

# VT Agency of Transportation: Highway Safety & Design Section FY 2021 Paving Program Budget

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Senate Transportation Committee – January 23, 2020

Presented by:

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# Paving Program General Overview

JANUARY 23, 2020

VT AGENCY OF TRANSPORTATION – HIGHWAY SAFETY & DESIGN SECTION  
FY2021 PAVING PROGRAM BUDGET





# VTrans' mission is to provide for the safe and efficient movement of people and goods:

- 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 seven 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:

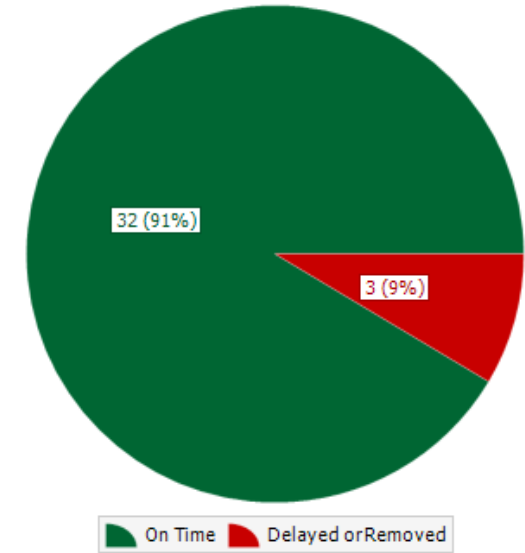
- **Fiscal responsibility:** *oversight of individual project and program budgets*
- **Customer Service:** *point of contact throughout a project's development*
- **Quality:** *ensure that the design meet's the intent of the project*
- **Schedule:** *on time delivery of a project*

# 2019 PAVING PROGRAM ACCOMPLISHMENTS

- The pavement design group advertised 33 projects for construction
- Of the projects anticipated to be advertised in 2019, 91% were advertised within 30 days of their targeted advertisement date.
- In addition the pavement design group advertised one unplanned resurfacing project.

**Goal: 80% within 30 days**  
 Current Content on Display: Advertisement (110.02), Paving, Contract Admin, 01/01/2020 vs 01/01/2019.

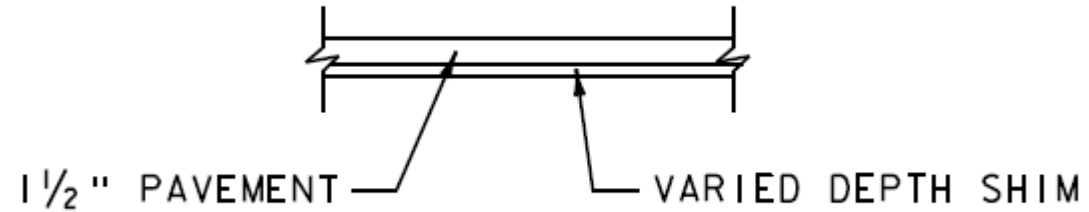
Year End



	Program	On-Time	Delayed	% On - Time
➔	Paving	32	3	91%

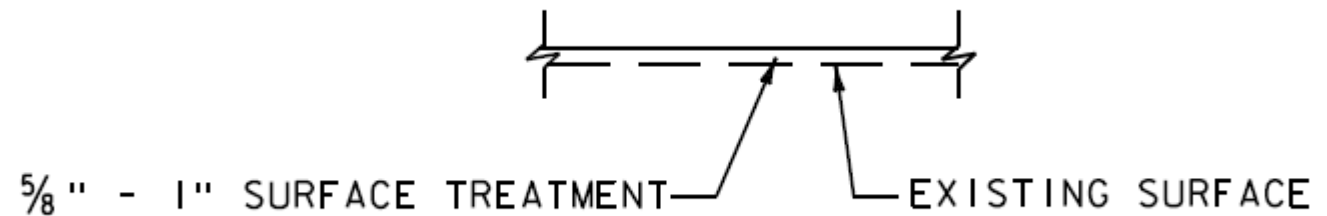


# PAVEMENT TREATMENTS



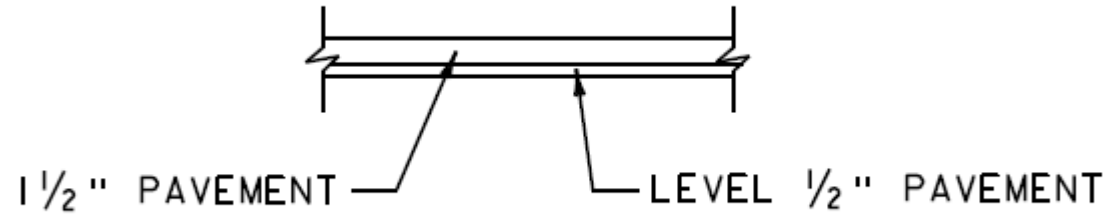
**District Leveling:** \$100,000 - \$125,000 per mile

