

FEBRUARY 11, 2015

TO THE CHAIRS AND MEMBERS OF THE TRANSPORTATION COMMITTEE:

I AM WRITING IN SUPPORT OF SEVERAL BILLS THAT HAVE BEEN RAISED. ALSO AS A MEMBER OF THE NEW WESTERN CONNECTICUT COUNCIL OF GOVERNMENTS, IT IS IMPORTANT FOR THIS COMMITTEE TO KNOW THAT THE WCCOG HAS LISTED THIS ISSUE AS OUR NUMBER 1 PRIORITY OF ALL THE TRANSPORTATION ISSUES IN WESTERN CONNECTICUT. THEY ARE S.B. 690, H.B. 5926, H.B. 6333 AND H.B.6350.

S.B. 690 - THE ELECTRIFICATION OF THE DANBURY BRANCH LINE HAS BEEN AN ONGOING PROJECT FOR MANY YEARS. THE FIRST PROJECT, (AFTER MANY YEARS OF DEBATE AND STUDY, AND WE ARE GRATEFUL), PROVIDED FOR THE AUTOMATION OF THE SWITCHES AT SIDINGS THAT ALLOW FOR CONTROL OUT OF THE GRAND CENTRAL TERMINAL HQ. THIS IMPROVEMENT WAS OBVIOUSLY BADLY NEEDED. WE MUST NOW CONTINUE WITH THE ELECTRIFICATION OF THIS VERY IMPORTANT LINE OF SERVICE THAT WILL PROVIDE FOR SMOOTHER AND QUICKER ACCELERATION AND STOPS. THIS WILL BE ANOTHER VERY IMPORTANT STEP IN THE MODERNIZATION OF THIS SERVICE. THE STUDIES HAVE BEEN COMPLETED, IT IS TIME TO IMPLEMENT.

H.B. 5926 - THIS BILL REQUESTS PERFORMANCE GUIDELINES BE ADDED TO THE NEXT CONTRACT WITH METRO-NORTH REQUIRING METRO-NORTH BE HELD TO PERFORMANCE STANDARDS. IF THE STATE OF CT IS TO SPEND MILLIONS OF DOLLARS FOR UPGRADES TO THIS BRANCH LINE THEN WE MUST REQUIRE METRO-NORTH BE HELD TO HIGH STANDARDS OF SERVICE.

H.B.6333 - ONCE COST ESTIMATES HAVE BEEN COMPLETED, WHICH HAVE BEEN INCLUDED IN PREVIOUS STUDIES, H.B. REQUESTS THAT THE BOND COMMISSION AUTHORIZE THE NECESSARY AMOUNT OF FUNDING TO MODERNIZE THE DANBURY BRANCH LINE. BY SO DOING, WE CAN THEN BEGIN TO GROW OUR RIDERSHIP AND BEGIN TO LESSEN THE VEHICLES THAT NOW CROWD OUR ROADS DURING PEAK TRAFFIC HOURS.

H.B. 6350 - FINALLY THE EXTENSION OF SERVICE INTO THE NEW MILFORD AREA IS CRITICAL. AS OUR POPULATION CONTINUES TO INCREASE IN THE GREATER DANBURY AREA, RAIL SERVICE WILL CONTINUE TO PLAY A GREATER ROLE FOR MOVING EMPLOYEES ALONG THE RTE. 7 CORRIDOR. STUDIES HAVE BEEN COMPLETED ILLUSTRATING THIS VERY IMPORTANT TRANSPORTATION ISSUE.

IN A STUDY INITIATED IN 2003, IN COOPERATION WITH THE DOT, METRO-NORTH, HVCEO, AND SWRPA (NOW THE WESTERN CT COUNCIL OF GOVERNMENTS), AN EXHAUSTIVE STUDY WAS COMPLETED ON THE FEASIBILITY OF ELECTRIFICATION OF THE DANBURY BRANCH LINE. ATTACHED TO THIS TESTIMONY IS AN EXECUTIVE SUMMARY OF THE SCOPE OF THIS CONSULTANT'S (WASHINGTON GROUP INTERNATIONAL) WORK. PLEASE TAKE A MOMENT TO READ THIS EXECUTIVE SUMMARY TO UNDERSTAND THE AMOUNT OF RESEARCH AND ANALYSIS THAT HAS GONE INTO THE DANBURY BRANCH LINE—NOT TO MENTION THE MILLIONS OF DOLLARS FOR THIS AND OTHER STUDIES.

IN SUMMARY, THE ABOVE LISTED BILLS ARE ALL IMPORTANT TO THE WESTERN CONNECTICUT AREA AND WE ASK THAT THE TRANSPORTATION COMMITTEE TAKE A STEP INTO THE FUTURE OF TRANSPORTATION HERE IN CONNECTICUT AND APPROVE THE PREVIOUS BILLS AS LISTED.

