

VT Agency of Transportation: Highway Safety & Design Section FY 2025 Roadway Program Budget

House Transportation Committee – January 25, 2024

Presented by: Jesse Devlin, Highway Safety & Design Program Manager



**WILLISTON STP M 5500(7)S
US ROUTE 2 / INDUSTRIAL AVE.**



ROADWAY PROGRAM GENERAL OVERVIEW

JANUARY 25, 2024

VT AGENCY OF TRANSPORTATION – HIGHWAY SAFETY & DESIGN SECTION
FY2025 ROADWAY PROGRAM BUDGET



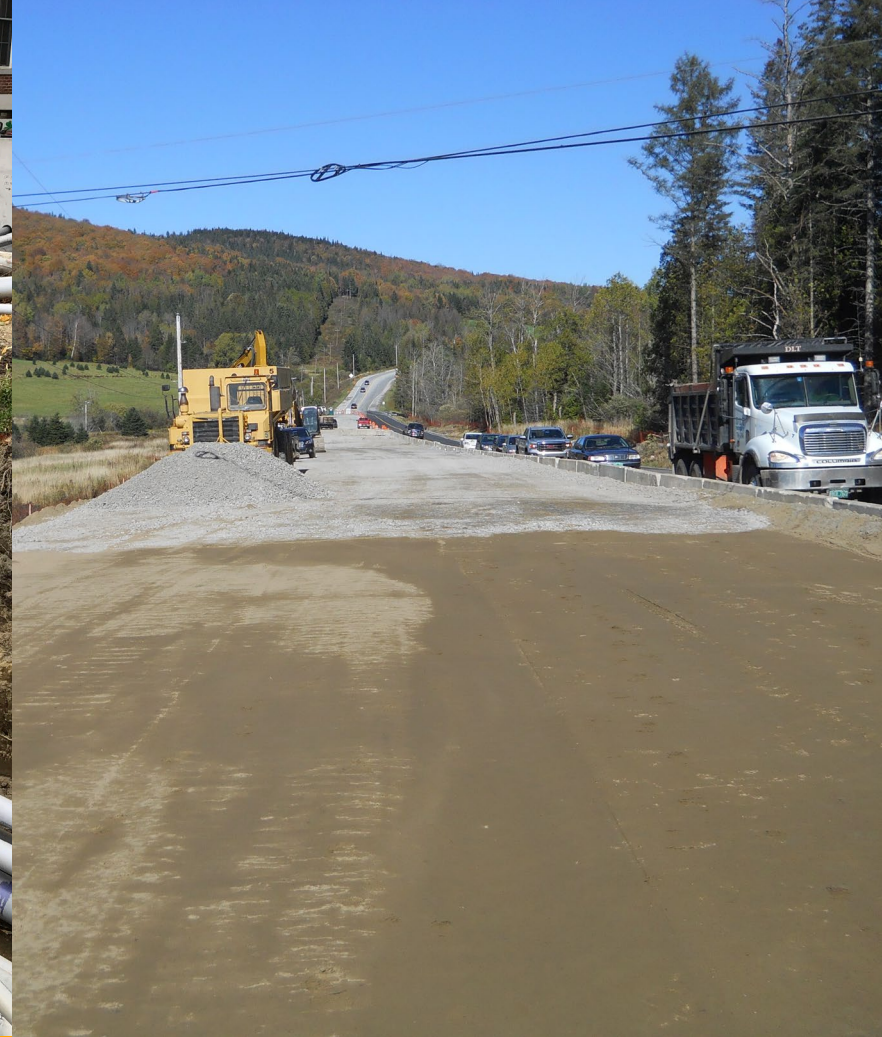
VTrans' mission is through excellent customer service, provide for the safe and efficient movement of people and goods in a socially, economically, and environmentally sustainable manner:

- The roadway design group is responsible for the development and delivery of plans, specifications, and estimates for a wide range and wide scope of projects.
- The projects contained within the Roadway Program address safety, mobility, and asset condition, which directly contributes to meeting our mission.

The roadway design group consists of ten team members; comprised of project managers, engineers, and technicians.

