SHEET NO.	TOTAL SHEETS
1	8

PLANS FOR

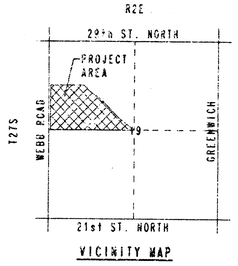
STORM WATER SEWER IMPROVEMENTS

FOR

LOT 1 & 2, BLOCK 1
KANSAS SURGERY AND RECOVERY CENTER ADDITION
CITY OF WICHITA PRIVATE PROJECT NO. 525 PPS (6007861)

INDEX OF SHEETS

1. TITLE SHEET
2. PLAT
3. PLAN
4. GRADING AND EROSION CONTROL DETAILS
5. DETAIL STANDARD TYPE 1A CURB INLET
6. REINFORCED CONCRETE MANHOLE
7. MANHOLE FRAME AND COVER DETAIL
8. PROFILE



VICINITY MAP

NOTES

ALL STORM WATER SEWER TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF WICHITA STANDARD SPECIFICATIONS AS MODIFIED BY THE SPECIAL PROVISIONS. SPECIFICATIONS ARE ON FILE AT THE OFFICE OF THE CITY ENGINEER, 7TH FLOOR CITY HALL

APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

SANITARY SEWERS _____

STORM SEWERS VRH 1/17/95

DRIVEWAY APPROACHES _____

WATER MAINS _____

PAVING _____

NOTE TO CONTRACTOR

INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM UNDER CONTRACT WITH THE OWNER/DEVELOPER. SAID INSPECTION TO BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD CONSTRUCTION ENGINEERING PRACTICES AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER.

DECEMBER 1994

PLANS PREPARED BY

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

MICHAEL W. BERRY — 17361 — KANSAS — PROFESSIONAL ENGINEER

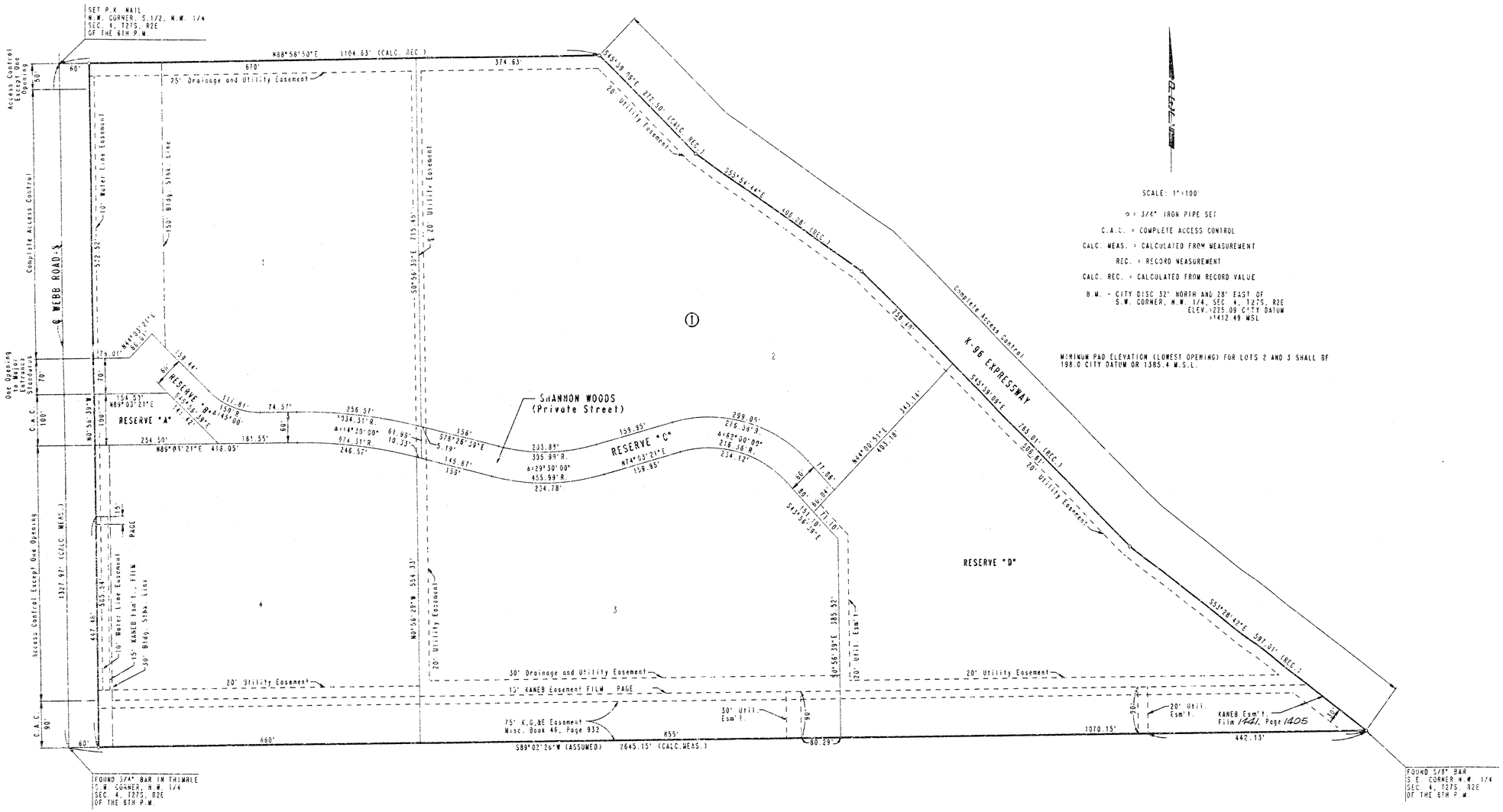
1-16-95

DRAWING NAME: 25-6472-1 SHT TITLE
DRAWING SCALE: NONE
CENTER COORDINATES:
ROTATION ANGLE:
DATE LAST WORKED ON: DEC. 28, 1994
DWAINE DUNN

PROJECT NO.	SHEET NO.	TOTAL SHEETS
525 PPS (607861)	2	8

KANSAS SURGERY AND RECOVERY CENTER ADDITION

TO WICHITA, SEDGWICK COUNTY, KANSAS



SCALE: 1"=100'

○ = 3/4" IRON PIPE SET

C.A.C. = COMPLETE ACCESS CONTROL

CALC. MEAS. = CALCULATED FROM MEASUREMENT

REC. = RECORD MEASUREMENT

CALC. REC. = CALCULATED FROM RECORD VALUE

B.M. - CITY DISC 32' NORTH AND 28' EAST OF S.W. CORNER, N.W. 1/4, SEC. 4, T27S, R2E ELEV.=225.09 CITY DATUM =1412.49 MSL

MINIMUM PAD ELEVATION (LOWEST OPENING) FOR LOTS 2 AND 3 SHALL BE 198.0 CITY DATUM OR 1385.4 M.S.L.

PLAN	SURVEYED	DATE	BY
	PLOTTED		
SCALE 1"=100'	ALL CORNERS CHECKED		
NO.	ALL LOT CORNERS CHECKED		

DRAWING NAME: 525-94772-1 PLAT
LOCATION: WICHITA, KANSAS
CENTER COORDINATES:
ROTATION ANGLE:
DATE LAST WORKED ON: DEC. 28, 1994

DWAINE DUNN

ADVANCED ORTHOPAEDICS ASSOCIATES

PLAT

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

Designed by		Checked by	
Drawn by	DEP	Date DEC. 1994	Job No. 94772-1

PROJECT NO.	SHEET NO.	TOTAL SHEETS
525 PPS (607861)	3	8

(D1) STA. 49+59.7, LINE NO. 1 =
CENTER EXISTING CURB INLET.
REMOVE 18" OUTLET PIPE FROM EXISTING INLET.
CONNECT NEW 18" RCP..

