# SEVENTEENTH STREET NORTH

## WEST LINE TUNIS LANE TO WEST LINE NORTHWEST PARKWAY

PROJECT NO. 472-76-245-81663-000-000-001

CITY OF WICHITA, KANSAS

M.E. LINDEBAK CITY ENGINEER

### NOTES

1. UTILITY SERVICE LINES, POLES, VALVE BOXES, METERS, AND ETCETERA ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR OR UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

2. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS THAT, IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED.

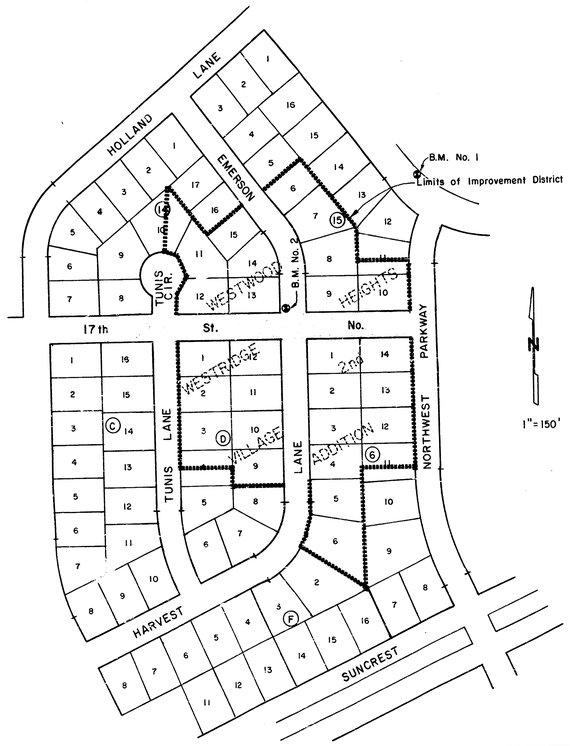
3. WIDENED GUTTER SECTION OF COMBINED CURB AND GUTTER AT INTERSECTIONS WILL NOT BE PAID FOR DIRECTLY, AND THIS COST SHALL BE CONSIDERED AS SUBSIDIARY TO THE OTHER CONTRACT PAY ITEMS OF WORK.

4. CONTRACTOR SHALL GIVE PROPERTY OWNERS ABUTTING THIS PROJECT, WHOSE YARDS WILL BE LOWER THAN THE NEW FINISHED GRADE ELEVATIONS AT THE RIGHT-OF-WAY LINE, AN OPPORTUNITY TO UTILIZE EXCESS EXCAVATED MATERIAL FROM THE PROJECT TO REGRADE THEIR YARDS TO DRAIN TO THE NEW PAVEMENT. CONTRACTOR WILL BE REQUIRED TO DUMP AND SPREAD THE EXCESS MATERIAL AS REQUIRED BY THE SPECIFICATIONS WHEN REQUESTED BY THE PROPERTY OWNER. THE CONTRACTOR SHALL ASCERTAIN THAT A DIRT ORDER FORM HAS BEEN PROPERLY EXECUTED BY THE PROPERTY OWNER BEFORE ANY SUCH EXCESS MATERIAL IS DELIVERED TO SUCH PROPERTIES.

5. THE CONTRACTOR WILL BE PERMITTED TO BID ONLY ONE OF THE ALTERNATE TYPES OF SUBGRADE TREATMENT. THE TYPE BID BY THE SUCCESSFUL BIDDER WILL BE THE TYPE OF SUBGRADE TREATMENT USED TO CONSTRUCT THE PROJECT.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY IRONS. THE CONTRACTOR WILL 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.

7. LIMITS OF EARTHWORK SHALL MATCH EXISTING GROUND ELEVATIONS AT THE RIGHT-OF-WAY LINE UNLESS OTHERWISE NOTED ON THE PLANS WITH A NEW FINISHED GRADE ELEVATION. WHEN A NEW FINISHED GRADE ELEVATION IS SHOWN, THE EARTHWORK SHALL EXTEND ONE FOOT BEYOND THE RIGHT-OF-WAY LINE AND THEN SLOPED UP OR DOWN USING PERMISSIBLE SLOPES TO MATCH THE EXISTING GROUND SURFACE.




