CONNECTICUT ENVIRONMENTAL IMPACT EVALUATION
Prepared pursuant to Regulations of Connecticut State Agencies Section 22a-1a-1 to 12, inclusive

FOR

BRANFORD SHORE LINE EAST RAILROAD STATION
BRANFORD, CONNECTICUT

STATE PROJECT NOS. 310-0047 AND 310-0048

* * *

Prepared for:
THE CONNECTICUT DEPARTMENT OF TRANSPORTATION

February, 2009

Approved:

For Connecticut Department of Transportation

2/19/2009
Date

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ACRONYMS AND ABBREVIATIONS

ACOE	U.S. Army Corps of Engineers
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
BMPs	Best Management Practices
CCMA	Connecticut Coastal Management Act
C&D Plan	Conservation and Development Policies Plan for Connecticut (2005-2010)
CEPA	Connecticut Environmental Policy Act
CERC	Connecticut Economic Resource Center
CGS	Connecticut General Statutes
CL&P	Connecticut Light and Power
CO	Carbon Monoxide
CTDOT	Connecticut Department of Transportation
CTDEP	Connecticut Department of Environmental Protection
CTDPH	Connecticut Department of Public Health
EIE	Environmental Impact Evaluation
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
GIS	Geographic Information Systems
HVAC	Heating Ventilation and Air Conditioning
LOS	Level of Service
NAAQS	National Ambient Air Quality Standards
NDDB	Natural Diversity Database
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
OAQPS	EPA Office of Air Quality Planning and Standards
OLISP	Office of Long Island Sound Programs
OPM	Connecticut Office of Policy and Management
OSHA	Occupational Safety and Health Administration
PM	Particulate Matter
PPM	Parts Per Million
RAP	Remedial Action Plan
RCSA	Regulations of Connecticut State Agencies
ROW	Right of Way
SCEL	Stream Channel Encroachment Line
SDA	Special Development Area
SCRCOG	South Central Regional Council of Governments
SF	Square Feet
SHPO	State Historic Preservation Office/Officer
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SLE	Shore Line East
TBD	Transitional Business District
USFWS	United States Fish and Wildlife Service

EXECUTIVE SUMMARY

Project Name: Branford Shore Line East Railroad Station, Branford, Connecticut (State Project Nos. 310-0047 and 310-0048)

Date: February, 2009

Sponsoring Agency: Connecticut Department of Transportation (CTDOT)

Participating Agency: None

Preparer: Fitzgerald & Halliday, Inc., 72 Cedar Street, Hartford, Connecticut 06106

Project Description – The Proposed Action

CTDOT is in the process of making strategic infrastructure and service improvements to the Shore Line East (SLE) commuter rail service from New Haven to New London so that it will be fully capable of meeting future commuter rail passenger needs. The Proposed Action being evaluated in this EIE includes infrastructure improvements at the Branford SLE Railroad Station, which opened in August 2005. The footprint of the Proposed Action is depicted on Figure ES-1. As shown in Figure ES-1, the study site is roughly bounded by Elm Street on the north, Harbor Street on the west, Curve Street on the south and Indian Neck Avenue on the east. Figure ES-1 also illustrates the relationship of the Proposed Action to the existing SLE station and its surroundings. Progress design drawings depicting details of the Proposed Action, prepared by Baker Engineering in April 2008, are included in Appendix A.

The Proposed Action improvements include:

- A new north-side high level rail platform located directly opposite the existing south-side high level rail platform. This project element is highlighted in yellow on progress design drawings 310-0047 C-102, and drawings 310-0048 C-101, C-102, and C-103 included in Appendix A.

- A new pedestrian bridge over the active rail line that will connect the north-side and south-side platforms. The new pedestrian bridge will include elevators to satisfy the requirements of the Americans with Disabilities Act (ADA). This project element is highlighted in red on progress design drawings 310-0047 C-102 and C-105, and drawings 310-0048 C-101, C-102, and C-103 included in Appendix A.

- A new 316-space surface parking lot located on a vacant undeveloped parcel to the west of the existing 201-space surface parking lot. The new surface lot will be fully

illuminated and include direct pedestrian connections (walkways and ramps) to the existing south-side high level rail platform. Access to the new parking lot will be obtained from the existing station entrance at the Maple Street/Indian Neck Avenue signalized intersection. The new surface parking lot is highlighted in green on progress design drawings 310-0047 C102, C103, and C105 included in Appendix A.

- A new kiss-and-ride drop off area located to the north of the existing rail corridor with direct pedestrian connections (walkways and ramps) to the station via the new north-side high level rail platform. The kiss-and-ride drop off area will be constructed subsequent to the north-side high level rail platform as the property will first be used as a staging area for platform construction. The new kiss-and-ride drop off area is highlighted in blue on progress design drawings 310-0048 C101, C102, and C103 included in Appendix A.

- Re-use of the former rail station parking lot located north of the rail corridor along Meadow Street (access to the lot is presently blocked by guard rails). The parking lot will be repaved and re-striped to provide approximately 52 spaces that will function as overflow parking for the new station located west of Kirkham Street. New pedestrian connections from the overflow parking lot to the new station will include walkways, stairwells, and a crosswalk on Kirkham Street. The former rail station parking lot is highlighted in grey on progress design drawings 310-0047 C-101B, and C-102B included in Appendix A.

Project construction cost is anticipated to range from $20 to $25 million, with start of construction in January 2010. This cost represents a midpoint of construction (2010) dollars. The facility is scheduled to be open and operational by Spring of 2011.

New Construction
Existing Elements
Study Area

Figure ES-1
Site Location &
Proposed Action Footprint

Shoreline East Expansion
Branford, CT

April 2008 - Fitzgerald & Halliday, Inc. - Project # 463 - original in color

Project Background

SLE trains are owned and operated by CTDOT under contract with the Northeast Passenger Railroad Corporation (Amtrak) to provide daily rail operations. SLE commuter rail operations began in May of 1990 serving seven stations along a 33-mile segment of Amtrak's Northeast Corridor between New Haven and Old Saybrook. The service was extended by CTDOT eastward to New London in 1996. SLE service operates in the peak direction only and in the morning connects at New Haven, Bridgeport and Stamford stations for Metro-North service to New York City's Grand Central Terminal.

Since its inception, there has been a steady increase in SLE ridership but recently, starting in 2005, a marked increase in ridership has occurred. According to a January 1, 2007 CTDOT report to the Governor entitled, "Expanding Rail Service on Shore Line East," the average monthly ridership on SLE in 2004 was 33,786, and was 35,289 in 2005. The average monthly ridership through September 2006 was 38,207, which is more than eight percent higher than 2005 levels. In June 2006, ridership on SLE surpassed the five million mark. CTDOT's Statewide Travel Model estimates an annual growth in ridership of approximately four percent annually without factoring in any further SLE improvements or service expansion. Thus, the upward trend in ridership is expected to continue into 2008 and beyond, especially as improvements are made to the SLE service, congestion on Interstate 95 worsens, and gas prices continue to fluctuate. Overall, Governor M. Jodi Rell and CTDOT are committed to meeting the future needs of commuters as evidenced by the many infrastructure and service improvements that have been and continue to be implemented along the SLE corridor.

SLE infrastructure improvements that have already occurred include the construction of new train stations at Branford, Clinton, and Guilford, which all opened in 2005. These stations were constructed to replace the older lower platform decks. The lower platform decks required train conductors to exit trains at each station stop to lower stairs that allowed passengers to board. Special portable handicap access ramps also had to be deployed as needed. This inefficient procedure significantly prolonged each station stop, causing service delays. The new SLE stations have increased access and service to the commuters, improving functions such as handicapped accessibility, high-level platforms to allow for level and efficient boarding of trains, a commuter shelter area, a convenient commuter drop off area, increased parking and enhanced lighting. In addition to these three stations, new stations are also being built at Madison and Westbrook. Phase I of the Madison station was opened on July 28, 2008 and the Westbrook station is scheduled for completion by the end of 2011. Along with station improvements, CTDOT has also initiated a SLE rail car refurbishing program that involved the purchase and subsequent refurbishing of Virginia Railway Express cars to provide an additional 2,000 seats to meet increased ridership demands. Also, in November 2007, CTDOT initiated an inaugural weekend and holiday service schedule which culminated on December 30, 2007 and started up again in November 2008. All of these actions demonstrate CTDOT's commitment to improving SLE commuter rail service well into the future.

With regard to the Branford SLE Station that was constructed and opened for service in August 2005, that project involved building the south-side high level rail platform in addition to a commuter shelter and 201-space surface parking lot. In order to expand SLE service to facilitate

future bi-directional service as called for in the January 1, 2007 CTDOT report to the Governor, CTDOT is obligated under current lease agreements with Amtrak to construct high-level rail platforms on both sides of the rail corridor at each SLE station. This is required if CTDOT wants to provide commuter service outside the current rush hour periods. Thus, a new north-side high-level rail platform at the Branford SLE Station and at other SLE stations is necessary. The double platform configuration will benefit commuters in that: 1) a two-sided station will increase ridership and therefore reduce traffic congestion on coastal roadway corridors by allowing for two-way commuting on the SLE corridor, and 2) having two platforms allows more flexibility in how trains are scheduled and will allow additional trains to operate on the line in the future.

The Proposed Action at the Branford SLE Station has a two-fold objective; to construct a new north-side high level rail platform in order to provide a full-service dual-platform commuter station; and to construct expanded parking to accommodate future commuters as ridership continues to grow. The new platform and parking area will be financed with state funds, and as such, is subject to the regulations and guidance established by the Connecticut Environmental Policy Act (CEPA) (Connecticut General Statutes [CGS] Sections 22a-1 through 22a-1h, inclusive, and where applicable, CEPA regulations Section 22a-1a-1 through 22a-1a-12, inclusive, of the Regulations of Connecticut State Agencies [RCSA]). Under CEPA, the document to be prepared is an Environmental Impact Evaluation (EIE). The lead state agency for CEPA documentation is CTDOT.

Purpose and Need

The purpose of the Proposed Action relates directly to CTDOT's ongoing commitment to expand commuter rail services in keeping with Governor M. Jodi Rell's Transportation Initiative, which was passed by the Connecticut Legislature in 2005. CTDOT's commitment involves implementing various projects, such as the Proposed Action, which will make commuter rail services modern, reliable, and convenient so that the future transportation needs of Connecticut's residents are met. The provision of premium commuter rail service is considered a key aspect in promoting the economy as well as a high quality of life in Connecticut. With more people commuting by rail to and from their workplace, fewer commuters will be traveling in their cars making for less congestion and a safer environment. The goal of enhancing commuter rail service is a common theme found in state, regional and local plans of development. Transportation improvements that are consistent with various plans of conservation and development lead to increased travel options, better transportation systems, increased economic vitality and containment of sprawl.

The need for the Proposed Action is two-fold:

There is an increasing customer service need as demonstrated by steadily increasing SLE ridership numbers (refer to Project Background section for specifics). Connecticut's residents are utilizing the state rail service for in-state travel as well as for travel to and from New York City. This has been precipitated by:

- Increased development pressures in coastal and southeastern Connecticut

- Increased congestion on coastal roadway corridors including I-95 and U.S. Route 1
- Rapidly fluctuating gas prices
- An increasingly mobile workforce; and
- Improved commuter rail infrastructure.

The result is that existing parking facilities at SLE railroad stations can no longer meet the demand. CTDOT's goal is to provide between 400 and 500 parking spaces at each SLE commuter rail station in order to accommodate future patrons. At the Branford Railroad Station, the 201-space parking lot that was constructed in 2005 is already at capacity, indicating an immediate need to provide additional parking at the station.

For commuters taking SLE, Governor Rell has announced improved service to and from New Haven and for reverse commuting to Old Saybrook in the near future. Improved service east of New Haven is an important component in reducing traffic congestion and improving mobility in Southeastern Connecticut. To efficiently and effectively provide this enhanced service, there is the need to construct north-side high level rail platforms at each of the existing SLE stations, thereby making each station a full service dual-platform station. The need is driven by existing lease agreements between CTDOT and Amtrak. Under current lease agreements, CTDOT is obligated to construct high-level rail platforms on both sides of the rail corridor at each SLE station if CTDOT wants to provide commuter service outside the current rush hour periods. Thus, in order to meet Amtrak lease requirements and to provide bi-directional service, a new north-side high level rail platform at the Branford SLE Station and at other SLE stations is necessary if future expansion of SLE service is to succeed.

Alternative Actions

Two alternatives are assessed in this EIE; a Build Alternative and the No-Action Alternative. Because existing lease agreements between Amtrak and CTDOT stipulate that future expansion of SLE service beyond the current peak periods cannot occur without constructing dual high-level rail platforms at each SLE station, and because the parking lot at the existing Branford SLE Station is at capacity, the Build Alternative is the only alternative that will successfully meet the stated purpose and need defined above. The Build and No-Action alternatives are discussed below.

Build Alternative

In order to successfully meet the purpose and need, infrastructure improvements must occur at the existing Branford SLE Railroad Station that was constructed and opened in August 2005. For instance, a new north-side high level rail platform must be physically located opposite the existing south-side platform in order for optimum rail station functionality to be achieved. Retrofitting the south-side high level rail platform to incorporate temporary platform extensions to service trains operating on the northern track is not a viable option. Operation of these extensions is time consuming and cumbersome, requires manpower, and therefore introduces the potential for human error which could potentially result in scheduling conflicts with Amtrak's Acela and other conventional train services. Surface parking, however, can potentially be

located within any of the four quadrants surrounding the station as long as the distance from the parking lot to the station is not considered too far, inconvenient, or unsafe for commuter rail passengers to walk. For this reason, a Parking Feasibility Study was conducted by H.W. Lochner, Inc., (July, 2001) on behalf of CTDOT for the Branford SLE Railroad Station as well as for the other proposed stations along SLE. The study considered potential options for accommodating upwards of 400 to 500 parking spaces at each SLE station; a parking capacity goal that was established by the State to meet future SLE ridership projections.

At the proposed new Branford SLE Station (which was designed in May 2001), the July 2001 Parking Feasibility Study considered viable options for additional parking to supplement the 201-space surface lot already included as part of the new station design. The additional parking capacity would enable CTDOT to attain their 500-space goal. Options considered included 5.38 acres of vacant undeveloped land to the west of the new 201-space parking lot, a 1.96 acre triangular parcel to the east of Maple Street that would ultimately become available upon completion of a Town of Branford project to realign Maple Street, a 0.65 acre residential parcel to the north of the tracks and west of Kirkham Street, and the former 1.17 acre SLE parking lot located north of the tracks and accessed from Meadow Street. The northwestern quadrant was excluded from consideration due to a large tidal wetland located between the railroad tracks and Elm Street to the north.

The parking feasibility study concluded that it was not cost effective to develop parking on the 0.65 acre residential parcel to the north of the tracks and west of Kirkham Street as the parcel was too small and could only accommodate a maximum of 20 spaces. With respect to the 1.96 acre triangular parcel located east of Maple Street, it was determined that it was also too small to accommodate enough parking and that parking on this parcel would pose a safety concern as patrons would have to cross Maple Street at-grade to access the station. The remaining two parcels, the 5.38 acre vacant parcel and the former 1.17 acre commuter parking lot were determined to be the best options for parking as together they offered more than 360 spaces at a relatively low cost. Based on this logic, these two parcels were incorporated into the Proposed Action to satisfy the parking need.

The kiss-and-ride drop off area evolved later in the project development process. It was determined by CTDOT that the 0.65 acre residential parcel located immediately north of the tracks would need to be acquired to stage construction of the north-side high level rail platform. CTDOT opted to convert the parcel into a much needed kiss-and-ride drop off area upon completion of platform construction and this is how it became part of the Proposed Action.

No-Action Alternative

Under the No-Action Alternative, current operations at the Branford SLE Railroad Station in Branford would continue unchanged. Trains would continue to operate on one track (the south side) in order to pick-up and drop-off passengers. Although this is in keeping with current lease agreements between CTDOT and Amtrak regarding the existing SLE service, this type of operation will not be allowed once the lease agreement expires or when SLE service is expanded. The lease specifically requires that north-side high level rail platforms be constructed if CTDOT expects to expand SLE service beyond the current rush hour period in the future.

The No-Action Alternative also means that maximum parking capacity at the station will remain at 201-spaces and that no new parking will be constructed. A weekday peak hour parking survey conducted by Fitzgerald & Halliday, Inc. (FHI) in May 2007 determined that parking at the Branford SLE Railroad Station is already at 100% capacity. Thus, under the No-Action Alternative, the existing parking shortage at the station will not be alleviated. Although the No-Action Alternative would involve no new construction and as a result, no significant environmental impacts, the alternative falls short of meeting the purpose and need of the project.

Alternative Sites Controlled or Reasonably Available

Because rail is a fixed system, land available for the Proposed Action must be located immediately adjacent to the rail corridor and existing station in order to gain maximum benefit from the project and its intended use. As described above under the Build Alternative, the north-side high level rail platform must be located opposite the existing south-side platform in order for optimal functionality, and parking expansion options are limited to only those parcels within a short and safe walking distance of the station. Lastly, the Proposed Action site is highly suitable because it is vacant, relatively flat, is easily accessible from local roadways, and is in close proximity to downtown Branford.

Overall, no other sites were evaluated since there are no other known available sites suitable for the Proposed Action.

Impact Analysis Summary

The implementation of the Proposed Action will have minor adverse environmental impacts that can be mitigated. Environmental impacts and proposed mitigation measures are summarized in Table ES-1.

Table ES-1: Summary of Impacts and Proposed Mitigation

Resource	Impact Analysis	Mitigation
Land Use and Zoning	Acquisition of two-privately owned parcels, one vacant and one with an unoccupied residence. No impacts to land use or zoning	No mitigation is required
Consistency with Local and Regional plans	The Proposed Action is consistent with local and regional development plans	No mitigation is required
Consistency with C&D Plan	The Proposed Action is consistent with the C&D Plan	No mitigation is required
Traffic and Parking	The surrounding roadway network will adequately support the additional traffic volume generated by the Proposed Action. No adverse impacts anticipated. Beneficial impact as Proposed Action provides more parking for rail commuters and improved/safe pedestrian connections.	No mitigation required
Air Quality	Construction period impacts: Potential impacts from prolonged use of diesel powered vehicles. Typical diesel air quality emissions include carbon monoxide, hydrocarbons, nitrogen oxides, and particulate matter (PM2.5).	Construction equipment will be required to comply with all pertinent state and federal air quality regulations. Construction period BMPs to be followed to reduce airborne dust, other particulate matter, and odorous substances arising from project operations.
Noise	Construction period impacts: Potential for continuous as well as intermittent (or impulse) noise to be experienced in the immediate project vicinity.	Construction noise is exempt under Section 22a-69-1.8(g) of the RCSA, however, CTDOT's general provision on construction noise described under Section 1.10.05 of *Form 816* must be included in the construction contract for this project.
Neighborhoods and Housing	Indirect beneficial impact to local socio-economic conditions as commuters may shop locally for convenience goods. No adverse impacts on neighborhoods or housing.	No mitigation required

Resource	Impact Analysis	Mitigation
Water Quality	Creation of 2.88 acres (125,450 SF) of new paved surface contributes to increased site runoff and potential for increased sedimentation and contamination of downstream tidal wetlands and watercourses. Freshwater inputs to tidal systems during storm events and thermal pollution are also concerns. Construction period impacts: Increased potential for sedimentation of offsite streams and tidal wetlands due to runoff from exposed surfaces during site work.	Final design of new facility will be fully coordinated with the CTDEP and ACOE and will include primary and secondary stormwater renovation measures including a stormwater detention/retention pond with a forebay designed to collect and retain the first one (1) inch of stormwater runoff and effectively remove suspended sediments (Refer to progress design drawings 310-0047 C-106 and C-303 in Appendix A). Project design will comply with both the CTDEP 2004 Stormwater Quality Manual and the CTDEP 2002 Sedimentation and Erosion Control Manual. During construction, temporary best management practices (BMPs) will be employed and an erosion and sedimentation control plan (E&S Plan) will be implemented. A stormwater pollution control plan (SWPCP) will also be registered for the project.
Hydrology and Floodplains	Construction will involve the placement of fill into the 100-year coastal floodplain.	Some flood storage capacity will be replaced by the stormwater management system. Coordination will occur with CTDEP and ACOE on required permits.
Wetlands	Impacts below the high tide line will be confined to the location where an existing undersized and partially constricted 12-inch RCP culvert will be replaced with either an open bottom span or arch culvert. A total of approximately 0.02 acres (720 SF) will be impacted due to work below the high tide line.	The new open bottom span or arch culvert will improve tidal flow/exchange, potentially improving the overall quality of and increasing the physical limits of tidal wetlands located upstream. Impacts below the high tide line and mitigation will be fully coordinated with the CTDEP and ACOE to ensure that proper mitigation is implemented for the Proposed Action.
Flora, Fauna, Threatened and Endangered Species	Negligible adverse direct and indirect impacts to low value habitat.	No mitigation required
Soils and Geology	No Impacts	No mitigation required

Resource	Impact Analysis	Mitigation
Coastal Zone and Coastal Barriers	The Proposed Action involves work below the high tide line and impacts to coastal floodplains. A total of approximately 0.02 acres (720 SF) will be impacted due to work below the high tide line. This impact will be confined to the location where an existing undersized and partially constricted 12-inch RCP culvert will be replaced by a new arch culvert or span with an open bottom. Construction of new parking lot and a portion of the kiss-and-ride drop off area will require placement of fill in the coastal floodplain.	The new open bottom span or arch culvert will improve tidal flow/exchange, potentially improving the overall quality of and increasing the physical limits of tidal wetlands located upstream. Impacts below the high tide line and mitigation will be fully coordinated with the CTDEP and ACOE to ensure that proper mitigation is implemented for the Proposed Action. Some flood storage capacity will be replaced by the stormwater management system. Coordination will occur with CTDEP and ACOE on required permits.
Cultural Resources	No Impacts	No mitigation required
Solid Waste and Hazardous Materials	There may be some potential for exposure of construction workers to low levels of hazardous materials and contamination that exist on the 5.38 acre vacant parcel slated for the new surface parking lot.	Although there is no enforcement action or a mandated remediation (such as a significant environmental hazard) for the site, CTDOT will prepare appropriate plans and specifications to address on-site contamination issues. These will include material handling and disposal requirements and health and safety measures to be undertaken during construction. As part of this, CTDOT will also be registering under the CTDEP "General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer)". A Pre-Demolition Investigative Survey for Hazardous Building Materials (including lead, asbestos, and other identified hazardous and CT-regulated materials, wastes, and other items) has been conducted for the two-story residential building located at 14 Kirkham Street. As a result of this survey, CTDOT has prepared specifications to address all demolition issues associated with this property.
Use/Creation of Hazardous Materials	No Impacts	No mitigation required
Aesthetics and Visual Effects	Southerly views from homes located along the south side of Elm Street and along Kirkham Street will be impacted.	A landscaping plan that includes vegetative buffers could minimize anticipated visual impacts.
Energy Uses and Conservation	Minimal increase in the amount of energy consumed above existing conditions.	No mitigation required
Public Utilities and Services	Potential temporary service disruptions (CL&P) during construction	Coordinate utility construction scheduling with service providers

Resource	Impact Analysis	Mitigation
Public Health and Safety	Beneficial Impact – site conditions improved (see hazardous materials and contamination discussion) and new safety features such as fencing and illumination added.	No mitigation required

List of Potential Permits and Approvals

The following permits, approvals, certifications, and registrations **may** be required for completion of the Proposed Action:

Federal

- ACOE Section 404 Permit

State

- CTDEP General Permit: Stormwater and Dewatering Wastewaters from Construction
- CTDEP General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer)
- CTDEP Flood Management Certification
- CTDEP 401 Water Quality Certification
- CTDEP Office of Long Island Sound Programs Structures, Dredging and Fill Permit
- CTDEP Office of Long Island Sound Programs Tidal Wetlands Permit

Coordination Process

Per CEPA requirements, a scoping notice for the Proposed Action was placed in Connecticut's *Environmental Monitor* on June 5, 2007. A Public Scoping Meeting was not conducted for this project as such a meeting was not requested by 25 or more individuals or by an association that represents 25 or more members during the 30 day scoping comment period. Only three resource agencies, the Connecticut Department of Environmental Protection (CTDEP), the Connecticut Commission on Culture and Tourism – Historic Preservation and Museum Division, and the Connecticut Department of Public Health (CTDPH) provided scoping comments during the 30 day comment period. During data collection efforts involved in the documentation of existing environmental conditions, several federal and state resource agencies were contacted for information as were local officials in the Town of Branford. A copy of the CEPA public scoping notice as well as responses received during the formal public scoping period (June 5, 2007 through July 19, 2007) are included in Appendix B. Important agency and local correspondence is also included in Appendix B.

Conclusion

The Proposed Action is essential for increasing the efficiency of operations at the SLE Railroad Station in Branford and is an important part of meeting future transportation demands in southeastern Connecticut. Potential adverse effects from the Proposed Action include:

- Minor visual impacts to adjacent land uses located north of the railroad tracks along Elm Street and Kirkham Street;
- Loss of 5.38 acres of vacant undeveloped land that is currently under private ownership and which is designated as a coastal flood hazard area (100-year coastal floodplain). Some fill will be placed in the 100-year coastal floodplain that will result locally in a minor loss of flood storage capacity;
- Acquisition of a 0.65-acre private residential parcel that is partially within the coastal flood hazard area;
- Approximately 0.02 acres (720 SF) will be impacted below the high tide line during the replacement of an existing undersized and partially clogged 12-inch RCP culvert with a new open bottom span or arch culvert. The new open bottom span or arch culvert will improve tidal exchange in adjacent tidal wetlands to the north;
- Introduction of 2.88 acres (125,450 SF) of new paved surface which has the potential to affect water quality;
- Construction-period impacts relative to noise, air quality, energy usage, and stormwater among others, and;
- Potential for exposure of construction workers to subsurface contamination that exists on the 5.38 acre parcel that will be developed as a new 316-space surface parking lot.

These impacts will be mitigated through landscaping, proper management of materials and resources during and after construction, and by adhering to all applicable state, and federal regulations related to coastal resource protection, floodplain management, erosion and sedimentation control, and stormwater runoff/water quality treatment/management. CTDOT will also develop plans and specifications to address any on-site contamination issues. These plans will include material handling and disposal requirements. A Health and Safety Plan will also be developed and implemented in accordance with Occupational Safety and Health Administration (OSHA) guidelines to ensure that construction workers are protected from potential contamination and other hazards.

Coordination with resource agencies, including the CTDEP and ACOE, among others, will continue throughout the duration of the project to ensure that all regulatory requirements are met. Through its impact avoidance and mitigation measures, the Proposed Action will not incur any significant environmental, cultural, or social impacts.

Review Period and Comments

The Draft EIE was made available for public review and comment from July 8, 2008 to August 21, 2008. Notice of Draft EIE availability and public hearing was placed in Connecticut's *Environmental Monitor* on July 8, 2008. Additionally, notice of Draft EIE availability and public hearing was advertised in the New Haven Register on July 8, July 22, and August 5, 2008. Notices and Affidavits are included in Appendix E of this EIE. The Draft EIE was made available for public review at the following locations:

- Connecticut Department of Transportation Offices in Newington, Connecticut
- Branford Town Clerk's Office
- James Blackstone Memorial Library in Branford, Connecticut
- South Central Regional Council of Governments Office in North Haven, Connecticut

A public hearing was advertised and held at the James Blackstone Memorial Library in Branford at 7:00 PM on August 7, 2008. A transcript of the public hearing is included in Appendix G. Written comments received during the public comment period (July 8, 2008 through August 21, 2008) are included in Appendix H. Responses to these comments, as well as comments made during the public hearing are provided in Appendix I.

Agency Contact

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EIE Distribution List

The following agencies/persons received a copy of the Draft Environmental Impact Evaluation for the Branford Shore Line East Railroad Station, Branford, Connecticut (State Project Nos. 310-0047 and 310-0048):

State Representatives and Senators

Hon. Peter Panaroni State Representative Legislative Office Building, Room 4017 Hartford, CT 06106-1591	Hon. Edward Meyer State Senator Legislative Office Building, Room 1000 Hartford, CT 06106-1591
Hon. Patricia M. Widlitz State Representative Legislative Office Building, Room 4034 Hartford, CT 06106-1591	

Town Officials

Hon. Anthony "Unk" DaRos, First Selectman Town of Branford 1019 Main Street Branford, CT 06405	Ms. Marianne Kelly, Town Clerk Town of Branford 1019 Main Street Branford, CT 06405
Ms. Janice Plaziak, Town Engineer Town of Branford 1019 Main Street Branford, CT 06405	Ms. Shirley Rasmussen, Dir. Planning & Zoning Town of Branford 1019 Main Street Branford, CT 06405

State Agencies

Hon. Gina McCarthy Commissioner Department of Environmental Protection 79 Elm Street Hartford, CT 06106	Mr. Kendall Wiggin State Librarian Connecticut State Library 231 Capitol Avenue Hartford, CT 06106
Mr. David Fox Senior Environmental Analyst Department of Environmental Protection 79 Elm Street Hartford, CT 06102	Hon. Robert M. Ward Commissioner Connecticut Department of Motor Vehicles 60 State Street Wethersfield, CT 06161
Hon. Joan McDonald Commissioner Connecticut Department of Economic and Community Development 505 Hudson Street Hartford, CT 06106	Mr. Robert L. Genuario Secretary Office of Policy and Management 450 Capitol Avenue Hartford, CT 06106-1308
Mr. Raymond Jordan State Coordinator Connecticut Department of Housing and Urban Development One Corporate Center, 19th Floor Hartford, CT 06103	Hon. Raeanne V. Curtis Commissioner Connecticut Department of Public Works 165 Capitol Avenue Hartford, CT 06106

Hon. J. Robert Galvin, M.D., M.P.H. Commissioner Department of Public Health 410 Capitol Avenue Hartford, CT 06134	Mr. Judd Everhart Department of Transportation Office of Communications P.O. Box 317546 2800 Berlin Turnpike Newington, CT 06131-7546
Mr. Karl J. Wagener Executive Director Council on Environmental Quality 79 Elm Street Hartford, CT 06106	Ms. Karen Senich Executive Director Connecticut Commission on Culture and Tourism One Financial Plaza 755 Main Street Hartford, CT 06103

Other

Ms. Judy Gott Director South Central Regional Council of Governments 127 Washington Avenue, 4th Floor West North Haven, CT 06473	Ms. Kathy Rieger, Library Director James Blackstone Memorial Library 758 Main Street Branford, CT 06405

1. INTRODUCTION

1.1. Description of Proposed Action

CTDOT is in the process of making strategic infrastructure and service improvements to the SLE commuter rail service from New Haven to New London so that it will be fully capable of meeting future commuter rail passenger needs. The Proposed Action being evaluated in this EIE includes infrastructure improvements at the Branford SLE Railroad Station, which opened in August 2005. The site of the Proposed Action is depicted in Figure 1. As shown in the figure, the study site is roughly bounded by Elm Street on the north, Harbor Street on the west, Curve Street on the south and Indian Neck Avenue on the east. Figure 1 also illustrates the relationship of the Proposed Action footprint to the existing SLE station and its surroundings. Progress design drawings depicting details of the Proposed Action, prepared by Baker Engineering in April 2008, are included in Appendix A.

The Proposed Action improvements include:

- A new north-side high level rail platform located directly opposite the existing south--side high level rail platform. This project element is highlighted in yellow on progress design drawings 310-0047 C-102, and drawings 310-0048 C-101, C-102, and C-103 included in Appendix A.

- A new pedestrian bridge over the active rail line that connects the north-side and south-side platforms. The new pedestrian bridge will include elevators to satisfy the requirements of the Americans with Disabilities Act (ADA). This project element is highlighted in red on progress design drawings 310-0047 C-102 and C-105, and drawings 310-0048 C-101, C-102, and C-103 included in Appendix A.

- A new 316-space surface parking lot located on a vacant undeveloped parcel west of the existing 201-space surface parking lot. The new surface lot will be fully illuminated and include direct pedestrian connections (walkways and ramps) to the existing south-side high level rail platform. Access to the new lot will be obtained from the existing station entrance at the Maple Street/Indian Neck Avenue signalized intersection. This new surface parking lot is highlighted in green on progress design drawings 310-0047 C-102, C-103, and C-105 included in Appendix A.

- A new kiss-and-ride drop off area located to the north of the existing rail corridor with direct pedestrian connections (walkways and ramps) to the station via the new north-side high level rail platform. The kiss-and-ride drop off area will be constructed subsequent to the north-side high level rail platform as the property will first be used as a staging area for platform

construction. The new kiss-and-ride drop off area is highlighted in blue on progress design drawings 310-0048 C-101, C-102, and C-103 included in Appendix A.

- Re-use of the former rail station parking lot located north of the rail corridor along Meadow Street (access to the lot is presently blocked off by guard rails). The parking lot will be repaved to provide approximately 52 spaces that will function as overflow parking for the new station located west of Kirkham Street. New pedestrian connections from the overflow parking lot to the new station will include walkways, stairwells, and a crosswalk on Kirkham Street. The former rail station parking lot is highlighted in gray on progress design drawings 310-0047 C-101B and C-102B included in Appendix A.

Project construction cost is anticipated to range from $20 to $25 million, with start of construction in January 2010. This cost represents a midpoint of construction (2010) dollars. The facility is scheduled to be open and operational by Spring of 2011.

1.2. Project Background

SLE trains are owned and operated by CTDOT under contract with the Northeast Passenger Railroad Corporation (Amtrak) to provide daily rail operations. SLE commuter rail operations began in May of 1990 serving seven stations along a 33-mile segment of Amtrak's Northeast Corridor between New Haven and Old Saybrook. The service was extended by CTDOT eastward to New London in 1996. SLE service operates in the peak direction only and in the morning connects at New Haven, Bridgeport and Stamford stations for Metro-North service to New York City's Grand Central Terminal.

Since its inception, there has been a steady increase in SLE ridership but recently, starting in 2005, a marked increase in ridership has occurred. According to a January 1, 2007 CTDOT report to the Governor entitled, "Expanding Rail Service on Shore Line East," the average monthly ridership on SLE in 2004 was 33,786, and was 35,289 in 2005. The average monthly ridership through September 2006 was 38,207, which is more than eight percent higher than 2005 levels. In June 2006, ridership on SLE surpassed the five million mark. CTDOT's Statewide Travel Model estimates an annual growth in ridership of approximately four percent annually without factoring in any further SLE infrastructure improvements or service expansion. Thus, the upward trend in ridership is expected to continue into 2008 and beyond, especially as improvements are made to the SLE service, congestion on I-95 worsens, and gas prices continue to fluctuate. Overall, Governor Rell and CTDOT are committed to meeting the future needs of commuters as evidenced by the many infrastructure and service improvements that have been and continue to be implemented along the SLE corridor.

New Construction
Existing Elements
Study Area

Figure 1
Site Location &
Proposed Action Footprint

Shoreline East Expansion
Branford, CT

April 2008 - Fitzgerald & Halliday, Inc. - Project # 463 - original in color

SLE infrastructure improvements that have already occurred include the construction of new train stations at Branford, Clinton, and Guilford, which all opened in 2005. These three stations were constructed to replace the older lower platform decks. The lower platform decks required train conductors to exit trains at each station stop to lower stairs that allowed passengers to board. Special portable handicap access ramps also had to be deployed by the conductors as needed. This inefficient procedure significantly prolonged each station stop, causing service delays. The new SLE stations have increased access and service to the commuters, improving functions such as handicapped accessibility, high-level platforms to allow for level and efficient boarding of trains, a commuter shelter area, a convenient commuter drop off area, increased parking and enhanced lighting. In addition to these three stations, new stations are also being built at Madison and Westbrook. Phase I of the Madison station was opened on July 28, 2008 and the Westbrook station is scheduled for completion by the end of 2011. Along with station improvements, CTDOT has initiated a SLE rail car refurbishing program that involved the purchase and subsequent refurbishing of Virginia Railway Express cars to provide an additional 2,000 seats to meet increased ridership demands. Also, in November 2007, CTDOT initiated an inaugural weekend and holiday service schedule which culminated on December 30, 2007 and started up again in November 2008. All of these actions demonstrate CTDOT's commitment to improve SLE service well into the future.

With regard to the Branford SLE Station that was constructed and opened for service in August 2005, that project involved building just the south-side high level rail platform in addition to a commuter shelter and 201-space surface parking lot. In order to expand SLE service to facilitate future bi-directional service as called for in the January 1, 2007 CTDOT report to the Governor entitled, "Expanding Rail Service on Shore Line East," CTDOT is obligated under current lease agreements with Amtrak to construct high-level rail platforms on both sides of the rail corridor at each SLE station if CTDOT wants to provide commuter service outside the current rush hour periods. Thus, a new north-side high-level rail platform at the Branford SLE Station and at other SLE stations is necessary. The double platform configuration will benefit commuters in that: 1) a two-sided station will increase ridership and therefore reduce traffic congestion on coastal roadway corridors by allowing for two-way commuting on the SLE corridor, and 2) having two platforms allows more flexibility in how trains are scheduled and will allow additional trains to operate on the line.

The Proposed Action at the Branford SLE Station has a two-fold objective; to construct a new north-side high level rail platform in order to provide a full-service dual-platform commuter station; and to construct expanded parking to accommodate future commuters as ridership continues to grow. The new platform and parking area will be financed with state funds, and as such, is subject to the regulations and guidance established by the Connecticut Environmental Policy Act (CEPA) (Connecticut General Statutes [CGS] Sections 22a-1 through 22a-1h, inclusive, and where applicable, CEPA regulations Section 22a-1a-1 through 22a-1a-12, inclusive, of the Regulations of Connecticut State Agencies [RCSA]). Under CEPA, the document to be prepared is an Environmental Impact Evaluation (EIE). The lead state agency for CEPA documentation is CTDOT.

1.3. Purpose and Need

The purpose of the Proposed Action relates directly to CTDOT's ongoing commitment to expand commuter rail services in keeping with Governor Rell's Transportation Initiative, which was passed by the Connecticut Legislature in 2005. CTDOT's commitment involves implementing various projects, such as the Proposed Action, which will make commuter rail services modern, reliable, and convenient so that the future transportation needs of Connecticut's residents are met. The provision of premium commuter rail service is considered a key aspect in promoting the economy as well as a high quality of life in Connecticut. With more people commuting by rail to and from their workplace, fewer commuters will be traveling in their cars making for less congestion and a safer environment. The goal of enhancing commuter rail service is a common theme found in state, regional and local plans of development. Transportation improvements that are consistent with various plans of conservation and development lead to increased travel options, better transportation systems, increased economic vitality and containment of sprawl.

The need for the Proposed Action is two-fold:

There is an increasing customer service need as demonstrated by steadily increasing SLE ridership numbers (refer to Project Background section for specifics). Connecticut's residents are utilizing the state rail service for in-state travel as well as for travel to and from New York City. This has been precipitated by:

- Increased development pressures in coastal and southeastern Connecticut
- Increased congestion on coastal roadway corridors including I-95 and U.S. Route 1
- Rapidly fluctuating gas prices
- An increasingly mobile workforce; and
- Improved commuter rail infrastructure.

The result is that existing parking facilities at SLE railroad stations can no longer meet the demand. CTDOT's goal is to provide between 400 and 500 parking spaces at each SLE commuter rail station in order to accommodate future patrons. At the Branford Railroad Station, the 201-space parking lot that was constructed in 2005 is already at capacity, indicating an immediate need to provide additional parking at the station.

For commuters taking the SLE, Governor Rell has announced improved service to and from New Haven and for reverse commuting to Old Saybrook in the near future. Improved service east of New Haven is an important component in reducing traffic congestion and improving mobility in Southeastern Connecticut. To efficiently and effectively provide this enhanced service, there is the need to construct north-side high level rail platforms at each of the existing SLE stations, thereby making each station a full service dual-platform station. The need is driven by existing lease agreements between CTDOT and Amtrak. Under current lease agreements, CTDOT is obligated to construct high-level rail platforms on both sides of the rail corridor at each SLE station if CTDOT wants to provide commuter service outside the current rush hour periods. Thus, in order to meet Amtrak lease requirements and to provide bi-directional service, a new

north-side high level rail platform at the Branford SLE Station and at other SLE stations is necessary if future expansion of SLE service is to succeed.

2. ALTERNATIVES CONSIDERED

2.1. Alternative Actions

Two alternatives are assessed in this EIE; a Build Alternative and the No-Action Alternative. Because existing lease agreements between Amtrak and CTDOT stipulate that future expansion of SLE service beyond the current peak periods cannot occur without constructing dual high-level rail platforms at each SLE station, and because the parking lot at the existing Branford SLE Station is at capacity, the Build Alternative is the only alternative that will successfully meet the stated purpose and need defined above. The Build and No-Action alternatives are described below.

Build Alternative – Proposed Action

In order to successfully meet the purpose and need, infrastructure improvements must occur at the existing Branford SLE Railroad Station that was constructed and opened in August 2005. For instance, a new north-side high level rail platform must be physically located opposite the existing south-side platform in order for optimum rail station functionality to be achieved. Retrofitting the south-side high level rail platform to incorporate temporary platform extensions to service trains operating on the northern track is not a viable option. Operation of these extensions is time consuming and cumbersome, requires manpower, and therefore introduces the potential for human error which could potentially result in scheduling conflicts with Amtrak's Acela and other conventional train services. Surface parking, however, can potentially be located within any of the four quadrants surrounding the station as long as the distance from the parking lot to the station is not considered too far, inconvenient, or unsafe for commuter rail passengers to walk. For this reason, a Parking Feasibility Study was conducted by H.W. Lochner, Inc., (July, 2001) on behalf of CTDOT for the Branford SLE Railroad Station as well as for the other proposed stations along SLE. The study considered potential options for accommodating upwards of 400 to 500 parking spaces at each SLE station; a parking capacity goal that was established by the State to meet future SLE ridership projections.

At the proposed Branford SLE Station (which was designed in May 2001), the July 2001 Parking Feasibility Study considered viable options for additional parking to supplement the 201-space surface lot already included as part of the new station design. The additional parking capacity would enable CTDOT to attain their 500-space goal. Options considered included 5.38 acres of vacant undeveloped land to the west of the new 201-space parking lot, a 1.96 acre triangular parcel to the east of Maple Street that would ultimately become available upon completion of a Town of Branford project to realign Maple Street, a 0.65 acre residential parcel to the north of the tracks and west of Kirkham Street, and the former 1.17 acre SLE parking lot located north of the tracks and accessed from Meadow Street. The northwestern quadrant was excluded from consideration due to a large tidal wetland located between the railroad tracks and Elm Street to the north.

The parking feasibility study concluded that it was not cost effective to develop parking on the 0.65 acre residential parcel to the north of the tracks and west of Kirkham Street as the parcel was too small and could only accommodate a maximum of 20 spaces. With respect to the 1.96 acre triangular parcel located east of Maple Street, it was determined that it was also too small to accommodate enough parking and that parking on this parcel would pose a safety concern as patrons would have to cross Maple Street at-grade to access the station. The remaining two parcels, the 5.38 acre vacant parcel and the former 1.17 acre commuter parking lot were determined to be the best options for parking as together they offered more than 360 spaces at a relatively low cost. Based on this logic, these two parcels were incorporated into the Proposed Action to satisfy the parking need.

The kiss-and-ride drop off area evolved later in the project development process. It was determined by CTDOT that the 0.65 acre residential parcel located immediately north of the tracks would need to be acquired to stage construction of the north-side high level rail platform. CTDOT opted to convert the parcel into a much needed kiss-and-ride drop off area upon completion of platform construction and this is how it became part of the Proposed Action.

No-Action Alternative

Under the No-Action Alternative, current operations at the Branford SLE Railroad Station would continue unchanged. Passenger trains would continue to operate on one track (the south side) in order to pick-up and drop-off passengers. Although this is in keeping with current lease agreements between CTDOT and Amtrak regarding the existing SLE service, this type of operation will not be allowed once the lease agreement expires or when SLE service is expanded. The lease specifically requires that north-side high level rail platforms be constructed if CTDOT expects to expand SLE service beyond the current rush hour period in the future.

The No-Action Alternative also means that maximum parking capacity at the station will remain at 201-spaces and that no new parking will be constructed. A weekday peak hour parking survey conducted by FHI in May 2007 determined that parking at the Branford SLE Railroad Station is already at 100% capacity. Thus, under the No-Action Alternative, the existing parking shortage at the station will not be alleviated. Although the No-Action Alternative would involve no new construction and as a result, no significant environmental impacts, the alternative falls short of meeting the purpose and need of the project.

2.2. Alternative Sites Controlled Or Reasonably Available

Because rail is a fixed system, land available for the Proposed Action must be located immediately adjacent to the rail corridor and existing station in order to gain maximum benefit from the project and its intended use. As described above under the Build Alternative, the north-side high level rail platform must be located opposite the existing south-side platform in order for optimal functionality, and parking expansion options are limited to only those parcels within a short and safe walking distance of the station. Lastly, the Proposed Action site is highly suitable because it is vacant, relatively flat, is easily accessible from local roadways, and is in close proximity to downtown Branford.

Overall, no other sites were evaluated since there are no other known available sites suitable for the Proposed Action.

3. EXISTING ENVIRONMENT AND IMPACT EVALUATION

3.1. Land Use, Zoning And Local And Regional Development Plans

Existing Setting

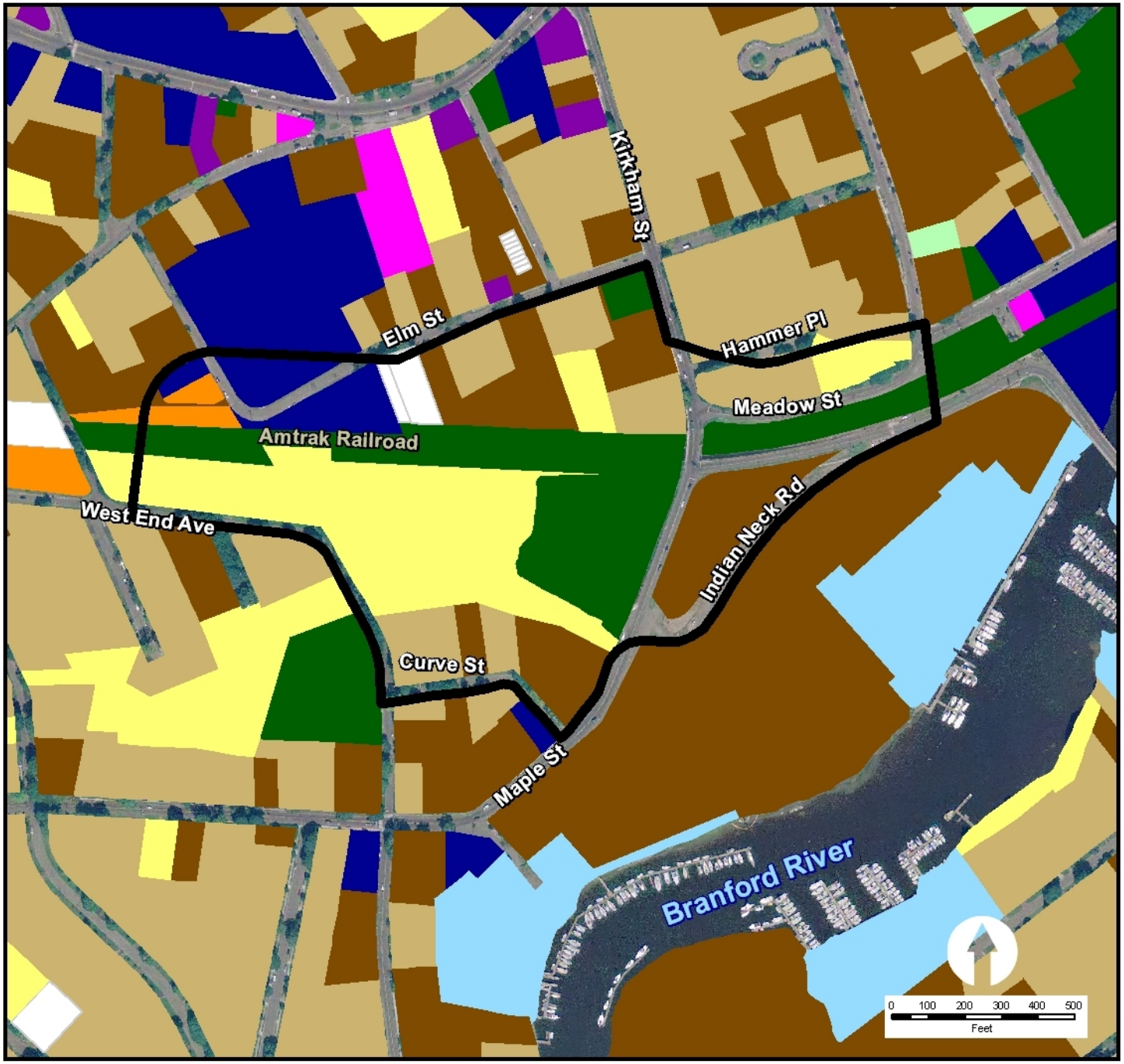
Land Use

The Proposed Action site is located in the Town of Branford on the southeastern coast of Connecticut. Branford is a mostly suburban community sitting on the fringe of the New Haven metropolitan area. The Proposed Action site is situated on the edge of Branford's downtown and between that cohesive village center and the marine related land uses of Branford's coastline. As shown in Figure 2, the site is located near the intersection of Kirkham and Meadow Streets. The proposed new 316-space parking lot abuts the existing 201-space rail commuter parking lot with station platform (built in 2005) to the east, the rail line/tracks to the north, and single-family residential land uses to the west and south. The adjacent area north of the SLE tracks is mostly single-family residential development. The proposed kiss-and-ride drop off area is situated on the north side of the railroad tracks and will be accessed from Kirkham Street. There is residential land to the west and north of the proposed kiss-and-ride drop off area, with Kirkham Street forming its eastern boundary.

The broader study area surrounding the Proposed Action site is also predominantly residential yet includes a scattering of commercial and retail activity. There are some nearby commercial activities on Elm Street. This includes, most notably, the Cherry Hill Glass Company industrial site, a wholesale glass retailer with automotive related outparcels, which is located in the northwestern corner of the project study area. The area south and east of the study area is redeveloping and includes a mix of housing, services, and marine related uses, including a marina. There is a small commercial cluster creating a very compact secondary village center at Maple and Harbor Streets immediately south of the study area boundaries.

Zoning

According to the Town of Branford's Zoning Regulations and Zoning Map (Town of Branford, 2006) the site for the Proposed Action falls within a limited area of land zoned General Industrial (IG-1) and is surrounded/abutted by residential zoning (R-1 and R-3). It also falls within the Town Center Overlay District. The IG-1 designation encompasses the rail line and station in this area of Branford and extends to the former rail platform and parking area located northeast of the Proposed Action site as well as former manufacturing land uses (the former Malleable Iron Fittings Factory) south of the tracks in this locale. The IG-1 designation is reserved for areas of heavy commercial and industrial development and is intended to discourage the location of any "further retail business" or "further residential construction". Railroad passenger stations and



Study Area

Land Use

- Single Family Residential
- Multi-family Residential
- Church
- Office
- Boatyard/Marina
- Restaurants/Clubs
- Commercial
- Municipal/Public Service
- Manufacturing
- Vacant/Open Land
- Unclassified

Figure 2
Existing Land Use

Shoreline East Expansion
Branford, CT

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associated facilities are permitted with site plan approval in this zone. It is notable that since the factory sites south of the rail station and along the coastline have been vacated they have been rezoned within a Special Development Area (SDA) allowing for adaptive reuse under a master site plan for mixed-uses. This rezoned area is the site of the planned Anchor Reef Redevelopment Project.

The Town Center Overlay District was established to overlay other districts for the purpose of defining the Town Center. The overlay designation is intended to establish standards for development that preserve the village and historic character of the district and protect coastal resources. Additionally, some land in the study area to the immediate north of the Proposed Action site is zoned RB, Restricted Business. This district is designed to recognize business areas developing as a result of conversion of residential structures to retail and office uses, as well as to provide sites for essential retail services in or adjacent to residential neighborhoods.

Local and Regional Development Plans

The Proposed Action site falls within the planning regions addressed by the Branford Plan of Conservation and Development (Branford Planning and Zoning Commission, January 16, 1997, Amended August 1, 2003) and the Regional Plan of Development for South Central Regional Council of Governments (SCRCOG, November 15, 2000). These plans each articulate a vision, goals, and objectives for future land use and overall development within their respective planning regions. Relevant key elements of these reports are summarized below.

Branford Plan of Conservation and Development: The *2001 Plan of Conservation and Development* (Branford Planning and Zoning Commission, January 1997) is currently being updated. The Town Planner (personal communication December 14, 2007) has stated that the most current development policy for Branford is expressed in a series of draft working papers for the new plan. These working papers identified the following issues, opportunities and policies that are relevant to the Proposed Action:

- The current railroad station is seen as a community asset – it offers an opportunity to create transit-oriented development
- The coastline of Branford is also viewed as a community asset
- There is a need to resolve traffic congestion problems, enhance public transportation, and add pedestrian access/sidewalks in Branford
- One aspect of the community vision is to "provide appropriate facilities and services to meet the needs of residents and businesses"
- A critical strategy is to support the SLE rail service including efforts to expand parking at the rail station on both sides of the track.
- The plan recommends the addition of bicycle racks at the rail station, an improved pedestrian network to access the station, and expansion of service to include reverse commute and weekend service.

A current future land use map has not yet been developed for Branford. The 1997 plan map of Future Land Use indicated that the Proposed Action site lies in an area slated for both Moderate to High Density Residential land use and Office/Industrial land use.

SCRCOG 2000 Regional Plan of Development: Branford is located within the SCRCOG along with 14 other municipalities. SCRCOG is currently in the process of updating its regional plan of conservation and development. While this effort is underway, the 2000 *Regional Plan of Development* is in place to guide future land use policy for the region. According to the Policy Guide Map for the SCRCOG Planning Region, the site of the Proposed Action is located in an area designated for Conservation/Infilling. These areas are intended for moderate residential density and/or locally-scaled commercial development. Specific to the Proposed Action, this document identifies improvements at the SLE railroad station in Branford as a key transportation commitment for the future. Similarly, it highlights the manner in which improving the SLE station will complement and extend redevelopment opportunities associated with the largely abandoned Malleable Iron Fittings Factory site that lies to the southeast across Maple Street/Indian Neck Avenue.

SCRCOG Long Range Transportation Plan 2007 – 2035: This document addresses broad transportation goals for the region over the next 25 years and provides direction for the region regarding major policy issues. The Plan highlights that highway improvements will address only a portion of the region's transportation requirements and that to meet needs over the long-term, multi-modal solutions will be required. With respect to the Proposed Action, the document specifically identifies station expansion and creation of additional parking at the SLE site in Branford as a significant regional project. Similarly, it highlights as a complementary project, the proposed widening of the sidewalk along the west side of Kirkham Street as well as providing stairs from the Kirkham Street Bridge over the railroad tracks down to the commuter rail parking lot for easier and shorter passenger access.

Direct and Indirect Impacts

Land Use

Impacts to land use are evaluated based on the effect that the Proposed Action will have on land use patterns, compatibility of land uses, encroachments on existing land use, and access to land compared to the No-Action Alternative. The No-Action Alternative will constitute a continuance of existing land use conditions and therefore will have no adverse impact on land use.

The Proposed Action will be a state facility that will utilize both existing CTDOT properties and privately owned land. As such, it will require two property acquisitions including one residential displacement. The property expected to be used for the kiss-and-ride drop off area includes a two-story residence that will be demolished. According to the Town of Branford parcel maps, the property is 0.65 acres and is currently owned by Donald Smith. The 5.38-acre parcel to the south of the railroad tracks that is planned to be developed as a new 316-space commuter rail parking lot is also in private ownership. According to 2007 town parcel maps, it is currently owned by 35 Maple Street LLC. The Proposed Action will not encroach on any other existing land uses.

