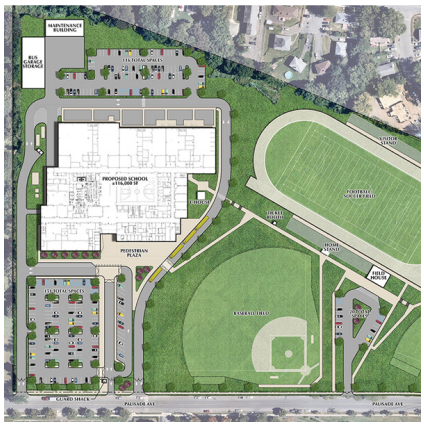
PROJECT SPOTLIGHT TOUR: LANGAN LEADER, MAY 2022



Learn more about Langan's involvement in our featured projects.

NewYork-Presbyterian Brooklyn Methodist Hospital - Center for Community Health, Brooklyn, NY
Formula 1 Miami Grand Prix, Miami Gardens, FL
Platform 16, San Jose, CA
241 Sturbridge Road, Charlton, MA
Bullard-Havens Technical High School, Bridgeport, CT

CONTACT

Mark Devaney LEED AP
Principal
Direct: 973.560.4706
Mobile: 201.312.4427
mdevaney@langan.com

NEWYORK-PRESBYTERIAN BROOKLYN METHODIST HOSPITAL - CENTER FOR COMMUNITY HEALTH

https://www.langan.com/portfolio/newyork-presbyterian-brooklyn-methodist-hospital-center-for-community-health

Location:	Brooklyn, NY
Client:	NewYork-Presbyterian Brooklyn Methodist Hospital
Architect:	Perkins Eastman
Partner:	CBRE, Lendlease, Severud Associates, BR+A, Civetta Cousins
Services:	Geotechnical, Site/Civil

OVERVIEW

Located adjacent to NewYork-Presbyterian Brooklyn Methodist Hospital in Brooklyn's historic Park Slope community, this seven-story ambulatory facility provides 480,000 SF of space. Building features include a cancer center with a radiation/oncology department, 10-room surgery suite, health education center, wound care facility, community outreach services, and faculty offices. Langan investigated subsurface conditions; developed recommendations for foundation support; provided site-wide sidewalk, roadway, and landscaping design; and interfaced directly with local regulatory agencies. We designed the support of excavation with multiple levels of bracing to support a dig extending up to 55-feet-deep. We also developed the project's monitoring plan to protect nearby structures, as the excavation was adjacent to three streets and a series of 100-year-old buildings.

AWARDS

FORMULA 1 MIAMI GRAND PRIX

https://www.langan.com/portfolio/formula-1-miami-grand-prix

Location:	Miami Gardens, FL
Client:	South Florida Motorsports
Architect:	Rossetti Architects
Partner:	Miami Dolphins, APEX Circuit Design
Services:	Site/Civil, Geotechnical, Surveying/Geospatial, Mobile Mapping/UAS Mapping

OVERVIEW

The Hard Rock Stadium grounds underwent a successful adaption to host the Formula 1 Miami Grand Prix. The venue extends over three stadium parcels and portions of the Florida Turnpike right-of-way, and includes a 3.3-mile racetrack with 19 turns and three straightaways for cars reaching speeds of 210 MPH. It also provides a pit paddock building that can accommodate up to 93,000 spectators, with grandstands, fan amenities, and two levels of VIP suites.

Accuracy was imperative for the success of this project. Existing conditions for the 240-acre site required positional accuracy within one centimeter. We combined mobile mapping (LiDAR), terrestrial LiDAR, and traditional surveying methodologies to provide the most efficient survey for the racetrack. Approximately 350 survey controls were required and we obtained information on over 1,000 utility structures. Our surveyors also worked closely with the site/civil team, conducting an initial topographic survey and DTM to support the site/civil design.

Langan's geotechnical team performed a comprehensive geotechnical engineering study along the proposed racetrack alignment, including subsurface investigations, drainage studies, and pavement evaluation. We also provided delineation of unsuitable materials, site preparation recommendations, and foundation recommendations for the grandstands and pit paddock building.

During construction, Langan provided a precise survey of the actual track surface, which was used to generate a final digital terrain model of the track. We utilized mobile mapping (LiDAR) to develop this deliverable; it provided data along the entire track and created a point cloud with over two billion points and contour deviation of less than five millimeters. We uploaded all of this information directly to a micro-milling machine guidance control system for final paving of the course.

