

Dublin



AERIAL PICTURE OF DUBLIN (from Fay Spofford Thorndike)

The Town of Dublin is a historic community (incorporated in 1771) in southwestern New Hampshire and has retained much of its historic and natural landscape over time. Main Street of Dublin is NH 101, a major east-west highway, which is part of the National Highway System (NHS) with an average daily traffic count of 6,800 vehicles per day. NH 101 changes from an open highway condition to a main street running through a built-up village area with little or no advance warning to drivers. This leads to conflict and safety concerns of the through traffic moving quickly through the village mixing with local traffic wanting to access the town facilities.

Over the years numerous attempts have been made on how best to address the safety concerns of traffic traveling through the village center. This project was intended to address the pedestrian safety.

Project Background

The Town of Dublin is planning to address problems of pedestrian safety and traffic speed along NH 101 in the Village District between Upper Jaffrey Road and East Harrisville Road. The Monadnock Traffic Calming Foundation (MTCF) secured funding

in the way of two projects one using earmark funds and the other using Transportation enhancement (TE) funds. This funding totaled \$510,000. In October 2005, the NHDOT met with the Selectmen to discuss the municipal management of the two projects. Shortly after, NHDOT was asked to assist the Town of Dublin in the planning effort portion of the project. At the time the NHDOT was just beginning a new approach to project development known as Context Sensitive Solutions (CSS) and was implementing CSS on a number of projects statewide. In March of 2006, the NHDOT approached the Town officials and offered this new approach, as it seemed to mirror the goals the Town had for its project. This project was identified as a potential CSS pilot project for the NHDOT and was added to the NHDOT's list of CSS pilot projects.

The public participation process for the planning portion of the Dublin project incorporated the principles of CSS. CSS is defined as "a collaborative interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility".

Project Stakeholders and Working Group Members

A CSS process requires open, honest, early and continuous communication. It engages all stakeholders, with an interest in the project, by providing an opportunity to contribute to the understanding of the landscape, community and valued resources as well as participation in identifying the solution(s). With assistance of the Dublin Town Officials, a list of stakeholder categories was developed to begin the CSS process. The following is a list of the stakeholder categories:

Board of Selectmen

Residential Abutters from Upper Jaffrey Road to East Harrisville Road

Dublin Police Department

Dublin Fire Department

Institutional Abutters

- Dublin School
- Dublin Consolidated School
- Dublin Community Church

Commercial Abutters

- AVA Restoration
- Yankee Publishing
- Dublin General Store
- Dublin Village Park

Planning Board

Zoning Board of Adjustment

Conservation Commission

Transportation Committee

Traffic Calming Foundation

Dublin Highway Department

Dublin Historical Society

NHDOT District 4

Towns of

- Marlborough
- Jaffrey
- Peterborough
- Harrisville

A list of names for each stakeholder category was developed, and was used as the basis for invitations to the public meetings. See Appendix A for the list of Stakeholder names.

In addition to the Stakeholders, a Working Group of approximately 25 volunteers was formed to serve in an advisory role, and comprised citizens, who live in the town and others who represent the school, church, and business interests in the area: along with town officials, the NHDOT and the Southwest Regional Planning Commission. The purpose of the Working Group was to provide a conduit to obtain input and facilitate the flow of information and ideas between the NHDOT and the community. The Town identified the Working Group members, and suggested additions to the group were made by the NHDOT. The working group meetings included the NHDOT project manager and NHDOT staff representing various disciplines, the consultant (Fay, Spofford & Thorndike) for the Monadnock Traffic Calming Foundation, and Kerrie Diers facilitated the meetings. A list of the Working Group members is shown in Figure 1.



