APPOMATTOX BYPASS



APPOMATTOX GOUNTY

Spiril Abricady againsed

David S. Mash Parcel #1

Clas L. Buchanan Parcel #113

W.D. & Folia Morries Parcel #54-#60

H. C. Zulliann Parcel #72

Quettand Spalty Co. Parcel # K2

Appomattox County ROUTE 460 APPOMATTOX BYPASS

FEDERAL PROJECT F-038-1()

STATE PROJECT 7460-006-101, PE-101, RW-201, G-301 & P-401

FROM 0.832 MI. W. W.C.L. APPOMATTOX

TO 0.900 MI. E. E.C.L. APPOMATTOX

LENGTH 3.594 MI.

DIRECT ALL CORRESPONDENCE TO:

MR. D. H. GAULDEN, JR.

DISTRICT ENGINEER

P. O. BOX 531

LYNCHBURG, VIRGINIA 24505

PROPOSED HIGHWAY DEVELOPMENT PROJECT

ROUTE 460

APPOMATTOX COUNTY
"APPOMATTOX BY PASS"

DESIGN STUDY REPORT

PROJECT 7460-006-101, G-301; P-401

FEDERAL PROJECT F-038-1(104)

FROM: 0.832 MI. W. W.C.L. APPOMATTOX

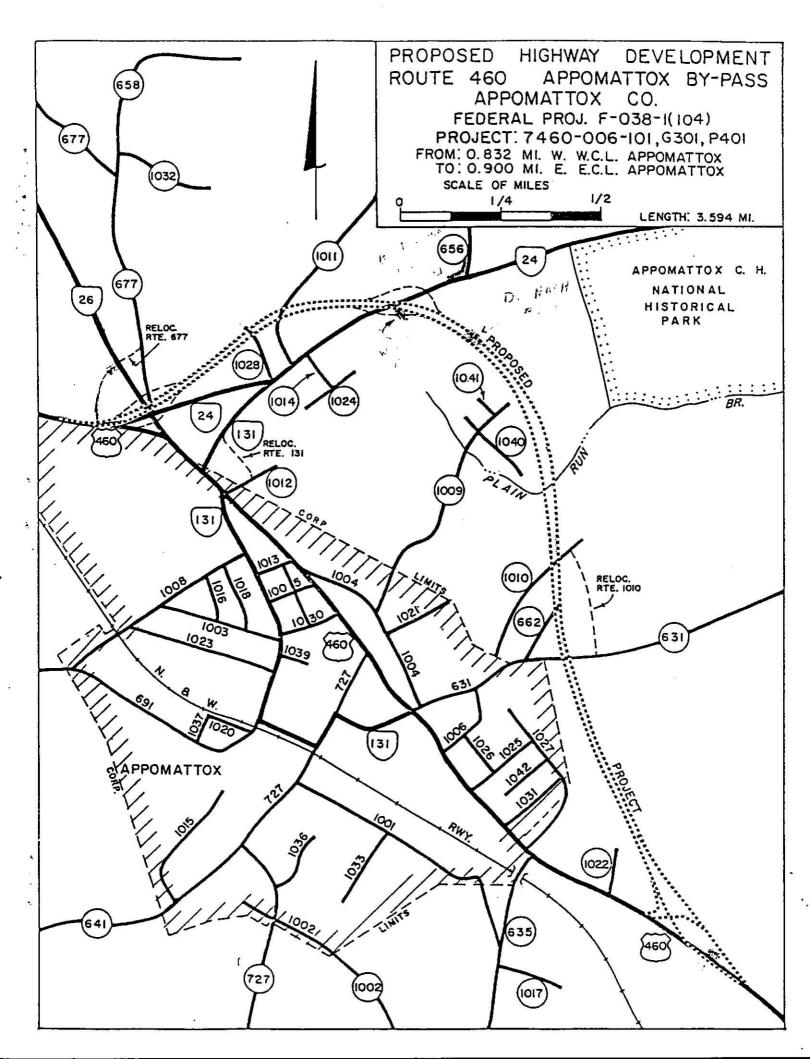
TO : 0.900 MI. E. E.C.L. APPOMATTOX

LENGTH 3.594 MILES

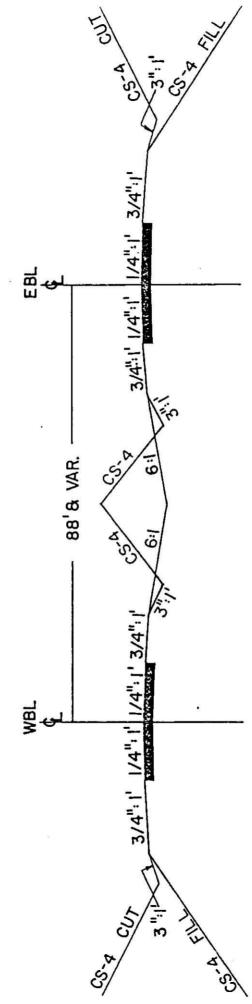
PREPARED BY

THE VIRGINIA DEPARTMENT OF HIGHWAYS AND TRANSPORTATION

