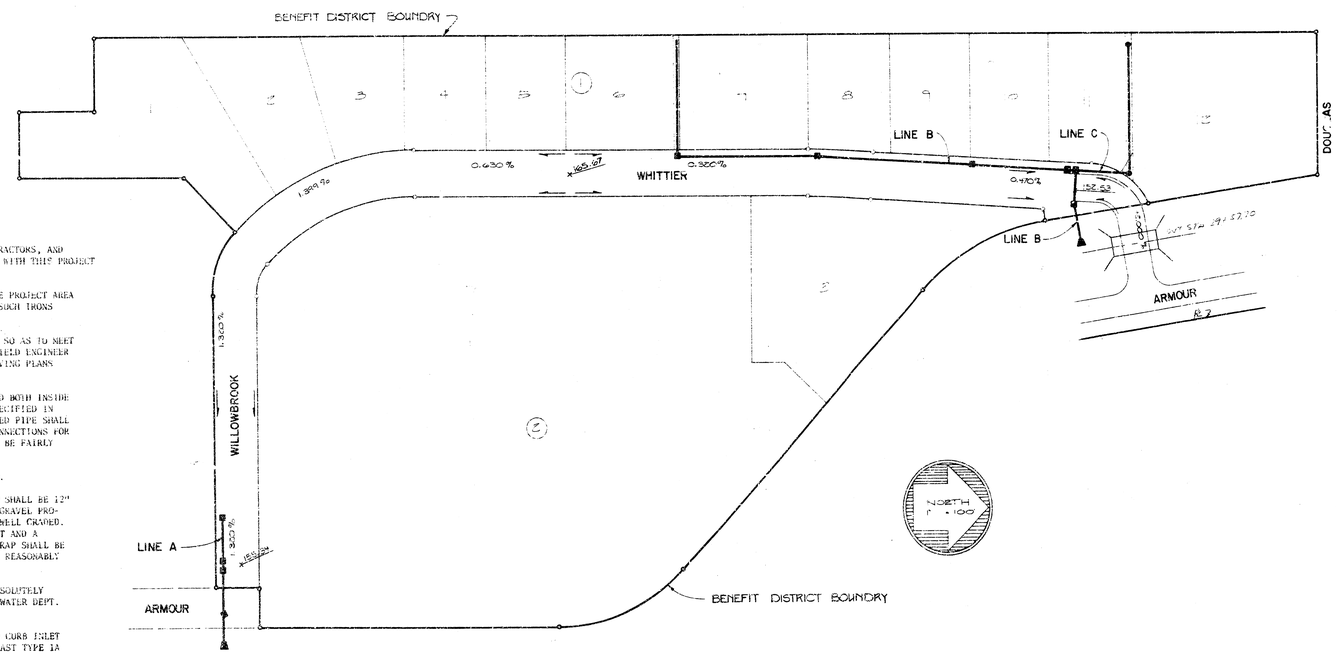
STORM WATER SEWER NO. 165 - PART I

STORM WATER SEWER IN ROCKWOOD So. 5TH ADD.

CITY OF WICHITA KS.
DEAN SELLERS, ACTING CITY ENGINEER
BY LAW/ KINGDON P.A., WICHITA, KANSAS
PROJ. NO. 468-76-245-80786-000-000-001
DATE:



GENERAL NOTES

1. CONTRACTOR SHALL COORDINATE WORK WITH PAVING AND SANITARY CONTRACTORS, AND CONTACT RELEVANT UTILITY COMPANIES AND OTHER AGENCIES INVOLVED WITH THIS PROJECT SITE DEVELOPMENT.

2. FIELD ENGINEER SHALL TAKE TIES TO ALL IRONS AND THIMBLES IN THE PROJECT AREA BEFORE CONSTRUCTION BEGINS. FIELD ENGINEER SHALL REPLACE ALL SUCH IRONS AND THIMBLES DISTURBED DURING CONSTRUCTION

3. THE TOPS OF INLETS AND MANHOLES AS NOTED ON THE PLANS MAY VARY SO AS TO MEET PROPOSED TOP OF CURB ELEVATIONS OR PAVEMENT ELEVATIONS. THE FIELD ENGINEER SHALL LOCATE INLETS AND MANHOLES WITH REFERENCE TO PROPOSED PAVING PLANS OF THE PERTINENT STREETS.

4. ALL METAL PIPES SHALL BE HELICALLY CORRUGATED PIPE FULLY COATED BOTH INSIDE AND OUTSIDE. THE COATING SHALL BE BITUMINOUS OR POLYMERIC AS SPECIFIED IN AASHTO DESIGNATION: M-36-78, TYPE B. ALL SUCH COATED CORRUGATED PIPE SHALL BE SMOOTH FLOW PIPES FOR SIZES 24" DIAMETER OR LARGER. ALL CONNECTIONS FOR THESE FULLY COATED OR FULLY PAVED AND FULLY COATED PIPES SHALL BE FAIRLY WATERTIGHT CONSTRUCTED USING HOGGER TYPE COUPLER OR EQUAL.

