I-89 Exit 14 Slip Lane & Intermodal Intercept Parking Facility

Final Scoping Report

May 2013
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1.0 INTRODUCTION

The project scoping process is a phase in the overall project development process that identifies safe and effective alternatives based on objective criteria that meet the stated purpose and need while minimizing environmental impacts. The scoping process results in the recommendation of a preferred alternative, which has local, regional and VTrans support.

The I-89 Exit 14 Slip Lane and Intermodal Intercept Facility Scoping Study was developed to provide a comprehensive assessment of a potential new southbound I-89 slip ramp and intermodal intercept facility adjacent to the Exit 14 interchange in South Burlington, Vermont.

This scoping study was developed by RSG in partnership with the Chittenden County Regional Planning Commission (CCRPC) and the Campus Area Transportation Management Association (CATMA). In addition, a project Steering Committee assisted in the overall management and direction of the project, while a Stakeholder Committee provided a forum for key stakeholder input into the process. The membership of these committees is outlined below.

Project Steering Committee Members:
- Amy Bell, VTrans
- Erin Demers, City of Burlington
- Meredith Birkett, CCTA
- Chris Jolly, FHWA
- Justin Rabidoux, City of South Burlington
- Bob Penniman, CATMA (through October 2012)
- Sandy Thibault, CATMA (October 2012 through end of project)
- Christine Forde, CCRPC Staff

Project Stakeholder Committee Members:
- Debra Feldman, Sheraton
- Paul Conner, South Burlington
- Kelly Devine, Burlington Business Association
- Barb Donovan, VTrans Public Transit Administrator
- Dawn Francis, Chamber/GBIC
- Aaron Frank, CCTA
- John Caulo, Champlain College
- Dave Keelty, FAHC
- Bob McEwing, Burlington International Airport
- Heather Tremblay, University Mall Director of Communications
- Ron Redmond, Church Street Marketplace
- Linda Seavey, UVM
- David White, City of Burlington

Supporting RSG on this Scoping Study were Nelson\Nygaard (transit assessment and planning), Freeman French Freeman (garage and shell space planning and design), and Krebs & Lansing Consulting Engineers (survey, stormwater and wetlands permitting).
1.1 Background

Over the years, a number of planning initiatives have investigated options to reduce congestion and parking demand in Burlington. One option involves the development of intermodal intercept facilities at the primary gateways into Burlington to capture single-occupant, primarily commuter, trips at peripheral locations around the city and transfer them onto buses to make the final leg of their trip. Shifting auto trips to transit trips in this manner reduces both traffic congestion and parking demand within the city. An intercept facility differs from a traditional park and ride facility in that an intercept facility is typically located closer to trip destinations (e.g. workplaces, downtowns) while park and ride facilities are typically located closer to trip origins (e.g. homes).

An intermodal intercept facility at Exit 14 was identified in the 2007 US 2 Corridor Transportation Management Plan, in the 2010 Chittenden County Transportation Authority (CCTA) Transit Development Plan, and was ranked as the highest rated intercept facility in the Chittenden County Regional Planning Commission (CCRPC) Chittenden County Park and Ride & Intercept Facility Plan.

To provide access to the potential intermodal facility, several planning initiatives have also identified the potential to construct a new slip ramp adjacent to the existing southbound I-89 Exit 14 off-ramp to provide direct connectivity to the facility from the interstate. A general concept plan for this new slip ramp was evaluated in the Interchange 14 Ramp C Scoping Report, which was completed in 2005.

The CCRPC initiated this I-89 Exit 14 Slip Lane and Intermodal Intercept Facility Scoping Study in June 2011 to conduct background investigations, stakeholder outreach, and alternatives analysis to identify a preferred alternative recommendation for the site. This scoping effort has proceeded along the schedule outlined below:

- Project Kick-off: June 2011
- Evaluation of Existing Conditions: June – November 2011
- Development of Purpose & Need: August – November 2011
- User Profile Assessment: November – December 2011
- Traffic Assessment: January – June 2012
- Local Concerns & Ward 1 NPA Meetings: April 2012
- Alternatives Analysis: May – October 2012
- Selection of Preferred Alternative: November 2012
- Draft Scoping Study: February 2013
1.2 Study Area

The primary and secondary study areas are shown below in Figure 1. The primary study area (shown in orange shading) delineates the area most directly affected by the development of an intermodal intercept facility. The primary study area is generally bounded on the east by I-89, on the north by the northern extent of the existing Sheraton Conference Center parking lot, on the west by the Burlington city line inclusive of the area around UVM’s Catamount Drive and on the south by US 2. The secondary study area (shown in blue highlighting) represents the adjacent roadway network that is included in this assessment to gauge broader transportation implications of the intercept facility.

*Figure 1: Study Area*
2.0 PROJECT PURPOSE AND NEED

Articulating a clear *purpose and need statement* is a critical step in the project development process. The purpose and need statement provides a summary of the issues related to the project and facilitates the selection of a reasonable, prudent, and practicable alternative. To focus the direction of this project and with input from the project steering committee, the following purpose and need statement was developed.

2.1 Purpose

The purpose of the I-89 Exit 14 Intercept Facility is to encourage the use of multi-modal travel options to reduce parking demand, congestion, vehicle miles travelled (VMT), and vehicle emissions in Burlington and South Burlington by intercepting vehicles prior to reaching their final destination and transferring them safely, efficiently, and seamlessly to a non-single-occupant-vehicle mode (e.g. bus, shuttle, HOV, walk, bicycle). The Intercept Facility will increase the number of publicly available, intermodal parking spaces in Chittenden County’s core and will be located at a convenient and efficient intercept facility location to serve a wide range of users including work, travel, and special events related users. The Intercept Facility will allow for potential redevelopment and infill of areas currently occupied by parking and reduces overall energy use and reliance on fossil fuels.

2.2 Needs

An intermodal transportation facility at I-89 Exit 14 is needed for the following reasons:

- Current downtown parking demand leads to inefficient use of core downtown space to provide parking for employees and visitors.
- Limited parking capacity to accommodate large special events in Burlington and South Burlington.
- Recurring peak period congestion both in downtown Burlington and along major commuter routes into Burlington and South Burlington caused by oversaturated conditions.
- Recurring delays and congestion leads to increased vehicle emissions and degraded air quality levels in Chittenden County.
- Limited adequate and convenient mode-transfer facilities for commuters in Chittenden County.
3.0 EXISTING CONDITIONS

This section provides a comprehensive assessment of the project site, traffic operations, bicycle and pedestrian connectivity, existing transit services, land use context, and natural and cultural resources adjacent to the project site.

3.1 Project Site

The project site is located immediately north of the Sheraton Hotel and Conference Center in the northwest quadrant of the I-89 Exit 14 interchange in South Burlington, Vermont. The project site is bordered on the east by I-89, on the north by UVM’s 285-space Catamount East Commuter Parking Lot, on the west by Sheraton Drive & UVM’s Catamount Drive (private), and University of Vermont stormwater detention basins, and on the south by the Sheraton facility.

Primary access to the site is provided off of US 2 (Main Street) via the Sheraton access drive. Limited access is available from East Avenue via Catamount Drive.

The parking area to the north of the Sheraton hotel slopes towards the northeast, with an average 1.5% slope across the lot. The terrain immediately north of this lot drops off significantly, with slopes in the 3:1 range down to an identified wetland area.

Figure 2: Existing Site Plan
3.2 Traffic Assessment

The traffic volumes along US 2 and I-89 around Exit 14 are some of the highest in Vermont. Exit 14 serves as a main commuting gateway to employment destinations in downtown Burlington and South Burlington. The large volume of commuting trips currently passing through the Exit 14 area makes the project site particularly attractive for a potential transit intercept facility.

In 2010, VTrans reported an Annual Average Daily Traffic (AADT) volume of 39,100 vehicles per day along US 2 just west of the I-89 Exit 14 ramps.\(^1\) On I-89 north of US 2 between exits 14 and 15 VTrans reported an AADT of 53,900 vehicles per day.\(^2\)

In order to form an understanding of baseline traffic congestion within the study area, intersection turning movement counts conducted by VTrans, the CCRPC, and RSG were collected for all critical intersections within the project study area. Figure 3 presents the various count dates by intersection.

**Figure 3: Intersection Count Locations and Count Dates**

<table>
<thead>
<tr>
<th>Intersection</th>
<th>AM Peak</th>
<th>PM Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colchester Ave/East Ave/Trinity Campus</td>
<td>6/12/2009</td>
<td>6/12/2009</td>
</tr>
<tr>
<td>East Ave/Catamount Drive</td>
<td>11/30/2011</td>
<td>4/7/2010</td>
</tr>
<tr>
<td>US2/S Prospect St</td>
<td>7/14/2010</td>
<td>7/14/2010</td>
</tr>
<tr>
<td>US2-SpearSt-08</td>
<td>4/17/2008</td>
<td>4/17/2008</td>
</tr>
<tr>
<td>Westmost Ramps - SB Off-On Ramps</td>
<td>Dec '09*</td>
<td>Dec '09*</td>
</tr>
<tr>
<td>SB On-Off Ramp</td>
<td>Dec '09*</td>
<td>Dec '09*</td>
</tr>
<tr>
<td>NB Off-On Ramp</td>
<td>Dec '09*</td>
<td>Dec '09*</td>
</tr>
<tr>
<td>Eastmost Ramps - NB On-Off Ramp</td>
<td>Dec '09*</td>
<td>Dec '09*</td>
</tr>
</tbody>
</table>

* Ramp intersection turning movement counts were derived from CCMPO ATR counts conducted on all on- and off-ramps during December of 2009.

Weekday AM and PM peak hour traffic volumes from the study intersection turning movement counts were adjusted to represent Design Hour Volume (DHV) conditions using adjustments based on VTrans automatic count stations on US 2 and East Avenue.\(^3\) DHV adjustments range from 0.98 to 1.23 depending on time period and count date. Additionally, annual adjustments based on growth rates presented in the 2010 VTrans Red Book for Poll Group 3, Urban Roads, were used to scale count volumes to represent 2012 conditions.

Design hour traffic volumes were then used to calculate average vehicle delays and levels of service based on procedures laid out in the *2000 Highway Capacity Manual*.\(^4\) Level of Service (LOS) is a qualitative measure describing the operating conditions as perceived by motorists driving in a traffic stream. In addition to traffic volumes, key inputs for calculating vehicle delays and LOS include:

1. This AADT was recorded on US 2 at VTrans count station S6D108.
2. This AADT was recorded on I-89 north of Exit 14 at VTrans count station P6D091.
3. DHV adjustments are based on VTrans count stations S6D172, S6D138, S6D162, S6D058, and S6D108.
delays and levels of service include the number of lanes at each intersection, intersection control type (signalized or unsignalized), and the traffic signal timing plans.\textsuperscript{1}

The 2000 Highway Capacity Manual defines six qualitative grades to describe the level of service at an intersection. Level-of-Service is based on the average control delay per vehicle. Figure 4 shows the various LOS grades and descriptions for signalized intersections.

\textbf{Figure 4: Level-of-Service Criteria for Signalized Intersections}

<table>
<thead>
<tr>
<th>LOS</th>
<th>Characteristics</th>
<th>Signalized Total Delay (sec)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Little or no delay</td>
<td>≤ 10.0</td>
</tr>
<tr>
<td>B</td>
<td>Short delays</td>
<td>10.1-20.0</td>
</tr>
<tr>
<td>C</td>
<td>Average delays</td>
<td>20.1-35.0</td>
</tr>
<tr>
<td>D</td>
<td>Long delays</td>
<td>35.1-55.0</td>
</tr>
<tr>
<td>E</td>
<td>Very long delays</td>
<td>55.1-80.0</td>
</tr>
<tr>
<td>F</td>
<td>Extreme delays</td>
<td>&gt; 80.0</td>
</tr>
</tbody>
</table>

\section{3.3 Crash Data Assessment}

A comprehensive crash data assessment was conducted on the roads adjacent to the project site. The crash assessment examined vehicular crashes that had been reported over the five year period from 2006 to 2010 and is summarized below in Figure 6. As the graphic shows, there is a designated High Crash Location section along US 2 adjacent to the Sheraton Access Drive, with dense cluster of crashes being reported in the section over the five-year analysis period.

Figure 5 below provides a summary of the crashes occurring within the US 2 High Crash Location section in South Burlington from mile marker 0.0 to 0.158 (East Avenue/Spear Street to the southbound I-89 off-ramp). During the period from 2006-2010, there were 190 reported crashes in this section. The majority of the reported crashes in this section were rear end collisions (53%).

\textbf{Figure 5: Summary of Crashes from High Crash Location (South Burlington US 2 – Mile Marker 0.0-0.158)}

<table>
<thead>
<tr>
<th># Crashes</th>
<th>Rear End</th>
<th>Same Direction Sideswipe</th>
<th>Left turn and thru - angle/ broadside</th>
<th>Other/ Unknown</th>
<th>Thru movements broadside</th>
<th>Right turn and thru - angle/ broadside</th>
</tr>
</thead>
<tbody>
<tr>
<td># Crashes</td>
<td>100</td>
<td>36</td>
<td>21</td>
<td>16</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>% of Crashes</td>
<td>53%</td>
<td>19%</td>
<td>11%</td>
<td>8%</td>
<td>5%</td>
<td>4%</td>
</tr>
</tbody>
</table>

An analysis of the crashes closest to the Sheraton Hotel entrance (mile marker 0.10-0.23) was completed as well. The 91 crashes identified in this area are presented in a crash diagram in Figure 7 below which shows the type of collision, direction, injuries, the date of the accident and other important information.

\textsuperscript{1} This analysis assumes construction of the new third lane between the US 2/Staples/Sheraton intersection and the I-89 Exit 14 Southbound Ramps and updated signal timing plans resulting from the widening project.
Figure 6: Crash Assessment Summary

Exit 14 Intercept Facility - Burlington
Crashes (2006 - 2010)
1" = 600’ scale
September 2011
Figure 7: Crash Diagram at Sheraton Hotel/Staples Plaza
Figure 8: Pedestrian Facilities Adjacent to the Project Site
Figure 9: Bicycle Facilities Adjacent to the Project Site
3.4 Bicycle and Pedestrian Facility Assessment

A detailed field inspection was conducted adjacent to the project site to identify the presence of existing bicycle and pedestrian facilities. Figure 8 shows the existing pedestrian facilities (i.e. sidewalks, crosswalks, and shared use paths) within the primary and secondary study areas. The figure shows a well-developed pedestrian network with continuous connections from the project site west to East Avenue and South Prospect Street and east across I-89 to Dorset Street.

A map of the existing bicycle facilities within the study area is illustrated below in Figure 9. Included in the figure is a proposed five-foot shoulder that would be constructed as part of the US 2/Main Street widening project adjacent to the Staples plaza. As the graphic shows, there is generally bicycle connectivity to East Avenue and University Place to the west and to Dorset Street to the east (with an eastbound segment forced to traverse a sidewalk between the I-89 northbound off-ramp and Dorset Street).

3.5 Transit Service Assessment

The existing and proposed transit facilities and services were assessed in order to gain a comprehensive understanding of transit service adjacent to the proposed facility.

3.5.1 Existing Transit Facilities and Services

Existing transit facilities include the Chittenden County Transit Authority (CCTA) routes that serve the greater Burlington area, the Fletcher Allen Healthcare (FAHC) shuttles, and the shuttle services provided by nearby institutions, the University of Vermont (UVM), and Champlain College.

3.5.1.1 Chittenden County Transit Authority (CCTA)

Currently the CCTA provides service to the greater Burlington area with 19 bus routes. Seven of these routes operate either on Main Street/Williston Road in Burlington, or serve another portion of the study area such as UVM or FAHC. These routes, along with detailed information about their span of service and service frequency, are shown in Figure 10. A map of the routes is also provided in Figure 11.
### Figure 10: Table of CCTA Transit Route Serving Study Area

<table>
<thead>
<tr>
<th>Routes that stop along Main Street/Williston Road</th>
<th>Span of Service</th>
<th>Frequency (min) (Peak/Off-Peak)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Route 1 Williston (includes variants 1E, 1V, 12)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekday</td>
<td>6:15a — 12:05a</td>
<td>15/30</td>
</tr>
<tr>
<td>Saturday</td>
<td>6:15a — 12:05a</td>
<td>30</td>
</tr>
<tr>
<td>Sunday</td>
<td>8:15a — 6:55p</td>
<td>30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Routes that do not stop along Main Street/Williston Road, but operate near UVM and FAHC</th>
<th>Span of Service</th>
<th>Frequency (min) (Peak/Off-Peak)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Route 2 Essex Junction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekday</td>
<td>5:55a — 10:35p</td>
<td>15/30</td>
</tr>
<tr>
<td>Saturday</td>
<td>6:10a — 8:22p</td>
<td>30</td>
</tr>
<tr>
<td><strong>Route 8 City Loop</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekday</td>
<td>6:45a — 10:05p</td>
<td>15/30</td>
</tr>
<tr>
<td>Saturday</td>
<td>6:45a — 6:40p</td>
<td>30</td>
</tr>
<tr>
<td><strong>Route 11 College Street Shuttle</strong>*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekday</td>
<td>6:15a — 9:00p</td>
<td>Varies</td>
</tr>
<tr>
<td>Saturday</td>
<td>8:45a — 9:00p</td>
<td>Varies</td>
</tr>
<tr>
<td>Sunday</td>
<td>8:45a — 9:00p</td>
<td>Varies</td>
</tr>
<tr>
<td><strong>Route 76 Middlebury LINK Express</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekday AM</td>
<td>5:05a — 8:50p</td>
<td>60</td>
</tr>
<tr>
<td>Weekday PM</td>
<td>4:40p — 7:55p</td>
<td>40</td>
</tr>
<tr>
<td>Saturday AM</td>
<td>9:45a — 1:30p</td>
<td>90</td>
</tr>
<tr>
<td>Saturday PM</td>
<td>4:45p — 9:45p</td>
<td>90</td>
</tr>
<tr>
<td><strong>Route 86 Montpelier LINK Express</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekday AM</td>
<td>5:42a — 8:55a</td>
<td>8 one-way trips*</td>
</tr>
<tr>
<td>Weekday PM</td>
<td>12:02p — 7:30p</td>
<td>10 one-way trips*</td>
</tr>
<tr>
<td><strong>Route 96 St. Albans LINK Express</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekday AM</td>
<td>5:45a — 8:35a</td>
<td>4 one-way trips*</td>
</tr>
<tr>
<td>Weekday PM</td>
<td>4:30p — 7:20p</td>
<td>4 one-way trips*</td>
</tr>
</tbody>
</table>

*Iregular Service Frequency
**Seasonal Variations
Route 1 Williston - Route 1 Williston operates between downtown Burlington and Williston via Main Street and Williston Road. The route travels east from and passes the project study area on Main Street. There are multiple service variants of this route which determine the eastern alignment in Williston. The variants and their unique portions are:

- **1** — Williston Road to Tafts Corners, then south to serve Maple Tree Place and Walmart
- **1E** — Williston Road to Tafts Corners, then north to serve Essex
- **1V** — Williston Road to Industrial Avenue, then north to make a one-way loop on Industrial Avenue, Mountain View Road, N. Williston Road, and Williston Road.
- **12** — (Interlined) Follows alignment for Route 1 from Burlington to Williston Road at Kennedy Drive, then becomes the South Burlington Circulator (Route 12).

Route 2 Essex Junction - Route 2 Essex Junction operates between downtown Burlington and Essex Junction via Colchester Avenue, College Parkway, and Pearl Street. It passes through the study area on Colchester Avenue and serves the Fletcher Allen Heath Care – Medical Center (FAHC – MC).
- **Route 8 City Loop** - Route 8 City Loop is a circulator route that operates throughout downtown Burlington. It serves the study area along Prospect Street, stopping at the UVM Waterman Building which is a transfer point to/from the CATS system.

- **Route 11 College Street Shuttle** - Route 11 College Street Shuttle is a free shuttle that operates between the Burlington Waterfront and FAHC via College Street and Colchester Avenue. The route stops at the UVM Waterman building, the Fletcher Allen Heath Care – University Health Center (FAHC – UHC), and FAHC - MC.

- **Route 76 Middlebury LINK Express** - Route 76 Middlebury LINK Express is an express route that provides service between downtown Burlington and Middlebury via US Route 7. The route makes a stop at the UVM Waterman building, the Fletcher Allen Heath Care – University Health Center (FAHC – UHC), and FAHC - MC.

- **Route 86 Montpelier LINK Express** - Route 86 Montpelier LINK Express is an express route that provides service between downtown Burlington and Montpelier via Interstate 89. Similar to Route 76, this route makes a stop at the FAHC - MC on the inbound (to Burlington) AM trips and the outbound (to Montpelier) PM trips.

- **Route 96 St. Albans LINK Express** - Route 96 St. Albans LINK Express is an express route that provides service between downtown Burlington and St. Albans via Interstate 89. Each trip makes a stop at the FAHC - MC.

3.5.1.2 **Campus Area Transportation System (CATS)**

Another existing transit option in the vicinity of the project site is the free transportation services that the University of Vermont’s Transportation and Parking Services department provides for students, staff, and faculty of UVM. These services include three campus area shuttles that form the Campus Area Transportation System (CATS). The On Campus Shuttle, the Redstone Express Shuttle, and the Off Campus Shuttle operate as shown in Figure 12 and Figure 13. In addition, CATS also offers a CatsRide on demand door to door service which provides between off campus UVM facilities and the main campus (within a ten mile radius of campus). Trips are scheduled in advance on a first-come, first-served basis. This service is available on weekdays from 8:00 AM to 4:00 PM.

*Figure 12: Table of CATS Transit Routes*

<table>
<thead>
<tr>
<th></th>
<th>Span of Service</th>
<th>Service Frequency (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On Campus</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekday</td>
<td>7:20a — 11:45p</td>
<td>10/30</td>
</tr>
<tr>
<td>Saturday</td>
<td>11:30a — 6:30p</td>
<td>30</td>
</tr>
<tr>
<td>Sunday</td>
<td>11:30a — 9:30p</td>
<td>30</td>
</tr>
<tr>
<td><strong>Redstone Express</strong></td>
<td>7:45a — 6:45p</td>
<td>15</td>
</tr>
<tr>
<td>Monday – Thursday</td>
<td>7:45a — 3:45p</td>
<td>15</td>
</tr>
<tr>
<td>Friday</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Off Campus</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunday – Thursday</td>
<td>18:30p — 12:00a</td>
<td>30</td>
</tr>
<tr>
<td>Friday / Saturday</td>
<td>18:30p — 10:00p</td>
<td>15</td>
</tr>
<tr>
<td>Friday / Saturday Late Night*</td>
<td>22:00p — 2:30a</td>
<td>10</td>
</tr>
</tbody>
</table>

*Note the Off Campus shuttle has a distinct Late Night alignment*
Figure 13: Map of CATS Shuttles

Redstone Express Shuttle

On-Campus Shuttle

Off-Campus Shuttle
- **On Campus Shuttle** - The On Campus shuttle provides service internally throughout the UVM campus. The route does not directly serve the FAHC - MC or the FAHC - UHC. Service is offered seven days a week.

- **Redstone Express Shuttle** - The Redstone Express shuttle provides service between the Central Campus and the Redstone Campus of UVM via Prospect Street. The route directly serves the FAHC - UHC but does not serve the FAHC - MC.

- **Off Campus Shuttle** - The Off Campus shuttle provides evening service within the UVM campus and also to Burlington downtown. The off campus portion travels along Pearl Street to Winooski Avenue to Main Street. The route directly serves the FAHC - UHC but does not serve the FAHC - MC. A distinct Friday and Saturday Late Night service exists which begins after the normal service ends.

### 3.5.1.3 Fletcher Allen Healthcare Shuttle Services

Fletcher Allen Healthcare provides weekday shuttle service between FAHC – MC and several parking lots in the area (Figure 12 and Figure 13). This allows employees of the medical center to park off site and take the shuttle to work for free. Three routes shuttle employees from three locations, described individually below. A fourth employee parking lot, Centennial parking, is located within walking distance of the medical center and is not served by a shuttle.

- **Fanny Allen shuttle** - The Fanny Allen shuttle provides shuttle service between the Fanny Allen Campus and the FAHC – MC. Satellite parking is located behind lot #2. Weekday service runs from 4:15 AM to 9:15 PM and departs every 15 minutes.

- **Catamount East shuttle** - The Catamount East shuttle provides shuttle service between the UVM Catamount East Parking Lot and the FAHC – MC. The parking lot is located off Catamount Drive, behind the Sheraton property. Weekday service operates from 4:15 AM to 9:15 PM and departs roughly every 10 to 15 minutes.

- **Gutterson shuttle** - The Gutterson shuttle provides shuttle service between the UVM Gutterson Parking Lot and the FAHC – MC. The parking lot is located on the UVM campus, just to the east of the Gutterson Field House. Weekday service operates from 4:15 AM to 6:00 PM and departs roughly every 10 to 15 minutes.

### 3.5.1.4 Champlain College Shuttle Services

Champlain College operates free shuttle service for students between campus and off site residence halls when classes are in session. These shuttles operate to the west and north of the study area.

- **Gilbane Lot/Lakeside Avenue shuttle** - The Gilbane Lot/Lakeside Avenue shuttle provides shuttle service between the Champlain College main campus and the new Lakeside Avenue campus at Lakeside Avenue and Pine Street. Weekday service operates from 7:00 AM to 6:00 PM and runs in a continuous loop.