LOCATION AND DESIGN DIVISION



PROP RTE. 460



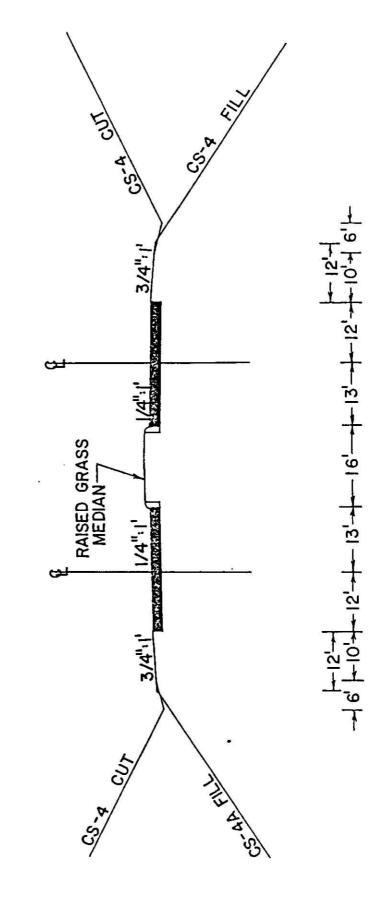
TYPICAL SECTION-A

-10-4-12-4-12-4-15-4 6 -

- 44' 8 VAR.

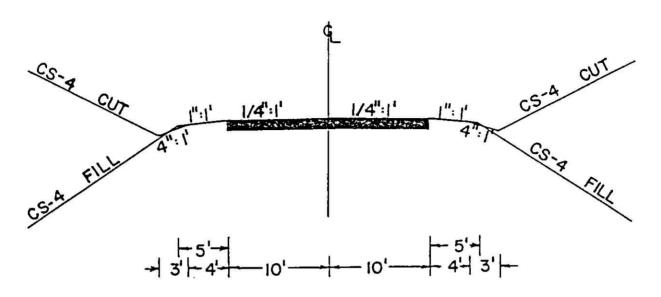
+ 61--15,--+-15,--+-10,-+

PROP RTES. 24 & 26



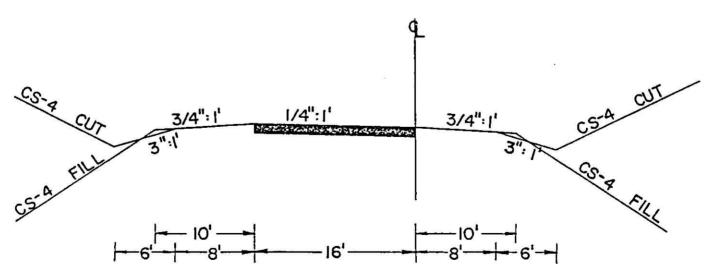
TYPICAL SECTION - B

PROP RTE. 631



TYPICAL SECTION-C





TYPICAL SECTION - D

The project under consideration is a 3.594 mile section of Route 460 located in Appoint County, Virginia, that bypasses the Town of Appoint on the north side. Route 460 is an integral part of Virginia's Arterial Highway System.

Due to the growth of the chain of cities and towns along the length of Route 460 in the general area of this project, and a greater demand for mobility, the necessity to bypass the Town of Appomattox becomes apparent. Elimination of restricted speeds and traffic snarls of the through town route for the traveling public, by means of the bypass, helps both the traveler and local inhabitants.

