ALPHA
SURVEY GROUP

SCHOOLS & UNIVERSITIES

PROJECT EXPERIENCE

SCHOOLS

Plymouth South High School Construction Survey Services, Plymouth, MA – Agostini/Bacon & RC&D

Alpha provided survey services from start to finish in support of the construction of the Plymouth South High School. The survey control established during the design phase was checked and densified as needed through-out the project. Layout services included limits of clearing, rough staking of the building for excavation, building column lines and piers, auditorium seating, and various site features. Working for the general contractor's (RC&D), Alpha laid-out the athletic fields, and in particular the football field where layout and interim as-built surveys were requested to be performed for each sub-grade layer prior to approval to beginning the next. A final as-built was performed of the entire football field surface upon completion of construction. Alpha also provided as-built surveys of the column anchor bolt plates. Other layout and as-built services were provided as requested.

Scituate Middle & School Construction Survey Services, 606 Chief Justice Cushing Hwy, Scituate, MA – Agostini/Bacon

Alpha provided survey services in support of building additions to the existing Middle and High School buildings. The construction was unique in that it wasn't a stand-alone building, therefore requiring the alignment of existing building walls with the addition designs. The survey control established during the design phase was checked and densified as needed through-out the project. During the control densification, the existing walls abutting the new additions were located for comparison with the design along the common wall. Alpha worked very closely with the Client and the architect to align the existing and proposed conditions. Based on the alignment, Alpha calculated the foundation corners and all column intersection points and provided the coordinates to the Client for both building additions. Upon completion of the foundation and column footings Alpha performed an as-built survey of the anchor bolts. The stadium seating for the auditorium was calculated and laid-out for the contractor to install the seating. A walkway and observation deck were designed to overlook a vernal pool and act as an 'outdoor classroom'. There was existing headwall that the design needed to be aligned with for the layout of Halical Piles. The headwall was located and the design fit to the wall, and the pile locations were laidout.

Park Avenue Elementary School Construction Survey Services, Park Ave, Webster, MA – RC & D

Alpha provided survey services in support of the Client's construction activities at the Park Avenue Elementary School in Webster, MA. The existing survey control established during the design phase, as well as that installed by the Client was checked and densified as needed through-out the project. Drainage structures with grades were laid-out, and later as-built as a requirement of the Client.

Capt. Gerald F. Deconto, USN Veterans Memorial Stadium – As-Built Survey of newly Installed Rubberized Track Surface, Sandwich, MA – JJA Sports/Town of Sandwich, MA

Alpha performed an as-built survey of a newly constructed track surface and adjoining sidewalk and football field drainage system. The survey was horizontally and vertically referenced to the existing project control. Elevation data was gathered at specified intervals, and rim and invert elevations were obtained on the football filed perimeter drainage system. The client was provided with an AutoCAD file prepared in Alpha's layering and symbology standards and an elevation model with one-foot contours.

Upper Cape Cod Regional Technical High School (Various Projects) – Bourne, MA

Alpha has been providing survey services to Upper Cape Cod for various projects on the 75 acre UCCRTS campus since 2004. Beginning with a complete boundary survey, Alpha then provided photo control in support of aerial photography and campus-wide base map preparation by others. Additional projects have ranged from staking various property lines, layout of buildings, layout in support of the school's relocation of the baseball field.

Bristol County Agricultural High School – Proposed Environmental Center (Green Certified Design), 135 Center Street, Dighton, MA – WM. Stark Architects Inc.

Based on a prior survey, Alpha performed a topographic/existing conditions and utility compilation survey of approximately 4 acres of the BCAHS campus. The survey included the location of buildings, sidewalks, driveways and other improvements. Alpha delivered a CAD file of the survey which was to form the basis of the design of a proposed Environmental Center to Green Certified requirements. The subsequent design work was put on-hold due to a lack of funding.

