STORM SEWER PLANS FOR
HANNA PROPERTY
S.W.S. NO. 294
PROJECT NO.
468·76·245·81486·000·000·001

CITY OF WICHITA, KANSAS
MICHAEL E. LINDEBAK, CITY ENGINEER
AUGUST, 1986

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIALS TO COMPLY WITH CITY OF WICHITA SPECIFICATIONS AND STANDARDS.

2. 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 LAW.

3. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF PROPERTY DIRECTLY AFFECTED BY THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.

4. INTERURBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA AND LOCAL TRAFFIC GENERATED WITHIN THE PROJECT AREA ARE TO BE CARRIED THROUGH CONSTRUCTION ON EXISTING ROADWAYS AT ALL TIMES. VEHICULAR ACCESS TO ALL DWELLINGS IN THE PROJECT AREA SHALL BE PROVIDED AT ALL TIMES. THE CONTRACTOR SHALL ERECT WARNING SIGNS, FLASHING LIGHTS, AND BARRICADES IN COMPLIANCE WITH THE STANDARD SPECIFICATIONS.

5. THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHTS AND WEEKENDS TO LESS THAN 50 FEET.

6. CONTRACTOR SHALL NOTIFY THE FOLLOWING COMPANIES PRIOR TO THE BEGINNING OF CONSTRUCTION AND REQUEST THAT ANY EXISTING LINES BE FLAGGED.

SOUTHWESTERN BELL TELEPHONE COMPANY	268-2601
CABLEVISION	262-4270
KPL GAS SERVICE	263-7511
KANSAS GAS & ELECTRIC	261-6311
KANSAS ONE-CALL	1-800-344-7233
	Or 687-2470 (local Wichita)
WATER DEPT., CITY OF WICHITA	268-4555

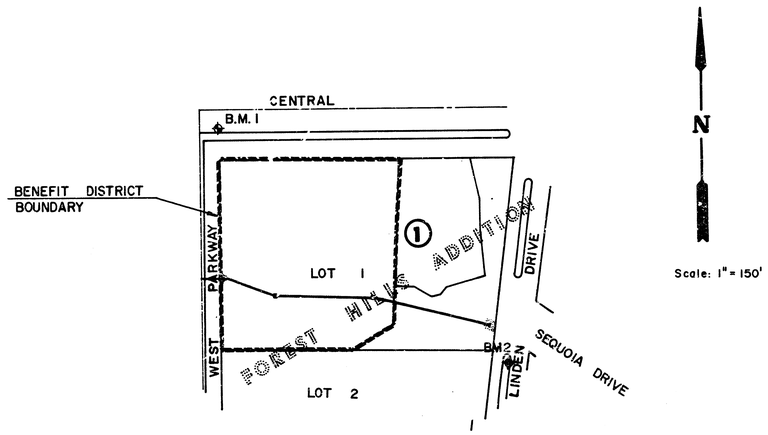
7. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION. IF ANY LINES ARE DAMAGED THEY SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

8. ALL TREES AND SHRUBS SHALL BE SAVED AND PROTECTED FROM DAMAGE. WHERE THE CONTRACTOR BELIEVES THAT TRIMMING IS UNAVOIDABLE, HE SHALL COORDINATE SUCH WORK WITH THE ENGINEER. COSTS FOR TRIMMING AND DISPOSAL SHALL BE CONSIDERED SUBSIDIARY TO THE OTHER PAY ITEMS OF WORK IN THE CONTRACT.

9. THE CONTRACTOR SHALL RESTORE ALL SURFACES TO THEIR ORIGINAL SLOPES AND GRADES, UNLESS NOTED OTHERWISE ON THE DRAWINGS. WHERE EXISTING FENCES, SPRINKLER SYSTEMS, SIDEWALKS, ETC. CONFLICT WITH THE PROPOSED WORK HEREIN, THEY SHALL BE REMOVED AND REPLACED OR RESET IN LIKE KIND. COSTS SHALL BE CONSIDERED SUBSIDIARY TO THE OTHER PAY ITEMS OF WORK IN THE PROJECT.

