

Title VI Program

Connecticut Department of Transportation (CTDOT)

Submitted: December 18, 2015

Prepared by: Connecticut Department of Transportation

2800 Berlin Turnpike

Newington, CT 06111

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Commisioner Redeker Title VI Policy Approval Letter



STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
2800 BERLIN TURNPIKE, P.O. BOX 317546
NEWINGTON, CONNECTICUT 06131-7546



Office of the
Commissioner

An Equal Opportunity Employer

December 18, 2015

Ms. Margaret Griffin, Civil Rights Officer
U.S. Department of Transportation
Federal Transit Administration – Region 1
Volpe Center
55 Broadway, Suite 920
Cambridge, MA 02142-1093

Dear Ms. Griffin:

Subject: Title VI Program
Vendor ID: 1334, Connecticut Department of Transportation (Department)

The Department has updated the Title VI Program in conjunction with the Circular Requirements outlined in the Federal Transit Administration (FTA) C 4702.1B.

The Title VI Program received my review, approval and commitment ensuring full compliance with all Title VI Regulatory Requirements, and I have made this a priority for the Department. We respectfully await FTA's approval of the Department's Title VI Program.

Sincerely,

A handwritten signature in cursive script that reads "James Redeker".

James Redeker
Commissioner

Introduction

The Connecticut Department of Transportation (CTDOT) is a designated recipient for Federal Transit Administration (FTA) Funding. The Department is responsible for service and planning decisions for rail, fixed-route bus, and complementary paratransit service in urbanized areas of the State.

The Governor has designated the Department as the agency responsible for administering Sections 5307, 5310, 5311, 5316 and 5317 programs.

Rails

The Department subsidizes the New Haven Line (NHL) and Shore Line East (SLE) commuter rail services. Connecticut's rail systems consist of 628.5 miles of active rail segments. The commuter rail services in Connecticut consist of the New Haven Line (between New Haven and Grand Central Terminal) and the Shore Line East service (between New Haven and New London with some connecting service to the New Haven Line). The Department owns these services. Metro-North Railroad (MNR) and Amtrak respectively, operate the services under contract with the Department.

Amtrak operates Intercity Passenger Rail Service in Connecticut with stops at the New London, Old Saybrook, Mystic, New Haven, Stamford, and Bridgeport stations.

There are numerous freight railroads; ranging from a large Class 1 railroad, to shorter regional and local railroads. Valley Railroad and Naugatuck Railroad provide excursion passenger service oriented to serve tourists.

Bus

The state-owned bus services consist of eight divisions serving different areas of the state and are labeled as Connecticut Transit (CTtransit) and CTfastrak. In all divisions, the bus fleets are state-owned and the services are subject to state control. The Divisions are as follows:

CTtransit Hartford Division operates over 49 local and 12 express bus routes and CTfastrak, a bus rapid transit service in central Connecticut. Routes operate 7 days a week, serving 28 towns in the Greater Hartford and New Britain Regions. CTtransit's Hartford Division makes connections with Middletown Area Transit, and CTtransit New Britain Division. Capital Region. CTtransit's Hartford Division makes connections with Middletown Area Transit, and the CTtransit New Britain division. CTfastrak also makes connections with the CTtransit Waterbury Division.

CTtransit New Haven Division operates 7 days a week over 19 local routes, connecting with other state-owned or subsidized bus services in Meriden, Wallingford, Milford, and the lower Naugatuck Valley areas, as well as with the New Haven Line and Shore Line East rail services.

Stamford Division operates 18 local bus routes 7 days a week. CTtransit Stamford buses connect with other state-subsidized services in Norwalk, with the New Haven Line in several locations, the Harlem Line on Metro-North Railroad, and with Bee-Line buses in Westchester County New York. The Stamford

Division also operates the I-BUS, an express service between downtown Stamford and White Plains, New York.

CTtransit Waterbury Division

The *Waterbury Division* operates 21 local bus routes and ADA paratransit services in the Waterbury area through a contract with the Northeast Transportation Company. Fixed route and paratransit bus service is provided to Waterbury, Watertown, Middlebury, Wolcott, Prospect and Naugatuck Monday through Saturday.

CTtransit New Britain Division and Bristol Division

The New Britain Transportation Company (NBT) operates 12 bus routes in Berlin, New Britain, Cromwell, Newington, Plainville, Bristol and Meriden. Fixed route service operates Monday through Saturday. DATTCO operates fixed route service in New Britain on the East Street and South Street routes. Complementary ADA service is operated by DATTCO, Inc and administered by Central Connecticut Regional Planning Agency (CCRPA).

CTtransit Meriden Division and Wallingford Division

The Meriden and Wallingford Divisions operate fixed route services in their respective areas through a contract with Northeast Transportation Company, with four (4) local routes. Complementary ADA services are also operated by Northeast Transportation Company. Section 5311 Rural service is provided by five transit districts.

The CTDOT is the recipient for rural 5311 funds and oversees these operators who are subrecipients of 5311 funds.

Estuary Transit District d.b.a. 9 Town Transit (www.9towntransit.com)

The Estuary Transit District serves Chester, Clinton, Deep River, Durham, Essex, East Haddam, Haddam, Killingworth, Lyme, Old Lyme, Old Saybrook and Westbrook. The district provides demand response and flexible fixed route services throughout the region with its 9 Town Transit bus services. Connections are made in Madison, Middletown and New London to neighboring bus services.

Middletown Transit District (MAT) (www.middletownareatransit.org)

The Middletown Transit District operates rural fixed route service as well as senior/disabled paratransit services in five (5) towns including Portland, East Hampton, Cromwell, Durham and Middletown. Service operates six (6) days a week, Monday through Saturday.

Northeastern Connecticut Transit District (www.nectd.org)

The District provides service through routes in Brooklyn, Killingly, Putnam, and Thompson. Bus service operates Monday through Friday, between approximately 8a.m. and 6p.m.

Northwestern Connecticut Transit District (www.nwcttransit.com)

Provides service in Torrington, Harwinton, Winchester, Litchfield, Morris, Kent, Sharon, Falls Village, Colebrook, Goshen, Salisbury, Norfolk, New Hartford, Cornwall, Canaan, and Barkhamstead. Service

operates over five (5) fixed routes Monday through Friday and on one (1) route Saturdays. Paratransit service for all towns, seniors ride for a suggested donation.

Windham Region Transit District (WRTD) (www.wrtd.net)

Operates fixed route rural bus service in Mansfield and Windham Monday through Saturday, and demand-response service in Ashford, Chaplin, Columbia, Coventry, Hampton, Lebanon, Mansfield, Scotland, Willington, and Windham. Complementary ADA paratransit service throughout 10 towns is contracted.

General Requirements and Guidelines

The information contained in this report is the Connecticut Department of Transportation's (Department) Title VI Program for the period of January 1, 2011 – December 31, 2013. The Department is scheduled to submit its next program by April 1, 2017. The Title VI Plan has been prepared in compliance with requirements set forth in U.S. Department of Transportation Federal Transit Administration (FTA) Circular 4702.1B of October 1, 2012, "Title VI Requirements and Guidelines for Federal Transit Administration Recipients." This program was adopted on December 18, 2014 with the approval of Commissioner James P. Redeker, as evidenced in the Connecticut Department of Transportation's Title VI Policy Statement ([see Attachment 1](#))

The Department will effectuate and ensure full compliance with the provisions of Title VI of the Civil Rights Act of 1964, as amended (referred to as Title VI), 49 CFR Part 21, and 23 CFR Part 200, and related statutes and regulations in all Department programs and activities.

The document was developed by the CTDOT Title VI Workgroup. The group's membership consists of agency personnel from Public Transportation, Policy and Planning, Finance and Administration, the Department's Title VI Coordinator, and the Department's Associate Title VI Coordinator.

Title VI Assurances

FTA FISCAL YEAR 2013 CERTIFICATIONS AND ASSURANCES

FEDERAL FISCAL YEAR 2013 FTA CERTIFICATIONS AND ASSURANCES SIGNATURE PAGE (Required of all Applicants for FTA funding and all FTA Grantees with an active Capital or Formula Project)

AFFIRMATION OF APPLICANT

Name of Applicant: Connecticut Department of Transportation

Name and Relationship of Authorized Representative: James Redeker, Commissioner

BY SIGNING BELOW, on behalf of the Applicant, I declare that the Applicant has duly authorized me to make these Certifications and Assurances and bind the Applicant's compliance. Thus, the Applicant agrees to comply with all Federal statutes and regulations, and follow applicable Federal guidance, and comply with the Certifications and Assurances as indicated on the foregoing page applicable to each application its authorized representative makes to the Federal Transit Administration (FTA) in Federal Fiscal Year 2013, irrespective of whether the individual that acted on its Applicant's behalf continues to represent the Applicant.

FTA intends that the Certifications and Assurances the Applicant selects on the other side of this document should apply, as provided, to each Project for which the Applicant seeks now, or may later seek FTA funding during Federal Fiscal Year 2013.

The Applicant affirms the truthfulness and accuracy of the Certifications and Assurances it has selected in the statements submitted with this document and any other submission made to FTA, and acknowledges that the Program Fraud Civil Remedies Act of 1986, 31 U.S.C. 3801 *et seq.*, and implementing U.S. DOT regulations, "Program Fraud Civil Remedies," 49 CFR part 31, apply to any certification, assurance or submission made to FTA. The criminal provisions of 18 U.S.C. 1001 apply to any certification, assurance, or submission made in connection with a Federal public transportation program authorized by 49 U.S.C. chapter 53 or any other statute

In signing this document, I declare under penalties of perjury that the foregoing Certifications and Assurances, and any other statements made by me on behalf of the Applicant are true and accurate.

Signature James Redeker Date: 2/14/13

Name James Redeker, Commissioner

Authorized Representative of Applicant

AFFIRMATION OF APPLICANT'S ATTORNEY

For (Name of Applicant): Connecticut Department of Transportation

As the undersigned Attorney for the above named Applicant, I hereby affirm to the Applicant that it has authority under State, local, or tribal government law, as applicable, to make and comply with the Certifications and Assurances as indicated on the foregoing pages. I further affirm that, in my opinion, the Certifications and Assurances have been legally made and constitute legal and binding obligations on the Applicant.

I further affirm to the Applicant that, to the best of my knowledge, there is no legislation or litigation pending or imminent that might adversely affect the validity of these Certifications and Assurances, or of the performance of its FTA Project or Projects.

Signature Nancy Arnold Date: 2/14/13

Name Nancy Arnold, Assistant Attorney General

Attorney for Applicant

Each Applicant for FTA funding and each FTA Grantee with an active Capital or Formula Project must provide an Affirmation of Applicant's Attorney pertaining to the Applicant's legal capacity. The Applicant may enter its signature in lieu of the Attorney's signature, provided the Applicant has on file this Affirmation, signed by the attorney and dated this Federal fiscal year.

FTA FISCAL YEAR 2013 CERTIFICATIONS AND ASSURANCES
FEDERAL FISCAL YEAR 2013 CERTIFICATIONS AND ASSURANCES FOR FEDERAL TRANSIT
ADMINISTRATION ASSISTANCE PROGRAMS

(Signature page alternative to providing Certifications and Assurances in TEAM-Web)

Name of Applicant: Connecticut Department of Transportation

The Applicant agrees to comply with applicable provisions of Groups 01 – 24. X
 OR

	Description	
The Applicant agrees to comply with applicable provisions of the Groups it has selected: Group		
01.	Required Certifications and Assurances for Each Applicant.	_____
02.	Lobbying.	_____
03.	Private Sector Protections.	_____
04.	Procurement and Procurement System.	_____
05.	Rolling Stock Reviews and Bus Testing.	_____
06.	Demand Responsive Service.	_____
07.	Intelligent Transportation Systems.	_____
08.	Interest and Finance Costs and Leasing Costs.	_____
09.	Transit Asset Management and Agency Safety Plans.	_____
10.	Alcohol and Controlled Substances Testing.	_____
11.	Fixed Guideway Capital Investment Program (New Starts, Small Starts, and Core Capacity) and Capital Investment Program in Effect before MAP-21.	_____
12.	State of Good Repair Program.	_____
13.	Fixed Guideway Modernization Grant Program.	_____
14.	Bus/Bus Facilities Programs.	_____
15.	Urbanized Area Formula Programs and Job Access and Reverse Commute (JARC) Program.	_____
16.	Seniors/Elderly/Individuals with Disabilities Programs and New Freedom Program.	_____
17.	Rural/Other Than Urbanized Areas/Appalachian Development/Over-the-Road Bus Accessibility Programs.	_____
18.	Public Transportation on Indian Reservations and Tribal Transit Programs.	_____
19.	Low or No Emission/Clean Fuels Grant Programs.	_____
20.	Paul S Sarbanes Transit in Parks Program.	_____
21.	State Safety Oversight Program.	_____
22.	Public Transportation Emergency Relief Program.	_____
23.	Expedited Project Delivery Pilot Program.	_____
24.	Infrastructure Finance Programs.	_____

Notifying Beneficiaries of Protection under Title VI

The Department operates its programs and activities without regard to race, color and national origin. The Department provides notification to beneficiaries of their rights under Title VI and the procedures to follow when filing a Title VI complaint. The Department disseminates this information on the Department's website; postings in public waiting areas, buses and rail stations; and other areas that are easily accessible to the public. This information is also made available at public meetings and hearings. The Title VI Policy, Brochure, and Complaint Form documents have been translated into Spanish and posted on the website.

To access the Title VI information on the Department's website, click on the link [Title VI and External Civil Rights Programs](#). The Department's Title VI webpage includes the following documents.

Connecticut Department of Transportation Title VI Policy Statement – This policy states that the Department prohibits discrimination on the basis of race, color or national origin in its programs, benefits and activities. Information identifying who has been delegated the responsibility of implementing and monitoring the Department's Title VI program is also provided in the Policy Statement. This document is signed by the Commissioner. This document is posted on the Department's website, distributed at public meetings and hearings, and posted on CTDOT bulletin boards. The Department will periodically check to ensure that postings are current and still intact.

Title VI Brochure (Notifying Beneficiaries of Protection Under Title VI) – This document states the Department's commitment and responsibility to prohibit discrimination on the basis of race, color and national origin in its programs, activities, services and benefits under Title VI. The document also provides information on how to request additional information about the Department's obligations under Title VI and how to file a discrimination complaint. The Brochure provides an overview of Title VI and the Department's responsibilities under Title VI. The brochure spells out the protections under Title VI and describes how to file a discrimination complaint. The document is posted on the CTDOT website and is distributed at meetings, hearings, and outreach events.

Notice to the Public - In order to ensure the public is aware of CTDOT's commitment to Title VI compliance, CTDOT distributes Public Notices through the following areas:

- CTDOT Bulletin Boards
- Rail stations
- Bus stations
- Public Meetings/Hearings
- CTDOT Website
- CBO Mailing List
- Paid Advertisements
- Radio Announcements
- Transit Vehicles

Your Rights Under Title VI - Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving Federal financial assistance. Specifically, Title VI provides that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." (42 U.S.C. Section 2000d)

Who may file a Title VI complaint? - A complaint may be filed by any individual or group that believes they have been subjected to discrimination or retaliation based on their race color or national origin. The complaint may be filed by the affected party or a representative and must be reduced to writing.

How can I file a discrimination complaint? - The Connecticut Department of Transportation is responsible for reviews of complaints of discrimination based on race, color or national origin. If you would like more information about CTDOT's responsibilities under Title VI, or if you believe that the Department or one of its subrecipients has discriminated against you or others protected by Title VI, you may file a complaint with us. Complaints filed with CTDOT should be directed to:

Debra Goss, Title VI Coordinator, CT Department of Transportation 2800 Berlin Turnpike, Newington, CT 06131-7546,
Tel: (860)594-2169

(You may also request information on how to file a complaint directly to the appropriate federal transportation agency)

Title VI Complaint Investigation Process and Procedure

What is an Investigation: An investigation is an official inquiry for the purpose of determining whether there has been a violation of the laws or statutes and includes a determination of appropriate relief where a violation has been found. An investigation requires an objective gathering and analysis of the evidence, which will ensure that the final decision is as accurate as possible.

Role of the Investigator: The investigator is a neutral party provided by the agency to conduct an investigation of the issues raised in a complaint. The investigator's behavior, demeanor, and attitude reflect the agency and may affect the degree of cooperation received from the parties. The investigator has an obligation to identify and obtain relevant evidence from all available sources in order to resolve all of the issues under investigation. ***The investigator is not an advocate for the complainant or the respondent.*** The investigator is a neutral fact finder.

Responsibilities of the Investigator:

The Investigator MUST:

- Never express his/her opinions;
- Never tell the parties that the complaint represents a good case or that the complaint is frivolous;
- Always remain NEUTRAL. DO NOT take sides;
- Write the FACTS. State what the facts are based upon the evidence or testimony;
- Stay in control at all levels of the process;

- Decide who is to be interviewed. If the Complainant or the Respondent is adamant about a witness interview, perform the interview;
- Decide when sufficient evidence has been gathered to begin writing the investigative report;
- Always remain professional and polite;
- Be patient; and
- Be a good listener.

Theories of Discrimination: A Theory of Discrimination refers to the type of discrimination:

- INTENTIONAL DISCRIMINATION/DISPARATE TREATMENT – The decision maker was aware of the complainant’s race, color, national origin, sex, age, or disability and acted at least in part because of that information. The action was taken because of the complainant’s race, color, national origin, sex, age, or disability;
- DISPARATE/ADVERSE IMPACT – Discrimination which occurs when a neutral policy or procedure has a disproportionate impact on a protected class. The practice, even though applied equally to all, has the effect of excluding or otherwise adversely affecting a particular group; and
- RETALIATION – Discrimination against persons because of the filing of a complaint, participation in an investigation, or opposing a practice made unlawful pursuant to the laws.

Elements of Proof: How does the investigator prove discrimination?

- Establish a Prima Facie Case – The complainant has the responsibility of initially establishing a prima facie case of discrimination. A prima facie case means the complainant has provided information containing all of the elements necessary for a complaint of discrimination. Establishing a prima facie case requires the following elements:
 1. Complainant is a member of a protected group;
 2. Complainant was harmed by some decision; and
 3. Similarly situated persons of a different group were not or would not have been harmed under similar circumstances.

These elements constitute an ideal complaint of discrimination and establish a prima facie case. However, in many situations, the Investigator will not initially have all of these elements. It is the Investigator’s responsibility to obtain from the complainant all missing information.

- During the investigation – One of the first items that must be determined by the Investigator from the Respondent, are the reasons for the Respondent’s actions against the Complainant. In other words, establish the Respondent’s legitimate non-discriminatory reasons for the actions taken against the Complainant. The Investigator must also obtain evidence to determine whether the Respondent’s reasons are true based upon the evidence or whether the reasons are an excuse (pretext) to discriminate against the Complainant.
- Obtaining the evidence -- During the investigation, the Investigator should obtain the following types of evidence:
 - Respondent’s policies and procedures;
 - Evidence establishing actions taken against the Complainant;
 - Evidence establishing how others, not in the Complainant’s group, were treated in similar situations;

- Evidence establishing the normal policies and procedures and how the Respondent followed or did not follow the normal policies and procedures when making the decision or taking action involving the Complainant;
- Evidence establishing whether the Respondent followed the normal policies and procedures for similarly situated persons; and
- A position statement from the Respondent outlining the reasons for the action taken against the Complainant.

Examples of Elements of Proof:

Intentional Discrimination –

- Complainant is a member of a protected group;
- Complainant was excluded from participation in or denied the benefits of a program or activity receiving federal financial assistance;
- Complainant was rejected despite his/her eligibility;
- Respondent selected applicants whose race, color, national origin, sex, age, or disability were different from the Complainant; or
- The Program remained open and the Respondent continued to accept applications from applicants of a different race, color, national origin, sex, age, or disability than the Complainant.

Disparate/Adverse Impact –

- Respondent has a facially neutral policy or practice that has affected the Complainant;
- The policy or practice operates to disproportionately exclude members of the protected group;
- The policy or practice is a business necessity; or
- There is an effective business alternative with a less adverse impact.

Retaliation –

- Complainant opposed any policy or practice made unlawful or participated in any manner in an activity pursuant to the laws prohibiting discrimination;
The individual who allegedly retaliated against Complainant knew or should have known of the opposition or participation;
- An adverse action was taken against the Complainant subsequent to the protected activity;
- There was a ***causal connection** between the opposition or participation and the decision made involving the Complainant;
- There was a legitimate non-discriminatory reason for the action taken; or
- The articulated reason is a pretext for retaliatory discrimination.

**Causal Connection:* To establish a causal connection, establish the following:

- Did the treatment of the Complainant change after the protected activity;
- Time line: How long after the initial protest did the adverse action occur; and
- Compare the Complainant's treatment with others who were not engaged in the protected activity.

Tracking and Investigating Title VI Complaints - All Title VI complaints will be filed in accordance with the following Title VI Complaint Procedures:

Any person alleging to be aggrieved by a discriminatory practice may in person or through a legal representative, obtain a Title VI Complaint Reporting Form, and file the completed form with the Title VI Coordinator or Bureau Head within 180 days following the date of the alleged discriminatory action or the date when the person(s) became aware of the alleged discriminatory action. The Title VI Coordinator or Bureau Head may complete the Complaint Reporting Form and attach the Complainant's letter.

All complaints will be referred to the Department's Title VI Coordinator. The Title VI Coordinator will review the complaint and inform the appropriate program area designee. Complaints must be in writing, signed by the Complainant or a representative, and include the Complainant's name, address, and telephone number, or other means by which the Complainant may be contacted. Complaints shall explain as fully as possible the facts and circumstances surrounding the alleged discriminatory action, and identify the individual(s) and/or organization(s) responsible for the alleged discriminatory action. In cases where the Complainant will be assisted in converting an oral complaint into a written complaint, the Complainant is required to sign the written complaint. Signed allegations of discrimination received by facsimile or e-mail will be acknowledged and processed. Complaints received by telephone will be put in writing and provided to the complainant for confirmation, revision, and signature before processing.

The Title VI designee or the individual receiving the written complaint will review the complaint to ensure that the required information is provided, the complaint is timely, and is within the appropriate jurisdiction. The complaint will be accepted unless it is withdrawn, is not filed within the allowed time period, or the Complainant fails to provide required information after a written request for omitted/additional information.

Issues that do not involve discrimination or are not based upon a protected basis pursuant to Title VI will not be processed as a Title VI complaint. Individuals will not be discouraged from filing a written complaint.

Internal Complaint Procedures: Written complaints filed with the Department will be analyzed and investigated by the Title VI Coordinator. The Department will notify a Respondent named in a complaint by mail and the Respondent will be contacted for an interview. The complaint investigation will be completed within forty (40) days of the date of receipt of the complaint. The Title VI Coordinator will prepare an investigative report (IR) after conducting the investigation and forward a copy of the complaint and the IR to the FTA Civil Rights Specialist, within sixty (60) days of the date of receipt of the complaint. A complaint log will be maintained for all complaints filed with and investigated by the Department. The Investigator will advise the Complainant of his/her rights under Title VI, and related statutes.

Investigation Process: The Investigation Process includes the following:

- Investigative Plan
- Request for Information
- Conducting Interviews
- On-Site Visit

- Obtaining Evidence
- Analyzing Data
- Writing the Investigative Report

Investigative Plan: The Investigative Plan is an internal document for use by the Investigator and their supervisor to define the issues of the complaint. The following elements are contained in an Investigative Plan:

- Complainant(s) Name and Address/Attorney For Complainant with Name and Address;
- Respondent(s) Name and Address/Attorney For Respondent with Name and Address;
- Applicable Law;
- Basis;
- Issue(s);
- Background;
- Name of Person(s) to be interviewed, including questions for the Complainant, Respondent and Witness(es); and
- Evidence to be obtained during the investigation.

Request for Information: The Request for Information is sent to the appropriate official(s) at the respondent's facility. Contact is made with the Respondent to advise him/her of the complaint and to determine the appropriate official(s) to interview. The cover letter to transmit the Request for Information should explain the process and provide information regarding any meetings that have been scheduled. To facilitate the availability of evidence during the on-site visit, provide the Request for Information to the Respondent prior to conducting the visit.

Conducting Interviews: Interviews are conducted of witnesses who can provide information that will either support or refute complaints. A list of major questions should be prepared that address the issues involved in the complaint. During the interview, the following steps are recommended:

- Introduce yourself and outline the interviewing process;
- Place the person being interviewed at ease;
- Listen effectively;
- Differentiate factual information from opinions;
- Ask questions best worded to provide factual responses;
- Take clear and precise notes; and
- Obtain a signed statement from the person being interviewed.

COMPLAINANT – The purpose of interviews is to gain a better understanding of the situation outlined in the complaint of discrimination. The Investigator contacts the Complainant to ensure that he/she understands the Complainant's allegation(s). It is recommended that the Investigator interview the Complainant prior to preparing the Investigative Plan. If this is not possible, changes are made as appropriate to the Investigative Plan based upon any new information provided by the Complainant.

RESPONDENT – Respondents are interviewed to provide an opportunity to respond to the allegations raised by the Complainant as well as to provide the Investigator the opportunity to understand the Respondent's operation or policies the Complainant cites in the complaint. You will need to discuss the Request for Information with the Respondent and be able to explain the need for requesting any

document on the list. The Respondent is informed of their right to submit a formal position statement addressing the Complainant's allegations. The Investigator may also question the Respondent regarding possible settlement opportunities.

WITNESSES – The Complainant or Respondent may request that additional persons be interviewed. Determine what relevant information, if any, a witness has to provide prior to conducting an interview. Only interview persons who have information relevant to the allegations raised in the complaint of discrimination.

On-Site Visit - An On-Site visit will be conducted when:

- Personal contact with the Complainant and the Respondent may yield information and clarification that might not otherwise be discovered by only reviewing the written documents or by telephone contacts;
- It is necessary to review the physical environment;
- More effective communication can be established with representatives and witnesses of the Complainant and Respondent; and
- Documentation can only be examined on-site for reasons of convenience, cost, format, or volume.

Obtaining Evidence - Evidence requested should be related to issues cited in the complaint. An evidence request should contain some or all of the following:

- The policies and procedures regarding the practice that Complainant has alleged;
- All documents relating to the Respondent's dealing with the Complainant in the situation described in the complaint;
- Documents which exhibit how others, not in the Complainant's group, were treated under similar circumstances;
- Respondent's reason(s) for the action taken; and
- A formal position statement from Respondent addressing Complainant's allegations.

Types of Evidence include the following:

- CIRCUMSTANTIAL EVIDENCE – Includes facts from which may be inferred intent or discriminatory motive and proves intent by using objectively observable data;
- COMPARATIVE EVIDENCE – A comparison between similarly situated individuals;
- DIRECT EVIDENCE – Related to the Respondent's motive, it is defined as any statement or action by an official of the Respondent that indicates a bias against members of a particular group;
- DOCUMENTARY EVIDENCE – Written material generated during the course of normal business activity;
- STATISTICAL EVIDENCE – Statistics, facts, or data of a numerical type, which are assembled, classified, and tabulated so as to present significant information about a given subject; and
- TESTIMONIAL EVIDENCE – Evidence that is provided orally.

Analyzing Data - Data will be analyzed to determine whether a violation has occurred. When analyzing data you must:

- Review what happened to the Complainant;
- Compare the Complainant's treatment with the appropriate policies and procedures;
- Compare the Complainant's treatment with others in the same situation;
- Review the Respondent's reason(s) for the treatment afforded the Complainant; and
- Compare the Respondent's treatment of the Complainant with the treatment afforded others.

Writing the Investigative Report - The Investigative Report (IR) will contain the following sections:

- Complainant(s) Name and Address
- Respondent(s) Name and Address;
- Applicable Law;
- Basis;
- Issues;
- Findings and a corresponding conclusion for each issue;
- Recommended decision; and
- Recommendations (if applicable).

Title VI Discrimination Complaint Form - The Connecticut Department of Transportation operates programs and services without regard to race, color, and national origin in accordance with Title VI of the Civil Rights Act. Any person, who believes they have discriminated against, may file a complaint.

Complaints filed with the Connecticut Department of Transportation may be addressed to: Debra Goss, Title VI Coordinator 2800 Berlin Turnpike, Newington, CT 06111. For more information on CTDOT's civil rights programs and the procedures to file a complaint, please call (860)594-2177 or visit our website at www.ct.gov/dot and click on *Title VI* and *External Civil Rights Programs*. Instructions for filing a complaint are found in the Title VI Brochure and on CTDOT's website. The complaint forms are available on the Department's website in English and in Spanish, and available in other languages upon request ([see Attachment 2](#)).

Transit-Related Title VI Investigations, Complaints, and Lawsuits

In compliance with 49CFR Section 21.9(b) and the FTA C 4702.1b the Connecticut Department of Transportation maintains record of Title VI investigations, complaints and lawsuits naming the Department and/or a subrecipient/grantee. This list includes the date of the investigation, lawsuit or complaint; a summary of the allegation(s); the status of the investigation, lawsuit or complaint; and the actions taken by the Department or subrecipient/grantee. There was one complaint during this period. The complaint was received September 13, 2012. The allegation was for discrimination made on the basis of race, color, and national origin. The complaint was investigated, and the final disposition made September 25, 2012. The findings did not support discrimination on the basis of race, color, and national origin.

Title VI Complaint Log: The following is the Title VI Complaint Log utilized to track Title VI Complaints:

TITLE VI LOG		
Complainants Name	Race/Sex/Color/National Origin/Age/Disability Race, Sex, National Origin	Date Received 10/19/2012
Investigated by:	Date to ConnDOT/FTA:	
Allegations:		
Findings:		
Disposition:		
Date of Disposition:		
Complainants Name	Race/Sex/Color/National Origin/Age/Disability	Date Received
Investigated by:	Date to ConnDOT/FTA:	
Allegations:		
Findings:		
Disposition:		
Date of Disposition:		

Lawsuits - The Connecticut Department of Transportation is not aware of any Title VI related lawsuits filed during this period.

Goals and Principles for Inclusive Public Participation

The CTDOT *Public Involvement Guidance Manual* was developed to provide guidance and specific tips to CTDOT project managers and other department staff as well as regional and municipal planning officials as they interact with the public on department projects. This manual also outlines proactive strategies, procedures, and desired outcomes. Additionally, the CTDOT developed the Public Involvement Plan (PIP) to ensure meaningful opportunities to the public, including low income, minority and Limited English Proficient (LEP) populations, and to ensure no one is precluded from participating in the planning and development process.

The purpose of CTDOT's public participation plan and its key principles include the following:

Goals of the Public Participation Plan

Quality Input and Inclusive Participation – Comments received by CTDOT are useful, relevant, and constructive and any/all potentially affected community members have an appropriate opportunity to participate in the decisions that contribute to better plans, projects, strategies and decisions on proposed activities that may affect their environment or health.

Early, Continuous, and Meaningful Commitment – CTDOT’s commitment to Public Participation ensures early, continuous (throughout the planning process), and meaningful participation by establishing trustworthy relationships with communities to build community capacity and to provide public input.

Diversity –Members of the public as well as participants that represent socio-economic, ethnic and cultural perspectives, including individuals from low income neighborhoods, ethnic, and minority communities and residents with limited English proficiency are offered opportunities to be involved in the identification of social, economic and environmental impacts of proposed transportation decisions.

Accessibility – Every reasonable effort is made to ensure that opportunities to participate are physically, geographically, temporally, linguistically, and culturally accessible.

Relevance – Issues are framed in such a way that the significance and potential effect is understood by participants.

Participant Satisfaction – People who take the time to participate feel it is worth the effort to join the discussion and provide feedback.

Clarity in Potential for Influence –The process clearly identifies and communicates where and how participants can have influence and direct impacts on decision-making.

Partnerships – CTDOT develops and maintains partnerships with communities through methods described in its public participation plan.

Key Principles of the Public Participation Plan

Flexibility – The engagement process should accommodate participation in a variety of ways and be adjusted as needed.

Inclusiveness – Proactively reach out and engage low income, minority and LEP populations from the CTDOT service areas so these groups will have an opportunity to participate.

Respect – All feedback from the public will be given careful and respectful consideration.

Proactive and Timely – Participation methods will allow for early involvement and on an ongoing basis.

Clear, Focused and Understandable – Participation methods will have a clear purpose and use for the input, and will be described in a language that is easy to understand.

Trustworthy and Transparent – Information provided will be accurate, trustworthy and complete.

Responsive – CTDOT will respond and incorporate appropriate public comments into transportation decisions.

Accessibility – Meetings will be held in locations which are fully accessible and welcoming to all area residents, including, but not limited to, transit-users, low-income populations, and minority members of the public. Meetings will be held in locations relevant to the topics being presented and discussed.

The CTDOT will use its public participation plan when considering fare changes, major service changes, modifications to routes and schedule changes as well as transit planning projects when the following exists:

- A fare increase or significant change in the method of fare payment is being considered;
- A new route is established;
- An existing route is proposed for elimination;
- The consideration of total discontinuance of service on any line or group of lines on any given day when service is currently offered.
- When there is a proposal to abandon all service on an entire bus route or rail line, or a complete elimination of a route or a branch that significantly affects span of service or days of service.
- When there is a proposal to substantially reduce service on a bus route or rail line, specifically where reduction of service increases the headway of the peak period service by more than 50% or more than doubles the off-peak headway.
- For minor schedule and service changes not rising to the level of those above, the CTDOT will post service change notices on appropriate buses and stops 21 days in advance of the change date.

Outreach and Ongoing Public Participation Methods - The CTDOT will conduct proactive outreach to expand the reach, inclusivity, and effectiveness of these ongoing public participation methods, which include but are not limited to:

- CTDOT Website www.ct.gov/dot
- Twitter <https://twitter.com/ctfastrak>
- YouTube - <https://www.youtube.com/user/ctbusway>
- CTfastrak Instagram https://instagram.com/ctfastrak_connecticut/
- CTfastrak Facebook at <https://www.facebook.com/CTfastrak>
- Regular communications with media
- Print-Newspapers and other periodicals
- Press briefings and news releases
- Contacts with Community Based Organizations
- Workgroup Educational tours and briefings
- Lunch and Learn events
- Passenger bulletins in stations
- Language interpreters available for public meetings
- Written language assistance services available

- TransformCT
- CTDOT Calendar of Events
- Community Partnering Events
- MNR Website www.mta.info/mnr
- SLE Website www.shorelineeast.com

In an effort to expand the quality and quantity of outreach resources available, CTDOT reviewed the LEP, minority, and low income maps for the state of Connecticut to determine areas of concentration and identify the targeted areas of the state. We then compiled a listing of Community Based Organizations (CBOs) and Faith Based Organizations (FBOs) that we did not already have included from those areas. The CBOs and FBOs were contacted to make an introduction and to determine who they serve and what services were provided. The CBO/FBO listing is distributed throughout the agency to be utilized for public engagement meetings, hearings, information notices, and TransformCT efforts. It is also available on the CTDOT website to be utilized by the agency as well as the subrecipients.

We have also developed a listing of contracted vendors for interpretation and translation services. The contract of vendors will renew on April 1st and we will post the listing of interpretation and translation vendors as soon as we receive the new contract.

CTDOT ensures that public hearings and public meetings are held at venues that are ADA accessible and all notices state that free language assistance is available.

For more information on Public Involvement please refer to the document on Statewide Planning and Public Involvement Procedures, Public Involvement Procedures (see Attachment 3) and the Public Involvement Guidance Manual (see Attachment 4).

CTDOT's Public Involvement Procedures (PIP) was approved by FTA in 2009. However, CTDOT has decided to update its PIP, with input and involvement from all Department agencies that communicate with the public. CTDOT will ensure that all Title VI requirements are integrated into the updated PIP. CTDOT has created a schedule of milestones that will result in the updated PIP being ready for FTA review by December 31, 2017.

CONNECTICUT DEPARTMENT OF TRANSPORTATION MILESTONES	FFY 16	FFY 17	Contact/Lead	Status
Schedule for Update of Public Involvement Plan (PIP)				
• Develop Department Wide Team	Q2 X			
•Develop Scope and Table of Contents	Q3 X			
•Review chapters to determine where revisions are needed	Q4 X			
•Coordinate review of chapters with Civil Rights Office to ensure PIP is in compliance with Title VI requirements.		Q1 X		
•Coordinate review of chapters with Civil Rights Office to ensure PIP is in compliance with Title VI requirements (review continued).		Q2 X		
•Finalize draft documents. Document out for a 45 day comment period.		Q3 X		
•Update as needed based on comments received.		Q4 X		
•Federal Approval by December 31, 2017				

Statewide Transportation Planning and Public Involvement Procedures

The Bureau of Policy and Planning (the Bureau) within the Connecticut Department of Transportation (the Department) is responsible for the development and update of the Statewide Long-Range Planning Process, as well as coordinating with the Regional Planning Organizations (RPOs) to prepare the Transportation Improvement Programs (TIPs) and the Statewide Transportation Improvement Program (STIP).

The Bureau is also responsible to assure compliance with the National Environmental Policy Act of 1969 (NEPA) which includes, but is not limited to, the preparation of NEPA documents that study the potential impacts to the natural and human environment, as the result of federally funded transportation improvement projects. Collectively, this is known as potential social, economic, and environmental impacts, otherwise known as SEE.

A) Transportation Planning Process

Under the 23 CFR 450 & 49 CFR 613 is a USDOT regulation: "Planning Assistance and Standards" (October 28, 1993, unless otherwise noted).

USDOT oversees the transportation planning process. Federal regulations indicate that a key element for addressing Title VI during the Planning Process is an effective Public Involvement Procedure (PIP). The PIP must be proactive and provide complete information, timely public notice, full public access to key decision-making points, and an opportunity for early and continuing involvement. The PIP will also include a process for identifying and addressing the needs of the populations that are traditionally ignored or underserved by the existing transportation systems. Each Regional Planning Organization (RPO) as well as the Department is required to have updated and approved Public Participation Plans.

Under the Planning Process, there are two major sub-elements:

Statewide Transportation Planning Process:

Under this sub-element, the Department is required to prepare the following documents:

- Statewide Transportation Plan (Long-Range Plan): Considers a range of transportation options designed to meet the transportation needs (for both passenger and freight) of the State including all modes and their connections. Long-range plans frame the State's long-range transportation goals and objectives for the State and/or region. Projects should be identified and programmed in the STIP and implemented. The projects implemented from the STIP should reflect the goals and objectives identified in the long-range plan; and
- Public Involvement Process (PIP): Must be proactive and provide complete information, timely public notice, full public access to key decision-making points, and an opportunity for early and continuing involvement.
- Statewide Transportation Improvement Program (STIP): This document contains the sum of the total urban RPOs' Transportation Improvement Programs (TIPs) and the Department's programmed projects for the STIP duration. The STIP contains line-item projects, funding committed to the projects, and the year of funding authorization during the life of the STIP.

Metropolitan (Regional) Planning Process:

The following eight planning factors must be considered during this Process:

- Support the economic vitality of the United States, the States, non-metropolitan and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency;
- Increase the safety of the transportation system for motorized and non-motorized users;
- Increase the security of the transportation system for motorized and non-motorized users;
- Increase the accessibility and mobility of people and for freight;

- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- Promote efficient system management and operation; and
- Emphasize the preservation of the existing transportation system.

Plans and programs have the potential of being created and implemented in a discriminatory manner. The major impact that plans/programs have is through decisions, which identify one or more planned improvements to the exclusion of other alternatives. The implementing procedures and processes for plans/programs may be applied in a manner that prevents a group from participating or may prevent the consideration of impacts of various transportation system alternatives upon one or more identified groups. To the degree that plans/programs include proposed improvements with disproportionate beneficial impacts or reflect decision-making processes that exclude certain groups, the long-range plan may be biased. This could lead to project implementation that is inconsistent with nondiscrimination requirements. The actual impacts may only be experienced as projects are implemented. The planning process represents a comprehensive perspective from which to assess the potential consequences of developing and operating the transportation system.

The following questions may be utilized to evaluate the Planning Process:

- Is there effective public involvement/participation within the Planning Process?
- Is input from affected groups/persons adequately considered within the Planning Process?
- Is there coordination with Native American tribal governments in statewide metropolitan transportation planning?
- Are the data collection/data analysis processes sufficiently inclusive to identify community boundaries, and to effectively assess demographic groups, income levels/property taxes, and community services/schools/hospitals/shopping areas?
- Are Social, Economic, and Environmental (SEE) effects and impacts identified, described, and analyzed?
- Are contracting opportunities for planning studies, corridor studies, and other technical work available to all groups/persons?

For each of these questions, processes/procedures should be identified and evaluated with a narrative justification to support the response.

Statewide Transportation Long-Range Plan Process:

The Department updates the State of Connecticut's Long-Range Plan (LRP) every three to five years. The Department undertakes a public outreach effort to solicit public input when updating this plan. The process for soliciting public input consists of the following phases:

Solicitation of Public Input Prior to the Development of a Draft LRP

The Department announces a public comment period and holds listening sessions in various locations throughout the state to solicit public input on transportation issues and concerns in Connecticut. The public comment period is at least 45 days in length and listening sessions are held in the middle of this period. At each listening session, the Department's staff delivers a visual presentation that explains the purpose of the LRP, outlines the process and mandates for developing it, identifies key factors and issues that influence transportation-related decisions and investments in Connecticut, and identifies opportunities for providing public input into the updating of the plan. Following the presentation, the public may provide input and ask questions. Representatives from appropriate Department offices attend the listening sessions to hear the public's comments and questions with respect to modes or components of the transportation system for which their bureau or office is responsible and, if there is sufficient time, responds to questions. Copies of the following documents are made available for public perusal at the listening sessions: a copy of the current LRP, and other pertinent documents. Copies of various handouts are also provided. Such material may include the following:

- Brochures that provide information on the LRP, the process, and schedule for updating it and opportunities to provide input;
- A list of the titles and website addresses of documents referenced in the visual presentation;
- A list of major planned and ongoing studies and projects;
- Copies of maps showing the locations of the studies and projects;
- Forms ("Input, Ideas, and Comments" sheet) that the public can use to submit their written comments at the meeting or to mail in their comments at a later date within the comment period.

Input is sought from the staff of Connecticut's Regional Planning Organizations (RPOs) when determining the dates, times, and locations of the LRP listening sessions. The facilities at which the listening sessions are held must be accessible to people with disabilities. In areas of the state where public transportation is provided, the listening sessions are held at facilities and at times to enable people to use public transportation to attend the sessions. Up to one week in advance of the date of a listening session, people may request that the Department make special accommodations for them. Assistance for the deaf and hearing impaired is arranged upon request. Requests for other special accommodations, including the provision of language assistance for individuals with limited English proficiency, are considered and granted, if reasonable and possible.

The dates, times, and locations of the meetings are posted on the Department's website calendar, which includes an option to request special accommodations at a public meeting. The event postings include a link to the Department's LRP web page, which includes more detailed information on the LRP and the process for updating it. The dates, times, and locations of the listening sessions are published at least once, in display ads in newspapers with regional and state coverage, including two with distributions to minority populations in Connecticut and Massachusetts. The display ads also include information on the LRP, the Department's process for updating it, contact information for submitting comments, and a telephone number and e-mail address for requesting special accommodations at a listening session. This

information is also included in press releases issued by the Department's Office of Communications to newspapers, radio stations, and television stations, before and during the public comment period, and in brochures that are mailed and/or e-mailed to various interested parties, prior to the beginning of the public comment period. LRP staff and other Department staff also notify interested parties by making the LRP brochures available at various meetings and events they attend and making announcements about the LRP listening sessions and public comment period at such events. Regional planning organizations and other appropriate organizations in Connecticut are asked to assist in notifying people of the opportunities to provide input into the updating of the LRP by posting information on their websites and in their newsletters and providing links to the Department's LRP web page.

The interested parties to which LRP informational brochures are sent include:

- RPOs;
- Federal transportation agencies;
- Transit districts;
- Representatives of federally recognized Indian tribes in Connecticut;
- Transit operators;
- Freight shippers;
- Groups and individuals that are identified in federal laws, regulations and executive orders pertaining to statewide transportation planning;
- Heads of appropriate State agencies, boards and commissions;
- First elected officials in all Connecticut municipalities;
- State legislators;
- Members of Connecticut's Congressional Delegation;
- Public and academic libraries in Connecticut;
- Centers for seniors and people with disabilities;
- Representatives of bicycle and pedestrian advocacy groups; environmental organizations;
- Chairpersons of Neighborhood Revitalization Zones in Connecticut;
- Individuals that have asked to be added to the Department's LRP mailing list;
- Other appropriate individuals and groups that the LRP staff members become aware of to ensure that individuals of low income and minority communities have meaningful access to and are involved in the decision making process.

The Department will continuously explore and consider the use of additional means to solicit input from identified special interest groups and the general public as new means of communication (such as Facebook, Twitter and electronic surveys) are developed, purchased and/or authorized for Department's use.

Solicitation of Public Input on the Draft LRP

The Draft LRP is posted on the Department's website and interested parties are notified of the availability of the document and informed of the timeframe and ways in which they can provide input on the document. If possible, a streaming media presentation that provides an overview of the contents

of the document and the process used to develop it is created and posted on the Department's website. Hard copies of the draft document are made available for public review at the Department's headquarters in Newington, Connecticut and at the offices of each of the RPOs. Comments on the draft document are accepted during a public review and comment period of at least 45 days. During the comment period, at least two public information meetings are held in the middle of the comment period to provide the public with an overview of the contents of and the process used to develop the draft document and to provide an opportunity for interested parties to ask questions and provide input on the document. At the public information meetings a visual presentation is used to provide an overview of the contents of the draft document and the process used to develop it. One meeting is scheduled during the day and another meeting is held in the evening. Representatives of appropriate Department offices attend both meetings and are available to answer questions. An interpreter for the deaf and hearing impaired is provided if such accommodation is requested in advance of the meeting date. Other special accommodations, including language assistance, may be requested, in advance of the meeting via telephone, email or via a "request special accommodations" link that has been built into the public events calendar on the Department's web page. Written comments on the Draft LRP may be submitted at the public information meetings or via email or mail during the public comment period.

Interested parties are contacted and updated on the LRP update process via email; announcements at monthly/quarterly meetings of various organizations; publication of announcements in the electronic newsletters of interest groups, organizations and associations involved in transportation and/or land use planning; and direct mailings, including an extensive mailing of informational brochures. The brochures provide information on the purpose of the LRP, the process for updating it, opportunities to review and comment on the draft document, and the anticipated publication dates of the draft and final documents. The brochures are printed in a format suitable for posting on community boards and are posted at selected rail and bus stations. They are distributed to municipalities; public and academic libraries; various regional, State and federal personnel; transit operators; federally recognized Indian tribes in Connecticut; airport managers; bicycle enthusiasts; motor transport representatives; as well as other interested parties. They are also forwarded in a large print version to senior/disabled centers throughout the state. Legal notices announcing the availability of the Draft LRP for public review and comment, opportunities to review and provide input on the draft document, and contact information for submitting comments are published in media publications with regional and state coverage, including two publications with distributions to minority populations in Connecticut and Massachusetts.

The Department issues press releases to newspaper, television, and radio organizations, including organizations serving minority and low-income populations before, during and just before the end of the public review and comment period on the Draft LRP. The press releases announce the availability of the Draft LRP for public review and comment; provide information on opportunities to learn about, review and comment on the draft document; provide contact information for requesting special accommodations, including language assistance, at public information meetings; promote attendance; and provide reminders of the deadline for submitting comments on the draft document.

After the final document is published, it is posted on the Department's website, hard copies are sent to the Department's library and hard and/or electronic copies are sent to the State Library. A press release

that includes the Department's LRP web page address is issued to inform the general public of the availability of the final LRP. Organizations and individuals that are listed on the Department's LRP Distribution List are notified via email or U.S. mail of the availability of the final document.

Posting of Information on LRP Web Page

Throughout the public outreach process for the LRP, the following items, pertinent to the development of the LRP are posted on the Department's website on a dedicated LRP web page: the current LRP, informational brochures, display ads, legal notices, press releases, material distributed during the listening sessions and public meetings on the Draft LRP, and contact information. The presentations provided at the listening sessions and the public information meetings on the Draft LRP are posted on the website in several formats, including a version with audio and a version with speaker's notes to accommodate persons with sight or hearing disabilities. Whenever possible, press releases are posted on the State of Connecticut's master website and on the various individual websites maintained by the RPOs in Connecticut. The final LRP is posted on the Department's website.

Statewide Transportation Improvement Program Process:

The Statewide Transportation Improvement Program (STIP), which is required by Title 23 USC, Section 134 (h) as amended by MAP-21, is a four-year financial document that lists all projects expected to be funded in that four-year period. This document must be updated at least every four years and be developed to make progress toward established performance targets and include a description of the anticipated achievements. The Department's public outreach process for the STIP is as follows:

A public involvement process is followed to ensure an opportunity for all to participate. The draft STIP is developed in cooperation with MPOs and the rural RPOs in the State and made available for public review. The draft STIP is placed on the Department's web page for review. A legal notice is placed in all of Connecticut's major daily newspapers. This notice states in detail that the STIP will be available for public review, public informational meetings will be held, and that the Department will receive comments. A press release is also prepared containing detailed information found in the legal notice, background information on the STIP, and examples of projects included in STIP. This press release is issued to all Connecticut newspapers, radio stations and television stations. A brochure detailing the availability of the STIP and announcing the Public Informational Meeting is sent to all individuals, interested parties and businesses that have expressed interest in the transportation planning process.

The interested parties to which STIP informational brochures are sent include:

- RPOs;
- Federal transportation agencies;
- Transit districts;
- Representatives of federally recognized Indian tribes in Connecticut;
- Transit operators;
- Freight shippers;

- Other groups and individuals that are identified in federal laws, regulations, and executive orders pertaining to statewide transportation planning;
- Heads of appropriate State agencies, boards, and commissions;
- First elected officials in all Connecticut municipalities;
- State legislators;
- Members of Connecticut's Congressional Delegation;
- Public and academic libraries in Connecticut;
- Centers for seniors and people with disabilities;
- Representatives of bicycle and pedestrian advocacy groups;
- Environmental organizations;
- Chairpersons of Neighborhood Revitalization Zones in Connecticut;
- Individuals that have asked to be added to the Department's STIP mailing list;
- Other appropriate individuals and groups that the STIP staff members become aware of to ensure that individuals of low income and minority community having meaningful access and are involved in the decision making process.

Mentioned in the legal notice is the Department's willingness and ability to accommodate any citizen with special needs such as language, hearing and speech impaired. The dates, times and locations of the meetings are posted on the Department's website calendar, which also includes an option to request special accommodations at a public meeting.

Each MPO is asked to coordinate a public review of its Transportation Improvement Program (TIP) including the Department's STIP during that review. The Department's staff attends all MPO informational meetings on the TIP/STIP and is available to receive comments and answer questions. The MPOs are also required to publish in their local newspapers, information about their meeting and the availability of the STIP at their respective regions for public review and comments. Two informational meetings on the STIP are held at the Department's headquarters ground floor. One meeting is scheduled during the day with the second meeting is scheduled at night to accommodate individuals with day jobs or different schedules. The Department's headquarters is situated on a bus route and is accessible to people with disabilities. A visual presentation is given to explain the process for developing the STIP and to highlight major projects in the STIP. Time is allotted for questions and comments. Steps are taken to accommodate members of the public with English as their second language. A list of names of Department staff members who are proficient in different foreign languages and are willing to function as interpreters when necessary has been compiled.

The draft STIP is made available for public review and comment for a period of at least 30 days. After the 30 day review and comment period, all public comments will be reviewed and given due consideration. After all the public comments are reviewed and considered, the final version of the STIP is prepared and submitted to the USDOT for approval. Explicit consideration and response is given to public input, and all who submit written comments are notified of the availability of the final approved document. The approved STIP document is made available to the public on the Department's web page, at the Department of Transportation headquarter, and at all of the MPOs offices.

Public Involvement Procedures of MPOs:

The Department recognizes the important role that MPOs play in transportation planning for Connecticut. The Department participates in the cooperative transportation planning process within the MPO's jurisdiction. An effective metropolitan planning process must incorporate input from both local and state jurisdictions as well as the public. When developing their Transportation Plan and TIP, the MPOs are more in sync with the socio-economic dynamics of their respective constituents therefore they have good resources for their public involvement process. Based on these facts, the Department relies on MPOs to seek public involvement in the development of their comprehensive regional long-range transportation plans (LRP) and TIPs. To assure compliance with the requirements of Title VI and Title 23 CFR 450.316, the Department has a procedure in place that reviews each MPO's public involvement process.

Each MPO has developed procedures to provide opportunities for the public to provide input on its regional LRP (which must cover a period of at least 20 years), TIP, STIP, and major transportation planning studies that are undertaken. The Department utilizes the MPO public involvement process as an important vehicle for soliciting public comments on Connecticut's STIP. The Department acknowledges the unique nature of each metropolitan area and has determined that the endorsed MPO public participation plans meet the planning public involvement requirements of 23 CFR 450.316 for transportation projects within the MPO area.

The MPO procedures include mechanisms for the public to express their views and to obtain information. The MPO procedures also provide a general approach for involving the public in transportation planning studies.

