PHASE II ··· CHANNEL

SOUTH SENECA DRAINAGE IMPROVEMENTS

STORM WATER DRAIN NO. 87

PROJECT NO. 468·82036

CITY OF WICHITA, KANSAS

MICHAEL E. LINDEBAK, CITY ENGINEER

OCTOBER ,1992

INDEX CODE: 724039

GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR SHALL 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 IN ACCORDANCE WITH STATE LAWS.

2. TREES TO BE REMOVED ARE MARKED. ALL TREES WHICH IN THE OPINION OF THE FIELD ENGINEER CAN BE SAVED, SHALL BE SAVED.

3. ALL CONCRETE SHALL BE STANDARD PAVING MIX UNLESS OTHERWISE NOTED.

4. UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATIONS, 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.

NOTE: NOTIFY ALL THE FOLLOWING COMPANIES PRIOR TO ANY EXCAVATION:

KANSAS ONE-CALL	1-800-344-7233
ARKLA GAS COMPANY	942-8350
KANSAS GAS & ELECTRIC	264-1141
KPL GAS SERVICE	263-7511
MULTIMEDIA CABLEVISION	262-0661
SOUTHWESTERN BELL TELEPHONE	571-2115
CITY OF WICHITA WATER & SEWER	268-4908

5. ALL AREAS DISTURBED BY EXCAVATION OF THE DETENTION SITES AND/OR CHANNEL ABOVE THE NORMAL WATER SURFACE SHALL BE SEEDED & MULCHED. GRASS SEED SHALL BE A BUFFALO GRASS - BLUE GRAMA GRASS MIX, SO AS TO MINIMIZE WIND & WATER EROSION, AND MAINTENANCE. GRASS SEED SHALL BE PLACED AS PER USDA-SCS RECOMMENDATIONS FOR SEEDING RATE AND SPECIFICATIONS. CONTRACTOR SHALL INSURE THAT ALL DISTURBED AREAS TO BE SEEDED SHALL HAVE A MINIMUM OF 6" TOPSOIL. COST SHALL BE INCIDENTAL TO PROJECT.

6. 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. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS. OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

7. THE CONTRACTOR SHALL USE FLOWABLE FILL IN PLACE OF COMPACTED PIPE BEDDING MATERIAL AT SIDES AND ABOVE ALL STORM SEWER LINES RUNNING UNDER PAVEMENT IN PUBLIC RIGHT OF WAY. A MINIMUM OF 12 INCHES OF FLOWABLE FILL SHALL BE PLACED OVER THE STORM SEWER LINE OR UP TO 2 FEET BELOW BOTTOM OF PAVEMENT (USE HIGHER ELEVATION).

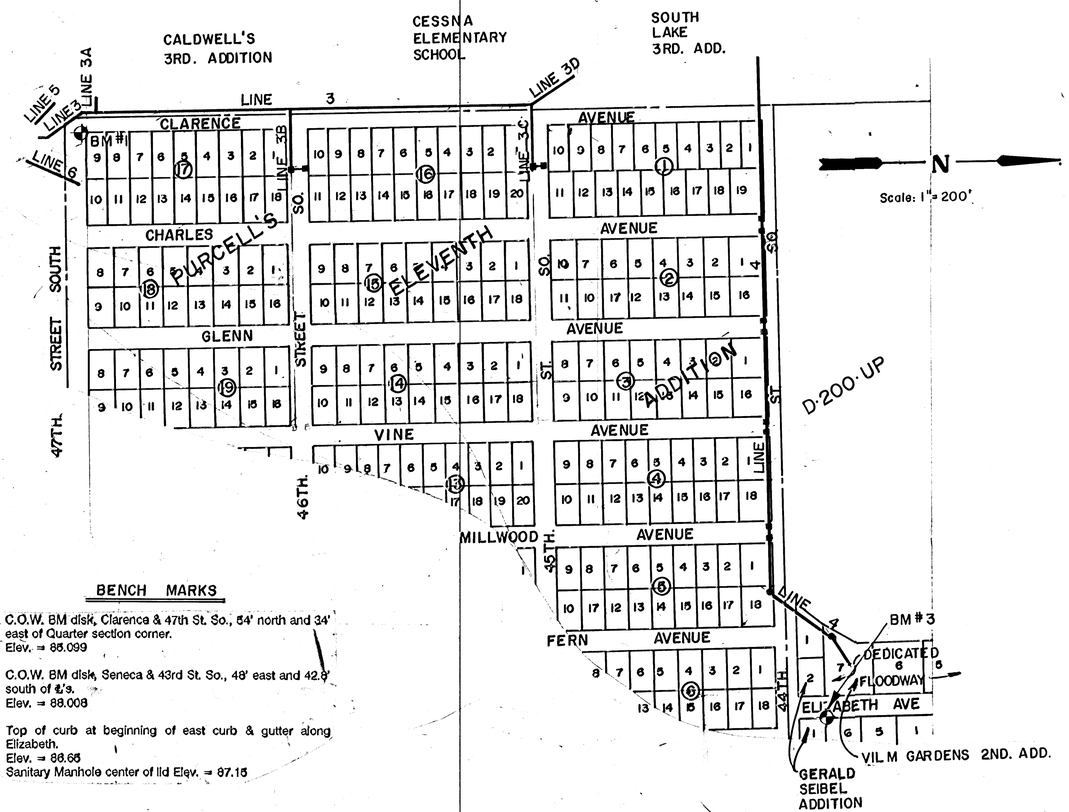
8. CITY OF WICHITA MANAGER'S POLICY: ANY AREA DISTURBED BY CONSTRUCTION SHALL BE COMPLETELY RESTORED TO A CONDITION EQUAL TO OR BETTER THAN THE ORIGINAL CONDITION. THIS APPLIES TO CONSTRUCTION AREA ALONG CLARENCE AVENUE, 44TH STREET SOUTH, 45TH STREET SOUTH, AND 46TH STREET SOUTH.

9. THE CONTRACTOR MAY TEMPORARILY CLOSE 47TH STREET SOUTH JUST LONG ENOUGH TO REMOVE TIMBER BRIDGE, EAST OF CLARENCE, PLACE COMPACTED FILL AND PAVING 47TH STREET SOUTH.

10. FOAM GASKET. OMNIFLEX GASKET OR APPROVED EQUAL CLOSED CELL GASKET SHALL BE USED INSTEAD OF BUTYL RUBBER SEALANT AT ALL RCB AND RCP JOINTS. THE GASKET MATERIAL SHALL BE APPLIED AT THE PLANT.

11. THE CONTRACTOR MAY CONSTRUCT THE REINFORCED CONCRETE BOX STRUCTURE-IN-PLACE. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT SHOP DRAWINGS SEALED BY A REGISTERED ENGINEER AND DESIGNED FOR WHEEL LOADING, FOR APPROVAL BY THE CITY OF WICHITA ENGINEER.

12. THE CONTRACTOR MAY USE ALTERNATE PIPE MATERIALS FOR LINE 4, AND LINE 5. THE SAME MATERIAL MUST BE USED BETWEEN STRUCTURES. THE ALTERNATE PIPE MATERIALS ARE:
    1) RCP
    2) HDPE (SMOOTH INTERIOR)
    3) ALUMINIZED STEEL PIPE (SMOOTH INTERIOR) WITH REROLLED ANNULAR ENDS, HUGGER BANDS, AND O-RING GASKETS.



BENCH MARKS

BM #1 - C.O.W. BM disk, Clarence & 47th St. So., 54' north and 34' east of Quarter section corner.
Elev. = 85.099

BM #2 - C.O.W. BM disk, Seneca & 43rd St. So., 48' east and 42.8' south of ℄'s.
Elev. = 88.008

BM #3 - Top of curb at beginning of east curb & gutter along Elizabeth.
Elev. = 86.66
Sanitary Manhole center of lid Elev. = 87.15

INDEX TO DRAWINGS

Booked 12-15-93 MCG

KENNETH H. BENGTSON LICENSED 7238 KANSAS PROFESSIONAL ENGINEER

L. NEIL JEDNORAINSKI LICENSED 7497 KANSAS PROFESSIONAL ENGINEER

SOUTH SENECA DRAINAGE IMPROVEMENTS
PHASE II CHANNEL
STORM WATER DRAIN NO. 87

Design JNJ
Drawn by KSM/DLM
Checked by
Date October, 1992
Job no.

MID-KANSAS ENGINEERING CONSULTANTS PA
3500 NORTH ROCK ROAD
BUILDING #800
WICHITA, KANSAS 67226
636-5666

Sheet 1 of 18

MKEC Proj. No. 88-70-113-Drng.

SOUTH SENECA DRAINAGE IMPROVEMENTS PHASE II - CHANNEL STORM WATER DRAIN NO. 87

Sta. 1+48.5, Line 3
Const. Type "B" Manhole Stack
On Top Of 10'X 4' RCB (Precast)
Special 45° Bend
Manhole Top = 88.00
With Grate Cover

Southwestern Bell Telephone To Move Pole To Point 8-Ft. West Of Proposed Curb & Gutter. CATV Will Have To Relocate Their Underground Cable When Southwestern Bell Telephone Moves Pole.

Sta. 0+37, Line 3A
Const. Std. Type I-A Ditch Inlet
W=6'-8", L=5'-0"
Inlet Top = 83.67
With Beehive Ring & Grate
℄ In = 76.60

Sta. 2+06, Line 3
Const. Std. Type IA Curb Inlet
W = 4'-3 1/4", L = 11'-4"
Stack On Top Of 10'x 4' RCB (Precast)
Inlet Top = 84.20
Back Wall Of Inlet = West Ext. Wall RCB
Block Out Hole East Side Of RCB
For Future 24" RCP (℄ Out = 76.82)
Temporarily Brick Up Block Out

SEE GRADING PLAN SHEET NO. 12

Sta. 0+21.5, Line 3
Const. Type "B" Manhole Stack
On Top Of 10'X 4' (Precast)
Special 45° Bend
Manhole Top = 86.00

Sta. 1+88.0, Line 3 =
Sta. 0+00, Line 3A
Const. Type "B" Manhole Stack
On Top Of 10'X4' RCB (Precast)
& Offset 2.58-Ft. RCB (Precast)
10'X4' RCB (Precast)
Manhole Top = 85.75

Sta. 0+00, Line 3
Begin 10' X 4' RCB (Precast)
With Special RCB End Section
With Concrete Toewall
W = 2', D = 4', L = 20'

4 Conduit Wide Bank To Be Lowered By S.W.B.

Underground S.W.B. Services To Be Repaired During Construction

CALDWELL'S 3RD. ADD.

70-FT. DRAINAGE DEDICATION

CALDWELL'S 3RD. ADDITION

LOT 38 · LOT 39 · LOT 40 · LOT 41 · LOT 42 · LOT 43

10'X 4' RCB (PRECAST)

LINE 3

CLARENCE AVENUE

PROPOSED ℄ SECTION LINE

34 L.F. Remove CMP

36 L.F. Remove & Replace Asphalt Pavement

Future Std. Type IA Curb Inlet, W = 4'-4", L = 11'-8" Inlet Top = 84.20

PURCELL'S · LOT 9 · LOT 8 · LOT 7

ELEVENTH ADDITION · LOT 6 · LOT 5 · LOT 4 · LOT 3 · LOT 2

47TH. STREET SOUTH

See Sheet No. 11 For Plan

See Erosion Protection Information On Sheet No. 11

Chain Link Fence

Scale: 1" = 20' Horiz.
1" = 5' Vert.

N

PLAN LINE 3

PROFILE LINE 3

RCB NOTE:
PRECAST BARREL SECTIONS:
THE PRECAST CONCRETE BARREL SECTIONS SHALL CONFORM TO THE ASTM C-850 SPECIFICATIONS. COST OF SPECIAL 45° BEND SHALL BE INCLUDED IN THE LINEAR FOOT COST OF THE PRECAST RCB. COST OF BLOCK OUTS SHALL BE INCLUDED IN THE LINEAR FOOT COST OF THE PRECAST RCB.

COORDINATE SYSTEM - AS USED BY M.K.E.C.

POINT #	NORTH COORDINATES	EAST COORDINATES	COMMENTS
5004	6272.2110	993.2650	Sec. Cor. @ Seneca and 47th St. South
5005	6252.1860	-1654.4590	¼ Cor. along 47th St. S. @ Clarence
1100	6179.6892	-1580.1071	STA 0 + 00, Line 3
1102	6201.1890	-1580.1957	STA 0 + 21.5, Line 3
1105	6290.6208	-1670.3675	STA 1 + 48.5, Line 3
1130	6330.1204	-1670.5303	STA 1 + 88, Line 3
1131	6329.9680	-1707.5300	STA 0 + 37, Line 3A

Sta. 0+00, Line 3 · Begin 10'x4' RCB (Precast) With Special RCB End Section With Special 45° Bend W=2', D=4', L=20' · Sta. 0+21.5, Line 3 Const. Type "B" Manhole Stack On Top Of 10'x4' RCB (Precast) Manhole Top = 85.00 · Sta. 1+48.5, Line 3 Const. Type "B" Manhole Stack On Top Of 10'x4' RCB (Precast) Manhole Top = 85.00 With Grate Cover · Sta. 1+88.0, Line 3 = Sta. 0+00, Line 3A Const. Type "B" Manhole Stack On Top Of 10'x4' RCB (Precast) Manhole Top = 85.75 · Sta. 2+06, Line 3 Const. Std. Type IA Curb Inlet Stack On Top Of 10'x4' RCB (Precast) W=4'-4"; L=11'-8" Inlet Top = 84.20 Back Wall Of Inlet = West Ext. Wall RCB. Block Out Hole East Side Of RCB For Future 24" RCP (℄ Out = 76.82) Temporarily Brick Up Block Out · Sta. 0+00, Line 3

Future 47th Street South Pavement · ℄ 47th. Street South · Contractor Should Be Able To Go Under Buried Cable · ℄ Future Clarence · Existing Ground

ELEVATION IN FEET (WICHITA DATUM) · 90 · 85 · 80 · 75

℄ Channel = 76.23
℄ Out = 76.34 (10'x4' RCB (Precast-N))
℄ = 76.36
2 Underground S.W.B. Service
Arkla Gas (2" Steel) Top = 81.75
℄ = 76.42
Underground Southwestern Bell Telephone (Top = 81.07) (Bottom = 80.02)
Gas Top = 82.02
Relocated 12" A.C. Water Top = 76.09 Exist 12" Top = 80.76
℄ = 76.49
6" Steel KPL Gas
℄ = 76.53 (10'x4' RCB (Precast) NW5)
℄ = 76.53 (24" RCP W/F)
℄ = 76.54
℄ Out = 76.55 (10'x4' RCB (Precast-S))
℄ In = 76.55 (10'x4' RCB (Precast-N))
Underground Television
Underground Southwestern Bell
℄ = 76.64
KPL Gas Service
℄ = 76.74
℄ = 76.87
℄ = 76.92 (10'x4' RCB (Precast-NW5))
Sta. 6+00, Line 3

600 L.F. - 10'x 4' RCB (Precast) (C-850) @ 0.10%

0 · 1 · 2 · 3 · 4 · 5 · 6

Line 3 Clarence Avenue

2/18

M.K.E.C.

MKEC Proj. No. 88-70-113-Orng.

SOUTH SENECA DRAINAGE IMPROVEMENTS PHASE II - CHANNEL STORM WATER DRAIN NO. 87

Scale: 1" = 20' Horiz.
1" = 5' Vert.

RCB NOTE:
PRECAST BARREL SECTIONS:
THE PRECAST CONCRETE BARREL SECTIONS SHALL CONFORM TO THE ASTM C-850 SPECIFICATIONS. COST OF BLOCK OUTS SHALL BE INCLUDED IN THE LINEAR FOOT COST OF THE PRECAST RCB.

Sta. 7+10, Line 3
Const. Std. Type I A Curb Inlet Stack On Top Of 10'x4' RCB (Precast).
W = 4'-4", L = 6'-4"
Inlet Top = 84.20
Back Wall Of Inlet = West Ext. Wall RCB
Block Out Hole East Side Of RCB For Future 24" RCP. (℄ Out = 77.30)
Temporarily Brick Up Block Out.

Sta. 7+31.0, Line 3
Offset West 2.6'

Sta. 7+37.0, Line 3
Slide Tongue Of 5'x4' RCB (Precast) Into Groove Of 10'x4' RCB (Precast).
Slide 5'x4' RCB (Precast) To R.O.W.
Side Of 10'x4' RCB (Precast).
8" Thick Precast Concrete Plug
Difference At End Of 10'x4' RCB

Sta. 10+82, Line 3
Const. Std. Type I-A Curb Inlet Stack On Top Of 5'x4' RCB (Precast)
W = 4'-4", L = 6'-4"
Inlet Top = 84.19
Back Wall Of Inlet = West Ext. Wall RCB.
Block Out Hole East Side Of RCB For Future 24" RCP (℄ Out = 77.67)
Temporarily Brick Up Block Out.

