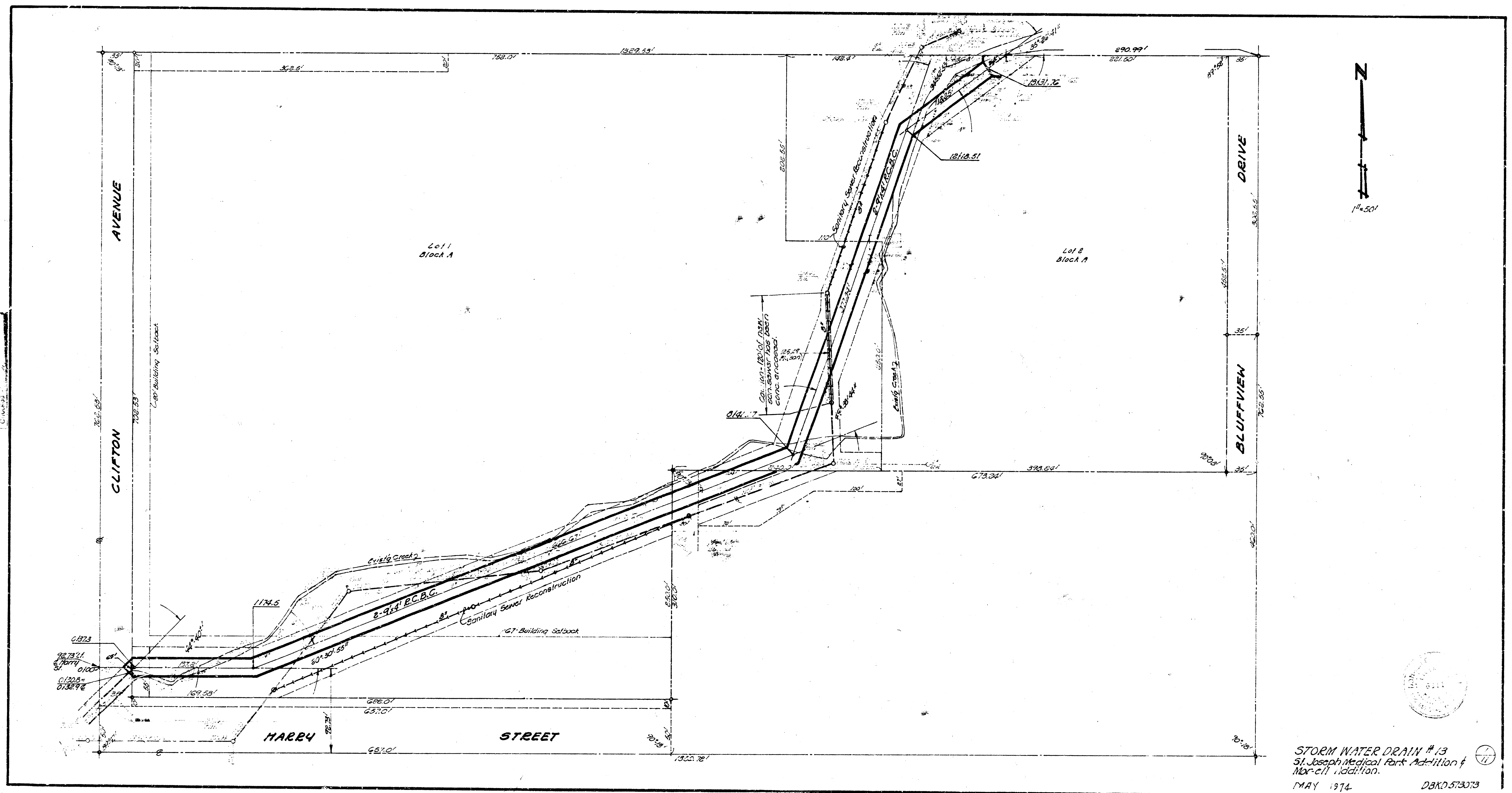
