

CAMBRIDGE REDEVELOPMENT AUTHORITY:
**2016 KENDALL SQUARE URBAN
RENEWAL AREA STREETScape
REDESIGN PROPOSAL**

July 21, 2016



PREPARED BY:
Alta Planning + Design

IN ASSOCIATION WITH:
McMahon Associates
HDR, Inc.



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July 21, 2016

Jason Zogg
Project Manager
Cambridge Redevelopment Authority
255 Main Street, 4th Floor
Cambridge, MA 02142

Re: Proposal for 2016 Kendall Square Urban Renewal Area Streetscape Redesign

Dear Mr. Zogg and Members of the Selection Committee:

Alta Planning + Design (Alta) is pleased to submit our proposal to provide the Cambridge Redevelopment Authority (CRA) with a well-conceived and implementable streetscape and roadway redevelopment design for the Binney Street/Galileo Galilei Way corridor. We applaud the CRA for its vision in continuing to transform vehicle-centric roadways into true multimodal arteries that balance the needs of all users in an evolving Kendall Square, City of Cambridge, and region.

Alta is one of the country's leading Complete Streets planning and design firms. We will bring knowledge and national experience in the design and engineering of bicycle facilities and urban streetscapes to create a functional, safe, and aesthetically engaging solution to connect Binney Street and Vassar Street. The work will be led by our Cambridge office, located only a few blocks from the project site, and staffed with personnel with a positive track record of working closely with the City of Cambridge and its departments and committees to deliver built projects. We will lead the planning, design and engineering of the roadway, bike facility, intersections, and streetscape, as well as all internal coordination and stakeholder engagement tasks. To complement Alta, we are pleased to bring on two of the leading engineering firms in Greater Boston and nationally: **McMahon Associates (McMahon)** and **HDR Inc. (HDR)**.

As the team's traffic and transit lead, McMahon will leverage their tremendous experience in Kendall Square by providing robust technical analyses that will lead to buy-in from the City of Cambridge Traffic, Parking and Transportation and Community Development departments, as well as MassDOT and key property owners. With their recent work leading the reconstruction of Main Street in Kendall Square and Western Avenue, HDR will lead the civil engineering and green/blue infrastructure tasks. Alta, McMahon, and HDR provide a team that can bring not only a successful 25% design, but we can work with CRA to bring the approved plan into final design and implementation.

The evaluation criteria established by CRA for this proposal matches strongly with the qualities and abilities that the Alta team brings to this project:

- **Extensive Active Transportation Design Experience:** The Alta team brings a level of experience with urban roadway corridor planning and design difficult to match. Alta Project Manager Tom Doolittle, ASLA, was Principal-in-Charge for the Vassar Street cycle track project and led MIT's feasibility study for providing a multi-use path within the Grand Junction right-of-way. He has managed complex projects and teams such as the preliminary design of the streetscapes created by the Central Artery Project in Boston, and the reconstruction of four miles of highway corridor as part of the Maumee River Crossing project in Toledo, Ohio. Senior Engineer Mike Repsch, PE, leads Alta's East Coast roadway engineering work and has designed cycle track projects in six states. McMahon's Christi Apicella and Phil Viveiros, PE, are well-versed in traffic and transportation related issues in Kendall Square and other areas of Cambridge. Recently, Phil worked with Tom Doolittle as lead traffic engineer for the Grand Junction corridor study. HDR's Jerry Friedman, PE has been the Project Manager and lead engineer for active transportation and roadway reconstruction projects throughout Cambridge and Boston for over 20 years, including the nationally noted cycle track on Western Avenue.

- **Local and National Experience:** Alta has been at the forefront of the Complete Streets movement since its inception, leading the design and execution of projects throughout the country. Tom Tavella and members of the Alta team worked on a cycle track project in Russellville, Arkansas that was recently featured in an article in Landscape Architecture Magazine. Innovative landscape and stormwater treatments are always a component of our work, leading to solutions that achieve sustainability and resiliency. We also designed a fully-protected intersections for bicyclists in Salt Lake City, Utah, one of only two in the country. Locally, Alta has completed pedestrian and bike facility plans for the path system along the Charles River Basin (with HDR) and Olmsted's Emerald Necklace. McMahon and HDR have worked together on numerous projects in Cambridge, and HDR was the lead engineer on the Western Avenue reconstruction and cycle track project.
- **Familiarity with Design Guides:** As designers of numerous Complete Streets projects and cycle tracks, the Alta team is intimately familiar with the key state and national guides that help bring active transportation projects to life. Alta was part of the genesis of the North American City Transportation Officials (NACTO) organization in 2009 and later became NACTO's prime consultant for both editions of the *Urban Bikeway Design Guide*. As the lead engineer for the Western Avenue and Main Street reconstruction projects, HDR has had experience with both NACTO guides, the MassDOT Separated Bike Lane Planning and Design Guide, and the City of Cambridge DPW's streetscape design standards.
- **Understanding of Key Goals:** The Alta team has a clear understanding of the key goals of the CRA, the City of Cambridge, adjacent property owners, and other stakeholders for the corridor. This understanding informs our approach to the particular design and engineering challenges and allows us to meet the CRA's timeline. We recognize the critical path facing the CRA related to coordination with Stoss, the City, and Boston Properties and feel confident that our team can accommodate complex scheduling needs and meet all key milestones.
- **Graphic Representation Capabilities:** Alta's design and landscape architecture staff create high quality graphics as a routine part of all our streetscape design projects. We work hard to develop easily legible diagrams, beautifully rendered plans and sections, and state-of-the-practice 3D imagery to help our clients, project stakeholders, and the public understand the ideas and concepts we are proposing and what they will mean in built form. We work equally hard to create contract documents that are clear, complete, and thorough, to see that the final built project accomplishes the goals and objectives established in the early phases of the design process and minimizing the potential for problems in construction. The design work and graphics created for projects in Kendall Square over the past four decades have set the bar high and our team intends to continue this legacy.
- **Strong References from Satisfied Clients:** The Alta team creates quality work on time and on budget. Clients appreciate our deliverables and rely on them to move their projects forward with confidence. The trio of references provided in our proposal will give you a better sense of appreciation for the Alta team's planning and design experience, professionalism, and creativity.

If you have any questions or comments about our approach to this exciting opportunity, please contact me at (203) 410-1940 or tomtavella@altaplanning.com, or Project Manager Tom Doolittle at (617) 945-2251 or tomdoolittle@altaplanning.com. We look forward to the next steps in the selection process.

Sincerely,



Thomas R. Tavella, FASLA, PLA, Principal
Alta Planning + Design

Understanding of Project Requirements and Approach

Alta Planning + Design has put together a team that strikes a balance between local knowledge and experience, along with national expertise. With sub-consultants McMahon Associates and HDR Inc, we are a team with an intimate knowledge of the traffic, bike-connectivity, transit access, landscape design, and sustainability issues in the Kendall Square area and throughout the City of Cambridge. Collectively, we understand the needs of the Cambridge Redevelopment Authority, the City's Traffic, Parking and Transportation and Community Development departments, the Charles River TMA, adjacent property and business owners, MIT, the MBTA and East Cambridge neighbors. Complementing the Alta team's roots in the Kendall Square area, we bring a national level of expertise in streetscape design, separated bike lanes, and protected intersections for bicyclists, unmatched by others.

Project Goals

From start to finish, the Alta team will use the project's Design Goals as a touchstone for the duration of the approximately six-month effort. Our work will incorporate each goal in a way that enhances the overall design and helps to ensure approval and enthusiasm from the CRA, the City, and various stakeholders.

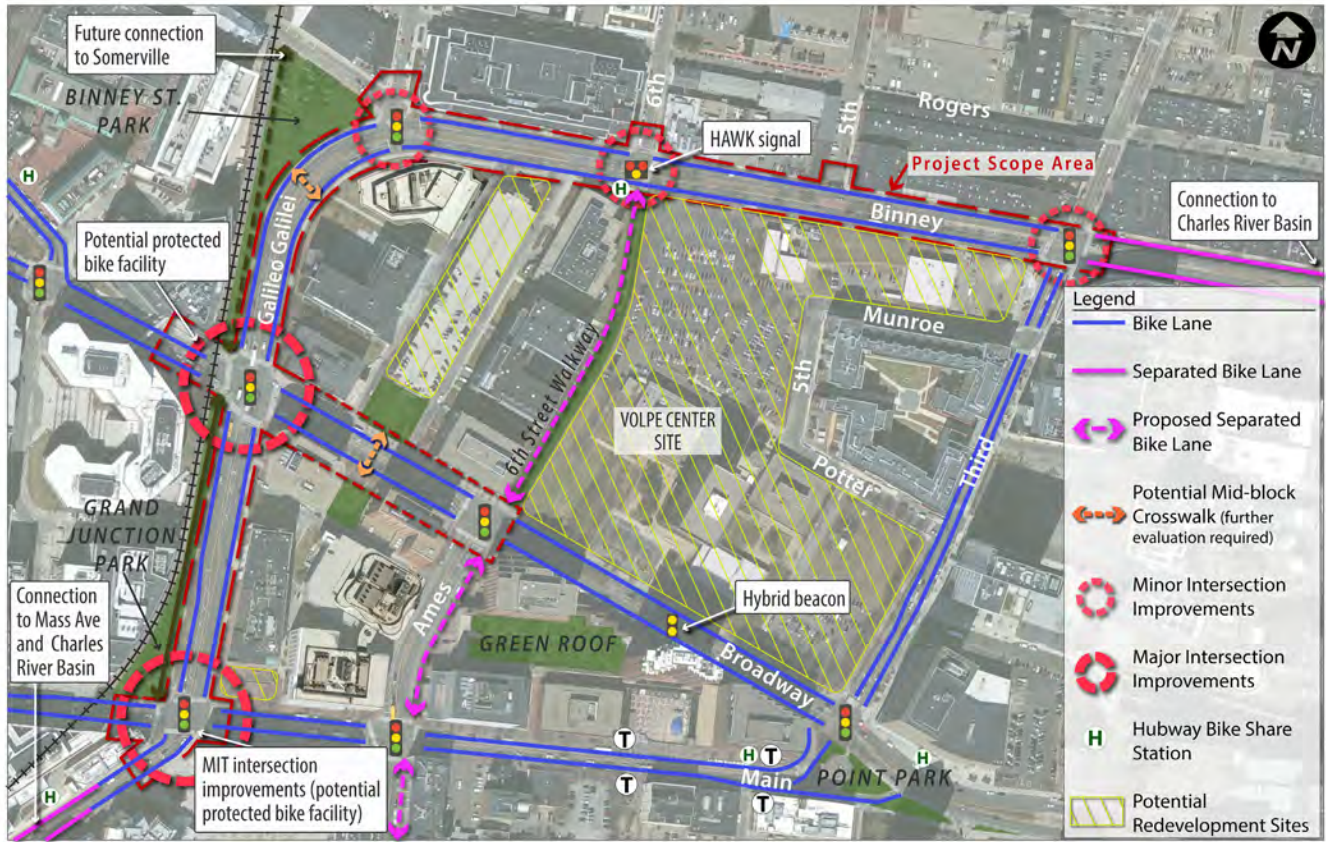
ENHANCE CONNECTIVITY OF EXISTING BIKE FACILITIES

Kendall Square is currently well-positioned with a relatively-complete network of on-street bicycle facilities. This project aspires to link the Vassar and Binney cycle tracks with a continuous facility that promotes an improved experience for bicyclists of all ages and abilities wishing to travel within or through Kendall Square (connecting at each end to the Charles River Basin path system) protected from moving traffic. This is considered especially important along the Binney/Galileo Galilei/Vassar corridor which is considered a truck route connecting Mass Ave to Monsignor O'Brien Highway, and beyond to Interstate 93.

The Alta team's approach to facilitating this connection is to replicate the most-successful design elements from the Vassar and Binney Street cycle tracks and to incorporate best practices from the Western Avenue cycle track and Alta's separated bike lane projects throughout the US. This will include a careful study of the ideal width for the one-way cycle track, material treatment, curb offsets, landscape treatments, signage, use of colored pavement, bus stop integration, driveway/side street crossings, bicycle signalization, and intersection design.



The Alta team's graphic representation capabilities include highly-detailed photo renderings of streetscapes that feature cycle tracks and new landscaping.



Cursory site analysis of the Project Scope Area reveals a complex layering of existing and future bike lanes and paths, redevelopment projects, green spaces and intersections with potential for significant pedestrian and bicycle enhancements.

FACILITATE BUS TRAVEL

Given the CRA and City of Cambridge’s focus on promoting multimodal transportation options, transit is an important aspect of roadway redesign. The center point of the Kendall Square transit network is the MBTA’s Red Line subway station at Kendall/MIT. This station is served by an extensive system of buses, some of which travel on the roadways and through the intersections comprising the study area, including MBTA bus routes 64, 68, and 85 and the cross-town CT2; the Charles River Transportation Management Association’s (CRTMA) EZRide shuttle service; MIT’s shuttles students and employees; and Biogen Idec’s commuter bus service between its location in the study area and five outlying locations.

The Alta team recognizes that a transit user is also a pedestrian for a portion of their trip, and that the experience of getting to and from the bus stops in the study area plays a major role in attracting transit users. McMahon’s experience in the CRTMA EZRide shuttle planning and their knowledge of MBTA bus operations and bus stop design will inform our design approach to intersection improvements for Galileo Galilei Way at Broadway and Main Street, and create an appropriate balance between motor vehicles, pedestrians, bicyclists and buses.



Due to the relative frequency of EZ Ride bus stop relocation, they currently offer few amenities such as shelters or benches.

IMPROVE PEDESTRIAN AND BICYCLE FACILITIES AT INTERSECTIONS

The Binney/Galileo Galilei study area includes four signalized intersections and two non-signalized intersections. A critical component for the signalized intersections is the comfort and safety of pedestrians and bicyclists crossing in all directions. The Alta team’s approach to intersection redesign is to carefully consider each intersection and develop recommendations that reflect the context and expected functionality.



The Alta team will incorporate some of the design features of the Binney Street cycle track and look for opportunities for improvements based on best practices nationally.

