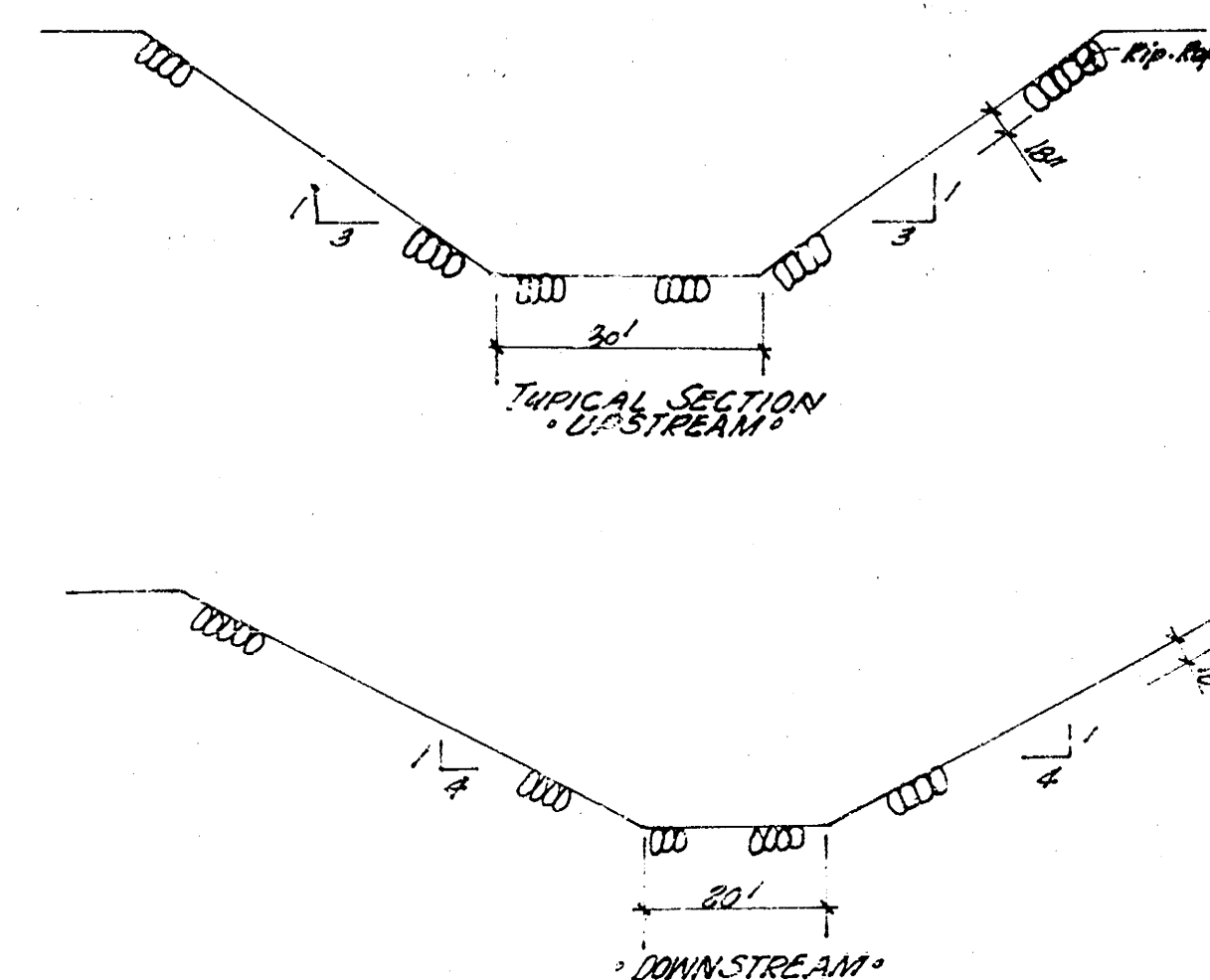
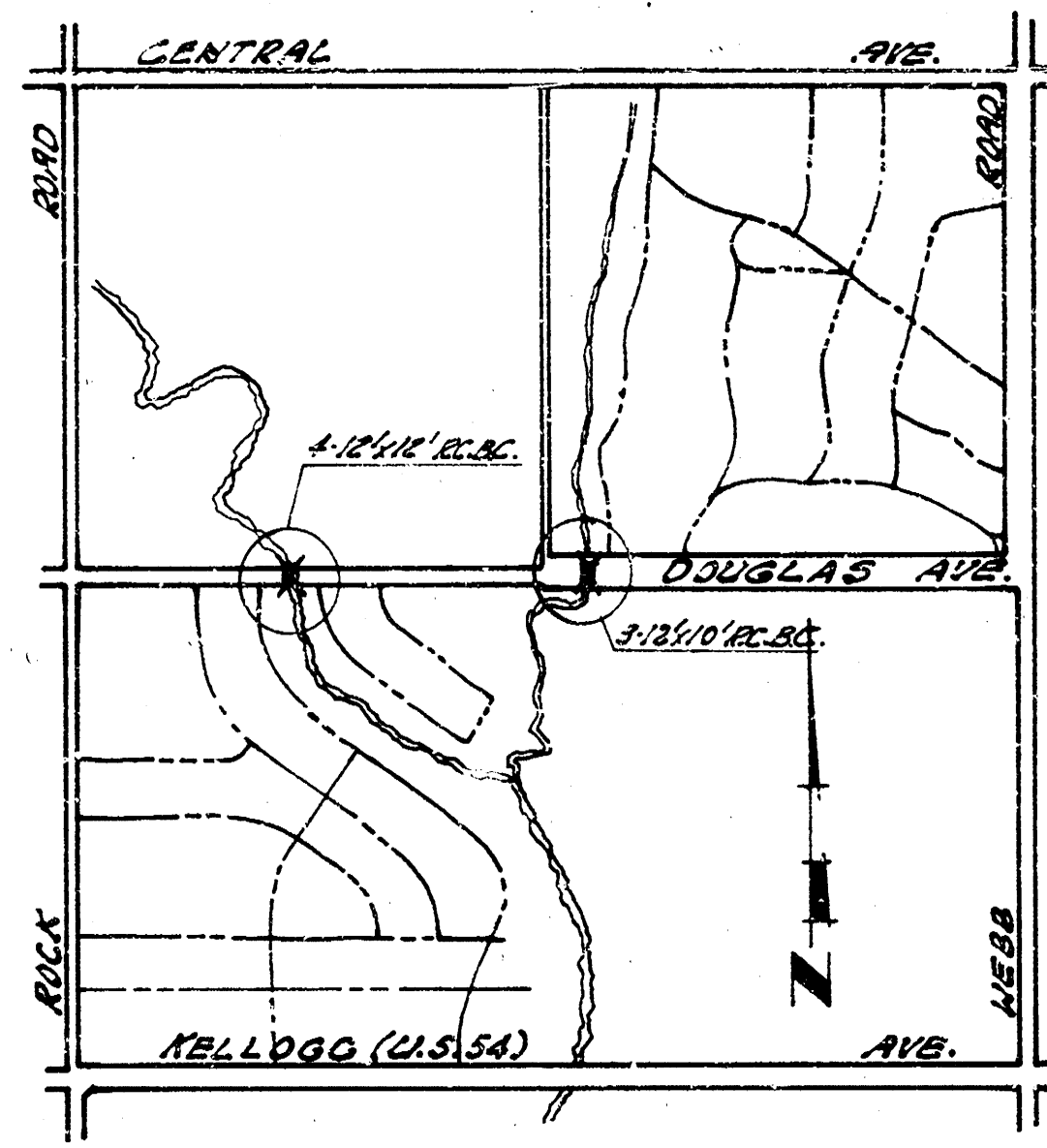
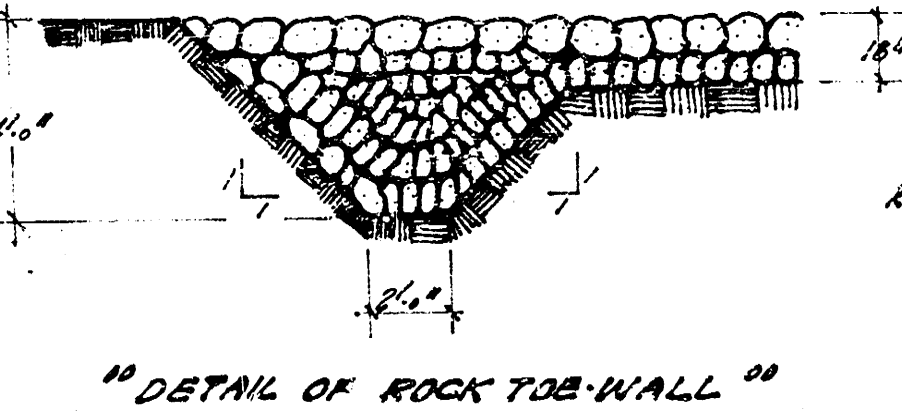


