SHEET NO.	TOTAL SHEETS
1	18

CITY OF WICHITA, KANSAS

MICHAEL E. LINDEBAK, P.E., CITY ENGINEER

STREET IMPROVEMENTS

WILD ROSE - FROM THE S.L. OF LOT 81, BLOCK 4, AND THE S.L. OF LOT 18, BLOCK 6, TO THE N.L. OF LOT 76, BLOCK 4, AND THE N.L. OF LOT 14, BLOCK 6.
FOREST LAKES - FROM THE S.L. OF LOT 48, BLOCK 3, AND THE S.L. OF LOT 7, BLOCK 6, TO THE N.L. OF LOT 42, BLOCK 3, AND THE N.L. OF LOT 12, BLOCK 6.
SIDEWALK - WEST SIDE OF WILD ROSE FROM THE S.L. OF LOT 18, BLOCK 6, TO THE N.L. OF LOT 14, BLOCK 6.

IN

FOREST LAKES - PHASE X

CITY OF WICHITA PROJECT NO. 472-76-245-82326-000-000-001
INDEX NO. 765568

INDEX OF SHEETS

PROJECT SURVEY CONTROL

CITY OF WICHITA VERTICAL DATUM

BM #18: "U" POST AT NORTHEAST SIDE LOT 88, BLOCK 4.
ELEV.=139.72

BM #20: CHISELED "□" TOP OF CURB AT SOUTHEAST CORNER CURB INLET, LOT CORNER 92 & 93, BLOCK 4.
ELEV.=143.18

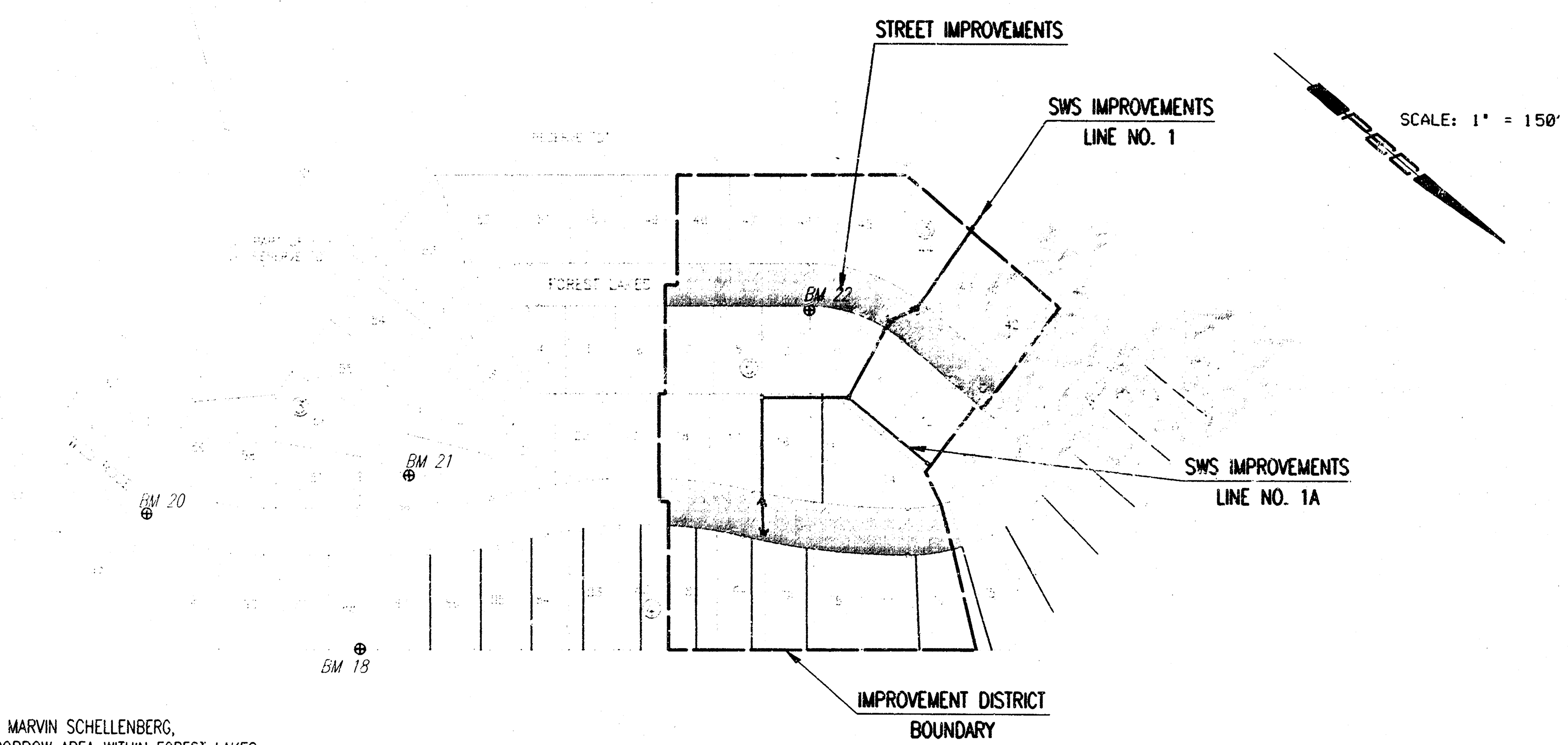
BM #21: "T" POST 10' WEST OF R/W P.C., LOT 1, BLOCK 6.
ELEV.=143.58

BM #22: "T" POST 5' NORTHEAST OF R/W P.C., LOT 9, BLOCK 6.
ELEV.=142.97

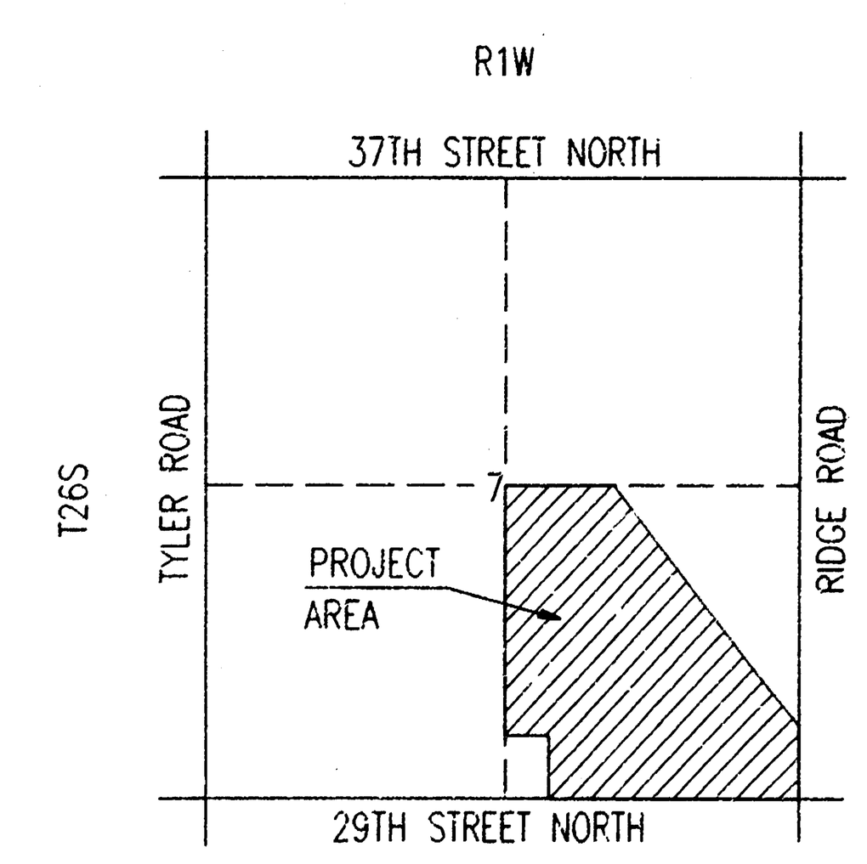
EARTHWORK

EXCAVATION	85 CU. YDS.
COMPACTED FILL	687 CU. YDS.
CONTR. FURN. BORROW	2,697 CU. YDS.*

PROJECT LENGTH = 924.84 LIN. FT.



* CONTRACTOR SHALL CONTRACT MR. MARVIN SCHELLENBERG, (316) 721-2157, FOR POSSIBLE BORROW AREA WITHIN FOREST LAKES.



VICINITY MAP

GENERAL NOTES

UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. 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.

TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.

RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR AND APPROVED AS NOTED BELOW.

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 ARCHEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

CONTRACTOR SHALL SATISFY HIMSELF OF SURFACE AND SUBSURFACE CONDITIONS PRIOR TO BIDDING.

TEMPORARY SURFACING MATERIAL (ROCK, ASPHALT, ETC.) MAY HAVE BEEN PLACED WITHIN STREET RIGHTS-OF-WAY FOR HAUL ROADS AND TEMPORARY ACCESS. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS TO DETERMINE EXTENT, IF ANY, OF SUCH SURFACING. CONTRACTOR SHALL REMOVE SAID TEMPORARY SURFACING IN THE SAME MANNER AS NOTED ABOVE FOR RUBBLE. THIS REMOVAL SHALL BE SUBSIDIARY TO "EXCAVATION".

CONTRACTOR SHALL PROVIDE A MINIMUM FORTY-EIGHT (48) HOUR ADVANCE NOTICE (EXCLUDING WEEKENDS AND HOLIDAYS) PRIOR TO BEGINNING ANY EXCAVATION, TO KANSAS ONE-CALL SYSTEM, A UTILITY LOCATION SERVICE, AT (316) 687-2470 TO REQUEST THE FOLLOWING UTILITY COMPANIES TO LOCATE ALL EXISTING LINES WITHIN THE PROJECT AREA: PEOPLES NATURAL GAS, K.G.E. ELECTRIC, SOUTHWESTERN BELL TELEPHONE, MULTIMEDIA CABLEVISION, CITY OF WICHITA SEWER MAINTENANCE AND CITY OF WICHITA WATER DEPARTMENT.

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 IN ACCORDANCE WITH STATE LAWS.

THE WATER DEPARTMENT SHALL FIELD LOCATE WATER VALVES ONE TIME DURING CONSTRUCTION WHEN REQUESTED BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PRESERVE SUCH FIELD LOCATIONS DURING THE CONSTRUCTION PROCESS. WATER VALVES, WATER VALVE BOXES OR FIRE HYDRANTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.

THE CONTRACTOR SHALL ADJUST WATER VALVE BOXES AS DIRECTED BY THE ENGINEER. THIS WORK TO BE SUBSIDIARY TO OTHER BID ITEMS.

INLET HOOKUPS AND INLET PROTECTION SHALL BE BID PER EACH REGARDLESS OF INLET SIZE.

THIS PROJECT DOES NOT INCLUDE ANY PROVISIONS FOR CONSTRUCTION OF DRIVEWAYS.

THE CONTRACTOR SHALL TEMPORARY SEED AND MULCH ALL STREET RIGHTS-OF-WAY AND OTHER AREAS DISTURBED BY HIS OPERATIONS AT THE RATES SHOWN ON SHEET NO. 10.

THIS PROJECT INCLUDES ALTERNATE PAVEMENT TYPES. THE CONTRACTOR SHALL BID ALL ALTERNATE 1 AND ALTERNATE 2 BID ITEMS AND THE CITY ENGINEER SHALL THEN SPECIFY WHICH PAVEMENT TYPE IS TO BE USED FOR THIS PROJECT. THE ALTERNATE SELECTED BY THE CITY ENGINEER SHALL BE USED FOR THE ENTIRE PROJECT.

CONTRACTOR SHALL COORDINATE HIS WORK WITH WATER LINE CONTRACTOR (C.O.W. PROJ NO. 448-76-245-88707-000-000-001) TO ALLOW FOR WATER LINE CONSTRUCTION AFTER COMPACTED FILL AND SWS LINES ARE IN PLACE. CONTRACTOR SHALL ALSO COORDINATE HIS WORK WITH SANITARY SEWER CONTRACTOR (C.O.W. PROJ. NO. 468-76-245-82308-000-000-001).

RECORD DRAWING
24 NOV 99

BRENT E. REMSBERG
LICENSED
8168
KANSAS
PROFESSIONAL ENGINEER

DRAINAGE BOOKED 12-2-99 MCG D-445

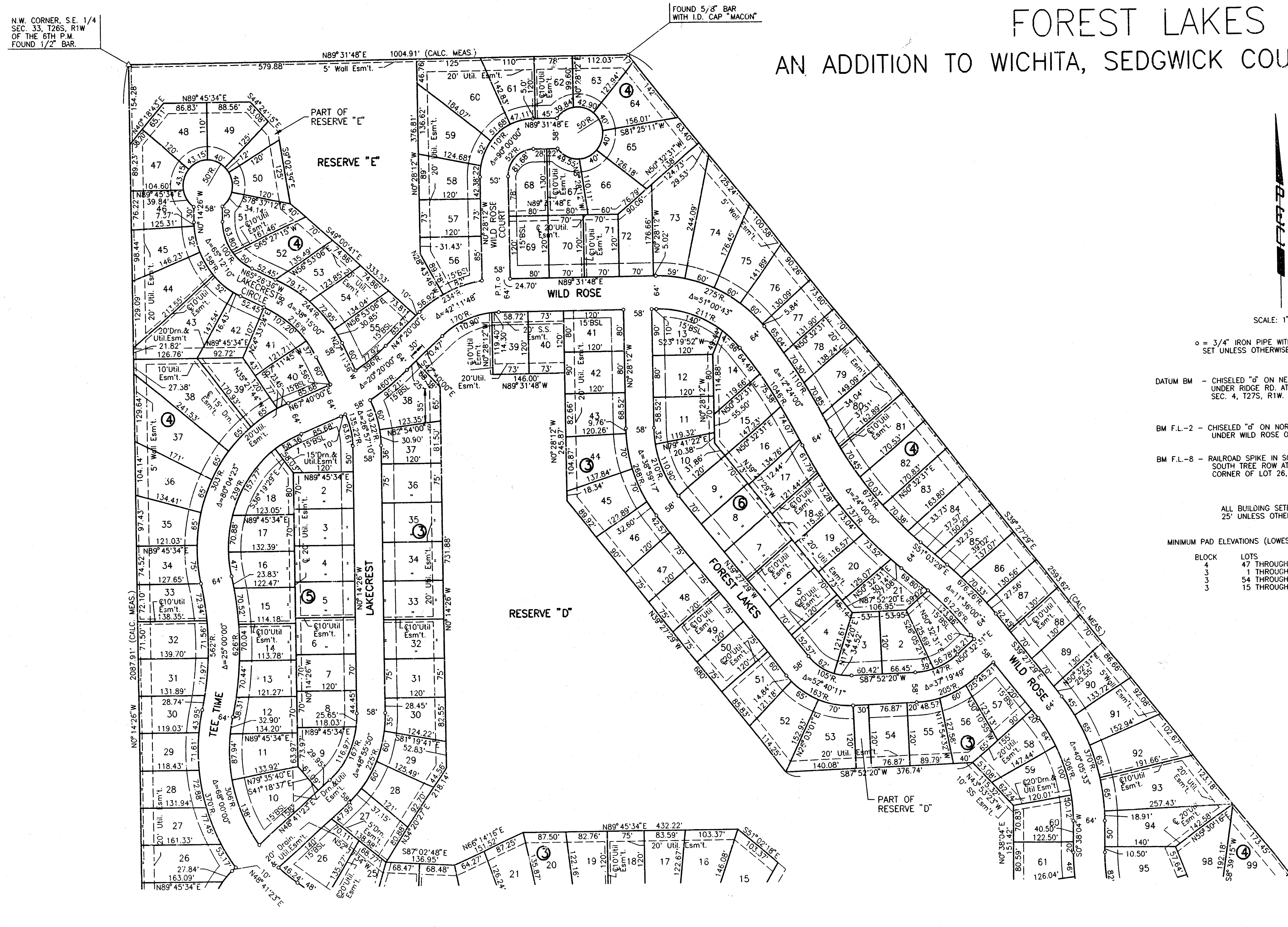
MARCH 1999

PLANS PREPARED BY
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

date plotted: March 30, 1999
deliver to: Dwaine Dunn

PROJECT NO.	SHEET NO.	TOTAL SHEETS
472-76-245-82326-000-000-001	2	18

FOREST LAKES
AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS



SCALE: 1"=100'

o = 3/4" IRON PIPE WITH I.D. CAP("PEC PA") SET UNLESS OTHERWISE NOTED.

