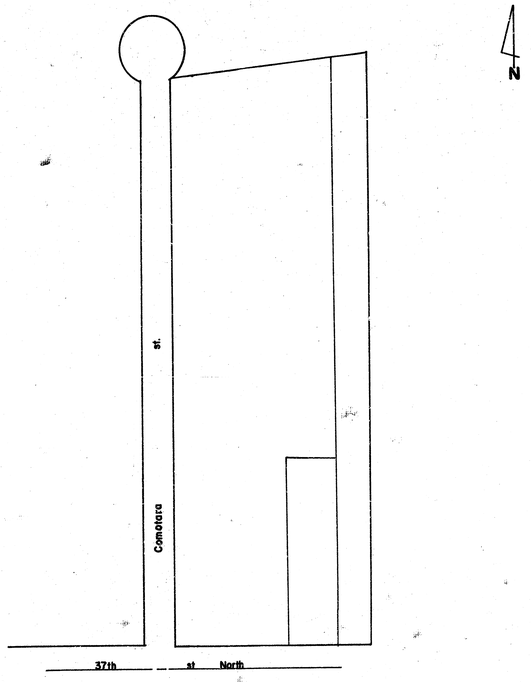
Comotara st.

NL 37th st to NL North Point Industrial Park



Department of Engineering

City of Wichita Kansas

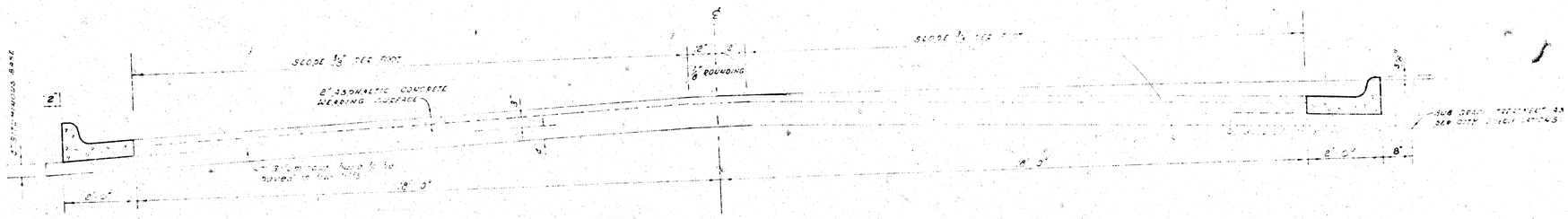
R.W. Bruggeman Dir. Engineering / City Engineer

Proj. no. 472-76-245-81074-000-000-001

Date: _____

STEPHEN R. LACKEY
LICENSED
7714
KANSAS
PROFESSIONAL ENGINEER

1/14



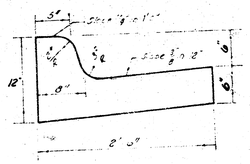
TYPICAL SECTION

41' ASPHALTIC CONCRETE PAVEMENT WITH BITUMINOUS BASE

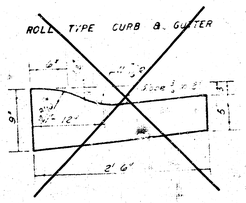
A TACK COAT OF EMULSIFIED ASPHALT (SS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE 0.05 GALLONS PER SQ YD BETWEEN LIFTS OF ASPHALTIC MATERIALS WHEN ORDERED BY THE ENGINEER. TACK COAT WILL NOT BE PAID FOR DIRECTLY AND SHALL BE CONSIDERED AS SUBSIDIARY TO PRICE BID FOR ASPHALTIC PAVEMENT.

BITUMINOUS BASE AND ASPHALTIC CONCRETE WEARING SURFACE SHALL BE PLACED WITH A LAYDOWN MACHINE HAVING AUTOMATIC CONTROLS FOR CROWN AND GRADE. CONSTRUCTION JOINTS IN EACH LIFT SHALL BE STAGGERED A MINIMUM DISTANCE OF 1' WITH JOINTS IN PRECEDING LIFTS AND SUCH THAT A JOINT WILL BE CONSTRUCTED ON THE PAVEMENT CENTERLINE IN THE TOP LIFT.

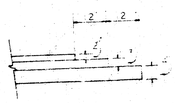
COMBINED CURB & GUTTER



ROLL TYPE CURB & GUTTER



DETAIL OF TRANSVERSE CONSTRUCTION JOINTS



TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED IN FLEXIBLE BASE PAVEMENTS AT LOCATIONS WHERE PAVEMENT TEMPORARILY ENDS TO FACILITATE FUTURE PAVEMENT CONSTRUCTION AS SHOWN BY DETAIL. THE COST OF CONSTRUCTING THE TRANSVERSE CONSTRUCTION JOINTS SHALL NOT BE MEASURED OR PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE BID PRICE FOR SQUARE YARDS OF ASPHALTIC CONCRETE PAVEMENT.

The A.C. pavement [illegible] the combi curb & gutter shall be paid as SQ YDS [illegible] pavement (41' Bituminous Base). The Bituminous Base [illegible] the combi curb & gutter shall be paid as SQ YDS [illegible] Bituminous Base.

CITY OF WICHITA, KANSAS

DEPARTMENT of - Engineering

DATE

2'/14

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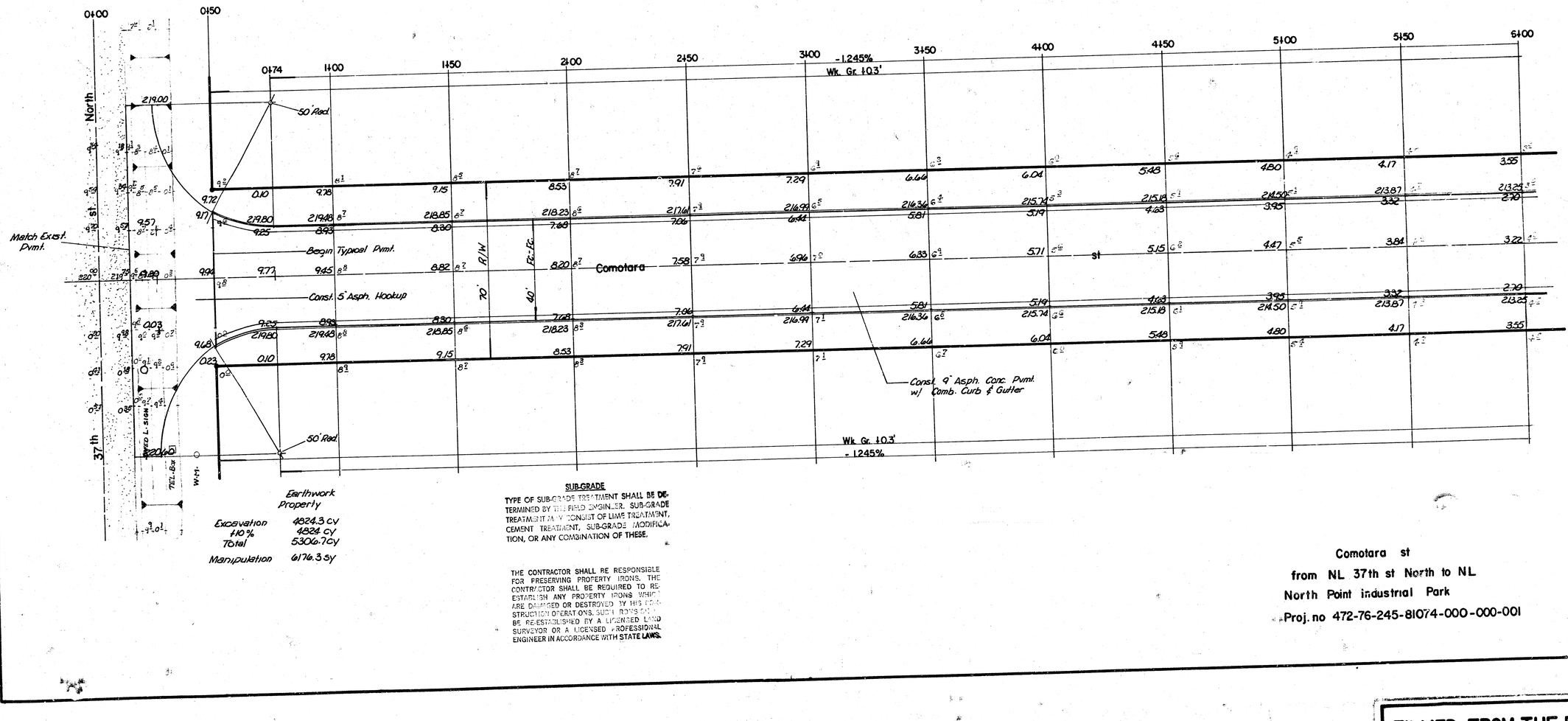
BM 219.80 R.R. spike N~fc P.P. S.W. cor. 37th st. N. & Comotara st.

