

Town of Medfield, Massachusetts



ADA Self Evaluation/Section 504 Transition Plan & Sidewalk Master Plan

Status Summary

Jack Madden, PE

November 15, 2022



Scope of Work



1. ADA Self Evaluation
2. Section 504 Transition Plan
3. Sidewalk Master Planning

Purpose and Need

COORDINATION OF OBJECTIVES

Complete
Streets

ADA
Compliance

Pavement
Management

Sidewalk
Improvements

Data Collection Program & ADA Analysis

APPROACH

1. Develop GIS Database Architecture
2. Curb Ramp Inventory & Assessment
3. Sidewalk Inventory & Assessment
4. Identify Priority Locations
5. Data Analysis
6. Transition Plan



GIS-Centric
Approach

Project Timeline & Tasks

Fall 2020 Field Inspection Program Initiated

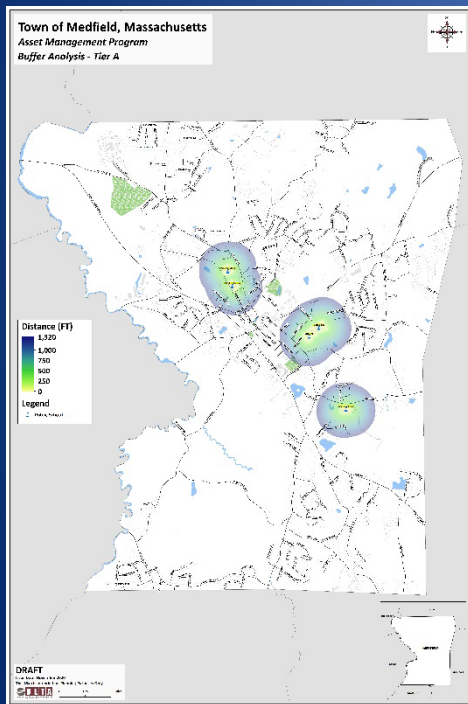
Spring 2021 Field Work Concluded
Baseline Inventory Established

Fall 2021 Priority Areas Established
Draft Self-Evaluation Transition Plan Developed
Curb Ramp/Sidewalk Reports & Summary of Findings

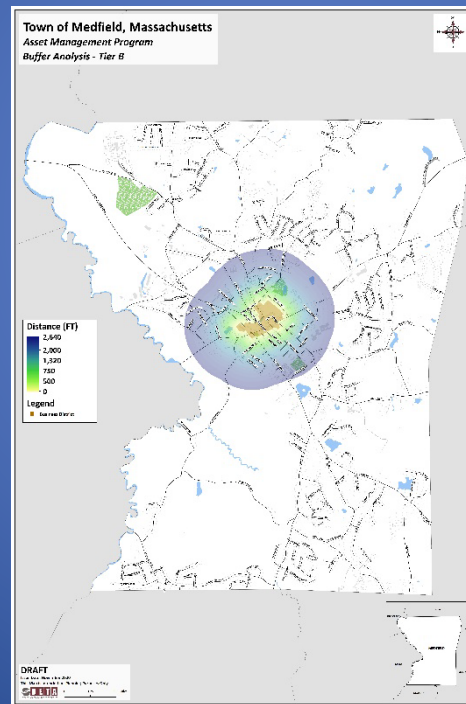
Winter 2022 Curb Ramp/Sidewalk Prioritization Analysis
Curb Ramp/Sidewalk Draft Schedule of Improvements
Transition Plan Draft

