Analysis of Costs for the Operation and Maintenance of the Transportation Related Areas of New London Union Station, the Adjacent Greyhound Facility and the Water Street Parking Garage

Prepared for the

Southeastern Connecticut
Council of Governments

As an Addendum to the Regional Intermodal Transportation Center Master Plan and Efficiency Study

November 2010

TranSystems

EXPERIENCE | Transportation

Table of Contents

List of Figures

List of Tables

1. Introduction

1.1 Purpose of this Document

The purpose of this study is to provide some additional information for the Southeastern Connecticut Council of Governments (SCCOG) and the Connecticut Department of Transportation (ConnDOT) as a follow-on to a recently completed study and report entitled *Regional Intermodal Transportation Center Master Plan and Efficiency Study*, dated March 2010 (RITC Master Plan). The study recommended that ConnDOT take ownership or play a management role in Union Station. ConnDOT indicated that they might also need to take ownership of or lease the Water Street Garage to secure a revenue stream to cover operating costs. ConnDOT and SCCOG wished to understand more about the capital and operating costs associated with ConnDOT's assuming such a role.

The scope for this project includes:

- A site visit to the facilities.
- An assessment of the staffing required to operate the transportation areas of the two facilities.
- An assessment of operation and maintenance costs for the transportation areas
- An outline of a scope of work to allow the operation of Union Station as a transportation facility. This would include the code corrections noted in previous studies.
- Provide an order of magnitude statement of the cost for ConnDOT to take responsibility for the entire complex.

1.2 Review of the Governance Findings of the *Regional Intermodal Transportation Center Master Plan and Efficiency Study*, March 2010

The *Regional Intermodal Transportation Center Master Plan and Efficiency Study* recommended the following about the governance structure of Union Station[1]:

- The rail station, bus station and pedestrian bridge should be owned by the State.
- The ferry facilities would remain under separate ownership, that is, by the ferry operators.
- The Water Street Garage could either remain under separate ownership by the City or could be purchased by the State.
- A new authority or district is not likely to be needed in this case, but an association of key stakeholders would be advisable to integrate customer services including schedule information and wayfinding and to ensure collaboration during implementation and on an ongoing basis.

The report went on to say:

> It is recommended that the State of Connecticut Department of Transportation (ConnDOT) play a lead role in the RITC improvements, given the State's interest in providing high quality rail connections in New London, including the expansion of its Shore Line East commuter rail service,

[1] *Regional Intermodal Transportation Center Master Plan and Efficiency Study*, by TranSystems for the Southeastern Connecticut Council of Governments, March 2010, page 10-2.

promoting bus transit services, and ensuring safe and efficient pedestrian crossings of the railroad right-of-way. It is recommended that the State purchase the Union Station property in its entirety in order to assure continued public use of the improvement and eligibility for FTA funding. This would have to be accomplished through negotiation with the private owner to purchase the property or, alternatively, enter into a long term lease. (A long-term lease could be for the entire property or could be limited to the first floor and the surrounding area needed for the bus terminal and pedestrian bridge.) ConnDOT has also indicated that any purchase of Union Station by the State may need to be accompanied by a purchase or lease of the Water Street Parking Garage currently owned by the City in order to ensure a revenue stream to cover operating and maintenance costs (the garage operating income does exceed its operating expenses). In that case, negotiations with the City would also be needed. (It is a common approach to link the train station to the source of parking revenue as is the case in New Haven, Hartford and Stamford.) However, since the Water Street Garage serves multiple purposes, arrangements would need to be made to ensure continued use for non-transportation purposes if ConnDOT purchased the garage.

The report estimated costs for the RITC improvements, but did not go into detail on the costs for repairs to the Union Station or the Water Street Garage. It estimated repair costs based on prior studies as being in the range of $1.6 M for Union Station (not including tenant fit-out costs) and $2.6 M for the Water Street Garage. Also, the costs associated with purchasing or leasing Union Station property and any cost of purchasing or leasing the Water Street Garage property were excluded from the RITC analysis.

1.3 ConnDOT Considerations

In considering what its role should be in the operation and/or ownership of Union Station, Connecticut DOT is asking to understand the costs associated with such state involvement. These costs would include an updated cost analysis of any immediate Code Compliance related improvements for the properties. ConnDOT asked for costs to be developed for the operation and maintenance of the facility assuming the following:

- Twenty-four (24) hours, 7 days/week, 365 days/year management and operation of the properties including regular maintenance and repair, including wear and tear items.

- Twenty-four (24) hours, 7 days/week, 365 days/year security presence at the properties, including the management of any security camera system(s).

- Building and grounds janitorial/cleaning program, to include a first class standard of cleanliness 24 hours, 7 days/week, 365 days/year.

- Comprehensive planning, supervision, operation, and reporting of parking operations at the Rail Facilities to include daily and monthly parking pass sales, daily deposits of receipts, and full accountability for monies received.

The scope is limited to the privately owned, historic, New London Union Station building and grounds and adjacent Greyhound Bus Customer Service Center along with the City owned Water Street Parking Garage. The operation and maintenance of the Amtrak owned passenger boarding platforms is excluded. However, ConnDOT is interested in the overall repair cost and operation and maintenance cost of the whole of Union Station, and TranSystems has promised an order of magnitude estimate of this cost.

2.1 Union Station

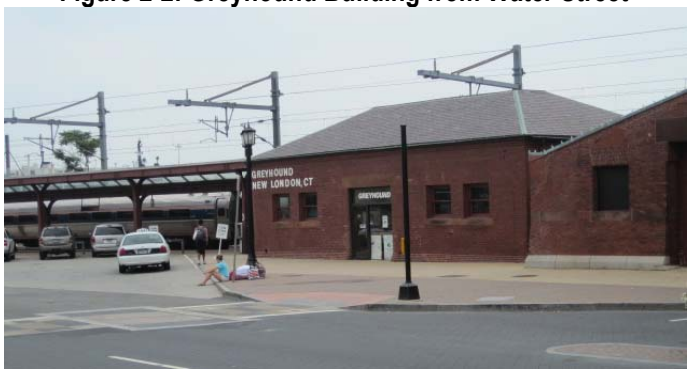
Union Station is an historic, architecturally-significant and imposing structure built in 1888 and renovated in the 1970s. It was the last of many railroad stations designed by Henry Hobson Richardson. Union Station is listed on the National Register of Historic Places.

Union Station's façade is brick and matching brownstone. The original building was a rectangle in plan with its principal axis is a north-south line. Originally, it had three stories, with a two story major waiting room at the center of the first floor. Two additional levels were added at a later date, within the original envelope. A single story baggage room was added at the north end bringing the full length to around 184 feet. The Greyhound building was added at the north end of the baggage room. It is a truncated rectangle with its east wall parallel to the rail platform and the west wall parallel to Water Street. Figures 2-1 and 2-2 show Union Station and the Greyhound building.

Union Station is privately owned. It serves as the region's train station for Amtrak intercity rail (Acela Express and Regional trains operating on the busy Northeast Corridor) and Connecticut DOT's Shore Line East commuter rail service (its easternmost terminal). Located alongside Union Station are the Amtrak-owned tracks used by passenger and freight rail services. Union Station is also the site of New London's intercity bus terminal (the Greyhound building) and the New London hub of the region's bus transit system. The local transit system, Southeast Area Transit (SEAT), has a curbside bus stop with a simple shelter on Water Street, north of the building and the Greyhound building. This bus stop serves as its New London hub.

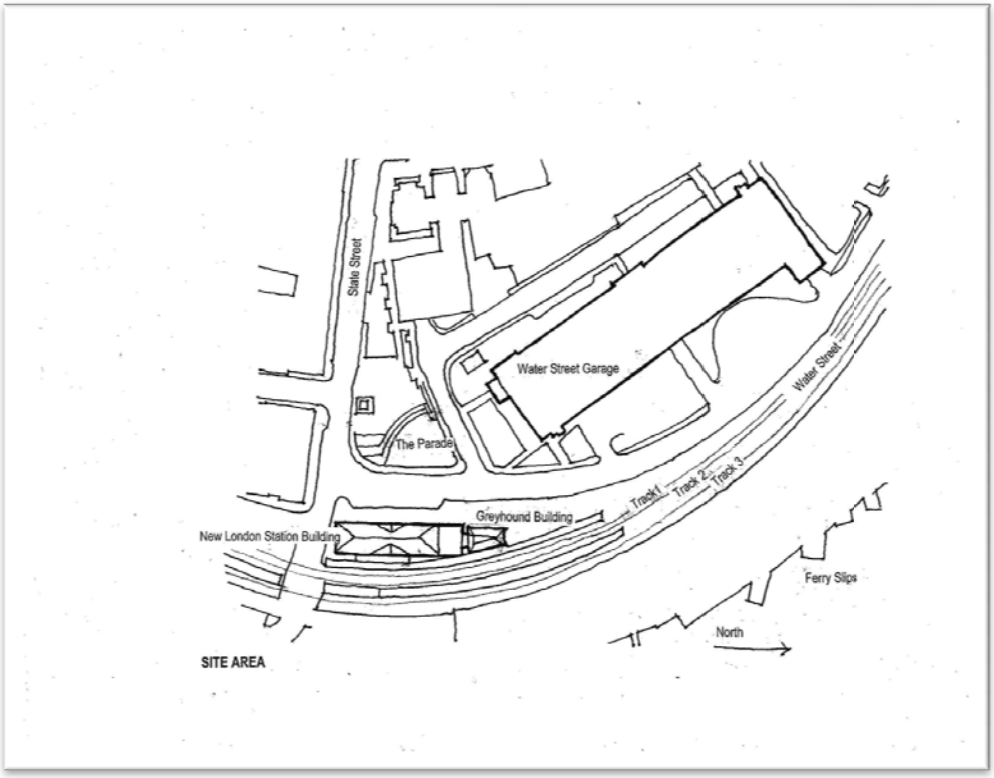
Figure 2-1: Union Station from Water Street

Figure 2-2: Greyhound Building from Water Street



New London Union Station and the Water Street Garage are on opposite sides of Water Street and adjacent to the Parade, an historic urban square that has recently been rejuvenated. The station building is separated from the waterfront and ferry slips by the railroad platforms and tracks. Figure 2-3 shows the site area.

