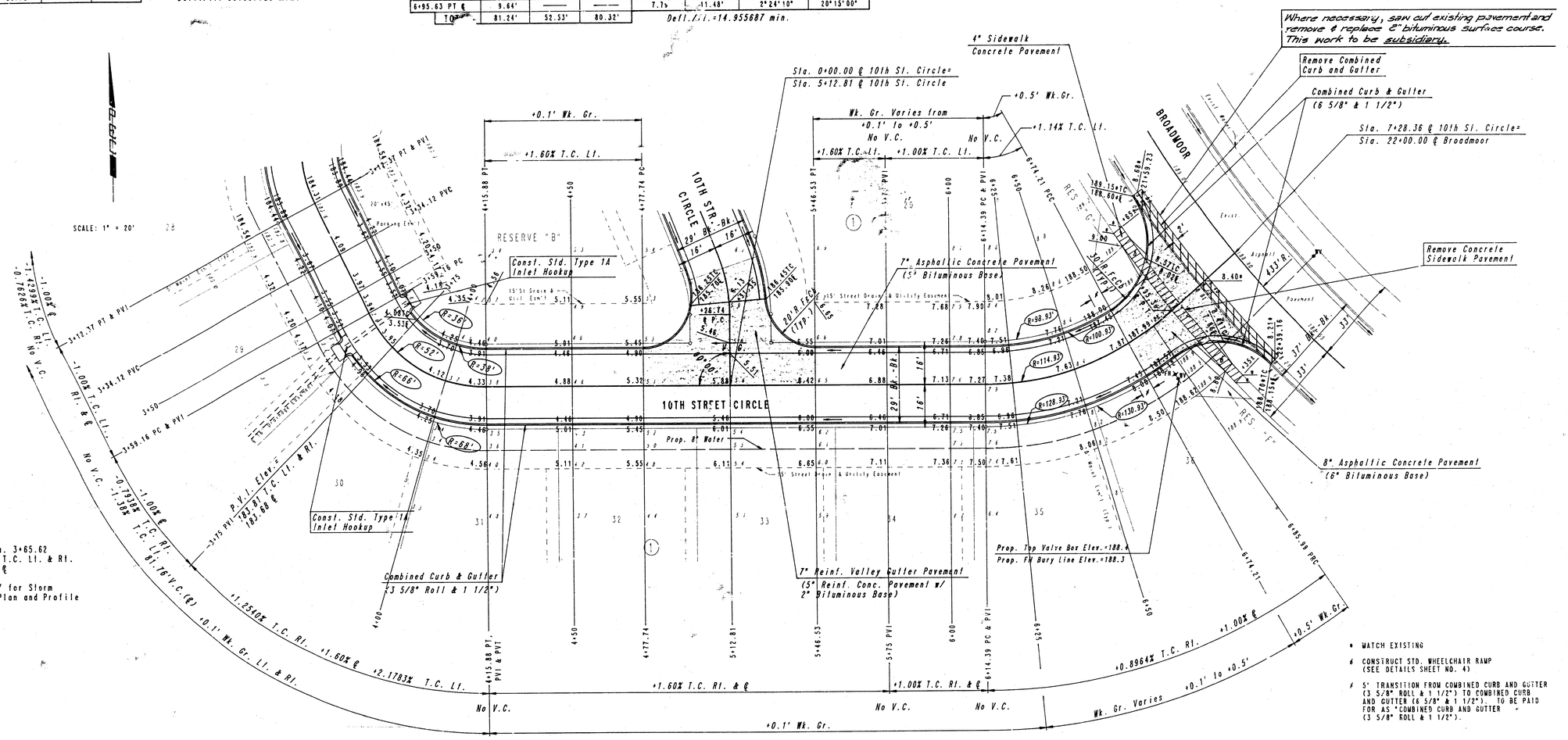
Defl./ft.=14.955687 min.

NOTE

CONSTRUCT 1 1/2" CURB, KEYWAY, AND DOWEL BARS (AS SHOWN ON STANDARD DRIVE ENTRANCES DETAIL SHEET) ACROSS LIMITS OF PARKING EASEMENT IN RESERVE "B" TO ACCOMODATE FUTURE CONCRETE PARKING PAVEMENT BY OTHERS. TRANSITION CURB FROM ROLL CURB (3 5/8") TO 1 1/2" CURB IN THE 3 FEET ADJACENT TO SAID EASEMENT ON BOTH SIDES. SEE PLAT FOR RESERVE AND EASEMENT LOCATIONS AND DIMENSIONS.

WATER VALVE BOX ELEVATIONS

STREET	STATION	OFFSET	ELEVATION
10TH ST. CIRCLE	0+52.42	23.0' RI.	186.7
10TH ST. CIRCLE	2+63	31.5' RI.	184.9
10TH ST. CIRCLE	2+85	24.0' RI.	184.6
10TH ST. CIRCLE	2+87	24.5' RI.	184.6
10TH ST. CIRCLE	6+82.8	22.0' RI.	188.4



INTERSECTION QUANTITIES

10TH ST. CIRCLE/10TH ST. CIRCLE

125.78 S.Y. 7" Asphaltic Conc. Pavement (5" Bituminous Base)
8.05 S.Y. 2 1/2" Bituminous Base
25.98 L.F. Combined Curb & Gutter (3 5/8" & 1 1/2")
57.39 L.F. Monolithic Edge Curb (3 5/8")
232.15 S.Y. Subgrade Stabilization Manipulation
92.82 S.Y. Reinf. V.G. 5" Concrete & 2" Asphaltic Concrete Base

INTERSECTION QUANTITIES

BROADMOOR/10TH ST. CIRCLE

145.35 S.Y. 8" Asphaltic Conc. Pavement (6" Bituminous Base)
31.74 S.Y. 3" Bituminous Base
105.01 L.F. Combined Curb & Gutter (6 5/8" & 1 1/2")
18.5 S.Y. Remove & Replace 2" Surface Course
182.81 S.Y. Subgrade Stabilization Manipulation

NOTE: THIS STREET TO BE CONSTRUCTED WITH ROLL-TYPE CURB EXCEPT AS NOTED. TOP OF CURB ELEVATIONS GIVEN ARE FOR FULL HEIGHT CURB.

