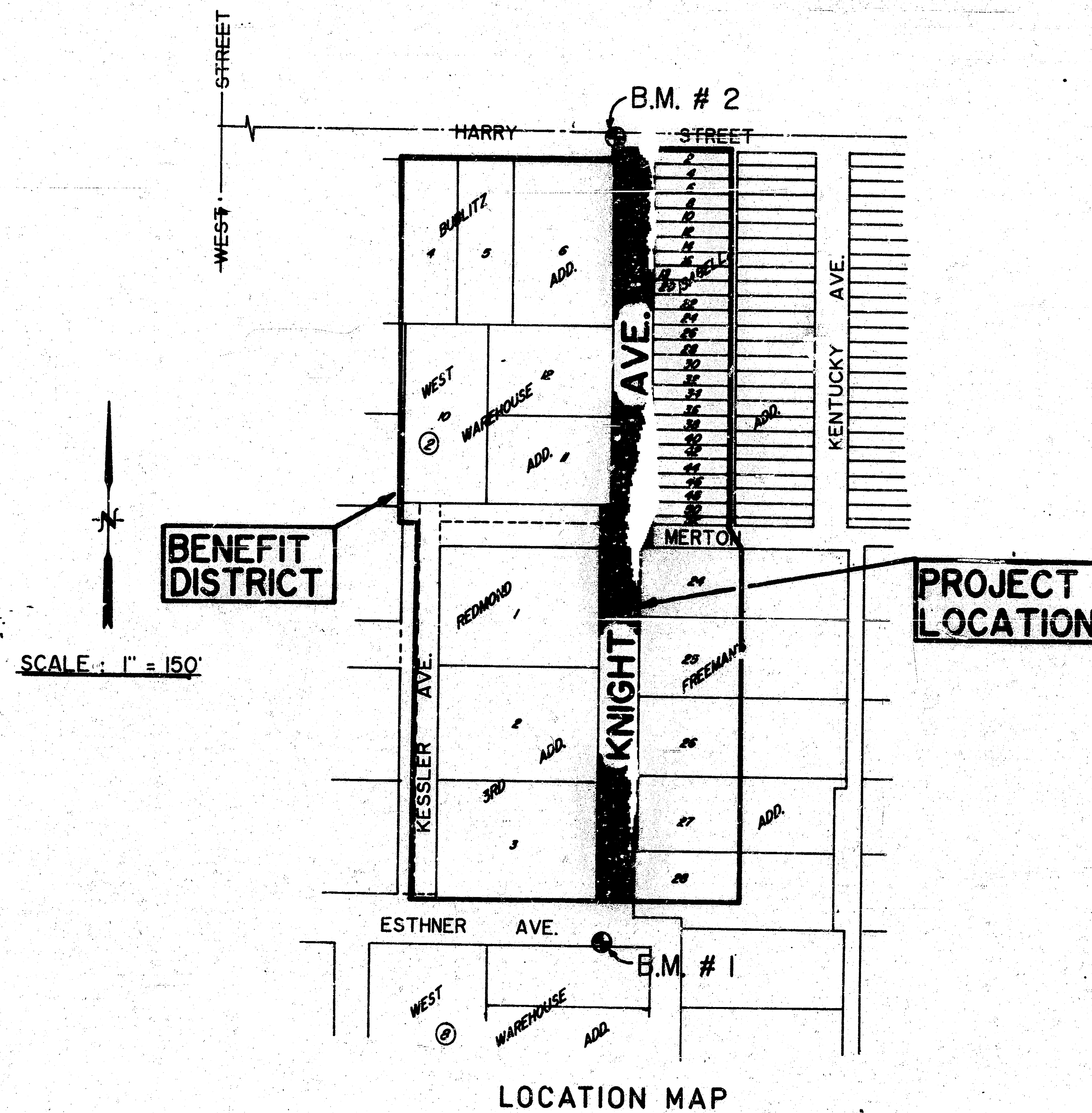


CITY OF WICHITA, KANSAS  
KNIGHT STREET IMPROVEMENTS  
FROM THE N. LINE OF ESTHNER TO THE S. LINE OF HARRY STREET



**BENCH MARKS:**

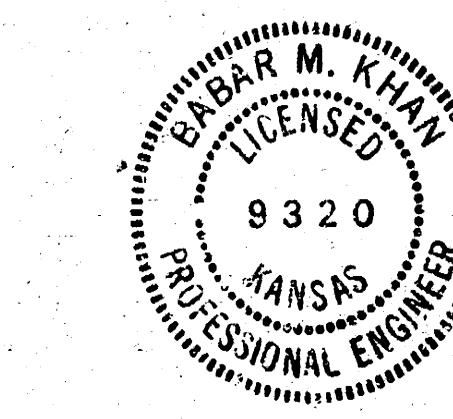
B.M. #1: TOP OF R/R SPIKE IN P.P. (NORTH FACE)  
SOUTH SIDE OF ESTHNER AT KNIGHT  
EL. = 109.99

B.M. #2: "b" CUT IN TOP OF CURB  
AT WEST CURB RETURN AT SW COR.  
OF HARRY & KNIGHT.  
EL. = 109.90

PROJECT NO.: 472-76-245-81970-000-000-001

INDEX : 760223

MICHAEL LINDEBAK, P.E., CITY ENGINEER



**INDEX :**

|       |     |                         |
|-------|-----|-------------------------|
| SHEET | 1   | TITLE SHEET             |
|       | 2   | TYPICAL 4" PVMT. DETAIL |
|       | 3-5 | PLAN SHEETS             |
|       | 6-8 | X-SECTIONS              |

