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Purpose & Need

Stakeholder Team:

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Design/Consultant Team:



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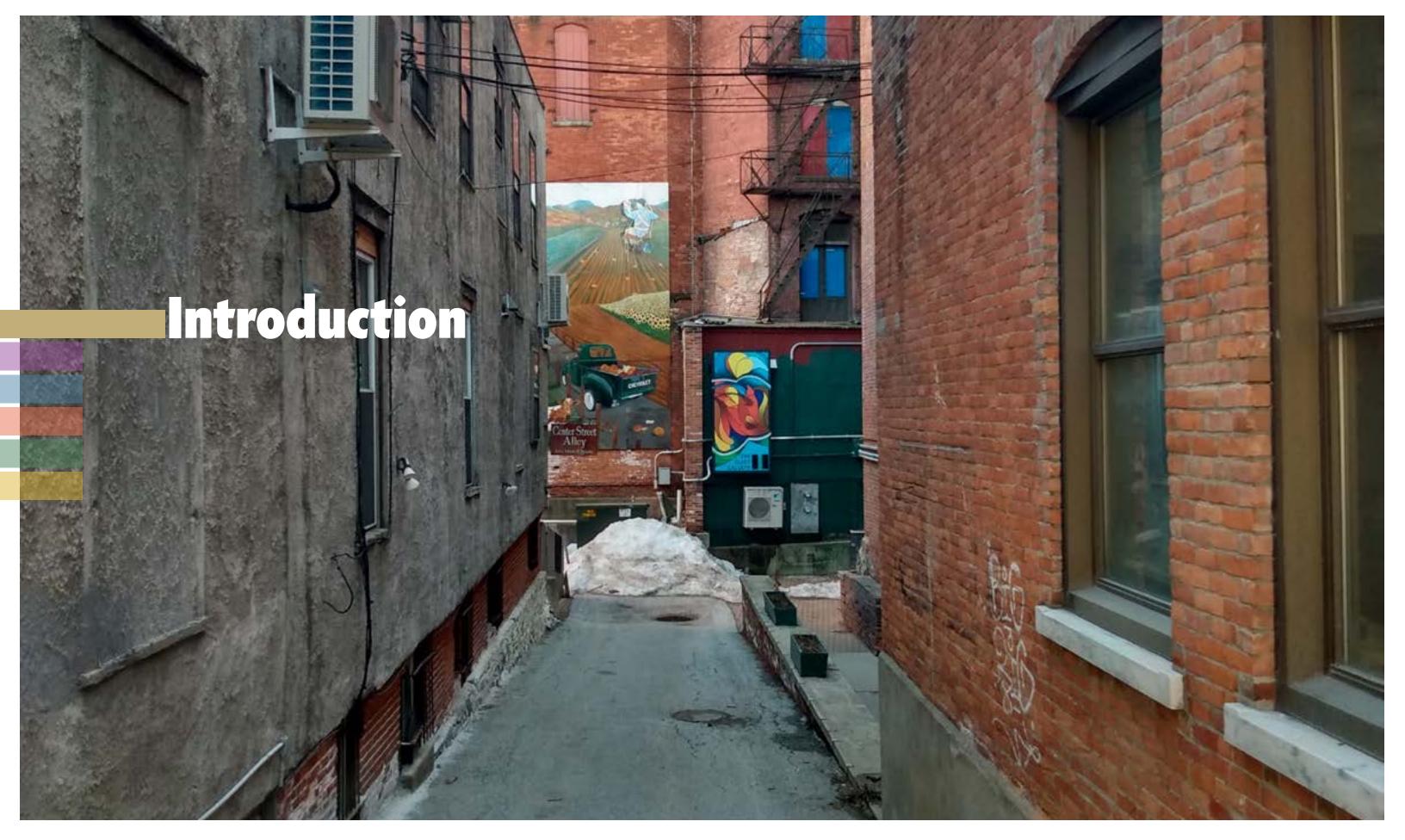














Introduction

This scoping study is the outcome of an extensive planning, community engagement, and design process building towards a vibrant, and successful Center Street in the heart of Downtown Rutland.

This project was made possible with funding through the VTrans Municipal Assistance Bureau, with support from the The Rutland Redevelopment Authority, City of Rutland and the Rutland Regional Planning Commission.

Through a robust public engagement process, and the development of unique design concepts for a renovated future street, this study explores how pedestrian-centric designs could better support Center Street and Downtown Rutland at large by creating a destination street that creates a wonderful place to be, rather than just a street to pass through.

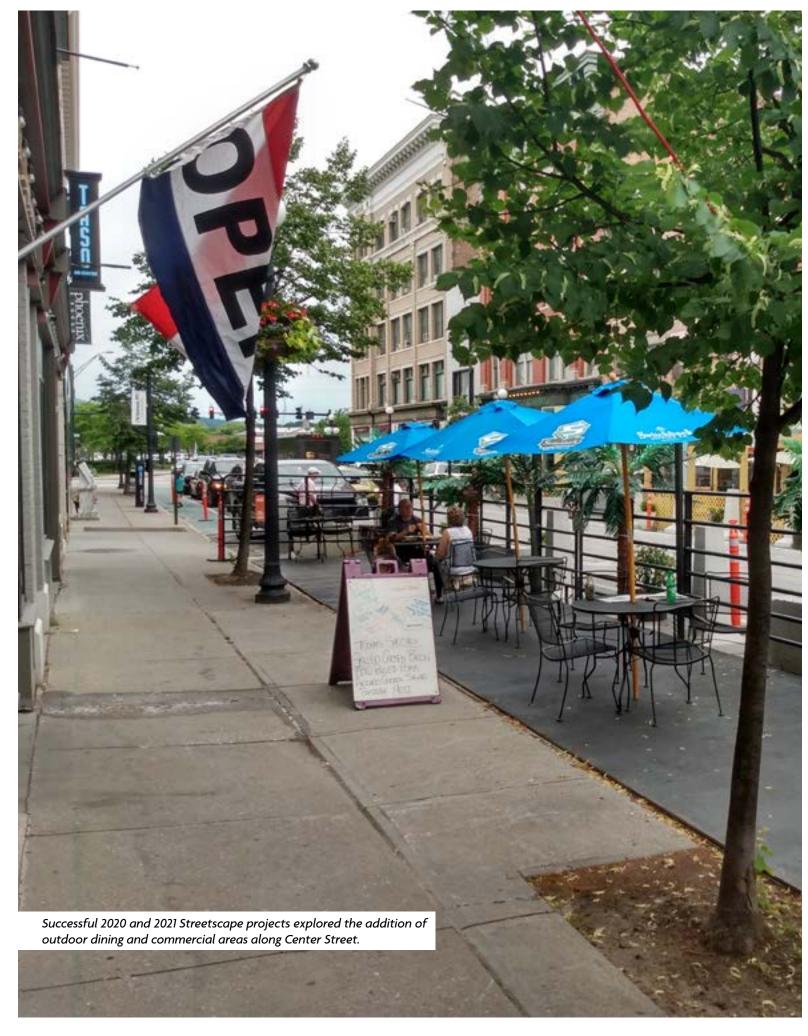
The end result of this study is a preferred design of a one way, curbless street which accommodates low speed traffic and deliveries while creating an accessible, pedestrian first environment that can easily be closed off to vehicles during special events and performances. This design, along with the other concepts reviewed is discussed in the Design Concepts chapter.

Methodology

This scoping study builds upon two years of demonstration streetscape improvements along Center Street. As pictured at right, these demonstrations explored the commercial and placemaking benefits of narrowing travel lanes, painting mid-block crossings, and exchanging parking spaces for outdoor cafes and parklets. This study built upon these efforts through the following:

- An expanded public engagement process that engaged equally with three key groups: Center Street Landowners and Merchants, Downtown Landowners and Merchants, and the General Public.
- Permitting review of the Center Street Corridor to identify needed permits prior to construction
- Architectural Resource Assessment (ARA) and Historic Resource Identification (HRI) for the Center Street study area.
- A Parking Utilization Study to assess current parking utilization on Center Street and weigh the impacts of proposed changes.
- Three Center Street design concepts including 2 way traffic, 1 way traffic, and exclusive pedestrian traffic.
- Traffic Models built for each proposed design concept to assess broad impacts of any changes to Center Street's function in the Downtown Rutland Transportation Network

These elements were presented to the public at four public meetings and through a dedicated project website and social media presence hosted by the Downtown Rutland Alliance. From these elements, a preferred design concept of a one way, pedestrian forward street was selected. This design concept was further developed with a conceptual cost estimate and permitting requirements to support the City of Rutland in fiscal planning for the proposed Center Street redesign.





Project Area and Background

This study focuses on the core of Center Street in Rutland Vermont. The project area is an approximately 650 foot length of Center Street between Merchants Row and Wales Street intersections.

This study utilized numerous prior efforts by the City of Rutland and her partners. Referenced plans include:

Downtown Rutland Strategic Plan (2019)

This study advanced the idea of redeveloping Center Street along with select other downtown projects to support economic development efforts across the City. Initial concepts for streetscape redesign were reviewed as part of this scoping study process.

Temporary Streetscape Improvements (2020 & 2021)

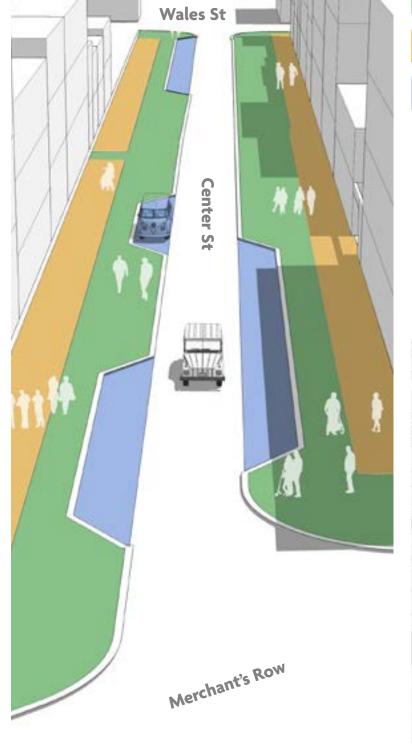
Two seasons of temporary streetscape improvements illustrated the importance and value of pedestrian-oriented spaces on the street. Spearheaded by the Rutland Redevelopment Authority, Rutland Regional Planning Commission, and the Downtown Rutland Partnership, these quick-build projects narrowed travel lanes, painted crosswalks, and exchanged select parking spots for cafe seating and parklets at key Center Street businesses. Even though these improvements were removed each winter, they helped build community support for a costly and more permanent redesign of the street.

Preferred Design Concept

Through an analysis of downtown traffic patterns, utility and parking impacts, coupled with input from the Center Street business owner / land owner community and the broader Rutland community, a curbless one way westbound design was selected as the recommended future design for Center Street.

This design was seen as an excellent way to satisfy the community and local business owner desire to make Center Street a destination, and pedestrian-focused street, while maintaining access and parking for Center Street Businesses. The curbless design is intended to improve accessibility across the street and signal to drivers that this is not a 'typical' roadway. In addition, a curbless design can quickly convert to pedestrian only during concerts or other events and create a 'pedestrian only' type experience.

This design is described in greater detail in the design concepts chapter of this document.



Paper Model - Preferred One Way Design Concept

Pedestrian Space

Commercial Space

Parking Spaces







Existing Conditions

Downtown Rutland's Center Street is a historic. urban block whose buildings, storefronts, sidewalks and street all contribute to its unique character.

However, crumbling sidewalks, chipped brick facades, and building access stairs and railings show signs of wear.

Yet Center Street is still a major Downtown Rutland attraction. The Historic Paramount Theatre, Wonderfeet Kid's Museum, and Hop'n Moose Brewery are just some of the numerous destinations located here. In addition, Center Street boasts some of the highest pedestrian counts in the state, due to the number of people attracted by a single Paramount Theatre event.

This chapter outlines related cultural, environmental, physical, and social conditions that present opportunities and constraints for future designs of the public right of way along Center Street, and looks at the street's role within the broader Rutland transportation network.

Land Use and Zoning

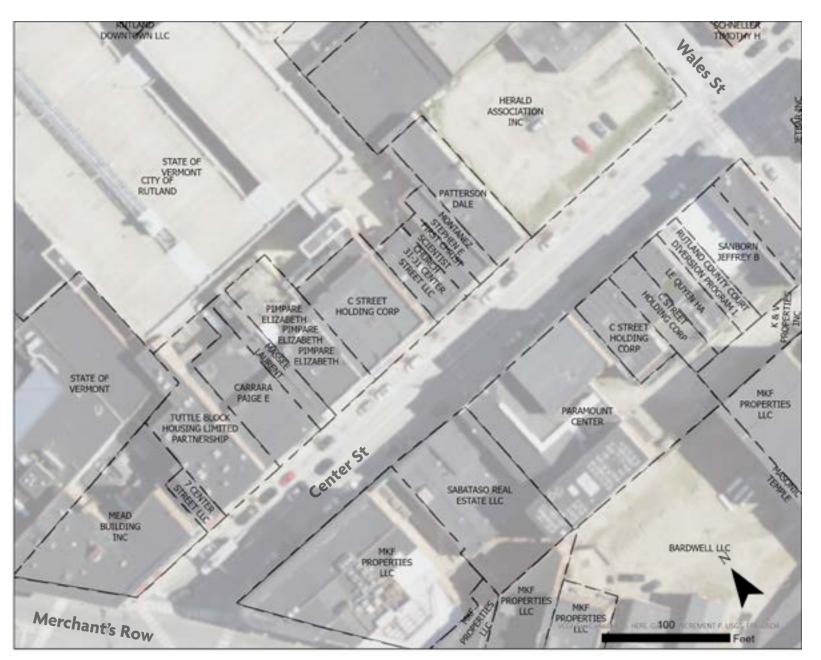
The entirety of the Center Street Corridor is located within the City of Rutland's Designated Downtown District. All properties within the study area are zoned Downtown Business (DB).

The land uses along this block are a series of varied commercial enterprises, which reflect the variety of possibilities that this street could entertain. The street currently hosts a brewery, two delis, several restaurants, a saloon, a children's' museum, two bookstores, and numerous other private offices and businesses downtown.

Future designs for this street should focus on flexible elements that can support the varied needs of professional offices as well as destination retail and restaurant services.

Land Ownership

The map on this page illustrates the landowners along this block of Center Street. When these landowners were invited to give public comment regarding future streetscape improvements, there was unanimous support for improvements to the street, and a more divided approach regarding how parking access should be treated in any future design.



Center Street Area Landowner Map



Center Street Roadway Characteristics

Center Street is a historic corridor in the center of downtown Rutland. Lined with multistory buildings, the street has always hosted commercial activity.

ROW

The street's right of way extends approximately 66 feet across, centered on the street centerline.

Context

As an urban street, Center Street connects downtown businesses and activities to the Route 4/7 corridor to the east, and Merchant's Row to the west. Significant downtown activity centers surround this study area, with a large Walmart parking lot just west of the study area, and residential / office mix land uses to the east.