**Federal Leveling:** \$200,000 - \$250,000 per mile

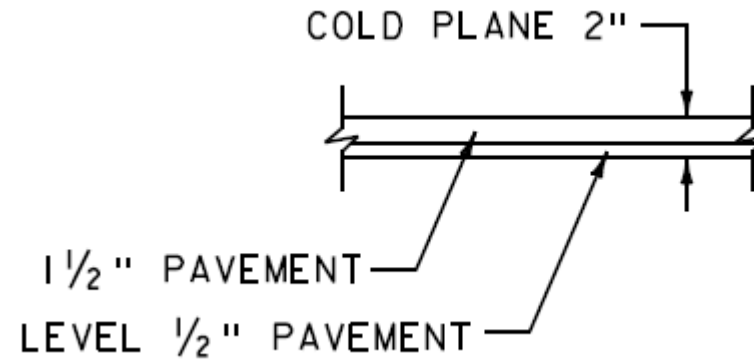


**Preventative Maintenance:** \$150,000 - \$250,000 per mile

# PAVEMENT TREATMENTS



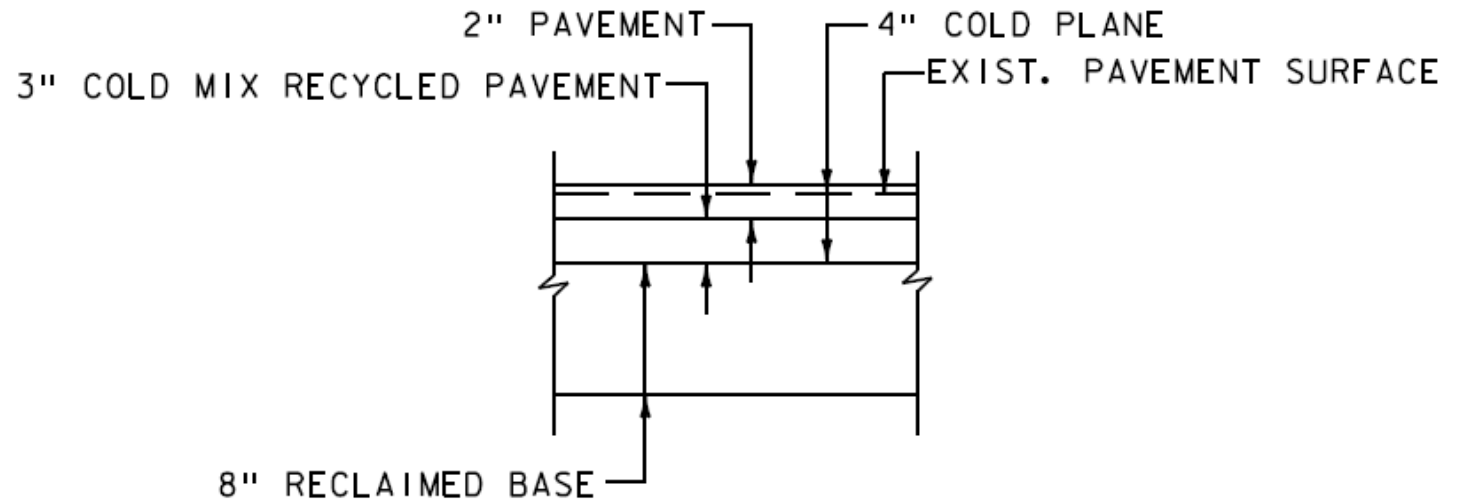
Level & Overlay: \$300,000 - \$400,000 per mile



Mill & Fill (State System): \$400,000 - \$500,000 per mile

Mill & Fill (Class I TH): \$750,000 - \$1,250,000 per mile

# PAVEMENT TREATMENTS



**Reclaim: \$1,000,000 - \$1,500,000 per mile**





- Focus is on maintaining and improving existing infrastructure
- Promote flexibility in design and context sensitive solutions
- Understand the needs of users
  - Safety
  - Mobility
  - Use
  - Connectivity
  - Quality of life
- Understand project constraints
  - Cost
  - Environmental Impacts
  - Acquisition of ROW
  - Time
  - Define project elements that meet project scope, schedule, and need.

## CONSTRUCTION OF A NEW ROAD IS RARE



# PAVEMENT CONDITION / SHOULDER IMPROVEMENTS

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FY2021 PAVING PROGRAM BUDGET







# MODIFIED SIGNAGE AND PAVEMENT MARKINGS

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# MODIFIED ROADWAY LAYOUT / ROAD DIETS

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FY2021 PAVING PROGRAM BUDGET





- Culvert replacement
- Slope stabilization
- Guardrail improvements
- Centerline rumble stripe installation
- Intersection layout improvements
- Signage updates and/or improvements

## ASSET & SAFETY IMPROVEMENTS



# FY 2021 PAVING PROGRAM

- Appropriation of \$100 million
- Decrease of \$700,000 compared to the FY 2020 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 39 projects, and will fund the preliminary engineering and/or right-of-way acquisition on an additional 32 projects

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153	Miles to be paved on the Interstate, State, and Class I system
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49	Miles to be paved under Federal and District leveling on the State system
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**Scope:** This project is a 9 mile “reclaim” project on VT Route 131 between Cavendish and Weathersfield. In addition to improving the roadway surface, work will include culvert replacement, ledge/slope stabilization, and centerline rumble stripe installation.

