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The U.S. DOT Federal Transit Administration and the Connecticut Department of Transportation

In cooperation with
The South Western Regional Planning Agency and
The Housatonic Valley Council of Elected Officials

Study Advisory Committee Meeting
Project No. 302-008
Ridgefield, Connecticut

March 17, 2010

PURPOSE and AGENDA

This meeting is a part of the NEPA/CEPA Process.

Agenda

- Introductions
- Update on the Danbury Branch CTC Project
- Update on Danbury Branch EIS Project
- Discussion of Conceptual Engineering to Date
- Presentation on Transit Oriented Development
- Questions/Comments

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Danbury Branch EIS: Project Purpose

- Improve mobility options for the traveling public in the South Western and Housatonic Valley regions of Connecticut
- Maintain and improve existing commuter rail service on the Danbury Branch as well as improve its feeder system and intermodal connections on the Branch
- Help reduce congestion in the Route 7 corridor between South Norwalk, CT and New Milford, CT

*No Build Alternative assumes CTC project completed

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DANBURY BRANCH CTC PROJECT

What is CTC?

- Danbury Centralized Train Control & Signalization Project – State Project 302-0007
  - Replaces existing “manual block” system
  - Allows remote control of train movements and switches from Metro-North Control Center in GCT
  - Train movements, switches and signals are integrated over 24.2 miles of single track
  - Signalized segments into one (1) mile long blocks providing cab signal indication based on condition of track ahead

DANBURY BRANCH CTC PROJECT

Benefits of CTC Project:

- **Safety** and **Reliability** Improvements
- **Flexibility** of Service
- Ability to provide more **shuttle service** on the Branch
- **Integration** with existing New Haven Mainline service
- **Compatible** with federally-mandated Positive Train Control (PTC) by December 2015

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DANBURY BRANCH CTC PROJECT

- CT DOT/FTA/ARRA funded
- CT DOT administered
- MNR undertaking work through CT DOT Office of Rails agreement

ARRA
American Recovery and Reinvestment Act of 2009

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DANBURY BRANCH CTC PROJECT

Project Components:

- Cable Plow Contract *(Communications & Power Cables)*
- Pre-wired Signal Houses procurement
- Two Signal Power Substations
- Related Track Work
- Connections, Testing & Commissioning

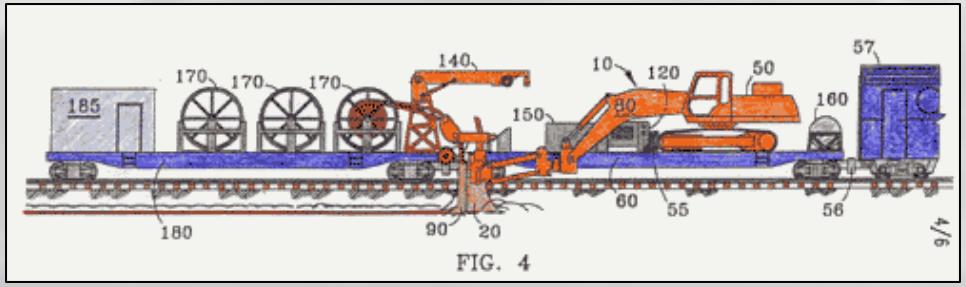
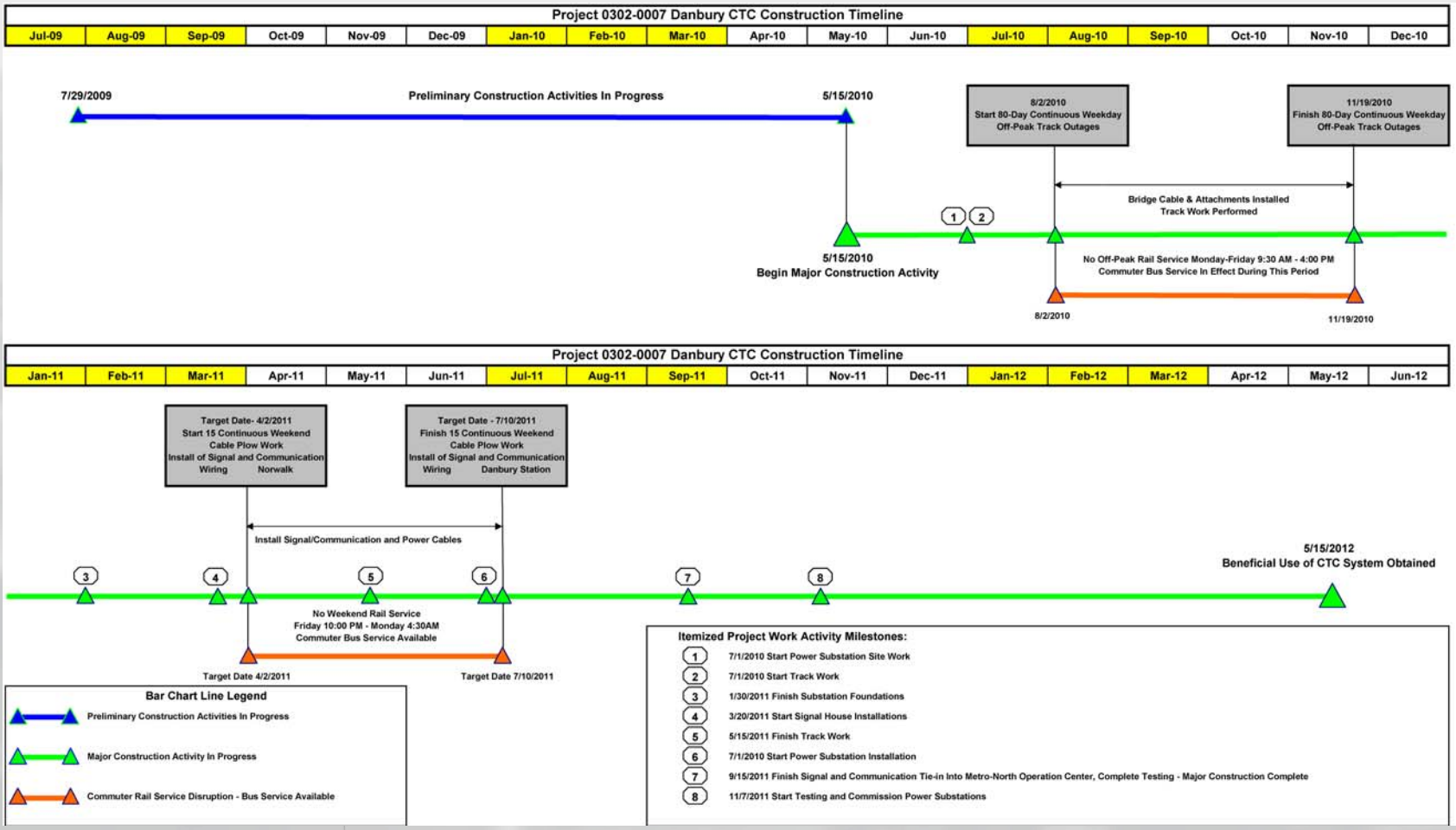


FIG. 4

DANBURY BRANCH CTC PROJECT



DANBURY BRANCH CTC PROJECT

Public Involvement Efforts

- Develop Public Outreach Plan
- Project Website Updates
- Information Program – Police, Fire, Residents, Businesses, Elected Officials, General Public
- Disseminate Project Information to Media through CT DOT
- Website Updates
- Stakeholder and Public Meetings

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DANBURY BRANCH CTC PROJECT

Project Contacts:

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Legislative Program Manager
(860) 594-3013
pamela.sucato@ct.gov

Richard Funk
Engineer-in-Charge
Direct: (203) 210-7968

- Danbury Branch CTC Webpage will be set up on existing CT DOT website: **http://www.ct.gov/dot**
- Updates on Danbury Branch Study website: **http://www.danburybranchstudy.com**

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DANBURY BRANCH CTC PROJECT

Questions?

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Alternatives Development & Evaluation

A. No Build Alternative

- Metro-North 2030 Plan (14 Trains Each Direction)

B. Transportation System Management (TSM)

- Consider Additional Reverse Service and Improved Bus Connections

C. South Norwalk to Danbury Improvements

- Track Re-Alignments and Passing Sidings
- Station Enhancements
- Bridge Upgrades
- Electrification

D. Extension from Danbury to New Milford

- Alternative DD: Diesel
- Alternative DE: Electric
- New Stations and Track Upgrade

E. Improvements from South Norwalk to Merritt 7

- Same Improvements as C, only to Wilton

Danbury Branch Corridor Map

3 Segments

- **South Norwalk to Danbury**
  - 23.6 miles
  - Existing Passenger Rail Service (Metro North)
  - 8 Stations
- **Danbury to New Milford**
  - 14 miles
  - Existing Freight (HRRC)
  - No Passenger Rail
  - 3 Proposed Stations
- **New Milford to Pittsfield, MA**
  - 38 miles to MA State Line
  - Existing Freight (HRRC)
  - No Passenger Rail

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Completed Activities To Date

- ✓ **Task 2:** Coordination Meetings
- ✓ **Task 3:** Scoping Meetings and Scoping Report
- ✓ **Task 4:** Base Mapping
- ✓ **Task 5:** Environmental Data Collection –
  - ✓ 18 Tech Memos, reviewed and approved by regulatory agencies and CT DOT

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Completed Activities To Date (continued)

- ✓ **Task 6:** Existing Transportation Systems Report
  - ✓ **Initial Train Performance Calculations (TPCs)**
  - ✓ **Data File To Initiate Travel Demand Forecasting**
  - ✓ **Draft TOD Report**
- ✓ **Task 7:** Existing Rail Infrastructure Report
- ✓ **Task 8:** Draft EIS Outline

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Coordination and Project Meetings Update