(D2) STA. 48+20.9, LINE NO. 1 =
ROAD A STA. 9+85.5, 17.67' RT.
CONST. STD. TYPE 1A CURB INLET.
L=6'-4", W=4'-4", H=6'-3"
TOP ELEV.=211.87
INSTALL 138.8 L.F. 18" RCP (W)
IE IN = 216.45 (W)
IE OUT = 216.35 (S)
SEE SH. NO. SP2.2 AND SP2.6

(D3) STA. 46+80.6, LINE NO. 1 =
STA. 60+00, LINE NO. 1B =
ROAD B STA. 18+42.11, 33.67' RT.
CONST. STD. TYPE 1A CURB INLET.
L=6'-4", W=4'-4", H=5'-3"
TOP ELEV.= 220.03
INSTALL 140.3 L.F. 18" RCP (N)
INSTALL 69.0 L.F. 15" RCP (W)
IE IN = 215.75 (N)
IE IN = 216.02 (W)
IE OUT = 215.65 (S)
SEE SH. NO. SP2.2 AND SP2.6

(D4) STA. 60+69.0, LINE NO. 1B =
ROAD B STA. 18+42.11, 35.33' LT.
CONST. STD. TYPE 1A CURB INLET.
L=6'-4", W=4'-4", H=5'-5"
TOP ELEV.= 221.11
IE OUT = 216.37 (E)
SEE SH. NO. SP2.2 AND SP2.6

(D5) STA. 45+04.5, LINE NO. 1 =
ROAD B STA. 16+66..0, 37.5 RT.
CONST. R.C. MANHOLE.
L=4'-6", W=4'-6", H=8'-0", HT=1'-0"
TOP ELEV.=222.0
INSTALL 176.1 L.F. 18" RCP (N)
IE IN = 214.85 (N)
IE IN = 216.00 (18" RL)
IE OUT = 214.75 (SE)
SEE SH. NO. SP2.3 AND SP2.6

(D6) STA. 43+27.4, LINE NO. 1 =
ROAD C STA. 33+38.01, 33.67' RT.
CONST. STD. TYPE 1A CURB INLET
L=6'-4", W=4'-4", H=7'-6"
TOP ELEV.= 220.38
INSTALL 177.1 L.F. 18" RCP (NW)
IE IN = 213.97 (NW)
IE IN = 215.00 (10" RL)
IE OUT = 213.87 (S)
SEE SH. NO. SP2.2 AND SP2.6

(D7) STA. 40+23.5, LINE NO. 1 =
STA. 50+00, LINE NO. 1A =
ROAD C STA. 30+68.0, 15.67' RT.
CONST. STD. TYPE 1A CURB INLET.
L=6'-4", W=4'-4", H=7'-6"
TOP ELEV.=220.95
INSTALL 30.3 L.F. 18" RCP (N)
INSTALL 31.3 L.F. 15" RCP (W)
IE IN = 212.47 (N)
IE IN = 214.74 (W)
IE OUT = 212.37 (SE)
SEE SH. NO. SP2.2 AND SP2.6

(D8) STA. 50+31.3, LINE NO. 1A =
ROAD C STA. 30+68.0, 15.67' LT.
CONST. STD. TYPE 1A CURB INLET.
L=6'-4", W=4'-4", H=6'0"
TOP ELEV.=220.95
IE OUT = 215.69 (E)
SEE SHT. NO. SP2.2 AND SP2.6

(D9) STA. 40+00.0, LINE NO. 1 =
EXISTING R.C. MANHOLE.
BREAK INTO MH WALL AND CONNECT 24" RCP
PER CITY OF WICHITA REQUIREMENTS.
REMOVE AND RESHAPE INLET INVERT AS REQUIRED
INSTALL 23.5 L.F. 24" RCP (NW)
IE IN= 211.24

(D10) ROAD C STA. 33+57.5, 98' LT.
CONST. R.C. MANHOLE
L=4'-6", W=4'-6", H=12'-0", HT=1'-1"
TOP ELEV.=221.40
INSTALL 10" PVC (E) @ 0.40%
IE IN (4")=209.3 IE IN (10")=209.0
IE IN (4")=211.3 IE OUT=206.9
SEE SH. NO. SP2.3 AND PLAN DETAIL
THIS SHEET

(D11) ROAD C STA. 33+57.50, 45' RT.
CONST. R.C. MANHOLE
L=4'-6", W=4'-6", H=11'-6", HT=1'-0"
TOP ELEV.=220.0
INSTALL 10" PVC (S) @ 0.40%
IE IIN=208.30, IE OUT=208.2
SEE SH. NO. SP2.3

(D12) SHANNON WOODS STA. 19+04.07, 35' LT.
CONST. R.C. MANHOLE
L=4'-6", W=4'-6", H=13'-6", HT=1'-0"
TOP ELEV.=220.5
INSTALL 10" PVC (E) @ 0.40%
LAY CONCENTRIC WITH NORTH LINE RESERVE B
IE IN=206.9 IE OUT=206.8
SEE SH. NO. SP2.3

(D13) SHANNON WOODS STA. 23+61, 35' LT.
INSTALL 45° BEND

(D14) SHANNON WOODS STA. 23+50, 21.67' LT.
EXISTING CURB INLET. BREAK INTO INLET
AND CONNECT 10" PVC PER CITY OF
WICHITA REQUIREMENTS. REMOVE AND
RESHAPE INLET INVERT AS REQUIRED.
IE IN=205.10

(W) W.L. STA. 3+22
1-8"x8" CI CL MJ TEE

(W2) W.L. STA. 3+26
1-8"x3" CI CL MJ TEE

(W3) 2" METER IN VAULT
SEE DETAILS SH. NO. SP3.5

(W4) 8" 90° BEND WITH REACTION BACKING PER
C.O.W. SPEC. NO. 14533

(W5) 3" 90° BEND WITH REACTION BACKING PER
C.O.W. SPEC. NO. 14533

(W6) POST INDICATOR ON 8" FIRE LINE

(W7) ROAD A STA. 10+07. 21.75' LT.
W.L. STA. 0+12
(STA. 10+22.37 PROJ. NO. H48-88784)
EXISTING 2" BLOW-OFF ASSEMBLY
REMOVE EXISTING 12" CI MJ CAP AND
BEGIN NEW WATER MAIN INSTALLATION

(W8) ROAD A STA. 9+35. 21.75' LT.
W.L. STA. 0+00
1-12" x 8" CI CL MJ TEE
1-12" ANCHORED VALVE ASSEMBLY (E)
(MJ BUTTERFLY VALVE)
TOP VALVE BOX ELEV.=221.5
1-12" CI MJ PLUG (E)
1-8" VALVE ASSEMBLY (S)
(MJ GATE VALVE)
TOP VALVE BOX ELEV.=221.5

(W9) W.L. STA. 4+19.0
1-FIRE HYDRANT ASSEMBLY
L=21'
TOP VALVE BOX ELEV.=221.50
TOP FH BURY LINE ELEV.=221.51

(W10) W.L. STA. 7+63.5
(SHANNON WOODS STA. 68+94.03)
REMOVE EXISTING 2" BLOW-OFF ASSEMBLY
REMOVE 5 L.F. 8" MAIN
1-8"x8" CI CL MJ TEE
1-8" VALVE ASSEMBLY (N)
(MJ GATE VALVE)
TOP VALVE BOX ELEV.=221.25
1-81 1/4° CI CL MJ BEND (N)