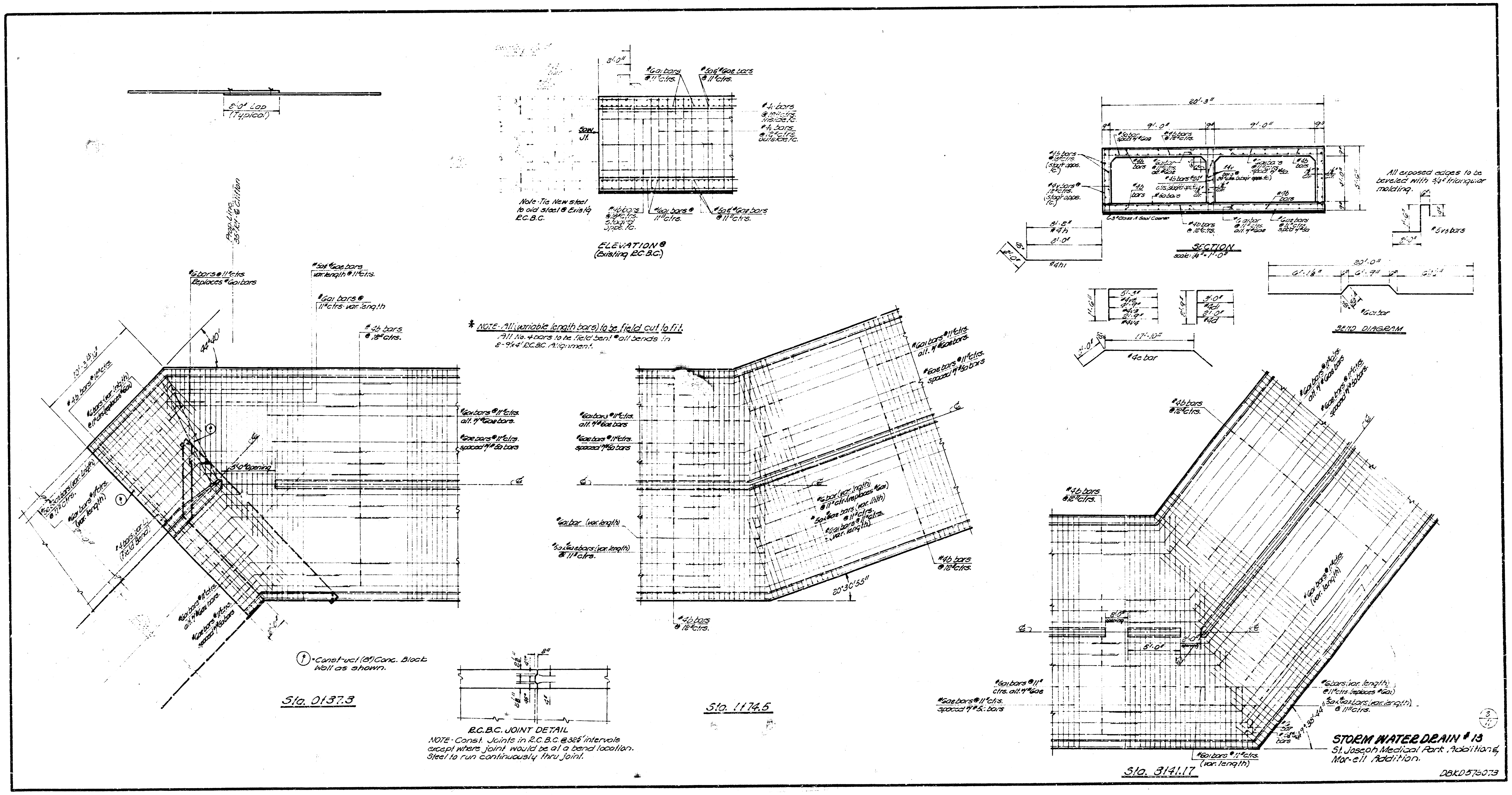