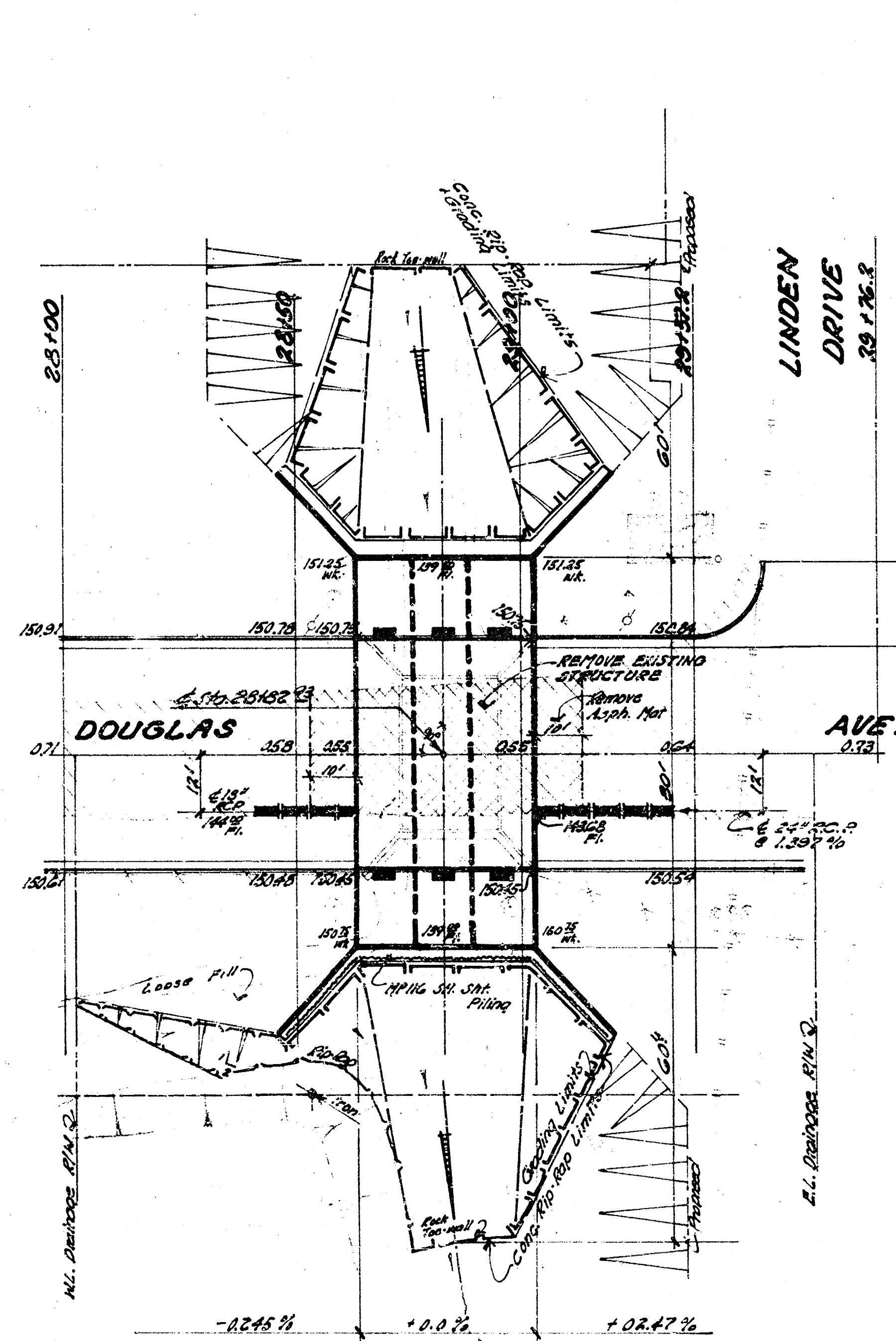
Plan - Sec
12



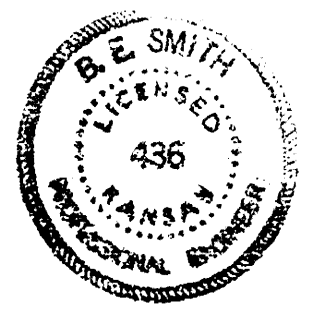
3-4' Conc. Rip-Rap in downstream area to be determined by the amount of material furnished by "OTHERS".