- **Quarry Hill shuttle** - The Quarry Hill shuttle provides shuttle service between the Champlain College main campus and the Quarry Hill residence hall on Quarry Hill Road. Weekday service operates from 7:05 AM to 8:50 PM and departs every 30 minutes.

- **Spinner Place shuttle** - The Spinner Place shuttle provides shuttle service between the Champlain College main campus and the Spinner Place residence hall in Winooski. Weekday service operates from 7:05 AM to 9:10 PM (6:10 PM on Fridays) and departs every 30 minutes.

- **Late Night and Weekend shuttle** - Additional late night service is offered between the Champlain College main campus, Spinner Place, Quarry Hill, and Lakeside Avenue.
Monday through Thursday from 9:10 PM to midnight, departing every 50 minutes. Weekend service serves the same locations and operates from 11:00 AM to 8:30 PM and departs every hour.

### 3.5.1.5 Existing Park and Ride and Intercept Facilities

Currently there are three park and rides, and four intercept facilities within or serving Chittenden County that are served by public transit. Details about the public transit services that are currently available at these facilities, along with the location (Figure 14), are shown below.

- **Georgia Park and Ride (public)** - North of the study area, the Georgia Park and Ride is serviced by CCTA Route 96 St. Albans LINK Express.

- **Essex (public)** – An existing Park and Ride in Essex is being served by CCTA’s Route 4 Essex Center.

- **Exit 11 Richmond (public)** – The Richmond Park and Ride is served by the CCTA Route 86 Montpelier LINK Express.

- **Fanny Allen (private)** – The intercept facility at Fanny Allen in Colchester is primarily serviced by Fletcher Allen shuttles with CCTA Route 2 Essex Junction service along Route 15.

- **Winooski (public)** – The parking intercept lot by Winooski at Spinner Place is serviced by various public transit routes including CCTA’s Route 2 Essex Junction, Route 9 Riverside/Winooski, and the Spinner Place Champlain shuttle.

- **Gilbane/PARC Lot (private)** – This intercept facility is serviced by Fletcher Allen and Champlain College shuttles. CCTA Route 3 Lakeside Commuter provides service along Lakeside Avenue.

*Figure 14: Park and Ride and Intercept Facilities*
3.6 Land Use & Zoning Regulations

Figure 15 below shows the existing land use classifications proximate to the project site. The land use designations are based on the 2008 CCRPC parcel-based land use map and is categorized using the Land Based Classification Standards established by the American Planning Association. The figure shows that the land uses adjacent to the project site are primarily commercial and institutional in nature.

Figure 16 below shows the existing zoning districts proximate to the project site. The figure shows that the project site is located in the ‘Commercial 1 – Residential 12’ zoning district. The South Burlington Land Development Regulations (3/15/2011) identify the purpose of the C1 district as follows:

_A Commercial 1 District is hereby formed in order to encourage the location of general retail and office uses in a manner that serves as or enhances a compact central business area. Other uses that would benefit from nearby access to a central business area, including clustered residential development and small industrial employers, may be permitted if they do not interfere with accessibility and continuity of the commercial district._

The list of permitted uses within the _Commercial 1 – Residential 12_ zone includes the following uses: municipal facility, child care facility, convenience store less than 3,000 square feet within a principal structure, financial institution, office, personal or business service, photocopy and printing shops, restaurant, retail and retail services, and retail food establishments.
3.7 Natural & Cultural Resource Assessment

The study area was examined for potential environmental, natural, and cultural resource impacts based on site assessments, existing GIS resource mapping, and previous site investigations.

Figure 17 below shows an overview of the identified natural and cultural resources proximate to the project site.

Figure 17: Overview of Natural and Cultural Resources

3.8 Flood Zones

There are no identified flood zones within the project study area, as defined by the Federal Emergency Management Agency (FEMA). The current FEMA Flood Insurance Rate Map (FIRM) identifies a secondary flood area north of the project site crossing under I-89 as shown in Figure 17.

3.9 Wetlands

A field assessment of the project area was conducted by Gilman & Briggs Environmental during the summer of 2011. This field investigation identified potential jurisdictional wetlands immediately north of the project site as shown in Figure 17 above, and in more detail in Figure 18 below.
On 24 July 2012, project team members met on site with staff from the US Army Corps of Engineers and the Vermont Agency of Natural Resources Water Quality Division to review the project’s objectives, the delineated wetland boundaries, and potential permitting implications.

Figure 18: Approximate Location of Jurisdictional Wetlands (Source: Gilman & Briggs Environmental)

### 3.10 Historic & Archeological Resources

A historic and archeological resource assessment of the project area was conducted by the University of Vermont’s Consulting Archaeology Program (UVM-CAP) in the summer of 2011. The UVM-CAP review identified three discrete areas as archaeologically sensitive for precontact Native American sites as identified in Figure 17.

Soil probes indicated that the level portions of the project area north of the existing conference center parking lot were not disturbed by the construction of Exit 14 and therefore, they may contain archaeological sites. Since these landforms are highly archaeologically sensitive and will be disturbed by the proposed project, a Phase I site identification study of each of these three archaeologically sensitive areas is recommended unless they can be avoided.

### 3.11 Hazardous Waste Sites

According to the Vermont Agency of Natural Resources’ Environmental Interest Locator, there were no identified hazardous waste sites located on the project site. As shown in Figure 17, several hazardous waste sites and underground storage tanks have been identified on the south side of US 2, proximate to the Staples plaza and adjacent gas stations.
3.12 Rare, Threatened or Endangered Species

Based on the latest assessment released by the Vermont Department of Fish and Wildlife, there are no rare, threatened or endangered species and no natural communities or rare animal communities identified within or adjacent to the study area.

3.13 Public Lands / LWCF Grant Sites

There are no public land areas identified within or adjacent to the study area according to the latest Public Lands Extract from the Vermont Conserved Lands Database. The latest list of Land and Water Conservation Fund Program (LWCF) grant sites was also reviewed. No such sites are listed in or near the project area.

3.14 Prime Agricultural Soils

Figure 19 below shows the prime agricultural lands as identified in the Natural Resource Conservation Service County Soil Surveys (2010). The figure shows the presence of prime agricultural soils (much of which falls under existing paved areas) as well as soils of statewide significance proximate to the study area.

Figure 19: Prime Agricultural Soils
4.0 **USER PROFILE & FACILITY SIZE REQUIREMENTS**

4.1 **Parking Demand Estimation**

The development of a reasonably accurate estimation of parking demand is one of the most critical elements of this Scoping Study. The parking demand will in large part determine the size of the facility, the traffic generated by the facility, the revenue estimation formula, and overall facility cost.

During the month of December 2011, several key stakeholders were interviewed to identify estimated parking demand. Specific comments related to individual stakeholder’s current parking operations, parking demand, and anticipated use of the Exit 14 Intercept Facility is provided below.

4.1.1 **South Burlington**

South Burlington staff indicated that there is a potential opportunity to reduce the amount of parking required in the City Center project if some portion can be accommodated within the Intercept Facility, however, this use is contingent on the development of the City Center project and is not expected to generate a large parking demand.

4.1.2 **Sheraton Burlington Hotel and Conference Center**

- Existing hotel and conference center parking capacity is 750 spaces
- Approximately 450 spaces in the rear lot will be displaced but accommodated by the Intercept Facility.
- The Sheraton currently has 2-4 events per year that exceed their existing parking capacity
- Peak hotel parking demand (approximately 1,200 spaces) is currently accommodated via shuttle service to the Gutterson Garage on the UVM campus.
- A climate-controlled pedestrian bridge connecting the Conference Center with the Intercept Facility is a high priority for the hotel.
- Maintaining views of Mount Mansfield and the Green Mountain range is a very high priority for the hotel.

4.1.3 **Burlington International Airport**

- Busiest travel months at the airport are July & August. Busiest months for parking garage are February & March.
- Parking garage fare recently increased from $8/day to $12/day.
- Use of parking garage has declined slightly since 2008, due both to economic conditions and increased parking fares.

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1 The University of Vermont was not included in the stakeholder interviews as it was identified that UVM would be gaining parking spaces as a result of shifting FAHC vehicles currently parked in Gutterson, Catamount East, and Centennial Field lots.
• The CCTA South Burlington Circulator bus provides connections to other destinations in South Burlington on 30-minute headways.

• The airport is very interested in a potential airport/hotel shuttle that would run between the various hotels, the Exit 14 Intercept Facility, and the airport.

• The airport currently has approximately 2,700 parking spaces between the parking garage and surface lots. 2,300 spaces are available for public use (the others are reserved for rental cars and airport use).

• The airport’s parking garage was constructed to accommodate an expansion that would add 800 additional parking spaces.

• The airport feels that the Intercept Facility could be a desirable long-term parking option, particularly for customers coming from the north, provided that there is a convenient and reliable shuttle bus connection to the airport.

4.1.4 University Mall

• The University Mall currently has 3,500 parking spaces, 400 of which are located in their parking garage.

• During peak weekends and holidays, the mall coordinates with South Burlington High School to allow employees to park at the school to free up spaces for customers. The mall provides payment to the school, a private security company, and a private shuttle bus company to provide this off-site employee parking.

• The mall has adequate parking capacity outside of peak weekends and holidays.

4.1.5 Fletcher Allen Health Care

• FAHC’s University Health Center (UHC) and Medical Center Hospital of Vermont (MCHV) off site staff/employee parking demand is 600 spaces. FAHC’s desire is to locate all 600 spaces in close proximity to each other and to the Medical Center with shuttle service connection. All parking demand is Monday to Friday daytime only.

4.1.6 Champlain College

• Champlain College is seeking opportunities to relocate a portion of their 371 off-street core campus parking supply to off-campus locations. The College has identified a potential demand of 100 spaces for the Exit 14 Intercept Facility.

4.1.7 General Public

To estimate demand for the portion of the Exit 14 Intercept Facility assigned to General Public usage we consulted several studies that have been conducted on forecasting of park-and-ride demand including, but not limited to, the AASHTO Guide for Park-and-Ride Facilities¹, which presents a summary of several methods of demand estimation. While other studies and reports were reviewed, only the AASHTO document was found to present methodologies appropriate for application to the Exit 14 Intercept Facility, and even this document presented the following

The two methods examined for projecting park-and-ride demand use either traffic volumes on adjacent roadways or market population serving the facility as an independent variable.

Demand Estimation Method #1 (ITE Method): The most straightforward park-and-ride demand forecasting method was presented by the Institute of Transportation Engineers (ITE) and is based on the assumption that the demand for a park-and-ride facility is a direct function of the peak-period traffic on adjacent travel facilities. Another assumption is that commuters will not make major changes to their normal commuting route to specifically reach a new park-and-ride location, but will divert from the adjacent roadways. Therefore, demand for a new park-and-ride facility will be a direct result from commuters passing by the new facility on their way to work. The ITE equation for park-and-ride demand is presented below.

\[ \text{Demand} = a \times (\text{Peak}) + b \times (\text{Main}) \]

Where:

- Peak = total peak-period traffic on adjacent facilities (including the primary facility)
- Main = peak-period traffic on the primary facility
- a, b = diversion factors for total traffic and primary facility traffic respectively (a = 1%, b = 3% recommended)

Applying this methodology to peak hour traffic volumes collected by VTrans on the adjacent roadway facilities (i.e. I-89, US 2, Colchester Avenue) gives a simple local projection of demand and results in a projected need of 311 parking spaces for General Public use. See Appendix X for detailed assumptions and calculations.

Demand Estimation Method #2 (Market Population Method): The Market Population approach seeks to translate park-and-ride demand values at existing sites to proposed sites. The method involves multiplying the ratio of demand to market population at an existing site by the market population of a proposed site. For this analysis we utilized existing use data presented in the 2004 VTrans Park-and-Ride Plan, gathered by the CCMPO from 2004 to 2010, and by Resource Systems Group in 2009.

Market population data for the existing facilities and for the Exit 14 Intercept Facility were obtained from the Longitudinal Employment and Household Dynamics (LEHD) program from the U.S. Census. This data was compiled by CCMPO staff and was presented in the Chittenden County Park-and-Ride & Intercept Facility Plan, which Resource Systems Group prepared for the CCMPO in 2011.

To calculate demand for General Public spaces within the Exit 14 Intercept Facility using this method, we first calculated an average demand per market population for five park-and-ride lots serving general Chittenden County commuters (none largely specifically influenced by any single employer). Figure 20 presents the calculated demand per market population for these five existing park-and-ride lots in Chittenden County.

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2 LEHD has been developed because the Census long form questionnaire, on which the CTPP data are based, is being eliminated in 2010.
Figure 20: Existing Park-and-Ride Demand/Market Population

<table>
<thead>
<tr>
<th>Location</th>
<th>Observed Peak Occupancy</th>
<th># of Spaces</th>
<th>Peak Observed Demand</th>
<th>Market Demand</th>
<th>Demand/Market Pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exit 10</td>
<td>50%</td>
<td>56</td>
<td>28</td>
<td>1641</td>
<td>0.017</td>
</tr>
<tr>
<td>Exit 11</td>
<td>95%</td>
<td>101</td>
<td>96</td>
<td>5788</td>
<td>0.017</td>
</tr>
<tr>
<td>Exit 17</td>
<td>32%</td>
<td>108</td>
<td>35</td>
<td>13552</td>
<td>0.003</td>
</tr>
<tr>
<td>Exit 18</td>
<td>76%</td>
<td>44</td>
<td>33</td>
<td>7671</td>
<td>0.004</td>
</tr>
<tr>
<td>Exit 19</td>
<td>90%</td>
<td>80</td>
<td>72</td>
<td>6088</td>
<td>0.012</td>
</tr>
</tbody>
</table>

Applying the average of these rates to the projected market population demand serving the Exit 14 Intercept Facility and accounting for existing park-and-ride supply already serving this market population, results in a net projected demand of 548 parking spaces for General Public use. See Appendix D for detailed assumptions and calculations.

Summary: After completing a thorough review of park-and-ride demand estimation studies and methodologies, we understand that no single method for estimating park-and-ride demand currently exists that can confidently be applied in all situations. We have chosen the two methods presented above as the most applicable to this study. The average demand projected from both methods is 429 parking spaces. Considering this ultimate projection of demand in concert with local input and expertise expressed at the Exit 14 Intercept Facility stakeholder meetings, it has been decided that 300 parking spaces within the facility should be allocated to serve City of Burlington and public uses.

Figure 21 below summarizes the anticipated parking demand for the Exit 14 intercept facility by stakeholder during an average weekday day, weekday evening, and weekend. For evaluation purposes, we have focused on the weekday day parking demand for subsequent trip generation and traffic analyses.

Figure 21: Parking Demand Estimation
5.0 **Local and Regional Concerns**

Project team members presented an overview of the Exit 14 intermodal intercept facility project at a Ward 1 Neighborhood Planning Assembly (NPA) meeting on 11 April 2012. The presentation and meeting notes can be found in Appendix B. The input received from the NPA meeting attendees included the following key points:

- Concern that benefits are for downtown but impacts are in Ward 1
- Question whether the facility will connect to East Avenue
- Requested Ward 1 representative on the project Stakeholder Committee
- Concerned about impacts to:
  - UVM Centennial Woods Natural Area
  - Aesthetics
  - Wetlands
  - Air quality (from bus emissions)

A Local and Regional Concerns public meeting was held on 19 April 2012 at the Sheraton Conference Center. The presentation portion of the meeting included information on the project background, an overview of the project, a summary of existing conditions, a review of potential intercept facility components, and a discussion of next steps in the process. The meeting presentation and detailed notes can be found in Appendix B. The input received included the following key points:

- Concern about attracting more cars to Burlington
- Ensure adequate accommodation for bicycles (e.g. enclosed bicycle parking, bike lanes, connection to South Burlington, etc)
- Requested UVM student representative on Stakeholder Committee
- Requested project website for updates
- Questions about facility ownership & management
- Suggested "out of the box" thinking
- Concerned about impacts to:
  - UVM Centennial Woods Natural Area
  - Stormwater
  - Wetlands
  - Air quality (from bus emissions)
6.0 EXIT 14 INTERCEPT FACILITY LAYOUT

The layout of the Exit 14 intermodal intercept facility was developed in response to public and stakeholder input to accommodate the anticipated parking demand, potential vehicular and bus access from a new I-89 southbound slip ramp, a transit terminal with storefront retail space, leasable office shell space, and internal connectivity to the Sheraton Conference Center. In addition, the facility was designed to avoid any visual impacts of the Green Mountains from patrons attending events in the Sheraton Conference Center meeting rooms.

Figure 22 below shows the full view of the proposed intercept facility, including connectivity to Catamount Drive, Sheraton Drive, and the potential I-89 southbound slip ramp.

Figure 22: Exit 14 Intercept Facility and I-89 Southbound Slip Ramp - Full View

Figure 23 below shows a more detailed view of the intercept facility, with level two of the parking garage visible in the plans. The graphic shows more clearly the location of garage access points on the west (main access), north, and southeast ends of the facility. The single garage egress is from the northwest corner of the facility, discharging vehicles out to Catamount Drive. In the alternatives that include the new slip ramp, a single travel lane would extend beyond the garage entrance and connect to Catamount Drive, providing a direct connection for vehicles from I-89 southbound to the Catamount East parking lot and the Sheraton. Catamount
Drive east of Sheraton Drive would be closed to through vehicles to keep any through vehicles from accessing East Avenue directly from the new I-89 southbound slip ramp.

*Figure 23: Exit 14 Intercept Facility and I-89 Southbound Slip Ramp - Detail View*

Figure 24 below shows the access pattern for buses and other transit vehicles. Most buses would arrive via US 2 and Sheraton Drive (teal line), then discharge and pick-up passengers in the bus loading area, and then circle back via Catamount Drive back to return to US 2 via Sheraton Drive. The remaining transit vehicles will arrive from East Avenue via Catamount Drive (purple line) and make a similar loop through the bus loading area and return to East Avenue via Catamount Drive.
Figure 24: Transit Access

Figure 25 below shows the primary vehicle access paths to the intermodal facility and parking garage. In the scenarios that include the I-89 southbound slip ramp, vehicles could enter the garage via the slip ramp onto level 1. The main vehicle access would occur in the southwest corner of the facility, processing vehicles arriving from US 2. An alternate third access point is provided in the southeast corner to process a select group of cars, should the garage owner choose to cordon off a section of the garage for specific vehicles.

Figure 25: Vehicle Access
The layout of the four levels of the intercept facility is shown in the figures below. The proposed facility includes 1,510 parking spaces (1,089 net new spaces accounting for displaced Sheraton surface spaces), 10,000 square feet of retail shell space on level 2, 24,000 square feet of office shell space on level 3, and a raised pedestrian walkway connecting the intercept facility with the conference center.

*Figure 26: Facility Layout - Level 1*
Figure 29: Facility Layout - Level 4
Figure 30 and Figure 31 show elevations of the proposed facility looking west and east, respectively. The west elevation shows the configuration of the transit loading zone and retail uses at ground level, with office space extending over the transit access area and retail uses. The east elevation shows the facility height in relation to the Sheraton Conference Center as well as the elevated pedestrian connector between the two buildings.

Figure 30: Facility Layout - West Elevation

Figure 31: Facility Layout - East Elevation
7.0 ALTERNATIVES ASSESSMENT

The initial alternatives identified for evaluation in this scoping study included the following: 1) No Build, 2) Build, 3) Build with I-89 Southbound Slip Ramp. The preliminary traffic investigation of the two build alternatives, which assumed that Catamount Drive was closed to non-transit vehicles, found that excessive delays and queues were generated at the US 2/Sheraton Drive intersection. As a result of these findings, the set of alternatives was expanded to include the following Build alternatives that addressed anticipated traffic congestion on US 2:

1. No Build
2. Build
   - 2A. Build with Dual Eastbound US 2 Left Turn Lanes at Sheraton Drive
   - 2B. Build with Open Catamount Drive Gate for Eastbound General Traffic
3. Build with Slip Ramp
   - 3A. Build with Dual Eastbound US 2 Left Turn Lanes at Sheraton Drive
   - 3B. Build with Open Catamount Drive Gate for Eastbound General Traffic

7.1 Traffic Impacts

The traffic impacts of the Exit 14 intermodal intercept facility were evaluated by proceeding through the following steps:

1. **Estimate Facility Trip Generation**: Trip generation from the proposed intermodal intercept facility was developed based on the projected parking demand and designated retail and office shell space within the facility.
2. **(Re)Distribute Trips to Facility**: Trips to and from the parking garage were removed from their current paths and redistributed to the intermodal facility.
3. **Quantify Changes in Delay & Queuing**: Intersection operations were evaluated under a No Build and the various Build scenarios to estimate the change in delay, and queuing at the study area intersections with the addition of the intermodal facility.

7.1.1 Estimate Facility Trip Generation

The estimated facility trip generation is driven primarily by the projected parking demand for the facility, as discussed previously in Section 4.1. In addition to the trips generated by the parking demand, trip generation estimates were also developed for the retail and office shell space.

Figure 32 below presents the estimate of weekday morning and evening peak hour trip generation broken down by facility stakeholder. Notes on the trip generation methodology are provided in the table, which includes counts at other park and ride facilities in Chittenden County, traffic counts at the existing Catamount East parking lot (FAHC staff lot), and the Institute of Transportation Engineers *Trip Generation* manual.
As shown in the table below, the facility is anticipated to generate 659 trips during the morning peak hour and 636 trips during the evening peak hour. It is important to note however, that these trips are not new to the network (except for the trips generated by the office shell space). These are existing vehicle trips that are being “captured” at the intermodal facility and transferred onto a bus for the final leg of their trip.

Figure 32: Estimated Peak Hour Trip Generation

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th># Parking Spaces</th>
<th>Weekday AM Enter</th>
<th>Weekday AM Exit</th>
<th>Weekday PM Enter</th>
<th>Weekday PM Exit</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Public</td>
<td>150</td>
<td>79</td>
<td>40</td>
<td>118</td>
<td></td>
<td></td>
</tr>
<tr>
<td>City of South Burlington</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td>Not expected to generate peak weekday trips</td>
</tr>
<tr>
<td>City of Burlington</td>
<td>150</td>
<td>79</td>
<td>40</td>
<td>118</td>
<td></td>
<td>Trip generation rate based on average of Colchester &amp; Richmond Park &amp; Ride counts</td>
</tr>
<tr>
<td>Champlain College Hotel &amp; Conference Center</td>
<td>400</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td></td>
<td>Assumed that trips already on the network (i.e. parking spaces shifted from surface lot to garage)</td>
</tr>
<tr>
<td>Fletcher Allen Health Care</td>
<td>600</td>
<td>272</td>
<td>34</td>
<td>306</td>
<td></td>
<td>Trip generation rate based on Catamount East tube count rates</td>
</tr>
<tr>
<td>University of Vermont</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td>Not expected to generate peak weekday trips</td>
</tr>
<tr>
<td>Champlain College</td>
<td>100</td>
<td>45</td>
<td>6</td>
<td>51</td>
<td></td>
<td>Trip generation rate based on Catamount East tube count rates</td>
</tr>
<tr>
<td>Burlington International Airport</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td>Not expected to generate peak weekday trips</td>
</tr>
<tr>
<td>University Mail</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td>Not expected to generate peak weekday trips</td>
</tr>
<tr>
<td>Retail Shell Space (24,500 sf)</td>
<td>10</td>
<td>9</td>
<td>1</td>
<td>10</td>
<td></td>
<td>Assumed 10 spaces and 10 peak hour trips for retail locations (24,500 sf)</td>
</tr>
<tr>
<td>Office Shell Space (24,445 sf)</td>
<td>55</td>
<td>49</td>
<td>6</td>
<td>55</td>
<td></td>
<td>Assumed 55 spaces for office space (19,340 sf x 2.84 spaces/1,000 sf per ITE Parking Generation)</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>1,515</strong></td>
<td><strong>533</strong></td>
<td><strong>126</strong></td>
<td><strong>659</strong></td>
<td><strong>169</strong></td>
<td>467 636</td>
</tr>
</tbody>
</table>

7.1.2 (Re)Distribute Trips to Facility

As noted previously, except for the trips generated by the proposed office shell space (which would be new trips), all of the trips generated by the intercept facility would be existing trips already on the road network that would be “captured” and diverted into the facility for transfer onto a bus or carpool for the last segment of their trip.

Trips generated by FAHC, Champlain College, and UVM employees were distributed based on recent CATMA survey data of employee home locations and identification of routes to work. The geographic distribution of these trips is shown below in Figure 33 and shows that a majority of these trips arrive via I-89 and travel through Exit 14.
Figure 34 below shows an example of how the effect of the trips “captured” by the Exit 14 facility was estimated. In the example shown below, the morning commute trip of a FAHC employee who lives in Winooski is re-routed from parking in the Gutterson garage to the Exit 14 intercept facility. The net result of this re-routed trip is a reduction of one trip through the East Avenue/Colchester Avenue intersection, the East Avenue/Catamount Drive intersection, and the East Avenue/US 2 intersection, and a new trip through the Exit 14 southbound ramp/US 2 intersection, and the US 2/Sheraton Drive intersection. This approach was used for all projected trips to the Exit 14 facility to quantify the net traffic impact of the intermodal intercept facility.
7.1.3 Evaluate Traffic Impacts

Figure 35 below shows a high-level assessment of the change in overall intersection delay at the study area intersections projected to result from the construction of the Exit 14 facility. The figure shows intersection delays decreasing at the Spear Street, University Heights, and Prospect Street intersections with US 2, due to the “capture” of commuting trips. Of note, is that the facility is anticipated to improve the Level of Service grade at the US 2/Prospect Street intersection considerably, improving the PM peak hour LOS from F to D. Although not included in this analysis, is can be inferred that downstream intersections on US 2 (i.e. Willard Street, Winooski Avenue, etc.) would see comparable improvements to Level of Service as a result of the facility.
The lone intersection showing increased delays in Figure 35 with the construction of the Exit 14 intercept facility is the US 2/Sheraton Drive intersection. This increased delay is driven by the increase in turning movements resulting from the trips accessing and leaving the Exit 14 facility via Sheraton Drive.

