

Traffic Signal System Master Plan

Prepared for:



South Central Regional Council of Governments
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Town of Hamden
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Introduction

Vanasse Hangen Brustlin, Inc. (VHB) has been retained by the South Central Regional Council of Governments (SCRCOG) to conduct the second phase of a traffic signal study in the Town of Hamden. The first phase, which was completed in March 2013, consisted of a field equipment inventory, review of signal phasing and timing settings, review of closed-loop system coordination settings, and an assessment of compliance with the guidelines in the Manual on Uniform Traffic Control Devices (MUTCD) for all town owned traffic signals in Hamden.

The second phase of this project consists of two tasks: 1) preparation of GIS mapping and a database incorporating the results of the Phase 1 traffic signal inventory; 2) preparation of a signal system master plan to prioritize the long-term replacement of traffic signals and provide short-term maintenance recommendations. The information gathered during the first phase provided the baseline for developing the overall replacement program and maintenance recommendations.

The GIS mapping and database was provided to the Town under a separate cover. This document provides a detailed summary of the physical needs, prioritized project ranking, and programming for the long-term traffic signal replacement plan and short-term maintenance recommendations.

Project Area

The project study area consists of 81 traffic control signals, three (3) flashing beacons, and six (6) illuminated signs, totaling 90 locations in the Town of Hamden. A majority of the traffic signals in the Town are located along the Dixwell Avenue and Whitney Avenue corridors. A map of the Town of Hamden identifying the location of each of these traffic control devices is included in Appendix A.

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Traffic Signal Replacement Plan

This section presents a description of the study approach and summary of the long-term traffic signal replacement plan.

Study Process / Prioritization Criteria

Numerous traffic signals in the Town of Hamden are in very poor condition and in need of total replacement. In order to prioritize the replacement of these existing traffic signals, a rating system was developed using the following four criteria:

- Age of Traffic Signal
- Condition Assessment of Signal Equipment
- MUTCD Compliance
- Daily Traffic Volumes

Points were assigned to rate each traffic control signal (on a scale of 0 to 3) based on the criteria listed above, and the cumulative score was then used to rank the traffic signals in terms of replacement priority (higher total score indicates a greater replacement priority). A description of the prioritization criteria and scoring methodology is provided in the following section.

Age of Traffic Signal

The age of the existing equipment is an important consideration in prioritizing the replacement of traffic signals. According to a survey of various transportation agencies¹, the life expectancy of various traffic signal components is as follows:

- Steel span poles/Mast arms: 20 years
- Twisted copper interconnect cable: 20 years
- Traffic controllers & cabinets: 15 years
- LED lamps: 6.5 years

As traffic signal equipment exceeds its life expectancy, failure of components tends to occur more frequently, which can increase maintenance costs, reduce efficiency of traffic flow, and potentially impact public safety. Furthermore, older traffic signal equipment may also have less functionality than modern signal systems. Upgrading obsolete signal equipment with a modern signal system can greatly improve the efficiency of traffic operations even if the older system was functioning properly.

The age of most existing traffic signals (2014 baseline) was determined based on available record plans and the approval date listed in State records. However, a reliable record of the installation date was not available at all locations. Where record plans were not available, the age of the existing signal equipment was estimated based on a visual inspection and/or the age of the surrounding traffic signals. Furthermore, it should be noted that some traffic signal components have been replaced more recently without upgrading the entire traffic signal (e.g. many controller cabinets were replaced recently, while the remaining signal equipment is much older). Where the traffic signal components at an intersection were not all installed at the same time, the age of the traffic signal was estimated based on the original installation date. The scoring methodology used to rate the age of existing signal equipment is outlined in the table below.

Points	Age of Existing Signal Equipment (2014 baseline)
0	0 – 9 years
1	10 – 19 years
2	20 – 29 years
3	30 years or older

¹ Markow, Michael J. 2007. *NCHRP Synthesis 371: Managing Selected Transportation Assets: Signals, Lighting, Signs, Pavement Markings, Culverts, and Sidewalks*. Transportation Research Board, National Academy of Sciences, Washington, DC.

Condition Assessment of Signal Equipment

The existing traffic signal equipment at many intersections is in very poor condition. As noted in the previous section, failing traffic signal equipment can increase maintenance costs, reduce efficiency of traffic flow, and potentially impact safety conditions. In evaluating the relative condition of existing signal equipment, a greater priority was placed on equipment failures that may have a greater impact to traffic operating conditions and/or safety conditions. Additionally, malfunctioning equipment that can be repaired was not weighted as heavily as failures that require replacement of equipment.

It should be noted that VHB did not conduct a structural engineering evaluation of traffic signal components. The approximate condition of existing signal equipment was assessed based on information provided by the Town of Hamden and superficial observations made by VHB staff during the Phase 1 traffic signal inventory, which was completed in March 2013. The limited condition assessment included herein is intended only to provide guidance in prioritizing the replacement of traffic signals.

The scoring methodology used to rate the condition of existing signal equipment is outlined in the table below.

Points	Description
0	Existing equipment is in relatively good condition. No damage to existing signal equipment was observed or reported by the Town.
1	Minor, mostly cosmetic, signs of wear were observed (e.g. faded or flaking paint in structures or signal housings). No damage that significantly impacts the operation of traffic signal was observed or reported by the Town.
2	Moderate signs of wear observed in traffic signal components, including some damage that may have minor impacts to operation of traffic signal (e.g. malfunctioning loop detectors, traffic signal LED's burned out, damaged traffic signal visors).
3	Fairly significant damage to existing traffic signal components was observed or reported by the Town, including some damage that may impact operation of traffic signal (e.g. noticeable rust in span poles or mast arms, damaged foundations, significant damage to controller cabinet, corrosion in signal attachment hardware).

MUTCD Compliance

The Manual on Uniform Traffic Control Devices (MUTCD) is a manual issued by the Federal Highway Administration (FHWA) to specify the standards by which traffic control devices are designed, installed, and used. All traffic signals in the United States are required to comply with MUTCD guidelines in order to ensure uniformity throughout the country and to enhance the safety and efficiency of the transportation system.

The MUTCD has been revised multiple times over the years, and as a result, many traffic signals in the Town that were MUTCD compliant when they were constructed do not meet current MUTCD guidelines.

The scoring methodology used to rate the MUTCD compliance of existing signal equipment is outlined in the table below.

Points	Description
0	Intersection fully complies with MUTCD guidelines
1	Intersection has minor MUTCD non-compliance issues that are correctable without replacement of signal equipment (e.g. trimming trees to improve visibility, updating non-compliant signal clearance times).
2	Intersection has moderate MUTCD non-compliance issues that may require replacement of existing signal equipment to correct.
3	Intersection has multiple, or one more significant, MUTCD non-compliance issues that require replacement of existing signal equipment to correct

Daily Traffic Volumes

In general, the number of motorists that may be negatively impacted by deficiencies in the existing traffic signal equipment is related to the volume of traffic driving through an intersection. As such, each intersection was rated based on daily traffic volumes in order to prioritize the replacement of traffic signal equipment at locations that would benefit the greatest number of motorists.