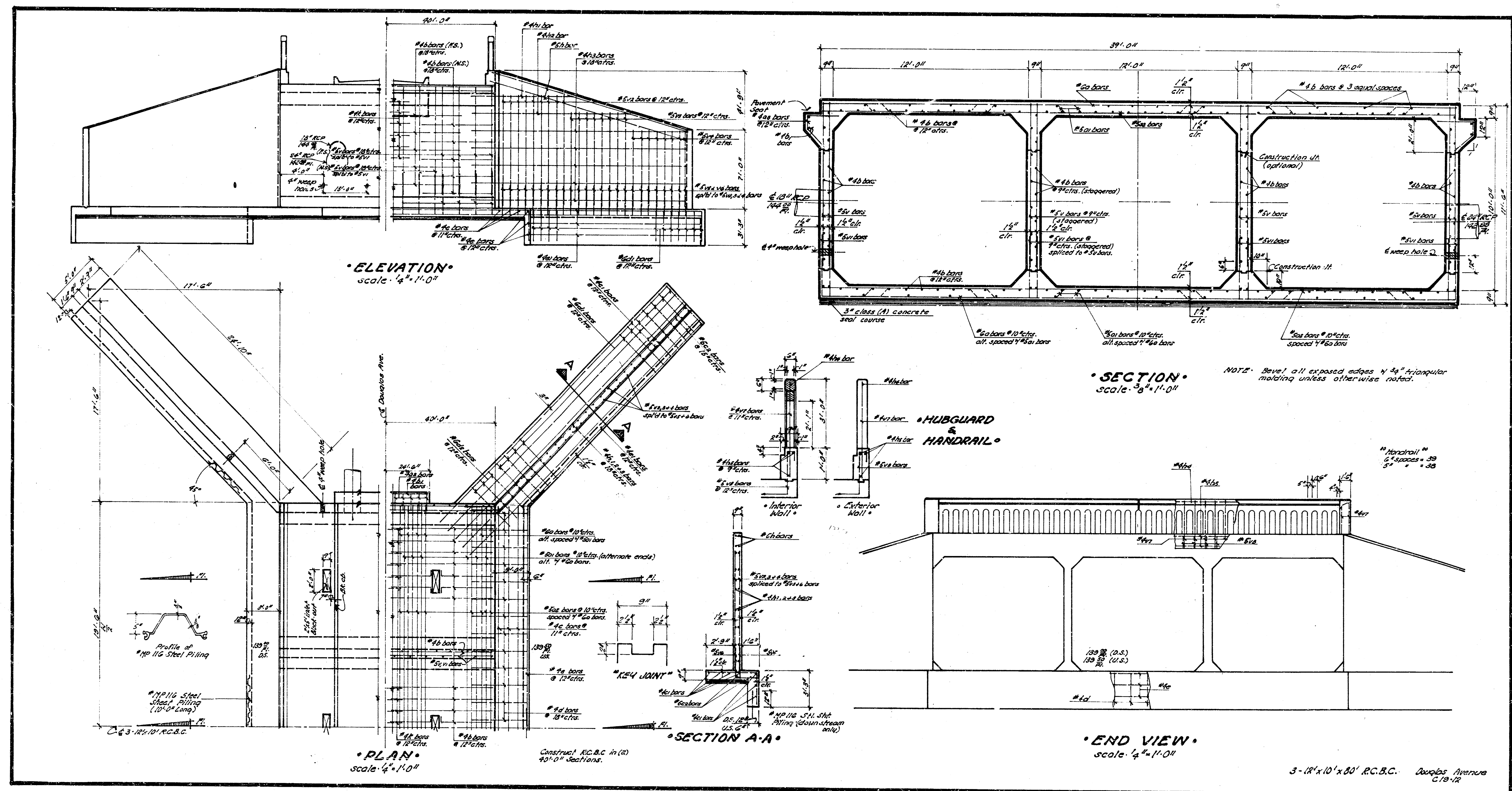
Rip-Rap - 70% of broken concrete with max. size stone of 30 pounds; avg. size 30 to 50 pounds; not more than 10% of material composed of pieces which are less than 10 pounds. Neither depth nor the thickness of any piece shall be less than 1/3 its length.

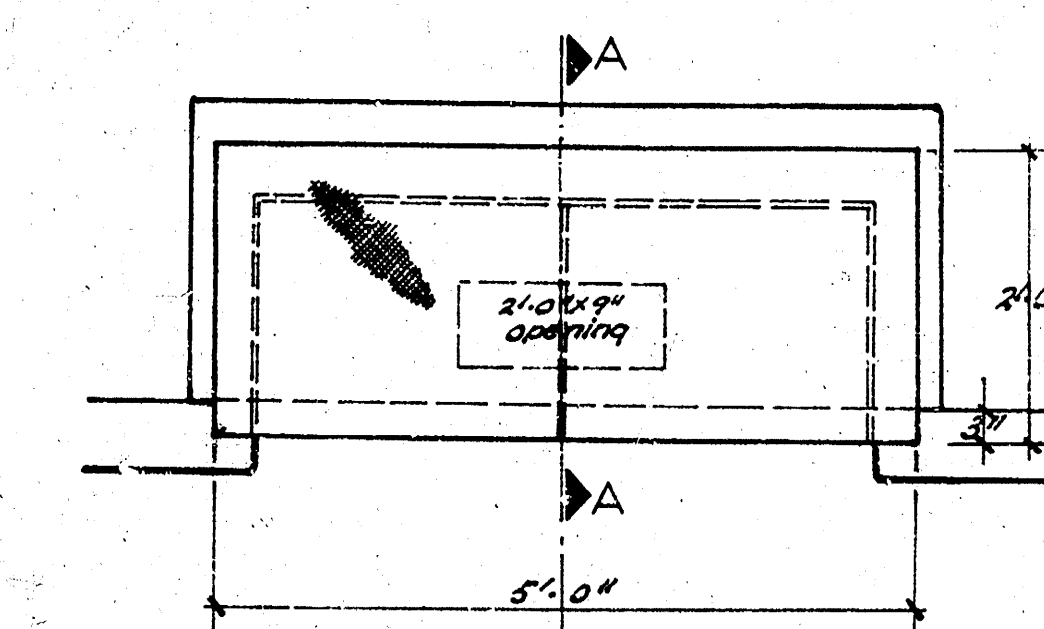


NOTE TO CONTRACTOR & ENGINEER: This Project to be cross-sectioned before and after to determine final quantities for earthwork. Retain Contractor to fill area below c.s. & subgrade across R.C.B.C.'s

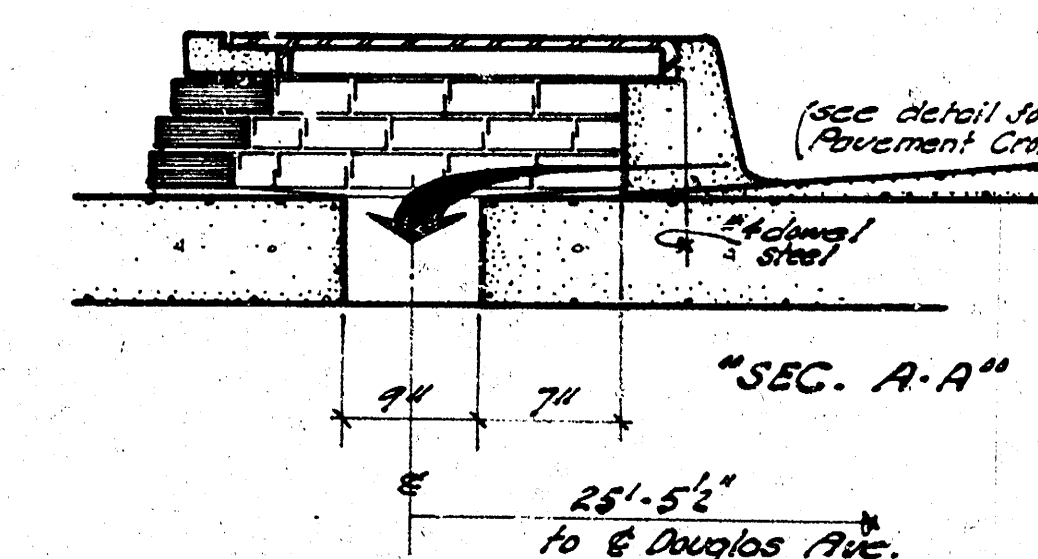


3-12x10' R.C.B.C. in Connection With
B.E. Smith City Engineer
Date: Sept. 1969 Project No. C19-12





.. PLAN ..



