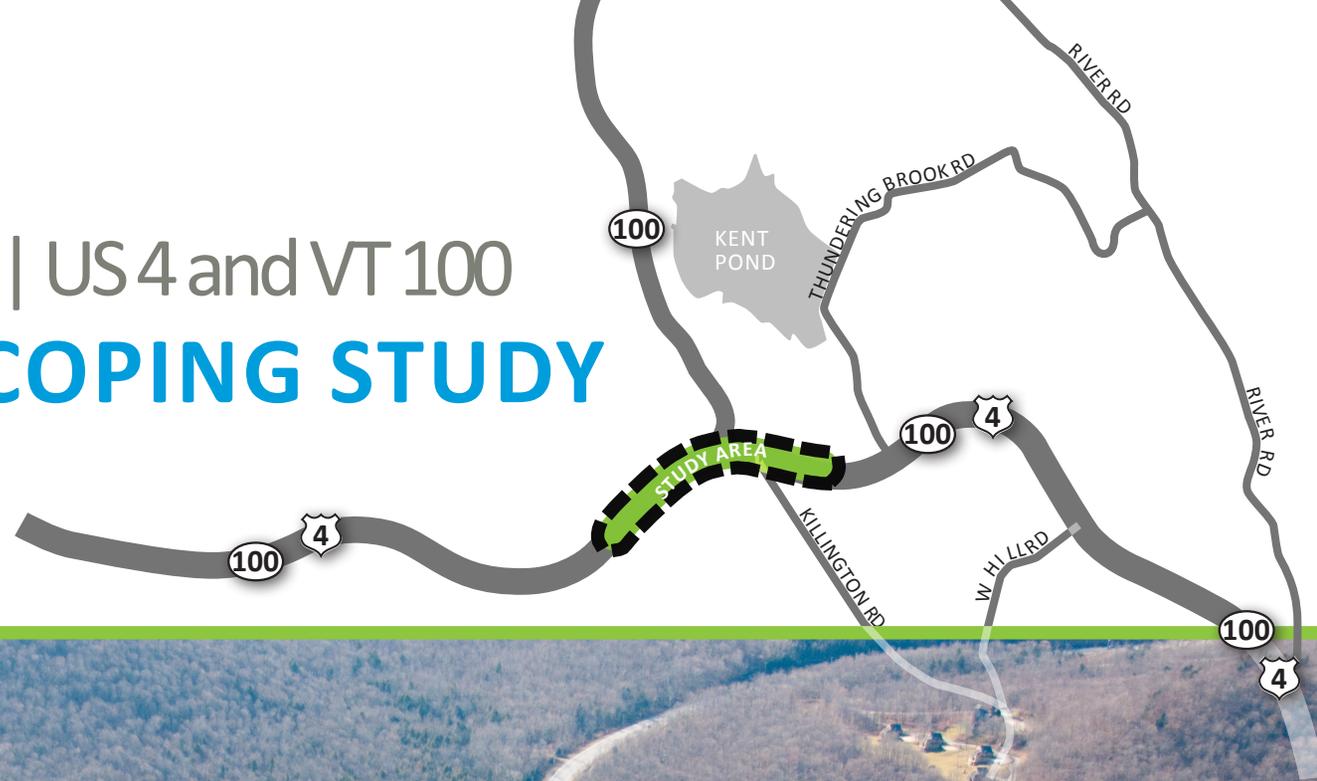


Killington Gateway | US 4 and VT 100

STREETSCAPE SCOPING STUDY



December 2012



TOWN OF
KILLINGTON
VERMONT



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The Consultant team looked at the existing road conditions in the project area, the opportunities and constraints of the immediate built and natural environment, and strategies to improve pedestrian safety, in addition to enhancing the arrival experience to the area.

1 INTRODUCTION

1.1 OVERVIEW

The Town of Killington, in recognizing the need to improve bicycle and pedestrian accessibility, roadway safety, the streetscape environment and create a principal gateway to the Town, applied and received funding through the Vermont Agency of Transportation (VTrans) for a Streetscape, Bicycle, and Pedestrian Scoping Study.

Resource Systems Group (RSG) lead the scoping study effort, and in association with LandWorks landscape architects, the “Consultant team” was retained by the Town of Killington to identify issues with, plan for, and provide architectural and engineering design services for the construction of gateway, streetscape, bicycle, and pedestrian improvements along Route 4 in the emerging village area around the VT 100 intersection.

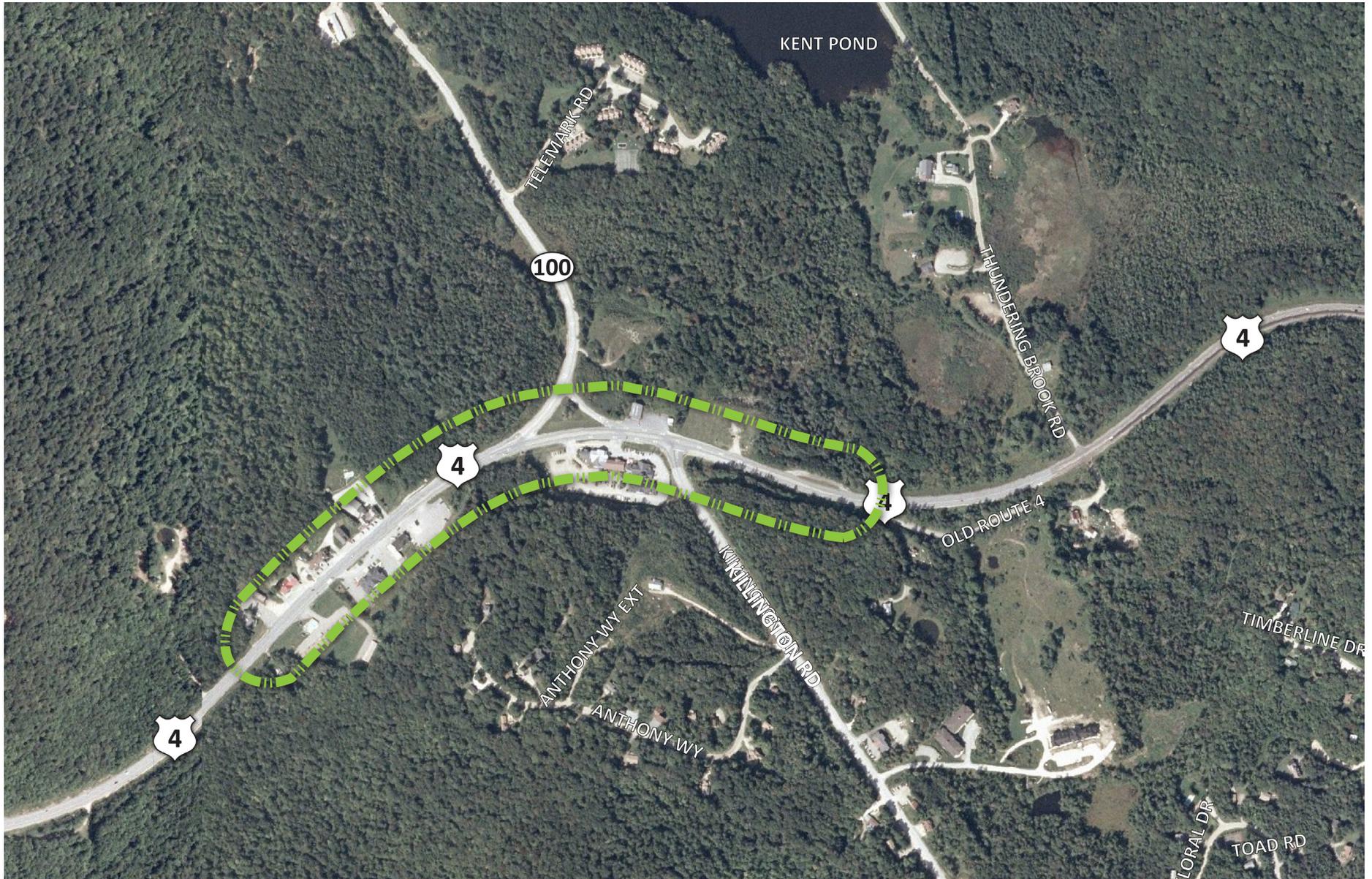
The project area is located along US 4 between Shady Knoll Road and Killington Road, and VT 100 from US 4 north to Kent Pond. **(Figure 1.1: Study Area)** The Consultant team looked at the existing road conditions in the project area, the opportunities and constraints of the immediate built and natural environment, and strategies to improve pedestrian safety, in addition to enhancing the arrival experience to the area.

1.2 METHODOLOGY

To arrive at a preferred concept alternative, the Consultant team followed a methodical approach in gathering information, identifying constraints, developing alternative ideas, and receiving feedback throughout the course of the project. The process involved:

- Project Kick-off Meeting
- Compile and document existing conditions
- Meetings and Outreach
 - Advisory Committee Meetings
 - Local Concerns Meeting
 - Stakeholder Meetings (2)
 - VTrans Meetings (2)
 - Selectboard Meeting
- Identify constraints
 - Land Use
 - Right-of-Way
 - Environmental/Cultural
 - Utility
- Develop conceptual alternatives
- Selection of preferred alternative
- Develop preliminary cost estimates
- Implementation strategy

Figure 1.1: Project Study Area



1.3 MEETINGS AND PUBLIC OUTREACH

RSG and LandWorks worked closely with the Town of Killington and VTrans, as well as local residents and stakeholders, to ensure that the scoping study process was transparent and developed based on input from the local community.

1.3.1 Kickoff Meeting

The initial kick-off meeting for the project occurred on November 16, 2011 at the Killington Town Office in the afternoon. The intent of the meeting was to meet all of the members from the Client team and Consultant team, review the project schedule, establish the project contacts and steering committee, and confirm the scope and geographic boundary of the project. The meeting notes can be found in **Appendix A: Meetings**.

1.3.2 Steering Committee Meeting

The second meeting with the Killington team was on December 14, 2011 to regroup with members from the initial kick-off meeting and RSG presented preliminary existing conditions findings. The group also discussed additional information that each organization would be in charge of providing for the study. The meeting notes can be found in **Appendix A: Meetings**.

1.3.3 Local Concerns Meeting

The Town of Killington invited residents, business owners, and local stakeholders to attend a local concerns meeting on Wednesday, January 25, 2012 at 6pm. The purpose was to discuss the existing streetscape conditions and collect early input on thoughts, issues, and recommendations for potential infrastructure improvements along US 4 and VT 100. The presentation portion of the meeting included an overview of the project area, a summary of existing conditions, and preliminary

project goals. An interactive discussion session followed the presentation where interested parties voiced their thoughts about conditions and safety in the study area. The results of the local concerns meeting can be found in **Appendix B: Public Outreach**.

1.3.4 Stakeholder Meeting 1

For the Stakeholder Meeting, held at the Killington Town Office on February 29, 2012, the Consultant team prepared an interactive meeting with materials showing the street cross-sections and elevations at scale and sketches of what the area could look like with certain improvements. RSG prepared a press release and flyer, which was distributed by the Town of Killington to all local residents and business stakeholders (**7.1.1. Press Material**). The meeting materials and results can be found in **Appendix B: Public Outreach**.

1.3.5 VTrans Meeting

Taking what the team learned from the local concerns meeting and the first stakeholder meeting, RSG and the Town of Killington summarized the project process and goals, and presented a preliminary plan to a group of key VTrans individuals. This meeting included representatives from VTrans utilities, maintenance, traffic safety, traffic operations, and bicycle and pedestrian divisions and the intent was to gain their feedback on the viability of the initial concept plan. The results of the meeting, including notes of the feedback from VTrans, can be found in **Appendix A: Meetings**.

1.3.6 Stakeholder Meeting 2

The second stakeholder meeting was held on April 20, 2012 at the Killington Town Offices and RSG presented the revised preliminary concept plan, based on feed-

back from the VTrans meeting. The meeting was an informal forum, where attendees gathered around a plan and gave their feedback and input on the various proposed strategies for improving the corridor. The Town of Killington issued a press release and invited all local business owners and stakeholders to attend the afternoon meeting. The notes and feedback from attendees at the meeting can be found in **Appendix B: Public Outreach**.

1.3.7 Selectboard Meeting

RSG presented the revised concept plan, as well as the preliminary implementation plan, cost estimates, and potential funding sources, to the Killington Selectboard on June 26, 2012 at the Killington Town Offices. The presentation included the project background, purpose and need, and goals. RSG also walked the Selectboard members through a series of plans and renderings depicting the details of the streetscape and gateway plan. The Selectboard asked several questions relating to the effect on business owners, cost estimates, and traffic volume. Citizens in the audience also inquired about traffic control measures and the impact of signage on businesses. Jeff Haff made a motion to support the concept, incorporate the meeting feedback, and proceed with the study, meeting with VTrans, and letter of intent for grant funding. All were in favor and the concept was approved by the Selectboard.

1.3.8 VTrans Meeting 2

RSG presented the preferred concept plan to VTrans on July 19, 2012, in preparation of submitting the final streetscape scoping report and application for grant funding.

Ensure that the community develops the needed facilities to improve Killington's gateway image and facilitate pedestrian mobility and safety.



2 PURPOSE AND NEED

The purpose of this project is to provide recommendations for infrastructure improvements that support pedestrian and bicyclist movement within the area, and enhance the gateway feel of the area around the along Route 4 and at the VT100 and Route 4 triangle. Safety for all modes of transportation is a tantamount concern in the conceptual design for this area.

Within this framework, the study serves two primary purposes:

First, this report identifies directly feasible sidewalk alternatives within the existing road network and VTrans right of way. The final concept plan prioritizes actions with potential funding sources identified and supports future grant applications by showing how each phase and portion of the plan fits in the overall future vision for Killington's town gateway.

Second, this report will assist the town in expanding its streetscape improvements within the project area and along networks that connect to it. Short term improvements will address the most pressing deficiencies, while the comprehensive plan outlined in this report will ensure that the community develops the needed facilities to improve Killington's gateway image and facilitate pedestrian mobility and safety. In sum, the project addresses the overall aesthetics and functional qualities of this area as it serves, in part, as a commercial center within the town.

Project needs include:

- The existing pedestrian network consists of disjointed curbed access solely along a handful of building frontages and a lack of sidewalk segments in other areas. There are no bicycle facilities currently along Route 4.
- The current flow of traffic along Route 4 through the project area moves at high speeds, much higher than the posted 40 mph speeds along that segment.
- To further calm traffic and be recognizable during snow conditions.
- Presently, the commercial corridor at the gateway of Killington does not have a presence along the road.

By adding traffic calming measures and encouraging walkability along the retail corridor, the experience through Killington's gateway will be transformed dramatically. These features would improve the aesthetics and sense of place, as well as provide a welcoming experience, for travelers through this important town corridor.

The idea of walkability and adding places where visitors could get information, gather, and shop were important features the public expressed for the project area.



3 PROJECT GOALS

The Consultant team invited the public to select and comment on the goals that they felt were most important to facilitate a better streetscape and arrival experience into Killington along Route 4. The idea of walkability and adding places where visitors could get information, gather, and shop were important features the public expressed for the project area. The four goals listed in this section resonated the most with participants and drove the initial development of the conceptual plan.

1. Add gateway amenities to convey a sense of arrival.

Killington area residents and business owners felt that better streetscape and landscaping is critical for Killington to make a great impression on those who might otherwise be driving through the town. Strategies suggested included adding lamp posts, trees, and flags on the side of landscaped roads. Many also suggested improving the wayfinding in the area by adding information boards to help direct people to various destinations.

2. Enhance streetscaping, landscaping and public amenities

By improving the streetscape through landscaping, public amenities such as small park area with gardens, a restroom and public information kiosk, added street furniture, and street trees to the roadside, Killington would become a more inviting place for local residents and visitors to stop.

3. Provide traffic calming measures to improve pedestrian and bicycle safety.

Adding features to the edge of the road and encouraging more pedestrian presence will naturally enhance safety and calm the speed of traffic in the area. Additionally, the added buffer and safety will create a corridor that is functional and attractive for peak and off-peak seasons.

4. Add pedestrian crosswalks to allow better access to both sides of the road.

A key guiding principle for this corridor is to activate both sides of Route 4 and ensure ease of walkable access in order for pedestrians to reach businesses on either side. In order to achieve this, pedestrian crosswalks should be added to encourage people to walk—instead of drive—to nearby destinations.

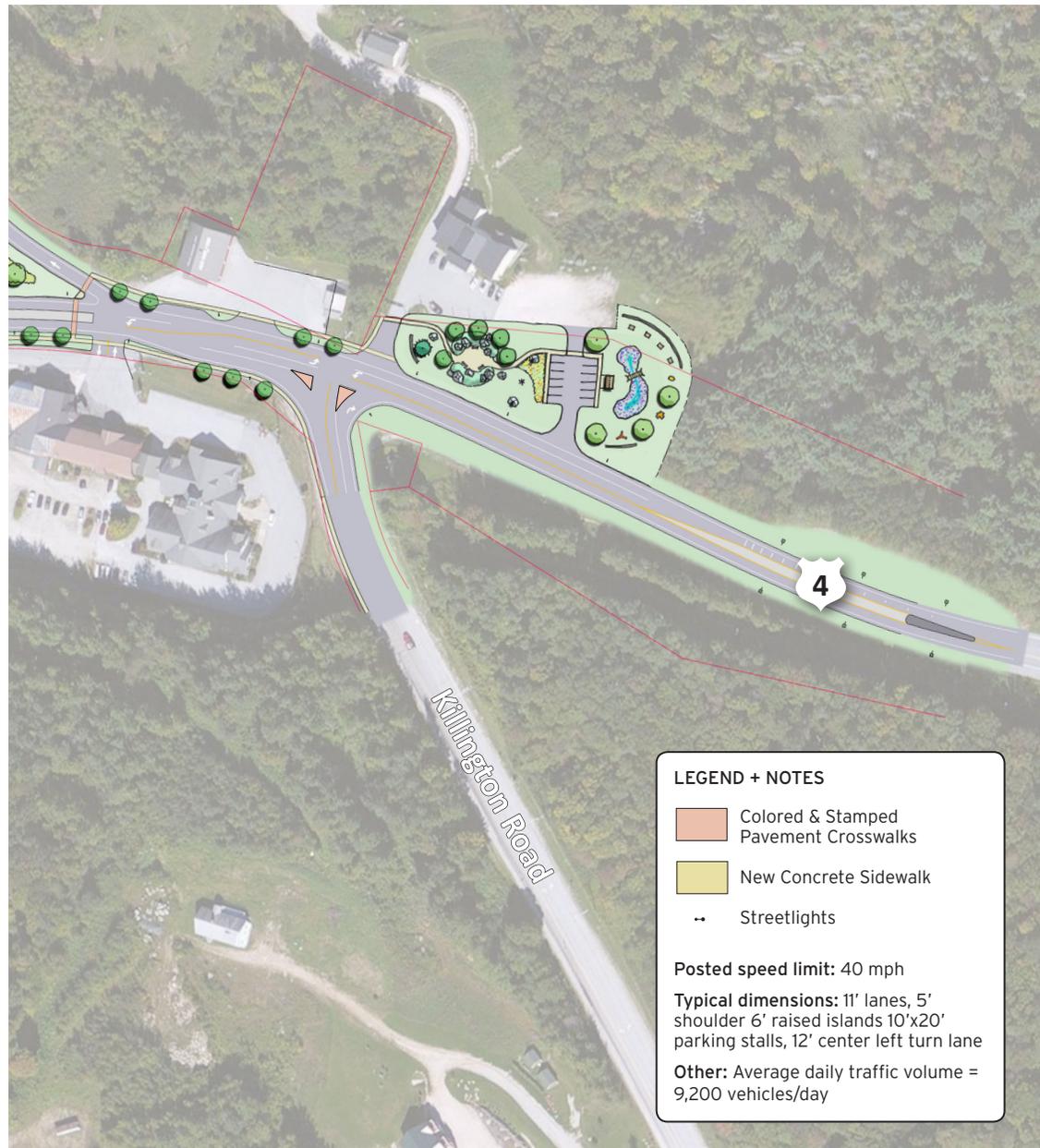
Figure 4.1: Overall Project Concept Plan



4 CORRIDOR CONCEPT

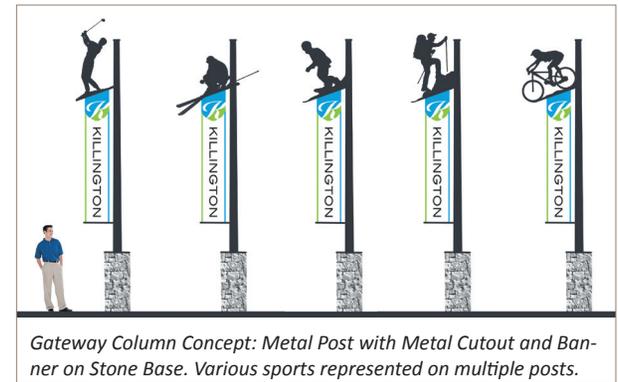
The plan for Killington's gateway is to celebrate a town that is known for its world-renown ski resorts as well as its beautiful natural scenery and diverse year-round activities. The concept design highlights the main arrival corridor by placing signage, appropriate artwork or landmarks, and landscaping in strategic and visible locations. Additionally, the concept fosters spaces for social gathering and quiet lingering, encouraging residents and visitors alike to stop in the shops and explore the local retail offerings. And at the heart of the plan—and one of the most prominent features of the concept—is a strategy to provide a safer environment for pedestrians and avid cyclists.

