

G.I.-30 SEPT. 1976

GEOCRE'S No. \_\_\_\_\_

DIST. 6 REGION \_\_\_\_\_

W.P. No. 543-92-00

CONT. No. \_\_\_\_\_

W. O. No. \_\_\_\_\_

STR. SITE No. \_\_\_\_\_

HWY. No. 403

LOCATION Hwy 403 EBL

Resurfacing at Creditview Rd. Upan

No of PAGES -       

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OVERSIZE DRAWINGS TO BE INCLUDED WITH THIS REPORT. \_\_\_\_\_

REMARKS: \_\_\_\_\_

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\_\_\_\_\_

# memorandum



To: V.F. Boehnke  
Head, Structural Section,  
Central Region

Date: 1993 01 25

Attn: K. Wong

From: Foundation Design Section  
Room 315, Central Building

Re: Hwy 403 EBL - Resurfacing at Creditview Road U'Pass,  
W.P. 543-92-00,  
District 6, Toronto

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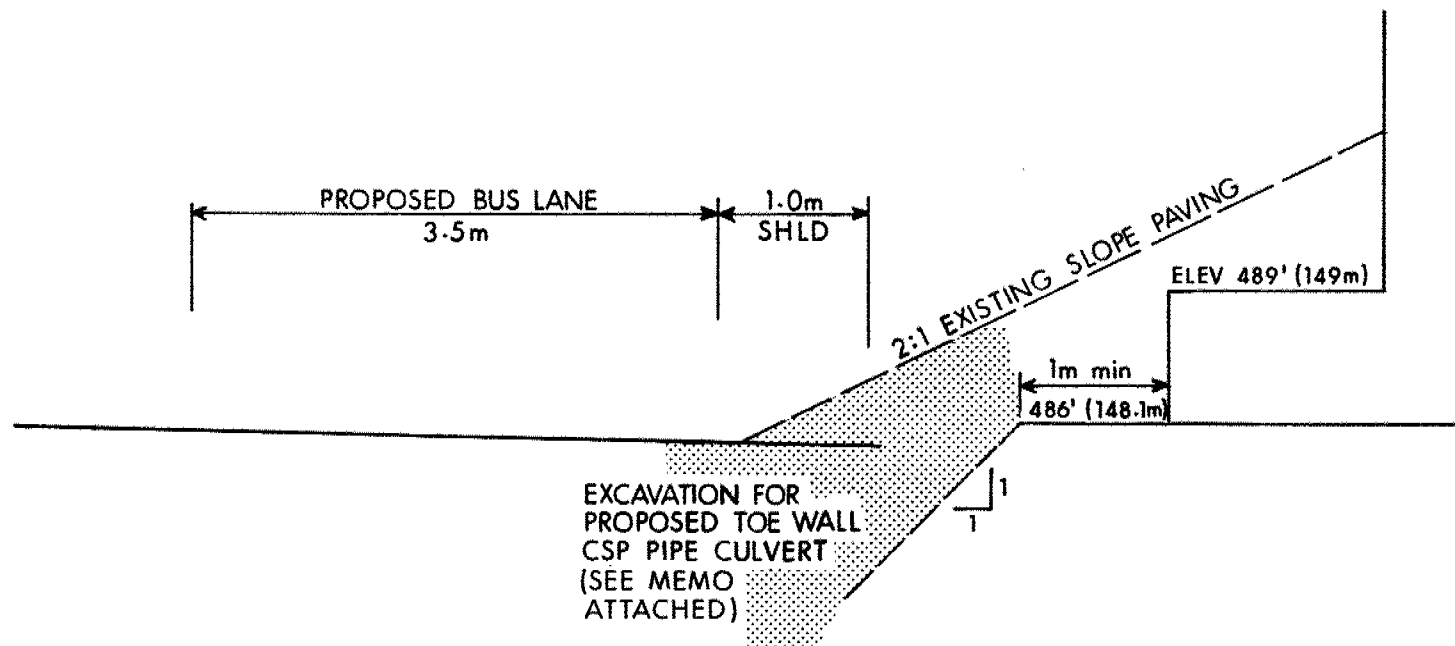
We have reviewed the information which accompanied your memo dated 1993 01 05 and the subsurface soils data contained in our Foundation Report. Based on this review, we have the following comments:

1. Temporary excavation for the toe wall and the new CSP pipe culvert shall be beyond a 1:1 line starting from 1 m away from the toe of the abutment foundation, as shown on the attached figure.
2. Carry out the excavation in 3 m long strips.
3. Following completion of the construction of the toe wall, backfill the area behind the toe wall using Granular A material.
4. Design the toe wall as a flexible wall, such as a gabion wall, using active earth pressure coefficient of 0.5 together with a 2H:1V sloping backfill.

