STREET IMPROVEMENTS

DOUGHERTY

N.L. CENTRAL TO N.L. 8TH STREET

PROJECT NO. 472 76 245 80685 000 000 001

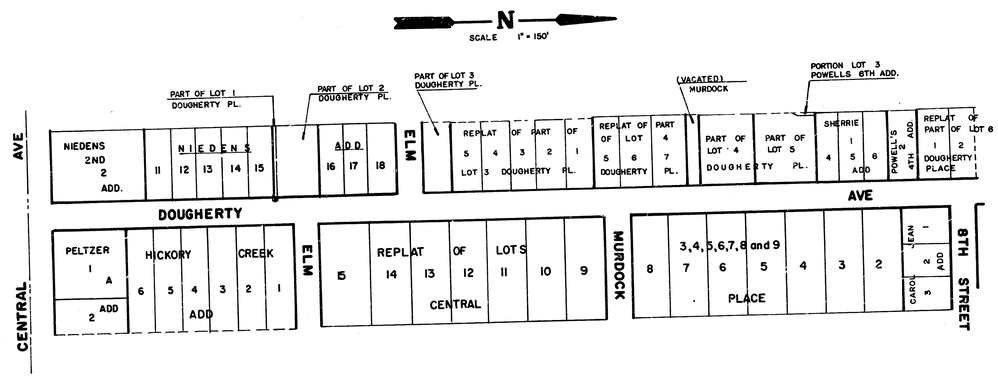

TABLE OF CONTENTS

SHEET No.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTION 31'B-B ASPHALTIC CONCRETE PAVM'T.
3-6	PAVING PLANS
7	VALLEY GUTTERS & JOINT DETAILS
8	STD. DRIVEWAY ENTRANCE DETAILS
9	MANHOLE ADJUSTMENT DETAIL
10-13	CROSS SECTIONS

CITY OF WICHITA, KS.

M.E. LINDEBAK CITY ENGINEER

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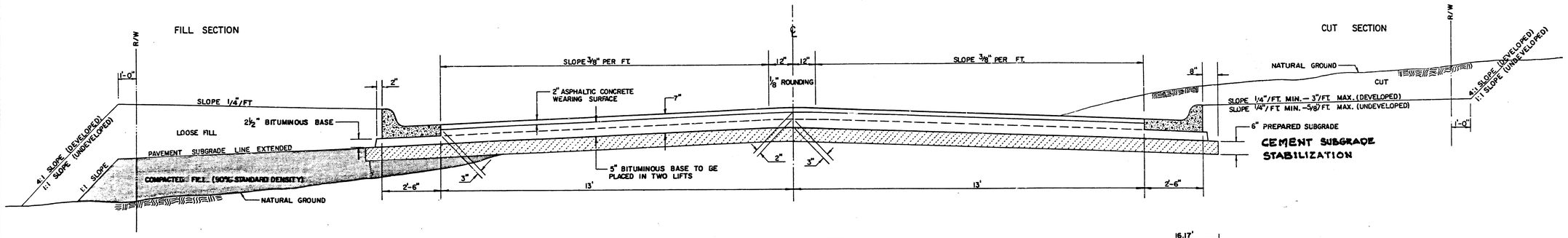
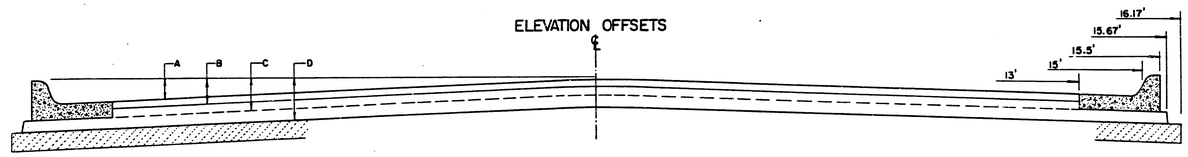
TYPICAL 31' PAVEMENT DETAILS

TRANSVERSE SECTION

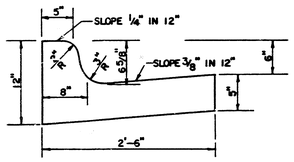


ELEVATION OFFSETS

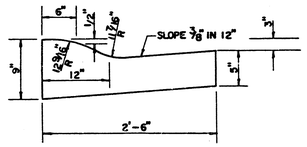


	DISTANCE FROM CENTERLINE (LT. & RT.)											
	0'	2'	4'	6'	7.5'	10	12'	13'	15'	15.5'	15.67'	16.17'
A: TOP OF CURBS TO TOP OF SURFACE LIFT	0.10	0.14	0.21	0.27	0.32	0.39	0.46	0.49	—	—	—	—
B: TOP OF CURBS TO TOP OF UPPER BASE LIFT	0.27	0.31	0.38	0.44	0.49	0.56	0.63	0.66	—	—	—	—
C: TOP OF CURBS TO TOP OF LOWER BASE LIFT	0.44	0.49	0.57	0.64	0.70	0.79	0.87	0.90	0.96	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

COMBINED CURB & GUTTER



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.

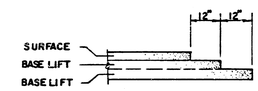
3) A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.05 GALLONS PER SQUARE YARD BETWEEN EACH LIFT OF ASPHALTIC MATERIAL.

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.

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 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).

7 INCH RESIDENTIAL ASPHALTIC CONCRETE PAVEMENT WITH 5 INCH BITUMINOUS BASE

CITY OF WICHITA, KANSAS

PROJECT NUMBER

PROJ No. 472-7G-245-80685-000-000-001

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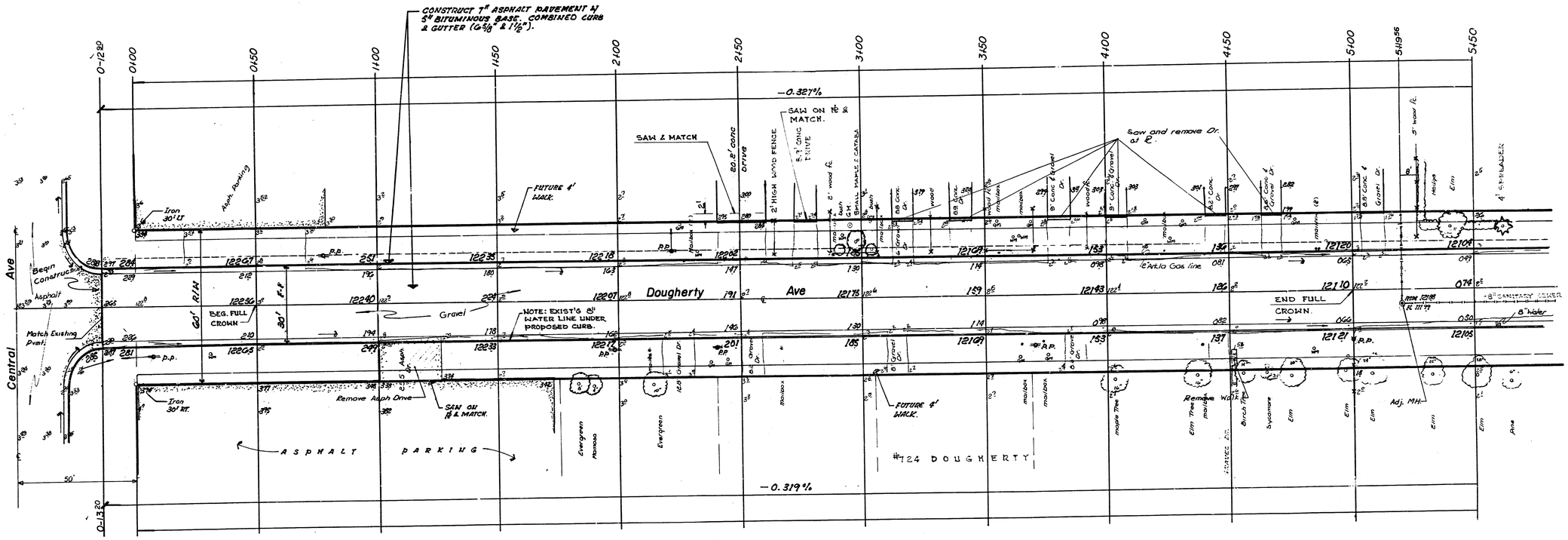
BM 122.00 West and Central, city bm. disc 44' N and 52' W. of ℄ both.
BM 121.82 West and 9th, city bm. disc 24' S. and 52' W. of ℄ both.
℄ is ℄ of Dougherty.