The kiss-and-ride site proposed for the north side of the rail line will abut two residential properties but, by virtue of the low intensity of activity anticipated there, will not impact their use. The Proposed Action will create one new access point to Kirkham Street at the kiss-and-ride circle. This will occur adjacent to the existing railroad crossing and will have no impact to access to any other properties within the study area. There may, however, be short-term periodic inconvenience to the adjacent homes from increased traffic on Kirkham Street during the period in the early morning and evening when commuters are being dropped off or picked up from the train.

The Proposed Action site on the south side of the rail line is vacant. The proposed 316-space parking lot expansion there would sit west of and adjacent to another existing rail parking lot (201 spaces) that was constructed in 2005. Overall, the Proposed Action will expand an existing rail station use in a mixed-use neighborhood and is not incompatible with adjacent uses. Consequently, it will not significantly adversely affect existing land use patterns or trends.

Zoning

The No-Action Alternative will not alter existing conditions and as such will have no impact on zoning.

Generally, state and federal projects are exempt from municipal zoning requirements. However, CTDOT strives to avoid conflict with local regulations. The Proposed Action is consistent with zoning designations in the project study area and will not induce any change to zoning in the area.

Consistency with Local and Regional Development Plans

The Proposed Action is fully consistent with the visions and goals outlined in the pertinent local and regional planning documents described above.

Proposed Mitigation

Land Use and Zoning

As there will be no significant adverse impacts on land use or zoning, no mitigation is warranted or proposed.

Consistency with Local and Regional Development Plans

The No-Action Alternative is not consistent with the revitalization goals expressed in local and regional plans, as it does not support enhancement of commuter rail access or facilitate general economic growth in the Town of Branford.

The Proposed Action is consistent with the vision, goals, and recommendations expressed in local and regional plans for future development of the Town of Branford and the region.

Since the Proposed Action is consistent with local and regional plans, no mitigation is warranted or proposed.

3.2. Consistency With State Plan Of Conservation And Development

Existing Setting

The Connecticut Office of Policy and Management (OPM) *Conservation and Development Policies Plan for Connecticut (2005-2010)* (the C&D Plan) contains growth management, economic, environmental quality, and public service infrastructure guidelines and goals for the State of Connecticut. The overall strategy of the C&D Plan is to reinforce and conserve existing urban areas, to promote appropriate, sustainable development, and to preserve areas of significant environmental value. The Locational Guide Map which accompanies the C&D Plan provides a geographical interpretation of the State's conservation and development policies.

According to the C&D Plan's Development Locational Guide Map, the Proposed Action falls within a Neighborhood Conservation Area. Typically, these are significantly built-up and well populated areas but without the infrastructure, density, and diverse income characteristics of an urban based regional center. The state strategy for a Neighborhood Conservation Area is to maintain basically stable communities and support intensification of development when "supportive of community stability and consistent with the capacity of available urban services".

Consistency

The Proposed Action is consistent with the general policies and strategies for Neighborhood Conservation Areas as defined in the C&D Plan. It will support community stability of employment opportunities for residents in Branford by enhancing access via commuter rail to jobs elsewhere. It will also be located in an area of planned growth in Branford, consistent with the C&D plan policy to support intensification of development in suitable growth areas with existing supportive infrastructure. Additionally, the Proposed Action will be located along an existing street network currently used to access the station. As such, the Proposed Action will exclusively utilize the existing transportation infrastructure. Indirectly, it will help reduce vehicle miles traveled in the region, thereby supporting energy conservation and air quality programs also identified in the C&D Plan.

Overall, the development of the Proposed Action at this location in Branford is consistent with the desired overall direction of area-wide development.

3.3. Traffic And Parking

This section describes existing traffic and parking conditions in the study area and the potential traffic and parking impacts associated with the Proposed Action.

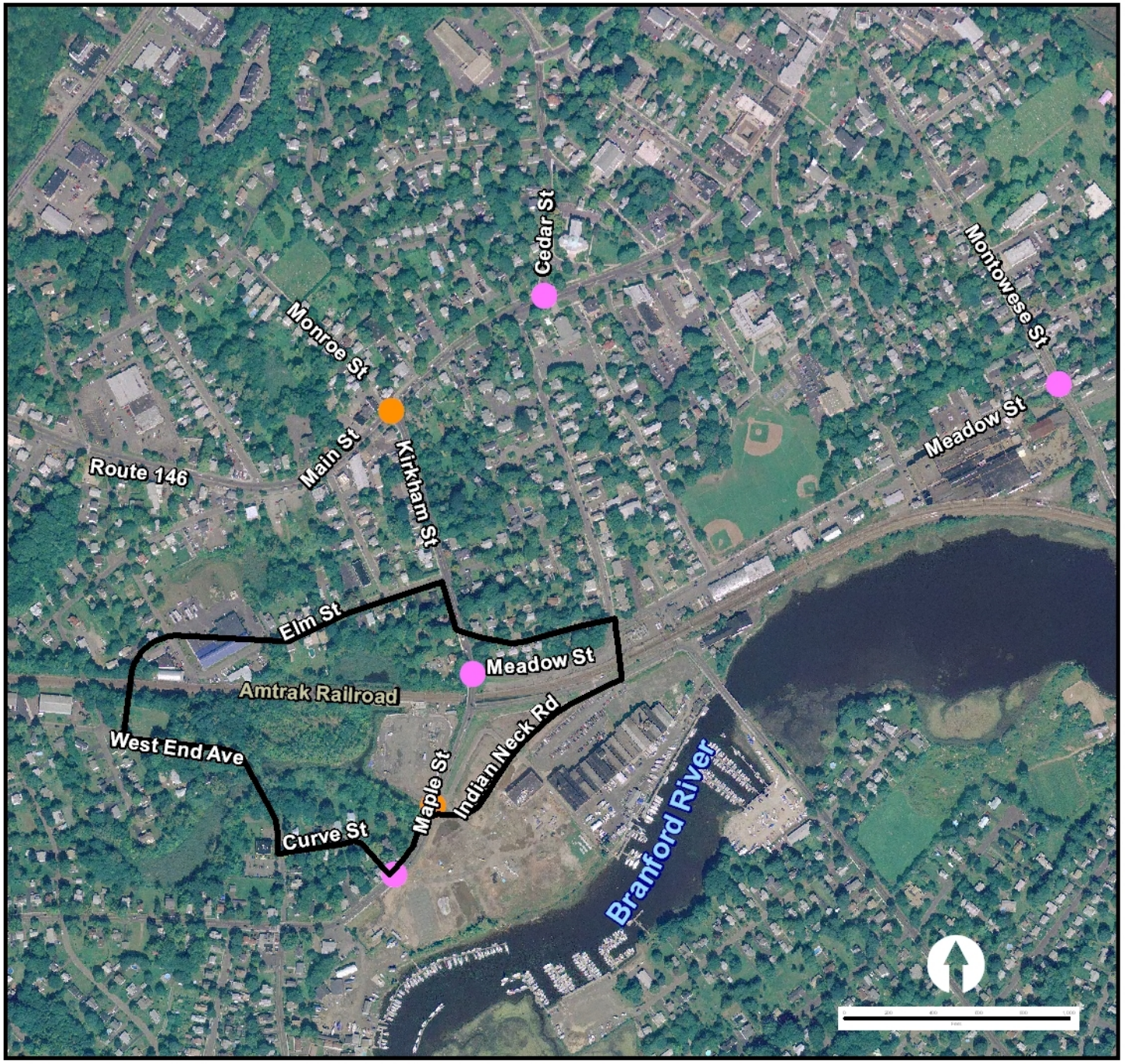
Existing Setting

The traffic study area is located in Branford from the Main Street commercial area south to the SLE railroad station. The traffic study area is bounded by Main Street to the north, Kirkham Street and Maple Street to the west, Montowese Street to the east and the Branford River to the south. Main Street (Route 146) in the vicinity of the study area is a two-lane collector road. Land use along Main Street is commercial along with the town government facilities. Montowese Street (Route 146) along the east side of the traffic study area is a two-lane collector road. Montowese Street is largely commercial. Kirkham Street is a two-lane local road providing access to residential neighborhoods. Maple Street is a two-lane collector road which provides access to residential neighborhoods as well as the SLE railroad station.

Six intersections were analyzed for traffic levels-of-service (LOS) and operational considerations. The six intersections studied are the following:

1. Main Street at Cedar Street (unsignalized)
2. Main Street at Kirkham Street/Monroe Street (signalized)
3. Maple Street at Curve Street (unsignalized)
4. Meadow Street at Kirkham Street/Maple Street (unsignalized)
5. Meadow Street at Montowese Street (unsignalized)
6. Maple Street at Indian Neck Avenue/Rail Station Drive (signalized)

Figure 3 shows the site location and traffic study area intersections in relation to the surrounding roadway network.



Study Area

Study Area Intersections

- Signalized
- Unsignalized

Figure 3
Traffic Study Area Intersections

Shoreline East Expansion
Branford, CT

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Access and Parking

Access to the Branford SLE railroad station and existing commuter rail parking lot is provided from Maple Street at the intersection of Maple Street with Indian Neck Avenue. This is a signalized intersection. There are a total of 201 parking spaces currently available; including 6 handicapped spaces and 195 general parking spaces.

Parking counts at the station were collected on Thursday, May 31, 2007 to determine the peak parking demand during an average weekday morning peak period. Results indicate that the peak parking demand was observed to be 0 handicapped spaces and 203 general parking spaces between 9:00 AM and 10:00 AM during the weekday morning. These results indicate that the surface parking lot is above full occupancy. Table 1 summarizes the parking count data.

Table 1: Observed Parking Occupancy

	Handicapped Spaces	General Spaces	Total
Number of Spaces	6	195	201
Observed Spaces	0	203	203
Utilization %	0%	>100%	>100%

Source: Fitzgerald & Halliday, Inc., May 2007

Transit, Pedestrian, and Bicycle Facilities

Transit services that exist in the area around the SLE Branford Railroad Station include rail and bus service. Rail service is provided by SLE between New Haven's Union and State Street stations and the New London Railroad Station. Monthly ticket holders of SLE are entitled to use the Guaranteed Ride program. This program allows rail users who may need a ride from work because of an emergency, illness, family crisis, or having to work late unexpectedly to call for a free taxi ride home. Also, passengers are permitted to carry their bicycles (with the front tire removed) on board SLE trains.

CTTransit provides bus transit service in the study area via the Short Beach/Branford route which runs between downtown New Haven and the Branford Green. In addition, DATTCO operates the S-route bus service, which runs between downtown New Haven and the Old Saybrook Railroad Station. More detailed information on rail and bus routes serving the study area is displayed in Table 2.

There is an existing bituminous sidewalk along the western side of Kirkham Street within the project study area and there are also new sidewalks along Indian Neck Avenue. Sidewalks also connect the 201-space parking lot to the station and south-side high-level rail platform, all of which were constructed by CTDOT in 2005.

According to the Connecticut Bicycle Map (CTDOT, 2002) and the South Central Regional Bicycle and Pedestrian Plan (2007), Route 146 is designated a cross state bicycle route. There is no other state or region-wide designated bicycle route surrounding the station area. In addition, all **CT**Transit buses serving Branford are equipped with bicycle racks.

Table 2: Transit Routes

Transit Line	Description of Service	Schedule
Shoreline East Rail	Service between downtown New Haven (Union & State Street Station) and New London Rail Station	Weekday westbound trains depart Branford Rail Station every 25-35 minutes between 5:56 - 9:43 AM. Weekday eastbound trains depart Branford Rail Station 11 times between 1:13 - 9:03 PM. No weekend, Thanksgiving, Christmas, or New Year's service.
CT Transit Short Beach / Branford route	Service between downtown New Haven (Chapel & Temple) and Branford Green	Weekday westbound buses depart Branford Green every 35-40 minutes between 6:00 - 8:20 AM and every hour between 4:00 - 5:04 PM. Weekday eastbound buses arrive at Branford Green from New Haven every 35-40 minutes between 6:55 - 8:10 AM and every 30-50 minutes between 4:10 - 6:02 PM. A Saturday bus arrives from New Haven at 7:11 AM and departs for points west at 7:13 AM.
S-Route Bus (Operated by DATTCO)	Service between downtown New Haven (Church & Crown) and Old Saybrook Rail Station	Weekday westbound buses depart Branford Green 12 times between 6:54 AM and 6:50 PM. Weekday eastbound buses depart Branford Green 13 times between 6:00 AM and 5:55 PM. Two eastbound midday buses will stop at Branford Rail Station upon request. No weekend service.

Traffic Data Collection

CTDOT provided traffic count data for the AM and PM peak hours for the base year 2007, and for the No-Action Alternative and Proposed Action 2030 conditions. A summary of these roadway volumes is included in Appendix D of this EIE.

Traffic Operations Analysis

Intersection Analysis

Level of Service (LOS) for an intersection is rated in a range from A to F, with LOS A being the best operating conditions and LOS F being the most congested. LOS F represents long delays and generally unacceptable conditions. LOS designation is reported differently for signalized and unsignalized intersections. For signalized intersections, LOS is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. Specifically, LOS criteria are stated in terms of average stopped delay per vehicle for the peak 15-minute period of the peak hour for the entire intersection and by approach. For unsignalized intersections, the analysis assumes that the traffic on the mainline is not affected by traffic on the side street. The LOS for each movement is calculated by determining the number of gaps that are available in the conflicting traffic stream. Based on the number of gaps, the capacity of the

movement can be calculated. The demand of the movement is then compared to the capacity and utilized to determine the average delay for the movement. For unsignalized intersections, an overall LOS is not determined. Table 3 provides a summary of the LOS for the study area intersections under existing conditions.

Table 3: Level-of-Service Summary

Existing Condition (2007)

	Existing (2007)	
	AM Peak Hour	PM Peak Hour
Signalized Intersections		
Main Street & Kirkham Street/Monroe Street	B	F
Maple Street & Indian Neck Avenue	B	B
Unsignalized Intersections		
Main Street & Cedar Street		
Southbound (Cedar Street)	D	F
Meadow Street & Kirkham Street		
Westbound (Meadow Street)	B	C
Northbound (Kirkham Street)	B	C
Southbound (Kirkham Street)	B	C
Maple Street & Curve Street		
Eastbound (Curve Street)	--	--
Meadow Street & Montowese Street		
Eastbound (Meadow Street)	C	F

Source: Fitzgerald & Halliday, Inc., October 2007
--: LOS is not computed as a result of no existing peak hour volumes

Base Year 2007: According to the CTDOT Consultant Design Manual, (2001) the minimum acceptable intersection LOS is D. The analysis results describe the operational effectiveness of the study area intersections. Results from the LOS analysis for the study area intersections indicate that one of the two signalized intersections and two of the four unsignalized intersections operate at failing levels of service under existing conditions (LOS E or LOS F) during at least one peak hour. These intersections include:

- *Main Street at Kirkham/Monroe Street (signalized):* Operates with an overall intersection LOS F during the PM peak hour.
- *Main Street at Cedar Street (unsignalized)*: Operates with critical movements at LOS F during the PM peak hour.
- *Meadow Street at Montowese Street (unsignalized):* Operates with critical movements at LOS F during the PM peak hour.

The intersection of Main Street at Kirkham/Monroe Street operates with an unacceptable LOS during the PM peak hour as a result of insufficient capacity to support the existing demand. The unsignalized intersections of Main Street at Cedar Street and Meadow Street at Montowese Street have movements that operate at an unacceptable LOS. This is as a result of long delays occurring on a minor side street when it intersects with a roadway carrying higher volumes.

Safety Evaluation

Crash data was obtained from CTDOT for Route 146 over a three-year period (2004-2006). A total of 99 crashes were recorded along Route 146 from Russell Street to Pine Orchard Road over the three-year period. Forty-one percent (41%) of the total crashes on this roadway segment during this period were rear end collisions, indicating that drivers are likely following too closely. Twenty-three percent (23%) of the total crashes consisted of turning-intersecting paths collisions, indicating carelessness when turning or inadequate intersection controls. There were no crashes involving fatalities.

Based on this crash data, there does not appear to be an existing high accident location or pattern of correctable accident occurrence in the study area. A summary of crash data is provided in Appendix D of this EIE. Crash data on the local roadways was not available.

Direct and Indirect Impacts

Traffic Impacts

In order to estimate traffic impacts from the Proposed Action, traffic flow and operations were evaluated for the future design year 2030. Projected traffic volumes for the design year 2030 and approved planned/programmed projects obtained from CTDOT were used to evaluate the study area intersections under the No-Action Alternative and the Proposed Action 2030 conditions. An approved development within the study area has required Cedar Street to be widened to two lanes to provide an exclusive left-turn and right-turn lane.

Results from the No-Action Alternative analysis, as shown in Table 4, indicate that one signalized intersection (same identified under the Existing condition) and three unsignalized intersections (one more than identified under the Existing condition) will operate at an unacceptable LOS (LOS E or F) during the AM or PM peak hour. These intersections include:

- *Main Street at Kirkham/Monroe Street (signalized):* Operates with an overall intersection LOS E during the AM peak hour and LOS F during the PM peak hour.
- *Main Street at Cedar Street (unsignalized)*: Operates with critical movements at LOS F during the AM and PM peak hour.
- *Meadow Street & Kirkham Street (unsignalized)*: Operates with critical movements at LOS E or F during the PM peak hour.

- *Meadow Street at Montowese Street (unsignalized):* Operates with critical movements at LOS E during the AM peak hour and LOS F during the PM peak hour.

Table 4: Level-of-Service Summary

Existing Condition (2007) and No-Action Alternative (2030)

	Existing (2007)		No-Action (2030)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Signalized Intersections				
Main Street & Kirkham Street/Monroe Street	B	F	E	F
Maple Street & Indian Neck Avenue	B	B	B	C
Unsignalized Intersections				
Main Street & Cedar Street				
Southbound (Cedar Street)	D	F	F	F
Meadow Street & Kirkham Street				
Westbound (Meadow Street)	B	C	C	E
Northbound (Kirkham Street)	B	C	C	F
Southbound (Kirkham Street)	B	C	B	F
Maple Street & Curve Street				
Eastbound (Curve Street)	--	--	--	--
Meadow Street & Montowese Street				
Eastbound (Meadow Street)	C	F	E	F

Source: Fitzgerald & Halliday, Inc., October 2007

--: LOS is not computed as a result of no existing or future forecasted peak hour volumes.

The Proposed Action includes the construction of 368 parking spaces and a new north-side high level rail platform and pedestrian overpass. Three-hundred sixteen (316) spaces of additional surface parking will be provided on a lot adjacent to the existing 201-space parking lot that was constructed in 2005. A vehicular connection from the existing parking lot to the proposed surface parking will be provided and pedestrian access (walkways) from the new parking area to the station platforms will also be provided. The intersection of Maple Street with Indian Neck Avenue will continue to be the primary access to the station and to the existing and proposed parking lots. Fifty-two (52) parking spaces will be provided northeast of the station off Meadow Street within the parking lot associated with the former Branford Railroad Station. Access to this parking area was blocked a few years ago when guard rails were placed at the entrance to the lot. The Proposed Action involves re-instating access to this lot, which will provide overflow parking for the new railroad station. Therefore, after construction of the Proposed Action, a total of 569 parking spaces will be available for rail commuter use at the Branford Railroad Station. The provision of these additional spaces is a major beneficial impact of the Proposed Action.

Results from the LOS analysis for the 2030 Proposed Action condition (compared to the 2030 No-Action Alternative), as shown in Table 5, indicate that the LOS for the study area intersections is expected to be similar to operations under the No-Action condition. Under the 2030 Proposed Action conditions, one signalized intersection (same identified under the No-Action Alternative) and three unsignalized intersections (same identified under the No-Action Alternative) will operate at an unacceptable LOS (LOS E or F) during the AM or PM peak hour. Operations at the proposed site access driveways are anticipated to operate at an acceptable LOS (LOS D or better).

Thus, operational inefficiencies in the traffic study area are not as a result of the proposed improvements but as a result of traffic growth that naturally occurs over a period of time. Therefore, no adverse impacts are expected as a result of the Proposed Action.

In terms of pedestrian facilities and circulation, the Proposed Action will provide several important pedestrian connections. Foremost is a new pedestrian bridge, complete with elevators, that connects the two high-level rail platforms, thereby allowing safe crossing of the active rail line. New sidewalks will allow direct connections between the new 316-space parking lot and the rail station. Lastly, new sidewalks, stairwells, and a crosswalk at the Kirkham Street Bridge will allow direct and safe pedestrian connections between the overflow parking lot located north of the rail corridor and south of Meadow Street with the new railroad station. These pedestrian connections, which will all be illuminated, are important and beneficial elements of the Proposed Action that together make the station attractive and user friendly.

Table 5: Level-of-Service Summary

No-Action Alternative (2030) and Proposed Action (2030)

	No-Action (2030)		Proposed Action (2030)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Signalized Intersections				
Main Street & Kirkham Street/Monroe Street	E	F	E	F
Maple Street & Indian Neck Avenue	B	C	B	C
Unsignalized Intersections				
Main Street & Cedar Street Southbound (Cedar Street)	F	F	F	F

	No-Action (2030)		Proposed Action (2030)	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Meadow Street & Kirkham Street				
Eastbound (Meadow Street)	n/a	n/a	B	B
Westbound (Meadow Street)	C	E	C	E
Northbound (Meadow Street)	C	F	D	F
Southbound (Meadow Street)	B	F	C	F
Maple Street & Curve Street				
Eastbound (Curve Street)	--	--	--	--
Meadow Street & Montowese Street				
Eastbound (Meadow Street)	E	F	E	F
Meadow Street & Proposed Access Drive				
Northbound (Proposed Access)	n/a	n/a	--	A

Source: Fitzgerald & Halliday, Inc., October 2007
--: LOS is not computed as a result of no future forecasted peak hour volumes
n/a: not applicable

Proposed Mitigation

Traffic operations at the study area intersections under the Proposed Action are anticipated to be similar to operations under the No-Action Alternative. Thus, operational inefficiencies in the study area are not as a result of the Proposed Action but as a result of the traffic growth that naturally occurs over a period of time. Therefore, no off-site traffic mitigation is warranted.

3.4. Air Quality

Existing Setting

The Clean Air Act of 1970 and subsequent Clean Air Act Amendments established National Ambient Air Quality Standards (NAAQS) for six criteria pollutants to ensure the protection of human health and public welfare. NAAQS were established for carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), ozone (O_3), and particulate matter (PM). The Clean Air Act also required states to monitor air quality to determine if regions meet the NAAQS. If a region shows exceedances of any of the NAAQS, that part of the state is classified as non-attainment for that pollutant and the state must develop an air quality plan, called a State Implementation Plan (SIP), to bring that area into compliance.

The EPA Office of Air Quality Planning and Standards has set NAAQS for six principal pollutants, which are called "criteria" pollutants. They are listed below. Carbon monoxide (CO), one of the six pollutants regulated by the NAAQS, is the air quality parameter that could be most likely affected by traffic associated with the Proposed Action. Units of measure for the standards are parts per million (ppm) by volume, milligrams per cubic meter of air (mg/m^3), and micrograms per cubic meter of air ($\mu g/m^3$) (refer to Table 6).

Table 6: National Ambient Air Quality Standards

Pollutant	Primary Standards	Averaging Times	Secondary Standards
Carbon Monoxide	9 ppm (10 mg/m^3)	8-hour[1]	None
	35 ppm (40 mg/m^3)	1-hour[1]	None
Lead	1.5 $\mu g/m^3$	Quarterly Average	Same as Primary
Nitrogen Dioxide	0.053 ppm (100 $\mu g/m^3$)	Annual (Arithmetic Mean)	Same as Primary
Particulate Matter (PM_{10})	Revoked[2]	---	---
	150 ug/m^3	24-hour[1]	
Particulate Matter ($PM_{2.5}$)	15 $\mu g/m^3$	Annual[3] (Arithmetic Mean)	Same as Primary
	35 ug/m^3	24-hour[4]	
Ozone	0.075 ppm[5]	8-hour[5]	Same as Primary
	0.12 ppm	1-hour[6]	Same as Primary
Sulfur Oxides	0.03 ppm	Annual (Arithmetic Mean)	-------
	0.14 ppm	24-hour[1]	-------
	-------	3-hour[1]	0.5 ppm (1300 ug/m^3)

[1] Not to be exceeded more than once per year.
[2] Due to a lack of evidence linking health problems to long-term exposure to coarse particulate pollution, the agency revoked the annual PM_{10} standard in 2006 (effective December 17, 2006).
[3] To attain this standard, the 3-year average of the annual arithmetic mean $PM_{2.5}$ concentrations from single or multiple community-oriented monitors must not exceed 15 ug/m^3.
[4] To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 ug/m^3 (effective December 17, 2006).
[5] To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm (effective May 27, 2008).
[6] (a) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is <= 1.
(b) The 1-hour NAAQS will no longer apply to an area one year after the effective date of the designation of that area for the 8-hour ozone NAAQS.

According to the EPA's *2006 Annual Report on Air Quality in New England* (July 2007), the current air quality attainment designations for the six criteria pollutants in New Haven County are:

CO: The entire state of Connecticut is currently designated as attainment for CO. A limited maintenance plan for CO is in effect for the New Haven-Meriden-Waterbury region.

Ozone: The entire state of Connecticut is designated as non-attainment for the 1-hour ozone standard.

PM: EPA has established NAAQS for two size ranges of PM. The entire state of Connecticut is currently in attainment of PM_{10} (particulate matter with a diameter of 10 microns or less). New Haven County is in non-attainment for $PM_{2.5}$ (particulate matter with a diameter of 2.5 microns or less).

NO_2: The entire State of Connecticut is in attainment for NO_2.

Pb: The entire State of Connecticut is in attainment for Pb.

SO_2: The entire State of Connecticut is in attainment for SO_2.

Direct and Indirect Impacts

Regional Impacts – Transportation Conformity

The impacts of a particular project on regional air quality are assessed when the Metropolitan Planning Organization (MPO) develops an air quality conformity determination of the region's long- and short-term transportation plans, which includes all existing and projected roads and transit system improvements. This process involves modeling travel demand across the entire regional transportation system and applying vehicle emissions to vehicle trips and vehicle miles of travel across this network. The conformity determination must demonstrate that the transportation plans will not contribute to exceedances of air quality standards.

The SCRCOG, which is the MPO for the region, coordinates with CTDOT to conduct a conformity determination of the region's transportation plan. The conformity analysis must demonstrate that emissions from the "action" scenarios are less than the amount allowed in the VOC, NO_x and CO emissions budgets established by the CTDEP for transportation sources. The emissions budgets are set at levels that will maintain the NAAQS for each pollutant. Therefore, transportation-related emissions must be less than or equal to these emissions budgets.

Project Level Conformity Determination

Federal regulations concerning the conformity of transportation projects developed, funded or approved by the United States Department of Transportation (USDOT) and by MPOs are contained in 40 CFR 93. In accordance with 40 CFR 93.109, the applicable criteria and

procedures for determining the conformity of a project which is from a conforming Transportation Plan are listed in 40 CFR 93.109(b). Each of these criteria has been determined to be satisfied for the Proposed Action, as follows:

- **Proposed Action from a Conformity Plan** – The Branford SLE project is identified in the SCRCOG's current Long Range Transportation Plan. The scope of this project, as described in this EIE, is consistent with the scope identified in the current Plan.

- **Current Conforming Plan** – The SCRCOG's current Long Range Transportation Plan was determined to be in conformity by the FHWA and FTA. The Proposed Action is included in this Plan.

- **CO Hot Spots** – This project will not cause or contribute to any new violations or increase the frequency or severity of any existing CO violations in CO maintenance areas, as shown by the results of the microscale (local) CO hot spot analysis contained herein.

- **$PM_{2.5}$ Hot Spots** - This project is exempt from conformity requirements under Section 40 CFR Part 93.126 of the conformity rule. A project level $PM_{2.5}$ qualitative analysis is therefore not required.

- **PM_{10} Control Measures** - There are no PM_{10} control measures in the current State Implementation Plan.

In summary, the Proposed Action has been determined to be in conformity with the Clean Air Act, as amended, pursuant to all applicable EPA regulations.

Local Impacts – Microscale Analysis

CO is the most important transportation-related pollutant of concern at the local level. In order to assess CO impacts on local air quality from the Proposed Action, a modeling analysis was conducted to estimate CO concentrations under existing (2007), build year (2011), and future (2030) conditions.

The following intersections were identified from traffic analyses for the project as having the worst LOS:

- Main Street & Kirkham Street/Monroe Street
- Maple Street & Indian Neck Avenue

Capacity and queuing analyses were completed for the following peak periods:

- 2007 morning and afternoon (Existing Conditions),

- 2011 morning Build, afternoon Build, morning No-Build, and afternoon No-Build scenarios (Build Year), and
- 2030 morning Build, afternoon Build, morning No-Build, and afternoon No-Build scenarios.

Mobile source CO emission factors were modeled using MOBILE6.2. These input files and associated output files are included as part of the project record and can be made available upon request.

CALQVIEW2 is a line source dispersion model that applies the Gaussian dispersion theory to traffic inputs and meteorological conditions to predict CO concentrations from vehicles on the roadway. Air quality impacts from mobile sources are modeled by analyzing queue links and free flow links. Queue links are those that simulate vehicles idling at the stop bar of an intersection. Free flow links simulate vehicles traveling through an intersection. Receptor locations are selected based on where people may be located who may be exposed to the CO produced by vehicles in the area (e.g., sidewalks, outdoor eating establishments). Each receptor was located at a height of 5.9 feet, per EPA guidance.

CALQVIEW2 meteorological and background information is listed in Table 7 below.

Table 7: CALQVIEW2 Parameters

Parameter	Value
Averaging time	60 mins
Surface roughness length	175 cm
Settling velocity	0
Deposition velocity	0
Scale conversion factor	0.3048 (units in ft)
Output	1 (in ft)
Wind speed	1 m/s
Wind direction	0
Stability class	4 (D) – Urban
Mixing height	1000 m
1-hour background concentration	4.3 ppm
Multiple wind directions	Yes – 10 degree increments
Receptor height	6.0 ft
Signal times	Varies (traffic analysis)
Traffic volumes	Varies (traffic analysis)

Results from the model represent the one-hour average CO concentrations at each receptor due to the modeled traffic, and include a background concentration of 4.3 ppm. To determine the eight-hour average concentration at each receptor, the one-hour dispersion result from the model was multiplied by the persistence factor of 0.7. The 2007 AM and PM; 2011 AM Build, PM

Build, AM No-Build, and PM No-Build; and 2030 AM Build, PM Build, AM No-Build, and PM No-Build conditions were each modeled for the predetermined intersections, for a total of 20 model runs. CALQVIEW2 results are included as part of the project record and can be made available upon request. Table 8 presents the highest predicted CO reading for each model run.

Table 8: Highest Predicted CO Results

Model Run	Highest 1-hour Concentration (ppm)	Corresponding 8-hour Concentration (ppm)	Receptor Location
Main @ Kirkham 2007 Peak AM Existing	5.6	3.9	Southeast corner of intersection
Main @ Kirkham 2007 Peak PM Existing	6.4	4.5	Northeast corner of intersection
Main @ Kirkham 2011 Peak AM No-Build	5.4	3.8	Southeast corner of intersection
Main @ Kirkham 2011 Peak PM No-Build	6.0	4.2	Westbound western mid-block
Main @ Kirkham 2011 Peak AM Build	5.9	4.1	Northeast corner of intersection
Main @ Kirkham 2011 Peak PM Build	6.0	4.2	Westbound western mid-block
Main @ Kirkham 2030 Peak AM No-Build	6.2	4.3	Northeast corner of intersection
Main @ Kirkham 2030 Peak PM No-Build	5.9	4.1	Southeast corner of intersection
Main @ Kirkham 2030 Peak AM Build	6.2	4.3	Northeast corner of intersection
Main @ Kirkham 2030 Peak PM Build	6.3	4.4	Northeast corner of intersection
Maple @ Indian-Neck 2007 Peak AM Existing	6.0	4.2	Westbound eastern mid-block
Maple @ Indian-Neck 2007 Peak PM Existing	5.8	4.1	Westbound eastern mid-block
Maple @ Indian-Neck 2011 Peak AM No-Build	5.8	4.1	Westbound eastern mid-block
Maple @ Indian-Neck 2011 Peak PM No-Build	5.5	3.9	Westbound eastern mid-block
Maple @ Indian-Neck 2011 Peak AM Build	5.8	4.1	Westbound eastern mid-block
Maple @ Indian-Neck 2011 Peak PM Build	5.6	3.9	Westbound eastern mid-block
Maple @ Indian-Neck 2030 Peak AM No-Build	5.5	3.9	Westbound eastern mid-block
Maple @ Indian-Neck 2030 Peak PM No-Build	5.5	3.9	Southbound northern mid-block
Maple @ Indian-Neck 2030 Peak AM Build	5.5	3.9	Westbound eastern mid-block
Maple @ Indian-Neck 2030 Peak PM Build	5.7	4.0	Southbound northern mid-block

NAAQS for CO: 1-hour standard of 35.0 ppm, 8-hour standard of 9.0 ppm.

As shown in Table 8, all results are well below the CO NAAQS of 35 ppm for one hour and 9 ppm for eight hours. Thus, neither the No-Action Alternative nor the Proposed Action will create any violations of federal CO standards.

Proposed Mitigation

No short or long-term adverse air quality impacts are expected as a result of either the No-Action Alternative or the Proposed Action. Therefore, no air quality mitigation measures are required or proposed.

During construction of the proposed facility and associated paved surfaces, potential air quality impacts include airborne dust particles from exposed soils and emissions from construction vehicles. CTDOT best management practices (BMPs) will be followed during the course of the project. Construction-related air quality issues are further discussed in Section 3.20, Construction Related Impacts.

3.5. Noise

Existing Setting

Noise-sensitive land uses include: a) residences, hotels, and other buildings where people sleep; b) institutional resources such as churches, schools, hospitals, and libraries; and c) various tracts of land where quiet is an essential element of the land's intended purpose, such as a National Historic Landmark where outdoor interpretation routinely takes place.

A field visit was conducted on October 24, 2007 to identify noise-sensitive land uses in the project vicinity and to obtain a better understanding of the existing noise environment. The Proposed Action site is located near the intersection of Kirkham and Meadow Streets on the southern edge of Branford's downtown and between that cohesive village center and marine land uses to the south along Branford's coastline. A prominent feature of the Proposed Action site is the Branford Railroad Station south-side high-level platform and associated 201-space parking lot (August 2005), which are located just west of the Kirkham Street Bridge over the railroad tracks.

Land use surrounding the Proposed Action site consists primarily of single-family residences. Homes are located to the southwest and west within a neighborhood formed by Curve Street, Harbor Street and West End Avenue and to the north and northeast within neighborhoods formed by Meadow Street, Kirkham Street, Hammer Place, Elm Street and North Harbor Street. The homes in the Curve Street/Harbor Street/West End Avenue neighborhood are approximately 300 feet from the proposed new 316-space commuter parking lot and over 500 feet from the proposed new north-side high-level rail platform and pedestrian overpass. Homes along the south side of Elm Street are approximately 400 feet from the proposed new 316-space commuter parking lot and approximately 250 feet from the new north side high-level rail platform, pedestrian overpass, and kiss-and-ride lot. There is one home on the west side of Kirkham Street and north of the rail corridor that is approximately 150 feet from the proposed new-kiss-and-ride

drop off area. There are also homes along the north side of Meadow Street that are approximately 100 to 120 feet from the linear parking lot that was once associated with the former Branford Railroad Station platform location. As previously described, these parking spaces will be re-opened for use as overflow parking for the new Branford Railroad Station as part of this Proposed Action. Meadow Street, in addition to Kirkham Street, Maple Street, and Indian Neck Avenue are the primary access roads leading to the station. There are no other noise-sensitive land uses near the Proposed Action site. It is important to note, however, that the area south and east of the study area is currently redeveloping and includes a mix of housing, services, and marine related uses, including a marina. This new development, known locally at the Anchor Reef Redevelopment Project, is more than 500 feet from the improvements associated with the Proposed Action.

Existing 2008 noise levels have not been measured for this EIE and no prior studies quantifying existing noise levels are known to exist for the project study area. Despite the lack of quantitative noise data for the project site, suburban environments similar to Branford are considered moderately noisy places. At this particular site, noise is predominantly generated by the frequent passage of SLE, Amtrak, and freight trains along the existing railroad corridor. Noise is not only generated by the steel wheels on the rails but also emanates from whistles as trains approach the Branford Railroad Station. Other sources of noise in the project area include vehicular traffic along local roadways and summer boat traffic on the nearby Branford River.

In general, noise levels within suburban environments typically range from 55 dBA (A-weighted decibels) to 60 dBA (*Transit Noise and Vibration Impact Assessment*, FTA-VA-90-1003-06, May 2006). Because the existing railroad corridor is the most prominent source of existing noise affecting noise sensitive receptors in the project study area, column three/row three entitled, "Railroad Lines" of Table 5-7 in the FTA manual was used to estimate existing noise levels. According to the "Railroad Lines" data contained in Table 5-7, noise sensitive receptors that are located between 240 and 500 feet from an active rail line experience noise levels of approximately 55 dBA. Most of the noise sensitive receptors in the Branford study area fall within this distance. The one residential home on Kirkham Street, and several homes along Meadow Street that are located north of the tracks all fall within approximately 120 to 150 feet of the existing rail line. Table 5-7 indicates that existing noise levels from the rail line at these receptors ranges from 60 to 65 dBA. Overall, based on the known noise sources in the study area, existing noise levels at the Proposed Action site are anticipated to fall within or slightly exceed a typical suburban decibel range.

Direct and Indirect Impacts

The No-Action Alternative represents no change to the existing noise environment at the proposed site and therefore would have no adverse noise effects.

According to guidance contained in the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment* (FTA-VA-90-1003-06, May 2006); prior to any detailed noise modeling, a noise screening procedure is first conducted to determine if noise sensitive receptors fall within screening distances (or thresholds) that have been established for various types of

transit projects. If a receptor falls within an established screening distance, then a detailed noise analysis is required. If a receptor falls outside the established threshold distance, then modeling is not required and noise impacts will not occur from the project. This screening procedure is outlined in Chapter 4 of FTA's guidance manual, specifically in Tables 4-1 and 4-2.

New Surface Parking Lot

For the Proposed Action, the most prominent feature is the construction of the new 316-space surface parking lot on an undeveloped parcel located west of the existing 201-space parking lot that was built in 2005. According to Chapter 4 of the FTA noise manual, noise modeling for parking facilities is only required if noise sensitive receptors (such as residences) fall within 125 (unobstructed) feet of the new parking facility and only if the parking facility has a capacity of over 1,000 vehicles. Since neither of these two thresholds applies to the Proposed Action, it is concluded that the parking component of the Proposed Action will have no impact with respect to noise once it is fully constructed and operational.

New North-Side High Level Platform and Pedestrian Overpass

The Proposed Action also includes the construction of a new north-side high level rail platform and pedestrian overpass; however this platform and overpass will not generate any new noise as trains already stop at the south-side high level rail platform that was constructed as part of the Branford Railroad Station that opened in August 2005. It is known that at least the same number of trains, if not more, will be traveling along the SLE corridor in the vicinity of the project in future years as ridership increases and the SLE service is expanded. Any increase in the number of trains along the SLE corridor, however, is a planning decision by CTDOT made in conjunction with Amtrak and is based on increased growth and ridership demands along the overall SLE system. Thus, the construction of the new north-side high-level rail platform itself will not immediately precipitate an increase in the number of SLE trains and therefore will not contribute to increased noise levels in the project study area.

With respect to train whistles, train engineers blow whistles for three specific reasons:

- When approaching and/or departing a station
- Upon approaching an at-grade railroad crossing
- To warn railroad workers and/or trespassers within the railroad right-of-way of an approaching train.

Since there are no at-grade railroad crossings in the project study area, train whistles are only blown near the Branford SLE Station for two of the three reasons mentioned above. Since the Proposed Action alone will not precipitate an increase in the number of trains stopping at the Branford SLE station (as described above) there will be no perceived noise impact resulting from train whistles associated with the Proposed Action. Existing and future conditions will remain the same with the project.

Access Roadways to Station

With respect to access roadways leading to the rail station, Chapter 4 of the FTA noise manual stipulates that detailed noise modeling is only required for access roadways when noise sensitive receptors along the access roadway fall within 100 feet (unobstructed) or 50 feet (obstructed) of the access roadway, and only when the access roadway carries 1,000 vehicles per peak hour and 12 buses per peak hour. Receptors along Meadow Street are approximately 100 feet (unobstructed) from the access roadway but existing and future peak hour volumes along Meadow Street (Appendix D) are less than 1,000 vehicles. It is therefore concluded that Meadow Street, as an access roadway to the station, will have no impact with respect to noise as it relates to the construction and operation of the Proposed Action.

Increased noise levels associated with the Proposed Action will be noticeable only during construction activities. These impacts are addressed in Section 3.20 entitled *Construction Impacts*.

Proposed Mitigation

The Proposed Action will not result in adverse noise impacts. Therefore, noise mitigation is not required or proposed.

3.6. Neighborhoods/Housing

The following discussion of neighborhoods and housing includes consideration of local socio-economic conditions, existing neighborhoods, and residential character. Local socio-economic conditions include major employers, economic trends, employment levels, income, and poverty levels. Comparative information on neighborhoods, housing, and local socio-economic conditions was obtained from the U.S. Census 2000, Connecticut Economic Resources Center (CERC), and field observation.

Existing Setting

Local Socio-Economic Conditions

Socioeconomic conditions considered for this EIE include local employment, major employment sectors, median household income, real estate sales and new residential units, and labor force. Data regarding these economic indicators are provided in the following tables.

Table 9: 2006 Economic Profile for Branford, CT

Housing Data	Branford
Median Household Income	$65,385.00
New Housing Units	80
Housing Sales Units	207
Median Residential Sales Price	$346,000.00
Employment By Sector	
Agriculture	0.6%
Construction/Mining	7.7%
Manufacturing	15.6%
Transportation and Utilities	3%
Trade	28.4%
Finance, Insurance, Real Estate	4.1%
Services	37.6%
Government	2.9%

Source: CERC Town Profile 2007

Table 10: Comparison of Census 2000 Employment and Income Data

	Study Area*	Branford	New Haven County	State of CT
Income/Poverty				
Median Household Income	$42,932	$58,009	$48,438	$53,935
Percent Below Poverty	3.2%	4.1%	9.2%	7.6%
Employment Status				
Population	2,729	28,638	824,008	3,405,565
Of Employment Age (16+)	2,216	23,415	643,641	2,652,316
Employed	1,528	15,820	396,326	1,664,440
Percent Unemployed (2005)	1.5%	4%	5.3%	4.9%

Source: CERC, 2007; Census 2000.
* Study Area corresponds to Census Tract 1841, Block Groups 2, 3 and 4

The data indicates that the economy of Branford is growing steadily with comparatively low unemployment, rising median household incomes, and ongoing new housing construction. The study area data suggest this is a stable, moderate income neighborhood with low unemployment, a comparatively low poverty rate, and household income lower than that in Branford as a whole, as well as that in New Haven County and the State of Connecticut. Major sources of employment in Branford include services (hair salons, accountants, dry cleaners), trades (electricians, plumbers, etcetera) and manufacturing. Census data on commuting patterns in Branford reflect that 65 percent of workers from Branford travel outside the town for work, with most workers heading to New Haven for jobs.

Neighborhoods:

Neighborhoods can be defined by formal designation, or presence of an organized neighborhood organization. They can also be identified by residents' expressed sense of community cohesion, their sense of unification, "belonging", or closeness to a neighborhood or community. The Town of Branford does not define neighborhoods for any formal planning or political sub-area purposes. In addition, there are no neighborhood organizations which represent the study area. However, the Town Planner reports (personal communication, October 11, 2007) that the neighborhood surrounding the train station is one of Branford's oldest and forms a cohesive cluster of residences within walking distance of the downtown.

Housing

The following tables provide indictors of the character of housing that comprises the neighborhood surrounding the Proposed Action site.

Table 11: Comparison of Census 2000 Household/Demographic Data

	Study Area*	Branford	New Haven County	State of CT
Household Characteristics				
Households	1,294	12,558	319,309	1,302,227
Housing Units	1,367	13,342	340,372	1,385,975
Percent Vacant Units	5.2%	6%	6.4%	6.1%
Percent Owner Occupied	42%	64.5%	59%	62.8%
Percent Renter Occupied	52.8%	29.6%	34.6%	31.2%
Population	2,729	28,638	824,008	3,405,565
Average Household Size	2.2	2.3	2.5	2.5
Males	45%	47%	48%	48%
Females	55%	53%	52%	52%
Median Age	38.4	41.4	37	37.4
Percent Elderly (65+ Years)	16.1%	16.8%	14.5%	13.8%
Percent Minority	6.7%	6.1%	20.7%	18.4%

Source: U.S. Census 2000.
* Study Area corresponds to Census Tract 1841, Block Groups 2, 3 and 4

The data suggest this is a stable neighborhood with a comparatively high percentage of rental units and low vacancy rates for residential units. The average household size in the study area is comparable to that in Branford as a whole and at 2.2 persons per household along with a median age of about 38 and low unemployment rate suggests that these are predominantly working individuals or couples, few with children and/or retirees.

Direct and Indirect Impacts

Local Socio-Economic Conditions

Impacts to local socio-economic conditions were assessed in terms of changes in employment and demand for local goods and services. The No-Action Alternative will constitute continuance of existing conditions and, as such, will have no direct or indirect impacts to local socio-economic conditions.

The Proposed Action will not displace any businesses or jobs but will have the beneficial effect of increasing opportunities to use the train to get to work with additional parking for commuters. Because the train station is within walking distance of the downtown as well as a small secondary neighborhood commercial center, access to local goods and services in this area of Branford is convenient. The Proposed Action may indirectly increase demand for local services and goods as commuters stop en route to work to take care of household tasks such as dry cleaning or to purchase convenience foods or other items. Consequently, the Proposed Action is expected to have an indirect beneficial effect on socio-economic conditions in Branford.

Neighborhoods

Impacts to neighborhoods were assessed in terms of disruptions to convenient access within the neighborhood (for vehicles as well as pedestrians or bicyclists), introduction of physical barriers to resident interaction within a neighborhood, loss of community institutions, and loss of structures important to the cohesive architectural or historical fabric of the neighborhood. The No-Action Alternative will constitute continuance of existing conditions and, as such, will have no direct or indirect impacts on neighborhoods.

No new roads will be constructed for the Proposed Action, yet one new access point will be created on Kirkham Street. This is not, however, anticipated to significantly affect access patterns within the neighborhood. The traffic analysis conducted for this EIE concluded that there will be no adverse effect from traffic generated by the Proposed Action. In addition, no new physical barriers to access within the neighborhood will be created. Also, since the Proposed Action will be constructed on vacant, unoccupied land, no community institutions or important structures will be displaced. Consequently, the Proposed Action will have no adverse effect to any neighborhoods.

Housing

The No-Action Alternative will constitute continuance of existing conditions and, as such, will have no direct or indirect impacts to neighborhoods.

The Proposed Action will cause the loss of one vacant housing unit on the parcel slated to be developed as a kiss-and-ride drop off area. This will have no substantive direct or indirect effect on the overall mix or availability of existing housing in the surrounding neighborhoods.

Consequently, the Proposed Action will have no adverse direct or indirect impact on housing in the study area.

Mitigation

The Proposed Action will not result in any direct or indirect impacts to neighborhoods, housing, or existing socio-economic conditions. Therefore, no mitigation is required or proposed.

3.7. Water Quality

Existing Setting

Surface Water

The Proposed Action site is located approximately 1,000 feet northwest of the Branford River, a tidal river that flows into the Branford Harbor about one mile south of the site. There is an unnamed tidal creek with one fork along the southern edge of the proposed 316-space parking lot site and another fork along its eastern edge. The fork along the eastern edge is hydraulically connected by culvert to a ponded area north of the railroad tracks. At Maple Street, the tidal creek is piped underground to its junction with the Branford River southeast of the site. There are no other surface water resources in the project study area.

There are no public surface or groundwater drinking water supplies within one mile of the Proposed Action site and there are no known domestic wells within 0.5 mile of the site. Branford's drinking water supply comes from the South Central Connecticut Regional Water Authority system.

According to the State of Connecticut Water Quality Standards (CTDEP), December 17, 2002), the Branford River has a water quality designation of SB, indicating a coastal water ("S") with Class B quality (CTDEP). Designated uses of a Class SB surface water resource include marine fish, shellfish and wildlife habitat, shellfish harvesting for transfer to approved areas for purification prior to human consumption, recreation, industrial and other legitimate uses including navigation.

The surface water quality of the tidal creek is undesignated and therefore presumed to be Class SA, the default classification assigned by the CTDEP when water quality monitoring data is unavailable for a tidal resource. According to the CTDEP standards, designated uses of a Class SA surface water resource include marine fish, shellfish and wildlife habitat, shellfish harvesting for direct to human consumption, recreation, and all other legitimate uses including navigation. Based on field observations, however, the water quality in the tidal creek appears to be degraded by possible contaminant inputs and insufficient flushing, and therefore is not likely to meet some of the Class SA designated uses specified by the CTDEP standards.

All of the developed parcels around the Proposed Action site are sewered according to the *Sewered Areas of Branford* map dated July 24, 2006.

Groundwater

Groundwater in the project vicinity is classified by CTDEP as GB (GIS *Ground Water Classifications* Data Layer, updated 2006). Groundwater with a GB classification is typically located within a historically urbanized area or an area of intense industrial activity and where public water supply service is available. Such groundwater may not be suitable for human consumption without treatment, due to waste discharges, spills or leaks of chemicals or land use impacts. Designated uses of Class GB groundwater resources include private and potential public or private drinking water supplies (with proper treatment), baseflow for hydraulically connected surface water bodies, and industrial process water and cooling waters. The groundwater in the vicinity of the Proposed Action site is saltwater.

Monitoring wells were installed on the Proposed Action site as part of a groundwater analysis program that was conducted during a site investigation by Storch Associates in 1993. Groundwater in the area was found to be approximately five to six feet below the surface and tidally influenced. The investigation determined that the groundwater contains oil, grease, cyanide, and various metals including antimony, chromium, iron, lead, and zinc.

Direct and Indirect Impacts

The No-Action Alternative would result in no direct or indirect impacts to surface or groundwater resources.

The Proposed Action's potential impacts on water quality associated with surface water, stormwater, and groundwater are described below.

Surface Water and Stormwater

The Proposed Action will involve the creation of approximately 2.88 acres (125,450 SF) of paved surface associated with the new access drive, kiss-and-ride drop off area and 316-space parking lot. The roadway and parking surfaces are accumulation areas for contaminants associated with motor vehicle operations such as fuel and oil leaks, brake and tire dust, and other potentially toxic materials. During storm events, these contaminants can be conveyed via sheet flow or drainage systems to downstream waters. Asphalt surfaces convey runoff faster than soils and vegetation, thereby potentially resulting in faster-moving, more erosive velocities of stormwater flowing from the site. Therefore, whenever a vegetated site is converted to a paved surface, adjacent surface water resources are at risk of potential degradation by polluted stormwater. Additionally, because the project area is adjacent to a tidal creek, freshwater inputs from paved surfaces and thermal pollution are also concerns.

To prevent adverse effects associated with increased paved surfaces, the Proposed Action will incorporate a comprehensive stormwater handling and drainage design. Permanent stormwater treatments will include a combination of primary and secondary stormwater water quality renovation measures. A water quality basin designed to remove sediments and retain the first

one (1) inch of stormwater runoff will be incorporated in the project design. The use of permeable asphalt surfaces may also be considered to encourage infiltration of stormwater. This may be possible for the kiss-and-ride drop off area and the overflow parking lot located north of the tracks. The use of permeable pavement for the 316-space surface parking lot is not an option due to potential subsurface contamination issues as described in Section 3.14 of this EIE. The design and implementation of primary and secondary stormwater renovation measures will be fully coordinated with the CTDEP and will depend on the ability of the measures to be physically implemented on the site given the presence of tidal creeks, underlying contamination, and the fact that a large portion of the site is located within the 100-year coastal flood hazard area. The treatment of stormwater runoff is of particular concern for the CTDEP considering that a portion of the Proposed Action site is within 500 feet of a vegetated tidal wetland.

During construction, there is an increased risk of water quality degradation from soil erosion, sediments in runoff, turbidity, and fuel or oil spills associated with excavation, grading, and construction equipment. Clearing of vegetation, soil excavation, and grading, if not properly managed, can trigger soil erosion and sedimentation of downstream waters. Mitigation (erosion and sedimentation control) measures will therefore be implemented during the construction period. Refer to Section 3.20 Construction Impacts for additional information pertaining to erosion and sedimentation control.

Mitigation measures are described in more detail below. With the implementation of the proposed mitigation, no adverse effects on water quality from the Proposed Action are expected.

Groundwater

Although there are no aquifer protection areas or groundwater supply wells in close proximity to the Proposed Action site, adverse impacts on groundwater can occur when contaminants, either on the surface or within the soil, infiltrate the groundwater table. This is of particular concern for the planned 316-space surface parking lot because the site has been found to contain low levels of subsurface contamination (refer to Section 3.14 of this EIE for more details). To minimize such impacts, the site will be paved and the proposed stormwater management system will collect potentially contaminated runoff from the new facility and pre-treat it prior to conveyance off-site. Additionally, the handling and storage of hazardous materials on site will be properly planned, controlled and regulated, such that there will be minimal risk of spills and/or other contact of such materials with groundwater. As a result of the measures and precautions incorporated into the design of the Proposed Action, no adverse effects on groundwater are anticipated.

Proposed Mitigation

To mitigate potential water quality degradation from erosion and sedimentation during the construction period, a stormwater pollution control plan will be developed and implemented in accordance with the *2002 Connecticut Guidelines for Erosion and Sedimentation Control* (CTDEP, 2002). The measures taken would prevent and minimize sedimentation, siltation, and/or pollution of the tidal creek and the Branford River. Primary and secondary stormwater

management measures will be fully coordinated with the CTDEP and will be appropriately designed in conformance with the *Connecticut Stormwater Quality Manual* (CTDEP, 2004). This will ensure that stormwater runoff is appropriately retained and treated prior to discharge from the project area.

The Proposed Action will disturb more than one acre of land, triggering the need for a Stormwater General Permit from CTDEP. Since disturbance is anticipated to be less than five acres, a formal Stormwater Pollution Prevention Plan (SWPPP) will not be required by the permit.

