

# SERVICE IMPROVEMENT STRATEGIES AND SCENARIOS

The Hartford region has seen significant improvements in terms of intermodal connectivity and mode choice. Recent investments include the new **CTfastrak** bus rapid transit and the Hartford Intermodal Triangle project which improves downtown circulation for multiple modes. Local travel patterns and demand will continue to evolve through 2017 with the potential expansion of **CTfastrak** to the east and the introduction of new commuter rail service to New Haven and Springfield, MA from a number of local stations throughout the region.

The Capitol Region Council of Governments (CRCOG), working with the Connecticut Department of Transportation (CTDOT) and **CTtransit**, is working to build upon these investments and to create a seamless and effective regional transit network. CRCOG is conducting a “Comprehensive Service Analysis” (CSA) to evaluate how well **CTtransit**’s local bus system is serving existing population, employment and activity centers around the region; measure the overall productivity and effectiveness of individual bus routes; and identify service scenario options for the future.

This memo provides a brief overview of the existing system, and identifies its strengths as well as aspects that could be modified to make the system more efficient and to better serve the region’s transit riders. Based on various CSA efforts to date, including stakeholder interviews, a market analysis and individual route evaluations, a number of bus service improvement strategies are identified below. Overall, these changes are designed to make **CTtransit** Hartford services:

- Easier to use / more convenient
- Easier to understand
- Faster and more direct
- Better aligned with customer demand

These strategies will be employed to develop three systemwide Service Improvement Scenarios, as outlined at the end of this document.

## OVERVIEW OF EXISTING TRANSIT SYSTEM

**CTtransit**’s Hartford Division operates fixed-route services in 27 Capitol Region communities. The service operates as a radial system, with almost all routes beginning or ending in downtown Hartford and radiating out to surrounding destinations. A total of 61 routes are operated, including 44 local routes, 5 “Flyer” routes, and 12 express routes. Routes can be further classified as follows:

- **Dash:** This free shuttle circulates in downtown Hartford on weekdays and to serve special weekend events in downtown Hartford. It connects the Connecticut Convention Center, downtown hotels, and Union Station.
- **Local Routes:** All but two local routes operate between downtown Hartford and the surrounding region, traveling outward from downtown in a radial pattern. Nearly all local routes operate on Saturdays, and most also operate on Sundays as well.
- **Crosstown Routes:** Two local routes, 91 Forbes Avenue and 92 Tower Avenue, operate as crosstown routes, beginning and ending outside of downtown Hartford.
- **Flyer Routes:** “Flyer” routes provide limited stop service between downtown Hartford and key destinations in the region and charges only the regular base fare. Route 30, the Bradley Flyer, provides limited-stop service between Hartford’s Union Station and Bradley International

Airport. Route 35, the Westfarms Flyer, operates directly between downtown Hartford and Westfarms Mall on weekends.

- **Express Routes:** Twenty-one (21) express routes serve the Greater Hartford area. These routes provide nonstop or limited-stop service to downtown Hartford from park-and-ride facilities and other key locations in surrounding towns. Service is oriented towards commuters in the peak direction; some routes provide only peak period service, while others provide supplemental mid-day trips. Only the Route 905 Enfield-Somers/Windsor Locks and 928 Southington-Cheshire-Waterbury express routes operate on weekends; all other express routes operate only on weekdays.
- **CTfastrak Routes:** CTfastrak includes a family of bus services including a bus rapid transit (BRT) line that operates along a 9.2 mile exclusive, bus-only right-of-way between New Britain and downtown Hartford. Other routes operate partially on the guideway or act as feeder routes to the 9.2 mile BRT line. All CTfastrak services are uniquely branded with green vehicles, although certain other commuter routes are allowed to use the dedicated guideway. Additional CTfastrak routes connect other destinations in adjacent communities with the bus rapid transit line.

## ASSESSMENT OF SYSTEM STRENGTHS

As part of the CSA effort, a review of the existing system was performed. This included a review of existing conditions; an analysis of regional demographics, travel flows and transit market demand; and, a detailed evaluation of each existing CTtransit route's performance. Based on this work, a summary of system strengths and areas for potential improvement have been identified.

### Summary of System Strengths

**Growing transit ridership.** Transit ridership in the Hartford region has been growing. The number of daily passenger trips increased 6% between 2008-2013. The number of passengers carried for each hour of service also increased by 5%. This demonstrates CTtransit is providing effective service to many transit riders.