B.M. 124.42 R.R. SPIKE ON N. SIDE P.P. ON S. SIDE CENTRAL AT DOUGHERTY
B.M. 124.29 S.W. COR CONC. PORCH. #724 DOUGHERTY.

N
Scale: 1"=20'

Survey Chappelle & JPC-NW
Plan Planning
Estimate
Checked



— GENERAL NOTES —

THE CONTRACTOR SHALL CONTACT THE NECESSARY UTILITY COMPANIES FOR ANY UNDERGROUND LINE LOCATIONS TO BE LOCATED IN THE FIELD PRIOR TO CONSTRUCTION OF THE PAVEMENT.

•• PROPERTY IRONS ••

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR SHALL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED BY HIS CONSTRUCTION OPERATIONS. SUCH IRONS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR OR A PROFESSIONAL ENGR. IN ACCORDANCE WITH STATE LAWS.

•• MAILBOXES ••

MAILBOXES WITHIN THE LIMITS OF THIS PROJECT SHALL BE REMOVED & REPLACED BY THE CONTRACTOR AS APPROVED BY THE ENGR. CONTRACTOR WILL BE REQUIRED TO MAKE SATISFACTORY PROVISIONS FOR MAIL DELIVERY TO PROPERTIES AFFECTED BY THIS PROJECT DURING IT'S CONSTRUCTION.

• EARTHWORK •

EXCAVATION
4253.4 CU YDS
+10% 425.3 " "
4678.7 CU YDS

8023 SQ YDS MANIPULATION

Dougherty Ave
from NL Central to NL 8th st. North
Proj. no. 472-76-245-80685-000-000-001

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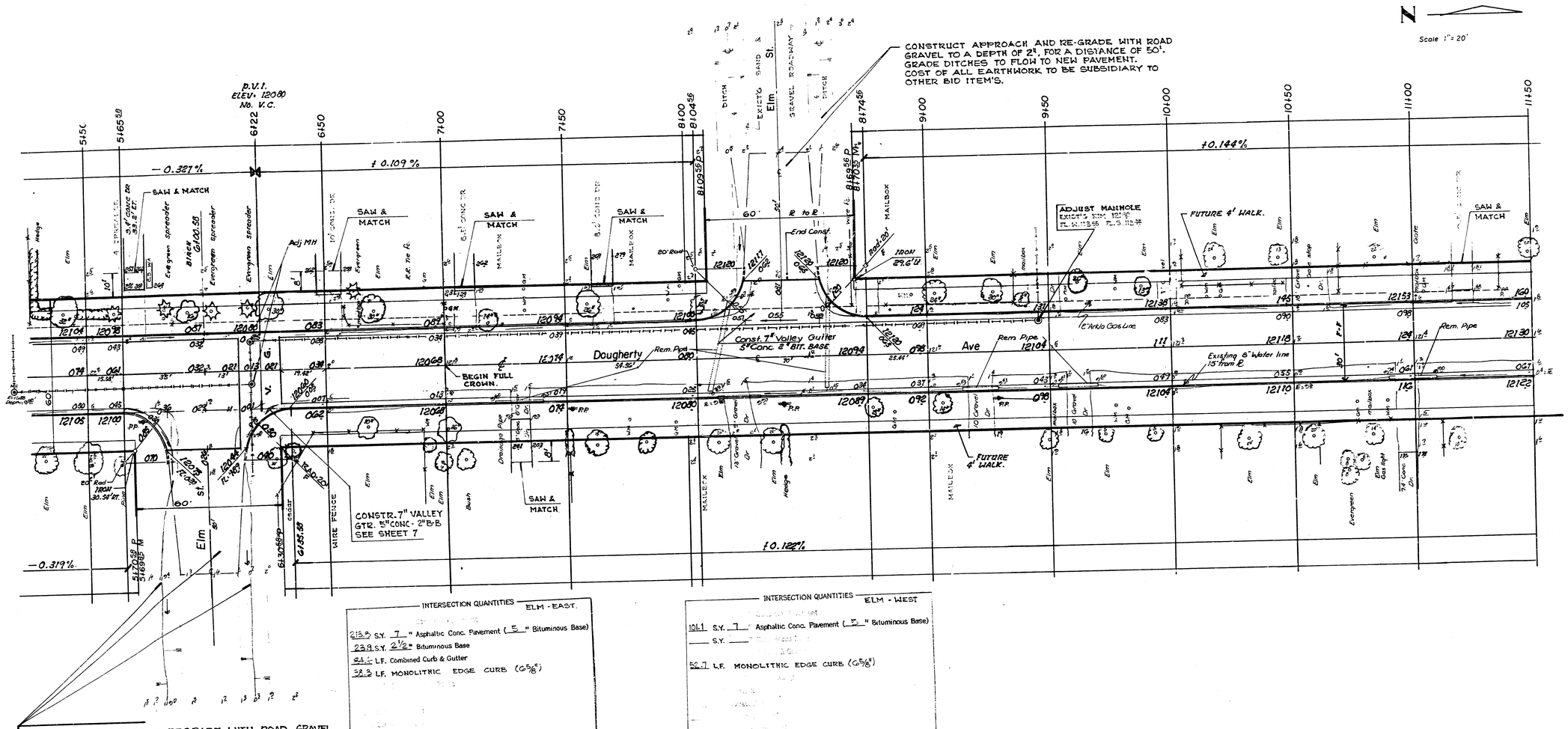
B.M. 124.05 N.E. COR. CONC. PORCH AT #743 DOUGHERTY



CONSTRUCT APPROACH & REGRADE WITH ROAD GRAVEL TO A DEPTH OF 2" FOR A DISTANCE OF 50'. GRADE DITCHES TO FLOW TO INLETS AT W.L. NEVADA ST. COST OF ALL EARTHWORK, GRADING & RE-SETTING EXISTING CULVERT PIPES TO BE SUBSIDIARY TO OTHER BID ITEMS.

INTERSECTION QUANTITIES — ELM - EAST.

213.9 S.Y. 7 " Asphaltic Conc. Pavement (5 " Bituminous Base)
239 S.Y. 2½" Bituminous Base
61.5 L.F. Combined Curb & Gutter
52.3 L.F. MONOLITHIC EDGE CURB (G5⅝")

