

Westport Rail Stations Parking Study

Existing Conditions

Analysis

Recommendations

Recommendations Report

December 2016



prepared by
NV5 - Connecticut, LLC (formerly RBA)
prepared for
Western CT Council of Governments



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1. Introduction

This report summarizes the strategies detailed in the *Westport Rail Stations Study: Analysis Report* dated February 2016 and presented and discussed at a Study Technical Committee (STC) meeting on April 29, 2016. Based on the results of that meeting and subsequent discussions with the Western Connecticut Council of Governments (WestCOG), the strategies were grouped into the following three categories:

1. Strategies that have already been implemented or are being implemented by the Town of Westport;
2. Strategies that should be addressed as part of an upcoming transit-oriented development (TOD) study; and
3. Strategies that require further consideration by the Town and other parties.

The strategies are coded by categories that correspond with those in the February 2016 *Analysis Report*. A list of all support strategies is included in the Appendix.

- **PM** = Parking Management
- **PI** = Parking Improvement
- **M** = Mobility Improvement

Figure 1: Site Concept Plan

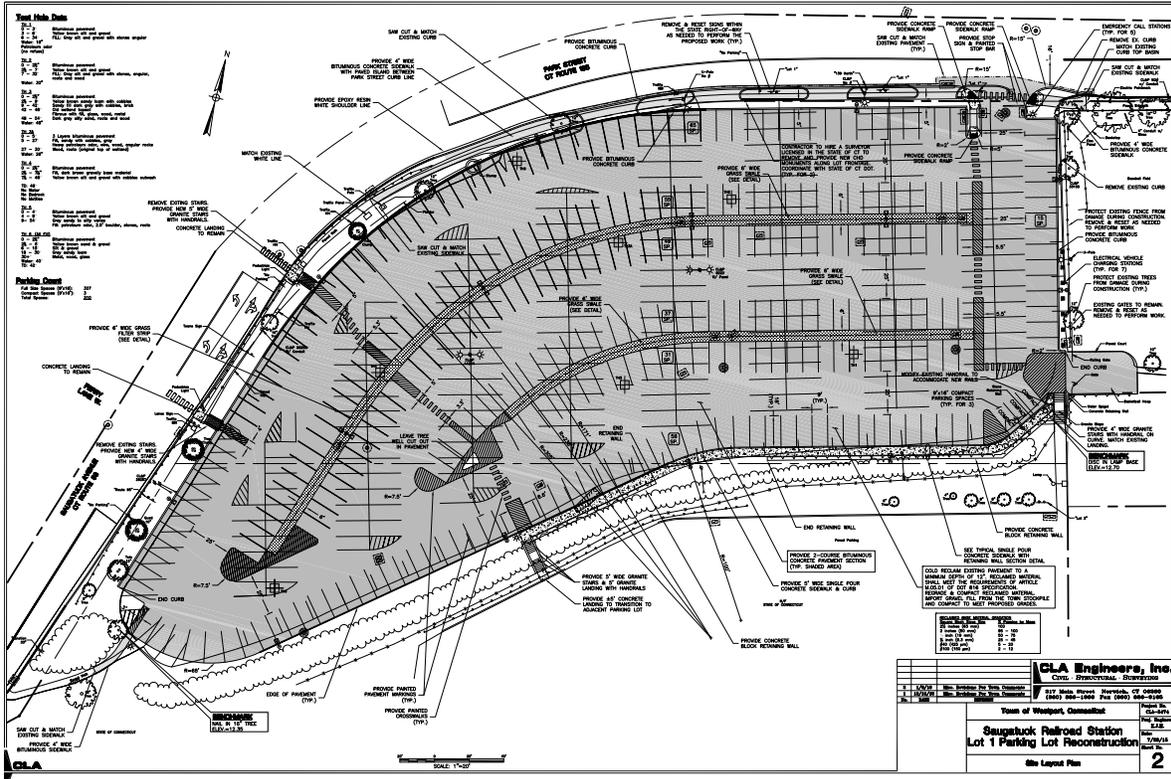
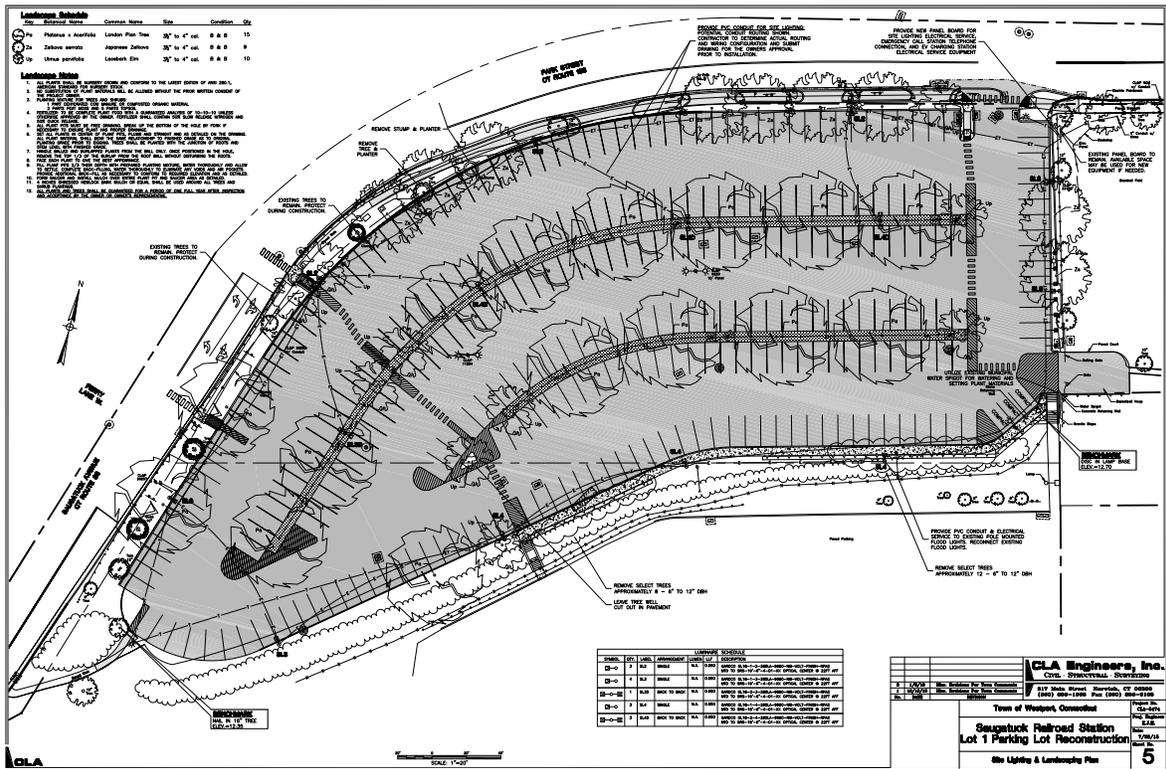