FAIRFIELD CLUB-PHASE I

10TH STREET CIRCLE

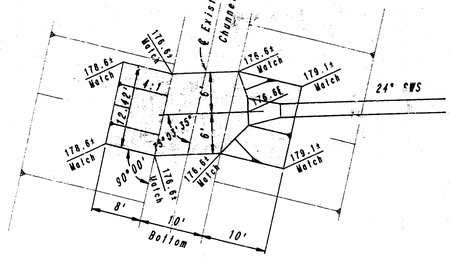
STA. 3+12.33 TO STA. 7+28.32

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ENGINEERS
WICHITA, KANSAS

6/13

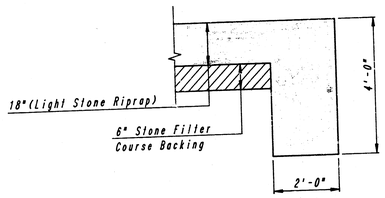
Designed by	CSB, GDD	Checked by		
Drawn by	DEP	Date MAR., 1988	Job No.	87629

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RIPRAP DETAIL

SCALE: 1" = 10'

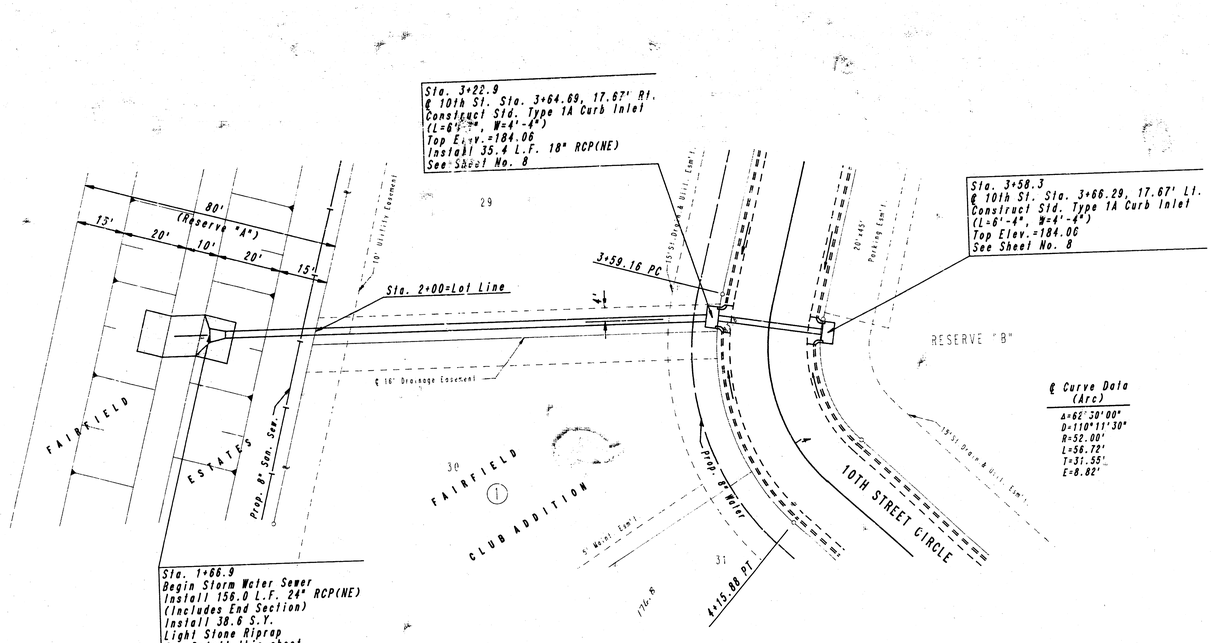


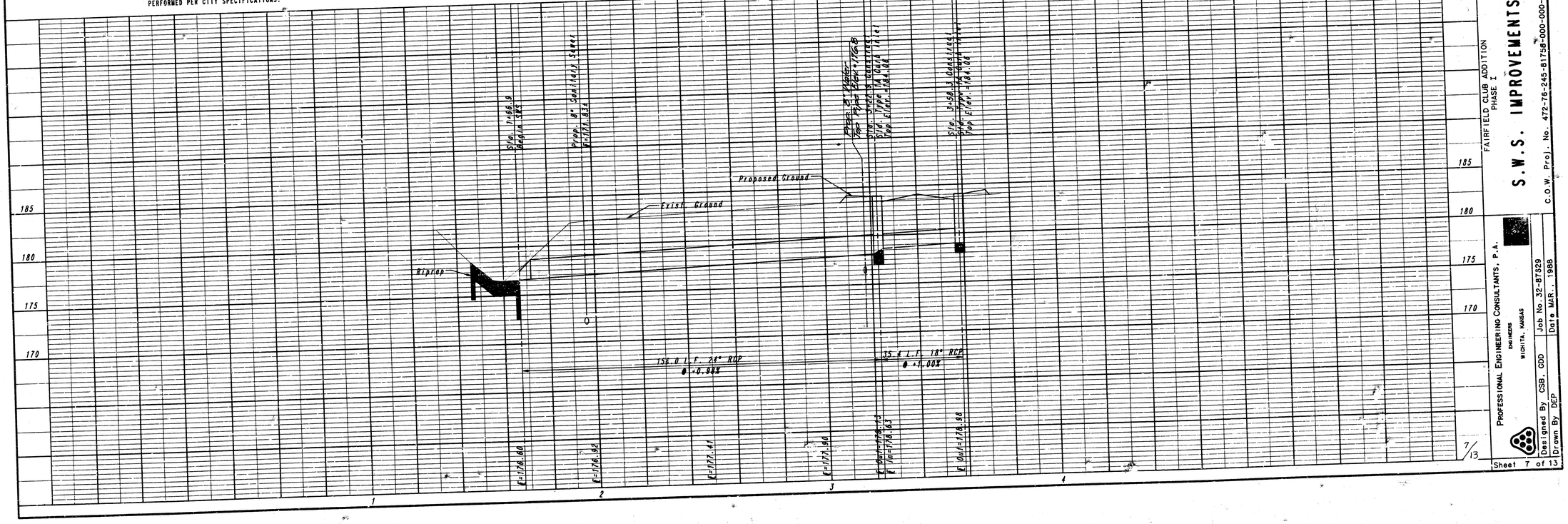
TYPICAL SECTION THRU TOEWALL

NO SCALE

NOTES

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





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

Designed By CSB, GDD
Drawn By DEP
Job No. 32-87529
Date MAR., 1988

FAIRFIELD CLUB ADDITION
PHASE I

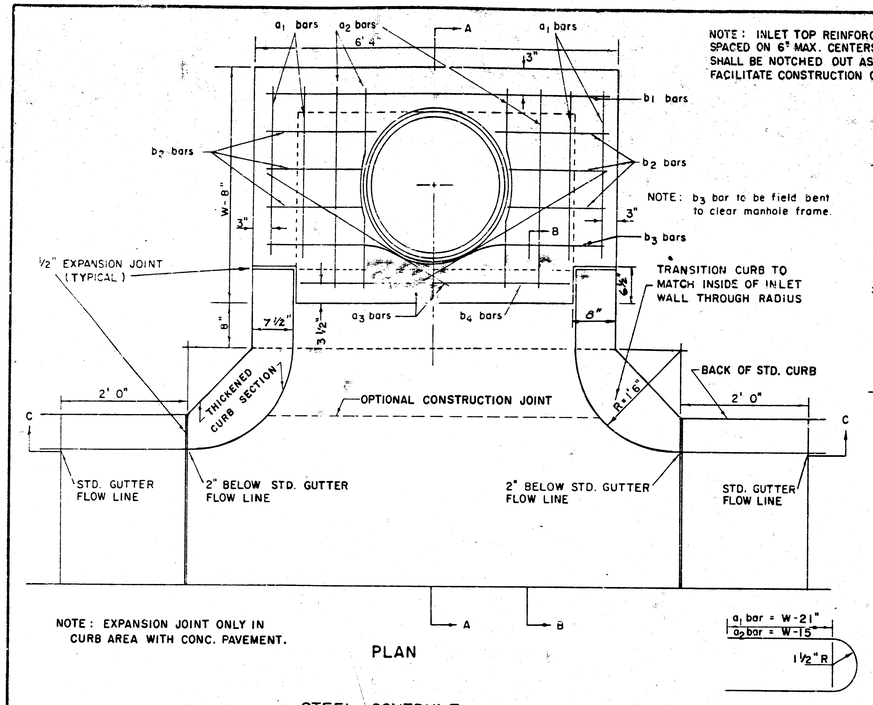
S.W.S. IMPROVEMENTS

C.O.W. Proj. No. 472-76-245-81758-000-000-001

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Sheet 7 of 13

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NOTE: EXPANSION JOINT ONLY IN CURB AREA WITH CONC. PAVEMENT.

PLAN

NOTE: INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB.

NOTE: b_3 bar to be field bent to clear manhole frame.