Please call this office if you want further discussion on the contents of this memo.

A handwritten signature in black ink, appearing to read "B. Iyer", with a horizontal line drawn underneath it.

Balu Iyer, P.Eng.  
Sr. Foundation Engineer



## HWY 403 EASTBOUND / CREDITVIEW RD UNDERPASS



WP 543-92-00



Ontario

MINISTRY OF TRANSPORTATION  
Structural Section  
1201 Wilson Avenue  
Atrium Tower, 4th Floor  
Downsview, Ontario, M3M 1J8  
Telephone: 235-5507

## memorandum

DATE: January 5, 1993

TO: M. Devata  
Chief Engineer, Foundation Design Section  
Central Building, 3rd Floor

Attention: Dr. B. Iyer

RE: W.P. 543-<sup>92</sup>89-00 - Hwy 403 resurfacing from  
Credit River to Hwy 10 Interchange  
District 6, Toronto

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The above captioned resurfacing will widen the existing Hwy 403 (at eastbound only) to accommodate a Bus Reserve lane. This extra lane width will encroach into the slope paving of Creditview Road Underpass (Site 24-438). Attached is the General Arrangement of the bridge for your reference.

The roadwork consultant has put forward the following two proposals:

1. A toe wall or rip rap wall (0.5 m to 1.0 m high) is to be constructed.
2. Change of the slope gradient from 2H to 1V to 1.5H to 1V.

The existing abutment spread footing is founded on the native glacial ~~fill~~ material. Please review the above two proposals and advise us by January 15, 1993.

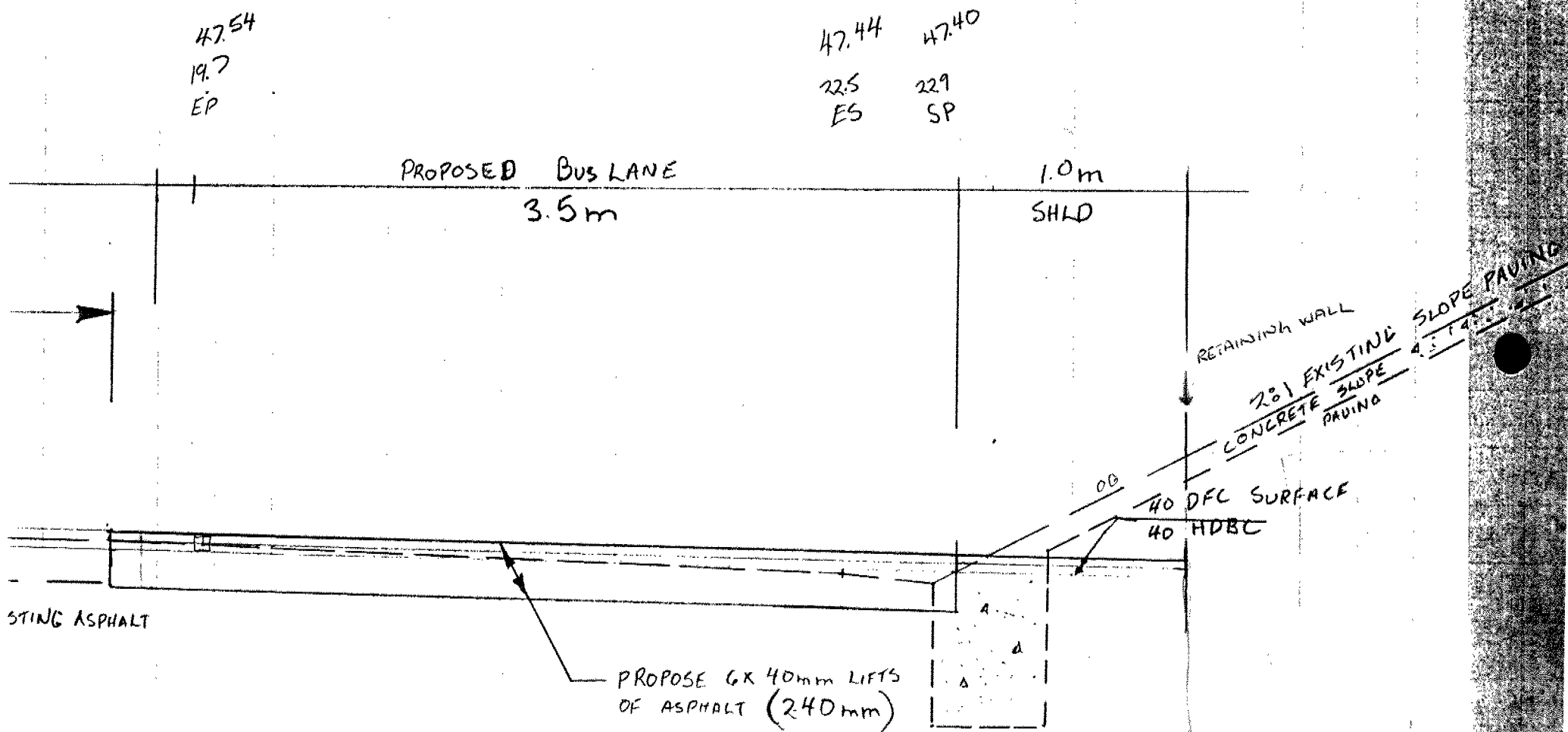
Should you have any questions, please contact the undersigned.

