2 – 10'x 6' R.C.B.C.

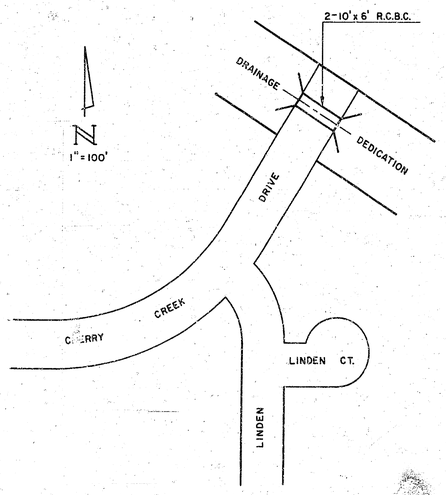
CHERRY CREEK DRIVE
HEDGECLIFF ADDn

CITY OF WICHITA, KANSAS

D.S. SELLERS CITY ENGINEER

PROJ. NO. 472 76 245 80777 000 000 004

DATE:



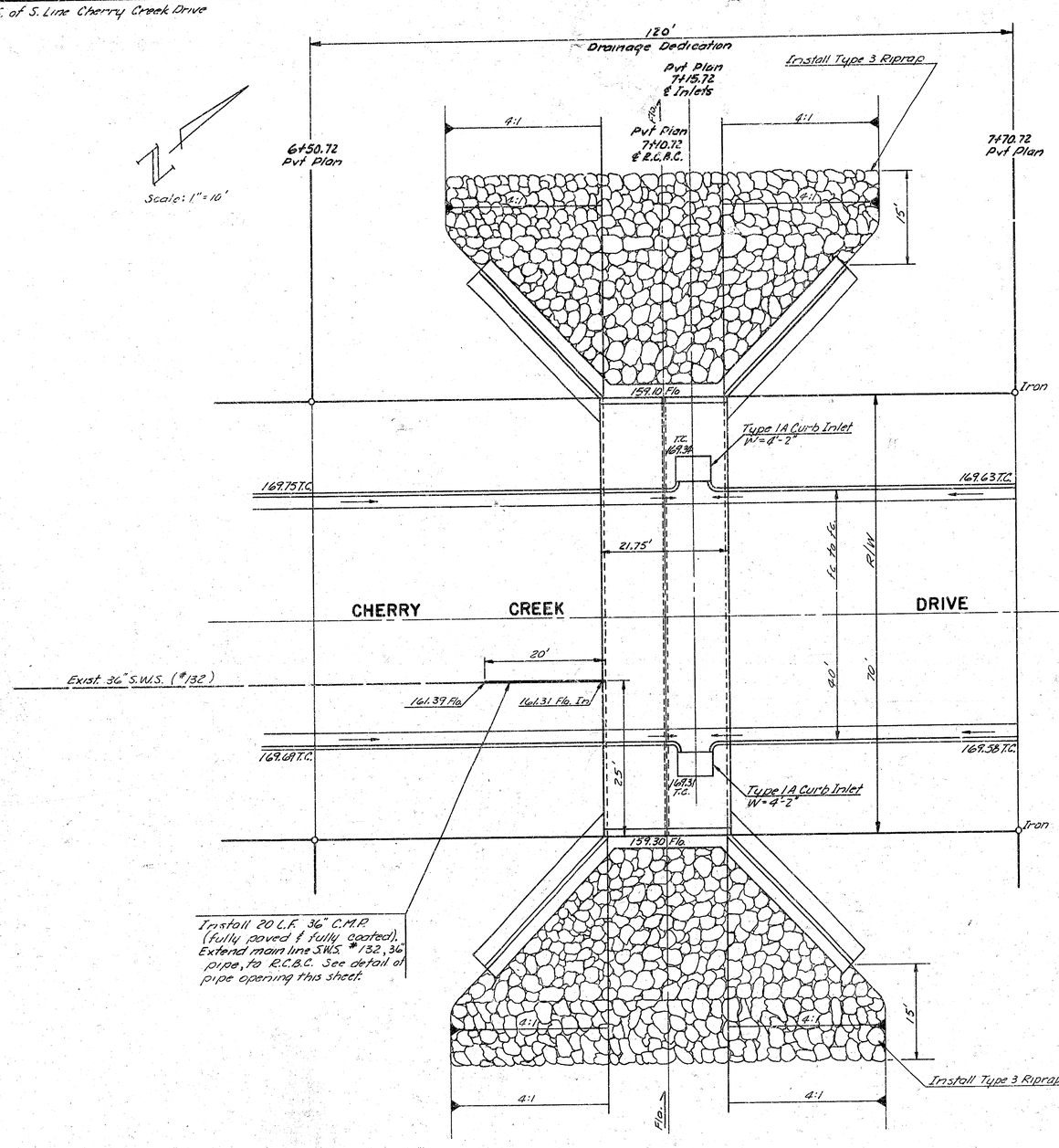
LOCATION MAP

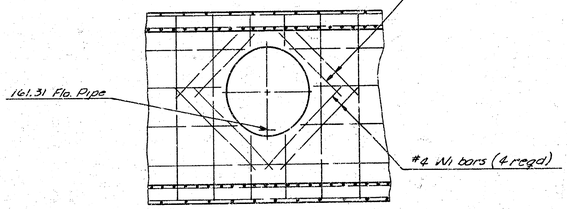
PAUL R. LARSEN
7714
REGISTERED ENGINEER

1/4

Survey D.C.A.
Plan D.E.C.
Exa
Checked

B.M. 178.46 Top W. Curb Rosolie, 5.5' S. of S. Line Cherry Creek Drive





