

Town of Malta Linkage Study

Proposed Sidewalk Guidelines
Malta, New York

August 2003

Prepared for:



Capital District
Transportation Committee

Prepared by:



TABLE OF CONTENTS

Section	Page
I. ACKNOWLEDGEMENTS	
II. INTRODUCTION	
A. Purpose	II-1
B. Need	II-1
C. Benefit	II-1
III. PROPOSED STANDARDS	
A. General	III-1
B. Sidewalk Classifications and Alignment	III-1
C. Sidewalk Locations	III-1
1. Downtown Malta	III-1
2. Remainder of the Town of Malta	III-2
3. Residential Interconnections	III-2
D. Crosswalk Locations	III-3
APPENDIX	
Appendix A- Proposed Sidewalk Legislation	
Appendix B- Downtown Malta- Proposed Sidewalk Plan	
Appendix C- Town of Malta- Proposed Bikeway/Walkway Plan	
Appendix D- Proposed Sidewalk Alignments	
Appendix E- Proposed Construction Details	



Acknowledgements

The Town of Malta Town Board

David R. Meager, Supervisor
Robert Allen Clifford Lange
Suzanne Daley-Nolen Gerald Winters

The Town of Malta Town Board would like to thank the Zoning Update Committee for taking the time and effort to participate in the guidance and development of the Town of the Malta Linkage Study.

The Town of Malta Zoning Update Committee

Paul Sausville, Chairman	Miles Cornthwaite
William Cuddy	Sue Nolen
Tim Farnum	James Keller
Bill Parker	Cliff Lange
Steve Shaw	Bill Shaw
Karen Heggen	John Natale
Heather Atkinson	Linda Kovach, Secretary

The Town of Malta would also like to acknowledge the following individuals and agencies for their guidance, contribution and expertise throughout the preparation of the Town of Malta Linkage Study.

- Deborah Stacey, Capital District Transportation Committee
- Heather Atkinson, Town Building and Planning Coordinator
 - Audrey Ball, Town Director of Parks and Recreation
 - Kevin T. King, Town Comptroller
 - Fred Larson, Chairman, Town Open Space Committee
 - Malta Bikeway Committee Members
 - New York State Department of Transportation
 - Saratoga County Department of Public Works
 - Saratoga County Planning Department

II. INTRODUCTION

A. Purpose

The purpose of this study is to provide design and engineering standards for sidewalks within the Town of Malta. The standards and guidelines contained within this document are specifically geared to provide cost effective sidewalks that encourage pedestrian mobility within the Town.

B. Need

Based on the existing sidewalks, planning and design of future sidewalks and crosswalks are necessary to provide the residents with safer and easier travel routes. The amount of use by pedestrians in the right of way along roadways also demonstrates the need for additional and continuous sidewalks. Additionally, there is the need for sidewalks and crosswalks within the Downtown area of Malta in order to attract and accommodate people within the community.

C. Benefit

Residents within and visitors to the Town would be able to travel easier and safer along the proposed sidewalks within the community, to and from their homes and to and from Downtown. These sidewalks would also provide strong linkages to the residential areas of Malta, the Town-wide destination points and to Downtown. All of which would increase the value and use of existing and future pedestrian routes by promoting a high degree of connectivity throughout the Town. Additionally, the installation of sidewalks throughout the Town of Malta would provide additional exercise opportunities and outdoor activities, such as walking and running.

III. PROPOSED STANDARDS

A. General

The proposed sidewalk guidelines have been written to allow design flexibility and to achieve the Town of Malta's vision for a more walkable community. It is anticipated that these regulations will be included within the Chapter 143-Subdivision of Land, Article III-Design Standards, 143.13.1 Sidewalks, of the Code of the Town of Malta and as a stand alone document which would be readily available for residents and developers within the Town. Appendix A- Potential Future Proposed Sidewalk Legislation contains legislation for the Town to take action upon. Appendix D- Sidewalk Alignments provide minimum standards for the alignment of sidewalks. Appendix E- Proposed Construction Details provides standard details for construction.

B. Sidewalk Classifications and Alignment

The following is the potential sidewalk classification and basic alignment within the Town of Malta:

1. **Concrete Sidewalk** – consists of a five foot wide concrete sidewalk with a minimum ten foot planting strip for separation from the edge of the road. It is anticipated that a straight or mountable curb would be used adjacent to the roadway.

C. Sidewalk Locations

The locations and types of proposed sidewalks and crosswalks are based on the present and future needs and benefit to the pedestrian. Typically these sidewalk locations are within Downtown Malta and at residential interconnections. It is anticipated that future commercial and residential projects will be required to encourage pedestrian mobility by incorporating sidewalks within the site plan approval or subdivision approval process. Refer to Appendix C- Town of Malta – Proposed Bikeway/Walkway Plan for a visual description of these locations. The location and types are as follows:

1. Downtown Malta

The location of the Downtown area is based on the existing businesses, Community activities, and residential areas within the Downtown. The locations and the relationships of each of these to each other determine the boundary of Downtown Malta, which shall be defined as follows:

- **Northern terminus** - David R. Meager Community Center
- **Southern terminus** - Knabner Road
- **Eastern terminus**: Partridge Drum and Foxwander West
- **Western terminus** - Interstate 87 (Interchange 12)

Proposed Concrete Sidewalk (■ ■ ■) – 5' concrete sidewalk with minimum 10' width planting strip adjacent to travel lane.