(S1) CONNECT 4" SANITARY SEWER SERVICE
TO EXISTING 6" MAIN

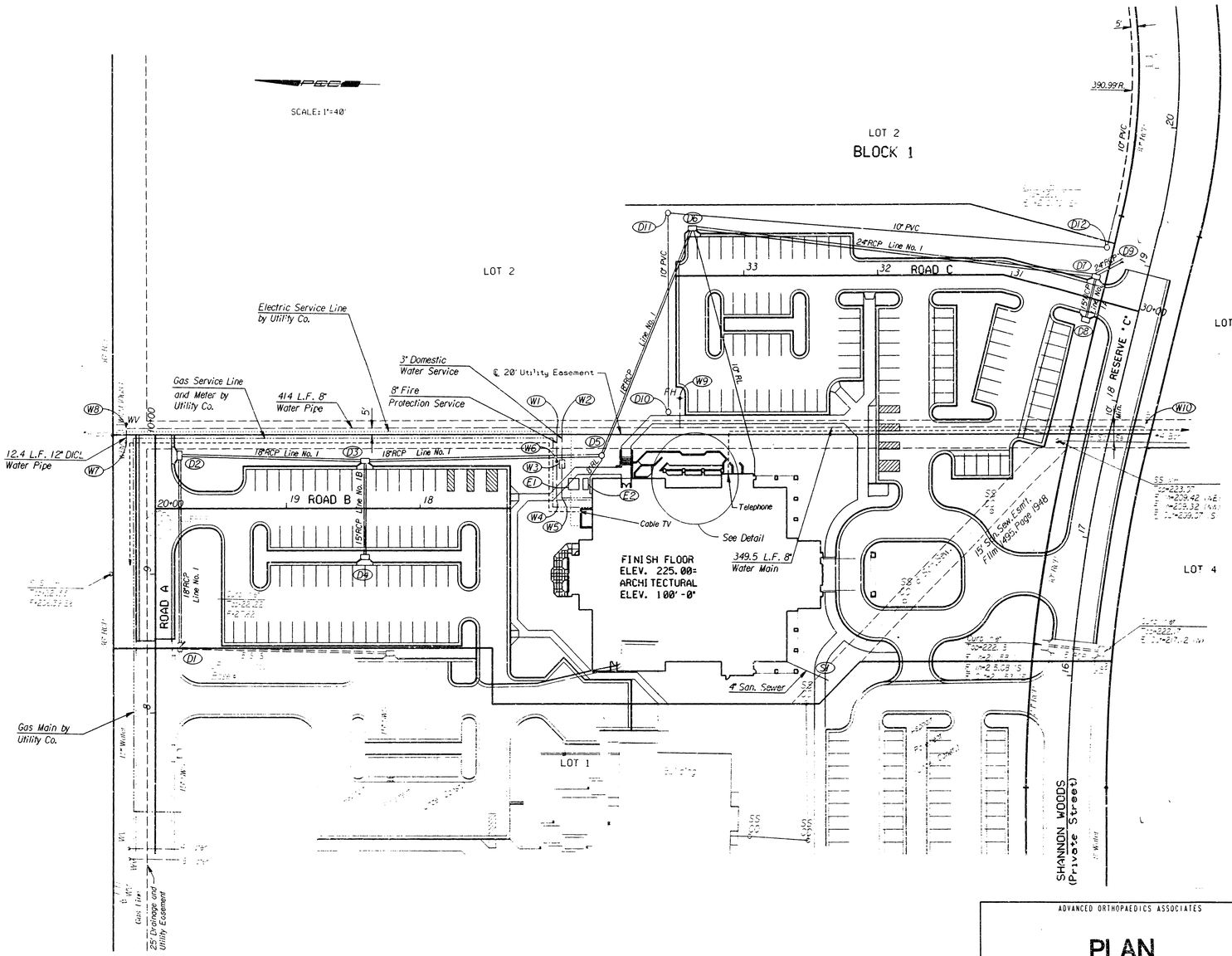
(E1) ELECTRIC TRANSFORMER BY UTILITY CO.

(E2) EMERGENCY GENERATOR. SEE ELECTRICAL PLANS

SEE ELECTRICAL PLANS FOR LIGHTING AND
CONDUIT LOCATIONS.

NOTE: All disturbed areas to be seeded, fertilized & mulched in accordance with the requirements of Section 02900 of the Specifications.

SCALE: 1"=40'



PLAN	SURVEYED	BY	DATE
	PLOTTED		
NOTE BOOK	DRAWN		
NO.	CHECKED		
	ALL QC & WY CHECKED		

DRAWING NAME: 36-94172-1 BLANK SHEET
LOCATION: WICHITA, KS.
CLIENT: WOODBURN MAIES:
ROTATION ANGLE:
DATE LAST WORKED ON:
DWAINE DUNN

ADVANCED ORTHOPAEDICS ASSOCIATES

PLAN

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

Designed by	MWB	Checked by	
Drawn by	DEP	Date DEC. 1994	Job No. 94172-1

SHEET NO.	TOTAL SHEETS
4	8

GENERAL NOTES

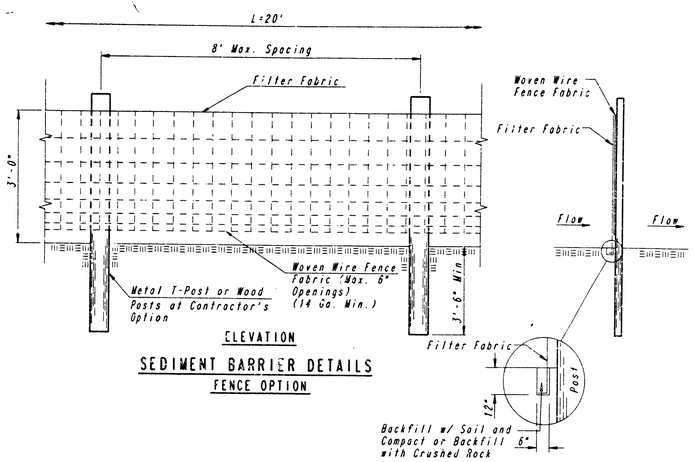
1. TEMPORARY FIRE LANE TO BE PROVIDED IN ACCORDANCE WITH FIRE DEPARTMENT REQUIREMENTS AT ALL TIMES. SURFACE TO BE MINIMUM 4" CRUSHED ROCK (KDOT AB-3) OR APPROVED EQUAL. MAINTAIN FIRE LANE SURFACE THROUGHOUT PROJECT CONSTRUCTION TIME.
2. TOPSOIL STRIPPED ON SITE TO BE UTILIZED IN LANDSCAPING. EXCESS TOPSOIL, IF ANY, TO BE STOCKPILED ON A SITE TO BE APPROVED BY THE OWNER ON LOT 2, BLOCK 1, KANSAS SURGERY AND RECOVERY CENTER ADDITION.
3. EXCESS EXCAVATED MATERIAL TO BE STOCKPILED ON A SITE TO BE APPROVED BY THE OWNER ON LOT 2, BLOCK 1, KANSAS SURGERY AND RECOVERY CENTER ADDITION.
4. SEDIMENT BARRIERS SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
5. SEDIMENT BARRIERS SHALL BE ERECTED PRIOR TO THE COMMENCEMENT OF EARTHWORK OPERATIONS IN A GIVEN BASIN. REMOVAL AND DISPOSAL OF ACCUMULATED SILT AND DEBRIS AND/OR REMOVAL AND RECONSTRUCTION OF SEDIMENT BARRIERS WILL BE PERFORMED THROUGHOUT THE PROJECT LIFE WHEN DEBRIS REACHES ONE-THIRD THE FENCE HEIGHT OR AS DEEMED NECESSARY BY THE ENGINEER. SEDIMENT BARRIERS AND ACCUMULATED DEBRIS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AFTER TURF COVER HAS BEEN ESTABLISHED, UNLESS OTHER ARRANGEMENTS HAVE BEEN AGREED TO.
6. FILTER FABRIC FOR FENCE OPTION SEDIMENT BARRIERS SHALL BE RESISTANT TO ULTRAVIOLET LIGHT. MATERIALS MAY BE SUPPLIED BY THE FOLLOWING MANUFACTURERS:

MIRAFI, INC.	-	100X
HOECHST FIBERS INDUSTRIES	-	TREVIRA 1115
EXXON	-	TYPAR 3301 W

MATERIALS SUPPLIED BY THE ABOVE NAMED MANUFACTURERS SHALL BE ACCEPTED UPON VISUAL INSPECTION BY THE ENGINEER. OTHER COMPARABLE MATERIALS MAY BE USED IF APPROVED BY THE ENGINEER.

