STREET IMPROVEMENTS

for

PINECREST STREET

From the N. Line Lot 5, UNIVERSITY GARDENS 2ND ADDN., and the S. Line of Lot 2, WICHITA LAND ADDN. to the N. Line of LOOMAN.

PROJECT NUMBER

472-76-245-81339-000-000-001

GENERAL NOTES

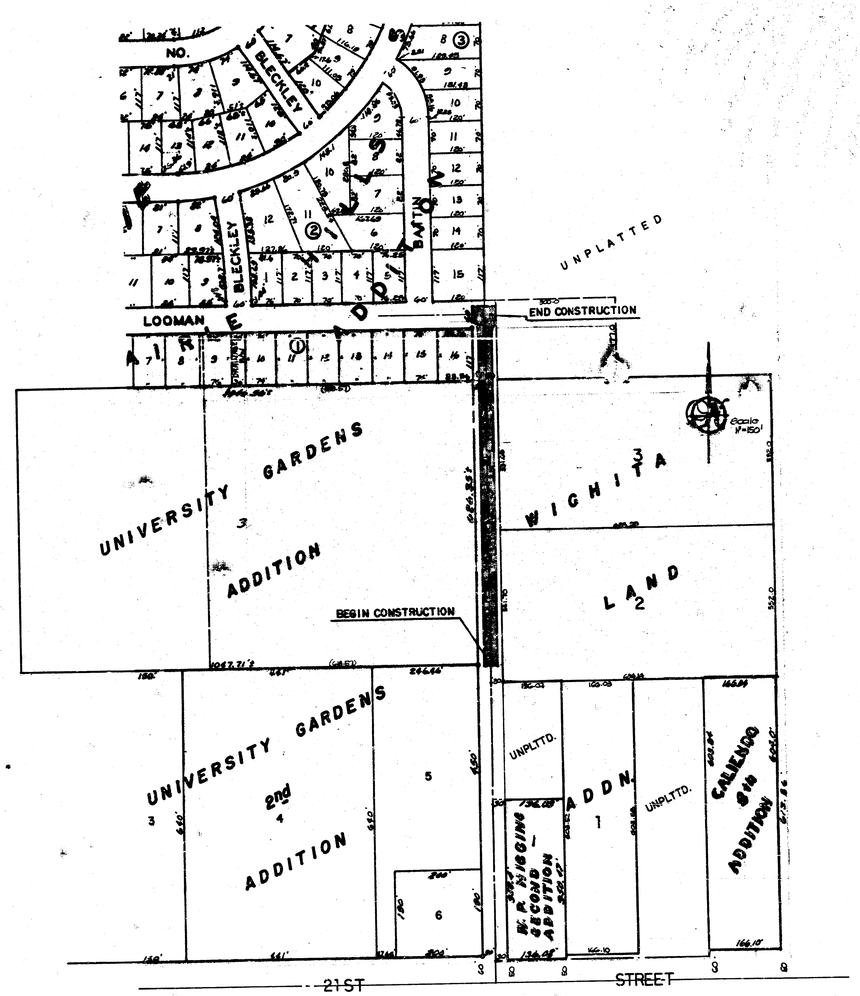
No more than 3 drives 30 feet in width, or equivalent combinations thereof, are to constructed with this project.

The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor or a licensed professional engineer in accordance with state laws.

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.

The Contractor shall contact the owner(s) of Lot 16, Block 1, Prairie Hills Addition at least 14 days prior to beginning construction to allow the owner(s) the opportunity to remove and/or relocate the shed and fencing encroaching street right-of-way on his own.

Contractor shall contact Cablevision and K. G. & E. in order to make arrangements for the lowering or relocation of their underground lines prior to proceeding with construction.



BENEFIT DISTRICT

BENCHMARKS

1. 33' west and 42' north of E 21st ST. and Oliver intersection Elev.=2178.2 city datum
2. 'D' cut in top of curb W. side Pinecrest, 10'± south of NL lot 5, University Gardens 2nd Addn. Elev.=2107.03
3. N. Rim manhole, STA. 3+25, 20' rt. Elev.=1998.16
4. N. Rim manhole, STA. 0+30, 20' rt. Elev.=1994.50
5. 'D' cut in top of inlet, N. side Looman. Elev.=1995.61

CITY of WICHITA, KANSAS

MICHAEL E. LINDEBAK
CITY ENGINEER

INDEX of SHEETS

Title sheet	1
Typical Section	2
Paving Plans	3-4
Storm Sewer Plans	5
Manhole Detail	6-6A
Inlet Detail	7
Cross Sections	8-0

REVISED MANHOLE FROM TYPE 'B' OR 'C' TO 'A' SHALLOW OCT 21-87
SHEET 6A HAS BEEN REMOVED.