K. Wong  
Sr. Structural Engineer  
for:  
V. F. Boehnke  
Head, Structural Section

KW:dd

WP 543-92-00

IND HWY 403 UNDER CREDITVIEW ROAD STRUCTURE

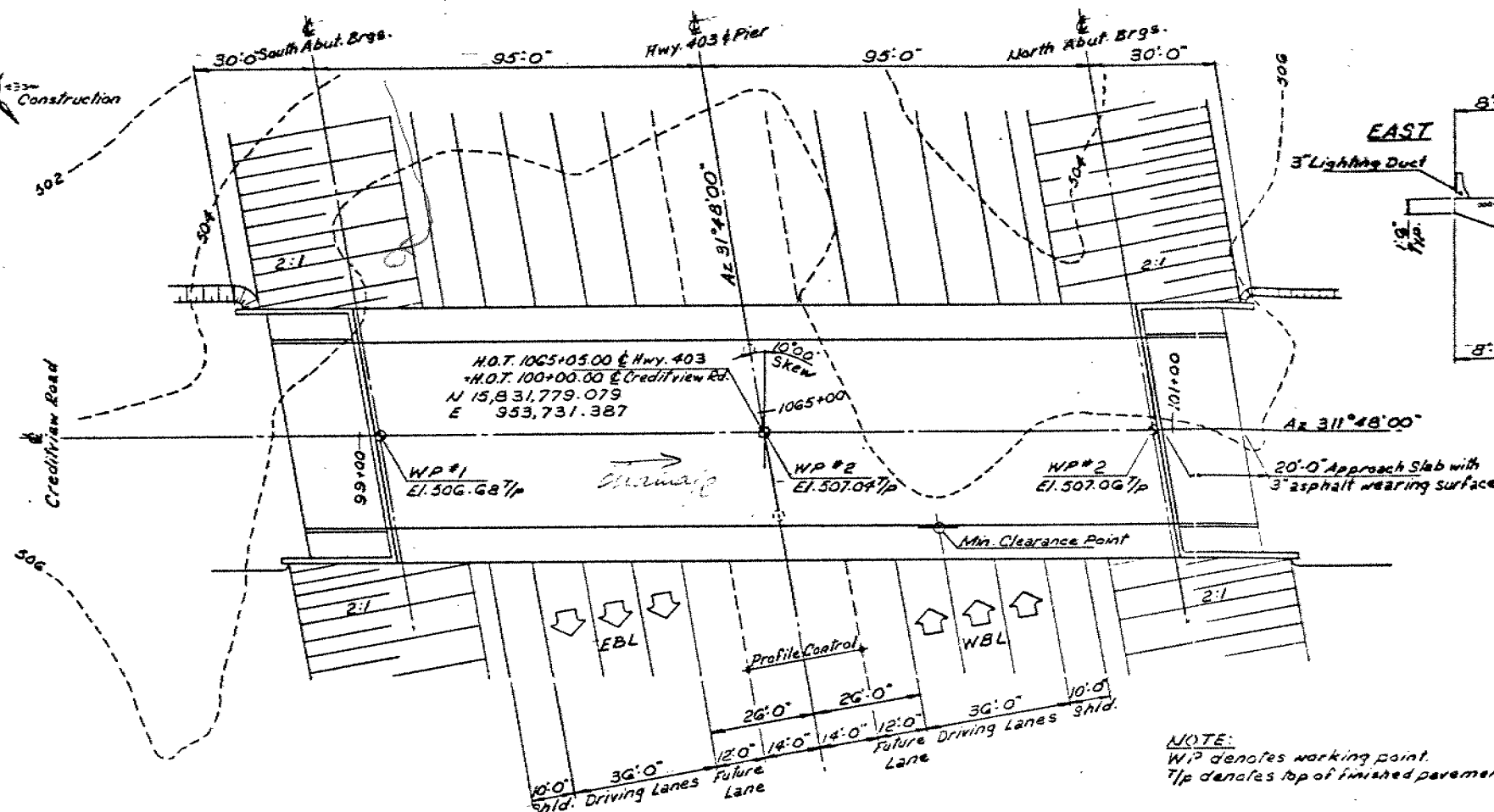


DIST. 6 HWY. 403  
