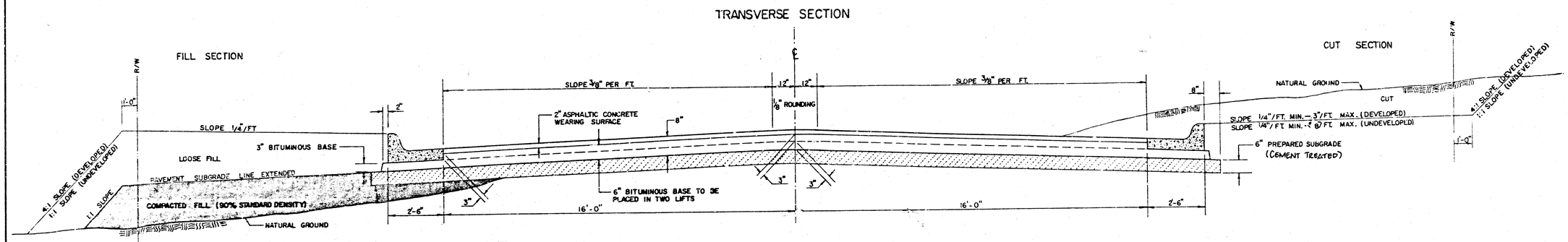
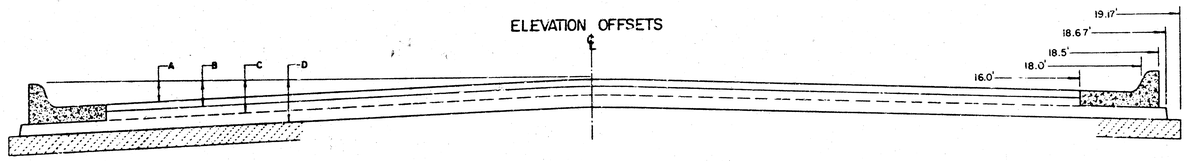
TYPICAL 37' PAVEMENT DETAILS

TRANSVERSE SECTION

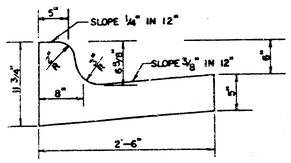


ELEVATION OFFSETS



	DISTANCE FROM CENTERLINE (LT. & RT.)												
	0	2	4	6	8	10	12	14	16	18	18.5	18.67	19.17
A: TOP OF CURBS TO TOP OF SURFACE LIFT	.01	.05	.11	.18	.24	.30	.36	.43	.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	.17	.22	.28	.34	.40	.47	.53	.59	.65	—	—	—	—
C: TOP OF CURBS TO TOP OF LOWER BASE LIFT	.42	.47	.53	.59	.65	.72	.78	.84	.90	.97	.98	.99	—
D: TOP OF CURBS TO TOP OF SUBGRADE	.67	.72	.78	.84	.90	.97	1.03	1.09	1.15	1.22	1.23	1.24	1.25

COMBINED CURB & GUTTER



GENERAL NOTES

1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 8" ASPHALTIC CONCRETE (6" BITUMINOUS BASE).

2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 3" BITUMINOUS BASE.

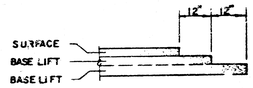
3) A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.

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

5) 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.

6) CONTRACTOR TO BID ONLY ONE SUBGRADE TREATMENT ALTERNATE WHEN ALTERNATES ARE PROVIDED IN THE PROPOSAL AND CONTRACT. THE ALTERNATE CHOSEN BY THE SUCCESSFUL BIDDER SHALL BE USED IN CONSTRUCTING THIS PROJECT.

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 8" ASPHALTIC CONCRETE (6" BITUMINOUS BASE).

8 INCH RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH 6 INCH BITUMINOUS BASE
CITY OF WICHITA, KANSAS
PROJECT NUMBER
472-73-245-81193-000-000-001

2/14

STREET IMPROVEMENTS

GOLD

FROM THE SW CORNER OF LOT 16, BLOCK 11
AND A POINT 40 FEET NE OF S CORNER LOT 17, BLOCK 8
TO THE NE LINE OF LOT 17, BLOCK 9
AND TO THE N LINE OF LOT 13, BLOCK 11

GOLD COURT

FROM THE E LINE OF GOLD TO THE E LINE OF GOLD

SYCAMORE

FROM THE N LINE OF LOT 8, BLOCK 9 TO THE W LINE OF GOLD
SOUTH SENECA GARDENS FOURTH ADDITION

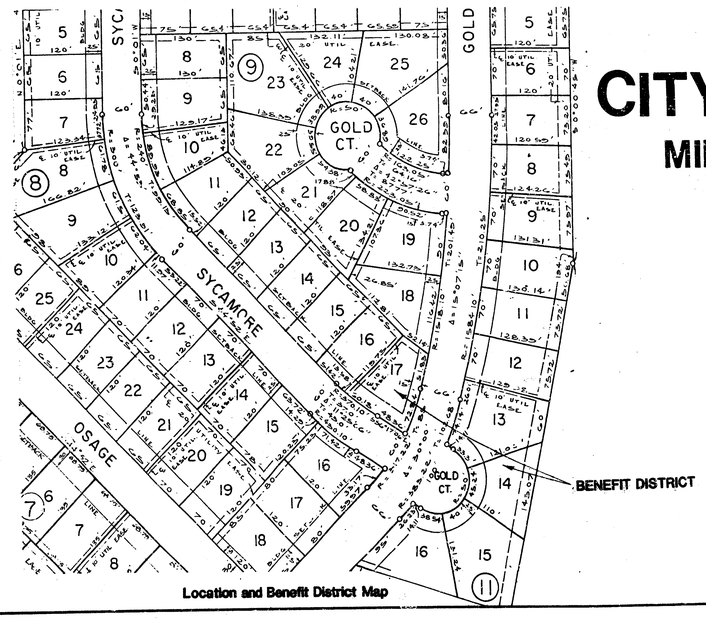
PROJECT NO. 472-76-245-81193-000-000-001

GENERAL NOTES

1. The Contractor shall contact Kan-U-Dig-It (267-2889) for location of underground utilities prior to any excavation.
2. The Contractor shall be responsible for protecting block corners and property irons. Any such irons disturbed by the Contractor's operations shall be replaced at Contractor's expense, by a licensed professional engineer or surveyor, in accordance with state laws.
3. Curb and Gutter on Gold Court and on Sycamore shall be Roll-Type Combined Curb and Gutter, as indicated on the plans. Top of curb grades shown are for full height curb.
4. Roll curb shall be depressed through all drives that are to be constructed as part of this project.

N

1" = 100'



Location and Benefit District Map

CITY OF WICHITA, KANSAS

MIKE E. LINDEBAK, CITY ENGINEER

INDEX

1	Location & Benefit District Map
2-4	Typical Sections
5-7	Street Improvement Plans
8-9	Incidental Drainage
10	Type 1A Inlet Detail
11	Type "B" Manhole Detail
12-14	Earthwork Sections

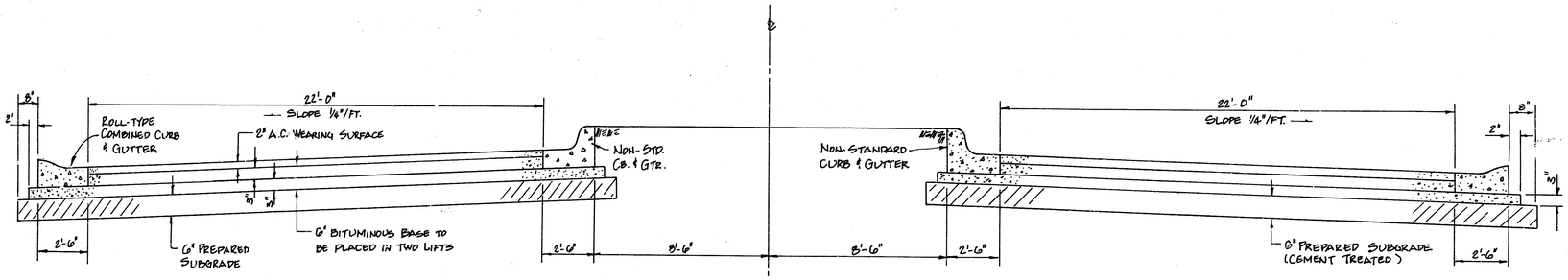
BENCH MARK:

City of Wichita Standard disc, 45' west and 48' north of ¼ sec. corner at 55th Street South and Gold, Elev. 81.36