The congestion analysis results for the 2022 morning and evening peak hours for the identified scenarios are summarized below in Figure 36. As the figure below shows, overall intersection delays are estimated to increase at the US 2/Sheraton Drive intersection under all Build scenarios. The scenarios in which Catamount Drive are open to eastbound traffic result in the lowest increase in delays, as this alternative allows trips destined for the Exit 14 intercept facility from points north to access the site without travelling on US 2. The alternative with both the I-89 southbound slip ramp and the permitted eastbound flow on Catamount Drive shows the best traffic operations of all the Build alternatives.
7.2 Transit Service

This section examines three ways to provide and expand bus connections between the Intermodal Intercept Facility, Hill institutions, downtown Burlington, and other locations:

1. Service provided by CATMA-operated shuttles
2. An extension of CCTA’s Route 11 College Street Shuttle to the Intermodal Intercept Facility.
3. Improvements to CCTA’s College Street Shuttle supplemented with CATMA shuttle service during peak employee arrival and departure times and in the early morning and evening when the College Street Shuttle does not operate.

7.2.1 Existing Transit and Shuttle Services

The Exit 14 Intermodal Intercept Facility is proposed to be located behind the Sheraton Hotel off of US 2/Main Street, just to the west of I-89 and east of FAHC, and approximately 1.6 miles from downtown Burlington. Main Street is the major route between downtown Burlington and I-89, and three of Burlington’s larger employers—FAHC, the University of Vermont (UVM), and Champlain College are located along or very close to US 2/Main Street.

At the present time, the Campus Area Transportation Management Association (CATMA) operates a number of shuttle services between remote parking lots located in and around the proposed new Intermodal Intercept Facility. These include:

- **Catamount East Shuttle** between the UVM Catamount East parking lot and FAHC. The remote parking lot is located off Catamount Drive, behind the Sheraton property. Weekday service operates from 4:15 AM to 9:15 PM and departs every 10 to 15 minutes.

- **Gutterson Shuttle** between the UVM Gutterson Parking Lot and the FAHC. The parking lot is located on the UVM campus, just to the east of the Gutterson Field House. Weekday service operates from 4:15 AM to 6:00 PM and departs every 10 to 15 minutes.
- **Quarry Hill Shuttle** between the Quarry Hill Apartments and Champlain College. Weekday service runs from 7:05 AM to 8:05 PM, every 30 minutes during the day and 60 minutes at night.

CCTA currently operates one local route in the vicinity of the new facility, which is Route 1 Williston. This route operates between downtown Burlington and Williston via US 2/Main Street/Williston Road (see Figure 37). The route travels east from downtown Burlington and passes the project study area on US 2/Main Street. There are multiple service variants of this route that determine the eastern alignment in Williston. The variants and their unique portions are:

- **1** — Williston Road to Tafts Corners, then south to serve Maple Tree Place and Walmart.
- **1E** — Williston Road to Tafts Corners, then north to serve Essex.
- **1V** — Williston Road to Industrial Avenue, then north to make a one-way loop on Industrial Avenue, Mountain View Road, N. Williston Road, and Williston Road.

![Figure 37: Route 1 Williston](image)

Route 1 operates seven days a week. On weekdays, service operates from 6:15 AM to 12:05 PM. Route 1’s service frequency along US 2 where the Intermodal Intercept Facility will be located is every 15 minutes during peak periods and every 30 minutes in the off-peak.

In addition, CCTA’s Route 11 College Street Shuttle operates between downtown Burlington and FAHC via College Street and the UVM campus (see Figure 38). This route currently terminates approximately one mile from the proposed Intermodal Intercept Facility.
On weekdays, from Memorial Day to Columbus Day, the College Street Shuttle operates from 6:15 AM to 9:00 PM. During the rest of the year, service operates from 6:15 AM to 7:00 PM. Throughout the year, service operates every 30 minutes in the early AM, every 15 minutes from approximately 6:45 AM to 6:00 PM, and then every 30 minutes until the end of service.

Note also that a number of “special” shuttles also operate in the vicinity. The University Mall shuttles employees from remote lots during the Christmas season, and CCTA runs special event shuttles for special events such as First Night. With the new Intermodal Intercept Facility, it is anticipated that University Mall off-site parking and special event parking would be shifted to there. In addition, it is also anticipated that the facility would be used for remote parking for Burlington Airport during holiday periods. The shuttles that currently serve these uses operate on an occasional basis, and would continue to do so in the future, but to and from the new Intermodal Intercept Facility.

### 7.2.2 Transit Demand

Projected demand for parking at the Exit 14 Intermodal Intercept Facility was determined based on comprehensive stakeholder interviews, knowledge of the area, and anticipated parking space allocation. The total peak parking demand at the Intermodal Intercept Facility is projected at 1,515 spaces.\(^1\) Of these, 850 spaces in particular will drive demand for public transit or shuttle connections:

- FAHC: 600 spaces
- Champlain College: 100 spaces
- City of Burlington: up to 150 spaces\(^2\)

Based on the arrival and departure patterns of FAHC and Champlain College employees reported by those institutions, demand will be heavily focused in the peak periods. For both institutions, most of the employees who would use the shuttles would arrive at and around traditional commuting hours. The same would also be expected of Burlington employees, many

---

\(^1\) Holiday and special event parking would be at times when “regular” use would be low, and thus additional spaces would not be needed to accommodate those uses.

\(^2\) Largely for park and ride shuttle service for downtown employees who would use free parking at the facility and free shuttle service to avoid downtown parking charges.
of whom would be expected to use the facility for park and ride shuttle purposes. Correlating the parking demand estimates with the arrival and departure times, peak direction demand for service will be as high as (see also Figure 39):

- **FAHC:** 214 passengers per hour in the AM peak and 250 in the PM peak.
- **Champlain College:** 53 passengers per hour in the AM peak and 41 in the PM peak.
- **Downtown Burlington:** 55 passengers per hour in the AM peak and 60 in the PM peak.

Figure 39: Potential Transit Demand by User Group

7.2.3 Potential Bus and Shuttle Service Changes with Intercept Facility

There are a number of ways that this demand could be served:

- Service to and from FAHC and Champlain College could be provided with CATMA shuttles.
- CCTA’s College Street Shuttle could be extended to the Intermodal Intercept Facility to provide connections between the facility and FAHC.
- Service could be provided with a combination of CATMA shuttle and CCTA services.

7.2.3.1 Alternative 1: CATMA Shuttles

With this alternative, existing CATMA shuttles would be redeployed from the current Catamount East and Gutterson shuttle routes to the new Intermodal Intercept Facility and CATMA would continue to provide all park and ride shuttle service. In this case, two separate shuttle services would be developed—one to FAHC and one to Champlain College (see Figure 40).

**FAHC Shuttle**

At present, CATMA provides 38.25 hours of shuttle service on its Catamount East and Gutterson Field lots. This service is now provided with a combination of school buses and vans at a cost of
$35 per revenue hour. However, CATMA is planning to shift to the use of more comfortable vehicles and anticipates that as it does so, its operating costs will increase to $42 per revenue vehicle hour. Using $42 per hour figure, and once the services are upgraded, operating costs for the Catamount East and Gutterson Field shuttles will be $402,000 per year (Figure 41).

Figure 40: FAHC and Champlain College Shuttles

<table>
<thead>
<tr>
<th></th>
<th>Weekday Rev Veh Hrs</th>
<th>Annual Operating Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Catamount East</td>
<td>24.50</td>
<td>$257,250</td>
</tr>
<tr>
<td>Gutterson Field</td>
<td>13.75</td>
<td>$144,775</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>38.25</td>
<td>$401,625</td>
</tr>
<tr>
<td><strong>With Intermodal Intercept Facility</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FAHC Shuttle</td>
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<td>$231,000</td>
</tr>
<tr>
<td><strong>Difference</strong></td>
<td>-16.25</td>
<td>-$170,625</td>
</tr>
</tbody>
</table>

With the development of the new Intermodal Intercept Facility, the parking at those lots would be relocated to the new facility and shuttle service could be provided with a single route. With all demand concentrated at the new Intermodal Intercept Facility, seven to eight trips per hour would be required during peak times (6:00 to 8:30 AM and 3:30 to 6:00 PM). This service could be provided with two buses that would provide service every 7.5 minutes.

During other periods, only one trip per hour would be required. However, as a practical matter, more frequent service would be required to provide service comparable to what is now provided, and a single bus could provide service every 15 minutes.
Overall, the consolidated shuttle services would be significantly less costly to operate than current service. This is largely due to the ability to provide service with fewer routes and the shorter route length. In total, FAHC shuttle operating costs would decline from $402,000 per year to $231,000, a reduction of $171,000.

**CHAMPLAIN COLLEGE SHUTTLE**

The 100 Champlain College spaces at the new Intermodal Intercept Facility would be spaces that would be shifted off-campus. The Quarry Hill shuttle currently operates between the Quarry Hill Apartments and Champlain College via Spear Street and could be rerouted via the new Intermodal Intercept Facility. However, this shuttle operates every 30 minutes, and current practice for employee shuttles is for service every 15 minutes. One additional bus could be added to the Quarry Hill shuttle to provide service every 15 minutes or a new dedicated shuttle could be implemented, and either approach would be more than sufficient to meet demand.

To simplify the analysis, this work assumes the implementation of a new dedicated shuttle that would operate directly between the Intermodal Intercept Facility and Champlain College. However, as a practical matter, equivalent service could be provided with the Quarry Hill Shuttle at the same cost. With service between 6:00 AM and 6:30 PM, operating costs would be $131,250 per year.

**TOTAL COSTS**

With the lower cost FAHC shuttle service and new costs for the new Champlain College shuttle, total CATMA shuttle costs would be $367,500 per year. Compared to current costs, this would be a reduction of $34,000 per year.

*Figure 42: Alternative 1 - Vehicle Hours and Operating Costs*

<table>
<thead>
<tr>
<th></th>
<th>Weekday Rev Veh Hrs</th>
<th>Annual Operating Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CATMA Catamount East Shuttle</td>
<td>24.50</td>
<td>$257,250</td>
</tr>
<tr>
<td>CATMA Gutterson Field Shuttle</td>
<td>13.75</td>
<td>$144,775</td>
</tr>
<tr>
<td>Total</td>
<td>38.25</td>
<td>$401,625</td>
</tr>
<tr>
<td><strong>With Intermodal Intercept Facility</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CATMA FAHC Shuttle</td>
<td>22.00</td>
<td>$231,000</td>
</tr>
<tr>
<td>CATMA Champlain College Shuttle</td>
<td>12.50</td>
<td>$136,500</td>
</tr>
<tr>
<td>Total</td>
<td>34.50</td>
<td>$367,500</td>
</tr>
<tr>
<td><strong>Difference</strong></td>
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</tr>
<tr>
<td>Total</td>
<td>-16.25</td>
<td>-$34,125</td>
</tr>
</tbody>
</table>

**7.2.3.2 Alternative 2: Primary Service via CCTA Improvements**

As an alternative to the development of exclusive CATMA shuttles between the Intermodal Intercept Facility and FAHC, service could be provided with an extension of CCTA's Route 11 College Street Shuttle. This would provide similar service as a CATMA shuttle, plus service all the way to downtown Burlington for downtown employees and Sheraton visitors.

In terms of potential changes to CCTA services, the most important considerations are likely ridership markets, the most important of which would be:
- FAHC employees who would use an extension of Route 11 College Street Shuttle in the same manner as a CATMA shuttle to travel between the Exit 14 Intermodal Intercept Facility and FAHC.

- Downtown Burlington employees who would park at the new Intermodal Intercept Facility and use CCTA service as park and ride shuttle. The primary motivation to do so would be to avoid downtown Burlington parking costs. Because of this, an extension of the College Street Shuttle would be an attractive option because it is fare-free.

- A convenient connection between Route 1 Williston and FAHC could fill what is now a gap in the CCTA system—Route 1 is one of CCTA’s strongest routes and FAHC is one of Burlington’s most important activity centers, and although Route 1 operates in the vicinity of FAHC, it does not serve it. A connection between Route 1 and an extended College Street Shuttle could eliminate that gap.

CCTA has expressed concerns that deviating Route 1 off of Main Street through the new Intermodal Intercept Facility would inconvenience most existing riders and that the additional time could not be accommodated within existing schedules. Both of these concerns are valid, and as described in more detail below, by extending the College Street Shuttle from FAHC through the new Intermodal Intercept Facility to Main Street, it would be possible to serve the above markets without making any changes to Route 1 Williston.

Finally, it should be noted that with this option, a CATMA shuttle between the Intermodal Intercept Facility and Champlain College would still need to be provided, as there are no realistic adjustments to CCTA services that could serve these trips. In theory, Champlain College employees who would park in the Intermodal Intercept Facility could walk to US 2/Main Street to catch Route 2, and then walk from Main Street to campus. However, this option would almost certainly be opposed by those who would be expected to use the Intermodal Intercept Facility. For this reason, with this alternative, it is still assumed that there would be a dedicated CATMA Champlain College shuttle.

**ROUTE 1 WILLISTON**

As described above, no changes would be made to Route 1. Connections would be provided between the Intermodal Intercept Facility and downtown Burlington via an extension of the College Street shuttle to the Intermodal Intercept Facility and then beyond to Main Street (as described below).

**ROUTE 11 COLLEGE STREET SHUTTLE**

The extension of the College Street shuttle to the new Intermodal Intercept Facility could be accomplished by extending the route from its current terminus along Beaumont Avenue to Catamount Drive to the Intermodal Intercept Facility. Then, rather than turning around at the Intermodal Intercept Facility, it could continue to Main Street via the Sheraton’s access road, and then along Main Street and East Avenue back to FAHC (see Figure 43). In this manner, it could provide connections with Route 1 Williston on Main Street, and obviate the need for Route 1 to deviate into the Intermodal Intercept Facility. The extension would also provide free shuttle service for downtown employees who would use the Intermodal Intercept Facility as free remote parking for downtown Burlington.

The extension of Route 11 College Street Shuttle to the Intermodal Intercept Facility and Main Street would add about 10 minutes of running time to the route. To maintain 15 minute headways for most of the day, the number of vehicles deployed on the route would need to be increased from two to three, and the cycle time increased from 30 minutes to 45 minutes.
However, as described above, at least seven trips per hour will be required to serve demand from the Intermodal Intercept Facility to FAHC during peak periods. To provide this level of service during peak periods, six vehicles would need to be deployed, which would provide service every 7.5 minutes. Route 11’s span of service would also need to be extended from 6:15 AM to 8:30 PM in the summer and 6:15 AM to 7:00 PM the rest of the year to 4:15 AM to 9:15 PM year-round.

Figure 43: Extension of College Street Shuttle to FAHC and Main Street

One of the concepts that has been discussed as part of this study would be for CATMA to cover additional CCTA operating costs through the cost savings that it would realize through the replacement of CATMA shuttle service with CCTA shuttle service. CCTA’s current policy is to price new services on a fully allocated rate that includes a portion of CCTA’s fixed costs and administrative expenses. The fully allocated cost per revenue vehicle hour is $88.50. On this basis, the cost to extend the College Street shuttle to US 2/Main Street via the Intermodal Intercept Facility, and extend the span of service, would be $1,931,000 per year (see Figure 44). Including the additional cost for CATMA Champlain College Shuttle service, the total cost for this alternative would be $1.5 million, which would be $591,000 per year higher than existing costs.
### Figure 44: Alternative 2 - Vehicle Hours and Operating Costs

<table>
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<tbody>
<tr>
<td></td>
<td>Summer</td>
<td>Rest of Year</td>
<td></td>
</tr>
<tr>
<td><strong>Existing</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CATMA Catamount East Shuttle</td>
<td>24.50</td>
<td>24.50</td>
<td>$257,250</td>
</tr>
<tr>
<td>CATMA Gutterson Field Shuttle</td>
<td>13.75</td>
<td>13.75</td>
<td>$144,775</td>
</tr>
<tr>
<td>CCTA Route 11 College Street Shuttle</td>
<td>25.25</td>
<td>23.75</td>
<td>$537,815</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>63.50</td>
<td>62.00</td>
<td>$939,440</td>
</tr>
<tr>
<td><strong>With Intermodal Intercept Facility</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>CCTA Route 11 College Street Shuttle</td>
<td>63.00</td>
<td>63.00</td>
<td>$1,393,875</td>
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<tr>
<td>CATMA Champlain College Shuttle</td>
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<tr>
<td><strong>Total</strong></td>
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<td>+14.00</td>
<td>+$590,936</td>
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</table>

There would also be capital costs associated with this alternative. As described above, CCTA would need to deploy four new vehicles to the College Street Shuttle, and the cost of 35 foot transit buses is $390,000 each, or $1.6 million in total. Capital costs are funded differently than operating costs, and it might be possible to include the cost of these vehicles in the overall costs for the Intermodal Intercept Facility. However, over time, these vehicles would need to be replaced, and given the average 12 year lifespan of transit buses, annualized capital costs would be $130,000 (see Figure 45).

### Figure 45: Alternative 2 - Capital Costs

<table>
<thead>
<tr>
<th>35' Transit Buses</th>
<th>Quantity</th>
<th>Total Capital Cost</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>$1.6 million</td>
<td>$130,000</td>
</tr>
</tbody>
</table>

In total, this alternative would increase operating costs by $591,000 per year and annualized capital costs by $130,000 per year.

While costs would increase by a large amount, so would CCTA ridership. At present, the College Street Shuttle serves approximately 600 passengers per day. With the College Street Shuttle also serving the Intermodal Intercept Facility, ridership would increase to approximately 2,100 passengers per day (the existing 600 riders plus 1,200 riders to and from FAHC and 300 riders to and from downtown Burlington, plus additional riders who would transfer between CCTA Route 1 Williston and the College Street Shuttle.

### Additional Considerations

There would be two additional considerations with respect to CCTA’s service provision. These would be:

- CCTA’s Charter states that, “[i]f the Board determines that a route should operate without charging a passenger fare, the community or communities in which the route operates will reimburse the Authority for the foregone fare revenue in addition to the standard local share for that route.” This provision is intended to ensure that the ensuing reduction of fare revenue through the provision of fare-free service in one community does not increase local assessments for other communities. The potential
financial impact to CCTA as a whole and on its two affected member communities (Burlington and South Burlington) would need to be considered and discussed before any modifications to the College Street Shuttle are contemplated.

- CCTA provides complementary paratransit service within three-quarters of a mile of its fixed-route service. The regular fare for paratransit service is $2.50, except that it is free within three-quarters of a mile of the College Street Shuttle. The extension of the College Street shuttle to the Exit 14 Intermodal Intercept Facility would expand the length of free paratransit zone by approximately 0.6 miles to include the University Mall and other large retail areas in South Burlington. As a result, there would be a loss of paratransit revenue and increased costs to Burlington and South Burlington.

### 7.2.3.3 Alternative 3: Combination of CCTA and CATMA Shuttles

There would be two major reasons why added service on the College Street Shuttle would be significantly more expensive than the operation of dedicated CATMA shuttles:

1. Additional service on the College Street shuttle would add service for the entire distance between downtown Burlington and the new Intermodal Intercept Facility while CATMA shuttles would operate for a much shorter distance.

2. CCTA’s cost structure is higher.\(^1\)

However, a strategy of extending existing service on the College Street Shuttle and supplementing that service with CATMA shuttle service could provide better service than either the CATMA-only or CCTA-only options at a significantly lower cost. In this case:

1. The College Street Shuttle would be extended to the new Intermodal Intercept Facility as described for Alternative 2 above, with service provided every 15 minutes during its existing span of service from 6:15 AM to 9:00 PM in the summer and 6:15 AM to 7:30 PM the rest of the year. This would require one additional vehicle to be deployed on the route, and for three vehicles to be in operation throughout the day. This would increase operating costs for the College Street Shuttle by $346,000 per year.

This expanded service would:

- Provide connections between the Intermodal Intercept Facility and FAHC.
- Provide connections between Route 1 Williston and FAHC (and other Hill locations).
- Provide free shuttle service for downtown Burlington employees who could use the Intermodal Intercept Facility for free remote parking.
- Provide more frequent early morning and evening service to existing College Street Shuttle riders.

2. CATMA FAHC shuttle service would only be provided during the early morning hours before the College Street Shuttle starts operation, during peak periods when additional service would be needed, and in the evening after the College Street Shuttle stops running. This would be from 4:15 AM to 8:30 AM, from 3:30 PM to 6:30 PM, and after 8:30 PM in the summer and 7:00 PM the rest of the year. During these times, one CATMA bus would operate service to the Intermodal Intercept Facility every 15 minutes. In the early morning and after the end of College Street Shuttle service, this would be the only service running. During peak periods, the CATMA shuttle would alternate with College Street Shuttle service to provide service between the Intermodal Intercept Facility, Main Street, and FAHC every 7.5 minutes. The cost of this limited

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\(^1\) Prior service agreements between CCTA and CATMA were based on a marginal hourly rate. However, CCTA’s current practice and policy in 2012 is for new service prices to be based on a fully allocated hourly rate.
service would be only $89,000 per year, which would be $313,000 less than the cost of the existing FAHC shuttles. These supplementary CATMA shuttles would be designed primarily to provide service between the Intermodal Intercept Facility and FAHC. However, in the same manner as the extended College Street Shuttle, use could also be permitted for connecting Route 1 Williston riders.

3. CATMA Champlain College Shuttle service would be implemented to provide service between the Intermodal Intercept Facility and Champlain College. This shuttle, which would cost $136,500 per year to operate, would be designed exclusively to provide connections between the Intermodal Intercept Facility and Champlain College.

In total, the above services would cost $1.1 million per year to operate, which would be $169,000 more than for existing services (see Figure 46). Costs for CCTA service would go up by $346,000 while costs for CATMA services would decline by $176,000.

![Figure 46: Alternative 3 - Vehicle Hours and Operating Costs](image)

<table>
<thead>
<tr>
<th></th>
<th>Weekday Rev Veh Hrs:</th>
<th>Weekday Rev Veh Hrs:</th>
<th>Annual Operating Cost</th>
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</thead>
<tbody>
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<td></td>
<td>Summer</td>
<td>Rest of Year</td>
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<tr>
<td>Existing</td>
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<tr>
<td>CATMA Catamount East Shuttle</td>
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<td>24.50</td>
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<td>CATMA Gutterson Field Shuttle</td>
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<td>CCTA Route 11 College Street Shuttle</td>
<td>25.25</td>
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<td>$537,815</td>
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<tr>
<td>Total</td>
<td>63.50</td>
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<td>With Intermodal Intercept Facility</td>
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</tr>
<tr>
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<td><strong>-1.75</strong></td>
<td><strong>+169,020</strong></td>
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</table>

As with Alternative 2, there would also be capital costs associated with this alternative. In this case, CCTA would need to deploy one new vehicle the College Street Shuttle. The cost of one new 35-foot transit bus would be $390,000, and the annualized capital cost would be $32,500. (see Figure 47).

![Figure 47: Alternative 3 - Capital Costs](image)

<table>
<thead>
<tr>
<th></th>
<th>Quantity</th>
<th>Total Capital Cost</th>
<th>Annualized Capital Cost</th>
</tr>
</thead>
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<tr>
<td>35' Transit Bus</td>
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<td>$390,000</td>
<td>$32,500</td>
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</tbody>
</table>

In total, this alternative would increase operating costs by $169,000 per year and annualized capital costs by $32,500 per year.

With this alternative, ridership on CCTA’s College Street Shuttle would also increase significantly, but to a lesser extent than with Alternative 2 as early morning and evening ridership would be served by the CATMA shuttle and peak period ridership would be split between the two. With this alternative, it is likely that College Street Shuttle ridership would
increase from 600 passengers per day to 1,300 to 1,500 passengers per day, plus additional riders who would transfer between CCTA Route 1 Williston and the College Street Shuttle.

**ADDITIONAL CONSIDERATIONS**

The same additional considerations described for Alternative 2 with respect to CCTA fare-free service and impacts on CCTA complementary paratransit service described above would also apply to this alternative.

### 7.2.3.4 Summary

Of the three alternatives, the least expensive would be Alternative 1, in which CATMA would provide all of the shuttle services between the new Intermodal Intercept Facility and FAHC and Champlain College. Alternative 3, in which CCTA’s College Street Shuttle would be extended via the Intermodal Intercept Facility to US 2/Main Street during its existing span of service and service frequencies increased to every 15 minutes throughout the service day, would provide the best opportunities to:

- Provide shuttle service to FAHC and Champlain College,
- Provide fare-free service between the Intercept Facility and downtown Burlington
- Provide a connection between CCTA’s Route 1 Williston and FAHC.

However, this alternative would increase operating costs by approximately $169,000 per year, and require the purchase of one additional bus for $390,000.

**ALTERNATIVE 1: CATMA SHUTTLES WITHOUT CHANGES TO CCTA SERVICE**

**Advantages**

- Provides effective service between the Intermodal Intercept Facility and FAHC and Champlain College.
- Lowest cost alternative: CATMA could provide required shuttle services for $34,000 less per year than for existing shuttle services.