CONT No  
WP No 156-75-03

CREDITVIEW ROAD UNDERPASS  
GENERAL LAYOUT

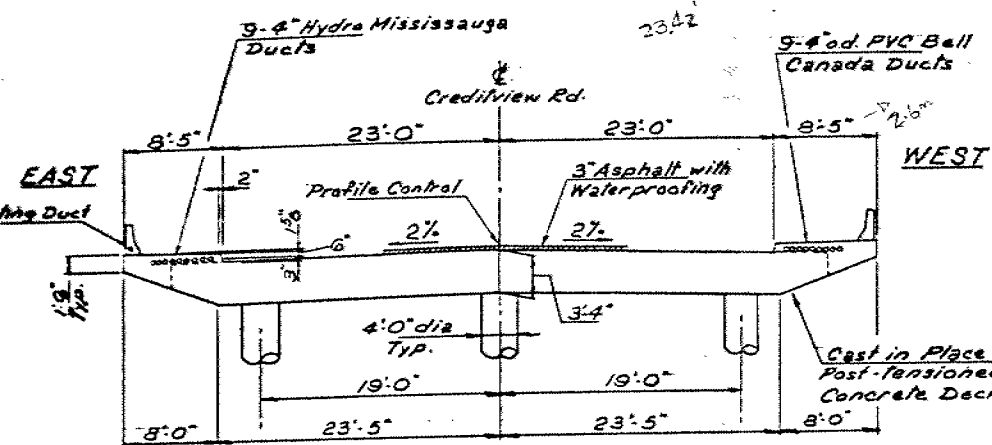
SHEET

COLE  
SHERMAN

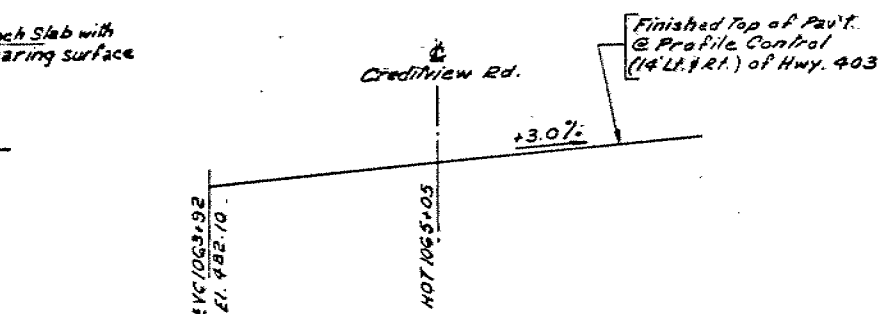


PLAN  
Scale: 1" = 20'-0"