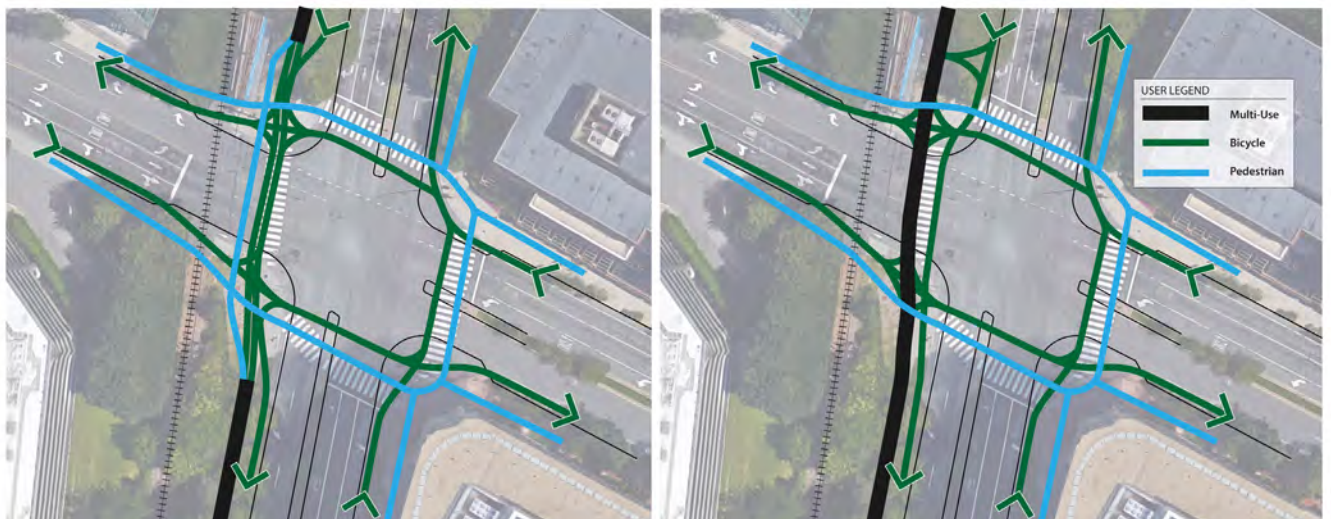
Of highest priority is the accessibility and safety for pedestrian traffic, including those with disabilities. We will evaluate crosswalk length and design, lighting, signal design, queueing areas, landscaping, shade, and median islands. For walkers, the intersections of Broadway/Galileo Galilei, Main/Galileo Galilei, and Third/Binney are key gateways into the heart of the Kendall Square Urban Renewal Area and to the MBTA Red Line station.

Bicycle traffic is a second critical component and we will integrate bicycle movement and safety with pedestrian access at intersections. Because new cycle tracks will likely connect the existing Vassar Street and Binney Street cycle tracks, a unique opportunity exists for a fully protected bike facilities in all directions at

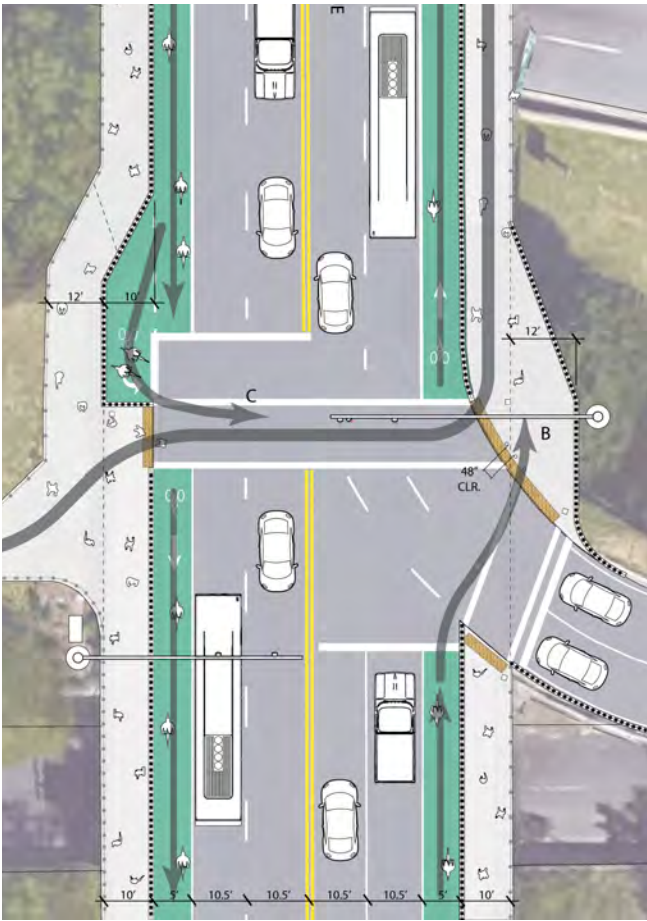
the Broadway/Galileo Galilei Way and Main Street/Galileo Galilei Way intersections. Alta helped designed one of only two protected intersections in the US. The Salt Lake City, Utah project features separated tracks and crossings for pedestrians and bicyclists, traffic-calming islands at the four corners, green bicycle zones, and bicycle traffic signals. The fact that the Galileo Galilei approaches do not feature parking and the presence of the Grand Junction Path will make developing a successful protected intersection design more complex.

INTEGRATED STREETSCAPES AND PROPOSED PEDESTRIAN/BIKE FACILITIES

Streets are the threads that tie a district like Kendall Square together. They are the life blood of the public realm. Alta’s planners and landscape architects will analyze, explore, and immerse themselves into the Binney/Galileo Galilei corridor and take a holistic approach to the work. Our team will carefully consider the existing streetscape along Vassar Street and Galileo Galilei Way, the new streetscape design along portions of Binney Street and landscape features of adjacent open spaces and parks. Key issues include the use of paving materials and colors to differentiate pedestrians and bicyclists, integration with intersections, and design of the buffers between the cycle track and the curb and between the cycle track and the sidewalk. It is critical that one or both buffers provide an appropriate amount of space for streetscape elements such as benches, signal cabinets, hydrants, lighting, bike racks, traffic/parking regulatory signs, bus stops, and snow storage.



Two options to integrate southbound bicycle traffic along Galileo Galilei Way with the Grand Junction Path multi-use traffic at Broadway are to combine the two on the approach to the intersection or maintain separate paths through the intersection.



Alta worked on the design of a signalized intersection at a new path crossing of the Harvard Bridge which accommodated a wide array of bicycle turning movements where the bike lanes, bridge sidewalks, and multi-use path converge.

The Alta team’s streetscape analysis will include the existing and potential improvements to the 6th Street Walkway, Grand Junction Park, and the soon-to-be-built Binney Street Park. Our team looks forward to the creative integration of the south/westbound cycle track and sidewalk with the paths and landscape features in the park. The design options studied for the integration of the cycle track and Grand Junction path at the Broadway intersection will help inform design options for the Binney/6th crossing as well.

PRESERVE STREET TREES

Despite the busy traffic and truck noise along the Binney/Galileo Galilei corridor, the London Plane trees create a strong sense of place. They provide a verdant quality, slow traffic, and shade the adjacent sidewalk. The Alta team understands the importance of the trees and intends to integrate them into any

streetscape design work. In designing the street and cycle track improvements, appropriate methods to preserve and extend the life of these trees will be a critical factor. Streetscape treatments to maintain and protect the root zone, minimize pedestrian intrusion into the planting areas, and careful understory planting and appropriate green infrastructure techniques to capture rainwater for irrigating the trees will help to maintain an optimum growing environment.

ACCOMMODATE NEW DEVELOPMENT

The recent multi-block redevelopment of Binney Street between 3rd and 1st by Alexandria illustrates the synergy that can exist between roadway design, streetscapes, and new buildings. Coordinating the urban design so that the right-of-way design takes some cues from private development and vice versa will be critical to the future of the project area. The Alta team looks forward to the coordinating the design with development interests to leverage this synergy at the Volpe development site and at various Boston Properties-owned sites. The design of the ground floors of future buildings will help to enliven the adjacent green spaces, as well as the sidewalk and cycle track. Finally, the design of the south-side cycle track on Binney between the 6th Street Walkway and 3rd Street will need to anticipate potential new streets, driveway, and pedestrian and bicycle links that may arise with the long-term redesign of the Volpe site.



A continuous cycle track and improved streetscape can encourage more bicycle-oriented development, similar to the Williams Avenue corridor in Portland, OR.

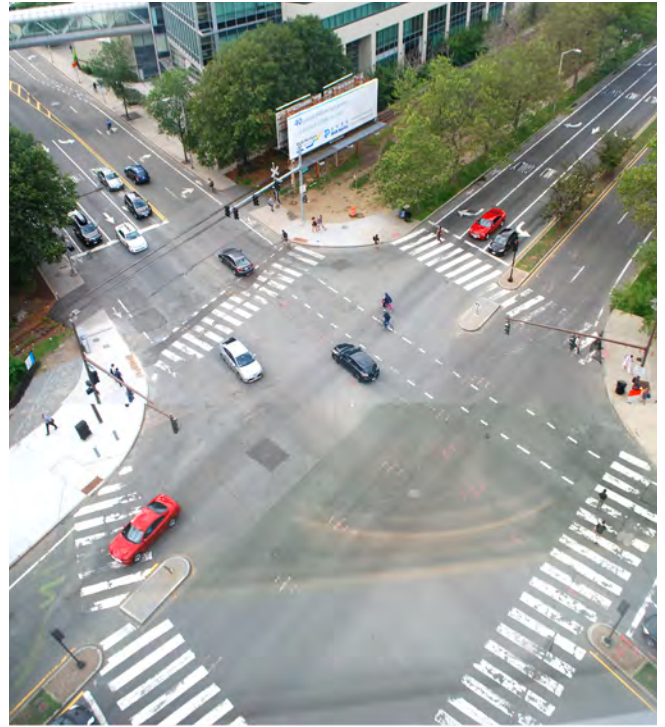
MANAGE TRAFFIC ACCESS AND CUT-THROUGH TRAFFIC

It is important to recognize that just beyond the boundaries of the primary study area, significant investment in transportation infrastructure is being made that will impact the mobility of East Cambridge and Kendall Square. Much work has already been done to document existing access conditions through KSURP Amendment 10, MassDOT’s Kendall Square Mobility Task Force Project, Eastern Cambridge Planning Study (ECaPS), City of Cambridge’s 2013 Kendall Square – Central Square (K2C2) Planning Study (“K2C2 Study”), and private development proposals. Therefore, our team’s approach—lead by McMahon—is to avoid re-creating a baseline inventory and will instead focus on collecting and mapping conditions only when necessary to complete specific tasks. This allows us to complete an appropriate level of analysis for decision making by identifying key issues and opportunities, without getting bogged down in “analysis paralysis.” Our team prides itself on possessing a real understanding of what it takes to successfully integrate bicycle, pedestrian, automobile, and transit access from initial planning, design, and implementation.

One of the primary advantages of McMahon’s role on the Alta team is that they are already highly knowledgeable about existing and future traffic conditions in the study area through their collective experience. This will save valuable time and resources because our team’s learning curve is much shorter.



The Alta team will carefully evaluate potential changes to the median along Binney Street and articulate the trade-offs related to providing additional space for pedestrian and bicycle amenities or on-street parking vs. impact to cut-through traffic into East Cambridge.



Alta’s experience with the design of protected intersections provides the opportunity to address the challenges of providing a cycle track, an extension of the Grand Junction Path and maintaining an operational railroad crossing at the Broadway/Galileo intersection.

INTEGRATE DESIGNS WITH RAILROAD CROSSING AT BROADWAY

Currently, the railroad crossing of Broadway lies approximately 30 feet from the adjacent crosswalk. Because the rail line is active, our team will focus on maintaining a minimum offset of 15 feet to the edge of the Grand Junction Path crossing at Broadway. This could constrain the ability to provide generous and separate pedestrian and bicycle crossings, i.e. a multi-use, white crosswalk for the Grand Junction, adjacent to a green “crossbike” for the cycle track.

REFLECT ENVIRONMENTAL SUSTAINABILITY GOALS

CRA’s commitment to redeveloping 1980’s era roadways into truly multimodal corridors is a substantial step towards achieving City and Kendall Square EcoDistrict goals. These goals can be further advanced through the incorporation of specific design techniques, such as the use of pervious pavements and bio-filtration planters. The Alta team will thoroughly investigate opportunities for these types of sustainable infrastructure, as well as other types (warm mix asphalt pavements, LED lighting, etc.) along the Binney/Galileo



The pervious asphalt within the Western Avenue cycle track designed by HDR highlights an important green infrastructure option for the Binney/Galileo Galilei corridor.

Galilei corridor. Feasibility, to some extent, will depend on site specific conditions such as utilities, groundwater regime, and topography. We are also very cognizant of the need for sustainable infrastructure to also be maintainable infrastructure. Consultation with City departments, or potentially key abutters, will be a critical step in vetting the types of facilities to be considered as the design develops.

ACCOMMODATE UNIVERSAL DESIGN PRINCIPLES

As Complete Streets and separated bicycle facility design practices evolve, best practices to ensure universal accessibility continue to be emphasized and refined. Particular focus is placed on areas where cyclists and pedestrians are in potential conflict. These areas include intersections, transit stops, parks/open spaces, parking/loading zones, and other locations where pedestrian amenities such as seating are in close proximity to the bicycle facility.

Although not specifically referenced in current ADAAG or MassAAB guidance, it is possible to apply the relevant accessibility principals to cycle track design, and still retain design flexibility. For example, both street-level and raised cycle tracks can be compatible with accessible parking and loading. Similarly, at bus stops, careful attention to the placement of passenger amenities and clear zones will provide fully accessible and safe bicycle-pedestrian interactions, whether at “floating” type bus stops, or more conventional stops where space is constrained.



As part of the Add/Alt #1 portion of the scope, the Alta team will develop recommendations for streetscape improvements and bicycle facility treatment and analyze the potential of a mid-block crosswalk between the two small parks that flank Broadway.

ADD/ALT #1: BROADWAY REDESIGN FROM GALILEO GALILEI WAY TO AMES STREET

The Alta team looks forward to redesigning the one-block long section of Broadway between Galileo Galilei Way and Ames Street as part of Add/Alt #1. The analysis and recommendations will include:

- **Streetscape:** in the name of efficiency and coherency, our design will be consistent with the recently-reconstructed portion of Broadway between Ames and 3rd Street. The design will accommodate the various redevelopment projects proposed by Boston Properties along the north side of the block.
- **Bicycle Facilities:** Alta will coordinate the design of the bike facility with the protected intersection design anticipated for the Broadway/Galileo Galilei Way intersection. This could mean separated bike lanes (SBLs) between Ames and Galileo Galilei Way, either at roadway or sidewalk grade. In particular, the design of the SBLs will need to accommodate the popular EZ Ride bus stops on each side, along with the curbside parking and taxi stand along the south side of Broadway.
- **Pedestrian Crossing:** McMahon will perform a traffic analysis of a potential crosswalk across Broadway, connecting the two small parks on each side. The analysis will study the need for such a pedestrian crossing, safety issues, the traffic impact on the two nearby signalized intersections. If the analysis indicates that a mid-block crosswalk could be viable, the team will design the most appropriate treatment (striping, materials, use of actuated RRFB, etc.) and ensure the integration with bicycle traffic.

