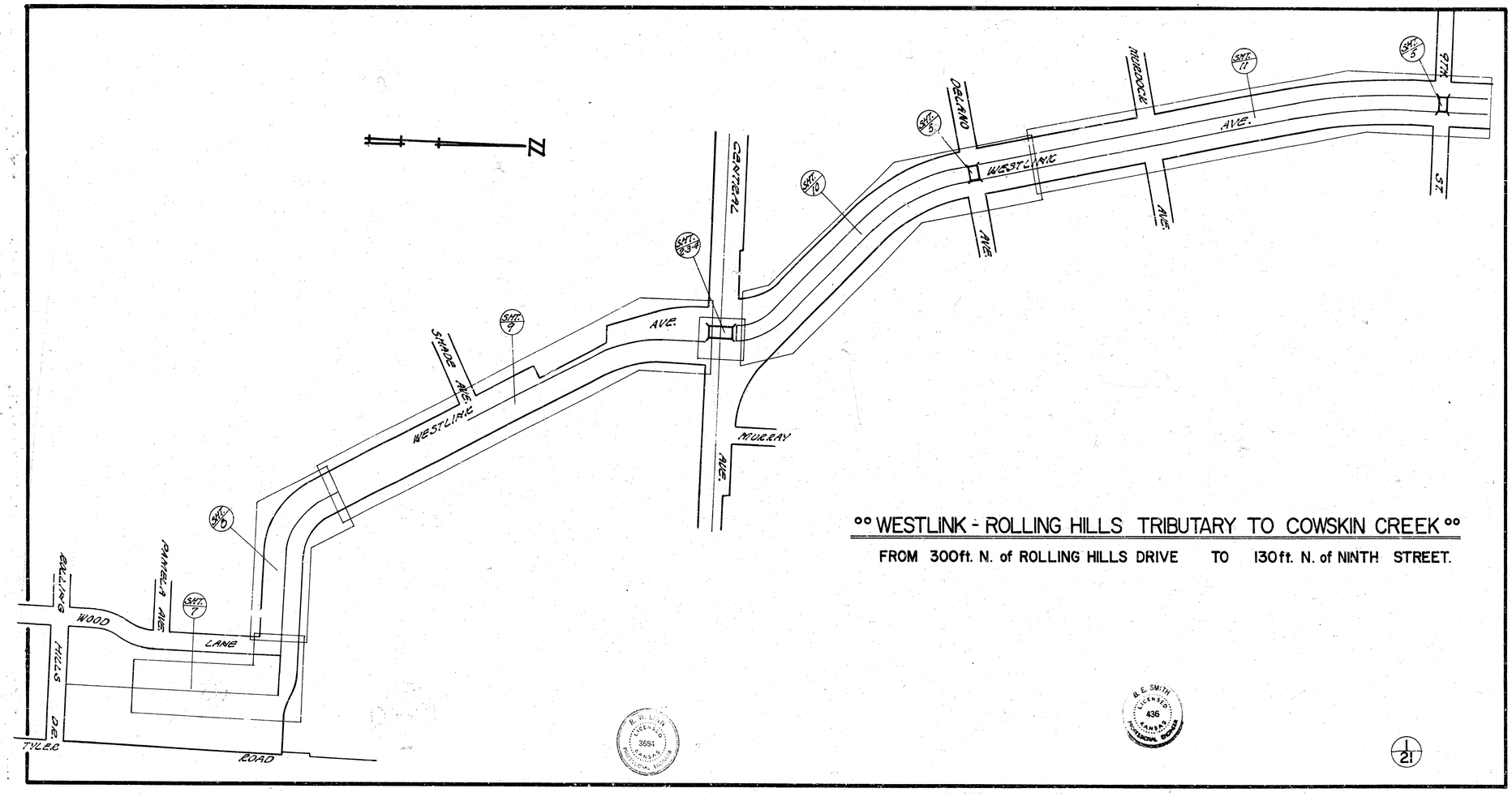


°° WESTLINK - ROLLING HILLS TRIBUTARY TO COWSKIN CREEK °°

FROM 300ft. N. of ROLLING HILLS DRIVE TO 130ft. N. of NINTH STREET.

