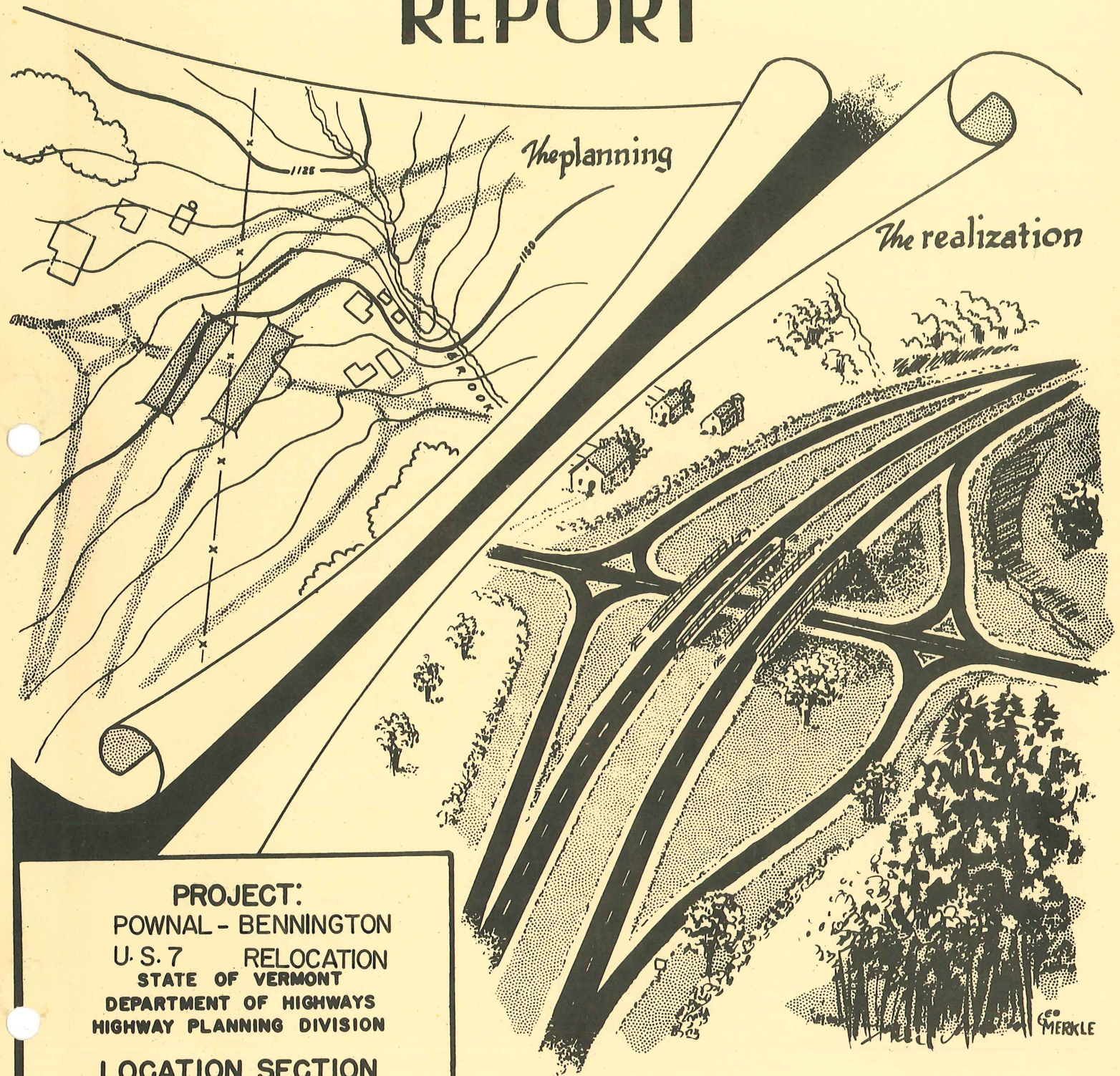


*Vermont****

STEARNS R. JENKINS

MAY - 6 1966

STAGE ONE LOCATION REPORT

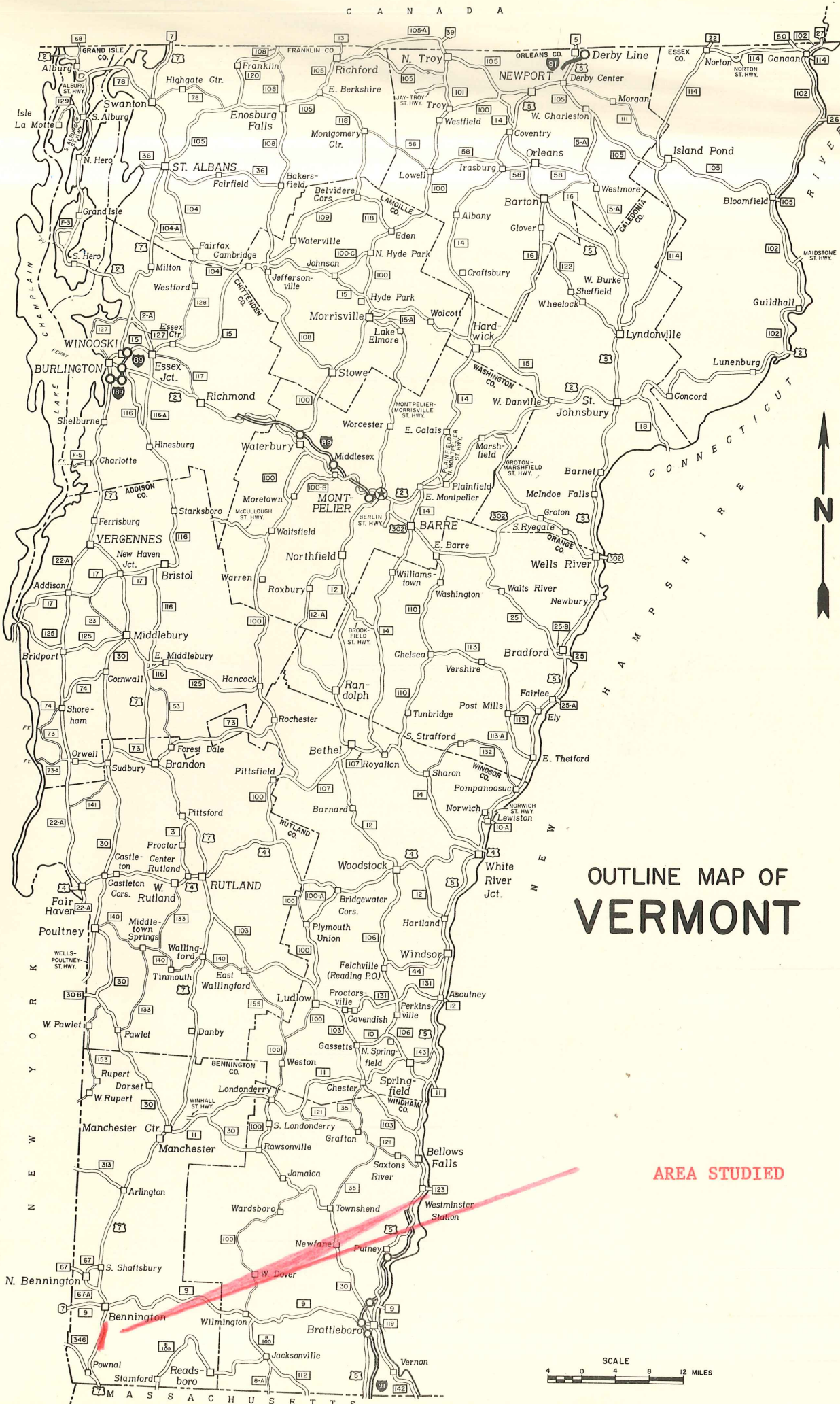


PROJECT:
POWNA - BENNINGTON
U. S. 7 RELOCATION
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
HIGHWAY PLANNING DIVISION
LOCATION SECTION

ARTERIAL HIGHWAY SYSTEM

1

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
HIGHWAY PLANNING DIV.
STATE ADMINISTRATION BUILDING
MONTPELIER, VERMONT
LOCATION SECTION



OUTLINE MAP OF VERMONT

AREA STUDIED

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POWNAI - BENNINGTON
US-7 ARTERIAL HIGHWAY