The conceptual design for Killington's gateway corridor is the product of collaboration between local business owners, stakeholders, residents, and the Town of Killington and VTrans, who sponsored the study.



4.1 OVERALL PLAN

The consultant team, in association with the Town of Killington and VTrans, developed a concept plan that is framed by the project's goals, as guided by the opinions of stakeholders. Each proposed element along the corridor helps achieve the following goals.



Gateway Identity

To help make the Route 4 corridor stand out and convey a sense of arrival for those approaching from all directions, gateway treatments at key entrance points will help signal to travelers that they are approaching a unique place. A line of closely situated banners along the eastern and western approaches on Route 4 will be visual cues to slow down travelers as they enter into the retail corridor. Similarly, welcome signage and/or relevant artwork will be placed in the “triangle” coming from VT 100 to indicate to drivers to drive carefully as they are entering the town. By adding noticeable and branded wayfinding markers and identity signage along Route 4, Killington Road, and Route 100, the image and identity of the area will improve substantially.



Streetscaping and Landscaping

To beautify the entrance into Killington, the concept plan proposes using stamped and colored paving patterns where appropriate. Additionally, raised curbed medians at key entrances and intersections signal to drivers this transition from highway setting to village setting as they travel through the corridor, particularly in winter conditions. Refuge islands can also serve to help pedestrians at designated crossing areas.

Furthermore, a uniform line of trees continuing along Route 4 offers a vertical element to the streetscape and fosters the feeling of a more intimate main street. The trees will be planted in raised curbed islands that will buffer the pedestrians and store parking from the traffic along Route 4. In order to keep maintenance needs low, only appropriate salt-tolerant species will be considered for planting along this corridor and the trees will be planted in structural soil.

Prominently displayed landmarks sitting in well-landscaped settings on the eastern approach along Route 4 and from the northern approach along VT 100 provide visual cues of the programmatic opportunities within the Town of Killington.



Pedestrian and Bicycle Safety

One of the primary goals of the plan is to create a corridor that is safe and accessible by a variety of transportation modes, including walking and bicycling. Continuous curbed sidewalks line retail and commercial businesses on both the north and south sides of Route 4, encouraging patrons to park once and walk to other destinations in the gateway area. Planters, curbed landscaping, and trees help shield pedestrians from adjacent traffic and create a more enjoyable walking and shopping experience. In addition, raised curbing between the roadway and parking lots also serve as a traffic calming measure, visually signaling to drivers that the roadway is shared.

Killington is also a popular destination for experienced cyclists, particularly in the spring and summer seasons. By realigning the centerline of the street while maintaining the existing right-of-way and roadway width, experienced bicyclists will be able to ride on the 4 foot shoulder on the side of the road, in both directions along Route 4.



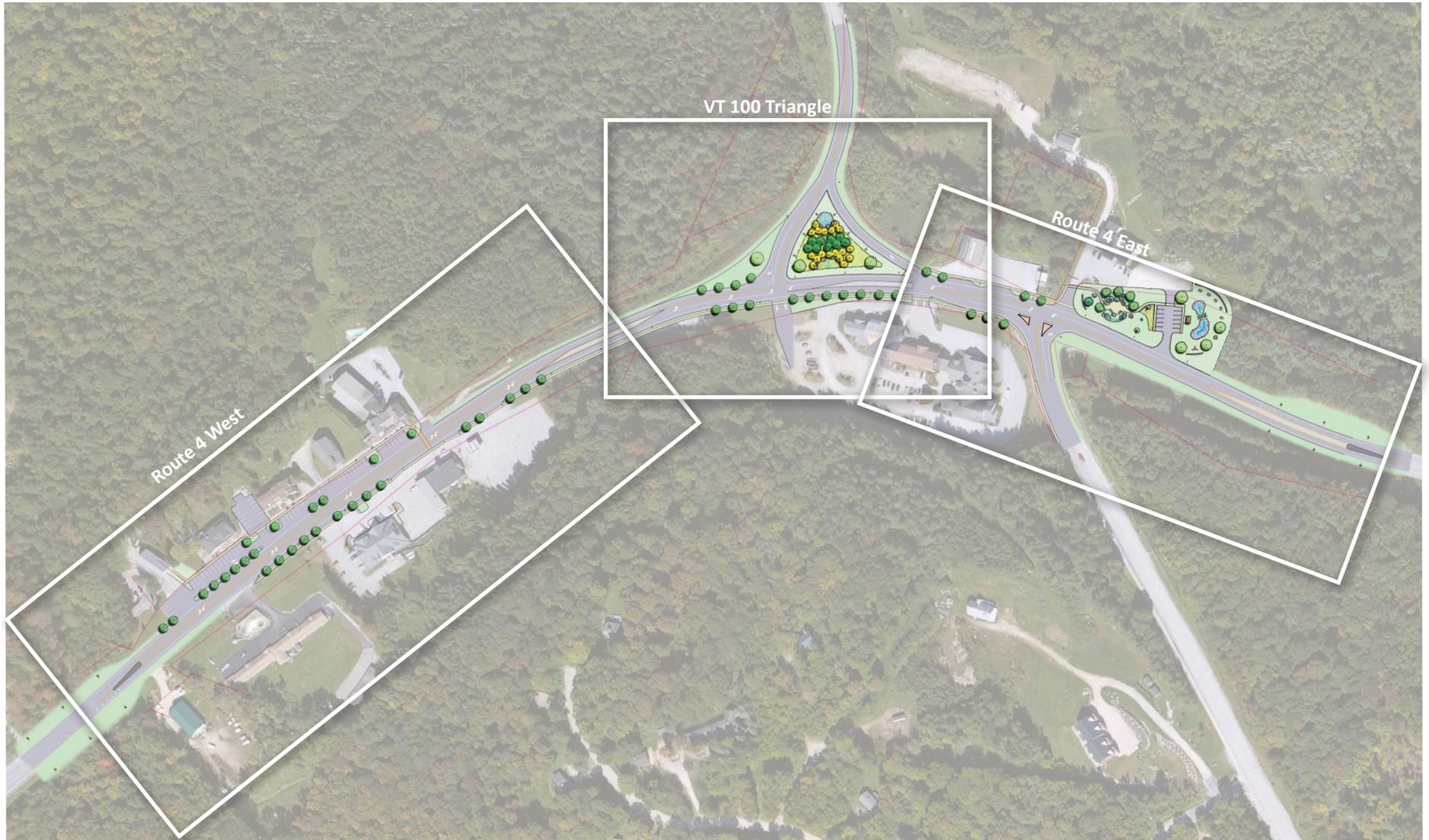
North and South Access

For the majority of the study area, Route 4 has active retail- or service-oriented businesses on both sides of the street. To facilitate walkability, the concept plan proposes adding two crosswalks on Route 4. The crosswalks will be located between:

- Greenbrier Inn and the Killington Deli
- The former Bill's Country Store and the Killington Shops.

These are the locations where residents and business stakeholders reported the greatest need for crossing access and the crosswalks connect pedestrians safely from along one sidewalk to another at these two locations. The connection between the Killington shops on the south and the former Bill's Country Store on the north side of Route 4 also provides several traffic shelters, where raised medians serve to allow pedestrians to safely pause in the middle of the crossing.

Figure 4.2: Three Enhancement Areas



4.2 ENHANCEMENT AREAS

For the purposes of presenting the streetscape plan and its elements, the project area is organized into three general parts, consistently referenced throughout the report. Moving from west to east along the length of Route 4, these areas are referred to as: Route 4 West; VT 100 Triangle; and Route 4 East.

Figure 4.3: Enhancement Areas - Before and after

Approach from the West on Route 4: Before



Looking West from Route 4 West: Before



Approaching Triangle from VT 100 North: Before



Approach from the East on Route 4: Before



Approach from the West on Route 4: After



Looking West from Route 4 West: After



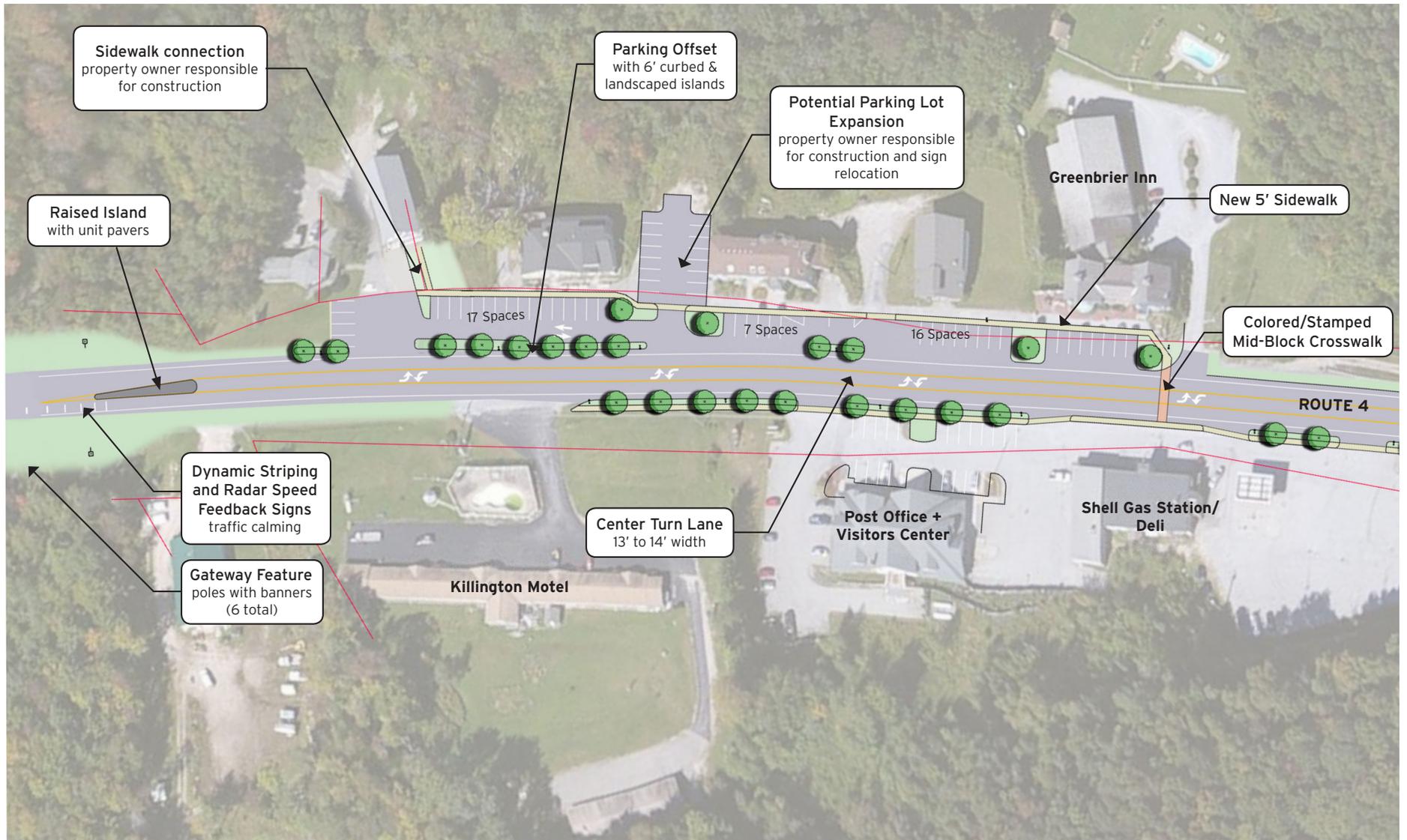
Approaching Triangle from VT 100 North: After



Approach from the East on Route 4: After



Figure 4.4: Route 4 West



Route 4 West

At the western-most end of the project area, a set of flags and banners announce to travelers of their approach into the Town of Killington from the west. Since there is a relatively steep grade from the Sherburne Pass down into the village area, a gateway treatment established at a scale that is legible to swiftly-moving traffic is critical at this location and will help slow traffic to a safe pace before drivers enter the heart of the village corridor. To help further calm traffic in this area, a raised median is added at the entrances to this retail area, as well as dynamic, transverse pavement markings on the eastbound Route 4 approach.

Currently, Route 4 has a total of three travel lanes: two lanes in the westbound direction and one lane in the east bound. The existing roadway section on Route 4 West ranges between 40' and 50', allowing for room to add a shoulder for experienced bicyclists along this relatively flat stretch of road. To facilitate continuous traffic flow in both directions, the concept plan proposes converting the center travel lane into a center left-turn lane, so that vehicles who wish to pause and turn into a parking lot will have the opportunity to do so without disrupting traffic movement behind them.

The consistent planting of trees along the road's edge serves to both shield pedestrians who wish to walk along the sidewalk, but also creates a friendly, retail main street atmosphere. Each commercial entrance is easily accessible for pedestrians via a 5 foot sidewalk path that runs either along the building frontage (on the north side) or along a landscaped path parallel

to the roadway (on the south side). The sidewalk on the north side of Route 4 ends in a landscaped curbed bulb-out right before the driveway into the Greenbrier Inn's side parking lot, and connects across the street to the Shell Gas Station/Deli on the south side of Route 4 via a colored and stamped mid-block crossing. Similar to other main street crossings throughout Vermont, the coloring and texture in the pavement serve to formalize the crossing and provide a visual cue to drivers, making them aware that pedestrians may be traversing the road.

A key feature of the proposed plan is to add 6 foot curbed landscaped islands to delineate the parking lots on the north side from the roadway and shoulder. By managing the access points—where the right of way width allows—vehicular pull-ins will be more organized, which promotes more efficient use of the existing parking spaces as well encouraging shared parking between businesses. This in turn helps foster a safer environment for pedestrians and cyclist access by reducing the frequency and randomness of vehicular pull-ins. Additionally, these curbed islands offer a temporary location to place removed snow during winter months.

Similar to the additional parking located to the side of the Post Office and Visitor's Center, business and property owners also have the opportunity to expand parking within their property. One potential idea is to utilize the space between the Killington Rental and the Gazebo Center buildings to add an additional 16-space parking lot.