TITLE SHEET

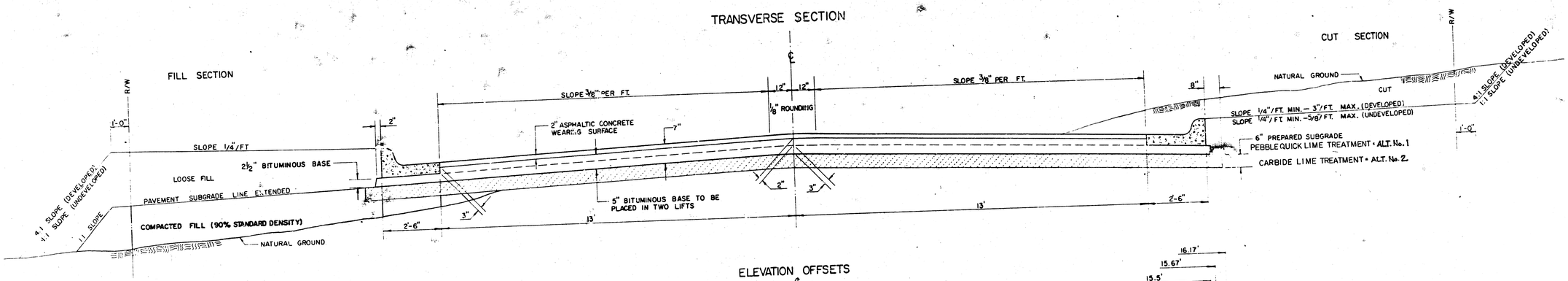
N. BRENT WOOTEN LICENSED 8470 KANSAS PROFESSIONAL ENGINEER

BAUGHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
316-262-7771 • 315 EL.S. • WICHITA, KANSAS 67211

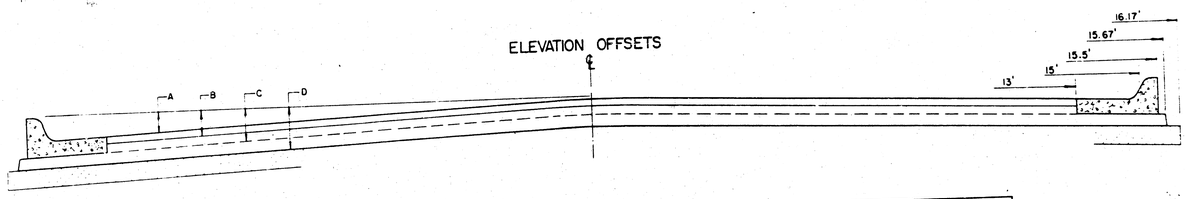
Design	Drawn	Approved	Date	Scale	Sheet	Sheets
W. Bahnsen	Scaljn.	EJ	February 87	1"=20'	1	9

TYPICAL 31' PAVEMENT DETAILS

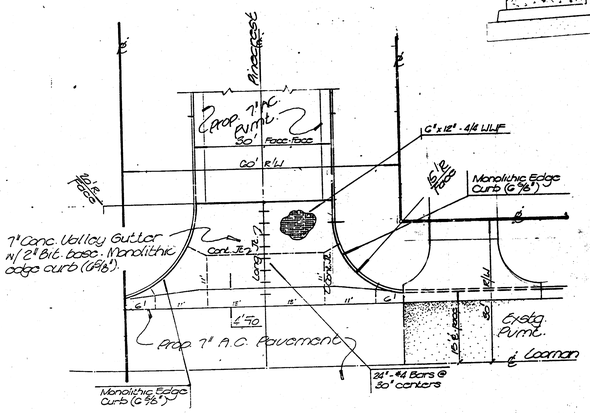
TRANSVERSE SECTION



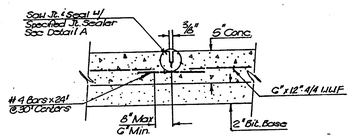
ELEVATION OFFSETS



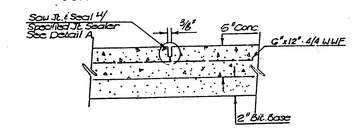
VALLEY GUTTER DETAIL



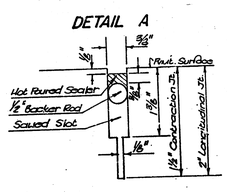
LONGITUDINAL JOINT DETAIL



CONTRACTION JOINT DETAIL



DETAIL A



	DISTANCE FROM CENTERLINE (LT. & RT.)											
	0'	2'	4'	6'	7.5'	10'	12'	13'	15'	15.5'	15.67'	16.17'
A: TOP OF CURBS TO TOP OF SURFACE LIFT	0.10	0.14	0.21	0.27	0.32	0.39	0.46	0.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	0.27	0.31	0.38	0.44	0.49	0.56	0.63	0.66	—	—	—	—
C: TOP OF CURBS TO TOP OF LOWER BASE LIFT	0.44	0.49	0.57	0.64	0.70	0.79	0.87	0.90	0.98	1.00	1.00	—
D: TOP OF CURBS TO TOP OF SUBGRADE	0.69	0.73	0.80	0.87	0.93	1.01	1.08	1.12	1.19	1.21	1.21	1.23

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.

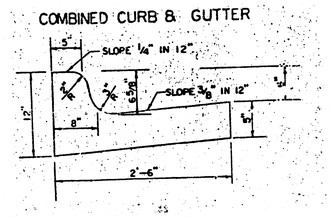
3) A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.

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

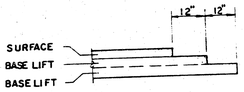
5) CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF ONE (1) FOOT FROM JOINTS IN PRECEDING LIFTS AND PLACED SO THAT A JOINT WILL BE CONSTRUCTED ON THE CENTERLINE OF THE TOP LIFT.

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.

COMBINED CURB & GUTTER



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).