Bristol County Agricultural High School – Campus Sanitary System Improvements, 135 Center Street, Dighton, MA – Holmes Engineering

BCAHS was pursuing improvements to its existing system of numerous individual septic systems to a campus-wide waste water system. The project included the abandonment of the existing individual systems with the design and construction of a collection system to be connected with an existing sewer line located approximately 900 feet from campus on Rte 138. For the past five years, Alpha has been providing survey services directly to the BCAHS, or in support of consultants working for the School. Based on existing information, Alpha performed an existing conditions topographic and utility compilation survey of approximately twenty two (22) acres, of the 200 +/- acre campus, comprising the classrooms, laboratories, and associated campus learning facilities. The survey included the location of the existing buildings, topography, utilities and inverts, and particularly the existing individual septic systems. There was an existing MassDOT survey of Center Street prepared in conjunction with the design for a nearby bridge replacement project which was made available to the School. Alpha created base mapping for the engineering design by merging the existing conditions survey with the survey of Center Street, and supplemented topographic and utility data where needed. The client was provided with a base plan in hard-copy and digital format of the Campus including a plan and profile of Center Street.

Bristol County Agricultural High School – Property Survey, 135 Center Street, Dighton, MA – Krista Paynton, Superintendent/Director

The approximately 200 acre BCAHS campus is comprised of numerous parcels that were either gifted to, or acquired by purchase, over a number of years dating back to the early 1900s. Working directly for BCAHS, Alpha performed a boundary survey of a portion of the Campus where the property boundary was being disputed by an abutter with regards to access rights. Alpha periodically advises the School with regards to boundary matters as requested.

The Dennis Haley Elementary School – New Fence Installation - Boston Public Schools, 570 American Legion Highway, Roslindale, MA – Cer-Trom Construction Company

Following the construction of site improvements including playing fields, walks, and landscaped areas, the client contracted with the City of Boston School Department to install a new fence along the school's boundary. Alpha was contracted to survey the school boundary and layout the property line for the fence installation. Research was performed with the City of Boston Engineering Department, MassDOT, and Suffolk County Registry of Deeds for record boundary and street ROW lines. Record monuments were recovered and located, and the record boundary was reconciled with the field located monumentation, and the boundary lines staked. The fence installation was time-sensitive and of high interest to both the abutters and the Mayors' office. At her request, Alpha coordinated site access and communicated project progress directly with Khadijah Brown, Director of Facilities Management for the Boston Public Schools.

Diman Regional Vocational Technical High School, 251 Stonehaven Road, Fall River, MA – Mount Hope Engineering

In support of Diman Regional's proposed Certified Nurse Assistant Training Facility, Alpha provided boundary and topographic survey services. Research was performed for record boundary and street ROW, and utility information. A survey was performed of a portion of the site to locate the building, sidewalks, trees, utilities (with inverts) and other relevant features. An Existing Conditions Plan was prepared depicting the site conditions, compiled utilities, one-foot contours, and boundary/ROW lines.

St. Sebastian's School – Greendale Avenue at St. Sebastin's School, 1191 Greendale Avenue, Needham, MA – A. R. Belli Inc./Robert Olson + Associates Architects

Robert Olson + Associates provided architectural design for traffic calming along a 1200 LF section of Greendale Avenue at the St. Sebastin's School. The project was contracted to A. R. Belli Inc. to construct the street pavement modifications. Alpha provided the contractor with survey services to layout the design baseline for construction of the improvements.

Raynham Schools and Borden Colony Athletic Complex – Layout of Athletic Fields, Raynham, MA – Town of Raynham DPW

Working directly for the Town of Raynham DPW, Alpha has performed survey services to layout and monument athletic fields at various schools and the Borden Colony Athletic Complex. At the LaLiberte and LB Merrill Schools, Alpha laid-out the high school football field with monuments set at the 10-yard and goal lines. At the Raynham Middle School, the track/football field, baseball, softball, and soccer fields were laid-out for construction. The Borden Colony Athletic Complex is a public facility owned by the Town and contains a number of baseball, softball and soccer fields. Alpha performed a boundary survey to re-establish and monument the boundaries of a Recreation Use Easement area. At this facility Alpha also laid-out and monumented the

Griffith, Burke, and U-10 soccer fields. Monuments were installed at the client's request, and were typically established on off-set lines and not within the playing fields. During subsequent years, the monumentation has served as an aid to the facilities management staff to accurately re-line the natural turf playing fields.

