The work that provided the basis for this publication was supported by funding under an award with the U.S. Department of Housing and Urban Development. The substance and findings of the work are dedicated to the public. The author and publisher are solely responsible for the accuracy of the statements and interpretations contained in this publication. Such interpretations do not necessarily reflect the views of the Government.
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1 INTRODUCTION

The Town of Manchester, with a population of just under 60,000 people, is located about 10 miles east of Hartford. Historically, Manchester was home to the Cheney Mills, makers of velvet and silk materials located in the south-central part of town. As the community transitioned away from its manufacturing base, it has become home to several important destinations including the Buckland Hills shopping area, a multi-million square foot retail, residential, and entertainment area that includes the largest retail mall in the state.

As a close suburb, transportation and public transit connections between Hartford and Manchester are an important part of the Town’s infrastructure and economic development. As a community of some 60,000 people, mobility within the Town is also essential to community development, as are connections to neighboring towns.

Currently, there are several CTTRANSIT services that serve the Manchester area, including routes that provide commuter service to Hartford, routes that serve the Buckland Hills area and a handful of routes that offer local connections. With a few exceptions, the transit routes are part of the broader CTTRANSIT network, which is designed as a radial network, with an orientation towards bringing people to/from Hartford. While there are some routes that offer local and/or suburb to suburb connections, most of the local and suburban connections are not the primary focus of the route. Indeed, this is the case for Manchester; there are several routes that serve Manchester, and many of them are part of the radial network connecting into downtown Hartford.

The Town of Manchester has expressed an interest in developing alternative transportation solutions and identified a need for better public transportation service and connections. This need reflects existing conditions as well as in the context of longer term goals that call for a regional public transit network that includes regional rail, bus rapid transit and express services.

The Capital Regional Council of Governments (CRCOG) together with the Town of Manchester previously looked at these issues as part of other planning studies, several of which made recommendations to improve bus service in Manchester by developing:

- A transit hub at the Buckland Park-and-Ride Lot
- A circulator bus for the area around The Shoppes at Buckland Hills Shopping Center
- Express service between Manchester and the corporate office area in Windsor

This study, the Manchester Transit Study, is intended to examine opportunities to improve transit service in the Town of Manchester given other new and planned transit services in the area. Within this objective, the study will specifically consider the feasibility of restructuring the Manchester transit routes, potentially including a transit hub in the vicinity of The Shoppes at Buckland Hills (the Shoppes).

This study was initiated by CRCOG and led by a Technical Advisory Committee that included representatives from the CRCOG, the Town of Manchester, Connecticut Transit (CTTRANSIT),
and the Connecticut Department of Transportation (CDOT). The TAC was supported by the consulting team of Nelson\Nygaard Consulting Associates (NN) and Fitzgerald Halliday, Inc. (FHI), who carried out much of the technical work.

**METHODODOLOGY**

The Manchester Transit Study was prepared using a variety of different types of data to help understand community characteristics, assess the local and regional demand for transportation, and identify the existing and potential transit markets within the community. The analysis included qualitative input from stakeholders and members of the public as well as a series of meetings held between the technical team and the TAC (see Appendix A for meeting notes from all TAC meetings). Quantitative information included surveys with both community members and bus riders, and a detailed analysis of ridership patterns and productivity for the CTTRANSIT routes operating in Manchester. Building on this information, the Study Team identified local priorities, considered different ways public transportation could be organized and recommended feasible solutions.

This final report documents the study steps, process and findings. It compiles and refines technical memos and documents that were distributed as part of the study process, as well as reflects the comments and input from the TAC. The report consists of six chapters immediately following this introductory section:

- **Chapter 2: Community Profile** uses Census data to examine the size and spatial distribution of population and employment, as well as population groups that are typically more dependent on transit services. The chapter also examines the location of employment and activity centers in Manchester and modeled data on travel patterns.

- **Chapter 3: Existing Transit Service** inventories existing transit service in the Town of Manchester.

- **Chapter 4: Stakeholder and Public Outreach** describes the results of the stakeholder and community activities conducted as part of this study.

- **Chapter 5: Transit Service Evaluation** documents a detailed evaluation of the existing CTTRANSIT routes in Manchester.

- **Chapter 6: Service Options** presents options for improving transit service in the Town of Manchester. This chapter also includes a summary of a community meeting that presented these service options.

- **Chapter 7: Recommendations** draws from the service options to identify a series of recommendations that are supported by the community and the TAC and work towards the identified goals.

- **Chapter 8: Implementation** provides a phased plan for implementing the service recommendations.
2 COMMUNITY PROFILE

OVERVIEW

One of the initial steps in the Manchester Transit Study involved looking at community demographics, major employment and activity centers and travel patterns. The intention of this existing conditions research is to understand the underlying market for public transportation in the community. The analysis allows the Study Team to determine which parts of town have conditions that suggest potential for public transportation, as well as identify locations and neighborhoods that, given current population, employment and activities, are unlikely to need transit service.

In looking to evaluate community transportation needs, one of the most important indicators is population and employment density. Density is critical to successful transit because nearly all transit riders will walk to or from the bus on at least one leg of their trip. The extent to which the bus can serve areas with high concentrations of people and jobs, more people will be able to easily reach the bus providing a strong market for the transit route.

Another important characteristic associated with transit service design is community characteristics. Some populations are more likely to need transit than others and high need communities are usually defined by characteristics that make someone less able to drive a personal vehicle, or who sometimes or always lacks access to a vehicle. These groups are typically defined by age (older adults and youths under the age of 18), income (persons with low income and households without a vehicle) and disability.

A third factor is to identifying and assessing important travel destinations. As mentioned, employment is particularly important because travel to/from work is a predictable and frequent travel pattern. Transit planners are also interested in other activity centers such as schools, and shopping centers, hospitals and medical centers.

The focus of the community profile is an analytical assessment of these factors, determining the size, spatial distribution and relative importance of individual neighborhoods, employment centers and community resources. The information is supplemented by qualitative information, including input supplied by stakeholders, members of the TAC and surveys. Data sources for the community profile include the American Community Survey (ACS) collected between 2005 and 2009, which provides the most recent data available on the block group level that contains information about household income and vehicle ownership (the 2010 Decennial Census no longer includes these questions). Major destination data was provided by the Town of

---

1 Transit dependent analyses also typically include data about residents with disabilities. The Decennial Census no longer includes these questions, and the data is also not available in the 5-year ACS data used for the other measures in this chapter. Questions to ascertain disability type were changed in 2008 and will therefore not be available in 5-year ACS data for several more years. Current disability data is only available in the 2009 1-year ACS estimates, and 1-year estimates are only available for geographies with populations of 65,000 or more, which excludes Manchester.
Manchester, and these destinations as well as major employers are mapped to serve as a spatial counter to the origins of the demographic analysis.

**POPULATION AND POPULATION DENSITY**

The Town of Manchester is growing steadily, increasing from a population of 54,740 in 2000 to 58,241 in 2010, or about 6% over the ten-year period. The geographic size of the Town is 27.7 square miles, giving the Town a population density of 2,103 people per square mile. Manchester is a fairly dense town, though still not as dense as downtown Hartford or West Hartford. Looking at the information by block group (see Figure 2-1) two of the three densest block groups in Manchester are located south of Center Street in the neighborhoods on the east and west sides of Main Street. Another densely populated block group is further west in the Verplanck neighborhood, west of McKee Street and between West Center Street and I-384.

**EMPLOYMENT AND EMPLOYMENT DENSITY**

The Town of Manchester has a significant employment base, with a heavy concentration in northern Manchester in the Buckland Hills area (see Figure 2-2). Much of this employment consists of smaller employers, as compared to a single large employer or employment site. Employment is also concentrated along Main Street, which is the primary north-south axis running through the center of town. Manchester Community College is also visible as an employment concentration in western Manchester along I-384, but the primary density exists along I-84 in northern Manchester as well as along State Highway 83 (Main Street).
Figure 2-1  Population Density

Data Sources: US Census American Community Survey 2005-2009
Figure 2-2  Employment Density²

² This map was created using Longitudinal Employment-Household Dynamics data from 2009. Data points for places of employment are used to create a heat map of job density as a continuous data set instead of dividing into boundaries like Census tracts or block groups.
DEMOGRAPHIC PROFILE

As discussed, there are some individuals who have a higher propensity to use transit. As part of evaluating potential transit service designs and demand for service, therefore, our analysis considers two primary markets for public transportation:

- **Discretionary riders** who have adequate resources and abilities to operate a private vehicle but choose to use transit because public transit offers them comparable convenience and/or because of other personal lifestyle and value choices. Discretionary riders are also more likely to use transit for commuting purposes, or in situations where transit offers an advantage over driving, such as where parking fees are high and/or roads are congested.

- **Transit-dependent riders** who use public transportation services because they lack access or are unable to operate a private vehicle. By definition, transit-dependent riders use the bus for many trips, including for travel to/from work, but also to get to appointments, shop, and visit friends/family.

The travel behavior of discretionary riders is generally understood as part of the broader community's travel patterns and is primarily reflected in the analysis of population and employment, as well as in the travel patterns discussed at the end of this chapter.

Understanding the travel behaviors of transit-dependent riders, on the other hand, involves looking at specific demographic groups that tend to have a higher proclivity to use transit and understanding the size and distribution of these groups. We also know that some groups tend to have unique service preferences. Older adults, for example, tend to travel outside of the peak commuting times and during the midday. They are also typically less time sensitive and prefer closely spaced bus stops that reduce walk distances to and from the stops. This compares with youths, who are more likely to travel during the afternoons and on weekends. This next section considers the distribution of individual demographic groups typically associated with a higher use of transit.

**Older Adults**

Older adults are more likely to ride transit than the wider population, largely because as people age they tend to become less comfortable in many driving situations. Older adults, for example, may be uncomfortable driving after dark or in congested areas, such as urban centers.

The median age in Manchester is 37.4. Manchester is slightly older than the United States overall, where the median age is 36.9, but substantially younger than the State of Connecticut, where the median age is 39.5. Manchester’s over 65 population comprises 12.8% of the total, nearly the same as the United States, which has 13% over 65.

Older adults are relatively concentrated in a few block groups surrounding Central Manchester. As a percentage of the total population within the block group, seniors make up a higher percentage of two block groups: one in the western side of the Verplanck neighborhood and one in a small southwestern portion of the Bowers neighborhood. Several block groups in southwestern and eastern Manchester, such as Keeney, Highland Park and Buckley also have relatively high percentages, and the rest of the town lesser amounts.
Figure 2-3  Older Adults as a Percentage of the Population, by Block Group

Data Sources: US Census American Community Survey 2005-2009
Youth Under 18

Youths aged five to 18 are considered part of the transit-dependent population because while many have a need or interest in traveling independently, most are not old enough to drive or do not reliably have access to an automobile. Unlike seniors, the percentage of youth under 18 living in Manchester varies highly by block. Five block groups rank in the highest percentage category for individuals under 18, and none are contiguous with the exception of a few in the Bowers neighborhood. Two are in the aforementioned Bowers, one west of the Verplanck neighborhood, another Waddell and one the East Side. Six block groups have a low percentage - two in Verplanck, one in Buckley, one in the West Side, one in Keeney and another wedged between high rates of youth in Bowers and Waddell.
Figure 2-4  Youth Under 18 as a Percentage of the Population, by Block Group

Data Sources: US Census American Community Survey 2005-2009
Persons with Low Income

Financial constraints mean persons with lower incomes are less likely to sometimes or always have access to a vehicle. As a result, they are more likely to use transit as compared with other members of the population. The median household income in Manchester is $61,571, higher than the national average of $50,221, but lower than Connecticut's average of $67,740. In Connecticut, 9.3% of the population lives below the poverty line. In Manchester, this number rises to 13.5%.

Block groups in the neighborhoods on the west and east sides of Main Street in downtown Manchester as well as the Robertson and Verplanck neighborhoods, stand out distinctly as having the greatest percentage of residents with low income (see Figure 2-5). The northern areas of Buckley and block groups in the southern area of Waddell just north of Center Street also show relatively high percentages of low income neighborhoods.

Households without a Vehicle

Manchester has relatively high car-ownership rates, with just 7.1% of households owning no vehicle, compared to 8.5% of households in Connecticut and 8.9% of those in the US.

The block groups with the highest percentage of households with no vehicle are in the Spencer neighborhood as well as the eastern section of Robertson. Several other block groups in Central Manchester in the East and West Sides, Bowers and Waddell have a slightly higher percentage of vehicle-less households than the rest of the town.

TRANSIT PROPENSITY INDEX

The Study Team created and analyzed a Transit Propensity Index. This index combines the previously discussed four indicators - older adults, youth under 18, persons with low income, and households without a vehicle – into an index showing the relative level of need as a percentage of the population, by block group. This analysis highlights the areas within Manchester that have the highest need. The index is relative to Manchester only, and does not compare to other national or statewide indices.

Findings show that the highest composite need exists in one block group in Verplanck and block groups in the Spencer neighborhood (west of Verplanck); in eastern Robertson; and smaller block groups of both the East Side, West Side and Waddell. Block groups of medium need make up much of Waddell, and are also present in Bowers, the East and West Sides surrounding Main Street, as well as the northern area of Buckley.
Figure 2-5  Persons with Low Income as a Percentage of the Population, by Block Group

Data Sources: US Census American Community Survey 2005-2009
Figure 2-6  Households without a Vehicle as a Percentage of Total Households, by Block Group

Data Sources: US Census American Community Survey 2005-2009
Figure 2-7   Transit Propensity Index

Data Sources: US Census American Community Survey 2005-2009
MAJOR DESTINATIONS

As a supplement to our analysis of residential and employment locations, the study team also looked at key activity centers in Manchester, or the places where people want to go. These destinations include medical facilities, shopping centers, governmental offices, educational institutions, and large employers (see Figure 2-8).

Major Employers

There are several large employers in the Town of Manchester. Indeed, the town government is the largest employer; followed closely by the Manchester Memorial Hospital (a list of major employers is included as Appendix B). Other large employers include Unison Aerospace Components and the J.C. Penney’s Catalog and Logistics Center.

Aerospace manufacturing is a prominent industry in Manchester. The third largest employer in the area is Unison Aerospace Components employing over 1200 people. Smaller aerospace manufacturing plants include the Timken Company, a Canton, Ohio based parts manufacturer, which acquired the Manchester headquarters of the Purdy Corporation in 2007.

Outside of the J.C. Penney Catalog and Logistics Center, the Buckland Hills area does not have a single large employer. Instead, consistent with many retail areas elsewhere, the area has a concentration of small and medium sized employers, including the mall, which employs some 2,000 people.

While employers are located throughout the Town of Manchester, there are more jobs in the Robertson area in industrial and office parks along Tolland Turnpike and Parker Street. As discussed, the Buckland Hills area has a large concentration of jobs, especially along Buckland Hills Drive and in The Shoppes at Buckland Hills.

Central Manchester, on or around Middle Turnpike, has a smaller, but still important concentration of jobs. This area primarily consists of smaller retail and grocery store type of employers.

Major Destinations

The Buckland Hills area is Manchester’s largest and most important destination. This is true locally within the community; it is also a regional destination. There are many jobs and shopping in the area, and as mentioned, contains the largest mall in the state. The Buckland Hills area also has significant amounts of housing located around its perimeter.

A second important destination includes the concentration of government institutions, including social service organizations along Main Street, especially at the intersection of Center Street and Main Street. This is also the center for several other community activities, including the public library, social service organizations as well as restaurants, supermarkets, and some schools.

Broad Street, between Middle Turnpike and Center Street, also offers a cluster of shopping and services and as such is an important destination within the Town.

Manchester Community College (MCC) also rates as an important destination. MCC is fairly isolated, located off of Silver Lane and I-384. It serves some 16,000 students annually, including students that travel from within Manchester as well as the surrounding suburbs and Hartford.
Figure 2-8  Major Employers and Destinations

Data Sources: Town of Manchester
TRAVEL PATTERNS

CRCOG collects and analyzes considerable data about regional travel patterns through its work on the regional travel demand model. The model looks at total travel and all modes, including trips taken by private vehicle and public transportation, (however, not walking and bicycling). As part of our work to understand regional travel patterns, the Study Team used the CRCOG Travel Demand Model to evaluate how people are traveling between communities as well as to and from Manchester. For this work, CRCOG developed a set of travel analysis districts that enabled us to look more closely at travel patterns within Manchester and between Manchester and the rest of the region.

As mentioned the data includes trips made by all modes (except walking and bicycling). Data reviewed in this section includes all trips made for any purpose (see Figure 2-10). The figures show that the two districts with the heaviest density of travel flows between them are within Hartford itself. Other high density of travel flows exist within Manchester and between Hartford and other nearby towns. The Shoppes at Buckland Hills area also has a high density of trips.

Figure 2-9  Top Ten Origin-Destination Pairs in Greater Hartford Region

<table>
<thead>
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<th>Trips per Square Mile</th>
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<tr>
<td>1</td>
<td>Downtown Hartford Asylum Hill</td>
<td>2,422</td>
<td>1,346</td>
</tr>
<tr>
<td>2</td>
<td>Asylum Hill Hartford</td>
<td>14,925</td>
<td>858</td>
</tr>
<tr>
<td>3</td>
<td>Downtown Hartford Hartford</td>
<td>9,868</td>
<td>587</td>
</tr>
<tr>
<td>4</td>
<td>Central Manchester North Central Manchester</td>
<td>1,765</td>
<td>560</td>
</tr>
<tr>
<td>5</td>
<td>Hartford East Hartford</td>
<td>17,780</td>
<td>508</td>
</tr>
<tr>
<td>6</td>
<td>Hartford Avon, West Hartford, Farmington</td>
<td>40,830</td>
<td>450</td>
</tr>
<tr>
<td>7</td>
<td>Hartford Newington, Rocky Hill, Wethersfield, Cromwell</td>
<td>26,071</td>
<td>376</td>
</tr>
<tr>
<td>8</td>
<td>New Britain Newington, Rocky Hill, Wethersfield, Cromwell</td>
<td>22,346</td>
<td>336</td>
</tr>
<tr>
<td>9</td>
<td>North Central Manchester The Shoppes at Buckland Hills</td>
<td>1,802</td>
<td>331</td>
</tr>
<tr>
<td>10</td>
<td>Northern Manchester The Shoppes at Buckland Hills</td>
<td>8,882</td>
<td>301</td>
</tr>
</tbody>
</table>

Figure 2-10 below displays a map of the origin-destination pairs for inter-district travel only, though the highest numbers of trips occurred to and from points within districts themselves; for instance, the North and East district generates over 860,000 intra-district trips. These districts’ large geographic size makes this large number understandable.

The map shows heavy travel in Hartford itself as well as with several of the districts to the south west of Downtown. The map also shows a high level of travel from many districts to areas outside of the Capitol Region.

Manchester (see inset in Figure 2-10) generates considerable volumes of regional travel, especially to East Hartford, East and South Windsor and Vernon, as well as downtown Hartford. The highest density of trips for Manchester origins or destinations occurred for two zones’ intra-zone travel. The Central Manchester zone had a total density of 796 trips completed within the zone; The Shoppes at Buckland Hills zone had 1,346.
Figure 2-10  Trips by District

Legend
- 1,000 - 2,000
- 2,000 - 5,000
- 5,000 - 10,000
- 10,000 - 860,856
- Manchester

Data Sources: Capitol Region Council of Governments
For inter-zone travel, travel between North Manchester and Central Manchester has a trip density of 560. Trip density between The Shoppes at Buckland Hills and three other zones in Manchester - North Central, Northern, and Central Manchester - also all had a high trip density. The density of trips between Vernon and The Shoppes at Buckland Hills is also high (see Figure 2-11).

![Figure 2-11 Top Origins-Destinations for Manchester](image)

<table>
<thead>
<tr>
<th>No.</th>
<th>Origin-Destination Pair</th>
<th>Daily Trips</th>
<th>Trips per Square Mile</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Central Manchester - North Central Manchester</td>
<td>1,765</td>
<td>560</td>
</tr>
<tr>
<td>2</td>
<td>North Central Manchester - The Shoppes at Buckland Hills</td>
<td>1,802</td>
<td>331</td>
</tr>
<tr>
<td>3</td>
<td>Northern Manchester - The Shoppes at Buckland Hills</td>
<td>8,882</td>
<td>301</td>
</tr>
<tr>
<td>4</td>
<td>Central Manchester - The Shoppes at Buckland Hills</td>
<td>1,318</td>
<td>269</td>
</tr>
<tr>
<td>5</td>
<td>Vernon - The Shoppes at Buckland Hills</td>
<td>5,140</td>
<td>237</td>
</tr>
</tbody>
</table>

**IMPLICATIONS FOR THE MANCHESTER TRANSIT STUDY**

From a transit planning perspective, the data suggests that the demand for service will largely be oriented around four districts:

- **The Buckland Hills** area has the Town’s high concentration of employment, and as a major regional retail center, several important services. The area has a low population density suggesting that most people travel to and from the area, but it is worth noting that there is significant population in the area immediately surrounding the retail center.

- **Downtown Manchester**, at the center of town and intersection of Main Street and Center Street is also an area with a relatively high density of individuals with a propensity to use transit. The intersection of Main Street and Center Streets has a cluster of community services, including the Manchester Area Conference of Churches main facility, the Manchester Recreational Department and the Youth Services Bureau. MCC is also in the process of creating a downtown presence.

- **Main Street – including both the eastern and western sides** has relatively high concentrations of people with a higher need for transit service. The east side has lower population densities overall, but contains areas with high concentrations of older adults and youths. There are few other facilities or services in this part of town. The west side of Main Street has relatively dense neighborhoods overall.

- **Spencer Street**: Jobs in this part of town are primarily attributable to MCC and the businesses along Spencer Street. There is also a new Wal-Mart slated for development along Spencer Street.

- **Manchester Community College** is a major destination, but the location makes it fairly isolated from other services and population, suggesting demand to travel to/from the facility.
Data also suggests that demand to locations outside of Manchester, such as Vernon, East Hartford and East Windsor, is stronger than internal community trips. This suggests that many people use neighboring towns for jobs and services. Trips to and from southern and central Manchester are not very prevalent locally or regionally; the only exception is a strong link between North Central Manchester and the rest of North Manchester.
3 EXISTING TRANSPORTATION SERVICES

A key part of understanding what transit service is needed, involves understanding what type of service is available. Manchester is an old streetcar service community; over time streetcars were replaced by bus service. Today, there are a handful of public transportation services, the largest of which is CTTRANSIT. The community also has a Town-wide Dial-A-Ride service that is available to individuals aged 60 and over.

CTTRANSIT

The Connecticut Department of Transportation manages bus service throughout much of Connecticut as Connecticut Transit (CTTRANSIT). In the greater Hartford region, CTTRANSIT operates more than 30 local routes and 12 express routes. Most local bus service operates seven days per week with service available between 5:00 AM and midnight. The adult cash fare for local service is $1.30. Fares on express routes are higher and vary by zone.

Nine bus routes, six local and three express/flyer CTTRANSIT routes serve parts of Manchester. The services include both weekday and weekend service as well as local and express routes (see Figure 3-1). Manchester also has a large commuter parking lot on Buckland Hills Drive, adjacent to Interstate 84 that is served by both local and express service. There is also a second park and ride lot off of Spencer Street that is used by carpoolers and some bus commuters.

Of the nine routes, most connect to the Buckland Hills area as part of their alignment and most also connect to downtown Hartford. One route, Route 85 MCC Flyer, only travels to Manchester Community College and Route 88 Burnside Flyer travels east-west through Town without serving Buckland Hills. There are also two routes – Route 91 Forbes Avenue and Route 92 Tower Avenue – that are cross-town, or suburb to suburb services. These two routes serve Buckland Hills but not downtown Hartford.

Buckland Hills is a key destination in Manchester and for the region overall. Commuter routes generally serve the park and ride lot. Remaining routes are oriented towards The Shoppes at Buckland Hills, but also travel through the area with stops at major destinations (see Figure 3-2). A brief overview of individual CTTRANSIT routes is described below with a more detailed service evaluation included as Chapter 5.
Figure 3-1  Common Route Alignment in the Buckland Hills Retail Area
Figure 3-2  CTTRANSIT Routes
**Route 80 – Buckland Flyer**

Route 80 – Buckland Flyer offers a combination of local and express Saturday-only service between Buckland Hills and downtown Hartford. The route operates on weekends only in order to provide access to the mall and other retail activities in the Buckland Hills area, including The Shoppes at Buckland Hills (Macy's) and Target/Lowe's Plaza. Route 80 has a limited number of stops and operates along Interstate 84. CTTRANSIT also offers additional trips on Saturdays and Sunday service during the holiday shopping season between Thanksgiving and December 23rd.

**Route 82 & 84 – Tolland Turnpike: Buckland Hills (82) & Rockville (84)**

Route 82-84 is a local route that operates seven days per week traveling from Rockville Center, Vernon Center and Buckland Hills en route to downtown Hartford. It follows a direct service alignment along Tolland Turnpike between Buckland Hills and downtown. Within Manchester, this route has stops at The Shoppes at Buckland Hills, as well as Melville Plaza (Bob's/Marshalls Plaza), Macy's, and Lowe's. On weekends, Routes 82 and 84 operate as one route and serve the mall circuit before continuing to Rockville Center. On Sunday, Route 82 operates to Depot Square, where it meets the Vernon Shuttle route that operates from Rockville to Depot Square.

**Route 83 – Silver Lane**

Route 83 – Silver Lane connects the Manchester Business Park and The Shoppes at Buckland Hills with downtown Manchester. In Manchester, Route 83 operates along Spencer Street providing service near to the MCC. It also travels along Center Street, serving the area to the northeast of Central Manchester and then to the Buckland Hills area. The route has circuitous routing through Manchester with segments that travel east-west and others that travel north-south.