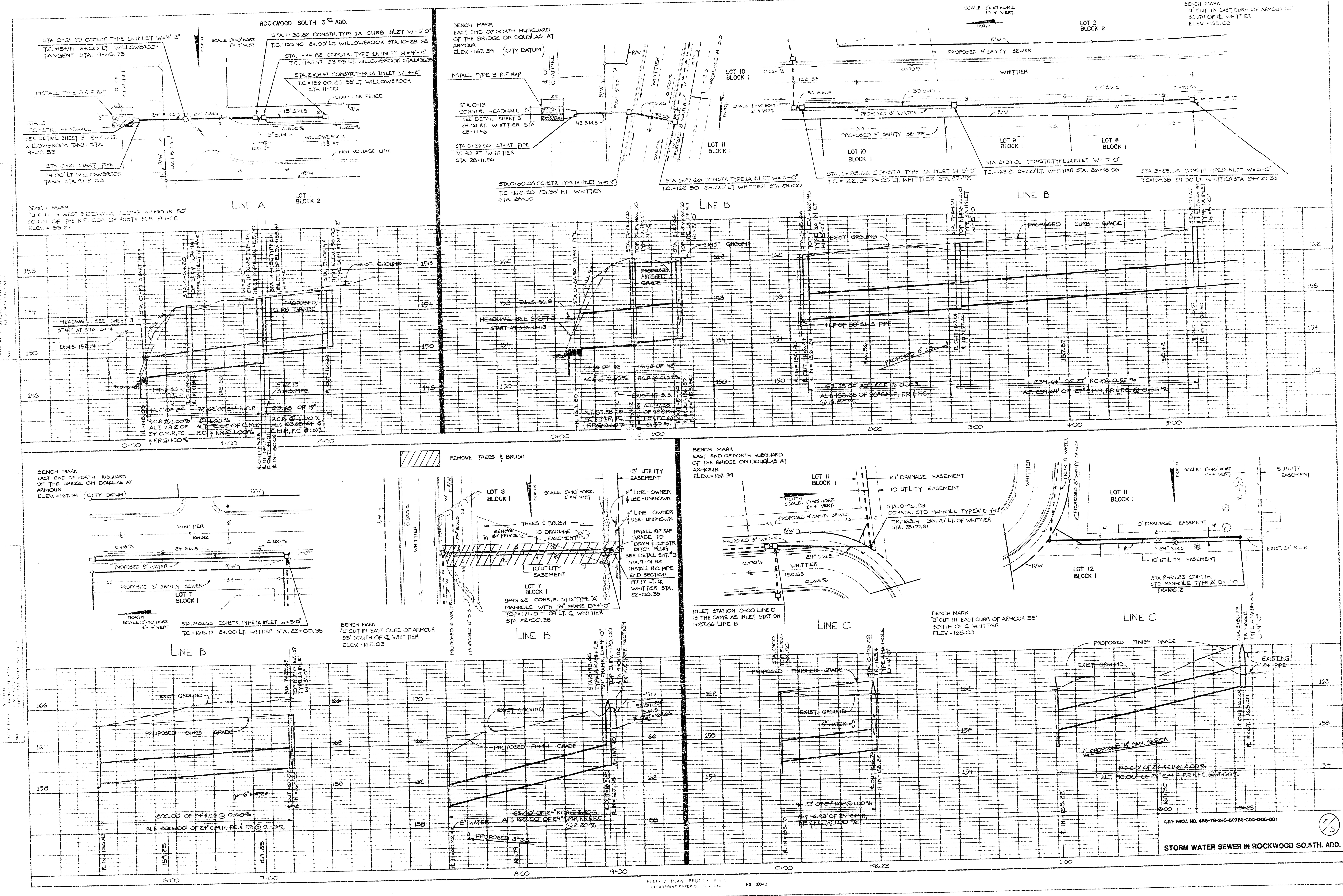
5. ALL CONCRETE SHALL BE "6-SACK CONCRETE" UNLESS OTHERWISE NOTED.

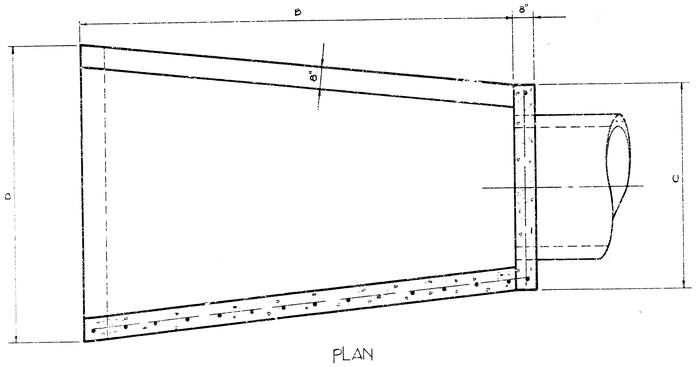
6. THE RIPRAP FOR THIS PROJECT SHALL BE TYPE 3. THE TYPE 3 RIPRAP SHALL BE 12" RIPRAP ON 6" SAND AND GRAVEL BEDDING. THE ROCK FOR RIPRAP AND GRAVEL PROTECTION SHALL BE HARD, DENSE, DURABLE, AND SHALL BE REASONABLY WELL GRADED. THE SIZE RANGE OF ROCK USED SHALL BE A MAXIMUM OF ONE CUBIC FOOT AND A MINIMUM OF 1 CINCH. THE 6 INCH SAND AND GRAVEL BEDDING FOR RIPRAP SHALL BE A CONTINUOUS LAYER OF SAND AND GRAVEL OR SAND AND CRUSHED ROCK, REASONABLY WELL GRADED TO A MAXIMUM OF 1 ½ INCHES IN SIZE.