- **Ongoing coordination meetings: more than 50 meetings to date. Process is ongoing with:**
  - Railroads, State and Federal Officials
  - Representatives from the 10 municipalities in the corridor
  - Regional Planning Agencies and Transit Districts
  - Other Stakeholders
- **Scoping Meetings -2008**
- **Study Advisory Meeting 2009**
- **Study Advisory Meetings 2010 (March and Late Spring)**
- **Public Pre-DEIS Meeting – Late Spring 2010**

CURRENT ACTIVITIES

- Conceptual Engineering
- Transit Oriented Development Opportunities
- Impact Evaluations and DRAFT EIS

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CONCEPTUAL ENGINEERING

Proposed Improvements – Today's Discussion

- Track Upgrades
- Curve Realignments
- Bridge Replacements
- Yard Layout
- Traction Power

For Next Meeting

- Utility Relocation
- Communication and Signaling

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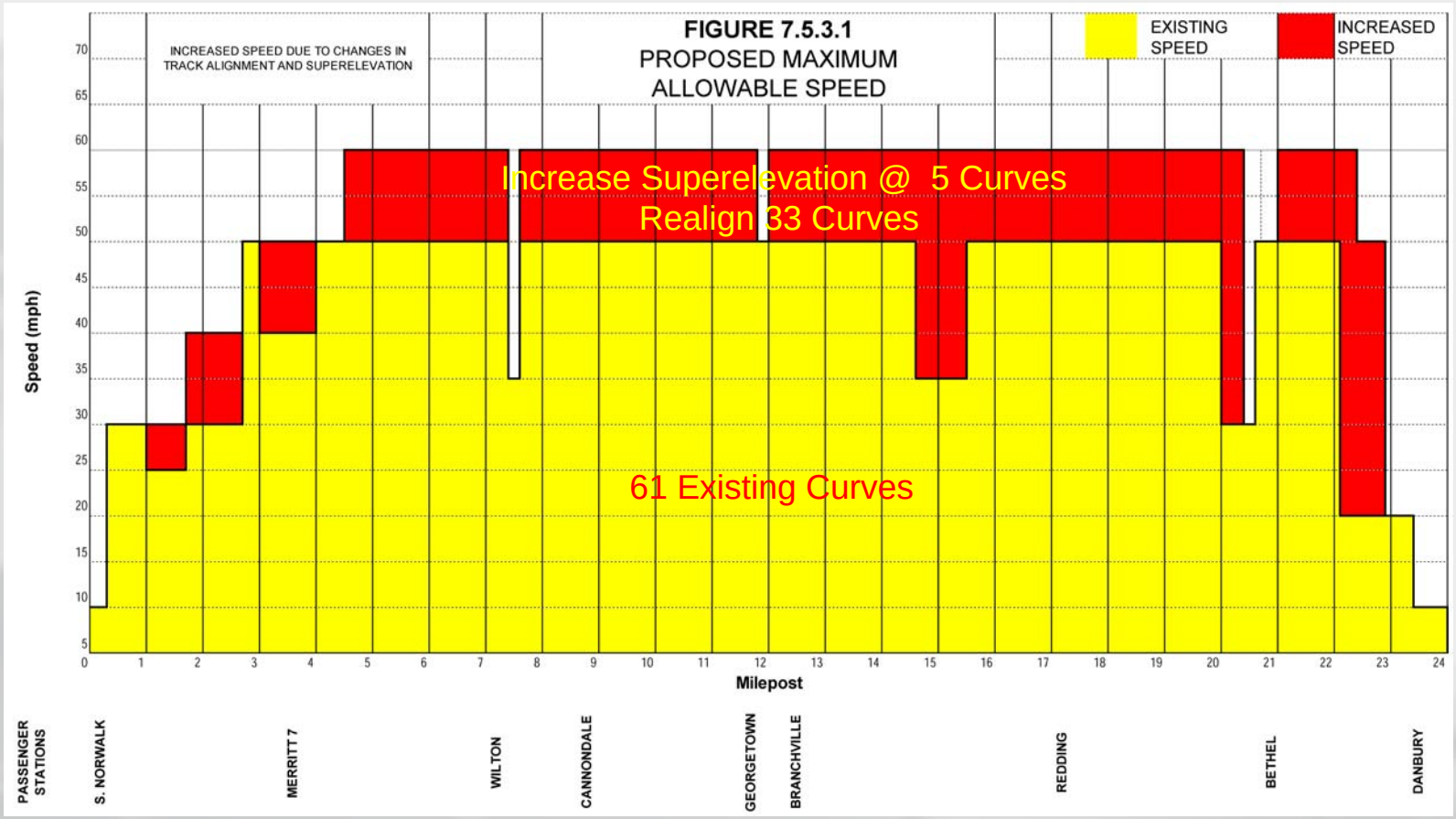
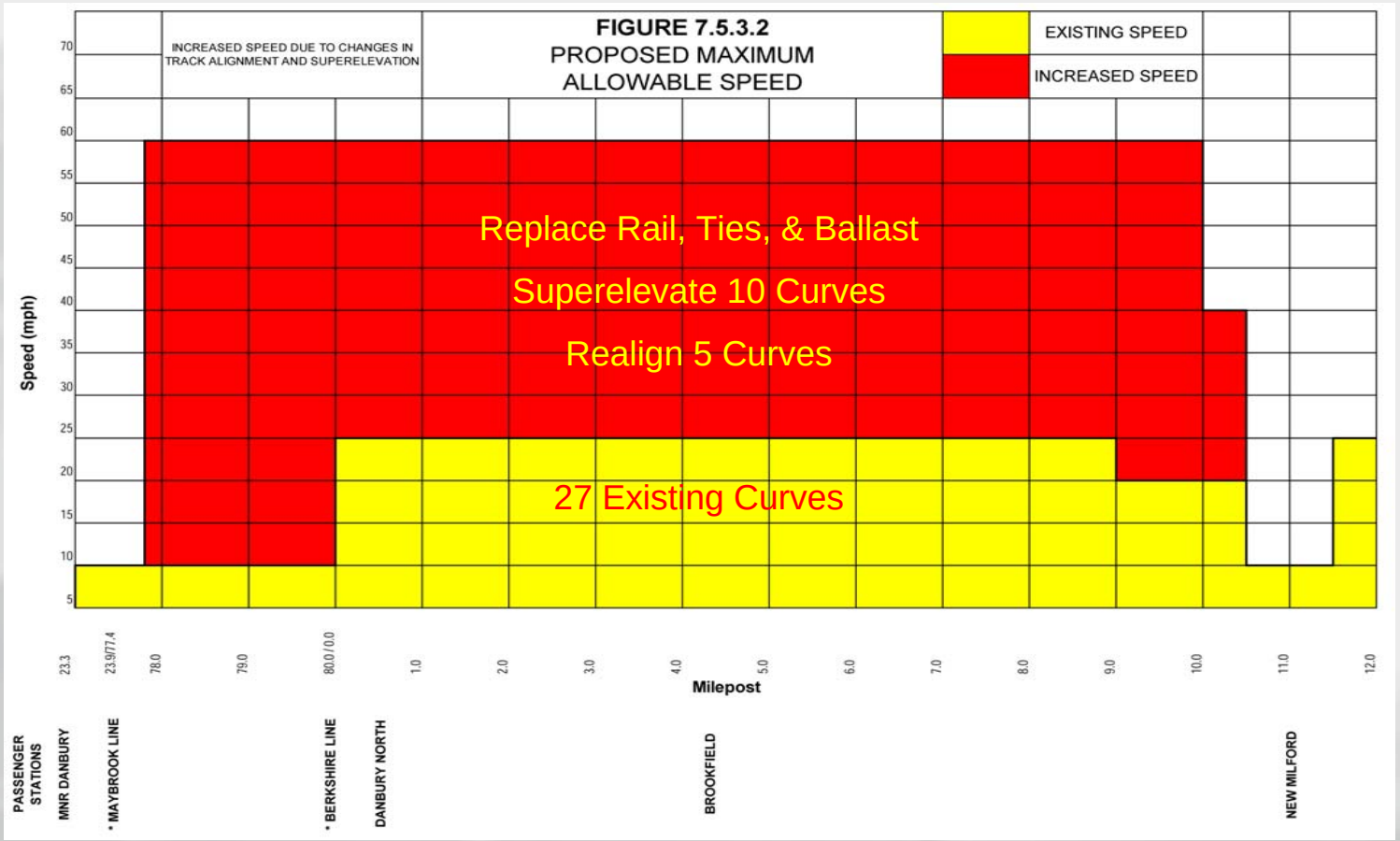
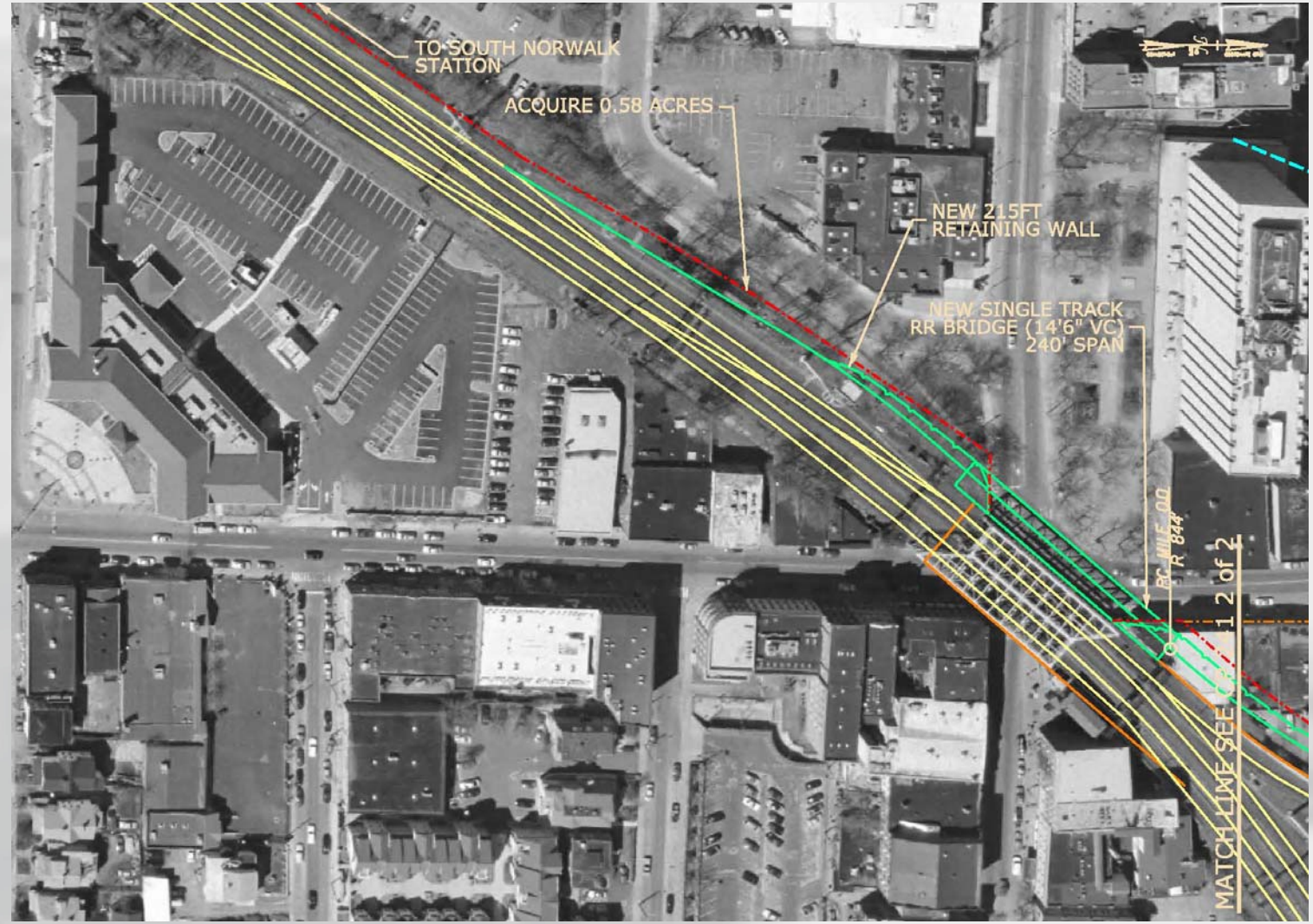
Proposed Operating Speeds – South Norwalk to Danbury