CLIFTON
AVENUE
HARRY
STREET
BLUFFVIEW
DRIVE
Lot 1
Block A
Lot 2
Block A
80' Building Setback
67' Building Setback
2-9'x4' R.C.B.C.
Sanitary Sewer Reconstruction
Exist'g Creek
Caution - 120' of new san. sewer has been conc. encased.
1329.53'
753.0'
142.4'
290.99'
221.50'
302.8'
808.55'
13131.76
12118.51
8141.17
35°26'41"
80°30'55"
1174.5
0137.3
0100
0130.8=0132.9
169.58'
137.2'
688.0'
657.0'
673.34'
398.84'
1322.78'
762.55'
1"=50'
N
STORM WATER DRAIN #13
St. Joseph Medical Park Addition &
Mor-ell Addition.
MAY 1974
DBKD 573073



2'-0" Lap (Typical)
ELEVATION @ (Existing R.C.B.C.)
Note - Tie New steel to old steel @ Exist'g R.C.B.C.
Saw Jt.
#6a1 bars @ 11" ctrs.
#5a & #6ae bars @ 11" ctrs.
#4v bars @ 18" ctrs. inside fc.
#4v bars @ 18" ctrs. outside fc.
#4b bars @ 18" ctrs. stag'rd opps. fc.
SECTION scale: 1/4" = 1'-0"
20'-3"
9" 9'-0" 9" 9'-0" 9"
#5a bar spac'd w/ #6ae
#4b bars @ 18" ctrs.
#4b bars @ 18" ctrs. (stag'd opps. fc.)
#4v bars @ 12" ctrs. (stag'd opps. fc.)
#4b bars @ 24" ctrs. stag'd opp. fc.
#5a bars
#4b bars @ 12" ctrs.
#6a1 bar @ 11" ctrs. alt. w/ #6ae
#6ae bars @ 11" ctrs. spc'd w/ #5a
3" Class A Seal Course
1'-0" 5'-6"
All exposed edges to be beveled with 3/4" triangular molding.
#5v5 bars
#4h #4h1 #4c bar #4d #4d1 #4v2 #4v3 #4v4
17'-10"
BEND DIAGRAM
20'-0"
6'-1 1/8" 6" 6'-9" 6"
#6a1 bar
Prop. Line 35' Lt. @ Clifton
#6 bars @ 11" ctrs. Replaces #6a1 bars
#5a & #6ae bars var. length @ 11" ctrs.
#6a1 bars @ 11" ctrs. var. length
#4b bars @ 18" ctrs.
44°40'
#4b bars @ 12" ctrs.
#6 bars (var. length) @ 11" ctrs. (replaces #6a1)
#5a & #6ae bars (var. length) @ 11" ctrs.
#6a1 bars @ 11" ctrs. (var. length)
#4 bars (var. L) (Field Bend)
5'-0" Opening
#6a1 bars @ 11" ctrs. alt. w/ #6ae bars.
#6ae bars @ 11" ctrs. spaced w/ #5a bars
(†) - Construct (8") Conc. Block Wall as shown.
Sta. 0137.3
* NOTE - All (variable length bars) to be field cut to fit. All No. 4 bars to be field bent @ all bends in 8-9x4' R.C.B.C. Alignment.
#6a1 bar (var. length)
#5a & #6ae bars (var. length) @ 11" ctrs.
#6 bar (var. length) @ 11" ctrs. (replaces #6a1)
20°30'55"
Sta. 1174.5
R.C.B.C. JOINT DETAIL
NOTE - Const. Joints in R.C.B.C. @ 32.5' intervals except where joint would be at a bend location. Steel to run continuously thru joint.
#6a1 bars @ 11" ctrs. alt. w/ #6ae
#6ae bars @ 11" ctrs. spaced w/ #5a bars
#6a1 bars @ 11" ctrs. (var. length)
#6 bars (var. length) @ 11" ctrs. (replaces #6a1)
#5a & #6ae bars (var. length) @ 11" ctrs.
2'-0" opening
5'-0"
49°38'44"
Sta. 3141.17
STORM WATER DRAIN # 13
St. Joseph Medical Park Addition & Mor-ell Addition.
DBKD575073
3/11

GENERAL NOTES

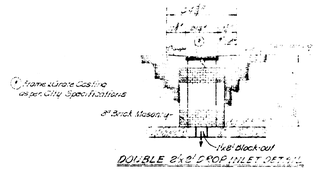
1. CLASS A-E CONCRETE - SHALL BE USED THROUGHOUT CULVERT CONSTRUCTION. ALL REINFORCING STEEL SHALL CONFORM TO A.S.T.M. SPECIFICATIONS.

2. EARTHWORK - ALL EARTH WORK SHALL BE CONSIDERED AS "COMMON EXCAVATION" EXCEPT FOR TOE WALL EXCAVATION SHALL BE INCLUDED IN LUMP SUM BID OF R.C.B.C. ALL MATERIALS SUITABLE FOR BACKFILL TO REMAIN ON PROJECT.

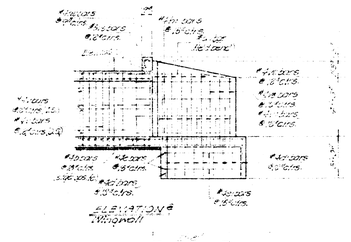
3. BACKFILL - SHALL BE COMPACTED TO TOP OF NEW STRUCTURE. ALL BACKFILL AND EXCAVATION TO EXTEND TO (2') BEYOND WALLS OF BOX AND WING WALLS. BACKFILL OF WING WALLS TO BE PNEUMATICALLY HAND TEMPED OR EQUAL AS DIRECTED BY FIELD ENGINEER. THIS WORK TO BE CONSIDERED AS PART OF C.Y. COMPACTED FILL AND WILL BE INCLUDED IN "LUMP SUM BID" OF R.C.B.C.

4. SEAL COURSE - CONSISTING OF (3") CLASS (A) CONCRETE SHALL BE CONSTRUCTED ONLY WHERE SPECIFIED ON PLANS OR BY THE ENGINEER. NO REINFORCING STEEL SHALL BE PLACED UNTIL SEAL COURSE HAS GAINED SUFFICIENT STRENGTH TO PERMIT WORKING UPON IT WITHOUT INJURY. THIS ITEM SHALL BE PAID AS PLAN QUANTITY IF USED.

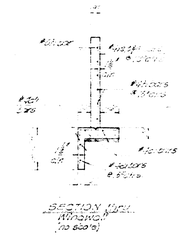
BIDDING OF CULVERT - THE CULVERT SHALL BE BID AS A "LUMP SUM BID" EXCEPT FOR THE FOLLOWING ITEMS: CLASS (A) CONCRETE, DOUBLE 7' x 7' INLETS, CLEARING OF RIGHT-OF-WAY. THE INSTALLATION OF STUB OUTS FOR STORM WATER LEADS TO BE CONSIDERED A PART OF THE LUMP SUM BID OF R.C.B.C. THE ITEMS IN THE "BILL OF MATERIALS" AND THE "BAR SCHEDULE" ARE FOR ESTIMATING PURPOSES ONLY. THE CONTRACTOR IS TO SATISFY HIMSELF TO THE QUANTITIES AND THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. THE CONTRACTOR WILL HAVE FULL RESPONSIBILITY FOR PROVIDING ALL MATERIALS SHOWN ON THE DETAILED PLANS NECESSARY TO COMPLETE THIS PROJECT.