10. ALL EXISTING GRASSED AREAS WHICH ARE DISTURBED OR DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO A CONDITION SUITABLE FOR SEEDING. STATION 0 + 00 TO 2 + 40 (RUPE PROPERTY) AND WEST PARKWAY RIGHT-OF-WAY SHALL BE RESEEDED IN LIKE KIND. APPLICATION RATE FOR THE SEED MIXTURE SHALL BE AS APPROVED BY THE ENGINEER. SEEDING SHALL CONFORM TO APPLICABLE REQUIREMENTS OF STANDARD SPECIFICATIONS. COSTS FOR SEEDING SHALL BE SUBSIDIARY TO THE OTHER PAY ITEMS OF WORK. STATION 2 + 40 TO 6 + 50 (HANNA PROPERTY) WILL BE RESEEDED BY OTHERS.

11. SURPLUS EXCAVATION SHALL REMAIN ON HANNA PROPERTY AS DIRECTED BY THE ENGINEER AND AT A PLACE APPROVED BY THE PROPERTY OWNER.



INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2 & 3	LINE 1
4	SHALLOW MANHOLE DETAILS
5	INLET DETAILS

AS BUILTS 12/87 MCG

BENCH MARKS

B.M. #1: CITY STD. 44' S & 39' E OF CENTRAL AND WEST PARKWAY ELEV. = 167.42

B.M. #2: CITY DISC ON NE COR RCBC AT CENTRAL & GYPSUM CREEK ELEV. = 157.24

B.M. #3: SPIKE STEP IN LIGHT POLE IN MEDIAN OF LINDEN DR. S OF SEQUOIA ELEV. = 159.50

FRANK BERTON NELSON LICENSED 9130 KANSAS PROFESSIONAL ENGINEER

HANNA PROPERTY
STORM WATER SEWER PLANS

Design: F.B.N.
Drawn by: R.B.
Checked by: K.H.B.
Date: AUGUST, 1986
Job no.

MID-KANSAS ENGINEERING CONSULTANTS PA
350 NORTH ROCK ROAD
BUILDING #800
WICHITA, KANSAS 67226
682-6561

Sheet 1 of 5

HANNA PROPERTY
STORM WATER SEWER
PROJ. NO. 468-76-245-81485-000-000-001

HANNA PROPERTY

RUPE PROPERTY

HINKLE PROPERTY

Backfill Swale & Grade To Drain As Directed By The Engineer And Approved By The Property Owner

Sta. 0+00 Install Std. 24" End Sect.

Sta. 2+84.5 ~~2+80.0~~ Const. Shallow Type 'A' M.H. Top Elev. = ~~51.02~~ 150.54

Temporary Construction Drainage Easement By Instrument

Separate Easement

24" S.81°27'19"E. R.C.P.

168.22 05" 24" R.C.P.

N.50°01'18"E. 46.84

154°40'55"

N.80°20'53"E. 195.08'

103°58'37"

S.24°32'42"E. 111.64'

Install 19 S.Y. Light Stone Rip Rap

30" Elm

24" Elm

24" Cotton Wood

18" Elm

12" Elm

12" Walnut

12" Willow

2 - 36" Cotton Woods

35'

20'

15'

20'

8'

S.H.

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

NOTE: S.H. = Sprinkler Head
Add 100' To All Elevations
To Obtain C.O.W. Datum

PLAN LINE 1

PROFILE LINE 1

Sta. 0+00 Line 1 Install 24" Standard End Section

Sta. 2+84.5 ~~2+80.0~~ Line 1 Const. Shallow Type "A" Manhole 5'Dia. Top Of M.H. Elev. = ~~51.02~~ 150.54

Existing Ground

Install 19 S.Y. Light Stone Rip-Rap

284.5 ~~280.0~~ L.F. 24" RCP @ 0.30% (With Std. End Section)

Elev. Out = ~~45.30~~ 45.42

45.60

45.30

Elev. Out = ~~46.14~~ 46.33

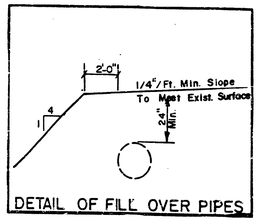
Elev. In = ~~46.84~~

As Built 12/18/87 RCG

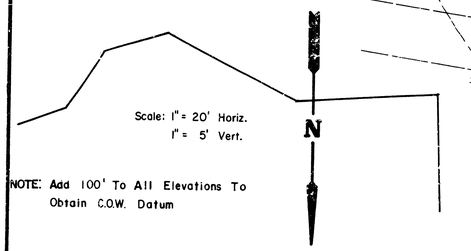
2/5

M.K.E.C.