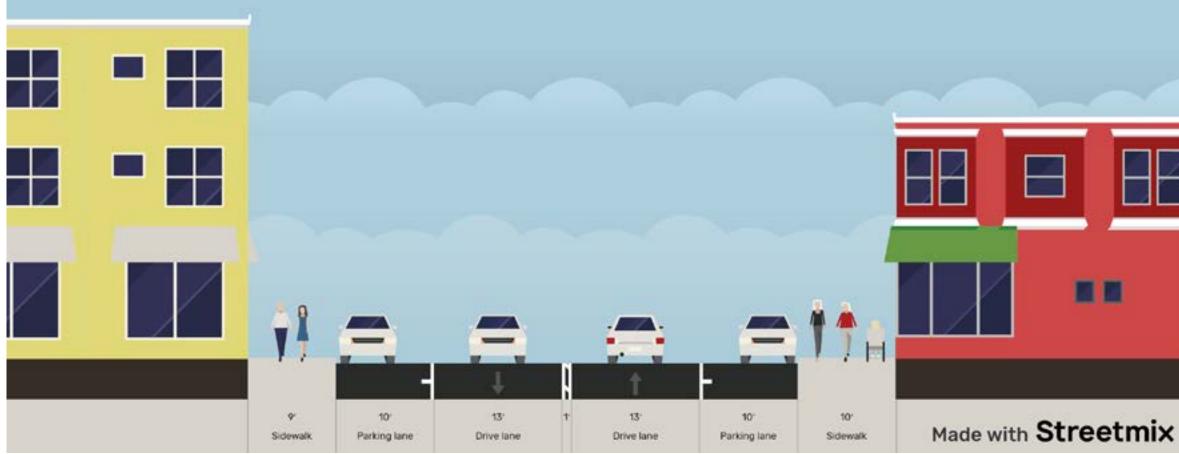
Roadway Design

The streetscape currently is made up of primarily three and four story building facades connecting directly to the sidewalk corridor. On the northern side of the street, the sidewalk is approximately 8-9 feet wide, and on the southern side of the street, the sidewalk is approximately 10-12 feet wide.

Two travel lanes and parallel parking are paved in asphalt and span 45 feet from curb to curb. The street is designed with 10 foot parallel parking stalls along each side of the roadway, and broad 13 foot travel lanes serving automotive travel.

Recent demonstration projects have narrowed travel lanes to a more standard 11 foot width, and parking to 8 foot wide stalls. Outdoor commercial space has been added by trading parking spaces for outdoor dining / seating areas and parklets in front of key businesses.







Parking & Access Management

The study area is accessed via Wales Street or Merchants Row. Wales Street is a one-way northbound road, Merchant's Row is a two way road. There are minimal access management concerns along the Center Street corridor. The dead end alley on the south side of Center Street is the only vehicular curb cut onto Center Street.

Public on street parking is provided by parallel parking stalls along the entirety of the street. Parking is currently metered.

There is a 599-space parking garage provides direct pedestrian access to Center Street via stairs and tunnel. Parking spaces in this structure are located less that 150 feet away from the mid-block crossing on Center Street. Vehicles access this garage from 102 West Street or an entrance off of Wales Street, north of the Center Street/Wales Street Intersection. Clear and safe access to this facility is key to providing access to Center Street.

Data obtained from LAZ parking (the Garage operators) indicates that from 2015 - 2017 the active monthly parking ranges from 45% capacity (2015) to 66% capacity (2018). There is ample room in this parking garage to accommodate additional users coming downtown.

It is also worth noting that the door to the parking garage is labeled "Rutland Transit Center" as opposed to "Public Parking Garage" so there can be a lack of awareness that Center Street connects directly to this resource.

Pedestrian Facilities

8 to 12 foot wide sidewalks line both sides of Center Street, but those widths are reduced significantly by stairs, curb ramps, and railings extending from building entrances, as well as street trees, lighting fixtures and parking meters that reduce walkable sidewalk space. This issue is particularly pronounced at the southeastern side of the study area near Wales Street.

Center Street has a single mid block pedestrian crossing. Painted brightly with the Downtown Rutland Alliance color scheme, this crosswalk connects the Paramount Theatre entrance with a direct access to the parking garage.

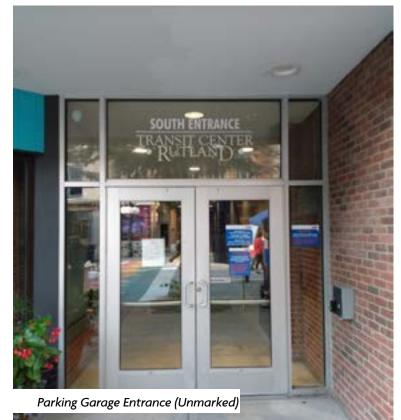
This street has one of the highest recorded volumes of pedestrian foot traffic in the state of Vermont, recording 1,311 average daily traffic and 2,202 peak pedestrian hourly counts. These counts were taken in front of the Paramount Theatre and likely reflect counts during a popular event. The data is nonetheless demonstrates significant peak pedestrian volumes on this street.

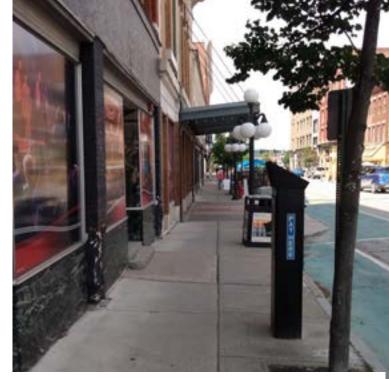
Bicycle Facilities

Center Street provides shared road markings (sharrows) within the travel lanes in the project area. These markings are intended to indicate to cyclists the correct space to ride in the roadway to avoid conflicts with parked cars, and provide notice to motorists that bicyclists may be present.

Semi-permanent bicycle parking was added in front of the transit center entrance on the northern side of the street as part of the temporary street improvements in 2021.

The City of Rutland does not currently have a Bicycle & Pedestrian Master plan and planned bicycle facilities for Center Street and elsewhere have not been identified.





Entrance Steps, trees, parking meters, trash cans and lights reduce the total available sidewalk area.



On Street parking is available on either side of Center Street



Center Street's mid-block crossing connecting to the Paramount Theatre.



Streetscape Amenities

A series of street trees are present on the study area block, but have limited soil available to promote growth, and some planters have been paved over by asphalt. These trees are installed at approximately 40 feet on center. The existing trees are generally in poor health, with minimal root zone soil and limited sunlight available due to tall surrounding buildings.

Victorian style globe streetlights have been installed throughout the streetscape and provide pedestrian scale lighting in the evenings.

In addition to lights and trees, parking meter kiosks and trash cans occupy space on the sidewalk along the Center Street corridor, adding amenity value, but constraining the usable walking space on the sidewalk.

Street Festival Use

During summer months, Center Street hosts regular public events by closing the street to automotive access for an evening at a time. Parades, music festivals and culinary events are just some of the festivities typically coordinated by the Rutland Downtown Alliance.



Public Transit

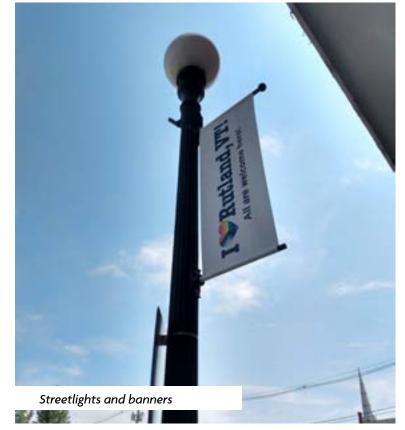
The Bus

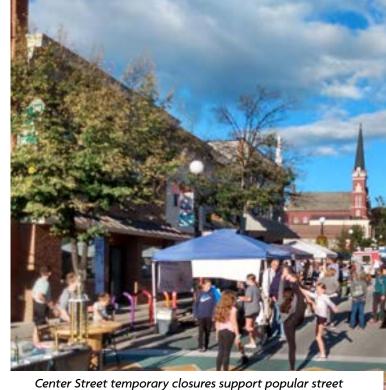
The Marble Valley Regional Transit District operates "The Bus," serving the City of Rutland with fixed routes within Rutland as well as regional routes with access to Middlebury, Manchester, Killington, Ludlow, Proctor, and Fair Haven. The Marble Valley Regional Transit Center is located a block from the project area in the same structure as the parking garage. There is also a bus stop at the Southeast corner of the Center Street & Wales Street intersection, which is marked with a sign, but lacks a bus shelter.

Amtrak Passenger Rail

Amtrak passenger rail service recently returned to Rutland. The Ethan Allen Express connects Rutland to New York City by rail with many stops in between, including Castleton and Albany. The Ethan Allen Express is planned to extend all the way to Burlington in 2022 with planned stops along the way in Middlebury and Vergennes. The Rutland train station is only 500 feet from Center Street and is a considerable resource for downtown Rutland. Connectivity to the train station from Center Street should be considered as a key part of future designs.

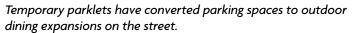






festivals.









Current Land Use

Center Street hosts a dynamic mixture of independent retailers, restaurants, and services. This diagram illustrates the categories of businesses currently supporting the economy of this core Downtown Street.

Future designs should accommodate these current uses, while recognizing that use will change over time.

Diagram and information courtesy of Downtown Rutland Partnership.



Current Use (December 2021)

- 0. Masala Corner
- 1. Mountain Music
- 2. Diamonds & More
- 3. Studio Mini
- 4. Wonderfeet Kids' Museum
- 5. Gus' Tobacco Shop (Vacant)
- 6. The Bookmobile
- 7. The Yellow Deli
- 8. Alison M. Divine
- 9. Born to Dance Studio

- 10. LAZ Parking Garage Direct Access
- 11. Wild Kind Toys
- 12. GreenSpell Plant Shop
- 13. Handcarved by Ernie
- 14. Hop'n Moose at Rutland Beer Works
- 15. Phoenix Books
- 16. Center Street Alley
- 17. Taso on Center Restaurant
- 18. Vacant
- 19. Trapdoor Clothing

- 20. Paramount Theatre, Brick Box, Box Office
- 21. Medusa Lounge
- 22. GLOW Center
- 23. New Kong Chow Fusion
- 24. Rutland County Restorative Justice Center
- 25. Avanti Hair Salon
- 26. Vacant



Finished Floor Elevations & **Storefront Entrances**

Some buildings on Center Street enjoy at-grade access from the sidewalk. Others are elevated from the sidewalk by a single step, yet others have multi-step or ramp access built into the streetscape to accommodate their elevation above the adjacent sidewalk grade.

These minor details are a key consideration in any future redesign. To build a fully accessible streetscape, regrading of sidewalk and street should seek to increase the number of at-grade entrances, making Center Street businesses more accessible to all.

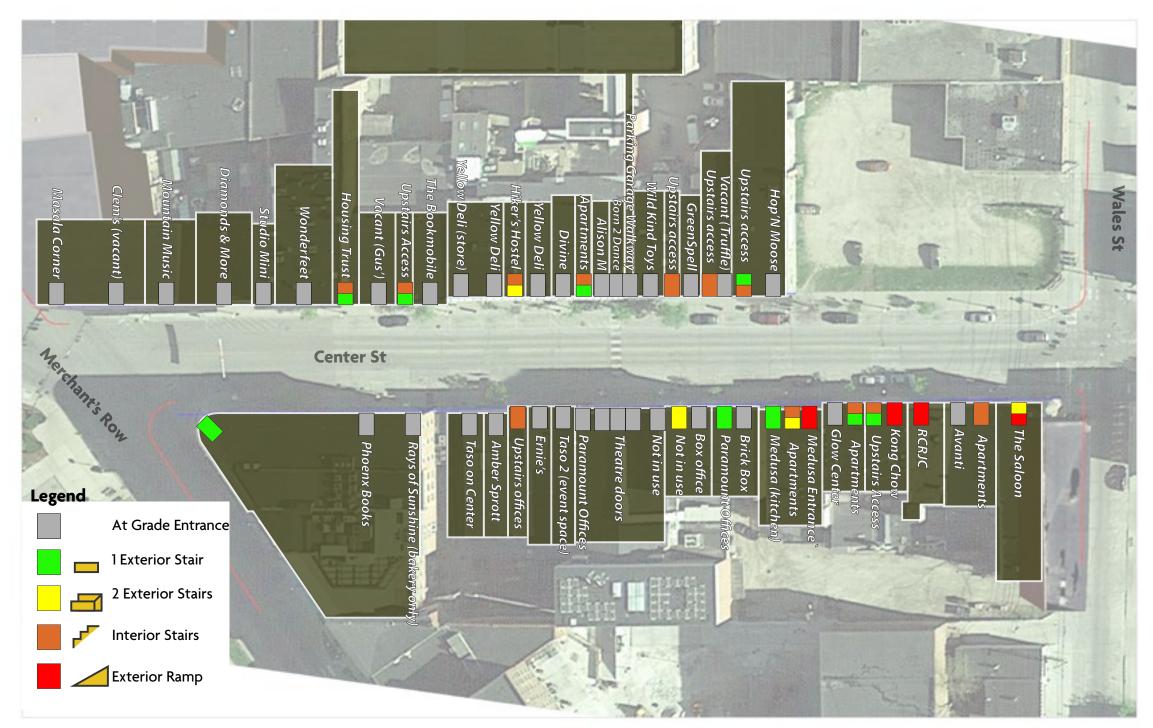
Of particular focus should be the southeastern side of the street, where a large number of these issues are clustered.

Exterior Stairs

Where one or two stairs exit a building, the impact to the public right of way may be minimal, but these entrances do limit wheelchair, walker, and stroller access.

Exterior Ramps

Though ramps create an accessible access to individual buildings, these entrances have an out-sized effect on the functionality of the streetscape. There are two cases of ramps (pictured at right) on the southeastern side of the street which reduce the usable sidewalk space at their locations by almost half. On a busy street like Center Street, this is a less than ideal solution.













Utilities

Utility Information in this scoping study was provided by the City of Rutland Public Works Department.

Stormwater & Sanitary Sewer

The City operates a system of combined stormwater and sanitary sewer lines.

Approximate layouts of this network of facilities can be seen on the maps on this page.

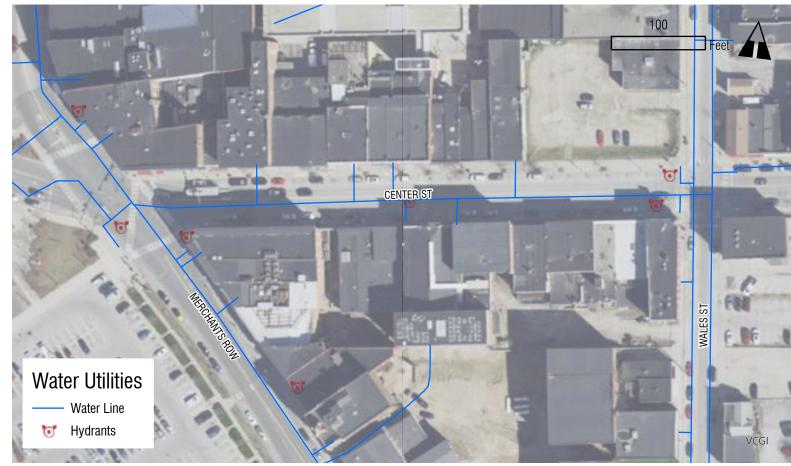
A single 18 inch diameter sanitary sewer line runs under the south side of Center Street. The line tapers to 12 inches diameter east of the study area block.

Water

Municipal 6 inch diameter water lines service Center Street. The approximate location of the water main and its lateral connections is shown on the figure to the right. There are two fire hydrants on this block of Center Street.