The MPO procedures detail how the transportation needs of persons and groups who are "traditionally underserved by existing transportation systems" are identified and addressed per Executive Order 12898 (12/11/94) on "Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations." For example, some MPOs may institute advisory committees to represent transportation-disadvantaged groups and communities such as transit patrons, the elderly, people with disabilities, low income populations and minorities. When substantial written and oral comments are received on an MPO's draft LRP or TIP as a result of the public involvement process or the interagency consultation process, or public input is sought on the Air Quality Conformity analysis as required by the conformity regulations, a summary, analysis, and a report on the disposition of the comments shall be made part of the draft LRP and TIP. The Department will assist the MPO in responding to comments and questions.

The Department and the MPOs will coordinate the development of MPOs' plans and the statewide LRP through the cooperative transportation planning process that the Department and the MPOs conduct. The Department's participation in the MPO planning process ensures that statewide issues are considered in the MPOs' planning process. The Department will review and consider the contents of the each MPO's LRP as part of the process of developing the statewide LRP.

Amendments to the TIPs and STIP Process:

Public involvement for amendments to the TIP will be facilitated by the MPO. All amendments to the TIP need to be included on the MPOs agenda for endorsement by the MPO's Policy Board. This agenda is sent to all interested parties and made available to the public. Each MPO and Rural RPO board provides an opportunity for the public to deliver comments at its meeting. Department staff attends these meetings and are available for questions and comments. Any comments received on TIP and STIP amendments will be included with CTDOT's transmittal of the amendment to the USDOT when requesting approval. Once approved by the USDOT, the updated STIP is available to the public via the Department's web page and at the Department of Transportation headquarters.

Examples of revisions that are not considered significant and, therefore, do not require that the Department provide an additional opportunity for the public to comment, include minor changes in project cost and moving projects among the first four years of the STIP/TIP.

B) The Project Development (Environmental) Process

The term "Project Development" refers to the environmental study performed to satisfy the requirements of the National Environmental Policy Act of 1969 (NEPA), as amended, for a transportation project. NEPA is the foundation of the project development process and is described in 23 CFR Part 771, which is the FTA/FHWA joint environmental regulation.

NEPA requires all federal agencies to examine and disclose the possible and likely effects of their actions on the human environment. FTA interprets the term "human environment" to include neighborhoods, communities, and natural ecosystems. Effects on the human environment include a broad array of impacts such as direct physical effects to air/water/land, as well as less quantifiable effects such as impacts to cultural resources/community life/land use patterns.

For all federal-aid FTA projects, the Department is required to prepare the appropriate level of environmental documentation that includes mitigation measures and measures to minimize harm in order to satisfy NEPA. Since there is no stewardship agreement between the Department and FTA as there is between the Department and FHWA, FTA's involvement in the process mirrors that of the Department/FHWA Stewardship Agreement which can be found on the web at:

www.ct.gov/environmentaldocuments

Environmental compliance requires consideration of all possible social, economic, and environmental effects of a proposed project and seeks to ensure that the decisions made are in the public's best interest. During this process, project alternatives, data, information, and all related environmental effects are identified, collected, and analyzed. This is done during the development of the NEPA document. The goal of this process is to develop a complete understanding of the existing and future environmental conditions and the possible effects of a proposed project to make the best project decision to meet the intended transportation need, the goals of an area or community, and for the protection and enhancement of the environment. Project alternatives may be modified to avoid or minimize impacts to sensitive resources identified during the environmental studies and based upon

public input. It is FTA's policy to seek opportunities to transcend traditional mitigation and to implement innovative enhancement measures to minimize the impact upon the affected community and the natural environs. Public outreach during the development of the NEPA document will assist FTA and the Department in the determination of these innovative measures. These measures will be determined on a project by project basis.

Project Preliminary Environmental Review:

During the preliminary stages of project development, each proposed transportation project undergoes an internal environmental review process to determine the appropriate level of environmental documentation required for the project. The type of NEPA documentation required is determined by the overall level of potential impact to the environment as a result of the proposed project. This preliminary review encompasses all aspects of potential environmental impacts including a review for potential impacts to Environmental Justice and Limited English Proficiency populations.

Environmental Justice:

Title VI of the Civil Rights Act prohibits discrimination on the basis of race, color, or national origin. Executive Order 12898 states that to the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories.

The environmental review process utilizes Geographic Information Systems (GIS) and U.S. Census maps to determine if minority and/or low-income populations may be adversely affected by the project.

If it is determined that a low income or minority population area is within the project area, the Department undertakes the responsibility of employing the appropriate measures to assure requirements are met throughout the development of the project to accommodate this population. These measures are determined on a case by case basis and include the assurance that any public outreach conducted by the Department accommodates low income and minority populations.

Limited English Proficiency:

Executive Order 13166, "Improving Access to Services for Persons with Limited English Proficiency", requires Federal agencies to examine the services they provide, identify any need for services to those with limited English proficiency (LEP), and develop and implement a system to provide those services so LEP persons can have meaningful access to them. It is expected that agency plans will provide for such meaningful access consistent with, and without unduly burdening, the fundamental mission of the agency. The Executive Order also requires that the Federal agencies work to ensure that recipients of Federal financial assistance provide meaningful access to their LEP applicants and beneficiaries.

The Department's Bureau of Policy and Planning has developed a series of maps depicting population areas of LEP within the state of Connecticut. The environmental review process utilizes this mapping and GIS to identify LEP populations within the proposed project area.

If it is determined that an LEP population area is within the project area, the Department undertakes the responsibility of employing the appropriate measures to assure LEP requirements are met throughout the development of the project. These measures are determined on a case by case basis and include the assurance that any public outreach conducted by the Department accommodates LEP populations.

Levels of NEPA Documentation:

NEPA defines three levels of documentation, the applicability of which is dependent upon the potential significance of the environmental impacts (direct or indirect) as a result of a proposed project. Documentation and processing options are referred to as "classes of actions" and include Environmental Impact Statement (EIS, Class I), Categorical Exclusion (CE, Class II), and Environmental Assessment (EA, Class III). For projects requiring an EIS or EA, the Department's Office of Environmental Planning will coordinate with the Department's Office of Contract Compliance to ensure that Title VI requirements are satisfied. The Office of Contract Compliance will review the environmental documents to ensure that a Title VI assessment has been performed and will provide feedback to the Office of Policy and Planning as determined necessary. A description of each class of documentation is as follows:

- EIS (Class I) -An EIS is required when it is determined through environmental studies, public involvement, and coordination with other Federal, State, and local agencies that the proposed project will have a significant impact on the environment. The EIS process is the most involved, detailed, demanding, and formal and is the least frequently utilized. It requires a detailed and thorough consideration of all reasonable alternatives, including the following: the no-build alternative; in-depth analysis of the SEE effects that are associated with the alternatives; and involvement of the public and other Federal, State, and local agencies in the process and the decisions related to the selection of a preferred alternative. Significant public outreach efforts and participation is involved, including initial public and agency scoping meetings, as well as a public hearing on the Draft EIS. Public comment periods of 30 days follow both the scoping meeting and the public hearing, and the Draft EIS must be made available to the public for a minimum of 15 days prior to the public hearing. The Department publishes a legal notice that may also be in languages other than English (if it is determined that the project will affect LEP populations) in area newspapers to inform the public of the public hearing and where the document is available for inspection. The EIS process requires the preparation of a Notice Of Intent (NOI), a Coordination Plan, a Draft Environmental Impact Statement (DEIS), a Final Environmental Impact Statement (FEIS), and a Record of Decision (ROD);
- CE (Class II) - The CE is the most commonly utilized environmental processing option. The CE is not an environmental document, but is a determination that a project will have no significant individual or cumulative SEE impacts. The following are applicable: the project will not have

significant impacts upon planned growth or land use for the affected area; the project does not require the relocation of significant numbers of persons; the project will not involve significant air, noise, or water quality impacts; the project will not have significant impacts on travel patterns; and the project does not otherwise either individually or cumulatively have any significant environmental impacts. Therefore, there is no requirement for the preparation of an environmental document (EIS or EA), although environmental studies may be undertaken to support that the CE determination is proper. Additionally, informing the public of the anticipated project can be accomplished through the municipality and various media strategies, such as posting information on the Department's website, and publishing notices of anticipated projects in local media. Information posted on the Department's web site and in local media shall include a description of the proposed project, an anticipated schedule for construction, and a department contact for additional information. Notices may also be published in languages other than English, if it is determined that the project will affect LEP populations. A list of project types that have been determined to meet the CE criteria is provided in 23 CFR 771.117 (c) and (d); and

- EA (Class III) - The EA is prepared for proposed projects for which the significance of the impacts is unknown or not clearly established. Proposed projects that are not CEs and do not obviously require an EIS will require the preparation of an EA to determine the significance of the impacts and whether or not an EIS will need to be prepared. The amount of information and degree of analysis that is required for inclusion in an EA will depend upon the proposed project's size, type, location, and number of reasonable alternatives, potential for significant impacts, and other factors of the project. The EA will identify the location of the project, the population demographics, and other affected neighborhood and community characteristics, the estimated number of residences and businesses that will be affected, and other potential/probable impacts for each alternative being considered. The EA may only require that one or two alternatives be considered, including the no-build alternative. It is the practice of the Department to hold a public hearing for every project for which an EA is prepared. When a public hearing is held, the EA must be made available to the public at the hearing and for a minimum of 15 days in advance of the public hearing. The Department will publish a legal notice that may also be in languages other than English (if it is determined that the project will affect LEP populations) in area newspapers to inform the public of the public hearing and where the document is available for inspection. Comments must be submitted to the Department within 30 days of the availability of the EA. If the SEE impacts, along with the appropriate interagency coordination and public involvement, indicate that the action will not have any significant direct/indirect/cumulative impacts, a Finding of No Significant Impact (FONSI) is prepared. The FONSI will finalize the EA process, document the decisions, and detail why the impacts are not considered significant. However, if it appears that there will be significant impacts, a NOI will be published in the Federal Register and a DEIS will be prepared.

The potential for avoiding and minimizing SEE impacts likely to result from the implementation of a given project alternative must be considered for any proposed alternative regardless of the ability to

satisfy the purpose and need or meet the transportation goals of a given area. Approval of the FEIS and subsequent ROD or preparation of a FONSI by FTA constitutes acceptance of the general project location and major design elements as described in the environmental documents. After completion of the project development process, FTA may authorize the Department to proceed with the development of final engineering design plans and specifications, acquire rights-of-way, and advertise the project for receipt of construction bids.

When a CE or EA is prepared in cooperation with FTA, the document will address environmental Impacts of a range of alternatives during the site selection process. The CE or EA will go forward with one alternative based on that process. When a DEIS is prepared, a preferred alternative will be selected from the range of alternatives presented in the document. The decision and selection of a preferred alternative will be based upon how well the alternative will address the transportation problems and meet the document's stated purpose and need.

The environmental study of project alternatives and impacts must include the consideration of mitigation measures for unavoidable impacts. Mitigation measures and other agreements that are made as part of the decision-making process must be documented and implemented. All proposed projects and environmental studies, whether a CE, EA, or EIS, must include appropriate measures to mitigate for adverse environmental impacts regardless of significance. Environmental commitments, such as sound barriers, joint-use facilities, rights-of-way replacement housing, and others should be monitored to assure that these mitigation measures are included in the design plans and are constructed as part of the project.

The following questions may be utilized to evaluate the Project Development Process:

- Is public involvement adequately solicited, considered, and documented during the Project Development Process?
- Are SEE impacts adequately identified?
- Is the potential for disproportionate or discriminatory impacts adequately addressed?
- For each of these questions, processes/procedures should be identified and evaluated with a narrative justification to support the response.

Public Outreach and Accommodating LEP Populations

Each project must incorporate public outreach; the level of outreach required is determined by the significance of the project and the level of documentation required. According to 23 CFR 771.111, public involvement/public hearing procedures must provide for:

1. Coordination of public involvement activities and public hearings with the entire NEPA process.
2. Early and continuing opportunities during project development for the public to be involved.
3. One or more public hearings or the opportunity for hearing(s) to be held by the Department at a convenient time and place for any Federal-aid project that may have a significant effect on the environment.

4. Reasonable notice to the public of either a public hearing or the opportunity for a public hearing.
5. Explanation at the public hearing of the following information as appropriate
 - a. The project's purpose, need, and consistency with the goals and objectives of any local urban planning.
 - b. The project's alternatives and major design features.
 - c. The social, economic, environmental, and other impacts of the project.
 - d. The relocation assistance program and right-of-way acquisition process.
- e. The Department's procedures for receiving both oral and written comments from the public.

C) Conducting Public Information Meetings and Hearings

The Department's project manager will hold public information meetings and hearings at a place and time generally convenient for persons affected by or interested in the proposed undertaking and at a facility that is accessible to people with disabilities. The Department's project manager will also be responsible for assuring all public involvement requirements are satisfied.

If, during the entire project development stage, it is determined that the project impacts a LEP population, local media used by that particular LEP population will be utilized to advertise public hearings/informational meeting notices, advertisements, legal notices, and all pertinent information to that particular population.

Representatives of the Department, when appropriate, will explain the following information:

- The project's purpose, need, and consistency with the goals and objectives of any local urban planning.
- The project's alternatives and major design features.
- The social, economic, environmental, and other impacts of the project.
- The relocation assistance program and the right of way acquisition process.
- Department procedures for receiving both oral and written statements from the public.
- The Department will ensure that engineers, planners or other qualified personnel are present to explain the project and answer questions that may arise.

At the public information meeting or hearing it shall be announced that, at any time after the hearing, and before final approval is obtained, information developed, relating to the project will be available upon request during normal working hours for public inspection and copying. If the proposal requires the acquisition of property, the Department's right of way procedures, including the relocation assistance program when applicable, will be explained. In the case of a hearing, the availability of the appropriate environmental document will be announced at the hearing.

The Department's project manager should be prepared to receive oral comments delivered in front of those in attendance, and should be prepared to transcribe or record these accurately. The Department's project manager should also be prepared to receive written comments, either hand-delivered at the

meeting or hearing, by mail, or electronically. When necessary and appropriate, the Department's project manager should make accommodations for those with LEP or physical disability.

The Department has implemented a service on its website that allows the public to request reasonable accommodations or language assistance for public hearings and meetings. These requests include, but are not limited to, multi-language translation, interpreting services, and ADA accommodations including assistance for the hearing and visually impaired.

The website is designed to allow the public to "click" the events calendar where a series of drop down menus allows the public to select and request the desired accommodation.

Equity Assessment:

Project-Level: Assessments: CTDOT already employs procedures at the 'project planning level' to determine the likely impacts of projects on low-income and minority populations. These project-level assessments are intended to ensure that we do not create a disproportionate burden or adverse impact on low-income and minority communities.

Program-Level: Community Outreach: At the broader program level, CTDOT employs special community outreach procedures to ensure that low-income and minority communities have the opportunity to participate in the development of the STIP and LRP. This input is valuable, and helps shape policies and plan recommendations. However, it does not provide a comprehensive or statewide assessment of the equity impacts of our key planning documents the STIP and LRP.

Program-Level: Equity Assessments: CTDOT is now in the process of developing equity analysis tools to assess the broader and cumulative impacts of our statewide program of projects. These special equity assessment tools will be developed for both the STIP and LRP. The goal is to ensure that our statewide transportation planning and programming process is not discriminatory toward minority and low income communities. The special equity assessment procedures will include the following:

- **Equity Assessment Chapter:** An equity assessment chapter or section will be added to both the STIP and LRP.
- **Quantitative Assessments:** A quantitative assessment methodology will be developed to analyze the distribution of projects and project funding. The methodology will be based on the general procedures identified below.
 - Identify target areas throughout the state using the 2010 census data. These target areas will identify neighborhoods where there are large concentrations of low-income or minority populations.
 - Locate these target areas on a statewide map.
 - Locate all projects on a statewide map.
 - Compare the distribution of projects and/or project funds to determine if there is an equitable distribution of projects and funds among low-income, minority, and general populations in the state.

- The quantitative assessment will be done both for the highway program and the transit program.
- ***Qualitative Assessments:*** Qualitative assessments will also be done to address issues or assess policies and programs that cannot be adequately assessed with quantitative methods. These qualitative assessments might include special sessions with low-income or minority organizations to solicit their assessment of DOT proposals and also to identify transportation issues of special importance to these communities.

The goal of this assessment will be to ensure an equitable process is used that does not result in a distribution of burdens and benefits that is discriminatory.

Public Involvement

A) Public Involvement Procedures

The Department has established a proactive, public involvement process that is accessible to the public and identifies and addresses transportation-related issues early in the project development process. The Department has an approved Public Involvement Procedures (PIP) document which includes all aspects of public involvement for the Department. This was developed in accordance with 23 CFR 450.210 and 23CFR 771.111(h)(1) and approved by USDOT in December 2009.

INTRODUCTION

Federal Statewide Planning and Metropolitan Planning Regulations (23 CFR Part 450 and 500 & 49 CFR Part 613, February 14, 2007) require that state transportation agencies and Metropolitan Planning Organizations (MPOs) develop public involvement procedures. Pursuant to these regulations, the Connecticut Department of Transportation (Department) has established a proactive, public involvement process that is accessible to the public and identifies and addresses transportation-related issues early in the project development process. This process provides complete information, timely public notice, full public access to key decisions, and supports early and continuing involvement of the public in developing planning documents and transportation improvement programs. This process also minimizes duplication of public involvement efforts and meets the needs of the public and regulatory agencies to provide early and continuing input into the project development process.

The Department's Mission Statement, Vision and Values, Public Involvement Policy and the procedures that the Department follows to carry out this policy are set forth and described in the document titled, *The Connecticut Department of Transportation's Public Involvement Procedures*. The federal and state mandates that pertain to public involvement are identified and discussed in Chapter I, the public involvement procedures the Department uses when developing plans and undertaking various phases of projects and studies are discussed in the other chapters. The public involvement procedures the Department follows when developing plans and conducting studies are discussed in Chapter 2, the public involvement procedures the Department follows during the environmental phase of projects are discussed in Chapter 3, the procedures to be followed during the survey, design, and rights-of-way

phases are discussed in Chapter 4, the procedures that are to be followed during the construction operations and maintenance phases of transportation projects are discussed in Chapter 5, and the Department's procedures for conducting public meetings and public hearings are explained in Chapter 6.

The complete document on Connecticut's Public Involvement Procedures (PIP) (see Attachment 3) is available online at this address: <http://www.ct.gov/dot/pip>.

B) Public Involvement Guidance Manual

The Department has also developed a Public Involvement Guidance Manual (PIGM), which includes suggested strategies to engage the public.

The Department undertakes a public outreach effort to solicit public input when updating plans. Below are excerpts from the PIGM that outline key elements within the document.

A strategic process for soliciting public input and engaging the public beyond the public meeting is to set up an advisory committee. Its members could be planners, government officials, civic and neighborhood groups, historic and environmental preservation groups, key community leaders, project neighbors, business leaders, people who represent low- income or special needs groups, including the elderly and persons with disabilities. An effective advisory committee may be made up of people interested in working on transportation issues, representatives of key stakeholder agencies, those knowledgeable about the community or tied into community networks, those affected by the plan or project, and/or those representing diverse elements within the community.

Other strategies to help promote outreach beyond the public meeting are websites, newsletters, flyers, public meetings (to include fact sheets, brochures, FAQs), and mailing lists.

Traditional methods of working with the public (e.g. evening meetings at public buildings, websites and newsletters) may not be effective for all groups. Many elderly people prefer meeting during the day because they do not feel safe leaving their homes after dark. Single parents may be faced with finding childcare in order to attend a public meeting. Low income population groups often juggle two or more jobs and work evening shifts to make ends meet. The Department will utilize demographic information to determine if low income and minority populations are impacted by the project and make targeted efforts to engage them in the process.

To reach these populations consider the following outreach techniques and tips:

- Go to where people are already meeting. Arrange to speak at senior citizen and community centers, school PTA meetings, or community gatherings.
- When possible, hold public meetings on a public transit corridor so people who don't drive can have access.
- Consider having a community member assist at the sign-in table. They will be familiar with people and can help write the names and addresses of people with limited English language skills.
- Provide refreshments. It facilitates socializing.

- Ask schools' permission to have students bring home flyers to their parents.
- When requested, have sign language interpreters at meetings for the hearing impaired.
- Make sure all printed material can be understood. This may mean printing in large type for the elderly population, translating into a second language and, as always, using simple language (avoiding technical jargon).

For the complete document of Connecticut's Public Involvement Guidance Manual (see attachment 4).

CTDOT's Public Participation Plan Analysis

Public Participation Outreach/Meetings

CTDOT has coordinated with MNR on the public participation plan for the NHL service area. MNR describes community meetings held during their annual reporting period with community and advocate groups as part of their efforts to develop strategies for service improvements on Connecticut's behalf.

Working with the Connecticut Commuter Rail Council, separate customer forums were held at the Waterbury Branch and the Westport Station. In addition, one of six forums held with the MNR President and the executive leadership team took place in Connecticut (Stamford Station). MNR reached out to community and advocate groups to develop the strategies, and based on the information of the meetings provided, they were held at rail stations during peak times to gain participation.

Customer Satisfaction Survey

The Customer Travel/Satisfaction Survey, conducted annually as an on-board questionnaire, provides a mechanism for riders to express their own opinions and ratings of the services provided by Metro-North. The most recent survey included approximately 5,419 responses and included Connecticut commuters. The survey included questions regarding most spoken language, language spoken at the home, preferred language spoken, and preferred language to receive written communication. In order to facilitate participation from Spanish LEP riders, the survey is available in Spanish over the phone. Although it would be too expensive and an inefficient use of resources to print complete Spanish versions of the survey instrument, MNR printed a notice in Spanish on each survey card referring those Spanish LEP riders to a specific telephone number where the affected riders could request a survey in Spanish.

Preferred Language Spoken by Survey Respondents (Source: Metro-North East of Hudson Customer Satisfaction Survey 2013)

Station	Respondents	Prefer English	Prefer Spanish	Prefer Other
<u>New Haven Line (Connecticut)</u>				
Greenwich	56	56 100%	0 0%	0 0%
Cos Cob	30	30 100%	0 0%	0 0%
Riverside	20	19 95%	0 0%	1 5%
Old Greenwich	36	36 100%	0 0%	0 0%
Stamford	133	127 95%	6 5%	0 0%
Noroton Heights	19	19 100%	0 0%	0 0%
Darien	22	21 95%	0 0%	1 5%
Rowayton	11	11 100%	0 0%	0 0%
South Norwalk	52	51 98%	0 0%	1 2%
East Norwalk	46	46 100%	0 0%	0 0%
Westport	117	116 99%	0 0%	1 1%
Green's Farms	36	36 100%	0 0%	0 0%
Southport	13	13 100%	0 0%	0 0%
Fairfield	111	110 99%	0 0%	1 1%
Bridgeport	112	112 100%	0 0%	0 0%
Stratford	63	62 98%	1 2%	0 0%
Milford	86	86 100%	0 0%	0 0%
New Haven	215	214 100%	0 0%	1 0%
New Haven State St	1	1 100%	0 0%	0 0%
<u>New Canaan Branch</u>				
Glenbrook	2	2 100%	0 0%	0 0%
Springdale	7	7 100%	0 0%	0 0%
Talmadge Hill	6	6 100%	0 0%	0 0%
New Canaan	14	14 100%	0 0%	0 0%
<u>Danbury Branch</u>				
Merritt 7	1	1 100%	0 0%	0 0%
Wilton	7	7 100%	0 0%	0 0%
Cannondale	2	2 100%	0 0%	0 0%
Branchville	2	2 100%	0 0%	0 0%
Redding	1	1 100%	0 0%	0 0%
Bethel	1	1 100%	0 0%	0 0%
Danbury	4	4 100%	0 0%	0 0%

Table 3. New Haven Line Poverty Levels by Station Per Survey Responses (Source: 2013 CSS/6-9-2015)

Station	Respondents	Poverty Persons	% Poverty	Poverty System wide	Poverty Status
Greenwich	47	2	4%		
Cos Cob	28	1	4%		
Riverside	15	2	13%		
Old Greenwich	28	1	4%		
Stamford	118	8	7%		
Noroton Heights	15	1	7%		
Darien	18	1	6%		
Rowayton	10	0	0%		
South Norwalk	48	5	10%		
East Norwalk	40	0	0%		
Westport	97	2	2%		
Green's Farms	32	0	0%		
Southport	10	0	0%		
Fairfield	93	4	4%		
Bridgeport	97	6	6%		
Stratford	55	3	5%		
Milford	74	2	3%		
New Haven	180	19	11%		
New Haven State St	1	0	0%		

Table 4. Connecticut Branches Poverty Levels by Station Per Survey Responses (Source: 2013 CSS/6-9-2015)

Station	Respondents	Poverty Persons	% Poverty	Poverty System wide	Poverty Status
Glenbrook	2	0	0%		
Springdale	6	0	0%		
Talmadge Hill	6	1	17%		
New Canaan	9	1	11%		
Merritt 7	1	0	0%		
Wilton	7	0	0%		
Cannondale	2	0	0%		
Branchville	1	0	0%		
Redding	0	0	Indeterminate		
Bethel	1	0	0%		
Danbury	4	1	25%		
Derby-Shelton	1	0	0%		
Sevmour	1	0	0%		
Naugatuck	1	0	0%		
Waterbury	11	2	18%		

Media Communication/Translation - MNR does include LEP and minority news outlets as part of their distribution to print and electronic sources for news releases. MNR provides a Travel Information Center to distribute information. The Center does have access to Language Line that can translate communications into 180 different languages to assist LEP customers.

MNR has a Google Translate button on their website. MNR also shows QR codes on their posters that link the user to a web page with additional information.

The Customer Information Center (CIC) provides translation service through its AT&T Language Line contract.

Public hearing notices, specifically for proposed major service and fare changes, are posted throughout the MNR system and its website in both English and Spanish.

Spanish Newsletter - Metro-North inaugurated a customer publication for its reverse commutation market that includes a Spanish language translation. *Outposts* communicates with the Spanish speaking customers who utilize Metro-North's reverse commutation service. Metro-North publishes *Outposts* quarterly in both English and Spanish. Metro-North publishes information about emergency evacuation instructions, fare changes, service changes, and other information critical to riding Metro-North. Also, Metro-North's news releases are distributed to as many as 200 print and electronic media sources throughout Metro-North's service area. Spanish language translations will continue to be used in other communication venues when it is deemed a meaningful part of a particular Metro-North operating plan or when a change from an existing operating plan affects Spanish-speaking communities within Metro-North's service region.

Customer Information Center – Several customer service representatives are bilingual and are able to provide information in a few different languages. If the Customer Service Representatives does not know the customers native language, they are trained in how to determine if a caller needs further translation assistance. They then call the AT&T Language Line which provides support for Metro-North customer inquiries in foreign languages. The Customer Service Representative provides the relevant travel or service information via an interpreter who speaks in the customer's native language. This service is accomplished via a 3-way conference call and up to 180 languages are available under this contracted service.

Ticket Vending Machines - The Ticket Vending Machines ("TVMs") for Metro-North have instructions for use in multiple languages, besides English. Each of the machines has Spanish instructions available to the rider. The TVMs are extensively located throughout the Metro-North service network, presently situated in 103 stations. In addition, signs are posted next to every TVM explaining, in detail. Ticket types and fare policy in both English and Spanish.

Based on these efforts, MNR is making concentrated efforts to perform public outreach and gain public comment, as well as taking necessary steps for accommodating Spanish LEP riders. Going forward, CTDOT will recommend that MNR re-examine its public participation process for Connecticut in light of other LEP populations among ridership.

Statewide Planning Process - Identifying the transportation needs of minority populations

Existing (codified) Activities: The Connecticut Department of Transportation employs a number of mechanisms to engage minority populations in the planning process to assess their needs. These mechanisms range in effectiveness. Some are codified in our planning procedures, and others are exhibited in our project specific public involvement activities. For example, the Department's existing Title VI Plan, Public Involvement Procedures, Long Range Transportation Plan, and Statewide Transportation Improvement Plan all contain either individual public involvement activities that adhere to our existing policies or, in some cases, go above and beyond the codified requirements to engage stakeholders identified in the plan's specific topic areas. The Department's primary procedures for public involvement are the Department's Public Involvement Procedures and the approved Title VI Plan. These documents are intended to provide the framework for an early, often, and continuous public involvement process.

Current Activities (TransformCT): Through the initiative of developing a Strategic Long Range Transportation Plan, known as TransformCT, the Department has enhanced its efforts for public engagement, including targeting geographic areas in the state that have large minority populations. TransformCT is intended to satisfy the US DOT requirements of MAP-21 to prepare a long-range transportation plan. Additionally, TransformCT will be an action-oriented strategic plan based on a collective vision for the transportation system for the next fifty (50) years. In order to develop this vision, the Department has employed a number of techniques in addition to those included in our existing public involvement plans to ensure participation by all users of the system.

The Department has taken steps to ensure that affirmative efforts are made to engage minority communities and encourage them to provide input in the planning process. The Department has utilized existing contacts in other state agencies, legislative committees, including the African Affairs committee, and Latino and Puerto Rican Affairs Commission to reach out to minority populations and people with Limited English Proficiency (LEP).

Additionally, the Department has conducted three large statewide events with all material published in English and Spanish. Spanish is the second most spoken language in the state of Connecticut. The Department also engaged Radio Cumbre, an all-Spanish speaking radio show to promote the statewide public meetings. The Department offered to engage community groups in their settings, or at their regular meetings to learn of the needs of the populations typically underrepresented in the transportation planning process. Additionally, statewide public meeting promotion material was distributed on all of our rail commuter service lines in English and Spanish. Posters were also posted on all fixed route bus services throughout the state including those areas identified in our Title VI mapping having large minority populations.

In an effort to increase the numbers of minority persons engaged in the planning process the Department will be working towards developing additional resources and strategies to reach and engage minority populations.

Near-Term Activities

We have identified the following resources and strategies:

- Expand and update the database of community based organizations; faith-based organizations; neighborhood organizations; non-profit and for-profit social service providers; and minority advocacy groups, including the NAACP, AARP, and others that have established connections to minority populations throughout the state and encourage them to provide input.
- Create a statewide committee comprised of CTDOT, other state agencies, the groups identified above, and others to meet regularly and discuss issues, needs, upcoming events and/or methods for engagement and creating awareness of planning initiatives.
- The Department has begun to collect willing participants who elect to identify themselves as a resource for outreach to their respective groups,
- Develop a process to quickly deploy language translation services related to planning, both verbal and written. Beginning in FY 2016, the Department will be allocating funding for these services so that we are prepared to quickly deploy language translation services into the planning process.

The Department's TransformCT effort will enable the Department to ensure an effective mechanism as part of our ongoing planning process. Additionally, these resources will all be available to every project manager in their individual project administration and will greatly aid in not only identifying minority populations, e.g. mapping, but also provide organizations and contacts around the state that can be accessed for meaningful discussions about the needs of the community, and how any project may impact them. The Department acknowledges that addressing these deficiencies will be ongoing and an iterative process of attempting new methods and adopting those that work most effectively.

Minority Community Outreach and Needs - The TransformCT process engaged significant amounts of minority communities, more than ever before, in the Department's Long Range Plan development process. The project team conducted over 110 public meetings, the majority in urban areas, and held focus groups and work sessions with established community groups and organizations including minority owned business leaders; faith-based groups; neighborhood groups; and minority legislative sub-committees and their constituents, i.e. Legislative Subcommittee on Puerto Rican affairs, African American Legislative Subcommittee, Waterbury Puerto Rican Chamber of Commerce. Many of these users had similar concerns that the rest of the system users had but there was also a commonality among them. There was a clear need for more fixed route bus and rail service within and connecting our urban cores to urban fringe. This included more frequency, later service, greater coordination among the modes, and expanded routes. The result of this engagement led to the development of a statewide vision and strategies grouped along geographic areas which included up to 25% more fixed route services in our urban areas. The vision and strategies were accompanied by a statewide transportation funding proposal that included an additional 2.8 billion dollars to jump start this investment. The proposal recently won legislative support and the two-year biennial budget passed with this increased investment.

Title VI Process Review

I. Introduction: The purpose of this update is to monitor the Title VI, Limited English Proficiency (LEP) and Environmental Justice (EJ) programs and activities of the Metropolitan Planning Organizations (MPOs). The review will be a follow-up to the program review conducted by the Connecticut Department of Transportation in 2004.

MPOs serve as the primary forum where State Department of Transportations (DOT), transit providers, local agencies, and the public develop local transportation plans and programs that address a metropolitan area's needs. Additionally, the Rural Planning Agencies play a similar role for the rural areas of the State. MPOs can assist local public officials in understanding the requirements and responsibilities under Title VI and assist them with understanding how Title VI, LEP and EJ compliance improve the planning and decision making process.

To certify compliance with Title VI and address Environmental Justice (EJ), MPOs need to:

- Enhance their analytical capabilities to ensure that the long-range transportation plan and the transportation improvement program (TIP) comply with the obligations under Title VI, LEP and EJ.
- Identify the residential, employment, and transportation patterns of low-income and minority populations so that their needs can be identified and addressed and the benefits and burdens of transportation investments can be fairly distributed.
- Evaluate and – where necessary – improve their public involvement processes to eliminate participation barriers and engage minority, low-income and LEP populations in the transportation decision-making process.

II. The Update Review Panel

Below is the list of the 2011 Title VI Update Review Panel.

Rose Etuka, Title VI Coordinator	Debra Goss, Title VI Coordinator
Maribeth Wojenski, Assistant Director	Irma Reyes, EEO Specialist & Title VI Assistant
Patrick Zapatka, Transportation Planner II	

III. The Process

To update the Title VI Process Review Report produced in 2004, the Department sent out a memorandum to each Regional Planning Organization (RPO) located in the State of Connecticut requesting the following:

1. An update on how the Region has addressed, is addressing or plans to address the 2004 identified areas of concern. These are identified Title VI, LEP and EJ areas of deficiencies that affected MPOs are committed to provide resources and staff time to.

2. Answers to the Regional Planning Organization Questionnaire sent to all RPOs. These questions were designed to provide the Department with information on how the MPOs are currently meeting the federal mandates regarding Title VI, LEP and EJ.
3. The Region’s public involvement process.
4. The Region’s Limited English Proficiency Plan.
5. The Region’s Title VI Complaint process (if available).

The responses received were reviewed and used for the Title VI Review Process Update.

IV. Title VI, Environmental Justice, & Limited English Proficiency: Relationship and Application

Title VI

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in programs and activities receiving Federal financial assistance. Specifically, Title VI provides that no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Areas of emphasis include the following:

- No person in the United States—The word “person” includes citizens as well as persons not lawfully present in the United States (illegal aliens). The phrase “in the United States” refers specifically to the fifty states of the Union. However, due to Title VI’s relationship to the 5th and 14th Amendments to the Constitution (one amendment applies to the states and one applies to the states and the territories), Title VI is broadly interpreted to apply to the states and the territories.
- Program or Activity—The Civil Rights Restoration Act of 1987 amended Title VI and related statutes by adding an expansive definition of “program or activity”. Therefore, the term “program or activity” applies to (1) a department, agency, special purpose district, or other instrumentality of a State or of a local government; or (2) the entity of such State or local government that distributes such assistance and each such department or agency (and each other State or local government entity) to which the assistance is extended, in the case of assistance to a State or local government. A Regional Planning Organization receiving federal assistance satisfies this definition.
- Receiving federal financial assistance through the State—Federal financial assistance is the award or grant of money. In addition, Federal financial assistance may be in non-monetary form. Federal financial assistance may include the following: use or rent of Federal land or property at below market value, Federal training, a loan of Federal personnel, subsidies, and other arrangements with the intention of providing assistance. Federal financial assistance does not include the following: contracts of guarantee or insurance, regulated programs, licenses, procurement contracts by the Federal government at market value, or programs that provide direct benefits.

Title VI applies directly to race, color, and national origin. There are three additional “cross-cutting” nondiscrimination statutes that prohibit discrimination on other grounds in federally assisted programs or activities. These include the following: Title IX (prohibits discrimination in education programs on the basis of sex), Section 504 (prohibits discrimination on the basis of disability), and the Age Discrimination

Act (prohibits discrimination on the basis of age). Congress modeled these statutes after Title VI. Therefore, when Title VI/Nondiscrimination is referenced, sex, age, and disability are generally linked with race, color, and national origin.

Environmental Justice

Executive Order 12898 (“Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”) required each federal agency to develop a written strategy to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income communities. This can be realized through the development and implementation of an integrated approach towards Environmental Justice (EJ) through the collection, analysis, and dissemination of understandable and useful information on the adverse environmental and health impacts on protected populations. Through the National Environmental Policy Act of 1969 (NEPA) process, the EJ analysis is included as an individual section of the environmental document and is thereby disseminated to the public. For a Regional Planning Organization (RPO), the EJ analysis is included as another area of study under Title VI during the planning process for transportation projects, plans and programs. Additionally, RPOs should analyze the impact of benefits provided by the RPO upon low-income and minority communities within the RPO’s boundaries. This should include providing LEP populations and minority and low-income communities access to public information and the opportunity for public participation in the planning process.

There are three fundamental EJ principles. These principles are as follows:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations;
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process; and
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

Environmental Justice is applicable to persons belonging to any of the following groups:

- Black—a person having origins in any of the black racial groups of Africa.
- Hispanic—a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
- Asian—a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent.
- American Indian and Alaskan Native—a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition.
- Native Hawaiian or Other Pacific Islander—a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
- Low-Income—a person whose household income (or in the case of a community or group, whose median household income) is at or below the U.S. Department of Health and Human Services poverty guidelines.

Limited English Proficiency

Executive Order 13166 (“Limited English Proficiency”) affirmed the obligation to eliminate limited English proficiency (LEP) as an artificial barrier to full and meaningful participation in all federally assisted programs and activities. In addition, the Executive Order expanded the obligation to address the language needs of LEP persons beyond federally assisted programs and activities to include federally conducted programs and activities. A recipient is required to evaluate how a LEP person’s inability to understand oral and written information provided by and about a federally assisted program or activity might adversely impact his or her ability to fully participate in or benefit from that program or activity. The guiding principle of the LEP Guidance is a four-factor analysis of “reasonableness”. The four-factors are as follows:

- Number or proportion of LEP persons in the eligible service population;
- The frequency with which LEP individuals come in contact with the program;
- The importance of the service provided by the program; and
- The resources available to the recipient.

Utilizing these four-factors, a RPO should determine what, if any, language mitigation measures are reasonably necessary to eliminate or minimize LEP as a barrier to participation in or receipt of the benefits of a federally assisted program or activity.

The USDOT published policy guidance on Title VI’s prohibition against national origin discrimination as it affects LEP persons. A synopsis of the USDOT guidance can be found in Appendix B; this synopsis was provided to each MPO and Rural Region in the State.

Coordinated Relationship

Title VI, being a portion of a Congressional statute, is the area of emphasis. Within the planning process, each RPO should have a Title VI area of analysis for all federally assisted transportation projects as well as programs and activities (e.g. Long Range Plan and Transportation Improvement Program). As a part of this Title VI analysis, a study should be performed to ensure that development and urban renewal benefiting a community as a whole, should not be unjustifiably purchased through the disproportionate allocation of its adverse environmental and health burdens on the targeted communities (low-income and minority). This should include providing minority and low-income communities with access to public information on, and public participation in, matters relating to human health or the environment as it is affected by transportation projects and programs.

Four strategies that may be pursued to implement this analysis are as follows:

- Promote enforcement of all health and environmental statutes in areas with minority and low-income populations;
- Ensure greater public participation;
- Improve research and data collection relating to the health and environment of minority and low-income populations; and
- Identify differential patterns of consumption of natural resources among minority and low-income populations.

As a portion of this analysis, a study of impacts relating to outreach to LEP persons should be performed. LEP populations (if any) should be identified and a “reasonableness” decision made as to the need to provide additional resources to promote participation in the public process.

Regarding a benefits analysis, if a RPO is offering public transportation, studies involving possible impacts to minority/low-income communities and LEP persons should be performed as part of the Title VI analysis.

V. Guidance to Achieve Compliance with Title VI, Environmental Justice, and Limited English Proficiency

Below is a list of basic guidance to assist the Regional Planning Organizations to achieve compliance with the many aspects of Title VI, EJ, and LEP legislative requirements. This guidance as well as the legal requirements discussed above should be reviewed and where applicable implemented by the Regional Planning Organizations. The guidance is grouped into two categories: Planning Processes and Products, and Public Outreach.

Planning Processes and Products:

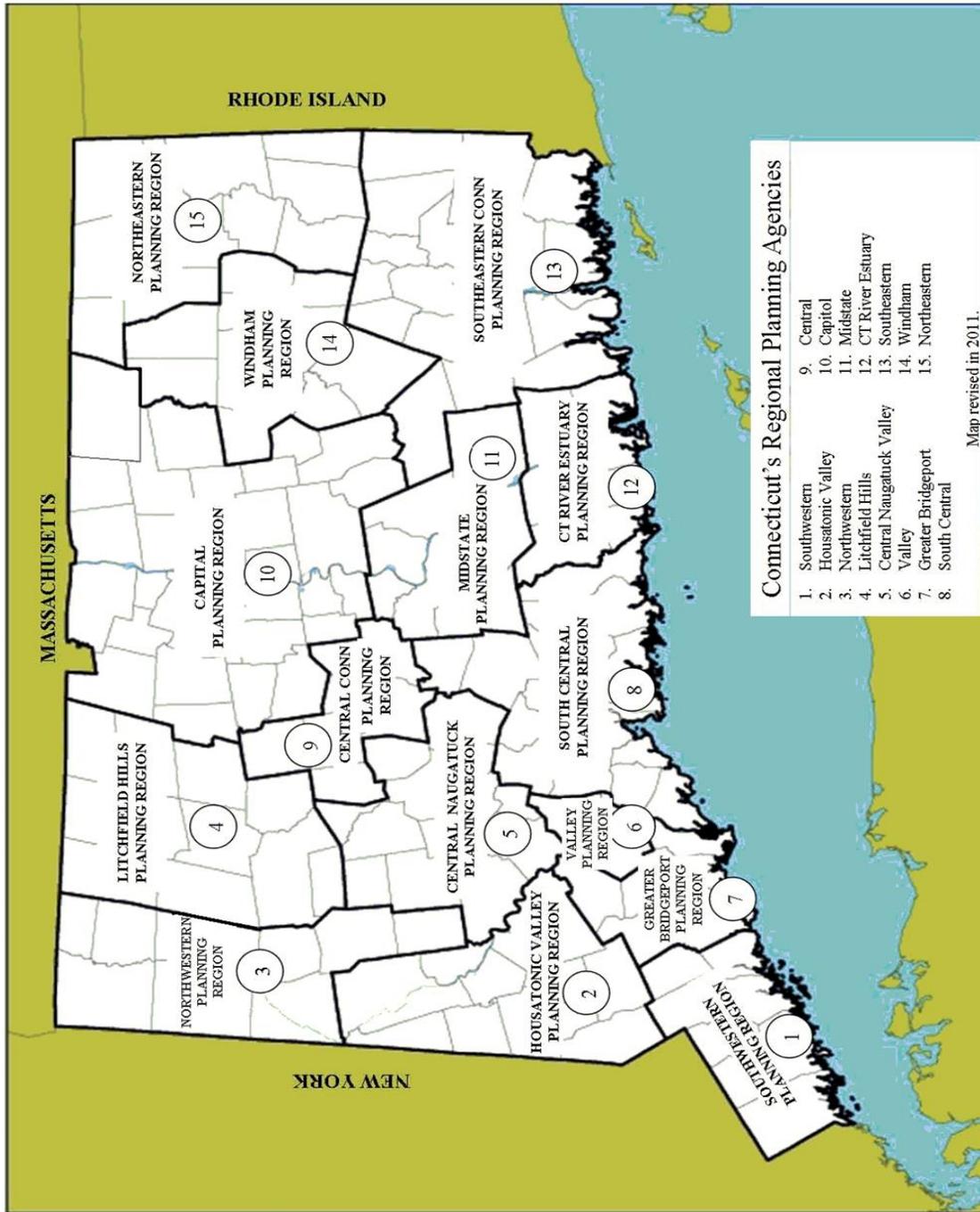
- Integrate the EJ process into the Title VI process.
- Emphasize Title VI in the planning process.
- Produce a Title VI action plan.
- Expand the identification process for LEP groups.
- Incorporate LEP procedures in the public participation plan, including identification procedures.
- Examine the use of Block Groups as opposed to Census Tracts to identify the location of the targeted groups.
- Update the targeted group locations using the 2010 Census Data.
- Publish the public participation plan electronically.
- Review and expand the project selection criteria to include Title VI elements, in particular the STP Urban Program and the FTA 5310 vehicle selection process.
- Identify and analyze the benefits and burdens of the planning process and products, as well as projects, and implement the recommended changes.

Public Outreach:

- Identify Community Based Organizations, and expand public outreach to the targeted community groups during TIP adoption and LRP update.
- Evaluate public outreach efforts, including a review of the effectiveness of the process to identify what is working and opportunities for improvement.
- Indicate access to LEP documentation on RPO websites, agendas, and other means, including an indication of availability of documentation in the alternative language.
- Consider the translation of brochures, pamphlets, and documents where practical.
- Expand the mailing list to include alternative language newspapers.
- Participation of representatives from targeted communities on RPO boards.
- Ensure that public meetings are conducted at convenient and accessible locations at convenient times.
- Establish a Title VI/EJ advisory committee.
- Examine and update the website to include alternative language information.

VI. Map of the Fifteen Regional Planning Organizations in Connecticut.

The map below depicts the boundaries for the fifteen Regional Planning Organizations in Connecticut.



VII. A synopsis of actions taken for reviewing and updating the RPOs Title VI process.

All local governments and Metropolitan Planning Organizations (MPOs) that receive federal funds through CTDOT are required to develop a Title VI process plan for their transportation projects. The Department has developed fifteen (15) questions to determine how the Metropolitan Planning

Organizations (MPOs) are currently meeting the federally mandated Title VI requirements, including how Title VI, LEP and EJ are incorporated into transportation projects and if other analytical tools are currently being used. This set of 15 CTDOT identified questions to RPOs are listed below.

Following these questions are segments on each Regional Planning Organization (RPO). Under each Region's section are:

- A brief history on their Title VI practices.
- Regional responses to their identified areas of concern included in the February 2004 Title VI Process Review Document.
- Regional responses to the 15 CTDOT identified questions and website addresses (if provided) where the region's completed document is posted.

Any additional attachments submitted from the RPOs in response to the questions have been reviewed by the Department. As these are large files, these attachments have not been attached to this document but are available upon request.

Fifteen (15) QUESTIONS TO ALL REGIONAL PLANNING ORGANIZATIONS

(Each RPO's answers the following questions are listed under the region's section below)

1. Have the MPOs updated their demographic profile of the metropolitan planning area that includes identification of the locations of socio-economic groups, including low-income and minority populations as addressed by the Executive Order on Environmental Justice and Title VI provisions? If so, how does the demographic profile identify the locations of the socio-economic groups? Please submit a sample.
2. Does the MPO's planning process seek to identify the needs of low-income and minority populations? If so, how does the planning process identify these needs? In addition, does the planning process seek to utilize demographic information to examine the distributions across these groups of the benefits and burdens of the transportation investments included in the TIP? Finally, what methods are used to identify imbalances?
3. Does the MPO's public involvement process have an identified strategy for engaging minority and low-income populations in transportation decision-making? Secondly, what mechanisms exist to ensure that the public's issues and concerns are addressed? Also, what strategies, if any, have been implemented to reduce participation barriers for such populations? Finally, has their effectiveness been evaluated?
4. Has public involvement in the MPO's planning process been routinely evaluated as required by regulation? In addition, have efforts been undertaken to improve performance, especially with respect to low-income and minority populations? Also, have organizations representing low-income and minority populations been consulted as part of this evaluation? Finally, have their concerns been considered?

5. Does the MPO's public outreach effort utilize media (such as print, television, radio, etc.) targeted to low-income or minority populations? If so, what media vehicle is utilized? Please provide a listing of media vendors used and a sample.
6. How has the MPO included Title VI and Environmental Justice in the following:
 - a) The Long-range Transportation Plan?
 - b) The Transportation Improvement Program?
 - c) The Unified Planning Work Program?
 - d) The Public Involvement Plan?
7. Has the MPO reviewed its decision-making process or developed written policies or criteria that address consideration of all populations served by the RPO? Please provide policy.
8. How does the MPO provide access to public comments or other types of public input for decision-making?
9. Is the region following your Limited-English Proficiency plan?
10. What manner of transit monitoring does the region perform as it relates to Title VI, LEP and E.J.?
11. Does the region have a Title VI complaint process? If so, please provide a copy.
12. Has your Title VI Policy and Title VI complaint process been added to your RPO website? If yes, please provide a link to that website.
13. Does the region coordinate with Native American Tribal Governments?
14. Are contracting opportunities for planning studies, corridor studies and other technical work available to all groups/persons? How are these contract opportunities advertised?
15. How does the region ensure that the required Title VI requirements are incorporated into subcontracts and agreements initiated by their RPO?

The MPO Review Analysis is attached (see Attachment 5).

Providing Assistance to Subrecipients

In an effort to ensure that subrecipients are complying with the requirements under Title VI, the Department of Transportation has developed a Title VI Compliance Assessment Survey. This document is mailed to subrecipients receiving funding under the 5307, 5310, 5311, 5316 and 5317 programs. The Office of Contract Compliance (OCC) is responsible for mailing the surveys and the Bureau of Public Transportation provides the listing of sub-recipients. The assessment is conducted every two years.

The Department utilizes the assessments as a tool to remind subrecipient-grantees of their obligations and responsibilities under Title VI and to monitor the subrecipients' Title VI program implementation.

The Department reviews the surveys and the requested documents to determine if the subrecipients have implemented the necessary processes and procedures to comply with Title VI, Environmental Justice (EJ) and Limited English Proficiency (LEP).

In addition to the survey that is mailed to each subrecipient, they also receive an “Information Packet” which includes a copy of the CTDOT Title VI Policy Statement; the Department’s Discrimination Complaint Process and Procedure and all applicable forms; LEP Implementation Plan Guidance for Subrecipients; a copy of the Department’s Title VI Poster and Brochure; and Title VI information posted on the Department’s webpage. Sub-recipients have the option of developing their own Title VI, LEP/EJ processes or using the format provided by the Department to assist in the development of their program. The program must meet the requirements of the FTA Circular 4702.1 B.

The responses are also used to determine the training and technical assistance needs of the subrecipients. The OCC conducts Title VI training to all subrecipients receiving federal funding and/or as training is needed. To provide additional technical assistance, the OCC developed a training booklet for subrecipients entitled “Title VI Training – The Basics”. This booklet is a reference tool outlining the requirements of a compliant Title VI Program as per the requirements in the FTA Circular 4702. 1B.

The booklet also includes copies of a PowerPoint presentation discussed at the workshop, the Title VI Policy Statement, Title VI Brochure, Your Rights under Title VI Poster, Title VI Discrimination Form, Title VI Assurances, Executive Order 13166 and 12898. There is also a complete listing of Title VI definitions and the Title VI Assessment Survey included in the booklet. The training agenda is included ([see Attachment 6](#)).

A full Title VI process review will be conducted on Municipal Planning Organizations (MPOs) every five years. In order to ensure the MPO’s compliance with the Title VI Program, since their last review on March 31, 2012, the Department sent out a “MPO Title VI Compliance Update Form” on February 26, 2014 to be completed and submitted to CTDOT for follow-up review. The form included a table of questions pertaining to the Title VI (MPO) requirements outlined in the FTA Circular 4702.1B. The CTDOT will perform a follow-up review and MPOs will be required to document their progress towards addressing any deficiencies identified during the follow-up process review. The MPOs will be required to address any areas of non-compliance as part of their scheduled quarterly reports to the Department. The quarterly reports are an ongoing requirement and the MPOs will continue to provide them on a quarterly basis.

The MPO’s public participation plan is reviewed and approved by CTDOT, FHWA and FTA. CTDOT encourages the MPO to update their plan at least every five years to ensure all individuals in the Region have access to transportation data. MPO websites are monitored to ensure that they include translation tools for the public to use based on their individual LEP plans.

Monitoring Subrecipients

2013 Survey Assessment Results

The survey was mailed to subrecipients on July 15, 2013, with a due date of August 12, 2013. In addition to completing the survey document, each subrecipient was required to submit a copy of their LEP Plan; a copy of the Agency's Organizational Chart showing the Agency's Title VI Coordinator; a copy of their Title VI Policy Statement; a copy of their Title VI complaint process and procedures; and a copy of their public involvement plan (see Attachment 7). We received numerous calls from subrecipients who had a multitude of questions. Some were not familiar with Title VI, did not understand the applicability of Title VI to their program activities, or were looking for guidance as to what they needed to do. Most were not familiar with EJ and LEP. After reviewing the submissions and the types of questions that were being asked, it was determined that the need for Title VI training for subrecipients was necessary. This seems to be an ongoing issue and appears to be due to staff turnover.

The Assessment Surveys went out to a total of 114 subrecipients; a total of 65 responses were received and 49 subrecipients did not respond. The response rate was 57%. The Department has started to reach out to these agencies individually to determine their Title VI compliance.

In reviewing the documents, the following seven major areas were assessed:

- Do you have Environmental Justice/Limited English Proficiency Plans?
- Are all protections posted on your website (including the Title VI Policy Statement)?
- Do you have a Title VI Complaint Process and Procedure?
- Do you have documentation on outreach to minority and low-income communities?
- Have you attended Title VI training?
- Is the Title VI Assurance signed by your Agency head?
- Do you have a table showing the demographics of members on transportation boards or committees?