Proposed Operating Speeds – Danbury to New Milford



Track Realignments – South Norwalk



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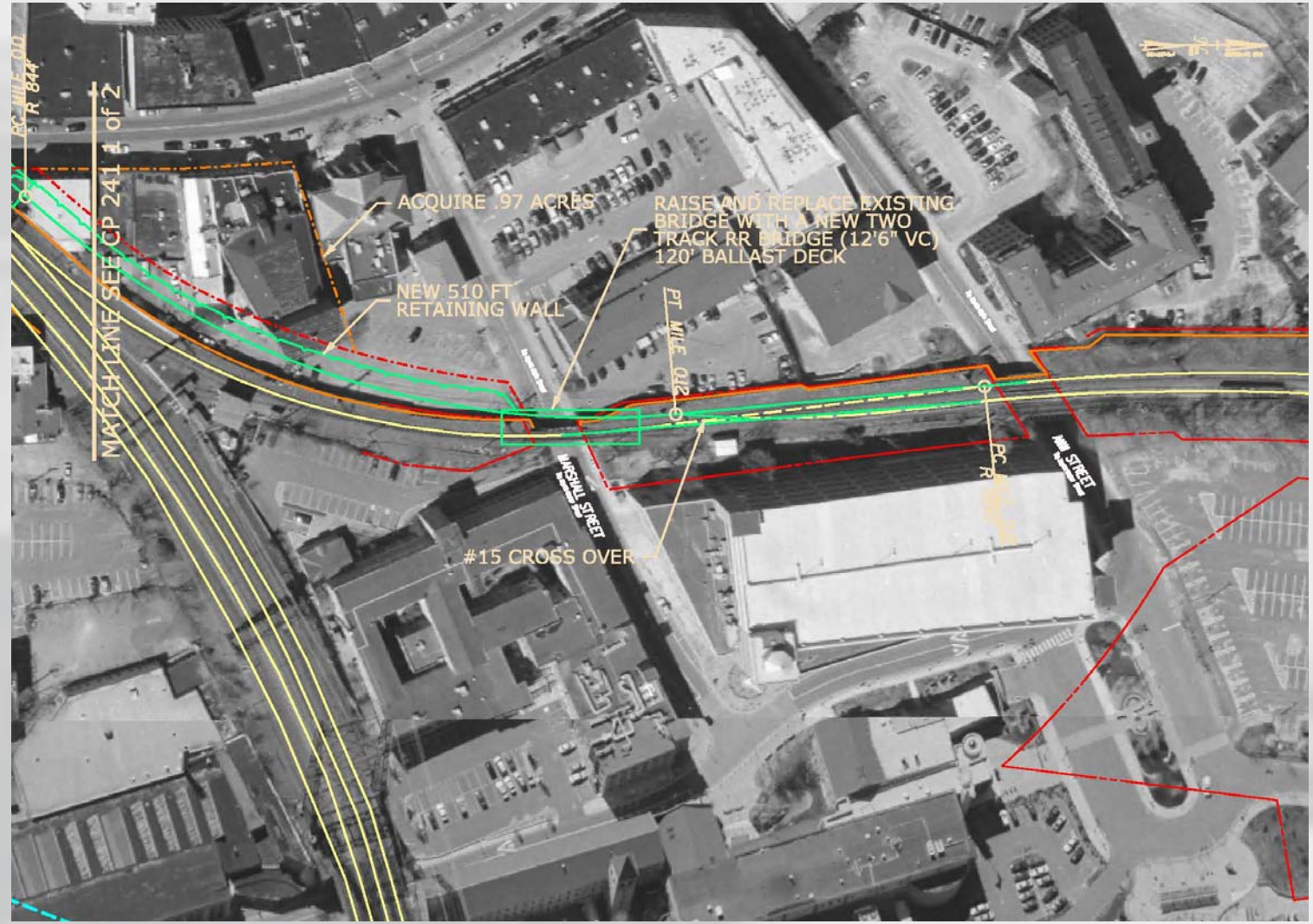
Track Realignments – South Norwalk



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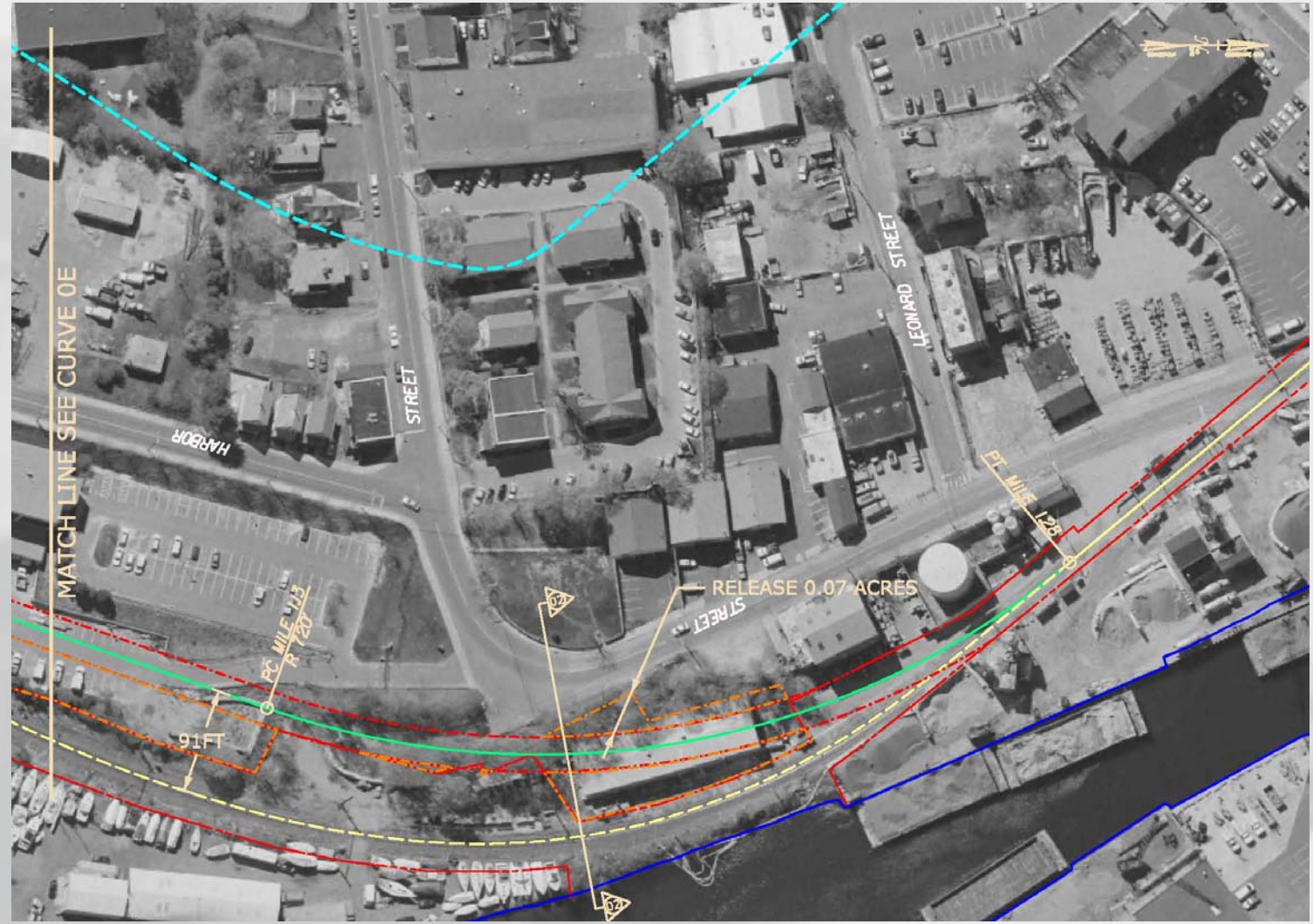
Track Realignments – Norwalk



