



Route 146

CORRIDOR MANAGEMENT PLAN

April 23, 2024

Public Information Meeting #3

Branford Fire Headquarters
45 N. Main Street
Branford, CT 06405





Opening Remarks



Title VI – Your Civil Rights

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- Voluntary Post-Meeting Survey:

- <https://portal.ct.gov/ctdotsurvey>



- Civil Rights information:

- <https://portal.ct.gov/DOT/Business/Office-of-Equity/Title-VI-Page>

A recording of this presentation will be posted to YouTube after the event.

Closed captioning—including non-English translation options—will be available after the meeting.





Connecticut Department of Transportation

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- ◇ A complainant may file a complaint directly with the Federal Transit Administration by filing a complaint with the FTA Office of Civil Rights, Attention: Title VI Program Coordinator, East Building, 5th Floor-TCR, 1200 New Jersey Ave., SE, Washington, DC 20590
- ◇ A complainant may file a complaint directly with the Federal Highway Administration by filing a complaint with the FHWA Office of Civil Rights, Attention: Title VI Program Coordinator, 8th Floor E81-105, 1200 New Jersey Ave., SE, Washington, DC 20590

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अधिक जानकारी या निःशुल्क भाषा संबंधी सहायता के लिए कृपया (860) 594-2109 पर कॉल करें।