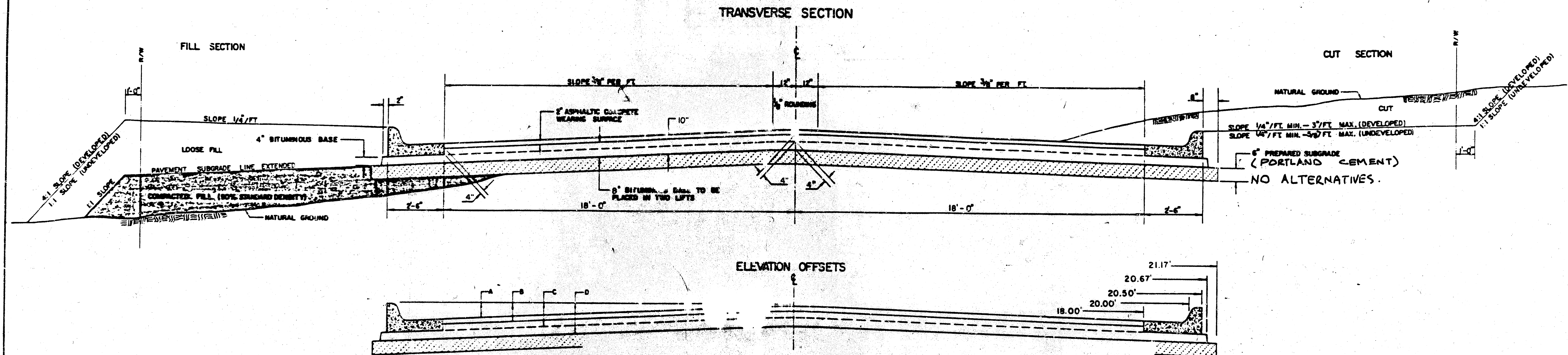
**GENERAL NOTES :**

- Utility service lines, poles, valve boxes, meters and structures are to be adjusted as necessary by others prior to construction unless the plans specifically call for their adjustment by the Contractor or unless during construction. Existing utilities and their location, as shown on the plans, represents 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.
- A saw cut of at least one-half the depth of existing surface courses or one-fourth the depth of existing total pavement thickness shall be provided at locations where proposed construction abuts an existing surface course or pavement for which partial removal of that surface or pavement is required. Saw joints to facilitate removal within three feet of existing joints will not be permitted and for such instances the limits of removal shall extend to the existing joint. Such saw cuts will not be paid for directly, and this cost shall be considered as subsidiary to the removal of the surface or pavement.
- 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.
- The City of Wichita's Sewer Maintenance Division of the Department of Water and Water Pollution Control has televised sewers within the limits of the project and have found no defects requiring repairs. The Division shall be notified and afforded the opportunity to ret televison construction to determine if such sewer lines have been damaged by the Contractor's operations. Damaged sewer lines will be repaired by the Contractor, as directed by the Engineer, at the Contractor's expense. Televison logs are available for inspection by the Contractor during normal office hours at Sewer Maintenance Division's office at City Hall.
- Inlet hookups and inlet adjustments shall be paid for each regardless of the size of inlet.
- Trees and shrubs in public right-of-way which are in direct conflict with proposed new construction shall be removed by the Contractor with the Engineer's approval.
- 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.
- All entrance and cross road pipes within the project limits shall be removed by the Contractor unless otherwise noted on the plans. Removal of such pipes shall conform to the applicable section of standard specifications.
- Contractor shall give property owners abutting this project, whose yards are lower than the new finished grade elevation 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 specification when requested by the property owner. The Contractor shall ascertain that a dirt order form has been properly executed by the property owner before such excess material is delivered to such properties.
- The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property iron which are damaged or destroyed by his construction operation. Such irons shall be re-established by a licensed land surveyor or a licensed professional engineer in accordance with state law.
- The Contractor shall adjust water valve boxes and fire hydrants as directed by the Engineer at the price bid for each adjustment. The water department shall field locate water valves one time during construction when requested by the Contractor. It shall be Contractor's responsibility to preserve such field locations during construction process. Water valves, water valve boxes or fire hydrants damaged during construction shall be repaired by the Contractor at his own expense.

|                                                                                                                  |        |              |           |
|------------------------------------------------------------------------------------------------------------------|--------|--------------|-----------|
| <b>MUNICIPAL ENGINEERS</b><br>Civil Engineers & Land Surveyors<br>304 Locust, Suite 100<br>Wichita, Kansas 67211 | SCALE: | APPROVED BY: | DRAWN BY: |
|                                                                                                                  |        |              |           |
| PROJECT NO. 472-76-245-81970-000-000-001                                                                         |        |              | 1 OF 8    |

