

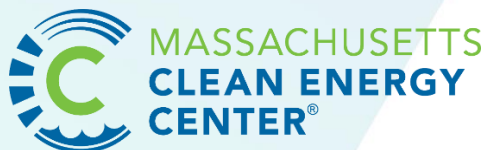


# MassCEC On-Street Charging Solutions Program

## FEASIBILITY STUDY FINAL REPORT

**Town of South Hadley**

December 16, 2025



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## Introduction

Thank you for participating in the Massachusetts Clean Energy Center (“MassCEC”) On-Street Charging Solutions Program (the “Program”). On-street charging solutions, such as curbside, pole-mounted, and streetlight charging stations, have become increasingly appealing for municipalities looking to ensure all communities, especially Environmental Justice Communities (“EJCs”) and communities with a high percentage of residents without private parking, have access to sufficient charging options. However, to install on-street charging stations, municipalities face high upfront costs and complex technical landscapes that are challenging to navigate.

Through MassCEC's consultant team, led by Commonwealth Electrical Technologies (“CET”) and Leidos, the Program provides technical and financial assistance to municipalities interested in increasing access to on-street charging stations. CET and Leidos are pleased to present this Feasibility Study to the Town of South Hadley, in hopes that it will better prepare them for future deployment of on-street charging infrastructure projects.

## Executive Summary

Following a program kick-off meeting, Leidos began collaborative discussions with the Town of South Hadley to discuss possible on-street charging locations. The team then performed community outreach activities, tailored to the specific Town needs, to obtain feedback from local community stakeholders on the proposed on-street charging locations.

In addition to the community outreach efforts, Leidos held discussions with the various municipal departments and completed on-site assessments. The Town of South Hadley decided on five potential sites to target for on-street charging analysis and Community Outreach Surveys. Through the site evaluation process, review of available online data, and in-person site assessments, it was determined that all five locations are candidates for future project implementation.

Preliminary Site List:

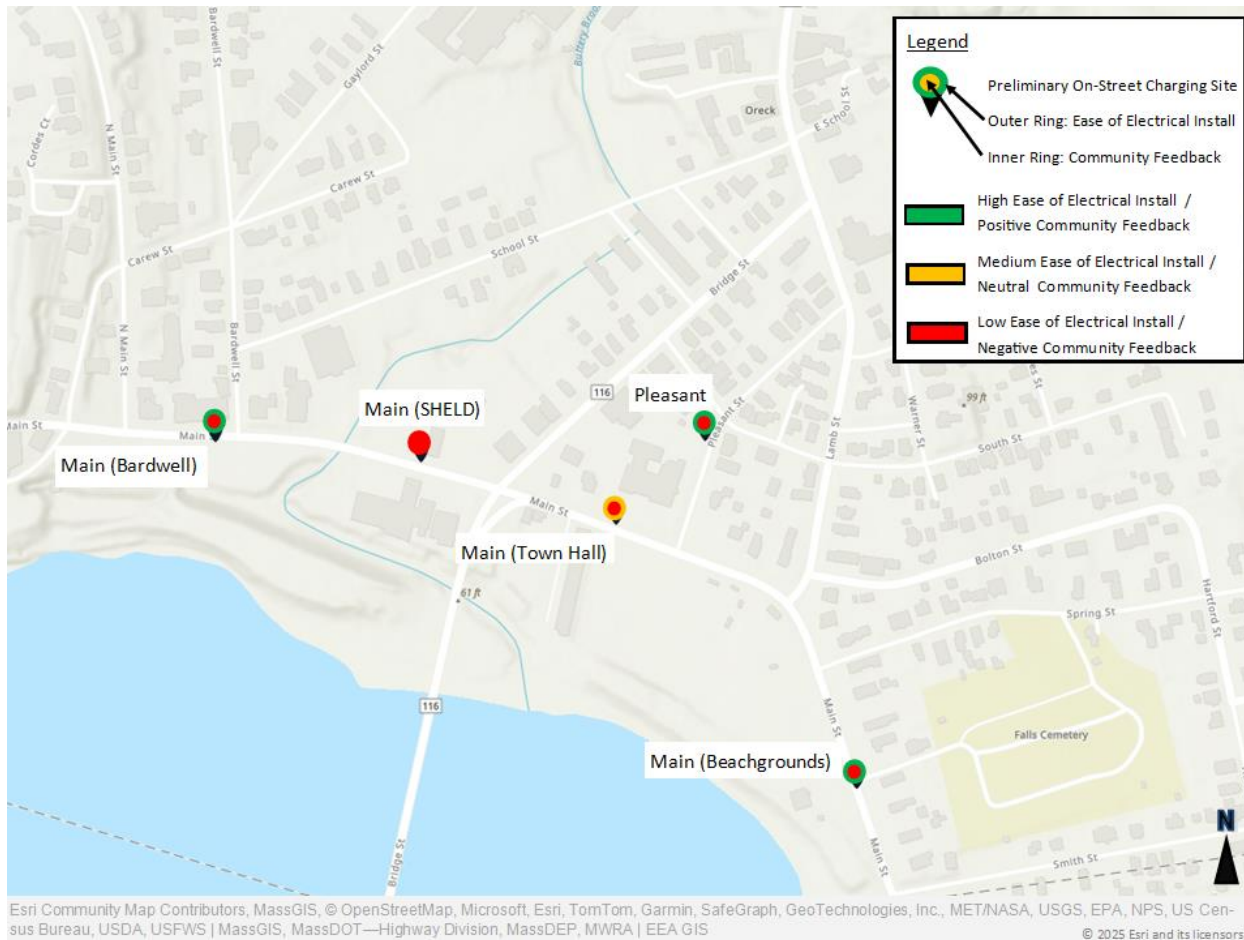
1. [Main Street near Town Hall](#)
2. [Beachgrounds Park near Basketball Court](#)
3. [Main Street between N Main & Bardwell](#)
4. [Main Street near SHELD bldg.](#)
5. [Pleasant Street near Town Hall Parking](#)

The Preliminary Site Selection Summary Table, shown below, is the same as the Final Site Selection Summary Table because all sites are recommended for installation.

Table 1: Preliminary Site Selection Summary Table

| Site | Street                                  | Community Feedback | FIRM Flood Zone | Environmental               | Neighborhood Score Range | Ease of Electrical Install |
|------|---|--------------------|-----------------|-----------------------------|--------------------------|----------------------------|
| 1    | Main Street near Town Hall              | Negative           | Zone A 13       | -                           | High                     | Medium                     |
| 2    | Beachgrounds Park near Basketball Court | Negative           | Zone A 13       | -                           | Mid                      | High                       |
| 3    | Main Street between N Main & Bardwell   | Negative           | Zone B          | -                           | High                     | High                       |
| 4    | Main Street near SHELD bldg.            | Negative           | Zone A 13       | -                           | High                     | Low                        |
| 5    | Pleasant Street near Town Hall          | Negative           | Zone A 13       | AUL (Former Police Station) | High                     | High                       |

Figure 1: Preliminary On-Street Charging Sites



## Preliminary Site Selection

The preliminary sites were identified based on general suitability factors including availability of on-street parking, access to existing electrical infrastructure / ease of electrical installation as well as minimizing environmental impact.

The MassCEC Program-specific site selection criteria were also considered:

- proximity to densely populated residential areas lacking access to off-street parking
- locations within the Municipality zoned for multi-family and residential density
- proximity to EJC (Environmental Justice Community) designated areas
- proximity to existing publicly available charging stations.

## Municipal Discussions and Review

Discussions were held with many Municipal Officials about the potential on-street charging sites and the associated construction in the Municipal rights-of-way.

Areas of discussion included:

- Recently paved roadways – moratoriums on pavement cuts
- Sidewalk plowing areas & School Zones
- Areas/Roads that are frequently closed for poor drainage/ponding on roadway
- Areas frequently incurring storm damage or used for snow removal stockpiles
- Areas where development and additional roadways/intersections are likely (new development projects in the permitting process)
- Conservation & Environmental – Wetlands / Riverfront / Flood Zones / AUL

The preliminary on-street charging sites and areas presented in the Community Outreach Surveys were selected by Municipal Officials, keeping in mind the general suitability factors, Program-specific site selection criteria, Town of South Hadley conservation concerns and their local knowledge. Areas of concern and planned future roadway construction areas were not selected and all Preliminary Sites received positive feedback from Municipal Officials.

## Community Outreach and Engagement

The goal of community outreach was to engage the key community stakeholders of the Town of South Hadley as part of the Feasibility Study. Engagement focused on soliciting feedback, raising awareness, and providing education about the Program.

Leidos partnered with the municipal officials from the Town of South Hadley to launch a targeted outreach initiative that met the following criteria:

- Clear and consistent language
- Linguistically accessible content, with certified translation provided where appropriate
- Culturally competent and relevant materials, including culturally appropriate imagery when applicable

To achieve this, the Program utilized a three-tier approach consisting of working with municipal officials, community groups and organizations, and residents and businesses. The Town of South Hadley’s breakdown is as follows:

| Tier 1   | Tier 2  | Tier 3  |
|--|---|---|
| Municipal Officials- <ul style="list-style-type: none"> <li>• Director of Building Operations</li> <li>• Director, Planning &amp; Conservation</li> <li>• Human Services Director, Recreation Department</li> <li>• Conservation Administrator/Planner</li> <li>• Town Administrator</li> <li>• Recreation Department</li> </ul> | Town CBOs- <ul style="list-style-type: none"> <li>• South Hadley Redevelopment Authority</li> <li>• South Hadley Council on Aging</li> <li>• South Hadley Electric Light Department (SHELD)</li> <li>• Town of South Hadley Sustainability &amp; Energy Commission</li> </ul> | Town Residents- <ul style="list-style-type: none"> <li>• Business Owners</li> <li>• Residents</li> <li>• Commuters</li> <li>• Multi-Family property owners</li> </ul> |

Tier 1 outreach started with a kick-off meeting organized by Leidos and the Town of South Hadley and continued through the course of the Program. The Town of South Hadley’s point of contact, Scott Moore, identified the Tier 1 stakeholders through informal discussions ahead of the kick-off meeting. The initial virtual meeting was held March 19<sup>th</sup>, 2025, at 10:00 AM via Teams. The following were in attendance from the Town / Tier 1:

- Scott Moore (Director of Building Operations)

During this call and follow-up correspondence, the preliminary sites were selected based on program criteria. Best practices for community engagement were documented and included in the Town of South Hadley Workplan that was sent to the municipality stakeholders, June 19<sup>th</sup>, 2025. Stakeholders assisted in identifying and gathering contact details for Tier 2 stakeholders and community approaches. Community Outreach material received approval before being utilized for Tier 2 and 3 distributions.

Tier 2 outreach consisted of outreach to the community organizations and/or business groups that are highly active in the Town of South Hadley. An initial introduction email was organized by Leidos and included representatives from the Town of South Hadley and Tier 2 stakeholders. The following CBOs were identified:

1. South Hadley Redevelopment Authority
2. South Hadley Council on Aging
3. South Hadley Electric Light Department (SHELD)

The purpose of this email campaign was to identify appropriate outreach strategies for Tier 3 individuals associated with the Tier 2 stakeholder and establish expected content, responsible parties, and timeline. The following formats were discussed for distribution:

- Social media
- Website posting

- News posting
- Email campaign
- Flyers distribution

Outreach efforts to community members including residents, business owners, and commuters (Tier 3) utilized different methodologies to garner program and proposed charging locations feedback. The following efforts were included:

1. Public Survey rating preliminary sites, suggesting new sites, and allowing additional comments
2. One Page Flyer with QR code for survey that was handed out and posted
3. A-Frame with poster and QR code to public survey placed in high traffic areas targeting multi-family/renter population
  - Posted: June 23, 2025
4. News Flash – South Hadley Planning & Conservation Department
  - Posted: June 17, 2025
  - <https://www.southhadley.org/CivicAlerts.aspx?AID=1244&ARC=2133>
5. A-Frame with poster and QR code to public survey placed at South Hadley Planning Board meeting
  - Posted: June 23, 2025
6. A-Frame with poster and QR code to public survey placed at South Hadley Public Library community event
  - Posted: June 25, 2025
7. A-Frame with poster and QR code to public survey placed at Aging in Place Fair – South Hadley Council on Aging
  - Posted: June 25, 2025
8. Facebook Post – South Hadley Council on Aging
  - Posted: June 23, 2025
9. E-mail campaign to multi-family property owners – survey link shared through Planning & Conservation Department to be distributed to multi-family residents/renters
  - Sent: June 18, 2025

The Town of South Hadley's survey invited community members to provide qualitative input on proposed charging station infrastructure, including both general comments and site-specific feedback. There were 63 surveys returned with comments and site scores. The survey was active from May 23, 2025, through June 30, 2025.