추가 정보가 필요하거나 무료 언어 지원이 필요하시면 (860) 594-2109로 전화하십시오

Để có thêm thông tin hoặc hỗ trợ ngôn ngữ miễn phí, vui lòng gọi (860) 594-2109



Public Information Meeting Agenda

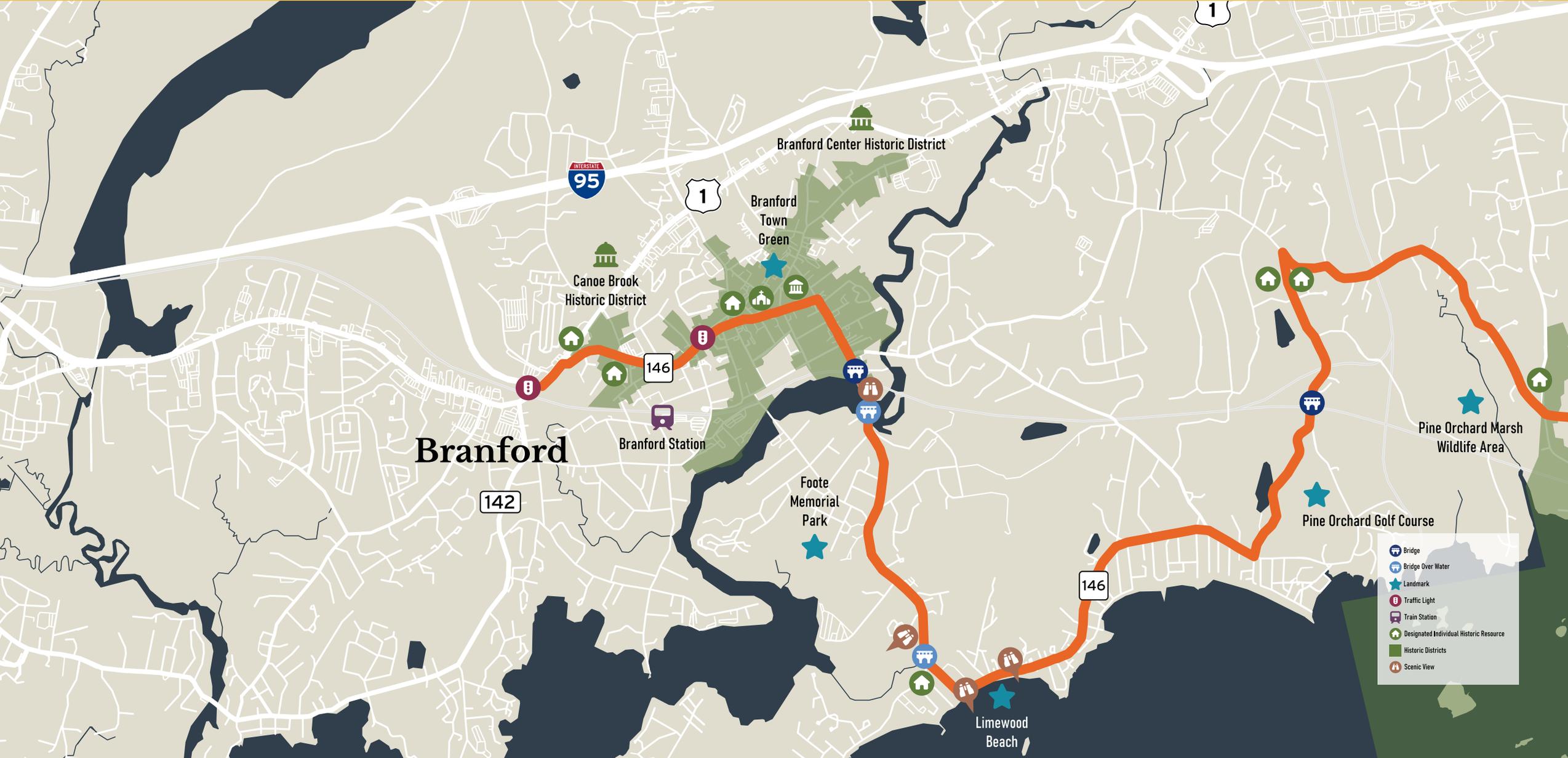


- Welcome and Introductions
 - Review CMP Purpose and Goals
 - Review of Progress Since Last Public Meeting