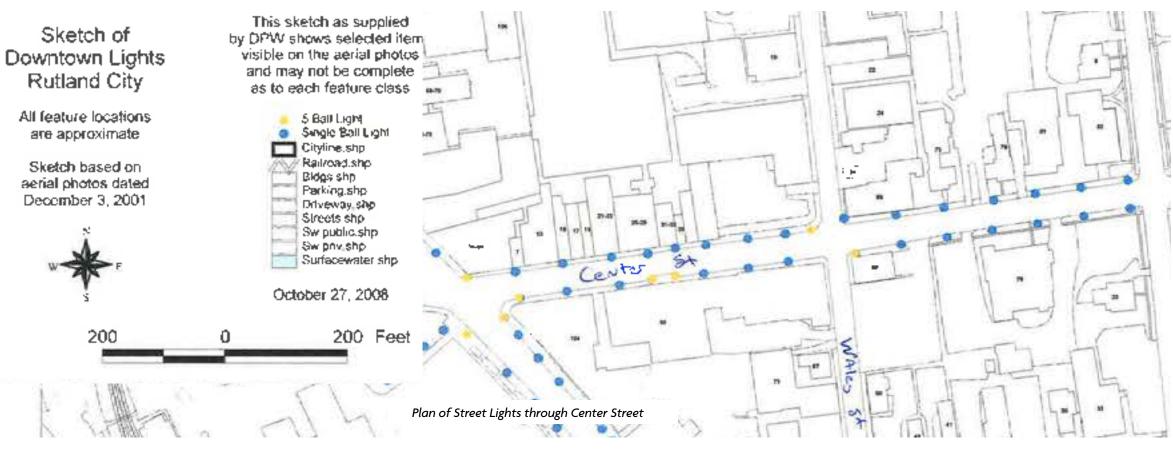




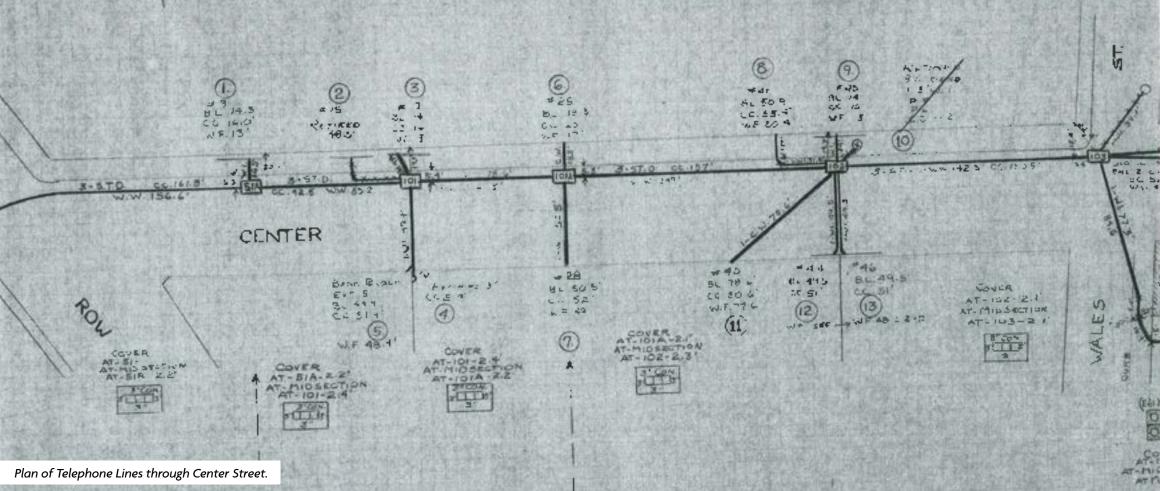
Electricity & Telecom

There are no overhead utilities or utility poles on Center Street, which adds to its charm and historic character. Power service is supplied from the backs of buildings. Telephone and electric utilities are buried on Center Street, with Wales Street overhead power poles at the far eastern side of the project area.

The maps on this page illustrates the downtown streetlights visible throughout downtown Rutland, as well as the layout of telephone lines below ground towards the northern half of Center Street.









Natural Resources

Data from the Vermont Agency of Natural Resources was reviewed for the Center Street project area, including relevant hazardous wastes and natural resource inventories. Given the developed and urban nature of Center Street, few natural resources were identified in the study area.

The table on this page provides a summary of the natural resources present in the study area.

Wetlands

There are no wetlands in the Center Street project area.

Lakes/Ponds/Streams/Rivers

There are no lakes or ponds within the Center Street project area.

Floodplains

All of the project area is in Zone X, with moderate to minimal flood risk. The nearest portions of the 100-year floodplain, with a one percent annual chance of flooding, is well to the west. That is the turquoise area associated with East Creek (a tributary to Otter Creek) that can be seen in the excerpt of a 2008 FEMA Flood Insurance Rate Map (FIRM) on this page. The Center Street project area is highlighted in orange.

Stormwater

A municipal combined sewer system conveys stormwater runoff collected via stormwater inlets as well as sewage from the project area. These area treated at the Rutland City Wastewater Facility prior to discharge into the Otter Creek.

Rare, Threatened, or Endangered Species

No specific rare, threatened, or endangered species were identified in the project area via the noted databases.

However, the Northern Long-Eared Bat, listed "Endangered" by the Vermont Agency of Natural Resources and listed "Threatened" at the Federal level, has a habitat area that spans the entire State.

Table –2 - Environmental Resources Summary				
Potential Resources	Presence / Absence in Study Area			
Wetlands	None identified in the study area.			
Lakes/Ponds/Streams/ Rivers	None identified in the study area. Center Street is in the Otter Creek watershed.			
Floodplains	None identified in the study area.			
Endangered Species	None identified in the study area.			
Flora/Fauna	None identified in the study area.			
Stormwater	Center Street is served by a municipal combined sewer system that collects both stormwater runoff and sewage. The sewer discharges into the Otter Creek, after treatment at the Rutland City Wastewater Treatment Facility.			
Forest Land	None identified in the study area.			
Hazardous Waste	There is one hazardous site in the project area located at 13 Center Street, owned by the Rutland County Community Land Trust. This site is identified as hazardous because of an out-of-commission aboveground storage tank in the basement that was filled with sand before being cleaned out. As of April 2021, Some modifications have been made to the tank to mitigate contamination and the site is still being monitored, though it is listed as low priority.			

Flora/Fauna

No significant natural plant or animal communities were identified in the project area via the noted databases.

Forest Land

There is no forested land within the project area.

Hazardous Wastes

There is one hazardous site in the project area located at 13 Center Street, owned by the Rutland County Community Land Trust. This site is identified as hazardous because of an out-of-commission above ground storage tank in the basement that was filled with sand before being cleaned out. As of April 2021, Some modifications have been made to the tank to mitigate contamination and the site is still being monitored, though it is listed as low priority.





Cultural Resources

A full Historic Resources Identification (HRI) report and Archaeological Resource Assessment (ARA) were prepared as part of this project. These documents are included in this report as Appendix A.

These two studies reviewed archaeological and historic structures along Center Street, and the archaeological resources within a one-mile radius of the Project Area.

Historic Resources Identification

The HRI contains a historical narrative, a historic map review, and descriptions of notable structures.

The earliest available map of the larger area is a 1771 document of the settlement of Socialborough, which has since been divided into Rutland City, Rutland Town, West Rutland, Proctor, and Clarendon.

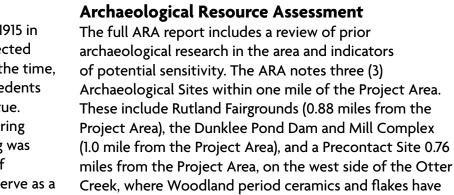
Individual structures were first shown on the Beers Atlas of Rutland County, published in 1869 (see excerpt below). That map indicates the "hotel" at the northeast corner of the project area—the former Berwick Hotel that was destroyed by fire in 1973. The Beers Atlas also indicates that nine (9) of historic resources described in the HRI were built prior to 1869. Many of these buildings were altered or refaced over time, frequently with more modern façade sheathing or reconstruction of the storefronts at the firstfloor level.

The HRI examined all of the buildings and properties that front on the subject block of Center Street, which are in the "Rutland Downtown Historic District." As such, they were included in 1980 on the National Register of Historic Places as some of the approximately 110 buildings that contribute to this District. As described in the National Register Listing description for the District, Center Street exhibits two (2) to four (4) story, primarily 19th century Italianate style buildings (with their characteristic bracketed extended eaves), in a generally uniform facade line.

The notable style exception is the The Playhouse (Paramount) Theatre building, constructed in 1913-1915 in the Classical Revival style. This aesthetic shift reflected the City Beautiful movement that was popular at the time, hearkening back to Roman and Greek design precedents that sought to evoke order, grandeur and civic virtue. Renamed The Paramount Theatre in 1931 and featuring movies rather than live performances, the building was further restored and re-energized after a period of dormancy and reopened in 2000. It continues to serve as a hub for cultural and educational events.

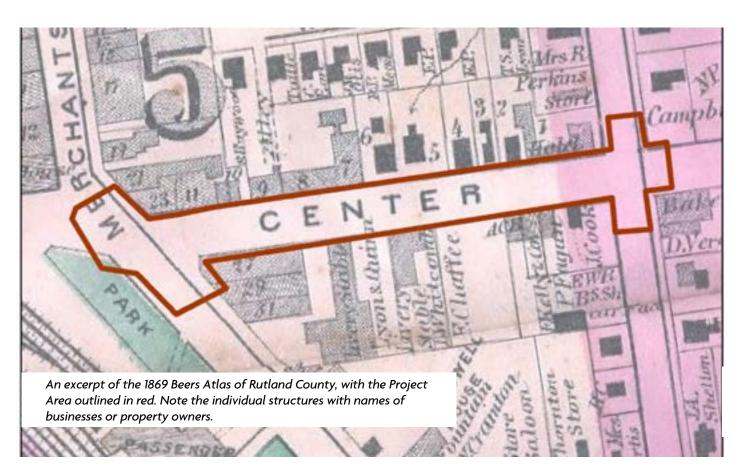
Along with its well-maintained, restored or enhanced 19th and early 20th century architecture, the historic "significance" of this block of Center Street derives primarily from the former railroad complex to the west across from Merchants Row, which at one time was the largest in the State. HRI also notes Depot Park, which is not yet considered eligible for inclusion on the National Register due to insufficient age.

The postcard images on this page offer additional insight into ways the City can honor its past while implementing changes to this block of Center Street.



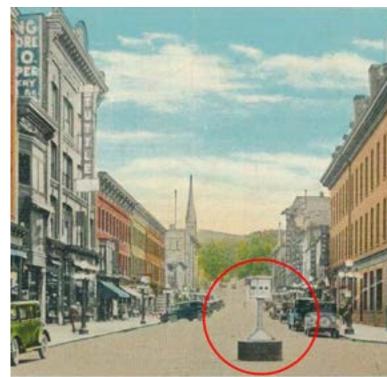
been found.

As a result of the research that went into the ARA. the Precontact Sensitivity is considered "low," and the Historic Sensitivity is also considered to be "low." The ARA concludes: "Given the urbanization along Center Street, it is determined that the [Center Street] project is not sensitive for historic or precontact deposits. No further archaeological review is recommended for the project."





1902 Postcard excerpt. In the red circle is likely cast iron drinking fountain, with a human side and a horse side. The design of this feature could inspire the design of gateway/placemaking features along Center Street.



1920 Postcard excerpt. In the red circle is a two-phase traffic signal. The design of this feature could inspire the design of gateway/ placemaking features along Center Street. Also, note the 5-globe "electroliers" --electric chandeliers-- that were installed on Center Street around 1915.



Pre Design Community Input

This study's design concepts emerged from a intensive series of public engagement events. Three pre-design events were held to engage the broader community and specific stakeholder groups. Input from these events directly drove the development of the three design concepts.

Preliminary public review illustrated passionate public opinion about

- A need for Center Street to be rebuilt to better accommodate pedestrians.
- Passionate support for and opposition to a pedestrian only option
- A need to support current and future economy on this key commercial street.

1. Center Street Stakeholder Meeting Monday July 12th, 2021 The Palms Restaurant, 36 Strong Ave

This meeting was held as an in-person, invite only meeting coordinated by the Downtown Rutland Alliance. Invites were sent directly to landowners, residents, and business owners and operators along and adjacent to the affected Center Street Project Area.

Twenty one (21) members of the Center Street community attended. The meeting was facilitated by a discussion of the temporary improvement projects and proposed improvements for the street. During a round robin of discussion among the attendees, the following key themes emerged:

- Strong agreement that a public reinvestment in the Center Street area will improve conditions and is needed.
- Split opinions regarding the need to preserve parking vs. move the street to a full pedestrian mall.

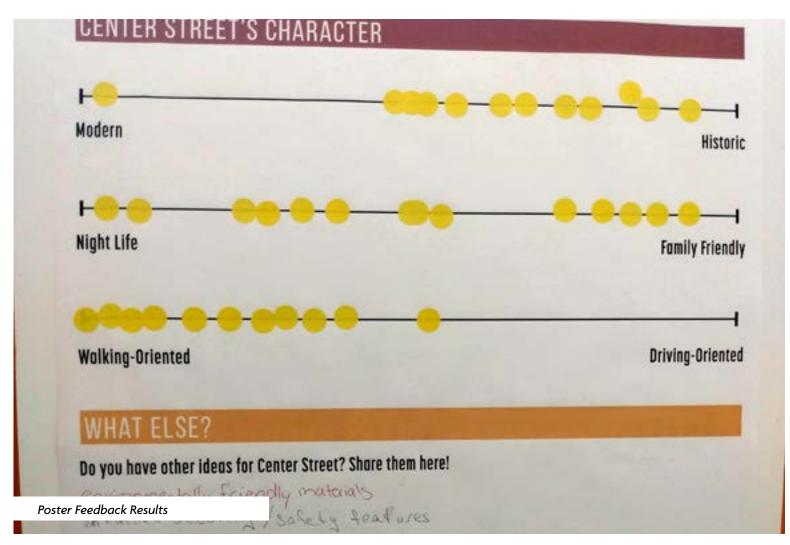
- Some business owners believe without storefront parking, their business will fail.
- The Parking Garage is not perceived as a safe place to park or access at night, particularly for women.

2. Downtown Stakeholder Meeting Monday, August 9th, 2021 On Zoom

This meeting was held as a virtual meeting to facilitate broader engagement by Downtown Stakeholders. This group included downtown business owners, land owners, and residents who were invited to the online gathering.

Ten members of the downtown community attended. The meeting was facilitated by a discussion of prior projects along Center Street, and future visions for improvements. During a round robin of discussion among the attendees the following key themes emerged:

- Strong support for improvements along Center Street.
- Vocal concern about losing Parking in front of businesses.
- Aspiration to do something 'big' and make the street become a destination to attract more private investment.





3. Friday Night Concert Series Friday, September 10th, 2021 **Live Event, Center Street**

In an effort to engage the broader community who use Center Street, a evening long tabling session was setup on Center Street, with posters asking passerby to weigh in on precedent designs for commercial streets, and share their ideas for future Center Street designs.

During this three hour long engagement process, approximately 50 community members engaged with the tabling effort. The following trends were recorded:

- Strong support for a future Pedestrian-Only Streetscape.
- Strong support for a redesign that respects historic elements of Downtown Rutland.
- Support for bicycle parking and flexible storefront space, lighting, and play area improvements in precedent studies.