The scoring methodology used to rate the daily traffic volumes at each location is outlined in the table below.

Points	Average Daily Traffic Volumes on Major Street*
0	0 – 9,999
1	10,000 – 19,999
2	20,000 – 29,999
3	30,000 or greater

** Daily traffic volumes were based on CTDOT counts conducted in 2012. Major street traffic volumes were used, since traffic volume data was not available for every intersecting street in the study area.*

In addition to the daily traffic volumes data, a map depicting the functional classification of roadways in the Town of Hamden was obtained from CTDOT. Based on a review of this map, roadways with a higher functional classification generally experience higher traffic volumes, as expected. Since functional classification is closely related to daily traffic volumes, functional classification was not considered as a separate criterion in prioritizing the replacement of traffic signals.

Maps of the CTDOT daily traffic volume counts and functional classification of roadways in the Town of Hamden are included in Appendix B.

Traffic Signal Replacement Prioritization

As discussed in the previous section, the cumulative score assigned to four different criteria was used to rank the traffic signals in terms of replacement priority. This cumulative score was then used to further group the traffic signals into one of the following three categories for replacement priority:

High Priority: There is an urgent need to replace the traffic signal equipment at these intersections as soon as possible.

Medium Priority: There is presently a need to replace the traffic signal equipment at these intersections, and the work should be completed when funds are available.

Low Priority: There is no immediate need to replace the traffic signal equipment at these locations. However, equipment replacement will be needed in the future, so the replacement of traffic signal equipment at these locations should be scheduled into a long-term plan.

The results of the traffic signal replacement prioritization, including the scores assigned to each criteria, are summarized in *Table 1*.

Table 1
Traffic Signal Replacement Prioritization

Int. #	Street 1		Street 2	Age	Condition	MUTCD Compliance	Traffic Volumes	Total Points	Replacement Priority
9	Dixwell Ave.	at	Treadwell St.	3	3	2	2	10	HIGH
10	Dixwell Ave.	at	Mather St.	2	3	2	3	10	
47	State St.	at	Ridge Rd. & Merritt St.	3	3	3	1	10	
4	Dixwell Ave.	at	North Street	3	2	2	2	9	
7	Dixwell Ave.	at	Scott St. & Newton St.	3	2	2	2	9	
8	Dixwell Ave.	at	Church St.	3	2	2	2	9	
15	Dixwell Ave.	at	Center Plaza Entrance	1	3	2	3	9	
16	Dixwell Ave.	at	North Plaza Entrance	2	2	2	3	9	
1	Arch St.	at	Route 10 (Fitch St.) & Fairview Ave.	3	3	1	1	8	
73	Benham St.	at	Lane St. & Paradise Ave.	3	3	1	1	8	
74	Benham St.	at	Cherry Hill Rd.	3	3	1	1	8	
2	Dixwell Ave.	at	Cherry Ann St. & Goodrich St.	3	3	1	1	8	
20	Dixwell Ave.	at	Shepard Ave.	3	2	1	2	8	
22	Dixwell Ave.	at	Evergreen Ave.	2	2	2	2	8	
60	Mix Ave.	at	Shepard Ave.	3	3	2	0	8	
50	Putnam Ave.	at	Clifford St.	3	2	3	0	8	
51	Putnam Ave.	at	Newhall St. & Leeder Hill Dr.	3	2	2	1	8	
64	Ridge Rd.	at	Davis St.	2	3	2	1	8	
65	Ridge Rd.	at	Hartford Tpke.	3	3	2	0	8	
63	Shepard Ave.	at	West Shepard Ave.	3	3	2	0	8	
72	Circular Ave.	at	Gilbert Ave.	3	2	2	0	7	MEDIUM
67	Davis St.	at	Hartford Tpke.	3	2	1	1	7	
13	Dixwell Ave.	at	Route 15 SB Ramps	1	2	1	3	7	
57	Mix Ave.	at	Benham St.	3	2	1	1	7	
59	Mix Ave.	at	Skiff St.	3	1	3	0	7	
61	Shepard Ave.	at	Sanford St. & Howard Ave.	3	2	2	0	7	
62	Shepard Ave.	at	Sherman Ave.	3	2	2	0	7	
19	Skiff St.	at	Walmart & Kohls Drives	3	2	1	1	7	
70	Treadwell St.	at	Leeder Hill Dr.	3	3	1	0	7	
71	Circular Ave.	at	Church St.	3	2	1	0	6	
5	Dixwell Ave.	at	Woodin St. & Fourth St.	1	2	1	2	6	
6	Dixwell Ave.	at	Putnam Ave, Circular Ave. & Helen St.	1	1	2	2	6	
12	Dixwell Ave.	at	Route 15 NB Ramps	1	1	1	3	6	
14	Dixwell Ave.	at	Connolly Pkwy.	1	1	1	3	6	
75	Evergreen Ave.	at	Hamden Hills Dr. & School St.	2	2	2	0	6	
53	Goodrich St.	at	Shelton Ave.	3	2	1	0	6	
58	Mix Ave.	at	Hamden Plaza Drwy.	3	2	1	0	6	
52	Newhall St.	at	Morse St.	3	2	1	0	6	
68	Newhall St.	at	Mill Rock Ave.	3	2	1	0	6	
49	Putnam Ave.	at	Glendale St.	3	3	0	0	6	
66	Ridge Rd.	at	Waite St.	3	2	1	0	6	
56	Treadwell St.	at	Clifford St.	3	2	1	0	6	
18	Dixwell Ave.	at	Skiff St.	1	1	1	2	5	LOW
69	Pine Rock Ave.	at	Gorham Ave.	3	2	0	0	5	
46	State St.	at	Park Rd. & Armstrong St.	1	1	2	1	5	
30	Whitney Ave.	at	Evergreen Ave.	1	1	1	2	5	
35	Whitney Ave.	at	Buell St. & Spring Glen Medical	1	1	2	1	5	
54	Woodin St.	at	Fairview Ave.	3	1	1	0	5	
55	Woodin St.	at	Pine Rock Ave.	2	2	1	0	5	
79	Arch St.	at	Bowen St.	1	1	1	1	4	
11	Dixwell Ave.	at	Benham St.	0	0	1	3	4	
17	Dixwell Ave.	at	Marketplace & Hamden Mart	0	1	1	2	4	
77	Skiff St.	at	Farmington Canal Ped. Crossing	1	0	1	2	4	
36	Whitney Ave.	at	Skiff St.	0	1	2	1	4	
3	Dixwell Ave.	at	Route 10 (Arch St.) & Morse St.	0	0	1	2	3	
21	Dixwell Ave.	at	Sanford St. & Dorrance St.	0	0	1	2	3	
76	Skiff St.	at	Marketplace & LA Fitness	0	0	1	2	3	
31	Whitney Ave.	at	Sherman Ave.	0	0	1	2	3	
32	Whitney Ave.	at	West Woods Rd. & Mt. Carmel Ave.	0	0	1	2	3	
33	Whitney Ave.	at	Shepard Ave.	1	0	1	1	3	
37	Whitney Ave.	at	Glendower Rd. & Ridgewood Ave.	0	1	1	1	3	
41	Whitney Ave.	at	Waite St.	0	1	1	1	3	
42	Whitney Ave.	at	Treadwell St. & Mather St.	0	1	1	1	3	
43	Whitney Ave.	at	Putnam Ave.	0	1	1	1	3	
48	Whitney Ave.	at	Lincoln St.	0	1	1	1	3	
29	Whitney Ave.	at	Route 22 (Ives St.) & Dickerman St.	0	0	0	2	2	
38	Whitney Ave.	at	Thornton St.	0	0	1	1	2	
39	Whitney Ave.	at	Hawthorne Avenue	0	0	1	1	2	
40	Whitney Ave.	at	Park Ave. & Gillies Rd.	0	0	1	1	2	
44	Whitney Ave.	at	Davis St.	0	0	1	1	2	
45	Whitney Ave.	at	Armory St.	0	0	1	1	2	
78	Whitney Ave.	at	Treatment Plant & Eli Whitney Museum	0	0	1	1	2	
80	Sherman Ave.	at	Sherman Lane	0	0	1	0	1	
81	Sherman Ave.	at	Quinnipiac University	0	0	1	0	1	
23	Dixwell Ave.	at	Whitney Ave.	N/A	N/A	N/A	N/A	0	Scheduled for replacement under State Project No. 061-151
24	Dixwell Ave.	at	Washington Ave.	N/A	N/A	N/A	N/A	0	
25	Whitney Ave.	at	School St.	N/A	N/A	N/A	N/A	0	
26	Whitney Ave.	at	Elm St, James St. & Washington Ave.	N/A	N/A	N/A	N/A	0	
27	Whitney Ave.	at	Mt. Carmel Church	N/A	N/A	N/A	N/A	0	
28	Whitney Ave.	at	Route 40 WB Ramp	N/A	N/A	N/A	N/A	0	
34	Whitney Ave.	at	Worth Ave.	N/A	N/A	N/A	N/A	0	