COORDINATE SYSTEM - AS USED BY M.K.E.C.

POINT #	NORTH COORDINATES	EAST COORDINATES	COMMENTS
1109	6873.1158	-1672.7679	℄ 10'x4' RCB @ Sta. 7+31.0, Line 3
1110	6873.1052	-1675.3479	℄ 5'x4' RCB @ Sta. 7+31.0, Line 3 & ℄ Manhole Offset 2.58'

Sta. 10+88, Line 3
Const. Sanitary Sewer Manhole 30-Ft. West Of Exist. Manhole
Manhole Top = 84.80
℄ E. = 81.26 (10" D.I.P)
℄ S. = 81.27 (10" P.V.C)

Sta. 3+18.6, D-153
SANITARY SEWER MANHOLE
RIM = 87.56
℄ E. = 80.38
℄ S. = 80.43
℄ W. = 80.43

Sta. 1+82.5, D-153 SAN. SEW.

Sta. 2+47.6, L-108
SANITARY SEWER MANHOLE
RIM = 84.64
℄ N.E. = 81.37
℄ IN = 81.41

Sta. 1+64.4, L-108
SANITARY SEWER MANHOLE
RIM = 85.08
℄ E. = 81.22
℄ W. = 81.20 (10" D.I.P)

Sta. 0+00, D-153
SANITARY SEWER MANHOLE
RIM = 88.32
℄ N. = 79.57
℄ W. = 79.79
℄ S. = 79.59

Sta. 0+00, Line 38
Const. Type "B" Manhole Stack On Top Of 10'x4' RCB (Precast) & Offset 2.58 Ft. West Of ℄ Of 10'x4' RCB (Precast)
Manhole Top = 85.40
Special "T" For 5'x4' RCB (Precast) East.

Sta. 7+31, Line 38
Std. 0+00, Line 38
LOT 1

Future Std. Type IA Curb Inlet
W = 4'-4", L = 11'-0"
Inlet Top = 84.20
LOT 2

Future Std. Type IA Curb Inlet
W = 4'-4", L = 11'-4"
Inlet Top = 84.19
LOT 5

Sta. 10+88, Line 3
Const. Std. Type I-A Curb Inlet Stack On Top Of 5'x4' RCB (Precast)
W = 4'-4", L = 6'-4"
Inlet Top = 84.19
Back Wall Of Inlet = West Ext. Wall RCB.
Block Out Hole East Side Of RCB For Future 24" RCP (℄ Out = 77.67)
Temporarily Brick Up Block Out.

Sta. 7+40, Line 3
Const. Std. Type I A Curb Inlet Stack On Top Of 10'x4' RCB (Precast).
W = 4'-4", L = 6'-4"
Inlet Top = 84.20
Back Wall Of Inlet = West Ext. Wall RCB
Block Out Hole East Side Of RCB For Future 24" RCP (℄ Out = 77.30)
Temporarily Brick Up Block Out.

Sta. 7+31, Line 3
Const. Std. Type I A Curb Inlet Stack On Top Of 10'x4' RCB (Precast).
W = 4'-4", L = 6'-4"
Inlet Top = 84.20
Back Wall Of Inlet = West Ext. Wall RCB
Block Out Hole East Side Of RCB For Future 24" RCP (℄ Out = 77.30)
Temporarily Brick Up Block Out.

Sta. 7+37.0, Line 3
Slide Tongue Of 5'x4' RCB (Precast) Into Groove Of 10'x4' RCB (Precast).
Slide 5'x4' RCB (Precast) To R.O.W.
Side Of 10'x4' RCB (Precast).
8" Thick Precast Concrete Plug
Difference At End Of 10'x4' RCB

Sta. 0+00, Line 3
Sta. 12+00, Line 3

Replace 20 L.F. 8" ABS With 8" D.I.P. Block Out Hole In 5'x4' RCB And Run 8" Sanitary Sewer Thru R.C.B.

Existing Grade
℄ Future Clarence
Existing 8" Sanitary Sewer ℄ = 81.46 (Remove)
Block Out Hole In 5'x4' RCB And Run 10" D.I.P. Sanitary Sewer Thru Top Of RCB.

137 L.F. 10'x4' RCB (Precast) (C-850) @ 0.10%
463 L.F. 5'x4' RCB (Precast) (C-850) @ 0.10%

℄ = 76.94 (10'x4' RCB (Precast) - N & S.)
℄ = 77.04
KPL Gas Service
℄ Out = 77.05 (10'x4' RCB (Precast) S.)
℄ In = 77.05 (10'x4' RCB (Precast) N.)
℄ = 77.07 (10'x4' RCB (Precast) N. & S.)
℄ = 77.07 (5'x4' RCB (Precast) E.)
℄ = 77.08 (5'x4' RCB (Precast) N.)
Exist. 8" ABS Sanitary Sewer ℄ = 88.15
℄ = 77.14
℄ = 77.20
℄ = 77.34
KPL Gas Service
℄ Out = 77.42 (5'x4' RCB (Precast) S.)
℄ In = 77.42 (5'x4' RCB (Precast) N.)
Proj. 10" D.I.P. Sanitary Sewer ℄ = 81.28
℄ = 77.44
℄ = 77.5 (5'x4' RCB (Precast) N. & S.)

ELEVATION IN FEET (WICHITA DATUM)
90
85
80
75

6 7 8 9 10 11 12

CESSNA ELEMENTARY SCHOOL
CLARENCE AVENUE
46TH. STREET SO.
ELEVENTH
CALDWELL'S THIRD ADD.
PURCELL'S ADD.
PLAN LINE 3
PROFILE LINE 3
LINE 3
LINE 3B
R.O.W.
35-FT. R/W
40-FT. R/W
Prop. 37' Bk.-Bk. (Urban Collector)
2.5' Offset
72 L.F. 10" PVC Sanitary Sewer @ 0.14%
30 L.F. 10" D.I.P. Sanitary Sewer @ 0.13%
Remove 83.2 L.F. 8" Sanitary Sewer
Chain Link Fence
Rail Fence
Dirt Drive
Conc. Drive
Garage
House
LOT 43
LOT 44
LOT 45
LOT 10
LOT 9
LOT 8
LOT 7
LOT 6
LOT 5
LOT 4
LOT 3
LOT 2
LOT 1
SWB
4"-STEEL-KPL-GAS
6" WATER
4" STEEL KPL GAS
8" SAN. SEW.
10-FT. UTIL. ESMT.
20' UTILITY EASEMENT
1/2 SECTION LINE PROPOSED STREET ℄
Sign
Gable Sign
St. Sign
Future 24" RCP
5'x4' RCB (PRECAST)
10'x4' RCB (PRECAST)

COORDINATE SYSTEM - AS USED BY M.K.E.C.

POINT #	NORTH COORDINATES	EAST COORDINATES	COMMENTS
1109	6873.1158	-1672.7679	℄ 10'x4' RCB @ Sta. 7+31.0, Line 3
110	6873.1052	-1675.3479	℄ 5'x4' RCB @ Sta. 7+31.0, Line 3, Offset 2.58' & ℄ Manhole

CESSNA SCHOOL GAS METER & REGULATOR

Line 3 Clarence Avenue

3/18

M.K.E.C.

CMKEC \ Proj. Nos \ 88-70-113 \ Dmg.

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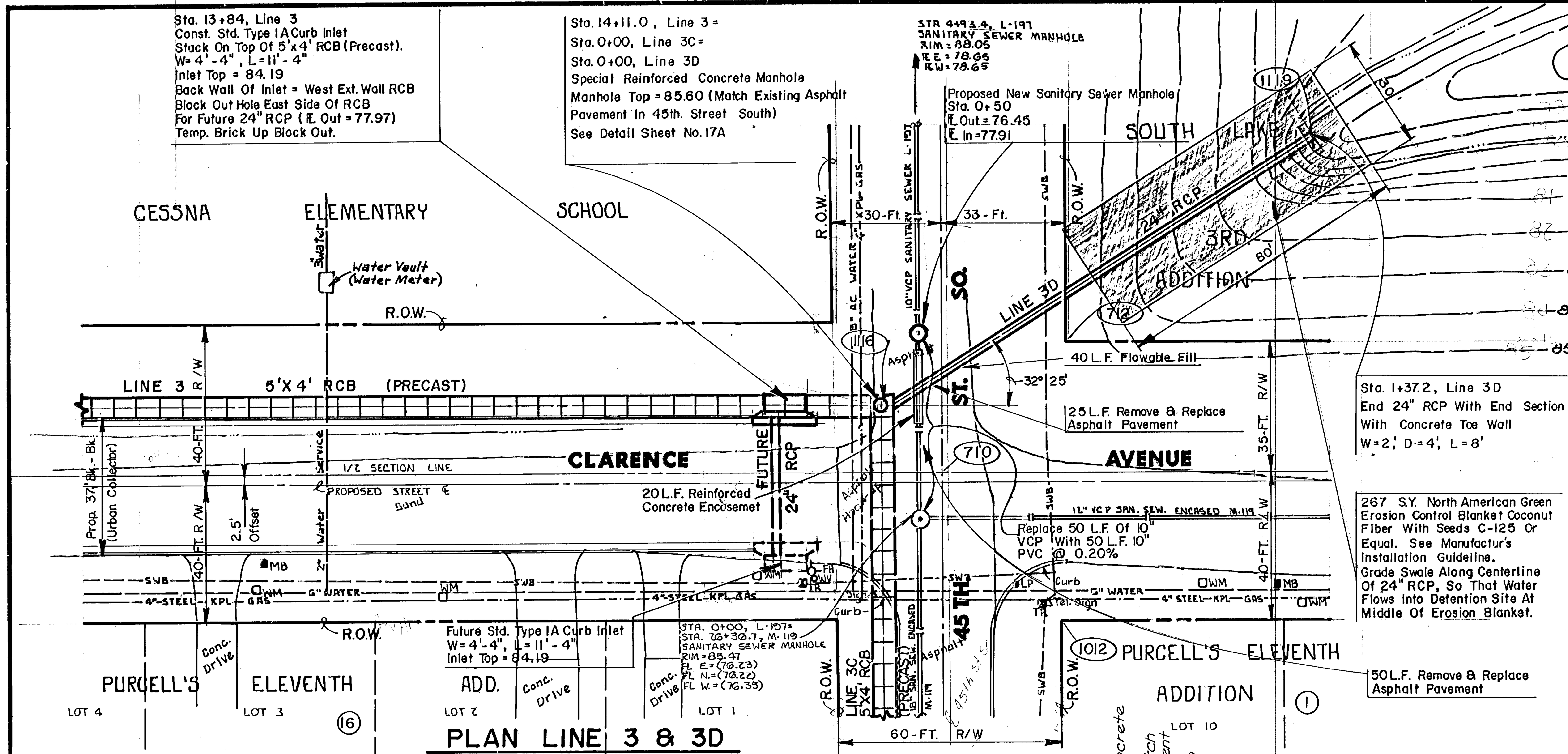
SOUTH SENECA
DRAINAGE IMPROVEMENTS
PHASE II - CHANNEL
STORM WATER DRAIN NO. 87

Scale: 1" = 20' Horiz.
1" = 5' Vert.



Sta. 13+84, Line 3
Const. Std. Type IA Curb Inlet
Stack On Top Of 5'x4' RCB (Precast).
W= 4'-4", L= 11'-4"
Inlet Top = 84.19
Back Wall Of Inlet = West Ext. Wall RCB
Block Out Hole East Side Of RCB
For Future 24" RCP (℄ Out = 77.97)
Temp. Brick Up Block Out.
Sta. 14+11.0, Line 3=
Sta. 0+00, Line 3C=
Sta. 0+00, Line 3D
Special Reinforced Concrete Manhole
Manhole Top = 85.60 (Match Existing Asphalt
Pavement In 45th. Street South)
See Detail Sheet No. 17A
STA 4+93.4, L-197
SANITARY SEWER MANHOLE
RIM = 88.05
℄ E = 78.65
℄ W = 78.65
Proposed New Sanitary Sewer Manhole
Sta. 0+50
℄ Out = 76.45
℄ In = 77.91
SOUTH LAKE 3RD ADDITION
24" RCP
LINE 3D
CESSNA ELEMENTARY SCHOOL
Water Vault (Water Meter)
R.O.W.
30-Ft.
33-Ft.
SO. 45 TH. ST.
40 L.F. Flowable Fill
32°25'
LINE 3
5'X4' RCB (PRECAST)
25 L.F. Remove & Replace Asphalt Pavement
Sta. 1+37.2, Line 3D
End 24" RCP With End Section
With Concrete Toe Wall
W = 2', D = 4', L = 8'
CLARENCE AVENUE
FUTURE 24" RCP
20 L.F. Reinforced Concrete Encasement
1/2 SECTION LINE
PROPOSED STREET ℄
Prop. 37' Bk - Bk. (Urban Collector)
40-FT. R/W
2.5' Offset
Replace 50 L.F. Of 10" VCP With 50 L.F. 10" PVC @ 0.20%
12" VCP SAN. SEW. ENCASED M-119
267 S.Y. North American Green Erosion Control Blanket Coconut Fiber With Seeds C-125 Or Equal. See Manufactur's Installation Guideline.
Grade Swale Along Centerline Of 24" RCP, So That Water Flows Into Detention Site At Middle Of Erosion Blanket.
Future Std. Type IA Curb Inlet
W = 4'-4", L = 11'-4"
Inlet Top = 84.19
STA. 0+00, L-157=
STA. 26+30.7, M-119
SANITARY SEWER MANHOLE
RIM = 85.47
FL E = (76.23)
FL N = (76.22)
FL W = (76.35)
LINE 3C 5X4 RCB (PRECAST)
35-FT. R/W
40-FT. R/W
50 L.F. Remove & Replace Asphalt Pavement
PURCELL'S ELEVENTH ADD.
LOT 4
LOT 3
LOT 2
LOT 1
Conc. Drive
PURCELL'S ELEVENTH ADDITION
LOT 10
60-FT. R/W

PLAN LINE 3 & 3D

RCB NOTE:
PRECAST BARREL SECTIONS:
THE PRECAST CONCRETE BARREL SECTIONS SHALL CONFORM TO THE ASTM C-850 SPECIFICATIONS.

COORDINATE SYSTEM - AS USED BY M.K.E.C.

POINT #	NORTH COORDINATES	EAST COORDINATES	COMMENTS
1116	7553.0994	-1678.1501	CL's 5'+4' RCB @ STA 14+11.0, Line 3
1119	7669.1631	-1750.2990	STA 1+37.2, Line 3D
710	7569.5348	-1659.8876	CL Clarence & 45th Street South
712	7602.3440	-1659.0231	S.E. Corner - South Lake 3rd Addition
1012	7600.834	-1620.715	S.W. Corner - Block 1 - Purcell's 11th Add.

PROFILE LINE 3
PROFILE LINE 3D
ELEVATION IN FEET (WICHITA DATUM)
90
85
80
75
Sta. 12+00, Line 3
Sta. 13+84, Line 3
Const. Std. Type IA Curb Inlet Stack On Top Of 5'x4' RCB (Precast)
Inlet Top = 84.19
For Future 24" RCP (℄ Out = 77.97)
Temp. Brick Up Block Out.
Exist. 8" AC Water
Sta. 14+11.0, Line 3=
Sta. 0+00, Line 3C=
Sta. 0+00, Line 3D
Special Reinforced Concrete Manhole
Manhole Top = 85.60 (Match Existing Asphalt Pavement In 45th Street South)
See Detail Sheet No. 17A
℄ Future Clarence
Existing Grade
211 L.F. 5'x4' RCB (Precast) (C-850) @ 0.10%
℄ = 77.54 (5'x4' RCB (Precast) N.W.S)
2" Water Service
℄ = 77.64
℄ = 77.74
℄ Out = 77.75 (5'x4' RCB (Precast) S)
Sta. 0+00, Line 3D=
Sta. 0+00, Line 3C=
Sta. 14+11.0, Line 3
Special Reinforced Concrete Manhole
Manhole Top = 85.60 (Match Existing Asphalt Pavement In 45th Street South)
With Grate Cover
See Detail Sheet No. 17A
24" Deep
Contractor Shall Go Under Southwestern Bell Cable
Exist. Ground
82.5
Flowable Fill
Proposed 10" Sanitary Sewer ℄ = 76.42
137.2 L.F. - 24" RCP @ -0.26%
(Because Partially Submerged Keep As RCP)
Reinforced Concrete Encasement
Existing 10" VCP Sanitary Sewer ℄ = 77.90
Underground Southwestern Bell
Normal Pool = 77.75 Ft. (Wichita)
Sta. 1+37.2, Line 3D
End 24" RCP With End Section With Concrete Toe Wall
W = 2', D = 4', L = 8'
℄ = 77.49
℄ In = 77.40 (24" RCP S.E.)
12
13
14
0
1

Line 3 & 3D Clarence Avenue

M.K.E.C.