317.2 S.Y. Manipulation
6.0 TONS CEMENT
71.4 S.Y. V.G. 5 " Concrete & 2 " Asphaltic Concrete Base.

INTERSECTION QUANTITIES — ELM - WEST

101.1 S.Y. 7 " Asphaltic Conc. Pavement (5 " Bituminous Base)
S.Y.
50.7 L.F. MONOLITHIC EDGE CURB (G5⅝")

192.1 S.Y. Manipulation
3.6 TONS CEMENT
81.2 S.Y. V.G. 5 " Concrete & 2 " Asphaltic Concrete Base

PROJ No. 412-76-245 80645-000-000-001

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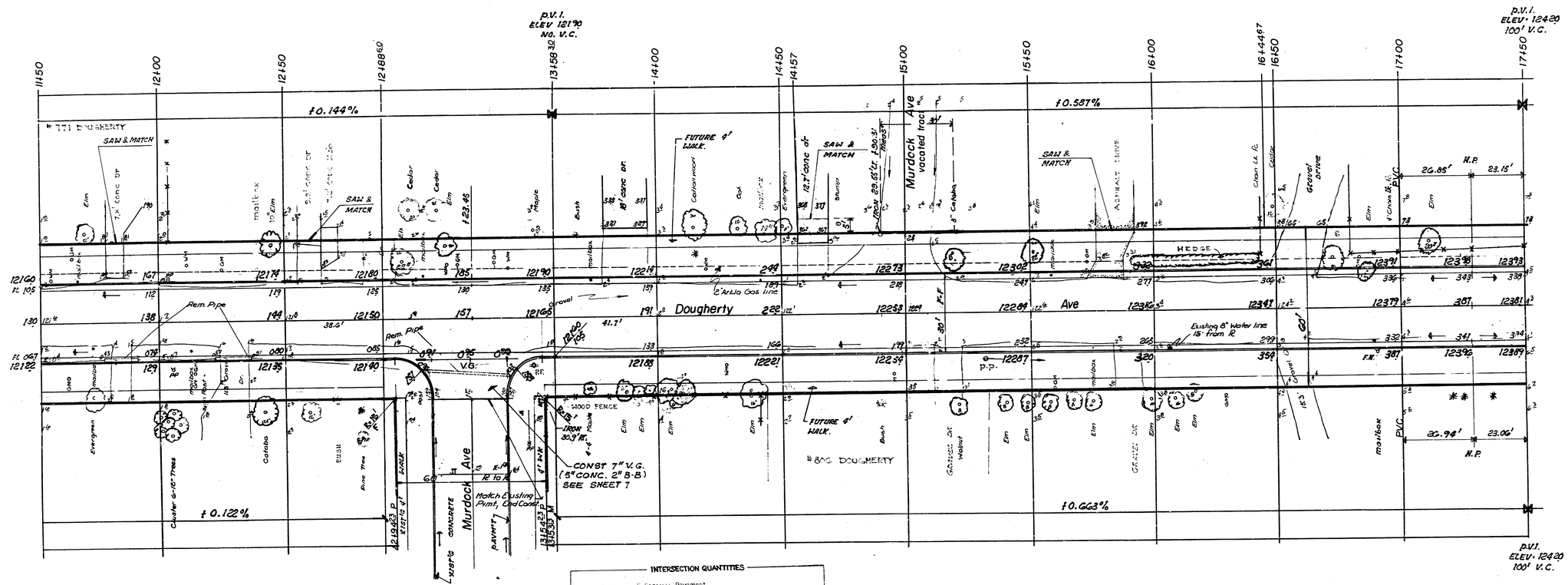
B.M. 123.18 S.E. COR CONCRETE PORCH #771 DOUGHERTY
B.M. 123.29 R.R. SPIKE ON W.S. P. POLE ON N.W. COR OF #800 DOUGHERTY PROPERTY.

N

Scale: 1" = 20'



INTERSECTION QUANTITIES

____ " Concrete Pavement
86.7 S.Y. 7 " Asphaltic Conc. Pavement (____ " Bituminous Base)
47.1 MONOLITHIC EDGE CURB (6 5/8")
66.7 S.Y. MANIPULATION
3.2 TONS CEMENT
76.6 S.Y. V.G. 5 " Concrete & 2 " Asphaltic Concrete Base.

COST FOR REMOVING GUARD POST AT THE END OF CROSS ROAD PIPE IS TO BE SUBSIDIARY TO PRICE BID FOR L.F. PIPE REMOVED.

PROJ No. 472-76-245-80685-000-000-001

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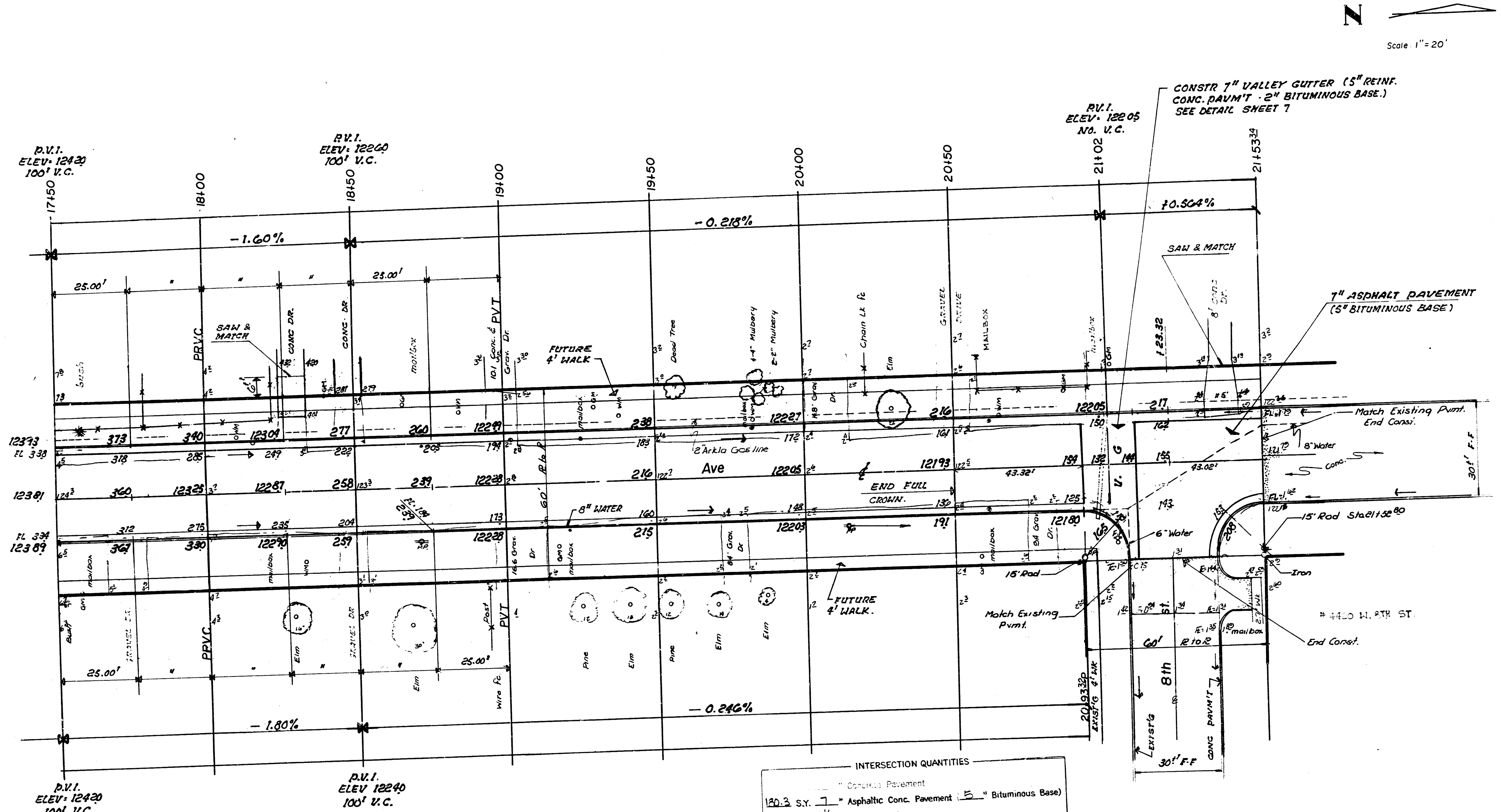
B.M. 125.50 S.W. COR. CONCRETE PORCH STEP AT #4420 W. 8TH ST.



INTERSECTION QUANTITIES

____ " Concrete Pavement
180.3 S.Y. 7 " Asphaltic Conc. Pavement (5 " Bituminous Base)
20.1 S.Y. 2½ " Bituminous Base
66.6 L.F. Combined Curb & Gutter
40.6 L.F. MONOLITHIC EDGE CURB (6⅝")
____ S.F. [illegible] Ramp
____ S.Y. [illegible]
____ C.Y. Excavation
____ C.Y. Compacted Fill
____ [illegible] Reinforcing Steel
274.4 S.Y. Manipulation
5.2 TONS CEMENT
67.6 S.Y. V.G. 5 " Concrete & 2 " Asphaltic Concrete Base