Design criteria of the project is based on the Virginia Department of Highways and Transportation Road Designs and Standards for its Arterial Highways.

The Route 460 typical section provides for a divided roadway with four 12-foot travel lanes (two lanes in each direction) separated by a variable width median (40' to 73'). There is proposed a 15-foot shoulder right of traffic and a 10-foot shoulder left.

The proposed improvements will be centered on a minimum width of 200 feet of right of way with a majority of it being on new location.

The maximum degree of horizontal curvature is 3°15' and provides a design speed of 70 miles per hour. The maximum gradient on the Bypass is 6.688%. This gradient on the eastbound lane exceeds the maximum (4%) set forth for this type of highway. This grade is necessary to tie into the existing road at the end of the project. The resulting sight distance at this crest is approximately 478 feet which pro-

vides a 60 mile per hour design speed.

Present and projected traffic for this project is as follows:

PROPOSED

EXISTING

FROM: 0.832 Mi. W. WCL Appomattox	FROM: 0.832 Mi. W. WCL Appomattox
TO : Rte. 26	TO : Rte. 24
1. Estimated 1975 ADT - 9350	9350
2. Projected 2000 ADT - 19100	19100
3. The present Level of Service for	the existing facility is "B" and

- has a normal operating speed of ≥55 MPH.

 4. The capacity* of 56000 VPD with an operating speed of 30 MPH for
- the existing roadway will not be reached by 1995.
- 5. The completion of this project should result in a Level of Service "A" at the design year with a normal operating speed of ₹60 MPH. S
- 6. It is anticipated that a Level of Service "C" with an operating speed of >45 MPH will result if no improvement is made.
- 7. Percent of Trucks 14

FRO	: MC	Rte.	26	5				FRO	M:	Rte.	24
- 53		Rte.	22-21-2					TO	:	Rte.	26
1.	Es	timat	ed	1975	ADT	_	6400			750	0
							13040			1530	0

- 3. The present Level of Service for the existing facility is "C" and has a normal operating speed of ₹45 MPH.
- 4. The capacity* of 56000 VPD with an operating speed of 30 MPH for the existing roadway will not be reached by 1995.
- 5. The completion of this project should result in a Level of Service "A" at the design year with a normal operating speed of >60 MPH.
- 6. It is anticipated that a Level of Service "C" with an operating speed of 545 MPH will result if no improvement is made.
- 7. Percent of Trucks 14

PROPOSED

EXISTING

FROM: Rte. 24	FROM: Rte. 26
TO : 0.900 Mi. E. ECL Appomattox	TO : 0.900 Mi. E. ECL Appomattox
1. Estimated 1975 ADT - 4300	12990
2. Projected 2000 ADT - 8280	25000
3. The present Level of Service for	the existing facility is "D" and
has a normal operating of <35 MP	H
4. The capacity* of 15000 VPD with	

- the existing roadway will be reached by 1995.

 5. The completion of this project should result in a Level of Service
- 6. Percent of Trucks 14

LEVELS OF SERVICE

LEVEL OF SERVICE	TRAFFIC FLOW CONDITIONS
A	Free Flow
В	Stable Flow (slight delay)
С	Stable Flow (acceptable delay)
D	Approaching Unstable Flow (tolerable delay)
E	Unstable Flow (congestion, intolerable delay)
F	Forced Flow (jammed)

*Capacity equals maximum service volume at Level of Service "E"

A study of accident data for existing Route 460 reveals that over the three (3) year period covering January 1, 1975, through December 31, 1977, there was a total of 86 accidents causing \$75,266 in property damage, injuring 40 persons but resulting in no fatalities.

The full length of the Bypass is declared as Limited Access Rightof-Way with ingress and egress allowed only at the interchanges at Routes 26, 24 and existing Route 460 east. A grade separation is provided at Route 631 to allow passage across Route 460.

Location Public Hearings were held in Appomattox on July 14, 1966, and June 23, 1970, for this project. After the 1970 hearing, the location indicated on the layout map was approved by the Appomattox Town Council, the Appomattox County Board of Supervisors, the Appomattox County Planning Commission and the Highway Commission.