Introduction

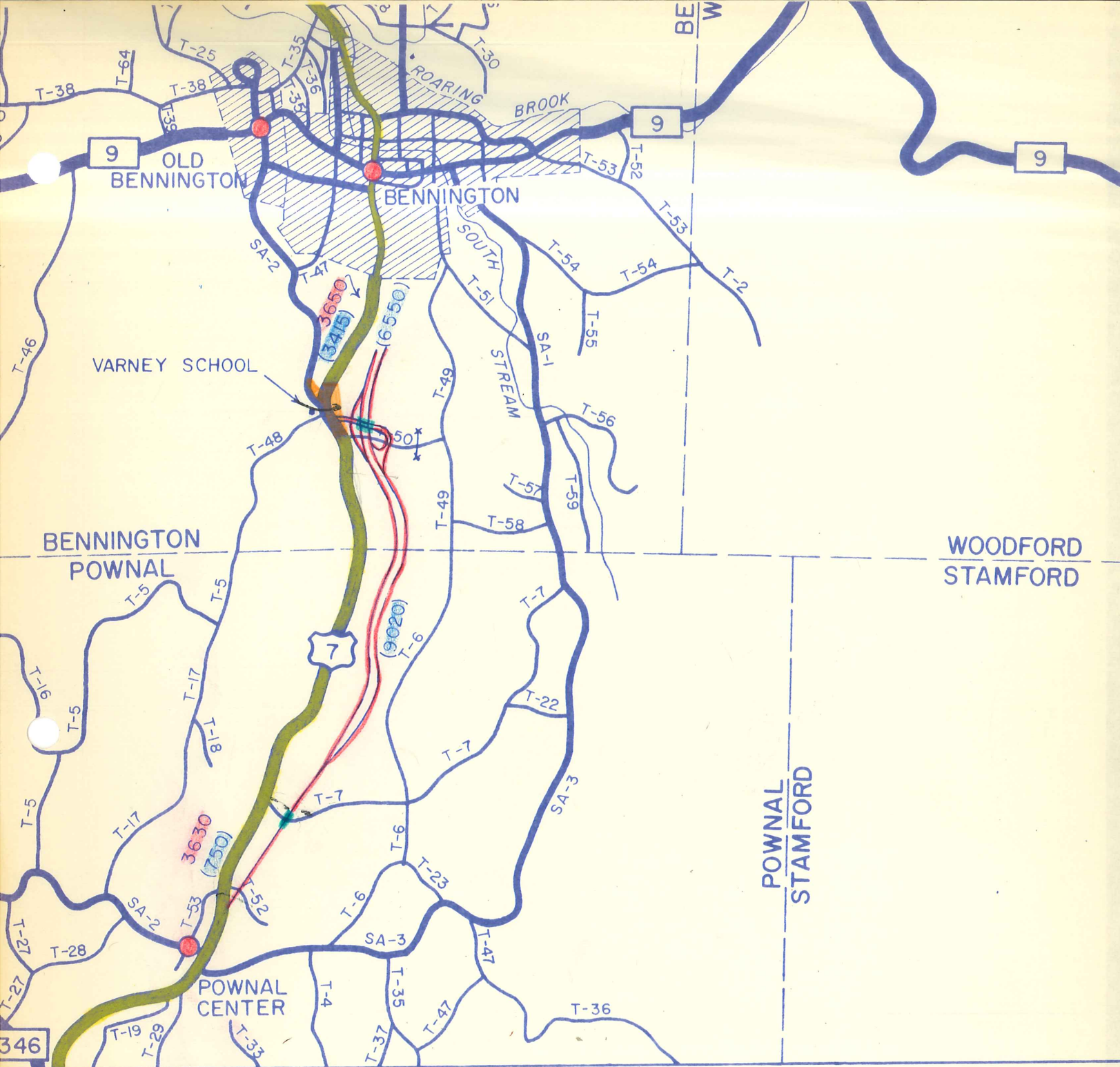
This report is based upon studies by the Location Section of the Vermont Highway Department's Planning Division for the purpose of relocating US-7 as a four-lane highway of the Arterial Highway System from Pownal Center north to a point, approximately 5000 feet northerly of the Pownal-Bennington Town Line. The study area is approximately 4.7 miles long.

The principle route of transportation serving this area at the present time is US Route 7. The principle communities in this area are Pownal Center and Bennington Village to the north.

The proposed alignment passes easterly of present US-7 and connects with the new portion of US-7 near Pownal Center. The northern portion of the proposed scheme would have an interchange with present US-7 near the so-called "Varney School" area in Bennington.

This study consists of extending the Pownal F 019-1(11) Project northerly of Pownal Center for approximately 1.1 miles as a 2-lane roadway which would become common with the proposed four-lane portion of US-7. The four-lane portion would continue northerly for approximately 3.6 miles and would consist of a varied median, interstate typical with controlled access.

The proposed alignment is expected to have an ADT of 9020 vehicles between Pownal Center and the "Varney School Interchange" in 1990.






U.S. ROUTE 7 STUDY POWNAI-ARLINGTON

AVERAGE DAILY TRAFFIC

00000 = 1965 (00000) 1990

LEGEND

-  STATE HIGHWAY & NUMBER
-  STATE AID HIGHWAY & NUMBER
-  TOWN HIGHWAY & NUMBER

SCALE



SUMMARY, CONCLUSIONS & RECOMMENDATIONS

SUMMARY SHEET

<u>Facility</u>	<u>Length</u>	<u>Typical</u>	<u>1990 ADT</u>	<u>Roadway Costs</u>	<u>Bridge Costs</u>	<u>Total Costs</u>
Mainline (4-lane)	3.6 Mi.	10-12-12-4	9020	\$2,264,321	--	\$2,264,321
Mainline (2-lane)	1.1 Mi.	10-12-12-10	9020	304,562	\$ 96,688	401,250
US-7 Relocation Varney School	0.3 Mi.	10-12-12-10	3390	63,284	--	63,284
SA-2 Monument Drive	0.3 Mi.	6-11-11-6	300	53,837	--	53,837
Interchange and Access Road	--	--	--	308,454	150,150	458,604
				Construction Total		\$3,241,296
				Contingencies 10%		<u>324,130</u>
				Sub-Total		\$3,565,426
				Preliminary Engineering 6%		<u>213,926</u>
				TOTAL		\$3,779,352
				Right-of-Way		\$
				GRAND TOTAL		\$

SUMMARY

Length - 3.6 miles with a 1.1 mile connector - Total - 4.7 miles.

Estimated cost without Right-of-Way - \$3,779,352.