B.A.R. SCHEDULE							
Lot	Size	Length	No.	Location	Shape	Spacing	Weight
3	#6	38'-9"	192	box	—	10"	1177.80
4	#6	40'-8"	190	"	—	10"	2726.20
5	#6	38'-0"	176	"	—	10"	2729.75
6	#6	41'-0"	180	box	—	10"	947.36
7	#6	38'-9"	320	"	9 1/2" x 12"	12"	156.45
8	#6	25'-2"	8	box	—	9"	185.31
9	#6	38'-9"	6	ocean	—	14"	316.30
10	#6	20'-0"	16	Waquell	—	12"	354.07
11	#6	20'-0"	8	ocean	—	10"	277.83
12	#6	8'-0"	56	ocean	—	18"	1070.93
13	#6	71'-0"	98	Waquell	—	12"	85.61
14	#6	41'-0"	12	ocean	—	12"	179.04
15	#6	22'-7"	12	Waquell	—	12"	450.58
16	#6	27'-0"	16	"	—	12"	66.13
17	#6	12'-0"	8	"	—	10"	122.52
18	#6	14'-3"	8	"	—	10"	81.84
19	#6	20'-0"	40	"	—	12"	185.31
20	#6	18'-3"	4	handrail	—	9"	260.50
21	#6	28'-9"	8	hubbard	—	12"	460.120
22	#6	3'-0"	164	box	—	12"	1621.68
23	#6	9'-6"	424	"	—	9"	75.19
24	#6	3'-0"	72	Waquell	—	12"	154.05
25	#6	9'-2"	64	"	—	12"	54.505
26	#6	6'-3"	200	"	—	12"	546.87
27	#6	2'-0"	600	"	—	12"	200.41
28	#6	3'-0"	56	handrail	—	12"	326.40
29	#6	4'-0"	78	hubbard	—	12"	

*CLASS A-AZ Concrete shall be used throughout this project. All Reinforcing Steel shall conform to A.S.T.M. Specifications.

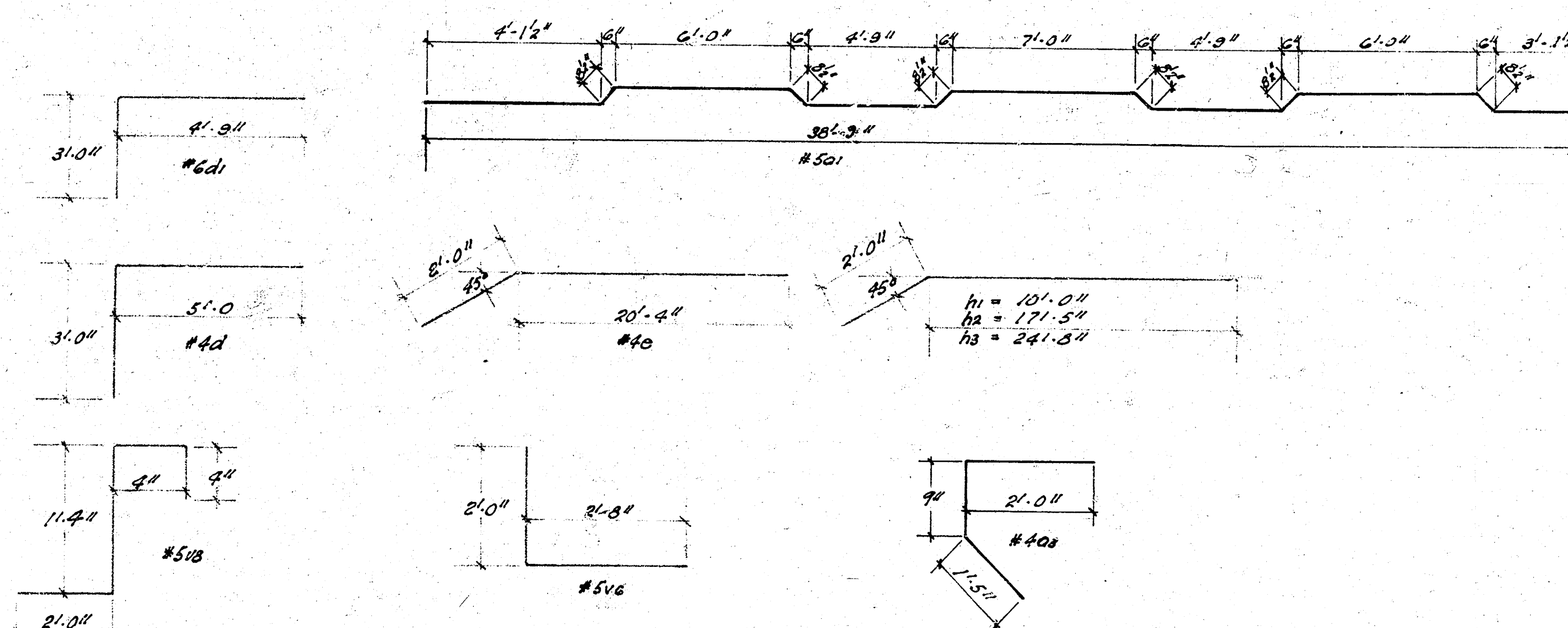
EARTHWORKS - all earthwork shall be considered as "Common Excavation" except for the footwall. Footwall excavation shall be included in "Camp Sum Aid."

excavation to extend to (2) beyond sides of bank wingwalls. Loose fill of banks to be included in Lump Sum Bid.

8. BIDDING OFFICERS: The Bidder shall be responsible for obtaining all necessary permits and for obtaining all necessary approvals from the appropriate authorities. The Bidder shall be responsible for obtaining all necessary approvals from the appropriate authorities. The Bidder shall be responsible for obtaining all necessary approvals from the appropriate authorities.