 - Results of Draft Strategies Public Survey
 - Finalized Strategies
 - Traffic Calming Overview
 - Final CMP Document Overview
 - Q&A
-
- Meeting is being video recorded by Branford Community TV for posting on the Plan website (<https://route146cmp.com/>)



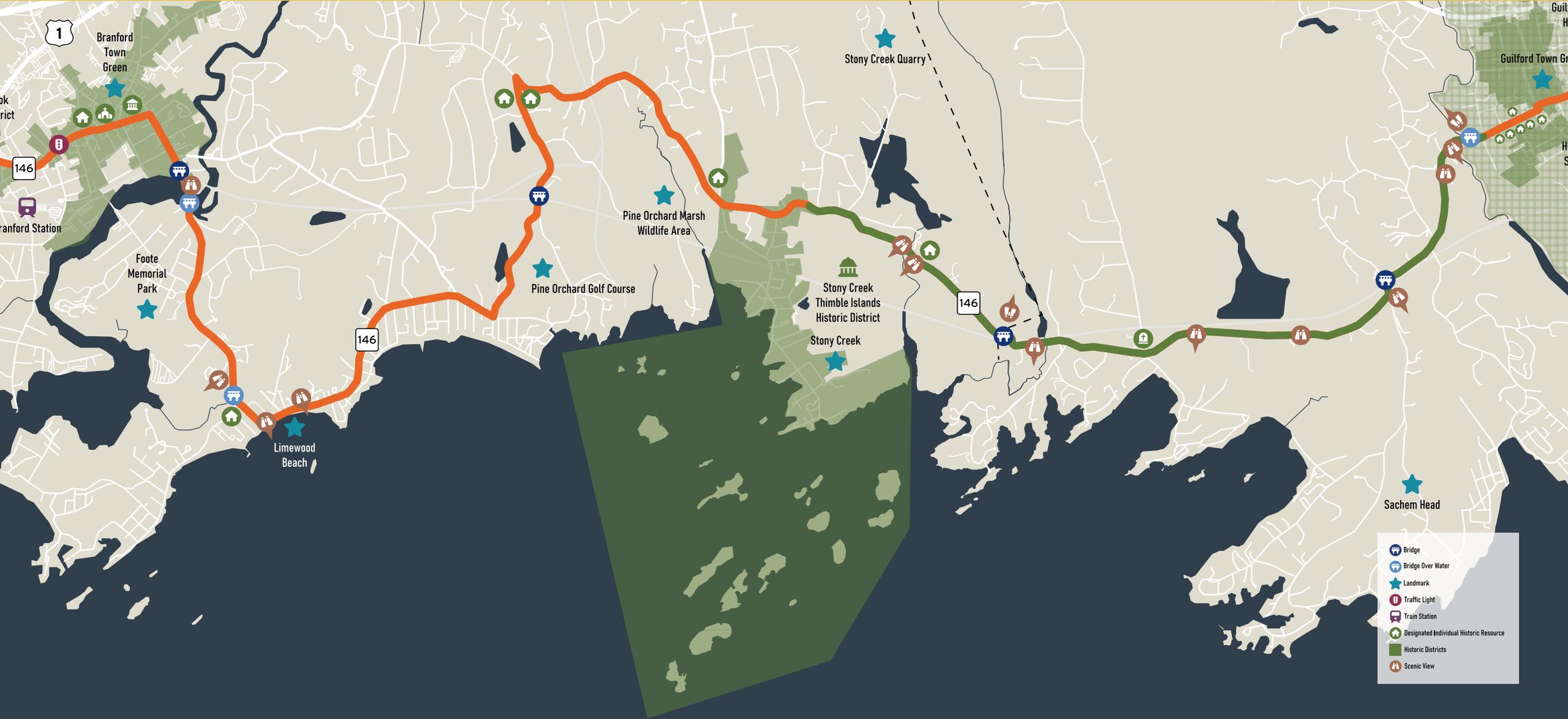
Corridor Management Plan Purpose and Goals