Traffic Signal Replacement Program & Budget

The Town of Hamden has already begun the process of replacing its antiquated traffic control signal equipment. The Town received funding, and design is currently underway to replace traffic control signal equipment at seven (7) intersections along Whitney Avenue and Dixwell Avenue under State Project No. 061-151. Additionally, the Town has applied for STP-Urban funding in fiscal year 2014 to replace/upgrade traffic signal equipment at eight (8) additional intersections on Dixwell Avenue and Skiff Street.

The results of the rating system discussed in the previous section were used to identify additional traffic signal replacement projects and prepare a scheduled listing of intersections to be considered for total equipment replacement over a multi-year budget cycle. The total cost of each project (including engineering design, construction, and inspection) was estimated based on a review of similar projects that have recently been completed in the region. This preliminary estimate may be used as a guideline for budgetary purposes.

A summary of the recommended traffic signal replacement program and budget is presented in *Table 2*. A map of the Town of Hamden identifying the recommended traffic signal replacement projects is included in the Appendix C.

Flashing Beacons & Illuminated Signs

The Town of Hamden owns and maintains three (3) flashing beacons and six (6) illuminated signs. Based on conversations with the Town, there have been no reported issues with the operation of these devices. As such, there is no immediate need to upgrade the equipment. Replacement of the existing equipment should be scheduled if issues are reported or when funds are available.

Table 2**Long-Term Traffic Signal Replacement Schedule & Cost**

Federal Fiscal Year	Intersections Scheduled for Traffic Signal Equipment Replacement	Estimated Cost*
2013 (State Project No. 061-151)	23) Dixwell Ave. at Whitney Ave. 24) Dixwell Ave. at Washington Ave. 25) Whitney Ave. at School St. 26) Whitney Ave. at Elm St, James St. & Washington Ave. 27) Whitney Ave. at Mt. Carmel Church 28) Whitney Ave. at Route 40 WB Ramp 34) Whitney Ave. at Worth Ave.	\$3,330,000
2014	14) Dixwell Ave. at Connolly Pkwy. 15) Dixwell Ave. at Center Plaza Entrance 16) Dixwell Ave. at North Plaza Entrance 17) Dixwell Ave. at Marketplace & Hamden Mart 18) Dixwell Ave. at Skiff St. 19) Skiff St. at Walmart & Kohls Drives 20) Dixwell Ave. at Shepard Ave. 76) Skiff St. at Marketplace & LA Fitness	\$3,335,000
2015	1) Arch St. at Route 10 (Fitch St.) & Fairview Ave. 2) Dixwell Ave. at Cherry Ann St. & Goodrich St. 4) Dixwell Ave. at North Street 7) Dixwell Ave. at Scott St. & Newton St. 8) Dixwell Ave. at Church St. 9) Dixwell Ave. at Treadwell St. 10) Dixwell Ave. at Mather St. 12) Dixwell Ave. at Route 15 NB Ramps 13) Dixwell Ave. at Route 15 SB Ramps	\$3,850,000
2017	57) Mix Ave. at Benham St. 58) Mix Ave. at Hamden Plaza Drwy. 59) Mix Ave. at Skiff St. 60) Mix Ave. at Shepard Ave. 61) Shepard Ave. at Sanford St. & Howard Ave. 62) Shepard Ave. at Sherman Ave. 63) Shepard Ave. at West Shepard Ave. 73) Benham St. at Lane St. & Paradise Ave. 74) Benham St. at Cherry Hill Rd.	\$4,000,000
2019	46) State St. at Park Rd. & Armstrong St. 47) State St. at Ridge Rd. & Merritt St. 64) Ridge Rd. at Davis St. 65) Ridge Rd. at Hartford Tpke. 66) Ridge Rd. at Waite St. 67) Davis St. at Hartford Tpke.	\$2,800,000

*Assumed 2% per year for inflation.