**LEGEND**

| | | |
|---|---|---|
| UT | = | Underground Telephone |
| UE | = | Underground Electric |
| SS | = | Sanitary Sewer |
| SWS | = | Storm Water Sewer |
| CATV | = | Cable Television |
| G | = | Gas |
| T.S.B. | = | Telephone Splice Box |
| WV | = | Water Valve |
| FH | = | Fire Hydrant |

Benchmarks:

B.M. No. 1 - "□" on North Curb of N.W. Parkway near West Line Lot 29, Blk. 11 Westwood Heights Addn. Elev. = 154.82

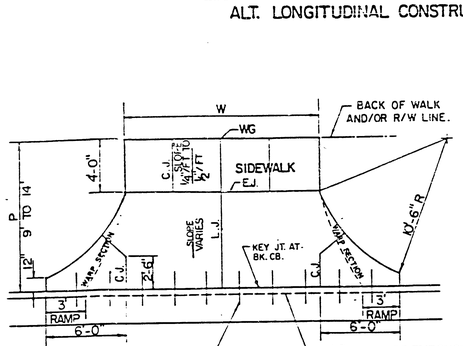
B.M. No. 2 - "□" on Top West Curb Emerson North Side 17th. Elev. = 154.76

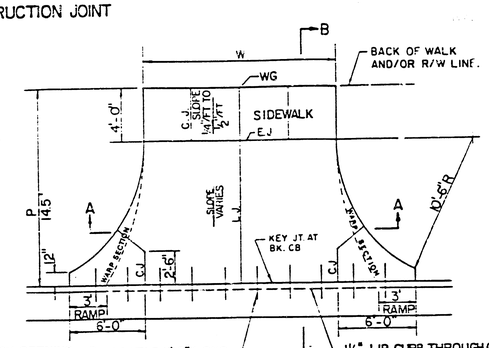
### INDEX

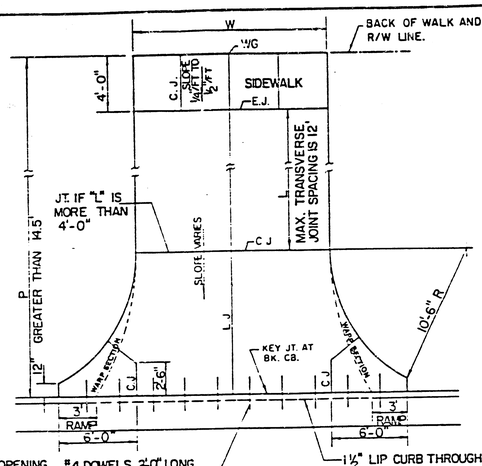



MOEHRING & ASSOCIATES
CONSULTING ENGINEERS
WICHITA


ALT. LONGITUDINAL CONSTRUCTION JOINT



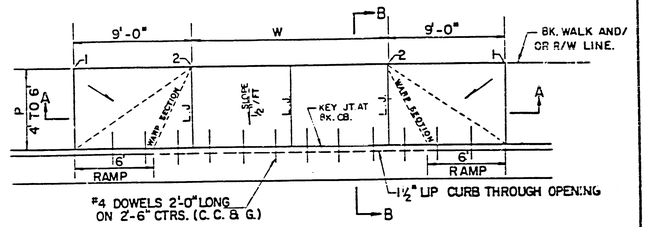



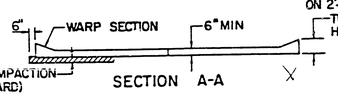


CONTRACTION JOINT (C.J.)
OR LONGITUDINAL JOINT (L.J.)

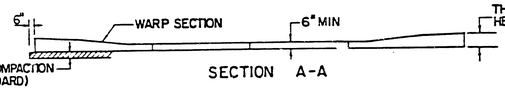
NO SAWN JOINTS WILL BE ALLOWED.


EXPANSION JOINT (E.J.)