The surveys included an area where participants could leave an email address, with the option for participants to receive project updates; 30 survey participants requested to receive project updates. The email addresses collected have been provided to the Town of South Hadley for their use to notify and inform survey participants of the results of the Feasibility Study as well as potential notifications in the future of the implementation of on-street charging.

The feedback collected through this process will assist the Town of South Hadley in better understanding resident priorities and concerns—both town-wide and at specific proposed locations—as it evaluates the future of charging infrastructure within the community.

Survey participants were asked to rate the desirability of Preliminary Sites, using a scale of 1 (least desirable) to 5 (most desirable). These ratings were then summed to generate a Community Score for each site.

Table 2: Community Outreach Score (see notes and definitions below table for additional information)

| Site | Street                                  | Community Score | Average Score | Count (Submissions) | Count @ 5 | Count @ 4 | Count @ 3 | Count @ 2 | Count @ 1 | Rank | Community Feedback |
|------|---|-----------------|---------------|---------------------|-----------|-----------|-----------|-----------|-----------|------|--------------------|
| 1    | Main Street near Town Hall              | 127             | 2.4           | 52                  | 11        | 5         | 5         | 6         | 25        | 2    | Negative           |
| 2    | Beachgrounds Park near Basketball Court | 114             | 2.0           | 57                  | 4         | 4         | 10        | 9         | 30        | 5    | Negative           |
| 3    | Main Street between N Main & Bardwell   | 116             | 2.3           | 51                  | 12        | 1         | 5         | 4         | 29        | 3    | Negative           |
| 4    | Main Street near SHELD bldg.            | 115             | 2.2           | 53                  | 7         | 7         | 4         | 5         | 30        | 4    | Negative           |
| 5    | Pleasant Street near Town Hall Parking  | 138             | 2.6           | 54                  | 14        | 5         | 5         | 3         | 27        | 1    | Negative           |

The **Community Score** is the sum of all survey scores received for any given site. The survey scores section of the Community Outreach Survey allowed participants to score the sites using a scale of 1 (least desirable) to 5 (most desirable).

The **Average Score** is calculated by dividing the Community Score by the number submissions for each site (Community Score ÷ Count (Submissions)).

The **Count (Submissions)** reflects the number of survey responses for a given location, while the Rank identifies a site's position relative to the others, with 1<sup>st</sup> place being the highest score.

Community feedback ratings were then categorized as follows:

- **Positive-** Sites where higher scores (4s and 5s) outweighed lower scores (1s and 2s)
- **Neutral-** Sites where most responses were 3s or where higher and lower scores were roughly equal.
- **Negative-** Sites where lower scores (1s and 2s) outweighed higher scores.

This approach provides both a quantitative and qualitative measure of how residents and stakeholders viewed each proposed site.

The Town of South Hadley survey respondents shared comments regarding the proposed projects. The comments were largely more negative than positive in tone with strong opposition to using tax dollars to fund EV charging station installation projects. Submissions with negative comments recommended focusing, instead, on rectifying the school budget deficit and improving trash removal services. Additional concerns cited limited parking, particularly in congested areas near the Town Hall and Main Street, a perception of low EV adoption rates in South Hadley, specifically, and concerns about electric grid capacity.

While it is not unexpected to see feedback from community members who are not in support of the Municipality leading the expansion of the EV-charging network within the Town, it is helpful to understand specific concerns that may be prominent ahead of moving forward with construction. The feedback received during community outreach in South Hadley highlights a need for robust community education ahead of construction and installation. See Community Education Plan

section for additional recommendations aimed at addressing the specific concerns expressed by survey participants.

Importantly, concerns related to cost were consistently presented across all Municipalities during the outreach phase of the Program. It should also be noted that some of the negative feedback attributed to EV projects may reflect broader economic fatigue rather than opposition to EV charging infrastructure specifically. At a time when rising energy prices and general cost-of-living increases are placing continued pressure on households, it should be expected that residents express caution toward new public investment. Electric Ratepayers in Massachusetts have experienced an average increase of more than 25% in electricity costs over the last three years ([U.S. Chamber of Commerce](#)), a trend that disproportionately impacts communities with lower median household incomes.

Comments in support of on-street charging station expansion in South Hadley were future-looking, supporting a modern, sustainable transportation infrastructure. Funding was highlighted in positive comments as well, with a preference for using either private funding or grants to support EV charging station installation projects. Siting future EV charging stations in locations that were safe, protected from the elements, and in areas with shopping were preferred. All comments regarding the Program and specific to the proposed locations are in Attachment 1.

With a sample size of 63 respondents drawn from a total population of approximately 18,000, the estimated margin of error for this survey is 12.32%. This means that the survey results could differ by up to 12.32 percentage points from the true values in the overall population, assuming a 95% confidence level. While the findings provide useful insights into community opinions, the relatively high margin of error reflects the small sample size and should be considered when interpreting the results. For more precise estimates, a larger sample size would be required, for example: 95% confidence,  $\pm 5\%$  margin of error: about 380 people.

Additional locations were suggested through the survey; below are the most requested potential sites. Generally, respondents favored high-traffic multi-purpose sites (shopping, library, college) over residential or congested civic parking areas. The extensive list is included in Attachment 1. These locations were not included in the Feasibility Study.

1. **South Hadley Public Library (2 Canal St)** – Multiple messages as a preferred site, highlighting its safe, central location with adequate shelter and nearby amenities
2. **Big Y Plaza (44 Willimansett St)** – Frequently cited as being in a high-traffic retail zone
3. **Route 33 Commercial area** – cited for easy access
4. **Mount Holyoke College Area** – cited for high visibility location to serve students and visitors

## Historic Districts

Local historic districts in the state of Massachusetts are established and amended in accordance with [Massachusetts General Laws, Chapter 40C](#). The [South Hadley Historical Commission](#) was established to identify, document, preserve, and protect the historic and archaeological assets of the town.

The Town of South Hadley has [Massachusetts Historical Commission](#) (MHC) inventoried

properties. There were no Town of South Hadley regulations posted publicly regarding local requirements or local permits. The South Hadley Historical Commission may provide the Planning Board, Conservation Commission, and other municipal board and committees with an assessment of the impact of the proposed developments on places of historical and/or archaeological significance. None of the preliminary on-street charging locations are within a mapped Local Historic District.

### **State Historic Districts**

The Massachusetts Historical Commission (MHC) was established ([Massachusetts General Laws, Chapter 9, Section 26](#)) to identify, evaluate, and protect important historical and archaeological assets of the Commonwealth.

If an EVSE installation project is proposed at an MHC Property or within an MHC District ([950 CMR 71.00](#)) AND is receiving state funding or requires state licensing/permitting, a MHC [Project Notification Form](#) may be required. The Town of South Hadley Historical Commission will determine whether a Project Notification Form is needed. None of the preliminary on-street charging locations are within a MHC District.

### **National Register Historic Districts**

Overseen by the National Park Service, the [National Register of Historic Places](#) (National Register) officially lists our country's historic buildings, districts, sites, structures, and objects worthy of preservation.

The Advisory Council on Historical Preservation signed into effect the [Exemption From Historic Preservation Review for Electric Vehicle Supply Equipment](#) (the Exemption) that relieves federal agencies from historical preservation review requirements under the National Historic Preservation Act (NHPA) ([36 CFR Part 800](#)) if the project does not utilize federal funding for construction.

Should an EVSE installation project be proposed at a National Register Property or within a National Register Historic District AND is expected to be paid for using federal funds, the Town of South Hadley Historical Commission will determine whether a Federal Historical Preservation Review will be required or if the project falls under the Exemption. None of the preliminary on-street charging locations are with in a National Register Historic District.

### **Scenic Roads**

South Hadley has designated three scenic roads under the provision of [MGL Chapter 40, Section 15C](#); Pearl Street, Alvord Street (from Brainerd St to Ferry St) and a portion of River Road. On-street charging on these Scenic Roads was not proposed or assessed for this Study.

While not designated a scenic road under MGL, the entire stretch of Route 47 in South Hadley is designated a National Scenic Byway. This designation affords no regulatory protection but provides sources of federal funds for enhancement and preservation of the land along the

roadway. Preliminary on-street charging sites on Route 47 were not proposed or assessed for this Feasibility Study.

## Environmental Analysis

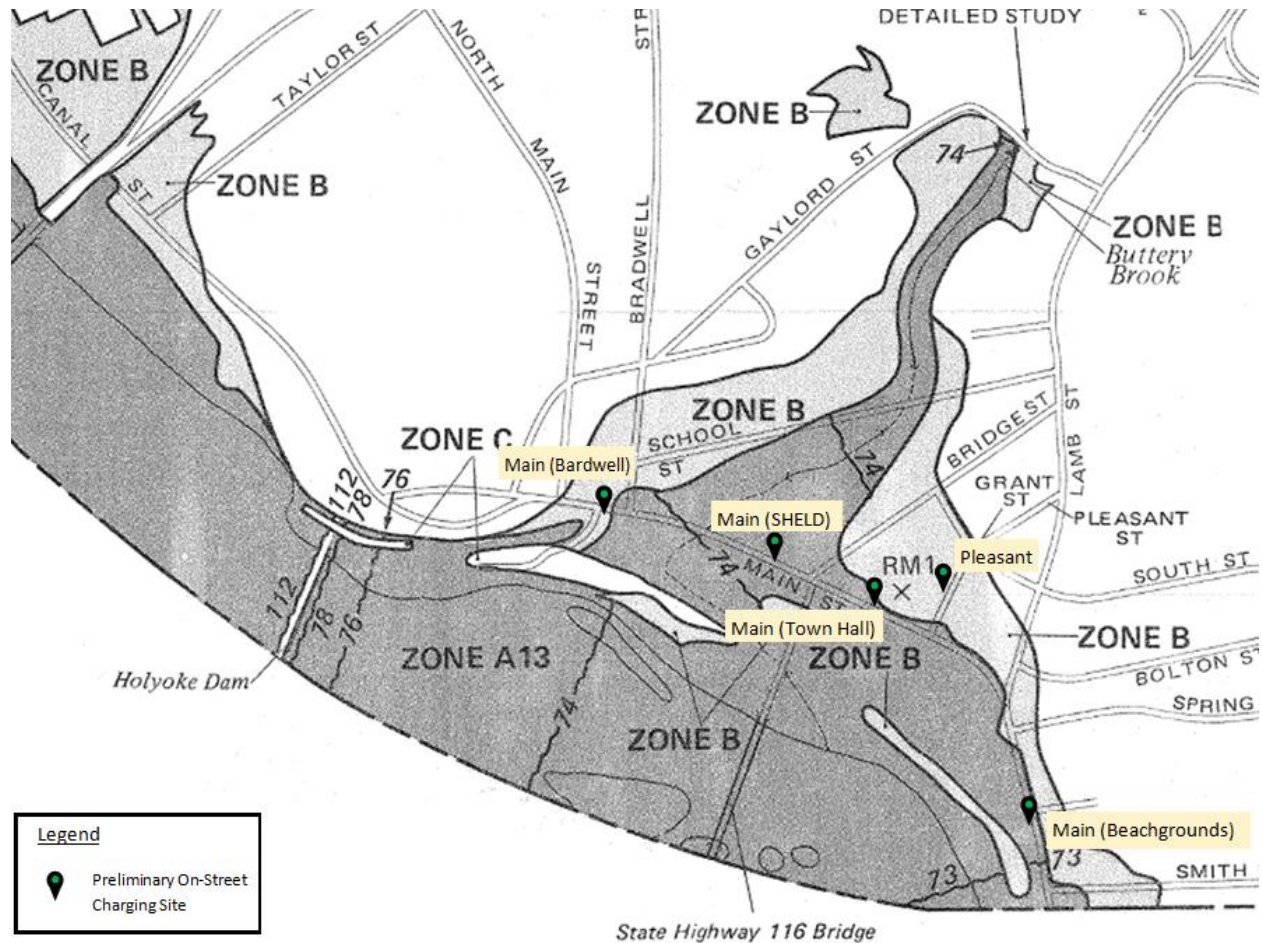
An environmental analysis was conducted for the five locations based on data available online via the Town of South Hadley public maps, Massachusetts GIS online viewer (“MassGIS”), and other applicable online data sources as noted below.

### Flood Zones

Typically, the FEMA National Flood Hazard Layer (NFHL) provided by MassGIS would be utilized for this analysis, however, currently South Hadley has not been added to the NFHL. Digital copies of paper FIRM maps from [FEMA Flood Map Service Center](#) were utilized to review the preliminary on-street charging locations and Flood Zones.

Figure 2, below, depicts the FIRM map and approximate site locations. Some of the preliminary on-street charging sites may be within Flood Zone A 13 and have a 1% annual chance flood hazard with a base flood elevation, referenced to the National Geodetic Vertical Datum of 1929 (NGVD 29). Additional research and vertical datum conversion to NAVD 88 may be needed to determine if the locations for installation are in Flood Zone A 13 or in Flood Zone B, based on elevation.