3.8. Hydrology And Floodplains

Existing Setting

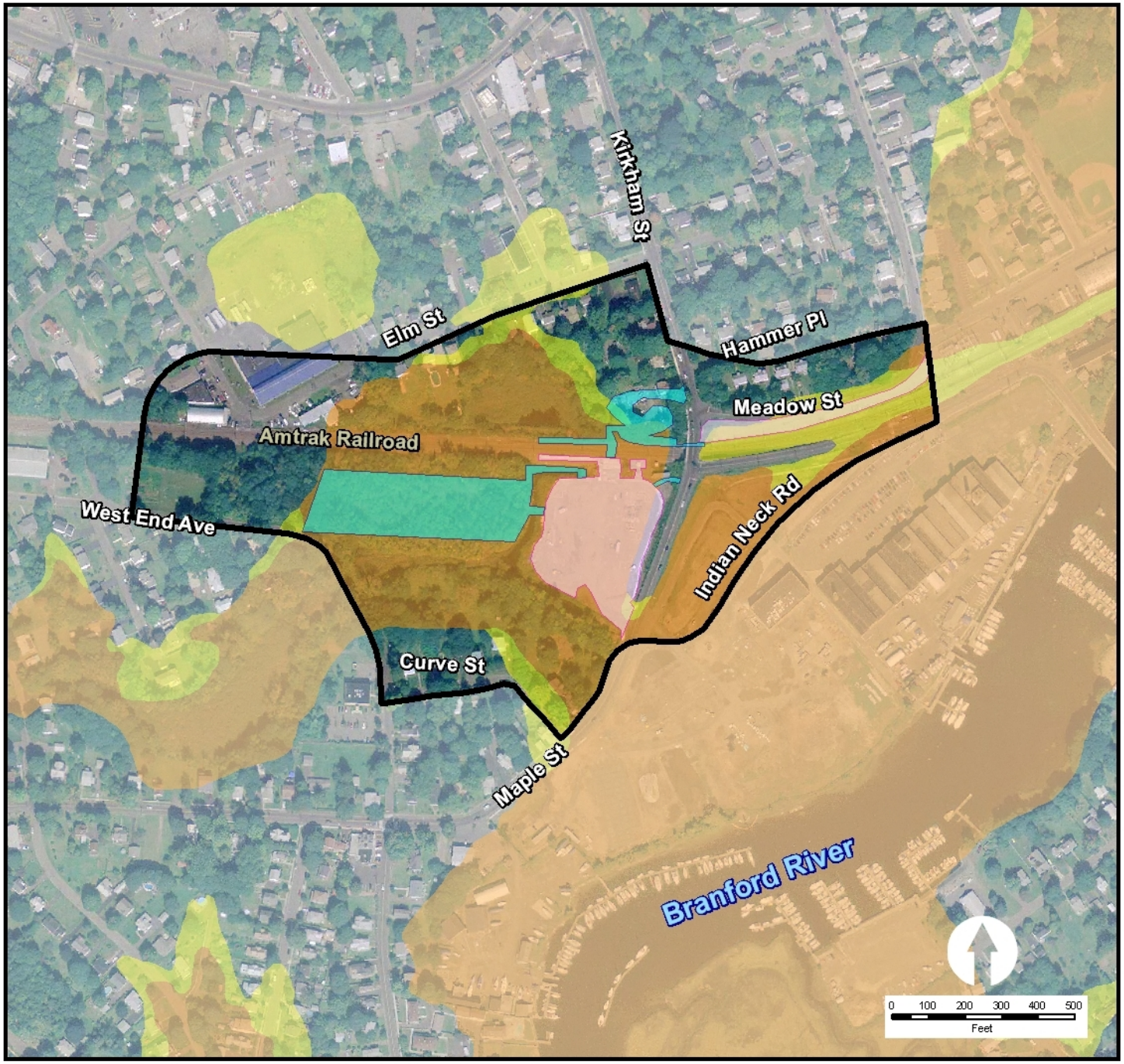
Floodplains

Based on the Flood Insurance Rate Map (FIRM) for the Town of Branford, Connecticut, New Haven County (Federal Emergency Management Administration [FEMA], June 16, 1992); the entire Proposed Action site resides in a 100-year floodplain (refer to Figure 4). The floodplain is associated with high waters of the unnamed tidal creek that abuts the site, which is connected to, and therefore influenced by, the Branford River floodplain.

The FIRM indicates that the elevation of the 100-year floodplain in the area of the site is 11 feet. Because the site is in the Coastal Zone, the 100-year floodplain is recognized by the CTDEP Coastal Area Management Program as a coastal flood hazard zone. There is no designated floodway associated with the creek.

Stream Channel Encroachment Lines

There are no Stream Channel Encroachment Lines (SCELs) in the vicinity of the Proposed Action site.



Study Area
New Construction
Existing Elements
100 Year Flood Zone
500 Year Flood Zone

Figure 4
Floodplains

Shoreline East Expansion
Branford, CT

April 2008 - Fitzgerald & Halliday, Inc. - Project # 463 - original in color

Direct and Indirect Impacts

The No-Action Alternative would involve no construction and therefore no direct or indirect impacts on floodways or 100-year floodplain resources.

The proposed new parking lot would be located entirely in the 100-year floodplain and coastal flood hazard area. Construction of the parking lot would require some filling and grading of the undeveloped site so that its finished elevation gradually slopes from the northwest (proposed elevation 14 feet above mean sea level [aMSL] to the southeast [proposed elevation 10 feet aMSL]). The elevation of the southeastern portion of the new parking lot (10 feet aMSL) will then match the elevation of the existing 201-space parking lot. Approximately one half of the new parking lot (the eastern half) would still be below floodplain elevation (11 feet aMSL), similar to the existing parking lot. Signs would be posted at the new parking lot, similar to those at the existing parking lot, warning that the area is subject to flooding.

To the north of the rail line, high level rail platform piers are being designed to avoid wetland and floodplain impacts by placement within the existing ballast slope. The proposed kiss-and-ride drop off area is located partially within the 100-year floodplain and will require the placement of fill within the floodplain in order to achieve the design elevation.

Overall, the project will cause a small loss of flood storage capacity (volume) associated with the placement of fill to construct the new parking lot and kiss-and-ride drop off area. Due to the immense size of the floodplain, which connects with the Branford River coastal floodplain, this loss would be negligible and would not cause a change in flooding patterns or severity elsewhere.

The construction of the parking lot and kiss-and-ride drop off area (fill in a floodplain) would be considered an "activity" per CGS Section 25-68b-1 (c) of Connecticut's Flood Management Statutes. CTDOT will therefore need to certify that the activity is consistent with the Statute's applicable standards and criteria. Applicable standards for fill in a floodplain are outlined in CGS Section 25-68h-2(c). The project appears consistent with these standards because it is not anticipated to adversely affect the hydraulic characteristics of the floodplain, nor concentrate flows in such a way as to increase erosion, nor increase the elevation of the base flood.

The Proposed Action is subject to Executive Order 11988, as amended, which requires all federal agencies to avoid construction within the 100-year floodplain unless no other practical alternative exists. Since the entire project area, including the existing train station parking lot, resides in the floodplain, there are no practical alternatives to construction in the floodplain for these transportation improvements. CTDOT will coordinate with federal and state regulatory agencies and obtain the required permits.

Proposed Mitigation

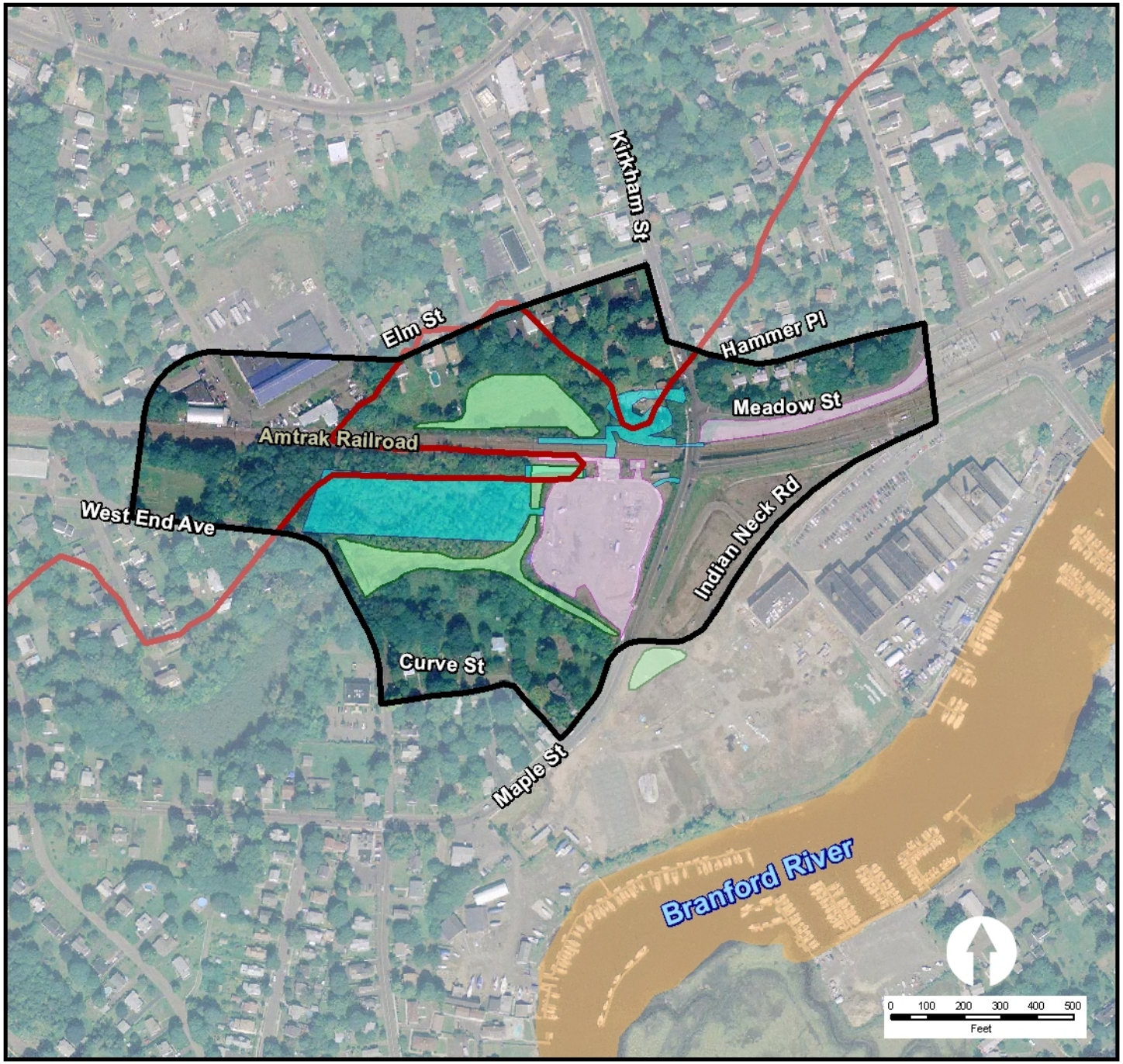
During project design and permitting, CTDOT will coordinate with the CTDEP to ensure regulatory compliance with Flood Management Statutes. The Proposed Action will require Flood Management Certification from the CTDEP. These regulatory programs require proof that a project will not increase flooding hazards or proof that flood protection mitigation will be implemented if adverse effects are anticipated. Given the nature of the Proposed Action and its anticipated negligible impact to floodplains, mitigation is more than likely not warranted.

Mitigation for increased stormwater runoff, as previously described, will be provided by the measures taken to mitigate potential water quality impacts. Primary and secondary stormwater management measures will be fully coordinated with the CTDEP and will be appropriately designed in conformance with the *Connecticut Stormwater Quality Manual* (CTDEP, 2004). Construction and post-construction runoff from the site will be collected and retained in the proposed stormwater features around the proposed parking lot so that runoff volumes do not exceed pre-construction conditions.

3.9. Wetlands

Existing Setting

A tidal survey was completed by CTDOT in January 2008 which mapped the elevation of the high tide line in the project area. The high tide line is depicted on progress design drawings contained in Appendix A. Also, tidal wetlands areas are identified in green on Figure 5. The tidal wetlands coincide with an unnamed tidal creek which is a tributary to the Branford River. The creek is piped underground from Maple Street to its junction with the river, a distance of approximately 600 feet. West of Maple Street, in the vicinity of the Proposed Action, the creek is above-ground and flows in surface channels.



Study Area
New Construction
Existing Elements
Surveyed Wetlands
Surface Water Quality SB
Coastal Boundary

Figure 5
Wetlands and Water Quality

Shoreline East Expansion
Branford, CT

April 2008 - Fitzgerald & Halliday, Inc. - Project # 463 - original in color

The tidal creek has two forks. One fork (the south fork) runs along the southern edge of the proposed new parking lot site. The other fork (the north fork) runs north-south along the eastern edge of the new parking lot site, between the existing and proposed parking lots. There is a 12-inch reinforced concrete pipe (RCP) culvert on this segment, over which an earthen path connects the existing 201-space parking lot to the proposed new parking lot. Based on a review of aerial photos, placement of the culvert occurred prior to 1970, and was not an action undertaken by CTDOT. Additionally, CTDOT did not own the land at the time of culvert placement. The north fork of the tidal creek extends farther north through a second culvert under the railroad tracks, terminating at a ponded tidal wetland on the north side of the tracks. The two forks of the tidal creek meet at the southwest corner of the existing train station parking lot, forming one channel from there to Maple Street.

The tidal creek (including both forks) has a narrow fringe of common reed (*Phragmites australis*) along its banks, abutted by upland vegetation. No other tidal wetland plant species were observed along the creek. The ponded tidal wetland north of the tracks extends from the tracks to the back yards of the houses on Elm Street. This wetland has a very broad swath of *Phragmites* that reaches almost all the way across the wetland. The wetland boundary lies at the toe of the railroad embankment (ballast slope), which drops off steeply in this vicinity.

While *Phragmites* is a wetland indicator plant, it is also an indicator of disturbance, such as from excavation, filling, sedimentation, and/or restriction of saltwater intrusion. During site observations on an outgoing tide, the water in the wetlands was ponded and still, and milky-opaque in color, suggesting that the wetlands are not fully inundated and flushed by saltwater during the tidal cycle and that water quality is degraded as a result. It was also noted during site observations that the existing 12-inch RCP along the north fork of the tidal creek is undersized and partially obstructed by silt and other debris, somewhat restricting tidal exchange.

These wetlands carry out a few functions but their value is very minor compared to undisturbed tidal wetlands. They have a very limited capacity to absorb flood waters because they are small, have constricted channels, and have bank elevations positioned well below the floodplain elevation. They offer no recreational opportunities and have no ecological diversity or uniqueness. These wetlands offer no fish habitat and only poor wildlife habitat (see Section 3.10 - Flora and Fauna/Habitats). These wetlands likely receive some runoff from adjacent streets and the existing train station parking lot and thus carry out a small sediment/toxicant retention function. Sediment/toxicant retention is therefore the primary function of these wetlands.

Direct and Indirect Impacts

The No-Action Alternative would involve no construction and therefore would cause no direct or indirect impacts to wetlands.

The Proposed Action would require a crossing of the north fork of the tidal wetland creek in the vicinity of the existing culvert. As previously stated, the existing 12-inch RCP culvert is undersized and partially clogged with sediment and debris, causing a constriction in the tidal creek. Work below the high tide line will be confined to the location where the existing culvert

will be replaced with a new open bottom span or arch culvert. At this location a total of approximately 0.02 acres (720 SF) below the high tide line will be impacted. The new open bottom span or arch culvert, however, will re-establish unrestricted tidal flushing to upstream portions of the tidal creek. The crossing would provide vehicular access to the new parking lot from the existing 201-space lot and would be the only access point. The proposed parking lot itself would be located totally on uplands. The stormwater management system will be fully coordinated with the CTDEP and will incorporate overland stormwater runoff features and a water quality basin also located on uplands (Refer to Section 3.7). Grading and revegetation of the southern and eastern borders of the parking lot will stabilize any soils disturbed during construction and provide a vegetated filter strip for the limited amount of overland runoff that will flow towards the branches of the tidal creek.

Indirect impacts could include temporary or long-term (incremental) sedimentation and other degradation of adjacent wetlands via polluted stormwater originating from the site. For these potential impacts, mitigation will be provided.

Proposed Mitigation

A total of approximately 0.02 acres (720 SF) below the high tide line will be impacted when the existing undersized and partially clogged 12-inch RCP is replaced with a new open bottom span or arch culvert. The new open bottom span or arch culvert will restore tidal flushing to the tidal wetland areas located to the north, potentially increasing tidal wetland limits in this area. The restoration of tidal flushing coupled with the removal of invasive species (*Phragmites*) from upstream degraded tidal wetlands is considered an appropriate mitigation option for the Proposed Action. Work below the high tide line and mitigation (restoration) however, will be fully coordinated with the CTDEP and ACOE to ensure that proper mitigation is implemented for the Proposed Action.

To minimize the risk of temporary or long-term pollution/sedimentation effects on the tidal wetlands, a stormwater pollution control plan will be designed and implemented in accordance with the *2002 Connecticut Guidelines for Erosion and Sedimentation Control* (CTDEP, 2002). The adopted measures will prevent and minimize sedimentation, siltation, and/or pollution of watercourses and wetlands. Additionally, post-construction runoff will be appropriately treated per the *Connecticut Stormwater Quality Manual* (CTDEP, 2004). More details are provided in Section 3.7 Water Quality – Mitigation.

3.10. Flora/Fauna/Habitats/Threatened And Endangered Species

Existing Setting

The ecological and habitat conditions of the Proposed Action site were investigated through a review of aerial photographs and a site walkover. The site walkover was conducted on October 24, 2007, after the growing season but while plants still had most of their foliage. Information about potential threatened and endangered species was obtained through coordination with the CTDEP and the U.S. Fish and Wildlife Service (USFWS).

Flora, Fauna, and Habitats

The overall setting of the Proposed Action site is suburban. There are houses and manicured lawns within 500 feet of the site to the north (Elm Street), to the south (Curve Street) and to the west (West End Avenue). To the east, beyond the existing train station parking lot and Maple Street, is a larger-scale mixed use development, with commercial and condominium buildings adjacent to the heavily modified banks (marinas) of the Branford River. The proposed new parking lot will occupy a 5.38-acre vacant and undeveloped parcel to the south of the railroad corridor. There are several areas of fill and debris on the parcel. The unnamed tidal creek that borders the parcel on the south and east, has been channelized, piped, and is contained within the mosaic of development that comprises the study area and its surroundings. Given this setting, there are no blocks of undisturbed native habitat on the site or within the general vicinity of the Proposed Action.

Habitat types are generally characterized by plant communities. There are two plant communities in the study area: "old field" and tidal wetlands. The proposed parking lot site has characteristics of old field vegetation, where young trees and shrubs begin to grow into an area that was cleared in the recent past. The tidal creek that abuts portions of the site has a tidal wetland plant community. The flora and fauna of these two habitat types are described below.

The proposed parking lot site is lightly wooded with young tree saplings of *Populus* species (cottonwood, quaking aspen), the invasive Norway maple (*Acer platanoides*), and a sprinkling of red maples (*Acer rubrum*). Shrubs include the invasive species autumn olive (*Elaeagnus umbellata*) and multiflora rose (*Rosa multiflora*), and the native staghorn sumac (*Rhus typhina*). The ground layer is relatively sparse, with a few grasses and dominant masses of the tall shrub-like invasive perennial, Japanese knotweed (*Polygonum cuspidatum*). Two vine species twine over the trees and shrubs, including greenbrier (*Smilax* species) and the invasive Oriental bittersweet (*Celastrus orbiculatus*).

The young age of the plants and the dominance of invasive species give the site the appearance of a property that was cleared within (approximately) the last 10 years and then left to re-vegetate on its own. Within the site are remnants of building materials (bricks and concrete), home heating oil tanks, a junked car, other debris and piles of fill of unknown origin. The dominance of non-native invasive species gives the site a very low habitat value for all types of wildlife. Invasive species are renowned for their deficiency of food sources and low nutritional value for wildlife. The site's location within a historically developed area and its isolation from good quality habitat further limit its habitat value and constrain its potential to grow into something more valuable (if not developed).

During the October 24, 2007 site visit, one bird, a mockingbird, was seen flying among the shrubs on the proposed parking lot site. The mockingbird (*Mimus polyglottos*) is a common bird in urban and suburban habitats and a year-round resident in Connecticut. No other wildlife or sign of wildlife use were observed. During the spring and summer growing season, other bird species common to suburbia may occur on the site, such as the gray catbird (*Dumetella*

carolinensis) and robin (*Turdus migratorius*). The lack of ground cover, heavy brush, decaying logs, and other habitat features limits its potential use by mammals, amphibians, and invertebrates.

The tidal wetland channels and the tidal wetland north of the railroad tracks have solid stands of common reed (*Phragmites australis*) along their banks. The dominance of *Phragmites* in tidal wetlands generally indicates that the wetlands have been disturbed in some way, for instance from excavation, filling, sedimentation, and/or restriction of saltwater intrusion. During site observations on an outgoing tide, the water in the wetlands was ponded and still, and was milky-opaque in color, suggesting that the wetlands are not fully inundated and flushed by saltwater during the tidal cycle and that water quality is degraded. Under such conditions, a more diverse and valuable tidal wetland vegetative community cannot survive and *Phragmites* takes hold. *Phragmites* provides cover for a few species of songbirds, especially red-winged blackbirds (*Agelaius phoeniceus*), but is not a good food source and provides negligible other habitat value for wildlife in this setting. No wildlife or wildlife signs were observed in the water or in the *Phragmites* fringe of the tidal wetlands during site visits. Given their degraded condition, lack of hydrologic or terrestrial connection to other valuable habitats, and isolation by development, these wetlands are evaluated to have little wildlife habitat value and no fish habitat value.

Threatened and Endangered Species

Coordination with the CTDEP Natural Diversity Data Base (NDDB) regarding threatened and endangered species yielded a reply from the NDDB dated October 25, 2007 (see Appendix B.) Based on current NDDB information, no federal or state endangered, threatened or special concern species are known to occur on the Proposed Action site.

Correspondence from the USFWS mirrored the NDDB results. There are no federally listed or proposed-listed threatened or endangered species or critical habitats known to occur in the project area (see correspondence dated November 2, 2007 in Appendix B).

Direct and Indirect Impacts

The No-Action Alternative would result in no construction and thus no direct or indirect impacts on flora, fauna, habitats, or threatened and endangered species.

The Proposed Action would convert 5.38 acres (234,352 SF) of a vacant and disturbed vegetated site dominated by invasive shrub species to a parking lot and 0.65 acres (28,314 SF) of a residential site north of the tracks into a kiss-and-ride drop off area. A few individual birds of common urban/suburban species would no longer be able to use the few foraging and nesting opportunities on the project site. They would be forced to seek their needs in other areas. Given the very low habitat value of the existing site, the project would not cause a loss in biodiversity and would not detectably diminish the greater area's overall carrying capacity for wildlife. The Proposed Action would therefore have negligible adverse direct or indirect effects on flora, fauna, and habitats. There would be no direct or indirect impacts on threatened or endangered species.

Proposed Mitigation

Since no significant adverse impacts on habitats or threatened or endangered species would result from the Proposed Action, no mitigation to address habitat loss is proposed. The landscaping plan for the proposed parking lot will provide a fringe of native shrubs to the south, west, and east which may provide some cover and foraging opportunities for bird species, while at the same time precluding the establishment of non-native invasive species.

3.11. Soils And Geology

Existing Setting

Soils on the Proposed Action site have been mapped as "Urban Complex" by the USDA Soil Survey. These soils are typically found in areas that have been disturbed by excavation, filling, and various land use activities. This is consistent with field observations, a review of historic aerial photographs, and a previous environmental site investigation, which found the proposed parking lot site to be the site of a former wetland that has gradually been filled from the early 1950s through 1985. Much of the fill material at the proposed parking lot site is foundry sand that was generated from the nearby Malleable Iron Fittings (MIF) factory plant. Overall, the soils in the parking lot area appear well-drained and lacking in well-developed topsoil.

According to the 1964 USGS Surficial Geologic Map of the Branford Quadrangle, Connecticut, the Proposed Action site is underlain by three (3) distinct surficial soil deposits. Deposits directly beneath the present railroad right-of-way corridor consist of artificial fill deposits. These deposits are described as accumulations of soil made by human activity and often include railroad and building construction fill, and possibly trash. Artificial fill is also mapped for the northern and eastern most sections of the new parking lot site. As previously mentioned, this fill is comprised primarily of foundry sand that was generated from the nearby MIF plant.

The western half of the new parking lot parcel is underlain by ice-contact stratified drift. These deposits consist of various amounts of sand, gravel, silt, and clay that are poorly sorted with abrupt changes in grain size evident. Ice-contact stratified drift is deposited by meltwater streams and ephemeral lakes adjacent to stagnated glacier ice. The central portion of the new parking lot parcel is mapped as swamp deposits. These deposits contain a mixture of decayed vegetation, sand, silt and clay in poorly drained soils.

There are no farmland soils of primary or statewide importance on or adjacent to the Proposed Action site nor are there any farming operations. In addition, there are no geological features of cultural, agricultural, or ecological significance.

Direct and Indirect Impacts

The No-Action Alternative would result in no construction and therefore no direct or indirect impacts on soils resources.

The project site contains no soils or geological features of cultural, agricultural, or ecological significance. The Proposed Action would therefore have no adverse impacts on soils-related resources.

Proposed Mitigation

Since no significant adverse impacts on soils or geology are anticipated, no mitigation is required or proposed.

3.12. Coastal Zone And Coastal Barriers

Existing Setting

The Proposed Action is located within the coastal zone boundary designated by the CTDEP Coastal Area Management Program. Coastal resources on the site include coastal flood hazard areas, tidal wetlands, and shorelands (CTDEP *Coastal Boundary* and *Coastal Area* Data Layers 2006). Adjacent areas include *developed shorefront* and *estuarine embayment* (Branford Harbor). The Branford River to the east is designated as restricted shellfishing grounds. The coastal boundary is depicted on Figure 5.

There are no coastal barriers or other protected areas designated by the Coastal Barrier Resources Act on or adjacent to the Proposed Action site. The nearest coastal barrier resource is Lindsey Cove on the north side of Branford Harbor, approximately one mile south of the site.

Direct and Indirect Impacts

The No-Action Alternative would involve no construction and no direct or indirect impacts on coastal resources.

The Proposed Action will affect coastal flood hazard areas and will involve work below the high tide line, as described in Sections 3.8 and 3.9 of this EIE respectively. Specifically, the Proposed Action would require a crossing of the north fork of the tidal creek in the vicinity of the existing and obstructed 12-inch RCP culvert. Work below the high tide line will impact approximately 0.02 acres (720 SF) and will be confined to this crossing location as the existing undersized and partially clogged culvert will be replaced with a new open bottom span or arch culvert. The new open bottom span or arch culvert will re-establish unrestricted tidal flushing to upstream portions of the tidal creek, potentially increasing tidal wetland limits in this area. The crossing is needed to provide vehicular access to the new parking lot from the existing 201-space lot and would be the only access point. The proposed parking lot itself would be located totally on uplands that are designated as a coastal flood hazard area. Construction of the parking lot will require the placement of fill within the coastal flood hazard area in order to match the elevation of the new parking lot with the elevation of the existing 201-space parking lot to the east.

The stormwater management system for the Proposed Action will incorporate overland stormwater runoff features and stormwater retention pockets that are also located on uplands designated as coastal floodplain. Primary and secondary stormwater management facilities for the Proposed Action will be fully coordinated with the CTDEP and will be appropriately designed in conformance with the *Connecticut Stormwater Quality Manual* (CTDEP, 2004). Construction and post-construction runoff from the site will be collected and retained in the proposed stormwater features around the proposed parking lot so that runoff volumes do not exceed pre-construction conditions.

The Proposed Action's location within the coastal zone boundary means that the project will need to be certified as consistent with Connecticut's Coastal Management Act (CCMA). This will occur during the review of CTDEP Office of Long Island Sound Programs (OLISP) permits for the project. Work below the high tide line will also require an ACOE Section 404 Permit. A preliminary evaluation of coastal consistency is provided below. The relevant *Use* category is *Transportation* and the relevant *Resource* category is *Shorelands*.

The Proposed Action is consistent with CTDEP's Coastal Zone Management (CZM) Act policies for a transportation use, by 1) locating transportation upgrades at an existing facility (the existing train station), and 2) being designed so as not to restrict tidal circulation. There are no opportunities for coastal access and recreation at the site – and thus no impairment thereof -- and there will be no visual effects on the shoreline.

The Proposed Action will be consistent with the policies for Shorelands in that the project design will seek to 1) maintain vegetative buffers around the parking lot to minimize sedimentation and erosion effects on coastal waters, 2) utilize best practices and controls for temporary and permanent drainage to prevent increased runoff rates, and 3) prevent erosion through a variety of means (minimize clearing, revegetation of disturbed areas, erosion control techniques, etc.), to be implemented before, during and after construction. Use of the site would not cause loss of public access to shorefront, impacts on important habitats or species, or alteration of cultural sites.

Proposed Mitigation

Measures to minimize coastal resource impacts to flood hazard areas and areas below the high tide line are discussed in Sections 3.8 and 3.9 respectively of this EIE. Due to the project's location in the Coastal Zone, a Coastal Zone Consistency Concurrence will be required from CTDEP as part of the project permitting requirements, per the Connecticut Coastal Management Act. This process will allow for further consideration and identification of optimal mitigation strategies for potential adverse effects in the coastal zone.

A Structures and Dredging Permit and Flood Management Certification will be sought from CTDEP, as well as a Section 404 Permit from ACOE.

3.13. Cultural Resources

Existing Setting

Potential historic, architectural, and archaeological resources located within the general vicinity of the Proposed Action site were identified through consultation with the Connecticut State Historic Preservation Office (SHPO) and review of the National Register of Historic Places (NRHP). SHPO consultation was conducted by CTDOT at the outset of the project. SHPO responded in letters dated March 14, 2006 and June 20, 2007 which both state, "the office expects that the proposed undertaking will have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places". These comments were provided in accordance with the review requirements of the National Historic Preservation Act and CEPA. Refer to the coordination letters included in Appendix B of this EIE.

Direct and Indirect Impacts

The No-Action Alternative will not result in any impacts to cultural, architectural or archaeological resources.

The Proposed Action was evaluated for potential adverse effects on historic, architectural or archaeological resources listed on or determined eligible for the NRHP. Coordination with the SHPO (Appendix B) has revealed that the Proposed Action will have **no effect** on cultural resources.

Proposed Mitigation

Since the Proposed Action will have no effect on cultural, architectural, or archaeological resources, mitigation is not required or proposed.

3.14. Solid Waste And Hazardous Materials

Existing Setting

The Proposed Action site consists of several parcels:

- A 5.38-acre undeveloped and overgrown privately-owned parcel to the south of the rail corridor and west of the existing railroad parking lot that is slated to be developed as a new 316-space parking lot,
- The linear railroad right-of-way owned by Amtrak that currently includes two active rail lines comprising the Northeast Corridor, and associated catenary infrastructure as well as a new south-side high-level rail platform,
- A privately-owned 0.65-acre parcel to the north of the rail corridor and west of Kirkham Street that includes an unoccupied two-story residential structure built in 1895. The parcel is slated to be developed as a new kiss-and-ride drop off area, and

- A 1.17 acre linear parcel owned by Amtrak located parallel to and north of the rail corridor and south of Meadow Street. The parcel once served as a parking area for the former Branford Railroad Station and is planned to be reinstated for use as an overflow parking lot for the new station as part of the Proposed Action.

In 1993, a study entitled, "Preliminary Environmental Investigation on Vacant Land for Bran Park Associates in Branford, Connecticut" was prepared for CTDOT by Storch Associates. At the time of the study, CTDOT was considering acquisition of the property from then owner Bran Park Associates for the purposes of constructing a surface parking lot to support the adjacent Branford SLE Railroad Station. The former Bran Park Associates parcel (which has since been sold to another private owner) is the same parcel that is planned for the 316-space surface parking lot under the Proposed Action.

The purpose of the 1993 investigation was to determine the extent, character, and depth of fill on-site, and to determine levels of soil and groundwater contamination if any. The investigation involved an extensive soil sampling program that included numerous soil borings and test pits as well as grab samples of surficial debris piles. Groundwater monitoring wells were installed and a seismic refraction survey was also conducted to determine the extent and distribution of fill materials.

The study concluded that the site can be considered to be an unauthorized waste landfill and a potential source of contamination. The site has been filled by apparent foundry sand and manufacturing wastes, which were identified within a few feet of the surface. Additional waste has been piled on top of the surface at various locations throughout the site. Hazardous materials identified on site include oil, grease, total petroleum hydrocarbons (TPHs), metals (copper, zinc and lead), semi-volatile organic compounds (SVOCs), chrysotile asbestos, and PCB 1254 among others. The study determined the immediate risk of exposure to subsurface contaminants on-site or contaminants released to the unnamed brook and tidal wetlands to be low. The risk of exposure to contaminants in the upper few feet of soil and exposure to hazardous substances and hazardous wastes on the surface was considered to be moderate to high at the time of the study. The study recommended that further site characterization take place and that the site possibly be capped with a provision to monitor groundwater quality over time.

In 2008, Tetra Tech Rizzo was contracted by CTDOT to further characterize the proposed surface parking lot site using analytical means similar to the 1993 investigation. The 2008 study found somewhat lower levels of contamination at the site from what was encountered during the 1993 Storch Associates investigation. These results were communicated to the CTDEP Remediation Division.

With respect to the privately owned residential parcel located north of the rail corridor that is to be developed as a kiss-and-ride drop off area; a Pre-Demolition Investigative Survey for Hazardous Building Materials (including lead, asbestos, and other identified hazardous and CT-regulated materials, wastes, and other items) was conducted by CTDOT for the existing two-story residential building. As a result of this survey, CTDOT has prepared specifications to address all demolition issues associated with this property. The linear Amtrak corridor and the

former railroad parking lot located north of the rail corridor and south of Meadow Street have not been investigated for the presence of hazardous materials. Thus, the presence of hazardous materials and contaminating conditions at these locations is unknown.

Direct and Indirect Impacts

The No-Action Alternative would be a continuance of existing conditions. As such, there will be no hazardous materials and/or solid waste generation and disposal issues associated with the subject parcels.

The 2008 Tetra Tech Rizzo investigation further characterized the vacant parcel proposed for the 316-space surface parking lot. The investigation found the site to have lower levels of contamination than what was encountered during the 1993 investigation by Storch Associates. Based on all of the analytical data, it was determined that no significant environmental hazards as defined by CGS 22a-6u, exist on the site.

As previously mentioned, the two-story residential structure located at 14 Kirkham Street was the subject of a Pre-Demolition Investigative Survey for Hazardous Building Materials that was conducted by CTDOT. That survey evaluated the structure for the presence of lead based paint, asbestos and other identified hazardous and CT-regulated materials, wastes, and other items (household hazardous wastes). Based on the survey, CTDOT prepared appropriate specifications to address all demolition issues associated with this property.

The other parcels that comprise the Proposed Action site (the linear Amtrak Northeast Corridor right-of-way, and the former rail parking lot to the north of the rail corridor and south of Meadow Street) have not been investigated to the same level of detail. However, no evidence exists in available GIS data or CTDEP files to suggest that contamination issues or hazardous conditions exist on these parcels

Proposed Mitigation

As there is no enforcement action or mandated remediation (such as a significant environmental hazard) for the site of the proposed 316-space surface parking lot, CTDOT is not required to prepare a Remedial Action Plan (RAP). However, plans and specifications will be generated by CTDOT to address the on-site contamination issues. These will include material handling and disposal requirements and health and safety measures to be undertaken during construction. As part of this, CTDOT will also be registering under the CTDEP "General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer)". Regarding health and safety measures, a Health and Safety Plan will be developed for the project in accordance with Occupational Safety and Health Administration (OSHA) guidelines, and will be communicated to construction workers to ensure their protection during construction.

Regarding demolition of the residential structure located at 14 Kirkham Street, CTDOT has prepared appropriate specifications to address all demolition issues associated with this property as have been identified in the aforementioned Pre-Demolition Survey.

3.15. Use/Creation Of Pesticides, Toxins Or Hazardous Materials

Existing Setting

Maintenance of the existing Amtrak railroad right-of-way may have involved the application of herbicides over the years to keep vegetative growth from intruding into the rail corridor. There are no other known use/creation of pesticides, toxins, or hazardous materials issues associated with the Proposed Action site other than what is described above in Section 3.14.

Direct and Indirect Impacts

The No-Action Alternative would be a continuance of existing conditions. As such, there will be no use/creation of pesticides, toxins, or other hazardous materials issues other than the possible application of herbicides for rail corridor maintenance as described above.

The Proposed Action involves the construction of a surface parking lot, high-level rail platform and pedestrian overpass, a kiss-and-ride drop off area, re-instatement of a former parking lot and the construction of various pedestrian connections including sidewalks, stairwells, and crosswalks. As such, the Proposed Action does not involve the use/creation of pesticides, toxins, or other hazardous materials other than the possible use of pesticides and/or herbicides to maintain and control vegetation in landscaped areas on an as needed basis.

Proposed Mitigation

Since no impacts will occur, mitigation is not required or proposed.

3.16. Aesthetic/Visual Effects

Existing Setting

The Proposed Action site lies against the Northeast Corridor railroad tracks, in an area with a mix of residential and commercial uses. To the north, west and south of the site are suburban areas with considerable tree cover. To the east, beyond the existing train station parking lot and Maple Street, is the more urban and larger-scale mixed-use development of the marina area, with commercial and condominium buildings, on a cleared and level swath along the Branford River. The site and the overall vicinity lie on very level ground. There are no topographic variations in any direction around the site, other than the Maple-Kirkham Street overpass of the railroad tracks.

The currently wooded site of the proposed parking lot is visible from the developed areas to the north and east. The most open view is from the north. Several houses on Elm Street (some with commercial uses) have exposure over the tidal marsh directly to the tracks and the proposed parking lot site. The nearest house to the tracks on Kirkham Street has some open lawn areas from which the site is visible. Some of the office and condominium buildings east of the site

would have views of the site, particularly the upper floors of multi-story buildings. Travelers in cars on the portion of Maple Street next to the existing parking lot would also have a view of the site, if they look west.

To the south and west, the site is buffered by relatively dense tree growth, so that it is not visible to the residences on Curve Street, Harbor Street, and West End Avenue during the growing season. After leaf-drop, the nearest residences may be able to glimpse the site through a light screen of tree trunks.

View to northwest from the existing train station platform, toward houses and offices on Elm Street

The proposed location for the new high level platform and pedestrian overpass is visible from the houses and commercial uses north of the track; these include the ring of buildings around the tidal marsh along Elm Street and the first few houses north of the tracks on Kirkham Street.

Direct and Indirect Impacts

Under the No-Action Alternative, there would be no direct or indirect impacts on visual quality or aesthetics.

<u>New Commuter Lot</u>

Construction of the new commuter parking lot will require the removal of trees and shrubs that currently provide a wooded setting on 5.38 acres of the Proposed Action site.

At the proposed parking lot site, the wooded vegetation grows right up to the edge of the railroad tracks on the north, to Harbor Street on the west, and to the tidal creek on the south. The paved portion of the parking lot will abut a dirt maintenance road that will parallel the railroad tracks

on the south. The removal of vegetation will result in visual impacts to residents living in homes along the south side of Elm Street (located to the north of the tracks). From the backyards of these homes, residents will have direct views of the new parking lot and its associated illumination elements. The tidal wetland that exists between these homes and the railroad tracks is in a depression and contains low-growing vegetation that is not tall enough to screen southerly views.

Although homes along Curve Street, West End Avenue, and Harbor Street are closer to the new parking lot than homes along Elm Street, the visual environment would not change significantly for the residents along these three streets, which are located to the south and west of the site. This is because a fairly wide buffer (at least 200 feet wide) of trees would remain between the new parking lot and the houses. At night, during the spring and summer, the buffer of trees will effectively block lighting from the new parking lot. After leaf drop in the fall and during winter, parking lot lights will be seen from these residences.

The view from the east already includes the existing parking lot and train station, with its neatly landscaped borders. The parking lot would become larger but the view would be very consistent with what is currently experienced, and is consistent with the large-scale urbanized mixed development.

New Platform Impacts

The new north-side high level rail platform would essentially be a mirror image of the existing south-side platform. It would be blocked from view to the south by the existing station and platform. It would be visible from the land uses on the north side of the tracks: namely four to five houses along Elm Street and Kirkham Street and a real estate office. Views to the south from these land uses will remain consistent, as the existing south-side platform and station can already be seen from this northerly vantage point. The only difference is that new railroad station elements will be seen, namely the elevator shafts and new pedestrian bridge, which will rise approximately 25 feet above the railroad tracks. The visual setting for these viewers also includes the existing Kirkham Street Bridge, which is a very plain concrete structure with rust stains on its sides. The bridge's height makes it quite visible to residences and other land uses in all directions that are not screened by trees or adjacent buildings.

Kiss-and-Ride Loop

The kiss-and-ride drop off area would be visible primarily from the adjacent residence on Kirkham Street. The stately beech trees on the northern edge of the proposed 0.65 acre acquired property would remain and would thus provide some visual screening from the house next door (that would remain). However the kiss-and-ride drop off area would be lower than the house and thus visually prominent. It would be of a different character than the existing residential yard and would therefore be a visual impact, particularly in winter when foliage is not present.

Proposed Mitigation

The primary mitigation measure available to offset visual impacts is landscaping. A landscaping plan will be developed to maximize visual screening of the facility, particularly from the nearby residences. Efforts will be made to retain as much of the existing tree buffer as practicable at the edges of the commuter lot. To minimize visual impacts from parking lot lighting, full cutoff parking lot lights will be installed. These lights are designed to shine down on the surface of the parking lot and not to cast light sideways or upwards. All lighting at the station will be "Dark Sky Compliant." Through these measures, visual and aesthetic impacts associated with the facility can in large part be successfully mitigated.

3.17. Energy Use And Conservation

Existing Setting

The Proposed Action site is comprised primarily of vacant undeveloped parcels with no associated energy use/consumption. The lone exception is the parcel to the north of the SLE rail line and west of Kirkham Street. This parcel houses a two-story single-family residence that is presently unoccupied and therefore has little associated energy demand.

The existing Branford Railroad Station, which consists of a south-side high-level rail platform and adjacent 201-space commuter parking lot and associated pedestrian connections, was completed and opened for service in August 2005. The partial station and associated parking has minimal energy demand, with energy use limited primarily to the electricity needed for station and parking lot illumination, and for the variable message signs and automated speaker system used to alert passengers of oncoming trains. The SLE rail corridor is electrified throughout the study area.

Direct and Indirect Impacts

The No-Action Alternative would not change background conditions in energy use within the study area or region as a whole.

The Proposed Action includes the construction of a new north-side high-level rail platform, a pedestrian overpass with elevator connecting the new north-side platform to the existing south-side platform, a new commuter parking lot to the south of the SLE rail line, new kiss-and-ride

drop off area to the north of the SLE rail line, and various pedestrian connections including walkways and stairwells. The Proposed Action also includes the re-use of a former commuter parking lot located north of the SLE rail line and east of Kirkham Street that once served the old Branford SLE Railroad Station.

Overall, the energy demand associated with the Proposed Action is minimal and is limited primarily to the electricity needed to illuminate the commuter parking areas, pedestrian connections, and to operate the elevator. The Proposed Action will ultimately lead to an increase in the number of trains utilizing the SLE rail corridor. The exact number of trains that will be added to the service is a planning decision that will be made by CTDOT in conjunction with Amtrak, who owns the rail corridor. Any increase in trains will mean a corresponding increase in the amount of energy required to operate the additional trains. The amount of energy required to operate these additional trains is not considered to be significant.

As far as energy availability, there is ample energy supply to meet the increased electrical demand associated with the Proposed Action.

From a regional perspective, it is anticipated that the Proposed Action will have a positive impact on the consumption of energy because it will improve access to and enhance the use of mass transportation. Thus, the project is expected to contribute to a reduction in the consumption of fossil fuels associated with vehicular traffic on the region's roadways, especially during peak commuting periods.

Proposed Mitigation

Since the Proposed Action will have a low energy demand, it is not anticipated to significantly change energy consumption. Also, the Proposed Action may actually contribute to a reduction in fossil fuel consumption by vehicles on a regional scale, therefore, no mitigation is proposed or required.

3.18. Public Utilities And Services

Existing Setting

The following is a brief description of the various utilities in the vicinity of the Proposed Action:

Potable Water

There are no public surface or groundwater drinking water supplies within one mile of the Proposed Action site and there are no known domestic wells within 0.5 mile of the site. Branford's drinking water supply comes from the South Central Connecticut Regional Water Authority system. A water main is located in the residential streets surrounding the Proposed Action site.

Sanitary Sewer

There is a 10-foot sanitary sewer easement containing an 12-inch sanitary sewer pipe that runs north-south through a portion of the Proposed Action site. The easement and pipe crosses the railroad tracks at the mid-point of the existing south-side high level rail platform and then continue south, essentially bisecting the existing 201-space parking lot. This pipe merges with a 21-inch RCP sanitary sewer pipe that runs east-west to the south of and parallel to a tidal creek. The tidal creek forms the southern boundary of the existing and proposed commuter rail parking lots.

Stormwater Management

Stormwater from the existing 201-space commuter rail parking lot is conveyed via sheet flow and pipes into the tidal creek located to the south. The runoff eventually is discharged into the Branford River to the east. All stormwater drainage infrastructure and renovation measures associated with the existing parking lot and south-side high level rail platform were constructed in 2005. There is also existing stormwater drainage in Maple Street, Kirkham Street and Indian Neck Avenue. Some of this drainage infrastructure was re-configured when Maple Street was recently realigned by the Town of Branford during the construction of Indian Neck Avenue.

Energy Supply and Other Utilities

Connecticut Light & Power (CL&P) provides electricity to the Proposed Action site. There are underground electrical conduits that feed power to the existing parking lot and platform lights. The rail corridor is electrified as evidenced by the catenary poles, wires, transformers, and associated infrastructure. There are railroad utility conduits and junction boxes all along the rail corridor within the right-of-way. There is also a fiber optic telephone conduit located along and parallel to the north side of the railroad tracks. Gas lines are located in adjacent streets including Maple Street, Kirkham Street, and Meadow Street.

Direct and Indirect Impacts

The No-Action Alternative would represent a continuance of existing conditions and therefore would have no impact on public utilities or services.

Potable Water

There will be no impacts to potable water from the Proposed Action.

Sanitary Sewer

There will be no impacts to sanitary sewer from the Proposed Action. The construction of the new north-side high level rail platform will be coordinated with the Town of Branford and will occur so as to avoid impacting the existing 12-inch sanitary sewer that bisects the rail line.

Stormwater Management

Similar to the existing 201-space parking lot, the new parking lot and kiss-and-ride drop off area will be designed with a stormwater drainage system complete with water quality renovation measures. After proper treatment, the stormwater runoff from the new parking lot will be discharged into the tidal creek and ultimately to the Branford River to the east. Treated runoff from the kiss-and ride drop off area will likely be discharged into the tidal wetland to the north of the railroad tracks, which drains into the tidal creek to the south and ultimately into the Branford River. Refer to Section 3.7 for additional details.

Energy Supply

The Proposed Action will require electricity, supplied by CL&P, to power the new parking lot lights, new elevators, and the north-side high level rail platform's variable message signs and automated speaker system used to alert passengers of oncoming trains. Additional trains as part of an expanded SLE commuter service will also require electricity. There will be no other energy supply required for the Proposed Action. The potential exists for temporary electrical service disruptions to nearby CL&P customers during the construction involved in making new electrical connections to the Proposed Action site. These impacts are described in Section 3.20 of this EIE entitled, Construction Period Impacts.

Proposed Mitigation

Utility construction and scheduling will be thoroughly coordinated with utility providers to minimize service disruptions to the greatest extent practicable. Such coordination will include planning to provide advanced notice of anticipated service outages to affected consumers. Additionally, all work within the railroad right-of-way will be thoroughly coordinated with Amtrak to minimize potential conflicts with railroad-related utilities.

3.19. Public Health And Safety

Existing Setting

The Proposed Action site is comprised of several parcels presently under different ownership and each with potential safety issues. The linear SLE right-of-way is an electrified railroad corridor that is owned by CTDOT. Chain link fencing has been erected along the south side of the SLE rail corridor in the vicinity of the new (2005) high-level platform and 201-space commuter parking lot to keep people (commuters) off of the railroad tracks and away from moving trains and electrical hazards. Chain link fencing is also located in other areas along the tracks where pedestrian access to the tracks is most likely given the terrain. There is presently no fencing along the north side of the SLE rail corridor primarily because an existing wetland occupies much of the area (especially to the northwest) that effectively keeps people from illegally accessing the railroad tracks. The Kirkham Street Bridge over the SLE rail corridor, which is located immediately east of the recently opened railroad station, includes a high clearance

protective fence. The fence deters people for throwing refuse onto the tracks and from accessing the tracks from the bridge.

The parcel north of the SLE rail corridor and west of Kirkham Street is privately owned and includes a two-story single-family residence that is presently unoccupied. Illegal access to the rail corridor and potential train and electrical hazards can be gained from the rear yard of the parcel. The condition/status of the residential structure is unknown. To the south of the tracks and west of the existing 201-space commuter lot is a large vacant undeveloped parcel that is privately owned. Access to the parcel can be obtained from the commuter parking lot or from Harbor Street on the west. A variety of fill materials exist on the parcel including old fuel tanks, assorted building refuse, and an abandoned junk automobile. The site has been characterized in a 1993 study by Storch Associates (refer to Section 3.14 of this EIE) as being an unauthorized landfill that contains hazardous foundry and manufacturing wastes. There is also no fencing between the vacant parcel and the SLE rail corridor on the north.

The vicinity of the Proposed Action is routinely patrolled by the Branford Police Department, which is located at 33 Laurel Street, approximately three-quarters of a mile north of the Proposed Action site. The Branford Fire Department, located at 45 North Main Street, is also approximately three quarters of a mile north of the Proposed Action site. The recently constructed south-side high level rail platform and adjacent 201-space commuter parking lot are fully illuminated.

Direct and Indirect Impacts

No direct or indirect adverse impacts to the provision of public safety and security services are anticipated with the No-Action Alternative of the Proposed Action.

The Proposed Action is anticipated to have several positive effects relative to safety and security on site. The project will effectively bring all parcels under one owner (CTDOT) and will result in the removal of the unoccupied residential structure located north of the SLE rail corridor as well as some of the fill/refuse materials located on the vacant parcel to the south of the tracks and west of the 201-space commuter parking lot. In their place will be a new fully illuminated kiss-and-ride lot, a commuter parking lot, and new fencing to keep pedestrians off of the active railroad tracks. The commuter lot will also serve to cap and isolate any remaining subsurface hazardous materials, thereby significantly reducing potential exposure hazards.

The new north-side high level rail platform will include yellow paint markings cautioning passengers to stand clear of the rail side edge of the platform. Sound from the existing audio system used on the south side platform that alerts passengers of approaching trains will also be piped into speakers located on the new north-side platform. The station upgrade will also include emergency battery backup lights for the platform areas. Knox boxes, fencing, and other safety features will also be included in the station design. Lastly, a pedestrian overpass complete with stairwell and elevators will enable passengers to flow between platforms without having to physically cross an active rail line.

Overall, the Proposed Action is not anticipated to affect the safety and security of neighboring residential streets nor will it affect the operations of police, fire or other emergency response crews in the area. The site already houses the new SLE Branford Railroad Station; the Proposed Action is simply adding other station elements (north-side high-level platform, kiss-and-ride lot, additional commuter parking) so as to make the existing station a more efficient and fully operational facility. Once constructed, the facility will continue to be actively patrolled by local police.

Proposed Mitigation

Because the Proposed Action is anticipated to have an overall beneficial impact on safety and security at the site, mitigation is not required or proposed.

3.20. Construction Period Impacts

Construction of the Proposed Action will begin in January 2010 and be completed by Spring 2011. The following types of construction equipment, among others, will be used to demolish the existing two-story residential structure, to prepare the site, and to construct the new north-side high level rail platform, pedestrian overpass, commuter parking lot, kiss-and-ride drop off area and other associated improvements:

- Dump trucks
- Dozers
- Backhoes
- Loaders
- Scrapers and Graders
- Pavers
- Mixers
- Steam Rollers
- Cranes
- Pile Drivers
- Air compressors
- Generators
- Jack hammers and other pneumatic tools
- Track side rail construction equipment

Construction of the new north-side high-level rail platform and pedestrian overpass will involve using both trackside and landside construction equipment and will require extensive coordination with Amtrak in order to minimize track outages/service disruptions and to ensure safe working conditions at all times within the electrified railroad corridor. Trackside construction equipment will be used where landside construction equipment cannot obtain access to the site; primarily where wetlands exist immediately north of the rail corridor. The parcel north of the tracks and west of Kirkham Street that currently houses an unoccupied two-story residential structure will be used as a staging area for this aspect of construction once the residential structure is demolished. Once the north-side high-level platform and pedestrian overpass is complete, the staging area will be developed as the proposed kiss-and-ride drop off area.

Demolition and construction activities associated with the Proposed Action will result in a variety of temporary impacts as described below:

Air Quality: During clearing and construction of the Proposed Action, the potential exists for dust from exposed surfaces to become airborne. CTDOT will require contractors to comply with current best management practices. Additionally, the prolonged use of diesel-powered construction vehicles contributes to increased diesel exhaust emissions including carbon monoxide, hydrocarbons, nitrogen oxides, and particulate matter ($PM_{2.5}$). Concerns over diesel exhaust emissions have led EPA to develop new emission standards for new diesel-powered vehicles beginning in 2004.

Noise: During construction, continuous as well as intermittent (or impulse) noise will be experienced in the immediate project vicinity, which may be perceived by some to be intrusive, annoying and discomforting. This noise will be generated by construction equipment including pneumatic tools which emit strong penetrating percussive sounds, and the daily movement of dump trucks, loaders, backhoes, trackside construction equipment, and various other heavy equipment to, from, and on the construction site. In general, good public relations related to noise issues should be practiced during the construction period.

Table 12 provides typical noise emission levels in A-weighted decibels (dBA) at a location 50 feet from various types of construction equipment that may be used on the project site. For comparison, everyday noise levels within suburban environments similar to that found at the Branford project site range from about 50 to 60 dBA (*Transit Noise and Vibration Impact Assessment*, FTA-VA-90-1003-06, May 2006).

Table 12: Noise Emission Levels from Construction Equipment

Construction Equipment	***Noise Level (dBA) 50 feet from Source***
Air compressor	81
Backhoe	80
Dozer	85
Generator	81
Jackhammer	88
Loader	85
Pneumatic Tool	85
Rock Drill	98
Dump Truck	85

Source: *Transit Noise and Vibration Impact Assessment* (FTA-VA-90-1003-06, May 2006)

In general, noise levels are reduced by 6 dBA for each doubling of distance from a noise source. For example, a dump truck with a noise level of 85 dBA at 50 feet will have a noise level of 79 dBA at 100 feet, 73 dBA at 200 feet, 67 dBA at 400 feet, 61 dBA at 800 feet, and so forth. Buildings and other barriers located between a noise source and a receiver further reduce the intensity of construction noise. The closest noise sensitive receptors to the Proposed Action site

are a residence located 150 feet north of the rail corridor along the western side of Kirkham Street and several homes located within the Curve Street/Harbor Street neighborhood to the south, which range from 300 to 500 feet from the construction site. Noise levels from a dump truck at the residence located 150 feet from the site will roughly fall in the 76 dBA range. Within the Curve Street/Harbor Street neighborhood, the dump truck noise will roughly fall in the 67 dBA range. These noise levels are in line with CTDOT's general provision on construction noise as defined under Section 1.10.05 of CTDOT's Standard Specifications for Road, Bridges and Incidental Construction (*Form 816*) (2004). These provisions state that, "the maximum allowable level of noise at the residence or occupied building nearest to the project site shall be 90 decibels on the "A" weighted scale (dBA).

Water Quality/Wetlands: Clearing, grading, and other earth moving activities lead to exposed surfaces, rendering them susceptible to wind and rain erosive forces. Runoff can carry suspended sediments to downstream receiving waters where the sediment will become deposited as runoff velocities decrease. The sedimentation of downstream receiving waters can adversely affect water quality as well as aquatic habitats for invertebrates, fish and other organisms.

Economy: Minimal economic activity will be stimulated by construction of the Proposed Action. One effect will be the production of jobs in on- and off-site construction, and trade, transportation, manufacturing, and services in support of construction. The earnings from these jobs will in turn generate personal expenditures by project-related workers that will stimulate the local and regional economy. Expenditures will also encompass materials used in construction. Overall there will be a small but beneficial construction period effect on the economy.

