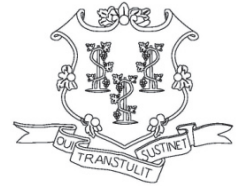




Connecticut Department of Transportation



Local Transportation Capital Improvement Program Application

Municipality:	COVENTRY	COG:	CAPITAL REGION
Route/Road:	SWAMP ROAD @ BOSTON TURNPIKE (CT RT 44)		
Project Title:	INTERSECTION IMPROVEMENTS		
Roadway Functional Classification (if applicable):	SWAMP ROAD : URBANIZED COLLECTOR ROAD		
COG Contact Information:	Ms. Jennifer Carrier	Dir. of Transport. Planning	
	Name		Title
	860-724-1274	jcarrier@crcog.org	
	Phone Number		Email
Municipal Contact Information:	Todd M. Penney, P. E.	Town Engineer	
	Name		Title
	860-742-4078	tpenney@coventryct.org	
	Phone Number		Email

The applicant must answer the questions below which are intended to address basic issues about existing conditions, project management, project costs, impacts on private property, utilities, wetlands, etc. **You may provide your answer in the space provided below or submit separate answer sheets. It is important that the application be as thorough as possible as missing information will delay the review process. All project-related sections must be completely filled out or the application will be returned and will require resubmittal.**

The intent of the application is to establish eligibility, service life, and to ensure the municipality is considering all pertinent aspects associated with major infrastructure improvements consistent with the purpose and need of the project.

(A) Project Information

1. Select the type of proposed improvement (select all that apply):

Please note: The entire application must be completed for all projects in addition to any necessary supplemental sections (K through P) as determined by the type of project.

- Roadway Geometric Improvement
- Stand-Alone Sidewalk Construction
- Bicycle/Pedestrian Improvement, including Multi-Use Trail Facilities
- Intersection Improvement

Provide additional information as required in section K

- Bridge Rehabilitation/Replacement

Provide additional information as required in section L

- Major Drainage Improvement

Provide additional information as required in section M

- Pavement Structure Improvement

Provide additional information as required in section N

- Traffic Signal Replacement/Upgrade/New Installation/Coordination

Provide additional information as required in section O

- Other (please specify): _____

Provide additional information as required in section P

2. Describe the purpose and need of the project (i.e what are the problems to be corrected?). Please provide adequate detail to clearly convey the nature of the problem(s) to be corrected. Provide photographs to document the existing conditions and support the purpose and need.

See attached Project Concept Report.

3. Provide a project description which specifically describes how the proposed improvements will correct the problem(s) identified in the purpose and need. Describe what alternative(s) were considered?

See attached Project Concept Report.

4. Provide concept plans of the proposed improvement. The plans must be sufficiently developed and provide enough detail on a scaled drawing (including aerial photography base mapping if possible) to identify the following:

Inc. N/A

- Project location
 - Limits of project
 - Approximate limits and extent of any pavement widening or realignment
 - Proposed number of lanes, widths, and arrangements
 - Approximate limits and extent of any anticipated ROW acquisitions (based on available ROW information from Assessors maps, GIS data, etc.)
 - Structures (i.e. Retaining walls, bridges)
 - Watercourses
 - Typical Cross Section including lane and shoulder widths, pavement structure, etc.
5. Have the improvements at this location been submitted to the Department previously for funding? No Yes

If yes, when and under what program?

6. Does the project impact any State-owned Facilities (i.e. roads, bridges, etc.)?
 No Yes

If yes, describe the impacts:

CT Route 44 (aka Boston Turnpike).

See attached Project Concept Report for detailed information.

7. In the area of the project, are there any known proposed developments?

No Yes

If yes, describe the proposed developments:

A Cumberland Farms Fueling and Convenience Store Application is currently being sought at the time of this application submittal.

8. Design Standards to be used:

Established municipal standards

AASHTO Policy on Geometric Design of Highways and Streets

Connecticut Department of Transportation Highway Design Manual

AASHTO LRFD Bridge Design Specifications and Connecticut Department of Transportation Bridge Design Manual

Other, please specify: _____

(B) Rights of Way

1. Are any Right of Way (ROW) impacts anticipated? No Yes

If yes, describe the nature, extent, and type of impacts:

See attached Right of Way Summary:

2. If ROW acquisitions will be required, who does the municipality plan to have perform acquisition activities?

Municipal staff Consultant hired by municipality State

3. If ROW acquisitions are to be performed by the municipality's staff or their consultant, will the municipality be seeking reimbursement for ROW costs?