**Route 85 – MCC Flyer**

The MCC Flyer operates between Manchester Community College and downtown Hartford with hourly service on weekdays. The service is fast and direct; once the bus leaves MCC, it makes no stops until it gets to downtown Hartford. The MCC Flyer operates on weekdays and only during the MCC academic calendar; there is no service during the summer months, winter break, and holidays.

**Route 88 – Burnside Avenue**

Route 88 – Burnside Avenue operates seven days per week traveling from Downtown Hartford through Manchester. The route does not serve The Shoppes at Buckland Hills area but offers direct service along Burnside Avenue and W. Middle Turnpike in Manchester. The bus alternates between serving the CT Department of Social Services and Lydall Street/Vernon Street.

**Route 91 – Forbes Street Cross-town**

Route 91 is a local route traveling from Buckland Hills to Wethersfield through East Hartford. Nearly every trip on the route circulates through the Buckland Hills retail area, serving the Shoppes at Buckland Hills, Macy’s, and Target/Lowe’s Plaza. As a highly retail-oriented area, Buckland Hills serves as an anchor at the beginning and end of the route. The route travels south and west through East Hartford and Glastonbury via Burnside Avenue and Forbes Street to cross the Putnam Bridge then continues south to the Wethersfield Shopping Center. Weeknight and Saturday night service follows a more direct service alignment along Main Street and Silver Lane. Route 91 operates at 60 minute headways throughout the day.
Route 92 – Tower Avenue Cross-town

Route 92 Tower Avenue Cross-town is a local route that travels between Melville Plaza (Bob’s/ Marshall’s) in Manchester and Copaco Shopping Center in Bloomfield on weekdays. On weekends, service continues to the Sacred Heart Park & Ride Lot and Bloomfield Center. Route 92 serves many retail destinations in the Buckland Hills area of Manchester. Buckland Hills again serves as an anchor at the beginning and end of the route and allows riders from Manchester to reach the more highly developed areas west of the Connecticut River. Route 92 maintains a simple schedule on all service days; it operates six days per week with regular 60-minute headways. There are 14 trips each way Monday through Saturday with five trips during peak hours.

Route 3 – Buckland Express

Route 3 – Buckland Express is a weekday-only express service that serves downtown Hartford and the Buckland Park & Ride primarily during peak hours. This lot is located southwest of the Buckland Hills retail area (see Figure 3-3). There are 22 daily trips traveling into Hartford and 23 into Manchester. All trips on Route 3 either continue as or offer connections with CTTRANSIT’s Free Commuter Shuttle serving Union Station, Asylum Hill, and the State Capitol.

Route 17 – Vernon Express

Route 17 – Vernon Express is a weekday-only express service that travels between Vernon and Downtown Hartford but stops at the Buckland Park & Ride on the first two PM trips headed toward Vernon. These two PM trips arrive at the park & ride lot at the same time as two Route 3 trips. Riders on Route 3 could transfer to Route 17 to continue towards Vernon; however, both routes originate in Downtown Hartford on these trips and follow a similar alignment, so it is likely that many riders board Route 17 directly.

Figure 3-3 provides information on the local and express bus fare, span of service, and frequency of each route.
### Figure 3-3  Bus Service Characteristics in Manchester

<table>
<thead>
<tr>
<th>Service Name</th>
<th>Service Span and Frequency</th>
<th>Service Features</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local Buses -</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Adult cash fare: $1.30 (free 90-minute transfers)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Youth (age 5-18) cash fare: $1.05 (free 90-minute transfers); children under 5 ride free</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Seniors (65+) and persons with disabilities cash fare: $0.65 (with valid IDs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Passes available: 10-ride; 1-, 3-, 5-, 7-, 31-day</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Route 80 – Buckland Flyer</strong> Hartford to/from Buckland Hills via I-84</td>
<td><strong>Standard service</strong> Saturday: 60 minutes, 1:00 PM – 9:23 PM  <strong>Seasonal service (Friday after Thanksgiving – Dec. 23)</strong> Saturday: 30 minutes, 10:00 AM – 9:23 PM  Sunday: 60 minutes (base; varies 60-75 minutes) 11:00 AM – 7:20 PM</td>
<td></td>
</tr>
<tr>
<td><strong>Route 82 – Tolland Turnpike-Buckland Hills</strong> Hartford to/from Buckland Hills via Tolland Turnpike</td>
<td>Weekdays: 60 minutes (base; varies 30-70 minutes), 5:10 AM – 10:42 PM  Saturday: 60 minutes (base; varies 50-75 minutes), 7:15 AM – 10:42 PM  Sunday: 60-75 minutes, 7:55 AM – 7:11 PM</td>
<td>One additional nighttime seasonal trip offered in both directions.</td>
</tr>
<tr>
<td><strong>Route 84 – Tolland Turnpike-Rockville</strong> Hartford to/from Rockville via Tolland Turnpike</td>
<td>Weekdays: 20-30 minutes (peak)/60 minutes (off peak), 5:00 AM – 10:42 PM  Saturday: 60 minutes (base; varies 50-75 minutes), 7:15 AM – 10:42 PM  Sunday: 60-75 minutes, 7:55 AM – 7:11 PM</td>
<td></td>
</tr>
<tr>
<td><strong>Route 83 – Silver Lane</strong></td>
<td>Weekdays: 20-30 minutes, 5:15 AM - 10:40 PM  Saturday: 30 minutes in AM, 60 minutes PM, 6:45 AM - 10:40 PM</td>
<td>One additional nighttime seasonal trip offered in both directions.</td>
</tr>
<tr>
<td><strong>Route 85 – MCC Flyer</strong></td>
<td>Weekdays: 60 minutes, 7:10 AM - 5:10 PM  No Saturday service</td>
<td>Operates only on weekdays when MCC is open.</td>
</tr>
<tr>
<td><strong>Route 88 – Burnside Avenue</strong></td>
<td>Weekdays: 15 minutes, 5:00 AM - 8:45 PM  Saturday: 30 minutes, 6:25 AM - 8:15 PM  Sunday: 60 minutes, 7:00 AM - 7:25 PM</td>
<td>Additional Saturday trip for connection to Rte 91</td>
</tr>
<tr>
<td><strong>Route 91 – Forbes Street Cross-town</strong></td>
<td>Weekdays: 60 minutes, 8:19 AM - 11:00 PM  Saturday: 60 minutes, 7:27 AM - 11:00 PM</td>
<td>One additional nighttime seasonal trip offered in both directions.</td>
</tr>
<tr>
<td><strong>Route 92 – Tower Avenue Cross-town</strong></td>
<td>Weekdays: 60 minutes, 8:45 AM - 8:26 PM  Saturday: 60 minutes, 7:40 AM - 8:26 PM</td>
<td></td>
</tr>
<tr>
<td><strong>Express Buses -</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• $2.35 per one-way trip</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Route 3 – Buckland Express</strong></td>
<td>Weekdays:  To Hartford – 15 AM trips, 6:15 AM – 8:51 AM; 7 PM trips 4:00 PM – 6:13 PM  To Manchester – 7 AM trips, 6:25 AM – 8:28 AM; 16 PM trips 12:18 PM – 6:47 PM</td>
<td></td>
</tr>
<tr>
<td><strong>Route 17 – Vernon Express</strong></td>
<td>Weekdays:  To Manchester – 2 PM trips, 12:05 PM – 3:05 PM</td>
<td></td>
</tr>
</tbody>
</table>
GREATER HARTFORD TRANSIT DISTRICT

The Greater Hartford Transit District (GHTD) operates the complementary ADA paratransit for CTTRANSIT service. ADA paratransit service is available for areas within ¾ mile of all CTTRANSIT bus services (with the exception that ADA is not required for express routes). Given the amount and coverage of CTTRANSIT fixed-route service in Manchester, nearly all of the Town, with the exception of a small strip along the southern and eastern part of town, has access to ADA paratransit service (if eligible).

Passengers must be eligible to use the ADA bus service and all eligible riders must make reservations at least one day ahead of their trip and no more than five days ahead. Riders may call between 8:00 AM and 5:00 PM seven days per week. Riders must also pay a fare; fares are currently set at $2.60 for a one-way trip as of January 1, 2012, although booklets of 10-ride tickets are available at a discount. Personal care attendants may ride for free.

TOWN OF MANCHESTER DIAL-A-RIDE SERVICE

The Town of Manchester provides Dial-A-Ride service to Manchester residents aged 60 or more and to persons with disabilities of any age. Service is for trips within the town boundaries, and the service can be used for any purpose. Residents must register to use the service and call ahead to reserve a trip. There is no fare for the service. The Town estimates it provides some 5,000 trips annually.

The map and tables below were created from driver manifests for the week of January 9th through 13th, 2012. The tables below list the top five origins and destinations for the Dial-A-Ride service.

**Figure 3-4  Top Dial-A-Ride Origins and Destinations**

<table>
<thead>
<tr>
<th>Origin</th>
<th>Number of Trips</th>
<th>Destination</th>
<th>Number of Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bidwell Nursing Home</td>
<td>8</td>
<td>Stop &amp; Shop</td>
<td>32</td>
</tr>
<tr>
<td>Green Lodge Retirement Housing</td>
<td>7</td>
<td>Wal-Mart</td>
<td>14</td>
</tr>
<tr>
<td>169 Oak Street</td>
<td>5</td>
<td>Genesis Club House</td>
<td>12</td>
</tr>
<tr>
<td>240 Hackmatack Street</td>
<td>3</td>
<td>Genesis Clinic</td>
<td>10</td>
</tr>
<tr>
<td>279 Bidwell Street</td>
<td>3</td>
<td>Manchester Senior Center</td>
<td>7</td>
</tr>
</tbody>
</table>

Most Dial-A-Ride trip origins are in the central and southern portions of Manchester, with the exception of the Green Lodge Retirement Housing and a cluster of sites north along Highway 83. Destinations are far more concentrated, with many trips going to shopping centers. In general, most destinations are in northern and central Manchester.
Figure 3-5  Dial-A-Ride Origins and Destinations Sample

Data Sources: Town of Manchester
CONCLUSIONS

While there is significant CTTRANSIT service in the Town of Manchester, service is not as extensive or oriented towards travel within the community. For example, of the nine routes that have at least one stop in Manchester, two are express route (Buckland Express and Vernon Express) that operate during peak periods only and only serve the Buckland Hills Park and Ride. A third route, the MCC Flyer (route 85) only serves the Manchester Community College and a fourth route, Route 80 operates on Saturdays only. Of the remaining five routes, two (Forbes Street Cross-town and Tower Avenue Cross-town) make only limited stops in the Buckland Hills area.

This means there are effectively three CTTRANSIT routes that offer local connections in Manchester: Route 83 Silver Lane, Route 88 Burnside Avenue and Route 82-84 Tolland Turnpike. These routes operate through the center of town, traveling on some of the primary corridors, including Main and Center Streets. However, much of this service is indirect and/or with several route deviations making the service awkward to use with irregular headways and inconsistent schedules.

Manchester also has demand response transportation services that are available to a sub-segment of the population; there is a town-wide service that is available to those over 60 years of age and adults and persons with disabilities, plus ADA service available to persons with disabilities. Both services strengthen mobility for the community’s most vulnerable members, but the Town services are only for trips within Manchester and while the ADA service allows people to travel outside of the community, the fare is fairly high; a one-way trips is $2.60 making a round trip over $5.00.
4  STAKEHOLDER AND COMMUNITY OUTREACH

OVERVIEW

Stakeholder and community outreach were important parts of the Manchester Transit Study. This information was used to ‘ground truth’ the quantitative data as well as collect additional ideas on people’s preferences and priorities for public transportation. Stakeholder and community outreach efforts included four steps:

1. Stakeholder Interviews – one-on-one or small group interviews held with members of the community that have a stake or interest in the development of Manchester’s public transportation system.
2. Community Survey
3. Rider Survey
4. Focus Groups facilitated by MCC students

STAKEHOLDER INTERVIEWS

Stakeholder interviews were set up as individual meetings except in the case of the Shoppes at Buckland Hills, the Downtown Manchester Special Services District (SHARE) and the Greater Manchester Chamber of Commerce, which were conducted as combined meetings. At the onset of each meeting, Nelson\Nygaard encouraged stakeholders to speak freely and assured them that any comments or ideas expressed in the interview would be anonymous. As a result, findings presented in this memo are not attributed to any individual or organization and instead summarized. In total, the study team met with representatives from six organizations and received input from seven individuals (see Appendix A for a full list of organizations and individuals).

While each interview was tailored to reflect the individual (or organization) perspective, the meetings focused on five primary questions:

- What is your experience with and perspective of the existing CTTRANSIT services?
- Do your clients or constituents use CTTRANSIT? How effectively do the existing transit services meet their needs?
- Are there things that CTTRANSIT is doing well? What are they and how are they successful?
- What new services or service improvements in Manchester do you think CTTRANSIT should prioritize?
Seven individuals, representing six organizations were interviewed as part of the stakeholder interview process. They represented a diverse group of interests ranging from social service agencies, representatives from the business community, and individuals working in higher education. Despite the diversity of experiences, they expressed a handful of consistent themes.

- **Stakeholders had a limited understanding of the CTTRANSIT services.** None of the stakeholders interviewed had ever ridden CTTRANSIT and despite knowing clients, employees or students who use the service, they had only a very limited understanding of the available services.

- **Stakeholders felt the existing transit network provides an adequate safety net.** Between the Town Dial-A-Ride service and the ADA service, seniors and people with disabilities are fairly well served. The two services are not perfect, but provide options for people to get around. Stakeholders had similar impressions of the CTTRANSIT routes, primarily that the routes offered a basic level of mobility. Most of them recognized that it could be more convenient, but they noted buses do operate along the major streets and generally they felt lucky and appreciative to have the service they have.

- The two places stakeholders felt are well served by transit are 1) between Buckland Hills and downtown Hartford; and 2) service to the Shoppes at Buckland Hills (i.e. the mall). There is also generally good service from other parts of Manchester to Downtown Hartford. Several individuals noted that the mall bus stop is well used, especially on weekend evenings.

- **When asked how to improve transit service, stakeholders universally wanted more flexibility.** Flexibility was articulated in several ways, including bus schedules that reflect changes in demand and need. This means having more bus service at key times and places, such as more bus service to the mall during the holiday period, or more buses during the start of the semester, when students are trying to figure out their classes and schedules.

- **There was mixed sentiment about the pedestrian environment.** People who worked or had offices in downtown Manchester (Main and Center Street) were more likely to feel that while the pedestrian environment in Manchester was not perfect, it was fairly walkable. These individuals also felt that there are many destinations within walking distance of downtown. Stakeholders in the Buckland Hills area and associated with MCC did not share this impression. Silver Lane and the streets that connect to MCC, for example, are not safe for pedestrians because vehicles travel at high speeds and there are no sidewalks. Likewise, when discussing the Buckland Hills area, pedestrian facilities were cited as one of the challenges associated with making transit service work.

- **A lot of MCC students ride the bus, more are interested in doing so and the administration is friendly to transit.** These stakeholders said MCC has a major parking problem and every bus rider helps them manage their parking lot. They currently sell bus passes to students. Through work in one of the classes on transportation issues, some students are trying to improve awareness of the available bus service by building and designing a bus shelter in front of the main campus building.

- **Stakeholders also cited a need for inter-community connections,** especially between Manchester and Vernon, but also Manchester and Windsor. There was a sense that a lot of people lived in Vernon and worked in Manchester, especially Buckland Hills.

- **When asked about how to serve Buckland Hills, stakeholders identified a ‘jitney type’ of service.** People liked the idea of a jitney type of service that is operated...
with small buses and is able to bring people in and out of plazas. They like the idea of a small bus, in part because they didn’t think any particular route or segment could fill an entire bus, but also because they envision the service as a sort of circulator route. The stakeholders also talked about the Buckland Park and Ride lot, noting that it was a logical place for the circulator to operate to and from. The strengths of the existing park and ride lot are that people can walk to/from the JC Penney site from the lot and there are a handful of other locations nearby. Weaknesses of the facility are that it is not easy to get in and out of.

- The idea of a circulator was also a popular idea for connecting downtown Manchester and MCC. Several stakeholders were excited about the new MCC facility in downtown and felt a connection between the two campuses made sense. There was a sense that there is a lot of housing in downtown, including housing that would be suitable for students. Providing transportation between these two locations, therefore, seemed logical.

GENERAL PUBLIC SURVEY

The first part of our research involved conducting a survey with the members of the broader Manchester community. The goal of the research was to understand people’s general travel patterns, assess experience with public transportation service generally and collect input on people’s preferences and priorities for new service. The survey also included a handful of open ended questions for people to comment on how transit could be improved in Manchester.

The survey was distributed electronically, but also in hard copy to the Manchester Library, the Department of Senior, Adult and Family Services, and the Shoppes at Buckland. A total of 165 responses were collected, a majority (160) online. A copy of the survey and a full analysis of the results are included as Appendix B.

Key findings from the survey include:

- Most respondents are not transit dependent, have access to an automobile and typically drive to where they need to go.
- Many people in Manchester are aware of CTTRANSIT but not of specific routes and schedules. Few people (23%) have actually used bus service.
- There is a high demand for travel within Manchester, especially the Buckland Hills area, but also grocery stores, downtown Manchester and Manchester Community College.
- In terms of preferences for new service, the strongest preferences were expressed for:
  - More connections to other communities (not just Hartford)
  - More connections within Manchester instead of to Hartford
  - Longer weekday hours over weekend service
  - More frequent service over one-seat rides

Experience with Public Transportation Service

More than half of the respondents said they were aware that bus service is available in Manchester, but were not aware of the specific CTTRANSIT routes and their schedules. A similar number (about 62%) also said they had ridden public transportation in the past, largely CTTRANSIT local bus services and/or Amtrak. A smaller portion responded that they had
experience with CTTRANSIT express services, the Greater Hartford Transit District or other transit services such as MetroNorth or the MBTA (the “T”) in Boston.

**General Travel Patterns**

People were also asked to list places that they travel to frequently. Common responses were largely shopping areas, including The Shoppes at Buckland Hills, the Big Y supermarket, the Parkade Shopping Center and the Shop Rite supermarket. Other frequently listed destinations included Manchester Community College, downtown Manchester (the intersection of Main and Center Streets) and downtown Hartford. In the case of downtown Hartford, no single destination received a lot of responses, but there were a large number of responses within the downtown area.

Both The Shoppes at Buckland Hills and Big Y supermarket are in the northern tier of the Town, which has fairly robust transit service; however, the results suggest that connections to/from these locations may not be robust enough to attract travelers. There is also transit service available along Silver Lane, close to the Manchester Community College and the Shop Rite supermarket and a handful of routes (Routes 83 and 88) operate through downtown Manchester. The Parkade Shopping Center, however, is located in central Manchester, but is not served directly by any transit route.

**Service Preferences and Priorities**

Transit service, like many other products and services can do many things, but not everything. A bus route, for example, cannot be fast and direct but still stop frequently. The community survey, therefore, included questions that asked people to choose between two options for competing types of service. The objective of this type of questioning was to require people to assert their preferences about different types of service. The survey analysis included an analysis of the overall sample as well as those that have full-time access to a vehicle and those that do not (See Appendix C for this analysis).

The charts below display the stated preferences of the people responding to the general public survey. The survey respondents showed a strong preference for more neighborhood-to-neighborhood connections within Manchester, even if transfers were necessary to travel out of Town. Respondents also preferred more weekday service to an increase in weekend service.

<table>
<thead>
<tr>
<th>Trade-Off</th>
<th>Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographic Coverage versus Service Frequency</td>
<td>Coverage</td>
</tr>
<tr>
<td>More Stops vs. Faster Travel Times</td>
<td>Faster Travel Times (fewer stops)</td>
</tr>
<tr>
<td>Local vs. Regional Connectivity</td>
<td>Local Connectivity between neighborhoods in Manchester</td>
</tr>
<tr>
<td>Frequency of Service v. Hours of Operation</td>
<td>Longer Evening Hours</td>
</tr>
<tr>
<td>Service to Downtown vs. Service to other Suburbs</td>
<td>More service to other communities</td>
</tr>
<tr>
<td>Weekend vs. Weekday Service</td>
<td>Strong Preference (75%)</td>
</tr>
<tr>
<td>Transfers vs. Frequency</td>
<td>Preference for frequency with more transfers needed</td>
</tr>
</tbody>
</table>
TRANSIT RIDER SURVEY

The study team also worked closely with CTTRANSIT to administer a survey with current transit riders. Surveyors boarded CTTRANSIT routes that serve Manchester (Routes 3, 80, 82-84, 83, 85, 88, 91 and 92) and distributed paper surveys to passengers between May 4th and May 8th, 2012. The effort yielded a total of 343 responses. Key findings from the survey show that:

- Surveyed riders use transit as their primary mode of travel almost exclusively. For most, this is due to the fact that they have limited or no access to a private vehicle.
- In general, riders consider CTTRANSIT services to be convenient and appropriate for their travel needs.
- A majority of the riders surveyed said they most frequently use transit to travel to destinations outside of Manchester, though some also use it for local travel within town.
- In terms of preferences for different kinds of transit services, riders reported that they generally prefer:
  - More local transit service to destinations within Manchester over more service to downtown Hartford.
  - More frequent service over any other types of service improvements.
- Bus riders are largely using CTTRANSIT for regional destinations.

Transit Service Trade-Offs

Consistent with the survey conducted with members of the general public in Manchester, the bus rider survey asked passengers for their preferences for a number of tradeoffs associated with transit service design. Of the seven trade-off questions, three show relatively strong preferences from the riders surveyed. Passengers showed only slight or no preference for one option or another for four of the questions.

Choice riders and transit-dependent riders often express different preferences for transit service characteristics. For this reason, the responses from riders who always have access to a vehicle and those who only sometimes or never do are displayed separately in Appendix C. Note that only 20 riders of the total respondents reported always having access to a private vehicle, so the total response (summarized below) tracks heavily in favor of those without access to a vehicle.

<table>
<thead>
<tr>
<th>Trade-Off</th>
<th>Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographic Coverage versus Service Frequency</td>
<td>Slight (53%) preference for service frequency</td>
</tr>
<tr>
<td>More Stops vs. Faster Travel Times</td>
<td>Preference (57%) for more bus stops</td>
</tr>
<tr>
<td>More Local Service vs. More Regional Connectivity</td>
<td>Strong preference (73%) for more neighborhood-to-neighborhood service</td>
</tr>
<tr>
<td>Frequency of Service v. Hours of Operation</td>
<td>Preference (66%) for more frequency</td>
</tr>
<tr>
<td>Service to Downtown vs. Service to other Suburbs</td>
<td>Even split between responses</td>
</tr>
<tr>
<td>Weekend vs. Weekday Service</td>
<td>Slight (52%) preference for more weekend day service</td>
</tr>
<tr>
<td>Transfers vs. Frequency</td>
<td>Preference (61%) for frequency, with more transfers needed</td>
</tr>
</tbody>
</table>
Origins and Destinations

Passengers were asked to indicate their origin and most frequent travel destinations. A majority of passengers on the surveyed routes travel to and from destinations outside of Manchester. Within Manchester, most riders are traveling between Central Manchester, especially along Main Street, and The Shoppes at Buckland Hills. A handful of local trips are between destinations in Central Manchester.

A majority of regional trips--those beginning or ending outside of Manchester--are to Hartford and East Hartford, though several are also to Vernon. Only a few are to towns further afield like Bloomfield or West Hartford. These patterns are likely more indicative of the bus route configuration than of the passengers' preferences.

MCC STUDENT OUTREACH

The CRCOG collaborated with Manchester Community College in the past on public outreach efforts, where, as part of a class assignment on communication techniques, students set up discussion groups to discuss transportation issues. A critical part of this collaboration is that the participating community college students were able to effectively reach population groups, including minorities, individuals with limited proficiency in English and others that are often left out of public discourse on issues such as transportation. Building on the success of this previous work, the CRCOG set up connections for the Manchester Transit Study team to conduct a similar exercise. In case of the Manchester study, the discussion groups focused on transit service and students collected people's experiences using transit and their ideas about how to improve the services.

For the Manchester Transit Study, students organized discussion groups with a wide range of people and settings, including a veterans group, a computer repair and share club, the MCC Green Club and as part of other MCC classes. In addition, students set up meetings with their friends and colleagues at their local gym and at a Pizzeria. All interviews were conducted during April 2012; students submitted their findings to the study team as well as producing final products for their MCC class. Students summarized their findings and held a public information session to present their results. Over 100 attended this outreach session.

Students collected qualitative input and distributed the general public survey to participants; these findings included:

- Generally speaking, most people felt CTTRANSIT is fairly priced.
- Most participants also said service is good overall, is generally on time and has clean buses with mostly professional drivers.
- There were also many participants who said the bus does not work well for them. Challenges cited included:
  - Difficulty when you have anything else going on, such as traveling with children or carrying a lot of things. The bus is also difficult for older adults and people with disabilities.
  - Infrequent service. Some participants said taking the bus could add as much as two hours of travel time one-way as compared with driving.
  - Confusing schedules. People said it was hard to figure out how the bus works.
Lack of safety. There were several complaints about feeling unsafe on the bus, including waiting for the bus (see below) but also on the bus.

- Sense that the bus stops needed improving with shelters and lighting, especially to give passengers a better sense of safety.
- Others also remarked that the bus stops could do a better job protecting people from the elements when they are waiting for the bus to come. Some people suggested working out a deal with nearby shops so that bus riders could wait inside when the weather is bad.
- While many participants had experience with CTTRANSIT, there were also several individuals who had very limited knowledge of the system or how it works. One participant who owned a car expressed reluctance that he would ever use public transportation.