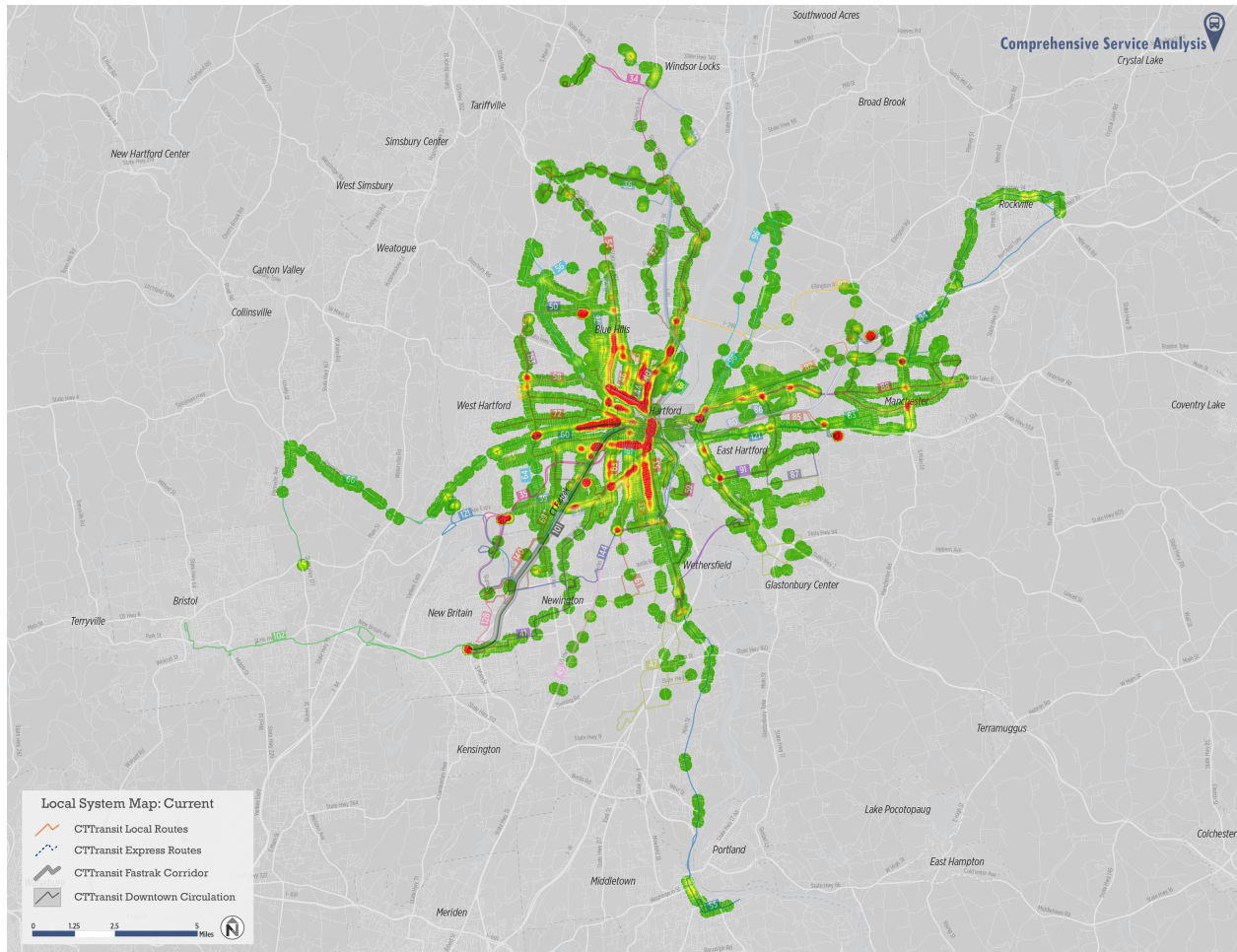
**Service coverage is well matched to demand.** The urban core of Hartford is well served by both local services and by commuter express routes that connect suburban park-and-rides to downtown. Adjacent communities with residential densities sufficient to support transit service are generally served by at least one route connecting to downtown Hartford.

**Key ridership corridors and activity centers.** Due to its dense residential and employment activity, Hartford is by far the most transit-supportive area in the region. Most of the city has sufficient density to support very high levels of transit service, as high as 5 minutes during peak periods in certain locations.