Figure 2-3: Site Area



2.2 The Water Street Garage

The Water Street Garage is owned by the City of New London. The garage was built thirty years ago, and the two top levels added four or five year later. The exterior design is both structurally rational and well proportioned. The garage is by far the largest building in the area, yet by virtue of the façade treatment and some landscaping along Water Street and the Parade it adds to the urban scene rather than detracts from it. The Water Street Garage provides 906 parking spaces, serving railroad and ferry boat passengers. Figure 2-3 depicts the Water Street Garage.

Figure 2-4: Water Street Garage as Seen from the Parade

3. Methodology

The methodology used for this analysis included a review of prior work and background reports related to Union Station and the Water Street Garage, analyzing additional data on operating costs for Hartford's Union Station and a site visit to the properties in New London. With respect to the background reports on the condition of Union Station and the Water Street Garage, TranSystems reviewed these, updated costs, and commented on items that could affect the estimated costs based on extensive experience with historic buildings including six historic train stations. The operating and maintenance costs for the Water Street Garage were well documented and available.

3.1 Background Reports

Detailed reports and other information on the condition of Union Station and the Water Street Garage were available for this effort. These were:

- *Regional Intermodal Transportation Center Master Plan and Efficiency Study*, by TranSystems, prepared for the Southeastern Connecticut Council of Governments, March 2010.
- *Condition Appraisal (Reevaluation) Water Street Parking Garage, New London Connecticut*, by Desman Associates, prepared for the City of New London Office of Development & Planning, October 2007.
- *Union Station New London Condition Inspection and Recommendation Report,* by DMJM Harris | AECOM, prepared for the Connecticut Department of Transportation, January 12, 2007.
- *(draft) Union Station Elevator Pit Supplemental Inspection and Report,* New London, prepared for the Connecticut Department of Transportation by DMJM Harris | AECOM, August, 2007.
- *Water Street Parking Garage Repair and Preventive Maintenance, FY 2008,* 2/13/2008.
- *Statement of Revenue and Expenses,* New London Parking Commission, Water Street Garage.

These reports and information were made available to TranSystems for conducting this study since an in-depth condition assessment was beyond the scope of this assignment.

3.2 Site Visit

On July 7, 2010 Dan Kopple of TranSystems visited New London to inspect the facilities and to talk with the owners/operators of the facilities. Jim Butler of SCCOG also participated in this site visit.

The site visit included a meeting with Todd O'Donnell, a partner in the Blackwell Company, the owners of Union Station and the Greyhound building. Mr. O'Donnell is also the manager of Union Station. He led a tour of the facilities. Mr. O'Donnell was informative and open in discussing the building, about his previous discussions with the City and the State, but did not provide current operating expense figures.[2]

At the Water Street Garage, a meeting was held with Joseph Celli, the manager of the Water Street Parking Garage for Propark, the company that manages the Garage for the City. Mr. Celli has managed the

[2] In a subsequent conversation with Jim Butler, Mr. O'Donnell indicated that he provided operating costs in a proposal for the State to purchase the station which he sent to Deputy Commissioner Al Martin at ConnDOT several years ago. Mr. O'Donnell reported that his operating costs totaled $175,000 annually. However, these costs may not have included everything that ConnDOT would want included in operations and maintenance and they are a few years old.

City-owned garage for about two years, and was proud of the progress he has made in catching up with deferred maintenance and turning the garage into a profitable operation. He was pleased to share information on costs and revenues.

3.3 Basis of Operating Costs for Union Station

Because we did not have data on operations and maintenance costs for Union Station in New London, a means of estimating these costs was required. Fortunately, Union Station in Hartford Connecticut has many similarities to Union Station in New London. The Greater Hartford Transit District, owner of Hartford's Union Station, was very generous in providing detailed information on the costs of operations and maintenance. These costs, and our own experience with historic stations, form the basis of the New London Union Station operating cost analysis. We are especially familiar with Hartford Union Station having recently developed a renovation plan for it.

Hartford Union Station is quite similar to the New London Union Station. The New London and Hartford stations were built in 1888 and 1889 respectively. H.H. Richardson designed New London; his successors, Shepley, Rutan and Coolidge, designed Hartford. Both stations have an original configuration of three stories, with a two story major waiting room at the center of the first floor. At each station two additional levels have been added, at a later date, within the original envelope.

Both stations are built of brick and matching brownstone. Both stations were Union Stations. In both cases Amtrak owns the platforms and right of way but leases space in the station building. Both stations support intercity bus operations. Hartford has, and New London has had, significant tenant activity including a restaurant. The two stations have essentially the same hours of operation. Supporters of each station have worked to avoid demolition threats and have maintained and restored the original buildings.

Although the two stations differ in building size, site size, the number of bus berths and number of present tenants, the rail passenger count are remarkably similar. In 2009 New London served 159,317 rail passengers and Hartford served 157,791.

Other transportation activities at the stations differ. Hartford Union Station has significant intercity bus traffic with on the order of 44-60 daily stops versus New London's which varies between 8 and 20. New London Union Station has significant ferry boat connections, which are seasonal. The ferry passengers swell the ranks of the rail passengers and fill the garage in the summer months.

Given the similarities of, and differences between the two stations, our approach to estimating cost of operations at New London has been to relate the cost of specific functions at Hartford to those expected at New London by the relative size of the factors that affect the specific costs. Detail on the cost derivation is included in Section 4.5.

4. Union Station New London

4.1 Physical Description of Union Station

Originally built in 1888, Union Station is reported to have been refurbished in 1976 and the upper floors renovated in 1988. It consists of brick masonry exterior bearing walls, wood framing and a high pitched slate roof with dormers. The different levels of the building are:

- Basement: Various utility rooms and unoccupied spaces.
- First Floor: Large central 2-story waiting room; offices, men's and women's rooms to the south; and unoccupied space to the north.
- Second Level (or First Floor Mezzanine): Mechanical room and unoccupied space in both north and south areas.
- Second Floor (Third Level): Office suite at the south end, the remainder of the floor is unoccupied.
- Third Floor (Fourth Level): Unoccupied space.
- Fourth Floor (Fifth Level – open to floor below): Unoccupied space.

The Greyhound Station consists of a waiting area, restrooms and ticket office in a one-story building to the north of Union Station.

Union Station is owned by the Blackwell Company, including the station building, the Greyhound building and limited property beyond the building lines. The property line along Water Street is at the building line. The property line on the east side is approximately five feet east of the east façade of the station building. The property lines at the station continue north and define a slightly bent, narrow rectangle of about 2,100 square feet, north of the Greyhound building. The Blackwell Company does not control or maintain the platforms or the Water Street pavement.

The present primary transportation use of the station buildings include the Amtrak ticket office, operations office, the waiting room for Amtrak and Shore Line East (SLE) passengers, rest rooms, an occasionally used baggage and freight room, and the Greyhound waiting room. There are two inter-city bus berths and two smaller bus berths adjacent to the Greyhound building. Taxis serve the station at the Water Street curb.

The Amtrak ticket office is manned by one agent during the period that Union Station is open and a second agent at busy periods. Greyhound mans the Greyhound building. Amtrak and Greyhound are the only tenants at present. The Blackwell Company occupies approximately 960 square feet at the south end of the second floor as its office. Union Station has had additional tenants in the past and was fully occupied as recently as the early 1990s.

A single elevator serves the basement, the first floor, the south mezzanine and the second floor. The basement is highly compartmented into relatively small rooms occupied by HVAC equipment, telecom and electrical equipment, meter rooms, elevator equipment room and a maintenance shop. There is potential tenant space at the south end and below the large waiting room, totaling about 2,600 square feet. It has been occupied previously by Amtrak and Amtrak police.