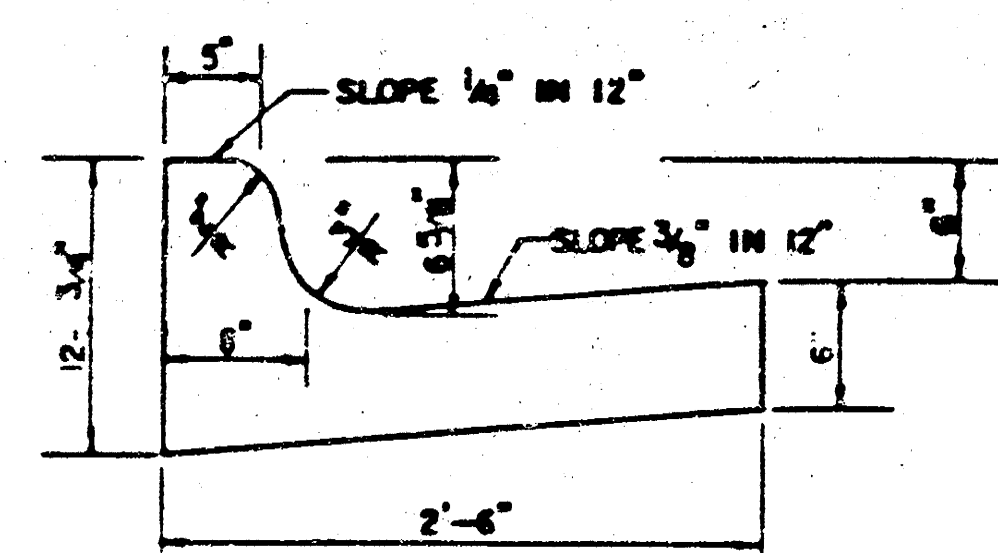
# TYPICAL 41' PAVEMENT DETAILS

2 OF 8

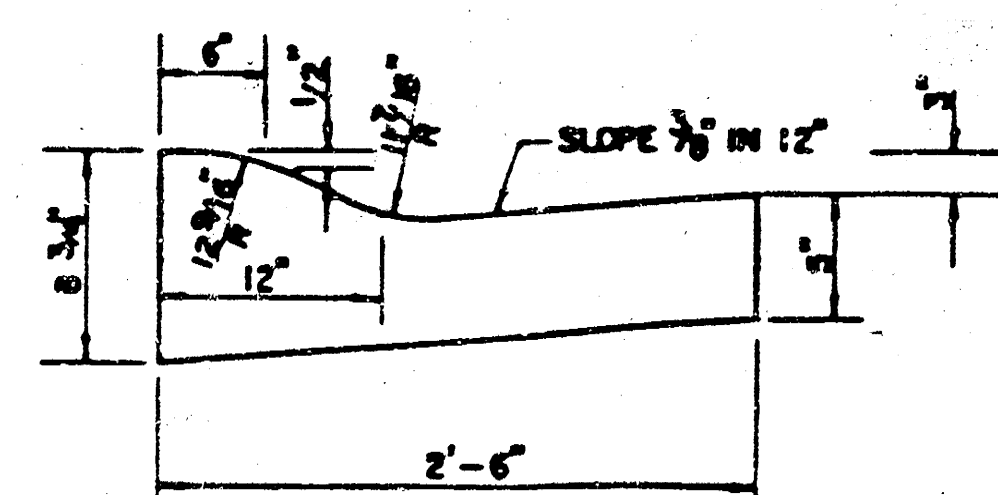


|                                          | ELEVATION (LL & RT) |     |     |     |      |      |       |       |      |      |
|------------------------------------------|---------------------|-----|-----|-----|------|------|-------|-------|------|------|
|                                          | 12                  | 14  | 16  | 18  | 20   | 20.5 | 20.67 | 21.17 |      |      |
| A. TOP OF 2" OF 10" ASPHALTIC CONCRETE   | .24                 | .30 | .36 | .43 | .49  | —    | —     | —     |      |      |
| B. TOP OF 4" BITUMINOUS BASE             | .41                 | .46 | .51 | .57 | .63  | —    | —     | —     |      |      |
| C. TOP OF CURB TO TOP OF LOWER BASE LIFT | .43                 | .48 | .53 | .59 | .65  | 1.05 | 1.06  | 1.07  |      |      |
| D. TOP OF CURB TO TOP OF SUBGRADE        | .77                 | .82 | .88 | .94 | 1.01 | 1.07 | 1.13  | 1.19  | 1.26 | 1.32 |

COMBINED CURB & GUTTER



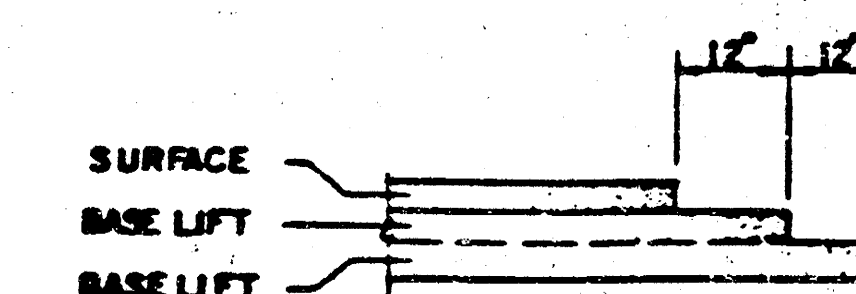
ROLL TYPE COMBINED CURB & GUTTER



## GENERAL NOTES

- 1) THE ASPHALTIC CONCRETE PAVEMENT BETWEEN THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 10" ASPHALTIC CONCRETE (8" BITUMINOUS BASE).
- 2) THE BITUMINOUS BASE UNDER AND BEHIND THE COMBINED CURB AND GUTTER SHALL BE PAID AS SQUARE YARDS OF 4" BITUMINOUS BASE.
- 3) A TACK COAT OF EMULSIFIED ASPHALT (SC-1H OR CSS-1H) SHALL BE APPLIED AT AN APPROXIMATE RATE OF 0.03 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 JOINTS 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 10" ASPHALTIC CONCRETE (8" BITUMINOUS BASE).

10 INCH RESIDENTIAL ASPHALTIC CONCRETE  
PAVEMENT WITH 8 INCH BITUMINOUS BASE  
**CITY OF WICHITA, KANSAS**  
PROJECT NUMBER  
472-76-245-8870-000-000-001

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AVAILABLE COPY ....