In addition to the development of projects, the team has a great deal of responsibility including but not limited to:

- **Fiscal responsibility:** *oversight of individual project and program budgets*
- **Customer Service:** *point of contact throughout a project's development*
- **Quality:** *ensure that the design meets the intent of the project*
- **Schedule:** *on time delivery of a project*



ROADWAY RECONSTRUCTION PROJECTS

JANUARY 25, 2024

VT AGENCY OF TRANSPORTATION – HIGHWAY SAFETY & DESIGN SECTION
FY2025 ROADWAY PROGRAM BUDGET





CULVERT REPLACEMENT / REHABILITATION PROJECTS

JANUARY 25, 2024

VT AGENCY OF TRANSPORTATION – HIGHWAY SAFETY & DESIGN SECTION
FY2025 ROADWAY PROGRAM BUDGET





SLOPE / LEDGE STABILIZATION PROJECTS

JANUARY 25, 2024

VT AGENCY OF TRANSPORTATION – HIGHWAY SAFETY & DESIGN SECTION
FY2025 ROADWAY PROGRAM BUDGET



Scope: This project included installation of a new box culvert, installation of new headwalls and wingwalls, slope stabilization, and channel realignment.

Construction Cost Est: \$2.7 Million

Completion Date: Construction of this project was substantially completed in September of 2023.



VT ROUTE 111 – CULVERT INSTALLATION

MORGAN STP CULV(46) – VT ROUTE 111 CULVERT REPLACEMENT PROJECT



CULVERT INSTALLATION



FINAL CONDITION

MORGAN STP CULV(48) – VT ROUTE 111 CULVERT REPLACEMENT PROJECT

FY 2025 ROADWAY PROGRAM

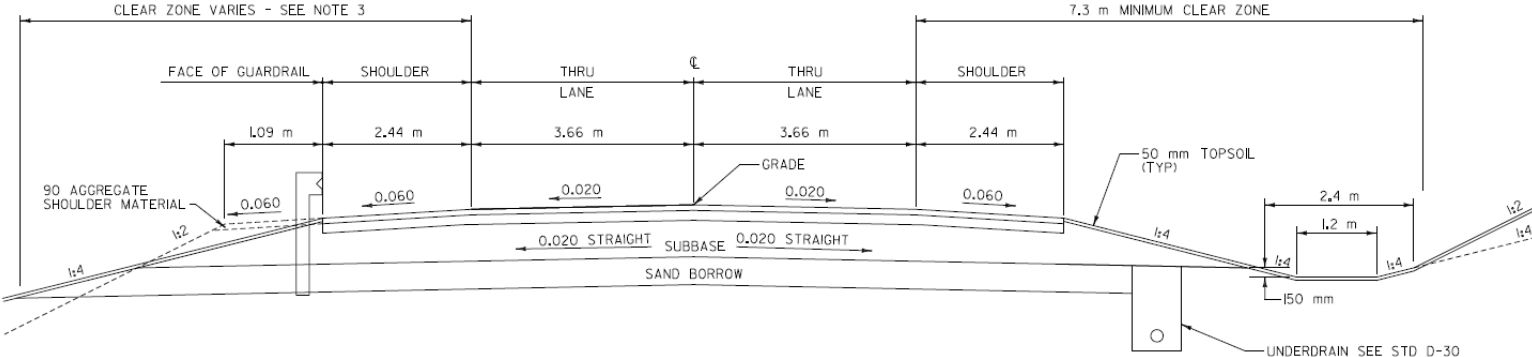
- Appropriation of \$67.05 million
- Increase of \$13.2 million compared to the FY 2024 Roadway Program budget
- Includes three primary project phases
 - Preliminary Engineering (design activities)
 - Right-of-Way (acquisition of property and/or easements)
 - Construction
- Budget will fund construction of 51 projects, and will fund the preliminary engineering and/or right-of-way acquisition on an additional 50 projects

38	Number of standard roadway/intersection improvement projects – 5 with FY25 construction funding
22	Number of small culvert rehabilitation/replacement projects – 14 with FY25 construction funding
13	Number of ledge removal/slope stabilization projects – 8 with FY25 construction funding
22	Number of emergency repair projects – 21 with FY25 construction funding
6	Number of miscellaneous projects – 3 with FY25 construction funding

Scope: Full depth reconstruction and widening of approximately 1.7 miles of US Route 7 in Pittsford and Brandon. The project includes drainage and stormwater improvements, geometric improvements, the replacement of one bridge, and the extension of two additional bridges.