R. W. LUTH LICENSED 3694 KANSAS PROFESSIONAL ENGINEER

R. E. SMITH LICENSED 436 KANSAS PROFESSIONAL ENGINEER

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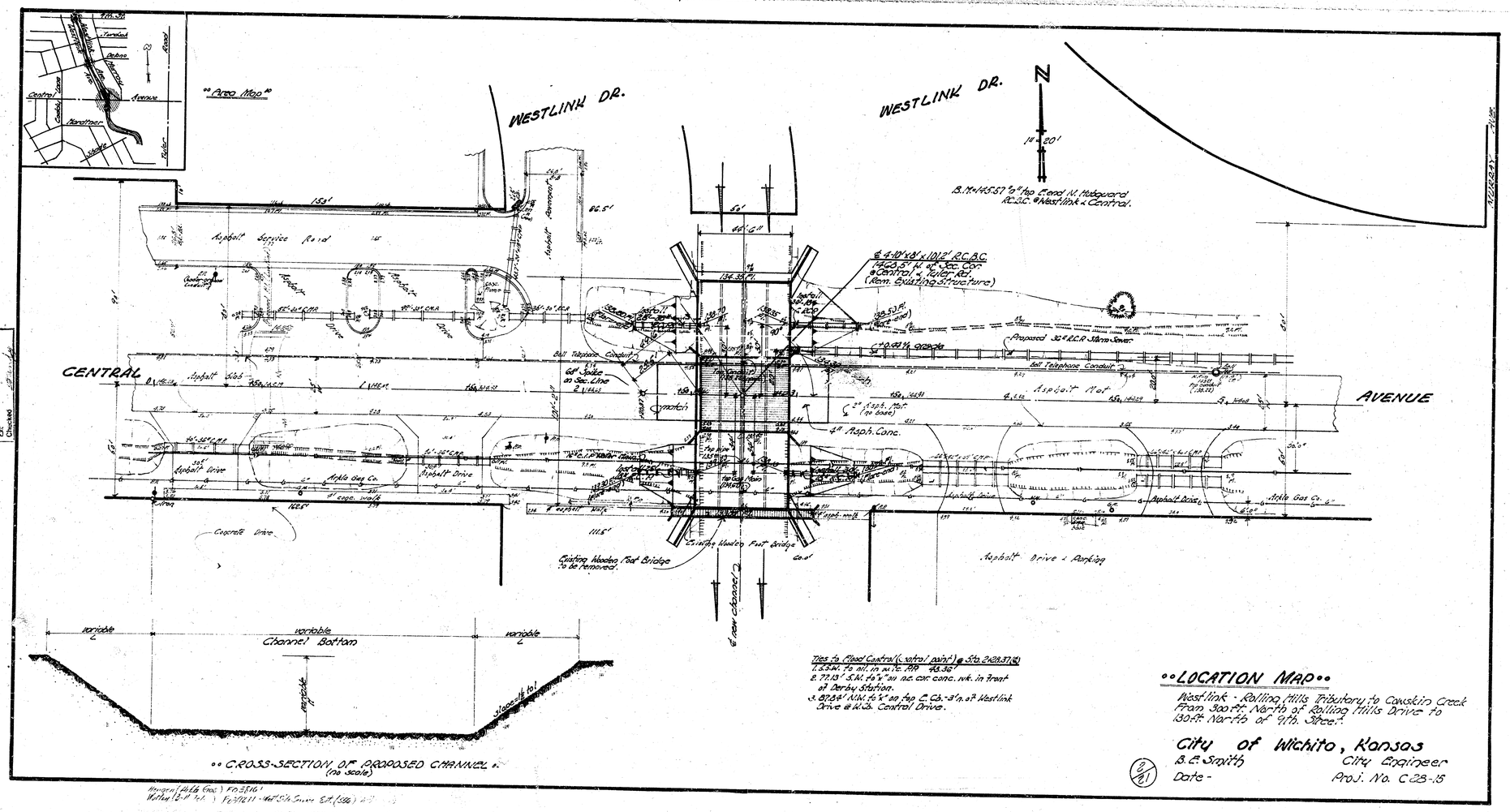
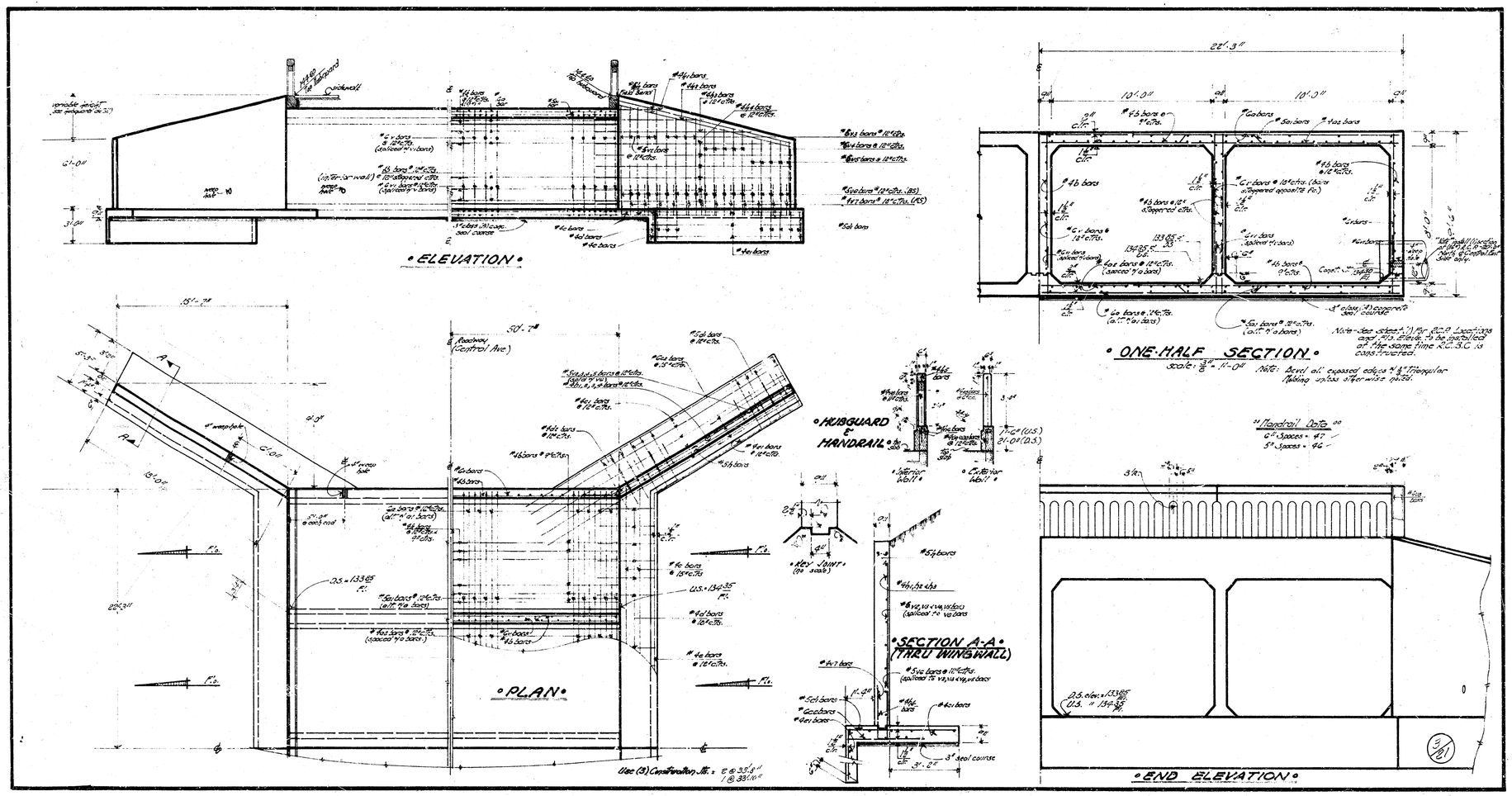