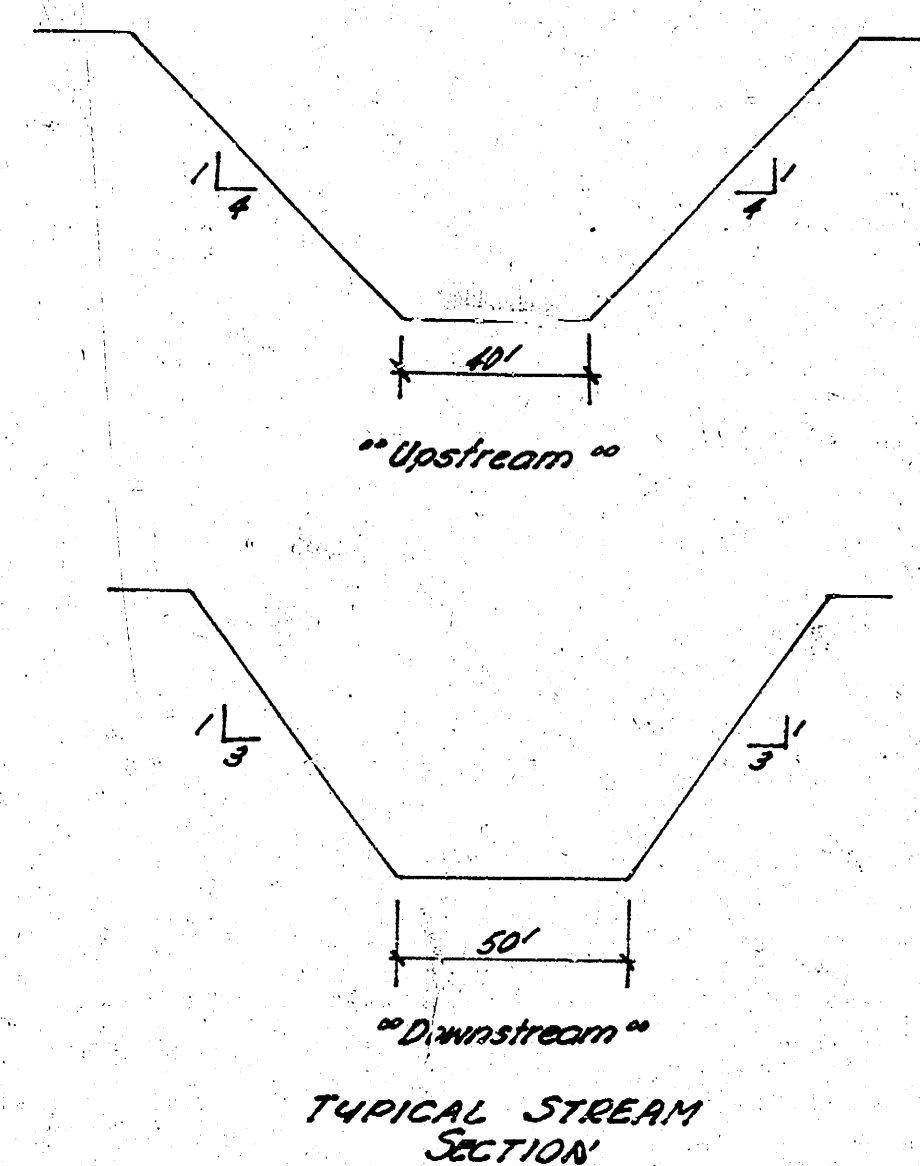
Class A Conc., ~~Steel Balls, 1000000 lbs., Conc. Rip-Rap, 1000000 lbs., Existing Structures, 1000000 lbs., Existing Sit. 1000000 lbs., Common Cement, 1000000 lbs.~~ Quantities shown in the Bill of Materials or items which are listed in the Bill of Materials of the Contract are for information only. The Contractor must satisfy himself as to the quantities and the ~~Contractor~~ ^{Contractor} assumes no responsibility for their accuracy. The Contractor will have full responsibility for providing all materials shown in the detailed plans necessary to complete this project.

Bill of Materials	QTY	UNIT	
Class 9.45 concrete	446.8	CU.MTS	6.3
reinforcing steel	710.0	LBS	6.8
concrete formwork	11.65	CU.YDS	6.8
rod excavation	841.0	SQ.FT	6.8
MPING Steel Sheet Piling	740.0	LBS	76.5
inf curb	1441	CU.YDS	8.1
18" S. Concrete	5	SQ	6.8
18" RCP	5	EA	6.8
18" "	5	EA	6.8
conc. rip-rope	180	CU.YD	8.1
rough. 100' rem.	100	SQ.YD	6.8
Existe Structure Rem.		QD.	6.8
Clearing RIN		Lump Sum	6.8
concrete excavation	1700	CU.YDS	8.1
compacted fill	100	SQ.YD	8.1
loose fill	837	CU.YDS	6.8