ADD/ALT #2: ADDITIONAL SURVEY WORK

After gathering the previously-completed survey work in the Roadway Redesign task, the Alta team will sub-contract with Surveying and Mapping Consultants (SMC) to complete the gap on Binney Street between 6th Street and 3rd. SMC's survey will be amalgamated with the surveys made available by the CRA and Boston Properties and used to create the base maps for the 25% design documents.

ADD/ALT #3: ADDITIONAL TRAFFIC COUNTING

We expect that there will be sufficient traffic data available from CRA's annual counts. In the event that there are locations where additional data is needed, we have provided pricing for an intersection and mid-block location.

Project Approach

The Alta team will follow a structured plan to complete the work of this contract within the time and budget parameters stipulated by the CRA. We will base our approach on a highly interactive process to see that full community input is received early in the project to fully inform design decisions and reduce later changes. We will also collaborate frequently and directly with the parties responsible for the adjacent projects, especially the Binney Street Park (Stoss Landscape Urbanism) and KSURP North (Boston Properties and its consultants). Our plan will be to prepare a completed conceptual design within the three-month timeframe stipulated in the RFP for Phase I of this contract; this will create a foundation for interaction between this project and the other projects and provide guidance on the interfaces between the two. Details of these interfaces can then be resolved as each project proceeds towards final design.

PHASE I - CONCEPTUAL (10%) DESIGN

1. Kick-off and Outreach Meetings: The Alta Team will start the project with a kick-off meeting with CRA and its partners to confirm and establish the project goals, timeline, and communications requirements, so that all parties are satisfied and prepared to proceed on the aggressive schedule the project requires. After this meeting, the team will set up initial meetings with the City of Cambridge's Community Development and Traffic, Parking and Transportation departments to gain initial direction on the City's primary concerns and parameters for the completed design. We will also meet with the City's Bicycle and Pedestrian Committees, and other stakeholder and interest groups as well. These meetings will provide an opportunity to hear and catalog the community concerns and take input from the widest possible audience to ensure that the design process reflects all needs and desires. Meetings will also be held with Stoss and Boston Properties to initiate a more-detailed discussion about the design of their projects.

It is important that these meetings are held early in the project timeline to effectively communicate vision and expectations for, and to allow the broadest possible discussion on issues and concerns. Early interaction sets the stage for an inclusive design process that is respected and accepted at the end of the project.

2. Site Analysis and Survey: To support the initial outreach meetings, the team will prepare a brief site analysis of the study area. This analysis will focus on the physical environment of the corridor, including property ownership, existing facilities and conditions, and a preliminary assessment of the traffic data provided by CRA. A set of plans of the area will be generated to describe these conditions for the attendees at the meetings, and will also be used to collect input and ideas from the meetings. At the end of the initial outreach meetings, the comments and input will be captured onto plans of the area for use in future evaluation of the design. During this activity, the team will also evaluate and coordinate the existing survey information for use in the development of the concept designs, and identify any gaps that will require additional field work. It should be noted that an initial review of the survey data has revealed that the two primary surveys were prepared on different datum; for the purposes of this contract, we can continue to work with the surveys as they stand, but future design work will require them to be reconciled to a single datum.

3. Project Goals and Evaluation Criteria: After completion of the initial outreach meetings, the team will finalize the design goals and objectives based on the comments and input received, and will confirm these with the CRA project leadership. The goals and objectives will then be used to prepare evaluation criteria for the design concepts to be generated in Phase I and help the project leadership select a preferred option to carry forward into the Preliminary Design phase.

4. Develop Initial Design Scenarios: Based on the goals and objectives and informed by the evaluation criteria, the team will prepare three (3) different scenarios for the corridor. These scenarios will include concept level designs for the bicycle facility, pedestrian facilities, the roadway, and related improvements such as green infrastructure, lighting, and amenities. The scenarios will also develop initial concepts for the redesign of the Vassar/Main/Galileo Galilei and Galileo Galilei/Broadway/Binney intersections, as well as the other intersections of the corridor, including conceptual signalization designs. The scenarios will include an assessment of utility impacts to confirm that they are achievable, but detailed design of the new and existing utility systems will be held until the 25% design phase of the project. We are anticipating that the development of these designs will take 5-6 weeks: The team will hold a day-long internal charrette to coordinate

the different disciplines and their ideas and concerns, and will then begin producing initial layouts and assessments of the various areas of the corridor, with frequent exchanges of the advancing plans to coordinate the design. The progress of the scenarios will be reviewed at the bi-weekly meetings with the CRA to keep the client well-informed of the state of the design. At the completion of the scenarios, a presentation will be made to the CRA to confirm that they are acceptable and ready for review by other parties.

5. Scenario Review Meetings: With the preliminary scenarios in hand, the team will meet again with the Binney Street Park team and Boston Properties, and also present the scenarios at the monthly city departments meeting to review and receive comments. These comments will be reviewed with CRA and incorporated into the scenarios.

6. Prepare and Evaluate Final Scenarios: The completed scenarios will be finalized and an evaluation against the design goals and criteria will be conducted to confirm that they are successfully responding to the needs of the corridor, and to provide an initial recommendation to CRA on which scenario to proceed with. All existing graphics will be updated and any additional graphics required will be produced to fully represent the designs. A formal presentation will then be prepared for the CRA Board of Directors for final selection and approval of the design concept that will become the basis of the 25% design effort. The decision process will also be documented.

PHASE II - PRELIMINARY DESIGN

Building off the successful process to complete and select a conceptual design scenario, the Alta Team will immediately kick off its preliminary design process.

1. Kick-Off Meeting and Site Walk: The team will lead a kick-off meeting for CRA and its partners to again review the project goals, objectives, and timeline. A site walk to familiarize all parties with the existing conditions and the implications of the proposed design is recommended as final confirmation of the design direction. Any concerns raised by this walk-through will be documented and addressed as part of the 25% design process.

2. Drawing Preparation: The team will focus on the development of the 25% drawings. Using the information developed at the conceptual design level, we will proceed to refine the roadway layout, signalization

and striping, and streetscape plans to the next level of completion and coordination. Also included in this task will be a more detailed evaluation of utility design requirements, lighting for the road, bicycle facility and sidewalks, and more detailed concepts for the green infrastructure components of the design. We anticipate a ten week effort to complete the 25% documents. At the midpoint of this task, the team will conduct a coordination check between all disciplines: advancement of the work will be paused, progress drawings will be prepared and exchanged with all team members, and reviews will be conducted of each discipline's work by all the other disciplines. This step is critical at this early stage of design to reduce the possibility of conflicts and gaps at future stages.

3. Schematic Design Progress Reviews: During the Schematic Design phase, the progress of the design will be reviewed with the city departments at the monthly coordination meetings, and any comments will be fully resolved by the design team and CRA and incorporated into the documents as appropriate.

4. Specifications, QA/QC, Estimates, Permitting, and Project Phasing: At the end of the 25% document development task, the disciplines will prepare outline specifications, focusing on non-standard materials and elements that will require more extensive specification development in the future. With these and the final drawings, the team will conduct a final series of QA/QC checks and interdisciplinary reviews to catch any last coordination items and gaps in the documents.

The documents will also be turned over to the project's cost estimating team to prepare a final estimate for construction. An initial list of project permitting requirements will also be developed for use in future design stages. Finally, guided in part by the cost estimate and permitting process, the team will prepare a recommended phasing plan for the CRA to help in assessing funding strategies and also to guide the development and award of future design contracts.

5. Delivery of 25% Design to CRA: Upon completion of the documents described above, including reviews by CRA to correct any errors and provide clarifications, the team will deliver the full 25% design package to CRA in the forms required for their future use. The Alta team will also make a presentation of the completed 25% to the CRA's Board of Directors for final approval and acceptance of the package.

MEETINGS AND PRESENTATIONS

The above process highlights where Alta feels critical meetings and presentations need to be made to key project stakeholders and other groups, but does not identify every single meeting required. We anticipate the bi-weekly progress meetings with CRA staff and monthly meetings with City of Cambridge agencies, and understand that a number of other community and stakeholder meetings will be required. Alta proposes to work with CRA throughout the design process to identify additional meeting and presentation schedules to best serve the agency and its goals in the advancement of the project.



Project Timeline

| TASK | PHASE 1 - PRELIMINARY DESIGN | | | | | | | | | | | | PHASE 2 - 25% DESIGN | | | | | | | | | | | | | | | | | |
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| | WEEK | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | | | |
| Task 1: Notice to Proceed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.1: Kick-off Meeting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.2: Review existing survey data; prepare additional survey scope | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Perform required survey work | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Task 2: Inventory and Analysis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.1: Review existing user counts, prepare additional scope | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Conduct user counts (if required) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.2: Initial Meetings: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cambridge committees and groups | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Binney Street Park | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Boston Properties | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.3: Prepare site analysis documents | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2.4: Prepare goals, objectives, and evaluation criteria for design | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Task 3: Preliminary (10%) Design | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.1: Develop 3 initial design scenarios | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.2: Review design scenarios with CRA, incorporate adjustments | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.3: Review design scenarios with: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Binney Street Park | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Boston Properties | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.4: Prepare final design scenarios | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare evaluation of 3 scenarios against criteria | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare illustrative graphics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3.5: Present final design scenarios to CRA board, select preferred option | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prepare final documentation of preferred option | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Task 4: Schematic (25%) Design | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.1: Kickoff meeting/site walk | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.2: Prepare 25% drawings: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Roadway and bikeway | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Traffic and signalization | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Streetscape | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Utilities and lighting | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.3: Coordination review | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.4: Review schematic design process with Cambridge departments | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.5: Prepare 25% level specifications | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.6: QA/QC Process | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.7: Cost estimate | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.8: Project phasing | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.9: Deliver schematic (25%) design documents to CRA | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Task 5: Management and Coordination Meetings | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.1: Project management meetings | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5.2: Monthly City agency meetings | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

LEGEND

- Task Progress
- Meeting / Workshop
- Deliverable

Team Qualifications

The Alta team will manage this project through a collaborative process that provides local resources connected to a national network of skills for specific project tasks. Alta Planning + Design will serve as the prime consultant for this project. Alta has extensive experience planning and designing streetscapes, Complete Streets, city-wide bicycle and pedestrian, trail, greenway, and multimodal transportation plans.

Our team also includes McMahon and HDR, both local to the Greater Boston area. McMahon will lead the traffic and transit tasks, leveraging their experience in Kendall Square. HDR will lead the civil engineering and green/blue infrastructure tasks. Alta, McMahon, and HDR provide a team that can bring not only a successful 25% design, but we can work with CRA to bring the approved plan into final design and implementation.

Please see the full team's resumes in the Appendix.

Alta Planning + Design



Principal-in-Charge Tom Tavella, FASLA, PLA has more than 30 years of experience in land use planning, landscape architecture, and urban design. He skillfully manages design teams to prepare feasibility studies, master

plans, and site plans for downtown redevelopments, streetscapes, parks, and plazas. He uses his interdisciplinary and practical skills to assist communities with reaching their goals in a professional and cost-effective manner.



Project Manager Tom Doolittle, ASLA, PLA is a landscape architect who specializes in the design, implementation, and management of urban infrastructure projects. He works with clients to develop and implement parks, and transportation and infrastructure projects that improve

access to new and existing facilities in urban cores and on academic campuses. One of his focuses is developing appropriate and comfortable pedestrian environments as an essential part of streetscape, highway, and other infrastructure improvements.



Wade Walker, PE, Hon. ASLA has over 30 years of experience restoring livability to streets, working within the movement since its start. He is known for working in charrette settings to cost effectively develop community supported concepts. He is a recognized expert in Complete Streets and often speaks at national conferences on balanced multimodal solutions. He leads Alta's engineering practice in the Mid-South and East Coast and is one of Alta's Complete Streets experts.



Michael Repsch, PE has served as project engineer on a variety of challenging transportation projects throughout the East Coast. Mike's 16 years of experience include aspects of transportation planning and design for a variety

of private, local municipality, and State Department of Transportation clients. He focuses on projects that include roadway and streetscape designs, green infrastructure design, bikeway and pedestrian facility and site design, and highway and multimodal corridor studies.



Phil Goff brings 18 years of urban design, and pedestrian and bicycle facility planning experience to the team. Phil combines his passion for multimodal streetscape design with his keen ability to effectively plan and manage a diverse set of

complex projects. Currently, Phil is finalizing the 'Walk/Bike Northampton' (MA) master plan, overseeing Alta's preliminary redesign for Main Street in Northampton and providing design advisory services for a two-way cycle track project along a major arterial in Buffalo.



Branden Bergeron, PE has a diverse background including transportation engineering, site design, land surveying, and environmental compliance projects for federal, state, municipal, and

private clients. With a primary focus on transportation engineering, Branden has been a designer on new roadway construction, roadway reconstruction, bridge rehabilitation, greenway, and cycle track projects.



Katie Lloyd, PLA has a passion for public engagement, placemaking, community design, wayfinding, and public art projects from conception to completion. She has worked on greenway feasibility studies, construction documents, streetscape design, charrettes, and Complete Streets plans, as well as bicycle and pedestrian planning projects.



Nick Falbo is a senior planner who specializes in the next generation of protected bike lanes, shared space streets, and transit oriented Complete Streets. Nick contributed to and illustrated the NACTO *Urban Bikeway Design Guide*, the definitive guide to integrating bikeways into the fabric of North American cities. Nick is shaping the field by popularizing future bikeway and intersection design, with an emphasis on inter-national best practice and evidence-based decision making.



Liz King, ASLA works collaboratively at the interface of design, science, and public engagement. She holds a master's degree in landscape architecture from the University of Oregon and a master's degree in biology from Penn State University. Her areas of interest include green infrastructure design and maintenance, regional planning, ecological research, meeting facilitation and public outreach, illustration, and spatial analysis.

Penn State University. Her areas of interest include green infrastructure design and maintenance, regional planning, ecological research, meeting facilitation and public outreach, illustration, and spatial analysis.

McMahon Associates



Christi Apicella, AICP has more than 17 years of experience in transportation planning and community development for both public and private clients. Her expertise includes strategic transportation and community development plans, transportation demand management, parking analyses, public/private partnerships, and public outreach.

transportation demand management, parking analyses, public/private partnerships, and public outreach.



Philip Viveiros, PE, PTOE has 17 years of experience in the transportation planning and engineering fields. He prepares traffic signal designs, signing and pavement marking plans, traffic management plans, and contract specifications, estimates, and bid documents. He has performed peer reviews of various development projects for several Massachusetts municipalities, as well as contributed to truck exclusion studies and master planning efforts. Phil currently serves on a team for an On-Call Transportation Services Contract for the City of Cambridge.

He has performed peer reviews of various development projects for several Massachusetts municipalities, as well as contributed to truck exclusion studies and master planning efforts. Phil currently serves on a team for an On-Call Transportation Services Contract for the City of Cambridge.