Prioritization Strategy

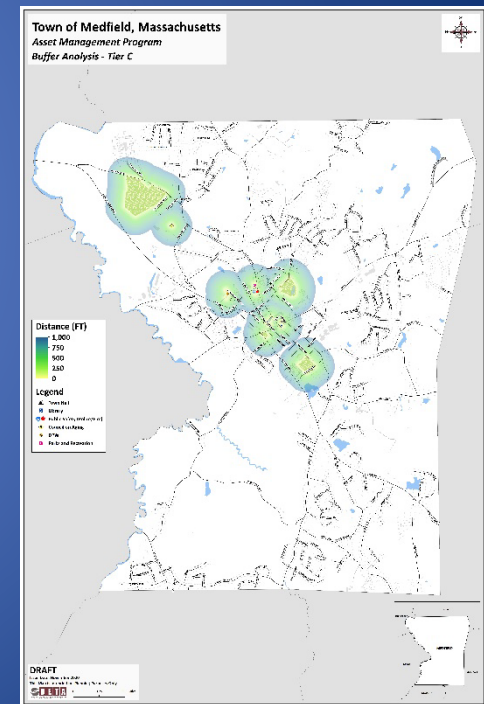
- Tier A - Public Schools (¼-mile buffer)
- Tier B - Business District (½-mile buffer)
- Tier C - Municipal Resources (1000-foot buffer)
 - Town Hall, Library, Council on Aging, Parks
- Tier D – All Remaining Areas in Town



Tier "A"

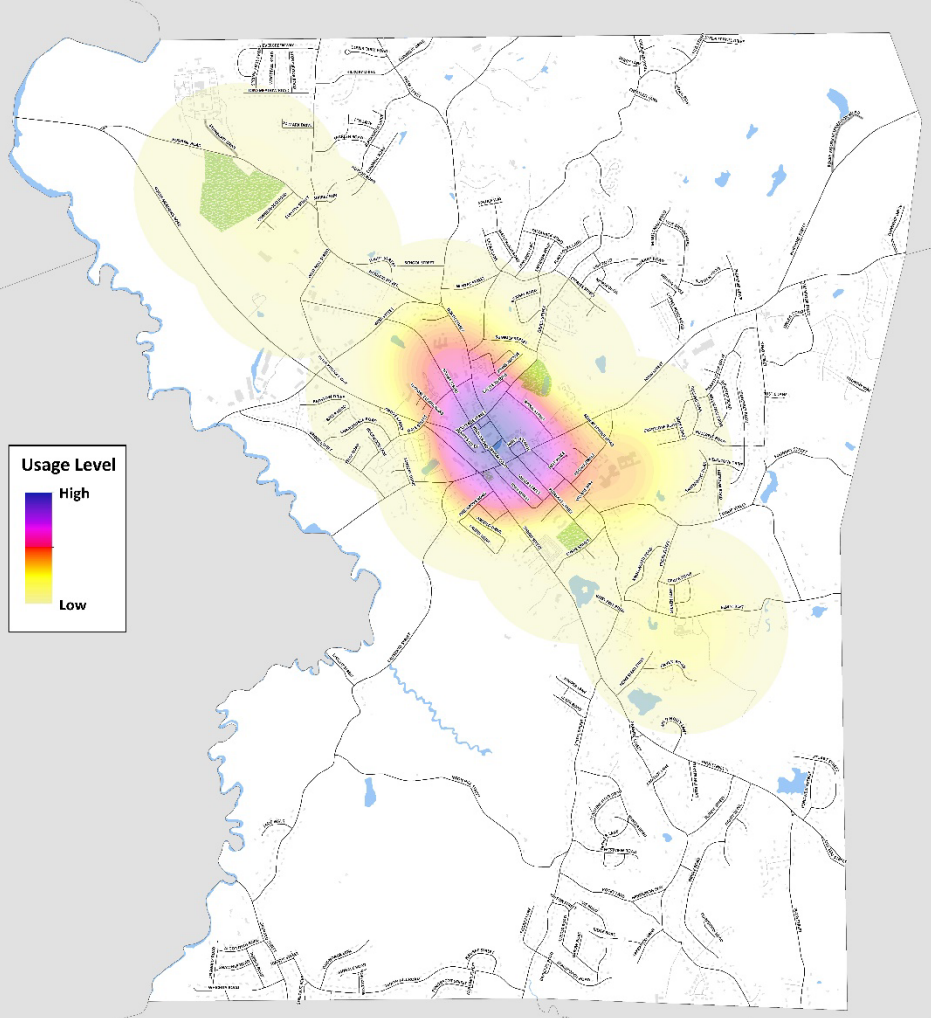


Tier "B"