DATUM BM – CHISELED "□" ON NE CORNER OF EAST HEADWALL OF RCB UNDER RIDGE RD. AT 200'± NORTH OF EAST 1/4 CORNER, SEC. 4, T27S, R1W. ELEV. 138.46 ELEV. 1325.64 M.S.L.

BM F.L.–2 – CHISELED "□" ON NORTH END OF WEST HEADWALL OF RCB UNDER WILD ROSE ON SOUTH SIDE OF 29TH STREET NORTH. ELEV. 138.90

BM F.L.–8 – RAILROAD SPIKE IN SOUTH FACE OF 18" ELM IN NORTH TO SOUTH TREE ROW AT 25'± EAST AND *5'± NORTH OF EAST CORNER OF LOT 26, BLOCK 2, FOREST LAKES ADDITION. ELEV. 141.61

ALL BUILDING SETBACK LINES ARE 25' UNLESS OTHERWISE LABELED.

MINIMUM PAD ELEVATIONS (LOWEST OPENING) SHALL BE AS FOLLOWS:

BLOCK	LOTS	CITY DATUM	M.S.L.
4	47 THROUGH 60	144.82	1332.0
3	1 THROUGH 14	140.32	1327.5
3	54 THROUGH 74	140.32	1327.5
3	15 THROUGH 53	141.82	1329.0

RECORD DRAWING
24 NOV 99

PLAN	BY	DATE
SURVEYED		
NOTE BOOK		
PLOTTED		
NO.		
ALIGNMENT CHECKED		
RT. OF WAY CHECKED		

usr/ustn/dgn: i/1997/97852/foreslkn.dgn
date plotted: november 4, 1997
deliver to: dwaine dunn

FOREST LAKES
PHASE X

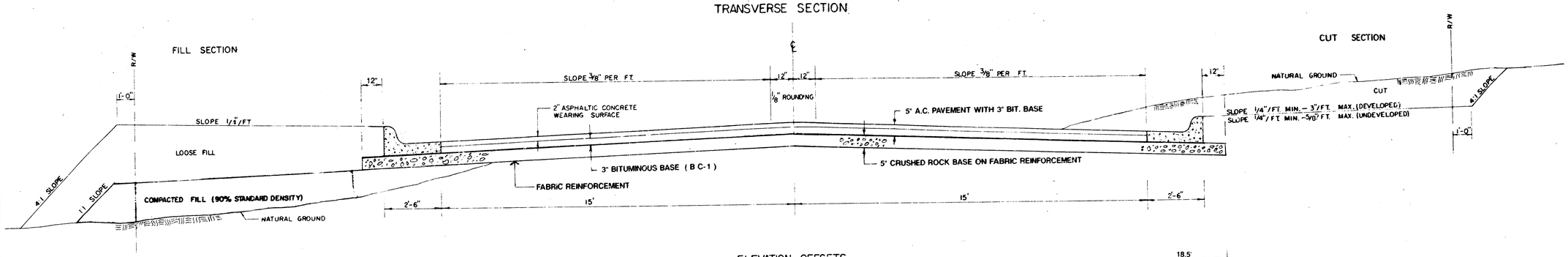
PLAT

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

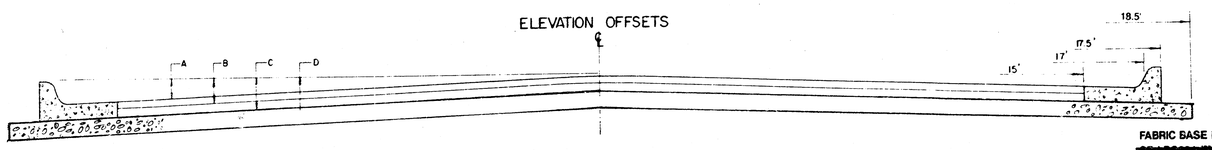
Designed by		Checked by	
Drawn by	BJS	Date NOV. 1997	Job No. 97852

TYPICAL 35' PAVEMENT DETAILS

TRANSVERSE SECTION



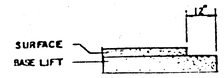
ELEVATION OFFSETS



	DISTANCE FROM CENTERLINE (LT. & RT.)												
	0'	2'	4'	6'	8.5'	10'	12'	14'	15'	17'	17.5'		
A. TOP OF CURBS TO TOP OF SURFACE LIFT	0.04	0.08	0.14	0.21	0.29	0.33	0.39	0.46	0.49	—	—	—	—
B. TOP OF CURBS TO TOP OF **BASE LIFT**	0.21	0.25	0.31	0.37	0.45	0.50	0.56	0.62	0.65	—	—	—	—
C. TOP OF CURBS TO TOP OF **ROCK BASE LIFT**	**0.46**	**0.50**	**0.56**	**0.63**	**0.71**	**0.75**	**0.81**	**0.88**	**0.91**	**0.98**	**1.00**		—
D. TOP OF CURBS TO TOP OF SUBGRADE													

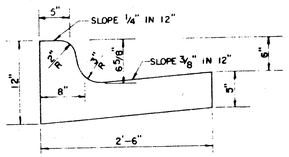
FABRIC BASE REINFORCEMENT SHALL BE B X 1100 BY TENSAR CORPORATION ~~OR EQUAL SUBJECT TO APPROVAL~~ OR APPROVED EQUAL.
FABRIC BASE REINFORCEMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS. ~~CRUSHED ROCK SHALL BE UNIFORMLY GRADED FROM 1 - 1/2" MAXIMUM SIZE TO NOT MORE THAN 10% PASSING A NO. 200 SIEVE. ROCK QUALITY SHALL BE THE SAME AS SPECIFIED FOR COARSE AGGREGATE FOR CONCRETE MIXES.~~

TRANSVERSE CONSTRUCTION JOINTS

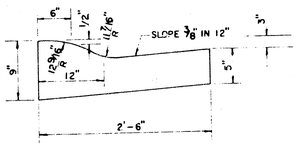


TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINS EXISTING FLEXIBLE BASE PAVEMENT AS SHOWN BY THE DETAIL. ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE TRANSVERSE JOINT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS 5" ASPHALTIC CONCRETE PAVEMENT (3" BITUMINOUS BASE)

COMBINED CURB & GUTTER



ROLL TYPE COMBINED CURB & GUTTER



CRUSHED ROCK OR RECYCLED ASPHALT PAVEMENT (RAP) GRADATION REQUIREMENTS

PERCENT OF AGGREGATE RETAINED	
2-1/2"	0
3/4"	20-60
#4	50-80
#40	80-94
#200	90-98

ROCK QUALITY SHALL CONFORM TO THE REQUIREMENTS SPECIFIED BY THE KDOT 1990 EDITION STANDARD SPECIFICATION SUBSECTION 1102 FOR DURABILITY CLASS 1

NOTE: 5" CRUSHED ROCK BASE ON FABRIC REINFORCEMENT IS ALTERNATE NO. 1 MATERIAL. ALTERNATE NO. 2 SHALL BE 5" RECYCLED ASPHALT PAVEMENT (RAP) ON FABRIC REINFORCEMENT. ALL REFERENCES ON THIS SHEET TO ROCK OR CRUSHED ROCK BASE SHALL APPLY ALSO TO RECYCLED ASPHALT PAVEMENT (RAP) BASE MATERIAL.

GENERAL NOTES

ROCK BASE IS TO BE COMPACTED AND SMOOTHED WITH A STEEL FACED ROLLER PRIOR TO PLACEMENT OF ASPHALT. TACK COAT WILL NOT BE APPLIED TO ROCK BASE.

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

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

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

RECORD DRAWING
Bradley of Eaton
21 NOV 99

REVISED 1-3-93 JKB
REVISED 10-31-96 JKB

5" RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH CRUSHED ROCK BASE ON FABRIC REINFORCEMENT

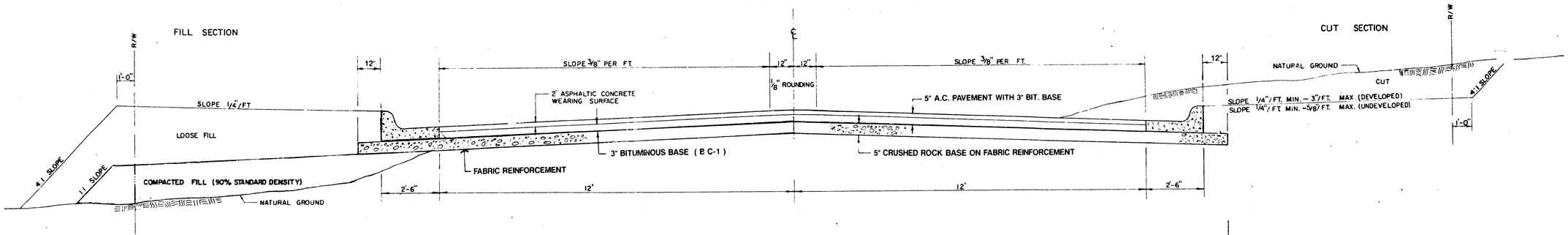
Proj. No. 472 76 245 82326 000 000 001

3

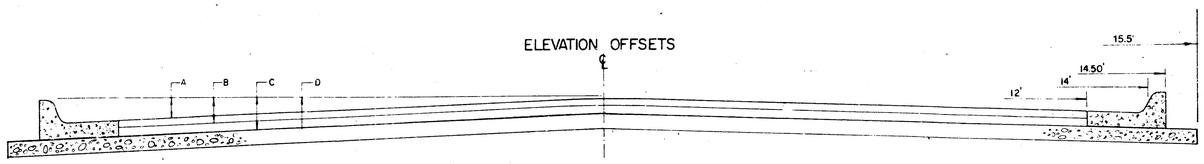
10 1 S 36

TYPICAL 29' PAVEMENT DETAILS

TRANSVERSE SECTION

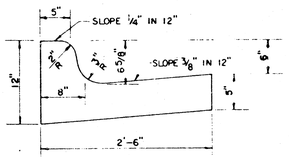


ELEVATION OFFSETS

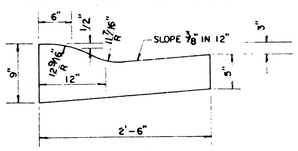


	DISTANCE FROM CENTERLINE (LT. & RT.)											
	0'	2'	4'	6'	7'	8'	10'	12'	14'	14.5'		
A TOP OF CURBS TO TOP OF SURFACE LIFT	0.13	0.18	0.24	0.30	0.33	0.36	0.43	0.49	—	—	—	—
B TOP OF CURBS TO TOP OF BASE LIFT	0.30	0.35	0.41	0.47	0.50	0.53	0.60	0.66	—	—	—	—
C TOP OF CURBS TO TOP OF ROCK BASE	0.55	0.60	0.66	0.72	0.75	0.78	0.85	0.91	0.98	1.00		—
D TOP OF CURBS TO TOP OF SUBGRADE												

COMBINED CURB & GUTTER



ROLL TYPE COMBINED CURB & GUTTER



CRUSHED ROCK OR RECYCLED ASPHALT PAVEMENT (RAP) GRADATION REQUIREMENTS

PERCENT OF AGGREGATE RETAINED

2-1/2"	0
3/4"	20-60
#4	50-80
#40	80-94
#200	90-98

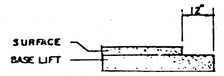
ROCK QUALITY SHALL CONFORM TO THE REQUIREMENTS SPECIFIED BY THE KDOT 1990 EDITION STANDARD SPECIFICATION SUBSECTION 1102 FOR DURABILITY CLASS 1

NOTE: 5" CRUSHED ROCK BASE ON FABRIC REINFORCEMENT IS ALTERNATE NO. 1 MATERIAL. ALTERNATE NO. 2 SHALL BE 5" RECYCLED ASPHALT PAVEMENT (RAP) ON FABRIC REINFORCEMENT. ALL REFERENCES ON THIS SHEET TO ROCK OR CRUSHED ROCK BASE SHALL APPLY ALSO TO RECYCLED ASPHALT PAVEMENT (RAP) BASE MATERIAL.

FABRIC BASE REINFORCEMENT SHALL BE BX1100 BY TENSAR CORP. ~~OR EQUAL BY TENAX CORPORATION~~ OR APPROVED EQUAL.