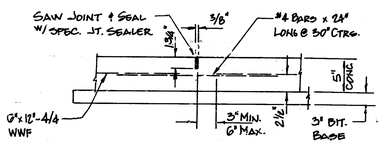
BRENT WORTEN
LICENSED
8470
KANSAS
PROFESSIONAL ENGINEER

SEPTEMBER 1984

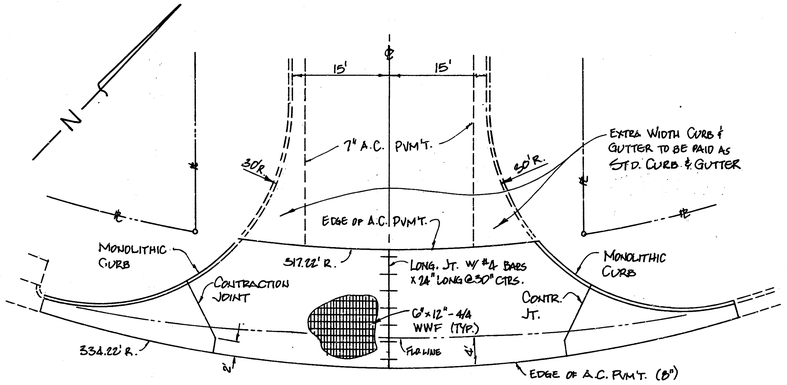
BAUGHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
316/262-7271 • 330 LAURA • WICHITA, KANSAS 67211



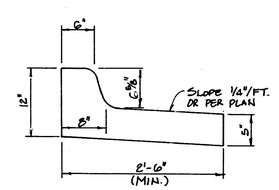
TYPICAL SECTION
8" ASPHALTIC CONCRETE PAVEMENT
(GOLD COURT)



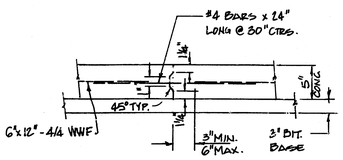
LONGITUDINAL SAWED JOINT
FOR CONCRETE VALLEY GUTTER



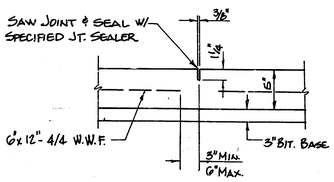
VALLEY GUTTER DETAIL
GOLD/SYCAMORE



NON-STD. COMBINED CURB AND GUTTER

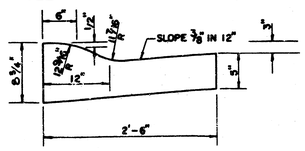


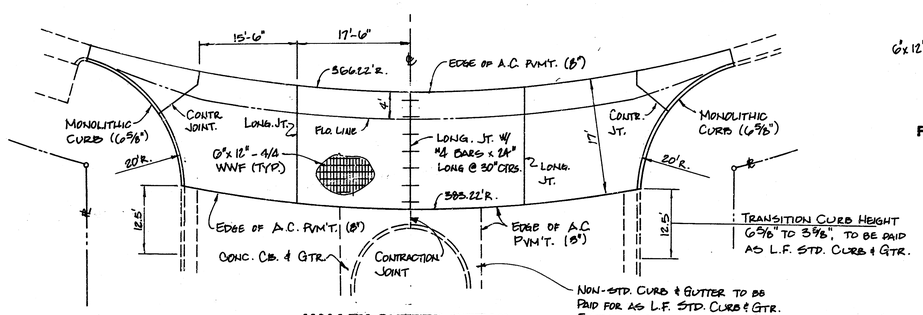
LONGITUDINAL CONSTRUCTION JOINT
FOR CONCRETE VALLEY GUTTER



CONTRACTION JOINT
FOR CONCRETE VALLEY GUTTER

ROLL TYPE COMBINED CURB & GUTTER





VALLEY GUTTER DETAIL
GOLD/GOLD COURT

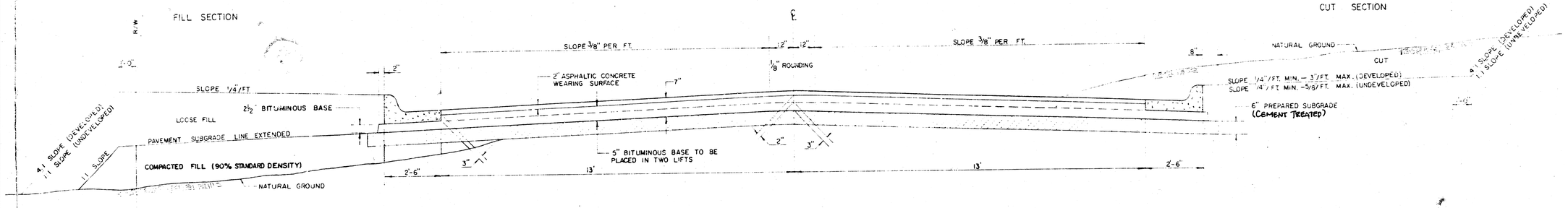
TYPICAL SECTION AND VALLEY GUTTER DETAILS

Proj. # 472-76-245-81193-000-000-000

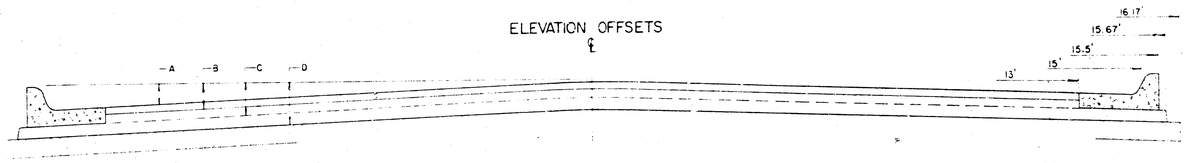
3/14

TYPICAL 31' PAVEMENT DETAILS

TRANSVERSE SECTION

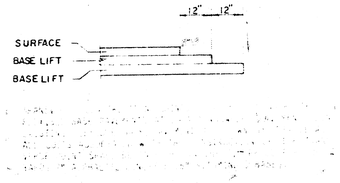


ELEVATION OFFSETS

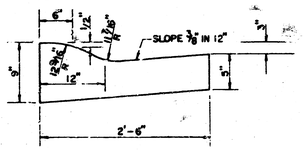


	DISTANCE FROM CENTERLINE (LT. & RT.)											
	0'	2'	4'	6'	7.5'	10'	12'	13'	15'	15.5'	15.67'	16.17'
A: TOP OF CURBS TO TOP OF SURFACE LIFT	0.10	0.14	0.21	0.27	0.32	0.39	0.46	0.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	0.27	0.31	0.38	0.44	0.49	0.56	0.63	0.66	—	—	—	—
C: TOP OF CURBS TO TOP OF LOWER BASE LIFT	0.44	0.49	0.57	0.64	0.70	0.79	0.87	0.90	0.98	1.00	1.00	—
D: TOP OF CURBS TO TOP OF SUBGRADE	0.69	0.73	0.80	0.87	0.93	1.01	1.08	1.12	1.19	1.21	1.21	1.23

TRANSVERSE CONSTRUCTION JOINTS



ROLL TYPE COMBINED CURB & GUTTER



GENERAL NOTES

1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).

2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 2 1/2" BITUMINOUS BASE.

3) 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.

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

5) 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.

6) CONTRACTOR TO BID ONLY ONE SUBGRADE TREATMENT ALTERNATE WHEN ALTERNATES ARE PROVIDED IN THE PROPOSAL AND CONTRACT. THE ALTERNATE CHOSEN BY THE SUCCESSFUL BIDDER SHALL BE USED IN CONSTRUCTING THIS PROJECT.

