



McMAHON ASSOCIATES
120 Water Street, 4th Floor
Boston, MA 02109
p 617-556-0020 | f 617-556-0025

PRINCIPALS

Joseph W. McMahon, P.E.
Joseph J. DeSantis, P.E., PTOE
John S. DePalma
William T. Steffens
Casey A. Moore, P.E.
Gary R. McNaughton, P.E., PTOE

ASSOCIATES

John J. Mitchell, P.E.
Christopher J. Williams, P.E.
R. Trent Ebersole, P.E.
Matthew M. Kozsuch, P.E.
Maureen Chlebek, P.E., PTOE
Dean A. Carr, P.E.

June 19, 2018

Melissa A. Miguel, P.E.
Supervising Engineer
City of Cambridge
147 Hampshire Street
Cambridge, MA 02139

RE: Proposal for Huron Avenue Parking Utilization Study

Dear Melissa:

McMahon Associates is pleased to submit this proposal for the Huron Avenue Parking Study, located in Cambridge, MA.

Scope of Services

Study Area

The study area, depicted in the attachment, will extend from Huron Avenue at Manassas Avenue to the driveway at 74 Huron Avenue, and include the following streets off Huron Avenue:

- Concord Avenue from Royal Avenue to Madison Street
- Holly Avenue from Huron Avenue to Madison Street
- RC Kelley Street from Huron Avenue to O'Donnell Street
- Tierney Street from Huron Avenue to Winslow Street
- Garden Street from Winslow Street to Madison Street
- Sherman Street from Winslow Street to Huron Avenue

The study includes all on-street parking on both sides of each street within the study area. All curbside regulations will be inventoried and all on-street parking will be counted for utilization, including residential permit parking, metered parking, disability parking and loading zones. Parking data will also be collected in shared curbside uses such as loading zones and taxi stands, when parking is allowed. An inventory and utilization of any off-street parking in the study area is not included in this scope of work.

Methodology

We will document all existing curbside regulations through an initial desktop assessment. This assessment will populate a GIS-based database. We will transfer this database to the GIS-based ArcCollector App, a mobile application that can be assessed on tablets during field data collection. The curbside regulation inventory data will be verified in the field on tablets using the ArcCollector App. Confirming the number of available parking spaces and the location of other curbside uses such as loading zones, taxi stands, and bus stops. The inventory database will be adjusted as needed based on the field review.

As existing parking spaces are not currently striped, existing parking supply will be assumed to be the maximum number of vehicles legally parked along a given segment. It is assumed that legitimate parking areas are generally appropriately signed to provide adequate distance from crosswalks, driveways, hydrants and intersections. If signage is not present traffic engineering standard clearances will be generally applied in conjunction with assumptions for 16-18' long parking spaces or the presence of parking meters.

The goal of collecting utilization data is to provide insight on the parking impacts of an on-road bicycle facility on Huron Avenue. The utilization of parking by residents as well as employees and visitors of local businesses at different times of day is likely to be captured over the course of a "typical weekday." We propose collecting data for one typical Thursday, June 21, 2018, to capture morning residential and business demand, evening restaurant demand, and overnight parking demand. The utilization study will be conducted for the morning, afternoon, and night at the following hourly increments to obtain a representative sample of residential, business, and employee parking demand:

- Morning: 7:00 AM, 8:00 AM, 9:00 AM, and 10:00 AM
- Afternoon: 3:00 PM, 4:00 PM, 5:00 PM, 6:00 PM, 7:00 PM, 8:00 PM
- Night: 10:00 PM, 11:00 PM, 12:00 AM

We propose using the GIS-based ArcCollector App to collect parking utilization data on tablets in the field. This allows the data to be automatically linked to the GIS-based inventory database of curbside regulations. Collecting data in the field electronically on tablets negates the need to transfer data to an electronic format once collected, and helps streamline the collection of data, reducing the amount of post-field collection refinement. One staff member is required per day time-period to cover the study area on foot within one-hour. For the night counts, two staff members will use a ZipCar to cover the study area as a pair.

Deliverables

Total existing parking supply and parking demand results for each time period and day of observation, by block and type, will be presented graphically on the City's GIS base map. Additional charts and graphics will be developed to highlight key trends for sub areas or types of parking (such as residential

parking versus metered parking spaces). Utilization trends and illegal parking observations that provide insight on parking demand and areas of need will also be noted.

A technical memo including graphics, tables and charts will document the methodology and findings of the study. The memo will also provide suggestions for potential changes in parking policies and operations in consideration of implementing an on-road bicycle facility on Huron Avenue. These suggestions will be provided to assist in responding to resident concerns. The memo will be provided in .pdf format to the City. We will provide the City with the raw data collected, if requested.

Schedule

We will initiate work immediately upon receiving notice to proceed, and will complete the parking data collection the week of June 18, 2018 and analysis and technical memo no later than the week of July 30, 2018.

Fee

We propose to complete the above scope of work on a time and materials basis for a not-to-exceed fee of \$9,500.

If you have any questions regarding this proposal, please do not hesitate to contact me.

Kind regards,



Paul Bakis, P.E., PTOE
Project Manager

Attachment

cc: Patrick Baxter, Traffic, Parking, and Transportation, City of Cambridge
Kathy Watkins, Department of Public Works, City of Cambridge
Christine Clancy, Kleinfelder
Christopher Balerna, Kleinfelder
Christi Apicella, McMahan Associates

Attachment: Study Locus