Picture of a Working Group Meeting

Working Group Members

Name	Name of Organization	Address1	Town
M/M Andrew Porter	Resident	PO Box 344	Dublin
Andy Hungerford	Dublin School	PO Box 522	Dublin
M/M John Munn	Resident	PO Box 318	Dublin
Mike Caron or Judd Hale	Yankee Publishing	PO Box 520	Dublin
Mr. Alex Vogel	AVA Restoration	PO Box 46	Dublin
Heather Avery Stockwell	Resident	PO Box 211	Dublin
Hal Close or Bill Goodwin	Dublin Community Church	PO Box 308	Dublin
Katie Featherston	Dublin Consolidated School	1177 Main St.	Dublin
Rusty BASTedo or Paul Tuller	Dublin Historical Society	PO Box 415	Dublin
Ed Germain or Peter Imhoff	Planning Board	PO Box 1025	Dublin
William Barker	Zoning Board	PO Box 101	Dublin
Jack Lewis	Conservation Commission	PO Box 246	Dublin
Elisabeth Langby	Transportation Committee	PO Box 227	Dublin
Susan Peters	MTCF	PO Box 239	Dublin
Brian Barden	Road Agent	Box 277	Dublin
Adele Knight	Dublin Public Library	1114 Main St.	Dublin
NHDOT/District 4	Doug Graham		Swanzey
James Letourneau	Police Chief	Box 277	Dublin
Tom Vanderbilt	Fire Chief	PO Box 277	Dublin
Tim Murphy	SWRPC		
Carol Ogilvie	Town of Peterborough	1 Grove St.	Peterborough
Dublin Board of Selectmen	Dublin BOS		
Margaret Gurney	Resident		
Rosemary Mack	Resident		
Paul Waterman	Code Enforcement Officer		

Technical Assistance

Ram Maddali, NHDOT
 William Oldenburg, NHDOT
 Charles Willeke, NHDOT
 Craig Green, NHDOT
 Kerrie Diers, Nashua RPC
 Peter Howe, FST
 Kevin Gagne, FST

Figure 1. Dublin Working Group Members

CSS Steps and Project Schedule

The CSS steps used in this process included developing the problem statement, developing a vision statement, developing the screening criteria, brainstorming alternatives, rating the alternatives using the screening criteria, and reaching consensus on a preferred alternative.

The steps for the CSS project approach were developed, and a schedule for the steps was prepared. Figure 2. shows the Part A CSS steps and the schedule that was used.

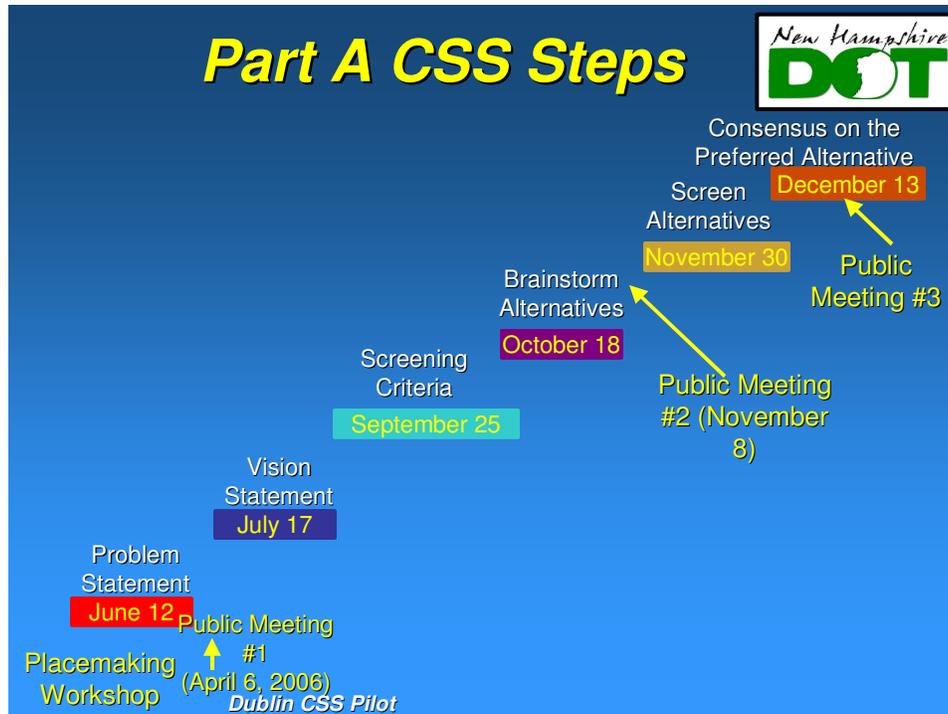


Figure 2. CSS Steps and Schedule

The CSS Process for the Planning Phase

The CSS process used to gather public input for the Dublin traffic calming and pedestrian safety project included a combination of public meetings with Stakeholders and Working Group meetings. The first public meeting (Placemaking Workshop) consisted of Stakeholders doing an evaluation of their community in the vicinity of the center of Town, to get an understanding of the context of the community and identify the problems that they were trying to address. The Working Group then held meetings to develop a Problem Statement for the project, a Vision Statement for the Town, Screening Criteria to rate the alternatives, and brainstormed conceptual alternatives. After the Working Group had finalized the Problem Statement, Vision Statement, drafted the Screening Criteria, and suggested conceptual alternatives and opportunities, a second public meeting was held to present the results to the Stakeholders for their input and suggestions. The