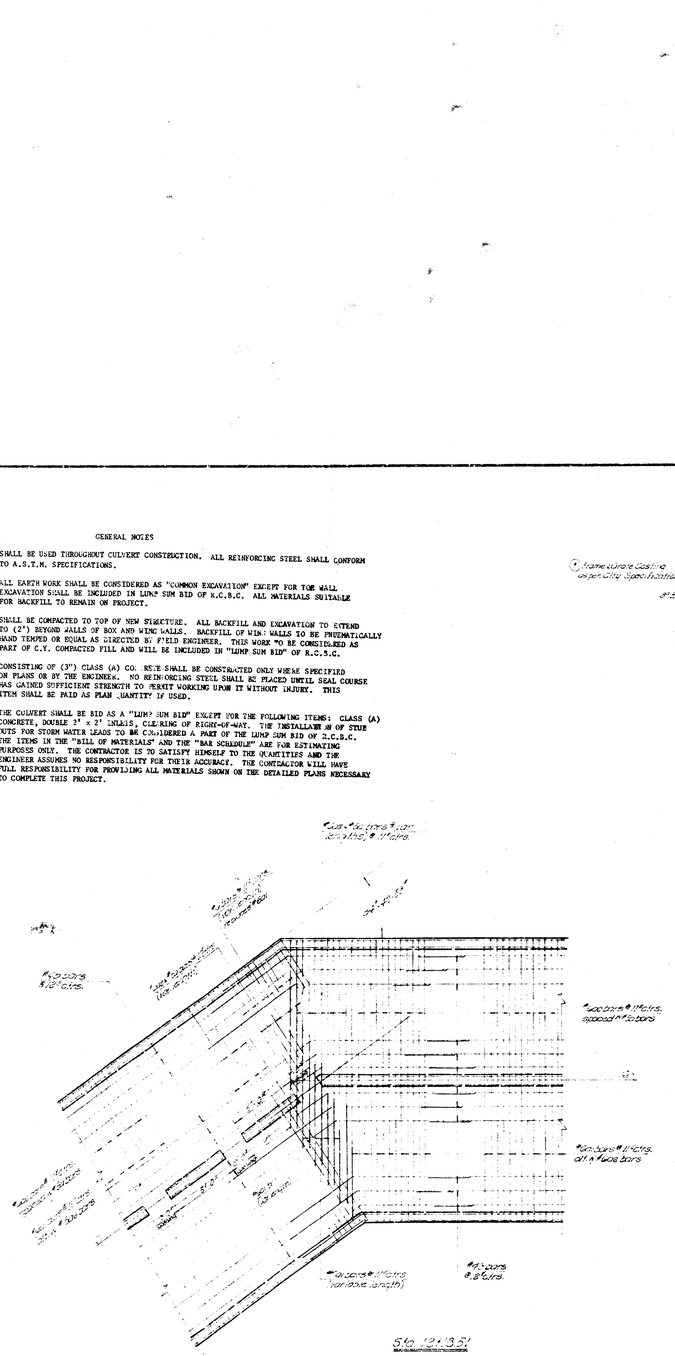
DOUBLE 2'x2' DROP INLET DETAIL



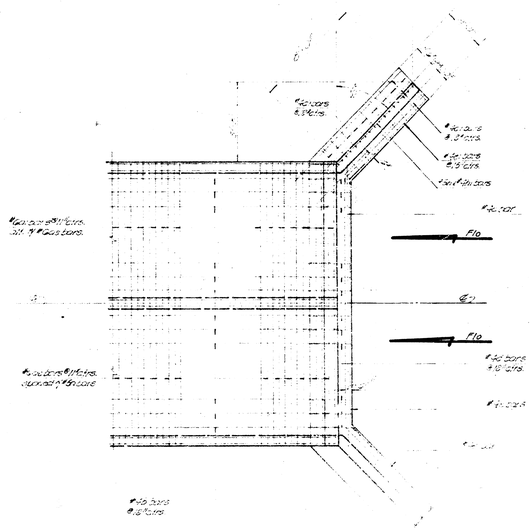
ELEVATION Wingwall



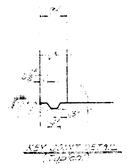
SECTION THRU Wingwall (no scale)



Sta. 121+31



Sta. 131+15



KEY JOINT DETAIL (no scale)

SUMMARY OF QUANTITIES

CLASS A-AE CONCRETE	1924.05	cu. yds.
COMMON EXCAVATION	8512.2	cu. yds.
COMPACTED BACKFILL	1529.9	cu. yds.
REINFORCING STEEL	316,620.0	lbs.
DOUBLE 7' x 7' INLETS	2	each
CLEARING OF RIGHT-OF-WAY	LUMP SUM	
CLASS (A) CONCRETE (SEAL COURSE)	245.0	cu. yds.
CONCRETE BRICK WALLS	19.3	lin. ft.