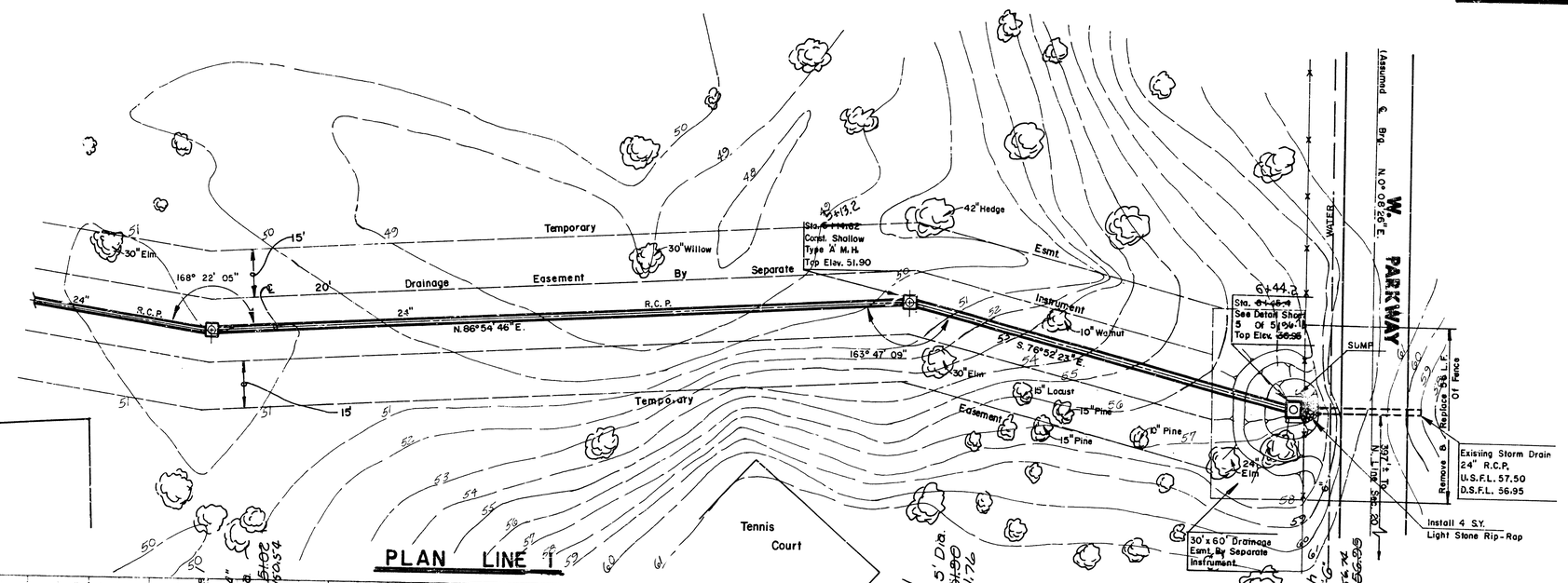
HANNA PROPERTY
STORM WATER SEWER
PROJ. NO. 468-76-245-81486-000-000-001



DETAIL OF FILL OVER PIPES

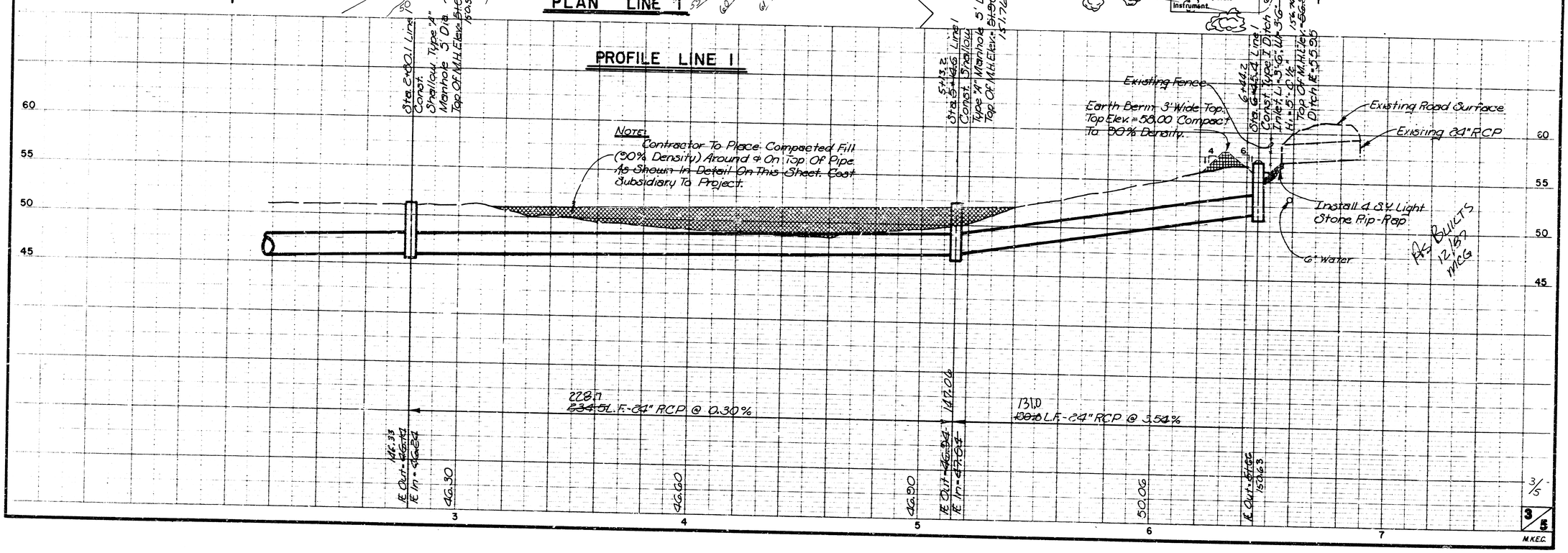


NOTE: Add 100' To All Elevations To Obtain C.O.W. Datum



PLAN LINE 1