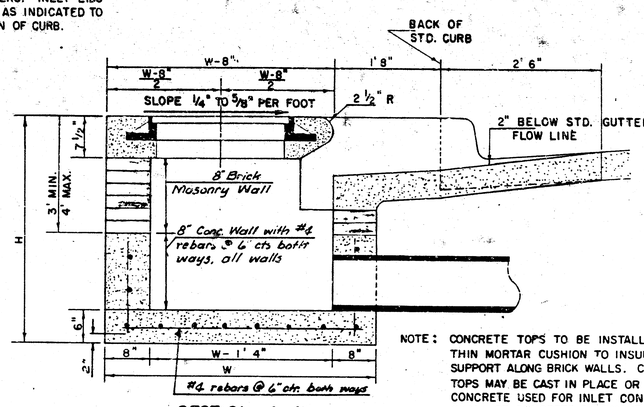
BENDING DIAGRAM

STEEL SCHEDULE

BAR	a_1	a_2	a_3*	b_1 W=4'4"	W=5'4"	W=6'4"	W=7'4"	W=8'4"	b_2	b_3	b_4	WT. LBS.
NUMBER	4	4	2	1	3	5	7	9	6	1	1	
SIZE	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6	
LENGTH W=4'4"	5'7"	6'7"	4'0"	6'1"	–	–	–	–	1'9"	6'2"	4'8"	60±
LENGTH W=5'4"	7'7"	8'7"	5'0"	–	6'1"	–	–	–	1'9"	6'2"	4'8"	81±
LENGTH W=6'4"	9'7"	10'7"	6'0"	–	–	6'1"	–	–	1'9"	6'2"	4'8"	101±
LENGTH W=7'4"	11'7"	12'7"	7'0"	–	–	–	6'1"	–	1'9"	6'2"	4'8"	121±
LENGTH W=8'4"	13'7"	14'7"	8'0"	–	–	–	–	6'1"	1'9"	6'2"	4'8"	141±

* NOTE: a_3 BARS TO BE PLACED APPROX. 2" BELOW TOP OF INLET COVER

STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4' 4"	3'8"x 6'4" x7 1/2"	21" & SMALLER	0.58 ±
5' 4"	4'8"x 6'4" x7 1/2"	24" & 30"	0.7 ±
6' 4"	5'8"x 6'4" x7 1/2"	36" & 42"	0.84 ±
7' 4"	6'8"x 6'4" x7 1/2"	48" & 54"	0.7 ±
8' 4"	7'8"x 6'4" x7 1/2"	60" & 66"	0.90 ±



SECTION A-A

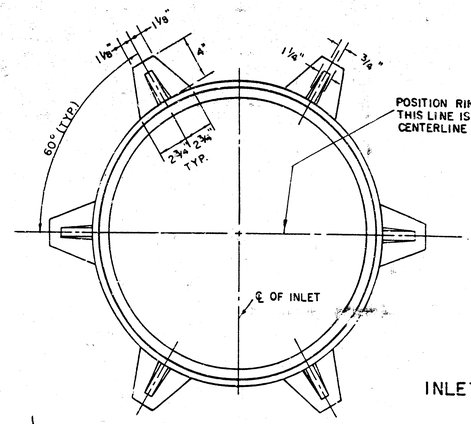
NOTE: CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL BE CONCRETE PAVEMENT MIX.

NOTE: CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W = 6'4" AND H = 7'0" OR LESS.