# WATER VALVE ADJUSTMENTS

| STATION | OFFSET  | EXISTING ELEVATION | FINISHED ELEVATION |
|---------|---------|--------------------|--------------------|
| 0+3     | 2' RT.  | BURIED             | 108.90             |
| 1+4     | 22' RT. | 108.93             | 109.15             |
| 6+65    | 19' RT. | BURIED             | 109.40             |
| 12+84   | 20' RT. | 109.63             | 109.08             |

STA. 0+30.17  
ADJUST M.H.  
TOP EL. = 108.90

STA. 4+00  
ADJUST M.H.  
TOP EL. = 110.05

STA. 0+30.12  
CONSTRUCT STD. TYPE 1A HOOKUP  
INLET. TOP EL. = 108.97

## EARTHWORK QUANTITIES

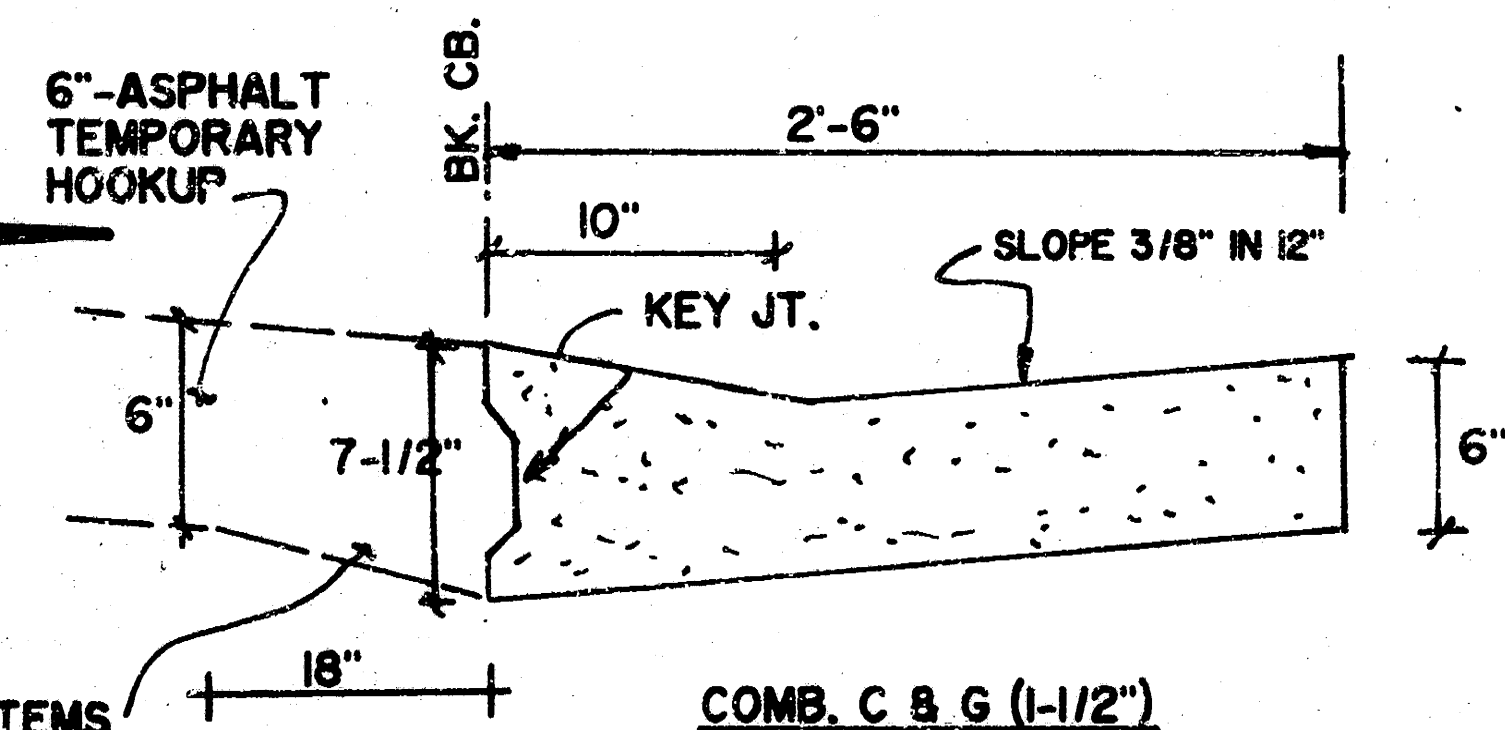
| EXCAVATION       | COMPACTED FILL |
|------------------|----------------|
| _____            | _____          |
| _____            | _____          |
| _____            | _____          |
| TOTAL 2,850 C.Y. | 6 C.Y.         |

### NOTE:

INT. URBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA IS NOT TO BE CARRIED THROUGH CONSTRUCTION. LOCAL BUSINESS TRAFFIC GENERATED WITHIN THE PROJECT AREA IS TO BE CARRIED THROUGH CONSTRUCTION AS FURTHER PROMULGATED BY PROJECT SPECIAL PROVISIONS.

SCALE: 1" = 20'