Solid Waste and Hazardous Materials: Solid waste will be generated from construction and will be disposed of as municipal solid waste. Any construction waste materials containing lead based paint, asbestos containing materials, or solvents (e.g., paint thinner, varnishes) will be managed as hazardous waste and disposed of by a licensed waste hauler. A Health and Safety Plan will be developed for the project and communicated to construction workers. This is important given that there are known low levels of contamination at the site of the planned 316-space surface parking lot.

Public Utilities: During construction, the installation of new utility lines and connections/tie-ins (primarily electrical) has the potential to result in temporary short-term disruptions of local service. In addition, construction associated with underground utility installation has the potential to impact stormwater runoff quality as erosion of exposed soils may lead to sediment transport and potential increases in the turbidity of receiving waters.

Energy Use and Conservation: Project construction will result in an increased local demand for fossil fuels (mainly diesel fuel) and an increased demand for electricity.

Proposed Mitigation

To mitigate potential temporary construction impacts, an efficient construction phasing and sequencing plan will be developed that will include the following measures:

Appropriate mitigation for excessive idling of construction equipment and fugitive dust control are described in Section 22a-174 of the RCSA. Mitigation measures to control impacts to air quality during construction will include wetting and stabilization to decrease dust, cleaning paved areas, placing tarps over truck beds when hauling dirt, and staging construction in such a way to minimize the amount and duration of exposed earth. In addition, the contractor will be required to keep equipment maintained and operating efficiently in a clean manner to mitigate any exhaust impacts. Construction vehicles will also need to comply with the three-minute idling regulation.

While construction noise is exempt under Section 22a-69-1.8(g) of the RCSA, construction contract documents will require the contractor to limit the duration and intensity of noise generated by construction. Specifically, CTDOT's general provision on construction noise as defined under Section 1.10.05 of CTDOT's Standard Specifications for Road, Bridges and Incidental Construction (*Form 816*) (2004), states that, "The contractor shall take measures to control the noise caused by its construction operations, including but not limited to noise generated by equipment used for drilling, pile-driving, blasting, excavation and hauling. All methods and devices employed to minimize noise shall be subject to the continuing approval of the Engineer. The maximum allowable level of noise at the residence or occupied building nearest to the Project site shall be 90 decibels on the "A" weighted scale (dBA). The contractor shall halt any Project operation that violates this standard until the Contractor develops and implements a methodology that enables it to conduct its Project operations within the 90-DBA limit." Although some activities may not exceed this noise specification, they may be perceived as being intrusive both in air transmitted noise and ground transmitted vibration. For this reason, good public relations pertaining to noise issues should be considered during construction activities.

A comprehensive Erosion and Sedimentation Control Plan (E&S Plan) will be developed specifically for the Proposed Action. The E&S Plan will be implemented and maintained in conformance with the *Connecticut Guidelines for Soil Erosion and Sedimentation Control* (CTDOT, 2002) and other federal and state policies. Silt fences, hay bales, and other controls will be properly installed adjacent to the Proposed Action disturbance limits, and will be maintained throughout the period of active construction until exposed soils have become stabilized. Since the project will not disturb more than five acres, a Stormwater Pollution Prevention Plan (SWPPP) will not be required for the Proposed Action. The Proposed Action will disturb more than one acre of land, however, triggering the need for a Stormwater General Permit from CTDEP.

Incidental exposure of hazardous materials during construction, will be addressed prior to the commencement of construction, with the development of a site-specific hazardous materials management plan. A Health & Safety Plan for construction workers will also be developed in accordance with Occupational Safety and Health Administration (OSHA) guidelines. No hazardous materials other than diesel fuel for construction equipment will be stored on site during construction. All fuel storage tanks used during construction will be equipped with secondary containment systems.

During all phases of construction, efforts will be made to avoid and minimize impacts to utilities to the greatest extent practicable. Coordination with the Town of Branford and all utility provides will take place prior to the start of construction.

During construction, track outages will be closely coordinated with the appropriate railroad authorities and will be limited to the greatest extent practicable.

The FHWA Work Zone Safety and Mobility Rule will be adhered to in accordance with CTDOT's Policy on Systematic Consideration and Management of Work Zone Impacts, (attached in Appendix F). Additionally, all construction personnel will be required to be railroad safety trained to ensure they are fully educated about the hazards of working on and adjacent to an active electrified rail corridor.

3.21. Cumulative Impacts

As required by the CEPA, indirect and cumulative impacts must be studied in the EIE to determine if the Proposed Action fosters or accelerates development beyond the immediate project area and if the Proposed Action, when added to other actions collectively results in significant environmental impacts.

Indirect effects are those which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable (40 CFR 1508.8). Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural resources and systems, including ecosystems. These effects were assessed and documented within each of the resource categories detailed above.

Cumulative effects are defined as the impact on the environment that results from the incremental impact of the Proposed Action when added to other past, present and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The potential cumulative effects of the Proposed Action are documented below, including definition of the geographic area and time frame within which such cumulative impacts can be reasonably expected to occur.

Cumulative Impacts Analysis Topics

Table 13 summarizes the rationale for the socioeconomic, cultural, and natural environmental resources that are considered below in the cumulative impacts analysis for the Proposed Action. This listing is based on the assessment of potential direct and indirect resource impacts analyzed above for this EIE.

Table 13: Rationale – Resources Included in the Cumulative Effects Analysis

Resource	Rationale
Neighborhoods and Housing (*includes noise, cohesion, services, air quality, aesthetics/visual affects*)	Potential for direct effects in terms of visual/aesthetics
Socio-economics (includes employment, income, economic development)	Potential for indirect effects
Water Quality	Potential for indirect effects
Hydrology and Floodplains	Potential for direct and indirect effects
Wetlands	Potential for direct and indirect effects
Coastal resources	Potential for direct and indirect effects

Cumulative Effects Impact Area

The cumulative impacts analysis considers planned and programmed projects which in concert with the Proposed Action may result in some cumulative effect on environmental or community resources. The analysis must, therefore, define the geographic area within which planned and programmed projects would reasonably be expected to have a synergistic effect in association with the Proposed Action. Using the environmental resources that may be affected by direct impacts of the project as a guide (Table 13 above), multiple resource boundaries were reviewed to determine appropriate cumulative effects sub-boundaries. These potential sub-boundaries include Census Tracts, reasonable neighborhood walking distance from the Proposed Action site (1,000 feet), the Coastal Area Management boundary in Branford and the sub-watershed boundary.

Proposed Timeline

The cumulative impacts analysis must be framed within the context of a reasonable time period. That is, it must answer the question of how the railroad station and then the Proposed Action may have had or could have a cumulative influence on resources in its surroundings in the context of other development activity over time. For this Proposed Action, the following time frames were considered:

- Past time frame: Year the Shore Line East service opened – 1990
- Current time frame: 2007 – under current operating conditions for the rail station and current level of area-wide development

- Future time frame: The year that currently planned improvements to the commuter rail program for SLE will be completed – 2011

Planned and Programmed Development and Development Trends

Since 1990 Branford has been experiencing steady residential growth in its outlying areas. The core of the community where the Proposed Action would be located has been virtually built out since long before 1990 but in recent years has experienced some redevelopment and improvement to a number of properties. This process is continuing today. Recent projects which are approved, constructed or anticipated in the cumulative effects impact area include:

- Office complex opportunity at Indian Neck Avenue and Maple Street
- Residential development on Oak Street
- Completion of Anchor Reef Luxury Condominiums off of Indian Neck Avenue
- Retail redevelopment opportunity for former factory site east of the Anchor Reef development
- Planning for enhanced use of the coastal area southeast of the Proposed Action along the shoreline with new public access to the beach, a new public dock, and new restaurant at the marina.
- Elderly housing complex planned (22 units) for Kirkham Street
- Expansion of business hours at businesses in the Harbor Street commercial cluster
- Infill and redevelopment of some properties on the west end of Main Street

The Economic Development Director (personal communication November 1, 2007) stated that there is ample anecdotal evidence that some neighborhood residents walk to the train station daily. He also noted that the core of the downtown on Main Street is within walking distance of the train. With the completion of the Anchor Reef development and other proposed or potential projects nearby, Branford is realizing the emergence of a transit-oriented development (TOD) area surrounding the train station.

Potential Cumulative Impacts

Neighborhoods and Housing: The Proposed Action in association with ongoing development trends is anticipated to have a beneficial cumulative impact to neighborhoods and housing. As mixed-use and diversity of development continues, the village center can be expected to become increasingly sustainable. This in turn will strengthen the neighborhoods that surround the village center economically and socially. The enhanced access to the train for commuting to jobs elsewhere is expected to have a positive synergistic effect with that trend. It will enable residents to live and invest in the current neighborhoods and offer an asset that will improve the marketability of nearby housing developments.

The Proposed Action will alter southerly views of some homes in the area. The planned and programmed projects, particularly those that will be located along Branford's shoreline in the vicinity of the Proposed Action site will also alter views of Long Island Sound from vantage

points inland. The nature of this cumulative effect will depend on the aesthetics of new development design including height and massing of buildings. Nonetheless, new development along the shoreline is enhancing the visual setting by replacing old and abandoned industrial sites in favor of mixed-use developments.

Socio-economic Effects: The Proposed Action in association with ongoing development trends is anticipated to have a beneficial cumulative impact to jobs and employment in Branford. Enhanced multimodal access to the train for jobs which lie predominantly outside Branford will help sustain Branford's resident incomes and indirectly, businesses in Branford which they might patronize. New housing opportunities within walking distance of the train will have a similar effect and together, they can increase foot traffic from the train to the nearby village retail and service businesses.

Water Quality: The Proposed Action will result in the creation of 2.88 acres of paved surface which can contribute to water quality degradation issues. Ongoing residential development trends which are expected to continue in the region along with ongoing infill and redevelopment in Branford's village center will also result in increased paved and other impervious surface areas in the Branford River sub-watershed. In the same manner, each of the planned and programmed development projects will add to impervious land coverage in the form of building footprints, driveways, and parking in the proximity of the Proposed Action site. Increases in paved and other impervious surfaces contribute to stormwater runoff and potential for sedimentation and contamination of downstream waters. In tidal areas, increased paved and other impervious surfaces also lead to increased fresh water influx into saline receiving waters which can gradually alter salinity in the vicinity of the discharges. These cumulative adverse effects to water quality will be offset, however, by stormwater management measures included in the design of each development site. These stormwater management features are required in order to comply with the regulatory framework that exists to protect tidal and inland wetlands, water quality, and other important natural resources. Project designs must comply with stringent federal, state, and local permit requirements. Consequently, cumulative adverse effects to water quality are expected to be minor and will be controlled and managed through these permit processes. No additional mitigation for this cumulative impact is warranted or proposed.

Hydrology and Floodplains: Construction of the Proposed Action will result in the placement of fill into the 100-year coastal floodplain. Several of the planned and programmed development projects expected to be constructed in the vicinity of the Proposed Action site and along the shoreline will also be located within the area of coastal floodplains. Consequently, there is potential for cumulative impacts to the coastal floodplain with the Proposed Action. The zoning regulations of the Town of Branford include specific requirements for site design for projects proposed within 100-year floodplains. Consequently, the potential for adverse cumulative effects to floodplains will be offset by the combination and implementation of local zoning requirements and construction of an appropriate stormwater management system for the Proposed Action. No additional mitigation for this cumulative impact is warranted or proposed.

Wetlands: Construction of the Proposed Action will involve work below the high tide line that will impact approximately 0.02 acres (720 SF) when an existing undersized and partially clogged

12-inch RCP culvert will be replaced by a new open bottom span or arch culvert. The new open bottom span or arch culvert is expected to improve tidal flow/exchange, which will be beneficial to adjacent tidal wetlands. Ongoing new development may also encroach upon inland and tidal wetlands in the Branford River sub-watershed area, creating a cumulative effect to wetland acreage and functions and values in the sub-watershed. However, federal, state, and local regulations are in place to protect both inland and tidal wetlands from adverse development impacts. These regulations are firmly enforced through stringent permitting processes. Where impacts occur and are permitted, mitigation is often required to replace the impacted acreage and functionality lost. Consequently, the potential for adverse cumulative impacts to wetlands will be offset by the combination of implementing inland and tidal wetland regulation requirements and any mitigation that is required for the Proposed Action. No additional information for this cumulative impact is warranted or proposed.

Coastal Resources: The Proposed Action will have some impact to coastal resources in the form of coastal floodplain filling and work below the high tide line. As noted above, several of the planned and programmed development projects are expected to be constructed in the vicinity of the Proposed Action site and along the shoreline and will also be located within the area of coastal floodplains. Consequently, there is the potential for cumulative impacts to coastal resources with the Proposed Action. The Town of Branford zoning regulations establish a coastal management district and requirements for coastal site plan review consistent with the guidance of Connecticut's Coastal Management Act. Consequently, the potential for adverse cumulative impacts to coastal resources will be offset by the combination of implementing local zoning requirements and mitigation associated with the Proposed Action. No additional mitigation for this cumulative impact is warranted or proposed.

4. UNAVOIDABLE ADVERSE IMPACTS

The unavoidable adverse impacts from the Proposed Action will include:

- Acquisition of two privately owned parcels
- Addition of 2.88 acres (125,450 SF) of paved surface area with corresponding loss of approximately 5.38 acres of vegetation and low value wildlife habitat
- Minor loss of flood storage capacity associated with fill being placed in the 100-year coastal floodplain
- Approximately 0.02 acres (720 SF) will be impacted below the high tide line during the replacement of an existing undersized and partially clogged 12-inch RCP culvert with a new open bottom span or arch culvert. The new open bottom span or arch culvert will improve tidal exchange in adjacent tidal wetlands to the north
- Change in visual setting for several residences located north of the railroad tracks along Elm Street and Kirkham Street
- Temporary construction-related inconveniences

The use of the site for the proposed improvements is consistent with adjacent transportation uses and does not result in any adverse secondary development effects that have not already been planned for and approved. The Proposed Action will include mitigation measures that will be fully coordinated with resource agencies to ensure that they serve their intended purpose. The mitigation measures will offset the potential adverse impacts and maintain the safety and quality of life that currently exists at the site. Given these considerations, the unavoidable adverse impacts are not estimated to be significant.

5. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Irreversible and irretrievable commitments of resources caused by the Proposed Action include the following:

- Energy - energy will be consumed in project construction and well as to operate station elements and any additional trains that will operate as part of the expanded SLE commuter rail service.
- Land - the land will be developed and the topography altered. The commitment of the site to this use will preclude the possibility of other uses at the site into the foreseeable future.
- Natural resources – site development will introduce 2.88 acres (125,450 SF) of pavement to an area that is currently vegetation and pervious. Vegetation lost will not be replaced. There will be some filling of the 100-year coastal floodplain which will result in a minor loss of coastal flood storage capacity. Approximately 0.02 acres (720 SF) of land area located below the high tide line will be impacted during replacement of the existing clogged culvert with an open bottom arch culvert or span but the activity will produce a corresponding improvement in tidal exchange in the tidal wetland system located north of the impact area.
- Construction materials - a variety of natural, synthetic, and processed construction materials will be utilized to construct the Proposed Action.
- Human labor - the dedication of human labor to the construction of the Proposed Action represents an irretrievable expenditure of time and production that is thus unavailable for other purposes.
- Financial - Finally, the project expenditures, once committed, will no longer be available for other purposes and, once spent, cannot be regained.

6. SUMMARY OF MITIGATION MEASURES

The adverse impacts of the Proposed Action are limited and can all be mitigated. The following table summarizes the proposed mitigation measures for each impacted resource category. Where no mitigation is proposed, the impact evaluations have determined that adverse impacts are minor and do not warrant mitigation, that no adverse impacts were identified, or that anticipated impacts will be beneficial.

Table 14: Summary of Impacts and Proposed Mitigation

Resource	Impact Analysis	Mitigation
Land Use and Zoning	Acquisition of two-privately owned parcels, one vacant and one with an unoccupied residence. No impacts to land use or zoning	No mitigation is required
Consistency with Local and Regional Plans	The Proposed Action is consistent with local and regional development plans	No mitigation is required
Consistency with C&D Plan	The Proposed Action is consistent with the C&D Plan	No mitigation is required
Traffic and Parking	The surrounding roadway network will adequately support the additional traffic volume generated by the Proposed Action. No adverse impacts anticipated. Beneficial impact as Proposed Action provides more parking for rail commuters and improved/safe pedestrian connections.	No mitigation required
Air Quality	Construction period impacts: Potential impacts from prolonged use of diesel powered vehicles. Typical diesel air quality emissions include carbon monoxide, hydrocarbons, nitrogen oxides, and particulate matter (PM2.5).	Construction equipment will be required to comply with all pertinent state and federal air quality regulations. Construction period BMPs to be followed to reduce airborne dust, other particulate matter, and odorous substances arising from project operations.
Noise	Construction period impacts: Potential for continuous as well as intermittent (or impulse) noise to be experienced in the immediate project vicinity.	Construction noise is exempt under Section 22a-69-1.8(g) of the RCSA, however, CTDOT's general provision on construction noise described under Section 1.10.05 of *Form 816* must be included in the construction contract for this project.
Neighborhoods and Housing	Indirect beneficial impact to local socio-economic conditions as commuters may shop locally for convenience goods. No adverse impacts on neighborhoods or housing.	No mitigation required

Resource	Impact Analysis	Mitigation
Water Quality	Creation of 2.88 acres (125,450 SF) of new paved surface contributes to increased site runoff and potential for increased sedimentation and contamination of downstream tidal wetlands and watercourses located offsite. Freshwater inputs to tidal systems during storm events and thermal pollution are also concerns. Construction period impacts: Increased potential for sedimentation of offsite streams and tidal wetlands due to runoff from exposed surfaces during site work.	Final design of new facility will be fully coordinated with the CTDEP and ACOE and will include primary and secondary stormwater renovation measures including a stormwater detention/retention pond with a forebay designed to collect and retain the first one (1) inch of stormwater runoff and effectively remove suspended sediments (Refer to progress design drawings 310-0047 C-106 and C-303 included in Appendix A). Project design will comply with both the CTDEP 2004 Stormwater Quality Manual and the CTDEP 2002 Sedimentation and Erosion Control Manual. During construction, temporary best management practices (BMPs) will be employed and an erosion and sedimentation control plan (E&S Plan) will be implemented. A stormwater pollution control plan (SWPCP) will also be registered for the project.
Hydrology and Floodplains	Construction will involve the placement of fill into the 100-year coastal floodplain.	Some flood storage capacity will be replaced by the stormwater management system. Coordination will occur with CTDEP and ACOE on required permits.
Wetlands	Impacts below the high tide line will be confined to the location where an existing undersized and partially constricted 12-inch RCP culvert will be replaced with a new open bottom span or arch culvert. A total of approximately 0.02 acres (720 SF) will be impacted due to work below the high tide line.	The new open bottom span or arch culvert will improve tidal flow/exchange, potentially improving the overall quality of and increasing the physical limits of tidal wetlands located upstream. Impacts below the high tide line and mitigation will be fully coordinated with CTDEP and ACOE to ensure that proper mitigation is implemented for the Proposed Action.
Flora, Fauna, Threatened and Endangered Species	Negligible adverse direct and indirect impacts to low value habitat.	No mitigation required
Soils and Geology	No Impacts	No mitigation required

Resource	Impact Analysis	Mitigation
Coastal Zone and Coastal Barriers	The Proposed Action involves work below the high tide line and impacts to coastal floodplains. A total of approximately 0.02 acres (720 SF) will be impacted due to work below the high tide line. This impact will be confined to the location where an existing undersized and partially constricted 12-inch RCP culvert will be replaced by a new open bottom span or arch culvert. Construction of new parking lot and a portion of the kiss-and-ride drop off area will require placement of fill in the coastal floodplain.	The new open bottom span or arch culvert will improve tidal flow/exchange, potentially improving the overall quality of and increasing the physical limits of tidal wetlands located upstream. Impacts below the high tide line and mitigation will be fully coordinated with the CTDEP and ACOE to ensure that proper mitigation is implemented for the Proposed Action. Some flood storage capacity will be replaced by the stormwater management system. Coordination will occur with CTDEP and ACOE on required permits.
Cultural Resources	No Impacts	No mitigation required
Solid Waste and Hazardous Materials	There may be some potential for exposure of construction workers to low levels of hazardous materials and contamination that exist on the 5.38 acre vacant parcel slated for the new surface parking lot.	Although there is no enforcement action or a mandated remediation (such as a significant environmental hazard) for the site, CTDOT will prepare appropriate plans and specifications to address on-site contamination issues. These will include material handling and disposal requirements and health and safety measures to be undertaken during construction. As part of this, CTDOT will also be registering under the CTDEP "General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer)". A Pre-Demolition Investigative Survey for Hazardous Building Materials (including lead, asbestos, and other identified hazardous and CT-regulated materials, wastes, and other items) has been conducted for the two-story residential building located at 14 Kirkham Street. As a result of this survey, CTDOT has prepared specifications to address all demolition issues associated with this property.
Use/Creation of Hazardous Materials	No Impacts	No mitigation required
Aesthetics and Visual Effects	Southerly views from homes located along the south side of Elm Street and along Kirkham Street will be impacted.	A landscaping plan that includes vegetative buffers could minimize anticipated visual impacts.
Energy Uses and Conservation	Minimal increase in amount of energy consumed above existing conditions	No mitigation required

Resource	Impact Analysis	Mitigation
Public Utilities and Services	Potential temporary service disruptions (CL&P) during construction	Coordinate utility construction scheduling with service providers
Public Health and Safety	Beneficial Impact – site conditions improved (see hazardous materials discussion) and new safety features such as fencing and illumination added	No mitigation required

7. COST BENEFIT ANALYSIS

The primary costs of the Proposed Action arise from the monetary outlay and energy consumption required for constructing the north-side high level rail platform, pedestrian overpass, new commuter parking lot, kiss-and-ride drop off area, and other associated improvements. Project construction cost is anticipated to range from $20 to $25 million, with start of construction in January 2010. This cost represents a midpoint of construction (2010) dollars. This cost does not include the inherent secondary costs associated with future energy and maintenance needs of the proposed improvements. However, these future secondary costs are not anticipated to be substantial given the nature of the proposed improvements. Future energy requirements are essentially limited to the electricity needed to illuminate the facility, operate the elevators associated with the pedestrian overpass, and to operate the platform's variable message signs and audio train alert system. Maintenance costs will primarily be limited to landscaping and snow/ice removal as well as for the general upkeep of the facility.

Costs associated with the environmental impacts as defined in this EIE are relatively minimal. The Proposed Action is very compatible with its surroundings as it is essentially the full build-out of the partially completed Branford SLE Railroad Station that was constructed and opened in August 2005. Thus, the Proposed Action is not a new use, but instead is the expansion of an existing use that is compatible with existing plans of development for the surrounding area. As mentioned, the intent of the Proposed Action is to complete the partial SLE railroad station by construction of a new north-side high-level rail platform opposite the existing south-side high level rail platform; constructing a new pedestrian overpass to provide safe movements between the two platforms; and by expanding the parking capacity at the station by 368 spaces for a total of 569 spaces. All these improvements have one unified purpose; to make the SLE commuter rail service an attractive transportation alternative for Connecticut's commuters and residents. This in turn will hopefully increase ridership, thereby reducing the number of vehicle miles traveled on Connecticut's already congested Interstate 95 and U.S. Route 1 coastal corridors. Similar improvements have already been implemented or are in the process of being implemented at other SLE stations in the towns of Guilford, Madison, Clinton, and Westbrook as part of Governor M. Jodi Rell's Transportation Initiative which was approved by Connecticut's Legislature in 2005. Thus the improvements are part of an overall SLE system upgrade which will substantially benefit Connecticut's population well into the future, especially in light of the rapidly escalating price of gasoline.

Considering the immediate and longer-term operational and financial benefits of the Proposed Action, weighed against the project's construction costs and minor adverse environmental impacts, the Proposed Action appears to be an advantageous activity that justifies the expenditures.

8. LIST OF CERTIFICATES, PERMITS AND APPROVALS

Certificates, Permits and Approvals

The following permits, approvals, certifications, and registrations **may** be required for completion of the Proposed Action:

Federal

- ACOE Section 404 Permit

State

- CTDEP General Permit: Stormwater and Dewatering Wastewaters from Construction
- CTDEP General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer)
- CTDEP Flood Management Certification
- CTDEP 401 Water Quality Certification
- CTDEP Office of Long Island Sound Programs Structures, Dredging and Fill Permit
- CTDEP Office of Long Island Sound Programs Tidal Wetlands Permit

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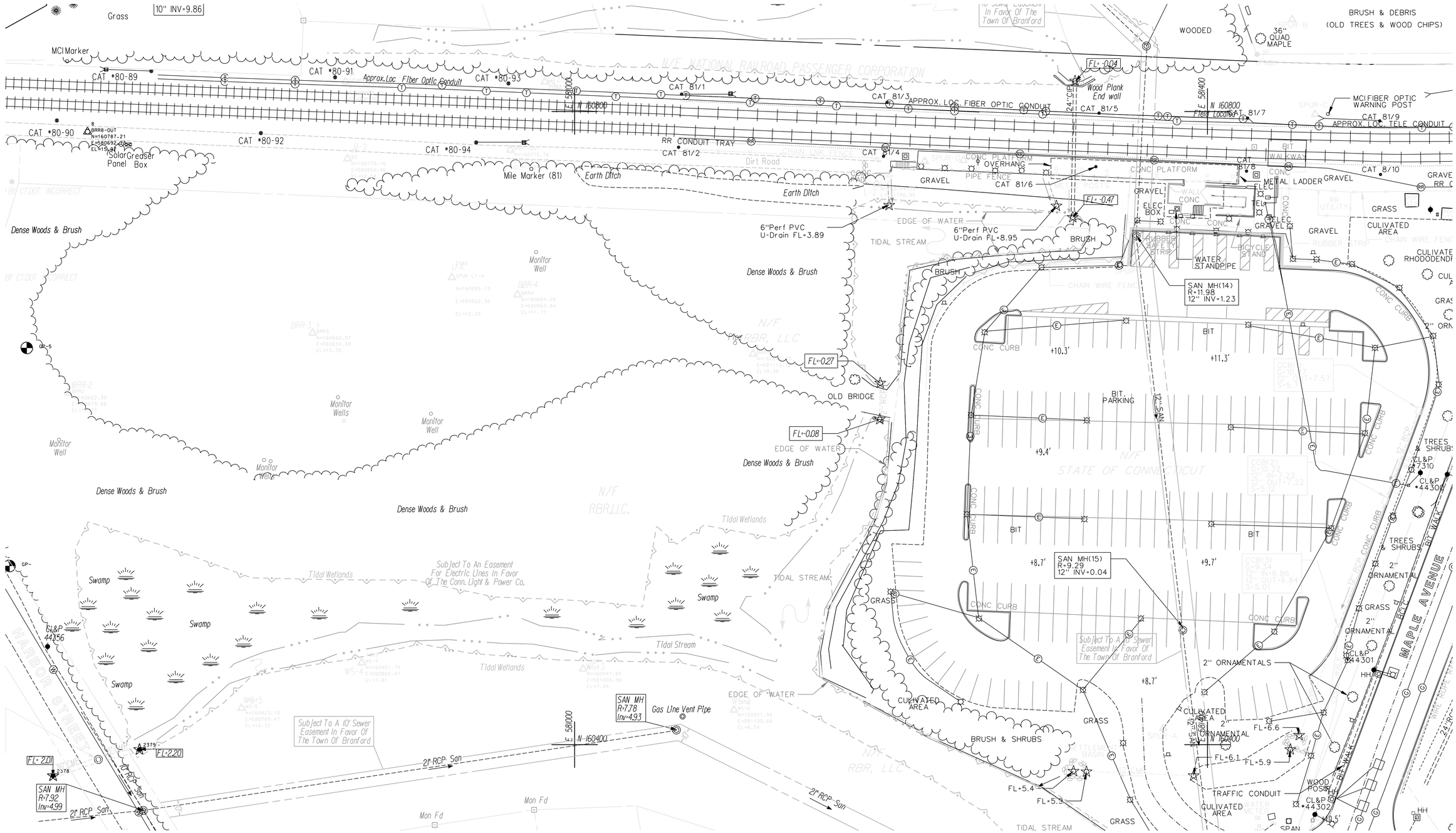
Personal communication, Branford Town Planner December 14, 2007

Personal communication, Branford Economic Development Director, November 1, 2007

APPENDIX A
Conceptual Design Plans



PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename: *.dgn

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Date Plotted: $DATE$

DESIGNER/DRAFTER: -

CHECKED BY: -

SCALE IN FEET
0 30 60
SCALE 1"=30'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING

APPROVED BY: - DATE: -

Baker
BAKER ENGINEERING NY, INC.
2096-8 SILAS DEANE HIGHWAY
ROCKY HILL, CT 06067

PROJECT TITLE:
SHORE LINE EAST RAILROAD STATIONS

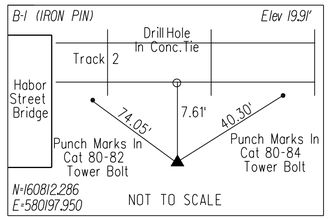
TOWN: **BRANFORD**

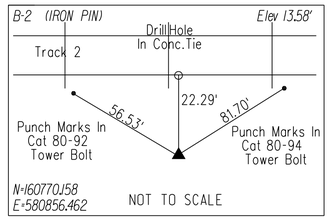
DRAWING TITLE: **PARKING LOT SURVEY PLAN**

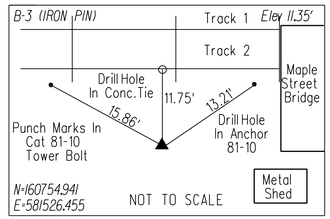
PROJECT NO. **310-0047**

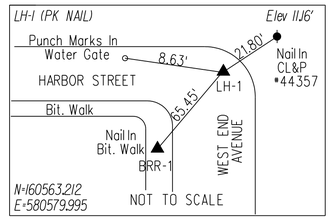
DRAWING NO. **C-100**

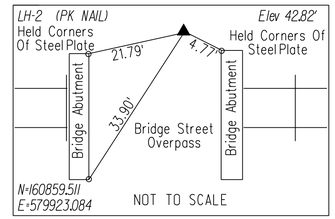
SHEET NO. **S**

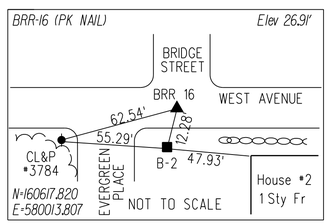


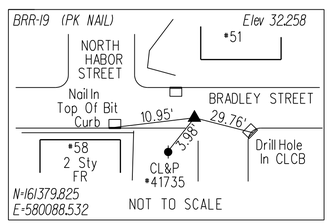


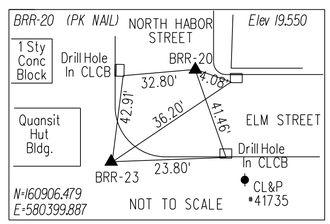


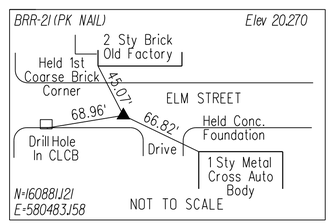


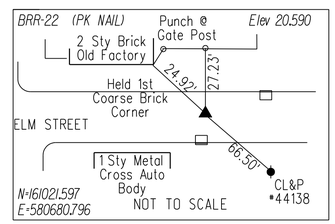


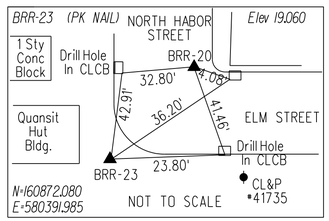


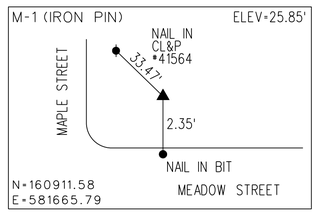


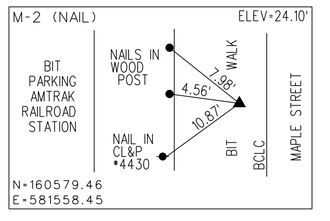


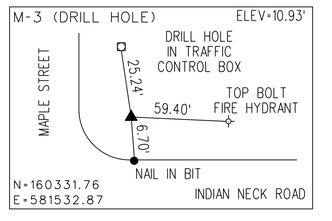


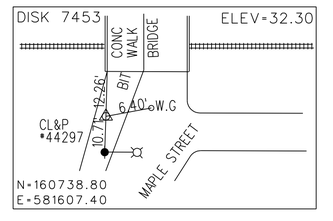












BASELINE TIES

SCALE: N.T.S.

PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename: *.dgn

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Date Plotted: $DATE$

DESIGNER/DRAFTER: -

CHECKED BY: -

SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING

APPROVED BY: - DATE: -

Baker
BAKER ENGINEERING NY, INC.
2096-B SILAS DEANE HIGHWAY
ROCKY HILL, CT 06067

PROJECT TITLE:
SHORE LINE EAST RAILROAD STATIONS

TOWN: **BRANFORD**

DRAWING TITLE: **PARKING LOT BASELINE TIES**

PROJECT NO. **310-0047**

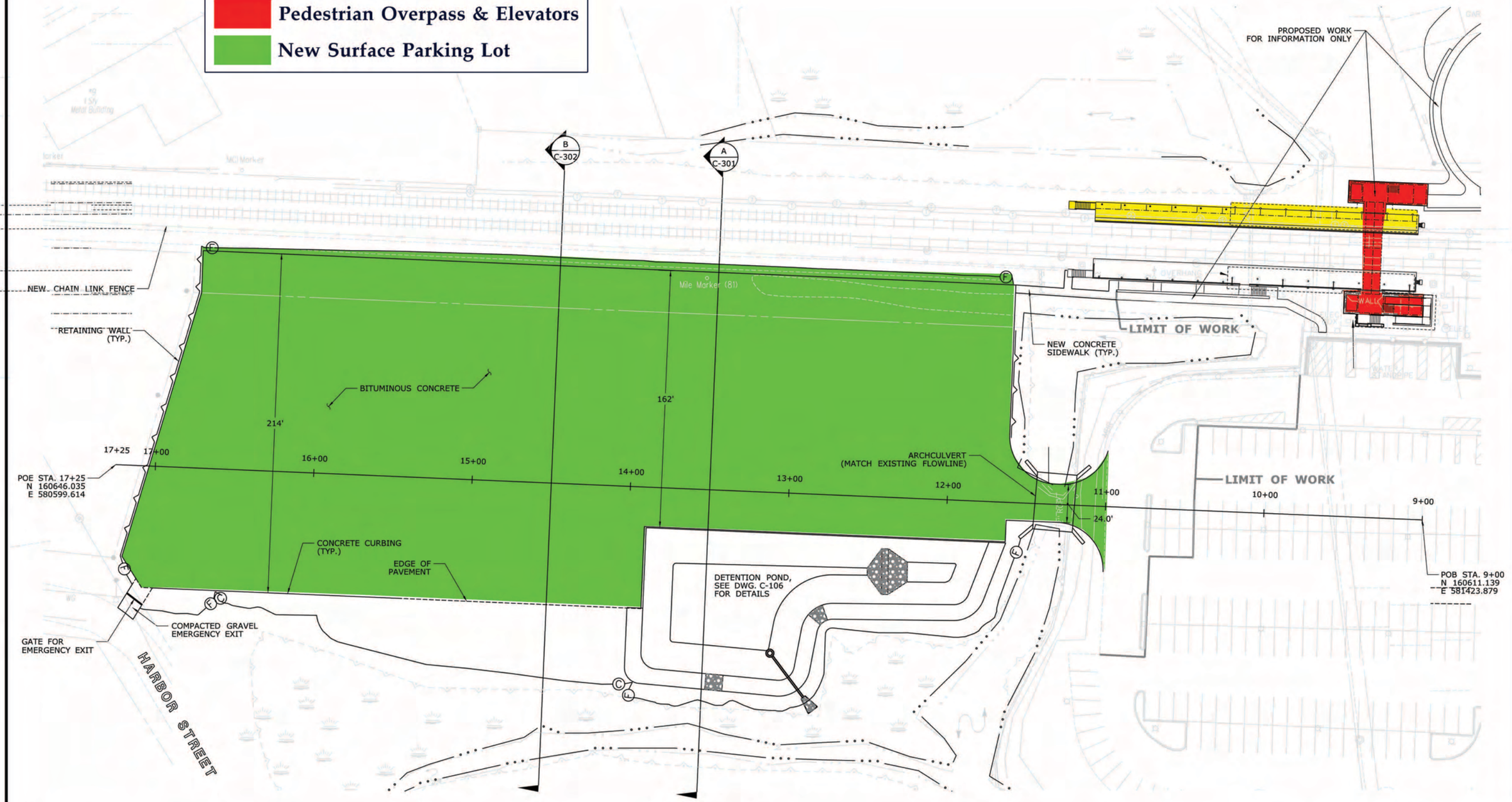
DRAWING NO. **C-101**

SHEET NO. **S**

High Level Platform

Pedestrian Overpass & Elevators

New Surface Parking Lot



SITE PLAN
SCALE: 1" = 30'-0"

PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename: *.dgn

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Date Plotted: $DATE$

DESIGNER/DRAFTER: -

CHECKED BY: -

SCALE IN FEET
0 30 60
SCALE 1"=30'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING

APPROVED BY: - DATE: -

Baker
BAKER ENGINEERING NY, INC.
2096-B SILAS DEANE HIGHWAY
ROCKY HILL, CT 06067

PROJECT TITLE:
SHORE LINE EAST
RAILROAD STATIONS

TOWN:
BRANFORD

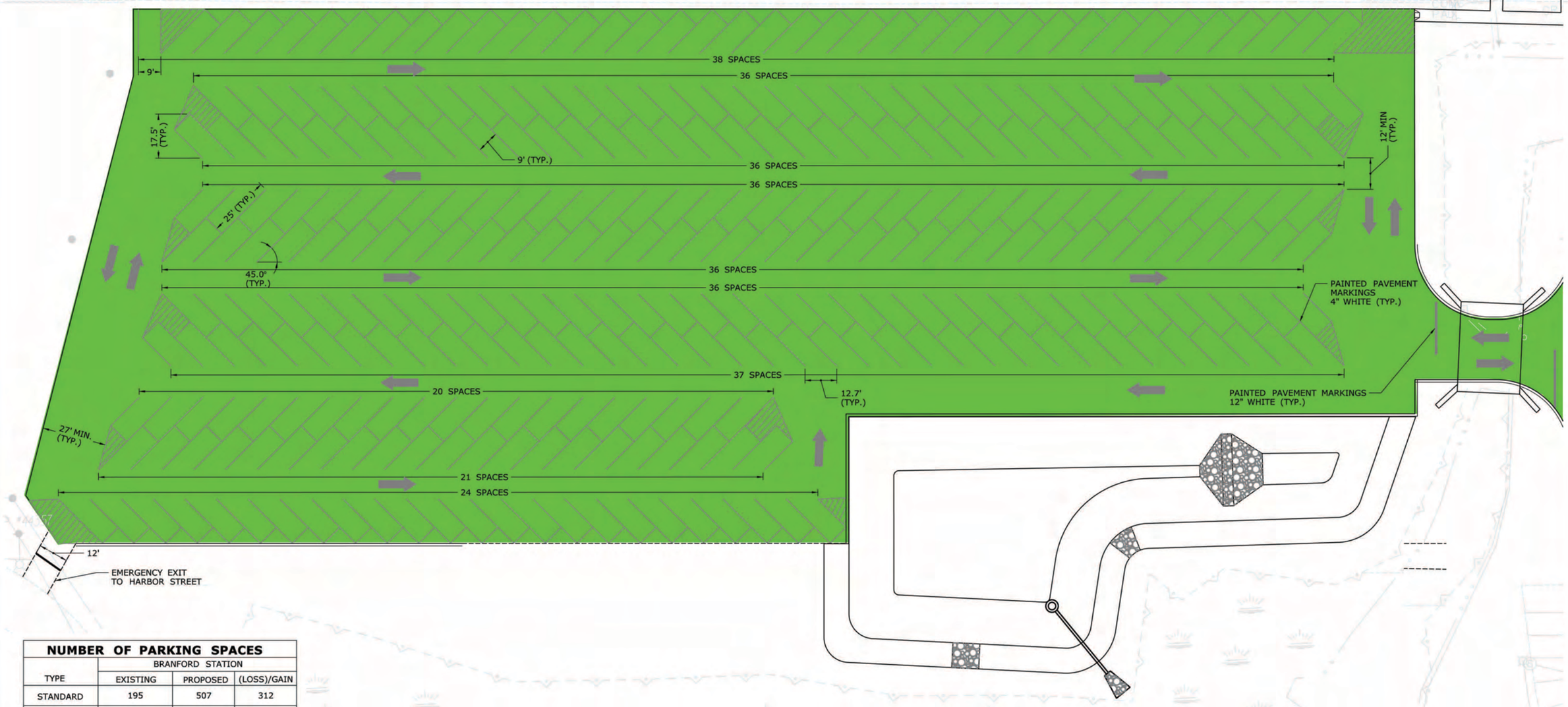
DRAWING TITLE:
PARKING LOT
SITE PLAN

PROJECT NO.
310 J047

DRAWING NO.
C-102

SHEET NO.
S

New Surface Parking Lot



NUMBER OF PARKING SPACES			
TYPE	BRANFORD STATION		
	EXISTING	PROPOSED	(LOSS)/GAIN
STANDARD	195	507	312
HANDICAPPED	6	10	4
KISS&RIDE/ (SHORT-TERM)	0	0	0
TOTAL	201	517	316

N

STRIPING PLAN
SCALE: 1" = 20'-0"

PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename: *.dgn

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Date Plotted: $DATE$

DESIGNER/DRAFTER: -
CHECKED BY: -
SCALE IN FEET 0 20 40
SCALE 1"=20'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING
APPROVED BY: - DATE: -

Baker
BAKER ENGINEERING NY, INC.
2096-B SILAS DEANE HIGHWAY
ROCKY HILL, CT 06067

PROJECT TITLE:
SHORE LINE EAST RAILROAD STATIONS

TOWN: **BRANFORD**

DRAWING TITLE: **PARKING LOT STRIPING PLAN I**

PROJECT NO. **310-0047**
DRAWING NO. **C-103**
SHEET NO. **S**

NUMBER OF PARKING SPACES

TYPE	BRANFORD STATION		
	EXISTING	PROPOSED	(LOSS)/GAIN
STANDARD	195	507	312
HANDICAPPED	6	10	4
KISS&RIDE/ (SHORT-TERM)	0	0	0
TOTAL	201	517	316

STRIPING PLAN

SCALE: 1" = 20'-0"

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename: *.dgn

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Date Plotted: $DATE$

DESIGNER/DRAFTER: -

CHECKED BY: -

SCALE IN FEET
0 20 40
SCALE 1"=20'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING

APPROVED BY: - DATE: -

Baker
BAKER ENGINEERING NY, INC.
2096-B SILAS DEANE HIGHWAY
ROCKY HILL, CT 06067

PROJECT TITLE:
SHORE LINE EAST RAILROAD STATIONS

TOWN: **BRANFORD**

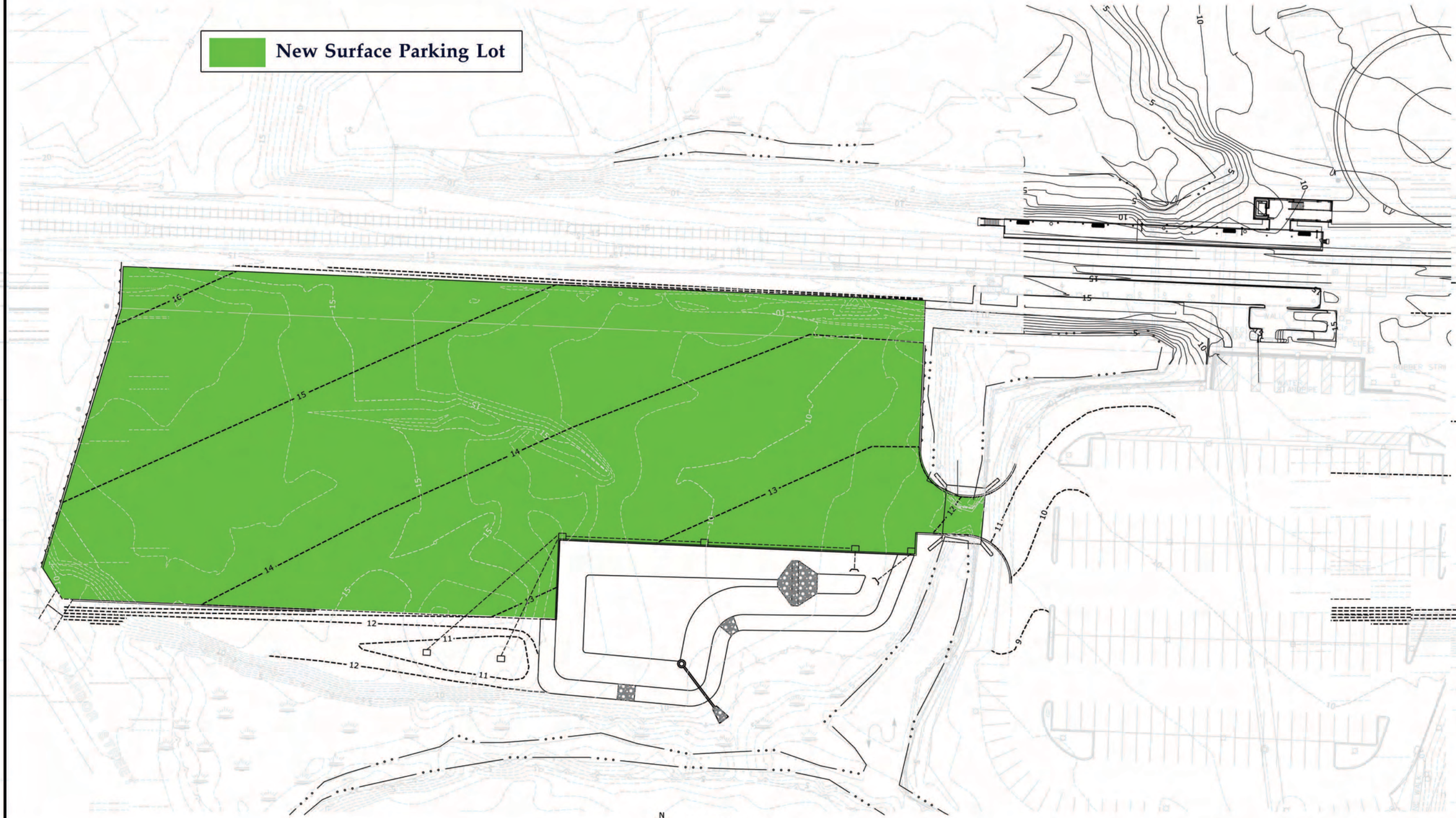
DRAWING TITLE: **PARKING LOT STRIPING PLAN II**

PROJECT NO. **310-0047**

DRAWING NO. **C-104**

SHEET NO. **S**

New Surface Parking Lot



N

GRADING PLAN
SCALE: 1" = 30'-0"

PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename: *.dgn

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Date Plotted: $DATE$

DESIGNER/DRAFTER: -
CHECKED BY: -

SCALE IN FEET
0 30 60
SCALE 1"=30'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING
APPROVED BY: - DATE: -

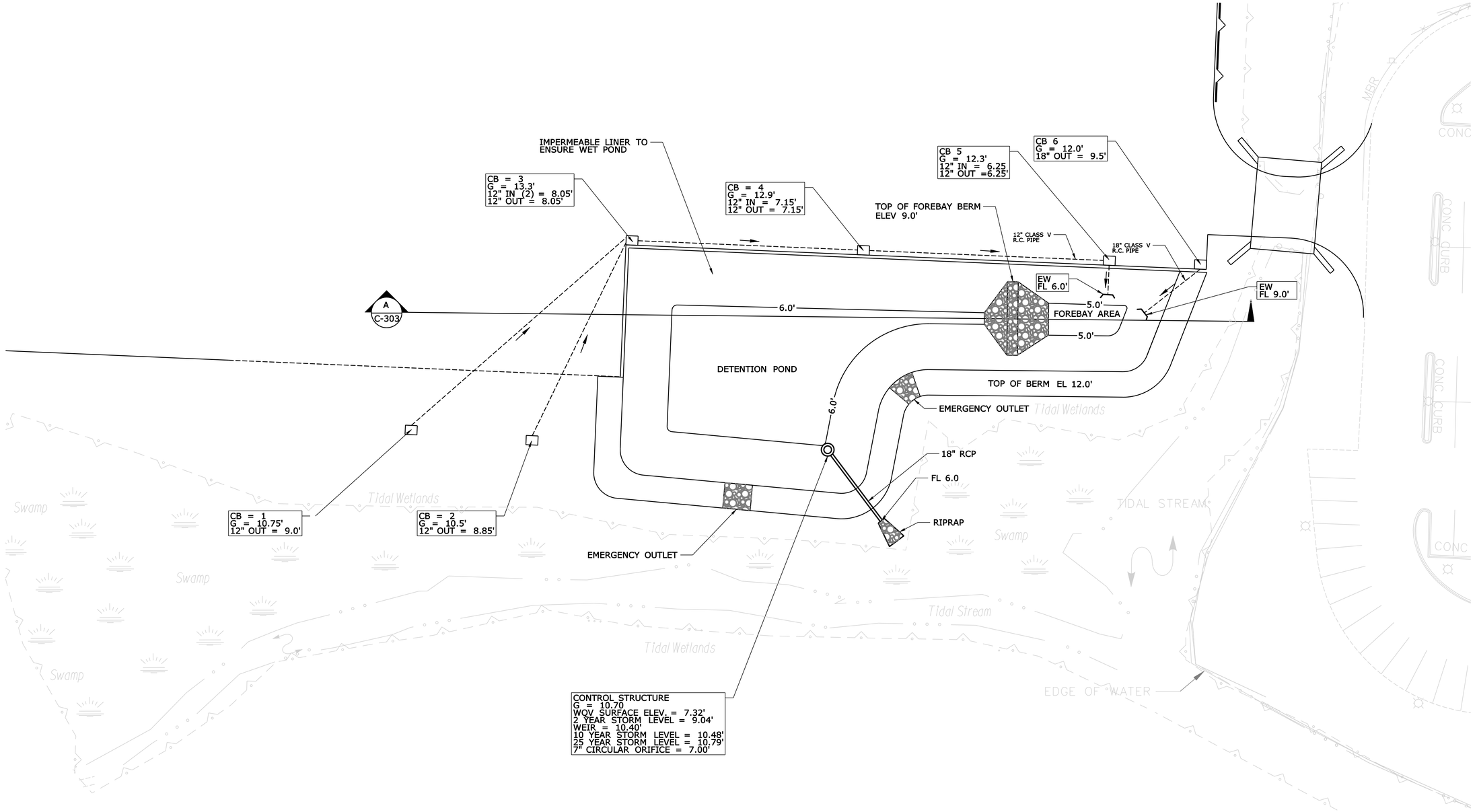
Baker
BAKER ENGINEERING NY, INC.
2096-B SILAS DEANE HIGHWAY
ROCKY HILL, CT 06067

PROJECT TITLE:
SHORE LINE EAST RAILROAD STATIONS

TOWN: **BRANFORD**

DRAWING TITLE: **PARKING LOT GRADING PLAN**

PROJECT NO. **310-0047**
DRAWING NO. **C-105**
SHEET NO. **S**



N

DETENTION POND

SCALE: 1" = 20'-0"

PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename: *.dgn

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Date Plotted: $DATE$

DESIGNER/DRAFTER: -

CHECKED BY: -

SCALE IN FEET
0 20 40
SCALE 1"=20'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING

APPROVED BY: - DATE: -

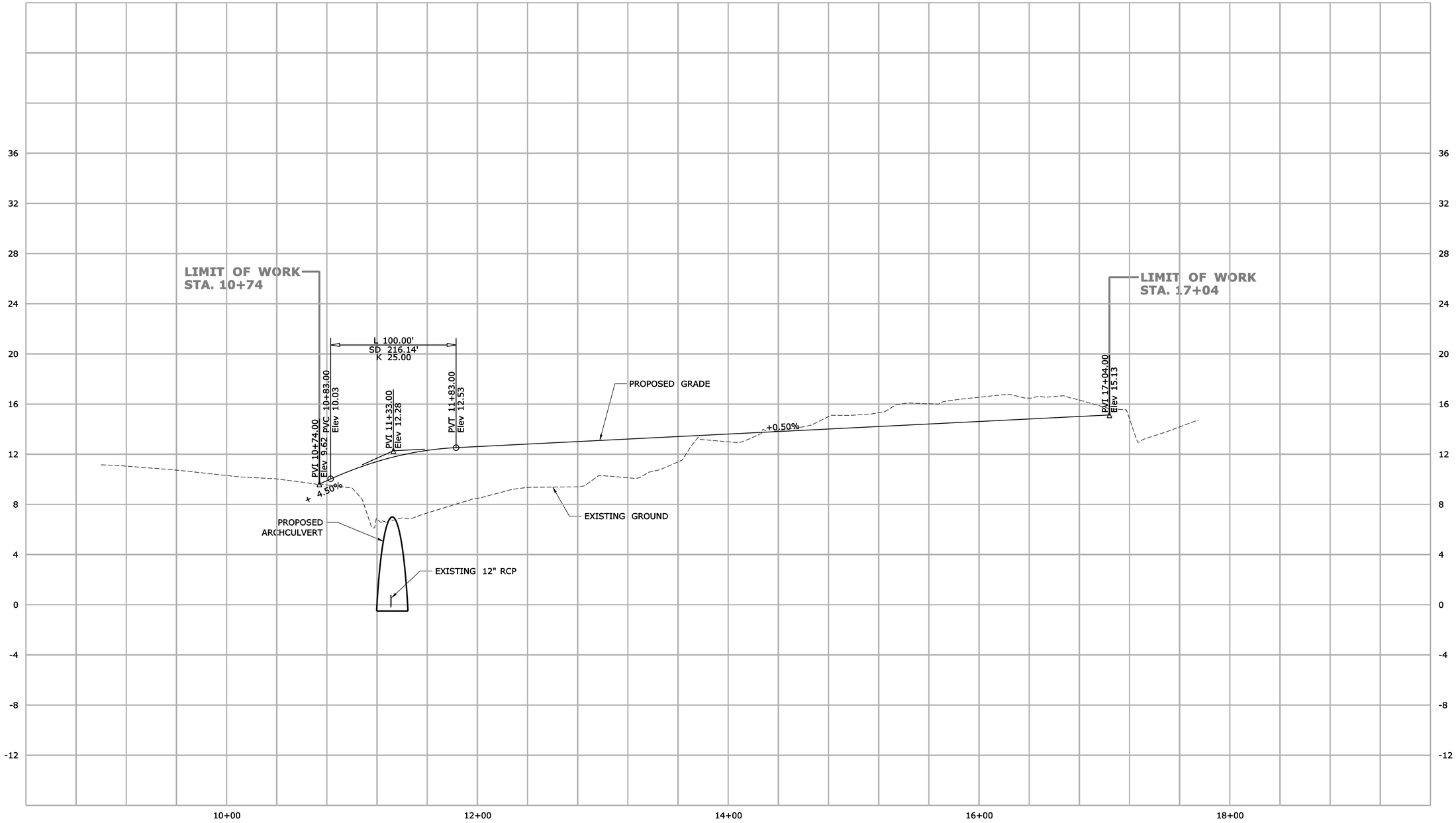
Baker
BAKER ENGINEERING NY, INC.
2096-B SILAS DEANE HIGHWAY
ROCKY HILL, CT 06067