A more recent resolution from the Appomattox County Board of Supervisors (October 8, 1976) requested the Bypass be included in the Department's construction schedule as soon as possible. This resolution was a result of substantial public interest and requests.

By virtue of the above endorsements the proposed project is obviously a part of the total transportation requirements. The planning and development of the community continues with the knowledge that the Bypass will be built. Cooperation of the developer of the sub-division Meadowlark allowed the Commonwealth to secure, in advance of that on the remainder of the project, the required right-of-way to contain proposed construction of the highway. The right-of-way severed the large parcel, however, the remaining undeveloped parcel was provided access from Route 24, thus making it eligible for development.

The Bypass follows the north perimeter of the Town of Appomattox necessitating as few dwelling acquisitions as possible and yet providing access at each end of the Town.

Completion of this segment of Route 460 will provide a four-lane facility between Farmville and Lynchburg and will afford fast, safe and more efficient transportation of people and goods. However, those desiring to commute into Appomattox may do so by means of the interchanges provided along the Bypass.

There is no public recreational area or park within the alignment path of this project. However, located a short distance out on Route 24 are Appointance Court House National Historical Park, Appointance Buckingham State Forest and public camp grounds. The interchange at Route 24 will give access to these areas.

While much of the proposed project location is through wood and farm lands, construction is not expected to have any appreciable influence upon wildlife in the area. There is no knowledge of any game

refuge, hunting preserve, or similar area within the project limits or adjacent thereto. The only danger to wildlife is that of accidental kills normally associated with a road of this type. Generally, these are not significant.

Any potential erosion and/or siltation problems developing as a result of the project will be minimized by providing appropriate drainage facilities and erosion control devices as shown on the construction plans or as specified in the Virginia Department of Highways and Transportation Road and Bridge Specifications. The Department's Special Provisions on abatement of erosion and sedimentation on disturbed areas will be strictly adhered to during construction.

Vegetation will be re-established on all disturbed areas as soon as possible during and after the construction phase.

In the preliminary stages of this project, agencies related to landmarks were contacted and information and advice solicited. These included the Virginia Division of Parks, U.S. Department of Interior and
Historic Landmarks Commission. Responses advised that no natural landmarks would be affected by construction, however, a historic dwelling
exists at the west end of the project. This dwelling, the Martin house
(Circa 1789), will be preserved for the project is designed with a gap
along the limited access line to allow ingress and egress to the property.
The State Archaeologist advises that no archaeological sites are within
the project area.

The project, by virtue of eliminating the through town route, will provide faster, more efficient movement of military troops and supplies

in case of a national emergency. There will be no appreciable detrimental effect on rescue vehicles or fire fighting equipment other than a slight inconvenience during the period of construction. Upon completion of the project, emergency vehicular traffic will be aided due to less traffic congestion.

Construction of any highway facility usually requires some adjustment and relocation of existing utilities. The Department will coordinate
plans with utility companies for adjustments and/or relocations of utilities
affected by construction to avoid any unreasonable interruption of service.
Any necessary adjustment and/or relocation of public utilities will be made
by those responsible for doing so.

To ensure that no item of public health and safety is overlooked in considering this project, the United States Department of Housing and Urban Development, National Air Pollution Control Administration, State Air Pollution Control Board, State Commission of Game and Inland Fisheries and State Commission of Outdoor Recreation are sent copies of public hearing notices and are invited to participate with comments or recommendations within their particular field of expertise.

The design of this project creates little change in existing travel patterns for people attending churches in the area. Since no religious institutions are located within the proposed right-of-way, there should be no appreciable adverse effect upon any place of worship during construction.

There will be no disruption to school activities as a result of this proposed construction and there are no harmful effects on any educational institutions since there none located along the project.

This project will be constructed under contract to the Virginia Department of Highways and Transportation by private firms who will be required to fully adhere to all federal, state and local ordinances and regulations pertaining to the welfare and safety of the general public. The completed highway will be an asset to the local area and the state as a whole by providing a safer facility for travel by the public.

The proposed improvement should enhance economic activity in the Appomattox area. There is every indication that the area's extensive industrial, commercial and residential development trend of past years will continue and construction of this project will provide faster, safer and more economical access required to insure this growth.

It is not anticipated that the Bypass wil hinder growth or business in the Town of Appomattox, but will enable those who do not wish to avail themselves of the business district to travel around and leave the town resulting in less congestion for workers and shoppers.