**SUMMARY OF FINDINGS**

The salient findings from the combined outreach process include:

- Nearly everyone in town, except current bus riders, had a very limited knowledge and understanding of the CTTRANSIT services available in Manchester. This was true even among stakeholders who had clients using public transportation.
- People who ride the bus, however, tend to use bus a lot and have an excellent understanding of how the service works.
- In general, people who ride CTTRANSIT consider the service to be convenient and appropriate for their travel needs.
- Likewise, even people who did not ride the bus, or did not have a strong understanding of the available services were supportive of transit overall and felt Manchester has potential to support more public transportation services, especially around downtown Manchester where the environment is good for walking.
- There is a high demand for travel within Manchester, but also to regional destinations, especially downtown Hartford. Three connections were identified as missing and important:
  - Around Buckland Hills, potentially operating from the existing Park and Ride lot.
  - Between downtown Manchester and MCC
  - Between MCC and Buckland Hills
- People also want and need to get to the grocery stores.
- Outside of downtown, most people felt that Manchester needs to improve the pedestrian infrastructure. The walk from Silver Lane to MCC for example, is not very safe. Buckland Hills is also a difficult place to walk anywhere, or even cross the street.
- In terms of preferences for new service:
  - Most people, including both members of the general public and current riders, expressed an interest in having more local bus service in Manchester, over more service to downtown Hartford.
  - Bus riders and members of the general public had different preferences for bus service on several attributes. Riders generally prefer increased service frequency over more coverage, longer service hours or weekend service. Members of the general
public, however, preferred coverage, longer hours and service on more days of the week over increased frequency.

- Both current riders and the general public expressed a preference for greater service frequency, even if this means requiring a transfer.

Other service improvements raised included:

- Improving safety at the stops by providing more shelters and lighting.
- Improving safety on the bus.
- Making the bus service easier to understand, especially the schedules.
5 SERVICE EVALUATION

OVERVIEW

Another important technical piece in understanding opportunities to improve transit service in the Town of Manchester involved examining the existing CTTRANSIT routes. As described, the Town of Manchester is currently served by nine CTTRANSIT bus routes, including seven local and two express routes and buses that operate on weekday and weekend days (see Figure 3-1). The evaluation process summarized on the following pages involved looking at each bus route individually and considering ridership patterns in terms of where people get on and off the bus, the time of the day and days of the week they typically ride, and their relative service productivity. This information helps us determine where and how routes are effective and where there are opportunities for improvement.

CTTRANSIT Service in Manchester

As discussed, CTTRANSIT service is focused on the Buckland Hills area at the northern edge of the Town, with all but two of the routes traveling to Buckland Hills. The concentration of service reflects a variety of factors, namely that the Buckland Hills area is a major retail area of regional significance. As such, in addition to being a shopping destination, it is also a major employment center. There is also a large commuter parking lot in the area, located on Buckland Hills Drive. Finally, the location is just off of I-84, an attribute that makes the location effective for express service, but also means there is limited opportunity for routes to travel on local roads.

Demand on the network overall is strong (see Figures 5-1 and 5-2) with Buckland Hills attracting the most ridership. There is also a high concentration of service along Main Street in downtown Manchester and, to a lesser extent at Manchester Community College (MCC).

With two service anchors (Buckland Hills and MCC), other parts of the Town of Manchester have more limited service, especially north-south service. Currently, only Route 83 Silver Lane travels along Main Street. This compares with east-west service, which is available by three routes:

- Partially by Route 83 which operates east-west at the southern end of town.
- Route 88: Burnside Avenue provides east-west service in the middle of Town along Middle Turnpike and Center Street.
- Route 82-84 travels east-west along Tolland Turnpike in Manchester’s northern end.
Figure 5-1  CTRANSIT Ridership on Manchester Routes - Regional Perspective (Inbound Service Depicted)
Figure 5-2  CTTRANSIT Ridership on Manchester Routes – Local Perspective (Inbound Service Depicted)
ROUTE BY ROUTE EVALUATION

The following section includes an evaluation of the individual CTTRANSIT routes operating in the Town of Manchester. The route evaluations are listed sequentially by route number and include the following information:

- Service overview and schedule – description of the route, route alignment and schedule.
- Ridership by stop – map showing where passengers board and alight from each route.
- Productivity – compares the relative productivity (boardings per trip and boarding by time of day) of the bus routes operating in Manchester.
- Service Improvement Options – describes how the route functions in the Manchester network of service and provides preliminary ideas for how route might be improved.

Route 3 Buckland Express

Overview and Schedule

Route 3 Buckland Express is a weekday-only express route that travels between the Buckland Park & Ride and destinations in downtown Hartford (see Figure 5-3). The route alignment primarily follows I-84, and utilizes Founders Bridge to cross the Connecticut River. All trips on Route 3 travel into downtown Hartford; many trips become part of CTTRANSIT’s Free Commuter Shuttle that operates between downtown Hartford and the employment centers in Asylum Hill (just outside of downtown Hartford). Downtown destinations include Central Row North, One Constitution Plaza, Pearl and Trumbull Streets, Goodwin Square, Theater Works, The Phoenix, and the Police Sub-station. In general, buses serve these downtown destinations in one direction only, either inbound or outbound.

Route 3’s schedule aligns with the needs of traditional commute patterns; most trips depart from Manchester in the AM peak and depart from Hartford in the PM peak (see Figure 5-4). Route 3 also offers reverse commute trips with seven trips offered to Manchester in the AM peak and five trips to Hartford (from Manchester) in the PM peak. During peak periods departures are scheduled between 5 and 20 minutes. There are only two trips during the midday, with one trip at 12:15 PM and another at 2:18 PM (leaving Hartford). There is no weekend service on Route 3.

Ridership by Stop

As an express Route, the Route stops only in downtown Hartford and the Buckland Hills Park and Ride lot. Consequently, all boardings and alightings are concentrated at these locations (see Figure 5-5).

Productivity and Ridership by Time of Day

Route 3 carries slightly fewer than 20 riders per trip; in terms of productivity, it is slightly below average for other CTTRANSIT routes serving Manchester (see Figure 5-6). An analysis of boardings by time of day shows that ridership is strongest in the peak direction; reverse commute trips (i.e. traveling into Hartford during the afternoon) are less well used (see Figure 5-7).
Figure 5-3  Route 3: Route Map

Figure 5-4  Route 3: Schedule Statistics

<table>
<thead>
<tr>
<th>Service Day</th>
<th>Span of Service</th>
<th>Frequency (min)</th>
<th>To Manchester</th>
<th>To Hartford</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday</td>
<td>5:30 AM – 6:47 PM</td>
<td></td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>AM Peak</td>
<td>6:15 AM – 8:51 AM</td>
<td>5-45</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>Midday</td>
<td>12:18 AM – 2:30 PM</td>
<td>60</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>PM Peak</td>
<td>2:30 PM – 5:30 PM</td>
<td>5-20</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Evening</td>
<td>5:30 PM – 6:47 PM</td>
<td>20-50</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Saturday</td>
<td>No service</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sunday</td>
<td>No service</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Route schedules
Figure 5-5  Route 3: Weekday Boardings and Alightings by Stop (Inbound Trips)

Figure 5-6  Route 3: Weekday Boardings per Trip (All Trips) - Manchester Transit Routes
Service Improvement Options

Route 3 is a productive service despite low ridership in the non-peak direction. In the context of Manchester transit services overall, Route 3 might be improved through better coordination and connections with bus routes that serve other parts of Manchester, such as service to Manchester Center and MCC. Route 3, especially the non-peak directional service, may also be strengthened by providing connections to the Buckland Hills retail establishments, including the Shoppes at Buckland Hills but also other retail plazas and stores.

Route 80 Buckland Flyer

Overview and Schedule

Route 80 Buckland Flyer is a partial-express weekend-only route that travels between the retail area of Buckland Hills and Market Street in downtown Hartford (see Figure 5-8). The schedule and alignment of this route are oriented towards serving The Shoppes at Buckland Hills with direct service between the retail area and downtown Hartford via I-84.

Route 80 is a simple, limited stop service that offers regularly scheduled departures. The schedule is oriented around shopping hours rather than regular commute trips with eight trips scheduled in each direction between 1:00 PM and 9:00 PM on Saturdays. Service is typically every 60 minutes (see Figure 5-9).

During the Christmas shopping season (from Thanksgiving until December 23), CTTRANSIT offers additional service on Route 80 such that service begins earlier (at 10:00 AM) on Saturday and 10 additional trips are added, effectively increasing service frequency to every 30 minutes. Sunday service is also offered during the holiday season from 11:00 AM to approximately 7:00 PM, with eight trips scheduled approximately every 60 minutes.
### Figure 5-8  Route 80: Route Map

![Route Map](image)

### Figure 5-9  Route 80 Schedule Statistics

<table>
<thead>
<tr>
<th>Service Day</th>
<th>Span of Service</th>
<th>Frequency (min)</th>
<th>To Buckland Hills</th>
<th>To Hartford</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday</td>
<td>No service</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Saturday*</td>
<td>1:00 PM – 9:23 PM</td>
<td>-</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>AM Peak</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Midday</td>
<td>1:00 PM – 2:30 PM</td>
<td>60</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>PM Peak</td>
<td>2:30 PM – 5:30 PM</td>
<td>60</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Evening</td>
<td>5:30 PM – 9:23 PM</td>
<td>20-75</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Sunday*</td>
<td>11:00 AM – 6:30 PM</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Route schedules

*Additional seasonal service offered from the day after Thanksgiving through December 23: Saturday service operates approximately every 30 minutes from 10:00 AM – 9:23 PM, Sunday service operates approximately every hour from 11:00 AM – 7:20 PM

### Ridership by Stop

With just two areas of stops, ridership by stop is high on both ends of the route (see Figure 5-10). Within the Buckland Hills area, nearly all the boardings are at the Shoppes at Buckland Hills, “the Mall”, plus a handful of boardings at the Target/Lowe’s Plaza and the Buckland Park and Ride Lot on Buckland Street (see Figure 5-10 insert).
Productivity and Ridership by Time of Day

Route 80 carries nearly 20 passengers per trip on Saturday, making it the second most productive of Manchester’s Saturday service, after Route 83 Silver Lane (see Figures 5-11 and 5-12). In terms of time of day, ridership per trip is fairly evenly distributed throughout the day, with a slight peak during the midday. On average, however, all trips carry between 17 and 19 passengers.

Service Improvement Options

- As a weekend shopper route, Route 80 performs well with strong ridership throughout the schedule. Ridership reflects the targeted service towards shopping, with seasonally adjusted service to reflect periods with higher demand.
- During the regular season, service on Route 80 begins at 1:00 PM and continues to 9:00 PM. While well matched with demand from shoppers and visitors, the hours are less well matched to the needs of employees because several work shifts require people to be at their jobs when the mall opens at 10:00 AM. In addition, the Saturday evening outbound trip has a 9:05 PM departure from the mall, which means the timing works for some, but not all, employees. The evening trips must also balance the need to take people home from the mall as soon as it closes with leaving enough time for workers to finish their trip and get on the bus. In the holiday season, additional trips are added so that the first bus arrives at the mall at 10:20 AM. This timing is better, but still not perfect for employees.
• Ridership is highly concentrated at the Mall, with only a few riders using the stops at the other retail locations in Buckland Hills, outside of the Park and Ride lot and a few stops at Lowe’s Plaza. As a result, there may be potential to identify a more direct path between I-84 Exit and the Mall or providing the service with another service, such as a circulator shuttle or flexible route.

Source: 2010-2011 Route Profile Reports
Route 82-84 Tolland Turnpike

Overview and Schedule

Route 82 and Route 84 are independent routes that are grouped together. They are both local routes and share an alignment along Tolland street/Tolland Turnpike between downtown Hartford and Manchester. Route 82 terminates at Buckland Hills and Route 84 continues east and terminates at Vernon and Rockville (see Figure 5-13).

There are several variations, which vary both, by time of day during the week and by day of week:

- There are two major alignments, both of which travel between downtown Hartford, along Tolland street (East Hartford) and Tolland Turnpike to North Main Street and into the Buckland Hills area. Route 82 terminates at Buckland Hills and Route 84 continues on to Vernon and Rockville. Route 84 does not deviate into Buckland Hills during the daytime, but does at night.

- On Saturdays, buses complete the entire alignment on each trip rather than alternating the trips, circulating through Buckland Hills before continuing on to Vernon and Rockville.

- On Sundays, Route 82-84 travels between downtown Hartford, Buckland Hills, and Manchester Center with a separate shuttle service providing connections to the Vernon and Rockville areas.

Within the weekday alignments, Route 82 to Buckland Hills follows a fairly straight-forward alignment in the Buckland Hills area, although it provides some circulation through the retail area. The routing to Rockville (Route 84) is also fairly direct, but includes a few one-way loops off of the main corridor near Depot Square, Green Circle and at the end of the route.

On weekdays, service is roughly scheduled every 60 minutes to and from Buckland Hills and Vernon/Rockville. This means the shared portion of the route, along Tolland Street and Tolland Turnpike, has an effective frequency of 30 minutes. Service is also slightly more frequent during the AM and PM peak periods. On weekday evenings and weekend days, service is scheduled every 60 minutes (see Figure 5-14).
### Figure 5-13 Route 82-84 Route Map

![Route 82-84 Route Map]

### Figure 5-14 Route 82-84 Schedule Statistics

<table>
<thead>
<tr>
<th>Service Day</th>
<th>Span of Service</th>
<th>Frequency (min)</th>
<th>To Buckland Hills</th>
<th>To Hartford</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday</td>
<td>5:10 AM – 10:42 PM</td>
<td></td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>AM Peak</td>
<td>5:10 AM – 8:30 AM</td>
<td>35-70</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Midday</td>
<td>8:30 AM – 2:30 PM</td>
<td>60</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>PM Peak</td>
<td>2:30 PM – 5:30 PM</td>
<td>30-60</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Evening</td>
<td>5:30 PM – 10:42 PM*</td>
<td>30-65</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Saturday</td>
<td>7:55 AM – 10:42 PM*</td>
<td>60-70</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Sunday</td>
<td>7:01 AM – 7:11 PM</td>
<td>60-75</td>
<td>10</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: Route schedules

*Schedule statistics for Route 82 (Buckland Hills) only

*Additional late-night seasonal trip from the day after Thanksgiving through December 23
Ridership by Stop

The most significant boarding and alighting locations and segments on Route 82-84 (not including destinations in Vernon and Rockville) are (see Figure 5-15):

- **Downtown Hartford.** Market Street at One Constitution Plaza had a total activity (boardings and alightings) of 241 passengers. Alightings are particularly high, given the data reflects inbound service.

- **The Shoppes at Buckland Hills and Macy's.** As a popular shopping destination in the Buckland Hills area, activity at this stop is very high with 135 boardings, or about 15% of total boardings.

- **Tolland Street and Tolland Turnpike (east of the Mall area).** This fairly long segment has steady ridership in terms of both boardings and alightings and accounts for 21% of boardings and 15% of alightings. There is no single stop attracting a large number of riders until the middle of corridor and then again at the western end. Ridership is concentrated:
  - In the middle of the corridor, at the intersection of Tolland Street and School Street. This stop had 62 passengers boarding and alighting (3.5% overall).
  - At the western end of the corridor, near Burnside and Elm Street (33 riders) and Main Street and Orchard Street (32 riders).

![Figure 5-15  Route 82-84 Weekday Boardings and Alightings by Stop (Inbound)](image-url)
Productivity and Ridership by Time of Day

Route 82-84 is the most productive route serving Manchester, carrying more than 50 riders per trip on weekdays (see Figure 5-16). The high ridership is partially explained by the length of the route, which provides connections between three communities (Hartford, Manchester, and Vernon/Rockville). Ridership per trip is fairly evenly distributed throughout the day, but drops off during the evening (see Figure 5-17).

The productivity of weekend day service is mixed. On Saturdays, there were approximately 14 boardings per trip (similar to weekday evenings), while there were about 31 per trip on Sundays (equal to the highest ridership during weekdays).

Low ridership during weekday evenings and on Saturdays may reflect a longer, more indirect alignment. On these trips the bus travels the entire alignment, so it travels from Hartford to Buckland Hills, circling around the Buckland Hills area before continuing on to Vernon and Rockville. Serving both locations on every trip increases the travel time to/from Vernon/Rockville by 20 minutes. The duration of the standard weekday trip from Rockville without stopping in Buckland Hills is close to one hour; this compares to a roughly 20 minute journey by car traveling along I-84. Sunday service to Buckland Hills and Manchester Center maintains the fast, direct service offered during weekdays service and attracts similar ridership levels.

Figure 5-16  Route 82-84 Weekday Boardings per Trip (All Trips) - Manchester Transit Routes
Service Improvement Options

Route 82-84 is a very productive route. Despite its success, the route may be improved by splitting the route into two independent services: one that travels between Buckland Hills and Hartford along Tolland Street and Tolland Turnpike and another that travels between Buckland Hills and Vernon/Rockville. Splitting the route into two parts might help local Manchester routes connect to both services and provide riders with the opportunity to travel west or east. It would also be easier and simpler for riders to understand.

Route 83 Silver Lane

Overview and Schedule

Route 83 Silver Lane is a local route that provides daily service between Manchester and downtown Hartford (see Figure 5-18). The route follows a common alignment along Silver Lane between downtown Hartford and the intersection at Silver Lane and Forbes Street. From the intersection of Silver Lane and Forbes Street, Route 83 follows one of four different alignments:

- Route 83A: Manchester Business Park via MCC
- Route 83B: Manchester Business Park via McKee Street
- Route 83C: Buckland Hills area via MCC
- Route 83D: Buckland Hills area via McKee Street (does not serve MCC)

Saturdays follow a similar alignment. On Sundays, however, Route 83 travels only to West Center Street and McKee Street.

Route 83 maintains a frequent schedule on weekdays (see Figure 5-19) with departures scheduled roughly every 20 to 30 minutes for most of the day. The route variant mean frequency from key points in Manchester varies, but most locations are served at least every 60 minutes. Service on Route 83 also increases frequency during the peak hours and decreases frequency during the early morning and late night hours.
Figure 5-18  Route 83: Route Map

Figure 5-19  Route 83: Schedule Statistics

<table>
<thead>
<tr>
<th>Service Day</th>
<th>Span of Service</th>
<th>Frequency (min)</th>
<th>To Manchester</th>
<th>To Hartford</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday</td>
<td>5:15 AM – 10:40 PM</td>
<td>Frequency (min)</td>
<td>31</td>
<td>35</td>
</tr>
<tr>
<td>AM Peak</td>
<td>5:15 AM – 8:30 AM</td>
<td>10-40</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Midday</td>
<td>8:30 AM – 2:30 PM</td>
<td>20-30</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>PM Peak</td>
<td>2:30 PM – 5:30 PM</td>
<td>20-30</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Evening</td>
<td>5:30 PM – 10:40 PM*</td>
<td>5-80</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Saturday</td>
<td>6:45 AM – 10:40 PM*</td>
<td>30-60</td>
<td>15</td>
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</tr>
<tr>
<td>Sunday</td>
<td>7:01 AM – 7:22 PM</td>
<td>60-75</td>
<td>12</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: Route schedules
*Additional late-night seasonal trip from the day after Thanksgiving through December 23

Ridership by Stop

Weekday ridership by stop to downtown Hartford is shown in Figure 5-20. The most significant boarding and alighting locations and segments on Route 83 are:

- **Downtown Hartford.** Market Street at One Constitution Plaza had a total activity (boardings and alightings) of 381 passengers. The Shoppes at Buckland Hills and Macy’s. Activity at this stop is very high. There were 114 boardings at this location, about 10% of total boardings.
- **Main Street in Manchester.** Main Street in downtown Manchester showed a lot of ridership (about 25% overall) in terms of both boardings and alightings, suggesting riders are using Route 83 for local travel.

- **Silver Lane/Spencer Street.** This corridor shows consistently strong ridership and accounts for 42% of all boardings. The segment had more boardings than alightings on the inbound trip, suggesting people traveling to destinations at the outer ends of the route. High ridership stops along the corridor include:
  - The stop near MCC had 107 boardings/alightings per day (5.4% overall). This is the second highest stop on the route after the Shoppes at Buckland Hills.
  - Stops near the nursery day care, Pine Grove Apartments and the intersection of Silver Lane and Main Street (all within East Hartford) had between 26-28 riders each, or about (1.4% overall per stop). The lowest ridership along Route 83 is within the Manchester Business Park.

**Productivity and Ridership by Time of Day**

As compared with other routes serving Manchester, Route 83 performs well, carrying nearly 30 passengers per trip (see Figure 5-21). Similar to the other routes that have high passengers per trip, Route 83 travels a fairly long distance and connects several communities (Manchester, East Hartford and Hartford). Ridership per trip is fairly strong all day on Route 83 and peaks during the midday with over 35 boardings per trip. The PM peak period ridership is also high at about 30 boardings per trip.

**Figure 5-20 Route 83: Weekday Boardings and Alightings by Stop (Inbound)**
Figure 5-21  Route 83: Weekday Boardings per Trip (all trips) - Manchester Transit Routes

Figure 5-22  Route 83: Weekday Ridership per Trip by Time of Day (all trips)

Source: 2010-2011 Route Profile Reports

Service Improvement Options

Route 83 is attracting more riders during the midday as compared to peak periods, suggesting that while the commuter market is strong, riders are also using the route for other purposes, such as shopping and local travel. The Manchester Business Park attracted very little ridership and considerably fewer riders as compared to the Buckland Hills area. Potential service improvements include:

- Reducing or eliminating service to Manchester Business Park – the Manchester Business Park attracts significantly fewer riders as compared with the Buckland Hills area, so the
two end points are not evenly balanced. Service to the Manchester Business Park could be reduced, or limited to the peak hours only, or eliminated entirely.

- Serving MCC on all trips – MCC attracts a large number of riders, suggesting Route 83 could stop at the college on all trips. This would improve service connections between Hartford and MCC, as well as between downtown Manchester and the Buckland Hills area and MCC.
- Connecting Route 83 to a single point in the Buckland Hills area (the Shoppes at Buckland Hills or the Buckland Hills Park and Ride lot) and providing local circulator service to other locations. As discussed previously, buses that circulate around the Buckland Hills area have very low boardings and alightings. Organizing the service so it stops at one or two destinations would reduce travel times and increase service reliability.
- Selecting either the Central/McKee Street or Hartford Turnpike alignment for every trip.

**Route 85 MCC Flyer**

**Overview and Schedule**

Route 85 MCC Flyer is a limited stop express route designed to provide connections between Manchester Community College (MCC) and downtown Hartford. The route operates according to an academic calendar (Figure 5-23), thus no service is provided on weekends, non-class weekdays, or during winter and summer breaks.

Route 85 follows a simple alignment, with only two time points connected primarily via I-84: downtown Hartford at Market Street and MCC's AST Tower. As with other CTTRANSIT routes, passengers may transfer for free in downtown Hartford to all other CTTRANSIT routes. Additional service to MCC is provided by Route 83 Silver Lane seven days per week.

Route 85 maintains a consistent schedule on weekdays (see Figure 5-24) with trips scheduled every 60 minutes in both directions. Service to Hartford begins later in the morning (around 10:00 AM) and operates until 5:10 PM, for a total of eight trips per day. Service to MCC begins at 7:10 AM but ends slightly early at 4:33 PM, allowing for 10 trips per day. The duration of the trip is typically 12 to 13 minutes.

**Ridership by Stop**

Route 85 is a limited stop service with stops in downtown Hartford, Spencer Street and K-Mart in Manchester and Manchester Community College (MCC) (see Figure 5-25).
Figure 5-23  Route 85: MCC Flyer Route Map

Figure 5-24  Route 85: Schedule Statistics

<table>
<thead>
<tr>
<th>Service Day</th>
<th>Span of Service</th>
<th>Frequency (min)</th>
<th>To MCC</th>
<th>To Hartford</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday</td>
<td>7:10 AM – 5:10 PM</td>
<td>10</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>AM Peak</td>
<td>7:10 AM – 8:30 AM</td>
<td>60</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Midday</td>
<td>8:30 AM – 2:30 PM</td>
<td>60</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>PM Peak</td>
<td>2:30 PM – 5:10 PM</td>
<td>60</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Evening</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Saturday</td>
<td>No service</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sunday</td>
<td>No service</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Route schedules
In terms of productivity, Route 85 is just about in the middle of the other Manchester routes, carrying about 20 riders per day (see Figure 5-26). Ridership per trip is also consistent with Route 3, the other express/limited stop route serving Manchester. Demand is fairly evenly distributed over the service day (see Figure 5-27).
Service Improvement Options

Route 85 is a targeted service that connects downtown Hartford with MCC. The route is scheduled around the MCC academic calendar and provides hourly service during these times. Given Route 85’s clear and direct market, potential improvements largely lie in coordinating service with other CTTRANSIT routes that serve Silver Lane and Manchester Center. These routes could be timed to both increase the effective frequency of service and create a second way to reach MCC via the Buckland Hills area. Other potential improvements include working with the Town of Manchester to improve pedestrian connections between Silver Lane and MCC and working with MCC’s administration to create a UPass-type of program.

Route 88 Burnside Avenue

Overview and Schedule

Route 88 Burnside Avenue is a local route that travels between Manchester and downtown Hartford. It operates seven days per week (see Figure 5-28). It is scheduled together with Route 86, which also travels along Burnside Avenue for part of its alignment. Route 86, however, serves Mayberry Village (in East Hartford) rather than downtown Manchester.