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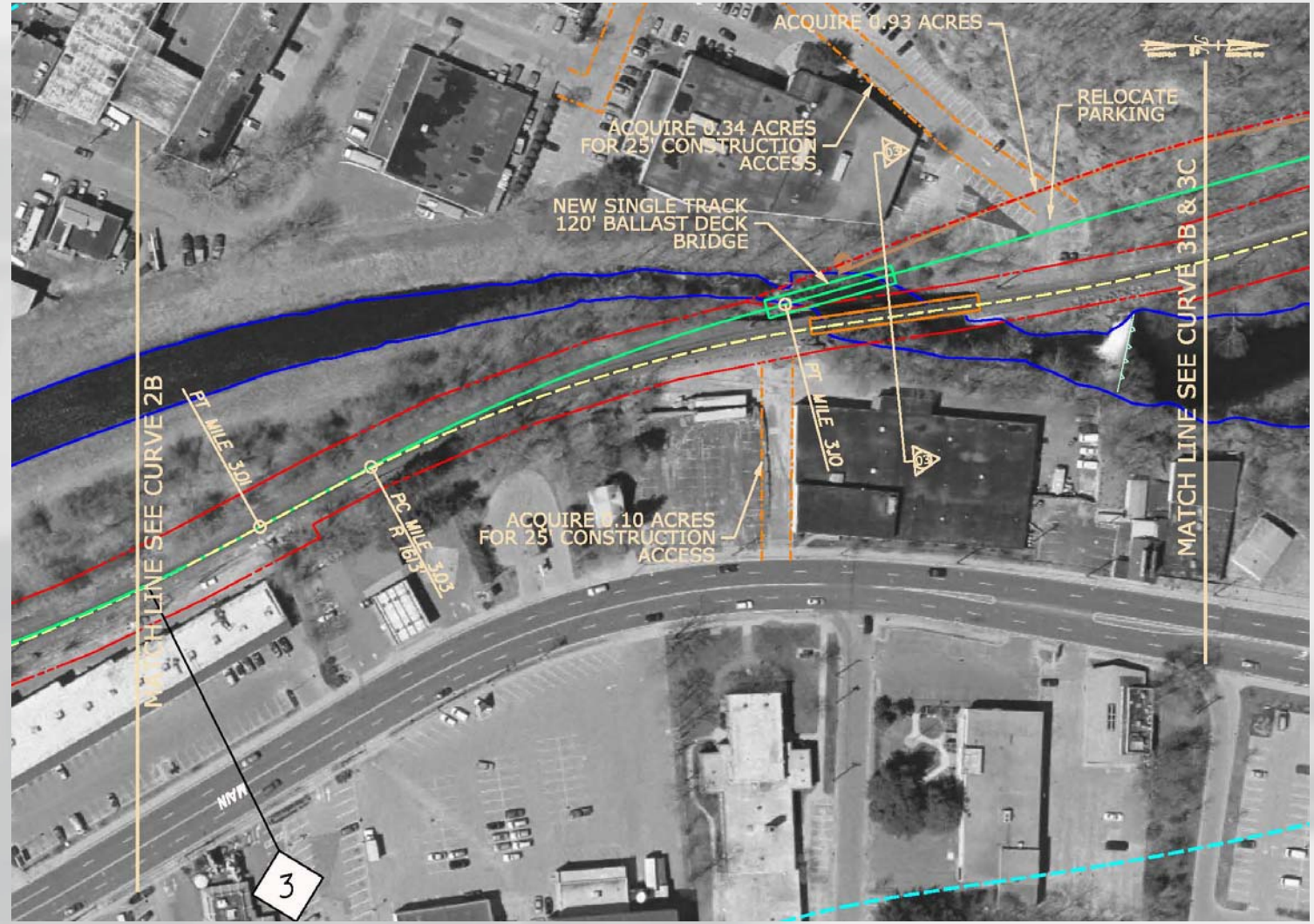
Track Realignments – Norwalk



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Track Realignments – Wilton

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Track Realignments – Wilton

Track Realignments – Redding

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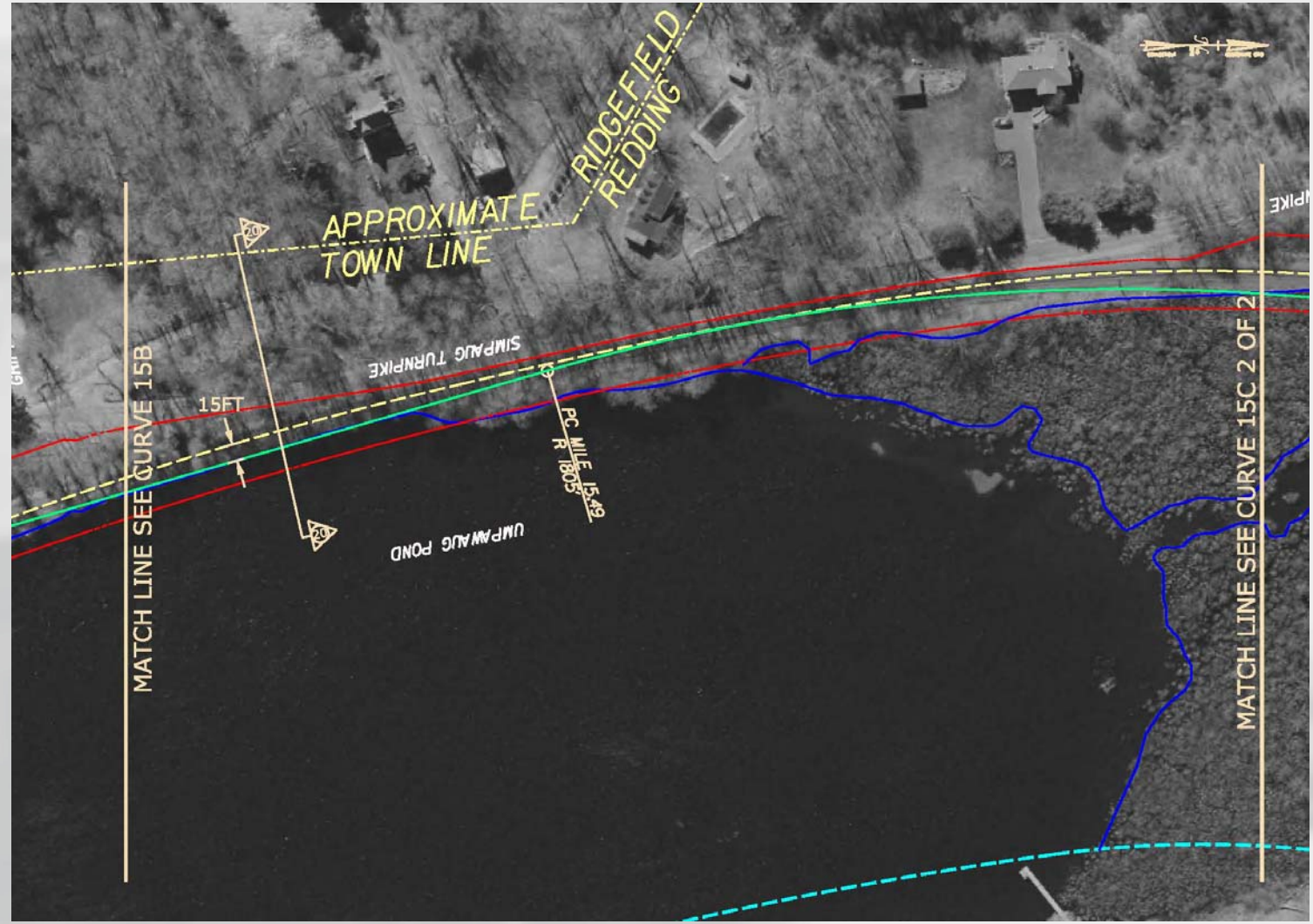
Track Realignments – Redding