Construction Cost Est: \$15.1 Million

Project Status: This project is anticipated to be advertised in Fall of 2024 with construction activities extending through 2026.



PITTSFORD-BRANDON NH 019-3(494) US ROUTE 7



19 V.S.A. 10g(g)(1) Report compiles projects that have been added to the program subsequent to the FY24 program

These projects were primarily programmed due to the age and/or current condition of the asset

- ANDOVER ER P23-1(223) – Emergency Repair Project (Culvert) – VT Route 11
- BARRE TOWN-EAST MONTPELIER STP CULV(131) – Culvert Project – VT Route 14
- BERLIN ER P23-1(671) – Emergency Repair Project (Slope) – VT Route 12
- BERLIN ER P23-1(630) – Emergency Repair Project (Culvert) – VT Route 12
- BERLIN ER P23-1(633) – Emergency Repair Project (Ledge) – VT Route 12
- BERLIN ER P23-1(610) – Emergency Repair Project (Culvert) – US Route 2
- BRATTLEBORO-PUTNEY STP CULV(140) – Culvert Project – US Route 5
- BURLINGTON RAIZ(5) – Reconstruction Project – Bank St., Cherry St., Pine St., St. Paul St.
- BURLINGTON CDS CD23(1) – Reconstruction Project – Bank St., Cherry St., Pine St., St. Paul St.
- CAVENDISH ER P23-1(229) – Emergency Repair Project (Slope) – VT Route 131
- CHELSEA ER P23-1(438) – Emergency Repair Project (Slope) – VT Route 110
- CHESTER ER P23-1(319) – Emergency Repair Project (Culvert) – VT Route 103
- CHESTER ER P23-1(320) – Emergency Repair Project (Culvert) – VT Route 103
- HARDWICK ER P23-1(994) – Emergency Repair Project (Culvert) – VT Route 14
- HARDWICK ER P23-1(995) – Emergency Repair Project (Culvert) – VT Route 14
- HARDWICK ER P23-1(996) – Emergency Repair Project (Culvert) – VT Route 14
- HARDWICK ER P23-1(997) – Emergency Repair Project (Culvert) – VT Route 14
- HARDWICK ER P23-1(998) – Emergency Repair Project (Culvert) – VT Route 14
- HARDWICK ER P23-1(999) – Emergency Repair Project (Culvert) – VT Route 14
- HARDWICK-BARTON STP CULV(136) – Culvert Project – VT Route 16
- HARTFORD STP CULV(128) – Culvert Project – US Route 5
- HARTFORD STP CULV(129) – Culvert Project – US Route 4
- HARTFORD-SHARON STP CULV(130) – Culvert Project – VT Route 14
- HINESBURG-SOUTH BURLINGTON STP CULV(138) – Culvert Project – VT Route 116
- JAMAICA ER P23-1(205) – Emergency Repair Project (Culvert) – VT Route 100
- MORETOWN ER P23-1(608) – Emergency Repair Project (Culvert) – US Route 2
- ROYALTON ER P23-1(416) – Emergency Repair Project (Culvert) – VT Route 14
- RYEGATE-ST. JOHNSBURY STP CULV(132) – Culvert Project – US Route 5
- SHELDON-ENOSBURG STP CULV(134) – Culvert Project – VT Route 105
- ST. ALBANS TOWN-SWANTON STP CULV(139) – Culvert Project – US Route 7
- SWANTON-HIGHGATE STP CULV(133) – Culvert Project – VT Route 207
- THETFORD-FAIRLEE STP CULV(137) – Culvert Project – US Route 5
- WESTON ER P23-1(234) – Emergency Repair Project (Slope / Culvert) – VT Route 100
- WILLIAMSTOWN ER P23-1(676) – Emergency Repair Project (Slope) – VT Route 14

19 V.S.A. 10g(g)(1) REPORT SUMMARY

19 V.S.A. 10g(g)(2) Report compiles projects that have increased by more than \$8,000,000 or by more than 100% compared to the FY24 estimate