This sidewalk type is proposed in the general area as defined above and more specifically as noted below:

1. **Downtown Malta** - approximately 10,000+/- linear feet (2.0 miles) of sidewalk along both sides of NY Route 67, Dunning Street and US Route 9 based on the north, south, east and west termini (Refer to Appendix B- Downtown Malta – Proposed Sidewalk Plan).

2. Remainder of the Town of Malta

Proposed Combination of Sidewalks (■.....')

There are several sections of roadway in which the sidewalk type will vary. The width of the road and the adjacent uses of the road will determine which type will be appropriate. Refer to the Appendix A- Potential Future Proposed Sidewalk Legislation. These roadways include:

- Malta Avenue from Grays Road to Rowley Road for approximately 12,000+/- linear feet (2.3 miles)
- US Route 9 from Malta Avenue to East High Street for approximately 6,300+/- linear feet (1.2 miles)
- US Route 9 from Knabner Road to the Village of Round Lake for approximately 8,200+/- linear feet (1.6 miles)
- East High Street from East Line Road to the Town of Ballston for approximately 2,100+/- linear feet (0.4 miles).

D. Crosswalk Locations

As part of increasing pedestrian mobility within the Town, pedestrian routes will need to include crossings at important roadways and at the entrances/exits of the proposed roundabouts along NY Route 67 and US Route 9. At each of these locations a crosswalk, in accordance with the latest edition of the American with Disabilities Act Accessibility Guidelines (ADAAG) will need to be installed. In many cases the roadways to be crossed will be either State regulated or County regulated who may have more specific requirements. In all instances, the approval entity of the crossing will need to be contacted for concurrence an specific details on the crosswalk. At a minimum, the following crossings are anticipated to have crosswalks installed:

- **Across US Route 9** - one at the David R. Meager Community Center, one on each side of Kendall Way, one on each side of NY Route 67, one at Hemphill Place, one at Saratoga Village Boulevard and one at Taddeo Road.
- **Along US Route 9** - one across Blacksmith Drive along the west side of US Route 9.
- **Across NY Route 67** - one at Saratoga Village Road and one each side of US Route 9.
- **Across Dunning Street** - one at Hemphill Place.

IV. IMPLEMENTATION OF GUIDELINES

A. *Schedule of Proposed Improvements*

As part of this study, a priority list has been established for the proposed sidewalk improvement project within the Downtown to enhance existing sidewalks, as well as to provide sidewalks where none exist now. The proposed schedule of improvement projects will be driven by two criteria- 1. the need and 2. the funding available for each proposed project. Of the two criteria listed above the “need” portion can be further broken down into the following sub categories:

- Existing Sidewalks – Does a sidewalk exist along the proposed improvement route?
- Logical Terminus- Does the improvement have a defined beginning and ending point?
- Connectivity- Does the improvement foster connectivity within the Town?
- Public Sentiment- Will the proposed improvement benefit the Town at large?

The following lists a proposed improvement project that has been determined to be located where there are no sidewalks, have a logical terminus, will provide connectivity between existing facilities and benefit the Town at large. The implementation of this improvement will improve the connectivity within the Town, as well as improve and enhance the existing pedestrian routes within the Downtown area. This proposed project is noted in Appendix C- Proposed Town of Malta Bikeway/Walkway Plan.

1. Sidewalk connection from the intersection of US Route 9 and NY Route 67 to the David R. Meager Community Center and from the Community Center to Cramer Road. It is anticipated that this connection would be a 5 foot separated sidewalk within the NYS DOT right of way, approximately 3,155 feet in length.

While this project is not the only one available to the Town, it is the one that will foster a high degree of connectivity for the more developed areas of the Town. The remaining areas are no less important, however they appear to have a slower rate of development based on the proximity of public water service. In these areas the above criteria should be used, in addition the pedestrian and traffic volumes in these areas may also determine the most appropriate type of improvement that may be necessary. The final determination for the improvement should be on a site by site basis and take into consideration other factors as deemed necessary by the Town.

B. Cost Estimate of Proposed Improvements

The following is a cost list for the proposed improvement. All estimates include design, bonding, contingency and construction costs. It should be noted that the estimate assumes that the project will be completed in the Town or State rights of way and that no other land acquisitions will be necessary. Refer to Appendix F- Typical Linear Foot Cost Estimates.

1. Pedestrian connection from the intersection of US Route 9 and NY Route 67 to the David R. Meager Community Center.

Concrete sidewalk section: 3,155. L.F. @ \$53.80/L.F. = **\$169,739.00**

The linear foot cost has been prepared using Mean's Cost Estimating Data for 2002, as well as recently constructed projects within the Capital Region. The detailed breakdown of the individual cost has been included within Appendix F- Typical Linear Foot Cost Estimates.

C. Funding Sources and Strategies

Currently a number of funding opportunities are available to the Town to finance the potential proposed improvements. The following is a list of the available funding sources, with a brief description.

Federal Sources

TEA-21 Enhancement Program- The program focuses on pedestrian and bicycle construction and enhancement projects as well as other transportation related projects. This program is funded by the Federal Highway Administration and is administered by The New York State Department of Transportation. The federal share is typically 80%, however this can vary dependent on the level of local participation.