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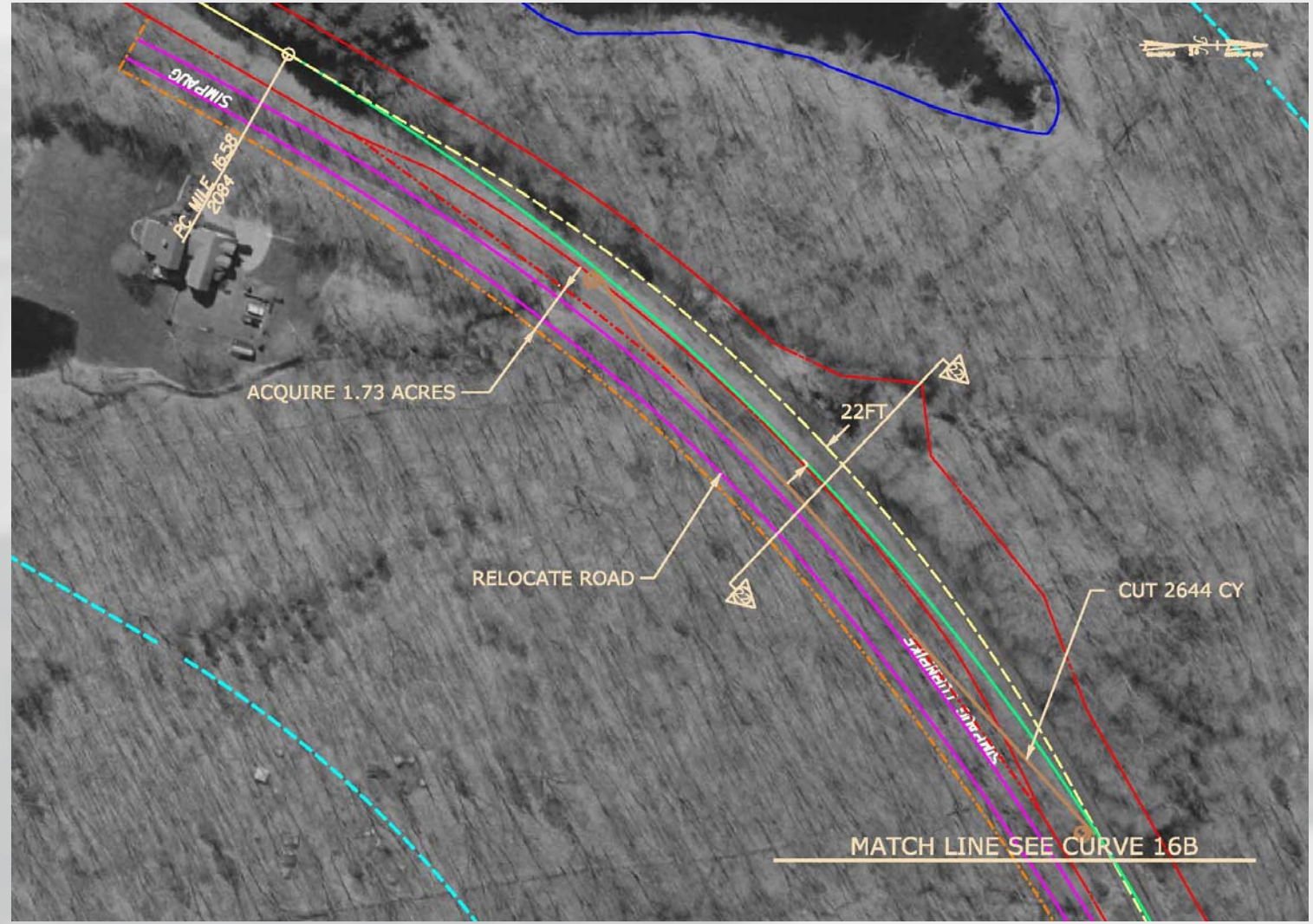
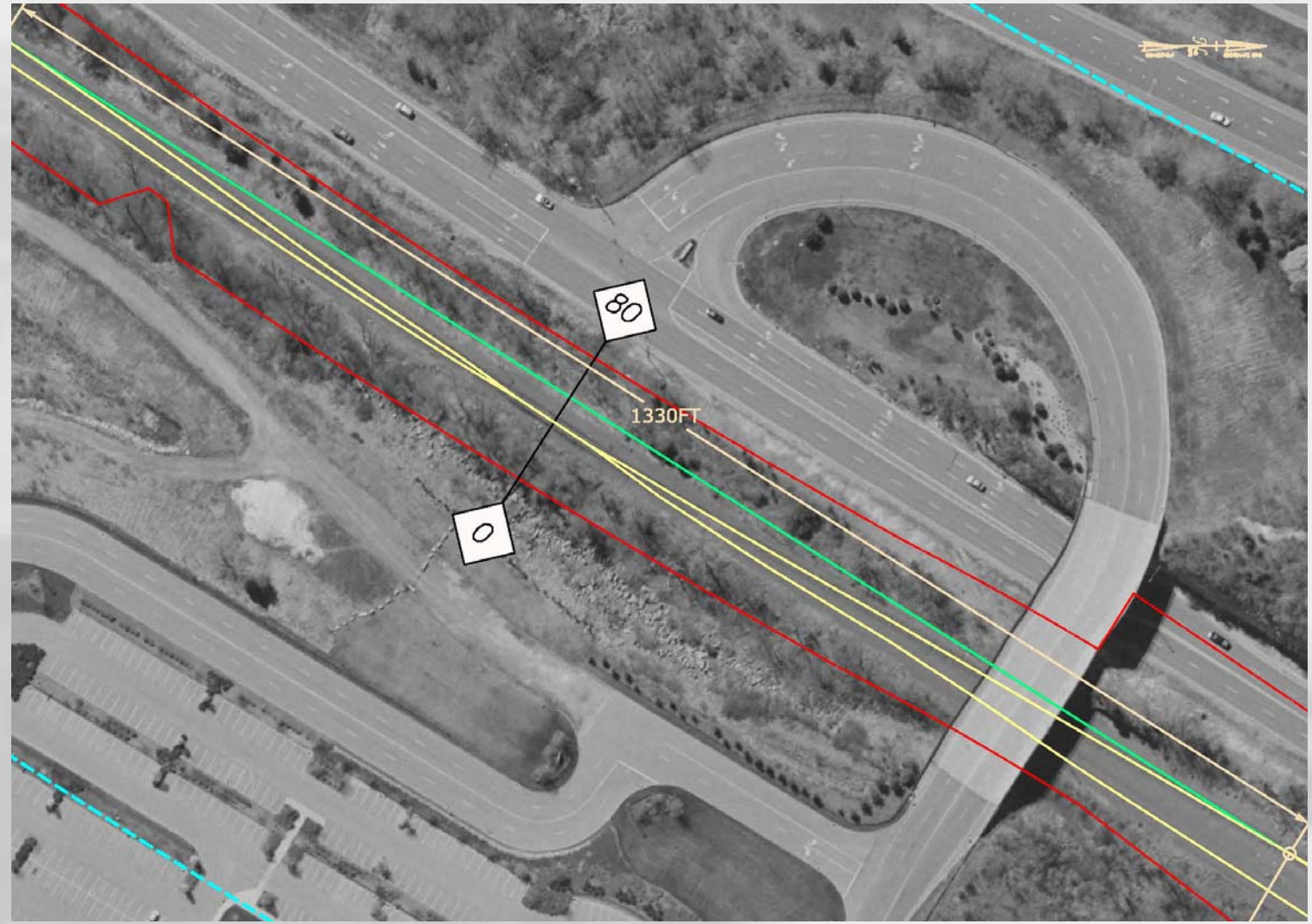
Track Realignments – Redding



Track Realignments – Berkshire Junction



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TPC Results Diesel

Station	Arrival/ Departure	Time	Cummulative Time
New Milford	Departure	00:00.0	00:00.0
Brookfield	Arrival	13:44.7	13:44.7
Brookfield	Departure	01:30.0	15:14.7
North Danbury	Arrival	06:22.0	21:36.7
North Danbury	Departure	01:30.0	23:06.7
Danbury	Arrival	09:58.2	33:04.9
Danbury	Departure	01:30.0	34:34.9
Bethel	Arrival	04:29.7	39:04.6
Bethel	Departure	02:30.0	41:34.6
Redding	Arrival	05:57.7	47:32.3
Redding	Departure	01:30.0	49:02.3
Branchville	Arrival	07:35.9	56:38.2
Branchville	Departure	02:30.0	59:08.2
Georgetown	Arrival	02:06.4	1:01:15
Georgetown	Departure	01:30.0	1:02:45
Cannondale	Arrival	04:25.5	1:07:10
Cannondale	Departure	01:30.0	1:08:40
Wilton	Arrival	03:11.0	1:11:51
Wilton	Departure	02:30.0	1:14:21
Merritt 7	Arrival	05:09.4	1:19:31
Merritt 7	Departure	01:30.0	1:21:01
South Norwalk	Arrival	10:38.0	1:31:38
Run Total (With Dwells)		1:31:38	
Run Total (Without Dwells)		1:13:39	

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TPC Results Electric

Electric Over Diesel Time Savings

- **Approximately 21 minutes faster from New Milford to South Norwalk**
- **Nearly 25% time savings**

Station	Arrival/ Departure	Time	Cummulative Time
New Milford	Departure	00:00.0	00:00.0
Brookfield	Arrival	12:44.6	12:44.6
Brookfield	Departure	01:00.0	13:44.6
North Danbury	Arrival	04:46.7	18:31.3
North Danbury	Departure	01:00.0	19:31.3
Danbury	Arrival	08:46.2	28:17.5
Danbury	Departure	01:00.0	29:17.5
Bethel	Arrival	03:36.1	32:53.6
Bethel	Departure	01:00.0	33:53.6
Redding	Arrival	04:42.6	38:36.2
Redding	Departure	01:00.0	39:36.2
Branchville	Arrival	04:55.6	44:31.8
Branchville	Departure	01:00.0	45:31.8
Georgetown	Arrival	01:16.1	46:47.9
Georgetown	Departure	01:00.0	47:47.9
Cannondale	Arrival	03:26.6	51:14.5
Cannondale	Departure	01:00.0	52:14.5
Wilton	Arrival	02:16.6	54:31.1
Wilton	Departure	01:00.0	55:31.1
Merritt 7	Arrival	04:11.7	59:42.8
Merritt 7	Departure	01:00.0	1:00:43
South Norwalk	Arrival	09:57.7	1:10:41
Run Total (With Dwells)		1:10:41	
Run Total (Without Dwells)		1:00:41	

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Travel Demand Forecasting – Input Data