Table 2**Long-Term Traffic Signal Replacement Schedule & Cost**

Federal Fiscal Year	Intersections Scheduled for Traffic Signal Equipment Replacement	Estimated Cost*
2021	49) Putnam Ave. at Glendale St. 50) Putnam Ave. at Clifford St. 51) Putnam Ave. at Newhall St. & Leeder Hill Dr. 52) Newhall St. at Morse St. 53) Goodrich St. at Shelton Ave. 56) Treadwell St. at Clifford St. 68) Newhall St. at Mill Rock Ave. 70) Treadwell St. at Leeder Hill Dr.	\$3,900,000
2023	3) Dixwell Ave. at Route 10 (Arch St.) & Morse St. 5) Dixwell Ave. at Woodin St. & Fourth St. 6) Dixwell Ave. at Putnam Ave, Circular Ave. & Helen St. 11) Dixwell Ave. at Benham St. 21) Dixwell Ave. at Sanford St. & Dorrance St. 22) Dixwell Ave. at Evergreen Ave. 75) Evergreen Ave. at Hamden Hills Dr. & School St. 79) Arch St. at Bowen St.	\$4,100,000
2025	54) Woodin St. at Fairview Ave. 55) Woodin St. at Pine Rock Ave. 69) Pine Rock Ave. at Gorham Ave. 71) Circular Ave. at Church St. 72) Circular Ave. at Gilbert Ave.	\$2,700,000
2027	29) Whitney Ave. at Route 22 (Ives St.) & Dickerman St. 30) Whitney Ave. at Evergreen Ave. 31) Whitney Ave. at Sherman Ave. 32) Whitney Ave. at West Woods Rd. & Mt. Carmel Ave. 33) Whitney Ave. at Shepard Ave. 80) Sherman Ave. at Sherman Lane 81) Sherman Ave. at Quinnipiac University	\$4,000,000
2029	35) Whitney Ave. at Buell St. & Spring Glen Medical 36) Whitney Ave. at Skiff St. 37) Whitney Ave. at Glendower Rd. & Ridgewood Ave. 38) Whitney Ave. at Thornton St. 39) Whitney Ave. at Hawthorne Avenue 40) Whitney Ave. at Park Ave. & Gillies Rd. 48) Whitney Ave. at Lincoln St. 77) Skiff St. at Farmington Canal Ped. Crossing	\$4,800,000
2031	41) Whitney Ave. at Waite St. 42) Whitney Ave. at Treadwell St. & Mather St. 43) Whitney Ave. at Putnam Ave. 44) Whitney Ave. at Davis St. 45) Whitney Ave. at Armory St. 78) Whitney Ave. at Treatment Plant & Eli Whitney Museum	\$3,800,000

*Assumed 2% per year for inflation.

3

Maintenance Recommendations

Numerous deficiencies that could be improved by performing maintenance on the traffic signals were identified during the traffic signal inventory. These issues were recorded and then prioritized into the following three categories:

- **Category 1 Priority** – These issues are recommended for immediate attention due to their negative impact on traffic operations. Some examples of this priority level include faulty vehicle detection, malfunctioning pedestrian signals, or sight line obstructions. In these cases, there is an immediate need to repair or upgrade this equipment to maintain/restore adequate traffic operations.
- **Category 2 Priority** – These issues require attention, but not because of their immediate impact on traffic operations. In some cases, these situations potentially could lead to Category 1 Priorities if left unattended for an extended length of time. Some examples of this priority level include damaged controller cabinets, worn pavement markings, or improper use of pedestrian countdown timers.
- **Category 3 Priority** – These are issues that are not critical to the proper operation of the intersection or public safety but could be improved. Some examples of this priority level include improper time of day settings programmed in controller or 8” traffic signal indications that should be upgraded to 12” indications.

It should be noted that only issues that are correctable through typical maintenance activities are listed in this section. Complex issues requiring more costly traffic signal equipment replacement were considered in prioritizing the total replacement of traffic signal equipment, discussed in the previous section. A summary of the traffic signal maintenance issues identified at each location is listed in **Table 3**. A more detailed description of the traffic signal maintenance issues, organized by location and maintenance priority, is included in the following section.