This study extends the Pownal F 019-1(11) Project further north and fits into the long range highway plan for the Arterial Highway System.

Access is provided for the southern Bennington Area by an Interchange in the vicinity of "Varney School" on US-7.

Conclusions and Recommendations

Terrain features, property damage, drainage, alignment, grades and traffic volumes were all considered during this study.

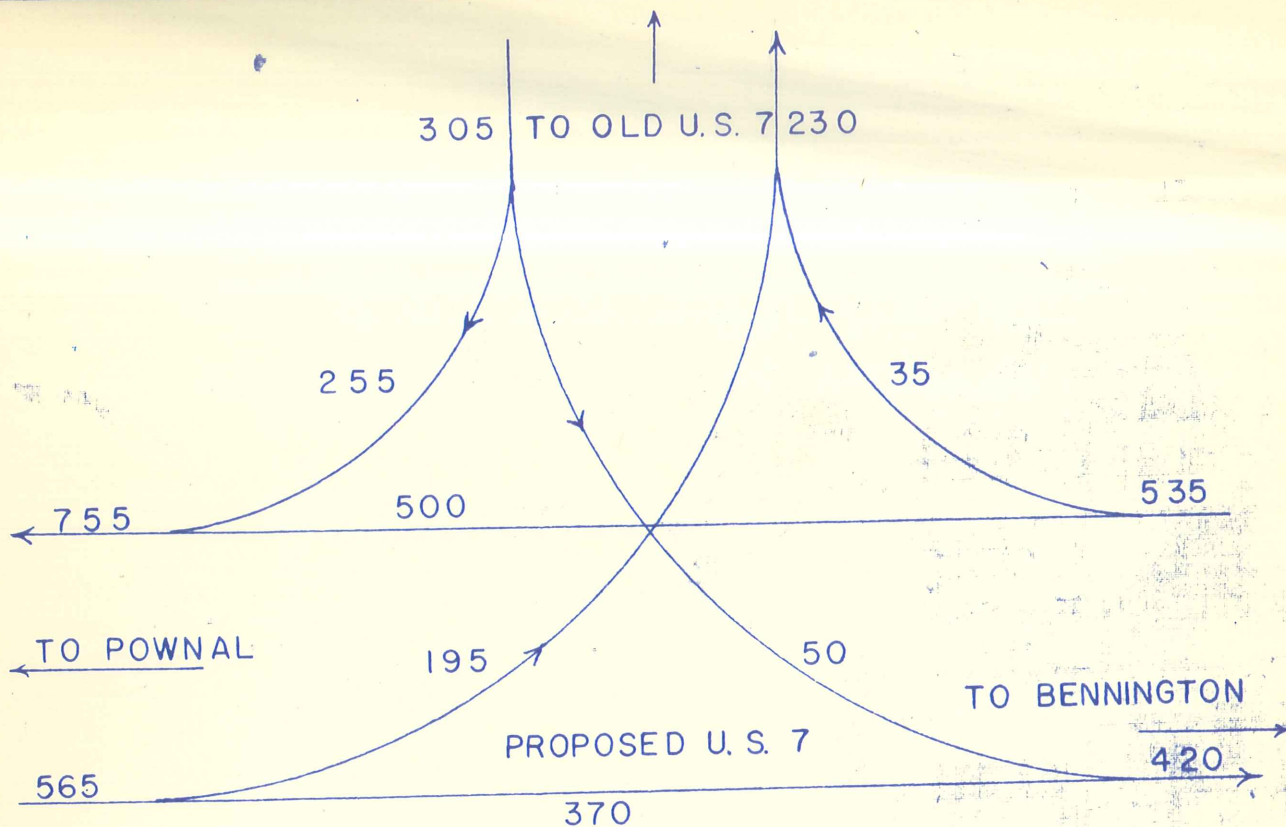
Utilization of the old railroad bed between Pownal Center and Bennington was considered early in the study.

The old railroad bed lies easterly and generally parallels present US-7. Difficulty was encountered in the area where the railroad bed passes closely between present US-7 and a hill located approximately 2000 feet south of the Pownal-Bennington Town Line. A four-lane highway would cause extensive property damage through this area and would also necessitate relocating 0.5 miles of present US-7.

It was concluded that the alignment should be moved further easterly so as to avoid the relocation of present US-7 and also to avoid extensive property damage in the area of the old railroad bed.

As a result of studies, analysis, inspection trips and cost comparison analysis, the proposed easterly alignment is the recommended alignment for the construction of US-7 as a segment of the Arterial Highway System.