LEP/EJ Plans - 66% said they had plans; 34% indicated they did not have plans.

Are all protections posted on your website (including your Title VI Policy) – 72% said they had a policy; 28% indicated no.

Complaint Process and Procedure – 86% said they had a Title VI complaint process and procedure; 14% said they did not.

Outreach to minority and low-income communities – 74% provided outreach; 26% did not.

Attended Title VI training – 86% stated they attended Title VI training and 14% did not receive training.

Title VI Assurance Signed by the Agency Head – 91% of the Title VI Assurances was signed by the agency head and 9% were not.

Table showing race/gender demographics on transportation boards or committees – 51% showed tables with demographics showing the racial breakdown on transportation boards or committees, 23% did not respond and 26% did not have a transportation board or committee.

Upon review of the subrecipient surveys received, it was determined there is a need for Title VI training. The emphasis should continue to be on the primary components that are necessary for a compliant Title VI Program. The review showed that subrecipients still confuse the Title VI program with the Title VII program specifically as it relates to handling complaints. They also did not fully understand the extent of Title VI and how it applies to their programs, activities and benefits. Many of the subrecipients utilize the examples that we provide as a guide to help them develop their own Title VI policies and procedures. As subrecipients have turnover of their staff, the need for continued training becomes necessary.

On April 15, 16, 17, 2013, a four hour subrecipient Title VI training workshop was conducted by the Department's Title VI Coordinator and Associate Title VI Coordinator. Attendees were provided with a copy of the Title VI training manual (see Attachment 8). The training was held at the Connecticut Department of Transportation and over 91 subrecipients attended the workshop. The topics that were covered include the following:

Title VI Overview

- What is Title VI
- Brief History
- Regulations and Authorities

FTA Requirements

- Who is required to have a Title VI Program
- General Elements of a Plan

Limited English Proficiency (LEP)

- What is LEP
- Four Factor Analysis
- Safe Harbor
- Vital Documents

Public Involvement and Participation

- Proactive Strategies
- Procedures

Environmental Justice (EJ)

- Executive Order 12898

Minimize and Mitigate Disparate Impacts

- Intentional/Non-Intentional Discrimination

Monitoring and Reporting Requirements

- Annual Compliance Assessments

CTDOT subsequently provided one-on-one training to a few subrecipients that asked for training after the workshop. On September 26, 2013, CTDOT had a small group come in for training, and a presentation was provided to them. The subrecipients in this training approved of the idea of smaller group training.

All subrecipients are directed to post their Title VI policies and complaint process on their websites and provide a notice to beneficiaries of their rights under Title VI. They are also reminded of their responsibility to post notices in areas easily visible to the public. They are informed of their responsibility to track demographic information on race, income, and English proficiency of residents served. This information is required to be submitted to the Department as part of the assessment.

Subrecipients are directed and required to document their efforts to ensure LEP persons have the ability to participate in their programs and activities.

The Department has requested quarterly teleconferences with Metro North Railroad MNR to review their ongoing compliance with Title VI and to discuss the status of any Title VI complaints filed with MNR relative to Connecticut based activities. The Department reviews the contents of MNR's portion of the Title VI program that reports on the NHL service in Connecticut and monitors their Title VI activities in Connecticut.

Follow-Up Items

The Department is looking at ways to ensure that all subrecipients are compliant with Title

We have included a future plan of action that consists of the following:

- To provide additional training for subrecipients as needed.
- To look into the feasibility of a web-based training tool.
- Determining patterns or trends.
- Develop technical assistance tools to help minimize patterns.
- Develop focused training for identified trends.

Collect and Report Demographic Data

Map Preparation Background

1. Purpose

Per requirements of the Department’s Title VI compliance review and submission, several maps were prepared. These maps presented Connecticut’s public transportation systems (rail, bus) and services against various demographic, socio- economic data. They will be used for future analysis of Title VI impacts and project concerns.

2. Sources Used

To develop the maps, several data sets were retrieved from various external sources including the U.S. Census Bureau, Connecticut Department of Education, Connecticut Transit and other Connecticut Rural Bus Operators as well as internal sources such as State Traffic Commission (STC), census Modeling and GIS Development Sections from Bureau of Policy and Planning along with Bureau of Public Transportation. The data developed is listed below with their source:

Figure 2a – Title VI Data and Source

Data	Source
Rail Information	
Passenger Rail System Network	CTDOT- GIS Development Section
Rail Facilities	CTDOT - Bureau of Public Transportation
Rail Service Buffers	
2.5 Mile Rail Stations Buffer	CTDOT - GIS Development Section
Transit Information	
Local Intercity Bus Lines	CT Transit, Transit District Providers
Express Lines	CT Transit
Express Bus Stops	CT Transit, CTDOT-Bureau of Public Transportation
Rural Bus Routes	CTDOT-Bureau of Public Transportation, NECCOG Transit District, Middletown Areas Transit, 9 Town Transit, Northwest Transit, Windham Region
Bus Facilities	CT Transit, CTDOT – Bureau of Public
CTfastrak Stations, Shelters, and Alignment	CTDOT - Bureau of Public Transportation
Job Access Routes	CTDOT - Bureau of Public Transportation
Towns Served by Section 5310 Vehicles	CTDOT - Bureau of Public Transportation
Bus Service Buffers	
0.75 Mile ADA Buffer – Local Bus Routes and Rural Bus Routes	CTDOT - GIS Development

2.5 Mile Buffer - Express Bus Stops	CTDOT - GIS Development
Statewide Major Activity Centers	
Hospitals/Medical Centers	2013 TGS Data
Schools	2012 CT Department of Education
Major Traffic Generators	CTDOT - STC
Base Map Layers	
Town Boundaries	CTDOT - GIS Development
Highway System	CTDOT - GIS Development
Census Tract Boundaries	US Census Bureau
Demographic & Socio-Economic Data	
Limited English Proficiency (LEP) Data	US Census, American Community Survey (ACS) 2007- 2011, 18 years and older, Tables B16004 &
Language Groups with LEP Data	US Census, American Community Survey (ACS) 2007- 2011, 5 years and older, Table B16001
Minority Data	US Census 2010 Summary File 1, Table P8.
Poverty Data	US Census, American Community Survey (ACS) 2007- 2011, Tables DP03, S1901, and B17026

3. Methods Used

Various maps were prepared by the GIS Development Section of Bureau of Policy and Planning. These maps presented the various requirements with respect to services provided by both rail and transit systems.

Rail System Mapping

The rail system mapping was compiled by first adding the various base layers including geographic boundary information, highway system, and statewide activity centers. Rail system information was then added to the mapping including both passenger rail and stations (existing, proposed and relocation). A 2.5 mile buffer was added around each of the rail stations to create the *Rail Service Area*.

Transit (Bus) Mapping

The bus system mapping was compiled by first adding the various base layers including geographic boundary information, highway system, and statewide activity centers. Bus system information was then added to the mapping including transit facilities (existing and proposed), shelters, and CTfastrak information. A 0.75 mile buffer was added to Local Intercity Bus Routes and Rural Bus Routes. A 2.5 mile buffer was established around each of the Express Bus Stops. The buffers were combined to create the *Bus Service Area*.

In addition, 5310 Vehicle Grants and 5316 Job Access Routes maps were plotted separately.

For a complete list of maps used and charts detailing safe harbor and LEP populations please see [Appendix A](#).

Demographic & Socio-Economic Data

Various demographic and socio-economic data layers were developed by using either the U.S. Census 2010 or the American Community Survey (ACS) 2007-2011 data.

The data includes statewide and service-area based Limited English Proficiency (LEP), Minority, and Poverty as follows:

Based on each bus and rail service area (divided by bus operating divisions and rail lines), maps were created to show the LEP and Safe Harbor populations within each service area, according to the census tract data. These maps depicted all LEP language groups that constitute five percent (5%) or 1,000 persons whichever was less of the total population of persons eligible to be served or likely to be affected or encountered both statewide and within the individual bus and rail service areas. When viewed at the service area level (totaling the census tracts found within each service area), only the Spanish population met the criteria of being over 5% and/or greater than 1,000 within any service area.

The Connecticut Department of Transportation (CTDOT) has compiled and reviewed data at the service area level for LEP populations. This review has been compiled to provide greater detail relative to where LEP populations are located in the state. CTDOT will translate its vital documents into the top eight LEP languages: Spanish, Italian, Chinese, Portuguese, Polish, French/Patois Cajun, Russian, and French Creole. The LEP populations that speak these languages comprise eighty-eight percent (88%) of the entire Connecticut LEP population, and are found in the most service areas.

Subsets of this source data were created. Average percentage LEP, Poverty, and Minority levels of the service areas were evaluated. Maps were plotted to highlight those census tracts where the percentage of the total LEP, Poverty, and Minority populations residing in these areas exceed the average percentage for the service area as a whole.

Limited English Proficiency (LEP) Plan

Meaningful Access for People with LEP

Overview

On August 11, 2000, President Clinton issued Executive Order 13166, entitled “*Improving Access to Services for Persons with Limited English Proficiency*” (LEP).

On December 14, 2005, the United States Department of Transportation (USDOT) published revised guidance for its recipients on the implementation of Executive Order 13166. The Census definition of an LEP person is “...a person who speaks another language other than English at home and does not speak English well, or not at all.”

As a recipient of Federal Transit Administration (FTA) funding the Connecticut Department of Transportation (CTDOT) takes reasonable steps to ensure compliance with Title VI of the Civil Rights Act of 1964, as amended. CTDOT adheres to acceptable compliance standards ensuring reasonable access to all federal-aid programs and activities by LEP persons. CTDOT supports the goals of the USDOT LEP Guidance and is committed to taking reasonable steps to provide meaningful access to LEP stakeholders who use our services, facilities, and programs, and who attend our meetings and events.

CTDOT is committed to complying with the requirements of Title VI, Executive Order 13166, and US DOT LEP Implementing Guidance.

Title VI of the Civil Rights Act of 1964, 42 U.S.C. 200d et seq., and its implementing regulations provide that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity that receives Federal financial assistance. The Supreme Court, in *Lau v. Nichols*, 414 U.S. 563 (1974), interpreted Title VI regulations promulgated by the former Department of Health, Education, and Welfare to hold that Title VI prohibits conduct that has a disproportionate effect on LEP persons because such conduct constitutes national origin discrimination.

Executive Order 13166, “*Improving Access to Services for Persons with Limited English Proficiency*” reprinted at 65 FR 50121 (August 16, 2000), directs each Federal agency to examine the services it provides and develop and implement a system by which LEP persons can meaningfully access those services. Federal agencies were instructed to publish guidance for their respective recipients in order to assist them with their obligations to LEP persons under Title VI. The Executive Order states that recipients must take reasonable steps to ensure meaningful access to their programs and activities by LEP persons.

USDOT published revised LEP guidance for its recipients on December 15, 2005, which states that Title VI and its implementing regulations require that USDOT recipients take reasonable steps to ensure meaningful access to their programs and activities by LEP persons. FTA published its LEP Guidance in its Circular 4702.1B Title VI Requirements and Guidelines for Federal Transit Administration Recipients,

which requires recipients to develop an LEP implementation plan consistent with the provisions of Section VII of the USDOT LEP guidance.

This document provides CTDOT's Four-Factor Analysis that includes: Identification of LEP Individuals in the CTDOT transit service area who need language assistance, the nature and importance of transit to LEP individuals and available resources and costs of providing language assistance services. This document also includes CTDOT's 2012-2014 Language Assistance Plan (LAP) which is composed of descriptions of language assistance measures employed by CTDOT and the status of efforts to implement the LAP. Finally, the document presents CTDOT's LEP Implementation Plan that includes the language initiatives planned for the next three years.

This section will refer often to Section XII of the Program Submission where a series of maps has been used to identify people with LEP characteristics for purposes of developing communications and outreach in accordance with Title VI requirements.

LEP Activities

Successful Activities to Continue:

Continuing development of partnerships with community organizations that serve LEP populations, translation of notices, and multi-lingual websites.

New Areas of Focus

Language Assistance: Provide free language assistance for non-vital, yet important outreach documents, either through language line or translators/interpreters. In addition, provide in-person interpreter services for events where the public testimony is solicited, and LEP populations will be served. These will be available upon request or as needed.

Vital Documents: Determine which documents are vital for translation, and choose the formats to most effectively communicate the messages contained in those documents. Vital documents will be translated into required Safe Harbor languages by January 1, 2017.

Training: Train front-line and other staff to effectively engage and respond to LEP customers. Training for front-line employees will be completed by July 1, 2016. Updates will occur at least once a year or as needed.

Customer Information: Provide timely and relevant information about CTDOT programs and services to LEP communities in the LEP Languages.

Outreach: Conduct culturally-competent outreach to LEP communities to increase awareness and use of CTDOT services and programs.

CTDOT communicates with Community Based Organizations (CBOs) and Faith Based Organizations (FBOs) that serve LEP communities to gain a better understanding of the needs of LEP populations, and develop strategies to ensure the LEP communities are well informed and well-served. Outreach to the

CBOs and FBOs has already begun. CTDOT has developed a directory of CBOs and FBOs that serve LEP populations; we have also identified the specific languages serviced by these organizations.

Research and Administration: Develop a means to assess and monitor the effectiveness of CTDOT's LEP Plan internally and externally on two levels:

1. Ongoing review to immediately address any critical issues and make changes to the LEP Access Plan as needed.
2. Annual review to include any changes in demographics, types of services, or other LEP community needs.

Efforts are underway to form a Title VI Input Committee. Committee members will include CTDOT staff from Public Transit, the Commissioner's Office, the Title VI Liaison Officer, and representatives from regional planning agencies statewide to discuss Title VI compliance and the effectiveness of current programs and policies. This Committee will meet on a quarterly basis, starting in 2016.

LEP Access Planning Process: To prepare a viable LEP Access Plan, CTDOT convened an LEP Workgroup to conduct the assessment of CTDOT's interaction with LEP Populations. Staff members from throughout the agency were hand-picked for the workgroup. The workgroup included staff from Public Transportation, Planning, Civil Rights, and Administration.

This workgroup was tasked with the following:

1. Performing a needs assessment to identify high concentrations or high numbers of LEP individuals and determine if there were language barriers limiting the access of LEP persons to CTDOT services.
2. Developing an LEP plan and providing a framework for the provision of timely and reasonable language assistance to those with limited English proficiency who access CTDOT services and a method to evaluate and review the effectiveness of a LEP Plan.
3. Reporting findings to management with recommendations and timelines for compliance with Federal regulations.

Staff members were tasked with developing a work plan and helping the group complete the LEP assessment and plan. Workgroup members collected and analyzed data, audited agency databases and communication materials, and conducted research among CTtransit operators.

The following is a summary of the results from the Workgroup:

Applying the Four-Factor Analysis

The Workgroup's LEP assessment was based on the Four-Factor Framework outlined in the DOT LEP Guidance:

Four Factor Analysis - involves four steps:

1. The number or proportion of LEP persons eligible to be served or likely to be encountered by a program, activity, or service of the recipient or grantee.
2. The frequency with which LEP individuals come in contact with the program.
3. The nature and importance of the program, activity, or service provided by the recipient to people's lives.
4. The resources available to the recipient and costs.

Factor 1: Number and Proportion of LEP Persons Eligible to be Served or Likely to be Encountered in the Service Area

DOT Guidance: "There should be an assessment of the number or proportion of LEP individuals eligible to be served or encountered and the frequency of encounters pursuant to the first two factors in the four-factor analysis."

CTDOT has researched and used several tools in order to determine the number and proportion of LEP persons eligible to be served or likely to be encountered by the transit system.

Census/ACS Data: The primary tool used for this Title VI study was the data from the 2010 U.S. Census Bureau. For this update, CTDOT also utilized the latest American Community Survey (ACS) data, which is also available on the U.S. Census Bureau website. The demographic analyses of the statewide, bus and rail service areas identified Spanish, Portuguese, Polish, Chinese and Italian as the top five languages spoken by people meeting the LEP standard of "speaking English not well or not at all".

In addition, CTDOT looked at the occurrence of LEP populations statewide meeting or exceeding "Safe Harbor" thresholds (5% or 1,000 individuals, whichever is less) for the purpose of identifying impacted individuals and to determine which languages require additional outreach or translations to ensure equitable access to CTDOT programs and benefits. CTDOT included anyone who spoke English "not at all" or "less than well" but also included the next grouping of people so that the new population included everyone who spoke English "less than very well." CTDOT looked at the Safe Harbor populations based on the eleven bus service areas and the three rail lines. This allows CTDOT to do targeted outreach.

The Service Areas were defined as the following:

New Haven Rail Line (Metro North):

The "New Haven Rail Line Service Area" map (September 2015) includes the New Haven Main line, and the New Canaan, Danbury, and Waterbury Branch Lines.

Metro North Rail operates all lines seven days a week. The lines on the map extend from New Haven Union Station to the Connecticut/New York border near Greenwich, as well as the station stops for the branch lines that extend to New Canaan, Danbury, and Waterbury.

Amtrak New Haven – Springfield:

The “Amtrak New-Haven – Springfield Rail Line Service Area” map (September 2015) includes the line currently operated by Amtrak that runs from New Haven, CT to Springfield, MA.

Amtrak operates the line seven days a week. The map shows the Connecticut portion of the New Haven – Springfield line and includes the defined service areas based on a 2.5 mile radius buffer around the rail stations of New Haven – Union, New Haven – State Street, Wallingford, Meriden, Berlin, Hartford – Union, Windsor, and Windsor Locks.

Shore Line East Rail:

The “Shore Line East Rail Line Service” area map (September 2015) includes the Shore Line East commuter rail service between New London and New Haven.

Amtrak operates Shore Line East for CTDOT seven days a week. The map shows the Shore Line East line which runs from New Haven to New London, and includes the defined service areas based on a 2.5 mile radius buffer around the rail stations of New Haven – Union, New Haven – State Street, Branford, Guilford, Madison, Clinton, Westbrook, Old Saybrook, and New London.

Hartford Division:

The “Hartford Division Bus Service Area” map (September 2015) includes:

- Local bus routes in the Hartford, New Britain, and Bristol divisions of CTtransit,
- The CTfastrak service area, and
- CTtransit Express routes that serve Hartford.

The CTtransit Hartford Division operates seven days a week. CTtransit's Hartford Division makes connections with Middletown Transit District, and CTtransit New Britain, Bristol, New Haven, and Waterbury divisions. CTfastrak services are also included in the Hartford Division.

The routes on this map extend north to the Massachusetts border, south to New Haven, west to Torrington and Waterbury, and east to Windham, Colchester, and Old Saybrook.

New Haven Division:

The “New Haven Division Bus Service Area” map (September 2015) includes local bus routes in the New Haven division of CTtransit.

The CTtransit New Haven Division operates seven days a week, connecting with other state-owned or subsidized bus services in Meriden, Wallingford, Milford, and the lower Naugatuck Valley areas, as well as with the New Haven Line and Shore Line East rail services.

The routes on this map extend north to Meriden and Waterbury, west to Seymour and Milford, and east to Madison.

Stamford Division:

The “Stamford Division Bus Service Area” map (September 2015) includes local bus routes and one express route in the Stamford division of CTtransit.

The CTtransit Stamford Division operates seven days a week, connecting with services in Norwalk, with the New Haven Line in several locations, the Harlem Line on Metro-North Railroad, and with Bee-Line buses in Westchester County New York. The Stamford Division also operates the I-BUS, an express service between downtown Stamford and White Plains, New York.

The routes on this map extend east to Norwalk and Darien and west to Greenwich.

Waterbury Division:

The “Waterbury Division Bus Service Area” map (September 2015) includes local bus routes in the Waterbury division of CTtransit.

The CTtransit Waterbury Division operates fixed route services seven days a week in the Waterbury area. Fixed route bus service is provided to Waterbury, Watertown, Middlebury, Wolcott, Prospect and Naugatuck.

The routes on this map extend north of Waterbury to Watertown, south to Naugatuck and Beacon Falls, east to Southington and west to Middlebury.

New Britain-Bristol Division:

The “New Britain-Bristol Division Bus Service Area” map (September 2015) includes local bus routes in the New Britain-Bristol division of CTtransit.

The CTtransit New Britain-Bristol Division operates ten bus routes seven days a week in Berlin, New Britain, Cromwell, Newington, Hartford, Plainville, Bristol and Meriden.

The routes on this map extend north of New Britain to West Hartford, south to Meriden, east to Newington and Hartford, and west to Bristol and Plainville.

Meriden-Wallingford Division:

The Meriden-Wallingford Division Bus Service Area” map (September 2015) includes local bus routes in the Meriden-Wallingford division of CTtransit.

The CTtransit Meriden-Wallingford Division operates four local fixed routes, three in Meriden Monday through Saturday and one route in Wallingford, Monday through Friday.

The routes on this map extend throughout Meriden and south of Meriden to Wallingford.

Windham Region Transit District:

The “Windham Region Transit District Bus Service Area” map (September 2015) includes local routes in the Windham Region Transit District.

The Windham Region Transit District operates fixed route rural bus service in Mansfield and Windham, Monday through Saturday, demand-response service in Ashford, Chaplin, Columbia, Coventry, Hampton, Lebanon, Mansfield, Scotland, Willington, and Windham, Monday through Friday, and commuter bus service to Norwich seven days a week.

The routes on this map extend north of Windham to Mansfield, west to Columbia, south to Norwich, and east to Brooklyn.

Northwest CT Transit District:

The “Northwest CT Transit District Bus Service Area” map (September 2015) includes local rural routes in the northwestern area of Connecticut.

The Northwestern CT Transit District provides service in Torrington, Harwinton, Winchester, Litchfield, Morris, Kent, Sharon, Falls Village, Colebrook, Goshen, Salisbury, Norfolk, New Hartford, Cornwall, Canaan, and Barkhamstead. Service operates over five fixed routes Monday through Friday and on one route on Saturdays.

The routes on this map extend north of Goshen to Norfolk, Canaan and Salisbury, west to Cornwall and Sharon, east to Torrington, and south to Litchfield.

Estuary Transit District

The “Estuary Transit District Bus Service Area” map (September 2015) includes local routes in the Estuary Transit District.

The Estuary Transit District serves Chester, Clinton, Deep River, Durham, Essex, East Haddam, Haddam, Killingworth, Lyme, Old Lyme, Old Saybrook and Westbrook. Connections are made in Madison, Middletown and New London to neighboring bus services, Monday through Saturday.

The routes on the map extend north of Old Saybrook to Chester and Middletown, east to East Lyme and New London, and west to Madison.

Northeast CT Transit District

The “Northeast CT Transit District Bus Service Area” map (September 2015) includes local routes in the Northeastern CT Transit District.

The Northeastern CT Transit District provides service on routes in Brooklyn, Killingly, Putnam, and Thompson, Monday through Friday.

The routes on this map extend north of Putnam to Thompson and south to Killingly.

Northeast Rural Transit District Elderly/Disabled

The “Northeast Rural Transit District Elderly/Disabled Bus Service Area” map (September 2015) includes towns that are provided Call & Ride service in the Northeastern CT Transit District.

The Northeastern CT Transit District provides Call & Ride services to the towns of Brooklyn, Canterbury, Eastford, Killingly, Plainfield, Putnam, Pomfret, Thompson and Woodstock, Monday through Friday.

The routes on this map extend north of Pomfret to Woodstock and Thompson, south to Canterbury and Plainfield, east to Killingly, and west to Eastford.

Based on each service area, CTDOT calculated the number and percentage of LEP populations by language. If the number of LEP persons exceeded 5% of the total population, it would be considered an LEP language. If the LEP population exceeded 5% or 1,000 individuals, it would be considered a Safe Harbor language. Based on these calculations, it was determined that Spanish was the only language that exceeded 5% in any individual bus or rail service area.

The following LEP and Safe Harbor Languages and the number of speakers for each language in each service area are as follows:

New Haven Rail Line (MNR) –

Total Population: 1,170,602

1. Spanish – 82,432 (7%)
2. Portuguese – 11,656 (1%)
3. Italian – 4,497 (.4%)
4. French/Creole – 4,437 (.4%)
5. Chinese – 4,297 (.4%)
6. Polish – 3,862 (.3%)
7. French/Patois Cajun – 2,696 (.2%)
8. Russian – 2,289 (.2%)
9. Vietnamese – 1,694 (.1%)
10. Greek – 1,395 (.1%)
11. Arabic – 1,253 (.1%)
12. Korean – 1,076 (.1%)

13. Japanese – 1,007 (.1%)

14. Urdu – 1,002 (.1%)

Amtrak New Haven-Springfield –

Total: 601,342

1. Spanish – 48,790 (8.1%)
2. Polish – 3,882 (.6%)
3. Chinese – 2,349 (.4%)
4. Italian – 2,010 (.3%)
5. French/Patois Cajun – 1,659 (.3%)
6. Portuguese – 1,614 (.3%)
7. Vietnamese – 1,305 (.2%)
8. Russian – 1,261 (.2%)

Shore Line East Rail –

Total: 366,760

1. Spanish – 20,253 (5.5%)
2. Chinese – 1,694 (.5%)
3. Italian – 1,192 (.3%)

Hartford Bus Service Area –

Total: 1,684,493

1. Spanish – 77,214 (4.6%)
2. Polish – 11,690 (.7%)
3. Italian – 6,389 (.4%)
4. Portuguese – 5,222 (.3%)
5. Chinese – 5,180 (.3%)
6. French/Patois Cajun – 4,350 (.3%)
7. Vietnamese – 2,680 (.2%)
8. Russian – 2,281 (.1%)
9. Korean – 1,624 (.1%)
10. Arabic – 1,616 (.1%)
11. Serbo-Croatian – 1,136 (.1%)
12. Urdu – 1,117 (.1%)

New Britain-Bristol Bus Service Area –

Total: 704,893

1. Spanish – 41,614 (5.9%)
2. Polish – 9,682 (1.4%)
3. Italian – 3,133 (.4%)

4. Portuguese – 2,426 (.3%)
5. French/Patois Cajun – 2,348 (.3%)
6. Chinese – 1,968 (.3%)
7. Vietnamese – 1,695 (.2%)
8. Russian – 1,388 (.2%)

New Haven Bus Service Area –

Total: 794,318

1. Spanish – 35,951 (4.5%)
2. Chinese – 3,527 (1.4%)
2. Italian – 3,527 (.4%)
4. Portuguese – 2,594 (.3%)
5. Polish – 2,244 (.3%)
6. French/Patois Cajun – 1,334 (.2%)
7. Korean – 1,005 (.1%)

Stamford Bus Service Area –

Total: 238,899

1. Spanish – 22,582 (9.5%)
2. French/Creole – 2,359 (1%)
3. Polish – 1,650 (.7%)
4. Italian – 1,221 (.5%)
5. Russian – 1,060 (.4%)

Waterbury Bus Service Area –

Total: 273,326

1. Spanish – 10,684 (3.9%)
2. Portuguese – 2,478 (.9%)
3. Italian – 1,513 (.6%)

Windham Bus Service Area –

Total: 144,878

1. Spanish – 4,831(3.3%)
2. Chinese – 1,592 (1.1%)

Meriden-Wallingford Bus Service Area –

Total: 100,815

1. Spanish – 6,035 (6%)

Estuary Bus Service Area –

Total: 161,410

1. Spanish – 1,785 (1.1%)

Northwest Bus Service Area –

Total: 90,757

1. Spanish – 1,548 (1.7%)

Northeast Bus Service Area –

Total: 53,801

Northeast Elderly Disabled Rural Bus Service Area –

Total: 78,341

LEP and Safe Harbor Languages Statewide

There were also a total of twenty-one (21) languages that met the Safe Harbor threshold based on statewide LEP populations. No language reached the 5% of the population threshold for LEP languages statewide. The following LEP languages and the number of speakers for each language state-wide are as follows:

Total Population:	3,574,097	
Spanish or Spanish/Creole:	130,864	(3.66%)
Portuguese:	17,886	(.5%)
Polish:	15,612	(.44%)
Italian:	12,121	(.34%)
Chinese:	10,118	(.28%)
French:	7939	(.22%)
Russian:	5003	(.14%)
French Creole:	4908	(.14%)
Vietnamese:	3981	(.11%)
Korean:	3639	(.1%)
Greek:	2358	(.07%)
Gujarati:	2163	(.06%)
Serbo-Croatian:	2105	(.06%)
Tagalog:	2033	(.06%)
Arabic:	1999	(.06%)
Urdu:	1766	(.05%)
German:	1712	(.05%)
Hindi:	1551	(.04%)
Laotian:	1412	(.04%)

Japanese:	1328	(.04%)
Cambodian:	1163	(.03%)
Total LEP Population:	231,661	(6.48%)

CTDOT will utilize both the Service Area and Statewide identified LEP Languages, in order to determine the needed outreach to LEP communities, dependent upon the type of information and region affected.

Other Language Resources: Other potential data sources were analyzed but for the moment, only the mapping and the data charts that were generated are being used as the first level of analysis of population demographics during the analysis of the service area.

While school district data can often give good indicators of how many students or families of students require language services in languages other-than-English, CTDOT reviewed information available from the State Board of Education. The detail was not adequate to provide meaningful insights into how such information could be used in the statewide planning process. CTDOT also considered using local school district data. With over 100 school districts in CTDOT’s rail and bus service areas, as an overall tool, this alternative language data would be unwieldy to collect and likely not that revealing to show statewide and system-wide trends.

In areas determined to have large numbers of LEP persons, either showing tract-wide proportions above the service area average, or meeting the Safe Harbor Thresholds, CTDOT will also conduct outreach to organizations that work with LEP populations. This will include local governmental agencies, faith-based organizations, and community based organizations. This information will allow CTDOT to better understand the languages, trends, and services used by LEP persons. CTDOT has compiled a Community Based Organization listing ([See Attachment 9](#)) that will be used to enhance CTDOT’s outreach to LEP persons. The directory is available on CTDOT’s website; the Community Based Organization Listing is routinely provided to subrecipients and to anyone requesting a copy. The Directory is updated periodically to ensure it is current and inclusive.

Conclusions and Recommendations:

CTDOT will prioritize its efforts to provide language assistance to those groups identified in the previous analysis. CTDOT will also make efforts to accommodate reasonable requests for assistance in languages that were not identified in the analysis. The largest LEP group identified was the Spanish-speaking population. Given the large size of the Spanish-speaking LEP population, this would be the group to focus on first. CTDOT has also targeted Portuguese, Polish, Italian, Chinese, French/Patois Cajun, Russian, and French Creole as these languages, along with Spanish, constitute 88% of the LEP populations in the state. In addition, they were also the languages identified by CBOs as frequently encountered and in need of general services. However, CTDOT will ensure that reasonable written translations will be offered in other languages identified under Safe-Harbor. CTDOT will ensure outreach is focused based on service areas affected, languages present, and the needs of the community.

Factor 2: Frequency of Contact by LEP Persons with CTTransit Services

USDOT Guidance: *“Recipients should assess, as accurately as possible, the frequency with which they have or should have contact with LEP individuals from different language groups seeking assistance, as the more frequent the contact, the more likely enhanced language services will be needed. The steps that are reasonable for a recipient that serves an LEP person on a one-time basis will be very different than those expected from a recipient that serves LEP persons daily.”*

CTDOT has researched and used several tools to determine the number and proportion of LEP persons encountered or served by transit in the normal course of business and the frequency of encounters with the system. The workgroup concentrated on an internal audit of LEP contact information generated by agency personnel, technological systems, and survey research.

Limited survey information has been available to routinely capture LEP contact data either from technological systems or from standard survey data. CTDOT is currently working on performing an updated customer survey of the bus and rail services that will include questions specifically targeted to determining LEP passenger usage, which it plans to complete by fall 2016.

CTDOT examined its prior experiences with LEP individuals by gathering information using the following methods: conducting surveys of front-line employees who interact with the public, CBOs, and ridership, and reviewing the use of website alternative language tools.

Survey of Front-Line Employees: CTDOT determined that an important way to gauge program enhancements that could improve the customer experience for LEP individuals would be to conduct a survey of front-line employees who interact with the public. A survey was developed and sent to bus and rail operators in the state for distribution to all front-line personnel that interact with the public in various functions of planning or taking a transit trip. This included employees who provide trip planning or other public information functions, bus drivers, rail ticket agents and conductors, dispatchers, etc. The survey was printable and available online. A total of 683 completed surveys were received and enumerated. Some operations were initially underrepresented (New Britain Transportation and Shore Line East). However, follow-up requests were made, and the survey deadline was extended for those operations to ensure they were adequately represented in the sample. Metro-North was not included in the survey.

Completed surveys were entered into an online database. These were analyzed in a statewide grouping, nine geographic bus service region groupings, and a rail grouping.

The survey measured both the frequency of contact with non-English speaking persons and the approximate number of non-English speaking persons encountered. The ten languages selected for inclusion on the survey were based on Connecticut census data for people who speak English at home “not well” or “not at all”. An additional category was added for “Language not listed”.

Frequency of contact with our transit systems was analyzed using a formula that assigned a weighted frequency score to each language (a weight of one (1) for “rarely”, five (5) for “sometimes” and ten (10) for “very often”). The approximate number of LEP individuals was estimated using the median of each range offered.

The results verified that our customers who were unable to communicate in English predominantly spoke Spanish. Spanish was identified over seven (7) times more frequently than the next most utilized language. The next highest non-English speaking community was Chinese followed by Polish, Italian, and Portuguese. The numbers of contacts from these languages were low. However, we should continue to monitor the number of customer contacts speaking these languages. CTDOT will also utilize the CBOs to determine whether they serve any LEP communities that frequently utilize bus and rail transportation.

Conduct CBO Surveys

CTDOT conducts community outreach to organizations that work with LEP populations, in order to capture the number and proportion of LEP persons that are encountered or served by transit and frequency of encounters with the system. Information was gathered by consulting directly with LEP persons by coordinating with a selected group of Community Based Organizations (CBO) to administer and translate the surveys.

CTDOT conducted a CBO survey titled “LEP Customer Contact Survey” (see Attachment 10) that was used by the CBOs to conduct interviews with LEP persons they came into contact with. The survey consisted of questions specifically related to the use of Bus and Rail Services, Pass Purchases, Customer Service Interactions, information relative to Public Participation at meetings, and language use.

CTDOT used its Geographic Information System (GIS) Mapping which maps the LEP Populations within the service areas identified and referred to the CBO directory to select the organizations that best represented the impacted areas. The towns selected for the survey were large urban areas with large concentrations of LEP individuals, specifically Bridgeport, Stamford, and Hartford.

The procedure for administering the LEP Customer Contact Survey was as follows:

1. CTDOT issued an LEP Customer Contact Survey that consisted of a total of eleven (11) questions.
2. The survey was sent to the CBOs identified in the CBO listing via mail.
3. CTDOT made telephone contact with the CBO’s point of contact.
4. CTDOT provided an introduction, stating the reason for the phone call and discussed the survey.
5. The CBOs were given thirty (30) days to respond to CTDOT with customer responses.
6. The customer responses were to be mailed, faxed, emailed, or picked up by a CTDOT employee by the assigned due date.
7. CTDOT entered the survey data into a database upon receipt of the information.

Based on the survey data compiled by the CBOs, CTDOT analyzed survey responses and developed a report which summarized the information retrieved from the surveys. The report shows the frequency

with which LEP individuals came into contact with the programs and services in each of CTDOT's key modal program areas.

**Bridgeport, CT
(Survey Analysis)**

In order to obtain additional resources on the LEP populations that come in contact with the CTDOT programs and services, the Office of Contract Compliance mailed out a set of thirty (30) surveys to a sample size group of CBOs in the Bridgeport, CT area. Of the thirty (30) surveys, CTDOT received fifteen (15) survey responses. In review of the survey responses, it was identified that Spanish was in fact, the primary language spoken. Of those fifteen (15) people surveyed, twelve (12) responses indicated that Spanish was the primary language spoken, with the remaining three (3) indicating English. Seven (7) survey responses indicated they spoke English "very well", three (3) spoke English "well", two (2) spoke English "not very well", and three (3) spoke English "not at all". The majority of the individuals surveyed used bus transportation five or more times a week, while the majority used rail transportation less than once a week. Also, the primary type of fare/pass used for bus transportation services was the "per trip" pass and the "one way" pass was the primary type for the rail transportation services.

The individuals surveyed prefer to use the 211 Infoline for questions related to bus/rail transportation services and the subsequent preference was to contact the agency via telephone for inquiries. Additionally, the majority of the individuals surveyed use transportation service for work and medical appointments and primarily receive communication through the CBOs and television.

**Stamford
(Survey Analysis)**

The Office of Contract Compliance mailed out a set of thirty (30) surveys to a sample size group of CBOs in the Stamford, CT area. Of the thirty (30) surveys, CTDOT received eleven (11) survey responses. In review of the survey responses, it was identified that Spanish was in fact the primary language spoken. Of those eleven (11) responses, three (3) indicated they spoke English "very well", five (5) spoke English "well", two (2) spoke English "not very well", and one (1) spoke English "not at all". In addition, of the eleven (11) responses, eight (8) indicated there were members of the household that did not speak English at all. In those households, the languages spoken were Spanish, Polish, French, and Creole.

The majority of the individuals surveyed used bus transportation services five or more times a week while the majority used rail transportation less than once a week. Also, the primary type of fare/pass used for bus transportation services was the "per trip" pass and the "one way" pass was the primary type of fare for the rail transportation services.

The individuals surveyed prefer to use the Transportation Agency line for questions related to bus/rail transportation services and "Other" means not indicated on the surveys. Most contact the agency via telephone or utilize the website for inquiries. Additionally, the majority of the individuals surveyed use transportation service for work and shopping and primarily receives communication through family and friends or other sources, i.e. the 211 Infoline.

**Hartford
(Survey Analysis)**

In order to obtain additional resources on the LEP populations that come into contact with CTDOT’s programs and services, the Office of Contract Compliance mailed out a set of thirty (30) surveys to a sample size group of CBOs in the Hartford, CT area. Of the thirty (30) surveys, CTDOT received eleven (11) survey responses. In review of the survey responses, it was identified that English was the primary language spoken. There were only three (3) responses that indicated Spanish was the primary language spoken. There were ten (10) responses that indicated they spoke English “very well”, and one (1) spoke English “well”. There was one (1) survey response that indicated a member of the household did not speak English at all.

The majority of the individuals surveyed use the bus five or more times a week while the majority used rail transportation less than once a week. Also, the primary type of fare/pass used for bus transportation services was the “monthly” pass and the “one way” passes for the rail transportation services.

The individuals surveyed prefer to use the Transportation Agency telephone line for questions related to bus/rail transportation services. Most people who contact the agency prefer contact via telephone line. Additionally, the majority of the individuals surveyed use transportation service for work, health/medical appointments and shopping. The individuals surveyed primarily receive communication through Community Based Organizations.

The tables below show the overall LEP customer encounters and their responses for each question asked in the survey:

LEP Customer Encounters

1. Primary Language Spoken

	English	Spanish	Polish	French	Creole
Bridgeport	3	12	0	0	0
Stamford	1	7	1	1	1
Hartford	8	3	0	0	0
	12	22	1	1	1

	Portuguese	Italian	Chinese	Russian	Korean
Bridgeport	0	0	0	0	0
Stamford	0	0	0	0	0
Hartford	0	0	0	0	0
	0	0	0	0	0

	German	Japanese	Other
Bridgeport	0	0	0
Stamford	0	0	0
Hartford	0	0	0
	0	0	0

2. How well do you speak English?

	Very Well	Well	Not Very Well	Not at all
Bridgeport	7	3	2	3
Stamford	3	5	2	1
Hartford	10	1	0	0
	20	9	4	4

3. Are there any members of your household that do not speak English?

	Yes	No
Bridgeport	6	9
Stamford	8	3
Hartford	1	10
	14	22

4. How often do you use Bus Transportation Services?

	5 or more times a week	2-4 times a week	Once a week	Less than once a week or never
Bridgeport	8	3	3	1
Stamford	5	3	0	3
Hartford	9	2	0	0
	22	8	3	4

5. How often do you use Rail Transportation Services?

	5 or more times a week	2-4 times a week	Once a week	Less than once a week or never
Bridgeport	1	3	4	7
Stamford	3	2	1	5
Hartford	1	0	0	10
	5	5	5	22

6. What type of fare passes and/or tickets do you purchase for Bus Transportation services?

	Monthly	Weekly	All Day	Per Trip
Bridgeport	4	3	4	8
Stamford	1	2	1	5
Hartford	6	2	1	2
	11	7	6	18

7. What type of fare passes and/or tickets do you purchase for Rail Transportation services?

	Monthly Commutation	Weekly Commutation	10 Trip	One Way
Bridgeport	2	2	1	8
Stamford	2	2	0	7
Hartford	1	0	0	5
	5	4	1	21

8. Who do you contact for questions regarding Bus/Rail Transportation services?

	Transportation Agency	Community Organization	State/Local Government	211 Line	Other
Bridgeport	4	1	1	6	4
Stamford	4	1	0	1	4
Hartford	6	1	1	2	1
	14	3	2	9	9

9. When you have questions regarding Bus/Rail Transportation services, how do you contact the Transportation Agency?

	Telephone	In-Person	Website	On-Line Chat	Other
Bridgeport	7	5	1	3	0
Stamford	4	1	6	1	3
Hartford	10	0	1	0	0
	21	6	8	4	3

10. What do you use Public Transportation services for?

	Work	School	Health/Medical	Shopping	Other
Bridgeport	8	2	8	2	5
Stamford	10	1	1	4	1
Hartford	6	2	9	9	6
	24	5	18	15	12

11. How do you currently receive information about the Connecticut Department of Transportation’s activities and services?

	TV	News- paper	Internet/Social Media	Friends/Family	Community Org.	Other
Bridgeport	2	4	1	2	5	4
Stamford	3	0	1	2	0	4
Hartford	0	1	1	1	4	0
	5	5	3	5	9	8

Website Data Translations: The second tool used to gauge the level of interaction in order to improve the customer experience for LEP individuals was to analyze the use of website alternative language use.

CTtransit already provides a custom-translated Spanish version of its website. CTtransit also offers Google Translate on its main website as well as on the websites of all other CTDOT subrecipients. MNR and SLE websites offer machine translations into Spanish and a number of other languages using Google Translate.

Google Translate is not as effective as custom translations on websites and elsewhere, but it is one tool that can be used to measure the level of interaction by LEP individuals. Google Translate offers machine translations so it is generally not desired to rely upon Google Translate for routine or frequent translation. But CTDOT has found that the major transit websites should have Google Analytics (GA) installed so that speakers of some of the non-Spanish, non-English languages can at least get some idea of the information on these websites, and so that Google Translate interactions can be tracked and give some indication of the number and variety of different languages that website visitors request.

For the two major websites under the direct control of CTDOT, the analysis showed:

www.cttransit.com

The primary language used based on Google Analytics (GA) was English at 98.33%. The next most used language was Spanish at 0.53% of all website visits. Other languages fell at a level of 0.25% or below of all website visits. These levels did not reach our threshold level for additional analysis which has for now been established at 1% of all website visits for the quarter.

www.shorelineeast.com

The primary used language based on GA was English at 98.78%. The next most used language was French at 0.20%, and other languages fell at a level of 0.14% or below. These levels did not reach our threshold level for additional analysis which for now has been established at 1% of all website visits for the quarter.

Other Service Websites – CTDOT notified all rural operators and other private public transit contractors delivering transit services that they were to add Google Translate and use Google Analytics on their sites and report the results quarterly.

In summary, less than two percent (2%) of all visits to the CTtransit or SLE websites involve use of language assistance services. This statistic is only one measure, and not a very reliable measure, of the demand from customers or potential customers. But the analytics for these interactions are fairly consistent with data from other sources on the occurrences of various other non-English languages.

Intuitively it is expected that a substantial portion of the LEP encounters with state-owned transit services will occur on the bus or train. Accordingly, it is reasonable that resources for language assistance be focused heavily on on-board activities. To validate the intuition and assess potential impacts, two additional work tasks will be undertaken.

Statistical Analysis - The first will be a simple statistical analysis...Ridership counts by bus route and LEP population by transit operating division will be utilized as the base data to determine LEP persons that ride CTtransit. Estimates of LEP encounters would be made by determining bus ridership for the general population in each division and next, applying the percent of LEP population in that jurisdiction, to determine the potential LEP persons that would ride CTtransit by service area, if LEP persons rode at the same rate as the general population. However, the table in Factor #3 below from the American Community Survey that was used to validate CTDOT's assumptions on language data collected to-date shows, Spanish is the predominant non-English language used. And when the data is cross-tabulated, it can be seen that the use of non-English languages is three times more likely to occur among transit users, and that Spanish is still the non-English language used by the majority of workers, whether they are transit users or not. (NOTE: The table's numbers will differ from our other analyses since the survey uses statewide data, not just the transit service area, and uses workers, not the total population.) Therefore, the final step of this simple statistical analysis will be to expand the forecast LEP incidence number by three times. The results will indicate an estimated number of LEP persons that are likely to ride CTtransit each day and the percentage of all bus riders that represents.

A similar analysis can be performed for ADA paratransit ridership and rail ridership to estimate the extent of use by LEP populations.

Survey Analysis - In addition, the CTtransit ridership survey has also been extensively redesigned to gather income, race and LEP information and will enable such demographic data to be cross-tabulated with ridership levels to help assess frequency of interaction.

The latest bus system survey was conducted in November 2011. The initial returns indicate CTDOT should be getting some good feedback on the number of interactions with the system by LEP populations.

A total of 4,143 surveys were returned. By operating division, counting only valid surveys returned, there were 2,031 English-language responses from customers (local and express services) in greater Hartford; 930 in New Haven, and 377 English-language forms from the Stamford Division. It is interesting to note that 77 surveys were completed in Spanish by Stamford-area customers, a significant percentage of the returned surveys for that Division (nearly 17% of the whole). Over 34% of Stamford responses picked “yes” on the question of whether a language other than English was spoken at home (compared to just fewer than 21% in Hartford and a little over 19% in New Haven). The English-language responses gathered in the other Divisions totaled: 276 from Waterbury; 113 from New Britain; 81 from Meriden, 50 in Bristol, and 16 from Wallingford passengers.

The breakdown by Division and by English-Spanish is:

	English Response	Spanish Response	Total by Division	Spanish as a Percent of Total	Percent Response Online
HARTFORD	2031	63	2094	3%	15%
NEW HAVEN	930	40	970	4%	14%
STAMFORD	377	77	454	17%	6%
WATERBURY	276	21	297	7%	8%
NEW BRITAIN	113	17	130	13%	6%
MERIDEN	81	9	90	10%	20%*
BRISTOL	50	0	50	0%	40%**
WALLINGFORD	16	3	19	16%	5%

The ridership survey was also distributed to users of the ADA Paratransit systems.

A total of 509 paratransit surveys were returned. Of the 507 valid surveys returned and analyzed, these included 293 English-language responses from customers in Greater Hartford, 33 in New Haven, and 51 from Stamford. It is interesting to note that the return on Spanish surveys for Paratransit ridership was low. Only seven (7) results were returned in the Hartford division making up 1.38% of the returns of all the paratransit surveys received. The English-language responses gathered in the other divisions totaled: ninety-three (93) from Waterbury, seven (7) from New Britain, thirteen (13) from Meriden, one (1) from Bristol, and six (6) from Wallingford.

PARATRANSIT SURVEY

	English Response	Spanish Results	Total by Division	Spanish as a percent of total	Percent Response Online
Hartford	293	7	300	1.38%	0%
New Haven	33	1	34	0.2%	0%
Stamford	51	2	53	0.39%	0%
Waterbury	93	0	93	0%	0%
New Britain	7	0	7	0%	0%
Meriden	13	0	13	0%	0%

Bristol	1	0	1	0%	0%
Wallingford	6	0	6	0%	0%

When the analysis of the survey results is completed, these survey results will likely give a better indication of language interaction issues among our riders.

Mapping Tools: The new mapping as shown in Section XII will also provide CTDOT with a stronger tool for identifying language “Hot Spot” locations in the service area that have the highest concentrations of LEP persons. Use of that mapping will help generally, but especially with specific projects or service changes to target language assistance services to the particular languages in that area.

Enhanced Data Collection Tools: In addition, CTDOT intends to enhance its outreach to CBOs and other groups in the three-year action plan that will follow in the Language Assistance Plan (LAP) below. These steps will assist with assessing the current gaps in dissemination of transit information to current users due to language barriers and try and identify new potential customers who may not now be accessing the system, especially those not accessing the system due to language barriers.

The types of approaches being considered at this time include:

- Collecting daily alternative language experiences from employees, especially those with much routine contact such as drivers, telephone call center employees, ticket agents, and security personnel.
- CTDOT has already conducted an inventory of CBOs in the various service areas and has administered surveys and initiated conversations to determine any language gaps;
- Collecting feedback information from public hearings and public meetings regarding language usage;
- Monitoring the language line, once implemented, for requested languages.

Factor 3: Nature and Importance of Transit

DOT Guidance: “The more important the activity, information, service, or program, or the greater the possible consequences of the contact to the LEP individuals, the more likely language services are needed. The obligations to communicate rights to an LEP person who needs public transportation differ, for example, from those to provide recreational programming. A recipient needs to determine whether denial or delay of access to services or information could have serious or even life-threatening implications for the LEP individual...”

“...providing public transportation access to LEP persons is crucial. An LEP person’s inability to utilize effectively public transportation may adversely affect his or her ability to obtain health care, education, or access to employment.”

Identify Most Critical Services for CTtransit and Rail

Public transit is a key means of achieving mobility for many LEP persons on both a daily basis and in the event of emergency or urgent situations. According to the 2000 Census, nationally, more than eleven percent (11%) of LEP persons aged 16 years and over reported use of public transit as their primary means of transportation to work, compared with about four percent of English speakers. Recent immigrants to the United States (including those persons who may not be limited English proficient) use public transit at higher rates than native-born adults. Providing services to ensure access to LEP persons may help to increase and retain ridership among CTtransit’s LEP communities. The Workgroup determined that CTDOT’s most critical services were defined as fares and tickets; routes and schedules; and safety and security. These areas were selected because barriers in these areas could: (1) limit a person’s ability to gain full benefit from services, or (2) safety and security issues could place a person in physical danger.

The table below demonstrates why transit is more important to people who don’t speak English than it is to the general population. Only eight percent 8% of all workers speak English less than very well while twenty-three percent 23% of workers that take transit speak English less than very well.

ACS Table B08513 (2006-2010)

CT Statewide			
Total Workers 16+	1,713,303		
Speak English Only	1,363,189		
Speak Other Languages	350,114		
Speak English "very well"	206,381		
Speak English less than "very well"	143,733	53%	Spanish Speakers
Percent of Workers Speaking English less than very well		8%	

Public Transit Users 55,778

Speak English Only	33,836		
Speak Other Languages	21,942		
Speak English "very well"	9,368		
Speak English less than "very well"	12,574	63%	Spanish Speakers

Percent Worker Transit Users that Speaking English less than very well 23%

In addition, in certain situations, the delivery of clear instructions regardless of language is required. For example, emergency evacuation instructions in stations and vehicles should be either non-written/non-verbal or provided in languages that meet the thresholds of LEP. Similarly, it is important to provide information to the public on security awareness or emergency preparedness. If this information is not accessible to people with limited English proficiency, or if language services in these areas are delayed, the consequences to these individuals could be serious.

Therefore, CTDOT has determined that most of its basic communications methods should be addressing LEP populations. Based upon the observed data and the threshold of usage of various non-English languages, this will include manual translations into Spanish for all information websites, service and fare change notices, Title VI-related documents such as “Your Rights Under Title VI” and descriptions about how to file a Title VI complaint, use of Language Line, and efforts to have Spanish-speaking telephone operators available at all times.

A full description of the services for Spanish speakers, as well as the process for requesting provision of native tongue services for other non-Spanish LEP persons will be described more fully in the Language Assistance Plan (LAP) below.

Further, and as will be described in the LAP, CTDOT will also be initiating a program of using pictograms whenever possible to illustrate emergency procedures, travel directions, etc. As improvements are being made to bus/rail stations, signs are being replaced to make this information accessible to LEP individuals. CTDOT plans to have all transportation stations equipped with these pictograms by the end of next year.

Factor 4: Available Resources and Costs of Providing Language Assistance Services

DOT Guidance: “A recipient’s level of resources and the costs imposed may have an impact on the nature of the steps it should take in providing meaningful access for LEP persons. Smaller recipients with more limited budgets are not expected to provide the same level of language services as larger recipients with larger budgets. In addition, “reasonable steps” may cease to be reasonable where the costs imposed substantially exceed the benefits. Recipients should carefully explore the most cost-effective means of delivering competent and accurate language services before limiting services due to resource concerns.

... “large entities and those entities serving a significant number or proportion of LEP persons should ensure that their resource limitations are well substantiated before using this factor as a reason to limit language assistance. Such recipients may find it useful to be able to articulate, through documentation or in some other reasonable manner; their process for determining what language services would be limited based on resources or costs.”

This last step of the Four Factor Analysis allows CTDOT to weigh the demand for language assistance against current and projected financial and personnel resources. This analysis helps determine if the language services currently provided are cost effective and helps to plan future investments, so that the most needed assistance is provided to the greatest number of LEP persons within the limits of CTDOT’s resources.