ADDITIONAL CURB AND GUTTER CONSTRUCTION NECESSARY TO CONNECT SET-BACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET HOOKUP.

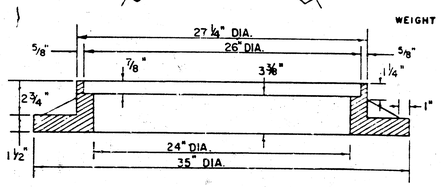
INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

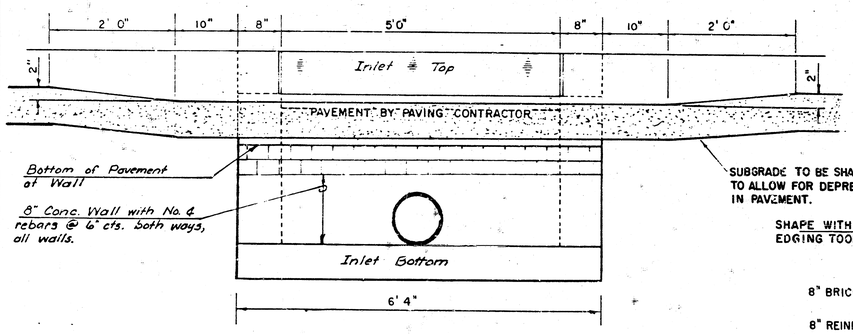


INLET FRAME

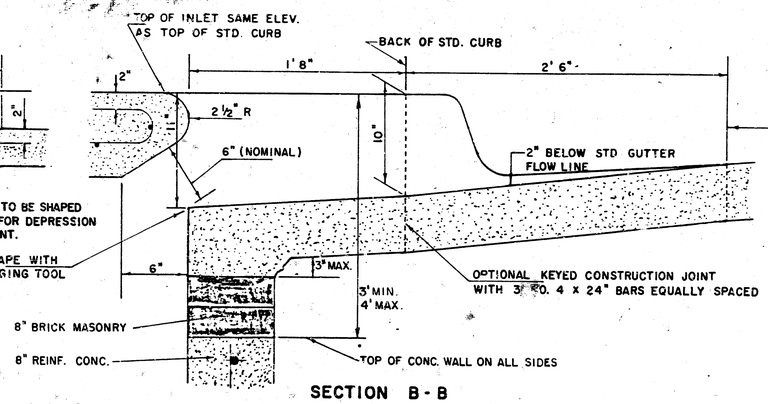
WEIGHT = 180 LBS.



SEE CITY OF WICHITA STANDARD MANHOLE FRAME AND COVER DETAIL SHEET FOR COVER DETAILS TO BE USED WITH INLET FRAME.



SECTION C-C



SECTION B-B

REVISED 12-21-1984

Proj. No. 472 76 245 81758 000 000 001

DETAIL STANDARD TYPE 1A CURB INLET

CITY OF WICHITA, KANSAS

INLET OPENING = 6" x 5' 0"

JUNE 1984

8/13

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MANHOLE FRAME AND COVER DETAIL

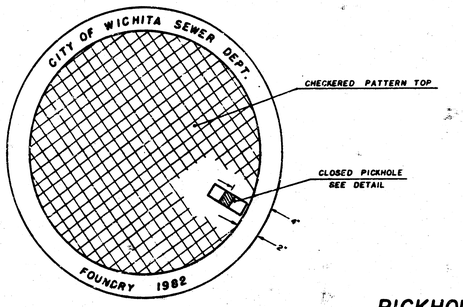
ADOPTED AS STANDARD DESIGN

BY

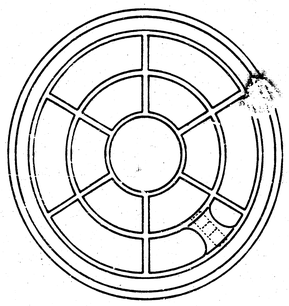
City of Wichita, Kansas

MANHOLE COVER

Weight: 180 Lbs.

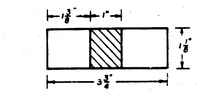


TOP VIEW

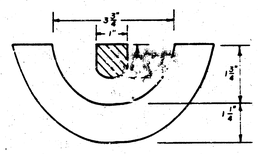


BOTTOM VIEW

PICKHOLE DETAIL



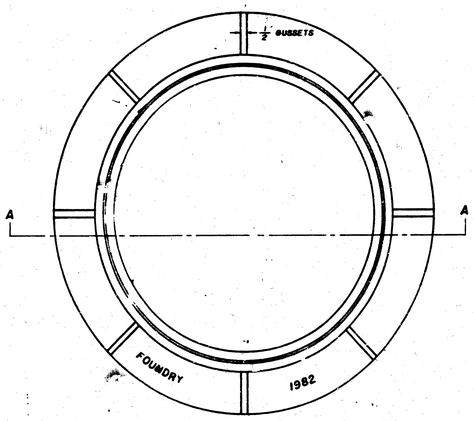
TOP VIEW



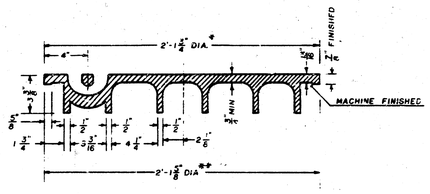
SECTION VIEW

MANHOLE FRAME

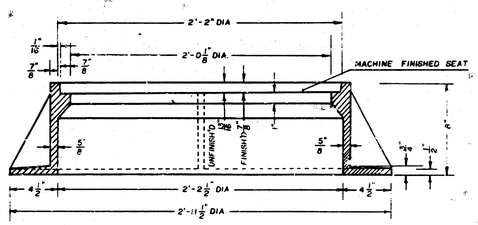
Weight: 240 Lbs.



TOP VIEW



SECTION VIEW



SECTION A-A

* OUTSIDE DIA TOP OF COVER

** OUTSIDE DIA BOTTOM OF COVER

GENERAL NOTES

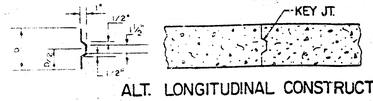
1. MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.
2. MANHOLE CASTINGS SHALL BE COATED WITH AN ASPHALT PAINT RESULTING IN A SMOOTH, TOUGH AND TENACIOUS COATING WHICH IS NOT BRITTLE OR TACKY.
3. MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY 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.
4. 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 SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.
5. 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" IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN 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.