Local Concerns Online Survey

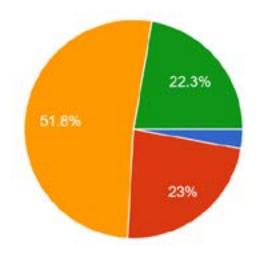
From August 9th to September 30th 2021, an online survey was accessible to the general public, and promoted at the Downtown Stakeholder Meeting and Friday Night Concert Series Engagement. In addition, the Downtown Rutland Alliance and Rutland Redevelopment Authority promoted this survey opportunity online and on social media. Responses to this online survey were primarily the general public and downtown residents / business owners, rather than Center Street residents and business owners.

This survey was modeled on a prior survey developed by the Rutland Regional Planning Commission, circulated after the installation of the 2020 temporary street improvements. A majority of the themes noted here were consistent with the findings of that prior effort, reflecting a consistency of public support for pedestrian-centric improvements to Center Street specifically, and Downtown Rutland generally.

The Survey was completed by 139 people. Key themes from this survey included:

- Strong support for a future redesign of Center Street (74% support or strongly support redesign).
- Center Street is accessed on foot (48% typically access Center Street by foot)
- The Parking Garage is under utilized (7.5% use the parking garage).
- Improved Parking Garage Lighting, Wayfinding, and Security, and improved connections to Center Street could encourage more residents to utilize the Parking Garage.
- Nearly 80% of respondents are willing to trade on-street parking spaces for more pedestrian-centric spaces along the street.

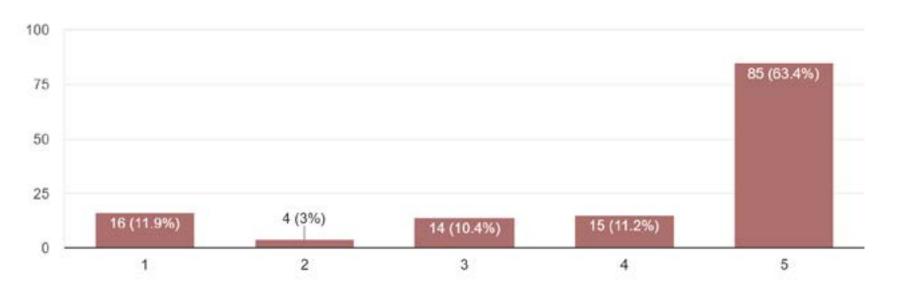
What is your connection to Center Street? 139 responses



I am a business or property owner
 I live or work in Downtown Rutland
 I am a resident of Rutland City
 I am a visitor

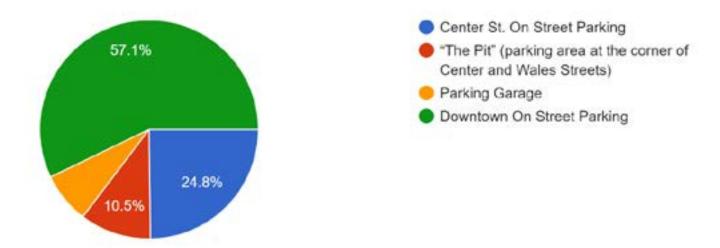
2. Do you support the type of redesign that has been and is being tested in the 2020/21 summer redesign pilot projects?

134 responses



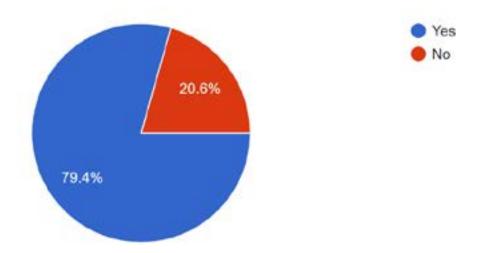


5. When you drive to Center Street, where do you most often park? 133 responses



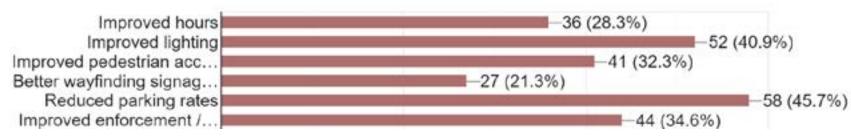
10. Would you trade on-street parking on Center Street for more sidewalks, sitting areas, or parklets?

136 responses



6. If you do not regularly use the Center Street Parking Garage, what would most encourage you to start using it more?

127 responses





Public Review of Proposed Design Concepts

After initial public input, and initial designs reviewed by the project steering committee, the design concepts were presented for public review. Three unique design concepts were presented - a one way, a two way, and a pedestrian only street.

Two presentations were held at the Paramount Theatre on the evening of April 25th, 2022.

The first presentation was an invite only event for Center Street business and landowners, plus members of the local fire and police departments (Stakeholders). Approximately 40 people attended this first presentation and input session.

The second presentation was open to the general public (Community). Nearly 60 people attended this second presentation and input session.

The format was identical for both sessions, with a 10 minute overview presentation followed by a brief Q&A. Then, all attendees were invited onto the stage at the Paramount to vote with sticky-dots on elements and designs that they liked or did not like.

These public presentations were paired with a publicly available survey that presented similar materials, and asked for public feedback on preferred design details and alternatives.

This page and the next two pages present the feedback that was received from the sticky-dot voting at the Paramount event, and from the survey.

Street Type Preferences

The General Public (Community) showed a strong preference for both the 1-way and Pedestrian-Only street options, with none preferring a 2-way street.

Business and Property Owners (Stakeholders) showed a strong preference for the 1-way street option, moderate support for a Pedestrian-Only street, and low support for a

Community: 2-Way, 1-Way, or Ped Only?



General Public Street Type Preference

Stakeholders: 2-Way, 1-Way, or Ped Only?



Business & Property Owner Street Type







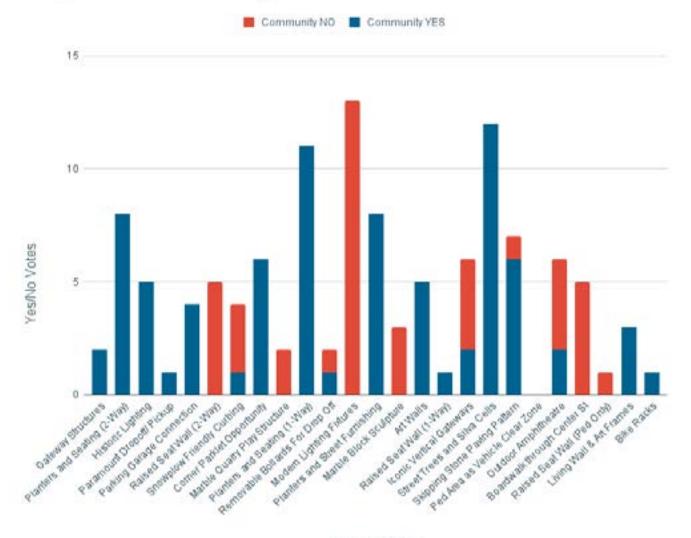
Design Detail Preferences

As part of the Paramount Theatre event, attendees were invited to communicate preferences on street design details by adding red or green sticky-dots to posters filled with relevant design detail imagery.

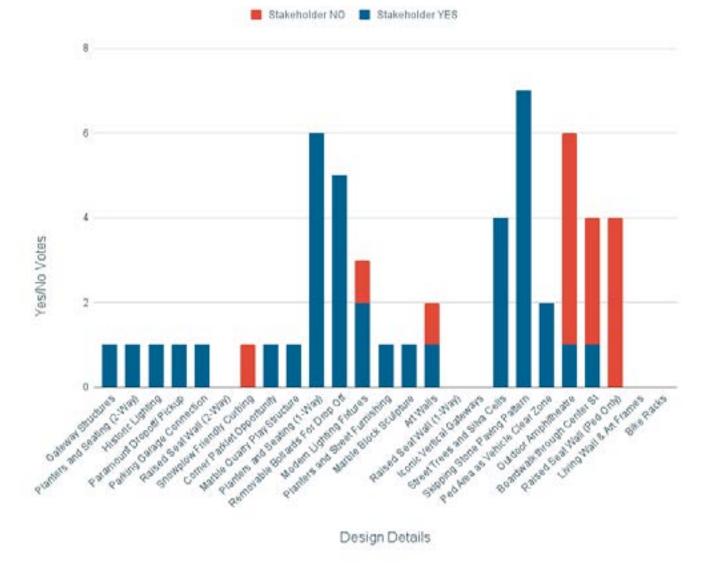
The strongest positive preference from the community was given to planters and seating as well as street trees in silva cells. The strongest negative from the community was for modern-style lighting fixtures.

Center Street landowners and business owners also gave strong support to planters and seating, as well as for removable bollards for drop off parking spaces. This group also supported Street Trees, and the Stepping Stone paving patterns. The strongest negative response from the Stakeholder group was for an Outdoor Amphitheater, and Raised Seat Walls as part of a Pedestrian-Only Street.

Design Detail Votes: Community



Design Detail Votes: Stakeholders



Design Details

Design Concept Online Survey

The public online survey was "live" from April 15th through May 15th, and generated 173 responses. Like the event at the Paramount Theatre, respondents were asked for feedback on preferred design details and street type alternatives: 2-way, 1-way, or pedestrian only.

Responses were filtered into two groups similar to the live event - Community members at large, and Stakeholder groups who identified as business or property owners on Center Street.

Online Street Type Preferences

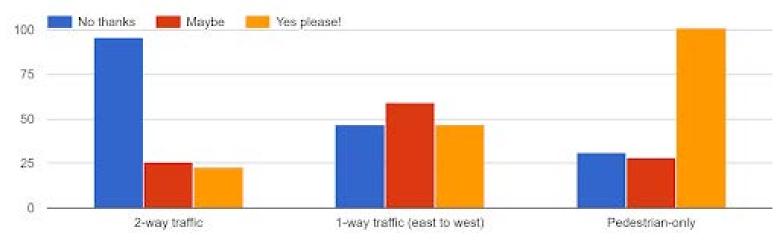
The greatest positive response from the General Public was for the Pedestrian-Only street, while the greatest negative feedback was for the 2-way traffic street.

The Pedestrian-Only and 1-way street types received the greatest positive response from the Center Street business, while the greatest negative feedback was for the 2-way street.

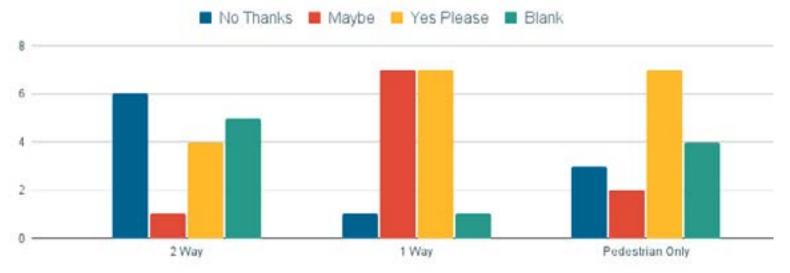
Center Street business and property owners expressed the highest priority preference for Pedestrian Space, followed by Commercial Space. Parking Space was less of a priority.

Online Design Preferences

Survey respondents offered feedback on the types of features that they would wish to see installed as part of a Center Street project. As with the in-person event, Planters and Seating received the greatest support, along with Street Trees in Silva Cells, and Lighting features.



Community Street Preference



Stakeholder Street Preference

Respondent Categories

What is your connection to Center Street?

173 responses







Purpose

This scoping study provides a detailed record of existing conditions and public sentiment, and uses these resources to develop three conceptual redesigns for Rutland's Center Street. The preferred design includes conceptual level cost estimates and implementation details, to support the City of Rutland and her partners in fiscal and logistical planning for a complete street redesign.

The preferred design concept is not chosen arbitrarily. The design and selection process relies on the results of a robust public engagement process, detailed traffic analysis, peer city research, and existing conditions analysis to develop and select a preferred design concept that will reestablish Center Street as the cultural and physical heart of Downtown Rutland.

Need

To support continued growth and reinvestment in Historic Downtown Rutland, aging infrastructure and public transportation facilities must be repaired and replaced when needed. As identified in the 2019 Downtown Strategic Plan, Center Street's location, commercial and community attractions, and aging streetscape make it an ideal candidate for reinvestment that will support the ongoing revitalization of Downtown Rutland.



Design Principles

The public engagement process made clear a desire to create a pedestrian and business friendly Center Street acts as a community and regional destination. Such a design should support community activities, festivals, local businesses and downtown redevelopment.

Although the community disagreed on the value of a pedestrian-only street, there was consensus on the need for a bold redesign that improves the pedestrian experience, supports local businesses, and creates reasons for people to visit and linger in Downtown Rutland.

In response to public input, all design concepts were developed with the following principles:

1. Pedestrian Centric

The streetscape should make walking in downtown Rutland a pleasant and safe experience. Any improvements should provide as much space as possible to the pedestrian zone while respecting other design principles.

2. Business Accessibility & Flexibility

The streetscape should support local businesses and improve access to them. Streetscape designs should allow for use of the street by private businesses to encourage outdoor retail and dining opportunities, while recognizing the need for flexibility as varied enterprises will come and go throughout the life of the streetscape.

3. Create a Destination

The design of the streetscape should be as unique as the City of Rutland itself, and reflect the vibrant character of the community. In doing so, the street should create places that encourage visitors and residents of all ages to spend time downtown. The street design should also support the varied events, festivals, parades, concerts and other activities that take place on Center Street.

Design Metrics

To better compare between the unique design concepts developed in this study, key metrics were tracked through the design process. These include:

Pedestrian Space:

Pedestrian spaces, illustrated in green on the following pages are those areas that provide dedicated clearzone for pedestrians. These areas also must accommodate trees, benches, and other street furnishings.

Commercial Areas:

These areas, marked in orange act as optional outdoor expansion areas for local businesses and merchants. These areas would support ground floor businesses by providing dedicated space for fenced off cafe seating, outdoor retail opportunities, or simply sandwich board advertisement.

Parking Areas:

A simple measurement of the number of available on street parking spaces is used to compare across designs.

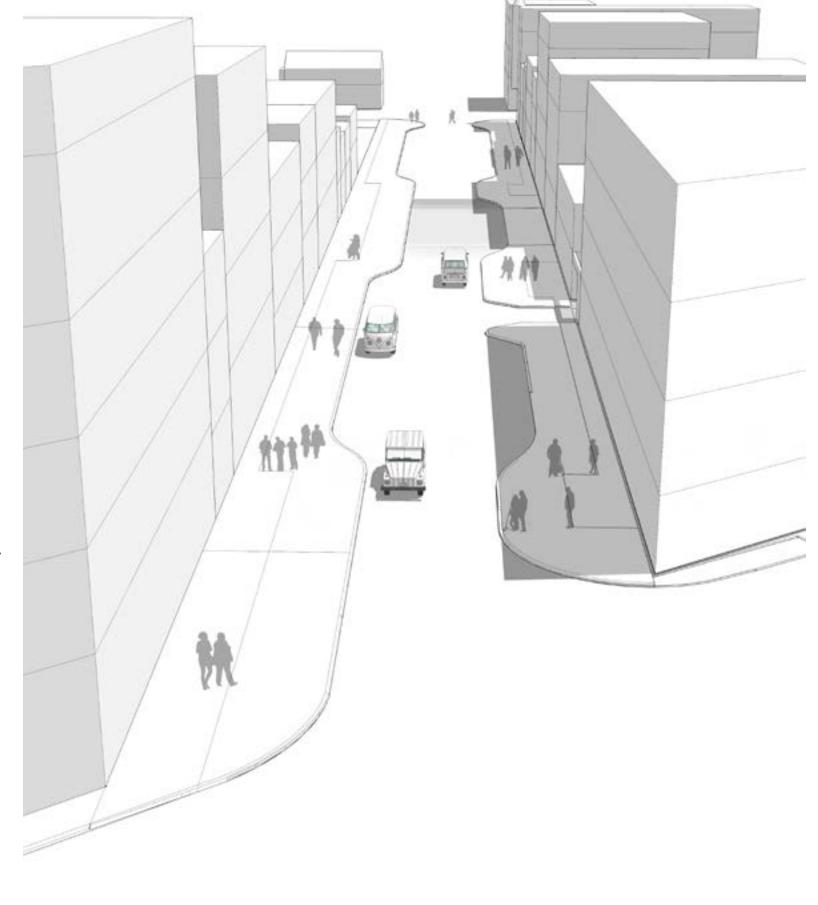
Each street design's metrics are presented as total area (square feet) and percent change from the existing conditions.