**Disadvantages**

- Would not provide service to downtown employees who could use the Intermodal Intercept Facility as a free remote parking location.
- Would not improve service for CCTA Route 1 Williston and Route 11 College Street Shuttle riders.

**ALTERNATIVE 2: CCTA SERVICE IMPROVEMENTS**

**Advantages**

- Provides effective service between the Intermodal Intercept Facility, FAHC and Champlain College (with Champlain College service provided by a CATMA shuttle).
- Provides more frequent College Street Shuttle peak period service, and frequent connections between Route 1 Williston and FAHC.
- Would also provide service between the Intermodal Intercept Facility and UVM.

**Disadvantages**
- Would increase operating costs by $591,000 per year and annualized capital costs by $130,000 per year.

**ALTERNATIVE 3: COMBINATION OF CCTA SERVICE IMPROVEMENTS AND CATMA SHUTTLES**

**Advantages**

- Provides effective service between Intermodal Intercept Facility and FAHC and Champlain College.
- Improves service for CCTA riders—more frequent early morning and evening College Street Shuttle peak period service, and frequent connections between Route 1 Williston and FAHC.
- Would significantly increase College Street Shuttle ridership and productivity (with additional riders on lightly utilized reverse direction trips).
- Would likely increase Route 1 ridership and productivity (due to connection to FAHC).
- Would also provide service between the Intermodal Intercept Facility and UVM.

**Disadvantages**

- Would increase operating costs by $169,000 per year and annualized capital costs by $32,500 per year.

### 7.3 Facility Construction Cost Estimate

Construction cost estimates were developed for the Exit 14 intermodal intercept facility and are summarized below in Figure 48. The cost estimate includes a break-out for the parking garage, shell retail/office space, site improvements, off-site improvements, permitting and design, and construction contingency. The range of costs for the facility plus site improvements was found to be approximately $50 million.
Notes on Cost Estimate

1. Structured Garage Costs assume a precast concrete tees, steel frame, and concrete spandrel panels. The low end costs are based upon numbers by Walker Parking Consultants and are considered to be the national average cost.

2. High end parking construction costs are based upon FFF’s recent parking construction experience located in South Burlington as well as with comparison with regional and national averages. High cost is above average in part due to inefficiency of constructing only a single level of elevated parking over a large portion of the footprint (in order to preserve views from the adjacent Sheraton Conference Center).

3. Bridge construction is to connect the Second Floor lobby to Garage elevator lobby. The length of this connection is 45'-0” by 6’-0”.

4. Core and Shell only. Tenant fit-up costs by others. The ground floor office/retail spaces include storefront at the street side. The ground floor offices also include a shower room, changing stations, and repair shops for bicycle transportation component.

5. Core and Shell only. Tenant fit-up costs by others. The second floor office space includes large steel spans over a sidewalk and roadway. This space includes a light well. The offices are to include ribbon windows.

6. Bridge construction is to be from the Garage lobby to second floor at the Sheridan Hotel. The construction is to be long span structural beams, for a distance of 130 feet, and 12’-0 wide. Two egress stairs and an elevator will be required.

7. The electrical charging station is a two pedestal charging station with a voltage of 208-240 VAC. This item does not include a centralized control system.
8. The solar panels priced are a photovoltaic power system tied into a central grid. The power generation is 10kw. This system priced assumes approximately 60 photovoltaic modules, combiner box, DC connect, Inverter, AC disconnect, isolation transformer, and utility connection. Labor and materials are included as part of this cost.

9. Parking Access and Revenue Control systems are based on the inherent complexities associated with five separate vehicle entry lanes and three exit lanes; pay on foot stations and a single attendant booth at the main exit. Available space counters on a per level bases are also included in this estimate. Estimate is preliminary based on discussions with SkiData Corporation, as well as from FFP experience with similar systems installed in South Burlington VT.

10. Site and I-89 Slip Ramp costs based on VTrans standard pay items and recent bid pricing and include accommodations for site preparation and excavation, fill materials, roadway base and surface materials, curbing and drainage, sidewalks/paths, wet and dry utility hook-ups, guardrails, retaining walls, landscaping, site furnishings, lighting, and traffic control during construction.

11. Off-site roadway improvement costs include the cost to permit, design, and construct either a second left turn lane on US 2 at the Sheraton/Staples Plaza intersection or install a new bus-actuated gate on Catamount Drive between East Avenue and Sheraton Drive.


13. General Note: FTA funds would not be available if no public transit service is provided to the facility. If FTA funds are provided, they would likely only be available for a proportional share of the facility that benefits general public users.

### 7.4 Operations and Maintenance Costs, Projected Revenue and Management Options

Throughout the country, most intermodal facilities are owned and managed by transit systems, state departments of transportation, cities, and other public agencies. In addition, and although not yet done for a major facility, they can also be owned and managed by Transportation Management Associations (TMAs) such as the Campus Area Transportation Management Association (CATMA) and by public-private partnerships. This section presents the anticipated costs for the operations and maintenance costs, the anticipated lease and parking revenues, and an evaluation of potential management options for the Exit 14 Intermodal Intercept Facility. At a point in the future when the project is ready to proceed forward, a discussion of ownership of the facility between future interested parties, yet to be identified, would be convened.

#### 7.4.1 Operating Costs and Projected Revenue

Ongoing operations and maintenance costs for the Exit 14 Intercept Facility are an important consideration in project planning. For project budgeting purposes, the operations and maintenance costs are presented in the following categories:

- **Garage Operations and Maintenance**: These costs represent the annual expenditures needed to operate and maintain the 1,515 space parking garage. Based on actual costs
for parking garages in Chittenden County and nationally published information\(^1\), the annual operation and maintenance costs for this facility will range between $200,000 and $700,000 per year. These values are contingent on the extent of cleaning, lighting, maintenance, repairs, security, enforcement, landscaping, snow removal, access and revenue control systems, enforcement, insurance, labor and administration.

- **Lease Space Operations and Maintenance**: These costs represent the annual expenditures needed to operate and maintain the 14,730 square feet of office lease space and 9,715 square feet of retail lease space. Based on actual lease space operations and maintenance costs from Chittenden County, a cost rate of $6 per square foot was applied to the office space and $4 per square foot was applied to the retail space.

- **Transit/Shuttle Service Operations**: These costs represent the annual expenditures needed to provide transit and/or shuttle service to the facility. For budgeting purposes, the annual operating costs plus annualized capital costs for transit/shuttle service was assumed to be the average cost of the three service options presented previously in Section 7.2.

The estimate of facility operations and maintenance costs is presented below in Figure 49.

![Figure 49: Exit 14 Intercept Facility - Estimate of Operations and Maintenance Costs](image)

To ensure ongoing viability of the Exit 14 Intercept Facility, it will be important to ensure that there is a continuing revenue stream available to the facility owner cover the operations and maintenance costs presented above. For project budgeting purposes, the estimated revenue streams are presented in the following categories:

- **Lease Revenue – Office & Retail Space**: These revenues represent the lease payments made to the facility owner by the office and retail tenants. Based on recent observations on Class A lease rates, a $25 per square foot lease rate was applied to both the office and retail space, which is inclusive of property taxes, insurance, and maintenance fees.

- **Operations & Maintenance Fees (Various Garage Users)**: To ensure that the facility is financially viable, the difference between the revenue generated by the lease space and the anticipated operations and maintenance costs were then distributed across the various garage stakeholder groups based on each user’s proportionate share of parking spaces.

The estimate of lease space and parking revenue is presented below in Figure 50.

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\(^1\) These opinions are based on costing information from Freeman French Freeman experience on similar projects; cost information from Carl Walker Industry Insights parking structure cost outlook for 2011 publication dated May 2011; the ITE Transportation Planning Handbook, 1999, as summarized in the Victoria Transportation Policy Institute- Transportation Cost and Benefit Analysis II – Parking Costs Dated February 22, 2012; and RS Means Construction Cost Data 2011.
7.4.2 Management Options

There are two major factors that will largely determine the best approach for management of the Exit 14 facility, and these are related to: 1) control of the facility and 2) whether or not parties desire to be involved:

- **Control:** Major users of facilities typically desire a very strong degree of control. For this facility, those users would be the Hill institutions that collaborate through CATMA (i.e. UVM, Fletcher Allen Medical Center, and Champlain College). It is also likely that the Sheraton Hotel will also require a strong level of input, as it will also be a major user, and the facility will be developed on property now leased by the hotel from UVM. Thus, at a minimum, CATMA, and the Sheraton Hotel need to be strongly involved.

- **Desire:** Closely related to control of the facility, the controlling party will likely also have to want to be the manager.

As described above, intermodal facilities are typically owned and managed by transit systems, state departments of transportation, and cities. Three other options to be considered for the Exit 14 Intermodal Intercept Facility would be for the University of Vermont (UVM), CATMA, or a public-private partnership to own and manage the facility.

**Transit System/CCTA**

CCTA has stated that they do not desire to manage the facility.

**State/VTrans**

Throughout the country, it is very common for states (usually the state Department of Transportation) to operate intermodal facilities and park and ride lots. This is also the case in Vermont, where VTrans has 27 park and ride lots, including lots along I-89. Thus, there is precedent for state operation.

However, while the facility will include spaces for general park and ride use, general park and ride will be one of the minority uses. As a result, the management by VTrans would not likely provide the major users with the degree of control that they would require. In addition, VTrans has stated that they do not desire to manage the facility.
CITY/SOUTH BURLINGTON OR BURLINGTON

The proposed facility would be located in South Burlington (but just across the Burlington city line). However, as currently envisioned, the facility would serve uses that are heavily oriented toward Burlington, and thus the City of South Burlington has not expressed a desire to manage the facility.

Although the facility would be located outside of its own city limits, the City of Burlington does already own facilities in South Burlington (most notably, the airport), and thus City of Burlington management would be an option. However, the City of Burlington does not desire to operate the facility.

Finally, management by either city would also not likely provide the major users with the degree of control that they would require.

TMA/CATMA

As described above, the major users of the intermodal facility will be the Hill institutions, which include UVM, Fletcher Allen Health Care, and Champlain College. In 1992, these institutions formed CATMA to manage mobility, parking and facilitate sustainable land use and economic development. CATMA, acting on behalf of its members, is the major driver of the project, and also has strong working relationships with Burlington, South Burlington, CCTA, VTrans, and others. It has also been working closely with the Sheraton Hotel on the project.

Based on a review of management models that are used elsewhere in the country, it appears that there are no existing examples of operation of other major intermodal facilities by a TMA. However, TMAs can operate intermodal facilities as long as they can demonstrate continuing control and management capability, which would be the case with CATMA. CATMA and its members are also interested in CATMA becoming the manager.

However, the Sheraton Hotel is not a member of CATMA, and as described above, will likely desire/require a large degree of control over at least the design and operation of the new facility. There would be two options through which this could be accomplished:

1. The Sheraton Hotel could negotiate terms and conditions for its use of the new facility as part of its agreement for the use of its leased property.
2. The Sheraton Hotel could become a member of CATMA.

UNIVERSITY OF VERMONT

The Exit 14 Intermodal Intercept Facility would be located on land owned by UVM, and the University, as a public entity, could also operate the facility.

However, as described in the demand projections that were developed for the study, UVM is not projected to be a major user of the facility. As a result, the management by UVM would not likely provide the major users with the degree of control that they would require.

PUBLIC-PRIVATE PARTNERSHIP BETWEEN CATMA AND SHERATON HOTEL

A second option that would include the Sheraton Hotel would be for CATMA and the hotel to join together to form a public-private partnership whose sole purpose would be operations and management of the intermodal facility. This option would also provide the Sheraton Hotel with a much stronger role in the project.
THIRD PARTY PARKING MANAGEMENT ENTITY

A final potential management option for consideration is a separate, third-party private parking management entity. One common arrangement is for these entities to build, operate, maintain and own the garage and related uses.

7.4.3 Conclusions

As described above, the two major considerations for operation of the new facility are control and desire. On this basis, the management by CATMA or a public-private partnership between CATMA and the Sheraton Hotel would be the two most feasible options. Which of the two would be most appropriate largely depends upon the role that the Sheraton Hotel desires:

- If the Sheraton Hotel would be satisfied with negotiating its terms of use in a facility operated by CATMA, then CATMA management of the facility would be the simplest and most straightforward option.
- If the Sheraton Hotel desires a stronger, and ongoing role, then the development of a public-private partnership between CATMA and the hotel would be the most effective option.

In both cases, the facility would be managed by the parties that will be the largest users of the facility and desire to be involved. As a third possible option, a third party parking management entity could assume responsibility for constructing, operating, maintaining and owning the facility.

7.5 Alternatives Evaluation Matrix

To facilitate an objective assessment of the No Build and four Build alternatives, pertinent details of each alternative was assembled and summarized in the Alternatives Evaluation matrix shown below in Figure 51. The evaluation matrix shows the following key differences between the four Build scenarios:

- Alternative 3A and 3B are the most expansive options
- Alternative 3B has the best overall traffic operational performance
- Alternative 3A and 3B both impact VTrans and FHWA rights-of-way
- Alternative 3A and 3B may likely impact identified archeological resources
- Alternative 3A and 3B will likely require a more detailed environmental documentation and alternatives assessment process to comply with NEPA requirements
Figure 51: Alternatives Evaluation Matrix

<table>
<thead>
<tr>
<th>ALTERNATIVE</th>
<th>No Build</th>
<th>BUILD</th>
<th>BUILD W SLIP RAMP</th>
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</thead>
<tbody>
<tr>
<td>Construction Cost</td>
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<tr>
<td>Parking Garage &amp; Site</td>
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<td>$33,484,565</td>
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<tr>
<td>I-89 Slip Ramp</td>
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<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Dual US 2 Turn Lanes</td>
<td>-</td>
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<td>-</td>
</tr>
<tr>
<td>Catamount Drive Gate</td>
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<td>$0</td>
<td>$0</td>
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<tr>
<td>Contingency (15%)</td>
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<tr>
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<tr>
<td>Lease Space</td>
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<td>$128,000</td>
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<tr>
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<tr>
<td>Lease &amp; Parking Revenue</td>
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<td>Level of Service/Concentration</td>
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<td>Alignment/Geometric Changes</td>
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<tr>
<td>Public Utilities</td>
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<tr>
<td>Hydraulic Performance</td>
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<td>Right of Way Impacts</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>ENVIRONMENTAL RESOURCES</th>
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<tbody>
<tr>
<td>Agricultural Lands</td>
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<tr>
<td>Archaeological</td>
</tr>
<tr>
<td>Historic Structures/Sites</td>
</tr>
<tr>
<td>Floodplain</td>
</tr>
<tr>
<td>Fish and Wildlife</td>
</tr>
<tr>
<td>Rare, Threatened &amp; Endangered Species</td>
</tr>
<tr>
<td>Public Lands</td>
</tr>
<tr>
<td>Noise</td>
</tr>
<tr>
<td>Wetlands</td>
</tr>
<tr>
<td>Hazardous Waste Sites</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PURPOSE &amp; NEED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfies Purpose &amp; Need?</td>
</tr>
<tr>
<td>Expands parking supply</td>
</tr>
<tr>
<td>Accommodates special events</td>
</tr>
<tr>
<td>Congestion reduction</td>
</tr>
<tr>
<td>Improved air quality</td>
</tr>
<tr>
<td>Provides mode-transfer site</td>
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</tbody>
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<thead>
<tr>
<th>PERMITTING</th>
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</thead>
<tbody>
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</tr>
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<tr>
<td>404 Corps of Engineers Permit</td>
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<td>Storm Water Discharge</td>
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<tr>
<td>Shoreland Encroachment</td>
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</tr>
<tr>
<td>VTrans ROW Permit</td>
</tr>
<tr>
<td>Site Plan Clearance</td>
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<tr>
<td>NEPA Process Required</td>
</tr>
</tbody>
</table>

1 Cost for transit/shuttle service includes both annual operating and annualized capital costs and represents the average costs of the three transit/shuttle alternatives presented earlier in this Scoping Report.
8.0 PREFERRED ALTERNATIVE

The project Steering Committee met on 8 November 2012 to discuss the results of the alternatives assessment process. After discussing the various options, the Steering Committee determined that it was premature to select a preferred alternative at this time given the nature of the unknowns at this time.

The Committee members cited the following reasons for not recommending a Preferred Alternative at this time:

- **Unclear whether CCTA would provide service to the facility:** CCTA has noted that service to the facility would be problematic as it would add additional service time onto existing routes that are already operating under tight schedules, would require both Burlington and South Burlington to contribute funds to offset the additional costs of expanded fare-free service to the facility, and would require the expansion of the complementary paratransit service area – resulting in a loss of paratransit revenue and increased costs to Burlington and South Burlington.

- **Unclear where funding would come from to construct and operate the facility:** The study did not identify a specific funding source for the project, but acknowledges a public/private partnership could emerge as a viable funding source in the future. FHWA funds would only be available to cover the cost of the park & ride component, and could not be used for construction of the remaining intercept facility or for ongoing maintenance and operation of the facility. If CCTA does not provide service to the facility, then FTA funds would not be available to fund construction or operation of the facility. CCTA also expressed concern that FTA funding for the facility would represent a significant opportunity cost reducing available funds for their operations and capital priorities.

The Steering Committee's recommendation to not select a preferred alternative at this time was then presented to the Stakeholder Committee on 29 November 2012 and the Burlington Transportation, Energy, and Utilities Committee on 12 December 2012.
APPENDIX A

Steering Committee & Stakeholder Meeting Materials
Interstate 89 Exit 14 Intermodal Intercept Facility
Steering Committee - Meeting Notes

DATE: Wednesday, June 1, 2011
TIME: 3:30 PM
PLACE: CCMPO, 110 West Canal Street, Winooski, VT

MEMBERS
PRESENT: Amy Bell, VTrans (via phone)
Chris Jolly, FHWA
John Moore, CCTA
Bob Penniman, Steering Committee Chair, CATMA
Justin Rabidoux, City of South Burlington DPW

OTHERS: Michele Boomhower, CCMPO Staff
Christine Forde, CCMPO Staff
Alex Halpern, Freeman French Freeman (Consultant Team)
Diane Meyerhoff, Third Sector Associates
Bill Nedde, Krebs and Lansing (Consultant Team)
Joe Segale, RSG (Consultant Team)
Dave Saladino, RSG (Consultant Team)
Geoff Slater, Nelson\Nygaard (Consultant Team)

1) Welcome/Introductions
Bob Penniman, Steering Committee Chair, welcomed the committee and introductions were made.

2) Project Purpose
Joe Segale, RSG Project Manager explained that there are many studies in this corridor that identify the need for the Intermodal Intercept Facility. This project will bring together the preliminary design work for the facility as well as evaluate the “slip” lane from the Interstate. We will define a Purpose & Need Statement with the ultimate goal of choosing a preferred alternative, identifying ownership/management options and deciding on next steps for the project. The project will evaluate alternatives with the input of the Cities of Burlington and South Burlington and stakeholders. We will look at how a facility like this operates and how to fund it.

Bob believes we should look at this project with a clean slate; however the location (behind the Sheraton) is clearly defined. The key elements to study are access, size, structure, management, and ownership.

3) Project Organization: Consultant Team
Joe introduced the Consultant Team: Geoff Slater, Nelson\Nygaard (transit planning); William Nedde, Krebs and Lansing (survey and site engineering); Alex Halpern, Freeman French Freeman (architecture); and David Saladino, RSG
(Assistant Project Manager). There are additional supporting team members: Landworks (landscape), Gilman & Briggs (environmental), UVM CAP (historic/archeology).

4) **Scope & Schedule**

Joe reviewed the scope and schedule, with an eye toward tasks that will need public input and/or individual stakeholder-type meetings. The process will likely take 10-12 months.

**Task 1: Project Initiation**

**Task 2: Data Collection**

**Task 3: Purpose and Need**

**Task 4: User Profile.** Here the team will meet with potential users of the facility (such as CATMA, CCTA, Cities, BIA, etc.) to determine their needs for parking and amenities.

**Task 5: Local & Regional Concerns.** There will be a public meeting under this task. The draft Purpose & Need Statement will be finalized after the public meeting.

**Task 6: Alternatives Analysis.** A public meeting will present alternatives to be evaluated. In addition, the team will meet with the South Burlington City Council and a Burlington local board to solicit feedback. There will be a total of four individual meetings with local boards, to be determined by the Steering Committee. Justin Rabidoux of South Burlington suggested that the South Burlington Planning Commission would be the most appropriate body to meet with during the alternatives discussion. He also suggested the CCMPO Technical Advisory Committee (TAC) could be a valuable resource. Bob suggested this task will also include the Stakeholder group and groups beyond Chittenden County.

**Task 7: Draft Report**

**Task 8: Final Report**

Bob would like to invite Bill Gordon of the Federal Transit Administration (FTA) in Boston to participate in all future Steering Committee meetings, perhaps by conference call.

Amy Bell of VTrans noted that the Project Definition Team (PDT) hasn’t met in several years (Joe had mentioned their reviewing the project). Amy isn’t sure how the PDT process may change, but it won’t be as onerous as it was in the past. Bob wants to be sure that VTrans is part of this process. Amy suggested that the Technical Review Team is critical to meet with early in the process.

3) **Roles of Steering Committee and Stakeholder Group**

There was a discussion of the two committees’ membership, frequency of meetings, and roles. Historically, the Stakeholder Group for corridor studies has included a wide variety of representatives – businesses, business organizations, planning officials, etc. Bob suggested that the Sheraton and Burlington International Airport (BIA) be represented on the Stakeholder Group, as well as Paul Conner of South Burlington (and a representative from Burlington). The Stakeholder Group needs to be given significant advance notice of meetings.

Michele Boomhower of the CCMPO suggested the Ward 1 Neighborhood Planning Assembly (NPA) might participate in the Stakeholder Group, but Bob felt they would be adequately represented in public meetings or through separate meetings.
There was discussion on identifying the Stakeholder Group members. It is an opportunity for VTrans, FHWA, and FTA to bring additional voices to the table. Chris Jolly of FHWA will participate at the Steering Committee level but not in the Stakeholder Group. He also suggested that VTrans transit folks be involved. Amy noted that Dave Pelletier is on the Steering Committee, but is out sick today. Justin suggested that facility users, such as the University Mall, might want to participate.

It was decided that Steering Committee members should forward Stakeholder Group names to Christine and she will work with Bob and Joe to create a list in the next month. Bob will contact the City of Burlington to identify a Stakeholder Group representative from the City and what commissions or committees may be involved in making any decisions related to the project.

Bob suggested that the Steering Committee will meet monthly at the CCMPO and the Stakeholder Group meet (twice) at the Sheraton. The Stakeholder Group will have a special presentation of the Alternatives Analysis prior to the public meeting. Public meetings will also be held at the Sheraton, due to its ideal location.

4) Scope of Work Review: Technical
Joe noted that there is plenty of data available for this area; no new data will need to be gathered. He discussed the technical tasks:

**TASK 2: Existing Conditions**
- Previous plans and studies
- Traffic and safety data
- Update traffic models
- Exiting sidewalks and multi-use paths
- Transit and shuttle route characteristics
- TDM – CATMA, CCTA, etc.
- Natural and Environmental Resources

Bill Nedde, of Krebs and Lansing reviewed the preliminary site plan. He discussed the existing stormwater facilities - Main Street stormwater pond, East Campus stormwater facility adjacent to project site, and the Sheraton stormwater pond (this pond will be upgraded to comply with state stormwater regulations).

There was discussion of property ownership issues. Bob explained that the Sheraton has a long-term lease in place with UVM which allows an intercept facility to be built as long as the Sheraton nets the same amount of parking as it has now. The bigger issue is the ownership of the facility and the mix of tenants. Bob suggested “condominiumizing” the parking spaces.

Chris believes that it’s critical to get FTA involved due to the atypical nature of the facility.

**TASK 4: User Profile, Facility Size and Building Program**
The team will hold individual meetings with potential users (Cities of Burlington and S. Burlington, CCTA, CATMA, BIA, VTrans, and the Sheraton) to determine their parking needs, operational requirements, issues, and concerns. This will help identify the needs of the facility beyond parking. There was discussion of meeting with Dorset Street businesses, perhaps as a group. Christine suggested contacting the University Mall. Justin suggested they be included in the Stakeholder Group.
RSG’s traffic analysis will include a primary and secondary study area. It will look closely at the Interstate slip lane and the impacts of the facility to the surrounding area.

Justin believes that the South Burlington users need CCTA to stop at the facility. However, it’s not clear the facility will work within CCTA routes and scheduling. He is open to discussing opportunities with CATMA for the Dorset Street corridor.

**TASK 6: Develop & Evaluate Alternatives**
- Alternatives Definition Outline – “Do nothing” and two additional alternatives
- Conceptual Plans – Architecture, Site, Transportation System
- Ownership and Operations Models – Operational funding source, partnership models, issues and obstacles

Geoff Slater of Nelson\Nygaard discussed ownership options. Bob expressed South Burlington’s concern about being financially obligated. Geoff needs to identify the “designated recipient” for FTA funds in the region.

Bob sees CCTA is a key stakeholder. However, CCTA is moving forward on a Downtown Transit Center and cannot take on additional building projects. South Burlington doesn’t want to own this facility. We have Congressional earmarks for the South End Neighborhood Transit Center and the MOU between the City of Burlington and CATMA would allow funds that are not being used to transfer to the Intermodal Intercept Facility.

Joe described the elements of the evaluation matrix: relationship to purpose and need; traffic operations; regional transit operations; CATMA TDM and shuttle operations; bicycle/pedestrian access; ROW issues; utility impacts; resource Agency review; permitting requirements; cost.