JNL DEC. 1981

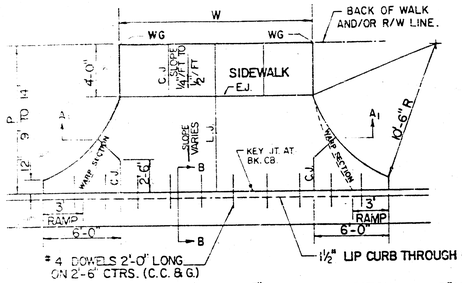
Proj. No. 472 76 245 81758 000 000 001

Fairlawn Club

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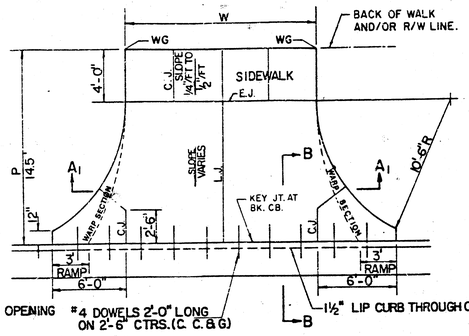


ALT. LONGITUDINAL CONSTRUCTION JOINT



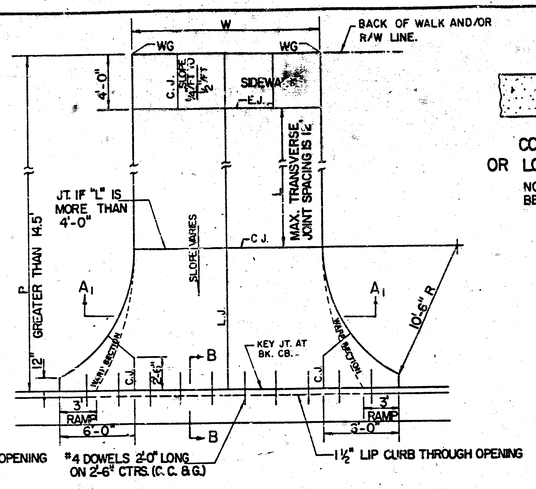
#4 DOWELS 2'-0" LONG ON 2'-6" CTRS. (C.C. & G.)

1½" LIP CURB THROUGH OPENING



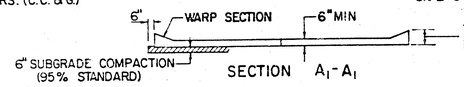
#4 DOWELS 2'-0" LONG ON 2'-6" CTRS. (C. C. & G.)

1½" LIP CURB THROUGH OPENING



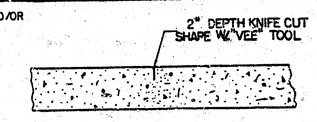
#4 DOWELS 2'-0" LONG ON 2'-6" CTRS. (C. C. & G.)

1½" LIP CURB THROUGH OPENING



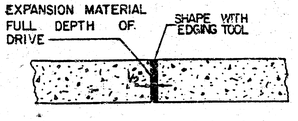
THICKNESS VARIES FROM 13" AT STREET CURB LINE TO 6" AT END OF 10'-6" RADIUS.

SECTION A_1 - A_1

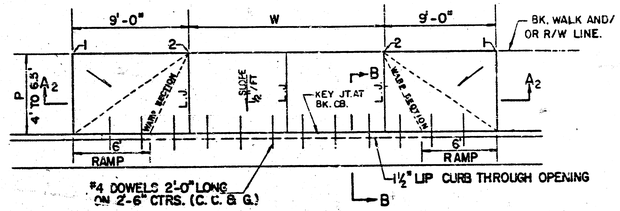


CONTRACTION JOINT (C.J.) OR LONGITUDINAL JOINT (L.J.)

NO SAWN JOINTS WILL BE ALLOWED.



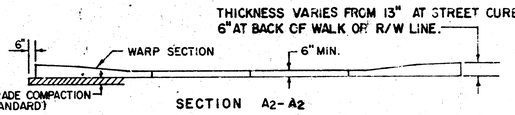
EXPANSION JOINT (E.J.)



#4 DOWELS 2'-0" LONG ON 2'-6" CTRS. (C. C. & G.)

1½" LIP CURB THROUGH OPENING

THICKNESS VARIES FROM 13" AT STREET CURB LINE TO 6" AT BACK OF WALK OR R/W LINE.



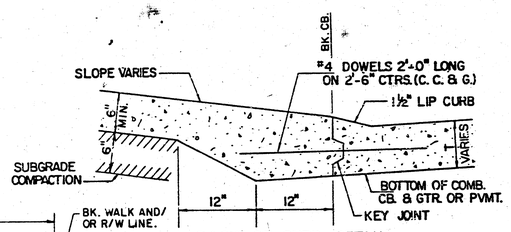
SECTION A_2 - A_2

PARKING WIDTH "P"	4'	4.5'	5'	5.5'	6'	6.5'
DIST. OF PT. "1" ABOVE TOP OF FULL CB.	0.08'	0.09'	0.10'	0.12'	0.13'	0.14'
DIST. OF PT. "2" BELOW TOP OF FULL CB.	-.26'	-.24'	-.22'	-.20'	-.18'	-.16'

FULL RAMP DRIVE (P=4.0' TO 6.5')