• PINECREST STREET •

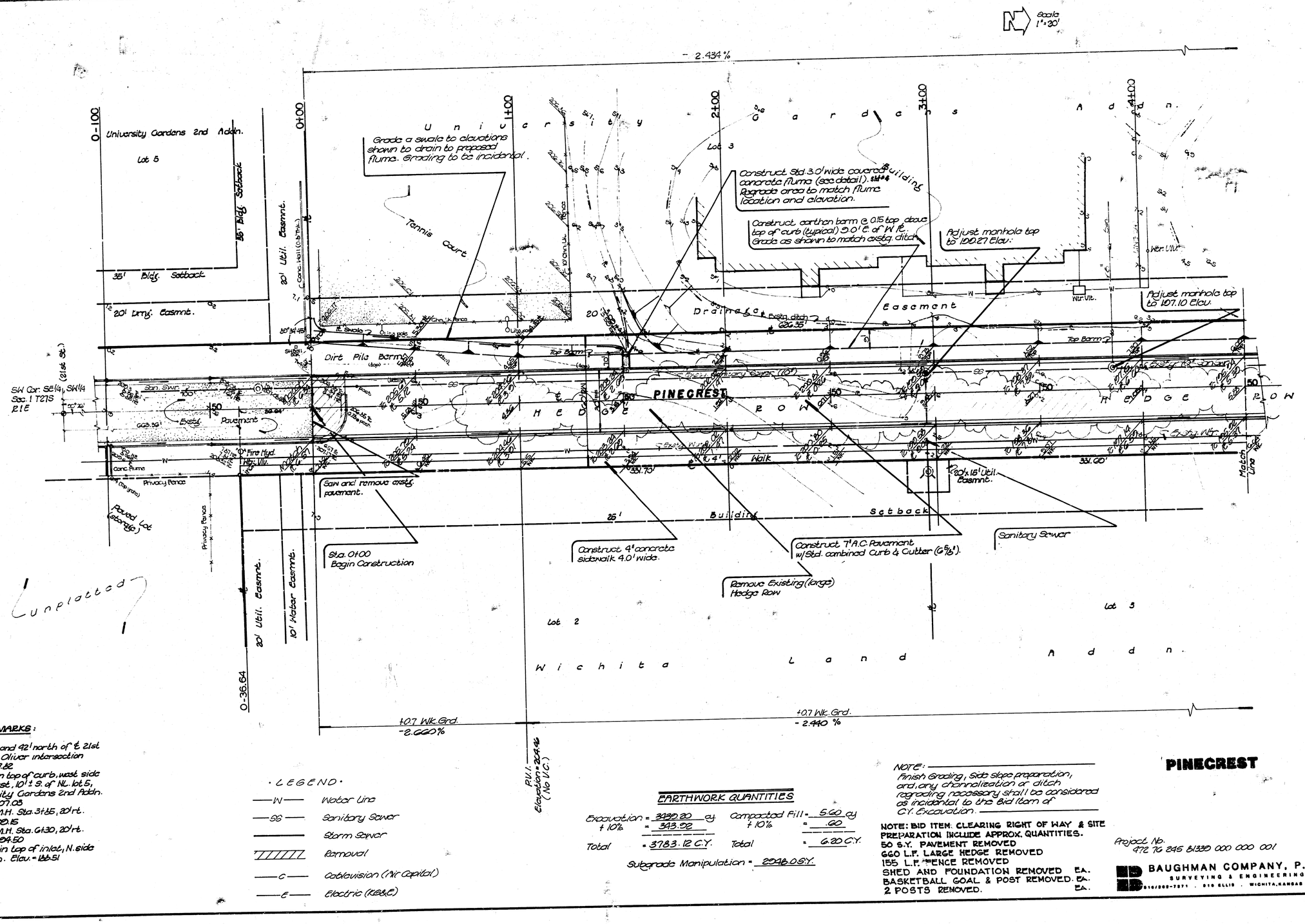
7 INCH RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH 5 INCH BITUMINOUS BASE

CITY OF WICHITA, KANSAS

PROJECT NUMBER

472-76-245-81330-000-000-001

2/9



BENCHMARKS:

1. 38' west and 42' north of E. 21st St. and Oliver intersection Elev. 217.82
2. 'O' cut in top of curb, west side Pinecrest, 10'± S. of NL lot 5, University Gardens 2nd Addn. Elev. = 207.03
3. N. Rim M.H. Sta. 3+85, 20' rt. Elev. = 190.15
4. N. Rim M.H. Sta. 6+30, 20' rt. Elev. = 184.50
5. 'O' cut in top of inlet, N. side Lorman. Elev. = 186.51

· LEGEND ·

—W— Water Line
—SS— Sanitary Sewer
——— Storm Sewer
////// Removal
—C— Cablevision (Mr. Capitol)
—E— Electric (KG&E)

EARTHWORK QUANTITIES

Excavation =	3490.20 cy	Compacted Fill =	560 cy
+ 10% =	343.92	+ 10% =	60
Total =	3783.12 C.Y.	Total =	620 C.Y.

Subgrade Manipulation = 2948.06 S.Y.

NOTE: Finish Grading, Side slope preparation, and any channelization or ditch regrading necessary shall be considered as incidental to the Bid Item of C.Y. Excavation.

NOTE: BID ITEM: CLEARING RIGHT OF WAY & SITE PREPARATION INCLUDE APPROX. QUANTITIES.
50 S.Y. PAVEMENT REMOVED
660 L.F. LARGE HEDGE REMOVED
155 L.F. FENCE REMOVED
SHED AND FOUNDATION REMOVED EA.
BASKETBALL GOAL & POST REMOVED EA.
2 POSTS REMOVED. EA.