- Bridge
- Bridge Over Water
- Landmark
- Traffic Light
- Train Station
- Designated Individual Historic Resource
- Historic Districts
- Scenic View

Branford Center Historic District



- Bridge
- Bridge Over Water
- Landmark
- Traffic Light
- Train Station
- Designated Individual Historic Resource
- Historic Districts
- Scenic View



Route 146 Corridor Overview



- **Designated State Scenic Roadway for nearly All 13 miles, serving several National Register Historic Districts**
- **Unique and historic road connecting Branford and Guilford to coast of Long Island Sound; historic homes, wildlife habitats, tidal marshes, and scenic views**
- **Varying land uses—residential mostly in coastal section, with a rural character of roadway and undulating curves throughout**
- **Nominal 24’ wide, with limited shoulders in sections**
- **State-Designated Bike Route (western section only)**
- **Parallels/Crosses Amtrak High Speed Railroad and Private Rail**
 - 4 Railroad Under/Overpasses and 2 At-Grade Crossings
- **Recurring flooding issues along several sections of roadway**

Route 146 Corridor

What is a Corridor Management Plan?

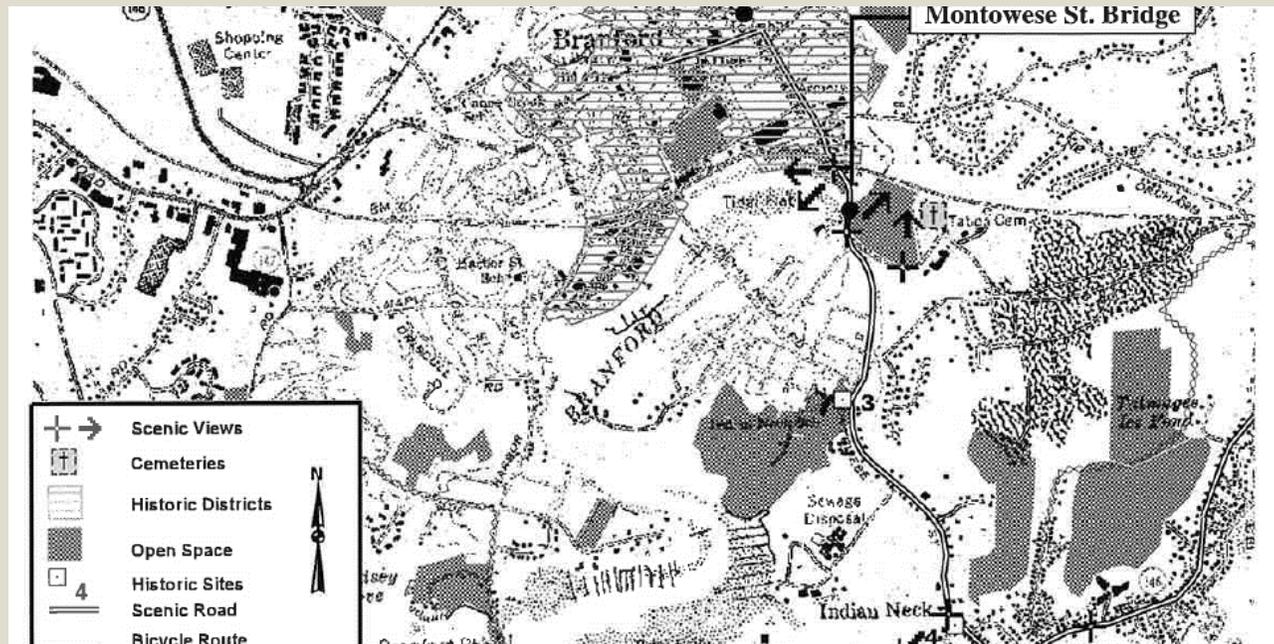
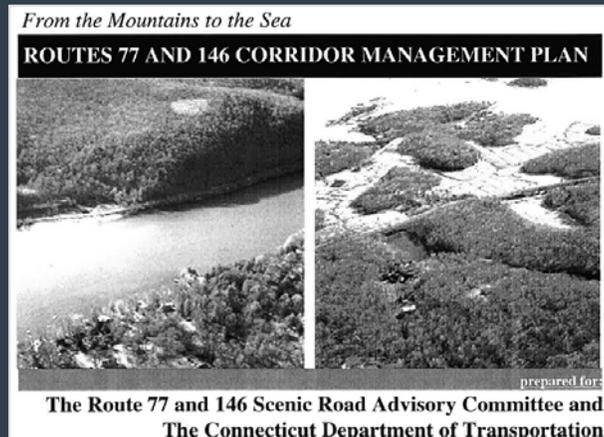


- **Different from a typical CTDOT Corridor Study**
- **Big picture planning-level document**
- **Land and community the road travels through**
- **Extensive community engagement**
- **Focuses on protecting the unique qualities – historic and environmental – that make the corridor special**
- **Helps guide possible future transportation improvements including for safety, maintenance, and climate resilience (sea level rise, flooding)**
- **Provides strategies for the future**

Route 146 Corridor

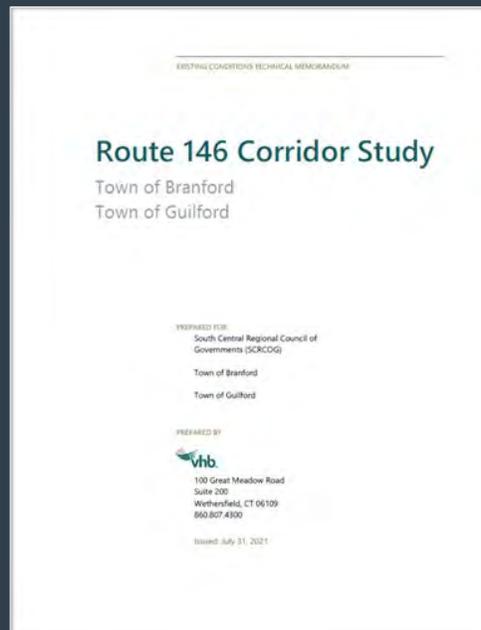
History of Corridor Management

- **Original 1996 Corridor Management Plan for Route 146 and 77**
 - Vision focused on Preservation
 - Landscapes, open spaces
 - Reduce impact of development
 - Lower traffic speeds
 - Improve bike/pedestrian access



Route 146 Corridor

How Did We Get to This CMP?