The station is served by three tracks. Track one, served by the platform at the east side of the station building is nominally for south-bound trains. At times when train schedules permit, it is used for north-bound

trains since it is significantly more convenient to the station than track two. Track two is separated from track one and the platform for track one by a fence to keep people from crossing the tracks. The platform for tracks two and three is elevated. It is accessed from grade by an ADA accessible ramp at the south end of the platform. To reach that ramp a person in the station building must walk south about 150 feet to cross State Street. State Street connects the City to the waterfront and crosses the tracks at a signalized grade crossing. A passenger must use that grade-crossing to get from the station to the ramp for the north bound train. Figure 4-1 shows the back of Union Station and the platforms.

Figure 4-1: Showing Adjacent Platform for Track 1 and Elevated Platform for Track 2

4.2 Union Station Activity Level Assumptions

As noted previously, the 2009 rail passenger count for the New London Station was 159,317. The estimated 2010 passenger count is 169,112 with 23 trains per day serving the station. That indicates a daily average of 463 passengers per day and an average of 20 passengers per train. The Amtrak trains have been serving the Shore Line East (SLE) passengers using New London Station. Two of the 23 daily trains are SLE trains, one north bound ("east bound") and one south bound ("west bound").

We understand that an additional 200 SLE passengers per day are expected to board or alight at Union Station in New London in the near future. The assumption that there is no duplication of SLE passengers in the current Amtrak numbers and the projected additional SLE passenger count implies that there will be 663 passengers per day either boarding or alighting.

The station should be sufficiently large to accommodate the anticipated passengers, even assuming a worst case condition, e.g. a Friday evening in August with 1,000 daily passengers, 200 passengers in the evening peak hour, and trains delayed an hour. The waiting room and the canopied platform within the length of the station building would hold 200 people at 20 square feet per person. Although the addition of 200 passengers per day would be a 43 percent increase over the anticipated 2010 count, it would not be a problem for the station, and would improve the value of its rental space.

Inter-city bus rider counts at New London are estimated to be approximately 100 riders per day on an average summer week day and 160 on a weekend day. In low periods the daily average is about 50

passengers per weekday and 80 on weekend days. The Greyhound Building is rarely crowded. There are 8-9 scheduled intercity bus stops at New London (counting both south and north bound service) Monday through Thursday. Weekends are busier with twice as many stops on Fridays and Sundays.

Taxis provide around 60 to 100 drop offs or pick-ups daily. SEAT has a bus stop near the station. Figure 4-2 shows Union Station with taxis waiting in front.

Figure 4-2: Union Station Viewed From the Parade

4.3 Condition of Union Station

There have been a number of studies that have examined the condition of Union Station. In 2006 Norman Benedict reported that the cost of renovating the station to allow for leasing would be $1,560,000.[3]

DMJM Harris | AECOM conducted two study efforts to assess the condition of Union Station. This report did not address general building upgrades and repair; rather its purpose was to bring the building into compliance with code. Unofficial comments and an incomplete listing of observations from a Connecticut DOT "Code Review Walk-through" conducted on Nov 3, 2006 with members of ConnDOT as well as DMJM Harris | AECOM noted that major upgrades or repairs since the 1975-76 station rehabilitation included a slate roof (around 2002), skylights, first floor windows, new staircases to upper levels and basement (partially complete), new electrical to upper levels, newer Burnham boilers (3 years old), and newer mechanical systems.

[3] *Regional Intermodal Transportation Center Master Plan and Efficiency Study*, by TranSystems for the Southeastern Connecticut Council of Governments, March 2010, page 8-7.

In its initial report, DMJM Harris | AECOM found that overall repairs required to bring the station building and Greyhound building to code totaled $1,044,254 in 2007 dollars. The cost for code-related improvements for the first floor waiting room (including associated offices and public restrooms) was $340,925 in 2007 dollars.[4]

One of the findings of the initial report was that there was water in the elevator pit and a $57,566 price was given for installing a sump pump in the elevator pit and doing storm water mitigation. The report recommended additional research to determine the cause of the storm water infiltration and recommend appropriate mitigation measures. A supplemental investigation and report provided a larger budget of $124,127 to fix the problem with the water in the elevator pit.[5] Table 4-1 shows the estimate for the elevator pit budget provided by DMJM Harris | AECOM, and Table 4-2 shows the overall budget to bring the building to code, with the elevator pit repair budget updated to reflect the supplemental information.

[4] *Union Station New London Condition Inspection and Recommendation Report,* by DMJM Harris | AECOM, prepared for the Connecticut Department of Transportation, January 12, 2007, p. 16-17.

[5] *Union Station Elevator Pit Supplemental Inspection and Report (draft), New London,* prepared for the Connecticut Department of Transportation by DMJM Harris | AECOM, August, 2007, p. 6.

Table 4-1: Repair Items from 2007 DMJM Harris | AECOM Elevator Pit Supplemental Report

Item Description	Total Cost (2007 dollars)
Civil/Structural/Architectural	**$51,891**
Patch existing pipe penetrations	$1,086
Misc. wall penetrations (new)	$2,403
Sawcut existing slab	$1,524
Demo & remove slab	$4,504
Hand excavate trench fo new 6" perf dip	$9,121
Backfill trench for ane 6" dip	$4,728
Repair concrete slab overt new pipe	$9,106
Allowance for dewatering	$18,090
Seal elevator pit	$1,328
Plumbing	**$27,942**
Remove & dispose existing sump pumps & piping	$2,667
Install new sump pumps	$6,104
1.5 inch discharge pipe	$3,210
Misc. valves & cleanouts	$3,481
Perforated 6 inch dip	$4,339
Allowance for TV inspection & cleaning	$8,140
Electrical	**$12,113**
Allowance for electrical demolition	$1,416
Allowance for new/reoplacement electrical work	$,10,697
Subtotal (construction)	**$91,946**
Incidentals (ConnDOT) (25%)	**$22,986**
Contingencies (ConnDOT) (10%)	**$9,195**
Total Projected Budget	**$124,127**

Table 4-2: Repair Items Based on 2007 DMJM Harris | AECOM Conditions and Inspection Report

Item Description	Total Bldg. (2007 dollars)	1st Floor Lease Only (2007 dollars)
Architectural	**$178,144**	**31,731**
North egress stairway (basement to first floor)	$13,567	
North egress stairway (first floor and up)	$31,657	
Replace guardrail & handrail at south egress stairway	$16,240	
Install ADA compliant hardware	$10,173	$10,173
Renovate 2nd floor bathroom for ADA accessibility	$34,950	
First floor waiting area 2 hr. fire separation	$21,558	$21,558
Provide ADA access to upper floors	$50,000	
Plumbing/Fire Protection	**$265,818**	**$169,395**
Install lavatory shielding guards (toilet 105 & 106)	$2,520	$2,520
Install lavatory shielding guards (toilet 205)	$1,260	
Install sump pump in elevator pit & storm water mitigation	$91,946[6]	
Install lavatory shielding guards (Greyhound Station)	$3,216	
New automatic sprinkler system (required by ConnDOT)	$166,876	$166,876
HVAC	**$30,168**	**$18,237**
Extend supply & return ductwork (office 107)	$15,832	$15,832
Increase exhaust in restrooms	$2,406	$2,406
Increase exhaust in Greyhound Station Restrooms	$2,044	
Extend supply & return ductwork (Kitchen/storage)	$9,886	
Electrical	**$333,773**	**$33,174**
Label fire alarm system zones on panel	$2,995	$2,995
Emergency lighting battery pack	$3,619	$3,619
Check battery wall packs	$9,617	$9,617
Provide panelboard label & permanent outlet wiring	$7,940	$7,940
New smoke detector with connection to fire alarm system	$1,177	$1,177
Install strobe, battery-pack lighting & smoke detector	$4,854	$4,854
Permanent installation of conductors	$2,718	$2,718
North end of first floor of Union Station Repair/Upgrades	$27,134	
Remove unused conductors and provide cover plate	$200	$200
Replace broken cover plate	$54	$54
South stairwell emergency lighting wall pack	$2,265	
Complete south stairwell 2nd floor hallway electrical	$771	
Replace No Exit sign and provide illuminated exit sign	$771	
Electric room being used for storage	$544	
Greyhound Station pull station & smoke detectors	$18,090	
Greyhound Station back room EM lighting, smoke detectors, exit sign or pull boxes	$18,090	
Greyhound Station panel-board work	$6,954	
Basement floor electrical/telecommunications space	$52,007	
Basement floor exit signs	$9,045	
Basement floor smoke detectors	$9,045	
Remove abandoned wiring & tag circuit breakers	$4,368	
New conduits, pull boxes and conductors	$27,134	
Replace light fixtures	$9,045	
First floor mezzanine upgrades	$27,134	
Second floor upgrades	$27,134	

[6] The cost of the elevator repair from Table 4-1 prior to incidentals and contingencies.