EXTRA DEPTH  
SUBSIDIARY  
TO OTHER BID ITEMS



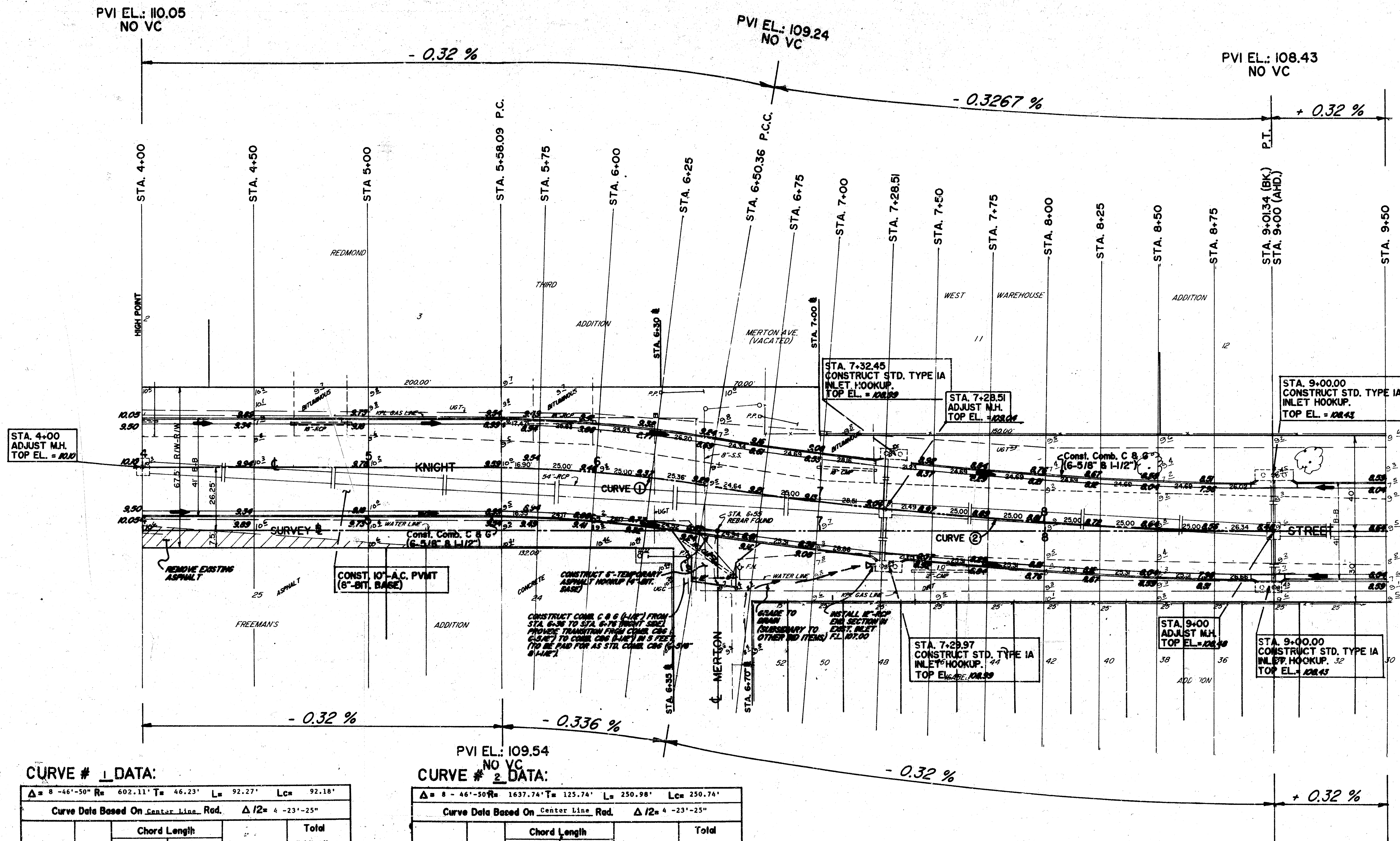
COMB. C & G (1-1/2")

MUNICIPAL ENGINEERS  
Civil Engineers & Land Surveyors  
204 Leavenworth, Suite 201  
Wichita, Kansas 67211

## KNIGHT STREET IMP.

|                                          |              |           |
|------------------------------------------|--------------|-----------|
| SCALE: AS SHOWN                          | APPROVED BY: | DRAWN BY: |
| DATE: 2-90                               |              | REVISED:  |
| PLAN SHEET                               |              |           |
| PROJECT # 472-76-245-0070-000-000 3 OF 8 |              |           |

AVAILABLE COPY



CURVE # 1 DATA:

| $\Delta = 8-46'-50''$ $R = 602.11'$ $T = 46.23'$ $L = 92.27'$ $L_c = 92.18'$ |       |                |                |                  |
|------------------------------------------------------------------------------|-------|----------------|----------------|------------------|
| Curve Data Based On Center Line Rad. $\Delta I/2 = 4-23'-25''$               |       |                |                |                  |
| Station                                                                      | Arc   | Chord Length   | Deflection     | Total Deflection |
|                                                                              |       | St. Lt. offset | St. Rt. offset |                  |
| 5+58.09                                                                      | -     | -              | -              | 00 -00'-00"      |
| 5+75                                                                         | 16.91 | 17.70          | 16.12          | 00 -48'-16"      |
| 6+00                                                                         | 25.00 | 26.16          | 23.84          | 01 -11'-23"      |
| 6+25                                                                         | 25.00 | 26.16          | 23.84          | 01 -11'-22"      |
| 6+50.36                                                                      | 25.36 | 26.58          | 24.18          | 01 -12'-24"      |
| DEF./FT. = 2.055 Min.                                                        |       |                |                |                  |

CURVE # 2 DATA:

| $\Delta = 8-46'-50''$ $R = 1637.74'$ $T = 125.74'$ $L = 250.98'$ $L_c = 250.74'$ |       |                |                |                  |
|----------------------------------------------------------------------------------|-------|----------------|----------------|------------------|
| Curve Data Based On Center Line Rad. $\Delta I/2 = 4-23'-25''$                   |       |                |                |                  |
| Station                                                                          | Arc   | Chord Length   | Deflection     | Total Deflection |
|                                                                                  |       | St. Lt. offset | St. Rt. offset |                  |
| 6+50.36                                                                          | -     | -              | -              | 00 -00'-00"      |
| 6+75                                                                             | 24.64 | 24.22          | 25.05          | 00 -25'-52"      |
| 7+00                                                                             | 25.00 | 24.57          | 25.43          | 00 -26'-14"      |
| 7+25                                                                             | 25.00 | 24.57          | 25.43          | 00 -26'-14"      |
| 7+28.51                                                                          | 3.51  | 3.45           | 3.57           | 00 -03'-41"      |
| 7+50                                                                             | 21.49 | 21.12          | 21.86          | 00 -22'-34"      |
| 7+75                                                                             | 25.00 | 24.57          | 25.43          | 00 -26'-14"      |
| 8+00                                                                             | 25.00 | 24.57          | 25.43          | 00 -26'-14"      |
| 8+25                                                                             | 25.00 | 24.57          | 25.43          | 00 -26'-14"      |
| 8+50                                                                             | 25.00 | 24.57          | 25.43          | 00 -26'-14"      |
| 8+75                                                                             | 25.00 | 24.57          | 25.43          | 00 -26'-14"      |
| 9+00                                                                             | 25.00 | 24.57          | 25.43          | 00 -26'-14"      |
| 9+01.34                                                                          | 1.34  | 1.32           | 1.36           | 00 -01'-25"      |
| DEF./FT. = 1.050 Min.                                                            |       |                |                |                  |