BM 211.80 "□" NW cor. headwall R.C.B. undgr. R.R. on WestParkway 1800'± N of 37th st N.

BL is ℄ Comotara

N

Scale: 1"=20'



Earthwork

Property	
Excavation	4824.3 cy
±10%	482.4 cy
Total	5306.7 cy
Manipulation	6176.3 sy

SUB-GRADE

TYPE OF SUB-GRADE TREATMENT SHALL BE DETERMINED BY THE FIELD ENGINEER. SUB-GRADE TREATMENT MAY CONSIST OF LIME TREATMENT, CEMENT TREATMENT, SUB-GRADE MODIFICATION, OR ANY COMBINATION OF THESE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR SHALL 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 OR A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH STATE LAWS.

Comotara st

from NL 37th st North to NL

North Point Industrial Park

Proj. no 472-76-245-81074-000-000-001

3/14

Surveyed by
Plan
Checked

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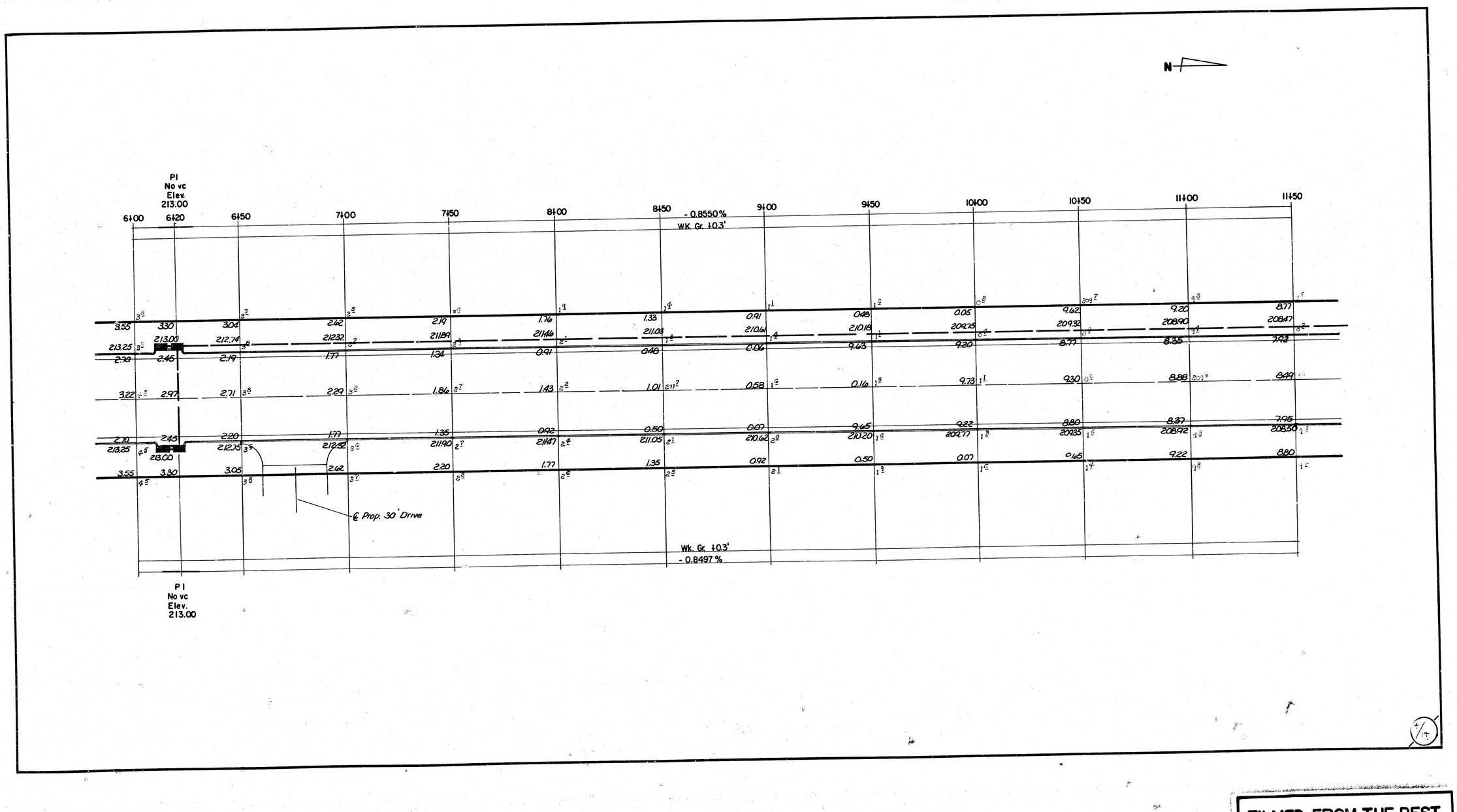

