



# Exit 16 DDI

Diverging Diamond Interchange

**Sunderland Woods  
Homeowner's Association  
March 18, 2020**

# Today's Overview

- Project Scope
- See it in Action!
- Project Status/Schedule
- Special Finale!



US Routes 2/7 Looking North in 1961-2.

# Scope: US Routes 2/7 – Roosevelt Highway



US Routes 2/7 Corridor – 1.05 miles

Includes:

- South Park Drive/Highpoint Ctr.
- I-89 Exit 16
- Mountain View/Lwr. Mtn. View Drives
- Hercules Drive
- Rathe Road/Champlain Drive
- Sunderland Woods Road
- Tigan Street (Winooski):
  - Traffic Signal Only

# Roosevelt Highway's Problems

- **Safety Issues**
  - 2012-2016: 109 Crashes (3<sup>rd</sup> highest in VT for Injuries, 8<sup>th</sup> highest in VT for #)
- **Traffic Capacity Issues**
  - LOS (Delay) deficiencies at Mt. View and Exit 16 Ramps
  - Heavy Left Turn Movements at Exit 16 Ramps
- **Lack of Multi-Modal Facilities**
- **Lack of Stormwater Treatment**
- **Buried and Aerial Utilities**
  - Starting to become messy
- **Interchange Bridges' Condition**
  - Good; Does not need replacing

# Colchester HES NH 5600(14) Scope

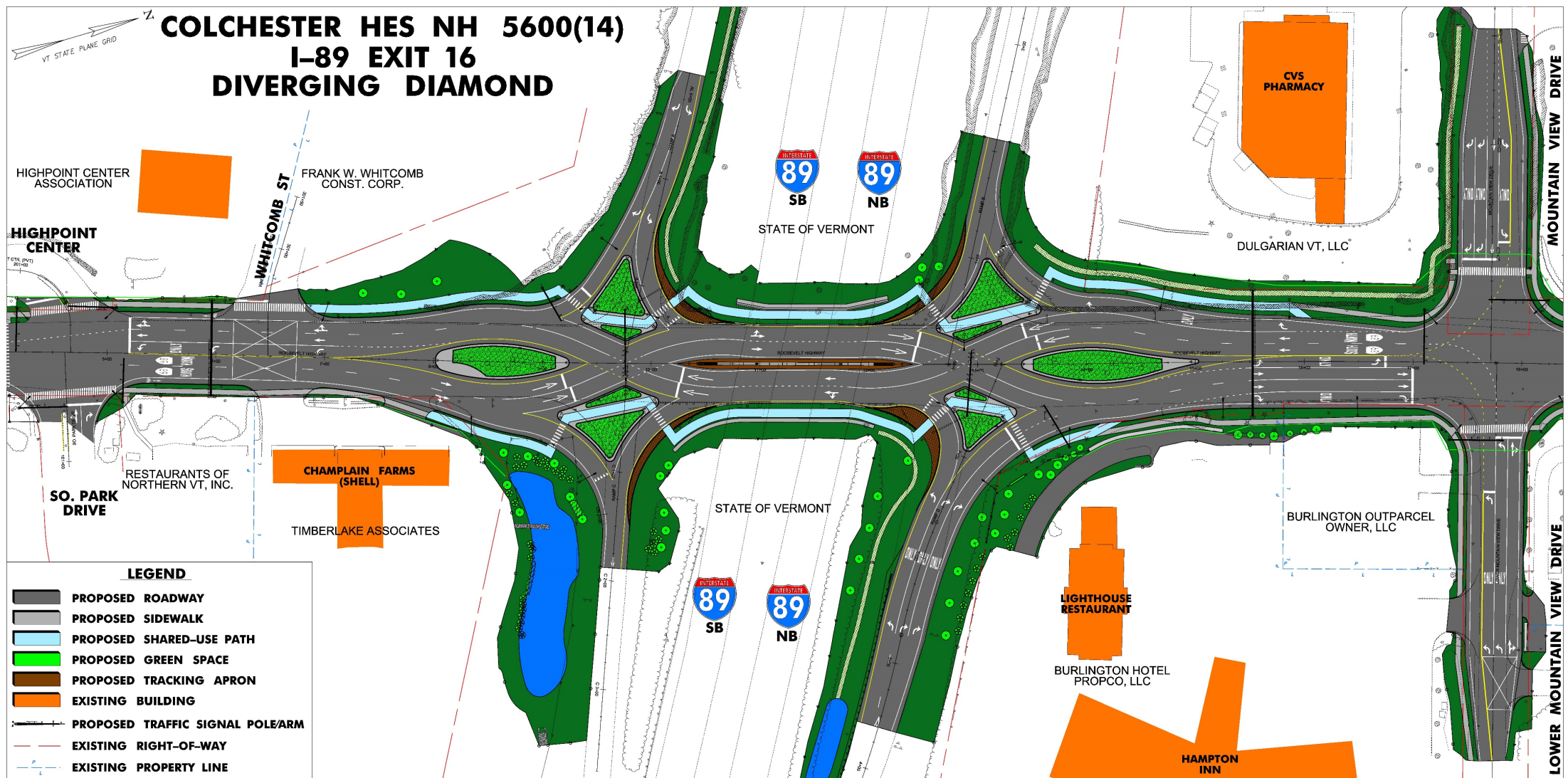
- Stormwater Treatment Infrastructure
  - 3 Ponds
  - 8 Grass Channels
- Roadway Banking Corrections
- New:
  - Signs
  - Pavement Markings
  - Traffic Signals
  - Roadway Drainage
- Reconfigured I-89 Exit 16 Interchange → **DDI**