Chris Jolly asked about the evaluation of alternatives and how one determines the public benefit versus the costs. Can we quantify air quality improvements? The public benefit needs to be quantified and emphasized as the project moves forward. Joe suggested that changes in Vehicle Miles Traveled (VMT) could be estimated and this project supports existing municipal and transportation plans. Bob suggested that the support of special events that benefit the public is crucial. Joe also pointed out that even if some component of the facility is privately owned, it will be available for use by the general public.

**SCHEDULE**
Joe discussed the schedule (attached at the end of this document). Public meetings will likely be held in October (Local Concerns) and December (Alternatives Analysis). Bob noted that it is important to keep the project moving forward; and not to rush the process at the expense of effective participation by the stakeholders and the public.

5) **Next Steps**

Christine, Bob, and Joe will have a project status meeting in July. The Steering Committee will meet again in mid-August; Christine will poll everyone for a date. The Stakeholder Group will be identified by early August.

The meeting adjourned at 2:53 PM.
## Preliminary Schedule

### Task 1: Project Initiation and Regular Meetings
- Kickoff Meeting
- Steering Committee Meetings

### Task 2: Data Collection
- Data Collection and Analysis
- Site Plan and Survey
- Existing Conditions PowerPoint

### Task 3: Develop Purpose & Need Statement
- Purpose & Need Statement

### Task 4: Identify User Profile, Facility Size Requirements & Traffic Impacts
- User Profile Meetings
- Building Program
- Traffic Impact Analysis Memorandum

### Task 5: Investigate Local and Regional Concerns
- Public Meeting
- VTrans/Regulatory Agency Meeting

### Task 6: Develop and Evaluate Alternatives
- Alternatives Development
- Conceptual Site Plans
- Ownership and Management Memo
- Evaluation Matrix Memo
- Alternatives Presentation Meeting
- Local Board Meetings

### Task 7: Draft Scoping Report
- Draft Scoping Report
- Final Scoping Report
- Project Definition Team Meeting

### Task 8: Final Scoping Report
- Final Scoping Report
- Final Project Definition Team Meeting
Interstate 89 Exit 14 Intermodal Intercept Facility
Steering Committee - Meeting Notes

DATE: Friday, August 12, 2011
TIME: 1:00 PM
PLACE: CCRPC, 110 West Canal Street, Winooski, VT
MEMBERS PRESENT: Amy Bell, VTrans
Erin Demers, City of Burlington
John Moore, CCTA
Bob Penniman, Steering Committee Chair, CATMA
Justin Rabidoux, City of South Burlington
OTHERS: Michele Boomhower, CCRPC Staff
Christine Forde, CCRPC Staff
Diane Meyerhoff, Third Sector Associates
David Saladino, RSG (via phone)
Joe Segale, RSG
Sandy Thibault, CATMA

1) Welcome/Introductions
Bob Penniman of CATMA welcomed the committee and introductions were made.

2) Stakeholder Group Membership
Christine Forde of CCRPC, Joe Segale of RSG, and Bob Penniman drafted a preliminary list of Stakeholders. Christine Forde of CCRPC, Joe Segale of RSG, and Bob Penniman drafted a preliminary list of Stakeholders. Bob explained that the Steering Committee is made up of the funders and technical staff from CATMA, Burlington, South Burlington and CCTA; the Stakeholder Group is made up of landowners and/or potential users of the facility. South Burlington’s Planner, Paul Connor, is a “big picture” person who knows the land use and the demand side for the facility. In addition, he’s up to speed on City Center and other municipal uses in this area. Bob suggested that the planners are the appropriate people to be at the Stakeholder table, especially as they update their municipal plans.

There was discussion of how best to integrate the business community into the committee structure. Smaller businesses will likely participate at the public level. Michele Boomhower of the CCRPC asked if the Ward 1 Neighborhood Planning Assembly (NPA) should participate at the Stakeholder level. Bob responded that they will participate at the public level.

It was decided that Bob and Christine will draft an invitation to the Stakeholder Group. The invitation will include the role of the Stakeholder Group and the level of commitment expected.
**3) Stakeholder Group Role & Purpose**

The Stakeholder Group will estimate the demand and identify potential uses for an Exit 14 Intermodal Intercept Facility. They will identify the desired amenities and functionality of the facility. The group will identify obstacles, concerns, and issues of ownership, operations, and maintenance of the facility. It is likely that the ownership and operations discussion will occur at both the Stakeholder Group and the Steering Committee.

Joe suggested that the Local Concerns Meeting be held just after the Stakeholder Group meeting so as to introduce the material to that group prior to presenting it to the public. He will also prepare a draft purpose and need statement to be further developed by the Stakeholder Group. The following schedule was drafted:

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Meeting Type</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Late October/Early November 2011</td>
<td>Stakeholder Group Meeting</td>
<td>Develop Purpose &amp; Need Statement; Review material for public meeting</td>
</tr>
<tr>
<td>Mid-November</td>
<td>Public Meeting: Local Concerns Meeting (Sheraton)</td>
<td>Feedback on the Alternatives Analysis</td>
</tr>
<tr>
<td>February/March</td>
<td>Stakeholder Group Meeting</td>
<td>Feedback on the Alternatives Analysis</td>
</tr>
<tr>
<td>Spring 2012</td>
<td>Public Meeting: Alternatives Presentation (Sheraton)</td>
<td>Wrap up</td>
</tr>
<tr>
<td>Spring 2012</td>
<td>Stakeholder Group Meeting</td>
<td>Wrap up</td>
</tr>
</tbody>
</table>

In addition, Joe has budgeted four additional meetings with local boards/committees, and/or VTrans as needed.

**4) Project Status – Report from RSG**

Joe reported that Krebs & Lansing has created a base plan and Gilman & Briggs has flagged the wetlands. The UVM archeology group has begun work. The traffic model has been updated for the Route 2 Corridor. Information on the “third lane at Staples” has been received and Joe will review it. Other work completed for the Existing Conditions report includes a field inventory of bike/ped facilities and the safety analysis.
Bob was contacted by the transit subcontractor from NYC who was trying to ascertain the existing conditions from the Internet. It is important for the consultant to meet with CCTA and CATMA. Joe will talk with Geoff Slater at Nelson\Nygaard about this.

Justin asked about FTA’s role in this process. Bob responded that it is a major role compared to that of FHWA. Amy Bell of VTrans explained that these are two federal agencies with different jurisdictions – the facility is under FTA and the infrastructure is under FHWA. Justin is concerned about the FTA review process and whether or not we’ve included it in Joe’s scope and schedule. Bob explained that FTA has a different level of participation in project planning of than does FHWA. Generally, they review materials that we send to the Boston office and do not attend meetings. However, if federal dollars are committed for the facility’s operations and maintenance, they will flow through FTA.

5) Next Steps
At the next meeting, the Steering Committee will review the Existing Conditions Report, provide input to the alternatives development, and prepare for the Stakeholder Group meeting.

The meeting was adjourned at 1:50PM.

The Steering Committee will meet Friday, September 30th at 1:00PM at the CCRPC
Interstate 89 Exit 14 Intermodal Intercept Facility
Stakeholder Group Meeting #1 - Meeting Notes

DATE: Tuesday, November 8, 2011
TIME: 1:30 PM
PLACE: CCRPC, 110 West Canal Street, Winooski, VT

STAKEHOLDER MEMBERS PRESENT:
Rob Burnetti, Sheraton Hotel
Paul Conner, City South Burlington Planning & Zoning
Barb Donovan, VTrans Public Transit Administrator
John Caulo, Champlain College
Dave Keelty, Fletcher Allen Health Care
Bob McEwing, Burlington International Airport
Heather Tremblay, University Mall
Ron Redmond, Church Street Marketplace
Linda Seavey, University of Vermont
David White, City of Burlington Planning & Zoning

STEERING MEMBERS PRESENT:
Amy Bell, VTrans
Michele Boomhower, CCRPC
Erin Demers, City of Burlington Public Works
Chris Jolly, FHWA
Jon Moore, CCTA
Bob Penniman, Steering Committee Chair, CATMA
Justin Rabidoux, City of South Burlington Public Works

OTHERS:
Jesse Beck, Freeman French Freeman (Consultant Team)
Christine Forde, CCRPC Staff
Alex Halpern, Freeman French Freeman (Consultant Team)
Diane Meyerhoff, Third Sector Associates
Bill Nedde, Krebs & Lansing (Consultant Team)
Erin Parizo, RSG (Consultant Team)
David Saladino, RSG (Consultant Team)
Geoff Slater, Nelson\Nygaard (Consultant Team)
Sandy Thibault, CATMA

1) Welcome/Introductions
Bob Penniman of CATMA welcomed everyone and gave a brief history of the project, which has been under discussion for about 10 years. The Exit 14 Intercept Facility has been a priority of the Metropolitan Planning Organization’s (MPO) Park & Ride and Intercept Facility Plans. In 2005, the federal transportation reauthorization bill provided $3 million
for the “third lane” at Staples Plaza and an additional $4 million for a potential Interstate off-ramp to serve the facility. Now, we are undertaking a feasibility, or scoping, study. The scoping study will offer conceptual plans for the facility, a traffic circulation analysis, and identification of permitting issues.

David Saladino of RSG gave a brief overview of the project. He explained the difference between a Park & Ride lot and an Intercept Facility; a Park & Ride lot captures commuters close to their home and provides transit service to their workplace. An Intercept Facility is located closer to the final destination; commuters (and others) are offered a shuttle to their destination, thereby preserving parking at their destination (often downtown).

The site behind the Sheraton has been identified for an intercept facility, most recently in 2011 Chittenden County Park & Ride Plan. The facility will feature a parking garage and mixed-use facility, with a potential slip ramp off of Interstate 89 Southbound. Potential users include commuters, airport customers, and special events visitors. The scoping study will create a project definition, identify issues & obstacles, determine a preferred alternative with conceptual designs, and identify permitting constraints.

The draft purpose of the facility is to reduce parking demand, congestion, vehicle miles travelled, and vehicle emissions in Burlington and South Burlington by intercepting vehicles prior to reaching their final destination and transferring them to a non-single-occupant-vehicle mode. The need is multifold:

• Parking demand drives inefficient use of space in dense settings
• Peak period congestion along major commuter routes into Burlington and South Burlington
• Reduce vehicle emission and improve air quality in Chittenden County
• Lack of adequate and convenient mode-transfer facilities for commuters in Chittenden County
• Lack of parking capacity to accommodate large special events

The Existing Conditions Assessment report is complete. The report includes transit service, bike/pedestrian links, traffic flow and congestion, land use & zoning, and natural resources.

3) Approach to Identifying Level of Demand for Parking/Intercept Facility
The potential users have been identified as: commuters (Burlington, S. Burlington, Montpelier, etc.), airport customers, and special events visitors.

Dave Keelty of Fletcher Allen Health Care (FAHC) suggested adding a statement to the Purpose & Need Statement to include use of the facility for special events. He sees Burlington as “open for business” and this facility can help promote the City. From FAHC’s perspective, their priority is to have sufficient parking on campus to meet 100 percent of patient needs. As a result, employees park off-site, where 800 spaces are available at a variety of locations.

Rob Burnetti of the Sheraton could use 1,200 spaces this weekend. He noted that their demand isn’t consistent, but when the conference facility is full, they need 1,200 spaces (and only have 750). He works with UVM and FAHC to find sufficient space. Sheraton employees park off-site when they are at capacity.
Paul Conner of the City of South Burlington is intrigued with the idea of using an intercept lot to address the existing and future demand of City Center and possible infill development. This facility could create opportunities for more efficient land use in the area. David White of the City of Burlington agrees with Paul and sees an opportunity to preserve downtown parking.

Heather Tremblay of University Mall reported that UMall parks employees off-site at the High School during a very busy holiday season (although they did not do so last year).

Ron Redmond of the Church Street Marketplace voiced concern that although large employers can force their employees to take advantage of such a facility, smaller downtown employers may prefer to leave downtown rather than require their employees to utilize this facility. He sees a need for this facility for special downtown events.

Previous planning efforts identified a four-level parking structure with approximately 25,000-35,000 square feet of program space (retail, office, etc.) surrounding the garage. There was discussion of a direct pedestrian bridge from the garage to the Sheraton. It is possible the program space at the facility could be a destination to serve the local neighborhood.

Bob McEwing of the Burlington International Airport discussed his experience building parking garages. The Airport has been hurt by the slow economy and has gone from having not enough parking capacity to having excess parking. However, as demand increases with an improving economy, the Intercept Facility is a great opportunity for the airport. He’s not interested in building more parking garages on site.

Linda Seavey of the University of Vermont (UVM) sees a regional opportunity as well as an opportunity for UVM. Linkages to this site are excellent and it has been part of UVM’s Master Plan for 20 years. They have some land uses near the site – housing, administrative facilities, and a parking lot. They are excited about this project.

There was discussion of the importance of efficient, frequent transit service to the facility to make it successful for employers and employees. Amy Bell of VTrans wants to have Park & Ride spaces available for public use.

**4) Identify Potential Uses/Amenities for Facility**

There was discussion of the two federal agencies that could potentially be involved in this facility, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) and their requirements regarding financial participation in the facility. The FHWA would be directly involved if a new slip ramp off of I-89 were added, while the FTA would be more involved with the intercept facility.

Paul Conner asked if the facility has sufficient parking for future expansion, rather than just the current demand. Bob Penniman responded that this facility is one of four other facilities imagined for the greater Burlington area. RSG will be estimating the current and future need for parking as part of the scoping study.

There was discussion of zoning for the facility. The current height restriction is 40 feet; but there are concerns about view corridors. There may be an opportunity to go beyond the footprint originally determined for this site. UVM’s parking lot below the site is a “land bank” for UVM, but Linda Seavey is willing to discuss it further.
5) Identify Obstacles/Concerns
D. Saladino recognizes that residents on East Avenue may have concerns about traffic, particularly if a new I-89 off-ramp is considered. Chris Jolly of FHWA noted that the FHWA will have to approve access from the Interstate to the facility. They will require analysis of the new ramp’s impact on traffic flow on the Interstate and at Exit 14. Bob McEwing noted that the Airport’s Master Plan includes Interstate 89 Exit 14N, an interchange with direct access to the airport.

6) Next Steps
Schedule
- Individual Stakeholder Outreach (November-December 2011)
- Public Meeting (January 2012)
- Alternatives Evaluation (January – March)
- Present Alternatives Assessment – Stakeholders (May)
- Selection of Preferred Alternative (June)
- Final Scoping Report (July-August)

Linda Seavey of UVM suggested that the neighborhood needs to be briefed prior to the public meeting and there isn’t sufficient time to do so in this schedule. She urged the team to have very clear materials and a clear idea of what is expected from the neighbors prior to meeting with them. Dave Keelty echoed Linda’s concerns and suggested meeting with the NPA Steering Committee in advance. He has found this a helpful strategy in the past. The team needs to address possible East Avenue congestion issues now and discuss them with the neighbors.

Linda noted that the Colchester Avenue process had NPA representatives on the committee and that helped move the process forward. Bob Penniman responded that the Intercept Facility Steering Committee discussed involving the neighbors earlier, but decided to wait. Bob is on the NPA agenda monthly and will update the NPA at their next meeting.

It is anticipated that the Stakeholder Group will meet next in May 2012.

The meeting was adjourned at 3:00PM.
Interstate 89 Exit 14 Intermodal Intercept Facility
Steering Committee - Meeting Notes

DATE: Thursday, February 2, 2012
TIME: 1:00 PM
PLACE: CCRPC, 110 West Canal Street, Winooski, VT

MEMBERS PRESENT: Amy Bell, VTrans
Erin Demers, City of Burlington
Jon Moore, CCTA
Bob Penniman, Steering Committee Chair, CATMA
Justin Rabidoux, City of South Burlington

OTHERS: Christine Forde, CCRPC Staff
Diane Meyerhoff, Third Sector Associates
David Saladino, RSG (Consultant Team)
Sandy Thibault, CATMA

1) Welcome
Bob Penniman, Steering Committee Chair, welcomed the committee. Bob expressed concern that the Federal Transit Administration (FTA) has not participated in any of the committee meetings. He suggested that members of the Steering Committee visit FTA in Boston this spring.

Bob explained this is a critical meeting to come to consensus regarding parking demand, which determines the size of the facility. Once a preliminary number is determined, the consultants can move ahead with traffic, modeling, and preliminary design.

2) Project Overview
David Saladino of RSG reviewed the scope of work and the updated Purpose & Need:

PURPOSE: The purpose of the I-89 Exit 14 Intercept Facility is to encourage the use of multi-modal travel options and reduce parking demand, congestion, vehicle miles travelled (VMT), and vehicle emissions in Burlington and South Burlington by intercepting vehicles prior to reaching their final destination and transferring them safely, efficiently, and seamlessly to a non-single-occupant-vehicle mode (e.g. bus, shuttle, HOV, walk, bicycle). The Intercept Facility will increase the number of publicly available, intermodal parking spaces in Chittenden County’s core and will be located at a convenient and efficient intercept facility location to serve a wide range of users including work, travel, and special events related users. The Intercept Facility will allow for potential redevelopment and infill of areas currently occupied by parking and reduce overall energy use and reliance on fossil fuels.
NEEDS
- Parking demand drives inefficient use of space in dense settings
- Peak period congestion along major commuter routes into Burlington and South Burlington
- Poor air quality levels in Chittenden County
- Lack of adequate and convenient mode-transfer facilities for commuters in Chittenden County
- Lack of parking capacity to accommodate large special events

Christine Forde of the CCRPC asked if the phrase “poor air quality” could be reworded since the County is in attainment for air quality. Suggestions included “maintain,” “reduce,” or “improve” air quality.

David explained that the Existing Conditions Assessment is complete. Once the committee has agreed on parking demand, he’ll work on the traffic analysis. A public meeting for local and regional concerns will be held after the Ward 1 NPA meeting on March 14th.

3) User Profile: Estimating Parking Demand
To estimate parking demand, David, Christine, and Bob met with a representative of each of the key stakeholders to assess their current and anticipated parking needs. Bob complimented David and Christine for a series of very productive meetings. David prepared the following matrix:

**Identifying Parking Demand**

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Peak Demand Period</th>
<th>Weekday Day</th>
<th>Weekday Evening</th>
<th>Weekend</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Public</td>
<td>Weekdays 6 AM-6PM</td>
<td>200</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>City of South Burlington</td>
<td>Not immediate – pending City Center development</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>City of Burlington</td>
<td>Weekdays 6 AM-6PM</td>
<td>200</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sheraton Burlington Hotel and Conference Center</td>
<td>Conferences and events scheduled throughout the year. Full demand anticipated 5-4 times per year.</td>
<td>450</td>
<td>750</td>
<td>900</td>
</tr>
<tr>
<td>Fletcher Allen Health Care</td>
<td>Weekdays 6 AM-6PM</td>
<td>600</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>University of Vermont</td>
<td>500-1000 spaces for scheduled special events. 100 conference/seasonal</td>
<td>0</td>
<td>750</td>
<td>750</td>
</tr>
<tr>
<td>Champlain College</td>
<td>Weekdays 6 AM-6PM</td>
<td>100</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Burlington International Airport</td>
<td>February &amp; March</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>University Mall</td>
<td>November &amp; December</td>
<td>0</td>
<td>0</td>
<td>100</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>1,600</strong></td>
<td><strong>1,575</strong></td>
<td><strong>1,825</strong></td>
</tr>
</tbody>
</table>

Bob discussed each of the stakeholders’ parking estimates in more detail (the numbers represent demand within the structure and should serve for the next 10-20 years):

- **Sheraton**: The assumption is that 450 spaces will be displaced; each of these will be replaced in the facility.
- **City of Burlington**: Bob estimated this number assuming the completion of the South End Neighborhood Transit Center and the desire to free downtown spaces for customers and employees at the facility.
- **City of South Burlington**: Justin Rabidoux of South Burlington feels there is adequate space in the facility to cover their needs, even though the matrix shows zero spaces, because there is overlap in the estimates.
• **Fletcher Allen Health Care** (FAHC): FAHC needs 800 spaces to park staff to free space at their main campus. Bob noted that collectively the CATMA institutions need 1,500-1,800 spaces.

David explained that the level of demand for certain users will depend on frequency of shuttle service, parking rates, and the incentives/disincentives to park at one’s workplace.

Amy Bell of VTrans asked if the 200 “public” demand spaces include spaces for park and ride. Bob answered in the affirmative. She asked how the number was estimated and Bob responded that he used his professional judgement. Amy asked David to talk with VTrans’ Wayne Davis about the public parking space estimates.

The downtown Burlington parking structures were discussed and Erin Demers of the City of Burlington will check with Pat Buteau about the size of the City’s garages.

After discussion, the group agreed to use 1,600 spaces as a starting estimate. Likely the first phase would build approximately 1,200 spaces with the building able to accommodate future expansion.

There was discussion of the 2002 conceptual plans. Bob noted that the 2002 concept plans would not factor into the current design effort; the project team will start with a “blank slate.” Bob also noted that critical design elements for the Sheraton include the enclosed walkway from the garage to the Conference Center and minimizing the overall structure height to preserve the Conference Center’s views. Amy asked David to review the Act 250 permits for the Sheraton and the Williston Road widening to be sure that all the constraints have been catalogued.

4) **Preliminary Traffic Assessment**
David provided some very preliminary numbers for the traffic assessment and will be refining these significantly as the study progresses.

5) **Next Steps**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time Frame (2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refine traffic analysis</td>
<td>February</td>
</tr>
<tr>
<td>Ward 1 NPA Meeting</td>
<td>March 14</td>
</tr>
<tr>
<td>Local Concerns Meeting</td>
<td>Late March/Early April</td>
</tr>
<tr>
<td>Steering Committee Meeting</td>
<td>After Local Concerns</td>
</tr>
<tr>
<td>Alternatives Evaluation</td>
<td>April-June</td>
</tr>
<tr>
<td>Present Alternatives Assessment</td>
<td>July</td>
</tr>
<tr>
<td>Selection of Preferred Alternative</td>
<td>September</td>
</tr>
<tr>
<td>Final Scoping Report</td>
<td>December</td>
</tr>
</tbody>
</table>

For next steps, Chris Jolly of FHWA will receive meeting notes; David’s PowerPoint will be distributed to all; and dates will be set for the Local Concerns and next Steering Committee meetings (Diane and Christine will check school vacation schedules).

The meeting adjourned at 2:10PM.
1) Welcome & Introductions
Bob Penniman, Chair of the Steering Committee, welcomed everyone and introductions were made. Meredith Birkett of CCTA is replacing Jon Moore on the Steering Committee.

Erin Demers of the City of Burlington is on maternity leave. Erin and Bob had decided that there wouldn’t be a temporary representative on the Steering Committee during her leave. Justin Rabidoux of the City of South Burlington would like to offer the City of Burlington the opportunity to have a temporarily representative during Erin’s leave. Amy Bell of VTrans agreed, noting that this is a decision for the City, not the Steering Committee.

Bob explained that the committee has been working on parallel processes due to Neighborhood Planning Assembly (NPA) scheduling and vacations. At the last meeting, the Steering Committee decided to move forward with conceptual drawings for a 1,600 space facility while also undertaking the neighborhood and initial public meeting process. Today, the Steering Committee needs to give guidance to the design team in order for them to move forward with more detailed drawings.

2) Update on Progress to Date and Upcoming Schedule
David Saladino of RSG reviewed the revised timeline (see last page) and budget. He expects to finish on time (end of the year) and on budget.
3) Highlights from Ward 1 NPA and Local Concerns Meeting

David recapped comments from the two meetings:

**Ward 1 Neighborhood Planning Assembly on April 11, 2012**
- Concern that benefits are for downtown but impacts are in Ward 1
- Will facility connect to East Ave?
- Requested Ward 1 rep on Stakeholder Committee
- Concerned about impacts to: Centennial Woods; Aesthetics; Wetlands; Bus emissions

**Local Concerns Public Meeting on April 19, 2012**
- Concern about attracting more cars to Burlington
- Better accommodation for bicycles (closed parking, bike lanes, connection to S. Burlington, etc.)
- Would like UVM student rep on Stakeholder Committee
- Request project website for updates
- Questions about ownership & management
- Suggest “out of the box” thinking
- Concerned about impacts to: Centennial Woods; Aesthetics; Wetlands; Bus emissions

The Local Concerns meeting was well attended by UVM students whose concerns were primarily about impacts to Centennial Woods.

Justin suggested that UVM needs to be on record about its policy regarding the preservation of Centennial Woods so that the Steering Committee isn’t put in a position to defend their policies. Bob will address this prior to the next public meeting. Christine Forde of the CCRPC noted that people will continue to be concerned about Centennial Woods encroachment and our scoping process will outline all of the environmental impacts associated with the various alternatives.

The group discussed the request by Ward 1 NPA members, a Burlington Public Works Commission member, and UVM students to each have representation on the Stakeholder Group. There was concern about Stakeholder Group size and the appropriate place to “draw the line” on representation. Justin suggested that the Steering Committee send a letter to the Mayor (with a copy to Council President Joan Shannon) outlining the project, Burlington’s representation on the committees, the request for additional representation (both Stakeholder representation and interim DPW replacement), and asking him to make a decision about representation. In this way, we’ll have been as inclusive as possible. Bob and Diane will work on letters to both the Mayor and the South Burlington City Council. Bob felt that the UVM students have ample opportunity to be involved in master planning and other efforts at the University.