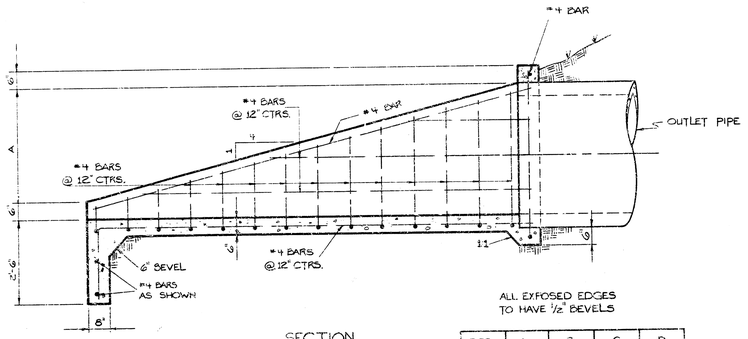
7. CONTRACTOR SHALL AVOID UNCOVERING EXISTING WATERLINES UNLESS ABSOLUTELY NECESSARY. UNCOVERING SHALL BE DONE ONLY IN THE PRESENCE OF A WATER DEPT. ENGINEER.

8. CONTRACTOR SHALL HAVE THE OPTION OF INSTALLING PRE-CAST TYPE 1A CURB INLET IN LIEU OF THE BRICK TYPE STRUCTURE. SEE STANDARD DETAIL PRE-CAST TYPE 1A CURB INLET DATED AUGUST 1979.

RONALD D. MILLER
REGISTERED
No. 9612
KANSAS
PROFESSIONAL ENGINEER







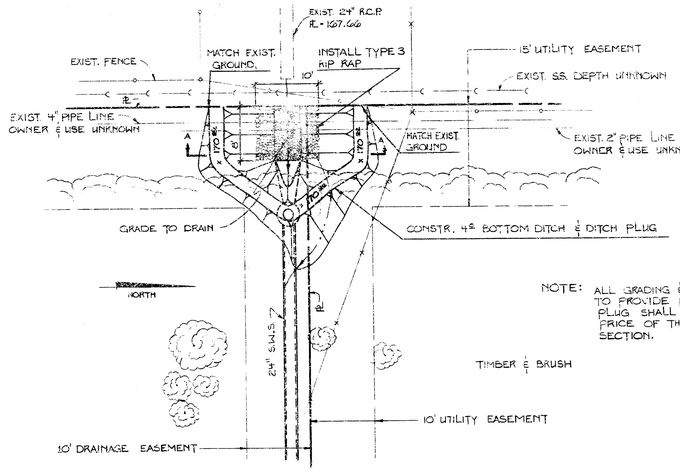
SECTION

ALL EXPOSED EDGES TO HAVE ½" BEVELS

PIPE	A	B	C	D
42"	3'-4½"	13'-6"	6'-1"	8'-9"
24"	1'-9"	7'-0"	4'-4"	5'-9"

OUTLET STRUCTURE

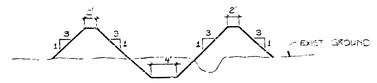
SCALE: ½" = 1'



NOTE: ALL GRADING & EARTHWORK REQUIRED TO PROVIDE FLOW CHANNEL & DITCH PLUG SHALL BE INCLUDED IN THE PRICE OF THE 24" R.C. PIPE END SECTION.

DITCH PLUG & RIP RAP DETAIL

SCALE: 1" = 10'