PROJECT TITLE:
SHORE LINE EAST RAILROAD STATIONS

TOWN:
BRANFORD

DRAWING TITLE:
PARKING LOT DETENTION POND

PROJECT NO. 310-0047
DRAWING NO. C-106
SHEET NO. S



VERTICAL SCALE 1" = 4'
HORIZONTAL SCALE 1" = 40'

80 40 40 80

PROFILE VIEW

PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename: *.dgn

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Date Plotted: $DATE$

DESIGNER/DRAFTER: - -
CHECKED BY: -
SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING
APPROVED BY: - DATE: -

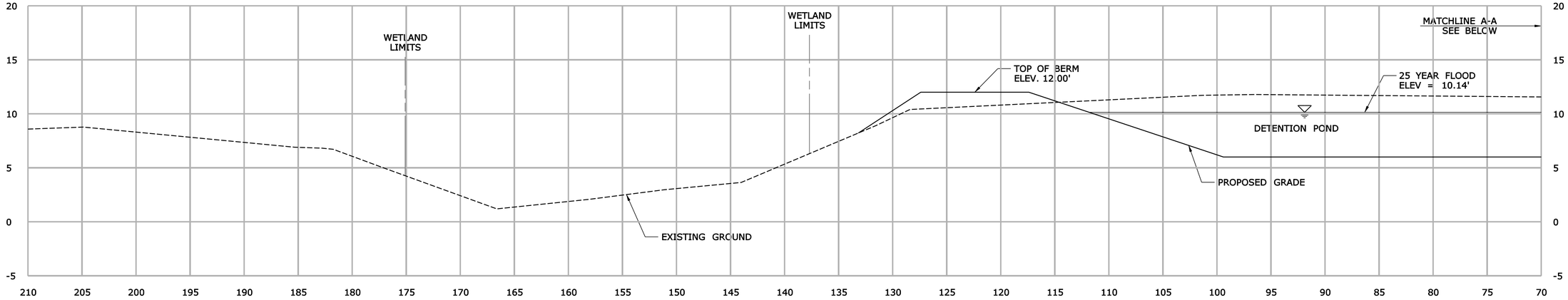
Baker
BAKER ENGINEERING NY, INC.
2096-B SILAS DEANE HIGHWAY
ROCKY HILL, CT 06067

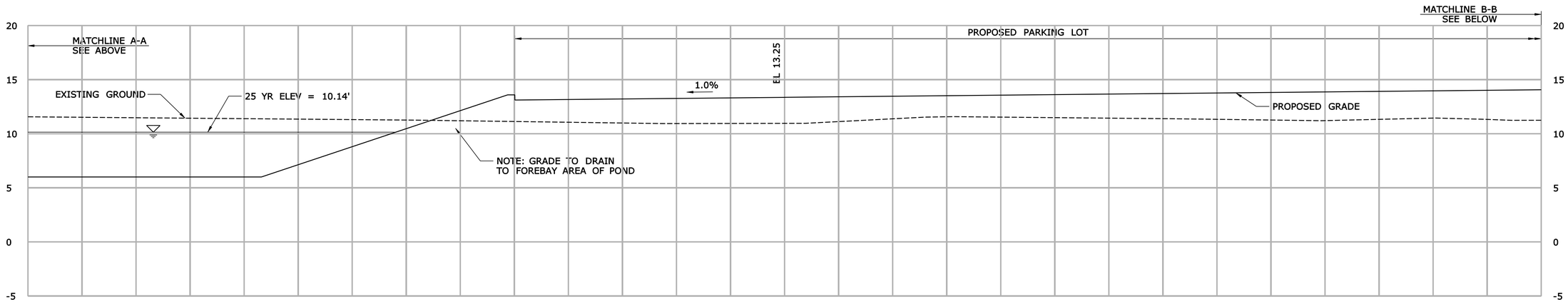
PROJECT TITLE:
SHORE LINE EAST
RAILROAD STATIONS

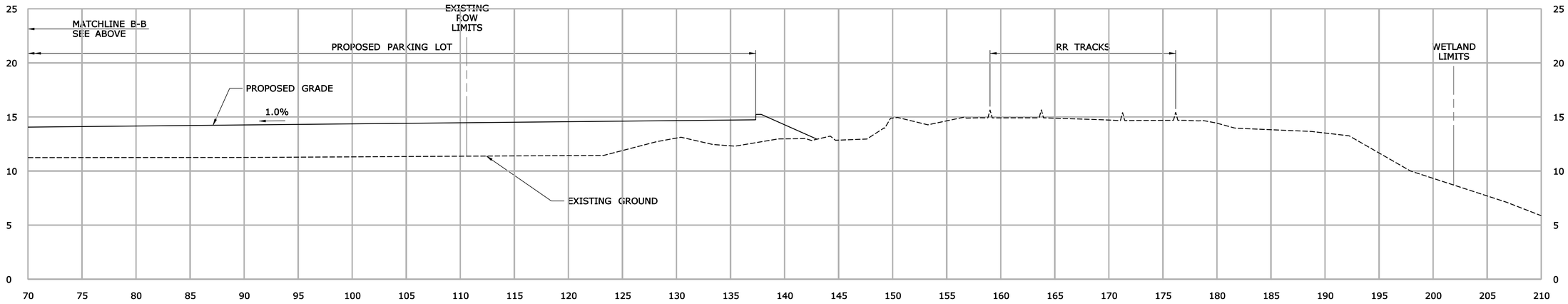
TOWN: BRANFORD

DRAWING TITLE: PARKING LOT PROFILE

PROJECT NO. 310-0047
DRAWING NO. C-300
SHEET NO. S







SECTION AT 13+50 (A / C-102)

SCALE: 1" = 5'-0"

PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename: *.dgn

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Date Plotted: $DATE$

DESIGNER/DRAFTER: -

CHECKED BY: -

SCALE IN FEET 0 5 10

SCALE 1"=5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING

APPROVED BY: - DATE: -

Baker
BAKER ENGINEERING NY, INC.
2096-B SILAS DEANE HIGHWAY
ROCKY HILL, CT 06067

PROJECT TITLE:
SHORE LINE EAST RAILROAD STATIONS

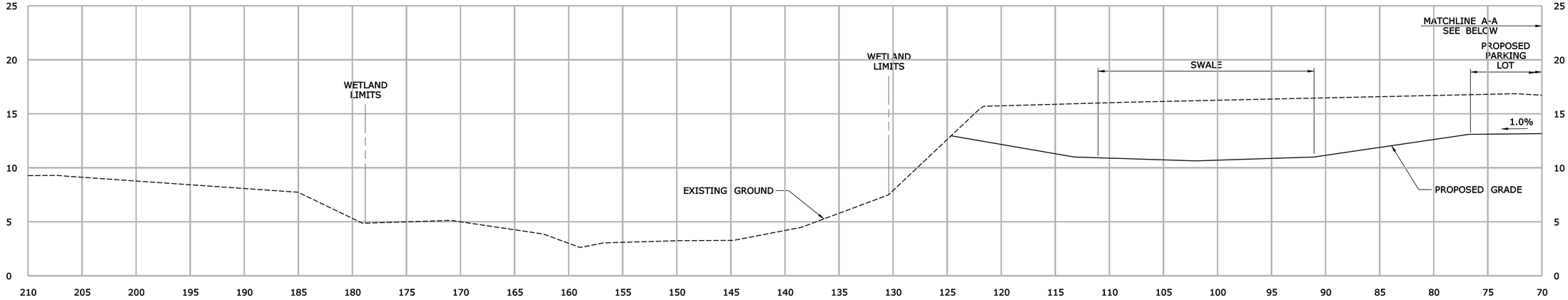
TOWN: **BRANFORD**

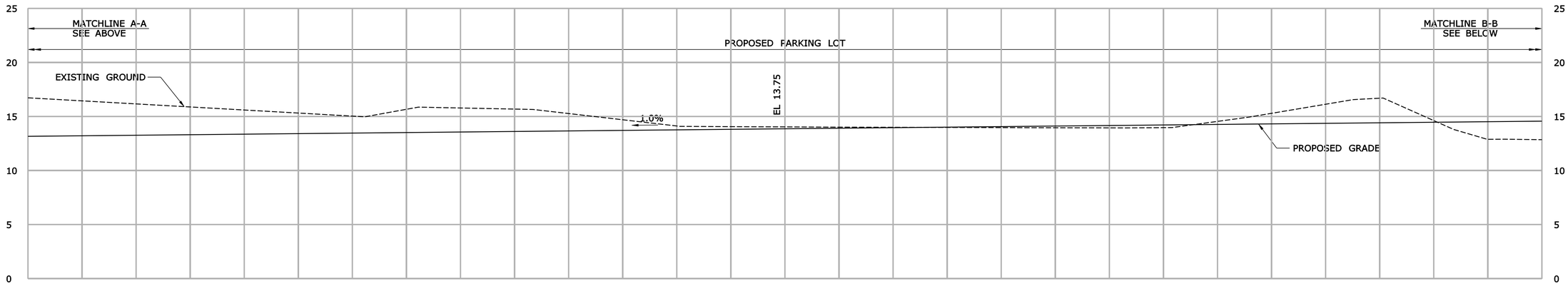
DRAWING TITLE: **CROSS SECTION PARKING LOT**

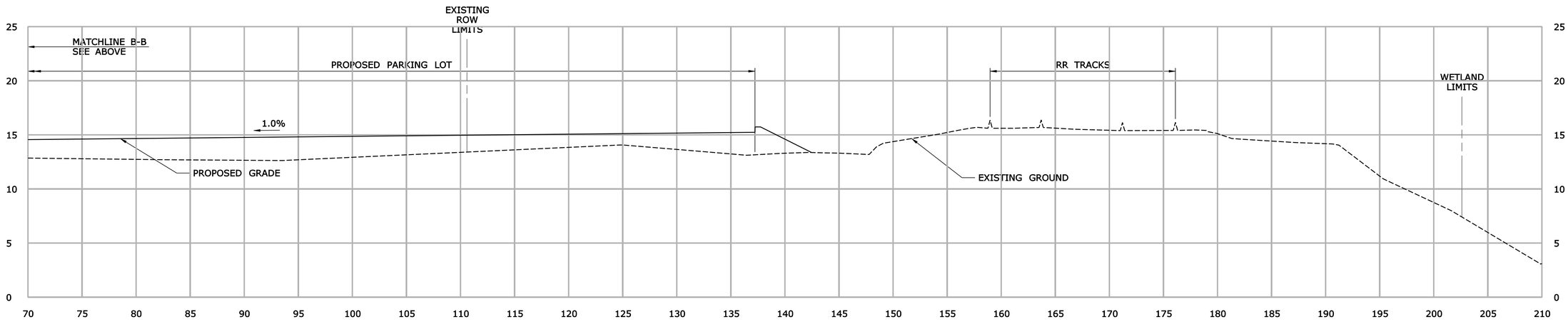
PROJECT NO. **310-0047**

DRAWING NO. **C-301**

SHEET NO. **S**







SECTION AT 14+50 (B / C-102)

SCALE: 1" = 5'-0"

PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename: *.dgn

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Date Plotted: $DATE$

DESIGNER/DRAFTER: -

CHECKED BY: -

SCALE IN FEET 0 5 10

SCALE 1"=5'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING

APPROVED BY: - DATE: -

Baker
BAKER ENGINEERING NY, INC.
2096-B SILAS DEANE HIGHWAY
ROCKY HILL, CT 06067

PROJECT TITLE:
SHORE LINE EAST RAILROAD STATIONS

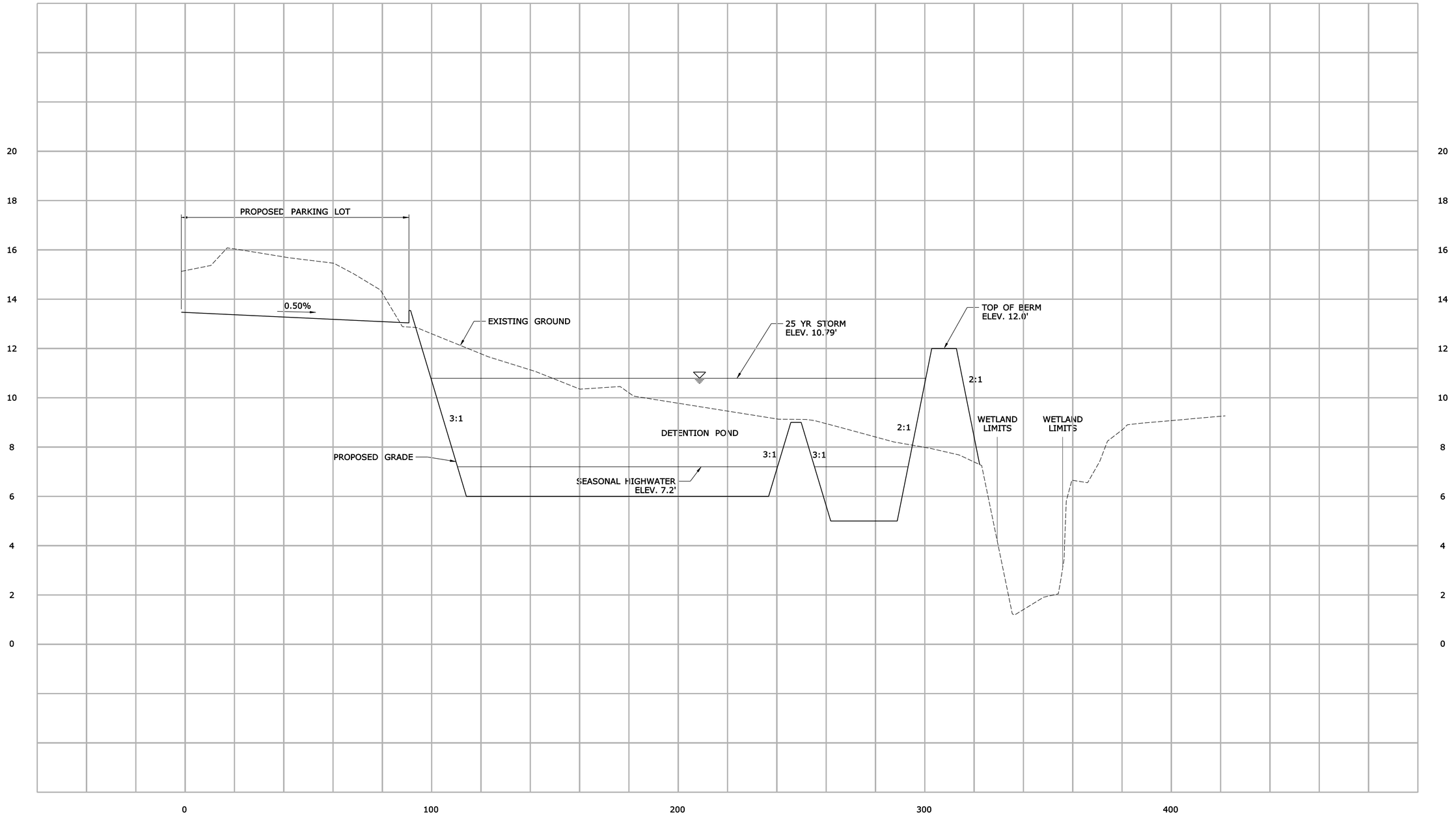
TOWN: **BRANFORD**

DRAWING TITLE: **CROSS SECTION PARKING LOT**

PROJECT NO. **310-0047**

DRAWING NO. **C-302**

SHEET NO. **S**



VERTICAL SCALE 1" = 2'
HORIZONTAL SCALE 1" = 20'

40 20 0 20 40

DETENTION POND A
SCALE: 1" = 20'-0" C-106

PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename: *.dgn

Plotted: $DATE$
Border Version: 5/31/07

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Date Plotted: $DATE$

DESIGNER/DRAFTER: -
CHECKED BY: -

SCALE AS NOTED

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING
APPROVED BY: - DATE: -

Baker
BAKER ENGINEERING NY, INC.
2096-B SILAS DEANE HIGHWAY
ROCKY HILL, CT 06067

PROJECT TITLE:
SHORE LINE EAST
RAILROAD STATIONS

TOWN: **BRANFORD**

DRAWING TITLE:
CROSS SECTION
DETENTION POND

PROJECT NO. **310-0047**
DRAWING NO. **C-303**
SHEET NO. **S**

N/F
RICHARD K GREENALCH
ETALS

Subject to a 10' Easement
for Sanitary Sewer Line In Favor
Of The Town Of Branford

IP
(FND)

BIT DRIVEWAY

GRAVEL

GARAGE

N/F
CALVIN LAIRD &
ANNE DASZUTA
ET AL

GRASS

N/F
DONALD SMITH

GRASS

8" RCP

CL CB
G=23.62
8" Out=21.58
Sump=19.93

2" SPUR-C

BCLC

PORCH

2 STY
FR #14

CONC

PORCH

6" ORNAMETAL

WG's

N/F
APOLONIA F
MESKINES ET

M-1

MEADOW STREET

KIRKHAM STREET

8.5±n

San MH
R=7.50
Inv=5.85

VA RAIL
FENCE

10' Sewer Easement
In Favor Of The
Town Of Branford

WOODED

SPUR-B

36"
QUAD
MAPLE

BRUSH & DEBRIS
(OLD TREES & WOOD CHIPS)

IP
(FND)

IP
(FND)

CL&P
#41565

GG

G.G.'s

CLP 7155

PORATION

FL=-0.04

Wood Plank
End wall

24" CIP

AT 81/3

APPROX. LOC. FIBER OPTIC CONDUIT

CAT 81/5

581400

E

N 160800
Field Locate

CAT 81/7

SPUR-C

MCI FIBER OPTIC
WARNING POST

CAT 81/9

APPROX. LOC. TELE CONDUIT

CAT 81/11

CAT #81-17

CAT #81-19

BIT
WALKWAY

CAT 81/8

CONC

METAL LADDER

GRAVEL

CAT 81/10

GRAVEL

CAT 81/12

RR CONDUIT TRAY

CAT #81-16

CAT #81-18

CAT #81-20

Stone Ret Wall

12 St Steam
CHAIN WIRE FENCE
Bridge Ret Wall

SPUR-D

CONC PLATFORM
OVERHANG

CONC PLATFORM

GRAVEL

PIPE FENCE

CAT 81/6

METAL POSTS

N664
L-2
N=160754.29
E=581190.95
ELEV.=?

FL=-0.47

WALL
CONC

ELEC
BOX

ELEC

CONC

CONC

CONC

GRAVEL

RR
UTILITY

RR
UTIL

GRASS

RR
UTIL

GRASS

#453

GRASS & GRAVEL

BIT

APPROX. LOC. 8"

JERSEY
BARRIER

MAPLE STREET

WIRE ROPE RAIL

Approx L
of Sewer Ea

EDGE OF WATER

6"Perf PVC
U-Drain FL=8.95

DAL STREAM

BRUSH

RUBBER
SAFETY
STRIP

BICYCLE
STAND

WATER
STANDPIPE

RUBBER STRIP

GRAVEL

CULIVATED
AREA

CHAIN WIRE FENCE

CL&P
#44297

CULIVATED
RHODODENDRONS

CULIVATED
AREA

GRASS

2" ORNAMETALS

BCLC

CONC CURB

GRASS

24" RCP

SAN MH(13)
R=14.20
24" INV=-2.90

SPUR-F

BRUSH

SPUR-E

CHAIN WIRE FENCE

SAN MH(14)
R=11.98
12" INV=1.23

MBR

BIT

N

SURVEY PLAN
SCALE: 1" = 20'-0"

PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename:

Plotted: $DATE$
Border Version: 5/31/07

THE INFORMATION, INCLUDING ESTIMATED QUANTITIES OF WORK, SHOWN ON THESE SHEETS IS BASED ON LIMITED INVESTIGATIONS BY THE STATE AND IS IN NO WAY WARRANTED TO INDICATE THE CONDITIONS OF ACTUAL QUANTITIES OF WORK WHICH WILL BE REQUIRED.

Date Plotted: $DATE$

DESIGNER/DRAFTER: -
CHECKED BY: -

SCALE IN FEET
0 20 40
SCALE 1"=20'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING
APPROVED BY: -
DATE: -

Baker
BAKER ENGINEERING NY, INC.
1050-B BLUE GRASS MIDWAY
ROCKY HILL, CT 06067

PROJECT TITLE:
SHORE LINE EAST
RAILROAD STATIONS

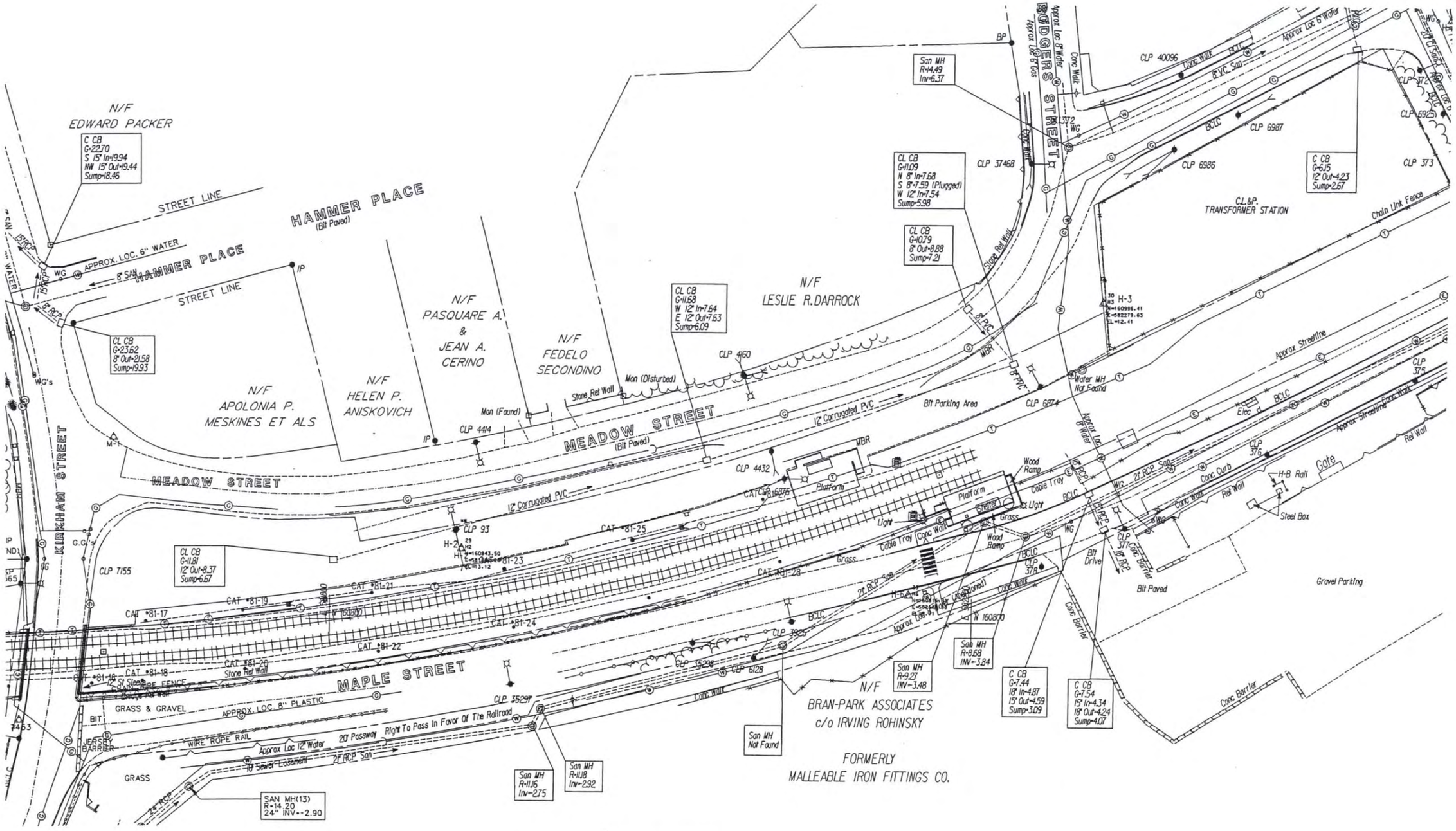
TOWN:
BRANFORD

DRAWING TITLE:
BRANFORD NORTH
SURVEY PLAN

PROJECT NO.
310-0048

DRAWING NO.
C-100

SHEET NO.
#$#



N

SURVEY PLAN

SCALE: 1" = 30'-0"

PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename:

Plotted: $DATE$
Border Version: 5/31/07

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Date Plotted: $DATE$

DESIGNED/DRAFTED: -
CHECKED BY: -

SCALE IN FEET
0 30 60
SCALE 1"=30'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING
APPROVED BY: -
DATE: -

Baker
BAKER ENGINEERING NY, INC.
1568-2 ELM ZONE HIGHWAY
ROCKY HILL, CT 06067

PROJECT TITLE:
SHORE LINE EAST
RAILROAD STATIONS

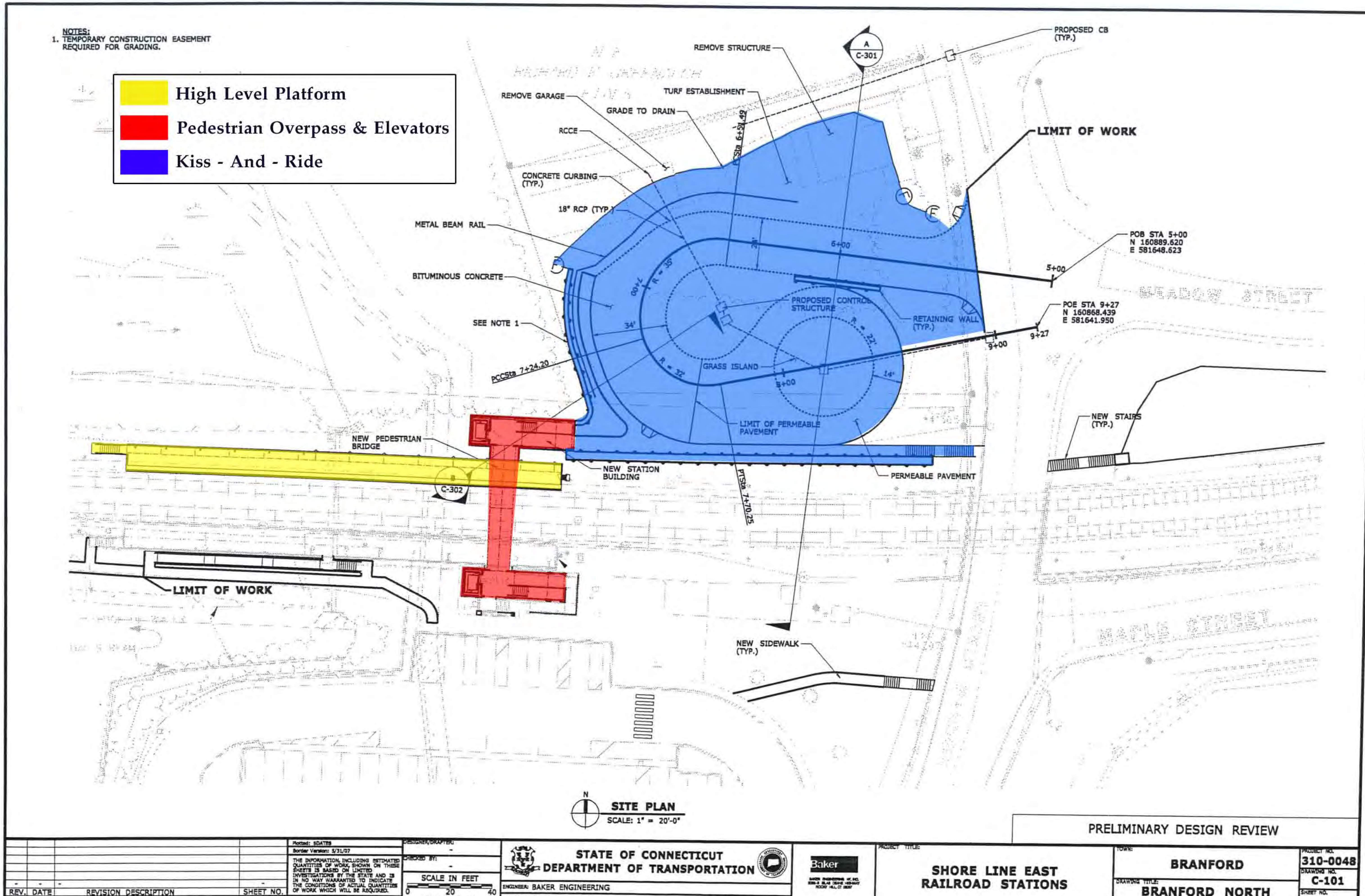
TOWN:
BRANFORD

DRAWING TITLE:
BRANFORD NORTH EAST

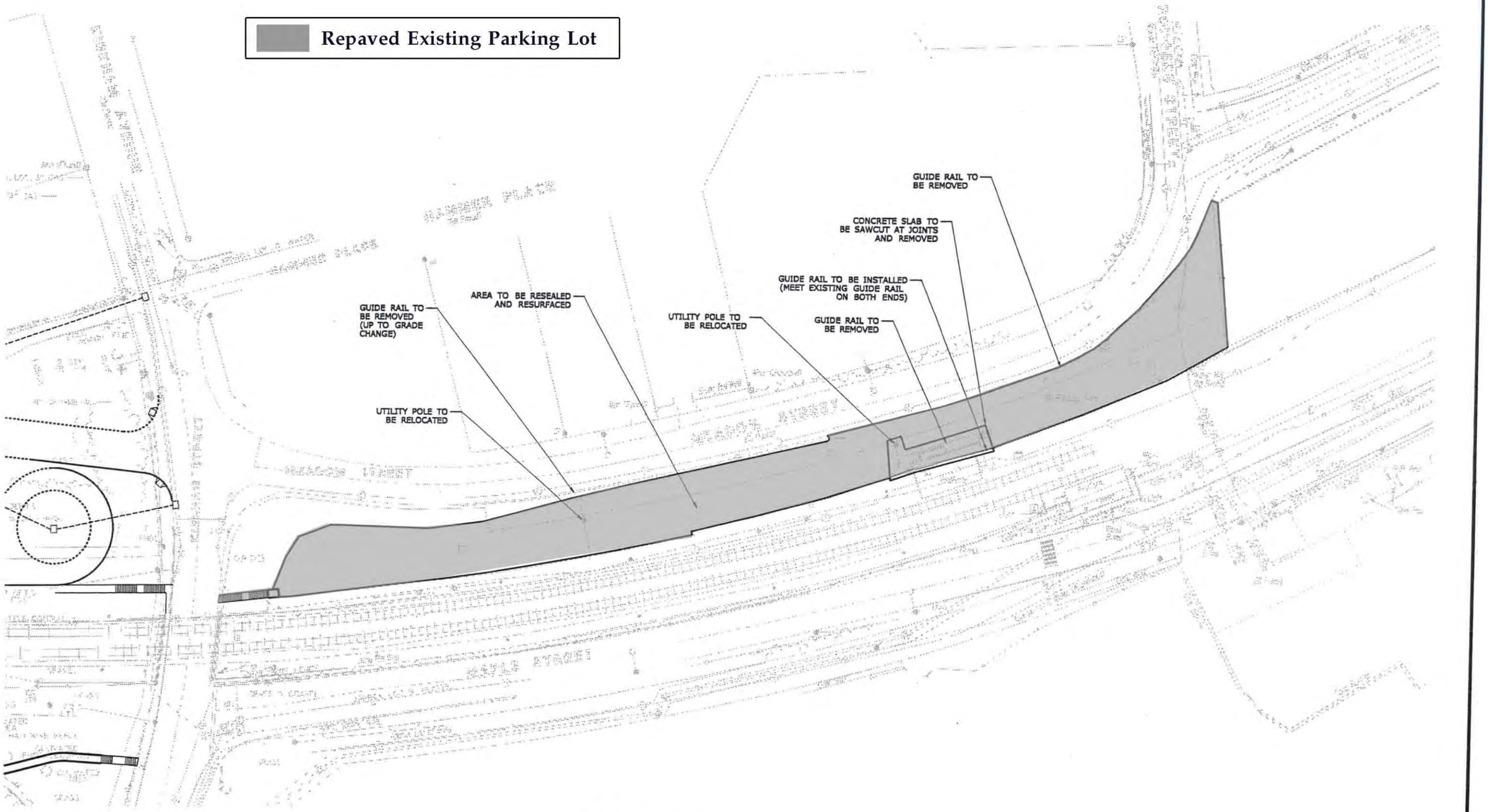
PROJECT NO.
310-0048

DRAWING NO.
C-100B

SHEET NO.


NOTES:
1. TEMPORARY CONSTRUCTION EASEMENT REQUIRED FOR GRADING.
High Level Platform
Pedestrian Overpass & Elevators
Kiss - And - Ride
REMOVE STRUCTURE
PROPOSED CB (TYP.)
A
C-301
REMOVE GARAGE
TURF ESTABLISHMENT
GRADE TO DRAIN
RCCE
LIMIT OF WORK
CONCRETE CURBING (TYP.)
18" RCP (TYP.)
METAL BEAM RAIL
POB STA 5+00
N 160889.620
E 581648.623
BITUMINOUS CONCRETE
PROPOSED CONTROL STRUCTURE
RETAINING WALL (TYP.)
SEE NOTE 1
POE STA 9+27
N 160868.439
E 581641.950
GRASS ISLAND
NEW STAIRS (TYP.)
LIMIT OF PERMEABLE PAVEMENT
NEW PEDESTRIAN BRIDGE
NEW STATION BUILDING
PERMEABLE PAVEMENT
C-302
LIMIT OF WORK
NEW SIDEWALK (TYP.)
SITE PLAN
SCALE: 1" = 20'-0"
PRELIMINARY DESIGN REVIEW
STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
ENGINEER: BAKER ENGINEERING
SHORE LINE EAST RAILROAD STATIONS
BRANFORD
BRANFORD NORTH
310-0048
C-101
REV. DATE REVISION DESCRIPTION SHEET NO.
SCALE IN FEET
SCALE 1"=20'

Repaved Existing Parking Lot



N

SITE PLAN
SCALE: 1" = 30'-0"

PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename:

Plotted: $DATE$
Border Version: 5/31/07

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Date Plotted: $DATE$

DESIGNER/DRAFTER: -
CHECKED BY: -

SCALE IN FEET
0 20 40
SCALE 1"=20'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING
APPROVED BY: - DATE: -

Baker
BAKER ENGINEERING NY INC.
2235-2 SILAS DEANE HIGHWAY
ROCKY HILL, CT 06067

PROJECT TITLE:
SHORE LINE EAST RAILROAD STATIONS

TOWN: **BRANFORD**

DRAWING TITLE: **BRANFORD NORTH EAST**

PROJECT NO. **310-0048**
DRAWING NO. **C-101B**
SHEET NO.

High Level Platform

Pedestrian Overpass & Elevators

Kiss - And - Ride

PAINTED PAVEMENT MARKINGS
4" YELLOW

PAINTED PAVEMENT MARKINGS
4" WHITE

PAINTED PAVEMENT MARKINGS
3" WHITE

PAINTED PAVEMENT MARKINGS
12" WHITE

PAINTED PAVEMENT MARKINGS
4" YELLOW @ 2' C-C

10'

GRAVEL

GRAVEL

GRAVEL

GRADOW STREET

MAPLE STREET

N

STRIPING PLAN
SCALE: 1" = 20'-0"

PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename:

Plotted: $DATE$
Border Version: 5/31/07

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Date Plotted: $DATE$

DESIGNER/DRAFTER: -
CHECKED BY: -

SCALE IN FEET
0 20 40
SCALE 1"=20'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING

APPROVED BY: -

Baker

PROJECT TITLE:
SHORE LINE EAST
RAILROAD STATIONS

TOWN: BRANFORD

DRAWING TITLE: BRANFORD NORTH

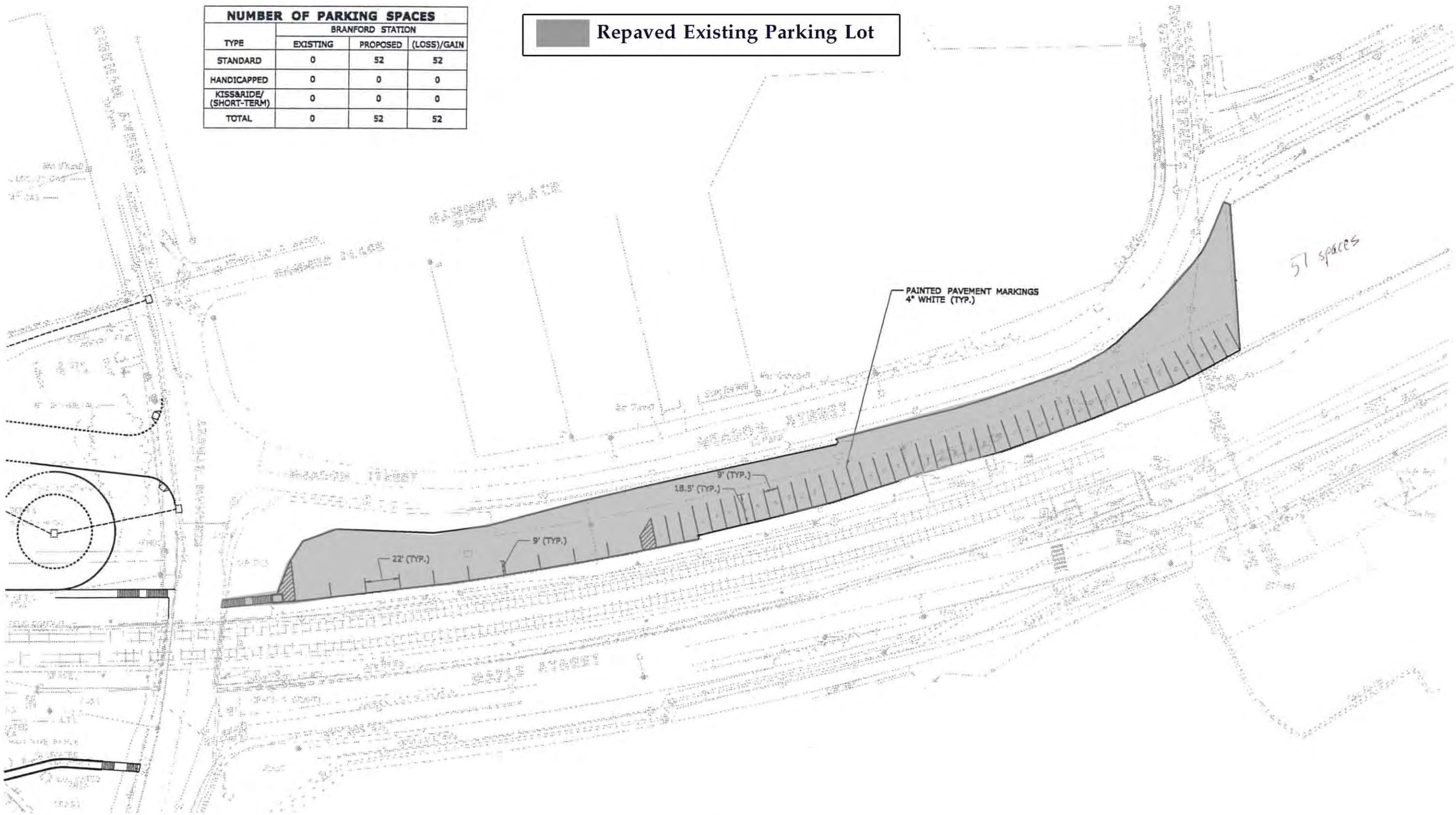
PROJECT NO. 310-0048

DRAWING NO. C-102

SHEET NO.

NUMBER OF PARKING SPACES			
TYPE	BRANFORD STATION		
	EXISTING	PROPOSED	(LOSS)/GAIN
STANDARD	0	52	52
HANDICAPPED	0	0	0
KISS&RIDE/ (SHORT-TERM)	0	0	0
TOTAL	0	52	52

Repaved Existing Parking Lot



N

STRIPING PLAN
SCALE: 1" = 30'-0"

PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename:

Plotted: $DATE$
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Date Plotted: $DATE$

DESIGNER/DRAFTER: -
CHECKED BY: -

SCALE IN FEET
0 20 60
SCALE 1"=20'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING
APPROVED BY: - DATE: -

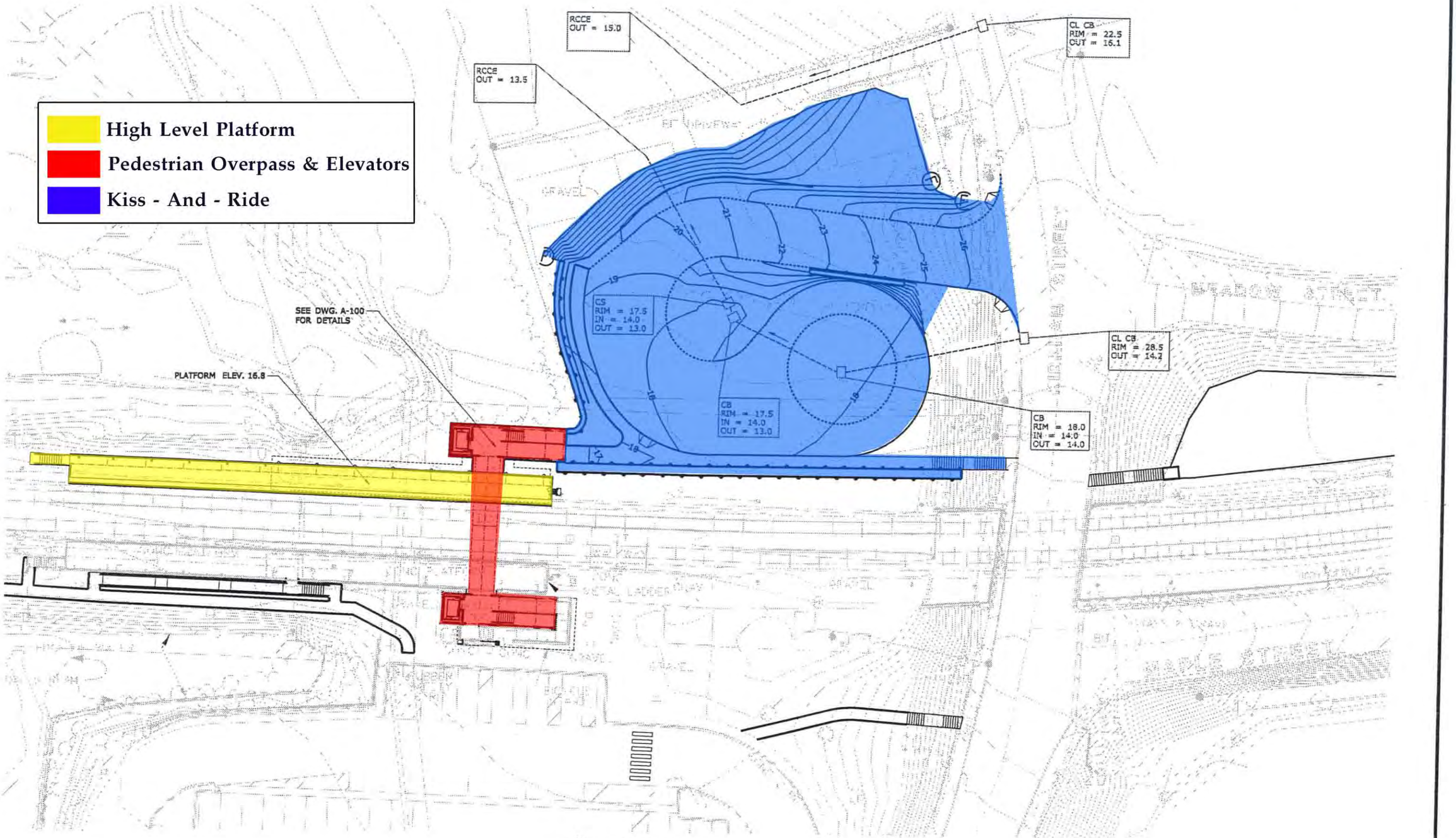
Baker

PROJECT TITLE:
SHORE LINE EAST RAILROAD STATIONS

TOWN: **BRANFORD**

DRAWING TITLE: **BRANFORD NORTH EAST**

PROJECT NO. **310-0048**
DRAWING NO. **C-102B**
SHEET NO.



N

GRADING PLAN
SCALE: 1" = 20'-0"

PRELIMINARY DESIGN REVIEW

REV.	DATE	REVISION DESCRIPTION	SHEET NO.
-	-	-	-

Filename:

Plotted: $DATE$
Border Version: 5/31/07

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Date Plotted: $DATE$

DESIGNER/DRAFTER: -
CHECKED BY: -

SCALE IN FEET
0 20 40
SCALE 1"=20'

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

ENGINEER: BAKER ENGINEERING
APPROVED BY: -
DATE: -

Baker
BAKER ENGINEERING NY, INC.
8130-B BLUE CRAB HERITAGE ROCKY HILL, CT 06067

PROJECT TITLE:
SHORE LINE EAST
RAILROAD STATIONS

TOWN: **BRANFORD**
DRAWING TITLE: **BRANFORD NORTH**

PROJECT NO. **310-0048**
DRAWING NO. **C-103**
SHEET NO.

APPENDIX B
Scoping Notice and Correspondence/Coordination

Monitor Archives

ENVIRONMENTAL MONITOR

The official site for project information under the Connecticut Environmental Policy Act

June 5, 2007

Scoping Notices

1. **NEW!** Waterbury Transportation Center (Waterbury)
2. **NEW!** Branford Shore Line East Railroad Station (Branford)
3. **NEW!** Madison Shore Line East Railroad Station (Madison)

Environmental Impact Evaluations available for review and comment

1. **NEW!** Metropolitan District Long Term Combined Sewer Overflow Control Project (Primarily Hartford, West Hartford)
2. Implementation of Master Plan Activities, East Haven Rifle Range (East Haven)
3. South Windsor I-291 Gateway Zone (South Windsor)

The next issue will be published on June 19, 2007.
Subscribe to e-alerts to receive an e-mail when The Environmental Monitor is published.

Scoping Notices

Scoping Notices have been issued for the following state projects. These projects are in the earliest stages of planning. At the scoping stage, detailed information on a project's design, alternatives, and environmental impacts does not yet exist. Sponsoring agencies are asking for comments from other agencies and from the public as to the scope of alternatives and environmental impacts that should be considered for further study. Send your comments to the contact person listed for the project by the date indicated.

2. Notice of Scoping for Improvements to the Branford Shore Line East Railroad Station

Municipality where project is located: Branford

Address of Project Location: Meadow Street and Kirkham Street, Branford, CT

Project Description: Improvements include the construction of a 250 space surface parking lot on a parcel of land adjacent to the existing railroad station. Other improvements include the construction of a new north-side high level rail platform, reopening of the original resurfaced 70 space parking lot and construction of approximately 20 surface parking spaces on the north side of the tracks. This project will provide a total of 340 parking spaces.

Project Map: Click here to view map #1 Click here to view map # 2

Written comments from the public are welcome and will be accepted from June 5, 2007 until the close of business on July 19, 2007.

Any person can ask the sponsoring agency to hold a Public Scoping Meeting by sending such a request to the address below. If a meeting is requested by 25 or more individuals, or by an association that represents 25 or more members, the sponsoring agency shall schedule a Public Scoping Meeting.

Written comments and/or requests for a Public Scoping Meeting should be sent to:

Name: Mr. Edgar T. Hurle - Transportation Planning Director
Agency: State of Connecticut Department of Transportation

Address: 2800 Berlin Turnpike
Newington, CT 06131

Fax: 860-594-3377
E-Mail: Edgar.Hurle@po.state.ct.us

If you have questions about the public meeting, or other questions about the scoping for this project, contact:

Name: Ms. Jessica DiLuca - Transportation Planner II
Agency: State of Connecticut Department of Transportation

Address: 2800 Berlin Turnpike
Newington, CT 06131

Phone: 860-594-2135
Fax: 860-594-3028
E-Mail: Jessica.DiLuca@po.state.ct.us

The agency expects to release a Draft Environmental Impact Evaluation for this project, for public review and comment, in October, 2007

Connecticut Commission on Culture & Tourism

Historic Preservation
& Museum Division

59 South Prospect Street
Hartford, Connecticut
06106

(v) 860.566.3005
(f) 860.566.5078

March 14, 2006

Mr. Scott A. Hill
Bureau of Engineering & Highway Operations
ConnDOT
2800 Berlin Turnpike
Newington, CT

Subject: Supplemental Rail Parking
Branford Shore Line East Railroad Station
Branford, CT
ConnDOT #310-xxx

Dear Mr. Hill:

The State Historic Preservation Office has reviewed the above-named project. This office expects that the proposed undertaking will have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places.

This office appreciates the opportunity to have reviewed and commented upon the proposed undertaking.

This comment is provided in accordance with the National Historic Preservation Act and the Connecticut Environmental Policy Act.

For further information please contact Dr. David A. Poirier, Staff Archaeologist.

Sincerely,

J. Paul Loether
Division Director and Deputy
State Historic Preservation Officer

cc: Mr. Keith Hall/ConnDOT

4/63.13

Connecticut Commission on Culture & Tourism

Historic Preservation & Museum Division

59 South Prospect Street
Hartford, Connecticut
06106

(v) 860.566.3005
(f) 860.566.5078

FROM THE DESK OF
CYNTHIA S. HOLDEN

JUN 2 6 2007

	F.Y.I.	PLS. DO	PLS. SEE ME
KEITH T. HALL			
MARK W. ALEXANDER			
PAUL N. CORRENTE			
STEPHEN V. DELPAPA			

June 20, 2007

Ms. Cynthia S. Holden
Environmental Planning
ConnDOT
2800 Berlin Turnpike
Newington, CT

Subject: Branford Shore Island East Railroad Station Improvements
Meadow Street and Kirkham Street
Branford, CT
ConnDOT #310-xxx

Dear Ms. Holden:

The State Historic Preservation Office has reviewed the above-named project. This office expects that the proposed undertaking will have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places.

This office appreciates the opportunity to have reviewed and commented upon the proposed undertaking.

This comment is provided in accordance with the National Historic Preservation Act and the Connecticut Environmental Policy Act.

For further information, please contact Dr. David A. Poirier, Staff Archaeologist.

Sincerely,

Karen Senich
Deputy State Historic Preservation Officer

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

June 6, 2007

Mr. Edgar T Hurle, Transportation Planning Director
Department of Transportation
2800 Berlin Turnpike
Newington, CT 06106

RE: Notice of Scoping for Improvements to the Branford Shore Line East Railroad Station

Dear Mr. Hurle:

The Drinking Water Section of the Department of Public Health has reviewed the above-mentioned project for potential impacts to any sources of public drinking water supply. This project does not appear to be in a public water supply source water area, therefore the Drinking Water Section has no comments at this time.

Sincerely,

Lori Mathieu, Supervising Environmental Analyst
Source Water Protection Unit
Drinking Water Section

Phone: (860) 509-7333
Telephone Device for the Deaf: (860) 509-7191
410 Capitol Avenue - MS # 51 WAT
P.O. Box 340308 Hartford, CT 06134

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

July 17, 2007

Mr. Edgar T. Hurle, Transportation Planning Director
Connecticut Department of Transportation
2800 Berlin Turnpike
Newington, CT 06131-7546

Re: Review of Scoping Notice for Improvements to the Branford Shore Line East Railroad Station

Dear Mr. Hurle:

The following comments are offered in response to your request concerning the improvements to the Branford Shore Line East Railroad Station located at Meadow Street and Kirkham Street, Branford, CT. A review of the Scoping Description indicated that improvements would consist of construction of a 250 space surface parking lot on a parcel of land adjacent to the existing railroad station.

The following summarizes the Department's position with regard to lead and asbestos issues:

A. Lead-Based Paint:
Many demolition, rehabilitation, or renovation activities that are associated with these types of projects are not subject to the Department of Public Health (DPH), Childhood Lead Poisoning Prevention and Control (LPPC) Regulations (§§19a-111-1 through 19a-111-11). Should the scope of the project change from demolition to renovation/rehabilitation and if children under six (6) years of age live in any residences that will be undergoing renovation/rehabilitation where testing of paint reveals toxic levels of lead, then compliance with applicable CT Department of Public Health regulations on lead abatement must be achieved.

Please be aware that many renovation projects that involve residential properties and utilize U.S. Department of Housing and Urban Development (HUD) funding, are significantly affected by recently enacted federal rules (24 CFR Part 35, et al.) regarding the use of lead-safe work practices. These revised federal requirements took effect on September 15, 2000. Many HUD funded renovation projects may proceed with the use of lead-safe work practices that are implemented by workers (renovators and painters) who have been trained in lead-safe work techniques. However, some HUD funded renovation projects would trigger the LPPC regulations and require the use of appropriate lead abatement protocol and trained, state certified lead abatement personnel. Determination in this regard is dependant upon site specific circumstances such as; (1) occupancy status regarding children under six years of age, (2) paint testing obligations per the HUD regulations, and (3) the amount of federal funding that is dedicated to a project.

Phone:
Telephone Device for the Deaf: (860) 509-7191
410 Capitol Avenue - MS # _____
P.O. Box 340308 Hartford, CT 06134

In addition there are other issues that must be addressed related to lead-based paint. Among these issues are the following:

- Any testing of paint on existing structures must be performed by a lead inspector or lead inspector/risk assessor certified by the DPH.
- Planned rehabilitation, renovation, or demolition activities should be performed using lead-safe work practices.
- Additionally, if lead-based paint or lead containing paint is identified, workers must be trained (as a minimum) according to the Occupational Safety and Health Administration (OSHA) lead standard (29 CFR 1926.62). Because other contaminants may also be present on the site, additional health and safety training may be required (e.g., hazardous waste and/or asbestos).
- If lead-based paint or lead containing paint is identified on any of the structures, the classification and disposal of generated waste must comply with the Resource Conservation Recovery Act (RCRA) and Connecticut Department of Environmental Protection standards (e.g., Toxicity Characteristic Leaching Procedure [TCLP] testing, and reporting and record keeping requirements by the contractor).

Additional inquiries on the subject of lead-based paint can be directed to Alan Buzzetti, Supervising Environmental Sanitarian, Lead Environmental Management Unit at (860) 509-7299.

B. Asbestos Program:

This facility is subject to the provisions of 40 CFR 61, Subpart M, the asbestos national Emission Standards for Hazardous Air Pollutions. As such, a thorough inspection of the facility must be conducted prior to commencement of any renovation or demolition activities. A DPH licensed asbestos inspector or Management Planner is required to conduct this asbestos inspection. In the event that asbestos-containing material is identified that will be impacted by the renovation or demolition activities, the material must be properly abated. A DPH licensed asbestos abatement contractor must conduct any asbestos abatement that involves more than three (3) linear feet or more than three square feet of asbestos-containing material. Additionally, the DPH must provide with notification prior to asbestos abatement that involves greater than 10 linear feet or greater than 25 square feet. Asbestos abatement must be performed in accordance with all applicable federal, state, and local regulations.

Additional inquiries on the subject of asbestos abatement can be directed to Ronald Skomro, Supervising Environmental Sanitarian, Coordinator of the Asbestos Program at 860-509-7367.

Please contact Ron Skomro, Supervising Environmental Sanitarian, Asbestos Program at (860) 509-7367.

Sincerely,

Suzanne Blancaflor, MS, Chief
Environmental Health Section

C: J. Smith, Office of Policy Management

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

July 18, 2007

RECEIVED

JUL 19 2007

ENVIRONMENTAL PLANNING
DIVISION

Mr. Edgar T. Hurle, Transportation Planning Director
Connecticut Department of Transportation
Bureau of Policy and Planning
2800 Berlin Turnpike
Post Office Box 317546
Newington, Connecticut 06131-7546

Re: Scoping Notice – Branford Shore Line East Railroad Station

Dear Ned:

These comments are provided in response to the Notice of Scoping published in the Environmental Monitor for the improvements to the Branford station of Shore Line East. DEP supports efforts to expand the capacity of public transportation services such as Shore Line East, and in this specific case its potential to reduce vehicle miles of travel and congestion on Interstate 95.