COLLEGES & UNIVERSITIES

Bridgewater State University - Rondileau Campus Center Improvements, Bridgewater, MA - Liao Associates & Civitects

Alpha provided survey services in support of the design for Campus Center façade and pedestrian access improvements. The building entrances on the front and back of the Campus Center are at different elevations and pedestrian traffic flows up and down numerous staircases and landings through the Center. In addition, the proposed design was addressing handicap accessibility from multiple exterior sets of steps and landings, into the Center's lobby, which connects a lower level of classrooms and exterior building entrance, to a third floor function room. In addition, the project addressed internal accessibility on multiple floors between the Center and the adjoining College Auditorium. The third item being addressed was pedestrian and handicapped access, between multiple stairs and landings on the exterior auditorium entrance with the interior lobby and balcony levels. An existing conditions survey and utility investigation was performed on the exterior of the Campus Center in support of the design of proposed access and façade improvements. Of particular interest to the design was the impact of existing steam and drain lines which paralleled the building facade. The survey included the determination of the horizontal and vertical building penetrations of these major drain and steam lines. The existing topography of the 'common' behind the Center, and its effect on storm run-off, was also a concern being addressed. The survey was established based on existing control which was densified as needed. A level run, consisting of numerous loops, was performed within the building interiors to determine floor elevations on the various entrance lobby floors and landings. Alpha prepared an existing conditions plan depicting the exterior building topography, utilities, and other site features. Alpha manually compiled the exterior and interior building stair and landing elevations onto drawings prepared by the project architect. An existing conditions plan, containing one-foot contours, was delivered to the client in AutoCAD 2009 prepared in Alpha's layering and symbology conventions.

Stonehill College – Stonehill Science Quadrangle, 320 Washington Street, Easton, MA - Robert B. Our Company, Inc./D. Schumacher

Stonehill College contracted with a design firm for site and landscape improvements to the Science Quadrangle at the south end of the campus at the Shields Science Center. This area is also adjacent to the Martin Institute for Law and Society and Cardinal O'Hara Hall which encompasses a courtyard utilized by the College for Spring Commencement Ceremonies. Alpha contracted with the civil site and landscape contractors to provide survey layout services in support of the construction of a new access driveway, courtyard, and other landscape improvements. The project included construction of 800 LF of new driveway with associated curbing and parking lots, and access improvements to the new science building and the Institute for Law and Society buildings. Stormwater drainage structures were laid-out, as were three individual bio-retention basins. Control was set for the installation of new walkway and courtyard pavers, as well as for site lighting and drainage. The courtyard between the buildings is used for Commencement ceremonies and was being re-paved with sidewalk pavers. For

Commencement preparation, the College would install a large canopy requiring deep anchorage to support the weight of the canopy. Prior to the installation of the pavers, Alpha laid-out with grades, a column grid for the installation of the canopy footings.

Northeastern University – Spear & Willis Residence Halls Landscape Improvements, 360 Huntington Ave., Boston, MA – D. Schumacher

Northeastern University had contracted with Pressley Associates to design athletic playing fields adjacent to two separate residence halls on Northeastern's main campus. Alpha provided construction survey services to a landscape contractor for the layout with finished grades of site drainage and a wiffleball field, and a sand volleyball court at Spear and Willis Halls respectively.