Figure 2: FIRM Map - Federal Emergency Management Agency (FEMA), Flood Insurance Rate Map (FIRM), Town of South Hadley Map Number 250170 0010 A, Panel 10 of 10, effective 08/15/1978



The areas for EVSE and electrical infrastructure installation are previously disturbed roadway rights-of-way. Additionally, the potential on-street charging projects have a small area of land disturbance, not building a “structure”, and the projects will not adversely impact flood risks.

Construction activities in the Flood Zone are regulated by the [Wetlands Protection Act, 310 CMR 10.00](#). A [Request for Determination of Applicability \(RDA\)](#) and [Application for Conservation Permit \(ACP\)](#) from the Town of South Hadley Conservation Commission may be required prior to construction. We note that the installation areas for EVSE are in the public rights-of-way (Municipal owned facilities), and an on-going permit may cover the construction activities or simplified review process may be appropriate.

### Massachusetts Department of Environmental Protection

[MassGIS DEP Wetlands \(2005\)](#) layer was a guide for on-street charging station site evaluation and aid to wetland protection from construction activities. The MassGIS DEP Wetland layer provides a representation of wetland areas determined by photographic interpretation. They are not complete delineations; not all local wetlands are mapped.

The wetland areas on the MassGIS layer consist of open water, vegetated wetland, and coastal landforms. In-person visual observation of preliminary on-street charging locations and possible wetland areas was also conducted to help ensure that construction activities are outside of the 100-foot wetland buffer zone. The preliminary on-street charging locations are outside of MassGIS DEP Wetland areas.

## Riverfront Area

The [Massachusetts Rivers Protection Act \(310 CMR 10.58\)](#) regulates activities within 200 feet of the mean annual high-water line on each side of the perennial rivers and streams throughout the state. The Connecticut River forms the southern boundary of South Hadley. Construction activities within the Riverfront Area may require additional permitting through the Conservation Commission. However, EVSE and electrical infrastructure installation may be considered minor activity under 310 CMR 10.02(2)(b)2, as conditions will remain largely unchanged post construction, work is conducted in previously developed areas, and installation will not substantially change the area.

The preliminary on-street EVSE locations are all more than 250' from the waterline provided on the MassGIS 2023 aerial imagery. Additional analysis will likely be needed to determine the elevation of the mean annual-high water elevations and to determine if any of the preliminary sites are within 200 feet.

## Activity Use Limitation ("AUL")

[AUL](#) provides notice of the presence of oil and/or hazardous material contamination remaining at the location after a cleanup has been conducted in accordance with Chapter 21E and the Massachusetts Contingency Plan. Many AULs prohibit excavation on the property or in areas of the property without a Licensed Site Professional ("LSP") and Management Plan. MassDEP Oil and/or Hazardous Material Sites with Activity and Use Limitations locations on the MassGIS viewer were cross-referenced with sites listed on the Waste Site & Reportable Release search in the [Executive Office of Energy & Environmental Affairs \("EEA"\) Data Portal](#) to check adjacent sites for AUL status.

The preliminary on-street charging location on Pleasant Street near Town Hall (Site 5) is in the right-of-way adjacent to the [Former Police Station site \(10 Pleasant Street\)](#). Prior to construction, South Hadley and their installation contractor should review the AUL for 10 Pleasant Street, contact MassDEP at [BWSC.Regulations@MassMail.state.ma.us](mailto:BWSC.Regulations@MassMail.state.ma.us) for clarification, and ensure compliance with any requirements pertaining to construction in the roadway adjacent to the property (if any).

We can confirm that the other preliminary on-street charging locations are not adjacent to properties with publicly documented AULs.

## Neighborhood Score

Town of South Hadley Zoning Districts, Environmental Justice Populations, and locations of existing EVSE were mapped. The data was compiled in GIS for a graphically accurate visual representation of the Preliminary site selection process and site considerations. Each of the five Preliminary Sites were then scored against this data to generate a final Neighborhood Score.

## Existing EVSE

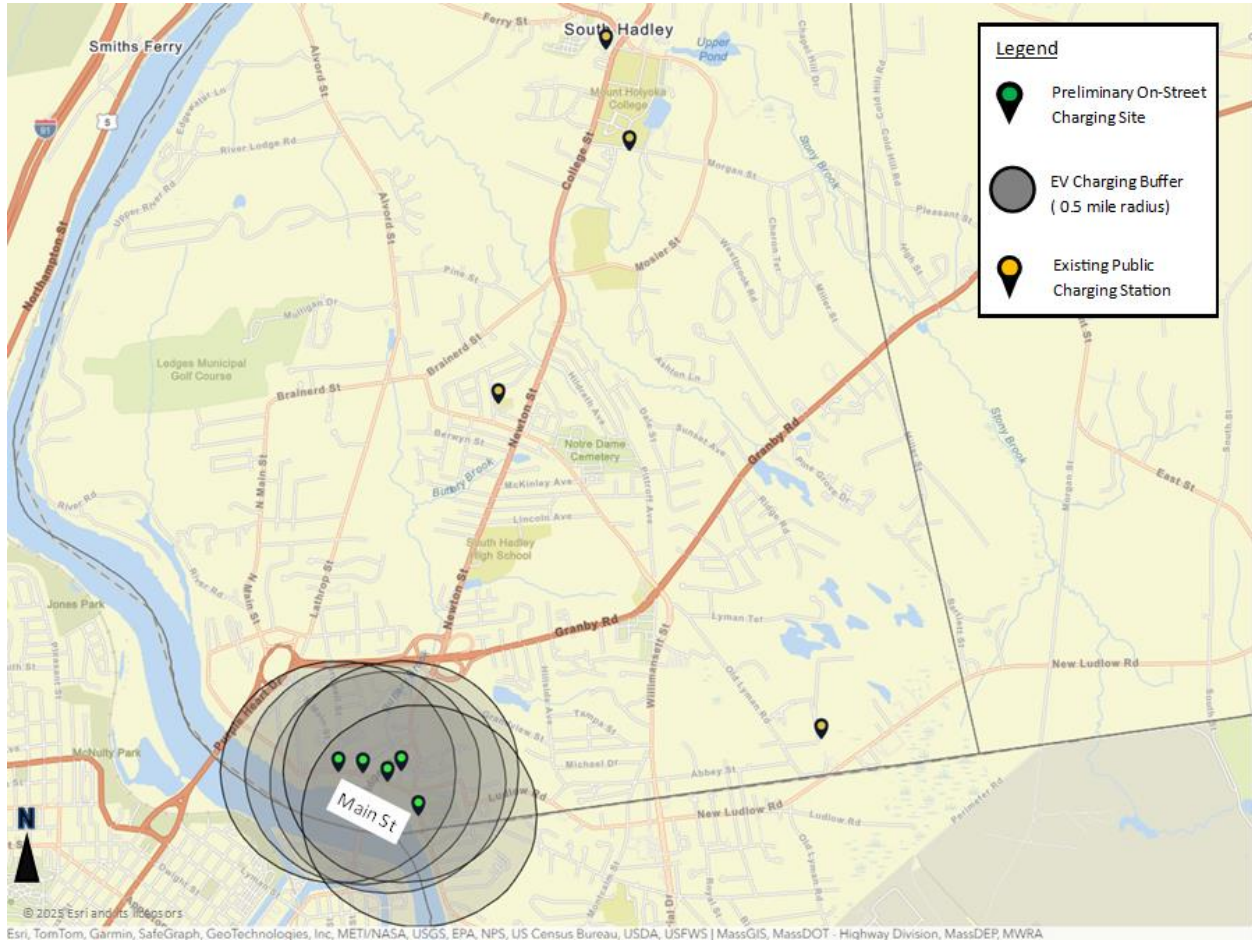
Areas of greatest need for on-street charging are those with high populations of residents without access to private parking that are farthest from existing charging stations. Siting the proposed on-street EVSE within  $\frac{1}{4}$  to  $\frac{1}{2}$  mile of high-density multi-family residential areas was of primary importance to increase potential EV adoption and provide residents with charging within a reasonably walkable distance to home.

Based on a review of publicly available EVSE location and pricing data utilizing [Plug-Share](#), [ChargePoint](#), and the [US Department of Energy Alternative Fuels Data Center](#); there are currently 4 publicly accessible Level 2 charging locations in South Hadley. Three of the four locations have ChargePoint stations. The fourth location, South Hadley DPW, has EVSE with AmpUp software, however station manufacturer and cost information is not publicly available.

Table 3: Existing EVSE in South Hadley

| Site Address       | Site Name                 | Cost         | # of Ports | Manufacturer |
|--------------------|---------------------------|--------------|------------|--------------|
| 25 College Street  | Johnny's Bar and Grille   | \$0.25 / kWh | 2          | ChargePoint  |
| 38 Morgan Street   | Mt. Holyoke College       | \$0.25 / kWh | 6          | ChargePoint  |
| 45 Dayton Street   | S Hadley Council on Aging | \$0.25 / kWh | 2          | ChargePoint  |
| 8 Industrial Drive | South Hadley DPW          | -            | 4          | -            |

Figure 3: Existing Public Charging and Preliminary On-Street Charging Sites



## Zoning

Access to charging is a barrier to electric vehicle adoption for residents of multi-family dwellings. The Town of South Hadley GIS Zoning Map was used to target areas with high multi-family dwelling density.

The following rating scale was developed for the Zoning Score.

Zoning District (within ½ mile) rating:

- South Hadley Falls Smart Growth District (SHFSGD)= 5
- Newton Street Smart Growth Zoning District (NSSGZD) = 5
- Residence A-1 (Res-A-1) = 3
- Residence A-2 (Res-A-2) = 3
- Residence B (Res-B) =3
- Business B (Bus-B) = 3
- Residence C (Res-C) =2
- Business C (Bus-C) = 1

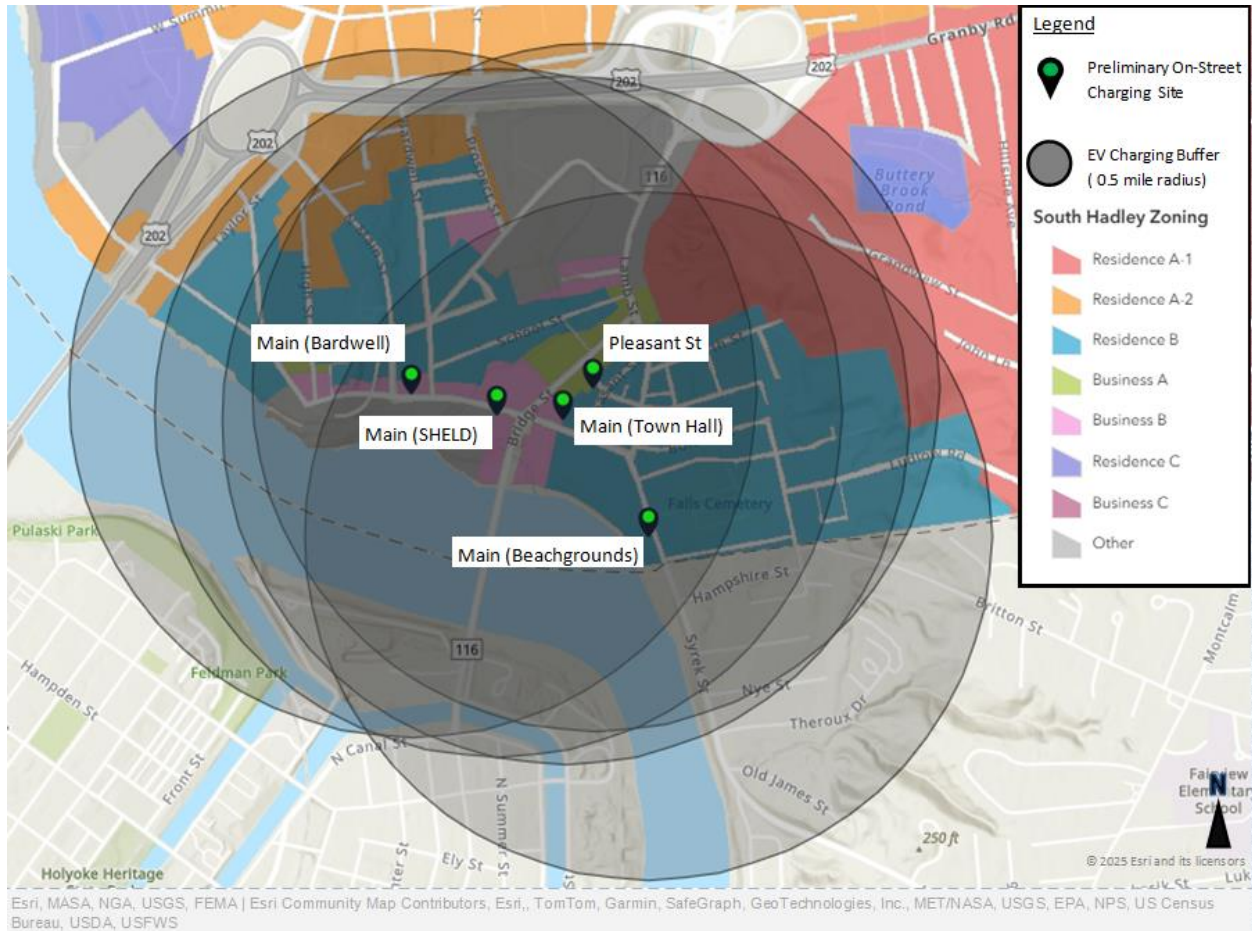
Table 4: Zoning Score

| Site | Street                                  | Residential Zoning Districts within 1/2 mile         | Zoning Score |
|------|---|--|--------------|
| 1    | Main Street near Town Hall              | Res-A-1, Res-A-2, Res-B, Bus-A, Bus-B, SHFSGD        | 17           |
| 2    | Beachgrounds Park near Basketball Court | Res-A-1, Res-B, Bus-A, Bus-B, SHFSGD                 | 14           |
| 3    | Main Street between N Main & Bardwell   | Res-C, Res-A-1, Res-A-2, Res-B, Bus-A, Bus-B, SHFSGD | 18           |
| 4    | Main Street near SHELD bldg.            | Res-A-1, Res-A-2, Res-B, Bus-A, Bus-B, SHFSGD        | 17           |
| 5    | Pleasant Street near Town Hall          | Res-A-1, Res-A-2, Res-B, Bus-A, Bus-B, SHFSGD        | 17           |

\*A **Zoning Score** of 0-10 is a low score, 10-15 is a mid-range score, and 15-20 is a high score for the Town of South Hadley.