- HUBBARDTOWN STP 0161(32) – VT Route 30 – Increase by more than 100% (\$652,160 - \$1,628,415) – This project will consist of the removal of ledge, including clearing, rock removal, scaling and the installation of a rockfall catchment fence. The estimate included in previous budgets was representative of a conceptual estimate. The construction estimate of this project has been refined as the design progresses.
- MARLBORO-BRATTLEBORO NH 010-1(57) – VT Route 9 – Increase by more than 100% (\$1,951,541 - \$4,688,751) – This project will consist of the construction of flood mitigation measures at select locations along VT Route 9. The construction estimate of this project has been refined as the scope has been fully developed.
- RICHMOND STP CULV(58) – US Route 2 - Increase by more than 100% (\$691,281 - \$1,485,046) – This project will consist of the replacement of a box culvert on US Route 2 in Richmond. The construction estimate in past budgets was representative of a conceptual estimate. The construction estimate of this project has been refined as the design progresses.
- RYEGATE IM 091-2(83) – Interstate 91 – Increase by more than 100% (\$2,337,036 - \$5,712,300) This project consists of remediation of ledge on Interstate 91 NB in Ryegate. The construction estimate of this project is being refined as the design progresses.
- SOUTH BURLINGTON IM SWFR(3) – Interstate 89 – Increase by more than 100% (\$1,177,500 - \$2,696,982) – This project consists of the construction of stormwater retrofit best practices. Design activities progressed into final design, and the project scope was full defined. The construction estimate of this project has been refined as the design progresses.
- THETFORD STP 0113(87) – US Route 5 – Increase by more than 100% (\$270,000 - \$540,000) – This project consists of slope stabilization. Design activities continue to progress. The initial estimate for this work was underestimated.

19 V.S.A. 10g(g)(2) REPORT SUMMARY

19 V.S.A. 10g(g)(3) Report compiles projects that were funded for construction in the FY24 program and are no longer funded for construction in the FY25 program

All projects that are listed on this report have completed construction or will be complete by the end of the current fiscal year.

- CHESTER STP CULV(60) C/2 – Culvert Project – VT Route 10
- MIDDLEBURY STP 021-1(37) – Culvert Project – VT Route 116 (Work was completed as part of the emergency flooding response)
- MORGAN STP CULV(46) – Culvert Project – VT Route 111
- SPRINGFIELD STP CULV(47) – Culvert Project – US Route 5
- WALLINGFORD STP 0138(14) – Ledge Project – VT Route 140
- WEST FAIRLEE-THETFORD STP CULV(48) – Culvert Project – VT Route 113
- WILLISTON STP M 5500(7)S – Roadway Reconstruction – US Route 2

19 V.S.A. 10g(g)(3) REPORT SUMMARY

VT Agency of Transportation: Highway Safety & Design Section FY 2025 Traffic & Safety Program Budget

House Transportation Committee – January 25, 2024

Presented by: Jesse Devlin, Highway Safety & Design Program Manager



**STOWE STPG SGNL(52)
VT ROUTE 100 / WEST HILL RD.**



Traffic & Safety Program General Overview

VTrans' mission is through excellent customer service, provide for the safe and efficient movement of people and goods in a socially, economically, and environmentally sustainable manner:

- The traffic design group is responsible for the development and delivery of plans, specifications, and estimates for projects that focus on safety and mobility.
- The projects contained within the Traffic & Safety Program address safety, mobility, and asset condition, which directly contributes to meeting our mission.

The traffic design group consists of nine team members; comprised of project managers and engineers.

In addition to the development of projects, the team has a great deal of responsibility including but not limited to:

- **Fiscal responsibility:** *oversight of individual project and program budgets*
- **Customer Service:** *point of contact throughout a project's development*
- **Quality:** *ensure that the design meets the intent of the project*
- **Schedule:** *on time delivery of a project*

Scope: Project included reconstruction of an existing “Y” intersection into a “T” intersection at VT Route 17 and East Street, geometric improvements to VT Route 17 to improve the vertical alignment and improve sight distance, the installation of centerline rumble stripes, drainage improvements and guardrail installation.

Construction Cost Est: \$3.1 Million

Completion Date: Project was substantially complete in Fall of 2023.