Table 3

Traffic Control Signal Maintenance Issues

Intersection ID / Location	Priority 1						Priority 2					Priority 3			
	Faulty vehicle detector	Malfunctioning pedestrian signals	Regulatory Sign needs to be replaced or relocated	Malfunctioning/ damaged signal indications	Sight Line obstruction	Phasing does not comply with MUTCD guidelines	Clearance times do not meet MUTCD guidelines	Worn pavement markings or non-regulatory signs	Improper use of ped. countdown timer	Minor equipment replacement needed	Misc. Controller Cabinet Issues	No sealant on conduit in cabinet	Improper controller programming	Non-compliant 8" traffic signal indications	Faulty system detector
1) Arch St. at Route 10 (Fitch St.) & Fairview Ave.			X				X	X		X		X	X		
2) Dixwell Ave. at Cherry Ann St. & Goodrich St.							X	X							
3) Dixwell Ave. at Route 10 (Arch St.) & Morse St.	X						X						X		
4) Dixwell Ave. at North Street							X	X		X		X	X	X	
5) Dixwell Ave. at Woodin St. & Fourth St.	X						X								
6) Dixwell Ave. at Putnam Ave, Circular Ave & Helen St							X		X						
7) Dixwell Ave. at Scott St. & Newton St.							X			X		X	X	X	
8) Dixwell Ave. at Church St.							X					X		X	
9) Dixwell Ave. at Treadwell St.							X					X	X	X	
10) Dixwell Ave. at Mather St.		X	X				X			X		X		X	
11) Dixwell Ave. at Benham St.							X								
12) Dixwell Ave. at Route 15 NB Ramps							X					X			
13) Dixwell Ave. at Route 15 SB Ramps							X					X			
14) Dixwell Ave. at Connolly Pkwy.							X	X	X						
15) Dixwell Ave. at Center Plaza Entrance							X					X		X	
16) Dixwell Ave. at North Plaza Entrance							X	X		X		X		X	
17) Dixwell Ave. at Marketplace & Hamden Mart							X					X			
18) Dixwell Ave. at Skiff St.					X		X					X			
19) Skiff St. at Walmart & Kohls Drives							X					X	X		
20) Dixwell Ave. at Shepard Ave.							X					X			
21) Dixwell Ave. at Sanford St. & Dorrance St.							X								
22) Dixwell Ave. at Evergreen Ave.							X		X			X		X	
23) Dixwell Ave. at Whitney Ave.	X			X			X					X	X	X	
24) Dixwell Ave. at Washington Ave.		X					X					X			
25) Whitney Ave. at School St.						X	X		X			X		X	
26) Whitney Ave. at Elm St, James St & Washington Ave							X						X	X	
27) Whitney Ave. at Mt. Carmel Church							X					X			
28) Whitney Ave. at Route 40 WB Ramp				X			X					X			
29) Whitney Ave. at Route 22 (Ives St.) & Dickerman St.															
30) Whitney Ave. at Evergreen Ave.							X						X		
31) Whitney Ave. at Sherman Ave.							X								
32) Whitney Ave. at West Woods Rd & Mt Carmel Ave							X						X		
33) Whitney Ave. at Shepard Ave.							X								
34) Whitney Ave. at Worth Ave.							X	X	X			X			
35) Whitney Ave. at Buell St. & Spring Glen Medical		X					X		X						
36) Whitney Ave. at Skiff St.							X		X			X	X		
37) Whitney Ave. at Glendower Rd. & Ridgewood Ave.	X						X								
38) Whitney Ave. at Thornton St.							X								
39) Whitney Ave. at Hawthorne Avenue							X						X		
40) Whitney Ave. at Park Ave. & Gillies Rd.							X								
41) Whitney Ave. at Waite St.	X						X								
42) Whitney Ave. at Treadwell St. & Mather St.							X								X
43) Whitney Ave. at Putnam Ave.	X						X								
44) Whitney Ave. at Davis St.							X								
45) Whitney Ave. at Armory St.							X						X		
46) State St. at Park Rd. & Armstrong St.							X					X	X	X	
47) State St. at Ridge Rd. & Merritt St.		X					X					X		X	
48) Whitney Ave. at Lincoln St.	X			X			X								
49) Putnam Ave. at Glendale St.			X					X		X					
50) Putnam Ave. at Clifford St.		X	X				X					X			
51) Putnam Ave. at Newhall St. & Leeder Hill Dr.					X		X	X				X			
52) Newhall St. at Morse St.							X					X			
53) Goodrich St. at Shelton Ave.							X					X			
54) Woodin St. at Fairview Ave.							X					X	X		
55) Woodin St. at Pine Rock Ave.			X				X	X				X			
56) Treadwell St. at Clifford St.							X					X			
57) Mix Ave. at Benham St.							X					X	X		
58) Mix Ave. at Hamden Plaza Drwy.							X					X			
59) Mix Ave. at Skiff St.						X	X	X				X			
60) Mix Ave. at Shepard Ave.					X		X					X	X		
61) Shepard Ave. at Sanford St. & Howard Ave.							X		X			X		X	
62) Shepard Ave. at Sherman Ave.	X						X			X		X		X	
63) Shepard Ave. at West Shepard Ave.			X				X			X		X	X	X	
64) Ridge Rd. at Davis St.						X	X					X			
65) Ridge Rd. at Hartford Tpke.							X					X	X		
66) Ridge Rd. at Waite St.							X					X	X		
67) Davis St. at Hartford Tpke.							X					X	X		
68) Newhall St. at Mill Rock Ave.							X		X			X	X		
69) Pine Rock Ave. at Gorham Ave.								X		X		X	X		
70) Treadwell St. at Leeder Hill Dr.							X								
71) Circular Ave. at Church St.							X	X	X				X		
72) Circular Ave. at Gilbert Ave.							X	X				X	X		
73) Benham St. at Lane St. & Paradise Ave.							X					X	X		
74) Benham St. at Cherry Hill Rd.							X	X				X	X		
75) Evergreen Ave at Hamden Hills Dr. & School St.		X					X					X	X		
76) Skiff St. at Marketplace & LA Fitness							X						X		
77) Skiff St. at Farmington Canal Ped. Crossing							X								
78) Whitney Ave. at Treatment Plant & Museum							X								
79) Arch St. at Bowen St.							X	X							
80) Sherman Ave. at Sherman Lane							X						X		
81) Sherman Ave. at Quinnipiac University							X								

1) Arch Street at Route 10 (Fitch Street) & Fairview Avenue

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ A pedestrian push button sign on the northwest corner is missing and should be replaced. ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ The visors on the signal heads facing the eastbound Arch Street approach are rotated 90° clockwise so that the visors are on the right side of the signal face. It appears that this was done to block view of these signals from the Fitch Street approach. These visors should be replaced with tunnel visors. ➤ Crosswalk and stop bar pavement markings are worn and should be replaced. ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ Time of day events in the controller are only programmed for days 1 - 5 (Sunday through Thursday). Time of day events should be programmed for all seven days.

2) Dixwell Avenue at Cherry Ann Street & Goodrich Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ Crosswalk pavement markings are worn and should be replaced. ➤ Reseal the conduit in the controller cabinet.
3	None

3) Dixwell Avenue at Arch Street & Morse Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ A vehicle detector is showing a fault and should be repaired. According to the label in the cabinet, it is the rear left-lane detector on southbound Dixwell Avenue (S7). ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	<ul style="list-style-type: none"> ➤ Daylight savings time settings in the controller should be corrected.

4) Dixwell Avenue at North Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ The handhole cover on the span pole at the northeast corner is missing and should be replaced. ➤ Crosswalk pavement markings are worn and should be replaced. ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ Time of day events in the controller are only programmed for day 4 (Wednesday). Time of day events should be programmed for all seven days. ➤ The 8" signal indications in the signals facing Dixwell Avenue do not comply with current MUTCD guidelines and should be replaced with 12" signal indications. However, the MUTCD permits existing non-compliant 8" signal indications to be retained for the remainder of their useful service life.

5) Dixwell Avenue at Woodin & Fourth

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ A vehicle detector is showing a fault and should be repaired. ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	None

6) Dixwell Avenue at Putnam Avenue & Circular Avenue

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ The northeast pedestrian signal is equipped with a countdown timer that never turns on. This should be repaired so that the countdown timer turns on during the flashing pedestrian clearance interval.
3	None

7) Dixwell Avenue at Scott Street & Newton Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ The controller was displaying a low battery message. The controller should be inspected, and the backup battery should be replaced if needed. ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ Daylight savings time settings in the controller should be corrected. ➤ The 8" signal indications in the signals facing Dixwell Avenue do not comply with current MUTCD guidelines and should be replaced with 12" signal indications. However, the MUTCD permits existing non-compliant 8" signal indications to be retained for the remainder of their useful service life.

8) Dixwell Avenue at Church Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ The 8" signal indications in the signals facing Dixwell Avenue do not comply with current MUTCD guidelines and should be replaced with 12" signal indications. However, the MUTCD permits existing non-compliant 8" signal indications to be retained for the remainder of their useful service life.

9) Dixwell Avenue at Treadwell Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ Time of day and daylight savings time settings in the controller should be corrected. ➤ The 8" signal indications in the signals facing Dixwell Avenue do not comply with current MUTCD guidelines and should be replaced with 12" signal indications. However, the MUTCD permits existing non-compliant 8" signal indications to be retained for the remainder of their useful service life.