No Yes

(C) Utilities

1. List all utilities within the project area, including their owners.

<u>Overhead</u>	<u>Underground</u>
Power - Eversource	None anticipated at this time.
Cable - Charter	
Telecommunications - Frontier	
Telecommunications - Level 3	

2. Are any utility impacts anticipated? No Yes

If yes, explain the nature and extent of the impacts:

One existing utility pole is in conflict with the reconfigured Swamp Road at Boston Turnpike. It is anticipated that only two new utility poles will be required to span the overheads for the new intersection location. Estimated Reimbursement would be \$20,000.

Note: Costs associated with utility betterments/upgrades that are not required to accommodate the proposed transportation improvement are not eligible project costs. +

3. Have the utility companies been contacted to identify any plans to expand or improve existing utilities that would that would compromise the service life of the proposed improvements?

No Yes

If yes, describe any proposed improvements and their schedule:

The utility companies will be notified upon notification of receipt of funding.

(D) Storm water drainage system and under drains

1. Do any existing storm water drainage problems exist? No Yes

If yes, describe the problem(s):

2. Is any storm water drainage system work anticipated, including any new or modified drainage outlets? No Yes

If yes, explain the nature and extent of the improvements:

Only minor structure improvements will be required as the approach road will be modified.

3. Are there any existing watercourse crossings that are proposed to be modified, rehabilitated, or replaced as part of the project? No Yes

If yes, indicate the type of improvement needed and the reason for it. Please also indicate if any existing watercourse crossings have inadequate hydraulic capacity:

(E) Rail Crossings

1. Are there any railroad crossings that are likely to be impacted as part of the project?

- No Yes
 At-grade
 Grade separated

If yes, describe impacts and any necessary modifications:

(F) Pedestrian/Bicycle Safety and Mobility

1. Complete and attach the Department's Bicycle and Pedestrian Needs Assessment Form to this application (a copy of this form is included in Appendix D). In accordance with Connecticut General Statutes, Section 13a – 153f, and the Department's focus on accommodating non-motorized travel modes, accommodation of all users shall be a routine part of the planning, design, construction, and operating activities of all highways. The need for inclusion of accommodations for bicyclists and pedestrians, including those with disabilities, must be reviewed for every project, regardless of funding source.

(G) Traffic

The information below needs to be provided or reviewed (as specified) by the designer for all project types except for stand-alone sidewalk projects and bicycle/pedestrian improvements, and multi-use trail facilities that do not involve pedestrian crossings

1. Volumes

Provide existing and 20-year Projected ADTs and Turning Volumes. Refer to the Preliminary Engineering/Preliminary Design section for guidance on traffic volumes.

2. Accident Experience

Provide a summary of accident experience (most current three years data. An accident diagram is preferred.)

3. Traffic Signals

Review the existing traffic signal plans for projects involving signalized intersections

4. Speed Data

Provide 85th percentile speeds in the project area

Provide all posted speed limits in the project area

(H) Environmental Resource Involvement

Refer to Application Process/Preliminary Project Submittals - Information Provided by the Department for more information.

1. Parks, Cemeteries, Historic Structures

- a. Are there any parks, cemeteries, or historic structures that are likely to be affected by the project? No Yes

If yes, describe the type and extent of the anticipated impact.

2. Wetlands

- a. Are there any wetlands that are likely to be affected by the project?

No Yes

If yes, describe the type and extent of the anticipated impact.

3. Hazardous or Contaminated Sites

- a. Has the potential for hazardous or contaminated sites and materials in the project area been investigated? No Yes

If yes, describe the type and extent of the anticipated impact.

(I) Public Involvement

Refer to Preliminary Engineering/Project Design - Public Involvement section for more information.

1. Has public involvement been conducted? No Yes

If yes, was there significant public opposition to the project? Describe below:

The Town is preparing a Public Involvement meeting concurrent to the submittal of this application.