The Residential Zoning Districts in the Town of South Hadley were rated and ranked according to residential density. The higher the residential density permitted by right, the higher the score. All Zoning Districts within 1/2 mile of the preliminary on-street charging stations were used to develop the Zoning Score. Locations with a Zoning Score of 0-10 have lower residential density, locations with a Zoning Score of 10-15 are mid-range scores, and locations with a Zoning Score of 15 or more are in a Zoning District with higher residential density and a higher resulting Zoning Score.

Figure 4: Zoning Districts and Preliminary On-Street Charging Sites



## Environmental Justice Populations

The [2020 Environmental Justice Populations \(“EJP”\)](#) layer in MassGIS are 2020 Census block groups across the state that meet one or more of the following criteria:

- The annual medium household income is not more than 60 percent of the statewide annual medium income (Income criteria)
- Minorities comprise 40 percent or more of the population (Minority criteria)
- 25 percent or more of the households lack English language proficiency (English Isolation criteria)
- Minorities comprise 25 percent or more of the population and the annual median household income of the municipality in which the neighborhood is located does not exceed 150 percent of the statewide annual median household income (Income and Minority criteria)

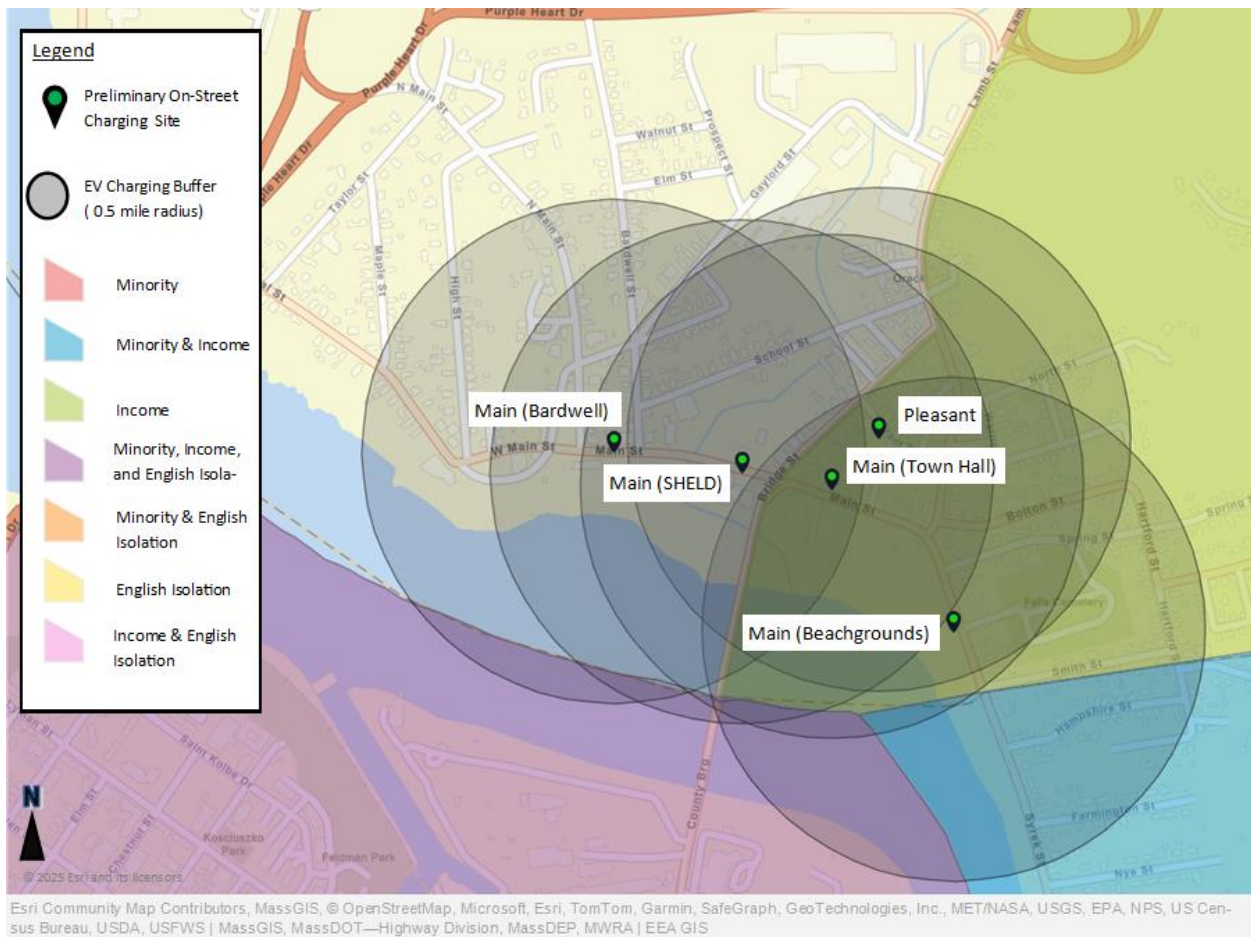
Environmental Justice Populations rating:

- Three criteria met = 10 points
- Two criteria met (Income included) = 7 points
- Two criteria met (Income not included) = 6 points
- One criterion met (Income) = 3 points
- One criterion met (not Income) = 2 points
- No criteria met = 0 points

Table 5: EJP Score

| Site | Street                                  | EJP Score |
|------|---|-----------|
| 1    | Main Street near Town Hall              | 3         |
| 2    | Beachgrounds Park near Basketball Court | 0         |
| 3    | Main Street between N Main & Bardwell   | 0         |
| 4    | Main Street near SHELD bldg.            | 3         |
| 5    | Pleasant Street near Town Hall          | 3         |

Figure 5: Preliminary On-Street Charging Sites and EJP



## Neighborhood Score Summary

The score for each preliminary on-street charging site from Zoning and Environmental Justice Population were summed to create the Neighborhood Score.

Table 6: Neighborhood Score Summary Table

| Site | Street                                  | Zoning | EJP | Neighborhood Score* | Neighborhood Score Range* |
|------|---|--------|-----|---------------------|---------------------------|
| 1    | Main Street near Town Hall              | 17     | 3   | 20                  | High                      |
| 2    | Beachgrounds Park near Basketball Court | 14     | 0   | 14                  | Mid                       |
| 3    | Main Street between N Main & Bardwell   | 18     | 0   | 18                  | High                      |
| 4    | Main Street near SHELD bldg.            | 17     | 3   | 20                  | High                      |
| 5    | Pleasant Street near Town Hall          | 17     | 3   | 20                  | High                      |

\*Locations with a **Neighborhood Score** between 0-10 is a low score, 10-15 is a mid-range score, and 15-22 is a high score for the Town of Soth Hadley

## Ease of Electrical Installation

The Preliminary Sites were evaluated for “Ease of Electrical Installation” for adding on-street charging stations based on the following definitions:

- **High** – Sites rated “High” ease indicate locations where it is relatively easy or cost effective to install charging stations. For example, existing utility poles located on the same side of the street or existing panelboard breaker space and electrical capacity in a Municipal Building/Cabinet.
- **Medium** – Sites rated with a “Medium” ease of electrical installation indicate locations that require more electrical work than locations with a “High” rating to install charging infrastructure. For example, locations where a new utility pole, new pad mount transformer, or trenching across a right-of-way would be required.
- **Low** – Sites rated with a “Low” electrical ease of installation require extensive work, and likely additional expense, when compared with sites with a “High” or “Medium” score. This includes sites that may require upgrades to transformers in vaults and areas with existing underground electrical service distribution. Generally, sites with “Low” ease of electrical installation are not recommended due to the high complexity, high cost, as well as long design & installation timeframes.

The Ease of Electrical Installation evaluation results for each Preliminary Site is found in Table 7, below.

## Preliminary Site Selection Summary

Table 7, below, shows the results of the Preliminary Site Evaluations, including Community Outreach, neighborhood characteristics, and technical feasibility.

Table 7: Preliminary Site Selection Summary Table

| Site | Street                                  | Community Feedback Rank | FIRM Flood Zone | Environmental               | Neighborhood Score Range | Ease of Electrical Install |
|------|---|-------------------------|-----------------|-----------------------------|--------------------------|----------------------------|
| 1    | Main Street near Town Hall              | 2                       | Zone A 13       | -                           | High                     | Medium                     |
| 2    | Beachgrounds Park near Basketball Court | 5                       | Zone A 13       | -                           | Mid                      | High                       |
| 3    | Main Street between N Main & Bardwell   | 3                       | Zone B          | -                           | High                     | High                       |
| 4    | Main Street near SHELD bldg.            | 4                       | Zone A 13       | -                           | High                     | Low                        |
| 5    | Pleasant Street near Town Hall          | 1                       | Zone A 13       | AUL (Former Police Station) | High                     | High                       |

## On-Site Assessments

On-site assessments were completed at the five preliminary on-street charging sites. Site assessments consisted of the following:

- Review of existing electrical infrastructure
- Preliminary new electrical service design, specifying potential need for new transformer(s), pole location, existing transformer(s) (if applicable) for new service and electrical service size needed for on-street charging
- Electrical distribution cabinet and EVSE locations verified that 3' clear for sidewalk ADA compliance can be provided
- Cellular connectivity checked to ensure cell service
- Any existing Parking/No Parking/Street Sweeping/Resident Only Signs and their locations documented.
- Locations of fire hydrants (no parking within 10') noted
- Locations of existing electrical, pedestrian walk buttons, streetlight bases, streetlight boxes, etc.
- Location of existing at grade utilities in the right-of way; drainage manhole covers, sewer manhole covers, drainage catch basin grates, gas valve covers, water valve covers, etc.
- Distance from charging parking to sidewalk curb cut / ramp & intersection curbs
- Obvious standing water; wetlands, streams, rivers, marsh, signs of drainage ponding on roadway.
- Pictures to document existing conditions at the proposed locations of charging infrastructure.

## Site Details

Below is a summary of the on-site assessments completed for the five preliminary on-street charging sites including descriptions of limiting factors, if applicable.

Based on the analysis and information provided in the EVSE Models section of this report, 32A charging ports are proposed for all on-street installations to maintain consistency with the existing charging stations in South Hadley. Although, the Town of South Hadley could elect to install 50A or 80A ports at these locations.

For purposes of design consistency across this Feasibility Study, each on-street location has been modeled with two 32A charging ports per location. This standardized approach allows for clear cost comparison and aligns with the preliminary costs and estimates presented in the Preliminary Installation Costs & Estimated Timetable section of this report. The Town of South Hadley may choose to revisit port amperage and number of ports during final site design and procurement.

### **Main Street near Town Hall**

The site was evaluated for the installation of one dual-port, 32A per port, pedestal mounted curbside EVSE. The proposed on-street charging design assumes that a new 200A, 120/208V, 3-phase electrical service can be supplied from the existing pad-mount transformer near the southwest corner of the Town Hall.

South Hadley Electric Light Department (SHELD) should be contacted to verify that the existing transformer has the electrical capacity to supply the new electrical service and space in the secondary compartment for a new secondary service conduit. A SHELD [Request for Electrical Service](#) should be created and construction should not begin until SHELD Engineering has completed the design for the new service.