PROJ No. 472-76-245- 80685-000-000-001

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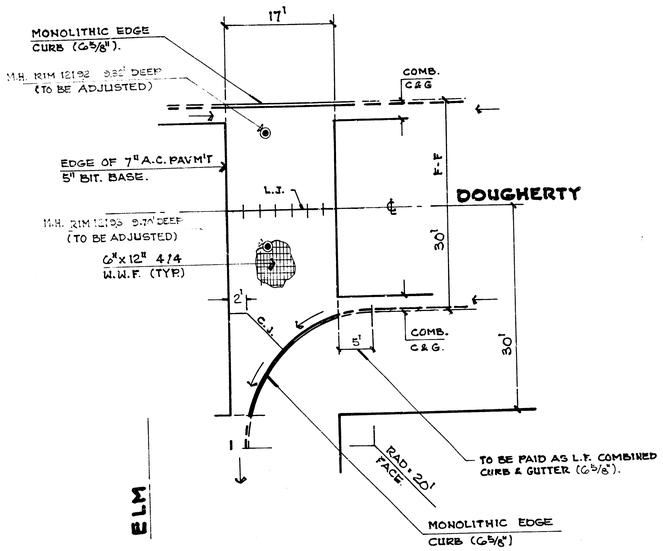
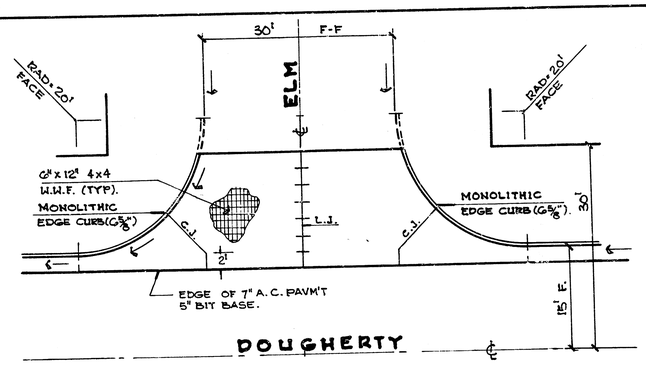
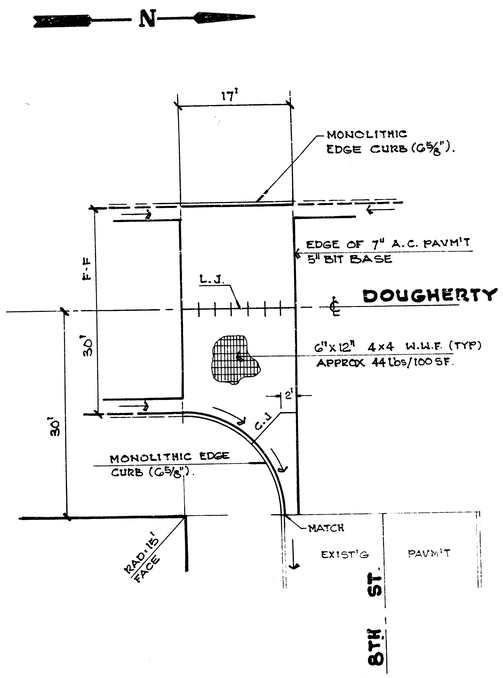
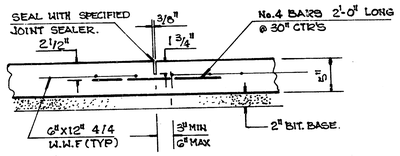
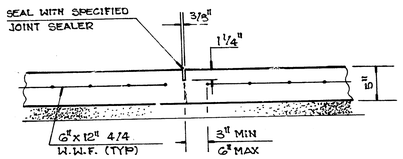








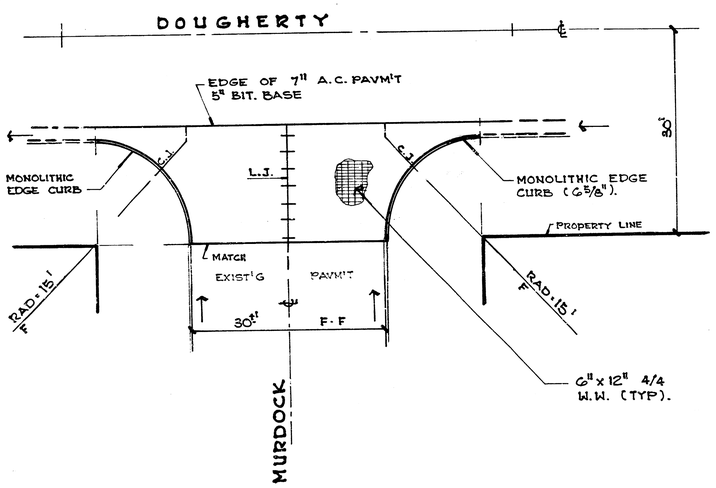
LONGITUDINAL SAWED JOINT



SAWED CONTRACTION JOINT

L.J. = LONGITUDINAL SAWED JOINT
C.J. = SAWED CONTRACTION JOINT

7" REINFORCED VALLEY GUTTER PAVEMENT
5" REINFORCED CONCRETE PAVEMENT
2" BITUMINOUS BASE.



VALLEY GUTTER AND JOINT DETAILS.

PROJECT DESCRIPTION

DOUGHERTY AVE

N.L. CENTRAL TO N.L. 8TH STREET

PROJECT NUMBER

PROJ. No. 472-76-245-80685-000-000-001

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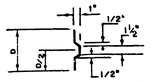
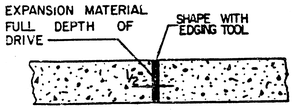


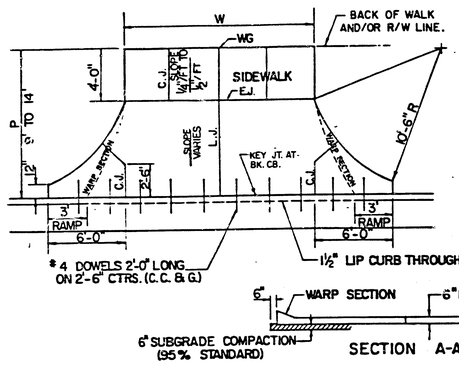
ALT. LONGITUDINAL CONSTRUCTION JOINT

CONTRACTION JOINT (C.J.)
OR LONGITUDINAL JOINT (L.J.)

NO SAWN JOINTS WILL BE ALLOWED.

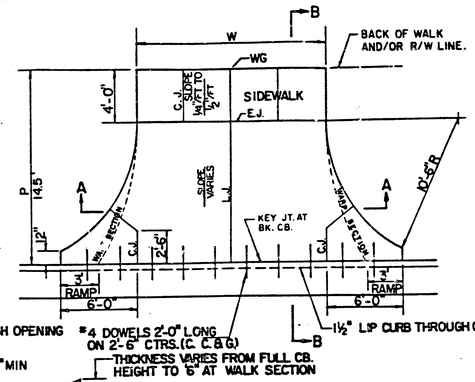


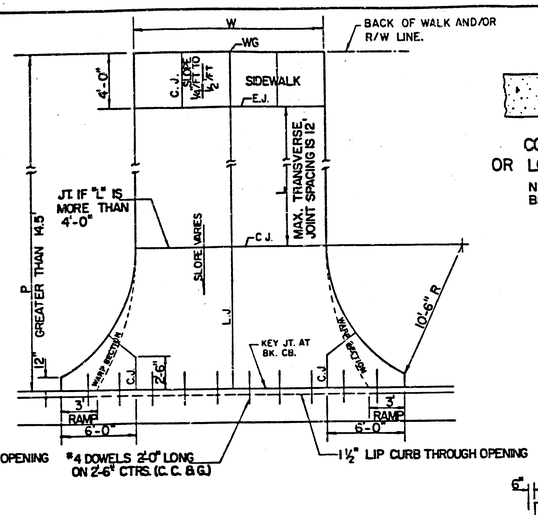
EXPANSION JOINT (E.J.)

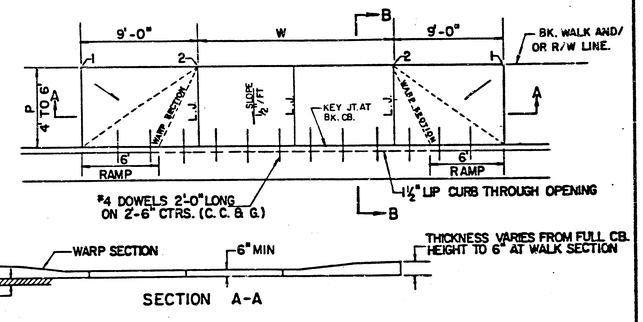


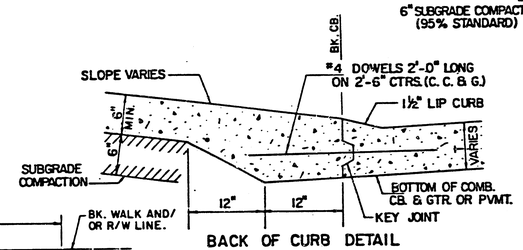
PARKING WIDTH "P"		9'	10'	11'	12'	13'	14.5'	20'	25'	30'	35'	40'	45'	50'
ABSOLUTE	MAX. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.35'	0.35'	0.40'	0.45'	0.60'	0.80'	1.35'	1.85'	2.35'	2.85'	3.35'	3.85'	4.35'
OPTIMUM	MAX. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.35'	0.35'	0.40'	0.45'	0.60'	0.70'	1.04'	1.30'	1.56'	1.82'	2.08'	2.34'	2.60'
OPTIMUM	MIN. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	0.19'	0.21'	0.23'	0.25'	0.27'	0.30'	0.42'	0.52'	0.62'	0.72'	0.82'	0.92'	1.02'
ABSOLUTE	MIN. DIST. OF PT. "WG" ABOVE OR BELOW TOP OF FULL CURB	-.19'	-.16'	-.13'	-.10'	-.06'	0.00'	0.00'	0.15'	0.25'	0.35'	0.45'	0.55'	0.65'