(J) Cost Estimate

1. Attach a preliminary cost estimate identifying:
 - a. Approximate quantities and assumed unit prices of the major contract items
 - b. An allowance for minor items (percentage of a)
 - c. Standard lump sum items (i.e. clearing and grubbing, mobilization, construction staking, maintenance and protection of traffic) as applicable (percentages of a + b)
 - d. Total contract items (a + b + c)
 - e. Contingencies (10% of d)
 - f. Incidentals to construction, (i.e. construction inspection, materials testing) (10% of d)
 - g. Rights of way costs

- h. Eligible utility relocation costs (in accordance with CGS13a-98f)
Note: Costs associated with utility betterments/upgrades that are not required to accommodate the proposed transportation improvement are not eligible project costs
- i. Total project costs (d + e + f + g + h)

Sample cost estimate form provided in Appendix M

Refer to the Department's most current Cost Estimating Guidelines for cost estimate guidance or use town generated unit prices. The anticipated costs for each phase of the project shall be well documented and based on reasonable anticipated costs.

The guidelines are located at: <http://www.ct.gov/dot/cwp/view.asp?a=3194&q=484094>

ADDITIONAL INFORMATION TO BE PROVIDED BASED ON IMPROVEMENT TYPE SELECTED IN SECTION (A)1:

(K) Intersection Improvements

Capacity Analyses (For build and no-build conditions using existing and projected traffic volumes).*

(L) Bridge Rehabilitation/Replacement

Latest Condition Report

(M) Major Drainage Improvement

Material, Age, Hydraulic adequacy assessment of existing drainage system (Condition Report, post-cleaning is preferred)

(N) Pavement Structure Improvement

The level of investigation will be dependent upon the proposed improvements. Cores or test pits must be performed such that a representative sample of the existing roadway condition is obtained. If varying pavement conditions exist along the roadway indicating the possibility of different pavement conditions, a test pit should be performed in each roadway section. Pavement thickness and type, sub-base thickness and type, and the presence of fines and/or groundwater should be noted. Attach the data obtained. If full depth reconstruction is proposed, cores or test pits are not required.

Approximate percentage of heavy vehicles: _____

What is the existing pavement type, condition, and thickness?

The realignment will involve construction of a new road. The proposed cross section will be 6" HMA and 12" Subbase material on suitable subgrade.

(Cont'd)

What is the anticipated pavement design? Describe the type and depth of each course including the base that is suitable for the ADT and percentage of heavy vehicles. Does it meet current design standards? Describe the cross-section (i.e. lanes and shoulder widths, etc.).

Describe how the service life requirement for the proposed pavement design was determined:

The service life requirement for the proposed pavement design will be determined in design phase to confirm proposed cross-section.

(O) Traffic Signal Replacement/Upgrade/New Installation/Coordination

Who is/will be responsible for ownership, maintenance, and electrical costs

Age of existing signals

Capacity Analyses (For build and no-build conditions using existing and projected traffic volumes).*

Warrant Analysis for new signals

Systems Engineering Analysis Form (SEAFORM) for Intelligent Transportation Systems (ITS) projects

(P) Other

To be determined based on type of improvement proposed

***Capacity Analysis:** For the purposes of this application, a simplified analysis may be performed for signalized intersections that do not require detailed assumptions, proprietary software or specialized traffic engineering skills. The “Quick Estimation Method” is described in detail in the 2010 Highway Capacity Manual, with accompanying worksheets that can be completed by hand. A brief description of the method is also described in Section 3.3.6 of the FHWA Signal Timing Manual, where it is referred to as a “Critical Movement Analysis.” The relevant section of the FHWA publication can be accessed at: <http://ops.fhwa.dot.gov/publications/fhwahop08024/chapter3.htm#3.3>. This simplified analysis will yield an approximate critical volume/capacity ratio that can be used to assess overall operation of the intersection. The build and no-build conditions should be analyzed for the existing and projected traffic volumes.

APPLICATION SUBMISSION

This application and supporting documents must be submitted by the municipality to their COG. At such time when the application is to be forwarded to the Department of Transportation by the COG, it must be addressed to:

Mr. Hugh H. Hayward, P.E.
Department of Transportation
2800 Berlin Turnpike
P.O. Box 317546
Newington, CT 06131-7546

Prepared by: Todd M. Penney; Town Engineer Date: 5/22/18

Name, Title and stamp of Responsible P.E. (Municipal or Consultant)

Signature

(Stamp)

Reviewed/Recommended by: John A. Elsesser, Town Manager Date: 5/22/18

Name & Title of Municipal Chief Administrative Officer

Signature

Endorsed/Recommended by: Lyle Wray, Executive Director Date: _____

Name & Title of COG Executive Director

Signature