PLATFORM 16

https://www.langan.com/portfolio/platform-16

Location:	San Jose, CA
Client:	Boston Properties
Architect:	Kohn Pedersen Fox
Partner:	Devcon, Nishkian Menninger
Services:	Geotechnical

OVERVIEW

Platform 16 is a 1.2-million SF office campus development consisting of two six-story buildings (Buildings A and B) connected by a shared basement and a third building (Building C) constructed at grade. Langan prepared a geotechnical investigation report, reviewed shoring plans and structural plans, evaluated the subsurface conditions and potential seismic hazards, and provided recommendations for the foundation and other geotechnical aspects. We concluded Buildings A and B can be supported on a mat foundation and recommended that Building C is supported by a deep foundation system consisting of Auger Cast Displacement Piles. We are currently providing observation and testing during site preparation, grading, placement and compaction of fill, installation of building foundations, shoring and underpinning, and testing of tiebacks and tiedowns.

241 STURBRIDGE ROAD

https://www.langan.com/portfolio/241-sturbridge-road

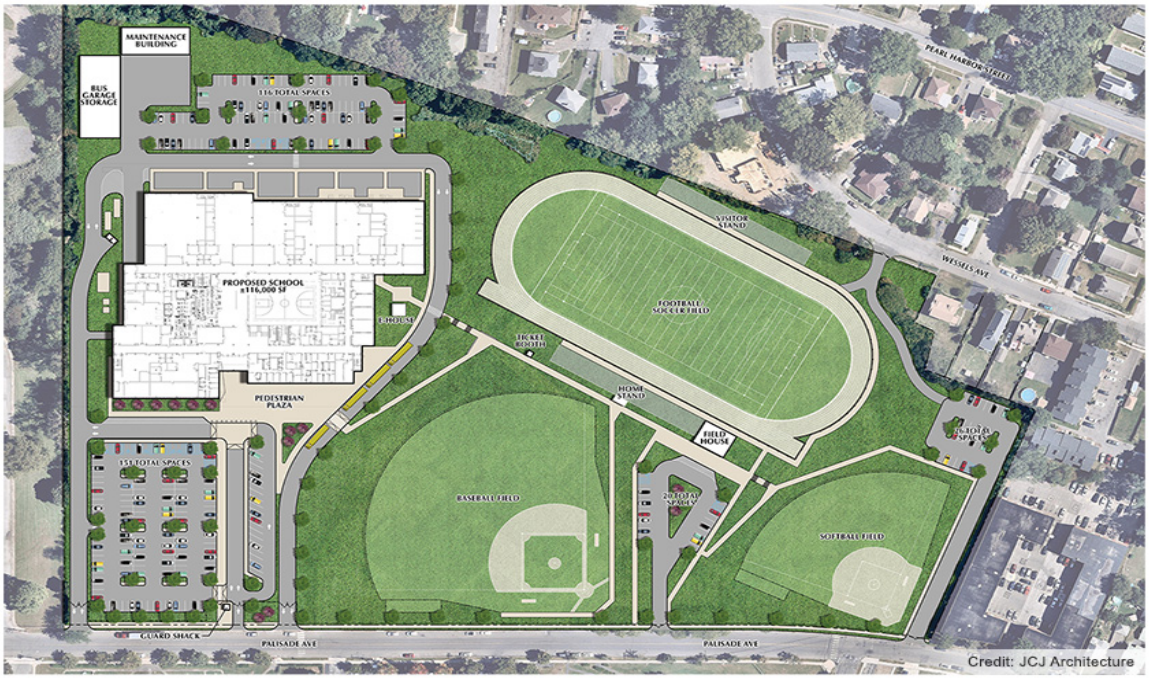
Location: Charlton, MA

Client: Hillwood

Services: Site/Civil, Geotechnical, Landscape Architecture

OVERVIEW

The 241 Sturbridge Road project includes the design and construction of a 1,200,000 SF single-story warehouse with 30,000 SF of office space, 170 loading bays, 500 parking spaces, 370 trailer storage spaces, a stormwater management system, and water and sewer infrastructure. Langan created over 30 conceptual site plans; prepared permit-level site drawings; and developed site plan renderings, viewshed analysis, and the design of planting and lighting plans. We also conducted exploration of more than 100 borings and test pits, prepared a geotechnical report, and provided preconstruction coordination with the anticipated site contractor.