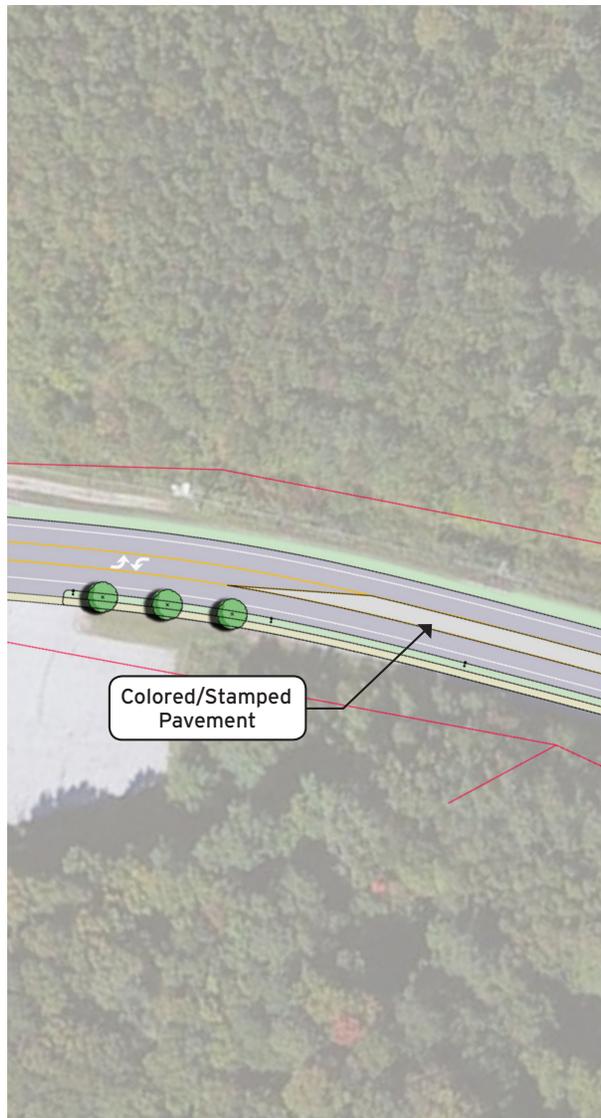
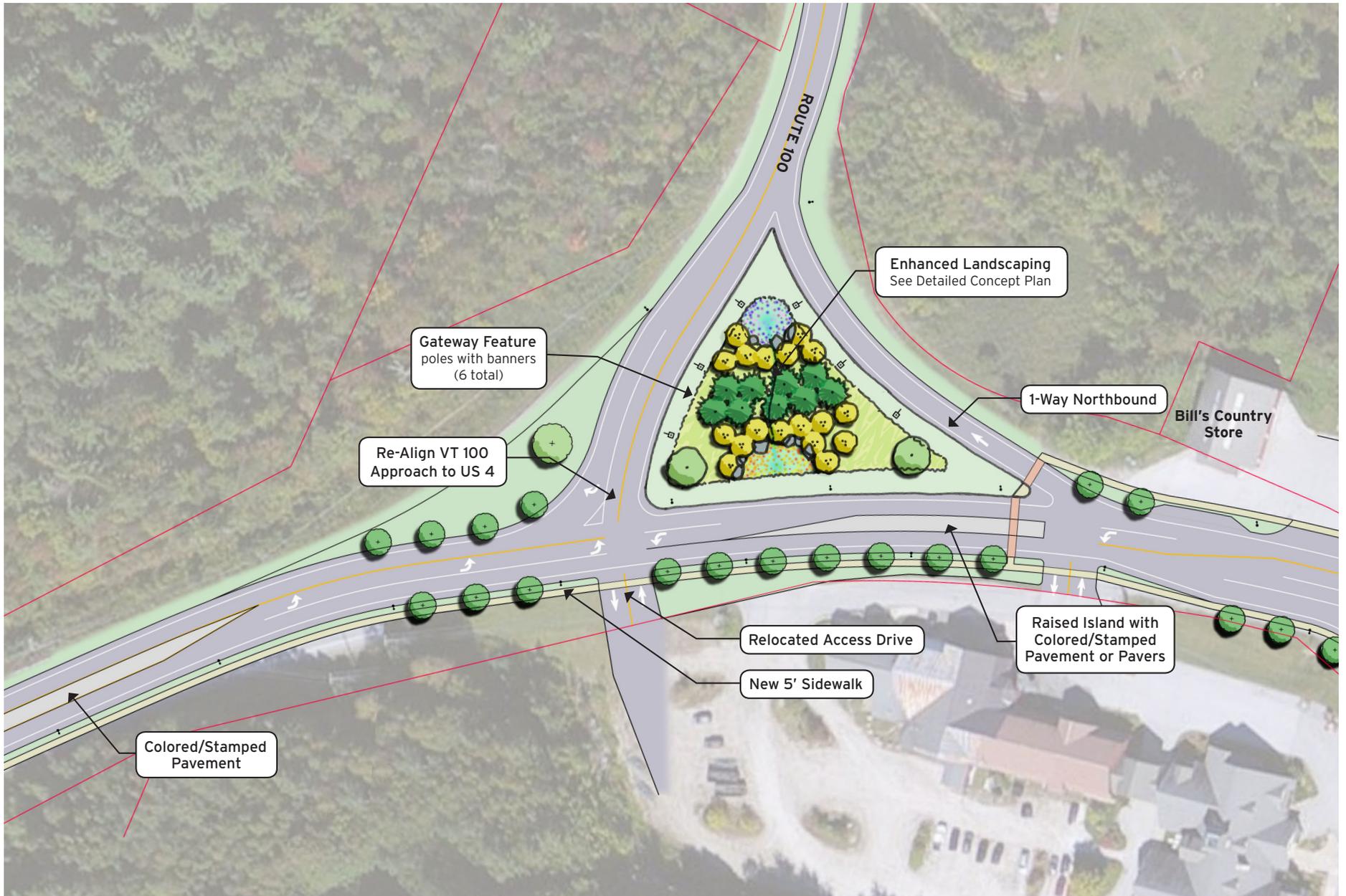


Figure 4.5: VT 100 Triangle Roadway Plan



VT 100 Triangle

At the center of the project corridor is an area called the “VT 100 Triangle”, because currently there is a sloped triangular patch of minimal vegetation at the intersection of Route 4 and VT 100. This underutilized space will have the opportunity to be transformed into a well-landscaped foundation for iconic artwork or signage that provides a memorable welcome to travelers coming from the north along VT 100. There is also enormous potential to reuse salvageable objects and materials from local ski resorts, such as lift chairs, to

become an emblematic show-case piece of what the Town of Killington has to offer.

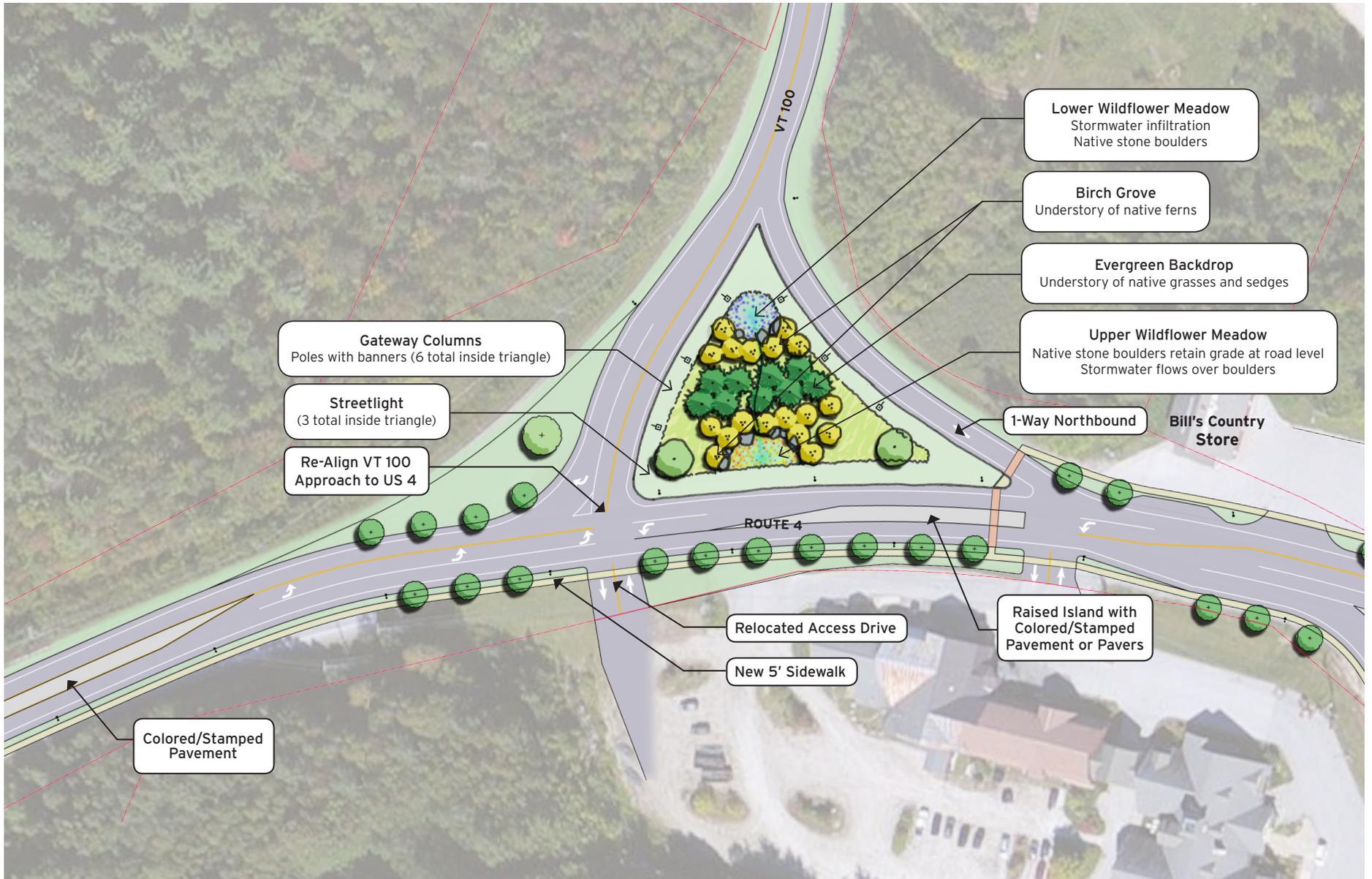
At the public meetings, local stakeholders expressed concerns about the intersections and merges that drivers—and particularly, truckers—must make in order to turn onto Route 4. This portion of Route 4 is also deemed a High Crash Location section by VTrans, with the majority of the incidences due to drivers’ failure to keep in proper lanes or yield the right of way.

To correct the poor sight lights and awkward turning movements for those who are on VT 100 and want to turn onto Route 4 in either direction, the concept plan proposes shifting the southbound alignment so that it intersects with Route 4 at more of a right angle. Additionally, the consultant team proposes relocating the western access to the Killington Shops slightly to the west in order to line up directly with the new VT 100 intersection. This allows drivers coming from VT 100 to have a relatively flat section to wait at before making a turn or going straight.

Figure 4.6: VT 100 Triangle Approach



Figure 4.7: VT 100 Triangle Landscape Plan



By formalizing the intersection at the end of the western segment of the triangle, the concept plan proposes to reduce the eastern segment between VT 100 and Route 4 to a one-way northbound lane only. Traffic from the Killington shops and eastbound Route 4 may still access the northbound lane directly, but by eliminating two-way traffic on this segment and simplifying the number of traffic turn movements overall, the overall safety of the intersection should be improved.

The 5 foot sidewalk will continue along the south side of Route 4, extending from the Shell Station/Deli eastward along a landscaped buffered path, parallel to the road, and ultimately connecting to a future proposed sidewalk along the west side of Killington Road southward towards the resorts. Pedestrians also will have the option to cross Route 4 to the former Bill's Country Store in front the Killington shops. A raised median in the center of Route 4 will serve as a traffic shelter where, if necessary, pedestrians may pause to allow fast-moving traffic to pass before continuing to the other side of the road. A 5 foot wide sidewalk resumes on the north side of Route 5, in front of Bill's Country Store, and continues eastward towards the small open space and park-and-ride facility in front of Base Camp Outfitters.

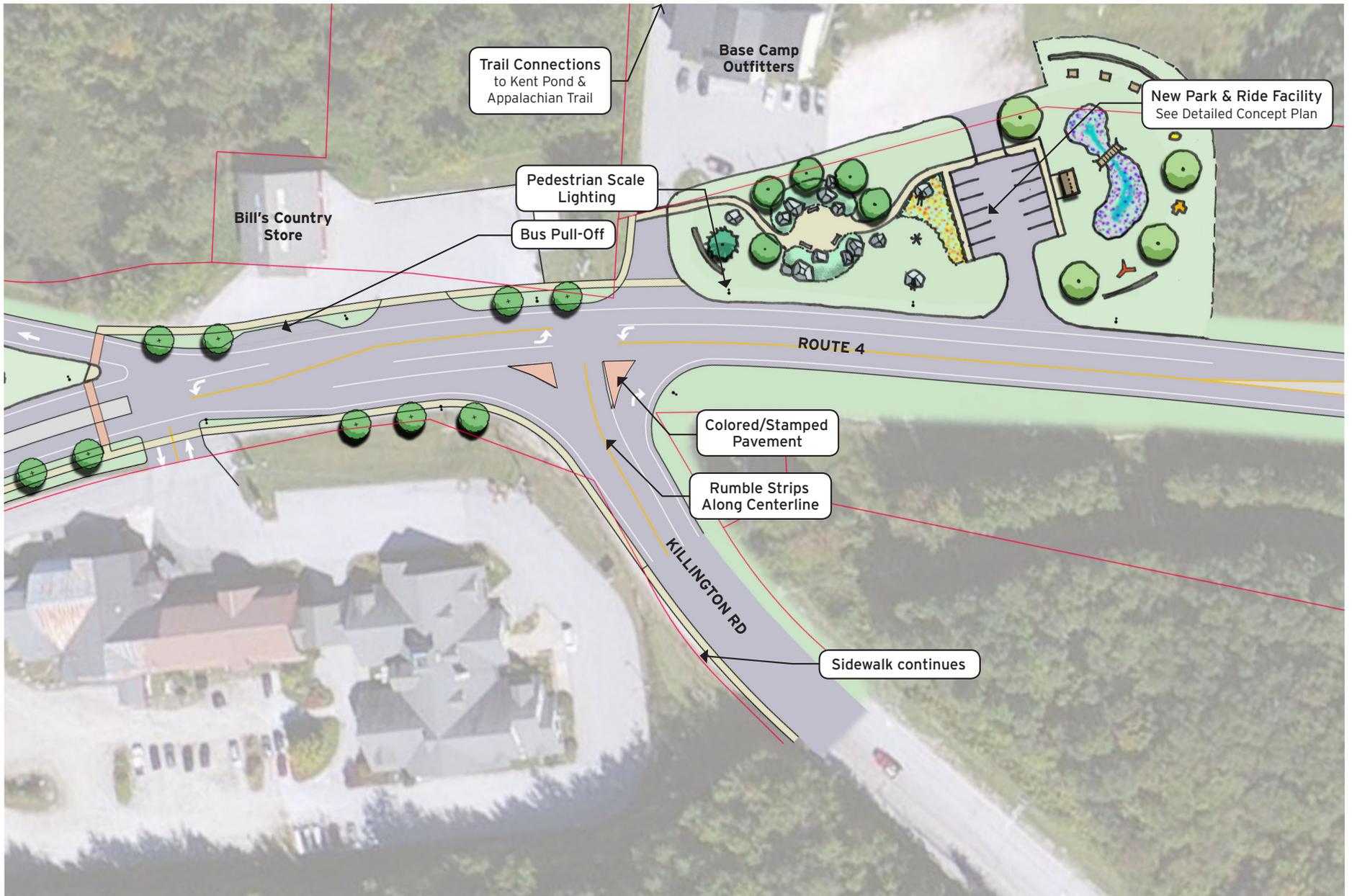


Gateway Concepts: Dynamic Sports Sculptures with various sports represented on multiple columns. Corten steel column or panel with metal cutouts and the option of a stone base.



Pedestrian Crossing Median, with paving pattern. Sammamish, Washington.

Figure 4.8: Route 4 East



Route 4 East

For travelers arriving from the east and from the south along Killington Road, their first impression of the Town of Killington are the visual cues seen from the Route 4 East section of the project area. Similar to those on the western approach, suitably-scaled flags and banners announces to drivers that they are entering Killington. Furthermore, a colored and stamped raised center median, as well as dynamic transverse striping, helps calm traffic from 50 mph to the posted 40 mph speed limit within the project study area.

The intersection between Route 4 and Killington Road currently has the highest number of crash incidences in

the study area and is a designated high crash location intersection. The most oft-cited reasons for the crashes are: failure to yield right of way, driving too fast for conditions, and improper turning movements. These reports were reiterated anecdotally by residents and local stakeholders in the area.

Therefore, to help keep drivers in their proper lanes, particularly during snow conditions and poor visibility on the road, the consultant team proposes adding two colored and stamped “pork-chop” islands at the intersection of Route 4 and Killington Road, along with rumble strips along the centerline of Killington Road

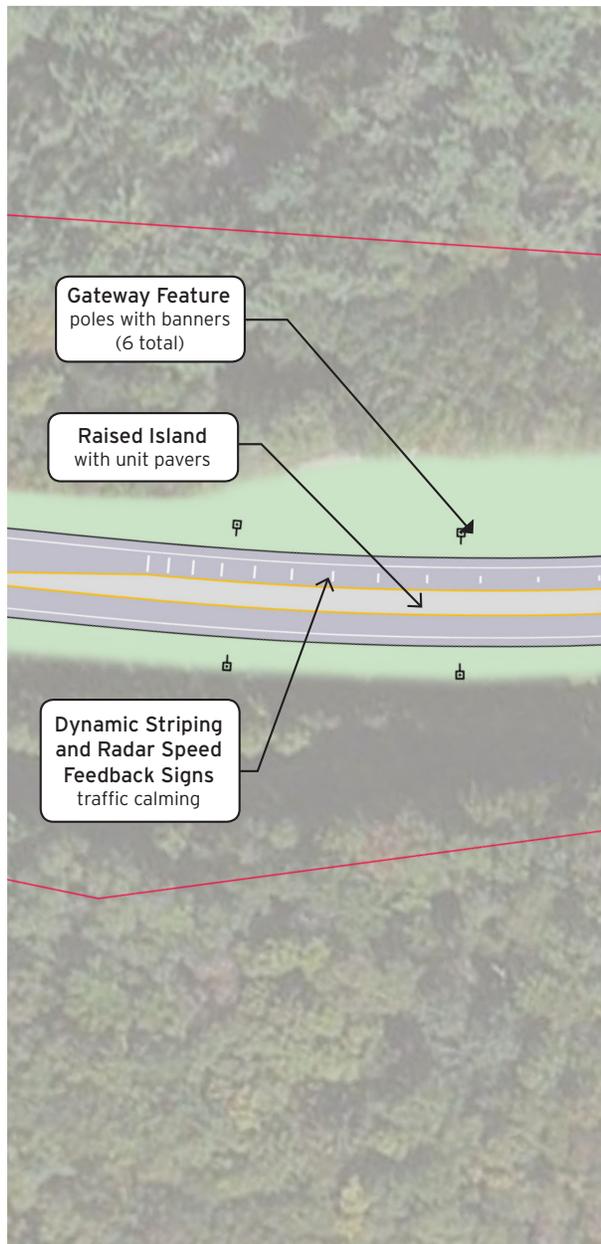


Figure 4.9: Park and Ride Concept Plan

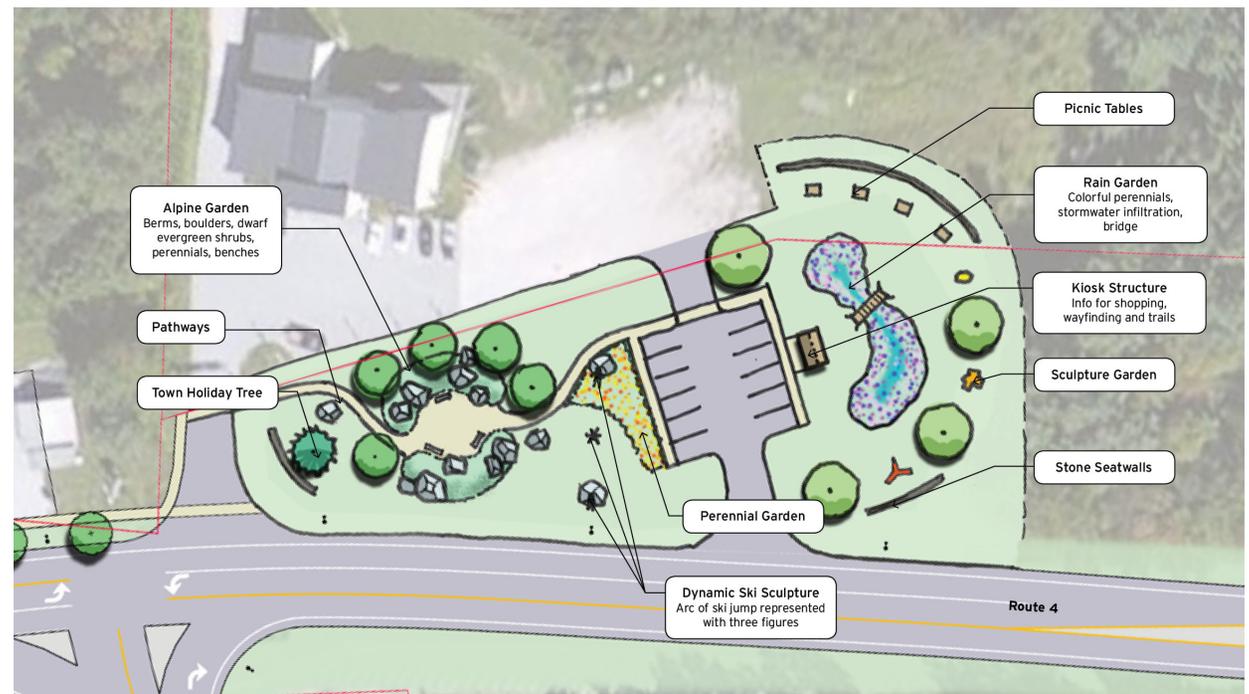


Figure 4.10: Alpine and Rain Garden



near the intersection. The island on Route 4 indicates to drivers that the southernmost lane is a right-turn only lane onto Killington Road. Likewise, the island on Killington Road helps funnel vehicles into two distinct lanes, either right-turning or left-turning onto Route 4.

