

DANBURY BRANCH IMPROVEMENT PROGRAM TASK 5

ENVIRONMENTAL TECHNICAL MEMORANDUM IMPACTS ANALYSIS

STATE PROJECT 302-008



SECTION 16: SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

FEBRUARY 2011

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METHODOLOGY

The alternatives being evaluated for the Danbury Branch Improvement Program were assessed for socioeconomic and environmental justice effects considering the following four parameters: Community Cohesion, Environmental Justice, Economic Vitality, and Municipal Services and Finances. Impacts to these parameters were assessed qualitatively based on the modifications associated with each alternative. New and/or modified infrastructure and the effects of increased frequency of train service were considered.

Measures used to evaluate impacts, both adverse and beneficial, are listed below for each of the parameters.

1. Community Cohesion: the extent to which the alternative would:
 - Create barriers to residents' interaction or access within a neighborhood or community, including changes to travel patterns and disturbances such as noise;
 - Displace or remove neighborhood or community institutions or landmarks important to the community's sense of place; and
 - Displace or remove housing or reduce real estate values.
2. Environmental Justice (EJ): The extent to which the alternative would impact EJ populations in terms of:
 - Traffic-related safety and congestion,
 - Air quality and noise,
 - Destruction or loss of natural, cultural, and aesthetic resources,
 - Destruction or disruption of community cohesion, or isolation,
 - Destruction or disruption of community economic vitality,
 - Destruction or disruption of availability of facilities and services, and
 - Availability of or access to employment and other benefits.
3. Economic Vitality: the extent to which the alternative would:
 - Displace or permanently remove any businesses,
 - Disrupt the cohesion of a business district,
 - Alter access to businesses or business districts, and
 - Affect employee commute-to-work patterns.
4. Municipal Services and Finances: the extent to which the alternative would:
 - Require the provisions of new municipal infrastructure including roads, water and sewer;
 - Impact the property tax base; and
 - Substantially alter school enrollments or demand for educational services.

Effects attributed to each alternative were compared against the future No Build alternative. The future scenario for all of the alternatives (including the No Build) assumed that rail-related projects which are currently planned or programmed for development will be completed. Those projects include the following:

- Improvements to the South Norwalk rail station for intermodal access, which is currently in the planning stages.
- The Georgetown Land Development Project that includes a new rail passenger station, which is currently in the construction programming stages.
- The Wilton Train Station enhancements that are programmed for construction and will include additional passenger amenities and structured retail space.
- The Danbury Branch Centralized Train Control (CTC) signal system, which is being constructed and expected to be in service by mid-2012.

IMPACTS

Alternative A: No Build

As this alternative would be a continuation of existing conditions, limited effects on socioeconomic conditions and environmental justice populations are anticipated.

Community Cohesion: No adverse impacts to any existing neighborhood or cohesive community center are anticipated.

Some beneficial change from current conditions could be realized under the no-build scenario as a result of other community initiatives. Each of the existing Danbury Branch communities is exploring transit-oriented development (TOD) opportunities in the vicinity of the existing rail stations. Several of these planning efforts have concluded that existing conditions are conducive to TOD, regardless of the Danbury Branch proposals. If these TOD plans come to fruition, it can be expected that under no-build conditions, neighborhood cohesion will improve in terms of neighborhood vitality, access, and travel patterns. Locations where this may occur include:

- Norwalk – the City of Norwalk is working on a TOD plan for the South Norwalk (SoNo) neighborhood as well as a modal connectivity plan.
- Ridgefield – the Town of Ridgefield is completing a Route 7 Corridor Study that includes a transit-supportive future development concept plan for Branchville.
- Redding – the Georgetown Land Development project in Redding will be in a TOD form.
- Bethel – the Town of Bethel has completed a TOD plan for the Town Center.

Environmental Justice: Conditions for EJ populations (located within the study corridor in portions of downtown South Norwalk and Danbury) would likely remain similar to present conditions under the No Build scenario. No adverse or beneficial effects on EJ populations are anticipated.