Table 1

NEW MILFORD TO SOUTH NORWALK AM PEAK TRIP TIMES
Diesel locomotive with 6 Coaches

Time in Minutes (Departure Previous Station to Departure from This Station) (Minutes:Seconds)	Alternatives A & B No Build TSM	Alternative C Norwalk to Danbury	Alternative D Extension to New Milford	Alternative E Norwalk to Wilton
New Milford	n/a	n/a	0	n/a
Brookfield	n/a	n/a	15:15	n/a
N. Danbury	n/a	n/a	7:52	n/a
Danbury	0	0	11:28	n/a
Bethel	8:30	7:00	7:00	n/a
Redding	7:58	7:28	7:28	n/a
Branchville	9:32	10:06	10:06	n/a
Georgetown	4:19 (3)	3:36	3:36	n/a
Cannondale	6:51 (3)	5:56	5:56	n/a
Wilton	6:27	5:41	5:41	0
Merritt 7	7:12	6:39	6:39	6:39
S. Norwalk (1)	12:48	12:08	12:08	12:08
Rowayton (2)	3:23	3:23	3:23	3:23
Darien (2)	3:00	3:00	3:00	3:00
Noroton Heights (2)	3:11	3:11	3:11	3:11
Stamford (2)	4:36	4:36	4:36	4:36
Harlem – 125th Street (2)	30:26	30:26	30:26	30:26
Grand Central Terminal (2)	9:04	9:04	9:04	9:04
Total	**1:57:17**	**1:52:14**	**2:26:49**	**1:12:27**

(1) Assumes 1:30 Dwell Time at South Norwalk
(2) From MNR TPC
(3) TPC for base condition with Georgetown Stop is Not Available. Time shown is Alternate D time + 10%

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Travel Demand Forecasting – Input Data

Table 2

NEW MILFORD TO SOUTH NORWALK AM PEAK TRIP TIMES
6 Electric Multiple Units (EMUs)

Time in Minutes (Departure Previous Station to Departure from This Station) (Minutes:Seconds)	Alternatives A & B No Build TSM	Alternative C Norwalk to Danbury	Alternative D Extension to New Milford	Alternative E Norwalk to Wilton
New Milford	n/a	n/a	0	n/a
Brookfield	n/a	n/a	13:45	n/a
N. Danbury	n/a	n/a	5:47	n/a
Danbury	n/a	0	9:46	n/a
Bethel	n/a	4:36	4:36	n/a
Redding	n/a	5:42	5:42	n/a
Branchville	n/a	5:56	5:56	n/a
Georgetown	n/a	2:16	2:16	n/a
Cannondale	n/a	4:27	4:27	n/a
Wilton	n/a	3:17	3:17	0
Merritt 7	n/a	5:12	5:12	5:12
S. Norwalk (1)	n/a	10:58	10:58	10:58
Rowayton (2)	n/a	2:36	2:36	2:36
Darien (2)	n/a	2:21	2:21	2:21
Noroton Heights (2)	n/a	2:26	2:26	2:26
Stamford (2)	n/a	4:00	4:00	4:00
Harlem – 125th Street (2)	n/a	29:23	29:23	29:23
Grand Central Terminal (2)	n/a	8:53	8:53	8:53
Total	**n/a**	**1:32:03**	**2:01:21**	**1:05:49**

(1) Assumes 1:00 Dwell Time at South Norwalk
(2) From MNR TPC

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Existing RR Bridges

South Norwalk to Danbury

- 27 Bridges
- 15 Open Deck

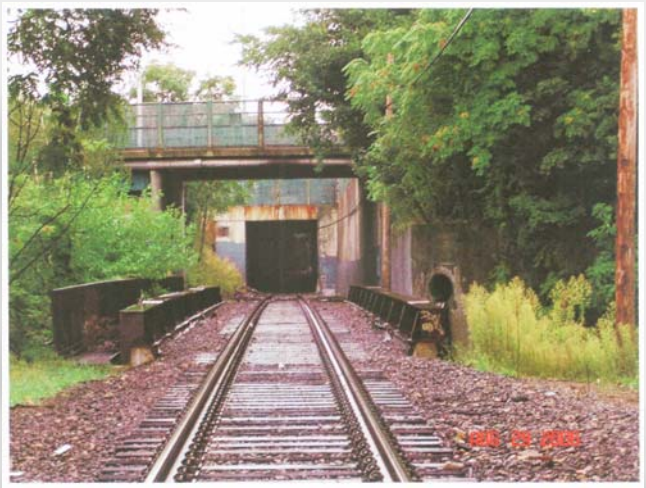
Danbury to New Milford

- 9 Bridges
- 5 Open Deck

Proposed Ballast Deck RR Bridges

South Norwalk to Danbury

- Replace 15 Open Deck Bridges with Ballast Deck

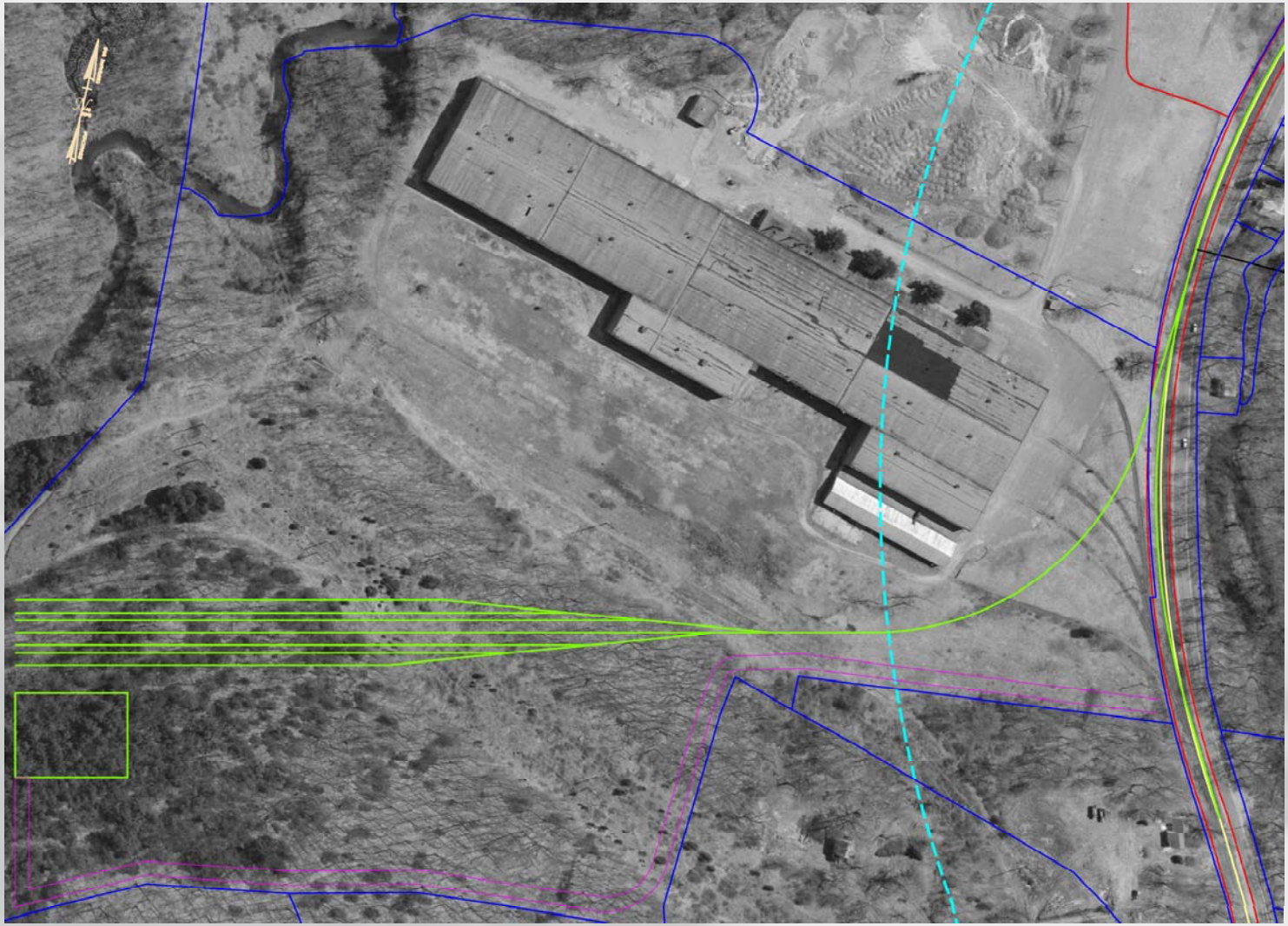


Danbury to New Milford

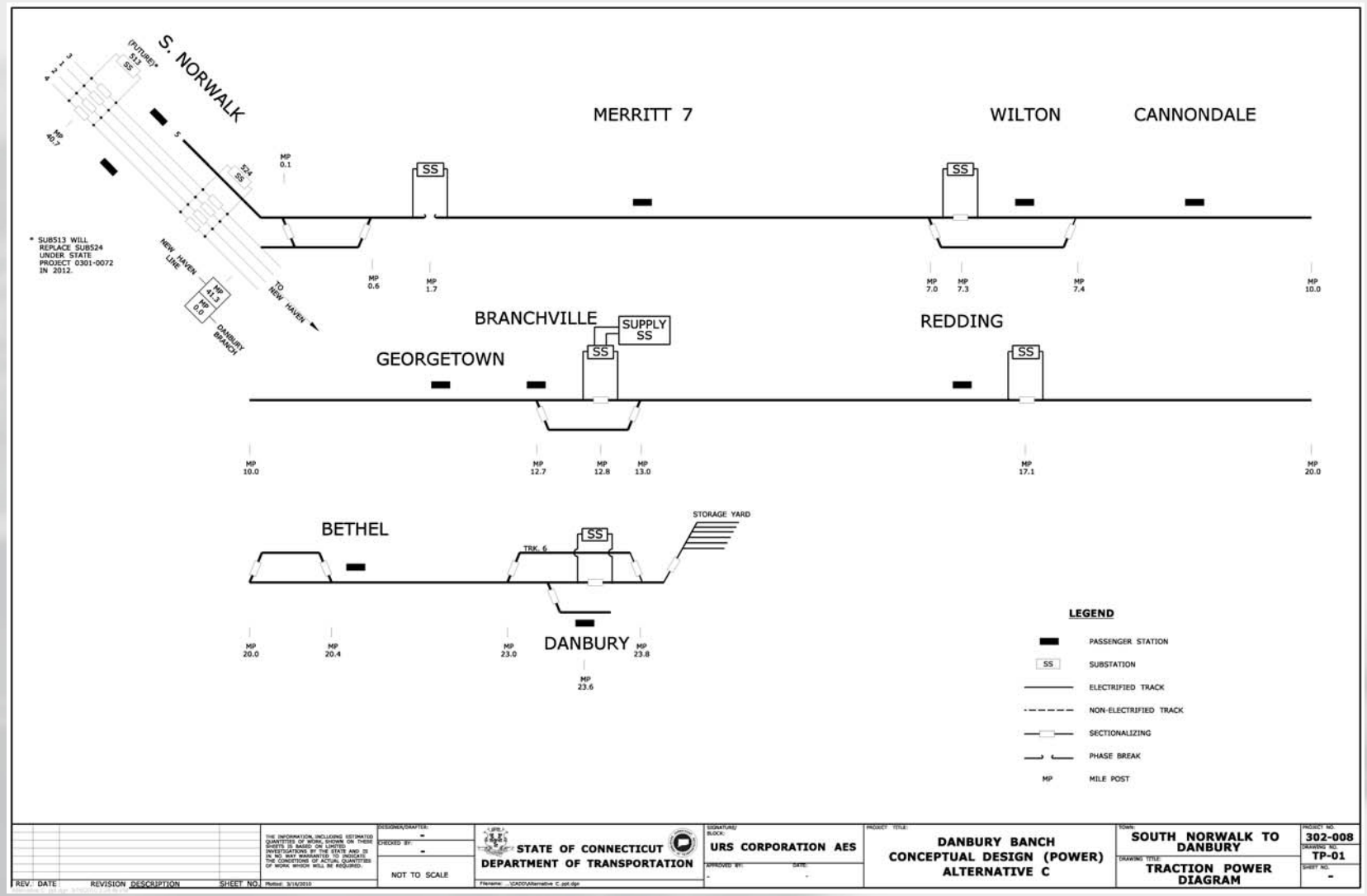
- Replace 5 Open Deck Bridges with Ballast Deck