PINECREST

Project No.
472 76 245 81330 000 000 001

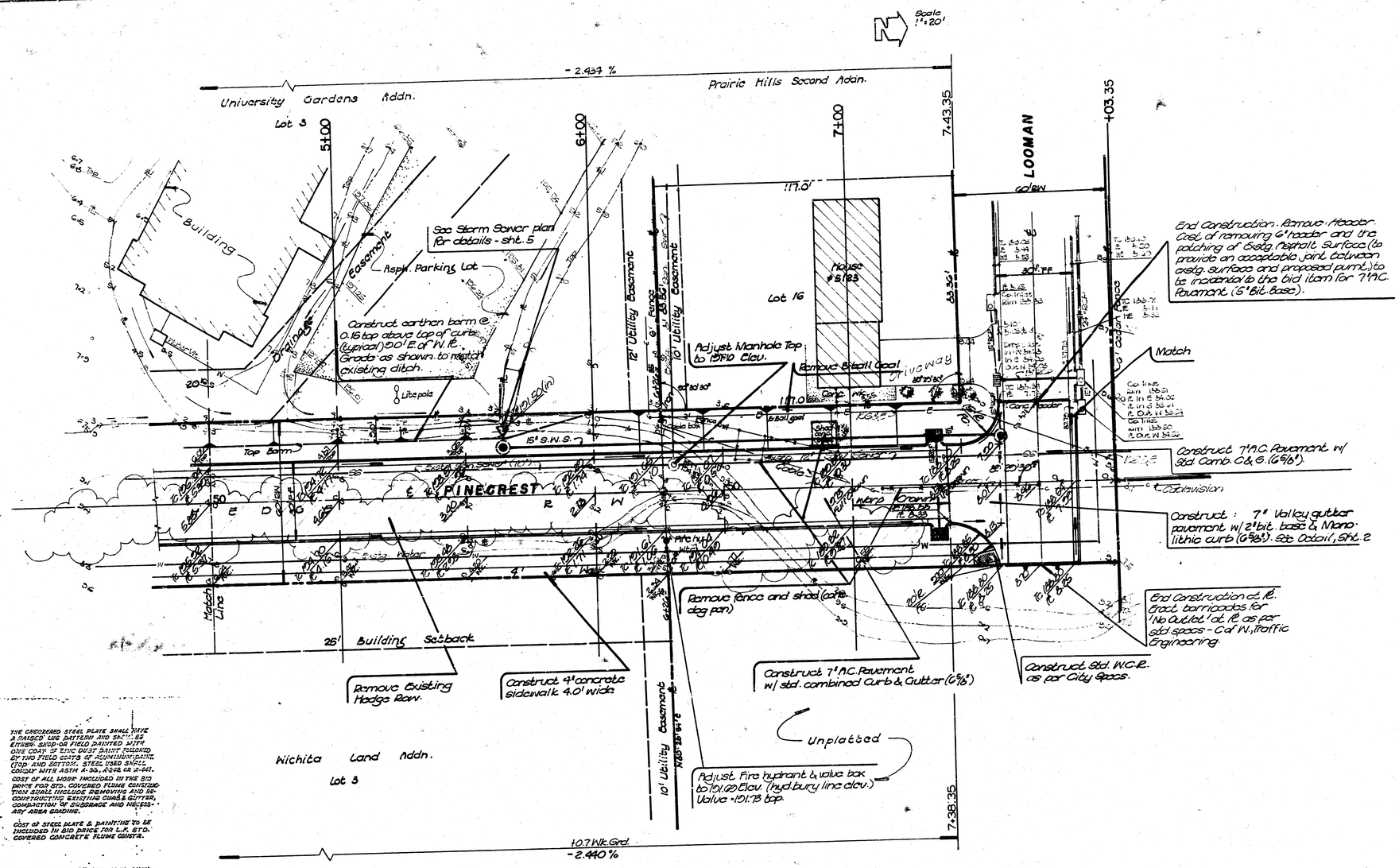
BAUGHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
816/800-7071 · 810 ELLIS · WICHITA, KANSAS 67211

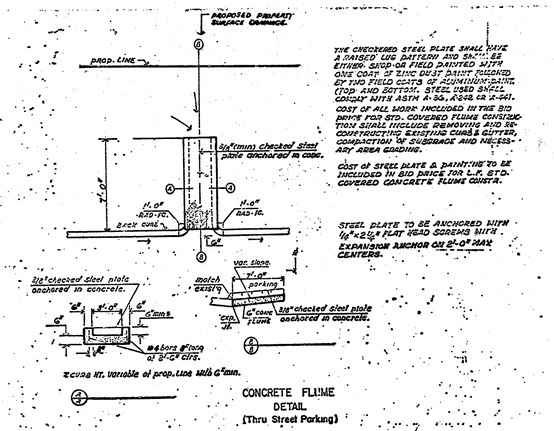
Drn.
Ck.
Date.
Rev. Dwg. #1

Sheet 3
of 9
3/9

BENCHMARKS:

1. 35' west and 42' north of E. 21st St. and Oliver intersection Elev. 217.82
2. 'D' cut in top of curb, west side Pinecrest, 10' ± S. of NE. lot 5, University Gardens 2nd Addn. Elev. = 207.03
3. N. Rim MH. Sta. 3+65, 20' Rt. Elev. = 200.15
4. N. Rim MH. Sta. 6+30, 20' Rt. Elev. = 194.50
5. 'D' cut in top of inlet, N. side Looman. Elev. = 186.51





THE CHECKERED STEEL PLATE SHALL HAVE A RAISED LUG PATTERN AND SHALL BE EITHER: SHOP OR FIELD PAINTED WITH ONE COAT OF ZINC DUST PAINT FOLLOWED BY TWO FIELD COATS OF ALUMINUM PAINT FOR TOP AND BOTTOM. STEEL USED SHALL COMPLY WITH ASTM A-36, A242 OR A-441.