Figure 2: Sight Lighting & Landscaping Plan



2. Implemented Strategies

The Town of Westport and its Police Department (WPD), which is responsible for managing the day-to-day operation of rail station parking, have implemented and are advancing a number of strategies that were developed during this study. In addition to these strategies, the WPD has also initiated improvements to rail station parking lots at both the Saugatuck and Green's Farm stations, including the following:

1. **Improvements to Lot #1 at Saugatuck Station (PI7, M2, M6).**¹ To address deteriorating pavement conditions and poor drainage, and to improve vehicular and pedestrian safety/access, the Town recently completed the reconstruction of Lot #1, in September 2016, which included repaving, re-striping, drainage and landscaping improvements, new LED lighting, four blue light security stations, six electric charging stations, new pedestrian pathways through the lot, the addition of a staircase at the western end of the lot, and the closure of multiple entrances/exits. The reconstruction of the lot resulted in a loss of 6 spaces, lowering the total number of marked spaces from 311 to 305 which was due to improve circulation and address non-conforming spaces. The budgeted cost for the lot's reconstruction was \$1.5 million. The original concept plans (see Figure 1 and Figure 2) and photos (Figures 3-8) highlighting the improvements (see page 4) following construction are included in this report.
2. **Expand Lot 7 through acquiring or leasing adjacent property (PI8).** The Town recently acquired the leases of the private lots east of Lot #7 which added 44 parking spaces. In addition, a staircase was recently constructed from the east end of the newly expanded lot down to Riverside Avenue to improve access for commuters walking to the station.
3. **Converted 22 hourly spaces in lot adjacent to Franklin Street to daily spaces (PM11).** Based on a survey conducted by the WPD that indicated that the current utilization of 1 hour spaces was only 35% during the day (rising to 80% after 4:30 p.m.), 22 spaces were converted to daily spaces from hourly spaces to provide additional commuter parking. The WPD will continue to monitor and survey the lot to see if the utilization pattern changes given recent changes in the type of businesses located along Railroad Place.
4. **Charging a fee (\$35) for the people on the waitlist (PM9).** WPD and the Town recently implemented a policy whereby a \$35 fee is charged to any new person seeking to be placed on the waiting list. Of this fee, \$10 represents revenue and \$25 is allocated to COMPLUS for administration. WPD and the Town also recently instituted a policy that allows permit holders to add a second car to their permit for an additional annual fee of \$125.
5. **Open up unused permit spaces (especially in Lot #8) to daily users before 10:00am (PM12).** The WPD actively manages parking on a daily basis, and opens up unused permit spaces to daily users before 10:00am if possible. This is typically done by WPD parking personnel who monitor usage and then put up signs at the entrance to lots indicating that daily spaces are now available.
6. **Implement a pay station and pay by phone system (PM8).** WPD is currently investigating a pay

¹ Installing a fence on the eastern edge of Lot #8 (M1), which was originally grouped with PI7, M2, and M6, has not been implemented by the WPD as of this time. It has been moved into the third group of strategies, those that require additional action by the Town and other parties.