Harvard Law School Northwest Corner – Demolition/House Relocation – 1637-1653 Massachusetts Avenue, Cambridge, MA – Kleinfelder/SEA Consultants

Alpha's client was a member of a design team performing planning and design services for a Major Capital Improvements and Physical Planning initiative being undertaken by Harvard Law School. The project consisted of the partial demolition of an existing dwelling and physically moving it approximately 800 feet along Massachusetts Avenue to a parcel of land situated at the corner of Massachusetts Avenue and Wendell Street. As part of the logistical planning process, Alpha assisted the project team with planning the house moving route. This section of Mass Ave. includes a raised concrete median down the center of the street. Alpha located the centerline median with elevations, and located all elevated features bordering the easterly side of the street including trees, utility/light poles, and other possible obstructions. These features were plotted and provided in digital format to the client for determining the location of potential conflicts along the house relocation route.

University of Massachusetts – Lowell – Parking Lot Improvements Lot 13 Riverside and Lot 24 Lovejoy – Lowell, MA – I. W. Harding Construction Company, Inc.

Alpha provided the contractor with construction layout services for the rehabilitation of two campus parking lots. Services included the recovery of existing survey control, and staking and grading for islands and edge of pavement.

Massasoit Community College – Massasoit Boulevard & Crescent Ave Boundary Survey, Brockton, MA

Working directly for the College's Facilities Management Department, Alpha performed a boundary survey of the northerly campus entrance to investigate encroachments by an abutting land owner. Boundary research was performed with the City of Brockton Assessors and Engineering Departments and with the Plymouth County Registry of Deeds. Performed field work to recover record ROW and property monuments, calculated the boundary lines from the record data, reconciled field and record information and staked the property lines where the encroachments were occurring.

Massasoit Community College – Student Center Bus Stop and Proposed Commuter Parking Lot Expansion, Brockton, MA – Civitects LLP

Alpha performed an existing conditions survey in support of design for bus stop improvements in front of the Campus Center and for a proposed parking lot to be added on the westerly side of Massasoit Boulevard opposite the Campus Center. The project comprised an area of approximately 4.5 acres. Survey control was established utilizing GPS technology referenced to NAD83 and NAVD88. An existing conditions survey was performed to locate the campus

center, walks, curbs and roadways, utilities structures, and other relevant site details. The client was provided with a digital deliverable prepared in Alpha's CAD layering and symbology standards and elevation model with one-foot contours.

Massachusetts Maritime Academy (Various Projects), Academy Drive Bourne, MA – Civitects LLP

- **Gymnasium Main Entrance**

After construction of façade improvements to the Academy's Gymnasium main entrance, there was water seepage into the building foyer, particularly after wind-driven rain events. Based on prior work performed at the Academy, Alpha performed a topographic survey of the building entrance and the surrounding area. Particular attention was paid to obtaining elevations of the grid pattern of the exterior concrete landing spanning the front of the Gymnasium entrance, and a series of elevations to define the transition through the door sill from the building exterior to interior. The entire Gymnasium roof storm water collection system exited the building under the main entrance into a storm drainage system in the parking lot in front of the building. There existed a major gas line servicing the building which paralleled the front entrance and was located below the exterior landing. The location of both lines was of importance to the client. A digital CAD file was prepared in Alpha's layering and symbology standards and delivered to the client.

- **Academy Walkway Improvements & Additions**

In support of the client's design initiative, Alpha performed an existing conditions survey of a series of drives and walkways on the Massachusetts Maritime Academy campus. The survey extended along Nantucket Way, from Academy Drive through the courtyard of the Hurley Library and the American Bureau of Shipping Information Commons. The survey included planimetric detail, with elevations, of curblines/edge of pavement, parking, evidence of utility lines (including marked lines), landscaped areas, all courtyard hard-surface (i.e. brick pavers, textured concrete, granite, etc.) boundaries, light poles, trees, and building corners within proximity of the walkway. Planimetric detail location with elevations was also performed along a portion of Bay State Drive and Tower Lane from the Gymnasium to the Beachmoor facility. The client was provided with a digital CAD file of the project area prepared in Alpha's layering and symbology standards.