COST OF ALL WORK INCLUDED IN THE BID PRICE FOR STD. COVERED FLUME CONSTRUCTION SHALL INCLUDE REMOVING AND RECONSTRUCTING EXISTING CURB & GUTTER, COMPACTION OF SUBGRADE AND NECESSARY AREA GRADING.

COST OF STEEL PLATE & PAINTING TO BE INCLUDED IN BID PRICE FOR L.F. STD. COVERED CONCRETE FLUME CONSTR.

STEEL PLATE TO BE ANCHORED WITH 1/2" x 2 1/2" FLAT HEAD SCREWS WITH EXPANSION ANCHOR ON 2'-0" MAX CENTERS.

CONCRETE FLUME DETAIL
(Thru Street Parking)

INTERSECTION QUANTITIES

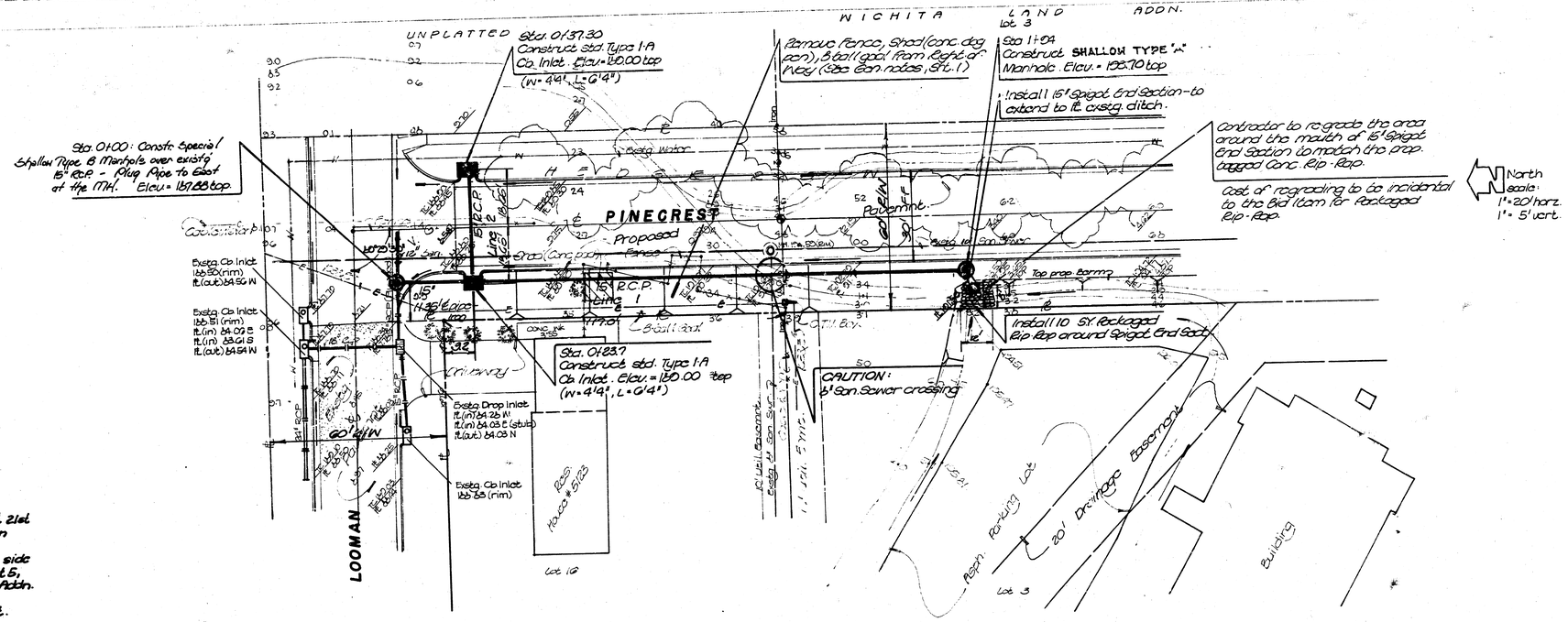
___	S.Y. ___" Concrete Pavement
178.3	S.Y. 7" Asphaltic Conc. Pavement (6" Bituminous Base)
16.0	S.Y. 2½" B Turnbound Base
644.0	L.F. Combined Curb & Gutter
160.0	L.F. Monolithic Curb
___	S.F. 4" Wheel-chair Ramp
___	S.F. 4" Walk
___	C.Y. Excavation
___	C.Y. Compacted Fill
___	Lbs. Reinforcing Steel
27.5	S.Y. Manipulation
___	Tons Lime or Cement
27.5	S.Y. V.C. 6" Concrete & 2" Asphaltic Concrete Base