On weekdays and Saturday, Route 88 operates with two variants. The alignments are the same between downtown Manchester and the intersection of Center Street and W Middle Turnpike. From that point:

- Route 88C operates directly along Middle Turnpike to the CT Department of Social Services.
- Route 88M travels along Center Street, crossing Middle Turnpike and turning around via Lydall Street.

On Sundays, all trips follow the same alignment and travel via Center Street to Manchester Center. This is a shorter alignment as compared with the weekday service.

Figure 5-27  Route 85 Weekday Ridership per Trip by Time of Day (all trips)
Route 88 maintains a fairly consistent and frequent schedule on all days of the week (see Figure 5-29). On weekdays, service frequency is commonly every 15 minutes, with reduced service in the early mornings and evenings. Frequency decreases to approximately every 30 minutes on Saturday and every 60 minutes on Sunday.

**Figure 5-28  Route 88 Burnside Avenue – Route Map**

**Figure 5-29  Route 88: Schedule Statistics**

<table>
<thead>
<tr>
<th>Service Day</th>
<th>Span of Service</th>
<th>Frequency (min)</th>
<th>To Manchester</th>
<th>To Hartford</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday</td>
<td>4:24 AM – 9:18 PM</td>
<td>40</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>AM Peak</td>
<td>4:24 AM – 8:30 AM</td>
<td>10-40</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Midday</td>
<td>8:30 AM – 2:30 PM</td>
<td>15-30</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>PM Peak</td>
<td>2:30 PM – 5:30 PM</td>
<td>15-30</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Evening</td>
<td>5:30 PM – 9:18 PM</td>
<td>15-45</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Saturday</td>
<td>6:25 AM – 10:44 PM</td>
<td>30-60</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Sunday</td>
<td>7:00 AM – 7:25 PM</td>
<td>60-75</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

Source: Route schedules
**Ridership by Stop**

Weekday ridership by stop to downtown Hartford is shown in Figure 5-30. The most significant boarding and alighting locations and segments on Route 88 are:

- **Downtown Hartford.** Market Street had a total activity (boardings and alightings) of 612 passengers. A high number of passengers getting off the bus at this location reflect the data which is plotted for the inbound direction only. It is reasonable to assume a reverse pattern in the outbound direction. Market Street accounted for 57% of all riders.

- **Burnside Avenue and Main Street.** Ridership is strong along the Burnside Avenue in East Hartford. This segment is also somewhat more balanced in terms of passengers getting on and off the bus, suggesting some local travel occurs in this segment. Three stops along this segment were among the top five stops for this route: Burnside Avenue and William Street, Burnside Avenue and Walnut Street, and Connecticut Boulevard and Main Street.

- **Downtown Manchester.** Center Street and Main Street is one of the busiest stop in Manchester and one of the top five stops overall on Route 88. Stops east of Main Street in Manchester generally have lower ridership along the route, with the exception of the area around the Connecticut Department of Social Services.

Saturday and Sunday ridership decrease significantly but generally follow the same patterns as the weekday ridership (see Figure 5-31 and Figure 5-32). These observations suggest that passengers primarily use this route to reach Downtown Hartford and a few destinations along Burnside Avenue.
Productivity and Ridership by Time of Day

Route 88 is a productive route carrying nearly 30 passengers per trip (see Figure 5-31). Ridership per trip is strong throughout the day and peaks during the midday period with over 40 boardings per trip. This is 60% greater than the next highest time period (the PM peak) (see Figure 5-32).

Figure 5-31  Route 88: Weekday Boardings per Trip (all trips) - Manchester Transit Routes

Figure 5-32  Route 88: Weekday Ridership per Trip by Time of Day

Source: 2010-2011 Route Profile Reports
Service Improvement Options

Ridership on Route 88 is strongest during the midday, rather than traditional commuter periods. Ridership is also strong along the entire length of the trip, with very few areas underperforming segments. The strongest segments, however, are along Burnside Avenue. From the perspective of improving transit service in the Town of Manchester, potential improvements to Route 88 may include:

- Creating a scheduled transfer point in Manchester Center at the intersection of Main and Center Streets, so passengers can travel north to Buckland Hills or south to Silver Lane and/or MCC.
- Simplifying the weekend alignment, especially on Saturdays, so that Route 88 terminates in Manchester Center.
- Unbundle the Route 86 and Route 88 schedule – showing both routes together makes the schedules and maps harder to read and understand.

Route 91 Forbes Street Cross-town

Overview and Schedule

Route 91 Forbes Street Cross-town is a local route that travels between the retail area of Buckland Hills, East Hartford, Glastonbury, and Wethersfield seven days per week (see Figure 5-33). It is a somewhat unique route in the Manchester route network because it does not connect into downtown Hartford and instead provides connections between suburban communities. The route follows the same alignment throughout the day for the entire week, except for shortened trips scheduled during the early morning and evening.

Traveling inbound, Route 91 follows several local roads, including Buckland Road, Burnside Avenue, Forbes Street, Brewer Street, Main Street, Route 3, Maple Street, and Silas Deane Highway before arriving at the Wethersfield Shopping Center. Route 91 also serves several retail destinations in the Buckland Hills area, including Melville Plaza (Bob's, Marshalls), Wal-Mart, Best Buy, The Shoppes at Buckland Hills (Macy's), Sam's Club, Target, Lowe's, and Evergreen Walk.

Route 91 maintains a consistent schedule throughout the week (see Figure 5-34); service in both directions runs every 60 minutes for a majority of the service day. Evening service is slightly less frequent with trips scheduled approximately every 75 minutes.

Service ends at 11:00 PM Monday through Saturday and begins at 6:19 AM and 7:27 AM on weekdays and Saturdays, respectively. The service hours are reduced on Sunday, primarily in the evening. Additionally, between the Friday after Thanksgiving and December 23, there is an extra nightly trip to Wethersfield.
**Figure 5-33  Route 91 Forbes Street Route Map**

**Figure 5-34  Route 91: Schedule Statistics**

<table>
<thead>
<tr>
<th>Service Day</th>
<th>Span of Service</th>
<th>Frequency (min)</th>
<th>To Buckland Hills</th>
<th>To Wethersfield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday</td>
<td>6:19 AM – 11:00 PM</td>
<td>60</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>AM Peak</td>
<td>6:19 AM – 8:30 AM</td>
<td>60</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Midday</td>
<td>8:30 AM – 2:30 PM</td>
<td>60</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>PM Peak</td>
<td>2:30 PM – 5:30 PM</td>
<td>60-70</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Evening</td>
<td>5:30 PM – 11:00 PM*</td>
<td>60-80</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Saturday</td>
<td>7:27 AM – 10:59 PM*</td>
<td>60-80</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Sunday</td>
<td>8:19 AM – 7:28 PM*</td>
<td>60-80</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

*Source: Route schedules

*Additional late-night seasonal trip to Wethersfield from the day after Thanksgiving through December 23

**Ridership by Stop**

Ridership on Route 91 is concentrated around the Buckland Hills area in Manchester, Burnside Avenue in South Windsor and Main Street in East Hartford (see Figure 5-35). Traveling inbound, after the bus crosses the Connecticut River into Wethersfield, ridership drops considerably. Within this pattern, the individual stops and segments with the highest boardings are:

- Buckland Hills area – the four stops (Macy’s, Target/Lowes, Evergreen Walk and the Park and Ride Lot) account for nearly 25% (92 passengers) of all daily boardings and alightings.
- Burnside Avenue at Mary Street and Walnut Streets – these two stops have 28 riders boarding and alighting, or 7.4% of daily ridership.
- The area where the bus turns off of Burnside Avenue and onto Scotland Road has a total of 33 riders (12 at Burnside Avenue and Larrabree Street and 21 at Scotland Road and Burnside Avenue), for about 9% of all riders.
- Brewer Street at Glenn Road accounts for 16 riders, or about four percent of the daily total.
- Main Street in East Hartford includes two stops with higher ridership: Main Street and Wadsworth Street at the northern end (11 riders, 2.9% of total) and Main Street at Putnam Plaza (16 riders, 4.2% of total).

**Productivity and Ridership by Time of Day**

- Route 91 is less productive as compared to other routes serving the Manchester area (see Figure 5-36). It carries around 10 passengers per trip, which is less than other routes but similar to Route 92, also a cross-town route. Productivity is affected by the distance traveled, including a long segment across the Connecticut River into Wethersfield that attracts only a handful of riders.
- Ridership is also heavily oriented towards the PM peak and evening trips, which given the inbound direction (to Wethersfield) suggests that people are primarily using the route to travel to the Buckland Hills area for work and shopping (see Figure 5-37).

**Figure 5-35  Route 91: Weekday Boardings and Alightings by Stop (Inbound to Wethersfield)**
Service Improvement Options

Route 91 provides connections between communities located south and east of Manchester, including Glastonbury, Wethersfield and East Hartford. Ridership patterns suggest most of the travelers use the route to get from these outlying communities to the Buckland Hills area, primarily the mall.

The challenge with Route 91, however, is it the route travels a long distance for the number of riders carried. A potential service improvement, therefore, may be to eliminate the segment of the route that serves Wethersfield. There are very few riders on this segment, even on weekdays. Eliminating the segment, therefore, would save service hours and service miles without impacting large volumes of passengers.
From the Town of Manchester’s perspective, potential route improvements may include scheduling Route 91 to connect with other routes converging at the mall or the Buckland Hills Park and Ride lot. Creating a timed connection (or service hub) at this location would help facilitate transfers and travel between the Buckland Hills area, Manchester center and the surrounding communities. It would also help facilitate connections to express routes that operate from Buckland Hills.

**Route 92 Tower Avenue Cross-town**

**Overview and Schedule**

Route 92 Tower Avenue Cross-town, like Route 91, is a local, cross-town or inter-regional route that connects the Buckland Hills areas with suburban communities in and around Hartford (see Figure 5-38). Route 92 travels on a combination of local roads and highways between the Buckland Hills area and the communities of South Windsor, Windsor, Hartford and Bloomfield. Route 92 only serves the Buckland Hills area in Manchester.

Route 92 maintains a simple schedule; it operates six days per week with regularly scheduled 60-minute headways (see Figure 5-39). Service ends at 8:26 PM every day and begins at 6:45 AM and 7:19 AM on weekdays and Saturdays, respectively. There are generally 14 trips each way Monday through Saturday with five trips during peak hours.

**Figure 5-38 Route 92 Tower Avenue Route Map**
Figure 5-39  Route 92 Schedule Statistics

<table>
<thead>
<tr>
<th>Service Day</th>
<th>Span of Service</th>
<th>Frequency (min)</th>
<th>To Buckland Hills</th>
<th>To Bloomfield</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday</td>
<td>6:45 AM – 8:26 PM</td>
<td>14</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>AM Peak</td>
<td>6:45 AM – 8:30 AM</td>
<td>60</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Midday</td>
<td>8:30 AM – 2:30 PM</td>
<td>60</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>PM Peak</td>
<td>2:30 PM – 5:30 PM</td>
<td>60</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Evening</td>
<td>5:30 PM – 8:26 PM</td>
<td>60</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Saturday</td>
<td>7:19 AM – 8:26 PM</td>
<td>60</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Sunday</td>
<td>No service</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: Route schedules

**Ridership by Stop**

Ridership on Route 92 is primarily concentrated in the Buckland Hills area and destinations in Windsor, Hartford and Bloomfield (see Figure 5-40). The most significant boarding and alighting locations and segments on Route 92 include:

- **The Shoppes at Buckland Hills** – 33% of total boardings
- **Windsor Avenue/North Main Street** – 29% of total boardings
- **Tower Avenue** – 44% of total alightings
- **Copaco Shopping Center** – 21% of total alightings

Ridership activity in South Windsor is very low, accounting for just 5% of total boardings.
Ridership by Time of Day

Ridership on Route 92 is low as compared to the other CTTRANSIT routes serving Manchester, but similar to Route 92, the other cross-town route (see Figure 5-41). In terms of time of day, ridership is strongest during the PM peak period and evening, while the AM peak and midday have lower ridership with fewer than 10 riders per trip (see Figure 5-42).
Service Improvement Options

Route 92 is a cross-town route, thus by definition it does not connect to downtown Hartford. It does, however, connect to the Buckland Hills area providing access to jobs in this area. The route was established as part of the Jobs Access Reverse Commute (JARC) program to link Hartford residents to jobs in South Windsor and Manchester. Demand on the route is fairly low overall. As a result, service frequencies are also low, further limiting the ridership potential.

Even with these constraints, however, the service could be improved by operating more directly between the Buckland Hills area and Windsor, Hartford and Bloomfield. Creating a more direct service would reduce travel time and make the route faster and more reliable for the majority of the riders.
6 SERVICE IMPROVEMENT OPPORTUNITIES

OVERVIEW

The goal of the Manchester Transit Study was to examine opportunities to improve transit service within the Town of Manchester given other new and planned transit service in the area. The study was also directed specifically to consider the feasibility of creating a transit hub in the vicinity of the Buckland Hills area.

With these goals in mind, research and analysis conducted as part of this study suggest the following opportunities for strengthening transit service within the Town of Manchester:

- Considering both existing and latent demand, the strongest transit market in Manchester is the Buckland Hills area. In addition,
  - There is strong demand along Main Street and in the center of town (Main and Center Streets and Main and Middle Turnpike).
  - Manchester Community College offers strong potential for transit ridership.
- Demand analysis suggests a need to both get to these locations and to travel between them.
- Circulation in the Buckland Hills area is difficult, for automobiles as well as buses. The existing bus routes spend a fair amount of time serving secondary destinations (i.e. places other than The Shoppes at Buckland Hills) that carry a relatively small number of riders.
- Transit riders expressed a desire for more neighborhood service and expressed a willingness to transfer, if service frequency is increased.
- Transit service is not well understood in the community and any change to existing or new service would require a strong marketing component.
SERVICE IMPROVEMENT OPTIONS

Given these opportunities, the Study Team identified a series of service improvements that were broadly defined at this juncture. The improvement opportunities were then discussed with the TAC and shared with the public at a public meeting. Based on the input from both the TAC and the public, the options were modified and carried forward as recommendations (see Chapter 7). This next section presents a series of service improvement options. Input and comment from the public meeting is also summarized at the end of the chapter.

Option 1: Create Transit Hub at Buckland Hills

One of the main challenges with traveling by bus in Manchester is getting around locally. In Buckland Hills, for example, people can get to some specific locations, such as The Shoppes at Buckland Hills, but many of the smaller malls, plazas and service centers are scattered around the area and have infrequent transit service or none at all. While part of the problem reflects a challenging pedestrian environment, the transit system also lacks an effective distribution mechanism. Some buses serve some parts of the area, but no one bus serves all destinations, and because services are not well coordinated, it is difficult to transfer between buses.

A clear choice for improving transit service in Manchester, therefore, is consolidating transit service in the Buckland Hills area into a transit hub and creating a distribution or circulator service to take people to destinations in the broader Buckland Hills area. A transit hub at Buckland Hills could also function as a transfer location for regional services, so that passengers coming from suburban locations, such as Vernon, Windsor or East Hartford could travel to the hub and change direction to get to downtown Hartford or other suburban locations.

There are two potential locations for a transfer hub in the area – the Buckland Hills Park and Ride lot or The Shoppes at Buckland Hills. Of these two locations, while the demand to the Mall is greater than the Park and Ride lot, the Park and Ride lot is currently a more logical hub location, in part because it is already a public facility but also because comparatively it is centrally located in the Buckland Hills area with easy access to/from I-84 and the regional road network. In addition, as an existing park and ride lot, the facility already plays somewhat of a transit hub role and offers a basic level of passenger amenities (shelter, signage, etc.).

Creating a transit hub at Buckland Hills involves three main steps:

- Making minor adjustments to the existing CTTRANSIT service alignments.
- Coordinating connections between the Buckland Hills Park and Ride lot and The Shoppes at Buckland Hills.
- Creating a Buckland Hills circulator.

CTTRANSIT Service Alignments

The transit hub would require changing existing CTTRANSIT routes, but for the most part these changes are minor. All but two of the nine CTTRANSIT routes that serve Manchester serve the Buckland Hills. Of the seven routes serving the Buckland Hills area, only two (Routes 3 and 80) currently stop at the Park and Ride lot. One change, therefore, would be diverting the other five routes to stop at the Buckland Hills Park and Ride lot (see Figure 6-1). This would not be a major change and while it would add some time to the schedule, this time may be recaptured by eliminating stops at other locations.
Another critical decision involves determining which bus routes, if any, should be aligned to serve The Shoppes at Buckland Hills or other retail destinations in the Buckland Hills area. The purpose of creating a transit hub is that most or all of the bus service will meet at a single location with connecting service by a circulator service (see below). Longer distance, or mainline, bus routes focus on getting riders to and from the Buckland Hills area and the local services concentrate on getting riders around the area.

For most stops outside of The Shoppes at Buckland Hills, demand is low enough that circulator service should be able to handle these volumes. In the case of The Shoppes at Buckland Hills, however, the Mall is such a major stop that requiring passengers to transfer at the Park and Ride lot is not advised. Instead, most routes currently serving the Mall may retain that stop, but with a more direct and faster link (see Figures 6-2 and 6-3).

Creating an effective transit hub also involves strengthening links between other parts of Manchester and the hub. Of Manchester’s three existing local bus routes (Routes 82-84, 83 and 88), Route 88 Burnside Avenue does not serve Buckland Hills. Routes 82-84 and 83 serve Buckland Hills, but have variations in terms of which trips serve Buckland Hills directly and which ones travel to Buckland Hills in addition to serving other destinations.

**Figure 6-1 Potential CTTRANSIT Route Changes Associated with Buckland Hills Transit Hub**

<table>
<thead>
<tr>
<th>Existing Bus Route</th>
<th>Serve Buckland Hills P&amp;R Lot</th>
<th>Serve The Shoppes at Buckland Hills</th>
<th>Potential Alignment Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route 3: Buckland Express</td>
<td>Yes</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>Route 80: Buckland Flyer</td>
<td>Yes</td>
<td>Yes</td>
<td>Travel directly from I-84 to Buckland P&amp;R and Buckland Hills Drive. Eliminate intermediary stops and service to Melville Plaza</td>
</tr>
<tr>
<td>Route 82: Tolland Turnpike</td>
<td>Add stop</td>
<td>Yes</td>
<td>Turns off Tolland Turnpike at Buckland Street, serves P&amp;R lot and continues on to The Shoppes at Buckland Hills.</td>
</tr>
<tr>
<td>Route 84: Tolland Turnpike</td>
<td>Add stop</td>
<td>Eliminate Stop</td>
<td>Turns off Tolland Turnpike at Buckland Street, serves P&amp;R lot and travels back to Tolland Turnpike via Buckland Street.</td>
</tr>
<tr>
<td><strong>Additional Option:</strong> Route 82-84 Tolland Turnpike</td>
<td>Separate Routes 82 and 84, so Route 82 operates between downtown Hartford and Buckland Hills Park and Ride lot and The Shoppes at Buckland Hills. Route 84 operates between Buckland Park and Ride and The Shoppes at Buckland Hills and Vernon and Rockville.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Route 83: Silver Lane</td>
<td>Add stop</td>
<td>Yes</td>
<td>Operate directly to Buckland P&amp;R and Mall with no additional stops. All trips serve MCC when school is in session. Increase frequency by eliminating service to Manchester Business Park.</td>
</tr>
<tr>
<td>Route 85: MCC Flyer</td>
<td>No</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>Route 88: Burnside Avenue</td>
<td>No</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>Route 91: Forbes Avenue Cross-town</td>
<td>Add stop</td>
<td>Yes</td>
<td>Travel directly from I-84 to Buckland P&amp;R and Buckland Hills Drive. Eliminate intermediary stops and service to Melville Plaza</td>
</tr>
<tr>
<td>Route 92 Tower Avenue</td>
<td>Add stop</td>
<td>Yes</td>
<td>Travel directly from I-84 to Buckland P&amp;R and Buckland Hills Drive. Eliminate intermediary stops and service to Melville Plaza</td>
</tr>
</tbody>
</table>
Connections between Buckland Hills Park and Ride Lot and The Shoppes at Buckland Hills

As discussed, as part of creating a transit hub, most CTTRANSIT routes in Manchester will stop at the Buckland Hills Park and Ride lot. In most cases, this stop will be in lieu of stopping at some of the other retail plazas in the area, assuming passengers will transfer to a circulator service that will take them to their final destination. In nearly all cases, however, buses will serve both the Park and Ride lot and the Mall, recognizing the importance of the Mall as a destination. Serving both locations will also create local service between these two locations. With a handful of minor changes, there will be an estimated 58 weekday trips between the Park and Ride Lot and Mall, most of which occur (roughly) between 7:00 AM – 7:00 PM (see Figure 6-2). Thus, with some scheduling changes, there could be a bus leaving the Park and Ride for the Mall every 12-15 minutes without any additional cost. In this way the existing routes could form the primary connector service between the two main destinations in the Buckland Hills. This would allow the flexible circulator service to concentrate on destinations other than the Mall (see below).

Figure 6-2 Potential Service between Buckland Hills Park and Ride Lot and The Shoppes at Buckland Hills

<table>
<thead>
<tr>
<th>Existing Bus Route</th>
<th>Buckland Hills Span of Service*</th>
<th>Weekday Daily Trips (one-way)</th>
<th>Approximate Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route 82: Tolland Turnpike</td>
<td>9:02 AM – 7:15 PM</td>
<td>12</td>
<td>60 min</td>
</tr>
<tr>
<td>Route 83: Silver Lane</td>
<td>5:40 AM – 11:08 PM</td>
<td>20</td>
<td>60 min (roughly)</td>
</tr>
<tr>
<td>Route 91: Forbes venue</td>
<td>7:08 AM – 7:33 PM</td>
<td>13</td>
<td>60 min</td>
</tr>
<tr>
<td>Cross-town</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Route 92 Tower Avenue</td>
<td>7:24 AM – 7:24 PM</td>
<td>13</td>
<td>60 min</td>
</tr>
</tbody>
</table>

Note: * Span of service refers to departure from Buckland Hills

Create Buckland Hills Circulator/Flex Service

The second critical part of creating a transit hub at the Buckland Hills area involves creating a local circulator service. Circulator routes, however, can be challenging to implement successfully, especially in the Buckland Hills area which has a large number of moderately attractive destinations spread out over a large area; the lack of pedestrian infrastructure means the bus service will need to turn off of the main streets into parking lots; and traffic congestion creates challenging turning movements and makes it difficult for a bus to stay on time.

Given these challenges, a demand response, flexible (or Flex) service may be the most appropriate way to provide circulator service. The advantage of the Flex service design is that instead of traveling around the Buckland Hills area according to a fixed schedule, the vehicle will work around a handful of fixed time points and outside of these scheduled times and locations, the bus will travel directly where they want to go. Typically, Flex services could be designed with a handful of fixed time points, potentially at the Park and Ride lot, the Mall and a third point along Buckland Hills Drive that is fairly easily accessible by foot. Passengers may get on the Flex service at these locations and request to be dropped off anywhere within the Buckland Hills area. Return trips, however, require calling in advance to schedule their pick-up. Calling to schedule a pick-up may be perceived as being disadvantageous to some; new technologies such as smart phone applications and social media are making the reserving trips easier. In addition, other
CTTRANSIT buses will provide fairly frequent, regular service between the Mall and the Park and Ride lot.

**Potential Benefits and Costs**

As mentioned earlier, the idea of creating a transit hub in the Buckland Hills area has been evaluated in several previous studies. The location has considerable appeal because of the regional significance of the area in terms of employment and services and because it is strategically located near to I-84 and thus provides good connections to Hartford and other parts of the region. Finally, there is considerable traffic congestion in the area and parking shortages during the holiday peak period. The main benefits of creating a transit hub are:

- **Creates a focal point for transit service and transit connections.** Creating a transit hub helps to organize the transit services so that regional routes only provide regional service. Currently routes operate with a regional element (Hartford to Buckland Hills) and a local component (serve multiple destinations within Buckland Hills). Demand on the regional and local portions of the route are not balanced in terms of ridership, travel time or service need. By separating the functions, each part of the route can be more closely tailored to demand and need.

- **Concentrates service, reduces some redundancies and better coordinates local service.** Currently there are a lot of buses traveling to the Buckland Hills area without much coordination between routes. As a result, there may be several buses in the same location at the same time, some bus stops have too much service and other stops don’t have enough service. By limiting bus service to stops at the Park and Ride lot and the Mall, service to the Buckland Hills area will be better coordinated, so service is spaced more evenly, service can be more closely matched to demand and buses will no longer travel to destinations with very low ridership.

- **Improves local circulation.** The current bus service creates a network that makes it difficult to travel around the Buckland Hills area. Some buses serve some stops but accessing some locations is highly dependent on a traveler’s original location. Transferring between routes outside of the mall is not easy and, when combined with a poor pedestrian environment, it makes it difficult to get between places within Buckland Hills. A local circulator route will address some of these issues.

- **Supports access to jobs.** A key benefit of the proposed transit hub is that it will make it easy for people to get to/from the retail establishments in the Buckland Hills area, including the Mall but also the other employers. Access will be possible from Hartford, other parts of Manchester and other regional suburban communities.

Despite the potential benefits, there are also costs:

- **Operating costs for the circulator/flex service.** While some cost savings may be achieved by eliminating some of the service in the Buckland Hills, they will not cover the cost of a new circulator/flex service in the Buckland Hills area. Assuming an hourly operating cost of $88/hour, a daily service and 16 hour span of service, the annual cost of the flex route could be over $500,000 per year.

- **Supporting transfers and encouraging use of the circulator/flex service.** Flexible services have proven to be successful in other parts of the country, including suburban office park/retail types of land uses. In addition, the survey results suggest a willingness on the part of the passengers to transfer if service frequency is increased. At
the same time, however, there will likely be challenges associated with encouraging people to use the circulator, especially when they need to call and reserve a pick-up. This can be addressed through marketing and education efforts, but there will be a learning curve.