THANK YOU

RUDY MARCONI
FIRST SELECTMAN
TOWN OF RIDGEFIELD

EXECUTIVE SUMMARY

Task 2 of this study examines a range of possible infrastructure and service improvement alternatives that would reduce travel times along the Danbury Branch of the New Haven Line. The Connecticut Department of Transportation, in consultation with Metro-North Railroad, as well as the regional planning organizations (SWRPA and HVCEO), and stakeholders in the Danbury Branch corridor, established a scope of work for **Task 2** that focuses on track infrastructure and service improvements that could potentially achieve these objectives.

The first step in this process (**Tasks 2.1 A and B**) begins with a revision of the existing rail valuation and planimetric maps to reflect any relevant right of way changes that have taken place along the Branch line from South Norwalk to Danbury, and along the existing Housatonic Railroad line from Danbury to New Milford. These maps, along with aerial photos, were used to identify and plot potential areas of concern where improvements would have a potential negative impact if implemented. Also the Department's mapping was updated to reflect recent ROW transactions along the state owned Danbury Branch between South Norwalk and Danbury.

The next effort in the study scope (**Task 2.1 C**) is a review and identification of physical areas of concern such as bridges, utilities, at grade crossings, and geological conditions. This effort was actually continuous from an initial field reconnaissance through the development of the various track configuration alternatives. Discussions of these potential physical impacts are presented with each of the alternatives under **Tasks 2.2, 2.3 and 2.4** of this report.

In **Task 2.1 D**, the Study Team conducted a field survey of the Branch and a review of existing environmental documentation on the Branch to determine what potential environmental impacts would result from the possible infrastructure and service improvements. This includes both construction impacts as well as operational impacts of service improvements. A total of 19 locations were examined where there was potential for construction impacts affecting the following categories, including: location, land acquisition, water resources, noise & vibration, environmental justice and cultural resources, natural habitat (non-water) and other impact issues. A number of potential impacts to wetlands as well as other NEPA categories were identified, and would require further analysis should particular options be further pursued for preliminary engineering. A table of all potential impacts is presented in this section.

Tasks 2.2 through 2.4 contains the bulk of the work in **Task 2**. They cover the three major track configuration alternatives included in **Task 2** of the Feasibility Study Danbury Branch Electrification. Prior to examining the design considerations and costs of electrifying the line (**Task 4** of this study), three strategies were evaluated that would result in 5, 10 and 15 minute travel time improvements. The improvements were for both existing service between Danbury and South Norwalk, and, to help determine whether a service extension to New Milford is financially viable, for potential service from New

Milford to South Norwalk. The three major infrastructure improvements that are the subject of this section of the report are:

- Track geometry improvements
- Addition of Double Tracking
- Passing Siding Improvements

Evaluate Track Geometry Improvements

This effort consisted of reviewing the current alignment of the Danbury Branch (South Norwalk to Danbury) and identifying conceptual track improvements that would enable a reduction in current running time of approximately 5, 10 and 15 minutes.

The study also looked at extending commuter rail service northward approximately 14 miles from Danbury to New Milford. The study reviewed the current freight-only railroad alignment between Danbury and New Milford and identified conceptual track improvements that would enable a reduction in current running time of approximately 5, 10 and 15 minutes.

The reductions in running time would be accomplished by a combination of increasing superelevation on the existing alignment and constructing new alignments to reduce curvature. These improvements would allow an increase in maximum allowable speeds. A major part of the analysis was to identify the various engineering and construction issues associated with the alignment changes.

Evaluate the Feasibility of Double Tracking

This effort consisted of identifying the engineering and construction issues associated with double tracking both the South Norwalk - Danbury and Danbury - New Milford segments. The analysis evaluated the construction of a second main track adjacent to the existing alignment as well as the conceptual alignments identified with the proposed 5, 10 and 15-minute running time reductions on both segments.

Evaluate the Feasibility of Passing Sidings as an Alternative to Double Tracking

This effort consisted of identifying the engineering and construction issues associated with locating passing sidings on both the South Norwalk - Danbury and Danbury - New Milford segments. The analysis evaluated the issues of locating both short or long passing sidings on the conceptual alignments identified with the proposed 5, 10 and 15-minute running time reductions on both segments.

Findings of the Task 2 Engineering Evaluation

Preliminary cost estimates have been developed for each of the 26 conceptual scenarios that were identified in the study. The cost estimates detailed in this report were developed from estimated quantities multiplied by current (4th Quarter - 2003) unit costs. The cost estimates include estimated costs for construction, engineering, third party construction phase services and contingency. The estimated costs pertain to railroad construction and a contingency factor to cover items such as property acquisition, demolition, roadway realignment and environmental mitigation. Due to the conceptual nature of the study, the estimates should be regarded as order of magnitude estimates rather than detailed engineering estimates.