Figure 1 provides a “heat map” generated using 2013 CTtransit ridership counts and showing relative ridership activity throughout the region. Areas highlighted in red have more ridership activity than yellow or green areas and, when viewed collectively, the map highlights a number of high ridership transit corridors and activity centers. (see also Tables 1 and 2).

Today, CTtransit provides high frequency transit service in each of these corridors. Many have multiple routes operating along them, offering a high level of mobility to near-by residents and businesses. The outlying high ridership activity centers are also well served. It is critical that high frequency service continue to be offered in these corridors and activity centers.

**FIGURE 1: KEY RIDERSHIP CORRIDORS & ACTIVITY CENTERS IN THE HARTFORD REGION (2013)**



**TABLE 1: HIGH RIDERSHIP CORRIDORS IN THE HARTFORD REGION (2013)**

High Ridership Transit Corridors
Main Street, Hartford
Farmington Avenue, Hartford and West Hartford
Park Street, Hartford
Albany Avenue, Hartford
Franklin Avenue Hartford
New Britain Avenue, Hartford
North Main Street, Hartford
Blue Hills Avenue, Hartford

Note: Based on 2013 CTtransit ridership counts, prior to the opening of CTfastrak.

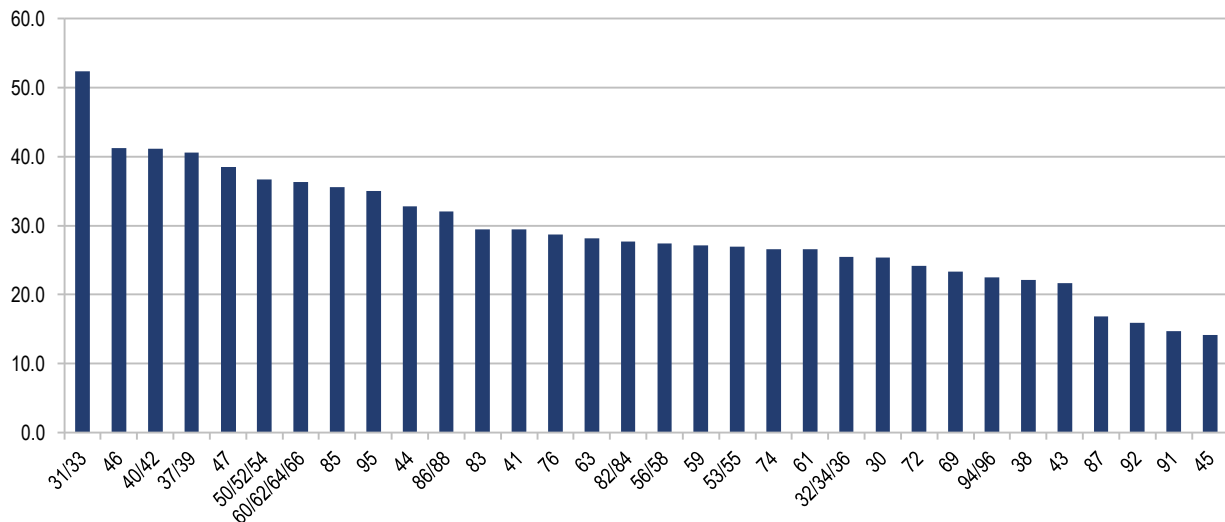
**TABLE 2: HIGH RIDERSHIP ACTIVITY CENTERS IN THE HARTFORD REGION (2013)**

High Ridership Transit Activity Centers
Downtown Hartford
Asylum Hill, Hartford
Westfarms Mall, West Hartford
Copaco Center, Bloomfield
Downtown New Britain
Manchester Community College, Manchester
Buckland Hills Mall, Manchester
East Hartford Center, East Hartford

Note: Based on 2013 CTtransit ridership counts, prior to the opening of CTfastrak.

The strength and productivity of these transit corridors is further demonstrated through a comparison of relative passengers per revenue hour. As shown in Figure 2, the highest performing routes operate in the Park Street (Routes 31/33), Albany Avenue/Blue Hills Avenue (Routes 46, 42, 50, 52, 54), North Main Street (Route 40), New Britain Avenue (37/39), Franklin Avenue (Route 47) and Farmington Avenue (Routes 60, 62, 64, 66) corridors.