As described in Factors 1 and 2 above, CTDOT used various strategies for determining non-English language populations and interactions. The approach included using results from Census and American Community Survey data and mapping, website use, employee surveys, and other tools to gauge the level of interaction of customers with various aspects of the transit system. CTDOT determined at what point consideration would be given to implementing language assistance services and in which languages. CTDOT determined that for consideration of widespread use of language assistance services for a non-English language, the Census and ACS data would be the first tool, though it doesn't measure interaction with or importance of the transit system. The historical utilization of various websites and interactions with staff or resources of the system would also weigh into the consideration of trigger points for which languages to offer special assistance. The trigger for the website or employee interaction was initially established at one percent (1%) of the total interactions. (The one percent [1%] threshold would only apply to service-area-wide programs and services. Similarly, system-wide proposed changes would consider the Safe Harbor Thresholds regardless if there was website or employee interaction at any level. Specific services or projects might result in the need for interactions with various language groups regardless if the overall website or employee interactions were still lower than that one percent [1%] threshold set by CTDOT.)

In fact, no other language came close to the one percent (1%) figure except for Spanish. Spanish has been the only language translated as a matter of course in the CTtransit system due to long-term demand for information in that language. The website and other routine communications with customers have been using Spanish for many years prior to the LEP program's initiation. So the data validates that decision made years ago to translate documents into Spanish. And, on the surface, the data did not indicate any great demand for any other specific language.

With the number of different tools used to determine the level of interaction between customers and the program, and the latent expressed need for other languages to be used, only Spanish hit that threshold. But CTDOT and its contractors will be making changes to internal procedures to better track interactions in other languages and will reassess the one percent (1%) threshold proposed and the trigger points at which any other general actions or specific translation services might be valuable and demanded. For example, the following language will be added to the documents disseminated to the customer base:

"Any persons requiring or desiring any document to be translated or requiring other language assistance can request such assistance by contacting (your local transit service provider) at xxx-xxx-xxxx, or in writing to 123 Main Street, Anywhere CT."

This notice can also be posted in various languages based upon the expectations of the languages that might be encountered through that venue.

In examining the Safe Harbor language list, CTDOT calculated that eighty-eight percent (88%) of all LEP individuals in Connecticut fall within the top eight (8) languages: Spanish, Italian, Chinese, Portuguese, Polish, French/Patois Cajun, Russian, and French Creole. In addition to being the top eight LEP languages, these were the languages specifically referenced in the Community Based Organization

surveys as languages that were frequently encountered and in need of general services. At the present time, CTDOT does not have sufficient data to determine the transit usage of LEP populations, which would be required to fully ensure the level to which the LEP populations are in need of the meaningful access to transit programs, services, and activities available. CTDOT intends to rectify this with ridership usage surveys, as well as the surveys of front-line staff that have direct interactions with the public, to be performed over the next year. This will therefore ensure CTDOT's resources are properly utilized for those in most need of the services. In the interim, CTDOT will translate all vital documents in those eight languages, which will be accomplished by January 1, 2017. Regarding the other Safe Harbor languages, CTDOT will post on the CTDOT website in every applicable Safe Harbor language, providing instructions on how to receive assistance, either translations or explanations, of CTDOT's documents, programs, services, and benefits.

While expenditures related to providing language assistance have not necessarily been closely tracked historically, CTDOT can report on certain expenditures of funds on language-related services by the CTtransit bus operation.

- Initial development costs for the Spanish portion of the website (launched Feb 2009): \$17,000
- Yearly cost for Motion Point to maintain (including per word translation costs for new content) \$7,000
- Translation services (communications materials, signage, surveys, etc.) FY 2011 \$1,869
- In FY 2011, interior notices (Spanish) for new buses (all eight [8] Divisions) \$1,150
- In FY 2011, communications materials printed only in Spanish (vs. dual language materials) \$5,177

Such expenditures on language assistance activities such as those that follow will be monitored more closely from here on as part of the language assistance plan. But certainly at this level, the investment is not out of proportion with the number of LEP beneficiaries.

CTDOT will continue to expend a reasonable portion of the budgetary dollars to meet compliance goals and fulfill the provisions of the language assistance plan. CTDOT recognizes that to continue to expand the program, new sources of internal and/or external funding might be needed depending upon the cost and scope of new strategies and actions.

Current Language Assistance Measures

DOT Guidance: "An effective LEP plan would likely include information about the ways in which language assistance will be provided.

CTDOT supports the goals of the DOT LEP Guidance to provide meaningful access to its services by LEP persons.

The information, presented above in earlier elements of the Four-Factor Analysis, and the predominance of Spanish-speaking LEP persons, helped tailor the specific type of language assistance

CTDOT provided its LEP ridership during the reporting period. And future plans will be presented in the LAP.

The following section provides the status of CTDOT's initiatives established to address potential access barriers faced by LEP customers. The agency currently offers a number of language assistance services, including, those listed below.

Oral Translations

All Modes:

Through the Department of Administrative Services (DAS) the State has contracts for translation and interpretation services that any state agency including CTDOT can access (see Attachments 11, 12 and 13).

Telephone translations: Four (4) companies selected, sixty-nine (69) languages, ranges from \$.78 to \$.93 per minute (See Attachment 12).

In-person translations: thirteen (13) companies selected, six (6) languages, variable pricing – per hour or per word (See Attachment 13).

CTDOT may use available and authorized staff to translate upon immediate need.

Rail

Metro-North (MNR) Travel Information Center – Consistent with Metro-North's Title VI Program, MNR customers have multi-language transportation available through an outside language line telephone service.

Bus

CTtransit provides oral information in Spanish through a telephone Customer Service Center. LEP customers who call the Telephone Center have direct access to bilingual customer service representatives and can be connected to a telephonic interpretation service with linguists who speak other languages at a per minute rate for services.

Written Translations

All Modes

- Written translations are available through some of the companies on CTDOT's Reference Guide to Translation and Interpretation Services or through the DAS contracts also specified immediately above.

Rail

- MNR and SLE websites offer machine translations into Spanish and a number of other languages using Google Translate.
- MNR utilizes print and electronic media sources and language translations to communicate with the public and riders, including offering multiple language formats on ticket vending machines.

Bus

- CTtransit provides a custom-translated Spanish version of its website through an annual contract with Motion Point.
- Though less desirable than the custom translations noted previously, CTDOT also offers Google Translate on the CTtransit main website and all of the websites of CTDOT's subrecipients
- All policy and informational interior notices on buses are posted in English and Spanish.
- All written public informational communications materials are printed in English and Spanish.
- In the New Britain service area where the number of Polish-speaking LEP persons exceeds the Safe Harbor Threshold for that service area, timetables have been published in Polish. Other notices are delivered to the Polish Community Center and Polish media who do their own translations and distribution of transit information.
- Materials critical for accessing and using CTtransit services and receiving transit benefits have been translated. Upon request, various documents identified can be translated into the regularly encountered languages in the region. If requests are received from individuals or organizations serving the LEP population, determinations can be made on a case-by-case basis about the necessity to do custom translations.
- At this time, no inquiries have been received requesting translation into other languages besides Spanish.

Public Outreach and Communications

Rail

- MNR News releases are distributed to media outlets that include the Amsterdam News and Spanish print and cable
- MNR advertises in local language paper LaVoz and local newspaper websites including Spanish language sites.

Bus

- CTDOT and CTtransit provide written notification to the public that language assistance services are available, upon request, free of charge for all public meetings and hearings.
- Public notification is provided that describes the patron's Title VI rights and the CTDOT and CTtransit Title VI complaint process.

- CTDOT and CTtransit work directly with the media outlets serving minority and ethnic populations to provide service information to their readers, listeners, and viewers. See LEP Exhibit C.
- CTtransit places Spanish language signage on vehicles for basic fare information and rights under Title VI as well as to announce service changes and other situations important to customer safety. CTDOT will undertake the efforts necessary to address other languages identified under Safe-Harbor. These efforts will include further engaging Community Based Organizations to assist with translation and the distribution of information.
- CTDOT is aware that some documents are translated into other languages by community organizations. For example, the Polish Community Center in New Britain does translate our public information brochures and meeting notices into Polish and posts them on their own website for use by their Polish-speaking stakeholders.

Language Assistance Plan (LAP)

Efforts to Identify Additional Language Assistance Needs

Title VI of the Civil Rights Act of 1964, 42 U.S.C. 2000d et seq., provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity that receives Federal financial assistance. The Supreme Court, in *Lau v. Nichols*, 414 U.S. 563 (1974), interpreted Title VI regulations promulgated by the former Department of Health, Education, and Welfare to hold that Title VI prohibits conduct that has a disproportionate effect on Limited English Proficient (LEP) persons because such conduct constitutes national origin discrimination. Executive Order 13166, "Improving Access to Services for Persons with Limited English Proficiency," reprinted at 65 FR 50121, August 16, 2000 directs each Federal agency to examine the services it provides and develop and implement a system by which LEP persons can meaningfully access those services. The Executive Order states that recipients must take reasonable steps to ensure meaningful access to their programs and activities by LEP persons.

The Federal Transit Administration (FTA) Circular 4702.1B provides a summary of the LEP requirements as they apply to FTA recipients, recipients are encouraged to review DOT's LEP guidance (70 FR 74087, Dec. 14, 2005).

"Title VI and Title VI-Dependent Guidelines for FTA Recipients," which was published on April 13, 2007. Chapter IV part 4 of this Circular reiterates the requirement to take responsible steps to ensure meaningful access to benefits, services, and information for LEP persons and suggests that FTA recipients and subrecipients develop a language implementation plan consistent with the provisions of Section VII of the DOT LEP Guidance.

CTDOT being a recipient of FTA assistance is required to develop an implementation plan to address the needs of the LEP populations they serve. The implementation plan includes the following elements:

- 1) Identifying LEP individuals
- 2) Providing language assistance
- 3) Training staff
- 4) Providing notice to LEP persons
- 5) Monitoring and updating the plan
- 6) Language initiatives planned for the next twelve (12) months

Identifying LEP Individuals:

CTDOT has conducted a Four-Factor Analysis to determine the following:

- Identify LEP populations in the State who may need language assistance.
- Frequency of which LEP persons come into contact with the program
- Importance of programs and services to LEP individuals
- Resources available and costs of providing language assistance services

CTDOT looked at the occurrence of LEP populations statewide meeting or exceeding “Safe Harbor” thresholds (5% or 1,000 individuals, whichever is less) for the purpose identifying impacted individuals and to determine which languages require additional outreach or translations to ensure equitable access to CTDOT programs and benefits. CTDOT included anyone who spoke English “not at all” or “less than well” but also included the next grouping of people so that the new population included everyone who spoke English “less than very well.” CTDOT looked at the Safe Harbor populations based on the eleven (11) bus service areas and the three (3) rail lines. This allows CTDOT to do targeted outreach.

The Service Areas were defined as the following:

New Haven Rail Line (Metro North):

The “New Haven Rail Line Service Area” map (September 2015) includes the New Haven Main line, and the New Canaan, Danbury, and Waterbury Branch Lines.

Metro North Rail operates all lines seven (7) days a week. The lines on the map extend from New Haven Union Station to the Connecticut/New York border near Greenwich, as well as the station stops for the branch lines that extend to New Canaan, Danbury, and Waterbury.

Amtrak New Haven – Springfield:

The “Amtrak New-Haven – Springfield Rail Line Service Area” map (September 2015) includes the line currently operated by Amtrak that runs from New Haven, CT to Springfield, MA.

Amtrak operates the line seven (7) days a week. The map shows the CT portion of the New Haven – Springfield line, and includes the defined service areas based on a 2.5 mile radius buffer around the rail stations of New Haven – Union, New Haven – State Street, Wallingford, Meriden, Berlin, Hartford – Union, Windsor, and Windsor Locks.

Shore Line East Rail:

The “Shore Line East Rail Line Service” area map (September 2015) includes the Shore Line East commuter rail service between New London and New Haven.

Amtrak operates Shore Line East for CTDOT seven (7) days a week. The map shows the Shore Line East line which runs from New Haven to New London, and includes the defined service areas based on a 2.5 mile radius buffer around the rail stations of New Haven – Union, New Haven – State Street, Branford, Guilford, Madison, Clinton, Westbrook, Old Saybrook, and New London.

Hartford Division:

The “Hartford Division Bus Service Area” map (September 2015) includes:

- local bus routes in the Hartford, New Britain, and Bristol divisions of CTtransit,
- the CTfastrak service area, and
- CTtransit Express routes that serve Hartford.

CTtransit Hartford Division operates seven (7) days a week. CTtransit's Hartford Division makes connections with Middletown Transit District, and CTtransit New Britain, Bristol, New Haven, and Waterbury divisions. CTfastrak services are also included in the Hartford Division.

The routes on this map extend north to the Massachusetts border and south to New Haven, west to Torrington and Waterbury, and east to Windham, Colchester, and Old Saybrook.

New Haven Division:

The “New Haven Division Bus Service Area” map (September 2015) includes local bus routes in the New Haven division of CTtransit.

CTtransit New Haven Division operates seven (7) days a week, connecting with other state-owned or subsidized bus services in Meriden, Wallingford, Milford, and the lower Naugatuck Valley areas, as well as with the New Haven Line and Shore Line East rail services.

The routes on this map extend north to Meriden and Waterbury, west to Seymour and Milford, and east to Madison.

Stamford Division:

The “Stamford Division Bus Service Area” map (September 2015) includes local bus routes and one (1) express route in the Stamford division of CTtransit.

CTtransit Stamford Division operates seven (7) days a week, connecting with services in Norwalk, with the New Haven Line in several locations, the Harlem Line on Metro-North Railroad, and with Bee-Line buses in Westchester County New York. The Stamford Division also operates the I-BUS, an express service between downtown Stamford and White Plains, New York.

The routes on this map extend east to Norwalk and Darien and west to Greenwich.

Waterbury Division:

The “Waterbury Division Bus Service Area” map (September 2015) includes local bus routes in the Waterbury division of CTtransit.

CTtransit Waterbury Division operates fixed route services seven (7) days a week in the Waterbury area. Fixed route bus service is provided to Waterbury, Watertown, Middlebury, Wolcott, Prospect and Naugatuck.

The routes on this map extend north of Waterbury to Watertown, south to Naugatuck and Beacon Falls, east to Southington and west to Middlebury.

New Britain-Bristol Division:

The “New Britain-Bristol Division Bus Service Area” map (September 2015) includes local bus routes in the New Britain-Bristol division of CTtransit.

CTtransit New Britain-Bristol Division operates ten (10) bus routes seven (7) days a week in Berlin, New Britain, Cromwell, Newington, Hartford, Plainville, Bristol and Meriden.

The routes on this map extend north of New Britain to West Hartford, south to Meriden, east to Newington and Hartford, and west to Bristol and Plainville.

Meriden-Wallingford Division:

The Meriden-Wallingford Division Bus Service Area” map (September 2015) includes local bus routes in the Meriden-Wallingford division of CTtransit.

CTtransit Meriden-Wallingford Division operates four (4) local fixed routes, three (3) in Meriden Monday through Saturday and one (1) route in Wallingford, Monday through Friday.

The routes on this map extend throughout Meriden and south of Meriden to Wallingford.

Windham Region Transit District:

The “Windham Region Transit District Bus Service Area” map (September 2015) includes local routes in the Windham Region Transit District.

The Windham Region Transit District operates fixed route rural bus service in Mansfield and Windham, Monday through Saturday, demand-response service in Ashford, Chaplin, Columbia, Coventry, Hampton, Lebanon, Mansfield, Scotland, Willington, and Windham, Monday through Friday, and commuter bus service to Norwich seven (7) days a week.

The routes on this map extend north of Windham to Mansfield and west to Columbia, south to Norwich and east to Brooklyn.

Northwest CT Transit District:

The “Northwest CT Transit District Bus Service Area” map (September 2015) includes local rural routes in the northwestern area of Connecticut.

The Northwestern CT Transit District provides service in Torrington, Harwinton, Winchester, Litchfield, Morris, Kent, Sharon, Falls Village, Colebrook, Goshen, Salisbury, Norfolk, New Hartford, Cornwall, Canaan, and Barkhamstead. Service operates over five (5) fixed routes Monday through Friday and on one (1) route on Saturdays.

The routes on this map extend north of Goshen to Norfolk, Canaan and Salisbury, west to Cornwall and Sharon, east to Torrington and south to Litchfield.

Estuary Transit District:

The “Estuary Transit District Bus Service Area” map (September 2015) includes local routes in the Estuary Transit District.

The Estuary Transit District serves Chester, Clinton, Deep River, Durham, Essex, East Haddam, Haddam, Killingworth, Lyme, Old Lyme, Old Saybrook and Westbrook. Connections are made in Madison, Middletown and New London to neighboring bus services, Monday through Saturday.

The routes on the map extend north of Old Saybrook to Chester and Middletown, east to East Lyme and New London, and west to Madison.

Northeast CT Transit District:

The “Northeast CT Transit District Bus Service Area” map (September 2015) includes local routes in the Northeastern CT Transit District.

The Northeastern CT Transit District provides service on routes in Brooklyn, Killingly, Putnam, and Thompson, Monday through Friday.

The routes on this map extend north of Putnam to Thompson and south to Killingly.

Northeast Rural Transit District Elderly/Disabled:

The “Northeast Rural Transit District Elderly/Disabled Bus Service Area” map (September 2015) includes towns that are provided Call & Ride service in the Northeastern CT Transit District.

The Northeastern CT Transit District provides Call & Ride services to the towns of Brooklyn, Canterbury, Eastford, Killingly, Plainfield, Putnam, Pomfret, Thompson and Woodstock, Monday through Friday.

The routes on this map extend north of Pomfret to Woodstock and Thompson, south to Canterbury and Plainfield, east to Killingly and west to Eastford.

Based on each service area, CTDOT calculated the number and percentage of LEP populations by language. If the number of LEP persons exceeded five percent (5%) of the total population, it would be considered an LEP language. If the LEP population exceeded five percent (5%) or 1,000 individuals, it would be considered a Safe Harbor language. Based on these calculations, it was determined that Spanish was the only language that exceeded five percent (5%) in any individual bus or rail service area.

The following LEP and Safe Harbor Languages and the number of speakers for each language in each Service Area are as follows:

New Haven Rail Line (MNR) –

Total Population: 1,170,602

1. Spanish – 82,432 (7%)
2. Portuguese – 11,656 (1%)
3. Italian – 4,497 (.4%)
4. French/Creole – 4,437 (.4%)
5. Chinese – 4,297 (.4%)
6. Polish – 3,862 (.3%)
7. French/Patois Cajun – 2,696 (.2%)
8. Russian – 2,289 (.2%)
9. Vietnamese – 1,694 (.1%)
10. Greek – 1,395 (.1%)
11. Arabic – 1,253 (.1%)
12. Korean – 1,076 (.1%)
13. Japanese – 1,007 (.1%)
14. Urdu – 1,002 (.1%)

Amtrak New Haven-Springfield –

Total: 601,342

1. Spanish – 48,790 (8.1%)
2. Polish – 3,882 (.6%)
3. Chinese – 2,349 (.4%)
4. Italian – 2,010 (.3%)
5. French/Patois Cajun – 1,659 (.3%)
6. Portuguese – 1,614 (.3%)
7. Vietnamese – 1,305 (.2%)
8. Russian – 1,261 (.2%)

Shore Line East Rail –

Total: 366,760

1. Spanish – 20,253 (5.5%)
2. Chinese – 1,694 (.5%)
3. Italian – 1,192 (.3%)

Hartford Bus Service Area –

Total: 1,684,493

1. Spanish – 77,214 (4.6%)
2. Polish – 11,690 (.7%)
3. Italian – 6,389 (.4%)
4. Portuguese – 5,222 (.3%)
5. Chinese – 5,180 (.3%)
6. French/Patois Cajun – 4,350 (.3%)
7. Vietnamese – 2,680 (.2%)
8. Russian – 2,281 (.1%)
9. Korean – 1,624 (.1%)
10. Arabic – 1,616 (.1%)
11. Serbo-Croatian – 1,136 (.1%)
12. Urdu – 1,117 (.1%)

New Britain-Bristol Bus Service Area –

Total: 704,893

1. Spanish – 41,614 (5.9%)
2. Polish – 9,682 (1.4%)
3. Italian – 3,133 (.4%)
4. Portuguese – 2,426 (.3%)
5. French/Patois Cajun – 2,348 (.3%)
6. Chinese – 1,968 (.3%)
7. Vietnamese – 1,695 (.2%)
8. Russian – 1,388 (.2%)

New Haven Bus Service Area –

Total: 794,318

1. Spanish – 35,951 (4.5%)
2. Chinese – 3,527 (1.4%)
3. Italian – 3,527 (.4%)
4. Portuguese – 2,594 (.3%)
5. Polish – 2,244 (.3%)
6. French/Patois Cajun – 1,334 (.2%)
7. Korean – 1,005 (.1%)

Stamford Bus Service Area –

Total: 238,899

1. Spanish – 22,582 (9.5%)
2. French/Creole – 2,359 (1%)
3. Polish – 1,650 (.7%)
4. Italian – 1,221 (.5%)
5. Russian – 1,060 (.4%)

Waterbury Bus Service Area –

Total: 273,326

1. Spanish– 10,684 (3.9%)
2. Portuguese – 2,478 (.9%)
3. Italian – 1,513 (.6%)

Windham Bus Service Area –

Total: 144,878

1. Spanish – 4,831(3.3%)
2. Chinese – 1,592 (1.1%)

Meriden-Wallingford Bus Service Area –

Total: 100,815

1. Spanish – 6,035 (6%)

Estuary Bus Service Area –

Total: 161,410

1. Spanish – 1,785 (1.1%)

Northwest Bus Service Area –

Total: 90,757

1. Spanish – 1,548 (1.7%)

Northeast Bus Service Area –

Total: 53,801

Northeast Elderly Disabled Rural Bus Service Area –

Total: 78,341

LEP and Safe Harbor Languages Statewide:

There were also a total of twenty-one (21) languages that met the Safe Harbor threshold based on statewide LEP populations. No language reached the five percent (5%) of the population threshold for LEP languages statewide. The following LEP languages and the number of speakers for each language state-wide are as follows:

Total Population:	3,574,097	
Spanish or Spanish/Creole:	130,864	(3.66%)
Portuguese:	17,886	(.5%)
Polish:	15,612	(.44%)
Italian:	12,121	(.34%)
Chinese:	10,118	(.28%)
French:	7939	(.22%)
Russian:	5003	(.14%)
French Creole:	4908	(.14%)
Vietnamese:	3981	(.11%)
Korean:	3639	(.1%)
Greek:	2358	(.07%)
Gujarati:	2163	(.06%)
Serbo-Croatian:	2105	(.06%)
Tagalog:	2033	(.06%)
Arabic:	1999	(.06%)
Urdu:	1766	(.05%)
German:	1712	(.05%)
Hindi:	1551	(.04%)
Laotian:	1412	(.04%)
Japanese:	1328	(.04%)
Cambodian:	1163	(.03%)
Total LEP Population:	231,661	(6.48%)

CTDOT will utilize both the Service Area and Statewide identified LEP Languages, in order to determine the needed outreach to LEP communities, dependent upon the type of information and region affected.

Providing Language Assistance:

Over the next year key activities will be taken to address the unmet needs for language services, and to develop and implement a strong program of enhanced language assistance services.

CTDOT will enhance its outreach to assess the current language gaps in the dissemination of vital information to current users. CTDOT will seek to identify new potential customers who may not be accessing the system due to language barriers.

The data collection strategies to be utilized include:

- The collection of data in real time by drivers, telephone call center employees, ticket agents, and security personnel. Methodologies for collecting data will be included in the training sessions for front-line employees, scheduled to complete by July 2016.
- Website Data
- Bus Passenger Survey Data
- Rail Passenger Survey Data
- Collect information from Community Based Organizations (CBO) and Faith Based Organizations (FBO) relative to language gaps and information needs for LEP persons they serve for the purpose of having a more direct outreach to Safe Harbor populations and to provide translation services to those populations as we identify the need. Office of Contract Compliance has compiled a database of CBOs and FBOs and will utilize the CBOs to help with outreach to the LEP populations. Outreach will be on-going to these Organizations.
- Collecting feedback information from public hearings and public meetings regarding language usage;
- Monitoring the language line, once implemented, for requested languages.

CTDOT will be working to reach out to a broader base of community organizations state-wide in order to assure enhanced public involvement in the transportation planning and transit service planning process. A natural by-product of this initial outreach effort will be to learn first-hand what types of special language assistance services would best meet the needs of the agencies and their LEP clients. Utilizing the information provided by the CBOs and FBOs, strategies can be developed to enhance targeted efforts to address the needs of LEP individuals.

Additional Language Assistance Services to be provided by CTDOT

The list of language assistance services has been developed and will continue to be updated. There are a number of resources that can provide access to LEP individuals at minimal costs as appropriate to their needs. These include, but are not limited to:

- Utilizing CTDOT bilingual staff to act as interpreters and translators.
- Using "I Speak" cards to help determine the range of different languages being encountered routinely.
- Translation of vital documents.
- Pooling resources and standardizing documents to reduce translation needs.
- Using qualified translators and interpreters to ensure that documents provide accurate interpretations that do not cause delay or other costs.
- Media advertising in alternative languages by utilizing a standard announcement for the type of change, and providing contact information should additional language assistance be needed.
- Continuing to develop partnerships with community organizations that serve LEP populations.

Language Services

There are two (2) main ways to provide language services: oral interpretation either in person or via telephone interpretation services and written translation. Oral interpretation can range from on-site interpreters for critical services to commercially available telephonic interpretation services. Written translation can range from translation of an entire document to translation of a short description of the document.

When it is requested or otherwise determined that interpretation or translation services are needed and the request is reasonable, every reasonable effort will be made to provide services.

Language Line

In order to help with Translation Services for those who need assistance, CTDOT will be using Language Line Services. The service allows for someone who is not fluent in English to call into CTDOT with questions or requests for services or general information, CTDOT is able to call into the Language Line Services who could translate both ends of the call and provide the individual with the needed assistance. Language Line is scheduled to be operational by the start of 2016.

Procedure

CTDOT provides notice of “right to free language assistance” at no cost for non-vital yet important outreach documents, including project fact sheets, meeting notifications and other open house materials. CTDOT will continue to determine which documents are vital for translation and choose the format(s) to most effectively communicate the messages contained in the vital documents; provide timely relevant information about CTDOT programs and services to LEP communities; and develop a means to assess and monitor the effectiveness of CTDOT’s LAP Plan.

CTDOT will translate vital written materials into the languages identified as frequently encountered in compliance with the Four Factor Analysis and with Safe Harbor thresholds, or for populations likely to be affected by specific actions. Through the utilization of Service Area Maps (and further dividing these according to individual census tracts), CTDOT will be able to specifically target the areas affected by service/fare changes or other changes to Transit operations that could affect these communities, and ensure the outreach will be directed to the specific LEP communities affected. The decisions regarding which documents to be translated may be impacted by feedback from the LEP community. This feedback will be collected by front-line employees who are receiving training in new procedures to be followed when they encounter an LEP customer including the use of “I Speak” cards for bus and train operators and other tools for other front-line employees such as telephone information center agents. The initial training for all front-line employees should be completed by July 2016. This improved outreach will be supplemented by the use of printed documentation at the various locations where customers or potential customers go for transit information or with questions.

Pending future changes as outreach is continuously conducted, vital written materials will be either fully translated in the LEP Languages or a sufficient summary provided detailing the information and

providing contact information should additional information/further assistance be required. CTDOT will implement a schedule for translating all vital documents in the top eight statewide Safe Harbor languages, which will cover eighty-eight percent (88%) of the entire LEP population in Connecticut. Vital documents for bus transit will include:

- Service change notices – as needed.
- Fare change notices – as needed.
- Title VI notice to beneficiaries (including complaint procedure) – May 31, 2016.
- Notices of public hearings, with fully implemented Department process of public notifications – January 1, 2017.
- Applications or instructions on how to participate in a recipient’s program or activity or to receive recipient benefits or services (e.g., ADA Paratransit applications) – October 1, 2016.
- Consent forms – October 1, 2016.

The following additional documents are defined as vital documents by Metro-North and will be provided to Connecticut by Metro-North as our service contractor, following the same requirements as the Transit documents.

- Basic critical customer information on how to use and access rail services such as peak/off peak/monthly ticket purchasing instructions (currently in Spanish online and at stations with fare information poster) – October 1, 2016.
- Rail service change information – as needed.
- Fare change notice – as needed.
- Title VI notice to beneficiaries (including complaint procedure) – May 31, 2016.

CTDOT ensures that LEP persons have meaningful access to all FTA programs and activities. Whenever CTDOT holds a public hearing/meeting (whether during Environmental Assessment, Design, or service planning/monitoring), the legal notice regarding the hearing/meeting will indicate that LEP persons requiring language assistance may make reasonable requests to CTDOT within the time period provided. CTDOT staff in need of translation services at any hearing may consult Department of Administrative Services list of contracted service providers for translation and interpreting services. Metro North will follow the same procedure. For examples of MNR translated documents for Connecticut ([see Attachment 30](#)).

Language Assistance:

CTDOT has a listing of firms that provide translation and interpretation services. See A Reference Guide to Translation and Interpretation Services ([see attachment 11](#)).

CTDOT also ensures that agency resources are utilized to address all immediate needs for interpretation and translation that may cause any barriers to the LEP population.

In addition, the state’s Department of Administrative Services has multiple organizations under contract to provide translation services. These firms have been identified earlier in this section.

Development status: CTDOT determined the listing of languages that require immediate attention based on the review of the Census and ACS databases for languages that exceed the Safe Harbor Thresholds.

- CTDOT has identified community-based organizations in the various service areas and has administered survey and initiated conversations with them to determine any language gaps.

CTDOT continues to make ongoing efforts to develop a listing that is inclusive of all signs, types and languages for each location and the languages needed for each location.

CTDOT continues its ongoing efforts to develop a list of emergency transportation information in alternative languages and in pictogram formats. As they are developed CTDOT will be sure it includes signs, bus, train stations, waiting rooms, reception areas and all other initial points of public entry.

To the extent possible, CTDOT will seek good examples of signage from other transit agencies or state DOTs. This activity is ongoing.

An inventory of potential locations and an inventory of signs of the types and numbers of signs needed for each location, and the languages needed for each location have been integrated into the design process for new facilities. Inventories of existing facilities will be prepared to the extent they have not already been developed.

Training:

CTDOT developed a training curriculum and a Title VI Training booklet. The training booklet provides a Title VI Overview, a brief history of the regulations and authorities, the FTA Title VI requirements, explains Limited English Proficiency (LEP) requirements, explains the Four Factor Analysis and Safe Harbor requirements, an explanation of Vital Documents, etc.. The PowerPoint presentation is included in the Title VI Training Booklet, entitled *Title VI "The Basics"*. The training was conducted and completed in October 2013. Training is held every two years or as requested by the subrecipients.

- Implement Training Program
 - For transit system employees, the training program will be initiated for front-line employees covering Title VI, language assistance, and cultural sensitivity. The training is being delivered to bus operators, operations supervisors, customer service agents, and other field employees.
 - The first round of training will be done as a free-standing training session, to be completed by July 2016. After the initial round of training, the LEP/Title VI curriculum will be integrated into both the new employee training and refresher training programs.

CTDOT will continue to utilize its Title VI training curriculum, which is offered to Planning Agencies, subrecipients and CTDOT employees. CTDOT has diversified its training curriculum to include an emphasis on language assistance and cultural sensitivity for bus operators, operations supervisors, etc.

The Title VI Coordinator has provided training to the Environmental Design and Planning areas in conjunction with the Title VI Liaison covering those sections.

- As training is completed for customer service agents, data is being collected in all the CTtransit travel information centers for interactions with non-English callers and how such calls are referred out to language assistance/translation contractors. Information centers already have Spanish-speaking agents, but the additional data can be used to better match demand with personnel assignments.
- For the rail service LEP calls are handled in the following manner: While not a requirement, several Customer Service Representatives are bilingual and are able to provide information in Spanish. If the Customer Service Representative does not know the customer's native language, they are trained in how to determine if a caller needs further translation assistance. They then call the AT&T Language Line which provides support for customer inquiries in foreign languages. The Customer Service Representative then provides the relevant travel or service information via an interpreter who speaks in the customer's native language. This service is accomplished via a three-way conference call and up to 180 languages are available under this contracted service.

Providing Notice to LEP Persons:

CTDOT provides notice of "right to free language assistance". CTDOT will continue to determine which documents are vital for translation and choose the format(s) to most effectively communicate the messages contained in the vital documents; provide timely relevant information about CTDOT programs and services to LEP communities; and develop a means to assess and monitor the effectiveness of CTDOT's LAP.

Monitoring and Updating the LAP Plan:

CTDOT will monitor its LAP on an ongoing basis to ensure new LEP populations are identified and addressed. The plan will be reviewed each year and changes will be made as needed, but at a minimum the plan will be updated every three years to coincide with the CTDOT's Title VI submission to FTA. CTDOT will on an annual basis solicit feedback from the CBOs that serve LEP populations, and update the directory of CBOs/FBOs as needed. CTDOT will also monitor the LEP plan to ensure that it is effective. The plan will be evaluated annually unless it is determined that more frequent evaluations are necessary. Close attention will be given to requests for language assistance, census data changes and updates, complaints, feedback from community based organizations, faith based organizations, feedback from customers, changing technology or new resources available to provide language assistance, and other information that would enhance the effectiveness of the plan.

The Title VI Workgroup meets on a quarterly basis, January, April, July, and October, or on an as needed basis, to discuss and complete the tasks determined in the LEP Timeline. The workgroup works on the tasks associated with the implementation of the Title VI Program requirements, including the LEP Plan and to discuss any trends or patterns requiring attention. The workgroup is guided by an agenda and meeting minutes, as well as assignment due dates to track assignment progress. All members of the

workgroup provide research, ideas and solutions, strategies and concepts that assist in the developments of a meaningful Title VI/LEP Plan.

Initiatives:

CTDOT has laid out a set of activities and has drafted a schedule for design and implementation of the various tasks and products committed to in the LAP. The calendar commitments are stated in the federal fiscal year calendar.

Based on a review of the data and conclusions developed as a result of the Four-Factor Analysis a determination was made that the most prominent group of LEP persons speak Spanish. CTDOT has also taken steps to ensure that considerations relative to Safe Harbor are addressed.

- Consistent with the Four-Factor Analysis, CTDOT will look to translate vital documents in the top eight Safe Harbor Languages (Spanish, Italian, Chinese, Portuguese, Polish, French/Patois Cajun, Russian, and French Creole), which compose eighty-eight percent (88%) of the state's LEP population, as dictated by the Safe Harbor provisions in the various service areas. Translations into any additional languages that fall within the Safe Harbor Thresholds will be initiated as determined necessary. The translations will be completed by January 1, 2017. (See Title VI Language Assistance Plan Initiatives chart below for complete schedule.)
- Provide Written Notification of Language Assistance Services: Notify customers with on-board posters and website postings. CTDOT has translated this information into Spanish but will make efforts to translate notifications into the other languages to meet Safe Harbor requirements. This will be completed by May 2016.
- A resource list has been developed of translation and interpreting services by geographic area for use at public meetings, hearings and to translate important documents.
- Contract with a telephone translation service for assistance. CTDOT is in the process of signing a contract with Language Line Solutions which offers three-way communications. This contract should be executed at the start of 2016.
- CTDOT has printed "I Speak" cards for drivers and customer service and supervisory employees in order to assist LEP individuals, and will disseminate them as part of the front-line employee training. Training will begin in early 2016, to be completed by July, 2016.
- Consistent with the Four-Factor Analysis, determine which areas or languages require further research in order to determine importance of transit and level of contact with transit programs. This will be facilitated by customer and front-line employee surveys, which CTDOT intends to complete by Fall 2016. Additional contact with community-based organizations, as will be detailed below in the internship item, will further supplement CTDOT's research in determining the level of engagement with transit services among LEP populations.

Title VI Language Assistance Plan Initiatives

Initiative	Due Date
Outreach to Community Based Organizations (CBO) and Faith Based Organizations to gather information on LEP populations served, determine needs of the LEP communities, and utilize the CBOs and FBOs to get CTDOT information to these groups.	On-going
Transitioning signs at bus/rail facilities to pictogram where capable.	On-going
Title VI Working Group meets on quarterly basis to discuss and complete tasks determined in LEP Timeline.	On-going
Install Language Line Services	January 4, 2016
<p>Translation of Vital Documents into Safe Harbor Languages</p> <p>Bus Transit:</p> <ol style="list-style-type: none"> 1. Service change notices 2. Fare change notices 3. Title VI notice to beneficiaries (including complaint procedure) 4. Notices of Public Hearings (fully implement process for CTDOT) 5. Applications or instructions on how to participate in a recipient's program or activity or to receive recipient benefits or services (e.g., ADA Paratransit applications). 6. Consent Forms <p>Metro North:</p> <ol style="list-style-type: none"> 1. Basic critical customer information on how to use and access rail services such as peak/off peak/monthly ticket purchasing instructions (currently in Spanish online and at stations with fare information poster). 2. Rail Service change information 3. Fare change notice 4. Title VI notice to beneficiaries (including complaint procedure) 	<ol style="list-style-type: none"> 1. As Needed 2. As Needed 3. May 31, 2016 4. January 1, 2017 5. October 1, 2016 6. October 1, 2016 <p>Metro North:</p> <ol style="list-style-type: none"> 1. October 1, 2016 2. As Needed 3. As needed 4. May 31, 2016
Training Sessions for front-line employees, both in serving LEP population and collecting data/information regarding the LEP populations served.	Completed by July 31, 2016

Minority Representation on Planning and Advisory Bodies

The Connecticut Department of Transportation does not deny any person(s) with regard to race, color or national origin, the opportunity to participate as a member on any transit-related, non-elected planning boards, advisory council or committees or similar committees, whereby the membership is selected by CTDOT.

The CTDOT does not have any transit-related, non-elected bodies, planning boards, advisory councils or committees that are selected by CTDOT for transit related decision making purposes.

In the event, the CTDOT encounters any transit-related, non-elected bodies, advisory groups or committee(s) with the responsibilities of any decision making on e.g., policies, service changes, fares, and/or facility locations, the CTDOT will maintain a table describing the demographic breakdown of membership of those committees and a description of efforts made to encourage minority participation on those committees.

A copy of the form utilized to collect information on CTDOT Transportation-related boards or commissions is included in this document.

Determination of Site or Location of Facilities

In determining the site or location of facilities, the Department will not make selections with the purpose or effect of excluding persons from, or denying benefits of, or subjecting them to discrimination with regard to race, color or national origin under any transportation program or service.

To ensure compliance with the FTA C 4702.1b, the CTDOT is required to conduct a Title VI Equity analysis for new locations or facilities to ensure locations are selected without regard to race, color, or national origin. The CTDOT has not built any new fixed facilities during the reporting period of this triennial report.

Requirements and Guidelines for Fixed Route Transit

Bus System-Wide Standards

INTRODUCTION

Public transportation is an essential public service, contributing to the prosperity and growth of metropolitan areas. Good transit service supports a wide variety of public policy initiatives, including: energy conservation, improved air quality, access to jobs, traffic congestion relief and promotes smart growth.

Because much of the cost of CTTRANSIT's operations is covered with public funding, CTTRANSIT has an obligation to operate to the maximum public benefit in the most efficient manner that is practical. To be effective in fulfilling its role in the community, the amount and quality of transit service offered must be sufficient to retain existing customers, and encourage new customers to consider public transportation

opposed to other travel options. And as a publicly funded service, CTTRANSIT must also comply with all applicable federal and state laws, regulations and other guidance. This includes all applicable guidance regarding Title VI of the Civil Rights Act of 1964, as amended (referred to as Title VI), and related statutes and regulations.

CTTRANSIT recognizes the need for balance between the level and quality of service provided and efficiently utilizing fare revenue and public subsidy dollars. For this reason, it is essential that the subsequent guidelines are utilized and adhered to as closely as practical throughout the service analysis and design process. The objective of these guidelines is to provide a tool to guide those responsible for service planning and development with a standard for evaluating existing service as well as a mechanism for evaluating proposals for service changes and the establishment of new services.

This edition of CTTRANSIT's Service Guidelines has been updated to reflect changes throughout the statewide bus system since April 2000, including:

- The replacement of CTTRANSIT's high-floor bus fleet with a fleet of low-floor buses, the addition of 45-foot over-the-road coaches to the Hartford Division's commuter bus fleet, and the purchase of 60-foot articulated buses for the Hartford, New Haven and Stamford Divisions.
- Increasing traffic volume statewide resulting in service reliability issues.
- Increasing ridership due to rising fuel prices and fewer available seats on low-floor buses causing capacity issues.
- The transition to Trapeze integrated transit scheduling software.
- Compliance with federal Title VI guidelines.

OBJECTIVES AND CONSTRAINTS

CTTRANSIT seeks to provide the best public transportation service possible within the limits of its budget. To meet this goal requires simultaneous attention to the following objectives.

The public transit system should be designed, operated and maintained so that it will attract customers in such numbers as to assure its continuing viability as a reasonable alternative to the private automobile and to meet the mobility needs of the region. Efforts should be made to attract customers with:

- High-quality service
- A system that is easy to navigate and understand
- Smooth transitions between CTTRANSIT routes, and connections with other transit systems and transportation modes
- Responsive customer service
- Convenient scheduling
- Affordable pricing
- The optimum use of improved streets and highways
- Vigorous marketing and public outreach

The transportation system should be designed to consider the following:

- Existing and future land use patterns
- Access to major employment centers
- Non-traditional commuting patterns, including off-peak and reverse-commute
- Access to educational, medical, social/recreational, and other key destinations
- Mobility for people who do not have access to private transportation, including: senior citizens, persons with disabilities, youths, and low income residents
- Seamless connectivity with other transportation modes (e.g. bus, rail, air, ferry)
- Equitable distribution of publicly-funded transit resources throughout the community

Service improvements and extensions should not be solely evaluated based on economic considerations. Transit service is a necessary public service. The need to provide mobility for the community at large sometimes outweighs the otherwise prohibitive cost of providing service. This is particularly true during off-peak periods and in suburban or rural areas of the system where the return on investment in transit service is less than desirable.

Service should be designed to minimize door-to-door travel time for customers. This can be achieved by more direct routing from origin to destination, realigning bus stops, examining congestion patterns and considering roadway configurations among others.

In instances where one-seat service is not available, provisions should be made for customers to transfer between routes with protection from weather. Walk and wait portions of the trip should be minimized by provision of service frequencies and route spacing. Route spacing should be as close as possible under the service guidelines with consideration to economic constraints, reasonable walking distances and population density.

Ad hoc transit system improvements should be designed so that initial measures for alleviating urgent problems of congestion or social disruption will conform to the system as a whole.

For example, if an urgent need for service to a new area is necessary outside of the normal service change process, the temporary or interim service to be established should be designed in order to be easily assimilated into the system with the next regular service change cycle without unduly burdening new or existing customers.

Title VI Compliance

CSTRANSIT will design, plan and operate transit services that do not discriminate on the basis of race, color or national origin. We are committed to full compliance with the requirements of Title VI of the Civil Rights Act and all other relevant laws and regulations.

To comply with Title VI, CSTRANSIT embraces the objectives and guidelines expressed by the Federal Transit Administration in FTA Circular C 4702.1B to:

- Ensure that the level and quality of transportation service is provided without regard to race, color or national origin.
- Identify and address, as appropriate, disproportionately high and adverse human health and environmental effects, including social and economic effects of programs and activities on minority and low-income populations.
- Promote the full and fair participation of all affected populations in transportation decision-making.
- Prevent the denial, reduction or delay in benefits related to programs and activities that benefit minority populations or low-income populations.
- Ensure meaningful access to programs and activities by persons with limited English proficiency.

Members of the public who wish to receive additional information about CTTRANSIT's non-discrimination policy and our obligations under Title VI, or who wish to file a discrimination complaint against CTTRANSIT, should contact the General Manager at P.O. Box 66, 100 Liebert Road, Hartford, CT 06141. Requests for information or complaints may also be posted through the CTTRANSIT website at www.cttransit.com.

GENERAL SERVICE GUIDELINES

All service operated by CTTRANSIT is subject to the same general guidelines. However, it is important to bear in mind that these guidelines do not constitute a hard and fast service policy. Factors beyond CTTRANSIT's immediate control (e.g. fuel prices, budget limitations, fleet availability, etc.) will often influence the service that CTTRANSIT provides and therefore require these guidelines to be interpreted and applied depending on the individual circumstances.

A) Routing

Routing is one of the most important influences on the quality and cost of service. Routing is affected by several factors, including: street configuration, customer demand, travel patterns and travel time.

1. Types of Routes

Different types of routes serve different purposes. Currently, CTTRANSIT operates four types of routes: Local, Express, Flyer and Commuter Connection.

Local Routes

Local routes comprise the majority of the routes in the CTTRANSIT system. Local routes operate along primary and secondary roadways and make frequent stops to board or alight customers. Although most local routes operate to and from the downtown hub, local routes may also operate in a crosstown fashion, linking radial bus routes and major generators outside of the urban core.

Some local routes may also operate in a limited-stop capacity. Limited-stop routes either run over an expressway for part of the route, operate pick up only or drop off only along stretches of the route, or operate in a skip-stop fashion in areas that are already well-served by other routes. Limited-stop service

is often used during peak service periods as a method of speeding-up service, particularly on longer routes.

Express Routes

Express routes operate non-stop over long stretches of their alignment, usually over expressways, HOV lanes, busways or other limited-access roadways. Most express routes operate during the weekday AM and PM peak periods, linking suburban park and ride facilities with the urban hub. Some express routes also offer limited midday or weekend service. Other express routes, such as the I-BUS Express, are designed to link two transportation hubs (in this case, CTTRANSIT Stamford and Metro-North Railroad's New Haven Line on the east end and Westchester County's Bee-Line System and Metro-North Railroad's Harlem Line on the west end).

Express bus routes make few stops, although they may make local stops along short stretches of their alignment. Because they make few stops and often use restricted commuter lanes, express bus routes can provide customers with shorter travel times and are best-equipped to compete with the personal auto. Many express bus routes serve park and ride lots which offer free parking for bus, carpool and vanpool riders. Park and ride lots are established by CTDOT and are either state-owned facilities or leased by CTDOT from private entities (e.g. churches, shopping centers, etc.). Express routes vary greatly in length and may cover very long distances. For this reason, express bus fares are distance-based from the downtown hub:

Table 1
Express Route Fare Zones

Approximate Distance from Downtown Hub	Fare Zone
Less than 10 Miles	Zone 2
10 to 20 Miles	Zone 3
20 to 30 Miles	Zone 4
30 Miles or More	Zone 5

Flyer Routes

Flyer routes are a hybrid route type which combines elements of local and express routes. Flyer routes generally evolve as a result of a limited-stop route being expanded to such a degree that it makes sense to brand the service as a separate service entity. Flyer routes share many of the design characteristics of express routes; however they are usually designed to complement local routes. Unlike express routes, flyer routes charge local fares. Flyer routes also generally operate during all service periods while express routes operate predominantly during peak periods only.

Commuter Connection Routes

Commuter Connection routes are local routes which provide feeder service, usually between commuter rail stations and major employment centers or residential areas. Commuter Connection routes usually operate in a limited-stop fashion and are timed to meet certain trains at stations.

2. Route Spacing

Routes should be designed to get as close to the user as possible. Inherent in this goal is the assumption that the customer will be expected to walk an acceptable distance to a bus stop. The maximum distance that a typical person can be expected to walk is normally considered 0.25 miles on each side of the route. Therefore, to minimize the overlaps in the route network and to maximize coverage in the service area, routes should ideally be spaced 0.50 miles apart.

While having two routes operate on streets one block apart rather than over the same street may be the ideal situation, several factors may require closer spacing of routes, including:

- Population density in particular corridors
- Roadway configurations
- Need for transfer opportunities
- Ridership patterns
- Locations of major trip generators

3. Through-Routing

Through-routing is desirable when possible. Routes should be joined on the basis of ridership patterns and balancing of vehicle requirements. Reducing vehicle requirements, reducing the need for transfers, avoiding unnecessary overlaps or turnarounds in the central hub, and reducing extremely long layovers are some of the goals of through-routing. However, consideration must be given to the headways of routes which are paired for the purpose of through-routing; routes with mismatched headways will require vehicles to layover between trips, an unproductive practice which is an inconvenience to customers. Interlining of individual trips between routes on an ad hoc basis to minimize layovers in the central hub, although a good cost-saving measure, can cause customer confusion if used to excess and should be used sparingly.

4. Route Design

Most CTRANSPORT routes converge at a central hub located in a downtown area. Directness of service can often be significantly improved through the addition of crosstown links between major destinations outside of the central hub and by providing transfer hubs near major ridership generators in suburban locales.

Dedicated bus lanes and HOV lanes should be utilized where available in order to reduce customer travel time. Bus lanes are currently available in some areas of Hartford and HOV lanes are currently available on I-84 and I-91 east and north of Hartford.

Bus way turnarounds, use of bus slips or other situations which require a vehicle to back up or otherwise complete an unsafe maneuver should be avoided. In establishing route terminals and layover points, safety, impedence to traffic flow and unobtrusiveness in residential areas should be considered. For the convenience of bus operators, the availability of restroom facilities at or near the endpoints of routes is desirable.

A number of cost-saving devices are available, including turn-backs, route branching, and part-time route deviations. However, these practices, if used to excess, have a tendency to over-complicate the bus system for the customer. While branching results in significant cost savings, consideration should be given to changing the route name and number for the branch to avoid confusion. Turn-back operations (turning a bus around short of the normal terminus, usually along the trunk of the route) should be scheduled where they can significantly increase service frequency for a large portion of riders. This is particularly helpful during peak travel periods.

5. Directness of Service

Directness of service is a prime goal in routing policy. While fixed-route transit service cannot match the automobile in terms of directness of travel between a multitude of origins and destinations, some route deviation is normal and essential to serve the potential transit customers along a given route. However, too much deviation can make the trip time differential between transit and the private automobile so great that those persons who might consider using public transit will turn to other modes of travel.

Individual deviations should not inconvenience more riders that they serve. Therefore deviations should only be made if good justification for them exists.

A fairly popular standard, coefficient of directness, dictates that transit routes between major traffic generators (e.g., the downtown CBD and a shopping center, large residential area, or outlying employment center) should not exceed twice the travel time for automobile travel between the same points for local service and one-third more travel time when compared to commuter express service.

Figure 1
Coefficient of Directness for Local Routes

$$\frac{Tb}{Ta} = < 2.0$$

TB Point to Point Travel Time by bus

TA Point to Point Travel Time by Private Auto

Figure 2
Coefficient of Directness for Express Routes

$$\frac{Tb}{Ta} = < 1.33$$

Tb Point to Point Travel Time by Bus

Ta Point to Point Travel Time by Private Auto

CSTRANSIT should seek to adhere to the coefficient of directness standard in areas where load factors are consistently greater than 0.10. In areas such as route termini, route branches and loops, where load factors are typically lower, it is not practical to adhere to this standard.

The coefficient of directness by itself is only an indicator of potential problems; other standards must be examined in connection with this standard. For instance, close examination of revenue/cost ratios may indicate that a route deviation is indeed productive despite exceeding the coefficient of directness standard. While the coefficient of directness is not a hard-and-fast standard by itself, it often supports the need for modification when other standards are not met.

6. Route Deviations

Route deviations are sometimes necessary to serve certain areas which only need to be served at particular times of day and would not benefit from or meet the standards to justify full-time service.

For any route deviation, the walking time saved by customers who board and alight along the deviation must be greater than the increased travel time for through- customers who will be riding the added section. This is measured using the adjusted deviation factor (ADF). An ADF of less than 1.0 is necessary to meet this criterion and justify the deviation.

Low population density areas may not be able to support regular scheduled local service although ridership patterns exhibit a high degree of work trips to a central area. In these cases, express service from a commuter express parking lot may be desirable. Express routes should be designed to minimize travel time. To improve productivity and to provide employment opportunities for inner-city residents at suburban employment centers, express routes should be designed to provide reverse-commute service where practical.

Figure 3
Adjusted Deviation Factor (ADF)

$$\frac{(P_t \times T_t)}{(P_d \times W_d) - (P_a \times W_a)} = < 1.0$$

P_t Through-Riders

T_t Added Travel Time for Through Riders

P_d Customers Served by Deviation

W_d Walking Time Saved for Deviation Customers

P_a Customers Left Unserved by Deviation

W_a Walking Time added for Unserved Customers

B) Scheduling

1. Service Periods

Operating period time limits shall be determined at the central hub. For crosstown routes, operating time period limits shall be determined at the major destination point on the route. At all other route points requiring time, headway and customer load considerations, the operating periods will be directly related to and an extension of the time limits determined at the central hub or major destination point. In most cases, changes in operating headway and running time will closely mirror these periods, although headway or running time variation within a service period may be necessary to match trends in traffic or ridership conditions (e.g. work shift changes at major employers, class start or end times at colleges or public schools, etc.).

Table 2
Service Periods

Weekdays	Early AM	Before 6:29AM
	AM Peak	6:30AM – 8:59AM
	Midday	9:00AM – 1:59PM
	Midday School	2:00PM – 3:59PM
	PM Peak	4:00PM – 6:29PM
	Evening	6:30PM – 9:59PM
	Night	10:00PM & After
	Saturdays	Morning
Daytime		9:00AM – 5:59PM
Evening		6:00PM – 9:59PM
Night		10:00PM & After
Sundays	Morning	Before 9:59AM
	Daytime	10:00AM – 5:59PM
	Evening	6:00PM – 9:59PM
	Night	10:00PM & After

The total peak period shall be defined as the sum of the AM and PM Peak periods (i.e. weekdays 6:30AM to 8:59AM and 4:00PM to 6:29PM). The maximum peak period shall be defined as the 60-minute span within the total peak period during which the maximum number of customers are carried. The transition period shall be defined as the period within the total peak period that immediately precedes or follows the maximum peak period.