Option 2: Create Mini-Hub at Spencer Street

A second opportunity to loosely group service is to create a mini hub at the southern part of Manchester, at either MCC or the park and ride lot off Spencer Street. This mini-hub would not coordinate a lot of service, but could offer both express service to Hartford and local service to downtown Manchester and Buckland Hills.

CTTRANSIT Service Alignments

Currently, only two of the existing Manchester routes serve MCC: the Route 85 MCC Flyer and the Route 83 Silver Lane. Route 85 would be adjusted slightly to serve the park and ride lot at Spencer Lane. Adding this stop is not expected to add time to the schedule. If the stop is added, however, and attracts significant riders, additional peak period commuter trips may be needed to make Route 85 a year-round service.

Creating a hub at MCC would, however, require making changes to Route 83. Route 83 connects MCC, downtown Manchester and Buckland Hills. However, Route 83 does not travel on a direct path and alternates between four trip alignments. As a result, the route is confusing to passengers. In addition, the bus route is not sufficiently frequent to encourage transfers between other routes nor is it scheduled with repeating patterns that make it easy for riders to use and understand (see also Figure 3-2). Proposed changes, therefore, involve straightening out Route 83 so that:

- All trips serve MCC when school is in session.
- All trips travel from Spencer/West Center Street to McKee Street to Hartford Road.
- Service to Manchester Business Park is eliminated.
- All trips stop at the Buckland Hills Park and Ride lot and The Shoppes at Buckland Hills only.
- Service frequency is increased to 30 minutes during the peak periods; 15 minute service during the midday; and 60 minutes during the evening. Demand is highest during the midday and more frequent service will help facilitate transfers between Route 88 and Route 83 as well as at the Buckland Hills Park and Ride lot.
- Service schedules should be based on repeating patterns so riders can reliably count on Route 83 buses leaving at regular intervals, for example, every 15 or 30 minutes. As possible key locations, such as MCC and/or Buckland Hills should be coordinated to depart on clock face headways.
- Match the service span, frequency and schedule of Route 83 to Route 88.

Potential Benefits and Costs

Creating a mini- hub at MCC does not offer the same scale of benefits as a hub at Buckland Hills, but it could help strengthen local transit service by:

- **Creating a southern focal point for transit service and transit connections.**
  Similar to Buckland Hills, creating a hub at MCC could separate out the regional and local
components of some of the CTTRANSIT routes, so that the mainline buses provide regional connections and local services would facilitate travel within Manchester. Because demand to MCC is not as strong as Buckland Hills, the concentration of service at MCC would not be as significant.

- **Strengthening local service.** A key benefit of the MCC system is that it could be leveraged to strengthen local service by creating a local service. By streamlining Route 83 so that it provides more frequent connections between MCC, downtown Manchester and Buckland Hills, the route would provide connections between Manchester’s key activity centers and strengthen north – south travel overall. Timed connections at key local transfer points would improve the ability to travel within the Town of Manchester.

- **Meeting the need for service between Manchester Center and MCC.** One of the key needs identified in the study was for service that provided clear, frequent connections between Manchester Center and MCC. A new local service would meet this need and could help strengthen the connection of the downtown area to the college.

There are a number of potential challenges associated with the dual-hub system. In addition to those raised in association with Option 1, creating at a second hub at MCC would be challenged by:

- **Demand at the two hubs is not well matched.** MCC does not attract the same volume of riders as compared with Buckland Hills. For most transit services, this is not a problem, but could be for the proposed connecting service. The challenge arises because demand for service to Buckland Hills will be greater than to MCC and buses will carry fewer passengers in one direction. This problem may be partially offset by demand for stops along the way.

- **MCC is a good location for a hub but lacks parking needed to support a park and ride.** MCC does not have adequate parking during the academic year and could not easily designate parking to create a park and ride lot for commuters.

- **Demand for travel to MCC varies with the academic calendar.** During the academic year, MCC is an attractive transit service hub. There are a large number of individuals traveling to and from campus, many of whom could be encouraged to use transit. However, outside of the academic calendar, there is significantly less activity on campus and thus the location will not be as effective as a transit hub.

- **Matching transit service supply with demand.** Data shows that the two segments (Hartford to MCC and MCC to Buckland Hills) are fairly evenly balanced. Thus, while the creation of a ‘hub’ at MCC has some intuitive appeal, existing ridership patterns suggest that there may not be an operational reason to separate the two services.

### Option 3: Additional Transit Improvement Options

In addition to the more structural changes to the way transit service is organized in the Town of Manchester, there are a handful of other potential service improvements that could strengthen transit service within Manchester. Most of these potential improvements could be implemented independently or as part of the other service improvement opportunities identified in this chapter:

- **Route 82-84 - Eliminate service to JC Penny Distribution Center.** Ridership at this stop is very low and does not warrant direct service, especially on weekends. In addition, access to the distribution center may be available from the Buckland Hills Park.
and Ride lot. If a Flex service is established as part of creating a transit hub, this service could also serve the distribution center. Eliminating the loop to JC Penny could free up resources for investment in other parts of the service.

- **Route 82C – Eliminate Sunday service to downtown Manchester.** The service adds a deviation that is not logically connected to Route 82-84. It also offers only sporadic service and operates on Sundays only, so is difficult for casual riders to understand and use. Consequently, ridership on this segment is very low.

- **Route 83 – Eliminate service to Manchester Business Park.** Service on this segment of Route 83 is very low and does not warrant service. In addition, alternating service between the Business Park and Buckland Hills makes the route difficult to understand and use.

- **Create a Universal Pass program with Manchester Community College.** Ridership at MCC is high enough to warrant a universal pass (UPass) program with the college. The UPass program should increase ridership on existing routes and help generate funds to increase service levels.

- **Create an Employer Universal Pass program with The Shoppes at Buckland Hills.** Ridership at the Buckland Hills is significant, but much of the ridership is likely generated by visitors to the Mall rather than employees. One strategy for encouraging employee use of the service would be to create an employee bus pass program for all mall workers. This program may begin as a pilot program during the holiday season when parking is tight. Depending on the success of the program, it may be developed into a year-round program. Given the high turnover of retail employees, passes may be distributed monthly.

- **Improve marketing efforts within Town of Manchester.** While ridership on the CTTRANSIT routes in Manchester is strong, findings suggest that many people in the community do not have a good understanding of the available services. In addition, there are opportunities to create or strengthen partnerships with agencies and organizations within the communities to make it easier and more cost effective to use CTTRANSIT routes. There are, for example, several social and human service organizations along Main Street and Center Street, many of whose clients ride the bus, though the agencies do not actively work with CTTRANSIT. Working more closely with the organizations to ensure they have schedule information, access to pass programs and possibly offer travel training could help improve both ridership and the perception of the agency in the local community.

**PUBLIC INPUT AND COMMENT**

A public workshop was held on Thursday, October 11, 2012 at the Manchester Community College space on Main Street in downtown Manchester. The meeting was advertised through several formats, including in the “Manchester Matters” Town newsletter, with flyers posted around town and at a Manchester First Thursday event held the week before the public meeting. In total, 39 people attended the meeting.

Sandy Fry of CRCOG welcomed everyone and provided some background for the study and the agenda for the evening. Sandy discussed the project goals and stated that one of the main goals is to strengthen the local transit network with stronger connections to the regional transit network. Other goals include considering Buckland as a transit hub and exploring the potential for redesign
of existing routes. The meeting also included an overview of the study approach, findings and preliminary recommendations. Key comments and input provided by the community include:

- People were open to the concept of creating a transit hub at Buckland Hills and a circulator. Many felt a circulator may be used by shoppers so they only had to park once. Others expressed concern about requiring people to transfer, especially if they had to pay second fare.

- While there was support for a local circulator, the meeting attendees expressed concern about a flex service. Because this is a new kind of service for the region, they did not understand clearly how it would work and were concerned that having to call for pick-ups would make the service cumbersome for individuals. There was also some concern expressed that the flex service could not handle ridership during peak periods, such as holidays.

- Some attendees liked the idea of scaling the service to match demand, so that big buses travel into the hub and then smaller vehicles provide the local circulator.

- There was support for improved cross-town service between MCC, downtown Manchester and Buckland Hills.

- Some people felt the bus should operate on Broad Street in addition to Main Street. These individuals felt that Broad Street is being improved by the Town and should also have transit service. (It was noted that all of Broad Street is within ¼ mile of existing transit service.) People expressed concern that discontinuing any bus service may hurt small businesses located along the route.

- A representative from MCC said CTTRANSIT schedules don’t line up exactly with MCC schedules, more bus shelters are needed and the college would like to set up a UPass arrangement with CTTRANSIT.
7 RECOMMENDATIONS

OVERVIEW

The Manchester Transit Study set out to accomplish two main goals: 1) identify strategies to improve transit service within the Town of Manchester; and 2) to assess the feasibility of creating a transit hub in Buckland Hills. This chapter outlines recommendations that work towards achieving those goals.

RECOMMENDATION 1: CREATE TRANSIT HUB AT BUCKLAND HILLS

Developing a transit hub at Buckland Hills strengthens local and regional transit services by organizing a multitude of services at a single location and increasing opportunities for local and regional connections. A hub also helps Buckland Hills position itself as a destination for potentially future high capacity regional transit.

Buckland Hills was identified a good location for a hub 1) there is already a lot of productive transit service in the area; 2) it is a regional activity center for employment and services; and 3) it provides excellent access to/from the interstate. The Buckland Hills area also faces transportation challenges such as traffic congestion that make improving public transportation service improvements attractive. The need for this service has been identified in previous studies including the Buckland Area Transportation Study and the Manchester Vernon Busway Study and was confirmed as part of this effort (the Manchester Transit Study). Providing a transit hub could also encourage transit oriented development.

There are two potential locations in the area for a transfer hub—the Buckland Hills Park and Ride lot and The Shoppes at Buckland Hills. The Park and Ride lot is currently the more logical location for a transit hub because it is already a public facility with both existing capacity and potential to expand. It is also centrally located in the Buckland Hills area with easy access to/from I-84 and the regional road network. In addition, as an existing park and ride lot, the facility already plays somewhat of a transit hub role and offers a basic level of passenger amenities with some shelter and signage. Additionally, the park n ride lot will also be a station on the proposed Vernon/Manchester busway. On the other hand, the mall is the better location in terms
of where do passengers want to go. If, in the future, the Mall would agree to host the transfer hub, this should be considered.

The primary attribute of a successful transit hub is that it receives sufficient service and bus routes converge at the location in a coordinated manner so that transfers and connections are easy. As a result, there are four primary strategies associated with developing a transit hub:

1. Re-aligning CTTRANSIT routes so as many routes as possible stop at the Buckland Hills Park and Ride lot.
2. Offer a local circulator service to serve local destinations.
3. Offer well timed connections to facilitate regional connections.
4. Capital improvements to the Buckland Park and Ride lots to create a comfortable and safe waiting environment.

Re-Align Existing CTTRANSIT Routes

As discussed, there is a lot of bus service to Buckland Hills already. With the current service levels six routes serve the area and provide just over one hundred trips (one-way) (see Figure 7-1). This means, over a 14 hour day, there are — on average — seven buses traveling to Buckland Hills per hour. An initial change, therefore, involves adjusting existing service to serve the Park and Ride lot.

Only two routes (3 and 80) currently stop at the Park and Ride lot, so the remaining five routes would need to be diverted to stop at the Buckland Hills Park and Ride lot (see Figure 7-1). This would not be a major change and is estimated to result in a net decrease in travel time overall. Net savings is achieved because CTTRANSIT buses that currently circulate around the Buckland Hills area (see Figure 7-2) would be re-routed to stop at the Park and Ride lot and The Shoppes at Buckland Hills only. For stops outside of The Shoppes at Buckland Hills, service will be provided by a local circulator service, described below. Indeed, savings resulting from shortening routes and eliminating time associated with circulating through the Buckland Hills area has the potential to be significant and is broadly estimated as on the order of 2,300 annual service hours (see Figure 7-3). However, not all of these savings are easily captured, especially if savings are less significant (less than five minutes per trip). In these cases, reduced travel times may be absorbed by the overall CTTRANSIT system without producing tangible savings3.

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3Most CTTRANSIT bus routes are scheduled with recovery time (the industry standard is roughly 10% of the route travel time) so drivers have a few minutes at the end of every trip to make up any unexpected delays (traffic, accident, heavy boarding, etc.) and/or take a short break. Depending on how tightly a route is scheduled, small savings in travel times may end up getting folded into recovery time and are not captured as savings in the overall system.
### Figure 7-1 Existing Service to Buckland Hills

<table>
<thead>
<tr>
<th>Bus Route</th>
<th>Service Hours/Days</th>
<th>Daily Weekday Trips (one-way)</th>
<th>Saturday Trips (one-way)</th>
<th>Sunday Trips (one-way)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route 3: Buckland Express</td>
<td>Weekdays 5:30 AM – 6:47 PM Service concentrated during peak periods</td>
<td>23</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Route 80: Buckland Flyer</td>
<td>Saturdays 1:00 PM – 9:23 PM</td>
<td></td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Route 82 - 84: Tolland Turnpike</td>
<td>5:10 AM – 10:42 PM (roughly 5-20 min peak; 30 min off peak)</td>
<td>19</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Route 83: Silver Lane</td>
<td>5:15 AM – 10:40 PM (roughly 20 min peak; 30 min off peak)</td>
<td>31</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Route 91: Forbes Avenue Cross-town</td>
<td>6:19 AM – 11:00 PM (roughly hourly all day)</td>
<td>16</td>
<td>15</td>
<td>11</td>
</tr>
<tr>
<td>Route 92 Tower Avenue</td>
<td>6:45 AM – 8:36 PM (roughly hourly all day)</td>
<td>14</td>
<td>13</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>103</strong></td>
<td><strong>66</strong></td>
<td><strong>34</strong></td>
</tr>
</tbody>
</table>

Source: Nelson/Nygaard Adapted from CTTRANSIT Schedules

### Figure 7-2 Existing CTTRANSIT Service Circulation in Buckland Hills Area

![Map of Buckland Hills Retail Area](image)
## Figure 7-3  CTTRANSIT Route Changes and Estimated Time Savings Associated with Buckland Hills Transit Hub

<table>
<thead>
<tr>
<th>Existing Bus Route</th>
<th>Serve Buckland P&amp;R Lot</th>
<th>Serve The Shoppes at Buckland Hills</th>
<th>Potential Alignment Changes</th>
<th>Cost Implications</th>
<th>Annual (Cost)/Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route 3: Buckland Express</td>
<td>Yes</td>
<td>Midday only</td>
<td>Route 3 commute service will not serve the mall. Midday service will add stop at mall.</td>
<td>Add 1.5 miles and 10 minutes per trip (two-way) (2 trips per weekday)</td>
<td>83 hours</td>
</tr>
<tr>
<td>Route 80: Buckland Flyer</td>
<td>Yes</td>
<td>Yes</td>
<td>Travel directly from I-84 to Buckland P&amp;R and Buckland Hills Drive. Eliminate intermediary stops and service to Bob's/Marshalls</td>
<td>Saves roughly 5 miles and about 20 minutes travel time per trip (two-way) (8 trips per Saturday)</td>
<td>139 hours</td>
</tr>
<tr>
<td>Route 82: Tolland Turnpike</td>
<td>Add stop</td>
<td>Yes</td>
<td>Turns off Tolland Turnpike at Buckland Street, serves P&amp;R lot and continues on to The Shoppes at Buckland Hills.</td>
<td>Saves an estimated 10 minutes (20 trips per weekday)</td>
<td>833 hours</td>
</tr>
<tr>
<td>Route 84: Tolland Turnpike</td>
<td>Add stop</td>
<td>Evenings and weekends only</td>
<td>Turns off Tolland Turnpike at Buckland Street, serves P&amp;R lot and travels back to Tolland Turnpike via Buckland Street.</td>
<td>Assumes no major change in alignment or time schedule.</td>
<td>-</td>
</tr>
<tr>
<td>Route 83: Silver Lane</td>
<td>Add stop</td>
<td>Yes</td>
<td>Operate directly to from Main Street to Buckland P&amp;R and Mall via Buckland Street (instead of Slater Street)</td>
<td>Saves an estimated 5 minutes per trip (12 trips per weekday)</td>
<td>250 hours</td>
</tr>
<tr>
<td>Route 91: Forbes Avenue Cross-town</td>
<td>Add stop</td>
<td>Yes</td>
<td>Travel directly from I-84 to Buckland P&amp;R and Buckland Hills Drive. Eliminate intermediary stops and service to Bob's/Marshalls</td>
<td>Saves an estimated 10 minutes (16 trips per weekday)</td>
<td>666 hours</td>
</tr>
<tr>
<td>Route 92 Tower Avenue</td>
<td>Add stop</td>
<td>Yes</td>
<td>Begin route at Buckland P&amp;R and The Shoppes at Buckland Hills instead of Bob's/Marshalls.</td>
<td>Saves an estimated 10 minutes (14 trips per weekday)</td>
<td>583 hours</td>
</tr>
</tbody>
</table>

**Estimated impact:** 2,380 hours

*Source: Nelson\Nygaard Consulting Associates*
Create Feeder/Circulator Service for Buckland Hills Area

A second important part of creating a transit hub at Buckland Hills involves establishing a circulator service. From a traveler’s perspective the circular offers an opportunity to get to/from more destinations around Buckland Hills, and depending on service frequency, it may be more convenient for riders and the circulator may simplify travel overall. However, it is also true that passengers prefer a “one-seat” ride directly to their destination. The circulator, by definition, requires a transfer and for many travelers this would be perceived as a less convenient and more time consuming travel option. The proposed service design, however, seeks to mitigate these impacts by retaining one-seat service to The Shoppes at Buckland Hills, timing trips to meet the circulator and improving the physical waiting area at the transit hub. Additionally, whereas today some riders on particular routes have service to more locations in the mall area, this is not true for all routes. The circulator will provide access to more locations for passengers on all the routes serving the mall.

Circulator Service Design

Feedback from community members identified a shuttle service with a fixed-schedule with fixed time points as the preferred way to provide local service. The advantage of creating the circulator is that it will operate on a schedule, have regular arrival and departure times, stops at more destinations and be easier to understand overall. The shuttle would provide door-to-door service to most of the area’s major destinations, similar to how many of CTTRANSIT routes travel through the Buckland Hills area, including the Plaza at Buckland Hills, the Promenade Shops at Evergreen Walkway, Wal-Mart and The Shoppes at Buckland Hills (see Figure 7-4). There are challenges associated with a fixed-route shuttle service, including the cost to provide the service and a difficult routing that will be slow and cumbersome to riders, particularly because it will be a lengthy one way loop.

The Technical Advisory Committee believes that the flex service, which was a foreign concept for most of the public, continues to have a lot of merit, so going forward, both concepts should be refined, before one or the other is implemented.

Data on existing CTTRANSIT routes shows demand at most of these stops is relatively low with about 125 daily passenger boarding or alighting associated with the combined four stops (Bob’s/Marshalls Plaza 1, Bob’s Marshalls Plaza 2, Evergreen Walk and Target and Lowe’s) and four CTTRANSIT routes stopping at these locations (Route 82-84, 83, 91 and 92). This means on average, daily demand is about 10-15 passengers per hour.4

A fixed route circulator is estimated to travel as a one-way loop for 6.5 miles and require about 45 minutes for a single one-way trip. If the bus leaves on the hour, while there may be long layover time, the shuttle would depart on a regular schedule that meets a majority of CTTRANSIT routes and be intuitive for passengers (i.e. departs on the hour) (see Figure 7-5). The circulator alignment is intended to be indicative only and there may be some opportunities to coordinate with CTTRANSIT fixed route service to reduce cost. For example, some CTTRANSIT trips may be able to travel via Slater Street en route to the mall, instead of using the circulator to provide this service. In addition, over the longer term, as travel times are tightened and additional service may be added, the schedule can be updated to reflect this experience and potentially shorten the layover time. The shuttle would be targeted towards people working at the retail outlets and shoppers, thus the service schedule should be coordinated with the operating hours of the Mall

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4 Data is broadly estimated from CTTRANSIT route profile data collected in November 2011.
and most major retail locations. This is estimated as from 9:30 AM to 9:30 PM on weekdays and Saturdays and from 11:30 AM to 6:30 PM on Sunday. Ideally the shuttle would operate every 30 minutes at all times of the day to provide sufficient frequency for the majority of employees and shoppers. However, in the early stages of the service, demand is unlikely to warrant this level of service, except for on Saturdays, during the holiday schedule and some peak periods.

Our recommendation also calls for operating the shuttle at 30 minute frequencies on Sundays because there is significantly less CTTRANSIT services; by providing more shuttle service those connections will be easier to make. As CTTRANSIT gains experience with the shuttle, the schedule and service level may be changed.

If a flex service is operated one vehicle would be able to operate 2 trips per hour, providing a higher level of service for the same or lower cost (see below). In addition, because the flexible service could make two round trips in an hour, only one vehicle would be needed for Sunday service. A second vehicle may only be needed during peak shopping times.

**Service Costs**

This study does not include a full implementation plan, thus costs are only broadly analyzed based on the estimated service hour requirements and CTTRANSIT’s current hourly service cost. Within this context, the proposed circulator would be an expensive service to operate, especially given the service level provided. If CTTRANSIT were to operate the circulator at a roughly hourly frequency, annual costs are estimated at approximately $438,000 (see Figure 7-6). Adding a second weekday shuttle to offer 30 minute service would cost about $602,000. It may be possible to contract out for the service, which could potentially reduce hourly operating costs from an estimated $88 per hour to about $50 per hour. This would reduce annual service costs to $250,000 for one vehicle, or $343,000 for two vehicles. However, contracting out for service has additional considerations (see discussion on pages 7-7 and 7-8).

A flex service is estimated to cost slightly less as the shuttle service (roughly $406,000 and $438,000 per year) and could probably be lower slightly with more detailed analysis of demand and scheduling. Cost savings primarily arise because the flex route would provide twice as many departures as compared with a fixed route, fixed schedule service, thus there are fewer times when a second vehicle would be needed. There are some additional costs associated with dispatch, however, and more extensive rider education would also be required.
Figure 7-4  Map of Proposed Buckland Hills Circulator (Alignment is indicative only)

Figure 7-5  Buckland Hills Circulator: Estimated Travel Time and Indicative Schedule

<table>
<thead>
<tr>
<th>Stop</th>
<th>Estimated Travel Time</th>
<th>Cumulative Travel Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buckland Hills Park and Ride</td>
<td>0:00</td>
<td></td>
</tr>
<tr>
<td>Shoppes at Buckland Hills</td>
<td>0:05</td>
<td>0:05</td>
</tr>
<tr>
<td>Wal-Mart</td>
<td>0:05</td>
<td>0:10</td>
</tr>
<tr>
<td>Best Buy</td>
<td>0:03</td>
<td>0:13</td>
</tr>
<tr>
<td>Target</td>
<td>0:07</td>
<td>0:20</td>
</tr>
<tr>
<td>Evergreen Walkway</td>
<td>0:05</td>
<td>0:25</td>
</tr>
<tr>
<td>Plaza at Buckland Hills</td>
<td>0:10</td>
<td>0:35</td>
</tr>
<tr>
<td>Buckland Hills Park and Ride</td>
<td>0:05</td>
<td>0:40</td>
</tr>
<tr>
<td>Total Trip Time</td>
<td></td>
<td>0:45</td>
</tr>
</tbody>
</table>

Source: Nelson\Nygaard Consulting Associates
### Figure 7-6 Estimated Service Level and Cost of Proposed Buckland Hills Circulator

<table>
<thead>
<tr>
<th>Days of Week</th>
<th>Hours</th>
<th>Vehicles</th>
<th>Total Service Hours</th>
<th>Cost ($88/hour)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed-Route Fixed-Schedule Shuttle</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weekdays</td>
<td>9:30 am – 9:30 pm</td>
<td>1 - all day</td>
<td>12 hours/day x 250 days = 3,000 hours</td>
<td>$264,000</td>
</tr>
<tr>
<td>Saturday</td>
<td>9:30 am – 9:30 pm</td>
<td>2 - all day</td>
<td>24 hours/day x 52 days = 1,248 hours</td>
<td>$109,824</td>
</tr>
<tr>
<td>Sunday</td>
<td>11:30 am – 6:30 pm</td>
<td>2 - all day</td>
<td>14 hours/day x 52 days = 728 hours</td>
<td>$64,064</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$497,888</td>
</tr>
</tbody>
</table>

| Flex Service |             |          |                     |                 |
| Weekdays     | 9:30 am – 9:30 pm | 1 - all day | 12 hours/day x 250 days = 3,000 hours | $264,000 |
| Saturday     | 9:30 am – 9:30 pm | 2 - all day | 24 hours/day x 52 days = 1,248 hours | $109,824 |
| Sunday       | 11:30 am – 6:30 pm | 1 - all day | 7 hours/day x 52 days = 364 hours | $32,032 |
|              |             |          |                     | $405,856 |

Source: Nelson\Nygaard Consulting Associates

**Service between Buckland Park and Ride and The Shoppes at Buckland Hills**

Service between the Buckland Hills Park and Ride lot and The Shoppes at Buckland Hills is also an important part of local circulation. Recognizing the importance of the Mall as a destination, the current plan is to have CTTRANSIT buses serve both the Park and Ride lot and the Mall. With a handful of minor changes, there will be an estimated 58 weekday trips between the Park and Ride Lot and Mall, most of which occur (roughly) between 7:00 AM – 7:00 PM (see Figure 7-6). Thus, with some scheduling changes, there could be a bus leaving the Park and Ride for the Mall every 12-15 minutes without any additional cost. In this way the existing routes could form the primary connector service between the two main destinations in the Buckland Hills. Buses operating between the Park and Ride lot and the Mall would also supplement the circulator shuttle. Passengers may use the CTTRANSIT buses to travel to Mall, and catch the shuttle at the Mall to get to another location in Buckland Hills. Moreover, when the Busway East, linking downtown Hartford with Manchester and Vernon is developed, the Park and Ride lot will become an important station on the busway, and connections to the developments in the Buckland area will be essential.
Figure 7-7  Potential Service between Buckland Hills Park and Ride Lot and The Shoppes at Buckland Hills

<table>
<thead>
<tr>
<th>Existing Bus Route</th>
<th>Buckland Hills Span of Service*</th>
<th>Weekday Daily Trips (one-way)</th>
<th>Approximate Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Route 82: Tolland Turnpike</td>
<td>9:02 AM – 7:15 PM</td>
<td>12</td>
<td>60 min</td>
</tr>
<tr>
<td>Route 83: Silver Lane</td>
<td>5:40 AM – 11:08 PM</td>
<td>20</td>
<td>60 min (roughly)</td>
</tr>
<tr>
<td>Route 91: Forbes Avenue Cross-town</td>
<td>7:08 AM – 7:33 PM</td>
<td>13</td>
<td>60 min</td>
</tr>
<tr>
<td>Route 92 Tower Avenue</td>
<td>7:24 AM – 7:24 PM</td>
<td>13</td>
<td>60 min</td>
</tr>
</tbody>
</table>

Note: * Span of service refers to departure from Buckland Hills

Circulator Vehicles and Operations and Management

Given demand for the circulator is roughly estimated at between 15 and 20 passengers per hour, the circulator service is best operated with a small transit vehicle, potentially a small bus or cutaway vehicle. Smaller transit vehicles typically are more easily maneuvered than larger transit vehicles, which will be useful for a service such as the Buckland Hills circulator which will travel off the main roads, turning into plazas, big box parking lots and potentially serving the front door of many shops. In addition, smaller transit vehicles typically have marginally lower operating costs.