Economic Vitality: Adverse economic effects on a regional and state level may occur over time under no-build conditions. The *Connecticut Strategic Economic Framework* report (1999) concluded that growing congestion on all three of Connecticut's major interstate highways (I-84, I-91, and I-95) will significantly hinder the state's economic vitality and growth. Adverse effects of highway congestion include time lost to delay, greater fuel consumption, higher labor costs, difficulty recruiting employees, and increases in freight costs and the cost of consumer products. If Connecticut does not find ways to reduce the number of single-occupancy vehicles on the highways and improve opportunities for commuters to travel by other modes, business growth will be constrained. A Southwestern Regional Planning Agency (SWRPA) study, *Congestion Mitigation System Plan - Vision 2020* (2001), reported similar findings.

Municipal Services and Finances: No adverse or beneficial effects to municipal services or finances are anticipated under no-build conditions.

Alternative B: Transportation System Management (TSM)

Impacts of Alternative B would be associated with an increase in frequency of rail service between Norwalk and Danbury and additional bus service between Danbury and New Milford.

Community Cohesion: Potential slight adverse and beneficial effects on community cohesion may result from Alternative B.

Potential adverse effects from increased service may include increased noise from trains, particularly associated with horn-blowing at stations and at-grade crossings. In addition, more frequent vehicular stops for trains at at-grade crossings can aggravate a perception of trains being neighborhood barriers and disruptions. The at-grade crossings located within neighborhoods that would be most sensitive to this effect are the following:

- Cross Street and Catherine Avenue in Norwalk
- Cannondale in Wilton
- Branchville in Ridgefield
- West Redding in Redding
- Greenwood Avenue in Bethel
- Wildman Avenue in Danbury

On the beneficial side, residents in each of the neighborhoods along the rail line from Norwalk to Danbury would have increased travel options to commute to work. This generally translates to increased economic stability for residents in these neighborhoods, as residents would have a greater choice of jobs due to easier access. When residents are economically stable, neighborhood conditions tend to remain more stable as well. The additional access to bus service for downtown Danbury and New Milford under this alternative may provide a similar, though likely weaker, benefit on community cohesion.

Environmental Justice: Some minor adverse effects to EJ populations in the South Norwalk (SoNo) neighborhood along with some beneficial effects are anticipated under Alternative B. The increase in frequency of service under Alternative B can be expected to increase noise in the

vicinity of the SoNo neighborhood, in particular in the area of low-income/subsidized housing north of the South Norwalk rail station. A beneficial impact would result from the enhanced transportation options for travel and commute-to-work. This could benefit the economically disadvantaged living in close proximity to the stations.

Economic Vitality: Alternative B can be expected to have a beneficial effect on the local economies due to increased travel options to workplaces and businesses. When rail stations accommodate additional travelers, there are more pedestrian and/or automobile pass-by shoppers that may patronize local business near stations. Access would be improved to businesses/business districts in the vicinity of all existing rail stations under this alternative. In particular, the neighborhood residential base in Norwalk and local employment base in Wilton may be strengthened with increased opportunities for a commute to work. Travelers from neighborhoods such as SoNo with lower housing costs could more easily get to job opportunities in Wilton, where housing costs are higher. Economic vitality in the downtown areas of Danbury and New Milford may also be strengthened with the additional access to bus service for jobs and local shopping destinations.

Potential for successful TOD in SoNo could be strengthened with added transit service via rail and bus. Successful TOD is dependent, in part, on adequate frequency of rail service to meet commute-to-work needs and other travel needs of individuals walking to the train (*TCRP 128: Effects of TOD on Housing, Parking, and Travel*, 2008). There is a synergy wherein TOD inclusive of both housing and commercial business is supported by proximity to rail and commuters. Conversely, rail ridership is sustained by access to TOD.