**FIGURE 2 | WEEKDAY PASSENGERS PER REVENUE HOUR**



**CTfastrak and the emerging East –West BRT Corridor.** CTfastrak attracts approximately 16,500 daily riders (CTDOT, October 2015) in the high-frequency transit corridor between New Britain and Hartford. The success of this corridor is due, in part, to the fact that it serves the western half of the

region's strongest transit market, an east-west spine running parallel to I-84 through New Britain-West Hartford-Hartford. Planning is underway to expand **CTfastrak** services across the river, where the pattern of higher density population and employment continues to the east. This effort would link a large concentration of individuals likely to rely on public transportation services, with services anchored by two outlying communities with relatively strong transit demand: Manchester and New Britain.

**Regional Connections.** Passengers are able to connect with other neighboring transit systems including New Britain Transit, Bristol Transit and Middletown Area Transit. Intercity bus and rail connections can be made at Union Station, and two near-term improvements will greatly strengthen these regional connections: 1) **CTtransit** is extended routes entering downtown from east of the Connecticut River to Union Station in 2016; and, 2) New Haven-Hartford-Springfield commuter rail service will begin in late 2017.

**Opportunities provided for reverse commuters.** Despite the prominence of downtown Hartford as the region's employment hub, **CTtransit** recognizes that a number of suburban destinations also provide critical employment opportunities. Today, **CTtransit's** radial route structure is supportive of reverse commutes and provides peak hour and second shift connections to many suburban job opportunities including many in Windsor Locks, Windsor, Bloomfield, Newington, Wethersfield, and East Hartford.

**Adoption of Emerging Transit Technologies.** **CTtransit** is currently introducing new Intelligent Transportation System (ITS) technologies onto all buses in the Hartford region. This system will provide the capability for real time vehicle locations, better transit service planning and scheduling, and new customer applications to track bus arrival times.

## Areas for Potential Improvement

**Adjusting CTfastrak feeder service along the recently opened bus rapid transit line.** As with any new service, potential adjustments may be warranted based on ridership demand and actual route performance. **CTtransit** is monitoring ridership and service performance along the recently opened **CTfastrak** bus rapid transit line. In particular, modifications to feeder routes that connect to the line, as well as other existing **CTtransit** local services operating in the area, may be appropriate to best match service with rider needs.

**Re-aligning services to market demand/Range of service types.** Large portions of the service area do not have sufficient densities to support even moderately frequent service to Hartford. Yet they may have demographics or activity centers that suggest a need for local area transit. These areas may be geographically isolated and challenging to serve with traditional local routes, as connections to Hartford must travel through corridors with significantly less demand. Other types of transit services, such as circulator or dial-a-ride services, may help balance local needs with the desire to operate cost efficient services.

**Crosstown and inter-suburban connections.** **CTtransit** mainly offers radial service focused on downtown Hartford, the region's economic hub. **CTfastrak** has supplemented cross town travel opportunities, but additional routes should be considered to serve other segments of the market. For example, as a stronger east-west BRT corridor emerges between New Britain-Hartford-Manchester, riders will want to make connections to this corridor in different locations without traveling through downtown Hartford. Other secondary destinations throughout the region may warrant new or enhanced connections, such as Asylum Hill, Copaco Center, Buckland Hills or Westfarms Mall. Crosstown connections between regional activity centers should offer direct connections to improve access across the region and make transit travel more convenient.

**Simplify routes and service structure.** *CTtransit* has initiated several efforts to make service clearer and easier for riders to understand. However, there is more that can be done to improve the legibility of service. Many *CTtransit* routes travel along different alignments depending on the day or time. These route deviations or “variants” can contribute to irregular schedules and make service confusing for riders. Other routes operate along two different branches, with different terminal points. Simplifying routes and reducing multiple variants will make service easier to understand and use by existing and potential riders alike.

Identifying clear service markets for each route is also important. For example, today *CTtransit* offers express service (900 routes), Flyer service, and express trips (e.g. a 36X trip on a local route). Establishing a clear purpose and service structure for each route will help riders better utilize the service.

## PROPOSED BUS SERVICE IMPROVEMENT STRATEGIES

### Establish a “Family of Services”

Certain *CTtransit* routes provide a mix of local and express service, while other provide a mix of mainline arterial service and local circulator service with part-time variants. The result is many overly complex routes with irregular schedules that may be difficult for customers to use and understand.

A revised “family of services” approach is proposed to tailor routes to their specific markets (see Table 3). This hierarchy of service types would guide the redesign and scheduling of each route to better match market demand with service levels.