DETAIL - 36" PIPE OPENING
3/8" = 1'-0"

Design Data

Area Drained	270 Acres
Qtee	500 cfs
Depth of Flo. in channel	3'
Depth of Flo. in Box	3'
O.W.S.	U.S. 163.2 D.S. 162.1
N.W.S.	U.S. 159.3 D.S. 159.1

2/5

2 - 10' x 6' R.C.B.C.
CHERRY CREEK DRIVE
HEDGECLIFF ADDn
2/4

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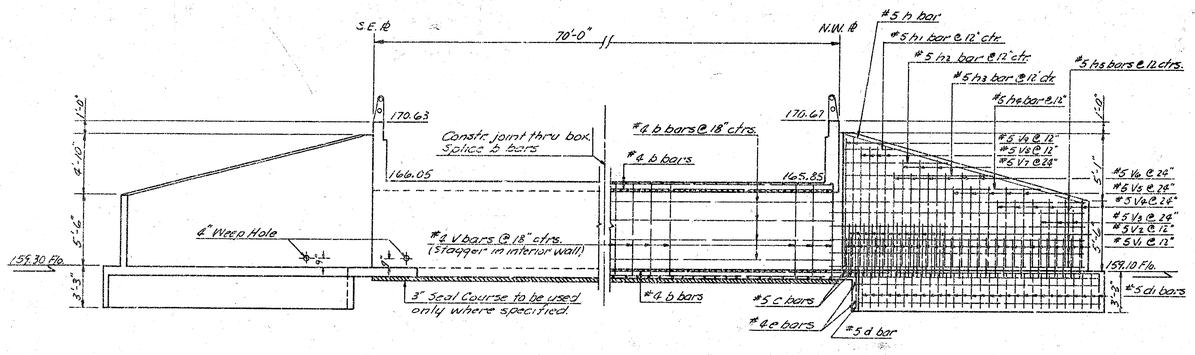
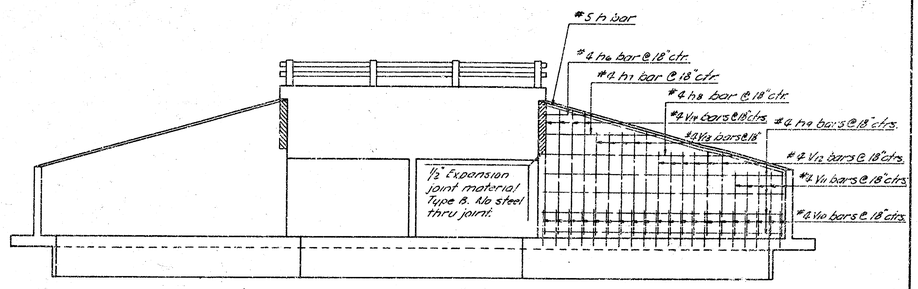


ELEVATION AND SECTION
3/16" = 1'-0"