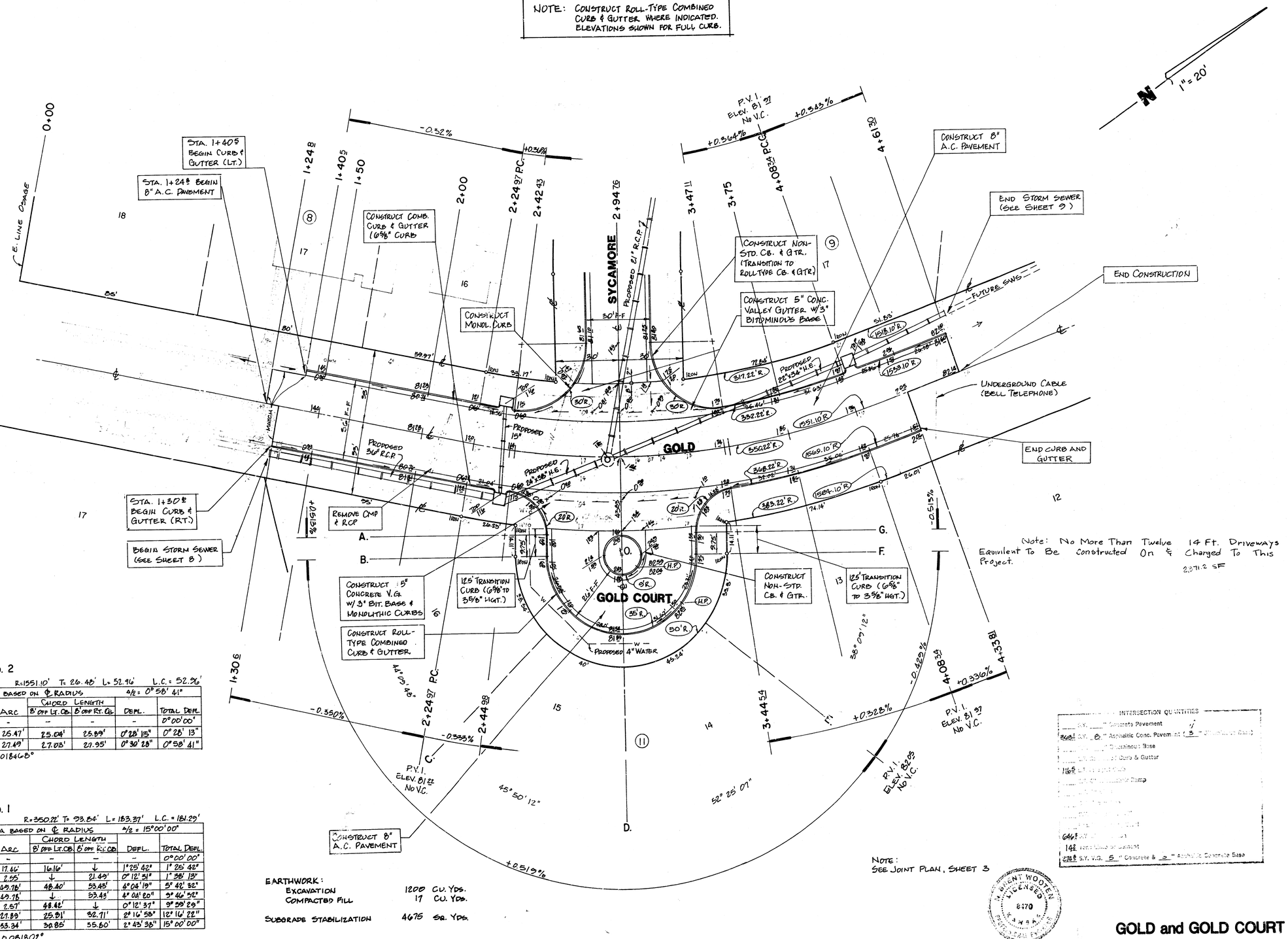
7 INCH RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH 5 INCH BITUMINOUS BASE

CITY OF WICHITA, KANSAS

PROJECT NUMBER

472-76-245-81, 93-000-000-001

NOTE: CONSTRUCT ROLL-TYPE COMBINED CURB & GUTTER WHERE INDICATED. ELEVATIONS SHOWN FOR FULL CURB.



CURVE No. 2

Δ = 1° 57' 22" R=1551.10' T= 26.48' L= 52.96' L.C.= 52.96'

CURVE DATA BASED ON ℄ RADIUS 4/8 = 0° 58' 41"

STA.	ARC	CHORD LENGTH 8' OFF LT. CB.	CHORD LENGTH 8' OFF RT. CB.	DEFL.	TOTAL DEFL.
4+08³⁴ P.C.C.	-	--	-	-	0° 00' 00"
4+33⁸¹	25.47'	25.04'	25.89'	0° 28' 15"	0° 28' 13"
4+61³⁸	27.49'	27.03'	27.95'	0° 30' 28"	0° 58' 41"

DEFL./FT. = 0.018408°

CURVE No. 1

Δ = 30°00' R=350.22' T= 93.84' L= 183.37' L.C.= 181.29'

CURVE DATA BASED ON ℄ RADIUS 4/2 = 15° 00' 00"

STA.	ARC	CHORD LENGTH 8' OFF LT. CB.	CHORD LENGTH 8' OFF RT. CB.	DEFL.	TOTAL DEFL.
2+24⁹⁷ P.C.	-	-	-	-	0° 00' 00"
2+42⁴³	17.46'	16.16'	↓	1° 25' 42"	1° 26' 42"
2+44⁹⁸	2.55'	↓	21.49'	0° 12' 31"	1° 38' 13"
2+94⁷⁶	49.78'	48.40'	53.43'	4° 04' 19"	5° 42' 32"
3+44⁵⁴	49.78'	↓	53.43'	4° 04' 20"	9° 46' 52"
3+47¹¹	2.57'	48.42'	↓	0° 12' 37"	9° 59' 29"
3+75	27.89'	25.91'	29.71'	2° 16' 53"	12° 16' 22"
4+08³⁴ P.C.C.	33.34'	30.85'	35.60'	2° 43' 38"	15° 00' 00"

DEFL/FT. = 0.081802°

EARTHWORK:

EXCAVATION	1200 CU. YDS.
COMPACTED FILL	17 CU. YDS.
SUBGRADE STABILIZATION	4675 SQ. YDS.

INTERSECTION QUANTITIES

- S.Y. ___" Concrete Pavement
- 3161 S.Y. 8" Asphaltic Conc. Pavement on 3" Bituminous Base
- ___ L.F. ___ Curb & Gutter
- 116.5 L.F. ___ Monolithic Ramp
- 64.3 S.Y. ___
- 142 ___ Removal of Asphalt
- 278.8 S.Y. V.G. 5" Concrete & 3" Asphaltic Concrete Base

NOTE: SEE JOINT PLAN, SHEET 3

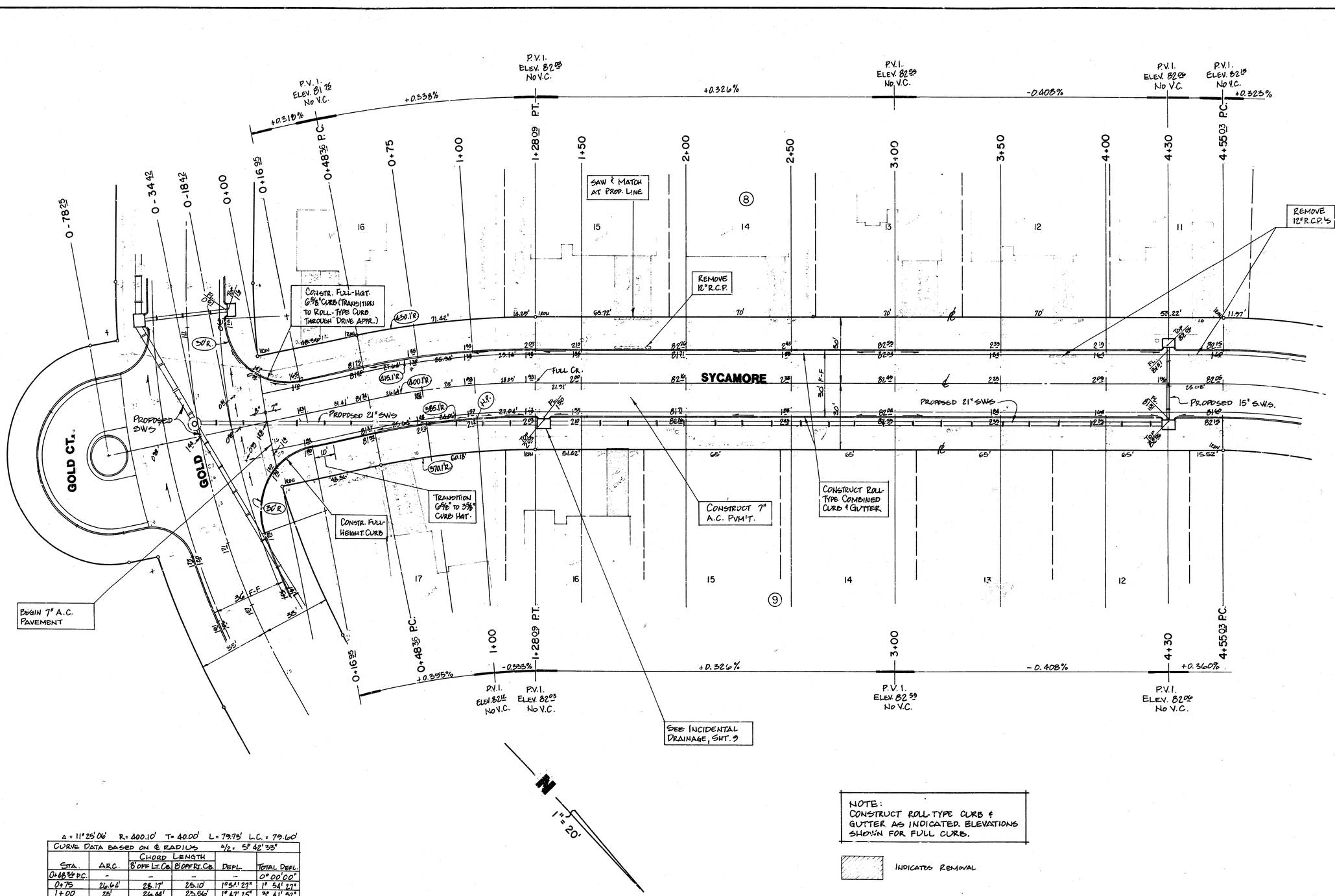
BR. BA. 10 TCR

PATRICIA WOOTEN LICENSED ENGINEER 8170 STATE OF KANSAS

GOLD and GOLD COURT

Proj. #472-76-245-81193-000-000-001

5/14



$\Delta = 11°25'06"$ R = 200.10' T = 40.00' L = 79.75' L.C. = 79.60'