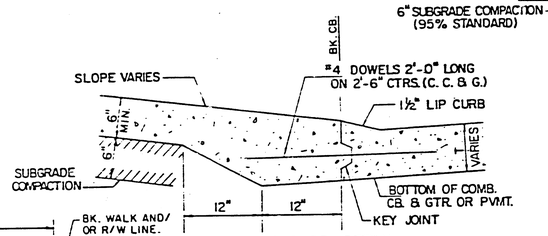

SECTION A-A




SECTION A-A

| 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' | 0.90' | 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' |

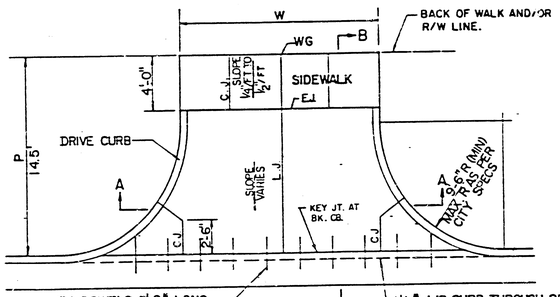
RADIUS RAMP DRIVES (P = 9.0' & GREATER)



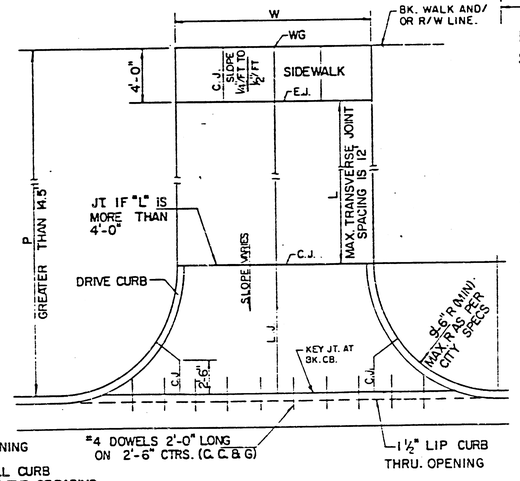

BACK OF CURB DETAIL
SECTION B - B (no scale)

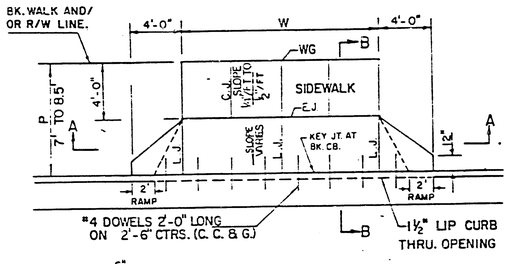
| PARKING WIDTH "P" | | 4' | 4.5' | 5' | 5.5' | 6' | 6.5' |
|---|---|---|---|---|---|---|---|
| DIST. OF PT. "1" ABOVE TOP OF FULL CB. | | 0.08' | 0.09' | 0.10' | 0.12' | 0.13' | 0.14' |
| DIST. OF PT. "2" BELOW TOP OF FULL CB. | | -.26' | -.24' | -.22' | -.20' | -.18' | -.16' |

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



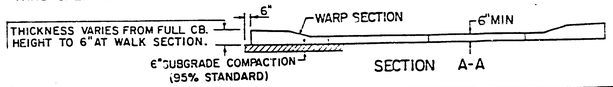

SECTION A-A




| 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)




SECTION A-A

| 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

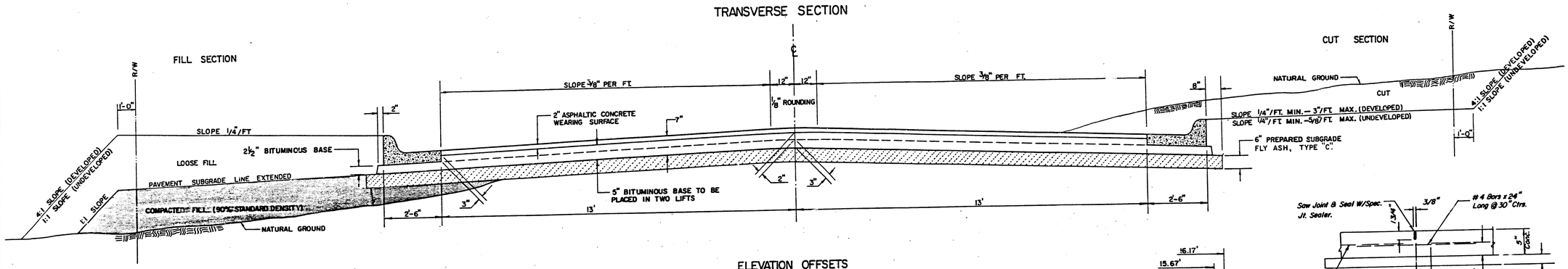
1. DRIVEWAY CONSTRUCTION DETAILED ON THIS SHEET IS FOR USE WITH FULL HEIGHT STREET CURBS AND IN AREAS WITHOUT FULL WALK CONSTRUCTION IN THE PARKING. SEE OTHER DETAIL SHEETS FOR DRIVEWAY CONSTRUCTION WITH ROLL CURB AND/OR FULL WALK.
2. ONE LONGITUDINAL JOINT SHALL BE CONSTRUCTED ALONG THE CENTERLINE OF DRIVES HAVING A "P" DIMENSION OF 24' OR LESS. TWO LONGITUDINAL JOINTS SHALL BE CONSTRUCTED WITH EQUAL SPACINGS NOT TO EXCEED 10' FOR DRIVES HAVING A "P" 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'