TRAFFIC TURNING MOVEMENTS



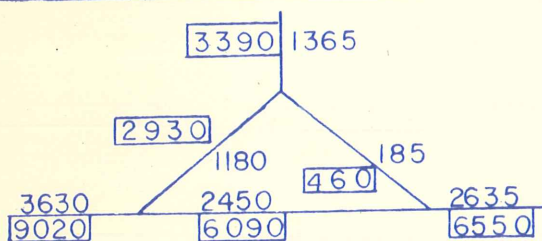
30TH PEAK HOUR TRAFFIC

KEY:

000 = 1990 Estimated 30th Peak Hour Volume
(D.H.V. = Design Hour Volume)

000 = High Hourly Movement Other Than
30th Peak Hour

Peak Hour Truck Traffic is % of Total
Peak Hour Traffic



ANNUAL AVERAGE DAILY TRAFFIC

KEY:

0000 = 1965

0000 = 1990

Truck Traffic = % of A.D.T.

TRAFFIC TURNING MOVEMENTS

At Intersection of VARNEY SCHOOL INTER.
Town of BENNINGTON

VERMONT DEPARTMENT OF HIGHWAYS

Compiled by J. L.

Date 5/31/66 10

DESCRIPTION AND ESTIMATES

Description of Alignment

The proposed alignment commences approximately 1000 feet northerly of the junction of present US-7 and SA-3 in the Village of Pownal Center. The alignment proceeds northerly from this point and would consist of a 2-lane roadway for approximately 5800 feet. The proposed 2-lane segment then becomes common with the proposed 4-lane portion of the Arterial Highway in the area of Jackson Road (T-7). The two-lane segment crosses Jackson Road approximately 1500 feet easterly of present US-7 and then divides and becomes a four-lane highway.

The proposed alignment continues northerly while deviating slightly easterly from present US-7. It crosses Jewett Brook approximately 2500 feet easterly of present US-7 and then begins to deviate westerly and parallels present US-7. The proposed route crosses the Pownal-Bennington Town Line approximately 1100 feet easterly of present US-7 and continues northerly and generally paralleling present US-7.

The alignment continues northerly and crosses Jewett Brook, approximately 1000 feet east of Varney School at the junction of US-7, SA-2 and T-48. This area is the site of an interchange which would service the southern Bennington Area and Old Bennington. The proposed alignment then continues northerly of the interchange area and is generally super-imposed upon Jewett Brook. The alignment terminates approximately 2500 feet north of the interchange and is approximately 1000 feet east of present US-7.

The next segment of the Arterial Highway System will connect to the proposed Pownal-Bennington alignment and continue northerly toward Bennington Village.

Disposition of Local Roads and State Routes

POWNAL

T-52 - At-Grade crossing (Intersects 2-lane Connector)

Present T-52 would cross the proposed alignment "at-grade". The present ADT is 40 vehicles.

T-7 - Bridged

The proposed alignment would bridge over the present roadway. The present ADT is 30 vehicles.

BENNINGTON

T-50 - Terminated

Present T-50 is untravelled.

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
Location Section

Data For Preliminary Estimating Previous To Survey

Description

Proposed Project Pownal - Bennington On Route US-7
From A point approximately 1000' northerly of the Junction of SA-2 and US-7 in
The Town of Pownal to a point 3400' north of The Varney School Interchange in the
Town of Bennington
Length 5,974' (2-lanes) 19,000' (4-lanes) Miles 1.13(2-lane) 3.60(4-lane) Total
4.7 Mi.
System Primary

Design Data

Surface Type Bit. Conc. Pavement Width (1) 24' (2) 24' (1) 26' Depth 3"
Sub-Course Type Pen. Mac. Base Course Width (2) 26' Depth 5"
Bit. Conc. Pavement with crushed
Shoulders Type Stone for Shoulders Width 4' & 10' Depth 1½" Ea.
Sub-Base Type Sub-base of Crushed Rock Depth 24"

Estimated Cost Data

	2-lane Sect.	4-lane Sect.	Total
Surface	\$ 63,755.25	\$ 356,427.00	\$ 420,182.25
Sub-base	76,875.60	492,482.00	569,357.60
Drainage	57,528.30	288,000.00	345,528.30
Grading	77,537.60	656,318.00	733,855.60
Solid Rock	708.00	285,900.00	286,608.00
Guard Rail, Lighting, Fencing, Signs, etc.	9,363.50	53,455.00	62,818.50
Clearing & Grubbing	16,955.00	118,600.00	135,555.00
Other	1,838.30	13,140.00	14,978.30
Sub-Total Roadway		\$ 2,568,883.55	

<u>Structures</u>	<u>Station</u>	<u>Span</u>	<u>Cost</u>
US-7 over Jackson Road	45+0	140'	\$ 96,688

Interchanges or Intersections (channelized)

Type Trumpet Station 206+00 Ramps Length 1.176 Mi.