CURVE DATA BASED ON ℄ RADIUS				4/2. 5° 42' 33"	
		CHORD LENGTH			
STA.	ARC.	8' OFF LT. CB.	8' OFF RT. CB.	DEFL.	TOTAL DEFL.
0+48.35 P.C.	-	-	-	-	0° 00' 00"
0+75	26.65'	26.17'	25.10'	7° 51' 27"	1° 54' 27"
1+00	25'	26.44'	25.56'	1° 47' 25"	3° 41' 52"
1+28.09 P.T.	28.09'	29.70'	26.47'	2° 00' 41"	5° 42' 33"

DEFL./FT. = 0.07161°

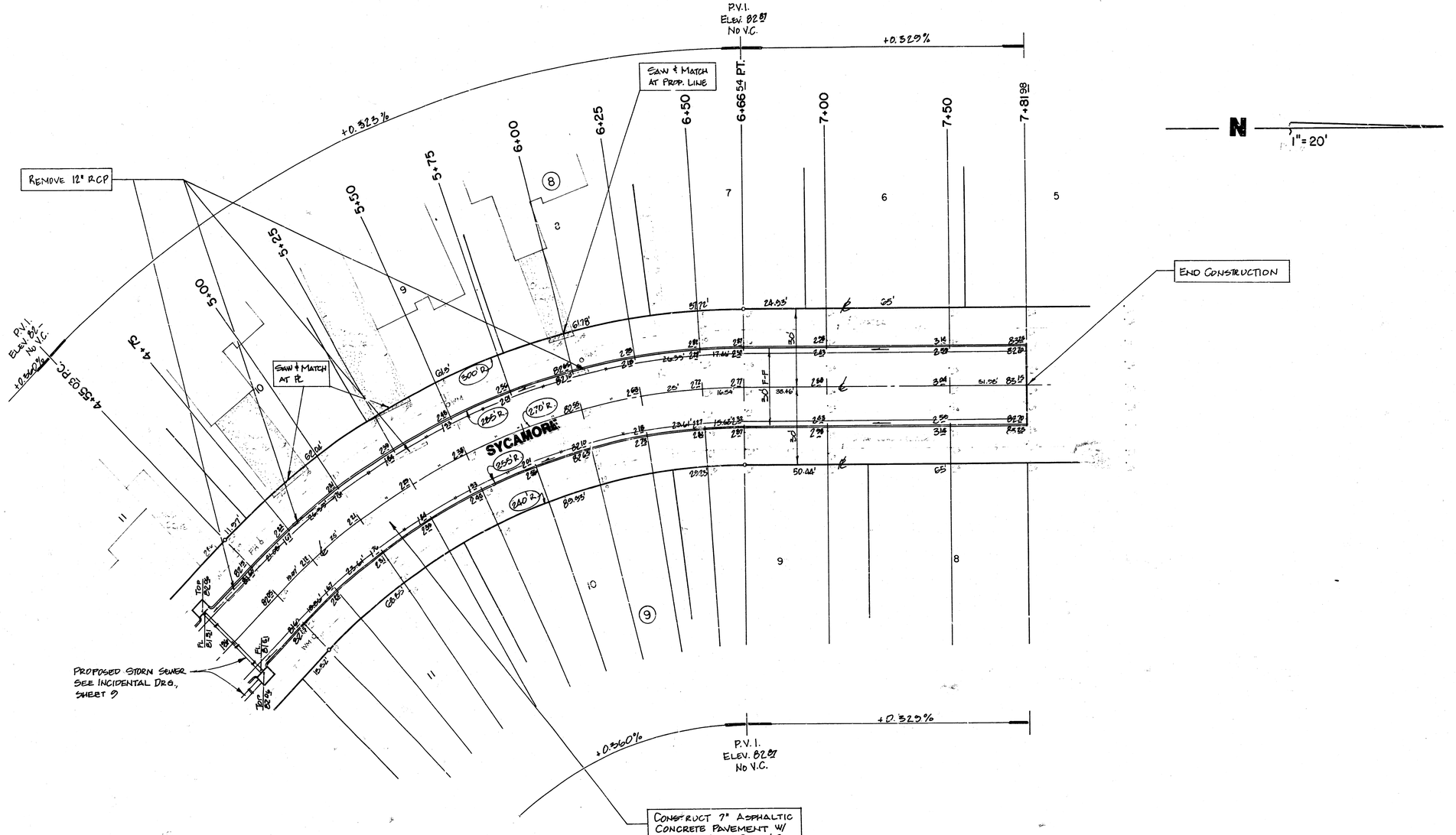
NOTE:
CONSTRUCT ROLL-TYPE CURB & GUTTER AS INDICATED. ELEVATIONS SHOWN FOR FULL CURB.

INDICATES REMOVAL

SYCAMORE

#472-76-245-81193-000-000-001

6/11



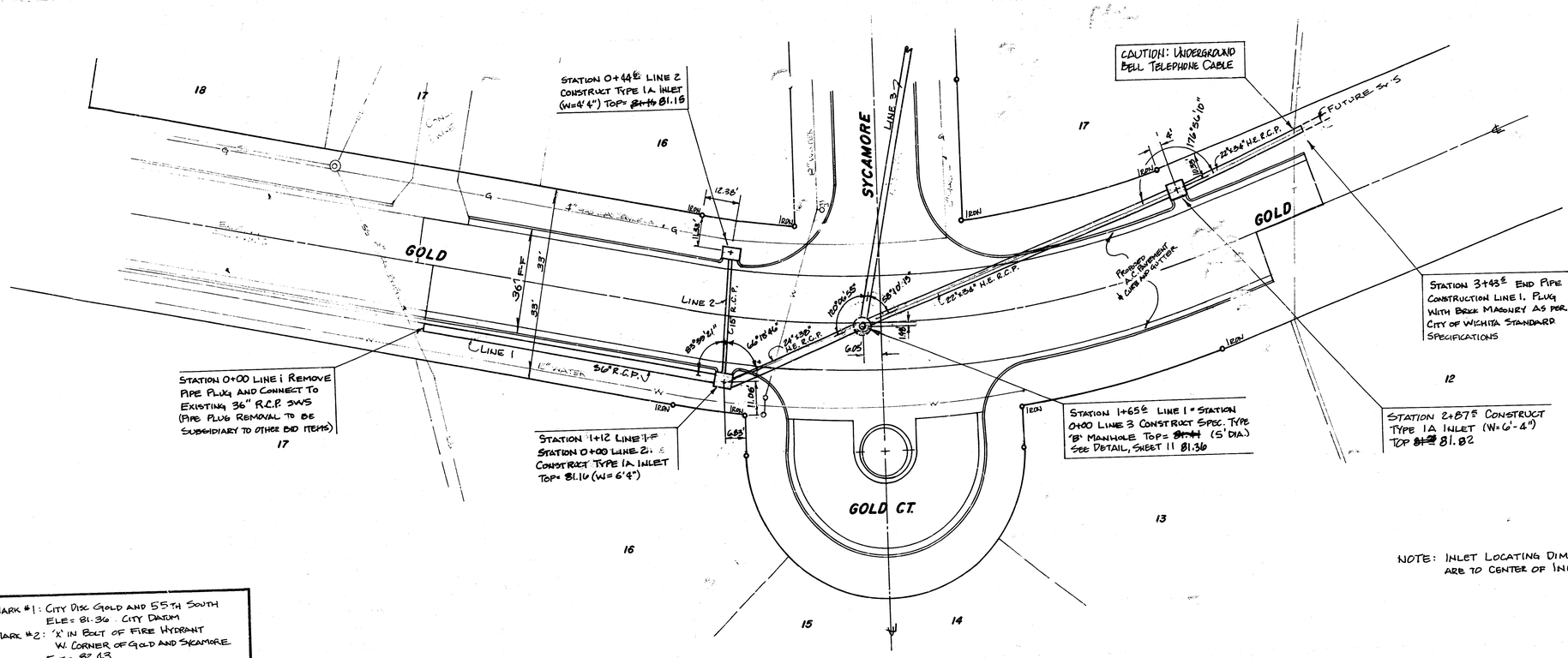
Δ = 44° 53' R = 270' T = 111.52' L = 211.51' L.C. = 206.14'