Tier "C"

Prioritization Strategy



Sidewalk Assessment Summary

SIDEWALK CONDITION (BASELINE)

Good



Green Street at Hinkley Park

Fair



Miller Street

Poor



Lantern Lane

Sidewalk Assessment Summary

SIDEWALK OBSTRUCTIONS (BASELINE)

Utility Poles



Evergreen Way

Vegetation



Newell Drive

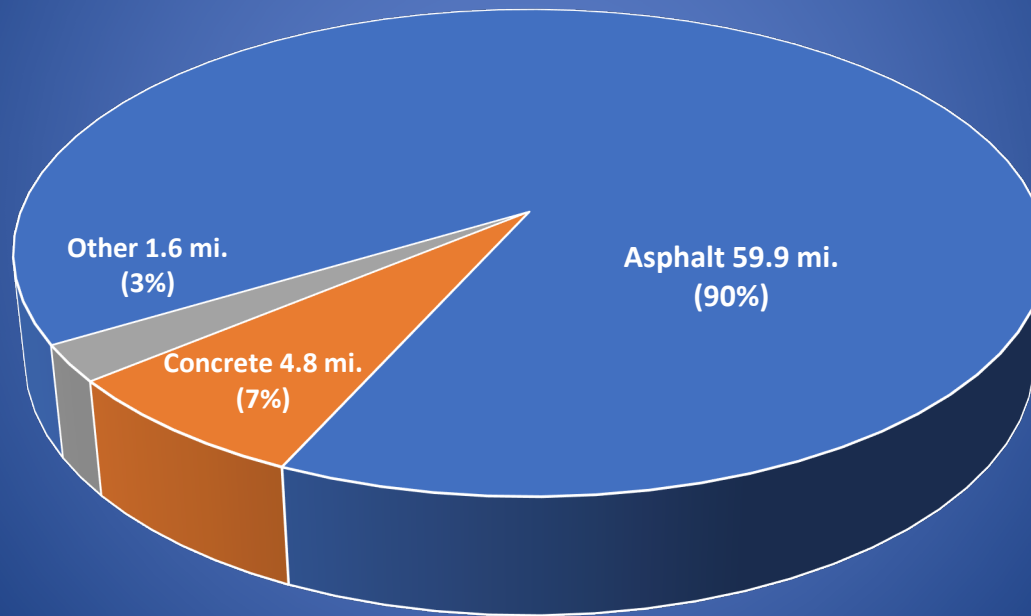
Surface



Hospital Road

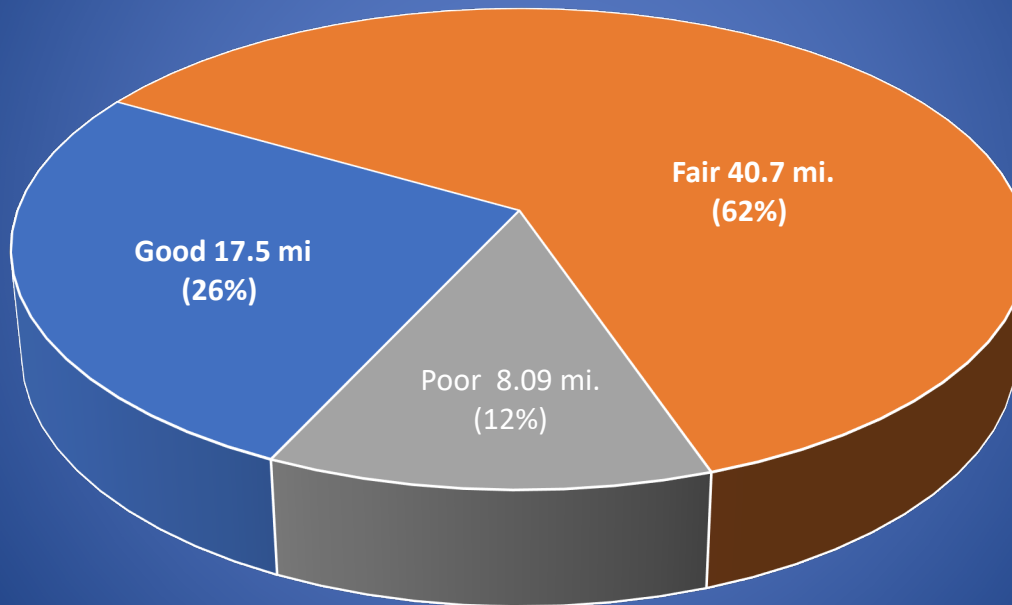
Sidewalk Assessment Summary

SIDEWALK CONDITION (BASELINE)



Sidewalk Assessment Summary

SIDEWALK CONDITION (BASELINE)



**Total Sidewalks Inventoried 66.3 mi.*

Curb Ramp Assessment Summary

