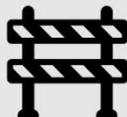




Exit 16 DDI

Diverging Diamond Interchange



CONSTRUCTION

January 9, 2023

Winooski Public Meeting



Today's Overview

- Project Scope
- Project Status/Schedule
- Project Construction





Colchester HES NH 5600(14) Scope

US Route 2/7 Corridor – 1.05 miles
Including:

- 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
 - Part of the Main St. Revitalization Project

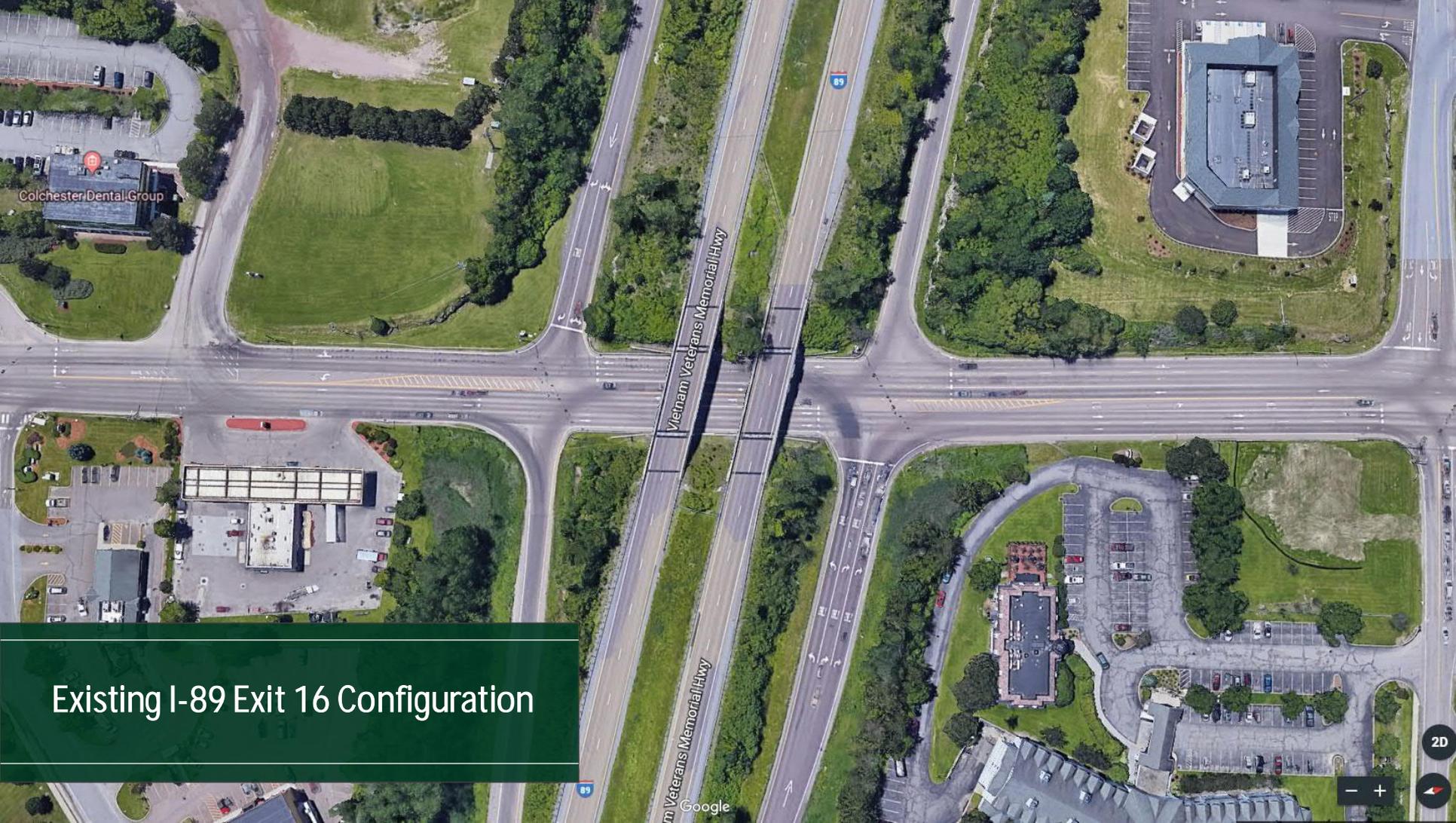




Colchester HES NH 5600(14) Scope

- 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





Colchester Dental Group

Vietnam Veterans Memorial Hwy

Vietnam Veterans Memorial Hwy

Google

Existing I-89 Exit 16 Configuration

2D

- +



COLCHESTER HES NH 5600(14) I-89 EXIT 16 DIVERGING DIAMOND



I-89 Exit 16 Re-configuration



I-89 Exit 16 Diverging Diamond Interchange

DDI Benefits

In over 117 Diverging Diamond Interchanges in the US, states have experienced:

- Over 37% reduction in crashes, injurious/fatal by 54%
- Over 50% increase in vehicular throughput

How a DDI performs efficiently:

- Eliminates signalized left turn movements for vehicles.
- Left turning movements Yield Condition allows movements during conflicting traffic phases.

Testament: 37 DDIs currently under construction; another 157 planned!



DDI Traffic Flow (1:05)



Bicycle and Pedestrian Flow (0:07)

DDIs in the Wintertime

- Of the 117 DDIs active in the US & Canada, 68 are built in areas where snow is expected annually (58%).
- Snow plowing happens normally.
- For some plow routes, use of the U-Turn on the Interstate will no longer be necessary.
- VTrans has discussed winter maintenance with Utah officials and concurred that the states share similar roadway clearing techniques.





Robust Pavement Markings



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



Circulator

- Yield conditions
- Higher speeds, straightaways
- Sight distance, grade
- Awkward side streets & parking areas
- Pedestrian crossings at unexpected locations

DDI

- Traffic signal
- Stop-Go-Stop-Go, no choices/decisions to make
- Focus sight distance, no grade
- No side streets or parking
- Pedestrian crossings at predictable locations



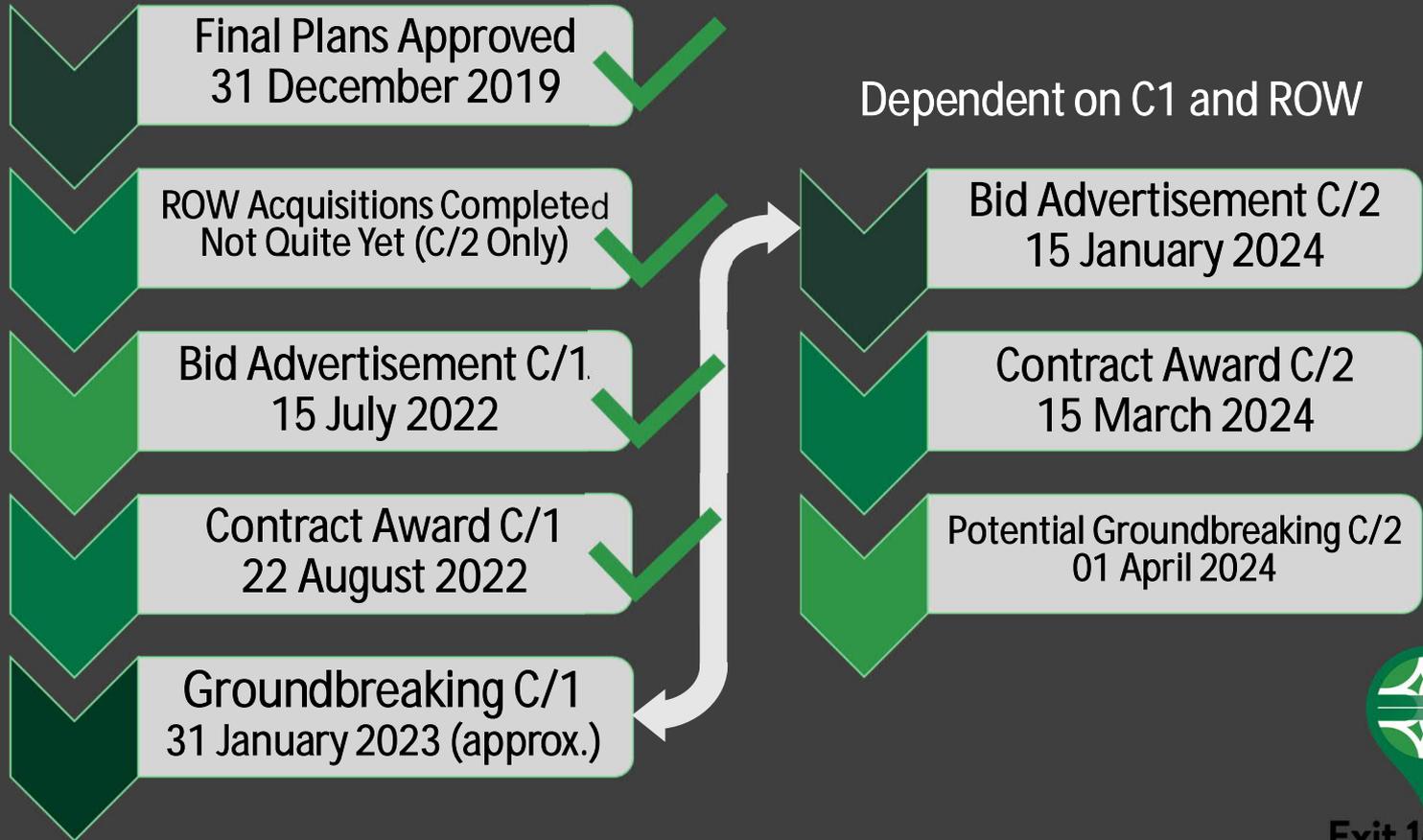
Summary

- Higher speeds, straightaways

Summary

- More fluid, less decisions to process

Project Status



Project Construction: 2 Construction Phases (2023-2026)