The non-peak or base period shall be defined as the period between the AM and PM Peak periods (i.e. weekdays from 9:00AM to 3:59PM) and all day on Saturdays. The off-peak period shall be defined as all service after 6:30PM on weekdays, after 6:00PM on Saturdays and all day on Sundays.

Special periods (e.g. extra service for the holiday shopping season, extra service for special events, etc.) not defined herein should be subject to individual consideration.

2. Service Span

The span of service on a particular route is the hours during which service on that particular route operates. Guidelines for minimum service spans are designed to ensure that routes are available to meet the travel needs of the communities they serve throughout the day.

Service span is a function of service demand, which is influenced by such factors as population density, commuting patterns, and retail operating hours. As a result, primary bus routes which serve the most heavily-traveled corridors in the region and the denser neighborhoods generally operate at a wider service span. Examples of primary routes include Hartford routes 31/33, 42, 47, 50/52/54 & 60/63/64/66, New Haven routes B & D and Stamford routes 11 & 41.

Table 3
Minimum Service Spans

Service Type	Day	Minimum Service Span
Primary Local Routes	Weekday	6:00 AM to 11:00 PM
	Saturday	6:00 AM to 11:00 PM
	Sunday	7:00 AM to 8:00 PM
Flyer Routes & All Other Local Routes	Weekday	7:00 AM to 6:00 PM
	Saturday	7:00 AM to 6:00 PM
	Sunday	10:00 AM to 6:00 PM
Express Routes & Commuter Connection Routes	Weekdays	7:00 AM to 9:00 AM & 4:00 PM to 6:00 PM

3. Running Time & Operating Speed

Cycle time is defined as the round-trip running time on a route plus any recovery or layover time.

Figure 4
Cycle Time

$$R_o + L + R_i = C$$

R_o Running Time (Outbound)

R_i Running Time (Inbound)

L Layover Time

C Cycle Time

Simply stated, running time is defined as the travel time between two points on a route, including time spent boarding and alighting customers along the way. Each route has a series of timepoints, one at each end of the route and usually one or more intermediate timepoints along the route. The total travel time from the first timepoint to the last timepoint is the one-way running time; the total travel time from the first timepoint to the last timepoint then back to the first, excluding layover time, is the round-trip running time.

Since buses make frequent stops to board and alight customers, they travel at a much slower speed than other traffic. The actual operating speed along a route, however, will vary based on many factors, such as: traffic conditions, ridership levels, roadway configurations and the number and spacing of bus stops. It is therefore useful to position timepoints with these factors in mind. CTTRANSIT has no standards or requirements with regard to operating speed. However, other factors such as coefficient of directness are often good indicators that a particular route or route segment is operating too slowly to provide effective service.

Figure 5
Operating Speed

$$\frac{L}{C} = x \quad 60$$

L Route Length (Round-Trip)

C Cycle Time

4. Recovery Time (Layovers)

CTTRANSIT has no requirement to provide layovers or recovery time, although the collective bargaining agreements provide that reasonable layovers will be provided when practicable. Recovery time is the leftover time between trips, necessitated by maintaining a specified headway on a particular route or branch. Although some transit systems have contractual provisions that require layovers to be built into schedules (e.g. as a percentage of the round-trip running time on a route), the establishment of a hard-and-fast standard can negatively impact service efficiency by requiring additional buses to be placed in service or negatively impact service coverage by requiring routes to be cut short.

Figure 6
Effect of Headways on Recovery Time

*Bus Route A operates between Hartford and West Hartford.
The round trip running time on Route A is 34 minutes.*

Headway: 20 Minutes

$$\frac{34 \text{ (running time)}}{20 \text{ (headway)}} = 1.7 \text{ (buses)}$$

20 (headway)

$$2 \text{ (buses)} \times \frac{20 \text{ (headway)}}{1} = 40 \text{ (cycle time)}$$

$$40 \text{ (cycle time)} - 34 \text{ (running time)} = 6 \text{ (recovery time)}$$

Headway: 15 Minutes

$$\frac{34 \text{ (running time)}}{15 \text{ (headway)}} = 2.27 \text{ (buses)}$$

15 (headway)

$$3 \text{ (buses)} \times \frac{15 \text{ (headway)}}{1} = 45 \text{ (cycle time)}$$

$$45 \text{ (cycle time)} - 34 \text{ (running time)} = 11 \text{ (recovery time)}$$

In the central hub, a two-minute layover is highly desirable. This ensures, particularly during peak hours and on high-volume routes, that buses are able to discharge customers from their inbound trips and board customers for their outbound trips without negatively affecting on-time performance. Layovers of more than two minutes on through-routed trips should be avoided so as to minimize customer inconvenience.

5. Frequency of Service (Headways)

Ridership should determine the frequency of service on each route, although financial or equipment limitations may sometimes limit the level of service that can be provided.

Headway is the interval of time between two buses running in the same direction on the same route or along the same route corridor (e.g. Routes 60, 62, 64 & 66 along Farmington Avenue in Hartford and West Hartford). Headways for routes with multiple branches are measured along the trunk of the route, with headways along the individual branches standardized to the extent that is practical. Headways are generally based on load factors (i.e. the ratio of customers to seating capacity).

Headways should conform as much as possible to regular intervals to make it easier for customers to understand. Intervals of 5, 10, 15, 20, 30, 40 or 60 minutes are considered ideal, although other headways may be used when better suited to a particular situation. For example, a twelve minute headway might be established on a route which is too heavily used to operate at a fifteen minute headway, but for which a ten minute headway would be too costly or would simply be excessive.

Loading standards, which are discussed in detail in subsequent sections, are generally used to determine minimum headways. However, for certain service periods and on certain routes, minimum headways should be set by policy. For example, during the base or off- peak periods, ridership may be so light that using the loading standards would result in excessively wide headways. Therefore, in order to provide service in a manner that meets the community’s needs, it is necessary to establish policy headways.

CSTRANSIT’s goal is to provide headways during the base and off-peak periods not exceeding 60 minutes. An exception to this policy would in rural areas or at night or on weekends, where financial considerations must be balanced against demand (e.g. Route 96 serving the US 5 corridor in South Windsor). These guidelines do not apply to headways for commuter express routes; express routes normally only operate during peak periods to accommodate work trips.

Table 4
Minimum Headways

Service Type	Service Period	Minimum Headway
Local Routes	Weekday Peak	30 Minutes
	Period	60 Minutes
	All Other Service Periods	
Flyer Routes	All Service Periods	60 Minutes
Express Routes & Commuter Connection Routes	Weekday Peak Period	3 trips in peak direction in each peak

6. On-Time Performance

Several elements contribute to the on-time performance of transit vehicles:

- Ridership
- General traffic conditions
- Schedule construction
- Service monitoring
- Accidents and mechanical failures
- Operator training and driving habits
- Inclement weather
- Detours for construction, emergency services, etc.

CTTRANSIT has no control over many of these factors. However, it does have the ability to adapt to certain circumstances through schedule construction, the management of mechanical failures, and the training, supervision and monitoring of bus operators.

Although traffic congestion is beyond CTTRANSIT’s immediate control, schedules should be constructed so that sufficient time is available under normal traffic conditions to complete the trip on time. Intermediate timepoints should be established to closely match typical travel times so that mid-route layovers, which are an inconvenience to customers, are avoided.

Where street traffic varies by day of the week, hour of the day, or from season to season, schedules should be adjusted accordingly. In instances where schedule adherence becomes difficult in the peak period because of general traffic congestion, steps should be taken to modify the schedules for that particular situation or to work with traffic officials to address the traffic problems causing the congestion.

Disruptions due to mechanical failure of equipment cannot be eliminated, but should be minimized within the financial limits of sound maintenance practices. Helper buses (extra buses that fill in for buses that are unable to make scheduled trips) should be positioned at the downtown hub during the peak period in order to minimize missed trips and quickly respond to service disruptions.

CTTRANSIT defines “on-time” as a bus departing a timepoint zero to five minutes later than scheduled. Under no circumstances should buses depart any timepoint ahead of schedule, unless the timepoint for the particular trip has been flagged as “drop off only” and the bus operator given explicit permission to continue on if early. Late operation is defined as any trip leaving a time point in excess of five minutes beyond the scheduled time. To maintain efficient operation, schedules should be constructed in such a manner so that no bus arrives at the downtown hub more than two minutes early or at any other timepoint more than one minute early.

**Table 5
On-Time Performance Measures**

Performance Indicator	Downtown Hub	All Other Locations
Early Arrival	> 2 minutes	> 1 minute
Late Arrival	> 5 minutes	> 5 minutes
Early Departure	> 0 minutes	> 0 minutes
Late Departure	> 5 minutes	> 5 minutes

Schedule adherence guidelines vary with the quantity of service provided. Peak period service with short headways is less likely to adhere specifically to schedules than longer headway “off peak” service. For instance, on routes or along corridors where headways are 10 minutes or less, it is acceptable to have

90% of the service “on-time”, while it is our goal that 95% of service runs “on-time” on routes that operate at wider headways or during off-peak periods.

**Table 6
Schedule Adherence Guidelines**

Service Period	Headway		
	Less than 10 Minutes	10 to 29 Minutes	30 Minutes or More
Weekday Peak	90%	90%	95%
Weekday Off-Peak	90%	95%	95%
Saturday & Sunday	90%	95%	95%

On-time performance information is collected on the street by Transportation Supervisors and Traffic Specialists. In the future it is anticipated that much of this data collection can be done utilizing an Automated Vehicle Locator (AVL) System such as the one which is currently under development in the Stamford Division.

C) Route Performance

Each route in the transit system is viewed as a separate service entity. However, individual routes need to be evaluated with an understanding that routes are interrelated with respect to the common corridors they serve, transfer connections, and the success of the system as a whole.

Route ridership is an important component in the evaluation of a route’s performance. Since there are a variety of fare classifications, revenue alone does not accurately reflect a route’s performance. Ridership, measured in unlinked passenger trips, passenger trips per service hour and load factor (passengers per seat) therefore must all be gauged in order to evaluate each route properly. The relative importance of each of these measures will also vary between service periods and across different types of routes.

1. Ridership

Ridership, or, more accurately, unlinked passenger trips, is the total number of passengers boarded on a route or trip. Ridership is the most important performance measure because it is used to calculate the other performance measures for a route. It is therefore necessary to have a firm method for determining the ridership on each route.

Ridership data for every route is collected by the electronic fareboxes on the buses each day on a trip-level basis. Farebox ridership is collected based on the number and type of fares collected by the bus operator. The integrity of this data is heavily reliant on bus operators properly updating their farebox settings for each trip, collecting and accounting for all fares, and verifying transfers, tickets and passes.

Traffic Specialists collect bus stop-level ridership data on every route at least once every nine months as part of CTTRANSIT's on-going ride-checking program. Traffic Specialists ride each trip on each route and conduct a visual count of the number of customers who board and alight at each stop along the route. This data is then entered into a central ridership database where it can be accessed by planning and scheduling staff.

2. Route Productivity

The relative productivity of each route can be measured by determining the number of unlinked passenger trips per route service hour (running time plus recovery time).

Figure 7
Passengers per Hour (PpH)

$$\frac{P}{H} = \text{PpH}$$

P Passenger Trips (Unlinked)

H Hours of Service

Each route in the system can then be ranked in order of productivity, from most productive to least productive, and an average level of productivity for all routes can also be calculated. Using this information, approximate headways on the trunk section of each route can be determined based on the productivity of each route in comparison to the average level of productivity for the entire division.

Table 7

Trunk Section Route Performance Guidelines
Passengers per Hour
Based on Division Average

Headway	Service Period	
	Weekday Peak Period	All Other Service Periods
Less than 10 Minutes	200%	200%
10 to 14 Minutes	165%	165%
15 to 19 Minutes	125%	125%
20 to 29 Minutes	100%	100%
30 to 59 Minutes	75%	75%
60 Minutes or More	75%	50%

The table is weighted so that the most frequent routes should be top performers and justify their superior service.

The evaluation should be completed as a sequential review of four major elements:

- If the customer per hour figure meets or exceeds the Percentage of the Division Average as outlined in the table, then the route and/or segment will be deemed worthy of continuation.
- If the customer per hour or load factor falls between 80% and 99% of the percent of the Division Average as outlined on the chart, the route should be reviewed by planning staff to determine if there are any segments of service included in the route for which corrective action should be taken. Major changes in routing or schedules must be approved by CTDOT before being implemented.
- If the customer per hour or load factor falls between 60% and 79% of the Division Average as outlined on the table, the route should be studied and a Comprehensive Operational Analysis (COA) report produced. The COA report will recommend possible actions either to improve the route's performance or to discontinue service.
- If the customer per hour or load factor falls below 60% of the Division Average as outlined on the table, two actions can be considered. If it is judged that the particular service requires minimal resources and that the overall system can "carry" the sub-standard ridership, then it may be continued in six (6) month intervals through a policy directive of CTDOT. If continuation would require a significant allocation of the system's resources to continue the route, then the route should be terminated with the approval of CTDOT.

The above performance criteria indicate a route's overall performance, the various segments of service on a route having been averaged together. Planning and scheduling staff should also review individual route segments when necessary to ensure that the average performance measures provide an accurate reflection of the entire route.

These criteria apply equally to existing service and planned new routes or extensions. For existing routes, the performance statistics can be calculated from actual data, while for planned routes they would have to be estimated. Because of the unique nature of express routes, a special evaluation procedure is required. Express routes have a relatively high allocation of operating hours per rider. For example, a long express route may have low ridership in terms of passengers per hour, but may have seated loads on many trips. When evaluating express routes, passengers per trip are the preferred performance measure.

3. Load Factor

CTTRANSIT buses used for local service are designed to accommodate standees and service is scheduled with the expectation that most trips during peak hours will operate with standees over all or part of their alignment. Some off-peak trips may also carry standees, although ideally there will be a seat for most customers during off-peak hours. Thus, the loading guidelines outlined in Table 8 are not a hard-and-fast standard.

CTTRANSIT will consider adding buses to increase capacity on local routes when the loading guidelines are exceeded to a significant degree, when crush loads regularly preclude customers from boarding the bus, or when load factors hinder on-time performance.

Table 8
Maximum and Minimum Loading Guidelines

Service Period	Maximum Load Factor	Minimum Load Factor
Weekday Peak	1.33	0.33
Weekday Midday	1.00	0.25
Evening	1.00	0.15
Nights (after 10:00PM)	1.00	0.15
Weekends	1.00	0.20

Load Factor is calculated by dividing the total number of seats passing the maximum load point into the number of customers traveling past that point during the operating period considered.

Figure 8
Load Factor

$$\frac{P}{S} = <1.33$$

P Passengers On Board

S Seated Capacity Bus

It is important to differentiate loading guidelines by type of service. Due to trip length, operating speed and highway travel, commuter express service should be scheduled in such a manner so as to minimize situations in which standees occur. The customer load on any bus, however, shall never exceed the safe or legal limit for that vehicle. The recommended loading guidelines expressed are within these safety limits.

Generally, routes which operate at frequent headways should have higher load factors, particularly during the peak period, to justify their more frequent service. Local routes that travel only a small percentage of their total route on an expressway should still be classified as "local service" and thus adhere to the loading guidelines under that service category.

Table 9
Route Performance Guidelines
Load Factor

Headway	Service Period	
	Weekday Peak Period	All Other Service Periods
Less than 10 Minutes	100%	85%
10 to 14 Minutes	90%	70%
15 to 19 Minutes	80%	60%
20 to 29 Minutes	75%	50%
30 to 59 Minutes	65%	35%
60 Minutes or More	65%	25%

Figure 9

COA Report Structure

- I. Introduction
- II. Existing Conditions
 - A. Each Route
 - 1. Route Alignment
 - 2. Service Span & Frequency
 - 3. Ridership & Load Factor
 - 4. Running Time & On-Time Performance
 - 5. Overall Performance Summary
- III. Recommendations

I. Introduction

The first section of each COA report is the report introduction. This brief section will introduce the route(s) and neighborhood(s) being studied, provide a brief history of the route(s) being studied and outline the goals and objectives of the report.

II. Existing Conditions

Section two of the COA report outlines the existing conditions on each route in the scope of the study and consists of several subsections. The route alignment subsection should include a map and a detailed description of the route, including all route branches and part-time deviations. This subsection also should address connecting services along the route's alignment, through-routing arrangements with other routes, and provide basic demographic data about the neighborhoods the route serves.

The second subsection describes the service span and frequency of the route, both in general terms and in specific terms with regard to individual branches or deviations.

Tables summarizing service span and frequency information should be included in this subsection and headway reports for the route should be included in an appendix to the COA report.

Subsection three deals with ridership and load factor. Historical ridership on the route can be derived from farebox counts; however current trip-level data should be derived from ride-check data collected by traffic specialists. In order for the data to be as reliable as possible, data for the COA report should be collected in the shortest timeframe that is practical, with the understanding that data collection will take longer to complete on high-volume routes. Data should be summarized in this section in tables and charts, with complete route profile reports and trip summary reports contained in appendices in the report. As part of the analysis of each route, any trip carrying less than 5 customers should be considered for termination unless the continuation of the under-performing trip can be justified. For example, a trip which carries less than 5 customers may occur between two highly productive trips and it would be impractical to discontinue the middle trip without adversely affecting the more productive trips. On longer trips (more than 45 minutes one-way running time), more than 5 customers are required to keep the trip operating.

The fourth subsection of the existing conditions section evaluates the running time and on-time performance of the route being studied. On-time performance data should be derived from either ride-checks or point checks. Both outbound departures from the central hub as well as inbound arrivals at the central hub should be examined. On some routes, particularly regional routes with strong ridership in both directions, additional on-time performance data should be included as appropriate. Running time data should be calculated for each service period and a comparison made between scheduled and actual travel times along each route segment. Data for this section should also be summarized in tables and complete node to node running time reports should be included.

Subsection five ties together the data collected in subsections one through four and compares this body of data to CTRANSPORT'S Service Guidelines. Areas where the guidelines are met or missed should be summarized concisely and objectively. The data collected should also be correlated to any relevant survey findings when such information is available.

III. Recommendations

The third and final section of the COA report contains specific recommendations to improve the efficiency of the route(s) being examined. All recommendations should be carefully constructed to conform to CTRANSPORT'S Service Guidelines. In instances where conformity to the service guidelines is either not possible or practical, a detailed justification should be included. In most cases, there are five possible management actions that can be applied to routes which are found to underperform or to be underutilized:

- Service adjustment (headways, on-time performance, etc.)
- Route restructuring (improving route design)

- Route or route branch/segment elimination
- Revenue source adjustments
- Increased route-specific marketing

Recommendations should be based on net costs added or subtracted and on net ridership/revenue gained or lost. Therefore, a detailed cost recap for each service proposal should be included in an appendix to the COA report and summarized in table form in this section along with maps and/or proposed schedules as appropriate.

IV. EVALUATION GUIDELINES FOR EXISTING SERVICE

A. The Comprehensive Operational Analysis (COA) Process

Each CTRANSPORT bus route should be evaluated periodically with regard to its efficiency and effectiveness both independently and as part of the system as a whole. The COA process allows for the identification of routes needing modification to better meet the needs of the communities served. Identification of ineffective service will allow appropriate actions to be taken to ensure optimum effectiveness relative to needs and resources. Periodic monitoring of the total system will not only identify unproductive services, but also enable CTRANSPORT to judge the effectiveness and performance on individual routes. Changes in ridership between evaluation periods may signal the need for careful attention to other service standards in succeeding periods. A new route, route segment, or trip, should be allowed to mature for one year before being held to CTRANSPORT's service evaluation criteria.

In order to provide a consistent framework for evaluating routes or groups of routes, each operational analysis report should contain the following information:

V. DEVELOPMENT GUIDELINES FOR NEW SERVICES

The guidelines and criteria in Sections III & IV apply equally to proposed new services with few exceptions. New services are designed to meet the minimum service standards described above such as headways, bus stop spacing, on-time performance, and the general standards are applied for other features of the new services such as provision of amenities and vehicle assignment. The only difference is that until the services begin, any analysis of loading standards, headways, bus stop spacing, schedules, ridership and financial information must be completed on an estimated pro forma basis rather than on actual experience.

A. New Service Performance Guidelines

A liberal start-up period should be provided to the new service during which less than normal ridership and performance is to be expected while the market builds up. This gives the route a chance to grow into the performance guidelines. After six months of service:

- If a new route meets performance guidelines, it will be made permanent and monitored through the normal COA and service review processes.

- If a new route does not meet performance guidelines, but has exhibited a gradual increase in ridership, it should continue for another six months and marketing and promotion of the new route should be stepped-up. At the end of this time a review should be undertaken.
- If a new route falls below guidelines and does not show growth, it should be recommended either for major changes or elimination.

An exception to this rule would be made when a third party (e.g. the jobs access program, a private employer or state agency, etc.) is willing to participate in cost sharing of experimental proposals. In the case of these experimental services, CTTTRANSIT should provide service for as long as the community, employer or third party group is willing to participate in the sharing.

B. Service Reductions

While CTTTRANSIT's goal is always to improve and expand service, we recognize that situations may arise in which public funding is not sufficient to continue the existing level of service. These are different from situations in which the ongoing service review process identifies underutilized services to be trimmed or opportunities to make existing service more efficient and cost-effective.

Some CTTTRANSIT service is funded for specific programs from specific sources (e.g. jobs access transportation). The continuation of these services is dependent upon continued funding by the sponsoring agency or agencies based upon program-specific criteria.

When it is necessary to reduce CTTTRANSIT service due to a budget shortfall, priority will be given to preserving service to low-income commuters and transit-dependent communities. The following general guidelines will apply:

- Target the least utilized and least cost-effective services that can be reduced without eliminating service altogether in a corridor.
- Target routes for which there is alternative service on another route.
- Consider opportunities to widen headways on a route before reducing span of service.
- Consider opportunities to reduce off-peak service before reducing peak hour service.
- Preserve "policy" service to the extent possible.
- Preserve existing service where changes would create intolerable overload conditions or on-time performance problems.
- Consider opportunities to reduce service or branch lines before reducing service on trunk lines.
- Target services which are operating on a provisional or experimental basis.

VI. CUSTOMER CONSIDERATIONS

Customer convenience, comfort and satisfaction must be a constant consideration of CTTTRANSIT. From the experience at the bus stop, to the experience aboard the bus, to the experience when contacting the company to obtain information or report a problem, customer satisfaction is of the utmost importance.

A. *Bus Stops*

Bus stops are more than a place to wait for a bus to arrive. Bus stops are a gateway to the bus system and are often the first contact the public has with the bus company.

1) Types of Bus Stops:

There are two main types of bus stops: on-street and off-street. On-street bus stops are most common and usually placed every one to three blocks along a route. Bus stops may be positioned closer together in urban areas or further apart in more sparsely populated areas.

Off-street bus stops are generally located at shopping centers, park and ride facilities and transportation hubs. When possible, off-street stops should be located at a curbed area, such as a storefront, so that customers are not forced to board or alight the bus directly into a parking lot or other undesirable area. In all cases, bus stops must comply with ADA regulations. Bus stops must be established so that they are fully accessible to disabled customers, with enough space for the bus to square-up its front and rear doors to the curb and to fully deploy the bus ramp or lift.

There are three types of on-street bus stops: near-side, far-side and mid-block. Near-side bus stops are positioned before an intersection, while far-side bus stops are positioned just beyond an intersection; mid-block bus stops are not positioned near intersections.

Table 10, on the following page, adapted from “Location and Design of Bus Stops – Final Report” (Texas Transportation Institute, July 1996), lists some of the advantages and disadvantages of various types of on-street bus stops. This is only a partial list of some of the more common situations that may be encountered.

Each individual bus stop must be reviewed on a case-by-case basis based on a variety of factors such as traffic flow, traffic rate, position and type of traffic control devices, pedestrian crossings, etc. On single-lane roads for instance, with little or no shoulder, near-side stops are generally preferred so that stopped transit vehicles will not cause traffic to block the intersection. On multi-lane roads, or roads with wide shoulders, near-side bus stops can result in traffic passing the transit vehicle and turning right in front of the vehicle causing a hazardous condition, therefore making far-side bus stops more desirable, provided enough room is available for the transit vehicle to clear the intersection and to stop safely. There can be no universal standard for establishing bus stops; therefore it is important to use general guidelines to evaluate the conditions at each bus stop on a case-by-case basis.

Table 10
Types of On-Street Bus Stops

Bus Stop Type	Advantages	Disadvantages
Near-Side	<ul style="list-style-type: none"> • Minimizes interference when traffic is heavy on far side of intersection • Front (entry) door opens closest to crosswalk • Intersection can assist bus pulling away from curb • Eliminates double-stopping • Passengers can be serviced while stopped at a red light • Provides operator with clear view of intersection and any connecting buses approaching with transfer passengers 	<ul style="list-style-type: none"> • Conflicts created with right-turning vehicles • Stopped bus may obscure traffic control devices from other vehicles • Stopped bus blocks other vehicles view of crossing pedestrians • Stopped bus blocks view of approaching traffic for crossing pedestrians • Through lane may become blocked by queuing buses • Traffic pattern exceptions may be needed to allow buses continuing straight ahead to stop in a right-turn only lane

2) Bus Stop Amenities:

Generally, in the State of Connecticut, individual municipalities are responsible for the provision, monitoring and maintenance of bus stop signs, shelters, benches and other amenities for the bus service operated in its locality. CTDOT installs and maintains shelters at park and ride lots and maintains bus stop signage on state roads and U.S. highways throughout the state. Bus stops and related amenities are considered part of the “local share” and thus are usually determined on by the municipality in which they are located. CTRANSIT takes a proactive role by performing the installation and maintenance of bus stop signs in some communities.

2) Bus Stop Signs:

All bus stops should be identified by a CTTRANSIT bus stop sign. The number or letter designations for the routes serving each stop should be identified and the Customer Service Center telephone number should be posted. When funding is available, these signs are provided to municipalities at no charge and can be installed by CTTRANSIT at no cost to the municipality.

Figure 10
CTTRANSIT Bus Stop Sign



Figure 11
CTTRANSIT Guide-A-Ride



At stops with record high numbers of customer boardings or are located at major transfer points, Guide-A-Ride schedule boxes should be installed with stop-specific route and schedule information.

3) Shelters

When placing shelters and identifying priority locations, two major factors should be considered: the number of boarding and/or transferring customers at a specific stop and the frequency of service at the stop. Shelters should be lighted and include route and schedule information posted and maintained by CTRANSIT. Shelters should be provided at all stops which serve 100 or more boarding riders during the course of a typical weekday, at all park and ride locations and at all major downtown stop locations and major transfer points in accordance with existing physical conditions and volume of customers served. Table 8 provides a guide for establishing priorities in the placement of customer shelters on the basis of customer demand and service frequency.

Table 11
Bus Shelter Priority Guide

Daily Customer Boardings at Location	Headway		
	30 Minutes or More	10 to 29 Minutes	Less than 10 Minutes
300 or More	1	1	2
200 to 299	1	2	3
100 to 199	2	3	4
50 to 99	2	3	4
25 to 49	3	4	4

The following criteria should be used as a guide in the placement of customer shelters:

- Shelters should be placed at all established park and ride lots.
- A shelter should “aesthetically fit” its surroundings where economically feasible.
- Shelters can be standardized to some degree for possible cost effectiveness via quantity purchase prices, for maintenance purposes or to maintain aesthetic continuity.
- Shelters should afford protection and safety to waiting customers. Four- sided shelters should have at least two panels open for ease of entry and exit. All shelters must meet ADA compliance requirements.
- Shelter maintenance is the responsibility of the community in which it is located or the advertising agency which rents or owns them. It should be emphasized that a clean image is extremely important.
- Shelters should be installed at major transfer points between routes.
- Shelters should include amenities such as display space for route maps and schedules, benches, trash receptacles and lighting.

Figure 13
Sample Bus Shelter #1
Windsor Avenue, Windsor, CT



Figure 14
Sample Bus Shelter #2
Farmington Avenue, West Hartford, CT



Figure 15
Sample Bus Shelter #3
Farmington Avenue, Unionville, CT



Figure 16
Sample Bus Shelter #4
Silver Lane, East Hartford, CT



As noted earlier, CTRANSIT does not own or maintain any of the bus shelters along our routes. The decision to install a shelter at any given bus stop is at the discretion of local municipalities. CTRANSIT works with regional agencies and individual towns to encourage shelter installations that meet the preceding guidelines and to encourage shelters are cleaned and maintained, including snow removal, on a regular basis.

4) Bus Stop Spacing

Location of bus stops along local routes is a function of balancing customer convenience against speed of operations. Obviously, stops at every intersection provide the shortest walking distance to the bus stop. However, vehicle speed and trip time for customers already on the bus are affected significantly. Aside from pure spacing considerations, stops should be located to optimize convenience for concentrations of customers along the route.

Another consideration for bus stop spacing is that for the most part, bus stops are under the jurisdiction of the town in which they are located. While CTTRANSIT can act in an advisory capacity with regard to bus stop spacing, the final decision is usually made by the town or municipality where the stop is located. As a result, many stops may not conform to space requirements necessary for efficient operations. CTTRANSIT works with individual municipalities to establish and maintain bus stops by identifying stops which do not conform to minimum spacing or design guidelines and submitting suggestions for changes or improvements.

In general, bus stop spacing should not be less than 0.125 miles (700 feet). In urban areas, bus stops should not be positioned more than 0.250 miles (1400 feet) apart. Stops may be more widely spaced in low-density rural areas, on special limited service routes, or in commercial or industrial areas. In these cases the number and locations of bus stops should be based on the concentration of potential customers rather than by strict spacing standards. In addition, in heavily traveled urban corridors, bus stop spacing may be modified in order to increase operating speed and reduce travel time.

Table 12
Bus Stop Spacing Guidelines

Spacing Standard	Distance
Minimum Distance Between Bus Stops	0.125 miles
Maximum Distance Between Bus Stops	0.250 miles

5) Bus Stop Design

Stops should be located at street intersections where possible so that customers are provided with safe, obstruction-free access to the bus. They should not block cross- traffic on intersecting streets and the bus must be able to re-enter the traffic stream with minimal conflict.

The curb area devoted to a bus stop, particularly in heavily traveled corridors and where large numbers of customers board daily, is of critical importance. The objective must be to promote optimum safety for the boarding and alighting customers and also to promote the maximum speed of the transit vehicle without seriously affecting the flow of other vehicles.

For safety of customers, the length of the bus stop should allow the operator to pull both doors of the bus to the curb. For the safety of pedestrians and other vehicles, the nearside bus stop should allow adequate set-back from a crosswalk to facilitate vehicular right turn movements and a clear sight path

and walkway for pedestrians. For far-side stops, the length must be adequate for the bus to clear the cross-street and crosswalk and yet give adequate space for the bus to allow it to re-enter traffic without excessive maneuvering.

The Institute of Traffic engineers has established a Recommended Practice for Bus Stop Location distance of 105 feet between the front of the stopped bus and the end of the first parking stall. A mid-block bus stop for a single bus should be 140 feet in length, allowing 40 feet forward and 60 feet to the rear of the bus. It should be noted that the preceding criteria apply only to standard 40-foot transit buses. Other vehicle types (e.g. 45-foot over-the-road coaches, 60-foot articulated transit buses, etc.) require additional accommodation.

The following table, adapted from TCRP Report 19, “Guidelines for the Location and Design of Bus Stops” (Transportation Research Board), outlines some of the advantages and disadvantages of various bus stop designs. As with bus stop locations, the designs of individual bus stops are dependent on the unique conditions at each location and therefore must be evaluated on a case-by-case basis.

Table 13
Typical Bus Stop Designs

Bus Stop Design	Advantages	Disadvantages
Curb-Side	<ul style="list-style-type: none"> • Easy access for bus operators • Minimal service delay • Simple, inexpensive design • Easy to establish or relocate 	<ul style="list-style-type: none"> • May cause traffic to queue behind stopped bus • May cause other traffic to make unsafe maneuvers around stopped buses
Bus Bay, Open Bus Bay, Queue-Jumper Bus Bay	<ul style="list-style-type: none"> • Allows bus to stop out of travel lane without inhibiting traffic flow • Provides protected area for stopped bus to pick up and drop off passengers 	<ul style="list-style-type: none"> • May cause difficulty for bus operators re-entering traffic • Expensive to install, requires additional maintenance (snow removal, etc.) • Difficult and costly to relocate

6) Customer Service

The task of making public transit more attractive as an alternative mode of travel in CTTRANSIT’s three service areas requires that high-quality, easy-to-understand information about how to use the service is readily available to present to potential riders.

7) Telephone Customer Service

An information system is maintained in the Customer Service Center at each CTTRANSIT division to answer all inquiries in a competent and courteous manner. Adequate staffing and call capacity should be provided so that callers seldom get a busy signal and hold time is kept to a minimum.

The Customer Service Centers should be staffed every day that service is scheduled to operate, with an adequate number of personnel available to handle calls in a timely and satisfactory manner. Hours of operation should correspond to the core of the service day and should be publicized to customers on buses, timetables and the company website.

All information regarding routes or schedules, including new schedules, route changes, detours, bus breakdowns and other pertinent general information should be transmitted to the Customer Service Center in a timely fashion. It is the policy of CTTRANSIT to provide information in Spanish and by special TTY/TDD equipment to people who have a hearing or speech impairment.

8) Customer Service Outlets

CTTRANSIT operates a Customer Service/Sales Outlet in downtown Hartford at State House Square, in downtown New Haven at the New Haven Green and in Stamford at the Stamford Transportation Center. Each outlet is staffed by Customer Service Sales Specialists who assist riders with route and schedule information as well as selling bus passes and tickets.

Fare media is also available for purchase by mail, on-line at CTTRANSIT's website, and at select retailers including Stop & Shop supermarkets.

9) Internet Service

CTTRANSIT's website should provide both current and potential customers with self-service information about the bus system, including route maps and schedules, fare information, information about upcoming and recent service changes and links to connecting transportation providers. Customers should also have the ability to submit feedback, purchase bus tickets and passes, and to plan a trip on-line. CTTRANSIT should also endeavor to make its route and schedule information available to reputable third-party trip planners, including Trips123 and Google Transit.

10) Timetables, Maps and Brochures

All CTTRANSIT timetables are printed in a standard format which includes a route map, schedule, clear identification of major destinations or traffic generators, fare zone information (for express service), transfer information, effective date, how-to-ride instructions, and accessibility information for disabled customers. The timetables should continue to be sized to fit in a coat pocket or purse and distributed free of charge as follows:

- On buses in specially provided holders.

- In schedule racks placed at major employers, transportation centers, community service agencies and other or points of interest.
- At Customer Service/Sales Outlets.
- On-line at www.cttransit.com.
- Mailed free, upon request.
- Provided to CTDOT and neighboring transit providers.

Full-color, scale-drawn system maps showing the scope of each CTTRANSIT division's area of operation shall be available to the public and updated periodically or as needed. These maps should be easy to read and contain general route, schedule, fare, transfer, points-of-interest and how-to-ride information in English and Spanish.

Other public information brochures are provided as appropriate, including: seat drops, "Riders' Digest" pamphlets detailing upcoming route and schedule adjustments and special notice signs posted on buses.

11) Public Outreach

Extensive promotional efforts should be made to reach the general public to encourage them to utilize the services offered. Transit fairs at area employers, colleges and universities and participation in community events should be coordinated in order to bolster CTTRANSIT's community presence. A range of communication techniques should be utilized to reach the desired market segment. All new services and service changes should receive special promotion.

CTTRANSIT will utilize the following measures to communicate upcoming service changes and to announce public hearings, if necessary, on proposed service changes:

- Notices posted on buses
- Seat drops
- Postings at CTTRANSIT website
- Press releases to local news media
- Email notices to local and community organizations

Notices posted on buses will normally be available in both English and Spanish and the CTTRANSIT website will have Spanish-language translation available for limited English proficiency (LEP) populations.

12) Safety and Perceived Security

CTTRANSIT should continue to take a proactive approach to safety and security, including participation in National Safety Council programs. Special efforts should be made to continue to upgrade operator training and retraining programs.

CTTRANSIT will continue to maintain an aggressive security program to assure the safety of customers and employees and the perceived security of the system as viewed by existing and potential customers and employees. Users and employees of the system should be secure from acts of violence or terrorism,

and CTRANSPORT property should be secure from vandalism and theft. Customers should be encouraged, through programs such as TransitWatch, to report suspicious activities to CTRANSPORT personnel or the police. It should be noted that drivers, however, are not police officers and should not attempt an aggressive security program personally.

All buses are equipped with a two-way radio system and silent alarm allowing contact with a division command center that is able to contact local law enforcement agencies for immediate assistance. All buses are also equipped with a video surveillance system to provide customers an added sense of security and to protect CTRANSPORT from frivolous litigation.

13) Vehicles and Vehicle Maintenance

Buses will be assigned to service without regard to race, color or national origin of riders or the communities they serve. The only exception is for buses dedicated to commuter express, bus rapid transit, commuter connection or shuttle service (e.g. the Star Shuttle). At such time as CTRANSPORT begins operating articulated buses, these high-capacity vehicles will be assigned to high-ridership routes where additional seating will alleviate overcrowding conditions. Newer buses will be distributed among all routes and newer buses will be used on weekends and holidays instead of older equipment.

Buses should be maintained in a high state of operational readiness through effective correctional and preventive maintenance programs. Each coach shall undergo preventative maintenance at regular intervals that comply with or exceed Federal Transit Administration requirements.

The coach interior should be cleaned of rubbish and dirt daily, and all graffiti and interior vandalism should be removed or repaired as soon as possible upon discovery. All coaches should undergo exterior washing on as frequent a basis as is practical as well as have periodic complete interior wash downs including ceiling, walls, upholstery and floor cleaning.

It is CTRANSPORT's goal that 100% of the fleet be heated and air-conditioned, with a minimum of 95% of heating or air-conditioning systems in proper working condition during the respective cold and warm weather seasons. Lighting on coaches should be ample for reading by seated customers, but designed to minimize glare in order to aid visibility for bus operators at night.

CTRANSPORT operates a bus fleet that is 100% accessible to persons with disabilities. Every high-floor bus in service should have a functioning wheelchair lift; every low-floor bus in service will have functioning ramp access. All buses will conform to Americans with Disabilities Act (ADA) requirements, including, but not necessarily limited to, kneeling features, audible/visual stop request, public address system and electronic destination signs. Destination signs should be provided at the front of the bus above the windshield supplemented by a side sign adjacent to the front entrance door. A route identification sign should be provided on the rear of the bus. The route number and/or letter should be displayed at all times and no sign should scroll more than three messages.

Monitoring Transit Service

2014 Title VI Service Monitoring Report - Bus

1 Introduction

This report presents a summary of the results of the investigation into Title VI Service Monitoring by the UCONN t-HUB project team. This report does not include the large amount of supporting data and analysis associated with the efforts to date, as the inclusion of these data would expand this report's bulk considerably. The results are summarized in an effort to be as useful and compatible with CTDOT's Title VI reporting needs as possible; the detailed analyses are available upon request.

Though an extremely comprehensive analysis, there are several small missing data sets that will need to be completed. However, the comprehensive nature of the report provides a much more detailed review and analysis than any previous random samples; the short-term benefits of the comprehensive analysis offset the few items of missing data and analysis. The report will be upgraded in the near future, and queries raised during the analysis such as going to block-group data instead of tract-level data will be assessed.

The following sections document efforts to replicate the format of the Title VI analysis conducted previously by CTDOT. A complementary document is being prepared that provides suggestions for the improvement of the Title VI service monitoring methodologies. In brief, the complementary document will present evidence that an improved service monitoring methodology would include the following features (among others):

- Analysis at the block group level
- Using ¼-mile buffers for local bus service
- Using stop, rather than route buffers
- Conducting comprehensive system analysis (brief discussion below)
- Adopting a sub-route unit of analysis (brief discussion below)

One major difference between this report and prior analyses is that the analysis presented here is comprehensive. Because we were able to automate many of the calculations needed to monitor transit service we were able to calculate performance measures for entire systems, not just samples of routes.

Another difference is in the presentation of the routes. The Hartford and New Haven CTTransit systems publish information for 61 and 20 routes, respectively. However, these routes have deviations that vary by the day of the week and the time of day. This analysis therefore breaks down the published routes into their "sub-route" constituents for analysis. Therefore, each sub-route presented herein is a unique sequence of stops visited consecutively during a particular day of the week and time of day. If there are two variations (e.g., a route with some of its vehicles deviating to serve a particular apartment complex) of a particular route running during a service period, they are treated as unique sub-routes in the analysis. This allows consistent and fair analysis along with the ability to aggregate up to the published routes. This convention creates significantly more routes (over 200 for Hartford weekday), but allows a much more focused analysis.

2 Methodology

A comprehensive analysis of all census tracts in the Hartford and New Haven systems was performed to assess the overall performance of the two systems. Computational details of the analysis along with supporting data are available upon request and will be incorporated into a comprehensive report on this project to be completed in August 2014.

Sub-route performance is compared to established polices and standards associated with:

- The level of overall service (frequencies),
- Service quality (load factors and on-time performance),
- Distribution of amenities (age of fleet and bus shelters), and
- Accessibility by minority and low income populations.

2.1 Service Area & Census Tract Classification

The service area for the two systems is defined as census tracts that fall within 3/4 a mile of local bus routes or 2 1/2 miles of an express route (Figure 1 & 2). This definition is in line with that published in the existing CTDOT Title VI program. The General Transit Feed Specification (GTFS) was used to identify routes, sub-routes and stops as well as identify which routes/sub-routes were operating during particular service times. As mentioned previously, the deconstruction of routes into sub-routes enables an enhanced analysis with significantly greater detail.

The American Community Survey (ACS) 2008-2012 five year estimates were used to identify census tracts that are predominately minority and/or low income within the two service areas (Table 1). Census tracts are considered predominately low income or minority if the percentage of low income or minority populations were higher than the service area average. This definition is from the existing CTDOT Title VI Program and is in agreement with existing FTA guidance on the topic.

Table 1: Minority and Low Income Average Percentages by Service Area

System	Period	Route Type	Minority Designation Threshold	Minority Tracts	Low-Income Designation Threshold	Low-Income Tracts	Minority and Low Income Tracts
Hartford	All	All	35.3%	154 of 403	20.3%	139 of 403	121 of 403
		Local	44.4%	79 of 183	23.6%	69 of 183	61 of 183
		Express	35.3%	154 of 403	20.3%	139 of 403	121 of 403
	Weekday	All	35.3%	154 of 403	20.3%	139 of 403	121 of 403
		Local	44.4%	79 of 183	23.6%	69 of 183	61 of 183
		Express	35.3%	154 of 403	20.3%	139 of 403	121 of 403
	Saturday	All	35.7%	153 of 396	20.4%	137 of 396	121 of 396
		Local	44.8%	76 of 180	23.8%	69 of 180	58 of 180
		Express	35.7%	153 of 396	20.4%	137 of 396	121 of 396
		Total	35.7%	153 of 396	20.4%	137 of 396	121 of 396

	Sunday	Local	45.67%	61 of 147	22.4%	53 of 147	47 of 147
		Express	35.7%	153 of 396	20.4%	137 of 396	121 of 396
New Haven	All	Local	37.8	67 of 165	22	59 of 165	55 of 165
	Weekday		37.8	67 of 165	22	59 of 165	55 of 165
	Saturday		38.8	55 of 164	22.1	59 of 164	55 of 164
	Sunday		38.8	55 of 164	22.1	59 of 164	55 of 164

Table 1 is organized to connect service period and route type with census tract demographic information. In Hartford there is an evident trend of local services serving more minority and low-income tracts than express service during all service periods.

These can be identified by looking at the tracts (i.e., 154 out of 403) that meet the minority or low-income threshold indicated. The Hartford system funnels nearly all routes into the city center, which means that nearly all routes cross over many of the same tracts that are associated with minority and low-income populations. The effect of the system configuration is exacerbated by the ¼-mile buffer, which captures many more tracts than are served well by a route. In the future this analysis would benefit from the usage of block groups, stop buffers and ¼-mile buffer distance.

New Haven has no published express services, though there appears to be a slightly higher percentage of minority/low-income tracts served on weekdays.

Figure 1: Minority Census Tracts Mapped Against Transit Services

The minority populations are concentrated in the more urban regions of Connecticut. It is not surprising to see the correspondence in Figure 1 between minority populations, urban areas, and transit service. The same observation can be made in Figure 2, with a strong correspondence between low-income populations, urban areas and transit service.

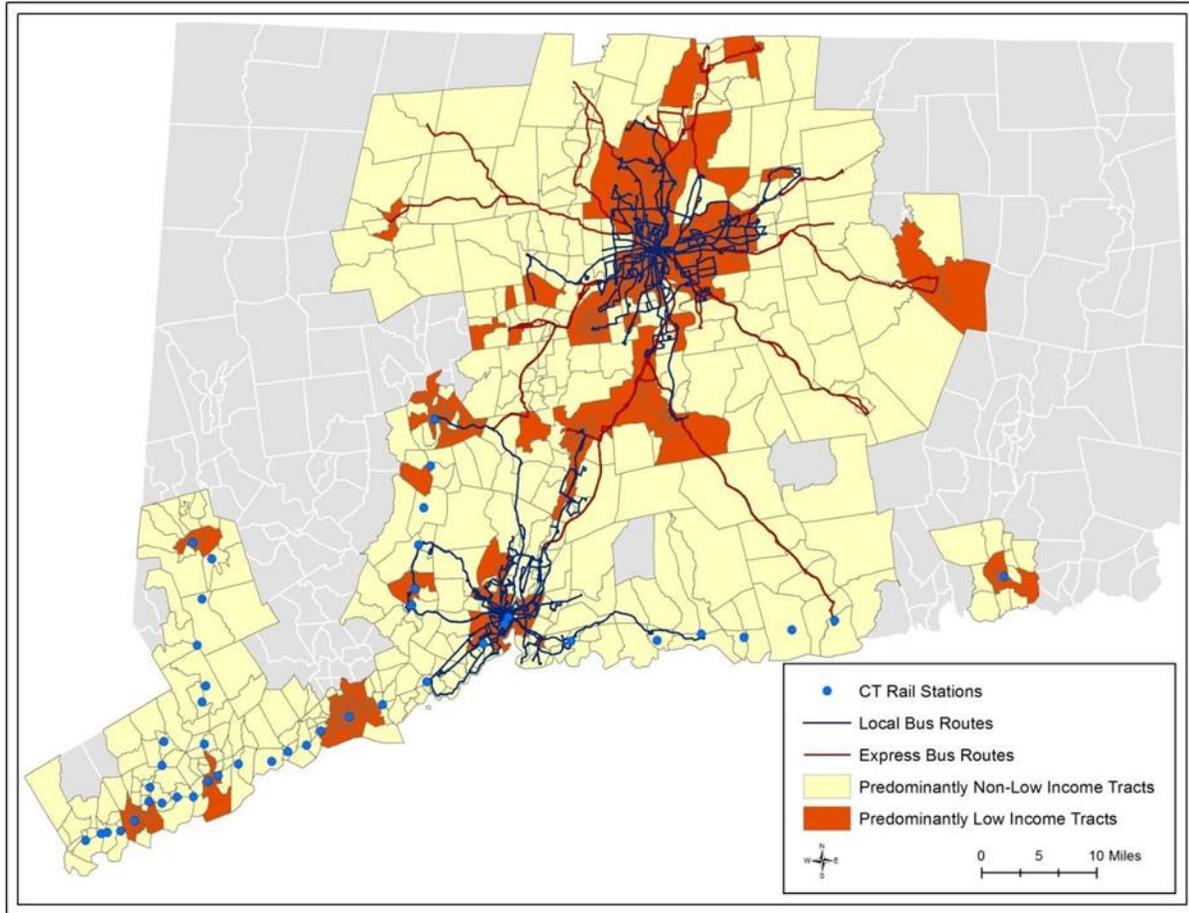


Figure 2: Low Income Census Tracts Mapped Against Transit Services

Table 2 presents a sample of tract classification and the method used for connecting the information across datasets. Census tracts (far left column) for each service area were placed into one of six categories: minority, non-minority, low income, non-low income, discordant income and minority (i.e., either low-income or minority, but not both), and minority and low income (Table 2). A “1” indicates membership in the classification, a “0” the opposite. Table 2 also demonstrates the linkage of tracts to the sub-routes (from GTFS) and to the t-HUB naming convention for those routes.

Table 2: Sample of Tract Classification

Tract	Demographic Classification			GTFS			t-HUB
	Minority	Low Income	Min & Low Income	Route ID	Abbr	Route Type	Route
524502	1	1	1	1221	56-58	Local	ALBANY AV-Dntwn Hartford
524600	1	1	1	1221	56-58	Local	ALBANY AV-Dntwn Hartford
510200	1	1	1	1221	56-58	Local	ALBANY AV-Dntwn Hartford

5003 00	1	1	1	1221	56- 58	Local	ALBANY AV-Dntwn Hartford
5004 00	1	1	1	1221	56- 58	Local	ALBANY AV-Dntwn Hartford
5005 00	1	1	1	1221	56- 58	Local	ALBANY AV-Dntwn Hartford
4970 00	0	0	0	1221	56- 58	Local	ALBANY AV-Dntwn Hartford
5009 00	1	1	1	1221	56- 58	Local	ALBANY AV-Dntwn Hartford
5012 00	1	1	1	1221	56- 58	Local	ALBANY AV-Dntwn Hartford
5013 00	1	1	1	1221	56- 58	Local	ALBANY AV-Dntwn Hartford
5014 00	1	1	1	1221	56- 58	Local	ALBANY AV-Dntwn Hartford
5015 00	1	1	1	1221	56- 58	Local	ALBANY AV-Dntwn Hartford
5017 00	1	1	1	1221	56- 58	Local	ALBANY AV-Dntwn Hartford
5018 00	1	1	1	1221	56- 58	Local	ALBANY AV-Dntwn Hartford
5021 00	0	0	0	1221	56- 58	Local	ALBANY AV-Dntwn Hartford
4972 00	0	0	0	1221	56- 58	Local	ALBANY AV-Dntwn Hartford

Table 3 shows an example of census tracts linked to all associated sub-routes and those sub-routes performance data. Sub-route headway is presented in minutes, average vehicle age in years, load factor as a percentage of capacity, on-time performance and the sub-route percentage of stops with a shelter. All calculations for these and other performance measures are based on data provided by CTTransit. Unless otherwise noted, the units for these measures will be as described above.

Table 3: Sample of Census Tract and Performance Data

Tract	Route		Headway			Vehicle Age				Average Load Factor					On-time Perform. (%)	Shelter (%)
	GTFS	t-HUB Route	AM	MID	PM	AM	BASE	PM	AVG	AM	MID	PM	OFF	TOTAL		
471300	1	AVON-CANTON EXPRESS	25	240	30	6.0	8.0	6.0	6.7	9.4	6.1	8.8	8.0	9.1	89.3	3.5
	76	ASHLEY ST-ST FRANCIS HOSP-BOWLES PARK	15	20	60	10.0	8.0	8.8	8.9	4.4	4.2	6.0	4.7	4.8	86.9	1.7
	56-58	BLOOMFIELD AV Bloomfield Ctr	15	30	40	8.8	9.2	7.4	8.5	6.1	6.5	6.9	6.1	6.4	82.5	2.6
	56-58	BLOOMFIELD AV Bloomfield Ctr-Woodside Vill	15	30	40	8.8	9.2	7.4	8.5	5.3	5.7	6.2	5.3	5.6	82.5	2.1
471400	11	SIMSBURY EXPRESS	20	240	15	5.8	9.0	6.0	6.9	9.6	6.1	20.3	8.5	11.5	90.0	7.5
	1	HARTFORD EXPRESS	25	240	30	6.0	8.0	6.0	6.7	12.5	6.4	5.1	11.6	9.5	89.3	12.8
	1	AVON EXPRESS	25	240	30	6.0	8.0	6.0	6.7	10.6	6.9	9.3	9.0	10.0	89.3	2.9
	1	AVON-CANTON EXPRESS	25	240	30	6.0	8.0	6.0	6.7	9.4	6.1	8.8	8.0	9.1	89.3	3.5
471500	11	SIMSBURY EXPRESS	20	240	15	5.8	9.0	6.0	6.9	9.6	6.1	20.3	8.5	11.5	90.0	7.5
	32-36	WINDSOR AV-DOWNTOWN HARTFORD VIA WINDSOR ST	25	30	50	8.6	9.5	8.4	8.8	6.0	5.1	6.0	4.5	5.6	78.1	17.6
	50-54	BLUE HILLS AV Downtown Hartford	10	10	23	8.3	8.4	6.9	7.9	5.3	6.1	5.7	9.7	6.7	73.1	3.7
	92	TOWER AV CROSSTOWN-BUCKLAND HILLS	60	60	60	6.0	6.0	6.0	6.0	3.9	6.7	6.4	5.8	5.9	70.0	6.2

2.2 Performance Measurement Background

Level of service was measured for all census tracts within the service area using five performance characteristics: Headway, load factor (LF), on-time performance, vehicle assignment (Vehicle Age) and amenities (Shelters). The performance measures were linked to each census tract based on the route or sub-routes serving the census tract (Table 3).