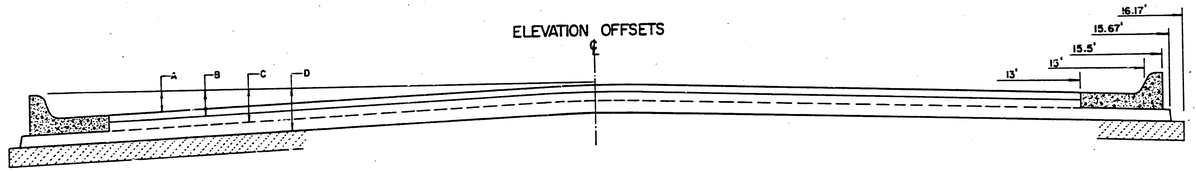
# STANDARD DRIVE ENTRANCES
## FULL HEIGHT CURB
CITY OF WICHITA, KANSAS

# TYPICAL 31' PAVEMENT DETAILS

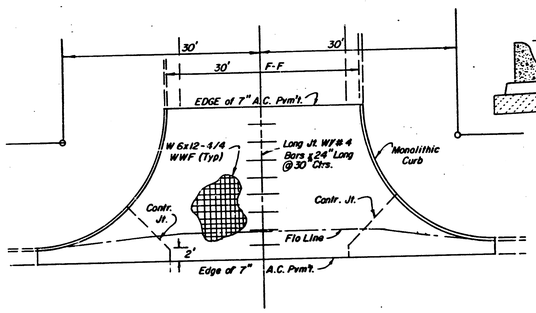
## TRANSVERSE SECTION




## ELEVATION OFFSETS

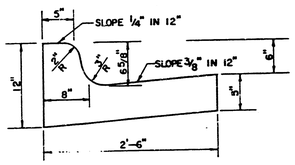



| | DISTANCE FROM CENTERLINE (Lt. & Rt.) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0' | 2' | 4' | 6' | 7.5' | 10' | 12' | 13' | 15' | 15.5' | 15.67' | 16.17' |
| A: TOP OF CURBS TO TOP OF SURFACE LIFT | 0.10 | 0.14 | 0.21 | 0.27 | 0.32 | 0.39 | 0.46 | 0.49 | — | — | — | — |
| 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 |

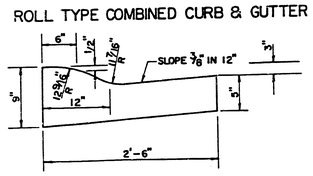


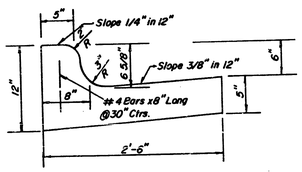

VALLEY GUTTER DETAIL

## COMBINED CURB & GUTTER




## ROLL TYPE COMBINED CURB & GUTTER

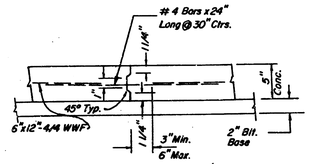


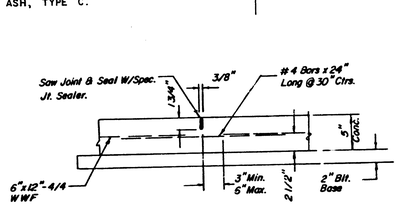

*MONOLITHIC CURB*
*FOR CONCRETE VALLEY GUTTER*

## GENERAL NOTES

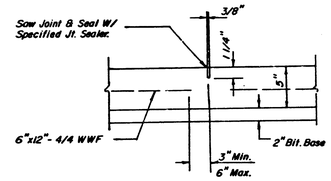
1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 7" ASPHALTIC CONCRETE (5" BITUMINOUS BASE).
2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 2 1/2" BITUMINOUS BASE.
3) A TACK COAT OF EMULSIFIED 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 [illegible] 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.