Although some dwellings and places of business will have to be acquired to construct this project as planned, there will be very little change in the present neighborhood characteristics of the area.

The corridor location studies for this Bypass facility were made in cooperation with local governing bodies and the approved location was endorsed by local governing agencies as being the desirable plan of development. It is realized, of course, that a project of this magnitude removes acreage from the tax rolls due to land requirements; however, aside from this factor, there is little adverse effect on the local tax

base. The estimated loss to the real estate tax base will be approximately \$12,865. However, no actual loss to the county's tax base should occur. Experience has shown that when improvements such as the proposed Bypass are constructed, land values and tax base actually increase due to increased development and speculative value.

Employment in the vicinity of the project should increase as a direct result of the growth and development of existing businesses and future places of employment which will be served by this new facility. This project, by complimenting the industrial, recreational, commercial and residential development, should result in increased employment.

The following is a breakdown of the number of individuals and the data that are pertinent to the Relocation Program for this project:

Family Units ---- 23 Total Individuals ------ 92

Businesses ---- 5 Number of Individuals Employed ---- 30

Farms ----- 0 Non-profit Organizations ----- 0

Number of Individuals Infirmed or Elderly ------ 10

It is anticipated that the relocation for displacees on this project can be resolved without major problems because of available houses, rentals and vacant commercial establishments. Of course, the alternate method of relocation will be to construct new buildings.

For a complete explanation of the Relocation Program available, see the brochure entitled "RIGHT-OF-WAY".

Extensive studies have been made to evaluate the air and noise impact attributable to the completion of this project. It has been determined by the Department that the project will not be detrimental to

the ambient air quality of the area.

Several sites along the highway corridor will experience noise levels exceeding Federal criteria in the design year. The Department is considering the use of noise abatement at four (4) locations which could reduce the noise level at 19 residences. These locations are as follows: parallel to the W.B.L. on the north side near Frontage Road "B"; parallel to the E.B.L. on the south side adjacent to Meadowlark Subdivision; parallel to the roadway north of the W.B.L. and south of the E.B.L. in the area where the proposed Bypass severs Rte. 1010.

A final decision concerning noise abatement devices will be made after additional study and after citizen input is received.

The rural characteristics and limited access feature of this project have eliminated the need for consideration of multiple use of space.

Consideration was given during the location of the corridor and design of this highway facility to have it blend with and compliment the surrounding areas. The rolling grades, graded median, flatter slopes in shallow cuts and fills, preservation of existing vegetation and trees where possible, all tend to enhance the beauty of the completed facility. All areas disturbed by construction are to be grassed as soon as possible during and after work is completed.

The only known adverse effects of the project in the area will be from right-of-way acquisition standpoint resulting in displacement of approximately 23 families and 5 businesses. While this is definitely an undesirable effect, the seriousness diminishes when viewed in relation to the overall size and importance of the project. Assurance is given

that relocation assistance will be available and replacement housing will be made available or provided for all persons affected by the project. No one will be displaced under adverse circumstances.

The limited access feature bounding the Thomasville Furniture property may be viewed as an adverse effect, thus allowing only one (1) entrance on to existing Route 460, west of the town. The alternative here would have been an entrance located within the interchange of Route 26 or within the town limits. Either alternate would be a catastrophic situation from a safety or traffic position.

During construction of the project traffic will continue to use the existing roadway facilities causing very little restriction or inconvenience except for temporary detours to construct bridges, tie-ins, etc.

This project will be stage construction, that is, a Grading Contract and a separate Paving Contract. The Grading Contract will consist of completing the roadway between the beginning of the project and the Route 26 interchange. This contract will include completion of all cross roads, secondaries and frontage roads.

From Route 26 to the end of the project the cuts and fills will be constructed and seeded only, as a preparation for the pavement. Latera Paving Contract will be awarded to complete the roadway surface and shoulders.

The first contract of this project is tentatively scheduled for construction in the latter part of 1982 and will require approximately 18 months to complete. The estimated cost of the project is as follows:

Construction	(G-301,	P-401)	\$	8,850,000
Right of Way			\$	3,172,947
Utilities			\$	114,000
Total -			\$:	12,136,947

NOTES