10) Dixwell Avenue at Mather Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ A malfunctioning pedestrian signal should be repaired. ➤ A pedestrian push button sign on the southeast corner is missing and should be replaced. ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet. ➤ A missing handhole cover at the based of the northwestern span pole should be replaced.
3	<ul style="list-style-type: none"> ➤ The 8" signal indications in the signals facing Dixwell Avenue do not comply with current MUTCD guidelines and should be replaced with 12" signal indications. However, the MUTCD permits existing non-compliant 8" signal indications to be retained for the remainder of their useful service life.

11) Dixwell Avenue at Benham Street & Parkway Plaza Drive

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines
2	None
3	None

12) Dixwell Avenue at Route 15 NB Ramps

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular clearance times should be updated to meet current MUTCD guidelines
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	None

13) Dixwell Avenue at Route 15 SB Ramps

Priority	Maintenance Recommendations
1	➤ Vehicular clearance times should be updated to meet current MUTCD guidelines
2	➤ Reseal the conduit in the controller cabinet.
3	None

14) Dixwell Avenue at Connolly Parkway & Hamden High School

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines
2	<ul style="list-style-type: none"> ➤ The pedestrian countdown timers were on during the pedestrian walk interval. This should be repaired so that the countdown timer turns on during the flashing pedestrian clearance interval only. ➤ The crosswalk pavement markings are worn and should be replaced.
3	None

15) Dixwell Avenue at Center Plaza Drive

Priority	Maintenance Recommendations
1	➤ Vehicular clearance times should be updated to meet current MUTCD guidelines
2	➤ Reseal the conduit in the controller cabinet.
3	➤ The 8" signal indications in the signals facing Dixwell Avenue do not comply with current MUTCD guidelines and should be replaced with 12" signal indications. However, the MUTCD permits existing non-compliant 8" signal indications to be retained for the remainder of their useful service life.

16) Dixwell Avenue at North Plaza Drive

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet. ➤ The crosswalk pavement markings are worn and should be replaced. ➤ A vehicle signal head facing the driveway approach is a 4-section signal, but the bottom section remains blank at all times. The bottom signal section should be removed.
3	<ul style="list-style-type: none"> ➤ The 8" signal indications in the signals facing Dixwell Avenue do not comply with current MUTCD guidelines and should be replaced with 12" signal indications. However, the MUTCD permits existing non-compliant 8" signal indications to be retained for the remainder of their useful service life.

17) Dixwell Avenue at Hamden Mart / Hamden Retail Center

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	None

18) Dixwell Avenue at Skiff Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ A sign post with "Do Not Enter" and one-way signs on the northeast corner is twisted and obstructs the view of a nearby pole mounted signal. This sign should be repaired/relocated to improve visibility of the signal head. ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	None

19) Skiff Street at Walmart & Kohls Drives

Priority	Maintenance Recommendations
1	➤ Vehicular clearance times should be updated to meet current MUTCD guidelines
2	➤ Reseal the conduit in the controller cabinet.
3	➤ Daylight savings time settings in the controller should be corrected.

20) Dixwell Avenue at Shepard Avenue

Priority	Maintenance Recommendations
1	➤ Vehicular clearance times should be updated to meet current MUTCD guidelines
2	➤ Reseal the conduit in the controller cabinet.
3	None

21) Dixwell Avenue at Sanford Street & Middle School

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	None

22) Dixwell Avenue at Evergreen Avenue

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ The pedestrian countdown timers were on during the pedestrian walk interval. This should be repaired so that the countdown timer turns on during the flashing pedestrian clearance interval only. ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ The 8" signal indications in the signals facing Dixwell Avenue do not comply with current MUTCD guidelines and should be replaced with 12" signal indications. However, the MUTCD permits existing non-compliant 8" signal indications to be retained for the remainder of their useful service life.

23) Dixwell Avenue at Whitney Avenue

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ A vehicle detector is showing a fault and should be repaired. ➤ A yellow left-turn arrow on Whitney Avenue is out and should be replaced. ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ Time of day and daylight savings time settings in the controller should be corrected. ➤ The 8" signal indications in the signals facing Dixwell Avenue do not comply with current MUTCD guidelines and should be replaced with 12" signal indications. However, the MUTCD permits existing non-compliant 8" signal indications to be retained for the remainder of their useful service life.

24) Dixwell Avenue at Washington Avenue

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Malfunctioning pedestrians signals should be repaired (man & hand indications were displayed at the same time during walk interval). ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	None

25) Whitney Avenue at School Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines. ➤ Phase 2 (NB / SB Whitney Avenue) allows permissive left-turns from southbound Whitney Avenue, and phase 3 is a lagging northbound left-turn phase. This phasing creates a potential “yellow trap” for southbound left turns, which does not comply with MUTCD guidelines. This issue can be resolved by changing the northbound left-turn phase to a lead phase, or by installing a “ONCOMING TRAFFIC HAS EXTENDED GREEN” sign near the left signal head on the northbound approach.
2	<ul style="list-style-type: none"> ➤ Pedestrian countdown timers are malfunctioning and should be repaired so that the countdown timer is displayed during the flashing pedestrian clearance interval only. ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ The 8” signal indications in the signals facing Whitney Avenue do not comply with current MUTCD guidelines and should be replaced with 12” signal indications. However, the MUTCD permits existing non-compliant 8” signal indications to be retained for the remainder of their useful service life.

26) Whitney Avenue at Washington Avenue, James Street & Elm Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	<ul style="list-style-type: none"> ➤ The 8" signal indications in the signals facing Whitney Avenue do not comply with current MUTCD guidelines and should be replaced with 12" signal indications. However, the MUTCD permits existing non-compliant 8" signal indications to be retained for the remainder of their useful service life. ➤ Day of week settings in the controller should be corrected.

27) Whitney Avenue at Mt Carmel Church

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	None

28) Dixwell Avenue at Route 40 WB Ramp

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ The circular red indications on the signal heads facing the Route 40 WB Ramp remain on at all times. This should be repaired so that the red indications are not displayed during the green or yellow intervals. ➤ Vehicular clearance times should be updated to meet current MUTCD guidelines
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	None

29) Whitney Avenue at Route 22 & Dickerman Street

Priority	Maintenance Recommendations
1	None
2	None
3	None

30) Whitney Avenue at Evergreen Avenue

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	➤ Time of day and daylight savings time settings in the controller should be corrected.

31) Whitney Avenue at Sherman Avenue

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	None

32) Whitney Avenue at Mount Carmel Avenue & West Woods Road

Priority	Maintenance Recommendations
1	➤ Pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	➤ Time of day events in the controller are only programmed for days 2 - 6 (Monday to Friday). Time of day events should be programmed for all seven days.