State /Regional Sources

The Capital District Transportation Committee (CDTC) provides local communities the opportunity to fund various transportation-related improvements through the Transportation Improvement Program (TIP). This program solicits projects on a biennial basis and typically funds them with an 80% Federal /20% State-Local distribution.

The New York State Department of Transportation administers the locally-sponsored federal-aid program, which allows state and federal funds to be used on a variety of local projects. This program also funds programs on a matching grant basis, with local municipal administration of the project.

Local Sources

The Town has a variety of funding sources available to them for transportation improvements. A source is from the Town's general fund. The general fund can be used for new construction of transportation projects or improvements to existing facilities.

The Town could also bond the proposed improvements through the creation of a redevelopment district or a special assessment district organized to provide a specific project benefiting and identifiable group of properties. General obligation bonding arrangements could also be used for projects that are felt to be beneficial to the entire Town.

Lastly, the Town has the opportunity to pay for the improvements through a Town wide tax.

Private Sources

Private interests often provide sources of funding for transportation improvements. Developers, as has been the standard in the Town, construct the local streets within the subdivision, and dedicate the right of way to the Town and participate in the construction of local, collector and arterial streets within and adjacent to their developments. Developers should be considered as a potential source for improvements to the pedestrian circulation systems within the Town.

M:\11161\rpts\Linkage Revisions_5-03\Revisions_7-25-03\main_body_sidewalksIV.doc

APPENDIX A

POTENTIAL FUTURE PROPOSED SIDEWALK LEGISLATION

143.13.1 Sidewalks

A. General.

Sidewalks shall be provided within all new residential and commercial projects within the Town.

B. Definitions.

Sidewalk-A sidewalk shall be defined as a walking surface with a minimum width of five feet and constructed of concrete designed to service pedestrians.

C. Requirements.

Sidewalks shall be required within all residential and commercial projects within the Downtown District (as defined herein) and all residential and commercial Planned Development Districts. Downtown shall be defined as the tract of land which is defined by the following:

- Northern terminus - David R. Meager Community Center
- Southern terminus - Knabner Road
- Eastern terminus- Partridge Drum and Foxwander West
- Western terminus - Interstate 87 (Interchange 12)

Sidewalks shall be installed within all residential projects under the following criteria:

- a. Residential developments with more than 4 units per acres sidewalks shall be required on both sides of the roadways.
- b. Residential developments with one to four units per acre sidewalks shall be required on one side of the roadways.
- c. Residential developments with less than one unit per acre sidewalks shall not be required except as may be required by the Town Board or Planning Board.

D. Alignment.

Sidewalks - All sidewalks shall be aligned along the front property line and shall be located outside of the existing or future road right-of-way. A minimum of ten feet should be provided between the leading edge of the sidewalk and the edge of pavement to facilitate adequate snow storage.

E. Width.

Sidewalks shall have a minimum width of five (5) feet.

F. Grades.

Sidewalks shall follow the grade of roadway which it is adjacent to. Sidewalk grades shall conform to the latest edition of the following publications:

1. American with Disabilities Act Accessibility Guidelines (ADAAG)
2. New York State Department of Transportation, Highway Design Manual, Chapter 18.

G. Sidewalk Intersections.

All sidewalk intersections shall be designed to provide adequate maneuvering room for pedestrians. The Town Board and Planning Board shall retain the authority to increase the width of the sidewalk within the intersections based on the anticipated pedestrian traffic.

H. Dead End Sidewalks.

Dead end sidewalks shall be avoided to the greatest extent practicable.

I. Intersections with Roadways.

All sidewalks crossing a roadway shall be designed in accordance with the latest edition of the ADAAG, with consideration given to the visually impaired. Diagonal curb ramps shall not be allowed except at the discretion of the Planning Board and Town Engineer. The minimum width of crosswalk on a local, collector or highway shall be eight (8) feet.

J. Intersections with Driveways.

All sidewalks crossing a driveway shall be designed in accordance with the latest edition of ADAAG, with consideration given to the visually impaired.

K. Pedestrian Protection.

When a sidewalk is located adjacent to a fill slope which has a slope of greater than three horizontal feet to one vertical foot and the difference in grade between the walking surface and the toe of the slope is greater than three feet, a barrier, 42 inches in height shall be erected not less than three feet from the edge of pavement.

L. Materials.

Sidewalk:

Subbase- 12 inches of Type 4 subbase, (NYS DOT Item No. 304.05), compacted to 95% Proctor density.

Concrete- 6 inches of 3,000 p.s.i. concrete

Reinforcement- 6x6 1.4x1.4 welded wire fabric reinforcing, placed at three inches within the slab.

Finish- Stiff broom finish or other ADAAG acceptable finish.

Control Joints- ½ inch score line placed at five (5) feet on center.

Expansion Joints- ½ inch bituminous joint placed 20 feet on center.