ELEVATION AND SECTION
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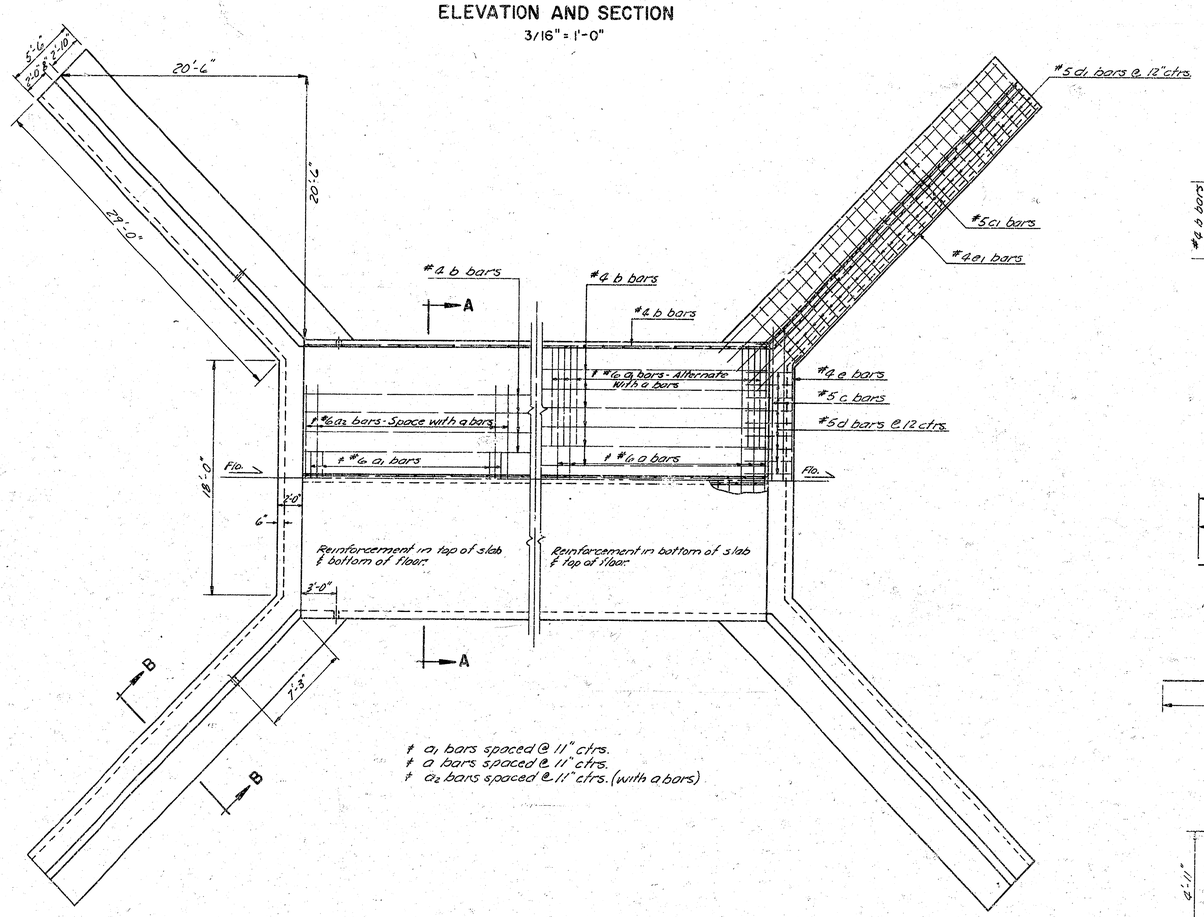
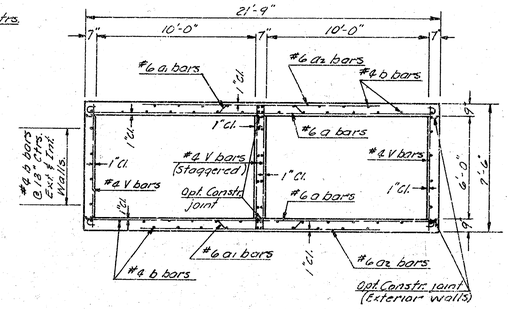
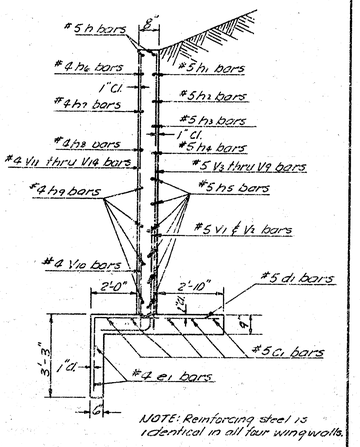