"Area Map"
WESTLINK DR.
WESTLINK DR.
N
1" = 20'
B.M. = 1455.57 ½" top E end N. Hdgward R.C.B.C. @ Westlink & Central.
CENTRAL
AVENUE
Asphalt Service Road
Asphalt Drive
Asphalt Drive
Asphalt Drive
Asphalt Drive & Parking
Asphalt Mat
Bell Telephone Conduit
Bell Telephone Conduit
Proposed 30" R.C.P. Storm Sewer
Existing Wooden Foot Bridge
Existing Wooden Foot Bridge to be removed.
Concrete Drive
Arkla Gas Co.
Arkla Gas Co.
4" Asph. Conc.
2" Asph. Mat. (no base)
6" new channel
variable
Channel Bottom
variable
variable
Slope 1½ to 1
Survey Sheet
Plan
Sec.
Checked
Ties to Flood Control (control point) @ Sta. 242+37.(±)
1. 5.5' N. to all in ex. RR 43.30'
2. 77.13' S.W. to "x" on ac. cor. conc. wk. in front of Derby Station.
3. 87.54' N.W. to "x" on top C. Cb. - 3' n. of Westlink Drive & W.S. Central Drive.
•• LOCATION MAP ••
Westlink - Rolling Hills Tributary to Cowskin Creek From 300 ft. North of Rolling Hills Drive to 130 ft. North of 9th. Street.
City of Wichita, Kansas
B. E. Smith City Engineer
Date - Proj. No. C 28-15
•• CROSS-SECTION OF PROPOSED CHANNEL ••
(no scale)