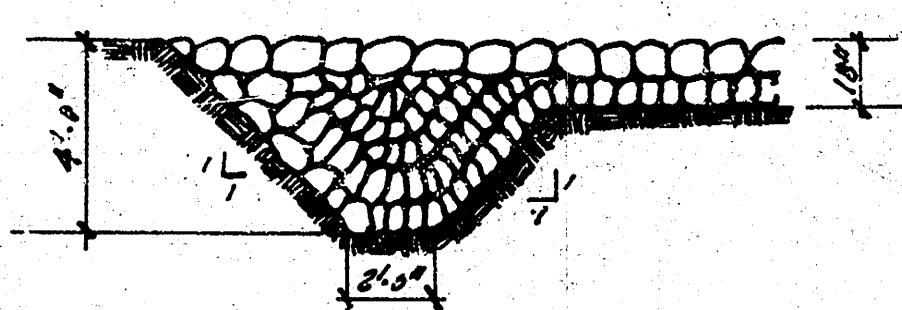


•• BEND DIAGRAM ••

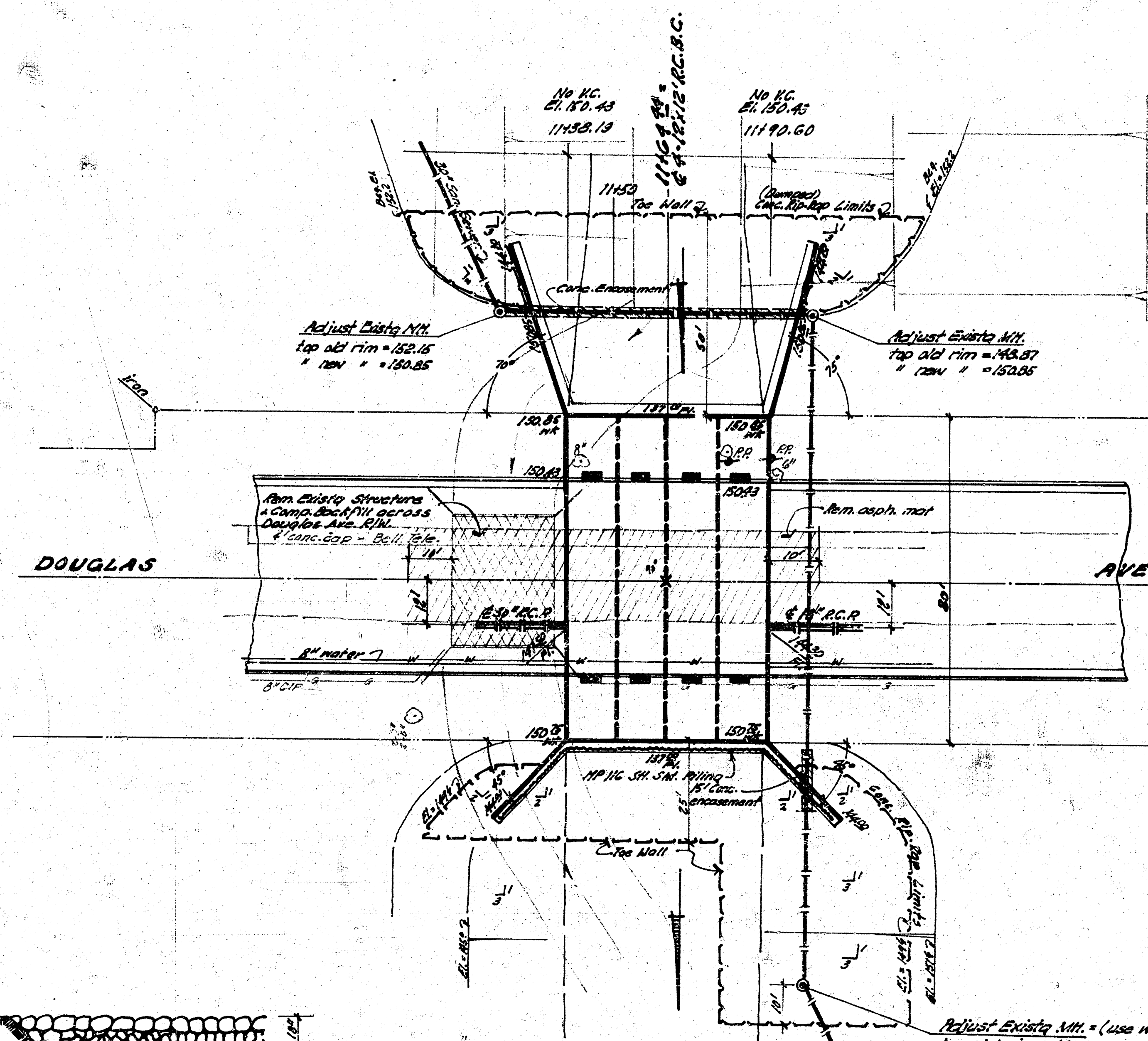
Survey
Plan
Scale
1" = 20'



5X Conc. Rip-Rap in down stream area to be determined by the amount of material furnished by "Others" in Culvert Contractor to place material furnished by "Others"