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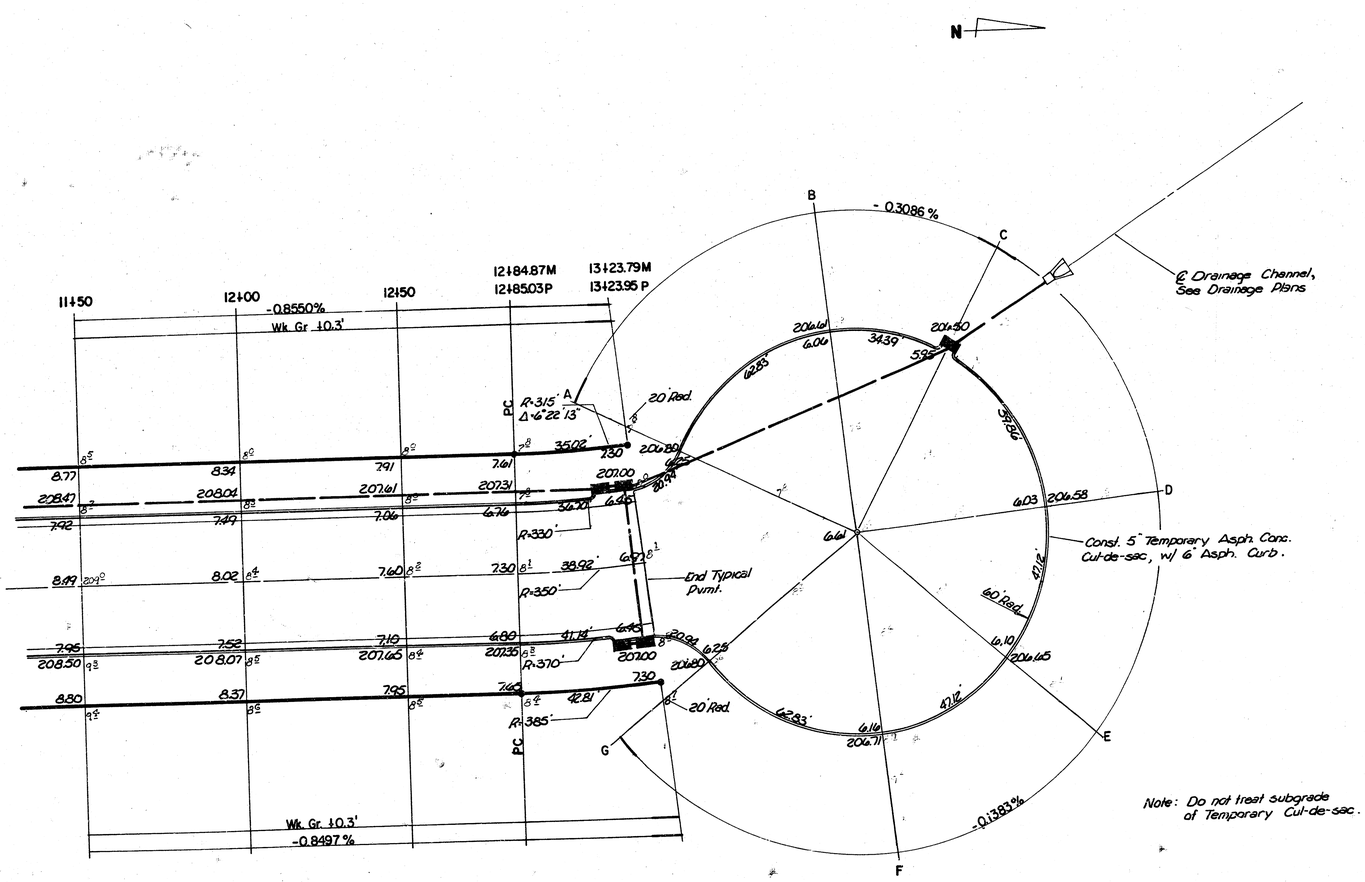

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215

2100

C=4.12

220

215

EXCAV= 53.9CY

1450

C=170

220

215

EXCAV= 53.1 CY

1100

C=.409

220

EXCAV.
$\left(\frac{40.9+110.6}{2}\right)(24) = 730CY$

215

$(2) \times \left(\frac{129.7.9^{2}0}{27}\right)(.4) = \frac{38.4CY}{111.4CY}$ ←

0150

Avg. Depth= 0.79
Calc Area = (1.48)(0.79) = 110.6

220

$\text{Exc} = \frac{(583+110.6)(11')}{27} = 344CY$

215

01240

Calc. Area=$(140' \times 5\frac{1}{2}') = 583$

220

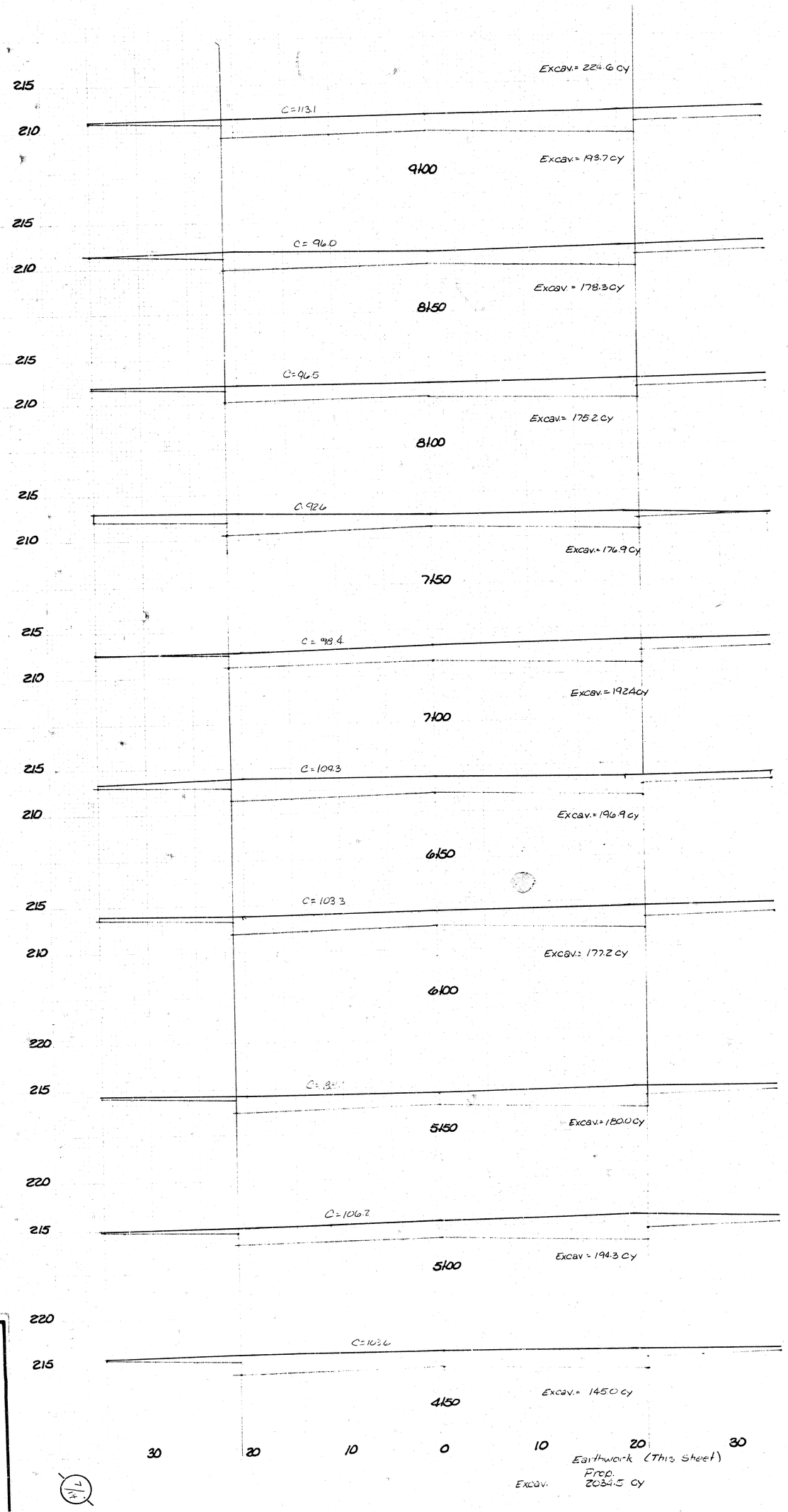
215

0113

30 20 0 10 20 30

Earthwork (This Sheet)
Proc. 742.8 CY
Excav.-

Earthwork (Total)
Proc. 4824.3 CY
Excav.