Individuals generally prefer to walk no more than ¼ mile to reach a destination for shopping or entertainment. Most of the existing Danbury Branch stations are located more than ¼ mile from the center of the nearest downtown or neighborhood business district. Some stations, including those at Wilton, Merritt 7, Branchville, Bethel, and Danbury, have barriers (such as incomplete sidewalk systems, challenging roadway crossings, long distances to retail or residential destinations, and lack of amenities such as lighting, benches, or respite areas) that hinder access for pedestrians. The economic vitality of these station locations and nearby commercial centers can be expected to benefit less from an increase in frequency of commuter services than those in closer proximity to the rail station: Cannondale, the future Georgetown station, and Redding.

Municipal Services and Finances: No direct adverse or beneficial effects to municipal services or finances are anticipated under Alternative B.

Alternative C: South Norwalk to Danbury Improvements

Potential impacts of Alternative C would be associated with increased frequency of rail service, improved existing passenger stations (upgrades), track improvements, and electrification facilities.

Frequency of Service

Effects of increased frequency of rail service would be comparable to those under Alternative B, as similar increased train service from Norwalk to Danbury would be provided under Alternative C. Effects are primarily related to community cohesion, as described below. Other socioeconomic parameters are not expected to be impacted.

Community Cohesion:

More frequent trains would require more frequent vehicular stops and delays at at-grade crossings. This could aggravate community perception of trains being neighborhood barriers and disruptions. Locations where this is expected to be a concern are the following:

- Cross Street and Catherine Avenue in Norwalk
- Cannondale station area, in Wilton
- Branchville station area, in Ridgefield
- Redding station area, in Redding
- Greenwood Avenue in Bethel
- Wildman Avenue in Danbury

Passenger Stations (Existing Station Upgrades)

Community Cohesion: Potential effects on community cohesion may occur at three of the station improvement sites. There are no anticipated effects at the Merritt 7 station site.

- Some adverse effects are anticipated from the expansion of the existing surface parking at Cannondale and Redding Stations. While no significant community resources would be displaced, the additional paved area dedicated to parking in the heart of each village could have the following adverse effects:
 - Large paved spaces dedicated to automobiles create a perception of undesirable walking distance and safety concerns for pedestrians wanting to move between village destinations. They are thus disruptive to pedestrian-scale intimacy, continuity, and unified village character. This effect is anticipated from the elongated extension of parking at Cannondale and the more-than double expansion of the parking lot at Redding.
 - Areas committed to parking lots would preclude future development or land uses that could contribute to stronger community sense of place and village economic vitality (i.e. parking areas would result in an opportunity cost), at both sites.
- The potential increase of pedestrian activity in the villages of Cannondale, Branchville, and Redding would have a beneficial effect on community cohesion.

Environmental Justice: No substantive changes to the rail stations in Norwalk and Danbury, where EJ populations are located, are planned as part of Alternative C. Consequently, no impacts to EJ populations from station upgrades are anticipated.

Economic Vitality: Alternative C is expected to have an indirect beneficial effect on economic vitality in the vicinity of four of the five existing stations to be improved: Merritt 7, Cannondale, Branchville, and Redding. The Bethel Station is considered too far from the town's commercial nodes to benefit directly from the station improvements alone.

- Merritt 7: The construction of a parking garage with pedestrian overpass and connections would bring more commuters to the largely retail neighborhood surrounding the Merritt 7 station. These commuters will, once disembarking from the train, have access to local businesses both via car and on foot. As such, the economic vitality of the area is expected to be enhanced. The loss of a single commercial site in this densely developed area would have no significant impact on the economy of the City of Norwalk.
- The addition of parking in Cannondale, Branchville, and Redding would bring more commuters to the diverse and mostly small businesses and restaurants in these villages. These commuters will, once disembarking from the train, have access to local businesses both via car and on foot. As such, the economic vitality of the villages is expected to be enhanced.