CURVE DATA BASED ON ℄ RADIUS				4/2 = 22° 26' 30"	
		CHORD LENGTH			
STA.	ARC	8' OFF LT. CO.	8' OFF RT. CO.	DEFL.	TOTAL DEFL.
4+55.03 PC	-	-	-	-	0° 00' 00"
4+75	19.97'	21.67'	18.26'	2° 07' 08"	2° 07' 08"
5+00	25'	27.12'	22.86'	2° 39' 09"	4° 46' 17"
5+25	25'	27.12'	22.86'	2° 39' 09"	7° 25' 26"
5+50	25'	27.12'	22.86'	2° 39' 10"	10° 04' 36"
5+75	25'	27.12'	22.86'	2° 39' 09"	12° 43' 45"
6+00	25'	27.12'	22.86'	2° 39' 09"	15° 22' 54"
6+25	25'	27.12'	22.86'	2° 39' 10"	18° 02' 04"
6+50	25'	27.12'	22.86'	2° 39' 09"	20° 41' 13"
6+66.54 PT.	16.54'	17.94'	15.15'	1° 45' 17"	22° 26' 30"

DEFL./FT. = 0.10610°

NOTE:

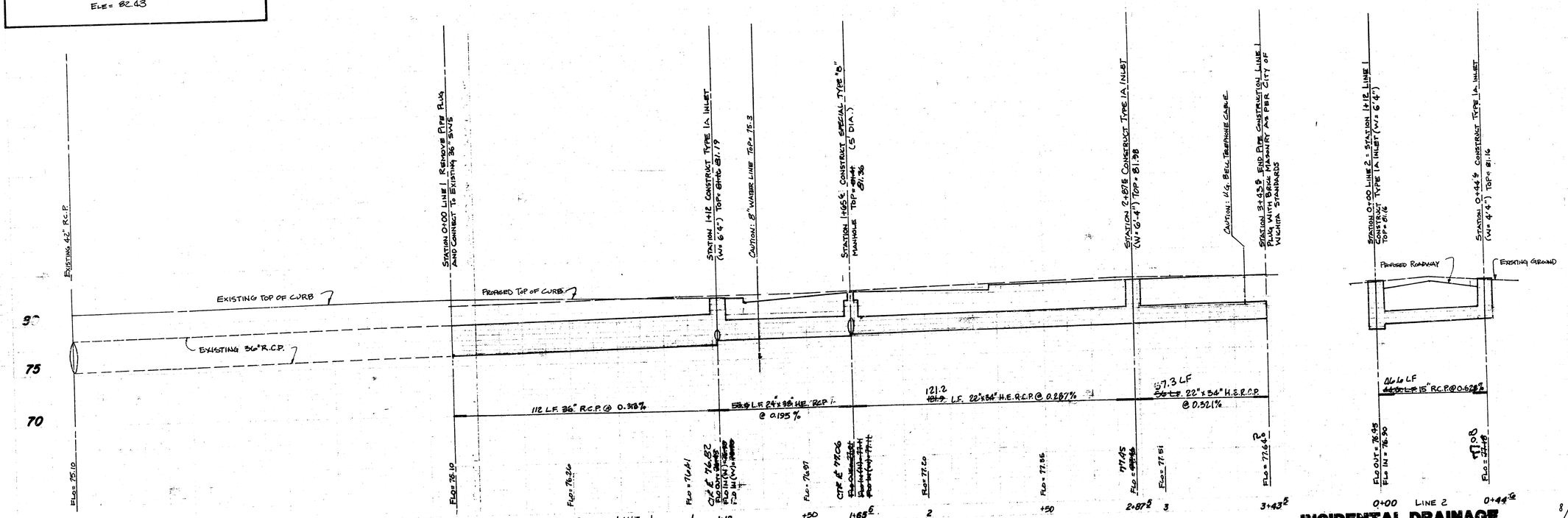
CONSTRUCT ROLL-TYPE COMBINED CURB & GUTTER AS INDICATED. GRADES SHOWN ARE FOR FULL CURB.



BENCH MARK #1: CITY DISC GOLD AND 55TH SOUTH
ELE= 81.36 CITY DATUM
BENCH MARK #2: 'X' IN BOLT OF FIRE HYDRANT
W. CORNER OF GOLD AND SYCAMORE
ELE= 82.43

NOTE: INLET LOCATING DIMENSIONS ARE TO CENTER OF INLET BOX.

As Built Plan 7-1-85 GREENE



INCIDENTAL DRAINAGE
PROJECT NO. 472-78-249-01183-049-030-001

SCALE: 1"=20' PLAN
1"=20' PROFILE HORIZ.
1"=5' PROFILE VERT.

N

STATION 0+00 LINE 3 = STATION 1+65.2 LINE 1, CONSTRUCT SPEC. 5' DIA. TYPE 'B' MANHOLE TOP= ~~81.61~~ 81.36

BENCH MARK #1: CITY DISC GOLD AND 55TH ST SOUTH, ELE= 81.56 CITY DATUM

BENCH MARK #2: 'X' IN BOLT OF FIRE HYDRANT W. CORNER OF GOLD & SYCAMORE ELE = 82.43

CAUTION: 4" PLASTIC GAS LINE. CONTACT GAS SERVICE CO. PRIOR TO EXCAVATING (RAY DOHRER, 263-7511)

8" SANITARY SEWER TO BE TELEVISED BEFORE AND AFTER STORM SEWER CONSTRUCTION

CONC. ARCH ENCASE 8" P.V.C. SAN. SEWER FOR A DISTANCE OF 5' MIN. EACH WAY FROM & STORM SEWER PIPE (SEE DETAIL THIS SHEET).

STATION 1+67.2 CONSTRUCT TYPE 1A INLET TOP= ~~82.05~~ 82.09 (W= 4'4") ~~81~~

STATION 4+64.2 LINE 3 = STATION 0+00 LINE 4 CONSTRUCT TYPE 1A INLET TOP= ~~82.20~~ 82.04 (W= 4'4") ~~81~~

STATION 0+37.6, LINE 4 CONSTRUCT TYPE 1A INLET TOP= 82.06 (W= 4'4")

AS BUILT 7-1-85 GREENE

SYCAMORE

GOLD CT.

LINE 1

LINE 2

LINE 3

LINE 4

PROPOSED A.C. PAVEMENT & CURB AND GUTTER

180°00'

105°39'51"

74°46'

105°10'15"

88°10'15"

4'

5'

30'

25.03'

11.19'

11.33'

SWM

SANITARY SEWER

16 15 14 13 12 11

16 15 14 13 12

17

REINFORCED CONCRETE ARCH ENCASEMENT

No. 5 bars at 2'-0" ctrs.

TRENCH WIDTH

2-No. 8 bars in corners

8" MIN.

8" P.V.C.

SECTION A-A

SECTION B-B

TRENCH

REPLACE BACKFILL PER STANDARD SPECIFICATIONS

REMOVE BEDDING MAT'L. ABOVE ℄ OF PIPE

EXISTING BEDDING

8" P.V.C.

STATION 0+00 LINE 3 = STATION 1+65.2 LINE 1, 5' DIA. SPEC. TYPE 'B' MANHOLE TOP= ~~81.61~~ 81.36

CAUTION: 8" GAS LINE

CAUTION: 8" SAN. SEWER

STATION 1+67.2 CONSTRUCT TYPE 1A INLET (W= 4'-4") TOP= ~~82.05~~ 82.09

STATION 4+64.2 CONSTRUCT TYPE 1A INLET TOP= ~~82.20~~ 82.04 (W= 4'4")

STATION 0+00 LINE 4 = STATION 4+64.2 LINE 3 CONSTRUCT TYPE 1A INLET TOP= ~~82.20~~ 82.04 (W= 4'4")

STATION 0+37.6 CONSTRUCT TYPE 1A INLET TOP= ~~82.06~~ 82.06 (W= 4'4")

PROPOSED TOP OF PVM'T.