Earthwork (This Sheet)

Excav. Prop. 2034.5 cy

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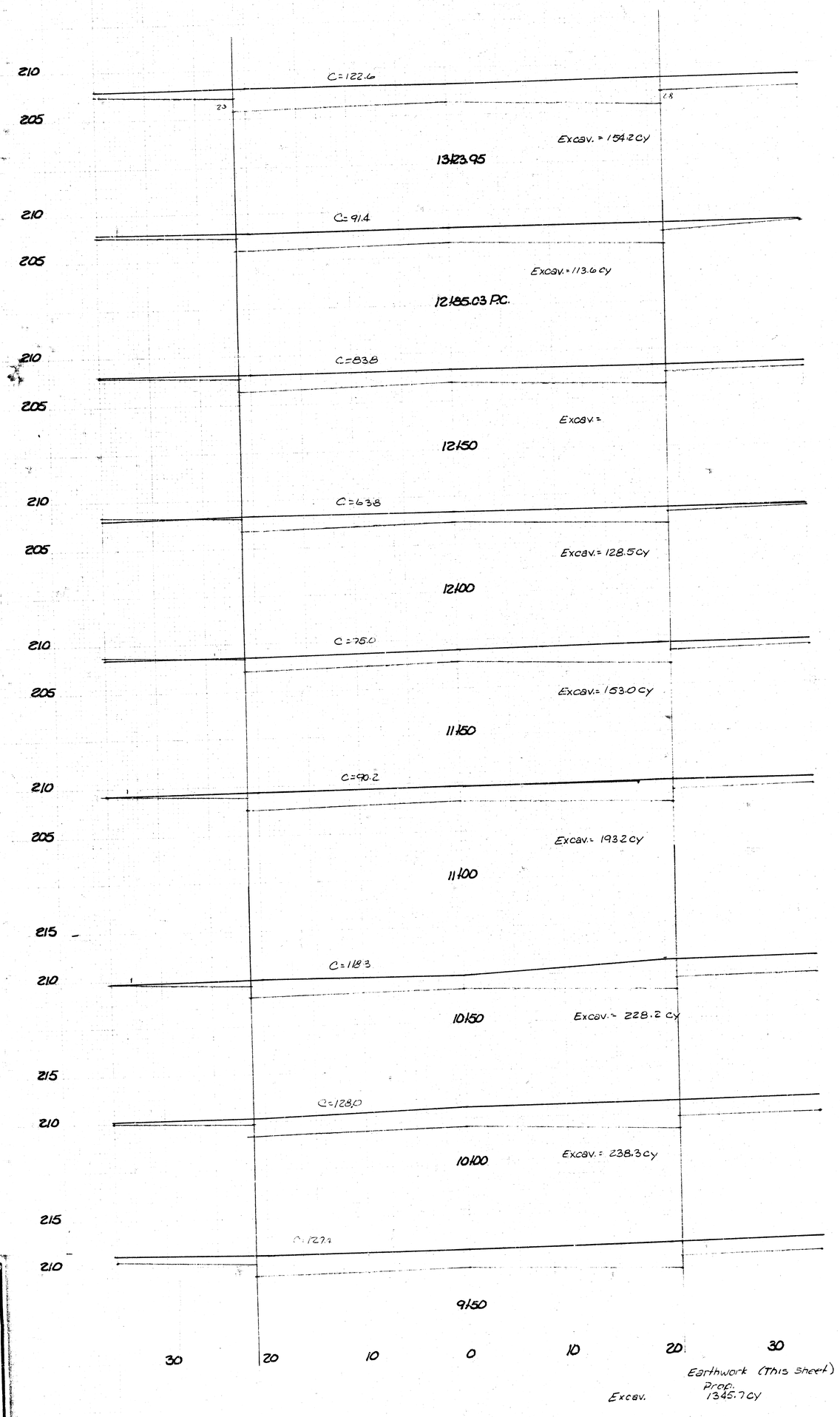

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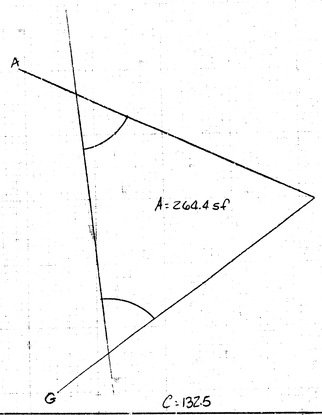
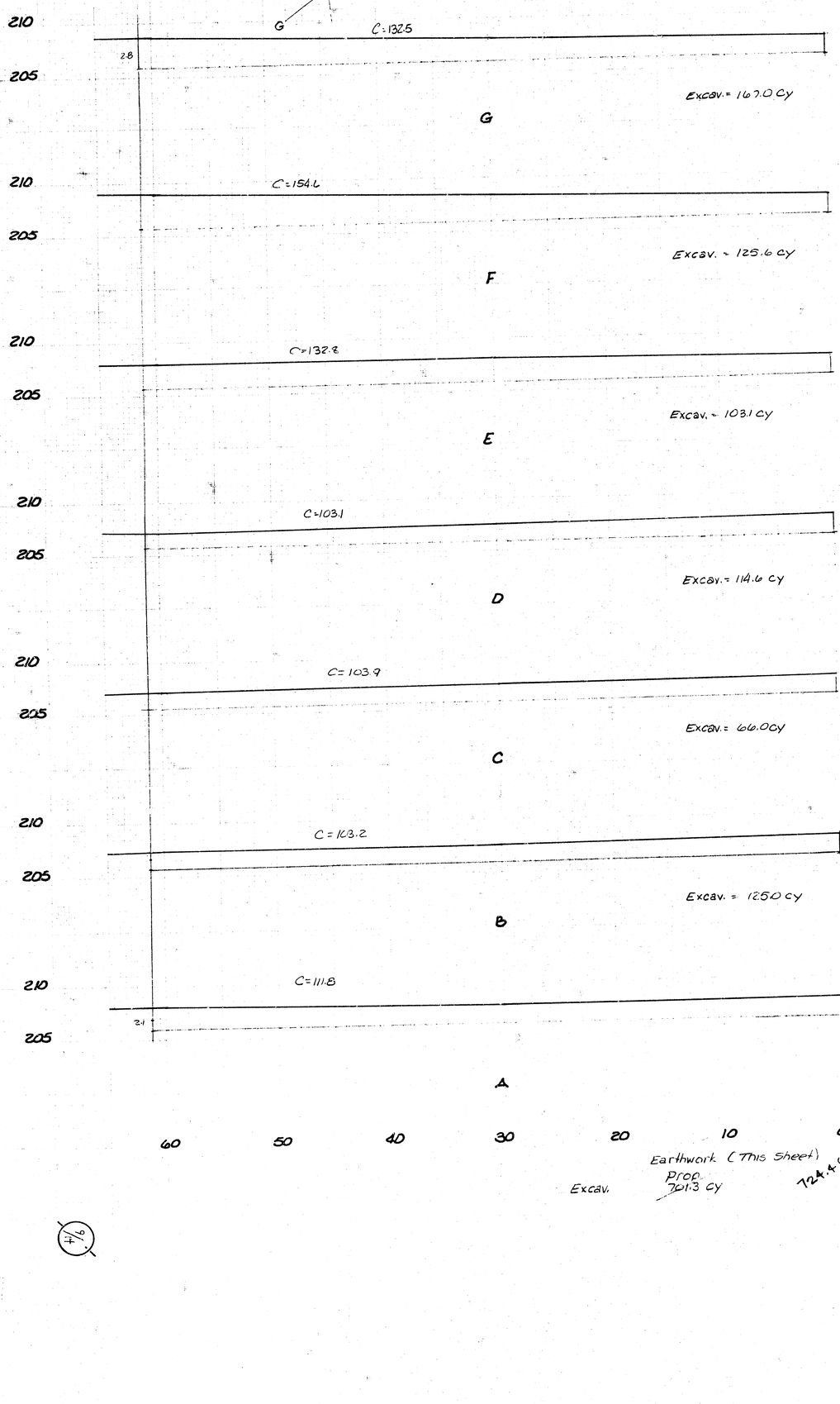