PINECREST

Project No.
472 76 245 61330 000 000 001

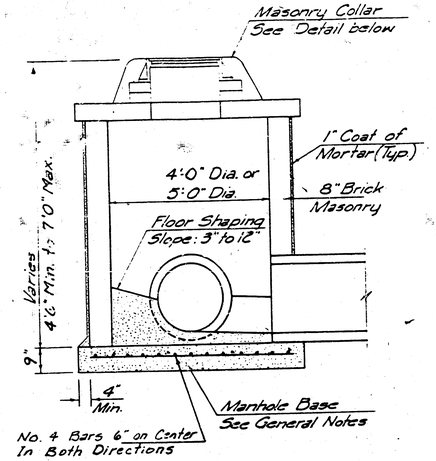
BAUGHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
316/265-7377 . 810 ELLIS . WICHITA, KANSAS 67211

Sheet: 4
of: 9

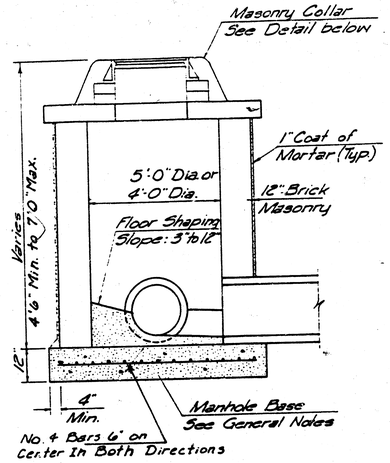


BENCHMARKS:

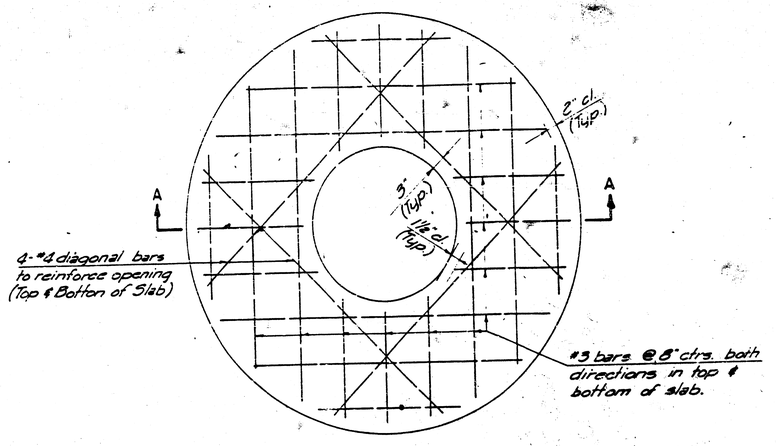
1. 33' west and 42' north of E. 21st St. and Oliver intersection Elev. 1137.82
2. 'O' cut in top of curb, west side Pinecrest, 10'± S. of NL lot 5, University Gardens 2nd Addn. Elev. = 1137.05
3. N. Rim M.H. Sta. 3+25, 20' rt. Elev. = 1120.15
4. N. Rim M.H. Sta. 0+30, 20' rt. Elev. = 1139.50
5. 'O' cut in top of inlet, N. side Looman. Elev. = 1155.51



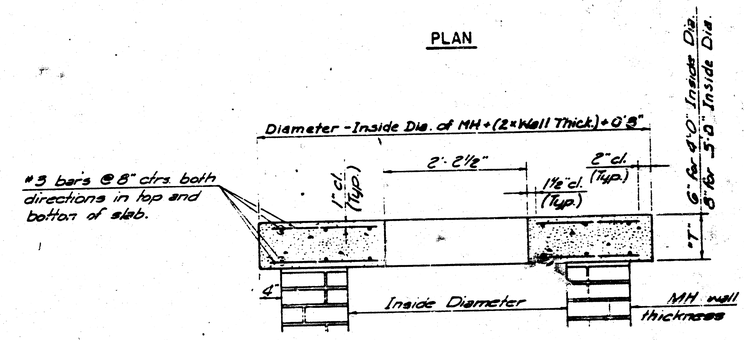
SHALLOW TYPE "A" MANHOLE



SHALLOW TYPE "B" MANHOLE

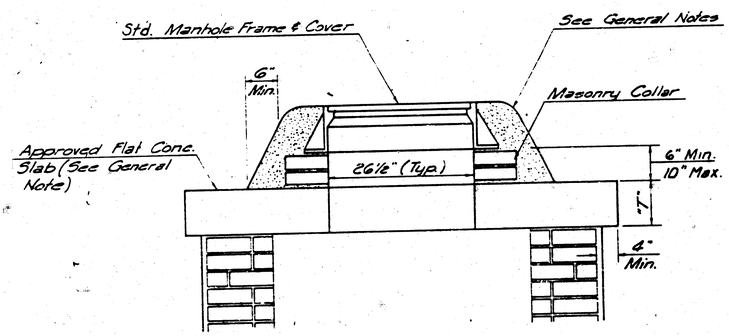


PLAN

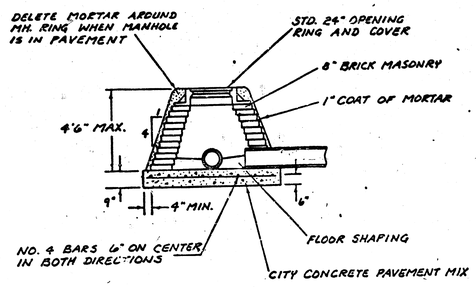


SECTION A-A

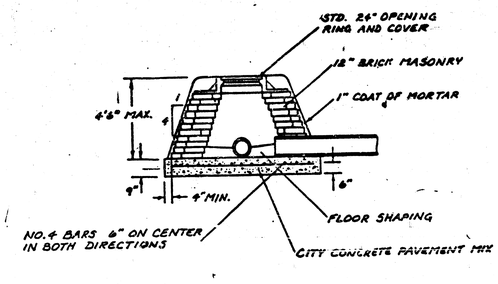
FLAT CONCRETE SLAB DETAILS



MASONRY COLLAR DETAIL



SPECIAL SHALLOW TYPE 'A' MANHOLE



SPECIAL SHALLOW TYPE 'B' MANHOLE

GENERAL NOTES

1. 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 CEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. TYPE "A" SHALLOW MANHOLES CAN BE USED ON SEWERS WHEN THE MANHOLE IS NOT LOCATED WITHIN PUBLIC STREET PAVEMENT. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4'. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5'. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.