The electrical service is proposed to run underground from the existing pad mount transformer approximately 110' southeast, across the front lawn of the Town Hall, to the proposed distribution cabinet. The distribution cabinet will feed the proposed curbside charging ports and existing parking spaces on the north side of Main Street. It is proposed to install 1 charging station or 2-32A charging ports.

The dual-port charging station is proposed approximately 20' from the distribution cabinet. Future on-street charging needs can be incorporated into the current site design by utilizing the proposed 200A, 120/208V, 3-phase electrical service and proposed distribution cabinet to support an additional 8-32A ports.

Cellular connectivity was checked during the on-site assessment. It is unlikely that cell phone signal boosters will be needed at this location. We recommend that this be verified just prior to construction by the installation contractor.

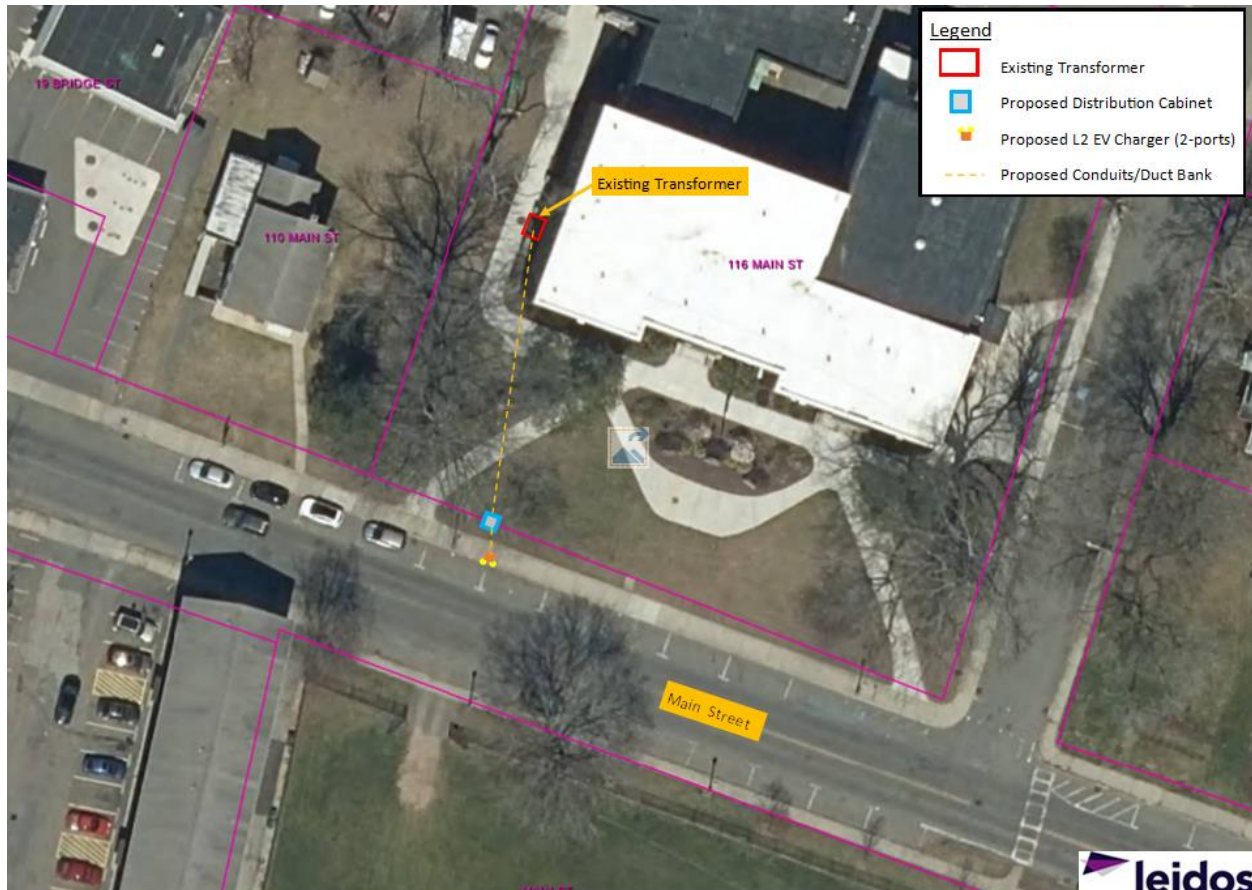
The site is appropriate for curbside charging while maintaining the existing ADA accessibility of the sidewalk. Consideration for ADA access and 3' clear distance between the curbside charging

station and the edge of the concrete sidewalk must be provided. We recommend that the Town of South Hadley and the installation contractor maintain ADA accessibility of the area both during and after charging infrastructure installation.

The existing striped parking spaces on Main Street in front of South Hadley Town Hall would be utilized for on-street charging parking spaces. There were no signs in the area pertaining to parking restrictions (i.e., Resident Only, Time Restrictions, or No Parking).

We recommend signage stating, “No Parking Except for Electric Vehicles While Charging, 4 Hour Limit.” Non-electric vehicles, EVs parked and not actively charging, and electric vehicles parked beyond the 4-hour time limit can be ticketed for occupying the spaces. EVs parked overnight will not have to be relocated. Signage could also indicate “No EV Parking Time Limit 8pm-8am”. An overtime fee could be assessed to vehicles plugged in and not actively charging to encourage vehicles to relocate once their charging session has ended or the 4-hour time has elapsed. Please see EVSE Operation & Maintenance section for further information regarding fees for charging as well as idle-time fees.

Figure 6: On-Street Charging Sketch – Main Street near Town Hall



MassGIS: MassGIS (Bureau of Geographic Information), Commonwealth of Massachusetts EOTSS, <https://maps.massgis.digital.mass.gov/MassMapper/MassMapper.html>, accessed on October 1, 2025. Aerial Images dated 2023. Property Tax Parcels dated July 1, 2025.



## Beachgrounds Park near Basketball Court

The site was evaluated for the installation of one dual-port, 32A per port, pedestal mounted curbside EVSE. We recommend that the Town of South Hadley create new parking spaces and modify the curbing to support EV parking and charging on the south side of Main Street in front of the basketball courts. The existing grass area, from the basketball court fence to the back of existing curbing is 11'-6" and could support the creation of new on-street parking spaces.

Based on site observations and the label on the existing building electric meter, the existing on-site pad mount transformer likely has a 277/480V secondary. Using the existing transformer for a new electrical service is feasible, however, it would require longer trenching and a step-down transformer. The proposed on-street charging design assumes that a 200A, 120/240V, single-phase electrical service can be supplied from the existing pole mount transformer and pole on the south side of Main Street, just north of the Beachgrounds parking lot entrance.

South Hadley Electric Light Department (SHELD) should be contacted to verify that the existing pole mounts transformer has the electrical capacity to supply the new electrical service and the pole can support a secondary electrical service riser. A SHELD [Request for Electrical Service](#) should be created and construction should not begin until SHELD Engineering has completed the design for the new service.

The electrical service is proposed to run underground in the roadway shoulder of Main Street from the existing utility pole, approximately 75' southeast, to the proposed distribution cabinet. The distribution cabinet will feed the proposed curbside charging ports and proposed parking spaces on the south side of Main Street. It is proposed to install 1 charging station or 2-32A charging ports.

The dual-port charging station is proposed approximately 20' from the distribution cabinet. Future on-street charging needs can be incorporated into the current site design by utilizing the proposed 200A, 120/240V, single-phase electrical service and proposed distribution cabinet to support an additional 3-32A ports.

Cellular connectivity was checked during the on-site assessment. It is unlikely that cell phone signal boosters will be needed at this location. We recommend that this be verified just prior to construction by the installation contractor.

There is no sidewalk on the south side of Main Street in the area of the basketball courts. New EV parking spaces as well as curbing modifications would be needed to support EV parking and charging at this location.

We recommend signage stating, "No Parking Except for Electric Vehicles While Charging, 4 Hour Limit." Non-electric vehicles, EVs parked and not actively charging, and electric vehicles parked beyond the 4-hour time limit can be ticketed for occupying the spaces. EVs parked overnight will not have to be relocated. Signage could also indicate "No EV Parking Time Limit 8pm-8am". An overtime fee could be assessed to vehicles plugged in and not actively charging to encourage vehicles to relocate once their charging session has ended or the 4-hour time has elapsed. Please

see EVSE Operation & Maintenance section for further information regarding fees for charging as well as idle-time fees.

Figure 7: On-Street Charging Sketch – Beachgrounds Park near Basketball Court



### Main Street between N Main & Bardwell

The site was evaluated for the installation of one dual-port, 32A per port, pedestal mounted curbside EVSE. The proposed on-street charging design assumes that a new 200A, 120/240V, single-phase electrical service can be supplied from the existing overhead wires along the south side of Main Street. The existing pole on Main Street across the street from 20 Main Street with proposed single-phase pole mount transformer would provide the electrical service.

South Hadley Electric Light Department (SHELD) should be contacted to verify that the existing pole mount transformer has the electrical capacity to supply the new electrical service and the pole can support a secondary electrical service riser. A SHELD [Request for Electrical Service](#) should be created and construction should not begin until SHELD Engineering has completed the design for the new service.

The electrical service is proposed to run underground from the existing utility pole approximately 10' to the proposed distribution cabinet. The distribution cabinet will feed the proposed curbside

charging ports and existing parking spaces on the south side of Main Street. It is proposed to install 1 charging station or 2-32A charging ports.

The proposed dual-port station is approximately 10' northwest of the distribution cabinet. Future on-street charging needs can be incorporated into the current site design by utilizing the proposed 200A, 120/240V, single-phase electrical service and proposed distribution cabinet to support an additional 3-32A charging ports.

Cellular connectivity was checked during the on-site assessment. It is unlikely that cell phone signal boosters will be needed at this location. We recommend that this be verified just prior to construction by the installation contractor.

The site is appropriate for curbside charging while maintaining the existing ADA accessibility of the parking lot concrete sidewalk. There is no sidewalk along Main Street in this area. The existing utility pole, proposed distribution cabinet, and proposed EVSE would be in the approximately 9'-wide grass area between the roadway curbing and the parking lot sidewalk curbing. We recommend that the Town of South Hadley and the installation contractor maintain ADA accessibility of the area both during and after charging infrastructure installation.

The proposed EV parking spaces are existing striped parking spaces parallel to the curb on the south side of Main Street. There are no existing parking signs currently posted for these spaces or on the south side of Main Street in this area.

We recommend signage stating, "No Parking Except for Electric Vehicles While Charging, 4 Hour Limit." Non-electric vehicles, EVs parked and not actively charging, and electric vehicles parked beyond the 4-hour time limit can be ticketed for occupying the spaces. EVs parked overnight will not have to be relocated. Signage could also indicate "No EV Parking Time Limit 8pm-8am". An overtime fee could be assessed to vehicles plugged in and not actively charging to encourage vehicles to relocate once their charging session has ended or the 4-hour time has elapsed. Please see EVSE Operation & Maintenance section for further information regarding fees for charging as well as idle-time fees.

Figure 8: On-Street Charging Sketch – Main Street between N Main &amp; Bardwell



### Main Street near SHELD Building

The site was evaluated for the installation of one dual-port, 32A per port, pedestal mounted curbside EVSE. The proposed on-street charging design assumes that a new 200A, 120/208V, 3-phase electrical service can be supplied from the existing pad mount transformer on the west side of the South Hadley Electric Light Department (SHELD) building.

SHELD should be contacted to verify that the existing transformer has the electrical capacity to supply the new electrical service and space in the secondary compartment for a new secondary service conduit. A SHELD [Request for Electrical Service](#) should be created and construction should not begin until SHELD Engineering has completed the design for the new service.

The electrical service is proposed to run underground from the existing pad mount transformer approximately 115' northeast, across Main Street, to the proposed EV distribution cabinet. The distribution cabinet will feed the proposed curbside charging ports and existing parking spaces on the north side of Main Street. It is proposed to install 1 charging station or 2-32A charging ports.

The dual-port charging station is proposed approximately 20' from the distribution cabinet. Future on-street charging needs can be incorporated into the current site design by utilizing the proposed

200A, 120/208V, 3-phase electrical service and proposed distribution cabinet to support an additional 8-32A ports.

Cellular conductivity was checked during the on-site assessment. It is unlikely that cell phone signal boosters will be needed at this location. We recommend that this be verified just prior to construction by the installation contractor.

The site is appropriate for curbside charging while maintaining the existing ADA accessibility of the sidewalk. Consideration for ADA access and 3' clear distance between the curbside charging station and the edge of the sidewalk as well as the distribution cabinet and the edge of sidewalk must be provided. We recommend that the Town of South Hadley and the installation contractor maintain ADA accessibility of the area both during and after charging infrastructure installation.