In the existing open lawn in front of the Base Camp Outfitters store, there is the opportunity to create a small park that helps to define the arrival into the Town from the east. The pocket park is designed to be reminiscent of the nature that surrounds Killington, but also of the well-groomed landscapes that makes this area a popular center for outdoor recreation. Proposed to be included in this park plan are alpine rock gardens, a rain garden that will serve the parking area and roadway runoff, a future restroom and public information kiosk. A sculpture area for local artists is also part of the design as well as a scenic overlook. Adding landmarks, picnic tables, and seating within the park attracts visitors to use this space, and maintaining a large lawn space allows for flexibility, whether to showcase large temporary hay art or open to use for a game of pick-up Frisbee.

The plan also proposes accommodations to encourage alternative transportation options, in addition to walking and cycling. For those traveling to Killington by transit, the Marble Valley Regional Transit District operates “The Bus”, which currently stops in front of Bill’s Country store. The concept plan proposes adding a curbed bus pull-off in front of the store, which connects directly to the sidewalk proposed on the north side of Route 4.

Additionally, visitors can choose to park at a new park-and-ride facility and make the short walk to the bus stop. The small lot can accommodate approximately 12 spaces and provides an additional access to Base Camp Outfitters. To adjust for this access point from Route 4, the Consultant team proposes closing the existing underused pull-off on the north side and move the picnic tables into the pocket park.

The sidewalk continues on the north side of Route 4 in front of Bill’s Country Store and extends eastward, parallel to the road, ending at the driveway into the park-and-ride lot. This ensures that pedestrians can safely walk from Base Camp Outfitters to the park, then to Bill’s Country Store and crossing over to the Killington Shops on the south side.

5 IMPLEMENTATION

5.1 PHASING STRATEGY

The proposed streetscape enhancement concept plan is considered as a phased implementation. The consultant team has identified two main phases for the roll-out of the enhancement features, each being linked to a funding source that would be able to accommodate those items proposed in that particular phase. Figure 5.2 shows a broad timeline of how each phase can be implemented over the next five years.

The criteria for the phasing implementation were based on:

- Phasing that allows for a continuous sidewalk along a segment to improve pedestrian safety and experience
- Phasing that is not in conflict with the flow of traffic, allowing for other access improvements at later phases
- Phasing that fits with potential available funding sources
- Phasing that allows for the key features to be developed earlier while longer term items can be developed at a later time.

5.1.1 Phase 1

Phase 1A of improvements will be implemented mainly using funding from the Transportation Alternatives and Bicycle/Pedestrian grant programs and is concentrated on enhancing the sidewalk and parking areas for the west side of Route 4 through Killington, in the area including and between Greenbrier Inn and the Shell Gas Station through the Killington Kitchen Cabinets.

To complete the enhancements to the pedestrian sidewalk in the VT 100 Triangle and Route 4 East sections, the Phase 1B is focused on extending the sidewalk to the east, linking up with Bill's Country Store, the Killington Shops, and Basecamp Outfitters. This includes adding a crosswalk that will connect the northern and southern sidewalks in front of the Killington Shops. This phase may be constructed with the funding from transportation enhancement grants.

The final piece of Phase 1 is the addition of gateway treatments at key arrival points along US 4 and VT 100 into the commercial corridor. This includes banners and artful columns that highlight Killington's identity and creatively displays the wide array of active sports within easy reach of this corridor. Dynamic pavement striping at both western and eastern approaches will help slow traffic as they enter the commercial center.

5.1.2 Phase 2

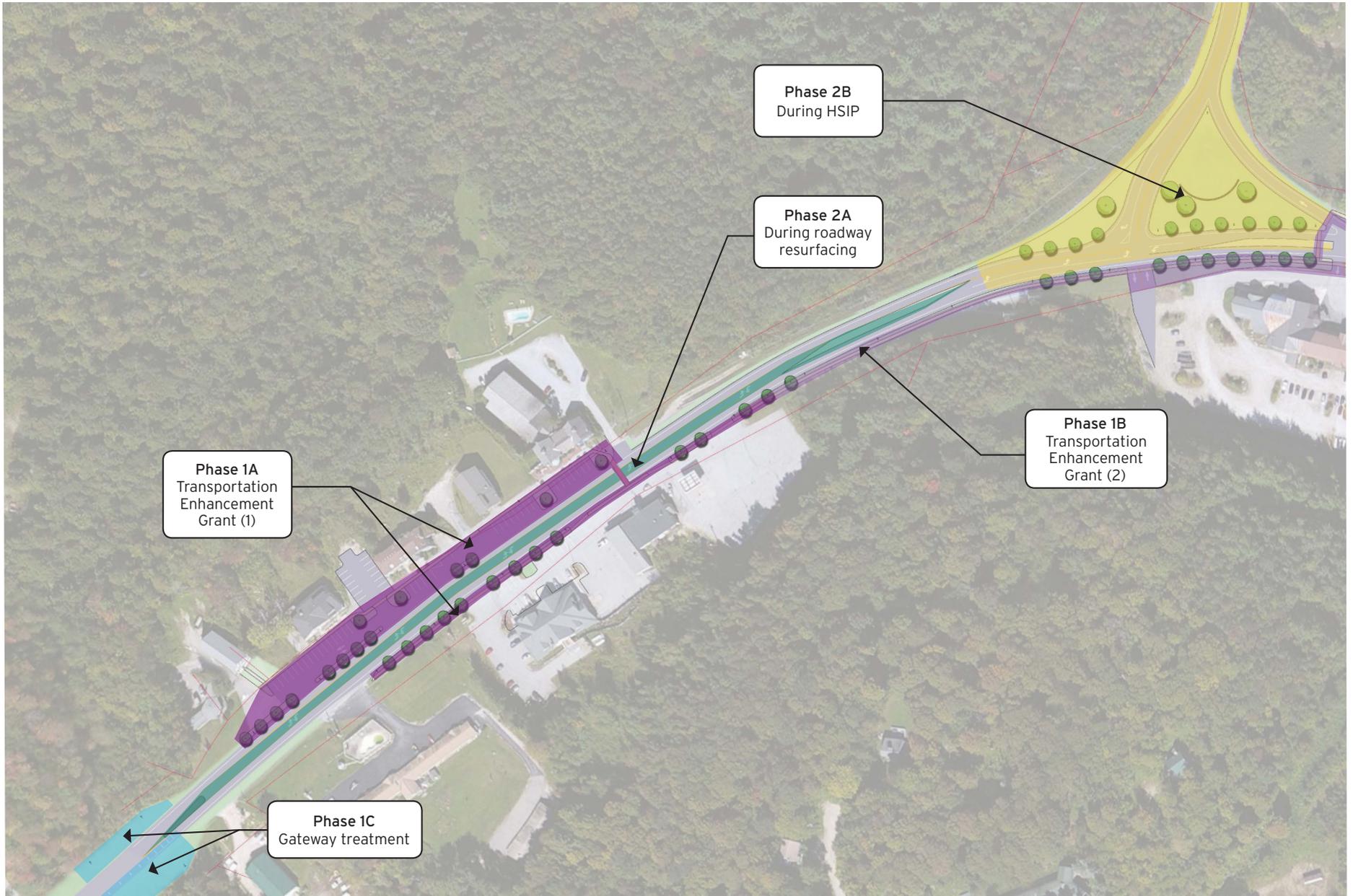
Phase 2 is separated into three sub-phases and may occur at similar times or be staggered, based on the timeline of the various funding sources that can support each feature in this phase.

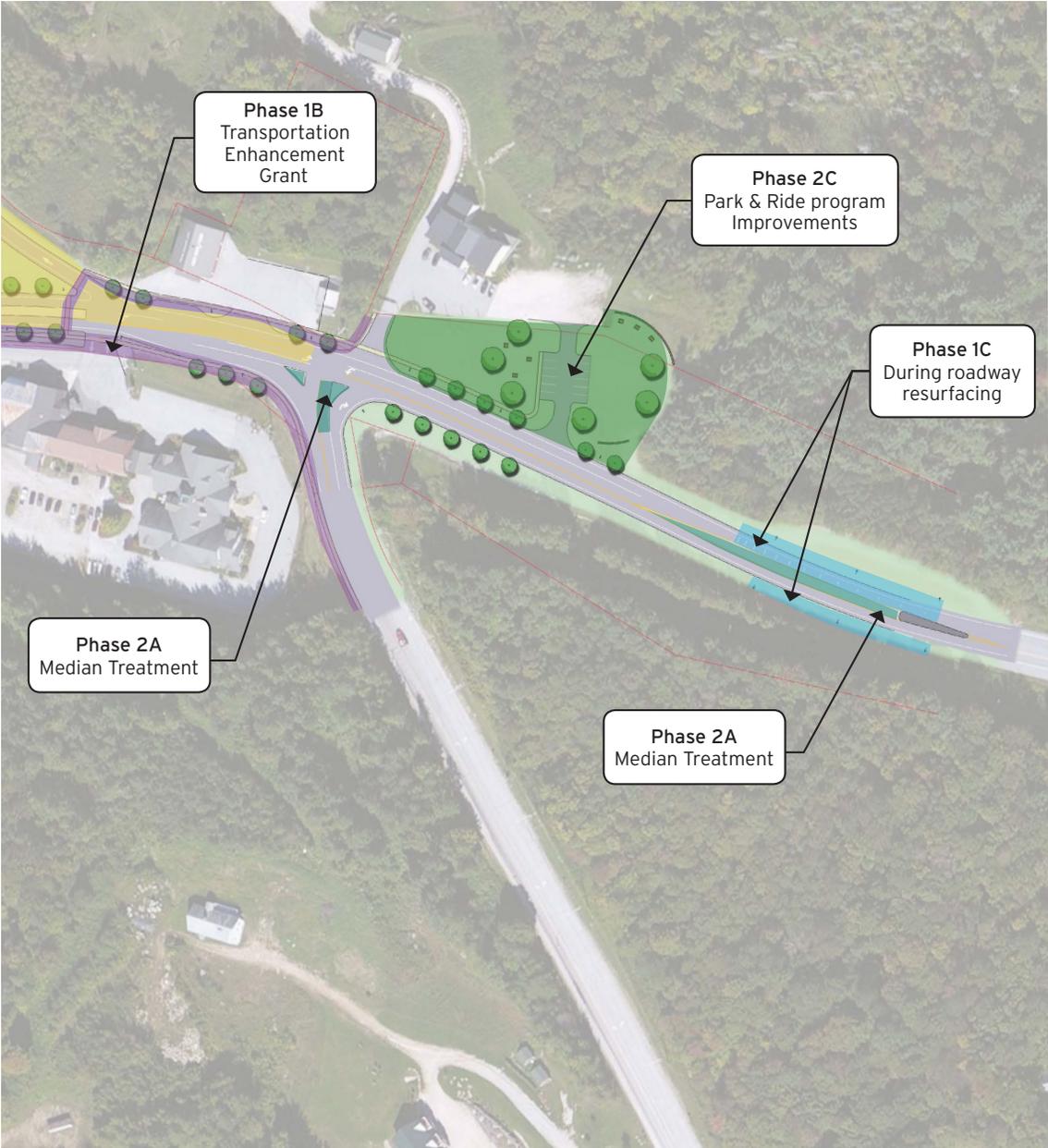
Phase 2A of the project plan proposes to add pavement marking, stamping, and medians as funding is available for roadway resurfacing along the Route 4 corridor. These improvements include re-striping the center lane in Route 4 West to convert the southern westbound lane into a center left-turn lane for both directions. Other enhancements in this phase could include adding raised medians and stamped colored paving in the center of the roadway from each approach in order to calm traffic.

Phase 2B is mainly focused on the VT 100 Triangle section and the intersection of Route 4 and Killington Road. The roadway realignment of the VT 100 southbound approach may be funded as part of the Highway Safety Improvement Program (HSIP), as these are areas designated as high crash locations by VTrans.

Phase 2C is specifically located at the proposed park and ride in the Route 4 East segment, in hopes that the funding can be tied to the Park & Ride program improvements resources. The added park-and-ride is a logical complement to the bus pull-off in front of Bill's Country Store and its prominent location at the eastern gateway into the town makes it a key site for gateway improvements.

Figure 5.1: Phasing Strategy





Project Phases

- 1A: Sidewalk, Parking, and Landscaping Enhancement - West Village
- 1B: Sidewalk, Parking, and Landscaping Enhancements - Central & East Village
- 1C: Gateway Treatments: Signs, Banners & Striping
- 2A: US 4 Center Turn Lane and Median Treatments
- 2B: VT 100 Approach Reconfiguration
- 2C: Park & Ride and Gateway Park

5.2 COST EVALUATION

The construction cost estimate in Table 5.3 shows a preliminary summary of the costs associated with short term and midterm improvements throughout the entire project area. The estimate contains realistic costs, as of 2012, for engineering, permitting, and design services where applicable.

The concept plan largely falls within the VTrans right of way, with the exception of approximately 2,860 sf of sidewalk and parking curb in front of Greenbrier Inn, and 440 sf of sidewalk and curb between Bill’s Country Store and the driveway to Basecamp Outfitters. The acquisition of these properties outside of the right of way, which is estimated to cost a total of \$5,000, is factored into the cost evaluation.

As shown in the table for Phase 1A and 1B, the cost estimate for constructing sidewalks and making streetscape improvements along Route 4 total \$1,239,000. Additional gateway treatment, shown under Phase 1C, will cost an additional \$111,000. This amount includes the gateway columns and banners at key arrival points, as well as dynamic striping to calm traffic.

Improvements beyond the short term include adding raised medians, colored and stamped paving, some earthwork at the Route 100 triangle, landscaping, and other streetscape amenities. These items are listed in Phase 2A, 2B, and 2C, totaling \$1,159,000 for total Phase 2 costs.

In Phases 1A, 1B, 2A, and 2B where there are additional engineering and permitting costs, the preliminary estimate assumes a 10% add on to the total construction cost. Where there are additional design costs associated with creating unique signage and landscaping experiences, the preliminary estimate assumes 15% and 20% add-on fees for design, engineering, and permitting for Phase 1C and 2C, respectively.

Figure 5.2: Potential Project Implementation Timeline

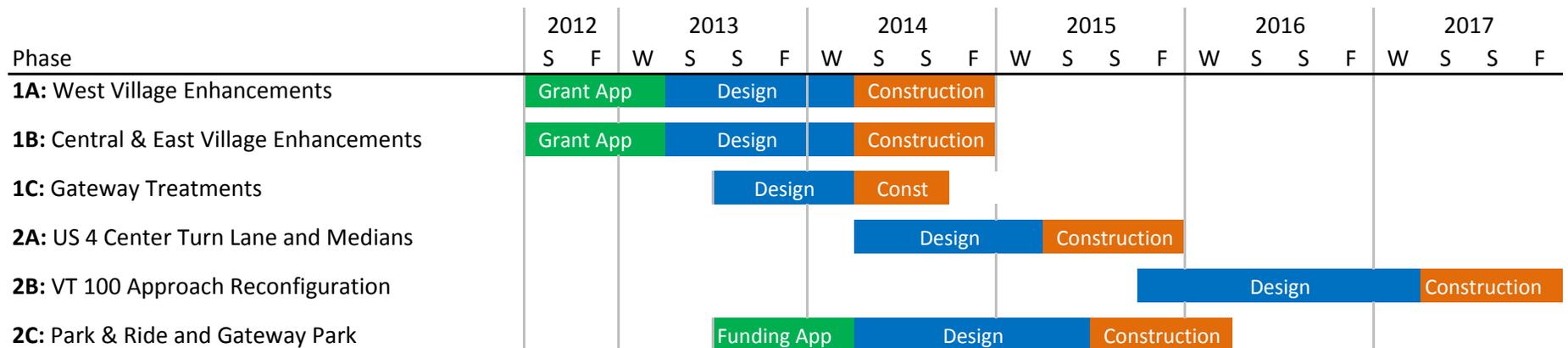


Table 5.3: Conceptual Construction Cost Estimate*PHASE 1 - Short Term Improvements*

	Quantity	Units	Unit Cost	Total Cost
Phase 1A - Sidewalk, Parking & Landscaping - West Village				
North Side - US 4				
5' Concrete Sidewalk & Granite Curb	750	FT	\$ 215	\$ 161,250
Curbed Islands	850	FT	\$ 40	\$ 34,000
Landscaping (+/-15 trees, grass)	1	LU	\$ 8,250	\$ 8,250
Parking Area Paving (1" Overlay)	200	TON	\$ 90	
Pedestrian-Scale Lighting	6	EA	\$ 8,000	\$ 48,000
Signs, Striping, Miscellaneous Items	1	LU	\$ 5,000	\$ 5,000
South Side - US 4				
5' Concrete Sidewalk & Granite Curb	800	FT	\$ 215	\$ 172,000
Curbed Islands	150	FT	\$ 40	\$ 6,000
Landscaping (+/-12 trees, grass)	1	LU	\$ 6,600	\$ 6,600
Pedestrian-Scale Lighting	6	EA	\$ 8,000	\$ 48,000
Signs, Striping, Miscellaneous Items	1	LU	\$ 2,000	\$ 2,000
			Subtotal Construction:	\$ 490,000
			Right of Way:	\$ 5,000
			Contingency (10%):	\$ 49,000
			Design, Engineering & Permitting (15%):	\$ 80,850
			Local Project Administration (10%):	\$ 62,485
			Construction Inspection (10%):	\$ 49,000
			Total (Phase 1A):	\$ 737,000
Phase 1B - Sidewalk, Parking & Landscaping - Central & East Village				
North Side - US 4				
5' Concrete Sidewalk & Granite Curb	450	FT	\$ 215	\$ 96,750
Landscaping (+/-4 trees, grass)	1	LU	\$ 2,200	\$ 2,200
Pedestrian-Scale Lighting	3	EA	\$ 8,000	\$ 24,000
Signs, Striping, Miscellaneous Items	1	LU	\$ 2,000	\$ 2,000
South Side - US 4				
5' Concrete Sidewalk & Granite Curb	1,000	FT	\$ 215	\$ 215,000
Landscaping (+/-14 trees, grass)	1	LU	\$ 7,700	\$ 7,700
Pedestrian-Scale Lighting	9	EA	\$ 8,000	\$ 72,000
Signs, Striping, Miscellaneous Items	1	LU	\$ 4,000	\$ 4,000
			Subtotal Construction:	\$ 424,000
			Right of Way:	\$ 1,000
			Contingency (15%):	\$ 63,600
			Design, Engineering & Permitting (15%):	\$ 73,140
			Total (Phase 1B):	\$ 562,000
Phase 1C - Gateway Treatments: Signs, Banners & Striping				
Gateway Columns	6	EA	\$ 10,000	\$ 60,000
Banners	24	EA	\$ 500	\$ 12,000
Dynamic Village Gateway Striping	3	EA	\$ 2,500	\$ 7,500
			Subtotal Construction:	\$ 80,000
			Contingency (15%):	\$ 12,000
			Design, Engineering & Permitting (20%):	\$ 18,400
			Total (Phase 1C):	\$ 111,000