BAR SCHEDULE

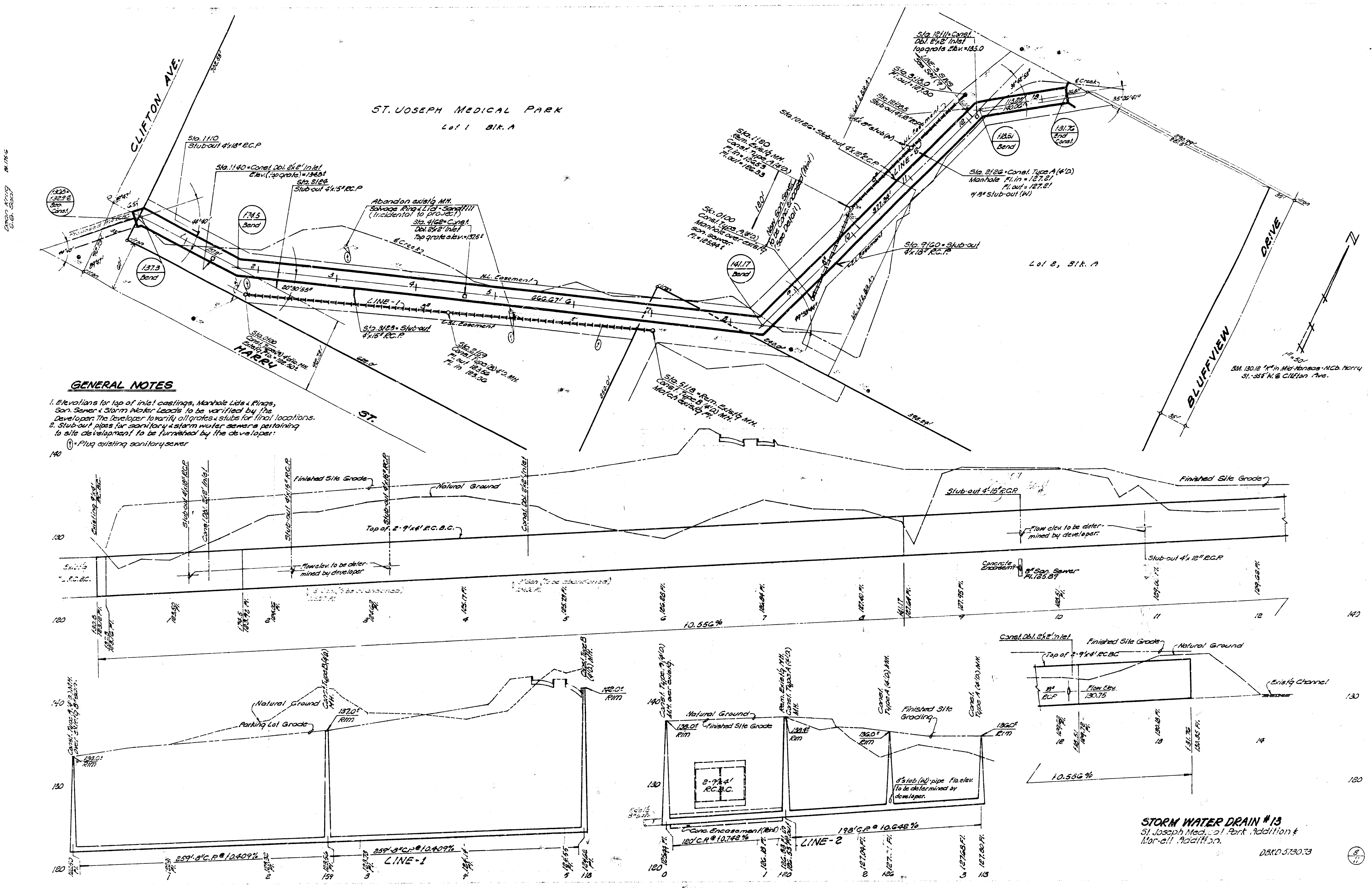
TYPE	SIZE	NO.	LENGTH	SHAPE	POUNDS
a	5	2788	20'.0"		58,157.0400
a1	6	2796	20' - 0"		87,741.6700
a2	6	2788	20' - 0"		83,751.2400
b	4	2660	30' - 0"		91,753.2400
c	4	1	20' - 0"		13.3600
c1	4	6	11' - 0"		44.0800
d	4	18	4' - 9"		57.1100
d1	4	18	5' - 9"		69.1300
e	4	2	21' - 10"		29.1693
e1	4	4	8' - 0"		21.3760
h	5	2	10' - 3"		11.2077
h1	4	8	10' - 0"		53.3400
h2	4	3	20' - 0"		40.0800
v	4	4633	11' - 3"		12,911.2110
v2	4	12	7' - 9"		62.0000
v3	4	7	6' - 3"		35.0000
v4	4	10	4' - 3"		45.4200
v5	5	21	4' - 0"		94.9190
a	5	100	var.		1259.7400
a1	6	64	var.		594.6700
a2	6	100	var.		1426.9102
Extra Steel	6	32	var.		270.0000