Table 4-2: Repair Items from 2007 DMJM Harris | AECOM Conditions and Inspection Report (continued)

Item Description	Total Bldg. (2007 dollars)	1st Floor Lease Only (2007 dollars)
Electrical (continued)		
Install strobe, battery-pack lighting & smoke detector	$2,433	
Remove abandoned wiring & tag source	$4,368	
Third floor upgrades	$27,134	
Fourth floor upgrades	$27,134	
Subtotal	$807,903	$252,537
Incidentals (25%)	$201,976	$63,134
Contingencies (10%)	$80,790	$25,254
TOTAL Project Budget	$1,090,669	$340,925

The RITC Master Plan included a section on the condition of Union Station. According to that report, Union Station was inspected and that the exterior appeared to be in reasonably good condition having experienced renovations within the last ten years. An exception was missing panes in the glass canopy in the rear of building.[7]

On July 7, 2010, Dan Kopple of TranSystems inspected Union Station. Dan was the Architect of Record for dozens of historical renovations, including seven historic rail stations. These include a total rehabilitation of 30th Street Station in Philadelphia, the second largest station in terms of size and activity in the country, as well as rehabilitation of many smaller stations. Dan Kopple's observations were:

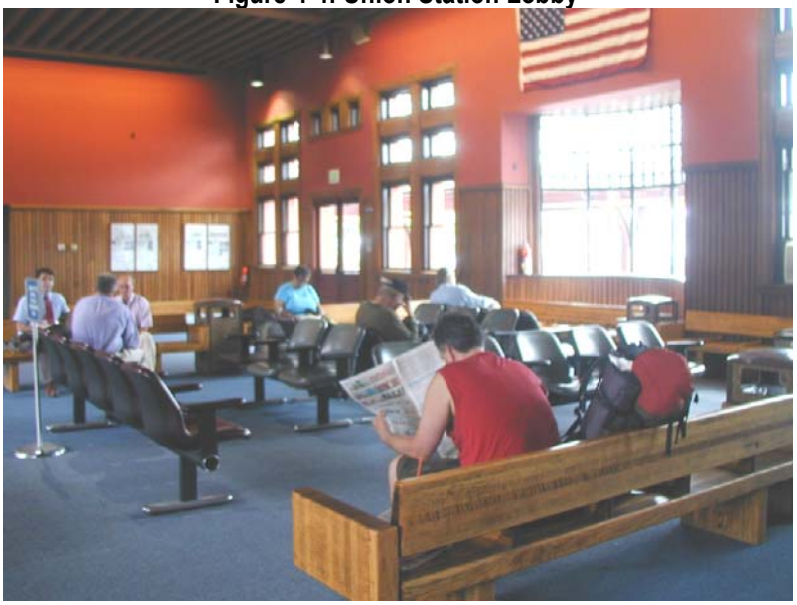
> Union Station is a visually powerful presence commanding the attention of observers in the Parade Square. Observations from a site visit on 7 July 2010 indicated that Union Station has been well maintained. The exterior of the New London Station appears to be in good condition, suggesting that it has had some masonry, window and roof restoration done relatively recently.
>
> The public spaces on the first floor level are neat but a little worn and would benefit from a program of rehabilitation and improved lighting. Such a program should be coordinated with the scope of work required by the 2007 DMJM Harris| AECOM report on code, ADA and related issues, and landlord's contribution to tenant improvements.
>
> Although the main waiting room and the rest rooms on the first floor are in acceptable condition, and Blackwell's office on the second floor is in good condition, the rest of the spaces are in a state of incomplete construction. General repair and finishing of common spaces would bring the impression of the interior into line with the visual presence of the exterior.

[7] *Regional Intermodal Transportation Center Master Plan and Efficiency Study*, by TranSystems for the Southeastern Connecticut Council of Governments, March 2010, page 2-12.

Figures 4-3 and 4-4 show views inside Union Station.

Figure 4-3: Union Station Ticketing Office

Figure 4-4: Union Station Lobby



Although the station is active with a good number of passengers and additional people dropping off or meeting passengers, the stations tenants are limited to Amtrak, Greyhound and the station's owner-manager. Greyhound rents the building section that bears the company name. Amtrak rents the ticket office in the main room and the adjacent office space. At one time in the past, Amtrak police occupied the south end of the basement. And at several times in the Station's history a restaurant occupied the second floor.

4.4 Outline of Scope of Work for Union Station to Operate as a ConnDOT Transportation Facility

This section outlines a scope of work for ConnDOT if it is to lease the transportation areas of Union Station, in addition to the code corrections detailed previously in the DMJM Harris | AECOM report of 2007. Also, this section provides an order of magnitude statement of probable cost if ConnDOT were to take responsibility for the entire complex.

Union Station has a basement and floors one through four, totaling 33, 910 gross square feet, including the Greyhound building. It has a potential to offer 19,380 square feet rentable. Table 4-3 shows the estimates of gross area and potential rentable area. Note that these estimates are based on analysis of the 2003 CAD drawings by Barun Basu Associates, which may not reflect the current plan configuration in some areas.

Table 4-3: New London Union Station Areas[8]

Location	Gross Area (Square Feet)	Possible Rental Area (Square Feet)
Basement	6,510	2,270
1st Floor	8,440	3,590
Mezzanines	3,340	2,000
2nd Floor	6,800	5,280
3rd Floor	4,940	2,930
4th Floor	2,400	2,000
Subtotal	32,430	18,070
Greyhound Bldg	1,480	1,310
Total Bldg	33,910	19,380
Site Area	13,260	

In addition to repairs required to bring Union Station up to code, Union Station should be renovated to modernize the facility. In order to assess the probable cost, should ConnDOT become the overall owner or lease the transportation areas of Union Station, we have developed a list of proposed improvements which are consistent with the program for the station set out in the 2010 RITC Master Plan. That program includes ticket offices and back of house offices for Amtrak (which will also sell Shore Line East tickets), improved and expanded rest room facilities for railroad and bus patrons, better passenger information systems, and a food service tenant on the first floor. A layout for such station improvements is shown in the sketch in Figure 4-5.

[8] Estimated from plans in the *Union Station New London Condition Inspection and Recommendation Report,* by DMJM | Harris AECOM, prepared for the Connecticut Department of Transportation, January 12, 2007, found in pages following page 43.