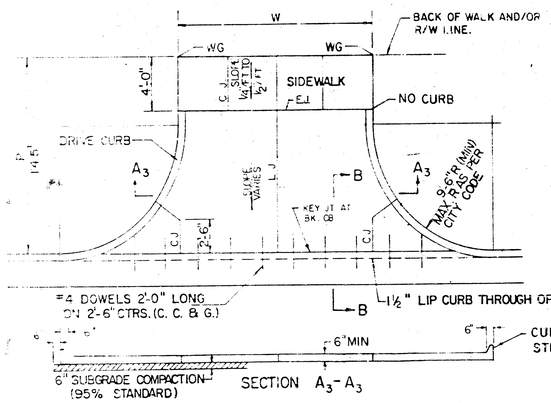
PARKING WIDTH "P"	9'	10'	11'	12'	13'	14.5'	20'	25'	30'	35'	40'	45'	50'
ABSOLUTE MAX. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.35'	0.35'	0.40'	0.45'	0.60'	0.80'	1.35'	1.85'	2.35'	2.85'	3.35'	3.85'	4.35'
OPTIMUM MAX. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.35'	0.35'	0.40'	0.45'	0.60'	0.70'	1.04'	1.30'	1.56'	1.82'	2.08'	2.34'	2.60'
OPTIMUM MIN. DIST. OF PT. "WG" ABOVE TOP OF FULL CURB	0.19'	0.21'	0.23'	0.25'	0.27'	0.30'	0.42'	0.52'	0.62'	0.72'	0.82'	0.92'	1.02'
ABSOLUTE MIN. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	-.19'	-.16'	-.13'	-.10'	-.06'	0.00	0.00	0.15'	0.25'	0.35'	0.45'	0.55'	0.65'

RADIUS RAMP DRIVES (P = 9.0' & GREATER)



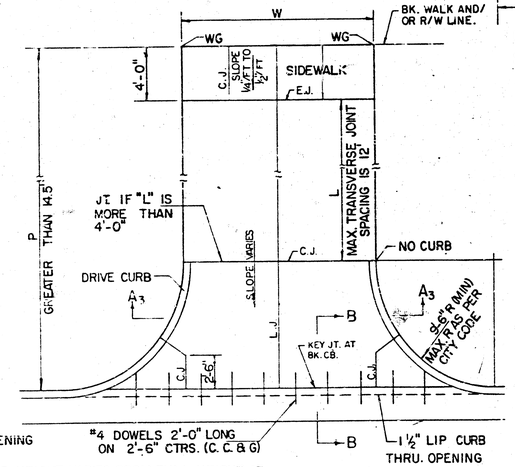
BACK OF CURB DETAIL

SECTION B - B (no scale)



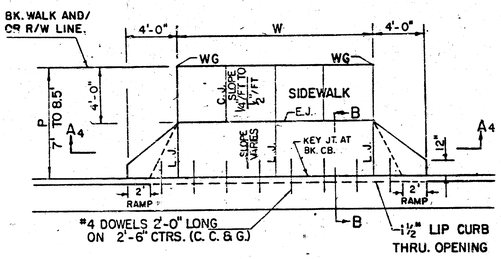
#4 DOWELS 2'-0" LONG ON 2'-6" CTRS. (C. C. & G.)

1½" LIP CURB THROUGH OPENING



#4 DOWELS 2'-0" LONG ON 2'-6" CTRS. (C. C. & G.)

1½" LIP CURB THRU. OPENING



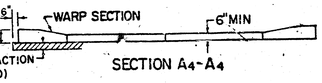
#4 DOWELS 2'-0" LONG ON 2'-6" CTRS. (C. C. & G.)

1½" LIP CURB THRU. OPENING

CURB HEIGHT VARIES FROM FULL HEIGHT AT STREET CURB LINE TO NO CURB AS INDICATED.

SECTION A_3 - A_3

THICKNESS VARIES FROM 13" AT STREET CURB LINE TO 6" AT SIDEWALK SECTION.



SECTION A_4 - A_4

PARKING WIDTH "P"	14.5'	20'	25'	30'	35'	40'	45'	50'
ABSOLUTE MAX. DIST. OF PT "WG" ABOVE TOP OF FULL CB.	0.80	1.35'	1.85'	2.35'	2.85'	3.35'	3.85'	4.35'
OPTIMUM MAX. DIST. OF PT "WG" ABOVE TOP OF FULL CB.	0.70'	1.04'	1.30'	1.56'	1.82'	2.08'	2.34'	2.60'
OPTIMUM MIN. DIST. OF PT "WG" ABOVE TOP OF FULL CB.	0.30	0.42'	0.52'	0.62'	0.72'	0.82'	0.92'	1.02'
ABSOLUTE MIN. DIST OF PT. "WG" ABOVE TOP OF FULL CB.	0.00	0.00'	0.15'	0.25'	0.35'	0.45'	0.55'	0.65

FULL RADIUS DRIVES (P=14.5' & GREATER)

PARKING WIDTH "P"	7'	7.5'	8'	8.5'
ABSOLUTE MAX. DIST OF PT. "WG" ABOVE TOP OF FULL CB.	0.00'	0.10'	0.20'	0.30'
OPTIMUM MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.00'	0.10'	0.20'	0.30'
OPTIMUM MIN. DIST. OF PT. "WG" BELOW TOP OF FULL CB.	-.15'	-.16'	-.17'	-.17'
ABSOLUTE MAX. DIST OF PT. "WG" BELOW TOP OF FULL CB.	-.25'	-.20'	-.20'	-.20'

FULL RAMP DRIVE (P=7.0' TO 8.5')