G.T. = 316,619.3500 lbs.
= 158.3096 tons

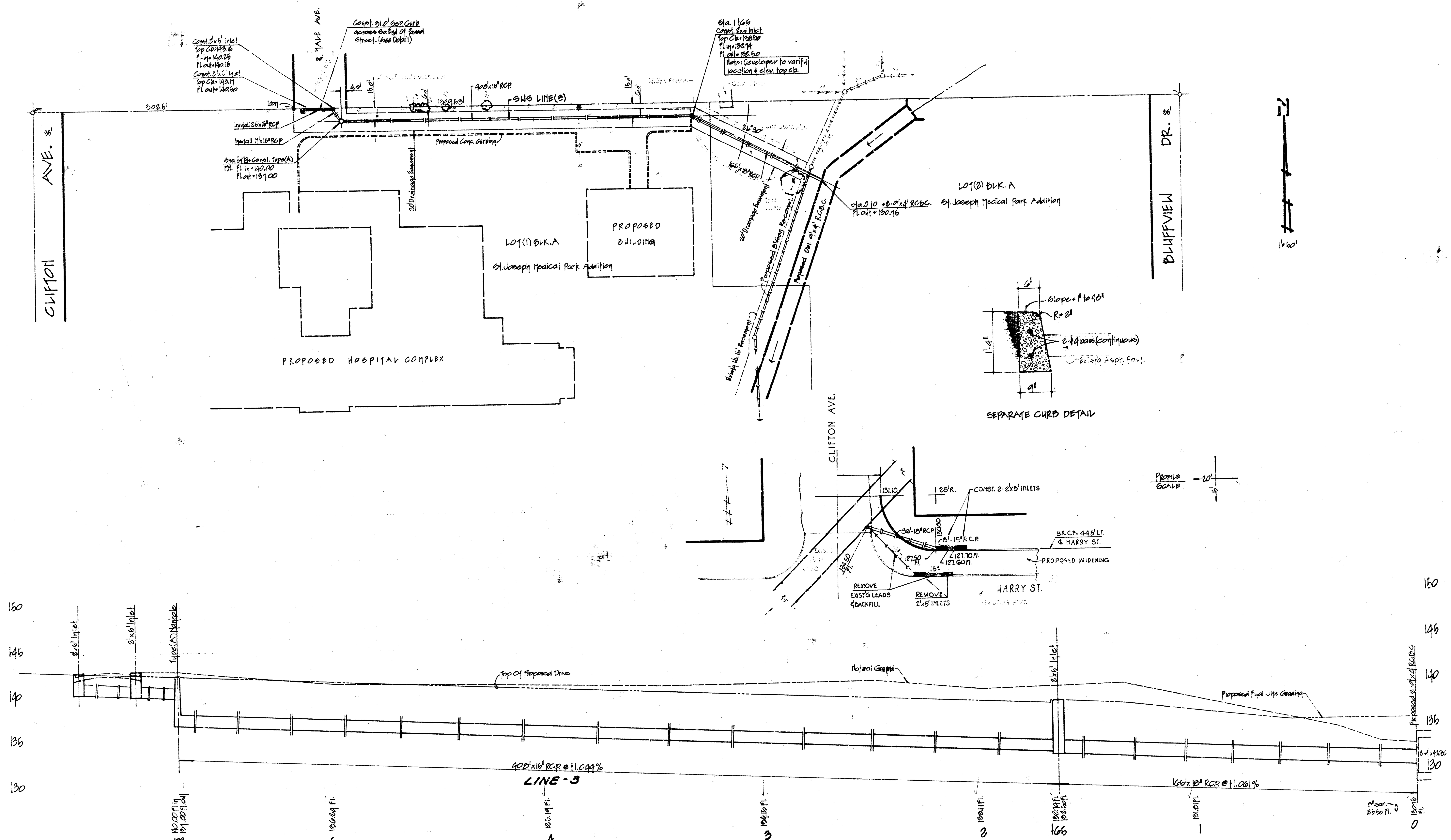
STORM WATER DRAIN #13

St. Joseph Medical Park Addition & Mor-ell Addition.