Figure 3: New entrance/exit at western end of Lot #1



Figure 4: New entrance/exit at eastern end of Lot #1



Figure 5: Repaved and restriped



Figure 6: New staircase at western end of Lot #1



Figure 7: New pedestrian path through lot



Figure 8: Landscaping and drainage improvements



by phone system with COMPLUS. It has been previously noted that a pay station and pay by phone system would make the daily ticketing system less labor intensive and easier to use by its customers. The specific benefits of these type of systems include reducing operating costs associated with ticket distribution and money collecting, reducing fines as people have the ability to pay instantly which improves revenue flow, providing e-mail receipts which is ideal for persons submitting travel expenses, and the elimination of damaged tickets due to inclement weather. The typical costs associated with these systems include the capital cost of purchasing meters (\$8,500 per meter), the cost of management system software (\$4,000 to \$8,000, plus enforcement devices [\$5,000 per device]), plus the installation cost.²

The WPD has also made a number of additional improvements to expand the parking supply at both Saugatuck and Green's Farm Stations. These improvements include adding 16 spaces in Lot #2 (by removing some grass area, moving the fence line and relocating a light pole), adding 17 commuter spaces on Franklin Street (under I-95), adding 7 commuter spaces on Park Street between Saugatuck Avenue and Charles Street (across from the old Blu Parrot/Jasmine/Arrow restaurant), and adding 33 spaces at Green's Farms Station. These improvements, when taken with strategies PI7, M2, M6, PI8, and PM11 detailed above, have seen the WPD add approximately 133 spaces, increasing the total number of commuter spaces from 1,791 to 1,924, an increase of almost 7 percent in the parking supply. It has also allowed the WPD to sell an additional 150 permits to people on the wait list. Figure 9 and Figure 10 indicate the locations of these parking expansions.

The WPD also has an agreement with CTDOT to open up the CTDOT maintenance lot adjacent to Lot #8 in the event there is a need for overflow parking, which provides for an additional 55 spaces.

Finally, the WPD has allocated 13 spaces in Lot #2 for early commuters (people parking after 9:15 a.m.) who do not have a permit (making them daily spaces), has made Lot #4 and #8 daily lots only, and eliminated daily parking from Lot #3, all in an effort to help direct daily parkers to specific locations and reduce traffic congestion.

Additional improvements made by the WPD that are focused on safety and security include adding LED lights to Lot #7 and #8 at Saugatuck (LED lights have been ordered for Lot #2) and Lot #1 at Green's Farms.

It should be noted that early on in the study, the WPD, based on an assessment of station conditions that was done during the initial documentation of existing conditions, addressed a number of deficiencies at Saugatuck and Green's Farms Stations. These improvements which are broken out for each station are detailed below.