DEP also notes that the expansion and upgrade of Shore Line East services and facilities is endorsed in the *South Central Regional Long Range Transportation Plan 2007 – 2035*. That Plan also advocates that provision be made for bicycles at Shore Line East facilities. DEP endorses the call for bicycle racks at Shore Line East stations to encourage multi-modal trips involving bicycles and mass transit.

The proposed project includes that construction of a new 250 space parking lot west of the existing lot, construction of a northside high level platform, reopening of the original 70 space parking lot, and the addition of a 20 space lot on the north side of the tracks.

The site plan attached to the Notice of Scoping appears to show the footprint of the new parking area encroaching into the tidal creek separating the new and existing lots. Both from the standpoint of actual encroachment into a tidal creek or tidal wetland and the proximity of the new lot to the creek, DEP is concerned about potential adverse impacts to tidal wetlands and coastal water quality from stormwater runoff and direct filling, and we will be evaluating the plans to ensure such impacts are minimized. Even relatively clean runoff of fresh water into tidal wetlands or creeks can cause adverse impacts. Approaches such as maximizing stormwater infiltration may likely be encouraged to reduce heated runoff and freshwater discharges to tidal wetlands. In evaluating any design that incorporates stormwater infiltration, we would need soil boring and permeability data and require adequate pretreatment to ensure the long-term effectiveness of the system. It appears from the plans that some preliminary soil probing has been conducted.

FROM THE DESK OF
CYNTHIA S. HOLDEN

JUL 20 2007

	F.Y.I.	PLS. DO	PLS. SEE ME
KEITH T. HALL	✓		
MARK W. ALEXANDER			
PAUL N. CORRENTE			
STEPHEN V. DELPAPA			

The proposed project lies within the Connectcitut Coastal Boundary as established by Connecticut General Statutes section 22a-94 and, therefore, any actions proposed by ConnDOT within the coastal boundary which may significantly affect the environment must be fully consistent with the policies and standards of the Connecticut Coastal Management Act. Because this is a State action, not subject to municipal review, ConnDOT will need to request a coastal consistency concurrence determination from the DEP Office of Long Island Sound Programs.

The site plan map attached to the Notice of Scoping is, because of its scale, not totally clear as to the presence and extent of tidal waters or tidal wetlands involvement in the new parking lot and the access to it. ConnDOT will need to apply to the DEP Office of Long Island Sound Programs (DEP-OLISP) for either a Structures, Dredging and Fill Permit, pursant to sections 22a-359 through 22a-363f of the Connecticut General Statutes and/ or a Tidal Wetlands Permit pursuant to Connecticut General Statutes sections 22a-28 through 22a-35. This project will be held to a standard of no new fill being placed in tidal wetlands or tidal waters. ConnDOT is encouraged to discuss this project with DEP-OLISP staff at its earliest convenience. That office can be contacted at (860) 424-4034. Opportunities to improve tidal circulation in the creek between the existing and proposed new parking lots should be explored.

It appears from the scoping notice site plan that the new lot will be approximately two acres in size. For stormwater discharges from construction sites where one or more acres are to be disturbed, a permit pursuant to 40 CFR 122.26 is required. The Permitting & Enforcement Division has issued a *General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities* that will cover these discharges. For projects disturbing five or more acres, registration describing the site and the construction activity must be submitted to the Department prior to the initiation of construction. A stormwater pollution control plan, including measures such as erosion and sediment controls and post construction stormwater management, must be prepared. For sites where more than 10 acres will be disturbed, the plan must be submitted to the Department. A goal of 80 percent removal of total suspended solids from the stormwater discharge shall be used in designing and installing stormwater management measures. Another requirement of this permit is that stormwater discharges located less than 500 feet from a tidal wetland must be discharged through a system designed to retain the volume of stormwater runoff generated by 1 inch of rainfall on the site. For construction projects with a total disturbed area between one and five acres, no registration is required as long as the project is reviewed by the town and receives written approval of its erosion and sediment control measures and it adheres to the *Connecticut Guidelines for Soil Erosion and Sediment Control*. If no review is conducted by the town or written approval is not provided, the permittee must register with the Department. For further information, contact the division at (860) 424-3018. A copy of the general permit as well as registration forms may be downloaded at:
http://www.ct.gov/dep/cwp/view.asp?a=2709&q=324212&depNav_GID=1643#StormwaterConstructionGP

ConnDOT has previously contacted the DEP Natural Diversity Data Base regarding this project and has received a reply dated February 27, 2007 stating that "According to our records, there are no known extant populations of Federal or State Endangered, Threatened or Special Concern Species at the site in question."

Our best wishes to ConnDOT as you proceed with the development of an Environmental Impact Evaluation for this project. We look forward to reviewing this document when it has been completed and released, and we wish you well with this project. If you should have any questions concerning these comments, please feel free to call me at (860) 424-4110.

Respectfully,

Frederick L. Riese

Frederick L. Riese
Senior Environmental Analyst

cc: John Gaucher, OLISP
Robert Kaliszewski

FITZGERALD & HALLIDAY, INC.
72 Cedar Street, Hartford, Connecticut 06106
Tel. (860) 247-7200
Fax (860) 247-7206

October 1, 2007

Mr. Michael J. Bartlett
New England Field Offices Supervisor
United States Fish & Wildlife Service
70 Commercial Street, Suite 300
Concord, NH 03301-5087

Subject: Shoreline East Expansion - Branford
Branford, Connecticut

Dear Mr. Bartlett,

Fitzgerald & Halliday, Inc. is presently under contract to prepare environmental impact documents and permits for the above referenced State of Connecticut project. A review of the Connecticut Department of Environmental Protection (CTDEP) State and Federal Listed Species and Significant Natural Communities GIS database dated May 2007 for the project study area indicates that there are locations of potential conflict with an endangered species and/or significant natural community.

To further support FHI's investigation into potential threatened and endangered species concerns and/or significant wildlife habitats, FHI requests that your office kindly forward us any federal threatened and endangered species information related to this project study area. A map depicting the project study area and CTDEP State and Federal Listed Species and Significant Natural Communities data is enclosed. We look forward to receiving any information you can provide us, and to future coordination with your office.

Very truly yours,

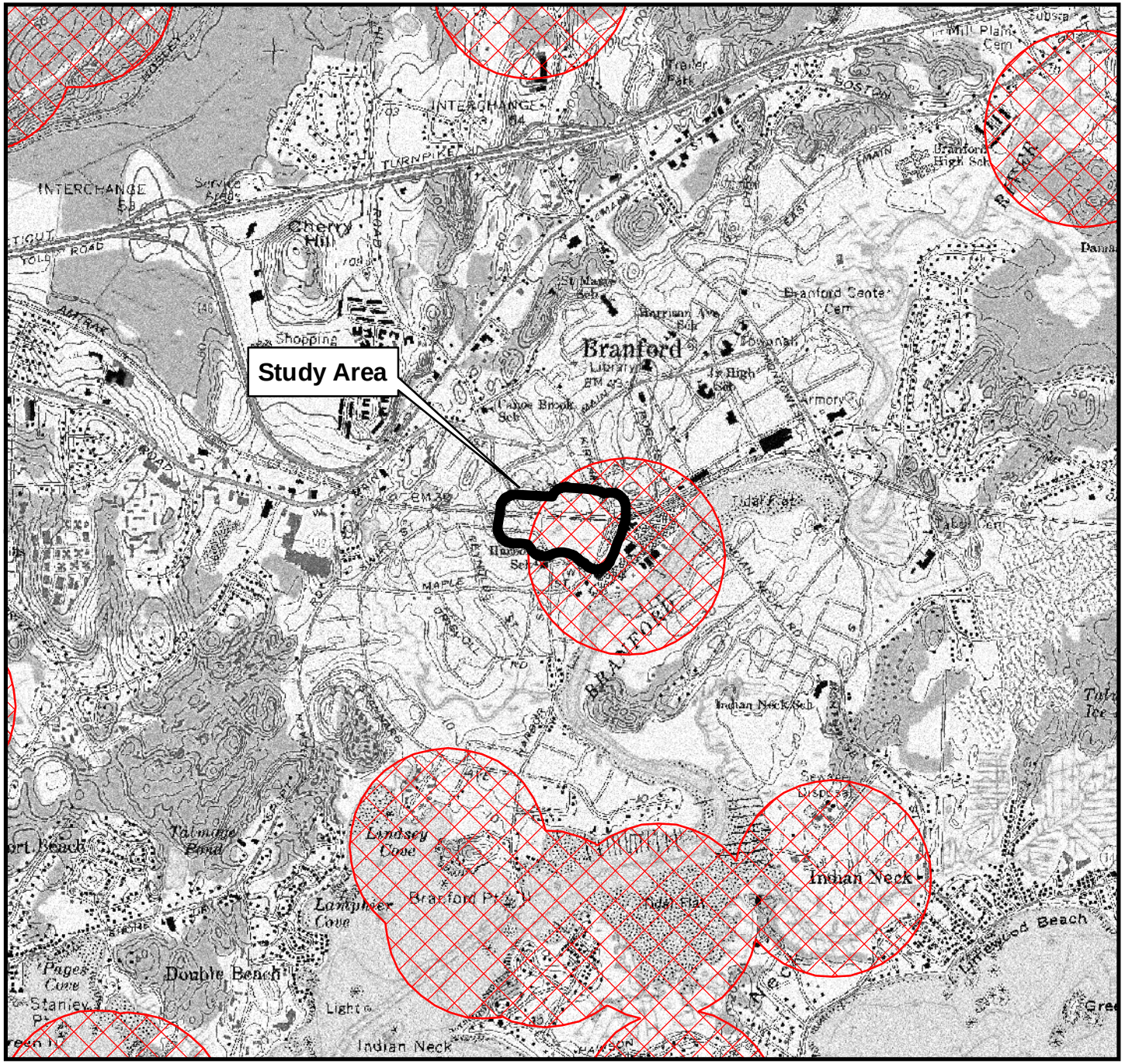
FITZGERALD & HALLIDAY, INC.

David Laiuppa

David Laiuppa
Planner II

Enclosure

Cc: J. DiLuca, P. Stanton (FHI), file P463.13



Study Area

CT NDDB - 2007

U.S.G.S. Quadrangle: Branford, CT

1:24,000

CT DEP Natural Diversity Database - 2007

Shoreline East Expansion Branford, CT

September 2007 - Fitzgerald & Halliday, Inc. - Project # 463.13 - original in color

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

November 2, 2007

Reference: Project: Site assessment; Location: Branford, CT

David Laiuppa
Fitzgerald & Halliday, Inc.
72 Cedar St.
Hartford, CT 06106

Dear Mr. Laiuppa:

This responds to your recent correspondence requesting information on the presence of federally-listed and/or proposed endangered or threatened species in relation to the proposed activity(ies) referenced above.

Based on information currently available to us, no federally-listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under Section 7 of the Endangered Species Act is not required.

This concludes our review of listed species and critical habitat in the project location(s) and environs referenced above. No further Endangered Species Act coordination of this type is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

In order to curtail the need to contact this office in the future for updated lists of federally-listed or proposed threatened or endangered species and critical habitats, please visit the Endangered Species Consultation page on the New England Field Office's website:

www.fws.gov/northeast/newenglandfieldoffice/EndangeredSpec-Consultation.htm

In addition, there is a link to procedures that may allow you to conclude if habitat for a listed species is present in the project area. If no habitat exists, then no federally-listed species are present in the project area and there is no need to contact us for further consultation. If the above conclusion cannot be reached, further consultation with this office is advised. Information describing the nature and location of the proposed activity that should be provided to us for further informal consultation can be found at the above-referenced site.

Thank you for your coordination. Please contact us at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Anthony P. Tur
Endangered Species Specialist
New England Field Office

Instructions for Completing a Connecticut Natural Diversity Data Base Review Request Form

Introduction

Section 26-310 of the Connecticut General Statutes (CGS) provides that any activity authorized by a state agency, including any activity issued a permit by DEP, must not threaten the continued existence of any endangered or threatened species. If your activity is located in an area of concern, DEP's Connecticut Natural Diversity Data Base (CT NDDB) program will conduct a detailed review to determine if there will be any impact from your project and you will be notified of their results.

How to Use the Maps

DEP has produced a set of maps entitled "State and Federal Listed Species and Natural Communities" (NDDB maps). These maps serve as a preliminary screening tool to assist in the evaluation of impacts to endangered and threatened species.

In order to determine whether your proposed activity may threaten the continued existence of an endangered or threatened species, you should review the NDDB maps. The maps are available in the DEP File Room at 79 Elm Street, Hartford, as well as with each town planner. NDDB printed maps and GIS data are also available for purchase from the DEP Store.

The maps are based on USGS quadrangle maps and cover the entire State of Connecticut. To use the maps, locate the project boundaries and any additional impacted areas on the appropriate map(s). If you are not sure on which quadrangle the project is located, use the quadrangle index map to identify the appropriate quadrangle(s).

No Conflict

If the project is **not**

- within a shaded area; or
- overlapping a water body that has any shading; or
- upstream or downstream (by less than ½ mile) from a shaded area

the project will not impact any known occurrence of listed species or significant natural community. If you are applying for a DEP permit, indicate, in the site information section of the relevant permit application form, that the maps were reviewed and list the date of the map (located in the map legend). You do not need to complete and submit the *CT NDDB Review Request Form* (DEP-APP-007).

Potential Conflict

If any part of the project **is**

- within a shaded area; or
- overlapping a water body that has any shading; or
- upstream or downstream (by less than ½ mile) from a shaded area

then the project may have a conflict with a species or natural community.

In the case of a potential conflict, a completed *CT NDDB Review Request Form* (DEP-APP-007) with a project description and a copy of a map (a 1:24,000 USGS quadrangle map) clearly showing the project boundaries must be submitted to the NDDB program at the address specified on the form. If a field survey of the project area has been previously conducted to identify any presence of endangered, threatened or special concern species, indicate, on the CT NDDB Request Form, the biologist's name who conducted the field survey, his or her address, and include a copy of the field survey, with the completed CT NDDB Request Form.

NDDB staff will perform a more detailed review of projects identified as having potential conflicts. (Note: NDDB review generally takes four to six weeks.) Depending on the nature and scope of the proposed project, you may be required to obtain additional on-site surveys.

NDDB will return a “no conflict” response if listed species or significant natural communities will not be impacted based on the scope of the project activities and project location. This “no conflict” response can be submitted with the permit application form or forwarded to the DEP permit analyst working on your project.

If the project *potentially impacts* listed species or significant natural communities, the appropriate DEP division will provide recommendations to avoid endangered and threatened species or recommendations to minimize impacts to species of special concern and significant natural communities. The comments will vary depending on the scope of the proposed project or activity and the extent of the information available on the species or community to be impacted.

DEP responsibility for listed species and natural communities is as follows: the NDDB is responsible for plants and natural communities; the Wildlife Division is responsible for vertebrate and invertebrate animals (except fish); and the Fisheries Division is responsible for the listed fish species. The permit analyst will incorporate this information into any permits issued by the department.

DEP's Permit Application Management System will verify the information submitted as part of the permit application process. Projects with a long planning stage should be reviewed annually as the information on the maps does change as information is added and updated by the NDDB program.

For information other than for site specific projects or if you have any questions, contact the NDDB at 860-424-3540.

Connecticut Natural Diversity Data Base Review Request Form

Please complete this form *only* if you have conducted a review which determined that your activity is located in an area of concern.

Name: **David Laiuppa**

Affiliation: **Fitzgerald & Halliday, Inc.**

Mailing Address: **72 Cedar Street**

City/Town: **Hartford** State: **CT** Zip Code: **06106**

Business Phone: **8602432456** ext. Fax: **8607606225**

Contact Person: **David Laiuppa** Title:

Project or Site Name: **Shoreline East Expansion - Branford**

Project Location

Town: **Branford** USGS Quad: **Branford, CT**

Brief Description of Proposed Activities:

General construction/expansion of a commuter parking lot for rail station.

Have you conducted a "State and Federal Listed Species and Natural Communities Map" review?

☐ Yes ☒ No Date of Map:

Has a field survey been previously conducted to determine the presence of any endangered, threatened or special concern species? ☐ Yes ☒ No

If yes, provide the following information and submit a copy of the field survey with this form.

Biologists Name:

Address:

If the project will require a permit, list type of permit, agency and date or proposed date of application:

(See reverse side - you must sign the certification on the reverse side of this form)

The Connecticut Natural Diversity Data Base (CT NDDB) information will be used for:

☐ permit application

☒ environmental assessment (give reasons for assessment):

State project # 310-0019.

☐ other (specify):

"I certify that the information supplied on this form is complete and accurate, and that any material supplied by the CT NDDB will not be published without prior permission."

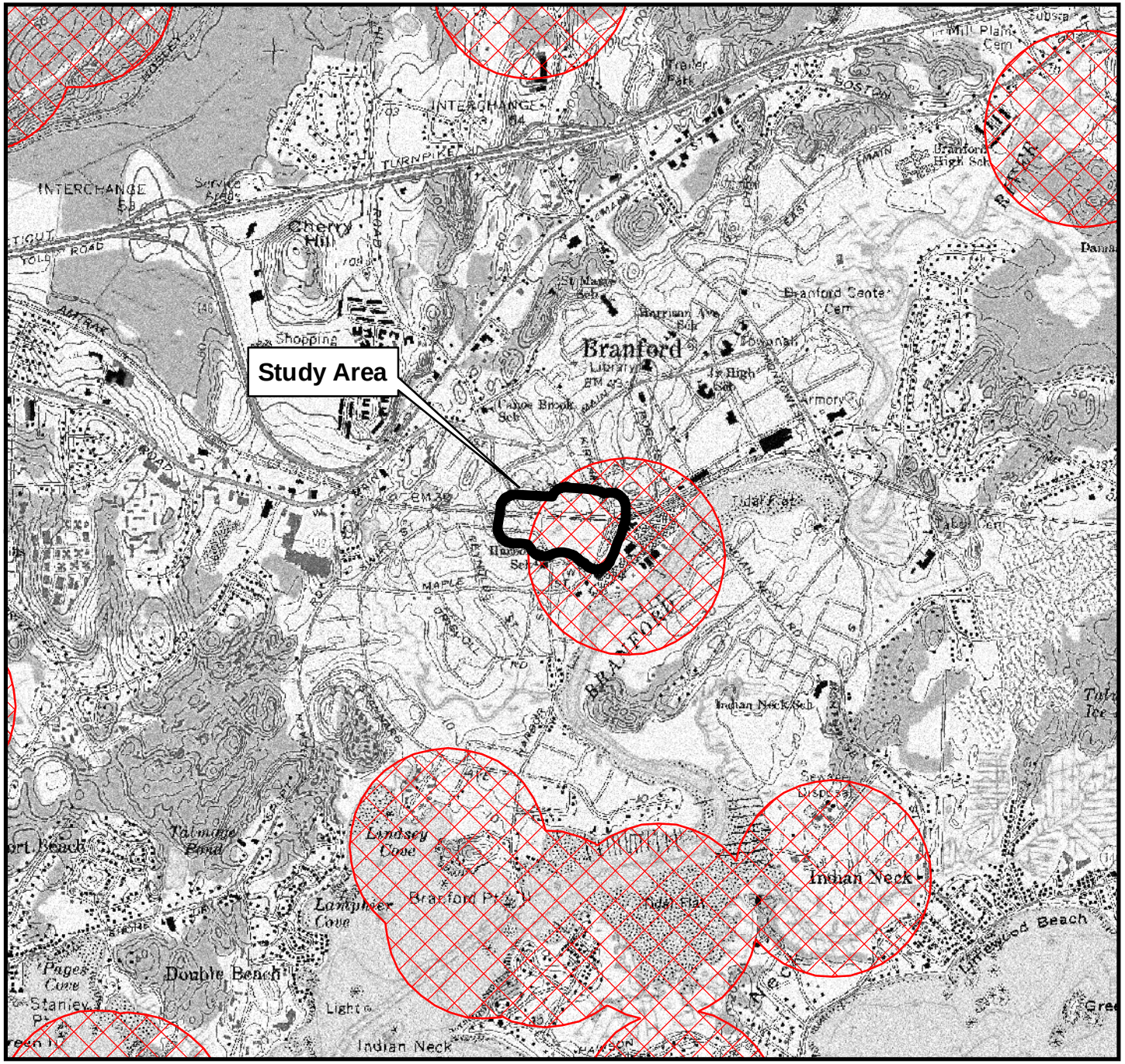
	10/01/07
Signature	Date

All requests must include a USGS topographic map with the project boundary clearly delineated.

Return completed form to:

NATURAL DIVERSITY DATA BASE/DATA REQUEST
ENVIRONMENTAL & GEOGRAPHIC INFORMATION CENTER
DEPARTMENT OF ENVIRONMENTAL PROTECTION
79 ELM STREET, STORE LEVEL
HARTFORD, CT 06106-5127

* You must submit a copy of this completed form with your registration or permit application.



Study Area

CT NDDB - 2007

U.S.G.S. Quadrangle: Branford, CT

1:24,000

CT DEP Natural Diversity Database - 2007

Shoreline East Expansion Branford, CT

September 2007 - Fitzgerald & Halliday, Inc. - Project # 463.13 - original in color

STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION

October 25, 2007

David Laiuppa
Fitzgerald & Halliday, Inc.
72 Cedar Street
Hartford, CT 06106

Re: Shoreline East Expansion, Branford

Dear Mr. Laiuppa:

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided and listed above. According to our information, there are no known extant populations of Federal or State Endangered, Threatened or Special Concern Species at the site in question.

Natural Diversity Data Base information includes all information regarding critical biologic resources available to us at the time of the request. This information is a compilation of data collected over the years by the Environmental and Geographic Information Center's Geological and Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions regarding this information (424-3585). Thank you for consulting the Natural Diversity Data Base. Also be advised that this is a preliminary review and not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEP for the proposed site.

Sincerely,

Nancy Murray
Biologist/Senior Environmental Analyst NDDB
Program Coordinator

NM/blm

APPENDIX C
Draft EIE Distribution List

EIE Distribution List

The following agencies/persons received a copy of the Draft Environmental Impact Evaluation for the Branford Shore Line East Railroad Station, Branford, Connecticut (State Project Nos. 310-0047 and 310-0048):

State Representatives and Senators

Hon. Peter Panaroni State Representative Legislative Office Building, Room 4017 Hartford, CT 06106-1591	Hon. Edward Meyer State Senator Legislative Office Building, Room 1000 Hartford, CT 06106-1591
Hon. Patricia M. Widlitz State Representative Legislative Office Building, Room 4034 Hartford, CT 06106-1591	

Town Officials

Hon. Anthony "Unk" DaRos, First Selectman Town of Branford 1019 Main Street Branford, CT 06405	Ms. Marianne Kelly, Town Clerk Town of Branford 1019 Main Street Branford, CT 06405
Ms. Janice Plaziak, Town Engineer Town of Branford 1019 Main Street Branford, CT 06405	Ms. Shirley Rasmussen, Dir. Planning & Zoning Town of Branford 1019 Main Street Branford, CT 06405

State Agencies

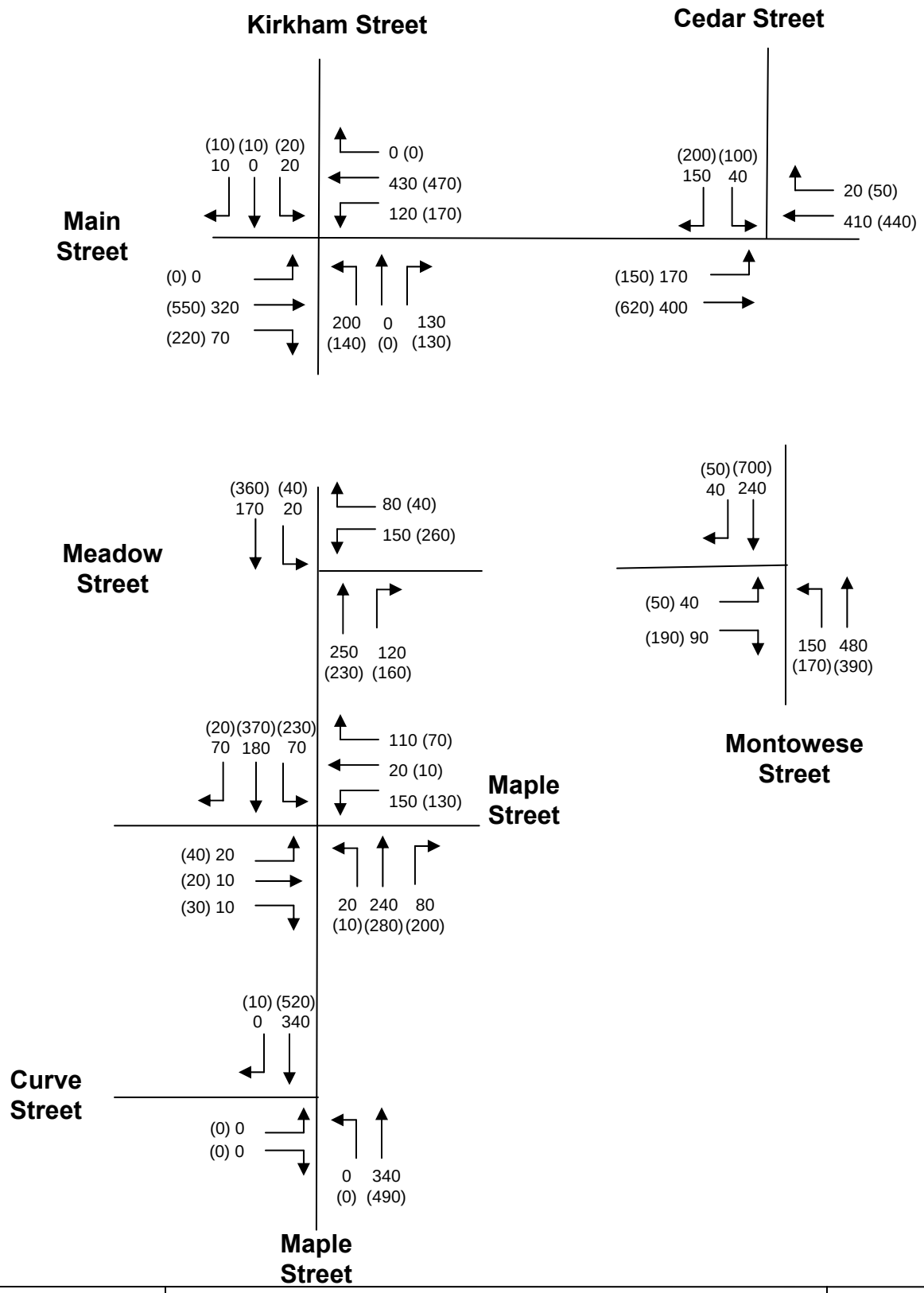
Hon. Gina McCarthy Commissioner Department of Environmental Protection 79 Elm Street Hartford, CT 06106	Mr. Kendall Wiggin State Librarian Connecticut State Library 231 Capitol Avenue Hartford, CT 06106
Mr. David Fox Senior Environmental Analyst Department of Environmental Protection 79 Elm Street Hartford, CT 06102	Hon. Robert M. Ward Commissioner Connecticut Department of Motor Vehicles 60 State Street Wethersfield, CT 06161
Hon. Joan McDonald Commissioner Connecticut Department of Economic and Community Development 505 Hudson Street Hartford, CT 06106	Mr. Robert L. Genuario Secretary Office of Policy and Management 450 Capitol Avenue Hartford, CT 06106-1308

Mr. Raymond Jordan State Coordinator Connecticut Department of Housing and Urban Development One Corporate Center, 19th Floor Hartford, CT 06103	Hon. Raeanne V. Curtis Commissioner Connecticut Department of Public Works 165 Capitol Avenue Hartford, CT 06106
Hon. J. Robert Galvin, M.D., M.P.H. Commissioner Department of Public Health 410 Capitol Avenue Hartford, CT 06134	Mr. Judd Everhart Department of Transportation Office of Communications P.O. Box 317546 2800 Berlin Turnpike Newington, CT 06131-7546
Mr. Karl J. Wagener Executive Director Council on Environmental Quality 79 Elm Street Hartford, CT 06106	Ms. Karen Senich Executive Director Connecticut Commission on Culture and Tourism One Financial Plaza 755 Main Street Hartford, CT 06103

Other

Ms. Judy Gott Director South Central Regional Council of Governments 127 Washington Avenue, 4th Floor West North haven, CT 06473	Ms. Kathy Rieger, Library Director James Blackstone Memorial Library 758 Main Street Branford, CT 06405

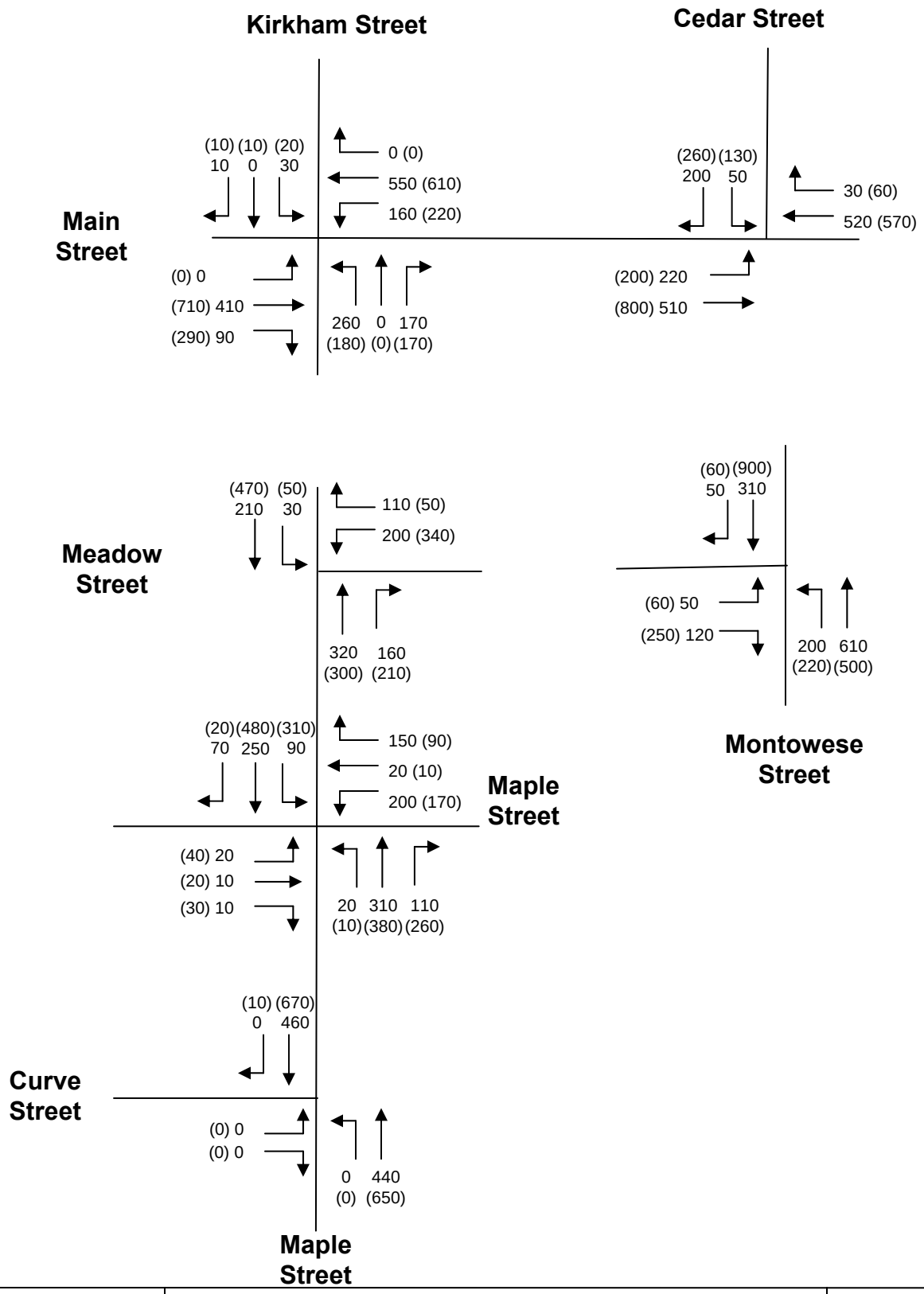
APPENDIX D
Traffic Data



North

Not to Scale

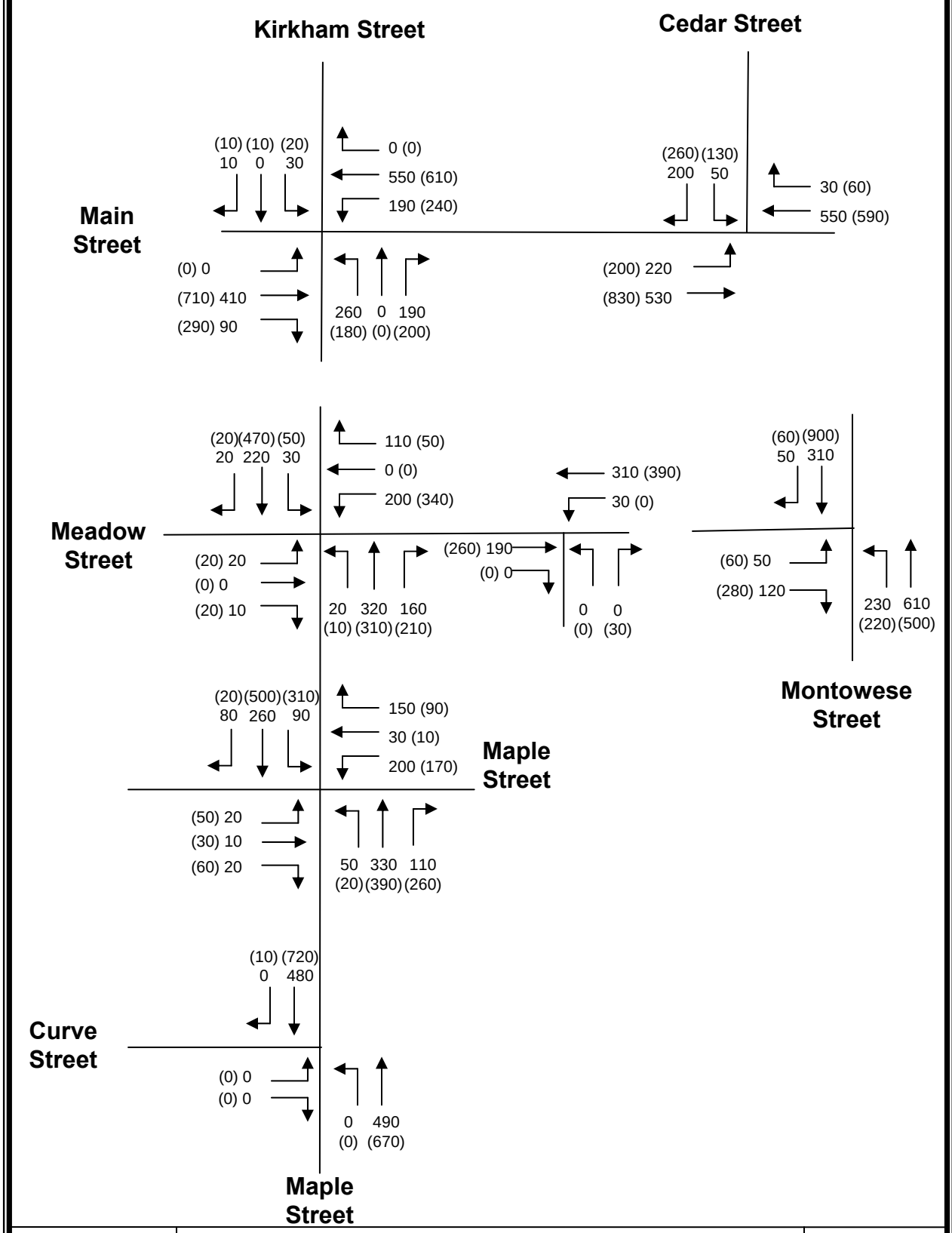
Branford Rail Station
Existing Traffic Volumes (2007)
AM (PM) Peak Hour



North

Not to Scale

Branford Rail Station
No-Action Alternative Traffic Volumes (2030)
AM (PM) Peak Hour



North

Not to Scale

Branford Rail Station
Proposed Action Traffic Volumes (2030)
AM (PM) Peak Hour

Crash Data Summary on State Roadways (2004-2006)
Branford Rail Station

Intersection / Segment	Total Number of Crashes	Number of Crashes Resulting in Injuries	Collision Type	Number of Crashes
Rte 146 (Main St) at Russell St	1	0	Fixed Object	1
Rte 146 (Main St) from Russell St to Kirkham St/Monroe St	4	1	Backing Sideswipe - Same Direction Rear-end	1 1 2
Rte 146 (Main St) at Kirkham St/Monroe St	8	2	Rear-end	8
Rte 146 (Main St) from Kirkham St/Monroe St to John St	1	0	Turning-Same Direction	1
Rte 146 (Main St) at John St	3	1	Rear-end	3
Rte 146 (Main St) from John St to Rogers St	3	2	Rear-end Fixed Object Turning-Intersecting Paths	1 1 1
Rte 146 (Main St) at Rogers St	7	2	Turning-Opposite Direction Turning-Intersecting Paths Fixed Object	4 2 1
Rte 146 (Main St) at Cedar St	12	3	Rear-end Turning-Intersecting Paths Pedestrian	9 2 1
Rte 146 (Main St) at Hopson Ave	1	1	Turning-Intersecting Paths	1
Rte 146 (Main St) at Main St # 1	8	1	Rear-end Turning-Opposite Direction Turning-Intersecting Paths Backing	5 1 1 1
Rte 146 (S Main St) from Main St #1 to Rogers St	1	1	Turning-Intersecting Paths	1
Rte 146 (S Main St) at Eades St	7	1	Angle Rear-end Turning-Opposite Direction Turning-Same Direction Turning-Intersecting Paths	1 1 1 2 2
Rte 146 (S Main St) from Eades St to Blackstone Ave/Church St	1	0	Parking	1
Rte 146 (S Main St) at Blackstone Ave/Church St	4	1	Angle Backing	3 1
Rte 146 (S Main St) from Blackstone Ave/Church St to Taintor Dr	1	1	Rear-end	1
Rte 146 (S Main St) at Taintor Dr	1	0	Turning-Opposite Direction	1
Rte 146 (S Main St) at Montowese St	15	3	Fixed Object Rear-end Angle Turning-Intersecting Paths Sideswipe-Same Direction Turning-Opposite Direction	1 5 1 5 2 1

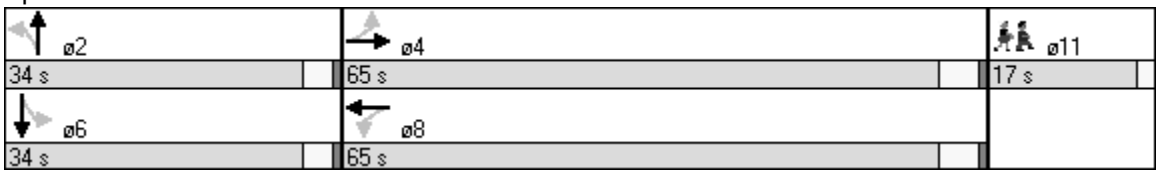
Intersection / Segment	Total Number of Crashes	Number of Crashes Resulting in Injuries	Collision Type	Number of Crashes
Rte 146 (Montowese St) at Rice Terr	1	0	Turning-Intersecting Paths	1
Rte 146 (Montowese St) from Rice Terr to Wilfred Ave/Carons SC Driveway	1	0	Sideswipe - Opposite Direction	1
Rte 146 (Montowese St) at Wilfred Ave/Carons SC Driveway	3	0	Turning-Intersecting Paths Rear-end Turning-Same Direction	1 1 1
Rte 146 (Montowese St) from Wilfred Ave to Meadow St	2	0	Parking Rear-end	1 1
Rte 146 (Montowese St) at Meadow St	8	1	Fixed Object Turning-Intersecting Paths Rear-end Head-on Sideswipe-Same Direction	1 4 1 1 1
Rte 146 (Montowese St) at Pine Orchard	6	1	Turning-Intersecting Paths Rear-end Turning-Opposite Direction	2 3 1
Total	**99**	**22**		**99**

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	2060	0	0	2088	0	0	1827	0	0	1550	0
Flt Permitted					0.685			0.795			0.777	
Satd. Flow (perm)	0	2060	0	0	1446	0	0	1496	0	0	1244	0
Satd. Flow (RTOR)		14						27			11	
Volume (vph)	0	320	70	120	430	0	200	0	130	20	0	10
Lane Group Flow (vph)	0	424	0	0	597	0	0	358	0	0	33	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	65.0	65.0	0.0	65.0	65.0	0.0	34.0	34.0	0.0	34.0	34.0	0.0
Act Effct Green (s)		34.0			34.0			22.0			22.0	
Actuated g/C Ratio		0.52			0.52			0.34			0.34	
v/c Ratio		0.39			0.79			0.69			0.08	
Control Delay		10.1			21.5			28.4			16.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		10.1			21.5			28.4			16.3	
LOS		B			C			C			B	
Approach Delay		10.1			21.5			28.4			16.3	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)		87			173			105			5	
Queue Length 95th (ft)		169			355			#315			32	
Internal Link Dist (ft)		347			699			1174			356	
Turn Bay Length (ft)												
Base Capacity (vph)		1397			977			657			540	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.30			0.61			0.54			0.06	

Intersection Summary	
Cycle Length: 116	
Actuated Cycle Length: 65.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 19.7	Intersection LOS: B
Intersection Capacity Utilization 81.9%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Main Street & Monroe Street



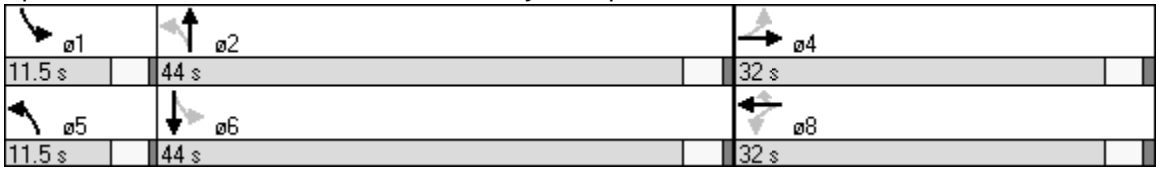
Lane Group	ø11
Lane Configurations	
Total Lost Time (s)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Volume (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Total Split (s)	17.0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

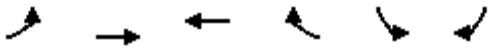
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	1756	0	0	1785	1583	1770	1792	0	1770	1785	0
Flt Permitted		0.853			0.720		0.526			0.450		
Satd. Flow (perm)	0	1535	0	0	1341	1583	980	1792	0	838	1785	0
Satd. Flow (RTOR)		11				120		25			29	
Volume (vph)	20	10	10	150	20	110	20	240	80	70	180	70
Lane Group Flow (vph)	0	44	0	0	185	120	22	348	0	76	272	0
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6	6	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	32.0	11.5	44.0	0.0	11.5	44.0	0.0
Act Effct Green (s)		12.1			12.1	12.1	30.5	25.7		31.5	26.2	
Actuated g/C Ratio		0.22			0.22	0.22	0.59	0.49		0.60	0.50	
v/c Ratio		0.13			0.62	0.27	0.03	0.39		0.13	0.30	
Control Delay		14.2			28.7	5.8	5.4	11.6		5.5	9.9	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		14.2			28.7	5.8	5.4	11.6		5.5	9.9	
LOS		B			C	A	A	B		A	A	
Approach Delay		14.2			19.7			11.3			9.0	
Approach LOS		B			B			B			A	
Queue Length 50th (ft)		8			53	0	2	61		8	43	
Queue Length 95th (ft)		29			110	31	11	152		27	108	
Internal Link Dist (ft)		220			319			212			439	
Turn Bay Length (ft)						150	135			140		
Base Capacity (vph)		619			535	704	704	1096		651	1101	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.07			0.35	0.17	0.03	0.32		0.12	0.25	

Intersection Summary	
Cycle Length: 87.5	
Actuated Cycle Length: 52.1	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 50.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: RR Station Driveway & Maple Street





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	170	400	410	20	40	150
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	185	435	446	22	43	163
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		779				
pX, platoon unblocked	0.00	0.00	0.00	0.00	0.00	0.00
vC, conflicting volume	0				0	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				0	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	0				0	0
cM capacity (veh/h)	0				0	0

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	620	467	207
Volume Left	185	0	43
Volume Right	0	22	163
cSH	0	0	0
Volume to Capacity	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS	A		A
Approach Delay (s)	0.0	0.0	0.0
Approach LOS			A

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		74.7%	ICU Level of Service D
Analysis Period (min)		15	

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	150	80	250	120	20	170
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	163	87	272	130	22	185

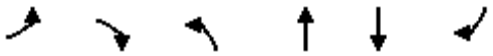
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	250	402	207
Volume Left (vph)	163	0	22
Volume Right (vph)	87	130	0
Hadj (s)	-0.04	-0.16	0.06
Departure Headway (s)	5.3	4.7	5.2
Degree Utilization, x	0.37	0.53	0.30
Capacity (veh/h)	622	721	652
Control Delay (s)	11.4	12.9	10.4
Approach Delay (s)	11.4	12.9	10.4
Approach LOS	B	B	B

Intersection Summary			
Delay	11.9		
HCM Level of Service	B		
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	340	340	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	370	370	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			292			
pX, platoon unblocked	0.99				0.99	0.99
vC, conflicting volume	370				739	370
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	361				735	361
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1181				381	674

Direction, Lane #	EB 1	WB 1
Volume Total	370	370
Volume Left	0	0
Volume Right	0	0
cSH	1181	1700
Volume to Capacity	0.00	0.22
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

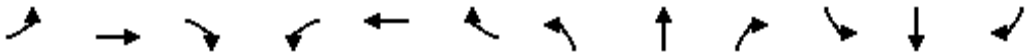
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	21.2%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	40	90	150	480	240	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	43	98	163	522	261	43
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1130	283	304			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1130	283	304			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	78	87	87			
cM capacity (veh/h)	196	756	1256			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	141	163	522	304
Volume Left	43	163	0	0
Volume Right	98	0	0	43
cSH	402	1256	1700	1700
Volume to Capacity	0.35	0.13	0.31	0.18
Queue Length 95th (ft)	39	11	0	0
Control Delay (s)	18.7	8.3	0.0	0.0
Lane LOS	C	A		
Approach Delay (s)	18.7	2.0		0.0
Approach LOS	C			

Intersection Summary			
Average Delay	3.5		
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		



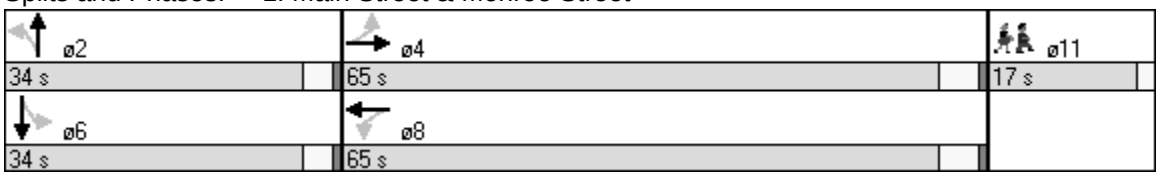
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	2029	0	0	2084	0	0	1811	0	0	1581	0
Flt Permitted					0.182			0.828			0.820	
Satd. Flow (perm)	0	2029	0	0	384	0	0	1538	0	0	1328	0
Satd. Flow (RTOR)		26						39			11	
Volume (vph)	0	550	220	170	470	0	140	0	130	20	10	10
Lane Group Flow (vph)	0	837	0	0	696	0	0	293	0	0	44	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	65.0	65.0	0.0	65.0	65.0	0.0	34.0	34.0	0.0	34.0	34.0	0.0
Act Effct Green (s)		61.3			61.3			20.7			20.7	
Actuated g/C Ratio		0.68			0.68			0.23			0.23	
v/c Ratio		0.60			2.67			0.76			0.14	
Control Delay		11.0			775.1			41.1			22.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		11.0			775.1			41.1			22.1	
LOS		B			F			D			C	
Approach Delay		11.0			775.1			41.1			22.1	
Approach LOS		B			F			D			C	
Queue Length 50th (ft)		219			~536			135			15	
Queue Length 95th (ft)		436			#847			225			41	
Internal Link Dist (ft)		347			699			1174			356	
Turn Bay Length (ft)												
Base Capacity (vph)		1389			261			493			410	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.60			2.67			0.59			0.11	

Intersection Summary	
Cycle Length: 116	
Actuated Cycle Length: 90.1	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.67	
Intersection Signal Delay: 300.3	Intersection LOS: F
Intersection Capacity Utilization 106.4%	ICU Level of Service G
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Main Street & Monroe Street



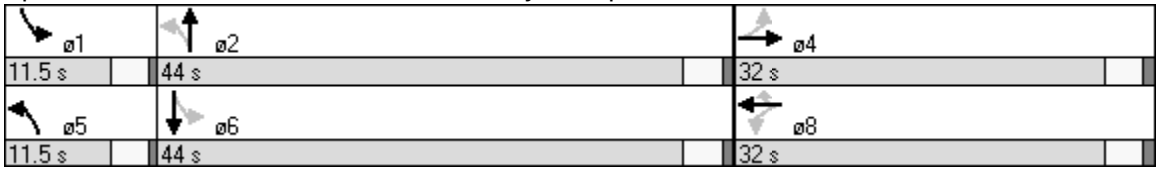
Lane Group	ø11
Lane Configurations	
Total Lost Time (s)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Satd. Flow (RTOR)	
Volume (vph)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	11
Permitted Phases	
Total Split (s)	17.0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

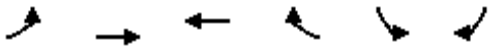
Intersection Summary

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	1742	0	0	1781	1583	1770	1747	0	1770	1848	0
Flt Permitted		0.845			0.699		0.378			0.290		
Satd. Flow (perm)	0	1503	0	0	1302	1583	704	1747	0	540	1848	0
Satd. Flow (RTOR)		31				76		54			4	
Volume (vph)	40	20	30	130	10	70	10	280	200	230	370	20
Lane Group Flow (vph)	0	98	0	0	152	76	11	521	0	250	424	0
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6	6	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	32.0	11.5	44.0	0.0	11.5	44.0	0.0
Act Effct Green (s)		11.5			11.5	11.5	32.6	27.8		36.2	29.6	
Actuated g/C Ratio		0.20			0.20	0.20	0.59	0.51		0.66	0.54	
v/c Ratio		0.30			0.58	0.20	0.02	0.57		0.50	0.43	
Control Delay		17.5			31.3	7.3	4.8	13.5		8.1	10.8	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		17.5			31.3	7.3	4.8	13.5		8.1	10.8	
LOS		B			C	A	A	B		A	B	
Approach Delay		17.5			23.3			13.3			9.8	
Approach LOS		B			C			B			A	
Queue Length 50th (ft)		19			46	0	1	107		25	80	
Queue Length 95th (ft)		61			113	30	7	242		72	178	
Internal Link Dist (ft)		220			319			212			439	
Turn Bay Length (ft)						150	135			140		
Base Capacity (vph)		593			497	651	575	1071		529	1140	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.17			0.31	0.12	0.02	0.49		0.47	0.37	

Intersection Summary	
Cycle Length: 87.5	
Actuated Cycle Length: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 64.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: RR Station Driveway & Maple Street





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	150	620	440	50	100	200
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	163	674	478	54	109	217
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		779				
pX, platoon unblocked	0.00	0.00	0.00	0.00	0.00	0.00
vC, conflicting volume	0				0	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				0	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	0				0	0
cM capacity (veh/h)	0				0	0

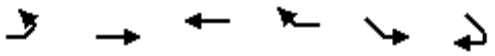
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	837	533	326
Volume Left	163	0	109
Volume Right	0	54	217
cSH	0	0	0
Volume to Capacity	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.0	0.0
Lane LOS	A		A
Approach Delay (s)	0.0	0.0	0.0
Approach LOS			A

Intersection Summary			
Average Delay		0.0	
Intersection Capacity Utilization		95.0%	ICU Level of Service F
Analysis Period (min)		15	

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	260	40	230	160	40	360
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	283	43	250	174	43	391

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	326	424	435
Volume Left (vph)	283	0	43
Volume Right (vph)	43	174	0
Hadj (s)	0.13	-0.21	0.05
Departure Headway (s)	6.3	5.5	5.8
Degree Utilization, x	0.57	0.65	0.70
Capacity (veh/h)	528	621	597
Control Delay (s)	17.4	18.3	20.9
Approach Delay (s)	17.4	18.3	20.9
Approach LOS	C	C	C

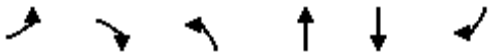
Intersection Summary			
Delay	19.0		
HCM Level of Service	C		
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	490	520	10	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	533	565	11	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			292			
pX, platoon unblocked	0.87				0.87	0.87
vC, conflicting volume	576				1103	571
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	511				1119	505
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	914				198	492

Direction, Lane #	EB 1	WB 1
Volume Total	533	576
Volume Left	0	0
Volume Right	0	11
cSH	914	1700
Volume to Capacity	0.00	0.34
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	31.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	50	190	170	390	700	50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	54	207	185	424	761	54
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1582	788	815			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1582	788	815			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	41	47	77			
cM capacity (veh/h)	93	391	812			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	261	185	424	815
Volume Left	54	185	0	0
Volume Right	207	0	0	54
cSH	234	812	1700	1700
Volume to Capacity	1.12	0.23	0.25	0.48
Queue Length 95th (ft)	293	22	0	0
Control Delay (s)	138.0	10.7	0.0	0.0
Lane LOS	F	B		
Approach Delay (s)	138.0	3.3		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	22.5		
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		

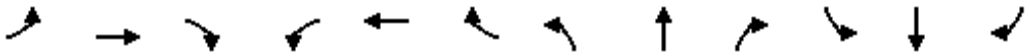
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	2060	0	0	2088	0	0	1827	0	0	1561	0
Flt Permitted					0.441			0.789			0.730	
Satd. Flow (perm)	0	2060	0	0	931	0	0	1485	0	0	1182	0
Satd. Flow (RTOR)		15						36			11	
Volume (vph)	0	410	90	160	550	0	260	0	170	30	0	10
Lane Group Flow (vph)	0	544	0	0	772	0	0	468	0	0	44	0
Turn Type	Perm			custom			Perm			Perm		
Protected Phases		2		1	2			4			4	
Permitted Phases	2			1 2			4			4		
Total Split (s)	42.0	42.0	0.0	19.0	42.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Act Effct Green (s)		38.0			53.0			25.0			25.0	
Actuated g/C Ratio		0.42			0.59			0.28			0.28	
v/c Ratio		0.62			1.04			1.07			0.13	
Control Delay		23.5			59.8			92.9			20.9	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		23.5			59.8			92.9			20.9	
LOS		C			E			F			C	
Approach Delay		23.5			59.8			92.9			20.9	
Approach LOS		C			E			F			C	
Queue Length 50th (ft)		229			~255			~282			14	
Queue Length 95th (ft)		337			#533			#473			40	
Internal Link Dist (ft)		347			699			1174			356	
Turn Bay Length (ft)												
Base Capacity (vph)		878			741			439			336	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.62			1.04			1.07			0.13	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 56.5	Intersection LOS: E
Intersection Capacity Utilization 101.0%	ICU Level of Service G
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