Operations and management of the circulator (either fixed or flex service) could be conducted under a variety of models, each of which has its own advantages and disadvantages.

1. **CTTRANSIT operates the service.** CTTRANSIT currently operates transit service in the Hartford area and is recognizable by passengers and the public as the region’s public transit operator. The agency is also fully staffed and equipped to operate bus service. The disadvantages associated with CTTRANSIT operating the service is a high overall operating cost. In addition, CTTRANSIT does not currently operate small vehicles, thus there would be a capital cost associated with purchasing new vehicles. Additionally, CTTRANSIT does not currently schedule any flexible service.

2. **Contract service to private operator.** The circulator service could be put out to bid and operated by an independent service provider. The advantage of contracted service providers is lower hourly service rates as compared with transit agencies and increased flexibility in terms of starting the service quickly. For legal reasons, however, CTTRANSIT could not manage the service contract. Thus a primary disadvantage associated with contracting service is there is no clear agency or organization to manage and oversee circulator management, operations and performance.

3. **Create Transit Management Association (TMA) to operate and manage the service.** As discussed, a critical challenge associated with contracting a new circulator service in the Buckland Hills area is the lack of an organization to manage the shuttle and adapt the service over time to best meet demand. A Transportation Management Association (TMA) could be created to fulfill that role. The advantage of a TMA is that the organization could be comprised of individuals and organizations with a direct stake in the success of the shuttle. However, a TMA requires staffing and funding, thereby increasing the cost of operations. It is unclear if Buckland Hills businesses would be willing to fund such an entity.
**Update Schedules so Service Converge at Common Time Point**

There is a lot of transit service arriving in the Buckland Hills area on weekdays and Saturdays, and to a lesser extent on Sunday (see Figure 7-7). Currently, the common stop for most routes is The Shoppes at Buckland Hills, but routes are not scheduled to converge at key time points or support connections between routes. With the transit hub established at the Buckland Hills Park and Ride lot, there are new opportunities to encourage routes to meet at certain times of the day.

Based on CTTRANSIT existing travel times and service frequencies, the study team estimated how route schedules could be adjusted to converge at common time points. The most effective time for routes to arrive at the Park and Ride lot would be on the hour. This would support transfers to the Buckland Hills connector shuttle and several routes, with minor adjustments to their schedule could arrive on, or just before the hour. A second time point for routes to try and meet would be half-past the hour (0:30); this time point works well with services that also meet on the hour and should work for some of the CTTRANSIT routes with the highest frequencies (Route 82-84 and Route 83).

The cost of implementing these schedule changes needs to be considered in light of proposed alignment changes in the Buckland Hills area and how Manchester routes are scheduled within the broader CTTRANSIT network. The cost of making the schedule changes is difficult to estimate because it will impact the overall system.

**Figure 7-8  Potential Weekday Arrival Times at Buckland Hills Park and Ride Lot or Mall**

<table>
<thead>
<tr>
<th>Bus Route</th>
<th>Connections to</th>
<th>Peak Frequency</th>
<th>Peak Arrival Times</th>
<th>Off Peak Frequency</th>
<th>Off-Peak Arrival Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Buckland Hills Circulator</td>
<td>Buckland Hills area</td>
<td>30</td>
<td>0:00, 0:30</td>
<td>60</td>
<td>0:00</td>
</tr>
<tr>
<td>Route 3: Buckland Express</td>
<td>Downtown Hartford</td>
<td>10-15</td>
<td>0:00, 0:15, 0:30, 0:45</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Route 82 - 84: Tolland Turnpike</td>
<td>Downtown Hartford, Vernon, Rockville</td>
<td>20</td>
<td>0:00, 0:20, 0:40</td>
<td>30</td>
<td>0:00, 0:30</td>
</tr>
<tr>
<td>Route 83: Silver Lane</td>
<td>Downtown Manchester Community College, Downtown Hartford</td>
<td>30</td>
<td>0:00, 0:30</td>
<td>30</td>
<td>0:00, 0:30</td>
</tr>
<tr>
<td>Route 91: Forbes Avenue Cross-town</td>
<td>Wethersfield</td>
<td>60</td>
<td>0:00</td>
<td>60</td>
<td>0:00</td>
</tr>
<tr>
<td>Route 92 Tower Avenue</td>
<td>Bloomfield</td>
<td>60</td>
<td>0:20</td>
<td>60</td>
<td>0:20</td>
</tr>
</tbody>
</table>

Source: Nelson\Nygaard Consulting Associates
Capital Improvements at Buckland Hills Park and Ride Lot

In addition to service improvements, creating a transit hub at the Buckland Hills Park and Ride lot would require investments to the existing facility to ensure it offers passengers a safe and comfortable waiting environment. Ideally the upgraded facilities would also offer passenger information systems so riders can easily navigate the system. Minimal improvements include:

- **Covered, and ideally climate controlled, passenger waiting areas.** In the short-term, the park and ride lot may be expanded to include larger, heated shelters that offer protection from the weather, but do not need staffing when the facility is open. Over time, as the transit hub becomes more established and more passengers are transferring between routes, the Town of Manchester and CTDOT may expand the passenger waiting facilities to create an enclosed building that is staffed when open, offers public restrooms, ticket sales and potentially transit service supervision. Particularly when the Busway east, linking downtown Hartford with Manchester and Vernon is developed, the park n ride lot will become an extremely important hub for transit.

- **Passenger information.** Clear and simple information about transit service operations in and out of the Buckland Hills Transit Hub is an essential piece of the facility’s infrastructure. The information should include route information such as maps and schedules for all CTTRANSIT routes serving the facility as well as any new circulator service. Ideally, dynamic signage would also be available announcing the scheduled arrival of the new circulator and the other routes.

- **Organize and structure bus and shuttle access and egress movements as well as designated waiting locations.** As the number of buses serving the Buckland Hills Park and Ride increases, the park and ride lot will need to be reconfigured so that bus movements in and out of the facility are clearly marked to avoid pedestrian and vehicular conflicts and ensure passengers know where to wait for individual routes.

**RECOMMENDATION 2: CREATE MINI HUB AT SPENCER STREET**

A second opportunity to strengthen transit service in Manchester involves creating a mini-hub (or super stop) in the southern part of Manchester focused on the Spencer Street Park and Ride lot and Manchester Community College (MCC). The Spencer Street Park and Ride lot is also within walking distance to a potential new Wal-Mart store under development.
This second hub would have a lower level of service as compared with Buckland Hills, but would offer express service in both directions (to and from Hartford) during peak periods as well as connections to downtown Manchester and the Buckland Hills area. Even though the scale of the hub will be reduced, the same design principles hold. To initiate a mini-hub at Spencer Street, the steps include:

1. Re-aligning CTTRANSIT routes so as many routes as makes sense stop at the Spencer Street Park and Ride lot and Manchester Community college.
2. Offer well timed connections, so passengers can make convenient transfers.
3. While, no circulator is needed at this location, efforts to make both the Spencer Street Park and Ride lot and Manchester Community College as accessible as possible for pedestrians and bicyclists would strengthen the mini-hub. This is especially true for the Spencer Street Park and Ride lot, given recent plans to develop a Wal-Mart near this location.

**Re-Align Existing CTTRANSIT Routes**

There are two routes that serve the southern part of Manchester:

- Route 85 MCC Flyer
- Route 83 Silver Lane

Route 85's schedule does not show a stop at the Spencer Park and Ride lot, but the route map shows that it passes directly by the facility, suggesting a stop could be added. By adding the stop at the Spencer Park and Ride lot, service to/from parking lot would double, making it much more attractive to commuters (see Figure 7-9). The stop would also help balance the route and serve demand along the traditional commute direction (Manchester to Hartford) as well as the reverse commute (Hartford to Manchester). This benefit results because Route 85 brings students from Hartford to Manchester in the morning, but travels back to Hartford empty. Stopping at the Park and Ride lot on the inbound trip would help the bus pick up passengers.

Route 83 currently stops at both the Spencer Park and Ride lot and MCC, but stops at the Spencer Park and Ride lot during the peak periods only; and afternoon stops are on request only. Route 83 also stops at MCC on every other trip. As part of creating a mini-hub, Route 83 should stop at MCC on every trip. However, there is no clear need for Route 83 to stop at Spencer Street outside of peak periods.
Figure 7-9  Existing Service to Spencer Street

<table>
<thead>
<tr>
<th>Bus Route</th>
<th>Weekday Service Hours/Days</th>
<th>Total Trips</th>
<th>Stops at Spencer Street</th>
<th>Stops at MCC</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existing Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Route 85: MCC Flyer</td>
<td>7:10 AM – 5:10 PM</td>
<td>10</td>
<td>-</td>
<td>10</td>
<td>Operates during academic calendar only</td>
</tr>
<tr>
<td>Route 83: Silver Lane</td>
<td>5:15 AM – 10:40 PM</td>
<td>31</td>
<td>11 AM/PM</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td><strong>Proposed Service</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Route 85: MCC Flyer</td>
<td>7:10 AM – 5:10 PM</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>Can be initiated in short-term</td>
</tr>
<tr>
<td>Route 83: Silver Lane – Peak Period</td>
<td>5:15 AM – 10:40 PM</td>
<td>31</td>
<td>11 AM/PM</td>
<td>31</td>
<td>Serve MCC during academic calendar only No change in service to park and ride lot</td>
</tr>
</tbody>
</table>

Source: Nelson/Nygaard Consulting Associates

**Estimated Costs**

Changes to Route 85 MCC Flyer involve adding a stop at the Spencer Street Park and Ride lot. This stop would increase the amount of time needed to operate the route, but this increase is not expected to be significant or result in cost increases to the network.

Proposed changes to Route 83 involve adding at stop at Manchester Community College on every trip. This change could have more substantial impacts to the route costs, especially serving MCC, which involves traveling off route into the college campus. If no other changes are made to Route 83 (see next option below), adding a stop at MCC would add an estimated seven to eight minutes per trip, or about 2 hours per day. This has the potential to roughly increase annual operating costs by $46,000. However, increased travel time to MCC could also be offset by minor alignment changes.

**RECOMMENDATION 3: UPDATE ROUTE 83**

Updating Route 83 Silver Lane is an important part of creating more effective local service in Manchester because it is the only route that provides north-south connections and links three of the most important activity centers in town: MCC, downtown Manchester and Buckland Hills. While Route 83 does connect these three activity centers, the route loses effectiveness because it does not travel on a direct path between these destinations; and the route alternates between four trip alignments. This makes the route confusing to some riders (and potential riders) and erodes service frequency between the most important destinations. As a result, recommendations revolve around creating a more direct and simple alignment, eliminating deviations and adjusting the service schedule and frequency.
Simplifying Route Alignment

As discussed, Route 83 operates with four alignments (83A, 83B, 83C and 83D) depending on the route terminus (Buckland Hills or Manchester Business Park), the alignment (travel via McKee Street or Hartford Road) and service to MCC. Low ridership at the Manchester Business Park suggests serving this location is no longer needed and service hours would be better invested in service to Buckland Hills. Likewise, demand at MCC is strong enough to warrant stopping at the college at all times when school is in session. Finally, ridership on the McKee Street service is stronger than Hartford Road, suggesting having all trips travel via McKee Street would strengthen service overall. These changes would double the amount of service between MCC, downtown Manchester and Buckland Hills and increase the amount of service between Hartford and MCC by 30% (see Figure 7-10). All changes are expected to be cost neutral.

Figure 7-10  Proposed Schedule for Route 83

<table>
<thead>
<tr>
<th></th>
<th>One-way Trips</th>
<th>Spencer Street Park and Ride Lot</th>
<th>Manchester Community College</th>
<th>Buckland Hills Park and Ride</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Service</td>
<td>31</td>
<td>11</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Proposed</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
</tr>
</tbody>
</table>

Source: Nelson/Nygaard Consulting Associates

Adjust Service Schedule

Route 83 current schedule has regular departures every 30 minutes throughout peak periods, with most buses leaving Downtown Hartford at 0:20 and 0:50. Arrival times in Manchester, however, are not as consistent in part due to bus travel on local streets, but also because of the way the bus deviates (as described above). The bus currently arrives at The Shoppes at Buckland Hills at 0:17 and Manchester Business Park at 0:40.

With very minor changes in the service, Route 83 should be able to stop at MCC and arrive at the Buckland Hills Park and Ride lot in 40 minutes. The schedule would need to be adjusted for the bus to arrive at the Buckland Hills Park and Ride lot at the top of the hour (0:00) and half past the hour (0:30). But, this should be possible within existing resources, assuming the deviation to the Manchester Business Park is eliminated. Rescheduling Route 83 will help make connections at the Buckland Hills Park and Ride lot.

Service to the Spencer Street Park and Ride lot may be continued in the peak periods. Increasing service to the site during the off-peak, however, is not necessary until (when) the new Wal-Mart opens in the adjacent lot.

Weekend Service

Route 83 operates with limited service on Saturdays and Sundays. On Saturdays, Route 83 operates 18 trips (service is roughly hourly) according to four alignments, including service to some locations that may not need service, such as MCC and the Manchester Business Park. On Sundays, Route 83 operates 11 trips with hourly service, provided over a shorter span of service as compared with Saturdays. Sunday service also terminates at the intersection of West Center and McKee Streets and does not continue into downtown Manchester or the Buckland Hills area.
As part of simplifying Route 83, Saturday service may be streamlined into a single alignment, consistent with weekday service that travels along Spencer Street (State Highway 502) to Main Street and Buckland Hills. A main difference between weekday and Saturday service, however, is eliminating service to MCC, which is not open on weekend days. This change should result in a small service reduction.

On Sundays, Route 83 should be operated with the same alignment as proposed for Saturday, but consistent with existing operations, with a shorter span of service. This would be a net increase in service of about 20 minutes per trip (one way), or an addition of about seven hours per day, amounting to roughly $33,500 annually. Part of the increased cost could be offset by eliminating Route 82’s spur into downtown Manchester on Sunday (see Recommendation 5).

**RECOMMENDATION 4: SEPARATE ROUTE 82 AND 84**

CTTRANSIT currently operates two bus lines, Route 82 and Route 84 that are scheduled jointly. Route 82 operates from Downtown Hartford to Buckland Hills with roughly half-hourly service during the peak and hourly service during the off-peak. Route 84 operates between Downtown Hartford and Rockville/Vernon via Buckland Hills with bus leaving roughly every 20 minutes during the peak and hourly during the off-peak. The advantage of this schedule is that combined, the two routes provide fairly frequent service between Hartford and Buckland Hills with departures every 10-15 minutes during the peak and every 30 minutes during the off-peak. Service from Buckland Hills to Rockville is hourly during the off-peak.

This approach to service design offers advantages and disadvantages. By serving the same corridor with two routes, that higher need corridor (Hartford – Buckland Hills) get twice the service while the lower demand corridor (Buckland Hills – Rockville/Vernon) receives less service. In addition, passengers traveling the full length of the corridor have a one-seat ride, which is nearly always preferred. The main disadvantage, however, is that the combined route is somewhat more difficult for passengers to understand, especially passengers who may want to connect to the route in a location outside of Downtown Hartford. In addition, bus departure times and schedule intervals can become irregular, especially during the peak periods.

A potential solution to these challenges is separating the routes so Route 82 operates between Hartford and Buckland Hills and Route 84 operates between Buckland Hills and Rockville/Vernon. This is somewhat similar to how the Sunday service operates today. Route 82 can operate at the frequency that meets demand as can Route 84. Routes 82 and 84 can be timed to meet at the Buckland Hills Park and Ride lot (i.e. 15 minute service during the peak and 30 minutes during the off-peak), as well as coordinated to meet the Buckland Hills circulator and other CTTRANSIT routes. Scheduling the routes separately makes it slightly easier to support these transfers and schedule the segments so they meet. It also strengthens the Buckland Hills Transit hub concept as a location where services converge.

Cost increases associated with this schedule and route assignment change should not be significant. There is no additional service being provided, but there may be some costs associated with scheduling the service as well as changes to the informational and marketing materials.
RECOMMENDATION 5: ELIMINATE UNPRODUCTIVE ROUTE SEGMENTS

There are two route segments in the Manchester network of routes that do not carry many passengers. These segments could be eliminated to invest service hours in more productive parts of the system. Potential savings are roughly estimated to be about $47,000. The two segments are:

- **Route 83 Service to Manchester Business Park.** As described above, Route 83 has several trips a day, including Saturdays that serve the Manchester Business Park. Service on this segment of Route 83 is very low and does not warrant such a high level of service, or any service at all. In addition, alternating service between the Business Park and Buckland Hills makes the route difficult to understand and use. As noted above, ideally saved service hours from eliminating service to Manchester Business Park will be reinvested in Route 83 and used to strengthen north-south connections (see also Recommendation 3 described above).

- **Route 82C Sunday service into downtown Manchester.** Route 82C travels into downtown Manchester. The purpose of this trip is to connect with the Rockville Shuttle and indeed the only stop with ridership is at the intersection of N. Main Street and Oakland (estimated at 21 daily riders over nine trips or about one to two riders per trip). Instead of making the connection at N. Main Street, Route 82 could be re-routed to serve the transit hub at Buckland Hills and Route 82C could travel directly to the Park and Ride and The Shoppes at Buckland Hills. Passengers transferring to/from the Rockville Shuttle could use Route 83 Silver Lane to get to downtown Manchester, Buckland Hills or downtown Hartford. Reducing this spur is estimated to save about 50 minutes (both ways) on 11 trips or about 420 service hours annually. Estimated cost savings are on the order of $40,000 (based on $88 per hour). This is roughly consistent with the increased costs associated with extending Sunday service on Route 83 to Buckland Hills.

- **Service into JC Penny Distribution Center** - Route 82C travels into the JC Penny Distribution Center on four trips (two in AM and two in PM). In the data analyzed as part of this study, no riders got on or off on at the JC Penny Distribution Center in the morning, although there were about 27 riders boarding in the afternoon, with six boardings on one trip and 21 on the other. This variation may be because the AM trips were surveyed at a different time of the year than the PM trips. The data suggests that given the morning trips are not well used, these trips could be eliminated. While the data examined as part of this trip suggests the afternoon trips should be retained, this information should be monitored to see if both trips are more efficiently served as a request only deviation. Savings associated with eliminating this service are relatively minor, but the inconvenience for passengers on the bus may be significant. Traveling the loop requires about 5 minutes on each of the four daily trips, or 82 service hours or about $7,000 annually (based on $88 per hour).

RECOMMENDATION 6: CREATE UPASS PROGRAM

Another recommendation identified as part of the Manchester Transit Study is the creation of a universal (or university) bus pass program, commonly referred to as an UPass program. UPass programs work by providing members of an institution (such as a college) universal access to transit service. UPass programs typically are based on:
• All students contribute towards and receive a free bus pass that is good on all CTTRANSIT services.

• The cost of the program overall is based on trips taken, e.g. the number of bus trips taken by everyone issued a free bus pass (faculty, staff and students). Trips may be measured by the farebox, if technology is available or through surveys.

• Transit agencies bill the university based on a discounted and negotiated per trip rate, usually less than the fare.

The cost of the UPass program is usually paid for by a combination of student fees, plus other charges, such as parking fees, general funds or parking fines.

The idea of an UPass program has been considered at MCC in the past, but was not considered feasible. Although some community colleges in Connecticut have successfully implemented UPass programs, state law requires that the student governing body vote to approve adding the cost of this program to student fees. However, with improvements to Route 83 Silver Lane (all trips stopping at MCC during the academic calendar), the amount of bus service at MCC will increase dramatically. There is also more awareness about transit service on campus, creating momentum for new ideas.

Route 85 MCC Flyer carries about 200 riders per day with Route 83 carrying about another 300 riders per day. Assuming an academic calendar of 160 days and a fare of $1.30, current ridership means the estimated fare revenue to CTTRANSIT is approximately about $104,000 per year. There are an estimated 15,000 students enrolled at MCC. Assuming about half of the students is enrolled full time, making actual enrollment about 7,500. Raising $100,000 means each student would need to pay about $15 per year to an unlimited bus pass.

The advantage of an UPass program is it encourages MCC students, faculty and staff to ride the bus, help reduce some of parking constraints on campus and increase access for many students. It also works towards the goal of being a green, environmentally conscious campus and strengthens the partnership between MCC and CTTRANSIT. The disadvantage is that as the program becomes more popular and widely used, it also becomes more expensive. Consequently, student fees may also increase. However, in most cases students value the UPass and find it outweighs the cost of the fees; this is especially true for students who ride the bus, but also true for non-transit users who benefit from reduced congestion and easier parking.

**RECOMMENDATION 7: IMPROVE MARKETING**

Finally, while ridership on the CTTRANSIT routes in Manchester is strong, survey results and stakeholder comments suggest that many people in the community do not have a good understanding of the available services. Increased marketing may include developing a transit campaign specifically oriented to Manchester residents, including Manchester oriented transit maps and/or “how do I get there from here” marketing materials. Important formats for marketing also include posters, web-based announcements, and social media.
In addition, there are opportunities to create or strengthen partnerships with agencies and organizations within the communities to make it easier and more cost effective to use CTTRANSIT routes. There are, for example, several social and human service organizations along Main Street and Center Street, many of whose clients ride the bus, though the agencies do not actively work with CTTRANSIT. Working more closely with the organizations to ensure they have schedule information, access to pass programs and possibly offer travel training could help improve both ridership and the perception of the agency in the local community. Likewise, CTRIDES, which is the state’s transportation demand management agency, might also be able to provide marketing assistance.

**RECOMMENDATION 8: OTHER RECOMMENDATIONS**

Longer term recommendations for improving transit services in the Town of Manchester should also consider the potential of operating service along Broad Street. Broad Street is an attractive street for transit services because it has a high concentration of employment and services and also offers a pedestrian/transit oriented environment with dense development, sidewalks and crosswalks. Additionally, there is a major redevelopment planned on the site of the old Parkade Shopping Center. The Town of Manchester is also improving the street to enhance the streetscape. As transit services in Manchester are improved and the demand for service increases generally, and development increases activity on Broad Street, CTTRANSIT and the Town of Manchester should consider if it makes sense to serve Broad Street.
8 IMPLEMENTATION

Recommendations outlined in Chapter 7 offer a range of strategies that have potential to improve transit service within the Town of Manchester. These recommendations are organized into a phased implementation check-list with broad cost estimates in Figure 8-1.

Several strategies, such as improvements to Route 83, can be implemented in the short-term at fairly low cost and offer significant improvements for transit service within the Town of Manchester. In addition, these strategies also support and leads to a handful of other actions (changes to Route 85, improved marketing, implementing UPass) that will further strengthen CTTRANSIT’s presence in Manchester. In addition, these strategies also encourage CTTRANSIT to take a small step towards balancing the demands of a predominately radial transit network with one that begins to incorporate a limited suburban focus.