RADIUS RAMP DRIVES (P = 9.0' & GREATER)





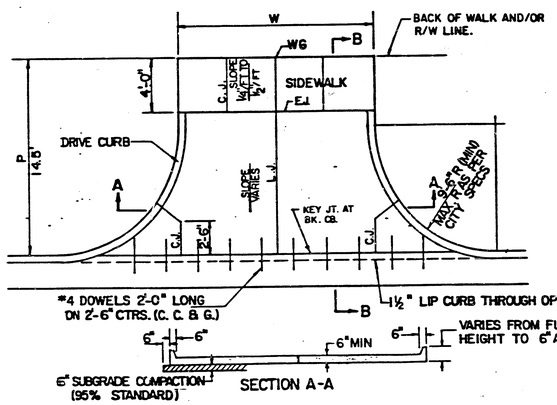


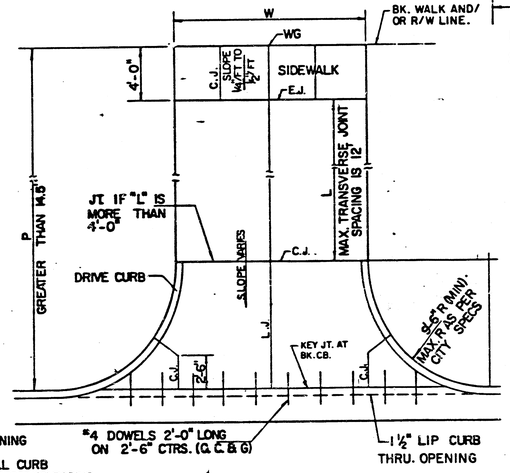


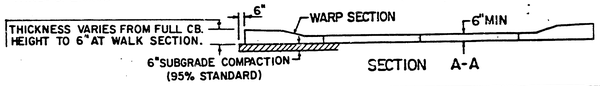
BACK OF CURB DETAIL
SECTION B - B (no scale)

PARKING WIDTH "P"	4'	4.5'	5'	5.5'	6'	6.5'
DIST. OF PT. "1" ABOVE TOP OF FULL CB.	0.08'	0.09'	0.10'	0.12'	0.13'	0.14'
DIST. OF PT. "2" BELOW TOP OF FULL CB.	-.26'	-.24'	-.22'	-.20'	-.18'	-.16'

FULL RAMP DRIVE (P=4.0' TO 6.5')

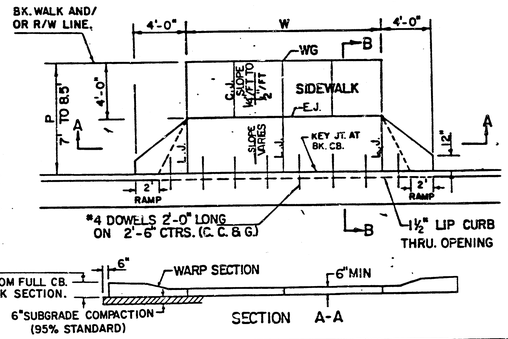






PARKING WIDTH "P"	14.5'	20'	25'	30'	35'	40'	45'	50'
ABSOLUTE MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.80'	1.35'	1.85'	2.35'	2.85'	3.35'	3.85'	4.35'
OPTIMUM MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.70'	1.04'	1.30'	1.56'	1.82'	2.08'	2.34'	2.60'
OPTIMUM MIN. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.30	0.42'	0.52'	0.62'	0.72'	0.82'	0.92'	1.02'
ABSOLUTE MIN. DIST OF PT. "WG" ABOVE TOP OF FULL CB.	0.00	0.00'	0.15'	0.25'	0.35'	0.45'	0.55'	0.65'

FULL RADIUS DRIVES (P=14.5' & GREATER)



PARKING WIDTH "P"	7'	7.5'	8'	8.5'
ABSOLUTE MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.00'	0.10'	0.20'	0.30'
OPTIMUM MAX. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.00'	0.10'	0.20'	0.30'
OPTIMUM MIN. DIST. OF PT. "WG" ABOVE TOP OF FULL CB.	0.15'	0.16'	0.17'	0.17'
ABSOLUTE MAX. DIST. OF PT. "WG" BELOW TOP OF FULL CB.	-.25'	-.20'	-.20'	-.20'

FULL RAMP DRIVE (P=7.0' TO 8.5')

GENERAL NOTES

1. DRIVEWAY CONSTRUCTION DETAILED ON THIS SHEET IS FOR USE WITH FULL HEIGHT STREET CURBS AND IN AREAS WITHOUT FULL WALK CONSTRUCTION IN THE PARKING. SEE OTHER DETAIL SHEETS FOR DRIVEWAY CONSTRUCTION WITH ROLL CURB AND/OR FULL WALK.
2. ONE LONGITUDINAL JOINT SHALL BE CONSTRUCTED ALONG THE CENTERLINE OF DRIVES HAVING A "W" DIMENSION OF 24' OR LESS. TWO LONGITUDINAL JOINTS SHALL BE CONSTRUCTED WITH EQUAL SPACINGS NOT TO EXCEED 10' FOR DRIVES WITH A "W" DIMENSION GREATER THAN 24'.
3. DRIVEWAY WIDTH DENOTED AS "W" ON THE DETAIL DRAWINGS SHALL BE A MINIMUM OF 10' AND A MAXIMUM OF 30'. THE MAXIMUM OPENING FOR RADIUS TYPE DRIVES WITH CURBS THROUGH THE RADIUS SHALL NOT EXCEED 52' AT THE STREET CURB LINE.
4. CONSTRUCTION JOINT SPACING IN THE DRIVEWAY WALK SECTION SHALL BE A MINIMUM OF 3' AND A MAXIMUM OF 6' AND ARE TO BE EQUALLY SPACED WITHIN THIS RANGE. WALK SECTION SHALL BE CONSTRUCTED TO THE SAME THICKNESS AS THE DRIVEWAY.
5. DOWEL BARS SHALL BE OMITTED FROM THE KEYED CONSTRUCTION JOINT ALONG THE BACK OF THE STREET CURB LINE WHEN DRIVEWAYS ARE CONSTRUCTED IN CONJUNCTION WITH NEW CONCRETE PAVEMENT CONSTRUCTION.
6. ADDITIONAL THICKNESS OF DRIVE AS INDICATED IN THE DRAWINGS WILL NOT BE PAID FOR DIRECTLY AND THIS COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE DRIVEWAY CONSTRUCTION.
7. ONE HALF INCH EXPANSION JOINTS SHALL BE INSTALLED WHEREVER DRIVE CONSTRUCTION ABUTS SIDEWALK. ONE HALF INCH EXPANSION JOINTS SHALL ALSO BE INSTALLED ALONG THE PROPERTY LINE AND/OR BACK OF WALK LINE WHEN DRIVE CONSTRUCTION ALONG THIS LINE ABUTS CONCRETE PARKING LOTS OR CONCRETE DRIVE EXTENSION.
8. ALL DRIVEWAYS SHALL BE A MINIMUM OF 6" IN THICKNESS AND SHALL BE WITHOUT REINFORCEMENT. DRIVEWAYS MAY BE CONSTRUCTED THICKER THAN 6" AND THEY MAY BE REINFORCED WITH 6"x12" W4-W4 WELDED WIRE FABRIC WHEN PROPERLY AUTHORIZED BY THE PROPERTY OWNER WITH THE ENGINEER'S CONCURRENCE.
9. OPTIMUM DRIVEWAY ELEVATIONS SHOWN IN THE TABLES ARE TO BE USED WHEREVER POSSIBLE. ABSOLUTE MAXIMUM AND MINIMUM ELEVATIONS ARE TO BE USED ONLY WHEN THESE VALUES WILL PERMIT NEW CONSTRUCTION TO MATCH EXISTING DRIVES OR PARKING LOTS. VALUES SHOWN IN THE TABLES ARE BASED ON A FULL CURB HEIGHT ELEVATION OF 0.55' ABOVE THE GUTTER FLOW LINE AND MUST BE ADJUSTED ACCORDINGLY FOR OTHER CURB HEIGHTS. VALUES SHOWN IN THE TABLES WITH MINUS SIGNS INDICATE ELEVATIONS BELOW TOP OF FULL HEIGHT CURB.