FILTER FABRIC SHALL BE ATTACHED TO FENCE FABRIC BY MEANS OF TIE WIRES OR HOG RINGS PRIOR TO ATTACHMENT OF FENCE/FABRIC COMBINATION ONTO THE POSTS.

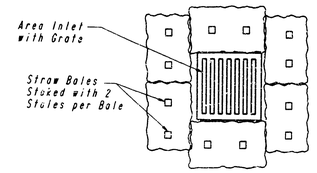
7. BALES USED MAY BE EITHER HAY OR STRAW, PROVIDED THEY ARE SOUND AND INTACT.
8. INLET PROTECTION METHOD MAY BE ANY OF THE APPLICABLE TYPES SHOWN, AT THE CONTRACTORS OPTION.
9. GRAVEL FILTER SHALL BE A DURABLE, WELL-GRADED SAND-GRAVEL OR CRUSHED STONE, MAXIMUM 1-1/2 IN. SIZE. AS AN ALTERNATE GRAVEL FILLED BAGS OF BURLAP OR OTHER FABRIC MAY BE USED. WHERE BAGS ARE USED, THE WIRE SCREEN, WHERE SHOWN, MAY BE OMITTED.
10. INLET PROTECTION SHALL BE ERECTED AS SOON AS THE STRUCTURE HAS BEEN BACKFILLED. MEASURES SHALL BE TAKEN TO PRECLUDE ENTRY OF SEDIMENT INTO THE STORM WATER SEWER SYSTEM DURING CONSTRUCTION OF THE STRUCTURE.
11. REMOVAL AND DISPOSAL OF ACCUMULATED SILT AND DEBRIS AND/OR REMOVAL AND RECONSTRUCTION OF INLET PROTECTION INSTALLATIONS SHALL BE PERFORMED THROUGHOUT THE PROJECT LIFE WHENEVER DEBRIS REACHES ONE-THIRD THE BARRIER HEIGHT, OR AS DEEMED NECESSARY BY THE ENGINEER. ULTIMATE REMOVAL AND DISPOSAL OF INLET PROTECTION AND DEBRIS WILL BE PERFORMED AFTER SEEDING IS ESTABLISHED, UNLESS OTHER ARRANGEMENTS HAVE BEEN MADE.

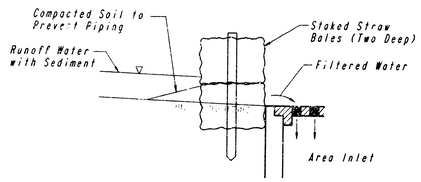


ELEVATION

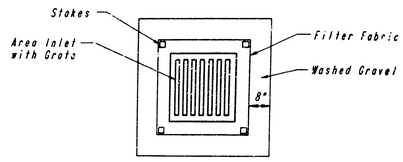
SEDIMENT BARRIER DETAILS
FENCE OPTION

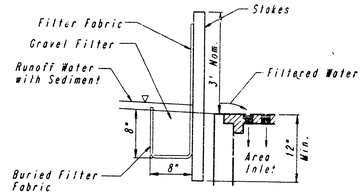
ANCHOR TRENCH DETAIL



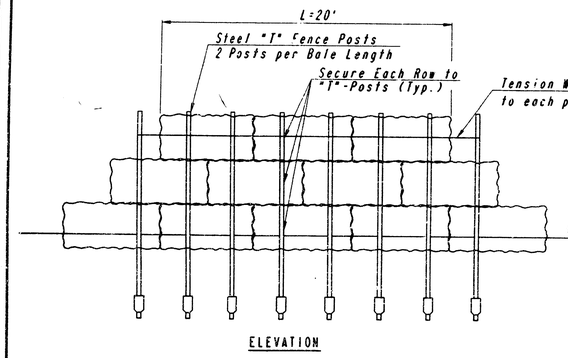


AREA INLET PROTECTION
STRAW BALES





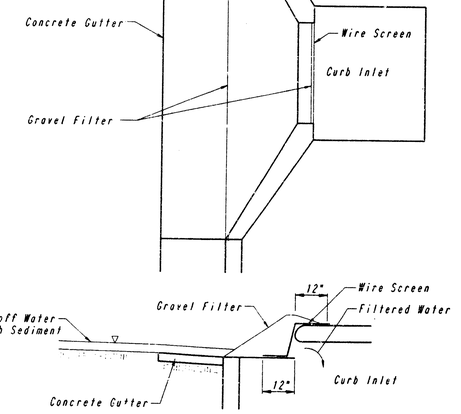
AREA INLET PROTECTION
FILTER FABRIC



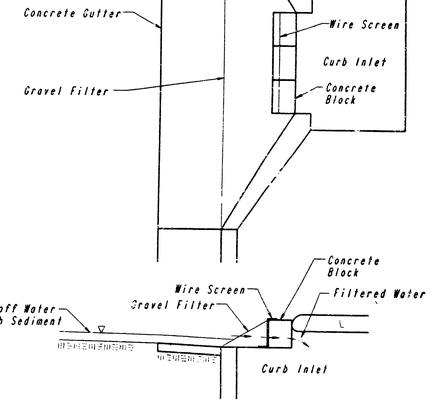
ELEVATION

SECTION

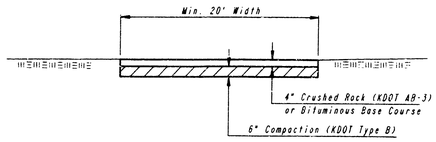
SEDIMENT BARRIER DETAILS
HAY/STRAW BALE OPTION



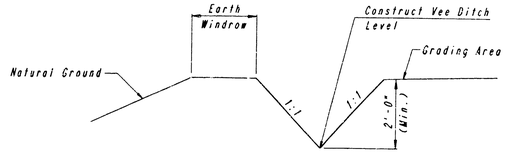
CURB INLET PROTECTION
GRAVEL AND WIRE MESH FILTER



CURB INLET PROTECTION
BLOCK AND GRAVEL FILTER



TEMPORARY FIRE LANE



TEMPORARY INTERCEPT DITCH DETAIL

WHERE TEMPORARY EROSION CONTROL INTERCEPT DITCHES ARE USED, ALL AREAS WHERE FLOW IS CONCENTRATED SHALL BE PROTECTED BY SEDIMENT BARRIERS PRIOR TO DISCHARGING INTO ANY DITCH, STORM SEWER, OR WATERCOURSE.

EROSION CONTROL DETAILS ADAPTED FROM: VIRGINIA SOIL AND WATER CONSERVATION COMMISSION, 1985 AND DRAINAGE CRITERIA MANUAL, DENVER URBAN DRAINAGE AND FLOOD CONTROL DISTRICT 9-1-92.