Establishing a clear family of services would also enable *CTtransit* to better distinguish and brand certain types of services. Different types of routes with each category could be branded by color or number on maps, signs and schedules. This will make service more intuitive for customers and easier to understand. Today for example, express and regional services are provided through a range of service types (e.g. Route 900 series express buses, Flyer services and *CTfastrak* routes.) Common and consistent branding for types of routes would make them easier to distinguish and understand, and should be designed to help protect the successful *CTfastrak* brand.

### Simplify Service

In order for people to try or regularly use transit, they must be able to understand it. A simple route structure will attract more riders than a complex system. Strategies to simplify service include:

- **Routes Should Operate Along a Direct Path:** Transit riders prefer faster, more direct transit services. In all cases, routes will be designed to operate as directly as possible unless there is a compelling reason.
- **Route Variants Should be Minimized:** Selected trips on certain *CTtransit* services detour to off-route locations. These “variant” services have likely been added over the years to respond to requests from customers or their advocates. Yet, many serve very few riders, make service slower for most riders, make service complex, and create inconvenient gaps in schedules. If there is significant demand at variant locations, such as a large housing complex or higher education institution, then service should operate there; otherwise service should stay on its main route. The discontinuation of the variant services will provide faster, more direct service to nearly all riders on the affected routes and trips, and attract new riders.
- **Avoid Duplication.** The focusing of several bus routes within high demand key corridors is an important strategy to help provide high levels of transit demand. In other corridors, transit demand is more moderate and redundant services should be assessed for overall efficiency.

**TABLE 3 | PROPOSED FAMILY OF BUS SERVICES**

SERVICE TYPE	SERVICE CHARACTERISTICS
<b>CTfastrak Regional</b>	<i>CTfastrak regional routes would include BRT service operating within a dedicated right-of-way, such as the corridor between New Britain and Hartford or the new service being considered to operate along the I-84 HOV lane between Hartford and Manchester. CTfastrak regional routes are supported by branded vehicles and enhanced passenger amenities, and operate at high frequency.</i>
<b>Arterial BRT</b>	<i>Arterial BRT routes would be high frequency services operating in mixed traffic along high-density, high-ridership urban arterial corridors. These services would be supported by a range of potential treatments to increase the attractiveness and speed of service (e.g. traffic signal priority, bus-only travel lanes queue jump lanes, on-street parking restrictions, etc.). Branding may also be incorporated.</i>
<b>Express</b>	Express routes provide fast service to and from downtown Hartford over longer distances, generally making only one or two stops at park-and-ride lots or other outlying activity centers (e.g. malls, the airport or transit hubs). Express routes typically operate during weekday peak periods only (or limited time periods), travel via highways for at least part of their route, and charge a premium distance-based fare.
<b>Flyer</b>	Flyers provide limited stop service to key outlying destinations such as transit hubs, shopping malls or major suburban employment centers. Although these routes offer fast service, they differ from Express routes in that they may not operate on highways and may make more interim stops to serve major transfer points or other high ridership destinations.
<b>Local Route Tier I</b>	High ridership routes that operate along primary arterials that are high-density and transit-supportive. These routes should offer straight, direct and frequent service.
<b>Local Route Tier II</b>	These routes serve less densely developed areas where the demand for transit is not as strong and may not always operate along primary arterials. They connect key activity centers in outlying areas such as dense residential neighborhoods or shopping and employment sites.
<b>Crosstown</b>	Crosstown routes allow people to transfer between CTfastrak corridors or Local Tier I routes without having to travel out of their way into downtown. These routes may also more directly connect outlying destinations such as hospitals, employment sites and shopping.
<b>Shuttle</b>	Shuttles are designed to directly and efficiently connect major activity centers such as colleges, hospitals or shopping malls with a nearby CTfastrak station or other transit hub. They operate frequently during peak commuting times to these destinations.
<b>Circulator</b>	Circulators operate primarily outside of the downtown core and are designed to connect destinations in outlying areas. These routes can be straight and direct, connecting outlying areas to transfer points, or can operate in a more circuitous fashion to serve many local destinations.