2 From *Ahead of the Curve in Creative Parking Solutions*, City of Bloomington, IN, Prepared by Walker Parking, 2012.

Figure 9: Saugatuck Station Parking Expansion

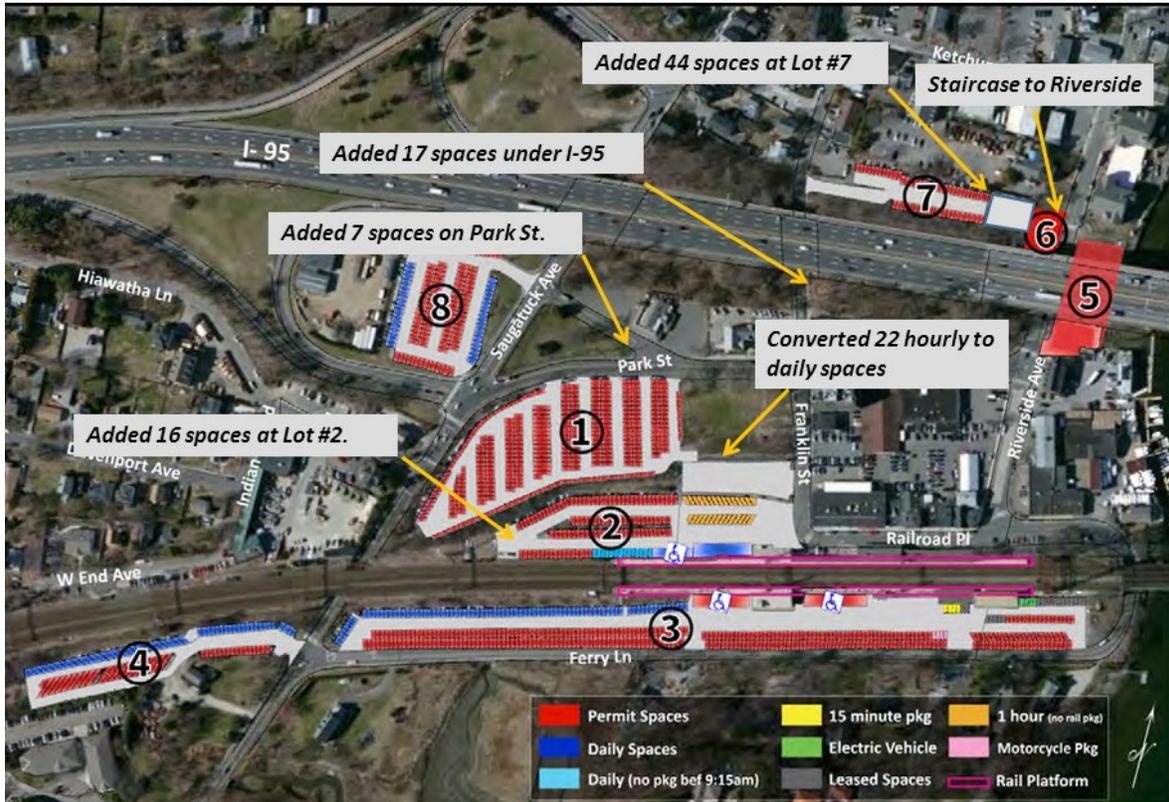
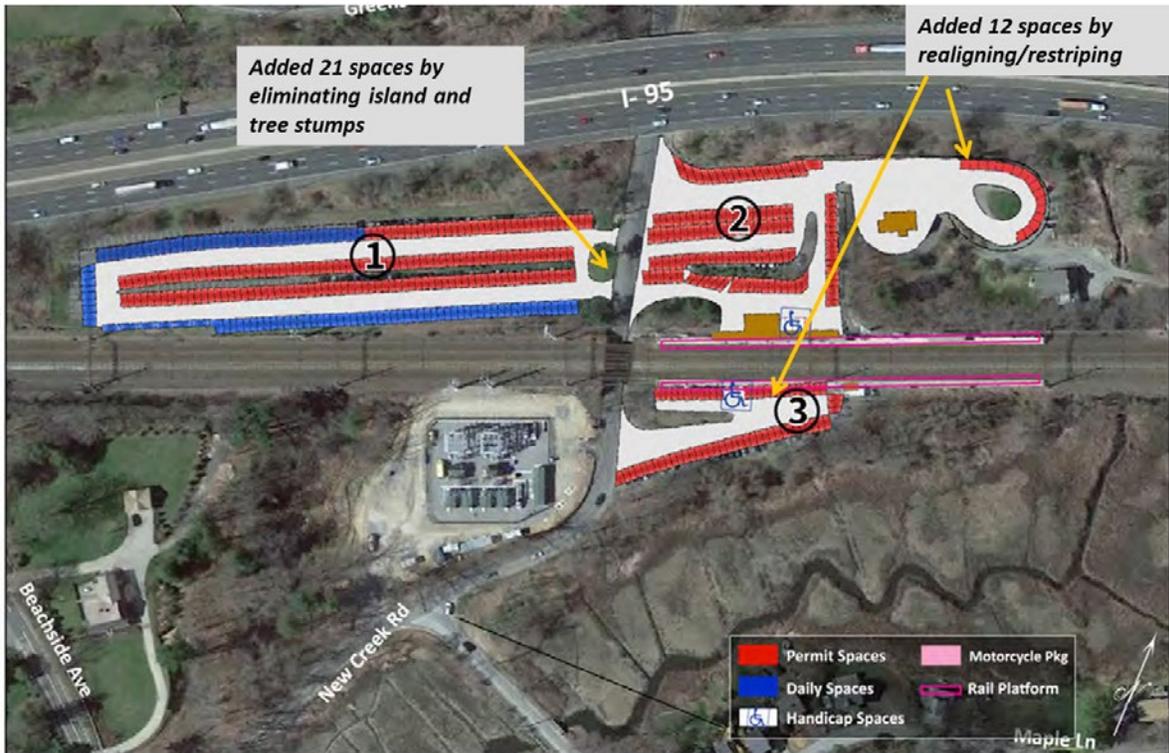