SECTION A—A

NO SCALE

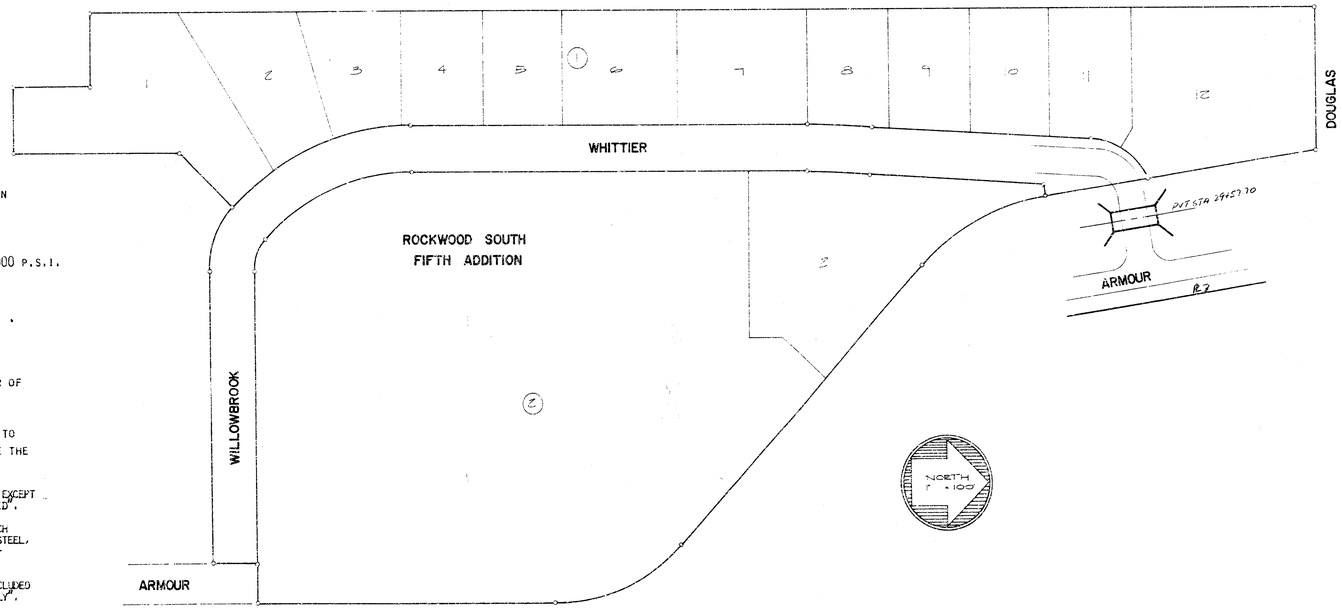
CITY PROJ. NO. 468-76-046-90786-000-000-001

STORM WATER SEWER IN ROCKWOOD SO. 5th ADD.

STORM WATER SEWER NO. 165 - PART 2

PROJECT NO. 468-76-245-80786-000-000-001
CITY OF WICHITA, KANSAS
DEPT. OF PUBLIC WORKS - ENG. DIV.
DEAN SELLERS, ACTING CITY ENGINEER
BY LAW/KINGDON, P.A., WICHITA, KANSAS

DATE:_____

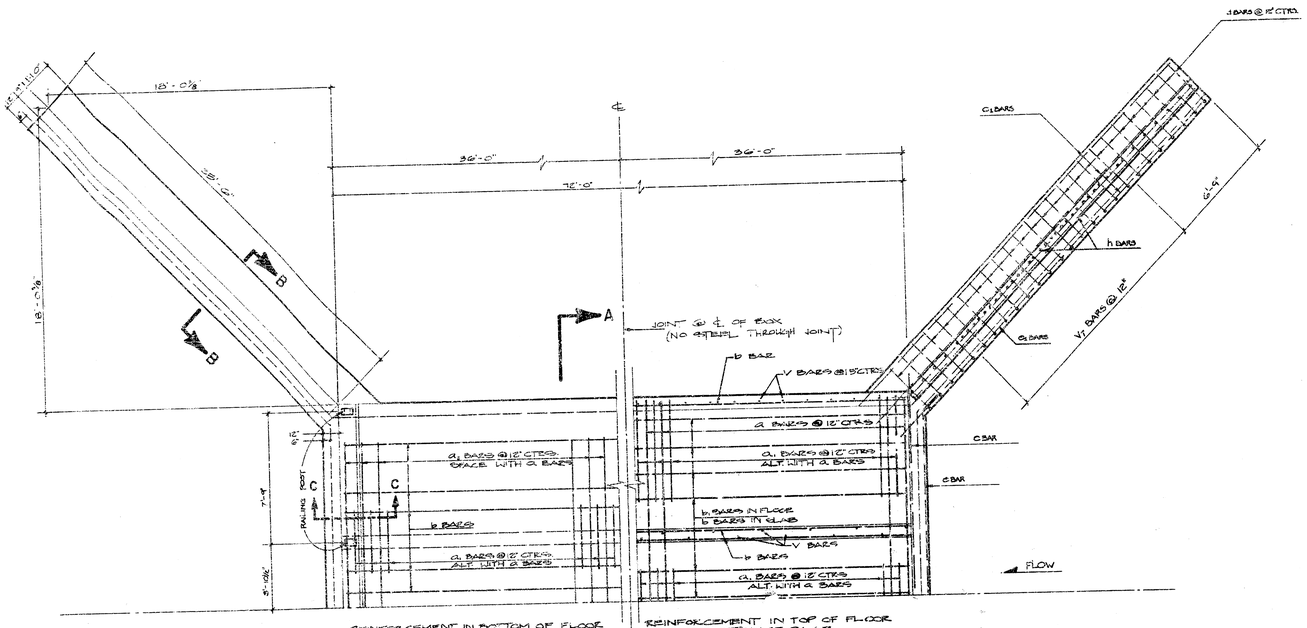


NOTES:

1. ALL BRIDGE CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF THE STANDARD SPECIFICATIONS OF THE KANSAS DEPARTMENT OF TRANSPORTATION.
2. UNIT STRESS: F'C = 3000 P.S.I.; FC = 1200 P.S.I.; FS = 20000 P.S.I.
3. CLASS A AIR ENTRAINED CONCRETE SHALL BE USED THROUGHOUT.
4. BEVEL ALL EXPOSED EDGES WITH 3/4 INCH TRIANGULAR MOULDING, UNLESS OTHERWISE NOTED.
5. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTER OF BAR UNLESS OTHERWISE NOTED.
6. COARSE AGGREGATE SHALL BE DEPOSITED BEHIND EACH WEEP HOLE TO OCCUPY A SPACE EXTENDING 15 INCHES IN ALL DIRECTIONS ABOVE THE WEEP HOLE FLOW LINE.
7. EARTHWORK - ALL EARTHWORK SHALL BE CONSIDERED AS "COMMON EXCAVATION" EXCEPT FOR THE TOEWALL. TOEWALL EXCAVATION SHALL BE INCLUDED IN "LUMP SUM BID".
8. BIDDING OF CULVERT - THE CULVERT SHALL BE BID AS A "LUMP SUM BID" WHICH SHALL INCLUDE THE FOLLOWING ITEMS: CLASS A-AE CONCRETE, REINFORCING STEEL, HAND EXCAVATION, AND ALUMINUM HAND RAIL. ALL OTHER ITEMS SHALL BE INCLUDED AS BID ITEMS.
9. THE QUANTITIES SHOWN IN THE "BILL OF MATERIALS OR ITEMS" WHICH ARE INCLUDED IN THE "LUMP SUM BID" OF THE CULVERT ARE FOR "INFORMATION PURPOSES ONLY". THE CONTRACTOR MUST SATISFY HIMSELF AS TO THE "QUANTITIES" AND THE ENGINEER ASSUMES NO RESPONSIBILITIES FOR THEIR ACCURACY. THE CONTRACTOR WILL HAVE THE FULL RESPONSIBILITY FOR PROVIDING ALL MATERIALS ON THE DETAILED PLANS NECESSARY TO COMPLETE THE PROJECT.

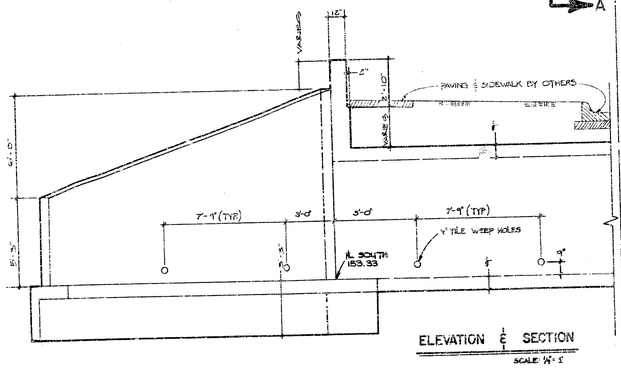
RONALD D. MINGER LICENSED PROFESSIONAL ENGINEER KANSAS

1/5



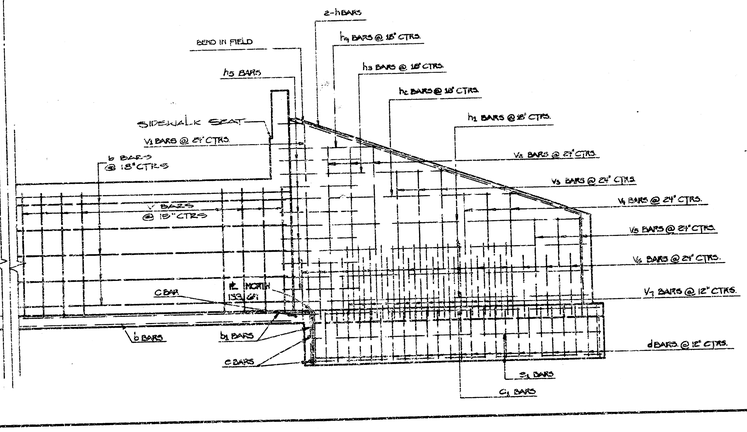
HALF PLAN & SECTION

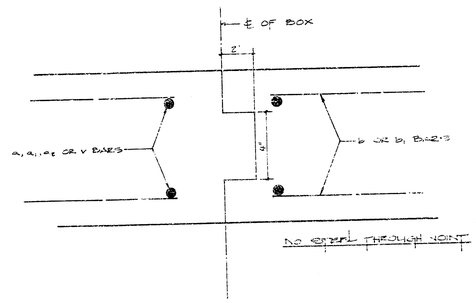
SCALE: ⅛"=1'