Figure 4-5: Potential Program for Station Improvements

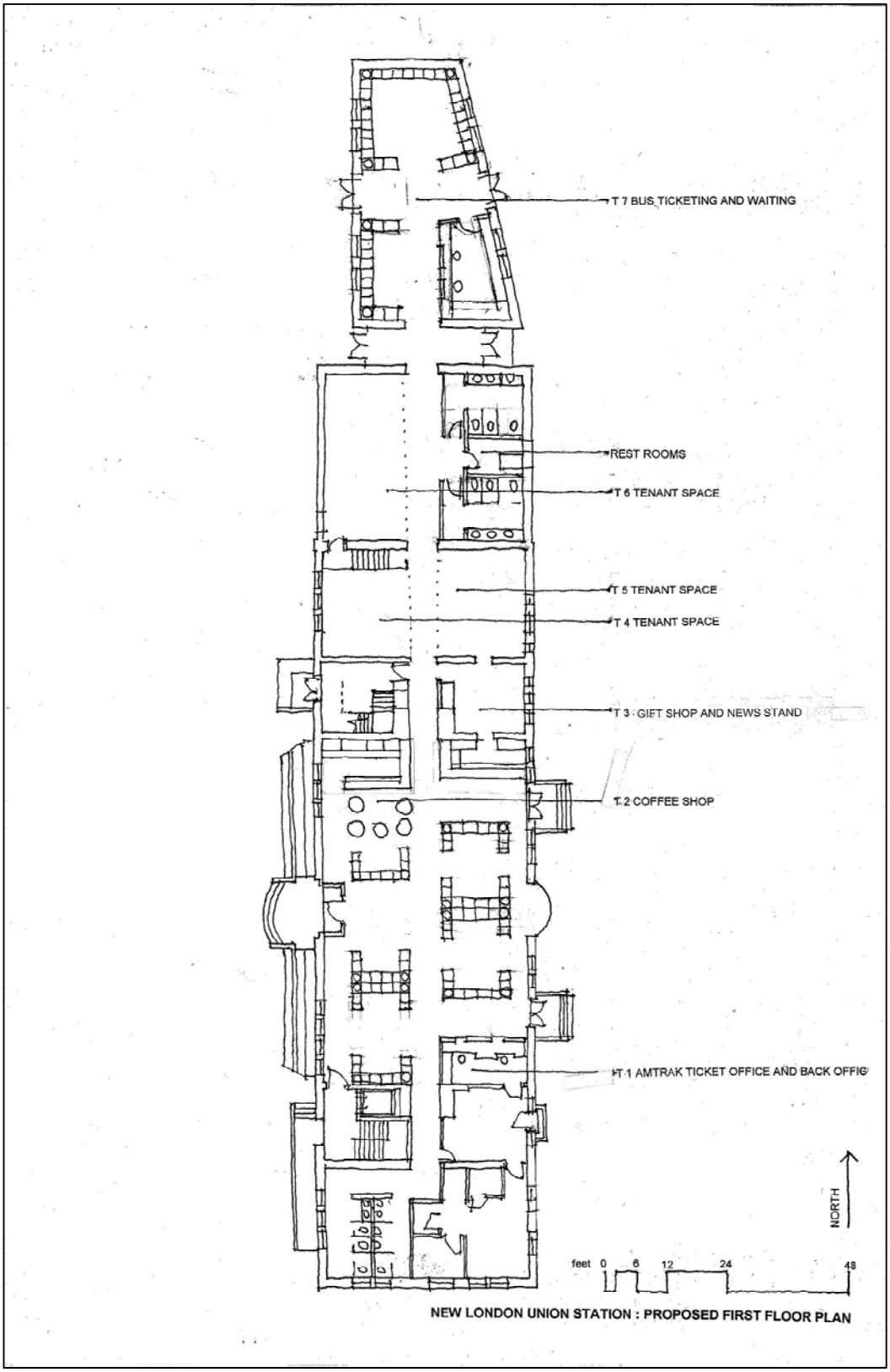


Table 4-4 shows the probable cost, in 2010 dollars, of a full building rehabilitation program or a rehabilitation program limited to the transportation areas which would be recommended in addition to the code and functional repairs proposed by the DMJM Harris | AECOM reports (represented I 2010 dollars), general improvements in finishes, lighting and minor repairs, and an allowance for the landlord's part of tenant improvements costs.

Tenant improvement costs are normally negotiated between the tenant and the landlord based on the market, the size and type of the tenant activity, and the nature of the lease. Some small tenants may produce high rents per area occupied, e.g. Dunkin Donuts. Other tenants requiring large areas might pay rents consistent with lower local office rates. Amtrak and Greyhound could be negotiated to include the areas actually occupied and a percentage of the common waiting and public spaces. Tenant fit-out costs can be delayed until there are tenants with which to negotiate.

The cost of work suggested for non-tenant improvements includes minor repairs to walls, floors and doors, general repainting and improved lighting. A detailed condition assessment and design will be required to determine the most cost effective scope of improvements. One element for which we have been a bit more specific is the proposed new men's and women's rest rooms on the first floor. That cost is based on the area, finish types and anticipated fixture count.

Table 4-4: Union Station Probable Construction Cost for Repairs, Interior improvements and Tenant Fit-up Allowances (2010 costs)

Floor	Item	Area (SF)	Unit Cost ($/SF)	Total Building. ($)	Transportation Spaces Only ($)
Basement					
	General areas, paint, light floor	4,240	20	84,800	
	Tenant fit-out	2,270	30	68,100	
1st Floor					
	General areas, paint, light floor	4,500	25	112,500	112,500
	Restrooms	350	240	84,000	84,000
	Tenant fit-out	3,590	35	125,650	125,650
Mezzanine					
	General areas, paint, light floor	1,260	20	25,200	
	Tenant fit-out	2,000	35	70,000	
Second Floor					
	General areas, paint, light floor	860	20	17,200	
	Tenant fit-out	5,280	35	184,800	
Third Floor					
	General areas, paint, light floor	1,500	20	30,000	
	Tenant fit-out	2,930	30	87,900	
Fourth Floor					
	General areas, paint, light floor	180	20	3,600	
	Tenant fit-out	2,000	30	60,000	
Greyhound building	Tenant fit-out	1,310	30	39,300	39,300
Sub Total	General Areas	12,890		357,300	196,500
Sub Total	Tenant fit-out	19,380		635,750	164,950
Total		32,270		993,050	361,450

An additional cost to consider should ConnDOT opt to own the building would be the addition of a security system with security cameras, particularly in the transportation spaces. An estimate for such a system of $65,000 is included in this analysis. TranSystems' security expert, James Elder, assisted in a quick appraisal of what might be needed based on a look at the first floor building sketch and pictures of the building and lobby area. Elder suggested that 10-15 security cameras might cover the area of concern, with an allowance of $3,000 per camera to allow for installation in a historical building. Another $20,000 would be required to set up the infrastructure including a server, workstation and so forth. Another point of comparison is Hartford Union Station, which is in the process of ordering new high-tech cameras to add to its current security system. [9]

[9] DJ Gonzalez of the Greater Hartford Transit District (GHTD) estimated that if GHTD started from scratch they could install a complete system for around $100,000. A smaller figure is reasonable for New London due to the smaller area to secure.

A more detailed investigation would certainly be needed to determine the cost of such a system. Elder pointed out that efficiency and effectiveness of such systems can be improved by using systems and services that "watch" the cameras and help flag problems. Guards can only focus effectively on around 6 screens at a time, thus are limited in their effectiveness. Systems can be monitored off-site using security services, which can alert on-site personnel. A combined security program with the Water Street Garage could also be efficient. Other design considerations can help to improve security, and these should be implemented when building renovation takes place.

A final expense to consider is the preventive maintenance required to protect the value of the historic structure. A building of the age, type and size of the New London Station building should have a detailed condition inspection and assessment of its exterior envelope made each 15 to 20 years. The repair work required due to natural causes in the 15 to 20 year period, for a building of the station's size, could be of the order of magnitude of $2 million. This $2 million is the expected cost to cover repairs to the roof and the structure that supports it, the exterior masonry and windows and doors. Since the roof was replaced in 2002, and since the exterior appears reasonably well maintained, it is reasonable to expect that a large expenditure for such repair would not be needed immediately. However, a reserve fund for such items should be established.

The budget proposed for improvements to the total building is approximately $2,007,000 for the general areas, and $985,000 for tenant fit-out for a total cost of around $2,992,000. The tenant fit-out cost is paid by the landlord, and repaid by the tenant through rent, and would not need to be done until tenants were identified. If one considers only the transportation related spaces, the cost is estimated at around $828,000 for improving the general areas and $256,000 for tenant fit-out for a total cost of around $1,084,000. Allowances are made for incidentals (25%), A&E and inspection fees (20%), and contingency (10%).

Table 4-5 summarizes the outline of cost components, with estimates for the whole building as well as for the transportation areas.

Table 4-5: Outline of Probable Cost Components for Repairs, Interior and Other Improvements and Tenant Fit-Up Allowances (2010 costs)

	Total Building ($)	Transportation Areas ($)
Subtotal of code related items from Table 4-2 (without incidentals and contingencies) updated to 2010 dollars	872,535	272,740
General area refurbishment from Table 4-3	357,300	196,500
Security system	65,000	65,000
Subtotal	1,294,835	534,240
A/E/Inspection Fees (20%)	258,967	106,848
Incidentals (25%)	323,709	133,560
Contingencies (20%)	129,484	53,424
TOTAL EXCLUDING FIT-OUT ALLOWANCES	2,006,995	828,072
Fit-out allowance	635,750	164,950
A/E/Inspection Fees (20%)	127,150	32,990
Incidentals (25%)	158,938	41,238
Contingencies (20%)	63,575	16,495
TOTAL FIT-OUT ALLOWANCE	985,413	255,673
TOTAL INCLUDING FIT-OUT ALLOWANCE	2,992,407	1,083,744

4.5 Cost of Operation and Staffing Required for Union Station

As described previously, the methodology for estimating operating costs and staffing for Union Station is based on detailed information provided by the Greater Hartford Transit District for Union Station in Hartford.

Table 4-6 shows a comparison between New London Union Station and Hartford Union Station. Among Connecticut rail stations, Hartford Union Station is the most similar to New London Union Station, and as described previously, the number of rail passengers at the stations is remarkably similar.

Table 4-6: Relative Sizes and Activity of Union Station New London and Union Station Hartford

Item	New London Union Station	Hartford Union Station
Gross area	33,910 SF	92,675
Rental area	Potential 19,000 SF	40,000 SF Actual
Site area including building	13,620 SF	143,540 SF
Site area less building foot print	3,700 SF	97,231 SF
Building foot print	9,920 SF	46,309 SF
Trains per day	23	12
Daily train activity	Amtrak NE Regional & ACELA 11 NB + 10 SB Shore Line East 1 EB,1 WB	Amtrak: 6 NB + 6SB
Annual passengers boarding and alighting at the station	159,317	157,791
Growth estimated 2010	6%	
Projected 2010 average daily passengers	169,112	166,420
Annual daily passengers 2010	463	456
Average daily passengers July and August	592	
Highest passenger levels, Fridays in July and August	808	
Future Shore Line East daily passengers	200	
Station hours	5:30AM to Midnight	6AM-11PM

Given the similarities of, and differences between the two stations, our approach to estimating cost of operations at New London has been to relate the cost of specific functions at Hartford to those expected at New London by the relative size of the factors that affect the specific costs. The factors used are as follows:

- Costs for energy use are factored relative to building gross area.
- Staffing and costs for janitorial service were related based on the ConnDOT requirements as well as staff required for the building and site size.
- Staffing and costs for security were based on ConnDOT requirements and are the same as for Hartford Union Station
- Some costs related to building management were set relative to Hartford's costs, but recognizing that there are fixed costs which won't change linearly with the size of the building.