Data was not analyzed for 16 routes in the Hartford system and 5 routes in the New Haven system, as indicated in Table 4. The census tracts that corresponded with these routes were not included in the analysis. The express routes #17 through #27 were all, at the time of analysis, peak hour services only and operated by private contractors who had not until this time been required to provide the same level

of data as is collected on the regular CTTransit routes. This imbalance is being corrected during 2015 as the buses and technology are being updated. The remaining routes not analyzed are either temporary services such as seasonal routes, helper buses, free services or commuter connections that are provided in order to connect multiple routes in the downtowns to facilitate transfers, or special services like the Somers Express H-CC which provides a once a week shuttle to a prison on weekends for family visits. In total, these routes represent less than 1% of the total CTTransit system ridership. Given that the system was otherwise sampled at a 100% level, at this time the additional analysis would not affect overall system performance and equity. But the express routes will be analyzed in the next round of Title VI plan updates.

Table 4: Missing Data by Route

System	Route Abbr	Route Name	Express Local	Freq. in Min	Veh. Age	LF	On-time Perform.
Hartford	17	VERNON EXPRESS	Express	14	7.4	23	No
	18	WILLIMANTIC/COVE NTRY EXPRESS	Express	28	5	17.3	No
	19	MERIDEN EXPRESS	Express	35	8	12.9	No
	20	NEW HAVEN/HARTFORD EXP	Express	38	5	12.4	No
	21	MIDDLETOWN/OLD SAYBROOK	Express	30	3.7	20.5	No
	23	PLAINVILLE/BRISTO L EXPRESS	Express	20	3.7	17.3	No
	24	CHESHIRE- SOUTHINGTON EXPRESS	Express	28	3.7	23.6	No
	26	WINSTED/BARKHAM STED/NEW HARTFORD EX	Express	40	4	11.5	No
	27	TORRINGTON EXPRESS	Express	27	4	5.9	No
	35	WESTFARMS FLYER	Local	Yes	No	Yes	Yes
	80	BUCKLAND FLYER	Local	Yes	No	Yes	Yes
	85	MCC FLYER	Local	Yes	Yes	Yes	No
	CAHL	FREE COMMUTER SHUTTLE	Local	No	No	No	No
	H-CC	SOMERS EXPRESS	Local	No	No	No	No
	H-CR	STAR SHUTTLE	Local	No	Yes	No	No
New Haven	55	Flyer	Local	Yes	No	Yes	Yes
	US	Union Station Shuttle	Local	Yes	No	Yes	Yes
	WL	Wallingford Local	Local	No	No	No	No

	Z	Sargent Drive	Local	Yes	No	Yes	Yes
	Z	Goffe Street	Local	Yes	No	Yes	Yes

Additionally, the two systems were missing data on bus shelters (Table 5). The Hartford system had 56 stops that lacked information on whether a bus shelter was present at the particular stop. The 56 stops with missing information were assumed to not have a bus shelter. This represents 1% of all stops in the Hartford system. The New Haven system was missing data for the Wallingford Local route; the route had already been excluded based on missing performance data.

Table 5: Missing Bus Amenity Data

System	Missing data
Hartford	56 stops
New Haven	Wallingford Local

3 Comparative Analysis

Two important concepts in this chapter are the “minority route” and “low- income route”. This designates sub-routes/routes for which current route configuration traverses minority or low-income tracts (respectively) for more than one-third of total revenue miles. For example, in Table 6 headway is presented by route type. If one examines the “Minority” column, the first entry encountered is 19.8. This indicates that for all route types (local and express) during the AM peak, routes meeting the minority designation threshold (greater than 1/3 of revenue miles in minority tracts) the average headway is 19.8 minutes. This is in contrast to non-minority routes, which have an average headway of 20.9 minutes. Section 4 provides much more detail on the identification of minority and low-income transit routes.

Headway

The stated goal of CTDOT is to provide headways during the peak and off peak periods that do not exceed 60 minutes for local routes. Express routes are considered commuter routes and do not fall under this guideline.

Headway data is collected at the route level by CTTransit. This analysis applies route-level frequency data to sub-routes, as frequency data at the sub-route level is not available. For example, the sub-route BLUE HILLS AV Downtown Hartford assumes the headways of the published, aggregated route 50-54.

Table 6: Hartford – Average Headway (in minutes) by Route Type

Route Type	Time Period	Non-Minority	Minority	Non-Low Income	Low Income	Minority & Non-Low Income: Discordant	Minority & Low Income
Weekday							
All	AM	20.9	19.8	21.0	19.5	21.0	19.5
All	MID	102.6	80.7	102.9	76.9	103.4	75.9
All	PM	30.4	31.1	30.4	31.2	30.2	31.3
Local	AM	20.1	19.1	20.9	18.6	20.7	18.6
Local	MID	29.4	27.7	29.5	27.4	29.5	27.4
Local	PM	37.2	37.3	38.3	36.7	38.1	36.8
Express	AM	21.7	20.9	21.2	21.1	21.2	21.1
Express	MID	183.9	167.7	184.0	164.0	183.7	163.4
Express	PM	22.9	20.8	21.7	21.4	21.7	21.3
Saturday							
All	AM	41.8	43.3	43.7	42.5	43.3	42.6
All	MID	40.4	40.0	41.5	39.3	41.5	39.3
All	PM	57.1	60.9	60.9	59.3	60.5	59.5
Local	AM	39.6	40.8	40.9	40.2	40.5	40.4
Local	MID	38.1	36.9	38.4	36.7	38.4	36.6
Local	PM	49.8	51.9	51.0	51.5	50.7	51.7
Express	AM	60.0	60.0	60.0	60.0	60.0	60.0
Express	MID	60.0	60.0	60.0	60.0	60.0	60.0
Express	PM	120.0	120.0	120.0	120.0	120.0	120.0
Sunday							
All	AM	60.0	60.0	60.0	60.0	60.0	60.0
All	MID	73.2	77.5	78.1	75.2	77.7	75.4
All	PM	76.3	81.5	81.2	79.4	81.0	79.5
Local	AM	60.0	60.0	60.0	60.0	60.0	60.0
Local	MID	60.0	60.0	60.0	60.0	60.0	60.0
Local	PM	64.0	65.7	64.4	65.6	64.7	65.5
Express	AM	60.0	60.0	60.0	60.0	60.0	60.0
Express	MID	120.0	120.0	120.0	120.0	120.0	120.0
Express	PM	120.0	120.0	120.0	120.0	120.0	120.0

The headways of buses within the Hartford (Table 6) and New Haven (Table 7) systems fall within the guidelines set forth by DOT. Furthermore, little variation is observed across all demographics categories.

Table 7: New Haven – Average Headway by Route Type

Route Type	Time Period	Non-Minority	Minority	Non-Low Income	Low Income	Minority & Low Income: Discordant	Minority & Low Income
Weekday							
Local	AM	25.6	22.4	24.9	22.6	25.0	22.5
Local	MID	33.7	28.7	33.2	28.7	33.2	28.7
Local	PM	23.5	22.0	23.0	22.2	23.1	22.1
Saturday							
Local	AM	31.8	30.4	31.2	30.5	31.4	30.5
Local	MID	37.4	33.0	37.2	32.8	37.1	32.8
Local	PM	34.6	32.3	35.0	32.0	34.9	32.1
Sunday							
Local	AM	56.8	56.3	57.1	56.2	57.0	56.2
Local	MID	57.8	57.3	58.0	57.2	58.0	57.2
Local	PM	57.8	57.3	58.0	57.2	58.0	57.2

In the following Figures 3-8 the distribution of headway across all sub-routes is presented graphically. The mean value of headway is indicated along with increments of standard deviation from the mean. In general, provided certain conditions are met, two standard deviations should capture about 95% of all sub-routes. Three standard deviations represent roughly 99%. That means that in a normal (in the statistical sense) distribution, 95% of all observations should fall within two standard deviations (+/-) of the mean value.

Below each figure, sub-routes exceeding +/- 2 standard deviations are reported.

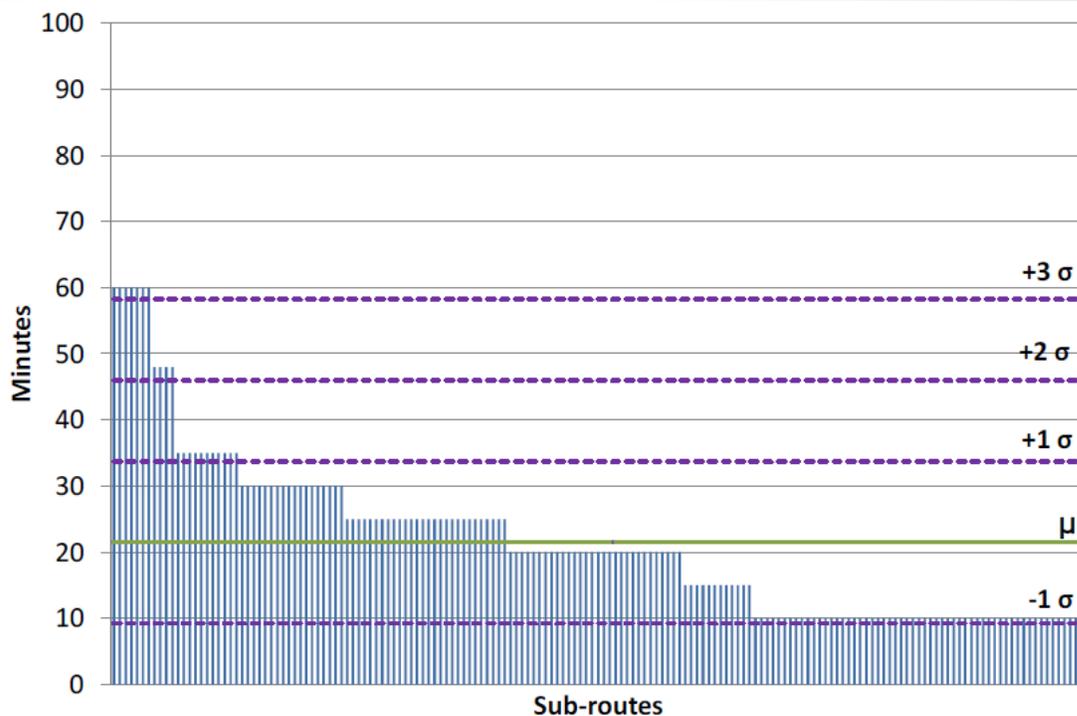


Figure 3: Hartford - AM Headway Histogram

The vast majority of Hartford’s AM weekday sub-routes fall within +/- 2 standard deviations of the mean headway time. This trend continues in the midday (Figure 4) and PM peak (figure 5) weekday service, with all sub-routes falling within the +/- 2 (Figure 3) standard deviation threshold.

Table 8: Hartford - AM Headway Outliers (> +/- 2 Standard Deviations)

Sub-route	Route	Value
Berlin Tpk Flyer – ConnDOT Stew Leonard’s-Corbin Russwin via I-91	45	48
Berlin Tpk Flyer – ConnDOT via I-91	45	48
Berlin Tpk Flyer – Stew Leonard’s via I-91	45	48
Berlin Tpk Flyer – Dntwn Hartford via I-91	45	48
Forbes St Crosstown – Burnside Ave	91	60
Forbes St Crosstown – Weth Shops	91	60
Forbes St Crosstown – Buckland Hills	91	60
MCC Flyer-Hartford via I-84	85	60
MCC Flyer-MCC via I-84	85	60
Tower Av Crosstown – Buckland Hills	92	60
Tower Av Crosstown – Copaco	92	60

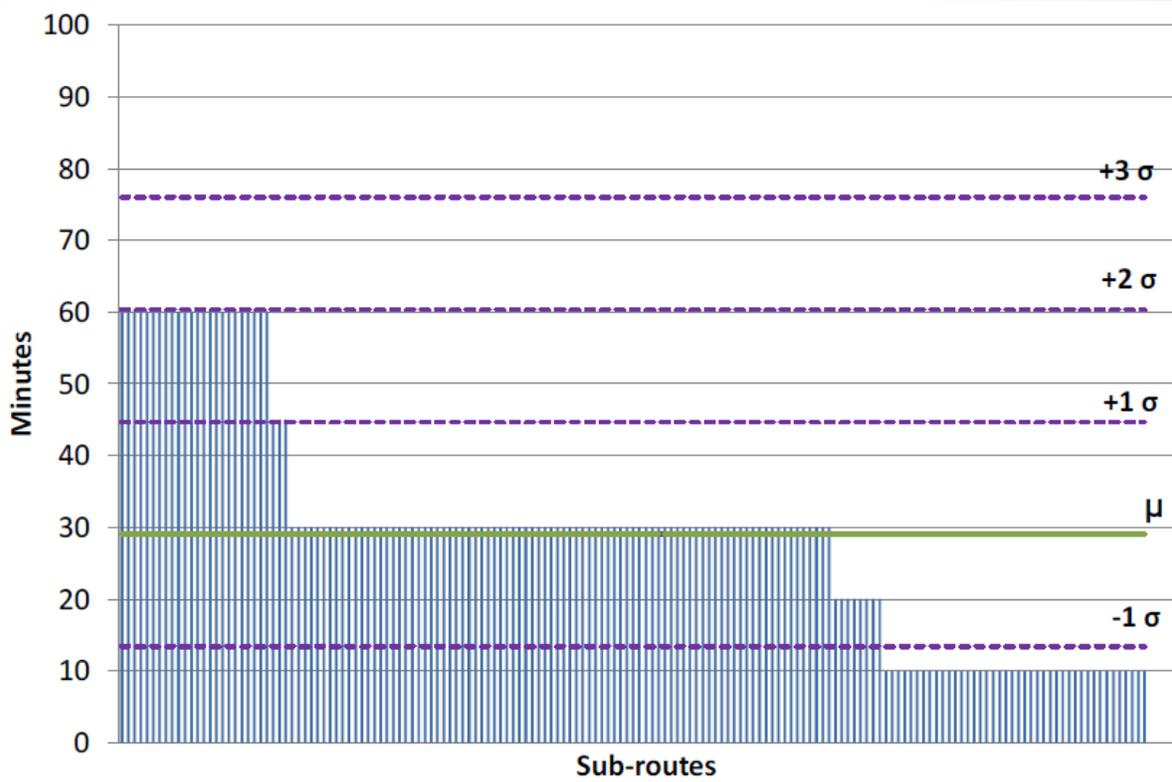


Figure 4: Hartford - Midday Headway Histogram

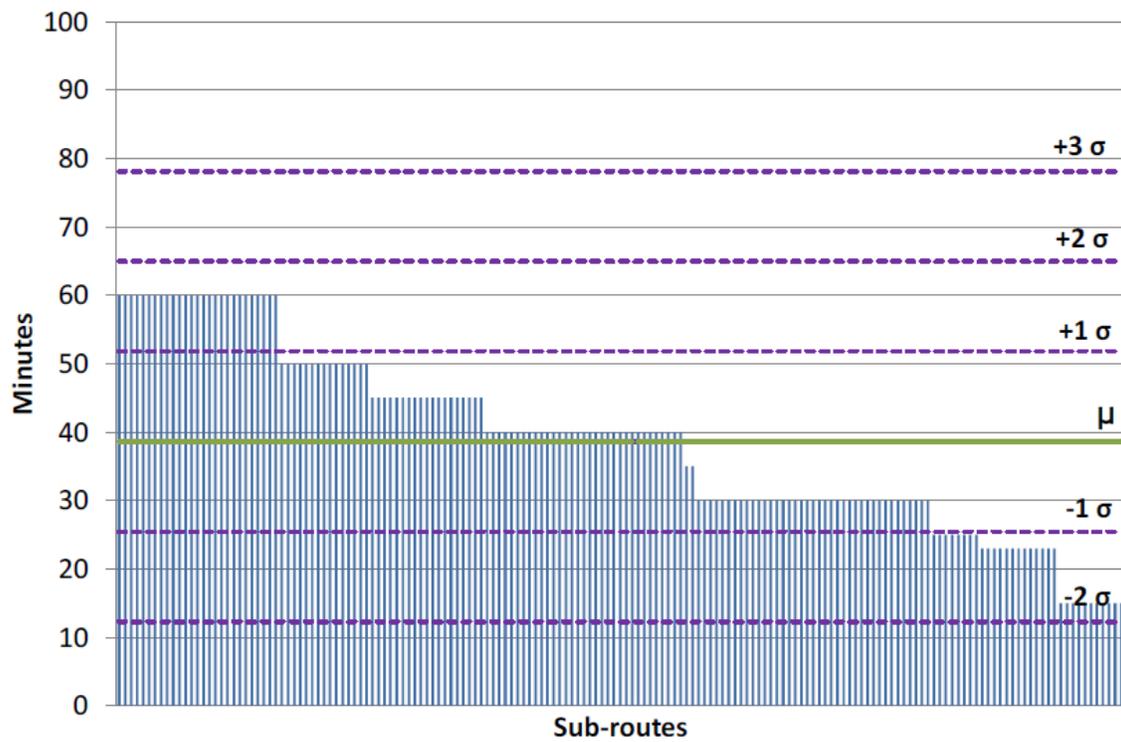


Figure 5: Hartford PM Headway Histogram

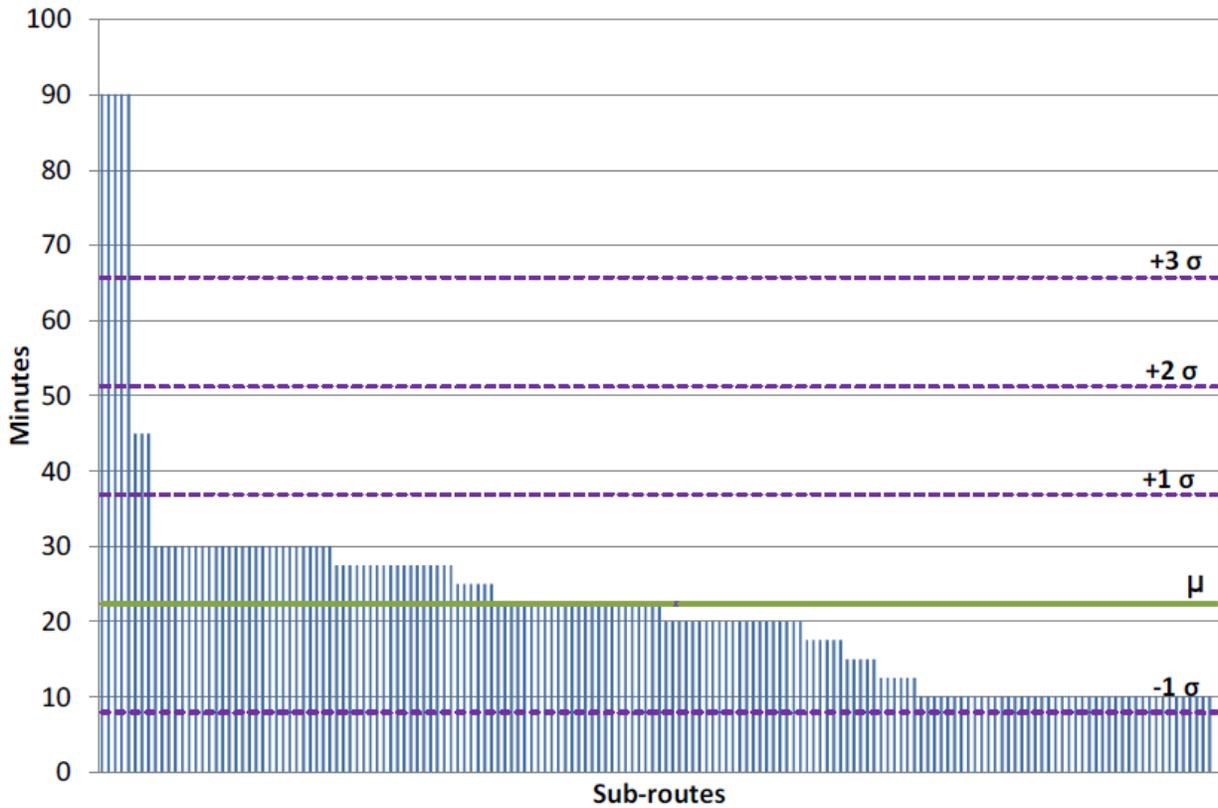


Figure 6: New Haven - AM Headway Histogram

The New Haven system is almost entirely within 2 standard deviations of the mean. In the AM and PM service periods however, the Route L - North Branford and all associated sub-routes fall outside the 3rd standard deviation (Figures 6 and 8). The route has a frequency of 90 minutes during the AM period and 65 minutes during the PM Peak.

Table 9: New Haven - AM Headway Outliers

Sub-route	Route	Value
L1-Rte 80-Foxon-via Maple & Carol	L1	90
L2-Rte 80-Foxon	L1	90
Rte 80-Foxon	L1	90
Rte 80-Foxon-via Maple & Carol	L1	90
Rte 80 & Quinnipiac Av	L1	90

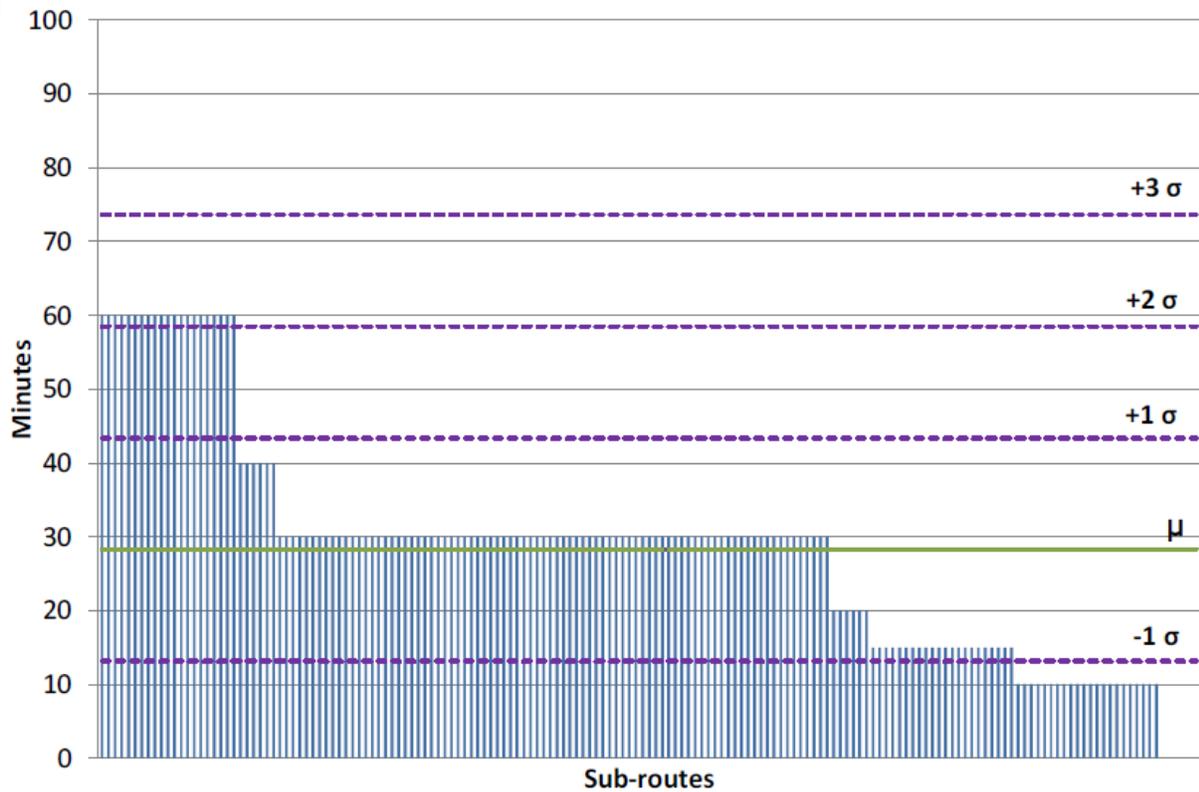


Figure 7: New Haven - Midday Headway Histogram

Table 10: New Haven - Midday Headway Outliers

Sub-Route	Route	Value
C1 - Grand Av-Quinnipiac Av-Universal Dr-Wallingford Ctr-Meriden- Kohl's Plz		
C1x-I-91 Express-Wallingford Ctr-Meriden-Kohl's Plz	C	60
C1x-I-91 Express-Universal Dr-Wallingford Ctr-Meriden-Kohl's Plz	C	60
C2 - Grand Av-Quinnipiac Av-Universal Dr-Wallingford Ctr-Barnes Ind		
C2x-I-91 Express-Universal Dr-Wallingford Ctr	C	60
C2x-I-91 Express-Universal Dr-Wallingford Ctr-Cedar Ln	C	60
C2x-I-91 Express-Universal Dr-Wallingford Ctr-Barnes Ind Pk	C	60
C2x-I-91 Express-Universal Dr-Wallingford Ctr-Cedar Ln	C	60
C2x-I-91 Express-Wallingford Ctr-Cedar Ln	C	60
C3 - Grand Av-Quinnipiac Av-Universal Dr-North Haven Ctr-Wharton Brk Ind Pk		60
C3x-I-91 Express-North Haven Ctr-Blue Cross	C	60
C3x-I-91 Express-Universal Dr-North Haven Ctr	C	60
C4x-I-91 Express-Quinnipiac Av	C	60

C1x-I-91 Express-Wallingford Ctr-Meriden-Kohl's Plz	C	60
Cx-I-91 Express	C	60
Downtown New Haven-via Route 1	S	60
Quinnipiac Av-Grand Av	C	60
Route 1-Brfd Business Prk	S	60
S1-via Route 1	S	60

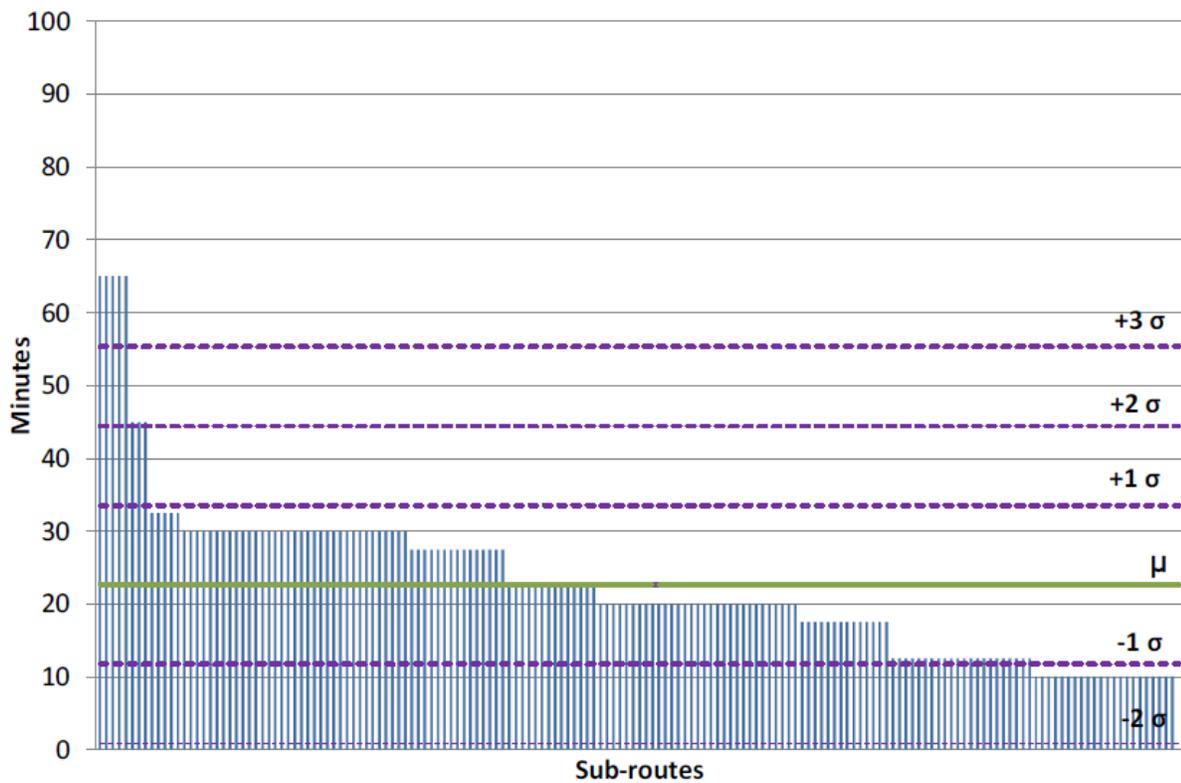


Figure 8: New Haven - PM Headway Histogram

Table 11: New Haven - PM Headway Outliers

Sub-route	Route	Value
Downtown New Haven-via Route 1	S	45
Route 1-Brfd Business Prk	S	45
S1-via Route 1	S	45
L1-Rte 80-Foxon-via Maple & Carol	L1	65
L2-Rte 80-Foxon	L1	65
Rte 80-Foxon	L1	65
Rte 80-Foxon-via Maple & Carol	L1	65
Rte 80 & Quinnipiac Av	L1	65

Vehicle Assignment

The vehicle assignment analysis describes the age of buses on a specific route assignment. This data, like the frequency data, is collected at the aggregate published route level and therefore the sub-routes are assigned the aggregate route information. Furthermore, this data provides the average vehicle age across multiple time periods: AM, PM, Base and overall average (Table 12 & Table 13). No significant variation in vehicle age was found based on demographics of the tracts being served.

Table 12: Hartford: Vehicle Assignment by Route Type – Age of Buses in Years

Route Type	Time Period	Non-Minority	Minority	Non-Low Income	Low Income	Min & Low Inc.: Discordant	Min & Low Inc.
Weekday							
All	AM	7.2	7.5	7.2	7.6	7.2	7.6
All	BASE	6.6	6.8	6.6	6.9	6.6	6.9
All	PM	7.2	7.4	7.2	7.4	7.2	7.4
All	Average	7.1	7.3	7.1	7.3	7.0	7.4
Local	AM	7.8	8.1	7.9	8.1	7.9	8.1
Local	BASE	7.3	7.7	7.5	7.7	7.5	7.7
Local	PM	8.0	7.9	7.9	7.9	7.9	7.9
Local	Average	7.7	7.9	7.8	7.9	7.7	7.9
Express	AM	6.5	6.7	6.5	6.7	6.5	6.7
Express	BASE	5.6	4.7	5.3	4.8	5.3	4.8
Express	PM	6.4	6.5	6.3	6.5	6.4	6.5
Express	Average	6.3	6.3	6.3	6.3	6.3	6.3
Saturday							
All	AM	7.6	7.9	7.7	7.9	7.7	7.9
All	BASE	7.0	7.3	7.1	7.3	7.1	7.3
All	PM	8.0	8.1	8.0	8.1	8.0	8.1
All	Average	7.5	7.8	7.6	7.8	7.6	7.8
Local	AM	7.6	7.9	7.7	7.9	7.7	7.9
Local	BASE	7.2	7.5	7.3	7.5	7.3	7.5
Local	PM	8.0	8.0	7.9	8.1	7.9	8.1
Local	Average	7.6	7.8	7.7	7.8	7.6	7.8
Express	AM	7.5	7.5	7.5	7.5	7.5	7.5
Express	BASE	6.0	6.0	6.0	6.0	6.0	6.0
Express	PM	8.3	8.3	8.3	8.3	8.3	8.3
Express	Average	7.3	7.3	7.3	7.3	7.3	7.3
Sunday							
All	AM	7.4	7.7	7.5	7.7	7.5	7.8
All	BASE	7.0	7.1	6.9	7.1	6.9	7.1

All	PM	7.9	8.1	8.0	8.0	8.0	8.0
All	Average	7.5	7.6	7.5	7.6	7.5	7.6
Local	AM	7.4	7.8	7.5	7.8	7.5	7.8
Local	BASE	7.3	7.5	7.3	7.5	7.3	7.5
Local	PM	7.8	7.9	7.8	7.9	7.8	8.0
Local	Average	7.5	7.8	7.6	7.8	7.5	7.8
Express	AM	7.5	7.5	7.5	7.5	7.5	7.5
Express	BASE	6.0	6.0	6.0	6.0	6.0	6.0
Express	PM	8.3	8.3	8.3	8.3	8.3	8.3
Express	Average	7.3	7.3	7.3	7.3	7.3	7.3

Table 13: New Haven: Vehicle Assignment by Route Type – Age of Buses in Years

Route Type	Time Period	Non-Minority	Minority	Non-Low Income	Low Income	Minority & Low Income: Discordant	Minority & Low Income
Weekday							
Local	AM	7.1	7.2	7.2	7.2	7.2	7.2
Local	BASE	6.2	6.7	6.3	6.7	6.3	6.7
Local	PM	7.2	7.4	7.3	7.4	7.2	7.4
Local	Average	6.9	7.2	7.0	7.2	7.0	7.2
Saturday							
Local	AM	7.1	7.3	7.2	7.2	7.1	7.3
Local	BASE	6.7	7.1	6.7	7.1	6.7	7.1
Local	PM	7.1	7.4	7.2	7.4	7.2	7.4
Local	Average	7.0	7.3	7.0	7.3	7.0	7.3
Sunday							
Local	AM	7.6	7.4	7.6	7.4	7.6	7.4
Local	BASE	7.6	7.5	7.6	7.5	7.6	7.5
Local	PM	7.5	7.5	7.5	7.5	7.5	7.5
Local	Average	7.6	7.5	7.6	7.5	7.6	7.5

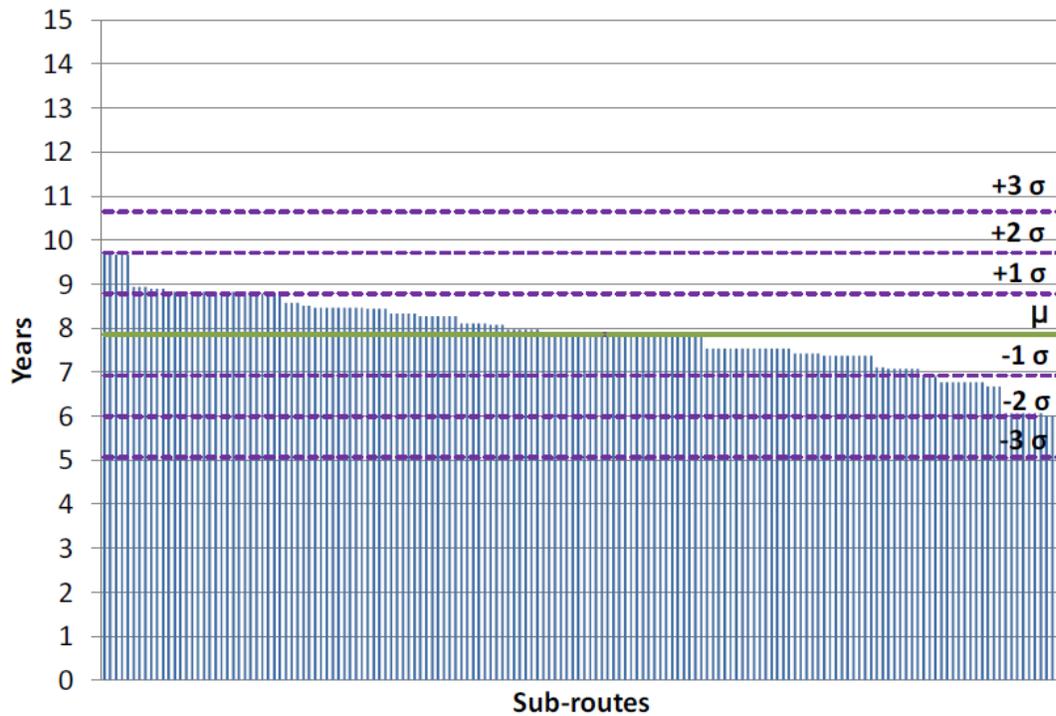


Figure 9: Hartford – Local Weekday Vehicle Assignment Histogram

There is one route, DASH (Table 14) outside of +/- 2 standard deviations, though the vast majority falls within this threshold. This route is an outlier on the “newer bus” end of the spectrum. This is a downtown shuttle which is a policy route and uses a unique vehicle in the fleet which was just purchased. No mitigation needs to be made.

Table 14: Hartford - Local Weekday Vehicle Assignment Outliers

Sub-route	Route	Value
DASH	H-CR	2

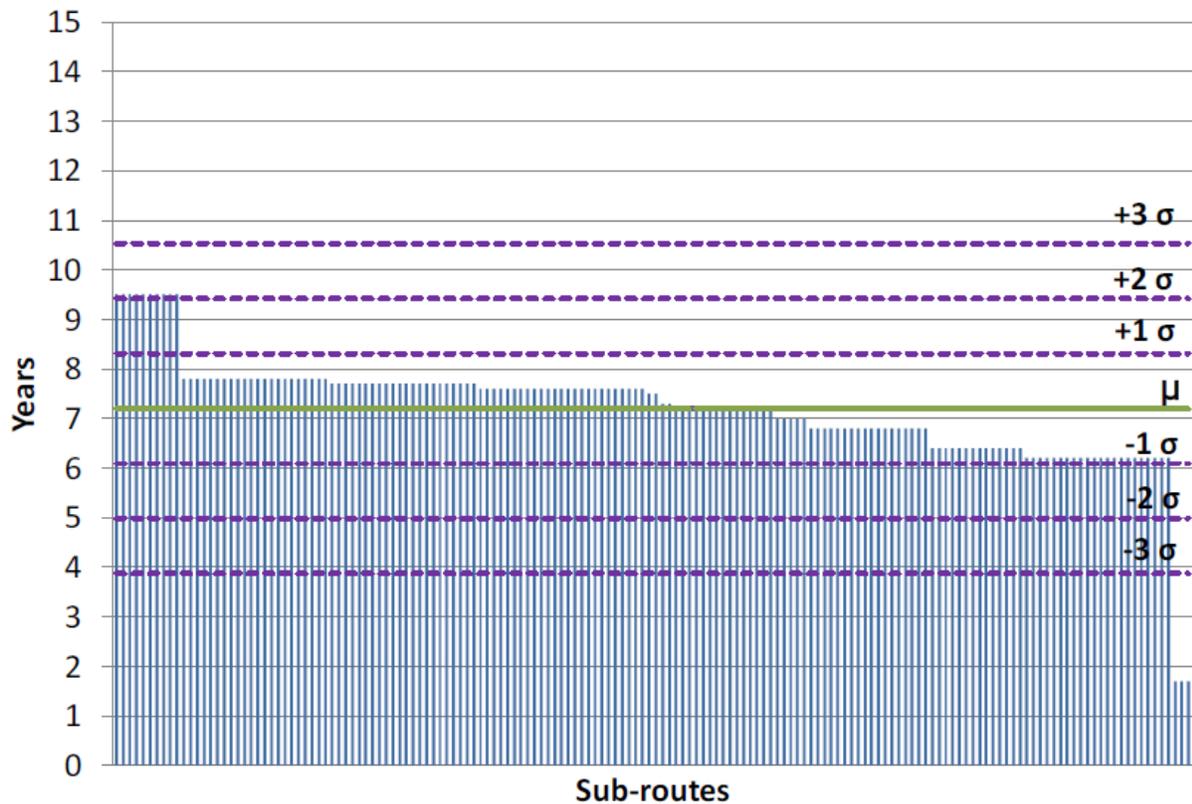


Figure 10: New Haven - Weekday Vehicle Assignment Histogram

Several sub-routes (Table 15) fall outside the +/- 2 standard deviation threshold in New Haven, with one particular collection of sub-routes (associated with Route S Madison) being significantly younger than the rest of the fleet.

Table 15: New - Haven Local Weekday Vehicle Assignment Outliers

Sub-route	Route	Value
Downtown New Haven-via Route 1	S	1.7
Route 1-Brfd Business Prk	S	1.7
S1-via Route 1	S	1.7
Davenport Apts	O	9.5
O2-Yale-NH Hosp-Westfield CT Post	O	9.5
O2-Yale-NH Hosp-Westfield CT Post-via Schick	O	9.5
O4-Millrock Rd	O	9.5
O5-Davenport Apts-Leeder Hill-Putnam Place	O	9.5
O5-Leeder Hill-Putnam Pl	O	9.5
OM-Yale-NH Hosp-Washington Av	O	9.5
Downtown New Haven - O - US1	O	9.5
Downtown New Haven - O - Winchester Avenue	O	9.5

3.1 Load Factor

Load factor (LF) information is collected at the stop level for each of the routes in the system. This enables the analysis of vehicle load performance by sub-route. Load factor data for each stop along a route was linked to sub-route GTFS information. Once load factor information was assigned to each stop, LF was aggregated based on the sub-route rather than the route. The average load factor for sub-routes was then compared by demographics, day of week, route type and time period for Hartford (Table 16) and New Haven (Table 17).

There are several routes in Hartford that exceed the +/- 2 standard deviation threshold (Figure 11 and Table 18). A handful of routes in New Haven have load factors more than 2 standard deviations from the mean (Figure 12 and Table 19). The variances in Hartford are due to some overcrowding on buses that are frequented by college students in-season or on a particular route between Hartford and New Britain which is having its fleet upgraded from 35-foot buses to 40-foot buses.

Table 16: Hartford Average Load Factor by Demographics, Day of Week and Route Type

Route Type	Time Period	Non-Minority	Minority	Non-Low Income	Low Income	Minority & Low Income: Discordant	Minority & Low Income
Weekday							
All	AM	20.25	19.5	20	19.5	20	19.5
All	MID	17	18	17	18	17	18
All	PM	20	21	20.5	20.75	20.5	20.75
All	OFF	17.5	17	17.25	17	17.25	17
All	TOTAL	20.5	20.5	20.5	20.5	20.5	20.5
Local	AM	20.25	20.75	20.5	20.75	20.5	20.75
Local	MID	21.75	22	21.75	22	21.75	22
Local	PM	20.25	20.75	20.5	20.75	20.5	20.75
Local	OFF	17.75	18.25	18	18.25	18	18.25
Local	TOTAL	20.25	20.75	20.5	20.75	20.5	20.75
Express	AM	20.25	17.5	19.25	17.75	19.25	17.5
Express	MID	11.75	11.25	12	10.75	12	10.75
Express	PM	19.75	21.5	20.5	21.25	20.5	21.25
Express	OFF	17.25	14.75	16.5	14.75	16.5	14.75
Express	TOTAL	21	20.5	20.75	20.5	20.75	20.25

Saturday							
All	AM	17.25	16.5	17.75	16.25	18	16
All	MID	22	21.75	22.25	21.5	22.5	21.5
All	PM	18.5	17.75	18.25	17.75	18.5	17.5
All	OFF	14	12.75	13.25	13	13.25	13
All	TOTAL	20.5	19.75	20.5	19.75	20.75	19.75
Local	AM	15.5	14.25	15.5	14.25	15.75	14
Local	MID	21.5	21	21.5	21	21.75	20.75
Local	PM	18.75	18.25	18.75	18	19	18
Local	OFF	14	12.75	13.25	13	13.25	13
Local	TOTAL	20.5	19.75	20.25	19.5	20.5	19.5
Express	AM	31.25	31.25	31.25	31.25	31.25	31.25
Express	MID	26.75	27	26.75	27	26.75	27
Express	PM	14.75	14.75	14.75	15	14.75	15
Express	OFF	13.25	13.25	13.25	13.25	13.25	13.25
Express	TOTAL	21.25	21.25	21.25	21.25	21.25	21.25
Sunday							
All	AM	8.75	9.75	8	10.25	8	10.5
All	MID	21	25.25	22	25.5	22	25.5
All	PM	22.5	24.75	23.5	24.5	23.75	24.5
All	OFF	13	14	13.5	13.75	13.5	13.75
All	TOTAL	20	23	20.5	23.25	20.5	23.25
Local	AM	11.25	13.75	11.5	14	11.5	14
Local	MID	21	27	22	26.75	22.25	27
Local	PM	20	22	20.25	22	20.5	22
Local	OFF	12.75	14	13.25	14	13.5	13.75
Local	TOTAL	20.25	24.75	21	24.5	21	24.75
Express	AM	0	0	0	0	0	0
Express	MID	21.5	21.5	21.5	21.5	21.5	21.5
Express	PM	31.5	31.5	31.5	31.5	31.5	31.5
Express	OFF	13.5	13.5	13.5	13.5	13.5	13.5
Express	TOTAL	19	19	19	19	19	19

Table 17: New Haven Average Load Factor breakdown

Route Type	Time Period	Non-Minority	Minority	Non-Low Income	Low Income	Minority & Low Income: Discordant	Minority & Low Income
Weekday							
All	AM	22.75	22.5	22.75	22.5	22.75	22.5
All	MID	24.5	25.75	25	25.5	24.75	25.5
All	PM	22	24.75	22.5	24.75	22.25	24.75
All	OFF	15.75	16	15.75	16	15.75	16
All	TOTAL	21.25	22.5	21.5	22.5	21.25	22.5
Saturday							
All	AM	18	18.5	18.25	18.5	18	18.5
All	MID	23.5	26.25	24.25	26.25	24	26.25
All	PM	23.75	23.75	24	23.75	23.75	23.75
All	OFF	12	14.5	12.25	14.5	12	14.5
All	TOTAL	21.25	22.75	21.5	22.75	21.25	22.75
Sunday							
All	AM	20.75	21.25	20.25	21.5	20.25	21.5
All	MID	25.25	26.25	24.75	26.5	25	26.5
All	PM	23.5	26.25	23	26.5	23.25	26.5
All	OFF	11.5	12.5	11	12.75	11.25	12.75
All	TOTAL	22.75	24	22.25	24.25	22.5	24.25

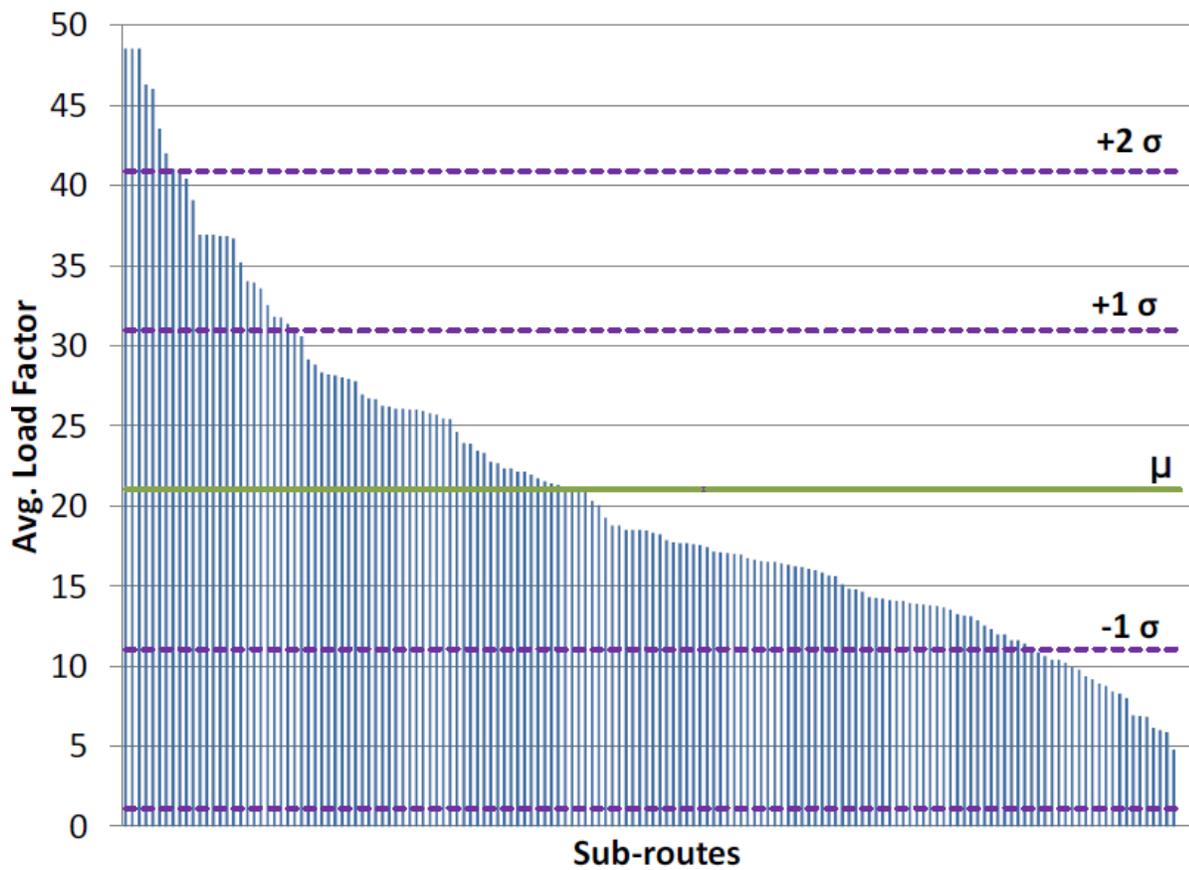


Figure 11: Hartford – Local Weekday Average Load Factor Histogram

Table 18: Hartford – Local Weekday Average Load Factor Outliers

Sub-route	Route	Value
MCCFLYER-HARTFORD VIA I-84	85	41
BURNSIDE AV-MAYBERRY VILL VIA SCOTLAND RD	88	41.01
BURNSIDE AV-MAYBERRY VILL VIA ROBERTS ST	88	42.01
MCCFLYER-MCC VIA I-84	85	43.57
HARTFORD VIA NEWINGTON CTR	41	46
NEW BRITAIN via Newington Ctr	41	48.55

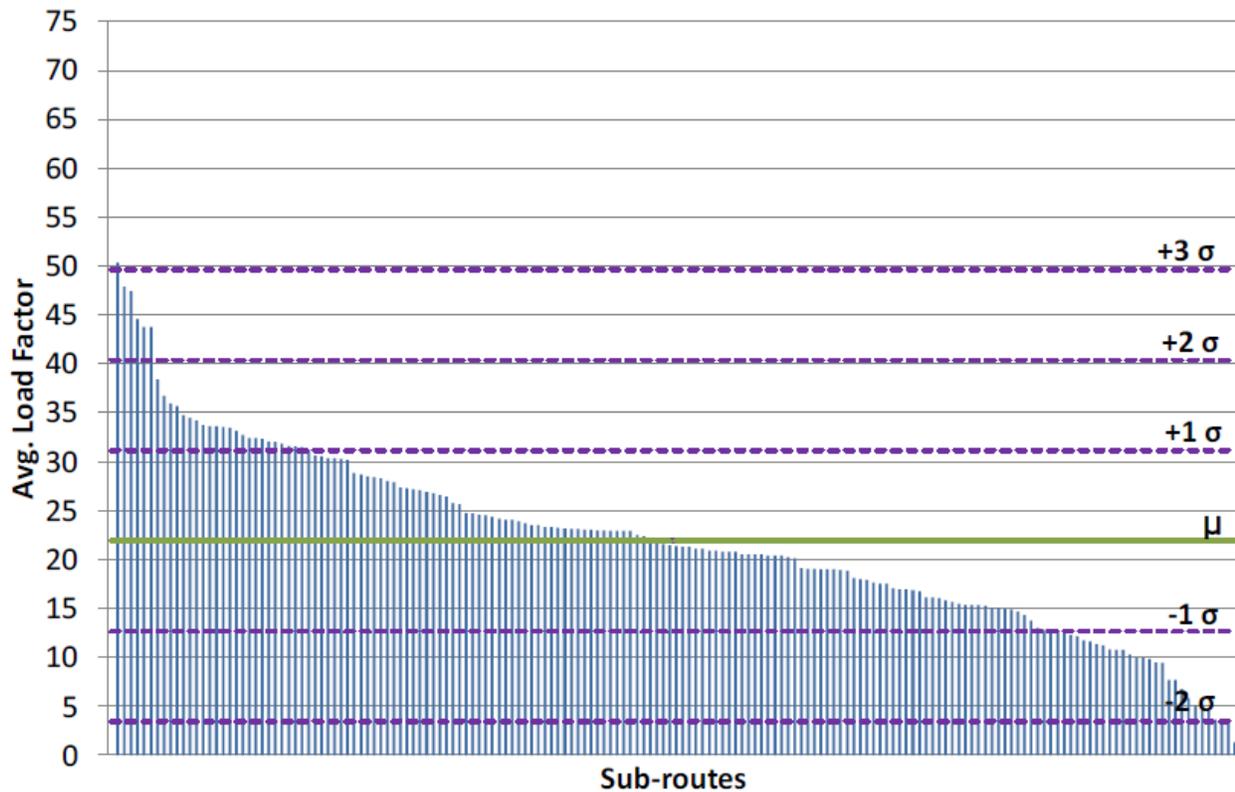


Figure 12: New Haven – Weekday Average Load Factor Histogram

Table 19: New Haven – Local Weekday Average Load Factor Outliers

Sub-route	Route	Value
D12-Bella Vista-Rte 80 & Thompson	D	1.3
L2-Rte 80-Foxon	L1	3.41

On-time Performance

On-time performance is defined as a bus arriving at and departing a stop within 5 minutes of the scheduled time. Calculations at the route level are applied to all sub-routes within the route (Tables 20 & Table 22). On-time performance goals are 90% for routes where the headways are 10 minutes or less and 85% for routes with larger headways.

There is minimal difference between on-time performance for minority and non-minority, and low income and non-low income sub-routes. A small number of sub-routes in Hartford have on-time performance 2 standard deviation less than the mean (Figure 13). No routes in New Haven are two standard deviations below the mean, while several do perform more than two standard deviations better (Figure 14).