Working Group then reviewed the results of the second public meeting and rated the alternatives based on the screening criteria. A final public meeting was held to present the preferred alternative concept to the Stakeholders to get their input and make any final changes to the concept. The following is a summary of the CSS steps:

Placemaking Workshop

Placemaking is a way of determining the context of a location and identifying the problem to be solved by the project, and to understand the community vision for the town. Placemaking was done through an exercise called a Place Audit (see Appendix B), which was developed by Project for Public Space (PPS). “The Place Audit is intended to be used as a tool to evaluate how well streets and adjacent land uses are performing as Places, and identify opportunities for enhancing them in the future”. The Place Audit consists of going to the project site, and using an evaluation form to rate criteria on how well a location meets four key qualities identified in the Place Audit (access and linkages; comfort and image; uses and activities; and sociability). The stakeholders were broken up into 4 groups and each assigned specific sites along the Main Street, and asked to rate their specific site. See Appendix C for the results of the Placemaking exercise.

Problem Statement

A Problem Statement is intended to identify what it is that is trying to be solved. It is stated in terms of underlying causes, and relates the transportation, community, and environmental components to one another. It does not include or pre-figure solutions. The various problems identified by the four stakeholder groups at the April 6, 2006 Placemaking Workshop were used as a basis for the Working Group members to develop the Problem Statement. At the June 12, 2006 Working Group meeting the Problem Statement was drafted, and the Working Group reached a consensus at the July 17, 2006 meeting. The following is the Problem Statement for this project:

Route 101 Highway produces unsafe and hostile conditions for community users caused primarily by the speed and volume of traffic contributing to noise and water pollution. There is an imbalance between the use of the highway and community needs including town emergency services and other town facilities, clearly defined pedestrian amenities, appropriate land use, preservation of the environmental and historical character of the Dublin Village.

The extreme topography, weather, and the narrowness of the highway corridor are design constraints.

Project Limits

The Working Group decided to extend the project limits along NH 101 to include the sharp curves at Dublin Lake as the westerly limit and to a point to just east of E. Harrisville Road as the easterly limit. The Working Group understood the current funding would not be able to address all the issues within these limits, however they felt it would

be beneficial to understand the vision through this area and how the project could be phased over time. (See map attached to document.)

Vision Statement

A Vision Statement is intended to be a statement of desired characteristics of a place at a specific point in time. The statement addresses transportation goals and may include other community and environmental goals related to the transportation corridor. The Working Group formulated the Vision Statement for the community using the information from the Placemaking exercise and the Problem Statement as the basis. On July 17, 2006 the Working Group brainstormed the draft Vision Statement and finalized it at the September 25, 2006 Working Group meeting. The following is the Vision Statement for the project:

The social and economic vitality of the community will be enhanced by making Route 101/Main Street safer and more welcoming to pedestrians, cyclists and drivers.

Traffic will be reduced to a slow, steady, safe and efficient flow, by aesthetically pleasing visual and physical cues announcing a thickly settled historic village center. There will be safer access to and from Town facilities and emergency services.

Pedestrian amenities and other improvements will encourage pedestrian use of the center.

Environmental issues (air, water, noise and light) will be addressed by implementing pollution avoidance measures.

A better balance between local quality of life and regional mobility will be achieved.

Screening Criteria

Screening criteria are used to evaluate whether a concept is effective in addressing the Problem Statement and meeting the community Vision Statement defined for the project. On September 25, 2006, the Working Group brainstormed the screening criteria that would be used in evaluating the alternatives. The criteria were based on the NHDOT screening categories used on other CSS pilot projects. See Appendix D for a list of screening criteria developed at the 9/25/06 meeting and the Working Group reached consensus on at the October 18, 2006 meeting.

The screening criteria developed by the Working Group was refined and assembled into a rating form, which was used to rate the conceptual alternatives on November 30. See Figure 3 for the rating form that was used.