Matthew P. Starkey, EIT is an avid bicyclist with a passion for developing better bicycle facilities. Matthew has contributed to a variety of transportation planning and traffic engineering projects.



Christine Ann Palmer, PE, PTOE has over 29 years of involvement in transportation and traffic engineering. Her experience includes design of roadway reconstruction and rehabilitation projects in both urban and rural settings.



Sandra Clarey has over 12 years of experience in multimodal transportation planning in the US, Ireland, and Australia. Sandra specializes in transit planning and design, primarily for bus operations, but her background in traffic

and transportation planning gives her an edge on projects where improvements for all modes is being considered and a holistic approach is required.

HDR, Inc.



Jerry Friedman, PE, ENV SP has over 32 years experience in the design of urban infrastructure such as roadways, utilities, parks, pedestrian and bicycle facilities and traffic calming elements. Jerry has managed projects for

the City of Cambridge that have included significant designs of Harvard Square, Porter Square, Fresh Pond Parkway, Western Avenue, Huron Avenue, Brookline Street, Blanchard Road, and Kendall Square.



Julie Stein, ENV SP is the Northeast Stormwater and Sustainability Lead for HDR's Water Business Group. She manages multi-disciplinary teams to complete resiliency, green infrastructure and stormwater

management planning projects. Prior to joining HDR, Julie was the Director of Wet Weather Planning and Water Quality Policy in the Bureau of Environmental Planning and Analysis for New York City Department of Environmental Protection, where she co-authored the DEP Wastewater Resiliency Plan and NYC Green Infrastructure Plan and Mayor Bloomberg's PlaNYC and Sustainable Stormwater Management Plan.



Todd Undzis, PE is a Senior Project Engineer with over 19 years experience in the design of drainage, utilities, and general site and roadway design. For the Boston Transportation Department, he is managing the final design

of the Audubon Circle Project. This is a significant streetscape and urban design project incorporating a number of Green Infrastructure features such large biofiltration planters; and a series of subsurface water quality chambers to capture and treat roadway runoff.



Travis Lucia, EIT is a Civil Engineer specializing in various areas of site civil and utility design, and resident engineering. He has worked continuously on City of Cambridge projects over the course of his career. For Cambridge, he is

serving as Project Engineer for the Alewife Bicycle/Pedestrian Bridge Feasibility Study and providing construction phase services for the Kendall-Main Street, Western Avenue, and Huron "B" projects.

Project Experience



DESIGN AND CONSTRUCTION DOCUMENTS FOR PROTECTED BIKE LANES, CHATTANOOGA, TN

Alta led the transportation planning element of the Center City master planning effort and facilitated stakeholder meetings while developing recommendations for motor vehicle circulation, transit, walking, and bicycling. Key recommendations included road and lane diets to right-size roadways while reallocating pavement for other uses, such as biking and parking facilities and enhanced streetscapes, transit enhancements related to the downtown electric shuttle circulator, and implementation of a shared parking policy in conjunction with new garages as part of the redevelopment of key parcels. One initiative, the implementation of a road diet and streetscape along Broad Street to provide a cycle track and additional on street parking, was recommended for implementation immediately, and Alta developed the construction documents that included design of curb and gutter, lighting and traffic signals, sidewalks and crosswalks, ADA ramps, and signage and striping for the reconfiguration of Broad Street to accommodate the cycle track. Construction was completed in November of 2015.

Client: City of Chattanooga

Dates: 2013-2015

Contact: Bert Kuyrkendall, City Transportation Engineer, (423) 425-6311, kuyrkendall_b@chattanooga.gov

Alta also developed construction documents for the Virginia Avenue Neighborhood Greenway, and concepts for shared streets on both St. Elmo Avenue and Broad Street. The team facilitated community meetings and stakeholder sessions as part of the project. The successful implementation of this project dramatically increases the lane miles of protected facilities in Chattanooga.



WESTERN AVENUE INFRASTRUCTURE AND SURFACE ENHANCEMENTS, CAMBRIDGE, MA

HDR managed the surface infrastructure design of a project to renew aging surface and subsurface infrastructure in a corridor critical to both local and regional needs. Holistic, integrated solutions will bring Western Avenue into the 21st Century by providing balanced transportation opportunities, environmentally sustainable stormwater solutions, and enhanced neighborhood amenities.

As leader of the surface team, HDR spearheaded an effort which included comprehensive inventory and assessment of existing transportation and urban design conditions, including parking and curb use, vehicular, transit, pedestrian, and bicycle operations and issues, accessibility compliance, street tree health, lighting adequacy, and general level of neighborhood amenities.

Working with a Citizens Advisory Committee and other stakeholders, the team developed five potential options for the corridor. The concepts were evaluated against the project's goals of maintaining reasonable vehicular capacity on this important regional arterial, while at the same time re-emphasizing Western Avenue's roles as an important "Main Street" for this densely settled neighborhood, and as a key connector to the Charles River Basin for cyclists and pedestrians.

The design incorporated innovative features including a raised, pervious asphalt cycle-track; rain gardens; and transit amenities including curb-extension bus stops and shelters. In recognition of the Western Avenue's function as a "front-yard" for neighbors, the design also included significant urban design and landscape benefits, including an expansion to James Cronin Park (accomplished through reduction in un-needed roadway pavement width; new trees and planters throughout the corridor, and introduction of a mix a roadway scale and pedestrian scale lighting.

The project was the recipient of a Silver "Engineering Excellence" award from the American Council of Engineering Companies, and was named "Americas Best New Bike Lane" for 2015, by the organization People for Bikes.

Client: City of Cambridge

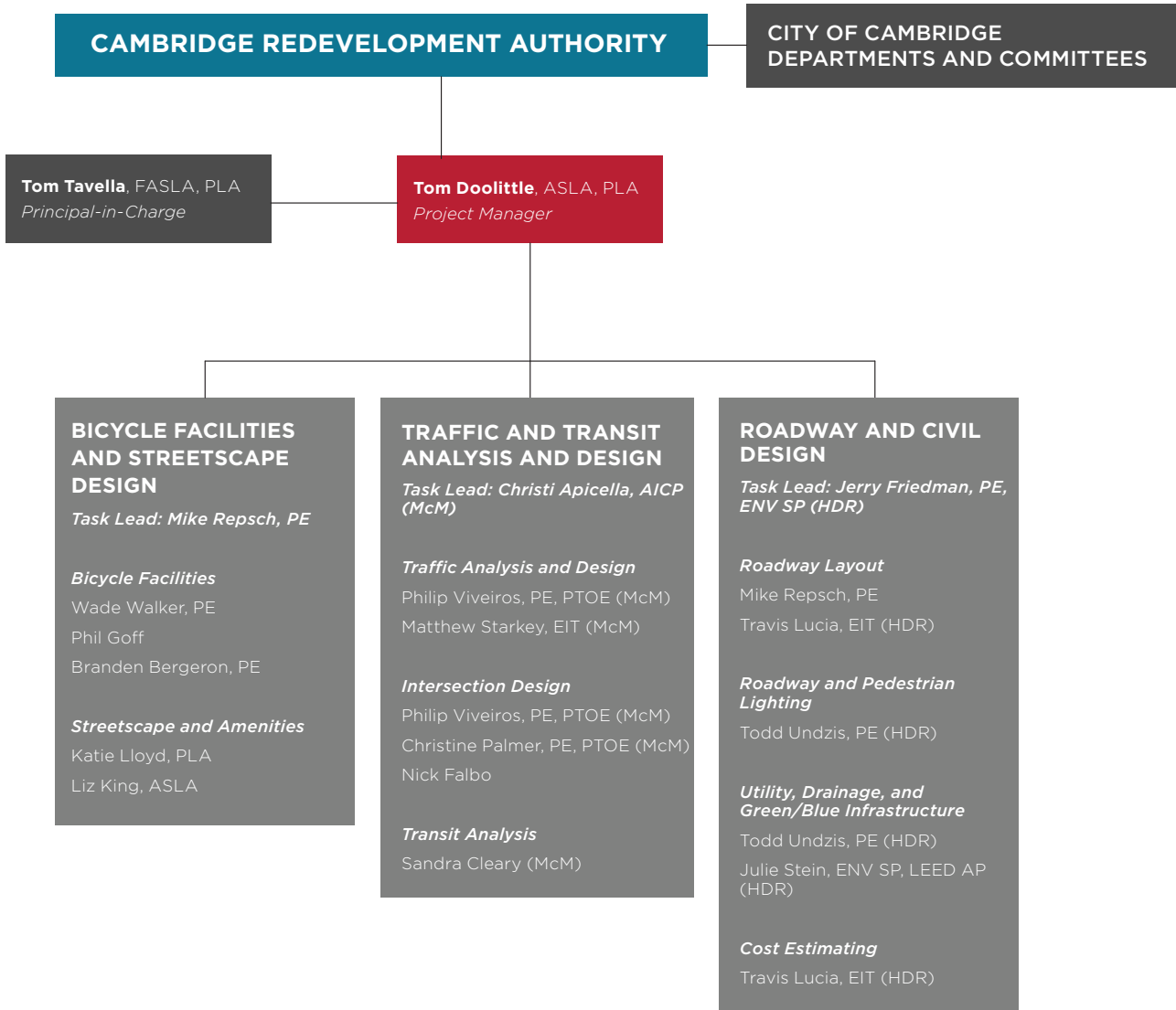
Dates: 2009 - 2016

Contact: Kathy Watkins, City Engineer, (617) 349-4751



FIRST HILL CYCLE TRACK, BROADWAY, SEATTLE, WA

Appendix: Organizational Chart



All staff are associated with Alta Planning + Design unless otherwise noted.
McM: McMahon Associates
HDR: HDR, Inc.

Resumes



Tom Tavella, FASLA, PLA, LEED AP Principal-in-Charge

Tom Tavella has more than 30 years of experience in land use planning, landscape architecture, and urban design. He skillfully manages design teams to prepare feasibility studies, master plans, and site plans for downtown redevelopments, streetscapes, parks, and plazas. His ability to work with civil engineers, architects and contractors enables him to achieve functional and aesthetic design solutions. Tom consistently embraces sustainable philosophies and technologies and is a strong proponent of healthy communities through design. He uses his interdisciplinary and practical skills to assist communities with reaching their goals in a professional and cost-effective manner.

EDUCATION

BS, Environmental Design, University of Massachusetts, 1985

AAS, Forestry, Paul Smiths College

PROFESSIONAL HIGHLIGHTS

Alta Planning + Design, 2014-

ASLA National President, 2013

President Tavella Design Group, 2013, 2008-2010

Fuss & O'Neill, 2010-2013

BSC Group, 2003-2008

Diversified Technology Consultants, 1994-2003

Tate and Associates, 1992-1994

PROFESSIONAL REGISTRATIONS

Professional Landscape Architect: CT, MA, RI, NY, NC, AR, VT, NJ, DE, MD, MI

CLARB Certified

LEED Accredited Professional

RELEVANT EXPERIENCE

GERMANTOWN STREETScape DESIGN, MEMPHIS, TN

Tom served as Landscape Architect during the multi-day charrette for this project focused on elevating standards and Complete Streets plan for the Central Business District (CBD) and Old Germantown. This effort is the catalyst for redevelopment that is more walkable and that creates an identity that is unique to Downtown Germantown. The deliverables include a specific streetscape plan for Old Germantown Road, and Urban Design Guidelines and a Complete Street policy for the Central Business District.

AUGUSTA STREET STREETScape, GREENVILLE, SC

Tom was the Senior Advisor for this three-day charrette to redesign the downtown streetscape. The recommendations better accommodate pedestrians and extend the character of Main Street. Tom participated in the public input process and advised on the production of the design and construction documents.

STRATFORD TOWN CENTER COMPLETE STREETS PLAN, CT

Tom is the Project Manager for this plan that is building off of Stratford Town Center's Transit Oriented Development Plan and redevelopment district to guide the next set of investments in the area: improving the street environment, connectivity, and safety for all users. It includes assessing transit and recommendations for revisions to bus routes, bus stops, bus headways, and transit amenities, as well as the adequacy of pedestrian and bicycle facilities in the study area. Recommendations such as safe sidewalks, curb ramps, high visibility crosswalks, pedestrian signals and phasing, bike lanes and routes, green infrastructure, and adequate street lighting are being developed to create a more unified and connected Town Center.

EL PASO AVENUE COMPLETE STREET, RUSSELLVILLE, AR*

Tom was the Lead Landscape Architect for the design and development of construction documents for the El Paso Avenue Complete Street project. The project includes development of one of the first one-way cycle tracks in the Southeast, use of rain gardens for stormwater control, sidewalk and travelway reconstruction, and implementation of pedestrian-scale lighting and a high level of streetscape to reinforce the connection between Downtown and the University. The project included development of a gateway raised intersection at the south entry to Arkansas Tech to enhance the connection between downtown and the university.

**Completed prior to joining Alta*



Tom Doolittle, ASLA, PLA, LEED AP Project Manager



Tom is a landscape architect who specializes in the design, implementation, and management of urban infrastructure projects. He works with government agencies to develop and implement parks and transportation and infrastructure projects that improve access to new and existing facilities in urban cores and on academic campuses. One of his focuses is developing appropriate and comfortable pedestrian environments as an essential part of streetscape, highway, and other infrastructure improvements. He has a strong understanding of the complexities of transportation systems and the urban environment and brings his skills as a landscape architect in planning, design, and communication to crafting exceptional solutions that are highly functional and aesthetically pleasing.

EDUCATION

BLA, Landscape Architecture, Ball State University, with Honors, Minor in Natural Resources, 1983

BS, Environmental Design, Ball State University, 1983

PROFESSIONAL HIGHLIGHTS

Alta Planning + Design, 2016-

Boston Architectural College, 2014-

Kleinfelder, 2013-2016

Gilbane Building Company, 2007-2013

PROFESSIONAL REGISTRATIONS

Professional Landscape Architect: CT (#511), MA (#835), ME (#LAR4200)

CLARB Certified (#7302)

LEED Accredited Professional

RELEVANT EXPERIENCE

VASSAR STREETScape IMPROVEMENT PROJECT, CAMBRIDGE, MA*

Tom was the Principal-in-Charge for the design of the reconstruction of and improvements to this one-mile long urban street in the heart of the MIT campus. The project included widened sidewalks with new street lighting, street tree plantings, decorative pavement, and a one-way cycle track. Speed tables and enhanced lighting and paving were incorporated at mid-block pedestrian crossings to emphasize these locations to motorists. The project also included relocation of overhead lines to underground duct banks and relocation of existing underground utilities to accommodate tree planting and other site furnishings.