• ELEVATION •
• ONE-HALF SECTION •
• PLAN •
• SECTION A-A •
(THRU WINGWALL)
• HUBGUARD & HANDRAIL •
• END ELEVATION •
22'-3"
10'-0"
10'-0"
61'-0"
31'-0"
50'-7"
Roadway (Control Ave.)
Use (3) Construction Jts. @ 33'-8" & @ 33'-10"
Note - See sheet No. 1 for B.O.P. locations and Hdg. details, to be installed at the same time R.C.B.C. is constructed.
Handrail Data
6" Spaces - 47
5" Spaces - 46

## BAR SCHEDULE

| BAR | SIZE | LENGTH | No. | LOCATION | SHAPE | SPACING | AMOUNT |
|---|---|---|---|---|---|---|---|
| a | #5 | 22'-0" | 406 | Box | | 12" | 13,349.770 |
| a1 | #5 | 22'-0" | 406 | " | | 12" | 9,210.220 |
| a2 | #5 | 22'-0" | 204 | " | | 12" | 5,957.184 |
| b | #4 | 32'-6" | 628 | " | | 24"-12" | 13,363.878 |
| c | #4 | 22'-0" | 8 | Apron | | | 117.328 |
| c1 | #4 | 26'-0" | 80 | Wingwall | | 1' | 387.360 |
| c2 | #6 | 26'-0" | 12 | " | | 15" | 468.684 |
| d | #4 | 11'-9" | 52 | Apron | | 12" | 623.896 |
| d1 | #5 | 11'-9" | 64 | Wingwall | | 12" | 506.320 |
| d2 | #4 | 5'-0" | 12 | " | | 12" | 40.080 |
| e | #4 | 23'-7" | 12 | Apron | | 12" | 189.492 |
| e1 | #6 | 15'-0" | 12 | Wingwall | | 12" | 162.864 |
| h | #5 | 20'-9" | 12 | " | | – | 259.992 |
| h1 | #4 | 7'-0" | 4 | " | | – | 18.368 |
| h2 | #4 | 11'-6" | 4 | " | | – | 30.728 |
| h3 | #4 | 16'-9" | 4 | " | | – | 44.752 |
| h4 | #4 | 20'-9" | 24 | " | | 12" | 332.664 |
| h5 | #4 | 10'-6" | 3 | Railroad | | – | 56.112 |
| h6 | #4 | 19'-6" | 16 | Railroad | | – | 118.528 |
| k | #6 | 31'-0" | 428 | Box | | 9"&12" | 837.712 |
| v | #7 | 9'-0" | 678 | " | | 12"-18" | 8,146.248 |
| v1 | #6 | 31'-0" | 678 | " | | 12"-18" | 3,955.968 |
| v2 | #5 | 8'-0" | 20 | Wingwall | | 12" | 106.080 |
| v3 | #5 | 7'-0" | 16 | " | | 12" | 116.016 |
| v4 | #5 | 6'-0" | 20 | " | | 12" | 125.520 |
| v5 | #5 | 5'-0" | 16 | " | | 12" | 83.424 |
| v6 | #5 | 21'-6" | 72 | " | | 12" | 337.032 |
| v7 | #4 | 8'-0" | 48 | " | | 12" | 256.512 |
| v8 | #4 | 5'-0" | 160 | Railroad | | 12" | 267.200 |
| v9 | #4 | 21'-6" | 46 | Railroad | | 12" | 143.888 |
| v10 | #4 | 5'-2" | 46 | " | | 12" | 158.702 |
| | | | | | | Total = | 59,278.337 |