4) Review of Preliminary Traffic Modeling Results

David reviewed the traffic analysis steps:
- Estimate Facility Trip Generation (based on tube counts from Catamount East lot (268 spaces), Chittenden County Park & Ride counts, CAMTA survey data, and ITE Trip Generation Rates)
- (Re)Distribute Trips to Facility
- Calculate Changes in Network Traffic
- Quantify Changes in Delay, Queuing, and Emissions (No Build vs. Build – No Ramp vs. Build – with Ramp)
The Staples third lane is included in David’s analysis. He will have detailed traffic information at the next Steering Committee meeting.

Bob mentioned the shuttle service and potential CCTA transit service to the facility noting that FAHC does not want to be in the shuttle business. Specifically, Bob mentioned the possibility of expanding the College Street Shuttle per the adopted CCTA Transit Development Plan. Meredith responded that at some point we need to have the discussion about who would fund the service. Bob replied that costs may be offset by current FAHC shuttle costs, subject to FAHC agreement, and that this would be a better conversation to have between CCTA and CATMA.

5. Review of Preliminary Facility Layout Plans
Alex Halpern of Freeman French Freeman reviewed preliminary facility layout plans, depicting 1,556 parking spaces and (1,256 net new parking spaces) and 30,100 square feet of leased shell space in a structured facility. There was discussion about views of Mount Mansfield from the parking structure. “Green” amenities were discussed; including LEED certification (isn’t available strictly for parking garages). Bus circulation was discussed, especially the need to reduce bus/car/bike/pedestrian conflicts at the transit loading area. There was concern about the corresponding height levels of the garage and the Sheraton Conference Center. The group was generally supportive of a tiered structure if it doesn’t adversely impact the stormwater structure. Alex will incorporate the comments and print a set of drawings for Meredith Birkett and Amy Bell.

6. Next Steps
The Steering Committee agreed to meet in July and August to review the following:
- Finalize Traffic Analysis
- Refine Facility and Site Layouts
- Develop Cost Estimates & Alternatives Assessment Matrix
- Develop Ownership & Management Assessment

David will meet with VTrans in early September. An Alternatives Presentation will be made to the Stakeholder Group in mid-to-late September followed by presentations to local boards and the public, followed by the selection of a preferred alternative in October, draft scoping study in November, and final scoping study in December 2012.

Bob wants to engage the Federal Transit Administration (FTA) in the process. He and Meredith will discuss options for their participation.

The next two Steering Committee meetings will be scheduled via online poll.

The meeting was adjourned at 3:55 PM.
Project Schedule Overview – May 9, 2012

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DATE: Thursday, July 12, 2012
TIME: 1:00 PM
PLACE: CCRPC, 110 West Canal Street, Winooski, VT

MEMBERS PRESENT: Norm Baldwin, City of Burlington
Amy Bell, VTrans
Meredith Birkett, CCTA
Michele Boomhower, CCRPC Staff
Bob Penniman, Steering Committee Chair, CATMA

OTHERS: Christine Forde, CCRPC Staff
Dirk Grotenhuis, RSG (by phone)
Alex Halpern, Freeman French Freeman
Diane Meyerhoff, Third Sector Associates
Bill Nedde, Krebs and Lansing
David Pelletier, VTrans
David Saladino, RSG
Sandy Thibault, CATMA

1) Welcome & Introductions
Bob Penniman, Chair of the Steering Committee, welcomed everyone and introductions were made.

Bob explained that at the Steering Committee’s last meeting (May 9th) the group reviewed the facility’s footprint and provided input to the RSG consultant team. The group agreed to return for two summer meetings in order to maintain the schedule for outreach to VTrans, the Stakeholder Group, and the public in September. The consultant team has made significant progress on the design and the goal for today is to agree on the conceptual facility footprint and plans to allow the consultant team to move forward with the alternatives assessment.

2) Update on Stakeholder Group Representation
Bob reported that as a result of the discussion at the last Steering Committee meeting, letters were sent to the Cities of Burlington and South Burlington regarding representation on the Stakeholder Group. There has been no response and Bob asked Norm and Justin to follow-up with their respective municipalities. Norm agreed and Christine will contact Justin. Bob would like an answer in the next six weeks (with sufficient time to invite representatives to the Stakeholder Group meeting in September).

3) Project Schedule Update
David Saladino of RSG updated the project schedule (see attachment). Essentially, Task 6 will be accomplished at the August Steering Committee meeting in order to allow for outreach meetings with VTrans, Stakeholder Committee, the public, and City boards in September/October. Amy suggested the
VTrans meeting should be first week of September; she will take the lead to schedule this meeting. The traffic analysis will be available at the next meeting and Amy will distribute it to VTrans staff.

Bob asked that the draft “Ownership and Management” memo be distributed before the next Steering Committee meeting; David will do so.

Bob requested that Christine and Diane distribute a Doodle poll to the Stakeholder Group to schedule a meeting in the first two weeks of September. Steering Committee members will be invited to attend the meeting. Bob asked that the Stakeholder Group list be reviewed and be sure that Debra Feldman of Felcor Lodging Trust (Sheraton) can attend the meeting. The timing of this meeting is crucial in order to allow the remaining outreach meetings to be held this fall.

Bob is concerned that FTA hasn’t participated. Amy will be sure that Chris Jolly of FHWA is invited to the VTrans presentation. Prior to the next Stakeholder Group meeting, Bob and Meredith Birkett of CCTA will determine how best to brief Bill Gordon (FTA).

4) Review of Facility Trip Generation & Traffic Modeling Results
David updated the group on the Traffic Analysis:
- Completed count at Exit 17 Colchester Park & Ride. Obtained 2008 VTrans count at Exit 11 Richmond Park & Ride. Will average with ITE rates to develop blended rate for “public” spaces.
- Completed tube counts at Catamount East Lot. Will apply trips/space rate to estimate FAHC and Champlain College trips.
- Trip generation for retail based on employee trips only.
- Trip generation for office based on ITE.

Meredith Birkett of CCTA asked about the City of Burlington’s 150 parking spaces. Bob responded that these are general public spaces. She asked where the FAHC’s 600 spaces are currently located. Bob responded that these spaces are at Centennial Field, the Catamount East lot, Gutterson, and the street network. These vehicles will be moved to the facility.

Norm Baldwin of the City of Burlington asked how the facility relates to the South End Neighborhood Transit Center. Bob explained that the CCRPC’s Park & Ride Study and the MOU between CATMA and the City of Burlington envision both of these facilities in addition to two additional ones. Bob will meet with Norm to explain the project’s history.

There was a detailed discussion regarding the site plan, including CCTA geometry/turning radii, CCTA bus stop/pickup under the office overhang, three bus queue curb length, and discussion of CCTA ability to access/egress East Avenue with gate control as well as current or future RT 2/Williston Rd. access/egress. Bob mentioned the potential extension of the College Street Shuttle to the Intercept facility. Meredith expressed concern that we continue to reference relying on transit service to this facility that we are not sure is possible.

5) Review of Updated Facility Layout & Access Plans
David described the circulation plan for autos and buses through the facility. To address issues brought forward by the Ward 1 neighborhood, there will be a restricted access gate from East Avenue (on Catamount Drive).
Alex Halpern of Freeman French Freeman described the facility floor plans and noted changes from the last iteration reviewed by the Steering Committee:

- Removed 18 feet from width of building
- Shifted building east 18 feet to create more vehicle circulating room on west side
- Shifted building north 12 feet to create additional offset between Sheraton and garage
- Total parking spaces = 1,515

Alex reviewed the facility layout and access plan. The group made suggestions for improvements.

Amy has concerns about the resources impacts of the slip lane and access road due to the shifting of the building. By moving the facility to the north, the impacts are greater. If access to the structure doesn’t work, it could change the whole design. Bill Nedde of Krebs & Lansing recognizes that there is vetting yet to be done and it is part of the process to move forward. Amy doesn’t feel she can make an informed decision about the facility’s footprint without understanding more about the impacts of the two access roads. Michele Boomhower of the CCRPC suggested that the footprint can change if the access issues can’t be resolved. David noted that one of the alternatives being evaluated does not include a slip lane or access road adjacent to the identified wetland. Amy was comfortable with this and the group agreed to allow the consultant team to move forward.

**6) Next Steps**

- **Next Steering Committee Meeting (August)**
  - Finalize Traffic Analysis (David)
  - Finalize Facility and Site Layouts (Alex)
  - Finalize and Distribute Ownership & Management Assessment (David)
  - Finalize Cost Estimates & Alternatives Assessment Matrix (David & Alex)
- **Alternatives Presentations (September)**
  - VTrans, Stakeholder Committee, Local Boards & Public
- **Selection of Preferred Alternative by Steering Committee (October)**
- **Draft Scoping Study (November)**
- **Final Scoping Study (December)**

Christine and Diane will distribute a Doodle poll for the Stakeholder meeting and invite the Steering Committee when a date is chosen.

The meeting was adjourned at 2:40 PM.

**The next meeting is Thursday, August 9, 2012 at 1:00PM at CCRPC.**
Project Schedule Overview – July 12, 2012

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1) Welcome, Introductions, and Updates
Bob Penniman, Chair of the Steering Committee, welcomed everyone and introductions were made. The group welcomed Erin Demers back from maternity leave and also welcomed Sai Sarepalli, the CCRPC’s new Transportation Planner.

Michele Boomhower of the CCRPC and Meredith Birkett of CCTA gave a brief update regarding a memo sent from the CCTA Board to the CATMA Board. Meredith asked that the CCTA Board’s memo be included in the notes (see attachment). Meredith explained that the CCTA Board Chair sent a memo to the Intercept Steering Committee and CATMA Board on August 3, 2012 requesting a meeting to discuss CCTA’s concerns with the Intercept facility. The CCTA Board has suggested an August 30th meeting as requested in the memo. Michele will be following up; she wants to be sure that the CCTA Board is comfortable with the project now and in the future.

There was discussion about representation on the Stakeholder Group, as a follow-up to letters sent by Bob Penniman to the Mayor of Burlington and South Burlington City Council. No response has been received. Justin Rabidoux of South Burlington reported that South Burlington is satisfied with its representation on the Stakeholder Group. Erin Demers of the City of Burlington suggested that Sharon Bushor, Ward 1 City Councilor, be invited to join the Stakeholder Group to represent the concerns of the ward. This invitation emerged out of concerns at the public meeting about Burlington’s possible underrepresentation on the committee.
2) Review Revised Facility Layout & Circulation
David Saladino of RSG showed drawings of facility circulation for shuttles, buses, autos, pedestrians, and bicyclists. Bob shared that the UVM Master Plan envisions the Catamount East parking lot as a future building space; it’s important to keep access open to the site.

There was discussion of pedestrian and bike crossings at the western end of facility, the “main entrance.” Amy Bell of VTrans asked if pedestrians are likely to come from the gated East Avenue entrance or from Williston Road. David responded that it’s not clear at this point, but a new bike lane as part of the “third lane at Staples” project might induce demand from Williston Road. Amy suggested that the pedestrian crossing at the main entrance be split into a north and south crossing for safety.

Alex Halpern of Freeman French Freeman shared drawings of the general building massing showing 1,513 parking spaces and 27,980 square feet of leased space (on levels 2 and 3).

The Interstate slip ramp has been reconfigured to move it further from the stormwater pond and to increase the deceleration length and horizontal curve radius. These modifications were made after preliminary discussions on site with ANR and the Army Corps of Engineers about potential wetland impacts. Two retaining walls were added to the slip ramp to mitigate wetland impacts. There will be a meeting with VTrans and FHWA on September 6th to present an overview of the project.

Michele asked if the facility is in compliance with the South Burlington Municipal Plan. There needs to be concurrence between the facility and the adjacent land uses. Justin suggested that Freeman French Freeman discuss this with the City’s Planner, Paul Conner, prior to the Stakeholder Group meeting. FHWA will be looking for compliance with the Municipal Plan for the interstate justification review.

In response to a question from Meredith, Alex described the relocation of the lobby to the center of the building. This allows people parking in the facility to walk to through the lobby to access buses. There is a walkway striped from the parking facility to the lobby.

3) Review of Traffic Modeling Results
David described the four step process for traffic analysis. The estimated facility trip generation is attached to this document. There are no additional parking spaces allocated specifically to UVM because parking for special events is typically needed on evenings and weekends, not on during typical working hours. Michele asked about FAHC’s 600 spaces. Some of these (268) are currently at the Catamount East lot which will no longer be used for parking when this facility is built. Trip distribution was determined based on CATMA survey data for FAHC and Champlain College trips.

The original scenarios to be evaluated include: No Build, Build, Build with Slip Ramp. Although most of the intersections show a decrease in traffic congestion with the facility in place, David estimates increased delays at the US2/Staples/Sheraton Drive intersection with both the Build/Build with Slip Ramp scenarios. Delays are compounded by the closing of the Catamount Drive gate which forces all traffic that could enter or exit off of East Avenue to enter via US 2 instead. There was discussion of allowing eastbound traffic only (potentially during just the morning peak) at the Catamount Drive gate to alleviate some of the congestion.
David suggested revising the scenarios, and the group agreed:

**Revised Scenarios**
1. No Build
2. Build
   2A: Build with Dual Eastbound US 2 Left Turn Lane at Sheraton
   2B: Build with Open Catamount Drive Gate for Eastbound Traffic
3. Build with Slip Ramp
   3A. Build with Dual Eastbound US 2 Left Turn Lane at Sheraton
   3B. Build with Open Catamount Drive Gate for Eastbound Traffic
4. **Project Schedule Discussion & Next Steps**
   A revised project schedule (see attachment) was proposed. It was noted that transit service opportunities have been highlighted on the project schedule. Geoff Slater of Nelson/Nygaard will be undertaking this work. He will meet with CCTA and Bob Penniman. Bob recognizes that CCTA may need supplemental funding for service in the early morning and late evening.

   Since the schedule has been revised, it was decided to postpone the September 19th Stakeholder Group meeting and instead hold a Steering Committee meeting at that time. This will allow the Steering Committee to review the transit materials prior to the Stakeholders’ meeting. The group agreed to provide adequate time to complete the CCTA/transit operational assessment. Pending the pace of this assessment, the Stakeholders may meet in October, followed by local boards in October/November, with public review in January 2013.

   Steering Committee members are welcome to attend the September 6th meeting at VTrans at 8:00AM.

5. **Member Items**
   Meredith asked that that May and July meeting notes be revised. She will email her revisions to the committee for consideration.

   The group adjourned to review the plans. The meeting was adjourned at 2:25PM.

   **The next meeting is Wednesday, September 19th at 10:00AM at CCRPC.**
CCTA requests that the CATMA Board of Directors, Bob Penniman, Michele Boomhower, and Christine Forde meet with the CCTA Board to discuss concerns about the proposed Exit 14 Intercept Facility.

CCTA has two primary concerns: (1) If the facility is to be served by public transit, then how will route changes and/or additional services be funded? and (2) If public transit funds are used to establish this facility, then these funds cannot be used on other public transit priorities in the region.

Concern about item one is heightened because the Exit 14 Steering Committee’s process has not addressed the matter. At a presentation of the Exit 14 Project to the South Burlington City Council one year ago, I officially expressed concern about the characterization of CCTA’s involvement in the Exit 14 Project. In response, CCTA was assured that its concerns would be addressed. However, in the year since, and despite multiple CCTA staff requests for estimates of costs and related funding of public transit service to the proposed facility, there has not been a satisfactory response.

The CCTA Board favors actions and projects that result in growth in the use of public transit. The Board is not convinced that the Exit 14 Intercept Facility will result in such growth. CCTA staff - - at the Board’s request - - has expressed concerns about this point at Exit 14 Steering Committee meetings. The Board is now uncertain about CCTA’s continuing involvement with the Steering Committee and the project as a whole. Without clear information about route changes, additional services, and associated costs, whether CCTA Member Communities will approve changes to serve the facility cannot be addressed.

In February 2011, as the Scope of Work for the Exit 14 Study was developed, CCTA staff requested an analysis of potential transit operations, including who the transit provider would be and how service would be funded. An analysis of transit issues was not included in the Scope of Work. CCTA only agreed to move forward based on the understanding that the Study would include identification and analysis of existing models of ownership/transit operations at similar facilities. In addition, CCTA requested that the Study document the absence of identified funding of transit services at the facility.

Since the scoping discussions, public transit service to the Exit 14 Facility has continued to be publicly identified as a main and critical element. In addition, CCTA has been named as a service provider. Given public transit’s prominence in the project, CCTA believes that questions about routes and funding must now be answered. To move forward with the Exit 14 Study and continue to cite public transit service as a component of the facility without first addressing CCTA concerns is inappropriate.

Finally, Exit 14 Steering Committee members have recently requested that CCTA approach the Federal Transit Administration (FTA) about funding the project. Before the CCTA Board will consider authorizing staff to meet with the FTA about this project, the issues raised in this memo need to be addressed in a way that is satisfactory to the Board and the Member Communities of CCTA that fund its services.

Please contact Meredith Birkett at (802) 864-0211, ext. 17 to arrange a meeting.
## Trip Generation

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| Total                                           | 1,515          | 533 Enter  | 126 Exit   | 659 Total                                                             |                                                                                      |
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<td>Alternatives Presentation Meeting</td>
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<td><strong>Task 7: Draft Scoping Report</strong></td>
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<td>Draft Scoping Report</td>
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<td><strong>Task 8: Final Scoping Report</strong></td>
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<td>Final Scoping Report</td>
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1) Welcome, Introductions, and Updates
Bob Penniman, Chair of the Steering Committee, welcomed everyone and introductions were made. Bob would like to get the project back on track after a brief hiatus.

2. Review Transit/Shuttle Operational Assessment
Geoff Slater of Nelson\Nygaard was tasked with analyzing the potential transit and shuttle operations for the Intercept Facility. His analysis includes three objectives: to determine the most effective way to provide transit/shuttle services between the new facility and users’ destinations; better integration between CCTA and CATMA services; and to strengthen the CCTA system.

There are primary and secondary users of the transit/shuttle service who will be parking at the Exit 14 Intercept Facility. Primary users include Fletcher Allen Health Care (FAHC) with 600 parking spaces and Champlain College with 100 parking spaces. Secondary users include: Champlain College students, downtown Burlington employees, FAHC patients and visitors, special events (First Night, 4th of July, athletic events), University Mall employees, and airport travelers.

Geoff identified and evaluated three service options: 1) CATMA shuttles, 2) CCTA service changes, and 3) a combination of options one and two. Geoff explained each option.

Option 1: CATMA shuttles
Option 1 operates exclusively with CATMA Shuttles between the Exit 14 Intercept Facility and FAHC and Champlain College. The FAHC shuttle would run every 7.5 minutes during peak periods and 15 minutes during off-peak periods. This level of service requires 2 vehicles during the peak period and 1 vehicle off-peak. The operational cost compared to the existing FAHC shuttle system is a net savings of $171,000. The Champlain College shuttle would run at 15 minute intervals all day and would require one additional vehicle. The operational cost for Champlain would be an additional $137,000. The total cost impact of Option 1 is a net savings of $34,000.
**Option 2: CCTA Service Changes**

Option 2 would extend the College Street Shuttle (CSS) to the Intermodal Center and Main Street to allow a connection with CCTA Route 1 (Williston). There would be no change in CCTA Route 1 and a new CATMA shuttle would run to Champlain College. Option 2 would require the CSS to run every 7.5 minutes during peak and 15 minutes off-peak. Six vehicles would be required on-peak and three off-peak. Option 2 would require $856,000 per year in additional operating funds, due to the need to increase service along entire length of the route and the higher CCTA operating cost structure. The Champlain College route would be the same as Option 1, with an operating cost savings of $137,000. The total operating cost impact is an increase of $591,000.

Michele Boomhower of the CCRPC asked if capital costs should be included in this analysis in order to compare them fairly. Meredith Birkett of CCTA agreed. David Saladino of RSG asked if the Quarry Hill shuttle cost should be included as well; Geoff responded that a half-hour headway is assumed in the analysis.

**Option 3: Combination of Options 1 and 2**

Option 3 would extend the College Street Shuttle (CSS) to the Intermodal Center and Main Street to allow a connection with CCTA Route 1 (Williston) with 15 minute service all day. The CSS would be supplemented with the CATMA/FAHC shuttle to allow headways of 7.5 minutes during peak periods and both early morning and late evening service. There would be no change to CCTA Route 1. The Champlain College route would be operated by CATMA.

Option 3 would require the CSS to run every 15 minutes throughout the day and would require three vehicles. The CATMA FAHC shuttle would run every 15 minutes during early morning, peak periods, and evening. During peak periods, the CATMA shuttle would alternate with the CSS for combined service between the Intermodal Facility and FAHC every 7.5 minutes. During early morning and late evening, only the CATMA shuttle would run on 15 minute headways. There would be no change to CCTA Route 1. The Champlain College route would be the same as Options 1 and 2. The operational cost compared to the existing shuttle system is an increase of $169,000 per year.

Bob noted that this option provides the City of Burlington direct service between downtown and the Intercept Facility by adding only one vehicle. CATMA/FAHC would continue to supplement during peak, early morning, and late evening.

Meredith expressed concern that other CCTA communities may not want to contribute to extra service in Burlington. Bob suggested that this could be discussed further if the project moves forward. Michele heard this concern from the CCTA Board. Justin Rabidoux of the City of South Burlington agreed that this is a concern. He suggested that both the capital and operating costs be included in the analysis for a fair comparison. Geoff agreed to do so. There was discussion of the “fare free” policy that has existed in this corridor. This should be noted in the report as a current policy.

Amy Bell of VTrans expressed concern about the use of two different providers on the same route (Option 3) and wondered if it would affect ridership. Meredith responded that regular users would be accustomed to it, but infrequent users may find it confusing. Bob noted that FAHC does not want to be in the shuttle business, especially with yellow school buses. Justin is concerned about weakening the transit identity. Geoff noted that in other cities the buses look the same but there is a notation about the different transit providers in small print on the buses.
Geoff offered a comparison of each option:

**Option 1: CATMA shuttles**

*Advantages*
- Effective service between Intermodal Facility and FAHC and Champlain College
- Lowest cost alternative: - $34,000 per year

*Disadvantages*
- No service to downtown employees for free remote parking
- No connection between CCTA Route 1 and FAHC

**Option 2: CCTA Service Changes**

*Advantages*
- Effective service between Intermodal Facility and FAHC and Champlain College
  - Improves CCTA service with more frequent CSS peak service and frequent connections between CCTA Route 1 and FAHC
  - Increase in CCTA ridership with the CSS estimated ridership to increase from 600 to over 2,100 per weekday and some (undetermined) increase due to connection to FAHC

*Disadvantages*
- Large increase in total operating costs: + $591,000

**Option 3: Combination of Options 1 and 2**

*Advantages*
- Effective service between Intermodal Facility and FAHC and Champlain College
- Free shuttle for downtown Burlington employees
- Improves service for CCTA riders with more frequent early morning/evening CSS and connections between CCTA Route 1 and FAHC
- Increase in CCTA ridership with the CSS estimated ridership to increase from 600 to over 1,500 per weekday and some (undetermined) increase due to connection to FAHC connection to CCTA Route 1

*Disadvantages*
- Cost savings less than CATMA shuttle alternative (+ $69,000 versus - $34,000)

Geoff summarized the analysis as follows:

**Option 1 (CATMA Shuttles):**
- Least expensive, but would not integrate Intermodal Facility into regional transit network

**Option 2 (CCTA Service Changes):**
- Very high increase in operating costs: + $591,000

**Option 3 (Combination of Options 1 and 2):**
- Best integration of new facility into regional transit network
- Meets needs of Hill Institutions
- Significantly increases CCTA ridership
- Increase operating costs by $169,000 per year

Justin requested that all of Geoff’s assumptions be noted in the report. Erin Demers of the City of Burlington asked if capital costs are one-time costs. Geoff responded that a bus generally has a 12 year lifespan. Bob suggested that both capital and operating costs be included in the facility cost.
Meredith offered a memo with comments to Geoff’s report and she summarized her comments into four areas: CCTA’s hourly rate, Capital Costs, Fare Free Services, and ADA Paratransit Services (see attached memo). The CCTA Board is concerned with text and footnotes regarding CCTA’s hourly rate. The current Board policy is to price new service using the fully-allocated hourly rate rather than at an incremental rate. Bob and the CATMA Board disagree with this revision to Geoff’s analysis. Justin suggested that the footnote is important because readers are likely to ask why there is not a discounted rate available. He feels this is an opportunity for CCTA to explain why the fully-allocated rate is appropriate. He feels that eliminating the footnote silences the discussion. Meredith countered that this artificially lowers the rate and CCTA can’t afford to offer service at this lower rate.

Bob doesn’t like having “competing” consultants as CCTA asked Steve Falbel of Steadman Hill Consulting to review Geoff’s analysis. Amy feels it’s fair to include the full cost to CCTA. Michele suggested that if the footnote remains, a note should be made that the CCTA Board policy has changed and a new cost structure is in place. She feels that we need to respect all the communities and their concerns. Geoff feels this change is a very unusual way to use the data and feels that incremental costs are more appropriate.

After further discussion, it was decided that Christine Forde of the CCRPC will work with Meredith, Bob, and Geoff to edit the report.

Meredith’s second point is that the report should include capital costs; the group agreed. Thirdly, the issue of “Fare Free Services” is a concern due to CCTA’s Charter. The Charter requires that communities with fare free services, in this case the City of Burlington and South Burlington, pay the foregone fares to CCTA. The issue emerged as to whether or not fares need to be paid to CCTA if they are receiving a full-cost reimbursement for the service. CCTA would like the Charter requirement to be noted in the report.