GENERAL NOTES

1. DRIVEWAY CONSTRUCTION DETAILED ON THIS SHEET IS FOR USE WITH FULL HEIGHT STREET CURBS AND IN AREAS WITHOUT FULL WALK CONSTRUCTION IN THE PARKING. SEE OTHER DETAIL SHEETS FOR DRIVEWAY CONSTRUCTION WITH ROLL CURB AND/OR FULL WALK.
2. ONE LONGITUDINAL JOINT SHALL BE CONSTRUCTED ALONG THE CENTERLINE OF DRIVES HAVING A "W" DIMENSION OF 24' OR LESS. TWO LONGITUDINAL JOINTS SHALL BE CONSTRUCTED WITH EQUAL SPACINGS NOT TO EXCEED 10' FOR DRIVES WITH A "W" DIMENSION GREATER THAN 24'.
3. DRIVEWAY WIDTH DENOTED AS "W" ON THE DETAIL DRAWINGS SHALL BE A MINIMUM OF 10' AND A MAXIMUM OF 30'. THE MAXIMUM OPENING FOR RADIUS TYPE DRIVES WITH CURBS THROUGH THE RADIUS SHALL NOT EXCEED 52' AT THE STREET CURB LINE.
4. CONTRACTION JOINT SPACING IN THE DRIVEWAY WALK SECTION SHALL BE A MINIMUM OF 3' AND A MAXIMUM OF 6' AND ARE TO BE EQUALLY SPACED WITHIN THIS RANGE. WALK SECTION SHALL BE CONSTRUCTED TO THE SAME THICKNESS AS THE DRIVEWAY.
5. DOWEL BARS SHALL BE OMITTED FROM THE KEYED CONSTRUCTION JOINT ALONG THE BACK OF THE STREET CURB LINE WHEN DRIVEWAYS ARE CONSTRUCTED IN CONJUNCTION WITH NEW CONCRETE PAVEMENT CONSTRUCTION.
6. ADDITIONAL THICKNESS OF DRIVE AS INDICATED IN THE DRAWINGS WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE DRIVEWAY CONSTRUCTION.
7. ONE HALF INCH EXPANSION JOINTS SHALL BE INSTALLED WHEREVER DRIVE CONSTRUCTION ABUTS SIDEWALK. ONE HALF INCH EXPANSION JOINTS SHALL ALSO BE INSTALLED ALONG THE PROPERTY LINE AND/OR BACK OF WALK LINE WHEN DRIVE CONSTRUCTION ALONG THIS LINE ABUTS CONCRETE PARKING LOTS OR CONCRETE DRIVE EXTENSION.
8. ALL DRIVEWAYS SHALL BE A MINIMUM OF 6" IN THICKNESS AND SHALL BE WITHOUT REINFORCEMENT. DRIVEWAYS MAY BE CONSTRUCTED THICKER THAN 6" AND THEY MAY BE REINFORCED WITH 6"x12" W4-W4 WELDED WIRE FABRIC WHEN PROPERLY AUTHORIZED BY THE PROPERTY OWNER WITH THE ENGINEER'S CONCURRENCE.
9. OPTIMUM DRIVEWAY ELEVATIONS SHOWN IN THE TABLES ARE TO BE USED WHEREVER POSSIBLE. ABSOLUTE MAXIMUM AND MINIMUM ELEVATIONS ARE TO BE USED ONLY WHEN THESE VALUES WILL PERMIT NEW CONSTRUCTION TO MATCH EXISTING DRIVES OR PARKING LOTS. VALUES SHOWN IN THE TABLES ARE BASED ON A FULL CURB HEIGHT ELEVATION OF 0.55' ABOVE THE GUTTER FLOW LINE AND MUST BE ADJUSTED ACCORDINGLY FOR OTHER CURB HEIGHTS. VALUES SHOWN IN THE TABLES WITH MINUS SIGNS INDICATE ELEVATIONS BELOW TOP OF FULL HEIGHT CURB.

REVISED OCTOBER 1985

SCALE: 1"=5'

STANDARD DRIVE ENTRANCES FULL HEIGHT CURB

CITY OF WICHITA, KANSAS

PROJECT NUMBER 472 76 245 81758 000 000 001

10/13

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Proj. No. 472 to 245 8/158 000 000 001

Sheet No. 11 of 13

11/13

10th St. Circle
Sta. 0+26.74 to Sta. 2+18.03

Excavation
X-sec. 706 C.Y.
10% 71 C.Y.
Total 777 C.Y.

Loose Fill
X-sec. 293 C.Y.
10% 29 C.Y.
Total 322 C.Y.

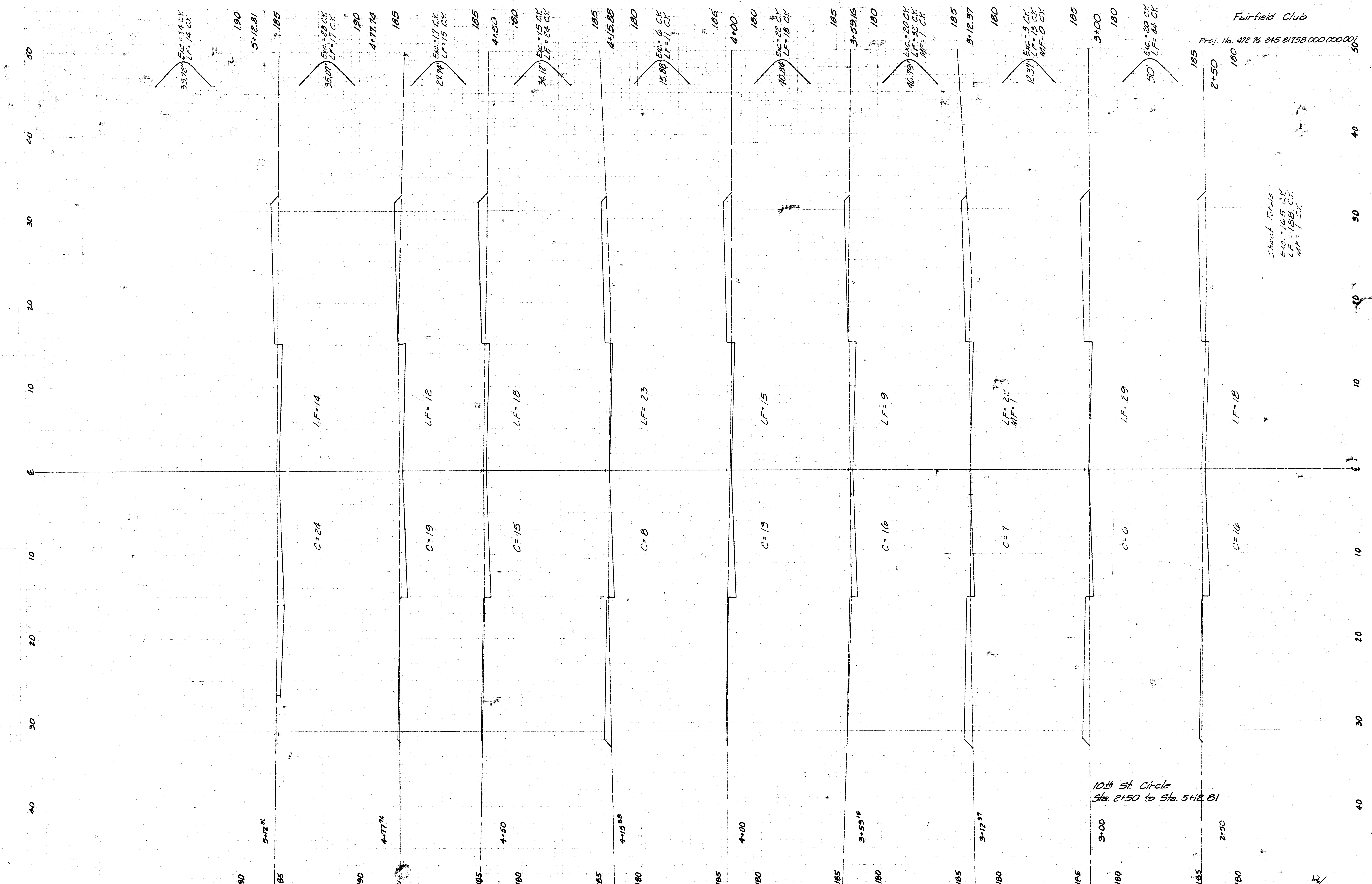
Mechanically Compacted Fill
X-sec. 1 C.Y.
10% 0 C.Y.
Total 1 C.Y.