Table 20: Hartford On-Time performance analysis - % of Buses On-Time

Route Type	Non-Minority	Minority	Non-Low Income	Low Income	Minority & Low Income: Discordant	Minority & Low Income
Weekday						
All	80.2	79.5	80.2	79.4	80.3	79.4
Local	78.5	78.2	78.5	78.1	78.5	78.2
Express	82.1	81.7	82.2	81.6	82.2	81.5
Saturday						
All	76.2	77.8	76.5	77.9	76.3	78.0
Local	77.5	79.8	78.4	79.5	78.1	79.7
Express	65.0	65.0	65.0	65.0	65.0	65.0
Sunday						
All	53.2	57.0	54.7	56.6	54.3	56.9
Local	51.5	56.0	52.7	55.7	52.2	56.1
Express	59.3	59.3	59.3	59.3	59.3	59.3

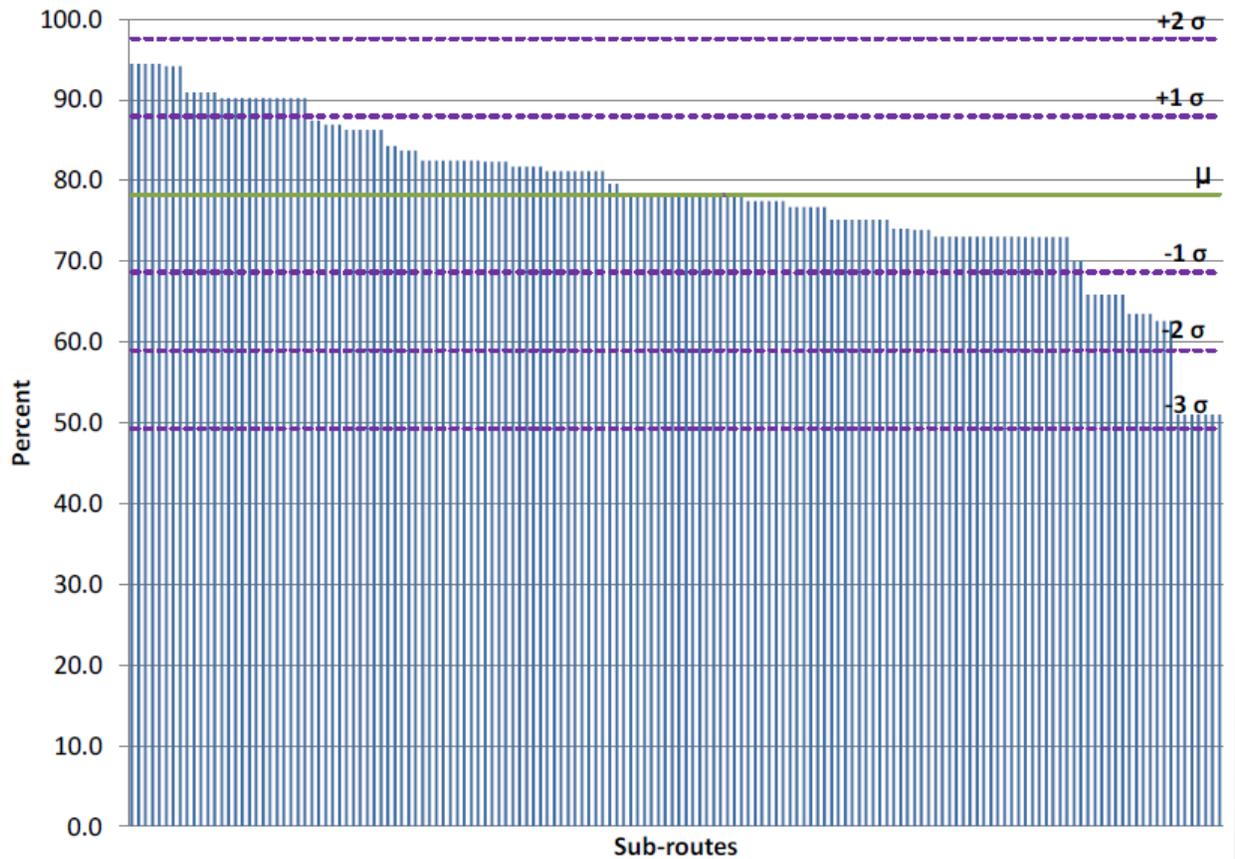


Figure 13: Hartford – Local Weekday On-time Performance Histogram

Table 21 identifies the Hartford local weekday services that fall outside the +/- 2 standard deviation boundaries. In this case, the outliers of interest are those more than 2 standard deviations below the mean on-time performance.

Table 21 Hartford – Local Weekday On-time Performance Outliers

Sub-route	Route	Value
Park St-Dntwn Hartford	31-33	50.9%
Park St -NEW PARK AV-HILLSIDE AV	31-33	50.9%
Park St T-New Park Av-W Htfd Pl via Kane St	31-33	50.9%
Park St -New Park Av-West Htfd Place-Charter Oak Mktp	31-33	50.9%
Park St -South Quaker Ln	31-33	50.9%
Park St -Westfarms	31-33	50.9%
Park St- New Park Ave-West Htfd Place	31-33	50.9%

Table 22: New Haven On-Time Performance by Route Type - % of Buses On-Time

Route Type	Non-Minority	Minority	Non-Low Income	Low Income	Minority & Low Income: Discordant	Minority & Low Income
Weekday						
Local	76.6	75.4	76.7	75.3	76.6	75.3
Saturday						
Local	70.0	70.7	69.6	71.0	69.8	70.9
Sunday						
Local	53.2	53.6	53.9	53.2	53.7	53.3

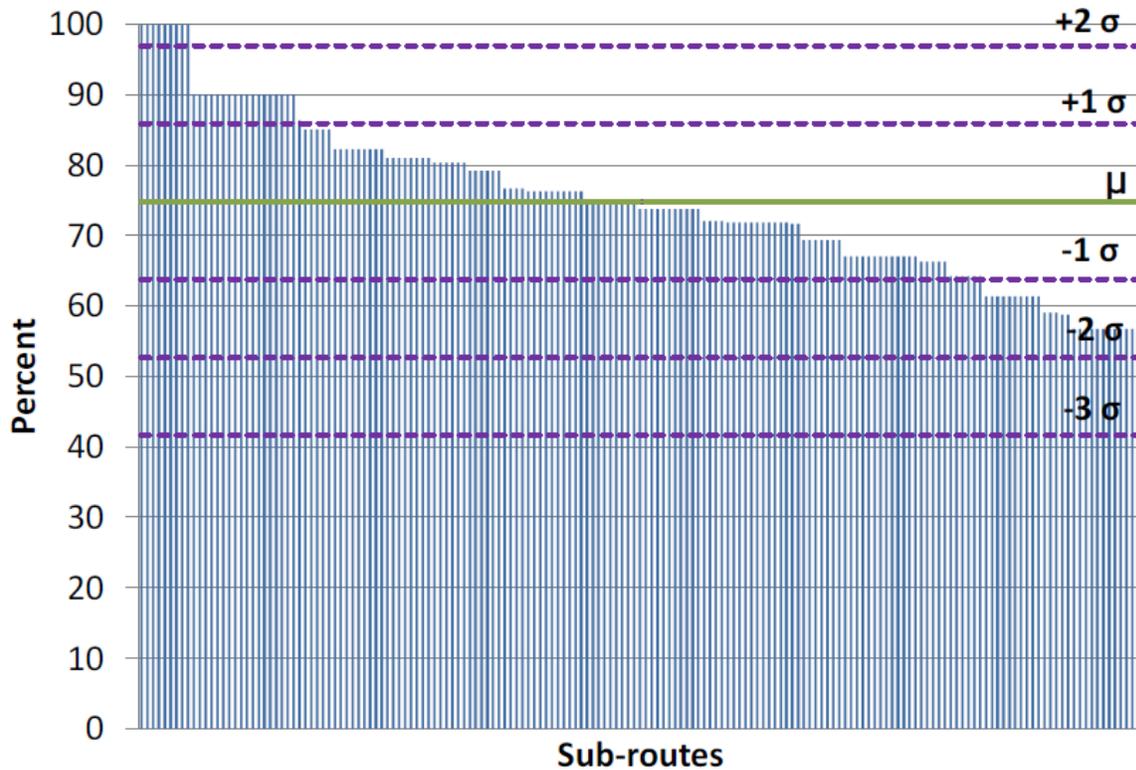


Figure 14: New Haven – Weekday On-time Performance Histogram

Table 23: New Haven – Local Weekday On-time Performance Outliers

Sub-route	Route	Value
55x-CT Post Flyer-New Haven-via I-95	55	100%
55x-CT Post Flyer-Westfield CT Post-Schick-via I-95	55	100%
55x-CT Post Flyer-Westfield CT Post-via I-95	55	100%
L1-Rte 80-Foxon-via Maple & Carol	L1	100%
L2-Rte 80-Foxon	L1	100%
Rte 80-Foxon	L1	100%
Rte 80-Foxon-via Maple & Carol	L1	100%
Rte 80 & Quinnipiac Av	L1	100%
SL-Union Station-Downtown New Haven	SLCP	100%

3.2 Amenities – Bus Stop Shelters

The distribution of stop amenities such as bus stop shelters within a system is one factor in determining the overall equity of a system. This analysis links bus shelter availability at individual stops provided by the DOT with route and stop information from GTFS. Then the percent of bus stop shelters along each sub- route were calculated (Table 24 and Table 26).

Minimal variation exists on the placement of bus shelters by demographic characteristics of a sub-route, though express routes have a higher percentage of bus shelters compared to local routes. This is because the state installed shelters more than 20 years ago in the suburban park and ride lots owned by the state. Typically those are express routes that typically have fewer stops, and most of the stops “off- road” stops in parking lots, at transit stations, colleges, hospitals or shopping malls where the owner provides the shelter and the installations are easy since they are not on public right of way. Still, as Table 24 shows, the distribution of shelters on the express routes is equitably distributed between minority and non-minority areas.

Towns or transit districts determine if and where shelters are constructed in all other situations. Having said that, the analysis shows that there is very little variation in stops equipped with shelters in minority versus non-minority and low-income versus non-low-income areas.

Table 24: Hartford Bus Shelters (Amenities) - % of Stops with Shelters

Route Type	Non-Minority	Minority	Non-Low Income	Low Income	Minority & Low Income: Discordant	Minority & Low Income
Weekday						
All	14.7	14.1	14.8	13.9	14.8	13.9
Local	7.1	6.9	7.1	6.9	7.1	6.9
Express	23.2	25.9	23.3	26.5	23.2	26.6
Saturday						
All	8.7	8.8	8.9	8.7	8.9	8.6
Local	8.3	8.3	8.3	8.3	8.4	8.2
Express	12.0	11.9	11.9	11.9	11.9	11.9
Sunday						
All	9.2	9.7	9.3	9.7	9.4	9.7
Local	8.8	9.4	8.7	9.4	8.8	9.4
Express	10.7	10.6	10.7	10.6	10.7	10.6

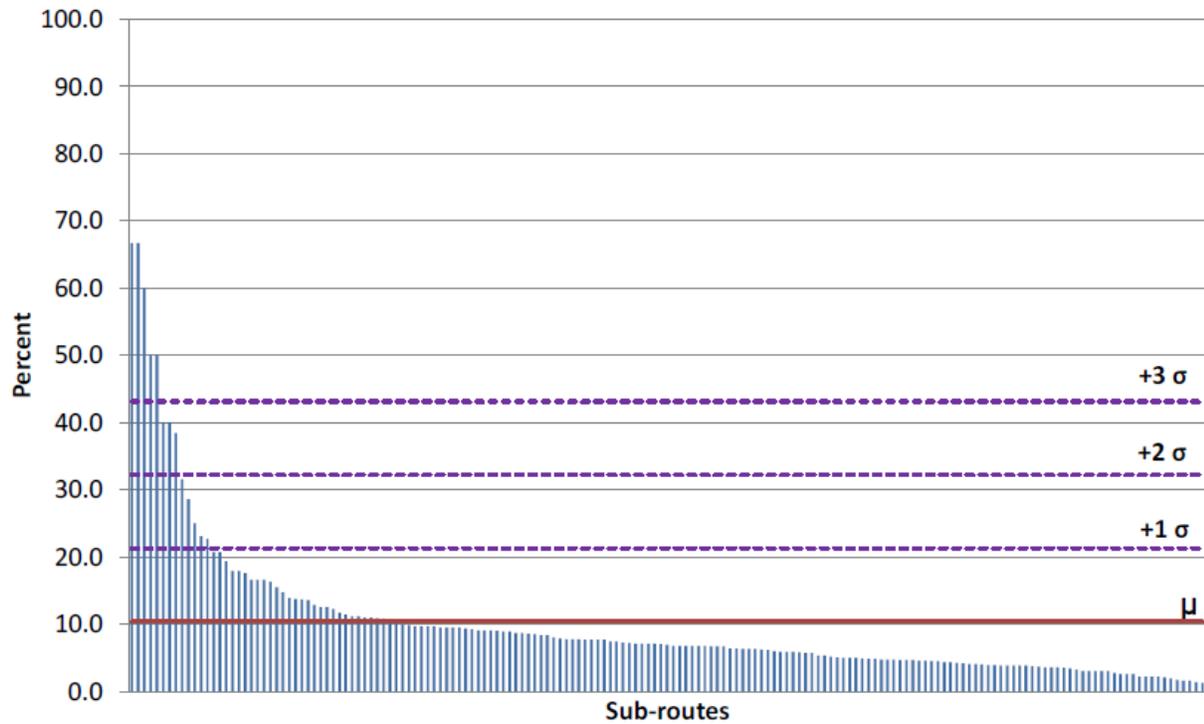


Figure 15: Hartford – Local Weekday Amenities (Shelter) Histogram

Table 25: Hartford – Local Weekday Amenities (Shelter) Outliers

Sub-route	Route	Value
Berlin Tpk Flyer Dntwn Hartford via I-91	45	38.5%
Berlin Tpk Flyer -ConnDOT-Stew Leonard's-Corbin Russwind via I-91	45	40.0%
Buckland Flyer- Downtown Hartford via I-84	80	40.0%
Berlin Tpk Flyer - Stew Leonard's via I-91	45	50.0%
MCC Flyer - Hartford via I-84	85	50.0%
MCC Flyer-MCC via I-84	85	60.0%
Berlin Tpk Flyer -ConnDOT via I-91	45	66.7%
Buckland Flyer –Buckland Hills via I-84	80	66.7%

Table 26: New Haven Bus Shelter Amenities by Route Type

Route Type	Non-Minority	Minority	Non-Low Income	Low Income	Minority & Low Income: Discordant	Minority & Low Income
Weekday						
All	9.1	12.1	9.4	12.1	9.4	12.1
Saturday						
All	9.1	11.8	9.6	11.7	9.5	11.7
Sunday						
All	12.8	14.7	12.7	14.8	12.9	14.8

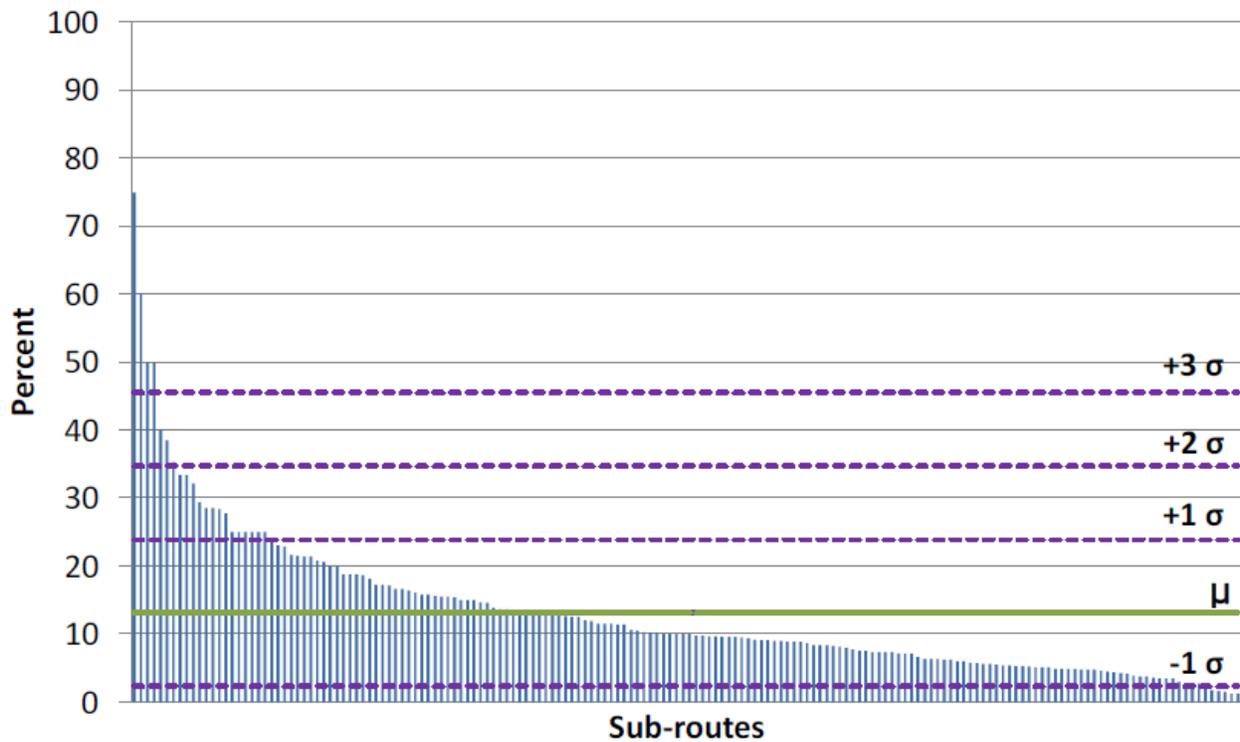


Figure 16: New Haven – Weekday Amenities (Shelter) Histogram

Table 27: New Haven – Local Weekday Amenities (Shelter) Outliers

Sub-route	Route	Value
SL-Union Station-Downtown New Haven	SLCP	35.3%
Union Station-Downtown New Haven	J	38.5%
Jx-95 Express-Downtown New Haven	J	40%
Union Station-via So. Church St	J	50%

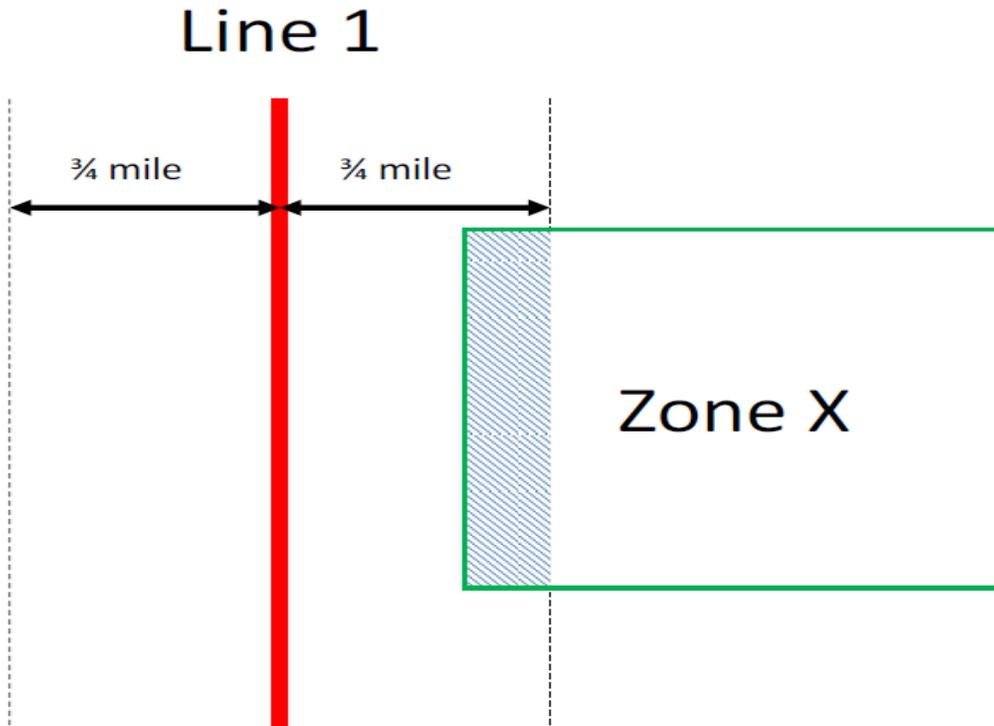
US-Temple St-Coliseum Parking-Downtown New Haven	US	50%
Howard Av-Yale-NH Hosp	B	60%
US-Temple St-Coliseum-Downtown New Haven	US	75%

4 Demographic Analysis

As suggested earlier, the Department will be considering a different methodology in the future to define routes. As the analysis below shows, the definition of service areas and defining routes as target populations or not, is an art and not a science. As such, CTDOT will try to make more precise delineations between who is served by a route and who is not than simply using the ¾ mile from a bus stop definition.

The concepts of minority and low-income routes are important for conducting a proper Title VI service equity analysis. From a spatial analysis perspective, there are several ways in which these distinctions can be made.

A population is often considered to have access to a transit service if it is within some spatial threshold of that transit service. In the case of existing CTDOT transit analysis, that distance is ¾ mile. The implementation of this buffer is important. Consider the example below:



Zone X falls within the ¼ mile buffer distance of Line 1. It is easy to see that while this is true, there is a good chance that much of the population of Zone X may not be within that buffer. The current Title VI program (and FTA guidance) suggests that in this case, all of the population of Zone X should be considered to have transit access. In this situation, the situation in Table 28 arises – the results show a system that serves minority populations by an overwhelming proportion. Over 95% off all sub-routes would be classified as minority when using the limited definition of access.

4.1 Hartford

If the definition is refined to consider the proportion of the area that is covered by the buffer, a more nuanced picture of the transit system surfaces (Table 29). Upwards of 20% of local sub-routes is non-minority when using FTA guidelines (1/3 of revenue mileage) and between 10% and 50% of express sub-routes are non-minority.

Table 28: Hartford Percent Minority by Population

Time Period	Route	Non-Minority Routes		Minority Routes		Total
		#	PCT	#	PCT	
Weekday	Express	1	1.82%	54	98.18%	55
	Local	0	0.00%	174	100.00%	174
	All Routes	1	0.44%	228	99.56%	229
Saturday	Express	0	0.00%	7	100.00%	7
	Local	0	0.00%	105	100.00%	105
	All Routes	0	0.00%	112	100.00%	112
Sunday	Express	0	0.00%	8	100.00%	8
	Local	1	2.00%	49	98.00%	50
	All Routes	1	1.72%	57	98.28%	58
All Periods	Express	1	1.43%	69	98.57%	70
	Local	1	0.30%	328	99.70%	329
	All Routes	2	0.50%	397	99.50%	399

Table 29: Hartford Percent Minority by Area

Time Period	Route	Non-Minority Routes		Minority Routes		Total
		#	PCT	#	PCT	
Weekday	Express	32	58.2%	23	41.8%	55
	Local	24	13.8%	150	86.2%	174
	All Routes	56	24.5%	173	75.5%	229
Saturday	Express	1	14.3%	6	85.7%	7
	Local	13	12.4%	92	87.6%	105
	All Routes	14	12.5%	98	87.5%	112
Sunday	Express	1	12.5%	7	87.5%	8
	Local	7	14.0%	43	86.0%	50
	All Routes	8	13.8%	50	86.2%	58
All Periods	Express	34	48.6%	36	51.4%	70
	Local	44	13.4%	285	86.6%	329
	All Routes	78	19.5%	321	80.5%	399

Figure 17 illustrates the percent minority area of each sub-route and the 1/3 revenue mileage threshold (red line) identifying minority and non-minority sub-routes. Low-income analysis of the Hartford system shows similar pattern as the minority analysis (Tables 30 & Table 31).

A significant number of sub-routes do not qualify as meeting low income requirements when the percent area along a sub-route is used to determine equity (Figure 18). This highlights an important reason for using the second method of determining access – with the simple, binary definition (the whole tract has access if any piece has access) overestimates the number of minority and low-income serving routes. Using the better measure, proportional by area, allows the analyst to focus on the truly low-income and minority routes.

A further refinement to this method would be to utilize block group data in the analysis, giving a much more detailed picture of access in the system.



Figure 17: Hartford – Percent Minority by Area - Local Sub-route Histograms

Table 30: Hartford Percent Low Income by Population

Time Period Route Non Low Income Routes Low Income Routes Total

		#	PCT	#	PCT	
Weekday	Express	50	90.9%	5	9.1%	55
	Local	23	13.2%	151	86.8%	174
	All Routes	73	31.9%	156	68.1%	229
Saturday	Express	7	100.0%	0	0.0%	7
	Local	18	17.1%	87	82.9%	105
	All Routes	25	22.3%	87	77.7%	112
Sunday	Express	8	100.0%	0	0.0%	8
	Local	12	24.0%	38	76.0%	50
	All Routes	20	34.5%	38	65.5%	58
All Periods	Express	65	92.9%	5	7.1%	70
	Local	53	16.1%	276	83.9%	329
	All Routes	118	29.6%	281	70.4%	399

Table 31: Hartford Percent Low Income by Area

Time Period	Route	Non Low Income Routes		Low Income Routes		Total
		#	PCT	#	PCT	
Weekday	Express	25	45.5%	30	54.5%	55
	Local	24	13.8%	150	86.2%	174
	All Routes	49	21.4%	180	78.6%	229
Saturday	Express	2	28.6%	5	71.4%	7
	Local	11	10.5%	94	89.5%	105
	All Routes	13	11.6%	99	88.4%	112
Sunday	Express	2	25.0%	6	75.0%	8
	Local	5	10.0%	45	90.0%	50
	All Routes	7	12.1%	51	87.9%	58
All Periods	Express	29	41.4%	41	58.6%	70
	Local	40	12.2%	289	87.8%	329
	All Routes	69	17.3%	330	82.7%	399



Figure 18: Hartford – Percent Low Income by Area - Local Sub-route Histogram

4.2 New Haven

The demographic analysis of New Haven shows a system that services minority populations in a similar pattern as the Hartford system. The system is almost all minority routes if the simple version of access is used, whereas a more nuanced picture emerges if the proportion of area with access to a transit line is used (Tables 32-35).

A significant number of sub-routes do not qualify as servicing low income populations when the proportional method is used for access along a sub-route is used to determine equity (Figure 19 & 20). Over 25% of all sub-routes do not have 1/3 or more of their revenue mileage serving low income populations.

Table 32: New Haven Percent Minority by Population

Time Period	Non-Minority Routes: FTA		Minority Routes: FTA		Total Routes
	#	PCT	#	PCT	
Weekday	2	1.16%	170	98.8%	172
Saturday	0	0.00%	82	100.0%	82
Sunday	0	0.00%	60	100.0%	60
All Periods	2	0.64%	312	99.4%	314

Table 33: New Haven Percent Minority by Area

Time Period	Non-Minority Routes: FTA		Minority Routes: FTA		Total Routes
	#	PCT	#	PCT	
Weekday	63	36.63%	109	63.37%	172
Saturday	29	35.57%	53	64.63%	82
Sunday	16	26.67%	44	73.33%	60
All Periods	108	34.69	206	65.61	314

Table 34: New Haven Percent Low Income by Population

Time Period	Non-Low Income Routes: FTA		Low Income Routes: FTA		Total Routes
	#	PCT	#	PCT	
Weekend	70	40.70%	102	59.30%	172
Saturday	27	32.93%	55	67.07%	82
Sunday	23	38.33%	37	61.67%	60
All Periods	120	38.22%	194	61.78%	314

Table 35: New Haven Percent Low Income by Area

Time Period	Non-Low Income Routes: FTA		Low Income Routes: FTA		Total Routes
	#	PCT	#	PCT	
Weekend	44	25.58%	128	74.42%	172
Saturday	18	21.95%	64	78.05%	82
Sunday	15	25.00%	45	75.00%	60
All Periods	77	24.52%	237	75.48%	314

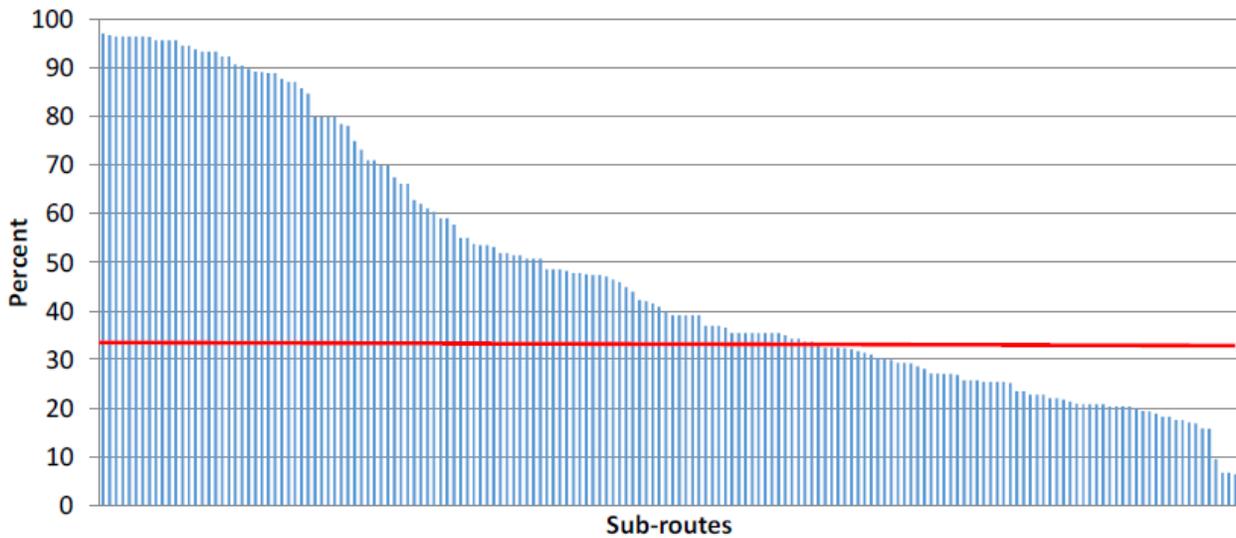


Figure 19: New Haven – Percent Minority by Area Local Sub-route Histogram

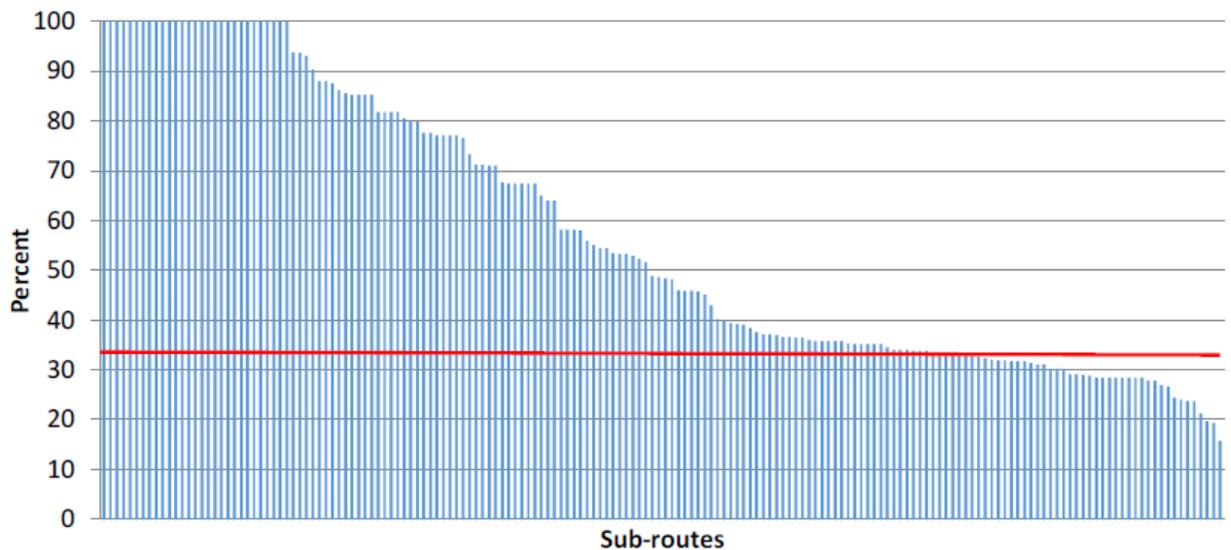


Figure 20: New Haven – Percent Low Income by Area Local Sub-route Histogram

Rail System-Wide Service Standards and Policies

MTA Metro-North Railroad (MNR) has developed System-wide service standards that apply to MNR operations. CTDOT has adopted these system-wide service standards to apply to the New Haven Line and Shore Line East (SLE) rail services in Connecticut.

Service Availability

Service Availability is a general measure of the distribution of routes within the service areas. The commuter rail routes are distributed to provide rail service to commuters who reside within the service territory. These service territories are each defined as all census tracts that are within (and touching) 2.5 miles of the commuter rail stations. The service territory in Connecticut includes all MNR stations in Fairfield and New Haven Counties and the Shore Line East stations along the shore line to New London. For purposes of conducting a Title VI analysis of service availability, the distance (distribution of stations – fixed access points) that a person must travel to gain entry to commuter rail services must be determined. The distance from the centroid of each census tract to the closest commuter rail station is computed and will be used for conducting such a Title VI analysis.

On Time Performance (OTP)

On-time performance is a measure of runs completed as scheduled. OTP is a key measure for service reliability to its customers and is the standard the industry uses to compare existing services with other similar competitors. A train is recorded as on time if it arrives at its final destination within five minutes and 59 seconds of its scheduled arrival. All trains operated should complete their assigned trips. Unless noted on the timetable, trains will not depart early from passenger stations where they are scheduled to receive passengers.

Vehicle Headway

Vehicle Headway is a measure of how often a train is scheduled to stop at a particular station. Maximum Vehicle Headway is based upon the station's level of service (determined by ridership by station or average ridership within specific operating line segments). Factors considered when determining service frequency also include availability of equipment, track scheduling, and operating resources.



Figure 1. M-8 Rail Car Photograph

Maximum Vehicle Headway differs for peak, reverse peak, weekday off-peak, and weekends.

Maximum Headway Guideline

The chart below presents the maximum vehicle headway by operating line segment and time of day for MNR NHL stations.

Line Segment	Peak	Rev. Peak	Off-Peak	Weekend
New Haven Line				
Inner New Haven	20 minutes	30 minutes	60 minutes	60 minutes
Outer New Haven	25 minutes	30 minutes	60 minutes	60 minutes
New Canaan Branch	30 minutes	60 minutes	60 minutes	60 minutes
Danbury Branch	45 minutes	60 minutes	120 minutes	120 minutes
Waterbury Branch	45 minutes	60 minutes	120 minutes	120 minutes

4. Loading Guidelines

Loading standards are used to determine seating capacity, to assign equipment (e.g., number/type of railcars), and to make subsequent adjustments by lengthening or shortening trains. Because a primary method of controlling costs is to minimize surplus car-miles while providing a seat for every customer, The assignment of cars and length of trains will be adjusted in accordance with the below occupancy policies.

Train lengths are adjusted to conform to the loading standard using train-by- train ridership data, which is monitored throughout the year. Train lengths are modified to ensure that adequate seating is provided while controlling the total car-miles operated.

Maximum Recommended Occupancy Policy:

	Lengthening Trains If Occupancy Exceeds...	Shortening Trains If Occupancy (after reduction) Would Not Exceed...
AM Peak, PM Peak, Reverse Peak	95%	95%
Off-Peak Weekday	85%	85%
Weekend	75%	75%

Holiday/Special Event Adjustments: Adjustments to the regular equipment assignments are made to account for changes in travel patterns and demand on holidays and holiday weekends and other special events throughout the year.

System-wide Service Policies

1. Vehicle Assignment Policy

In Connecticut diesel and electric powered trains are operated on the NHL and SLE rail services.

The primary criterion in assigning transit vehicles is the type of propulsion power required for a particular branch or line segment. Diesel locomotive- hauled coaches are used on non-electrified territory including the Danbury Branch and Waterbury Branch on MNR and on Shore Line East. Electric Multiple-Unit (EMU) vehicles are used on electrified territory (all remaining lines/branches). Where a train operates over both electrified and non- electrified territory, diesel locomotive hauled coaches must be assigned.

All coaches and EMUs have similar amenities including air conditioning, rest rooms, and like decor which provide the same level of customer comfort and convenience. Vehicles are assigned as required, with seating capacity and maintenance cycles driving the assignments. Cars are not assigned to specific routes or branches within electric or diesel territory but are cycled from line/branch to line/branch to achieve optimum car utilization efficiency. Short-term rolling stock assignment plans are developed for deployment of railcars.

Average Age of Fleet: Vehicles are assigned to trains based on required propulsion power (diesel or electric) for the route, individual train ridership and seating capacity, and maintenance and storage yard requirements.

2. Transit Amenities

Transit amenities are items of comfort and convenience made available to railroad customers.

Amenities available at train stations can include benches, waiting rooms, platform shelters, restrooms, vending machines, information kiosks, recycling/trash bins, public address (PA) speakers, visual information displays, escalators, elevators, and ramps. The station amenities provided are based on a station's daily ridership, length of platform, and size of station, but may be limited or constrained by physical layout, available space, and utility infrastructure constraints (e.g., local commercial electric power availability). Stations are categorized into levels; stations in the highest ridership category receive the full range of amenities if available space allows.

Amenities onboard trains include heating and air conditioning, interior lighting, bathrooms, baggage racks, and public address systems. All trains regardless of car type (coaches or multiple-units) and method of propulsion (diesel or electric) are equipped with similar amenities.

Amenities onboard trains include heating and air conditioning, interior lighting, bathrooms, baggage racks, and public address systems. All trains regardless of car type (coaches or multiple-units) and method of propulsion (diesel or electric) are equipped with similar amenities.



2014 Rail Service Monitoring Analysis

Inventory of Services

The commuter rail network in Connecticut includes the New Haven Line (NHL) and Shore Line East (SLE) services. The NHL is a commuter rail service, owned by Connecticut, which operates between New Haven, Connecticut, and Grand Central Terminal in New York City. The service is operated for the Department through an agreement with MTA-Metro North Railroad, a direct recipient of FTA funds, who also prepares their own Title VI Plan and reports to FTA Region II. The NHL is primarily a four-track main line railroad and includes the Main Line and three branch lines. The NHL includes 19 Main Line stations in Connecticut, all of them in the New Haven or Bridgeport-Stamford urbanized area. The Waterbury Branch Line operates between Waterbury and Devon (Milford) and has six stations, four of them in the New Haven urbanized area. The Danbury Branch Line operates between Danbury and Norwalk and has seven stations, four of them within the Bridgeport-Stamford urbanized area. The New Canaan Branch Line operates between New Canaan and Stamford and has four stations, all of them within the Bridgeport-Stamford urbanized area.

Shore Line East is a commuter rail service between New London and New Haven that is owned by Connecticut and operated by Amtrak under a service agreement with the Department. The SLE service consists of 23 daily weekday trains as well as through service to Bridgeport and Stamford on the NHL. There are nine stations on SLE, all of them within the extended New Haven urbanized area.

New Haven Line Analysis

MNR submits their monitoring analysis to FTA Region II using the survey methodology. The Department elected to review the MNR submission to FTA based upon the survey methodology and has determined that the survey had adequate coverage of the NHL to allow the Department to draw statistically correct assumptions about level and quality of service.

Below are the results of a survey that shows the analysis of rail service using multiple analytical techniques employed to monitor the quality of transit service between “minority” and “non-minority” areas (using customer-based analyses), as well as “above poverty” and “below or at poverty levels” (as classified by Title VI definitions; using customer and station-based analyses). The source data for that analysis is from the June 2013 customer survey conducted by MNR using the responses from customers with Connecticut- based trips.

The performance indicators analyzed based on the latest Customer Travel/Satisfaction Survey, June 2013 included:

- Comparison of overall opinions toward MNR services
- Comparison of travel times
- Comparison of transfers as a measure of directness of service
- Comparison of trip cost based upon fare media used and by trip cost per mile

Each of these measures was analyzed for “Minority” and “Non-minority” respondents and for “Above Poverty” and “At or Below Poverty” respondents.

Results of Title VI- Related Questions From the Metro-North 2013 Customer Satisfaction Survey

New Haven Line

Hispanic Origin

	%
Yes	8
No	92

Race/Ethnicity

White	82
Black or African American	8
American Indian or Alaska Native	0.1
Asian	6
Other	4

Preferred language to receive written or electronic mail

English	98
Spanish	0.4

Another language	0.3
No preference	1

Preferred language to hear announcements

English	99
Spanish	0.4
Another language	0.2
No preference	0.6

Household Size

1-2 people	43
3-4 people	41
5-6 people	15
7-8 people	0.6
9 or more people	0.2

2012 Household Income Range

Under \$12,500	3
\$12,500-\$24,999	3
\$25,000-\$37,499	3
\$37,500-\$49,999	4
\$50,000-\$74,999	10
\$75,000-\$99,999	10
\$100,000-\$199,999	28
\$200,000-\$299,999	14
\$300,000 or more	26
Median Household Income	\$162,200
Household Income by Household Size	%
Under \$50K	7 or more
\$50K-\$99.9	27
\$100K-\$199.9	23
\$200K	19
Medium Household Income	31
	\$100,000

Source : 2013 MNR Customer Satisfaction Survey

Conclusion – For all performance measures it was concluded that there is no statistically significant difference between minority and non- minority or above poverty and below poverty customers for the New Haven Line service.

Metro-North Excerpts from 2013 Title VI Submission to FTA, for ConnDOT 6/8/2015
Attachments C & D:

Attachment C

Preferred Language Spoken by Survey Respondents

(Source: Metro-North East of Hudson Customer Satisfaction Survey 2013)

Station	Respondents	Prefer English	Prefer Spanish	Prefer Other
<u>New Haven Line (Connecticut)</u>				
Greenwich	56	56 100%	0 0%	0 0%
Cos Cob	30	30 100%	0 0%	0 0%
Riverside	20	19 95%	0 0%	1 5%
Old Greenwich	36	36 100%	0 0%	0 0%
Stamford	133	127 95%	6 5%	0 0%
Noroton Heights	19	19 100%	0 0%	0 0%
Darien	22	21 95%	0 0%	1 5%
Rowayton	11	11 100%	0 0%	0 0%
South Norwalk	52	51 98%	0 0%	1 2%
East Norwalk	46	46 100%	0 0%	0 0%
Westport	117	116 99%	0 0%	1 1%
Green's Farms	36	36 100%	0 0%	0 0%
Southport	13	13 100%	0 0%	0 0%
Fairfield	111	110 99%	0 0%	1 1%
Bridgeport	112	112 100%	0 0%	0 0%
Stratford	63	62 98%	1 2%	0 0%
Milford	86	86 100%	0 0%	0 0%
New Haven	215	214 100%	0 0%	1 0%
New Haven State St	1	1 100%	0 0%	0 0%

Station	Respondents	Prefer English	Prefer Spanish	Prefer Other
Glenbrook	2	2 100%	0 0%	0 0%
Springdale	7	7 100%	0 0%	0 0%
Talmadge Hill	6	6 100%	0 0%	0 0%
New Canaan	14	14 100%	0 0%	0 0%
<u>Danbury Branch</u>				
Merritt 7	1	1 100%	0 0%	0 0%
Wilton	7	7 100%	0 0%	0 0%
Cannondale	2	2 100%	0 0%	0 0%
Branchville	2	2 100%	0 0%	0 0%
Redding	1	1 100%	0 0%	0 0%
Bethel	1	1 100%	0 0%	0 0%
Danbury	4	4 100%	0 0%	0 0%
<u>Waterbury Branch</u>				
Derby-Shelton	1	1 100%	0 0%	0 0%
Seymour	1	1 100%	0 0%	0 0%
Naugatuck	1	1 100%	0 0%	0 0%
Waterbury	11	10 91%	0 0%	1 9%

Attachment D

Preferred Language to Receive Written Communication by Survey Respondents (Source: Metro-North Customer Satisfaction Survey 2013)

Caution: Poverty Status and other calculations are not statistically significant for stations with fewer than 30 respondents.

Station	Respondents	Prefer English		Prefer Spanish		Prefer Other		
<u>New Haven Line (Connecticut)</u>								
Greenwich	56	56	100%	0	0%	0	0%	
Cos Cob	30	30	100%	0	0%	0	0%	
Riverside	20	18	90%	0	0%	2	10%	
Old Greenwich	35	34	97%	0	0%	1	3%	
Stamford	132	124	94%	5	4%	3	2%	
Noroton Heights	19	19	100%	0	0%	0	0%	
Darien	22	21	95%	0	0%	1	5%	
Rowayton	11	11	100%	0	0%	0	0%	
South Norwalk	52	50	96%	0	0%	2	4%	
East Norwalk	46	46	100%	0	0%	0	0%	
Westport	117	115	98%	0	0%	2	2%	
Green's Farms	36	36	100%	0	0%	0	0%	
Southport	13	13	100%	0	0%	0	0%	
Fairfield	111	107	96%	1	1%	3	3%	
Bridgeport	112	112	100%	0	0%	0	0%	
Stratford	62	61	98%	0	0%	1	2%	
Milford	86	86	100%	0	0%	0	0%	
New Haven	214	213	100%	0	0%	1	0%	
New Haven State St	1	1	100%	0	0%	0	0%	
<u>New Canaan Branch</u>								
Glenbrook	3	3	100%	0	0%	0	0%	
Springdale	7	7	100%	0	0%	0	0%	
Talmadge Hill	6	6	100%	0	0%	0	0%	
New Canaan	14	14	100%	0	0%	0	0%	
<u>Danbury Branch</u>								
Merritt 7	1	1	100%	0	0%	0	0%	
Wilton	8	8	100%	0	0%	0	0%	
Cannondale	2	2	100%	0	0%	0	0%	
Branchville	2	2	100%	0	0%	0	0%	
Redding	1	1	100%	0	0%	0	0%	
Bethel	1	1	100%	0	0%	0	0%	
Danbury	4	3	75%	0	0%	1	25%	
<u>Waterbury Branch</u>								
Derby-Shelton	1	1	100%	0	0%	0	0%	
Seymour	1	1	100%	0	0%	0	0%	
Naugatuck	1	1	100%	0	0%	0	0%	
Waterbury	11	10	91%	0	0%	1	9%	

Caution: Poverty Status and other calculations are not statistically significant for stations with fewer than 30 respondents.

Table 3. New Haven Line Poverty Levels by Station Per Survey Responses (Source: 2013 CSS)

Station	Respondents	Poverty Persons	% Poverty	Poverty Systemwide	Poverty Sta
Greenwich	47	2	4%	7%	Above
Cos Cob	28	1	4%	7%	Above
Riverside	15	2	13%	7%	Below
Old Greenwich	28	1	4%	7%	Above
Stamford	118	8	7%	7%	Below
Noroton Heights	15	1	7%	7%	Below
Darien	18	1	6%	7%	Above
Rowayton	10	0	0%	7%	Above
South Norwalk	48	5	10%	7%	Below
East Norwalk	40	0	0%	7%	Above
Westport	97	2	2%	7%	Above
Green's Farms	32	0	0%	7%	Above
Southport	10	0	0%	7%	Above
Fairfield	93	4	4%	7%	Above
Bridgeport	97	6	6%	7%	Above
Stratford	55	3	5%	7%	Above
Milford	74	2	3%	7%	Above
New Haven	180	19	11%	7%	Below
New Haven State St	1	0	0%	7%	Above

Caution: Poverty Status and other calculations are not statistically significant for stations with fewer than 30 respondents.

Table 4. Connecticut Branches Poverty Levels by Station Per Survey Responses (Source: 2013 CSS)

Station	Respondents	Poverty Persons	% Poverty	Poverty Systemwide	Poverty Sta
Glenbrook	2	0	0%	7%	Above
Springdale	6	0	0%	7%	Above
Talmadge Hill	6	1	17%	7%	Below
New Canaan	9	1	11%	7%	Below
Merritt 7	1	0	0%	7%	Above
Wilton	7	0	0%	7%	Above
Cannondale	2	0	0%	7%	Above
Branchville	1	0	0%	7%	Above
Redding	0	0	0%	7%	Indeterminate
Bethel	1	0	0%	7%	Above
Danbury	4	1	25%	7%	Below
Derby-Shelton	1	0	0%	7%	Above
Seymour	1	0	0%	7%	Above
Naugatuck	1	0	0%	7%	Above
Waterbury	11	2	18%	7%	Below

Shore Line East Analysis

Most of the Shore Line East service area is within an urbanized area over 200,000 in population. The only low-income or minority tracts in the SLE service area are in the city of New Haven and

the west end of East Haven, served only by the terminal stop of the SLE services. Since those services are peak-direction oriented, the populations in these tracts are most likely not SLE users since they could not complete a trip without travelling backwards to an earlier stop then traveling into New Haven. To the extent that this population is a rail using population, the MNR NHL service equity analysis would cover the analysis of any rail trips they took in the peak direction out of New Haven, and a SLE service equity analysis would not offer any valid assessment.

CTDOT conducts surveys with SLE commuters and the most recent one was done in September 2014. The survey included several days of data collection during a two-week period in order to sample riders of each AM train scheduled on Weekdays and Weekends. Data representing the total sample is weighted to ensure proportionate representation of Weekday and Weekend riders.

Weekday and Weekend riders differ significantly in terms of many aspects of profile and many of their uses and perceptions of Shore Line East. Differences between the two groups are identified throughout the report.

This year, riders were given the option to complete the survey on line or in Spanish. Because the paper survey was handed to riders with a pencil, few (<5%) chose the alternatives. The cover had a URL and QR code linked to an online version, and a phone number to call to be interviewed in Spanish.

There were 634 surveys collected (559 Weekday and 75 Weekend versions). Of this amount only one called in Spanish.

Race/Heritage: 84% White

Weekend Riders are more diverse:

11% Black vs 4% Weekday

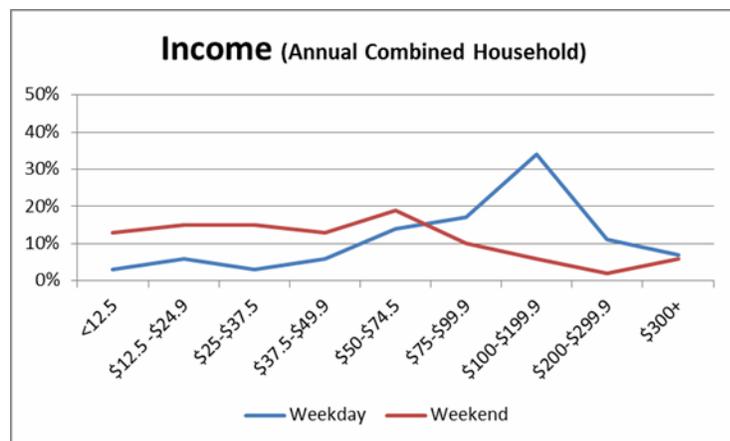
9% Other vs 2% Weekday

	TOTAL	PERIOD	
		WeekDay	WeekEnd
White	84%	87%	71%
Hispanic/Latino	4%	4%	6%
Black/African American	4%	3%	11%
Asian	3%	4%	2%
Native American Indian	0%	0%	2%
Other	3%	2%	9%

Income: Median \$93,600/yr.

Weekday Riders are more likely to be more affluent.

	TOTAL	PERIOD	
		WeekDay	WeekEnd
Median Income (x\$1K)	\$93.60	\$104.50	\$42.80
Under \$50K	24%	18%	58%
\$50-\$99K	30%	31%	29%
\$100-\$200K	30%	34%	6%
\$200K+	16%	18%	8%



Evaluate Service and Fare Changes

Service and Fare Equity Analysis Policy

Pursuant to Federal Transit Administration (“FTA”) Circular 4702.1B, FTA Circular 4703.1, and Title VI of the Civil Rights Act of 1964, and their related regulations, the following is the policy of the Connecticut Department of Transportation (CTDOT) for service and fare equity analyses and determination of disparate impact and disproportionate burden.

Disparate impact refers to a facially neutral policy or practice that disproportionately affects members of a group identified by race, color, or national origin, when the recipient’s policy or practice lacks a substantial legitimate justification and when there exists one or more alternatives that would serve the same legitimate objectives but with less disproportionate effect on the basis of race, color, or national origin.

Disproportionate burden refers to a facially neutral policy or practice that disproportionately affects low-income population’s more than non-low-income populations. A finding of disproportionate burden requires the recipient to evaluate alternatives and mitigate adverse effects where practicable.

Section I: Service Equity Analysis

Major Service Change Policy:

All changes in service meeting the definition “Major Service Change” are subject to a Title VI Service Equity Analysis and a public hearing prior to presentation to the Commissioner of Transportation for approval and implementation actions. The following are considered “major service changes” that would require a public hearing and a service equity analysis prior to approval by CTDOT:

1. A proposal to abandon all service on an entire bus route or rail line, or elimination of a route or a branch that reduces the span of service by more than five percent (5%);
2. A proposal to eliminate service on a portion of a bus route or rail line that represents more than twenty percent (20%) of the route miles of the particular route or line. (No major service change will be considered if alternative transit service is available on existing duplicative service provided by another transit provider or by transfer to another route, and if the elimination does not trigger any other threshold for a major service change);
3. A proposal to substantially reduce service on a bus route or rail line, specifically where reduction of service increases the headway of the peak period service by more than fifty percent (50%) or more than doubles the off-peak headway.
4. The addition of, or reduction in, more than ten percent (10%) of the rail or bus system’s overall vehicle revenue hours through one or more route changes

A Service Equity Analysis will be conducted whenever CTDOT implements a major service change to the rail or bus system as defined in this policy when it would remain in effect in excess of twelve (12) months. Further, when a service change is proposed, there shall be a twelve-month look-back to ascertain if the aggregate of any changes in the prior twelve months would have triggered one of these major service change criteria and therefore an equity analysis.