PHASE 2 - Mid Term Improvements

	Quantity	Units	Unit Cost	Total Cost
Phase 2A - US 4 Center Turn Lane and Median Treatments*				
Raised Median Islands	3	EA	\$ 7,500	\$ 22,500
Pavement Striping	1	LU	\$ 3,000	\$ 3,000
Pavement Stamping & Coloring	5000	SF	\$ 8	\$ 40,000
			Subtotal Construction:	\$ 66,000
			Contingency (15%):	\$ 9,900
			Design, Engineering & Permitting (10%):	\$ 7,590
			Total (Phase 2A):	\$ 84,000
<i>*Assumed to be conducted during a pavement resurfacing project</i>				
Phase 2B - VT 100 Approach Reconfiguration & Triangle Park				
Earthwork & Pavement Removal	1	LU	\$ 200,000	\$ 200,000
Roadway Subbase & Base Material	2222	CY	\$ 35	\$ 77,778
Asphalt (5" Thick)	950	TON	\$ 90	\$ 85,500
Traffic Control	1	LU	\$ 15,000	\$ 15,000
Signs, Striping, Miscellaneous Items	1	LU	\$ 10,000	\$ 10,000
Gateway Columns	6	EA	\$ 10,000	\$ 60,000
Landscaping (General & Triangle)	1	LU	\$ 50,000	\$ 50,000
Stormwater Infrastructure	1	LU	\$ 50,000	\$ 50,000
			Subtotal Construction:	\$ 549,000
			Contingency (15%):	\$ 82,350
			Design, Engineering & Permitting (15%):	\$ 94,703
			Total (Phase 2B):	\$ 727,000
Phase 2C - Park & Ride and Gateway Park				
Earthwork	1	LU	\$ 20,000	\$ 20,000
Subbase & Base Material	519	CY	\$ 35	\$ 18,148
Asphalt (4" Thick)	200	TON	\$ 90	\$ 18,000
Information Kiosk	1	LU	\$ 20,000	\$ 20,000
Signs, Striping, Miscellaneous Items	1	LU	\$ 5,000	\$ 5,000
Landscaping	1	LU	\$ 60,000	\$ 60,000
Hardscape Items	1	LU	\$ 100,000	\$ 100,000
Stormwater Infrastructure	1	LU	\$ 10,000	\$ 10,000
			Subtotal Construction:	\$ 252,000
			Contingency (15%):	\$ 37,800
			Design, Engineering & Permitting (20%):	\$ 57,960
			Total (Phase 2C):	\$ 348,000
			TOTAL PHASE 1:	\$ 1,410,000
			TOTAL PHASE 2:	\$ 1,159,000
			COMBINED TOTAL:	\$ 2,569,000

Maintenance Costs and Considerations

Based on RSG and the Town of Killington's calculations, the maintenance cost estimates for the streetscape, sidewalk, and lighting are \$23,000 per year. Table 5.4 details the summary of items being considered that need continual upkeep.

Table 5.4: Maintenance Costs and Considerations

Streetscape Improvement	Annual Maintenance Cost
Sidewalk, plowing, sanding, etc.	\$ 10,500
Stamped pavement/pavers	\$ 5,250
Landscaping	\$ 5,250
Electrical (Lighting)	\$ 2,000
TOTAL	\$ 23,000

5.3 FUNDING SOURCES

In examining realistic funding sources that could be used for the design, engineering, and permitting of Killington's streetscape and gateway project, Table 5.5 identifies potential sources for each phase.

Transportation Enhancement Grant

This program awards financial assistance to towns and communities to fund multi-modal transportation projects that help improve the traveling experience for people of all modes. This includes assistance for the creation of sidewalks, shared-use paths, shoulder paving, and landscaping.

Bicycle & Pedestrian Grant

The VTrans Bicycle and Pedestrian Program provides funding for the scoping or design/construction of infrastructure projects that help improve access and safety for bicyclists and/or pedestrians. These may include sidewalks, bike lanes, crossing improvements, and facilities that assist ADA facilities.

Highway Safety Improvement Program

A core aid program of the FHWA, the overall intent of this program is to improve safety and reduce traffic fatalities and serious injuries on all public roads. Each year in Vermont, 50 locations are selected for review from identified High Crash Locations and these federal funds are used to help remediate problems in those selected sites and sections.

VTrans Park & Ride Program

The goal of this program is to help provide convenient and safe parking facilities that will help reduce the amount of single occupancy drivers on the road and help reduce traffic and gas consumption of travelers. The grant helps fund preliminary engineering and construction of Park-and-Ride lots in any selected Vermont municipality.

VT Byway Program

To fund Vermont highways or other public roads that have special scenic, recreational, history, cultural, and/or archaeological qualities, the Vermont Byway Program helps fund road projects where there is a tie to tourism, recreation, and/or resource conservation or to help encourage economic development in the particular municipality.

VTrans Paving Program

Each year, VTrans assess and budgets investments in leveling and resurfacing sections of existing pavement. The paving program not only extends the life of the current road network, they provide the ideal opportunity for adding new roadway amenities, such as medians, striping, and stamped and/or colored patterns.

Municipal General Funds or Bonding

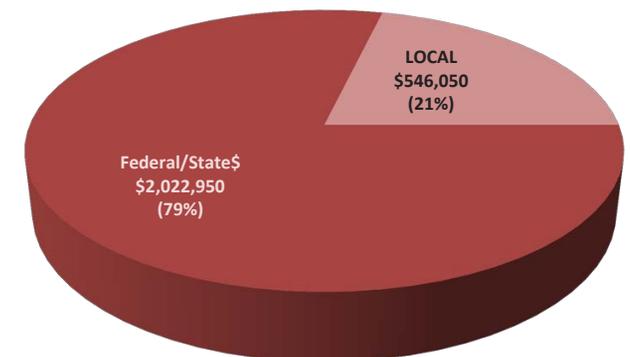
These are funds allocated by the Town of Killington either directly from the Town's general fund, typically appropriated during through the municipal budget at Town Meeting, or through a long term borrowing vehicle, such as a municipal loan or bond.

Table 5.5: Funding Sources

Phase	Design & Construction Cost	Potential Funding Sources						
		Transportation Enhancement Grant	Bicycle & Pedestrian Grant	Highway Safety Improvement Program	VTrans Park & Ride Program	VT Byway Program	VTrans Paving Program	Municipal General Funds or Bonding
1A - West Village Enhancements	\$737,000	◆	◆				◆	◆
1B - Central & East Village Enhancements	\$562,000	◆	◆				◆	◆
1C - Gateway Treatments	\$111,000	◆					◆	◆
2A - US 4 Center Turn Lane and Medians	\$84,000			◆			◆	◆
2B - VT 100 Approach Reconfiguration	\$727,000			◆				◆
2C - Park & Ride and Gateway Park	\$348,000				◆		◆	◆

Table 5.6: Leveraging State and Federal Dollars

Phase	Design & Construction Cost	State/Federal Source	Municipal Funds	Assumed Funding Source
1A - West Village Enhancements	\$737,000	\$626,450	\$110,550	TE or Bike/Ped Grant
1B - Central & East Village Enhancements	\$562,000	\$477,700	\$84,300	TE or Bike/Ped Grant
1C - Gateway Treatments	\$111,000	\$0	\$111,000	Municipal Funding
2A - US 4 Center Turn Lane and Medians	\$84,000	\$58,800	\$25,200	VTrans Paving Program
2B - VT 100 Approach Reconfiguration	\$727,000	\$581,600	\$145,400	VTrans HSIP Program
2C - Park & Ride and Gateway Park	\$348,000	\$278,400	\$69,600	VTrans Park & Ride Program



If the town is successful with grant funding, it would need to dedicate approximately \$75k/year for seven years to build up match reserve or consider bonding.

RSG and LandWorks worked closely with the Town of Killington and VTrans, as well as local residents and stakeholders, to ensure that the scoping study process was transparent and developed based on input from the local community.



6 APPENDIX A: MEETINGS

6.1 KICK-OFF MEETING – NOVEMBER 15, 2011



KILLINGTON BICYCLE, PEDESTRIAN AND STREETScape SCOPING STUDY

Kick-Off Meeting

November 16, 2011
2:00 PM
Killington Town Office

AGENDA:

1. Review Project Schedule
2. Project Contacts / Steering Committee
3. Discuss Project Scope
 - Use of US 4 Central Median
 - Improvements along VT 100 and River Road
4. Topographic Survey Update
5. Next Steps
 - Local Concerns Meeting (schedule)

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11/21/2011

Resource Systems Group, Inc.
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KILLINGTON STREETScape SCOPING - KICK-OFF MEETING 11/16/2011

Attendees: Seth Webb (Town of Killington)
Elizabeth Reaves (Town of Killington)
Dick Horner (Town of Killington)
Theresa C. Gilman (VTrans, Utilities & Permits)
Kevin Russell (VTrans, TE Program Manager)
Eric House (VTrans, District 3)
Dave Saladino (RSG)
Grace Wu (RSG)
Patrick Olstad (LandWorks)

Date: Wednesday, November 16, 2011

1. Project Schedule

Schedule shift	10 month project, shifting the project schedule in the scope to reflect kick-off date in mid-November 2011, targeting final Scoping Study completion by August 2012.	
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2. Project Contacts

Contacts	<ul style="list-style-type: none"> ▪ Local businesses, tourism bureau, and residents who live near the corridor will be interested in the project ▪ Potentially incorporate Chamber of Commerce into Steering Committee 	<ul style="list-style-type: none"> ▪ RSG to reach out to Killington Chamber of Commerce to see if they are interested in taking part in the process.
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3. Project Scope

Project Purpose	<ul style="list-style-type: none"> ▪ Enhance village feel along US 4, improve identity for Killington <ul style="list-style-type: none"> – Potential raised median in US 4 – Potential landscape features in the median and "triangle" island. Concern raised about 	<ul style="list-style-type: none"> ▪ Document similar areas in VT (along US Route, high traffic volumes, etc) that have successfully
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	<p>maintenance responsibilities and issues associated with island plantings.</p> <ul style="list-style-type: none"> - Important to consider sightlines - Improve access management through consolidating curb cuts and creating defined left-turn bays - Examine potential use of pull-off/picnic space east of Killington Road. - Changes to US 4 cross-section will need to accommodate trucks and snow plows - Significant space provided for vehicle parking on some lots. Explore alternative possibilities for this space. - ▪ Enhance safety for vehicles, pedestrians, and bicyclists <ul style="list-style-type: none"> - Three travel lanes and 40/50 mph does not feel like village/business district - Appalachian trail hikers in the area - 9,000 cars per day on US 4, increases during ski season - Need for traffic calming to reduce speed limits - Currently no sidewalks or crosswalks along US 4 - Provide space to accommodate traffic control officer on US 4 during peak ski season. 	<p>decreased speed limit and improved pedestrian accessibility.</p>
Roundabout	<ul style="list-style-type: none"> ▪ Potential roundabout at US 4/VT 100/Killington Road intersection to process traffic more efficiently and enhance "sense of place". It was noted that roundabouts tend to be more expensive than signals and requires more space, and would be difficult with terrain in this area. 	
Right of Way	<ul style="list-style-type: none"> ▪ Important to identify and document public right-of-way width along US 4 in the study area ▪ It is likely that public ROW extends onto area 	<ul style="list-style-type: none"> ▪ Kevin Russell to request ROW information from Diane Kolgan in the

	<p>used for parking and private signs on some parcels.</p>	<p>VTrans ROW section.</p> <ul style="list-style-type: none"> ▪ RSG to incorporate ROW extents on project mapping.
Other	<ul style="list-style-type: none"> ▪ Amy Gamble, Bruce Nyquist, and Josh Schultz (VTrans) good contacts for plan input and review ▪ It was agreed that the project study area will be reduced to focus on the section of US 4 from the western edge of the business district to east of Killington Road and approximately 1,000 feet north on VT 100. 	

4. Topographic Survey Update

Survey vs. Archeological/Historic Assessment	<ul style="list-style-type: none"> ▪ Since much of the project area is "predisturbed" and not located in a historic district, it is felt that topographic survey will be more beneficial for this study. ▪ Surveyors can also pick up established survey boundary markers and add to CAD file 	<ul style="list-style-type: none"> ▪ RSG to document the surveyor bid process ▪ Kevin Russell will confirm ability to add survey services to RSG scope. ▪ Kevin Russell to inquire whether VTrans staff can conduct historic/archeological desktop review.
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5. Next Steps

Steering Committee Meeting	<p>Next meeting to be scheduled for or 12/14 at 1 PM.</p>	<ul style="list-style-type: none"> ▪ RSG to circulate meeting notes & agenda for 12/14 meeting.
Local Concerns Meetings	<p>Local Concerns Meeting to be held in January. Logistics to be planned at 12/14 Steering Committee Meeting.</p>	

6.2 STEERING COMMITTEE MEETING – DECEMBER 14, 2011

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8/15/2012

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KILLINGTON STREETScape SCOPING - TEAM MEETING 12/14/2011

Attendees: Seth Webb (Town of Killington)
Elizabeth Reaves (Town of Killington)
Dick Horner (Town of Killington)
Theresa C. Gilman (VTrans, Utilities & Permits)
Kevin Russell (VTrans, TE Program Manager)
Dave Saladino (RSG)
Grace Wu (RSG)

Date: Wednesday, December 14, 2011

1. Existing Conditions

Setback	<ul style="list-style-type: none"> Measured from property line ROW varies, not specified distance from centerline 	<ul style="list-style-type: none"> RSG to confirm information of 100N to Kent Pond RSG to confirm handwritten notes of sell-off or quit claim parcels
High Crash Location	<ul style="list-style-type: none"> Route 4 is designed a High Crash Location Section and Intersection Roundabout: not a viable option for this location. The additional right-turn travel lane from 100 to Route 4 W "works well" currently Traffic calming potential: Reduce 12' travel lanes to 11' and add 5' bike lanes in each direction. 	<ul style="list-style-type: none"> Kevin Russell to confirm with Mario from AOT for priority funding of HCL sites RSG to gather data on specific crash information for these areas
Access Management	<ul style="list-style-type: none"> Parking lot/access consolidation: "Each parcel has right to reasonable access" Shared easements in cases of subdivided parcels 	<ul style="list-style-type: none"> RSG to gather data on study area route classifications and access management guidelines
Environmental	<ul style="list-style-type: none"> Animal-vehicle collision incidents in the area 	<ul style="list-style-type: none"> Kevin Russell to look

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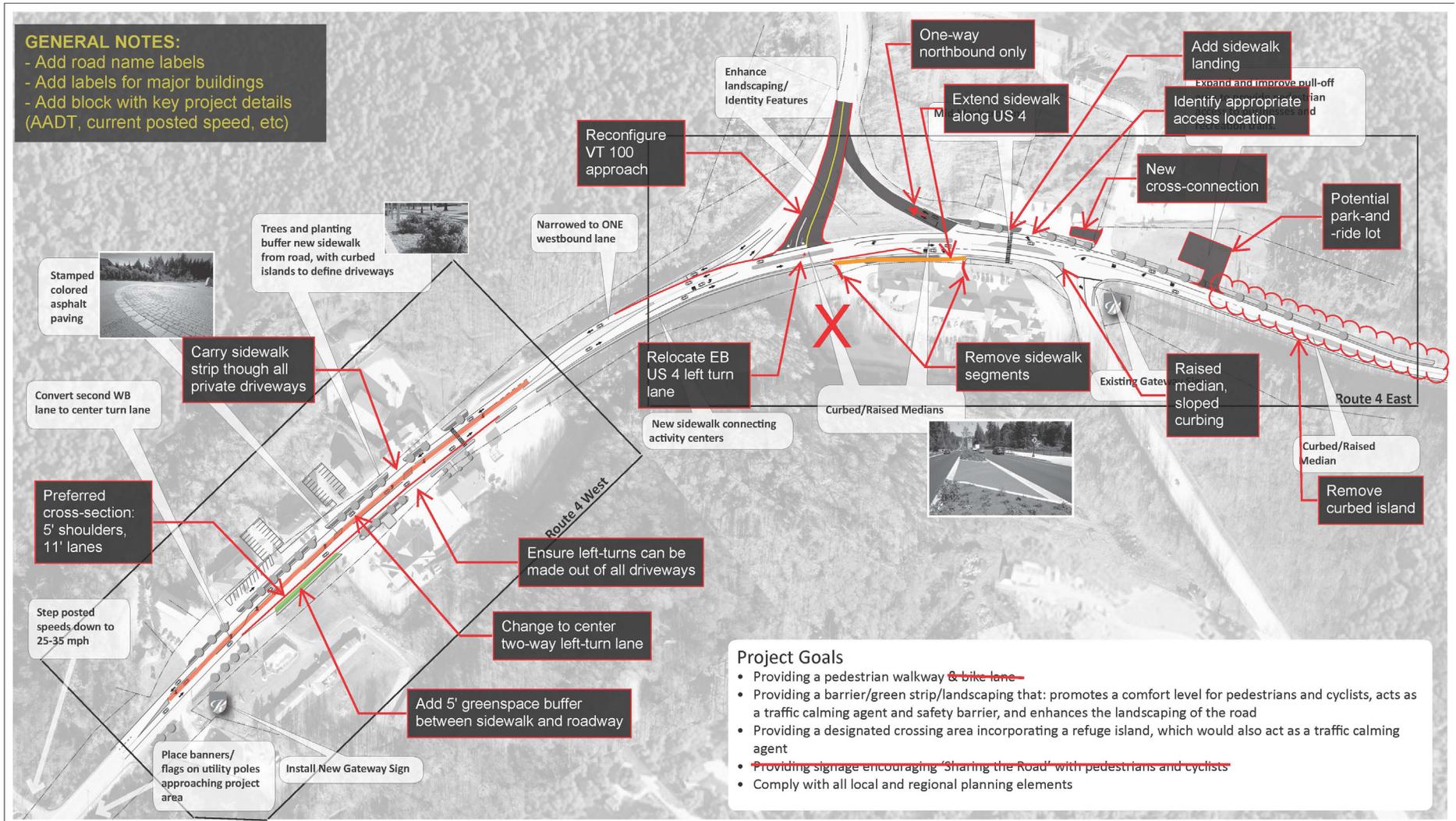
	<ul style="list-style-type: none"> Measures for protecting habitats/animal crossings 	into wildlife data from Gina Campolli
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2. Next Steps

Local concerns meeting	Thursday, January 25, 6:00 – 7:30pm, with a working meeting for local business stakeholders in February	<ul style="list-style-type: none"> Seth Webb to present on the project/information from grant application Dick Horner to follow-up: Can the planning commission town clerk also take meeting notes for the local concerns meeting? RSG to send out flyer/press release for team review
Steering Committee Meeting	TBD in February, with open charrette with local business stakeholders	
Agency Meeting with VTrans	TBD in March in Montpelier	

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6.3 VTRANS MEETING – MARCH 19, 2012





MEETING NOTES

Killington Streetscape Project Review Meeting

March 20, 2011, 10:00 AM
VTrans – Conference Room 1

Attendees:

<i>Jon Kaplan, Bicycle and Pedestrian Program</i>	<i>Patti Coburn, LTF Project Manager</i>
<i>Theresa Gilman, Utilities and Permits</i>	<i>Kevin Russell, LTF Project Supervisor</i>
<i>Amy Gamble, Traffic Operations</i>	<i>Seth Webb, Killington Town Manager</i>
<i>Rajnish Gupta, Traffic Research Engineer</i>	<i>Dick Horner, Killington Town Planner</i>
<i>Bruce Nyquist, Traffic and Safety Engineer</i>	<i>Jennifer Conley, Killington Resident</i>
<i>Eric House, District Transportation Engineer</i>	<i>David Saladino, RSG Project Manager</i>

Meeting Notes:

Potential to break the total project into multiple phases to better align with funding sources:

- Sidewalks, curbed islands, landscaping, street lighting (possibly), access management, crosswalks [*Transportation Enhancement grant*]
- Lane shifts, center turn lane, re-striping [*Routine pavement rehabilitation project*]
- Reconfiguration and improvements at VT 100/US 4 intersection [*Highway Safety Improvement Program*]
- Expanded and enhanced pull-off area east of Killington Road [*Park and Ride program*]

Amy Gamble noted that the Vermont State Traffic Committee has provided in the past a conditional speed permit based on anticipated design speeds used as the basis for the design of improvements. Amy further noted that she felt that 35 miles per hour was a reasonable limit to consider based on the presented improvements.