## Strengthen Key Corridors

In a number of Hartford corridors several transit routes converge to provide very high levels of service and, as a result, attract very high levels of ridership. These corridors, which also tend to be high-density, transit supportive environments, include:

- The North Main Street / Windsor Avenue Corridor
- The Albany Avenue / Blue Hills Avenue Corridor

- The Farmington Avenue Corridor
- The Park / New Park Street Corridor
- The New Britain Avenue Corridor
- The Franklin Avenue Corridor

A number of “transit-emphasis” strategies will be considered to further strengthen the attractiveness and effectiveness of service in these corridors. These strategies include:

**Better Coordination of Services**

For high frequency services, one of the key benefits is that riders can access the service without checking schedules as buses come every 10-15 minutes. For routes that operate less than 4 times per hour, the implementation of mobile “apps” with real time bus arrival information will allow many riders to check their smart phones for bus arrival information. However, on low frequency routes where many riders are transit dependent and do not necessarily have access to such technology, schedules should be coordinated to provide short connection times and to operate service at even intervals. Also, routes that operate at regular headways make it more convenient for customers to remember schedules. At present, most CT**transit** routes operate with schedules that are very irregular. This is primarily due to the following factors:

1. Off-route variants take more or less time than regular service, thus creating a gap in schedules
2. Interlining with other routes
3. Providing cushion time in the schedule to maintain better on-time performance

The rescheduling of service based on consistent headways would allow connections to be much better coordinated. In corridors that are served by multiple routes, schedules would be revised so that individual routes alternate trips at even intervals.

**TABLE 4: SCHEDULE EXAMPLES (BASED ON FOUR TRIPS PER HOUR)**

Departure time		
IRREGULAR <i>Non-repeating pattern</i>	BETTER <i>Repeating pattern</i>	BEST <i>Repeating pattern + clockface times</i>
7:00	7:00	7:00
7:12	7:14	7:15
7:35	7:28	7:30
7:50	7:42	7:45
8:05	7:56	8:00
8:15	8:10	8:15
8:30	8:24	8:30
8:40	8:38	8:45

In addition, in most cases where two or more routes operate in the same corridor, each route would be rescheduled to operate at the same service frequency and for the trips on each route to alternate at even intervals. This will eliminate bunching and gaps, and increase the effective amount of service provided to passengers (since two buses arriving at the same time have the equivalent utility of a single bus).



## Consolidate Duplicative Services / Better Match Service to Meet Demand

Routes in some key corridors travel to similar destinations. To eliminate service duplication, routes should serve well-defined markets and complement nearby services. In key corridors served by a number of routes, each would be reconfigured to better meet demand in a more efficient manner. For example, three different routes (32, 34 and 36) provide service through Windsor Center and routes some service might be redirected to operate as express service along I-91.

## Higher Levels of Passenger Amenities

A variety of capital improvements could be implemented in order to better support and improve the flow of buses and attract more riders in key transit-emphasis corridors. These amenities might include shelters, seating, and improved lighting. In those corridors that include arterial BRT service, additional treatments, including transit signal priority, real time information, and off-vehicle fare collection; as well as dedicated lanes and/or queue jump lanes where necessary.

## Stop Consolidation

Stop consolidation to reduce the number of stops per mile would also help improve the flow of buses, make service faster, and attract more riders in key transit-emphasis corridors.

## Scheduling Improvements

### Adjust Service Frequencies

On some routes, based on current ridership levels, too much service is provided; on others, too little service is provided. Throughout the system, service frequencies would be adjusted to better match service levels with demand by time of day. For example, if there is overcrowding on certain peak period trips but mid-day service runs with very light passenger loads, less service would be provided mid-day and these resources shifted to provide additional peak period trips.

### Adjust Service Spans

Similar to service frequencies, existing passenger demand indicates that some routes begin service too early or too late, or end service too early or too late. To better match service levels with demand, the start and end times of routes would be adjusted. This could be done based on individual route demands, or based on specific service guidelines crafted to match the Family of Services.

## Identify New Hubs and/or Superstops

As transit needs grow outward and new routes converge at new locations, transit hubs can help facilitate convenient transfers between routes and expand travel opportunities to more locations. Depending on the number of routes and passengers at these locations, different levels of amenities could be provided. Transit hubs are typically located off-street and could provide indoor waiting space with restrooms, ticket vending and real time bus arrival information. Superstops are on-street locations that serve as major bus stops or transfer locations. These superstops also merit improvements to increase visibility and attract new riders, such as covered shelters, seating and transit route information.