Left blank for screening form

Alternatives and Opportunities

The Working Group met on October 18, 2006 and discussed alternatives and opportunities through the project limits. The alternatives and opportunities generally fell into five groups for improvements: traffic calming, roadway geometric changes, sidewalks and crosswalks, aesthetics, and signage. See Appendix E for the list of alternatives and opportunities.

The NHDOT worked with FST to prepare various alternatives and opportunities based on the October 18, 2006 Working Group meeting, that could be presented at the November 8, 2006 Public Open House. At the November 8, 2006 Open House, the alternatives and opportunities were displayed using sketches and pictures of typical treatments for traffic calming, gateway treatments, sidewalk materials, crosswalks, and sidewalk and planting strip treatments. The Open House also included a display of the Working Group's Problem Statement and Vision Statement. The public was able to view the displays, ask questions and make comments to the NHDOT and the Working Group members. As part of the meeting the public was given an opportunity to vote on the alternatives and opportunities they felt they would like to see implemented or considered in the project. A survey was also handed out to the public for providing their input into the Problem and Vision Statements and the Screening Criteria. The survey also asked attendees to give their preference for the top two locations that they felt needed immediate attention and should be incorporated into the first phase; the two locations that need intermediate attention; and locations that could be considered for the future. Appendix F shows the voting results for the various alternatives and opportunities that were displayed at the meeting.

The majority of the attendees felt the center of Town at the oval should be addressed with the current funding as the first phase. The section for intermediate attention was felt to be the section of NH 101 from the Women's club at Dublin Lake to Upper Jaffrey Road and/or Old Common Road. The section that the attendees felt could be for future consideration was the segment of NH 101 from the General Store to E. Harrisville Road and various locations outside the village center.

Screening of the Alternatives

The project area was divided up into 5 zones, which had specific issues related to the segment of NH 101 in each zone.

Zone 1 and 5 included the easterly and westerly approaches to the village. The westerly approach included the NH 101 segment from the sharp curves at Dublin Lake and extended to just west of Upper Jaffrey Road. The easterly approach started just east of E. Harrisville Road and extended to the Dublin Consolidated School. The concepts for these segments included alternative roadway widths and different locations for ovals to provide traffic calming measures.

Zone 2 started at Upper Jaffrey Road and extended to Old Common Road. The concepts for this segment included two alternative roadway widths, and various intersection alternatives that incorporated an oval as part of the intersection.

Zone 3 started at the Old Common Road intersection and extended just east of the Dublin Community Church. The concepts for this segment included an alternative for the existing oval and alternative roadway widths.

Zone 4 started just east of the Dublin Community Church and extended easterly to the General Store. The alternative concepts consisted of a roadway typical with and without a grass or landscaped panel between the road and the sidewalk.

On November 30, 2006 the Working Group met to review the alternatives and perform a screening exercise to determine which alternative(s) would be presented as a preferred alternative at a public meeting. One of the major discussion points was the proposed roadway width to be used for NH 101. Two alternatives were suggested; one typical was referred to as a narrow typical (28') and one alternative was referred to as the standard typical (30').

The narrow roadway width alternative (28') offered increased green space within the same footprint (as the standard roadway width), and was felt to have a positive effect on calming traffic. However, there were concerns this width would increase the difficulty for snowplows to keep within their lane when plowing; that cyclist riding on the shoulder would be forced closer to the traffic (especially large trucks), and the roadway width would likely have to be widened out to 30' in the area of the oval (in order to accommodate tracking of the trucks).

The standard (30') roadway width could provide narrow lanes as a traffic calming measure and allow wider shoulders for more offset from the traffic to cyclists using the shoulder, and provide easier operation for snowplow trucks. However, it would leave less green space compared to the narrow alternative and would have some impacts into private property. Upon further discussion, the Working Group felt the narrow roadway width would allow for traffic calming and improvements for pedestrians to occur within the same footprint as the existing roadway, and have fewer impacts to the residential properties along NH 101. The Working Group proposed to recommend the narrow roadway width (28').

Recommendations

The following Phase 1 recommendations are based on input from the Working Group and Stakeholder input from the CSS process:

Segment of NH 101 preferred for first phase:

Two locations were determined to be necessary to address the traffic calming issue within the town center. They included the NH 101 segment from approximately 400 feet west of the NH 101/Church Street intersection easterly to a point approximately 300 feet east of the NH 101/Church Street intersection. The second location was from approximately 200 feet west of the NH 101/Old Common Road intersection easterly to approximately

250 feet east of the NH 101/Old Common road intersection. (Originally the focus was to just address the town center segment. However the Working Group felt that the NH 101/Old Common Road segment was required to slow traffic down prior to the town center.)