ELEVATION & SECTION

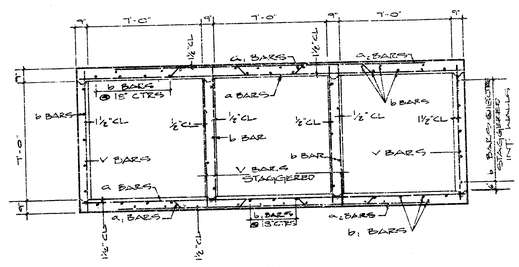
SCALE: ⅛"=1'





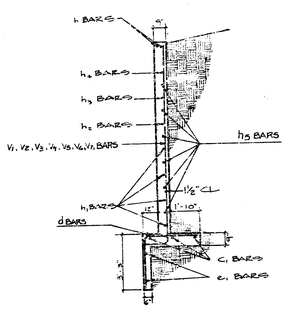
DETAIL AT ℄ OF BOX

SCALE: 3"=1'



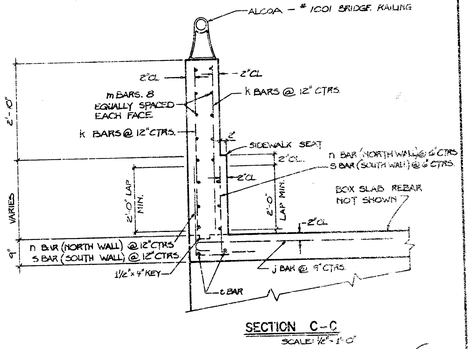
SECTION A–A

SCALE: ⅛"=1'



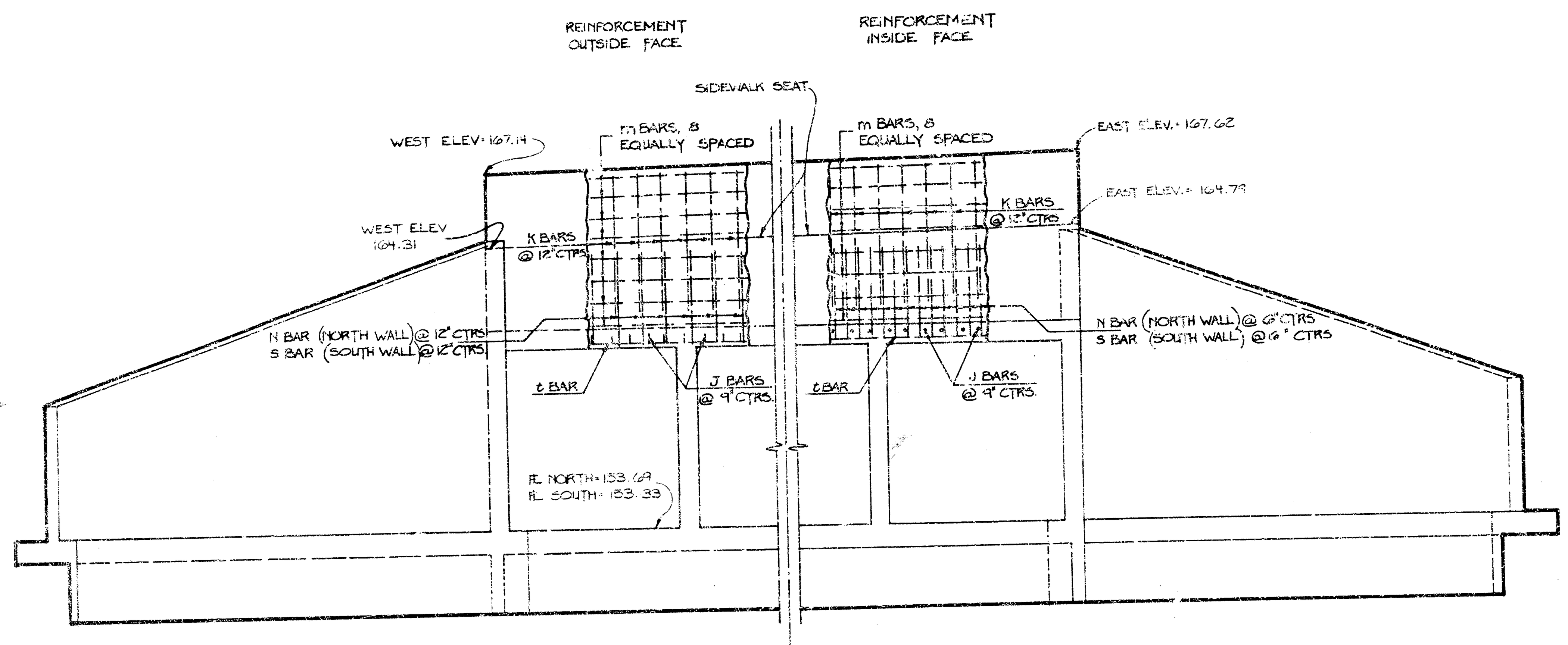
SECTION B–B

SCALE: ⅛"=1'