Design Concepts

The following pages outline four unique design concepts that can be considered as future changes for Rutland's Center Street. They are presented on the pages that follow in order of least significant to most significant change to the built environment.

- No Build / No Change
- Two Way Street
- One Way Street
- Pedestrian Only Street

Each design concept is presented through an illustrative plan view, precedent and detail photography, and 3-dimensional graphic sections.





No Build

Center Street as of 2022 is documented in the existing Conditions Chapter of this report. The existing conditions metrics for Center Street are as follows.

Pedestrian Space: 10,500 sf

This measurement captures the area present within the current sidewalks on either side of the roadway. It does not take into account space lost to building access ramps, street furnishings, and similar.

Commercial Area: 1,600 sf

This measurement captures the space dedicated to temporary parklets as part of the demonstration projects converting parking spaces into cafe seating during summer of 2021

Parking: 30 spaces

With the installation of the temporary parklets, Center Street maintains 30 public on street parking spaces

The purpose and need statement of this study reflects the rationale for investment in this study and the Center Street streetscape. The No Build design should be selected as a preferred design only in the case that the Rutland community does not wish to pursue improvements to this downtown streetscape.















Two Way Street Design

This design makes no changes to vehicular travel patterns, but expands the pedestrian realm by reducing travel and parking lane widths, and adds a raised crossing to the middle of the street.

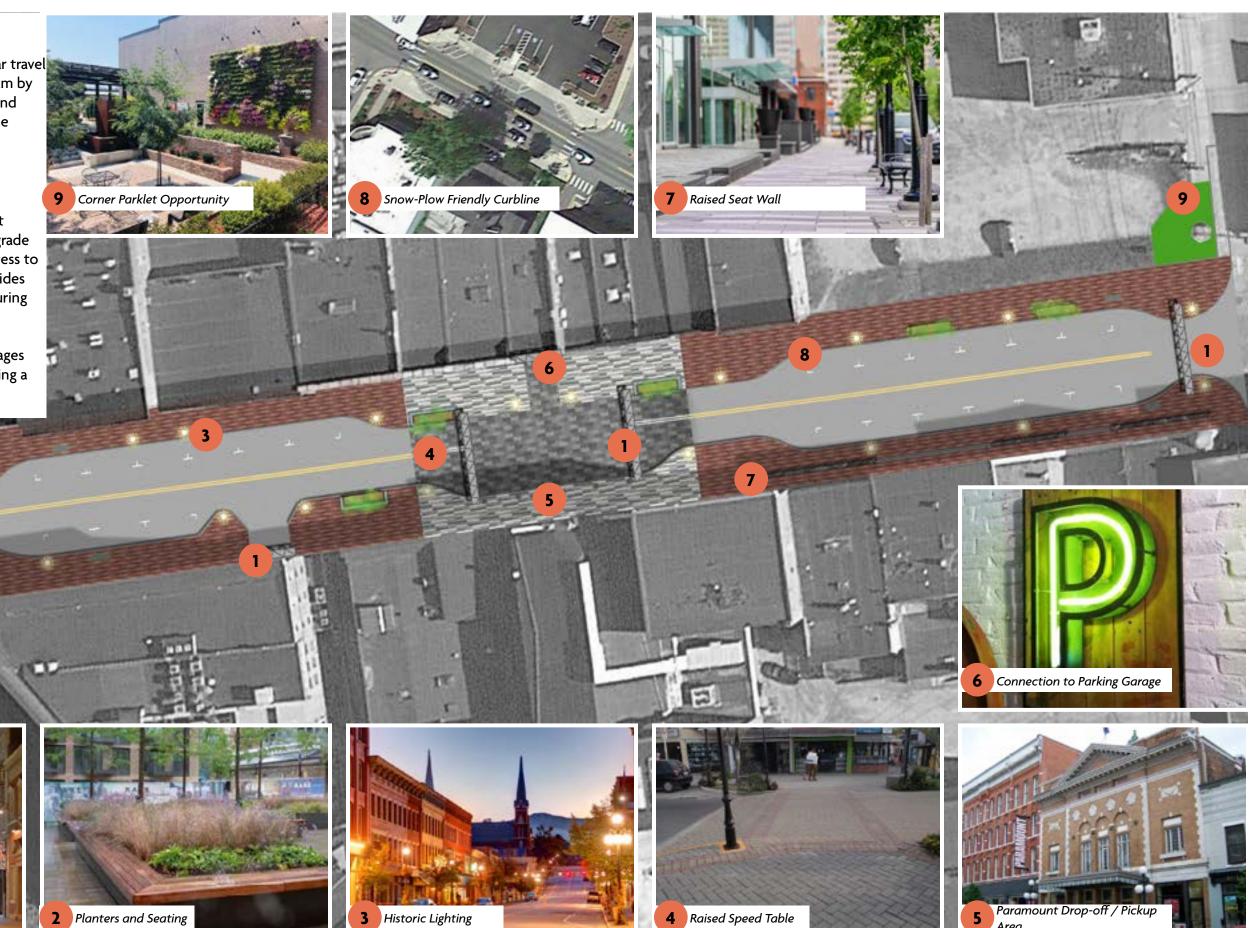
Unique Detail:

This design incorporates a curbless Plaza Table. Raising the middle of Center Street approximately 6 inches can create an at-grade crossing area that links parking garage access to the historic Paramount Theatre, and provides a curbless drop-off/pickup experience during events.

This configuration also physically discourages high traffic speeds on this street by creating a speed table in either direction.

PHELPS STREET GATEWAY

Gateway Structures





Two Way Street Details

The details called out on the prior page are described here in greater detail to give a sense of the improvements intended as part of the two way street design.



The north corner of the intersection with Wales Street could be anchored by a small parklet as a seating area and gateway to the street. Should the adjacent corner property be developed, this parklet could remain or be modified as a public/private endeavor integrated into the building entrance.



As successfully employed on Main Street in Barre City, a snow-plow friendly curbline is designed with curvature that allows continuous plow movement, resulting in greater efficiency and less damage to the curb.



Raised Seat Walls offer flexible open-air seating areas while improving access to buildings where currently a series of steps and ramps jut into the sidewalk. Raised seat walls can be designed with as ramped when accessed in parallel with Center Street, and offer steps up at key locations for more direct access.



The entrance to the to the LAZ Parking Garage via Center Street could be further highlighted with colorful signage, an information kiosk or similar marker.



Overhead gateway structures can reinforce a sense of arrival and transition along Center Street. They would be located at each end of the block and at the central speed table at the Paramount Theatre. Gateway structures could be new and unique works of art that also reference historical elements such as the lattice of a quarry crane. (Image above from Youngstown, Ohio.)



Raised planters are sized and located to add seasonal color, infiltrate rainwater, improve air quality and separate pedestrian areas from vehicle travel lanes. With greater potential soil volumes, larger plants can be installed in these planters. The integrated edges of the planters form benches for additional seating.



The iconic globe-style historic lighting used on Center Street since at least 1918 would be retained, including the five-lamp "electrolier" lights ("electric-chandelier"). Existing lights in good condition would be re-installed. Others could be replaced or refitted with new LED technology. Additional lighting could be installed to provide even illumination.



A raised Speed Table would provide an atgrade crossing and curbless drop-off area, linking the parking garage to the Paramount Theatre. The up-and-down effect for motorists and the contrasting pavement treatment would also provide a traffic calming effect.



The Paramount Theatre Drop-off / Pickup Area would be for brief, temporary use by vehicles. It would be located and designed so as to maintain a accessible adjacent pedestrian route.



Two Way Street Dimensions

Reducing travel lane widths from 14 feet to 11 feet, and reducing parking stall widths from 10 feet to 8 feet, provide this design concept with additional room to dedicate to pedestrian use and commerce.

Pedestrian Zone

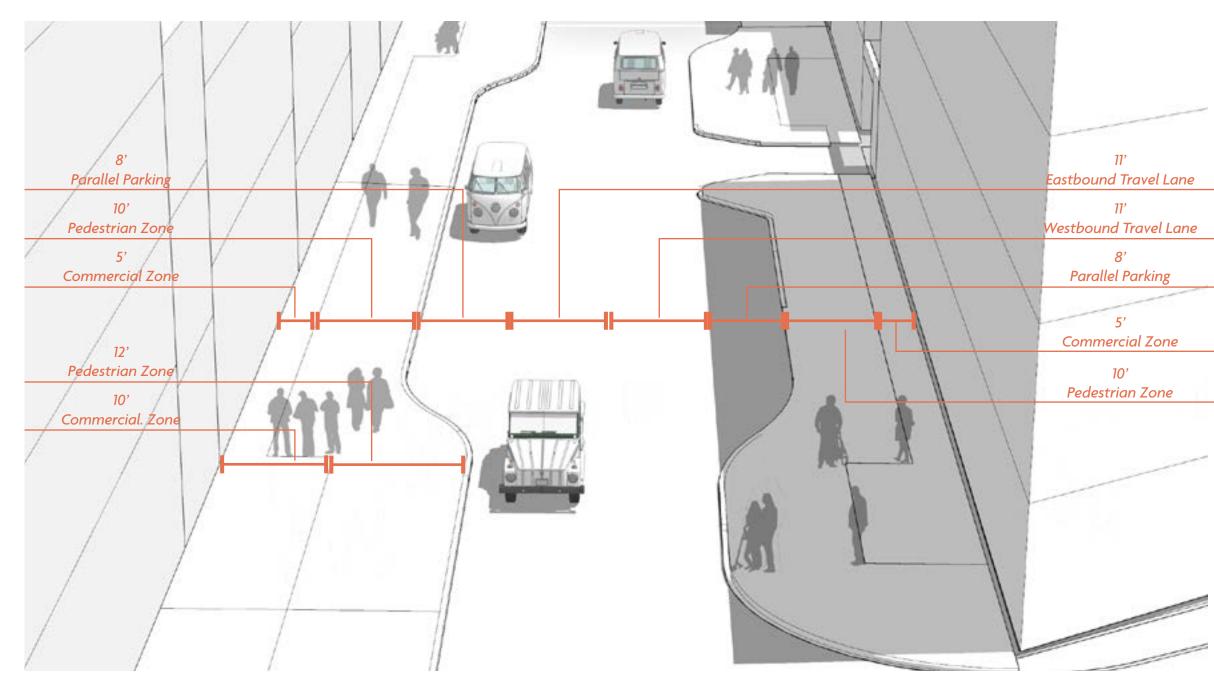
The minimum width of the pedestrian zone in this design is 10 feet. Where on street parking is not in place, the pedestrian zone expands to 12 feet. This space would need to be shared with street lights, benches, plantings and other relevant furnishings, but in conjunction with the adjacent commercial zone provides a much more broad pedestrian area than current conditions allow.

Commercial Zone

The commercial zone varies between 5 feet wide and 10 feet wide in this design. The broader swaths of commercial zone would accommodate outdoor dining and service, whereas the narrower 5 foot swaths would accommodate more limited uses such as retail displays and merchandising only.

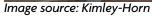
Parking

To develop a more pedestrian-centric streetscape, this design reduces parking by 9 spaces from existing conditions.











Two Way Street Metrics

Pedestrian Space:

This design provides a modest 29% increase to existing pedestrian facilities on Center Street, and would offer an opportunity to modernize the street's character, and reduce impacts from ramps, stairs, and street amenities in the sidewalk area.

Commercial Areas:

This design provides nearly four times more available commercial space than the temporary parklets, and many of these commercial areas could be designed as four-season spaces by integrating private canopies, fences and seating areas into the public streetscape.

The commercial areas are purposely set against the buildings rather than against the roadway to reduce the impact of vehicle noise and smell on the outdoor dining/shopping experience and to improve direct access between outdoor and indoor commerce/dining.

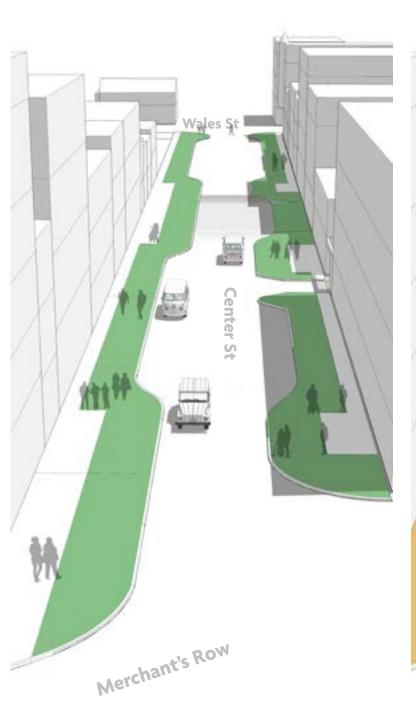
Dedicated bike parking areas should be included in the commercial space adjacent to building entries.

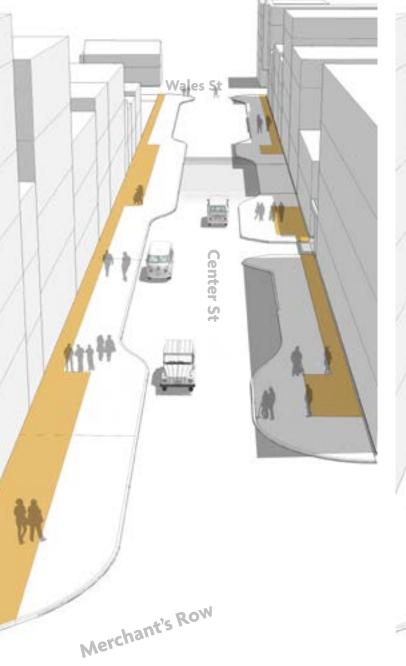
Parking Areas:

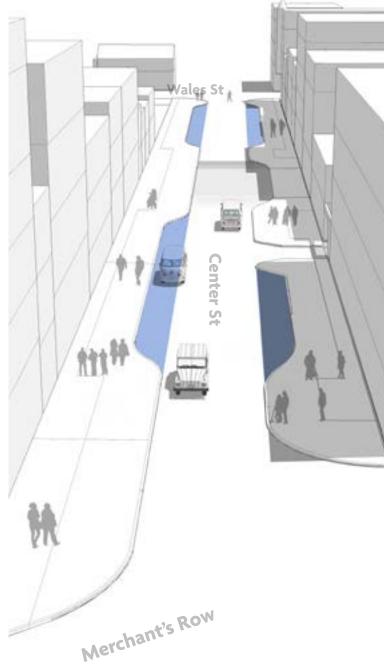
This design decreases the amount of on-street parking available to Center Street merchants and businesses by 30%. However, such a loss is needed to create additional pedestrian space. Such a loss seems reasonable given the presence of the multi-story parking garage directly connected to Center Street.