Excess Fill
Exc. = 112 C.Y.
LF = 93 C.Y.

Sta.	Exc.	C	LF	Exc.	Sta.
0+26.74		11			0+26.74
0+31.35	4.61' Exc. = 3 C.Y. LF = 2 C.Y.	14	14		0+31.35
0+44.12	12.77' Exc. = 8 C.Y. LF = 7 C.Y.	19	15		0+44.12
0+50.42	6.30' Exc. = 5 C.Y. LF = 4 C.Y.	19	15		0+50.42
1+05.82	55.40' Exc. = 39 C.Y. LF = 31 C.Y.	13	15		1+05.82
1+50	44.18' Exc. = 35 C.Y. LF = 14 C.Y.	30	2		1+50
1+74.81	24.81' Exc. = 26 C.Y. LF = 8 C.Y.	28	10		1+74.81
2+00	25.19' Exc. = 25 C.Y. LF = 7 C.Y.	28	6		2+00
2+18.03	18.03' Exc. = 16 C.Y. LF = 5 C.Y.	19	10		2+18.03
	31.97' Exc. = 21 C.Y. LF = 17 C.Y.				

Fairfield Club

Proj. No. 472 76 245 81758 000 000 001



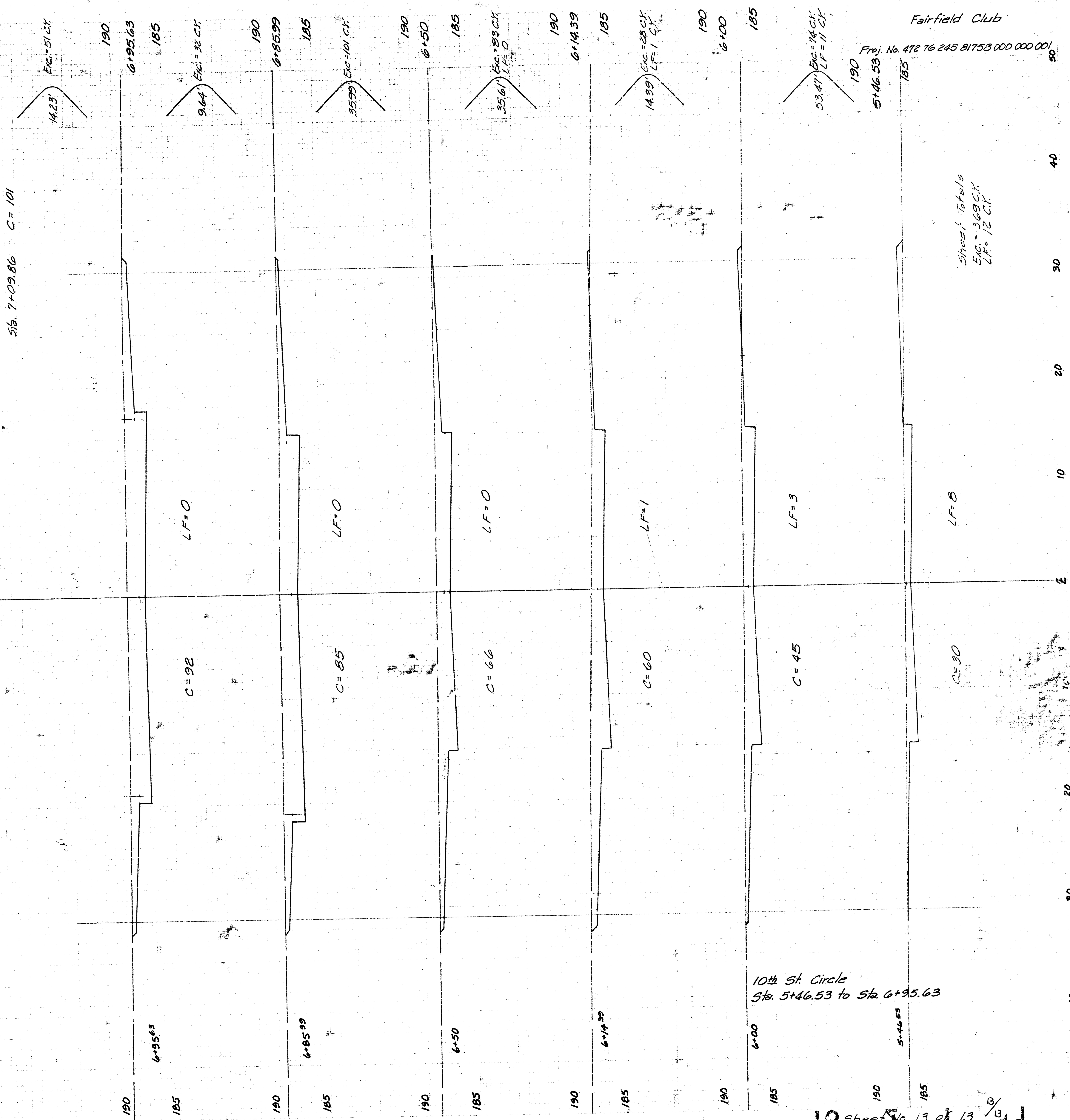
Sheet No. 12 of 13

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10th St. Circle
Sta. 5+46.53 to Sta. 6+95.63

Sheet No. 13 of 13 13/13

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