ADA COMPLIANCE (BASELINE)

Compliant



West Street

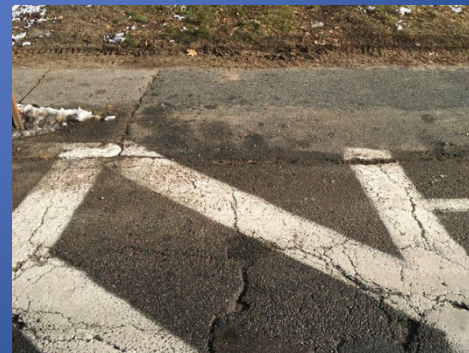


North Street

Non-Compliant



North Street

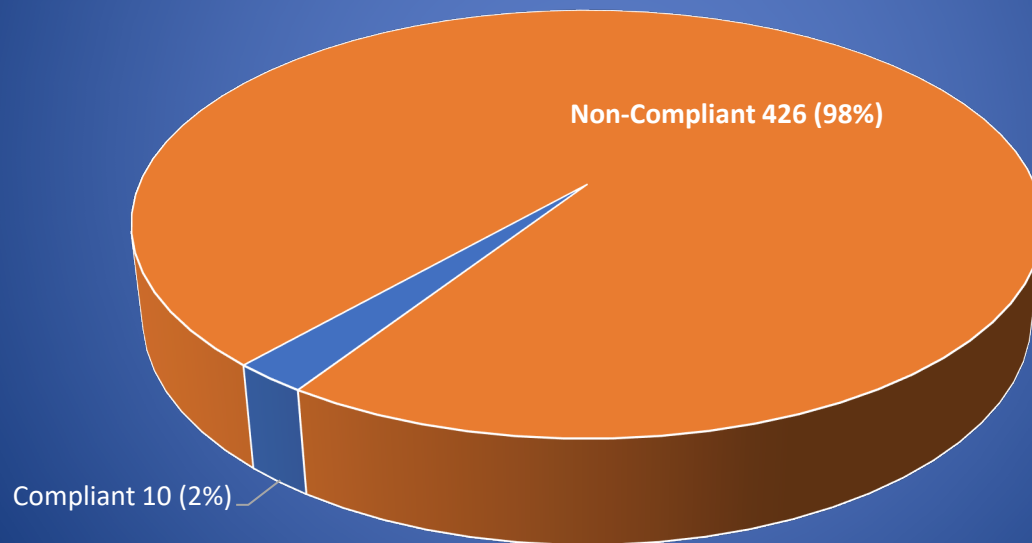


North Street

Curb Ramp Assessment Summary

ADA COMPLIANCE (BASELINE)

PROWAG Standard



**Total Ramps inventoried 436*

Sidewalk Assessment Summary

NON-COMPLIANT CURB RAMPS (BASELINE)

<u>Status</u>	<u>Tier Area</u> <u>A</u>	<u>Tier Area</u> <u>B</u>	<u>Tier Area</u> <u>C</u>	<u>Tier Area</u> <u>D</u>	<u>Total</u>
REPLACE EXISTING	106	71	9	240	426
POTENTIAL MISSING RAMPS	30	29	4	190	253
TOTAL	136	100	13	430	<u>679</u>