The other significant strategy included in the recommendations calls for implementation of a transit hub at the Buckland Hills park and ride lot. This strategy requires significantly more effort in terms of planning, capital costs and operations costs. It would also have a much bigger impact on the CTTRANSIT network by establishing a secondary service hub, in addition to downtown Hartford. Implementation is also more complex:

- The development of the Buckland Hills park and ride lot into a transit hub requires consideration. Creating a transit hub represents a significant capital investment. Before design work is initiated, longer range planning and development considerations need to be included to ensure the parcel is used strategically given land values in the area.
- Implementation of a circulator service is a major obstacle to creating a successful transit hub, especially in the short-term. In the short-term, the proposed circulator would be expensive (up to $500,000 per year) and it might provide a lower level of service as available today. The circulator also does not substantially improve transit service for the Town of Manchester. It is, however, an essential part of creating the regional transit hub strategy. Regional plans call for more direct, high capacity regional transit, and these services will not be designed to circulate through local communities. In addition, new suburb-to-suburb regional services may connect to Buckland Hills as a location to connect to downtown Hartford, other suburban locations and/or local services. For these services to be efficiently added to the network, they should not be required to provide their own circulation services through the Buckland Hills retail area. Potential solutions include:
  - Transitioning existing services towards the hub concept but letting existing CTTRANSIT routes provide their own circulation through Buckland Hills in the short-term. As new services are proposed or added, CTTRANSIT can re-visit the option of a circulator service and design it based on the most recent ridership patterns in the area.
As opportunities arise, increase the pedestrian access in the Buckland Hills areas. One of the main challenges associated with creating efficient local transit service in the Buckland Hills area is the lack of pedestrian access to, from and between retail areas. Existing conditions mean people can’t easily cross the street, don’t feel safe waiting for the bus at the side of the street and must walk through large parking lots to the front door of their destination. A stronger pedestrian environment supports efficient bus service.

CTTRANSIT may also start to streamline transit routes that travel to/from the Buckland Hills by reducing service variants, eliminating unproductive segments, and communicating routes in as simple a manner as possible. The Manchester Transit Study identified a handful of bus routes that have several service variants that make the service complicated to understand and use. While some variants do attract riders, eliminating these variants will improve travel time on the route overall and may attract more riders to the route than are lost.
## Manchester Transit Study Implementation Plan

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Estimated Cost</th>
<th>Benefit</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short-Term (6 – 18 months)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Re-align Route 83  
− Eliminate service to Manchester Business Park  
− Route every trip to MCC  
− All trips travel along Center and McKee Streets  
− Sunday Service extended to Buckland Hills | $40,000 - $50,000 | Strengthens Manchester Transit service with between and more connections between Manchester's most important destinations (Buckland Hills, downtown and MCC). | Best implemented in fall in line with MCC academic calendar. Request that CTTRANSIT include this on the next Bus service review Committee agenda |
| Eliminate Route 82C Sunday service into downtown Manchester | Gain of - $35,000 to $40,000 | Strengthens Route 82 and uses Route 83 to provide downtown connections. | Needs to be implemented in conjunction with changes to Route 83. Request that CTTRANSIT include this on the next Bus service review Committee agenda |
| Add Route 85 stop at Spencer Street Park and Ride Lot | None – short-term | Provide express service between Hartford and Spencer Street  
Strengthens Route 85. | Implement as “pilot beginning in September. If ridership is strong, some trips may need to be added to accommodate year-round ridership. Request that CTTRANSIT include this on the next Bus service review Committee agenda |
| Create UPass Program | Varies | Strengthens partnership between CTTRANSIT and MCC.  
Encourages transit use at MCC.  
Builds on recent success. | UPass discussions can be initiated as soon as possible. Changes to Route 83 and 85 will improve service to MCC and thus, make UPass more attractive. |
<p>| Create Tailored Manchester Transit Marketing Materials | Up to $25,000 | Attract riders with increased and better information. | Should be timed after service improvements. Will support UPass program |</p>
<table>
<thead>
<tr>
<th>Strategy</th>
<th>Estimated Cost</th>
<th>Benefit</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Longer Term (18 months +)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiate planning and design for transit hub at Buckland Hills</td>
<td>Varies</td>
<td>Routes could be re-scheduled to meet at Buckland Hills area. Starting ‘soft’ transit hub elements (no capital</td>
<td>Coordinated schedules will help facilitate local and regional connections. Evaluation may include un-coupling Route 82-84 so they are operated as independent services. Request that CTTRANSIT consider “soft” transit hub development and include this on a Bus service review Committee agenda sometime in 2013</td>
</tr>
<tr>
<td>– Conduct detailed route planning for CTTRANSIT circulation and</td>
<td></td>
<td>improvements and no circulator) can help lay ground work for future efforts.</td>
<td></td>
</tr>
<tr>
<td>scheduling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Initiate capital planning for</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>improvements required for transit hub</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Begin capital planning and development of transit hub</td>
<td>Unknown</td>
<td>Development of transit hub should be part of larger evaluation of Buckland Hills park and ride lot.</td>
<td>Should be coordinated with regional transit planning efforts, including efforts for high capacity transit. Town may start to work with CTDOT to develop plans and coordinate efforts for transitioning Buckland Hills park and ride lot into transit hub. Hub should be integrated into long range service plans for CTTRANSIT and regional transit plans (CTastraks). In the short-term, use recommendations/estimates from this study to determine the number of vehicles entering/exiting site, turning movements, and passenger facilities requirements to create hub conceptual design.</td>
</tr>
<tr>
<td>Begin detailed planning for circulator</td>
<td>Order of magnitude -</td>
<td>Allows mainline CTTRANSIT services to terminate at single location and provide local circulation through shuttle</td>
<td>Current recommendations call for a fixed-schedule circulator, but other service types should be re-evaluated as part of planning.</td>
</tr>
<tr>
<td>$500,000</td>
<td></td>
<td>or flex service.</td>
<td></td>
</tr>
<tr>
<td>Consider need for transit service on Broad Street</td>
<td>To be determined</td>
<td>Broad Street is under-going street improvements and is attracting new development and becoming an increasingly</td>
<td>Review potential service on Broad Street in conjunction with ridership and service levels on Main Street. Any future service on Broad Street should support not detract from Main Street service.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>attractive neighborhood for transit. Operating transit service on Broad Street may strengthen overall network and</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>attract high ridership.</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX A

Technical Advisory Committee
Meeting Notes
KICK-OFF MEETING MINUTES

Manchester Transit Study

December 8, 2011

Meeting Summary
The Manchester Transit Study Steering Committee met at 2 PM at the CRCOG offices in Hartford. The study team reviewed the planned study activities and schedule as well as the draft outreach materials presented by the study team. A number of suggestions for survey revisions were discussed, as were the amount and type of existing transit data available for this study. The Committee also reviewed a number of stakeholders for the study team to contact for stakeholder interviews.

Meeting Notes

Introductions and Project Goals
Sandy Fry introduced the project consultants, Nelson\Nygaard, and attendees introduced themselves. Bethany Whitaker of Nelson\Nygaard stated that the aim of the kick-off meeting is to discuss project goals and approach, and also said the study team would like to hear from the Committee about their goals for the plan.

Overview of Project Tasks and Methods
Bethany reviewed the main project tasks and explained Nelson\Nygaard's approach. Primary tasks include:

1. Review background documents and existing studies, as well as existing ridership and service data of CT Transit routes in the study area.
2. Compile demographic data and employment data about Manchester. Major destinations data will also be collected and mapped.
3. Conduct outreach activities: The study team will conduct stakeholder interviews and a survey of both the general public and of transit riders. The survey will be available online, and the study team will rely in part on stakeholders to distribute the survey link to email distribution lists. Paper copies will also be available as needed and can also be distributed through stakeholder channels. The consultants brought draft copies of the survey for discussion.
4. Analyze existing routes in light of outreach feedback as well as system performance measures.
5. Develop service recommendations and changes: The study team will develop preliminary strategies to review with the Steering Committee and prioritize.

Discussion of Study Tasks and Methods
The Committee made several suggestions for changes to the survey and other outreach materials, including:

• The survey should gather data about whether the individual is using express or local services.
• PVTA should be removed as a possible connection, but since riders could potentially connect with Amtrak, leave Amtrak as an option. Paratransit services should also be included on the survey.

• Question 8 should include the phrase, “lack of service” instead of just “lack of transportation.”

• CT Transit collected some data through a survey last month, inquiring about zip codes, etc, but did not include the choice/trade-offs that the proposed survey for this study includes. Bethany suggested that the study team can eliminate any redundancies between the surveys.

• More questions should be added to find out where individuals would travel if they could, not just where they are currently traveling, with the aim of assessing demand outside the frequency of existing services.

• A question may be added about traveling across town instead of just Downtown. These connections are more challenging.

• Regarding survey distribution, the Town has a list of contacts of individuals who have been participating in the long range planning process. The Town can send notice of the survey via email. Other suggestions included senior centers, libraries, and possibly high schools since the transition to work is an important issue. The Town may be able to distribute the survey to workers at the mall, as well.

• The formatting should be revised to include all transit questions together and not separated.

• The survey should reference “Manchester” and not “Buckland Hills” specifically.

• The survey should be able to address how much inconvenience a restructuring of service would cause current riders. The survey should also include some leading questions about local circulators and transfer points to help determine areas of focus.

• The trade-off questions could be re-worded to be clearer; for instance, number 16 is difficult to understand. An introductory sentence can be added to the beginning of the preferences section as an explanation. It was noted that the priority questions will assist in the education process with the public by helping them understand that the transit system cannot cover everything that would be ideal.

• The survey should have an open-ended priority question such as, “What do you think should be done to improve transit in Manchester?”

Plans and studies suggested for review:

• Buckland Area Traffic study

Stakeholders and employers recommended to contact:

• Manchester Community College (MCC)
• Hospital
• Manchester Area Conference Of Churches
• Chamber of Commerce
• Downtown Special Services District
The Committee suggested that Manchester Community College should be contacted to see if students could distribute the survey as they conduct meetings through the DSS. Bethany agreed to contact Professor Rebecca Townsend.

Nelson Nygaard will begin reaching out to the suggested stakeholders and make revisions to the survey.

Discussion of Existing Transit Service

The Committee discussed a number of characteristics and challenges of the existing transit system and routing, including:

- People want longer evening and weekend hours, as well as more frequent service.
- Many University of Connecticut (UConn) students live in the Cheney Mills district, and travel between the two areas can be difficult.
- Many centers in the region are difficult to get to from Manchester, for instance, Windsor and Glastonbury.
- Many people are within walking distance of transit lines, but the transit lines are not the ones going where they need to go – they must transfer.

The Committee also discussed some issues relating to future transit restructuring, especially areas to consider as the project moves forward:

- The study should consider New Britain–Hartford busway connections, or at least keep the busway in mind as a part of the hub.
- In the long-term, the UConn Campus should connect to the UConn health center.
- There is potential for a Greyhound stop in Manchester.

Major destinations in Manchester were noted to be:

- Downtown
- Buckland Hills
- Manchester Community College
- Hospital
- Broad Street redevelopment (possible future center)
- Depot Square (current transfer point)

**Other**

The study team is interested in seeing the CRCOG regional model to illustrate overall origins and destinations in the region, not specifically by mode, but just to show travel flows. Nelson\Nygaard will provide examples of the type of data they want.

The study team will also gather data from the Greater Hartford Transit District for ADA service information. The goal is to get origin-destination data for ADA trips.

**Next Steps**

The study team will write minutes for the kick-off meeting and distribute to the Steering Committee, along with a revised rider survey. By the next meeting, the study team will have a community profile completed, including some data about existing demand and travel patterns. In the New Year, the study team will begin stakeholder outreach and conducting the survey.

In the spring, the Committee will begin discussing strategies, and the study will likely be completed in the fall.

**Meeting Attendees**

Phil Fry, Connecticut Transit (CT Transit)
Sandy Fry, Capital Region Council of Governments (CRCOG)
Mary Ellen Kowalewski, CRCOG
David Lee, CT Transit
Michael Sanders, Connecticut Department of Transit (ConnDOT)
Lisa Rivers, ConnDOT
Jennifer Carrier, CRCOG
Jim Mayer, Town of Manchester
Gary Anderson, Town of Manchester
Bethany Whitaker, Nelson\Nygaard
Ellen Oettinger, Nelson\Nygaard
MANCHESTER TRANSIT STUDY: TAC MEETING #2

April 19, 2012

Overview

The Technical Advisory Committee (TAC) for the Manchester Transit Study met to discuss the preliminary results from the community profile, outreach efforts and route analysis. The study team also led a discussion of preliminary strategies for improving the transit routes in Manchester.

Feedback on Draft Community Profile

Bethany Whitaker and Ellen Oettinger from Nelson\Nygaard presented the main findings of the Draft Community Profile, which included an analysis of demographic data, major employers and destinations, and preliminary results of the public survey.

The group discussed several issues relating to the Community Profile:

- The data tracks fairly consistently with anecdotal evidence that Buckland Hills is the major destination in Manchester, with downtown and Manchester Community College (MCC) also as important locations. Still, the study will evaluate travel needs beyond just the major destinations.

- The TAC commented that residents did not like the trade-off questions in the public survey. This reaction to the trade-off questions is fairly common in other cities and areas where Nelson\Nygaard works. The choices are difficult to make, but it is necessary to obtain preference information.

- The survey data from the riders will likely be somewhat different, since individuals without access to a vehicle will probably have different preferences than choice riders, or survey respondents who do not use transit at all.

- The TAC suggested adding student zip code data from MCC and documenting the mode of travel to MCC. The study team will look into acquiring both of these data sets.

- The study team will check the alignments and route labels of the bus service on the primary map.

- The Town asked if any survey respondents or stakeholders mentioned access to the hospital as an issue. The issue has not come up in any of the outreach.

Feedback on Draft Route Evaluations

Bethany presented the draft Route Evaluations, which listed the general ridership and productivity statistics for each route in Manchester. The group discussed several details of some of the routes presented:

- Route 3 is the most heavily used commuter express route in the state. The ridership figure at the PM peak is likely double what the Draft Route Evaluations state, which is averaged over the entire day.

- Route 80 is not a job-access route, and the service is not oriented to workers. The route came from overloads on Saturdays on other routes that were more limited.
• Route 82-84 would be a good route to hub since it is nearly operating as such now. Operationally, it would be similar, but the schedules and marketing would change.

• The business park on Route 83 does not attract many riders, even though it is considered a "major destination."

• The Town suggested to look into why the loop on the 88 exists.

Discussion of Potential Options

The TAC discussed preliminary ideas for potential improvements and changes to the existing transit routes, including:

• The TAC discussed a variety of options for locating a physical hub within the mall area and connecting the park and ride.
  
  o The final Buckland Hills study preferred the park and ride as the hub site, as it is state-controlled property.
  
  o The mall is not in favor of a transit facility located on their property.
  
  o Transit riders could access the mall from the hub either by walking (which requires significant pedestrian environment improvements) or through a mall circulator.
  
  o The condos east of the mall are another market to serve, as well. Condo residents can currently utilize the park and ride, but do not like paying the express fare and want local service.
  
  o CTTRANSIT is very open to the idea of suburban hubs that are not just stops with many converging routes.

• A flex route circulating around the mall could be planned with time points at a hub and include the option for scheduled pick-ups, similar to a super shuttle to the airport. However, there is no specific data on where the major destinations are within the mall area. The team will receive some insights from the survey on this point.

• A larger circulator from the mall to the Town Center could be investigated. Most service to Hartford comes to the hubs at MCC, Buckland Hills, and Downtown.

• Suggestion to look at impacts of a hub at Buckland Hills as it affects other transit routes, such as in East Windsor.

• Suggestion to explore an express route to the Windsor/Day Hill Road area could be a recommendation, though this would be challenging without employer shuttles on the Day Hill Road end.
Other Points of Discussion

Two other points of discussion were part of the meeting:

- The TAC also shared information about bus shelters and bus shelter maintenance during the meeting. The Town maintains CTTRANSIT bus shelters, though the shelters are actually funded by the Greater Hartford Transit District through a federal grant. Manchester is experiencing a high rate of vandalism, and even took down one shelter (at Main and Bigelow) because of repeated vandalism.

- CTTRANSIT has attempted to work the MCC to develop a UPass program. Several Hartford-area colleges have a UPass program, but the community colleges must vote to assess a new student fee through student referendum in order to participate in a UPass program. The school has not been receptive to contact made by CTTRANSIT, though the student population is extremely supportive of a potential UPass program.

Attendees

- Sandy Fry, CRCOG
- Jennifer Carrier
- Phil Fry, CTTRANSIT
- David Lee, CTTRANSIT
- Gary Anderson, Town of Manchester
- Jim Mayer, Town of Manchester
- Bethany Whitaker, Nelson\Nygaard Consulting
- Ellen Oettinger, Nelson\Nygaard Consulting
MANCHESTER TRANSIT STUDY: TAC MEETING #2

August 28, 2012

Overview

The Technical Advisory Committee (TAC) for the Manchester Transit Study met to review study progress and status, discuss conceptual transit service improvements and start planning for a public meeting later in the fall.

Study Progress and Status

Bethany Whitaker from Nelson\Nygaard updated the TAC on study progress to date. Work since the last TAC meeting including analysis of the CTTRANSIT rider survey results and compiling Technical Memo 2 (TM2). TM2 was distributed to TAC members before the meeting.

Bethany also summarized some of the study's previous findings for the TAC, given the time lag between meetings.

Feedback on Conceptual Transit Service Improvements

Bethany started the discussion on transit service improvements with ideas for Buckland Hills. She referenced TM2 and recommendations to focus CTTRANSIT buses on serving the Park and Ride lot and Mall only. Under this arrangement, circulator service could be provided by either a “flexible” route or a feeder service. The TAC had several comments on this proposal:

- In general, the TAC is supportive of the idea of a transit hub at Buckland Hills. This idea has been on the table for awhile and it makes sense. The TAC also had several ideas about broader regional connections, such as from Buckland Hills to Storres (UConn) and/or Buckland Hills to Day Hill Road.

- TAC members generally agreed that the Buckland Park and Ride lot is the right location for a transit ‘hub’, given Connecticut Department of Transportation (CT DOT) owns the facility and make improvements or changes to the site as needed. Also, there is some concern that the Mall would be willing to host the site.

- There was some concern that providing feeder or flexible service would add a lot of service (and costs). Even if some time is saved on the main line routes, this will unlikely be enough to offset the cost of the flexible or feeder service.

- TAC members were interested in the idea of flexible service and discussed the advantages and disadvantages of fixed-time point feeder service vs. semi fixed-time point flexible service. For example, it might be better to offer feeder service during the peak periods and flexible service during the off-peak.

- CTTRANSIT has some flexible services in other parts of their system and, based on this, talked about how some parameters could be set for the service. This might be, for example, providing a list of 20 locations where the bus would go; this would manage demand and ensure a flexible service is able to meet its scheduled time points.

- Phil Fry from CTTRANSIT noted that the Mall has decided not to move the bus stop to the perimeter road.
The TAC also discussed other transit service improvement ideas, including creating a second, southern hub at MCC or at the nearby park and ride lot. Other ideas included strengthening the local service by eliminating service variants, consolidating service on some streets and simplifying schedules. Comments included:

- TAC members felt CTTRANSIT routes are operating on fairly good corridors and in fact, there are few other potential service corridors, especially for north-south service. Demand on most of the local service is good.
- In general, CTTRANSIT said they were open to asking the public for input on the ideas of eliminating service variants.
- TAC members also commented that the service options presented in TM2 were very similar and hard to really understand how some of them were different.

Nelson\Nygaard also presented a laundry list of service improvement options, some of which had been presented earlier. The list also included ideas for UPass programs, either at Manchester Community College or the Buckland Hills Mall. CTTRANSIT and CT DOT staff said they pursued these ideas in the past to no avail. The TAC suggested that if an UPass or partnership was proposed in conjunction with service improvements, it might be more meaningful. CT DOT also stressed that new service will likely require partnerships.

**Public Meeting Topics**

Based on the technical discussion, the TAC agreed the following concepts could be brought to the public:

- The hub concept should be presented, including potential for multiple “mini-hubs”, including potential hubs in the northern (Buckland Hills) and southern ends of town. This discussion should include the trade-offs associated with this concept as well as some of the advantages.

- Creating a transit hub at Buckland Hills, so that CTTRANSIT mainline buses travel to the Park and Ride lot and Mall only and a secondary route would provide local distribution.
  - Preferences for a scheduled feeder or only partially scheduled flexible service should be brought to the public.

- Streamlining routes by eliminating some of the service variances, such as to the JC Penny Distribution Center and the Manchester Business Park should also be presented.

- Demand for additional overlay Flyer service should also be presented, for example limited stop service along Burnside Avenue during peak periods.

**Public Meeting Planning**

In terms of planning for the public meeting, the TAC discussed the two options of trying to schedule the public meeting in conjunction with another event or just scheduling the meeting and having a big outreach effort to get people to attend. Gary Anderson from the Town of Manchester said the Town Hall complex is a better location for a meeting than either MCC or Buckland Hills.
CTTRANSIT and CT DOT also said they have held rider drop-in sessions at bus stops to get rider input and feel these sessions are not productive.

The TAC checked their calendars and agreed to target the week of October 8th.

Both CRCOG and the Town of Manchester emphasized the importance of creating clear, simple maps to communicate some of these concepts to the public.

**Attendees**

- Sandy Fry, CRCOG
- Jennifer Carrier, CRCOG
- Phil Fry, CTTRANSIT
- David Lee, CTTRANSIT
- Michael Sanders, CT DOT
- Lisa Rivers, CT DOT
- Gary Anderson, Town of Manchester
- Bethany Whitaker, Nelson\Nygaard Consulting
APPENDIX B
List of Major Employers in Manchester, CT
## Appendix B: Major Employers in Manchester, CT

<table>
<thead>
<tr>
<th>Company</th>
<th>Address</th>
<th>Industry</th>
<th>Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Town of Manchester</td>
<td>41 Center Street</td>
<td>Government</td>
<td>1,684</td>
</tr>
<tr>
<td>Manchester Memorial Hospital</td>
<td>71 Haynes Street</td>
<td>Medical</td>
<td>1,610</td>
</tr>
<tr>
<td>GE Aerospace Components</td>
<td>967 Parker Street</td>
<td>Manufacturing</td>
<td>1,208</td>
</tr>
<tr>
<td>J.C. Penney Catalog Logistics Center</td>
<td>1339 Tolland Turnpike</td>
<td>Distribution</td>
<td>1,000</td>
</tr>
<tr>
<td>Cox Communications, Inc.</td>
<td>170 Utopia Road</td>
<td>Utilities</td>
<td>442</td>
</tr>
<tr>
<td>Wal Mart Stores</td>
<td>420 Buckland Hills Drive</td>
<td>Retail</td>
<td>400</td>
</tr>
<tr>
<td>Allied Printing</td>
<td>1 Allied Way</td>
<td>Printing</td>
<td>331</td>
</tr>
<tr>
<td>Macy’s Retail Holdings Inc.</td>
<td>183 Pavilion Drive</td>
<td>Retail</td>
<td>250</td>
</tr>
<tr>
<td>Silktown Roofing</td>
<td>27 Pleasant Street</td>
<td>Construction</td>
<td>250</td>
</tr>
<tr>
<td>Waverly Markets (Shop Rite)</td>
<td>214 Spencer Street</td>
<td>Retail</td>
<td>250</td>
</tr>
<tr>
<td>The Home Depot, Inc.</td>
<td>80 Buckland Hills Drive</td>
<td>Construction</td>
<td>230</td>
</tr>
<tr>
<td>Community Health Resources</td>
<td>587 East Middle Turnpike</td>
<td>Medical</td>
<td>216</td>
</tr>
<tr>
<td>Big Y Foods, Inc.</td>
<td>234 Tolland Turnpike</td>
<td>Retail</td>
<td>200</td>
</tr>
<tr>
<td>Manchester Health Center, Inc.</td>
<td>565 Vernon Street</td>
<td>Medical</td>
<td>200</td>
</tr>
<tr>
<td>Stop &amp; Shop Supermarket Company</td>
<td>286 Broad Street</td>
<td>Retail</td>
<td>200</td>
</tr>
<tr>
<td>The Timken Company</td>
<td>586 Hilliard Street</td>
<td>Manufacturing</td>
<td>200</td>
</tr>
<tr>
<td>United States Postal Service</td>
<td>974 Main Street</td>
<td>Government</td>
<td>190</td>
</tr>
<tr>
<td>Fuss &amp; O’Neill</td>
<td>146 Hartford Road</td>
<td>Office</td>
<td>181</td>
</tr>
<tr>
<td>Scan Optics</td>
<td>169 Progress Drive</td>
<td>Office</td>
<td>171</td>
</tr>
</tbody>
</table>

Source: Town of Manchester
APPENDIX C: SURVEY RESULTS

GENERAL PUBLIC SURVEY

The first part of our research involved conducting a survey with the members of the broader Manchester community. The goal of the research was to understand people’s general travel patterns, assess experience with public transportation service generally and collect input on people’s preferences and priorities for new service. The survey also included a handful of open ended questions for people to comment on how transit could be improved in Manchester.

The survey was distributed electronically, but also in hard copy to the Manchester Library, the Department of Senior, Adult and Family Services, and the Shoppes at Buckland. A total of 165 responses were collected, a majority (160) online.

Key findings from the survey include:

- Most respondents are not transit dependent, have access to an automobile and typically drive to where they need to go.
- Many people in Manchester are aware of CTTRANSIT but not of specific routes and schedules. Few people (23%) have actually used bus service.
- There is a high demand for travel within Manchester, especially the Buckland Hills area, but also grocery stores, downtown Manchester and Manchester Community College.
- In terms of preferences for new service, the strongest preferences were expressed for:
  o More connections to other communities (not just Hartford)
  o More connections within Manchester instead of to Hartford
  o Longer weekday hours over weekend service
  o More frequent service over one-seat rides

General Travel Patterns

People filling out the survey were asked to list places that they travel to frequently. Common responses were largely shopping areas, including the Buckland Hills Mall, the Big Y supermarket, the Parkade Shopping Center and the Shop Rite supermarket. Other frequently listed destinations included Manchester Community College, downtown Manchester (the intersection of Main and Center Streets) and downtown Hartford (see Figure 3-1). In the case of downtown Hartford, no single destination received a lot of responses, but there were a large number of responses within the downtown area.