FABRIC BASE REINFORCEMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURES RECOMMENDATIONS. ~~CRUSHED ROCK SHALL BE UNIFORMLY GRADED FROM 1 1/2" MAXIMUM SIZE TO NOT MORE THAN 10% PASSING A N. 200 SIEVE. ROCK QUALITY SHALL BE THE SAME AS SPECIFIED FOR COARSE AGGREGATE FOR CONCRETE MIXES.~~

TRANSVERSE CONSTRUCTION JOINTS



TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT JOINS EXISTING FLEXIBLE BASE PAVEMENT AS SHOWN BY THE DETAIL. ALL COSTS ASSOCIATED WITH THE CONSTRUCTION OF THE TRANSVERSE JOINT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS 5" ASPHALTIC CONCRETE PAVEMENT (3" BITUMINOUS BASE)

GENERAL NOTES

ROCK BASE IS TO BE COMPACTED AND SMOOTHED WITH A STEEL FACED ROLLER PRIOR TO PLACEMENT OF ASPHALT. TACK COAT WILL NOT BE APPLIED TO ROCK BASE.

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

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

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

RECORD DRAWING
24 NOV 99

REVISED 1-3-92 JKB
REVISED 10-31-96 JKB

Proj. No. 472 76 24.5 82.326 000 000 001

5" RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH CRUSHED ROCK BASE ON FABRIC REINFORCEMENT

10 L S 31

SCALE: 1"=20'

℄ CURVE DATA

Δ=12°24'00" D=5°18'54" R=1078.00' L=233.30' T=117.11' E=6.34'

CURVE DATA BASED ON ℄ RADIUS Δ/2= 6°12'00"

℄ STATION	℄ ARC LENGTH	FACE CURB LENGTH LEFT CURB	FACE CURB LENGTH RIGHT CURB	CHORD LENGTH 8' OFF LEFT FACE CURB	CHORD LENGTH 8' OFF RIGHT FACE CURB	DEFLECTION ANGLE	℄ TOTAL DEFLECTION
31+74.03						0°00'00"	0°00'00"
32+00	25.97'	25.55'	26.39'	25.14'	26.33'	0°41'25"	0°41'25"
32+25	25.00'	24.61'	25.39'	24.42'	25.58'	1°21'16"	1°21'16"
32+50	25.00'	24.61'	25.39'	24.42'	25.58'	0°39'52"	2°01'08"
32+75	25.00'	24.61'	25.39'	24.42'	25.58'	0°39'52"	2°41'00"
33+00	25.00'	24.61'	25.39'	24.42'	25.58'	0°39'52"	3°20'52"
33+25	25.00'	24.61'	25.39'	24.42'	25.58'	0°39'52"	4°00'43"
33+50	25.00'	24.61'	25.39'	24.42'	25.58'	0°39'52"	4°40'35"
33+75	25.00'	24.61'	25.39'	24.42'	25.58'	0°39'52"	5°20'27"
34+00	25.00'	24.61'	25.39'	24.42'	25.58'	0°39'52"	6°00'19"
34+07.33	7.33'	7.19'	7.46'	7.15'	7.49'	0°11'41"	6°12'00"
TOTAL	233.30'	229.62'	236.98'			Defl./ft.= 1.594514 min.	

℄ CURVE DATA

Δ=51°00'43" D=23°34'43" R=243.00' L=216.35' T=115.94' E=26.24'

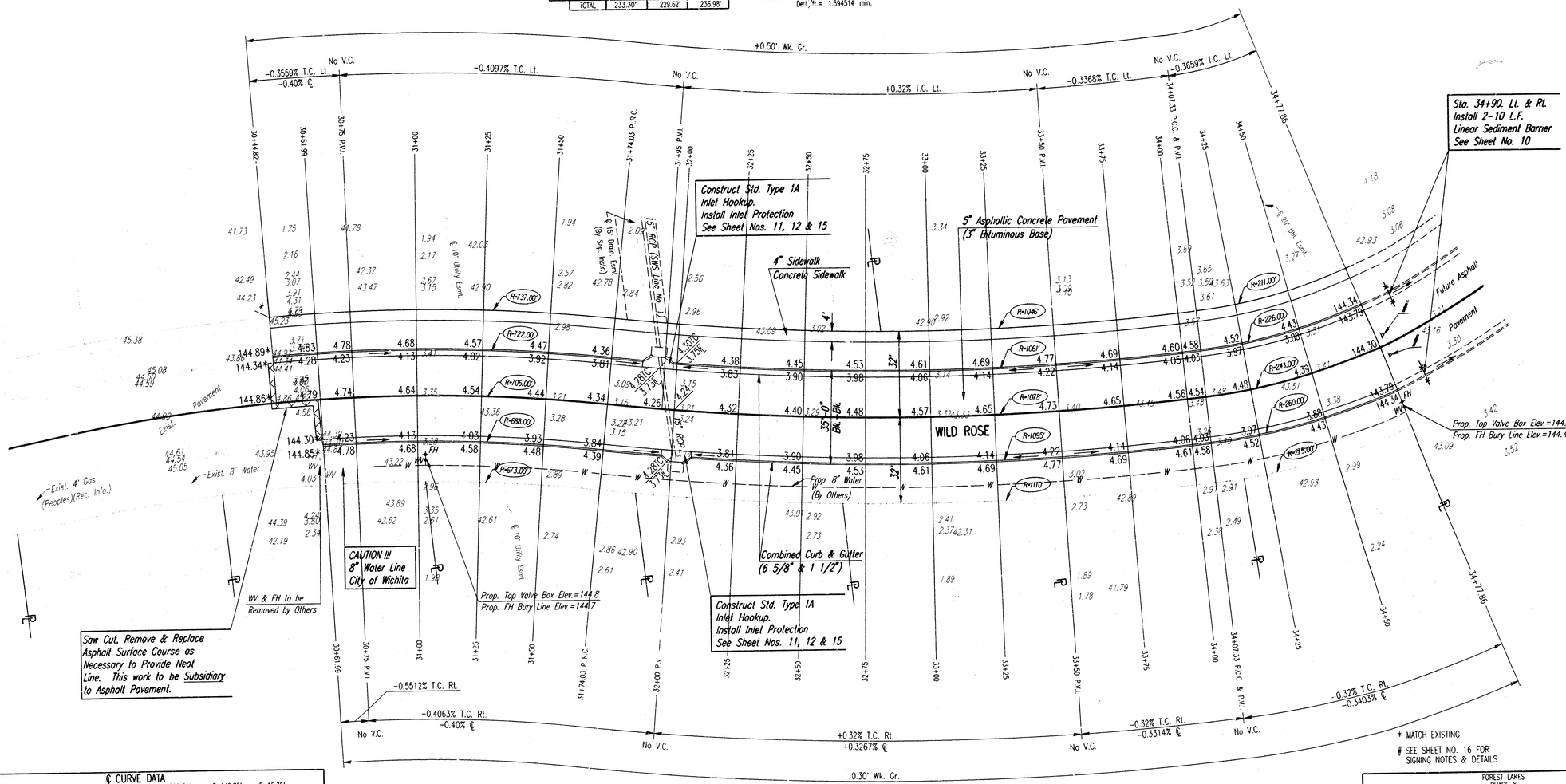
CURVE DATA BASED ON ℄ RADIUS Δ/2= 25°30'21.5"

℄ STATION	℄ ARC LENGTH	FACE CURB LENGTH LEFT CURB	FACE CURB LENGTH RIGHT CURB	CHORD LENGTH 8' OFF LEFT FACE CURB	CHORD LENGTH 8' OFF RIGHT FACE CURB	DEFLECTION ANGLE	℄ TOTAL DEFLECTION
34+07.33						0°00'00"	0°00'00"
34+25	17.67'	16.44'	18.90'	15.85'	19.48'	2°04'59"	2°04'59"
34+50	25.00'	23.25'	26.75'	22.42'	27.56'	2°56'50"	5°01'50"
34+77.86	27.86'	25.91'	29.81'	25.84'	30.88'	3°17'04"	8°18'54"
36+23.68	145.82'			133.39'	159.31'	17°11'28"	25°30'21.5"
TOTAL	216.35'	65.60'	75.46'			Defl./ft.= 7.073531 min.	

PROJECT NO.	SHEET NO.	TOTAL SHEETS
472-76-245-82326-000-000-001	5	18

WATER VALVE BOX ELEVATIONS

STREET	STATION	OFFSET	PROPOSED ELEVATION
WILD ROSE	31+03.21	24.0' Rt.	144.8
WILD ROSE	34+77.86	24.0' Rt.	144.5



℄ CURVE DATA

Δ=24°00'00" D=8°07'33" R=705.00' L=295.31' T=149.85' E=15.75'

CURVE DATA BASED ON ℄ RADIUS Δ/2= 12°00'00"

℄ STATION	℄ ARC LENGTH	FACE CURB LENGTH LEFT CURB	FACE CURB LENGTH RIGHT CURB	CHORD LENGTH 8' OFF LEFT FACE CURB	CHORD LENGTH 8' OFF RIGHT FACE CURB	DEFLECTION ANGLE	℄ TOTAL DEFLECTION
28+78.72						0°00'00"	0°00'00"
30+44.82	166.10'			171.59'	176.27'	6°44'58"	6°44'58"
30+61.99	17.17'	17.59'		17.78'		0°41'52"	7°26'50"
30+75	13.01'	13.32'	12.70'	13.47'	12.55'	0°31'43"	7°58'33"
31+00	25.00'	25.60'	24.40'	25.88'	24.11'	1°00'57"	8°59'30"
31+25	25.00'	25.60'	24.40'	25.88'	24.11'	1°00'57"	10°00'28"
31+50	25.00'	25.60'	24.40'	25.88'	24.11'	1°00'57"	11°01'25"
31+74.03	24.03'	24.61'	23.45'	24.88'	23.17'	0°58'35"	12°00'00"
TOTAL	295.31'	132.32'	109.35'			Defl./ft.= 2.438116 min.	

RECORD DRAWING
24 NOV 99

FOREST LAKES
PHASE X

WILD ROSE
STA. 30+44.82 TO STA. 34+77.86

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

Designed by	BER, GDD	Checked by	
Drawn by	BJS	Date NOV. 1997	Job No. 97852

5

usr/usth/dgn:1/1997/97852/str-30-35.dgn
date plotted: March 25, 1999
deliver to: Dwaine Dunn

SCALE: 1"=20'

Sta. 48+32, Lt. & Rt.
Install 2-10 L.F.
Linear Sediment Barrier
See Sheet No. 10

Construct Std. Type 1A
Inlet Hookup.
Install Inlet Protection
See Sheet Nos. 11, 12 & 15

Construct Std. Type 1A
Inlet Hookup.
Install Inlet Protection
See Sheet Nos. 11, 12 & 15

Prop. Top Valve Box Elev.=145.1

Prop. Top Valve Box Elev.=144.6
Prop. Flr. Bury Line Elev.=144.5

Sow Cut, Remove & Replace Asphalt Surface Course as Necessory to Provide Neat Line. This work to be Subsidiary to Asphalt Pavement.

5" Asphaltic Concrete Pavement
(3" Bituminous Base)

To Be Removed
By Others

Proposed 8" Water
(By Others)

Exist. 8" Water

Exist. Pavement

Exist. 2" Gas
(Peoples)(Rec. Info.)

Combined Curb & Gutter
(6 5/8" & 1 1/2")

CAUTION!!!
Exist. 2" Gas
Peoples Nat. Gas

FOREST LAKES

+0.32% T.C. Lt. & ℄
-0.32% T.C. Lt.
+0.4883% T.C. Lt.
+0.30' Wk. Gr.
-0.80% T.C. Lt.
-0.8923% ℄
+0.32% T.C. Rt.
-0.32% T.C. Rt.
-0.32% ℄
+0.4128% ℄
-0.8395% T.C. Rt.

℄ CURVE DATA

Δ=38°59'17" D=23°58'23" R=239.00' L=162.63' T=84.61' E=14.53'

CURVE DATA BASED ON ℄ RADIUS Δ/?= 19°29'38.5"

℄ STATION	℄ ARC LENGTH	FACE CURB LENGTH		CHORD LENGTH		DEFLECTION ANGLE	℄ TOTAL DEFLECTION
		LEFT CURB	RIGHT CURB	8" OFF LEFT FACE CURB	8" OFF RIGHT FACE CURB		
49+92.87	———	———	———	———	———	0°00'00"	0°00'00"
50+00	7.13'	6.70'	7.56'	6.47'	7.79'	0°51'17"	0°51'17"
50+25	25.00'	23.54'	26.46'	22.69'	27.29'	2°59'48"	3°51'05"
50+50	25.00'	23.54'	26.46'	22.69'	27.29'	2°59'48"	6°50'53"
50+75	25.00'	23.54'	26.46'	22.69'	27.29'	2°59'48"	9°50'41"
51+00	25.00'	23.54'	26.46'	22.69'	27.29'	2°59'48"	12°50'29"
51+25	25.00'	23.54'	26.46'	22.69'	27.29'	2°59'48"	15°50'17"
51+50	25.00'	23.54'	26.46'	22.69'	27.29'	2°59'48"	18°50'05"
51+55.50	5.50'	5.17'	5.84'	4.99'	6.01'	0°39'33"	19°29'38.5"
TOTAL	162.63'	153.11'	172.16'			Defl /ft.= 7.192041 min.	

WATER VALVE BOX ELEVATIONS

STREET	STATION	OFFSET	PROPOSED ELEVATION
FOREST LAKES	48+54.50	23.0' Rt.	145.1
FOREST LAKES	50+37.71	21.0' Lt.	144.6

PROJECT NO.	SHEET NO.	TOTAL SHEETS
472-76-245-82326-000-000-001	6	18

RECORD DRAWING
24 NOV 99

* MATCH EXISTING

Ⓢ 5' TRANSITION FROM PROPOSED CURB & GUTTER TO EXISTING CURB & GUTTER.