$$\frac{(264.4\,sf)\left(\frac{2.8+2(1.8)+2.3+2.8}{5}\right)}{27} = 23.1\,cy$$



Earthwork (This Sheet)

Excav. Prop. 701.3 cy 724.4 cy

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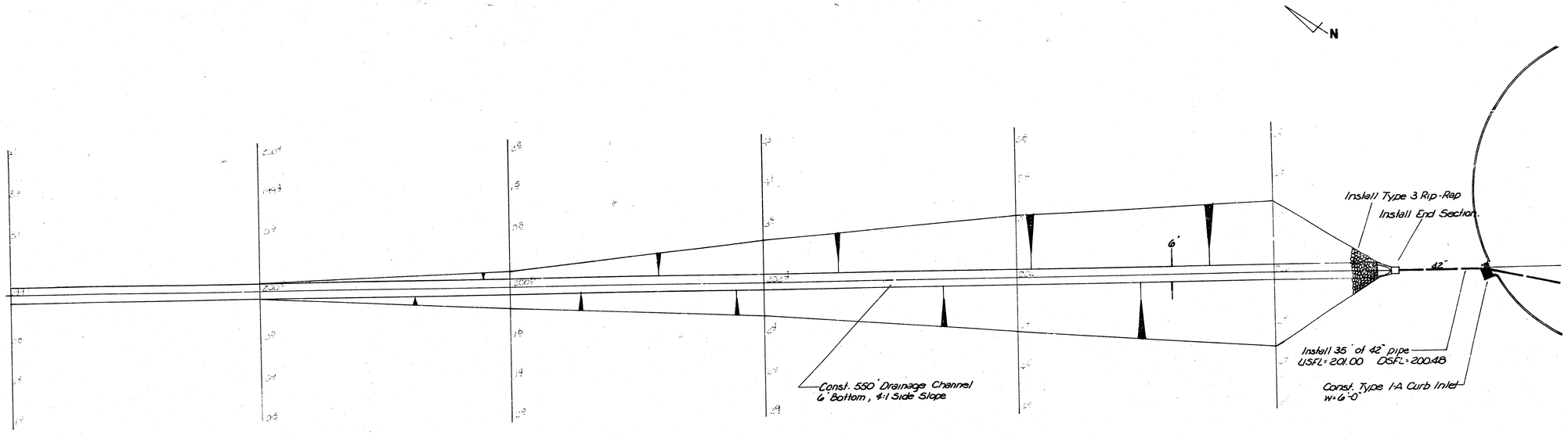