The Working Group agreed if adequate funding were available, a sidewalk on the southerly side of NH 101 should be included in the gap between the two segments to connect the sidewalks. It is also recommended to include a more visible school crossing on NH 101 at the Dublin Consolidated School.

Roadway Typical

A 28-foot roadway width for NH 101 is proposed, with curbing on both sides and a sidewalk on the south side through the segment limits and a sidewalk on the north side on NH 101 from west of the Yankee Publishing Co. to east of the Dublin Community Church. The exact lane and shoulder widths will be determined in coordination with the NHDOT in the design phase. A landscaping strip will be provided between the sidewalk and the roadway in areas that have adequate width. In areas with restrictive widths, the landscaping strip would be eliminated.

See Figure 4. for the proposed conceptual roadway typical.

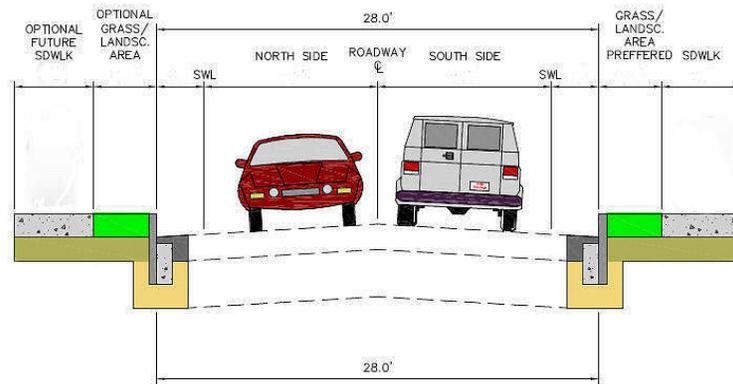


Figure 4.

NH 101/Old Common Road Intersection

The Old Common Road intersection will be reconstructed to realign Old Common Road into a “T” type intersection. An oval will be constructed just east of the intersection to slow the eastbound traffic. Gateway signing will be provided for the eastbound direction.

See Figure 5. for the NH 101/Old Common Road concept.

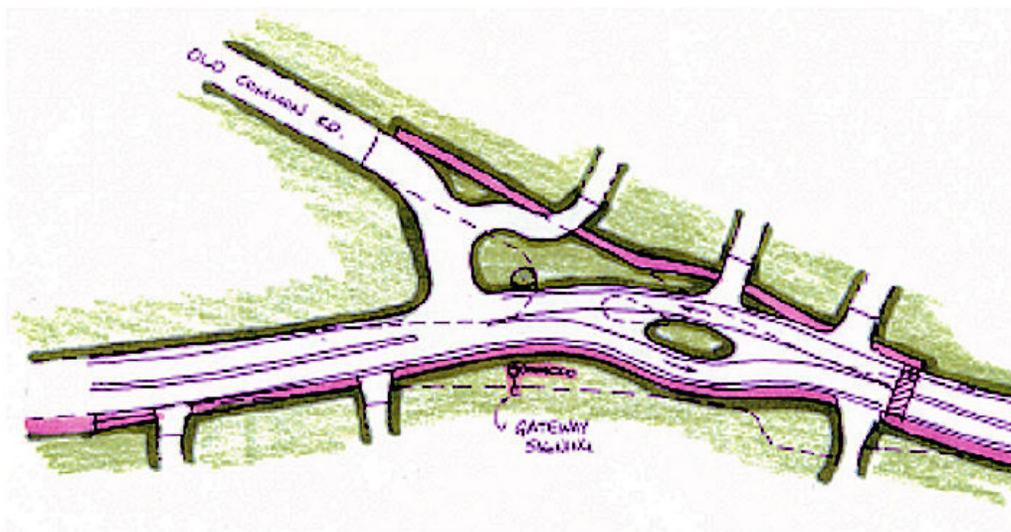


Figure 5.

The intent of the proposed layout was to have minimal impact to the adjacent properties. This concept will likely have some minor impacts to the School property.