CENTRAL ARTERY/TUNNEL PROJECT: CENTRAL AREA SURFACE RESTORATION, BOSTON, MA*

Tom was the lead landscape architect for the development of alignments and design guidelines for the new surface street system over the highway tunnel corridor, and the preliminary design of over four miles of streetscape along these new roads. Design features of the streetscapes include historically appropriate paving treatments, new street lighting systems, appropriate street furnishings, and full street tree plantings utilizing a state-of-the-art treeway system. The design process included extensive public participation and multiple public reviews, and was completed with consensus on the design concept among the state and city agencies and organizations representing area businesses and residents.

CHINATOWN PARK, BOSTON, MASSACHUSETTS*

Tom served as Managing Principal for development of 15% design for a 3/4 acre park to be built over the Dewey Square Tunnel at the Chinatown Gate as part of the Rose Kennedy Greenway. Responsibilities included contract management, coordination with client (Massachusetts Turnpike Authority/Central Artery Project) and city agencies, design review, subconsultant coordination, and public process development and implementation.

ALLSTON CAMPUS DEVELOPMENT INFRASTRUCTURE PROGRAM, MA*

Tom was the owner's Project Manager for infrastructure projects for the build-out of Harvard's property in Allston, across the Charles River from the main campus and adjacent to the Harvard Business School and the university's athletics center.

**Completed prior to joining Alta*



G. Wade Walker, PE, Hon. ASLA

Senior Advisor



Wade has over 30 years of experience restoring livability to streets, working within the movement since its start. He is known for working in charrette settings to cost effectively develop community supported concepts. He is a recognized expert in Complete Streets and often speaks at national conferences on balanced multimodal solutions. He leads Alta's engineering practice in the Mid-South and East Coast and is the firm's national Complete Streets expert.

EDUCATION

MS, Transportation Systems, University of Central Florida, 1994

BS, Civil Engineering, University of Arkansas, 1991

PROFESSIONAL HIGHLIGHTS

Alta Planning + Design, 2013-

Fuss & O'Neill, 2009-2013

Kubilins Transportation Group, 2005-2009

Glattig Jackson Kercher Anglin Lopez Rinehart, 1993-2005

PROFESSIONAL REGISTRATIONS

Professional Engineer, NC (035533), FL (51535), MS (20621), TN (00115128), SC (30539)

RELEVANT EXPERIENCE

DESIGN/CDS FOR PROTECTED BIKE LANES, CHATTANOOGA, TN

Wade led the design of over eight miles of protected bike lanes in Chattanooga. After participating in the Center City charrette, Alta has been asked to provide construction documents for the proposed cycle track concept developed as part of the charrette, as well as cycle track plans for seven more facilities. Alta developed CDs for the Virginia Avenue Neighborhood Greenway and the completed Broad St. cycle track, as well as concepts for shared streets on both St. Elmo Ave and Broad St. Alta has facilitated community meetings and stakeholder sessions as part of the project.

HAMPLINE PARK TO PARK CONNECTOR, MEMPHIS, TN

Wade worked on a team with Looney Ricks Kiss, Alta, and Powers Hill Design to develop a concept to connect the existing 6.5-mile Shelby Farms Greenline to Overton Park in Midtown Memphis. He developed final construction documentation for a two-way cycle track. The construction includes resurfacing the existing roadways, reallocating the pavement for the cycle track and median separators, modifying traffic signals to provide dedicated bicycle signal heads, and improving sidewalks, lighting, and streetscape elements.

EL PASO AVENUE COMPLETE STREET IMPLEMENTATION, RUSSELLVILLE, AR*

Wade served as the project manager to develop one of the first cycle tracks in the Southeast. The project used rain gardens for stormwater control and included sidewalk and travel way reconstruction, implementation of pedestrian-scale lighting, and a high level of streetscape to reinforce the connection between downtown and nearby Arkansas Tech University. Wade also developed an intersection at the south entry to the university to create a gateway and enhance the connection to downtown.

CHATTANOOGA CITY CENTER CHARRETTE, TN

As Project Manager, Wade led the transportation planning element of this master planning effort and facilitated stakeholder meetings while developing recommendations for motor vehicle circulation, transit, walking and bicycling, transportation demand management and parking. Some recommendations included road and lane diets to right-size roadways while reallocating pavement for other uses, such as biking and parking facilities and enhanced streetscapes, transit enhancements. A shared parking policy in conjunction with new garages on a redevelopment of key parcel was also developed.

**Completed prior to joining Alta*



Mike Repsch, PE

Senior Engineer



Mike has served as senior transportation engineer on a variety of challenging transportation projects throughout the East Coast. Mike's 16 years of experience include aspects of transportation planning and design for a variety of private, local municipality, and State Department of Transportation clients, including MassDOT. He spearheaded multi-disciplinary transportation projects from inception through design and development. He focuses on projects that include roadway and streetscape designs (drainage, bridges, traffic signals, utilities, lighting, traffic control during construction, and landscapes), green infrastructure design, bikeway and pedestrian facility and site design, highway and multimodal corridor studies, area-wide traffic circulation studies, roadway feasibility analyses, access planning for pedestrians, bicyclists, and people with disabilities, localized traffic impact evaluations, and transportation system improvements.

EDUCATION

ME, Environmental Engineering, University of Hartford, 2001

BS, Civil Engineering, University of Hartford, 2000

PROFESSIONAL HIGHLIGHTS

Alta Planning + Design, 2013-

Fuss & O'Neill, 2008-2013, 2000-2001

BSC Group, 2001-2008

PROFESSIONAL REGISTRATIONS

Professional Engineer:
 CT (#25098), MA (#51298), NC (#33609), VA (#0402053544), IL (#062066470), SC (#31691), GA (#039011), MD (#47150), FL (#79870), DE (#20331)

RELEVANT EXPERIENCE

DESIGN/CDS FOR PROTECTED BIKE LANES, CHATTANOOGA, TN

Both Project Manager and Project Engineer, Mike is designing over eight miles of protected bike lanes in Chattanooga, including a traffic study of 37 signalized intersections, as well as the redesign of those traffic signals to provide bicycle signals and required modifications due to the proposed separated bike lanes. Alta also developing construction documents for the Virginia Avenue Neighborhood Greenway, and concepts for shared streets on both St. Elmo Avenue and Broad Street. Alta has been responsible for facilitating community meetings and stakeholder sessions as part of the project.

THE HAMPLINE PARK TO PARK CONNECTOR, MEMPHIS, TN

As Project Engineer, Mike has developing construction documents to connect the existing 6.5-mile-long Shelby Farms Greenline to Overton Park in Midtown Memphis, bridging a 1.85-mile-long gap in bicycle facilities. The project will accomplish the installation of a two-way separated bike lane, including resurfacing the existing roadways, restriping the roadways for the separated bike lane, a shared-use path connection, drainage and sidewalk improvements, modifying traffic signals to provide dedicated bicycle signal heads, and providing raised dividers to separate bicycles from vehicular traffic.

EL PASO AVENUE COMPLETE STREET, RUSSELLVILLE, AR*

Mike was the Project Engineer for the development of construction documents for the El Paso Avenue Complete Street project. The project included development of one of the first one-way cycle tracks in the Southeast, use of rain gardens for stormwater control, sidewalk and travelway reconstruction, and implementation of pedestrian-scale lighting and a high level of streetscape to reinforce the connection between Downtown and the University.

N STREET CYCLE TRACK DESIGN, LINCOLN, NE

Mike served as Traffic Engineer for the design of a two-way separated bike lane for the City of Lincoln that connects the up-and-coming Haymarket District to the Billy Wolf Trail through the heart of downtown. Mike provided traffic analysis and timing designs for bicycle signals at ten signalized intersections.

**Completed prior to joining Alta*



Phil Goff, LEED AP

Senior Planner



Phil brings 18 years of urban design, pedestrian and bicycle planning and advocacy experience to the team. As manager of Alta's Cambridge office, he merges his passion for trails and multimodal streetscape design with his keen ability to effectively manage a diverse set of complex projects. Phil uses his architecture and urban design background to design and manage master-planning projects for cities and towns large and small. His sincere passion for making cities and towns more lively, bike-friendly, and sustainable places for people represents a common theme in his work.

EDUCATION

Master of Architecture in
Urban Design, University
of Oregon, 1998

Bachelor of Architecture,
Syracuse University, 1991

PROFESSIONAL HIGHLIGHTS

Alta Planning + Design,
2009–

Goody Clancy and
Associates, 2005–2009

City of Portland, OR
Bureau of Planning,
2001–2004

Crandall/Arambula PC,
1998–2001

Adjunct Faculty – Master
of Urban and Regional
Planning, Portland State
University, 2003–2004

PROFESSIONAL LEADERSHIP

Founding Board
Member, LivableStreets
Alliance

Founder and Chair, East
Arlington Livable Streets
Coalition

Association of
Pedestrian and Bicycle
Professionals

RELEVANT EXPERIENCE

NORTHAMPTON BICYCLE AND PEDESTRIAN PLAN, MA

Phil is Project Manager leading the development of a citywide pedestrian and bicycle master plan for Northampton. This 9-month planning effort will be incorporated into the City's Comprehensive Plan to guide investments in infrastructure and program for the next 20 years. The contract includes the preliminary design recommendations for Main Street downtown to include wider sidewalks, separated bike lanes, and streetscape enhancements.

CHARLES RIVER BASIN CONNECTIVITY PLAN, MA

Alta worked with the MassDOT and DCR to develop a plan that addresses the needs of pedestrians and cyclists along an eight-mile stretch of the Charles River Basin in Boston, Cambridge and Watertown. Led by Phil, Alta's multi-year effort included recommendations for new paths along the river, in addition to enhanced pedestrian and bike connections to the adjacent neighborhoods and ten bridges across the Charles River. The current Connectivity Study effort is putting specific emphasis on the Charlesgate interface, with the goal of connecting the Charles River Esplanade with the Emerald Necklace.

CITY OF BUFFALO BICYCLE FACILITY MASTER PLAN, NY

Phil served as Project Manager working with the City of Buffalo and local advocacy organization, GObike Buffalo, to update the City's Bicycle Facilities Master Plan. He oversaw GIS-based equity mapping analysis, a review of existing and currently-planned bikeways, and development of a revised citywide bike network. He also helped to develop recommended designs for the ten prioritized bikeway corridors, new guidelines for bike parking, and an implementation strategy for the prioritized projects. One of the ten prioritized corridors has been funded by NY State DOT and is currently in final design. Alta is working with a local engineer and Stoss to develop an innovative streetscape that includes a road diet and parking-protected two-way cycle track.

WEST COMMERCIAL STREET MULTIMODAL CORRIDOR PLAN, PORTLAND, ME

Phil worked closely with the City of Portland, PACTS and local stakeholders along the marine-industrial corridor to develop a plan for improvements along West Commercial Street. Phil created a careful balance between the needs for truck access and loading with city and community desires for a more walkable and bikable corridor along the waterfront.



Branden Bergeron, PE *Project Engineer*



Branden has a diverse background including transportation engineering, site design, land surveying, and environmental compliance projects for federal, state, municipal, and private clients. With a primary focus on transportation engineering, Branden has been a designer on new roadway construction, roadway reconstruction, bridge rehabilitation, greenway, and cycle track projects. As part of the roadway design process, Branden has performed drainage analysis and design, roadway geometric design, and the design of maintenance and protection of traffic measures. In addition to design, Branden also performed in-depth reviews of roadway plans prepared by other consulting engineers as part of the State of Connecticut DOT Consultant Liaison Engineer program.

EDUCATION

- MS, Transportation and Urban Engineering, University of Connecticut, 2010
- BS, Civil Engineering, University of Connecticut, 2008

PROFESSIONAL HIGHLIGHTS

- Alta Planning + Design, 2015–
- CME Associates, 2013–2015
- Fuss and O’Neill, 2010–2013

PROFESSIONAL REGISTRATIONS

- Professional Engineer: CT (#29726)

RELEVANT EXPERIENCE

WOLF RIVER GREENWAY, MEMPHIS, TN

Branden is serving as a Project Engineer for the design of the Wolf River Greenway from North Highland Street to Kennedy Park. The project includes asphalt trails, a two-way cycle track, a new park roadway and entrance road off of N. Highland, new and reconstructed parking lots, an unpaved loop trail, an ADA accessible walk to a boat ramp, ten trail bridges with culverts, retaining walls, parking lot lighting, security cameras, restoration of Harrington Creek, a signage system, RRFB’s, HAWK signals, and bicycle signals. Particular care was required during the design of sedimentation and erosion control measures due to the proximity of the trail to the Wolf River and the River’s status as being impaired by sediment.

LOWERRE-YONKERS RAIL TRAIL CONSTRUCTION DOCUMENTATION, YONKERS, NY

Branden served as Project Engineer for the design of 3,200 linear feet of multi-use trail along a historic rail line in the Lowerre Neighborhood. The project incorporates a park along the trail, a raised crosswalk, a roadway crossing with curb extensions, and pedestrian and cyclist safety improvements at an existing five-leg intersection.

EL PASO AVENUE COMPLETE STREET, RUSSELLVILLE, AR*

Branden served as Project Engineer to develop construction documents for this reconstruction project which included one of the first one-way cycle tracks in the Southeast. Additional elements of the project include rain gardens for stormwater control, sidewalk and travelway reconstruction, and implementation of pedestrian-scale lighting and streetscape to reinforce the connection between Downtown Russellville and Arkansas Tech University. The project also included a gateway raised intersection at the south entry to Arkansas Tech.

JOHN STREET BRIDGE REPLACEMENT, GREENWICH, CT*

Branden assisted the Project Engineer with roadway design elements and drainage improvements related to the replacement of the John Street Bridge over the Et Branch of the Byram River.

**Completed prior to joining Alta*



Nick Falbo

Bikeway Facilities Design Planner



Nick is a senior planner at Alta Planning + Design, specializing in the next generation of protected bike lanes, shared space streets, and transit oriented Complete Streets. Nick contributed to and illustrated the NACTO Urban Bikeway Design guide, the definitive guide to integrating bikeways into the fabric of North American cities. Nick is a NACTO Certified Trainer, one of the limited set of professionals endorsed by NACTO to conduct trainings and seminars on the Urban Street Design Guide and Urban Bikeway Design Guide. He is adept at creating clear, graphically rich design guidelines that highlight what facilities could look like with ideal dimensions, and the policy and background information for the design. His guidelines can be easily understood by transportation engineers, agency staff, and the general public.

EDUCATION

MURP, Portland State University, 2011

BFA, University of Oregon, 2002

PROFESSIONAL HIGHLIGHTS

NACTO Certified Trainer, 2015

Instructor, Portland State University School of Urban Studies and Planning, 2014

Alta Planning + Design, 2010-

Transportation Planning Assistant, City of Portland Bureau of Transportation, 2010-2011

PROFESSIONAL ORGANIZATIONS

Association of Pedestrian and Bicycle Professionals

RELEVANT EXPERIENCE

PROTECTED INTERSECTION DESIGN, SALT LAKE CITY, UT

Nick developed early concept through preliminary design drawings to support Salt Lake City's first protected intersection at the intersection of 200 West and 300 South in downtown Salt Lake City. Nick worked with the city early on, creating exploratory concept drawings to help the city examine different geometry, lane configuration and required dimensions. As design details were decided on, Nick provided feedback, review and commentary on their preliminary design and construction drawings to help the city make sure one of the first in the country was also the best in the country.