# I-89 Exit 16 Reconfiguration



# I-89 Exit 16 Reconfiguration



# I-89 Exit 16 Diverging Diamond Interchange



# Colchester HES NH 5600(14) Benefits

In over 100 Diverging Diamond Interchanges in the U.S., states have experienced:

- Over 60% reduction in crashes
- Over 50 % increase in vehicular throughput
- Sarasota, Florida
  - Built their DDI at I-75 @ University Parkway
  - 5 x 5 DDI
  - In the first year since opening:
    - -50% crashes
    - -40 travel time delay
- Testament: 29 DDIs currently under construction; another 140 planned!  
(Including 3 in Alaska!)

# DDI Traffic Flow (1:05)



**Exit 16 DDI**  
Diverging Diamond Interchange

# DDI Traffic Flow



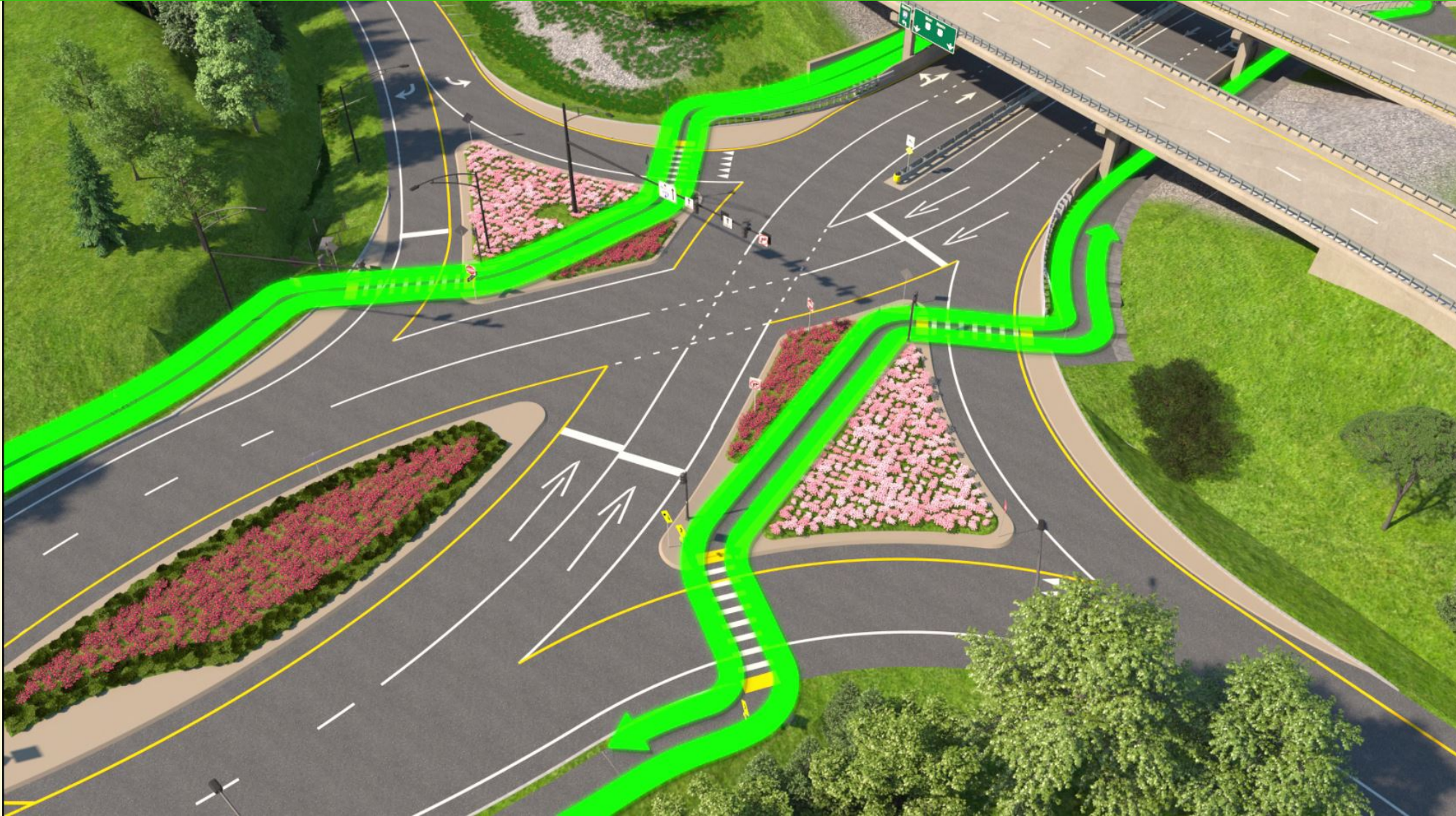
**Exit 16 DDI**  
Diverging Diamond Interchange