GRADING AND EROSION CONTROL DETAILS

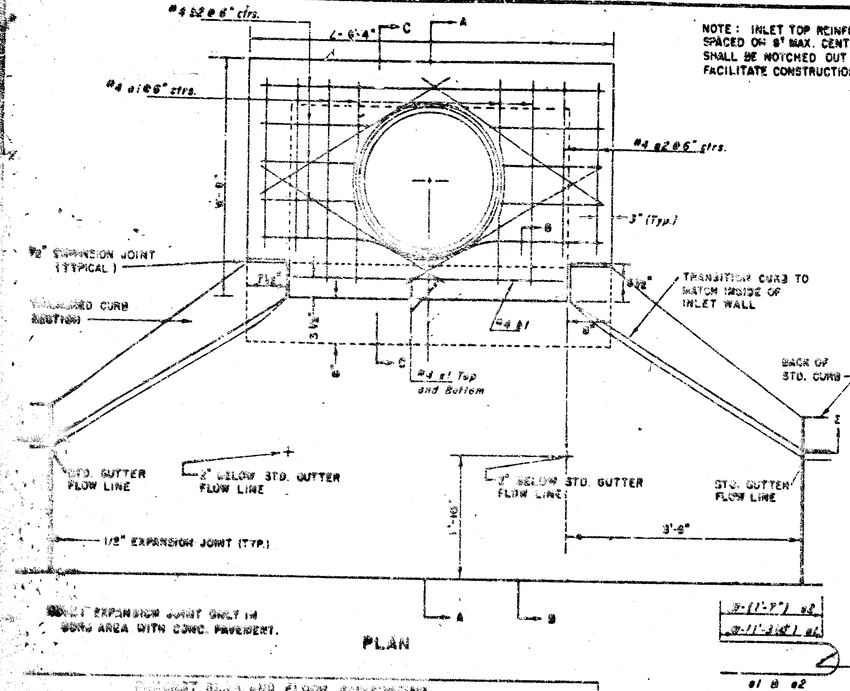
29TH AND WEBB ROAD
WICHITA, KANSAS

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

Designed by	MWB	Checked by	
Drawn by	DEP	Date Dec. 1994	Job No 94772-1

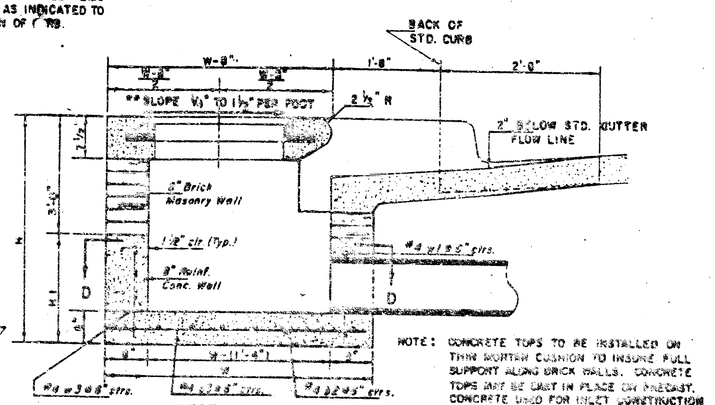
PLAN | DATE | BY
SURVEYED
NOTE BOOK PLOTTED
AS-BUILT DATA CHECKED
NO. OF SHEETS REVISED

DRAWING NAME: 36-93627-2 SEC BAR 24x36
LOCATION: D4 #124
CENTER COORDINATES:
SCALE: AS NOTED
DATE LAST WORKED ON:
BY: MIKE BERRY



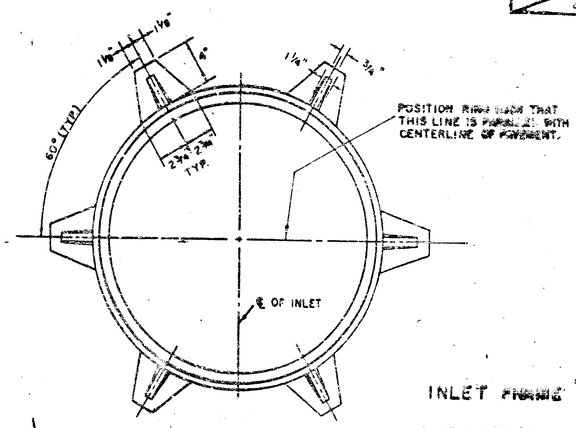
PLAN

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



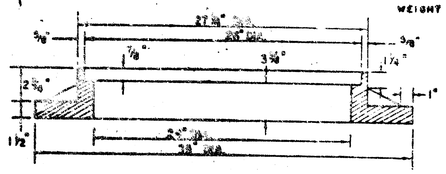
SECTION A-A

NOTE: CONCRETE TOPS TO BE INSTALLED ON THIN MORTER 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.

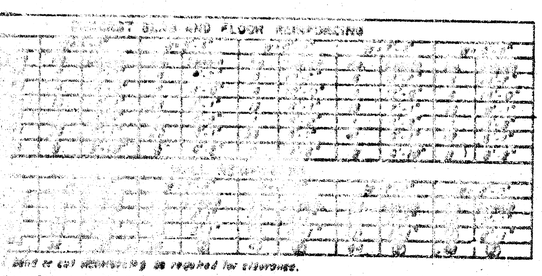


INLET FRAME

WEIGHT = 438 LBS.



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



BENDING DIAGRAM

	INLET SIZE OF TOP		
W	L	Bar Size	Bar Spacing Conc.
2'-0"	4'-0"	#4 @ 6" Each Way	0.128
2'-0"	6'-0"	#4 @ 6" Each Way	0.191
2'-0"	8'-0"	#4 @ 6" Each Way	0.254
3'-0"	4'-0"	#4 @ 6" Each Way	0.191
3'-0"	6'-0"	#4 @ 6" Each Way	0.286
3'-0"	8'-0"	#4 @ 6" Each Way	0.381

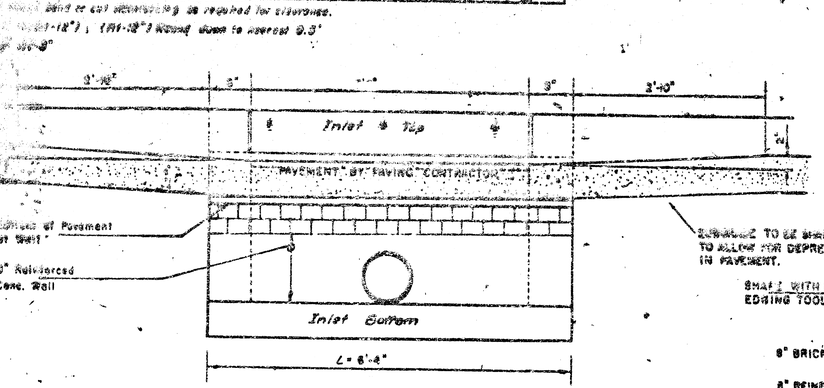
NOTE: CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BEHIND THE CONC. INLET WALL AND TOP ON THIS INLET WHEN W = 6'-0" AND W = 7'-0" OR LESS.

ADDITIONAL CURB AND GUTTER CONSTRUCTION NECESSARY TO CORRECT SETBACK INLET TO PAVEMENT WILL BE PAID FOR AT THE UNIT PRICE BID FOR EACH INLET HOOKUP.