33) Whitney Avenue at Shepard Avenue

Priority	Maintenance Recommendations
1	➤ Vehicular clearance times should be updated to meet current MUTCD guidelines.
2	None
3	None

34) Whitney Avenue at Worth Avenue

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ Pedestrian countdown timers were on during the pedestrian walk interval. This should be repaired so that the countdown timer turns on during the flashing pedestrian clearance interval only. ➤ Reseal the conduit in the controller cabinet. ➤ Crosswalk pavement markings are worn and should be replaced.
3	None

35) Whitney Avenue at Buell Street & Medical Center

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ A malfunctioning pedestrian signal should be repaired (man/hand indications were displayed at the same time during walk interval). ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	➤ The pedestrian countdown timers were on during the pedestrian walk interval. This should be repaired so that the countdown timer turns on during the flashing pedestrian clearance interval only.
3	None

36) Whitney Avenue at Skiff Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ The pedestrian countdown timers were on during the pedestrian walk interval. This should be repaired so that the countdown timer turns on during the flashing pedestrian clearance interval only. ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ Time of day events in the controller are only programmed for days 2 - 6 (Monday to Friday). Time of day events should be programmed for all seven days.

37) Whitney Avenue at Glendower Road & Ridgewood Avenue

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ A vehicle detector is showing a fault and should be repaired. According to the label in the cabinet, it is the front left-lane detector on southbound Whitney Avenue. ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	None

38) Whitney Avenue at Thornton Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	None

39) Whitney Avenue at Hawthorne Avenue

Priority	Maintenance Recommendations
1	➤ Vehicular clearance times should be updated to meet current MUTCD guidelines.
2	None
3	➤ Daylight savings time settings in the controller should be corrected.

40) Whitney Avenue at Park Avenue & Gillies Road

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	None

41) Whitney Avenue at Waite Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ A vehicle detector is showing a fault and should be repaired. According to the label in the cabinet, it is the left-lane front detector on southbound Whitney Avenue (D2E). ➤ Pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	None

42) Whitney Avenue at Treadwell Street & Mather Street

Priority	Maintenance Recommendations
1	➤ Pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	➤ A system detector is showing a fault and should be repaired. According to the label in the cabinet, it is the system detector in the left-lane of the northbound approach.

43) Whitney Avenue at Putnam Avenue

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ A vehicle detector is showing a fault and should be repaired. According to the label in the cabinet, it is the rear left-lane detector on southbound Whitney Avenue. ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ The sealant for the loop detector in westbound Lake Avenue approach is deteriorated and should be restored.
3	None

44) Whitney Avenue at Davis Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	None

45) Whitney Avenue at Armory Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	<ul style="list-style-type: none"> ➤ The intersection operates at a different cycle length (121 seconds) than the other intersections along the corridor under coordination patterns 1-1-1 and 3-1-1, which run during the weekday morning and evening peak hours. This should be investigated and revised to match the adjacent intersections along the corridor to improve vehicle progression.

46) State Street at Park Road & Armstrong Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	<ul style="list-style-type: none"> ➤ The 8" signal indications in the signals facing State Street do not comply with current MUTCD guidelines and should be replaced with 12" signal indications. However, the MUTCD permits existing non-compliant 8" signal indications to be retained for the remainder of their useful service life. ➤ Daylight savings time settings in the controller should be corrected.

47) State Street at Ridge Road & Merritt Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Pedestrian signal heads are malfunctioning and should be repaired. ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ The 8" signal indications in the signals facing State Street do not comply with current MUTCD guidelines and should be replaced with 12" signal indications. However, the MUTCD permits existing non-compliant 8" signal indications to be retained for the remainder of their useful service life.

48) Whitney Avenue at Lincoln Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Pedestrian signals have burned out LEDs and should be replaced. ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines. ➤ Video detection on the post office drive seems to be functioning inefficiently, as some vehicles were not detected. This should be investigated, and the detection zone adjusted to improve efficiency.
2	None
3	None

49) Putnam Avenue at Glendale Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ The “No Turn on Red” sign for westbound Putnam Avenue is very faded and twisted around so that it is facing Glendale Street. This sign should be replaced.
2	<ul style="list-style-type: none"> ➤ Crosswalk pavement markings are worn and should be replaced. ➤ The controller cabinet is in poor condition, and the pedestal supporting the cabinet is unstable. Although this intersection was listed as a high priority for total equipment replacement, replacing the cabinet sooner may be necessary if conditions deteriorate.
3	None

50) Putnam Avenue at Clifford Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines. ➤ Pedestrian signals are malfunctioning and should be repaired. ➤ A pedestrian push button sign is missing and should be replaced.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	None

51) Putnam Avenue at Newhall Street & Leeder Hill Drive

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines. ➤ Tree branches hanging over the road may obstruct visibility of the signal faces from the northbound approach. These tree branches should be trimmed to maintain visibility of the signal faces.
2	<ul style="list-style-type: none"> ➤ The pedestrian countdown timers were on during the pedestrian walk interval. This should be repaired so that the countdown timer turns on during the flashing pedestrian clearance interval only. ➤ Reseal the conduit in the controller cabinet. ➤ Some street name signs and parking signs at the intersection are very faded and are not legible. These signs should be replaced.
3	None

52) Newhall Street at Morse Street

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	➤ Reseal the conduit in the controller cabinet.
3	None

53) Goodrich Street at Shelton Avenue

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	➤ Reseal the conduit in the controller cabinet.
3	None

54) Woodin Street at Fairview Avenue

Priority	Maintenance Recommendations
1	➤ Vehicular clearance times should be updated to meet current MUTCD guidelines.
2	➤ Reseal the conduit in the controller cabinet.
3	➤ Daylight savings time settings in the controller should be corrected.

55) Woodin Street at Pine Rock Avenue

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines. ➤ The “STOP HERE ON RED” sign on westbound Woodin Street is not properly aligned with the stop bar, and it should be relocated.
2	<ul style="list-style-type: none"> ➤ Crosswalk and stop bar pavement markings are worn and should be replaced. ➤ Reseal the conduit in the controller cabinet.
3	None

56) Treadwell Street at Clifford Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines. ➤ A pedestrian push button sign is missing and should be replaced.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	None

57) Mix Avenue at Benham Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ Daylight savings time settings in the controller should be corrected.