Table 4-7 provides an analysis of staffing by function. The assumption is that the same staffing is required for the transportation spaces as well as the entire building, because a high level of oversight is required for the transportation spaces, but these same staff should be able to handle the increased space for the total building. As with other ConnDOT facilities, the assumption is that these staff would be provided through a management contract.

The assumption for staffing is that

Table 4-7: Staffing for Union Station New London

Staffing Item	Full Time Equivalents	Comment
Operations and general administration of the station	1.5 persons	ConnDOT requirement for full time management and reporting, so use same as Hartford.
Security	5 persons	24/7 365 days per year ConnDOT requirement. One person per shift same as Hartford
Janitorial	Total of 5.5 persons: 1 half time maintenance supervisor, 5 janitorial persons for 24/7 coverage	24/7 365 days per year is the ConnDOT requirement for 1st class cleaning for building and grounds. Hartford uses 5 full time janitorial persons to cover the entire facility, but does not provide 24/7 coverage. 24/7 coverage implies a need for 5 persons, but these should be able to cover the entire facility in New London. Hartford uses a full time maintenance supervisor, through a contractor, assume half time for New London

The cost information from Hartford Union Station, the factors used to apply each cost item to New London, and the resulting cost estimates for New London Union Station are indicated in Table 4-8. Specific relative values are mentioned for areas or staffing levels, and in some cases, both. The cost for the transportation space is modified from that of the total building to the extent that the reduced area would reduce the cost involved.

Table 4-8: Annual Operating Expenses for New London Union Station and Derivation Approach

Cost Element	Hartford (2010$)	Cost Considerations in Relation to Hartford	Total Bldg New London ($)	Station Level New London ($)
Wages, Operations and Administration	50,000	Similar staffing as Hartford & ConnDOT requirement	$50,000	$40,000
Indirect Costs/Overhead	75,000	Relative gross area	$62,500	$50,000
Legal	12,500	Fewer tenants, less area	$4,000	$3,000
Management Fee/Professional Services	15,000	Allowance	$10,000	$7,000
Security	135,000	1 per shift, 24/7 $15.50/hour as required by ConnDOT. Same as Hartford.	$135,000	$135,000
Janitorial Expense	210,000	1 per shift, 24/7 $8.25/hour, half time supervisor at $35/hr (reduced area), plus fee	$130,000	$130,000
Window Cleaning	1,000	Relative size	$500	$400
Exterminator	2,000	Relative size	$1,000	$1,000
Elevator Maintenance	10,000	Elevator count	$5,000	$0
HVAC Maintenance	48,000	Window units	$3,000	$3,000
Plumbing & Electrical Maintenance	5,000	Relative size	$4,000	$3,500
Trash Removal	12,000	New London 1/3 of Hartford's size, and although rail volume is similar there are many more intercity bus passengers at Hartford	$6,000	$4,000
Snow Removal	16,500	Relative size	$2,000	$2,000
Repair/Maintenance/Janitorial Supplies	3,000	Relative size	$2,000	$1,500
Property Supplies	12,500	Relative size	$3,000	$3,000
General Supplies	5,000	Relative size	$2,000	$2,000
Electrical	297,500	Relative building size, smaller site	$90,000	$50,000
Heating Fuel	100,000	Relative size	$30,000	$15,000
Water/Sewer	30,000	1/3 size	$10,000	$10,000
General Liability Insurance	44,986	Fewer tenants, less area	$15,000	$15,000
Permits, Fees, Licenses	500	Allowance	$500	$500
Dues, Subscriptions	1,800	Fewer activities	$1,000	$1,000
Outside Contractors/Non-property Utilities	27,250			
Subtotal	1,114,536		$566,500	$476,900
Real Estate Taxes	168,176	According to Todd O'Donnell (11/2/10).	$30,000	$15,000
Estimated Annual Expenses	$1,282,712		**$596,500**	**$491,900**

The probable operating cost for the complete station building is of the order of magnitude of $596,500 per year. If one considers only the first floor or station level to be appropriate, the cost of operations is estimated to be of the order of magnitude of $491,900 per year. Note that these costs include real estate taxes of $30,000, which is lower than the $77,515 which would be computed based on the assessed valuation of $3,062,640 and a millage rate of 25.31 per thousand.[10]

Norman Benedict conducted an appraisal of Union Station for ConnDOT in 2006 and found that the operating expense on an annual basis was $256,843.[11] The projected New London Union Station costs are higher than are currently being spent due to ConnDOT requirements for 24/7 operation, cleanliness and security.

The Rail Governance Study Task 4.3—Financial Review provided data on rail station costs and expenses for Connecticut Rail Stations on the New Haven Line from the years 1996 to 2000.[12] A breakdown is provided of expenses by station. Total annual expenses in 2000 ranged from $3.2 million dollars for New Haven Station to $0.1 million dollars for East Norwalk Station. Costs vary due to the size of the station and volume of people served. New London Union Station's projected operating costs are in the middle of this range, which is appropriate given that it is smaller than New Haven, and larger than the other stations on the line.

4.6 Potential Lease Income for Union Station

Union Station is empty above the first floor, except for the offices of the Blackwell Company. However, the building has been fully leased in the past. The downstairs transportation space appears reasonably lively, and there is some likelihood that a news vendor and a coffee shop might be attracted to the space, particularly once Shore Line East service to New London has been increased. Hartford Union Station has succeeded in keeping most of its spaces rented, and has attracted a Subway and Dunkin Donuts to its transportation lobby. Rents at Hartford range from around $80 per square foot to less than $10 per square foot, with an average being around $17. Transportation area rents were on average around $31 per square foot while rents elsewhere in the building averaged $13 a square foot. Table 4-9 shows potential lease income assuming New London Union Station could rent its space at rates similar to Hartford Union Station.

Table 4-9: Potential Rental Income for Union Station

Area	Potential Rental Area (SF)	Yearly Revenues
Transportation Spaces Only	4,900	$ 124,730
Total Building	19,380	$ 312,970

As reported in the RITC Master Plan, Norman Benedict reported that a potential annual an income of $420,000 could be realized at Union Station when fully leased.[13] The amount shown in Table 4-9 is considerably more conservative, but may be more realistic in the short term, given that the building has been mostly empty for a long time.

[10] From on-line City Assessor's database, accessed 10/29/10.

[11] *Regional Intermodal Transportation Center Master Plan and Efficiency Study*, by TranSystems for the Southeastern Connecticut Council of Governments, March 2010, page 8-7.

[12] *Rail Governance Study Task 4.3—Financial Review*, by Seward and Monde Certified Public Accountants, for the Connecticut Department of Transportation, p.14.

[13] *Regional Intermodal Transportation Center Master Plan and Efficiency Study*, by TranSystems for the Southeastern Connecticut Council of Governments, March 2010, page 8-7.

5. Water Street Garage

5.1 Physical Description of the Water Street Garage

The Water Street Garage was built thirty years ago, and the two top levels added four or five year later. The garage is a 286,500+/- square foot (roughly123 feet wide by 477 feet long), five-level, concrete parking structure and a 675 square foot office on the first floor. The facility is a two-bay camelback helix, with one-way traffic flow.[14]

The garage has two main vehicular points of access, one from Atlantic Street at the northwest corner (accessing the second level) and one (a double entry) from Water Street on the first level. The main exit location is at the northeast corner onto Water Street, however, the second level Atlantic Street entry has been converted into a reversible entry/exit area.

Pedestrian access to the garage is from the Parade and from the ground floor on Water Street. There is also access to Atlantic Street at grade and across Atlantic Street via a pedestrian bridge to the READCO property. Pedestrian access between levels is provided by four stair towers located at the northwest, southwest, and southeast corners as well as at the center of the facility. The corner stairways are enclosed and are not exposed to the elements, while the center stairway is only protected by being within the garage footprint. The garage functions well from a parker's point of view and from that of a parker (as pedestrian), leaving or seeking his or her car.

The Water Street Garage is owned by the City of New London. It provides 906 parking spaces, serving rail commuters, ferry boat passengers and people working in the general commercial areas along the streets leading to the Parade, Union Station, and the waterfront. The garage manager reported that the 906 spaces are completely filled on two summer weekends and relatively full on the other summer weekends. The garage is less than half full in the winter months. Figure 5-1 shows the Water Street Entrance of the garage.

[14] "Condition Appraisal (Reevaluation), Water Street Garage, New London, Connecticut, prepared for the City of New London Office of Development and Planning by Desman Associates, Rocky Hill, Connecticut, Project #40-071117.00-2, October 2007.

Figure 5-1: Water Street Entrance to the Water Street Garage

5.2 Condition of the Water Street Garage

The condition of the Water Street Garage was assessed by Desman Associates in 2001 and again in 2007.[15] In the latter appraisal, a long list of repairs was required. Table 5-1 shows the recommended repairs, which totaled around $1,533,288 as Priority I repairs, $332,852 as Priority II, and $685,500 as Priority III. The total cost of that work was projected to be $2,551,640 in 2007 dollars. These costs did not include design or construction management fees, for which Desman recommended adding an additional 12 to 15 percent.