Amy Gamble noted that Vermont statutes limit the number of gateway signs to a total of two in a given direction. There are currently three Killington gateway signs located along US 4: 1) directed towards eastbound US 4 traffic near Pico Mountain, 2) towards westbound US 4 traffic near West Bridgewater, and, 3) towards general traffic at the entrance to Killington Road.

Amy Gamble noted the pedestrian crossing threshold of 20 pedestrians during the vehicular peak hour to warrant a crossing. She also noted there was some flexibility in this standard, given particular site conditions such as adjacent transit stops, etc. She also noted that the VTrans Crosswalk Guidelines provide AADT thresholds for the number of lanes that a crosswalk should cross.

Jon Kaplan stated that, given the current traffic volumes along US 4, he felt that 5' shoulders would be appropriate to adequately accommodate bicyclists along the corridor.

55 Railroad Row, White River Junction, Vermont 05001
TEL 802.295.4999 • FAX 802.295.1006 • www.rsginc.com

Rajnish Gupta noted that he felt that the center dedicated left-turn lanes may be confusing for drivers and may not adequately accommodate all left-turn movements out of the private driveways. He felt that center two-way left-turn lane may be a better option in this area. Amy Gamble noted that the pavement markings for the two-way left-turn lane would also be easier to place and maintain.

Theresa Gilman noted that historically, VTrans has not relinquished right-of-way to private owners very frequently, given the difficulties involved in acquiring ROW in the first place. If the Town and/or individual property owners along the north side of US 4 are interested in modifying the ROW limits, they should follow up with Diane Colgan in the ROW Section.

Bruce Nyquist noted that stamped and colored pavement is an option along US 4, however, the Town must enter into a maintenance agreement with VTrans to maintain the stamped sections over time.

Kevin Russell referenced a recent Memorandum of Understanding defining the minimum curb-to-curb distance to accommodate snow plowing operations was 14 feet. Given the traffic volumes along US 4, a 15 or 16 foot offset was felt to be preferable in this area.

Amy Gamble indicated a potential realignment alternative for the VT 100/US 4 intersection would involve modifying the eastern leg of the "Y" to a northbound-only movement, and then shift the western leg to intersect with US 4 at more of a right angle. Bruce Nyquist suggested following up with Nancy Avery to determine whether the VT 100/US 4 intersection is currently in the HSIP listing, and, if so, where it lands on the list.

Town staff to follow-up with District staff on plans for landscape enhancements to the central island in the VT 100/US 4 intersection.

Theresa Gilman to follow-up with David Saladino to clarify the language used in the Miller property access permit.

Jon Kaplan noted that he would prefer the sidewalk to continue adjacent to US 4 within the public right-of-way in front of the Killington Sports/Outfitters building, rather than along the front of the building. Jon also requested that the plans include labels for major roads and building uses along with a block identifying current posted speed, AADT, etc.

Attachments:

- *Marked up concept plan*
- *Meeting agenda*



7.1.1 Press Material

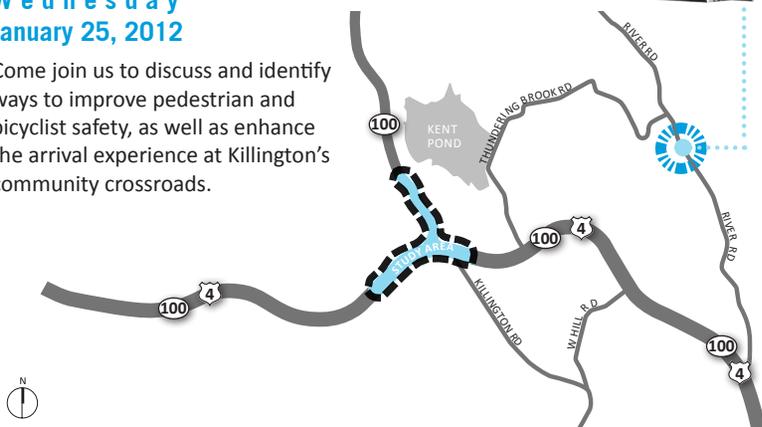


Killington's Community Crossroads: US 4 and VT 100 STREETScape, BICYCLE, AND PEDESTRIAN STUDY

6PM at the Killington Town Offices
2706 River Road, Killington, VT 05751

Wednesday
January 25, 2012

Come join us to discuss and identify ways to improve pedestrian and bicyclist safety, as well as enhance the arrival experience at Killington's community crossroads.



The Killington Streetscape, Bicycle, and Pedestrian Scoping Study is made possible with participation from the following organizations:



For more information, contact:

Dick Horner, Killington Town Planner • 802-422-3242 • dick@town.killington.vt.us

PRESS RELEASE

FOR IMMEDIATE RELEASE

Contact:

Dick Horner
Killington Town Planner
Town of Killington
P.O. Box 429
Killington, VT 05751
Tel: (802) 422-3242
E-Mail: dick@town.killington.vt.us

Kick-off local concerns meeting to focus on a pedestrian and bicycle enhancement study for portions of Route 4 at VT 100

Killington, VT – Residents, business owners and local stakeholders of the Town of Killington are invited to attend an upcoming local concerns meeting to discuss streetscape conditions and potential infrastructure improvements along US 4 and VT 100 at the community crossroads of the town. The purpose of this first meeting is to collect early input on thoughts, issues and recommendations from the public.

The project area is located along US 4 between Shady Knoll Road and Killington Road, and VT 100 from US 4 north to Kent Pond. A study currently being conducted by Resource Systems Group for the Town of Killington is looking at the existing road conditions in the project area, the opportunities and constraints of the immediate built and natural environment, and strategies to improve pedestrian and bicyclist safety, in addition to enhancing the arrival experience to the area.

The public meeting will be held on Wednesday, January 25, 2012 at 6:00 PM at the Killington Town Offices, located at 2706 River Road, Killington, VT 05751.

The presentation portion of the meeting will include an overview of the project area, a summary of existing conditions, and preliminary project goals. An interactive discussion session will follow the presentation where interested parties can voice their thoughts about conditions and safety in the study area.

The meeting will include representatives from the Town of Killington, VTrans, and the project consultant, Resource Systems Group.

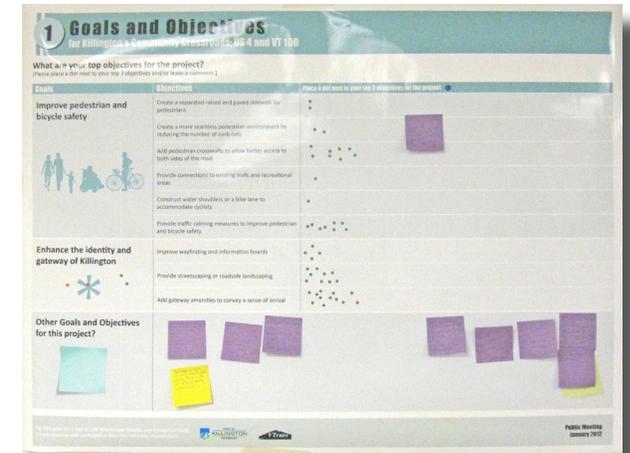
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7 APPENDIX B: PUBLIC OUTREACH

7.1 LOCAL CONCERNS MEETING – JANUARY 25, 2012

7.1.2 Goals and Objectives

Goals	Objectives	#
Improve Pedestrian and Bicycle Safety	Create a separated raised and paved sidewalk for pedestrians	2
	Create a more seamless pedestrian environment by reducing the number of curb cuts	2
	Add pedestrian crosswalks to allow better access to both sides of the road	8
	Provide connections to existing trails and recreational areas	1
	Construct wider shoulders or a bike lane to accommodate cyclists	1
	Provide traffic calming measures to improve pedestrian and bicycle safety	8
Enhance the identity and gateway of Killington	Improve wayfinding and information boards	4
	Provide streetscaping or roadside landscaping	9
	Add gateway amenities to convey a sense of arrival	12
Other Goals and objectives for this project?	Is the idea of this enhancement to get people to stop (+ shop) in this crossroad? If so what about parking, businesses and streets to attract people, and most crucially public bathrooms!	
	Make it more pedestrian friendly. Slow down traffic on Route 4 especially coming down pass.	
	How does a town project coordinate all of this with private property ownership?	
	Without overdoing SIGNAGE- the public needs to know where and what is AVAILABLE.	
	Not necessarily traffic calming but narrowing road, adding edge features to define a narrower travel way - slow traffic down.	
	I believe we need to bury electric/phone cable, expand side medians, landscape. Walking- NO.	
	Lessen truck noise approaching from the west down from Pico.	
# 1 objective has to be to slow people down and let them know they're in Killington. Then they need a reason to stop. Only then do we need to worry about pedestrians.		



7.1.3 Your Experiences



Route 4 West	Route 4 Central/100	Route 4 East/Killington Road
Trucks need to build speed to get up pass. They end up on my back bumper.	Consider 100 South Ramp to Route 4, a one way NORTH ONLY.	Downhill Killington road too steep.
	Turning North on 100, not going fast and just a little ice- 360 degrees ending up on 100 N.	Road cut to reduce slope OK Killington Road. Too many "down country" people can't get up if snow.
	Unsafe Conditions at Rt. 4 and Rt. 100 in front of Bill's Country Store- Cars entering 4 from 100 going east.	
	Consider a "T" at RT 4 and 100 North.	

What experiences do you have of the area?

- Have crescendo of flags starting slow at 3 entry points of Killington and increasing at Junction of 4 and 100.
- Cut down trees for vision in triangle.
- Snow removal with sidewalk. Business losing parking.
- Tourists don't know where the lanes are when snow on the road.
- Extremely difficult and dangerous to cross Route 4 to reach stores, market, chamber info center, public rest rooms.
- Don't worry about bikers and walkers, just make it look cleaner and work.
- Change traffic pattern for Rt 100 and Route 4- Southbound Rt 100 Keep to west of island at Rte 4, Northbound to east of island.
- I head southbound from Rt 100 going to access road on my bicycle Very challenging due to low sight lines turning left, then left onto Rt 4 and then to access rd (similar to truck concern)
- Killington Entrances/Approaches: Pico, Rt 4/100 Bridgewater, Skyeship Base, West Hill Rd, Rt 100 North, (Better Marked)

7.1.4 Potential Streetscape Enhancement Ideas

1.1.1 Sidewalk

Sidewalks encourage stopping, info gathering, shopping and finding a reason to venture up the Killington Rd.

Sidewalks define edge of road vs. parking areas.

Walking access to Route 4 and Bikes dangerous

1.1.1 Bike Lane/Shared Path

(none)

1.1.1 Streetscaping and Landscaping

Yes, make it more inviting to stop.

Streetscaping/Landscaping is critical to the onetime opportunity to make a great impression

Slowing down traffic, encouraging pedestrian traffic, crosswalk at market, info center, store, post office.

Landscaping, grass, fence, trees, island

1.1.1 Traffic Calming

Island in middle would serve dual purpose: 1) Identity, 2) Slow people down naturally

A way should be found to purchase Bill's Country Store and turn it into a Regional Info Center

Not sure if it's calming- just make traffic work better.

Yes, we need to make this area safer for pedestrians and bicycles.

Traffic "calming" features will slow down travelers and thus allow for more effective aesthetically pleasing signage, info kiosks, etc, also pleasing landscaping.

Island with turnoffs



7.1.5 Gateway & Identity

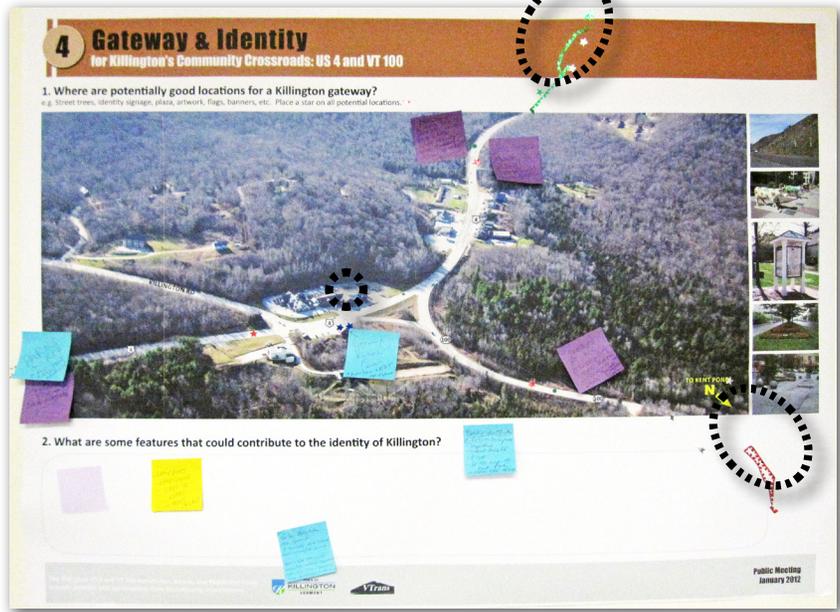
- Parks on Route 4: Pico, Rogers
- Marques at all 3 entry points where traffic is slowing down: Bridgette line, Rt 100 N Pittsfield Line Rt 4 Pass.
- Slow traffic down to allow pedestrian and bicycle traffic.
- Marquee of "Events Be Boarded" in a one-lane, slow moving lane coming down to targeted streetscape area.
- Gateway/Visitor's Center (Chamber/EDT/Museum)
- Marquee with events upcoming @ each gateway.

2. What are some features that could contribute to the identity of Killington?

Better Identification @ Rt 4/100, Bridgewater, Skyship, West Hill Rd, Pico, Rt 100 North of Kent Pond, WIDEN THE AREA

Go Big! Identity is the most important. A few trees or a sidewalk won't accomplish enough. Also a bike path would accomplish another important need, give folks a reason to come to Killington in off-season.

Lamp posts, landscaping sides of roads, trees, flags



7.2 STAKEHOLDER MEETING 1 – FEBRUARY 29, 2012

1 Add gateway amenities to convey a sense of arrival

Streetscape/landscaping is critical to the onetime opportunity to make a great impression

Lamp posts, landscaping sides of roads, trees, flags

Improve wayfinding and information boards

2 Provide streetscaping or roadside landscaping

Make it more inviting to stop

Landscaping, grass, fence, trees, island...

3 Provide traffic calming measures to improve pedestrian and bicycle safety

Adding edge features to define a narrower travel way → slow traffic down

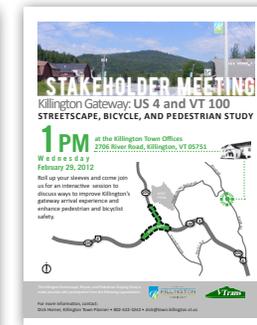
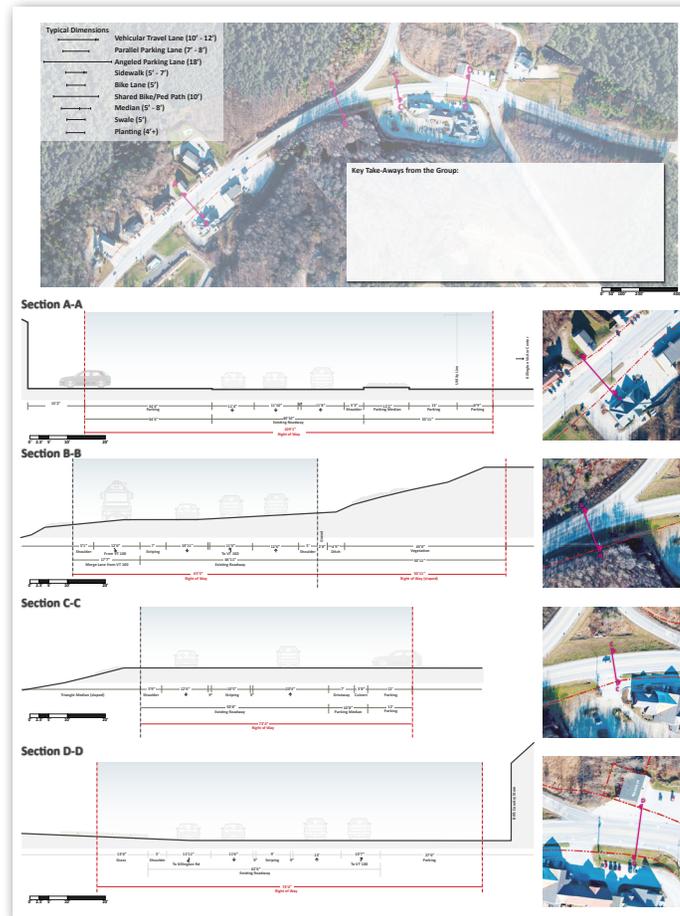
Slow down traffic, encourage pedestrian traffic

A bike path would give folks a reason to come to Killington in off-season.