Figure 10: Green's Farms Station Parking Expansion





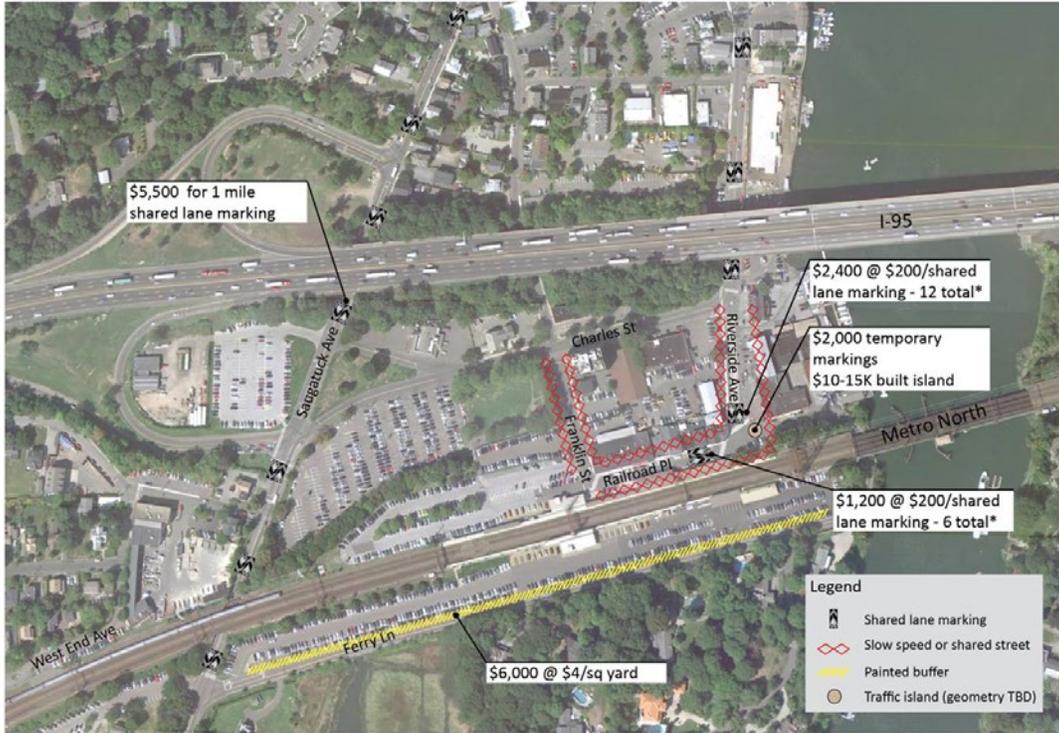
Saugatuck Station

- Renovations to the eastbound station building including painting, windows, roofing with solar panels, and electric vehicle charging stations.
- Renovations to the westbound station building including painting, refinished floors, and the conversion of the former ticket office into a police substation.
- Approximately 30 security cameras were installed and maintained by the WPD which provide real-time surveillance and 30-day recording. The cameras point toward entrances and exits, the bicycle racks, and the adjacent parking area.
- New signs on the westbound and eastbound platforms encourage commuters to take the shuttle bus. All signs have a quick response (QR) code that links to the Westport Transit District (WTD) website so people can access it quickly on their mobile phones.
- WTD posters were placed in the waiting rooms at Saugatuck Station along with handouts of WTD bus route maps.
- New bicycle racks, bicycle signs, and wayfinding signs were installed.

Green's Farm Station

- Renovations to the station building including insulated windows, interior and exterior lighting, plumbing and electrical upgrades, foundation work, a new bathroom, new heating and cooling systems, and new wood floors to support a new coffee concession.
- Eight surveillance cameras were installed inside and outside that can record and display real-time information at the police station. Video is streamed to the coffee shop at Saugatuck Station so customers know how long they have until the New York bound train reaches Saugatuck.
- New bicycle racks, bicycle signs, and wayfinding signs were installed.
- The wooden steps on both sides of the station were replaced with granite.

Figure 11: Complete Streets improvements



* additional slow street traffic calming at added cost

Saugatuck Station
Proposed Long-Term Strategies

Figure 12: Pedestrian and vehicle accommodations



Saugatuck Station
Proposed Short-Term Strategies

3. Strategies to be Addressed by the TOD Study

As several strategies involve potential changes to existing land uses and streetscapes, it was decided that these could be evaluated in the context of the upcoming *Westport TOD Study*, which will examine and develop a long-term vision for the Saugatuck area. These strategies include:

1. **Establish dedicated bus pick-up and drop-off area (M11).** While a dedicated bus pick-up and drop-off area has already been established (with a bench) near the main staircases on the westbound platform, a larger dedicated pick-up and drop-off area with a shelter and real-time transit information should be investigated in the future either at its current location which would involve extending the sidewalk in front of the staircases out to align with the sidewalk in front of the elevators (running all the way to Franklin St.), or at a new location such as along Franklin Street or Railroad Place. While space along these two streets is currently limited, if the block between Railroad Place, Franklin Street, Charles Street, and Riverside Avenue is redeveloped in the future, accommodation could be made for a dedicated bus pick-up and drop-off area with a bus pull out, shelter, etc. The Town could negotiate with the developer to request that this be part of a proposed plan.
2. **“Complete Streets” Improvements (M12³, M13, and M8).** The “Complete Streets” concepts presented in this study which include 1) implementing shared lane markings on Railroad Place, Riverside Avenue, and Saugatuck Avenue south of the station for bicyclists; 2) redesigning Railroad Place, Franklin Street (south of Charles Street) and Riverside Avenue (south of Charles Street) as shared or slow speed streets to make them safer for pedestrians; and 3) creating a traffic island at Railroad Place and Riverside Avenue, should be developed as part of the TOD study, as they involve a broader discussion about the future vision for the area. In addition, it should be noted that the request for proposals for the TOD study specifically states that streetscape plans are to be developed for Riverside Avenue, Franklin Street, Saugatuck Avenue, and Railroad Place. Figure 11 illustrates the location of these improvements (including M7: Install a five foot painted buffer along southern edge of Lot #3, which is a long-term strategy not part of the TOD plan).
3. **Develop future TOD Plan (PI2, PI3, PI4, PI5).** With many properties in a state of flux in the Saugatuck area—including the potential for the redevelopment of the block bounded by Railroad Place, Franklin Street, Charles Street, and Riverside Avenue—these strategies were grouped together with the idea of developing a TOD plan for the Saugatuck area that looks at redevelopment opportunities including private/public partnerships that could provide additional parking, relocating and or providing additional open space, and redesigning parcels to accommodate additional pedestrian and bicycle facilities, as well as valet parking areas. These strategies will be directly addressed by the upcoming TOD study.

3 The consideration of bicycle lanes on Imperial Avenue and Green’s Farms Road which are part of M12 are outside of the Saugatuck TOD Study Area, and have been moved into the third group of strategies, which require additional action by the Town and other parties.

4. **Monitor & review CTDOT existing and future plans (Bridge St. Bridge Project) and I-95 Exit 17 Interchange Project) (M16 and M17).** The TOD study should evaluate the alternatives developed by CTDOT as part of the Bridge Street Bridge Project to determine their impact on traffic, bicyclists, pedestrians and the surrounding land uses, as well as the I-95 Exit 17 Interchange Project which involves median reconstruction and resurfacing, and its impacts on local roads and traffic during construction which is expected to start in 2018.



4. Strategies Requiring Further Consideration

As per the *Analysis Report* dated February 2016, the remaining strategies are organized into three time periods (**short-term** represents 0 to 3 years, **mid-term** represents 3 to 5 years, and **long-term** represents 5 or more years), and then by type of improvement (**PM** = Parking Management, **PI** = Parking Improvements, and **M** = Mobility Improvements). The strategies have also been placed into the implementation tables that follow, which describe what actions need to be taken, identify potential costs, and highlight coordination needs.

#	STRATEGY	ACTION	COST	PARTNERS
<i>PM = Parking Management, PI = Parking Improvement, M = Mobility Improvement</i>				
Short-Term (should be implemented within 3 years)				
M1	Install Fence on eastern edge of Lot #8.	<ul style="list-style-type: none"> Continue to investigate the construction of a fence along the eastern edge of Lot #8 which would force people who park there to utilize the existing crosswalks at the southeastern corner of the lot. 	\$9,980 ⁴	<ul style="list-style-type: none"> WPD
PM1	Continue with Current Management Structure.	<ul style="list-style-type: none"> No Action Required 	N/A	<ul style="list-style-type: none"> WPD Selectman's Office
PM7	Increase annual & daily parking fees closer to market rate over time.	<ul style="list-style-type: none"> Utilize permit and daily revenue data from COMPLUS to calculate the expected revenue if permit and daily rates were raised 5%, 10%, etc. to determine its impact on revenue generation. 	N/A	<ul style="list-style-type: none"> WPD Selectman's Office RTM
M3 M4 M5	Pedestrian & vehicle accommodations to improve operations and safety (improvements are shown on Figure 12).	<ul style="list-style-type: none"> Develop plans and specifications for improvements. Tie into the development of a capital plan (PM14) 	\$12,225 ⁵	<ul style="list-style-type: none"> WPD DPW Selectman's Office CTDOT
M9	Promote Carpooling	<ul style="list-style-type: none"> Develop material that promotes carpooling for use on the Town's website Consider establishing priority carpool parking areas for permit holders in Lot #2 at both Saugatuck and Green's Farms Stations. 	TBD	<ul style="list-style-type: none"> WPD WTD
M14	Examine changing traffic signal timing at Riverside Avenue and Bridge Street in conjunction with CTDOT's Bridge Street Bridge Project (M17).	<ul style="list-style-type: none"> Meet with CTDOT Traffic District 3 office to discuss signal. 	TBD	<ul style="list-style-type: none"> WPD DPW Selectman's Office CTDOT
M15	Add wayfinding signs at appropriate locations.	<ul style="list-style-type: none"> Coordinate with on-going Town Wayfinding Study.⁶ 	TBD	<ul style="list-style-type: none"> WPD DPW Downtown Plan Implementation Committee

⁴ Capital cost of \$9,880 (\$38 per linear foot for an 8 foot high chain link fence x 260 feet). Source – CTDOT 2014 Cost Estimating Guidelines.