Sidewalk/Curb Ramp Budget Scenario

PROPOSED \$150K BUDGET

Annual Budget - Curb Ramps	Annual Budget - Sidewalks	Total Annual Budget (2022 Dollars)
\$ 48,000	\$ 102,000	\$ 150,000

Sidewalks @\$238K/mi. = 0.43 mi./year

Curb Ramps @\$4800/ea. = 10 ramps/year

Sidewalk/Curb Ramp Budget Scenario

PROPOSED \$150K BUDGET – SIDEWALKS

Baseline	Sidewalks to be Reconstructed/Added New (mi)	Estimated Total Construction Cost (2022 Dollars)	Annual Budget Required (2022 Dollars)
2021 Status	4.28	\$ 1,020,000	\$ 102,000
Program Year	Sidewalks to be Reconstructed Annually (mi)	"Poor" Condition Sidewalks Remaining Town Wide (mi)	Estimated Annual Budget Required ⁴
2022	0.43	8.1	102,000
2023	0.43	7.7	107,100
2024	0.43	7.2	112,455
2025	0.43	6.8	118,078
2026	0.43	6.4	123,982
2027	0.43	6.0	130,181
2028	0.43	5.5	136,690
2029	0.43	5.1	143,524
2030	0.43	4.7	150,700
2031	0.43	4.2	158,235
Total Town-Wide	4.3	3.8	\$ 1,282,950

Notes:

1. Construction cost estimate is for planning purposes only and addresses only those sidewalks in priority categories 1A, 1B, and 1C ("Poor Condition").
2. Estimate based on weighted average unit cost for standard MassDOT items required for 5'-wide replacement/reconstruction. Concrete sidewalk = \$445,000/mi.
3. For the purposes of this forecast a weighted average was used for total sidewalks considering proportion of material types = \$238,270/mile
4. Annual budget values assume 5% annual growth of construction cost.

Sidewalk/Curb Ramp Budget Scenario

PROPOSED \$150K BUDGET – CURB RAMPS

Baseline	Non-Compliant Ramps to be Replaced (each)	Estimated Total Construction Cost (2022 Dollars)	Annual Budget Required (2022 Dollars)
2021 Status	100	\$ 480,000	\$ 48,000
Program Year	Non-Compliant Ramps to be Replaced Annually (each)	Non-Compliant Ramps Remaining (each)	Estimated Annual Budget Required ³
2022	10	426	\$ 48,000
2023	10	416	\$ 50,400
2024	10	406	\$ 52,920
2025	10	396	\$ 55,566
2026	10	386	\$ 58,344
2027	10	376	\$ 61,262
2028	10	366	\$ 64,325
2029	10	356	\$ 67,541
2030	10	346	\$ 70,918
2031	10	336	\$ 74,464
Total Town-Wide	100	326	\$ 603,740

Notes:

1. Construction cost estimate is for planning purposes only and addresses only those sidewalks in priority categories 1A, 1B, and 1C.
2. Estimate based on weighted average unit cost for standard MassDOT items required for curb ramp replacement/reconstruction = \$4800/ea.
3. Annual budget values assume 5% annual growth of construction cost.

How Can Sidewalks Funded in Medfield?