The following service changes are exempted:

1. Standard seasonal variations in service: a Seasonal route or routing variation is usually a modification to service to provide “added” access that is not broadly needed year round, or the discontinuation of same. Any temporary service addition, change, or discontinuation of a route with the intention that it will be in operation for less than twelve months¹;
2. Changes on routes serving sporting events, special events, or service contracted through other cities or agencies;

¹ While all changes from regular service to seasonal service and the reverse are exempt, should there be changes within the seasonal service from one year to the next, CTDOT will conduct a SAFE analysis should the change exceed 50%, regardless of increase or decrease in service.

3. Any service change that does not meet the definition of a major service change such as minor route alignments, frequency, span, or time point adjustments; route or bus stop changes due to temporary road detours caused by construction, maintenance, closures, emergencies, labor disruptions or strikes, fuel shortages, or safety concerns; etc.

Section II: Fare Equity Analysis

Fare Changes:

A fare equity analysis will be conducted whenever CTDOT implements a fare change, regardless of the amount of increase or decrease, except for those fare changes mandated by Federal, state or local law. A fare change is defined as an increase or decrease in fares: (a) on the entire system, (b) on certain transit modes, or (c) by fare payment type or fare media. The exceptions are as follows:

1. "Spare the air days" or other instances when a local municipality, the state or CTDOT has declared that all passengers ride free;
2. Temporary fare reductions that are mitigating measures for other actions (i.e. construction activities that close a segment of the rail system); or
3. Promotional fare reductions that last less than six (6) months.

The fare equity analysis will evaluate the effects of the proposed fare changes on minority populations and low-income populations. For proposed changes that would increase or decrease the fares on the entire system, or on certain modes, or by fare payment type or fare media, CTDOT will analyze any available information generated from ridership surveys indicating whether minority and/or low-income riders are disproportionately more likely to use the mode of service, payment type or payment media that would be subject to the change.

Section III: Disparate Impact Policy

The purpose of this policy is to establish a threshold which identifies when adverse effects of a major service or fare change are borne disproportionately by minority populations. For the purpose of this policy, a minority population is defined as any readily identifiable group of minority persons who live in geographical proximity.

Service Changes:

A major service change to the rail or bus system will be deemed to have a disparate impact on minority populations if the percentage of riders or vehicle revenue hours on minority-classified routes affected by the major service change is at least fifteen percentage points (15%) higher than the percentage of riders or vehicle revenue hours on non-minority-classified routes affected by the major service change.

The quantitative methodology used to determine when an impact meets or exceeds the disparate impact thresholds set in this policy is as follows:

To determine the impacts of major service changes on specific routes, the ratio of minority population and non-minority population within the impacted tract areas will be compared to the ratio of minority and non-minority population within the service area as a whole. (Example: if within the service area as a whole, there is a 50-50 split between minority and non-minority populations, and within the impacted tract areas for service reduction there is an 80-20 split between minority and non-minority populations affected, this would be a disparate impact. But if there is a 55-45 split within the impacted tract areas, no disparate impact will be determined to exist). Comparisons of impacts between minority and non-minority populations will be made for all changes for each day of service — weekday, Saturday, and Sunday.

Fare Changes:

For fare changes, a fare change will be deemed to have a disparate impact on minority populations if its implementation results in either:

1. When one fare change is proposed, the percentage of impacts of the proposed fare change borne by minority riders as a result of the proposed fare change is at least ten percentage points (10%) higher than the percentage of impacts of that proposed fare change on the overall rider population; or
2. When more than one fare change is proposed:
 - a. For each fare change in the package: the percentage of impacts of each individual proposed fare change borne by minority riders as a result of the proposed fare change is at least ten percentage points (10%) higher than the percentage of impacts of that proposed fare change on the overall rider population; and
 - b. For the total package of fare changes: the aggregate percentage of impacts for the proposed fare changes borne by minority riders as a result of the proposed fare changes is at least five percentage points (5%) higher than the aggregate percentage of impacts on the overall rider population.

The quantitative methodology used to determine when a fare change meets or exceeds the disparate impact thresholds set in this policy is as follows:

To determine the impact of a fare change, the ratio of minority population and non-minority population within the impacted tract areas will be compared to the ratio of minority and non-minority population within the service area as a whole. (Example: if within the service area as a whole, there is a 50-50 split between minority and non-minority populations, and within the impacted tract areas for a fare increase there is an 80-20 split between minority and non-minority populations affected by the increase, this would be a disparate impact. But if there is a 55-45 split within the impacted tract areas, no disparate impact will be determined to exist). Differences in the use of fare options between minority populations and other populations include all such differences that are documented as statistically significant at the 95 percent confidence level.

FTA Circular 4702.1B states that a recipient can implement a fare increase that would have a disproportionate or adverse effect provided that it demonstrates the action meets a substantial need

that is in the public interest and that alternatives would have more severe adverse effects than the preferred alternative.

Section IV: Disproportionate Burden Policy

A major service change to the rail or bus system will be deemed to have a disproportionate burden on low-income populations if the percentage of riders or vehicle revenue hours on below-poverty-level classified routes affected by the major service change is at least fifteen percentage points (15%) higher than the percentage of riders or vehicle revenue hours on above-poverty-level classified routes affected by the major service change.

The quantitative methodology used to determine when an impact meets or exceeds the disproportionate burden thresholds set in this policy is as follows:

To determine the impacts of major service changes on specific routes, the ratio of low-income and non-low income population within the impacted tract areas will be compared to the ratio of low-income and non-low-income population within the service area as a whole. (Example: if within the service area as a whole, there is a 50-50 split between low-income and non-low-income populations, and within the impacted tract areas for service reduction there is an 80-20 split between low-income and non-low-income populations affected, this would be a disproportionate burden. But if there is a 55-45 split within the impacted tract areas, no disproportionate burden will be determined to exist). Comparisons of impacts between low-income and non-low-income populations will be made for all changes for each day of service — weekday, Saturday, and Sunday.

A fare change will be deemed to have a disproportionate burden on low-income populations if its implementation results in either:

1. When one (1) fare change is proposed, the percentage of impacts of the proposed fare change borne by low-income riders as a result of the proposed fare change is at least ten percentage points (10%) higher than the percentage of impacts of that proposed fare change on the overall rider population; or
2. When more than one (1) fare change is proposed:
 - a. For each fare change in the package: the percentage of impacts of a single proposed fare change borne by low-income riders as a result of the proposed fare change is at least ten percentage points (10%) higher than the percentage of impacts of that proposed fare change on the overall rider population; and
 - b. For the total package of fare changes: the aggregate percentage of impacts for the proposed fare changes borne by low-income riders as a result of the proposed fare changes is at least five percent (5%) greater than the aggregate percentage of impacts on the overall rider population.

The quantitative methodology used to determine when an impact meets or exceeds the disproportionate burden thresholds set in this policy is as follows:

To determine the impacts of fare changes, the ratio of low-income and non-low income population within the impacted tract areas will be compared to the ratio of low-income and non-low-income population within the service area as a whole. (Example: if within the service area as a whole, there is a 50-50 split between low-income and non-low-income populations, and within the impacted tract areas for a fare increase there is an 80-20 split between low-income and non-low-income populations affected, this would be a disproportionate burden. But if there is a 55-45 split within the impacted tract areas, no disproportionate burden will be determined to exist). Differences in the use of fare options between minority populations and other populations include all such differences that are documented as statistically significant at the 95 percent confidence level.

Section V: When a Major Service or Fare Change is deemed to have a Disparate Impact and/or Disproportionate Burden.

Avoid, Minimize, or Mitigate Impact and/or Burden:

If a proposed major service change or fare change is deemed to have a disparate impact and/or disproportionate burden, CTDOT shall consider modifying the proposed changes in order to avoid, minimize or mitigate the disparate impact(s) or disproportionate burden(s) of the proposed change. Any modifications to the proposed change must be reanalyzed according to the policies in Sections I and II to determine whether the proposed change removed the disparate impacts and/or disproportionate burdens of the change.

No Alterations or Unable to Remove Impact and/or Burden:

If CTDOT chooses not to alter the proposed major service or fare change, or if modifications to the proposed major service or fare change do not remove the disparate impact(s) or disproportionate burden(s), the following steps must be taken:

1. If CTDOT chooses not to alter the proposed major service or fare change, or if modifications to the proposed major service or fare change do not remove the disparate impact, CTDOT may implement the major service or fare change only if:
 - a. CTDOT has determined there is a substantial legitimate justification for the proposed service or fare change, and
 - b. CTDOT can show that there are no alternatives that would have a smaller disparate impact on minority riders that would still accomplish the state's legitimate program goals.
2. If CTDOT chooses not to alter the proposed major service change or fare change, or if modifications to the proposed major service change or fare change do not remove the disproportionate burden on low-income riders:
 - a. CTDOT shall take steps to avoid, minimize, or mitigate those impacts where practicable, and
 - b. CTDOT should describe alternative service and/or fares available to low income customers.

Section VI: Adverse Effects

As per the guidance, the CTDOT will analyze adverse effects related to major service changes, and pay attention to the fact that the elimination of a route will likely have a greater adverse effect than a reduced frequency (headway change) in service.

The CTDOT will analyze the difference between the existing and proposed service, and consider the degree of the adverse effects when planning service changes.

Title VI Future Fare and Service Equity Analyses

The Connecticut Department of Transportation (CTDOT) will conduct equity analyses whenever fare changes and/or major service changes, defined by the SAFE Policy, are planned. Equity analyses will be conducted prior to notifying the public of the proposed change regardless of whether the changes will cause positive or negative impacts to riders.

CTDOT will utilize a four step process as detailed below:

- 1) CTDOT will develop the narrative of fare and/or service changes. These narratives are prepared as part of the normal service review process and analysis of proposed changes, or as part of the financial analysis package for a fare increase that is done as part of the budgeting process.
- 2) CTDOT will analyze the proposed major service and/or fare changes and to determine if the change falls under CTDOT's adverse effects definition provided in the SAFE Policies. If it is determined a disparate impact or disproportionate burden exists, based on the established thresholds of the SAFE Policies, we will examine whether alternatives exist to maintain the effect of the service and/or fare change, while taking steps to avoid, minimize, or mitigate impacts where practicable. Should an alternative not be present that avoids, minimizes, or mitigates the disparate impact or disproportionate burden to the minority/low-income populations an explanation and justification of the proposed changes will be prepared to present at the public hearings.
- 3) CTDOT will conduct a comprehensive community outreach process, to afford the public with opportunities to provide input, alternatives, or request clarification prior to the adoption of major service changes that may result in a disparate impact or disproportionate burden, and, in accordance with long-standing practice, any fare level or structure change regardless of if there is a determination of disparate impact or disproportionate burden.

A Connecticut Department of Transportation news release announcing the public hearings with the dates and locations of each hearing will be posted to the CTDOT website at least two weeks prior to the public hearings. In addition, legal notices will be published in newspapers. Interior notices regarding the public hearings and the opportunity for public comment will be placed on board buses and at New Haven Line rail stations and the Shore Line East rail stations as appropriate for the changes proposed.

To ensure sufficient public participation from minority and low-income communities the Department will conduct outreach to Community Based Organizations (CBOs) and Faith Based Organizations (FBOs). This will involve emailing all CBOs and FBOs within the affected service areas (for statewide service

changes and fare changes, all CBOs and FBOs in the Department's database will be contacted) with the public hearing information and a copy of the news release. The email announcement will include details on how their members can request language assistance at the hearings and the date by which it should be requested to allow CTDOT sufficient time to make the necessary arrangements for the hearings. The Department will also refer to the LEP and Safe Harbor maps and include information, in the safe harbor languages identified in the targeted service area(s), on how to request interpretation and translation services of documents describing the proposed changes and the SAFE analysis conducted for the proposed changes.

In addition to contacting the CBOs and FBOs the Department will provide this information to all Regional Planning Organizations (RPOs). During the two weeks leading up to the public hearings, the Department will periodically send reminders and any updates to all CBOs, FBOs and RPOs.

These notices are considered to be vital documents and CTDOT will adhere to its Language Assistance Plan to ensure that Limited English Proficient (LEP) populations within the affected service area(s) are informed of the proposed service or fare changes and can participate in community discussions. CTDOT will refer to the LEP and Safe Harbor maps to determine what languages should be considered when written materials are produced. Documents detailing the proposed changes will be translated into identified LEP languages including Safe Harbor languages that are requested in response to the notices announcing the hearings.

During the hearing the Department will explain the purpose of the hearing and the proposed changes. CTDOT will discuss strategies used to minimize and mitigate any disparate impacts or disproportionate burdens found during the analyses (should any exist). The moderator will open the hearings to provide the public with the opportunity to ask questions and make comments. All questions and comments pertaining to the proposed changes will be documented and addressed as appropriate for the final hearing record.

After all scheduled public hearings have been held, a final email will be sent to CBOs, FBOs, RPOs, and individuals who provided an email on the public hearing sign in sheet, thanking those who attended and providing details on how to submit comments during the comment period for those who were unable to attend or unable to provide comments during the hearings.

4) CTDOT will review all comments and feedback received during the public hearings and make any necessary revisions to the proposed changes. If the major service changes and/or fare changes must be implemented, despite disparate impacts or disproportionate burdens, the Department will demonstrate that it has a substantial legitimate justification and has analyzed the alternatives to determine that the proposed service and/or fare changes have had their impacts minimized to the extent possible.

Bus

CTDOT has a prescribed process for any proposed service and fare change. That process includes providing opportunities for public input via public hearings in each affected service area, and an internal

approval process whereby the recommendations are presented to the commissioner for advice and approval.

Please refer to the Connecticut Department of Transportation Title VI Fare and Service Equity Analysis – CT Transit State Fiscal Year 2014 Fare Increase Process in the attachments below:

Fare and Service Change Equity Analysis ([see Attachment 14](#))

2011 Bus Rider Demographic Survey ([see Attachment 15](#))

Fare Adjustment Notice of Intent 2013 ([see Attachment 16](#))

Proposed Bus fare Increase 2013 ([see Attachment 17](#))

2014 Bus Fare Increase News Release ([see Attachment 18](#))

Final Bus Fare Increases ([see Attachment 19](#))

Express Bus Survey ([see Attachment 20](#))

CTDOT Public Hearings on Bus Fare Increases ([see Attachment 21](#))

Rail

Additionally, please find the CTDOT – Rail Fare Increase Summary, Customer Travel Satisfaction Survey, and Fare Tables below:

CTDOT Fare Increase Staff Summary ([see Attachment 22](#))

Analysis of Customer Travel Satisfaction Survey – Metro North ([see Attachment 23](#))

Table 1 – NH Line GCT Station Fares ([see Attachment 24](#))

Table 2-7 – NH Line Intermediate Station Fares ([see Attachment 25 A-F](#))

2012 Shoreline East Customer Satisfaction Survey – Final Report ([see Attachment 26](#))

2012 Shoreline East Survey Analysis ([see Attachment 27](#))

2015-2018 Fare Equity Analysis ([see Attachment 28](#))

Requirements of the States

The Department compiled the Demographic Maps that show the impacts of the distribution of State and Federal funds in the aggregate for public transportation projects.

The following will provide the basis on how the information was derived:

Methodology

Charts

To compile this information we first developed geospatial service areas within our ESRI desktop GIS for each of the projects. Once the service areas were completed, we ran a spatial overlay of these against the 2010 Census Tract data in GIS to determine the Total and Total Minority Populations and Percent Minority for each of the service areas. We then added this information into the listing of Bus and Rail Projects.

Mapping

Bus and Rail Projects will be provided on two separate maps. The mapping reflects the derived 35 Bus and 8 Rail service areas accordingly which have been developed from the initial 70 Bus and 15 Rail Projects. These were overlaid on the Minority Population data by Census Tract.

The maps and charts may be viewed at the following:

Maps: <http://www.ct.gov/dot/cwp/view.asp?a=3529&q=542290> – the maps have been posted into Team under (2014 CTDOT FTA Title VI Maps)

Charts: <http://www.ct.gov/dot/cwp/view.asp?a=3529&q=542258> – the charts have been posted into Team under (2014 CTDOT FTA Title VI Charts)

Analysis

According to the guidance provided in FTA C 4702.1B, the Department conducted a review of the maps and charts to determine any impacts identified in the maps and charts on the distribution of state and federal funds for public transportation projects, especially for the state-managed programs of sections 5310, 5311, 5316 and 5317.

The Section 5310 grant program provides vehicle grants to non-profit agencies or municipalities to meet transportation needs to the elderly and persons with disabilities when public transportation service is unavailable, insufficient, or inappropriate to meeting their needs. Overlays of the minority and non-minority maps with the bus service areas show a high correlation between Title VI populations and the presence of public transit. However, by its nature, the 5310 program will be serving areas where public transit is less intensive. Therefore, Section 5310 grant awards tend to be in areas where there is a lower level of per capita public transit service hours as well as areas where the proportion of minority populations is lower. Given that observation, the 5310 grant awards do not indicate equitable distribution of program benefits to the minority population, and cannot due to the program eligibility

requirements. However, all agencies serving all population groups who are seeking and being awarded grants have equal access to the program and must comply with all equal access requirements and must report on usage by potential target populations as will be described below.

Similarly, the Section 5311 program has certain requirements that limit its ability to be well-matched against distributions of minority populations. There are pockets of minority populations in many of the non-urbanized areas. And according to the maps those are the areas where the highest intensity of rural or non-urbanized service is provided. However, a fair share of the benefit of the Section 5311 program goes to non-minority areas that cover large portions of the map, but have relatively lower population densities. Again the disparity of benefits between the services and the minority population maps are a factor of the program requirements that the funds can only be expended in non-urbanized areas that tend to have less minority population.

The former Section 5316 program – New Freedoms – is limited to services that fill in mobility gaps for people with disabilities. There is not a direct correlation between disabilities and minority or non-minority status. Further, given the requirement that the funds are apportioned between large urban, small urban and non-urban areas, the program requirements create certain disparities between program benefits and the distribution of minority populations.

The former Section 5317 program – Job Access and Reverse Commute – also has very strict program rules for eligibility. The program is oriented towards low-income populations which have a reasonably strong correlation with minority population distribution. Also, since minority populations tend to be in urban areas with existing transit services and the funds are used largely to supplement existing transit, there is a strong correlation between spending and minority population. As with Section 5316, funds are apportioned to large urban, small urban, and non-urban areas, which tends to weaken the correlation with minority populations.

Based upon the above analysis, the Department finds that while there are disparate impacts for the beneficiaries of the state-managed programs, there were no disparate impacts identified on the basis of race, color, or national origin that would require further justification for the impact on the transportation projects identified in the review.

The Department's response to the procedures the State uses to provide assistance to potential subrecipients applying for funding, including its efforts to assist applicants that would serve predominately minority populations, is as follows:

Program Administration – State-Managed Programs

The Connecticut Department of Transportation (the Department or CTDOT), as the agency designated to apply for, receive, and administer FTA funds, makes federal funds available for the development, implementation, and promotion of public transportation systems through an application process for each of the statewide federal programs – Sections 5310, 5311, 5316 and 5317. CTDOT developed State Management Plans for each of the four separate state-managed programs. The Plans include the process for outreach, filing applications, technical assistance and program monitoring. The Department

passes through funds without regard to race, color, or national origin and minority populations are not being denied the benefits of or excluded from participation in these programs.

FTA Circular 9040.1F permits CTDOT to retain up to 15 percent of the state's fiscal year apportionment of 5311 program funding for state administration, planning and technical assistance. FTA Circular 9070.1F permits CTDOT to retain up to 10 percent of the state's fiscal year apportionment of 5310 program funding for state administration, planning and technical assistance.

CTDOT uses these funds for staff, support costs associated with managing the grant programs, and to provide technical assistance. Examples of assistance include:

- Conducting site visits and desk reviews.
- Meeting with the staff of providers and applicants to clarify requirements.
- Obtaining and updating the required assurances and documentation.
- Developing grant application to FTA.
- Developing and monitoring the grant agreements with grantees
- Preparing required reports to FTA.
- Providing technical assistance.
- Updating the State Management Plan.
- Legal advertisements and room rental costs for applicant workshops.
- Conducting requests for proposals.

Generally, the applications and the instructions for these programs guide and assist eligible subrecipients in applying for operating, administrative, capital, and/or training assistance under the federal programs. The information provided by the applicant is used by CTDOT to evaluate, approve and prioritize proposed projects, and to incorporate them in CTDOT's applications to FTA for funding.

In this section, each of the four targeted statewide programs will be presented separately since they each have certain individualized features for how their projects are competitively selected, how program criteria are designed and prioritized in the selection of successful applicants, the methods by which technical assistance is provided to potential applicants and subrecipients, and the degree to which programs and applicants are assessed for addressing low-income and minority populations.

General Requirement: Technical Assistance

The following describes generally how technical assistance is provided to potential applicants. The types of technical assistance requests can vary for the different programs, and different mechanisms are followed for the different grant programs. They can be found in the existing State Management Plans for each program.

All application documents for all programs are made available at the Office of Transit and Ridesharing (OTR), on the Department's website and at the State of Connecticut Department of Administrative Services (DAS) website.

The OTR staff for program management, operational, planning, and financial specialists is readily available to provide a wide range of technical assistance to applicants and eligible subrecipients. Each federal program manager at OTR is readily available to address questions regarding the specifics of each program; the contents of each program application process; and requests for technical assistance. Additionally, the OTR draws upon other resources within the Department as well as contracted professional services, to provide technical assistance in such areas as legal, purchasing, accounting, auditing, training and civil rights.

The mechanism for requesting technical assistance is specified clearly in both the plan and the applications for each separate program. All parties who participate in the distribution of the applications to various members of the community are knowledgeable of the resources available for technical assistance, and provide information to those entities needing assistance. Any technical assistance is provided in compliance with the Department's LEP Implementation Plan. Each program has a targeted outreach plan in the combined plan laying out the process by which the Department can have some assurance it is reaching out to the complete pool of traditional and non-traditional applicants in order to assure that low-income and minority populations have access to the program's benefits.

Section 5310 - Elderly Individuals and Individuals with Disabilities Program

The Section 5310 grant program provides vehicle grants to non-profit agencies or municipalities to provide transportation needs to the elderly and persons with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting their needs. The annual application process begins in fall of each year, with award announcements made in the spring. The application document is updated every year and prior year applications are not accepted. The applications must be received by both the Connecticut Department of Transportation and the Regional Planning Organizations by the date of the deadline. Applicants must publish a public notice in a major newspaper on two occasions, one week apart.

Applicants will be notified of grant approval/denial in writing.

CTDOT maintains a record of all requests for Elderly Individuals and Individuals with Disabilities, Rural and Small Urban Area formula Funding, JARC and New Freedom funding. The record identifies applicants that use grant program funds` to provide assistance to minority populations and low-income populations. The record also identifies which applications were funded and those that were not funded.

Application Process – The annual application process is conducted in cooperation with Regional Planning Organizations (RPOs) throughout the state. The Department sends the annual application to each RPO who, in turn, distributes applications to known human service agencies and municipalities in their geographic area. The RPOs provide the initial outreach, but the Department and the RPOs work with potential applicants as the application process proceeds.

The RPOs, most of whom also have metropolitan planning responsibilities and therefore Title VI pass-through responsibilities under the statewide metropolitan planning program (see section XIV) are knowledgeable of the local human service agencies who are the targeted subrecipients of 5310 grants.

The RPOs reach out to many localized agencies and are familiar with the needs of Title VI and Environmental Justice communities in their service area. Still, as part of their responsibility, the RPOs must submit an analysis of their outreach effort and must provide the first tier of technical assistance to potential applicants. As indicated above, while the CTDOT staff is a resource for all the technical assistance, the RPOs are the most local and most accessible resource in the first instance.

At the request of a potential applicant, the Department also goes over any section of the application prior to submittal to make sure the proposer understands what is required.

Both the RPO and the Department must receive a complete copy of the application by the deadline. The RPOs and the Department separately review each application to ensure that all required documentation has been submitted. The RPO notifies applicants of any pending issues that require resolution before the application can be reviewed.

Competitive Selection Process

The CTDOT provides their process for the pass-through of Federal Transit Administration (FTA) funds under the Transportation for Elderly Individuals and Individuals with Disabilities, Rural and Small Urban Area Formula Funding, JARC and New Freedom grant programs without regard to race, color, or national origin and that minority populations are not being denied the benefits of or excluded from participation in these programs.

A description of the Department's competitive selection process is submitted to FTA as part of the grant application process and was developed to ensure the equitable distribution of funds to subrecipients that serve predominately minority and low-income populations, including CTDOT's Native American tribes.

The applications are reviewed separately by the local RPOs and DOT each using the same point scale to rate the effectiveness of the applicant in filling gaps (unmet needs) in transportation for the target populations of seniors and people with disabilities. The RPOs submit their list to DOT, and the two lists are compared. Discrepancies in scoring are discussed and reconciled between the RPOs and the Department. Then a single list is prepared which contains all the regions with one prioritized statewide awards list.

The Department also provides a description of the criteria used for selecting service providers to participate in any FTA grant program.

Demographic Information Collected – To ensure compliance with U.S. Department of Transportation (DOT) civil rights regulations (49 CFR part 21), and the DOT Order on Environmental Justice, FTA requires grantees to document that they distribute FTA funds without regard to race, color, or national origin (FTA C 4702.1B).

Applications for Section 5310 funding require the applicant to supply the following data:

Estimate the number of individuals in the following groups to receive service:

	Black
	Asian/Pacific Islander
	Hispanic
	American Indian/Alaskan Native
	Other

Depending on the type of project, it may be based on actual client records or it may be estimated based on census data for the service area.

For future applications, applicants are now requested to provide more detail regarding the data source being used to capture this demographic information (for example, is it based on the current client base; based on Census data for their service area; or some other source?)

The demographic information submitted as part of the application is also used to determine whether the minority and low-income populations are being reached. If not, additional outreach is required in order to reach those populations. The Department then makes more targeted efforts to identify and assist organizations that serve the minority and low-income populations.

For example, is there a significant population of older adults whose race is Alaskan Native in an area? Is there an organization that serves that population? Have they applied for funding from the 5310 program? Have they been turned down for 5310 funding? Is there assistance the Department can provide to make it possible for them to competitively compete for or receive those grant funds?

Technical Assistance – Applicants and potential applicants can receive assistance from their local RPO or by calling the Department’s 5310 program manager. Those avenues of information exchange and assistance are made clear in the application and included as an opportunity in the on-line postings of the proposal solicitations.

Program Monitoring – As indicated in the Section 5310 State Management Plan, ridership demographics and race/ethnic data is part of the routine project monitoring and quarterly reporting. Part of the routine site visits made by Department staff to 5310 subrecipients also includes reviewing rider demographic reports.

Program Management Changes since the Last Program Submittal to Enhance Title VI Efforts - The Department has made the following changes to its oversight of the 5310 State Management Plan in order to improve the Title VI effectiveness of the 5310 program.

Annual Application and Evaluation Process

- To enhance outreach to agencies that serve Title VI populations, the Department has delegated an additional mandate to the RPOs to assure that their distribution of applications and other program outreach fully encompasses agencies and organizations that serve Title VI populations.
- To ensure better coverage of program services to Title VI populations, the Department has also delegated to the RPOs an assessment of the representativeness of the applicants compared to

the Title VI demographics of their region, and an assessment of the validity of the demographic data submittals of the applicants.

- The Department has enhanced its review of applications to verify the RPOs' review and assessment of the aforementioned Title VI issues of outreach and coverage.
- The portion of the application that refers to technical assistance has been enhanced in accordance with the agency's intent to provide more real-time assistance to applicants requiring assistance, and to enforce accurate completion of the sections of the application that specify demographic data.
- CTDOT will provide annual notices of the availability of funding to all known transit operators, including Indian Tribes, minority organizations and low-income serving organizations.

Section 5311 – Formula Grants for Other than Urbanized Areas

The Federal Transit Administration (FTA) Section 5311 program makes federal funds available to the states to assist in the development, implementation and promotion of public transportation systems in rural and small urban areas, using a population based distribution formula. The goal of the program is to:

- Enhance the access of people in non-urbanized areas to health care, shopping, education, employment, public services and recreation.
- Assist in the maintenance, development, improvement, and use of public transportation systems in non-urbanized areas.
- Encourage and facilitate the most efficient use of all transportation funds used to provide passenger transportation in non-urbanized areas through the coordination of programs and services.
- Assist in the development and support of intercity bus transportation.
- Provide for the participation of private transportation providers in non-urbanized transportation.

The State Management Plan (SMP) has been prepared to incorporate policy changes in the administration of the Section 5311 program due to the issuance of FTA Circular 9040.1F which incorporates provisions of the Safe, Accountable, Flexible, Efficient, Transportation Equity Act. Please refer to the link below for the State Management Plan – Section 5311 ([see Attachment 29](#)).

Application and Evaluation Process – Starting in July 2012, every four years, CTDOT sends a letter to 5311 subrecipients about their obligation to submit a Three Year Grant Application. Before the submittal due date, CTDOT sends an email reminder and follows up with phone calls to subrecipients to answer any questions about application process.

Upon receipt of applications, CTDOT reviews each application to ensure that the application has been completed correctly and the required documentation has been submitted.

Technical Assistance - Subrecipients are notified of and are required to address any outstanding or pending issues with their application as determined by CTDOT. Subrecipients are again made aware that

technical assistance is always available from CTDOT. CTDOT also offers to meet with the subrecipients to go over their application to make sure they understand what is required and to avoid any unnecessary delays.

Upon completion and satisfaction of CTDOT's review, an approval letter is mailed to the subrecipients.

For over three decades CTDOT has provided Section 5311 operating and capital funding to five (5) rural transit districts. On an annual basis CTDOT seeks proposals from Intercity Bus Service providers as required by the Circular 9040.1F. The Department does not limit which rural areas may submit proposals for rural demonstration project funding. Top priority for the expenditure of Section 5311 funding has been the continuation of existing rural transit services. If increased funding levels were to be provided, that would clearly allow for the development of a new project in which case applications would be solicited, received and reviewed by CTDOT for feasibility of implementation.

Details on the application process and format can be found in CHAPTER 9.0: ANNUAL PROGRAM OF PROJECTS DEVELOPMENT AND APPROVAL PROCESS of the Section 5311 Connecticut State Management Plan dated August 2010.

Demographic Information Collected – In the Three Year Applications for funding under 5311 Program, applicants are required to describe their service area including demographic data e.g. provide the percentage of minorities, low income or elderly population. Demographic information is used to determine which rural service areas include populations which are in most need of public transportation (e.g. low income, elderly).

Monitoring – CTDOT currently conducts a Transit System Audit of its Section 5311 subrecipients on a triennial basis. The audit consists of the completion of a questionnaire, an on-site visit in which follow-up questions are asked, the review of pertinent documentation (i.e., policies), and riding the transit service(s) including a bus ride checklist. A final report is prepared and issued to the subrecipient noting any findings, with the required submission of a corrective action plan addressing each finding to bring the subrecipient into compliance. In the process of Transit System Audits, the Subrecipients are also required to provide their Limited English Proficiency (LEP) Plan which requires them to perform four factor analyses. Other Title VI related information is also verified during Transit System Audits and includes, but is not limited to: EEO postings; the subrecipient's Title VI Plan; Title VI Complaint Procedures; Title VI postings on the schedules and on the vehicles visible to the passengers; and what efforts are made to hire DBE firms.

A detailed review of the Transit System Audits and the Subrecipient's Questionnaire can be found in CHAPTER 20.0: TRANSIT SYSTEM AUDIT and ex E- TRANSIT SYSTEM AUDIT QUESTIONNAIRE of the Section 5311 Connecticut State Management Plan dated August 2010.

Also, CTDOT must have on file the following Title VI general reporting information from Section 5311 subrecipients:

1. A concise description of any lawsuits or complaints alleging discrimination under Title VI in service delivery filed against the subrecipients within the past year.
2. A statement of the status or outcome of each lawsuit or complaint.

3. A summary of all civil rights compliance review activities conducted by the subrecipient in the last year. The summary should include:

- The purpose or reason for the review.
- The organization conducting the review (i.e. a city civil rights office, MPO, or consultant).
- A summary of the findings and recommendations of the review.
- A report on the status or disposition of findings.

4. An analysis of any environmental and/or socio-economic impacts as the result of proposed construction projects, including the impact on minority and low-income communities. This information is required only for those projects which do not qualify as a categorical exclusion in the environmental process.

In addition, applicants for Section 5311 funding are required to comply with relevant equal employment opportunity requirements. CTDOT is responsible for maintaining the information submitted by applicants and assuring FTA that all applicants have met the EEO requirements, as detailed in FTA Circular 4704.1, prior to receipt of Section 5311 funds.

If applicable, applicants with fifty (50) or more mass transit related employees which have received federal capital or operating assistance grants, or any combination thereof, of \$1,000,000 or more in the previous Federal Fiscal Year, will be required to submit to CTDOT an EEO program consistent with the criteria set forth in FTA Circular 4704.1.

All Section 5311 applicants must adhere to the requirements as specified in the U.S. Department of Transportation's Disadvantaged Business Enterprise (DBE) regulations set forth in 49 CFR part 26 'Disadvantage Business Enterprise'. Subrecipients must submit to CTDOT a DBE program and set DBE goals. DBE goals are monitored continually by CTDOT from the application phase through project close-out. Subrecipients report to CTDOT semiannually on DBE contracting activities.

In the future CTDOT plans to perform Transit System Audits on a more frequent interval than three years. Also, more detailed demographic data will be required to be provided by the subrecipients in their three year grant applications including source of information.

Technical Assistance - Every Section 5311 Subrecipient receives a Connecticut Section 5311 State Management Plan (see Attachment 29) every time it gets is updated. In addition, the State Management Plan is available for download on CTDOT's website at:

<http://www.ct.gov/dot/cwp/view.asp?a=1386&q=464108>

Also, anyone interested in this program can receive a copy upon request. CTDOT staff provides technical assistance to its Section 5311 subrecipients by communicating daily via phone, e-mails, correspondence, facilitating quarterly transit meetings, scheduling meetings to discuss specific subject matter, and performing triennial transit system audits. Technical assistance is also provided to Section 5311 subrecipients via notification of upcoming training courses, workshops, and webinars which subrecipient are encouraged to participate in. Also 5311 Subrecipients are invited to attend Title VI

courses facilitated by the CTDOT's Title VI Coordinator. The Transit System Audit Report also can indicate which areas (including Title VI) require improvement and can provide the actual federal regulations which the subrecipient can refer to in order to be compliant.

Section 5316 (Job Access and Reverse Commute) and Section 5317 (New Freedom)

In Connecticut, the job access (JARC) program for transportation for low- income workers has been in operation since 1999 using FTA funds and has been managed by CTDOT. Five regional partnerships support the JARC program. Each has developed a program of services specific to the region's needs and resources. This effort requires a broad partnership of involved parties to identify existing transportation services, where the jobs were located and where low-income workers reside.

The Connecticut Department of Social Services (DSS) and CTDOT work together with the regional facilitators to increase transportation resources for low-income workers. DSS contracts with Transportation to Work (TTW) coordinators, one in each of five regions. These coordinators subcontract with transportation providers within their regions to provide access to jobs for people receiving Temporary Assistance to Needy Families (TANF) or that are eligible for TANF.

The SAFETEA-LU transportation authorization created the New Freedom program which is targeted to improving transportation services beyond the ADA mandates for people with disabilities. The delivery and administration of the New Freedom program was effectively merged into the Job Access program taking advantage of the pre-existing regional facilitation. This also enabled the Job Access and New Freedom programs to effectively address the SAFETEA-LU requirements for the preparation of a Locally Coordinated Public Transit Human Service Agency Transportation Plan.

Public Participation – The TTW coordinator in each region invites relevant partners to the table for its regular meetings to plan and discuss services and policies, and review operations and budgets for the transportation services offered. Although the exact makeup varies by region, meetings are attended by regional planning organizations, DSS, CTDOT, and the Department of Labor, job developers, case workers, employers, workforce investment boards, and other local human service agencies. The mix of partners can also vary due to the dual goals of the two programs of the JARC program's mission of providing access to jobs for low-income workers and New Freedom's mission of providing access to all services for people with disabilities. Slightly different partners may be present at 5317-specific planning and monitoring meetings due to the somewhat different demographic, but all of the front-line outreach and technical assistance is provided by the regional facilitators. The regional facilitators provide hands-on assistance for agencies with unmet transportation needs and targeted technical assistance in meeting program requirements for applicants interested in accessing the JARC funding. The facilitators assess transportation gaps as they impact eligible clients, so there is a level of planning and needs assessment they perform. They also market services to potential job seekers and to employers by providing information material and training sessions to agencies and organizations serving clients in their service delivery area. They develop and distribute brochures, information fliers, posters, and transportation schedules. The contractors are also responsible for all of the financial and programmatic reporting and evaluation requirements.

Application Process – Every two years a combined solicitation for project proposals is conducted for the Section 5316 Job Access and Section 5317 New Freedom programs. The grant applications are distributed to all known parties as well as being made available on the CTDOT website and the Department of Administrative Services website. The regional facilitators also notify eligible local entities of funding availability and determine applicant eligibility. In accordance with SAFETEA-LU, all program funding for these two programs, as well as the 5310 program, must be derived from the Locally Coordinated Public Transit Human Services Transportation Plans. Funding availability is specified by region using the urbanized and non-urbanized area funding apportionments from FTA. The Job Access program requires a non-federal match but those matching funds are provided by the state funding in the program. New Freedom project requests also require a non-federal share but matching fund availability is not guaranteed by the state so applicants must have the resources to support the non-federal portion of their program budget.

The most recent project solicitation was issued in February 2011 with the goal of awarding grants in late 2011 and completion of agreements and start of service in early 2012.

Demographic Information Collected –

To ensure compliance with U.S. Department of Transportation (DOT) civil rights regulations (49 CFR part 21), and the DOT Order on Environmental Justice, FTA requires grantees to document that they distribute FTA funds without regard to race, color, and national origin (FTA C 4702.1A). Applications for Section 5316 and 5317 funding require applicants to supply the following data:

Estimate the number of individuals in the following groups to receive service:

	Black
	Asian/Pacific Islander
	Hispanic
	American Indian/Alaskan Native
	Other

Information on race is used to determine whether the target populations for the grant programs that also fall into those racial categories above are being reached by the grant programs. If not, additional outreach is required in order to reach those populations. The Department then makes more targeted efforts to identify and assist organizations that serve the target population for the program that also fall within the categories listed above.

Application Evaluation Process – Applications for assistance are reviewed by each region and prioritization is done regionally in order to be attentive to the varying needs by region and in order to address the nature of the apportionments by urbanized and on-urbanized areas by FTA. The following criteria are used to evaluate applications.

The proposed project must:

- Serve the target population categories and address an identified gap;
- Achieve efficiency in service delivery;
- Not replace other funding programs or resources. (If the strategy has been funded in prior years by a different resource, in order to be eligible for FTA funding programs, the strategy must have been rejected for future funds or had funding for the specific strategy reduced.);
- Be able to start up in a reasonable period of time;
- Provide regional/geographical equity (Each community should be able to share in the benefits from these funds.);
- Maximize the use of available local, state and federal-funded public transportation resources (This will allow efficient use of resources already in place and will prevent the creation of a secondary layer of services.);
- Be subcontracted with a subrecipient that has the technical and managerial capabilities to conduct the project;
- Have appropriate resources available to provide the service (This would include wheelchair accessible vehicles, and could possibly include resources such as dispatch capabilities or other resources as determined by the strategy); and
- Have an adequate plan to make the target population aware of the available service.

One of the primary evaluation criteria is the responsibility of the regional facilitators and the entire regional oversight body, is certifying that allocations of grants to subrecipients are distributed in a fair and equitable basis, in addition to meeting the overall mission of addressing the appropriate target populations for each program.

Technical Assistance – Applicants and potential applicants can receive assistance from the regional facilitator or the Department’s 5316/5317 Program Manager. Those avenues of information assistance are made clear in the application, and are included in the online postings of the proposal solicitations. In addition, regional planning organizations are very active in most of the region partnerships and take varying degrees of responsibility to reach out to potential applications and provide significant levels of assistance to same.

Program Monitoring – As indicated in the Section 5316 and 5317 State Management Plans, ridership demographics is part of the routine project monitoring and regular reporting. Each region has a monthly or bi-monthly meeting where performance of the many services provided under these two programs is monitored. This includes analyzing ridership and budget performance, as well as reviewing and assessing the funded services with regional goals and expectations and considering options when services fall below a level of performance and effectiveness.

In addition, with Job Access services, surveys are conducted in order to collect data on workforce participation, income levels, family size, etc. In recent surveys, additional questions have been added to try to gather better demographic information on Title VI and LEP issues in order to improve outreach to the community and assure that funds are reaching the target audiences and markets.

General Requirements - Program Monitoring

CTDOT has a separate monitoring program for its subrecipients under 5310, 5311, 5316 and 5317. While all subrecipients in these programs are subject to the monitoring and oversight for all subrecipients detailed above, the State Management Plans specify a particular additional layer of monitoring to assure compliance with the wide range of state and federal requirements. The complete Transit System Audit Questionnaire is available in the State Management Plans and covers all of the regulatory and programmatic requirements and the questions asked or observations made on site visits.

Immediately below is the series of questions relevant to Title VI and the broader Civil Rights requirements that are asked of each subrecipient in all oversight reviews and site visits for the state-managed programs.

VI. Civil Rights

- 1. Who is the individual responsible for coordinating and ensuring that Title VI Program requirements, Equal Employment Opportunity (EEO) requirements and Disadvantaged Business Enterprise Program (DBE) requirements are fulfilled by the subrecipient?*
- 2. Does the subrecipient have an approved Title VI Plan in place which includes the following documents;*
 - a) Title VI Policy Statement?*
 - b) Limited English Proficiency (LEP) Plan?*
 - c) Procedures for logging and investigating Title VI complaints?*
- 3. How does the subrecipient ensure persons with LEP have access to services?*
- 4. Does the subrecipient have Title VI notice with information on the protections afforded under Title VI, and how to file a complaint posted in areas readily accessible to your service users and the public?*
- 5. Is the subrecipient aware of Title VI Program reporting requirements? (Section 5311 subrecipients only) Please explain the requirements.*
- 6. How does the subrecipient ensure that its Equal Employment Opportunities (EEO) are fulfilled?*
- 7. What reasonable efforts are made by the subrecipient to ensure that Disadvantaged Business Enterprise (DBE) firms are afforded the opportunity to be hired in the award of federally funded contracts?*

Additional information on how CTDOT administers FTA federal programs can be found in each program's State Management Plan. Each State Management Plan is available at OTR or at CTDOT's website. Similarly, when the combined program is finalized, that plan will also be available on the website.

General Requirement – Pass-Through of Nondiscrimination Standard Language

The Department requires all subrecipients to agree to comply with all applicable civil rights statutes and implementing regulations including but not limited to Title VI requirements. The specific sections below

are included directly or by reference in all agreements and are the mechanism for passing through all applicable federal Civil Rights and Title VI requirements. CTDOT specific compliance tasks are also highlighted where appropriate.

a. Nondiscrimination in Federal Transit Programs. The recipient agrees to comply, and assures the compliance of each third party contractor at any tier and each subrecipient at any tier under the Project, with the provisions of 49 U.S.C. 5332. These provisions prohibit discrimination on the basis of race, color, creed, national origin, sex, or age, and prohibit discrimination in employment or business opportunity.

b. Nondiscrimination –Title VI. The recipient agrees to comply, and assures the compliance of each third party contractor and each subrecipient at any tier of the Project, with all of the following requirements under Title VI of the Civil Rights Act of 1964:

(1) Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), provides that no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance;

(2) U.S. DOT regulations, “Nondiscrimination in Federally-Assisted Programs of the Department of Transportation-Effectuation of Title VI of the Civil Rights Act,” 49 CFR part 21;

(3) The current FTA Circular 4702. “Nondiscrimination Guidelines for FTA Recipients.” This document provides recipients and subrecipients with guidance and instructions necessary to comply with DOT Title VI regulations (49 CFR part 21), the Department’s Order to Address Environmental Justice in Minority Populations and Low-Income Populations (62 FR 18377, Apr. 15, 1997), and U.S. DOT Policy Guidance Concerning Recipients’ Responsibilities to Limited English Proficient (LEP) Persons (70 FR 74087, December 14, 2005);

(4) U.S. DOT Order to Address Environmental Justice in Minority Populations and Income Populations. This Order describes the process that the Office of the Secretary of Transportation and each operating administration will use to incorporate environmental justice principles (as embodied in Executive Order 12898 on Environmental Justice) into existing programs, policies, and activities; and

(5) U.S. DOT Policy Guidance Concerning Recipients’ Responsibilities to Limited English Proficient (LEP) Persons. This guidance clarifies the responsibilities of recipients of Federal financial assistance from DOT and assists them in fulfilling their responsibilities to limited English proficient (LEP) persons, pursuant to Title VI of the Civil Rights Act of 1964 and implementing regulations.

c. Equal Employment Opportunity (EEO) Compliance. The recipient agrees to comply, and assures the compliance of each third party contractor and each subrecipient at any tier of the Project, with all equal employment opportunity EEO requirements of Title VII of the Civil Rights Act of 1964, as amended (42 U.S.C.2000e), and 49 U.S.C. 5332 and any implementing requirements FTA may issue.

d. Nondiscrimination on the Basis of Sex. The recipient agrees to comply with all applicable requirements of Title IX of the Education Amendments of 1972, as amended, (20 U.S.C. 1681 et. seq.), with

implementing DOT regulations, “Nondiscrimination on the Basis of Sex in Education Programs or Activities Receiving Federal Financial Assistance,” 49CFR part 25, and with any implementing directives that DOT or FTA may promulgate, which prohibit discrimination on the basis of sex.

e. Nondiscrimination on the Basis of Age. The recipient agrees to comply with all applicable requirements of the Age Discrimination Act of 1975, as amended (42 U.S.C. 6101 et seq.), and implementing regulations, which prohibit employment and other discrimination against individuals on the basis of age.

f. Nondiscrimination on the Basis of Disability. The recipient agrees to comply, and assures the compliance of each third party contractor and each subrecipient at any tier of the project, with the applicable laws and regulations, discussed below, for nondiscrimination on the basis of disability.

(1) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), prohibits discrimination on the basis of disability by recipients of Federal financial assistance.

(2) The Americans with Disabilities Act of 1990 (ADA), as amended (42 U.S.C. 1201 et. seq.), prohibits discrimination against qualified individuals with disabilities in all programs, activities, and services of public entities, as well as imposes specific requirements on public and private providers of public transportation.

(3) U.S. DOT regulations implementing Section 504 and the ADA include 49 CFR parts 27, 37, and 38. Among other provisions, the regulations specify accessibility requirements for the design and construction of new transportation facilities; require that vehicles acquired (with limited exceptions) be accessible to and usable by individuals with disabilities, including individuals using wheelchairs; require public entities, including a private non-profit entity “standing in the shoes” of the State as a subrecipient providing fixed-route service, to provide complementary paratransit service to individuals with disabilities who cannot use the fixed- route service; and include service requirements intended to ensure that individuals with disabilities are afforded equal opportunity to use transportation systems.

(4) Recipients of any FTA funds should be aware that they also have responsibilities under Titles I, II, III, IV, and V of the ADA in the areas of employment, public services, public accommodations, telecommunications, and other provisions, many of which are subject to regulations issued by other Federal agencies.

Appendix A

Service Area Maps	
New Haven Rail Line (MNR) Service Area	LEP Attachment 1
New Haven Rail Line (MNR) Service Area LEP	LEP Attachment 2
New Haven Rail Line (MNR) Safe Harbor Spanish	LEP Attachment 3
New Haven Rail Line (MNR) Safe Harbor Polish	LEP Attachment 4
New Haven Rail Line (MNR) Safe Harbor (Other Languages)	LEP Attachment 5
New Haven - Springfield Rail Line Service Area	LEP Attachment 6
New Haven - Springfield Rail Line Service Area LEP	LEP Attachment 7
New Haven - Springfield Rail Line Safe Harbor Spanish	LEP Attachment 8
New Haven - Springfield Rail Line Safe Harbor Polish	LEP Attachment 9
New Haven - Springfield Rail Line Safe Harbor (Other Languages)	LEP Attachment 10
Shore Line East Rail Line Service Area	LEP Attachment 11
Shore Line East Rail Line Service Area LEP	LEP Attachment 12
Shore Line East Rail Line Service Safe Harbor Spanish	LEP Attachment 13
Shore Line East Rail Line Service Safe Harbor Polish	LEP Attachment 14
Shore Line East Rail Line Service Safe Harbor (Other Languages)	LEP Attachment 15
Hartford Division Bus Service Area	LEP Attachment 16
Hartford Division Bus Service Area LEP	LEP Attachment 17
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Hartford Division Bus Service Area Safe Harbor (Other Languages)	LEP Attachment 20
New Haven Division Bus Service Area	LEP Attachment 21
New Haven Division Bus Service Area LEP	LEP Attachment 22
New Haven Division Bus Service Area Safe Harbor Spanish	LEP Attachment 23
New Haven Division Bus Service Area Safe Harbor Polish	LEP Attachment 24
New Haven Division Bus Service Area Safe Harbor (Other Languages)	LEP Attachment 25
Stamford Division Bus Service Area	LEP Attachment 26
Stamford Division Bus Service Area LEP	LEP Attachment 27
Stamford Division Bus Service Area Safe Harbor Spanish	LEP Attachment 28
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Stamford Division Bus Service Area Safe Harbor (Other Languages)	LEP Attachment 30
Waterbury Division Bus Service Area	LEP Attachment 31
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Waterbury Division Bus Service Area Safe Harbor Spanish	LEP Attachment 33
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Meriden Wallingford Division Bus Service Area	LEP Attachment 41
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Windham Region Transit District Bus Service Area	LEP Attachment 46
Windham Region Transit District Bus Service Area LEP	LEP Attachment 47
Windham Region Transit District Bus Service Area Safe Harbor Spanish	LEP Attachment 48
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Windham Region Transit District Bus Service Area Safe Harbor (Other Languages)	LEP Attachment 50
Northwest Rural Transit District Bus Service Area	LEP Attachment 51
Northwest Rural Transit District Bus Service Area LEP	LEP Attachment 52
Northwest Rural Transit District Bus Service Area Safe Harbor Spanish	LEP Attachment 53
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Northeast Rural Transit District Elderly Disabled Bus Service Area	LEP Attachment 66
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Northeast Rural Transit District Elderly Disabled Bus Service Area Safe Harbor Spanish	LEP Attachment 68
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Statewide Maps	
Statewide LEP/ Safe Harbor Spanish	LEP Attachment 71
Statewide LEP/Safe Harbor Polish	LEP Attachment 72
Statewide LEP/Safe Harbor (Other Languages)	LEP Attachment 73

Service Area Charts	
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New Haven Rail Line (MNR) Service Area Safe Harbor	LEP Attachment 75
New Haven Springfield Rail Line Service Area LEP	LEP Attachment 76
New Haven Springfield Rail Line Service Area Safe Harbor	LEP Attachment 77
Shore Line East Rail Line LEP	LEP Attachment 78
Shore Line East Rail Line Safe Harbor	LEP Attachment 79
Hartford Division Bus Service Area LEP	LEP Attachment 80
Hartford Division Bus Service Area Safe Harbor	LEP Attachment 81
New Haven Division Bus Service Area LEP	LEP Attachment 82
New Haven Division Bus Service Area Safe Harbor	LEP Attachment 83

Stamford Division Bus Service Area LEP	LEP Attachment 84
Stamford Division Bus Service Area Safe Harbor	LEP Attachment 85
Waterbury Division Bus Service Area LEP	LEP Attachment 86
Waterbury Division Bus Service Area Safe Harbor	LEP Attachment 87
New Britain Bristol Division Bus Service Area LEP	LEP Attachment 88
New Britain Bristol Division Bus Service Area Safe Harbor	LEP Attachment 89
Meriden Wallingford Division Bus Service Area LEP	LEP Attachment 90
Meriden Wallingford Division Bus Service Area Safe Harbor	LEP Attachment 91
Windham Region Transit District Bus Service Area LEP	LEP Attachment 92
Windham Region Transit District Bus Service Area Safe Harbor	LEP Attachment 93
Northwest Rural Transit District Bus Service Area LEP	LEP Attachment 94
Northwest Rural Transit District Bus Service Area Safe Harbor	LEP Attachment 95
Estuary Rural Transit District Bus Service Area LEP	LEP Attachment 96
Estuary Rural Transit District Bus Service Area Safe Harbor	LEP Attachment 97
Northeast Rural Transit District Bus Service Area LEP	LEP Attachment 98
Northeast Rural Transit District Bus Service Area Safe Harbor	LEP Attachment 99
Northeast Rural Transit District Elderly Disabled Bus Service Area LEP	LEP Attachment 100
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Statewide Chart	
Statewide Safe Harbor	LEP Attachment 102