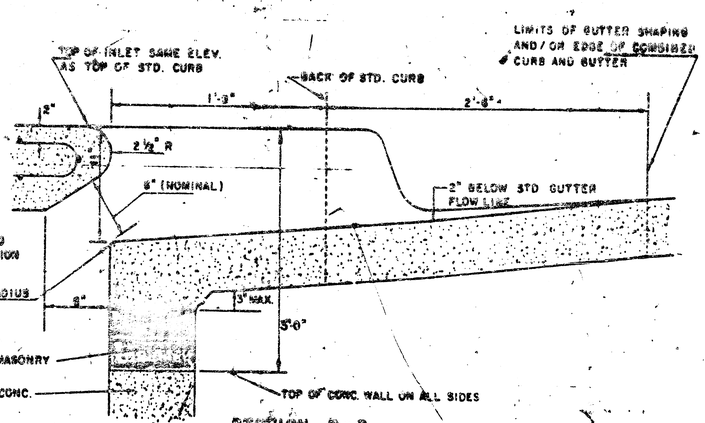
INLET THROAT SHALL BE SMOOTH WITH A RICH SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

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

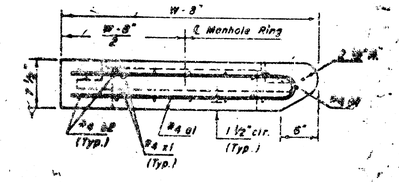
**NOTE: Slope of Inlet Tops to match Sidewalk or Parking Slopes within Limits indicated.



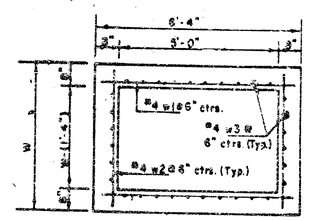
SECTION E-E



SECTION B-B



SECTION C-C



SECTION D-D

Revised 2-16-1989

DETAIL STANDARD TYPE IA CURB INLET

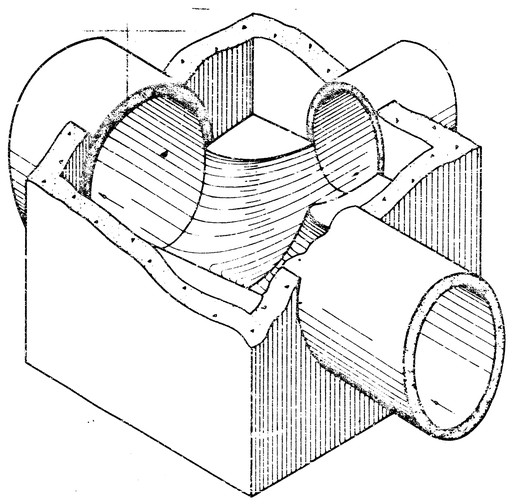
CITY OF WICHITA, KANSAS

INLET OPENING = 6" x 8'-0"

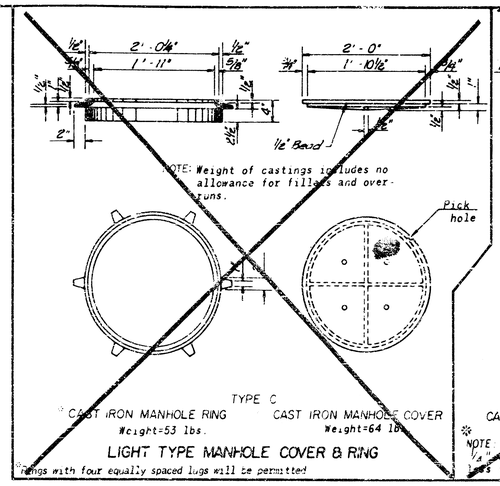
L = 6'-4"

JUNE 1984

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
525 PPS (6078G1)	19	6	8



SECTIONAL VIEW (EXAMPLE IV)
Showing Floor Shaping

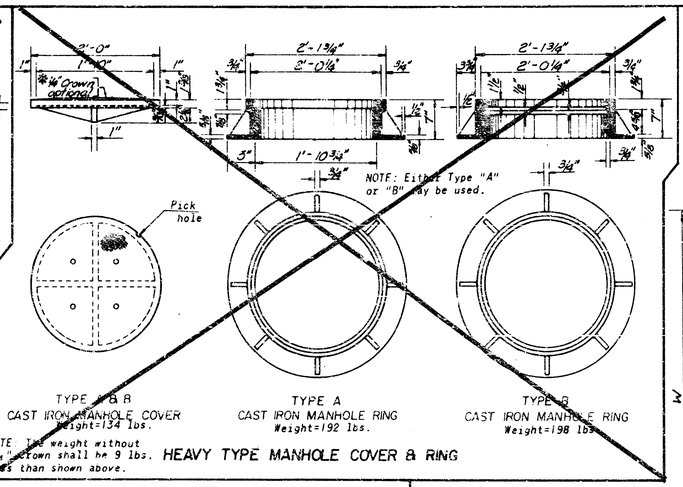


NOTE: Weight of castings includes no allowance for fillets and overruns.

TYPE C
CAST IRON MANHOLE RING Weight=53 lbs.
CAST IRON MANHOLE COVER Weight=64 lbs.

LIGHT TYPE MANHOLE COVER & RING

Rings with four equally spaced lugs will be permitted



NOTE: Either Type "A" or "B" may be used.

TYPE B
CAST IRON MANHOLE COVER Weight=134 lbs.

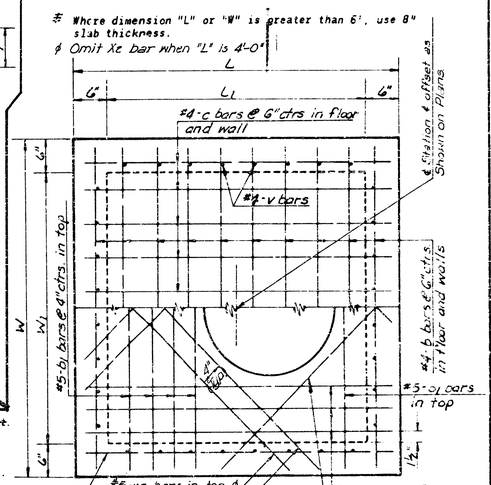
TYPE A
CAST IRON MANHOLE RING Weight=192 lbs.

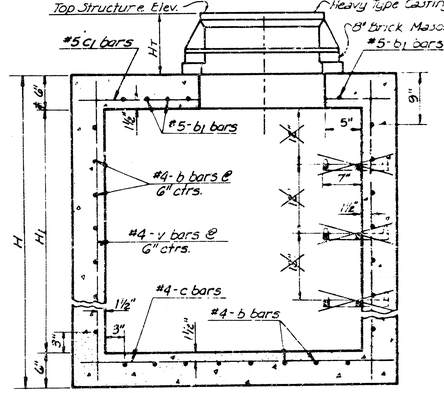
TYPE B
CAST IRON MANHOLE RING Weight=198 lbs.

* NOTE: The weight without ½" crown shall be 9 lbs. less than shown above.

HEAVY TYPE MANHOLE COVER & RING

* Where dimension "L" or "W" is greater than 6', use 8" slab thickness.
ϕ Omit Xc bar when "L" is 4'-0"



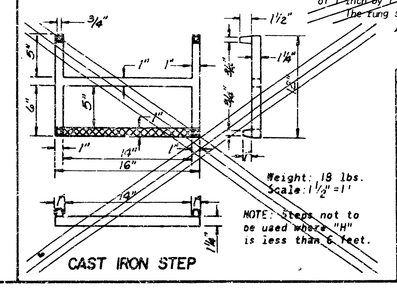


SECTION (Exclusive of floor shaping)

NOTE: ~~Use class S Concrete throughout.~~ All exposed edges shall be finished with an edging tool.
~~At the contractors option Class~~ * Concrete ~~(AE) may~~ mix used in Conc. Pvt. may be used throughout.
In general, pipes will enter and leave the manhole at various positions. Where possible bend bars around pipes.
Floor of manhole to be shaped as shown in various "EXAMPLES" with unreinforced ~~Class "A"~~ concrete.
Manhole opening and steps, where used, shall be placed to afford easy access to top of shaped invert. Top reinforcing bars to be adjusted accordingly.
All castings shall be gray iron and shall comply with the Standard Specifications.
All exposed cast iron surfaces (rings & covers) not subjected to traffic, shall be painted either in the shop or in the field with one coat of a zinc dust paint, followed by two field coats of aluminum paint.
No deductions in concrete quantities shall be made for pipe openings.
No additions in concrete quantities shall be made for shaping floor of manholes.
When so ordered by the Engineer, the top of the manhole shall be sloped slightly to approximately fit the ground line or other conditions.
Dimensions and weights of cast iron as shown on this sheet are minimum. Larger dimensions and/or heavier weights of cast iron may be used.