MKEC Proj. No. 88-70-113 Drng.

SOUTH SENECA
DRAINAGE IMPROVEMENTS
PHASE II CHANNEL
STORM WATER DRAIN NO. 87

* Contractor Shall Go Under Southwestern Bell Cable.

RCB NOTE:
PRECAST BARRELL SECTION:
THE PRECAST CONCRETE BARREL SECTIONS SHALL CONFORM TO THE ASTM C-850 SPECIFICATIONS. COST OF BLOCK OUTS SHALL BE INCLUDED IN THE LINEAR FOOT COST OF THE PRECAST RCB.

COORDINATE SYSTEM - AS USED BY M.K.E.C.

POINT #	NORTH COORDINATES	EAST COORDINATES	COMMENTS
1109	6873.1158	-1672.7679	CL 10'X4' RCB @ STA 7+31.0, Line 3
1110	6873.1052	-1675.3479	CL Manhole
1121	6874.7217	-1505.4677	CL 5'X4' RCB & CL Inlet
1122	6908.8877	-1505.7360	CL Inlet
1116	7553.0994	-1678.1501	CL Manhole @ STA. 14+11.0, Line 3
1126	7554.7280	-1506.9700	CL 5'X4' RCB & CL Inlet
1127	7588.8939	-1507.2388	CL Inlet

Line 3B & 3C 46th. Street South 45th. Street South

M.K.E.C.

MKEC Proj. No. 88-70-113-Drng.

CONTOURS ESTIMATED FROM 1983 V.H.S. 2-FT. MAPPING
Storm Water Drainage Report South Seneca
NOTE:
CONSTRUCT 1'-0" HIGH BERM AROUND TOP EDGE OF DETENTION SITE TO PREVENT WATER FROM ENTERING, EXCEPT AT THE CORNERS.
580 S.Y. (40'x130') Tensar Erosion Mat TM 3000 OR Equal. Side Lap At Edges 6" (Min.). Stake Mat With Steel Or Plastic Pins At 2 Staples Per Square Yard. See Manufacturer's Instruction Guidelines. Fill Erosion Mat With Soil & Seed.
N
Scale: 1" = 50'
580 S.Y. (40'x130') Tensar Erosion Mat TM 3000 Or Equal. Side Lap At Edges 6" (Min.). Stake Mat With Steel Or Plastic Pins. At 2 Staples Per Square Yard. See Manufacturer's Installation Guidelines. Fill Erosion Mat With Soil & Seed.
45' DETENTION SITE BUFFER
12' UTILITY ESMT.
BERM
SWALE
FLOW
710-FT. X 185-FT. FLOODWAY BOUNDARY
TELEPHONE PEDESTAL
10' x 27' KG&E ESMT. MISC. BOOK 468 PAGE 17.
1495 S.Y. North American Green Erosion Control Blanket, Coconut Fiber With Seeds, C-125; Or Equal. Stake Mat With Steel Or Plastic Pins At 2 Staples Per Square Yard. See Manufacturer's Installation Guidelines. Grade Swale Along Centerline Of Blanket, So That Water Flows In The Middle Of Blanket.
555 S.Y. North American Green Erosion Control Blanket, Coconut Fiber With Seeds, C-125; Or Equal. Stake Mat With Steel Or Plaster Pins At 2 Staples Per Square Yard. See Manufacturer's Installation Guidelines. Grade Swale Along Centerline Of Blanket So That Water Flows In The Middle Of Blanket.
NORMAL POOL = 77.75 FT. (WICHITA)
MAX. FLOOD POOL = 86.0 FT. (WICHITA)
STORAGE 68.5 AC-FT. - DETENTION STORAGE FOR
ES-1 (101) - (36 AC)
WS-2 (002) - (29 AC)
WS-4 (004) - (18 AC)
PART WS-8 (008) - (22.5 AC)
WS-1 (001) - (76 AC)
(182 AC)
1040 S.Y. North American Green Erosion Control Blanket, Coconut Fiber With Seeds, C-125; Or Equal. Stake Mat With Steel Or Plastic Pins. At 2 Staples Per Square Yard. See Manufacturer's Installation Guidelines. Grade Swale Along Centerline Of Blanket So That Water Flows In The Middle Of Blanket.
CESSNA ELEMENTARY SCHOOL
SOUTH 45TH. STREET
UNDERGROUND SOUTHWESTERN BELL
FL IN = 77.40
FL OUT = 73.70
RCB
CLARENCE AVENUE
30' DRAINAGE ESMT.
40' UTILITY ESMT.
20' SEWER ESMT. CASE C-19528
WILLIAMS NATURAL GAS ESMT.
UNDERGROUND SOUTHWESTERN BELL
6" WATER
4" GAS STEEL - KPL
M-119 12" VCP ENCASED
TELEPHONE PEDESTAL
See Sheet No. 4 For More Information On Erosion Protection.
See Sheet No. 7 For More Information On Erosion Protection.
MANHOLE STA. 29+19.4 RIM = 85.10
MANHOLE STA. 33+21.1 RIM = 86.06
MANHOLE STA. 36+01.6 RIM = 86.34
MANHOLE STA. 39+01.3 RIM = 86.14
MANHOLE STA. 39+44.9
MANHOLE STA. 42+51.8 RIM = 85.21
MANHOLE STA. 45+77.5
MANHOLE STA. 8+30.1
MANHOLE STA. 4+93.4 RIM = 88.05
MANHOLE STA. 0-00 OR 0+20
30-FT. STREET RIGHT-OF-WAY
30-FT. DRAINAGE ESMT.
36" PIPE
SO. 44TH. ST.
8" VCP
NOTE:
ALL AREA DISTURBED BY EXCAVATION ABOVE THE NORMAL POOL ELEVATION OF 77.75 FT. (WICHITA) SHALL BE SEEDED & MULCHED. GRASS SEED SHALL BE A BUFFALO GRASS - BLUE GRAMA GRASS MIX, SO AS TO MINIMIZE WIND & WATER EROSION, AND MAINTENANCE. GRASS SEED SHALL BE PLANTED AS PER USDA - SCS RECOMMENDATIONS FOR SEEDING RATE AND SPECIFICATIONS. CONTRACTOR SHALL INSURE THAT ALL DISTURBED AREAS TO BE SEEDED SHALL HAVE A MINIMUM OF 6" TOPSOIL. COST SHALL BE INCIDENTAL TO PROJECT. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE UNTIL GRASS COVER IS ESTABLISHED.
400 S.Y. (40'x90') Tensar Erosion Mat TM 3000 Or Equal. Side Lap At Edges 6" (Min.). Stake Mat With Steel Or Plastic Pins At 2 Staples Per Square Yard. See Manufacturer's Installation Guidelines. Fill Erosion Mat With Soil & Seed.
PHASE II CHANNEL STORM WATER DRAIN NO. 87
REVISED 5 AUG. 91 JNJ
SOUTH LAKE 3RD. ADDITION
PROPOSED DETENTION SITE
Design JNJ
Drawn by DLM
Date 6 APRIL 90
MID-KANSAS ENGINEERING CONSULTANTS PA
3600 NORTH ROCK ROAD
BUILDING 800
WICHITA, KANSAS 67226
636-6666
Sheet 6 of 18
MKEC Proj. No. 88-70-113 Drng.
South Lake 3rd Add. Detention

COORDINATE SYSTEM - AS USED BY MKEC

POINT #	NORTH COORDINATES	EAST COORDINATES	COMMENTS
1143	8186.0304	-1802.4282	STA. 0+00, Line 4
1153	8189.6881	-1352.7942	STA. 4+49.6, Line 4
1154	8189.9593	-1319.4613	STA. 4+83.0, Line 4

MKEC Proj. No. 88-70-113-Drng.

5 of 8

SOUTH SENECA
DRAINAGE IMPROVEMENTS
PHASE II CHANNEL
STORM WATER DRAIN NO. 87

Scale: 1" = 20' Horiz.
1" = 5' Vert.

N

Sta. 7+29.6, Line 4
Const. Type I-A Curb Inlet
W = 4'-4", L = 6'-4"
Inlet Top = 85.50
Leave Opening In Back Of Inlet
FL. Opening = 84.50
See Detail Sheet No. 17

Sta. 7+63.0, Line 4
Const. Type I-A Curb Inlet
W = 4'-4", L = 6'-4"
Inlet Top = 85.50
Leave Opening In Back Of Inlet
FL. Opening = 84.50
See Detail Sheet No. 17

Sta. 10+09.6, Line 4
Const. Type I-A Curb Inlet
W = 4'-4", L = 6'-4"
Inlet Top = 85.60
Leave Opening In Back Of Inlet
FL. Opening = 84.60
See Detail Sheet No. 17

Sta. 10+43.0, Line 4
Const. Type I-A Curb Inlet
W = 4'-4", L = 6'-4"
Inlet Top = 85.60
Leave Opening In Back Of Inlet
FL. Opening = 84.60
See Detail Sheet No. 17

UNPLATTED (D-200-UP)

29 L.F. Flowable Fill

27 L.F. Remove & Replace Concrete Valley Gutter

150 L.F. Remove & Replace Chain-Link Fence

29 L.F. Flowable Fill

27 L.F. Remove & Replace Concrete Valley Gutter

44TH. STREET SOUTH

Maintain Drain Swale LINE 4

Manhole Top = 86.76

Board Fence 30' DRAINAGE EASEMENT

Chain Link Fence

Block Retaining Wall

House LOT 1

PURCELL'S ADDITION

LOT 16 House

1158

5'x10' Rock Filter 12" Thick Top Of Rock = FL Of Opening

1159

GLENN AVENUE 60' R/W

Maintain Drainage Swale

30' DRNG. ESMT.

House LOT 1

25 L.F. Remove & Replace Concrete Driveway

ELEVENTH ADDITION

Garage

LOT 16 House

10 L.F. Remove & Replace Concrete Driveway

36" PIPE *

1163

5'x10' Rock Filter 12" Thick Top Of Rock = FL Of Opening

1164

VINE AVENUE 60' R/W

Maintain Drainage Swale

30' DRAINAGE ESMT.

Chain Link Fence

LOT 18

G" WATER 4" STEEL KPL GAS 6" WATER 2" STEEL KPL GAS 4" WATER 2" STEEL KPL GAS

SAN. SEW. K-24 (36")

COORDINATE SYSTEM - AS USED BY M.K.E.C.

POINT #	NORTH COORDINATES	EAST COORDINATES	COMMENTS
1158	8191.9658	-1072.8034	STA 7 + 29.6, Line 4
1159	8192.2370	-1039.4706	STA 7 + 63.0, Line 4
1163	8194.2435	-792.8127	STA 10 + 09.6, Line 4
1164	8194.5147	-759.4798	STA 10 + 43.0, Line 4

PLAN LINE 4

PROFILE LINE 4

Sta. 5+50, Line 4

Sta. 7+29.6, Line 4 Const. Type I-A Curb Inlet W=4'-4", L=6'-4" Inlet Top = 85.50

Sta. 7+63.0, Line 4 Const. Type I-A Curb Inlet W=4'-4", L=6'-4" Inlet Top = 85.50

Sta. 10+09.6, Line 4 Const. Type I-A Curb Inlet W=4'-4", L=6'-4" Inlet Top = 85.60

Sta. 10+43.0, Line 4 Const. Type I-A Curb Inlet W=4'-4", L=6'-4" Inlet Top = 85.60

Sta. 11+50, Line 4

℄ Glenn

℄ Vine Avenue

Existing Grade

83.0 Flowable Fill

83.0 Flowable Fill

600 L.F. 36" Pipe* @ 0.11%

ELEVATION IN FEET (WICHITA DATUM) 90 85 80 75

FL = 78.23 (36" Pipe* Eq'L)

FL = 78.29

FL = 78.39

6" Water Top = 83.45

FL = 78.42

2" KPL Gas

FL = 78.46

FL = 78.50

FL = 78.60

6" Water Top = 83.14

FL = 78.71

FL = 78.72

2" KPL Gas

FL = 78.75

FL = 78.81

FL = 78.87 (36" Pipe* Eq'L)

+50 6 7 8 9 10 11 +50

* Alternative Storm Sewer Pipe Material May Be Used:
1) 36" R.C.P.
2) 36" HDPE (Smooth Interior)
3) 36" Aluminized Steel Pipe (Smooth Interior),
~~4) Or Other Approved Equal~~

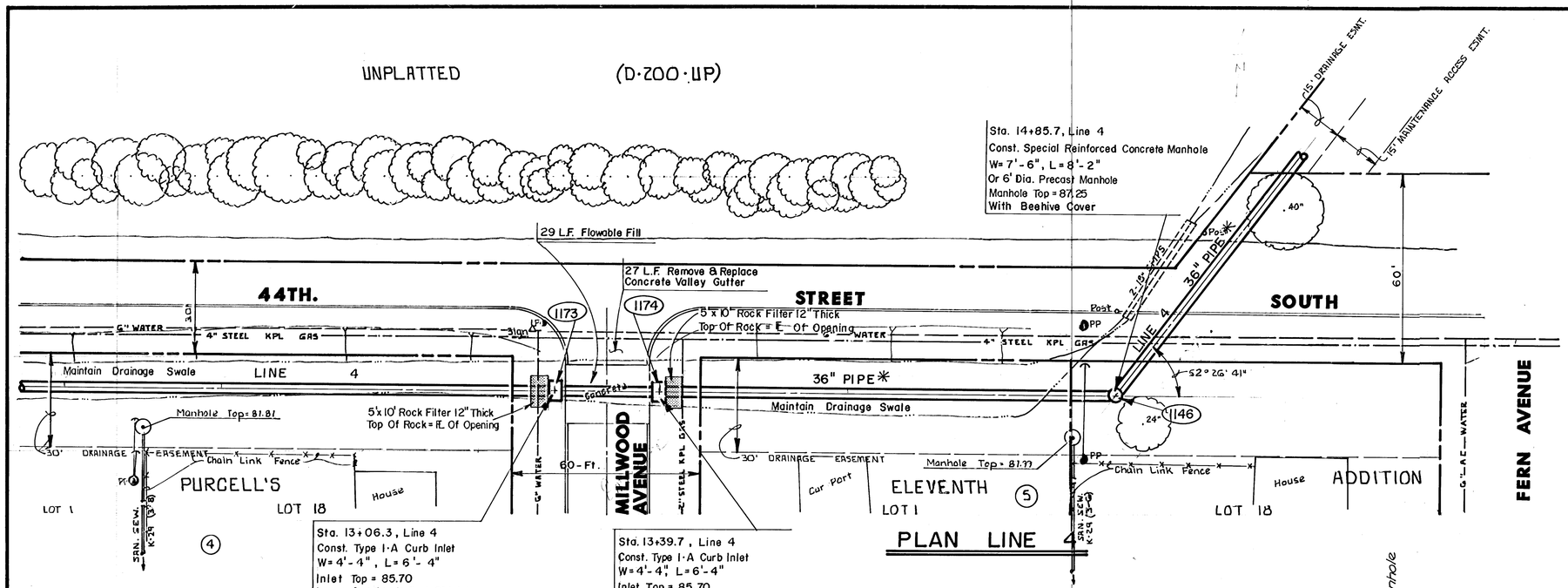
Line 4 44th Street South

8/18

M.K.E.C.

MKEC Proj. No. 88-70-113-Drng.

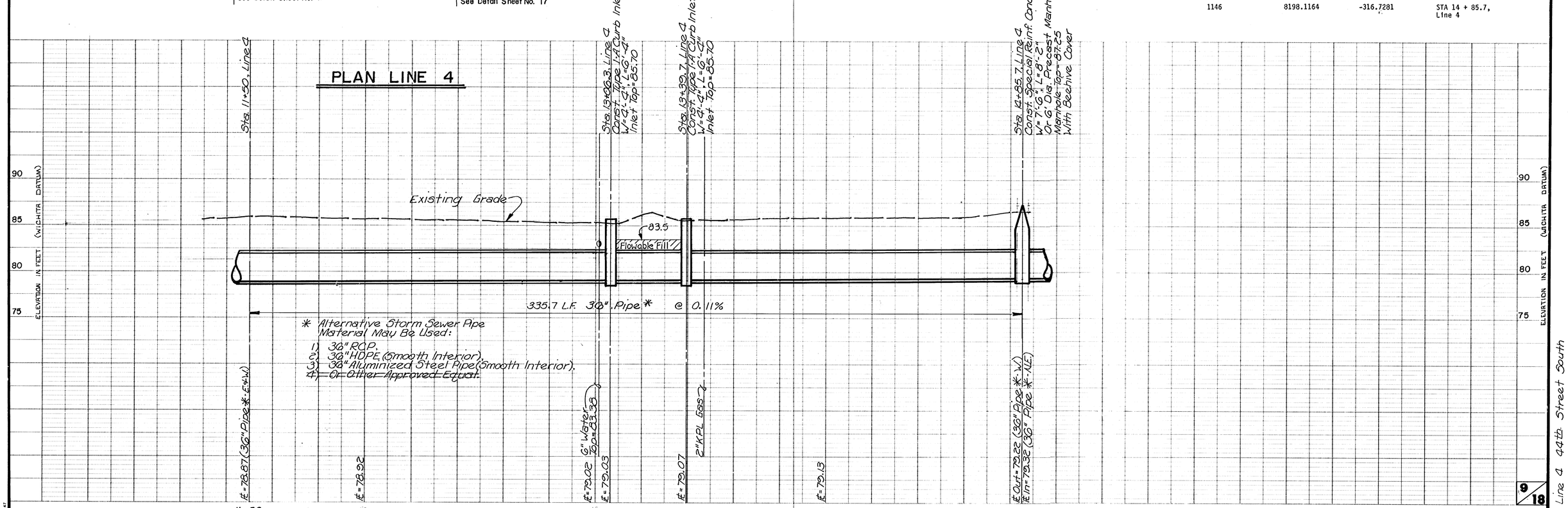
SOUTH SENECA
DRAINAGE IMPROVEMENTS
PHASE II CHANNEL
STORM WATER DRAIN NO. 87



Scale : 1" = 20' Horiz.
1" = 5' Vert.