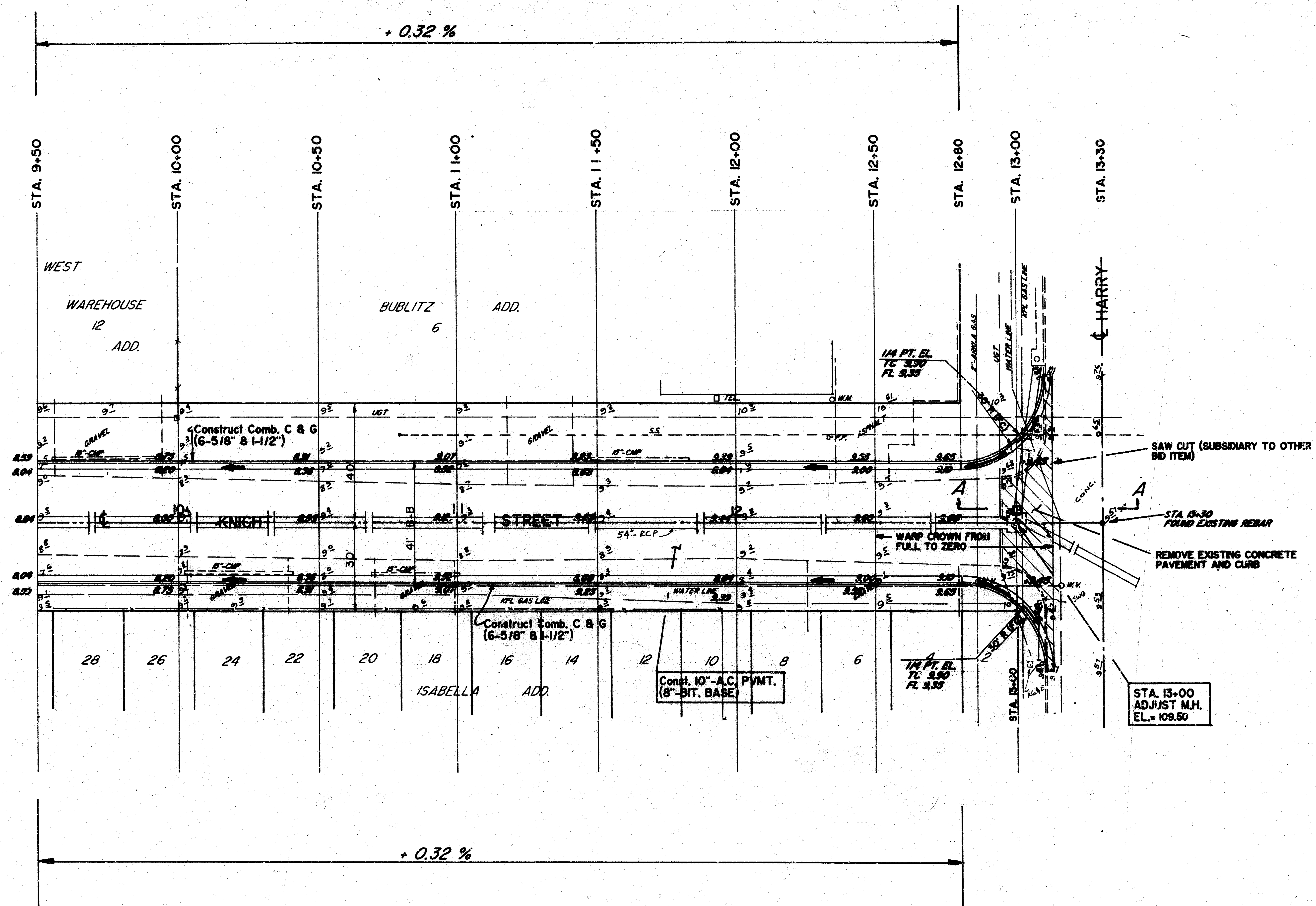
SCALE: 1" = 20'