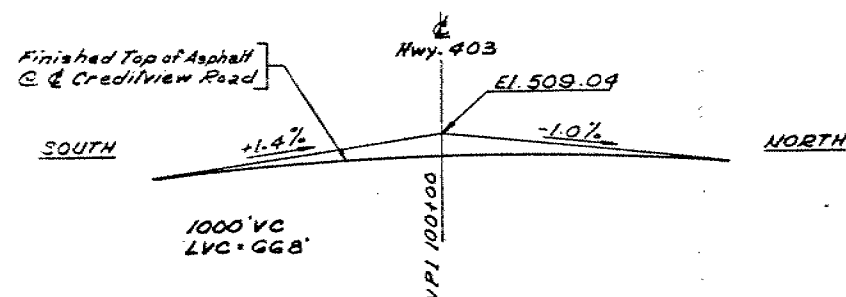
SKEW DATA	
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cos.	0.9848077
tan.	0.1763269



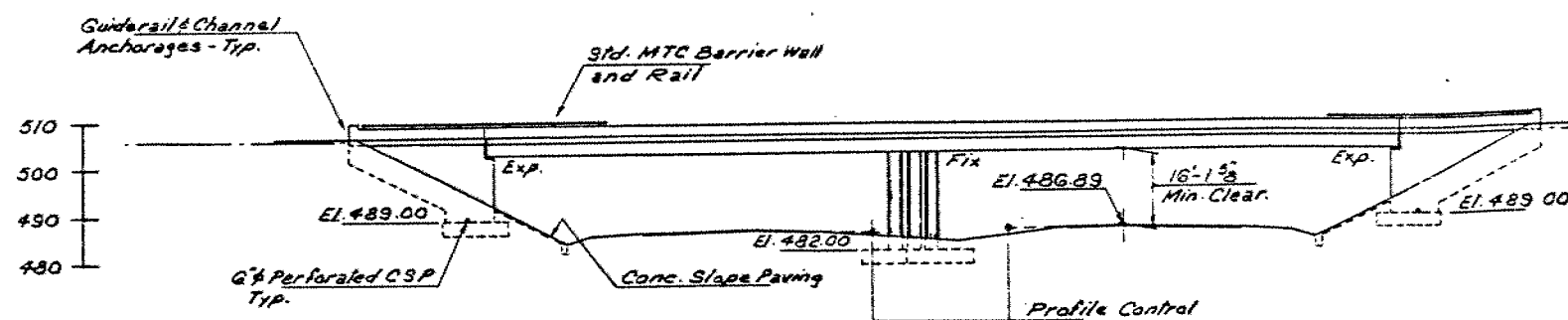
TYPICAL DECK SECTION  
Scale: 1/8" = 1'-0"



PROFILE OF HWY. 403  
NTS



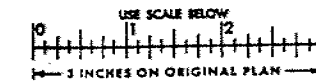
PROFILE OF CREDITVIEW RD.  
NTS



ELEVATION  
Scale: 1" = 20'-0"

# LIST OF DRAWINGS

- 24-438-1 General Layout
- 2 Borehole Locations & Soil Strata
- 3 Footing Details
- 4 Abutment Details
- 5 Pier Details
- 6 Deck Layout
- 7 Longitudinal Cable Details
- 8 Deck Reinforcement & Transverse Cables
- 9 Deck Sections and Details
- 10 Barrier Walls With Sidewalks
- 11 Steel Railing (Single Tube)
- 12 20 Ft. Approach Slab
- 13 Details of Concrete Slope Paving
- 14 Standard Details I
- 15 Standard Details II
- 16 Standard Details III
- 17 As Constructed Elevations & Dimensions FOR REDUCED PLAN



## NOTES

### CLASS OF CONCRETE

Deck and Pier Columns ..... 5,000 psi  
Barrier Walls ..... 4,000 psi  
Remainder ..... 3,000 psi  
Or as noted on the drawings.