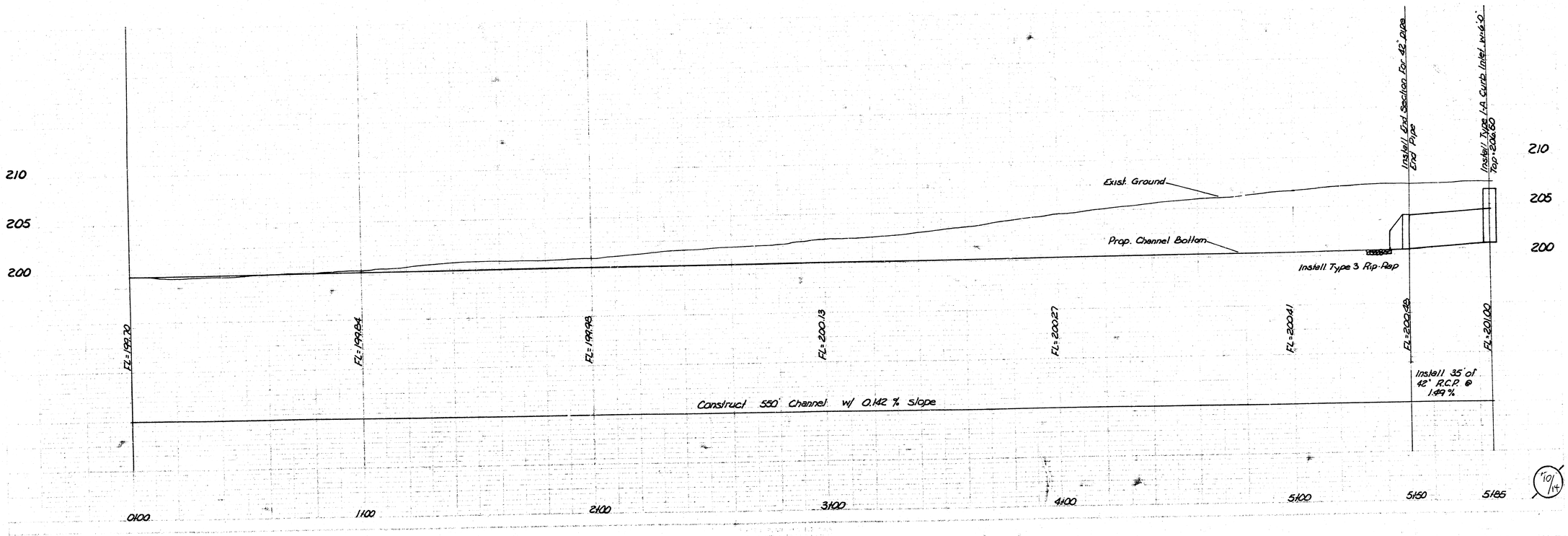

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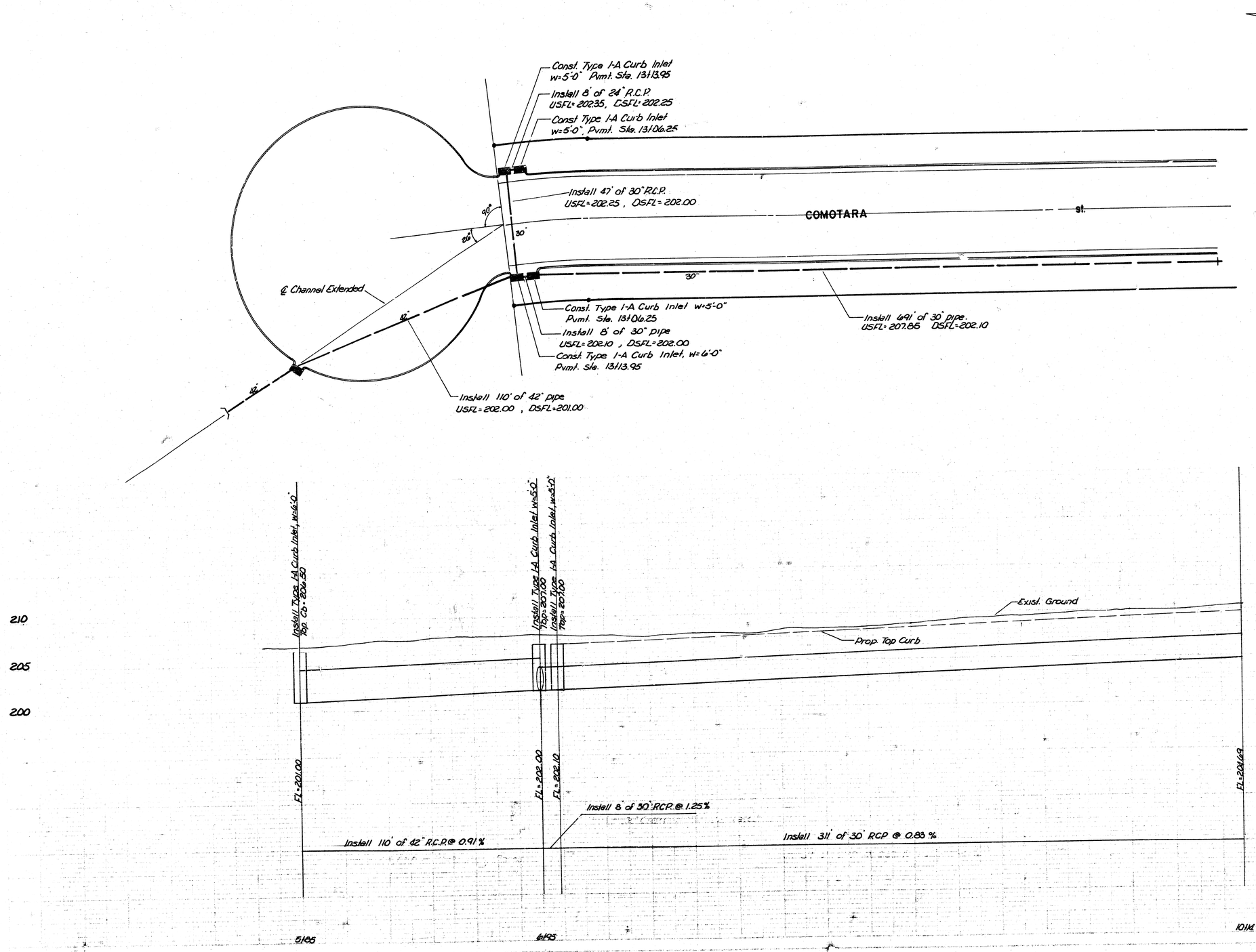

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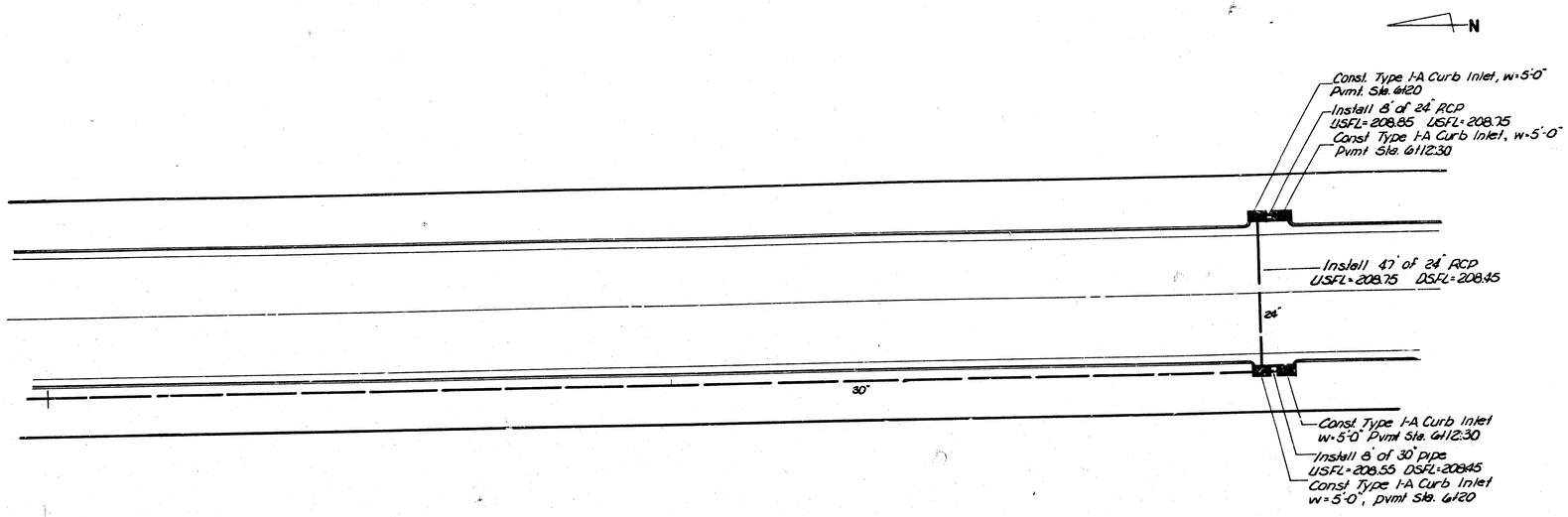