- **Recent Corridor Study**
 - Purpose: Evaluate existing conditions for roadway, amenities and land use, evaluate impacts of roadway flooding and sea level rise, traffic calming, future development, traffic volumes, historic and scenic impacts, evacuation routes and possible alternate scenarios.
 - Existing Conditions Report produced in 2021
- **A more comprehensive review of the corridor was requested due to its many historical, cultural and environmental resources**
- **CTDOT develops new Corridor Management Plan**



Route 146 Corridor Project Goals



**Increased
safety**



**Involve the
community**



**Protect natural and
cultural/historic
resources**



**Improve bike and
pedestrian access**



**Climate and sea
level preparedness**



**Preserve intrinsic
qualities**



**Maintain
infrastructure**



**Establish
working group**



**Balance needs
and requirements**

Project Progress Since November 2023



November 14, 2023 Public Meeting Overview



- **Presented draft CMP strategies**
- **Summary of Public Comments:**
 - Almost half about bicycle/pedestrian concerns - need for sidewalks, protection and separation of bicyclists/pedestrians
 - Slowing down traffic to protect bicyclists/pedestrians
 - Suggested use of speed cameras
 - Speeds impacting intersection safety
 - Narrowing travel lanes
 - Addressing and designing for increased flooding
 - Need to increase size of drainage pipes
 - Protecting historic roadway while improving safety & resilience
 - Prioritization of CMP recommendations & speed of implementation
 - Reduce truck traffic

Draft CMP Strategies

Public Survey and Responses



- **Public Survey on Draft CMP Strategies released in mid-December, closed on February 16**
- **High-level overview of draft strategies with links to read about strategies in more depth**
- **Opportunities to provide targeted feedback on each strategy area and suggest additional strategies**
- **228 responders to survey**
- **Significant amount of data – opened-ended comments on each strategy area**
 - Resulted in about 825 comments
- **Overall: support of strategies, encourage doing something sooner than later**
- **Bicycle and Pedestrian Access and Safety received the most comments**

Corridor Working Group Meetings

January and February

Route 146 Corridor Management Plan (CMP) Corridor Working Group Meeting Agenda

- Welcome
- November Public Meeting Recap and Feedback
- Draft CMP Strategies Public Survey Responses
- Review Strategy Timeframes: Short-Term and Long-Term
- Next Steps for Plan and Public Engagement

- **Reviewed public engagement**
- **Analyzed comments from Draft Strategies Public Survey**
- **Refined Strategies based on further discussion and public comments**
- **CMP Document Outline**

Finalized CMP Strategies



CMP Strategies Finalization

**Met with Corridor Working
Group to Review Comments**

**Discussed possible new
strategies and changes to
strategies**

**Finalized list of strategies
for the CMP**



Strategies Document Revisions



- **Significant updates to Speed Management theme**
 - More speed limit information
 - More detailed Traffic calming discussion
 - Updated speed camera enforcement text, areas of persist speeding from Existing Conditions
- **Added intersection locations called out from public comment; Guilford Green Traffic Study**
- **Minor updates to Bike/Ped and Maintenance Enhancements**
- **Added two new strategies to Env. and Historic Preservation**
 - G.3 Enhance intrinsic qualities
 - G.4 Collaborate to preserve key open spaces

Final CMP Strategies

A. Flooding



- **A.1: Review flooding area locations for site-specific context to determine most appropriate flood mitigation improvements**
- **A.2: Review evacuation route strategy to find safe routes to avoid flooded areas, such as developing more north/south access to Route 1 or designating other existing roads to be evacuation routes**
 - Better communication of when flooding occurs and how to avoid it
- **A.3: Identify issues at water bridges and culverts to understand local flooding and review need for raised bridges, larger culverts, etc**
- **A.4: Railroad underpass strategies that are unique to these bridges:**
 - A.4.1: Evaluate the current state of the underpasses – how old the bridges are, are they in a state of good repair, when may they be replaced – to determine timeline for potential changes/improvements
 - A.4.2: Work with Amtrak on long-term solution to low clearance/narrow bridges and flood problems

Final CMP Strategies

B. Bicycle and Pedestrian Access and Safety



- **B.1: Review connectivity along the road for walking and biking to improve overall access for bicyclists and pedestrians**
- **B.2: Review alternative routes for bicyclists and pedestrians in the most constrained sections for access**
- **B.3: Reduce vehicle speeds to improve bike and pedestrian safety**
- **B.4: Review pavement/shoulder space available along the road to provide space for biking and walking, especially in constrained areas**
- **B.5: Evaluate railroad underpasses for bicycle/pedestrian improvements and access**