## BILL OF MATERIALS (FOR CONTRACT PURPOSES)

| ITEM | QUAN. | UNIT |
|---|---|---|
| Class AAA Concrete | 4,918. | Cu. Yd. |
| Reinforcing Steel | 53,290 | Lbs. |
| Concrete Handrail | 59.0 | L.F. |
| Hand Excavation | 624 | C.Y. |
| Asphalt Rein. | 230 | S.Y. |
| Asphalt | 50.0 | Tons |
| Common Excavation | 8,739 | C.Y. |
| Compacted Fill | 1760 | C.Y. |
| Class (A) Concrete | 48.17 | C.Y. |
| Wooden Foot Bridge Rem. | 1 | Ea. |
| Existing Structure Rem. | 1 | Ea. |
| 36" RCP | 36 | L.F. |
| 18" " | 86 | " |

Lump Sum Bid - Culvert

Bid Items

## BILL OF MATERIALS (FOR CONTRACT PURPOSES)

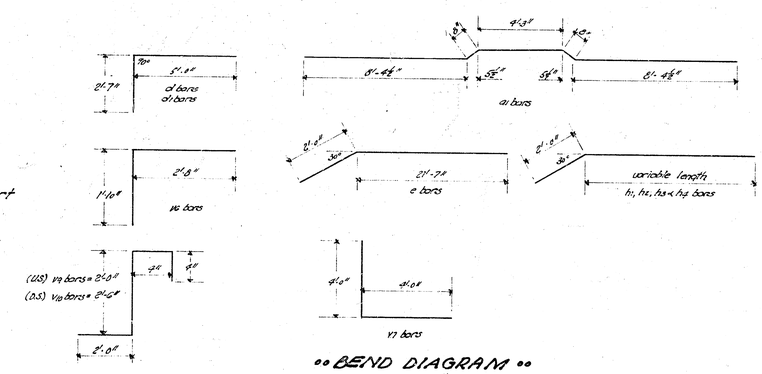
| ITEM | QUAN. | UNIT |
|---|---|---|
| Common Excavation | 4,730 | C.Y. |
| Compacted Fill | 380 | " |
| Embankment & Loose Fill | 2,650 | C.Y. |

Bid Items

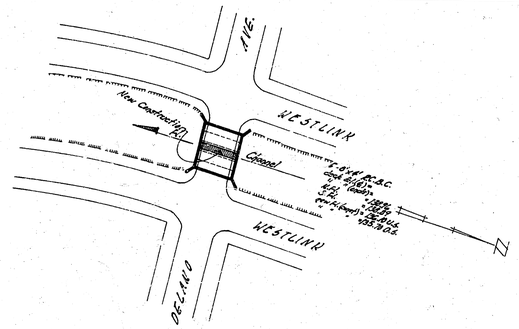
Note: All Excavated Material From New Channel To be used for filling existing creek & making necessary embankments as new channel. Contractor may use pneumatic rail-type compactor of mass (60) lbs. "Stress-Tat" type compactor may be used on all compacted fills under proposed pavements. All fills to be under supervision of Engineer