## Potential Transit Hubs/Superstop locations

Many **CTfastrak** stations and other locations (e.g. park-and-ride lots and malls) already serve as mini-transit hubs or superstops. Depending on how **CTtransit** service is reconfigured throughout the region, transit hubs or superstops may be located at some of the following locations, and potentially other yet to be determined sites:

Buckland Hills/Manchester  
 Poquonock Park-and-Ride / Day Hill Road  
 Windsor Shopping Center  
 Copaco Center  
 Bishops Corner  
 West Hartford Center  
 East Hartford

Albany Avenue at Blue Hills/Homestead Ave  
 Asylum Hill  
 West Harford Center  
 Westfarms Mall  
 South Green  
 Wethersfield Shopping Center

## Introduce New Crosstown Routes

Overall, the Market Review that was conducted at the beginning of this study concluded that **CTtransit** generally provides service to areas that can support productive transit, but that there were some opportunities to expand service:

**Hartford Crosstown Routes:** There are minimal opportunities to travel across Hartford without going through downtown.

**Inter-Suburban Routes:** There are two existing crosstown routes: 91 Forbes Street and 92 Tower Avenue. These routes will be reevaluated to make travel more direct and to assess the strength of the terminal destinations. New routes might also be considered to connect major destinations outside of Harford, similar to the new **CTfastrak** route 153 which connects West Hartford to Copaco Center.

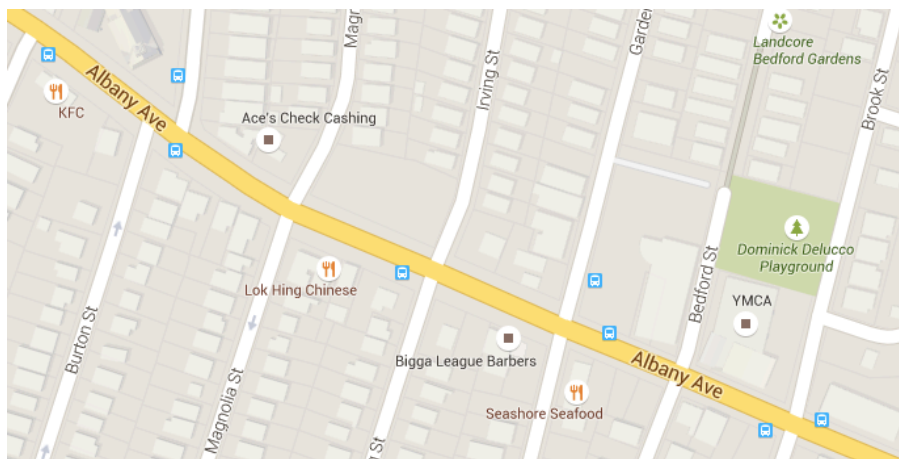
## Better Integrate with CTfastrak and future NHHS Rail Service

Scenarios will look to better integrate **CTtransit** local service with **CTfastrak** services and future New Haven-Hartford-Springfield (NHHS) commuter rail service. Hartford’s downtown Intermodal project has already taken steps to allow for additional local bus service and improved circulation around Union Station. Once NHHS service begins, bus service should help feed rail stations and, as appropriate, help provide local circulation and/or radial service that complements the train schedule. Route synchronization should be a consideration to assist in better integrating services.

## Bus Stop Management & Consolidation

Transit stops should be conveniently located. However, transit stops are also the major reason that transit service is slower than automobile trips. Most riders want service that balances convenience and speed, and the spacing of bus stops is a key component of determining that balance. In some locations, **CTtransit**’s stops are spaced very closely together (see Figure 2) and the consolidation of stops could provide significant travel time savings.

**FIGURE 2 CLOSE STOP SPACING ON ALBANY AVENUE (STOPS SPACED 300-500’ APART)**



On average, it takes a bus about 20 seconds to slow down, stop and pick up a passenger, and accelerate back up to speed. Thus, a consolidation from nine stops per mile to six can save one minute per mile, or five minutes on a five-mile trip. Services that emphasize speed should have fewer stops, while service that emphasizes accessibility should have more frequent stops.

**CTtransit** could develop and adopt new stop spacing guidelines based on an established Family of Services. Additionally, a series of bus stop management guidelines could be developed to set protocols for the design and level of amenities to be provided at each stop. Stops with low ridership may simply be marked with a bus stop sign. As stop usage increases, the level of amenities could correspondingly be increased, with the installation of shelter and seating. High ridership stops or “superstops” might be provided with real time information, wayfinding signage or higher capacity shelters. Advancement of a regional bus shelter program would strengthen the transit stops and assist in establishing better stop management.