SEE SHEET NO. 16 FOR SIGNING NOTES & DETAILS

FOREST LAKES
PHASE X

FOREST LAKES
STA. 48+44.35 TO STA. 53+66.52

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

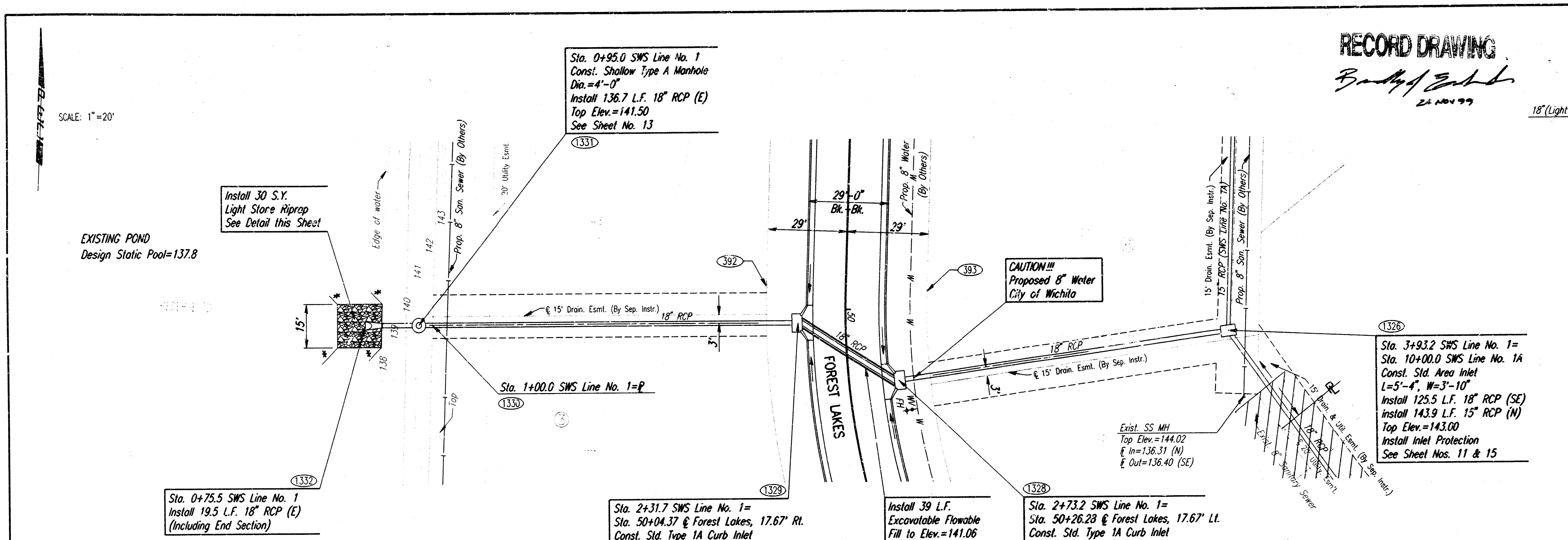
Designed by	BER, GDD	Checked by	
Drawn by	GJS	Date NOV. 1997	Job No. 97852

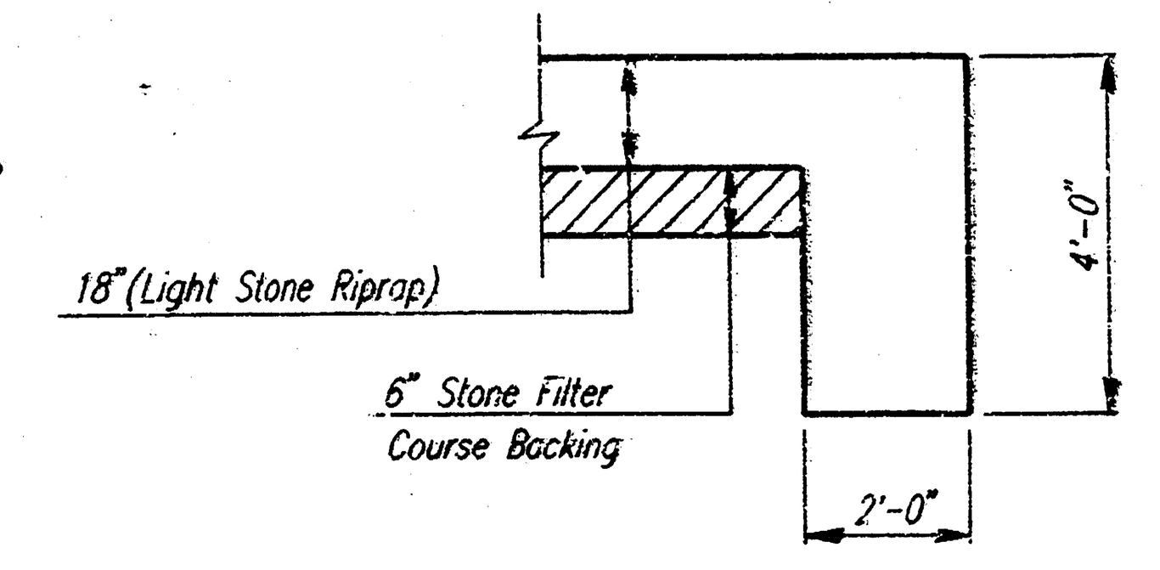
6

usr/ustn/dgn:I:/1997/97852/str48-54.dgn
date plotted:March 25,1999
deliver to:Dwaine Dunn

RECORD DRAWING

24 NOV 99





TYPICAL SECTION THRU TOEWALL

NO SCALE

NOTES

1. ALL RIPRAP FOR THIS PROJECT SHALL BE NATURAL STONE. NEITHER BROKEN CONCRETE, FABRIC ENVELOPE, NOR PREMIXED DRY PACKAGED CONCRETE BAG ALTERNATES WILL BE ALLOWED.
2. TOEWALLS SHALL BE INSTALLED ALONG EDGES OF STONE RIPRAP WHERE INDICATED IN NOTE BELOW.
3. GROUTING OF THE SURFACE OF THE RIPRAP SHALL NOT BE PERFORMED. GROUTING OF THE TOEWALLS SHALL BE PERFORMED PER CITY SPECIFICATIONS.

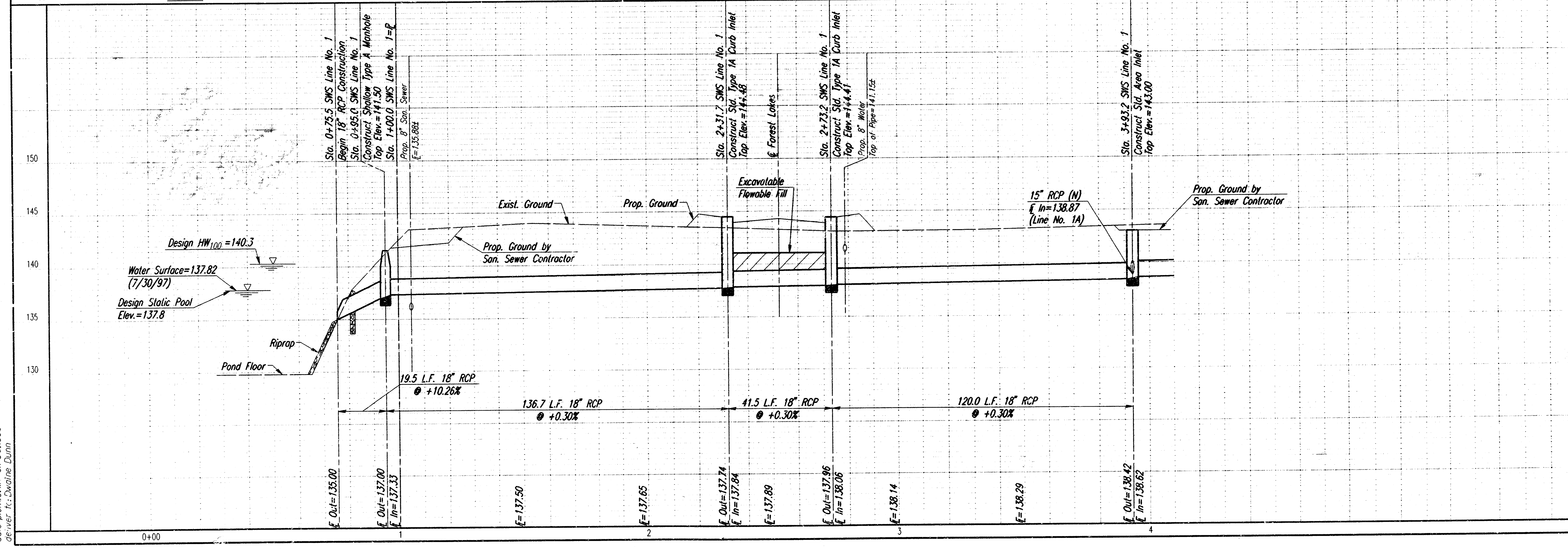
NOTE:
CONTRACTOR SHALL CONSTRUCT COFFERDAM AT OUTFALL LOCATION FOR SWS LINE NO. 1. ACTUAL LENGTH OF 18" RCP OUTFALL PIPE SHALL BE ADJUSTED AS DIRECTED BY THE ENGINEER WHEN EXISTING POND BANK CONFIGURATION IS EXPOSED. FLOWLINE OF OUTFALL AND TOP OF RIPRAP SHALL REMAIN AT THE ELEVATIONS SHOWN. RIPRAP ABOVE RCP ℄ SHALL BE INSTALLED WITH TOEWALLS PER DETAIL THIS SHEET. RIPRAP BELOW RCP FLOWLINE MAY BE DUMPED ON SURFACE OF EXISTING POND BANK AS DIRECTED BY THE ENGINEER. COST OF COFFERDAM AND ANY ADJUSTMENT IN PIPE LENGTH INCLUDING LABOR, TOOLS, EQUIPMENT, MATERIALS NECESSARY TO COMPLETE THE WORK SHALL BE SUBSIDIARY TO "LIGHT STONE RIPRAP".

* MATCH EXISTING

(243) = COORDINATE POINT NUMBER SEE SHEET NO. 9 FOR COORDINATE LIST.

NOTE:
EXISTING POND HAS A ROCK EROSION CONTROL BLANKET AT APPROXIMATELY THE STATIC POOL LEVEL. CONTRACTOR SHALL SALVAGE EXISTING MATERIAL AND REESTABLISH EROSION BLANKET FOLLOWING SWS CONSTRUCTION.

CONTRACTOR SHALL CONSTRUCT CLAY BACKFILL (PLUG) FROM BEGINNING OF 18" RCP TO MANHOLE. NO GRANULAR BACKFILL SHALL BE ALLOWED IN THIS AREA, EXCEPT TOP 6" WHICH MAY BE TOPSOIL. THIS WORK SHALL BE SUBSIDIARY TO 18" RCP.



usr/justin/dgn/1997/97852/sw.sln1.dgn
date plotted: March 30, 1999
driver file: Dwaine Dunn

FOREST LAKES PHASE X

SWS LINE NO. 1
STA. 0+75.5 TO STA. 3+93.2

C.O.W. PROJ. NO. 472-76-245-8232 C20-000-001

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

Job No. 97852 | Date NOV. 1997
Designed by BER, GDD | Drawn by JVS

Sheet 7 of 18

RECORD DRAWING
Bobby J. Eaton
24 Nov 99

SCALE: 1"=20'

Sta. 3+93.2 SWS Line No. 1
Std. Areo Inlet
1328

Exist. SS MH
Top Elev.=144.02
℄ In=136.31 (N)
℄ Out=136.40 (SE)

143.6
H.P.

℄ 15' Drain. Esmt. (By Sep. Instr.)

18" RCP

15" RCP (Line No. 1A)

Prop. 8" San. Sewer (By Others)

Grading by San. Sewer Contractor

CAUTION!!!
Prop. 8" San. Sewer
City of Wichita

Sta. 5+18.7 SWS Line No. 1
Const. Std. Areo Inlet
L=5'-4", W=3'-10"
Install 141.9 L.F. 15" RCP (NE)
Top Elev.=141.95
Install Inlet Protection
See Sheet Nos. 11 & 15
1325

Exist. 8" Sanitary Sewer

15' Drain. & Util. Esmt. (By Sep. Instr.)

15" RCP

Sta. 6+60.6 SWS Line No. 1=
Sta. 31+86.12 ℄ Wild Rose, 20.67' Lt.
Construct Std. Type 1A Curb Inlet
L=6'-4", W=4'-4"
Install 42.4 L.F. 15" RCP (NE)
Top Elev.=144.28
See Sheet Nos. 11 & 12
1309

WILD ROSE

32'

12'

35'-0"
Bk.-Gk.

Prop. 6" Water (By Others)

Sta. 7+03.0 SWS Line No. 1=
Sta. 32+02.00 ℄ Wild Rose, 20.67' Rt.
Construct Std. Type 1A Curb Inlet
L=6'-4", W=4'-4"
Top Elev.=144.28
See Sheet Nos. 11 & 12
1310

15" RCP

℄ 15' Drain. Esmt. (By Sep. Instr.)

Grade Easement at 2.00% to Daylight

310

305

Install 40 L.F.
Excavatable Flowable
Fill to Elev. 142.75

Limits of Easement (Varies)
Exist. Ground
4:1
4:1
Exist. Ground

EASEMENT GRADING SECTION

All Easement Grading by SWS Contractor shall be Subsidiary to SWS Pipes.

EASEMENT GRADING BY SWS CONTRACTOR

(243) = COORDINATE POINT NUMBER
SEE SHEET NO. 9
FOR COORDINATE LIST.