NEW HAVEN HES 032-1(8) – VT ROUTE 17



VT ROUTE 17 EB – PRE-CONSTRUCTION



VT ROUTE 17 EB – POST-CONSTRUCTION

NEW HAVEN HES 032-1(8) – VT ROUTE 17



VT ROUTE 17 WB – PRE-CONSTRUCTION



VT ROUTE 17 WB – POST-CONSTRUCTION

NEW HAVEN HES 032-1(8) – VT ROUTE 17



FY 2025 TRAFFIC & SAFETY PROGRAM

- Appropriation of \$50.71 million
- Increase of \$4.13 compared to the FY 2023 Traffic & Safety Program budget
- Includes three primary project phases
 - Preliminary Engineering (design activities)
 - Right-of-Way (acquisition of property and/or easements)
 - Construction
- Budget will fund construction of 26 projects, and will fund the preliminary engineering and/or right-of-way acquisition on an additional 40 projects

49	Number of intersection improvement projects – 14 with FY25 construction funding
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12	Number of sign replacement projects – 7 with FY25 construction funding
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4	Number of pavement marking projects * – 4 with FY25 construction funding
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	* Restriping on all Interstate, State, Class I TH, and Class II TH roads
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1	Number of miscellaneous projects
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Scope: Project will include construction of a “peanut” roundabout at the intersection of VT Route 67A, Silk Rd., Matteson Rd., and College Dr.

Total Project Cost Est: \$3.17 Million

Project Status: This project is anticipated to be advertised in Summer of 2024 with construction activities extending through 2025.



BENNINGTON STP 1000(23) – VT ROUTE 67A / MATTESON RD. / SILK RD.

19 V.S.A. 10g(g)(1) Report compiles projects that have been added to the program subsequent to the FY24 program

These projects were primarily programmed due to the age and current condition of the asset

- BENNINGTON-WILMINGTON STPG SIGN(76) – Sign Replacement Project – VT Route 9
- CRASH PROGRAM HWCR(332) – Crash Reporting Program
- HARTFORD-BARRE TOWN STPG SIGN(77) – Sign Replacement Project – VT Route 14
- MANCHESTER-MIDDLEBURY STPG SIGN(73) – Sign Replacement Project – VT Route 30
- ROCHESTER-WARREN STPG SIGN(78) – Sign Replacement Project – VT Route 100
- STAMFORD-STRATTON STPG SIGN(79) – Sign Replacement Project – VT Route 100
- STOWE-CAMBRIDGE ST 0235(27) – Temporary Delineation – VT Route 108

19 V.S.A. 10g(g)(1) REPORT SUMMARY

19 V.S.A. 10g(g)(2) Report compiles projects that have increased by more than \$8,000,000 or by more than 100% compared to the FY24 estimate

- COLCHESTER HES NH 5600(14) – US Route 7 - Increase by more than 100% (\$16,850,342 - \$28,453,753) – This project will include the construction of a diverging diamond interchange at the Interstate 89 Exit 16 and US Route 7 intersection. The scope of this project has remained consistent and the project construction estimate of this project has been refined to reflect current bid trends.
- PLAINFIELD NH 028-3(41) – US Route 2 / Main Street – Increase by more than 100% (\$2,475,000 - \$4,986,519) – This project will include the construction of a traffic signal and geometric improvements to the intersection of US Route 2 and Main Street in Plainfield. The scope of this project has remained consistent and the project construction estimate of this project has been refined to reflect current bid trends as well as design progression.
- RUTLAND TOWN NHG SGNL(59) – US Route 7 – Increase by more than 100% (\$540,876 - \$1,117,696) This project will consist of the construction of a traffic signal at the intersection of US Route 7 and Cold River Road in Rutland Town. The construction estimate for this project was underestimated based on current bid trends.

19 V.S.A. 10g(g)(2) REPORT SUMMARY

19 V.S.A. 10g(g)(3) Report compiles projects that were funded for construction in the FY24 program and are no longer funded for construction in the FY25 program

All projects that are listed on this report have completed construction or will be complete by the end of the current fiscal year.