Grading \$ 109,527.00

Solid Rock 66,842.00

Sub-Base 52,687.00

Surface 41,685.00

Speed Change Lanes (included in Ramp Length)

Other Items 37,713.00

Structures 150,150.00

Sub-Total Interchanges or Intersections \$ 458,604.00

Relocation of Other Roads and Frontage Roads

US-7 and SA #2 Station 206+00 Length 0.598 Cost \$ 117,121.00

Sub-Total Relocations \$ 117,121.00

Construction Total \$3,241,296.55

Contingencies 10% 324,129.66

Sub-Total 3,565,426.21

Preliminary Engineering 6% 213,925.57

Construction & Preliminary Engineering Total \$3,779,351.78

Right-of-Way \$

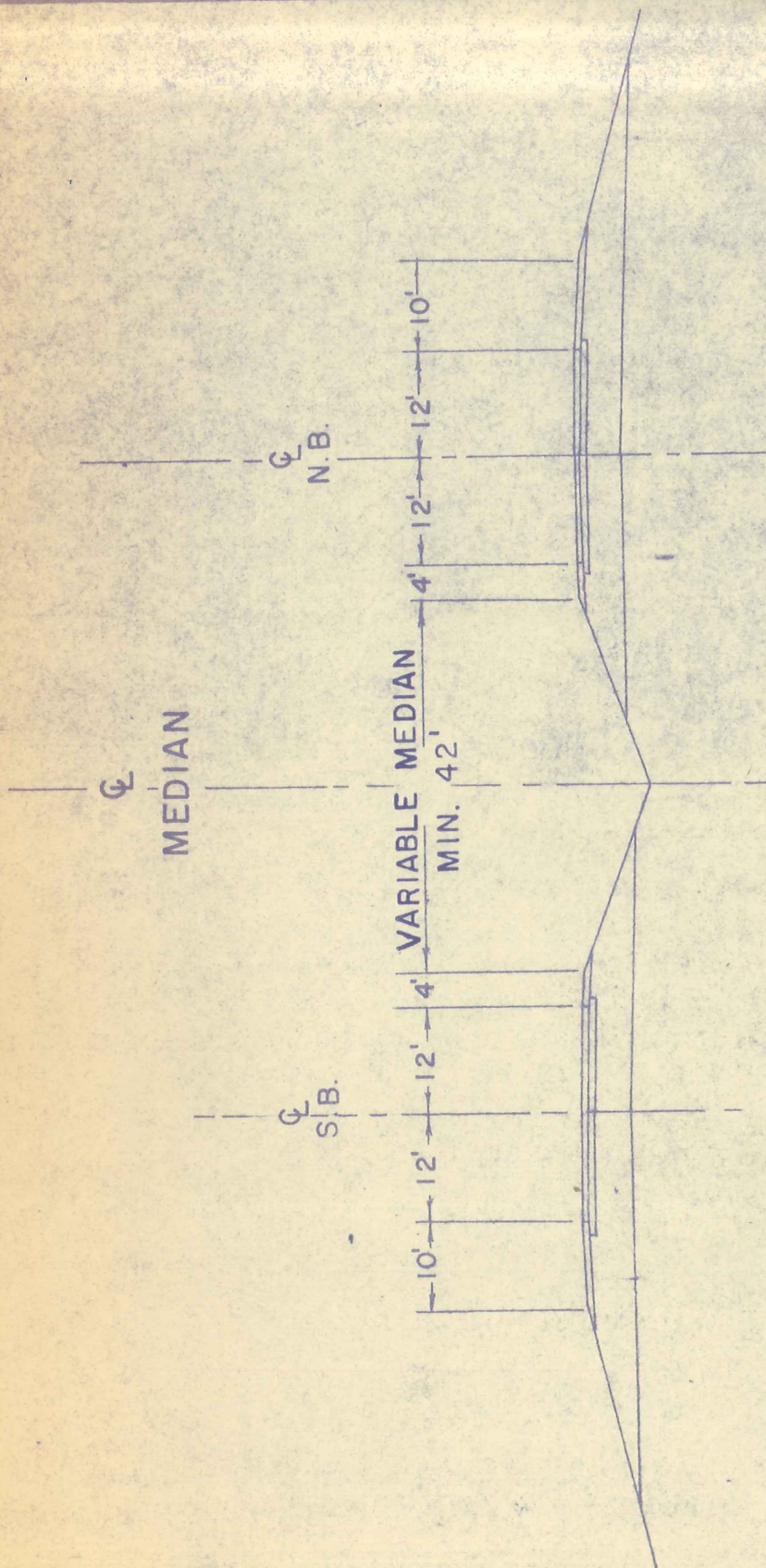
GRAND TOTAL

\$

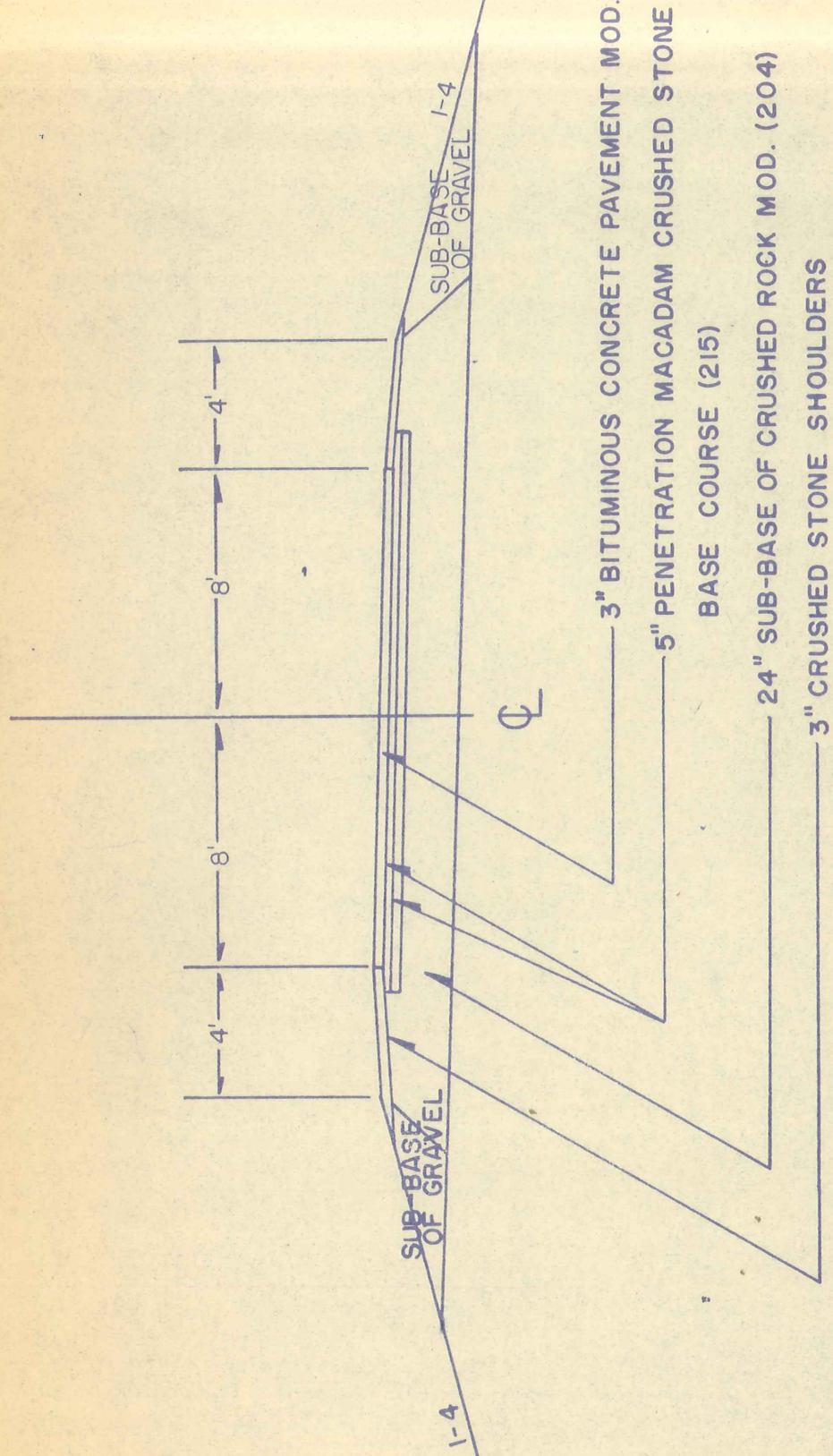
Prepared by F.A. Checked by R.T.