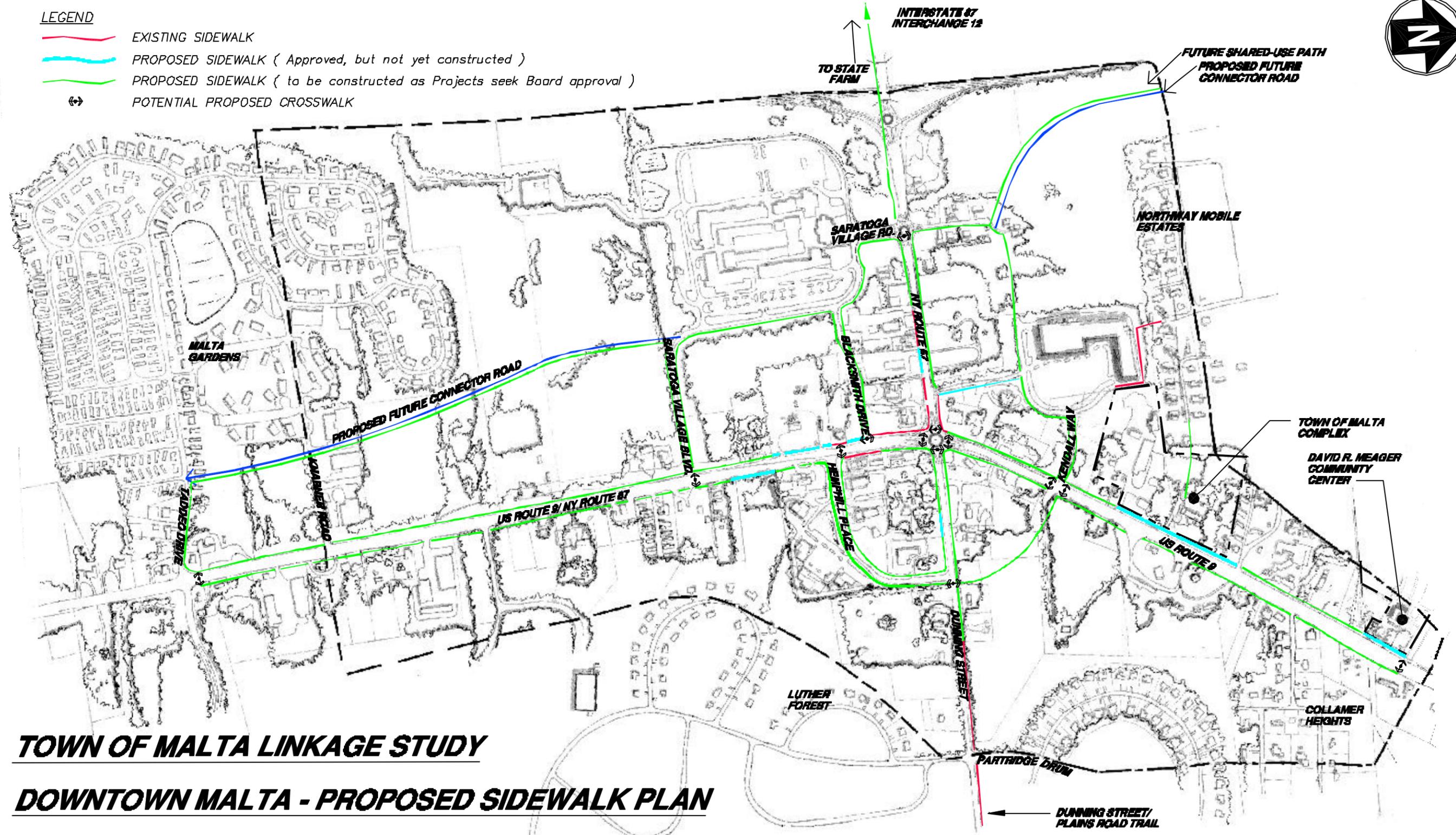
M. The applicant shall be required to install pavement markings and other additional signage to ensure the safe passage of pedestrians along all sidewalks.

APPENDIX B

DOWNTOWN MALTA - PROPOSED SIDEWALK PLAN

LEGEND

-  EXISTING SIDEWALK
-  PROPOSED SIDEWALK (Approved, but not yet constructed)
-  PROPOSED SIDEWALK (to be constructed as Projects seek Board approval)
-  POTENTIAL PROPOSED CROSSWALK