SCALE: 1" = 5'

STANDARD DRIVE ENTRANCES
FULL HEIGHT CURB
CITY OF WICHITA, KANSAS

PROJECT NUMBER
472-76-245-80085-000-000-001

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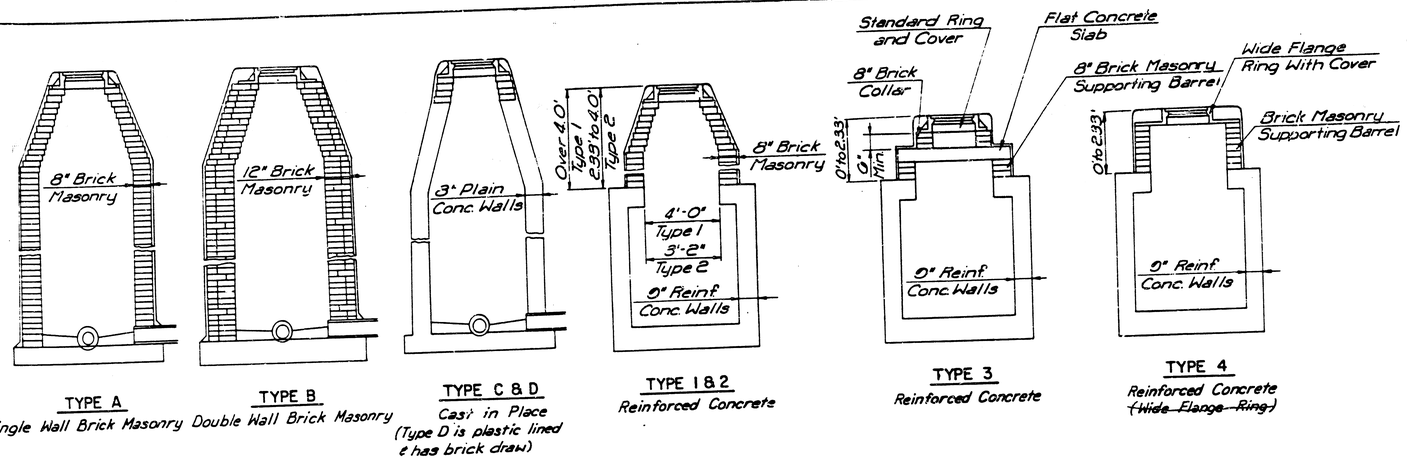


TYPE A
Single Wall Brick Masonry

TYPE B
Double Wall Brick Masonry

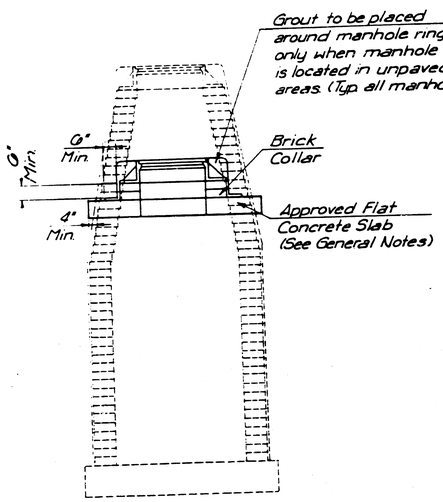
TYPE C & D
Cast in Place
(Type D is plastic lined & has brick draw)

TYPE 1 & 2
Reinforced Concrete

TYPE 3
Reinforced Concrete

TYPE 4
Reinforced Concrete
~~(Wide Flange Ring)~~

DEFINITION SKETCHES - CITY OF WICHITA STANDARD MANHOLES

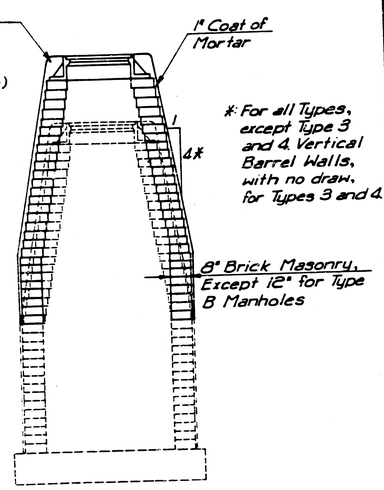


DOWNWARD ADJUSTMENT (GREATER THAN 12")

All Types

THE APPROPRIATE PORTIONS OF THE DRAW AND BARREL OF TYPE A, B, C, D, 1 AND 2 MANHOLES SHALL BE REMOVED. A FLAT CONCRETE SLAB SHALL BE PLACED AND THE RING AND COVER RESET. ALL WORK AND MATERIALS SHALL CONFORM TO THE DETAILS SHOWN AND THE GENERAL NOTES.

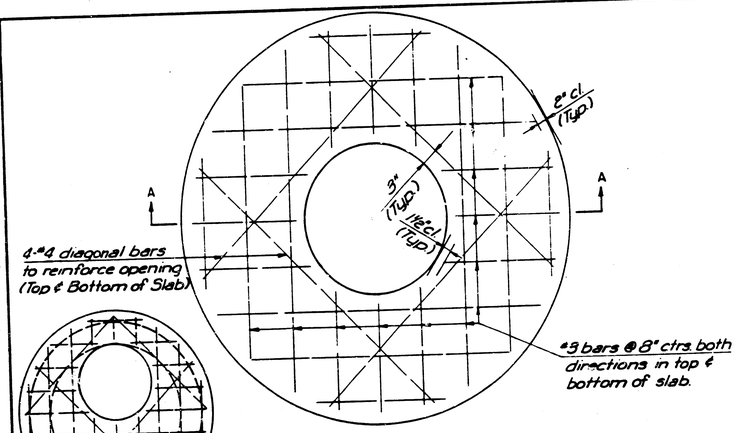
COURSES OF BRICK BARREL SUPPORTING THE WIDE FLANGE RING FOR TYPE 4 MANHOLES AND FLAT CONCRETE SLAB FOR TYPE 3 MANHOLES SHALL BE REMOVED AS NECESSARY PRIOR TO RESETTING THE WIDE FLANGE RING OR FLAT CONCRETE SLAB AND RING. ALL WORK AND MATERIALS SHALL CONFORM TO THE DETAILS SHOWN AND THE GENERAL NOTES.



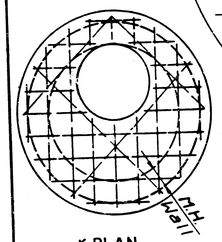
UPWARD ADJUSTMENT (GREATER THAN 12")

All Types

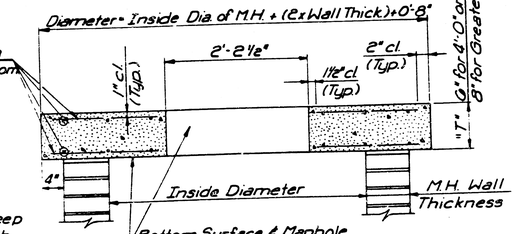
THE ENTIRE DRAW OF TYPES A, B, C, D, 1 AND 2 MANHOLES SHALL BE REMOVED. THE MANHOLE BARREL RAISED THE APPROPRIATE AMOUNT, A NEW DRAW CONSTRUCTED, AND THE RING AND COVER RESET. THE UPPER PORTION OF TYPE 3 MANHOLES SHALL BE REMOVED TO THE BOTTOM OF THE FLAT CONCRETE SLAB, THE BRICK MASONRY BARREL SUPPORTING THE SLAB SHALL BE RAISED THE APPROPRIATE AMOUNT, AND THE SLAB AND RING AND COVER RESET. THE WIDE FLANGE RING AND COVER OF TYPE 4 MANHOLES SHALL BE REMOVED, THE BRICK MASONRY BARREL SUPPORTING THE RING SHALL BE RAISED THE APPROPRIATE AMOUNT AND THE RING AND COVER RESET. ALL WORK REQUIRED FOR A GREATER THAN TWELVE INCH (12") UPWARD ADJUSTMENT OF ANY MANHOLE SHALL BE ACCOMPLISHED WITH BRICK MASONRY IN ACCORDANCE WITH THE DETAILS SHOWN AND THE GENERAL NOTES.