⁵ Capital cost of \$12,225 based on \$2,000 per high visibility crosswalk and \$225 per new sign & post (which includes installation). Source – RBA Group of Connecticut LLC

#	STRATEGY	ACTION	COST	PARTNERS
<i>PM = Parking Management, PI = Parking Improvement, M = Mobility Improvement</i>				
M16	Consider using capital improvement funds for transit & bike/ped improvements.	<ul style="list-style-type: none"> Utilize surplus funds in the Railroad Capital Improvement Fund to pay for increased transit services and infrastructure improvements identified in this study. Tie into the development of a capital plan (PM14). 	N/A	<ul style="list-style-type: none"> WPD Selectman's Office RTM
PM14	Develop a Capital Plan.	<ul style="list-style-type: none"> Develop a capital plan (to be maintained on an annual basis) to better define needs and specific improvement projects, as well as allocate funding. Coordinate with CTDOT 	N/A	<ul style="list-style-type: none"> WPD DPW Selectman's Office RTM CTDOT
PM15	Develop an Operating and Financial Plan.	<ul style="list-style-type: none"> Continue utilizing information from COMPLUS to develop an operating and financial plan that will provide a more detailed and easier to understand accounting of costs, expenses, and financial measures such as unit values for revenues and costs per space (by lot location). 	N/A	<ul style="list-style-type: none"> WPD Selectman's Office
Mid-Term (should be implemented within the next 3 to 5 years)				
PM6	Revise lease agreements between CTDOT and the Town that govern use of parking areas and clearly delineate responsibilities.	<ul style="list-style-type: none"> Work with CTDOT to revise lease and spell out who is responsible for maintenance, capital projects, etc.. 	TBD	<ul style="list-style-type: none"> WPD Town Attorney Selectman's Office RTM
PM13	Consider implementing a Smart Parking System that provides real-time parking availability information on mobile phones, the Town's website, social media platforms, and VMS (variable messaging systems).	<ul style="list-style-type: none"> Develop an RFP to solicit to potential vendors that provides specifications for a Smart Parking System Parking System. 	\$200 to \$800 per space for initial capital cost + installation and \$3 to \$7 per space for monthly monitoring ⁷	<ul style="list-style-type: none"> WPD Selectman's Office RTM

⁶ Potential locations for wayfinding signage (as identified earlier during the study) include the intersection of Riverside Avenue and Bridge Street, Riverside Avenue and Charles Street, and along Saugatuck Avenue south of the station. For Green's Farms Station, wayfinding signage should be installed on Green's Farms Road, east of New Creek Road.

⁷ Costs vary per space depending on type and level of accuracy of the information provided, number and degree of complexity in installation of the sensors, availability of communication channels, availability of power supplies for remote components, and signage required to convey the information at appropriate decision points. Source: *Advanced Parking Management Systems: A Cross-Cutting Study*. Federal Highway Administration, January 2007.

#	STRATEGY	ACTION	COST	PARTNERS
<i>PM = Parking Management, PI = Parking Improvement, M = Mobility Improvement</i>				
Long-Term (should be considered/implemented after 5 or more years)				
M7	Install five foot painted buffer along southern edge of Lot#3. (shown in Figure 11)	<ul style="list-style-type: none"> • Develop plans and specifications. • Solicit RFP for construction. 	\$6,000 ⁸	<ul style="list-style-type: none"> • WPD • DPW • Selectman's Office
PM5	Outsource parking management to private contractor	<ul style="list-style-type: none"> • Compile and analyze information from other CT Towns utilizing private contractors to provide parking management including Stamford, Bridgeport, Norwalk, and Fairfield (Fairfield Metro), 	TBD	<ul style="list-style-type: none"> • Selectman's office

⁸ \$4 per square yard. Source – RBA Group of Connecticut, LLC.