*LONGITUDINAL CONSTRUCTION JOINT*
*FOR CONCRETE VALLEY GUTTER*

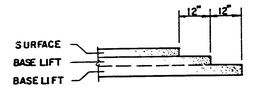



*LONGITUDINAL SAWED JOINT*
*FOR CONCRETE VALLEY GUTTER*




*CONTRACTION JOINT*
*FOR CONCRETE VALLEY GUTTER*

## 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

3/6

NOTE:
STA. 2+89.6, 6.0' Left ℄
Adjust Top Existing MH To 154.93

N

1" = 20'

Construct 7" Valley Gutter with Monolithic Edge Curb.
5" Rein. Conc. with 2" Bit. Base. (See Sheet 3.)

Construct 7" Asphaltic Concrete Pavement
(5" Bit. Base) With Combined Curb & Gutter.

CONNECT TO EXISTING CURB INLET
ADJUST TOP TO 155.12.

CONNECT TO EXISTING CURB INLETS
ADJUST TOPS TO 155.00

CONNECT TO EXISTING CURB INLET
ADJUST TOP TO 153.75.

CONNECT TO EXISTING CURB INLET
ADJUST TOP TO 153.80

SEE SHEET 6, HARVEST LN PLANS, FOR PLAN & ELEVATIONS FOR CONSTRUCTION OF CURB INLET, 15" S.W.S. & REINFORCED CONCRETE MANHOLE.

CAUTION!! Buried Utilities

Stockpile Outline - From Basement Excavations Typical 3 Places

Match Existing Pavement

Project Limit - Begin Construction

Valve Box Elev. = 156.7

Valve Boxes = 155.3

Proposed 12" Water

Existing 48" S.W.S.

Existing S.W.S. System

Existing 8" Water

Existing 12" Water

Existing Pavement

3-U/E Riser Cables

Proposed 8" Water

-0.471 1%
+0.7' Wk. Gr.
-0.5435%
-0.32%
-0.3304%

INTERSECTION QUANTITIES

| | |
|---|---|
| ____ | S.Y. ____" Concrete Pavement |
| 254.77 | S.Y. 7 " Asphaltic Conc. Pavement |
| | ( 5 " Bituminous Base) |
| 14.61 | S.Y. 2 1/2 " Bituminous Base |
| 47.69 | L.F. Combined Curb & Gutter |
| 46.12 | L.F. Monolithic Edge Curb |
| ____ | S.F. Wheelchair Ramp |
| ____ | S.F. 4" Walk |
| 164.26 | C.Y. Excavation |
| ____ | C.Y. Compacted Fill |
| ____ | Lbs. Reinforcing Steel |
| 356.64 | S.Y. Manipulation |
| ____ | Tons Lime or Cement |
| 81.4 | S.Y. V.G. 5 " Concrete & |
| | 2 " Bituminous Base |

INTERSECTION QUANTITIES

| | |
|---|---|
| ____ | S.Y. ____" Concrete Pavement |
| 346.29 | S.Y. 7 " Asphaltic Conc. Pavement |
| | ( 5 " Bituminous Base) |
| 32.32 | S.Y. 2 1/2 " Bituminous Base |
| 105.48 | L.F. Combined Curb & Gutter |
| ____ | L.F. Monolithic Edge Curb |
| ____ | S.F. Wheelchair Ramp |
| ____ | S.F. 4" Walk |
| 185.94 | C.Y. Excavation |
| ____ | C.Y. Compacted Fill |
| ____ | Lbs. Reinforcing Steel |
| 384.3 | S.Y. Manipulation |
| ____ | Tons Lime or Cement |
| ____ | S.Y. V.G. ____" Concrete & |
| | ____" Bituminous Base |

NOTE: EARTHWORK VOLUMES DO NOT INCLUDE MATERIAL IN THE 3 STOCKPILES SHOWN ABOVE. CONTRACTOR MAY, AT HIS OPTION, SPREAD AND LEVEL THE STOCKPILES AND REQUEST NEW CROSS SECTIONS BE TAKEN FOR COMPUTATION OF ADDITIONAL EARTHWORK VOLUME. ALL COSTS FOR SPREADING AND LEVELING STOCKPILES, SHALL BE INCLUDED IN THE PRICE BID FOR EARTHWORK EXCAVATION.