The existing striped parking spaces on the north side of Main Street across from SHELD would be utilized for on-street charging parking spaces. There were no signs in the area pertaining to parking restrictions (i.e., Resident Only, Time Restrictions, or No Parking).

We recommend signage stating, "No Parking Except for Electric Vehicles While Charging, 4 Hour Limit." Non-electric vehicles, EVs parked and not actively charging, and electric vehicles parked beyond the 4-hour time limit can be ticketed for occupying the spaces. EVs parked overnight will not have to be relocated. Signage could also indicate "No EV Parking Time Limit 8pm-8am". An overtime fee could be assessed to vehicles plugged in and not actively charging to encourage vehicles to relocate once their charging session has ended or the 4-hour time has elapsed. Please see EVSE Operation & Maintenance section for further information regarding fees for charging as well as idle-time fees.

Figure 9: On-Street Charging Sketch – Main Street near SHELD Building



### Pleasant Street near Town Hall

The site was evaluated for the installation on one dual-port, 32A per port, pedestal mounted curbside EVSE. The proposed on-street charging design assumes that a new 200A, 120/240V, single-phase electrical service can be supplied from the existing overhead wires along the west side of Pleasant Street. The existing pole at the intersection of Pleasant Street and Grant Street (adjacent to the side yard of 5 Grant Street) with proposed pole mounted transformer would supply the overhead electrical service to the pole on the west side of Pleasant across from 11 Pleasant Street.

South Hadley Electric Light Department (SHELD) should be contacted to verify that the existing pole mounts transformer has the electrical capacity to supply the new electrical service and the pole can support a secondary electrical service riser. A SHELD [Request for Electrical Service](#) should be created and construction should not begin until SHELD Engineering has completed the design for the new service.

The electrical service is proposed to run underground from the existing utility pole approximately

10' to the proposed distribution cabinet. The distribution cabinet will feed the proposed curbside charging ports and existing parking spaces on the west side of Pleasant Street, south of Grant Street. It is proposed to install 1 charging station or 2-32A charging ports.

The proposed dual-port station is approximately 20' southwest of the distribution cabinet. Future on-street charging needs can be incorporated into the current site design by utilizing the proposed 200A, 120/240V, single-phase electrical service and proposed distribution cabinet to support an additional 3-32A charging ports.

Cellular connectivity was checked during the on-site assessment. It is unlikely that cell phone signal boosters will be needed at this location. We recommend that this be verified just prior to construction by the installation contractor.

The site is appropriate for curbside charging while maintaining the existing ADA accessibility of the sidewalk. Consideration for ADA access and 3' clear distance between the curbside charging station and the edge of the sidewalk as well as the distribution cabinet and the edge of sidewalk must be provided. We recommend that the Town of South Hadley and the installation contractor maintain ADA accessibility of the area both during and after charging infrastructure installation.

The proposed EV parking spaces are existing parking spaces parallel to the curb on the west side of Pleasant Street. There are no existing parking signs currently posted for these spaces or on the west side of Pleasant Street in this area.

We recommend signage stating, "No Parking Except for Electric Vehicles While Charging, 4 Hour Limit." Non-electric vehicles, EVs parked and not actively charging, and electric vehicles parked beyond the 4-hour time limit can be ticketed for occupying the spaces. EVs parked overnight will not have to be relocated. Signage could also indicate "No EV Parking Time Limit 8pm-8am". An overtime fee could be assessed to vehicles plugged in and not actively charging to encourage vehicles to relocate once their charging session has ended or the 4-hour time has elapsed. Please see EVSE Operation & Maintenance section for further information regarding fees for charging as well as idle-time fees.

This preliminary on-street charging location is in the right-of-way adjacent to the [Former Police Station site \(10 Pleasant Street\)](#). Prior to construction, South Hadley and their installation contractor should review the AUL for 10 Pleasant Street, contact MassDEP, and ensure compliance with any requirements pertaining to construction in the roadway adjacent to the property (if any).

Figure 10: On-Street Charging Sketch – Pleasant Street near Town Hall



## Final Site Selection Summary

The results of site selection evaluations and on-site assessments were compiled, and the results are summarized below. All five of the Preliminary Sites are recommended for on-street charging in the Town of South Hadley.

Table 8: Final Site Selection Summary Table

| Site | Street                                  | Community Feedback Rank | FIRM Flood Zone | Environmental               | Neighborhood Score Range | Ease of Electrical Install |
|------|---|-------------------------|-----------------|-----------------------------|--------------------------|----------------------------|
| 1    | Main Street near Town Hall              | 2                       | Zone A 13       | -                           | High                     | Medium                     |
| 2    | Beachgrounds Park near Basketball Court | 5                       | Zone A 13       | -                           | Mid                      | High                       |
| 3    | Main Street between N Main & Bardwell   | 3                       | Zone B          | -                           | High                     | High                       |
| 4    | Main Street near SHELD bldg.            | 4                       | Zone A 13       | -                           | High                     | Low                        |
| 5    | Pleasant Street near Town Hall          | 1                       | Zone A 13       | AUL (Former Police Station) | High                     | High                       |

## Additional Considerations

### Permitting

The Town of South Hadley Bylaws and Regulations were reviewed for the requirements and permits pertaining to construction in a right-of-way, on-street vehicle parking and charging. The following permits would be needed prior to construction for the curbside charging installations:

- [Electrical Permit](#) - Inspectional Services (estimated timeline 2-4 weeks)
- [Road Opening Permit](#) & [Trench Permit](#) – [Department of Public Works](#) (estimated timeline concurrent with Electrical Permit)

Zoning and Planning regulations do not regulate the installation of EVSE, charging infrastructure or mention charging stations. Permits for Zoning and Planning do not appear to be necessary. We recommend that the contractor has discussions with the DPW when pulling construction permits to confirm. There are no existing Town of South Hadley regulations which expressly prohibit or restrict the installation or use of public charging stations.

The Town of South Hadley Regulations [Division 2, Chapter 315, Section 2.2](#) outlines the Winter Storm Residential Parking Bans, declared as needed, that prohibit parking on Main Street, Bridge Street, Lamb Street, North Main Street, Bardwell Street and Route 116. On all other streets during a Winter Storm Parking Ban, vehicles must park on the even side of the streets on even days and on the odd side of the street on odd days. We recommend that EVSE software be utilized during the Winter Storm Residential Parking Bans to limit or restrict charging to maintain DPW access to roadways for plowing and snow removal. Once roadways are clear and the Winter Storm

Residential Parking Ban is lifted, we recommend that curbside charging resume as soon as possible.

## Types of On-Street Charging

The MassCEC Program was designed to look at the possibility of on-street EVSE installation using different means and methodology, including utility pole mounted, streetlight mounted, and pedestal mounted EVSE to expand charging access.

### Streetlight Mounted EVSE

Streetlight-mounted charging ports draw power from the same electrical service as the streetlights and the transition of streetlights to more efficient LED bulbs can free up electrical capacity in circuits for EV charging.

For EVSE to be streetlight mounted, the existing capacity of the 240V circuits should be metered and assessed to determine if the circuit can support the additional demand and load of EVSE. The Utility would also have to determine how to meter the EVSE electricity usage and separate it from the existing streetlight electricity usage.

In discussions and correspondence with South Hadley Electric Light Department (SHELD), they indicated that streetlight mounted EVSE would not be permitted on streetlights powered by SHELD. The lack of electric meters for energy use of streetlights and potential streetlight mounted EVSE eliminates this as a potential option for South Hadley for any SHELD owned streetlights. Powering streetlight mounted EVSE from unmetered streetlight systems is not recommended.

### Utility Pole Mounted EVSE

SHELD owns the majority of the existing utility poles in South Hadley. A pilot utility pole mounted project was completed in Melrose, Massachusetts. This project was the first deployment of elevated, pole-mounted EV chargers by an investor-owned utility in the United States. To the best of our knowledge, the National Grid Melrose pilot project is currently the only instance of utility pole mounted charging stations in Massachusetts. In discussions and correspondence with SHELD, it was confirmed that utility pole mounted EVSE would not currently be permitted, though this could become an option in the future.

### Pedestal or Bollard Mounted EVSE

Pedestal or bollard mounted EVSE are the most prevalent type of EVSE. They can be configured for a wide range of power levels and have greater flexibility of placement and accessibility. A pedestal mounted EVSE is a freestanding, bollard-supported charging station that can support two or more ports from a single pedestal. The overall height of the pedestal can vary; however, ports are placed on the pedestal to be at a convenient height for user access. Pedestal or bollard mounted EVSE is recommended for South Hadley.

## EVSE Ownership Structures

EVSE ownership typically falls into one of the following categories:

1. Municipality Owned (site-host-owned)
2. Electrical Utility Owned (utility pole mounted stations only)
3. Third party owned (e.g. charging as a service owned by the EVSE manufacturer or charging network)

Charging infrastructure owned by the site host (Town of South Hadley) is purchased, installed, and maintained by the site host, which allows for full control over the station and the ability to keep all revenue. Site hosts would be responsible for all associated costs (software, maintenance, electricity costs, payment transaction fees, etc.)

SHELD owns most utility poles in South Hadley. Pole mounted charging stations are not currently permitted on SHELD owned utility poles. The preliminary on-street charging locations are proposed to have curbside, pedestal mounted stations; pole mounted EV charging station locations were not incorporated into the Study. Electrical Utility Owned EVSE are not currently an option for South Hadley.

Charging station infrastructure owned by a third party is installed and maintained by the third party. The benefits of a third-party EVSE ownership model include reduced upfront costs, reduced operational time and effort, potentially faster deployment, and reduced financial risk because the third party assumes the risk and responsibilities associated with charger utilization and maintenance costs. However, third party ownership could also have higher long-term costs through fees, a subscriptions or usage-based model, and potential service charges. South Hadley could also have limited control over branding, placement, and pricing strategy.

The ownership model for EVSE chosen will depend on the specific need and priorities of the Municipality at the time of construction. Third party ownership offers benefits in terms of reduced upfront costs and operational efforts; we recommend that it be weighed against the potential long-term costs and limitations on operational control.

## EVSE Models

There are many different manufacturers and options. The EVSE manufacturers and models described below are examples of EVSEs that are currently listed on the [EPRI \(Electric Research Power Institute\) vetted product list](#) for Massachusetts and currently listed in the [Massachusetts State Appliance Standards Database](#). We recommend checking these references before selecting a model for installation.

The FLO CoRe+, ChargePoint Series CT4000 (model CT4021-GW1), Blink Series 8 (model 880), and Autel MaxiCharger AC Ultra as well as many other brands and models could be used for on-street charging. These stations would be pedestal or bollard mounted stations and have 2-ports per charging station.

Table 9: EVSE Features

| Features                         | FLO CoRe+                    | ChargePoint CT4021           | Blink Series 8 (model 880)   | Autel MaxiCharger AC Ultra   |
|----------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| charging port output             | 7.2kW (30A)                  | 7.2kW (30A)                  | configurable to 19.2kW (80A) | 19.2kW (80A)                 |
| number of ports                  | 1 or 2                       | 1 or 2                       | 1 or 2                       | 1 or 2                       |
| cord length                      | 25'                          | 18' or 23'                   | 23'                          | 18' or 25'                   |
| height of EVSE (with cord mgmt.) | 7'-2"                        | 6' or 8'                     | 5'-11"                       | 6'-5"                        |
| payment method options           | app, credit/debit card, RFID | app, credit/debit card, RFID | app, credit/debit card, RFID | app, credit/debit card, RFID |

In considering different EVSE options, an understanding of typical EV passenger cars can be important for calculating typical duration of charging (dwell time) at the charging station and average number of charging sessions per week/car.

#### Assumptions for typical EV and Level 2 EVSEs:

- Average vehicle is driven approximately [12,500 miles/year](#) or about 34 miles/day
- Average vehicle has an average efficiency of [3 miles per kWh](#)
- It is recommended that vehicles charge once they reach 20% battery life
- Average range of each vehicle (i.e., the number of miles driven on 80% battery) is 135 miles
- On average, EVs charging from [20% battery life to 80% battery life uses 56 kWh](#), which would take about 7 hours at a 7.2kW EVSE.

Based on these typical EV passenger car assumptions and 7.2 kW ports, the calculations indicate an EV would need to charge 1-3 times per week to fill the battery from 20% to 80%. We believe this type of charging commitment is reasonable for residents with EVs.