COORDINATE SYSTEM - AS USED BY M.K.E.C.

POINT #	NORTH COORDINATES	EAST COORDINATES	COMMENTS
1173	8196.6571	-496.1225	STA 13 + 06.3, Line 4
1174	8196.9282	-462.7896	STA 13 + 39.7, Line 4
1146	8198.1164	-316.7281	STA 14 + 85.7, Line 4



* Alternative Storm Sewer Pipe Material May Be Used:
1) 36" R.C.P.
2) 36" HDPE (Smooth Interior)
3) 36" Aluminized Steel Pipe (Smooth Interior).
~~4) Or Other Approved Equal.~~

Line 4 44th. Street South

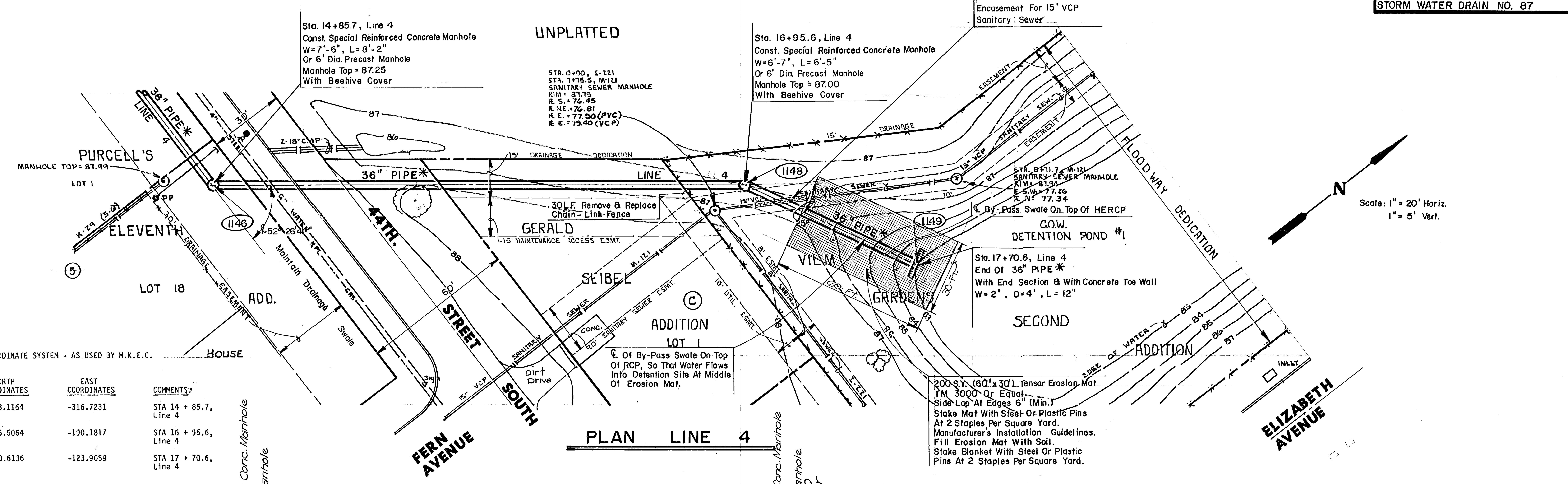
9/18

M.K.E.C.

MKEC Proj. No. 88-70-113-Drng.

7 of 9

SOUTH SENECA
DRAINAGE IMPROVEMENTS
PHASE II CHANNEL
STORM WATER DRAIN NO. 87



Sta. 14+85.7, Line 4
Const. Special Reinforced Concrete Manhole
W=7'-6", L=8'-2"
Or 6' Dia. Precast Manhole
Manhole Top = 87.25
With Beehive Cover
UNPLATTED
STA. 0+00, I-121
STA. 1+75.5, M-121
SANITARY SEWER MANHOLE
RIM = 87.15
R.S. = 76.45
R NE. = 76.81
R E. = 77.00 (PVC)
E E. = 79.40 (VCP)
20L.F. Reinforced Concrete
Encasement For 15" VCP
Sanitary Sewer
Sta. 16+95.6, Line 4
Const. Special Reinforced Concrete Manhole
W=6'-7", L=6'-5"
Or 6' Dia. Precast Manhole
Manhole Top = 87.00
With Beehive Cover
PURCELL'S
MANHOLE TOP = 87.99
LOT 1
ELEVENTH
LOT 18
ADD.
HOUSE
36" PIPE*
LINE 4
15' DRAINAGE DEDICATION
30 L.F. Remove & Replace
Chain-Link Fence
GERALD
15' MAINTENANCE ACCESS ESMT.
SEIBEL
ADDITION
LOT 1
44TH.
STREET
SOUTH
FERN AVENUE
Dirt Drive
Maintain Drainage Swale
℄ Of By-Pass Swale On Top
Of RCP, So That Water Flows
Into Detention Site At Middle
Of Erosion Mat.
VILM
GARDENS
SECOND
ADDITION
FLOODWAY DEDICATION
STA. 8+11.7, M-121
SANITARY SEWER MANHOLE
RIM = 87.31
E S.W. = 77.26
R N. = 77.34
℄ By-Pass Swale On Top Of HERCP
C.O.W.
DETENTION POND #1
Sta. 17+70.6, Line 4
End Of 36" PIPE*
With End Section & With Concrete Toe Wall
W=2', D=4', L=12"
200 S.Y. (60' x 30') Tensar Erosion Mat
TM 3000 Or Equal.
Side Lap At Edges 6" (Min.)
Stake Mat With Steel Or Plastic Pins.
At 2 Staples Per Square Yard.
Manufacturer's Installation Guidelines.
Fill Erosion Mat With Soil.
Stake Blanket With Steel Or Plastic
Pins At 2 Staples Per Square Yard.
ELIZABETH AVENUE
INLET
N
Scale: 1" = 20' Horiz.
1" = 5' Vert.
1146
1148
1149

COORDINATE SYSTEM - AS USED BY M.K.E.C.

POINT #	NORTH COORDINATES	EAST COORDINATES	COMMENTS:
1146	8198.1164	-316.7231	STA 14 + 85.7, Line 4
1148	8365.5064	-190.1817	STA 16 + 95.6, Line 4
1149	8400.6136	-123.9059	STA 17 + 70.6, Line 4

PLAN LINE 4

PROFILE LINE 4

Sta. 14+85.7, Line 4
Const. Special Reinf. Conc. Manhole
W=7'-6", L=8'-2"
Or 6' Dia. Precast Manhole
Manhole Top = 87.25
With Beehive Cover
Sta. 16+95.6, Line 4
Const. Special Reinf. Conc. Manhole
W=6'-7", L=6'-5"
Or 6' Dia. Precast Manhole
Manhole Top = 87.00
With Beehive Cover
Sta. 17+70.6, Line 4
End Of 36" HERCP
With End Section & With
Concrete Toe Wall
W=2'-0", D=4'-0", L=12'-0"
Existing Grade
83.1 Ft. (Wichita Datum) (Sept. 26, 1989)
209.9 L.F. 36" Pipe* @ 0.10%
75.0 L.F. 36" Pipe* @ 0.09%
Reinforced Concrete Encasement
Of Sanitary Sewer
ELEVATION IN FEET (WICHITA DATUM)
90
85
80
75
℄ Out = 79.22 (36" Pipe* S.W.)
℄ In = 79.32 (36" Pipe* N.E.)
℄ = 79.33
4" KPL Gas
6" Water
Top = 83.76
℄ = 79.43
℄ Out = 79.53 (36" Pipe* S.W.)
℄ In = 79.63 (36" Pipe* N.E.)
℄ = 79.63
15" VCP San. Sewer
℄ = 76.94
℄ In = 79.70 (36" Pipe* S.W.)
14
15
16
17
+70.6

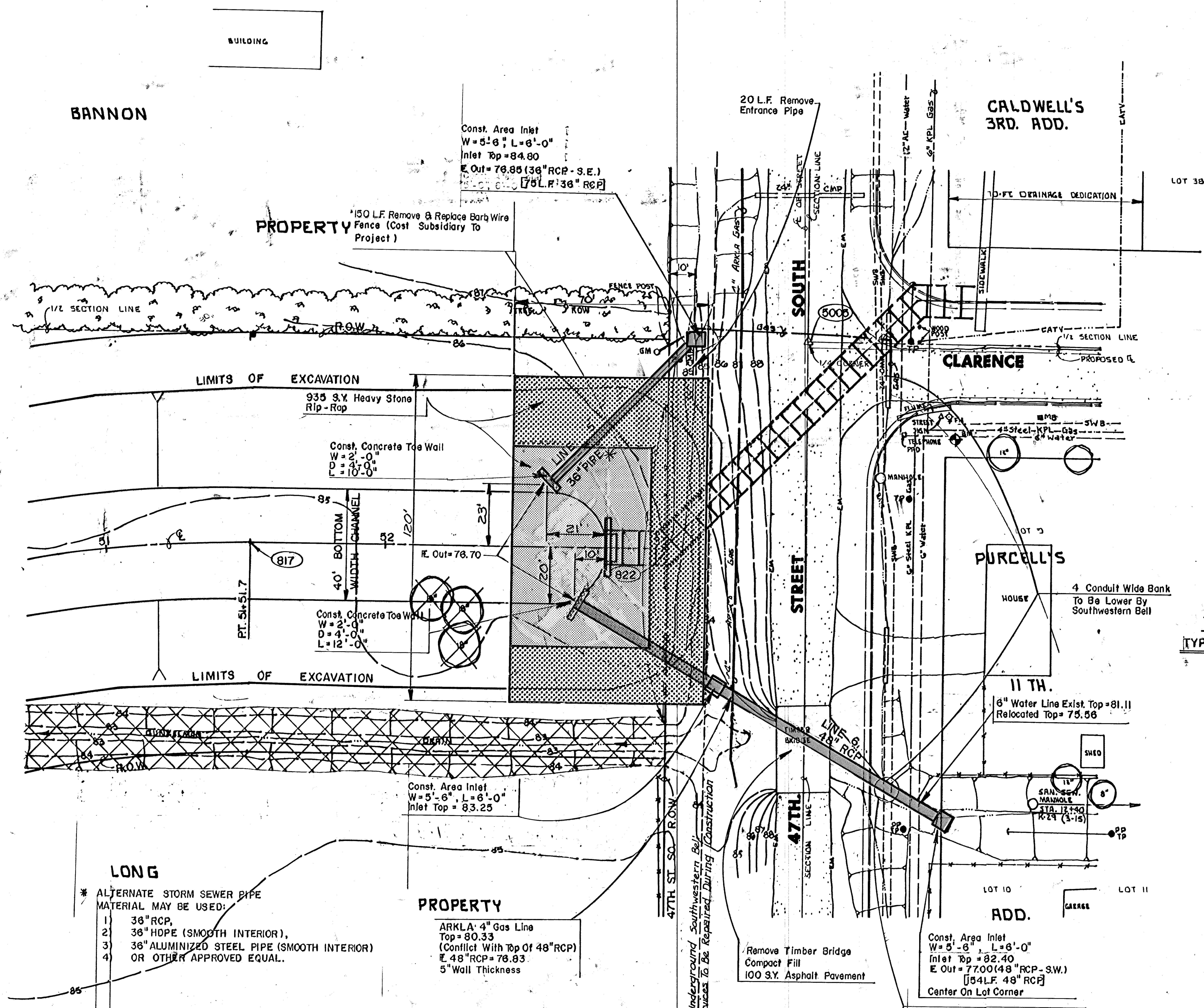
* Alternative Storm Sewer Pipe
Material May Be Used:
1) 36" RCP.
2) 36" HDPE (Smooth Interior).
3) 36" Aluminized Steel Pipe (Smooth Interior).
4) Or Other Approved Equal.

Line 4 South Seneca (44th Street So.)

10/18

M.K.E.C.

MKEC Proj. No. 88-70-113-Drng.

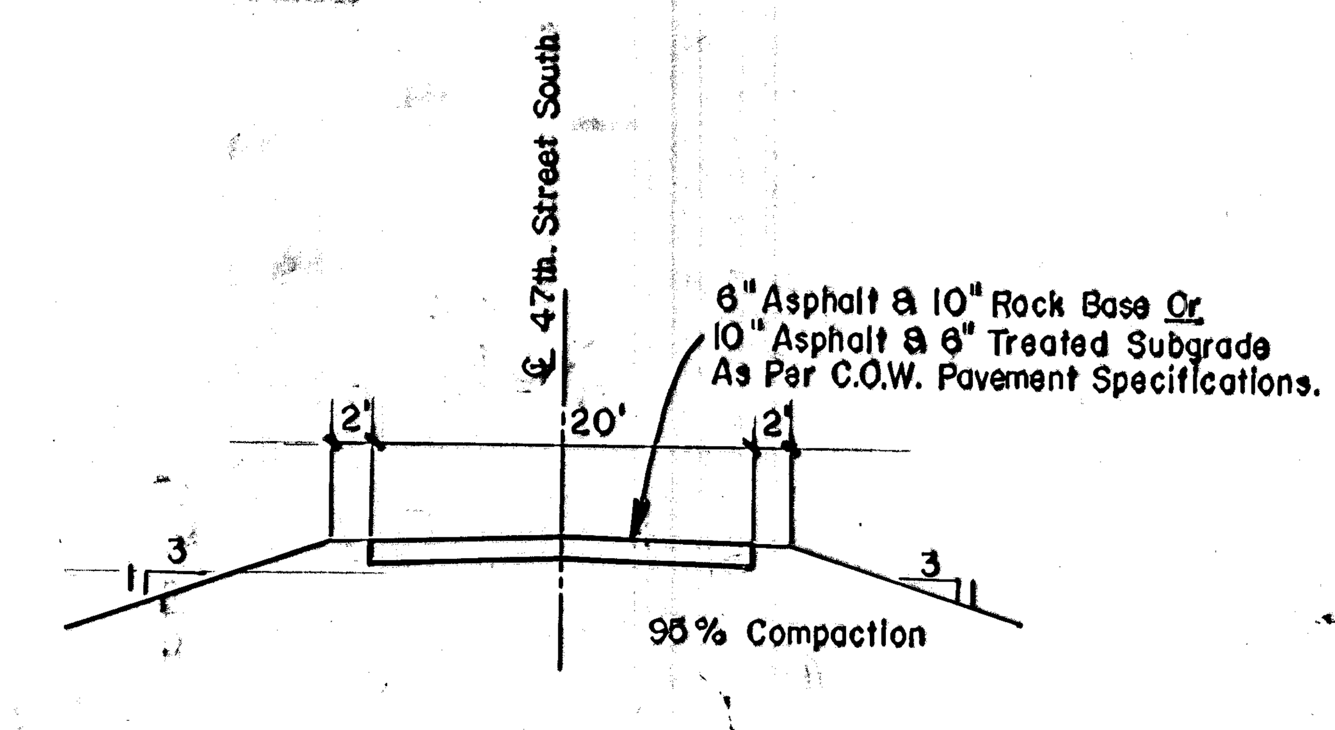

BUILDING
BANNON
PROPERTY
LONG
PROPERTY
CALDWELL'S 3RD. ADD.
PURCELL'S 11 TH. ADD.
SOUTH STREET
47TH. STREET
CLARENCE
Const. Area Inlet W=5'-6", L=6'-0" Inlet Top=84.80 ℄ Out=76.85 (36"RCP-S.E.) [75L.F. 36" RCP]
20 L.F. Remove Entrance Pipe
150 L.F. Remove & Replace Barb Wire Fence (Cost Subsidiary To Project)
1/2 SECTION LINE
FENCE POST
ROW
R.O.W.
LIMITS OF EXCAVATION
935 S.Y. Heavy Stone Rip-Rap
Const. Concrete Toe Wall W=2'-0" D=4'-0" L=10'-0"
Const. Concrete Toe Wall W=2'-0" D=4'-0" L=12'-0"
LINE 5 36" PIPE *
40' BOTTOM WIDTH CHANNEL
120'
23'
21'
20'
10'
℄ Out=76.70
817
822
PT. 51+51.7
LINE 6 48" RCP
TIMBER BRIDGE
10-Ft. DRAINAGE DEDICATION
LOT 38
SIDEWALK
CATV
12" AC Water
6" KPL Gas
4" Arkla Gas
SECTION LINE
1/2 SECTION LINE
PROPOSED ℄
4" Steel-KPL-Gas
6" Water
MANHOLE
TELEPHONE PED
4 Conduit Wide Bank To Be Lower By Southwestern Bell
HOUSE
6" Water Line Exist. Top=81.11 Relocated Top=75.56
SHED
SAN. SEW. MANHOLE STA. 13+40 K-29 (3-15)
LOT 10
LOT 11
GARAGE
Const. Area Inlet W=5'-6", L=6'-0" Inlet Top=83.25
ARKLA 4" Gas Line Top=80.33 (Conflict With Top Of 48"RCP) ℄ 48"RCP=76.83 5" Wall Thickness
47TH ST. SO. R.O.W.
Underground Southwestern Bell Services To Be Repaired During Construction
Remove Timber Bridge Compact Fill 100 S.Y. Asphalt Pavement
Const. Area Inlet W=5'-6", L=6'-0" Inlet Top=82.40 ℄ Out=77.00 (48"RCP-S.W.) [54LF. 48" RCP] Center On Lot Corner
Southwestern Bell Telephone Conduit Top=80.70 Bottom=79.37 (Conflict With Top Of 48" RCP) ℄ 48"RCP=76.95 5" Wall Thickness
N
Scale: 1" = 20'

LEGEND

⚑ = Flag Set By Long

* ALTERNATE STORM SEWER PIPE MATERIAL MAY BE USED:
1) 36" RCP,
2) 36" HDPE (SMOOTH INTERIOR),
3) 36" ALUMINIZED STEEL PIPE (SMOOTH INTERIOR)
4) OR OTHER APPROVED EQUAL.