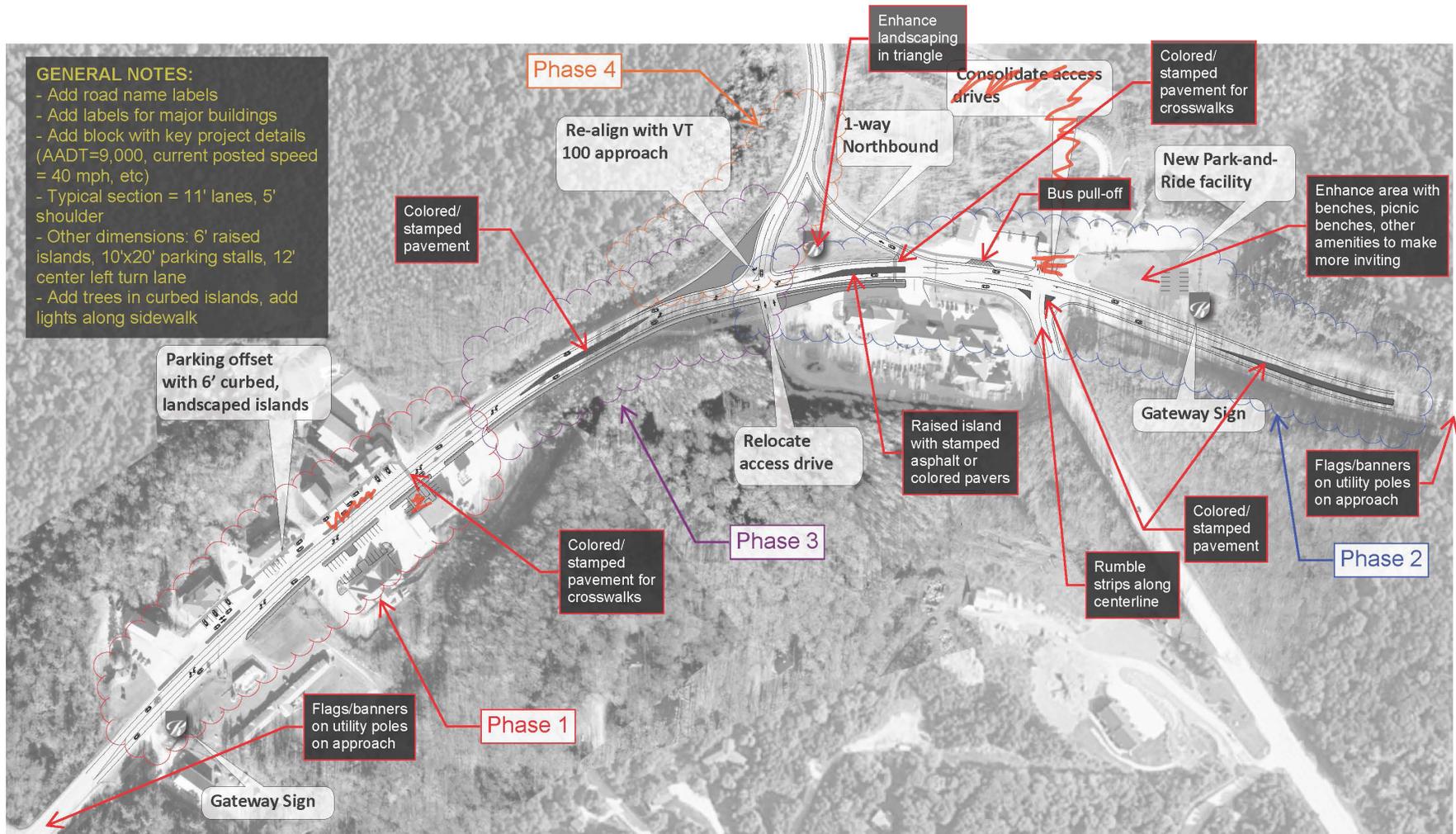
4 Add pedestrian crosswalks to allow better access to both sides of the road

Define edge of road vs. parking areas

Sidewalks encourage stopping, info gathering, shopping...



7.3 STAKEHOLDER MEETING 2 – APRIL 20, 2012



Killington Streetscape Scoping Study

US 4 Killington Streetscape - Working Plan

1" = 200' scale

R S G April 20, 2012

- Killington Gateway Treatment
- Landscaping/Trees
- Stamped Pavement
- Raised Median
- Sidewalk

8 APPENDIX C: EXISTING CONDITIONS

8.1 STUDY AREA CONTEXT

The project area is commercial in nature and the shops along Route 4 are tailored to recreational activities, as well as daily needs, and serve both local residents and The following table contains a few parameters of the roads within the project area.

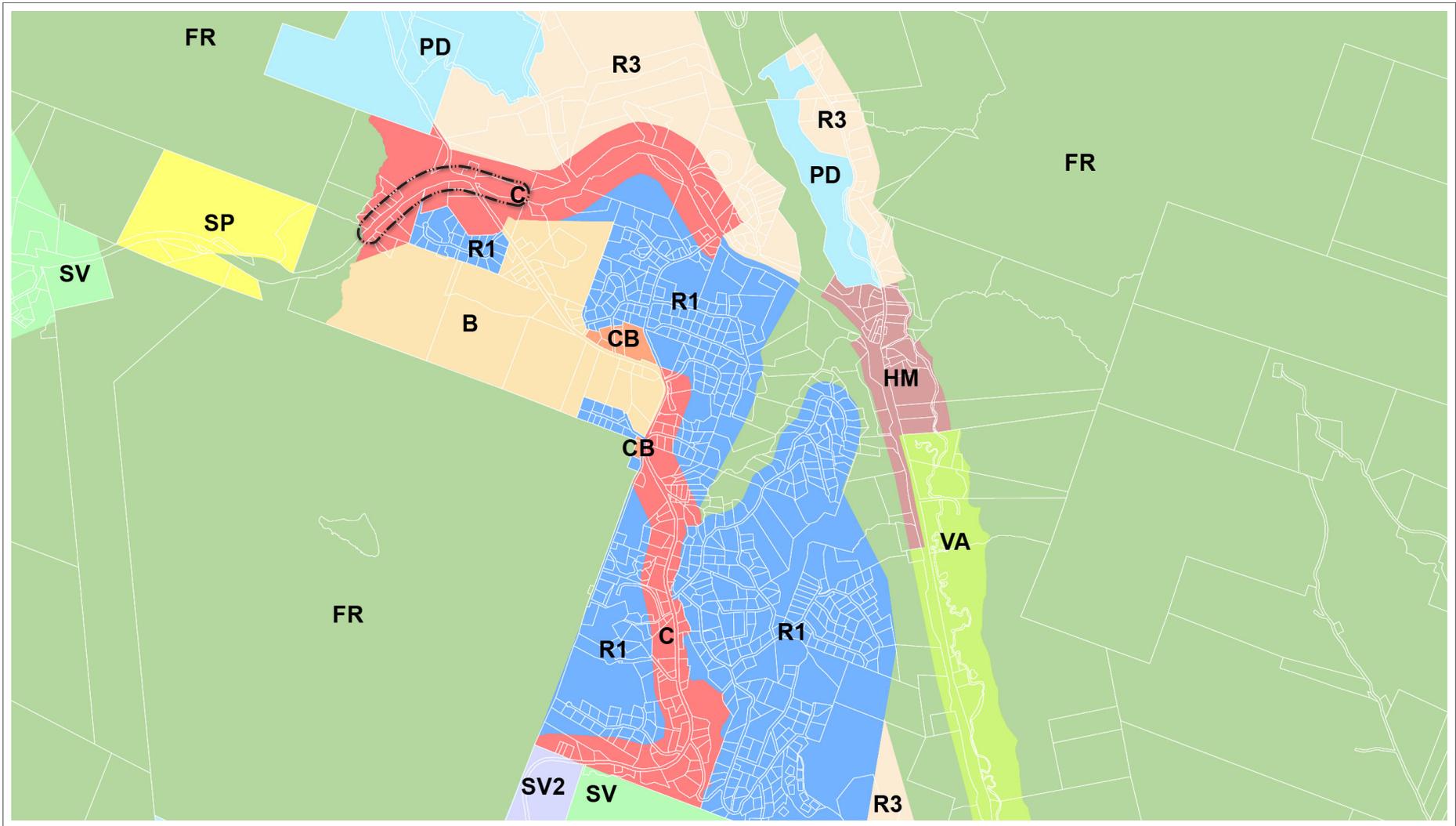
8.2 TRANSPORTATION

The project area consists mainly of the Route 4 corridor between the picnic table pull off to the east and the end of the retail strip to the west. It also includes the approach towards Route 4 from VT 100 to the north, and from Killington Road in the south.

Table C1: Project Road Characteristics

	US4	VT100	Killington Road
<i>Classification</i>	Principal Arterial	Minor Arterial	Minor Arterial
<i>Speed Limit</i>	40/50 mph	50 mph	35 mph
<i>Surface</i>	Paved	Paved	Paved
<i>Pedestrian/Bicycle Facilities</i>	None	None	None
<i>Destinations</i>	Churches Shops Pull-off Mountain Meadows Transit stop Post Office	Gifford Woods St. Park Kent Pond Golf Course Colton Pond State Park Hiking trails Appalachian Trail	Ski Resorts Inns and Lodges Golf Course State Park Hiking Trails

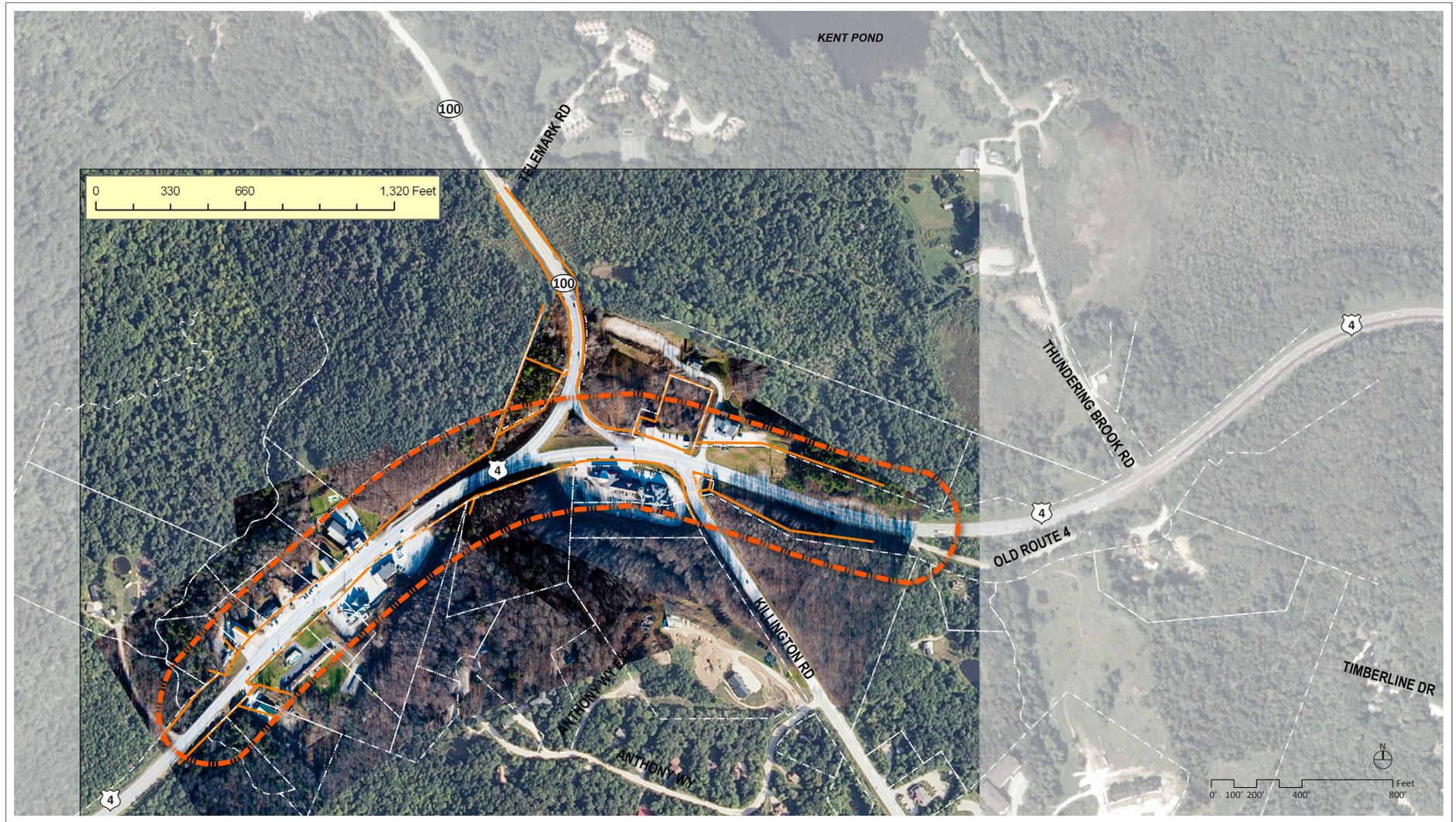
Figure C2: Zoning



The project area sits entirely within a commercial zoning area in the Town of Killington, surrounded mainly by pockets of residential neighborhoods, but also forest reserve land and businesses. According to the Killington Town Plan, adopted July 19, 2010, the purpose of the Commercial District is to “consolidate and coordinate a

broad range of commercial and non-commercial uses.... Emphasis on safe and efficient accessibility, pedestrian movement, grouped organization of new buildings, and a pleasant environment area primary considerations.”

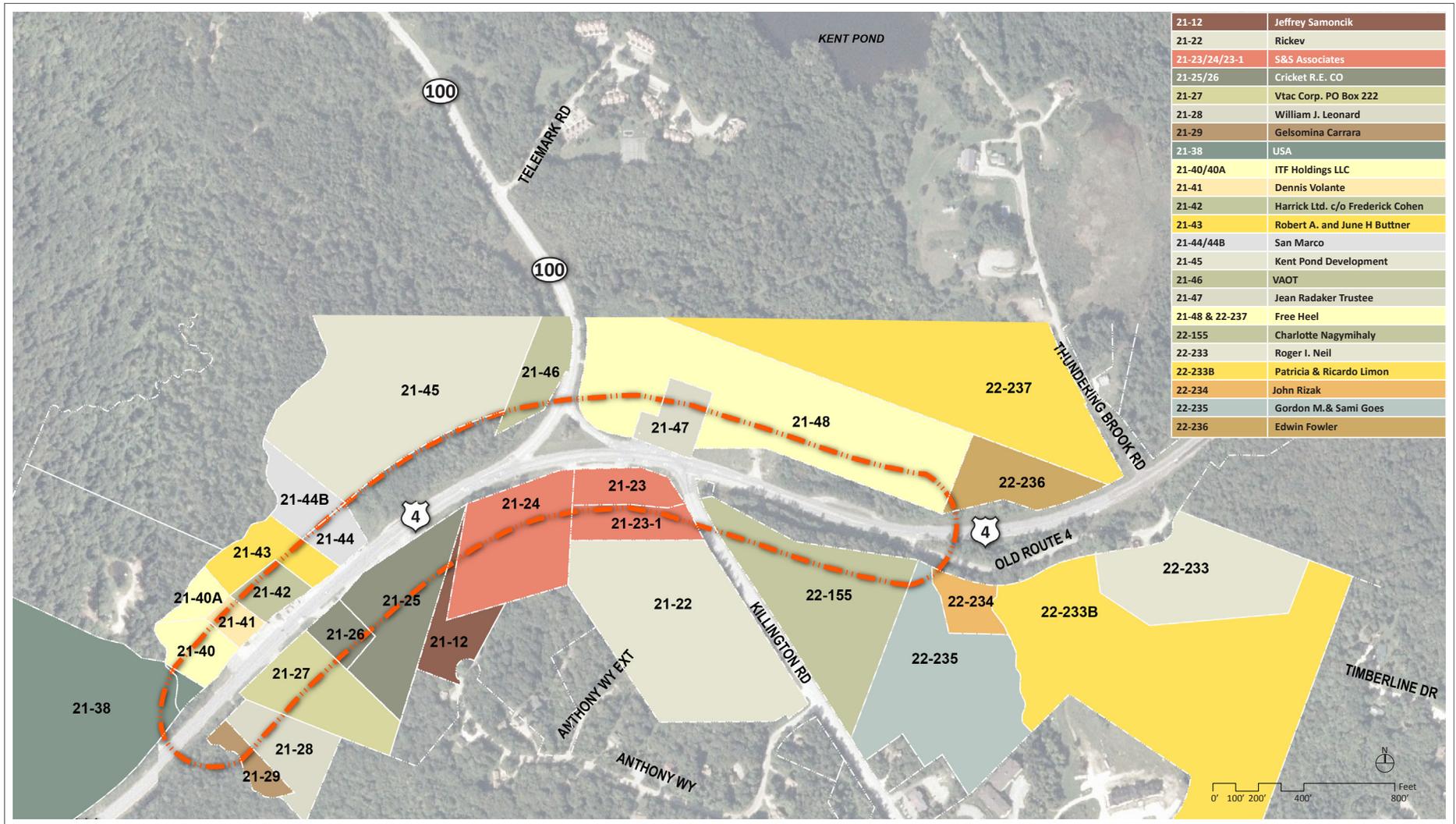
Figure C3: Right of Way and Property Lines



The project study corridor is 3350 feet long and the VTrans right of way varies in width ranging from 92 feet to 328 feet.