SCALE: 1"=20'

Sta. 3+93.2 SWS Line No. 1
Std. Areo Inlet

Prop. 8" San. Sewer
℄=136.35±

Sta. 5+18.7 SWS Line No. 1
Construct Std. Areo Inlet
Top Elev.=141.95

Sta. 6+60.6 SWS Line No. 1
Construct Std. Type 1A Curb Inlet
Top Elev.=144.28

℄ Wild Rose

Sta. 7+03.0 SWS Line No. 1
Construct Std. Type 1A Curb Inlet
Top Elev.=144.28

To Be Graded By San. Sewer Contractor

143.6
H.P.

Prop. Ground by SWS. Contractor

Existing Ground

Prop. Ground

Excavatable Flowable Fill

15" RCP (N)
℄ In=138.87
(Line No. 1A)

125.5 L.F. 18" RCP
@ +0.30%

141.9 L.F. 15" RCP
@ +0.38%

42.4 L.F. 15" RCP
@ +1.00%

℄ Out=138.42
℄ In=138.62

℄=138.79

℄=138.94

℄ Out=139.00
℄ In=139.25

℄=139.37

℄=139.56

℄=139.75

℄ Out=139.79
℄ In=139.89

℄ Out=140.31

150
145
140
135
130

3
4
5+00
6
7
8

FOREST LAKES
PHASE X

SWS LINE NO. 1
STA. 3+93.2 TO STA. 7+03.0

C.O.W. PROJ. NO. 472-76-245-8228-000-001

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
WICHITA, KANSAS

Job No.	
Designed by	BBR, GDD
Drawn by	BJS
Date	NOV. 1997

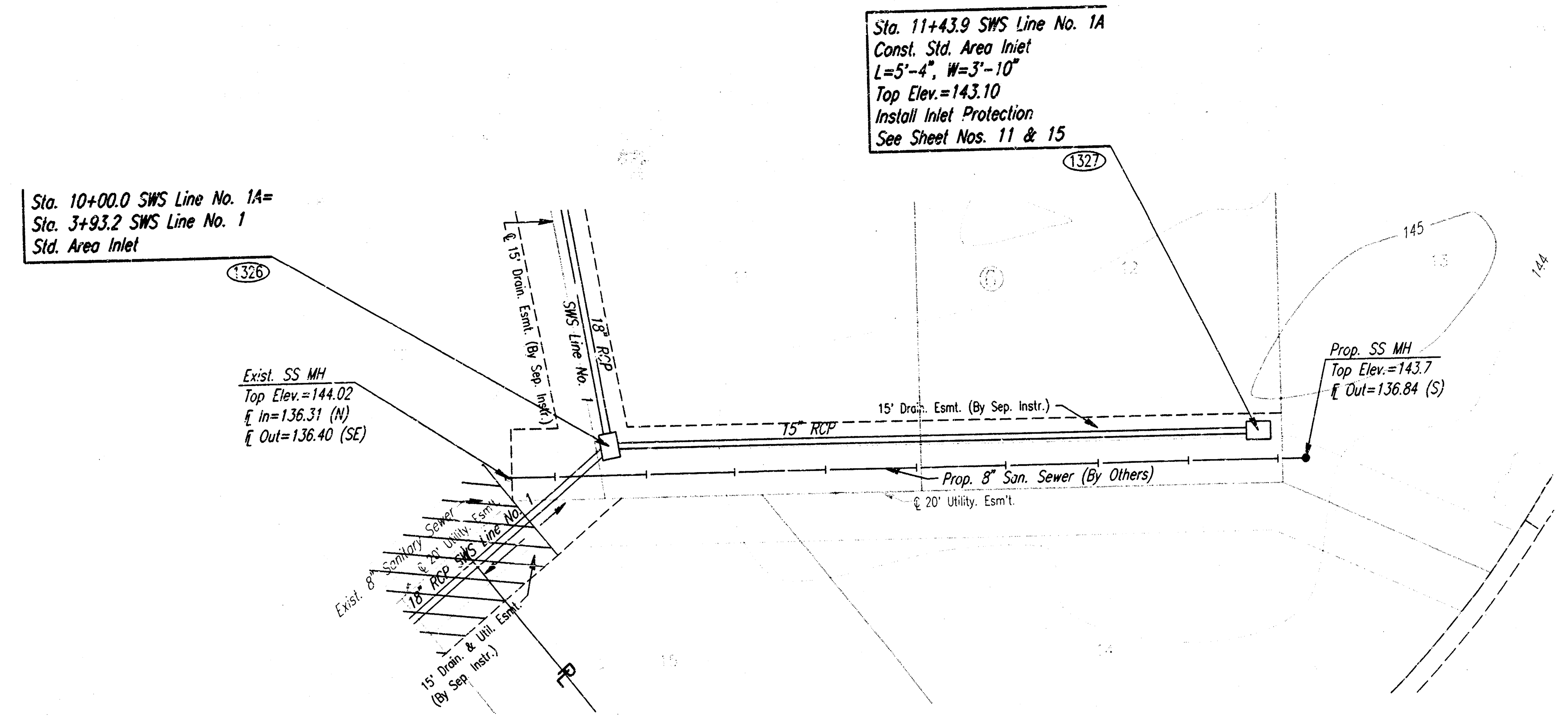
Sheet 8 of 18

usr/usth/dgn:1/1997/97852/swsln1-2.dgn
date plotted: March 31, 1999
delivered to: Dwaine Dunn

SCALE: 1"=20'

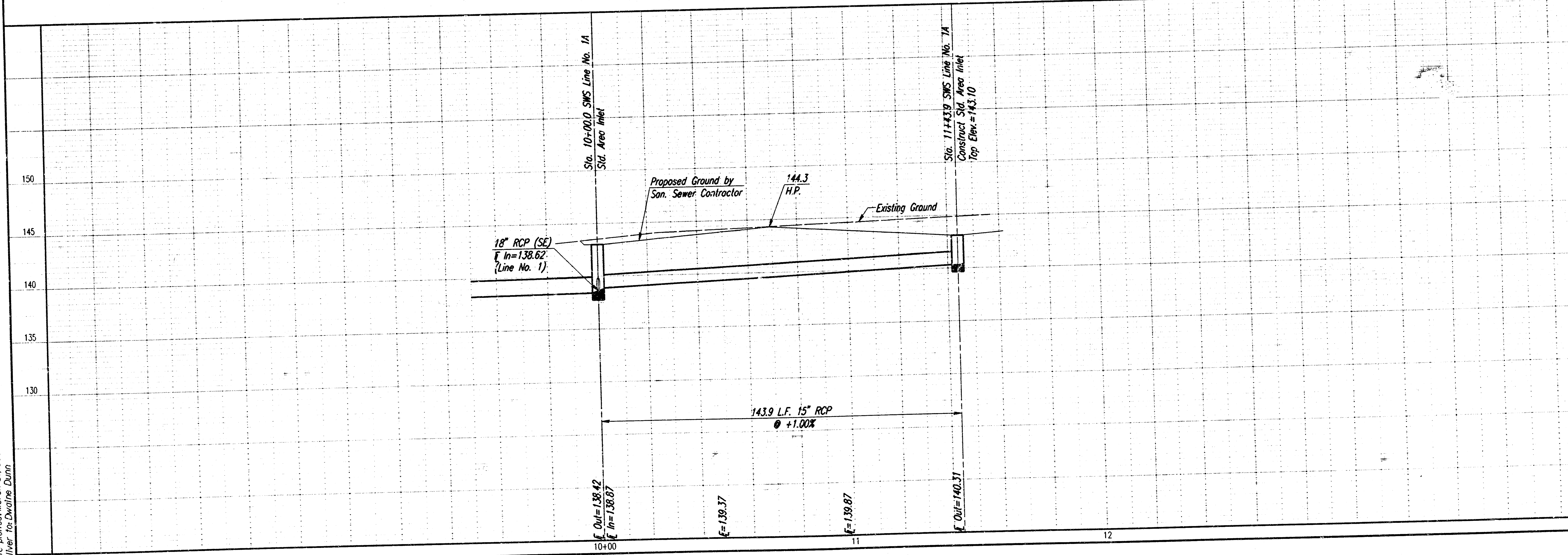
RECORD DRAWING

24 NOV 99



COORDINATE LIST		
POINT NO.	NORTH	EAST
305	8148.0836	7770.5870
310	8118.9704	7713.5921
392	8155.7317	7358.9220
393	8156.2075	7416.9201
1309	8140.0720	7715.36[illegible]
1310	8168.1499	7747.1992
1325	8049.8653	7605.7713
1326	8146.7585	7526.0178
1327	8290.6140	7524.8376
1328	8125.2890	7408.0032
1329	8143.4810	7370.6500
1330	8137.6037	7239.0667
1331	8137.3806	7234.0717
1332	8136.5105	7214.5911

(243) = COORDINATE POINT NUMBER



FOREST LAKES PHASE X

SWS LINE NO. 1A

STA. 10+00.0 TO STA. 11+43.9

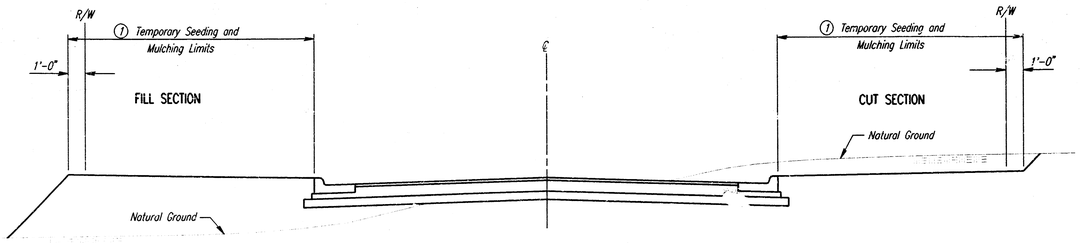
C.O.W. PROJ. NO. 472-76-245-82126-000-000-001

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

Job No. 97852
Date NOV. 1997
Designed by BER, CDD
Drawn by BJS

usr/ustn/dgn:1/1997/97852/swsin1a.dgn
date plotted: March 31, 1999
deliver to: Dwaine Dunn

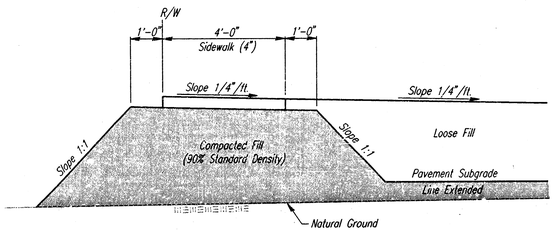
PROJECT NO.	SHEET NO.	TOTAL SHEETS
472-76-245-82326-000-000-001	10	18



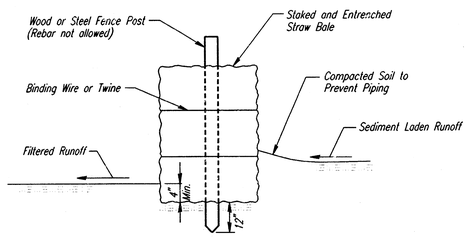
①Seed with Annual Rye at the rate of 4 lbs./1000 S.F.
Mulch with Hay at the rate of 90 lbs./1000 S.F.

SEDIMENT CONTROL
CURB AND GUTTEP STREET SECTION

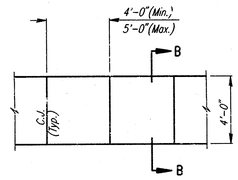
THE ITEM "TEMPORARY SEEDING AND MULCHING" SHALL BE MEASURED AND PAID FOR AT THE CONTRACT PRICE BID PER ACRE OR PER LUMP SUM, AS INDICATED IN THE PROPOSAL.



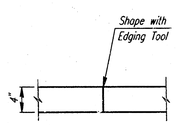
COMPACTED FILL DETAIL
WHERE SIDEWALK IS CONSTRUCTED
(See Plan Sheets for Locations)



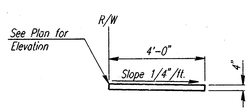
LINEAR SEDIMENT BARRIER
HAY/STRAW BALE OPTION



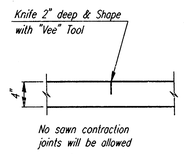
PLAN



CONSTRUCTION JOINT

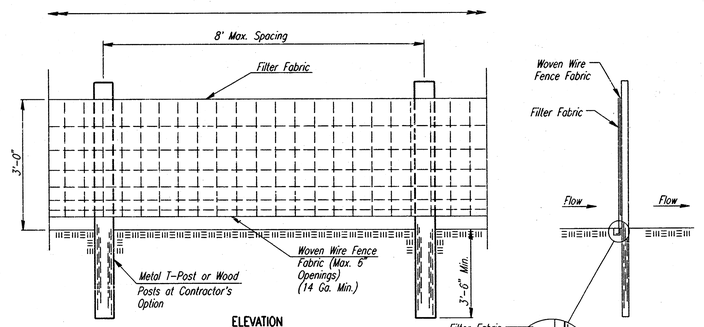


SECTION B-B



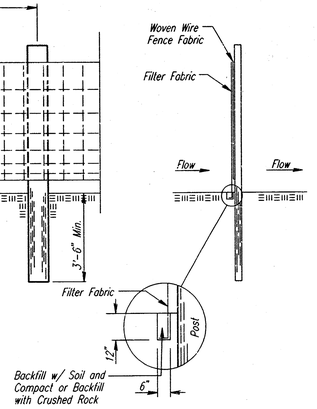
CONTRACTION JOINT

4" WALK DETAILS



ELEVATION

SEDIMENT BARRIER DETAILS
FENCE OPTION



ANCHOR TRENCH DETAIL

1. SEDIMENT BARRIERS SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. ADDITIONAL SEDIMENT BARRIERS WILL BE INSTALLED AT LOCATIONS AS DIRECTED BY THE ENGINEER WITH NO ADJUSTMENT IN UNIT PRICE.

2. 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.

3. 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.

4. BALES USED FOR SEDIMENT BARRIERS MAY BE EITHER HAY OR STRAW, PROVIDED THEY ARE SOUND AND INTACT.

5. TEMPORARY EROSION CONTROL BERMS AND/OR INTERCEPT DITCHES SHALL BE CONSTRUCTED AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. ADDITIONAL BERMS AND/OR DITCHES MAY BE REQUIRED AT NO ADJUSTMENT IN UNIT PRICE(S).

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

6. MEASUREMENT AND PAYMENT: THE ITEM "SEDIMENT BARRIEPS", "EROSION CONTROL INTERCEPT DITCH", "EROSION CONTROL BERM" AND "LINEAR SEDIMENT BARRIERS" SHALL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE BID PER LINEAL FOOT COMPLETE IN PLACE OF THE VARIOUS BID ITEMS SHOWN. SAID PRICE SHALL BE CONSIDERED FULL COMPENSATION FOR EXCAVATION, COMPACTION, BACKFILL, SEDIMENT AND DEBRIS REMOVAL AND DISPOSAL, AND ALL MATERIALS, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. RECONSTRUCTION OF EROSION CONTROL MEASURES WHICH ARE DESTROYED BY WIND, FLOOD, FIRE, OR BY THE ACTIONS OF THE CONTRACTOR OR OTHERS SHALL BE PERFORMED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST. WHERE ADJUSTMENTS IN QUANTITIES ARE REQUIRED BY FIELD CONDITIONS, THERE SHALL BE NO ADJUSTMENT IN UNIT PRICE.

THE ITEM "TEMPORARY SEEDING AND MULCHING" SHALL BE MEASURED AND PAID FOR AT THE CONTRACT PRICE BID PER ACRE OR PER LUMP SUM, AS INDICATED IN THE PROPOSAL.