NOTE:
AREA UNDER EAST SPAN OF BRIDGE AND AREA TO SOUTH OF TIMBER BRIDGE HAS BEEN BACKFILLED WITH BROKEN CONCRETE TO SLOW EROSION AT BRIDGE SITE.



TEMPORARY ASPHALT REPLACEMENT
TYPICAL ROAD CROSS SECTION AT BRIDGE REMOVAL SITE

NOTE:
All Area Disturbed By Excavation Shall Be Seeded & Mulched. Grass Seed Shall Be A Buffalo Grass- Blue Grama Grass Mix, So As To Minimize Wind & Water Erosion, And Maintenance. Grass Seed Shall Be Planted As Per U.S.D.A.- SCS Recomendations For Seeding Rate And Specifications.

PHASE II - CHANNEL - STORM WATER DRAIN NO. 87

MKEC

PLAN
LINE 5 & 6

Design / Drawn by / Checked by / Date / Job no.

MID-KANSAS ENGINEERING CONSULTANTS, PA
3500 NORTH ROCK ROAD
BUILDING #800
WICHITA, KANSAS 67226
636-5566

Sheet 11 of 18

Line 5&6 47th Street South

MKEC Proj. No. 88-70-113-Drng.

SOUTH SENECA
DRAINAGE IMPROVEMENTS
PHASE II - CHANNEL
STORM WATER DRAIN NO. 87

CALDWELL'S THIRD ADDITION

PURCELL'S ELEVENTH ADDITION

LOT 2 | LOT 1 | LOT 37 | LOT 38 | LOT 8 | LOT 9 | LOT 10 | LOT 11

64' R.O.W.

10' Drainage Dedication

EUCLID

CLARENCE

70-Ft. Drainage Dedication

Remove Exist. Chain Link Fence & Replace Fence On Lot Line.

Remove Exist. Wooden Fence & Replace Fence On Lot Line.

New 5-Ft. Sidewalk

SWB Underground Cable

CATV Box

SWB Box

42 L.F. With Excess Wooden Fence Material Extend Fence To Southeast Corner Of House

Poplar Trees (Save)

Remove Sidewalk

PROPOSED GRADING

Const. Std. Type I-A Ditch Inlet
W=6'-8", L=5'-0"
Inlet Top = 83.67
With Beehive Ring & Grate
IE In = 76.60

Scale: 1"=20' Horiz.
1"=5' Vert.

N

Bell MH

32"x48" CMP

18" CMP

Asphalt Rock-up

Wood Post

Sign

Tree Row

Trees To Remain

12" AC WATER

6" STEEL-KPL-GAS

6" WATER

Flume

Tele.Ped.

Bell MH

SWB

21" CMP

10' X 4' RCB

48" RCP

Bridge

Shed

Garage

House

Band

CATV

Conc. Drive

47TH. STREET SOUTH

Southwestern Bell Telephone To Move Pole To Point 8-Ft. West Of Proposed Curb & Gutter. CATV Will Have To Relocate Their Underground Cable When Southwestern Bell Telephone Moves Pole.

N

SCALE: 1"= 20'

Regrade Each Corner Of RCB And Create A Drainage Swale From Normal Ground To The Channel Bottom. Place 25 S.Y. Light Stone Rip-Rap At Each Corner Of RCB. Berm Top Of Channel At RCB To Drain To Swales.

Exist. 1700 S.F. 34'x50' Tensar Erosion Mat TM 3000 Or Equal. (Each Side Of RCB) Side Lap At Edges 6" (Min.) Stake Mat With Steel Or Plastic Pins At No More Than 3-Ft. Centers. And Bottom Of RCB See Manufacturer's Installation Guidelines.

R.O.W.

OVERHEAD ELECTRIC

RCB

E-DRAINAGE SWALE

W-DRAINAGE SWALE

N-DRAINAGE SWALE

S-DRAINAGE SWALE

BOTTOM CHANNEL

40-FT. WIDTH

P.C. 44+44.5

45

46

Sta. 45+27.5, Channel
Existing 3-10'x6'x78' RCB (Precast) With End Sections And Concrete Toe Walls, (Each End)
W=2'-0", D=4'-0", L=45'-0"

824' ± North To 47th. & Street South

Tons

Regrade Each Corner Of RCB And Create A Drainage Swale From Normal Ground To The Channel Bottom. Place 25 S.Y. Light Stone Rip-Rap At Each Corner Of RCB. Berm Top Of Channel At RCB To Drain To Swales.

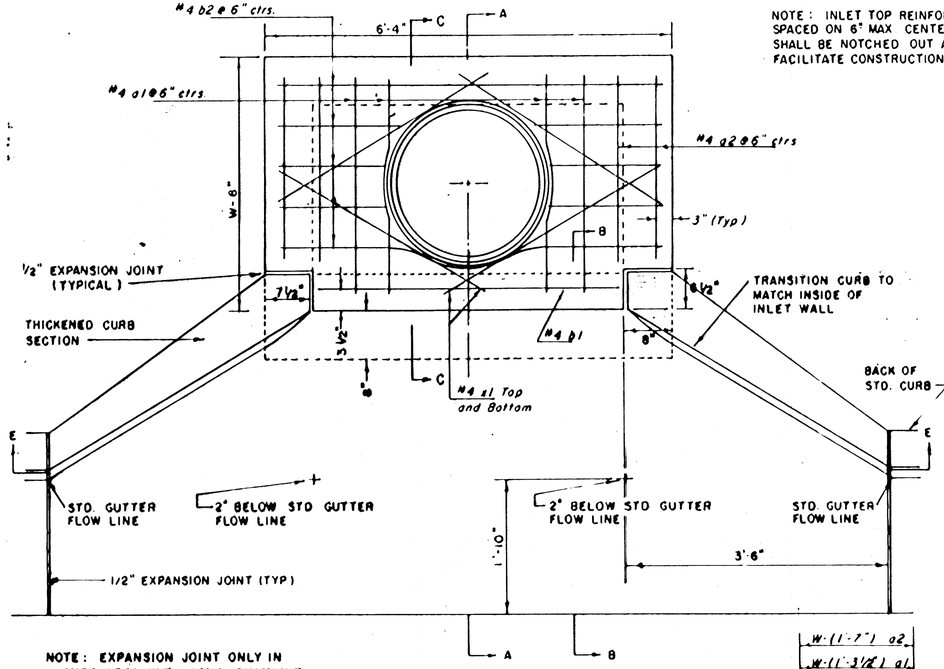
LONG'S ENTRANCE DRIVE

ADD ALTERNATE

12/18

M.K.E.C.

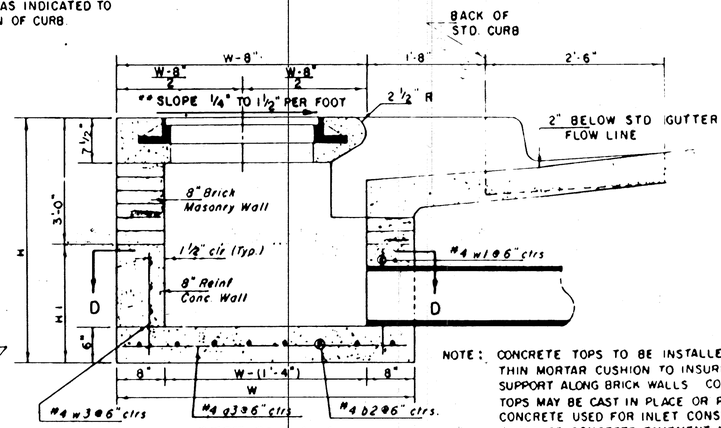
MKEC Proj. 88-70-113-Drng.



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

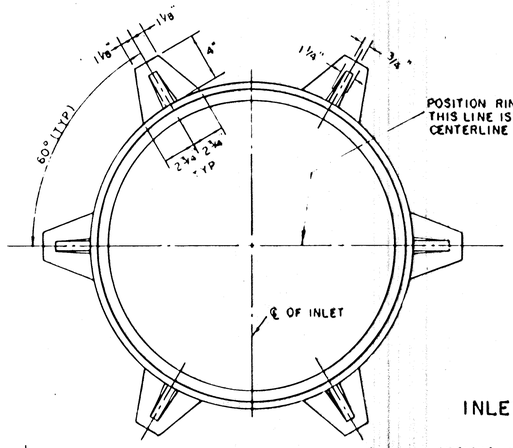
PLAN

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



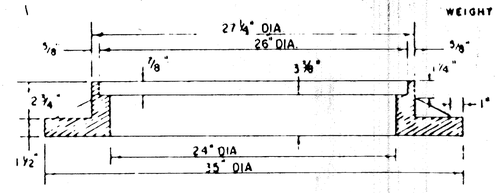
SECTION A-A

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 WITH AIR ENTRAINMENT



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.

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.

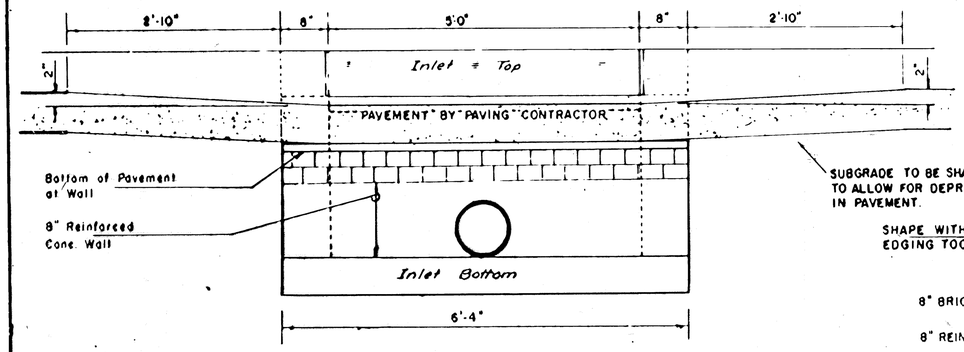
THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL

PRECAST SLAB AND FLOOR REINFORCING											
		W=4'-4"		W=5'-4"		W=6'-4"		W=7'-4"		W=8'-4"	
Mark	Size	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length
a1	#4	6	6'-7"	6	8'-7"	6	10'-7"	6	12'-7"	6	14'-7"
a2	#4	4	6'-0"	4	8'-0"	4	10'-0"	4	12'-0"	4	14'-0"
a3	#4	13	4'-1"	13	5'-1"	13	6'-1"	13	7'-1"	13	8'-1"
b1	#4	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"	1	4'-9"
b2	#4	23	6'-1"	29	6'-1"	35	6'-1"	41	6'-1"	47	6'-1"
x1	#4	0	3'-10"	0	4'-2"	0	4'-6"	0	4'-10"	0	5'-2"
WALL REINFORCING											
		W=4'-4"		W=5'-4"		W=6'-4"		W=7'-4"		W=8'-4"	
Mark	Size	No.	Length	No.	Length	No.	Length	No	Length	No.	Length
w1	#4	(2)	6'-1"	(2)	6'-1"	(2)	6'-1"	(2)	6'-1"	(2)	6'-1"
w2	#4	(2)	4'-1"	(2)	5'-1"	(2)	6'-1"	(2)	7'-1"	(2)	8'-1"
w3	#4	32	(2)	36	(2)	40	(2)	44	(2)	48	(2)

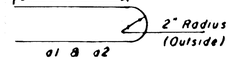
* Field bend or cut Reinforcing as required for clearance

(1) 4(H1-12"), (H1-12") Round down to nearest 0.5'

(2) H1-3"



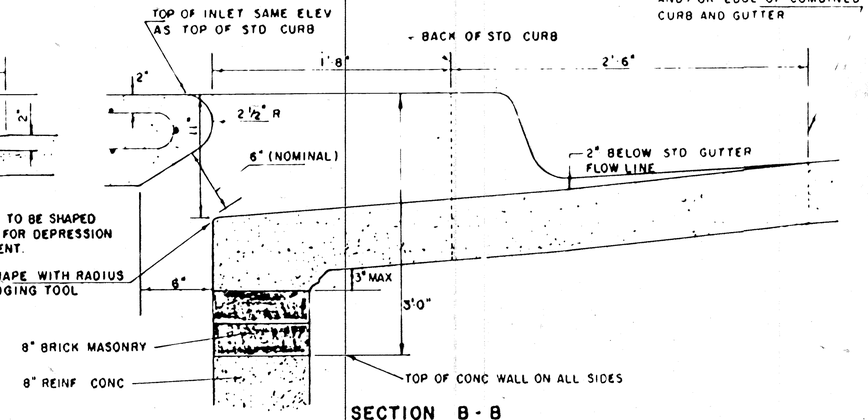
SECTION E-E



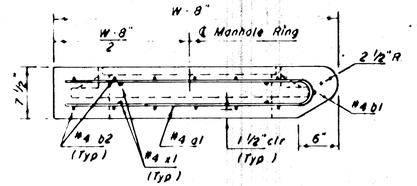
BENDING DIAGRAM

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 ±

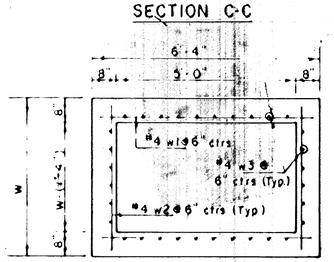
** NOTE: Slope of Inlet Tops to match Sidewalk or Parking Slopes within Limits indicated.



