Project Overview

Burlington’s Southern Gateway

Shelburne St. Roundabout

BURLINGTON, VT.

April 15, 2021
NPA – Ward 5
Welcome to the Rotary!
The “Rotary” (1931:2016)
The “Rotary” (1942:2016)
Identified Issues

• Vehicle Volumes = 19,000 vpd

• High Crash Location
  – In 2006, 53 reported crashes in 5 years
  – In 2016, 50 reported crashes in 5 years
  – Has been on every HCL consecutively since at least 1998 (22 years)

• The “Rotary”
  – Improper size and shape
    • Too small and forces sharp turns
    • Does not discourage fast speeds
  – Improper location
    • Poor sight distance for certain movements
Identified Issues

• Left Turns
  – Comparatively high throughout intersection
  – Awkward movements around island

• Uncontrolled Drive Accesses
  – At Century 21 & at Majestic Car Rental

• High presence of bicyclist and pedestrians
  – School and churches are frequent destinations
  – Children
  – Long existing crosswalks
  – Inadequate number of crosswalks
Identified Issues

- Aging and failing utility infrastructure
- Lack of modern stormwater treatment
- Aesthetically unappealing
  - A sea of pavement
  - Lack of landscaping
  - Not welcoming as a gateway for city
The Solution: The Modern Roundabout
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**The Modern Roundabout**

- Can handle the 19,200 vpd without needing new travel lanes
- Expected crash reduction of up to 35% (75% reduction of injuries)
- Geometry of the roundabout focuses users’ sight lines by revealing and obscuring certain perspectives.
- Left turns become right turns and become more predictable to all users.
- Adjacent drives will be controlled.
- Crosswalks will be shorter in length (crossing only one lane at a time at the splitter islands) and will be in highly visible locations.
- The Central Island will create an opportunity for aesthetic treatments (creating a city gateway).
- Buried utility infrastructure will be relocated and consolidated in duct banks for easy and safe maintenance accessibility
- New stormwater treatment infrastructure meeting the latest regulations.
The Solution:
Vermont’s Modern Roundabouts

- 16 Active Modern Roundabouts
- 5 in Development
- 3 being Studied
- 1 in Construction (SSR)
Challenges to Implementation

No Small Feats

Ledge and Glacial Till

- Borings located at depths of 3’-17’. Several knobs visible at surface throughout.
- Blasting in close proximity of houses and businesses will be a challenge. The bedrock is not conducive to drilling and ripping, so blasting will be necessary.
Challenges to Implementation

No Small Feats

Archaeology

• Phase I and II Archaeology investigations revealed Native American artifacts in the form of stone chips from tool manufacturing.

• A Phase III Arch activity will retrieve some of those artifacts during construction (UVM).
Challenges to Implementation

No Small Feats

Hazardous Materials

- Contaminated Soil and Groundwater
- Conducted Environmental Site Assessment (ESA).
  - 4 Gas Stations at intersection in last 90 years.
    - 2 SMAC’ed by VT DEC
    - 1 Currently being Mitigated (Failing)
    - 1 Site Active (Rotary Mart)
  - Development Soils anticipated
    - Top 6” existing urban soils removed
Challenges to Implementation

No Small Feats

Utilities

• Conducted Subsurface Utility Engineering (SUE) in 2015
  – Performed Quality Level B investigation with Ground Penetrating Radar
  – Performed Quality Level A investigation with potholing at 110 locations (photo)
Challenges to Implementation
No Small Feats

Utilities

- 37,000 ft (~7 miles) of existing utilities
- Some active, some abandoned
  - Gas
  - Water
  - Sewer
  - Storm
  - Electric
  - Telephone
  - Telecom
  - Fiber
  - Cable TV
Challenges to Implementation

No Small Feats

Proposed Utilities

- Utility Duct Bank (Concrete-Encased)
  - As small as 1x3; as large as 4x5
  - New water line
  - Sleeve Existing Sewer Lines (COMPLETED)
  - To keep existing active services on while build new infrastructure.
Challenges to Implementation
No Small Feats

Transportation Management

- Maintain pedestrian and bicycle accommodations through construction
- Detours for certain construction phases
- Restrict Left Turns during construction (for certain phases)
- Potential off-site student pick-up/drop-off locations for school
- Comprehensive Construction Phasing/Sequencing Plan (photo)
Anticipated Construction Impacts
No Small Feats

Ledge/Bedrock
• Shallow in places. Blasting required.
• Blasting Contractor will be available to the public for questioning.

Archaeological
• Excavation of historical artifacts by UVM.

Hazardous Materials
• Excavation of petroleum contaminated soils.
• Dewatering and treating of contaminated groundwater.

Utilities
• Build new buried infrastructure
• Keeping existing services active, there may be minor shut-offs with advanced warning.
• Disconnect and remove services after new services are installed

Transportation Management
• Many construction phases → TBD by Contractor
• Detours & Constant phase changes
• Lane and turning restrictions
• Maintaining driveway, bike, and pedestrian access

How we will engage with the public on these...
Public Outreach
The Importance of Communication

WSP, Inc.

• Hired by VTrans
• In direct communication with VTrans and DPW
• Will be participating in **WEEKLY** meetings with the construction contractor and VTrans construction staff
  – Draft and broadcast traffic impacts
  – Manages Telephone Hotline & Project E-Mail Inbox
    • Take comments from public
    • Responds to questions directly or distributes to appropriate party for response

• **This is the FASTEST** path for information to residents, businesses and commuters. See next slide.
Schedule & Budget

- Contract Award: ~May 1, 2021
- Contractor: S.D. Ireland, Inc.
- Work Begins in June/July 2021 – Schedule: *subject to change*
- 100% Federal Funded (-$171,000 for contamination clean-up: VT Petroleum Cleanup Fund)
- $7,777,777 contractor bid
- Meet S.D. Ireland at the Community Meeting (forthcoming)
  – keep your eyes open for an invite via E-Mail and USPS.
Questions?
Stay Involved

Visit the Project Website:
https://vtrans.vermont.gov/projects/burlington-roundabout

Sign Up Here for E-Mail Notifications on Construction Activities and Traffic Updates

Email Us:
info@shelburnestreetroundabout.com

Call the 24-Hour Project Hotline:
802-496-8956