If an EV driver decides to charge their vehicle every day after driving the average 34-mile daily commute, the battery would need about 11.4 kW/day. The driver would need to charge for about:

- 1.5 hours (95 minutes) at a 7.2kW (32A) EVSE to refill the battery to previous levels
- 1.2 hours (72 minutes) at a 9.6kW (50A) EVSE to refill the battery to previous levels.
- 0.6 hours (36 minutes) at a 19.2kW (80A) EVSE to refill the battery to previous levels

As shown, higher amperage charging ports reduce the time a typical EV must remain connected to the charger to meet a specific kW battery requirement. However, each electric vehicle also has a [maximum Level 2 charging rate](#) or acceptance rate – the highest power level the vehicle's on-board charger can accept. This cap means that even if an EVSE can deliver 50A or 80A, many vehicles may charge below that level, based on their individual limitations. Other factors that influence charging rate and vehicle acceptance rate include the battery's state of charge (percentage of battery needing to be charged), the battery's size, age, and even temperature.

Installing higher-amp EVSE (50A or 80A) can offer benefits, particularly for vehicles capable of

faster Level 2 charging and for locations where reduced dwell time is desirable. An 80A Level 2 EVSE provides the highest available Level 2 charging rate and is most advantageous for compatible vehicles such as certain high-performance electric trucks and luxury EVs.

While high-amp EVSE may reduce dwell times for some vehicles, the actual charging rate will always be regulated by the vehicles' on-board charging system. Investing in electrical infrastructure capable of supporting 50A or 80A ports may provide long-term value as EV technology evolves, battery capacities increase, and acceptance rates improve. These higher-capacity chargers may also be beneficial in areas with higher turnover or increased utilization.

It is anticipated that daytime charging demand will consist primarily of residential vehicles, with limited commuter use. Overnight charging is also expected to be dominated by residents.

Table 10: EVSE & Annual Software Costs

| EVSE                       | Preliminary Cost for Dual-Port EVSE* | Preliminary Software Cost per year** |
|----------------------------|--------------------------------------|--------------------------------------|
| FLO CoRe+                  | \$6,950                              | \$200 / port                         |
| ChargePoint CT 4021        | \$8,300                              | \$365 / port                         |
| Blink Series 8             | \$9,390                              | \$240 / port                         |
| Autel MaxiCharger AC Ultra | \$7,700                              | \$360 / port                         |

\*Costs do not include shipping, tax, activation fees, site certification / preparation fees, power management kits, pedestal mounting kits or any other manufacturer fees. The EVSE station costs are preliminary.

\*\*The software costs shown are preliminary.

## EVSE Operation & Maintenance

The FLO CoRe+, ChargePoint CT4021, Blink Series 8, and Autel MaxiCharger AC Ultra or others could be installed for on-street charging, which would operate very similarly to the existing publicly accessible charging stations currently in use in South Hadley. The specifics might vary slightly depending on the charging station manufacturer and the specific model of electric vehicle. However, the general process of operating a Level 2 EV charger is straightforward.

The operation of a typical Level 2 charging station consists of:

1. Park the EV in the designated space next to the charging station and retrieve the built-in charging cable and connector
2. Plug the connector into the EV's charging port, in most cases the user will hear a "click" indicating a secure connection
3. Open the app or authenticate usage on the screen/buttons on the charging station to initiate a charging session
4. Arrange payment via, key card or fob, smartphone app or directly with a credit or debit card, if the station is equipped with a card reader. In most cases a smartphone app is needed.
5. Users can monitor the charging process and battery status through the charging station

app or the vehicle's dashboard display.

6. To end the charging, users would use the key card/fob or app to stop the session. The charging cable is usually locked to the EV during the charging session, for security and safety, so the charging session must end prior to removing the connector from the vehicle.
7. Remove the connector from the vehicle and replace it in the station holster.

We recommend the installation of instructional signage on the nearest utility pole outlining the specific steps of that charging station usage in pictures as well as a QR code to the manufacturers' operational instructional video or QR code to the YouTube operational video. Please see Community Education Plan section for additional information.

The charge-management software platforms for the Level 2 charging stations would allow South Hadley to do the following:

- Set and change charging prices (per kWh)
- Manage charging times to offset demand charges for each port
- Analyze and control energy usage for each port
- Analyze and determine electrical usage and cost for each port user

Collection of EV drivers' payments for charging:

- The networking/software management platform collects payments for charging from drivers via an app, credit/debit card, or key card/ fob user information and registered payment information.
- The software management platform assesses a fee for payment collection and then issues a check or direct deposit of the remaining charging payments to the Town
- The Town would then use these funds to pay the SHELLED electric bill for the electric meter.
- The timing of the electric bills and payments from the charging station network/software management platform may not coincide. It is recommended that the Town have contingency funds available.

## **EVSE Energy-Based Fees**

The Massachusetts Electric Vehicle Infrastructure Coordinating Council ("EVICC") has issued an EV charging station owner-operator resource "[Public Level 2 EV Charging Station Fees and Policies Guide](#)". The recommendations for hourly charging fees and idle fees included in this report are based on this Guide as well as the supplementary guide "[Determining an Appropriate Energy-Based Charging Fee](#)".

The EVICC guidance outlines calculations for setting charging rates based on energy-based fees so that it balances affordability for users with the need to cover costs. The EVICC guidance recommends energy-based charging fees to be set at or above the local residential electric rate. However, the Town of South Hadley EVSE electric accounts will likely be charged the [Small General Service SHELLED electric rate](#) therefore we have utilized the Small General Service Rate in the calculations.

Once charging station installation is complete, we recommend South Hadley review and complete

the sample calculations provided below using the actual electric rate and actual port utilization to get a more accurate energy-based charging fee for each specific EVSE location or to obtain a South Hadley owned-operated EVSE charging rate. The existing EV charging rate at the majority of EVSE in South Hadley is \$0.25/kWh.

The following assumptions were used in the EVICC guidance calculations:

- Estimated SHELd Small General Service Rate = \$0.18/kWh
- Estimated annual software costs/fees= \$750/ year per station (1 station = 2 charging ports)
- Estimated annual maintenance fees = \$500/year per station (1 station = 2 charging ports)
- Estimated annual electric service delivery charge = \$120 per year (\$10/month)
- Assumed port utilization % = 12.50% (meaning each port is used 3 hours out of 24hrs/day)

**Estimated Annual Costs** = \$750 + \$500 + \$120 = **\$1,370**

**Projected Annual Energy Sales** = 7.2 kWh/port \* (3 hrs. usage/day \* 2 ports) = 43.2 kWh/ day  
43.2 kWh per day \* 365 days / year = **15,768 kWh/year**

**Incremental Adjustment** = (Estimated Annual Costs) ÷ (Projected Annual Energy Sales)  
\$1,370 / year ÷ 15,768 kWh/year = \$0.09 per kWh

**Total Energy-Based EV Charging Fee** = (Electric Rate (\$/kWh)) + **Incremental Adjustment**  
\$0.18 per kWh + \$0.09 per kWh = **\$0.27 per kWh**

The above shows the energy-based charging fee for a South Hadley on-street charging station, given the input estimates and assumptions, to be about \$0.27 / kWh. Consistent charging fees between the existing South Hadley owned charging stations and any newly installed charging stations are essential, and \$0.25/kWh is the recommended charging rate for new stations at this time.

We recommend South Hadley review charging rates as electric rates and software fees increase, or at least on a bi-annual basis, to ensure that municipal charging station rates are based on current costs and are similar to privately owned EVSE in the area. Continued monthly monitoring via the charging station software dashboard is recommended to determine if an increase in the charging fees deters users from utilizing the stations.

When raising or lowering the charging station fees, we recommend referencing the most recent EVICC Public Level 2 EV Charging Station Fees and Policies Guide. The sample calculations provided above can be reviewed, input estimates and assumptions replaced with actual operational costs and port utilizations, and the calculations re-run as needed to adjust charging rates. Questions about setting or changing EVSE charging rates and the EVICC Policy can be directed to [Mark.r.Scribner@mass.gov](mailto:Mark.r.Scribner@mass.gov).

## **EV Parking and Idle Fees**

It is recommended that South Hadley consider parking/idle fees for the EVSE, on top of the energy-based charging fee. These parking/idle fees have several benefits: they discourage non-charging EVs from parking in charging spots; reduce congestion and support quick turnover therefore improving charger availability; increase public understanding of EV charging etiquette and proper use; and ensure station owners are compensated for lost opportunity for charging revenue.

EVICC guidance recommends \$3-\$12 per hour, typically applied as a \$0.05 to \$0.20 per minute charge after a grace period. The grace period is the time after charging is completed and before the idle fees start to be charged. The grace period can be 15-30 minutes or longer depending on the traffic in the area and anticipated usage of the EVSE. The idle fees would be set using the EVSE software and could be changed at any time.

At both the Mt Holyoke College and Johnny's Bar & Grille locations, the first 5 hours are free to park, and no fees are assessed. After the 5-hour grace period, a fee of \$5/hour is charged to park at the EVSE. We recommend that South Hadley consider parking and/or idle fees for any Municipality owned EVSE.

## **EVSE Cellular Connectivity**

Charge-management software utilizes cell phone connectivity that was tested during the on-site assessment. It is recommended that the installation contractor test the cell phone service strength for usage by the charging ports, prior to construction and include a cell phone signal booster in the final project pricing, if necessary. Cell phone signal booster purchase and installation costs were not included in the preliminary pricing estimates.

## **EVSE Maintenance**

Maintenance of an EVSE typically involves regularly checking for damage, monitoring the station's status through the software dashboard, performing basic troubleshooting and contacting software support for any complex issues. South Hadley would be responsible for charging station operation and maintenance or could contract with a third party.

Most EVSEs come with a limited manufacturer's warranty, typically covering defects in material and workmanship. Extended warranties can be purchased to cover repairs beyond the standard warranty period. The extended warranties may only cover specific parts, and it is important to review the terms to fully understand what is included and excluded.

Some manufacturers offer maintenance plans. It may be beneficial to speak with the installation contractor to see if they offer repair services on their installations (i.e., costs paid per repair, as needed). Some contractors, including CET, offer maintenance plans that include bi-annual site visits to confirm the stations are operational and free from damage. This option could result in lower maintenance and repair costs over time. EVSE models have about the same maintenance costs, about \$300-\$500 per year.

## Potential EV Charging Incentives & Rebates

South Hadley on-street charging stations could qualify for the [MassEVIP Public Access Charging Program](#) if chargers were installed in [ADA compliant parking spaces](#). The proposed locations do not currently comply with ADA requirements in all aspects. It is unlikely given the slopes of the streets, accessibility requirements, sidewalk ramps, and signage that MassEVIP would supply funding for these locations as they currently exist. Additional construction costs for parking space slope and sidewalk modifications, if needed, should be weighed against incentives provided by MassEVIP for the projects. If applying for MassEVIP incentives alone, MassEVIP can potentially cover up to 100% of the project cost, including EVSE and infrastructure, up to \$50,000 for municipalities.

SHELD offers a [Residential EV Charging Incentive Program](#), however, there is no existing Commercial / Workplace / Public EV Charging incentives or rebates. We recommend South Hadley or their installation contractor check the availability of rebates and incentives at SHELD as these projects enter the planning and permitting phase, prior to construction.

## Preliminary Installation Costs & Estimated Timetable

Preliminary installation cost estimates are provided for budgeting purposes for each recommended on-street charging location. Please note that these are rough estimates based on current electrical materials pricing and previous EVSE installation construction costs. The costs of the EVSE and software options are provided in the EVSE Models section of this report.

As South Hadley moves forward to on-street charging installation in the future, we recommend that updated project costs be provided by the installation contractor closer to the time of construction. Some contractors, including CET, can provide no-cost estimates for charging station installations and help with the selection of EVSE manufacturers. This could assist the Town in determining which sites to select for installation, depending on costs and budgets.

The preliminary installation cost estimates in this section are based on the layouts depicted in the On-Street Charging Sketch for each location (Figures 6-10) and project descriptions found in the On-Site Assessments section of this Report.

Table 11: Preliminary Installation Costs &amp; Estimated Construction Timetable

| Site | Street                                  | Preliminary Project Cost* | Estimated Construction Timeline ** |
|------|---|---------------------------|------------------------------------|
| 1    | Main Street near Town Hall              | \$71,500                  | 3-4 days                           |
| 2*** | Beachgrounds Park near Basketball Court | \$63,500                  | 2-4 days                           |
| 3    | Main Street between N Main & Bardwell   | \$58,000                  | 2-3 days                           |
| 4    | Main Street near SHELD bldg.            | \$75,000                  | 3-4 days                           |
| 5    | Pleasant Street near Town Hall          | \$64,000                  | 2-4 days                           |

\* **Preliminary Project Cost** is priced using prevailing labor, normal working hours (0800-1600 M-F), SHELD to determine final new electrical service location. Pricing for projects depicted in Figures 6-10 and described in the On-Site Assessments section of this Report. Pricing does not include EVSE station cost, software costs, fees, shipping, and manufacturer fees, etc.

\*\* **Estimated Construction Timetable** is for the installation contractors' scope of work only and will depend on weather conditions and electrical inspections scheduling. This timetable does not include Utility scope of work prior to installation (new pole placement (if needed)) or post installation Utility work (new electrical meter installation or final project energization / connection of new electrical service to grid).