2. 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 6" 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.

3. 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 MEET 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.

4. PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR AT CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

5. 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 DRAWINGS.

6. THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.

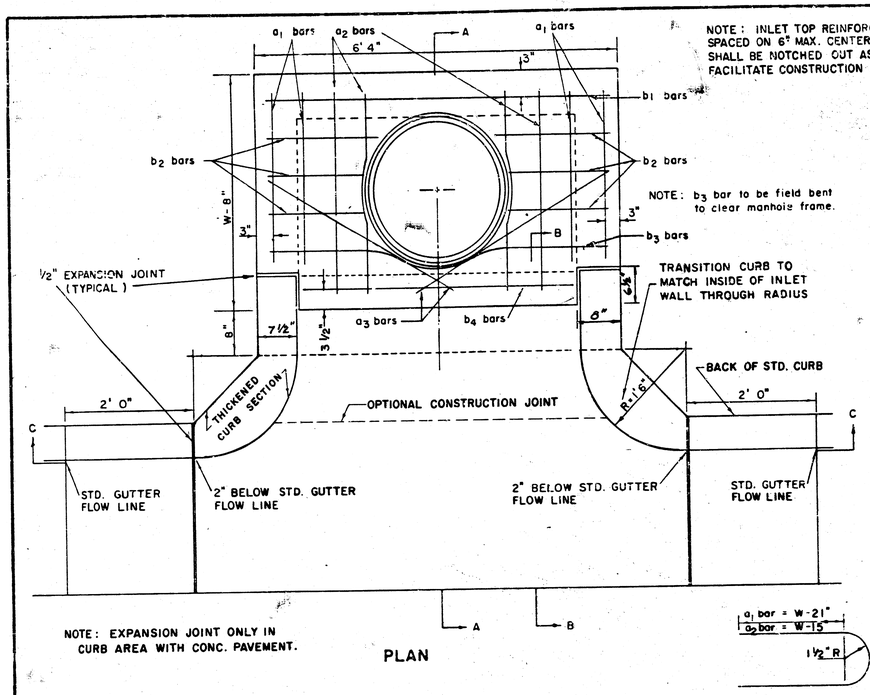
7. STANDARD SHALLOW MANHOLES TYPE "A" AND "B" SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR THE TYPE AND DIAMETER INDICATED. STANDARD SPECIAL SHALLOW MANHOLES TYPE "A" AND "B" SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR THE TYPE INDICATED. ALL STANDARD SHALLOW MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.

CITY OF WICHITA, KANSAS
STANDARD SHALLOW MANHOLES TYPE 'A' AND TYPE 'B'

912-76-245-81335-000-000-001

Designed by		Checked by		
Drawn by		Date	Job No.	6/9

FILMED FROM THE BEST AVAILABLE COPY....



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

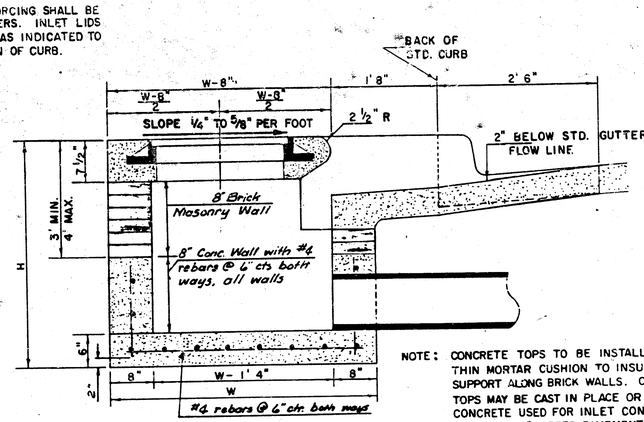
STEEL SCHEDULE

BAR		a_1	a_2	a_3*	b_1 W=4'4"	b_1 W=5'4"	b_1 W=6'4"	b_1 W=7'4"	b_1 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±
	W=5'4"	7'7"	8'7"	5'0"	–	6' 1"	–	–	–	1' 9"	6'2"	4'8"	81 ±
	W=6'4"	9'7"	10'7"	6'0"	–	–	6' 1"	–	–	1' 9"	6'2"	4'8"	101±
	W=7'4"	11'7"	12'7"	7'0"	–	–	–	6' 1"	–	1' 9"	6'2"	4'8"	121±
	W=8'4"	13'7"	14'7"	8'0"	–	–	–	–	6' 1"	1' 9"	5'2"	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" x 7 1/2"	21" & SMALLER	0.38 ±
5' 4"	4'8" x 6'4" x 7 1/2"	24" & 30"	0.51 ±
6' 4"	5'8" x 6'4" x 7 1/2"	36" & 42"	0.64 ±
7' 4"	6'8" x 6'4" x 7 1/2"	48" & 54"	0.77 ±
8' 4"	7'8" x 6'4" x 7 1/2"	60" & 66"	0.90 ±