# DDI Traffic Flow



**Exit 16 DDI**  
Diverging Diamond Interchange

# Bicycles and Pedestrian Flow



**Exit 16 DDI**  
Diverging Diamond Interchange

# Robust Pavement Markings



**Exit 16 DDI**  
Diverging Diamond Interchange

# The Winooski Circulator...



## “People Can’t Figure Out the Winooski Circulator...”

### Circulator

- Yield Conditions
- Higher Speeds, straightaways
- Sight Distance, Grade
- Weird Side Streets, Parking Areas
- Ped Crossings are at unexpected locations

**Summary: There’s a lot of decisions to make and lot of obstacles to be mindful of at the Circulator.**

### DDI

- Traffic Signal
  - Stop-Go-Stop-Go
  - No Choices/Decisions to make
- Focused Sight Distance, No Grade
- No Side Streets or Parking
- Ped Crossings are at predictable locations

**Summary: More fluid, less decisions to process.**



**Exit 16 DDI**  
Diverging Diamond Interchange

# Project Status

- Final Plans Approved – 17 April 2020
- ROW Acquisitions Completed – 01 May 2021
- Bid Advertisement – 01 May 2021
- Contract Award – 15 June 2021
- Potential Groundbreaking – July 2021

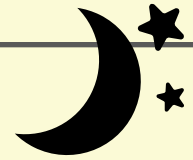


# Project Construction

- 1<sup>st</sup> Construction Season
  - Utility Relocation
    - Buried Waterline
    - Buried Telecommunication Duct
    - Aerial Electric and Telecommunications
    - Buried Gas Lines
  - Potential Ledge Removal\*
  - Potential Stormwater and Drainage Infrastructure

\*Ledge Removal will be required to be done during the day.

Night Work = 7:00 PM – 6:00 AM



Daytime roadway work will NOT be allowed; all traffic lanes must be open by **6:00 AM**

**VTrans construction staff reserves the right to modify how traffic flows and is managed based on real-time conditions.**



**Exit 16 DDI**  
Diverging Diamond Interchange

# Project Construction

## ■ 2<sup>nd</sup> Construction Season

- Roadway Work
- Drive accesses will be open

- If a drive needs to be temporarily closed short-term, an alternate ingress/egress will be provided

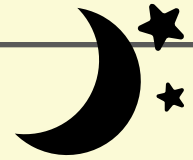
## ■ Night-time noise

- The contractor will be required to under utilize noise reduction mitigation measures. *FHWA Construction Noise Handbook.*

## ■ 3<sup>rd</sup> Construction Season (if needed)

- Landscaping, Clean-up

Night Work = 7:00 PM – 6:00 AM



Daytime roadway work will NOT be allowed; all traffic lanes must be open by **6:00 AM**



# Public Outreach



## Stakeholders



**Colchester**  
VERMONT



CITY OF  
**WINOOSKI**  
VERMONT



**Exit 16 DDI**  
Diverging Diamond Interchange

# Public Outreach



## Information

- Project Scope
- Project Timeline & Schedule
- Construction Activities

## Education

- Animations
- Videos
- Narratives
- Driving Simulator

**Public Meetings, Event Booths, Website, Phone Hotline**



**Exit 16 DDI**  
Diverging Diamond Interchange

# Follow VTrans on Social Media



**Facebook:** @VtransOnTheRoad

**Twitter:** @AOTVermont

**Instagram:** @AOTVermont

**YouTube:** VTransTV

**Flickr:** VTrans



**Exit 16 DDI**  
Diverging Diamond Interchange

# Questions?



**Exit 16 DDI**

Diverging Diamond Interchange

# Stay Involved



**Visit the project website:**

[www.Exit16DDI.Vtransprojects.Vermont.gov](http://www.Exit16DDI.Vtransprojects.Vermont.gov)



**Email Us:**

[info@Exit16DDI.VTransprojects.Vermont.gov](mailto:info@Exit16DDI.VTransprojects.Vermont.gov)



**Call Our 24-Hour Project Hotline:**

802-595-4399



**Exit 16 DDI**  
Diverging Diamond Interchange