TOWN OF MALTA LINKAGE STUDY

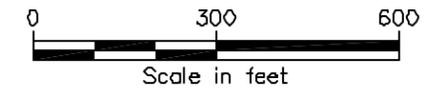
DOWNTOWN MALTA - PROPOSED SIDEWALK PLAN

M:\11181\road\sidewalk_townplan_111817



CLOUGH, HARBOUR & ASSOCIATES LLP
ENGINEERS, SURVEYORS, PLANNERS & LANDSCAPE ARCHITECTS

111 WINNERS CIRCLE ALBANY, NEW YORK 12205

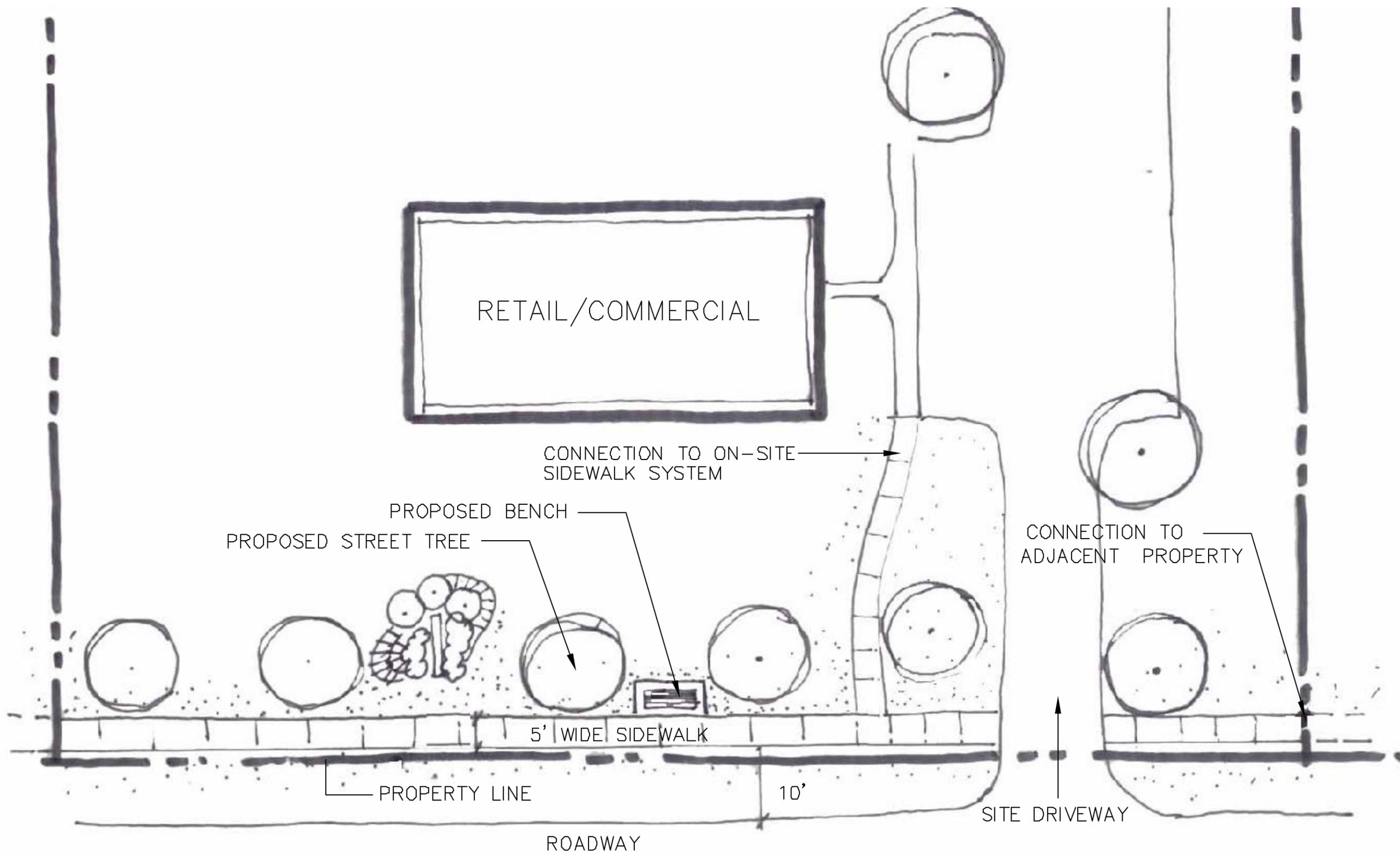


APPENDIX C

TOWN OF MALTA- PROPOSED BIKEWAY/ WALKWAY PLAN

APPENDIX D

PROPOSED SIDEWALK ALIGNMENTS

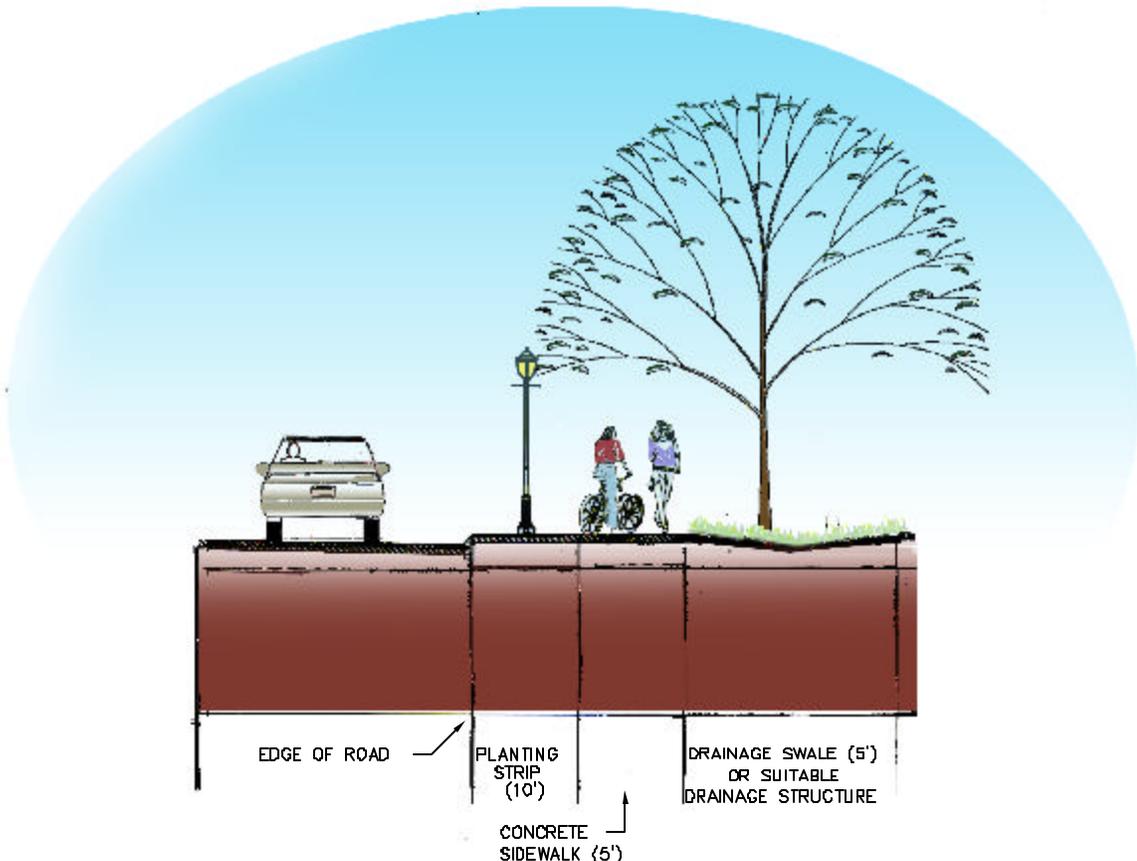


M:/11161/ACAD/linkage_revisions/sidewalk/Revisions_7-25-03/SIDEWALK_alignment

Town of Malta Linkage Study