PLAN AND SECTION
3/16" = 1'-0"

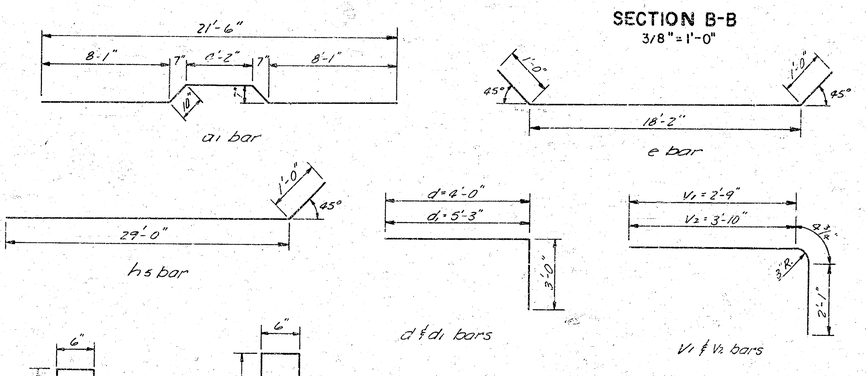


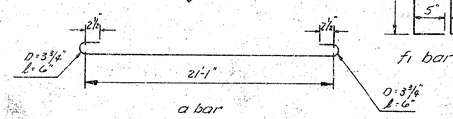
SECTION A-A
1/4" = 1'-0"

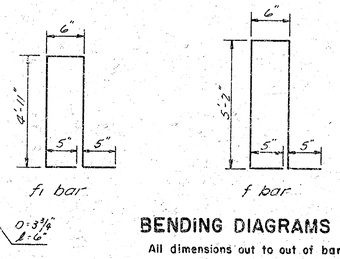


NOTE: Reinforcing steel is identical in all four wingwalls.

SECTION B-B
3/8" = 1'-0"







BENDING DIAGRAMS NO SCALE
All dimensions out to out of bars

3/5

2-10' x 6' R.C.B.C.
CHERRY CREEK DRIVE
HEDGECLIFF ADDn

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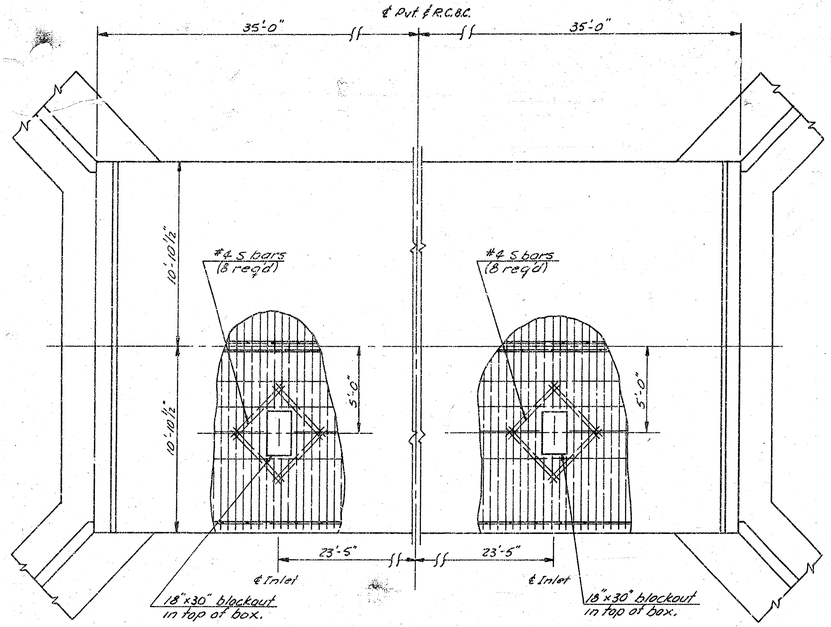
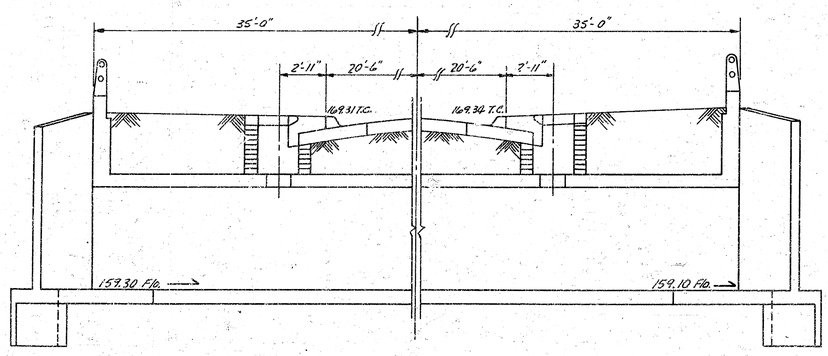
PROJ. NO. 472 76 245 80777 000 000 004