Pedestrian Space 13,500 sf 29% increase Commercial Space 5,900 sf 370% increase

Parking Spaces
21 individual parking spaces
30% decrease









One Way Street Design

This design limits travel on Center Street to one way westbound. By removing a travel lane and reducing on street parking, this design creates a more pedestrian focused street while still allowing convenient vehicular access.

Key Move:

This is a curbless street. Parking and driving areas are defined by paving patterns and bollards. Pedestrian areas flow seamlessly into and across the street, facilitating access for all ages and abilities.

The 'plaza' nature of a curbless street means that this design could instantly convert to a pedestrian-specific space for public events. The lack of a curb encourages pedestrian movement and slower speeds by creating less certainty for drivers. This curbless street supports local placemaking efforts and indicates to anyone walking or driving through the corridor that they are not on a just any street, but have arrived at Rutland's Center Street.

Marble Quarry Play Sculpture





One Way Street Details

This page provides further detail on many of the details that could be incorporated into a placemaking redesign of Center Street as a one way, pedestrian focused placemaking street.



Raised seat walls offer flexible openair seating while gracefully addressing accessibility concerns. Raised seat walls provide a "step up" along the streetscape, increasing accessibility by reducing or eliminating the need for steps or ramps at adjacent doorway entrances.



Art frames are envisioned as rotating public displays of art that are sculptural elements themselves. Along with the Marble Block Sculpture (#7), the Art Frames are specifically sited to screen views of the sunken parking area at the corner of Wales and Center streets until redevelopment replaces this pit with valuable new development.



The marble block sculpture could be based on a children's' design competition and could create a unique meeting destination. Along with the Art Frames (#8), the marble block sculpture is designed to screen views of the sunken parking area at the corner of Wales and Center streets until redevelopment replaces this pit with valuable new development.



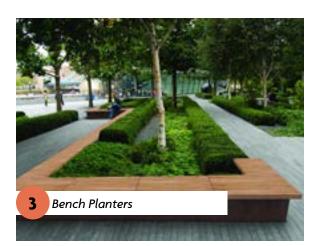
Planters enhance the appearance of the streetscape with hardy annual or perennial native plants. Planters can be used to buffer and delineate pedestrian areas from the vehicle travel lanes. Other street furnishings include benches, bicycle racks, sculpture, waste receptacles, information kiosks and historical markers.



The Marble Quarry Play Sculptures are climbable place-makers and physical pieces of Rutland's heritage. The placement of the Marble Quarry Play Structures should take into account aesthetics, visual identity, pedestrian mobility, emergency services access and public safety.



Bollards are short posts that are located to prevent vehicle movement into areas where it is not desired. The one way street design is curbless, so bollards would be used to demarcate the edge of parking areas. The Bollards also separate pedestrian areas from vehicle travel lanes. Bollards should be paintable and/or replaceable in case of damage.



Raised planters are sized and located to add seasonal color, infiltrate rainwater, improve air quality and separate the pedestrian area from vehicle travel lanes. With greater potential soil volumes, larger plants can be installed in elongated planters. The integrated edges of the planters form benches for additional streamlined seating.



Removable bollards delineate a temporary drop-off area adjacent to the Paramount Theatre. These removable bollards are heavy-duty and lockable, but easy to remove. The ground attachment point should be lidded so there is no tripping hazard when the Bollard is removed.



Modern Light Fixtures can replace or augment the historic-style globe lights along Center Street. They would have a style that complements the building architecture and other streetscape features, with dark-skies friendly, warm-color temperature LED lamps.



One Way Street Dimensions

This design provides more dedicated pedestrian and commercial space on the street, because an entire travel lane can be removed.

Pedestrian Space

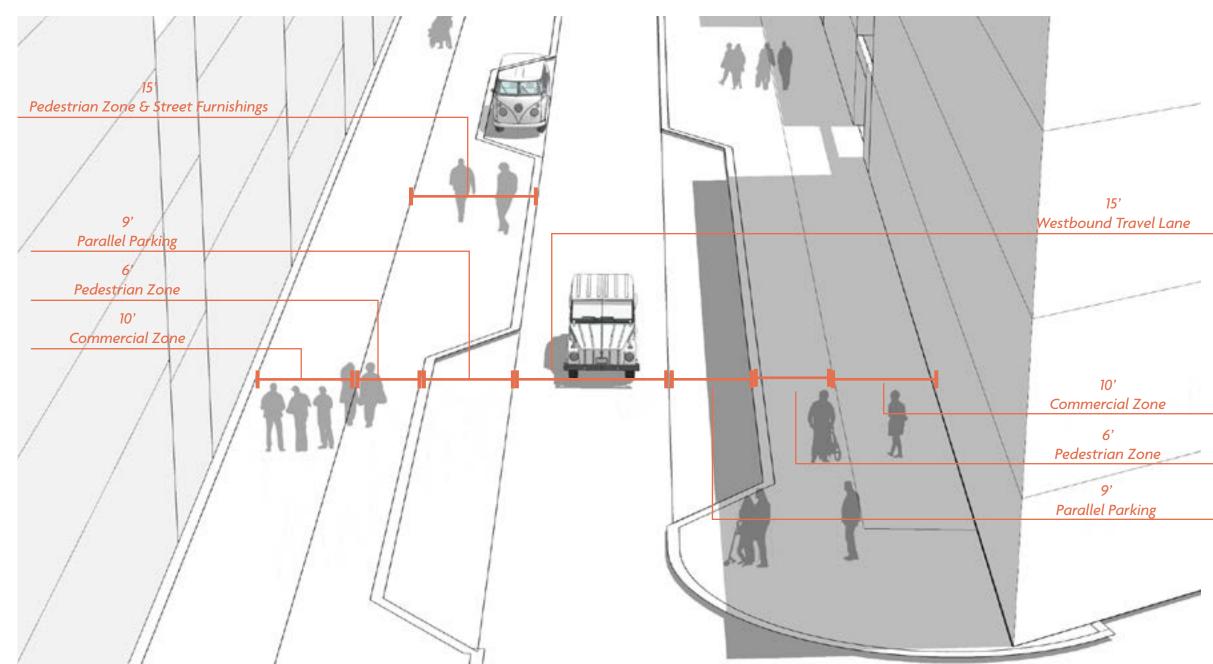
Pedestrian space maintains a 6 foot wide corridor through the entire street which would not be interrupted by any street furnishings or commercial related uses such as cafe seating. Where on street parking is not present, this space would expand to 15 feet and allow for inclusion of artwork, seating, plantings, and other important elements.

Commercial Space

This design provides an equitable 10 feet of commercial space throughout the block. The value of this design is that any building on Center Street has the same street-side resources as another, supporting even and equitable investment and redevelopment throughout the block.

Parking Space

Parallel parking spaces line the street, with the greater parking resources applied at the edge of the street. Movable bollards are envisioned immediately east of the Paramount Theatre to offer temporary drop-off and pickup zones during events at the Paramount.









One Way Street Metrics

Pedestrian Space:

This design offers a moderate 34% increase over the existing available pedestrian space, slightly more than the two way design.

Commercial Space

This design provides a significant increase in available commercial space for Center Street merchants. Unlike the two way design, this option provides a consistent 10 foot space to all Center Street businesses, creating over six times the amount of flexible commercial space as the current temporary parklet program.

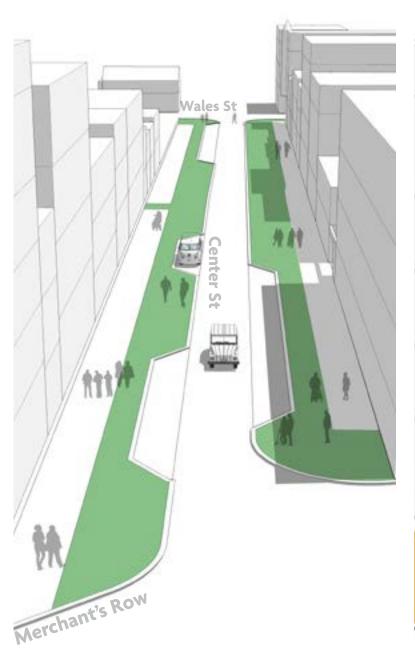
Dedicated bike parking areas should be included in the commercial space adjacent to building entries.

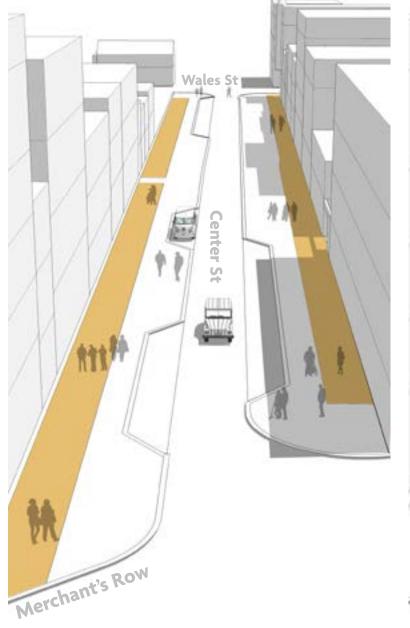
Parking Space

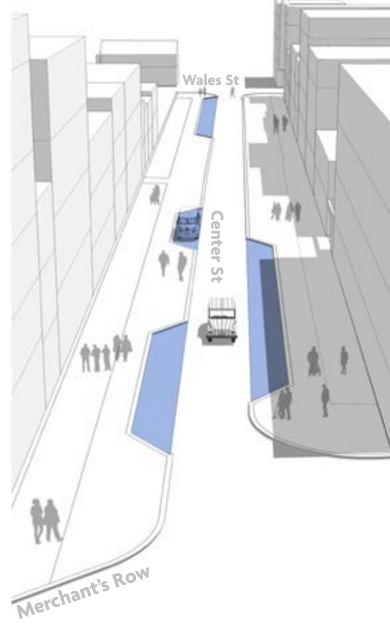
This design provides 30% fewer parking spaces than current, identical to the two way street design. A key difference is the ability of the curbless street to expand parking resources by two spaces, immediately west of the Paramount Theatre. This conversion is envisioned to support 10 minute loading/unloading zones during major events at the Theatre.

Pedestrian Space 14,100 sf 34% increase Commercial Space 10,445 sf 660% increase

Parking Spaces
21 individual parking spaces
30% decrease













Pedestrian Street Details

This page provides additional detail on the design details envisioned for the pedestrian-only design of Rutland's Center Street.



A vine-covered living wall would be an attractive way to screen views of the parking area at the corner of Wales and Center streets. A native vine such as *Parthenocissus* would be appropriate and provide a backdrop for the Art Frames, which could feature work by local artists.



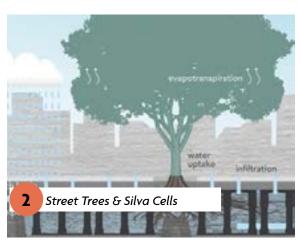
Raised seat walls offer flexible openair seating while gracefully addressing accessibility concerns. Raised Seat Walls provide a "step up" along the streetscape, increasing accessibility by reducing or eliminating the need for steps or ramps at adjacent doorway entrances.



The boardwalk through Center Street Grove would highlight the connection between the Paramount Theatre and the entrance to the adjacent Parking Garage. The Boardwalk could be constructed of a sustainable hardwood such as Black Locust, which is native to the eastern United States and grows in Vermont.



Iconic vertical gateways reinforce a sense of arrival at this pedestrian-only block of Center Street. Acting as intuitive meeting places, they would be located at the four corners of the block and could include a circular seat surrounding their bases. The vertical gateways could be new and unique works of art that could reference historical elements, such as Rutland's railroad heritage.



Street trees add welcome shade, color and cooling to the streetscape. Carefully-located narrow-form trees would retain visibility of business signage. Silva cells are a modular suspended pavement system that supports emergency vehicles, allows for stormwater conveyance and permits substantial soil volumes for healthy root growth.



The "Skipping Stone" paving pattern creates visual interest and a sense of motion along the central pedestrian area. The dimensions of the contrasting square "stones" would be large enough to permit mechanical paver installation, rather than by hand, as mechanical installation helps to reduce cost.



The east-west Center Street axis, including where it diverges around the Grove, will be kept clear of obstruction in order to permit access to emergency services vehicles and delivery vehicles. A contrasting pavement color will direct such vehicles along the clearzone and out of the Commercial Space.



The Outdoor Amphitheater features an attractive "stacked" seating area in the Center Street Grove. It is centered on a small covered stage for public performances and other events.



Pedestrian Street Dimensions

This design preserves the pedestrian clearzone as the temporary delivery / emergency access corridor through the street.

Pedestrian Zone

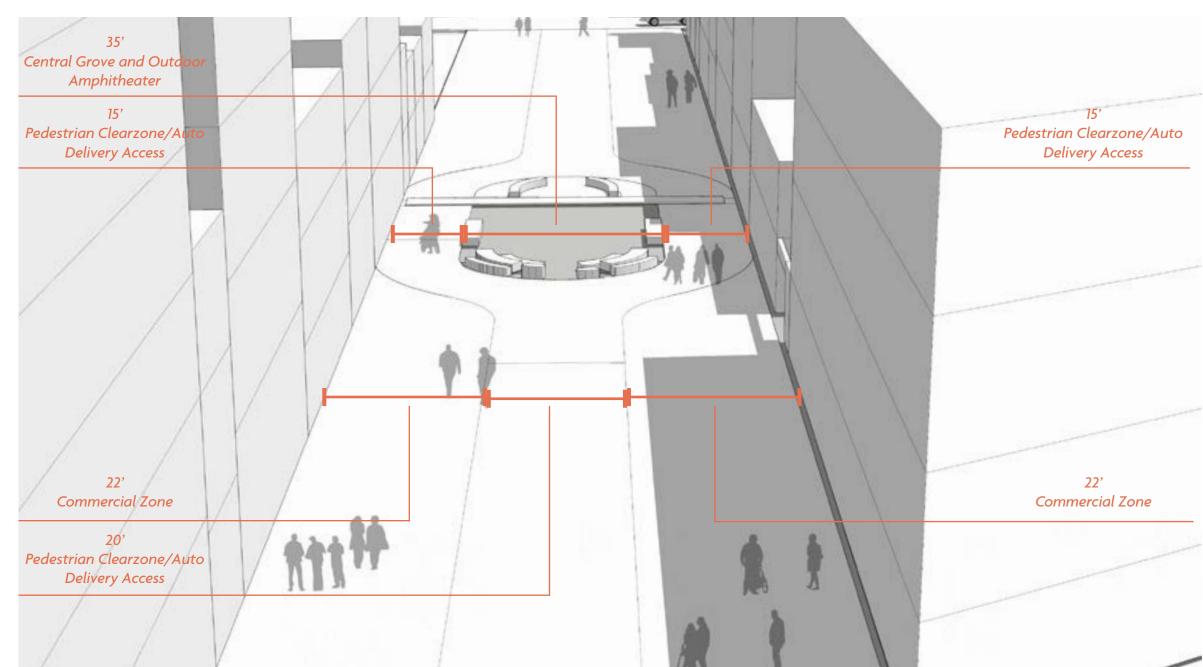
The pedestrian zone could be considered the entire street, but the dedicated central corridor that is 15 feet at the park, and 20 feet elsewhere is considered a clearzone that both accommodates a broad pedestrian thoroughfare, as well as emergency and delivery vehicles needed for the successful function of a pedestrian-only street.