Final CMP Strategies

C. Speed Management



- **C.1: Work with the Local Traffic Authority (LTA) on speed limit revisions to submit to the Office of State Traffic Administration (OSTA)**
- **C.2: Review applicability of traffic calming devices in areas of concern using the Federal Highway Administration (FHWA) traffic calming toolbox**
- **C.3: Review applicability of recent legislation allowing for automated speed enforcement**
- **In addition, added information on existing speed limits, traffic calming, and police speed enforcement**

Final CMP Strategies

D. Roadside Safety



- **D.1: Review alternatives to standard CTDOT guiderail (W-beam barrier protection) that can be considered. These include:**
 - D.1.1: Box Beam Rail
 - D.1.2: Cable guiderail with steel posts
 - D.1.3: Other alternative guiderail products as they become available in the future
- **D.2: Consider development of a roadway-specific guiderail detail for Route 146**

Final CMP Strategies

E. Intersection Safety



- **E.1: Review intersection sightlines, crossing distances, origins and destinations of bicycle/pedestrian travel at key intersections, and other operational or safety issues at intersections of concern**
- **Added list of specific intersection locations of concern identified in public comment**

Final CMP Strategies

F. Maintenance Enhancements



- **F.1: Confirm right-of-way boundary lines for the entire corridor to determine the extent of CTDOT property for maintenance and other potential projects**
- **F.2: Review potential for maintenance enhancements for mowing, plant management, sweeping shoulders, and other mitigation that could be included in special projects**
- **F.3: Review maintaining historical and unique environmental elements along the roadway, including stone walls, rock outcroppings, ledge, and other historic walls**
- **F.4: Review maintaining mature trees along the roadway within the right-of-way to keep the wooded feel of the road**
- **F.5: Review potential for improved invasive plant management with DEEP**

Final CMP Strategies

G. Environmental and Historic Preservation



- **G.1: The Towns of Branford and Guilford may want to consider enhancing zoning overlays or other land use regulations to further protect the Route 146 roadway from development that is out-of-character with the scenic road**
- **G.2: Encourage revitalization of the local Scenic Roads Advisory Committee in Branford and Guilford**
- **G.3: Enhance intrinsic qualities of the roadway, including expanding its attractiveness and increasing awareness of it as a scenic highway**
- **G.4: Collaborate with CT DEEP, Towns of Guilford and Branford, and Guilford and Branford Land Conservation Trusts to preserve key open spaces along Route 146**



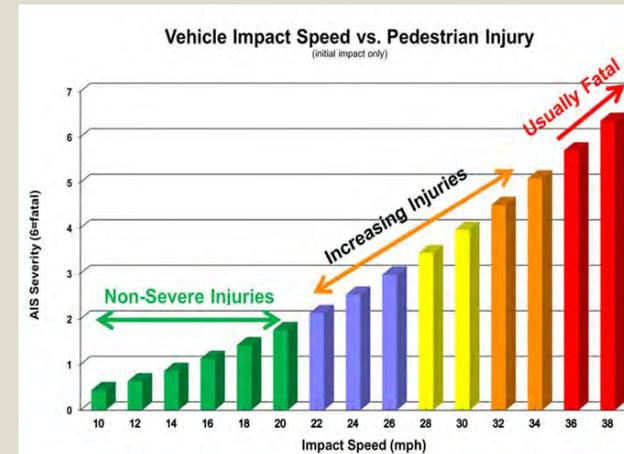
Traffic Calming Overview



Traffic Calming

Overview

- **FHWA Traffic Calming ePrimer Definition:**
 - To support the livability and vitality of residential and commercial areas through improvements in non-motorist safety, mobility, and comfort. These objectives are typically achieved by reducing vehicle speeds or volumes on a single street or a street network. Traffic calming measures consist of horizontal, vertical, lane narrowing, roadside, and other features that use self-enforcing physical or psycho-perception means to produce desired effects.
 - <https://highways.dot.gov/safety/speed-management/traffic-calming-eprimer/module-2-traffic-calming-basics>



FHWA Traffic Calming ePrimer
Figure 2.1. Speed/Pedestrian Injury Severity Correlation
(Source: C. E. "Rick" Chellman)