\*\*\* Preliminary Project Cost and Estimated Construction Timeline for Site 2 (Beachgrounds Park near Basketball Court) are for EV installation only. Construction costs and timeframes for roadway shoulder improvements, parking space construction, and other site improvements to support EV parking and charging are not included.

## Project Implementation Overview

The Massachusetts Office of the Inspector General (OIG) has detailed guidance and a public procurement technical support team who can provide guidance about the application of MGL Chapter 30B. [Chapter 30B Manual: Procuring Supplies, Services and Real Property](#) is a guide to the Uniform Procurement Act MGL c. 30B and details the procedures local government bodies must follow when buying, leasing or acquiring supplies, services and property using public funds.

The Preliminary Project Costs shown above in Table 11 are infrastructure costs only and do not include the EVSE, software, maintenance plans, shipping, fees, etc. The EVSE infrastructure installation projects could range from \$60,000 to \$80,000 without rebates or incentives. Utility programs and other sources of funding can lower project costs by 50%, or more. [MGL c.30B, section 23](#) specifically outlines the requirements for the [Procurement of Electrical Vehicles and Charging Infrastructure](#).

Due to the complexity of EVSE installation projects and varied funding sources, we recommend that South Hadley discuss the project(s) with the Procurement Officer and determine how the various sources of funding, funding process requirements, and contractor selection process will comply with Local procurement requirements and MGL c. 30B.

### Typical EVSE Installation Process\*:

1. Select an installation contractor – Licensed Electrician with EVSE installation experience
2. Choose an EVSE installation location with the help of your chosen installer (~2 weeks).
3. Installer can submit a [Request for Electrical Service](#) to SHELD with detailed site sketch and information (~2 weeks). SHELD engineers will review the Request, inspect existing infrastructure, and design the new electrical service and any infrastructure upgrades, if needed. (~2-8 weeks)
4. Apply for State and Federal funding, including MassEVIP Program (2-4 weeks concurrent with SHELD review and design)
5. Apply for and Obtain Local Permits (4-6 weeks, concurrent with SHELD review and design)
6. South Hadley or the installation contractor will purchase the charging stations.
7. SHELD will schedule and begin any infrastructure upgrades, if needed, to supply the new electrical service. Examples include (timetables run concurrently): new utility pole (1-3 months), new/upgraded pole mount transformer (1-3 months), new overhead secondary service (1-3 months).
8. Once the installation contractor has completed their portion of the project, the post-installation SHELD scope of work can be completed (final service connection, new meter installation, energized) (2-6 weeks).

The overall anticipated timeframe for project implementation is 4-8 months.

\* Various sources of funding may have different requirements for contractor selection, implementation process, documentation, and rebate requirements that could impact implementation steps and timetables.

## Community Education Plan

Community outreach is an essential component of the MassCEC Program and was conducted to aid South Hadley in site selections and evaluations contained in this Feasibility Study. If the Municipality decides to pursue the installation of charging stations in the future, we recommend the following strategies during the permitting phase of the on-street charging station installation and construction:

- Notify Abutters of the project(s) via mail
- Post notifications and flyers in public buildings and frequently visited local business, if possible, especially near the on-street charging sites where implementation and construction will occur (Public Library, Town Hall, Council on Aging, SHELD, coffee shops, etc.) Marketing examples of community outreach efforts can be found in Attachment 1.
- Provide links or QR codes on the Town website and social media directing users to the chosen EVSE manufacturer's website and YouTube video instructions for charging station use.

Utilizing YouTube features related to subtitles/closed captions would benefit people with hearing impairments and it would offer translation options (over 15 languages). Another

use could be for the Town to link directly to the manufacturer's operational instruction video for the charging station. This also allows for translation of the content as well. Signage ideas for accessing this information resource are described below.

We recommend implementation of a community education campaign that acknowledges and addresses the negative comments submitted by survey participants ahead of installation and construction:

1. Limited community support for using tax dollars to expand the EV charging network.

To address this, we recommend the Town of South Hadley commit to exhausting all available federal, state, utility, and private funding opportunities before considering any local expenditure (See Potential EV Charging Incentives & Rebates section of this report for additional funding opportunity details). Grant programs and utility incentives can significantly reduce or fully cover installation costs, ensuring that local taxpayers are not expected to shoulder the full costs of the installation. Clearly communicating this funding-first strategy could help alleviate some financial concerns. In addition to communicating the funding-first strategy for the initial installation, it will be important to also educate the community that the cost of charging an EV will be paid directly by the user, not collected broadly through taxes (See EVSE Energy-Based Fees section for recommended fees).

2. A perception that EV adoption rates are low locally ("no need").

Research shows that visible, publicly accessible charging infrastructure can encourage adoption ([Electrification 101: Ensuring Equitable EV Charging Access](#)), particularly for residents who cannot charge at home (renters, multi-unit households, and lower-income neighborhoods). In addition, municipal-owned stations, since they are not profit-driven, often offer lower charging rates than private operators, expanding equitable access. Education efforts can also highlight that the overall cost of EV ownership is increasingly competitive, with many drivers saving significantly on maintenance, repairs, and fuel over the life of the vehicle ([Understanding Charging Costs at Home and in Public](#)).

3. Concerns about losing on-street charging spaces to dedicated EV charging.

To mitigate these concerns, the Town can prioritize locations where on-street parking impacts will be minimal. Clear signage indicating time limits and hours of usage can help ensure turnover and prevent misuse. Public communication should emphasize that only a small share of total parking would be reserved for EV charging and that these spaces can be managed flexibly based on usage data collected over time, such as requiring that the space be limited to EV charging only during specific hours of the day in areas with higher turnover rates.

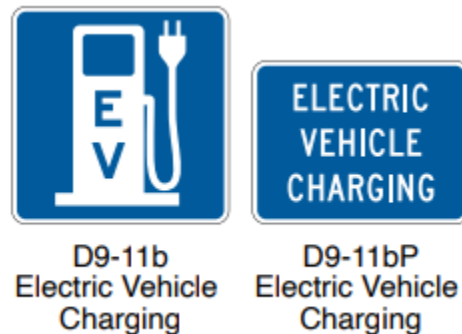
4. Concerns about electricity grid capacity.

Changes to electrical infrastructure may be required to support charging network expansion at specific locations. To limit costs associated with upgrades in support of network expansion,

SHELD should be consulted at every stage of charging network planning. This would ensure potential grid improvements are identified well in advance of construction and subsequently incorporated into planned grid upgrades when possible. Demand-response capabilities can also be considered and incorporated into the municipal charging network to allow chargers to reduce load when the grid is stressed. Notifying community members of demand-response measures in place would help to alleviate concerns for those who want to ensure EV charging is not prioritized during events when the grid may be stressed. EVSE with “on-site” management capabilities, such as battery storage and solar generation should also be considered when evaluating EVSE ahead of procurement. Incorporating network expansion with existing/planned projects, implementing demand-response capabilities and selecting EVSE with on-site management would allow SHELD to proactively upgrade and then subsequently reduce reliance on the distribution system and smooth demand from charging stations during peak times.

After construction, we recommend South Hadley install wayfinding signage for the charging stations. Wayfinding signage directs EV drivers to charging stations from nearby roads and intersections. The Federal Highway Administration Manual on Uniform Traffic Control Devices (MUTCD) for Street and Highways shows EV charging signs that could be utilized with directional arrows to help residents and visitors locate the stations. These types of signage may also be required to qualify for certain incentive programs, such as MassEVIP.

Figure 11: [Manual on Uniform Traffic Control Devices \(MUTCD\) for Streets and Highways, 11<sup>th</sup> Edition, US Department of Transportation, Federal Highway Administration, December 2023, Section 2I, Figure 2I-1, page 478.](#)



Station Signage will help EV drivers identify charging stations and will also assist the Town in enforcing parking and charging policies, including time limits, penalties and definitions. Any signs posted in public right-of-way must meet MUTCD requirements. We recommend station signage stating, “No Parking Except for Electric Vehicles While Charging, 4 Hour Limit.” Signage could also indicate “No EV Parking Time Limit 8pm-8am”. Charging time frames and penalties will be determined by South Hadley.

Pavement markings, painted on the surface of the EV parking space, can also be used to reinforce signage for charging stations. By making charging infrastructure more visible and accessible, signage can play a role in encouraging the adoption of electrical vehicles.

QR Code stickers on the EVSE or affixed to adjacent signage would help residents and users link directly to the chosen manufacturer’s YouTube or manufacturer’s website operational

instruction video for the charging station. The use of a QR code is convenient and provides readily available instructions for use.

Community outreach and education including the notification of abutters, flyers, QR codes and signage will help to notify, inform and educate residents about the construction project(s), on-street charging locations, charging policies and penalties, as well as provide linguistically accessible instructions for use.

## Summary and Conclusion

The Town of South Hadley was awarded a Feasibility Study from the MassCEC Program. The Program goal is to provide Municipalities interested in increasing access to on-street charging stations with technical information for the potential future deployment of on-street charging infrastructure projects.

Five Preliminary Sites were selected for this Feasibility Study. All the locations are feasible for the installation of on-street charging. Community outreach efforts were successful in obtaining feedback about the locations.

We hope that the information provided in the Feasibility Study will inform and encourage future on-street charging installations.

As the Town of South Hadley moves forward to on-street charging implementation we recommend contacting SHELD as soon as possible. The recommendations for on-street charging contained in this Feasibility Study are based on currently available information. SHELD will need to evaluate the proposed electrical service locations, conditions of proposed electrical service poles or transformers, and capacities of the circuits or transformers to design the new electrical services. The new electrical service application and existing electrical infrastructure evaluation for implementation of on-street charging can take time, approximately 1-3 months, for the Utility to process, evaluate, and approve.

The Summary Table below indicates the estimated construction costs, construction timetable, type of charging, and suggested number of ports at each location. By utilizing the recommendations and technical data in the Feasibility Study Final Report, the Town of South Hadley is well-positioned to take the next steps toward bringing publicly owned and accessible on-street charging to residents, creating long-term benefits for the community.

Table 12: Summary Table (See notes below for definition of terms and additional information)

| Site | Street                                  | Preliminary Project Cost | Preliminary Dual-Port EVSE Cost | Estimated Annual Costs | Estimated Construction Timetable | Type of EVSE | Number of Ports |
|------|---|--------------------------|---------------------------------|------------------------|----------------------------------|--------------|-----------------|
| 1    | Main Street near Town Hall              | \$71,500                 | \$6,900 - \$9,400               | \$400-\$870            | 3-4 days                         | curbside     | 2               |
| 2*   | Beachgrounds Park near Basketball Court | \$63,500*                | \$6,900 - \$9,400               | \$400-\$870            | 2-4 days*                        | curbside     | 2               |
| 3    | Main Street between N Main & Bardwell   | \$58,000                 | \$6,900 - \$9,400               | \$400-\$870            | 2-3 days                         | curbside     | 2               |
| 4    | Main Street near SHEL D bldg.           | \$75,000                 | \$6,900 - \$9,400               | \$400-\$870            | 3-4 days                         | curbside     | 2               |
| 5    | Pleasant Street near Town Hall          | \$64,000                 | \$6,900 - \$9,400               | \$400-\$870            | 2-4 days                         | curbside     | 2               |

**Preliminary Project Cost** is priced using prevailing labor, normal working hours (0800-1600 M-F), SHEL D to determine final new electrical service location. Pricing for projects depicted in Figures 6-10 and described in the On-Site Assessments section of this Report. Pricing does not include EVSE station cost, software costs, fees, shipping, and manufacturer fees, etc.

**Preliminary Dual-Port EVSE Cost** do not include shipping, tax, activation fees, site certification / preparation fees, power management kits, pedestal mounting kits or any other manufacturer fees. The EVSE station costs are preliminary.

**Estimated Annual Costs** include software costs and maintenance costs. Preliminary software costs range between \$200-\$365 per port. Maintenance costs can range between \$200-\$500 per location. Estimated software cost per year and estimated maintenance cost per year were summed to determine the **Estimated Annual Costs**. Specific EVSE manufacturer, model and software package to be determined by the Town of South Hadley.

**Estimated Construction Timetable** is for the installation contractors' scope of work only and will depend on weather conditions and electrical inspections scheduling. This timetable does not include Utility scope of work prior to installation (new pole placement (if needed)) or post installation Utility work (new electrical meter installation or final project energization / connection of new electrical service to grid).

**Type of EVSE** refers to the general type of on-street charging (e.g. curbside, Utility pole mounted).

\* Preliminary Project Cost and Estimated Construction Timeline for Site 2 (Beachgrounds Park near Basketball Court) are for EV installation only. Construction costs and timeframes for roadway shoulder improvements, parking space construction, and other site improvements to support EV parking and charging are not included.