### CLEAR COVER TO REINFORCING

Footings Abutments Pier Columns  
3" 2" 2 1/2"  
Deck-Top Bot Approach Slabs  
2" 1 1/2" 2"  
Or as noted on the drawings.

### REINFORCING STEEL

All steel Grade 400 Reinforcing bars with the designation "C" shall be coated bars.

### CONSTRUCTION NOTES

The Contractor is responsible for finishing the bearing seats dead level to the specified elevations with a tolerance of  $\pm 1/8$  inch. To achieve the minimum clear cover of 2" as specified, the top layer of reinf. shall be placed prior to concreting with a clear cover of  $2 1/2 \pm 1/2$  tolerance. No concrete shall be placed above the abutment bearing seats until the concrete in the deck has been placed, stressed and grouted.

## CONCRETE QUANTITIES

Concrete quantities are listed below for the appropriate concrete lump sum items.  
1. Concrete in piers, abutments & wing walls -  
5,000 psi 30 cu yds  
3,000 psi 321 cu yds  
1424 cu yds  
2. Prestressed concrete bridge deck -  
32 cu yds  
3. Concrete in barrier walls 32 cu yds  
4. Concrete in approach slabs 60 cu yds  
5. Concrete in slope paving 45 cu yds

Maintenance File

REVISIONS	DATE BY	DESCRIPTION
DESIGN/CSL	CHECK/PM	LOADINGS 20-44 DATE Jan 79
DRAWING/SL	CHECK/CSL	SITE No 24-438 DWG 1

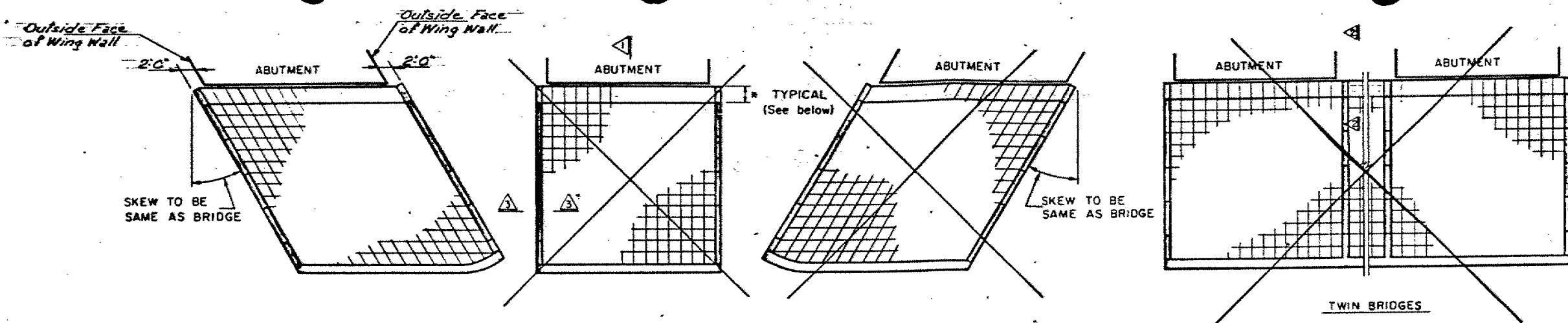
DIST. 6 HWY. 403  
CONT No  
WP No 156-75-03