Traffic Calming Measures

Institute of Transportation Engineers (ITE)

- **Reduce speed and enhance the street environment for non-motorists**
 - Vertical deflections
 - Horizontal shifts
 - Roadway narrowing
 - Reduce cut-through traffic by obstructing traffic movements in one or more directions
 - Closures (Primarily on local roads)
 - Diagonal diverters
 - Half/full closures
 - Median barriers
 - <https://www.ite.org/technical-resources/traffic-calming/traffic-calming-measures/>

Traffic Calming Toolbox



Example of chicane

Source: (Source: Figure 3.5.3., FHWA Traffic Calming Primer)

- **Module 3: Toolbox of Individual Traffic Calming Measures Part 1**
 - Lateral Shift
 - Chicane
 - Realigned Intersection
 - Small Modern Roundabout and
 - Mini-Roundabout (Not Traffic Circle)

Traffic Calming Toolbox



**1st Raised
Crosswalk on State
Highway Townsend
Ave (Route 337) at
Nathan Hale
Elementary School**
Source: Fox 61 News

- **Module 3: Toolbox of Individual Traffic Calming Measures Part 2**
 - Roundabout – Single Lane
 - Speed Hump – Permanent/Temporary
 - Speed Table/Offset Speed Table
 - Raised Crosswalk
 - Raised Intersection
 - Corner Extension/Bulbout
 - Choker

Traffic Calming Toolbox



Median Island/
On-Street Parking
Boston Post Road
(US Route 1)
Madison

Source: Nearmap
2014/2023

- **Module 3: Toolbox of Individual Traffic Calming Measures Part 3**
 - Median Island
 - On-Street Parking
 - Road Diet
- **Primarily for local roads**
 - Diagonal Diverter
 - Full Closure/Half Closure
 - Median Barrier and Forced Turn Island

Final CMP Document Overview

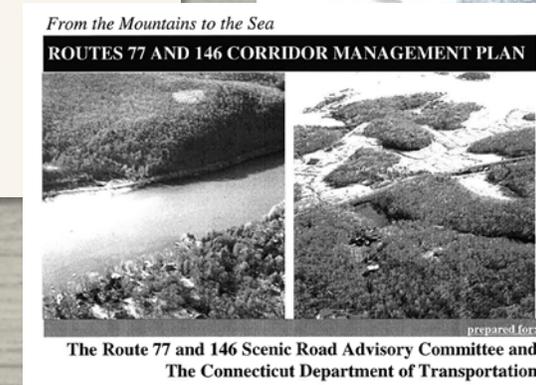


Route 146 CMP Document

Visually appealing,
accessible

Corridor Management Plan
document examples

Draft document in
May/June



Route 146 CMP Document

Proposed CMP
Components



- **Statement of Purpose and Need**
- **Executive Summary**
- **Introduction**
 - Overview of Intrinsic Qualities
 - Scenic Road Designation
 - Recent History
- **Existing Conditions Update**
- **Assessment of Intrinsic Qualities**
 - Review of intrinsic qualities, review different road segments and land uses, viewsheds, historic properties
- **Coastal Flooding and Resiliency Assessment**

Route 146 CMP Document

Proposed CMP
Components



- **Strategic Framework**
 - Strategy Themes and Details
 - 20-year plan – Short-Term and Long-Term Strategies
- **Community Outreach Summary**
 - Corridor Working Group
 - Public Meetings
 - Stakeholder Meetings
 - Public Survey
 - Plan Website
- **Appendices – Technical Information**