As an alternate to the cast iron step shown, either an aluminum or a plastic coated steel step complying with the same minimum clear opening dimensions may be used. The minimum length of tang shall be 14 inches and the minimum distance of tang from wall shall be 6 inches.
The solid aluminum extruded bar (¾" minimum) shall comply with the Standard Specifications (ASTM B 221 Alloy 6105-T5).
The plastic coated step shall be made from a No. 3 steel reinforcing bar encapsulated in plastic to provide a minimum cross section of 1 inch by 1 inch and shall comply with the special provisions.
The tang shall be designed so the foot cannot slide off the end.

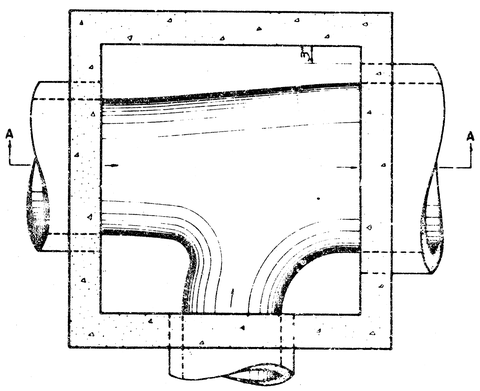
Note: Steps shall not be installed in inlets or manholes on this project.



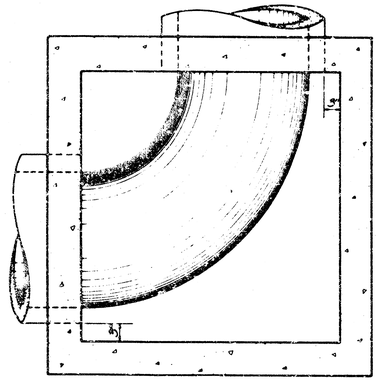
CAST IRON STEP

TYPICAL EXAMPLES OF VARIOUS PIPE COMBINATIONS

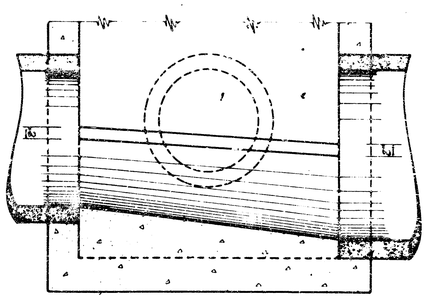
Showing method of shaping floor of manholes to provide increased hydraulic efficiency.
For reinforcing & other features see "PLAN" and "SECTION"



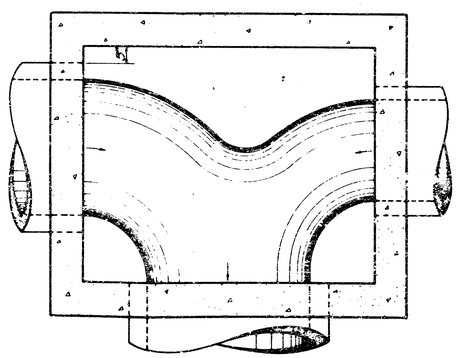
FLOOR PLAN (EXAMPLE IV)



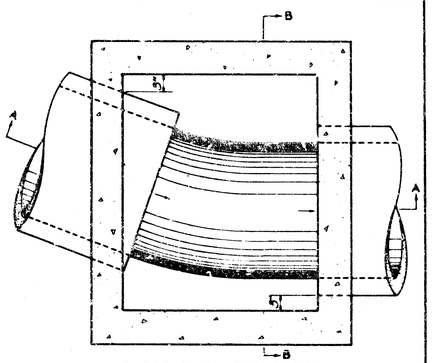
FLOOR PLAN (EXAMPLE II)



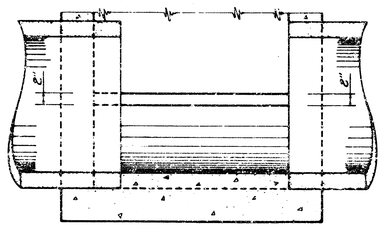
SECTION A-A (EXAMPLE IV)



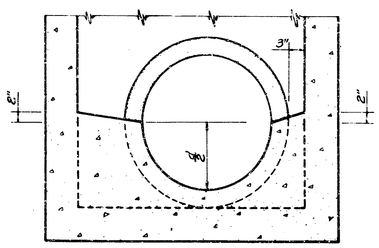
FLOOR PLAN (EXAMPLE III)



FLOOR PLAN (EXAMPLE I)



SECTION A-A (EXAMPLE I)



SECTION B-B (EXAMPLE I)

NO.	DATE	REVISIONS	BY	APP'D
26	9-28-82	Rev. step from 16" to 14" clear opening	W.L.H.	L.R.P.
25	3-19-80	Revised to Standard Specs.	W.L.H.	L.R.P.
24	4-2-80	Labeled bars same as Steel table	W.L.H.	L.R.P.

KANSAS DEPARTMENT OF TRANSPORTATION

REINFORCED CONCRETE MANHOLE

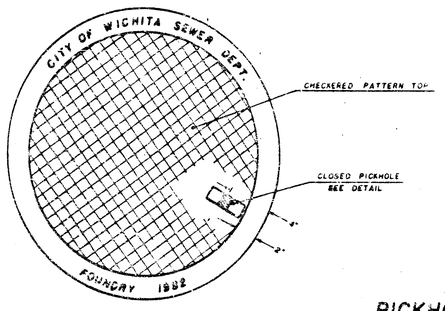
STD NO 633 4-5-44

SHEET NO. OF	SCALE 1"=1'	APP'D L.R.P. Concrete			
DESIGNED E.A.J.	DETAILED W.B.	QUANTITIES		TRACED W.B.	6
DESIGN CK. W.B.	DETAIL CK. W.B.	QUAN. CK.		TRACE CK. W.B.	

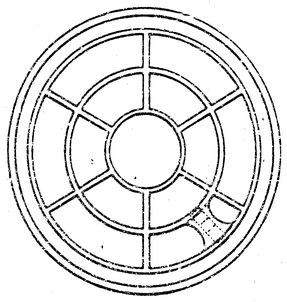
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN
BY
City of Wichita, Kansas

MANHOLE COVER
Weight: 180 Lbs.

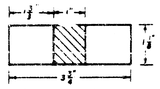


TOP VIEW

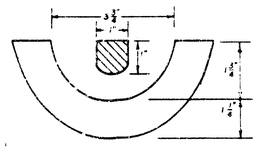


BOTTOM VIEW

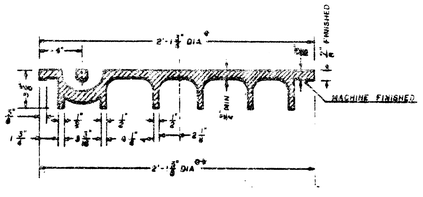
PICKHOLE DETAIL



TOP VIEW



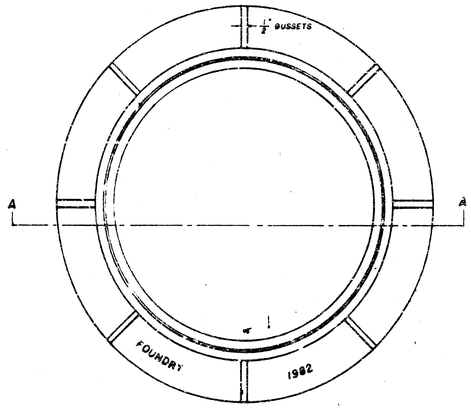
SECTION VIEW



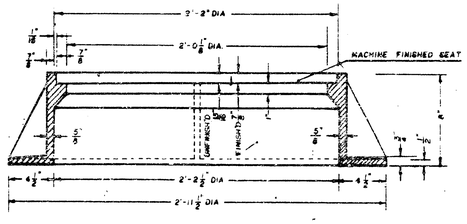
SECTION VIEW

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

MANHOLE FRAME
Weight: 240 Lbs.