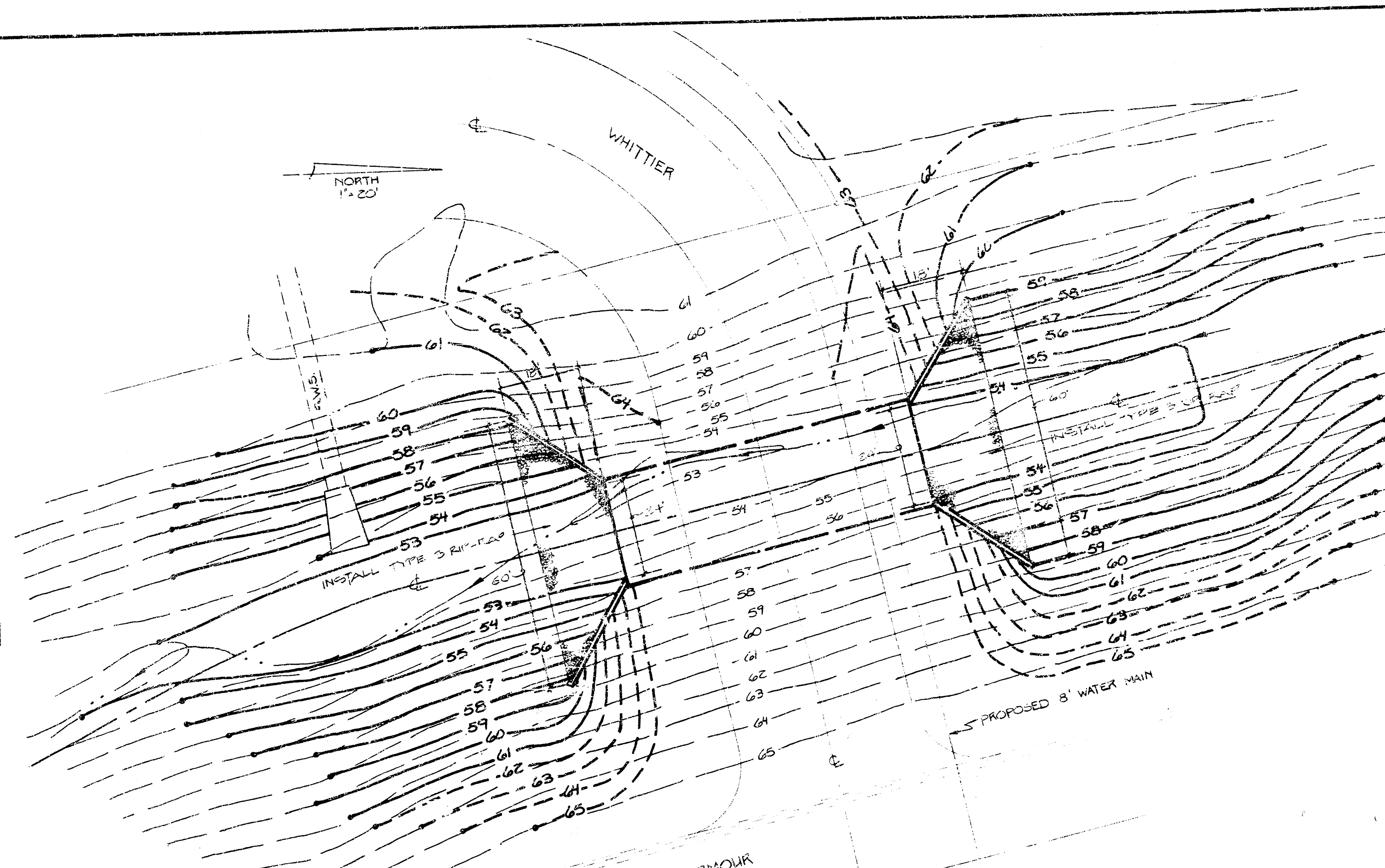


SECTION C–C

SCALE: ⅛"=1'-0"



END VIEW ℄ SECTION
LOOKING NORTH
SCALE: 1/4" = 1'



NOTE: BOX CONTRACTOR TO PERFORM GRADING BELOW ELEVATION 161.25 ~ PAVING CONTRACTOR TO PERFORM GRADING ABOVE ELEVATION 161.25