**MUNICIPAL ENGINEERS**  
Civil Engineers & Land Surveyors  
204 Leona, Suite 201  
Wichita, Kansas 67211

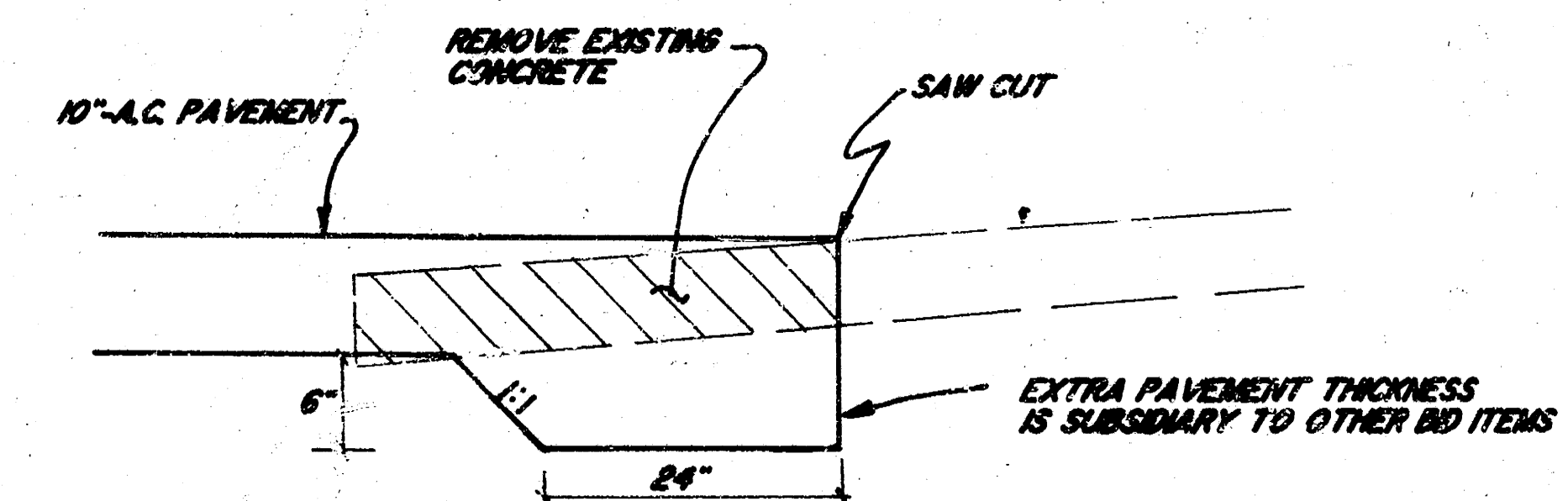
KNIGHT STREET IMP.

|                 |             |           |
|-----------------|-------------|-----------|
| SCALE: AS SHOWN | APPROVE BY: | DRAWN BY: |
| DATE: 2-90      | REVIEWED:   |           |
| PLAN SHEET      |             |           |
| DRAWING NUMBER  |             |           |

4 OF 8



Scale: 1" = 20'



SECTION A-A

|                    |              |           |  |
|--------------------|--------------|-----------|--|
| KNIGHT STREET IMP. |              |           |  |
| SCALE: AS SHOWN    | APPROVED BY: | DRAWN BY: |  |
| DATE: 2-90         |              | REVISED:  |  |
| PL/4 SHEET         |              |           |  |
| DRAWING NUMBER     |              |           |  |
| 5 OF 8             |              |           |  |



|                 |         |      |      |
|-----------------|---------|------|------|
| FINAL<br>SERIES | REVISED | BY   | DATE |
|                 | NO. BOX | AREA | DATE |

|                    |         |      |      |
|--------------------|---------|------|------|
| ORIGINAL<br>SERIES | REVISED | BY   | DATE |
|                    | NO. BOX | AREA | DATE |