BULLARD-HAVENS TECHNICAL HIGH SCHOOL

https://www.langan.com/portfolio/bullard-havens-technical-high-school

Location:	Bridgeport, CT
Client:	Connecticut Technical High School System
Architect:	JCJ Architecture
Services:	Site/Civil, Geotechnical, Traffic & Transportation, Landscape Architecture

The Bullard-Havens Technical High School redevelopment includes construction of a 260,000 SF facility to accommodate 13 separate shop programs plus associated classrooms, theory rooms, and a field house, as well as new athletic fields and a bus garage. Langan conducted schematic design phase services to address the building location, parking, pedestrian circulation, and field layouts, and provided rough finished grade elevations, the stormwater approach, and potential utility connection locations to support the schematic-level cost estimate. We prepared a preliminary design of the athletic fields - including football, soccer, track and field, baseball, and softball - along with bleachers and a ticket booth. We also performed a subsurface exploration, developed a ground improvement plan to avoid extensive removal and replacement of deep foundations, and designed exterior gathering spaces, plantings, and site lighting.The Bullard-Havens Technical High School redevelopment includes construction of a 260,000 SF facility to accommodate 13 separate shop programs plus associated classrooms, theory rooms, and a field house, as well as new athletic fields and a bus garage. Langan conducted schematic design phase services to address the building location, parking, pedestrian circulation, and field layouts, and provided rough finished grade elevations, the stormwater approach, and potential utility connection locations to support the schematic-level cost estimate. We prepared a preliminary design of the athletic fields - including

Technical High School redevelopment includes construction of a 260,000 SF facility to accommodate 13 separate shop programs plus associated classrooms, theory rooms, and a field house, as well as new athletic fields and a bus garage. Langan conducted schematic design phase services to address the building location, parking, pedestrian circulation, and field layouts, and provided rough finished grade elevations, the stormwater approach, and potential utility connection locations to support the schematic-level cost estimate. We prepared a preliminary design of the athletic fields - including football, soccer, track and field, baseball, and softball - along with bleachers and a ticket booth. We also performed a subsurface exploration, developed a ground improvement plan to avoid extensive removal and replacement of deep foundations, and designed exterior gathering spaces, plantings, and site lighting.The Bullard-Havens Technical High School redevelopment includes construction of a 260,000 SF facility to accommodate 13 separate shop programs plus associated classrooms, theory rooms, and a field house, as well as new athletic fields and a bus garage. Langan conducted schematic design phase services to address the building location, parking, pedestrian circulation, and field layouts, and provided rough finished grade elevations, the stormwater approach, and potential utility connection locations to support the schematic-level cost estimate. We prepared a preliminary design of the athletic fields - including football, soccer, track and field, baseball, and softball - along with bleachers and a ticket booth. We also performed a subsurface exploration, developed a ground improvement plan to avoid extensive removal and replacement of deep foundations, and designed exterior gathering spaces, plantings, and site lighting.

Â

The Bullard-Havens Technical High School redevelopment includes construction of a 260,000 SF facility to accommodate 13 separate shop programs plus associated classrooms, theory rooms, and a field house, as well as new athletic fields and a bus garage. Langan conducted schematic design phase services to address the building location, parking, pedestrian circulation, and field layouts, and provided rough finished grade elevations, the stormwater approach, and potential utility connection locations to support the schematic-level cost estimate. We prepared a preliminary design of the athletic fields - including football, soccer, track and field, baseball, and softball - along with bleachers and a ticket booth. We also performed a subsurface exploration, developed a ground improvement plan to avoid extensive removal and replacement of deep foundations, and designed exterior gathering spaces, plantings, and site lighting.

Â

v

Â

The Bullard-Havens Technical High School redevelopment includes construction of a 260,000 SF facility to accommodate 13 separate shop programs plus associated classrooms, theory rooms, and a field house, as well as new athletic fields and a bus garage. Langan conducted schematic design phase services to address the building location, parking, pedestrian circulation, and field layouts, and provided rough finished grade elevations, the stormwater approach, and potential utility connection locations to support the schematic-level cost estimate. We prepared a preliminary design of the athletic fields - including football, soccer, track and field, baseball, and softball - along with bleachers and a ticket booth. We also performed a subsurface exploration, developed a ground improvement plan to avoid extensive removal and replacement of deep foundations, and designed exterior

accommodate 13 separate shop programs plus associated classrooms, theory rooms, and a field house, as well as new athletic fields and a bus garage. Langan conducted schematic design phase services to address the building location, parking, pedestrian circulation, and field layouts, and provided rough finished grade elevations, the stormwater approach, and potential utility connection locations to support the schematic-level cost estimate. We prepared a preliminary design of the athletic fields - including football, soccer, track and field, baseball, and softball - along with bleachers and a ticket booth. We also performed a subsurface exploration, developed a ground improvement plan to avoid extensive removal and replacement of deep foundations, and designed exterior gathering spaces, plantings, and site lighting.