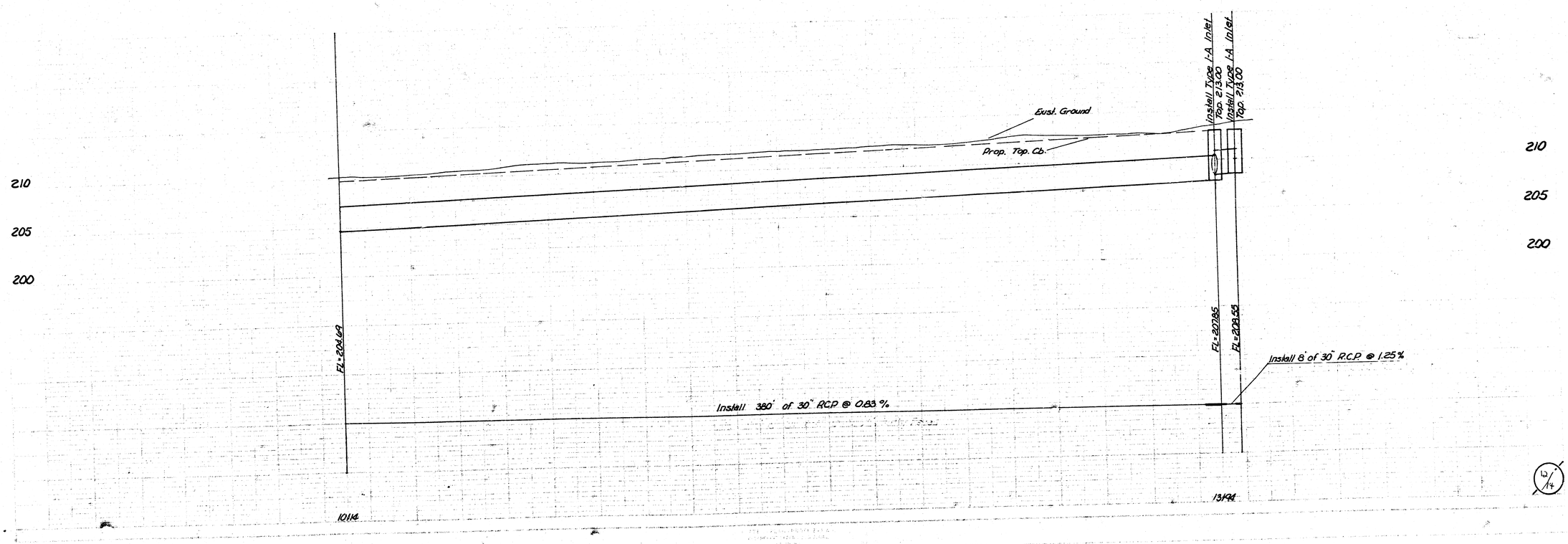

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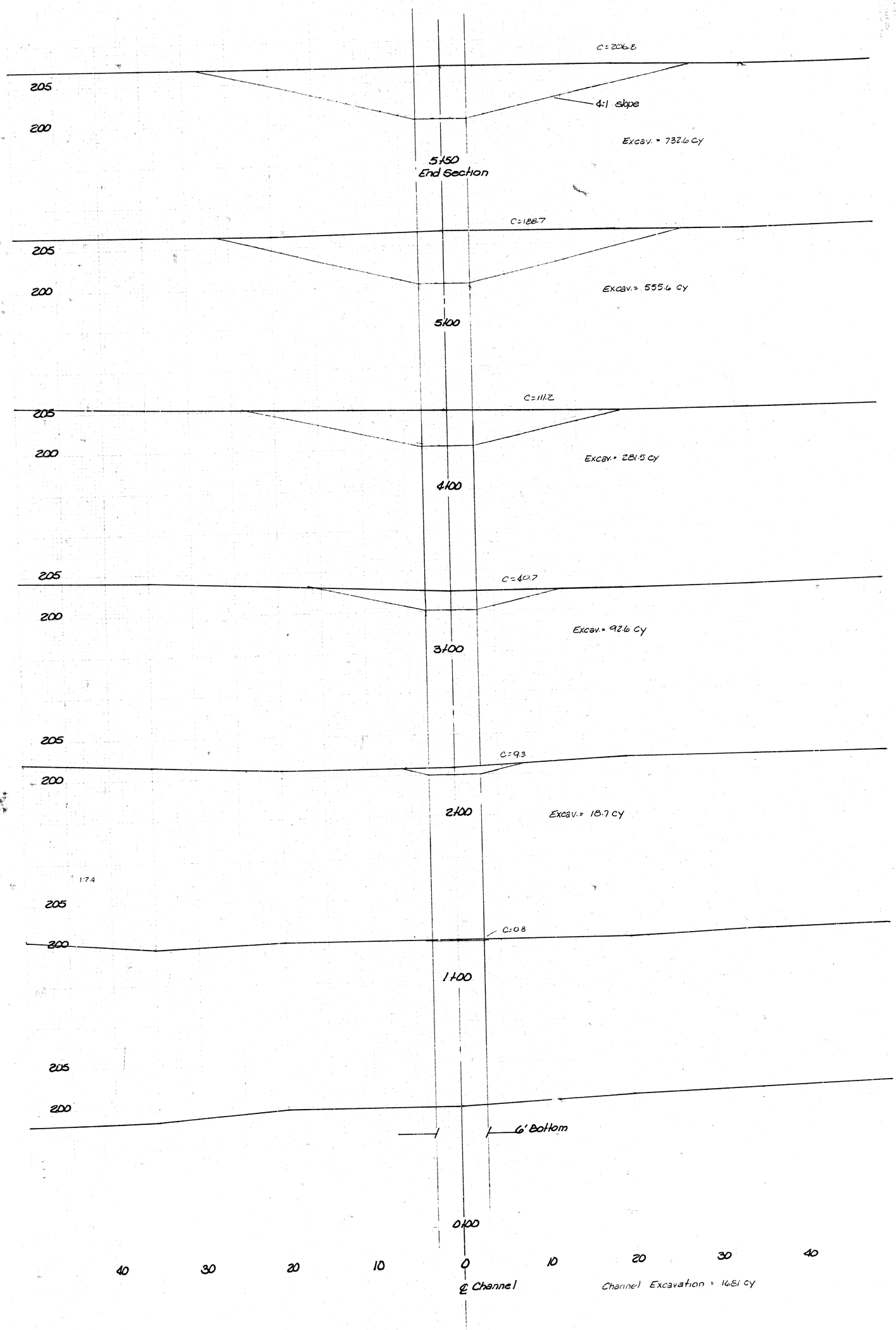

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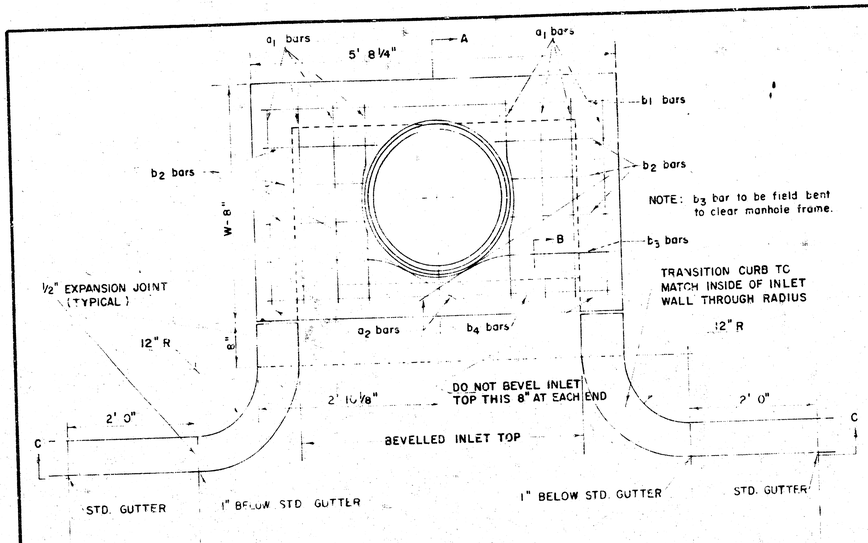
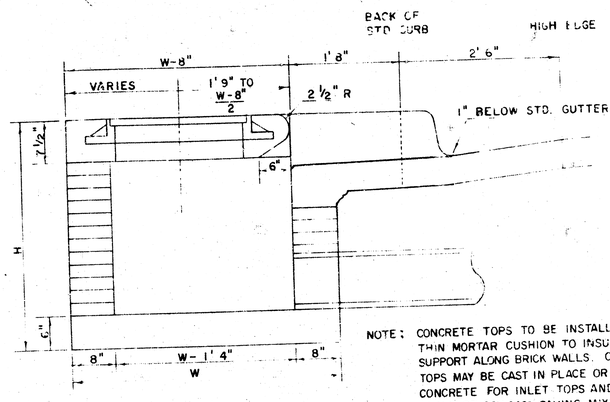
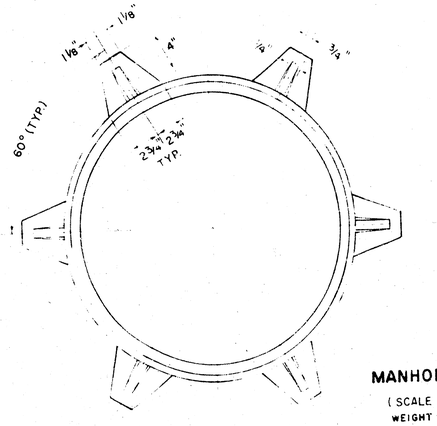


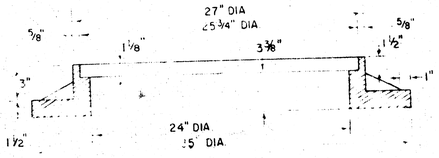


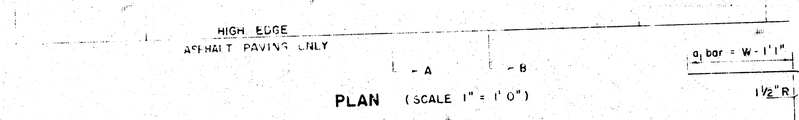
SECTION A-A
(SCALE 1" = 1'0")

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 FOR INLET TOPS AND FLOORS SHALL BE *STANDARD* PAVING MIX.