The impact of Alternative C on future TOD at the Cannondale, Branchville, and Redding station areas is difficult to predict with certainty. The presence of more commuters in each location would be supportive of transit-oriented businesses. Yet one of the basic elements of successful TOD is a mix of land uses and housing (in particular) within walking distance of a rail station. An increase in surface parking at the three stations would encourage driving from farther distances and thus contradict the appeal of local housing construction. Possible effects are discussed in more detail below.

- Cannondale: the vision for TOD at Cannondale is one of maintaining the rural character of the area, a limited increase in density of development, protecting sensitive environmental resources, and encouraging new rural/village-scale transit-supportive development as opposed to creating a "traditional" urban TOD environment. In this context, the addition of a limited number (50) new parking spaces at Cannondale would have no significant impact on successful TOD.
- Branchville: TOD at Branchville is expected to be guided by the concept plan for the village created as part of the Route 7 Corridor Study. The concept is one of a limited increase in density of development, and encouraging new village-scale transit-supportive development as opposed to creating a "traditional" urban TOD environment. In this context, the addition of strategically located new parking could be supportive of successful TOD.
- Bethel: the Bethel rail station is adjacent to some existing condominiums and approximately ½ mile to the commercial center of the village. This is a dynamic environment where TOD could be encouraged to thrive. The construction of nearly an acre of surface parking there could adversely affect the potential for successful TOD. There would be a physical gap in the landscape and fabric of the immediate neighborhood. Strategically located property which could be utilized for mixed-use development with local housing would be committed to parking. In addition, the expanse

of pavement and added vehicular traffic to and from the station site would create obstacles to ease of pedestrian travel.

Municipal Services and Finances: The increase of passengers and vehicular traffic at the upgraded station sites would likely trigger the need for increased municipal services such as public safety and roadway maintenance on the more heavily used local roads near stations. Other potential impacts are primarily indirect effects, discussed below.

The addition of parking at the Merritt 7 station can be expected to have an indirect effect on municipal services in Norwalk. The addition of a substantial amount of parking in association with a new pedestrian overpass may necessitate improvements to the local sidewalk system. This system today is incomplete, and interrupted by numerous driveways. Safe pedestrian crossings at intersections are absent in many locales (*Route 7 Corridor Study, Existing Conditions and Trends, Technical Memorandum, 2010*).

The added parking in Cannondale, Branchville, and Redding may create an indirect demand for more infrastructure in these villages. None are currently served by public water or sewer and there are gaps in the sidewalk system. If mixed-use development is stimulated in part by enhanced rail access, utilities may be required and an improved sidewalk system may be needed as infill increases. The extent to which any new development in these villages would offset the cost of additional infrastructure is unknown.

Traction Power System – Electrification

No adverse impacts to socioeconomic conditions are anticipated from the installation of the traction power system or the operation of electrified rail service between Norwalk and Danbury. Beneficial effects would include improved localized air quality due to the elimination of diesel train exhaust, particularly at station locations where trains stop and idle.

Track Reconfigurations, Sidings and Connections, Structures and Bridges

Community cohesion may be affected by one of the track reconfigurations under Alternative C, as described below. Other socioeconomic parameters are not expected to be impacted.

Community Cohesion:

Adverse effects to community cohesion in Norwalk are anticipated where the track curvature would be realigned and a retaining wall built at North Main Street and Marshall Street. It is anticipated that four buildings would need to be displaced for this reconstruction. These buildings house businesses which contribute to the cohesive fabric of the commercial neighborhood surrounding Washington Street. The loss of these businesses would create a gap in the neighborhood sense of place. The loss of these businesses may also undermine the economic stability of the area. In addition, the track realignment would bring rail noise closer to the center of the neighborhood.

Alternative D: Extension from Danbury to New Milford

Frequency of Service

The types of impacts from increase in frequency of service under Alternative D would be comparable to Alternative C. This portion of the corridor is an active rail freight line. However, adverse effects from increased passenger service can include increased noise from trains, particularly associated with horn-blowing at stations and at-grade crossings. This could be very noticeable in some locations since there is currently no commuter rail service on this portion of the study corridor.