Finally, Meredith brought up the issue of paratransit service. In fare free zones, CCTA is not allowed to charge for ADA services. She asked that this issue be considered for options 2 and 3. Bob suggested that this issue can be overcome, as it has been with the Hinesburg service.

Meredith asked Bob why Option 1 doesn’t make sense for CATMA. Bob responded that Option 1 does not address people whose destination is downtown. Erin noted that parking downtown employees at Exit 14 allows more parking spaces for downtown shoppers.

The group discussed the options and decided not to choose one at this point.

3. Project Schedule Discussion & Next Steps

Updated Project Schedule
Steering Committee (November)
- Review Operations & Management, Cost Estimates, Fiscal Pro-forma, and Evaluation Matrix
Alternatives Presentations (December - February)
- Stakeholder Committee, South Burlington City Council, Burlington Transportation, Energy & Utilities Committee, Public Meeting
- Selection of Preferred Alternative by Steering Committee (March)
- Final Scoping Study (April)
Bob noted that the transit operating and capital costs should be included in the facility funding. Meredith agreed; although it’s not clear if these costs are eligible expenses.

The group agreed with the proposed schedule and Erin offered to brief the DPW Commission. Amy is comfortable with the schedule now; but she reserved the right to change it later in case an obstacle arises.

Michele reported on her visit to the CCTA Board on September 18th. The Board would like the 2003 conceptual design for the Intercept Facility; Bob will forward it to Christine. The CCTA Board is concerned about impacts of the Intercept Facility to the LINK service and the opportunity cost of spending limited FTA dollars on this facility rather than other transit needs. Bob noted that CCTA is the highest priority for funding and noted that the City of Burlington is also a grantee for FTA funding.

Bob announced that he is now retired from CATMA and that Justin will Chair the Steering Committee with Erin acting as Vice-Chair. Bob is accessible and available as we move forward. Michele thanked Bob for his service to this project.

The meeting was adjourned at 3:20PM.

The next meeting is Thursday, November 1st at 10:00AM at CCRPC (TENTATIVE)
To: Exit 14 Intercept Facility Steering Committee
From: Meredith Birkett, CCTA Director of Planning & Marketing
Re: Draft Exit 14 Transit Assessment – CCTA Edits
Date: October 15, 2012

On September 21, 2012, CCTA forwarded a list of requested edits and clarifications (see attached) to the Draft Transit Assessment sent to CCTA on September 15, 2012. The revised version of the Draft Transit Assessment sent to CCTA on October 5, 2012 incorporated several of our suggestions. However, CCTA feels strongly there are a few remaining edits and additions regarding important issues that need to be made to the Draft Transit Assessment:

1) **CCTA Hourly Rate** – CCTA requests the removal of text and footnotes commenting on CCTA’s hourly rate. As discussed several times by email and phone with the project consultant and members of the Steering Committee, it is CCTA’s accepted practice to price out new services based on CCTA’s fully allocated hourly rate. This is how we price services for our member communities, third parties, and in grant applications. This practice is also supported by our Cost Allocation Plan and is called for by a current CCTA Board policy. We feel the Exit 14 Transit Assessment is not an appropriate place to comment on or question this practice. Additionally, a memo from a transit consultant offering a third party perspective on using a fully allocated rate in this situation is attached.

2) **Capital Costs** - The proposed extension of the College Street Shuttle increases CCTA’s fleet demand by either 1 or 4 buses, depending on the service scenario. The capital costs of those additional vehicles need to be included in the cost estimates for the service to make them equivalent to the private shuttle costs, which include capital. (See page 4 of the Draft Transit Assessment, which clearly states the private shuttle rate has been increased to $42/hour due to the cost of new vehicles.) CCTA currently pays approximate $390,000 for a 35-ft low floor Gillig, which has a life of 12 years. Therefore, CCTA requests its additional capital costs be added to the Draft Transit Assessment.

3) **Fare Free Services** – CCTA’s Charter includes specific guidance related to fare free services and the cost implications for the communities the fare free services operate in. Because an extension of the College Street Shuttle would introduce fare free service from Burlington to South Burlington, we need to consider the potential financial impact to CCTA as a whole and on our two member communities in particular, or methods to assign those costs elsewhere. CCTA therefore requests this issue be identified as an additional consideration in Transit Alternatives 2 and 3.

4) **ADA Paratransit Costs** - The degree to which an extension of the College Street Shuttle could increase paratransit ridership and costs must be studied, and a revenue stream to cover those costs must be clearly identified before CCTA could move forward with any service agreement. Therefore, CCTA requests that this be included as an additional consideration in Transit Alternatives 2 and 3.
MEMORANDUM

To: Meredith Birkett
From: Stephen Falbel
Re: Use of Fully-Allocated Cost for Service to Exit 14 Intercept Facility
Date: October 10, 2012

A report prepared by Nelson\Nygaard Consulting Associates to examine potential transit service to a proposed regional intercept facility at Exit 14 strongly implies that CCTA’s stated desire to be reimbursed for new service based on a fully-allocated rate (including fixed costs and administrative expenses) rather than a marginal cost rate is not appropriate. In a footnote on page 9, the report indicates that in the past CCTA used a rate based on incremental cost rather than fully-allocated cost, and the text on page 10 states that “if CCTA must be reimbursed for the additional service that it would provide on a fully allocated basis…” The report repeatedly notes that the cost estimate for new service is high because of CCTA’s requirement to use the fully-allocated rate and would be lower using incremental cost. While these statements are true, they imply that CCTA is arbitrarily choosing the fully-allocated rate and that an incremental rate would be more appropriate.

The choice between incremental and fully-allocated cost depends on several factors. A key factor is the magnitude of the proposed service increase relative to base service. If the agency in question is large and the proposed increase is small, so that only one or two additional peak buses are needed compared to an existing pullout of a hundred or more buses, then it would make sense to use incremental cost. Likewise, if the service increase occurs during the off-peak period, so that no new buses are needed and the magnitude of the change is small, then incremental costs are appropriate. Such changes are unlikely to cause the agency to buy more buses or require more staff to deal with the additional planning, marketing, maintenance and other administrative costs associated with the increased service.

The proposed service increase for the Exit 14 Intercept Facility does not meet these conditions. Under Alternative 2, four additional peak buses would be needed and revenue hours would increase by 38 per day. This is an increase of about 9% of the peak pullout and about 11% in the weekday vehicle revenue hours. This level of increase does not qualify as a small change in service. Alternative 2 calls for one additional peak bus and 17 additional revenue hours. The percentage increase in revenue hours would be roughly 5% of the agency total. While smaller, this is still not an insignificant change.

As a rapidly growing agency, with significant increases in peak service deriving from new commuter express routes and increased peak-period service in major trunk lines, CCTA does not have the capacity to absorb further peak service increases without also expanding its physical plant and administrative staff. While incremental cost pricing may be appropriate for large urban transit properties, small agencies such as CCTA are completely justified in using fully-allocated cost to estimate the impact of proposed service expansions.
Interstate 89 Exit 14 Intermodal Intercept Facility
Steering Committee - Meeting Notes

DATE:   Thursday, November 8, 2012
TIME:   10:00 AM
PLACE:   CCRPC, 110 West Canal Street, Winooski, VT
MEMBERS PRESENT: Erin Demers, City of Burlington
Amy Bell, VTrans
Meredith Birkett, CCTA
Michele Boomhower, CCRPC Staff
David Pelletier, VTrans
Justin Rabidoux, Steering Committee Chair, City of South Burlington
Sandy Thibault, CATMA
OTHERS:  Christine Forde, CCRPC Staff
Diane Meyerhoff, Third Sector Associates
David Saladino, RSG

1) Welcome, Introductions, and Updates
Justin Rabidoux, Chair of the Steering Committee, welcomed everyone and turned the meeting over to
David Saladino of RSG.

2. Revised Transit Service Options Report
David S. reviewed the conclusion of the Transit Service Options Report:

- **Option 1**: CATMA Shuttles Only (-$34,000)
- **Option 2**: College Street Shuttle Extension (+$720,000)
- **Option 3**: College Street Shuttle + CATMA Shuttles (+$202,000)

The Final Report will identify all three options with a note that the preferred option will be chosen if
and when the overall project moves forward.

3) Review Operations, Revenue, and Management Options
David S. reviewed the cost estimates, which were updated from earlier versions. Amy Bell of VTrans
noted that VTrans/FHWA often pays for construction, but rarely pays for operational costs of Park &
Ride facilities. There was discussion about whether or not FHWA would fund the operational costs of
the Park & Ride portion of the facility. The FHWA earmark funding designated for improvements at Exit
14 is not eligible to cover operational costs of this facility without legislative action to modify the
earmark language.

It was noted that access control must be in place for a shared-use facility; federal/state funds cannot
be used for a facility that doesn’t ensure the availability of public parking spaces. Justin asked Michele
Boomhower of the CCRPC to follow-up with Chris Jolly of FHWA regarding access control. The group
agreed to include cost estimates for constructing and operating access and control equipment in the
final report.
Sandy Thibault of CATMA is currently surveying 550 Vermont Department of Health (DoH) employees working downtown (who park underground at the Zampieri Building). She suggested the DoH might be interested in utilizing the Exit 14 facility and could provide a future revenue stream for garage maintenance and operations.

There was discussion about the operational cost per parking space for the facility. Erin Demers of the City of Burlington agreed to check with the Burlington Airport to see what they typically allocate per year for routine maintenance in the airport parking garage. Justin suggested that David S. ensure that a capital reserve fund is included in the estimates and explained in the footnote.

In terms of facility management, the only identified party interested in managing the facility is CATMA. The conclusion of the management assessment shows that if the Sheraton Hotel would be satisfied with negotiating its terms of use in a facility operated by CATMA, then CATMA management of the facility would be the simplest and most straightforward option. If the Sheraton Hotel desires a stronger ongoing role, then the development of a public-private partnership between CATMA and the hotel would be the most effective option. Justin suggested that a third option would be “other,” perhaps a private garage operator.

4) Review Construction Cost Estimate
Dave S. reviewed the most current construction cost estimate for the facility (see below). Amy suggested that two of the alternatives will require an Environmental Impact Statement or an
Environmental Assessment; an Interstate Justification Analysis will also be needed if the slip ramp is built. She suggested increasing the contingency under “Project Administration” to cover these potential costs.

There was discussion of adding another column to the spreadsheet for potential funding sources. The group decided that there are too many unknowns and it would not be advisable to add the column. Meredith Birkett of CCTA believes that the use of FTA funds should be discussed and prioritized at the regional level prior to suggesting that FTA funds be used for this facility. The CCTA Board has requested that they be advised if the committee expects to recommend the use of FTA funds for this facility. Michele suggested that she and Justin visit the CCTA Board on November 27th to discuss this issue.

David S. asked if this project is eligible for FTA funding if there is no public transit serving the facility. David Pelletier of VTrans and Meredith believe the project is not eligible if not served by public transit.

Sandy noted that CATMA might be able to help fund the 20 percent required match for construction of the facility.

For the final report, it was decided that a preferred alternative would not be chosen. In terms of the list of funding sources, a general statement will be made with clear limitations noted in the footnotes and/or table. The CCTA Board meeting will inform the final decision about the recommended sources of funds.
5) Discuss Construction Funding Sources & Alternatives Evaluation Matrix
Michele suggested that the modeling has shown that the facility could be served adequately without the slip ramp. The earmark for the slip ramp can be used for general Exit 14 improvements; we know that Exit 14 will need attention in the future. She asked if the Steering Committee would consider repurposing the earmark for other work at Exit 14. The earmark funding was $3.6 million, with $2.1 million drawn down and $1.5 million available. It was decided that the final report will not reference the earmark, but the Steering Committee will keep it in mind as they move forward.

The group turned their attention to the evaluation matrix. Justin asked to delete the “community character” item because of its subjectivity. There was discussion of conformance with the Regional Plan line item. It was decided that this is an internal tool to evaluate the alternatives and the “issues” items aren’t meaningful in this context and should be removed.

Amy noted a few errors to be corrected:
- “Engineering & ROW” - Route 2 is a city street, except within the Interchange. VTrans ROW is impacted only with slip lane options.
- “ROW Impacts” – VTrans isn’t impacted; VTrans manages the land that FHWA owns.
- “Wetlands” Impacts – the wetlands are impacted, although perhaps minimally so.

6) Next Steps
- Alternatives Presentations
  - Stakeholder Committee (November 29th)
  - South Burlington City Council (Justin)
  - BTV Transportation, Energy & Utilities Committee, TEUC (Erin)
  - Public Meeting (late January)
- Selection of Preferred Alternative by Steering Committee (February/March)
- Final Scoping Study (April)

The Stakeholder Committee meeting will be informational with an update on the work that the Steering Committee has done over the past year. The draft presentation will be available for review by Justin and Michele on November 21st with comments due back on November 27th. The final report will not be available for review by the Stakeholder Group at their next meeting. The Stakeholder Group will see a PPT presentation, a meeting agenda, management document, operating/maintenance cost explanation, and alternatives evaluation matrix.

Erin will present to the Burlington TEUC and Justin to the South Burlington City Council. Michele and/or Christine Forde of the CCRPC will attend these meetings.

There was discussion about whether or not to have a public meeting or to announce that the project will not move forward at this time. Justin and Erin are concerned that we made promises to the public to return and therefore we should hold the meeting. The meeting should be at the Sheraton or UVM Davis Center.

The meeting was adjourned at 11:38 AM.
APPENDIX B

Public Meeting Materials
Tonight’s Agenda

- Project Background
- Project Overview
- Summary of Existing Conditions
- Review of Potential Intercept Facility Components
- Next Steps
- Questions and Comments
Project Background

- Identified need to intercept single-occupant vehicle trips on major gateways into Burlington

- Sites identified include South End Neighborhood Transit Center (SENFC) & Exit 14 Facility

- Exit 14 Facility highest rated Intercept Facility in 2011 Chittenden County Park & Ride Plan

- Federal funding secured to investigate SENTC & Exit 14 facilities
**Project Overview**

**Scoping/Feasibility Study:** Solicit public & stakeholder input to identify issues, evaluate alternatives, and develop a preferred alternative.

- **WHAT:** Parking facility and transit center with complimentary office & retail uses; potential slip ramp off I-89 SB
- **WHO:** Users include commuters, airport patrons & special events visitors
Project Overview

Steering Committee

- **City of Burlington**: Erin Demers (*DPW*)
- **City of South Burlington**: Justin Rabidoux (*DPW*)
- **CCTA**: Jon Moore
- **CCRPC**: Michelle Boomhower
- **VTrans**: Amy Bell
- **Federal Highway Administration**: Chris Jolly
- **Federal Transit Administration**: William Gordon
Project Overview

Stakeholder Committee

- **City of Burlington**: David White (*Planning & Zoning*)
- **City of South Burlington**: Paul Conner (*Planning & Zoning*)
- **Sheraton Hotel & Conference Center**: Rob Burnetti
- **Champlain College**: John Caulo
- **Fletcher Allen Health Care**: Dave Keelty
- **Burlington International Airport**: Robert McEwing
- **University Mall**: Heather Tremblay
- **Church Street Marketplace**: Ron Redmond
- **University of Vermont**: Linda Seavey
- **Lake Champlain Chamber of Commerce/GBIC**: Dawn Francis
- **VTrans**: Barbara Donovan (*Public Transit Administrator*)
- **Burlington Business Association**: Kelly Devine
## Difference Between Intercept Facility & Park & Ride

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<th>Characteristic</th>
<th>Facility Type</th>
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<tr>
<td></td>
<td>Park and Ride</td>
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<tr>
<td><strong>Trip Context</strong></td>
<td>Close to Origin</td>
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<tr>
<td><strong>Function</strong></td>
<td>Serves multiple destinations</td>
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<tr>
<td><strong>Geographic Location</strong></td>
<td>Rural or suburban</td>
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<td><strong>Predominant SOV Mode Shift to:</strong></td>
<td>Car or Van Pool, Low Frequency Transit</td>
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<td><strong>Typical Design</strong></td>
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<td><strong>Capacity</strong></td>
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<td><strong>Walk/Bike Access</strong></td>
<td>Desirable but not common</td>
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<tr>
<td><strong>Ownership</strong></td>
<td>Public</td>
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### INTERCEPT

![INTERCEPT Image]

### PARK & RIDE

![PARK & RIDE Image]
Project Purpose & Need Statement

PURPOSE

- ...to reduce parking demand, congestion, vehicle miles travelled, and vehicle emissions in Burlington and South Burlington by intercepting vehicles prior to reaching their final destination and transferring them to a non-single-occupant-vehicle mode...

NEEDS

- Parking demand drives inefficient use of space in dense settings
- Peak period congestion along major commuter routes into Burlington and South Burlington
- Reduce vehicle emissions and improve air quality levels in Chittenden County
- Lack of adequate and convenient mode-transfer facilities for commuters in Chittenden County
- Lack of parking capacity to accommodate large special events
Existing Conditions Assessment

Transit Service

Bike/Ped Links

Traffic Flow & Congestion

Land Use & Zoning

Natural Resources
Existing Conditions Assessment - 2012 Traffic
Existing Conditions Assessment - Natural Resources
Potential Facility Operations & Amenities

Potential Operational Models

- Parking facility & bus loading area
- Parking facility plus complimentary mixed use shell space
  - Retail (*e.g.* cafe, day care, etc.)
  - Office space

Amenities

- Pedestrian bridge to Sheraton
- Real-time transit & airline displays
- Other items including electric vehicle charging stations, bike racks, etc
Defining Parking/Intercept Facility Users

Potential Users - Facility
- Commuters for access to both shuttle buses and carpools
- Airport patrons
- Special events visitors

Potential Users – Shell Space
- Retail, office employees
Next Steps

- **Alternatives Evaluation** *(May - July)*
  - Alternatives: With & without I-89 SB slip ramp to facility
  - Criteria: Costs, natural & cultural resource impacts, traffic implications, ability to satisfy purpose & need, etc.

- **Present Alternatives Evaluation** *(September)*

- **Selection of Preferred Alternative** *(October)*

- **Final Scoping Report** *(December)*
QUESTIONS?

http://www.ccrpcvt.org/scoping/exit-14-intermodal-parking-facility/
Exit 14 Intermodal Intercept Parking Facility Feasibility Study
Public Meeting #1 - Meeting Notes

DATE: Thursday, April 19, 2012
TIME: 7:00 PM
PLACE: Sheraton Hotel & Conference Center, 870 Williston Road, South Burlington
PRESENT: Please see attached list

1) Welcome, Project Background and Overview
Bob Penniman, the Executive Director of the Campus Area Transportation Management Association (CATMA) welcomed those present. Bob described the history of the proposed Intercept Facility. In the 1980s, there was discussion of a potential Interstate 89 off-ramp to the Sheraton and a new parking facility. The construction, in 2002, of Fletcher Allen Health Care (FAHC)’s Renaissance Project displaced 1,000 employee parking spaces to off-campus locations. At that point, CATMA realized that a regional approach to off-site parking with a common shuttle system was needed. This work evolved into the study of Park & Ride and Intercept Facilities throughout Chittenden County. In 2011, the Exit 14 intercept facility was ranked first in priority (for intercept facilities) in the Chittenden County Park & Ride Plan. The purpose of tonight’s meeting is to help us move forward to study the facility’s feasibility. We will have a series of meetings to take input, questions, and comments from the public. Since this process is just beginning, we don’t have all the answers now, but will continue to keep the community informed.

Bob introduced Christine Forde of the Chittenden County Regional Planning Commission (CCRPC). CCRPC is a regional land use and transportation agency that is managing the study. CCRPC brings together representatives of different transportation modes, the public, and community officials to discuss the county’s transportation system. The Intercept Facility work will include a multimodal transportation study to include transit, bikes, pedestrians, and vehicles. Christine introduced Jon Moore from CCTA and Justin Rabidoux from the City of South Burlington, both members of the Study’s Steering Committee.

2) Summary of Existing Conditions
David Saladino of Resource Systems Group (RSG) described the difference between a Park & Ride lot and an Intercept Facility; a Park & Ride lot captures commuters close to their homes and provides transit/shuttle service to their workplace. An Intercept Facility is located closer to the final destination; commuters (and others) are offered a shuttle to their destination, thereby preserving parking at their destination (often downtown).

David described this work as a feasibility study to identify fatal flaws. The initial vision is of a parking facility, likely multi-level, with transit/shuttle services and possible office/retail complementary uses. There is potential for a slip ramp off of southbound Interstate 89 to serve the facility from the north. The study is managed by a Steering Committee and Stakeholder Group and David provided their names and affiliations.
The draft “purpose and need” of the facility is to reduce parking demand, congestion, vehicle miles travelled, and vehicle emissions in Burlington and South Burlington by intercepting vehicles prior to reaching their final destination and transferring them to a non-single-occupant-vehicle mode. The need is multifaceted:

- Parking demand drives inefficient use of space in dense settings
- Peak period congestion along major commuter routes into Burlington and South Burlington
- Reduce vehicle emission and improve air quality in Chittenden County
- Lack of adequate and convenient mode-transfer facilities for commuters in Chittenden County
- Lack of parking capacity to accommodate large special events

The **Existing Conditions Assessment** analyzes transit service, bike/pedestrian links, traffic flow and congestion, land use and zoning, and natural resources. Bob explained that the 2012 traffic conditions assume completion of the “third lane” on Route 2/Williston Road in front of the Staples Plaza. In 2005, Vermont received a $3 million federal earmark to build this lane and construction will start this summer. David showed a map of natural resources around the site including possible archeologically sensitive areas. The facility would be built in the same footprint as the existing surface parking lot behind the Sheraton. Potential users include commuters, airport customers, and special events visitors.

Next Steps:
- Alternatives Evaluation (May – July 2012)
  - Alternatives: with & without Interstate 89 southbound slip ramp to facility
  - Criteria: costs, natural & cultural resource impacts, traffic implications, ability to satisfy purpose and need, etc.
- Present Alternatives Evaluation (September 2012)
- Selection of Preferred Alternative (October 2012)
- Final Scoping Report (December 2012)

3) Comments & Questions

Neil Carr, Spear Street, South Burlington. I’d like to know if you’ll have a website and will it be updated with information? Bob: Yes. We have a dedicated web page at the CCRPC ([http://www.ccrpcvt.org/scoping/exit-14-intermodal-parking-facility/](http://www.ccrpcvt.org/scoping/exit-14-intermodal-parking-facility/)).

Sophie Quest, South Burlington. I live within walking distance of this site. We know at some point there will be fewer cars on the road because there won’t be much oil left, but we don’t know when that will happen. If you knew that time was coming soon, would you be building an enormous home for cars? Bob: Our transportation modeling looks out 20 years and there is ongoing dialogue about growth, especially of single occupancy vehicles.

Jared Wood, Henry Street, Burlington DPW Commissioner. Centennial Woods Natural Area was created 10 years ago and represents about 1/3-1/4 of Centennial Woods. What is the impact on Centennial Brook, Centennial Woods, Winooski River, and Lake Champlain? How does this benefit the students at UVM? This is why Centennial Woods was created – to benefit the students. It gets nibbled away over the years and it’s much smaller than it was originally. This project has been said to have no impact on Centennial Woods. I find that difficult to believe because of the stormwater that would have to go through the Woods. These are fundamental questions that should be considered. Bob: In terms of stormwater management, UVM and the Hill Institutions have led the way in building state-of-the-art facilities and will continue to do so. Justin Rabidoux of the City of South Burlington explained that
when a surface parking lot turns into a parking structure, stormwater must be treated through a municipal sewage treatment plant – runoff cannot move into the stormwater system. So, parking structure runoff is treated which could actually reduce the stress on the existing system, since the existing lot flows into the stormwater system, not a municipal treatment plant. Bob provided a history of Centennial Woods.

Rachel Garwin, UVM Student. An important part of the scoping process should be to treat the facility as part of the 65 acre site. The history of farmland becoming forest is an important story that has unfolded in our backyard. Bob: I can’t speak to UVM policy. But Centennial Woods is an intense study area for UVM students. I suggest you share your concerns with Dean Watson and Rick Paradis.

Erhard Mahnke, Grove Street, Burlington. I was on the Burlington City Council when UVM dedicated the land for Centennial Woods. We pushed hard to include the largest parcel possible; we suspected they were interested in future development. I would still like to see UVM preserve the remaining acreage since building along the periphery diminishes the experience of the Woods. Bob: Some of this discussion is about UVM policy and City zoning rules that are not directly related to this project.

Barb Nolfi, Burlington. I’d like to encourage a closed bike parking facility so people could drive into the facility and know their bikes are covered and safe.

Tom Derenthal, Burlington. How many people need to use this facility for it to be successful? How do you measure success? Bob: We don’t have those answers yet. We have an existing demand of 600 spaces for FAHC employees that are parking in the street network that could be moved to this facility. We are trying to assess the need with the Stakeholder Group and Steering Committee. The demand is not only those coming into Burlington but also those leaving Burlington to go to work.

Chris Herris, employee of the Sheraton. You show the entrance via the slip lane from the Interstate. What about exit of the facility? Bob: the slip lane would be used primarily in the morning. Traffic flows exiting on a normal weekday would be metered based on transit/shuttle use.

UVM Student. Who owns the property and how much would it cost to buy it? How much money do the Stakeholders have to gain? Bob: UVM owns the land and provides a long term lease to the owner of the Sheraton. The agreement envisioned the possibility of building a parking structure on it.