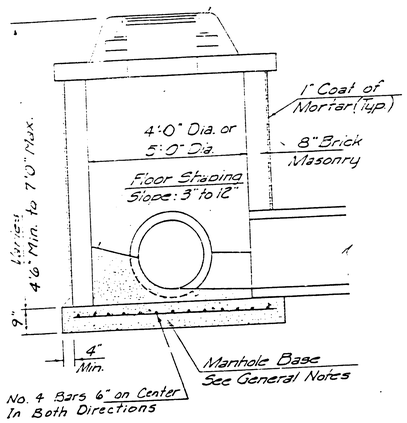
PROFILE LINE 1



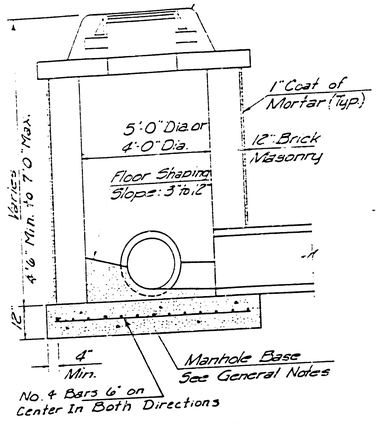
BULK'S 12, 162 MCG

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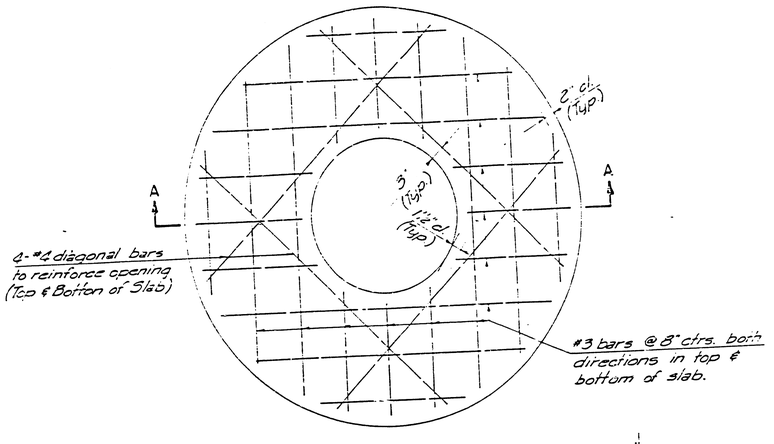
M.K.E.C.



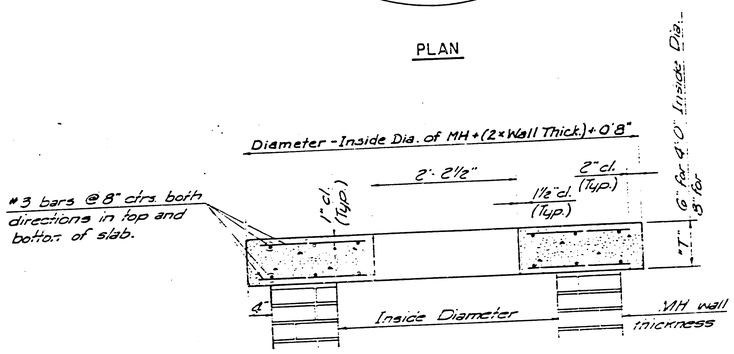
SHALLOW TYPE "A" MANHOLE