1. Local Funds
2. Chapter 90
3. MassDOT Complete Streets Grant
4. State ADA Grant
5. Safe Routes to Schools
6. State TIP



Sidewalk/Curb Ramp Master Planning

PRIORITIZATION

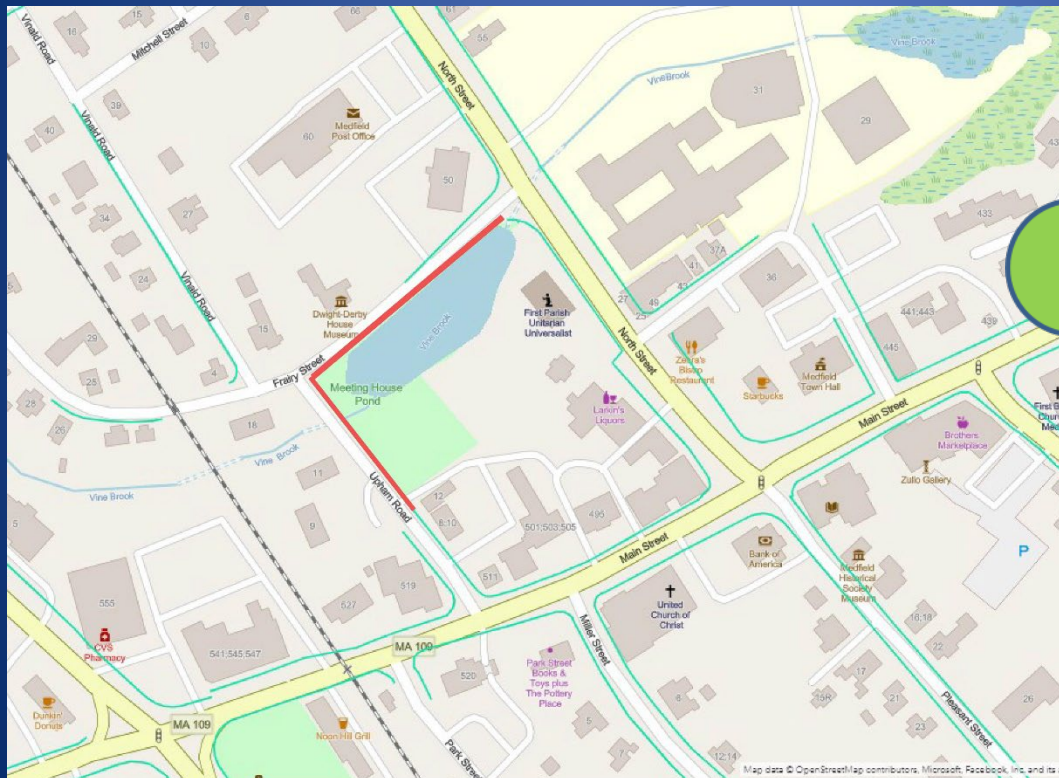
Complete
Streets
Prioritization



Sidewalk Connections along Frairy Street and Upham Road

Sidewalk/Curb Ramp Master Planning

SIDEWALK GAPS



Sidewalk
Improvement
Schedule

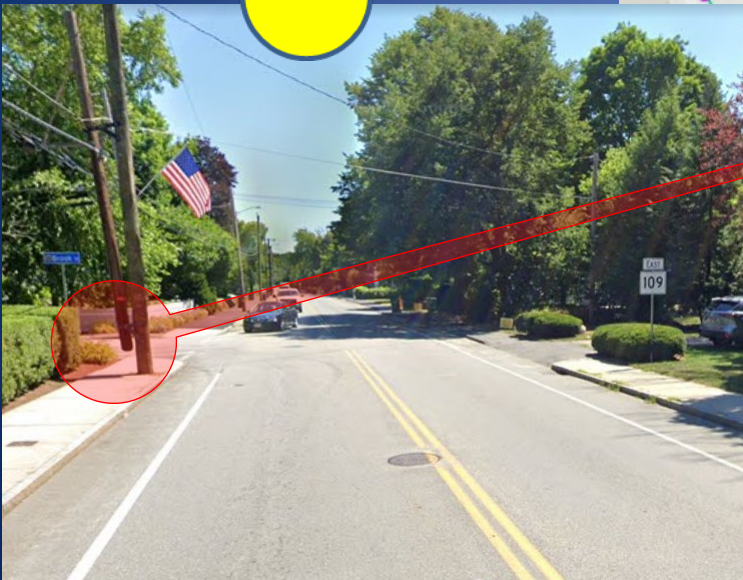
Gaps / Extensions:
Observed gaps in the “Tier C”
sidewalk network (red)