EXCAVATION

| | |
|---|---|
| X-Section | 2131.60 Cu. Yds. |
| 10% | 213.16 Cu. Yds. |
| Total | 2344.76 Cu. Yds. |

2,417.7 Sq. Yds. Manipulation

# 17TH STREET NORTH

From The West Line Of Tunis Lane To
The West Line Of Northwest Parkway.

Project No.
472-76-245-81663-000-000-001.
City of Wichita, Ks.

MOEHRING & ASSOCIATES
CONSULTING ENGINEERS
WICHITA

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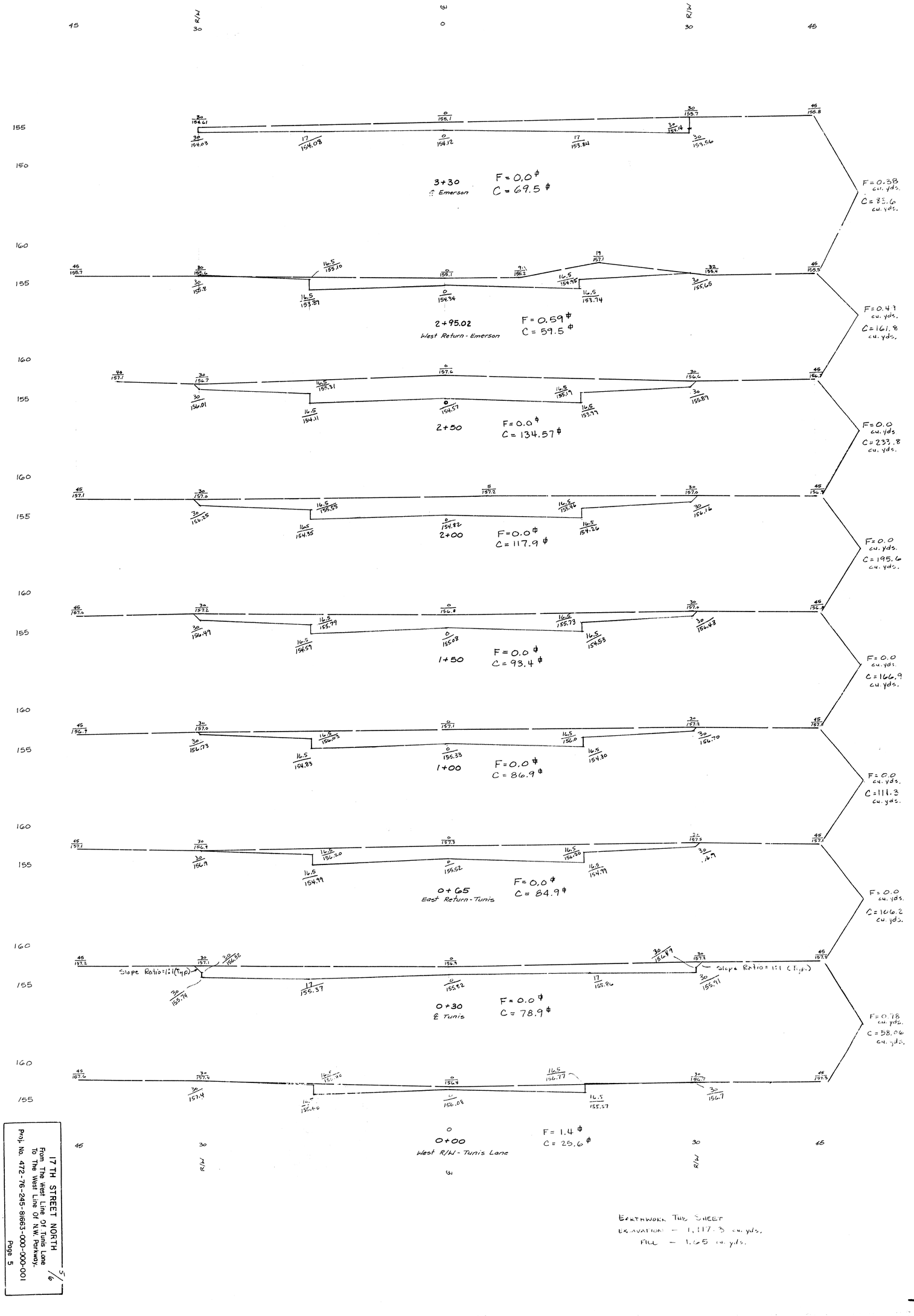