Appendix

#	SUPPORTED STRATEGIES	TIMELINE	COMPLETED
M1	Install fence on eastern edge of Lot #8	Short-Term	
M2	Build additional staircase at western end of Lot #1 and Lot #2	Short-Term	✓
M3	Add high-visibility crosswalks at Franklin Street and Charles Street/Park Street	Short-Term	
M4	Install “No Right Turn” sign at Charles Street and Franklin Street	Short-Term	
M5	Add high-visibility crosswalk along western edge of Riverside Avenue and Charles Street	Short-Term	
M6	Close off two entrances/exits located at western end of Lot #1.	Short-Term	✓
M7	Install five foot painted buffer along southern edge of Lot #3	Long-Term	
M8	Create a traffic Island at Railroad Place and Riverside Avenue	Long-Term	
M9	Promote carpooling	Short-Term	
M11	Establish dedicated bus pick-up and drop-off area in front of main staircases on westbound platform	Short-Term	✓
M12	Implement shared lane markings on Railroad Place, Riverside Avenue, and Saugatuck Avenue south of the station for bicyclists. Consider bike lanes on Imperial Avenue and Green’s Farms Road. Consider Complete Streets concepts.	Long-Term	
M13	Redesign Railroad Place, Franklin Street (south of Charles Street) and Riverside Avenue (south of Charles Street) as shared or slow speed streets to make them safer for pedestrians.	Long-Term	
M14	Examine changing traffic signal timing at Riverside Avenue and Bridge Street in conjunction with Bridge Street Bridge Project (M17).	Short-Term	
M15	Add wayfinding signs at appropriate locations	Short-Term	
M16	Consider using capital improvement funds for transit and bicycle/pedestrian improvements.	Short-Term	
M17	Monitor CTDOT’s Bridge Street Bridge Project. See M14.	Short-Term	
M18	Review and comment on CTDOT’s (Project 102-297) I-95 Exit 17 Interchange Project.	Short-Term	
PI2	Consider purchasing property adjacent to TD Bank to create surface parking	Long-Term	
PI4	Purchase private lot along Franklin Street	Long-Term	✓
PI5	Consider a valet parking program at Saugatuck Station	Long-Term	

#	SUPPORTED STRATEGIES	TIMELINE	COMPLETED
PI7	Repave/Restripe Lot #1	Short-Term	✓
PI8	Expand Lot 7 by transferring the leases on two adjacent properties from CTDOT to the Town.	Short-Term	✓
PM1	Continue with current management structure for rail station parking	Short-Term	
PM5	Outsource parking management to a private contractor	Long-Term	
PM6	Revise lease agreements between CTDOT and the Town that govern use of parking areas and clearly delineate responsibilities.	Mid-Term	
PM7	Increase annual and daily parking fees closer to market rate gradually over time.	Short-Term	
PM8	Implement a pay station and pay by phone system. (In the process of being implemented)	Short-Term	
PM9	Charge a fee for people to be on the waiting list	Short-Term	✓
PM11	Convert some of the 1 hour spaces currently used for businesses to permit spaces for rail station parking	Short-Term	✓
PM12	Open up unused permit spaces (especially in Lot #8) to daily users before 10 a.m.	Short-Term	✓
PM13	Consider implementing a Smart Parking System that provides real-time parking availability information on mobile phones, the Town's website, social media platforms, and VMS (variable messaging systems).	Mid-Term	
PM14	Develop a Capital Plan	Short-Term	
PM15	Develop an Operating and Financial Plan (On-going)	Short-Term	✓

Notes:

- PI6 – *Build Structured Parking*. Lot #1 and #3 at Saugatuck Station were identified as candidates for potential parking structures/decks during the study. However, a closer examination of the Lot #3 site indicated that the width of the lot is too narrow to support an efficient parking structure. The narrowest and most efficient structure based on typical parking garage standards that could be built would be 108' by 1,200' (which allows for two 60' parking modules, two way, 90 degree parking) would extend across Ferry Lane and onto private property. In addition, if this structure could be constructed it could only be two levels due to current zoning regulations which restricts building heights to two stories or 25 feet. The structure would provide an additional 860 spaces at an estimated capital cost of \$12,900,000.⁶ While decking the western half of Lot #3 could be done; the gain in parking would be minimal (an estimated 184 spaces) compared to the cost (\$2,700,000).⁷

⁶ Size of two additional decks approximately 250,000 sq. ft. 150 spaces per acre - Source: *Transportation Cost and Benefit Analysis II – Parking Costs*, Victoria Transport Policy Institute. August 2013. \$15,000 construction cost per structured parking space (suburban two-story facility) – see previous source.

⁷ Size of decked lot approximately 53,500 sq. ft. See footnote 4 for space per acre and cost information and sources.



A deck could be constructed above Lot #1 with access provided via Lot #2. The cost of decking this lot would be an estimated \$4,800,000, and would add approximately 286 spaces.⁸ However since Lot #1 was just recently improved to address more immediate concerns relating to deteriorating pavement conditions and poor drainage, as well as access management and pedestrian safety, there is no immediate plan to deck over this lot.

Based on the above evaluation and further discussion with the STC this strategy has been moved into the Non Supported Category at this time.

- *PI3 – Develop Luciano Park as surface parking.* After further discussion with the STC this strategy has been moved into the Non-Supported category, which was part of the Analysis report dated February 2016.

⁸ Size of decked lot approximately 83,200 sq. ft. See footnote 4 for space per acre and cost information and sources.