Sidewalk Connections along Frairy Street and Upham Road

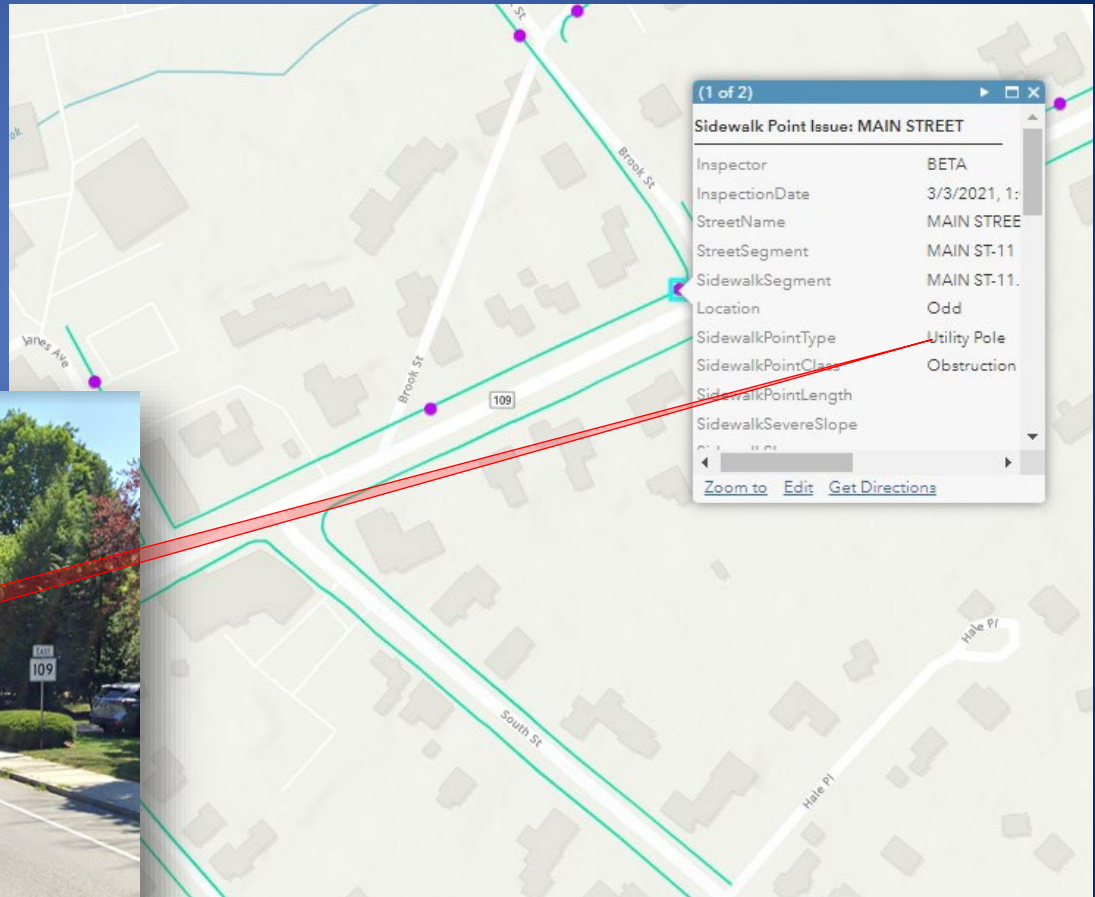
Sidewalk/Curb Ramp Master Planning

SIDEWALK OBSTRUCTIONS

ADA
Compliance
Transition Plan

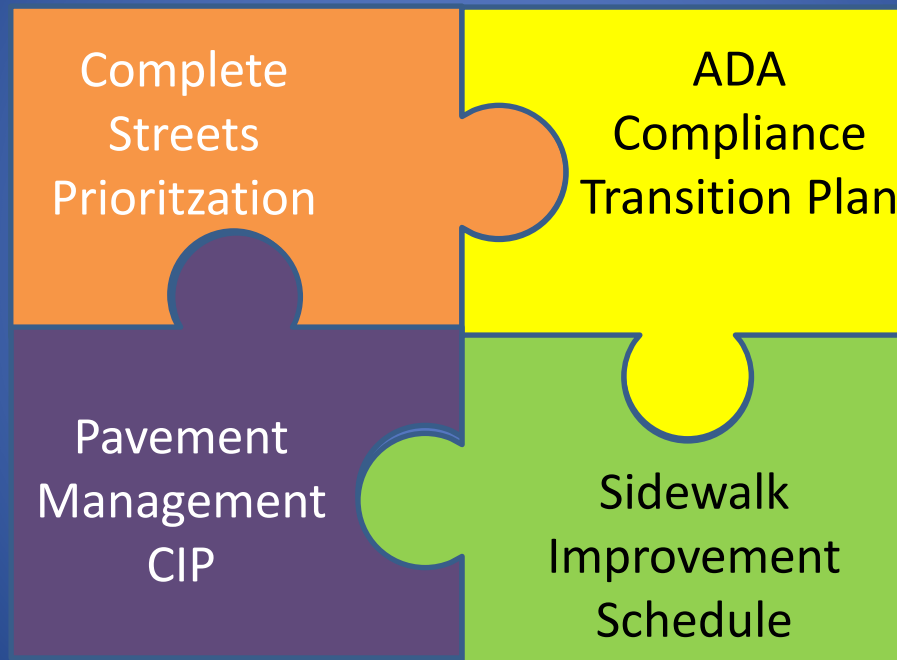


Billerica Street



Sidewalk/Curb Ramp Master Planning

COORDINATION OF OBJECTIVES



Town of Medfield, Massachusetts

ADA Self Evaluation/Section 504 Transition Plan For Sidewalks & Curb Ramps

Thank you

Jack Madden, PE
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Sidewalk/Curb Ramp Master Planning

PROJECT PRIORITIZATION

Proposed New Sidewalks					
Priority Tier	Proposed New Sidewalks, BETA Gap Analysis (mi.)	Proposed New Sidewalks, Master Plan (mi.)	TOTALS (2021 Dollars) ¹		
			Total Proposed Sidewalk (mi.)	Design (20%)	Total Design + Construction Cost
TOTALS	0.71	4.82	5.53	\$875,952	\$5,255,712
Tier A - (Schools - 1/4 Mile)					
A	0.16	1.13	1.29	\$204,336	\$1,226,016
Tier B (Business District - 1/2 Mile)					
B	0.31	0.23	0.54	\$85,536	\$513,216
Tier C (Municipal Services - 1,000 Feet)					
C	0.00	1.01	1.01	\$159,984	\$959,904
Tier D (Remaining Areas)					
D	0.24	2.45	2.69	\$426,096	\$2,556,576