PLAN



* PLAN
ALTERNATE OPENING LOCATION



SECTION A-A

*: To be used only if necessary to keep ring and cover from conflicting with curb or combined curb and gutter. Flat concrete slab shall be rotated on existing manhole to position ring and cover in pavement or behind curb.

FLAT CONCRETE SLAB DETAILS

PROJ No. 472-76-245-80685-000-000-001

MANHOLE ADJUSTMENT DETAILS

CITY OF WICHITA, KANSAS
M. E. LINDEBAK – CITY ENGINEER

Designed by		Checked by	9/13
Drawn by		Date	JOB No.

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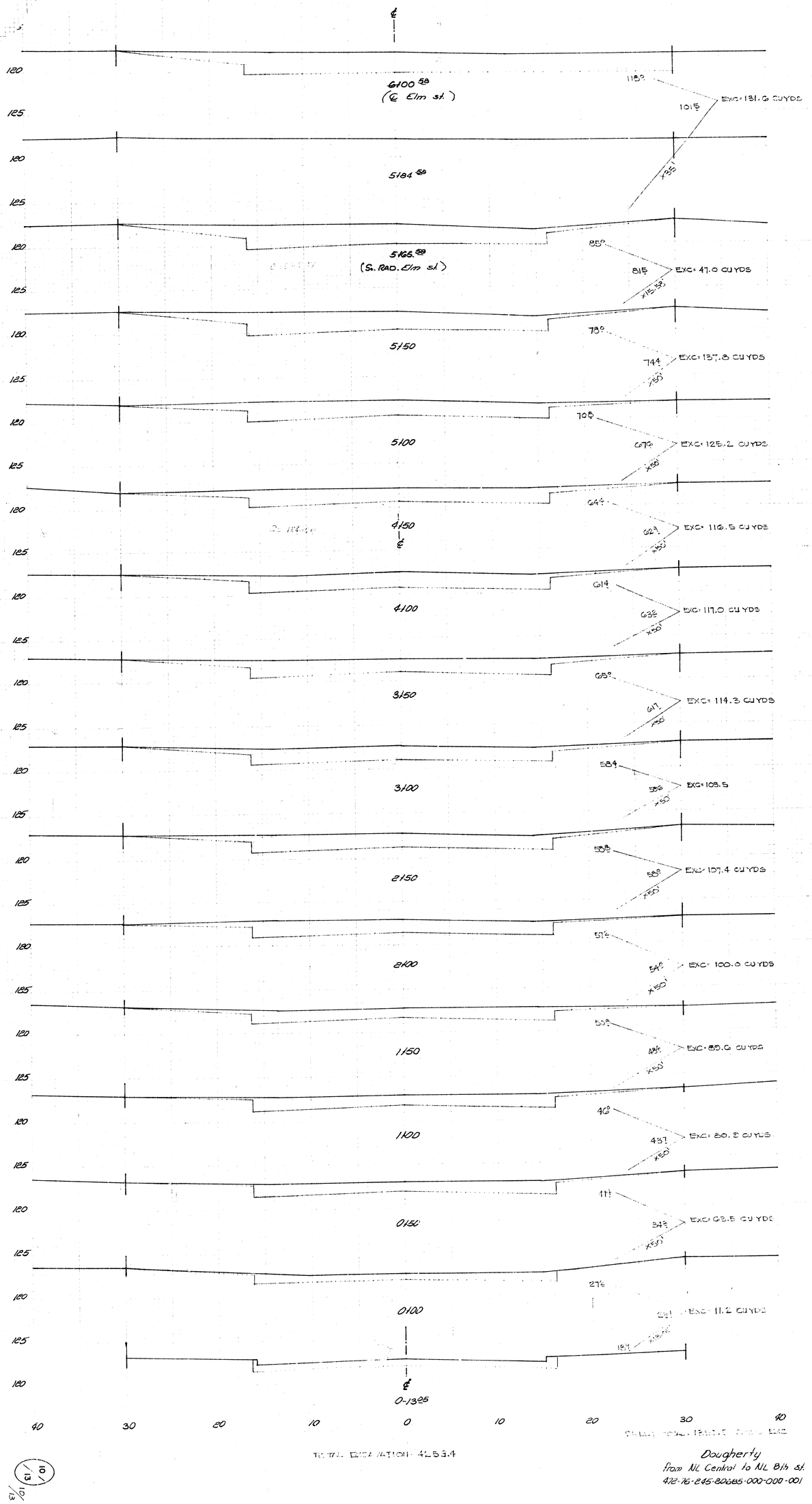

Dougherty
from NL Central to NL 8th st.
472-16-245-80685-000-000-001

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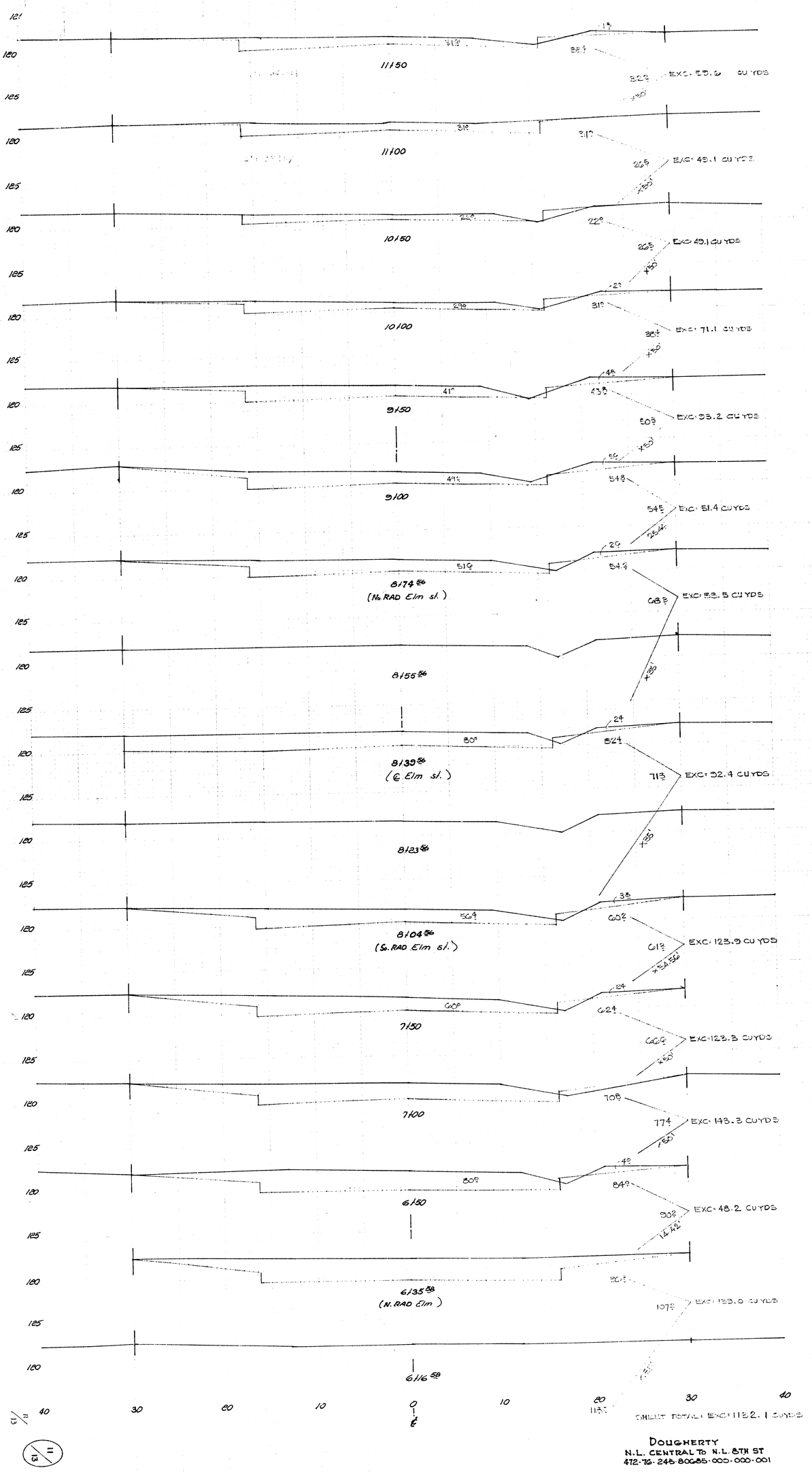