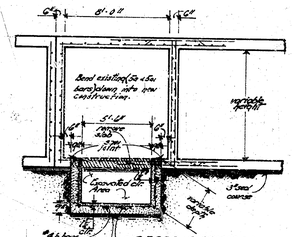
## GENERAL NOTES

- **CLASS AAA CONCRETE** - SHALL BE USED THROUGHOUT THIS PROJECT. ALL REINFORCING STEEL SHALL CONFORM TO A.S.T.M. SPECIFICATIONS.
- **EARTH WORK** - ALL EARTHWORK SHALL BE CONSIDERED AS "COMMON EXCAVATION" EXCEPT FOR THE TRENCH. TRENCH EXCAVATION SHALL BE INCLUDED IN "LUMP SUM BID".
- **BACKFILL** - SHALL BE COMPACTED TO THE BOTTOM OF NEW PAVEMENT GRADE. ALL BACKFILL & EXCAVATION TO EXTEND 1' (2') BEYOND SIDES OF BOX WINGWALLS.
- **INTERIOR HOLES** - COARSE AGGREGATE SHALL BE DEPOSITED INSIDE EACH "HEADWALL" TO DEVELOP A SOLID CONCRETE (3") IN ALL DIRECTIONS ABOVE HORIZONTAL PLANE. THIS WORK FULL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED A PART OF THE EXCAVATION WORK.
- **SEAL COURSE** - A SEAL COURSE CONSISTING OF (3") CLASS (A) CONCRETE SHALL BE CONSTRUCTED ONLY WHERE SPECIFIED ON THE PLANS OR BY THE ENGINEER. AS REINFORCING SHALL BE PLACED UNTIL THE SEAL COURSE HAS GAINED SUFFICIENT STRENGTH TO PREVENT WORKING UPON IT WITHOUT DAMAGE.
- **BIDDING OF CULVERT** - THE CULVERT SHALL BE BID AS A "LUMP SUM BID" EXCEPT FOR THE FOLLOWING ITEMS: (X) COMMON EXCAVATION, (X) COMPACTED FILL, CLASS (A) CONC., (X) ASPH. REIN., TWO ASPH., WOODEN FOOT BRIDGE REM. & EXISTING BRIDGE STRUCTURE REM. THE QUANTITIES SHOWN IN THE "BILL OF MATERIALS" OF ITEMS WHICH ARE INCLUDED IN THE "LUMP SUM BID" OF THE CULVERT: ARE FOR "PAYMENT" OF "PURCHASE ONLY". THE CONTRACTOR MUST SATISFY HIMSELF TO THE QUANTITIES AND THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. THE CONTRACTOR WILL HAVE THE FULL RESPONSIBILITY FOR PROVIDING ALL MATERIALS SHOWN ON THE DETAILED PLANS NECCESSARY TO COMPLETE THIS PROJECT.

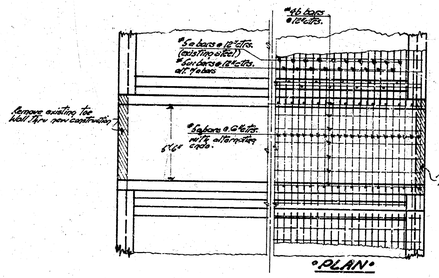



BEND DIAGRAM

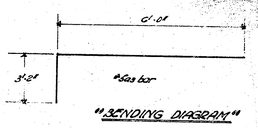



**• CROSS SECTION •**

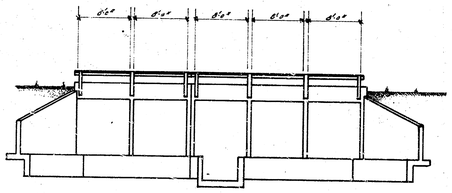



**• PLAN •**




**" BENDING DIAGRAM "**

Notes: Saw jt. if to be used on roadway. All existing 5u & 5u bars are to be cut & bent along note new construction line. Broken caps to be used as 8" x 8" x new R.C.B.C. coating as Control Joint. Otherwise except to be used for bottom of cage bending.

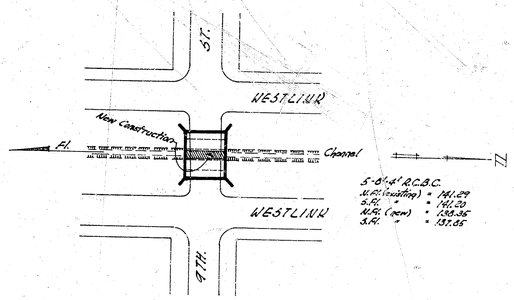



**• END ELEVATION •**

**" BAR SCHEDULE "**

| Bar | Size | Length | No. | Location | Shape | Spacing | Weight |
|---|---|---|---|---|---|---|---|
| a | #5 | 9'-6" | 168 | - | L | 6" | 1568.861 |
| b | #6 | 39'-9" | 86 | - | —— | 12" | 678.372 |
| | | | | | | Total = | 2239.233 |

| | |
|---|---|
| 29.87 C.Y. Class A-AE Concrete | Lump Sum (included in culvert bid) |
| 2240 Lbs. Reinforcing Steel | |
| 3.19 C.Y. Class (A) Concrete | Bid Item |
| 62.42 C.Y. Road Excavation | Lump Sum " " " " |
| 160.0 Lf. Saw Joint | Bid Item |
| 70.68 S.Y. Concrete Rem. | |




**" RE-CONSTRUCTION OF EXISTING R.C.B.C "**
at the following locations: Delano & Westlink Drive
Ninth & " "

5/81