SECTION B-B



SECTION C-C



SECTION D-D

~~REVISED 11-30-1988~~

~~REVISED 12-31-1984~~ Revised 2-16-1989

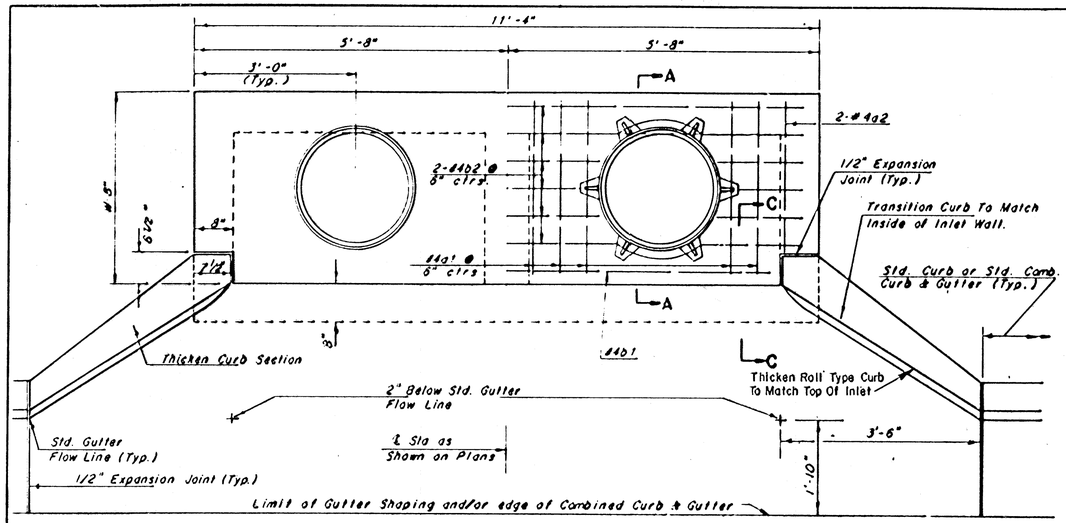
DETAIL STANDARD TYPE IA CURB INLET

CITY OF WICHITA, KANSAS

INLET OPENING = 6" × 5'0"

JUNE 1984

13/18

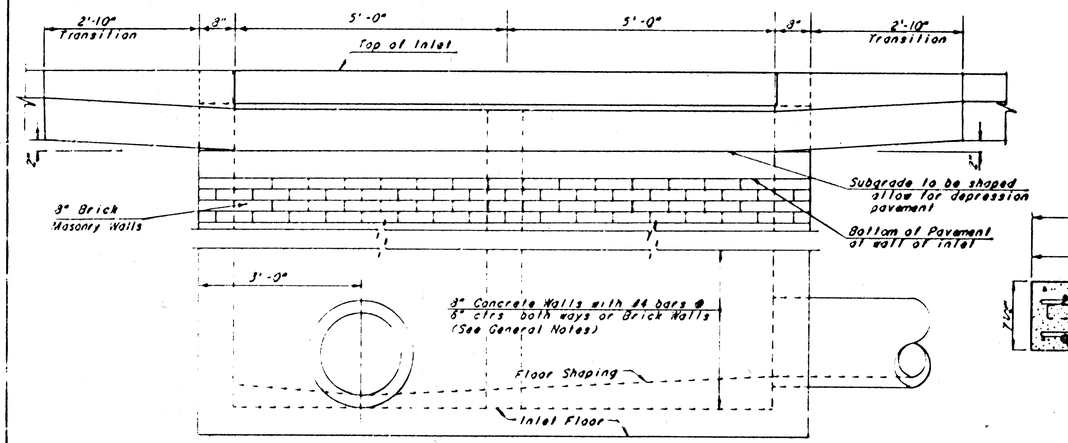


SLAB REINFORCING NOT SHOWN

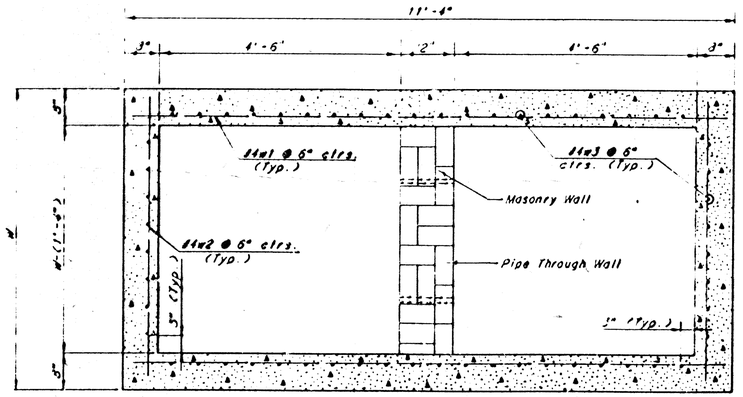
PLAN

SHOWING SLAB REINFORCING

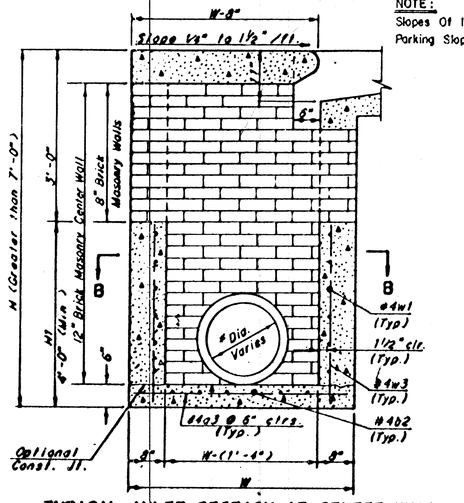
NOTE Expansion Joint only in Curb Area with Conc. Pavement.



ELEVATION



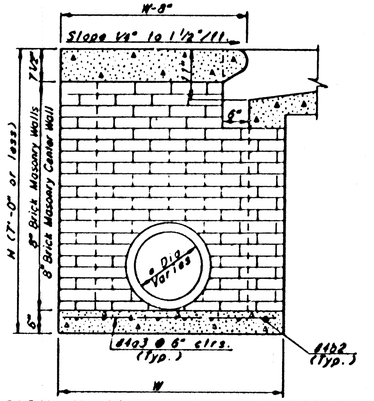
SECTION B-B



TYPICAL INLET SECTION AT CENTER WALL

(REINFORCED CONCRETE WALLS)

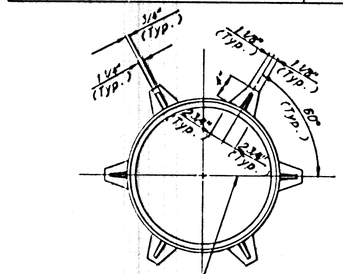
NOTE:
Slopes Of Inlet Tops To Match Sidewalk Or Parking Slopes Within Limits Indicated.



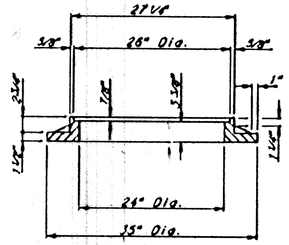
TYPICAL INLET SECTION AT CENTER WALL

(MASONRY WALLS)

* A center wall opening shall be provided by means of a section of reinforced concrete pipe. See Case I and Case II Below.



Position Ring such that this line is parallel with ℄ of Pavement

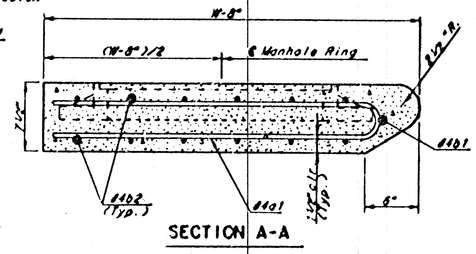


CAST IRON INLET RING

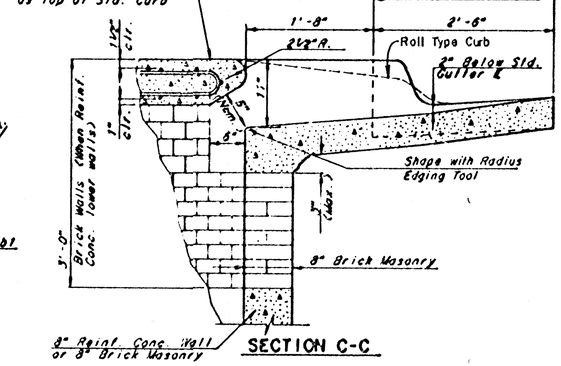
Wt.=180 lbs.

See City of Wichita Standard Manhole Frame and Cover Detail Sheet for Cover Details to be used with Inlet Frame.

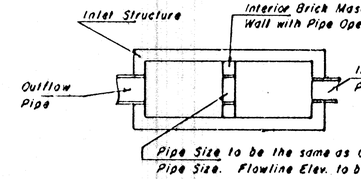
BENDING DIAGRAMS



SECTION A-A

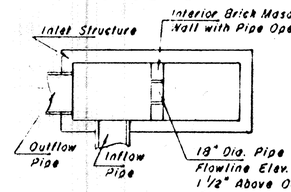


SECTION C-C



Pipe Size to be the same as Outlet Pipe Size. Flowline Elev. to be Average of Lowest Inflow Pipe Elev. and Outflow Pipe Elev.

CASE I



CASE II

NOTE Center Wall Pipe Size shall be as Specified in Inlet Construction Note on the Plan/Profile Sheets for those Cases not shown here.

SLAB AND FLOOR REINFORCING

MARK	SIZE	W=4'-4" NO.	W=4'-4" LENGTH	W=5'-4" NO.	W=5'-4" LENGTH	W=6'-4" NO.	W=6'-4" LENGTH	W=7'-4" NO.	W=7'-4" LENGTH	W=8'-4" NO.	W=8'-4" LENGTH
a1	#4	13	8'-7 1/4"	13	8'-7 1/4"	13	10'-7 1/4"	13	12'-7 1/4"	13	14'-7 1/4"
a2	#4	2	5'-0"	2	8'-0"	2	10'-0"	2	12'-0"	2	14'-0"
a3	#4	20	4'-1"	20	5'-1"	20	6'-1"	20	7'-1"	20	8'-1"
b1	#4	1	9'-8"	1	9'-8"	1	9'-8"	1	9'-8"	1	9'-8"
#b2	#4	18	11'-1"	24	11'-1"	30	11'-1"	36	11'-1"	42	11'-1"

WALL REINFORCING

MARK	SIZE	W=4'-4" NO.	W=4'-4" LENGTH	W=5'-4" NO.	W=5'-4" LENGTH	W=6'-4" NO.	W=6'-4" LENGTH	W=7'-4" NO.	W=7'-4" LENGTH	W=8'-4" NO.	W=8'-4" LENGTH
c1	#6	4	6'-1"	4	7'-1"	4	8'-1"	4	9'-1"	4	10'-1"
#1	#4	①	11'-1"	①	11'-1"	①	11'-1"	①	11'-1"	①	11'-1"
#2	#4	①	4'-1"	①	5'-1"	①	6'-1"	①	7'-1"	①	8'-1"
#3	#4	②	③	②	③	②	③	②	③	②	③

* Field bend or cut Reinforcing as required for clearance

① 4(H1-6")+4 (H1-6") Rounded down to nearest 0.5'

② 10+4(W - 16") ③ H1+(9")

STANDARD CURB INLET PRECAST TOPS

W	PRE-CAST TOP SIZE	SIDE OR INTERIOR WALL PIPE SIZE	CU. YD. CONC.
4'-4"	5'-8" x 11'-4" x 7 1/2"	21" & SMALLER	0.83 ±
5'-4"	4'-8" x 11'-4" x 7 1/2"	24" & 30"	1.09 ±
6'-4"	5'-8" x 11'-4" x 7 1/2"	36" & 42"	1.35 ±
7'-4"	6'-8" x 11'-4" x 7 1/2"	48" & 54"	1.61 ±
8'-4"	7'-8" x 11'-4" x 7 1/2"	60" & 66"	1.87 ±

REVISED 12-5-88 -REVISED 12-21-84-

GENERAL NOTES

1. THE CONTRACTOR SHALL BE REQUIRED TO CONSTRUCT 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN H=6'-4" OR LESS AND H=7'-0" OR LESS WHEN W IS GREATER THAN 8'-4" AND H IS LESS THAN 7'-0". THE OUTSIDE INLET WALLS BELOW THE BRICK STACK SHALL BE REINFORCED CONCRETE CONSTRUCTION AND THE CENTER WALL SHALL BE OF MASONRY CONSTRUCTION AS SHOWN FOR THE MASONRY WALL OPTION.
2. 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.
3. 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.
4. INLET TOP REINFORCING SHALL BE SPACED ON 6" MAX. CENTERS. INLET LIDS SHALL BE NOTCHED OUT AS INDICATED TO FACILITATE CONSTRUCTION OF CURB BARS IN INLET TOP TO BE FIELD BENT OR CUT TO CLEAR MANHOLE RING.
5. THE ENDS OF ALL PIPES INSTALLED IN INLETS SHALL BE CUT OFF FLUSH WITH THE INSIDE FACE OF THE INLET WALL.

STANDARD TYPE 1A CURB INLET

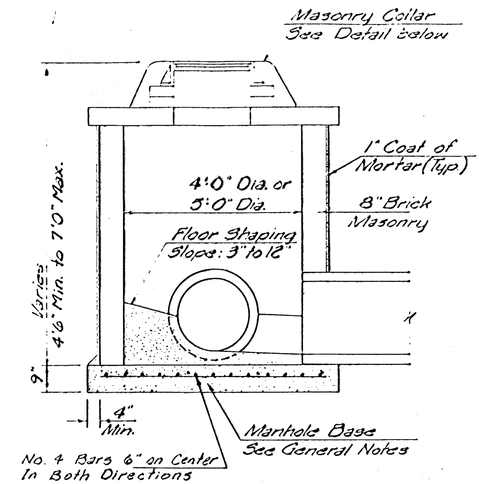
INLET OPENING = 6" x 10'-0"

WICHITA, KANSAS

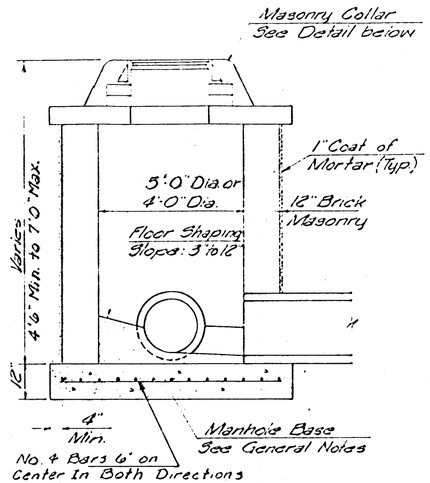
Designed by	BER, KJS, LMG	Checked by	LMG	14
Drawn by	JGP	Date	Nov., 1984	Job No. 18

PROJECT NO.	SHEET NO.	TOTAL SHEETS

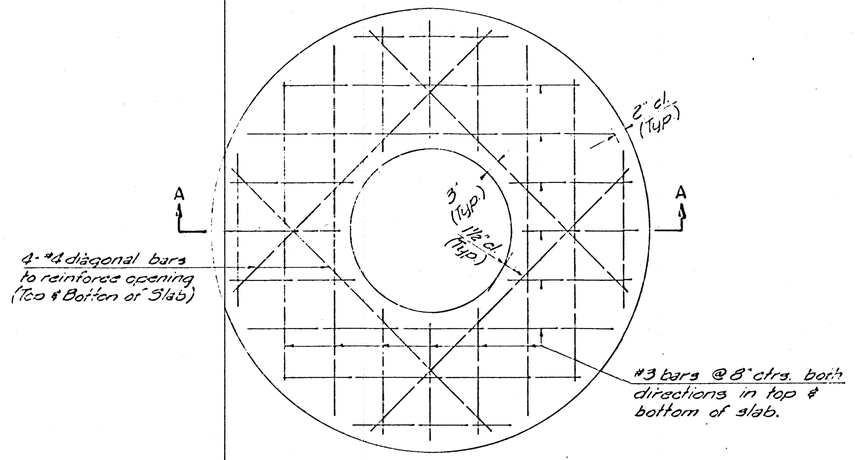
ORIGINAL



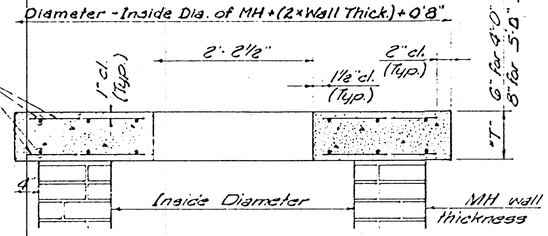
SHALLOW TYPE "A" MANHOLE



SHALLOW TYPE "B" MANHOLE

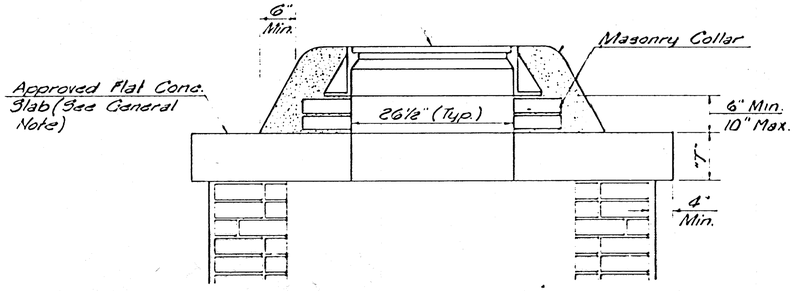


PLAN

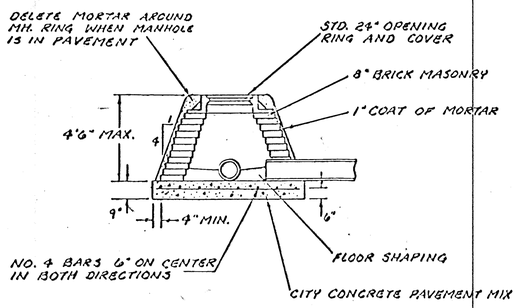


SECTION A-A

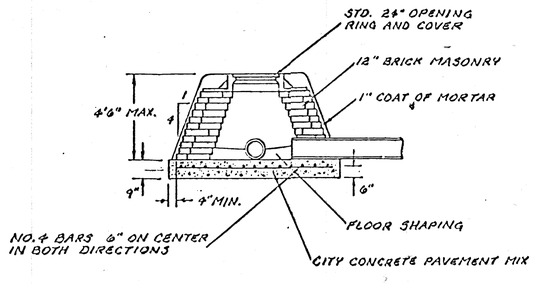
FLAT CONCRETE SLAB DETAILS



MASONRY COLLAR DETAIL



SPECIAL SHALLOW TYPE 'A' MANHOLE



SPECIAL SHALLOW TYPE 'B' MANHOLE

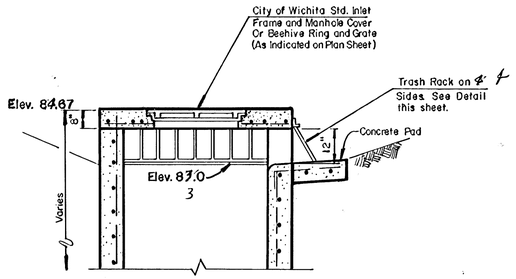
GENERAL NOTES

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 NEAT 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 TO 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'

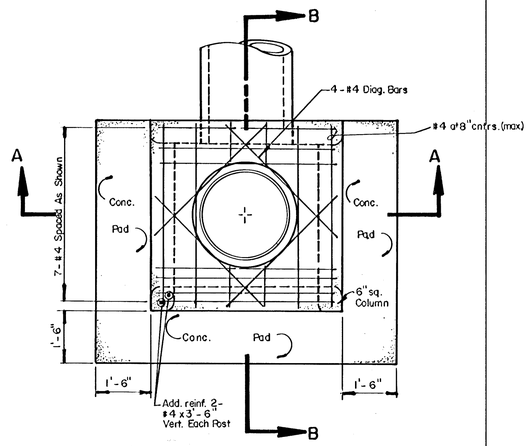
15/18

Designed by		Checked by	
Drawn by		Date	Job No.