Date 5 April 1966

TYPICAL SECTIONS



4 LANE INITIAL - TYPICAL SECTION

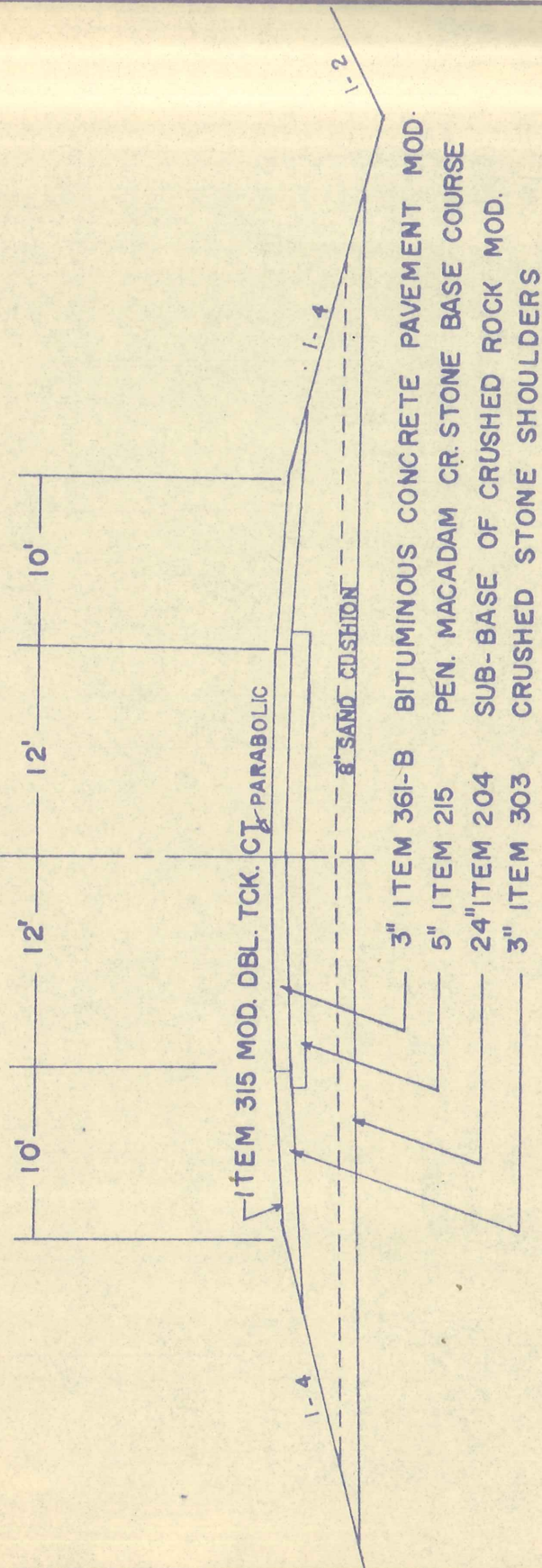


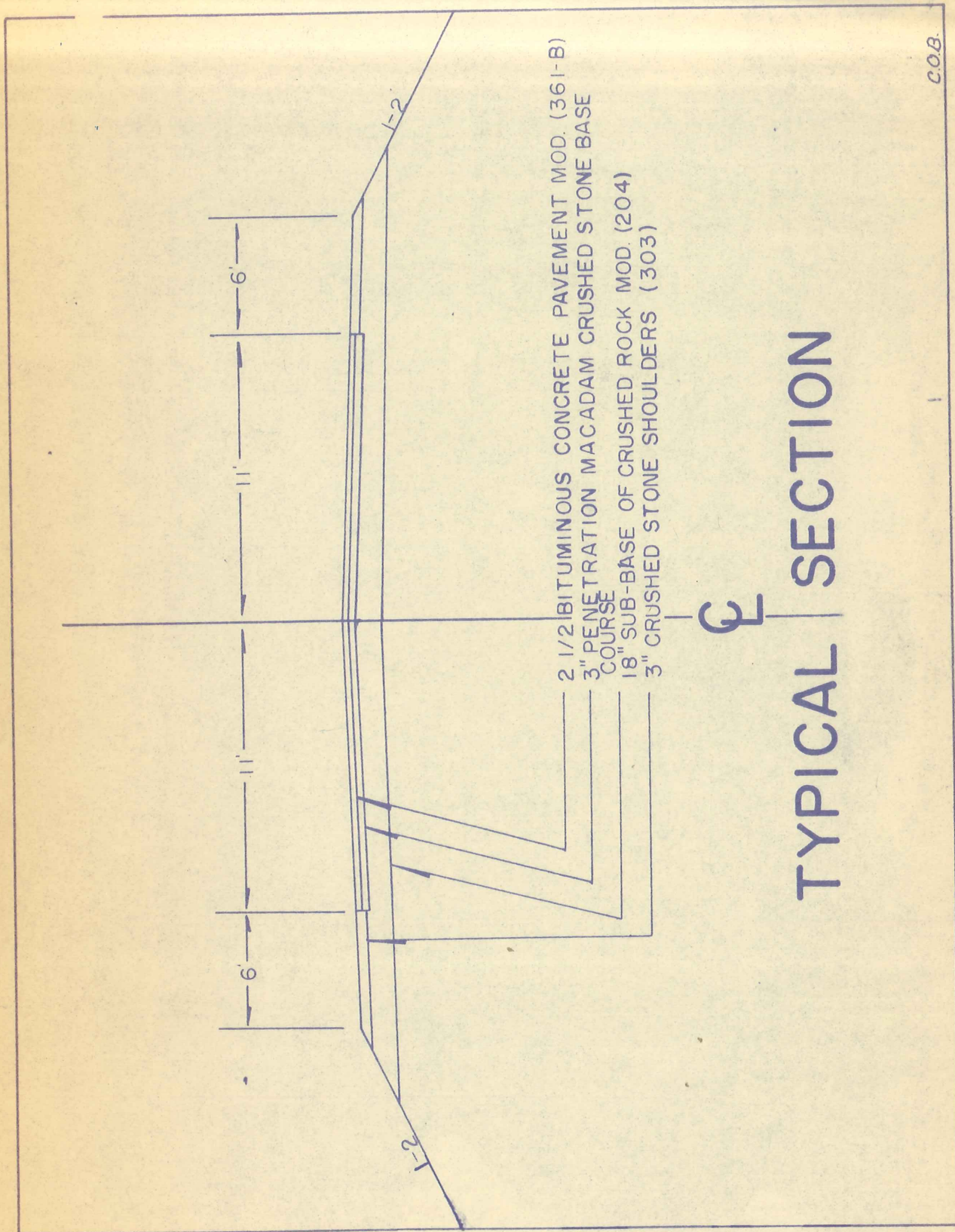
INTERSTATE ONE WAY RAMP TYPICAL

C.O.B.

CL

TYPICAL SECTION





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