The increased rail access to Brookfield and New Milford is anticipated to have the following additional effects.

Community Cohesion: The extension of rail passenger service would introduce rail noise along the line where it does not occur today with horn and engine noise, and train braking occurring. This could adversely affect the quality of life in the neighborhoods in proximity to the rail line, particularly in Brookfield Center and in Downtown New Milford.

In addition, more frequent vehicular stops for trains at at-grade crossings could aggravate a perception of trains being neighborhood barriers and disruptions. The at-grade crossings that are most sensitive to this effect are the following:

- South Avenue in New Milford
- Bridge Street in New Milford

Some beneficial effect may also occur. Access to rail service is expected to enhance access to Brookfield Center and Downtown New Milford. Residents in each of the neighborhoods along the rail line would have increased access to travel options to commute to work. This can increase the stability of the neighborhood residential areas, making them more cohesive.

Environmental Justice: Some minor adverse effects to the EJ populations in Danbury along with some beneficial effects are anticipated under Alternative D. An increase in frequency of service can be expected to increase noise in the vicinity of ethnic and lower income neighborhoods south and east of the rail station in Danbury. However, this alternative would also enhance travel options for access to jobs for the economically disadvantaged.

Economic Vitality: Alternative D can be expected to have a beneficial effect on the local economies of Brookfield and New Milford due to increased human activity in the community cores, increased commute options, and enhanced access to businesses. When rail stations accommodate additional travelers, there is more pedestrian and/or vehicle pass-by traffic that may patronize local business. Access would be improved to businesses/business districts in the vicinity of the new rail stations under this alternative. In particular, the options and opportunities for commuting to work will be expanded for workers traveling from the largely residential communities of New Milford and Brookfield to the local employment base in Danbury.

Municipal Services and Finances: Impacts to municipal services and finances are expected to be mixed. The increase of passengers and vehicular traffic at the new station sites would likely trigger the need for increased municipal services such as public safety and roadway maintenance on the more heavily used local roads near stations. This could be an adverse effect on municipal services/finances.

A possible beneficial indirect effect is that the availability of commuter rail may indirectly strengthen the housing markets in Brookfield and New Milford. Between 49 and 67 percent of employed persons in 2006 in Brookfield and New Milford commuted to Danbury and points south for work. This trend can be expected to continue. Increased options for ways for an easier and faster commute to work can make longer-distance commutes more feasible and in turn, make living in more rural areas (single family home on an acre or more) more feasible and attractive. Brookfield and New Milford offer those more rural environments. Consequently, an indirect beneficial impact to the local tax base through stronger housing markets in Brookfield and New Milford could occur with Alternative D.

Passenger Stations (New)

Impacts relative to the new passenger stations for Alternative D are anticipated, as discussed below.

Community Cohesion: A mixed effect is anticipated for community cohesion due to construction of new passenger rail stations for Alternative D in Brookfield and New Milford. Each may be affected as follows:

- The impact to community cohesion in Brookfield due to a new rail station is expected to be adverse. The new vehicle-oriented parking at the core of the new station would encourage car travel and vehicular traffic, which will create localized barriers to interaction in the Four Corners area, discouraging pedestrian and street-level cohesion.

The Route 7 corridor makes up the majority of shopping and restaurant destinations in Brookfield Center. There are no sidewalks in the area and, as a result, there is extremely limited foot traffic there today. In the absence of sidewalk and pedestrian network improvements by the Town of Brookfield to complement the proposed sidewalk and pedestrian bridge of the new rail station, no substantive beneficial effect in terms of human activity in Brookfield Center is expected.