SHALLOW TYPE "B" MANHOLE

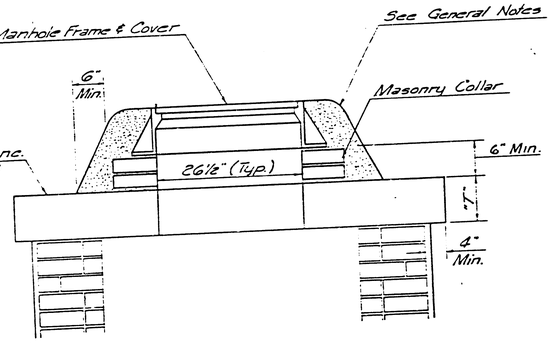


PLAN

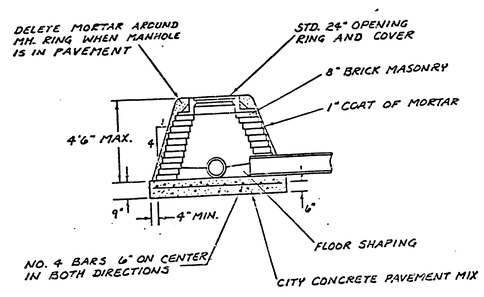


SECTION A-A

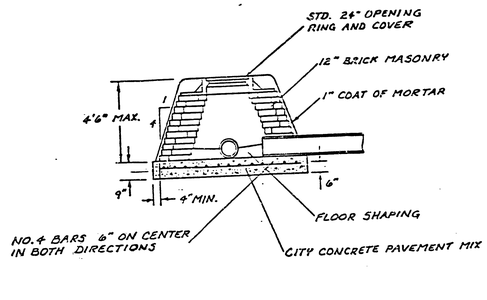
FLAT CONCRETE SLAB DETAILS



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.