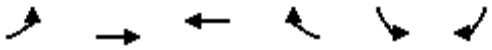
Splits and Phases: 1: Main Street & Monroe Street



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	1756	0	0	1783	1583	1770	1790	0	1770	1801	0
Flt Permitted		0.840			0.714		0.461			0.301		
Satd. Flow (perm)	0	1512	0	0	1330	1583	859	1790	0	561	1801	0
Satd. Flow (RTOR)		11				163		24			20	
Volume (vph)	20	10	10	200	20	150	20	310	110	90	250	70
Lane Group Flow (vph)	0	44	0	0	239	163	22	457	0	98	348	0
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6	6	
Total Split (s)	35.0	35.0	0.0	35.0	35.0	35.0	11.5	41.6	0.0	13.4	43.5	0.0
Act Effct Green (s)		14.9			14.9	14.9	31.8	27.1		33.6	28.0	
Actuated g/C Ratio		0.25			0.25	0.25	0.53	0.45		0.56	0.47	
v/c Ratio		0.11			0.72	0.32	0.04	0.56		0.23	0.41	
Control Delay		14.8			34.0	5.4	6.8	16.1		7.6	12.8	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		14.8			34.0	5.4	6.8	16.1		7.6	12.8	
LOS		B			C	A	A	B		A	B	
Approach Delay		14.8			22.4			15.7			11.7	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		9			73	0	3	102		12	69	
Queue Length 95th (ft)		34			170	40	14	256		41	171	
Internal Link Dist (ft)		220			319			212			439	
Turn Bay Length (ft)						150	135			140		
Base Capacity (vph)		630			548	748	586	972		504	1010	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.07			0.44	0.22	0.04	0.47		0.19	0.34	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 16.3	Intersection LOS: B
Intersection Capacity Utilization 56.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: RR Station Driveway & Maple Street



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	220	510	520	30	50	200
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	239	554	565	33	54	217
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		779				
pX, platoon unblocked	0.00	0.00	0.00	0.00	0.00	0.00
vC, conflicting volume	0				0	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				0	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	0				0	0
cM capacity (veh/h)	0				0	0

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	793	598	54	217
Volume Left	239	0	54	0
Volume Right	0	33	0	217
cSH	0	0	0	0
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS	A		A	A
Approach Delay (s)	0.0	0.0	0.0	
Approach LOS			A	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	200	110	320	160	30	210
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	217	120	348	174	33	228

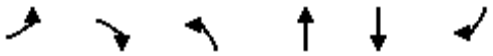
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	337	522	261
Volume Left (vph)	217	0	33
Volume Right (vph)	120	174	0
Hadj (s)	-0.05	-0.17	0.06
Departure Headway (s)	5.9	5.3	5.8
Degree Utilization, x	0.55	0.76	0.42
Capacity (veh/h)	571	667	579
Control Delay (s)	16.0	23.0	13.1
Approach Delay (s)	16.0	23.0	13.1
Approach LOS	C	C	B

Intersection Summary			
Delay	18.6		
HCM Level of Service	C		
Intersection Capacity Utilization	60.8%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	440	460	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	478	500	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			292			
pX, platoon unblocked	0.91				0.91	0.91
vC, conflicting volume	500				978	500
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	453				976	453
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1013				255	555

Direction, Lane #	EB 1	WB 1
Volume Total	478	500
Volume Left	0	0
Volume Right	0	0
cSH	1013	1700
Volume to Capacity	0.00	0.29
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	27.5%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	50	120	200	610	310	50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	54	130	217	663	337	54
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1462	364	391			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1462	364	391			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	53	81	81			
cM capacity (veh/h)	115	681	1167			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	185	217	663	391
Volume Left	54	217	0	0
Volume Right	130	0	0	54
cSH	279	1167	1700	1700
Volume to Capacity	0.66	0.19	0.39	0.23
Queue Length 95th (ft)	108	17	0	0
Control Delay (s)	40.0	8.8	0.0	0.0
Lane LOS	E	A		
Approach Delay (s)	40.0	2.2		0.0
Approach LOS	E			

Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

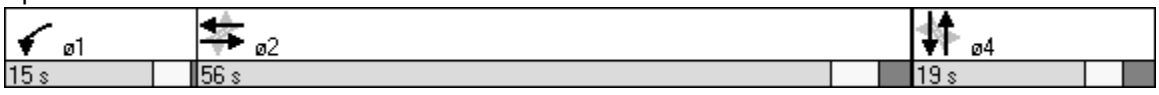
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		✣			✣			✣			✣	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	2029	0	0	2084	0	0	1809	0	0	1581	0
Flt Permitted					0.049			0.836			0.757	
Satd. Flow (perm)	0	2029	0	0	103	0	0	1551	0	0	1226	0
Satd. Flow (RTOR)		39						45			11	
Volume (vph)	0	710	290	220	610	0	180	0	170	20	10	10
Lane Group Flow (vph)	0	1087	0	0	902	0	0	381	0	0	44	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		2		1	2			4			4	
Permitted Phases	2			2			4			4		
Total Split (s)	56.0	56.0	0.0	15.0	56.0	0.0	19.0	19.0	0.0	19.0	19.0	0.0
Act Effct Green (s)		52.0			62.5			15.0			15.0	
Actuated g/C Ratio		0.58			0.70			0.17			0.17	
v/c Ratio		0.91			2.97			1.28			0.20	
Control Delay		29.1			910.7			180.6			28.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		29.1			910.7			180.6			28.6	
LOS		C			F			F			C	
Approach Delay		29.1			910.7			180.6			28.6	
Approach LOS		C			F			F			C	
Queue Length 50th (ft)		492			~870			~255			16	
Queue Length 95th (ft)		#813			#1104			#433			47	
Internal Link Dist (ft)		347			699			1174			356	
Turn Bay Length (ft)												
Base Capacity (vph)		1195			304			297			215	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.91			2.97			1.28			0.20	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 89.5	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.97	
Intersection Signal Delay: 382.4	Intersection LOS: F
Intersection Capacity Utilization 135.1%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

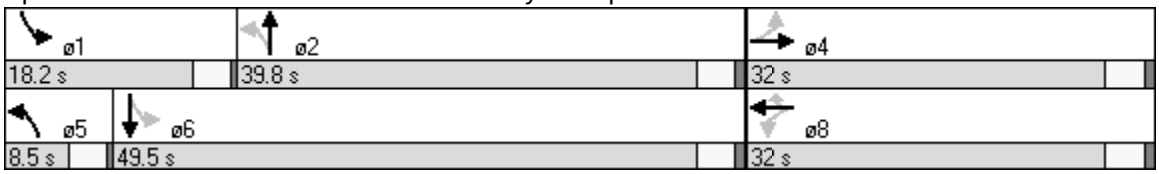
Splits and Phases: 1: Main Street & Monroe Street

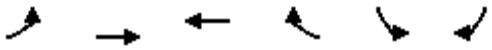


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	1742	0	0	1779	1583	1770	1749	0	1770	1852	0
Flt Permitted		0.829			0.684		0.389			0.101		
Satd. Flow (perm)	0	1475	0	0	1274	1583	725	1749	0	188	1852	0
Satd. Flow (RTOR)		29				98		46			3	
Volume (vph)	40	20	30	170	10	90	10	380	260	310	480	20
Lane Group Flow (vph)	0	98	0	0	196	98	11	696	0	337	544	0
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6	6	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	32.0	8.5	39.8	0.0	18.2	49.5	0.0
Act Effct Green (s)		15.9			15.9	15.9	39.7	34.8		52.0	43.0	
Actuated g/C Ratio		0.21			0.21	0.21	0.55	0.48		0.72	0.59	
v/c Ratio		0.29			0.73	0.24	0.02	0.81		0.80	0.50	
Control Delay		21.2			44.2	7.1	6.8	27.8		35.1	12.6	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		21.2			44.2	7.1	6.8	27.8		35.1	12.6	
LOS		C			D	A	A	C		D	B	
Approach Delay		21.2			31.8			27.4			21.2	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)		28			90	0	1	270		104	142	
Queue Length 95th (ft)		67			159	35	8	#573		#288	286	
Internal Link Dist (ft)		220			319			212			439	
Turn Bay Length (ft)						150	135			140		
Base Capacity (vph)		500			415	582	466	890		450	1132	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.20			0.47	0.17	0.02	0.78		0.75	0.48	

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 72.6		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.81		
Intersection Signal Delay: 25.0	Intersection LOS: C	
Intersection Capacity Utilization 79.7%	ICU Level of Service D	
Analysis Period (min) 15		
# 95th percentile volume exceeds capacity, queue may be longer.		
Queue shown is maximum after two cycles.		

Splits and Phases: 2: RR Station Driveway & Maple Street





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	200	800	570	60	130	260
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	217	870	620	65	141	283
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		779				
pX, platoon unblocked	0.00	0.00	0.00	0.00	0.00	0.00
vC, conflicting volume	0				0	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				0	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	0				0	0
cM capacity (veh/h)	0				0	0

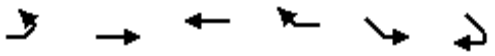
Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	1087	685	141	283
Volume Left	217	0	141	0
Volume Right	0	65	0	283
cSH	0	0	0	0
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS	A		A	A
Approach Delay (s)	0.0	0.0	0.0	
Approach LOS			A	

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	104.0%	ICU Level of Service	G
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Stop			Stop
Volume (vph)	340	50	300	210	50	470
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	370	54	326	228	54	511

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total (vph)	424	554	565
Volume Left (vph)	370	0	54
Volume Right (vph)	54	228	0
Hadj (s)	0.13	-0.21	0.05
Departure Headway (s)	7.1	6.4	6.8
Degree Utilization, x	0.84	0.99	1.07
Capacity (veh/h)	501	554	539
Control Delay (s)	36.9	60.4	83.5
Approach Delay (s)	36.9	60.4	83.5
Approach LOS	E	F	F

Intersection Summary			
Delay	62.4		
HCM Level of Service	F		
Intersection Capacity Utilization	88.0%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	650	670	10	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	707	728	11	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			292			
pX, platoon unblocked	0.82				0.82	0.82
vC, conflicting volume	739				1440	734
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	684				1534	677
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	750				106	373

Direction, Lane #	EB 1	WB 1
Volume Total	707	739
Volume Left	0	0
Volume Right	0	11
cSH	750	1700
Volume to Capacity	0.00	0.43
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	60	250	220	500	900	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	65	272	239	543	978	65
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2033	1011	1043			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2033	1011	1043			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	7	64			
cM capacity (veh/h)	40	291	667			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	337	239	543	1043
Volume Left	65	239	0	0
Volume Right	272	0	0	65
cSH	132	667	1700	1700
Volume to Capacity	2.55	0.36	0.32	0.61
Queue Length 95th (ft)	747	41	0	0
Control Delay (s)	773.9	13.4	0.0	0.0
Lane LOS	F	B		
Approach Delay (s)	773.9	4.1		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	122.0		
Intersection Capacity Utilization	91.9%	ICU Level of Service	F
Analysis Period (min)	15		

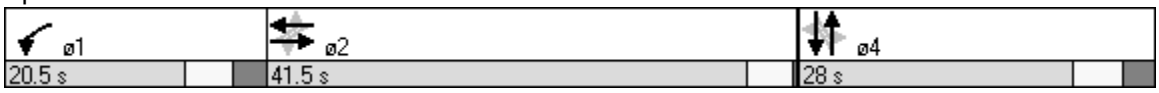
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	2060	0	0	2084	0	0	1821	0	0	1561	0
Flt Permitted					0.383			0.797			0.713	
Satd. Flow (perm)	0	2060	0	0	809	0	0	1493	0	0	1155	0
Satd. Flow (RTOR)		15						40			11	
Volume (vph)	0	410	90	190	550	0	260	0	190	30	0	10
Lane Group Flow (vph)	0	544	0	0	805	0	0	490	0	0	44	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		2		1	2			4			4	
Permitted Phases	2			2			4			4		
Total Split (s)	41.5	41.5	0.0	20.5	41.5	0.0	28.0	28.0	0.0	28.0	28.0	0.0
Act Effct Green (s)		37.5			54.0			24.0			24.0	
Actuated g/C Ratio		0.42			0.60			0.27			0.27	
v/c Ratio		0.63			1.12			1.15			0.14	
Control Delay		24.1			86.4			120.7			21.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		24.1			86.4			120.7			21.6	
LOS		C			F			F			C	
Approach Delay		24.1			86.4			120.7			21.6	
Approach LOS		C			F			F			C	
Queue Length 50th (ft)		232			~318			~314			14	
Queue Length 95th (ft)		340			#550			#507			41	
Internal Link Dist (ft)		347			699			1174			356	
Turn Bay Length (ft)												
Base Capacity (vph)		867			719			427			316	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.63			1.12			1.15			0.14	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 75.8	Intersection LOS: E
Intersection Capacity Utilization 103.7%	ICU Level of Service G
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

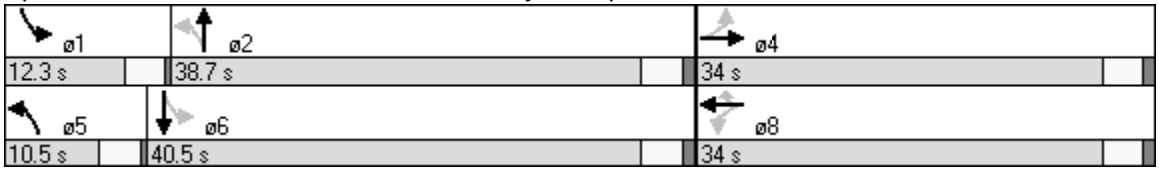
Splits and Phases: 1: Main Street & Monroe Street

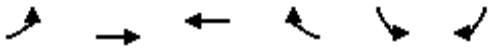


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	1727	0	0	1785	1583	1770	1792	0	1770	1798	0
Flt Permitted		0.864			0.715		0.436			0.274		
Satd. Flow (perm)	0	1523	0	0	1332	1583	812	1792	0	510	1798	0
Satd. Flow (RTOR)		22				163		24			23	
Volume (vph)	20	10	20	200	30	150	50	330	110	90	260	80
Lane Group Flow (vph)	0	55	0	0	250	163	54	479	0	98	370	0
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6	6	
Total Split (s)	34.0	34.0	0.0	34.0	34.0	34.0	10.5	38.7	0.0	12.3	40.5	0.0
Act Effct Green (s)		15.5			15.5	15.5	32.4	27.2		33.5	27.8	
Actuated g/C Ratio		0.25			0.25	0.25	0.53	0.45		0.55	0.46	
v/c Ratio		0.14			0.74	0.31	0.11	0.59		0.25	0.44	
Control Delay		12.8			34.6	5.3	7.1	17.1		8.1	13.9	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		12.8			34.6	5.3	7.1	17.1		8.1	13.9	
LOS		B			C	A	A	B		A	B	
Approach Delay		12.8			23.0			16.1			12.7	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)		9			78	0	7	111		12	76	
Queue Length 95th (ft)		36			180	40	27	280		43	195	
Internal Link Dist (ft)		220			319			212			439	
Turn Bay Length (ft)						150	135			140		
Base Capacity (vph)		628			538	736	544	931		460	963	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.09			0.46	0.22	0.10	0.51		0.21	0.38	

Intersection Summary	
Cycle Length: 85	
Actuated Cycle Length: 60.8	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 16.9	Intersection LOS: B
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: RR Station Driveway & Maple Street

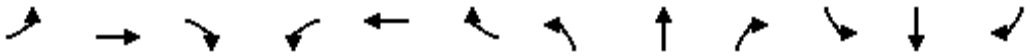




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	220	530	550	30	50	200
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	239	576	598	33	54	217
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		779				
pX, platoon unblocked	0.00	0.00	0.00	0.00	0.00	0.00
vC, conflicting volume	0				0	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				0	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	0				0	0
cM capacity (veh/h)	0				0	0

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	815	630	54	217
Volume Left	239	0	54	0
Volume Right	0	33	0	217
cSH	0	0	0	0
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS	A		A	A
Approach Delay (s)	0.0	0.0	0.0	
Approach LOS			A	

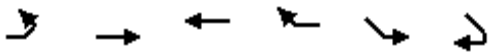
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	0	10	200	0	110	20	320	160	30	220	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	0	11	217	0	120	22	348	174	33	239	22

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	33	337	543	293
Volume Left (vph)	22	217	22	33
Volume Right (vph)	11	120	174	22
Hadj (s)	-0.03	-0.05	-0.15	0.01
Departure Headway (s)	7.2	6.3	5.6	6.1
Degree Utilization, x	0.07	0.59	0.84	0.50
Capacity (veh/h)	423	536	635	545
Control Delay (s)	10.7	17.8	30.6	15.0
Approach Delay (s)	10.7	17.8	30.6	15.0
Approach LOS	B	C	D	C

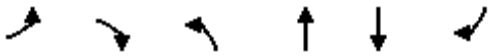
Intersection Summary			
Delay	22.7		
HCM Level of Service	C		
Intersection Capacity Utilization	57.8%	ICU Level of Service	B
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	490	480	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	533	522	0	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			292			
pX, platoon unblocked	0.90				0.90	0.90
vC, conflicting volume	522				1054	522
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	471				1060	471
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	986				224	536

Direction, Lane #	EB 1	WB 1
Volume Total	533	522
Volume Left	0	0
Volume Right	0	0
cSH	986	1700
Volume to Capacity	0.00	0.31
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	29.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	50	120	230	610	310	50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	54	130	250	663	337	54
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1527	364	391			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1527	364	391			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	47	81	79			
cM capacity (veh/h)	102	681	1167			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	185	250	663	391
Volume Left	54	250	0	0
Volume Right	130	0	0	54
cSH	254	1167	1700	1700
Volume to Capacity	0.73	0.21	0.39	0.23
Queue Length 95th (ft)	126	20	0	0
Control Delay (s)	49.3	8.9	0.0	0.0
Lane LOS	E	A		
Approach Delay (s)	49.3	2.4		0.0
Approach LOS	E			

Intersection Summary			
Average Delay	7.6		
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	190	0	30	310	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	207	0	33	337	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			207		609	207
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			207		609	207
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		100	100
cM capacity (veh/h)			1365		448	834

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	207	370	0
Volume Left	0	33	0
Volume Right	0	0	0
cSH	1700	1365	1700
Volume to Capacity	0.12	0.02	0.00
Queue Length 95th (ft)	0	2	0
Control Delay (s)	0.0	0.9	0.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.9	0.0
Approach LOS			A

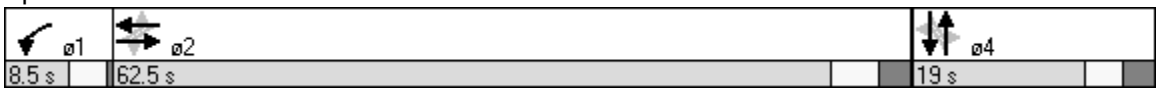
Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	34.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	2029	0	0	1714	0	0	1634	0	0	1698	0
Flt Permitted					0.133			0.845			0.732	
Satd. Flow (perm)	0	2029	0	0	231	0	0	1414	0	0	1273	0
Satd. Flow (RTOR)		47						53			11	
Volume (vph)	0	710	290	240	610	0	180	0	200	20	10	10
Lane Group Flow (vph)	0	1087	0	0	924	0	0	413	0	0	44	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		2		1	2			4			4	
Permitted Phases	2			2			4			4		
Total Split (s)	62.5	62.5	0.0	8.5	62.5	0.0	19.0	19.0	0.0	19.0	19.0	0.0
Act Effct Green (s)		58.5			63.0			15.0			15.0	
Actuated g/C Ratio		0.65			0.70			0.17			0.17	
v/c Ratio		0.81			3.92			1.48			0.20	
Control Delay		17.5			1334.0			259.4			28.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		17.5			1334.0			259.4			28.6	
LOS		B			F			F			C	
Approach Delay		17.5			1334.0			259.4			28.6	
Approach LOS		B			F			F			C	
Queue Length 50th (ft)		393			~963			~302			16	
Queue Length 95th (ft)		597			#1193			#485			47	
Internal Link Dist (ft)		347			699			1174			356	
Turn Bay Length (ft)												
Base Capacity (vph)		1335			236			280			221	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.81			3.92			1.48			0.20	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 3.92	
Intersection Signal Delay: 551.1	Intersection LOS: F
Intersection Capacity Utilization 137.7%	ICU Level of Service H
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Main Street & Monroe Street

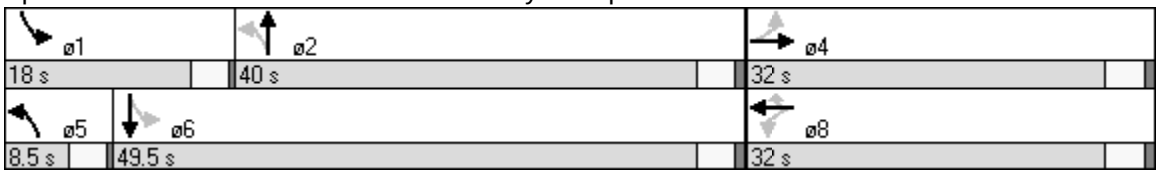


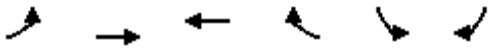
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Satd. Flow (prot)	0	1725	0	0	1779	1583	1770	1751	0	1770	1852	0
Flt Permitted		0.844			0.615		0.366			0.100		
Satd. Flow (perm)	0	1481	0	0	1146	1583	682	1751	0	186	1852	0
Satd. Flow (RTOR)		43				98		44			3	
Volume (vph)	50	30	60	170	10	90	20	390	260	310	500	20
Lane Group Flow (vph)	0	152	0	0	196	98	22	707	0	337	565	0
Turn Type	Perm			Perm		Perm	pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8		8	2			6	6	
Total Split (s)	32.0	32.0	0.0	32.0	32.0	32.0	8.5	40.0	0.0	18.0	49.5	0.0
Act Effct Green (s)		17.3			17.3	17.3	39.9	35.0		52.4	43.3	
Actuated g/C Ratio		0.23			0.23	0.23	0.54	0.47		0.71	0.58	
v/c Ratio		0.41			0.76	0.23	0.05	0.83		0.82	0.52	
Control Delay		22.1			47.3	6.7	7.5	30.4		37.8	14.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		22.1			47.3	6.7	7.5	30.4		37.8	14.0	
LOS		C			D	A	A	C		D	B	
Approach Delay		22.1			33.8			29.7			22.9	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)		46			92	0	3	289		109	159	
Queue Length 95th (ft)		96			164	34	14	#613		#305	321	
Internal Link Dist (ft)		220			319			212			439	
Turn Bay Length (ft)						150	135			140		
Base Capacity (vph)		510			373	581	438	878		438	1114	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.30			0.53	0.17	0.05	0.81		0.77	0.51	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 74.2	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 26.8	Intersection LOS: C
Intersection Capacity Utilization 80.2%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: RR Station Driveway & Maple Street

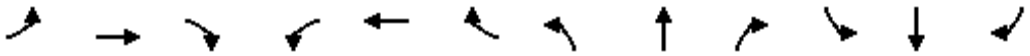




Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	200	830	590	60	130	260
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	217	902	641	65	141	283
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)		779				
pX, platoon unblocked	0.00	0.00	0.00	0.00	0.00	0.00
vC, conflicting volume	0				0	0
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	0				0	0
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	0				0	0
cM capacity (veh/h)	0				0	0

Direction, Lane #	EB 1	WB 1	SB 1	SB 2
Volume Total	1120	707	141	283
Volume Left	217	0	141	0
Volume Right	0	65	0	283
cSH	0	0	0	0
Volume to Capacity	0.00	0.00	0.00	0.00
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS	A		A	A
Approach Delay (s)	0.0	0.0	0.0	
Approach LOS			A	

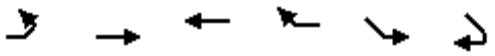
Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	106.6%	ICU Level of Service	G
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	20	0	20	340	0	50	10	310	210	50	470	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	0	22	370	0	54	11	337	228	54	511	22

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	43	424	576	587
Volume Left (vph)	22	370	11	54
Volume Right (vph)	22	54	228	22
Hadj (s)	-0.17	0.13	-0.20	0.03
Departure Headway (s)	9.1	7.4	6.8	7.0
Degree Utilization, x	0.11	0.87	1.09	1.14
Capacity (veh/h)	378	480	542	518
Control Delay (s)	13.2	42.6	89.7	110.5
Approach Delay (s)	13.2	42.6	89.7	110.5
Approach LOS	B	E	F	F

Intersection Summary			
Delay	82.9		
HCM Level of Service	F		
Intersection Capacity Utilization	88.8%	ICU Level of Service	E
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	0	670	720	10	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	728	783	11	0	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			292			
pX, platoon unblocked	0.81				0.81	0.81
vC, conflicting volume	793				1516	788
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	745				1638	738
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	698				89	338

Direction, Lane #	EB 1	WB 1
Volume Total	728	793
Volume Left	0	0
Volume Right	0	11
cSH	698	1700
Volume to Capacity	0.00	0.47
Queue Length 95th (ft)	0	0
Control Delay (s)	0.0	0.0
Lane LOS		
Approach Delay (s)	0.0	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	60	280	220	500	900	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	65	304	239	543	978	65
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2033	1011	1043			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2033	1011	1043			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	0	0	64			
cM capacity (veh/h)	40	291	667			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1
Volume Total	370	239	543	1043
Volume Left	65	239	0	0
Volume Right	304	0	0	65
cSH	139	667	1700	1700
Volume to Capacity	2.67	0.36	0.32	0.61
Queue Length 95th (ft)	827	41	0	0
Control Delay (s)	820.2	13.4	0.0	0.0
Lane LOS	F	B		
Approach Delay (s)	820.2	4.1		0.0
Approach LOS	F			

Intersection Summary			
Average Delay	139.5		
Intersection Capacity Utilization	93.8%	ICU Level of Service	F
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	260	0	0	390	0	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	283	0	0	424	0	33
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			283		707	283
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			283		707	283
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			1280		402	756

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	283	424	33
Volume Left	0	0	0
Volume Right	0	0	33
cSH	1700	1280	756
Volume to Capacity	0.17	0.00	0.04
Queue Length 95th (ft)	0	0	3
Control Delay (s)	0.0	0.0	10.0
Lane LOS			A
Approach Delay (s)	0.0	0.0	10.0
Approach LOS			A

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		

APPENDIX E
Notice of Availability of Draft EIE, Notice of Public Hearing, and Affidavits

Monitor Archives

ENVIRONMENTAL MONITOR

The official site for project information under the Connecticut Environmental Policy Act

July 8, 2008

Scoping Notices

1. Danbury Branch Rail Line Alternatives Analysis, Fairfield and Litchfield Counties

Environmental Impact Evaluations

1. **NEW!** Branford Shore Line East Railroad Station
2. Improvements to the New Haven Rail Yard Maintenance Facility

State Land Transfers

There are no state land transfers posted for public notice or comment in this edition.

The next issue will be published on July 22, 2008.

Subscribe to e-alerts to receive an e-mail when The Environmental Monitor is published.

EIE Notices

The following Environmental Impact Evaluations (EIEs) have been completed by state agencies and are available for review and comment.

---

1. Notice of EIE for the Branford Shore Line East Railroad Station

Municipality where project is proposed: Branford, CT

Address of Possible Project Location: 39 Maple Street Branford, CT

Project Description: Infrastructure improvements to the Branford Shore Line East Railroad Station including a new north-side high level rail platform, a new pedestrian bridge over the active rail line connecting the north-side and south-side platforms and new, expanded surface parking.

Project Map: Click here to view a schematic of the station site plan.

Click here to view a schematic of the parking facility.

Comments on this EIE will be accepted until the close of business on : **August 21, 2008**

The public can view a copy of this EIE at: The Branford Town Clerk's Office - 1019 Main Street Branford, CT 06405, The James Blackstone Memorial Library - 758 Main Street Branford, CT, 06405, The Connecticut Department of Transportation - 2800 Berlin Turnpike, Room 2155, Newington, CT 06131, The South Central Regional Council of Governments - 127 Washington Avenue, 4th floor west, North Haven, CT 06473-1715.

There is a public hearing scheduled for this EIE on:

DATE: Thursday August 7, 2008

TIME: 7:00 pm

PLACE: James Blackstone Memorial Library Auditorium

Send your comments about this EIE to:

Name: Edgar Hurle - Transportation Planning Director
Agency: State of Connecticut Department of Transportation
Address: 2800 Berlin Turnpike, Newington, CT 06131

E-Mail: Edgar.Hurle@po.state.ct.us

If you have questions about the public hearing, where you can review this EIE, or similar matters, please contact :

Name: Jessica DiLuca - Transportation Planner II
Agency: State of Connecticut Department of Transportation
Address: 2800 Berlin Turnpike, Newington, CT 06131
E-Mail: Jessica.DiLuca@po.state.ct.us
Phone: 860-594-2135

Affidavit of Publication

State of Connecticut
County of Fairfield

I, **Arleen Rogers**, a billing representative of Graystone Group Advertising, 2710 North Ave., Suite 200, Bridgeport, CT 06604, do solemly swear that on:

Date: 7/8, 7/22 & 8/5/08

Ad title: LEGAL NOTICE

Appeared in: NEW HAVEN REGISTER publication and the newspaper attachment is from the above named issue of said newspaper.

Subscribed and sworn to this 28th day of August, 2007 before me.

KATHLEEN VITKO
NOTARY PUBLIC
State of Connecticut
My Commission Expires
July 31, 2012

Notary Public
Kathleen Vitko

Addition and Renovations

Responders are requested to submit, by the above date, pricing for general contractor construction, per the information in the bid specifications. Full size documents must be ordered in complete sets. A $550.00 non-refundable deposit is required. Complete sets of drawings and specifications will be issued. No partial sets will be available. Plans and Specifications may be ordered directly from Copy Graphics, 203-225-6540. Pick up plans and specifications from Copy Graphics, 3 Corporate Drive, Shelton, CT 06484.

The following is the targeted schedule of milestone dates for all work outlined in the contract documents:

Documents availability	July 8, 2008
Bid Submission Deadline	August 14, 2008
Proposed Start Date	September, 2008
Project Completion Date	March, 2010

The deadline for submission of questions concerning this project is 5:00 PM, August 1, 2008 at the Fletcher-Thompson, Inc.'s office. A pre-bid conference will be held at 9 AM on Tuesday, July 15, 2008 at site of the Perry Hill School, 60 Perry Hill Road, Shelton, CT 06484. Bidders shall meet at 8:45 a.m. at the main entrance.

The City of Shelton reserves the right to reject any or all proposals in whole or in part, or to waive any informality or technicality in the proposals received. Any award relative to this solicitation will be subject to the availability of funds. Successful contractor shall be required to furnish 100% Payment and Performance Bonds and a certificate of insurance acceptable to the City naming the City an as additional insured. Prevailing Wages shall be paid in accordance with Connecticut General Statutes Section 31-53 and 31-53a. Also reference the bid number on the Certificate of Insurance. **It is required that all bids should have bid number, name of company, number of packages delivered on the outside of all delivered packages. IT IS MANDATORY TO RETURN THE NON-COLLUSION AFFIDAVIT WITH ALL BIDS.**

Dated July, 2008
Gene Sullivan, Acting Purchasing Agent
(203) 924-1555 Ext. 305

2127649

to take advantage of this opportunity to discuss the proposed project.

The document is available for public inspection at:

James Blackstone Memorial Library
758 Main Street
Branford, CT 06405

Branford Town Clerk's Office
1019 Main Street
Branford, CT 06405

South Central Regional Council of Governments
127 Washington Avenue
4th Floor
North Haven, CT 06473

Connecticut Department of Transportation
2800 Berlin Turnpike
Room 2155
Newington, CT 06131

Written comments on the environmental document may be submitted on or before August 21, 2008 to:
Mr. Edgar T. Hurle, Transportation Planning Director
Office of Intermodal and Environmental Planning
Connecticut Department of Transportation
2800 Berlin Turnpike
Newington, CT 06131

Such written statements or exhibits must be reproducible in black and white and on paper not to exceed 8 1/2" X 11" in size. These written statements or exhibits will be made a part of the public hearing and will be considered in the same way as oral statements.

Deaf and hearing impaired persons wishing to attend this hearing and requiring an interpreter must make arrangements by contacting the Department of Transportation's Office of Communications (Voice only) at (860)594-3062 at least five working days prior to the hearing.

2121525

Section 1. The sums set opposite the schol hereinafter listed are hereby appropriated t thereof respectively, and for architects and administrative, legal and financing costs rel "Project" 0, said appropriation to be inclusiv grants-in-aid thereof:

Roof Replacement Projects:

Overbrook School $
Mornauguin School $
Deer Run School $
Melillo Middle School $

Installation of Solar Panel System:

Overbrook School $
Mornauguin School $
Deer Run School $
Melillo Middle School $

Engineering Fees $

TOTAL ALL PROJECTS $

2. This Ordinance shall be effective in acc provisions of the East Have Town Charter.

3.
Approved By

April Capone Almon, Mayor

Received By

Elizabeth Leary, Town Clerk

Submitted By

Roberta A. DeLuca, Clerk

APPENDIX F
ConnDOT's Policy on Systematic Consideration and Management of Work Zone Impacts

CONNECTICUT DEPARTMENT OF TRANSPORTATION

POLICY STATEMENT

POLICY NO. E&H.O.- 57
August 10, 2007

SUBJECT: Policy on Systematic Consideration and Management of Work Zone Impacts

It is the policy of the Department to systematically consider and manage work zone impacts of significant projects.

In establishing this Work Zone policy, the Department's objectives are to:

1. Provide a high level of safety for both workers and the public.
2. Minimize congestion and community impacts.
3. Provide both maintenance forces and contractors adequate access to the highway to efficiently conduct their work.

In order to meet these objectives, appropriate planning, design, construction, maintenance, and public awareness strategies shall be employed on all significant projects. For the purposes of this policy, a significant project is defined as:

> A stationary highway construction or maintenance activity which causes sustained mobility impacts on I-84, I-91, I-95, I-291, I-384, or I-691 for more than three (3) days with either intermittent or continuous lane closures. In addition, any highway construction or maintenance activity that alone or in combination with other concurrent activities nearby, which is expected based on engineering judgment, to cause sustained mobility impacts that are considered greater than what is considered tolerable relative to typical traffic operations experienced in the area of the work zone, may be declared a significant project.

It is recognized that the Department's emergency operations may not always allow a systematic consideration of work zone impacts. In such situations, the objectives of this policy will be honored as much as practicable.

Ralph J. Carpenter
COMMISSIONER

List 3

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

memorandum

subject Work Zone Safety and Mobility Policy and Implementation Plan

date: August 6, 2007

To Mr. Charles Barone
Mr. James H. Norman
Mr. Robert P. Mongillo
Mr. Lewis Cannon

from Michael W. Lonergan
Acting Bureau Chief
Bureau of Engineering
and Highway Operations

In September 2004, the Federal Highway Administration (FHWA) published updates to the Work Zone regulations contained in 23 CFR 630 Subpart J. The updated rule is referred to as the Work Zone Safety and Mobility Rule (Rule) and applies to all State and local governments that received Federal-aid highway funding. Transportation agencies are required to comply with the provisions of the Rule by October 12, 2007.

The Rule requires agencies to develop and implement an agency-level Work Zone Safety and Mobility policy to support systematic consideration and management of work zone impacts across all stages of project development. In order to develop this required policy, as well as prepare an associated implementation plan, a Rule Steering Committee was established by the Department. Members of this multi-disciplinary committee included representatives from the FHWA and Offices of Construction, Maintenance, Engineering, and Intermodal Planning.

The attached draft Department policy entitled "Policy on Systematic Consideration and Management of Work Zone Impacts" is in conformance with the Rule and by copy of this memorandum is being forwarded to Commissioner Carpenter's Office for approval. The policy defines which Department projects are subject to the Rule and allows an exception for unplanned emergency operations.

The attached implementation plan has been developed to provide guidance to your offices in complying with the Rule. The plan identifies several assignments and ongoing responsibilities for the units under your supervision which will be necessary for compliance. It should be noted that your Offices will need to develop more specific project and program level procedures to institutionalize the letter and spirit of the Rule. Your representatives to the Rule Steering Committee should be utilized as resources in this effort.

It has been determined that in Connecticut all "significant" projects, as defined by the policy, that begin their planning, preliminary engineering or preliminary design phase on or after October 1, 2007, or whose design completion date (DCD) is on or after October 1, 2008, shall be in accordance with the Rule. For those "significant" projects with a DCD during Federal Fiscal Year 2008 (October 1, 2007 to September 30, 2008), the FHWA, in coordination with the Department, will approve PS&E following confirmation that the appropriate TMP components have been incorporated in compliance with the Rule. Please take the steps necessary to ensure the Department's compliance with the Rule by these dates.

Attachment(s)
cc: Bradley Keazer (FHWA)
Robert Ramirez (FHWA)

John F. Carey:jyk

cc: Comr. Carpenter – Dep. Comr. Boice – Dep. Comr. Curtis – Dep. Comr. Martin
David Crowther – Please process the attached Policy for Commissioner Carpenter's approval.
Arthur W. Gruhn – Michael W. Lonergan - Richard T. Jankovich
James H. Norman, Acting Engineering Administrator
Timothy Wilson
Carmine Trotta .
Robert P. Mongillo-Charles A. Drda-Ronald Cormier-David A. Sawicki-John Carey (Maintenance)
Mark Rolfe
John F. Carey

CONNECTICUT DEPARTMENT OF TRANSPORTATION

POLICY STATEMENT

POLICY NO. E&HO
August 6, 2007

SUBJECT: Policy on Systematic Consideration and Management of Work Zone Impacts

It is the policy of the Department to systematically consider and manage work zone impacts of significant projects.

In establishing this Work Zone policy, the Department's objectives are:

1. Provide a high level of safety for both workers and the public.
2. Minimize congestion and community impacts.
3. To provide both maintenance forces and contractors adequate access to the highway to efficiently conduct their work.

In order to meet these objectives, appropriate planning, design, construction, maintenance and public awareness strategies shall be employed on all significant projects. For the purposes of this policy, a significant project is defined as:

> A stationary highway construction or maintenance activity which causes sustained mobility impacts on I-84, I-91, I-95, I-691, I-291 or I-384 for more than 3 days with either intermittent or continuous lane closures. In addition, any highway construction or maintenance activity that alone or in combination with other concurrent activities nearby, which is expected based on engineering judgment, to cause sustained mobility impacts that are considered greater than what is considered tolerable relative to typical traffic operations experienced in the area of the work zone, may be declared a significant project.

It is recognized that the Department's emergency operations may not always allow a systematic consideration of work zone impacts. In such situations, the objectives of this policy will be honored as much as practicable.

WORK ZONE SAFETY AND MOBILITY IMPLEMENTATION PLAN GUIDANCE

The Connecticut Department of Transportation (Department) shall establish and implement a program to improve safety and mobility within work zones for certain interstate and state roadway construction projects, in accordance with the Federal Highway Administration Work Zone Safety and Mobility Final Rule.

COMPLIANCE

The Department, in compliance with the Federal Highway Administration Final Rule, has developed a Policy regarding Work Zone Safety and Mobility (WZS&M). Implementation of this policy is effective October 1, 2007. All State transportation planning documents (e.g. planning studies, Master Plans, Long Range Plans, Strategic Highway Safety Plans) that include certain interstate or state roads and are initiated on or following October 1, 2007, shall address WZS&M in accordance with the Final Rule and Department policy. In addition, WZS&M compliance shall be implemented for those interstate or state roadway transportation projects that have been designated as "significant" in accordance with this Policy and Implementation Plan, which have been in development prior to October 1, 2007, and that begin the preliminary engineering or preliminary design phase of development on or after October 1, 2007, or whose design completion date (DCD) is on or after October 1, 2008.

For those "significant" projects with a DCD during Federal Fiscal Year 2008 (October 1, 2007 to September 30, 2008), the FHWA, in coordination with the Department, will approve PS&E following confirmation that the appropriate TMP components have been incorporated in compliance with the WZS&M Final Rule.

The Department WZS&M Policy and Implementation Plan (and associated procedures) shall be reviewed every two years (or as needed) to determine the effectiveness of its application and consistency with FHWA direction.

INTRODUCTION

On September 9, 2004, the Federal Highway Administration (FHWA) issued a final rule on Work Zone Safety and Mobility. This rule addresses the changing times of more traffic, more congestion, greater safety issues, and more work zones. The FHWA revised the regulation to facilitate comprehensive consideration of the broader safety and mobility impacts of work zones across all stages of project development, and the adoption of additional strategies that help manage these impacts during project implementation. The new FHWA provisions are intended to help State Departments of Transportation (DOTs) meet current and future work zone safety and mobility challenges, and serve the needs of the American people. DOTs must be in compliance with the final Rule by October 12, 2007. The key features of the Final Rule are as follows:

- A policy driven focus that will institutionalize work zone processes and procedures at the agency level, with specific language for application at the project level.
- A systems engineering approach that includes provisions to work zone considerations starting early in planning, and progressing through project design, implementation, and performance assessment.
- Emphasis on addressing the broader impacts of work zones to develop transportation management strategies that address traffic safety and control through the work zone, transportation operations, and public information and outreach.
- Emphasis on a partner driven approach, whereby transportation agencies and the FHWA will work together towards improving work zone safety and mobility.
- Overall flexibility, scalability, and adaptability of the provisions, so as to customize the application of the regulations according to the needs of individual agencies, and to meet the needs of the various types of highway projects.

Section 135 of Title 23 and Section 5304 of Title 49 of the United States Code (USC), as amended by the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU) requires each State to carry out a transportation planning process that provides for consideration of projects and strategies that will increase the safety of the transportation system for motorized and non-motorized users. With respect to Work Zone Safety, SAFETEA-LU contains several provisions that address safety in highway construction work zones. They are as follows:

Work Zone Safety Grants – Under the Work Zone Safety Grants program, the U.S. Department of Transportation (USDOT) will make grants to nonprofit and not-for-profit organizations to provide training to prevent and reduce work zone injuries and fatalities. Such grants may be used for:

- construction worker training to prevent injuries and fatalities
- development of guidelines to prevent work zone injuries and fatalities
- training for State and local governments, transportation agencies, and other groups implementing these guidelines

Temporary Traffic Control Devices (TTC) - Projects may not be approved on Federal-aid highways or under the Federal Lands Highway program unless proper temporary traffic control devices to improve safety in work zones will be installed and maintained during construction, utility, and maintenance operations on the portion of the highway to be improved by such projects. Installation and maintenance of the devices must be in accordance with the Manual on Uniform Traffic Control Devices.

The Secretary of Transportation, after consultation with appropriate Federal and State officials, is to issue regulations establishing the conditions for the appropriate use of, and expenditure of funds for, uniformed law enforcement officer, positive protective measures between workers and motorized traffic, and installation and maintenance of temporary traffic control devices during construction, utility, and maintenance operations.

Worker Injury Prevention and Free Flow of Vehicular Traffic – By August 10, 2006, the Secretary of U.S. DOT must establish regulations requiring highway workers to wear high visibility garments.

National Work Zone Safety Information Clearinghouse - Under this program, the U.S. DOT will make grants to a national nonprofit foundation for the operation of the National Work Zone Information Clearinghouse to be used for assembling and disseminating, electronically or otherwise, information relating to the improvement of work zone safety.

Implementation of the Department policy on WZS&M involves a number of actions to address:

- Data collection and Reporting during project construction.
- Data retention.
- Data analysis.
- Early evaluation and documentation in the identification of "significant" proposed projects.
- Establishment of specific project scope and limits.
- Reassessment of "significant" project determinations at each phase of project development.
- Development of a TTC plan, Transportation Operations (TO) plan and Public Outreach (PO)/Public Information (PI) program components, as warranted.
- Application during project construction.
- Monitoring during project construction.
- Post-construction analysis of significant projects.

BACKGROUND

WZS&M focuses on those projects that are determined to be "significant" as defined by Department policy (and consistent with FHWA guidelines). The scope and limits of all projects that are advanced to construction by the Department evolves as information becomes available and analysis is refined. In addressing WZS&M, it is essential that an initial determination regarding the project "significance" is made as early as possible and that there is an opportunity to reassess that determination at the various phases of project development and definition (i.e. planning, preliminary engineering, preliminary design, and final design).

The initial stage in the overall development and determination of a "significant project" as defined by the Department policy on WZS&M, is the conduct of a planning analysis to identify the transportation needs and deficiencies to be addressed for both the existing and future (20-year horizon) "No Build" conditions. Once such needs are identified, options are considered towards the development of a recommended action to modify the transportation system to address those needs. An implementation plan which may consist of both near-term (if any) and long-term recommendations is recommended. This is typically accomplished by a State/Federal (Federal Highway Administration) study team representing planning, maintenance, and engineering design disciplines, often in coordination with a stakeholder committee.

Recommendations documented at the planning phase are considered conceptual, possibly consisting of various transportation modes, and must be refined and more precisely defined as the recommended action(s) is further developed through the National Environmental Policy Act / Connecticut Environmental Policy Act (NEPA/CEPA) documentation, preliminary engineering, preliminary design and final design processes. A determination of a "significant project" must be reassessed for every project at each of these stages of project development.

IMPLEMENTATION

Training:

The Final Rule specifies that agencies require appropriate training and periodic updates, for personnel involved in the development, design, implementation operations, inspection and enforcement of work zone related transportation management and traffic control. These include transportation planners, design engineers, traffic and safety engineers, temporary traffic control designers and program managers, regional construction managers, construction project staff, maintenance staff, and contractor and utility staff. This may include executive level decision-makers, policy makers, senior managers, information officers, and law enforcement and incident responders.

The Department and Industry Organizations will provide the opportunity for training through a number of initiatives. The Department, through the Training Coordinator and in coordination with the FHWA, will seek to sponsor available related courses for Department personnel. In addition, annual training provided for Department Construction Inspectors will include a discussion addressing WZS&M.

Data Collection / Reporting Procedures:

The Department's Offices of Traffic Engineering, Maintenance, Construction and Inventory and Forecasting will establish procedures for the collection, reporting and retention of WZS&M data, for "significant" projects. Such information may include but may not be limited to:

- Incident type and duration.
- Residual traffic queue and duration.
- Police reporting records.

Data shall be collected and retained for all projects determined to be "significant", within the work zone limits, defined as the display point of the approach "Series 16" limited liability sign, through to the exiting "End Construction" sign.

Data Retention / Analysis:

The Final Rule requires States to use field observations, available Work Zone Crash data, and operational information to manage Work Zone impacts for specific significant projects during construction. In addition, States are required to continually pursue improvement of Work Zone Safety and mobility by analyzing Work Zone Crash and operational data from multiple significant projects to improve State processes and procedures.

The satisfaction of these two requirements will require updates to the Department's computerized data retention system that are in progress but not yet

available. While the Department's roadway characteristics file has been revised to a relational data base, the Department's accident record, traffic volume, and pre-design project status/location files currently reside on a legacy main frame computer system and are not readily linked. Such linkage is necessary to identify construction project limits and reflect accident, traffic volume, and roadway inventory records. The Department is presently pursuing improvements to these mainframe files which will move these records to relational databases similar to the roadway characteristics file. Improvements to the electronic entry of accident records into the DOT system are also planned. Such improvements will allow efficient and timely reviews.

For the interim, the Department will rely on the Offices of Maintenance and Construction field personnel to monitor their work zones and make appropriate adjustments based on their observations of accidents and traffic operations. Multiple reviews will be limited in scope until the planned improvements to the data system become available. All data collected will be retained by the Offices of Maintenance and Construction, with a copy to the Traffic Division and the Bureau of Policy and Planning's office of Inventory and Forecasting.

Planning:

As required by Section 135 of Title 23 USC, the Department identifies in its Long-Range Transportation Plan (LRP), safety and security issues, including work zone safety, and actions being taken to address them. Also, the State 2007 Master Transportation Plan (MTP) identifies safety and mobility needs among the primary principles the Department has committed to strive towards. Work Zone Safety and Mobility is presented as one component of 'Transportation Safety and Security Programs and Plans". Updates of these plans will address work zone safety and mobility as a component of "Transportation Safety Programs and Plans".

The State LRP and MTP will identify and discuss actions that the Department has taken or plans to take to comply with the FHWA September 9, 2004 Final Rule on WZS&M. The Department's actions and plans to comply with work zone safety-related regulations required by SAFETEA-LU will be discussed in these plans, as will work zone safety programs undertaken with any funding received from U.S. Department of Transportation Work Zone Safety Grants program.

A preliminary determination of "significance" as it relates to WZS&M will be made for each roadway component of the study corridor near-term and long-term roadway project recommendations. Based upon the following definition of a ***"significant project"*** as established by the Department WZS&M policy in accordance with the FHWA Final Rule:

> *A stationary highway construction or maintenance activity which causes sustained mobility impacts on I-84, I-91, I-95, I-691, I-291, or I-384 for more than 3 days with either intermittent or continuous lane closures. In*

addition, any highway construction or maintenance activity that alone or in combination with other concurrent activities nearby, which is expected based on engineering judgment, to cause sustained mobility impacts that are considered greater than what is considered tolerable relative to typical traffic operations experienced in the area of the work zone, may be declared a significant project.

WZS&M will be addressed in initial planning studies and in the NEPA/CEPA documentation processes as part of an assessment regarding project Constructability, and Maintenance and Protection of Traffic, for each roadway component (near-term and long-term) of the recommended action(s). In determining the significance of a recommended roadway action(s) at the planning phase of project development, consideration will be given to:

- recommended project(s) definition and scope, for each near-term and long-term component;
- whether the recommended action(s) meets the definition of significance in accordance with the Department WZS&M policy;
- whether the recommended action(s) is on existing or new alignment;
- the primary type of travel being served (e.g. commuter / recreational / affected stakeholders);
- the existing and predicted future No-Build hourly traffic volumes and vehicle types, and roadway capacity along the study corridor major routes (including the primary corridor, parallel corridors, alternate routes);
- the availability of other than roadway modes for travel; and
- possible other planned/scheduled projects in the study area.

- A qualitative assessment will be made regarding the "significance" of each component (near-term and long-term) of the recommended action. A determination will be made regarding the anticipated need (or not) for a specific WZS&M Transportation Management Plan (TMP) as it relates to each component of the recommended action (near-term and long-term). Possible elements of a TMP will be presented for consideration during further development of the project(s) through preliminary engineering, preliminary design and final design processes.

Preliminary Engineering/Preliminary Design

The determination of "significance" for recommended transportation improvement modifications previously made during the planning stage will be reviewed for reconfirmation or modification during the preliminary engineering/preliminary design phases as the scope and limits of the project are more clearly defined. For those projects that did not involve a planning stage, an initial determination of significance will need to be made and documented in the Recommended Project Memorandum.

During the preliminary engineering/preliminary design phases, development of the Transportation Management Plan (TMP), including the appropriate preliminary TTC Plan, TO Plan, and PO/PI Program are initiated. Available data collected from similar projects will be reviewed and used in developing this information. Alternative roadway routes, as well as alternative modes of transportation (e.g., rail, bus, and ferry) will be identified as a component of the TMP. Bicycle and pedestrian access will also be addressed.

Confirmation of the determination of significance and the development of the TMP will be documented at the initial project scoping and at the preliminary design/design approval stages. Any change from the initial determination of significance will be approved by the Engineering Administrator.

Final Design

Once again during the final design, the determination of "significance" for recommended transportation improvement modifications made during the preliminary engineering/preliminary design phases will be reviewed for reconfirmation or modification. During this phase, the TMP will be finalized, including the appropriate final TTC Plan(s), TO Plan, and PO/PI Program. The specific work zone limits shall be defined for each construction project.

Appropriate documentation confirming the determination of significance and relating to the development of the TMP will be included in the final design report and in the Stewardship Agreement Checklist. Any change in the determination of significance will be approved by the Engineering Administrator.

Regarding the development of the TMP, it is recognized that each improvement project may present unique considerations; as such, developing the TMP is an iterative process that evolves as the design progresses. However, for purposes of uniformity, standardization of TMPs for projects with similar scopes should be considered.

Construction:

As a significant project progresses into the construction phase, special consideration will be given in terms of design and constructability review, inspection staffing, monitoring and reporting procedures for field activity and general oversight and administration.

Within the design review process, construction staff will ensure that Plans, Specifications and Estimates (PS&E's) include appropriate pay items to implement the Transportation Management Plan (TMP). On active projects, Construction and the Contractor will each designate a trained person (Responsible Person) to properly implement the TMP. In addition to the

inspection of Temporary Traffic Control (TTC) and Transportation Operation (TO) components of the TMP, Construction will take the lead in the coordination and implementation of Public Awareness (PI) strategies. Construction will monitor and collect data on work zone incidents for the purpose of identifying problematic trends and implementing appropriate adjustments.

All data collected will be retained by the Office of Construction, with a copy to the Traffic Division and the Bureau of Policy and Planning's office of Inventory and Forecasting

Maintenance:

A review of all maintenance and utility activities will be conducted. During the earliest possible stages of the review, it will be determined if the scope of work to be performed is within the Department's definition of "significant project" as it applies to the final rule. Final approval of the determination will be made by the District Maintenance Director.

The TMP for significant maintenance or utility projects will consist of a TTC plan with a PI / PO component. This plan will also apply to permit activities.

Maintenance will monitor and collect data on work zone incidents for the purpose of identifying problematic trends and implementing appropriate adjustments.
All data collected will be retained by the Office of Maintenance with a copy to the Traffic Division and the Bureau of Policy and Planning's office of Inventory and Forecasting

Exceptions:

The FHWA Final Rule provides for an exception process for those Interstate system projects, or classes of projects, that are deemed to be significant according to the Rule or Department Policy, but in reality, may not have a high level of sustained work zone impacts. For such projects that are classified as "significant" as applied to work zone safety and mobility, through the application of this provision, but in the judgment of the Department they do not cause sustained work zone impacts, the Department may request an exception, from the FHWA Division Office, to the requirements triggered by the classification. Exceptions to these provisions may be granted by the FHWA Division Office based upon the Department's ability to demonstrate that the specific Interstate system project or categories of Interstate system projects do not have sustained work zone impacts. The Department can submit to the FHWA Division Office, qualitative and/or quantitative criteria documentation to demonstrate that the specific project or categories of projects will not have sustained work zone impacts.

APPENDIX A

IMPLEMENTATION – ASSIGNMENTS

This information is intended to provide general guidance regarding the responsibilities of the various ConnDOT stakeholders involved in the implementation of the WZS&M Final Rule. The specific mechanism(s) for implementation must be developed by the individual offices.

WORK ZONE SAFETY AND MOBILITY

IMPLEMENTATION PLAN – DIVISION ASSIGNMENTS)

CONNDOT DIVISION	*FUNCTIONS*	*WZS & M RESPONSIBILITIES / ASSIGNMENTS*
PLANNING		
SYSTEMS INFORMATION	▪ Systems Inventory. ▪ Accident records. ▪ Traffic Data Collection ▪ Traffic Data Monitoring. ▪ Census/Modeling. ▪ Trip Analysis. ▪ GIS/Computer Systems.	▪ Training ▪ Data Collection and Retention. ▪ Assist in Developing Electronic Documentation and Queries. ▪ Project WZ Limits – Electronic (GIS) mapping and database.
POLICY	▪ STIP. ▪ Long Range / Master Plans ▪ Legislative Analysis. ▪ State / Federal Funding Programs. ▪ Field Coordination (RPOs). ▪ Safety Program.	▪ Training ▪ Address WZS&M in Long Range and Master Plans. ▪ Include in Strategic Highway Safety Plan (SHSP) and in the 2008 Highway Safety Plan (HSP)*. * Note: Work Zone Safety Grants are available to qualifying municipalities on a one-time basis.
INTERMODAL (PROJECT) PLANNING	▪ Aviation / Ports. ▪ Transit. / Bike & Pedestrian. ▪ Location (Highway). ▪ Security / Evacuation Planning.	
ENVIRONMENTAL PLANNING	▪ Environmental / Historic Documents. ▪ Water Resources. ▪ Water Compliance. ▪ Air and Noise Analysis	▪ Training ▪ Studies Documentation – - Provide Preliminary determination of "Significant Project". - Constructability Review. ▪ Studies Documentation – - Provide Preliminary determination of "Significant Project". - Constructability Review.
ASSET MANAGEMENT	▪ Document and Maintain Department Assets Inventory and Determine Financial Investment Needs (5).	▪ Training ▪ To Be Determined.