Night Work = 7:00 PM – 6:00 AM



Daytime roadway work will be restricted to one lane only. There may be multiple lane closures at night.

1st Phase – “Contract 1” or “C/1” (2023)

2nd Phase – “Contract 2” or “C/2” (2024-2026)

- Breakout required because buried infrastructure needs to be relocation prior to roadway surface work.
- It also makes construction more efficient later because the interchange contractor will not have work around or negotiate with the existing utilities (companies and transmissions/services).

Project Construction: 2nd Construction Contract (2024-2026)

Night Work = 7:00 PM – 6:00 AM



Daytime roadway work will be restricted to one lane only. There may be multiple lane closures at night.

- DDI, Roadway, Sidewalks, Signals, Signing, Landscaping 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 utilize noise reduction mitigation measures. FHWA Construction Noise Handbook.

Project Construction: 1st Construction Contract (2023)

Night Work = 7:00 PM – 6:00 AM



Daytime roadway work will be restricted to one lane only. There may be multiple lane closures at night.

- Retaining Walls (Feb-Apr)
 - Can be constructed during the day (outside of traffic)
 - Probably one construction crew
- Utility Relocation (Apr-Sep)
 - Buried Waterline
 - Buried Telecommunication Duct
 - Buried Gas Lines
 - Probably two construction crews
- Ledge Removal (Feb-Aug)
 - Blasting is only allowed during the day