Both the Buckland Hills Mall and Big Y supermarket are in the northern tier of the Town, which has fairly robust transit service. There is also transit service available along Silver Lane, close to the Manchester Community College and the Shop Rite supermarket and a handful of routes (Routes 83 and 88) operate through downtown Manchester. The Parkade Shopping Center, however, is located in central Manchester, but is not along the main corridors running through town.
Figure 3-1 Community Survey: Respondent's Common Travel Destination
Experience with Public Transportation Service

Approximately 62% of the survey respondents had ridden public transportation in the past. Of these, over 50% used CTTRANSIT local bus services, and only 7% had used CTTRANSIT express services. The rest had experience with either Amtrak (22%) or paratransit service provided by the Greater Hartford Transit District (4%), or other (14%), most citing MetroNorth or the MBTA (the “T”) in Boston.1

In addition, 63% of the survey respondents said they were aware that bus service is available in Manchester, but were not aware of the specific CTTRANSIT routes and their schedules.

Service Preferences and Priorities

The charts below display the stated preferences of the people responding to the general public survey. The survey respondents showed a strong preference for more neighborhood-to-neighborhood connections within Manchester, even if transfers were necessary to travel out of Town. Respondents also preferred more weekday service to an increase in weekend service.

1 Respondents were allowed to select multiple options, so percentages do not sum to 100%. 
**Geographic Coverage vs. Frequency**

Overall, respondents showed a preference for coverage over frequency. Both choice riders and people with limited car access showed the same preference, with those without vehicle access showing a slightly stronger preference for frequency.

- Provide buses to more areas, but buses would come less frequently.
- Provide buses to fewer areas, but buses would come more frequently.

<table>
<thead>
<tr>
<th>Option</th>
<th>Response (in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide buses to more areas</td>
<td>57%</td>
</tr>
<tr>
<td>Provide buses to fewer areas</td>
<td>43%</td>
</tr>
<tr>
<td>Provide buses to more areas, but buses would come less frequently.</td>
<td>56%</td>
</tr>
<tr>
<td>Provide buses to fewer areas, but buses would come more frequently.</td>
<td>44%</td>
</tr>
<tr>
<td>Provide buses to more areas</td>
<td>61%</td>
</tr>
<tr>
<td>Provide buses to fewer areas</td>
<td>39%</td>
</tr>
</tbody>
</table>

**Frequent Stops vs. Faster Travel Time**

When asked to weigh having more stops or a faster travel time, the respondents with access to a vehicle showed a stronger preference for a service with fewer stops that traveled faster. However, respondents with limited access to a vehicle showed a stronger preference for frequent stops, even with slower service.

- Provide frequent stops to make walks to the stop shorter, but service will be slower.
- Reduce the number of stops to make service faster, but walks to the stop will be longer.

<table>
<thead>
<tr>
<th>Option</th>
<th>Response (in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide frequent stops to make walks to the stop shorter, but service will be slower.</td>
<td>48%</td>
</tr>
<tr>
<td>Reduce the number of stops to make service faster, but walks to the stop will be longer.</td>
<td>52%</td>
</tr>
<tr>
<td>Provide frequent stops to make walks to the stop shorter, but service will be slower.</td>
<td>48%</td>
</tr>
<tr>
<td>Reduce the number of stops to make service faster, but walks to the stop will be longer.</td>
<td>52%</td>
</tr>
<tr>
<td>Provide frequent stops to make walks to the stop shorter, but service will be slower.</td>
<td>53%</td>
</tr>
<tr>
<td>Reduce the number of stops to make service faster, but walks to the stop will be longer.</td>
<td>47%</td>
</tr>
</tbody>
</table>
Local vs. Regional Connectivity

The most prominent preference in the survey was that for bus service to provide more connections between neighborhoods in Manchester rather than more one-seat rides into Downtown Hartford. Choice riders showed a significantly weaker preference than people with limited access to cars, but were still strongly in favor of local service.

Provide more neighborhood-to-neighborhood connections within Manchester, but riders must transfer for trips to other towns. Provide more one-seat rides into Downtown Hartford, but fewer neighborhood-to-neighborhood.

<table>
<thead>
<tr>
<th></th>
<th>74%</th>
<th>26%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>70%</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>95%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Frequency of Service vs. Hours of Operation

Survey respondents with access to a vehicle expressed a preference for longer evening hours of service instead of frequency. However, survey respondents with limited access were evenly divided.

The bus comes more often but has the same operating hours as before. The bus comes less often but has longer hours of operation (begins earlier in the morning and/or ends later in the evening).

<table>
<thead>
<tr>
<th></th>
<th>43%</th>
<th>57%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>42%</td>
<td>58%</td>
</tr>
<tr>
<td></td>
<td>50%</td>
<td>50%</td>
</tr>
</tbody>
</table>
Service to Downtown vs. Service to Other Suburbs

The respondents preferred more service to other communities and less to Hartford over more service to Hartford. Those without a vehicle showed a stronger preference.

*Provide more express service to Hartford, but fewer services to other communities (i.e. Windsor, Vernon).*  
*Provide more service to other communities (i.e. Windsor, Vernon), but less express service to Hartford.*

Weekend vs. Weekday Service

Respondents showed a strong preference for more weekday service instead of more weekend service. More than 75% of those without a vehicle preferred weekday service, and over 2/3 of those with access to a vehicle also showed this preference.

*Provide more weekend service, but service will be less frequent on weekdays.*  
*Provide more weekday service, but weekend service will not increase.*
Transferring vs. Frequency

Respondents were more in favor of more frequent service but having to transfer more rather than having more direct routes that operate less frequently. Choice riders showed a slightly weaker preference than the general public, whereas people with limited access to cars showed a strong preference.

Operate bus service less often, but provide a direct route (one-seat ride). Operate more often, but some riders must transfer.

MCC STUDENT OUTREACH

The CRCOG collaborated with Manchester Community College in the past on public outreach efforts, where, as part of a class assignment on communication techniques, students set up discussion groups to discuss transportation issues. A critical part of this collaboration is that the participating community college students were able to effectively population groups, including minorities, individuals with limited proficiency in English and others that are often left out of public discourse on issues such as transportation. Building on the success of this previous work, the CRCOG set up connections for the Manchester Transit Study team to conduct a similar exercise. In case of the Manchester study, the discussion groups focused on transit service and students collected people’s experiences using transit and their ideas about how to improve the services.

For the Manchester Transit Study, students organized discussion groups with a wide range of people and settings, including a veterans group, a computer repair and share club, the MCC Green Club and as part of other MCC classes. In addition, students set up meetings at with their friends and colleagues at their local gym and at Edi’s Pizzeria. All interviews were conducted during April 2012; students submitted their findings to the study team as well as producing final products for their MCC class. Students summarized their findings and held a public information session to present their results.

Students collected qualitative input and distributed the general public survey to participants; these findings included:

- Generally speaking, most people felt CTTRANSIT is fairly priced.
- Most participants also said service is good overall, is generally on time and has clean buses with mostly professional drivers.
- There were also many participants who said the bus does not work well for them.

Challenges cited included:
o Difficulty when you have anything else going on, such as traveling with children or carrying a lot of things. The bus is also difficult for older adults and people with disabilities.

o Infrequent service. Some participants said taking the bus could add as much as two hours of travel time one-way as compared with driving.

o Confusing schedules. People said it was hard to figure out how the bus works.

o Lack of safety. There were several complaints about feeling unsafe on the bus, including waiting for the bus (see below) but also on the bus.

- Sense that the bus stops needed improving with shelters and lighting, especially to give passengers a better sense of safety.

- Others also remarked that the bus stops could do a better job protecting people from the elements when they are waiting for the bus to come. Some people suggested working out a deal with nearby shops so that bus riders could wait inside when the weather is bad.

- While many participants had experience with CTTRANSIT, there were also several individuals who had very limited knowledge of the system or how it works. One participant who owned a car expressed reluctance that he would ever use public transportation.

**TRANSIT RIDER SURVEY**

The study team also worked closely with CTTRANSIT to administer a survey with current transit riders. Surveyors boarded CTTRANSIT routes that serve Manchester (Routes 3, 80, 82-84, 83, 85, 88, 91 and 92) and distributed paper surveys to passengers between May 4th and May 8th, 2012. The effort yielded a total of 343 responses. Key findings from the survey show that:

- Surveyed riders use transit as their primary mode of travel almost exclusively. For most, this is due to the fact that they have limited or no access to a private vehicle.

- In general, riders consider CTTRANSIT services to be convenient and appropriate for their travel needs.

- A majority of the riders surveyed said they most frequently use transit to travel to destinations outside of Manchester, though some also use it for local travel within town.

- In terms of preferences for different kinds of transit services, riders reported that they generally prefer:

  o More local transit service to destinations within Manchester over more service to downtown Hartford.

  o More frequent service over any other types of service improvements.

- Bus riders are largely using CTTRANSIT for regional destinations.
Transit Service Trade-Offs

Consistent with the survey conducted with members of the general public in Manchester, the bus rider survey asked passengers for their preferences for a number of tradeoffs associated with transit service design. Of the seven trade-off questions, three show relatively strong preferences from the riders surveyed. Passengers showed only slight or no preference for one option or another for four of the questions.

Choice riders and transit-dependent riders often express different preferences for transit service characteristics. For this reason, the responses from riders who always have access to a vehicle and those who only sometimes or never do are displayed separately. Note that only 20 riders of the total respondents reported always having access to a private vehicle, so the total response tracks heavily in favor of those without access to a vehicle.

The difference in makeup of the two groups surveyed - the general public survey administered online and the survey of bus riders - influenced the stated preferences in the transit trade-off questions. As noted above, bus riders overwhelmingly have limited access to vehicles, while those responding to the general survey overwhelmingly always had access.

### Geographic Coverage vs. Frequency

Overall, respondents showed a slight preference for frequency over coverage – a route that has comes more often, even if it goes to serves fewer places. Both choice riders and people with limited car access showed the same preference, with drivers showing a slightly stronger preference for frequency.

A route that goes to many places, but the bus comes less often (for example, once an hour). A route that goes to fewer places, but comes more often (for example, every 30 minutes).

<table>
<thead>
<tr>
<th></th>
<th>Total (N = 315)</th>
<th>Always Access to a Vehicle (N = 20)</th>
<th>Limited/No Vehicle Access (N = 295)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency over Coverage</td>
<td>52.8%</td>
<td>47.2%</td>
<td>52.8%</td>
</tr>
<tr>
<td>Geographic Coverage</td>
<td>47.2%</td>
<td>43.8%</td>
<td>56.3%</td>
</tr>
<tr>
<td>Frequency over Coverage</td>
<td>47.4%</td>
<td>47.4%</td>
<td>52.6%</td>
</tr>
</tbody>
</table>
**Frequent Stops vs. Faster Travel Time**

When asked to weigh having more stops or a faster travel time, the respondents showed a stronger preference for a service with frequent stops. However, choice riders prefer faster travel time to frequent stops.

*The bus stops frequently, so walking time to and from the bus is short, but the bus travels slower.*

- 57.0% (Black) vs. 43.0% (Light blue)

*The bus stops less frequently, so walking time to and from the bus is longer, but the bus travels faster.*

- 43.8% (Light blue) vs. 56.3% (Black)

**Local vs. Regional Connectivity**

The most prominent preference in the survey was that for bus service to provide more connections between neighborhoods in Manchester rather than more one-seat rides into Downtown Hartford. Choice riders showed a slightly weaker preference than people with limited access to cars.

*Provide more neighborhood-to-neighborhood connections within Manchester, but riders must transfer for trips to other towns.*

- 72.5% (Red) vs. 27.5% (Light blue)

*Provide more one-seat rides into Downtown Hartford, but fewer neighborhood-to-neighborhood.*

- 68.8% (Light blue) vs. 31.3% (Black)

- 72.8% (Black) vs. 27.2% (Red)
**Frequency of Service vs. Hours of Operation**

The second most prominent preference was to have bus service that comes more frequently but maintain the same hours, as opposed to less frequent service that has longer hours of operation. Choice riders showed a stronger preference for longer hours and less frequent service.

*The bus comes more often but has the same operating hours as before.*

- **66.3%**
- **41.2%**

*The bus comes less often but has longer hours of operation (begins earlier in the morning and/or ends later in the evening).*

- **33.7%**
- **58.8%**

- **68.1%**
- **31.9%**

**Service to Downtown vs. Service to Other Suburbs**

The respondents were split evenly between choosing more express service to Hartford versus more service to other towns in the area. Choice riders expressed a preference for express service to Hartford whereas people with limited access to cars were evenly split.

*Provide more express service to Hartford, but fewer services to other communities (i.e. Windsor, Vernon).*

- **49.8%**
- **58.8%**

*Provide more service to other communities (i.e. Windsor, Vernon), but less express service to Hartford.*

- **50.2%**
- **41.2%**

- **49.1%**
- **50.9%**
**Weekend vs. Weekday Service**

Respondents were also nearly evenly split on whether they would prefer more weekday service as opposed to more weekend service, with only a slight favor towards more weekend service. While people with limited access to cars showed only a slightly stronger preference than the general public for more weekend service, the opposite was true for choice riders.

*Provide more weekend service, but service will be less frequent on weekdays.*  
Provide more weekday service, but weekend service will not increase.

- 51.6%  
  - 41.2%  
  - 52.4%

**Transferring vs. Frequency**

Respondents were more in favor of more frequent service but having to transfer more rather than having more direct routes that operate less frequently. Choice riders showed a slightly weaker preference than the general public, whereas people with limited access to cars showed the same preference.

*Operate bus service less often, but provide a direct route (one-seat ride).*  
*Operate more often, but some riders must transfer.*

- 39.1%  
  - 33.3%  
  - 39.5%

**Origins and Destinations**

Passengers were asked to indicate their origin and most frequent destinations (see Figure 3-2). Red lines on the map indicate trips that begin and end in Manchester, while black lines indicate trips that either begin or end outside of Manchester.

A majority of passengers on the surveyed routes travel to and from destinations outside of Manchester. Within Manchester, most riders are traveling between Central Manchester, especially along Main Street, and the Buckland Hills mall. A handful of local trips are between destinations in Central Manchester.
A majority of regional trips--those beginning or ending outside of Manchester--are to Hartford and East Hartford, though several are also to Vernon. Only a few are to towns further afield like Bloomfield or West Hartford. These patterns are likely more indicative of the bus route configuration than of the passengers' preferences. Currently, a majority of the CTTRANSIT bus service available in Manchester travels between Manchester and Hartford or East Hartford (see Figure 3-1). This compares with the trade-off portion of the survey, where riders indicated they would prefer more transit options connecting neighborhoods within Manchester.
Figure 3-2   Passenger Origins and Destinations
Manchester Transit Survey

The Capitol Region Council of Governments is exploring ways to improve public transit service in the Manchester area. Please tell us about your travel patterns and your thoughts about public transit service. Thank you for your input!

If you have already filled out a survey, please do not fill out another.

<table>
<thead>
<tr>
<th>GENERAL INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In which Zip Code do you live? ___________________________________________________</td>
</tr>
<tr>
<td>2. Please list the nearest cross streets to your home: _______________________________</td>
</tr>
<tr>
<td>(for example: Main Street and Hillard Street)</td>
</tr>
<tr>
<td>3. Are you currently employed? ☐ Full-Time ☐ Part-Time ☐ Retired/Not Working ☐ Student</td>
</tr>
<tr>
<td>4. If YES, where do you work? Zip Code________________________ Cross Streets________________________________________________</td>
</tr>
<tr>
<td>5. Do you have access to a private vehicle? ☐ Always ☐ Sometimes ☐ Never</td>
</tr>
<tr>
<td>6. Please indicate your age category. ☐ Under 16 ☐ 16-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-65 ☐ Over 65</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CURRENT TRAVEL HABITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. Please tell us where you usually travel. List the TOP TWO places and addresses.</td>
</tr>
<tr>
<td>Example: Buckland Hills Park and Ride, 1500 Pleasant Valley Rd, Manchester or Work, 200 Main Street, Central Manchester</td>
</tr>
<tr>
<td>Destination #1</td>
</tr>
<tr>
<td>Name</td>
</tr>
<tr>
<td>How do you usually get there? ☐ Drive ☐ Dropped off ☐ Walk/Bike ☐ Public Transit ☐ Taxi ☐ Agency (i.e., social service)</td>
</tr>
<tr>
<td>☐ Other ________________________________</td>
</tr>
<tr>
<td>Destination #2</td>
</tr>
<tr>
<td>Name</td>
</tr>
<tr>
<td>How do you usually get there? ☐ Drive ☐ Dropped off ☐ Walk/Bike ☐ Public Transit ☐ Taxi ☐ Agency (i.e., social service)</td>
</tr>
<tr>
<td>☐ Other ________________________________</td>
</tr>
</tbody>
</table>

8. Can you get to these places by public transit (i.e. CT Transit)?

☐ Yes, I can get there by bus and often or sometimes take the bus to get there.
☐ I can get there by bus, but it is not convenient.
☐ I cannot get there by bus.
☐ I am not sure if I can get there by bus.
10. Have you taken transit in the last 6 months? ☐ No ☐ Yes

11. If YES, which services did you use? (Check all that apply.)
☐ CT Transit - Local ☐ CT Transit - Express ☐ Amtrak ☐ Greater Hartford Paratransit ☐ Other

12. Which statement best describes your understanding of the existing CT Transit bus service?
☐ I am very knowledgeable about the CT Transit bus routes and schedules in Manchester.
☐ I know there is CT Transit bus service in Manchester and generally know where the bus routes go and when the service operates.
☐ I know there is CT Transit bus service in Manchester, but don’t know much about the bus routes or service times.
☐ I am not aware there is CT Transit bus service in Manchester.

For each row, decide whether you prefer the choice on the LEFT or the RIGHT and mark the appropriate box. These questions help learn about community priorities relating to transit needs:

13. Provide more express service to Hartford, but fewer services to other communities (i.e., Windsor, Vernon) ☐ or ☐ Provide more service to other communities (i.e., Windsor, Vernon), but less express service to Hartford

14. Provide more neighborhood-to-neighborhood connections within Manchester, but riders must transfer for trips to other towns ☐ or ☐ Provide more one-seat rides into Downtown Hartford, but fewer neighborhood-to-neighborhood connections within Manchester

15. Provide buses to more areas, but buses would come less frequently ☐ or ☐ Provide buses to fewer areas, but buses would come more frequently

16. Increase service frequency, but operate service for fewer hours during the day ☐ or ☐ Decrease service frequency, but operate for a longer time during the day (end later and/or start earlier)

17. Provide more weekend service, but service will be less frequent on weekdays ☐ or ☐ Provide more weekday service, but weekend service will not increase

18. Provide frequent stops to make walks to the stop shorter, but service will be slower ☐ or ☐ Reduce the number of stops to make service faster, but walks to the stop will be longer

19. Operates bus service less often, but provide a direct route (one-seat ride) ☐ or ☐ Operate bus service more often, but some riders must transfer

20. Is there anything else you think should or could be done to improve transit in Manchester?

__________________________________________________________________________________________________________________________
__________________________________________________________________________________________________________________________
__________________________________________________________________________________________________________________________
__________________________________________________________________________________________________________________________

Thank you for taking the time to complete this survey!
APPENDIX D
Public Workshop Meeting Notes
Manchester Transit Study

Public Workshop

October 11, 2012

Attendees

Horace Brown, Manchester Planning and Zoning
Eileen Sweeney
Valencia Gonzalez, Manchester Community College (MCC)
Tiffamy Valle, MCC
Sandy Bailey, MCC
Elise Brown
Kristina Gillispie
Shannon Fish, MCC
Joyce Wilkinson
Jonathan Colon, MCC
Rich Shuttlewith
Rebecca Townsend, MCC
David Burstein
Terry Parla
Sandra Hood
Jody Wynorodiger
Dian DeJoannis
Gene DeJoannis
Beverly Fuss
Mary Whitaker

Pat Jensen
Rich Jensen
Gary Sweet, Redevelopment
David Allen, MCC
Mark Pelleogrini, Manchester Planning Department
Sara Metquist
Bob Hetzel
Helen Robbins, Hartford Commuter
Ruby Kissmann, Town Board Director
Andrew Riscassi, MCC
Gordon Plouffe, MCC
Carolyn L. Hill
Charles Gilbert
Mary Anne Ettinger, C46M
Regina Halley
Ed Slegeski
Barbara Jones, MCC
Richard Lutz
Evelyn Santigo, Resident
Sandra Merz

Open House

The first 45 minutes of the meeting consisted of an open house format. Here, members of the community could view displays of potential route improvements as well as discuss where they would like to see improvements to the transit system or new transit service. Some of the concerns that were raised during this portion of the meeting include:

- Service from MCC to Starbucks and Panera.
- Service improvements to the 91 + 92 circulator route.
- Service improvements to Walmart, Denim Street, Redstone Road, Evergreen Walk, the Plaza at Buckland Hills, Buckland Hills Mall, and others.
Presentation and Discussion Summary

Sandy Fry of CRCOG welcomed everyone and provided some background for the study and the agenda for the evening. She provided an overview of the study. A member of the audience asked if the study was focusing only on CT Transit service. Sandy said yes. She said that this study is part of a much larger study that is focusing on sustainability and improving transit in three urban communities in the Hartford region: Enfield, Windsor, and Manchester.

Sandy discussed the project goals and stated that one of the main goals is to strengthen the local transit network with stronger connections to the regional transit network. Other goals include considering Buckland as a transit hub and exploring the potential for redesign of existing routes. Sandy also discussed potential for new routes.

Bethany Whitaker of Nelson\Nygaard discussed the study approach. She described the work that has been completed to date. She noted that the team is here to present some draft ideas for improvements and get community input on those ideas. Bethany noted that there is a Technical Advisory Committee that has guided the study process in Manchester. She discussed transit service design. Factors that affect this include population and employment density, activity areas, and transit dependent populations.

There was a question about the transit service levels and whether they are expense driven. Bethany answered that generally this answer is yes, but they are also principles about what type of service is recommended. For example, these recommendations can help guide a community about whether to implement light rail or bus. There was a question on the population density map. What does the darkest green translate to? Bethany noted that the darkest green translates to about 60-minute service, though this is not always the case. If there is a transit dependent population in this area, the district may decide to implement 30-minute headways.

Bethany next discussed the general travel patterns in Manchester. Transit demand areas include downtown Manchester, especially around the areas near Main and Center streets. Buckland Hills, MCC, and the Spencer Street area are also transit demand areas.

Bethany described the outreach activities that have occurred with this study. She discussed the stakeholder interviews with major employers, social service organizations, and large institutions. There were also MCC student led discussions, online and hard copy community surveys, and this public workshop. Bethany discussed what the team heard from each of the outreach methods. Highlights from the stakeholder interview included that getting around Buckland Hills is difficult, there is a need to improve pedestrian infrastructure, and there is the potential to support more public transit especially in downtown Manchester. There was a question if the study team solicited input from employers at Buckland Hill. Bethany answered yes. The online surveys were primarily filled out by people who travel by car, a paper survey was distributed to bus riders.

Bethany next discussed the transit service that currently exists in Manchester. She noted that most routes have high ridership, though the team does have some suggestions to improve the system.
One of the improvements that Bethany suggested included developing Buckland hills into transit hub. Buses would only stop at the Park & Ride and the mall. There would then be a feeder bus that goes around the other shops. An alternative to this fixed route feeder could be a flex zone feeder bus where a rider gets on and tell the driver where to go. The rider would need to call the service to get picked up when at one of the other stops in the feeder bus service area.

There was question about cost, noting that many who ride the bus are transit dependent. Will they have to pay for additional feeder bus? Bethany answered no; this would be considered a transfer. There was comment that making a call to get picked up was not an appealing option. There was a question of who answers the call. The calls would go to a dispatch. There was another question on what the waiting time is after one calls the bus. Bethany noted that this time would vary and depending on how busy the drivers are. There was a question about what happens at holiday time. Bethany noted that like the Buckland Hills services, there would probably be an increase in this service as demand increases. There was a question whether these buses would be operated by CT Transit? Bethany noted that this has not been decided yet.

There was a question about demand and whether it affects which of these (fixed loop feeder bus or on-call feeder) is a better option. Both services would have the appropriate buses targeted to match demand. There was a comment that the feeder shuttle is a great idea even for motorists who can park at the Park & Ride and take a shuttle around the shops. There was support more stops and a longer trip time, because this can help other areas of Manchester as well.

There was a suggestion to model this after the transit in Paris, where there is more than one type of bus route as a circulator and the fastest bus has less stops.

There was a question how this would this tie into the Vernon / Rockville bus. Bethany noted that there would not be a big change here, except that that bus would also only go to the shopping center and Park & Ride.

Bethany next described a southern mini transit hub in Manchester. This could be at the Park & Ride and would require a slight reorganization of the route. There will be a Walmart going in behind the Park & Ride as well. Bethany discussed other ideas to improve service in Manchester. One suggestion included removing the unproductive service links such as the business park on the 83. Another included removing the JC Penney loop on the 84 as the loop takes a long time but not often used.

There was support for an cross town Manchester route from MCC to downtown to Buckland Hills. This could include service on Broad Street and connect the transit hubs discussed earlier. There was a comment stating that discontinuing routes hurts the small businesses. There was considerable support for expanded bus service down Broad Street, noting the upcoming sidewalk improvements there.
There was a question whether people have a harder time getting around in inclement weather. Bethany noted that usually bus rider ship does go up when weather gets bad. It was noted that a lot more people are riding the bus today and in the past because of the poor economy.

The president of the study body at MCC stated that the students’ greatest concerns with the transit service include that the CT Transit schedules don’t line up with MCC schedules, bus shelters are needed, buses are extremely crowded, and there should be a UPass offered to students.

Ultimately, the recommendations include a proposed network which includes a cleaner simpler network with less service coverage, but faster, more direct coverage.