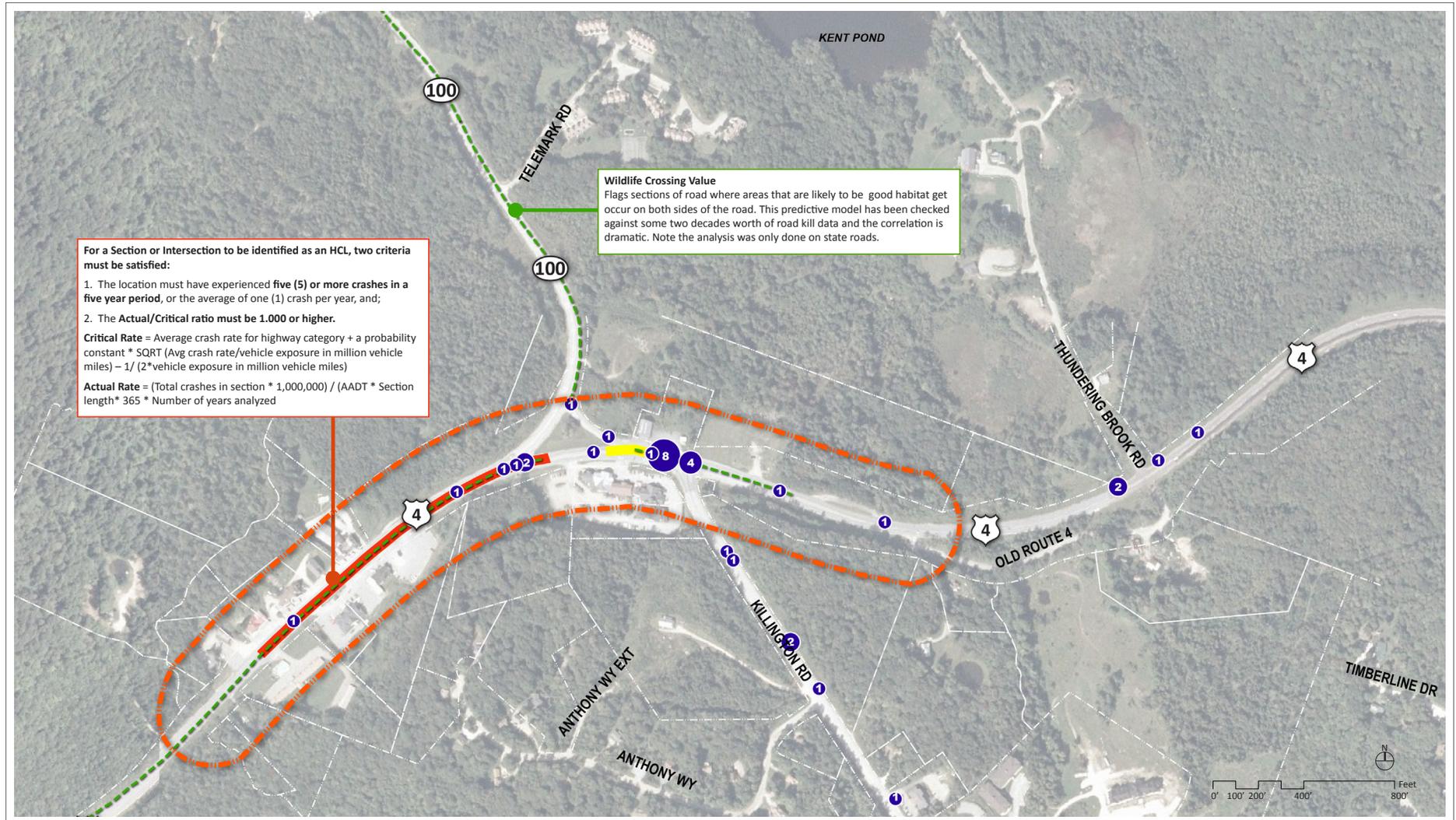
— Right of Way
 - - - Property Line (in white)

Figure C4: Parcel Ownership



Thirteen different parcel owners have properties that are directly adjacent or, in two instances, slightly within the project area. The majority of these parcels are occupied by small businesses, such as gas station, deli, gift shop, inns, outdoor gear and equipment stores.

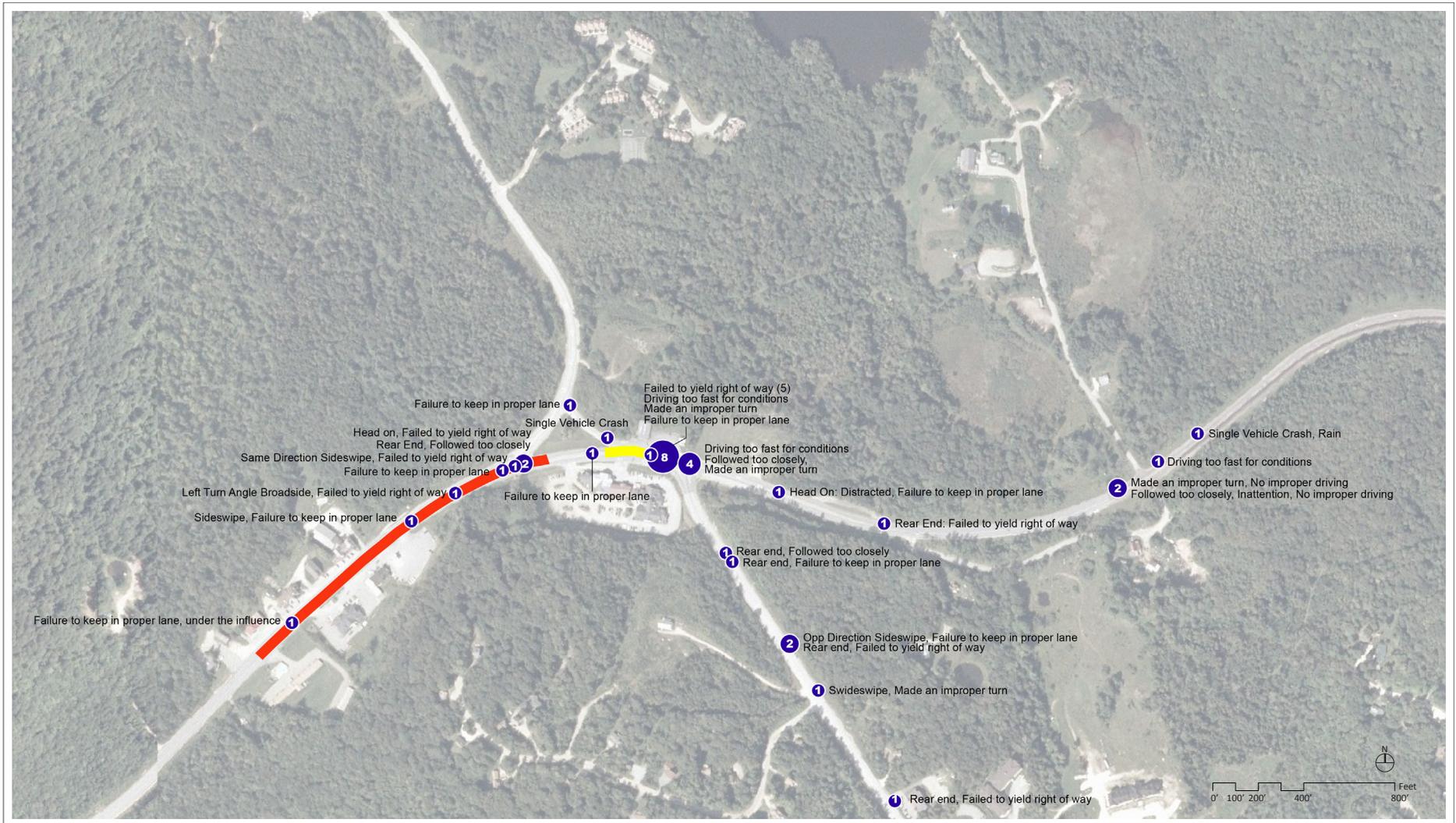
Figure C5: Crash Data (2006-2010) and Wildlife Crossings



There are two high crash locations within the project area, both located along US 4. The western portion of the project area has been deemed a high crash section by VTrans because the area has experienced five or more crashes in the past five years. The area between Killington Road and VT 100 is recognized as a high crash intersec-

tion, with the large majority of crashes occurring in front of Bill's Country Store. Additionally, this area, and along VT 100, are flagged as sections with wildlife crossing value, with data showing that there substantial animal habitats on both sides of the road.

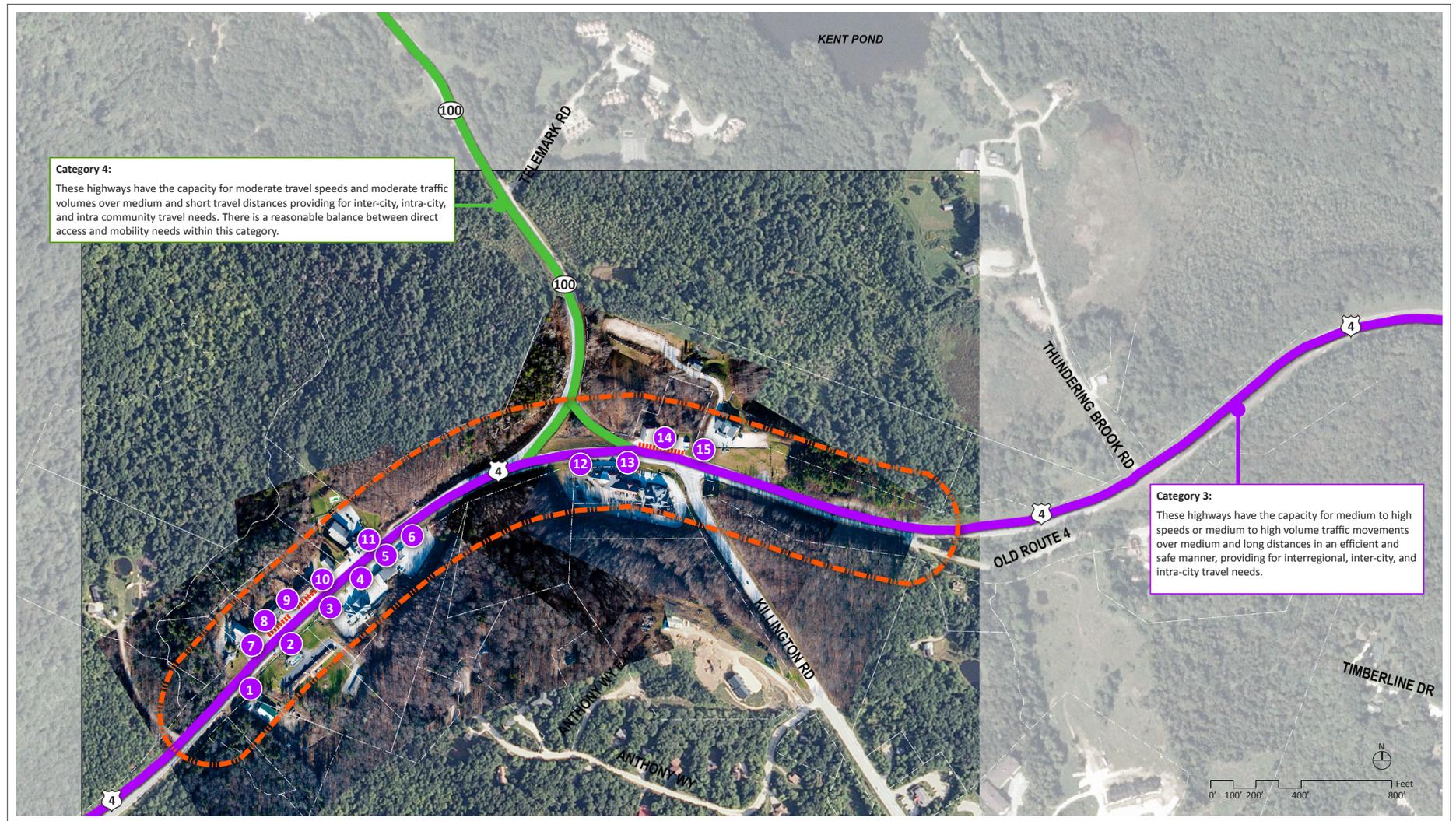
Figure C6: Collisions, by Location and Type



The highest concentration of vehicular collisions occurs at the intersection of Killington Road and US 4, in front of Bill's Country Store. The majority of these crashes are due to drivers' failure to yield proper right-of-way in an area with multiple turning movements being made simultaneously.

- High Crash Location Intersections (2003 - 2007)
- High Crash Location Sections (2003 - 2007)
- Collision (2006 - 2010)

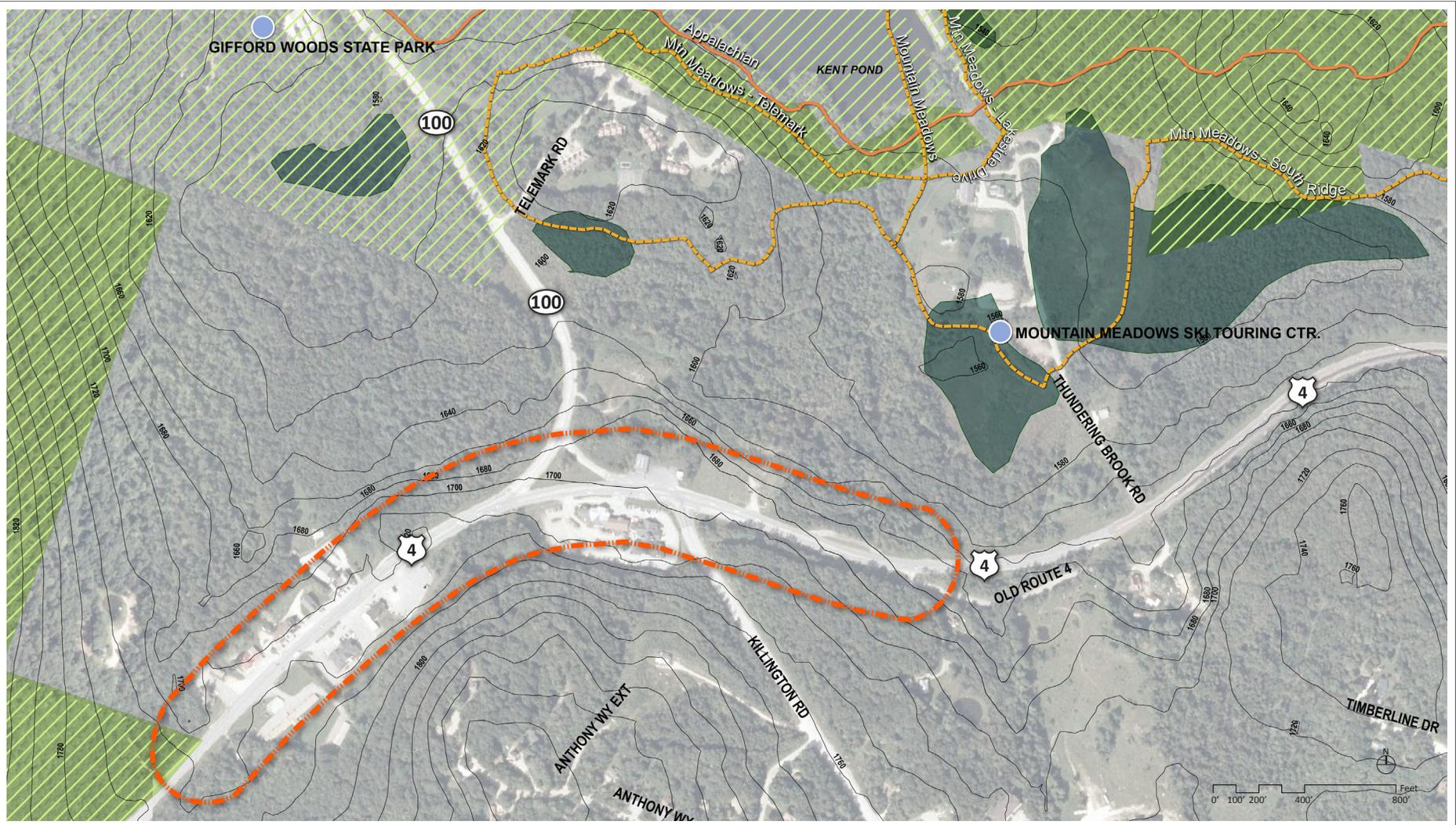
Figure C7: Access Management Categories



Currently, there are 15 sections along US 4, in the project area, where a curb cut or access point exists for vehicles to turn into. For much of the northern side of the western section, the parking lot is completely open and accessible to the road. According to VTrans’ access management plan, US 4 in this project area falls under Category 3 , which recommends that the roadway be designed for the capacity for

medium to high speeds and traffic movements. The purpose of this section is to serve inter- and intra-city travel needs. VT 100 falls under Category 4, which recommends that the road be designed for moderate travel speeds and traffic movement.

Figure C8: Trails and Conserved Land



- Vermont Significant Wetlands Inventory (VSWI)
- Vermont Conserved Lands - Public Lands
- Appalachian Trail
- Green Mountain National Forest Trails
- Green Mountain National Forest Mgt. Area boundaries

The project area is relatively flat compared to its surrounding terrain and is easily accessible to hikers on the Appalachian and Green Mountain National Forest Trails. The project area does not impact any existing wetlands, conservation land, or national forests boundaries.

Figure C9: Arrival Points: US 4 and VT 100 Intersection

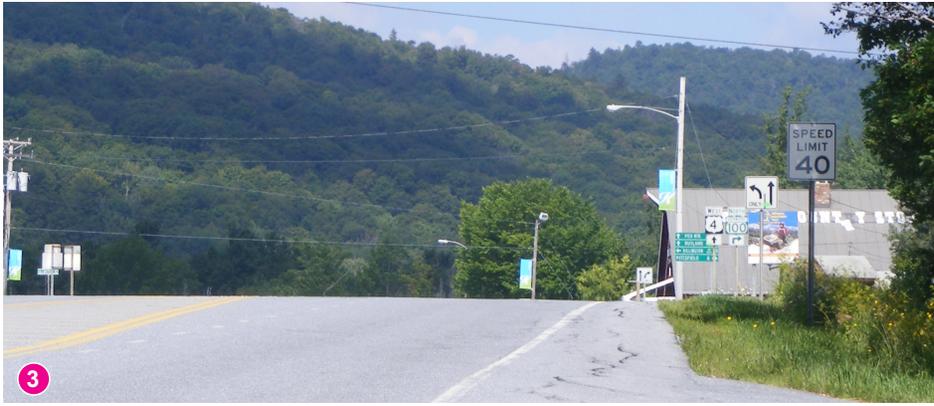


Figure C10: Arrival Points: US 4 and Killington Road Intersection

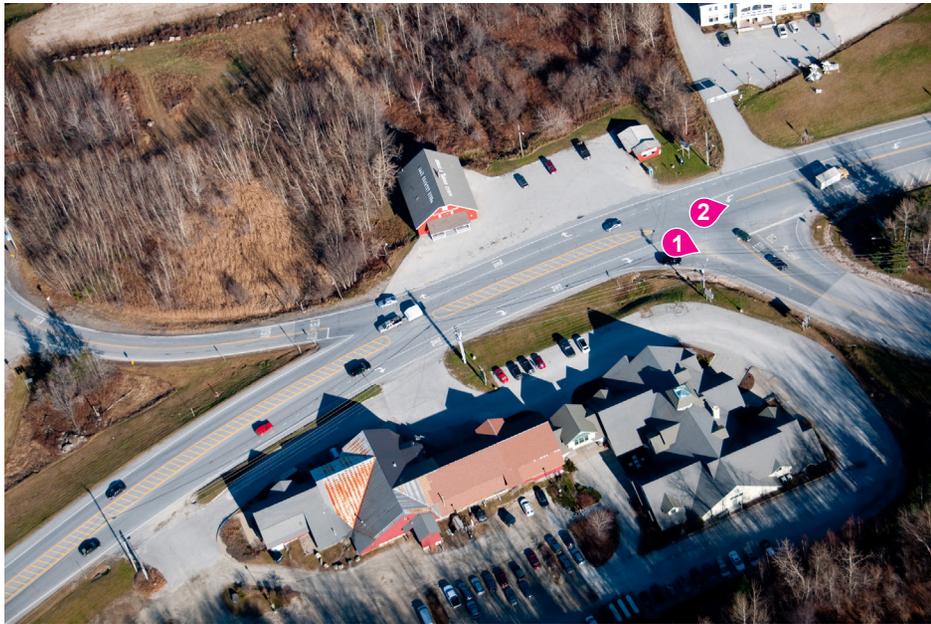


Figure C11: US 4 - Birds Eye View





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