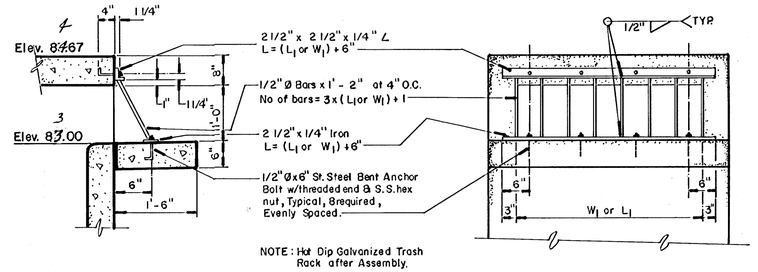


SECTION B-B

DITCH INLET TYPE I-A



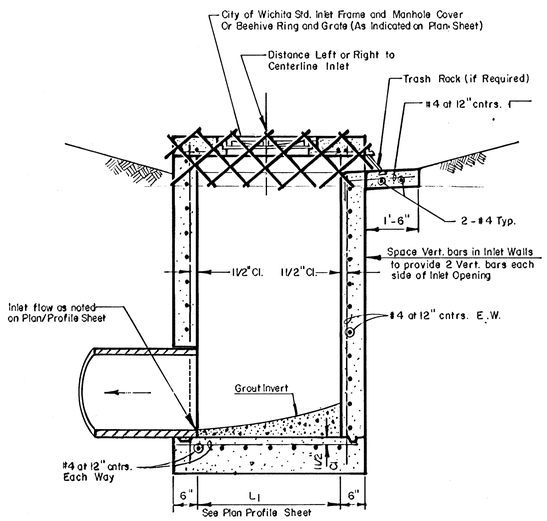
PLAN



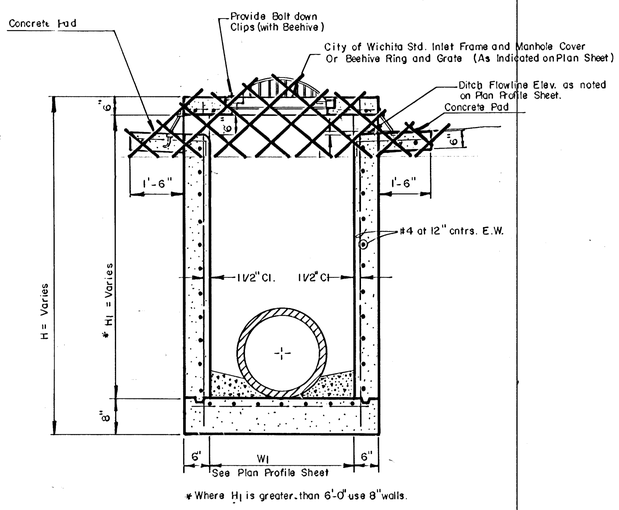
NOTE: Hot Dip Galvanized Trash Rack after Assembly.

TRASH RACK DETAIL

FOR USE WITH TYPE I-A DITCH INLET
(NO SCALE)



SECTION B-B



*Where H1 is greater than 6'-0" use 8" walls.

SECTION A-A

DITCH INLET TYPE I

SOUTH SENECA

STD. DITCH INLET TYPE I / I-A

Design
Drawn by
Checked by
Date
Job no.

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3500 NORTH ROCK ROAD
BUILDING #800
WICHITA, KANSAS 67226
636-5566

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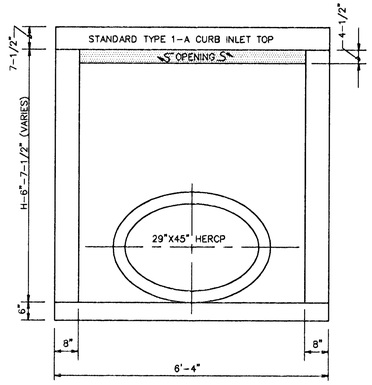
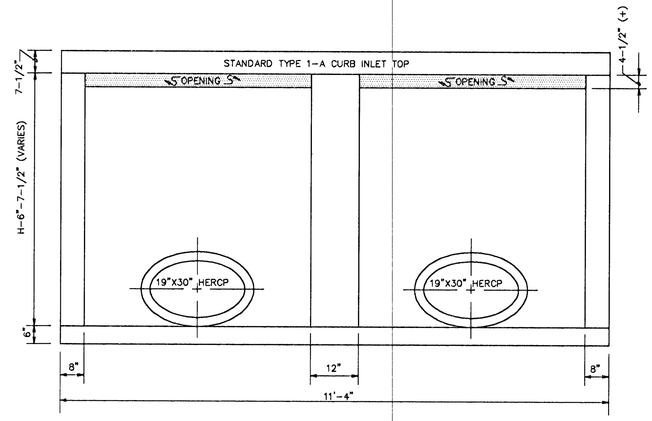


BACK OF STANDARD TYPE 1-A CURB INLET

ALONG 44TH. STREET SOUTH

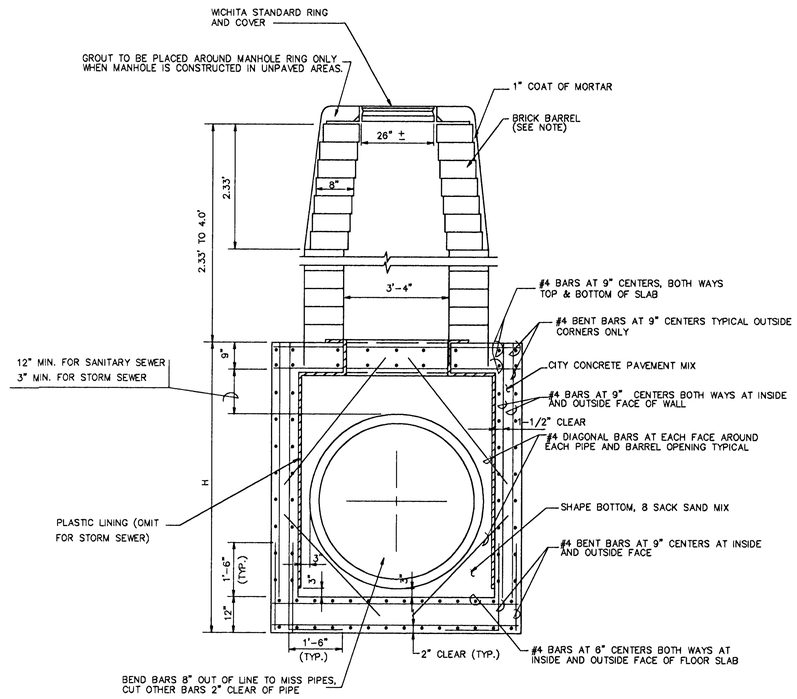
STA. 4+49.6	STA. 4+83.0	(CHARLES)
STA. 7+29.6	STA. 7+63.0	(GLEN)
STA. 10+09.6	STA.10+43.0	(VINE)
STA. 13+06.3	STA. 13+39.7	(MILLWOOD)



BACK OF STANDARD TYPE 1-A CURB INLET

ALONG 45TH. STREET SOUTH
ALONG 46TH. STREET SOUTH

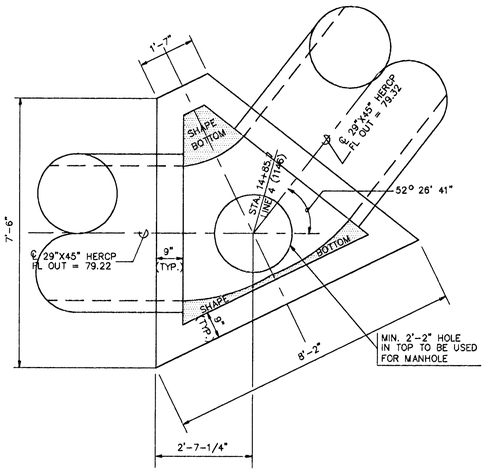
STA. 1+67.3	STA. 2+01.5, LINE 3B
STA. 1+71.2	STA. 2+05.4, LINE 3C



REINFORCED CONCRETE MANHOLE

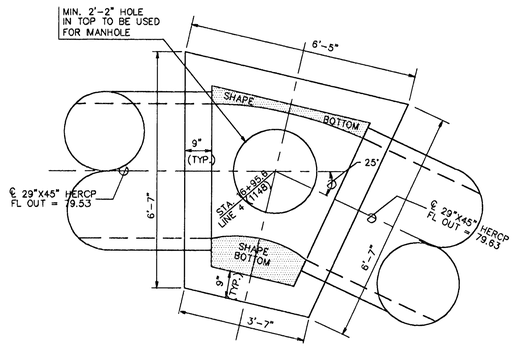
DEPTH OF STACK: 2.33' TO 4.0'

NOTE:
BRICK BARRELS LESS THAN 16' DEEP SHALL HAVE 1" WALLS EXCEPT WHEN LOCATED WITHIN PUBLIC STREET OR ALLEY PAVEMENT THEN THE WALL SHALL BE 12". BRICK BARRELS MORE THEN 16' DEEP SHALL HAVE 12" WALLS. THE "L" AND "W" DIMENSIONS SHALL BE A MINIMUM OF 5'-6" FOR BRICK BARRELS WITH 8" WALLS AND 6'-2" FOR BRICK BARRELS WITH 12" WALLS WHEN THE BRICK BARRELS ARE OVER 4 FEET IN HEIGHT. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATERTIGHT.



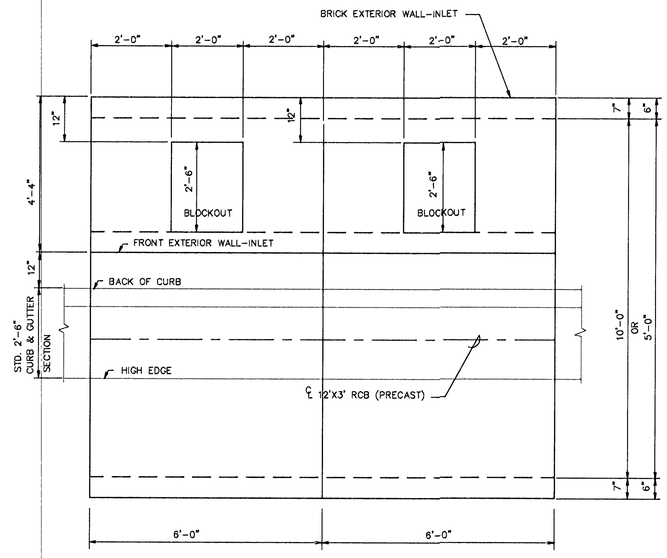
REINFORCED CONCRETE MANHOLE

PLAN
STA. 14+85.7, LINE 4
W = 7'-6", L = 8'-2"



REINFORCED CONCRETE MANHOLE

PLAN
STA. 16+95.6, LINE 4
W = 6'-7", L = 6'-5"



TYPICAL INLET BLOCKOUT PATTERN ALONG CLARENCE

MKEC PROJ. NO. 88-70-113-DRNG.

SOUTH SENECA

SPECIAL DETAILS

Design: JNJ
Drawn by: DLM
Checked by:
Date: AUG., 1992
Job no.

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3500 NORTH ROCK ROAD
BUILDING #800
WICHITA, KANSAS 67226
(316) 636-5566

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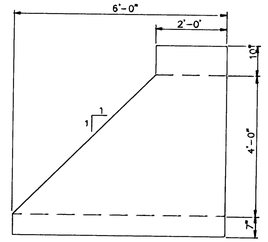
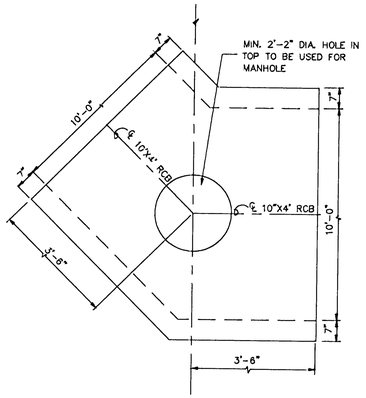
S.W.D. # 87 PHASE II