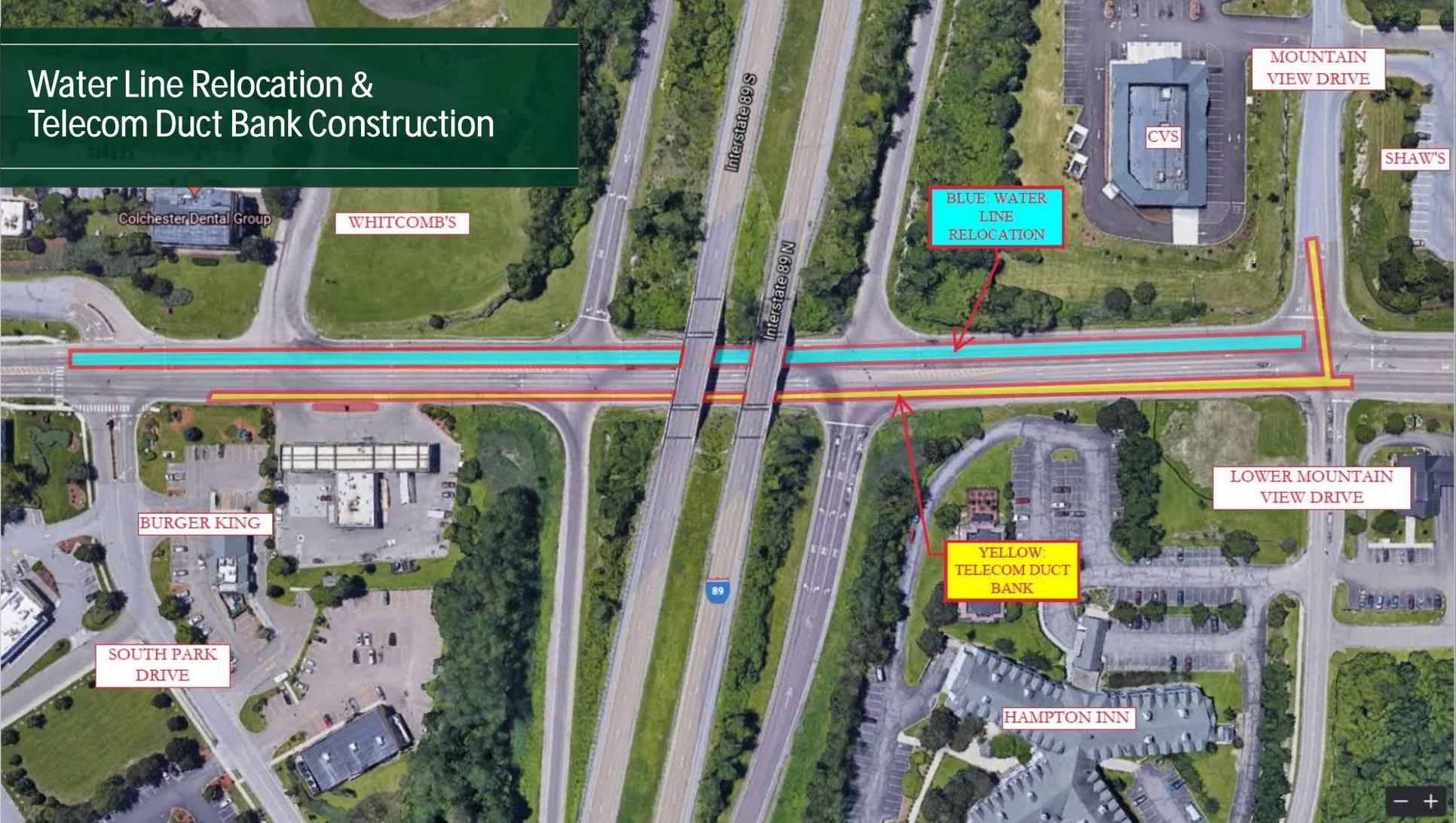
VTrans' construction staff reserves the right to modify how traffic flows and is managed based on real-time conditions.

Retaining Wall Construction

This will allow pedestrians safe passage outside of the roadway and keep them separated from Contract 2 work zone.



Water Line Relocation & Telecom Duct Bank Construction



MOUNTAIN VIEW DRIVE

SHAW'S

CVS

BLUE WATER LINE RELOCATION

WHITCOMB'S

Colchester Dental Group

LOWER MOUNTAIN VIEW DRIVE

YELLOW TELECOM DUCT BANK

BURGER KING

HAMPTON INN

SOUTH PARK DRIVE

89



Blasting Activities

Blasting is restricted to weekdays during non-peak hours.



- Underground utility relocation will require blasting due to deep relocations and shallow bedrock
- Blasting is anticipated between Mountain View Drive and South Park Drive
- Blasting will include a series of small, controlled explosions that are contained underground
- Proper warning and safety measures will be in place including:
 - Pre-blasting surveys
 - Audible warning signals
 - Rolling roadblocks

Blasting Warning
Signals

Three Whistles
5 minutes to blast

Two Whistles
1 minute to blast

One Whistle
All clear

Contract 1 Contractor



S.D. Ireland Brothers, Inc.
General Contractor/Site Work
Matt Wheeler, PM
Kurt Hutchins, APM



Maine Drilling & Blasting
Subcontractor/Ledge Removal

Public Outreach - Organization



Public Information Consultant
Megan Savage, Communications and Public Involvement Manager
Annabelle Dally, Senior Communications and Public Involvement Consultant



Stakeholders

Who are stakeholders?
Users. Residents. Businesses



Municipalities

Winooski Primary Point of Contact:
Paul Sarne, Communications Manager

Public Outreach - Scope



Information

- Project Scope
- Project Timeline & Schedule
- Construction Activities
- Traffic Updates
- Incident Management