PROPOSED TOP OF CURB

EXISTING GROUND

80

75

70

LINE 3

LINE 4

169.1 LF ~~169.0 L.F.~~ 21" R.C.P. @ 0.240%

296.0 LF ~~297.0 L.F.~~ 21" R.C.P. @ 0.242%

386 ~~385~~ L.F. 15" R.C.P. @ 0.611%

℄ E = 77.06

FLO OUT (SW) = ~~77.07~~ 77.01

FLO IN (W) = ~~77.11~~ 77.11

FLO IN (W) = ~~77.11~~ 77.11

FLO = 77.15

FLO = 77.35

FLO = 77.47

FLO = ~~77.67~~ 77.69

FLO = 77.59

FLO = 77.71

FLO = 77.83

FLO = 77.95

FLO = 78.07

FLO = 78.19

Elevation = 78.33

78.76

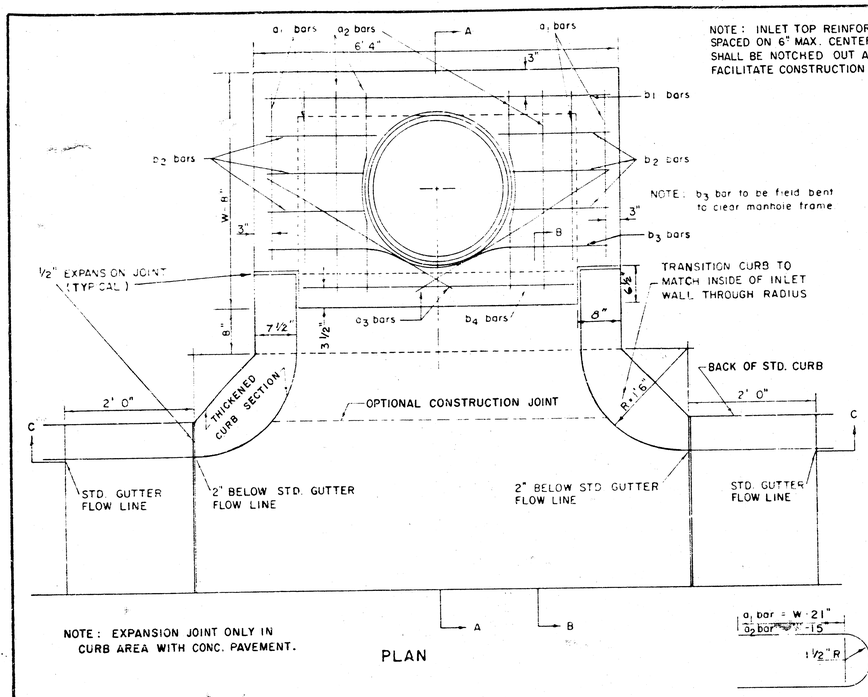
0+00 LINE 3 1 1+67.2 2 3 4 4+64.2

0+00 LINE 4 0+37.6

INCIDENTAL DRAINAGE

PROJECT NO. ~~429-10-845-01102-000-000-001~~

9/19

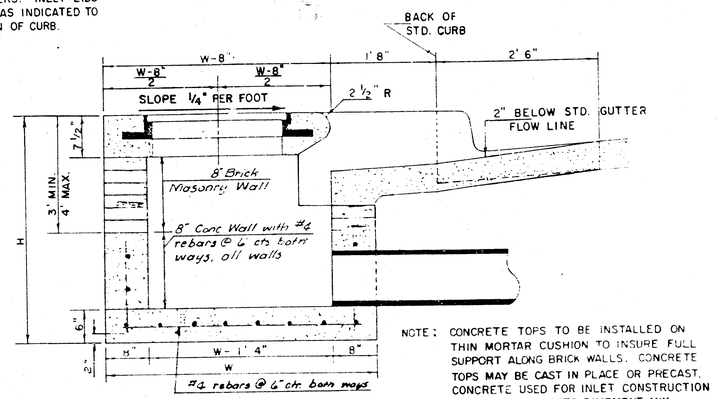


NOTE: EXPANSION JOINT ONLY IN CURB AREA WITH CONC. PAVEMENT.

PLAN

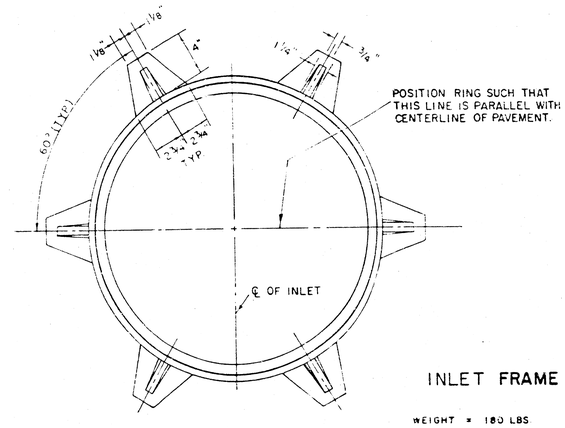
NOTE: b_3 bar to be field bent to clear manhole frame

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



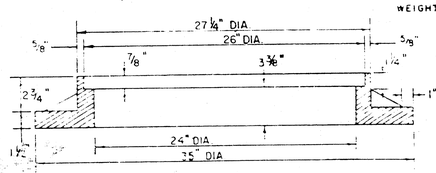
SECTION A-A

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.



INLET FRAME

WEIGHT = 180 LBS



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

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

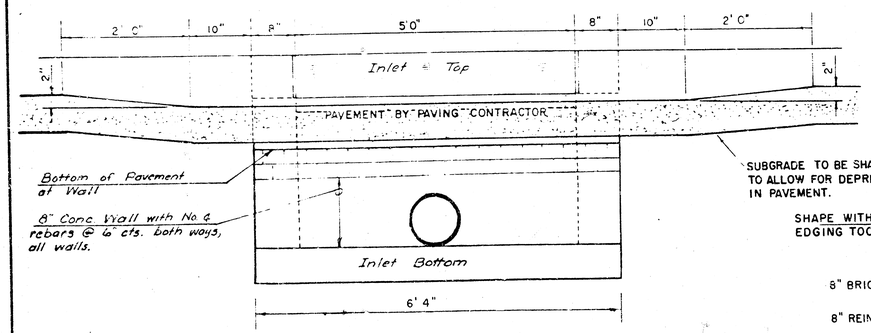
BENDING DIAGRAM

STEEL SCHEDULE

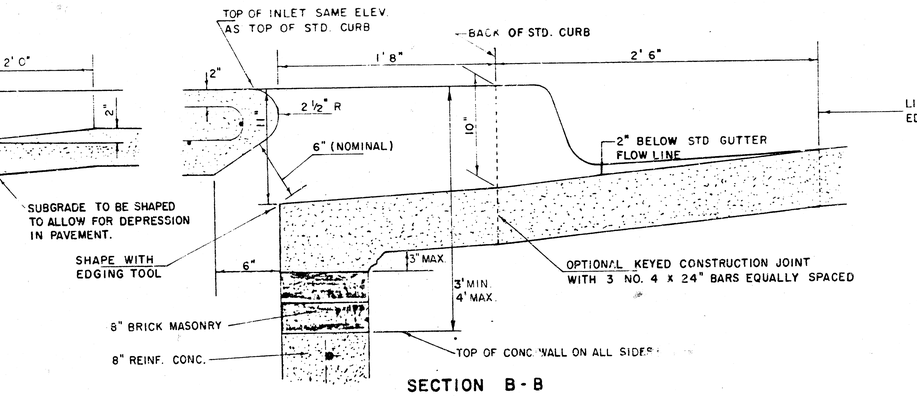
BAR		a_1	a_2	a_3*	b W=4'4"	W=5'4"	W=6'4"	W=7'4"	W=8'4"	b_2	b_3	b_4	WT LBS
NUMBER		4	4	2	1	3	5	7	9	6	1	1	
SIZE		#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6	
LENGTH	W=4'4"	5'7"	6'7"	4'0"	6' 1"	–	–	–	–	1' 9"	6'2"	4'8"	60±
	W=5'4"	7'7"	8'7"	5'0"	–	6' 1"	–	–	–	1' 9"	6'2"	4'8"	81±
	W=6'4"	9'7"	10'7"	6'0"	–	–	6' 1"	–	–	1' 9"	6'2"	4'8"	101±
	W=7'4"	11'7"	12'7"	7'0"	–	–	–	6' 1"	–	1' 9"	6'2"	4'8"	121±
	W=8'4"	13'7"	14'7"	8'0"	–	–	–	–	6' 1"	1' 9"	6'2"	4'8"	141±

* NOTE: a_3 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' 4"	3'8" x 6'4" x 7 1/2"	21" & SMALLER	0.38 ±
5' 4"	4'8" x 6'4" x 7 1/2"	24" & 30"	0.51 ±
6' 4"	5'8" x 6'4" x 7 1/2"	36" & 42"	0.64 ±
7' 4"	6'8" x 6'4" x 7 1/2"	48" & 54"	0.77 ±
8' 4"	7'8" x 6'4" x 7 1/2"	60" & 66"	0.90 ±



SECTION C-C



SECTION B-B

DETAIL STANDARD TYPE IA CURB INLET

CITY OF WICHITA, KANSAS

INLET OPENING = 6" × 5' 0"