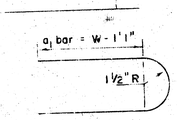


MANHOLE FRAME
(SCALE 1" = 6")
WEIGHT = 180 LBS.





PLAN (SCALE 1" = 1'0")



BENDING DIAGRAM

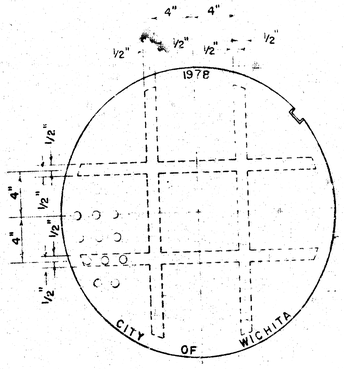
STEEL SCHEDULE

BAR	a_1	a_2	b_1 W=4'2"	b_1 W=5'0"	b_1 W=6'0"	b_1 W=7'0"	b_1 W=8'0"	b_2	b_3	b_4	WT. LBS.
NUMBER	8	2	1	3	5	7	9	6	1	1	
SIZE	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6	
LENGTH W=4'2"	6'5"	3'4"	5'5"	–	–	–	–	1'5"	5'6"	5'5"	80#
LENGTH W=5'0"	8'1"	4'4"	–	5'5"	–	–	–	1'5"	5'6"	5'5"	77#
LENGTH W=6'0"	10'1"	5'4"	–	–	5'5"	–	–	1'5"	5'6"	5'5"	97#
LENGTH W=7'0"	11'1"	6'4"	–	–	–	5'5"	–	1'5"	5'6"	5'5"	111#
LENGTH W=8'0"	12'1"	7'4"	–	–	–	–	5'5"	1'5"	5'6"	5'5"	124#

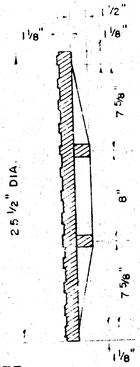
* NOTE: a_2 BARS TO BE PLACED APPROX. 2" BELOW TOP OF INLET COVER

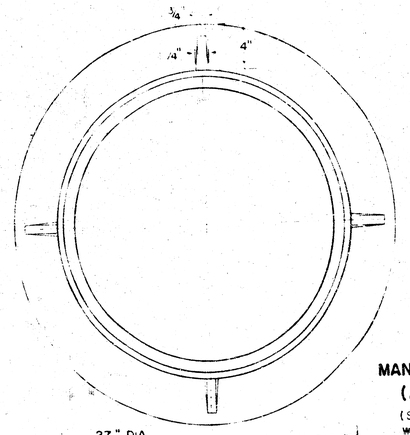
STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU.YD. CONC.
4' 2"	36"x5'8 1/4"x7 1/2"	21" & SMALLER	0.46 *
5' 0"	44"x5'8 1/4"x7 1/2"	24" & 30"	0.57 *
6' 0"	54"x5'8 1/4"x7 1/2"	36" & 42"	0.71 *
7' 0"	64"x5'8 1/4"x7 1/2"	48" & 54"	0.84 *
8' 0"	74"x5'8 1/4"x7 1/2"	60" & 66"	0.97 *

* GROSS VOLUME

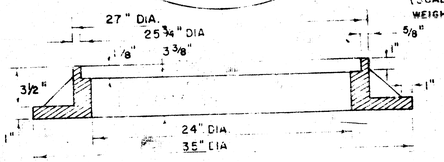


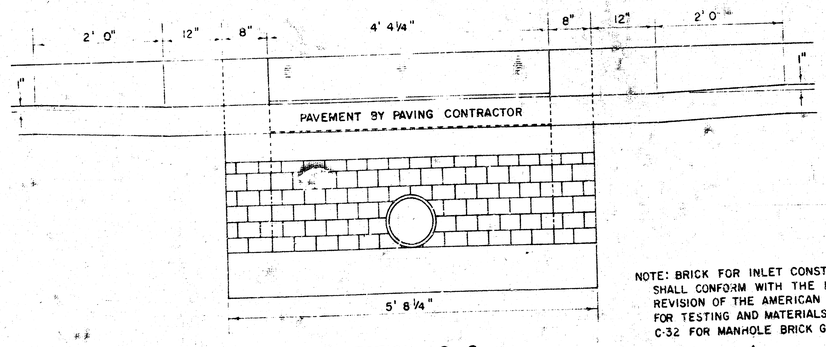
MANHOLE COVER
(SCALE 1" = 6")
WEIGHT = 170 LBS.





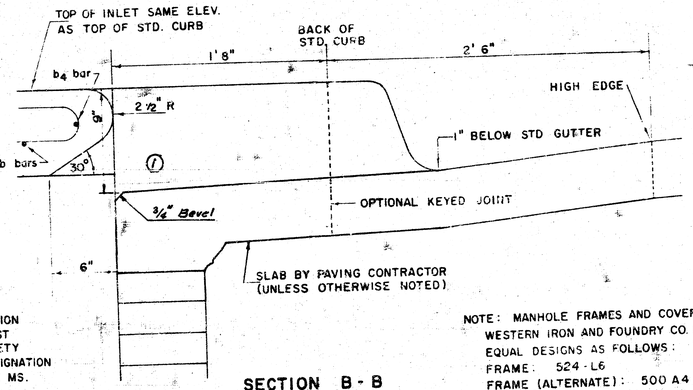
MANHOLE FRAME (ALTERNATE)
(SCALE 1" = 6")
WEIGHT = 180 LBS.





SECTION C-C
(SCALE 1" = 1'0")

NOTE: BRICK FOR INLET CONSTRUCTION SHALL CONFORM WITH THE LATEST REVISION OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS DESIGNATION C-32 FOR MANHOLE BRICK GRADE MS.



SECTION B-B
(SCALE 1" = 6")

NOTE: MANHOLE FRAMES AND COVER ARE WESTERN IRON AND FOUNDRY CO. INC. OR EQUAL DESIGNS AS FOLLOWS:
FRAME: 524-L6
FRAME (ALTERNATE): 500 A4
COVER: 222 S4 "NOBBY"

(1) Rev. 5-18-81

DETAIL STANDARD TYPE IA CURB INLET

CITY OF WICHITA, KANSAS

R.W. BRUGGEMAN, DIRECTOR OF ENGINEERING/ CITY ENGINEER

JUNE, 1981

11/16

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