DSC0573073



CLIFTON AVE.
ST. JOSEPH MEDICAL PARK
Lot 1 Blk. A
Lot 8, Blk. A
BLUFFVIEW DRIVE
HARRY ST.
Sta. 1110 Stub-out 4'x18" R.C.P
Sta. 1140 = Const. Dbl. 2'x2' Inlet Elev. (top grate) = 134.8±
Sta. 2124 Stub-out 4'x15" R.C.P
Abandon exist'g MH. Salvage Ring & Lid - Sandfill (Incidental to project)
Sta. 4168 = Const. Dbl. 2'x2' Inlet Top grate elev. = 137.5±
Sta. 3123 = Stub-out 4'x15" R.C.P.
Sta. 2159 Const. Type (B) 4'D. MH. Fl. out 123.56 Fl. in 123.56
Sta. 0100 Const. Type (A) 4' dia. MH. Exist'g Fl. = 122.50±
Sta. 5118 = Rem. Exist'g MH. Const. Type B (4'D) MH. Match exist'g Fl.
Sta. 1180 Rem. Exist'g MH. Const. Type A (4'D) Fl. in = 126.53 Fl. out = 126.33
Sta. 0100 Const. Type A (4'D) Manhole over exist'g San. sewer Fl. = 125.44±
New San. Sewer to be Conc. Encased (Reinf) (See Detail)
Sta. 10186 = Stub-out 4'x12" R.C.P.
Sta. 12111 = Const. Dbl. 2'x2' Inlet top grate Elev. = 135.0
LINE-3 SWS See Sht (7)
Sta. 3118.0 Fl. out = 127.80
Sta. 12185 Stub-out 4'x18" R.C.P.
Sta. 2126 = Const. Type A (4'D) Manhole Fl. in = 127.21 Fl. out = 127.21 w/ 8" Stub-out (W)
Sta. 9160 = Stub-out 4'x18" R.C.P.
137.3 Bend
174.5 Bend
141.17 Bend
118.51 Bend
131.76 End Const.
130.8 = 132.9 E Beg. Const.
666.67'
577.34'
LINE-1
LINE-2
N.L. Easement
C.S.L. Easement
E Creek
20°30'55"
44°40'
35°26'41"
1" = 50'
BM. 130.12 "X" in Mid-Kansas-N.Cb. Harry St. - 35± W. E Clifton Ave.
GENERAL NOTES
1. Elevations for top of inlet castings, Manhole Lids & Rings, San. Sewer & Storm Water Leads to be verified by the Developer. The Developer to verify all grates & stubs for final locations.
2. Stub-out pipes for sanitary & storm water sewers pertaining to site development to be furnished by the developer.
(†) = Plug existing sanitary sewer
Existing 9'x4' R.C.B.C.
Finished Site Grade
Natural Ground
Top of 2-9'x4' R.C.B.C.
Flow elev. to be determined by developer
Stub-out 4'x15" R.C.P.
Stub-out 4'x12" R.C.P.
Concrete Encasement
8" San. Sewer Fl. 125.89
10.556%
Parking Lot Grade
137.0± Rim
134.0± Rim
142.0± Rim
259'-8" C.P. @ 10.409%
Const. Type A (4'D) MH. over exist'g.
Rem. Exist'g MH. Const. Type A (4'D) MH.
138.0± Rim
138.4± Rim
136.0± Rim
2-9'x4' R.C.B.C.
Conc. Encasement (Reinf)
120' C.P. @ 10.742%
198' C.P. @ 10.648%
8" stub (W) pipe. Flo. elev. to be determined by developer.
Const. Dbl. 2'x2' Inlet
18" RCP
Flow Elev. 130.75
Exist'g Channel
STORM WATER DRAIN #13
St. Joseph Medical Park Addition & Mor-ell Addition.
DBKD 573073
8/11

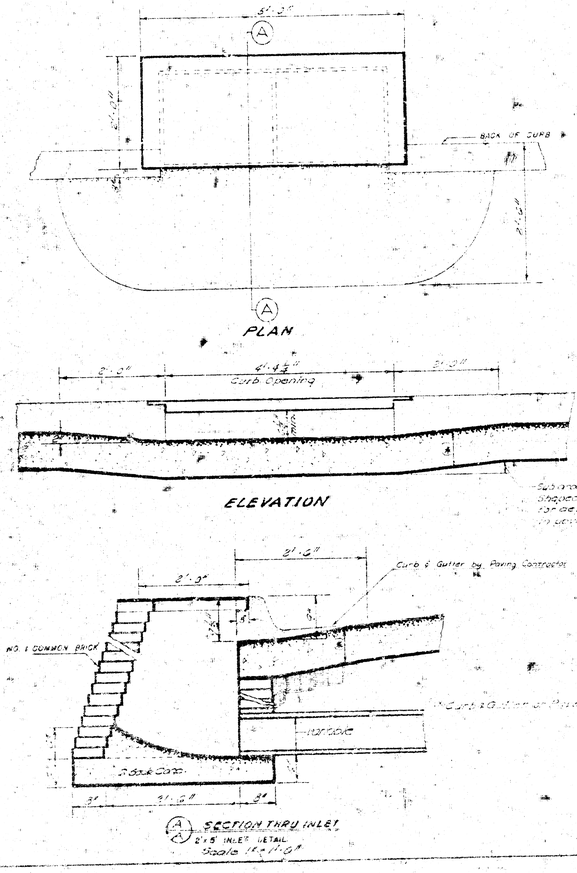


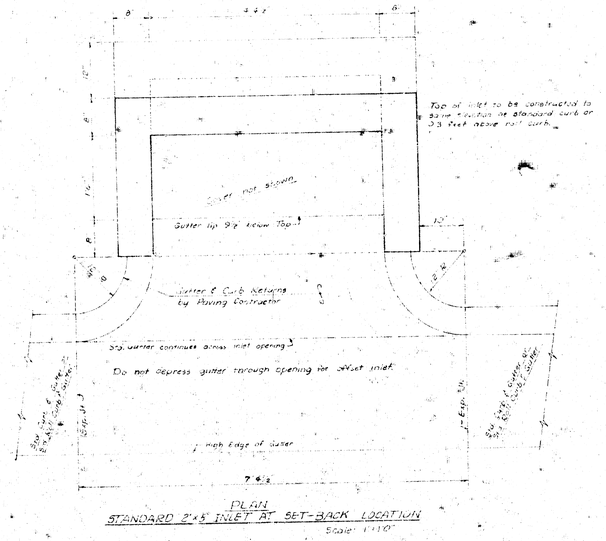
STORM WATER DRAIN #13

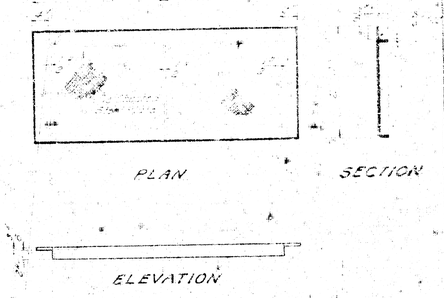
St. Joseph Medical Park Addition & Morell Addition.