Commercial Zone

The 22 foot wide commercial zone provides significant opportunities for outdoor dining and commerce. It is unlikely that this entire zone would be dedicated to outdoor dining or retail, but rather have portions to such use, and utilize the remainder to accommodate street furnishings, public artwork, and other elements of this design.

Parking Spaces

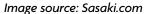
This design does not provide any on-street parking spaces.



Precedent: Ithaca Commons, Ithaca NY









Pedestrian Street Metrics

Pedestrian Space:

With the conversion to a pedestrian-only block, this design substantially increases Pedestrian Space 226% over the existing condition, offering greater options for flexible public gathering and events.

Commercial Space

The 22 foot wide commercial space provides nine times the area of the current temporary parklet program. This would be flexible area for temporary signage, sidewalk sales and outdoor cafe dining.

Dedicated bike parking areas should be included in the commercial space adjacent to building entries.

Parking Space

The Pedestrian Street design would have no designated parking spaces. However, a maintained clearzone would still provide access for emergency vehicles, as well as limited use by delivery vehicles when and where permitted.

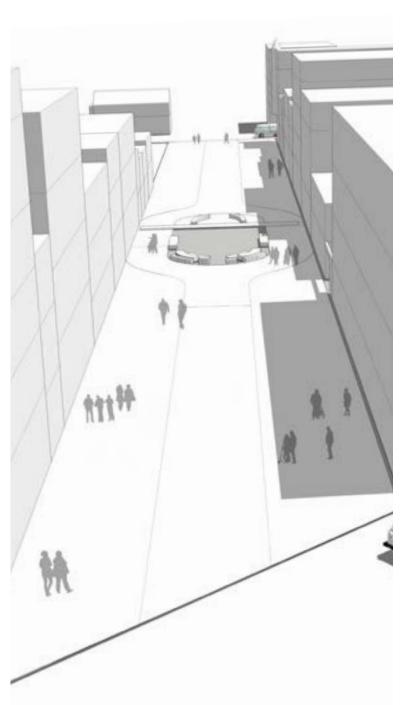
Pedestrian Space 23,700 sf 226% increase



Commercial Space 14,300 sf 900% increase



Parking Spaces
0 individual parking spaces
100% decrease





Traffic Analysis Summary

D&K modeled the study area using Synchro and SimTraffic to determine the traffic impacts of the one way and pedestrian only design concepts. The study area is shown in the figure to the right. The data used to build this model includes signal timings from the City of Rutland, turning movement counts from the VTrans MS2 website, and additional turning movements counts performed by the Rutland Regional Planning Commission August 2021.

The traffic volumes were projected to a design year of 2026 based on statewide growth factors from the VTrans Redbook. Both morning (AM) and afternoon (PM) peak hours were analyzed. The traffic volume calculation spreadsheet is included in Appendix C.

Traffic volumes were adjusted to the Design Hour Volume (DHV) based on nearby continuous traffic count data from VTrans. The DHV is the 30th highest hourly volume for the year, and this traffic model represents the intersection operations for that hour. The continuous traffic count data came from 2019 for six of the study intersections and 2017 for the remaining two. The DHV was projected to the same year as the turning movement count year based on statewide growth factors from the VTrans Redbook.

Though changes in traffic patterns due to the COVID19 pandemic have shown a decrease in traffic volumes nationally, adjusting the traffic volumes to the DHV is a conservative estimate of what traffic volumes may have been had they continued at the statewide growth rate without the disruption of a global pandemic, and what they may return to.

Level of Service

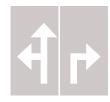
The results for this model are represented in level of service for each studied intersection. In Urban environments, LOS of D or greater is acceptable, and E or F illustrate significant issues. No Intersection in any model was seen as less than C LOS.

Model Adjustments

The pedestrian street model was optimized by a simple change to the West & Merchant's intersection. Changing the westbound lane from Through/Left and Right to Through/Right and Left at West / Merchants results in a significantly improved traffic model, and this study's findings assumed such a change could easily be made.

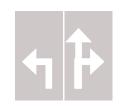
In addition, changes to signal timing is applied to all signalized intersections in both the one way and two way models to optimize intersection LOS.

Current



Through/Left & Right

Proposed



Left & Through/Right

Takeaway

Changes to Center Street travel patterns have minimal

intersection are seen in the 1-way and Pedestrian-Only

function in these models, due to a reduction in turning

model, larger volume intersections actually improve

movements to or from Center Street.

effect on downtown travel patterns and delays. Though

minor decreases in service from A to B along Wales Street



Current Conditions - 2 Way Street



C	Improvement from current conditions
	Decrease from current conditio



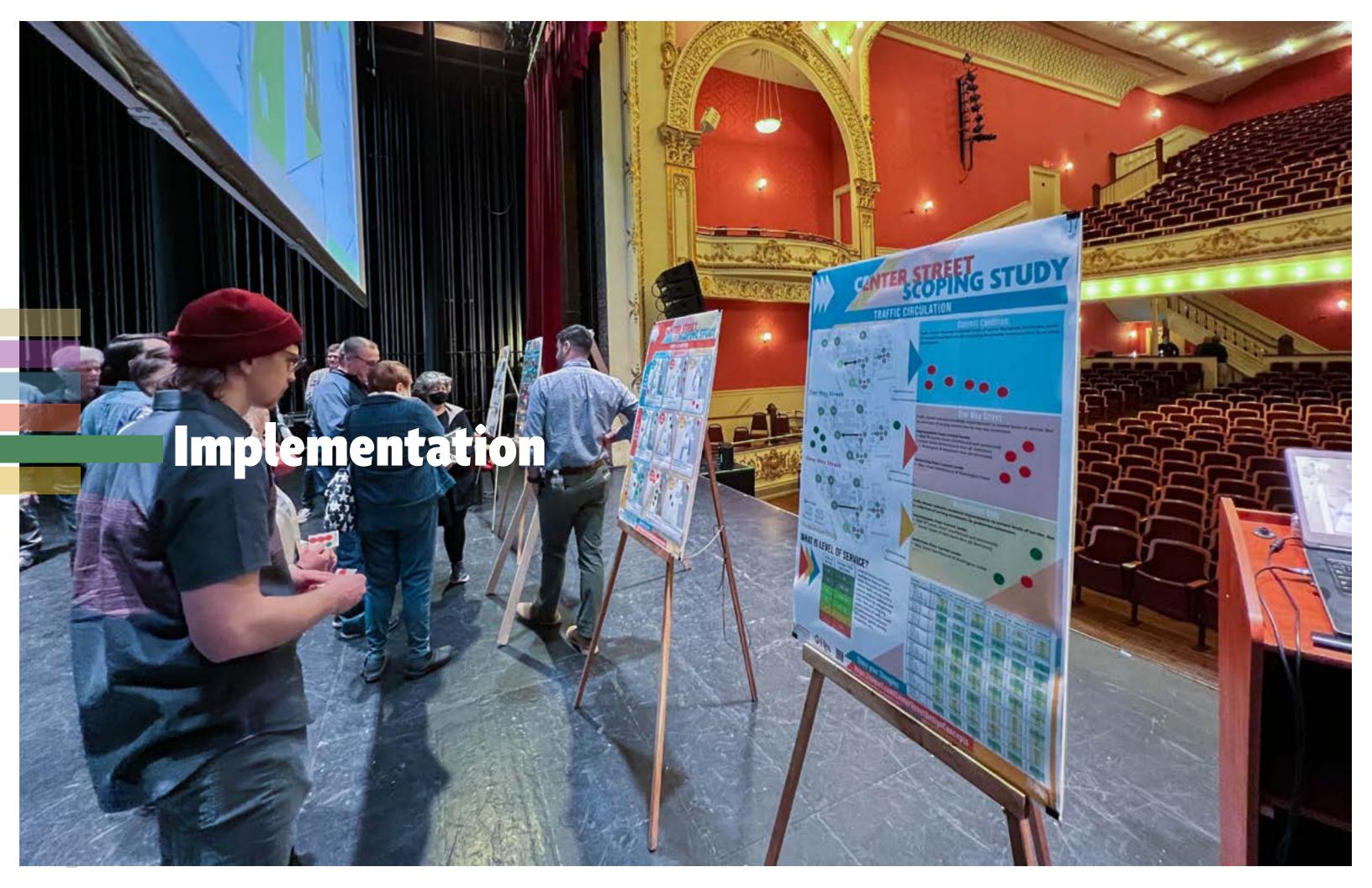


Improvement from current

Decrease from current conditions

conditions





Preferred Design Concept

Due to this project's nature as a complete street redesign, and its location in an urbanized core of Rutland, the relative impacts to environmental, cultural, historic, and physical resources were seen as roughly equal for each design concept considered.

However, the impact of a 2-way, 1-way, or Pedestrian-Only street on local businesses, landowners, and residents of Rutland would be significantly different. This project's decision to arrive at a preferred design of a one way, curbless street was largely driven by the public feedback process.

The Public feedback could be simply summed up as this: No one wanted 'small changes'. No one wanted Center Street to remain the same. Some people thought that a pedestrian only street would bring life and vibrancy to Center Street. Some people thought that a pedestrian only street would shutter businesses and make Center Street a magnet for crime. Everyone wanted a great pedestrian and festival experience on Center Street. Most people felt now was the time.

Based on this feedback, the steering committee recognized that a two way street design didn't go far enough towards the Pedestrian Centric and Create a Destination design principles. And a Pedestrian-Only option was both polarizing, likely the most expensive option, and risky - as Pedestrian streets have a mixed history of success across the United States.

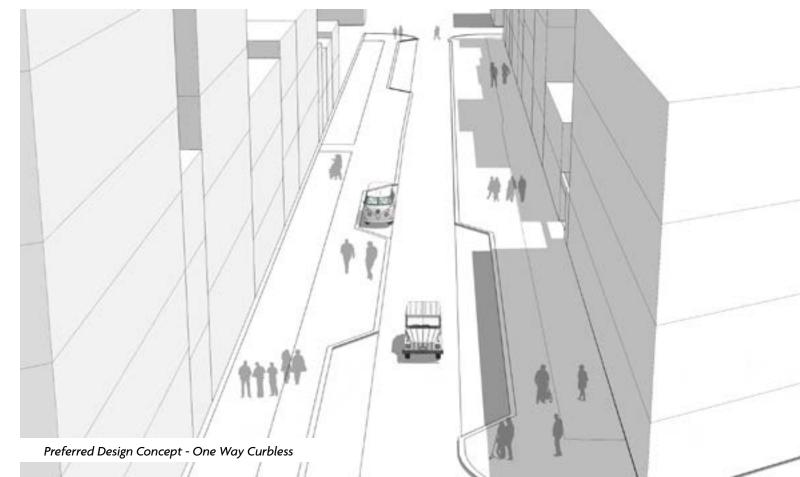
This leaves the one way curbless street concept as the final, preferred design. Its curbless design will support Center Street's continued hosting of festivals, concerts, and gatherings, easily converting to a pedestrian plaza with just two intersection closures. Snow maintenance is well accommodated by this design, as is business access and emergency vehicle access.

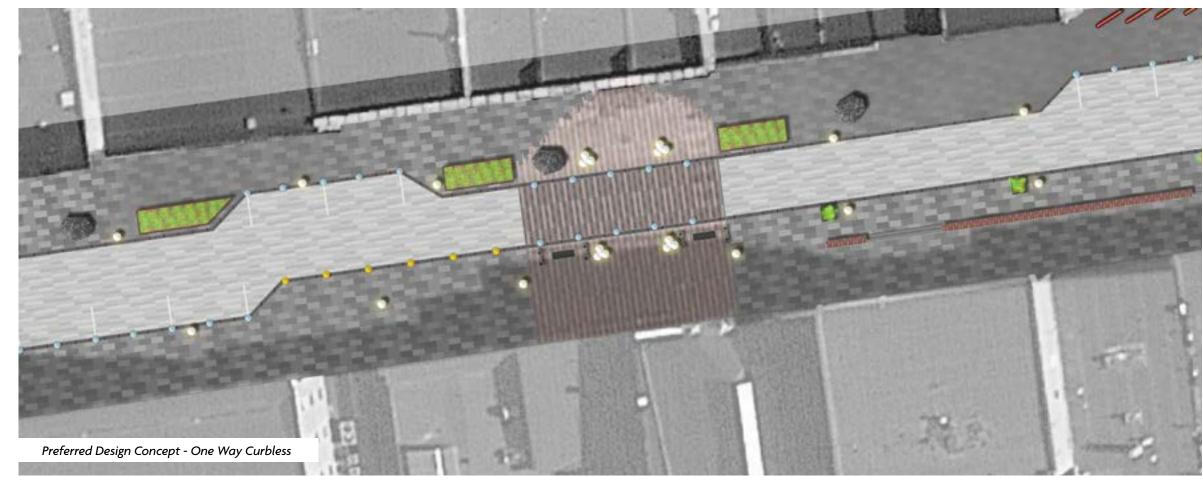
In addition, this design can easily be changed to a pedestrian only street with simple street closures. The curbless, shared-space design facilitates pedestrian and wheeled accessibility throughout the street, and a pedestrian only version of this street can be tested at any time for street festivals, seasonal closures, or other efforts as the City and community see fit.

It is worth noting that curbless streets must be designed with all users in mind, particularly those with hearing or visibility impairments. Tactile transitions between the pedestrian-only zone and shared spaces on the street are key design details. More can be learned about the detailed design of these spaces for all road users in the FHWA's Accessible Shared Streets guide.

Downtown traffic flow is also simplified by this design by reducing the number of turning movements at Wales and Merchant's Row intersections, while still allowing traffic to utilize Center Street westward.

In this implementation chapter, permitting review, cost estimates, and implementation guidance are provided to support the City of Rutland, Downtown Rutland Redevelopment Authority, and Downtown Rutland Alliance in planning, budgeting, and fundraising for this transformational project.







Project Cost Estimates

Estimate Elements

The following cost estimates have been developed assuming that the project will entail a full-depth reconstruction of the streetscape, including the replacement of sub-surface utilities. No detailed drawings have been developed, but the following assumptions have been made.

- Full depth road section replacement (6 inch asphalt, 24 inch aggregate base).
- Asphalt surfacing on traveled roadway and parking areas, interlocking brick pavers on all other areas.
- No new traffic signals required beyond signage and existing signal adjustment.
- Stormwater inlets replaced with street-long trench drain system.
- New LED lighting to match historic style and bring additional light to nighttime street scape.
- Granite curbing installed at corners of street where curbless design meets curbed side streets.

Water and Sewer

The public water and sewer utilities within the street right of way incorporate water, sanitary sewer, storm sewer, and combined sewers. Each of these public utilities have been in place for significant time and are likely near the end of their useful life for asbestos concrete and vitrified clay pipe.

To ensure that these public utilities are usable for the life of the project, this evaluation assumes that they will require replacement. These costs have not been incorporated into this cost estimate, and no removal costs have been incorporated for these existing pipes since they have the potential to be classified as hazardous materials upon removal.

Project Development Soft Costs

The following soft costs have been incorporated into this budget evaluation. The percentages represent a total calculated as a percent of total materials costs.

- Design 20%
- Local Project Management 15%
- Construction Inspection & Oversight 15%

As of the time of this writing, inflation and supply chain issues have been impacting individual project costs significantly. In light of this recent trend, significant 25% contingencies are included with this estimate.