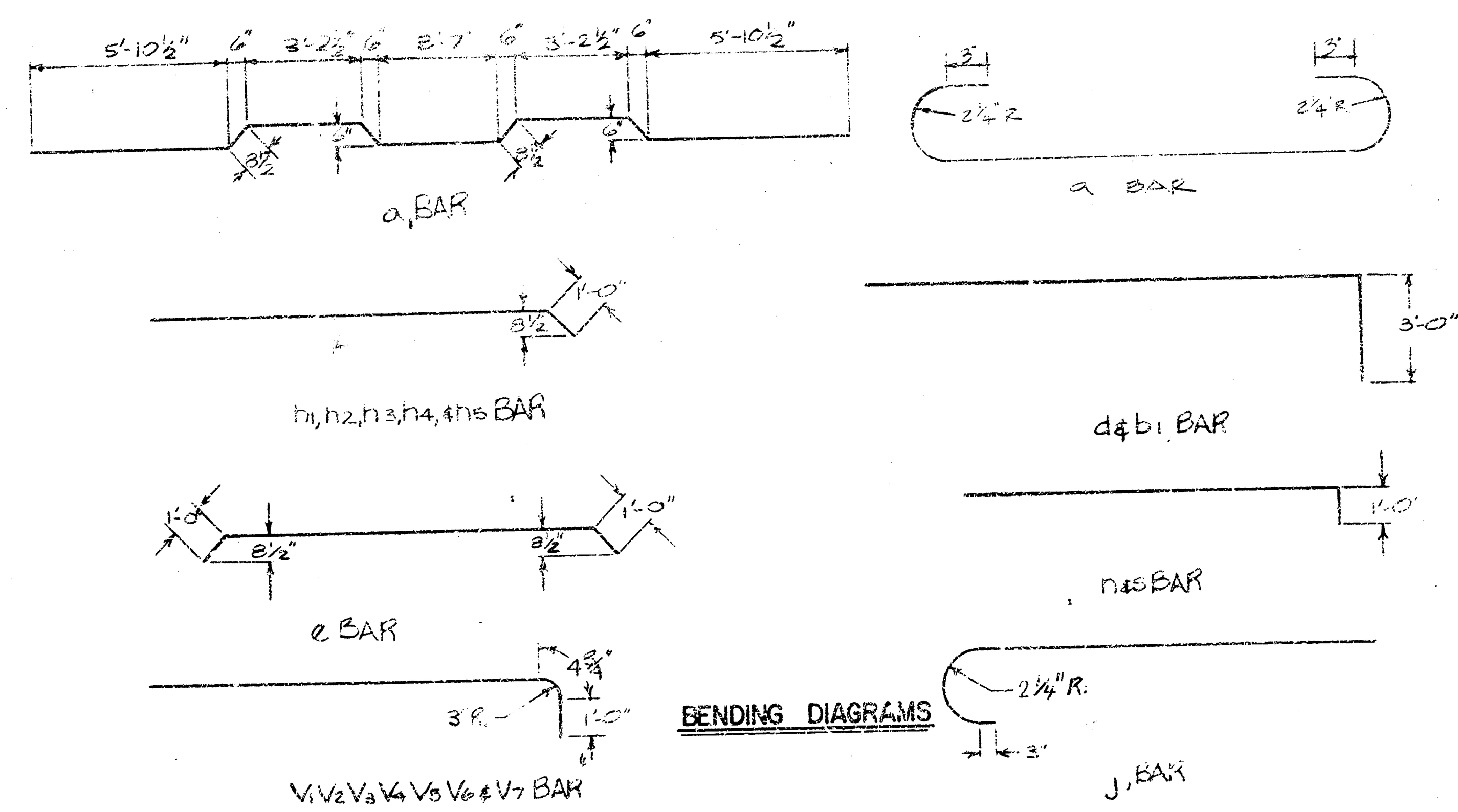
GRADING PLAN

BAR	a	a_1	a_2	b	b_1	c	c_1	d	e	e_1
NUMBER / TOTAL WEIGHT	66 / 5491 lb	104 / 5317 lb	146 / 4093 lb	102 / 2427 lb	22 / 532 lb	2 / 35 lb	12 / 234 lb	104 / 440 lb	4 / 62 lb	8 / 136 lb
SIZE	#6	#6	#6	#4	#4	#4	#4	#4	#4	#4
LENGTH	25'-½"	24'-7"	18'-8"	35'-7½"	39'-7½"	26'-0"	28'-0"	6'-4"	23'-3"	23'-6"

BAR	s	t	v	v_1	v_2	v_3	v_4	v_5	v_6	v_7
NUMBER / TOTAL WEIGHT	73 / 349 lb	4 / 98 lb	296 / 2051 lb	4 / 34 lb	12 / 90 lb	12 / 78 lb	12 / 67 lb	12 / 56 lb	52 / 142 lb	60 / 318 lb
SIZE	#5	#5	#5	#4	#4	#4	#4	#4	#4	#5
LENGTH	4'-7"	23'-6"	8'-3"	12'-7¾"	11'-2½"	9'-9¼	8'-4½"	6'-11½"	4'-1"	5'-1"

BAR	h	h_1	h_2	h_3	h_4	h_5	j	k	m	n
NUMBER / TOTAL WEIGHT	8 / 230 lb	16 / 287 lb	4 / 58 lb	4 / 42 lb	4 / 25 lb	24 / 110 lb	66 / 659 lb	[illegible] / 556 lb	32 / 502 lb	73 / 322 lb
SIZE	#5	#4	#4	#4	#4	#4	#4	#5	#4	#5
LENGTH	27'-6½"	26'-10"	21-6¼	15'-6¾"	9'-2¼"	6'-10"	6'-7¾"	5'-4"	23'-6"	4'-2¾

BAR LIST



BENDING DIAGRAMS