NACTO CITIES FOR CYCLING URBAN BIKEWAY DESIGN GUIDE

The National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide provides knowledge, references, and design guidance for the development of innovative bikeway facilities. Nick assembled the initial draft of written guidance for the NACTO bikeway treatments, and created the best practice annotated design drawings and illustrations displayed in the final publication. Nick was responsible for integration of guidance into the website format, and worked closely with the web developers to make sure guidance references, treatment illustrations, and example photographs were presented in a clear, easy to access format.

SAFE AND COMPLETE STREETS, SEATAC, WA

As part of the CDC's Communities Putting Prevention to Work program, the City of SeaTac sought to strengthen and enhance their city bikeway and walkway network. Through field visits and GIS analysis, Nick worked closely with Alta's senior planner to establish a recommended bikeway and pedestrian network for the town, emphasizing access to community resources, employment centers, and transit stations.

EDMONTON COMPLETE STREET GUIDELINES, ALBERTA, CANADA

Nick created a set of design guidelines for integrating transportation and land use and encouraging active transportation while providing an appropriate urban design aesthetic. Nick helped develop the process for evaluating and designing Complete Streets, and illustrating typical streetscapes and key street enhancements to assist roadway designers in creating streets that serve all people.



Katie Lloyd, PLA *Landscape Architect*



With a background in both Fine Arts and Landscape Architecture, Katie Lloyd has a passion for public engagement, placemaking, community design, wayfinding, and public art projects from conception to completion. Katie joined Alta in 2014, bringing a background in public and private sector design. While working for Alta, she has worked on greenway feasibility studies, construction documents, streetscape design, charrettes, and Complete Streets plans, as well as bicycle and pedestrian planning projects. In addition to a passion for placemaking and active transportation, Katie has devoted much of her academic career to agricultural systems and food access, resulting in a graduate thesis focused on family farming and numerous food-targeted public art projects.

EDUCATION

MLA, Landscape Architecture, Clemson University, 2013

BFA, Fine Arts: Sculpture, Winthrop University, Summa Cum Laude, 2009

PROFESSIONAL HIGHLIGHTS

Alta Planning + Design, 2014–

Project Designer, Familiar Workshop, 2013-2014

Landscape Architect/Designer I, Merrick & Company, 2013–2014

Landscape Architecture Intern, City of Greenville, SC, 2012-2013

Project Coordinator, a.LINE.ments studio at Clemson University, 2010-2013

PROFESSIONAL REGISTRATIONS

Professional Landscape Architect: SC (#1335)

RELEVANT EXPERIENCE

MAIN STREET STREETScape, MIDLAND, MI

Alta is working with the Michigan Baseball Foundation to produce a master plan for Main Street Midland, MI. The plan provided a range of design solutions to enhance the downtown character and provide more opportunities for pedestrians. Katie participated in the design charrette, which included collaboration with town staff, business owners, and local officials.

VISTA GREENWAY, COLUMBIA, SC

Katie worked with Alta designers and engineers to produce 100% construction documents and cost estimates for the City of Columbia. The bid set included a half-mile shared use path, park connections, and retaining walls with seating, as well as a trail head.

GCEDC CORRIDOR (SWAMP RABBIT TRAIL EXTENSION), GREENVILLE, SC

Katie worked with Alta designers and engineers to produce 50% construction documents and cost estimates for Upstate Forever and Greenville County, SC. The set included a design drawings for section of a four-mile shared use path, with local connectors.

FOLLY ROAD CORRIDOR STUDY, CHARLESTON, SC

Alta is working with the Berkeley-Charleston-Dorchester Council of Governments to enhance multimodal transportation opportunities, ease traffic congestion, and improve the aesthetics of the Folly Road Corridor which connects Charleston, James Island, and Folly Beach, SC. Katie helped facilitate a week long charrette which resulted in a range of short- and long-term solutions for the corridor, while producing graphics for the final plan.

NORTH ANTHONY CORRIDOR STUDY, FORT WAYNE, IN

Alta is working with the City of Fort Wayne, Indiana to provide safer facilities for walking and bicycling along two miles of the North Anthony Boulevard Corridor, while easing traffic speeds and congestion. Katie participated in a 3-day charrette which resulted in a range of near and long term solutions for the corridor, while producing graphics for the final plan.



Liz King, ASLA Designer



Liz enjoys working collaboratively at the interface of design, science, and public engagement. Prior to joining Alta, Liz worked in academia and the public sector, gaining experience across multiple scales. Her professional experience and areas of interest include green infrastructure design and maintenance, regional planning, ecological research, meeting facilitation and public outreach, illustration, spatial analysis, and project management.

EDUCATION

MLA, University of Oregon, 2013
MS, Biology, Penn State University, 2007
BS, Biology, Penn State University, 2007
Minor, Geographic Information Systems, Penn State University, 2007

PROFESSIONAL HIGHLIGHTS

Alta Planning + Design, 2016–
Resilience Specialist, New York Department of State, Office of Planning & Development, 2015-2016
NOAA Coastal Management Fellow, New York Department of State, Office of Planning & Development, 2013-2015
Science and Design consultant, FLEXE Science Education Program, Penn State University, 2008-2010
Research Scientist, Penn State University, 2008-2010

RELEVANT EXPERIENCE

LOWERRE RAIL TRAIL, YONKERS, NY

Alta designed the first phase of the Lowerre Rail Trail (approximately 0.5 miles). When completed, the five-mile rail trail will provide pedestrians and cyclists with a safe, accessible connection between New York City's Van Cortlandt Park and Yonker's downtown waterfront. Liz led the design and development of construction drawings for the planting plan, which includes a palette of native plants, a rain garden for improved site drainage, and a pollinator garden.

GREEN INFRASTRUCTURE TRAINING, ALBANY, NY*

Liz worked with NOAA's Office for Coastal Management to organize and successfully deliver a full-day green infrastructure training for 60 individuals from 15 different state and local organizations.

NEW YORK DEPARTMENT OF STATE'S GEOGRAPHIC INFORMATION GATEWAY, NY*

Working with the New York Department of State's Office of Planning and Development, Liz managed a team of consultants and internal staff to design and develop a new website that makes the Office's geographic data publicly accessible. She led the UI/UX design, established written, graphic, and data standards, wrote and illustrated public outreach material, and built partnerships with government and not for profit organizations to market the new website.

GREEN INFRASTRUCTURE RESEARCH, STATEN ISLAND BLUEBELT, NY*

Liz secured funding from the Garden Club of America to evaluate the performance of seven stormwater wetland sites in Staten Island's Bluebelt system. Performance was measured by collecting and analyzing water quality samples and by quantifying vegetation change over time. Liz partnered with the New York City Department of Environmental Protection's Staten Island Bluebelt Unit and the Interstate Environmental Commission throughout the study to define project objectives, vet study methodology, and inform final management recommendations. Research findings were synthesized into a final report, including succinct vegetation management and site design recommendations to increase stormwater wetland's ability to improve water quality..

**Completed prior to joining Alta*



Christi Apicella, AICP

Transportation Planner



Christi has more than 17 years of experience in transportation planning and community development for both public and private clients. Her expertise includes strategic transportation and community development plans, transportation demand management, parking analyses, public/private partnerships, and public outreach. In her prior role as senior planner at the Medical Academic and Scientific Community Organization, Inc. (MASCO), she provided planning, development, and transportation assistance to 22 institutions in the Longwood Medical and Academic Area of Boston. She is also a former director in the City of Somerville, MA Office of Housing and Community Development.

EDUCATION

Master of Urban Planning, University of Michigan, 1996

BA, Geography, University of Arizona, 1994

PROFESSIONAL AFFILIATIONS

American Planning Association

APA – MA Chapter Board of Directors, Southeast Region Representative

American Institute of Certified Planners, Member

Massachusetts Association of Consulting Planners, Member

Franklin (MA) Downtown Partnership, Member

Town of Franklin, MA 2013 Master Plan Committee

PROFESSIONAL REGISTRATIONS

American Institute of Certified Planners (#105073)

RELEVANT EXPERIENCE

DESIGN SERVICES FOR THE KENDALL SQUARE/MAIN STREET PROJECT, CITY OF CAMBRIDGE, MA

As lead transportation planner, Christi guided the data collection and technical analysis for transportation improvements in Kendall Square. The project included analysis and design of a new street connection to improve transit connections and access to Main Street. She developed a range of options to accommodate traffic and bus service, while prioritizing pedestrian and bicycle access. Christi completed an evaluation of the trip generation and associated transportation impacts of a range of zoning scenarios for the Kendall Square – Central Square (K2C2) Master Plan. She led the data collection and analysis of options for a proposed pedestrian crossing on Main Street/Broadway, east of Kendall Square, as part of a “gateway” to the City of Cambridge.

EZRIDE SHUTTLE SERVICE PHASE III STUDY, CHARLES RIVER TRANSPORTATION MANAGEMENT ASSOCIATION (CRTMA), CAMBRIDGE, MA

As Project Manager, Christi assisted the CRTMA in evaluation of its EZRide private shuttle service in Cambridge. She was responsible for overseeing the development of a passenger survey, analysis of ridership data, evaluation of future ridership potential, and developing recommendations for short and long-term service improvements.

KENDALL SQUARE MOBILITY TASK FORCE PLAN, MASSDOT, CAMBRIDGE, MA

Christi was lead transportation planner to enhance mobility to, and within Kendall Square to support continued development of this area as a biotech/high tech regional job center. The study focuses on development of transit, bike and pedestrian alternatives to travel by single-occupancy vehicle.

“GROUNDING MCGRATH” STUDY, MASSDOT, SOMERVILLE AND CAMBRIDGE, MA

As Project Manager, Christi was responsible for managing a team of multi-disciplinary professionals to evaluate the feasibility, benefits, impacts, and costs of removing at least a portion of the elevated Route 28 highway within the City of Somerville, and to enhance access for all modes of travel. The project included coordination with a range of ongoing planning processes, including work with the Department of Public Health (DPH) to complete the Commonwealth’s first Health Impact Assessment (HIA) for a MassDOT project.



Philip Viveiros, PE, PTOE

Senior Engineer



Phil has 17 years of experience in the transportation planning and engineering fields. He prepares traffic signal designs, signing and pavement marking plans, traffic management plans, and contract specifications, estimates, and bid documents. He has performed peer reviews of various development projects for several Massachusetts municipalities, as well as contributed to truck exclusion studies and master planning efforts. Phil currently serves on a team for an On-Call Transportation Services Contract for the City of Cambridge. Phil completed the analysis and design for the Third Street connector, Main Street reconstruction, and a pedestrian hybrid beacon (HAWK) for a proposed pedestrian crossing on Main Street/Broadway as part of the Kendall Square-Main Street project.

EDUCATION

MS, Transportation Engineering, University of Massachusetts, 2001

BS, Civil Engineering, Massachusetts Institute of Technology, 1996

PROFESSIONAL AFFILIATIONS

Institute of Transportation Engineers (ITE), Member

Rhode Island Institute of Transportation Engineers (RIITE), Secretary

Massachusetts Institute of Transportation Engineers (MAITE), Member

International Municipal Signal Association (IMSA), Member

PROFESSIONAL REGISTRATIONS

Professional Engineer: MA (#45665), RI (#9519)

Professional Traffic Operations Engineer

RELEVANT EXPERIENCE

DESIGN SERVICES FOR THE KENDALL SQUARE/MAIN STREET PROJECT, CITY OF CAMBRIDGE, MA

As senior project engineer, Phil led the signal design for transportation improvements on Main Street in Kendall Square. The project included analysis of a new street connection to improve transit connections and access to Main Street, as well as a gap study of existing and proposed conditions related to removal of an existing mid-block pedestrian signal on Main Street. A range of options were developed to accommodate traffic and bus service, while prioritizing pedestrian and bicycle access. He completed the analysis and design of a pedestrian hybrid beacon (HAWK) for a proposed pedestrian crossing on Main Street/Broadway east of Kendall Square as part of a "gateway" to the City of Cambridge.

GRAND JUNCTION FEASIBILITY STUDY, MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MA

Phil provided conceptual design and analysis related to various alternatives for street-level crossings for a potential multi-use path as part of a multi-disciplinary team. He developed recommended treatments for each of the grade crossings, modifications to existing signalized intersections, and preliminary traffic analysis to determine the feasibility of various signal timing and phasing strategies.

MBTA KEY BUS ROUTE IMPROVEMENT PROGRAM, MASSACHUSETTS BAY TRANSPORTATION AUTHORITY (MBTA), GREATER BOSTON, MA

As senior project engineer, Phil reviewed existing signal timing, phasing and operations, to identify travel time improvements along MBTA's 15 Key Bus Routes. He proposed improvements included traffic signal optimization, the addition of new signal heads, and installation of shared bus and right turn lanes, in conjunction with the relocation of bus stops to the far side of the intersection. He prepared signage and striping plans, and facilitated the approval process with the Boston Transportation Department (BTD).

BOSTON CROSSROADS INITIATIVE, CITY OF BOSTON, MA

Phil is responsible for performing capacity analysis and signal timing modifications for study area intersections for the reconstruction of the Summer Street and Congress Street corridors, as part of the city's Crossroads Initiative, in a manner that will accommodate projected vehicular, pedestrian, bicycle, and transit traffic volumes for a future design year of 2027.



Matthew Starkey, EIT

Civil Engineer



Matt is an avid bicyclist with a passion for developing better bicycle facilities. He has contributed to a variety of transportation planning and traffic engineering projects. These projects include bicycle facility design, public transit improvement plans, pedestrian crosswalk improvements, and traffic impact studies. His responsibilities on these projects have included designing bicycle facilities to current AASHTO and NACTO standards, data collection and analysis, trip generation and distribution, capacity analysis, Synchro modeling, and plan and graphic preparation using AutoCAD and GIS software. Matt's work includes design plans for bicycle and pedestrian facilities for both the Casey Arborway project and the McGrath Boulevard Design.