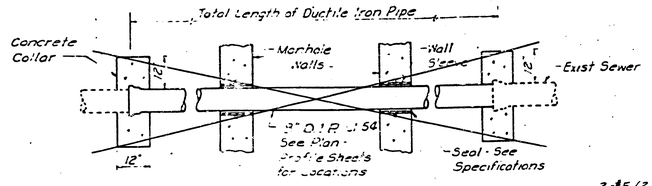
7. STANDARD SHALLOW MANHOLES TYPE "A" AND "B" SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR THE TYPE AND DIAMETER INDICATED. STANDARD SPECIAL SHALLOW MANHOLES TYPE "A" AND "B" SHALL BE PAID FOR AT THE UNIT PRICE BID PER EACH FOR THE TYPE INDICATED. ALL STANDARD SHALLOW MANHOLE DIAMETERS WILL BE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

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

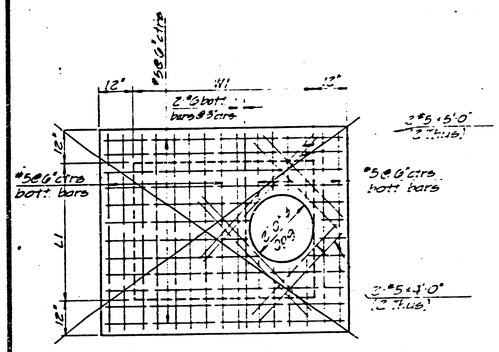
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Designed by		Checked by	
Drawn by		Date	Job No.

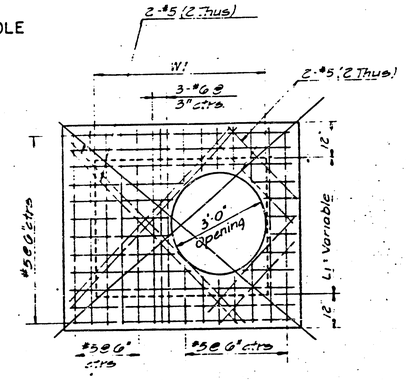
HANNA PROPERTY
S.W.S NO. 294
PROJ. NO. 468-76-245-81486-000-000-001



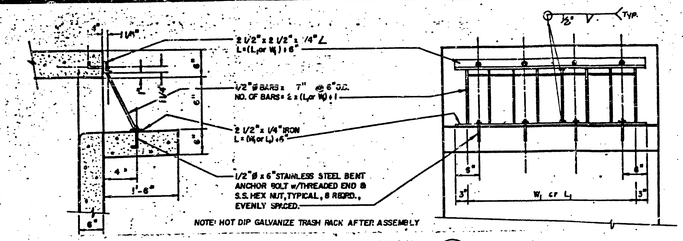
SANITARY SEWER PIPE THRU MANHOLE



TOP SLAB REINFORCING

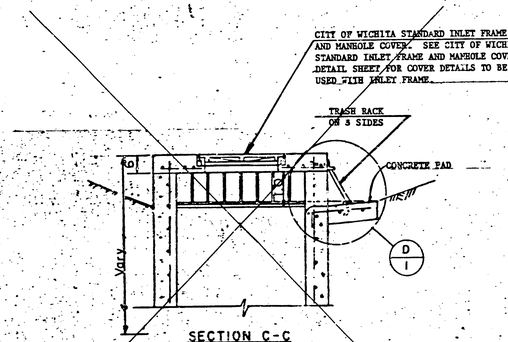


TOP SLAB REINFORCING

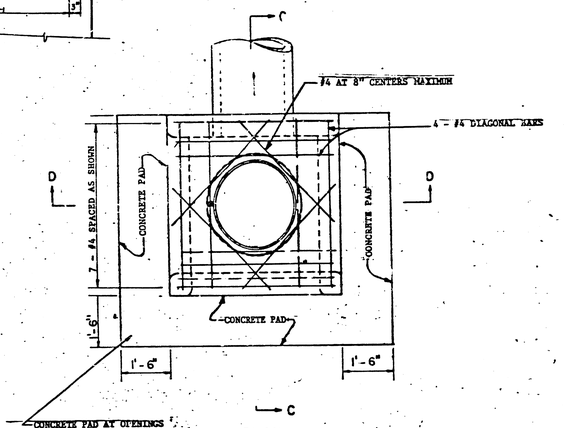


NOTE: HOT DIP GALVANIZE TRASH RACK AFTER ASSEMBLY

TRASH RACK DETAIL (D/1)