SECTION C-C



SECTION A-A

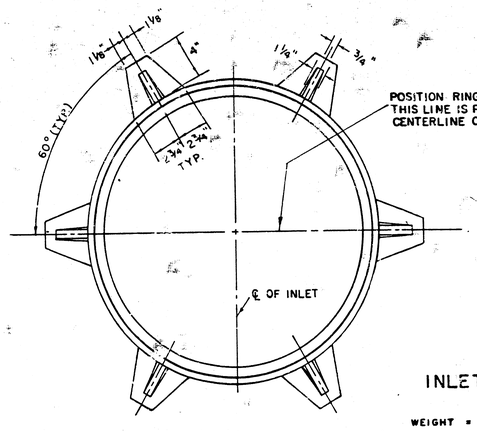
NOTE: CONCRETE TOPS TO BE INSTALLED ON THIN MORTAR CUSHION TO INSURE FULL SUPPORT ALONG BRICK WALLS. CONCRETE TOPS MAY BE CAST IN PLACE OR PRECAST. CONCRETE USED FOR INLET CONSTRUCTION SHALL BE CONCRETE PAVEMENT MIX.

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.

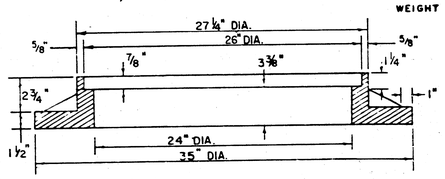
INLET INVERT SHALL BE SHAPED WITH A SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

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

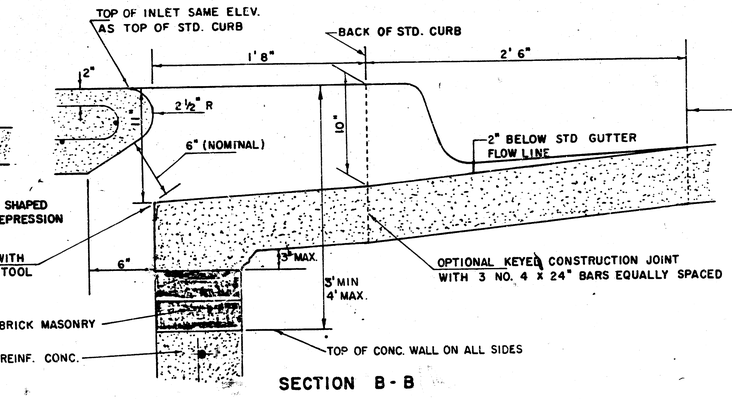


INLET FRAME

WEIGHT = 150 LBS.



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



SECTION B-B

REVISED 12-21-1984

DETAIL STANDARD TYPE IA CURB INLET

CITY OF WICHITA, KANSAS

INLET OPENING = 6" × 5' 0"

JUNE 1984

7/9 (7/9)

FILMED FROM THE BEST AVAILABLE COPY ····

FILMED FROM THE BEST AVAILABLE COPY

Earthwork Sections
Pinecrest Avenue
8/9

Project # 472-76245 81339-000-000-001

Sheet Total
Exc = 1834.7 CY

Project Total
Exc = 3438 cy
CF = 5.6 cy

Sta.0+00

C 43.7 SF

Sta.0+50

C 68.4 SF

EXC 108.8 CY

50²

Sta.1+00

C 69.9 SF

EXC 122.1 CY

50²

Sta.1+50

C 94.7 SF

EXC 182.4 CY

50²

Sta.2+00

C 100.5 SF

EXC 180.7 CY

50²

Sta.2+50

C 93.8 SF

EXC 179.3 CY

50²

Sta.3+00

C 121.8 SF

EXC 198.6 CY

50²

Sta.3+50

C 116.0 SF

EXC 220.2 CY

50²

Sta.4+00

C 118.4 SF

EXC 217.0 CY

50²

Sta.4+50

C 122.8 SF

EXC 228.3 CY

50²

Sta.5+00

C 125.3 SF

EXC 229.7 CY

50²

Pinecrest Avenue

℄ of Survey

℄

0 10 20 30 40

0 10 20 30 40

200
195
190
185
180
175

FILMED FROM THE BEST AVAILABLE COPY

Earthwork Sections
Pinecrest Avenue
Project #070-245 Fresno County
1/9

Pinecrest Avenue

℄ of Survey

Sta 6+50

Sta 7+38.96

Sta 7+58.96

Sta 7+73.96

Sta 7+88.96

Sta 8+03.96

Sta 8+18.96

Sta 8+33.96

Sta 8+48.96

Sta 8+63.96

Sta 8+78.96

Sta 8+93.96

Sta 9+08.96

Shaft Total
EXC = 1604.5 CY
CF = 5.6 CY

C 152.9 SF

C 182.9 SF

C 117.6 SF
CF 3.0 SF

C 180.3 SF

C 185.2 SF

C 144.0 SF

C 97.3 SF

C 98.7 SF

EXC 274 CY

EXC 54.7 CY

EXC 42.0 CY

EXC 103.4 CY

EXC 297.6 CY

EXC 316.5 CY

CF 2.8 CY

EXC 281.0 CY

CF 2.8 CY

EXC 273.1 CY

EXC 38.8 CY