This budget evaluation utilizes this study's preferred design and the above concept level design elements to provide this opinion of probable construction cost. Project construction costs have been developed utilizing unit pricing from VTrans 2020 Report on Development of Bike Ped Facilities and the VTrans 5-year Averaged Price List, recent bid tabs and local knowledge. The total budgetary amount for the above scope is \$3.9 million. These costs are summarized in the cost estimate table included in the estimate. This estimate represents a scoping-study level of conceptual cost, and further design work will be needed to refine this estimate to more accurately reflect eventual construction costs.

Paver Cost Add-On

The above figure is developed assuming that the vehicular travel segments of Center Street will be surfaced primarily in asphalt. Pavers are only estimated for the nonautomotive areas in the streetscape.

However, surfacing the vehicular travel lanes in pavers has been considered. This would add cost, but also contribute significantly to the sense of place and pedestrian-centric nature of the street. Pavers would need to be selected based on their resistance to freeze thaw, ability to withstand the weights of emergency service vehicles, and snowplow blades. Estimated additional costs for paver surfaced streetscape are \$317,000. This conceptual cost reflects cost increase when substituting paver installation in lieu of asphalt paving.

A full spreadsheet of the individual costs contributing to these estimates can be found in Appendix D.

	PREFERRED ALTERNATIVE	PREFERRED ALTERNATIVE				
ITEM NO.		UNIT	QUANT.	UNIT PRICE	AMOUNT	
201.15	REMOVE MEDIUM TREES	EA	8	\$600.00	\$4,800.00	
203.15	COMMON EXCAVATION	CY	3500	\$22.00	\$77,000.00	
301.150	SUBBASE OF GRAVEL, COARSE UNDER BITUMINOUS CONCRETE & PAVE	CY	1850	\$37.00	\$68,450.00	
301.260	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	CY	1100	\$45.00	\$49,500.00	
404.65	EMULSIFIED ASPHALT	CWT	8	\$110.00	\$918.50	
406.25	MARSHALL BITUMINOUS CONCRETE PAVEMENT	TON	170	\$180.00	\$30,600.00	
604.42	CHANGING ELEVATIONS OF SEWER MANHOLES	EA	4	\$940.00	\$3,760.00	
616.20	VERTICAL GRANITE CURB	LF	100	\$50.00	\$5,000.00	
616.41	REMOVAL OF EXISTING CURB	LF	1170	\$8.00	\$9,360.00	
618.30	DETECTABLE WARNING SURFACE	SF	2330	\$45.00	\$104,850.00	
619.14	BOLLARDS	EA	58	\$250.00	\$14,500.00	
653.55	PROJECT DEMARCATION FENCE	LF	600	\$0.93	\$558.00	
679.46	STREET LIGHT ASSEMBLY	EA	9	\$8,500.00	\$76,500.00	
629.29	RELOCATE HYDRANT	EA	2	\$1,700.00	\$3,400.00	
635.11	MOBILIZATION/DEMOBILIZATION	U	1	\$150,000.00	\$150,000.00	
641.150	PORTABLE CHANGEABLE MESSAGE SIGN	EA	4	\$2,100.00	\$8,400.00	
641.10	TRAFFIC CONTROL	LS	1	\$200,000.00	\$200,000.00	
652.10	EROSION PREVENTION SEDIMENTATION CONTROL PLAN	LS	1	\$15,000.00	\$15,000.00	
675.20	TYPE A SIGNS	SF	19	\$24.00	\$456.00	
675.34	SQUARE TUBE SIGN POST AND ANCHOR	LF	24	\$14.00	\$336.00	
900.62	INTERLOCKING PAVERS	SF	24545	\$35.00	\$859,075.00	
900.62	TRENCH DRAIN	LF	582	\$300.00	\$174,600.00	
900.62	PLANTER SEAT UNITS	SF	605	\$100.00	\$60,500.00	
900.62	PLANTING BOXES	EA	4	\$1,000.00	\$4,000.00	
900.62	PLANTING IN BEDS/BOXES	U	1	\$10,000.00	\$10,000.00	
900.62	WAYFINDING KIOSK/SIGN BOARDS	EA	2	\$2,600.00	\$5,200.00	
900.62	MARBLE QUARRY BOULDERS	EA	4	\$1,500.00	\$6,000.00	
900.62	MARBLE CLIMBING SCULPTURE	U	1	\$50,000.00	\$50,000.00	
900.62	SEAT WALL	LF	175	\$150.00	\$26,250.00	
900.62	BENCHES	EA	2	\$2,900.00	\$5,800.00	
900.62	TRAFFIC SIGNAL ADJUSTMENT	LS	1	\$5,000.00	\$5,000.00	
900.62	TEMPORARY ACCESS IMPROVEMENTS	LS	1	\$8,000.00	\$8,000.00	
900.62	TEMPORARY BUSINESS SIGNAGE	LS	1	\$10,000.00	\$10,000.00	
900.62	CONTINGENCY: DISPOSAL OF CONTAMINATED SOILS	U	1	\$20,000.00	\$20,000.00	
	Running Total				\$2,067,813.50	
	Contingency (25%)				\$516,953.38	
	CONSTRUCTION COST				\$2,585,000.00	
	Local project management(15%)				\$387,750.00	
	Design fee (20%)				\$517,000.00	
	Construction inspection fee (15%)				\$387,750.00	
	Grand Total				\$3,878,000.00	

NOTE: In providing opinions of probable construction costs, the Client understands that DuBois & King, Inc. has no control over the cost or availability of labor, equipment or materials, or over market conditions or the Contractor's methods of pricing, and that our Opinion of Probable Construction Costs are made on the basis of our professional judgment and experience. DuBois & King, Inc. makes no warranty, expressed or implied, that the bids or the negotiated costs of the Work will not vary from the Opinion of Probable Construction Cost provided herein.



Beyond the Scoping Study

This scoping study is intended to act as a springboard to support the City of Rutland in designing, permitting, and funding the reconstruction of Center Street.

This section outlines the general steps needed to move this report towards an funding an transformation investment the heart of Downtown Rutland

- Step 0 Find a champion
- Step 1 Board of Aldermen Approval
- Step 2 Internal Coordination
- Step 3 Fundraising and Grant Writing
- Step 4 Survey, Design & Permitting
- Step 5 Construction & Maintenance

Step 0 - Find a Champion

City staff or engaged resident, every plan needs a champion. Human resources are needed to use this plan as a tool to communicate demonstrated public support, anticipated project cost, and recommended designs to regional, state and federal partners. A continuing series of design and permitting projects are a part of bringing any infrastructure project to life, and a local champion plays an out-sized role in ensuring that needed permitting, design, and grant applications are developed, submitted, and approved in a timely fashion. Rutland City is fortunate to have members of this study's steering committee employed with the Rutland Redevelopment Authority, Rutland Regional Planning Commission, City of Rutland and Downtown Rutland Partnership who can continue to collaborate as co-champions of this project.

Step 1 - Board of Aldermen Approval

Though not an explicit requirement of any scoping study, having the recommended design concept and this study as a whole adopted by Rutland's Board of Aldermen can serve as an important first step towards implementation. Formal adoption by the legislative body of Rutland strengthens future grant applications referencing this study by indicating not only broad community and stakeholder support, but also political support for a transformational investment in Center Street.

Step 2 - Internal Coordination

Coordination among Rutland City's internal departments of planning, economic development, and public works will be crucial to lay out next steps for rebuilding Center Street. In addition to the streetscape elements discussed in depth in this report, coordination with planned utility upgrades and replacements will offer both efficiency and potentially additional funding streams.

An important part of internal coordination will be identifying all possible funding streams to reach the needed matching requirements for grants that can fully fund the final design and construction phases of a new Center Street.

Step 3 - Fundraising & Grant Writing

Funding the final design and construction of an entire street will require town commitment to federal grant funding. The grant resources table on this page outlines some of the common funding resources for Vermont towns that are seeking to develop significant public infrastructure projects. Federal funding resources come with requirements that must be followed throughout the project development and implementation process. View this document as a digital pdf to follow direct hyperlinks from the table to each grant's website.

The scale of a full street rebuild will require multiple funding resources working in concert. A deep review of individual funding requirements should identify ways grants can compliment one another, and what restrictions are in place regarding multiple funding streams.

Table –3 - Grant Resources					
Grant Title	What does it fund?	Maximum Grant Amount	Local Match Required	Federal Funding	Grant Contact
VTrans - Transportation Alternatives Program (TAP)	Construction, planning and design of on and off roadway facilities for active transportation facilities	\$300,000	20 percent	х	Scott Robertson scott.robertson@ vermont.gov 802-793-2395
VTrans - Bicycle and Pedestrian Program Grants	Construction, planning and design of on and off roadway facilities for active transportation facilities	\$1,000,000	20 percent	X	Peter Pochop - peter.pochop@ vermont.gov 802-477-3123
CDBG - Implementation Grants	Assist businesses to create or retain jobs, create or rehabilitate housing units, build infrastructure, create or assist childcare and senior centers etc.	\$1,000,000	50 percent	x	Patrick Scheld - patrick.scheld@ vermont.gov 802-828-1365

Step 4 - Survey, Design & Permitting

Once funding agreements and/or grants are in hand, the Town can then move towards contracting an design and engineering firm to begin the permitting process, conduct a pre-construction survey and develop full construction documents. It is worth noting that the recommended curbless design is a very unique typology, and every effort should be sought to identify designers who have experience with similar pedestrian-centric streets.

Attention should be given to the recommendations provided in the FHWA Accessible Shared Streets document, which includes best practice design guidance for people with vision disabilities (chapter 4) and tactile walking surface and detectable edge treatments (chapter 5).

As designs are developed, so should formal permits for the project. An overview of the permits needed for the sidewalk and streetscape components of the preferred design is provided on the following page.

Step 5 - Construction & Maintenance

Once the contractor is on the street and the first earth is turned over, the final step has begun. Simultaneous with planning for construction, the City and partners should plan for ongoing maintenance, not only for snow removal throughout the street corridor, but also for additional street trees and vegetation, as this 'greening' of the street is a key part of the final recommendation and was a top priority of the community's.



Permit Overview

Potential permits required for transportation infrastructure projects were reviewed for reconstruction of Center Street. Their validity and triggers are outlined here.

- State Highway Access (1111). This permit is required when a project is within the state highway right-of-way. This permit does not apply to the Center Street study area and adjacent intersections.
- ACT 250. There are several jurisdiction categories that trigger the need for an Act 250 permit. They are listed by the State of Vermont Natural Resources Board online. It is unlikely that Center Street reconstruction will trigger Act250.
- National Environmental Policy Act (NEPA).
 The NEPA process needs to be followed whenever Federal funding is involved. Based on this study's review of natural resources in the project area, this project qualifies for a categorical exclusion.
- Construction Stormwater General. This
 permit is triggered when a project exceeds
 one (1) acre in disturbance. It is possible
 that this construction project could stay
 below this threshold, but final construction
 documents will need to determine the
 exact area. This permit is likely.
- Stormwater Operational. It appears the City will be exempt from the Stormwater Operational Permit since the Rutland Wastewater Treatment Facility is covered under Permit Number 3-1283 and NPDES Number VT0100871 and is permitted to accept stormwater.
- Stream Alteration. This project will not directly effect any streams.
- The United States Army Corps of Engineers (USACOE). USACOE regulates all wetlands and fill below the Ordinary High Water (OHW). But this project will not directly effect any streams.

VT Individual Wetland Permit. A permit would be required if the project impacts any type of wetland, or encroaches on a class I or II 50 foot buffer. This project will not directly impact any wetlands.

Implementation Timeline

The implementation timeline at right outlines a roughly four year process by which the City of Rutland can budget, permit, design, bid, and construct a new Center Street.

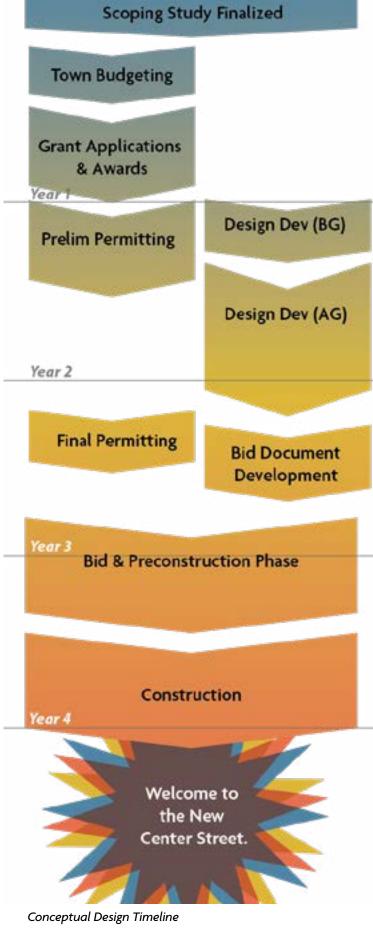
This timeline presents a optimistic scenario. It also purposely avoids month-by-month specificity to reflect the nuances of individual project permitting, politics, and financing. This timeline assumes that the project will be funded by a combination of town funds and federal grants. The first year is dedicated to pursuit of these financial elements and approaching design development not only of the improvements scoped in this study, but also below ground utility repair and replacement that

should be approached simultaneously for cost efficiencies, and minimizing disruption to an economically important downtown street. Year two should be spent approaching permits and using grant or town funding to hire a designer for aboveground (ag) and below ground (bg) changes. There is potential that Rutland Public Works could serve as lead designer for below ground improvements. The final year of the process will finalize permitting based on final designs, develop bid documents and solicit bids to complete the work. This process, and construction can take up to two years.

Potential delays to this timeline as written include a need for multiple grants to reach funding goals, winter delays, and unanticipated below ground complications, from unmapped utilities to historical/cultural resources.

A more detailed and expanded concept timeline can be found within <u>VTrans Transportation Alternative Program's Application Guide.</u>

	Table –4	- Permit Requirements			
One Way Curbless Street					
Permit	Permit Needed?	Explanation			
State Highway Access (1111)	No	The project does not impact State Highway ROW.			
ACT 250	No	Based on our review of the jurisdiction categories, an Act 250 permit will not be required.			
NEPA	Yes (Cat Ex)	Based on this study's review of resources in the project area, this project qualifies for a categorical exclusion.			
Construction Stormwater General	Likely	The project area is approximately 625 feet in length from the center of Merchants Row to the Center of Wales Street intersections. Building face to building face measures approximately 65 feet wide. This provides an approximate 40,625 sf or .93 acres. Any material/equipment staging areas not within the site or adjacent to the site should be considered as disturbance as well. Final design documents and limits will determine the need for this permit, triggered at 1 acre of disturbance.			
No since the Rutland Wastewater Treatment Facility is coverage under Permit Number 3-1283 and NPDES Number VT010		It appears the City will be exempt from the Operational Permissince the Rutland Wastewater Treatment Facility is covered under Permit Number 3-1283 and NPDES Number VT0100871 and is permitted to accept stormwater.			
Stream Alteration	No	This project is not located near any streams.			
USACOE General	No	This project is not located near any streams.			
Ind. Wetland	No	This project does not impact any mapped wetlands or buffers.			







Appendix A

Historic Resources Identification (HRI) report and Archaeological Resource Assessment (ARA)

Appendix BPublic Input Materials and Responses

Appendix CLevel of Service Analysis Spreadsheet

Appendix DFull Cost Estimates for 1 Way, Curbless Design.