RECORD DRAWING
24 NOV 99

FOREST LAKES
PHASE X

MISCELLANEOUS PAVING DETAILS

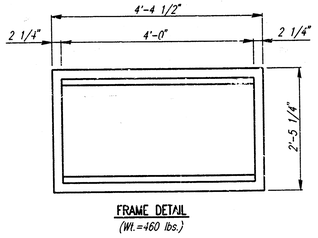
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

Designed by	BER, GDD	Checked by	
Drawn by	BJS	Date NOV. 1997	Job No. 97852

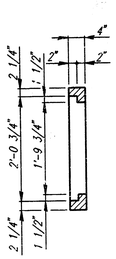
10

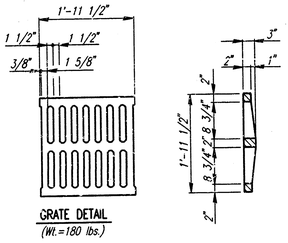
usr/justn/dgn: i:/1997/97852/miscdtl.dgn
date plotted: november 5, 1997
deliver to: dwane dunn

PROJECT NO.	SHEET NO.	TOTAL SHEETS
472-76-245-82326-000-000-001	11	18



FRAME DETAIL
(Wt.=460 lbs.)





GRATE DETAIL
(Wt.=180 lbs.)

GENERAL NOTES

CONCRETE SHALL BE C.O.W. STANDA[illegible] MIX. ALL EXPOSED EDGES SHALL BE FINISHED WITH AN APPROVED EDGING TOOL.

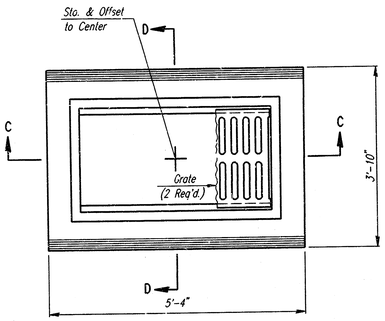
REINFORCING STEEL SHALL BE A MINIMUM GRADE 40, A.S.T.M. A615. ALL DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING ARE TO THE CENTERLINE OF BARS UNLESS OTHERWISE NOTED.

INLET 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.

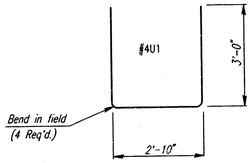
CONSTRUCTION REQUIREMENTS AND MATERIALS FOR MASONRY WALLS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

INLET FLOOR SHALL BE SHAPED WITH UNREINFORCED CONCRETE (8 SACK SAND MIX) TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

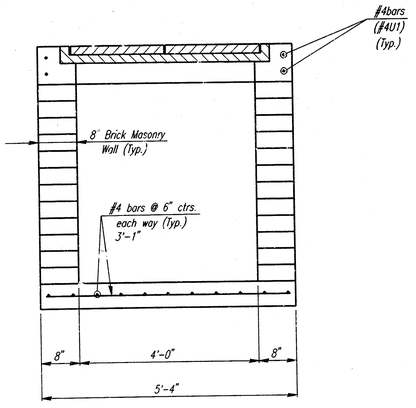
AREA INLETS SHALL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE BID PER EACH. THIS SHALL BE CONSIDERED FULL COMPENSATION FOR ALL EXCAVATION, BACKFILLING, MATERIALS, LABOR, CONNECTION TO EXISTING STRUCTURES (IF REQUIRED), EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK.



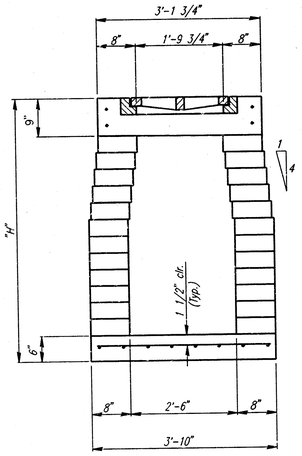
PLAN



BENDING DIAGRAM

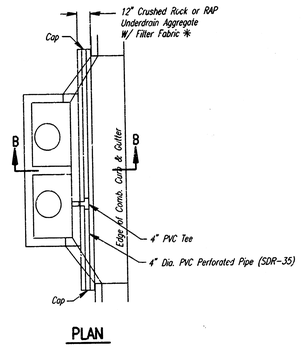


SECTION C-C



SECTION D-D

AREA INLET



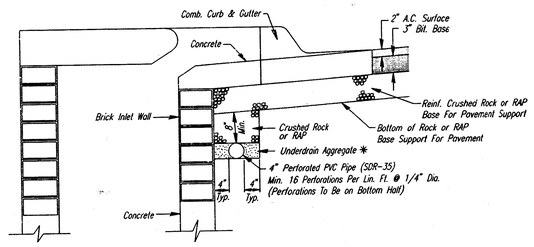
PLAN

* UNDERDRAIN AGGREGATE
PERCENT OF AGGREGATE RETAINED

1"	0
3/4"	0-10
3/8"	45-80
#4	90-100
#8	95-100

ROCK QUALITY SHALL CONFORM TO THE REQUIREMENTS SPECIFIED BY THE KDOT 1990 EDITION STANDARD SPECIFICATION SUBSECTION 1102 FOR DURABILITY CLASS 1.

PAVEMENT UNDERDRAIN LOCATIONS		
STREET	STATION	SIDE
WILD ROSE	31+66.12	Lt.
WILD ROSE	32+02	Rt.
FOREST LAKES	50+04.37	Rt.
FOREST LAKES	50+26.28	Lt.



SECTION B-B

PAVEMENT UNDERDRAIN DETAIL

NOTE: PLACE 4" PVC PERFORATED PIPE AT ALL DRAINAGE SUMP LOCATIONS

COST OF UNDERDRAIN SYSTEM TO BE INCIDENTAL TO THE REINFORCED CRUSHED ROCK OR REINFORCED RECYCLED ASPHALT PAVEMENT (RAP) BASE.

INLET TYPE MAY VARY FROM THAT SHOWN.

RECORD DRAWING
Bradley J. Eckert
24 NOV 99

FOREST LAKES
PHASE X

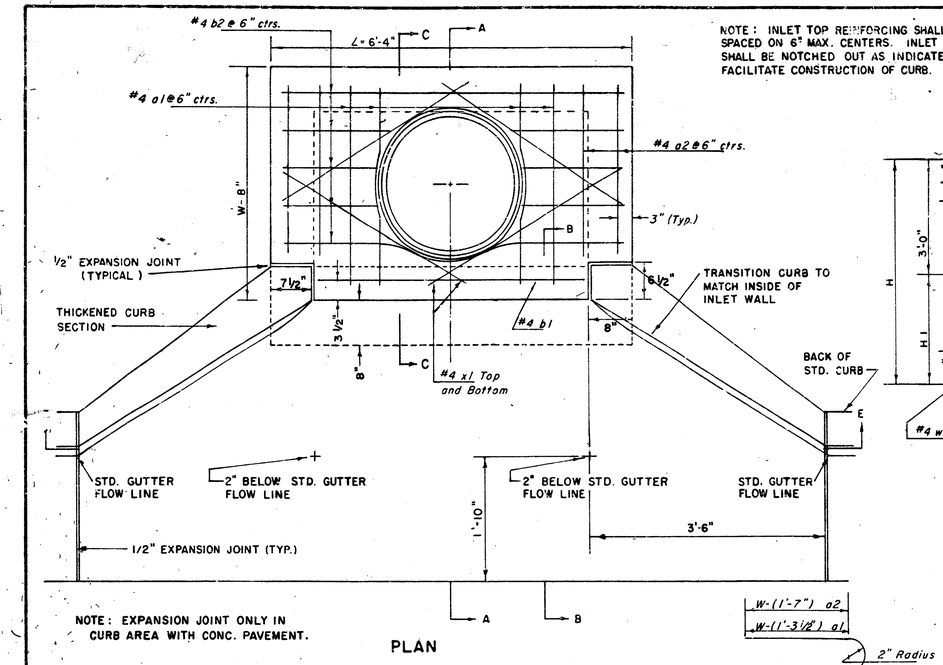
AREA INLET AND PAVEMENT UNDERDRAIN DETAILS

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

Designed by	BER, GDD	Checked by	
Drawn by	BJS	Date NOV. 1997	Job No. 97852

11

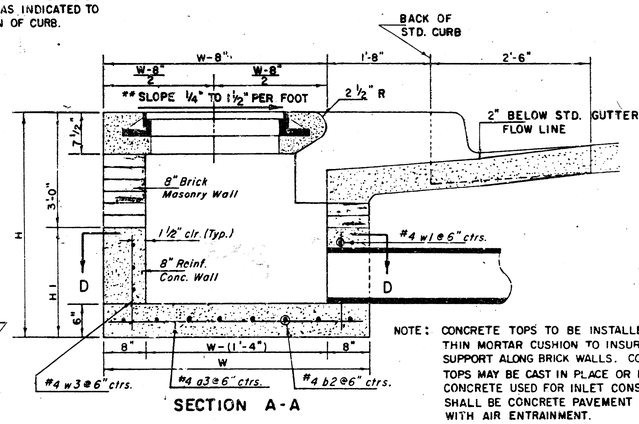
usr/astn/dgn: i:/1997/97852/inletdt2.dgn
date plotted: november 5, 1997
deliver to: dwaine dunn



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

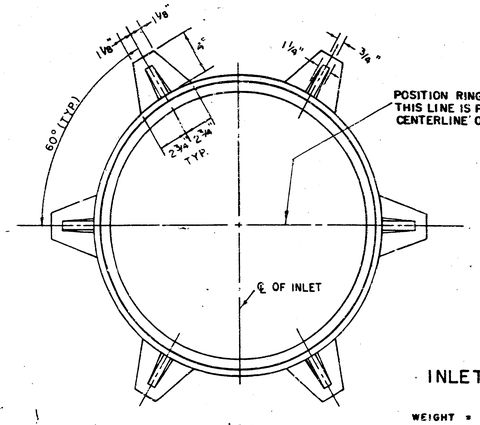
PLAN

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



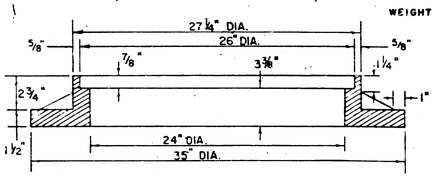
SECTION A-A

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.



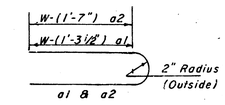
SEE CITY OF WICHITA STANDARD MANHOLE FRAME AND COVER DETAIL SHEET FOR COVER DETAILS TO BE USED WITH INLET FRAME.

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	8	3'-10"	8	4'-2"	8	4'-6"	8	4'-10"	8	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	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"	①	6'-1"
w2	#4	①	4'-1"	①	5'-1"	①	6'-1"	①	7'-1"	①	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"



BENDING DIAGRAM

STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4' 4"	3'8"x 6'4" x7 1/2"	21" & SMALLER	0.38 ±
5' 4"	4'8"x 6'4" x7 1/2"	24" & 30"	0.51 ±
6' 4"	5'8"x 6'4" x7 1/2"	36" & 42"	0.64 ±
7' 4"	6'8"x 6'4" x7 1/2"	48" & 54"	0.77 ±
8' 4"	7'8"x 6'4" x7 1/2"	60" & 66"	0.90 ±

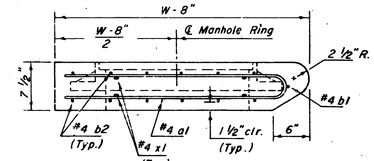
NOTE: CONTRACTOR SHALL HAVE THE OPTION OF CONSTRUCTING 8" BRICK MASONRY WALLS BETWEEN THE CONCRETE INLET BASE AND TOP ON THIS INLET WHEN W = 6'4" AND H = 7'0" OR LESS.

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.

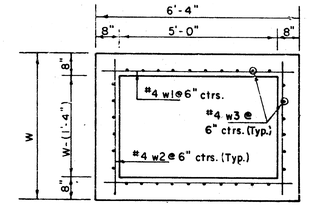
INLET INVERT SHALL BE SHAPED WITH 8 SACK SAND MIX CONCRETE TO CREATE FLOW CHANNELS AND TO INCREASE HYDRAULIC EFFICIENCY SUCH THAT THE INLET WILL BE SELF CLEANING BETWEEN ALL INLET AND/OR OUTLET PIPES.

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

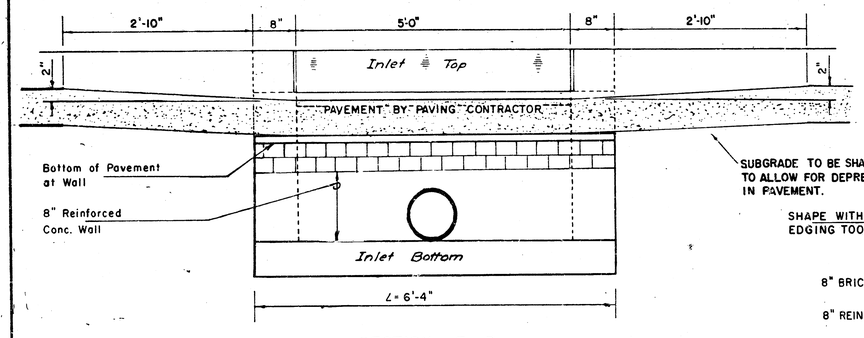
** NOTE: Slope of Inlet Tops to match Sidewalk or Parking Slopes within Limits indicated.