The number of closely spaced, consecutive curves within the existing alignment between South Norwalk and Danbury precludes the opportunity to achieve any significant reduction in running time; major alignment changes would be required to improve curvature. The estimates for reducing running time by 10 or 15 minutes are in the hundreds of million dollars due to the extensive earthwork construction that would be required. However, upgrading the existing track and increasing the superelevation on most curves could significantly improve the current running time between Danbury and New Milford; major alignment changes would not be required.

The following tables summarize the estimated cost for each of the various scenarios for reduction in running times (by 5, 10 and 15-minutes), the estimated cost to construct a second main track parallel to the existing or realigned single track, and the estimated cost for short and long passing sidings on the new alignments:

| Comparison of Costs to Reduce Running Times | | | | |
|--|-----------------|---------------|----------------|----------------|
| South Norwalk to Danbury and Danbury to New Milford | | | | |
| South Norwalk -- Danbury Improvements | | | | |
| <u>Track Configuration</u> | <u>Existing</u> | <u>5-Min.</u> | <u>10-Min.</u> | <u>15-Min.</u> |
| Max. Speed | 50 mph | 60 mph | 60 mph | 70 mph |
| Single Track | N/A | \$6M | \$635M | \$1,037M |
| Double Track | \$251M | \$255M | \$710M | \$1,078M |
| Passing Siding-Short | N/A | \$9M | \$14M | \$19M |
| Passing Siding-Long | N/A | \$30M | \$34M | \$32M |
| Danbury -- New Milford Improvements | | | | |
| <u>Track Configuration</u> | <u>Existing</u> | <u>5-Min.</u> | <u>10-Min.</u> | <u>15-Min.</u> |
| Max. Speed | 30 mph | 40 mph | 50 mph | 60 mph |
| Single Track | N/A | \$27M | \$28M | \$57M |
| Double Track | \$138M | \$139M | \$139M | \$146M |
| Passing Siding-Short | N/A | \$14M | \$12M | \$8M |
| Passing Siding-Long | N/A | \$64M | \$48M | \$34M |

It should be noted that the above costs for constructing either the second track or passing sidings assume that existing single track was previously improved. As an example, if it was decided to improve the existing single track and construct a second main track as part of the same project to reduce running time by 10 minutes between South Norwalk and Danbury, the estimated cost would be: $\$635M + \$710M = \$1.345B$.

Improvement Options

The information in Task 2 should be reviewed in the context of current and future ridership on the Branch to determine whether the expense to reduce running times of 5, 10 or 15 minutes south of Danbury is justified (covered in Task 3 and subsequent Phase II elements of this study). Smaller improvements can be carried out at considerably less cost, such as reducing running time by 3.5 minutes on the existing single track main line (\$6M) and constructing passing sidings to facilitate operations and improve service (\$9M). Similarly, running time between Danbury and New Milford can be reduced by 10 minutes on the existing single track main line (\$28M) and constructing passing sidings to facilitate operations (\$12M).

The study also examines possible reduction in running times by revising current service patterns, such as introducing local and express service (applicability of skip stop service); introducing newer, less costly diesel equipment such as Diesel Multiple Units (DMUs) on the Branch; and the potential installation of quad gate crossing protection to improve speeds.

The alternatives presented in this study task offer a framework from which the advantages to service may be considered. Service patterns and ridership projections will be used to weigh alternatives and service value in the next study phase.

The Task 2 report concludes with Task 2.5, which evaluates the potential of three innovative technology and service improvement strategies to improve travel times. These include the possible use of innovative rail equipment, such as state-of-the-art Diesel Multiple Units (DMU) now in use in Florida and New Jersey for commuter rail service and tilt train equipment; the installation of four quadrant gates to increase train speeds through grade crossings; and the institution of skip-stop and express service to reduce travel times along the Branch.

DMU equipment could successfully operate along the Branch, but has implications in terms of its compatibility with other existing and planned equipment purchases for the New Haven Line; it was determined that tilt train equipment is generally not efficient for rail service under 100 miles per hour and therefore not appropriate for the Branch. The use of quad gate equipment, similarly, is generally applied for higher speed train service than the Branch will be capable of implementing. Finally, it was determined that skip stop and express service is generally most effective when frequencies of trains and ridership levels are relatively higher than existing Branch service. However, increasing

the frequency of service on the Danbury Branch would require additional equipment and crews. Without the increased frequency of service, passengers would perceive a reduction in service quality, which would have a potentially adverse impact on ridership levels.