EDUCATION

BS, Civil Engineering,
Northeastern University,
2012

PROFESSIONAL AFFILIATIONS

Massachusetts Institute
of Transportation
Engineers (MAITE),
Secretary

Young Professionals in
Transportation (YPT)

Association of
Pedestrian and Bicycle
Professionals (APBP)

PROFESSIONAL REGISTRATIONS

Engineer-in-Training: MA

RELEVANT EXPERIENCE

CAMBRIDGE HOUSE DOCTOR CONTRACT, CITY OF CAMBRIDGE, MA

Matt assisted in technical guidance on stop sign studies, truck exclusion studies, roadway design review, and bicycle exclusion signage. He analyzed traffic volume data, MassDOT and local crash data, and sight distance. He conducted bicycle gap studies and turning movement counts. He analyzed signal timings, bicycle gaps, and roadway geometries at intersections to remove bicycle turn restrictions. He reviewed proposed roadway and signal designs as part of a private development.

CAMBRIDGE ON-CALL TRANSPORTATION PLANNING AND ENGINEERING, CITY OF CAMBRIDGE, MA

Matt conducted a study of the pedestrian refuge island on Pearl Street to evaluate the effect on vehicular yield rates and distances, and analysis of on-street parking utilization. He evaluated the vehicular, bicycle and pedestrian traffic conditions along the Pearl Street corridor. He developed data collection methodology and graphic preparation for morning and afternoon bicycle counts at 17 intersections in Cambridge.

MCGRATH BOULEVARD DESIGN, MASSDOT, SOMERVILLE AND CAMBRIDGE, MA

Matt is responsible for evaluating four build alternatives to assess the impact of removing an elevated highway in the City of Somerville. Tasks included: development of existing and future traffic volume networks; completion of capacity analysis using Synchro software for existing and future traffic conditions; evaluation of the bicycle and pedestrian infrastructure for user safety and comfort using innovative methodologies; development a preferred alternative and mitigation of the impacts of the boulevard design on adjacent intersections.

MT. VERNON STREET RE-DESIGN, BOSTON REDEVELOPMENT AUTHORITY (BRA), BOSTON, MA

Matt assisted in a multimodal data collection effort, including vehicles, bicycles, pedestrians, school buses, and transit. Worked with the project team on evaluating existing bicycle-share data and multimodal traffic data. He created an alternatives matrix to evaluate potential cycle track designs. He produced presentation graphics of existing multimodal data for public meetings.



Christine Ann Palmer, PE, PTOE

Lead Design Engineer

Christine has over 29 years of involvement in transportation and traffic engineering. Her experience includes design of roadway reconstruction and rehabilitation projects in both urban and rural settings. Christine provided oversight and design guidelines on the development of a multimodal Complete Streets redesign and traffic signal improvements for the BRA's Mt. Vernon Street Re-Design project. Christine is responsible for managing the Town of Middleborough, MA Downtown Improvements, involving the preparation of construction plans and contract documents for geometric and safety modifications that included traffic calming techniques and pedestrian enhancements.

EDUCATION

BS, Civil Engineering,
Old Dominion University,
1983

Graduate Studies,
Civil Engineering, Old
Dominion University,
1983-1985

PROFESSIONAL AFFILIATIONS

Rhode Island Consulting
Engineers (RICE),
Director

Institute of
Transportation
Engineers (ITE), Member

Women's Transportation
Seminar (WTS) - Rhode
Island, Member and Past
President

Women's Transportation
Seminar (WTS) -
Boston, Member

PROFESSIONAL REGISTRATIONS

Professional Engineer:
MA (#42509), RI
(#6023)

Professional Traffic
Operations Engineer

RELEVANT EXPERIENCE

MCGRATH BOULEVARD DESIGN, MASSDOT, SOMERVILLE AND CAMBRIDGE, MA

Christine is responsible for oversight and design guidance on the development of conceptual design alternatives for removing at least a portion of an elevated highway within the City of Somerville, and exploring concepts to reconfigure the roadway to enhance access for all modes of travel. The proposed improvements will increase connectivity within the roadway corridor, create a new greenspace with landscaped boulevard, and enhance safety for all modes of transportation.

MT. VERNON STREET RE-DESIGN, BOSTON REDEVELOPMENT AUTHORITY (BRA), BOSTON, MA

Christine is responsible for oversight and design guidance on the development of a multimodal "Complete Streets" redesign and traffic signal improvements along Mt. Vernon Street in the Dorchester neighborhood. The proposed improvements include geometric modifications that incorporate Boston's Complete Street Guidelines including increased sidewalk width, sidewalk level cycle tracks, reduced travel lane widths, and additional streetscape elements. Modifications of existing traffic signals support the proposed improvements and provide sufficient vehicular capacity. The project also included improved wayfinding signage to institutions and public amenities within Columbia Point.

MARSTONS MILLS VILLAGE CENTER IMPROVEMENTS, TOWN OF BARNSTABLE, MA

Christine is responsible for the preparation of construction plans and contract documents for geometric and safety modifications and streetscape enhancements to Cotuit Road (Route 149). Proposed improvements include reconfiguration of the Cotuit Road/River Road/Main Street intersection, pedestrian enhancements including sidewalks, curb ramps, curb extensions and raised crosswalks, and parking modifications.

WAVERLY STREET EXTENSION MULTI-USE PATH, CITY OF CAMBRIDGE, MA

Christine is responsible for preparation of construction plans and contract documents for proposed improvements to the Waverly Street Extension, an alleyway along the western edge of the MIT campus. The initial concepts sought to provide a roadway with an adjacent multi-use path; however, based on current roadway use and feedback from the city the proposed modifications will convert the current alleyway to a multi-use path surrounded by landscape/streetscape elements with vehicular access limited to a small delivery area.



Sandra Clarey

Transit Planner



Sandra has over 12 years of experience in multimodal transportation planning in the U.S., Ireland, and Australia. Sandra specializes in transit planning and design, primarily for bus operations, but her background in traffic and transportation planning gives her an edge on projects where improvements for all modes is being considered and a holistic approach is required. She has guided the planning, design and construction of numerous bus routes for transit agency, municipal and private sector clients. In her prior role as Senior Transportation Planner/Analyst at the Massachusetts Bay Transportation Authority (MBTA), she was responsible for evaluating and scheduling bus and ferry services, and responding to public comment on transit route operations and requests for data. Sandra also updated and maintained systemwide ridership and service statistics, conducted ridership surveys, and planned and designed wayfinding and information signage.

EDUCATION

Master of Regional and Urban Planning,
University College
Dublin, 2004

BA, Geography,
University of Dublin,
Trinity College, 2000

PROFESSIONAL AFFILIATIONS

Northeast Passenger
Transportation
Association (NEPTA)

Association of
Pedestrian and Bicycle
Professionals (APBP),
Member and Boston
Chapter Steering
Committee Member

RELEVANT EXPERIENCE

CITY OF CAMBRIDGE TRANSPORTATION PLANNING AND ENGINEERING ON-CALL SERVICES, CITY OF CAMBRIDGE, MA

Sandra is responsible for the overall management of a three-year On-Call Transportation Planning and Engineering contract with the City. Oversaw 16 different projects including significant data collection efforts for the City-wide bi-annual bicycle count program, traffic and speed studies, a pedestrian yield study, a parking study and various roadway design projects, and facilitated tasks assigned directly to subconsultants.

EZRIDE SHUTTLE SERVICE PHASE III STUDY, CHARLES RIVER TRANSPORTATION MANAGEMENT ASSOCIATION (CRTMA), CAMBRIDGE, MA

Sandra evaluated existing bus service and determined future improvements on the privately operated EZRide Shuttle. Service operates between North Station and Cambridgeport, serves M.I.T, major residential and commercial buildings, and connects to MBTA Lechmere and Kendall stations. Tasks included extracting Automatic Passenger Count data from the NextBus dataset and assisting Charles River TMA with a targeted bus deployment plan to create a reliable dataset from which ridership patterns could be established. Existing ridership patterns and service levels were assessed using schedule information, passenger counts and results from an online rider survey, from which short-term improvements such as express or short-turn trips, route deviations/extensions, and bus stop consolidation, relocation or elimination, were determined. Future ridership was estimated based on projected future growth in the area. Final recommendations included a service plan to meet the demand for both existing and future riders. Also recommended new routing and bus stop locations in response to future development plans at North Station and Lechmere Station.

DESIGN SERVICES FOR THE KENDALL SQUARE/MAIN STREET PROJECT, CITY OF CAMBRIDGE, MA

Sandra advised traffic engineers and landscape designers on the reconfiguration of curbside transportation operations, including those for MBTA bus route and shuttle operations and provided guidance on the provision and layout of street furniture that optimized accessibility to and from transit services.



Gerald Friedman, PE, ENV SP

Municipal and Urban Engineer



Jerry is HDR's Municipal and Urban Engineering Manager in the Boston office and is responsible for managing transportation and infrastructure projects. His expertise is providing design and construction administration services for new and reconstructed streets/roadways, traffic calming, bicycle and pedestrian improvements, and site design.

EDUCATION

Bachelor of Science,
Civil Engineering, Tufts
University, 1984

PROFESSIONAL REGISTRATIONS

Professional Engineer:
MA (#37076),
ME (#6236)

ISI Envision
Sustainability
Professional, MA

RELEVANT EXPERIENCE

WESTERN AVENUE INFRASTRUCTURE IMPROVEMENTS, CAMBRIDGE, MA

He developed concepts through final design. This award-winning project restores the corridor's important attributes as a neighborhood "Main Street" and an important link for bicycles and pedestrians. Includes a raised, pervious asphalt cycle track, numerous pedestrian and streetscape improvements, and stormwater strategies to improve quality of discharges to the Charles River.

KENDALL SQUARE/MAIN STREET PLANNING AND DESIGN PROJECT, CAMBRIDGE, MA

He provided project management and engineering design of streets and plazas, pedestrian and bicycle planning and design, public art coordination, stakeholder process, cost estimating, and construction administration.

TRAFFIC CALMING DESIGN SERVICES, CAMBRIDGE, MA

He was on the team for four multi-year on-call service contracts to provide consulting services for a citywide program aimed at reducing speeds on neighborhood streets through physical design. He provided planning, final design, and bid documents for the ten construction packages encompassing over 40 individual streets.

HARVARD SQUARE DESIGN IMPROVEMENTS, CAMBRIDGE, MA

He provided planning and design for comprehensive study of circulation patterns, and transportation and streetscape infrastructure. He provided construction documents for short-term improvements that addressed immediate physical deterioration in the Square; and final designs for multiple projects phased over a 10-year period and continuing through 2017.

RECONSTRUCTION OF COMMONWEALTH AVENUE - PHASES 3 AND 4 (PACKARDS CORNER TO KELTON STREET), BOSTON, MA

He developed final design to provide enhanced safety for all users; a separated bicycle facility; pedestrian accessibility; and operational efficiency for all modes. Included study of transit stop consolidation for the MBTA Green Line

RECONSTRUCTION SUMMER AND CONGRESS STREETS (FORT POINT DISTRICT) BOSTON, MA

He developed final design to provide enhanced pedestrian and bicycle conditions, including the implementation of a grade-separated two-way cycle track on Summer Street forming a critical connection between downtown and the South Boston Seaport District.



Julie Stein, ENV SP, LEED AP *Stormwater Lead*



Julie brings an extensive amount of urban planning experience focused on climate change, sea level rise, storm surge and stormwater impacts on water and wastewater infrastructure and mitigation measures. She was the Director of Wet Weather Planning and Water Quality Policy in the Bureau of Environmental Planning & Analysis for the New York City Department of Environmental Protection (NYCDEP). Ms. Stein directed a planning study to evaluate the impacts of population growth and changing climatic conditions, specifically, increased storm intensities, sea level rise and storm surge, on the City’s stormwater and wastewater collection and treatment facilities to identify near- and long-term adaptation strategies. Her efforts led to the preliminary recommendations for wastewater and watershed protections included in Mayor Bloomberg’s Strategic Initiative for Rebuilding and Resiliency.

EDUCATION

Master of Regional Planning, City & Regional Planning (Masters Degree, Regional Planning with a specializ), University of NC Chapel Hill, 2005

Bachelor of Arts, Environmental Studies (Bachelor of Arts, Environmental Studies and Social), Saint Lawrence University, 1998

PROFESSIONAL REGISTRATIONS

ISI Envision Sustainability Professional, New York

LEED Accredited Professional, New York

RELEVANT EXPERIENCE

NATIONAL GUARD BUREAU, TO DY09, U.S. MILITARY ACADEMY AT WEST POINT-LID STORMWATER MANAGEMENT PLANS, WEST POINT, NY

She developed a stormwater master plan for a 2,000-acre area of the West Point campus. Existing and future conditions assessments, concepts for Low Impact Development (LID) systems, and development of full designs for an LID Demonstration Project on-site.

NORTHEAST OHIO REGIONAL SEWER DISTRICT, GREEN INFRASTRUCTURE (GI) CO-BENEFITS ANALYSIS, OH

The District is required to submit a report quantifying the expected co-benefits of 15 green infrastructure projects in Cleveland. The Anticipated Co-Benefits Report will describe the methods used to identify and analyze multiple co-benefits including operational savings and air quality, recreational and other livability improvements.

CITY OF COLUMBUS, OHIO - DOW, BLUEPRINT LINDEN INTEGRATED SOLUTIONS, OH

Project goal is to reduce peak flows in sanitary sewers, maintain existing storm sewer level of service, and improve localized flooding by incorporating green infrastructure to manage peak flows in a fashion and improve water quality at outfalls. Ms. Stein leads the design team to select sites and implement standard designs for roadway bioswales, rain gardens, detention basins, and roadway center island enhancements.

NYCDEP, WET WEATHER PLANNING & WATER QUALITY POLICY, ENVIRONMENTAL PLANNING & ANALYSIS, NY

As Director of Wet Weather Planning and Water Quality Policy, Ms. Stein co-managed \$15 million contract to design and build ecological and green infrastructure pilot projects and monitor water quality/quantity performance and sustainability co-benefits, and produced two annual reports summarizing monitoring results for regulators and the public.



Todd Undzis, PE

Civil Engineer



Todd is a registered professional Civil Engineer in HDR's Boston office and MassDEP Certified Soil Evaluator with more than 19 years experience in transportation, utility, commercial, residential and recreational development projects. His work has included extensive stormwater drainage design, site layout and grading, traffic analyses, lighting and utility coordination, and permitting.

EDUCATION

Master of Regional Planning, City & Regional Planning, University of North Carolina at Chapel Hill, 2005

Bachelor of Arts, Environmental Studies (Bachelor of Arts, Environmental Studies and Social), Saint Lawrence University, 1998

PROFESSIONAL REGISTRATIONS

ISI Envision Sustainability Professional, New York
LEED Accredited Professional, New York

RELEVANT EXPERIENCE

RECONSTRUCTION OF BOYLSTON STREET, AUDUBON CIRCLE AND THE FENWAY YAWKEY MULTI-USE PATH, BOSTON, MA

He is developing final design services of three individual projects identified as priorities for continued revitalization of the Fenway neighborhood. Boylston Street will feature widened sidewalks, bicycle accommodations, and urban design upgrades. Audubon Circle will undergo a significant transformation, becoming more pedestrian oriented and safer for vehicles and cyclists. The Fenway-Yawkey Multiuse Path will provide a critical connection in the network of off-road facilities.