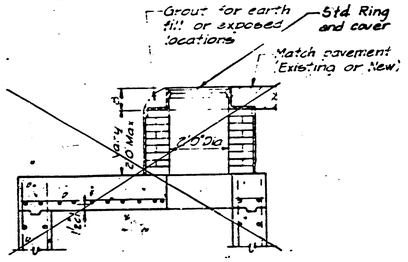


SECTION C-C
for
DITCH INLET TYPE I-A

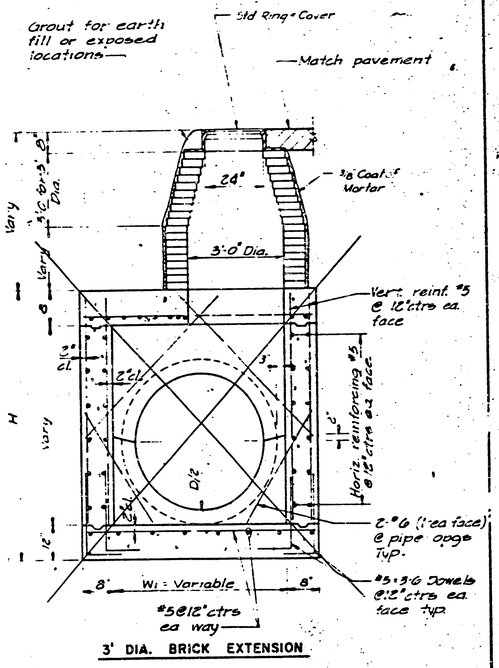


PLAN

CONCRETE PAD AT OPENINGS AS SHOWN ON PLAN & PROFILE

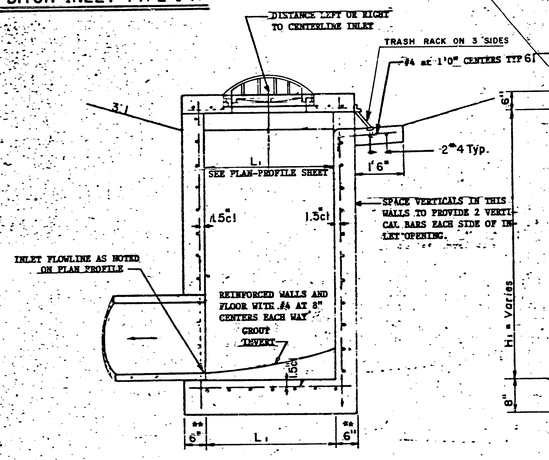


2' DIA. BRICK EXTENSION
Bottom same as shown on 3' Dia. Brick Extension

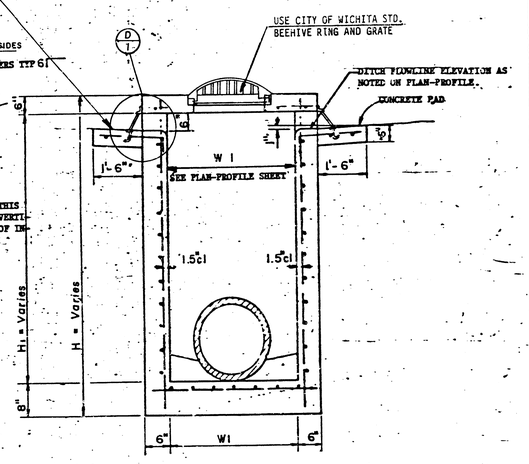


3' DIA. BRICK EXTENSION

REINFORCED CONCRETE MANHOLE



SECTION C-C
INLET-I



SECTION D-D

DITCH INLET TYPE I

	DETAIL 3 DITCH INLET REINFORCED CONCRETE MANHOLE
Design: F.B.N.	
Drawn by: D.P.R.	
Checked by: K.H.D.	
Date: 10-84	
Job no.	
Sheet 5 of 5	

MID-KANSAS ENGINEERING CONSULTANTS PA
240 NORTH ROCK ROAD
SUITE 130
WICHITA, KANSAS 67206
682-6561