17 TH STREET NORTH
From The West Line Of Tunis Lane
To The West Line Of N.W. Parkway.
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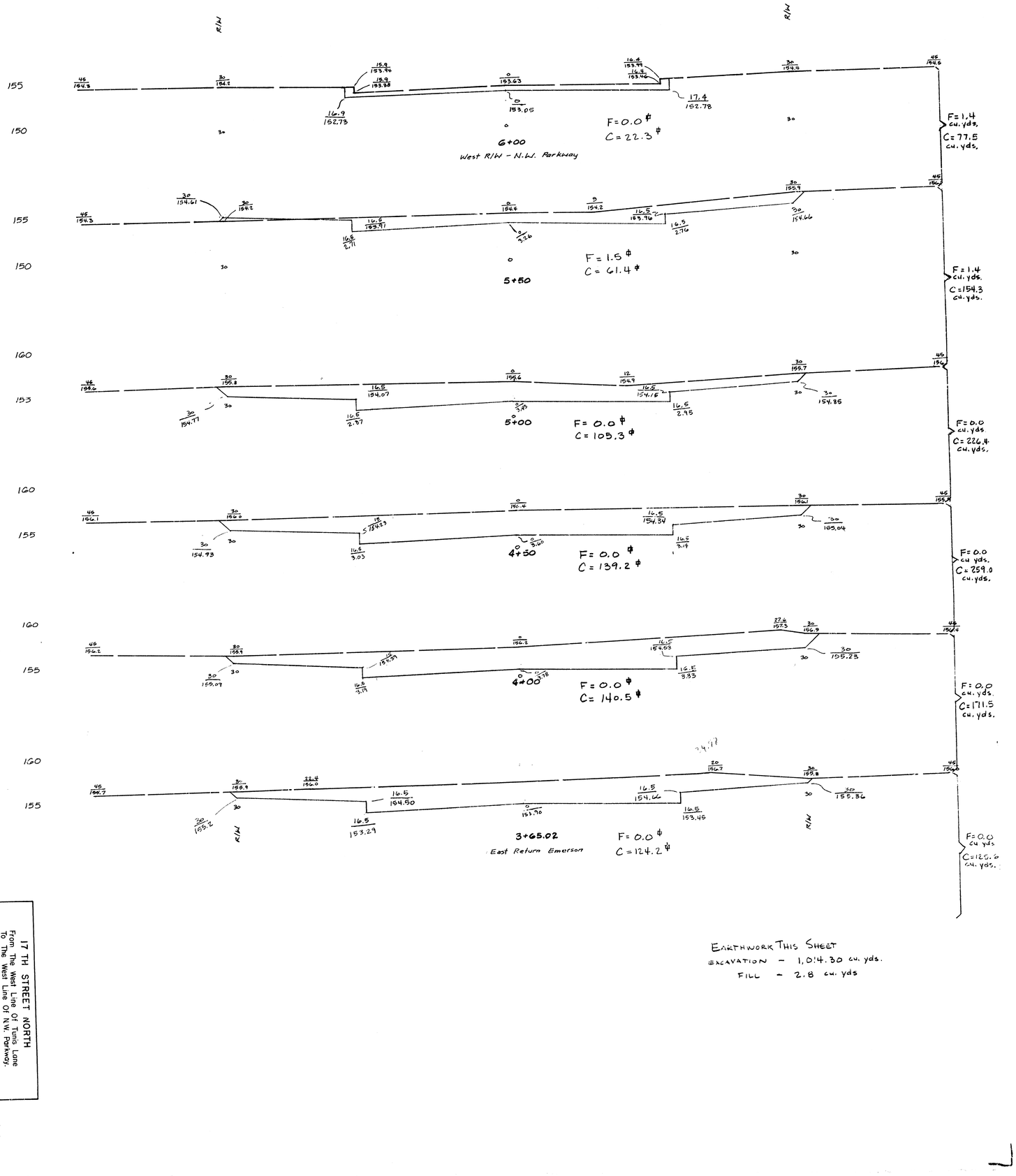
EARTHWORK THIS SHEET
EXCAVATION = 1,117.3 cu. yds.
FILL = 1,165 cu. yds.




EARTHWORK THIS SHEET
EXCAVATION - 1,014.30 cu. yds.
FILL - 2.8 cu. yds

17TH STREET NORTH
From The West Line Of Tunis Lane
To The West Line Of N.W. Parkway.
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