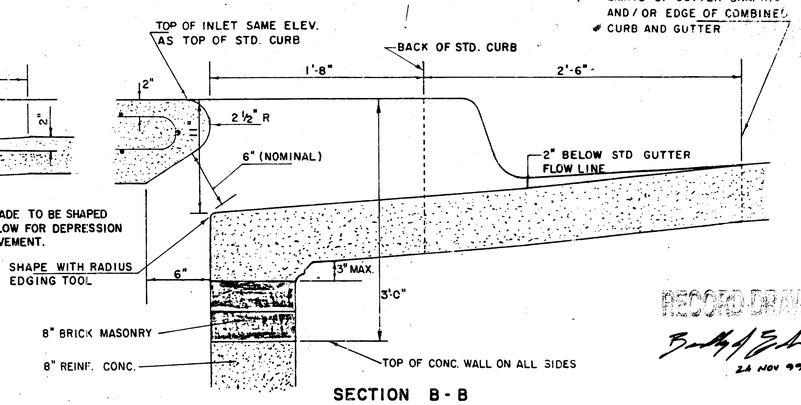
SECTION C-C



SECTION D-D



SECTION E - E



SECTION B - B

RECORD DRAWING
24 NOV 99

~~REVISED 11-30-1988~~
~~REVISED 12-21-1984~~ Revised 2-16-1989

DETAIL STANDARD TYPE IA CURB INLET

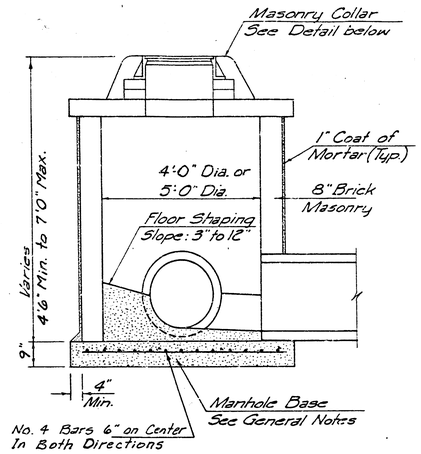
CITY OF WICHITA, KANSAS

INLET OPENING = 6" × 5'0"

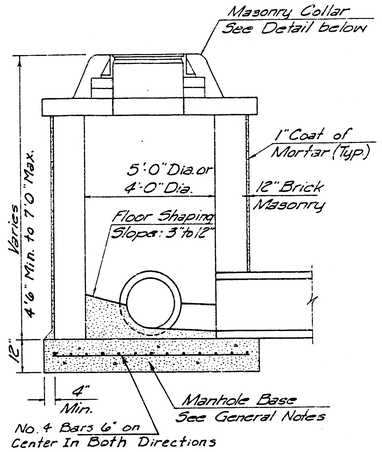
L = 6'-4"

JUNE 1984

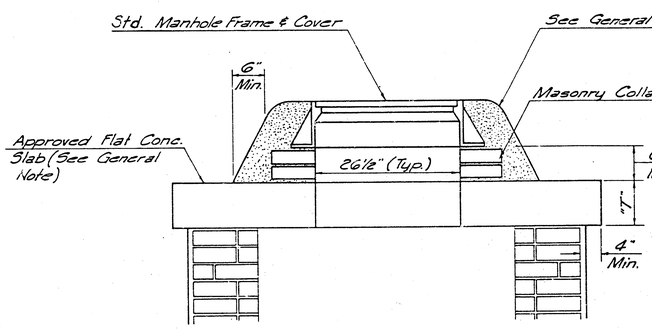
Proj. No. 472 76 245 82326 000 000 001



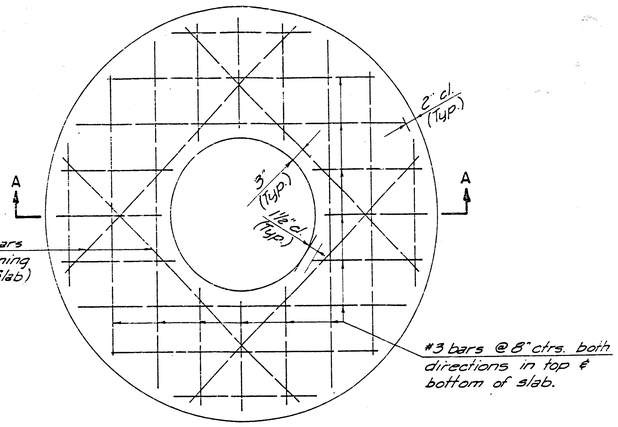
SHALLOW TYPE "A" MANHOLE



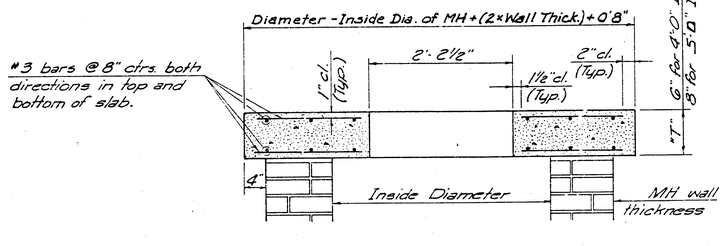
SHALLOW TYPE "B" MANHOLE



MASONRY COLLAR DETAIL



PLAN



SECTION A-A

FLAT CONCRETE SLAB DETAILS

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.

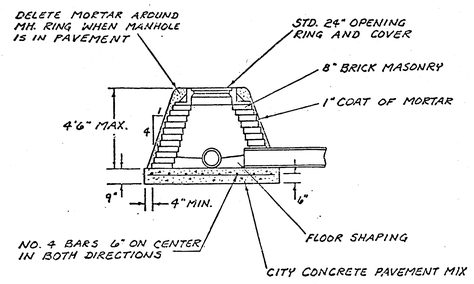
3. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE 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.

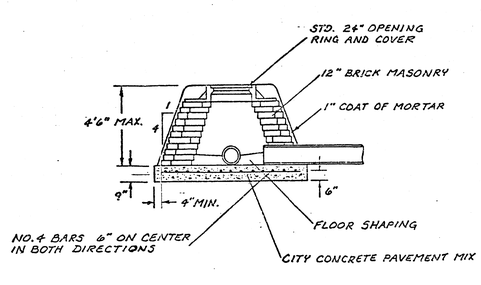
5. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWINGS.

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.



SPECIAL SHALLOW TYPE 'A' MANHOLE



SPECIAL SHALLOW TYPE 'B' MANHOLE

RECORD DRAWING
24 NOV 99

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

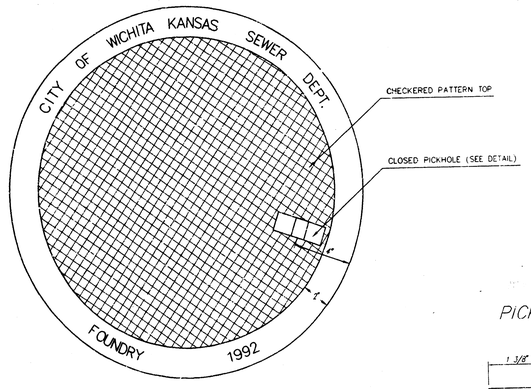
472 76 2458232G 000000 001

Designed by		Checked by		13
Drawn by		Date	Job No. 97852	

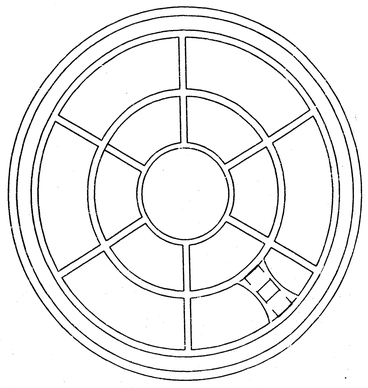
MANHOLE FRAME AND COVER DETAIL

ADOPTED AS STANDARD DESIGN BY
CITY OF WICHITA, KANSAS

MANHOLE COVER
Weight = 180 Lbs.

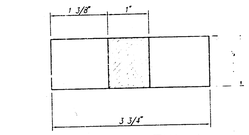


TOP VIEW

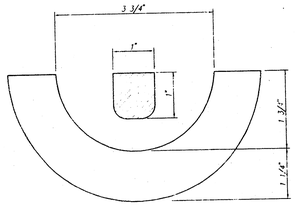


BOTTOM VIEW

PICKHOLE DETAIL

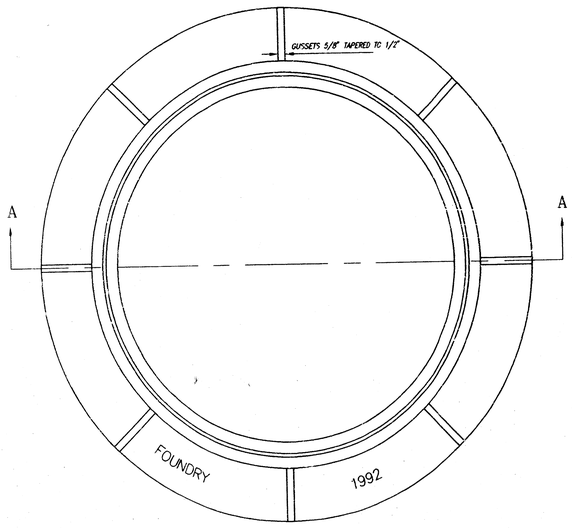


TOP VIEW

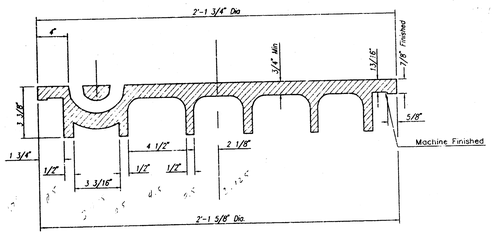


SECTION VIEW

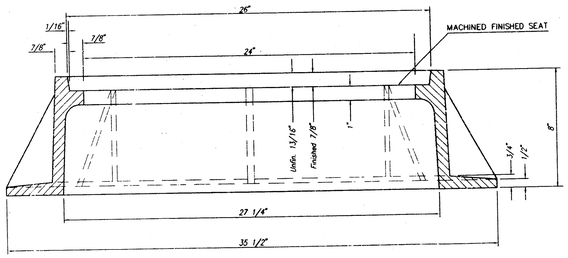
MANHOLE FRAME
Weight = 240 Lbs.



TOP VIEW



SECTION VIEW



SECTION A-A

GENERAL NOTES

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.

MANHOLE CASTINGS SHALL BE MANUFACTURED SUCH THAT A COVER MANUFACTURED BY ANY ONE FOUNDARY 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.

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 AS THESE SURFACES SHALL MAKE FULL CONTACT FOR THEIR FULL CIRCUMFERENCE TO PRECLUDE THE COVER FROM ROCKING IN THE FRAME.

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 INCH 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.

MANHOLE CASTINGS SHALL WEIGH A MINIMUM OF 180 POUNDS ON THE SOLID COVER AND 240 POUNDS ON THE MANHOLE RING. THIS IS A TOTAL OF 420 POUNDS ON A RING AND COVER SET. CASTINGS WEIGHING LESS THAN THE MINIMUM SPECIFICATIONS WILL NOT BE ACCEPTED.

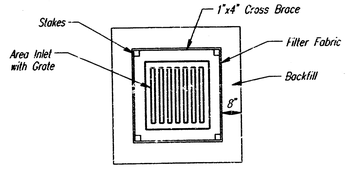
TO INSURE CONFORMANCE TO TENSILE STRENGTH REQUIREMENTS ALL CASTINGS SHALL BE JULIAN HEAT DATED WITH THE FOLLOWING REQUIREMENTS:

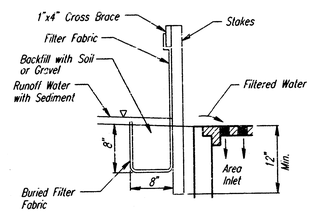
TWO TEST BAR SPECIMENS MUST BE POURED WHEN PRODUCING CITY OF WICHITA CASTINGS. ONE OF THE TEST BAR SPECIMENS SHALL BE SENT TO AN INDEPENDENT LABORATORY FOR TENSILE STRENGTH VERIFICATION TESTING. A TEST REPORT SHALL ACCOMPANY EACH SHIPMENT OF CASTINGS. THE HEAT DATE(S) ON THE CASTINGS SHALL RESPOND TO THE TENSILE STRENGTH REPORT(S). THE TEST REPORT WILL BE PAID FOR BY THE SUPPLIER. THE REMAINING TEST BAR SPECIMEN WILL BE SHIPPED TO SEWER MAINTENANCE AT 715 W. HARRY, WICHITA, KANSAS 67213.

APPROVED
24 NOV 99

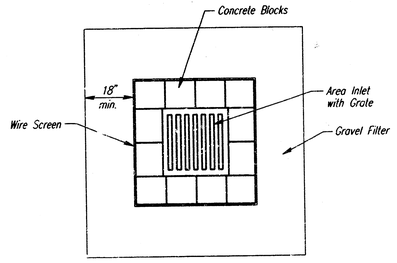
MANHOLE FRAME AND COVER DETAIL ADOPTED AS STANDARD DESIGN BY CITY OF WICHITA, KANSAS	
CITY OF WICHITA, KANSAS M. E. LINDEBAK – CITY ENGINEER	REVISED 6/27/95
PROJ. NO. 472-76-245-82336-000-000-001	SHEET 14 OF 18

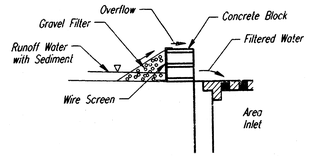
PROJECT NO.	SHEET NO.	TOTAL SHEETS
472-76-245-82326-000-000-001	15	18



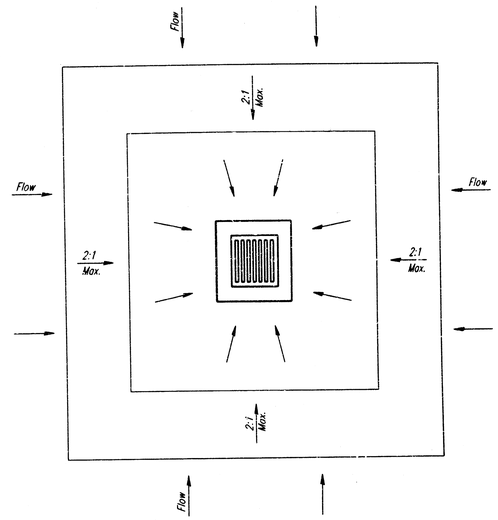


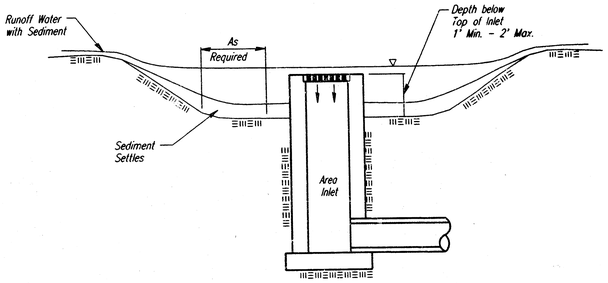
AREA INLET PROTECTION
FILTER FABRIC





AREA INLET PROTECTION
BLOCK AND GRAVEL FILTER

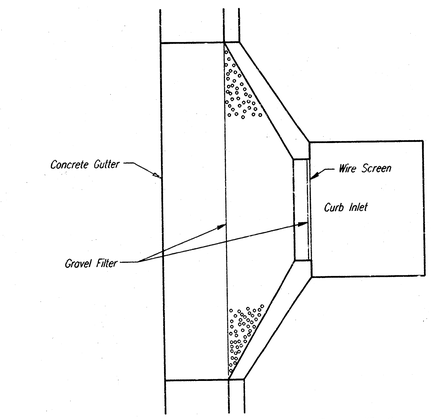




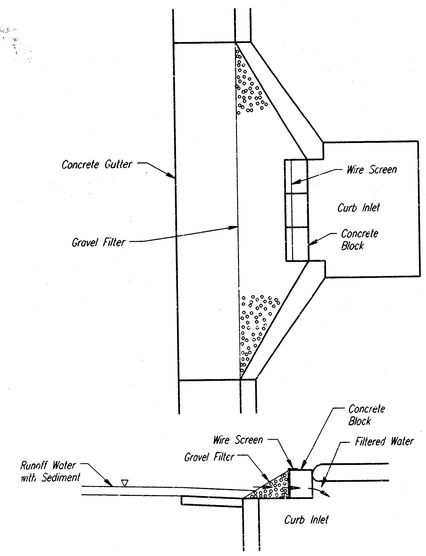
AREA INLET PROTECTION
EXCAVATED AREA INLET
SEDIMENT TRAP

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

NOTE: INLET SIZE MAY VARY FROM THAT SHOWN.