Desman was asked to restate the scope of what should be done in 2008. They produced a scope titled "Priority I and II Repairs," which is shown on Table 5-2. The cost of repairs came to $803,405 in 2008 dollars.

The RITC Master Plan also discussed the condition of the Water Street Garage:

> The Water Street Garage and Governor Winthrop Garage show evidence of deferred maintenance (in particular, deteriorating concrete), although some repairs are now underway at the Water Street Garage addressing elevators, security, lighting and signage and others are planned. In addition, the elevators at the Water Street Garage need repairs. (A new tower is being constructed at the south end of the garage with a new elevator as part of the Parade Project.) Surveys of users of the parking facilities conducted as part of this study indicated the most dissatisfaction was with the stairways and elevators at the garages, as well as handicapped access. Another concern expressed in the surveys at the parking facilities was about security features. There is a lack of security systems in the garages and parking lots, including closed-circuit TV and

[15] Condition Appraisal (Reevaluation) Water Street Parking Garage New London CT, by Desman Associates, October 2007.

blue light call boxes. The Water Street Garage will have security cameras installed as part of upcoming renovations.[16]

In the site visit of July 7, 2010, Dan Kopple of TranSystems observed that despite the previously cited reports, the general appearance of the garage interior and exterior would suggest that the garage is in reasonably good condition.

A conversation with Joseph Celli on November 3, 2010 indicated that much more progress has been made in completing the list of repairs called for by the Desman report. Two elevators are in working order, one paid through funding for the Parade Project. In addition, the garage has been equipped with security cameras.

One contract is currently underway focusing on outside surfaces and another will be let and underway in the spring of 2011. Once this work is complete, Mr. Celli said that all of the Priority I, II and III repairs will have been completed.

[16] *Regional Intermodal Transportation Center Master Plan and Efficiency Study*, by TranSystems for the Southeastern Connecticut Council of Governments, March 2010, page 6.

Table 5-1: Desman Associates Cost of Repairs to the Water Street Garage[17]

Work Description	Priority 1 Repairs 12 to 24 Months	Priority 2 Repairs 24 to 46 Months	Priority III Repairs 48 to 60 Months
A. Concrete Repair			
1 Concrete overlay repair	$91,375.00	$16,125.00	$0.00
2 Concrete overlay repair @ transition areas	$62,100.00		
3 Concrete stair tread and landing repair	$11,400.00		
4 Miscellaneous tee stem repair	$7,500.00		
5 Spandrel beam corbel repair:	$16,000.00		
6 Tee stem corbel repair			
a. Minor repairs	$5,000.00	$5,000.00	
b. Major repairs	$8,000.00		
7 Miscellaneous concrete curb repair	$18,560.00	$4,640.00	
8 Miscellaneous vertical & overhead concrete repair	$73,125.00	$24,375.00	$0.00
9 Miscellaneous façade repair (Exterior of southeast elevator)		$5,200.00	
10 Spandrel beam end repair:			
a. Minor repairs	$15,200.00		
b. Major repairs	$10,500.00		
11 Surface scaling repair		$25,920.00	
12 Concrete slab-on-grade repair		$8,000.00	
B. Handicap Ramp Installation			
1 Southeast stair/elevator (Interior)	$8,800.00		
2 Southwest stair/elevator (Interior)	$11,000.00		
3 Northwest stair/elevator (Exterior @ grade)	$2,600.00		
4 Northwest stair/elevator (Interior)	$11,000.00		
C. Miscellaneous Masonry/CMU Repair			
1 Misc. masonry/CMU replacement	$8,250.00		
2 Misc. re-pointing	$3,000.00		
D. Epoxy Injection			
	$13,250.00	$13,250.00	
E. Waterproofing Repair			
1 Crack repair	$72,930.00	$12,870.00	$0.00
2 Control/construction joint repair	$9,817.50	$1,732.50	$0.00
3 Cove joint installation			
4 Miscellaneous expansion joint repair			
a. Spot repair to two recently repaired expansion joints	$4,200.00		
b. Parking deck expansion joint	$55,800.00		
c. Stair/Elevator expansion joint	$43,725.00		
d. Southwest pedestrian bridge expansion joint	$2,475.00		
5 Penetrating concrete sealer application		$137,520.00	
6 Roofing Repair		$9,300.00	
F. Guardrail & Stair Handrail Repair			
1 Stair handrail repair/code update			$48,000.00
2 Exterior vehicle guardrail/handrail replacement/repair/code update			$374,400.00
G. Door & Window Repair & Replacement			
1 Misc. door repair/replacement	$10,300.00		
2 Rework aluminum storefront at stairs and elevator lobbies	$32,500.00		
3 Replace bowed plexiglass windows in Stair No. 1, 3 & 4 (Glass block optional)	$37,300.00		
H. Elevator Repair/Replacement & Code Update			
	$495,000.00		
J. Miscellaneous Electrical Work			
1 Miscellaneous electrical coordination work	$33,000.00	$11,000.00	$11,000.00
2 Emergency exit signage	$22,500.00		
3 Emergency lighting (partial coverage pedestrian egress areas)	$25,000.00		
4 Fire alarm system update			$28,900.00
5 Intercom system installation			$53,000.00
K. Plumbing/Mechanical System Repair			
1 Drain pipe flushing *(before & after deck repair)*	$7,200.00	$4,320.00	
2 Supplemental drain installation	$10,800.00		
3 Supplemental drain pipe installation & repair	$8,400.00		
4 Rework stairwell roof drains and risers	$9,800.00		
5 Garage wash-down facilities			
a. Non-pressurized garage wash-down facilities (hose bib installation)			$49,400.00
b. Pressurized garage washdown facilities *(additive cost)*			$36,000.00
6 Floor drain & trench drain grating replacement	$4,800.00		
L. Painting Work			
1 Parking stall and lane striping	$5,700.00	$11,400.00	
2 Miscellaneous metal surfaces	$29,000.00		
3 Architectural waterproof coating for roof level elevator & Stairwell enclosures	$8,900.00		
4 Miscellaneous interior vertical concrete & masonry surfaces (lobby areas only)	$24,600.00		
M. Miscellaneous Coordination Work			
	$34,000.00	$11,900.00	$22,500.00
N. Mobilization/Demobilization			
	$28,600.00	$13,700.00	$21,000.00
Subtotal	**1,393,887.50**	**$302,552.50**	**$623,200.00**
Construction Contingencies @ +/-10%	$139,400.00	$30,300.00	$62,300.00
Total Construction Costs w/ Contingencies	**$1,533,287.50**	**$332,852.50**	**$685,500.00**

[17] *Condition Appraisal (Reevaluation) Water Street Parking Garage New London CT*, by Desman Associates, Oct. 2007, p. 39.

Table 5-2: Desman Adjusted Repair Costs Water Street Priority I & II Repairs[18]

Work Description	Priority I & II Repairs
A. Concrete Repair	
1 Concrete overlay repair	$103,950.00
2 Concrete overlay repair @ transition areas	$61,525.00
3 Concrete stair tread and landing repair	$9,800.00
4 Miscellaneous tee stem repair	$6,250.00
5 Spandrel beam corbel repair:	$16,000.00
6 Tee stem corbel repair	
a. Minor repairs	$8,000.00
b. Major repairs	$8,000.00
7 Miscellaneous concrete curb repair	$14,500.00
8 Miscellaneous vertical & overhead concrete repair	$97,500.00
9 Miscellaneous façade repair (Exterior of southeast elevator)	$5,200
10 Spandrel beam end repair:	
a. Minor repairs	$12,000.00
b. Major repairs	$10,200.00
11 Surface scaling repair	$24,300.00
12 Concrete slab-on-grade repair	$6,000,00
B. Miscellaneous Masonry/CMU Repair	
1 Misc. masonry/CMU replacement	$8,250.00
2 Misc. re-pointing	$3,000.00
C. Epoxy Injection	
	$13,500.00
D. Waterproofing Repair	
1 Crack repair	$85,800.00
2 Control/construction joint repair	$11,550.00
3 Cove joint installation	$29,480.00
4 Miscellaneous expansion joint repair	
a. Spot repair to two recently repaired expansion joints	$4,200.00
b. Parking deck expansion joint	$55,800.00
c. Stair/Elevator expansion joint	$43,725.00
d. Southwest pedestrian bridge expansion joint	$2,475.00
E. Miscellaneous Electrical Work	
1 Miscellaneous electrical coordination work	$34,500.00
K. Plumbing/Mechanical System Repair	
1 Drain pipe flushing *(before & after deck repair)*	$7,200.00
2 Supplemental drain installation	$9,000.00
3 Supplemental drain pipe installation & repair	$7,000.00
4 Rework stairwell roof drains and risers	$9,800.00
6 Floor drain & trench drain grating replacement	$3,000.00
L. Painting Work	
1 Parking stall and lane striping	$5,700.00
2 Miscellaneous metal surfaces	$29,000.00
3 Architectural waterproof coating for roof level elevator & Stairwell enclosures	$8,900.00
4 Miscellaneous interior vertical concrete & masonry surfaces (lobby areas only)	$24,600.00
M. Miscellaneous Coordination Work	
	$18,900.00
N. Mobilization/Demobilization	
	$17,800.00
Subtotal	**$730,405.00**
Construction Contingencies @ +/-10%	$73,000.00
Total Construction Costs w/ Contingencies	**$803,405.00**

[18] *Adjusted Repair Costs Water Street Priority I & II Repairs*, by Desman Associates, 3/12/2008, p. 1 of 1.