- BARRE CITY HES 037-1(8) – Intersection Improvement Project - VT Route 14 / Merchant Street
- NORWICH STPG SGNL(57) – Traffic Signal Project – VT Route 10A / US Route 5
- STOWE STPG SGNL(52) – Traffic Signal Project – VT Route 100 / West Hill Road

19 V.S.A. 10g(g)(3) REPORT SUMMARY

VT Agency of Transportation: Highway Safety & Design Section FY 2025 Paving Program Budget

House Transportation Committee – January 25, 2024

Presented by: Jesse Devlin, Highway Safety & Design Program Manager



**WILMINGTON-BRATTLEBORO NH 2971(1)
VT ROUTE 9**



Paving Program General Overview

JANUARY 25, 2024

VT AGENCY OF TRANSPORTATION – HIGHWAY SAFETY & DESIGN SECTION
FY2025 PAVING PROGRAM BUDGET



VTrans' mission is through excellent customer service, provide for the safe and efficient movement of people and goods in a socially, economically, and environmentally sustainable manner:

- The pavement design group is responsible for the development and delivery of plans, specifications, and estimates for projects that are focused on preserving and improving our roadway surfaces.
- The projects contained within the Paving Program address safety, mobility, and asset condition, which directly contributes to meeting our mission.

The pavement design group consists of six team members; comprised of project managers, engineers, and technicians.

In addition to the development of projects, the team has a great deal of responsibility including but not limited to:

- **Fiscal responsibility:** *oversight of individual project and program budgets*
- **Customer Service:** *point of contact throughout a project's development*
- **Quality:** *ensure that the design meets the intent of the project*
- **Schedule:** *on time delivery of a project*

Assets are the physical elements of the transportation system, such as pavements, bridges, culverts, guardrail, signs, and traffic signals. VTrans works to keep assets in a state of good repair, and balancing the costs associated with doing so, across various asset types.

Regarding pavement condition, VTrans collects updated network level pavement data, the condition of the roadway is rated based on rutting, cracking, and roughness. This information is utilized, considering budget and traffic volumes, to identify projects and pavement treatments that serve to improve the condition of the network as a whole.

PROJECT SCOPE DEFINITION



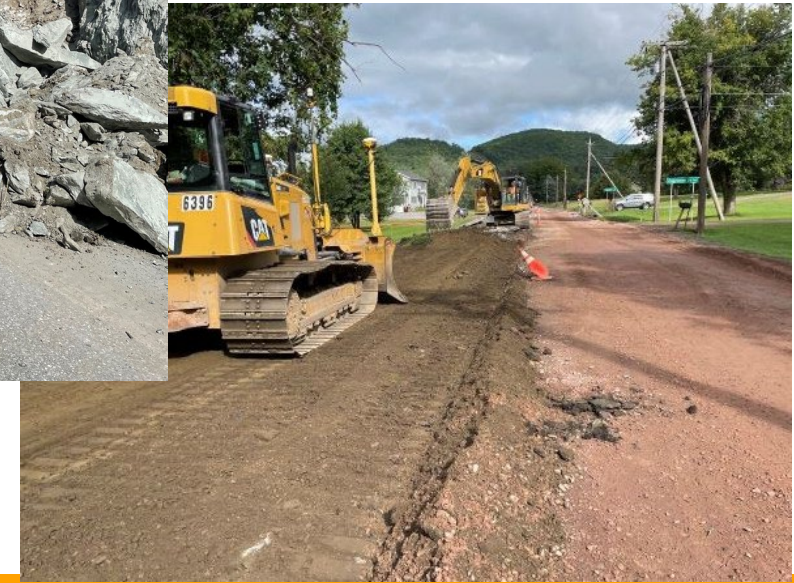
- Culvert replacement
- Shoulder widening
- Pavement markings
- Pedestrian crossings
- Slope stabilization
- Guardrail improvements
- Centerline rumble stripe installation
- Intersection layout improvements
- Signage updates and/or improvements

ASSET & SAFETY IMPROVEMENTS

Scope: This project is a 8.3 mile concrete slab removal project on US Route 2 in Richmond and Bolton. In addition to improving the roadway surface, work included the installation of drainage improvement, signage, traffic signal improvements, and shoulder improvements.

Construction Cost Est: \$20.45 Million (\$2.5 Million / Mile)

Project Status: Construction of this project began in the Summer of 2022 and is expected to be completed in Summer of 2024.