HOLYOKE TRANSIT ORIENTED DESIGN PHASE 2, HOLYOKE, MA

He provided urban design and engineering services for the reconstruction of three streets as part of a Transit-Oriented Development plan. Mr. Undzis was responsible for development of Design Documentation for the 25% submittal to MassDOT and is currently advancing the project through to 100% Design and PS&E Documents.

DEPARTMENT OF CONSERVATION & RECREATION, MORRISSEY BOULEVARD REDESIGN FOR RECONSTRUCTION, BOSTON, MA

He developed complete redesign of major, climate-vulnerable arterial according to Complete Streets principals. Responsible for overall drainage modeling and design, including implementation of Green Infrastructure elements.

KENDALL SQUARE PLANNING AND DESIGN PROJECT, CAMBRIDGE, MA

Todd was responsible for detailed roadway grading and layout design as well as coordination with City Departments.

RECONSTRUCTION OF ROUTE 20, OXFORD, MA

HDR is providing engineering services for the reconstruction of Rt. 20 in the towns of Charlton and Oxford, MA. Todd was responsible for the design of the stormwater management system for the entire project corridor which included multiple stormwater wetland basins and a closed pipe drainage system.

CONLEY TERMINAL DEDICATED FREIGHT CORRIDOR AND BUFFER OPEN SPACE, BOSTON, MA

This project is critical to facilitating the expansion of New England's largest full-service container port while mitigating impacts of the terminal operations on the adjacent neighborhoods of South Boston. Mr. Undzis was responsible for the design of the stormwater management system for the new dedicated freight corridor and buffer open space. The stormwater management system included multiple stormwater infiltration systems and a closed pipe drainage system. Mr. Undzis was also responsible for coordination with City Departments (BWSC) as well as permitting through City Agencies (Boston Conservation Commission).



Travis Lucia, EIT

Civil Engineer



Travis has seven years of experience in transportation engineering and land development. His responsibilities include roadway and drainage design, sidewalk and ramp design for ADA compliance, traffic calming, bicycle and pedestrian improvement, site design, cost and quantity estimates, site reconnaissance, utility design and coordination, and production of construction plans and specifications. Travis has also performed quality control tasks reviewing plans, cost estimates and construction specifications.

EDUCATION

BS, Civil Engineering
Technology, Wentworth
Institute of Tech, 2009

PROFESSIONAL REGISTRATIONS

Engineer in Training: MA

RELEVANT EXPERIENCE

CHAPTER 90 ROADWAY AND SIDEWALK RECONSTRUCTION, CONTRACT NO. 15, CAMBRIDGE, MA

Travis assisted in final surface infrastructure design for 1,500 feet of Mt. Auburn Street. The primary goal was to improve safety and functionality of the area while including improved facilities for bicycles, pedestrians and motor vehicles while also incorporating streetscape enhancements and traffic calming elements all meeting ADA regulations.

HURON AVENUE DESIGN PROJECT, CAMBRIDGE, MA

HDR led the surface design team for this project to separate the stormwater and sewer pipes located under the street to improve the water quality of Alewife Brook. The City took advantage of this opportunity to incorporate streetscape improvements to Huron Avenue.

FEASIBILITY STUDY AND PRELIMINARY DESIGN FOR ALEWIFE BICYCLE/PEDESTRIAN BRIDGE, CAMBRIDGE, MA

HDR is the prime consultant for this project, which is studying the feasibility of constructing a bicycle/pedestrian bridge connecting two portions of the Alewife neighborhood in West Cambridge. Travis is responsible for project coordination between multi-disciplinary teams to produce a conceptual design of the pedestrian bridge.

KENDALL SQUARE/MAIN STREET PROJECT, CAMBRIDGE, MA

Travis was responsible for final design of the project including bidding services. Currently, he is responsible for construction administration services.

DAVIS SQUARE TRANSPORTATION & STREETScape IMPROVEMENTS, SOMERVILLE, MA

As a subconsultant, HDR is providing preliminary and final design services for the reconstruction of over 5,000 feet of streets surrounding the Davis Square MBTA Station. The primary goal of the project is to improve safety and functionality of the Davis Square area for all users while also incorporating streetscape enhancements and traffic calming elements and geometrics at the Davis Square Cutter Ave./ Highland Avenue intersections.

References

Design and Construction Documents for Protected Bike Lanes, Chattanooga, TN

Client: City of Chattanooga

Contact: Bert Kuyrkendall, 101 E. 11th Street, Chattanooga, TN 37402, (423) 425-6311, kuyrkendall_b@chattanooga.gov

Western Avenue Infrastructure and Surface Enhancements, Cambridge, MA

Client: City of Cambridge

Contact: Kathy Watkins, City Engineer, 147 Hampshire Street, Cambridge, MA 02139, (617) 349-4751, kwatkins@cambridgema.gov

Northampton Bicycle and Pedestrian Plan, MA

Client: City of Northampton

Contact: Wayne Feiden, FAICP, WMAIA, Director of Planning and Sustainability, 210 Main Street, Northampton, MA 01060, (413) 587-1265, wfeiden@northamptonma.gov

Attachments

Client#: 835015

ALTAPLAN

DATE (MM/DD/YYYY)
6/29/2016

ACORD™ CERTIFICATE OF LIABILITY INSURANCE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.


IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

| | | |
|--|---|--|
| PRODUCER USI Northwest 700 NE Multnomah, Suite 1300 Portland, OR 97232 503 224-8390 | CONTACT NAME: Karen Barry PHONE (A/C, No, Ext): 503 224-8390 | FAX (A/C, No): 610 362-8130 |
| | E-MAIL ADDRESS: karen.barry@usi.com | |
| INSURED Alta Planning + Design, Inc. 711 SE Grand Avenue Portland, OR 97214 | INSURER(S) AFFORDING COVERAGE | |
| | INSURER A: | Charter Oak Fire Insurance Co. |
| | INSURER B: | Travelers Property Casualty Ins |
| | INSURER C: | Travelers Indemnity Company |
| | INSURER D: | SAIF Corporation |
| | INSURER E: | Zurich American Ins. Co. |
| | INSURER F: | Continental Casualty Company |

| COVERAGES | CERTIFICATE NUMBER: | REVISION NUMBER: | | | |
|---|--|------------------|-------------------------|-------------------------|--|
| THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. | | | | | |
| INSR LTR | TYPE OF INSURANCE | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS |
| A | <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY | 6808B259484 | 07/01/2016 | 07/01/2017 | EACH OCCURRENCE \$2,000,000 |
| B | <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR | 6808B259331 | 07/01/2016 | 07/01/2017 | DAMAGE TO RENTED PREMISES (Ea occurrence) \$1,000,000 |
| | GEN'L AGGREGATE LIMIT APPLIES PER: | | | | MED EXP (Any one person) \$10,000 |
| | <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC | | | | PERSONAL & ADV INJURY \$2,000,000 |
| | OTHER: | | | | GENERAL AGGREGATE \$4,000,000 |
| C | AUTOMOBILE LIABILITY | BA7A574417 | 07/01/2016 | 07/01/2017 | PRODUCTS - COMP/OP AGG \$4,000,000 |
| | <input checked="" type="checkbox"/> ANY AUTO | | | | COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 |
| | <input type="checkbox"/> ALL OWNED AUTOS | | | | BODILY INJURY (Per person) \$ |
| | <input checked="" type="checkbox"/> HIRED AUTOS | | | | BODILY INJURY (Per accident) \$ |
| | <input type="checkbox"/> SCHEDULED AUTOS | | | | PROPERTY DAMAGE (Per accident) \$ |
| | <input checked="" type="checkbox"/> NON-OWNED AUTOS | | | | \$ |
| C | UMBRELLA LIAB | CUP8B259933 | 07/01/2016 | 07/01/2017 | EACH OCCURRENCE \$5,000,000 |
| | EXCESS LIAB | | | | AGGREGATE \$5,000,000 |
| | DED <input checked="" type="checkbox"/> RETENTION \$10000 | | | | \$ |
| D | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY | 771940 | 09/01/2015 | 09/01/2016 | <input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER |
| E | ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below | 8997892 | 09/01/2015 | 09/01/2016 | E.L. EACH ACCIDENT \$1,000,000 |
| | | WA Stop Gap -EL | | | E.L. DISEASE - EA EMPLOYEE \$1,000,000 |
| | | OH Stop Gap -EL | | | E.L. DISEASE - POLICY LIMIT \$1,000,000 |
| F | Professional Liability | MCH114135257 | 07/01/2016 | 07/01/2017 | \$4,000,000 Per Claim \$4,000,000 Aggregate |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

This certificate issued for Proposal Purposes only.

| CERTIFICATE HOLDER | CANCELLATION |
|----------------------------|--|
| For Proposal Purposes Only | SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. |
| | AUTHORIZED REPRESENTATIVE  |

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APPENDIX A

Non-Collusion, Non-Discrimination, and Tax/Employment Statements

NON-COLLUSION STATEMENT

State of Massachusetts, County of Middlesex.

 Matt Hayes (name), being first duly sworn deposes and says that:

- 1.0 He/she is (owner, partner, officer, representative, or agent) of ALTA PLANNING + DESIGN the Respondent that has submitted the attached Proposal;
- 2.0 He/she is fully informed respecting the preparation and contents of the attached Proposal and of all pertinent circumstances respecting such Proposal;
- 3.0 Such Proposal is genuine and is not a collusive or sham Proposal;
- 4.0 Neither the said Respondent nor any of the officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Respondent, firm or person to submit a collusive or sham Proposal in connection with the Contract for which the attached Proposal has been submitted or to refrain from submitting a proposal in connection with such Contract, or has in any manner, directly or indirectly sought by agreement of collusion or communication or conference with any other Respondent, firm or person to fix the price or prices in the attached Proposal or of any other Respondent, or to fix any overhead, profit or cost element of the Proposal price or the Proposal price of any other Respondent or to secure through any collusion conspiracy, connivance or unlawful agreement any advantage against the Cambridge Redevelopment Authority, the City of Cambridge or any person interested in the proposed Contract; and
- 5.0 The price or prices quoted in the attached Proposal are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Respondent or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

Signed (type name):

 Matt Hayes
Matt Hayes

Title:

 Principal

Date:

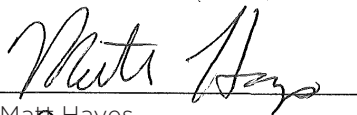
 7/18/16

NONDISCRIMINATION STATEMENT

The Consultant agrees:

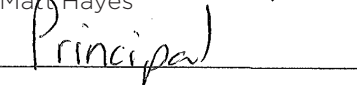
1. The Consultant shall not, in connection with the services under this Contract, discriminate by segregation or otherwise against any employee or applicant for employment on the basis of race, color, national or ethnic origin, age, religion, disability, sex, sexual orientation, gender identity and expression, veteran status or any other characteristic protected under applicable federal or state law.
2. The Consultant shall provide information and reports requested by the Cambridge Redevelopment Authority pertaining to its obligations hereunder, and will permit access to its facilities and any books, records, accounts or other sources of information which may be determined by the Cambridge Redevelopment Authority to affect the Consultant's obligations.
3. The Consultant shall comply with all federal and state laws pertaining to civil rights and equal opportunity including executive orders and rules and regulations of appropriate federal and state agencies unless otherwise exempt therein.
4. The Consultant's non-compliance with the provisions hereof shall constitute a material breach of this Contract, for which the Cambridge Redevelopment Authority may, in its discretion, upon failure to cure said breach within thirty (30) days of written notice thereof, terminate this Contract.
5. The Consultant shall indemnify and save harmless the Cambridge Redevelopment Authority from any claims and demands of third persons resulting from the Consultant's non-compliance with any provisions hereof, and shall provide the Cambridge Redevelopment Authority with proof of applicable insurance.

Signed (type name):



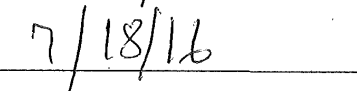
Matt Hayes

Title:



Principal

Date:



7/18/16

CERTIFICATE OF TAX, EMPLOYMENT SECURITY, AND CHILD CARE COMPLIANCE

Pursuant to Massachusetts General Laws Chapter 62C, §49A and Chapter 151A, §19A(b) and Chapter 521 of the Massachusetts Acts of 1990, as amended by Chapter 329 of the Massachusetts Acts of 1991,

I Matt Hayes (Name) whose principal place of business is located at 111 E. CHAPEL HILL ST. DURHAM, NC (Address), do hereby certify that:
27701

- A. The above-named Respondent has made all required filings of state taxes, has paid all state taxes required under law, and has no outstanding obligation to the Commonwealth's Department of Revenue.
- B. The above-named Respondent/Employer has complied with all laws of the Commonwealth relating to unemployment compensation contributions and payments in lieu of contributions.
- C. The undersigned hereby certifies that the Respondent/Employer (please check applicable item):
 - 1. employs fewer than fifty (50) full-time employees; or
 - 2. offers either a dependent care assistance program or a cafeteria plan whose benefits include a dependent care assistance program; or
 - 3. offers child care tuition assistance, or on-site or near-site subsidized child care placements.

Signed under the penalties of perjury this 18 day of July, 2016.

680465555
Federal Identification Number

Signed (type name): Matt Hayes
Matt Hayes

Title: Principal

Date: 7/18/16

Form **W-9**
 (Rev. December 2014)
 Department of the Treasury
 Internal Revenue Service

Request for Taxpayer Identification Number and Certification

**Give Form to the
 requester. Do not
 send to the IRS.**

Print or type
 See Specific Instructions on page 2.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.
Alta Planning + Design, Inc.

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification; check only **one** of the following seven boxes:
 Individual/sole proprietor or single-member LLC
 C Corporation S Corporation Partnership Trust/estate
 Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶ _____
 Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner.
 Other (see instructions) ▶ _____

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
 Exempt payee code (if any) _____
 Exemption from FATCA reporting code (if any) _____
(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.)
711 SE Grand Avenue

6 City, state, and ZIP code
Portland, OR 97214

7 List account number(s) here (optional)

Requester's name and address (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

| | | | | | | | | | |
|---------------------------------------|---|--|---|---|---|---|---|---|---|
| Social security number | | | | | | | | | |
| | | | | | | | | | |
| OR | | | | | | | | | |
| Employer identification number | | | | | | | | | |
| 6 | 8 | | 0 | 4 | 6 | 5 | 5 | 5 | 5 |

Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here Signature of U.S. person ▶ *Natalie Lyano* Date ▶ *1/15/16*

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at www.irs.gov/fw9.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)

- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding? on page 2.

By signing the filled-out form, you:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and
- Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