 Saratoga County, New York
 CHA Project No. 11161-1001

TYPICAL SIDEWALK ALIGNMENT
 TOWN OF MALTA

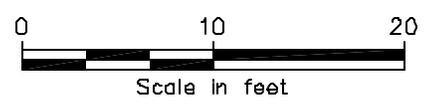
CHA CLOUGH, HARBOUR & ASSOCIATES LLP
 ENGINEERS, PLANNERS & LANDSCAPE ARCHITECTS
 11 WINNERS CIRCLE - ALBANY, NEW YORK - 12206
 518-485-1900



EDGE OF ROAD PLANTING STRIP (10') DRAINAGE SWALE (5') OR SUITABLE DRAINAGE STRUCTURE

CONCRETE SIDEWALK (5')

5' CONCRETE SIDEWALK

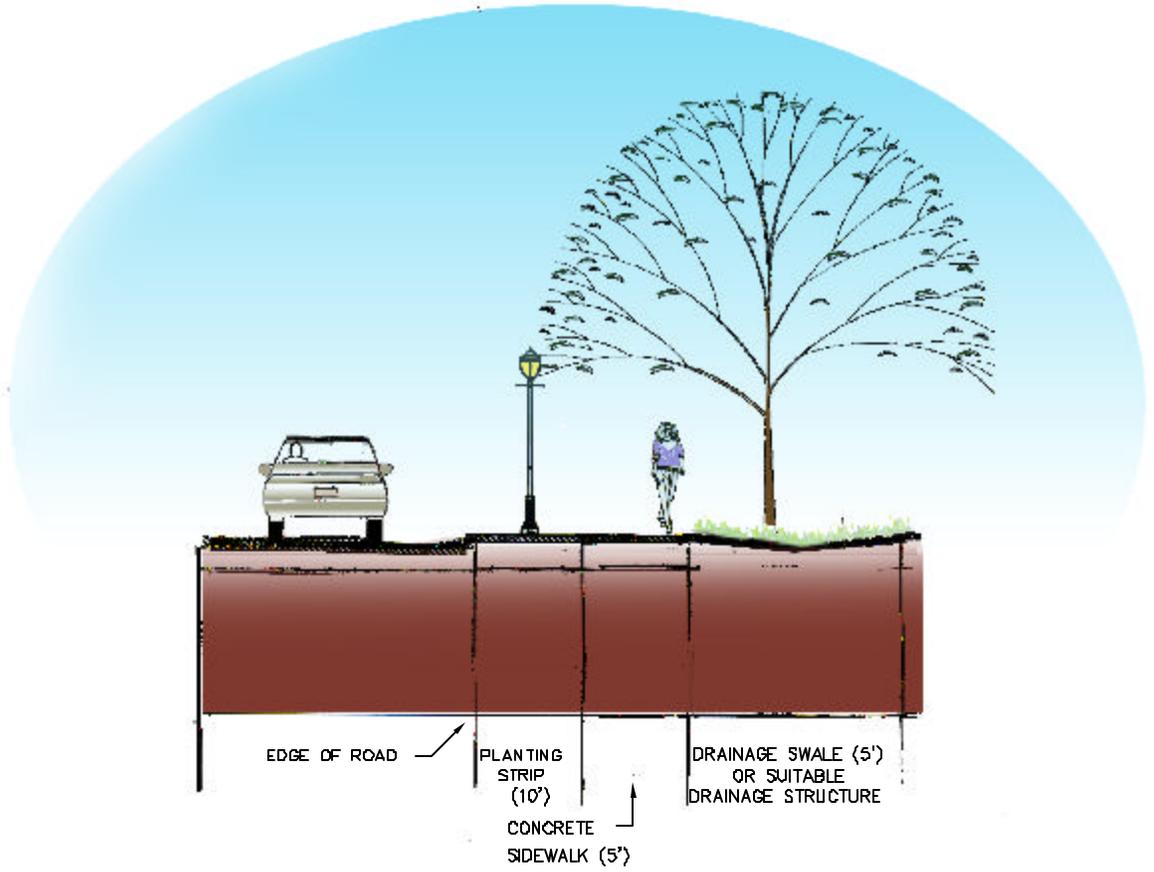


M: /11161/acad/pedestrian/Revisions_7-25-03/SECTION_C_2

Town of Malta Linkage Study
 Saratoga County, New York
 CHA Project No. 11161-1001