Education

- Animations
- Videos
- Narratives
- Driving Simulator

Public Meetings, Event Booths, Website, Phone Hotline

Public Outreach – Project Communications

- Email Notifications
 - Project Information Meeting Announcements (min. of two weeks in advance)
 - Construction Updates (Weekly or As-Needed)
 - Traffic Alerts (As-Needed: Critical)
 - Public Feedback Surveys
- AOT Road Construction Report
- On-The-Road Messaging
 - Changeable Message Boards
 - US Route 7 Project Boards
 - I-89 Permanent Boards
- Social Media Feeds
 - VTrans
 - Facebook
 - Twitter
 - 511
 - CCRPC
 - Traffic Website
 - Front Page Forum

The collage features three main items:

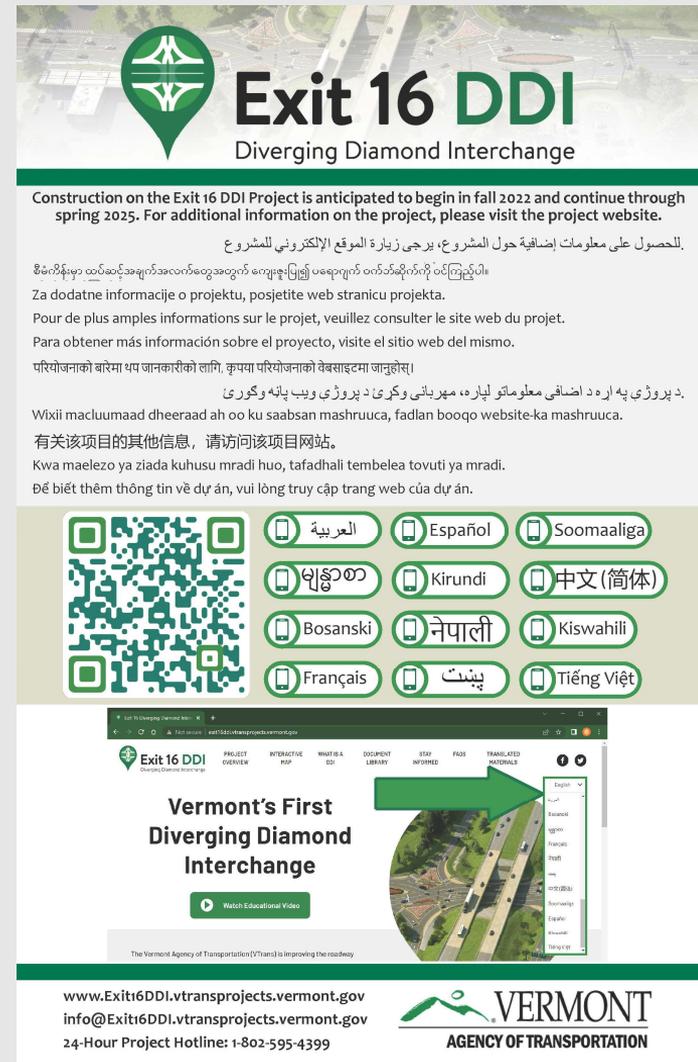
- Top Right:** A flyer for the "Exit 16 DDI Diverging Diamond Interchange Construction Public Meeting" on Thursday, January 12, 2023, at 6:30 PM. It includes the Vermont Agency of Transportation logo and a green checkmark icon.
- Center:** A screenshot of the "Exit 16 DDI news & updates" website. The page has a green header with the Vermont Agency of Transportation logo and the text "Exit 16 DDI news & updates Winter 2022-2023". It contains a "Table of Contents" with links to "Happy Holidays", "Safe Winter Driving Tips", "Winter Operations in a DDI", "Project Updates", "Interactive Map", "Translated Materials", "Frequently Asked Questions", and "Resources". A "Happy Holidays!" section features a snowflake image and text about the holiday season. A "Safe Winter Driving Tips" section includes an image of a truck with lights and a link to a resource.
- Bottom Right:** A social media-style post for the "Construction Public Meeting" on Thursday, January 12, 2023, at 6:30 PM. It provides contact information for in-person attendance at the Chester Meeting House and details for remote attendance via Zoom and Webinar.

Public Outreach

Multilingual Communications

- Arabic
- Bosnian/Serbian/Croatian
- Burmese
- French
- Kirundi
- Nepali
- Somali (Mai Mai)
- Spanish
- Swahili
- Pashto – **New!**

The Exit 16 DDI team continues to collaborate with City of Winooski and the Winooski School District to identify, manage, and coordinate communications with residents/users where English is not their primary language or written form of communication.