58) Mix Avenue at Hamden Plaza

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	➤ Reseal the conduit in the controller cabinet.
3	None

59) Mix Avenue at Skiff Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines. ➤ Eastbound and westbound left-turns from Skiff Street are accommodated by protected / permissive phasing. However, the eastbound protected left-turn phase (Phase 3) lags the opposing through phase (Phase 2). This situation creates a potential “yellow trap” for westbound left-turns, which does not comply with MUTCD guidelines. This issue can be resolved by eliminating the eastbound left-turn phase (Phase 3), or by installing a “ONCOMING TRAFFIC HAS EXTENDED GREEN” sign near the left signal head facing the westbound approach.
2	<ul style="list-style-type: none"> ➤ The pedestrian countdown timers were on during the pedestrian walk interval. This should be repaired so that the countdown timer turns on during the flashing pedestrian clearance interval only. ➤ Reseal the conduit in the controller cabinet. ➤ Crosswalk pavement markings are worn and should be replaced.
3	None

60) Mix Avenue at Shepard Avenue

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular clearance times should be updated to meet current MUTCD guidelines. ➤ Visibility of the signal heads on westbound Shepard Avenue is limited due to the horizontal curvature of the road and vegetation overhanging the road. The vegetation should be cleared to improve visibility of the signal heads. ➤ A traffic signal was resting at an angle against overhead communication cable, and the utility pole supporting the communications cable was damaged and leaning, causing the cable to shift into the traffic signal. The utility pole and communications cable should be replaced to provide clearance between the traffic signals and communication cables.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ Time of day and daylight savings time settings in the controller should be corrected.

61) Shepard Avenue at Sanford Street & Howard Avenue

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ The handhole cover on the span pole at the western corner of Howard Avenue is missing and should be replaced. ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ The 8" signal indications in the signals facing Shepard Avenue do not comply with current MUTCD guidelines and should be replaced with 12" signal indications. However, the MUTCD permits existing non-compliant 8" signal indications to be retained for the remainder of their useful service life.

62) Shepard Avenue at Sherman Avenue

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines. ➤ A vehicle detector is showing a fault and should be repaired.
2	<ul style="list-style-type: none"> ➤ The controller was displaying a low battery message. The controller should be inspected, and the backup battery should be replaced if needed. ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ The 8" signal indications in the signals facing Shepard Avenue do not comply with current MUTCD guidelines and should be replaced with 12" signal indications. However, the MUTCD permits existing non-compliant 8" signal indications to be retained for the remainder of their useful service life.

63) Shepard Avenue at West Shepard Avenue

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines. ➤ The "No Turn on Red" sign facing West Shepard Avenue is very faded and twisted around. This sign should be replaced.
2	<ul style="list-style-type: none"> ➤ The controller cabinet is in very poor condition. The bottom of the cabinet has deteriorated so that the underside of the cabinet is partially open. Although this intersection was listed as a high priority for total equipment replacement, consideration may be given to replacing the cabinet sooner to prevent damage to internal components from moisture and environmental conditions.
3	<ul style="list-style-type: none"> ➤ The 8" signal indications in the signals facing Shepard Avenue do not comply with current MUTCD guidelines and should be replaced with 12" signal indications. However, the MUTCD permits existing non-compliant 8" signal indications to be retained for the remainder of their useful service life. ➤ Daylight savings time settings in the controller should be corrected.

64) Ridge Road at Davis Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines. ➤ A right-turn only phase is provided (phase 1 overlap) for eastbound Davis Street. However, Davis Street does not have an exclusive right-turn lane, so this right-turn phase does not comply with MUTCD guidelines. This issue can be resolved by either eliminating the right-turn overlap or by restriping Davis Street to provide a shared left-turn/through lane and an exclusive right-turn lane.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	None

65) Ridge Road at Hartford Turnpike

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ Daylight savings time settings in the controller should be corrected.

66) Ridge Road at Waite Street

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ Daylight savings time settings in the controller should be corrected.

67) Davis Street at Hartford Turnpike

Priority	Maintenance Recommendations
1	➤ Vehicular clearance times should be updated to meet current MUTCD guidelines.
2	None
3	➤ Daylight savings time settings in the controller should be corrected.

68) Newhall at Mill Rock Road

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ The pedestrian countdown timers were on during the pedestrian walk interval. This should be repaired so that the countdown timer turns on during the flashing pedestrian clearance interval only. ➤ Reseal the conduit in the controller cabinet.
3	➤ Daylight savings time settings in the controller should be corrected.

69) Pine Rock Avenue at Gorham Avenue & Brook Street

Priority	Maintenance Recommendations
1	None
2	<ul style="list-style-type: none"> ➤ The handhole cover on the span pole at the northwest corner is missing and should be replaced. ➤ Crosswalk and stop bar pavement markings are worn and should be replaced. ➤ Reseal the conduit in the controller cabinet.
3	➤ Daylight savings time settings in the controller should be corrected.

70) Treadwell Street at Leeder Hill Drive

Priority	Maintenance Recommendations
1	➤ Vehicular clearance times should be updated to meet current MUTCD guidelines.
2	None
3	None

71) Circular Avenue at Church Street

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ The pedestrian countdown timers were on during the pedestrian walk interval. This should be repaired so that the countdown timer turns on during the flashing pedestrian clearance interval only. ➤ Crosswalk pavement markings are worn and should be replaced.
3	➤ Daylight savings time settings in the controller should be corrected.

72) Circular Avenue at Gilbert Avenue

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	<ul style="list-style-type: none"> ➤ Crosswalk pavement markings are worn and should be replaced. ➤ Reseal the conduit in the controller cabinet.
3	➤ Daylight savings time settings in the controller should be corrected.

73) Benham Street at Paradise Avenue & Lane Street

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	➤ Reseal the conduit in the controller cabinet.
3	➤ Daylight savings time settings in the controller should be corrected.

74) Benham Street at Cherry Hill Road

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines. ➤ Some pedestrian push button signs are either missing or faded. These signs should be replaced.
2	<ul style="list-style-type: none"> ➤ Crosswalk pavement markings are worn and should be replaced. ➤ Reseal the conduit in the controller cabinet.
3	<ul style="list-style-type: none"> ➤ Daylight savings time settings in the controller should be corrected.

75) Evergreen Avenue at School Street & Hamden Hills Drive

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines. ➤ Malfunctioning pedestrian signals should be repaired.
2	None
3	None

76) Skiff Street at Marketplace & LA Fitness

Priority	Maintenance Recommendations
1	<ul style="list-style-type: none"> ➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	<ul style="list-style-type: none"> ➤ Time of day settings in the controller should be corrected.

77) Skiff Street at Farmington Canal Pedestrian Crossing

Priority	Maintenance Recommendations
1	➤ Pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	None

78) Whitney Avenue at Water Treatment Plant & Eli Whitney Museum

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	None

79) Arch Street at Bowen Street

Priority	Maintenance Recommendations
1	➤ Vehicular clearance times should be updated to meet current MUTCD guidelines.
2	➤ Crosswalk and stop bar pavement markings are worn and should be replaced.
3	None

80) Sherman Avenue at Sherman Lane

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	➤ Time of day events in the controller are only programmed for days 2 - 6 (Monday to Friday). Time of day events should be programmed for all seven days.

81) Sherman Avenue at Quinnipiac University Campus Drive

Priority	Maintenance Recommendations
1	➤ Vehicular and pedestrian clearance times should be updated to meet current MUTCD guidelines.
2	None
3	None