Don Schramm, Cohousing on East Avenue. What about the old commuter lot that was built for UVM that is now leased to FAHC? Could those parking spots be removed and the 267 FAHC spots moved to the facility? That would help Centennial Woods.

Barbara Bull. I’m confused. There are currently cars parked at this site, where will they go? Bob: They will be accommodated in this facility.

Marie Ambusk, South Burlington. Please talk about the facility when it is fully in force, how does the transportation system work to move people to where they need to go? Justin: Part of the process is to look at users and existing and new transit services. We’ll find out.

City Councilor Sharon Bushor, East Avenue. I have a series of concerns:
- Burlington’s representative to the Steering Committee is on maternity leave and I would like to be sure that the City has representation.
• My section of Burlington is in an odd situation – we’re concerned about East Avenue congestion and it doesn’t always work when we predict how people will travel.

• I want the issue of air quality as it pertains to idling considered.

• I want to know how many parking spaces will be built.

• Regarding stormwater through the sewer system. Will this use Burlington’s system?

• I would like to have a resident from Ward 1 on the Stakeholder Group because of the potential impacts to the neighborhood.

• I like the idea of a day care center in the facility, but where will the children play? I like some of the ideas but they need to be well thought out. These things matter.

I’m not a naysayer but I have reservations about the facility. I’m thankful that you’re starting these public meetings – do more meetings, some say it’s overkill, but I think it’s important to get input often.

Justin: The facility would be served by South Burlington’s newly upgraded sewer facility.

Rick Hubbard from South Burlington. Facilities like these, while arguably needed, stay for a long time. What is an appropriate planning horizon – 20 years or beyond? People might come in on the Interstate and might want to bicycle toward South Burlington’s City Center. Could you incorporate planning about how that would happen? Have you looked at other parking lots in other areas to see if this is needed?

Justin: The CCRPC recently looked at a countywide Park & Ride, intercept facilities, and surface lots. That information is on the website (http://www.ccrpcvt.org/library/studies/Parknride_InterceptFacility_FinalPlan_20110615.pdf)

Jessica Louisos, South Burlington Planning Commission. One of the barriers as a bicyclist from South Burlington is the on/off ramps at the Interstate. For those of us who want to go downtown, can there be a better way to cross the highway? You also mentioned Park & Ride lots – we don’t have any – could this facility act as a Park & Ride for those leaving the area? Could it function like the Cherry Street station?

Justin: Yes, this could be a Park & Ride. The road widening project will incorporate on-road bicycle lanes. Over time there will be incremental improvements to improve bicycling facilities in the area.

Richard Single, near East Avenue. I’m concerned about the issue of increased bus traffic and particularly idling of buses in the winter time. Also, how does traffic exit from the facility? Justin: We don’t have that answer yet but we’ll look at the alternatives. Forde: We will analyze air quality. This is not a transit center/hub; there won’t be bus transfers thereby limiting idling.

David Grover, East Avenue. You mentioned the South End Neighborhood Transit Center (SENTC) as an example. What’s the status of that project? Are there other examples elsewhere? Bob: SENTC went is on hold due to funding. We will document other examples as we move forward.

Liz Brownlee, Lakeview Court, Graduate student UVM. Could there be a student on the Stakeholder Group? Thank you for having a meeting to learn and share. I’m from Indiana – things that are innovative and exciting don’t happen there. In Vermont, you grab and do innovative things and put money behind them. Because of that, I challenge you to look for better solutions – are there more things we can do than accommodate cars? Bob: For those of you who are interested in joining the Stakeholders, work within your organizations – like the Student Life Office and Planning Office.

Alexander Kiminsky, Chase Street, UVM student. I did some research regarding Centennial Woods. I walked the site and over to the wetland which is very rich soil, but it’s all invasive species, poplars, and lots of oil slicks. I couldn’t find a spot of water without oil slicks. What are you going to do to make sure this site is better?
Bernie Paquette, South Burlington. Have you considered some kind of metering that would alleviate the exit flow at peak times?

City Councilor Ed Adrian. I’m pleasantly surprised and want to thank the students for coming tonight. I spoke to some experts and they told me that this will encourage more cars in the area and may not be in conformance with State Climate Action Plan. Is that true? How would you address that? Justin: Federally-funded projects have to conform with local, regional, state plans.

Pat Seelan, Burlington. If you want people to use bikes, you need to provide the infrastructure for people to do it in a safe way. East Avenue is really intimidating. We’re not on the leading edge – this is an opportunity.

Pat Chicurly, UVM student. I studied the Richmond Park & Ride. More people use it to carpool with coworkers than for any other reason. How would you get people to the new facility the way you want them to and not for short trips? This big structure looks good, but it’s for single occupancy vehicles. Why not work outside the city and encourage carpooling and work programs and education. Then you wouldn’t need this massive structure in the first place. Justin: These are all TDM management ideas. This process will look at TDM opportunities and trip reduction.

Katelyn Barre, UVM student. You said one of your needs was to reduce emissions. How much energy will be used to build the structure and how will you offset these impacts?

Bill Keeton, Teacher in the UVM Forestry Program. Those of us at the Rubenstein School are concerned about the natural area. I encourage you to complete as comprehensive an assessment as you can. Look not just as mitigation but also at alternatives. There may be another location for this facility.

Patrick Kinner, East Avenue. I want to promote walk/bike/running. We need infrastructure to accommodate any increase in those things. My primary concern is that we’ll have hundreds more cars and people traveling through our neighborhood. Do you plan to do a health impact assessment for those of us who live there? Justin: We will assess air quality. We’ll see about a health impact assessment.

Mike Young, Dover Street, South Burlington. Who pays for this structure? Who does it belong to and who will manage and maintain it? Will you charge fees? Will whoever owns it pay taxes? Justin: We’ve had the same questions since day one. This process will determine those answers.

Julie Coffey, UVM student at Rubenstein. Has there been a study done to determine where FAHC employees live? Could we get a bus to bring them to work so we don’t have to build this? Can’t you intercept people before they get to work? Bob: CATMA has surveyed students and employees of the Hill Institutions for over 10 years. We have very good data on where people live and work. That information was fed into all the transportation studies. Justin: Regionally, there is support for a Park & Ride in Williston, but those folks don’t want it there. Any type of facility intrudes on someone’s life.

Becky Cushing, Graduate student at UVM. Who makes the final decision and is there a public process? Bob: This is a feasibility study only; the result will be a preferred alternative. That doesn’t mean anything will be built – we’ll move to that later after considering ownership and funding. Federal funds require us to do due diligence and answer these questions.

Stephanie Drozd, UVM student. Could you have several small facilities rather than one large one? Bob:
There is a discussion about taking some of the extra money from the SENTC and moving it here. Small and large facilities are included in the Park & Ride Study: [http://www.ccrpcvt.org/library/studies/Parknride_InterceptorFacility_FinalPlan_20110615.pdf](http://www.ccrpcvt.org/library/studies/Parknride_InterceptorFacility_FinalPlan_20110615.pdf)

Beckah Gordon, South Burlington. With this facility, it seems like those outside of Burlington will still be traveling the majority of their trip – the facility won’t improve air quality.

Nicole Gretowski, Winooski. I live in Winooski and commuted to the Islands for two years. We need buses and carpooling. I don’t think we can wait 10 years for this project. I’ve tried to find places to park for carpooling – hotels, supermarkets, etc. Available parking would help alleviate problems now. Bob: there are carpooling programs to help match people up. Nicole: We had a successful carpooling program but we didn’t have places to leave our cars.

Bob Marcotte, Essex. I watch buses in Essex Junction and other parts of state with only one or two people on them and we’re wasting a lot of money on these big buses. I don’t think you’ll get people to take the bus downtown. You could make that exit so you wouldn’t have to go to Route 2. And, you could keep on going and be able to go to the hospital without touching Route 2. Get traffic on Route 2 moving. You could put a ramp over Route 2 to FAHC.

Ryan, Lakeview Court. You mentioned the alternatives including with a slip ramp and without. I’d love to see different numbers of parking spaces; if we build it they may not come. One alternative could look at 100 spaces at the facility and removing 100 spaces out of downtown – to force people to take the shuttle bus. And, look at good biking facilities that would encourage bicycling. Justin: One idea is to have employers require employees to park further away or take different modes. Bob: This takes good TDM programming, like the CATMA unlimited access program where Champlain and UVM students ride CCTA for free.

Teage O’Connor, Teacher at UVM. A lot of my students are here. We have moments of magic that take place on the edges of Centennial Woods. We set up a camera at the proposed off-ramp. The camera captured a rabbit and a deer. As we increase parking facilities we decrease the magic.

Jonathon Downs, South Burlington. In the traffic modeling, will you look at latent demand? If we succeeded in putting the 600 FAHC employees in the garage instead of on the road network, this would be a better place because it would be easier to move around and park downtown. Bob: That’s part of the modeling. Justin: When you eliminate a parking space, the land can then be used for something else.

Colby McCree, Elmwood Avenue. I’m a resident who is a downtown pedestrian. I strongly support getting cars out of downtown and making it more pedestrian friendly.

Erhard Mahnke. If the facility primarily serves the institutions and their employees, I would be concerned that funding for this facility would be diverted from other things.

A woman commented that the building construction should encourage sustainability-minded ideas like green roofs, etc.

Sharon Bushor. Please list the environmental team members on the website. David introduced the RSG team – Alex Halpern of Freeman French Freeman, Bill Nedde of Krebs & Lansing, Geoff Slater of Nelson/Nygard, Gilman and Briggs (wetlands), and the UVM Consulting Archeology Program.
Tom Derenthal. Please post comments on the website. Christine responded that the site is under construction. Bob noted that the CCRPC might consolidate the comments. However, we welcome comments through the website or the comment sheets available at the meeting. Also, Channel 17 taped the meeting.

Liz Brownlee loves the “alternatives” language and asked if a “do nothing” alternative will be studied. Bob responded in the affirmative.

Bob thanked everyone for coming and the meeting was adjourned at 8:55PM.

Additional Comment Received at the Meeting:
Please plan for a biking tunnel going east! D. Bedinger

Participants:

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Presenters: Bob Penniman, CATMA (and Steering Committee Chair); Christine Forde, CCRPC; David Saladino, RSG
Steering Committee Members: Justin Rabidoux, City of South Burlington; Jon Moore, CCTA
Stakeholder Group Members: Paul Conner, City of South Burlington; Bob McEwing, Burlington International Airport
Consultant Team: Bill Nedde, Krebs & Lansing; Geoff Slater, Nelson/Nygaard; Alex Halpern, Freeman French Freeman; Diane Meyerhoff, Third Sector Associates
Archaeological Resources Assessment for the proposed I-89, Exit 14 Slip Lane and Intermodal Intercept Parking Facility Study, South Burlington, Chittenden County, Vermont

Submitted to:

David Saladino, P.E.
Senior Project Manager
Resource Systems Group, Inc.
55 Railroad Row
White River Junction, VT  05001

Submitted by:
Charles Knight, Ph.D.

University of Vermont
Consulting Archaeology Program
111 Delehanty Hall
180 Colchester Ave.
Burlington, VT 05405

Report No. 659

August 26, 2011
Archaeological Resources Assessment for the proposed I-89, Exit 14 Slip Lane and Intermodal Intercept Parking Facility Study, South Burlington, Chittenden County, Vermont

Project Description

The Chittenden County Metropolitan Planning Organization (CCMPO), in association with the Campus Area Transportation Management Association (CATMA) and the cities of Burlington and South Burlington proposes the I-89, Exit 14 Slip Lane and Intermodal Intercept Parking Facility Study, South Burlington, Chittenden County, Vermont (Figure 1). The proposed exit ramp project will construct a new interstate Slip Lane and an Intermodal Intercept Parking Facility at Exit 14 in South Burlington, Vermont. The proposed Intermodal Intercept Parking Facility site is on the current footprint of the northern parking lot serving the Sheraton Conference Center. This parking lot is adjacent to the regional bike and pedestrian network and is currently land-leased from the University of Vermont. A conceptual design study has been completed for an Intermodal Intercept Parking Facility estimating a minimum of 800 net new parking spaces for a minimum total of 1,200 shared parking spaces within the new Intermodal Intercept Parking Facility. The proposed Exit 14 slip lane will enter the Intermodal Intercept Parking Facility from the north, directly off of I-89.

The University of Vermont Consulting Archaeology Program (UVM CAP) conducted an Archaeological Resources Assessment (ARA) of the Area of Potential Effects (APE) for the proposed Exit 14 Slip Lane and Intermodal Intercept Parking Facility Study as part of the Section 106 permit review and several areas were identified as sensitive for precontact Native American sites.

Study Goal

The goal of an ARA (or “review”) is to identify portions of a specific project’s Area of Potential Effects (APE) that have the potential for containing precontact and/or historic sites. An ARA is to be accomplished through a “background search” and a “field inspection” of the project area. For this study, reference materials were reviewed following established guidelines. Resources examined included the National Register of Historic Places (NRHP) files; the Historic Sites and Structures Survey; and the USGS master archaeological maps that accompany the Vermont Archaeological Inventory (VAI). Relevant town histories and nineteenth-century maps also were consulted. Based on the background research, general contexts were derived for precontact and historic resources in the study area.

Archaeological Site Potential

According to the state archaeological site inventory the closest precontact Native American site is VT-CH-51, which is located 2 km to the southwest of the southern terminus of the project parcel (see Figure 1). VT-CH-51 was identified from Woodland period pottery fragments recovered from a local collector in the area. Little else is known about this site. At
least one precontact Native American site, VT-CH-663, is known from the northern edge of centennial woods in the vicinity of the UVM baseball field, which is related to the project area by the drainages through the woods. The entire centennial woods drainage area is highly sensitive for precontact Native American sites. The area is criss-crossed by deeply incised tributaries of the Winooski River, interspersed with level, sandy knolls and terraces. These sandy knolls and terraces are prime locations for Native American habitation, since the Winooski River was a major thoroughfare between Lake Champlain in the west and the Green Mountains to the east, especially in the vicinity of the Winooski Falls. As a result, any intact, level landform within the proposed project area is likely archaeologically sensitive. A historic aerial photograph from 1963, taken shortly after the construction of the I-89 Exit 14, indicate that much of the Exit 14 Slip Lane alignment to be intact (Figure 3).

**Desk Review**

As part of the desk review, the UVM CAP utilized the Vermont Division of Historic Preservation’s (VDHP) predictive model for identifying precontact Native American archaeological sites. The proposed project scores 40 on the Predictive Model, due to its location within 90 m of a permanent stream (12), within 90 m of a head-of-draw (8), within 90 m of a stream confluence (8), and within 90 m of a wetland (12). In addition to the paper-based predictive model, the desk review uses a Geographical Information System (GIS) developed jointly by the UVM CAP, and its consultant Earth Analytic, Inc., which operationalizes the paper-based model. It does this by applying the VDHP’s sensitivity criteria to all lands within the State of Vermont. In these maps, archaeological sensitivity is depicted by the presence of one or more overlapping factors, or types of archaeological sensitivity (i.e. proximity to water, etc.). Portions of the proposed Intermodal Intercept Parking Facility site are located in an area that exhibits eight overlapping sensitivity factors, which are Drainage, Waterbody, Wetland, Stream-Waterbody confluence, Head-of-draw, Stream-confluence, Kame Terrace and Level Terrain (see Figure 1).

**Field Inspection**

A field inspection of the project area was carried out on August 25, 2011 by Dr. Charles Knight, Assistant Director of the UVM CAP. Knight walked the entire project area taking soil cores throughout. Several level areas were identified as archaeologically sensitive. Area #1 is the large meadow immediately northeast of the existing parking lot that will become the proposed Intermodal Intercept Parking Facility. The level area extends to the VTrans fence along the eastern limits of the project area and north to the woods (see Figure 4). This level meadow was currently covered in 5 foot tall golden rod. Area #2 is located along the north edge of the project area, on a small, level knoll top that is bordered by deeply incised channels of a major wetland and tributary of the Winooski River on either side (see Figure 4). Finally, Area 3 was identified immediately north of the intersection between Corrigan Drive and the northern exit road from the Sheraton Hotel. Soil probes in all three areas indicated sandy soils throughout that appeared to be intact. No fill or noticeable disturbances were recognized in the soil probes, although they appeared to lack a discernible A Horizon or plowsone in places.
Conclusions

The Chittenden County Metropolitan Planning Organization (CCMPO), in association with the Campus Area Transportation Management Association (CATMA) and the cities of Burlington and South Burlington proposes the I-89, Exit 14 Slip Lane and Intermodal Intercept Parking Facility Study, South Burlington, Chittenden County, Vermont. The UVMCAP conducted an Archaeological Resources Assessment as part of the Section 106 permit review and identified three discrete areas as archaeologically sensitive for precontact Native American sites. Soil probes indicated that the level portions of the project area north of the existing conference center parking lot were not disturbed by the construction of Exit 14 and therefore, they may contain archaeological sites. Since these landforms are highly archaeologically sensitive and will be disturbed by the proposed project, a Phase I site identification study of each of these three archaeologically sensitive areas is recommended unless they can be avoided.

Please feel free to contact me at the UVM CAP if you have any questions or comments.

Charles Knight, Ph.D.
Assistant Director
Figure 1. Map showing the location of the proposed I-89, Exit 14 Slip Lane and Intermodal Intercept Parking Facility Study in relation to archaeological sensitivity factors, South Burlington, Chittenden County, Vermont.
Figure 2. Map showing the location of the proposed I-89, Exit 14 Slip Lane and Intermodal Intercept Parking Facility Study, South Burlington, Chittenden County, Vermont.
Figure 3. Map showing oblique aerial photograph from 1963 of the recently constructed Exit 14, with the proposed Slip Lane area marked. Photograph is looking north/northwest.
Figure 4. Oblique satellite photograph of the project area indicating the location of the three archaeologically sensitive areas for the proposed I-89, Exit 14 Slip Lane and Intermodal Intercept Parking Facility Study, South Burlington, Chittenden County, Vermont.
Subject: Exit 14 Intercept Facility

Dear David,

Last Friday I visited the project area for the Exit 14 Intercept Facility to investigate environmental constraints, principally wetlands, fish & wildlife habitats and endangered or threatened species.

WETLANDS. The main constraints to this project are wetlands. Beginning at the northern end of the project, there are flat bottomed ravines along un-named tributaries to the Winooski that are characterized by emergent wetland vegetation (principally reed canary-grass and cat-tails). Where two of these streams pass under the Interstate, the wetlands are at the toe-of-slope, about 75 feet from the interstate fence. Wetland conditions continue upstream along the watercourses toward the Sheraton.

During previous work in this area (in 2001), the wetland in the valley between the Sheraton and Fletcher Allen Parking Lots was identified; in the intervening decade, wetland conditions have developed on the slope below the Sheraton Lot, apparently as a result of stormwater discharge. The upper section of this wetland lies within 35 feet of the northwest corner of the parking lot. Vegetation in this area includes cat-tails at the upper end, a wide stand of reeds at mid-slope, and water fox-tail on lower slopes as the wetland merges with the main wetland. The approximate location of this wetland complex is shown on Photo 1. Although the complex is not shown as a significant or Class Two wetland on the Agency of Natural Resources Environmental Interest Locator Map (enclosed), under the revised Vermont Wetland Rules it would be considered Class Two because of its size (over 0.5 acres), its association with a stream, and the fact that it is of the same type as those shown on the Vermont Significant Wetlands Inventory Map. As such the entire wetland and a 50-foot buffer zone around it is protected under provisions of the Vermont Wetland Rules, and a permit from ANR would be needed for any non-allowed uses.
Photo 1. Approximate location of jurisdictional wetlands between the Sheraton Parking Lot (bottom) and Fletcher-Allen Parking Lot (top).

**FISH & WILDLIFE HABITATS.** Although the project area is bound by the Interstate, the busiest interchange in the state, and extensive commercial and institutional development, it is part of an unusually large “natural” area for the Burlington area. The University’s Centennial Woods and adjacent acreage provide a wide variety of habitats: upland forest, narrow shrub- and emergent wetlands along the dissecting stream network, and open land in such areas as powerline corridors. Land between the Fletcher-Allen parking lot and Patchen Road covers about 150 acres, and additional similar habitat is found east of I-89 and north of Patchen Road toward the Winooski. This area likely provides habitat for a diverse wildlife community ranging from deer and many other mammals, and birds typical of this part of Vermont. The Agency’s Environmental Interest Locator Map indicates that there is a significant “terrestrial” natural community in Centennial Woods and that a rare animal species also occurs there (these are indicated by the large green circle and the smaller green circle, respectively). Both of these features are located to the north of the hospital parking lot, and therefore would not be affected by the proposed Intercept Facility.

**ENDANGERED & THREATENED SPECIES.** No species listed on either the state or federal endangered species lists is recorded from the project area, although listed species are known from habitats along the Winooski River and in the southern end of the UVM campus.
CONCLUSIONS. As shown on the Study Area map, part of the slip lane alignment passes along the northern side of the Sheraton Parking Lot, through an area that includes jurisdictional wetland. Therefore wetland permits from the Vermont Agency of Natural Resources will be required for this project if non-allowed activities occur in the identified wetlands or in the protected 50-foot buffer zone surrounding them. Because the wetlands are considered "waters of the United States", permits would also be needed from the U.S. Army Corps of Engineers for any dredge or fill activities in the wetlands themselves.

Sincerely,

Errol C. Briggs

ECB/s
Encl.
The purpose of the meeting was to introduce the project to the State Wetlands Office and the Army Corps of Engineers regarding possible impacts to wetlands. Errol Briggs, from Gilman & Briggs Environmental, delineated the wetlands, and Krebs & Lansing survey located the wetland and drafted the location on the proposed plans. Bob Penniman, working with RSG, presented two alternative site plans, each showing a different slip lane design from Interstate 89 to the Intercept Facility.

One of the slip lane options involved greater wetland impacts along the northerly extend of the Interstate as well as closer to the Intercept Facility. This was caused by a larger radius on the exit ramp.

The second design had a much shorter slip lane transition zone and a much shorter radius to approach the Intercept Facility. There may be some future concerns regarding the need for a longer slip lane and a larger radius for safety reasons. The second design also encroached on the existing Sheraton stormwater pond. It was also discussed at the meeting that the Sheraton had a separate project to upgrade the existing stormwater facility that would be completed by the end of 2012.

In summary, both the State Wetlands Office and Army Corps indicated final review and approval can only be provided on construction plans, but recommended that the project redesign the slip lane so that it is both safe and minimizes wetland impacts. The option of implementing retaining walls along the Interstate or exit ramp was discussed.
APPENDIX D

Parking Demand Assessment
<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Estimated Facility</th>
<th>Parking Demand</th>
<th>Peak Demand Period</th>
<th># Parking Spaces</th>
<th>Enter AM</th>
<th>Enter PM</th>
<th>Total</th>
<th>Exiting AM</th>
<th>Exiting PM</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Public</td>
<td>Public</td>
<td>200 spaces</td>
<td>Weekdays 6 AM-6PM</td>
<td>150</td>
<td>25</td>
<td>25</td>
<td>79</td>
<td>40</td>
<td>119</td>
<td>53</td>
</tr>
<tr>
<td>City of South Burlington</td>
<td>Burlington</td>
<td>50 spaces</td>
<td>Not immediate – pending City Center development</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>City of Burlington</td>
<td>Burlington</td>
<td>200 spaces</td>
<td>Weekdays 6 AM-6PM</td>
<td>150</td>
<td>0</td>
<td>0</td>
<td>79</td>
<td>40</td>
<td>119</td>
<td>53</td>
</tr>
<tr>
<td>Sheraton Burlington Hotel &amp; Conference Center</td>
<td>Sheraton</td>
<td>450 - 900 spaces</td>
<td>Conferences and events scheduled throughout the year. Full demand anticipated 3-4 times per year</td>
<td>450</td>
<td>750</td>
<td>900</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>Fletcher Allen Health Care</td>
<td>FAHC</td>
<td>800 spaces</td>
<td>Weekdays 6 AM-6PM</td>
<td>600</td>
<td>0</td>
<td>0</td>
<td>272</td>
<td>34</td>
<td>306</td>
<td>44</td>
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<tr>
<td>University of Vermont</td>
<td>UVM</td>
<td>500-1000 spaces</td>
<td>For scheduled special events. 100 events, 100 conference/seasonal conference/seasonal</td>
<td>0</td>
<td>750</td>
<td>750</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Champlain College</td>
<td>Champlain</td>
<td>50-100 spaces</td>
<td>Weekdays 6 AM-6PM</td>
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<td>0</td>
<td>45</td>
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<td>7</td>
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<td>Burlington International Airport</td>
<td>BTV</td>
<td>100 spaces</td>
<td>February &amp; March</td>
<td>0</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>University Mall</td>
<td>UMall</td>
<td>100 spaces</td>
<td>November &amp; December</td>
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<td>0</td>
<td>0</td>
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<td>Retail Shell Space</td>
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<td>0</td>
<td>9</td>
<td>1</td>
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<td>1</td>
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<tr>
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<td>0</td>
<td>49</td>
<td>6</td>
<td>55</td>
<td>10</td>
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<td><strong>TOTAL:</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>1,515</strong></td>
<td><strong>1,525</strong></td>
<td><strong>1,775</strong></td>
<td><strong>533</strong></td>
<td><strong>126</strong></td>
<td><strong>659</strong></td>
<td><strong>169</strong></td>
</tr>
</tbody>
</table>

**EXISTING SPACES (SHERATON):** 1,365

**NET NEW SPACES:** 1,884
APPENDIX E

Traffic Analysis