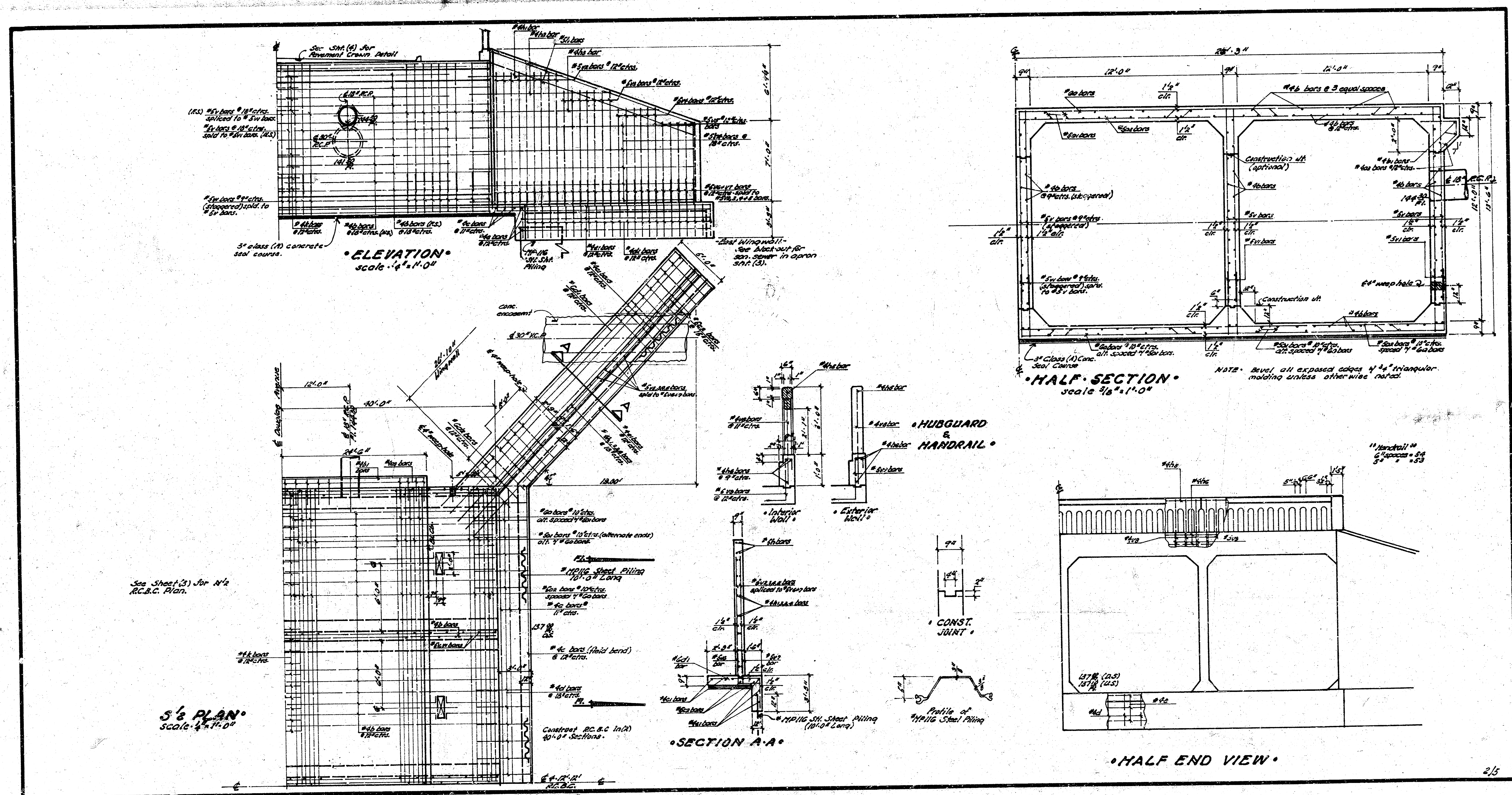


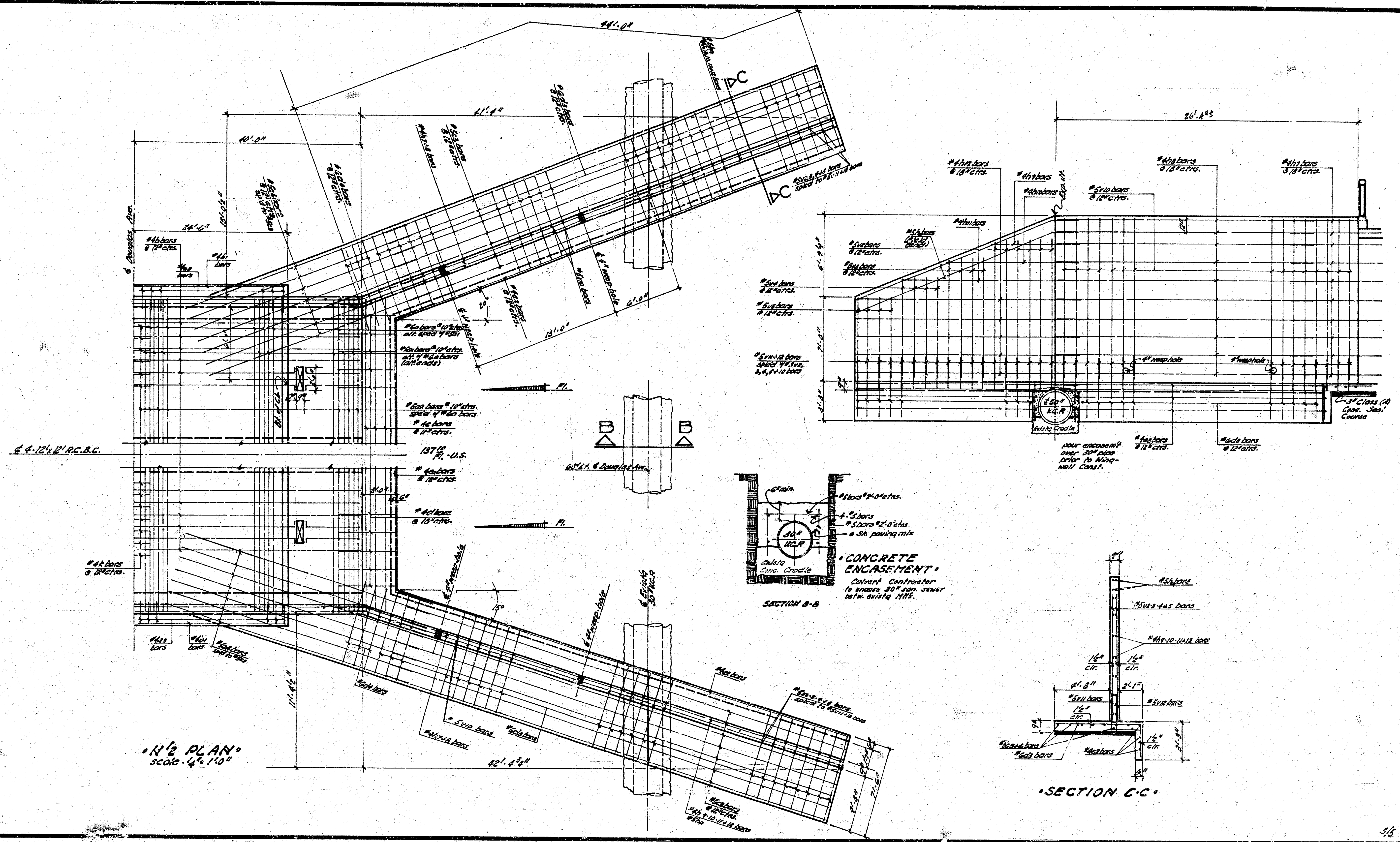
Rip-Rap to be of broken conc. 4" max size stone of 150 pounds; average size 30 to 50 pounds; not to have more than 80% by weight consisting of pieces weighing less than 10 pounds. Neither depth nor thickness of any piece shall be less than 1/2 its length.

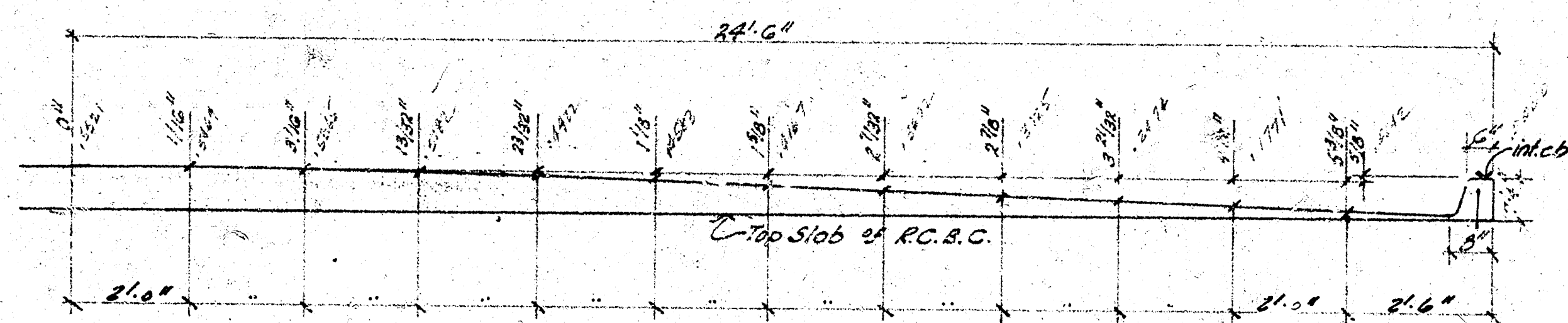


4-12'x12' R.C.B.C. in connection with paving Douglas Avenue - Rock Road to West Road.

City of Wichita, Kansas
B.C. Smith
Date: City Engineer
Proj. No. C12-12 115







BAR SCHEDULE

Bar	Size	Length	No.	Location	Shape	Spacing	Weight
a	#5	26'-0"	364	box	—	12"	16,975.91
b	#5	26'-10"	380	"	~	10"	10,636.11
c1	#5	26'-0"	364	"	—	10"	10,613.31
c2	#5	35'-3"	100	box	~	18"	279.56
d1	#5	25'-3"	8	box	—	3"	12,651.69
e	#5	26'-0"	12	garage	—	9"	200.66
f	#5	31'-5"	4	wingwall	—	24"	167.04
g	#5	31'-5"	4	"	—	18"	120.15
h	#5	2'-3"	78	garage	—	12"	200.66
i	#5	7'-3"	50	wingwall	—	24"	200.66
j1	#5	4'-3"	6	"	—	18"	66.81
j2	#5	10'-3"	84	"	—	18"	2,188.88
k1	#5	7'-3"	6	"	—	12"	65.34
k2	#5	26'-3"	6	garage	—	12"	153.87
l	#5	26'-3"	6	wingwall	—	12"	153.87
m	#5	40'-0"	6	"	—	18"	160.32
n	#5	55'-4"	4	"	—	—	155.78
o1	#5	11'-0"	4	"	—	—	24.54
o2	#5	17'-0"	4	"	—	—	65.46
p1	#5	63'-0"	4	"	—	—	66.12
p2	#5	20'-0"	8	"	—	18"	206.16
q	#5	12'-10"	8	handrail	—	12"	206.16
r	#5	12'-10"	24	handguard	—	9"	206.16
s1	#5	25'-0"	40	wingwall	—	18"	819.74
s2	#5	7'-0"	40	"	—	18"	596.52
t	#5	11'-5"	4	"	—	—	30.73
u	#5	15'-5"	4	"	—	—	40.97
v	#5	19'-5"	20	"	—	18"	206.89
w	#5	3'-0"	124	bar	—	12"	368.24
x	#5	11'-5"	640	"	—	9"	7,707.41
y	#5	25'-0"	40	"	—	18"	596.52
z1	#5	11'-0"	40	wing wall	—	18"	596.52
z2	#5	4'-0"	40	"	—	18"	155.78
z3	#5	25'-0"	40	"	—	18"	596.52
z4	#5	4'-0"	40	"	—	18"	155.78
z5	#5	31'-0"	116	handrail	—	12"	2,188.88
z6	#5	31'-0"	116	handguard	—	9"	2,188.88
z7	#5	18'-0"	108	wing wall	—	18"	1,603.20