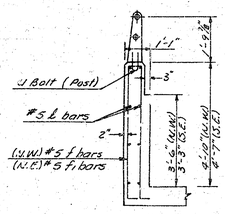
PLAN-INLET LOCATION

1/4"=1'-0"



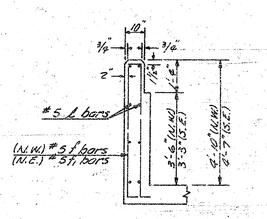
ELEVATION-INLET LOCATION

1/4"=1'-0"



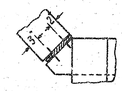
SECTION D-D

NO SCALE

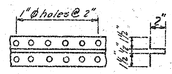


SECTION C-C

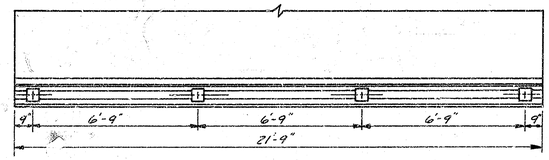
NO SCALE



WING EXP. JOINT

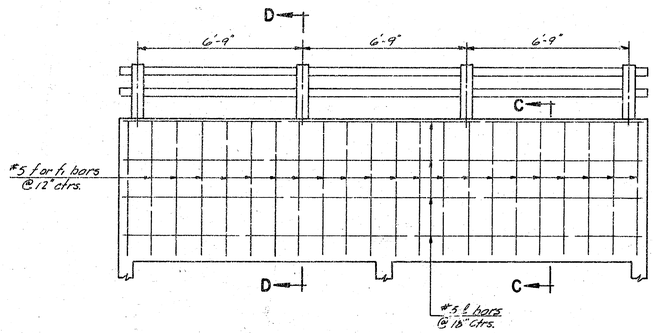


12 OZ. SHEET COPPER RETAINER
8 REQ'D



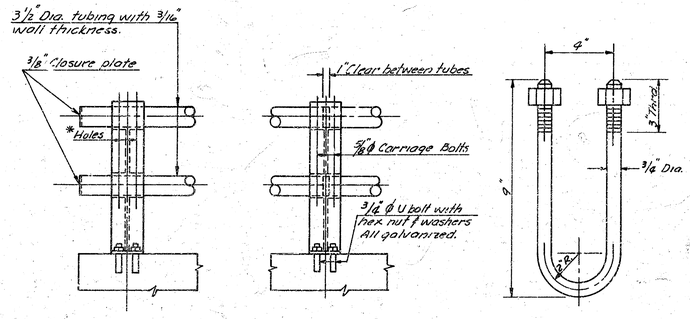
PLAN-RAILING

3/8"=1'-0"



SECTION-RAILING

3/8"=1'-0"



* Holes: 1/16" square holes in post under head and 1/16" round holes under nuts for ⅞" Ø x 5½" carriage bolts with hex nuts.

DETAIL-ALUMINUM RAILING

NO SCALE

GALVANIZED U BOLT

NO SCALE

NOTE: Aluminum Handrail
Aluminum posts shall be Reynolds Aluminum Highway Products Bridge Railing System No. 2819A or equal.
Top & bottom rails shall be 3½" O.D. x 9/16" wall tube of 6063-T6 Aluminum.
Aluminum shims between concrete and post base may be used. The space below posts shall be thoroughly caulked with Alumilastic compound or other approved material.