SEN4

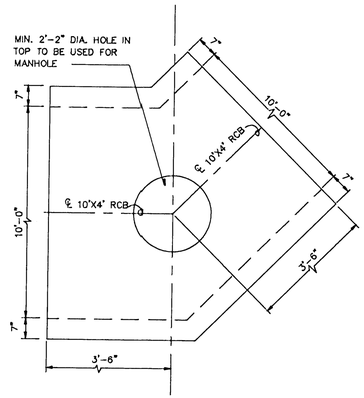


SPECIAL RCB END SECTION

STA. 0+00, LINE 3

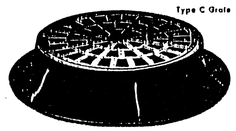


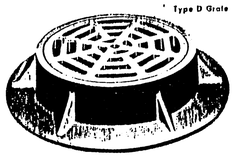
STA. 0+21.5, LINE 3

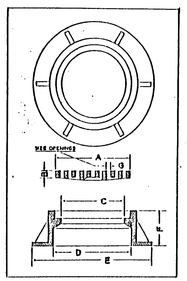


STA. 1+48.5, LINE 3

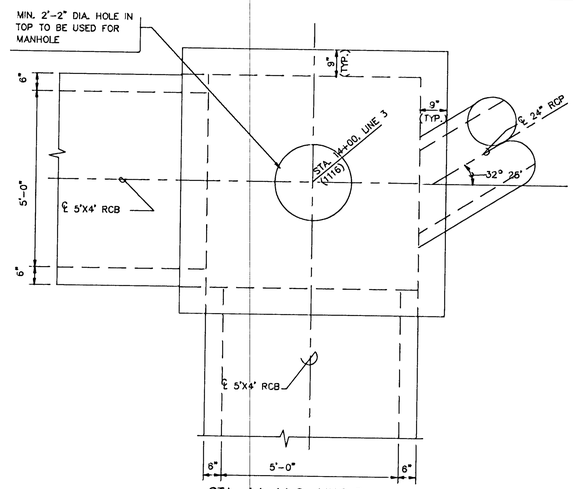
SPECIAL 45 °∠ BEND





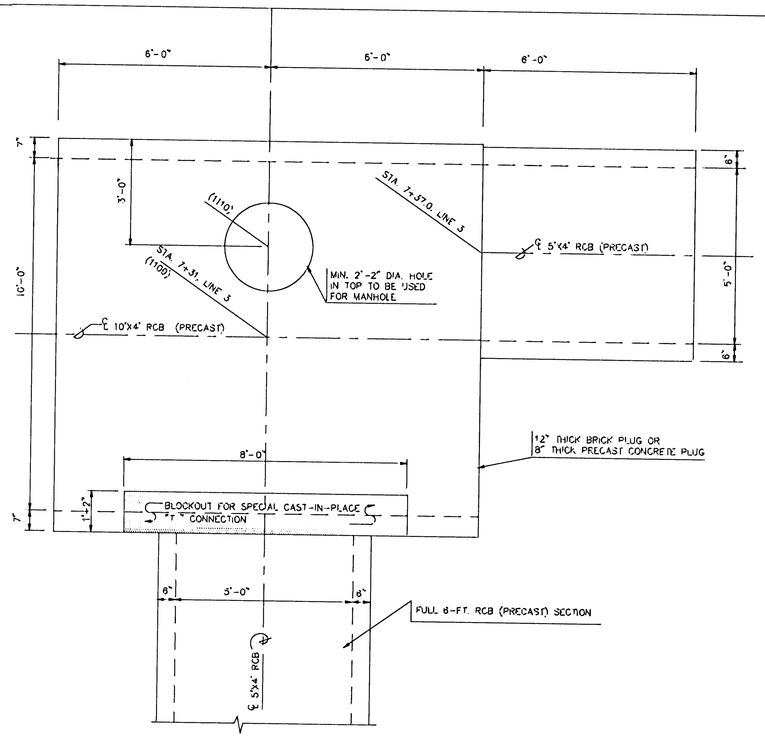


GRATE COVER DETAIL



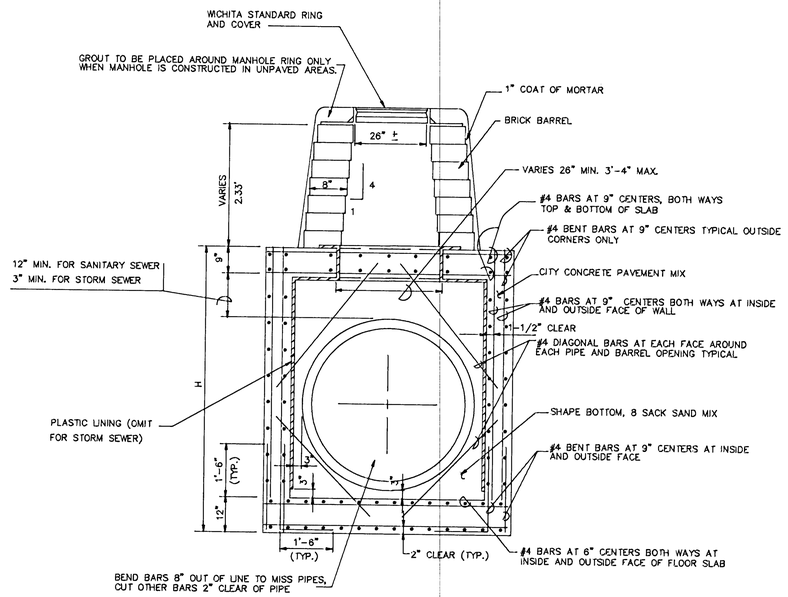
STA. 14+11.0, LINE 3
STA. 0+00, LINE 3C
STA. 0+00, LINE 3D

PLAN FOR SPECIAL REINFORCED CONCRETE MANHOLE



SPECIAL CAST-IN-PLACE "T" CONNECTION

FOR 5'X4' RCB (PRECAST) TO EAST STA. 7+31, LINE 3
SCHEMATIC OF 5'X4' RCB (PRECAST) CONTINUATION TO NORTH STA. 7+37, LINE 3



REINFORCED CONCRETE MANHOLE

DEPTH OF STACK: 0' TO 2'

SOUTH SENECA	Design JNJ
SPECIAL DETAILS	Drawn by DLM
	Checked by
	Date AUG 1992
	Job no
	Sheet 17A
	Of 18

MID-KANSAS ENGINEERING CONSULTANTS INC.
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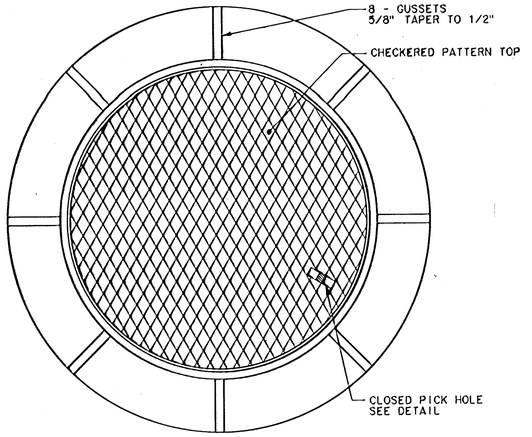
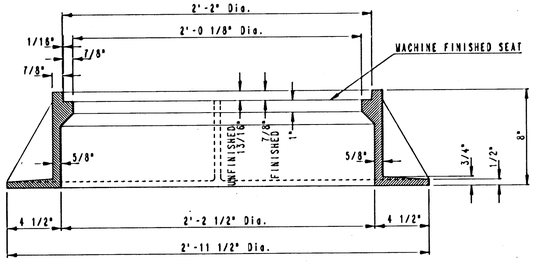
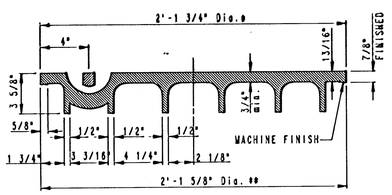
BUILDING #800
WICHITA, KANSAS 67226 (316) 636-5566

MKEC PROJ NO 88-70-113-DRNG

SEN3







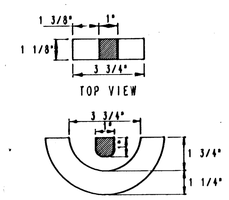
*OUTSIDE DIA. TOP OF COVER
**OUTSIDE DIA. BOTTOM OF COVER

MANHOLE FRAME AND COVER

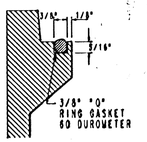
(TOTAL WEIGHT = 430 LBS.)

MANHOLE FRAME AND COVER NOTES

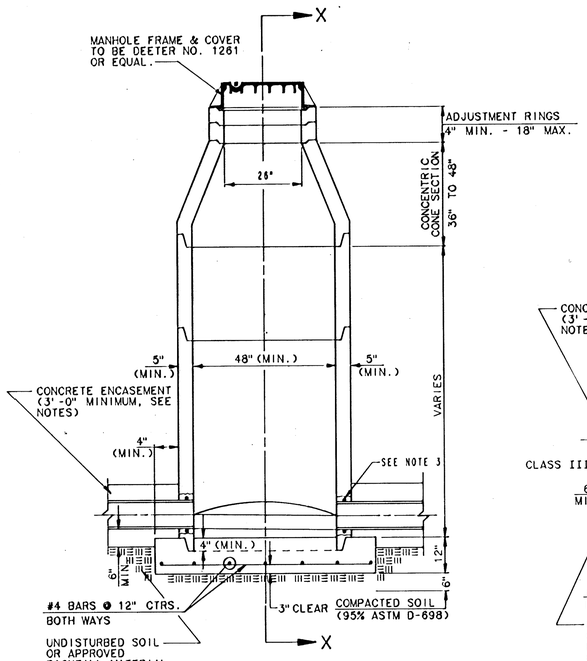
1. CAST IRON MANHOLE FRAME AND COVER SHALL CONFORM TO ASTM A-48, CLASS 30, OR BETTER.
2. THE FRAMES AND COVERS SHALL BE OF A NOROCKING TYPE OR WITH MACHINED BEARING SURFACES SO FITTING PARTS WILL NOT RATTLE OR ROCK UNDER TRAFFIC.
3. MANHOLE CASTINGS SHALL BE DEETER FOUNDRY INC. NO. 1261 OR APPROVED EQUAL UNLESS OTHERWISE SPECIFIED IN THE SPECIAL CONDITIONS. (MINIMUM WT.-430 LBS.) ALL MANHOLE CASTINGS, REGARDLESS OF TYPE, SHALL BE CONSIDERED SUBSIDIARY TO THE UNIT PRICES BID FOR THE VARIOUS MANHOLE TYPES.
4. GRIND ALL BURRS SMOOTH, CLEAN THOROUGHLY, THEN APPLY SHOP COAT OF ASPHALT BASE PAINT.
5. THE MANUFACTURER SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO MANUFACTURE. THE ENGINEER SHALL RETAIN THE RIGHT TO REJECT CASTINGS NOT CONFORMING TO THE SPECIFICATIONS OR THE APPROVED SHOP DRAWINGS.
6. WHERE SELF-SEALING MANHOLE FRAMES ARE SPECIFIED ON THE PLANS, THE MANHOLE FRAME SHALL BE FURNISHED WITH AN APPROVED "O" RING GASKET GROOVED INTO THE BEARING SURFACE OF THE MANHOLE FRAME (PER DETAIL). THE "O" RING GASKET SHALL NOT BE INSTALLED IN THE MANHOLE FRAME UNTIL AFTER FINAL INSPECTION AND ACCEPTANCE OF THE PROJECT BY THE ENGINEER. THE CONTRACTOR SHALL SUPPLY TO THE OWNER ONE (1) REPLACEMENT "O" RING GASKET FOR EACH SELF-SEALING MANHOLE SPECIFIED.



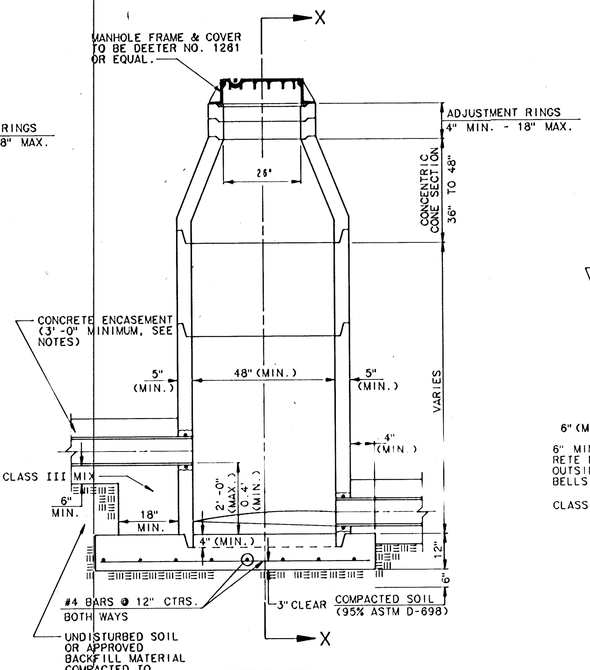
PICK HOLE DETAIL



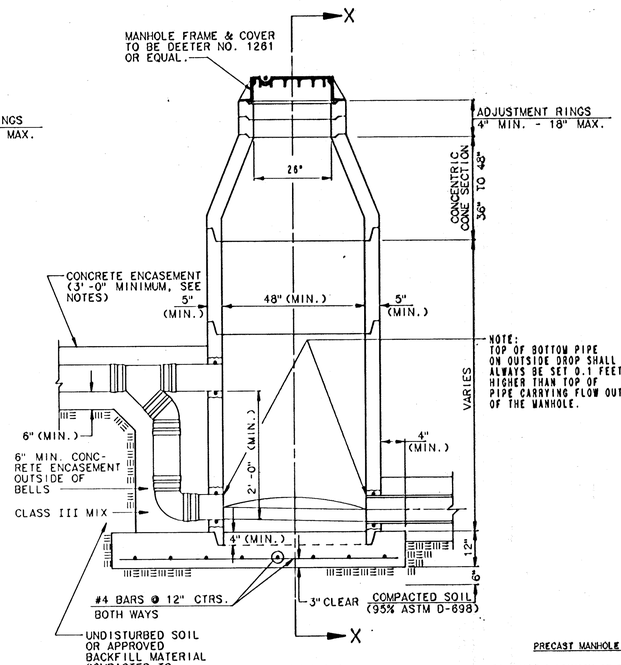
FRAME GROOVING DETAIL
(FOR SELF-SEALING MHS ONLY)



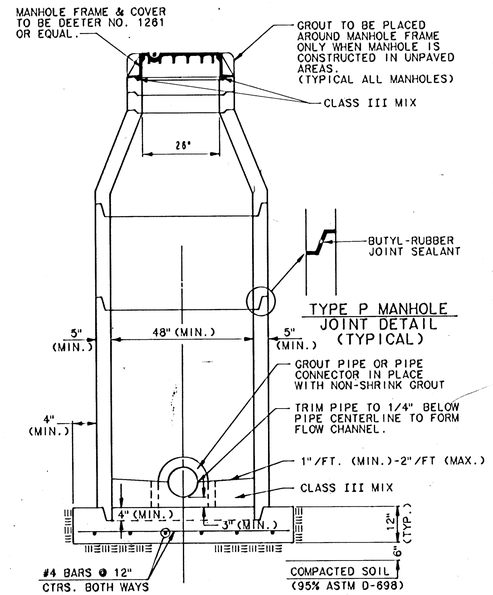
PRECAST
STANDARD MANHOLE
TYPE "A"



PRECAST
INSIDE DROP MANHOLE
TYPE "B"

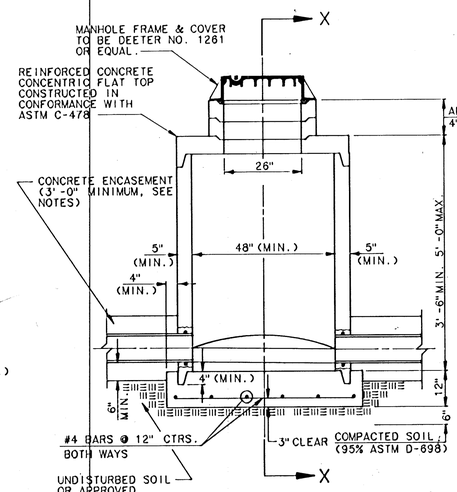


PRECAST
OUTSIDE DROP MANHOLE
TYPE "C"

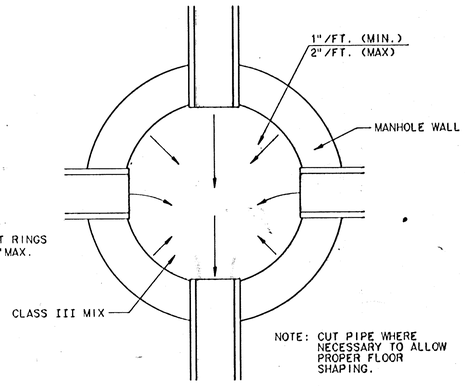


TYPE P MANHOLE
JOINT DETAIL
(TYPICAL)

SECTION X
(TYPICAL)



PRECAST
SHALLOW MANHOLE
TYPE "D"



NOTE: CUT PIPE WHERE NECESSARY TO ALLOW PROPER FLOOR SHAPING.

TYPICAL MANHOLE
FLOOR SHAPING

PRECAST MANHOLE NOTES

1. IF, IN THE OPINION OF THE ENGINEER, THE MANHOLE SUBGRADE APPEARS UNSTABLE, THE CONTRACTOR WILL HAVE THE OPTION TO COMPACT SUBGRADE AS SHOWN OR INCREASE THE THICKNESS OF THE MANHOLE BASE AS DIRECTED BY THE ENGINEER.
2. STEEL REINFORCING WILL BE REQUIRED IN ALL MANHOLE BASES.
3. APPROVED FLEXIBLE WATERSTOP GASKETS WHICH MEET OR EXCEED THE TEST REQUIREMENTS OF ASTM C-923 SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN PLASTIC PIPE IS USED. SEWER PIPE EXTENDING FROM MANHOLES SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL.
4. THE MANHOLE FRAME SHALL BE SEATED ON AN APPROVED BUTYL-RUBBER SEALANT TO PROVIDE A WATER-TIGHT SEAL BETWEEN THE MANHOLE ADJUSTMENT RING AND THE MANHOLE FRAME.
5. GASKETED PIPE PLUGS AND CAPS SHALL BE PROVIDED BY THE PIPE SUPPLIER.
6. ALL MANHOLE CONSTRUCTION SHALL BE WATER TIGHT.
7. TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
8. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION OF ASTM C478 AS MODIFIED BY THE SPECIFICATIONS.
9. CONCRETE FOR MANHOLE BASES SHALL BE CLASS I AS DESCRIBED IN THE SPECIFICATIONS.
10. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO MANHOLE BASE.
11. MANHOLES WITH PIPE SIZES 24" AND LARGER SHALL HAVE 5' INSIDE DIAMETER (MIN.)
12. INSIDE DIAMETER OF FIVE-FOOT DIAMETER PRECAST MANHOLES SHALL REMAIN CONSTANT TO THE LOCATION OF THE REDUCING FLAT TOP WHICH CONNECTS THE FOUR-FOOT DIAMETER CONE SECTION TO THE FIVE-FOOT DIAMETER MANHOLE BARREL.
13. ALL INTERIOR CONCRETE SURFACES ABOVE THE BENCH OF PRECAST MANHOLES SHALL BE COATED WITH 2 COATS OF TNEMEC SERIES 66 HI-BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.).
14. EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT VALSPAR HI-BUILD BITUMINUS COATING 35-J-10, OR TNEMEC 46-450 HEAVY TNEMECOL, OR APPROVED EQUAL.

No.	Revision	By	Date

PRECAST
MANHOLE DETAILS

[redacted] 18
18

Sep 25, 1985