Exit 16 DDI
Diverging Diamond Interchange

Construction on the Exit 16 DDI Project is anticipated to begin in fall 2022 and continue through spring 2025. For additional information on the project, please visit the project website.

الحصول على معلومات إضافية حول المشروع، يرجى زيارة الموقع الإلكتروني للمشروع.

Để biết thêm thông tin về dự án, vui lòng truy cập trang web của dự án.

Para obtener más información sobre el proyecto, visite el sitio web del mismo.

有关该项目的其他信息，请访问该项目网站。

Wixii macluumaad dheeraad ah oo ku saabsan mashruuca, faadlan booqo website-ka mashruuca.

有关该项目的其他信息，请访问该项目网站。

Kwa maelezo ya ziada kuhusu mradi huo, tafadhali tembelea tovuti ya mradi.

Để biết thêm thông tin về dự án, vui lòng truy cập trang web của dự án.

العربية | Español | Soomaaliga | Kirundi | 中文(简体) | Bosanski | नेपाली | Kiswahili | Français | پښت | Tiếng Việt

Vermont's First Diverging Diamond Interchange

Watch Educational Video

The Vermont Agency of Transportation (VTTRANS) is improving the roadway

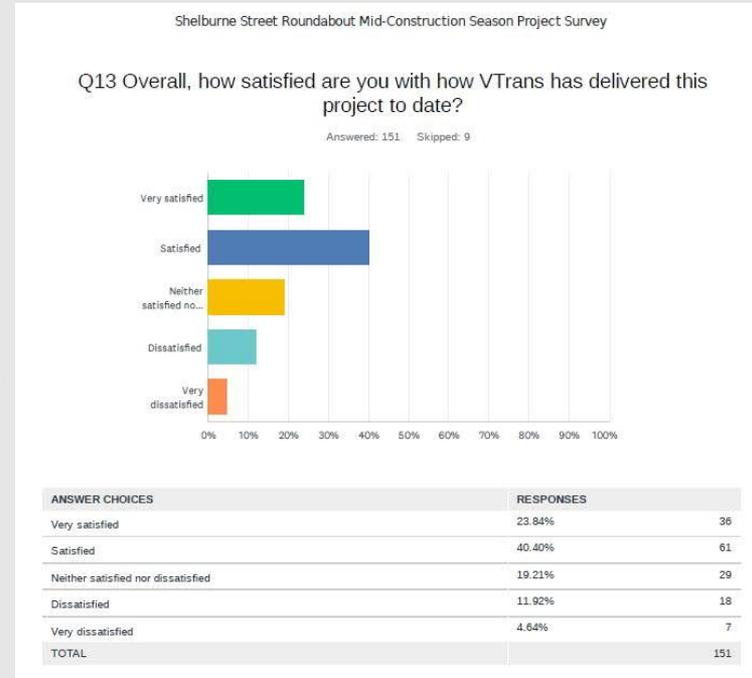
www.Exit6DDI.vtrprojects.vermont.gov
info@Exit6DDI.vtrprojects.vermont.gov
24-Hour Project Hotline: 1-802-595-4399

VERMONT
AGENCY OF TRANSPORTATION

Public Outreach - Case Study

Burlington: Shelburne Street Roundabout

- Conducted after 1st Construction Season
- Asked 21 Questions:
 - Rating Impacts to Traffic
 - Rating Impacts to Businesses and Residences
 - Rating Work Zone mobility and signage
 - Rating Project's Outreach Information (i.e. distribution, effectiveness)
- Some Results:
 - Satisfaction on Construction Impacts = 60% (17% dissatisfied)
 - Navigating and understanding the work zone = 87%
 - Biking/Walking through work zone = 76% adequacy
 - Outreach Satisfaction = 76%
 - Opportunities for all survey takers to provide narrative responses



We expect the same exceptional public outreach for the Exit 16 DDI project.



@VTransOnTheRoad



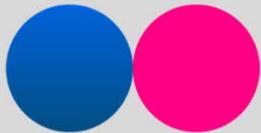
@AOTVermont



@AOTVermont



VTransTV



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Social Media

Questions?



Exit 16 DDI

Diverging Diamond Interchange



Visit the project website:

www.Exit16DDI.VTransProjects.Vermont.gov



Call Our 24-Hour Project Hotline:

802-595-4399



Email Us:

info@Exit16DDI.VTransProjects.Vermont.gov