NH 101 in the Town Center

The existing NH 101 oval in the Town Center will be reconstructed to increase the deflection of the oval to reduce the speed of traffic in the village and enhance pedestrian safety. This work may require coordination with a Town Hall Plaza concept and may require some minor changes to the oval layout.

Crosswalks are proposed in three locations on this segment. The number of crosswalks and locations will require review by the NHDOT to ensure safety concerns are addressed.

See Figure 6. for the conceptual oval layout in the town center.

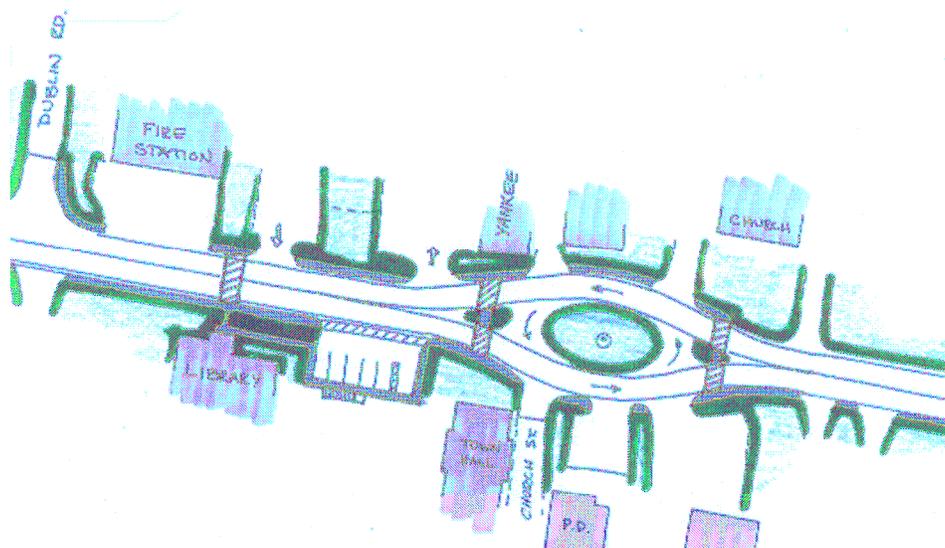


Figure 6.

Driveway Openings

Driveways should be delineated by curb openings and wide-open drives should be reduced in opening widths.

Amenities

Based on the existing budget for the project (\$510,000) the Working Group agreed to propose using concrete sidewalks, granite curbing, and planting some trees (locations to be determined), from the Dublin road intersection through the Town Hall/oval area.. The existing lighting will be retained due to the costs; however, the infrastructure for future ornamental lighting will be done as part of the project.

The sidewalks in Old Common Road intersection and connecting to the proposed concrete sidewalks in village center will be bituminous concrete sidewalks.

The roadway pavement may be able to be overlaid under a current District Maintenance resurfacing project.

Drainage

The project estimate assumed reconstructing the roadway drainage system with in the two segments of NH 101. There is an existing drainage system, which may be able to be utilized, which will reduce the cost of the drainage work. This will need to be reviewed further in the preliminary design phase. In addition, it will be important to address water quality issues resulting from the proposed roadway drainage system to protect the environment and the numerous wells along NH 101.

Estimate

The proposed construction cost for the two segments is approximately \$300,000. The funding required for the preliminary engineering, final engineering design, permitting, bid phase service, construction phase engineering and inspection is estimated at \$128,000. The estimated cost for the mobilization of the contractor, the traffic control, and the signs, pavement marking, erosion control measures, and miscellaneous contingencies is \$103,000. Total estimated cost of the project is \$531,000. This will require additional funding be attained for the project.

Future Projects

Future projects may be done as funding becomes available. These include the easterly and westerly approaches to the town center and are comprised of gateway treatments at both approaches to the Town, traffic calming measures (consideration of ovals) along NH 101 on the approaches to the Town, and pedestrian sidewalks. Estimates were developed for each zone to give an idea of the order of magnitude of the costs. The enclosed plan should be referred to in determining the proposed treatment for future roadway construction within the corridor.

Appendix A.
List of Stakeholders

Appendix B.
Place Audit

Appendix C.
Results of Placemaking Exercise

Appendix D. Screening Criteria

Appendix E
Alternatives and Opportunities

Appendix F Survey Results

Appendix G.
Meetings Attendee List and Agendas

Appendix H

Estimates