TYPICAL CONCRETE SIDEWALK - 10'
 SEPARATION FROM ROADWAY
 W/ ANGLED CURB
TOWN OF MALTA

CHA CLOUGH, HARBOUR & ASSOCIATES LLP
 ENGINEERS, SURVEYORS, PLANNERS & LANDSCAPE ARCHITECTS
 11 WINNERS CIRCLE - ALBANY, NEW YORK - 12208
 518-483-4800



5' CONCRETE SIDEWALK



Scale in feet

M: /11161/acad/pedestrian/Revisions_7-25-03/SECTION_C_1

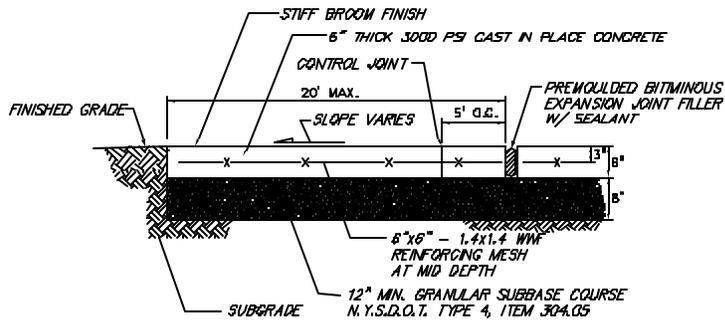
Town of Malta Linkage Study
Saratoga County, New York
CHA Project No. 11161-1001

TYPICAL CONCRETE SIDEWALK - 10'
SEPARATION FROM ROADWAY
W/ STRAIGHT CURB
TOWN OF MALTA

CHA CLOUGH, HARBOUR & ASSOCIATES LLP
ENGINEERS, SURVEYORS, PLANNERS & LANDSCAPE ARCHITECTS
11 WINNERS CIRCLE - ALBANY, NEW YORK - 12205
518-485-1800

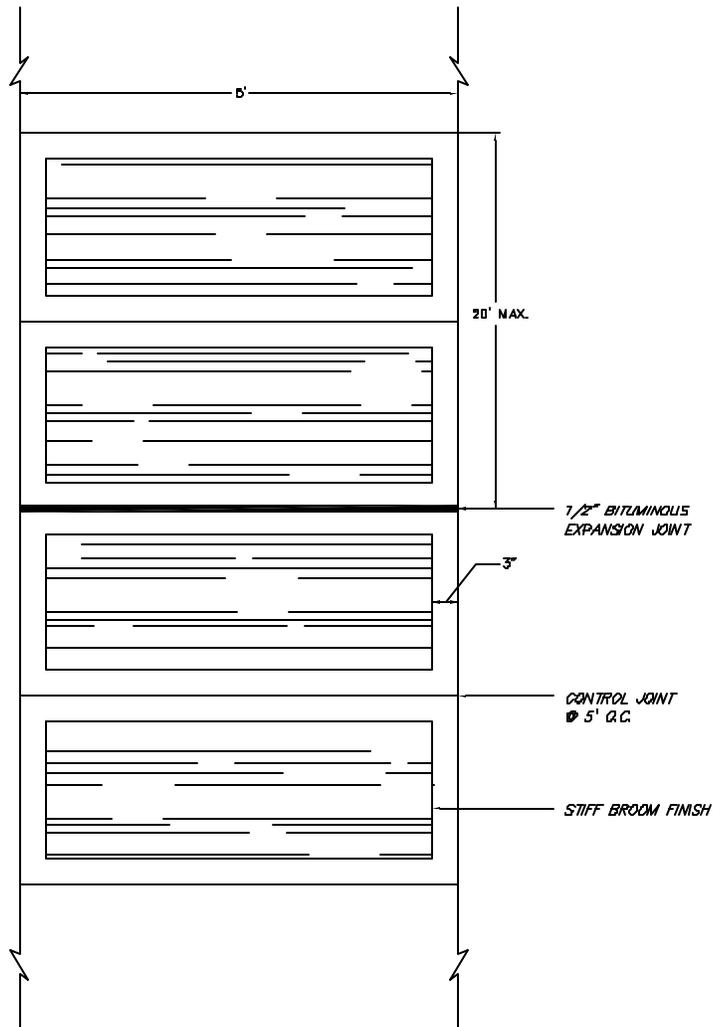
APPENDIX E

PROPOSED CONSTRUCTION DETAILS



NOTE:
 -EXPANSION JOINTS TO BE PLACED BETWEEN ADJACENT SLABS, AT BUILDING LINE, AT CURBS, OR AT PENETRATING STRUCTURES.
 -SCORING PATTERN AS SHOWN ON LAYOUT PLAN.