## SERVICE EVALUATION POLICY

Going forward, CRCOG and **CTtransit** and regional stakeholders would benefit from an established policy framework for making decisions related to local bus service. This may include:

- **Using CTtransit data to Support Transit Service Planning** The advent of ITS technology currently being rolled out onto all buses in the Hartford region (e.g. automatic passenger counters (APC) and automatic vehicle location (AVL) devices) will provide a quantum increase in data to enhance transit service planning and scheduling. This data can help tailor schedules to actual travel times and passenger demand, allowing **CTtransit** to better match service to customer needs.
- **Continuing ongoing CTtransit service reviews** to identify: 1) low performing routes that warrant changes to make the service more attractive, or potentially discontinuation; or, 2) high performing routes that may warrant higher levels of service.
- **Concern for impacts on vulnerable communities.** Any changes introduced as part of the strategies proposed will require evaluation in accordance with federal law under Title VI of the Civil Rights Act. Service planning policy should set thresholds at which service changes require Title VI evaluations to analyze service changes that may impact low income and minority communities.
- **Prioritization of key sites for capital and TOD supportive investments** based on ridership and service levels. High priority locations should be prioritized for capital investment and other supportive efforts such as transit oriented development (TOD).
- **Application of ITS and traffic engineering solutions** to enhance transit circulation within urban centers. ITS treatments can address specific “chokepoints” that contribute to service delays, and in so doing can improve the competitiveness of transit with other modes. ITS treatments may include transit signal priority or off-board fare payment to reduce dwell time at stops and intersections.

## POTENTIAL SERVICE SCENARIOS

The following are three service scenarios that, to various degrees, incorporate the service improvement strategies described above. Each scenario would improve service over the existing network, but each differs in the extent to which it deviates from the current service model. Scenario I is the most modest refinement, intended to streamline the efficiency of existing services. Scenario II is a more radical departure from the current network, which introduces a network of arterial BRT corridors. The third scenario is envisioned as a hybrid of the first two and incorporates the most broadly supported elements of the other scenarios.

### Scenario I – “Streamline Service”

Focuses on relatively minor improvements to individual routes to address opportunities identified through the Route Profile process.

- Routes will be modified to discontinue unproductive variants, adjust service span and frequency to better match demand, and make other improvements identified in route evaluations.
- Service recommendations will take into account access to new **CTfastrak** stations, as well as the presence of existing **CTfastrak** feeder routes (100-series routes) within the study area.
- A service hierarchy, or “family of services” approach will be applied primarily in the context of service span and frequency of service.
- Other changes may include simplification of service (e.g. elimination of route variations, renumbering to clarify service, etc.)

### Scenario II – “Regional BRT Network”

Provides a fundamentally different vision of transit service in the Hartford region by introducing new arterial BRT corridors and building on the success of **CTfastrak**.

- A stronger emphasis on the “family of services” approach developed in Scenario I will build off the success of **CTfastrak** to introduce BRT concepts along key urban arterials.
- Other service types introduced or expanded in this scenario include crosstown routes, and community circulators. These service types will improve travel options for passengers traveling to destinations other than downtown Hartford, but are also likely to increase the volume of transfer activity among transit riders.
- To accommodate the expected increase in transfer activity, this scenario would propose the introduction of “super stops” or “mini-hubs” at major transfer locations including along arterial BRT corridors. These stops would mimic the aesthetics and passenger amenities of the newly inaugurated **CTfastrak** stations, and would be gateways to the “Ladders of Opportunity” that link low-income, transit-dependent neighborhoods to jobs via high-quality transit service.

## Scenario III – “Hybrid Approach”

Strengthening key transit-supportive corridors in the Hartford area, and refocusing the bus network around these corridors.

- Scenario III would combine elements of Scenarios I and II to create a network that strengthens key corridors, but still preserves one-seat connections to downtown Hartford for the vast majority of transit riders. It may propose some level of physical corridor treatments as in Scenario II, but will focus more on improved service frequencies achieved through schedule coordination and other operational changes.
- New service types including cross-town service, will be introduced in this scenario, but with the aim of closing service gaps, rather than developing a network that facilitates seamless transfer opportunities at multiple destinations outside of downtown Hartford.