Total					
Total	0.71	4.82	5.53	\$875,952	\$5,255,712

Notes:

1. Sidewalk reconstruction estimated base priced is \$150 per linear foot based on a width of 5 feet.

Sidewalk/Curb Ramp Master Planning

PROJECT PRIORITIZATION

Priority Tier	Type	Distance	Location
A	Schools	1/4 Mile	Dale Street School, Memorial School, Wheelock School, Blake MS, Medfield HS
B	General Business District	1/2 Mile	Medfield Town Center
C	Town Hall	1,000 Feet	Medfield Town Hall
	Library	1,000 Feet	Medfield Public Library
	Public Safety	1,000 Feet	Police Station / Fire Station
	Senior Center	1,000 Feet	Medfield Council on Aging
	Public Works	1,000 Feet	DPW
	Parks and Recreation	1,000 Feet	Pfaff Community Center
	Parks	1,000 Feet	Baxter Memorial Park, Hinkley Park, McCarthy Park, Meeting House Park, Metacomet Park

Sidewalk Assessment Summary

“POOR” CONDITION SIDEWALKS (BASELINE)

<u>Status</u>	<u>Tier Area A</u>	<u>Tier Area B</u>	<u>Tier Area C</u>	<u>Tier Area D</u>	<u>Total</u>
REPLACE EXISTING ASPHALT SIDEWALKS (mi.)	0.69	1.56	0.04	5.78	8.07
REPLACE EXISTING CONCRETE/OTHER SIDEWALKS (mi.)	0	0.02	0	0	0.02
TOTAL (mi.)	0.69	1.58	0.04	5.78	<u>8.09</u>