SECTION VIEW



PLAN VIEW

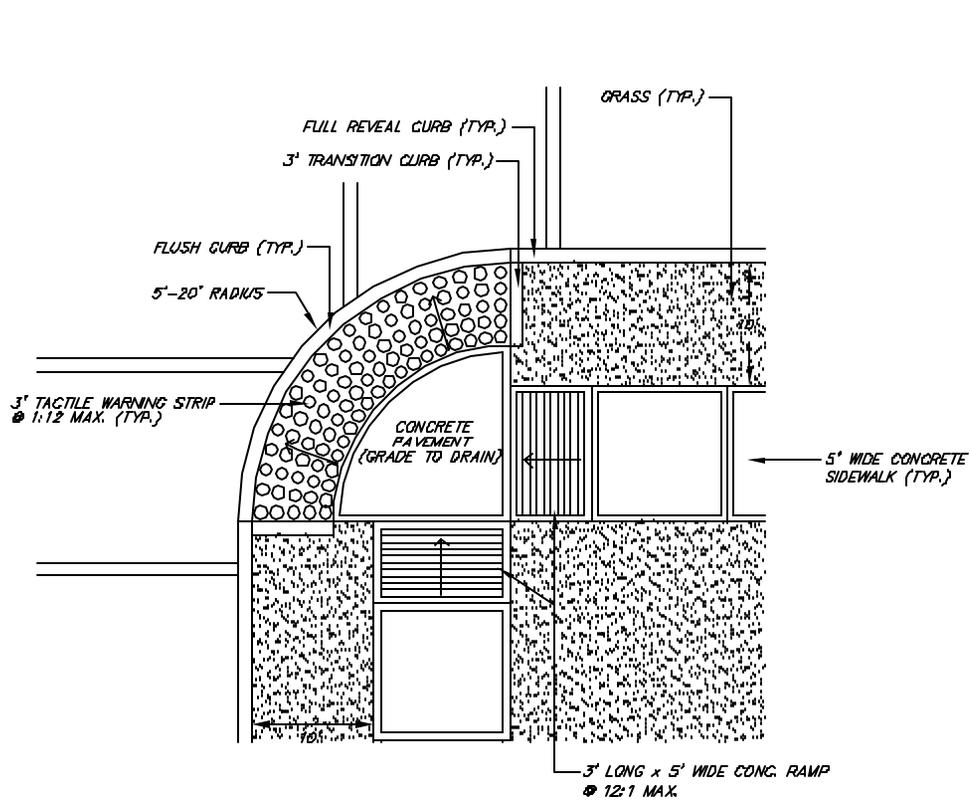
5' CONCRETE SIDEWALK DETAIL
 NO SCALE

M:/11161/ACAD/linkage revisions/sidewalk/Revisions_7-25-03/SIDEWALK_details.dwg

Town of Malta Linkage Study
 Saratoga County, New York
 CHA Project No. 11161-1001

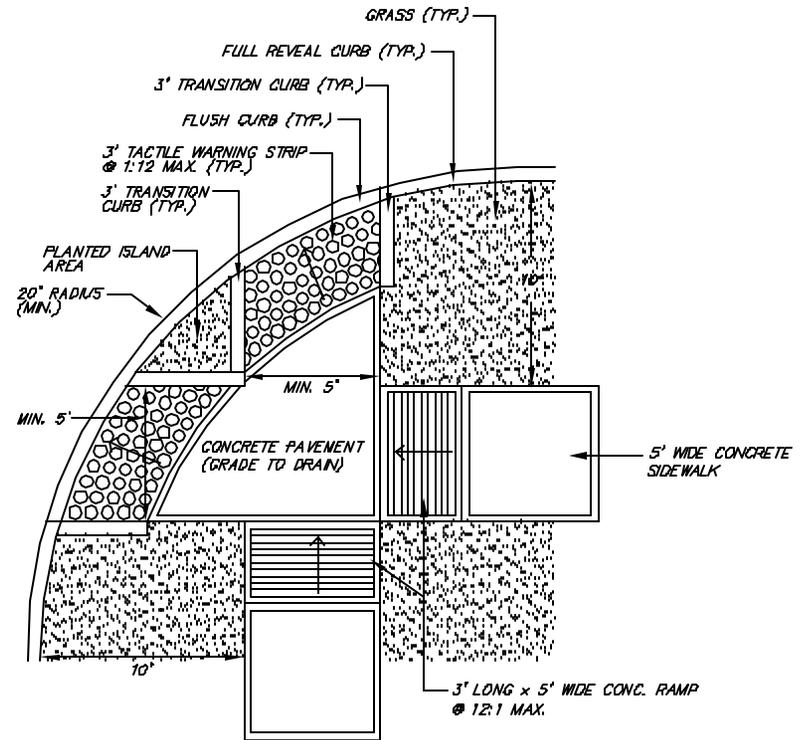
SIDEWALK DETAIL
 TOWN OF MALTA

CHA CLOUGH, HARBOUR & ASSOCIATES LLP
 CIVIL ENGINEER
 ENGINEERS, SURVEYORS, PLANNERS & LANDSCAPE ARCHITECTS
 11 WINNERS CIRCLE - ALBANY, NEW YORK - 12205
 518-483-4800



PLAN VIEW

5' TO 20' RADIUS CURB
HANDICAP RAMP DETAIL
 NO SCALE



PLAN VIEW

20' MIN. RADIUS CURB
HANDICAP RAMP DETAIL
 NO SCALE

M: /11161/ACAD/linkage revisions/PEDESTRIAN/Revisions_7-25-03/SIDEWALK_curb-cuts

Town of Malta Linkage Study
 Saratoga County, New York
 CHA Project No. 11161-1001

HANDICAP RAMP DETAILS
 TOWN OF MALTA

CHA CLOUGH, HARBOUR & ASSOCIATES LLP
 ENGINEERS, PLANNERS, ARCHITECTS & LANDSCAPE ARCHITECTS
 11 MINNERS CIRCLE - ALBANY, NEW YORK - 12208
 518-483-4900