CURB INLET PROTECTION
GRAVEL AND WIRE MESH FILTER



CURB INLET PROTECTION
BLOCK AND GRAVEL FILTER

GENERAL NOTES
INLET PROTECTION

1. INLET PROTECTION METHOD MAY BE ANY OF THE APPLICABLE TYPES SHOWN, AT THE CONTRACTORS OPTION.
2. 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.
3. FILTER FABRIC, WHERE USED, 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.
4. 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.
5. 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 BY THE DEVELOPER.
6. MEASUREMENT AND PAYMENT: THE ITEM "INLET PROTECTION" SHALL BE MEASURED AND PAID FOR AT THE CONTRACT UNIT PRICE BID PER EACH FOR EACH INLET LOCATION PROTECTED REGARDLESS OF METHOD SELECTED BY THE CONTRACTOR. SAID PRICE SHALL BE CONSIDERED FULL COMPENSATION FOR EXCAVATION, COMPACTION, BACKFILL, SEDIMENT, AND DEBRIS REMOVAL AND DISPOSAL, AND ALL LABOR, MATERIALS, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. RECONSTRUCTION OF INLET PROTECTION INSTALLATION DUE TO DAMAGE BY WIND, FLOOD, FIRE, ETC. OR DUE TO ACTIONS BY THE CONTRACTOR OR OTHERS SHALL BE PERFORMED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST.

RECORD DRAWING
24 NOV 99

REVISED 1/95

FOREST LAKES
PHASE X

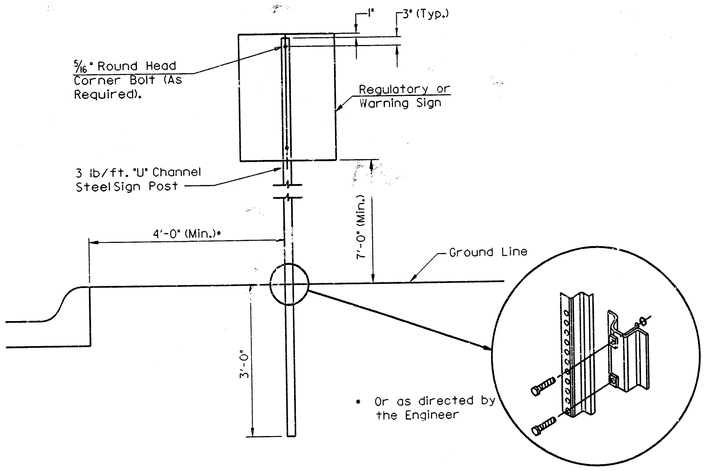
INLET PROTECTION DETAILS

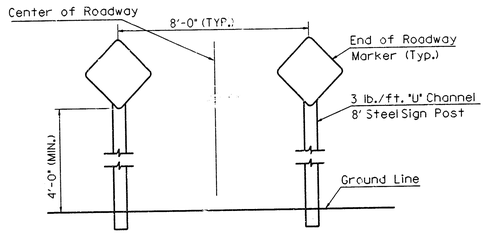
PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS

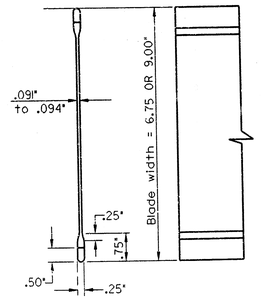
Designed by	BER, GDD	Checked by	
Drawn by	BJS	Date NOV. 1997	Job No. 97852

15

i: 1997/97852/ersdtl2.dgn
date plotted: March 31, 1999
deliver to: Dwaine Dunn







PROJECT NO.	SHEET NO.	TOTAL SHEETS
472-76-245-82326-000-000-001	16	18

TYPICAL TRAFFIC CONTROL SIGN MOUNTING INSTALLATION

CURB AND GUTTER SECTION

TYPICAL END OF ROADWAY SIGN MOUNTING INSTALLATION

STREET NAME SIGN

BLADE DETAILS

STREET	STATION	OFFSET	SIGN	QUANTITY ≠
WILD ROSE	34+80	4' Lt. & 4' Rt.	EOR	2
FOREST LAKES	48+42	4' Lt. & 4' Rt.	EOR	2
TOTAL				4

≠ FOR INFORMATION ONLY

DETAIL A

6 3/4" STANDARD

TYPE I BARRICADE DETAIL W/ E.O.R. MARKER

STREET NAME	NO. BLADES REQ'D.	
	6 3/4" STD.	9" METRO

DETAIL B

9" METRO

TYPICAL STREET NAME SIGN MOUNTING INSTALLATION

CURB AND GUTTER SECTION

NOTE: REFERENCES BELOW TO "STANDARD SPECIFICATIONS" DENOTE "STANDARD SPECIFICATION FOR STATE ROAD AND BRIDGE CONSTRUCTION EDITION 1990" BY THE KANSAS DEPARTMENT OF TRANSPORTATION.

1. POST ANCHORS: POSTS SHALL BE ANCHORED WITH A YIELDING BASE POST SUPPORT AS DETAILED.

2. POSTS FOR TRAFFIC CONTROL SIGNS: POSTS SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 1620 OF THE STANDARD SPECIFICATIONS EXCEPT THAT ALL POSTS SHALL WEIGH 3 LBS./FOOT MINIMUM.

3. POSTS FOR STREET NAME SIGNS (SNS): POSTS SHALL BE 9 FEET LONG, CONSTRUCTED FROM 2 3/8" O.D. GALVANIZED STEEL PIPE WEIGHING A MINIMUM OF 3 LBS./FOOT. POSTS SHALL BE POSITIONED SO THAT THE BOTTOM BLADE IS 7 FEET ABOVE GRADE.

4. POSTS FOR END OF ROADWAY SIGN TO BE 8' LONG AND INSTALLED A MINIMUM OF 4' FROM ROADWAY TO BOTTOM OF SIGN.

5. SIGN BLANKS FOR TRAFFIC CONTROL SIGNS: SIGN BLANKS SHALL BE FABRICATED FROM 0.080" ALUMINUM ALLOY 6063-T6 CONFORMING TO THE REQUIREMENTS OF SUBSECTION 1626 OF THE STANDARD SPECIFICATIONS.

6. SIGN BLADES FOR STREET NAME SIGNS: EXTRUDED ALUMINUM BLADES SHALL BE ALUMINUM ALLOY CONFORMING TO 6063-T6 OR 5052-H38 (ASTM SPECIFICATION B221, LATEST ISSUE). BLADES SHALL HAVE AN ALODINE OR PHOSPHATE ETCHED FINISH. BLADES SHALL HAVE SQUARE CORNERS AND NO HOLES.

   MINIMUM BLADE LENGTH SHALL BE 24". MAXIMUM BLADE LENGTH SHALL BE 48". LENGTH VARIES BY INCREMENTS OF 6".

   BLADES BEARING THE STREET NAMES SHALL BE FIRMLY ATTACHED TO THE MOUNTING BRACKETS USING ALLEN-TYPE SET SCREWS. THE BLADES SHALL BE ORIENTED PARALLEL TO THE STREET.

7. MOUNTING BRACKETS FOR SIGNS: DIE-CAST ALUMINUM BRACKETS SHALL BE ALUMINUM ALLOY 360 HAVING A TENSILE STRENGTH OF 44,000 PSI. THE BRACKETS SHALL BE SMOOTHLY FINISHED FREE OF PITS, BURRS, AND FLAWS. EACH BRACKET SHALL BE TAPPED AND DRILLED FOR 5/16" ZINC-PLATED ALLEN-TYPE SET SCREWS HAVING SELF-LOCKING SAW-TOOTH ENDS.

8. FASTENERS: ALL STEEL FASTENERS FOR TRAFFIC CONTROL SIGNS SHALL BE GALVANIZED AND SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 1614 OF THE STANDARD SPECIFICATIONS.

9. REFLECTIVE SHEETING: REFLECTIVE SHEETING SHALL BE TYPE II - HIGH PERFORMANCE CLASS HA IN ACCORDANCE WITH SUBSECTION 2201 OF THE STANDARD SPECIFICATIONS.

10. PROCESS INK: ALL PROCESS INK SHALL CONFORM TO THE REQUIREMENTS OF SUBSECTION 2202 OF THE STANDARD SPECIFICATIONS.

11. DETAILS: REGULATORY AND WARNING SIGNS SHALL CONFORM TO THE DETAILS IN "STANDARD HIGHWAY SIGNS", FHWA, 1979.

12. DETAILS - SNS: THE REFLECTIVE SHEETING FOR THE 6 3/4" STANDARD SIZE SNS IS TO BE THE HIGHWAY GREEN BACKGROUND WITH SILVER-WHITE #2 COPY WITH 4" UPPER CASE AND LOWER CASE PRIMARY COPY AND SUFFIX COPY. BOTH SERIES "C". FACES TO TRIM TO A 6 1/4" WIDTH. (SEE DETAIL A.)

    THE REFLECTIVE SHEETING FOR THE 9" METRO SIZE SNS IS TO BE THE HIGHWAY GREEN BACKGROUND WITH SILVER-WHITE #2 COPY WITH 5" UPPER CASE AND LOWER CASE PRIMARY COPY AND SUFFIX COPY, BOTH SERIES "C". THE CARDINAL DIRECTION CENTERED DIRECTLY BELOW THE BLOCK NUMBER SHALL BE AN UPPER CASE, 3" SERIES "C" LETTER. FACES TO TRIM TO A 8 1/2" WIDTH. (SEE DETAIL B.)

    FOR CUL-DE-SAC STREETS, A 9" METRO SIZE BLADE SHALL BE USED WITH THE HOUSE NUMBERS DISPLAYED BENEATH THE STREET NAME. LETTERING TO BE THE SAME AS FOR THE 6 3/4" SIZE BLADE, EXCEPT THAT THE HOUSE NUMBER INFORMATION SHALL BE 4" SERIES "C".

    SHOP DRAWINGS OF LAYOUT FOR SNS SHALL BE SUBMITTED TO THE TRAFFIC ENGINEERING DIVISION OF THE CITY OF WICHITA FOR APPROVAL PRIOR TO FABRICATION. THE FINISHED SIGNS AS SUPPLIED SHALL BE OF GOOD APPEARANCE, FREE FROM RAGGED EDGES, CRACKS SCALES OR BLISTERS AND SHALL BE CLEAN-CUT. SIGNS SHALL BE PACKED IN SUCH MANNER AS TO PREVENT DAMAGE OR DEFACEMENT DURING SHIPMENT OR STORAGE.

13. PERMANENT TRAFFIC CONTROL AND SNS: PERMANENT TRAFFIC CONTROL AND SNS SHALL BE MEASURED AND PAID FOR AT THE LUMP SUM PRICE FOR SIGNING. THE PAYMENT AS SET FORTH ABOVE SHALL BE CONSIDERED FULL COMPENSATION FOR ALL EXCAVATION, BACKFILLING. POSTS, ANCHORS, FASTENERS, MATERIALS, LABOR, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK.

RECORD DRAWING

24 NOV 99

SIGNING DETAILS

SCALE: NONE
DRAWN BY: TM
APPROVED BY
DATE: JUNE '93
REVISED: JUNE '97

CITY OF WICHITA
DEPARTMENT OF PUBLIC WORKS
TRAFFIC ENGINEERING SECTION

I:/1997/97852/signdtl.dgn
date plotted: March 25, 1999
deliver to: Dwaine Dunn

FOREST LAKES
Phase X

Proj. No. 472 76 245 82 336 000 000 001

RECORD DRAWING

Sheet No. 17 of 18

50 40 30 20 10 ℄ Match 10 20 30 40 50

145 — 53+66.52 — 140 — C=14 — CF=0 LF=0 — 18.87' Exc.=8 CF=0 LF=9

144.91

145 — 53+47.65 — 140 — Ahead C=9 — CF=0 LF=25 — Back C=23 — CF=0 LF=25 — 47.65' Exc.=20 CF=46 LF=99

145.34

145 — 53+00 — 140 — C=0 — CF=52 LF=80 — 50' Exc.=0 CF=88 LF=144

145.18

145 — 52+50 — 140 — C=0 — CF=43 LF=76 — 50' Exc.=0 CF=78 LF=137

145.02

145 — 52+00 — 140 — C=0 — CF=41 LF=72 — 44.50' Exc.=0 CF=66 LF=121

144.88

145 — 51+55.50 — 140 — C=0 — CF=39 LF=75 — 55.50' Exc.=0 CF=51 LF=137

144.69

145 — 51+00 — 140 — C=0 — CF=11 LF=58 — 50' Exc.=1 CF=19 LF=105

144.52

145 — 50+50 — 140 — C=1 — CF=10 LF=55 — 50' Exc.=4 CF=12 LF=94

144.35

145 — 50+00 — 140 — C=3 — CF=3 LF=46 — 50' Exc.=5 CF=6 LF=88

144.49

145 — 49+50 — 140 — C=2 — CF=4 LF=49 — 50' Exc.=3 CF=9 LF=95

144.67

145 — 49+00 — 140 — C=1 — CF=6 LF=54 — 35.65' Exc.=3 CF=8 LF=104

144.59

145 — 48+44.35 — C=2 — CF=2 LF=47 — Exc.=44 C.Y. CF=383 C.Y. LF=1,127 C.Y.

50 40 30 20 10 ℄ 10 20 30 40 50

FOREST LAKES Sta. 48+44.35 to Sta. 53+66.52

RECORD DRAWING

Sheet No. 18 of 18

18-13-01-15

FOREST LAKES Phase X

Proj. No. 472 76 345 8328 000 000 01