BAR SCHEDULE					
BAR	SIZE	LENGTH	NO.	SHAPE	WEIGHT
a	#6	22'-6"	152		5204.43
a₁	#6	23'-0"	152		5022.69
a₂	#6	18'-9"	156		3911.79
b	#4	36'-9"	136		3270.53
c	#5	24'-0"	4		100.13
c₁	#5	32'-0"	20		667.52
d	#5	7'-0"	36		262.80
d₁	#5	8'-3"	116		998.15
e	#4	20'-2"	4		53.89
e₁	#4	28'-9"	8		153.64
f	#5	11'-8"	22		267.78
f₁	#5	11'-2"	22		254.31
h	#5	29'-0"	8		241.98
h₁	#5	5'-8"	8		23.66
h₂	#5	11'-8"	4		48.69
h₃	#5	16'-8"	4		69.55
h₄	#5	21'-8"	4		90.41
h₅	#5	30'-0"	24		750.96
h₆	#4	4'-9"	4		12.68
h₇	#4	13'-0"	4		34.74
h₈	#4	21'-6"	4		57.45
h₉	#4	21'-8"	16		231.61
k	#5	21'-2"	16		353.78
s	#4	4'-6"	16		48.10
V	#4	7'-3"	187		905.64
V₁	#5	5'-2⅜"	116		632.77
V₂	#5	6'-3¼"	48		375.70
V₃	#5	4'-4"	12		54.19
V₄	#5	5'-6"	24		133.32
V₅	#5	6'-9"	20		137.08
V₆	#5	7'-4"	20		183.48
V₇	#5	8'-4"	12		104.82
V₈	#5	9'-8"	16		155.20
V₉	#5	9'-9"	8		81.35
V₁₀	#4	3'-0"	80		160.32
V₁₁	#4	5'-1"	20		67.87
V₁₂	#4	6'-7"	24		105.84
V₁₃	#4	8'-1"	20		107.95
V₁₄	#4	9'-7"	16		102.39
W	#4	3'-6"	4		9.35
W₁	#4	4'-6"	4		12.02

GENERAL NOTES

1. CLASS A-AE - CONCRETE SHALL BE USED THROUGHOUT ON THE STRUCTURE. THE REINFORCING STEEL SHALL CONFORM TO A.S.T.M. SPECIFICATIONS.
2. EARTHWORK - ALL EARTHWORK SHALL BE CONSIDERED AS "COMMON EXCAVATION" EXCEPT FOR THE TOEWALL. TOEWALL EXCAVATION SHALL BE INCLUDED IN "LUMP SUM BID".
3. BACKFILL - ALL BACKFILL AND EXCAVATION TO EXTEND TO (2') BEYOND SIDES OF BOX AND WING-WALLS.
4. BEVEL - ALL EXPOSED EDGES OF CONCRETE WITH 3/4" TRIANGULAR MOULDING.
5. WEEPHOLES - COURSE AGGREGATE SHALL BE DEPOSITED BEHIND EACH WEEPHOLE TO OCCUPY A SPACE EXTENDING (1'5") IN ALL DIRECTIONS ABOVE WEEPHOLE FLOW LINE. THIS WORK SHALL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED A PART OF THE EXCAVATION WORK.
6. SEAL COURSE - A SEAL COURSE CONSISTING OF 3" CLASS "A" CONCRETE SHALL BE CONSTRUCTED ONLY WHERE SPECIFIED ON THE PLANS OR BY THE ENGINEER. NO REINFORCING SHALL BE PLACED UNTIL THE SEAL COURSE HAS GAINED SUFFICIENT STRENGTH TO PERMIT WORKING UPON IT WITHOUT DAMAGE.
7. 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.
8. 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.

BILL OF MATERIALS

	ITEMS	QUANTITY	UNIT
Lump Sum Bid	Class A-AE Concrete	170.1	C.Y.
	Reinforcing Steel	24,902.5	Lbs.
	Hand Excavation	21.2	C.Y.
	Aluminum Handrail	43.5	L.F.
	Class A Concrete - Seal Course	14.1	C.Y.
Bid Items	Excavation	262.9	C.Y.
	Compacted Fill	148.9	C.Y.
	Riprap - Type 3	400.0	S.Y.

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2-10'x6' R.C.B.C.
CHERRY CREEK DRIVE
HEDGECLIFF ADDn

4/4

PROJ. NO. 472 76 245 80777 000 000 004