Project no. 472-76-245-81193-000-000-001

JUNE 1984

10/17

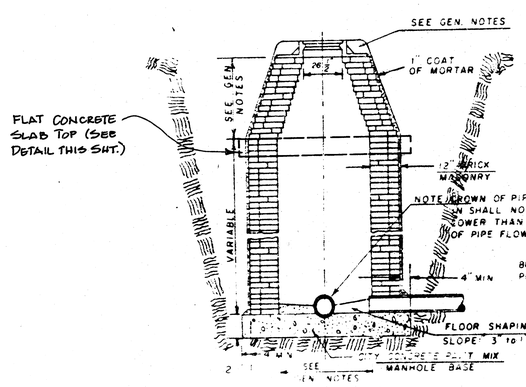
REVISED MAY 19
REVISED JAN. 1980

SEWER APPURTENANCES DETAILS

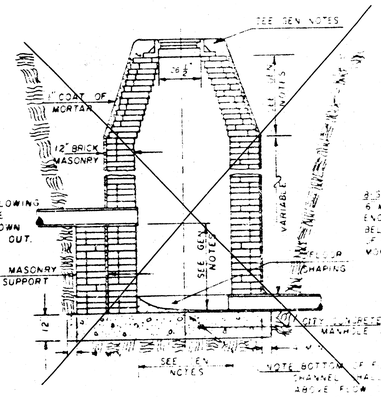
ADOPTED AS STANDARD DESIGN
BY

City of Wichita, Kansas

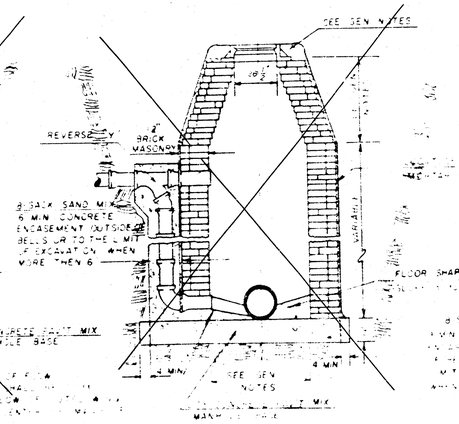
TYPE "B" MANHOLE



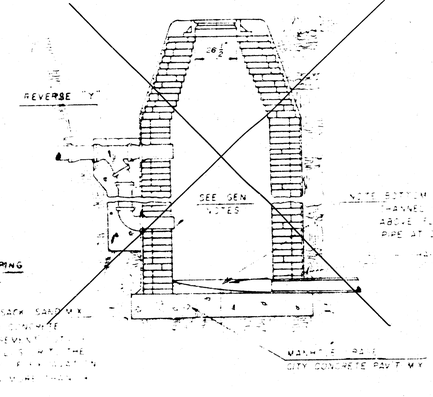
TYPE "B" INSIDE DROP MANHOLE



TYPE "B" OUTSIDE DROP MANHOLE



DETAIL OF OUTSIDE DROP CONSTRUCTED ON EXISTING MANHOLE



GENERAL NOTES

1. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 5 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 PAVEMENT 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 "B" MANHOLES CAN BE USED ON SEWERS HAVING DEPTHS GREATER THAN 16' OR WHEN THE MANHOLE IS LOCATED IN 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'. THE HEIGHT OF THE CORBELS ON 4' DIAMETER MANHOLES SHALL BE 4'. MANHOLES HAVING A DIAMETER OF 5' SHALL HAVE CORBELS 5' IN HEIGHT. 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 9" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED 9" 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. OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS CUT INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE CAULKED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO PROVIDE A FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THE VERTICAL DROP FROM THE LOWER PIPE OR SIDE OUTSIDE DROP CONNECTION SHALL NOT EXCEED 4' FOR INFLOWING PIPES SIZED 24" OR SMALLER AND 2' FOR INFLOWING PIPES SIZED LARGER THAN 24". EXCEPT THE CROWN OF THE LOWER PIPE SHALL NEVER BE SET ABOVE THE CROWN OF ANY LARGER OUTFLOWING PIPE. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP WORK CONSTRUCTED ON EXISTING MANHOLE.

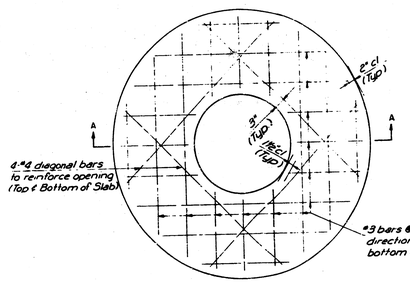
4. THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM THE INCOMING PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE PLACED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. MANHOLE FLOORS SHALL HAVE SLOPES OF 1 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 PROVIDE A FLOW CHANNEL FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WITH FORMS THE FLOW CHANNEL.

5. FLOOR INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE SHAPED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHERE CLAY PIPE IS USED, THE CONCRETE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CONCRETE SHALL BE PLACED AROUND THE CLAY PIPE JOINTS IN A MANNER THAT WILL PROVIDE THE REQUIRED STRENGTH AND PREVENTION OF THE LOSS OF GRADING MATERIAL THROUGH THE JOINTS. THE CONCRETE SHALL BE PLACED TO THE LINES AND GRADES SHOWN BY THE DRAWINGS OR AS DIRECTED BY THE ENGINEER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

6. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL BE AS SHOWN ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER. THE COST OF THESE ITEMS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

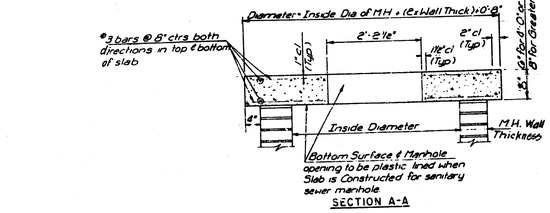
7. THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 4' FOR INFLOWING PIPES SIZED 24" OR SMALLER AND 2' FOR INFLOWING PIPES LARGER THAN 24". THE CROWN OF THE LOWER PIPE SHALL NEVER BE SET ABOVE THE CROWN OF ANY LARGER OUTFLOWING PIPE.

8. MANHOLE FRAMES TYPE "B" SHALL BE SET TO GRADE WITH ADJUSTING RINGS AS SHOWN ON THE DRAWINGS. ADJUSTING RINGS SHALL BE AS STANDARD MANUFACTURED ITEMS AND SHALL BE SET IN MORTAR. ADJUSTING RINGS SHALL NOT EXCEED 12" IN HEIGHT. NEW MANHOLES AND EXISTING MANHOLES TO BE ADJUSTED TO GRADE SHALL BE PAID FOR AT THE UNIT PRICE BID FOR MANHOLE ADJUSTED TO GRADE.



PLAN

NOTE: CONSTRUCT BRICK COLLAR ON TOP OF SLAB UNDER RING, MIN. THICKNESS 6"