Next Steps

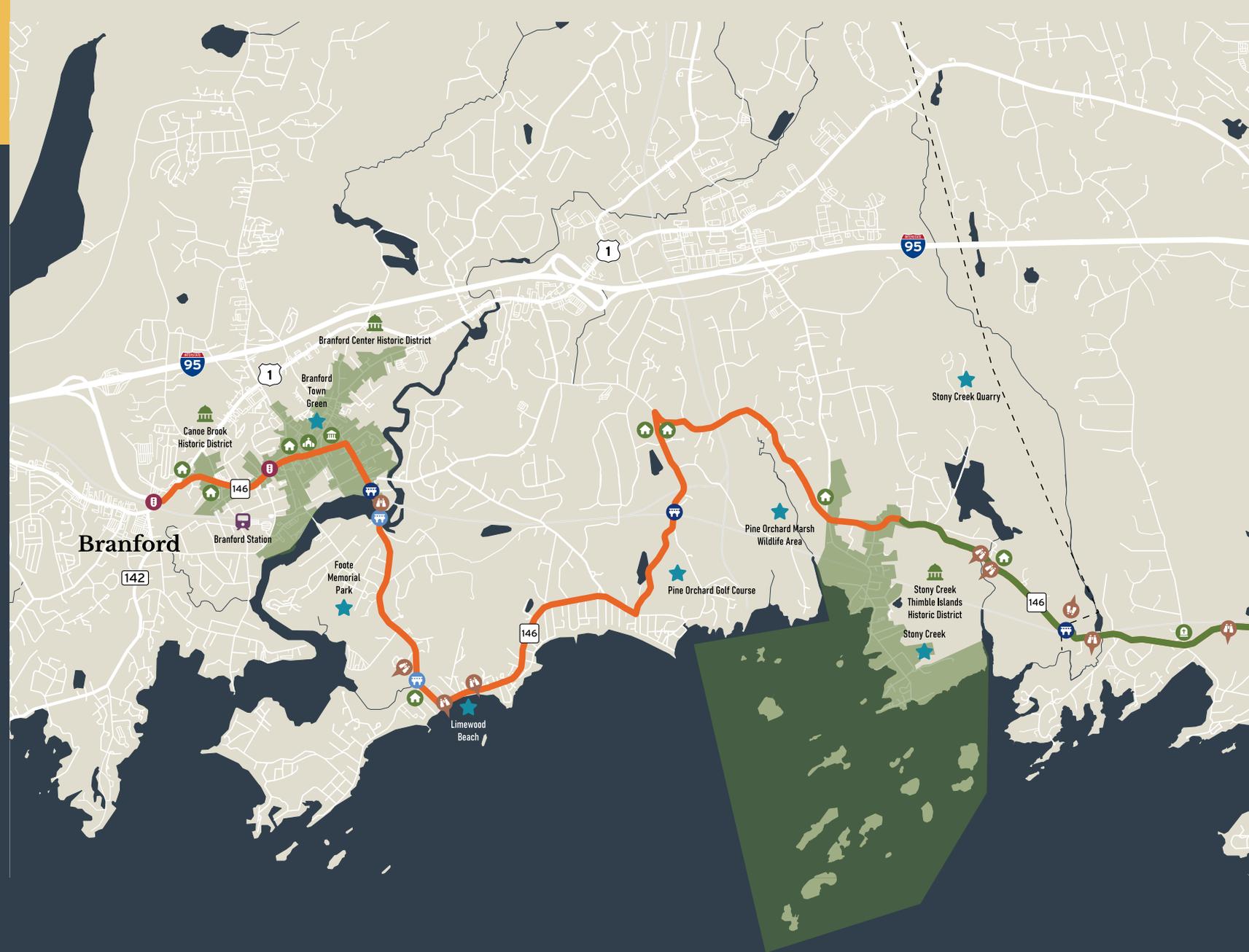
Draft of Corridor Management Plan Document

May/June Printing/Website

- 45-Day Public Comment Period

Finalize Per Public and Agency Comments

Publish Late Summer



Next Steps

Draft of Corridor Management Plan Document

May/June Printing/Website

- 45-Day Public Comment Period

Finalize Per Public and Agency Comments

Publish Late Summer





Q&A



Route 146 CMP Feedback

- Study website (<https://route146cmp.com/>)
 - Google/Bing Route 146 CMP
- Project e-mail: DOT.Route146@ct.gov
- Written comment forms
- Public input format TODAY
 - Come to podium, give name, affiliation (if any) and question/comment
 - We can also bring a microphone to the audience
 - Be sure to speak to microphone for recording purposes



Route 146 CMP Meeting Close-Out

Thank you Branford TV for
recording this meeting!



- Study website: <https://route146cmp.com/>
- Project Email: DOT.Route146@ct.gov
- Written Comment Forms

THANK YOU!