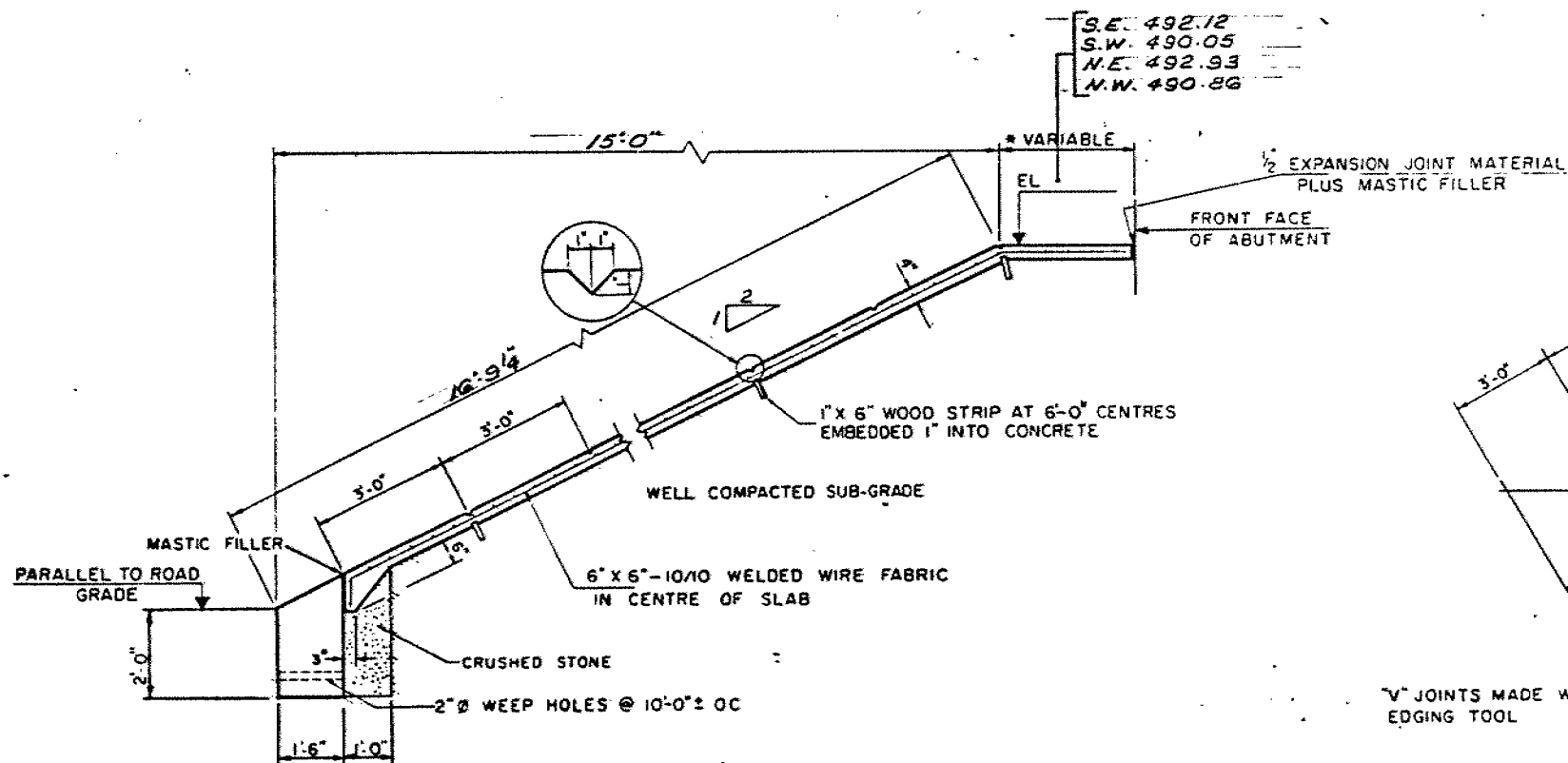
CREDITVIEW ROAD UNDERPASS  
DETAILS OF CONC SLOPE PAVING

SHEET

CS COLE, SHERMAN

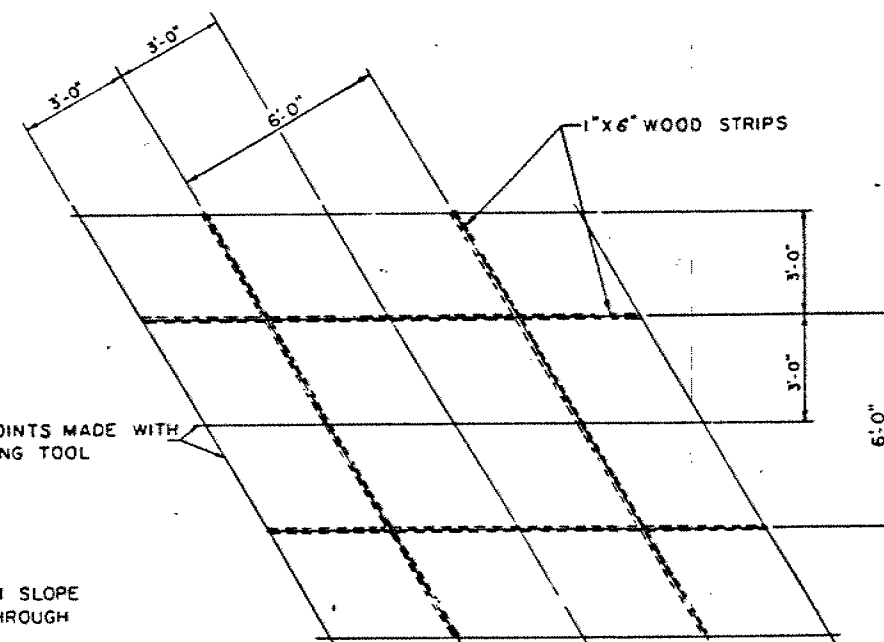


SLOPE PAVING LAYOUTS



NOTES

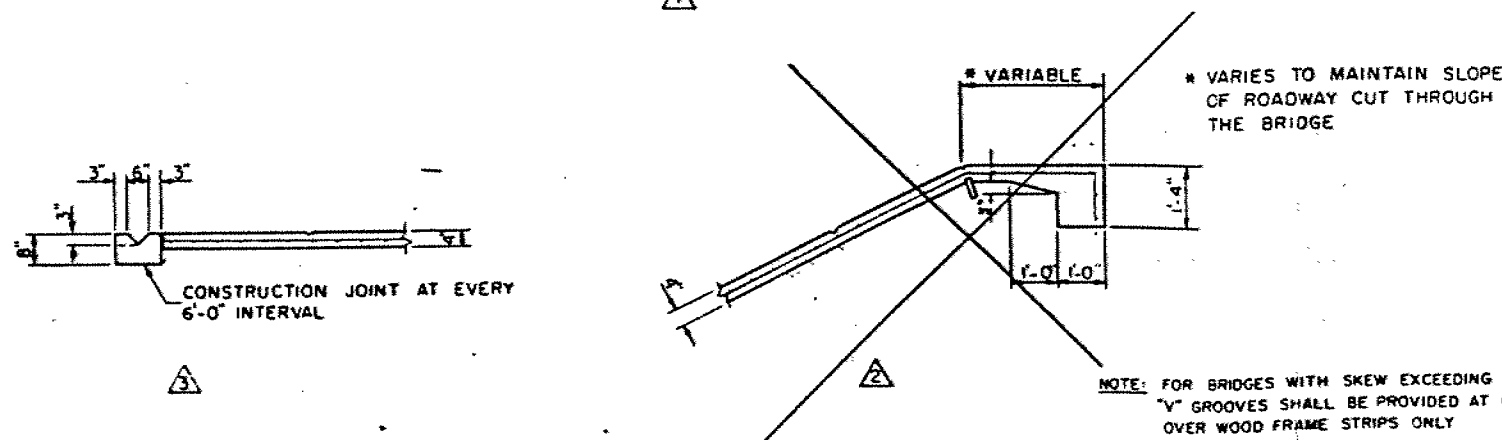
- CLASS OF CONCRETE 3,000 PSI-IN-SITU.
- THE GROOVES SHALL BE PARALLEL TO THE ROAD GRADE IN ONE DIRECTION AND PARALLEL TO THE SKEW IN THE OTHER DIRECTION.



WOOD FRAME AND "V" JOINT LAYOUT

NOTE

SECTIONS AND DETAILS TYPICAL FOR ALL LAYOUTS



STANDARD DRAWING MAY 1977 SS 116 - 10

REVISIONS	DATE	BY	DESCRIPTION
DESIGN		CHECK	LOADING 4320-44 DATE Jan 79
DRAWING		CHECK	RM SITE No 29-438 DWG 13