Proj. No. UAKD 573013

9/11







DETAIL
STANDARD 2' x 5' INLET.

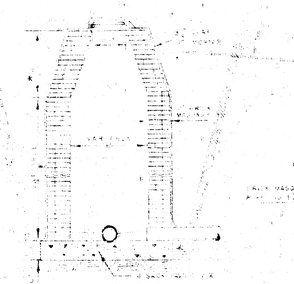
CITY OF WICHITA, KANSAS

R. W. LINN CITY ENGINEER

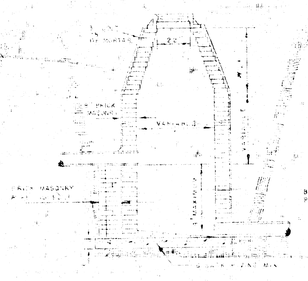
SEPT. 1973

CITY OF WICHITA

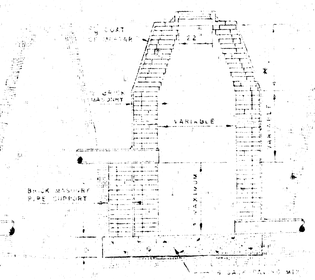
STANDARD MANHOLE
TYPE "A"



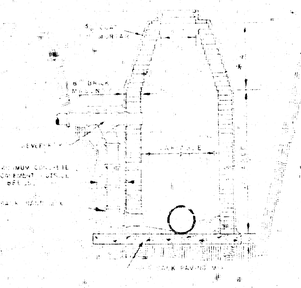
STANDARD MANHOLE
TYPE "B"



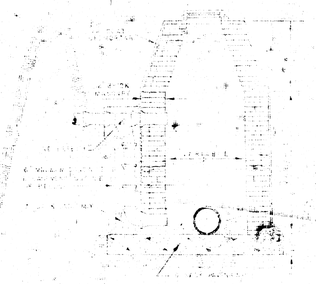
DROP MANHOLE
TYPE "A"



DROP MANHOLE
TYPE "B"

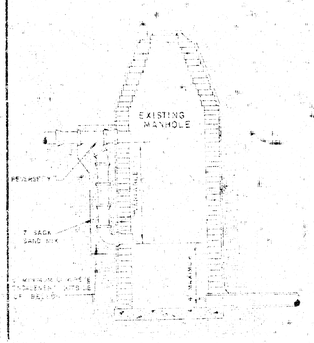


OUTSIDE DROP MANHOLE
TYPE "A"

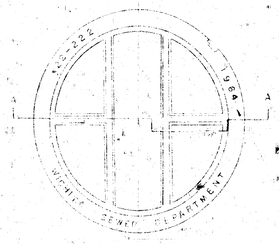


OUTSIDE DROP MANHOLE
TYPE "B"

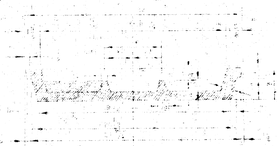
* DRAW 6" ON 5'-0" I.D. M.H.



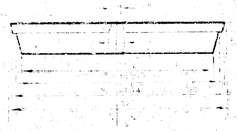
DETAIL OF DROP STACK



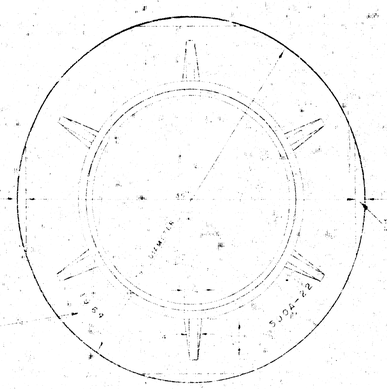
MANHOLE COVER



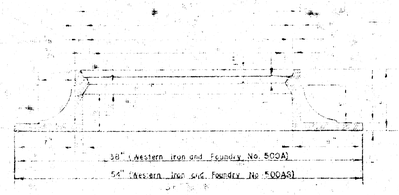
MANHOLE COVER



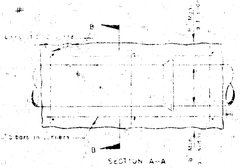
MANHOLE COVER



MANHOLE RING

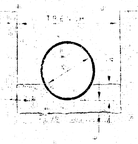


MANHOLE RING



REINFORCED CONCRETE ENCASEMENT
FOR STRENGTH

CONCRETE ENCASEMENT
FOR COVER



DETAIL OF CONCRETE CRADLE

ORDINARY BEDDING METHOD

ORDINARY BEDDING METHOD
FOR REINFORCED CONCRETE PIPE

DETAILS OF
SEWER APPURTENANCES
ADOPTED AS STANDARD DESIGN
BY
ENGINEERING DIVISION
CITY OF WICHITA, KANSAS
R. W. LINN CITY ENGINEER
1964