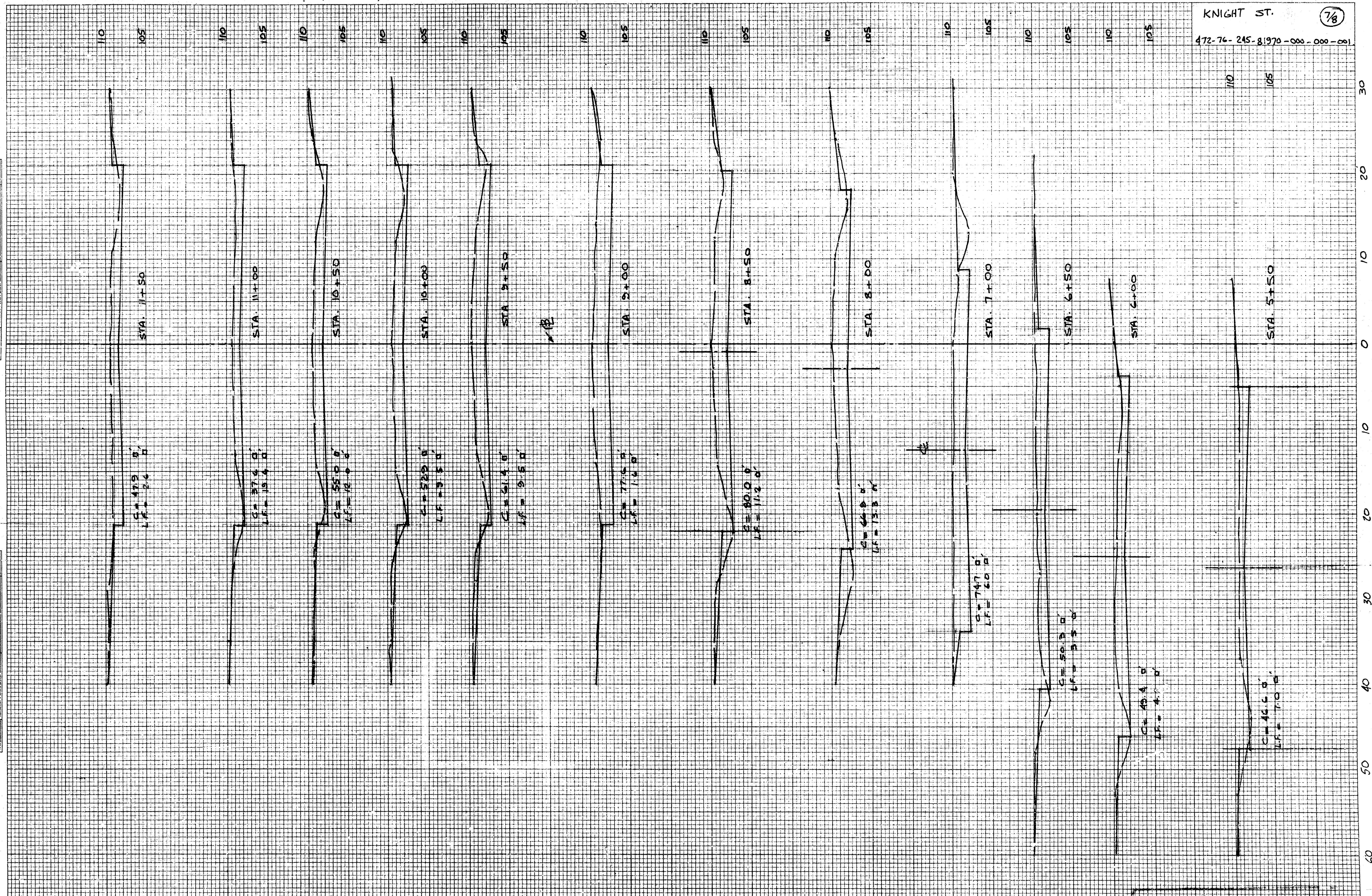


PLATE 2 CROSS SECTION - 7A & 7B  
NO. 3024 - 1  
CLEARPRINT PAPER CO., CLARKVILLE, CA

FILED FROM 7A & 7B  
AVAILABLE FOR

|                 |          |      |
|-----------------|----------|------|
| FINAL<br>SERIES | REVIEWED | DATE |
|                 | APPROVED | DATE |
|                 | NOTED    | DATE |
|                 | NO       | DATE |

|                    |          |      |
|--------------------|----------|------|
| ORIGINAL<br>SERIES | REVIEWED | DATE |
|                    | APPROVED | DATE |
|                    | NOTED    | DATE |
|                    | NO       | DATE |

KNIGHT ST. (8/8)  
472-76-245-81970-000-000-001

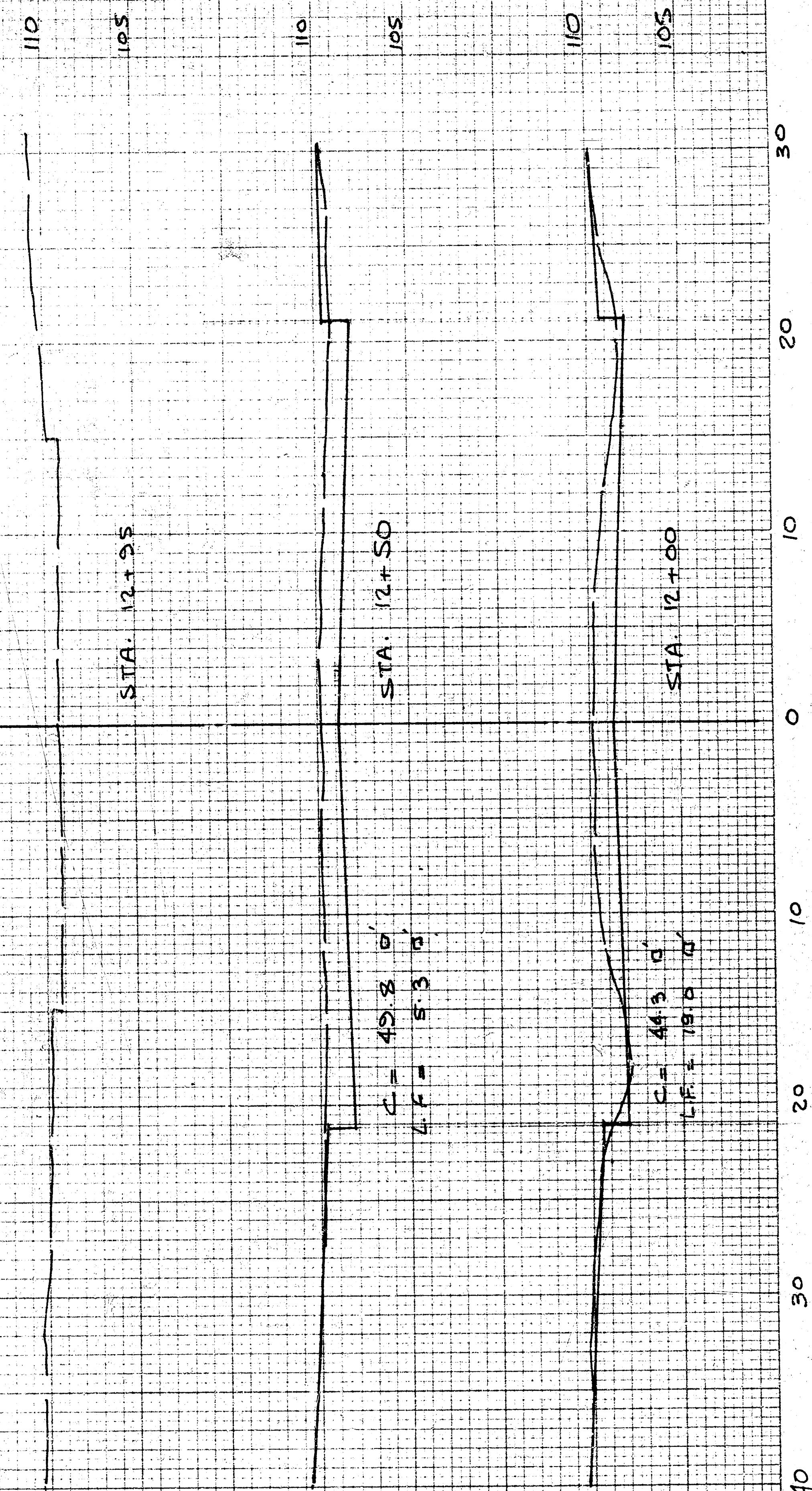


PLATE 1 CROSS SECTION 12+55  
KNIGHT ST. CROSS SECTION  
CLEARING POWER CO. MEMPHIS, TN

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AVAILABLE COPY