WORK ZONE SAFETY AND MOBILITY

IMPLEMENTATION PLAN – DIVISION ASSIGNMENTS (Continued)

CONNDOT DIVISION	*FUNCTIONS*	*WZS & M RESPONSIBILITIES / ASSIGNMENTS*
ENGINEERING	▪ Define Project Scope and Limits. ▪ Funding. ▪ Preliminary Engineering. ▪ Traffic Analysis. ▪ Preliminary Design. ▪ Final Design.	▪ Training. ▪ Determination/Verification of project "significance". ▪ Stewardship Agreement. ▪ Work Zone mapping. ▪ Operational analysis of collected data. ▪ Develop TMP, including TTC, TO and PI. ▪ Public Outreach.
CONSTRUCTION	▪ Project Administration.	▪ Training. ▪ Implement TMP. ▪ Public Outreach. ▪ Data Collection and dissemination.
MAINTENANCE	▪ Daily facility maintenance and repairs. ▪ Project Administration.	▪ Training. ▪ Determination/Verification of project "significance". ▪ Stewardship Agreement? ▪ Work Zone mapping. ▪ Operational analysis of collected data. ▪ Develop TMP, including TTC, TO and PI. ▪ Public Outreach.

APPENDIX B

TRAINING NEEDS

This information is intended to provide general overview of the extent of initial and subsequent training needs to of the various ConnDOT stakeholders involved in the implementation of the WZS&M Final Rule. The specific mechanism(s) for implementation must be developed by the individual offices.

Work Zone Safety and Mobility

ANTICIPATED TRAINING NEEDS

Bureau of Policy and Planning

ConnDOT Division	*FUNCTIONS (Estimated Number of Positions)*	*TRAINING NEEDS*
4202/57522 (Systems Information)	▪ Systems Inventory (10) ▪ Accident records (12) ▪ Traffic Monitoring (16)	▪ Data Collection needs ▪ Electronic Documentation and Queries
4203/57523 (Systems Information)	▪ GIS/Computer Systems (5)	▪ WZ Mapping Database – establishment and maintenance
4503/57533 (Policy)	▪ Long Range Plan / Legislative Analysis (4) ▪ State/Federal Programs (1) ▪ Field Coordination (4) ▪ Safety (11)	▪ LRP/MTP Policy Statement ▪ Funding Opportunities ▪ Regional Coordination ▪ Training Course / Annual Reporting?
4502/57532 (Intermodal Planning)	▪ Location (Highway) (4)	▪ Studies Documentation ("Significant Project")
4503/57542 (Environmental Planning)	▪ Environmental Documents/ Historic Documents (5)	▪ Studies Documentation ("Significant Project")
4601/57551 (Asset Management)	▪ Document and Maintain Department Assets Inventory and Determine Financial Investment Needs (5).	▪ Initial Awareness Training. ▪ Potential Future Training as Required.

Work Zone Safety and Mobility

ANTICIPATED TRAINING NEEDS (Continued)

Bureau of Engineering and Highway Operations

ConnDOT Division	*FUNCTION (Number of Positions)*	*TRAINING NEEDS*
ENGINEERING Unit 1400 Traffic Engineering Unit 1300 Consultant Design Unit 1305 State Design	TE2 (20) TE3 (15) Supervising Engineer (8) TE3 (35) Supervising Engineer (10) TE2 (30) TE3 (30) Supervising Engineer (12)	1 – Design & Operation of Work Zone Traffic Control 2 – Construction Staging
CONSTRUCTION ▪ 501 Headquarters ▪ 601 District 1 ▪ 701 District 2 ▪ 801 District 3 ▪ 901 District 4	▪ Administrators/Managers (2) ▪ District Management (9) ▪ HQ Supervisors (7) ▪ District Supervisors (16) ▪ HQ Engineers -TE3 (5) ▪ District Project Engineers (44) --- ▪ District Inspectors - TE2 (95) ▪ District Inspectors - TE1 (79) ▪ District Inspectors – Intern (9) ▪ HQ Engineers – TE2,TE1 (8)	▪ FHWA-NHI-380003 Design and Operation of Work Zone Traffic Control ▪ Annual presentation updating WZ policy and practice through winter "Supervisor School". --- ▪ FHWA-NHI-380063 Construction Zone Safety Inspection ▪ Annual refresher on Work Zone Traffic Control Best Practices through winter "Inspector School".
MAINTENANCE 1510 1530 1610 1710 1810 1910 The training numbers reflect all sub-units within Maintenance.	▪ Administrators/Managers (27) --- ▪ Gen. Supv (62) ▪ Crew Leader (128) ▪ Maint's (990) --- ▪ Planning (14) ▪ Dist Serv Agent (18) --- ▪ District Traffic Engineer (4) ▪ Highway Operations (3) ▪ Dist Bridge Eng + Newington Staff (7)	▪ Roadway Safety Awareness --- ▪ Work Zone Safety for Roadway Maintenance Operations --- ▪ Roadway Safety Awareness Inspection --- ▪ Design /Operation

List of Acronyms

AASHTO	-	American Association of State Highway and Transportation officials
ADT	-	Average Daily Traffic
CEPA	-	Connecticut Environmental Policy Act
Department	-	Connecticut Department of Transportation
FHWA	-	Federal Highway Administration
Final Rule	-	Federal Highway Administration Work Zone Safety and Mobility Final Rule
GIS	-	Geographic Information Systems
HSP	-	Highway Safety Plan
LRP	-	Long Range Transportation Plan
MTP	-	Master Transportation Plan
NEPA	-	National Environmental Policy Act
No-Build	-	The analysis condition of imposing future (20 year horizon) traffic on the existing transportation system.
PI	-	Public Information
PO	-	Public Outreach
PS&E	-	Plans, Specifications and Estimates
SAFETA-LU	-	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SHSP	-	Strategic Highway Safety Plan
Significant	-	Significant project as defined by Department Policy on Work Zone Safety and Mobility
TMP	-	Transportation Management Plan
TO	-	Transportation Operations
TTC	-	Temporary Traffic Control Device
USDOT	-	United States Department of Transportation
WZ	-	Work Zone
WZS&M	-	Work Zone Safety and Mobility

APPENDIX G
Public Hearing Transcript

TRANSCRIPT OF:

DEPARTMENT OF TRANSPORTATION

PUBLIC HEARING
STATE PROJECT NOS. 310-0047 & 310-0048

BRANFORD SHORE LINE EAST RAILROAD STATION
BRANFORD, CONNECTICUT

August 7, 2007

James Blackstone Memorial Library
758 Main Street
Branford, Connecticut

Connecticut Department of Transportation
Public Hearing
State Project Nos. 310-0047 and 310-0048
Branford Shore Line East Railroad Station
Branford, CT

ROBERT W. IKE: Good evening ladies and gentlemen. My name is Robert W. Ike from the Connecticut Department of Transportation. I will serve as the Moderator for tonight's public hearing.

I'd like to introduce the individuals to my left and right who are here this evening to make presentations and listen to your comments and concerns -- Mr. Paul M. Stanton, Principal Planner, Fitzgerald & Halliday Inc, and Mr. Steve Degen from the Connecticut Department of Transportation's Office of Rights of Way.

We also have DOT staff, Miss Kim Lesay, Mr. [tape cuts out] …of Planning, Mr. Eugene Colonese, our Rail Administrator, Mr. Scott Hill, our Principal Engineer. We have Mr. John Hanifin, Office of Rails, Mr. Keith A. Hall from Facilities and Mr. Richard Cassin, and David Tudryn from Baker Engineering. We have our technicians Mr. Carbonell and Mr. Hudson.

We are meeting with you this evening in order to discuss the current design plans and draft Connecticut Environmental Impact Evaluation for improvements to the Branford Shore Line East Railroad Station here in the

Town of Branford. This public hearing is being conducted in accordance with the Connecticut Department of Transportation's policy entitled, "Public Involvement/Public Hearings for Highway Layouts and Designs", revised October 1995.

The draft EIE document has been available for public inspection here at the James Blackstone Memorial Library, 758 Main Street, Branford, Branford Town Hall, Town Clerk's Office, 1019 Main Street, Branford, South Central Regional Council of Governments, 127 Washington Avenue, 4th Floor, North Haven, as well as at the Connecticut Department of Transportation, 2800 Berlin Turnpike, Room 2155, Newington.

I will now discuss the format for tonight's hearing; then I will turn the podium over to the presenters who will give design, environmental and Right of Way presentations of the draft EIE document. I will then moderate the hearing as we listen to your comments. For your information our presentation should take approximately 15 to 20 minutes to complete.

My intent is to conduct a fair and orderly hearing tonight by following a particular format. We would appreciate your patience during my remarks as well as the presentations to follow by holding your remarks and comments until this portion of the hearing has been completed. We will be

happy to remain here this evening until everyone has had a reasonable opportunity to speak.

Experience has shown that audible recordings can only be made if the person making a statement uses the microphone connected to the recording equipment. A microphone has been set up -- if you wish to make a statement please come to the microphone after I read your name from the sign-up sheet. Please introduce yourself and if you are representing an organization please give its name as well. If you didn't sign up to speak but a question comes to mind, feel free to raise your hand and I'll be happy to recognize you after I go through the speaker sign-up sheet.

For those individuals who have prepared a statement you may read it into the record if you so desire. However, if the statement is lengthy, you are asked to offer a written copy of the statement for the record and give a brief summary its contents. Such attachments to the record carry as much weight as the transcribed verbal testimony received here tonight when the transcript is reviewed.

If you wish to speak this evening, we have a sign-up sheet at the entrance to the room. There is a three minute time limit on all first time speakers. There will be no yielding of your time to other speakers; your time is for your own comments. If, after all first time speakers have

finished, anyone who would like the opportunity to speak again, a reasonable amount of additional time will be allotted for this purpose. Anyone who wishes to present written comments for the public hearing… record should give them to me before the end of tonight's hearing.

As a result of the information that you might learn at tonight's hearing you may wish to make additional comments on the draft EIE document. Written statements or exhibits concerning it may be mailed or delivered to the attention of:

Mr. Edgar T. Hurle

Transportation Planning Director

Office of Intermodal and Environmental Planning

Connecticut Department of Transportation

2800 Berlin Turnpike

Newington, CCT 06131-7546

This information is also available in the handout which you should have received when you entered the room tonight. The deadline for receipt of comments on this draft EIE document is August 21, 2008. Written statements or exhibits must be postmarked by this date and must be reproducible in black and white on not larger than 8 ½ x 11 inch paper. This

information will be made part of the public hearing record and will be considered in the same regard as oral statements.

At this point, I will turn the podium over to Mr. Stanton who will give environmental and design information on this proposed project. Mr. Stanton will be followed by Mr. Steve Degen who will give the Rights of Way presentation. Mr. Stanton…

PAUL STANTON: All right. Thanks Bob. Oh…it's pretty loud. The purpose of this hearing as Bob mentioned is to provide an overview of the project and its design elements and to provide a summary of the environmental impact evaluation that we prepared for the project and lastly to hear your comments on the proposed action and the findings of the document. And we talked a little bit about the agenda. I'm going to give a presentation about the project design briefly and then talk about the environmental findings and then Mr. Steve Degen here will talk about the right of way presentation and then you'll be given an opportunity to give your comments.

As far as the project is concerned, it's taking place on the existing Branford Railroad Station site – the Shore Line East Station site and these two pictures show – oops, I'm sorry – these two pictures show what's out there currently. This is the south side high level rail platform and passenger

covering area or whatever and then you have…this is the surface parking lots. There's a 201-space surface parking lot there that's located south of the tracks. And the station, as you can see, it's quite new. It was designed and completed and open for service in August of 2005.

The proposed action that was evaluated in the environmental document included infrastructure improvements at that station site. There's going to be a north side high level rail platform that's going to be basically built on the north side of the tracks parallel to the south side platform. There's going to be a pedestrian overpass with elevators that's going to go up and over the tracks to allow for safe transfer between the two platforms. There's going to be a new 316-space surface parking lot that's going to be built to the south of the tracks and just to the west of the existing surface parking lot. And there's going to be…they're going to refurbish 52 parking spaces on a linear parcel that's located between the north side of the tracks and Meadow Street and that used to serve the old railroad station and it's going to provide 52 spaces of overflow parking.

And the last element of the project is a kiss-and-ride drop-off area that's going to be located north of the tracks and it's going to have a direct access to the new north side high level platform. The project cost is estimated to be $20 to $25 Million and that's based on the mid-point of

construction which is 2010, and the construction schedule takes it from January 2010 to the spring…sometime in the spring of 2011. And as I mentioned the site is on the existing Shore Line East Railroad Station site and that's bounded by Elm Street on the north, Harbor Street on the West, Curve Street on the South and Indian Neck Avenue and also Maple Street…the intersection on the east.

The project…the infrastructure improvements are going to occur on four parcels. There is a 5.38 acre parcel. That's where the 316-space surface parking lot is going to be built on. It's a vacant undeveloped parcel that's located west, like I said, of the existing surface parking lot. There's two parcels – a .32 acre parcel and a .27 acre parcel that combine to form a residential parcel that's located to the north of the tracks. That's where the kiss-and-ride facility is going to be located, and then this last 1.17 acre parcel again is the linear parcel that was former parking area for the older Branford Station.

Access to the station is going to be continued…continue to be gained from…where the intersection of Indian Neck Avenue and Maple Street are there is an access road that goes right into the existing 201-space parking lot and that's where the main station access is going to be. The kiss-and-ride access is going to be north of the tracks on the west side of Kirkham Street.

I have a few graphics here I just want to go through. This is…it's kind of hard to see the street names from way back but this black area is basically the study area that we considered for the Environmental Impact Evaluation and what I have highlighted in blue are the new station elements – the new infrastructure, the parking lot, there's the north side platform and the pedestrian overpass and then this is the kiss-and-ride, and this I have highlighted in pink because it is an existing feature but it is…this is where the overflow parking is going to be located. And this pink area and some of the other features is the existing infrastructure with the surface parking lot and so forth.

Another angle – this is a Google earth shot and again, you can see this is the existing surface parking lot, Maple Street and Indian Neck Road. This is the northeast corridor railroad tracks where Shore Line East operates on and here's your kiss-and-ride location; your platform that's going to be opposite the existing platform and then your new parking area.

And I got a few more graphics just to really get this point home. This is just a site plan. Again, the brown is basically the footprint of the new parking lot. The yellow is the north side platform and then here is the pedestrian overpass with the elevators on either side. And all this…all these features are going to be interconnected with pedestrian walkways and

stairwells and things like that so it will be fully handicapped accessible and there'll be easy access to each side of the station.

Here again is a footprint of the kiss-and-ride area and again, the north side platform and the pedestrian bridge. And again, I just wanted to show this was the overflow parking area.

David Tudryn and his group from Michael Baker Corporation, the design team that's putting together the design for this project and they provided this nice rendering of what the station's possibly going to look like, and you know, David will be here after this to answer any design questions you may have.

So why are we…why do we have to do an environmental impact evaluation? Um, there's State funding involved with this project and whenever there's a State funded public project, you have to comply with the Connecticut Environmental Policy Act or CEPA. It's triggered. CEPA is the State version of the National Environmental Policy Act if you're familiar with that. Because there's no Federal funds involved with this, we don't have to do a NEPA document but we do have to do a CEPA document, and the EIE document basically assessed potential impacts from the project and we look at ways to avoid those impacts. We first want to avoid resources to the greatest extent possible and where we can't avoid them, we try to

minimize them; minimize impacts. And a good example of that would be if you have a fill-slope that might encroach upon a wetland; we'll try out best to maybe build a retaining wall to keep that fill from going into the wetland area. So that's a minimization feature. For adverse impacts that we can't avoid, we have to come up with a mitigation strategy to offset those impacts. The most important thing about the CEPA process is it's a transparent process. It allows the public opportunity to comment and that's what we're here for tonight. So I hope at the end of the meeting you can submit comments here or through…there's some forms attached to the back of the handout and those can be sent in to Mr. Edgar Hurle.

This is just a slide to show the EIE process. It's pretty straightforward and I don't want to get into the details of it but I do want to point out that the red circles highlight where we are in the process. We've basically gone through project scoping. We've documented our existing conditions and we've come up and assessed our alternatives and our impacts and we've produced the draft EIE which Mr. Ike explained was let out to the public in, I think it was July 8th…yeah, July 8th…and the public comment period is closing on August 21st. Once we get your comments back, we'll look at them all and incorporate the information into the final document and prepare what's called a Record of Decision or ROD and the information will all be

delivered to the State Office of Policy and Management or OPM and they will determine the adequacy of the EIE's information.

This slide shows essentially the resource topics that are covered in an EIE. They're basically broken down into community-type resources, natural resources and then I call this other category; another category because it kind of catches a lot of different things. We look at traffic and parking and land use. We'll look and see if a project has any undue impacts to a neighborhood or the cohesiveness of neighborhoods. Socio-economic conditions are considered as well as public safety. On the natural side of things we look at soils and geology. We'll look at a project's impact on the wildlife habitats and we'll assess the habitat and the existing conditions but we'll also look at threatened and endangered species or critical habitats to see if any exist in the study area. Water quality is a topic we cover. Wetlands – in this case, the project is in the tidal wetland area; ground water and floodplains. And then we also cover noise, air quality, cultural resources and so forth. We cover both beneficial as well as adverse impacts [sneezes – says excuse me] and again as I mentioned earlier, we…the process is basically to avoid, minimize and then mitigate impacts.

I have a couple more graphics here just to show some of the existing resources in the area and this red line just shows the Connecticut coastal

boundary, and you can see that everything to the southeast, all this area down here – excuse me – is within the coastal zone. The green area is tidal wetlands within the study area. This is ah, this shows coastal flood zone; coastal flood plains; 100 year flood zone…and I didn't want to put too many graphics in here. I didn't want to overwhelm you but… So what's the findings? Well I want to start out the benefits first. Um, [tape cuts out] …and development; all those plans basically point towards increasing or trying to get people to use trains to increase parking at existing stations and that's definitely what this project does. The new parking offsets the existing parking demand. We went out about a year ago, maybe a little more… are you there… we did a parking study and we found out that the 201-surface parking lot was actually completely at capacity. It was 100% capacity so the additional 316 spaces as well as the 52 overflow spaces are certainly going to meet that demand into the future and that will make the station and the service more attractive to commuters. As I mentioned, it's going to be a fully handicapped accessible station with improved safety features and pedestrian connections and this project is one of several along the Shore Line East corridor that's going to make the Shore Line East service more modern, reliable, and convenient for commuters. It's also being implemented to allow for a reverse commute which something that

Governor Rell—we want to have on this service. Right now, transit going towards New Haven during the peak hour in the morning…well we'll be able to have a reverse commute during that. The parking lot…the 316-space parking lot will also address environmental concerns related to a formal…a former industrial site and I'll get into this last bullet a little bit more in a few seconds but um, the project is going to replace a undersized culvert that's substantially clogged and by replacing it with this open span, it's going to allow tidal flow and exchange to get through the north in the wetlands that are on the project site to the north that are somewhat degraded due to stagnant water and a lot of pragmites. It's actually going to improve those wetlands in that area.

And I hope this isn't cut off too much but… these are the culling down of all the assessment that we did. This is pretty much what the impacts are going to be anticipated from this project and I…in the green on the side here is the mitigation that we're offering up to help offset these impacts. First…first of all there's aesthetics. There's going to be some minor visual impacts to some adjacent residential development primarily along Elm Street and Kirkham Street. The backyards of those houses on those streets look over this wetland area that has some low-growing vegetation and you basically can see right into where the station is going to

be and you can see the parking lot lighting. And one of the things that we're proposing to mitigate that impact is to develop a landscaping plan that has some vegetative components or vegetative buffer that'll help soften that view impact. Another thing that is going to be done is we're going to use full cutoff lighting that is dark sky compliant. That's going to limit…basically those lights will zoom straight down onto the parking lot. It's going to eliminate light scatter and glare and it's going to be more appealing to somebody's eye. You're not going to have this big…like a baseball field glow.

The wetlands – again I mentioned that culvert replacement. The project, because they're going to have to take out this constrictive culvert, we're going to have some impact to tidal wetlands and we've estimated it to be about .02 acres which is quite minimal. But by it…through the impact, we're also going to be putting a new open span, and Dave can talk about this maybe a little bit later, an open span that's going to allow flow, tidal flow, to get up into those wetlands like I said and it's going to improve the quality of those wetlands as well as, you know, hopefully get salinity up there to keep down the phragmites. Phragmites tend to grow when you get a lot of freshwater inputs and it's a degraded system basically. Another thing we're going to do is fully coordinate our…during the permitting process…with the

Corps, with the Connecticut Department of Environmental Protection's Office of Long Island Sound programs as well as with the Corps of Engineers to insure that the strategy that we come up with to mitigate these wetland impacts is going to be satis [word not finished], you know, satisfactory and acceptable to them.

As far as water quality – whenever you have…introduce impervious surface to a vegetated area, there's potential to have water quality impacts from maybe some increased flows or some erosion and sedimentation issues. The construction of that 316-space parking lot is going to introduce some hard surfaces which is going to…is a little bit of a concern for water going into the tidal creeks and so forth so final design, and again, I don't know if Dave, do you want to talk about this a little at the end, but final design will include primary and secondary storm water renovation measures which will be fully coordinated with the Connecticut DEP to make sure that water quality issues are taken care of. And the project is required to comply with the DEP's 2004 Storm Water Quality Manual as well as the 2002 Erosion and Sedimentation Control, um, Manual.

There's going to be three property acquisitions. The large 5.38 acre parcel that is going to accommodate the new parking lot, and then there's the two smaller pieces, the residential parcel to the north for the kiss-and-ride.

Those all have to be acquired and Mr. Steve Degen is going to talk a little bit about Rights of Way process.

And lastly, whenever you have a project like this, there's always going to be potential for construction impacts. As I mentioned earlier, this is going to be about a year to a year and a half long construction process. You're…there's going to be a potential for temporary noise, air quality and storm water runoff issues during the construction process. And this is typical of just about any construction project we face so some of the ways to alleviate the construction impacts – adhere to a workday schedule that's during the daytime as much as possible so we don't have nighttime disturbance. Um, there's going to be contract bid specifications written up to help reduce diesel emissions as well as to keep noise levels down and light pollution under control. Fugitive dust controls are things like tarps on the back of haul trucks or you know, you would spray down a disturbed area with…that's unvegetated and, you know, tracking paths can be used on the street to keep the dust down. An erosion and sedimentation control plan will be developed specifically for the project and a health and safety plan will be in place to protect workers for any potential hazards they may encounter on the construction site.

So, um, as Mr. Ike mentioned earlier, there's three places…four places rather, where the document has already been placed – here at the Library, at the Branford Town's Clerk's Office, at the DOT, and at the South Central Regional Council of Governments. And as I mentioned earlier, and you'll see this on the back of the forms, send any comments that you have…if you don't talk tonight, send them to Mr. Edgar T. Hurle and it will definitely get into the project record so, at this point I'd like to turn it over to, I guess, Mr. Degen to talk about Right of Way.

STEVE DEGEN: Good evening. My name is Steve Degen. I'm here tonight representing the Department of Transportation Office of Rights of Way. The function of the Office of Rights of Way is to acquire all property rights necessary for transportation projects. The property rights will be acquired in accordance with Connecticut General Statutes Sections 13a-73, 13a-98c, 48-50 through 48-57. Sections 48-50 through 48-57 establish your ability to request mediation through the Office of the Ombudsman for Property Rights, to provide information and assistance and mediation concerning disputes of relocation assistance, eminent domain, property owners or to anyone who may be displaced. The Ombudsman is Mr. Robert S. Poliner, 450 Capital Avenue, Hartford. His phone number is 860-418-6356.

Ah, basically the…just one moment. They…I have one party in here that doesn't pertain to this particular project. Plans as presented for this project indicate three total acquisitions. We did mention that there were four properties involved; one of those properties is the lease, not an acquisition. There is one residential property that is impacted. At the moment the property is vacant and relocation is not necessary. These impacts are subject to change as the project design is refined. Individual notices are sent to each property owner whose land will be affected by the construction of the project. The notice will include a letter explaining the acquisition procedure, the department's policy, property acquisition brochure and a map showing how much of a person's property will be affected. Valuation of the property is being prepared to determine the value of the land or easements to be acquired. You or your representative you designate will be given an opportunity to accompany the Right of Way representative on the inspection of the property. This will give you the ability to point out items that you feel contribute to the value of the property. The value is established only after a thorough review of the valuation documents. The Right of Way representative will then arrange an appointment with each property owner to explain the acquisition and present the agency's determination of just compensation for property rights both orally and in writing. All properties

must normally be acquired prior to the start of construction. If an agreement as to the price cannot be reached, the property will then be acquired under the State's Power of Eminent Domain. Prior to the commencement of Eminent Domain actions, the property owner will be advised of their rights under the Connecticut General Statutes, Sections 48-50 and 48-52. If the property owner chooses not to exercise their rights under the Connecticut General Statues Section 48-50 through 48-57, a condemnation will be filed and the money offered to you will be deposited through the courts. This money is available to the owner and may be withdrawn without prejudice to that person's case. The owner may appeal the condemnation award and a hearing will then be scheduled before a State Referee to decide the final compensation to be paid.

Chapter 135 of the General Statutes for the State of Connecticut as revised provides for relocation assistance and other benefits to individuals, families and business displaced by construction projects. Displacees at the initiation of the relocation benefits program will be advised of their rights under Connecticut General Statutes Section 48-52. The Right of Way agent will provide detailed relocation advisory assistance information at the time of negotiations. All monies received under the Relocation Act are tax-free.

Please, if you are involved, please do not move before the offer is made for the purchase of the property. Moving prior to may result in the loss of relocation benefits. At this point in time, I'll turn the hearing back over to Mr. Ike and he will open up to your questions.

ROBERT W. IKE: Thank you Mr. Degen. Since Branford is the host town, I'd like to give the opportunity for the First Selectperson or their representative to make comments. Seeing none, the first speaker on our signup sheet is Lonnie Reed. Please come to the microphone, give your name and address for the record.

LONNIE REED: Thank you. Is this okay? My name is Lonnie Reed and I live at 60 Maple Street which is directly across from the train station. I'm also an elected member of the Branford Representative Town Meeting and this is my district and I should also mention that I am the Democratic Nominee for the Connecticut General Assembly 102nd District, and unless I've missed overlooked something or missed something, I think I'm pretty much going to Hartford since I don't think there is an opponent at the moment so having said all that, I am a Maple Street resident. I live directly across as I said, and I also represent the neighborhood. I should say at the outset that I've been a regular commuter on trains for much of my life and since my business takes me to New York City frequently, I am a frequent

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commuter on Shore Line East, and I have to say that I cannot remember a happier train. I often find my fellow commuters to be almost giddy about the fact that we have this service. They appreciate their service. They support the plans to expand it and to meet the growing demand, and obviously with our current energy crises this is only going to increase. No wonder the current parking lot is at full capacity. I can testify to that. And I was also interested to note that in your EIE report, you made reference to the census data which is a little dated now but it says that at least 65% of our workforce in this town work outside of Branford so obviously it's only going to be bigger. So clearly I am committed to providing as much mass transit as possible and I believe that it's a component of a successful master plan to reduce traffic, protect the environment, bolster the economy and enhance our overall quality of life. It's something we need to be doing as a culture, as a community.

Having said that I would like to encourage you to do everything in your power to insure that the neighbors and their property and the surrounding environment – that they're all protected if you receive the final go ahead and go forward with this new construction to add 316 new parking spaces, a northern platform, a pedestrian bridge and a kiss-and-ride – I was calling it the kiss-and-drop. I guess mine was a little harsh; a kiss-and-ride

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___. I am hearing concerns from long time residents of this area, that they're fearful that dangerous contaminates from the MIF Factory across the street were dumped there on that site back in the day, and that construction is going to stir it up and send it on a very dangerous journey. I was reading your EIE report; it's clear that you have noticed that the area is degraded. I'm assuming that you're going to take every step possible to mitigate any kind of potential harm. I also was happy to see that you're going to enlarge that culvert because I think that's very important to kind of flush that stream, and that you're making plans to improve the area with the storm water runoff design – something that is really, you know, a terrific thing that you're actually going to enhance the area.

So in closing I just want to say that I would urge everybody involved in this project to make every effort to insure that the neighbors and all of the concerned Branford citizens are made to feel that they are being kept in the loop every step of the way. We in Branford like to be kept in the loop. Um, as you've undoubtedly discovered there are a lot of very talented people in Branford, whether they're elected or working for the Town or volunteers – a lot of talent in this town and everybody wants to help you in every way possible to make this a really great experience and to enhance our Town and the whole region. So I thank you very much…

ROBERT W. IKE: Thank you very much. Scott Merrick… Please come to the microphone, give your name and your address please.

SCOTT MERRICK: All right. My name is Scott Merrick. I live at 23 Curve Street and the new lot is going to be right behind my house. Most of the things Lonnie's already mentioned but, ah, would like to reiterate them. Light pollution -- currently the lights… I don't know if they have the lighting you're talking about in the existing lot but, ah, they shine through my windows brightly. So if they're the same lights, they don't work. Ah, toxins in the back – I've sent rusted out barrels back there as I wander around. The creek is awful back there. When you open up the culvert I'm not sure if that's running from the creek under Maple Street, that seems to be where it gets backed up but, ah, the traffic that that's going to cause on the other end of Maple Street. Storm water runoff – again, it's a beautiful area. The other concern I have is sort of security. I can't tell what trees you're going to leave in there between the lots or what sort of use you're going to have from I believe it's ___ Street Extension down by the corner where it turns into West End Road but if it's backed up, you know, what sort of security is going to be provided. Are the trees going to be cut away? Just don't want lousy aspects in the neighborhood. Thank you.

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ROBERT W. IKE: Thank you sir. Thank you. Rich Stoecher. Okay. Janice Plaziak [difficulty pronouncing name]… Plaziak. Please identify yourself for the record and give your name and address please.

JANICE PLAZIAK: I'm Janice Plaziak. I'm the Town Engineer for the Town of Branford and I live at 41 Crab Apple Lane in Guilford. Um, I just was attending tonight to learn more about the project. I appreciate your recent cooperation with my office, providing us with information regarding the project. I believe you understand that the Town of Branford for which I believe I speak is in support of the project and look forward to some further cooperation; some of the details to be worked out with regard to impacts to neighborhoods, streets, intersections, adjacent sidewalks.

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ROBERT W. IKE: Thank you. Our last speaker – Karl Hoszak [phonetic]? Did I say that right? I guess they've gone. Are there any other first time speakers? Any first time speakers? Any second time speakers? Anybody like to speak second? Do we have any speakers? Any more speakers?

Well, seeing no other speakers, on behalf of Commissioner Joseph F. Marie, I would like to thank you for coming and expressing your views tonight. Please remember that you have until August 21st, 2008 to submit any postmarked comments to the Connecticut Department of Transportation. Thank you and have a good evening. Yes, I'll take it. Yes, Ma'am.

TRANSCRIPT CERTIFICATION

THIS TRANSCRIPT CONSISTING OF 26 PAGES, ONE AUDIO CASSETTE, WAS PREPARED BY:

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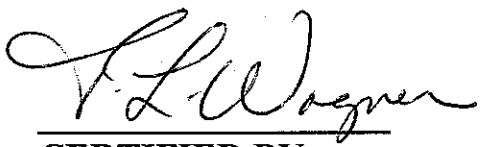

CERTIFIED BY

DATED: October 10, 2008

APPENDIX H
Written Comments Received During the Public Comment Period

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

July 17, 2008

Mr. Edgar T. Hurle, Transportation Planning Director
Connecticut Department of Transportation
2800 Berlin Turnpike
Newington, CT 06131-7546

Re: Environmental Impact Evaluation for Infrastructure Improvements to the Branford Shore Line East Railroad Station

Dear Mr. Hurle:

The following comments are offered in response to your request concerning the improvements to the Branford Shore Line East Railroad Station located at Meadow Street and Kirkham Street, Branford, CT. A review of the environmental impact evaluation indicates that infrastructure improvements would consist of construction of a new north-side high level rail platform, a pedestrian bridge over the active rail line connecting the north-side and south-side platforms, and a new expanded surface parking.

The following summarizes the Department's position with regard to lead and asbestos issues:

A. Lead-Based Paint:

It does not appear that renovation; demolition, excavation or construction activities associated with this project are subject to the Department of Public Health (DPH) Lead Poisoning Prevention and Control (LPPPC) Regulations (§§19a-111-1 through 19a-111-11).

There are, however, other issues that must be addressed related to lead-based paint. Among these issues are the following:

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- Lead-based paint testing of paint on existing structures marked for demolition, or sampling for lead-in-soils should be performed by a lead inspector or lead inspector/risk assessor certified by the DPH.
- Planned renovation, demolition or soil removal activities should be performed using lead-safe work practices.
- If lead-based paint or lead contaminated soil is identified, the classification and disposal of generated waste must comply with the Resource Conservation Recovery Act (RCRA) and Connecticut Department of Environmental Protection standards (i.e. Toxicity Characteristics Leaching Procedure [TCLP] testing, reporting, and record keeping requirements).

Phone:
Telephone Device for the Deaf: (860) 509-7191
410 Capitol Avenue - MS # _____
P.O. Box 340308 Hartford, CT 06134

- Additionally, if lead-based paint, lead containing paint, or lead contaminated soil is identified, workers must be trained (as a minimum) according to the Occupational Safety and Health Administration (OSHA) lead standard (29 CFR 1926.62). Because other contaminants may also be present on the site, additional health and safety training may be required (e.g. hazardous waste and/or asbestos).

In addition there are other issues that must be addressed related to lead-based paint. Among these issues are the following:

- Any testing of paint on existing structures must be performed by a lead inspector or lead inspector/risk assessor certified by the DPH.
- Planned rehabilitation, renovation, or demolition activities should be performed using lead-safe work practices.
- Additionally, if lead-based paint or lead containing paint is identified, workers must be trained (as a minimum) according to the Occupational Safety and Health Administration (OSHA) lead standard (29 CFR 1926.62). Because other contaminants may also be present on the site, additional health and safety training may be required (e.g., hazardous waste and/or asbestos).
- If lead-based paint or lead containing paint is identified on any of the structures, the classification and disposal of generated waste must comply with the Resource Conservation Recovery Act (RCRA) and Connecticut Department of Environmental Protection standards (e.g., Toxicity Characteristic Leaching Procedure [TCLP] testing, and reporting and record keeping requirements by the contractor).

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Additional inquiries on the subject of lead-based paint should be directed to Alan Buzzetti, Supervising Environmental Analyst, Lead Poisoning Prevention and Control Program at (860) 509-7299.

B. Asbestos:

Any demolition of existing facilities that are associated with this proposed project would be subject to the provisions of the asbestos National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61). As such, the facilities would be required to be thoroughly inspected to determine the presence of asbestos prior to the commencement of the demolition activity. The asbestos inspection must be conducted by an Inspector or a Management Planner licensed by the DPH. Asbestos abatement that involves more than three (3) linear feet or more than three (3) square feet of asbestos containing material must be performed by an asbestos abatement contractor licensed by the DPH. Asbestos abatement must be performed in accordance with all applicable federal, state and local regulations.

Additional inquiries regarding any issues related to asbestos should be directed to Ronald Skomro, Supervising Environmental Analyst, Asbestos Program at (860) 509-7367.

Sincerely,

Suzanne Blancaflor, MS, Chief
Environmental Health Section

C: J. Smith, Office of Policy Management

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

July 9, 2008

Mr. Edgar T Hurle, Transportation Planning Director
Department of Transportation
2800 Berlin Turnpike
Newington, CT 06106

RE: Notice of EIE for the Branford Shore Line East Railroad Station

Dear Mr. Hurle:

5

The Drinking Water Section of the Department of Public Health has reviewed the above-mentioned project for potential impacts to any sources of public drinking water supply. This project does not appear to be in a public water supply source water area, therefore the Drinking Water Section has no comments at this time.

Sincerely,

Lori Mathieu
Public Health Services Manager
Drinking Water Section

Phone: (860) 509-7333
Telephone Device for the Deaf: (860) 509-7191
410 Capitol Avenue - MS # 51 WAT
P.O. Box 340308 Hartford, CT 06134

STATE OF CONNECTICUT

DEPARTMENT OF ENVIRONMENTAL PROTECTION

OFFICE OF ENVIRONMENTAL REVIEW

79 ELM STREET, HARTFORD, CT 06106-5127

To: Edgar T. Hurle - Transportation Planning Director
DOT - Bureau of Policy & Planning, 2800 Berlin Turnpike, Newington

From: David J. Fox - Senior Environmental Analyst **Telephone:** (860) 424-4111

E-Mail: david.fox@ct.gov

Date: August 19, 2008

Subject: Shore Line East Railroad Station, Branford

The Department of Environmental Protection has reviewed the Environmental Impact Evaluation for proposed improvements to the Shore Line East Railroad Station in Branford. The following commentary is submitted for your consideration.

As indicated in our scoping comments, the Department supports efforts to expand the capacity of public transportation services such as Shore Line East, especially given its potential to reduce vehicle miles traveled and congestion in the I-95 corridor. The use of public transit will decrease vehicular emissions that contribute to ozone formation, particulate matter levels and climate change. As noted in the EIE, enhancing commuter rail service is a common theme in state, regional and local plans of conservation and development.

6a The Wetlands section beginning on page 43 states that a tidal survey in January 2008 mapped the high tide line. It is not clear whether a certified soil scientist performed a reconnaissance of the site in order to determine whether there are any areas which would be regulated as wetlands or watercourses as defined by section 22a-38 (15) and (16) of the Connecticut General Statutes (CGS), respectively. If one has not already been done, it is recommended that a site reconnaissance be performed in order to ensure that this is not the case.

6b With regard to tidal wetlands and tidal waters waterward of the high tide line, the impact of the new tidal creek crossing is estimated to be 720 sq.ft. In addition, there is a riprap splash pad associated with the outfall for the detention pond. It is not clear from the plans if the riprap is being proposed waterward of the high tide line. If so, ConnDOT will need to provide appropriate justification for the size and volume of material. Page 46 notes that work below the high tide line and mitigation (restoration) will be coordinated with DEP. The appropriate contact in the Office of Long Island Sound Programs (OLISP) is Susan Jacobson, who may be reached at (860) 424-3693 or susan.jacobson@ct.gov.

The EIE presents a conceptual approach to stormwater management appropriate for CEPA review. The following comments are offered as recommendations to ConnDOT as design proceeds. The appropriate contact for further guidance is Karen Allen of the Permitting & Enforcement Division, who may be reached at (860) 424-3842 or karen.allen@ct.gov.

6c As noted on page 40, the project will disturb more than one acre, so ConnDOT will need to register for the construction stormwater general permit. A site-specific Stormwater Pollution Control Plan meeting the requirements of the general permit must be prepared for the project but does not need to be submitted with the registration because there will be less than 10 acres of disturbance.

The Department encourages the use of as much pervious area as possible, where subsurface contamination is not a concern. As noted on page 39, pervious asphalt may be considered for the kiss-and-ride area and overflow parking lot. Pervious concrete or pavers would also be options worth consideration.

The extent of the subsurface contamination was not shown on any of the drawings. The document says that the pavement for the new parking lot will be serving as the cap for the contamination, implying that areas beyond the pavement are not contaminated. This should be clarified, particularly with regard to the area of the detention basin. Soil testing for contamination, infiltration rates and depth to seasonal high water table will be required for the design of the basin.

The construction stormwater general permit contains the requirement that "any site which has a post-construction stormwater discharge that is located less than 500 feet from a tidal wetlands which is not a fresh-tidal wetlands, shall discharge such stormwater through a system designed to retain the volume of stormwater runoff generated by 1 inch of rainfall on the site." This is to minimize the impacts of fresh water on the salinity of the tidal wetlands. The document indicates that the detention/retention basin will be used to treat the first 1" inch of runoff from the site for sediments and to maintain the same pre- and post-construction volume of stormwater discharging from the site. The use of an impermeable liner prevents infiltration and would not meet the requirements of the stormwater general permit. The issue may be moot however, if the seasonal high groundwater table or contamination prevents infiltration at this location. This topic will require further discussion with ConnDOT during permitting.

Catch basins #1 and #2 appear to be located in a grassy swale designed to accept some of the parking lot runoff before discharging to the detention basin. Perhaps this area could be designed as a rain garden. There appear to be only 6 catch basins total for the new parking area. For large parking lots, the Department typically recommends that a hydrodynamic separator, incorporating swirl technology, circular screening technology or engineered cylindrical sedimentation technology, to remove medium to coarse grained sediments and oil or grease. A hydrodynamic separator would be beneficial, but may not be necessary for this system. Deep sump, hooded catch basins possibly outfitted with appropriate catch basin inserts may serve as a sufficient alternative.

Page 58 notes that efforts will be made to retain as much of the existing tree buffer as practicable at the edges of the proposed lot to minimize visual impacts. This would also yield water quality benefits by reducing thermal impacts. The landscaping plan should incorporate natural vegetation to provide shading for both the paved areas and the detention basin to the greatest extent possible.

6d The site of the proposed 316-space parking lot has been historically contaminated by foundry sand and manufacturing wastes. The EIE references a preliminary site assessment performed by Storch Associates in 1993. Although the document does not contain enough information to provide additional guidance at this time, page 54 states that the Remedial Action Plan will be fully coordinated with DEP. The appropriate contact is Thomas RisCassi of the Remediation Division. He may be reached at (860) 424-3781 or thomas.riscassi@ct.gov.

6e After a brief discussion of an EPA Voluntary Diesel Retrofit Program, page 64 states that "ConnDOT will require contractors to comply with current best management practices." It is not clear whether measure similar to the Connecticut Clean Air Construction Initiative employed by ConnDOT for the Q-Bridge projects will be implemented. For construction projects in urban areas, the Department typically recommends the use of construction equipment that has the best available controls on diesel emissions. Equipment, such as diesel oxidation catalysts or particulate filters, or the use of ultra-low sulfur fuel (15 ppm sulfur) can be effective in reducing exhaust emissions. The Department also recommends the use of diesel oxidation catalysts or diesel particulate filters for pre 2007-model year on-road vehicles typically used in construction projects. These on-road vehicles include dump trucks, fuel delivery trucks and other vehicles typically found at construction sites.

An additional mitigation measure, compliance with Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies that limits the idling of mobile sources to 3 minutes, is noted on page 66. Use of posted signs indicating the three-minute idling limit is recommended. It is also recommended that contract specifications include language similar to the anti-idling regulations to allow enforcement of idling restrictions at the project site without the involvement of the Department..

6f The document does not mention any plans to better accommodate bicyclists at the railroad station. (There are two small bike racks at the existing facility.) In our scoping comments, the Department endorsed the recommendation for bicycle racks at Shore Line East facilities contained in the *South Central Regional Long Range Transportation Plan 2007 - 2035*. Adding bicycle parking to the station would be a low-cost, space-saving method of increasing train ridership. Long-term bicycle parking should provide commuters a secure and weather-protected place to store their bicycles. These can be an existing overhang or covered walkway, a special covering, weatherproof outdoor bicycle lockers, or an indoor storage area. The Department urges that provision of appropriate bicycle storage be included in the design for the upgraded Branford station.

Thank you for the opportunity to review this project. If there are any questions regarding these comments, please contact me.

cc: Robert Kaliszewski, DEP/OPPD
Robert Hannon, DEO/OPPD
Karen Allen, DEP/PED
Jeff Caiola, DEP/IWRD
John Gaucher, DEP/OLISP
Susan Jacobson, DEP/OLISP
Ellen Pierce, DEP/APSD
Thomas RisCassi, DEP/RD

I submit these comments on behalf of 35 Maple Street, LLC.

We have reviewed the materials provided by the Department of Transportation at the Public Hearing on August 7, 2008. We have also reviewed the July 2008 Environmental Impact Evaluation with Regard to the Branford Shoreline East Railroad Station -- Project Nos. 310-0047 and 310-0048. We respectfully submit the following comments:

We fully support the Connecticut DOT's ongoing commitment to expand commuter rail services in keeping with Governor M. Jodie Rell's Transportation Initiative, which was passed by the Legislature in 2005. In fact, we agree with and fully support the Project Purpose And Need as set forth in the materials distributed to the public at the August 7th hearing. In addition, the proposed north-side high level rail platform, the pedestrian bridge over the rail line to connect the north-side and south-side platforms, the kiss-and-ride drop off area, and the re-use of the former rail station parking lot all appear to be very appropriate and supported by the information provided. However, the seizure of 5.38 acres of private property to create a new 316 space surface parking lot is not justified or supported by the materials provided. With regard to that limited portion of the project we respectfully request that consideration be given to a viable alternative that is available. Such an alternative will increase the amount of parking, will decrease the environmental impact of the proposed project, increase the tax revenue to the Town of Branford and avoid seizure of private property - which should only be done as a last resort.

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The materials provided at the public hearing and the July 2008 evaluation relied upon by Connecticut DOT in support of the proposal to seize the 5.38 acres of property is fundamentally and fatally flawed. At its core, the proposal evaluates two alternatives described as a "no action alternative" or "build alternative." Obviously, the "no action alternative" is not a viable option and further discussion of that suggestion is specious. The "build alternative" option states that its parking analysis is premised upon a July 2001 parking study that set a parking space goal of 400-500 parking spaces. It goes on to state that the July 2001 analysis focused on several possible sites for potential surface parking but that the other sites were either too small or might pose safety concerns. Based upon this analysis, they conclude the only option is the utilization of 5.38 acres of private property, which can be obtained at a "relatively low cost." The problem with this analysis is that it wholly neglects to consider a perfectly viable alternative that would not pose a problem with location or safety and avoids the distasteful seizure of private property, namely a parking garage at the existing site.

All of the Governor's goals and the Project Purpose could be met simply by creating a parking garage in the area of the existing parking lot. This would avoid the seizure of private property and given the topography of the current parking lot in relation to the surrounding area, it would fit nicely in the area. Furthermore, several other reasons establish that a parking garage would pose a better alternative to this project than the proposed surface parking lot. Although the 5.38 parcel of property is currently vacant it is actually zoned as industrial property and plans have already been submitted, and a development project underway, to develop that parcel in a responsible manner. Thus, although the Connecticut DOT cites the placement of a surface parking lot on the parcel as an environmental improvement (over the existing condition), a fair comparison requires an analysis of the already proposed development plan versus the surface parking lot. When that comparison is performed the surface parking lot is deficient. Second, the

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7c effects on the Town's tax base (if private property is seized) as opposed to being developed must also be considered. If the property is developed in accordance with its private development plan, there will be a significant tax benefit to the town. By comparison, if this private property is seized by the state, it will actually reduce the tax revenue to the Town.

7d Finally, if the only concern about building a parking garage is the minor interruption of the existing parking spaces, the owners of the private property are willing to license to the State the right to utilize their property (and in essence temporarily delay their private development project) for use as surface parking while the parking garage is being built. Space can be obtained at a relatively low cost to off-set the inconvenience during construction.

STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION

BRANFORD SHORE LINE EAST RAILROAD STATION
ENVIRONMENTAL IMPACT EVALUATION (EIE)

PUBLIC HEARING
August 7, 2008

Comment Sheet

8

I strongly support the proposed expansion of the Branford Railroad Station. Improved mass transit, in particularly rail facilities, are critically important for economic and environmental sustainability and for quality of life of residents of Branford and the rest of the shoreline region.

The State should also work with the Town of Branford to create a public transit feeder system that will enable residents to get to the railroad station without driving private automobiles.

Capacity for bicycles should be increased to encourage the use of such non-motorized ~~methods of~~ commuting.

(Optional)
Name: Bill Horne
Address: 246 Pleasant Point Road
Branford, CT 06405
Affiliation:

Please deposit this form in the comment sheet box at tonight's meeting or fold it in half and mail to the address provided on the back. Alternatively, fax the form to Mr. Edgar T. Hurle at (860) 594-3377. Comments may also be emailed to Mr. Hurle at **edgar.hurle@po.state.ct.us.**

All comments must be received by August 21, 2008

APPENDIX I
Responses to Comments

PUBLIC HEARING TRANSCRIPT COMMENTS AND RESPONSES

(Refer to numbered comments in the right-hand margin of the transcript included in Appendix G)

Comment #1 - Lonnie Reed

Response: Comments noted and acknowledged. The mitigation committed to for this project includes monitoring for and proper handling and disposal of any hazardous materials encountered. Additionally, CTDOT is committed to ongoing public information regarding project implementation.

Comment #2 - Scott Merrick

Response: Comments noted. In response to the concerns expressed, mitigation for the project will include:

- Landscaping, vegetative buffers, and appropriate dark-sky compliant illumination will help to minimize and mitigate any visual impacts to the surrounding neighborhood.
- Plans and specifications will be generated by CTDOT to address any on-site contamination issues. These will include material handling and disposal requirements and health and safety measures to be undertaken during construction. As part of this, CTDOT will also be registering under the CTDEP "General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer)".
- New safety features such as fencing and illumination added to provide for safety of both commuters and residents near the station site.

Regarding traffic, CTDOT will be submitting a major traffic generator application to the State Traffic Commission (STC) for this project. The application will include a detailed traffic analysis of the surrounding roadway network. CTDOT is committed to providing any traffic mitigation measures deemed necessary by the STC for this project.

Comment #3 - Janice Plaziak

Response: Comment noted and acknowledged

WRITTEN COMMENTS RECEIVED FROM STATE AGENCIES, LEGISLATORS AND LOCAL OFFICIALS

Comment #4 - Connecticut Department of Public Health: Environmental Health Section

Response: The project will require the demolition of the residential structure located at 14 Kirkham Street in Branford. CTDOT has already conducted a Pre-demolition Investigative Survey for Hazardous Building Materials (including lead, asbestos, and other identified hazardous and CT-regulated materials, wastes, and other items) and specifications have been prepared to address all demolition issues associated with this property.

Comment #5 - Connecticut Department Public Health: Drinking Water Section

Response: Comments noted and acknowledged

Comments #6 – Connecticut Department of Environmental Protection

Response: CTDOT has committed to ongoing coordination with CTDEP during construction and permitting for the Proposed Action. All recommendations made in this comment letter regarding the design of the stormwater management system, construction period air quality protection measures, and landscaping are acknowledged and will be considered during final design. Responses to specific points of concern include:

a. Reconnaissance of the wetlands, including tidal wetlands on and adjacent to the Proposed Action site was performed by Mr. David Laiuppa, a certified soils scientist employed by Fitzgerald & Halliday, Inc. Wetland reconnaissance was conducted on May 5, 2008.

b. Final design of the new facility will be fully coordinated with the CTDEP and ACOE and will include primary and secondary stormwater renovation measures. This will include consultation and concurrence on the final design of the detention pond and any associated riprap material. The rip-rap splash pads associated with the outfalls of the detention pond will be located above the elevation of the high tide line and outside of regulated wetlands.

c. The need for a stormwater permit and stormwater pollution control plan has been acknowledged in the EIE and will be obtained. CTDOT will coordinate stormwater details with the CTDEP during the permitting process to ensure that all stormwater issues raised by the CTDEP in this comment are adequately resolved. This includes among other items, the final design of the detention basin, outfalls, catch basins, and other stormwater treatment measures. Soil testing for contamination, infiltration rates, and to ascertain the depth to the seasonal high water table will also be conducted during final design. A landscaping plan designed to incorporate natural

vegetation to provide shading for portions of the paved parking surface and detention basin will also be considered by CTDOT and coordinated with the CTDEP during the project's permitting phase.

d. As discussed during a meeting held on October 1, 2008 with Thomas RisCassi of the CTDEP Remediation Division, a supplemental investigation of the site was conducted by Tetra Tech Rizzo in 2008 with somewhat lower levels of contamination from what was encountered during the previous investigation by Storch Associates. As there is no enforcement action or mandated remediation (such as a significant environmental hazard) for the site, CTDOT will not be preparing a Remedial Action Plan (RAP) for the site. However, plans and specifications will be generated to address the on-site contamination issues. These will include material handling and disposal requirements and health and safety measures to be undertaken during construction. As part of this, CTDOT will also be registering under the CTDEP "General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer)".

e. CTDOT will require contractors to comply with current best management practices. Best management practices include the control and abatement of dust, mist, smoke, vapor, gas, aerosol, other particulate matter, odorous substances and any combination thereof arising from project operations. CTDOT will recommend the use of ultra-low sulfur fuel, as well as the use of the most modern construction equipment (Tier II and Tier III). CTDOT will require the contractor to comply with the anti-idling requirements of Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies, while also recommending that a mitigation plan be developed to abate impacts to identified sensitive receptors, which include schools, hospitals, daycare etc. and the recommended use of truck staging areas.

f. The recommendation for additional bicycle parking is acknowledged and will be incorporated into final design for the Proposed Action

WRITTEN COMMENTS RECEIVED FROM THE PUBLIC

Comment #7 - 35 Maple LLC

Response: Responses to the individual concerns raised in the comment letter are as follows:

a. The construction of a parking garage on the site of the current surface parking lot is problematic for a number of reasons. First, displacement of nearly 200 commuters parking at the lot would be necessary for the approximate 18-month duration of construction. While temporary, this is still a long duration for site users. Few if any other parcels within reasonable walking distance exist to meet that interim demand. In addition, sites for temporary parking would require the use of private property, which could include a variety of unknown unacceptable impacts for those property owners.

   Second, garages should be self sustaining. In other words, revenue collected at the facility should cover its operation and maintenance costs. As Shore Line East does not charge for parking, in part to attract additional riders, building a no charge parking garage will cost significantly more than surface parking even after payment of right of way acquisition costs.

   Third, it is not clear if the town supports a parking garage at that site. Parking garages can pose neighborhood cohesion impacts including introducing a structure that is inconsistent with the scale and character of the existing neighborhood. The resulting structure would likely be higher than the abutting Anchor Reef development and could exceed local zoning requirements.

   Fourth, constructing a surface parking lot on a property with suspected environmental contamination issues represents responsible reuse of a Brownfield type property.

b. CTDOT obtained a copy of the plans filed with the Town of Branford for this site. Site plan approval was granted by the Branford Planning and Zoning Commission on November 20, 2008. The CTDEP has issued a letter identifying some concerns with the proposed private development scheme for this site due to its constraints both in terms of tidal wetlands and potential contamination as a Brownfields site. The Proposed Action to be undertaken by CTDOT would address these concerns and improve environmental quality through coordinated design of the surface parking on the site. CTDOT will generate plans and specifications to address on site contamination issues. These plans will include material handling and disposal requirements and health and safety measures to be undertaken during construction. The private development scheme for the site does not offer similar remediation guarantees at this time.

c. As noted above, the potential for realization of the development plans for this site are unknown and the associated tax revenue to the Town of Branford cannot be

confirmed or assured at this time. Nonetheless, the Payment in Lieu of Taxes or PILOT program will offset the potential tax-loss to the town and will be employed to address the tax implications of the Proposed Action.

d. The cost to build a "temporary" parking lot, including private property agreements and the necessary acquisition of CTDEP permits to construct as well as limited availability of feasible sites to do so make this alternative impractical.

Comment #8 - Bill Horne

Response: Comments noted and acknowledged