- The accommodation of commuters at a new rail station in New Milford, located very close to downtown, would bring more vehicle pass-by shoppers as well as pedestrian traffic into the downtown. There is a well connected system of sidewalks and pedestrian paths that would provide access among the proposed station location, parking and downtown. This strong system of access can be expected to enhance business sustainability there and have an indirect beneficial effect on community cohesion. In addition, in the past decade New Milford has redesigned the New Milford Green to be more pedestrian oriented. The addition of the rail station to the edge of the downtown can be expected to add to this pedestrian activity and thus support community vitality.

Environmental Justice: As there are no EJ populations in the study area in Brookfield and New Milford, no impacts to EJ populations are anticipated from Alternative D.

Economic Vitality: Economic effects of Alternative D are anticipated to be neutral. Given the pedestrian and vehicular barriers in the close vicinity of the new station, economic synergy with the commercial area on Route 7 is not anticipated. In the absence of investment by the Town of Brookfield in a pedestrian network and/or streetscape improvements interconnecting the commercial area along Route 7 with the train station, it can be expected that opportunities for more business patronage stimulated by commuter activity would be limited to pass-by automobile traffic.

The construction of a new rail station in New Milford would be expected to have a beneficial effect on the local economic vitality. This would result from additional anticipated patronage of local business brought about by improved access to the central business district.

Municipal Services and Finances: The increase of passengers and vehicular traffic at the upgraded station sites would likely trigger the need for increased municipal services such as public safety and roadway maintenance on the more heavily used local roads near stations.

Traction Power System – Electrification

No adverse impacts to socioeconomic conditions are anticipated from the installation of the traction power system or the operation of electrified rail service between Danbury and New Milford. The electrified option of Alternative D would eliminate diesel emissions which could affect localized air quality.

Track Reconfigurations, Sidings and Connections; Structures and Bridges

No adverse impacts to socioeconomic conditions are anticipated from the installation of the rail infrastructure or reconfigurations between Danbury and New Milford.

Alternative E: Improvements from South Norwalk to Wilton (Merritt 7)

Potential impacts of Alternative E would be associated with increased frequency of rail service, the improved Merritt 7 passenger station, and track improvements and electrification facilities.

Frequency of Service

Effects of increased frequency of rail service would be comparable to those under Alternative B and C. However, potential adverse noise impacts from increased service would be limited to Norwalk between South Norwalk and the Merritt 7 stations. Potential barrier effects to community cohesion would be limited to the at-grade crossing at Cross Street and Catherine Avenue in Norwalk.

Passenger Stations (Existing Station Upgrades)

Community Cohesion: There are no anticipated community cohesion effects from improvements at the Merritt 7 station site, the only station to be improved under Alternative E.

Environmental Justice: No EJ populations are located in the vicinity of the Merritt 7 station, so no impacts to EJ populations are anticipated.

Economic Vitality: Alternative E is expected to have an indirect beneficial effect on economic vitality in the vicinity of the Merritt 7 Station, similar to what is described for Alternative C.

Municipal Services and Finances: Impacts on municipal services and finances would be similar to those described under Alternative C, primarily affecting the City of Norwalk and the Town of Wilton.

Traction Power System – Electrification

No adverse impacts to socioeconomic conditions are anticipated from the installation of the traction power system or the operation of electrified rail service between South Norwalk and its terminus in Wilton under Alternative E. Beneficial effects would include improved localized air quality due to the elimination of diesel train exhaust, particularly at the Merritt 7 and Wilton Stations where trains stop and idle.

Track Reconfigurations, Sidings and Connections, Structures and Bridges

Some adverse effects on community cohesion from track infrastructure improvements are anticipated under Alternative E as discussed below. Other socioeconomic parameters are not expected to be impacted.

Community Cohesion:

Adverse effects to community cohesion in Norwalk under Alternative E would be the same as noted for Alternative C, associated with the acquisition and displacement of four buildings for the track reconfiguration at North Main Street and Marshall Street. The loss of these businesses would create a gap in the neighborhood sense of place.