**Construction Cost Est:** \$16.3 Million

**Project Status:** Project is anticipated to be advertised for construction in winter of 2020, with primary construction activities occurring in calendar years 2020 and 2021.



**SLOPE STABILIZATION SITE**



**VT ROUTE 131 EXISTING CONDITION**

## CAVENDISH-WEATHERSFIELD ER STP 0146(14) – VT ROUTE 131

# 19 V.S.A. 10g(g)(1) Report compiles projects that have been added to the program subsequent to the FY20 program

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

- BARRE TOWN-ORANGE STP PS23(1) – US302
- BROOKFIELD-MONTPELIER IM SURF(67) – I-89 SB
- CAMBRIDGE STP PS24(6) – VT 108
- CASTLETON STP PC25(1) – VT 4A
- CHARLOTTE-S. BURLINGTON NH PS22(2) – US 7
- CRAFTSBURY-IRASBURG STP FPAV(32) – VT 14
- EAST MONTPELIER-HARDWICK STP PS24(5) – VT 14
- EAST MONTPELIER-MARSHFIELD NH PS22(1) – US 2
- EDEN STP FPAV(29) – VT 118
- FAIR HAVEN STP PC25(2) – VT 4A
- FAYSTON STP FPAV(33) – VT 17
- GROTON-PEACHAM STP FPAV(35) – VT 232
- HARDWICK STP PC23(1) – VT 14, VT 15
- HARTFORD NH PS24(3) – US 5
- HARTFORD STP PS24(2) – US 5
- HARTFORD-SHARON IM SURF(65) – I 89 NB
- HARTFORD-SHARON IM SURF(66) – I 89 SB
- LUDLOW NH PC25(4) – VT 103
- LUDLOW STP PC25(3) – VT 100
- MIDDLESEX-WORCESTER STP PS24(4) – VT 12
- MONTPELIER NH PC24(2) – US 2
- MONTPELIER STP PC24(3) – US 302
- NORTHFIELD-BERLIN STP PS24(1) – VT 12
- NORWICH-THETFORD STP FPAV(30) – US 5
- RUTLAND CITY NH PC24(1) – US 4, US 7, BUS 4
- SWANTON-HIGHGATE STP PS22(3) – US 7
- WATERBURY STP PC20(5) – US 2
- WHITINGHAM STP FPAV(34) – VT 100
- WINDSOR-HARTLAND STP FPAV(31) – US 5

## 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% from the estimate in the FY20 program

- BRISTOL-STARKSBORO STP FPAV(19) – This project consists of the resurfacing of VT Route 17 between Bristol and Starksboro (approximately 4 miles).
- The initial total estimate included within the FY20 budget was \$406,000, which consisted of \$30,000 in preliminary engineering and \$376,000 in construction. This was an initial estimate that was underestimated, and has since been updated to reflect the proposed design and the experience that has been gained with similar projects. Additionally, the proposed treatment was modified as the design progressed, resulting in a higher project cost than initially anticipated. The new estimate of total cost is \$1,456,317, which consists of \$29,781 in preliminary engineering and \$1,426,536 in construction. This project was substantially completed in calendar year 2019.

## 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 FY20 program and are no longer funded for construction in the FY21 program

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

- BETHEL-ROYALTON STP 2964(1) – VT 107
- BRANDON-GOSHEN ER STP 0162(22) – VT ROUTE 73
- BRIGHTON STP PC19(1) – VT 114, VT 105
- BRISTOL-STARKSBORO STP FPAV(19) – VT 17
- BURKE-NEWARK STP FPAV(17) – VT 5A
- CRAFTSBURY STP FPAV(24) – VT 14
- ESSEX NH 2931(2) – VT 117
- ESSEX-UNDERHILL STP PS19(6) – VT 15
- JAMAICA-WINHALL STP 2904(1) – VT 30
- JERICHO-RICHMOND STP 2931(1) – VT 117
- MANCHESTER-PERU STP 2708(1) – VT 11
- MORRISTOWN STP PC19(3) – VT 15A, VT 12, VT 100
- MORRISTOWN-WOLCOTT STP FPAV(22) – VT 15
- PITTSFORD STP 2968(1) – VT 3
- POULTNEY STP PC19(4) – VT 30, VT 31
- POULTNEY-CASTLETON STP FPAV(25) – VT 30
- ROYALTON-TUNBRIDGE STP 2967(1) – VT 110
- RUTLAND-PITTSFORD NH 2963(1) – US 7
- SPRINGFIELD STP FPAV(20) – VT 11 (WORK TO BE INCLUDED IN COMPANION PROJ.)
- SPRINGFIELD-HARTLAND IM SURF(62) – I 91 NB
- STAMFORD STP FPAV(23) – VT 100
- WATERBURY-RICHMOND IM SURF(58) – I 89 NB & SB
- WATERBURY-STOWE STP 2945(1) – VT 100
- WHEELOCK-SHEFFIELD STP FPAV(21) – VT 122
- WILLISTON STP FPAV(10) – US 2
- WINHALL ST 2974(1) – WINHALL ST. HIGHWAY

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