BILL OF MATERIALS			QUAN	UNIT
ITEM				
class A.R.C concrete			559.0	CU.YD.
reinforcing steel			76,288.66	LBS.
concrete formwork			185.6	S.F.
hand excavation			14.80	CU.YD.
HPing 10" Short Piling			1020.0	S.F.
cast in place fill	est		23,540.0	CU.YD.
common excavation	est		77,840.0	CU.YD.
class A Concrete			474.08	CU.YD.
24" inlets			8	EA.
16" R.C.P.			6	LF.
36" "			5	LF.
asph. mat rem.			278.44	SQ.
existing structure rem.			-	EO.
clearing of R/W			-	Linear Feet
6 inch concrete (non-satur encasement)			46.0	CU.YD.
5" R.C.P.			106.0	CU.YD.
10" curb			106.0	CU.YD.
loose fill			364.0	CU.YD.
Manhole Adjustments	est		2	NO.

00 GENERAL NOTES 00

CLASS A-AB CONCRETE Shall be used throughout this Project. All Reinforcing Steel Shall conform to A.S.T.M. Specifications.

*"EARTHWORK" all earthwork shall be considered as "Common Excavation" except for the forewall.
Forewall Excavation shall be included in "Cump Sum Bid"

* BACKFILL shall be compacted to the bottom of new pavement grade. All backfill & excavation to extend to (2) beyond sides of box manholes. Loose fill of banks to be in Lump Sum Bid.

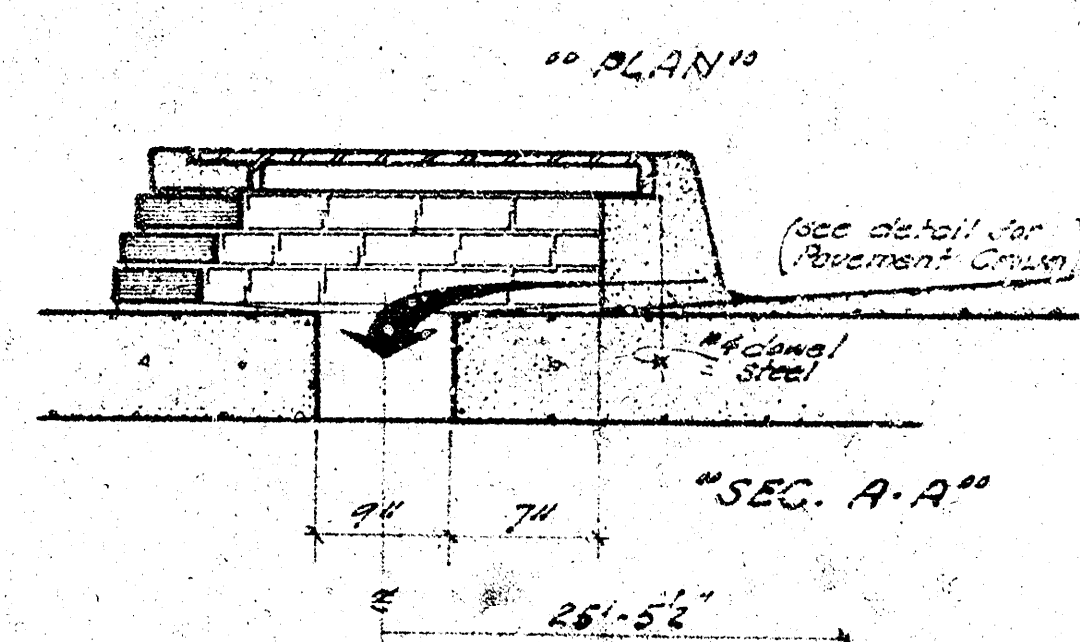
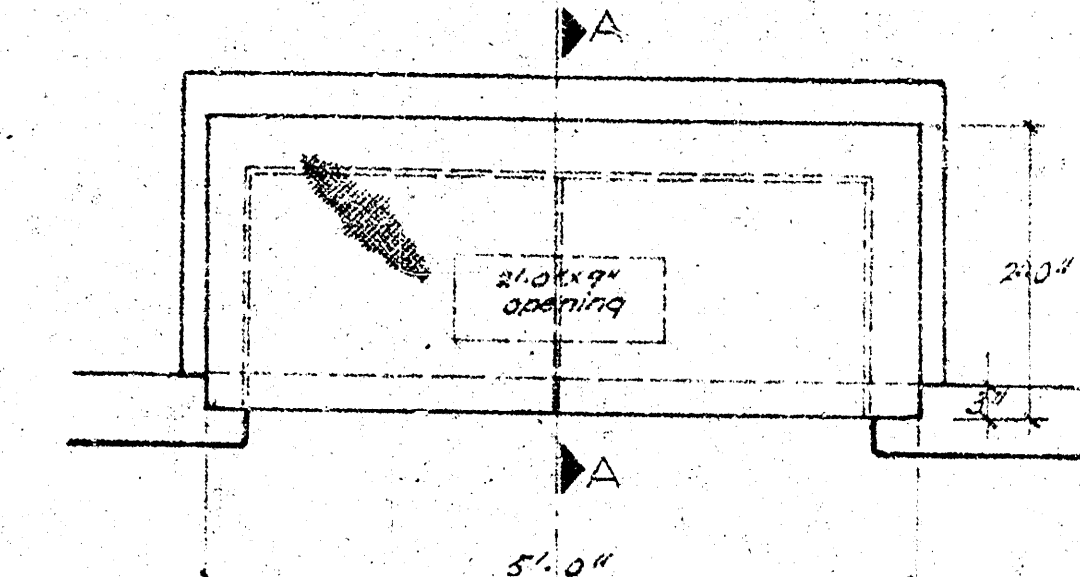
extending (5') in all directions above weep hole. This Work shall not be paid for directly but shall be considered a part of the excavation work.

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 injury.

intest, Campy. Fill, Common Excav, Glass A conc, ~~44~~ 44-46 PE P, acid mal rem, eno. Structure rem, Clearing file, 6.5 conc, 3.5 conc, 1.0 pp pop, ~~Enzo 1st~~ 1st, Manhole Adjustm. Quantities shown in the "Bill of Materials" or items which are included

In the "ump-sum bid" or "lump-sum contract," the Contractor must satisfy himself in the quantities and the Engineer assumes no responsibility for their accuracy. The Contractor will have full responsibility for providing all materials shown on the detailed plans necessary to complete the project.

YR	25'	21' 7"	84	Wingsall	12"	287.11
C3	25'	40'-0"	18	"	12"	750.96
C4	25'	22'-3"	18	"	12"	417.72
						286.65



"2'x5' INLET DETAIL"