Yard Layout – Danbury

Yard Layout – New Milford



Traction Power – Single Line Diagram Alternative C



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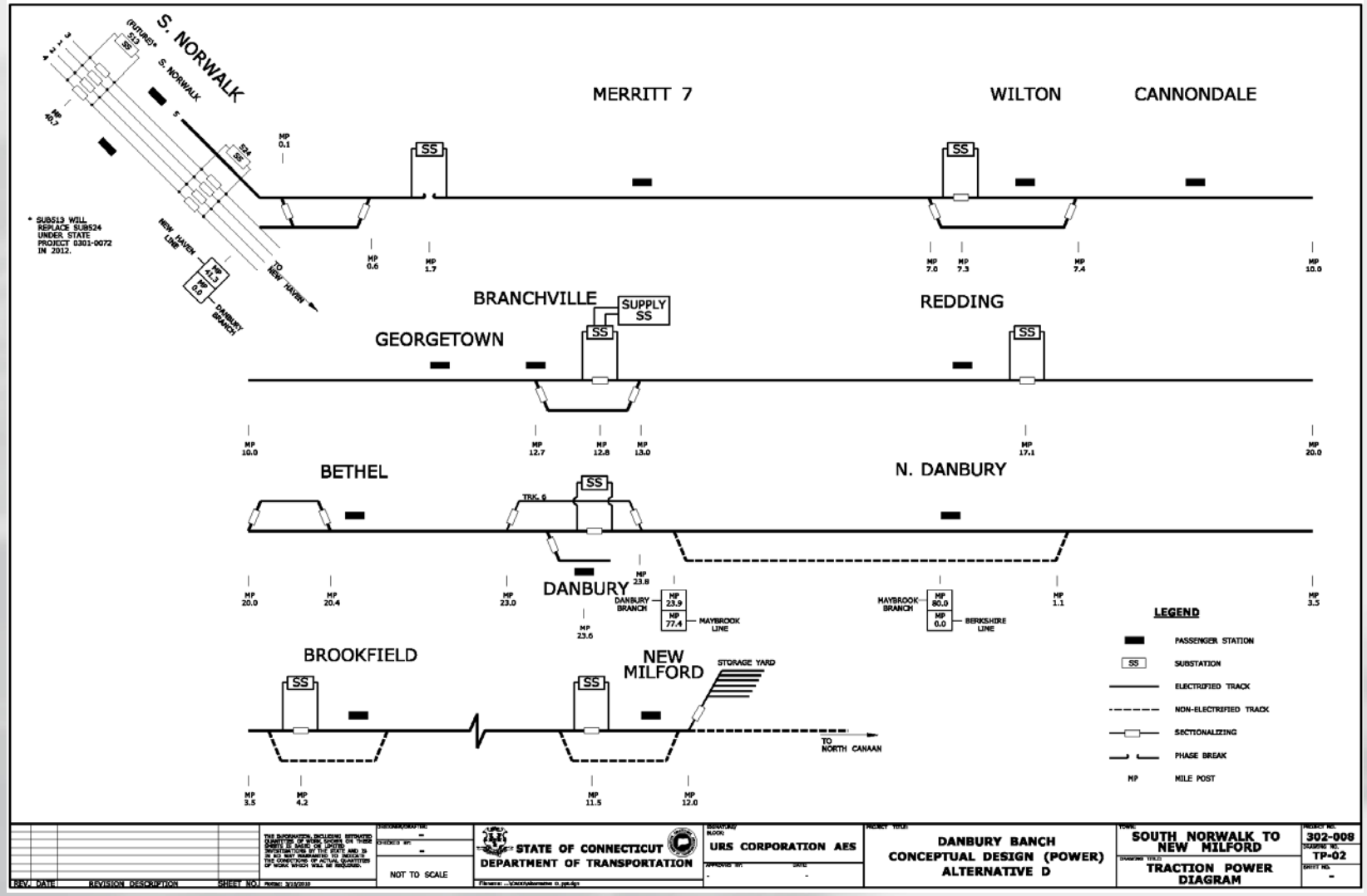
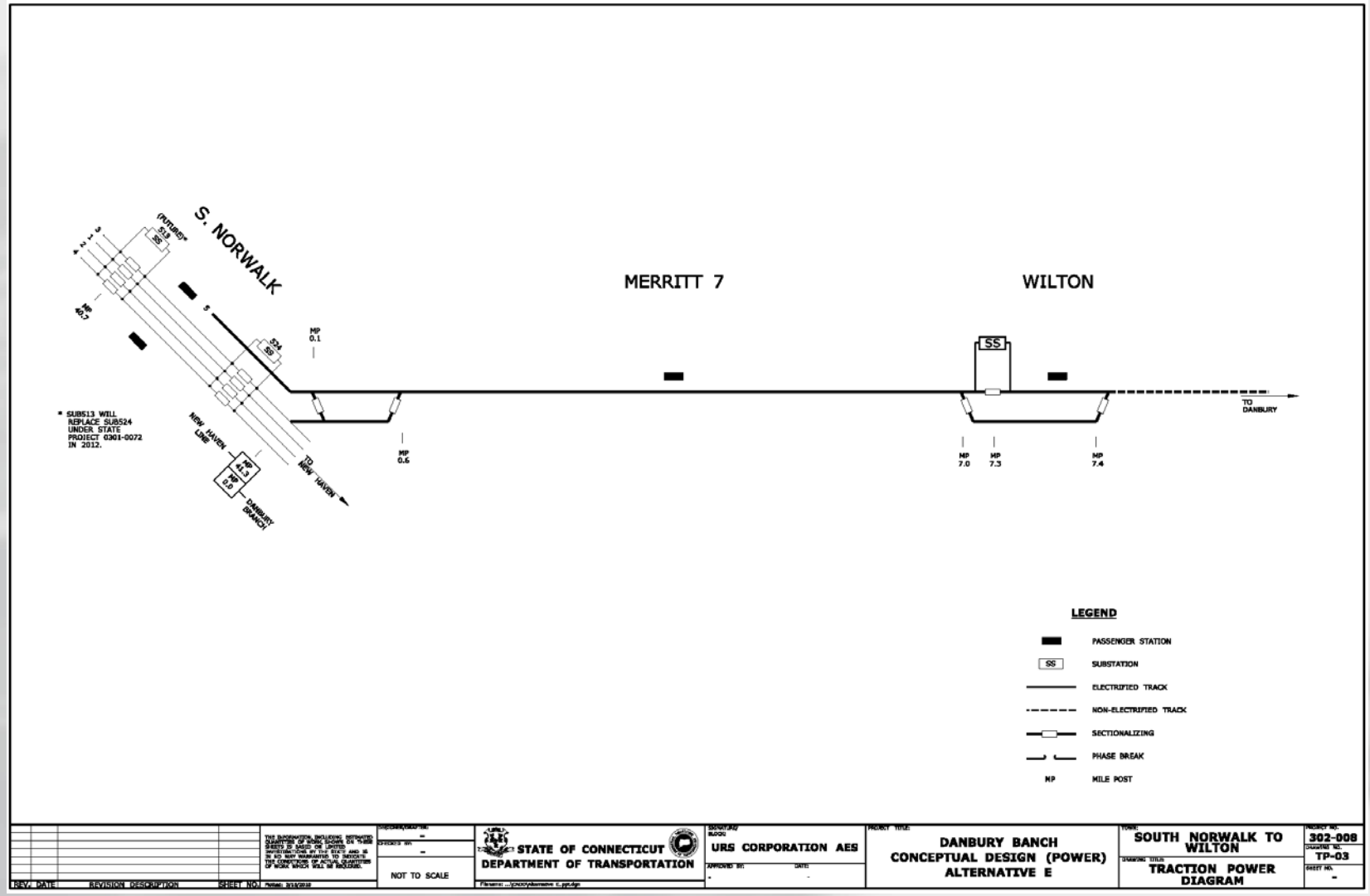
Traction Power – Single Line Diagram Alternative D



Traction Power – Single Line Diagram Alternate E



Transit Oriented Development

Summary Of TOD Report

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Transit Oriented Development

- Definition of TOD and relevant examples elsewhere
- Document status of station area planning efforts by local municipalities
- Identify potential new development adjacent to the corridor and station areas
- Identify opportunities and constraints related to TOD in potential station areas

Transit Oriented Development

What is TOD?