5.3 Cost of Operation and Staffing Required for the Water Street Garage

The City of New London contracts with Propark, Inc. for management of the Water Street Garage and the Green & Tilley Parking Lot. The staffing for these facilities was provided by Joseph Celli, Manager of the garage for Propark.[19] Table 5-3 shows the staffing. Similar staffing is assumed to be sufficient for future planning, with a continuation of a professional management contract. One addition that should happen under ConnDOT management would be to connect the security system with Union Station so that there could be 24/7 surveillance of the garage, handled through Union Station.

Table 5-3: Staffing for the Water Street Garage

Function	Number of Persons	Comment
Manager	1	Full time manager
Assistant Manager/Cashier	1	Full time person
Maintenance	1	30 to 35 hours per week
Cashiers	3-4	10 to 30 hours per week depending upon season. There are no cashiers at the Green & Tilley Parking Lot

The annual budget of expenses for the Water Street Garage is presented in Table 5-4 as $309,535. Table 5-4 comes from the March 2010 record of the revenue and expenses of the New London Parking Commission's Water Street Garage.

Table 5-4: 2010 Budget for the Water Street Garage

Operating Expenses	Budget/Year
Management Fee	14,910
Payroll	158,615
Workman's Compensation	10,310
Benefits, Vacations, Sick Pay	10,310
Employer Federal Cont.	12,134
State Unemployment	6,418
Fed. Unemployment	1,269
Operating Supplies	2,000
Uniform Expense	1,080
Signs	8,000
Repairs and Maintenance	5,000
Electricity/Utility/Water	38,000
Telephone	2,000
Tickets/print	1,600
Garage liability insurance	14,434
Fire/theft insurance	4,655
Group health insurance	12,800
Snow plowing and sanding	4,000
Equipment purchase/maintenance	1,000
Miscellaneous	1,000
Total Expenses	309,535

[19] Phone conversation between Karla Karash and Joseph Celli on November 3, 2010.

The fiscal year of the Garage is July 1 to June 30 of the following year. The net profit for the year ending June 30, 2010 was $306,097 for both the Water Street Garage and the Green & Tilley Lot (see Table 5-5). That is confirmed on Propark's report to the Parking Commission[20].

Table 5-5: Net Profit for the Water Street Garage and Green & Tilley Lot

Month/Year	Net Profit
Jan 2009	760.80
Feb 2009	2222.17
Mar 2009	6,026.93
Apr 2009	8,460.02
May 2009	12,413.03
Jun 2009	23,066.50
Jul 2009	90,991.22
Aug 2009	83,736.53
Sep 2009	29,785.32
Oct 2009	8,057.02
Nov 2009	10,532.07
Dec 2009	2,689.64
Subtotal CY 2009	**$ 278,741.25**
Jan 2010	7,785.61
Feb 2010	4,269.79
Mar 2010	5,490.08
Apr 2010	10,489.94
May 2010	19,801.65
Jun 2010	32,468.16
Subtotal FY 2010	**$ 306,097.03**

According to Mr. Celli, the revenues from the Green and Tilley Lot go to the City of New London. But the rest of the net profit is currently being set aside as a reserve fund for the maintenance of the Water Street Garage. This is a relatively new policy for the garage, as in prior years, the net profits all went to the City. For that reason, the garage had much deferred maintenance. As of March 2010, 95 percent of the FY 2010 revenues were due to the Water Street Garage and 5 percent were due to the Green and Tilley Lot.

Table 5-5 is also instructive in that it shows the contrast between July—August full house and the December –January low period. Fifty seven percent (57%) of the annual profit is made in the July—August period when the ferry boat traffic is at its peak. In the fiscal year ending June 2010, December and January produced just 3.4% of the year's profit. Mr. Celli noted that through improved efficiencies and a program marketing the garage, they have been able to improve the garage's profitability substantially.

Overall revenues for FY 2010 can be estimated at around $616,000 including both the Water Street Garage and the Green & Tilley Lot.[21] Table 5-6 summarizes the revenues, expenses and net profits for the Water Street Garage, including an estimate of revenues that go to the City from the Green & Tilley Lot. Note that the actual expenses for 2010 were running less than the budgeted expenses.

[20] Memo from Joe Coppola, Propark to the Parking Commission Members, July 15, 2010, regarding June 2010—Monthly Financial Report.

[21] Mr. Celli was able to provide enough information to us so that we could determine revenues for all months except for April 2010, which was estimated. The expenses for April, May and June were also estimated.

One current issue for the garage is that revenues for the July and August of 2010 were running 25% behind July and August of 2009.[22] Thus it may be that concern with competition from other parking areas would prevent rate increases at the Water Street Garage.

Table 5-6: Revenues, Expenses and Profits for the Water Street Garage (FY 2010 estimates based on partial information)

Revenues	**Annual Amount ($)**
Green & Tilley Lot	$ 31,098
Water St. Garage	$ 585,453
Total Revenues	$ 616,551
Operating Expenses	
Expenses	$ 275,552
Sales Taxes	$ 34,902
Total Expenses and Taxes	$ 310,454
Profits	
Net Profit after Taxes	$ 306,097
Less Green & Tilley Rev	$ 31,098
Remaining	$ 274,999

The increase in service on the Shore Line East will bring new business to the Water Street Garage. Assume that of the 100 estimated new riders per day, 90 percent will require parking. Also assume that half of these will be monthly parkers and half will be daily parkers. The additional revenue after taxes could be around $93,000 after taxes for the Water Street Garage.[23] Table 5-7 shows this calculation.

Table 5-7: Additional Parking Revenue from Shore Line East

	Number of Additional Parkers	**Rates**	**Yearly Revenue**
Monthly Parkers	45	$ 52.00	$ 28,080
Daily Parkers	45	$ 6.00	$ 70,200
Gross Revenue			$ 98,280
Taxes on Revenue			$ 5,563
Net New Revenue			$ 92,717

[22] Referred to in the Sept. 16, 2010 Parking Commission Draft Meeting Minutes.

[23] In October 2010, the City of New London began a pilot program to waive the parking fee for daily parkers using Shore Line East in order to encourage ridership on this service. They also offer monthly Shore Line East ticket holders a $26.00/month introductory rate for the first 3 months.

6. Summary

Looking at Union Station and the Water Street Garage together, and assuming that the City of New London carries forward with its plans to contract out the remaining repair work for the Water Street Garage, only Union Station would require further capital investment at this point in time. The total amount for Union Station as a whole would be around $2.99 million, of which approximately $1 million would be for tenant fit-out. If only the transportation areas were of interest, the total cost would be around $1.1 million with $0.26 million for tenant fit out.

Operating cost for both Union Station and the Water Street Garage together would be around $907,000. Operating cost for the transportation spaces at Union Station and the Water Street Garage would be $802,000. Offsetting these expenses would be the parking revenues from the Water Street Garage and rental income at Union Station. The potential revenues from a fully rented Union Station plus Water Street Garage revenues (including additional parking revenues from Shore Line East parkers) could be around $995,000. If the transportation spaces only are considered, these revenues could be around $806,000. Thus revenues can exceed operating costs for these two facilities. Table 6-1 summarizes these numbers.

Table 6-1: Summary of Costs and Revenues

	Full Building	Transportation Spaces Only
Cost of Improvements and Deferred Maintenance		
Union Station		
General Areas	$ 2,006,995	$ 828,072
Tenant fit-out	$ 985,413	$ 255,673
Building Total	$ 2,992,407	$ 1,083,744
Operating Expenses Including Taxes		
Union Station	$ 596,500	$ 491,900
Water Street Garage	$ 310,454	$ 310,454
Total	$ 906,954	$ 802,354
Revenues		
Union Station	$ 316,560	$ 128,320
Water Street Garage	$ 585,453	$ 585,453
Additional SLE Parking Rev	$ 92,717	$ 92,717
Total	$ 994,730	$ 806,490
Revenues Less Operating Expenses	$ 87,776	$ 4,136

With the newly renovated Parade and plans for increased service on Shore Line East, there will be ever greater activity around Union Station. The RITC Master Plan calls for further improvement in the intermodal connections and passenger amenities in the area. In the midst of this, it also seems appropriate to renovate Union Station and develop it into a first class rail facility and it is believed that participation by ConnDOT either in ownership or in a managerial capacity provides the best opportunity for that to happen.

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