RICHMOND-BOLTON STP 2924(1) – US ROUTE 2

FY 2025 PAVING PROGRAM

- Appropriation of \$130.14 million
- Decrease of \$11.57 million compared to the FY 2024 Paving Program budget
- Includes three primary project phases
 - Preliminary Engineering (design activities)
 - Right-of-Way (acquisition of property and/or easements)
 - Construction
- Budget will fund construction of 46 paving projects, and will fund the preliminary engineering and/or right-of-way acquisition on an additional 32 projects

138 Miles to be paved on the Interstate, State, and Class I system

65	Miles to be paved under Federal and District leveling /mill and fill on the State system
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*Anticipated mileage noted above is associated with calendar year 2024

19 V.S.A. 10g(g)(1) Report compiles projects that have been added to the program subsequent to the FY24 program

These projects were primarily programmed due to the current condition of the asset

- BARTON STP PC26(2) – VT Route 58, VT Route 16, US Route 5
- MIDDLEBURY-RIPTON DLEV2305 – VT Route 125
- MILTON-ST. ALBANS TOWN IM 089-3(83) – Interstate 89
- RANDOLPH STP PC26(3) – VT Route 66, VT Route 12, VT Route 12A
- WILLIAMSTOWN DLEV2309 – VT Route 64
- WOLCOTT-HARDWICK DLEV2310 – VT Route 15

19 V.S.A. 10g(g)(1) REPORT SUMMARY

19 V.S.A. 10g(g)(2) Report compiles projects that have increased by more than \$8,000,000 or by more than 100% compared to the FY24 estimate

- COLCHESTER-ESSEX NH PS24(11) – VT Route 15 – Increase by more than 100% (\$1,765,748 - \$4,057,022)–Project is a 1.95 mile mill and fill project in an urban environment. Based on the price variation and width of roadway (four travel lanes) on this project the previous project construction cost estimates were underestimated and has been updated to reflect current bid trends.
- EAST MONTPELIER-HARDWICK STP PS24(5) – VT Route 14 – Increase by more than \$8 million (\$25,994,325 - \$40,043,859) Project is an 18.92 mile reclaim project. Based on the price variation on this project type the project construction cost estimate has been updated to reflect current bidding trends.
- KILLINGTON-STOCKBRIDGE ER STP 022-1(25) – VT Route 100 – Increase by more than \$8 million (\$18,704,677 - \$27,211,568) Project is a 10.69 mile reclaim project. Based on the price variation on this project type the project construction cost estimate has been updated to reflect current bidding trends.
- RYEGATE-ST. JOHNSBURY STP FPAV(65) – US Route 5 – Increase by more than 100% (\$2,574,300 - \$7,716,768) Project is a 19.39 mile federal leveling / mill and fill project. The previous project construction cost estimates were underestimated considering the project length

19 V.S.A. 10g(g)(2) REPORT SUMMARY

19 V.S.A. 10g(g)(3) Report compiles projects that were funded for construction in the FY24 program and are no longer funded for construction in the FY25 program

All projects that are listed on this report have completed construction or will be complete by the end of the current fiscal year.

- BARTON-COVENTRY STP FPAV(63) – US Route 5
- BARTON-DERBY IM SURF(71) – Interstate 91
- BRATTLEBORO-NEWFANE STP 2940(1) – VT Route 30
- BRIGHTON-FERDINAND STP FPAV(81) – VT Route 105
- BROOKFIELD-MONTPELIER IM 089-1(69) – Interstate 89
- BURLINGTON NH PC22(1) – US Route 2, US Route 7
- CHARLOTTE-SOUTH BURLINGTON NH PS22(2) – US Route 7
- FERDINAND-BLOOMFIELD STP FPAV(67) – VT Route 105
- LYNDON-BARTON IM 091-3(55) – Interstate 91
- MONTPELIER NH PC24(2) – US Route 2
- MONTPELIER STP PC24(3) – US Route 302
- PEACHAM-MARSHFIELD STP FPAV(78) – VT Route 232
- STOCKBRIDGE-BETHEL STP SURF(79) – VT Route 107
- WESTMINSTER-SPRINGFIELD IM 091-1(86) – Interstate 91
- WILMINGTON-BRATTLEBORO NH 2971(1) – VT Route 9

19 V.S.A. 10g(g)(3) REPORT SUMMARY