- Mixed Use Community Within Average 2000-ft walking distance of a transit stop and core commercial area
- **CT Definition:** the development of residential, commercial and employment centers within one-half mile or walking distance of public transportation facilities…that meet transit supportive standards for land uses, built environment densities, and walkable environments

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Transit Oriented Development

FTA Guidance and the National TOD Picture

What is a livable community?

"It's a community where if people don't want an automobile, they don't have to have one. A community where you can walk to work, your doctor's appointment, pharmacy or grocery store. Or you could take… rail, a bus, or ride a bike."

-U.S. DOT Secretary Ray LaHood, October 2009

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Sample TOD Communities Outside CT

City/Town/Village	Metro Area	Train Line	TOD Type	New or Existing Transit Service (year opened)
Anoka, Minn.	Minneapolis-St. Paul	Northstar	Planned	New (2009)
Woodstock, Ill.	Chicago	Metra UP-NW	Planned/ Naturally Occurring	Existing
Arlington Heights, Ill.	Chicago	Metra UP-NW	Planned	Existing
Glen Ellyn, Ill.	Chicago	Metra UP-W	Naturally Occurring	Existing
South Orange, N.J.	New York City	NJ Transit Northeast Corridor	Planned/ Naturally Occurring	Existing
Cohasset, Mass.	Boston	MBTA Commuter Rail	Planned	New (2007)
Ogden, Utah.	Salt Lake City	FrontRunner Commuter Rail	Planned/ Naturally Occurring	New (2008)
Hillsboro, Ore.	Portland, Ore.	MAX Blue Line	Planned	New (1998)

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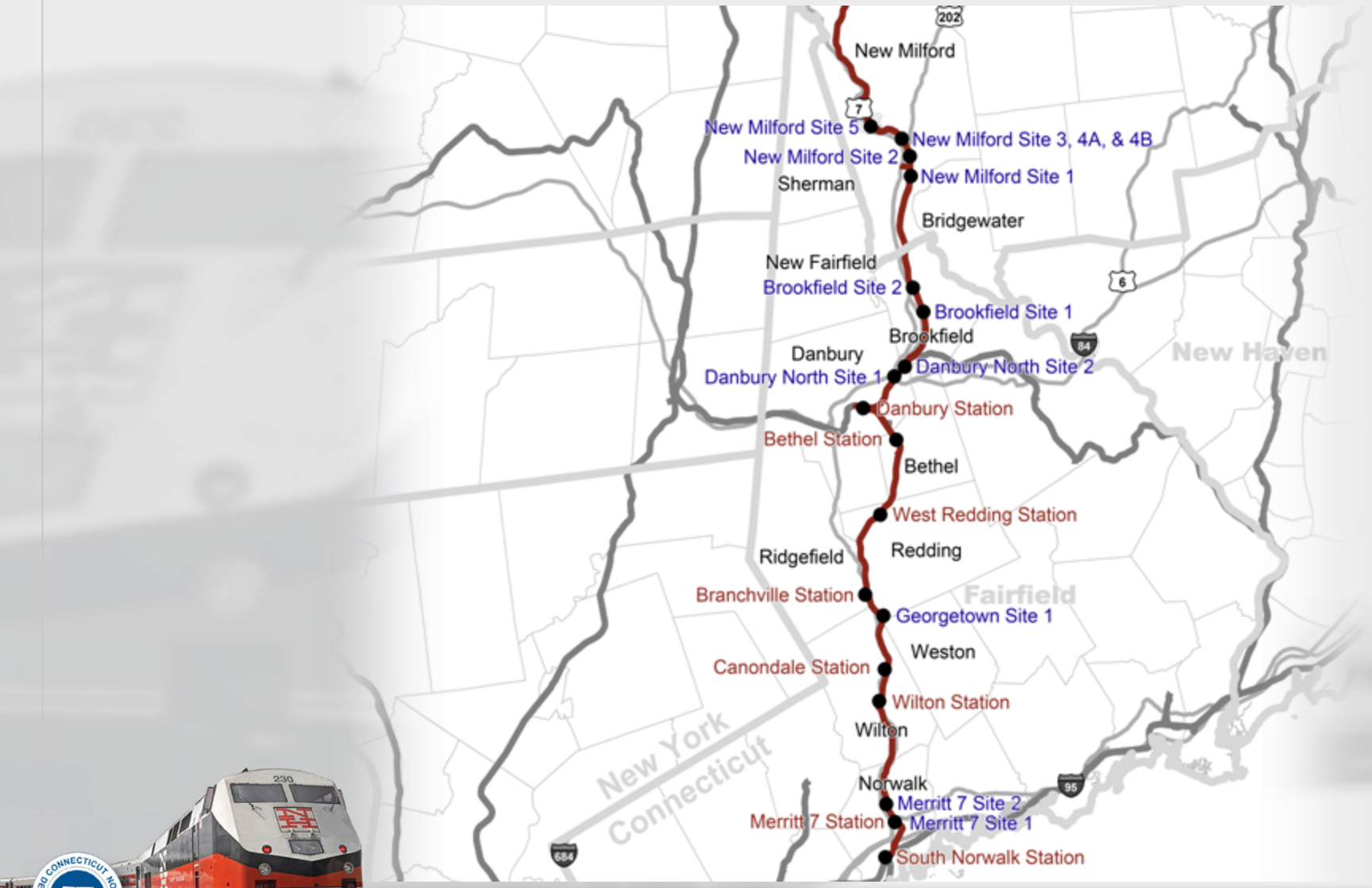
Transit Oriented Development

TOD Guiding Principles for the Danbury Branch Corridor:

- Quality and Level of commuter rail service
- Level of Parking
- Quality of Pedestrian Access and Walkability Within Each TOD site
- Control of Traffic Congestion At Each TOD Location
- Balance of New Residential and Mixed Use Development

Station Locations



Population and Density of Communities

Town	Population	Land Area (Sq. Mi.)	Population Density
Norwalk	84,877	22.8	3,723
Wilton	17,924	26.9	666
Ridgefield	24,031	34.4	699
Redding	9,365	31.5	297
Bethel	18,481	16.8	1,100
Danbury	78,939	42.1	1,875
Brookfield	16,269	19.8	822
New Milford	28,967	61.6	470
Study Corridor	278,853	256	1,090
Connecticut	3,540,846	5,009	707

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TOD Types

Station (Existing or Alternative)	TOD Type
South Norwalk	Regional/City Center
Merritt 7	Transit Town Center
Wilton	Transit Town Center
Cannondale	Transit Town Center
Branchville	Suburban Center
Redding	Suburban Center
Branchville	Suburban Center
Bethel	Transit Town Center
Danbury	Regional/City Center
North Danbury Sites #1 and #2	Suburban Center
Brookfield Site #1	Suburban Center
Brookfield Site #2	Transit Town Center
New Milford Sites #3, #4A&B, #5	City Center/Transit Town Center
New Milford Sites #1 and #2	Suburban Center

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Ongoing TOD Initiatives

Entity Responsible	Ongoing or Planned TOD Initiative	Status
City of Norwalk	Transit Oriented Development Plan for South Norwalk Station Neighborhood	Request for Proposal to be issued in 2010
Town of Wilton	2009 Plan of Conservation and Development – Wilton Center, Cannondale and Georgetown recommendations	Adopted November, 2009
Town of Redding	2008 Plan of Conservation and Development - Smart Growth and Responsible Growth practices	Adopted December, 2008
Town of Redding	Georgetown Transit Oriented Development Project – 416 new housing units, 300,000 sq ft commercial development and new RR station as part of TOD project	Ongoing
Town of Ridgefield	2010 Update of Plan of Conservation and Development – promote flexible redevelopment and zoning	Expected completion 2010
HVCEO - Town of Bethel	TOD Study of Bethel Station area – analyze TOD potential development located in proximity to rail station and prepare model TOD zoning regulations	Expected completion 2010
City of Danbury	Downtown Danbury – Main Street Renaissance Task Force Report to create policy recommendations to foster development of businesses and strengthen linkages within city	Ongoing
Town of Brookfield	2001 Plan of Conservation & Development – Recommended mixed-use node at four corners area (Route 202 and 25); also recommended Village Core from Route 7 east to former rail station	Ongoing
Town of New Milford	Update of 1999 Plan of Conservation & Development examines TOD opportunities in downtown New Milford	Expected completion 2010
SWRPA & HVCEO	Route 7 Transportation and Land Use Study will include a report titled "Feasibility of a multi-modal transportation center at the Branchville Railroad Station."	Expected completion 2011

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NEXT STEPS

- Service Plan Development
- Alternatives Evaluation
- Third Study Advisory Committee Meeting – *Late Spring 2010*
- Pre-DEIS Public Meeting – *Late Spring 2010*

Alternatives Evaluation

Example Criteria:

- Operational Impact
- Fleet Impact
- Existing Roadway Conditions
- Planned Roadway Improvements
- Existing Transit Services
- Bicycle & Pedestrian Access
- Constructability
- Local Acceptance
- Existing Rail Facilities & Operations
- Travel Demand: 2015, 2025, 2035
- Environmental Impact
- Time Savings
- Existing Land Use
- Capital Cost
- Operational Cost
- TOD Potential
- ROW Requirements
- Potential for Transit

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Alternatives Evaluation

Federal Transit Administration (FTA) Criteria:

- Mobility Improvement
- Environmental Benefits
- Operating Efficiencies
- Cost Effectiveness
- Transit Supportive Land Use Policies and Future Patterns

DISCUSSION

Questions/Comments?