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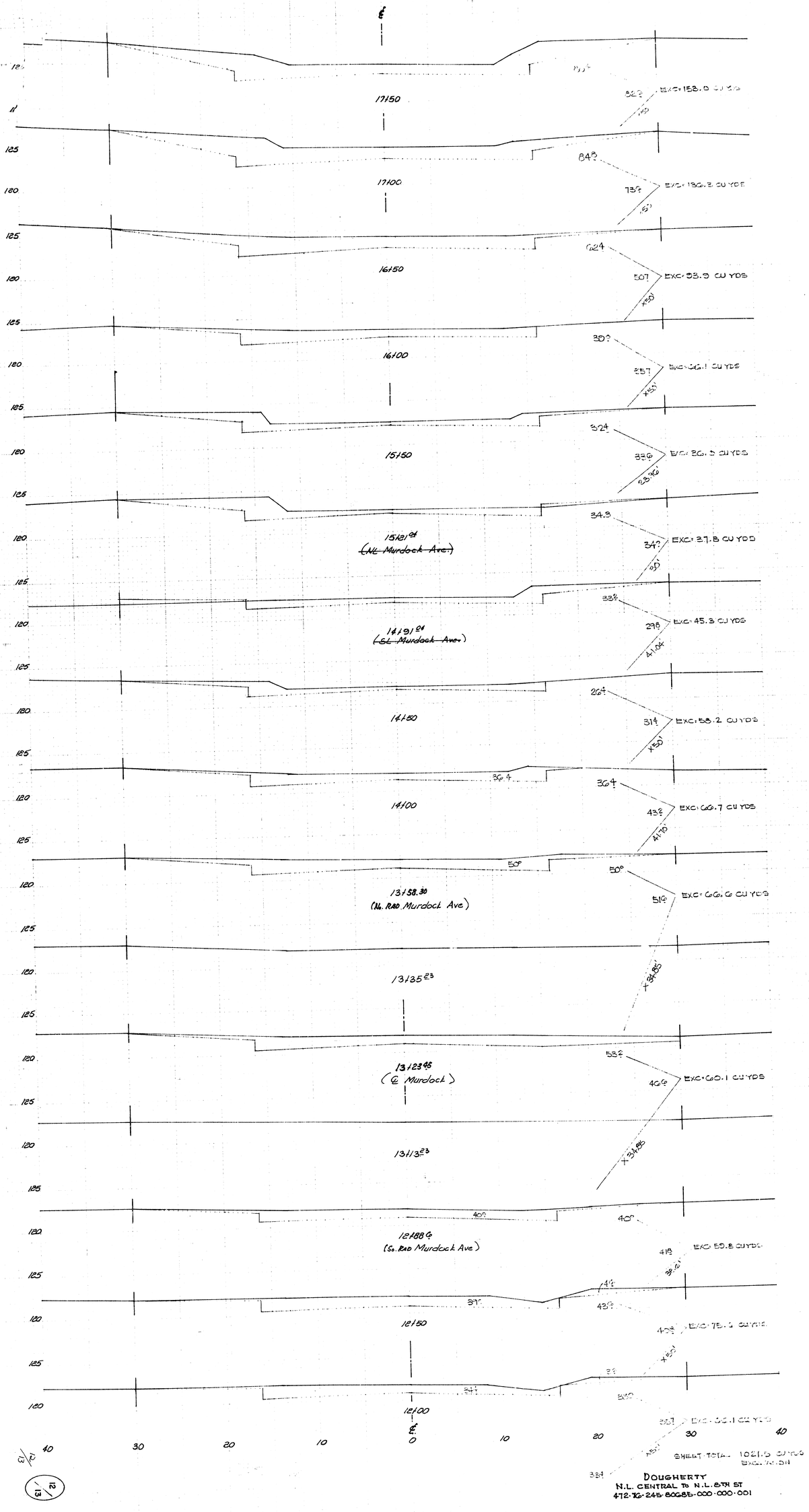

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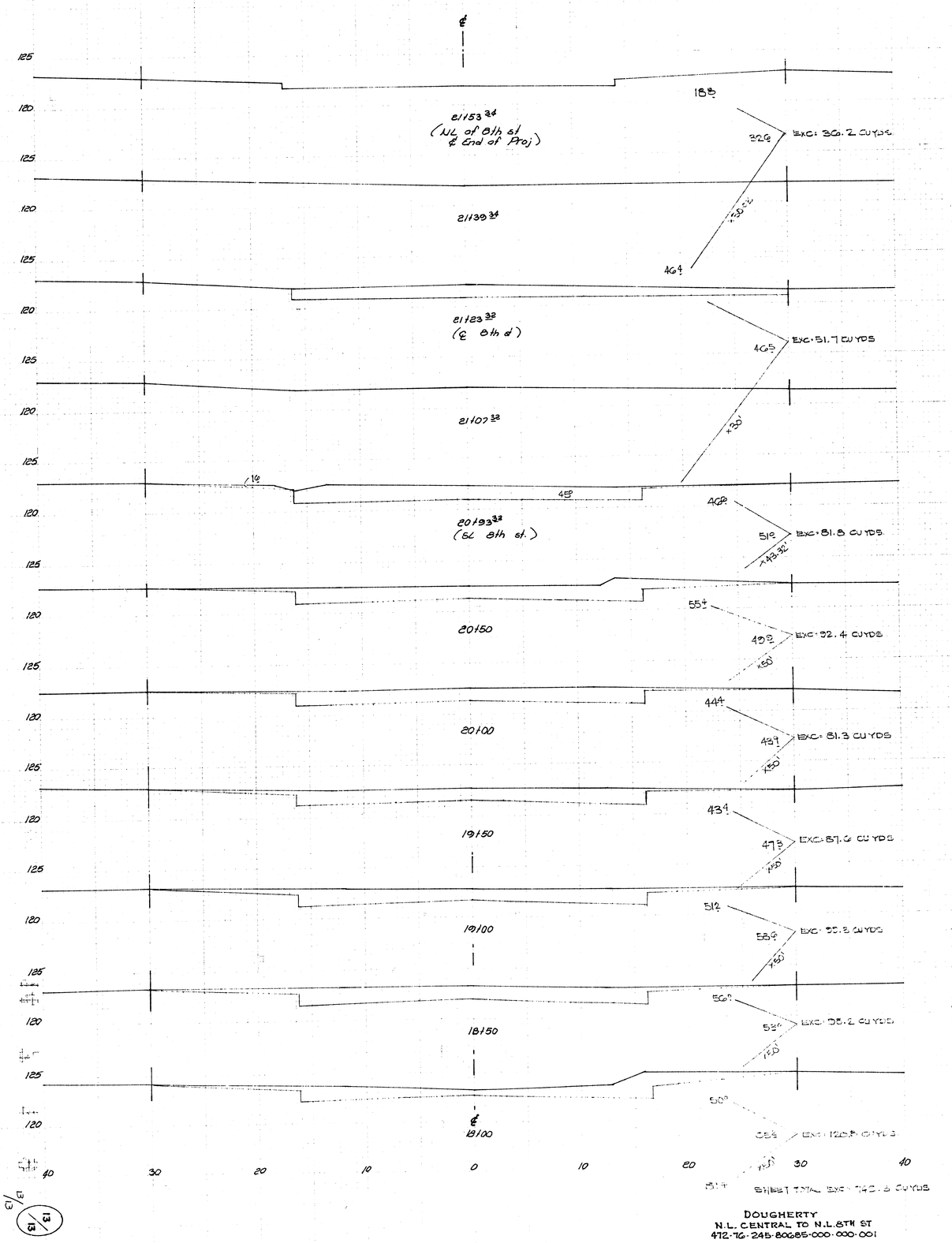

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