SECTION A-A

FLAT CONCRETE SLAB DETAILS

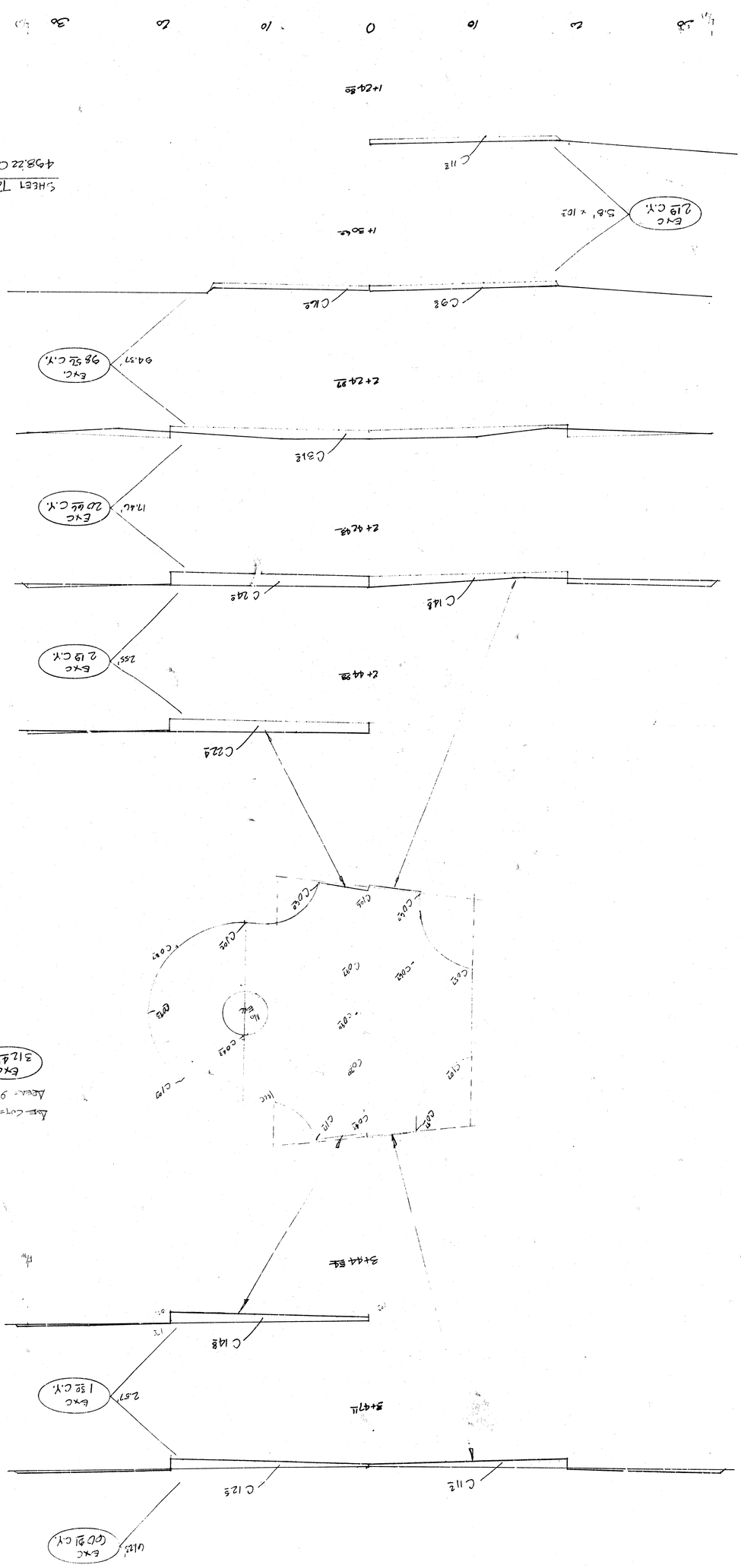
11/14 11/14

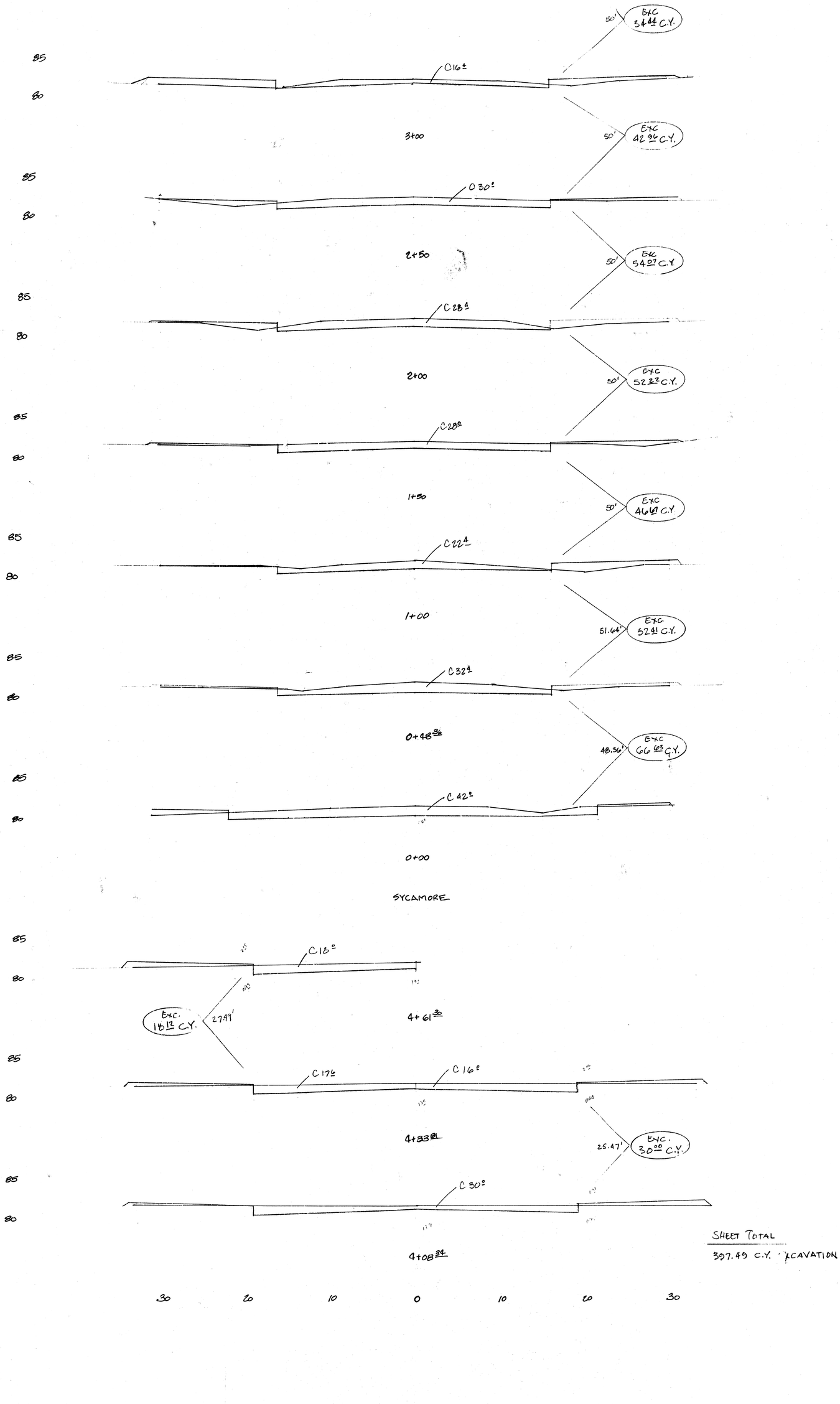
Proj. # 472-76-245-81193-000-000-001

EARTHWORK SECTIONS

GOLD/GOLD COURT

Proj.# 472-78 245-81103 -000-000-001





SHEET TOTAL

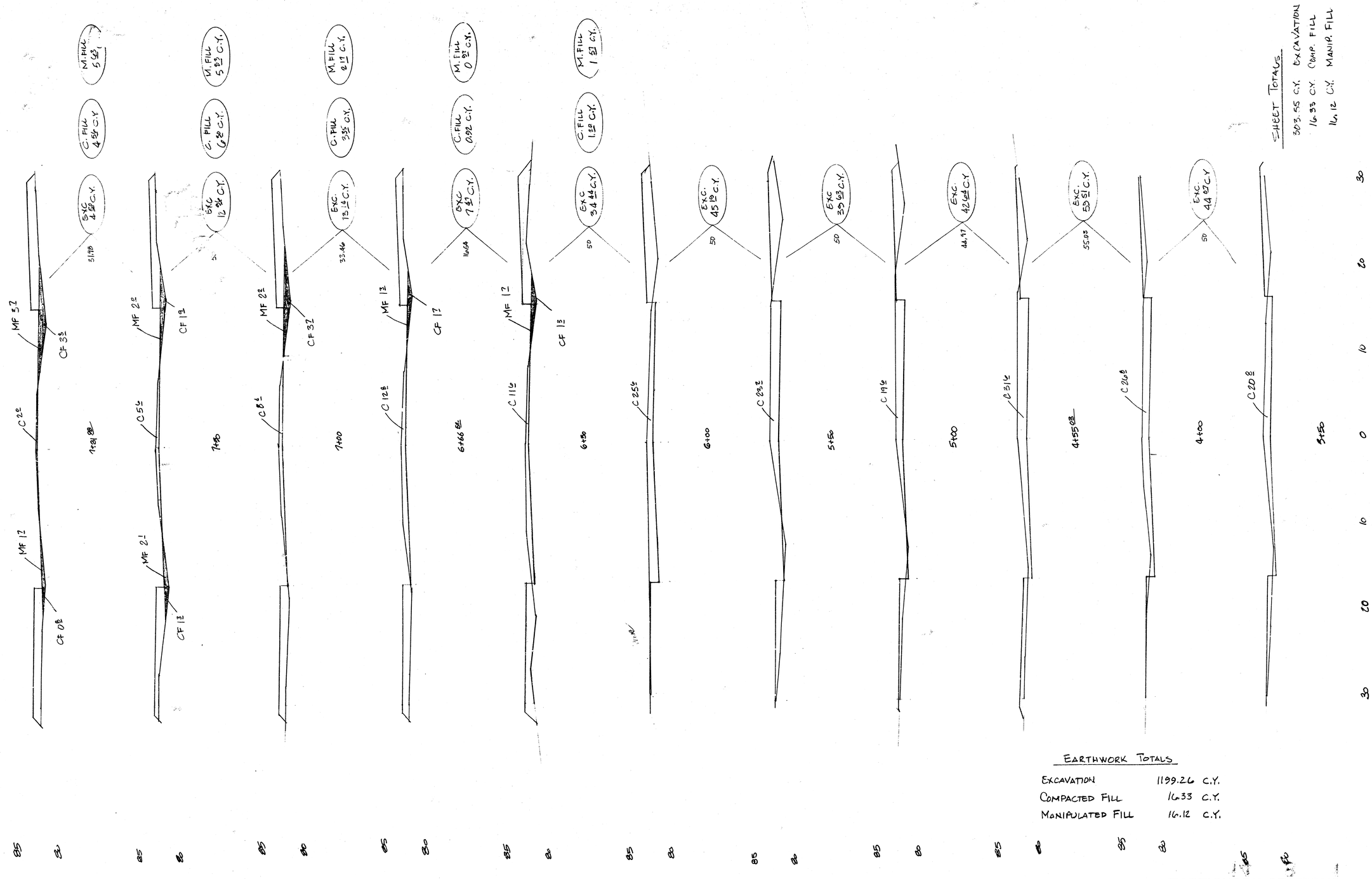
307.49 C.Y. EXCAVATION

EARTHWORK SECTIONS

GOLD & SYCAMORE

Proj. # 472-78-245-81198-000-000-001

13/14/15/16



EARTHWORK TOTALS

EXCAVATION	1199.26 C.Y.
COMPACTED FILL	16.33 C.Y.
MANIPULATED FILL	16.12 C.Y.

EARTHWORK SECTIONS

SYCAMORE

Proj. # 472-76-245-81193-000-000-001

14/14 12/14