TOP VIEW



SECTION A-A

GENERAL NOTES

1. MANHOLE CASTINGS SHALL BE MANUFACTURED USING GOOD QUALITY GRAY IRON CONFORMING TO CLASS 30 OF A.S.T.M. DESIGNATION A-48. DIMENSIONS AND WEIGHTS SHOWN ON THE DETAILED DRAWINGS SHALL BE CONSIDERED AS MINIMUM REQUIREMENTS AND ANY DEVIATIONS FROM THE DIMENSIONS SHOWN MUST BE SPECIFICALLY APPROVED. THE FINISHED CASTINGS SHALL BE OF UNIFORM QUALITY, FREE FROM BLOWHOLES, POROSITY, HARD SPOTS, SHRINKAGE DISTORTIONS OR OTHER DEFECTS.

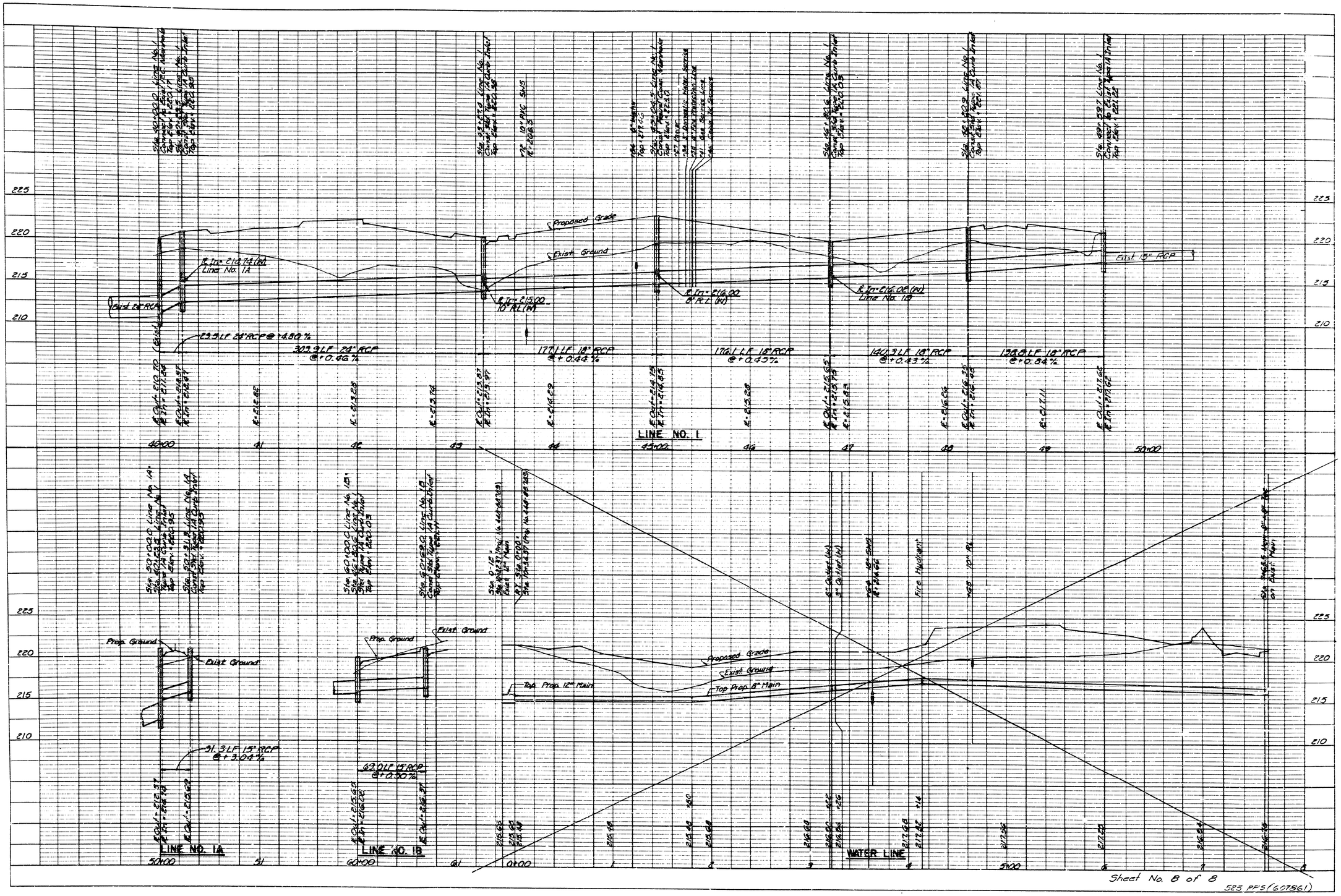
2. MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDRY WILL FIT INTERCHANGEABLY INTO A FRAME MANUFACTURED BY ANOTHER FOUNDRY AND STILL MEET ALLOWABLE CLEARANCES AND NON-ROCKING REQUIREMENTS. THIS WILL REQUIRE MANUFACTURING OF THE MATCHING FACES ON THE COVER AND THE FRAME TO CLOSE TOLERANCES.

3. THE OUTSIDE CIRCUMFERENCE OF THE VERTICAL FACE OF THE COVER AND THE INSIDE CIRCUMFERENCE OF THE VERTICAL FACE IN THE FRAME RECESS SHALL BE MANUFACTURED TO TOLERANCES SUCH THAT THE CLEARANCE BETWEEN THE COVER AND FRAME WILL NOT EXCEED 1/8" AT ANY POINT AROUND THE CIRCUMFERENCE OF THE COVER. THE SEATING SURFACES BETWEEN THE COVER AND FRAME SHALL BE MACHINED SUCH THAT THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

4. THE MANHOLE FRAME AND COVER SHALL BE MARKED WITH LETTERING INDICATING THE NAME OF THE MANUFACTURER AND THE YEAR WHEN THE COVER OR FRAME WAS CAST. THE COVER SHALL BE FURTHER IDENTIFIED WITH REGARDS TO OWNERSHIP USING LETTERS AT LEAST 1" IN HEIGHT. THIS IDENTIFICATION SHALL BE "CITY OF WICHITA SEWER DEPARTMENT". THE WORD DEPARTMENT MAY BE ABBREVIATED. THE TEXTURE OF THE TOP SURFACE OF THE COVER SHALL BE MANUFACTURED IN A CHECKERED PATTERN DESIGN AS INDICATED ON THE DRAWINGS. SMOOTH BLOCKOUTS SHALL BE UTILIZED TO HIGHLIGHT THE LETTERING ON THE COVER SURFACE. THE TOTAL AREA OF SMOOTH SURFACE BLOCKOUT SHALL NOT EXCEED THE AREA AS INDICATED ON THE DRAWING. POSITIONING OF SMOOTH BLOCKOUTS AND LETTERING MAY VARY FROM THAT SHOWN ON THE DETAILED DRAWING.

JNL DEC. 1981

REVISED MAR 1983



Sheet No. 8 of 8

525 PPS (607861)